

|                                  |                                                                                                                       |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Report No                        | EG0822-1                                                                                                              |
| Client                           | Escort, Inc.<br>5440 West Chester Road<br>West Chester, OH 45069                                                      |
| Phone                            | (513)-870-8542                                                                                                        |
| Fax                              | (513)-870-8523                                                                                                        |
| FRN                              | 0007508732                                                                                                            |
| Model                            | 975R                                                                                                                  |
| FCC ID                           | QL4G7M4R                                                                                                              |
| Equipment Type<br>Equipment Code | Radar Detector<br>CRD                                                                                                 |
| Results                          | As detailed within this report                                                                                        |
| Prepared by                      | <br>Josh LeBlanc – Test Engineer   |
| Authorized by                    | <br>Michael Buchholz – EMC Manager |
| Issue Date                       | 8/18/06                                                                                                               |
| Conditions of issue              | This Test Report is issued subject to the conditions stated in ‘terms and conditions’ section of this report.         |

Curtis-Straus LLC is accredited by the American Association for Laboratory Accreditation for the specific scope of accreditation under Certificate Number 1627-01. This report may contain data which is not covered by the A2LA accreditation.

## Table Of Contents

|                                              |   |
|----------------------------------------------|---|
| <i>Summary</i> .....                         | 3 |
| <i>EUT Configuration</i> .....               | 3 |
| <i>Test Setup Diagram</i> .....              | 4 |
| <i>Statement of Conformity</i> .....         | 4 |
| <i>Test Methodology</i> .....                | 4 |
| <i>Radiated Emissions Measurements</i> ..... | 5 |
| MEASUREMENTS.....                            | 5 |
| <i>Test Equipment Used</i> .....             | 6 |

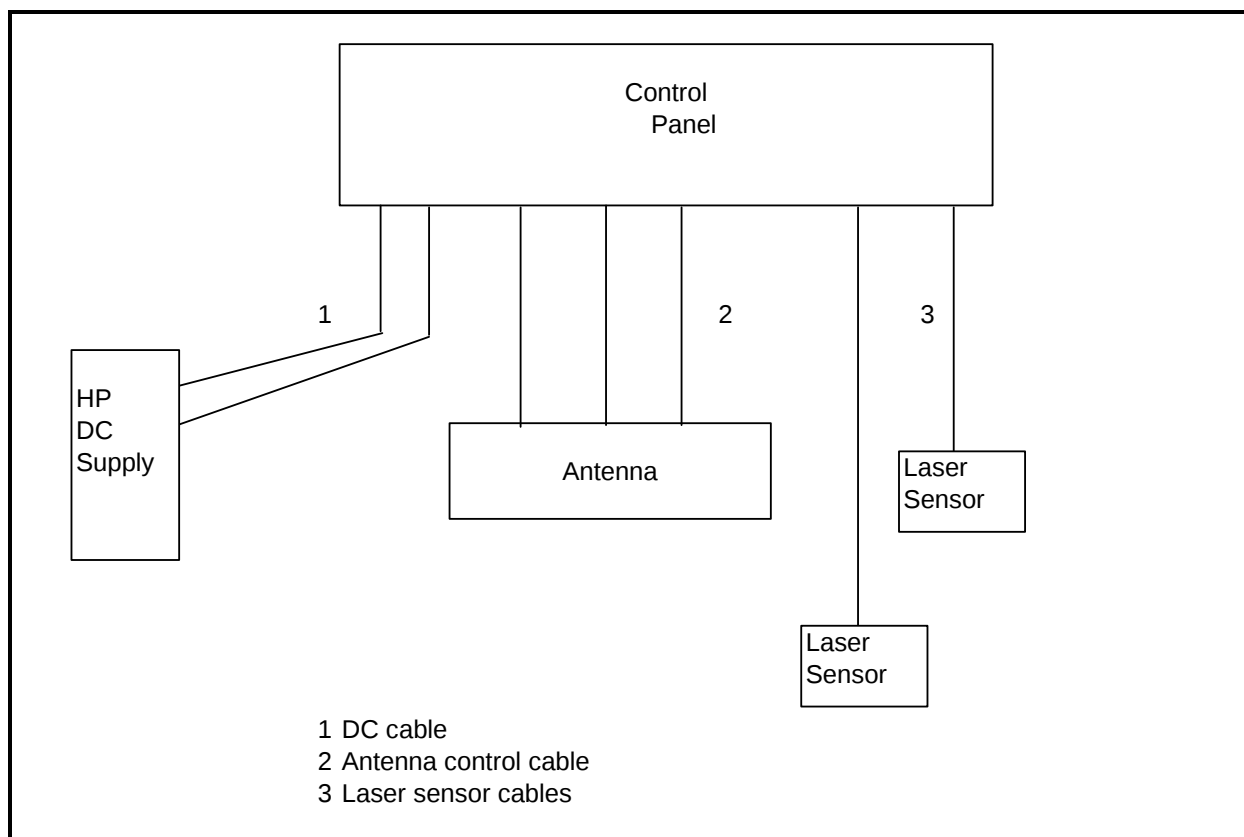
## Summary

This report is an application for Certification of a radar detector operating pursuant to 47 CFR 15.109(h). This report is designed to demonstrate the compliance of the 975R with the requirements outlined in Part 15 (using the methods outlined in Part 2) of 47 CFR.

## EUT Configuration

| EUT Configuration                                                                                                                                                                               |            |                  |               |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------|---------------|-----------------|
| <b>Work Order:</b> G0822<br><b>Company:</b> Escort Inc.<br><b>Company Address:</b> 5440 West Chester Road<br>West Chester, OH 45069<br><b>Contact:</b> John Kuhn<br><b>Person Present:</b> None |            |                  |               |                 |
| <b>MN</b>                                                                                                                                                                                       |            | <b>SN</b>        |               |                 |
| <b>EUT:</b> 975R                                                                                                                                                                                |            | H028671          |               |                 |
| <b>EUT Description:</b> Radar Detector                                                                                                                                                          |            |                  |               |                 |
| <b>Support Equipment:</b>                                                                                                                                                                       |            | <b>MN</b>        |               |                 |
| HP DC power supply                                                                                                                                                                              | E3612A     |                  |               |                 |
| <b>EUT Cables:</b>                                                                                                                                                                              | <b>Qty</b> | <b>Shielded?</b> | <b>Length</b> | <b>Ferrites</b> |
| Antenna (control cables)                                                                                                                                                                        | 3          | No               | 2 m           | None            |
| DC power                                                                                                                                                                                        | 1 pair     | No               | 1 m           | None            |
| Laser cables                                                                                                                                                                                    | 2          | No               | 3 m           | None            |
| <b>Unpopulated EUT Ports:</b>                                                                                                                                                                   |            | <b>Qty</b>       | <b>Reason</b> |                 |
| None                                                                                                                                                                                            |            |                  |               |                 |
| <b>Software / Operating Mode Description:</b>                                                                                                                                                   |            |                  |               |                 |
| EUT was scanning for radar signals.                                                                                                                                                             |            |                  |               |                 |

## Test Setup Diagram



## Statement of Conformity

47 CFR 15.109(h) states that “*Radar detectors shall comply with the emissions limits...of [section 15.109(a)] over the frequency range of 11.7 – 12.2GHz.*” The applicable limit being 500µV/m measured at a distance of 3m. The Escort 975R has been tested and found to comply with this requirement:

## Test Methodology

Radiated emission testing was performed according to the procedures in ANSI C63.4 (2003). The testing was performed at a distance of 1 meter. The device's performance was investigated in the range 11.7-12.2GHz. The 975R was powered by an HP E3612A variable DC power supply. Since the device is a hand-held unit, the emissions were maximized around the three orthogonal axes and the maximum reading was recorded. The integrated antenna cannot be maximized separately.

## Radiated Emissions Measurements

### LIMIT

Average:  $500\mu\text{V/m} = 54\text{dB}\mu\text{V/m}$  @ 3m [15.109(a)]

**Note:** If peak measurements meet the Average limit, then Average measurements are not required.

## MEASUREMENTS

| Radiated Emissions Table           |                    |                   |                       |                          |                      |                              |                           |                |                       | Curtis-Straus LLC |                |                       |
|------------------------------------|--------------------|-------------------|-----------------------|--------------------------|----------------------|------------------------------|---------------------------|----------------|-----------------------|-------------------|----------------|-----------------------|
| Date: 17-Jul-06                    |                    |                   | Company: Escort Inc.  |                          |                      |                              |                           |                | Work Order: G0822     |                   |                |                       |
| Engineer: Mairaj Huassain          |                    |                   | EUT Desc: 975R        |                          |                      |                              |                           |                |                       |                   |                |                       |
| Frequency Range: 11.7GHz - 12.2GHz |                    |                   |                       |                          |                      |                              | Measurement Distance: 1 m |                |                       |                   |                |                       |
| Notes:                             |                    |                   |                       |                          |                      |                              |                           |                |                       |                   |                |                       |
| Antenna Polarization<br>(H / V)    | Frequency<br>(MHz) | Reading<br>(dBμV) | Preamp Factor<br>(dB) | Antenna Factor<br>(dB/m) | Cable Factor<br>(dB) | Adjusted Reading<br>(dBμV/m) | ---                       |                |                       | FCC Class B       |                |                       |
|                                    |                    |                   |                       |                          |                      |                              | Limit<br>(dBμV/m)         | Margin<br>(dB) | Result<br>(Pass/Fail) | Limit<br>(dBμV/m) | Margin<br>(dB) | Result<br>(Pass/Fail) |
|                                    |                    |                   |                       |                          |                      |                              |                           |                |                       |                   |                |                       |
| Vpk                                | 11976.3            | 46.9              | 38.5                  | 40.1                     | 7.6                  | 56.1                         |                           |                |                       | 83.5              | -27.4          | Pass                  |
| Vavg                               | 11976.3            | 33.2              | 38.5                  | 40.1                     | 7.6                  | 42.4                         |                           |                |                       | 63.5              | -21.1          | Pass                  |
| Table Result:                      |                    | Pass              | by                    | -21.1 dB                 |                      |                              |                           |                | Worst Freq:           |                   | 11976.3 MHz    |                       |
| Test Site: "T"                     |                    | Pre-Amp: Brown    |                       | Cable: EMIR-HIGH 5       |                      | Analyzer: White              |                           |                | Antenna: Orange Horn  |                   |                |                       |

**Test Equipment Used**

REV. 12-JUL-2006

REV. 12-JUL-2006

| SPECTRUM ANALYZERS /<br>RECEIVERS  |  | RANGE              | MN                       | MFR               | SN         | ASSET     | CAT | CALIBRATION DUE |
|------------------------------------|--|--------------------|--------------------------|-------------------|------------|-----------|-----|-----------------|
| WHITE                              |  | 9kHz-22GHz         | 8593E                    | HP                | 3547U01252 | 00022     | I   | 14-MAR-2007     |
|                                    |  |                    |                          |                   |            |           |     |                 |
| OPEN AREA TEST SITE (OATS)         |  | FCC CODE           |                          | IC CODE           |            | VCCI CODE | CAT | CALIBRATION DUE |
| SITE T                             |  | 93448              |                          | IC 2762-T         |            | R-905     | II  | 14-AUG-2007     |
|                                    |  |                    |                          |                   |            |           |     |                 |
| PREAMPS / ATTENUATORS /<br>FILTERS |  | RANGE              | MN                       | MFR               | SN         | ASSET     | CAT | CALIBRATION DUE |
| BROWN                              |  | 1-20GHz            | PM2-38-218-4R5-17-15-SFF | C-S               | PL1655     | 1132      | II  | 14-APR-2007     |
|                                    |  |                    |                          |                   |            |           |     |                 |
| ANTENNAS                           |  | RANGE              | MN                       | MFR               | SN         | ASSET     | CAT | CALIBRATION DUE |
| ORANGE HORN                        |  | 1-18GHz            | 3115                     | EMCO              | 0004-6123  | 00390     | I   | 09-JUN-2007     |
|                                    |  |                    |                          |                   |            |           |     |                 |
| METEOROLOGICAL METERS              |  | MN                 |                          | MFR               | SN         | ASSET     | CAT | CALIBRATION DUE |
| TEMP./HUMIDITY/ATM. PRESSURE GAUGE |  | 7400 PERCEPTION II |                          | DAVIS             | N/A        | 00965     | II  | 08-FEB-2007     |
| TEMPERATURE /HUMIDITY GAUGE        |  | THG-912            |                          | HUGER             | 4000562    | 00789     | I   | 01-FEB-2007     |
| WEATHER CLOCK (PRESSURE ONLY)      |  | BA928              |                          | OREGON SCIENTIFIC | C3166-1    | 00831     | I   | 02-FEB-2007     |

All equipment is calibrated using standards traceable to NIST or other nationally recognized calibration standard.

## Conditions Of Testing

[Bureau Veritas Consumer Products Services, Inc., a Massachusetts corporation], and/or its affiliates (collectively, the "Company") will conduct, at the request of the Submitter ("Client"), the tests specified on the submitted Test Request Form or equivalent in accordance with, and subject to, the following terms and conditions (collectively, "Conditions"):

1. All orders for tests are subject to acceptance by the Company, and no order will constitute a binding commitment of the Company unless and until such order is accepted by it, as evidenced by the issuance of a written report ("Test Report") by the Company. The Test Report is issued solely by the Company, is intended for the exclusive use of Client and shall not be published, used for advertising purposes, copied or replicated for distribution to any other person or entity or otherwise publicly disclosed without the prior written consent of the Company. By submitting a request for services to the Company, Client consents to the disclosure to accreditation bodies of those records of Client relevant to the accreditation body's assessment of the Company's competence and compliance with relevant accreditation criteria. The Company shall not be liable for any loss or damage whatsoever resulting from the failure of the Company to provide its services within any time period for completion estimated by the Company. If Client anticipates using the Test Report in any legal proceeding, arbitration, dispute resolution forum or other proceeding, it shall so notify the Company prior to submitting the Test Report in such proceeding. The Company has no obligation to provide a fact or expert witness at such proceeding unless the Company agrees in advance to do so for a separate and additional fee.
2. The Test Report will set forth the findings of the Company solely with respect to the test samples identified therein. Unless specifically and expressly indicated in the Test Report, the results set forth in such Test Report are not intended to be indicative or representative of the quality or characteristics of the lot from which a test sample is taken, and Client shall not rely upon the Test Report as being so indicative or representative of the lot or of the tested product in general. The Test Report will reflect the findings of the Company at the time of testing only, and the Company shall have no obligation to update the Test Report after its issuance. The Test Report will set forth the results of the tests performed by the Company based upon the written information provided to the Company. The Test Report will be based solely on the samples and written information submitted to the Company by Client, and the Company shall not be obligated to conduct any independent investigation or inquiry with respect thereto.
3. The Company may, in its sole discretion, destroy samples which have been furnished to the Company for testing and which have not been destroyed in the course of testing. The Company may delegate the performance of all or a portion of the services contemplated hereunder to an affiliate, agent or subcontractor of the Company, and Client consents to such delegation.
4. These Conditions and the Test Report represent the entire understanding of the parties hereto with respect to the subject matter hereof and of the Test Report, and no modification, variance or extrapolation with respect thereto shall be permitted without the prior written consent of the Company.
5. The names, service marks, trademarks and copyrights of the Company and its affiliates, including the names "BUREAU VERITAS," "BUREAU VERITAS CONSUMER PRODUCTS SERVICES," "BVCPS," "MTL," "ACTS," "MTL-ACTS" and CURTIS-STRAUS (collectively, the "Marks") are and shall remain the sole property of the Company or its affiliates and shall not be used by Client except solely to the extent that Client obtains the prior written approval of the Company and then only in the manner prescribed by the Company. Client shall not contest the validity of the Marks or take any action that might impair the value or goodwill associated with the Marks or the image or reputation of the Company or its affiliates.
6. Payment in full shall be due 30 days after the date of invoice. Interest shall be due on overdue amounts from the due date until paid at an interest rate of 1.5% per month or, if less, the maximum rate permitted by law. The Company reserves the right, at any time and from time to time, to revoke any credit extended to Client. Client shall reimburse the Company for any costs it incurs in collecting past due amounts, including court costs and fees and expenses of attorneys and collection agencies. The Test Report may not be used or relied upon by Client if and for so long as Client fails to pay when due any invoice issued by the Company or any affiliate of it to Client or any affiliate or subsidiary of Client together with interest and penalties, if any, accrued thereon.
7. The Company disclaims any and all responsibility or liability arising out of or in connection with e-mail transmissions of such information.
8. Client understands and agrees that the Company is neither an insurer nor a guarantor, that the Company does not take the place of Client or any designer, manufacturer, agent, buyer, distributor or transportation or shipping company, and that the Company disclaims all liability in such capacities. Client further understands that if it seeks assurance against loss or damage, it should obtain appropriate insurance.
9. Client agrees that the Company, by providing the services, does not take the place of Client nor any third party, nor does the Company release them from any of their obligations, nor does the Company otherwise assume, abridge, abrogate or undertake to discharge any duty of any third party to Client or any duty of Client or any third party to any other third party, and Client will not release any third party from its obligations and duties with respect to the tested goods.
10. Client shall, on a timely basis, (a) provide adequate instructions to the Company in order to enable the Company to perform properly its services, (b) provide, or cause Client's suppliers and contractors to provide, the Company with all documents necessary to enable the Company to perform its services, (c) furnish the Company with all relevant information regarding Client's intended use and purposes of the tested goods, (d) advise the Company of essential dates and deadlines relevant to the tested goods and (e) fully exercise all rights and remedies available to Client against third parties in respect of the tested goods.
11. The Company shall undertake due care and ordinary skill in the performance of its services to Client, and the Company shall accept responsibility only where such skill has not been exercised and, even in such event, only to the extent of the limitation of liability set forth herein.
12. If Client desires to assert a claim arising from or relating to (i) the performance, purported performance or non-performance of any services by the Company or (ii) the sale, resale, manufacture, distribution or use of any tested goods, it must submit that claim to the Company in a writing that sets forth with particularity the basis for such claim within 60 days from discovery of the potential claim and not more than six months after the date of issuance of the Test Report to Client. Client waives any and all such claims including, without limitation, claims that the Test Report is inaccurate, incomplete or misleading or that additional or different testing is required, unless and then only to the extent that Client submits a written claim to the Company within both such time periods.

13. CLIENT SHALL, EXCEPT TO THE EXTENT OF COMPANY'S LIABILITY TO CLIENT HEREUNDER (WHICH IN NO EVENT SHALL EXCEED THE LIMITATION OF LIABILITY HEREIN), HOLD HARMLESS AND INDEMNIFY THE COMPANY, ITS AFFILIATES AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AGENTS AND SUBCONTRACTORS AGAINST ALL ACTUAL OR ALLEGED THIRD PARTY CLAIMS FOR LOSS, DAMAGE OR EXPENSE OF WHATSOEVER NATURE AND HOWSOEVER ARISING FROM OR RELATING TO (i) THE PERFORMANCE, PURPORTED PERFORMANCE OR NON-PERFORMANCE OF ANY SERVICES BY THE COMPANY OR (ii) THE SALE, RESALE, MANUFACTURE, DISTRIBUTION OR USE OF ANY TESTED GOODS.

14. EXCEPT AS MAY OTHERWISE BE EXPRESSLY AGREED TO IN WRITING BY THE COMPANY AND NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN OR IN ANY TEST REPORT, NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, IS MADE.

15. (A) IN NO EVENT WHATSOEVER SHALL THE COMPANY BE LIABLE FOR ANY CONSEQUENTIAL, SPECIAL, INCIDENTAL, EXEMPLARY OR PUNITIVE DAMAGES IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE TEST REPORT OR THE SERVICES PROVIDED BY THE COMPANY HEREUNDER, INCLUDING WITHOUT LIMITATION LOSS OF OR DAMAGE TO PROPERTY; LOSS OF INCOME, PROFIT OR USE; OR ANY CLAIMS OR DEMANDS MADE AGAINST CLIENT OR ANY OTHER PERSON BY ANY THIRD PARTY IN CONNECTION WITH, RELATING TO OR ARISING OUT OF THE SERVICES PROVIDED BY THE COMPANY HEREUNDER.

(B) NOTWITHSTANDING ANY PROVISION TO THE CONTRARY CONTAINED HEREIN, AND IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS TO CLIENT AND THE COMPANY ASSOCIATED WITH THE TESTING SERVICES CONTEMPLATED HEREBY, THE RISKS HAVE BEEN ALLOCATED SUCH THAT UNDER NO CIRCUMSTANCES WHATSOEVER SHALL THE LIABILITY OF THE COMPANY TO CLIENT OR ANY THIRD PARTY IN RESPECT OF ANY CLAIM FOR LOSS, DAMAGE OR EXPENSE, OF WHATSOEVER NATURE OR MAGNITUDE, AND HOWSOEVER ARISING, EXCEED AN AMOUNT EQUAL TO FIVE (5) TIMES THE AMOUNT OF THE FEES PAID TO THE COMPANY FOR THE SPECIFIC SERVICES WHICH GAVE RISE TO SUCH CLAIM OR U.S.\$10,000, WHICHEVER IS THE LESSER AMOUNT.

16. The Company shall not be liable for any loss or damage resulting from any delay or failure in performance of its obligations hereunder resulting directly or indirectly from any event of force majeure or any event outside the control of the Company. If any such event occurs, the Company may immediately cancel or suspend its performance hereunder without incurring any liability whatsoever to Client.

17. Company's services, including these Conditions, shall be governed by, and construed in accordance with, the local laws of the country where the Company performs the tests or, in the case of tests performed in the United States of America, the laws of Massachusetts without regard to conflicts of laws principles. If any aspect(s) of these Conditions is found to be illegal or unenforceable, the validity, legality and enforceability of all remaining aspects of these Conditions shall not in any way be affected or impaired thereby. Any proceeding related to the subject matter hereof shall be brought, if at all, in the courts of the country where the Company performs the tests or, in the case of tests performed in the United States of America, in the courts of Massachusetts. Client waives the right to interpose any counterclaim or setoffs of any nature in any litigation arising hereunder.

Rev.160009121(2)\_#684340 v13CS

# A2LA Accreditation

| <p align="center"><u>SCOPE OF ACCREDITATION TO ISO/IEC 17025-1999</u></p> <p align="center">CURTIS-STRAUS<sup>1</sup><br/>527 Great Road<br/>Littleton, MA 01460<br/>Barry Quinlan Phone: 978-486-8880<br/>ELECTRICAL</p> <p>Valid until: July 31, 2007 <span style="float:right">Certificate Number: 1627.01</span></p> <p>In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following Electromagnetic Compatibility (EMC), Telecommunications, and Product Safety tests:</p> <p><b>Electromagnetic Compatibility (EMC)</b><br/>Radiated emissions testing (electric and magnetic fields)*; Conducted emissions testing (voltage and current)*; Electrostatic Discharge testing*; Electrical Fast Transient testing*; Radiated Immunity testing*; Conducted Immunity testing*; Lightning Immunity testing*; Voltage Dips*, Interrupts and Voltage Variations testing*; Magnetic Immunity testing*; RF Power measurements*; Frequency Stability Measurements*; Longitudinal Induction measurements*; Harmonic emissions testing*; Light flicker testing*; Low frequency disturbance voltage testing*; Disturbance Power measurements*; Power Cross Overvoltage testing*;</p> <table border="1"> <thead> <tr> <th>Test Type</th><th>Test Method(s)</th></tr> </thead> <tbody> <tr> <td><b>Emissions</b></td><td></td></tr> <tr> <td>Radiated and Conducted Emissions</td><td>FCC 47 CFR Parts 15 &amp; 18; C63.4; CISPR 22; EN55022; SABS CISPR 22; AS/NZS CISPR 22; AS/NZS 3548; Canada ICES-003; CNS13438; KN 22 (RRL No. 2005-82, September 29, 2005); CISPR 11; EN 55011; SABS CISPR 11; AS/NZS CISPR 11; AS/NZS 2064; Canada ICES-001; CNS13803; CISPR 13; EN 55013; SABS CISPR 13; AS/NZS CISPR 13; AS/NZS 1053; CISPR 14-1; EN 55014-1; SABS CISPR 14; AS/NZS CISPR 14; AS/NZS 1044; CNS 13439; CISPR 15; EN 55015; GR-1089-CORE; CSA C108.8-M1983;</td></tr> <tr> <td>Harmonics</td><td>EN 61000-3-2; AS/NZS 61000.3.2</td></tr> <tr> <td>Flicker</td><td>EN 61000-3-3; AS/NZS 61000.3.3</td></tr> </tbody> </table> <p>1 Note: This accreditation covers testing performed at the laboratory listed above and the satellite facility located at 168 Ayer Rd, Littleton, MA 01460 and, for test types marked with an asterisk, at other sites as defined in "A2LA specific criteria for the accreditation of site testing and site calibration laboratories."</p> <p>(A2LA Cert. No. 1627.01) 3/27/06 <span style="float:right">Page 1 of 10</span></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Test Type             | Test Method(s)                       | <b>Emissions</b>                                           |                                             | Radiated and Conducted Emissions                                 | FCC 47 CFR Parts 15 & 18; C63.4; CISPR 22; EN55022; SABS CISPR 22; AS/NZS CISPR 22; AS/NZS 3548; Canada ICES-003; CNS13438; KN 22 (RRL No. 2005-82, September 29, 2005); CISPR 11; EN 55011; SABS CISPR 11; AS/NZS CISPR 11; AS/NZS 2064; Canada ICES-001; CNS13803; CISPR 13; EN 55013; SABS CISPR 13; AS/NZS CISPR 13; AS/NZS 1053; CISPR 14-1; EN 55014-1; SABS CISPR 14; AS/NZS CISPR 14; AS/NZS 1044; CNS 13439; CISPR 15; EN 55015; GR-1089-CORE; CSA C108.8-M1983; | Harmonics                              | EN 61000-3-2; AS/NZS 61000.3.2                                                                                                       | Flicker               | EN 61000-3-3; AS/NZS 61000.3.3                                                                                                                |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------|------------------------------------------------------------|---------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------|----------------------------|---------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------|--------------------------------|--------------------|
| Test Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Test Method(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <b>Emissions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Radiated and Conducted Emissions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FCC 47 CFR Parts 15 & 18; C63.4; CISPR 22; EN55022; SABS CISPR 22; AS/NZS CISPR 22; AS/NZS 3548; Canada ICES-003; CNS13438; KN 22 (RRL No. 2005-82, September 29, 2005); CISPR 11; EN 55011; SABS CISPR 11; AS/NZS CISPR 11; AS/NZS 2064; Canada ICES-001; CNS13803; CISPR 13; EN 55013; SABS CISPR 13; AS/NZS CISPR 13; AS/NZS 1053; CISPR 14-1; EN 55014-1; SABS CISPR 14; AS/NZS CISPR 14; AS/NZS 1044; CNS 13439; CISPR 15; EN 55015; GR-1089-CORE; CSA C108.8-M1983;                                                                         |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Harmonics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | EN 61000-3-2; AS/NZS 61000.3.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Flicker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | EN 61000-3-3; AS/NZS 61000.3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <table border="1"> <thead> <tr> <th>Immunity</th><th>RRL No. 2005-130 (December 27, 2005)</th></tr> </thead> <tbody> <tr> <td>Electrostatic Discharge (ESD)</td><td>EN 61000-4-2; AS/NZS 61000.4.2; KN61000-4-2</td></tr> <tr> <td>Radiated Immunity (RFI)</td><td>EN 61000-4-3; AS/NZS 61000.4.3; KN61000-4-3</td></tr> <tr> <td>Electrical Fast Transient Bursts (EFT)</td><td>EN 61000-4-4; AS/NZS 61000.4.4; KN61000-4-4</td></tr> <tr> <td>Surge</td><td>EN 61000-4-5; AS/NZS 61000.4.5; KN61000-4-5</td></tr> <tr> <td>Conducted Immunity</td><td>EN 61000-4-6; AS/NZS 61000.4.6; KN61000-4-6</td></tr> <tr> <td>Magnetic Immunity</td><td>EN 61000-4-8; AS/NZS 61000.4.8; KN61000-4-7</td></tr> <tr> <td>Voltage Dips and Interrupts</td><td>EN 61000-4-11; KN61000-4-11</td></tr> <tr> <td>Low Frequency Conducted Disturbances</td><td>EN 61000-2-2</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Family Product or Industry Specific Specifications including emissions and/or immunity</th><th>GR-1089-CORE; GR-78-CORE (ESD)<br/>EN50081-1; EN50081-2; EN50082-2; EN50082-1; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 50091-2; EN 55024; CISPR 24 EN 55103-1; EN 55103-2; EN 61326; EN 61547; EN 50130-4; EN 50083-2; EN 60601-1-2; EN 60601-2-2; EN 60601-2-24; EN 60601-2-32; EN 60601-2-38; EN 60601-2-47; IEC 1800-3; EN 61800-3; EN 55020; CISPR 20; EN 60555 Part 2; EN 60555 Part 3; ETS 300 386-1; EN 300 386-2; EN 300 386; ETS 300 132-1; ETS 300 132-2; EN 60669-2-1; AS/NZS 3200.1.2; CNS 13783-1; ETR 283; C62.41</th></tr> </thead> <tbody> <tr> <td><b>Radiocommunications</b></td><td></td></tr> <tr> <td><i>EU R&amp;TTE Radio Standards;</i></td><td>EN 300 220-1; EN 300 220-3; EN 300 330-1; EN 300 330-2; EN 300 440-1; EN 300 440-2; EN 300 328; EN 300 385; EN 301 893</td></tr> <tr> <td><i>EU R&amp;TTE EMC Standards</i></td><td>EN 300 339; EN 301 489-01; EN 301 489-03; EN 301 489-17</td></tr> <tr> <td><i>Canada Radio Standards</i></td><td>RSS-102; RSS-117; RSS-118; RSS-119; RSS-123; RSS-125; RSS-128; RSS-129; RSS-130; RSS-131; RSS-132; RSS-133; RSS-134; RSS-135; RSS-136; RSS-137; RSS-138; RSS-141; RSS-142; RSS-170; RSS-181; RSS-182; RSS-187; RSS-188; RSS-191; RSS-192; RSS-193; RSS-195; RSS-210; RSS-212; RSS-213; RSS-215; RSS-243; RSS-GEN; RSS-310; GL-36;</td></tr> <tr> <td><i>Australia/New Zealand Radio Standards</i></td><td>AS/NZS 4268; AS/NZS 4771; RFS29; Radiocommunications (Data Transmission Equipment Using Spread Spectrum Modulation Techniques); Radiocommunications (Spread Spectrum Devices); Radiocommunications (Short Range Devices); Radiocommunications (Low Interference Potential Devices);</td></tr> </tbody> </table> <p>(A2LA Cert. No. 1627.01) 3/27/06 <span style="float:right">Page 2 of 10</span></p>                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Immunity              | RRL No. 2005-130 (December 27, 2005) | Electrostatic Discharge (ESD)                              | EN 61000-4-2; AS/NZS 61000.4.2; KN61000-4-2 | Radiated Immunity (RFI)                                          | EN 61000-4-3; AS/NZS 61000.4.3; KN61000-4-3                                                                                                                                                                                                                                                                                                                                                                                                                               | Electrical Fast Transient Bursts (EFT) | EN 61000-4-4; AS/NZS 61000.4.4; KN61000-4-4                                                                                          | Surge                 | EN 61000-4-5; AS/NZS 61000.4.5; KN61000-4-5                                                                                                   | Conducted Immunity | EN 61000-4-6; AS/NZS 61000.4.6; KN61000-4-6                       | Magnetic Immunity          | EN 61000-4-8; AS/NZS 61000.4.8; KN61000-4-7 | Voltage Dips and Interrupts                           | EN 61000-4-11; KN61000-4-11                                                                                                            | Low Frequency Conducted Disturbances | EN 61000-2-2                                                                          | Family Product or Industry Specific Specifications including emissions and/or immunity | GR-1089-CORE; GR-78-CORE (ESD)<br>EN50081-1; EN50081-2; EN50082-2; EN50082-1; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 50091-2; EN 55024; CISPR 24 EN 55103-1; EN 55103-2; EN 61326; EN 61547; EN 50130-4; EN 50083-2; EN 60601-1-2; EN 60601-2-2; EN 60601-2-24; EN 60601-2-32; EN 60601-2-38; EN 60601-2-47; IEC 1800-3; EN 61800-3; EN 55020; CISPR 20; EN 60555 Part 2; EN 60555 Part 3; ETS 300 386-1; EN 300 386-2; EN 300 386; ETS 300 132-1; ETS 300 132-2; EN 60669-2-1; AS/NZS 3200.1.2; CNS 13783-1; ETR 283; C62.41 | <b>Radiocommunications</b> |                                                           | <i>EU R&amp;TTE Radio Standards;</i> | EN 300 220-1; EN 300 220-3; EN 300 330-1; EN 300 330-2; EN 300 440-1; EN 300 440-2; EN 300 328; EN 300 385; EN 301 893                                                                                         | <i>EU R&amp;TTE EMC Standards</i>           | EN 300 339; EN 301 489-01; EN 301 489-03; EN 301 489-17 | <i>Canada Radio Standards</i> | RSS-102; RSS-117; RSS-118; RSS-119; RSS-123; RSS-125; RSS-128; RSS-129; RSS-130; RSS-131; RSS-132; RSS-133; RSS-134; RSS-135; RSS-136; RSS-137; RSS-138; RSS-141; RSS-142; RSS-170; RSS-181; RSS-182; RSS-187; RSS-188; RSS-191; RSS-192; RSS-193; RSS-195; RSS-210; RSS-212; RSS-213; RSS-215; RSS-243; RSS-GEN; RSS-310; GL-36; | <i>Australia/New Zealand Radio Standards</i> | AS/NZS 4268; AS/NZS 4771; RFS29; Radiocommunications (Data Transmission Equipment Using Spread Spectrum Modulation Techniques); Radiocommunications (Spread Spectrum Devices); Radiocommunications (Short Range Devices); Radiocommunications (Low Interference Potential Devices); |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | RRL No. 2005-130 (December 27, 2005)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Electrostatic Discharge (ESD)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EN 61000-4-2; AS/NZS 61000.4.2; KN61000-4-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Radiated Immunity (RFI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | EN 61000-4-3; AS/NZS 61000.4.3; KN61000-4-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Electrical Fast Transient Bursts (EFT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | EN 61000-4-4; AS/NZS 61000.4.4; KN61000-4-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Surge                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EN 61000-4-5; AS/NZS 61000.4.5; KN61000-4-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Conducted Immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EN 61000-4-6; AS/NZS 61000.4.6; KN61000-4-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Magnetic Immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EN 61000-4-8; AS/NZS 61000.4.8; KN61000-4-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Voltage Dips and Interrupts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | EN 61000-4-11; KN61000-4-11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Low Frequency Conducted Disturbances                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EN 61000-2-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| Family Product or Industry Specific Specifications including emissions and/or immunity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | GR-1089-CORE; GR-78-CORE (ESD)<br>EN50081-1; EN50081-2; EN50082-2; EN50082-1; EN 61000-6-1; EN 61000-6-2; EN 61000-6-3; EN 61000-6-4; EN 50091-2; EN 55024; CISPR 24 EN 55103-1; EN 55103-2; EN 61326; EN 61547; EN 50130-4; EN 50083-2; EN 60601-1-2; EN 60601-2-2; EN 60601-2-24; EN 60601-2-32; EN 60601-2-38; EN 60601-2-47; IEC 1800-3; EN 61800-3; EN 55020; CISPR 20; EN 60555 Part 2; EN 60555 Part 3; ETS 300 386-1; EN 300 386-2; EN 300 386; ETS 300 132-1; ETS 300 132-2; EN 60669-2-1; AS/NZS 3200.1.2; CNS 13783-1; ETR 283; C62.41 |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <b>Radiocommunications</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>EU R&amp;TTE Radio Standards;</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EN 300 220-1; EN 300 220-3; EN 300 330-1; EN 300 330-2; EN 300 440-1; EN 300 440-2; EN 300 328; EN 300 385; EN 301 893                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>EU R&amp;TTE EMC Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EN 300 339; EN 301 489-01; EN 301 489-03; EN 301 489-17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Canada Radio Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | RSS-102; RSS-117; RSS-118; RSS-119; RSS-123; RSS-125; RSS-128; RSS-129; RSS-130; RSS-131; RSS-132; RSS-133; RSS-134; RSS-135; RSS-136; RSS-137; RSS-138; RSS-141; RSS-142; RSS-170; RSS-181; RSS-182; RSS-187; RSS-188; RSS-191; RSS-192; RSS-193; RSS-195; RSS-210; RSS-212; RSS-213; RSS-215; RSS-243; RSS-GEN; RSS-310; GL-36;                                                                                                                                                                                                                 |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Australia/New Zealand Radio Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | AS/NZS 4268; AS/NZS 4771; RFS29; Radiocommunications (Data Transmission Equipment Using Spread Spectrum Modulation Techniques); Radiocommunications (Spread Spectrum Devices); Radiocommunications (Short Range Devices); Radiocommunications (Low Interference Potential Devices);                                                                                                                                                                                                                                                               |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <table border="1"> <thead> <tr> <th>Other Radio Standards</th><th>RTTE 01 (DGT-Taiwan);</th></tr> </thead> <tbody> <tr> <td><b>FCC Standards and Test methods Support TCB Status--</b></td><td></td></tr> <tr> <td><b>FCC Scope A – Unlicensed Radio Frequency Devices</b></td><td></td></tr> <tr> <td>A1</td><td>1. 47 CFR Parts 11, 15 and 18<br/>2. FCC MP-5,<br/>3. ANSI C63.4-2003,</td></tr> <tr> <td>A2</td><td>1. 47 CFR Part 15,<br/>2. ANSI C63.4-2003,</td></tr> <tr> <td>A3</td><td>1. 47 CFR Part 15,<br/>2. ANSI C63.17-1998,<br/>3. ANSI C63.4-2003,</td></tr> <tr> <td>A4</td><td>1. 47 CFR Part 15,<br/>2. ANSI C63.4-2003,</td></tr> <tr> <td><b>FCC Scope B – Licensed Radio Service Equipment</b></td><td></td></tr> <tr> <td>B1</td><td>1. 47 CFR Parts 2, 22, 24, 25, and 27<br/>2. ANSI/TIA-603-C (2004)</td></tr> <tr> <td>B2</td><td>1. 47 CFR Parts 2, 22, 74, 90, 95, and 97<br/>2. ANSI/TIA-603-C (2004)</td></tr> <tr> <td>B3</td><td>1. 47 CFR Parts 2, 80, and 87<br/>2. ANSI/TIA-603-C (2004)</td></tr> <tr> <td>B4</td><td>1. 47 CFR Parts 2, 21, 74, and 101<br/>2. ANSI/TIA-603-C (2004)</td></tr> <tr> <td><b>Country Specific Standards and Other</b></td><td></td></tr> <tr> <td><i>ITU EMC Standards</i></td><td>K.20; K.21; K.41; K.44</td></tr> <tr> <td><i>Swedish EMC Standards</i></td><td>BAKOM 3336.3</td></tr> <tr> <td><i>South African EMC Standards other than CISPR equivalents</i></td><td>SABS 1718-1; SANS 211/SABS CISPR 11;<br/>SANS 224/SABS CISPR 24;<br/>SANS 213/SABS CISPR 13;<br/>SANS 2200; SANS214-1/SABS CISPR 14-1;<br/>SANS214-2/SABS CISPR 14-2;<br/>SANS 215/SABS CISPR 15;<br/>SANS 222/SABS CISPR 22</td></tr> <tr> <td><i>Hong Kong EMC Standards</i></td><td>HKTA 1006; HKTA 1007; HKTA 1008;<br/>HKTA 1010; HKTA 1015; HKTA 1026;<br/>HKTA 1035; HKTA 1039; HKTA 1041;<br/>HKTA 1042; HKTA 1045</td></tr> <tr> <td><i>Singapore EMC Standards</i></td><td>IDA TS SRD; IDA TS EMC</td></tr> <tr> <td><i>Japanese VCCI Standards</i></td><td>VCCI V-3, VCCI V-4</td></tr> </tbody> </table> <p>(A2LA Cert. No. 1627.01) 3/27/06 <span style="float:right">Page 3 of 10</span></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Other Radio Standards | RTTE 01 (DGT-Taiwan);                | <b>FCC Standards and Test methods Support TCB Status--</b> |                                             | <b>FCC Scope A – Unlicensed Radio Frequency Devices</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A1                                     | 1. 47 CFR Parts 11, 15 and 18<br>2. FCC MP-5,<br>3. ANSI C63.4-2003,                                                                 | A2                    | 1. 47 CFR Part 15,<br>2. ANSI C63.4-2003,                                                                                                     | A3                 | 1. 47 CFR Part 15,<br>2. ANSI C63.17-1998,<br>3. ANSI C63.4-2003, | A4                         | 1. 47 CFR Part 15,<br>2. ANSI C63.4-2003,   | <b>FCC Scope B – Licensed Radio Service Equipment</b> |                                                                                                                                        | B1                                   | 1. 47 CFR Parts 2, 22, 24, 25, and 27<br>2. ANSI/TIA-603-C (2004)                     | B2                                                                                     | 1. 47 CFR Parts 2, 22, 74, 90, 95, and 97<br>2. ANSI/TIA-603-C (2004)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | B3                         | 1. 47 CFR Parts 2, 80, and 87<br>2. ANSI/TIA-603-C (2004) | B4                                   | 1. 47 CFR Parts 2, 21, 74, and 101<br>2. ANSI/TIA-603-C (2004)                                                                                                                                                 | <b>Country Specific Standards and Other</b> |                                                         | <i>ITU EMC Standards</i>      | K.20; K.21; K.41; K.44                                                                                                                                                                                                                                                                                                            | <i>Swedish EMC Standards</i>                 | BAKOM 3336.3                                                                                                                                                                                                                                                                        | <i>South African EMC Standards other than CISPR equivalents</i> | SABS 1718-1; SANS 211/SABS CISPR 11;<br>SANS 224/SABS CISPR 24;<br>SANS 213/SABS CISPR 13;<br>SANS 2200; SANS214-1/SABS CISPR 14-1;<br>SANS214-2/SABS CISPR 14-2;<br>SANS 215/SABS CISPR 15;<br>SANS 222/SABS CISPR 22 | <i>Hong Kong EMC Standards</i> | HKTA 1006; HKTA 1007; HKTA 1008;<br>HKTA 1010; HKTA 1015; HKTA 1026;<br>HKTA 1035; HKTA 1039; HKTA 1041;<br>HKTA 1042; HKTA 1045                                                                                   | <i>Singapore EMC Standards</i> | IDA TS SRD; IDA TS EMC | <i>Japanese VCCI Standards</i> | VCCI V-3, VCCI V-4 |
| Other Radio Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | RTTE 01 (DGT-Taiwan);                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <b>FCC Standards and Test methods Support TCB Status--</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <b>FCC Scope A – Unlicensed Radio Frequency Devices</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Parts 11, 15 and 18<br>2. FCC MP-5,<br>3. ANSI C63.4-2003,                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Part 15,<br>2. ANSI C63.4-2003,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| A3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Part 15,<br>2. ANSI C63.17-1998,<br>3. ANSI C63.4-2003,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| A4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Part 15,<br>2. ANSI C63.4-2003,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <b>FCC Scope B – Licensed Radio Service Equipment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Parts 2, 22, 24, 25, and 27<br>2. ANSI/TIA-603-C (2004)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| B2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Parts 2, 22, 74, 90, 95, and 97<br>2. ANSI/TIA-603-C (2004)                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| B3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Parts 2, 80, and 87<br>2. ANSI/TIA-603-C (2004)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| B4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. 47 CFR Parts 2, 21, 74, and 101<br>2. ANSI/TIA-603-C (2004)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <b>Country Specific Standards and Other</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>ITU EMC Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | K.20; K.21; K.41; K.44                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Swedish EMC Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | BAKOM 3336.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>South African EMC Standards other than CISPR equivalents</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SABS 1718-1; SANS 211/SABS CISPR 11;<br>SANS 224/SABS CISPR 24;<br>SANS 213/SABS CISPR 13;<br>SANS 2200; SANS214-1/SABS CISPR 14-1;<br>SANS214-2/SABS CISPR 14-2;<br>SANS 215/SABS CISPR 15;<br>SANS 222/SABS CISPR 22                                                                                                                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Hong Kong EMC Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HKTA 1006; HKTA 1007; HKTA 1008;<br>HKTA 1010; HKTA 1015; HKTA 1026;<br>HKTA 1035; HKTA 1039; HKTA 1041;<br>HKTA 1042; HKTA 1045                                                                                                                                                                                                                                                                                                                                                                                                                  |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Singapore EMC Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | IDA TS SRD; IDA TS EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Japanese VCCI Standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | VCCI V-3, VCCI V-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <p><b>Telecommunications</b><br/>Telecommunications Registration; General test methods; Lightning surge*; Drop testing*; Balance testing*; Signal power (metallic and longitudinal)*; Frequency measurements*; Pulse templates*; Leakage testing*; Impedance testing*; Hearing Aid Compatibility testing (excluding volume control)*; Protocol analysis* and Jitter testing*.</p> <table border="1"> <thead> <tr> <th>Telecom Standards</th><th>Title</th></tr> </thead> <tbody> <tr> <td><i>North American standards</i></td><td></td></tr> <tr> <td>FCC 47 CFR Part 68 Telephone Terminal Equipment<br/>CS-03 Issue 9</td><td>Connection of terminal equipment to the telephone network. Analog and Digital Equipment. TCB Scope C1. Specification for terminal equipment, terminal systems, Network protection devices, connection arrangements and hearing aids compatibility.<br/>Bulletin Part 68 Rationale and Measurement Guidelines (Feb 1998)</td></tr> <tr> <td>TIA/EIA TSB31-B 1998</td><td>Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network</td></tr> <tr> <td>TIA-968-A, A1, A2, A3</td><td>Technical Requirements for SHDSL, HDLSL2, HDLSL4 Digital Subscriber Line Terminal Equipment to Prevent Harm to the Telephone Network Industry</td></tr> <tr> <td>T1.TRQ.6-2001</td><td></td></tr> <tr> <td><i>Australia standards</i></td><td></td></tr> <tr> <td>AS/ACIF S002-2001</td><td>Analogue interworking and non-interference requirements for Customer Equipment for connection to the Public Switched Telephone Network</td></tr> <tr> <td>AS/ACIF S016-2001</td><td>Requirements for Customer Equipment for connection to hierarchical digital interfaces</td></tr> <tr> <td>AS/ACIF S031-2001</td><td>Requirements for ISDN Basic Access Interface</td></tr> <tr> <td>AS/ACIF S038-2001</td><td>Requirements for ISDN Primary Rate Access Interface</td></tr> <tr> <td>AS/ACIF S043-2001</td><td>Requirements for Customer Equipment for Connection to a Metallic Local Loop Interface of a Telecommunications Network —<br/>Part 1: General<br/>Part 2: Broadband<br/>Part 3: DC, Low Frequency AC and Voice band</td></tr> <tr> <td><i>International standards</i></td><td></td></tr> <tr> <td>ITU-T G.703</td><td>Physical/electrical characteristics of hierarchical Digital interfaces</td></tr> <tr> <td><i>Hong Kong standards</i></td><td></td></tr> <tr> <td>HKTA 2011</td><td>Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Direct Exchange Lines (DEL) of the Public Switched Telephone Network (PSTN) in Hong Kong</td></tr> <tr> <td>HKTA 2014</td><td>Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Basic Rate Access (BRA) based on ITU-T Recommendations</td></tr> </tbody> </table> <p>(A2LA Cert. No. 1627.01) 3/27/06 <span style="float:right">Page 4 of 10</span></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Telecom Standards     | Title                                | <i>North American standards</i>                            |                                             | FCC 47 CFR Part 68 Telephone Terminal Equipment<br>CS-03 Issue 9 | Connection of terminal equipment to the telephone network. Analog and Digital Equipment. TCB Scope C1. Specification for terminal equipment, terminal systems, Network protection devices, connection arrangements and hearing aids compatibility.<br>Bulletin Part 68 Rationale and Measurement Guidelines (Feb 1998)                                                                                                                                                    | TIA/EIA TSB31-B 1998                   | Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network | TIA-968-A, A1, A2, A3 | Technical Requirements for SHDSL, HDLSL2, HDLSL4 Digital Subscriber Line Terminal Equipment to Prevent Harm to the Telephone Network Industry | T1.TRQ.6-2001      |                                                                   | <i>Australia standards</i> |                                             | AS/ACIF S002-2001                                     | Analogue interworking and non-interference requirements for Customer Equipment for connection to the Public Switched Telephone Network | AS/ACIF S016-2001                    | Requirements for Customer Equipment for connection to hierarchical digital interfaces | AS/ACIF S031-2001                                                                      | Requirements for ISDN Basic Access Interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AS/ACIF S038-2001          | Requirements for ISDN Primary Rate Access Interface       | AS/ACIF S043-2001                    | Requirements for Customer Equipment for Connection to a Metallic Local Loop Interface of a Telecommunications Network —<br>Part 1: General<br>Part 2: Broadband<br>Part 3: DC, Low Frequency AC and Voice band | <i>International standards</i>              |                                                         | ITU-T G.703                   | Physical/electrical characteristics of hierarchical Digital interfaces                                                                                                                                                                                                                                                            | <i>Hong Kong standards</i>                   |                                                                                                                                                                                                                                                                                     | HKTA 2011                                                       | Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Direct Exchange Lines (DEL) of the Public Switched Telephone Network (PSTN) in Hong Kong                                       | HKTA 2014                      | Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Basic Rate Access (BRA) based on ITU-T Recommendations |                                |                        |                                |                    |
| Telecom Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Title                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>North American standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| FCC 47 CFR Part 68 Telephone Terminal Equipment<br>CS-03 Issue 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Connection of terminal equipment to the telephone network. Analog and Digital Equipment. TCB Scope C1. Specification for terminal equipment, terminal systems, Network protection devices, connection arrangements and hearing aids compatibility.<br>Bulletin Part 68 Rationale and Measurement Guidelines (Feb 1998)                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| TIA/EIA TSB31-B 1998                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Telecommunications Telephone Terminal Equipment Technical Requirements for Connection of Terminal Equipment to the Telephone Network                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| TIA-968-A, A1, A2, A3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Technical Requirements for SHDSL, HDLSL2, HDLSL4 Digital Subscriber Line Terminal Equipment to Prevent Harm to the Telephone Network Industry                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| T1.TRQ.6-2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Australia standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| AS/ACIF S002-2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Analogue interworking and non-interference requirements for Customer Equipment for connection to the Public Switched Telephone Network                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| AS/ACIF S016-2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Requirements for Customer Equipment for connection to hierarchical digital interfaces                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| AS/ACIF S031-2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Requirements for ISDN Basic Access Interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| AS/ACIF S038-2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Requirements for ISDN Primary Rate Access Interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| AS/ACIF S043-2001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Requirements for Customer Equipment for Connection to a Metallic Local Loop Interface of a Telecommunications Network —<br>Part 1: General<br>Part 2: Broadband<br>Part 3: DC, Low Frequency AC and Voice band                                                                                                                                                                                                                                                                                                                                    |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>International standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| ITU-T G.703                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Physical/electrical characteristics of hierarchical Digital interfaces                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| <i>Hong Kong standards</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| HKTA 2011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Direct Exchange Lines (DEL) of the Public Switched Telephone Network (PSTN) in Hong Kong                                                                                                                                                                                                                                                                                                                                                                  |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |
| HKTA 2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using ISDN Basic Rate Access (BRA) based on ITU-T Recommendations                                                                                                                                                                                                                                                                                                                                |                       |                                      |                                                            |                                             |                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |                                                                                                                                      |                       |                                                                                                                                               |                    |                                                                   |                            |                                             |                                                       |                                                                                                                                        |                                      |                                                                                       |                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                                                           |                                      |                                                                                                                                                                                                                |                                             |                                                         |                               |                                                                                                                                                                                                                                                                                                                                   |                                              |                                                                                                                                                                                                                                                                                     |                                                                 |                                                                                                                                                                                                                        |                                |                                                                                                                                                                                                                    |                                |                        |                                |                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Telecom Standards</div> <div>HKTA 2028</div> <div>HKTA 2029</div> <div>HKTA 2030</div> <div>HKTA 2031</div> <div>HKTA 2032</div> <div>HKTA 2033</div> <div>European standards</div> <div>TBR 1: 1995</div> <div>TBR 2: 1997</div> <div>TBR 3: 1995 + Amdt : 1997</div> <div>TBR 4: 1995 + Amdt : 1997</div> <div>TBR 012: 1993 + Amdt : 1996</div> <div>TBR 013: 1996</div> <div>(A2LA Cert. No. 1627.01) 3/27/06</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <div>Title</div> <div>Network connection specification for connection of CPE to the PTNs in Hong Kong using digital leased circuits at data rate of 1544 kbit/s</div> <div>Network connection specification for connection of CPE to the PTNs in Hong Kong using digital leased circuits at data rate of 2048 kbit/s</div> <div>Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using Digital Leased Circuits at nx64 kbit/s</div> <div>Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Network (PTN) in Hong Kong using Digital Leased Circuits below 64 kbit/s</div> <div>Network Connection Specification for Connection of Customer Premises Equipment (CPE) to the Public Telecommunications Networks in Hong Kong using Asymmetric Digital Subscriber Lines (ADSL) based on ITU-T Recommendation G.992.1</div> <div>Network Connection Specification for Connection of Customer Premises Equipment (CPE) to Fixed Telecommunications Networks in Hong Kong using Splitterless Asymmetric Digital Subscriber Lines (ADSL) based on ITU-T Recommendation G.992.2</div> <div>Attachment requirements for terminal equipment to Be connected to circuit switched data networks and Leased circuits using a CCITT Recommendation X.21 interface, or at an interface physically, functionally and electrically compatible with CCITT Recommendation X.21 but operating at any data signaling rate up to, and including, 1 984 kbit/s</div> <div>Attachment requirements for Data Terminal Equipment (DTE) to connect to Packet Switched Public Data Networks (PSPDNs) for CCITT Recommendation X.25 interfaces at data signaling rates up to 1 920 kbit/s utilizing interfaces derived from CCITT Recommendations X.21 and X.21 bit Integrated Services Digital Network (ISDN);</div> <div>Attachment requirements for terminal equipment to connect to an ISDN using ISDN basic access Integrated Services Digital Network (ISDN);</div> <div>Attachment requirements for terminal equipment to connect to an ISDN using ISDN primary rate access Business Telecommunications (BT); Open Network Provision (ONP) technical requirements; 2 048 kbit/s digital unstructured leased line (D2048U) Attachment requirements for terminal equipment</div> <div>Business TeleCommunications (BTC); 2 048 kbit/s digital structured leased lines (D2048S); Attachment requirements for terminal equipment interface</div> <div>Page 5 of 10</div> | <div>European standards (cont'd)</div> <div>TBR 21: 1998</div> <div>TBR 24: 1997</div> <div>Taiwan standards (DGT)</div> <div>ADSL01</div> <div>ID0002</div> <div>IS6100</div> <div>PSTN01 (non-voice only)</div> <div>New Zealand standards</div> <div>PTC 200 (non-voice only)</div> <div>PTC 217</div> <div>TNA 117</div> <div>PTC 270</div> <div>Singapore Standards</div> <div>IDA TS ADSL</div> <div>IDA TS ADSL 2</div> <div>IDA TS DLN 1</div> <div>IDA TS ISDN 1</div> <div>IDA TS ISDN 2</div> <div>IDA TS PSTN (non-voice only)</div> <div>South Africa standards</div> <div>TE-001 (non-voice only)</div> <div>(A2LA Cert. No. 1627.01) 3/27/06</div> <div>Page 6 of 10</div> | <div>Terminal Equipment (TE): Attachment requirements for pan-European approval for connection to the Analogue Public Switched Telephone Networks (PSTNs) of TE (excluding TE supporting the voice telephony service) in which network addressing, if provided, is by means of Dual Tone Multi Frequency (DTMF) signaling</div> <div>Business TeleCommunications (BTC); 34 Mbit/s Digital Unstructured and structured leased lines (D34U and D34S); Attachment requirements for Terminal equipment interface</div> <div>Asymmetric Digital Subscriber Line Terminal Equipment and POTS Splitter Technical Specifications</div> <div>DS1 Equipment Type Approval Guidelines</div> <div>ISDN Terminal Equipment Technical Specifications</div> <div>Technical Specifications for Terminal Equipment for Connection to Public Switched Telephone Network</div> <div>Requirements for Connection of Customer Equipment to Analogue Lines</div> <div>Requirements for Bandwidth Management Devices</div> <div>Telecom 2048 kbit/s Standard Network Interface</div> <div>Interim arrangements for ADSL CPE</div> <div>Type Approval Specification for Asymmetric Digital Subscriber Line (Full-rate ADSL) Modems</div> <div>Type Approval Specification for Asymmetric Digital Subscriber Line Splitterless (G-Lite) Modems</div> <div>Type Approval Specification for Digital Interfaces based on hierarchical bit rates of 2048 kbit/s, 34 368 kbit/s and 139 264 kbit/s</div> <div>Type Approval Specification for connection of Terminal Equipment to Integrated Services Digital Network (ISDN) Basic Access</div> <div>Type Approval Specification for connection of Terminal Equipment to Integrated Services Digital Network (ISDN) Primary Rate Access (PRA)</div> <div>Type Approval Specification for connection of Terminal Equipment to Public Switched Telephone Network (PSTN)</div> <div>Standard for Telecommunication Line Terminal Equipment (LTLE) for Connection to the Public Switched Telephone Network (PSTN)</div> |
| <div>Product Safety</div> <div>General test methods:</div> <div>Power input*, Permanence of marking*, Accessibility*, Permissibly limits*, Energy hazard measurement*, SELV circuits*, TNV limits*, Limited current*, Capacitor Discharge / voltage limitation*, Ring signal*, Humidity conditioning*, Creepage / Clearance / Distance thru Insulation (excluding CTI)*, Limited power measurement*, Ground Bond/Earthing*, Ground continuity*, Temperature*, Stability*, Applied force*, Steel sphere impact*, Mold stress*, Battery reverse current*, Ball pressure*, Leakage current*, Component abnormal*, Electric strength*, Impulse*, Overvoltage*, Acoustic sound pressure*, 130mm / 20mm flame*, Needle flame*, Hot flaming oil*, Locked rotor/motor armature*, Vibration, Bump, Drop*, Strain relief*, Torque*, Insulation resistance*, Sound level*, Handle loading*, Liquid overflow*, Spillage*, Liquid leakage*, Transformer shorts/overloads*, Rain test*, Wall mount*, Laser radiation (excluding x-ray)*, Voltage surge*, Functionality*, Protective impedance abnormal*, Capacitor short circuit abnormal*, Output abnormal*, Multi-supply abnormal*, Cooling abnormal*, Heating device abnormal*, Interlock abnormal*, Rigidity*, Cleaning*</div> <div>Product Safety Standards</div> <div>Specific Product Safety Standards</div> <div>UL 60950 2000</div> <div>IEC 60950 1999</div> <div>EN 60950 2000</div> <div>IEC 60950-1 2001</div> <div>UL 60950-1 2003</div> <div>CSA C22.2 No. 60950-00</div> <div>CSA C22.2 No. 60950-1 03</div> <div>IEC 61010-1 1993</div> <div>EN 61010-1 1993, 2001</div> <div>IEC 61010-1 2001</div> <div>UL 61010B-1 2003</div> <div>CAN/CSA 1010-1 1999 (Including AM 2)</div> <div>IEC 60601-1 1995</div> <div>EN 60601-1 1995 (Including AM 2)</div> <div>UL 2601-1 1997</div> <div>IEC 60065 1998, 2000</div> <div>ANSI/UL 6500: 1998</div> <div>CAN/CSA 60065-00</div> <div>AS/NZS 60065 2000</div> <div>Canadian C22.2 No. 1-94 (1-98)</div> <div>1994, 1998</div> <div>EN 60065 1994</div> <div>IEC 60825 1990</div> <div>EN 60825-1 1994</div> <div>(A2LA Cert. No. 1627.01) 3/27/06</div> <div>Page 7 of 10</div> | <div>Title</div> <div>Classification, requirements and user's guide.</div> <div>Safety of laser products – Part 2: Safety of optical communication systems</div> <div>Safety of laser products – Part 4: Laser guards</div> <div>Performance standard for laser products</div> <div>Safety of household and similar electrical appliances</div> <div>Part 1: General requirements</div> <div>Electrical equipment for laboratory use; part 1: General requirements</div> <div>Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements</div> <div>Safety information technology equipment</div> <div>Information Technology Equipment – Safety – Part1: General Requirements</div> <div>Information Technology Equipment – Safety – General requirements</div> <div>Electrical Equipment for Measurement, Control and Laboratory Use; Part 1: General Requirements</div> <div>Medical Electrical Equipment, Part 1: General Requirements for Safety</div> <div>Medical Electrical Equipment - Part 1: General Requirements for Safety 1: Collateral Standard: Safety Requirements For Medical Electrical Systems</div> <div>Medical Electrical Equipment - Part 1: General Requirements for Safety – Section 1-1. Collateral Standard: Safety Requirements For Medical Electrical Systems</div> <div>Audio, Video and Similar Electronic Apparatus – Safety Requirements</div> <div>Audio, Video and Similar Electronic Apparatus – Safety Requirements</div> <div>Audio, Video and Similar Electronic Apparatus – Safety Requirements</div> <div>Audio, Video and Similar Electronic Apparatus – Safety Requirements</div> <div>Audio, Video and Similar Electronic Apparatus – Safety Requirements</div> <div>Safety of Machinery – Electrical Equipment of Machines – Part 1: Specification for General Requirements</div> <div>Compliance Test Specification – Safety and Electrical Protection Requirements for Subscriber Equipment Connected to the Public Telecommunications Networks In Hong Kong</div> <div>Page 8 of 10</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| <i>Environmental Simulation</i>            |                          |                             | <p>Note 1. For standards or methods listed on the scope of accreditation without a revision date, laboratories are expected to be competent in the use of the current version within one year of the date of publication of the standard test method or upon the date specified by the standard test method originator when the originator has implementation authority. When a superseded standard or method is required for an accredited test, the scope will include the superseded date/version. For those that support the TCB/CB status of the organization acting as a certifier on behalf of the FCC or IC the expectation is currency within 30 days of Federal Register publication of changes for FCC and 30 days after IC website update. This note shall not be construed as an Accreditation Body implication to adopt a more current standard than is required in a regulation or code (i.e. the legal requirement) which is adopted by the lab under their responsibility.</p> <p>* On-site test service is available for this technology, test, or method.</p> |
|--------------------------------------------|--------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Test Technology</u>                     | <u>Test Standard</u>     | <u>Supporting Standards</u> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Accessibility*                             | IEC 60529                | IP-0x thru IP-6x            | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Acoustic Noise*                            | GR-63-CORE Sec 4.6       |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Airborne Contaminants                      | GR-63-CORE Sec 4.5       | MFG & Hygroscopic Dust      | <p>IEC 60068-2-1<br/>IP-x1 &amp; IP-x2<br/>IEC 60068-2-32</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Altitude                                   | GR-63-CORE Sec 4.1.3     |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Cold Start*                                | ETS 300 019              |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Drip                                       | IEC 60529                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Drops*                                     | ETS 300 019              |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                            | GR-63-CORE Sec 4.3       |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Dust                                       | IEC 60529                | IP-5x & IP-6x               | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Firearms Resistance Testing                | GR-487                   |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Fire Resistance                            | ANSI.T1.319              | Fire & Needle Flame         | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                            | GR-63-CORE Sec 4.2       |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Heat Dissipation*                          | GR-63-CORE Sec 4.1.4     |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Illumination                               | GR-63-CORE Sec 4.7       |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Operational Temperature & Humidity (OpTH)* | ETS 300 019              |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                            |                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Salt Fog & Spray                           | GR-63-CORE Sec 4.1.2     |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Spatial*                                   | ASTM B117                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Spraying-Splashing                         | GR-63-CORE Sec 2.0 & 3.0 | IP-x3 & IP-x4               | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-30<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Storage (Temperature & Humidity)*          | IEC 60529                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                            | ETS 300 019              |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                            |                          |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Vibration                                  | GR-63-CORE Sec 4.1.1     |                             | <p>IEC 60068-2-6<br/>IEC 60068-2-27<br/>IEC 60068-2-29<br/>IEC 60068-2-32<br/>IEC 60068-2-57<br/>IEC 60068-2-64<br/>Earthquake, Office &amp; Transportation<br/>IP-x7 &amp; IP-x8<br/>IP-x5 &amp; IP-x6</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                            | ETS 300 019              |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Water Immersion                            | GR-63-CORE Sec 4.4       |                             | <p>IEC 60068-2-1<br/>IEC 60068-2-2<br/>IEC 60068-2-14<br/>IEC 60068-2-56</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Water Jet                                  | IEC 60529                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                            | IEC 60529                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

(A2LA Cert. No. 1627.01) 3/27/06

Page 9 of 10

(A2LA Cert. No. 1627.01) 3/27/06

Page 10 of 10