FCC Test Report

Shot Scope Technologies Ltd
GPS + Performance tracking watch,
Model: V3 SS03

In accordance with FCC 47 CFR Part 15B

Add value.
Inspire trust.

Prepared for: Shot Scope Technologies Ltd
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40 Peffer Place
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UNITED KINGDOM

FCC ID: 2AHWR-SS04

COMMERCIAL-IN-CONFIDENCE

Document 75947856-02 Issue 01

SIGNATURE			
AJ Lawson.			
NAME	**JOB TITLE**	**RESPONSIBLE FOR**	**ISSUE DATE**
Andy Lawson	Senior Engineer	Authorised Signatory	12 May 2020

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD document control rules.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC 47 CFR Part 15B. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Matthew Dawkins	12 May 2020	
Testing	Graeme Lawler	12 May 2020	

FCC Accreditation
90987 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15B: 2019 for the tests detailed in section 1.3.

TÜV SÜD
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Contents

1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	12 May 2020

Table 1

1.2 Introduction

Applicant	Shot Scope Technologies Ltd
Manufacturer	Shot Scope Technologies Ltd
Model Number(s)	V3 SS03
Serial Number(s)	Not serialised (0075947856-TSR0001)
Hardware Version(s)	1.0
Software Version(s)	1.0
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 15B: 2019
Order Number Date	2019-0069 TUV 06-January-2020
Date of Receipt of EUT	18-March-2020
Start of Test	24-March-2020
Finish of Test	01-April-2020
Name of Engineer(s)	Matthew Dawkins and Graeme Lawler
Related Document(s)	ANSI C63.4: 2014

1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 15B is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration and Mode: Battery Powered with USB - GPS Receive, Transmit Idle and Charging				
2.1	15.107	Conducted Disturbance at Mains Terminals	Pass	ANSI C63.4: 2014
2.2	15.109	Radiated Disturbance	Pass	ANSI C63.4: 2014

Table 2

1.4 Declaration of Build Status

Equipment Description

Technical Description: *(Please provide a brief description of the intended use of the equipment)*	Shot Scope V3 is a watch worn by golfers to provide distance information from their position to their target. It also tracks how far each golf shot is hit and what golf club was used.
Manufacturer:	Shot Scope
Model:	SS03
Part Number:	V3
Hardware Version:	1.0
Software Version:	1.0
FCC ID (if applicable)	2AHWR-SS04
IC ID (if applicable)	Not Applicable

Intentional Radiators

Technology	BLE
Frequency Band (MHz)	2402 – 2480
Conducted Declared Output Power (dBm)	-2
Antenna Gain (dBi)	1.7
Supported Bandwidth(s) (MHz)	2
Modulation Scheme(s)	GFSK
ITU Emission Designator	1M05F1D
Bottom Frequency (MHz)	2402
Middle Frequency (MHz)	2440
Top Frequency (MHz)	2480

Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	2480 MHz
Lowest frequency generated or used in the device or on which the device operates or tunes	32.768 kHz
Class A Digital Device (Use in commercial, industrial or business environment) ☐ Class B Digital Device (Use in residential environment only) ☒	

AC Power Source

AC supply frequency:		Hz
Voltage		V
Max current:		A
Single Phase ☐ Three Phase ☐		

DC Power Source

Nominal voltage:	5	V
Extreme upper voltage:	5.5	V
Extreme lower voltage:	4.5	V
Max current:	0.1	A

Battery Power Source

Voltage:	3.0 – 4.2	V
End-point voltage:	3.0	V *(Point at which the battery will terminate)*
Alkaline ☐ Leclanche ☐ Lithium ☒ Nickel Cadmium ☐ Lead Acid* ☐ **(Vehicle regulated)*		
Other ☐ Please detail:		

Charging

Can the EUT transmit whilst being charged	Yes ☐ No ☒

Temperature

Minimum temperature:	0	°C
Maximum temperature:	50	°C

Antenna Characteristics

Antenna connector ☐			State impedance		Ohm
Temporary antenna connector ☐			State impedance		Ohm
Integral antenna ☒	Type:	Chip	Gain	1.7	dBi
External antenna ☐	Type:		Gain		dBi
For external antenna only: Standard Antenna Jack ☐ If yes, describe how user is prohibited from changing antenna (if not professional installed): Equipment is only ever professionally installed ☐ Non-standard Antenna Jack ☐					

Ancillaries (if applicable)

Manufacturer:		Part Number:	
Model:		Country of Origin:	

I hereby declare that the information supplied is correct and complete.

Name: Lewis Allison
Position held: Chief Technology Officer
Date: 20 March 2020

1.5 Product Information

1.5.1 Technical Description

The Equipment Under Test (EUT) was a Shot Scope GPS golf watch.

The primary function of the EUT is to track golfing performance.

Additionally, the EUT has functionality to read RFiD tags to tell you what club is in use.

1.5.2 EUT Port/Cable Identification

Port	Max Cable Length specified	Usage	Type	Screened
Configuration and Mode: Battery Powered with USB - GPS Receive, Transmit Idle and Charging				
Live Line	0.5 m	DC power for recharging	120 V AC to DC power adapter	No
Neutral Line	0.5 m	DC Power for recharging	120 V AC to DC power adapter	No

Table 3

1.5.3 Test Configuration

Configuration	Description
Battery Powered with USB	The EUT was charging via a micro-USB charging cable connected to an AC to DC adaptor.

Table 4

1.5.4 Modes of Operation

Mode	Description
GPS Receive, Transmit Idle and Charging	The EUT was receiving a GPS position signal. The EUTs transmitters were idle. The EUT was charging.

Table 5

1.6 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

1.7 EUT Modification Record

The table below details modifications made to the EUT during the test programme.

The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Model: V3 SS03, Serial Number: Not serialised (0075947856-TSR0001)			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 6

1.8 Test Location

TÜV SÜD conducted the following tests at our Fareham Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: Battery Powered with USB - GPS Receive, Transmit Idle and Charging		
Conducted Disturbance at Mains Terminals	Matthew Dawkins	UKAS
Radiated Disturbance	Graeme Lawler	UKAS

Table 7

Office Address:

Octagon House
Concorde Way
Segensworth North
Fareham
Hampshire
PO15 5RL
United Kingdom

2 Test Details

2.1 Conducted Disturbance at Mains Terminals

2.1.1 Specification Reference

FCC 47 CFR Part 15B, Clause 15.107

2.1.2 Equipment Under Test and Modification State

V3 SS03, S/N: Not serialised (0075947856-TSR0001) - Modification State 0

2.1.3 Date of Test

01-April-2020

2.1.4 Test Method

The EUT was setup according to ANSI C63.4, clause 5.2.

The EUT was placed on a non-conductive table 0.8 m above a reference ground plane. A vertical coupling plane was placed 0.4 m from the EUT boundary.

A Line Impedance Stabilisation Network (LISN) was directly bonded to the ground-plane. The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN was 0.8 m.

Interconnecting cables that hanged closer than 0.4 m to the ground plane were folded back and forth in the centre forming a bundle 0.3 m to 0.4 m long.

Input and output cables were terminated with equipment or loads representative of real usage conditions.

The EUT was configured to give the highest level of emissions within reason of a typical installation as described by the manufacturer.

2.1.5 Example Calculation

Quasi-Peak level (dBµV) = Receiver level (dBµV) + Correction Factor (dB)
Margin (dB) = Quasi-Peak level (dBµV) - Limit

CISPR Average level (dBµV) = Receiver level (dBµV) + Correction Factor (dB)
Margin (dB) = CISPR Average level (dBµV) - Limit (dBµV)

2.1.6 Example Test Setup Diagram

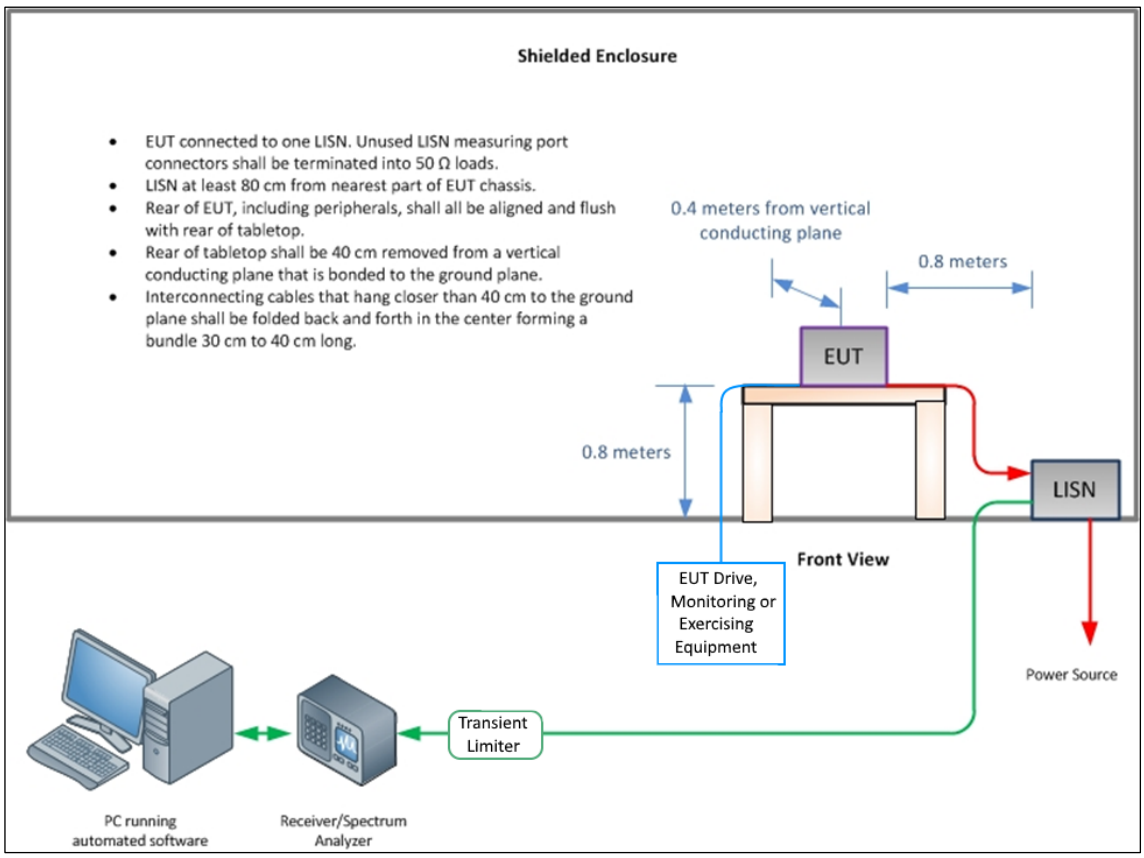

Figure 1 - Conducted Disturbance Example Test Setup

2.1.7 Environmental Conditions

Ambient Temperature	20.0 °C
Relative Humidity	39.0 %

2.1.8 Specification Limits

Required Specification Limits (Class B)			
Line Under Test	Frequency Range (MHz)	Quasi-peak (dBµV)	CISPR Average (dBµV)
AC Power Port	0.15 to 0.5	66 to 56[(1)]	56 to 46[(1)]
	0.5 to 5	56	46
	5 to 30	60	50
Supplementary information: Note 1. Decreases with the logarithm of the frequency.			

Table 8

2.1.9 Test Results

Results for Configuration and Mode: Battery Powered with USB - GPS Receive, Transmit Idle and Charging.

The test was performed in accordance with the Class B limits.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

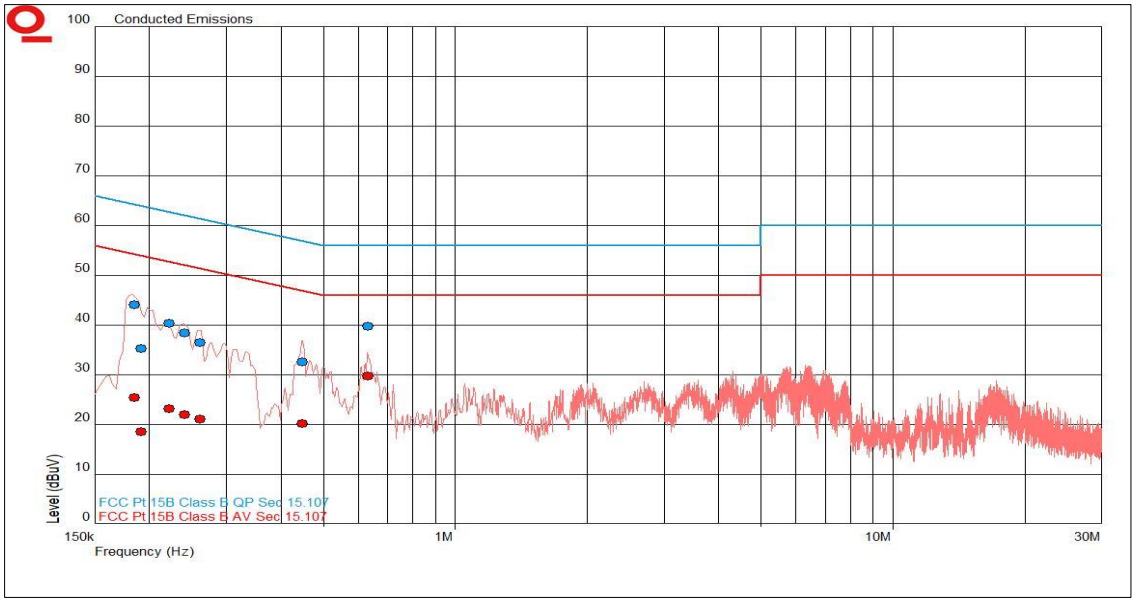

Figure 2 - Graphical Results - Live Line

Frequency (MHz)	QP Level (dBµV)	QP Limit (dBµV)	QP Margin (dB)	CISPR Average Level (dBµV)	CISPR Average Limit (dBµV)	CISPR Average Margin (dB)
0.185	44.1	64.2	-20.2	25.4	54.2	-28.8
0.192	35.3	63.9	-28.6	18.5	53.9	-35.4
0.223	40.4	62.7	-22.3	23.2	52.7	-29.5
0.241	38.5	62.1	-23.6	22.0	52.1	-30.1
0.261	36.5	61.4	-24.9	21.1	51.4	-30.3
0.449	32.5	56.9	-24.4	20.3	46.9	-26.6
0.634	39.7	56.0	-16.3	29.8	46.0	-16.2

Table 9

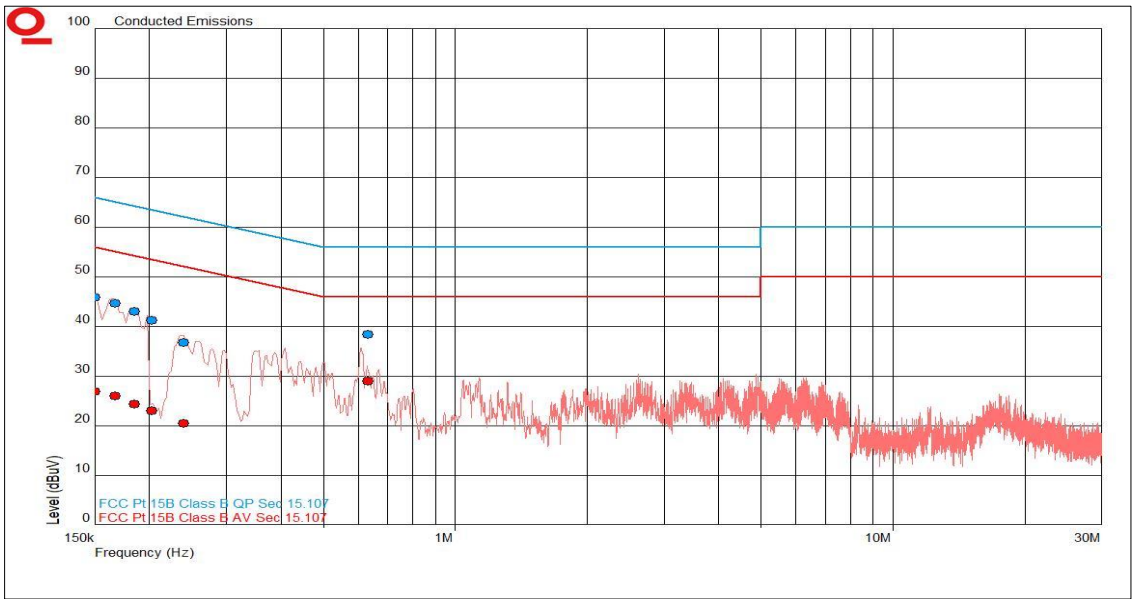

Figure 3 - Graphical Results - Neutral Line

Frequency (MHz)	QP Level (dBµV)	QP Limit (dBµV)	QP Margin (dB)	CISPR Average Level (dBµV)	CISPR Average Limit (dBµV)	CISPR Average Margin (dB)
0.150	45.8	66.0	-20.1	27.0	56.0	-29.0
0.167	44.7	65.1	-20.4	26.0	55.1	-29.1
0.185	43.1	64.2	-21.1	24.4	54.2	-29.9
0.203	41.2	63.5	-22.3	23.0	53.5	-30.4
0.240	36.8	62.1	-25.3	20.6	52.1	-31.5
0.631	38.4	56.0	-17.6	29.0	46.0	-17.0

Table 10

Figure 4 - Test Setup

2.1.10 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 5.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Screened Room (5)	Rainford	Rainford	1545	36	23-Jan-2021
Compliance 5 Emissions	Teseq	V5.26.51	3275	-	Software
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	03-Jan-2021
Transient Limiter	Hewlett Packard	11947A	15	12	02-Oct-2020
LISN	Rohde & Schwarz	ESH3-Z5	1390	12	27-Jan-2021
2 Meter Cable	Teledyne	PR90-088-2MTR	5196	12	06-Oct-2020
8 Meter Cable	Teledyne	PR90-088-8MTR	5212	12	30-Aug-2020

Table 11

2.2 Radiated Disturbance

2.2.1 Specification Reference

FCC 47 CFR Part 15B, Clause 15.109

2.2.2 Equipment Under Test and Modification State

V3 SS03, S/N: Not serialised (0075947856-TSR0001) - Modification State 0

2.2.3 Date of Test

24-March-2020

2.2.4 Test Method

The EUT was set up in a semi-anechoic chamber on a remotely controlled turntable and placed on a non-conductive table 0.8 m above a reference ground plane.

For an EUT which could reasonable be used in multiple planes, pre-scans were performed with the EUT orientated in X, Y and Z planes with reference to the ground plane.

A pre-scan of the EUT emissions profile was made at a 3 m distance while varying the antenna-to-EUT azimuth and polarisation using a peak detector.

Using a list of the highest emissions detected during the pre-scan along with their bearing and associated antenna polarisation, the EUT was finally measured using a Quasi-Peak, Peak or CISPR Average detector as appropriate.

The readings were maximised by adjusting the antenna height, polarisation and turntable azimuth, in accordance with the specification.

2.2.5 Example Calculation

Below 1 GHz:

Quasi-Peak level (dBµV/m) = Receiver level (dBµV) + Correction Factor (dB/m)
Margin (dB) = Quasi-Peak level (dBµV/m) - Limit (dBµV/m)

Above 1 GHz:

CISPR Average level (dBµV/m) = Receiver level (dBµV) + Correction Factor (dB/m)
Margin (dB) = CISPR Average level (dBµV/m) - Limit (dBµV/m)

Peak level (dBµV/m) = Receiver level (dBµV) + Correction Factor (dB/m)
Margin (dB) = Peak level (dBµV/m) - Limit (dBµV/m)

2.2.6 Example Test Setup Diagram

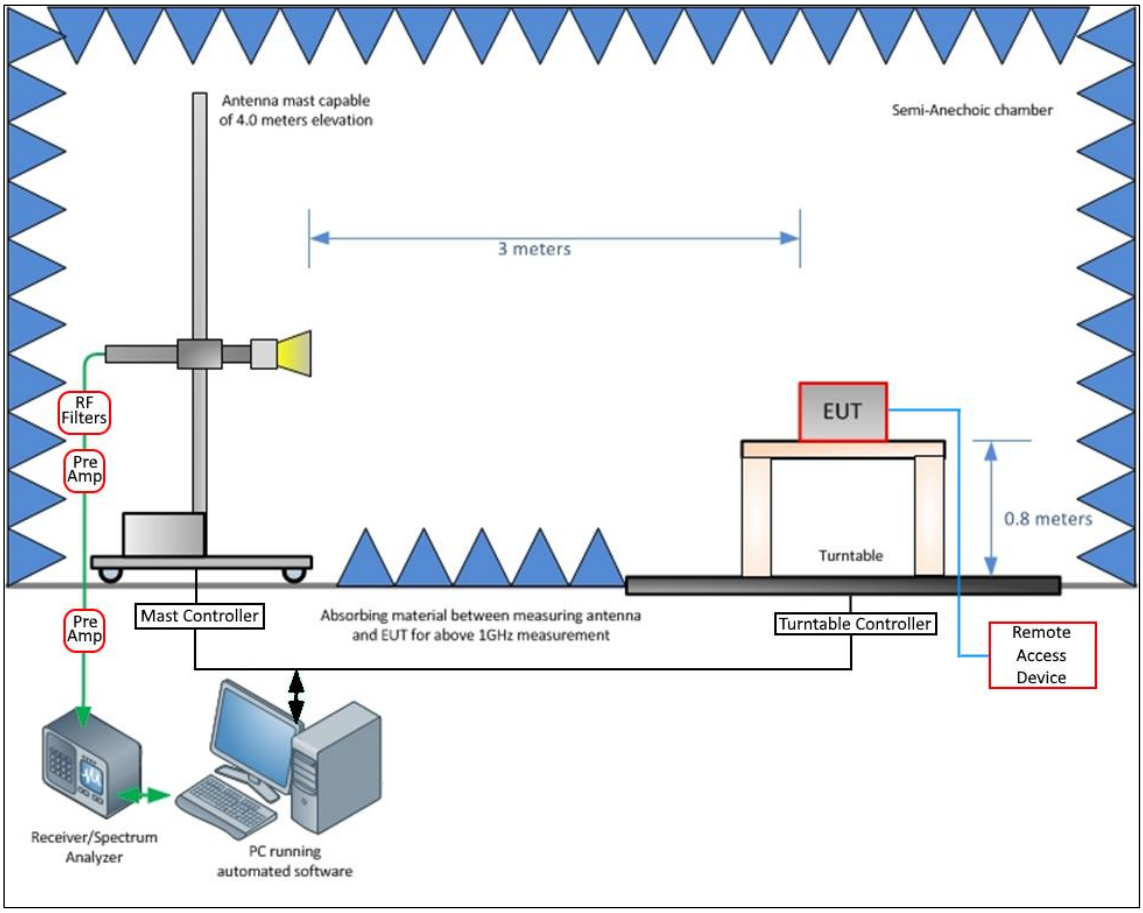

Figure 5 - Radiated Disturbance Example Test Setup

2.2.7 Environmental Conditions

Ambient Temperature	20.8 °C
Relative Humidity	27.1 %

2.2.8 Specification Limits

Required Specification Limits, Field Strength (Class B @ 3 m)		
Frequency Range (MHz)	(µV/m)	(dBµV/m)
30 to 88	100	40.0
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0
Supplementary information: Quasi-peak detector to be used for measurements below 1 GHz CISPR Average detector to be used for measurements above 1 GHz Peak test limit above 1 GHz is 20 dB higher than the CISPR Average test limit.		

Table 12

2.2.9 Test Results

Results for Configuration and Mode: Battery Powered with USB - GPS Receive, Transmit Idle and Charging.

The test was performed in accordance with the Class B limits.

Performance assessment of the EUT made during this test: Pass.

Detailed results are shown below.

Highest frequency generated or used within the EUT: 2.480 GHz
Which necessitates an upper frequency test limit of: 13.000 GHz

The EUT is handheld, body-worn, or ceiling-mounted equipment and has therefore been tested in three different orientations in accordance with ANSI C63.4, Clause 6.3.2.1.

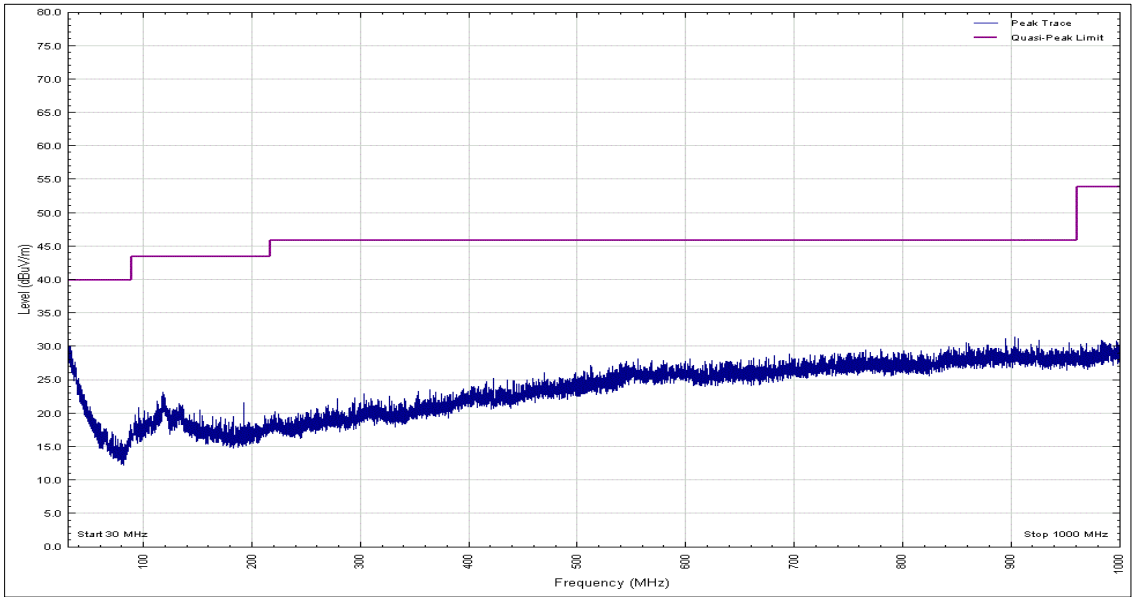

Figure 6 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 13

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

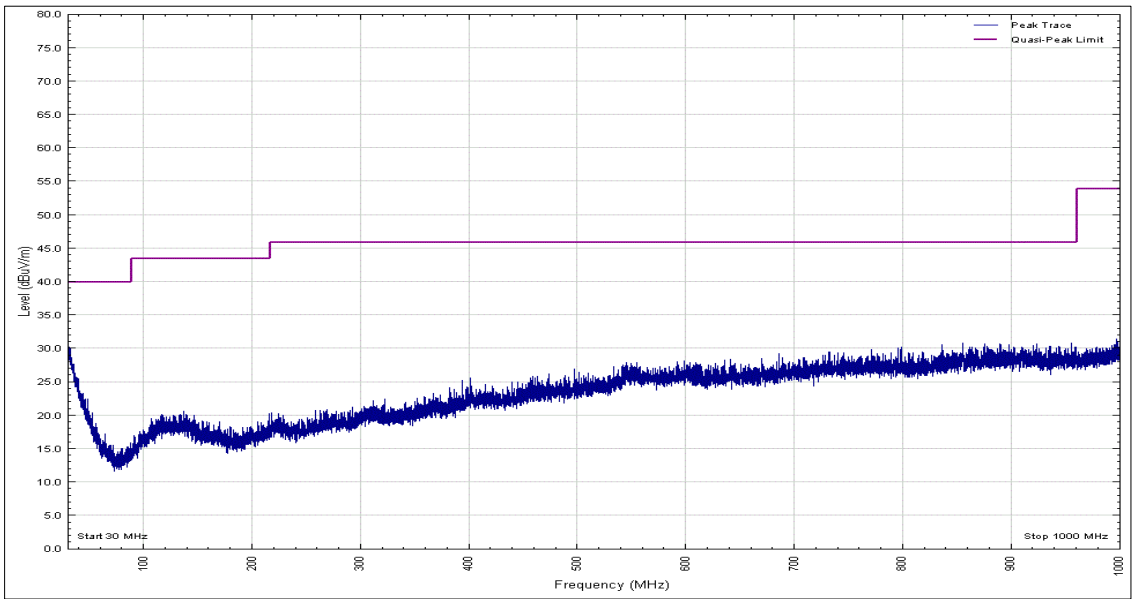

Figure 7 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 14

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

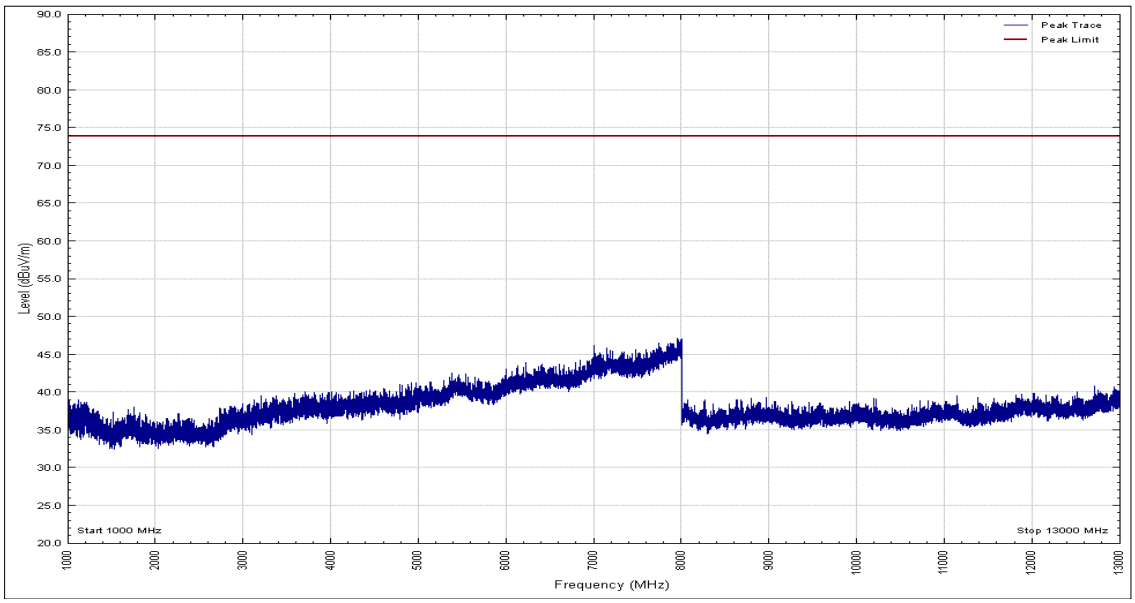

Figure 8 - 1 GHz to 13 GHz, Peak, Vertical - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 15

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

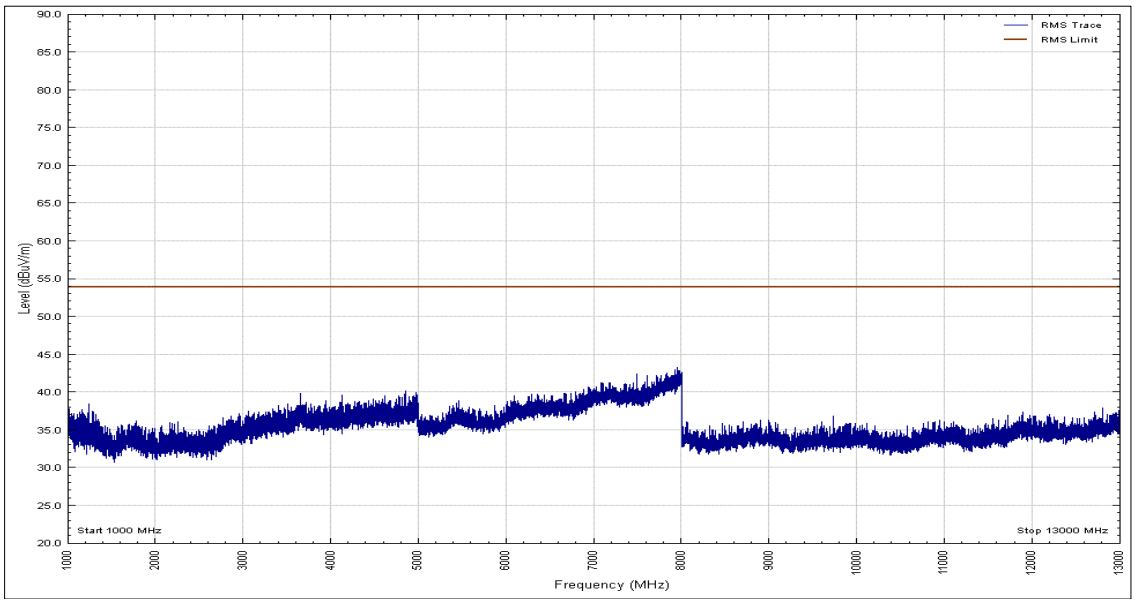

Figure 9 - 1 GHz to 13 GHz, CISPR Average, Vertical - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 16

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

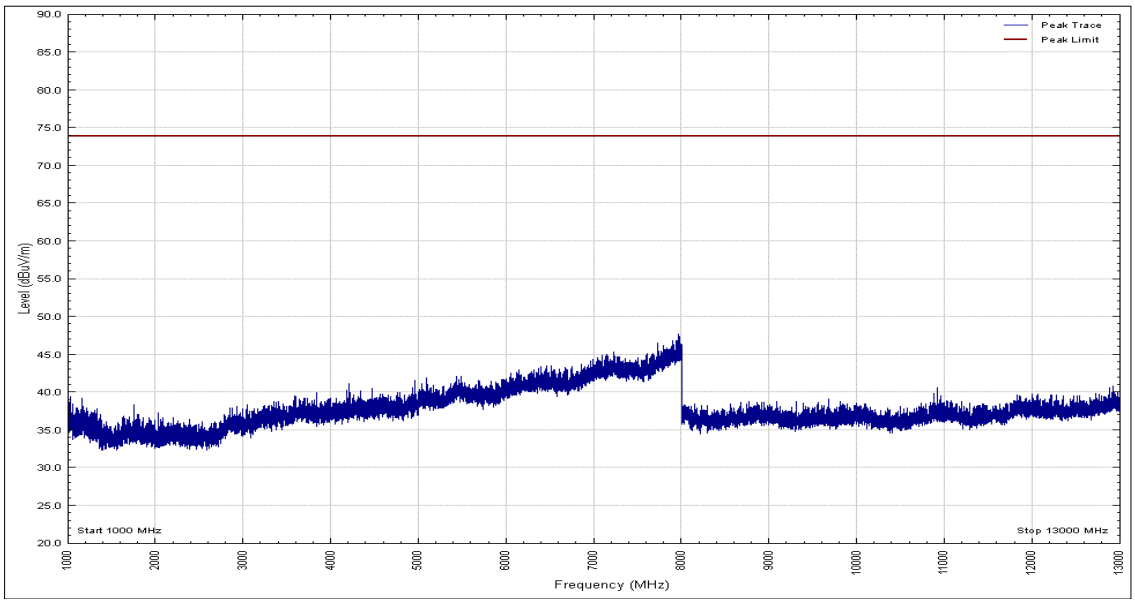

Figure 10 - 1 GHz to 13 GHz, Peak, Horizontal - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 17

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

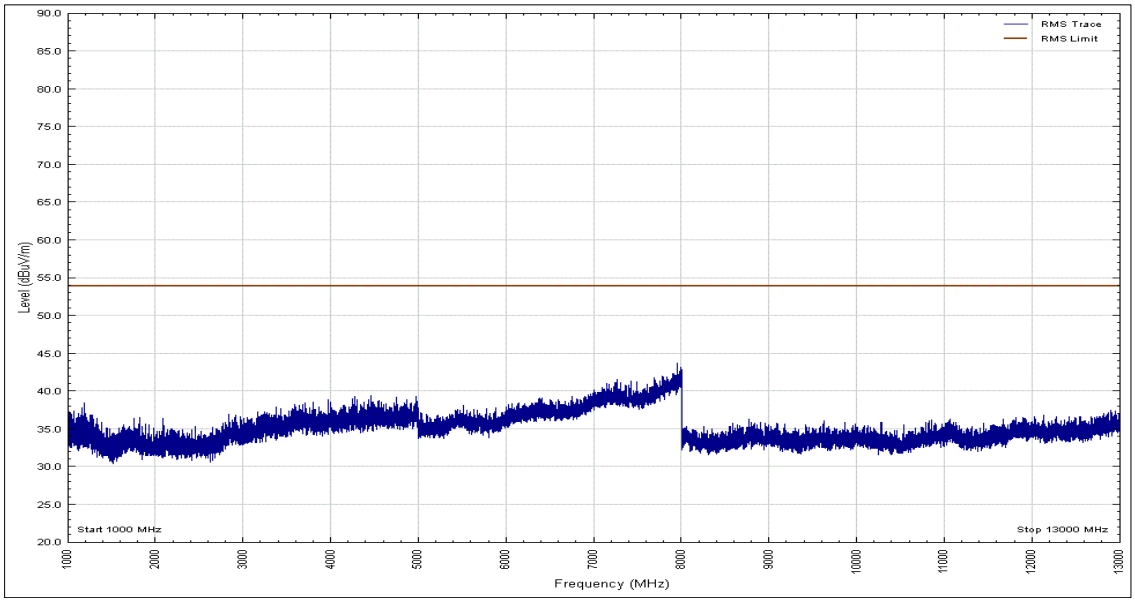

Figure 11 - 1 GHz to 13 GHz, CISPR Average, Horizontal - X Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 18

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

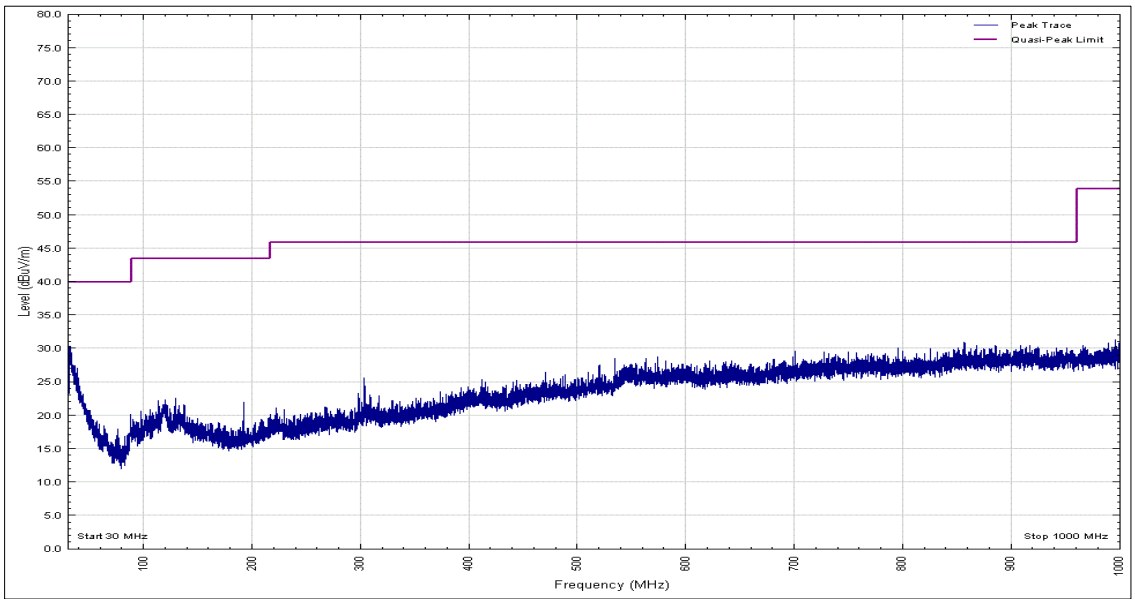

Figure 12 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 19

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

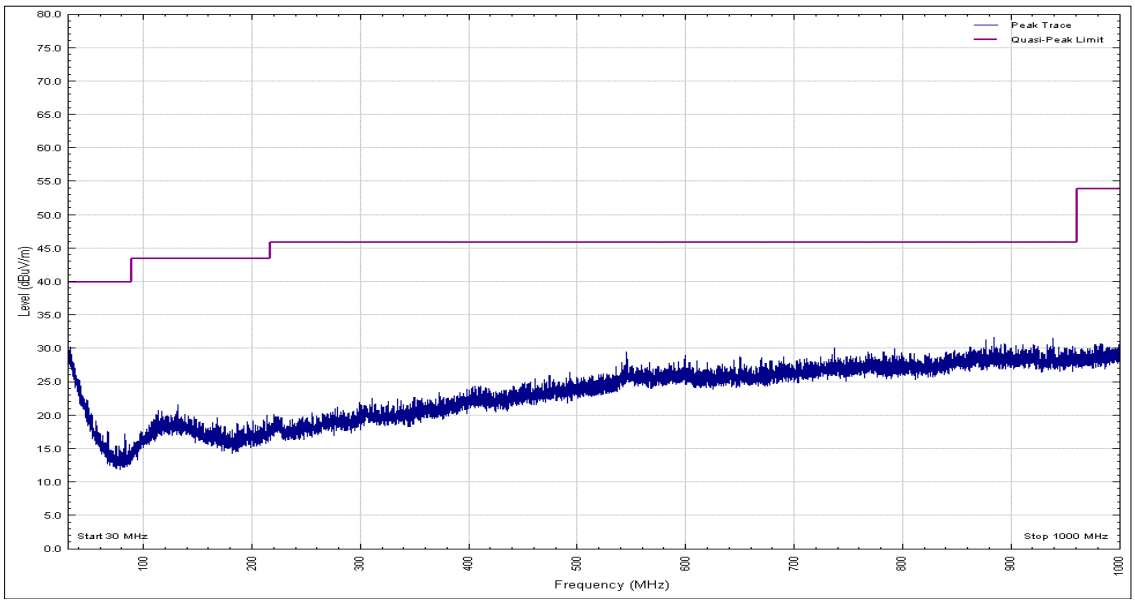

Figure 13 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 20

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

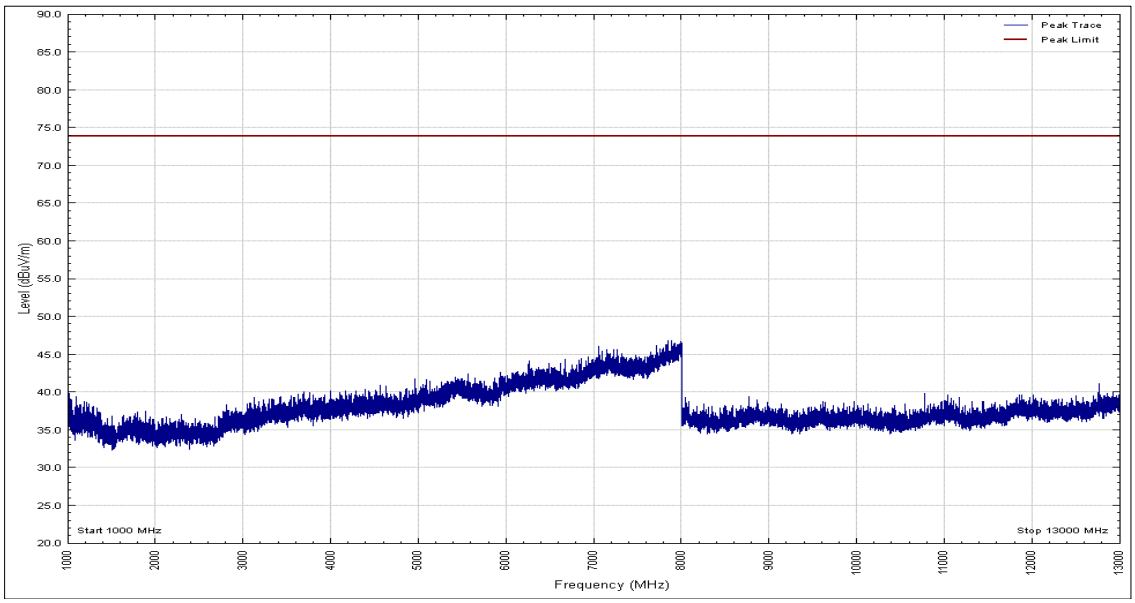

Figure 14 - 1 GHz to 13 GHz, Peak, Vertical - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 21

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

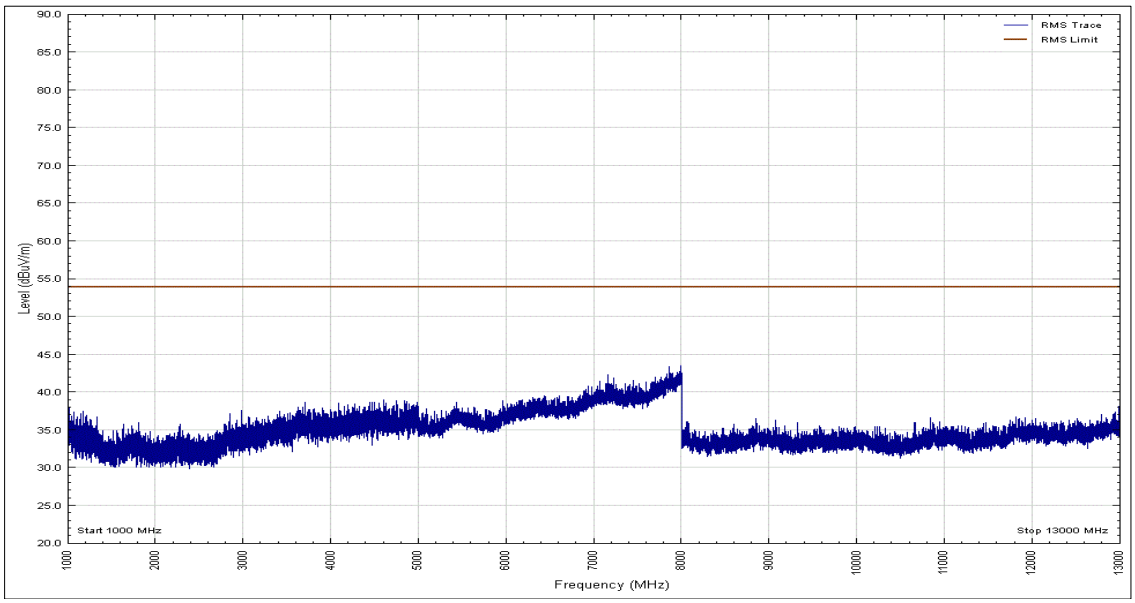

Figure 15 - 1 GHz to 13 GHz, CISPR Average, Vertical - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 22

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

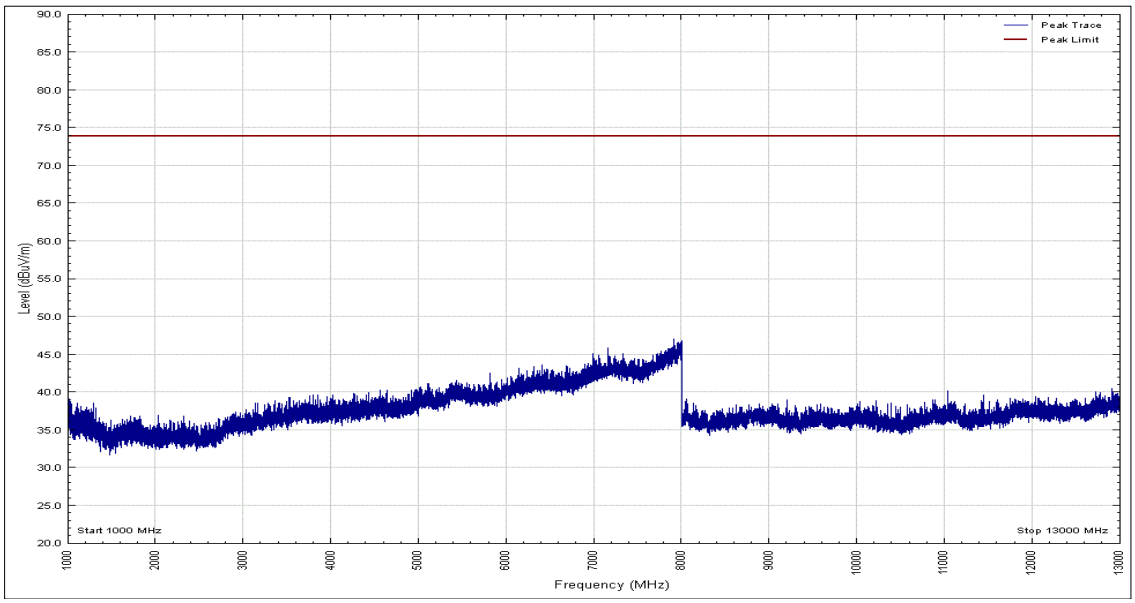

Figure 16 - 1 GHz to 13 GHz, Peak, Horizontal - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 23

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

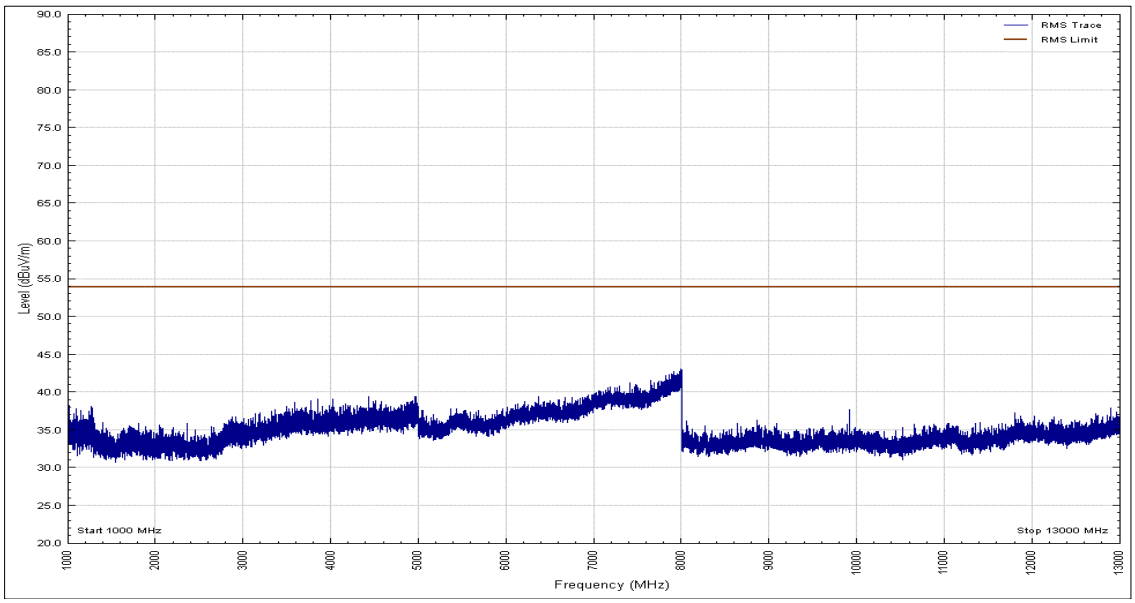

Figure 17 - 1 GHz to 13 GHz, CISPR Average, Horizontal - Y Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 24

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

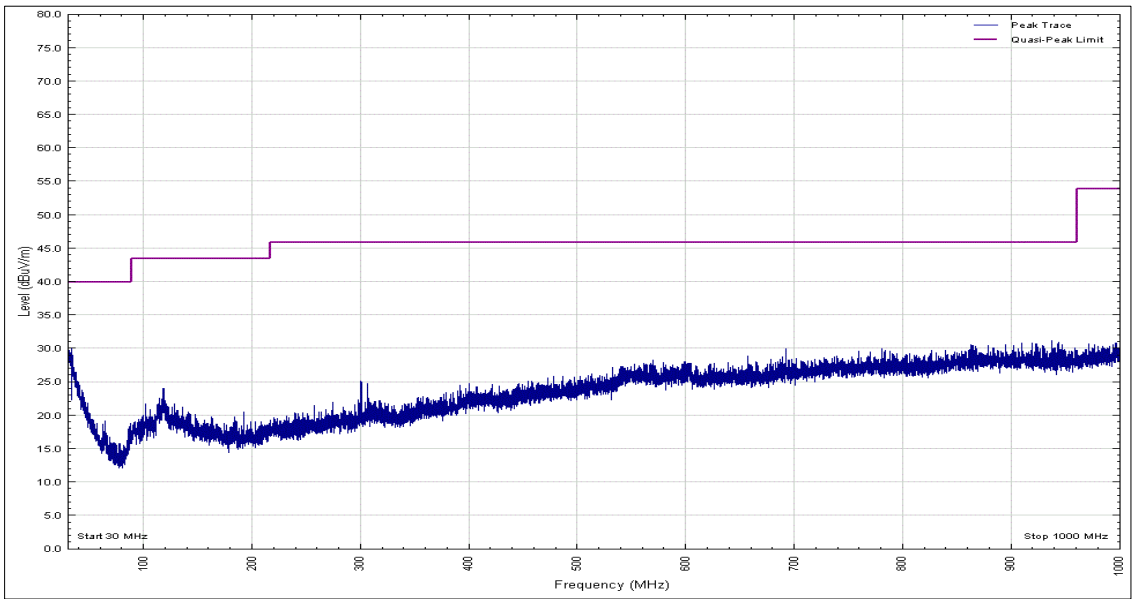

Figure 18 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - Z Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 25

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

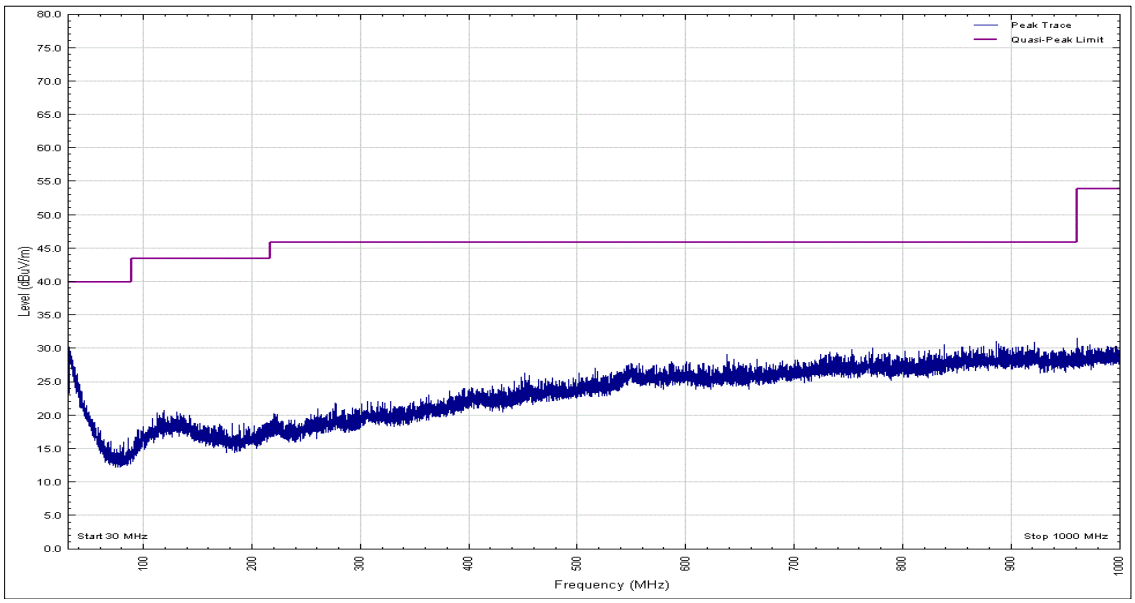

Figure 19 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - Z Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 26

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

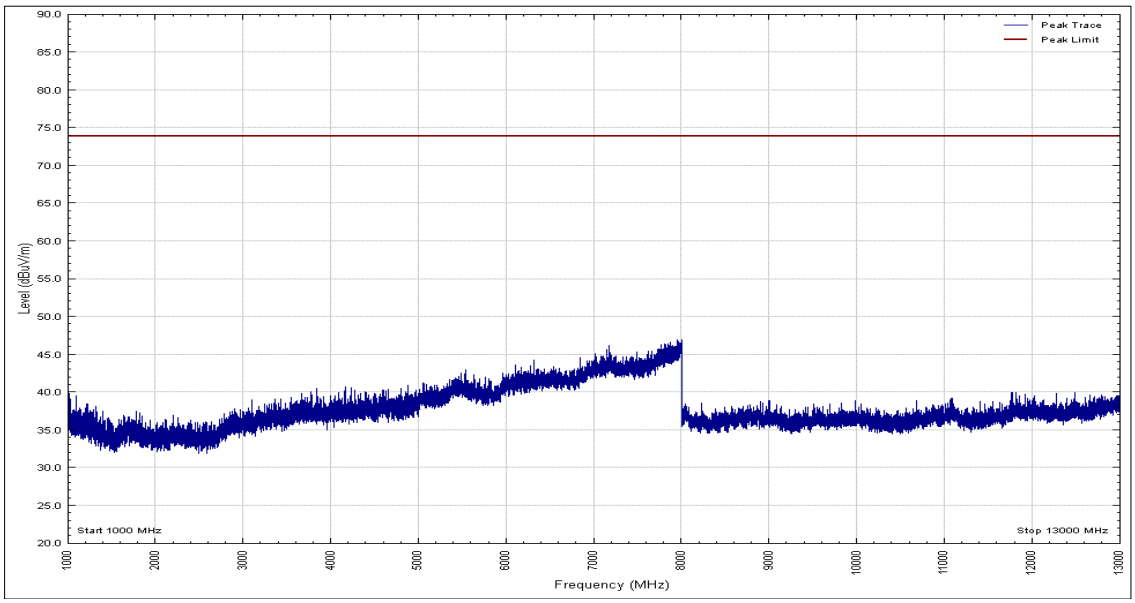

Figure 20 - 1 GHz to 13 GHz, Peak, Vertical - Z Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 27

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

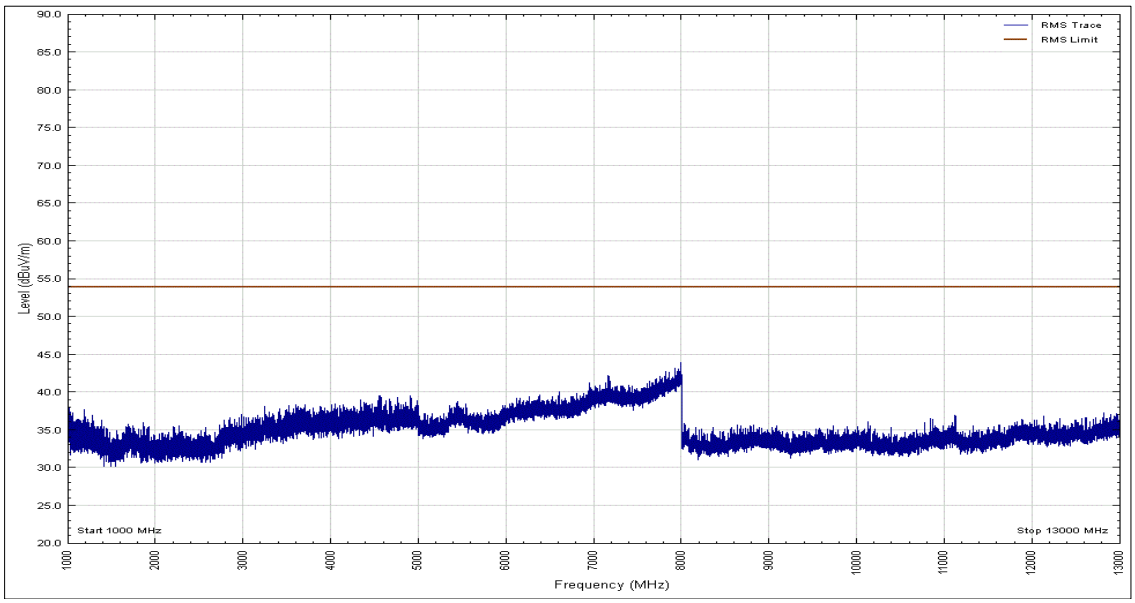

Figure 21 - 1 GHz to 13 GHz, CISPR Average, Vertical - Z Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 28

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

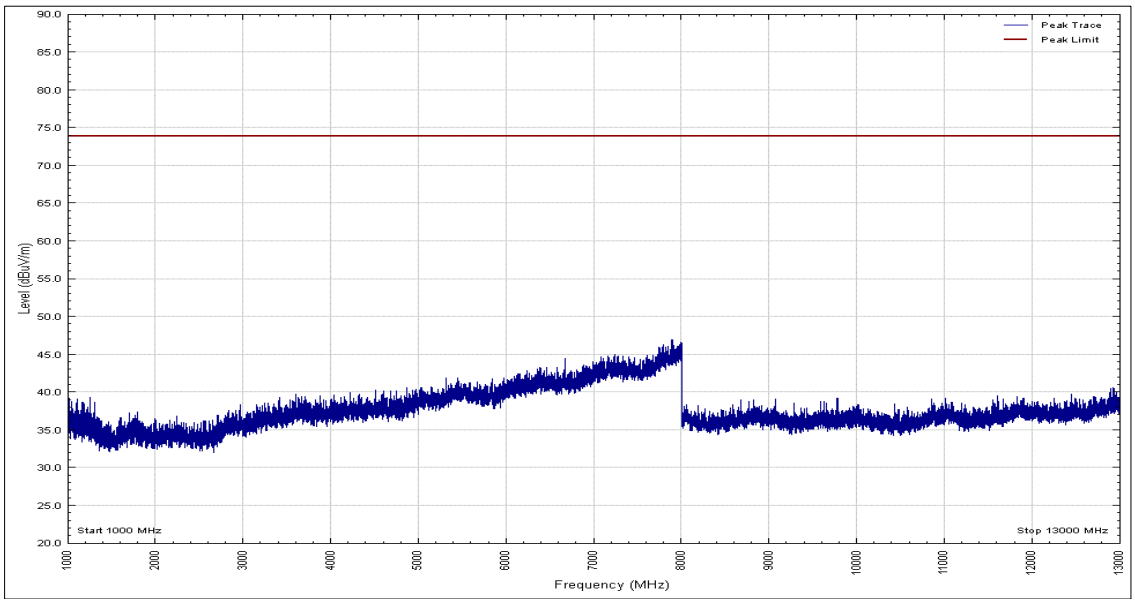

Figure 22 - 1 GHz to 13 GHz, Peak, Horizontal - Z Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 29

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

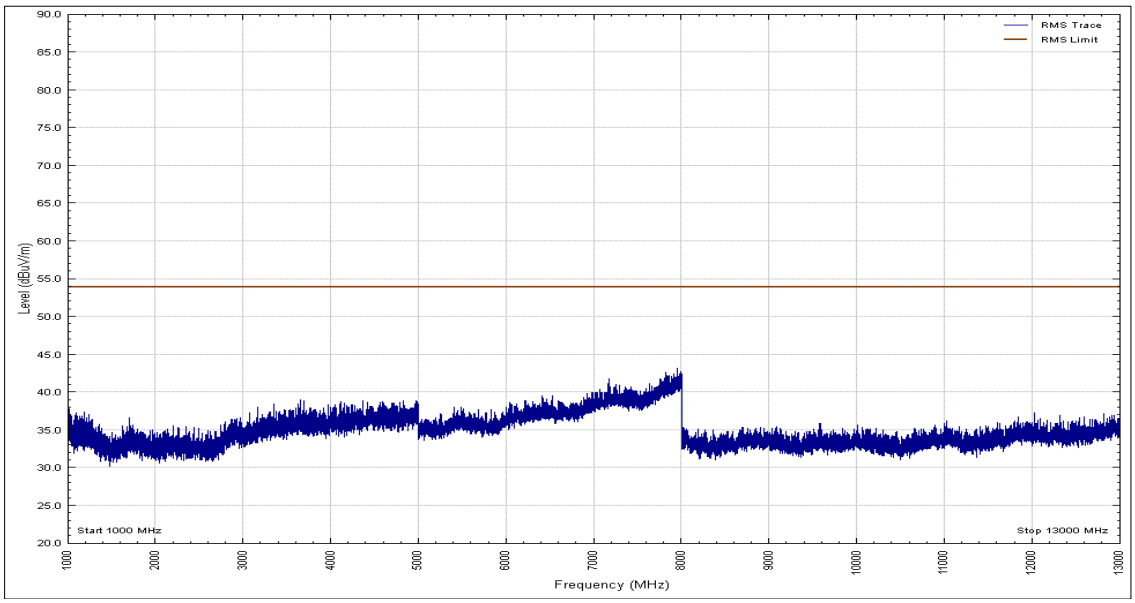

Figure 23 - 1 GHz to 13 GHz, CISPR Average, Horizontal - Z Orientation

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation	Orientation
*								

Table 30

*No final measurements were made as all peak emissions seen during the pre-scan were greater than 10 dB below the test limit.

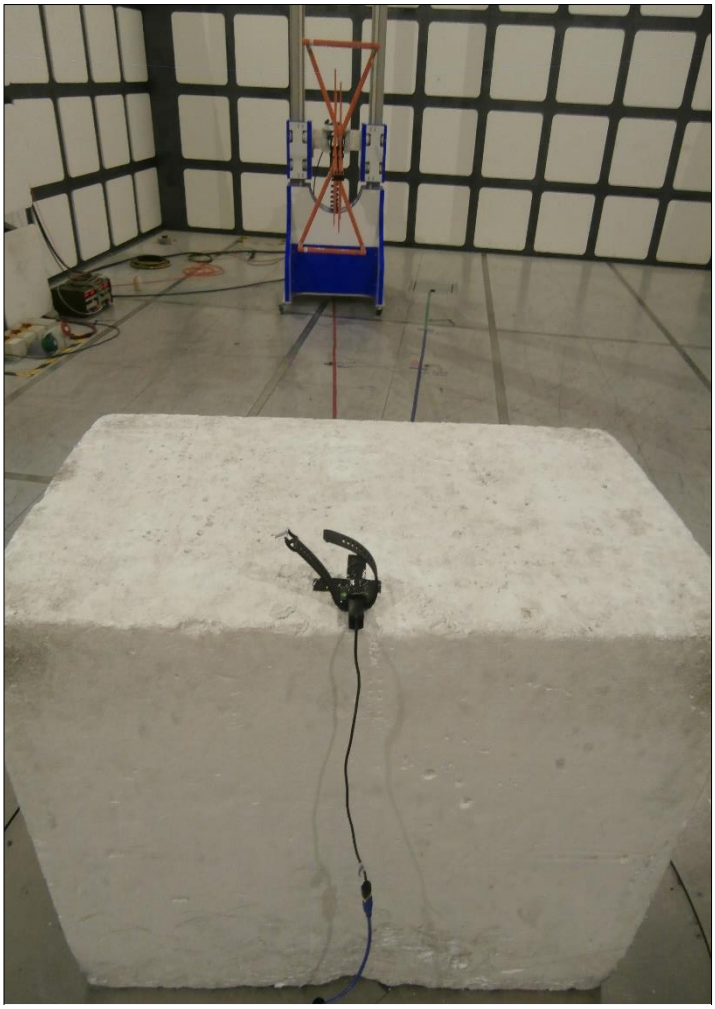

Figure 24 - Test Setup - 30 MHz to 1 GHz - X Orientation

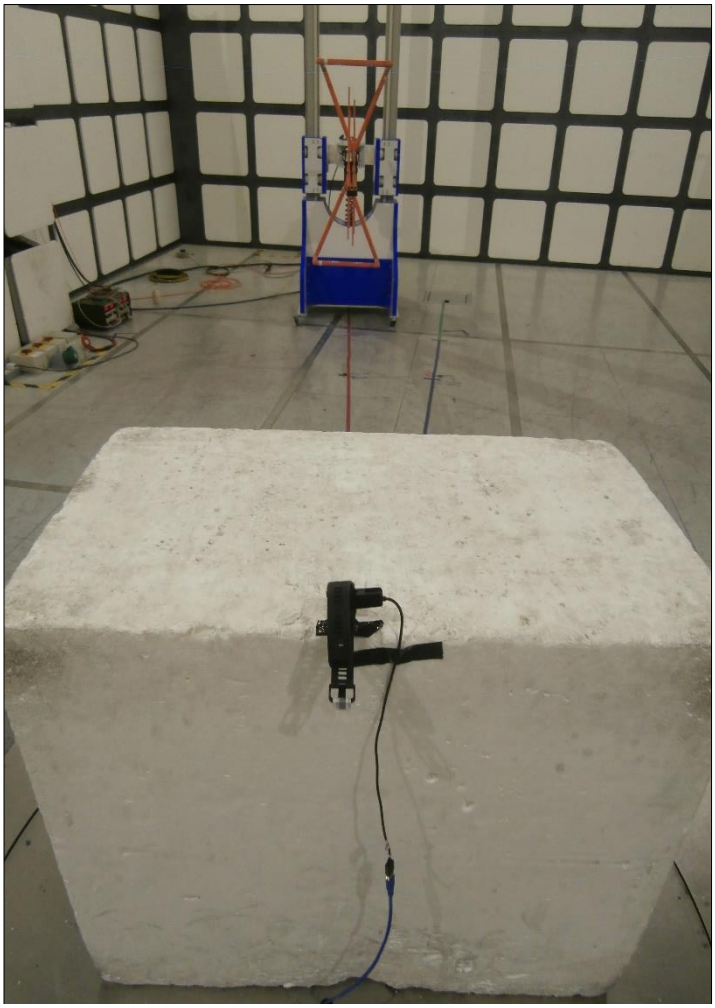

Figure 25 - Test Setup - 30 MHz to 1 GHz - Y Orientation

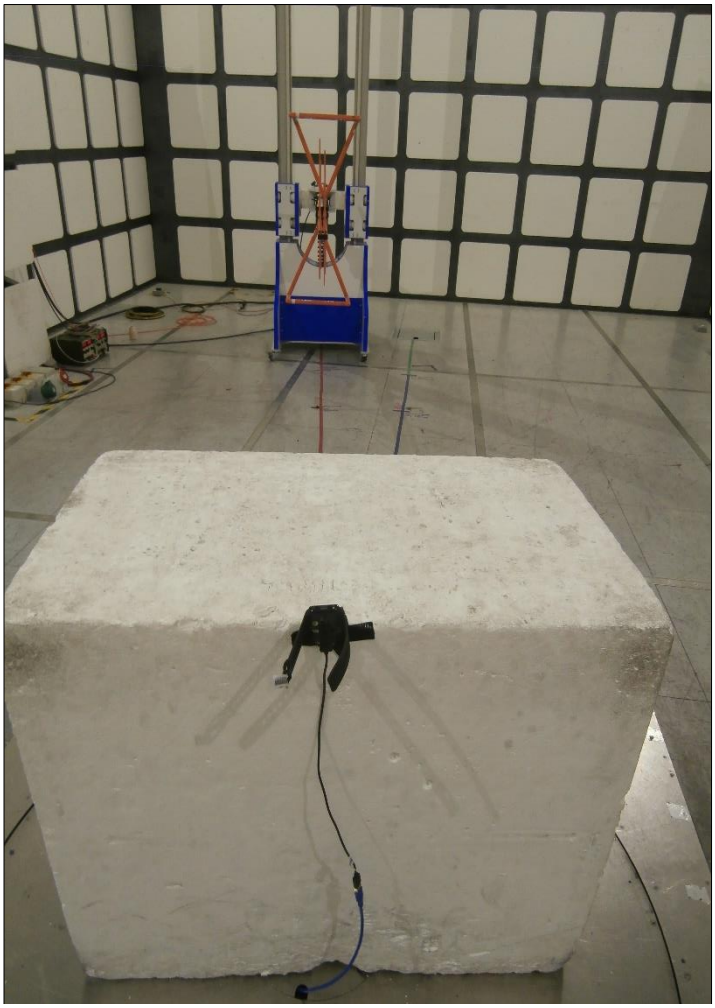

Figure 26 - Test Setup - 30 MHz to 1 GHz - Z Orientation

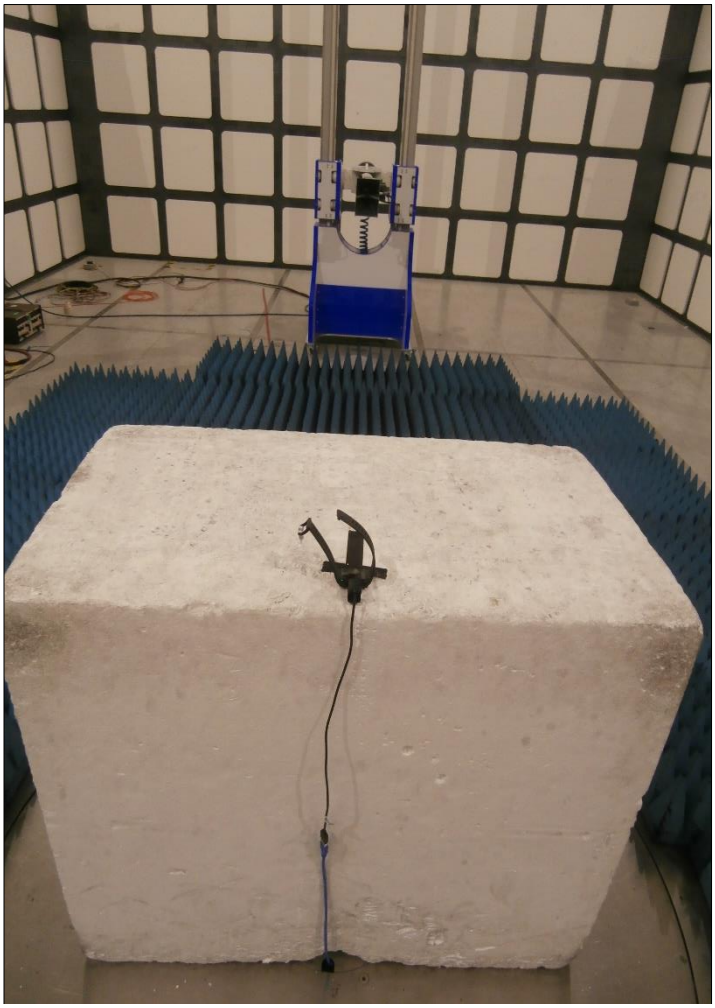

Figure 27 - Test Setup - 1 GHz to 8 GHz - X Orientation

Figure 28 - Test Setup - 1 GHz to 8 GHz - Y Orientation

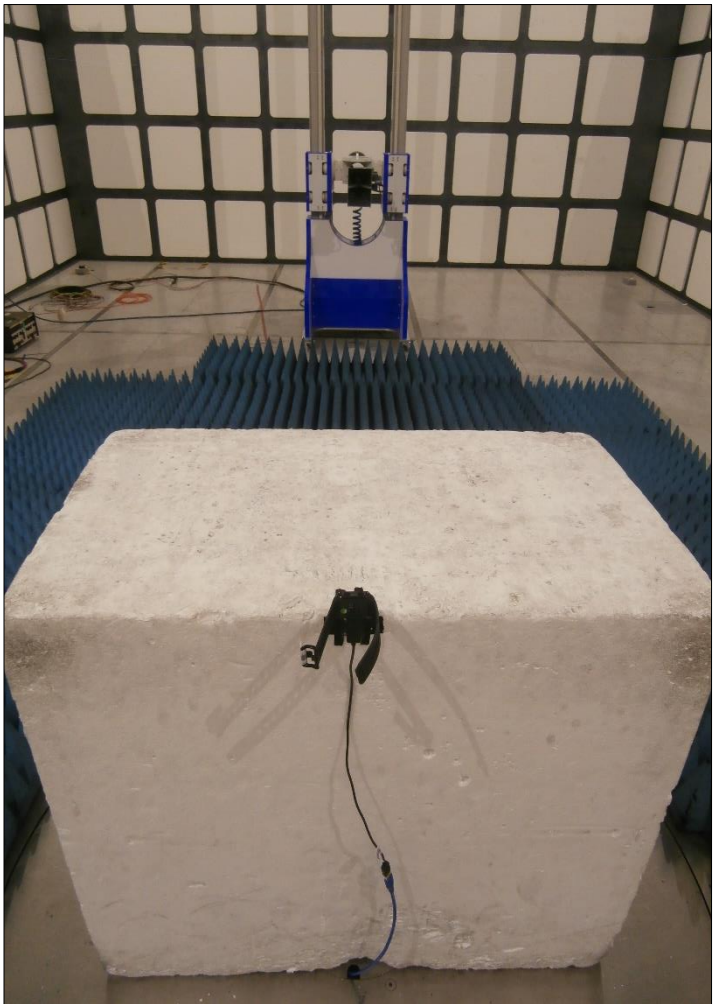

Figure 29 - Test Setup - 1 GHz to 8 GHz - Z Orientation

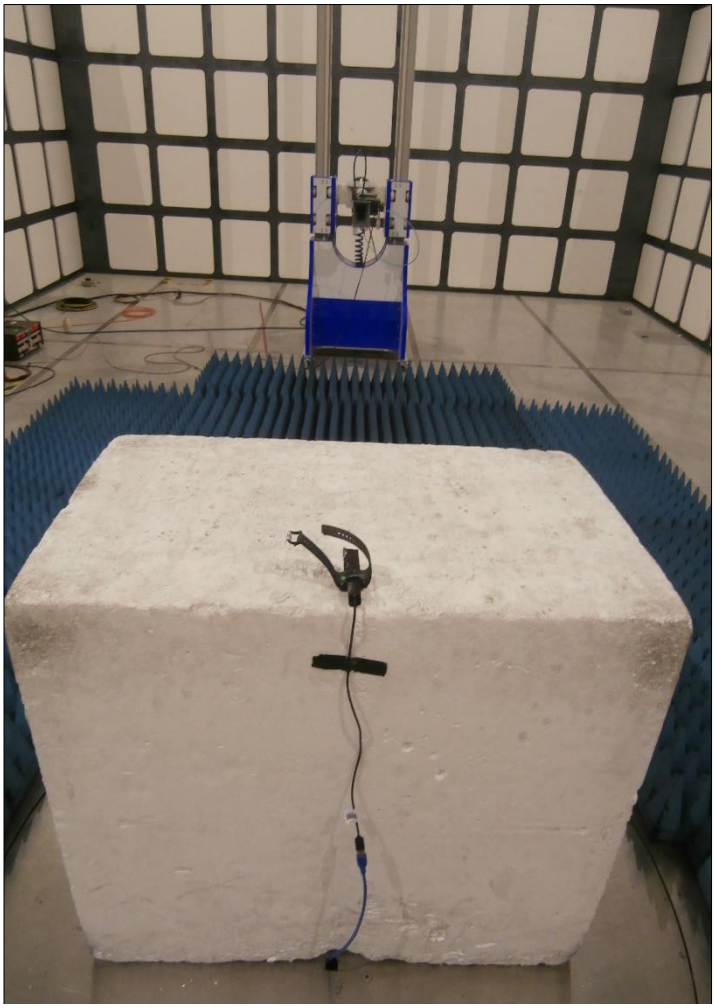

Figure 30 - Test Setup - 8 GHz to 13 GHz - X Orientation

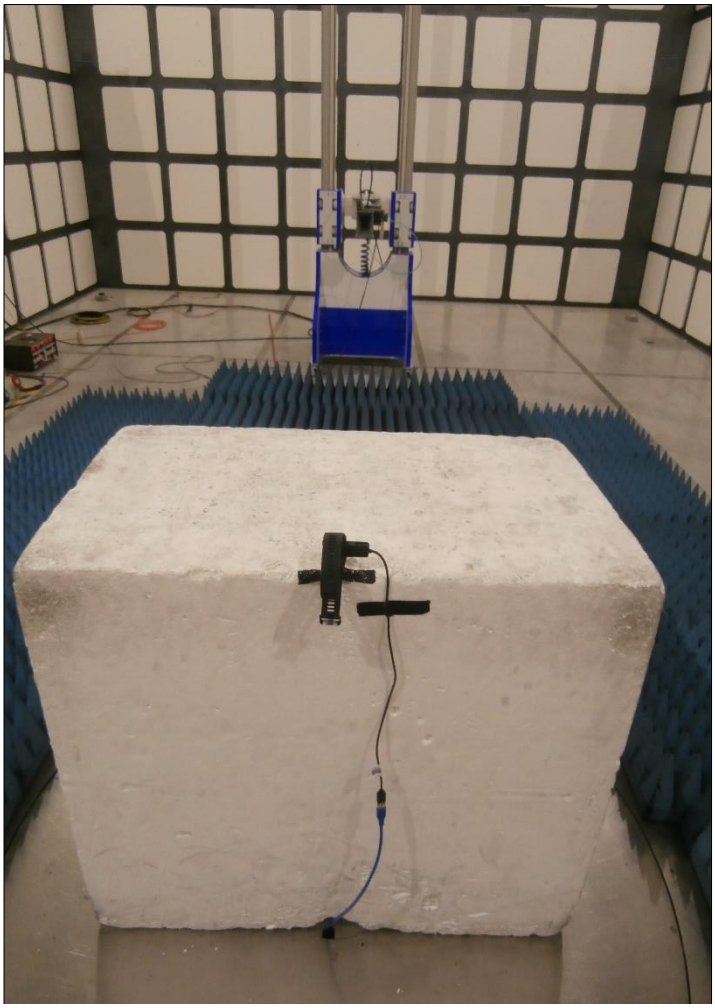

Figure 31 - Test Setup - 8 GHz to 13 GHz - Y Orientation

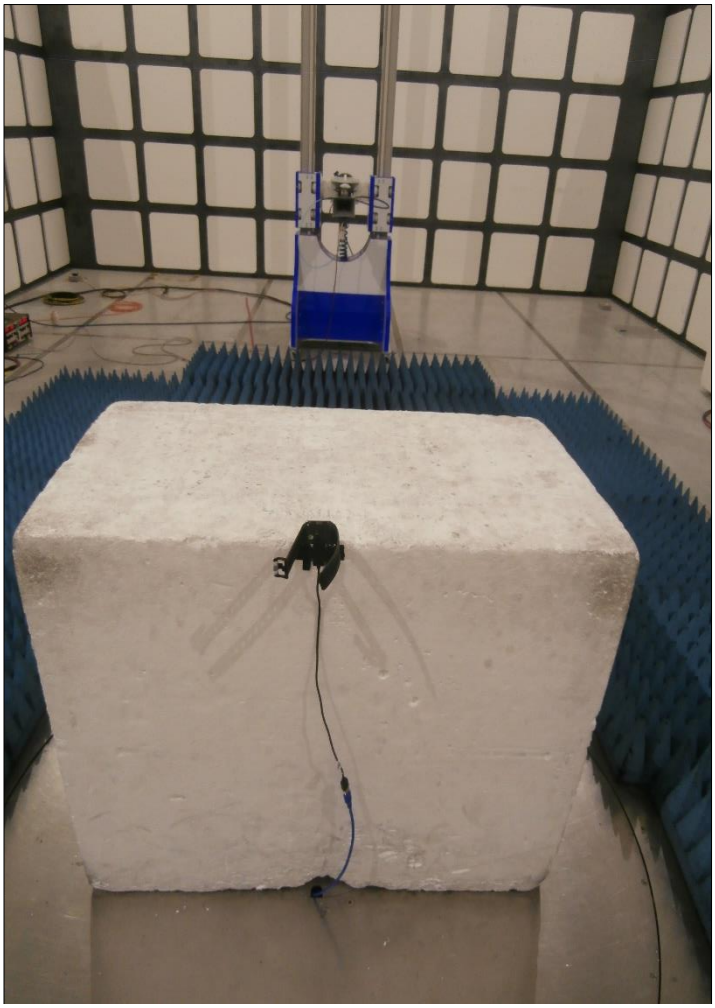

Figure 32 - Test Setup - 8 GHz to 13 GHz - Z Orientation

2.2.10 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 5.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Screened Room (5)	Rainford	Rainford	1545	36	23-Jan-2021
EmX Emissions Software	TUV SUD	EmX	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	06-Feb-2021
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Mast Controller	Maturo Gmbh	NCD	4810	-	TU
Tilt Antenna Mast	Maturo Gmbh	TAM 4.0-P	4811	-	TU
Antenna with permanent attenuator (Bilog)	Chase	CBL6143	2904	24	30-Sep-2021
4dB Attenuator	Pasternack	PE7047-4	4935	24	30-Sep-2021
Preamplifier (30dB 1GHz to 18GHz)	Schwarzbeck	BBV 9718 C	5350	12	21-Aug-2020
8 - 18 GHz pre-amp	Wright Technologies	PS06-0061	4971	12	23-Jan-2021
Double Ridge Broadband Horn Antenna	Schwarzbeck	BBHA 9120 B	4848	12	10-Mar-2021
Antenna (DRG Horn 7.5-18GHz)	Schwarzbeck	HWRD750	5348	12	04-Sep-2020
Multimeter	Iso-tech	IDM101	2417	12	11-Nov-2020
Comb Generator	Schaffner	RSG1000	3034	-	TU
Cable (Yellow, Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4527	6	09-Jun-2020
Cable (18 GHz)	Rosenberger	LU7-071-1000	5105	12	06-Oct-2020
8 Meter Cable	Teledyne	PR90-088-8MTR	5212	12	30-Aug-2020

Table 31

TU - Traceability Unscheduled

3 Incident Reports

No incidents reports were raised.

4 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Radiated Disturbance	30 MHz to 1 GHz, Bilog Antenna, ±5.2 dB 1 GHz to 40 GHz, Horn Antenna, ±6.3 dB
Conducted Disturbance at Mains Terminals	150 kHz to 30 MHz, LISN, ±3.7 dB

Table 32

Worst case error for both Time and Frequency measurement 12 parts in 10^6.

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2007, clause 4.4.3 and 4.5.1.