M. Flom Associates, Inc. - Global Compliance Center
3356 North San Marcos Place, Suite 107, Chandler, Arizona 85225-7176
www.mflom.com general@mflom.com (480) 926-3100, FAX: 926-3598

# C E R T I F I C A T I O N

of

FCC ID: K66VX-7R

AMATEUR TRANSCEIVER MODEL: VX-7R

to

FEDERAL COMMUNICATIONS COMMISSION

Part 15.121(B) and Confidentiality

DATE OF REPORT: February 26, 2002

ON THE BEHALF OF THE APPLICANT:

Vertex Standard Co., Ltd.

AT THE REQUEST OF: P.O. UPS 2/14/2002

Vertex Standard USA Inc.
17210 Edwards Rd.
Cerritos, CA 90703

Attention of: Mikio Maruya, Executive Vice President
(800) 255-9237; FAX: (800) 477-9237
(562) 404-2700, x280; FAX: -1210
m.maruya@vxstdusa.com

SUPERVISED BY: Morton Flom, P. Eng.

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*Required information per ISO/IEC Guide 25-1990, paragraph 13.2:*

a) TEST REPORT

b) Laboratory: M. Flom Associates, Inc.
(FCC: 31040/SIT) 3356 N. San Marcos Place, Suite 107
(Canada: IC 2044) Chandler, AZ 85225

c) Report Number: d0220024

d) Client: Vertex Standard USA Inc.
17210 Edwards Rd.
Cerritos, CA 90703

e) Identification: VX-7R
FCC ID: K66VX-7R
Description: Scanning Receiver

f) EUT Condition: Not required unless specified in individual tests.

g) Report Date: February 26, 2002
EUT Received: February 14, 2002

h, j, k): As indicated in individual tests.

i) Sampling method: No sampling procedure used.

l) Uncertainty: In accordance with MFA internal quality manual.

m) Supervised by:

Morton Flom, P. Eng.

n) Results: The results presented in this report relate only to the item tested.

o) Reproduction: This report must not be reproduced, except in full, without written permission from this laboratory.

M. Flom Associates, Inc. is accredited by the American Association for Laboratory Association (A2LA) as shown in the scope below.

THE AMERICAN
ASSOCIATION
FOR LABORATORY
ACCREDITATION

**ACCREDITED LABORATORY**

A2LA has accredited

**M. FLOM ASSOCIATES, INC.**
**Chandler, AZ**

for technical competence in the field of

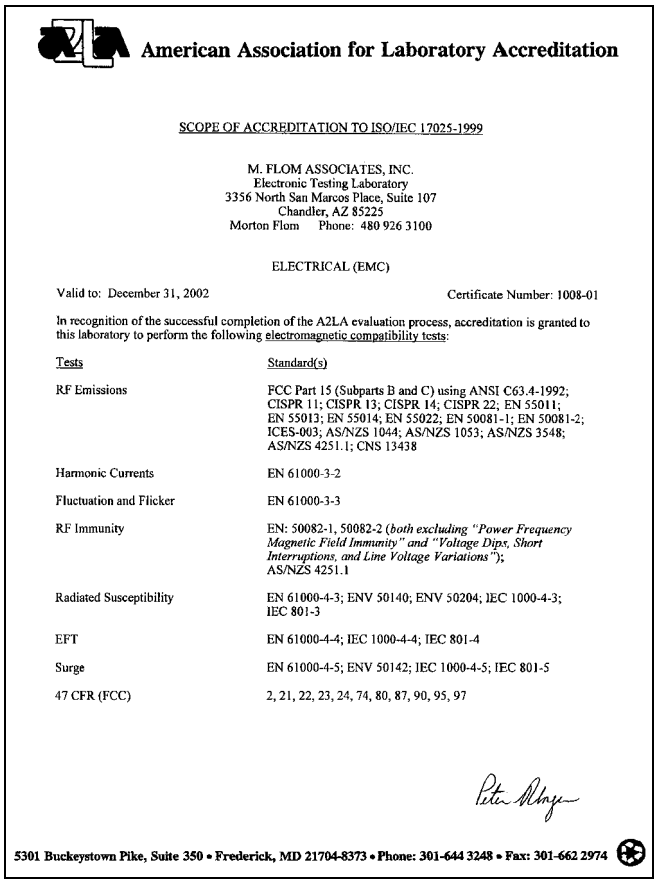
**Electrical (EMC) Testing**

The accreditation covers the specific tests and types of tests listed on the agreed scope of accreditation. This laboratory meets the requirements of ISO/IEC 17025 - 1999 "General Requirements for the Competence of Testing and Calibration Laboratories" and any additional program requirements in the identified field of testing. Testing and calibration laboratories that comply with this International Standard also operate in accordance with ISO 9001 or ISO 9002.

Presented this 2nd day of March, 2001.

President
For the Accreditation Council
Certificate Number 1008.01
Valid to December 31, 2002

For tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical (EMC) Scope of Accreditation



**American Association for Laboratory Accreditation**

SCOPE OF ACCREDITATION TO ISO/IEC 17025-1999

M. FLOM ASSOCIATES, INC.
Electronic Testing Laboratory
3356 North San Marcos Place, Suite 107
Chandler, AZ 85225
Morton Flom Phone: 480 926 3100

ELECTRICAL (EMC)

Valid to: December 31, 2002 Certificate Number: 1008-01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following electromagnetic compatibility tests:

| Tests | Standard(s) |
|---|---|
| RF Emissions | FCC Part 15 (Subparts B and C) using ANSI C63.4-1992; CISPR 11; CISPR 13; CISPR 14; CISPR 22; EN 55011; EN 55013; EN 55014; EN 55022; EN 50081-1; EN 50081-2; ICES-003; AS/NZS 1044; AS/NZS 1053; AS/NZS 3548; AS/NZS 4251.1; CNS 13438 |
| Harmonic Currents | EN 61000-3-2 |
| Fluctuation and Flicker | EN 61000-3-3 |
| RF Immunity | EN: 50082-1, 50082-2 (*both excluding "Power Frequency Magnetic Field Immunity" and "Voltage Dips, Short Interruptions, and Line Voltage Variations"*); AS/NZS 4251.1 |
| Radiated Susceptibility | EN 61000-4-3; ENV 50140; ENV 50204; IEC 1000-4-3; IEC 801-3 |
| EFT | EN 61000-4-4; IEC 1000-4-4; IEC 801-4 |
| Surge | EN 61000-4-5; ENV 50142; IEC 1000-4-5; IEC 801-5 |
| 47 CFR (FCC) | 2, 21, 22, 23, 24, 74, 80, 87, 90, 95, 97 |

5301 Buckeystown Pike, Suite 350 • Frederick, MD 21704-8373 • Phone: 301-644 3248 • Fax: 301-662 2974

"This laboratory is accredited by the American Association for Laboratory Accreditation (A2LA) and the results shown in this report have been determined in accordance with the laboratory's terms of accreditation unless stated otherwise in the report."

Should this report contain any data for tests for which we are not accredited, or which have been undertaken by a subcontractor that is not A2LA accredited, such data would not covered by this laboratory's A2LA accreditation.

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GENERAL INFORMATION

Part 2.948:

(a)(b) DESCRIPTION OF MEASUREMENT FACILITIES:
FILE: 31040/SIT

A description of the measurement facilities was filed with the Commission and was found to be in compliance with the requirements of Section 2.948, by letter dated March 13, 2000. All pertinent changes will be reported to the Commission by up-date prior to March 2003.

(b)(4) SUPPORTING STRUCTURES:

SKETCH - ATTACHED EXHIBITS

(b)(5)(6) TEST INSTRUMENTATION:

LIST - SEE EXHIBITS

2.925: IDENTIFICATION OF AN AUTHORIZED DEVICE:

DRAWING - SEE EXHIBITS

LOCATION OF LABEL - SEE PHOTOS

NAME AND ADDRESS OF APPLICANT:

Vertex Standard Co., Ltd.
4-8-8 Nakameguro, Meguro-Ku
Tokyo 153-8644 Japan

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2.911:
2.1033(b)(6)

TECHNICAL REPORT

MANUFACTURER:

Applicant

TRADE NAME:

Yaesu

FCC ID:

K66VX-7R

MODEL NO:

VX-7R

PHOTOGRAPHS:

SEE LIST OF EXHIBITS

DUT DESCRIPTION:

This unit Passes

15.31: MEASUREMENT STANDARD & PROCEDURE:

___ IEEE STANDARD 187 WAS USED AS A GUIDE.
___ FCC MEASUREMENT PROCEDURE MP-1
x ANSI 63.4 (1992/2000) “Methods of measurement of radio-noise emissions from low-voltage electrical and
___ electronic equipment in the range of 9 kHz to 40 GHz.”

EXPOSITORY STATEMENT

| | | |
|---|---|---|
| 1. | BANDS, MHz | = 11 |
| 2. | NUMBER OF CHANNELS | = 9 |
| 3. | TUNING RANGE, MHz | = 0.5 to 1.8<br>1.8 to 30<br>30 to 59<br>59 to 108<br>108 to 137<br>137 to 174<br>174 to 222<br>222 to 225<br>225 to 420<br>420 to 470<br>470 to 729<br>800 to 999<br>Cellular Bands Blocked |
| 4. | OSCILLATOR RANGE, MHz | = per manual |
| 5. | I.F., MHz | = 1.0, 10.7, 45.8, 47.25 |
| 6. | BLOCK DIAGRAM | = ATTACHED |

7. For cellular receiver only, the radio transceiver meets the requirements of FCC Bulletin OET 53 ("Cellular System Mobile Stations-Land-System Compatibility Specification."). See attached affidavit.

15.203: ANTENNA REQUIREMENT:

___ The antenna is permanently attached to the EUT
___ The antenna uses a unique coupling
___ The EUT must be professionally installed
_x_ The antenna requirement does not apply

SUPERVISED BY: Morton Flom, P. Eng.

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NAME OF TEST: Receiver Spurious Emissions (Radiated)

SPECIFICATION:
15.109: Radiated Interference Limits
15.33: Frequency Range of Radiated Measurements
80.217: Suppression of Interference Aboard Ships

GUIDE: See measurement procedure below

TEST CONDITIONS: Standard Temperature & Humidity

TEST EQUIPMENT: As per attached page

SEARCH ANTENNAS:

| | | |
|---|---|---|
| 100 Hz - 50 MHz: | Emco 3301B Active Rod |
| 10 kHz - 32 MHz: | Singer 94593-1 Loop |
| 25 MHz - 300 MHz: | Emco 3109 Biconical |
| 200 MHz - 1 GHz: | Aprel 2001 Log Periodic |
| 1 GHz - 18 GHz: | Emco 3115 Horn |
| 10 GHz - 40 GHz: | Emco 3116 Horn with HP11970A Mixer |

## MEASUREMENT PROCEDURE

1. At first, bench tests were performed to locate the spurious emissions at the antenna terminals.

2. In the field, tests were conducted over the range shown, The test sample was set up on a wooden turntable above ground, and at a distance of three meters from the antenna connected tot he Spectrum Analyzer.

3. In order to obtain the maximum response at each frequency, the turntable was rotated, and the search antenna was raised and lowered. The EUT was also adjusted for maximum response. Tests were conducted in Horizontal & Vertical polarization modes.

4. The field strength was calculated from:

$$E\ \mu V/m\ @\ 3\ m = Log_{10}^{-1}\left(\frac{dB\mu V + A.F. + C.L.}{20}\right)$$

5. MEASUREMENT RESULTS: Attached for "Worst Case" conditions.

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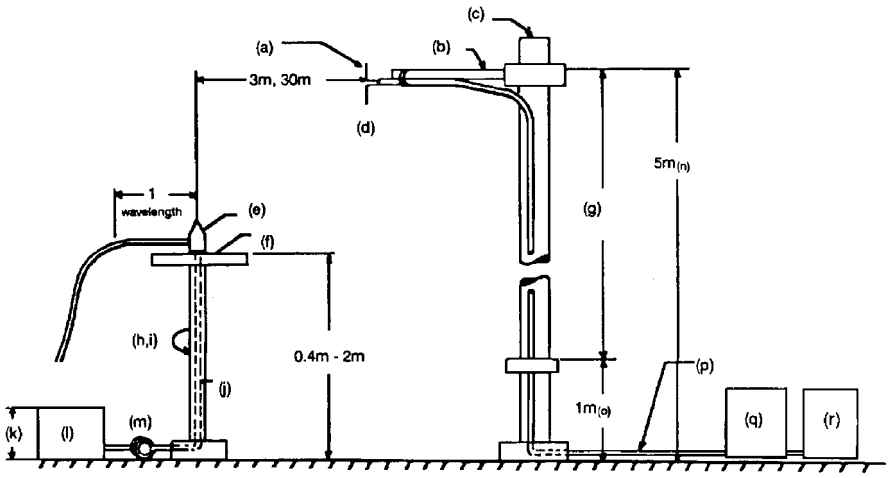
## RADIATED TEST SETUP




NOTES:

(a) Search Antenna - Rotatable on boom
(b) Non-metallic boom
(c) Non-metallic mast
(d) Adjustable horizontally
(e) Equipment Under Test
(f) Turntable
(g) Boom adjustable in height.
(h) External control cables routed horizontally at least one wavelength.
(i) Rotatable
(j) Cables routed through hollow turntable center
(k) 30 cm or less
(l) External power source
(m) 10 cm diameter coil of excess cable
(n) 25 cm (V), 1 m-7 m (V, H)
(o) 25 cm from bottom end of 'V', 1m normally
(p) Calibrated Cable at least 10m in length
(q) Amplifier (optional)
(r) Spectrum Analyzer

| Asset | Description (as applicable) | s/n | Cycle (Per ANSI C63.4-1992/2000 Draft, 10.1.4) | Last Cal |
|---|---|---|---|---|
| **TRANSDUCER** | | | | |
| i00088 | EMCO 3109-B 25MHz-300MHz | 2336 | 12 mo. | Sep-01 |
| i00089 | Aprel 2001 200MHz-1GHz | 001500 | 12 mo. | Sep-01 |
| i00103 | EMCO 3115 1GHz-18GHz | 9208-3925 | 12 mo. | Sep-01 |
| i00065 | EMCO 3301-B Active Monopole | 2635 | 12 mo. | Sep-01 |
| **AMPLIFIER** | | | | |
| i00028 | HP 8449A | 2749A00121 | 12 mo. | Mar-01 |
| **SPECTRUM ANALYZER** | | | | |
| i00029 | HP 8563E | 3213A00104 | 12 mo. | Jan-02 |
| i00033 | HP 85462A | 3625A00357 | 12 mo. | Jan-02 |
| i00048 | HP 8566B | 2511AD1467 | 6 mo. | Jan-02 |
| **MISCELLANEOUS** | | | | |
| | Microphone _____ | | | |
| | Antenna _____ | | | |
| | All Ports Terminated _____ | | | |

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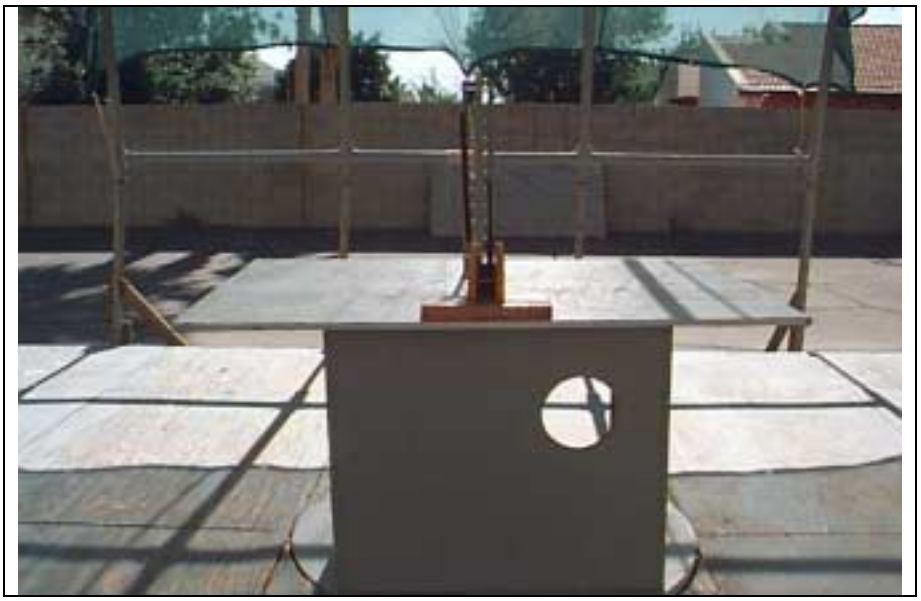
TEST SETUP: Radiated Emissions



PAGE NO. 9 of 18.

NAME OF TEST: Receiver Spurious Emissions (Radiated)

## MEASUREMENT DETAILS

SITE REFERENCE = 31040/SIT

SPECTRUM SEARCHED = 0 to 10 x $F_R$

WORST CASE = V

LIMITS = 15.109(a) (Attached)

ALL OTHER EMISSIONS = 20 dB OR MORE BELOW LIMIT

TESTS WERE CONDUCTED WITH:

a. All controls and switches operated.
b. Half-wave dipole antenna or manufacturer/applicant supplied antenna.

SAMPLE CALCULATION:

EMISSION FREQUENCY, MHz = 77.277800

LEVEL = $\text{Log}_{10}^{-1}\left(\frac{-18.79 + 11.53}{20}\right)$

LEVEL, μV/m @ 3m = 32.81

MEASUREMENT RESULTS = ATTACHED

NOTE: WORST CASE OF SCAN AND NON-SCAN MODES REPORTED.

PAGE NO. 10 of 18.

NAME OF TEST: Receiver Spurious Emissions (Radiated)

RULE 15.109(a) LIMITS:

| FREQUENCY, MHz | FIELD STRENGTH μV/m | DISTANCE, m |
|---|---|---|
| 30 - 88 | 100 | 3 |
| 88 - 216 | 150 | 3 |
| 216 - 960 | 200 | 3 |
| Above 960 | 500 | 3 |

g0220108: 2002-Feb-26 Tue 07:25:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | μV/m | @ m |
|---|---|---|---|---|---|---|
| 30.025000 | 77.277800 | 18.79 | 3 | 11.53 | 32.81 | 3 |
| 44.590000 | 91.750000 | 19.06 | 3 | 12.9 | 39.63 | 3 |
| 59.900000 | 107.148300 | 18.14 | 3 | 15.4 | 47.53 | 3 |
| 30.025000 | 154.514300 | 19.15 | 3 | 17.86 | 70.88 | 3 |
| 44.590000 | 183.506500 | 18.65 | 3 | 17.98 | 67.84 | 3 |
| 59.900000 | 214.261000 | 18.7 | 3 | 20.6 | 92.26 | 3 |

g0220107: 2002-Feb-26 Tue 06:54:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | μV/m | @ m |
|---|---|---|---|---|---|---|
| 60.000000 | 105.801300 | 14.59 | 3 | 15.18 | 30.8 | 3 |
| 83.900000 | 129.683000 | 12.98 | 3 | 16.99 | 31.51 | 3 |
| 107.985000 | 153.683000 | 14.73 | 3 | 17.87 | 42.66 | 3 |
| 60.000000 | 211.602500 | 13.08 | 3 | 20.35 | 46.94 | 3 |
| 83.900000 | 259.366000 | 13.84 | 3 | 23.59 | 74.39 | 3 |
| 107.900000 | 307.265000 | 15.1 | 3 | 20.74 | 61.94 | 3 |

g0220106: 2002-Feb-26 Tue 06:31:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | μV/m | @ m |
|---|---|---|---|---|---|---|
| 134.025000 | 181.250000 | 10.1 | 3 | 17.81 | 24.86 | 3 |
| 153.990000 | 201.225000 | 9.39 | 3 | 19.41 | 27.54 | 3 |
| 173.980000 | 221.226000 | 11.63 | 3 | 21.19 | 43.75 | 3 |
| 134.025000 | 362.740000 | 12.14 | 3 | 7.32 | 9.4 | 3 |
| 153.995000 | 402.598000 | 16.63 | 3 | 7.63 | 16.33 | 3 |
| 173.985000 | 442.240000 | 16.54 | 3 | 8.03 | 16.92 | 3 |

g0220105: 2002-Feb-25 Mon 18:27:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | μV/m | @ m |
|---|---|---|---|---|---|---|
| 174.000000 | 128.200000 | 7.53 | 3 | 16.96 | 16.77 | 3 |
| 197.450000 | 151.650400 | 10.9 | 3 | 17.89 | 27.51 | 3 |
| 221.975000 | 174.705000 | 9.42 | 3 | 17.65 | 22.57 | 3 |
| 174.000000 | 256.457500 | 12.12 | 3 | 22.87 | 56.17 | 3 |
| 197.450000 | 303.565000 | 13.37 | 3 | 20.46 | 49.15 | 3 |
| 221.975000 | 349.410000 | 13.78 | 3 | 23.62 | 74.13 | 3 |

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NAME OF TEST: Receiver Spurious Emissions (Radiated) (Cont'd)

g0220104: 2002-Feb-25 Mon 17:27:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | µV/m | @ m |
|---|---|---|---|---|---|---|
| 223.030000 | 175.740000 | 8.6 | 3 | 17.66 | 20.56 | 3 |
| 221.975000 | 176.175500 | 9.63 | 3 | 17.66 | 23.15 | 3 |
| 223.030000 | 351.480000 | 13.54 | 3 | 23.75 | 73.2 | 3 |
| 221.975000 | 352.163400 | 12.6 | 3 | 23.79 | 65.99 | 3 |

g0220103: 2002-Feb-25 Mon 16:32:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | µV/m | @ m |
|---|---|---|---|---|---|---|
| 420.000000 | 372.755000 | 12.9 | 3 | 24.95 | 78.07 | 3 |
| 444.800000 | 397.533000 | 12.88 | 3 | 26.18 | 89.74 | 3 |
| 469.975000 | 422.695000 | 17.03 | 3 | 26.33 | 147.23 | 3 |
| 420.000000 | 839.990000 | 10.17 | 3 | 32.48 | 135.68 | 3 |
| 444.800000 | 889.620000 | 9.91 | 3 | 32.65 | 134.28 | 3 |

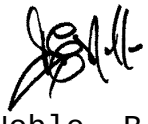
g0220102: 2002-Feb-25 Mon 16:26:00

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | µV/m | @ m |
|---|---|---|---|---|---|---|
| 599.475000 | 645.281300 | 6.65 | 3 | 30.53 | 72.28 | 3 |
| 728.975000 | 774.762000 | 1.31 | 3 | 32.28 | 47.81 | 3 |
| 470.000000 | 1031.580000 | 1.58 | 3 | 36.23 | 77.71 | 3 |
| 599.475000 | 1290.553000 | -1.27 | 3 | 39.31 | 79.8 | 3 |
| 728.975000 | 1549.569600 | 1.37 | 3 | 41.56 | 140.12 | 3 |
| 470.000000 | 515.798800 | 2.64 | 3 | 26.97 | 30.23 | 3 |

g0220101: 2002-Feb-18 Mon 10:02:00
STATE: 0:General

| FREQUENCY TUNED, MHz | FREQUENCY EMISSION, MHz | LEVEL, dBuV | @ m | C.F., dB | µV/m | @ m |
|---|---|---|---|---|---|---|
| 803.000000 | 755.754000 | 7.4 | 3 | 32.04 | 93.76 | 3 |
| 998.987500 | 853.628000 | 5.89 | 3 | 32.47 | 82.79 | 3 |
| 998.987500 | 951.746000 | 0.25 | 3 | 37.79 | 79.8 | 3 |
| 803.000000 | 1511.499300 | 3.02 | 3 | 41.4 | 166.34 | 3 |
| 900.990000 | 1707.304000 | -1.51 | 3 | 42.21 | 108.39 | 3 |
| 998.987500 | 1903.479000 | -0.64 | 3 | 43.86 | 144.88 | 3 |

All other emissions in the required measurement range were more that 20 dB below the required limits.



PERFORMED BY: Doug Noble, B.A.S. E.E.T.

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NAME OF TEST: Scanning Receivers Cellular Band Rejection

SPECIFICATION: FCC: 47 CFR 15.121(b)

TEST EQUIPMENT: As per attached page

GUIDE: 47 CFR 15.121(b): Except as provided in paragraph (c) of this section, scanning receivers shall reject any signals from Cellular Radiotelephone Service frequency bands that are 38 dB or higher based upon a 12 dB SINAD measurement, which is considered the threshold where a signal can be clearly discerned from any interference that may be present.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

## MEASUREMENT PROCEDURE

1. Equipment was connected as illustrated in the block diagram.
2. A standard signal was applied to the receiver input terminals.
3. Receiver output audio output was adjusted for rated output and with distortion no greater than 10%.
4. The RF Signal generator was adjusted to produce 12dB SINAD without the audio output power dropping by more than 3dB.
5. This was repeated at three frequencies across all bands to establish a reference sensitivity level. The reference sensitivity taken was the lowest, or worst-case sensitivity for all of the bands.
6. The output of the signal generator was then adjusted to a level of +60dB above the reference level sensitivity established in step 5 and set to the first of three frequencies in the cellular subscriber transmit band.
7. Receiver squelch threshold, the signal level required to open the squelch, should be set to open no greater than +20dB above the reference sensitivity.
8. The receiver was then put in the scanning mode and allowed to scan across it’s complete receive range.
9. If the receiver unsquelched or stopped on any frequency, the displayed frequency was recorded. The signal generator was then adjusted in output level until a 12dB SINAD from the receiver was produced. The signal generator level associated with this response was also noted.
10. This procedure was repeated for three frequencies in the cellular base station transmit band.
11. The difference in between the signal generator output for any response recorded and the reference sensitivity is the rejection ratio.

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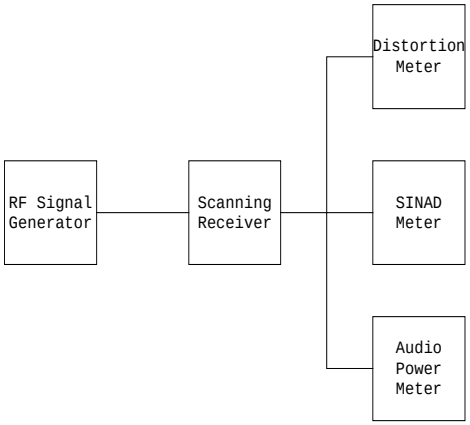
SCANNING RECEIVER:




Reference Level Sensitivity measured in step 5 = <-130 dbm

| **Frequency of EUT, MHz** | **Image Frequency** | **Level for 12 dB SINAD, dBm** | **Rejection, dB** |
|---|---|---|---|
| 0100 – 29.7<br>2.7 - 50 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 50 – 54<br>54 - 108 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 108 – 137<br>137 – 144 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 144 – 146<br>146 – 174 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 174 – 216<br>216 – 222 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 222 – 235<br>235 – 400 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 400 – 430<br>430 – 450 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| 450 – 470<br>470 - 806 | 836.4<br>848.97<br>824.04 | -113 | <-130 |
| - 1300 | 836.4<br>848.97<br>824.04 | -113 | <-130 |

*No spurious responses detectable within these frequency ranges.

PERFORMED BY: Doug Noble, B.A.S. E.E.T.

PAGE NO. 14 of 18.

NAME OF TEST: A/C Powerline Conducted Emissions

SPECIFICATION: FCC: 47 CFR 15.107

GUIDE: IEEE Standard 213

TEST CONDITIONS: S. T. & H.

TEST EQUIPMENT: As per attached page

## MEASUREMENT PROCEDURE

1. A test sample was connected to the Public Utility lines through a LISN Ailtech Model 94641-1 (50 µH).

2. A reference level of 250 µV was set on the Spectrum Analyzer. The spectrum was searched over the range of 450 kHz to 30 MHz.

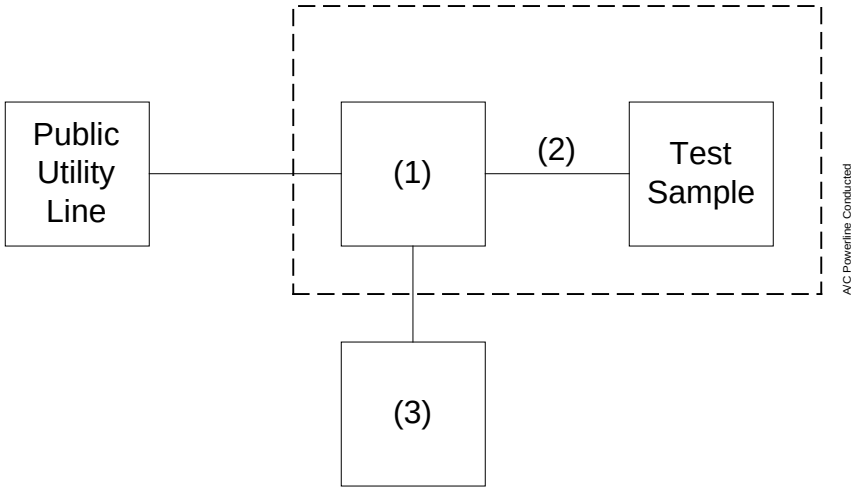
3. All other emissions were 20 dB or more below limit.

4. _x_ The test sample used a charger.
   ___ The test sample does not use a charger.

5. Measurement Results: Attached.

PAGE NO. 15 of 18.

## AC POWERLINE CONDUCTED MEASUREMENTS




| Asset | Description (as applicable) | s/n | Cycle | Last Cal |
|---|---|---|---|---|
| | | | Per ANSI C63.4-1992/2000 Draft, 10.1.4 | |
| (1) LINE IMPEDANCE STABILIZATION NETWORK | | | | |
| i00077 | Singer 91221-1 (5 µH) | 0396 | 12 mo. | |
| i00155 | Eaton 94641-1 (50 µH) | 178 | 12 mo. | Sep-01 |
| i00167 | Ailtech 94641-1 (50 µH) | 0103 | 12 mo. | |
| (2) SCREEN ROOM | | | | |
| i00169 | Lindgren 22-2/2-0 | 3861 | N/A | none |
| i00170 | Lindgren LG170 | 4999 | | |
| (3) SPECTRUM ANALYZER | | | | |
| i00029 | HP 8563E | 3213A00104 | 12 mo. | Jan-02 |
| i00033 | HP 85462A | 3625A00357 | 12 mo. | Jan-02 |
| i00048 | HP 8566B | 2511AD1467 | 6 mo. | Jan-02 |

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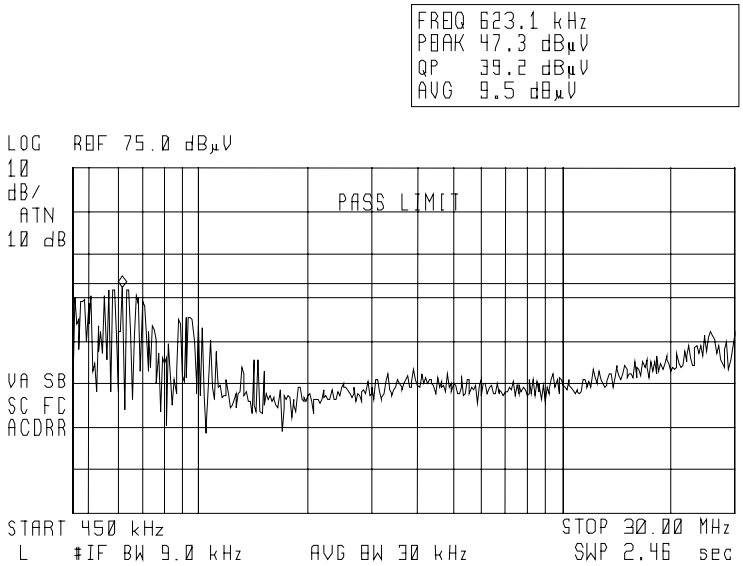
TEST SETUP: A/C Powerline Conducted Emissions

PAGE NO. 17 of 18.

NAME OF TEST: A/C Powerline Conducted Emissions

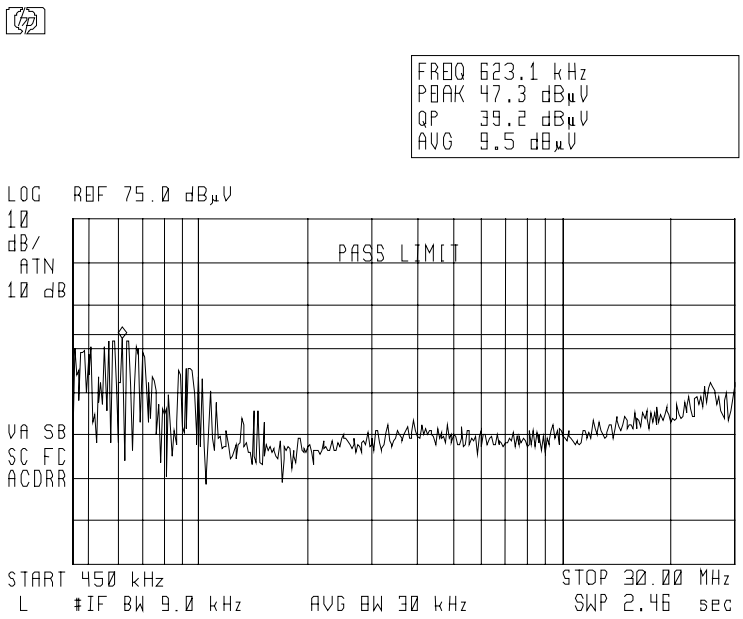



NEUTRAL SIDE

PERFORMED BY: Doug Noble, B.A.S. E.E.T.

PAGE NO. 18 of 18.

NAME OF TEST: A/C Powerline Conducted Emissions




LINE SIDE

PERFORMED BY: Doug Noble, B.A.S. E.E.T.

END OF TEST REPORT

THE APPLICANT HAS BEEN CAUTIONED AS TO THE FOLLOWING:

15.21 INFORMATION TO USER.

The users manual or instruction manual for an intentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.27(a) SPECIAL ACCESSORIES.

Equipment marketed to a consumer must be capable of complying with the necessary regulations in the configuration in which the equipment is marketed. Where special accessories, such as shielded cables and/or special connectors are required to enable an unintentional or intentional radiator to comply with the emission limits in this part, the equipment must be marketed with, i.e. shipped and sold with, those special accessories. However, in lieu of shipping or packaging the special accessories with the unintentional or intentional radiator, the responsible party may employ other methods of ensuring that the special accessories are provided to the consumer, without additional charge.

Information detailing any alternative method used to supply the special accessories for a grant of equipment authorization or retained in the verification records, as appropriate. The party responsible for the equipment, as detailed in § 2.909 of this chapter, shall ensure that these special accessories are provided with the equipment. The instruction manual for such devices shall include appropriate instructions on the first page of text concerned with the installation of the device that these special accessories must be used with the device. It is the responsibility of the user to use the needed special accessories supplied with the equipment.

# LABELLING OF SCANNING RECEIVERS

'

Scanning receivers shall have a label permanently affixed to the product, and this label shall be readily visible to the purchaser at the time of purchase. The label shall read as follows:

> WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

"Permanently affixed" means that the label is etched, engrave, stamped, silkscreened, indelibly printed or otherwise permanently marked on a permanently attached part of the equipment or on a nameplate of metal plastic or other material fastened to the equipment by welding, riveting, or permanent adhesive. The label shall be designed to last the expected lifetime of the equipment in the environment in which the equipment may be operated and must not be readily detachable. The label shall not be a stick-on, paper label.

# STATEMENT OF COMPLIANCE

THIS IS TO CERTIFY:

THAT, ON THE BASIS OF THE MEASUREMENTS MADE, THE EQUIPMENT TESTED IS CAPABLE OF COMPLYING WITH THE REQUIREMENTS OF

FCC RULE PART 15, SUBPART B _x_

FCC RULE PART 15, SUBPART C ___

USING ANSI C63.4-1992/2000 Draft IN EFFECT AS OF THIS DATE, UNDER NORMAL OPERATION, WITH THE USUAL MAINTENANCE.

THAT THE DATA CONTAINED HEREIN IS A SUMMARY (WORST CASE) OF THAT OBTAINED ON SEVERAL RANDOMLY-SELECTED PRODUCTION SAMPLES.

THAT THE EQUIPMENT MEETS OR EXCEEDS THE REQUIREMENTS OF PART 15.

# LIST OF EXHIBITS
## (FCC **CERTIFICATION** (RECEIVERS) - REVISED 9/28/98)

APPLICANT: Vertex Standard Co., Ltd.

EQUIPMENT: VX-7R
K66VX-7R

BY APPLICANT:

IF APPLICABLE: Subsection 2.1033

1. LETTER OF AUTHORIZATION x

2. ATTESTATION x

3. IDENTIFICATION LABEL DRAWING x
   - x LABEL
   - x LOCATION OF LABEL
   - x COMPLIANCE STATEMENT
   - x LOCATION OF COMPLIANCE STATEMENT

4. DOCUMENTATION: 2.1033(b)

   (3) USER MANUAL x
   (4) OPERATIONAL DESCRIPTION x
   (5) BLOCK DIAGRAM x
   (5) SCHEMATIC DIAGRAM x
   (7) PHOTOGRAPHS x

BY M.F.A. INC.

A. STATEMENT OF COMPLIANCE

B. STATEMENT OF QUALIFICATIONS