

TEST REPORT FROM RFI GLOBAL SERVICES LTD

Test of: Zinwave Ltd
2700 DAS

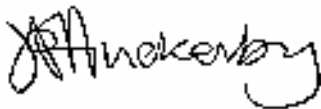
To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Test Report Serial No:
RFI/RPTE1/RP48409JD13A

This Test Report Is Issued Under The Authority
Of Andrew Brown, Operations Manager:



Tested By: Jamie Huckerby



Checked By: Steven Wong



Report Copy No: PDF01

Issue Date: 30 October 2006

Test Dates: 31 August 2006 to 02 October 2006

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RFI Global Services Ltd

Pavilion A, Ashwood Park, Ashwood Way, Basingstoke, Hampshire RG23 8BG
Telephone: +44 (0)1256 312000 Facsimile: +44 (0)1256 312001
Email: info@rfi-global.com Website: www.rfi-global.com

Registered in England and Wales. Company number: 2117901

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

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Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Table of Contents

1. Client Information	4
2. Equipment Under Test (EUT)	5
3. Test Specification, Methods and Procedures	11
4. Deviations from the Test Specification	12
5. Operation of the EUT during Testing	13
6. Summary of Test Results	14
7. Measurements, Examinations and Derived Results	15
8. Measurement Uncertainty	27
9. Measurement Methods	28
Appendix 1. Test Equipment Used	30
Appendix 2. Test Configuration Drawings	32

Test of: Zinwave Ltd

2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

1. Client Information

Company Name:	Zinwave Ltd
Address:	Harston Mill Harston Cambridge CB2 5GG
Contact Name:	Mr D Parkinson

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

2. Equipment Under Test (EUT)

The following information (with the exception of the Date of Receipt) has been supplied by the client:

2.1. Identification of Equipment Under Test (EUT)

Description:	Hub Unit (HU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	00-17-68-00-01-00
Serial Number:	0005256371
Hardware Revision:	1.06
Software Revision:	1.05
FCC ID Number:	UPO2700
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 10F54BEB
Serial Number:	0005256326
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Identification of Equipment Under Test (EUT) (Continued)

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 32CF5825
Serial Number:	0005256279
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 10F549E7
Serial Number:	0005256290
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 10F54D25
Serial Number:	0005256317
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Identification of Equipment Under Test (EUT) (Continued)

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 10F337D5
Serial Number:	0005256323
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 10F54B62
Serial Number:	0005256282
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 32CFB658
Serial Number:	0005256327
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Identification of Equipment Under Test (EUT) (Continued)

Description:	Antenna Unit (AU)
Brand Name:	Zinwave
Model Name or Number:	2700 DAS
Unique Type Identification:	MID: 10F54C66
Serial Number:	0005256344
Hardware Revision:	1.08
Software Revision:	1.05
FCC ID Number:	UPO2760
Country of Manufacture:	UK
Date of Receipt:	31 August 2006

2.2. Description of EUT

The equipment under test is a broadband Distributed Antenna System operating from 370 MHz to 2.5 GHz. The system utilises multiple technologies including iDEN, GSM 850 & 1900.

2.3. Modifications Incorporated in EUT

During the course of testing the EUT was not modified.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

2.4. Additional Information Related to Testing

Power Supply Requirement:	Nominal 115 V, 60 Hz AC Mains Supply
Intended Operating Environment:	Commercial, Light Industry, Heavy Industry
Equipment Category:	"Distributed Antenna System" (DAS).
Type of Unit:	Base Station (fixed use)
Receive Frequency Range:	370 MHz to 2500 MHz
Maximum Output Gain	30.0 dB
Highest Unintentionally Generated Frequency:	2438.5 MHz

2.5. Port Identification

Port	Description
1	I/O Ports (4 x Input, 4 x Output)
2	Serial Port for Comms
3	Ethernet Port
4	8 x Fibre Optic Ports

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

2.6. Support Equipment

The following support equipment was used to exercise the EUT during testing:

Description:	Laptop
Brand Name:	Dell
Model Name or Number:	Inspiron 1300
Serial Number:	FF559A01
Cable Length and Type:	Cat 5 – 2 Metres
Connected to Port:	Ethernet

Description:	802.11G
Brand Name:	Cisco Systems
Model Name or Number:	Aironet 1200 Series
Serial Number:	FCZ0937Z15E
Cable Length and Type:	SMA – 2 Metres
Connected to Port:	Input of HU/AU

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

3. Test Specification, Methods and Procedures

Reference:	FCC Part 15 Subpart B: 2005 (Sections 15.107 & 15.109)
Title:	Code of Federal Regulations, Part 15 (47CFR15) Radio Frequency Devices

3.1. Methods and Procedures

The methods and procedures used were as detailed in:

ANSI/TIA-603-B-2003

Land Mobile Communications Equipment, Measurements and performance Standards

ANSI C63.2 (1996)

Title: American National Standard for Instrumentation - Electromagnetic noise and field strength.

ANSI C63.4 (2003)

Title: American National Standard Methods of Measurement of Electromagnetic Emissions from Low Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

ANSI C63.5 (1988)

Title: American National Standard for the Calibration of antennas used for Radiated Emission measurements in Electromagnetic Interference (EMI) control.

ANSI C63.7 (1988)

Title: American National Standard Guide for Construction of Open Area Test Sites for performing Radiated Emission Measurements.

CISPR 16-1: (1999)

Title: Specification For Radio Disturbance and Immunity Measuring Apparatus and Methods. Part 1: Radio Disturbance and Immunity Measuring Apparatus.

3.2. Definition of Measurement Equipment

The measurement equipment used complied with the requirements of the standards referenced in the methods & procedures section above. Appendix 1 contains a list of the test equipment used.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

4. Deviations from the Test Specification

As the system is a broadband amplifier covering multiple bands, the system for spurious emissions was only tested on the middle channel. For radiated spurious emissions the system was only tested fully loaded.

For radiated emissions testing, a peak-hold detector was used for covering the entire frequency range. This was applied as all the signals observed were at least 10dB below the average limit.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

5. Operation of the EUT during Testing

5.1. Operating Modes

The EUT was tested in the following operating modes, unless otherwise stated.

The system was tested in single bands at a time (iDEN, GSM 850 and PCS 1900) and also a fully loaded system was tested for proof of compliance.

5.2. Configuration and Peripherals

The EUT was tested in the following configuration unless otherwise stated:

Input/Output of the system was connected to a signal generator on the input of the system & a spectrum Analyser connected at the output.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

6. Summary of Test Results

Range of Measurements	Specification Section Reference	Port Type	Compliance Status
Receiver AC Conducted Spurious Emissions	15.107 Class B	AC Mains	Complied
Receiver Radiated Spurious Emissions	15.109 Class B	Enclosure	Complied

6.1. Location of Tests

All the measurements described in this report were performed at the premises of RFI Global Services Ltd, Ewhurst Park, Ramsdell, Basingstoke, Hampshire, RG26 5RQ

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

7. Measurements, Examinations and Derived Results

7.1. General Comments

This section contains test results only.

Measurement uncertainties are evaluated in accordance with current best practice. Our reported expanded uncertainties are based on standard uncertainties, which are multiplied by an appropriate coverage factor to provide a statistical confidence level of approximately 95%. Please refer to section 8 for details of measurement uncertainties.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

7.2. Test Results

7.2.1. Receiver Mode AC Conducted Spurious Emissions: Section 15.107 – EN 55022 Results used

The EUT was configured as for AC conducted emission measurements as described in section 9 of this report.

Tests were performed to identify the maximum emission levels present on the ac mains line of the EUT.

Results:

Quasi-Peak Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
0.170740	Neutral	51.6	64.9	13.3	Complied
0.170924	Live	49.9	64.9	15.1	Complied
0.171312	Neutral	51.5	64.9	13.4	Complied
0.172296	Neutral	50.7	64.8	14.1	Complied
0.227719	Live	48.1	62.5	14.5	Complied
0.228637	Live	47.6	62.5	14.9	Complied
0.228637	Neutral	48.6	62.5	13.9	Complied
0.229517	Live	47.0	62.5	15.5	Complied
0.398898	Live	41.3	57.9	16.6	Complied
0.399439	Live	40.5	57.9	17.3	Complied
0.399439	Neutral	40.8	57.9	17.1	Complied
0.399619	Neutral	40.3	57.9	17.6	Complied
0.682786	Live	41.0	56.0	15.0	Complied
0.683147	Live	40.9	56.0	15.1	Complied
0.683507	Neutral	40.4	56.0	15.6	Complied
0.683687	Live	40.3	56.0	15.7	Complied
0.683868	Neutral	40.1	56.0	15.9	Complied
0.684048	Neutral	39.8	56.0	16.2	Complied
0.739600	Neutral	40.4	56.0	15.6	Complied
0.741042	Live	39.4	56.0	16.6	Complied
0.796052	Live	39.2	56.0	16.8	Complied
1.139098	Live	35.8	56.0	20.2	Complied
1.195911	Live	35.9	56.0	20.1	Complied

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Quasi-Peak Detector Measurements on Live and Neutral Lines (Continued)

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
3.127596	Neutral	35.3	56.0	20.7	Complied
3.417896	Neutral	31.5	56.0	24.5	Complied
3.470922	Neutral	35.9	56.0	20.1	Complied
3.474730	Live	36.1	56.0	19.9	Complied
3.525070	Live	36.4	56.0	19.6	Complied
3.529238	Neutral	35.2	56.0	20.8	Complied
3.532645	Neutral	34.4	56.0	21.6	Complied
3.583346	Live	35.1	56.0	20.9	Complied
3.920341	Live	36.9	56.0	19.1	Complied
3.923587	Neutral	38.3	56.0	17.7	Complied
3.923588	Neutral	38.3	56.0	17.7	Complied
3.978618	Live	37.2	56.0	18.8	Complied
3.979739	Neutral	38.6	56.0	17.4	Complied
3.980982	Neutral	38.4	56.0	17.6	Complied
3.982064	Live	36.7	56.0	19.3	Complied
4.039459	Live	35.6	56.0	20.4	Complied
6.560501	Neutral	40.0	60.0	20.0	Complied

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Average Detector Measurements on Live and Neutral Lines

Frequency (MHz)	Line	Level (dBμV)	Limit (dBμV)	Margin (dB)	Result
0.170924	Live	47.0	54.9	7.9	Complied
0.170924	Neutral	47.9	54.9	7.0	Complied
0.227719	Live	45.5	52.5	7.0	Complied
0.227719	Neutral	47.8	54.9	7.1	Complied
0.228637	Live	45.1	52.5	7.4	Complied
0.228637	Neutral	47.0	54.8	7.8	Complied
0.229517	Live	44.2	52.5	8.3	Complied
0.229517	Neutral	45.6	52.5	6.9	Complied
0.398898	Live	40.3	47.9	7.6	Complied
0.398898	Neutral	39.7	47.9	8.2	Complied
0.399439	Live	39.9	47.9	8.0	Complied
0.399439	Neutral	39.6	47.9	8.3	Complied
0.682786	Live	37.8	46.0	8.2	Complied
0.682786	Neutral	38.1	46.0	7.9	Complied
0.683147	Live	37.7	46.0	8.3	Complied
0.683147	Neutral	37.7	46.0	8.3	Complied
0.683687	Live	37.2	46.0	8.8	Complied
0.683687	Neutral	37.5	46.0	8.5	Complied
0.741042	Live	35.4	46.0	10.6	Complied
0.741042	Neutral	37.4	46.0	8.6	Complied
0.796052	Live	34.9	46.0	11.1	Complied
0.796052	Neutral	30.3	46.0	15.7	Complied
1.139098	Live	29.6	46.0	16.4	Complied
1.139098	Neutral	19.6	46.0	26.4	Complied
1.195911	Live	29.3	46.0	16.7	Complied
1.195911	Neutral	29.4	46.0	16.6	Complied
3.47473	Live	22.9	46.0	23.1	Complied
3.47473	Neutral	26.9	46.0	19.1	Complied
3.52507	Live	31.7	46.0	14.3	Complied
3.52507	Neutral	20.3	46.0	25.7	Complied
3.583346	Live	31.0	46.0	15.0	Complied

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Average Detector Measurements on Live and Neutral Lines (Continued)

Frequency (MHz)	Line	Level (dB μ V)	Limit (dB μ V)	Margin (dB)	Result
3.583346	Neutral	33.0	46.0	13.0	Complied
3.920341	Live	30.3	46.0	15.7	Complied
3.920341	Neutral	33.1	46.0	12.9	Complied
3.978618	Live	32.4	46.0	13.6	Complied
3.978618	Neutral	33.3	46.0	12.7	Complied
3.982064	Live	32.1	46.0	13.9	Complied
3.982064	Neutral	32.8	46.0	13.2	Complied
4.039459	Live	30.8	46.0	15.2	Complied
4.039459	Neutral	33.7	50.0	16.3	Complied

Note(s):

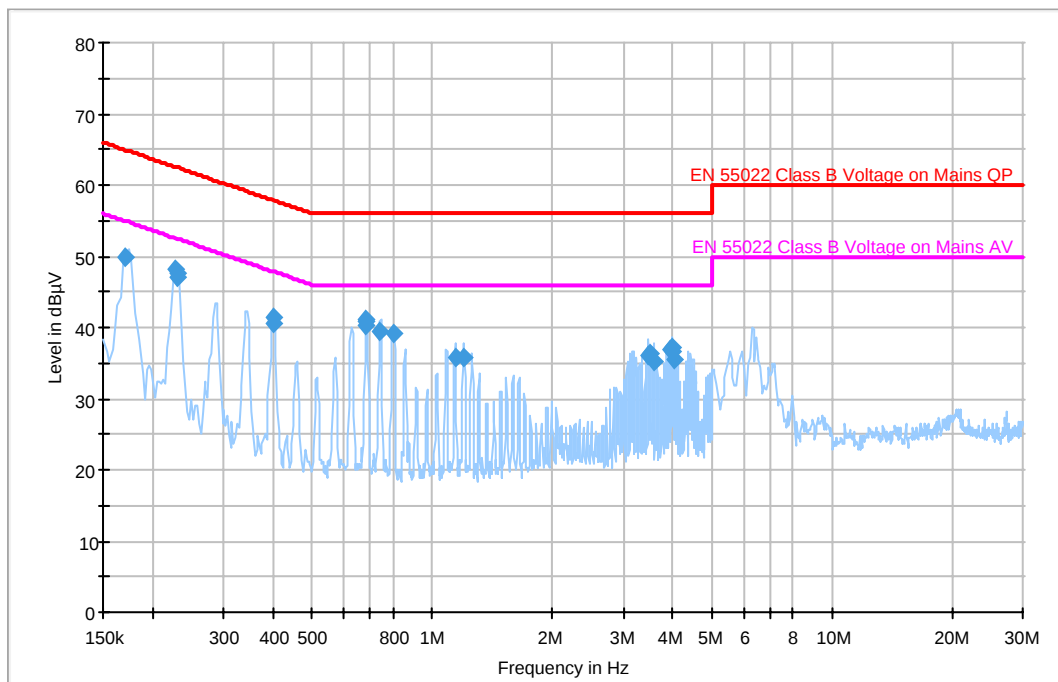
1. 55022 Class B emissions results were used instead of FCC

Test of: Zinwave Ltd

2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

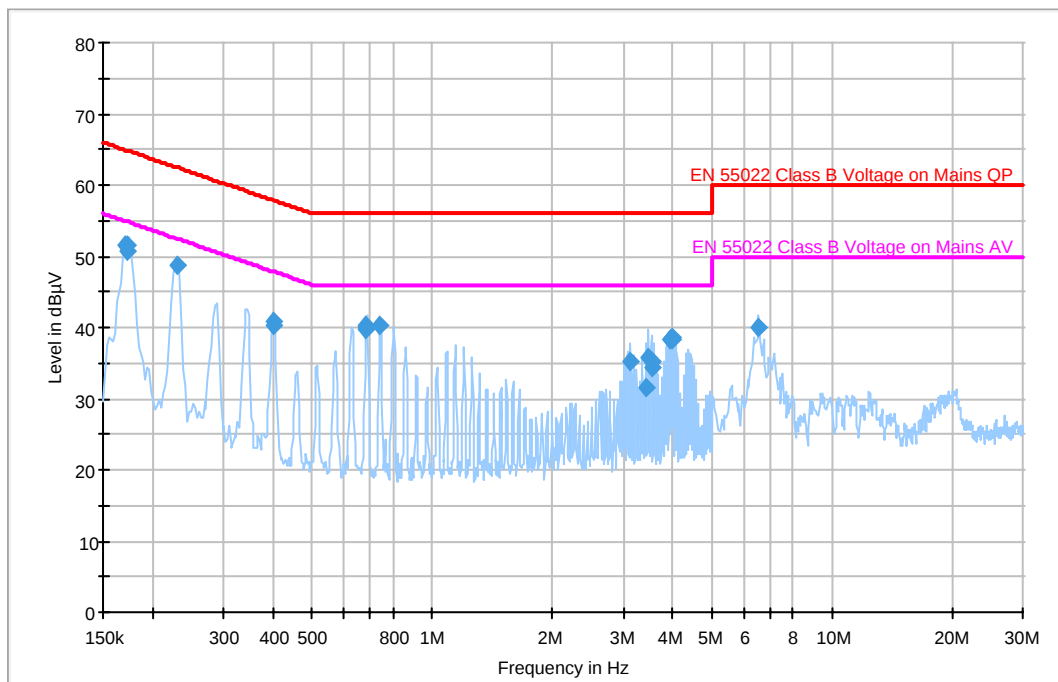
Receiver Mode AC Conducted Spurious Emissions: Section 15.107 (Continued)**Live Line**

Test of: Zinwave Ltd

2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Receiver/Idle Mode AC Conducted Spurious Emissions: Section 15.107 (Continued)**Neutral Line**

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

7.3. Receiver Radiated Spurious Emissions: Section 15.109

7.3.1. Electric Field Strength Measurements (Frequency Range: 30 to 1000 MHz)

The EUT was configured for receiver radiated emissions testing as described in Section 9 of this report.

Tests were performed to identify the maximum receiver or standby radiated emission levels.

Results:

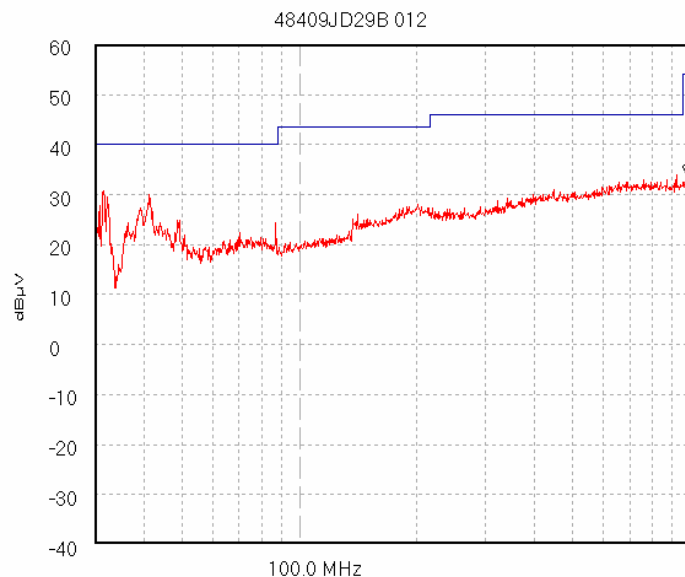
Frequency (MHz)	Antenna Polarity	Quasi Peak Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Result
978.444	Vertical	33.9	54.0	20.1	Complied

Test of: Zinwave Ltd

2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Receiver Radiated Spurious Emissions: Section 15.109 (Continued)

Trace 1

15_109_Class_B

Start 30.0 MHz; Stop 1.0 GHz - Log Scale

Ref 60 dBµV; Ref Offset 0.0 dB; 10 dB/div

RBW 120.0 kHz; VBW 100.0 kHz; Att 0 dB; Swp 440.0 mS

Peak 978.444 MHz, 33.87 dBµV

Limit/Mask: 15_109_Class_B; ; Limit Test Passed

Transducer Factors: A490

28/09/2006 11:06:08

Note: This plot is a pre-scan and for indication purposes only. For final measurements, see accompanying tables.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Receiver Radiated Spurious Emissions: Section 15.109 (Continued)

7.3.2. Electric Field Strength Measurements (Frequency Range: 1 to 26.5 GHz)

Results:

Peak Level:

Frequency (GHz)	Antenna Polarity	Detector Level (dB μ V)	Transducer Factor (dB)	Actual** Peak Level (dB μ V/m)	Average Limit (dB μ V/m)	Margin (dB)	Result
3.991*	Vertical	27.0	21.0	48.0	54.0	6.0	Complied

Note(s):

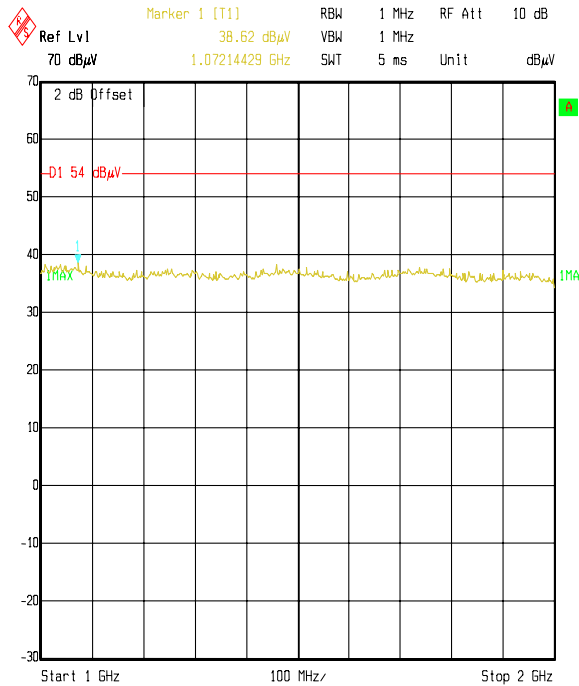
- *No spurious emissions were detected above the noise floor of the measuring receiver; therefore, the highest peak noise floor reading of the measuring receiver was recorded as shown in the table above.
**The peak level was compared to the average limit as opposed to being compared to the peak limit because this is the more onerous limit.*
- The 2.17 GHz emission shown in the 2 to 4 GHz plot was not emitted from the EUT. Instead it confirmed that the emission was an ambient background emission. Therefore, no measurement was performed on that frequency.*

Test of: Zinwave Ltd
2700 DAS

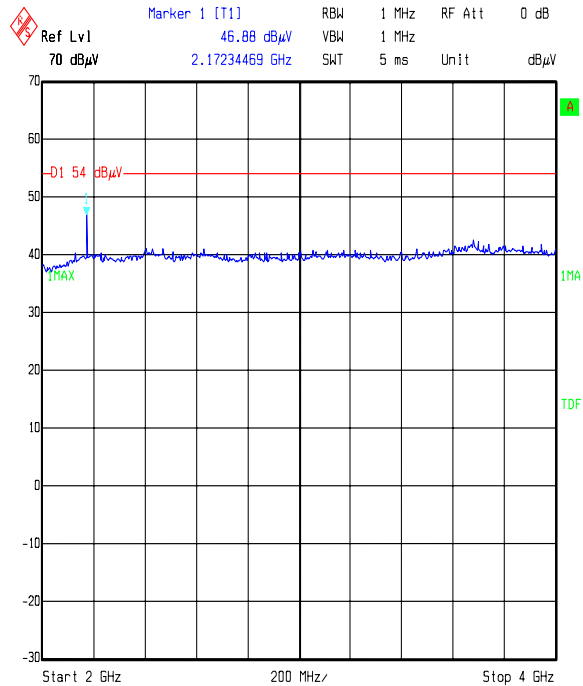
To: FCC Parts15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

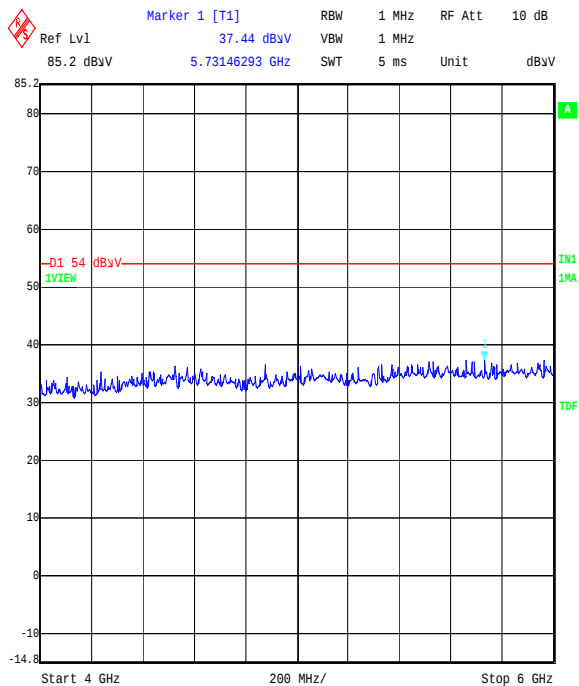
Receiver Radiated Spurious Emissions: Section 15.109 (Continued)



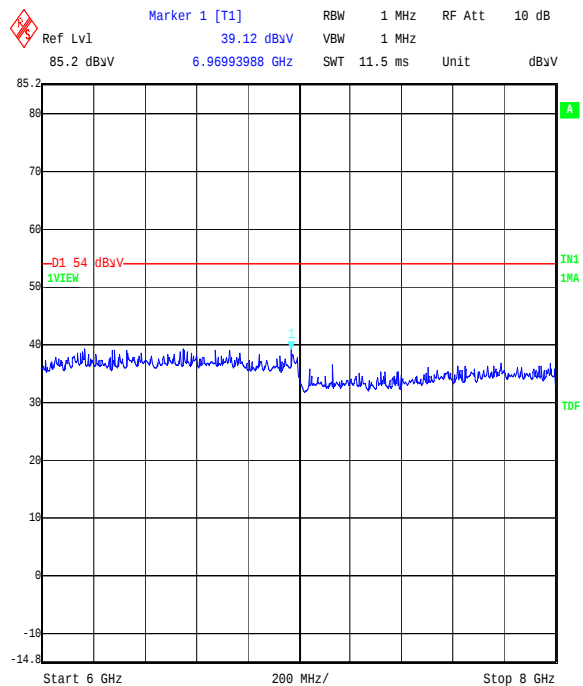
Title: Zinwave Job No 48409JD298 Idle Mode Radiated Emission Scans
Date: 28.SEP.2006 14:09:43



Title: Zinwave Job No 48409JD298 Radiated Emission Scans
Date: 28.SEP.2006 17:38:22



Title: Zinwave Job No 48409JD298 Radiated Emission Scans
Date: 29.SEP.2006 14:55:34



Title: Zinwave Job No 48409JD298 Radiated Emission Scans
Date: 29.SEP.2006 15:06:10

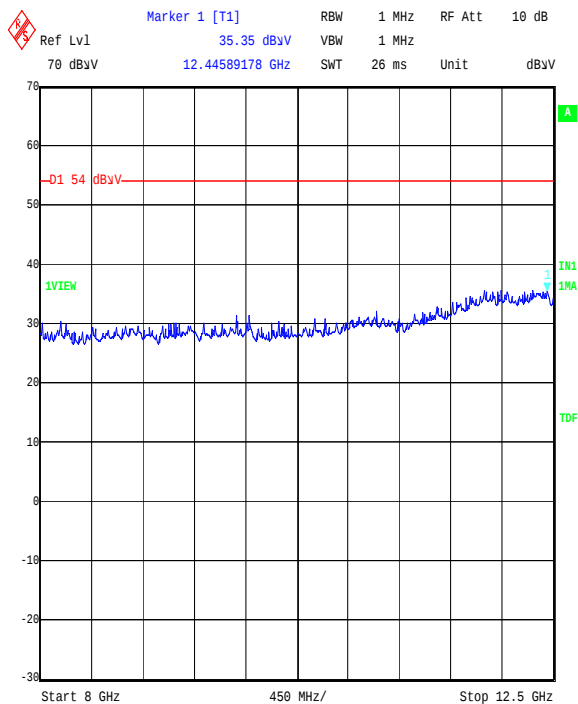
Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Test of: Zinwave Ltd

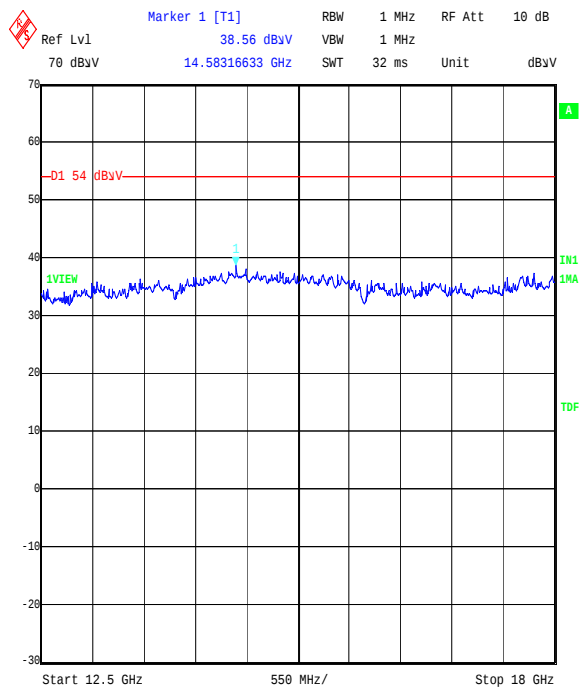
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

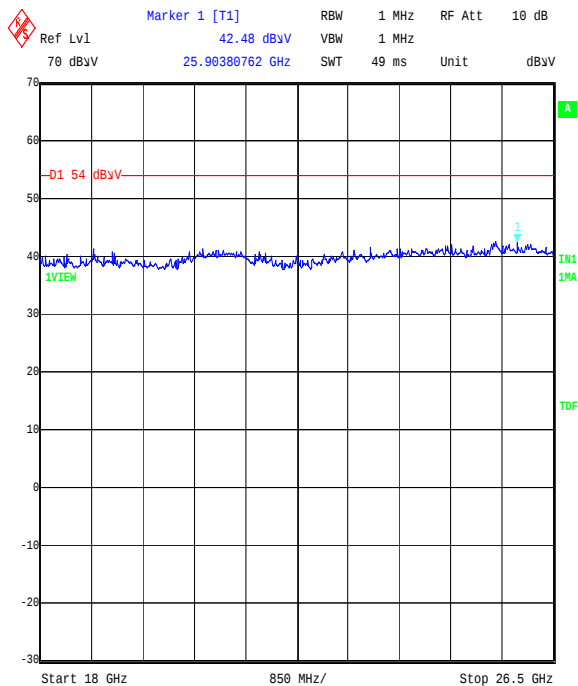
Receiver Radiated Spurious Emissions: Section 15.109 (Continued)

Date: 29.SEP.2006 18:53:33



Title: Zinwave Job No 48409JD29B Radiated Emissions

Date: 1.OCT.2006 11:03:28



Title: Zinwave Job No 48409JD29B Radiated Emissions

Date: 1.OCT.2006 12:12:16

Note: These plots are pre-scans and for indication purposes only. For final measurements, see accompanying tables.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

8. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently, the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor, such that a confidence level of approximately 95% is maintained. For the purposes of this document "approximately" is interpreted as meaning "effectively" or "for most practical purposes".

Measurement Type	Range	Confidence Level (%)	Calculated Uncertainty
AC Conducted Spurious Emissions	0.15 MHz to 30 MHz	95%	+/- 3.25 dB
Radiated Spurious Emissions	30 MHz to 1000 MHz	95%	+/- 5.26 dB
Radiated Spurious Emissions	1 GHz to 18 GHz	95%	+/- 2.94 dB

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty, the published guidance of the appropriate accreditation body is followed.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109
Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

9. Measurement Methods

9.1. AC Mains Conducted Emissions

AC mains conducted emissions measurements were performed in accordance with the standard, against appropriate limits for each detector function.

The test was performed in a shielded enclosure with the equipment arranged as detailed in the standard on a wooden bench using the floor of the screened enclosure as the ground reference plane. The EUT was powered with 110V 60 Hz AC mains supplied via a Line Impedance Stabilisation Network (LISN).

Initial measurements in the form of swept scans covering the entire measurement band were performed in order to identify frequencies on which the EUT was generating interference. In order to minimise the time taken for these swept measurements, a Peak detector was used in conjunction with the appropriate detector IF measuring bandwidths (see table below). Repetitive scans were performed to allow for emissions with low repetition rates, and the duty cycle of the EUT. The test configuration was the same for the initial scans as for the final measurements.

Following the initial scans, a graph was produced giving an overview of the emissions from the EUT plotted against the appropriate specification limit. A tolerance line was set 6 dB below the specification limit and levels above the tolerance line were re-tested (at individual frequencies) using the appropriate detector function.

The test equipment settings for conducted emissions measurements were as follows:

Receiver Function	Initial Scan	Final Measurements
Detector Type:	Peak	Quasi-Peak (CISPR)/Average
Mode:	Max Hold	Not applicable
Bandwidth:	10 kHz	9 kHz
Amplitude Range:	60 dB	20 dB
Measurement Time:	Not applicable	> 1 s
Observation Time:	Not applicable	> 15 s
Step Size:	Continuous sweep	Not applicable
Sweep Time:	Coupled	Not applicable

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

9.2. Receiver Radiated Emissions

Radiated emissions measurements were performed in accordance with the standard, against appropriate limits for each detector function.

Initial pre-scans covering the entire measurement band from the lowest generated frequency declared up to the upper frequency detailed in Section 15.33(b) were performed within a screened chamber in order to identify frequencies on which the EUT was generating interference. This determined the frequencies from the EUT, which required further examination. In order to minimise the time taken for the swept measurements, a peak detector was used in conjunction with the appropriate detector measuring bandwidth (see table below). Repetitive scans were performed to allow for emissions with low repetition rates, and for the duty cycle of the EUT.

The initial scans were performed using an antenna height of 1.5 m and a measurement distance of 3 m. A limit line was set to the specification limit. Levels within 20 dB of this limit were measured where possible, on occasion, the receiver noise floor came within the 20 dB boundary. On these occasions, the system noise floor may have been recorded.

An open area test site using the appropriate test distance and measuring receiver with a Quasi-Peak detector was used for measurements below 1000 MHz, for measurements above 1000 MHz average and peak detectors were used.

For the final measurements the EUT was arranged on a non-conducting turn table on a standard test site compliant with ANSI C63.4 – 2001 Clause 5.4.

On the open area test site, at each frequency where a signal was found, the levels were maximised by initially rotating the turntable through 360° and then varying the antenna height between 1 m and 4 m in the horizontal polarisation. At this point, any signals found to be between the limit and a level 6 dB below it were further maximised by changing the configuration of the EUT, e.g. re-routing cables to peripherals and moving peripherals with respect to the EUT. The procedure was repeated for the vertical polarisation.

The final field strength was determined as the indicated level in dB μ V plus cable loss and antenna factor.

The test equipment settings for radiated emissions measurements were as follows:

Receiver Function	Initial Scan	Final Measurements Below 1 GHz	Final Measurements Above 1 GHz
Detector Type:	Peak	Quasi-Peak (CISPR)	Peak/Average
Mode:	Max Hold	Not applicable	Not applicable
Bandwidth:	(120 kHz < 1 GHz) (1 MHz > 1 GHz)	120 kHz	1 MHz
Amplitude Range:	100 dB	100 dB	100 dB
Step Size:	Continuous sweep	Not applicable	Not applicable
Sweep Time:	Coupled	Not applicable	Not applicable

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Appendix 1. Test Equipment Used

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval
A1069	Single Phase LISN	R&S	ESH3-Z5	837469/012	31/01/06	12
A1360	ESH3-Z2 Pulse Limiter	Rohde & Schwarz	ESH3-Z2	A1360-20112003	06/09/06	12
A1455	40 GHz attenuator 10 dB	Inmet	40A-10dB	None	05/05/06	12
A1737	2 watt 20 dB Attenuator	Atlantic Microwave	BBS40-20	R4722	05/05/06	12
A1738	2 Watt 10 dB Attenuator	Atlantic Microwave	BBS40-10	R1379	05/05/06	12
C1001	Cable	Rosenberger	FA210A1020 M30309	003	07/06/06	12
C1111	Semflex Cable	Semflex Inc.	X116BFSX10 080	0337	05/05/06	12
C1112	Semflex Cable	Semflex, Inc.	X116BFSX10 080	None	05/05/06	12
C1124	Cable	Rosenberger	FA147a1020 00202	1704 34842-01	05/05/06	12
C1125	Cable	Rosenberger	FA147a1020 00202	1704 34842-02	05/05/06	12
C1168	3m N-Type Cable	Rosenberger Micro-Coax	FA210A1030 007070	43190-02	17/05/06	12
C347	Cable	Rosenberger	UFA210A-1-1181-70x70	3007	06/09/06	12
C460	Cable	Rosenberger	UFA210A-1-1182-704704	98H0304	06/09/06	12
E0513	Environmental Chamber	TAS	LT600 Series 3	23900506	N/A	12
G013	SMHU Signal Generator	Rohde & Schwarz	SMHU	894 055/003	30/08/06	12
G040	SMY Signal Generator	Rohde & Schwarz	SMY 02	841 070/004	26/05/06	24
G047	SMY Signal Generator	Rohde & Schwarz	SMY01	843 215/015	07/02/06	12
L0873	SMIQ Signal Generator	R&S	SMIQ 03B	839153/0012	14/09/06	12

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Test Equipment Used (Continued)

RFI No.	Instrument	Manufacturer	Type No.	Serial No.	Date Last Calibrated	Cal. Interval
L0874	SMIQ Signal Generator	Rohde and Schwarz	SMIQ 04B	STK22903	14/09/06	12
M1001	Spectrum Analyser 8594A	Hewlett Packard	8594A	3212U0033B	25/04/06	12
M1140	Radio Communication Analyser	Anritsu	MT8820A	6K0000647	16/03/06	12
M1145	Power Meter	Hewlett Packard	437B	3737U26557	23/02/06	12
M283	8487A Power Sensor	Agilent	8487A	3318A03241	16/01/06	12
M1227	8487D Power Sensor	Agilent	8487D	3318A02122	16/03/06	12
M1228	Reference Attenuator	Agilent	11708A	31289	16/03/06	12
M1263	ESIB 7 Test Receiver	Rohde & Schwarz	ESIB7	100265	12/01/06	12
M1379	ESIB 7 Test Receiver	Rohde and Schwarz	ESIB7	100330	03/07/06	12
M166	Digital Environmental Monitor	EuroCom	None	None	23/10/05	12
M211	Digital Multimeter	Fluke	70 Series 3	71210457	16/03/06	12
M295	Spectrum Analyser	Hewlett Packard	8564E	3846A01561	19/12/06	12

NB In accordance with UKAS requirements, all the measurement equipment is on a calibration schedule.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

Appendix 2. Test Configuration Drawings

This appendix contains the following drawings:

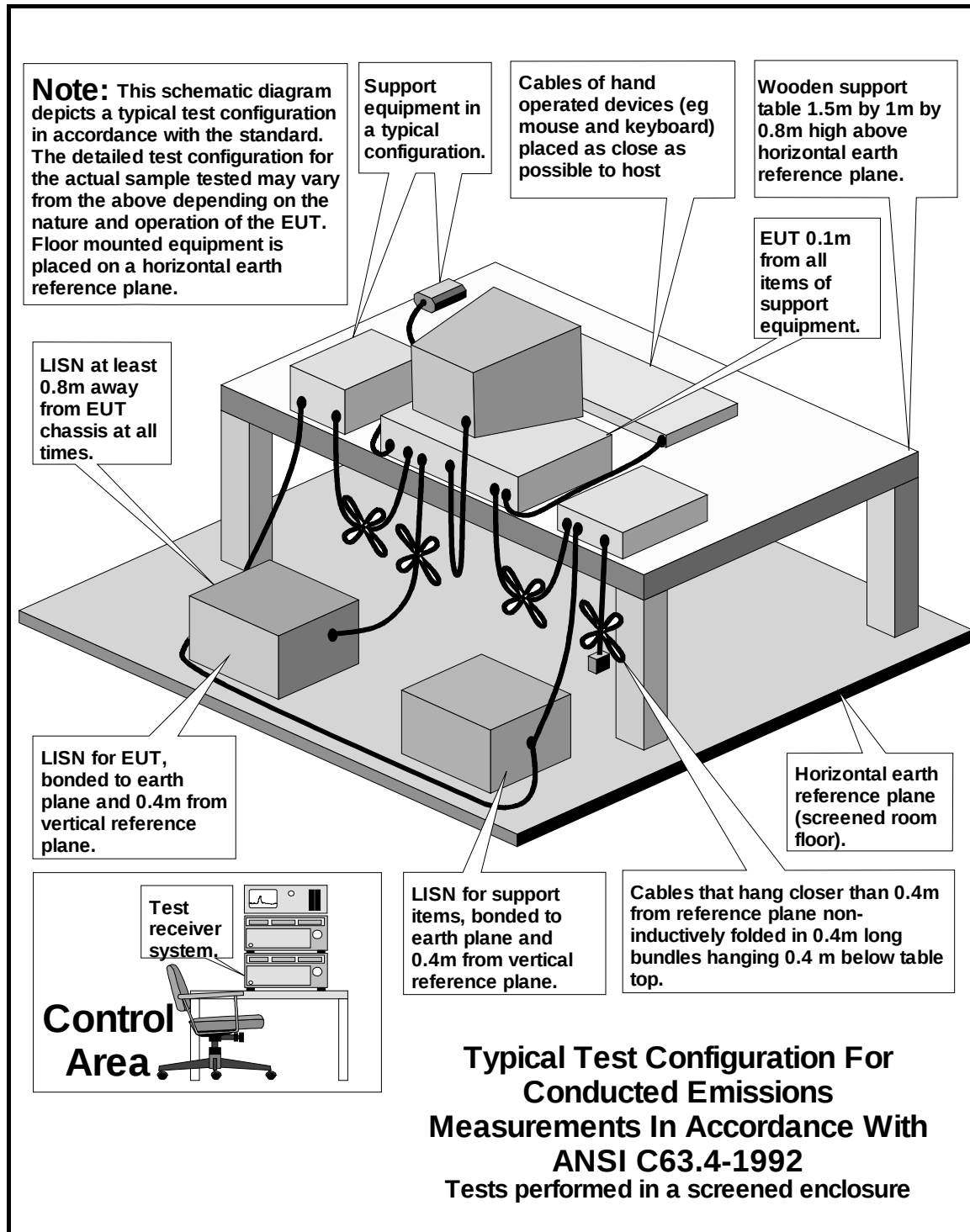
Drawing Reference Number	Title
DRG\48409JD13\EMICON	Test configuration for measurement of conducted emissions.
DRG\48409JD13\EMIRAD	Test configuration for measurement of radiated emissions.

Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

DRG\48409JD13\EMICON



Test of: Zinwave Ltd
2700 DAS

To: FCC Parts 15.107 & 15.109

Tested in Accordance to Test Plan RFI/REGA1/TP48310JD01

DRG\48409JD13\EMIRAD

