TEST REPORT

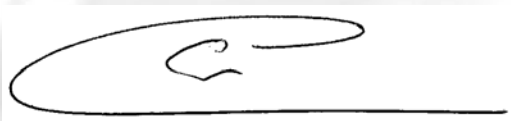
TEST REPORT
FROM
RFI GLOBAL SERVICES LTD

Test of: Paxton Ltd, 390-135-US

To: 47CFR15.207, 47CFR15.209, 47CFR 15.215 (c), RSS-Gen Issue 3 December 2010 and RSS-210 Issue 8 December 2010

Test Report Serial No: RFI-EMC-RP85596JD11A V3.0

Version 3.0 supersedes all previous versions

This test report is issued under the authority of John Newell, Group Quality Manager:	
Checked By:	**Gareth Bragg**
Signature:	
Date of Issue:	**03 May 2012**

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UKAS TESTING
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1. CUSTOMER DETAILS

Company Name:	Paxton Ltd
Address:	Paxton House Home Farm Brighton Sussex BN1 9HU United Kingdom

2. SUMMARY OF TESTING

2.1. Test Specification

Reference:	47CFR15.207, 47CFR15.209 and 47CFR15.215 (c)
Title:	Code of Federal Regulations Volume 47 (Telecommunications) 2010: Part 15 Subpart C (Intentional Radiators) – Sections 15.207, 15.209 and 15.215 (c)
Reference:	RSS-Gen Issue 3 December 2010
Title:	General Requirements and Information for the Certification of Radio Apparatus
Reference:	RSS-210 Issue 8 December 2010
Title:	Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment
Site Registration:	FCC: 209735 Industry Canada: 3245B-2

2.2. Summary of Test Results

FCC Reference	IC Reference	Measurement Type	Applicability	Result
N/A	RSS-Gen 7.2.4	Transmitter 99% Emission Bandwidth	YES	
15.209	RSS-Gen 4.9/7.2.5	Transmitter Fundamental Field Strength	YES	
15.109	RSS-Gen 4.9/7.2.5	Transmitter Radiated Emissions	YES	
15.107	RSS-Gen 4.6.1	Transmitter AC Conducted Emissions	YES	
15.215	N/A	Transmitter 20 dB Bandwidth	YES	

KEY: = Complied = Did not comply

2.3. Location of Testing

All the measurements described in this report were performed at the premises of RFI Global Services Ltd, Unit 3 Horizon, Wade Road, Kingsland Business Park, Basingstoke, Hampshire RG24 8AH.

2.4. Deviations from the Test Specification

For the measurements contained within this test report, there were no deviations from, additions to, or exclusions from the test specification identified above, nor from the requirements defined in the basic standards called up within it.

3. EQUIPMENT UNDER TEST (EUT)

3.1. Description of EUT

The EUT was a proximity reader.

3.2. Identification of Equipment under Test (EUT)

ID#	Description	Brand Name	Model No	Serial No
E1	Proximity Reader	Paxton Ltd	390-135-US	1153065

3.3. Port Identification

Port	Description	Type
P1	Enclosure	-
P2	Power / Data	8-core

3.4. Operating Modes

Mode Reference	Definition
Transmit	The EUT was continuously transmitting at 125 kHz and all LEDS were illuminated

3.5.Radio characteristics

Transmit Frequency (kHz):	125
Rated Output Power (mW):	< 20

3.6. Configuration and Peripherals

Description:	Please refer to the Test Configuration and Photograph section for schematic drawing(s) and/or photograph(s) of the test configuration(s) employed in the course of testing.

3.7. Modifications

NOTE: No modifications were made to the EUT during the course of testing.

3.8. Additional Information Related to Testing

Equipment Category:	Proximity Reader
Intended Operating Environment:	Residential / Commercial
Cycle Time:	< 1 s
Power Supply Requirement(s):	12 VDC
Weight:	< 100 g
Dimensions:	55 x 55 x 13 mm
Hardware Version Number:	z-umprp rev 1, ppc-umpr rev D
Software Version Number:	Not Applicable
Highest Internally Generated Operating Frequency:	125 kHz
Industry Canada Certification Number:	10217A-390135
FCC ID Number:	USE390135

4. SUPPORT EQUIPMENT

4.1. Identification of Support Equipment

Description	Manufacturer	Model No	Serial No
Net2 Classic with PSU	Paxton Ltd	411-501	135529

4.2. Interconnecting Cables

Cable Type	Shielded	Length (m)	Ferrite	Connection 1	Connection 2
8-core	No	3.0	No	EUT	Net2 Classic with PSU

5. MONITORING PERFORMANCE

5.1. Overview

No immunity tests were performed; therefore performance criteria were not applicable.

5.2. Monitoring EUT Performance during Testing

For the purposes of testing, the term "*operate as intended*" was defined as:	The EUT continued to transmit at 125 kHz and all LEDS remained illuminated
For the purposes of testing, an "*unintentional response*" was defined as:	Not Applicable
Method used to determine whether user control functions and stored data were lost after the EMC exposure:	Not Applicable
Method used to verify that a communications link was established and maintained (if appropriate):	Not Applicable
Method of assessment of level of performance or degradation of performance during and/or after EMC exposure:	Not Applicable

6. MEASUREMENT UNCERTAINTY

6.1. Overview

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 regarding the uncertainty of approximation.

The measurement uncertainty may need to be taken into account when interpreting the test results included within this test report.

6.2. Method of calculation

The methods used to calculate the uncertainties included within this test report 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 United Kingdom Accreditation Service (UKAS) is followed.

7. MEASUREMENTS, EXAMINATIONS AND DERIVED RESULTS

7.1. General Comments

7.1.1. This section contains the test result sheets for the measurements listed in Section *2.2. Summary of Test Results* (above).

7.1.2. The measurement uncertainties stated in the test result sheets were calculated in accordance with documented best practice and represent a confidence level of 95%. Where only confidence level is given, it has been demonstrated that the relevant items of test equipment used meet the specified requirements in the standard with at least this level of confidence.

7.1.3. Please refer to Section *6. Measurement Uncertainty* on page 10 for details of our treatment of measurement uncertainty.

TRANSMITTER RADIATED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	85596JD11	**TEST SITE ID:**	Site 1
EUT:	390-135-US	**TEMPERATURE:**	26 °C to 28 °C
TEST ENGINEER:	Gareth Bragg	**RELATIVE HUMIDITY:**	34 % to 32 %
DATE OF TEST:	13 Mar 2012 and 16 Mar 2012	**ATMOSPHERIC PRESSURE:**	1028 mb to 1028 mb
FIELD TYPE:	Magnetic Field	**MEASUREMENT DISTANCE:**	3 Metres
UNCERTAINTY:	± 3.99 dB	**EQUIPMENT CLASS:**	Class B
MEASUREMENT UNITS:	dBµV/m	**TEST ENVIRONMENT:**	Test Site

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

FCC Part:	15.209
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3, 6.4 and 6.5 referencing ANSI C63.4
IC Part:	RSS-Gen 4.9/7.2.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3, 6.4 and 6.5 referencing ANSI C63.4

COMMENTS

The RBW of the measuring instrument used during testing in the frequency range 9 kHz to 150 kHz was 300 Hz
The RBW of the measuring instrument used during testing in the frequency range 9 kHz to 150 kHz was 10 kHz

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Transmit
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Polarity	Detector	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Graph No.	Result
1	0.009 to 30	Refer to Notes 1 to 8					001 to 002	Complied

NOTES	
1	Limits below 30 MHz are specified at a test distance of 30 metres, whilst below 0.49 MHz they are specified at a test distance of 300 metres. However, as specified by RSS-Gen Section 7.2.7 (b) measurements may be performed at a closer distance and the measured level corrected to the specified measurement distance by using the square of an inverse linear distance extrapolation factor (40dB/decade).
2	Limits below 30 MHz are specified at a test distance of 30 metres, whilst below 0.49 MHz they are specified at a test distance of 300 metres. However, as specified by FCC Section 15.31 (f)(2), measurements may be performed at a closer distance and the measured level corrected to the specified measurement distance by using the square of an inverse linear distance extrapolation factor (40dB/decade).
3	A transducer factor on the measuring instrument was used to extrapolate the results at 3 metres to a distance of 30 metres where required. A distance extrapolation factor of 40 dB was used.
4	Final measurement values include corrections for antenna factor and cable losses.
5	The emission shown at approximately 125 kHz is the fundamental.
6	All emissions on the 9 kHz to 150 kHz plot were investigated and found to be radiating from the test site turntable.
7	All other emissions were found to be >20 dB below the applicable limit or below the measurement system noise floor.
8	The EUT was rotated around the X, Y and Z axis to maximise the emission. The measurement antenna was at a fixed distance of 3 m, fixed height of 80 cm and was positioned at 0 degrees, 45 degrees and 90 degrees to the EUT to maximise the emission.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0001	5m Semi-Anechoic Chamber	N/A	29 May 2012	12
M1273	20 Hz - 26.6 GHz EMI Test Receiver	ESIB 26	03 Feb 2013	12
M1623	Thermometer Hygrometer Station	30.5015.13	09 Jan 2013	12
M1568	Mag Loop Antenna	HFH2-Z2	08 Feb 2013	12

TRANSMITTER RADIATED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	85596JD11	**TEST SITE ID:**	Site 1
EUT:	390-135-US	**TEMPERATURE:**	28 °C to 28 °C
TEST ENGINEER:	Allen Hefford	**RELATIVE HUMIDITY:**	31 % to 31 %
DATE OF TEST:	29 Feb 2012	**ATMOSPHERIC PRESSURE:**	1028 mb to 1028 mb
FIELD TYPE:	Electric Field	**MEASUREMENT DISTANCE:**	3 Metres
UNCERTAINTY:	< 1 GHz: ± 4.78 dB > 1 GHz: ± 4.37 dB	**EQUIPMENT CLASS:**	Class B
MEASUREMENT UNITS:	dBµV/m	**TEST ENVIRONMENT:**	Test Site

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

FCC Part:	15.209
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3, 6.4 and 6.5 referencing ANSI C63.4
IC Part:	RSS-Gen 4.9/7.2.5
Test Method Used:	As detailed in ANSI C63.10 Sections 6.3, 6.4 and 6.5 referencing ANSI C63.4

COMMENTS

The RBW of the measuring instrument used during testing was 120 kHz

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Transmit
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Polarity	Detector	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Graph No.	Result
1	33.482	Vertical	Quasi-Peak	28.4	40.0	11.6	003	Complied
2	42.293	Vertical	Quasi-Peak	23.2	40.0	16.8	003	Complied
3	67.872	Vertical	Quasi-Peak	32.4	40.0	7.6	003	Complied
4	86.426	Vertical	Quasi-Peak	22.2	40.0	17.8	003	Complied
5	148.928	Horizontal	Quasi-Peak	26.2	43.5	17.3	003	Complied
6	192.011	Horizontal	Quasi-Peak	27.0	43.5	16.5	003	Complied
7	719.094	Vertical	Quasi-Peak	19.0	46.0	27.0	003	Complied
8	948.020	Horizontal	Quasi-Peak	23.0	46.0	23.0	003	Complied

NOTES	
1	Measurements in the range 30 MHz to 1 GHz were performed in a semi-anechoic chamber (RFI Asset Number K0001) at a distance of 3 metres. The EUT was placed at a height of 80 cm above the reference ground plane in the centre of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 metre to 4 metres.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0001	5m Semi-Anechoic Chamber	N/A	29 May 2012	12
M1273	20 Hz - 26.6 GHz EMI Test Receiver	ESIB 26	03 Feb 2013	12
C1410	1 metre RF cable	239-0088-1000	09 Nov 2012	12
C1415	3 metre RF cable	239-0088-3000	09 Nov 2012	12
A1834	3dB N-Type Attenuator	8491B	29 Jan 2013	12
A553	Bi-log Antenna	CBL6111A	15 Feb 2013	12
M1623	Thermometer Hygrometer Station	30.5015.13	09 Jan 2013	12

TRANSMITTER CONDUCTED EMISSIONS - TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	85596JD11	**TEST SITE ID:**	Site 8
EUT:	390-135-US	**TEMPERATURE:**	21 °C to 21 °C
TEST ENGINEER:	Nick Jones	**RELATIVE HUMIDITY:**	41 % to 41 %
DATE OF TEST:	02 Mar 2012	**ATMOSPHERIC PRESSURE:**	1022 mb to 1022 mb
UNCERTAINTY:	± 4.17 dB	**EQUIPMENT CLASS:**	Class B
CATEGORY:	Not Applicable	**MEASUREMENT METHOD:**	LISN (AC)

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

FCC Part	15.207
Test Method Used	As detailed in ANSI C63.10 Section 6.2 referencing ANSI C63.4
IC Part:	RSS-Gen 7.2.4
Test Method Used:	As detailed in ANSI C63.10 Section 6.2 referencing ANSI C63.4

COMMENTS

The RBW of the measuring instrument used during testing was 9 kHz

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Transmit
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dBµV)	Limit (dBµV)	Margin (dB)	Graph No.	Result
1	0.150	Live 1	Quasi-Peak	42.7	66.0	23.3	004	Complied
2	0.420	Live 1	Quasi-Peak	34.9	57.4	22.5	004	Complied
3	13.916	Live 1	Quasi-Peak	21.3	60.0	38.7	004	Complied
4	14.379	Live 1	Quasi-Peak	22.7	60.0	37.3	004	Complied
5	16.499	Live 1	Quasi-Peak	20.6	60.0	39.4	004	Complied
6	17.799	Live 1	Quasi-Peak	20.7	60.0	39.3	004	Complied
7	18.789	Live 1	Quasi-Peak	21.1	60.0	38.9	004	Complied
8	19.869	Live 1	Quasi-Peak	22.4	60.0	37.6	004	Complied
9	20.099	Live 1	Quasi-Peak	21.3	60.0	38.7	004	Complied
10	0.168	Live 1	Average (CISPR)	29.9	55.1	25.2	004	Complied

MEASUREMENT RESULTS

No.	Frequency (MHz)	Line	Detector	Level (dBµV)	Limit (dBµV)	Margin (dB)	Graph No.	Result
11	0.425	Live 1	Average (CISPR)	25.3	47.4	22.1	004	Complied
12	17.003	Live 1	Average (CISPR)	16.7	50.0	33.3	004	Complied
13	18.002	Live 1	Average (CISPR)	15.9	50.0	34.1	004	Complied
14	18.254	Live 1	Average (CISPR)	15.7	50.0	34.3	004	Complied
15	18.501	Live 1	Average (CISPR)	15.7	50.0	34.3	004	Complied
16	0.150	Neutral	Quasi-Peak	42.5	66.0	23.5	005	Complied
17	0.168	Neutral	Quasi-Peak	43.7	65.1	21.4	005	Complied
18	0.420	Neutral	Quasi-Peak	38.9	57.4	18.6	005	Complied
19	14.460	Neutral	Quasi-Peak	23.3	60.0	36.7	005	Complied
20	20.094	Neutral	Quasi-Peak	26.4	60.0	33.6	005	Complied
21	22.907	Neutral	Quasi-Peak	31.2	60.0	28.8	005	Complied
22	0.425	Neutral	Average (CISPR)	32.4	47.4	15.0	005	Complied
23	14.159	Neutral	Average (CISPR)	17.1	50.0	32.9	005	Complied
24	14.276	Neutral	Average (CISPR)	19.1	50.0	30.9	005	Complied
25	14.334	Neutral	Average (CISPR)	19.0	50.0	31.0	005	Complied

NOTES

N/A	During measurement the engineer did not record any specific notes relevant to report.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0008	Conducted Emissions / RF immunity Laboratory	N/A	Calibration not required	N/A
M1263	EMI Test Receiver	ESIB7	13 Jul 2012	12
A1830	N-Type Pulse Limiter	ESH3-Z2	25 Feb 2013	12
C455	3m Flexy Cable	RG142XX-001-RFIB	13 Feb 2013	12
A067	Line Impedance Stabilization Network	ESH3-Z5	02 Jun 2012	12

TRANSMITTER FUNDEMENTAL FIELD STRENGTH- TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	85596JD11	**TEST SITE ID:**	Site 1
EUT:	390-135-US	**TEMPERATURE:**	28 °C to 27 °C
TEST ENGINEER:	Gareth Bragg	**RELATIVE HUMIDITY:**	32 % to 32 %
DATE OF TEST:	12 Apr 2012	**ATMOSPHERIC PRESSURE:**	1004 mb to 1004 mb
UNCERTAINTY	±3.53 dB		

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

FCC Part:	15.209
Test Method Used:	ANSI C63.10 Section 6.4
IC Part:	RSS-Gen 4.8
Test Method Used:	ANSI C63.10 Section 6.4

COMMENTS

The RBW of the measuring instrument used during testing was 300 Hz

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Transmit
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Frequency (kHz)	Antenna Polarity	Detector	Level (dBµV)	Limit (dBµV)	Margin (dBµV)	Graph No.	Result
1	125.060	0° to EUT	Average	-22.76	19.2	41.96	006	Complied[4]
3	125.060	0° to EUT	Max-Peak	-21.73	19.2	40.93	006	Complied

NOTES	
1	The limit is specified at a test distance of 300 metres. However, as specified by RSS-Gen Section 7.2.7(b) measurements may be performed at a closer distance and the measured level corrected to the specified measurement distance by using the square of an inverse linear distance extrapolation factor (40dB/decade).
2	The limit is specified at a test distance of 300 metres. However, as specified by FCC Section 15.31 (f)(2), measurements may be performed at a closer distance and the measured level corrected to the specified measurement distance by using the square of an inverse linear distance extrapolation factor (40dB/decade).
3	A transducer factor on the measuring instrument was used to extrapolate the results at 3 metres to a distance of 300 metres. A distance extrapolation factor of 80 dB was used.
4	The measurement used an average detector with a bandwidth > 3.126 kHz (99% Emission bandwidth) as per RSS-Gen sections 4.8 & 7.2.5.

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
K0001	5m Semi-Anechoic Chamber	N/A	29 May 2012	12
M1273	20 Hz - 26.6 GHz EMI Test Receiver	ESIB 26	03 Feb 2013	12
M1623	Thermometer Hygrometer Station	30.5015.13	09 Jan 2013	12
M1568	Mag Loop Antenna	HFH2-Z2	08 Feb 2013	12
M1623	Thermometer Hygrometer Station	30.5015.13	09 Jan 2013	12

TRANSMITTER 99% EMISSION BANDWIDTH- TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	85596JD11	**TEST SITE ID:**	Site 8
EUT:	390-135-US	**TEMPERATURE:**	22 °C to 22 °C
TEST ENGINEER:	Andy Edwards	**RELATIVE HUMIDITY:**	31 % to 31 %
DATE OF TEST:	20 Apr 2012	**ATMOSPHERIC PRESSURE:**	1004 mb to 1004 mb
UNCERTAINTY	±0.92 ppm		

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

IC Part:	RSS-Gen 4.6.1
Test Method Used:	Using Rohde and Schwarz spectrum analysers 99% occupied bandwidth function.

COMMENTS

None

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Transmit
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Result	Graph No.	Result
1	3.066 kHz	007	Complied

NOTES

1	The 99% occupied bandwidth was measured using the occupied bandwidth function of the spectrum analyser

TEST EQUIPMENT USED

RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
M127	Spectrum Analyser	FSEB 30	08 November 2012	12

TRANSMITTER 20 dB BANDWIDTH- TEST RESULTS

This test is covered by the scope of RFI's UKAS Accreditation under ISO/IEC 17025: 2005.

GENERAL INFORMATION

RFI JOB NUMBER:	85596JD11	**TEST SITE ID:**	Site 8
EUT:	390-135-US	**TEMPERATURE:**	26 °C to 26 °C
TEST ENGINEER:	Gareth Bragg	**RELATIVE HUMIDITY:**	34 % to 34 %
DATE OF TEST:	17 Mar 2012	**ATMOSPHERIC PRESSURE:**	1028 mb to 1028 mb
UNCERTAINTY	±0.92 ppm		

TEST SPECIFICATION DETAILS

The EUT has been configured and tested in accordance with the methods and procedures detailed within the following basic standard:

REFERENCE:	15.215(c)
TITLE:	As detailed in ANSI C63.10 Section 6.9.1

COMMENTS

None

DEVIATIONS FROM TEST SPECIFICATION

There were no deviations from the test configuration and measurement arrangements defined in the test specification (identified above).

EUT RELATED

OPERATING MODE:	Transmit
FUNCTION(S) MONITORED:	Not Applicable

MEASUREMENT RESULTS

No.	Result	Graph No.	Result
1	1.901 kHz	008	Complied

NOTES

N/A	During measurement the engineer did not record any specific notes relevant to report.

TEST EQUIPMENT USED

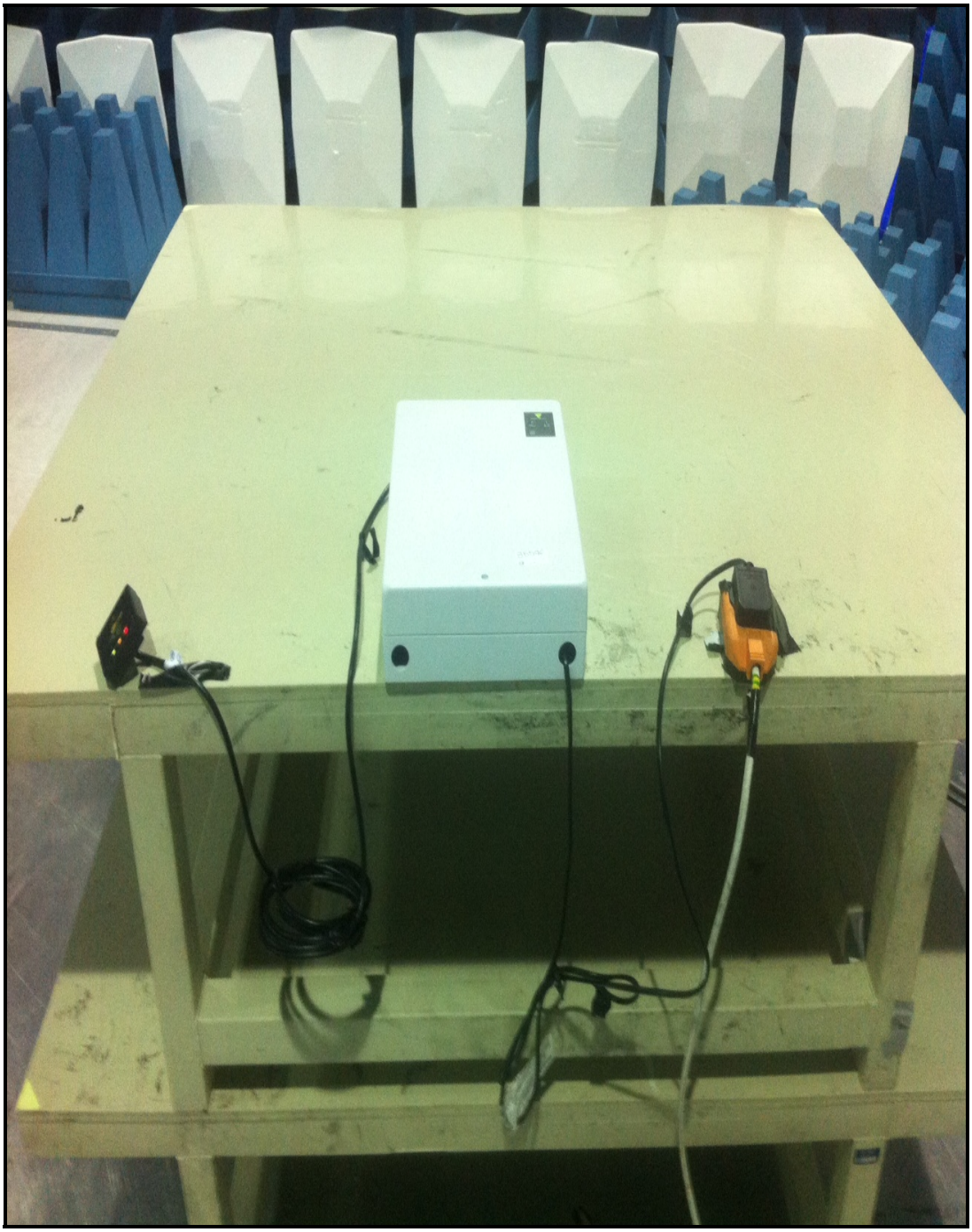
RFI ID	INSTRUMENT DESCRIPTION	MODEL NUMBER	CALIBRATION DUE	INTERVAL
M1263	EMI Test Receiver	ESIB7	13 Jul 2012	12
M1623	Thermometer Hygrometer Station	30.5015.13	09 Jan 2013	12

8. PHOTOGRAPHS OF EUT

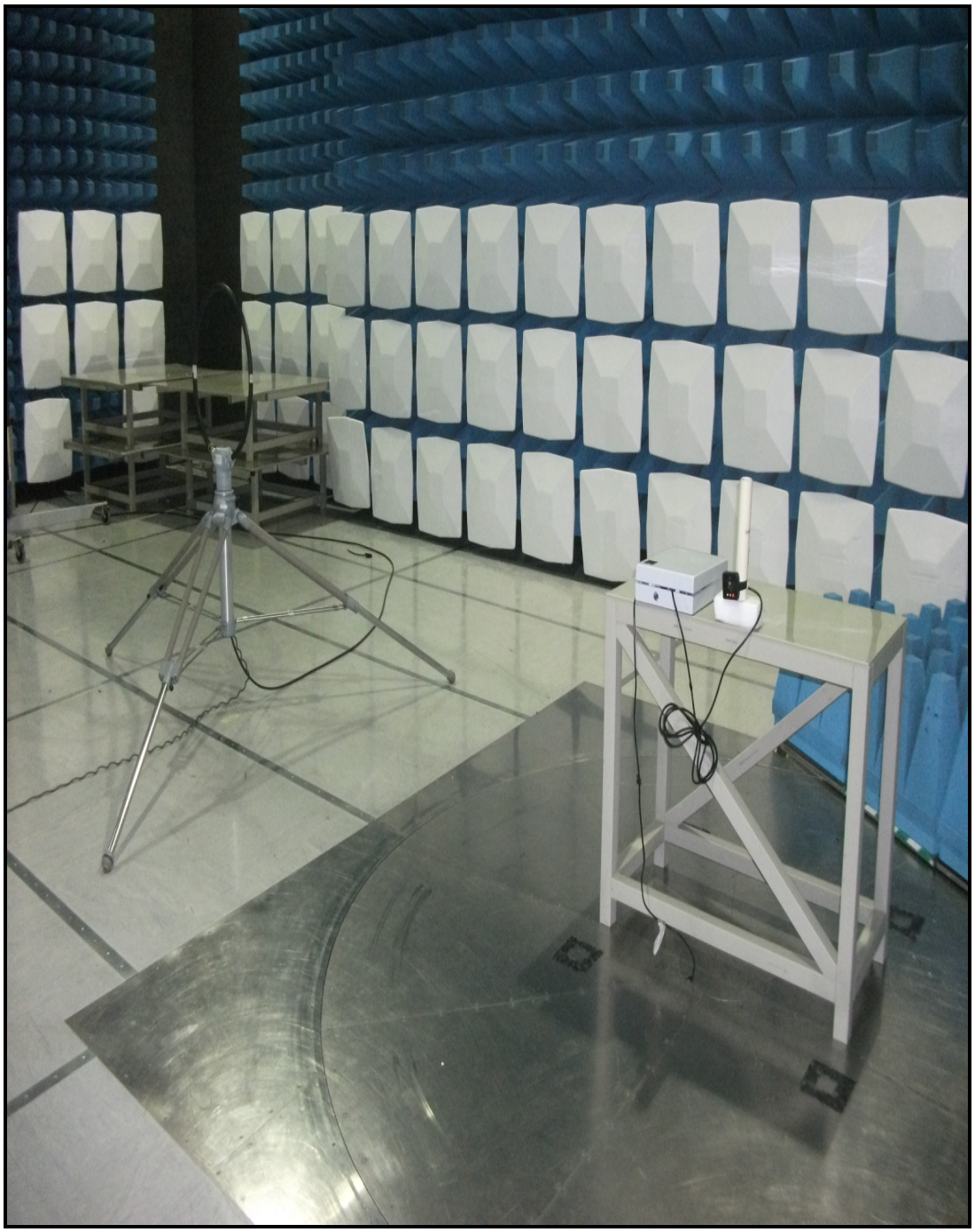
This section contains the following photographs:

Photo Reference Number	Title
PHT\85596JD11\001	Test Configuration Photograph - Radiated Emissions 001
PHT\85596JD11\002	Test Configuration Photograph - Radiated Emissions 002
PHT\85596JD11\003	Test Configuration Photograph - Conducted Emissions

PHT\85596JD11\001 - Test Configuration Photograph - Radiated Emissions 001



PHT\85596JD11\002 - Test Configuration Photograph - Radiated Emissions 002



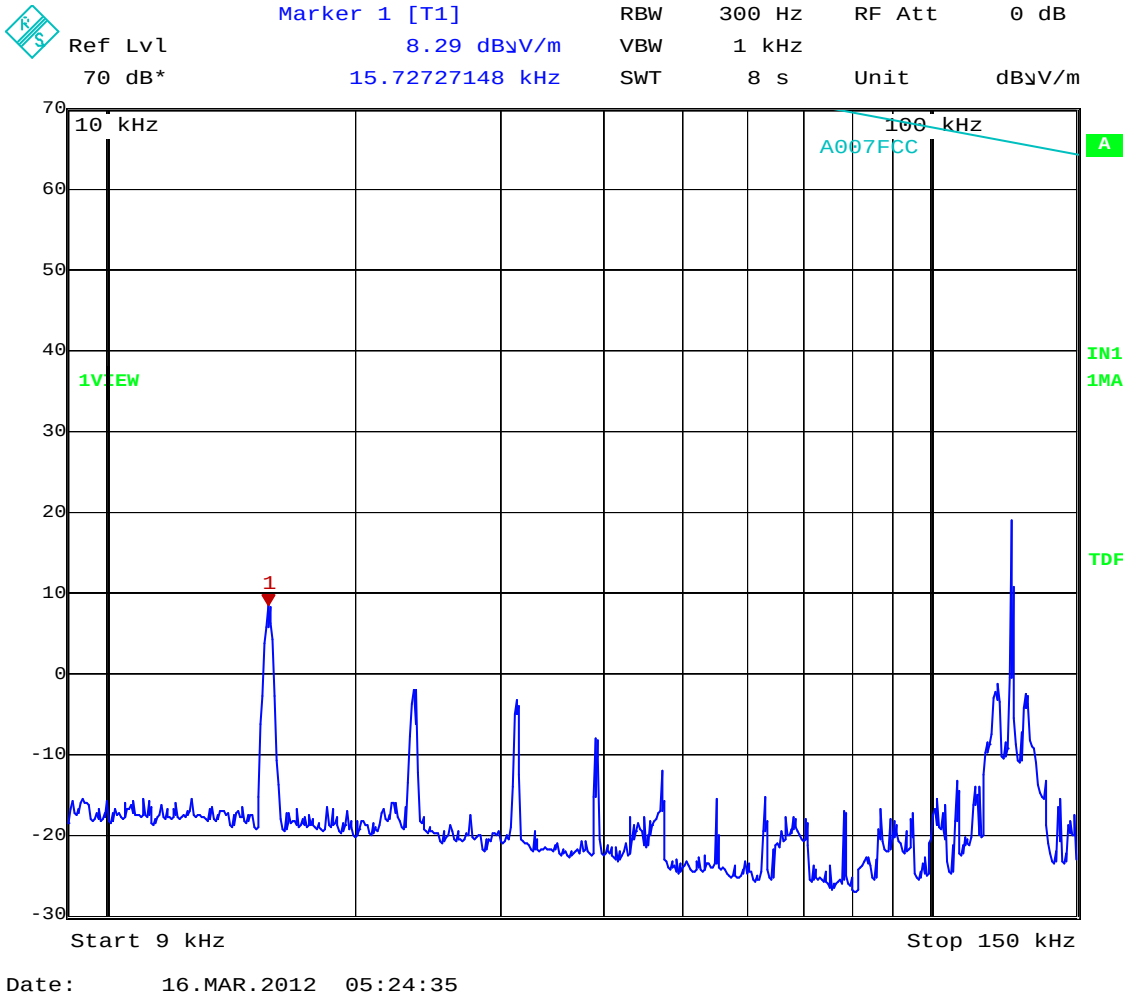
PHT\85596JD11\003 - Test Configuration Photograph - Conducted Emissions

9. GRAPHICAL TEST RESULTS

9.1. This section contains the graphical results for the measurements listed in Section *2.2. Summary of Test Results* (above).

Graph Reference Number	Title
GPH\85596JD09\001	Magnetic Field Radiated Emissions Pre-Scan (9 kHz to 150 kHz)
GPH\85596JD09\002	Magnetic Field Radiated Emissions Pre-Scan (150 kHz to 30 MHz)
GPH\85596JD09\003	Electric Field Radiated Emissions Pre-Scan (30 MHz to 1 GHz)
GPH\85596JD09\004	AC Mains Conducted Emissions - Live Pre-Scan (150 kHz to 30 MHz)
GPH\85596JD09\005	AC Mains Conducted Emissions – Neutral Pre-Scan (150 kHz to 30 MHz)
GPH\85596JD09\006	Transmitter Fundamental Field Strength
GPH\85596JD09\007	Transmitter 99% Emission Bandwidth
GPH\85596JD09\008	Transmitter 20 dB Bandwidth

GPH\85596JD11\001



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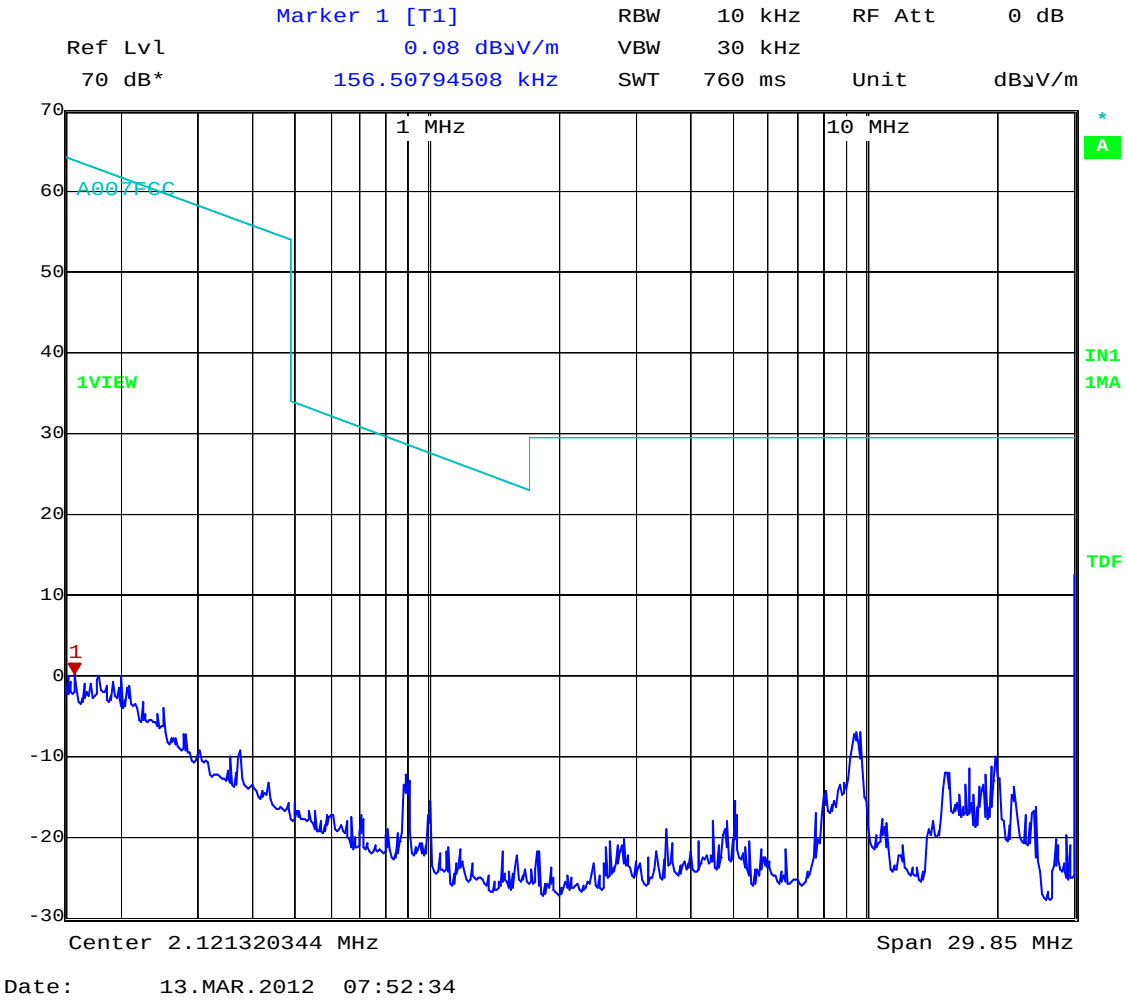

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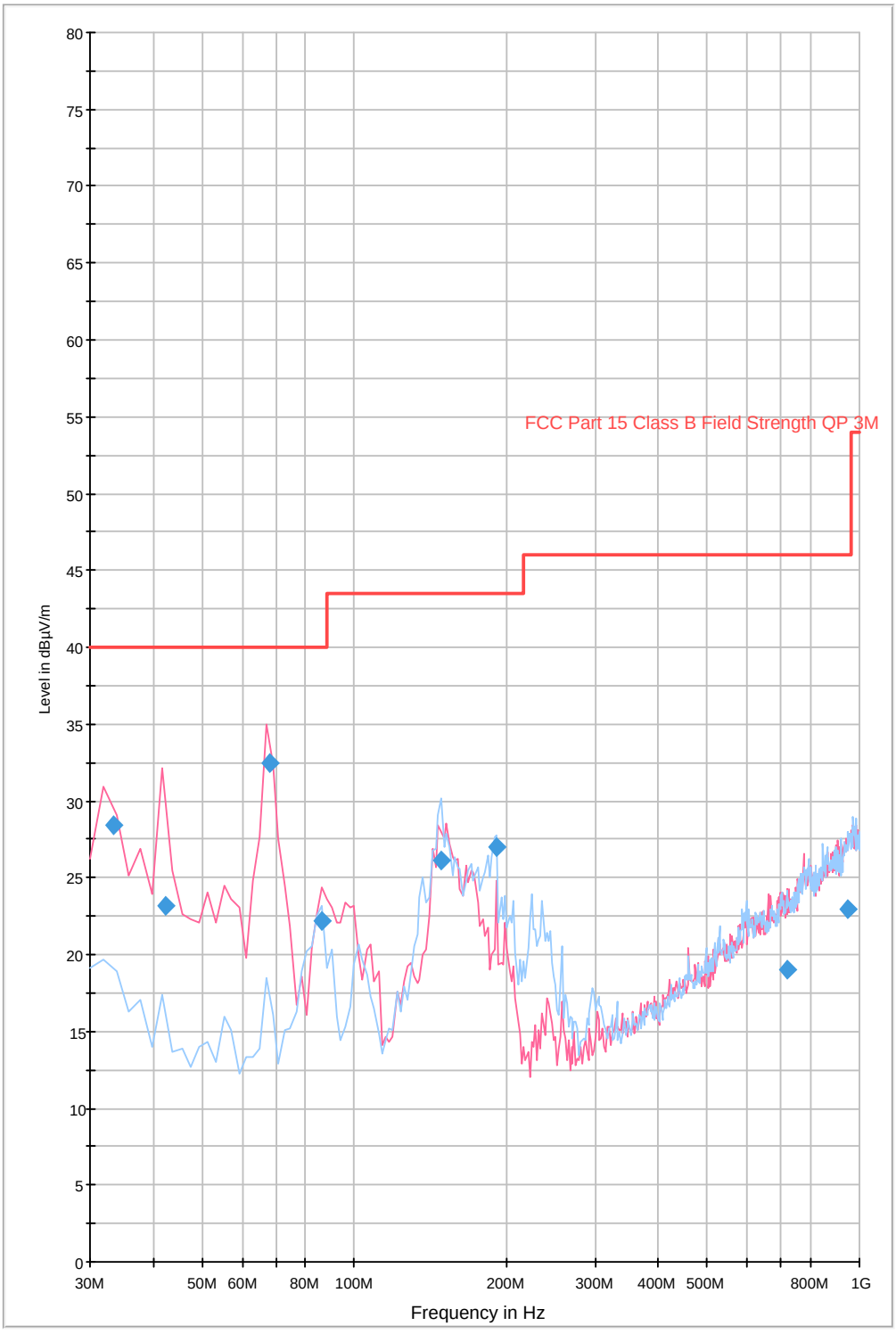
FCC Part 15.109 Radiated Emissions Class B 30MHz-1GHz 3m



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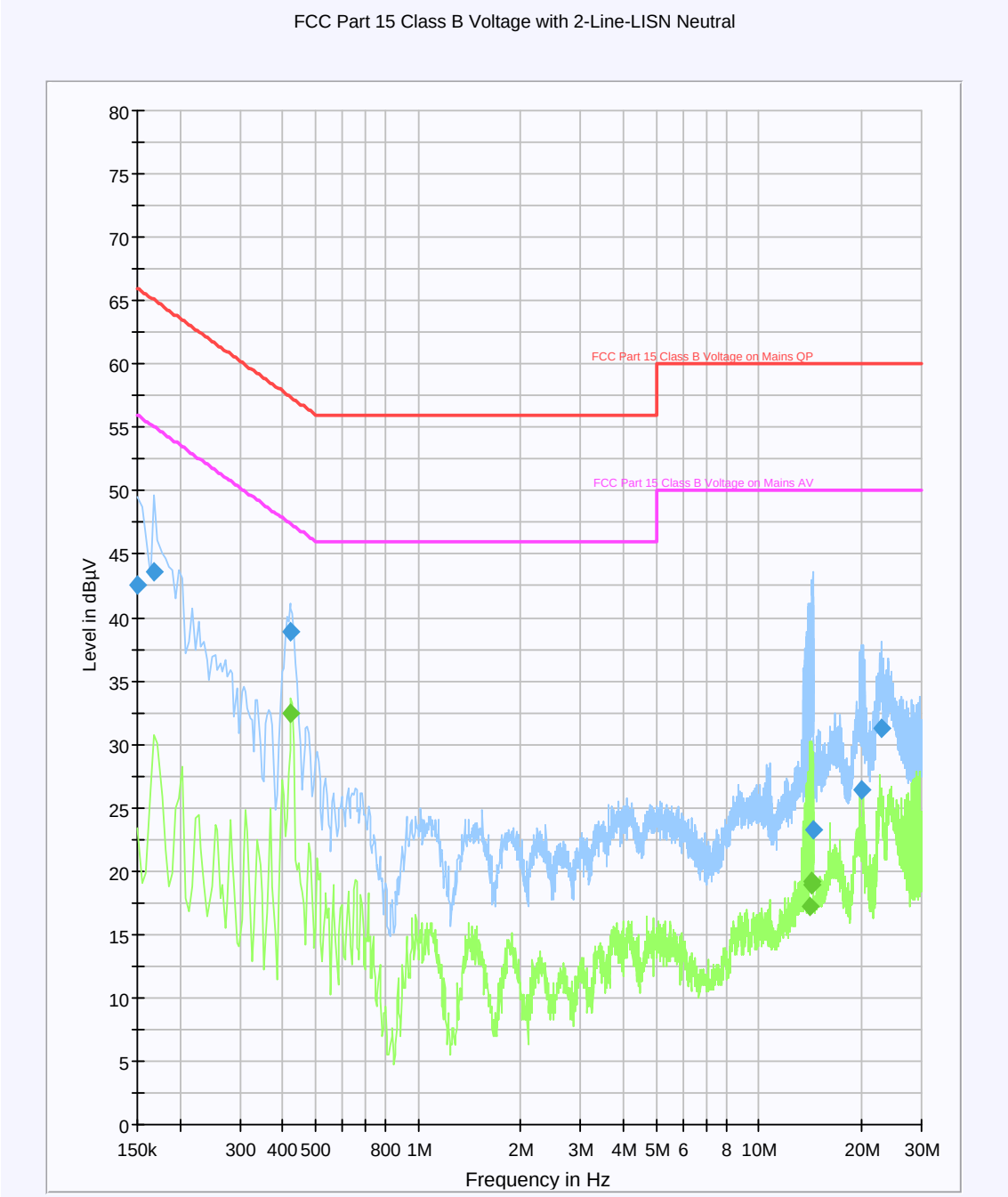
GPH\85596JD11\005



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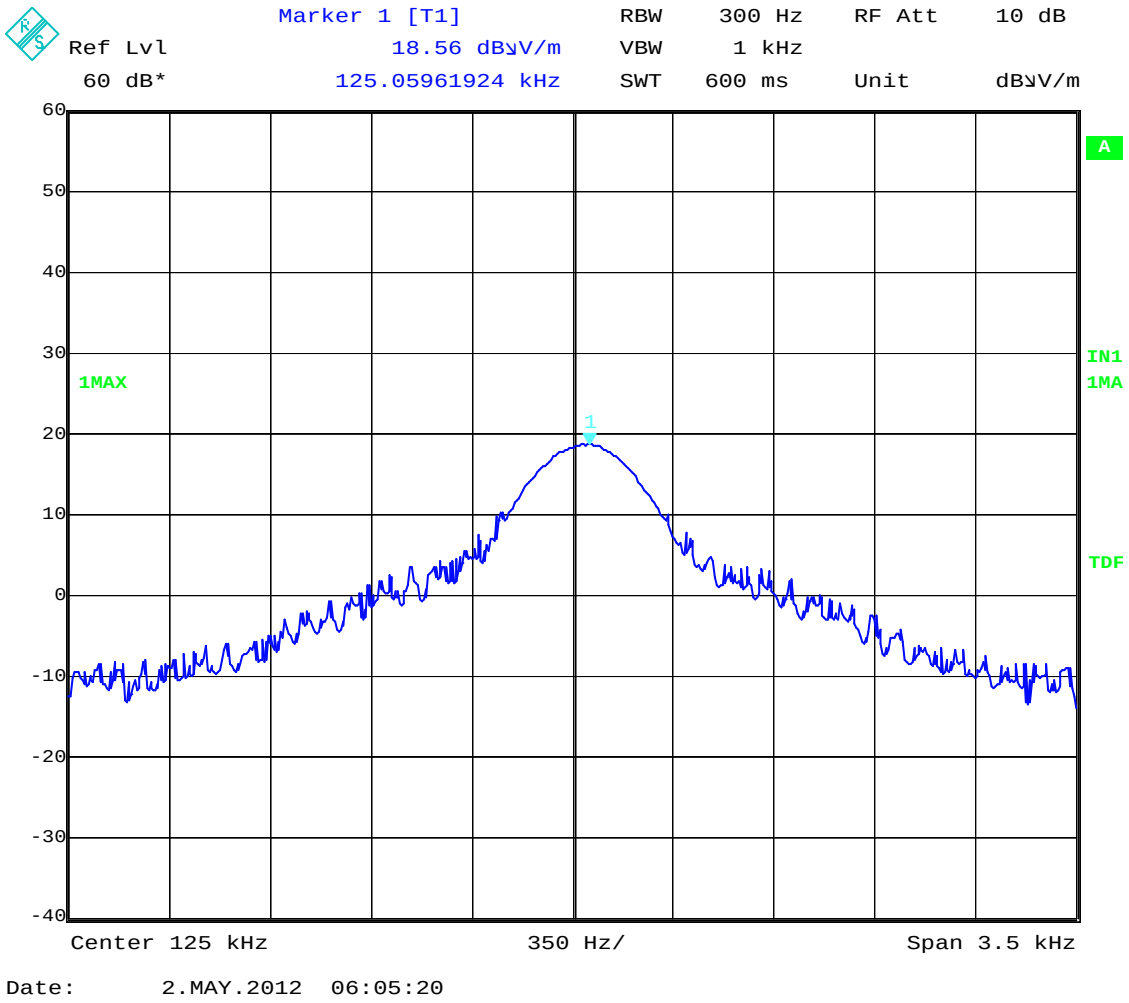

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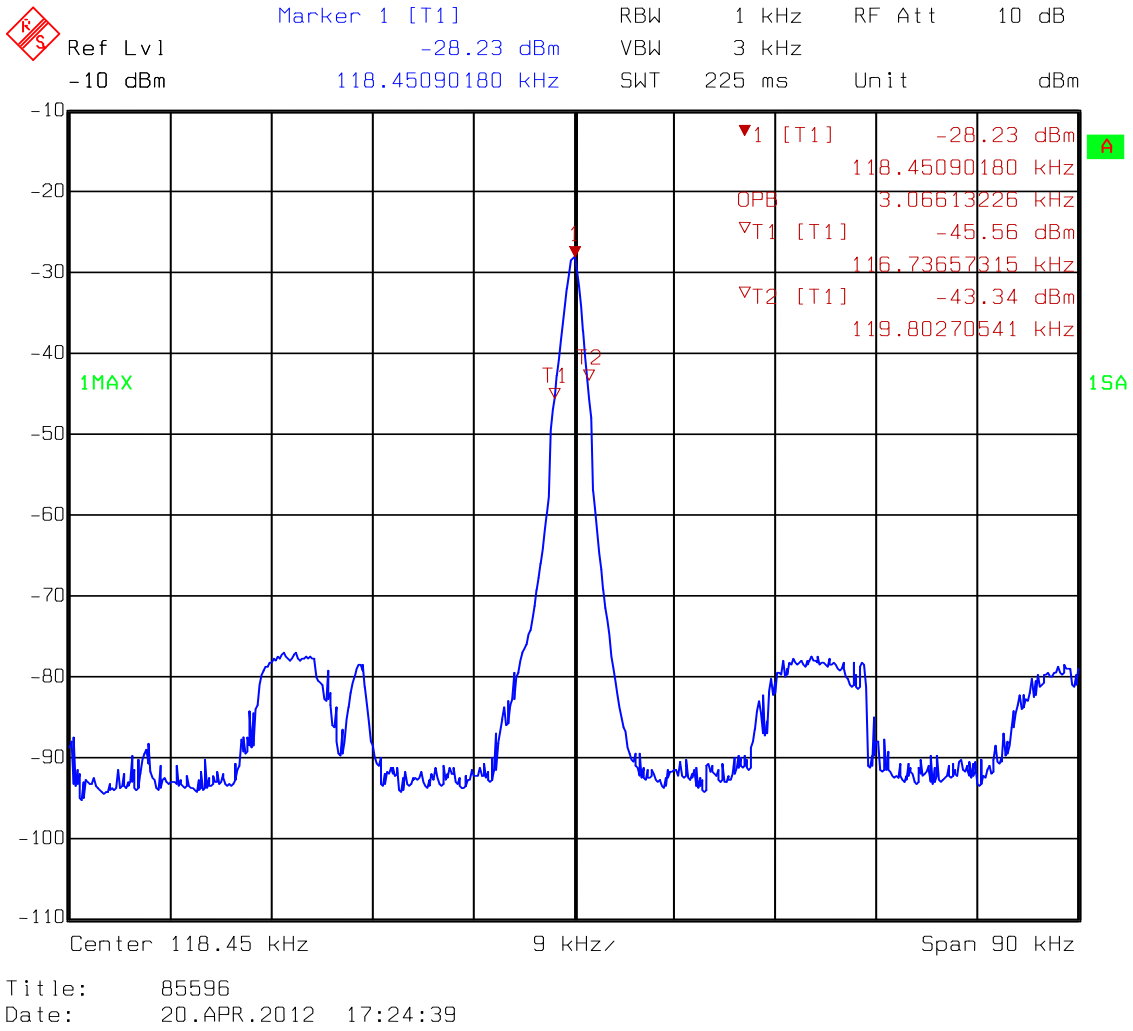

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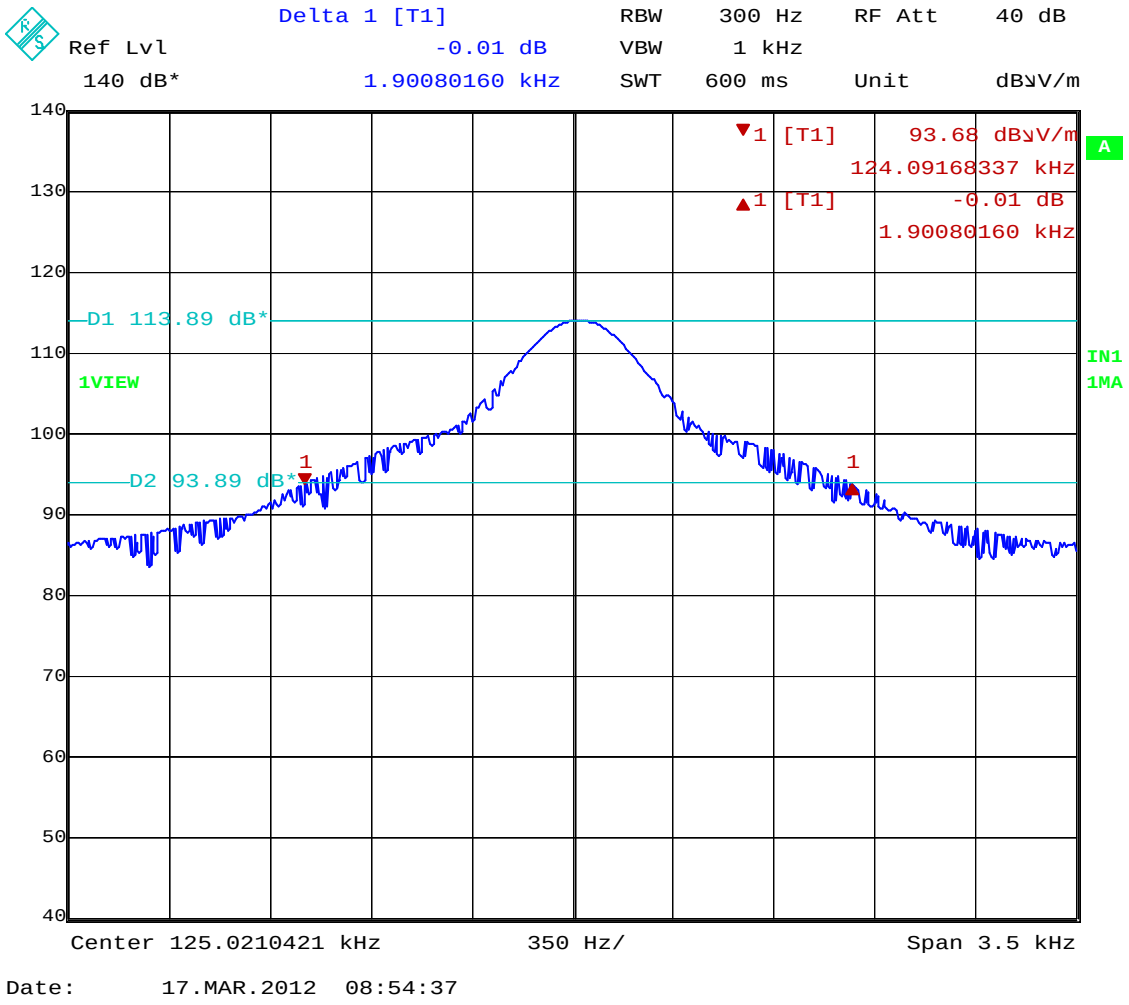
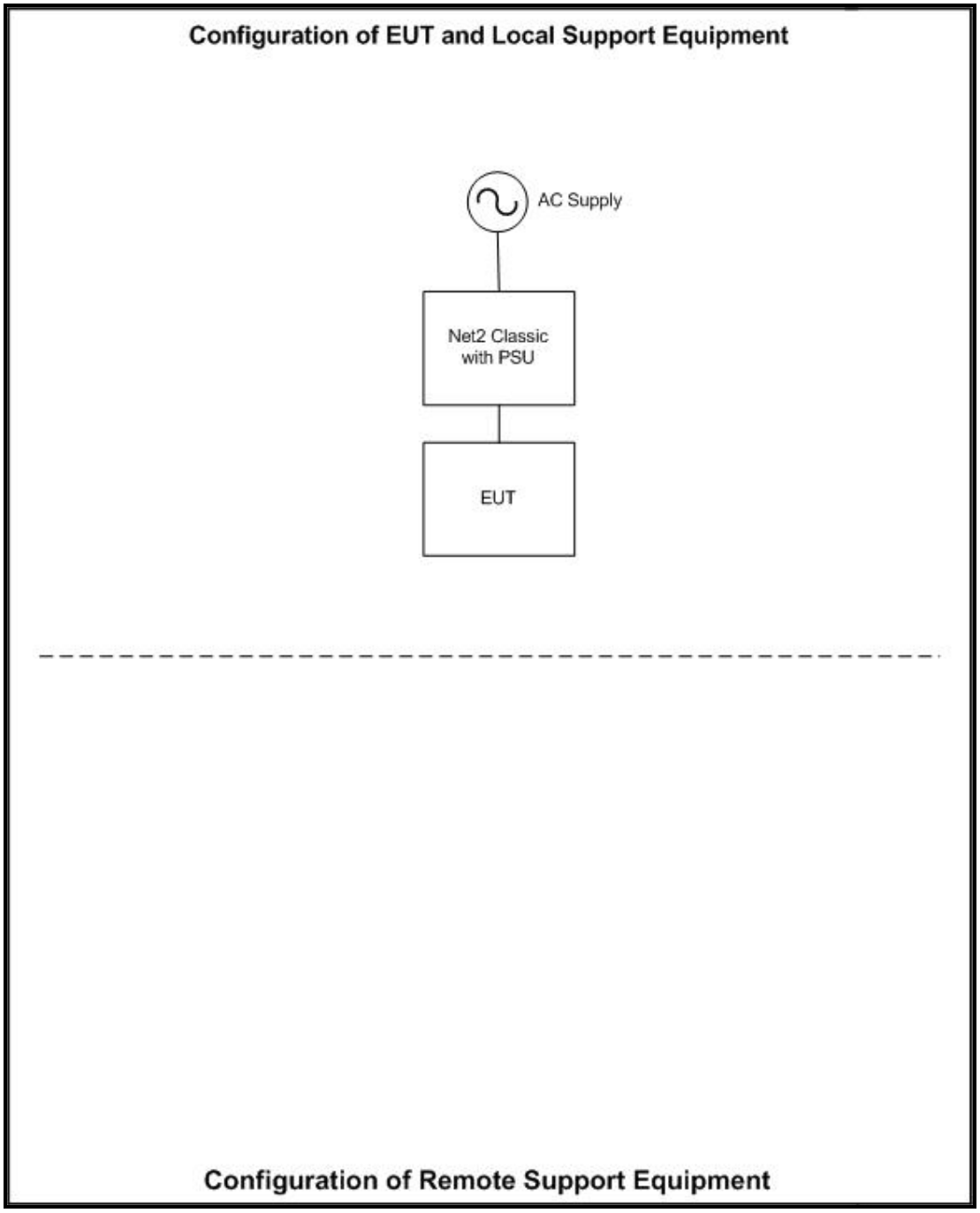


10. TEST CONFIGURATION DRAWING

10.1. This section contains the Test Configuration Drawings for the measurements listed in Section 7: Measurements, Examinations and Derived Results.

Test Configuration Reference Number	Title
DRG\85596JD11\001	Schematic diagram of the EUT, support equipment and interconnecting cables used for the test

DRG\85596JD11\001 - Schematic diagram of the EUT, support equipment and interconnecting cables used for the test



11. REPORT REVISION HISTORY

11.1. This section contains the report revision history.

Version Number	Revision Details		
	Page No(s)	Clause	Details
1.0	-	-	Initial Version.
2.0	1	-	Test standard changed on front sheet 47CFR15.107, 47CFR15.109 and RSS-GEN Issue 3 December 2010 to RSS-GEN Issue 3 December 2010
	6	2	Summary of testing changed from 47CFR15.107, 47CFR15.109 and RSS-GEN Issue 3 December 2010 to RSS-GEN Issue 3 December 2010
	7	3.2	Addition of second EUT used during additional testing
	7	3.4	Operating mode, including description changed from Idle to Transmit
	7	3.5	Addition of EUT radio characteristics
	7	3.6	Addition of configuration and peripherals section in EUT details
	7	3.8	Removal of FCC ID number and addition of industry Canada certification number, hardware and software version details
	9	5.2	Operation as intended definition changed from Idle to Transmit
	12	7	Addition of 9 kHz to 30 MHz transmitter radiated emissions test results
	18	7	Addition of transmitter fundamental field strength test results
	20	7	Addition of transmitter 99% emission bandwidth test results
	23	8	Addition of 9 kHz to 30 MHz radiated emissions test configuration photograph
	26 & 27	9	Addition of 9 kHz to 30 MHz transmitter radiated emissions graphs
	31	9	Addition of transmitter fundamental field strength graph
	32	9	Addition of transmitter 99% emission bandwidth graph
3.0	1	-	Test standard changed on front sheet from to RSS-GEN Issue 3 December 2010 to 47CFR15.207, 47CFR15.209, 47CFR15.215 (C), RSS-Gen Issue 3 December 2010 and RSS-210 Issue 8 December 2010
	6	2	Summary of testing changed from RSS-GEN Issue 3 December 2010 to 47CFR15.207, 47CFR15.209, 47CFR15.215 (C), RSS-Gen Issue 3 December 2010 and RSS-210 Issue 8 December 2010
	7	3.8	Addition of FCC ID number
	12, 14, 16, 18, 20, 21	7	Test specification details amended to include FCC and IC
	21	7	Addition of 20 dB bandwidth test results
	34	9	Addition of 20 dB test result graph
	13, 15, 17, 19, 20, 21	7	Notes changed and/amended