

FCC Test Report

Rexon Technology Co., LTD.

VHF portable handheld radio, Model: PJ2+

In accordance with FCC 47 CFR Part 15B (VHF)

Prepared for: Rexon Technology Co., LTD.
No. 261
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FCC ID: I7OPJ22

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Document 75955568-01 Issue 04

SIGNATURE

A. Lawson

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Andrew Lawson	Chief Engineer, EMC	Authorised Signatory	13 October 2022

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	Graeme Lawler	13 October 2022	<i>G. Lawler</i>

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: 2020 for the tests detailed in section 1.3.



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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	08-September-2022
2	To complete table 6 in section 1.4	14-September-2022
3	Amend FCC ID and model number	27-September-2022
4	To amend the manufacturer's name and address.	13 October 2022

Table 1

1.2 Introduction

Applicant	Rexon Technology Co., LTD
Manufacturer	Rexon Technology Co., LTD
Model Number(s)	PJ2+
Serial Number(s)	Not serialised Storix ID (650288-003)
Hardware Version(s)	PJ2+_0.2.0.05
Software Version(s)	PJ2+_Factory_0.0.0.9_1 test.set
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 15B: 2020
Order Number	Signed QAF
Date	12-May-2022
Date of Receipt of EUT	17-May-2022
Start of Test	07-August-2022
Finish of Test	08-August-2022
Name of Engineer(s)	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 - Idle				
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 including the technologies the product supports)	Aviation Portable Radio	
Manufacturer:	Rexon Technology Co., LTD	
Model:	PJ2+	
Part Number:	N/A	
Hardware Version:	PJ2+_0.2.0.05	
Software Version:	PJ2+_Factory_0.0.0.9_1 test.set	
FCC ID of the product under test – see guidance here	I7OPJ22	
IC ID of the product under test – see guidance here		

Table 3

Intentional Radiators

Technology	Aviation Portable Radio					
Frequency Range (MHz to MHz)	118.000~136.975MHz					
Conducted Declared Output Power (dBm)	32.55dBm					
Antenna Gain (dBi)	0dBi					
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	118.000~136.975MHz					
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	Amplitude Modulation					
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)	6K00A3E					
Bottom Frequency (MHz)	118.000MHz					
Middle Frequency (MHz)	127.500MHz					
Top Frequency (MHz)	136.975MHz					

Table 4



Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	209.625MHz
Lowest frequency generated or used in the device or on which the device operates or tunes	118.000MHz
Class A Digital Device (Use in commercial, industrial or business environment) ☐	
Class B Digital Device (Use in residential environment only) ☐	

Table 5

AC Power Source

AC supply frequency:	50/60	Hz
Voltage	100~240	V
Max current:	0.8	A
Single Phase ☐ Three Phase ☐		

Table 6

DC Power Source

Nominal voltage:	9.0	V
Extreme upper voltage:	9.6	V
Extreme lower voltage:	7.2	V
Max current:	1.5	A

Table 7

Battery Power Source

Voltage:	9.0	V
End-point voltage:	7.2	V (Point at which the battery will terminate)
Alkaline ☐ Leclanche ☐ Lithium ☐ Nickel Cadmium ☐ Lead Acid* ☐ *(Vehicle regulated)		
Other ☐	Please detail:	Alkaline

Table 8

Charging

Can the EUT transmit whilst being charged	Yes ☐ No ☐ No
---	---

Table 9

Temperature

Minimum temperature:	-30	°C
Maximum temperature:	+50	°C

Table 10



Cable Loss

Adapter Cable Loss (Conducted sample)		dB
--	--	----

Table 11

Antenna Characteristics

Antenna connector ☐			State impedance	50	Ohm
Temporary antenna connector ☐			State impedance		Ohm
Integral antenna ☐	Type:		Gain		dBi
External antenna ☐	Type:	Helical	Gain	0	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 ☐					

Table 12

Ancillaries (if applicable)

Manufacturer:		Part Number:	
Model:		Country of Origin:	

Table 13

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

Name: Maurice Ma
Position held: RD Manager
Date: 26 May 2022



1.5 Product Information

1.5.1 Technical Description

The Equipment under test (EUT) was a Rexon Technology Co., LTD VHF portable handheld radio, Model: PJ2+.

The primary function of the EUT is as a portable air band two-way radio, 118.000 MHz ~ 136.975 MHz, including receiver and transmitter function.

1.5.2 EUT Port/Cable Identification

Port	Max Cable Length specified	Usage	Type	Screened
Configuration and Mode: Battery Powered - Idle				
Neutral Line	N/A	AC Power for the EUT	AC Mains Supply	No
Live Line	N/A	AC Power for the EUT	AC Mains Supply	No
Charging Port	1.0 m	DC Power for the EUT	DC Power	No
Push to Talk	0.4 m	Connection to Push to Talk	Control	No
Speaker	0.65 m	Connection to Speaker	Control	Yes
Mic In	0.65 m	Connection to Microphone	Control	Yes

Table 14

1.5.3 Test Configuration

Configuration	Description
Battery Powered	The internal batteries were fitted to the EUT. The EUT was connected to the DC PSU by the USB connector.

Table 15

1.5.4 Test Mode

Configuration	Description
Idle	The EUT was powered and idle/not transmitting.

Table 16

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: PJ2+, Serial Number: Not serialised Storix ID (650288-003)			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 17

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 - Idle		
Conducted Disturbance at Mains Terminals	Graeme Lawler	UKAS
Radiated Disturbance	Graeme Lawler	UKAS

Table 18

Office Address:

TÜV SÜD
Octagon House
Concorde Way
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

PJ2+, S/N: Not serialised Storix ID (650288-003) - Modification State 0

2.1.3 Date of Test

08-August-2022

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

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

2.1.6 Example Test Setup Diagram

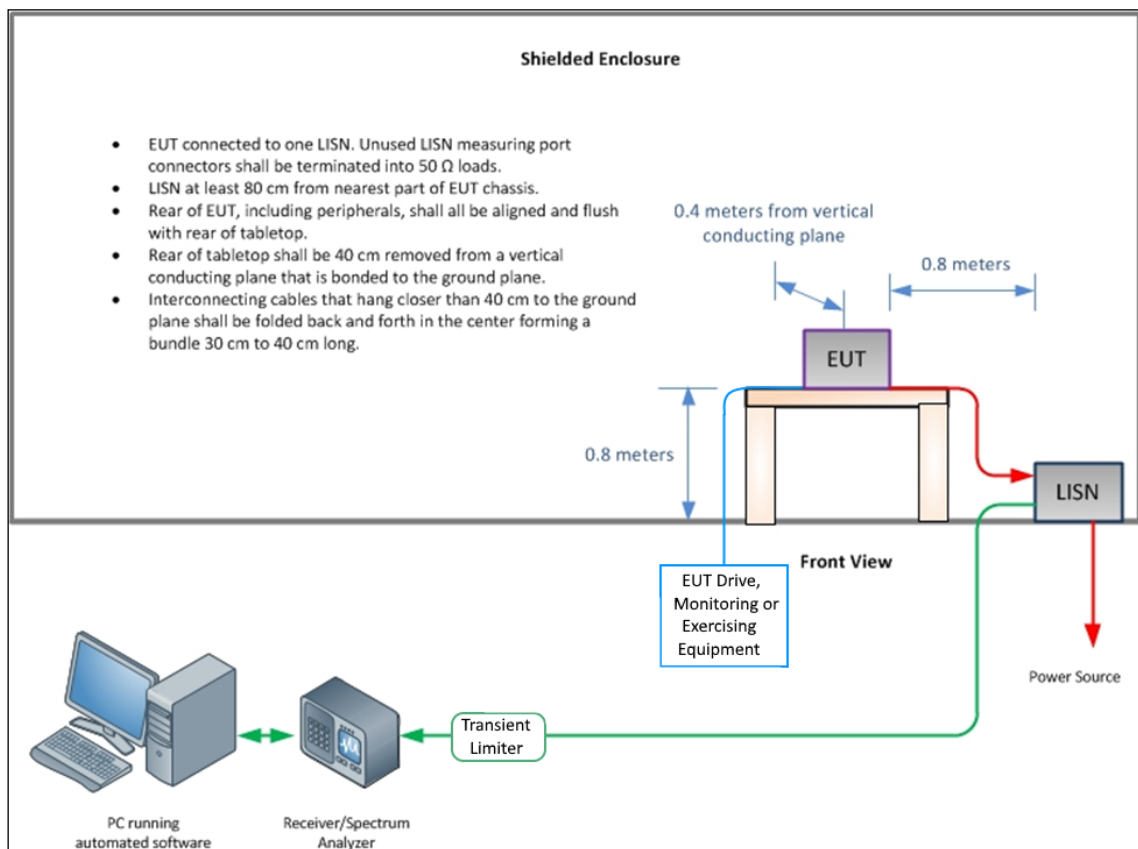


Figure 1 - Conducted Disturbance

2.1.7 Environmental Conditions

Ambient Temperature 18.4 °C
Relative Humidity 51.5 %

2.1.8 Specification Limits

Required Specification Limits - Class B			
Line Under Test	Frequency Range (MHz)	Quasi-Peak Test Limit (dB μ V)	CISPR Average Test Limit (dB μ V)
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 19



2.1.9 Test Results

Results for Configuration and Mode: Battery Powered - Idle.

This test was performed to the requirements of the Class B limits.

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

Detailed results are shown below.

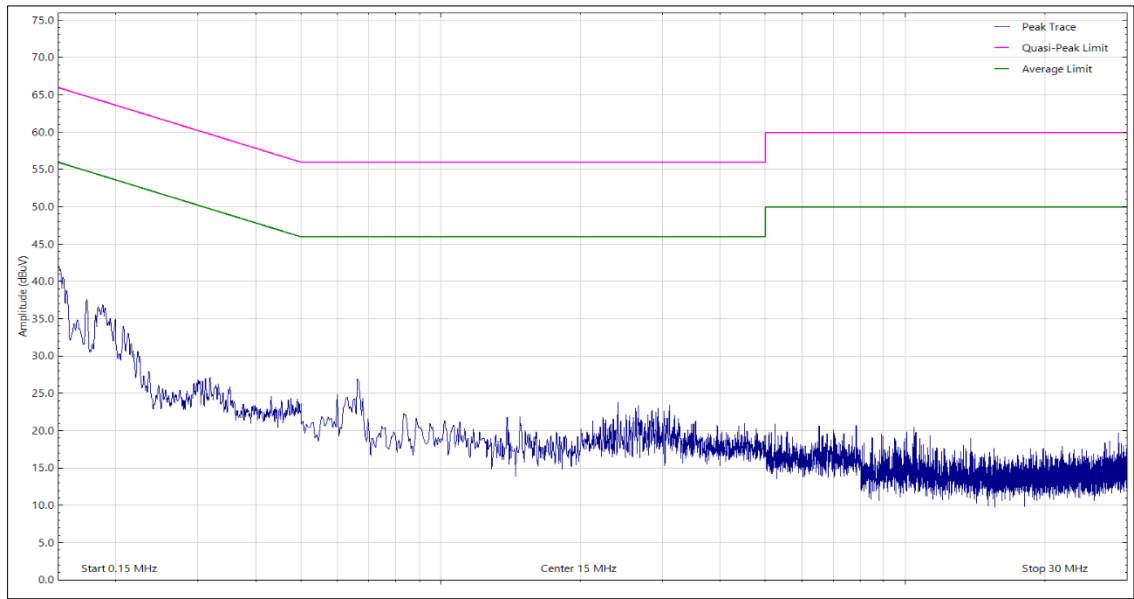


Figure 2 - Graphical Results - Neutral Line

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
*				

Table 20

*No final measurements were made as all peak emissions seen above the measurement system noise floor during the pre-scan were greater than 6 dB below the CISPR Average test limit.

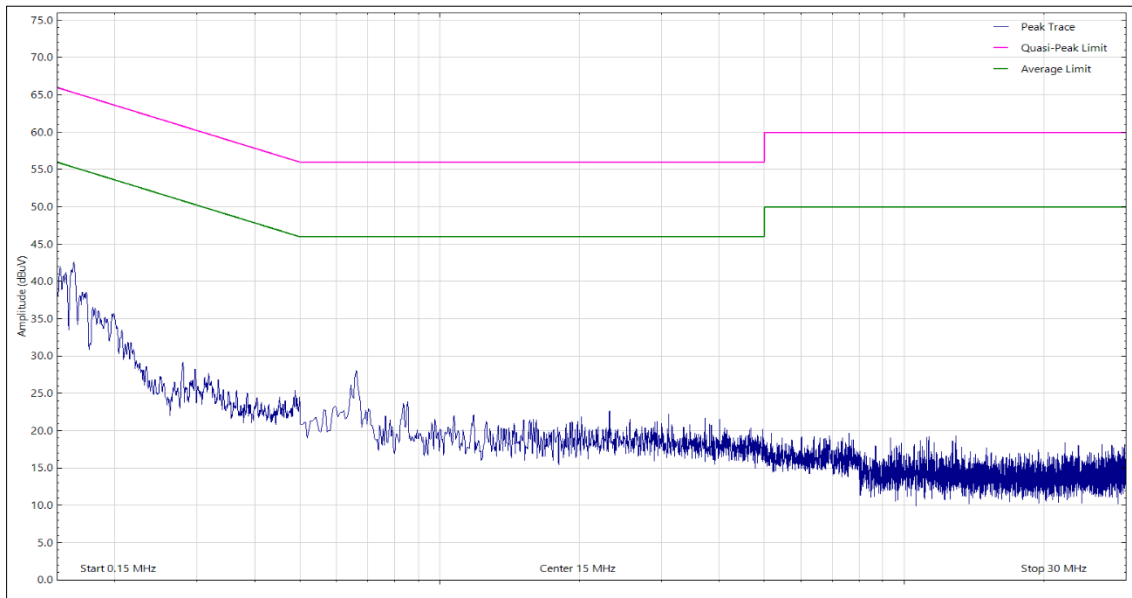


Figure 3 - Graphical Results - Live Line

Frequency (MHz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
*				

Table 21

*No final measurements were made as all peak emissions seen above the measurement system noise floor during the pre-scan were greater than 6 dB below the CISPR Average test limit.



Figure 4 - AC Line Conducted Emissions



Figure 5 - AC Line Conducted Emissions



2.1.10 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 12.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Screened Room (12)	MVG	EMC-3	5621	36	11-Aug-2023
Emissions Software	TUV SUD	EmX V3.1.4	5125	-	Software
Test Receiver	Rohde & Schwarz	ESU40	3506	12	25-Mar-2023
Transient Limiter	Hewlett Packard	11947A	2378	12	13-Oct-2022
Cable (SMA to SMA, 2 m)	Rhophase	3PS-1801A-2000-3PS	4113	12	27-Jan-2023
Cable (N-Type to N-Type, 8 m)	Teledyne	PR90-088-8MTR	5450	6	06-Oct-2022
LISN (CISPR 16, Single Phase)	Rohde & Schwarz	ESH3-Z5	1390	12	31-Jan-2023

Table 22



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

PJ2+, S/N: Not serialised Storix ID (650288-003) - Modification State 0

2.2.3 Date of Test

07-August-2022 to 08-August-2022

2.2.4 Test Method

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

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

For an EUT which could reasonably 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.

Using a list of the highest emissions detected during the pre-scan along with their bearing and associated antenna polarisation, the EUT was then formally 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 (dB μ V/m) = Receiver level (dB μ V) + Correction Factor (dB/m)
Margin (dB) = Quasi-Peak level (dB μ V/m) - Limit (dB μ V/m)

Above 1 GHz:

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

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

2.2.6 Example Test Setup Diagram

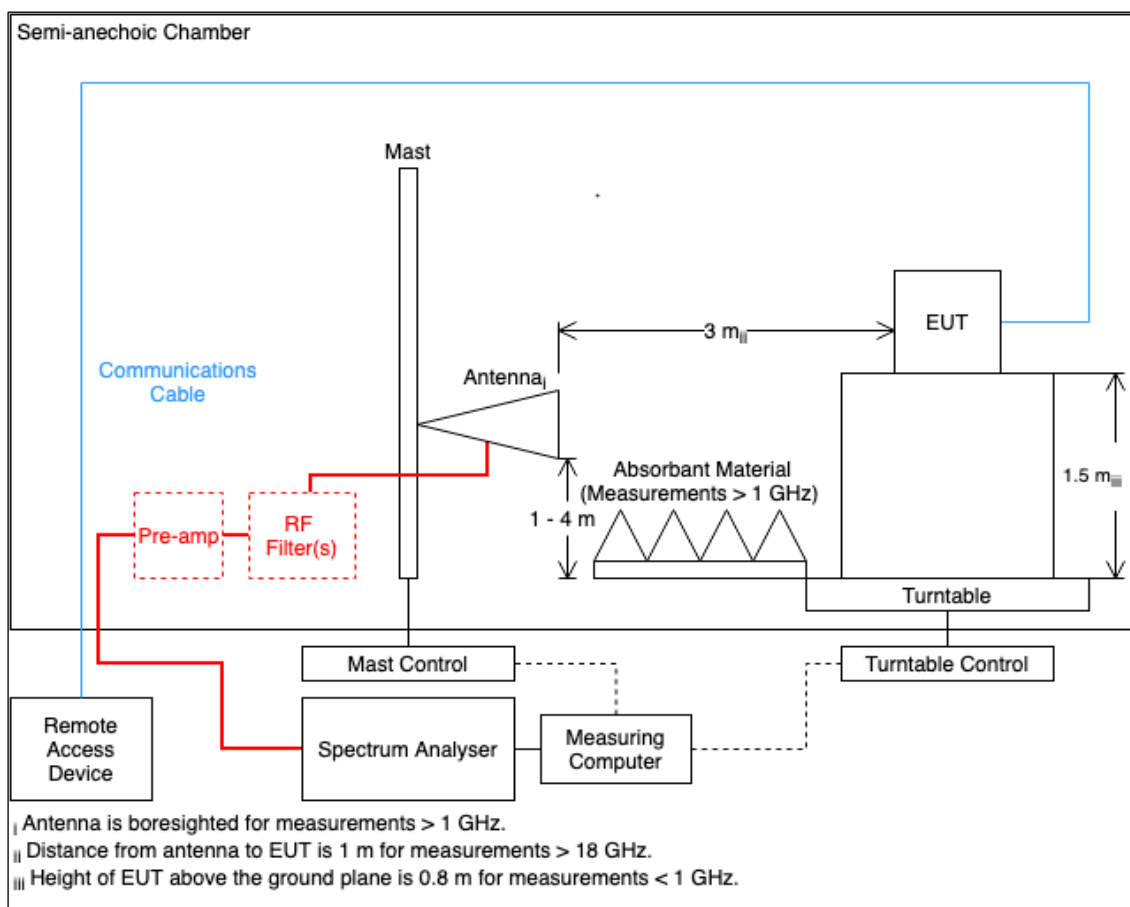


Figure 6

2.2.7 Environmental Conditions

Ambient Temperature	22.2 - 25.0 °C
Relative Humidity	41.0 - 42.5 %

2.2.8 Specification Limits

Required Specification Limits, Field Strength - Class B Test Limit at a 3 m Measurement Distance		
Frequency Range (MHz)	Test Limit (μV/m)	Test Limit (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:
 Note 1. A Quasi-peak detector is to be used for measurements below 1 GHz.
 Note 2. A CISPR Average detector is to be used for measurements above 1 GHz.
 Note 3. The Peak test limit above 1 GHz is 20 dB higher than the CISPR Average test limit.

Table 23



2.2.9 Test Results

Results for Configuration and Mode: Battery Powered - Idle.

This test was performed to the requirements of 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: 209.625 MHz
Which necessitates an upper frequency test limit of: 2 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.

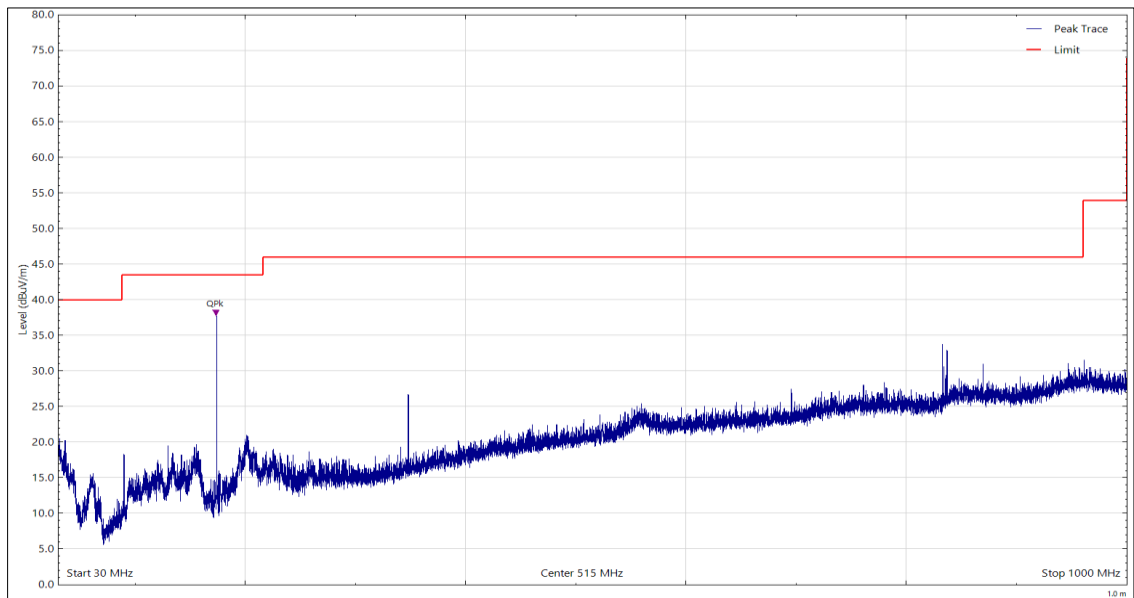


Figure 7 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - X Orientation

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
173.848	37.5	43.5	-6.0	Q-Peak	37	100	Vertical

Table 24

No other final measurements were made as all other peak emissions seen above the measurement system noise floor during the pre-scan were greater than 10 dB below the test limit.

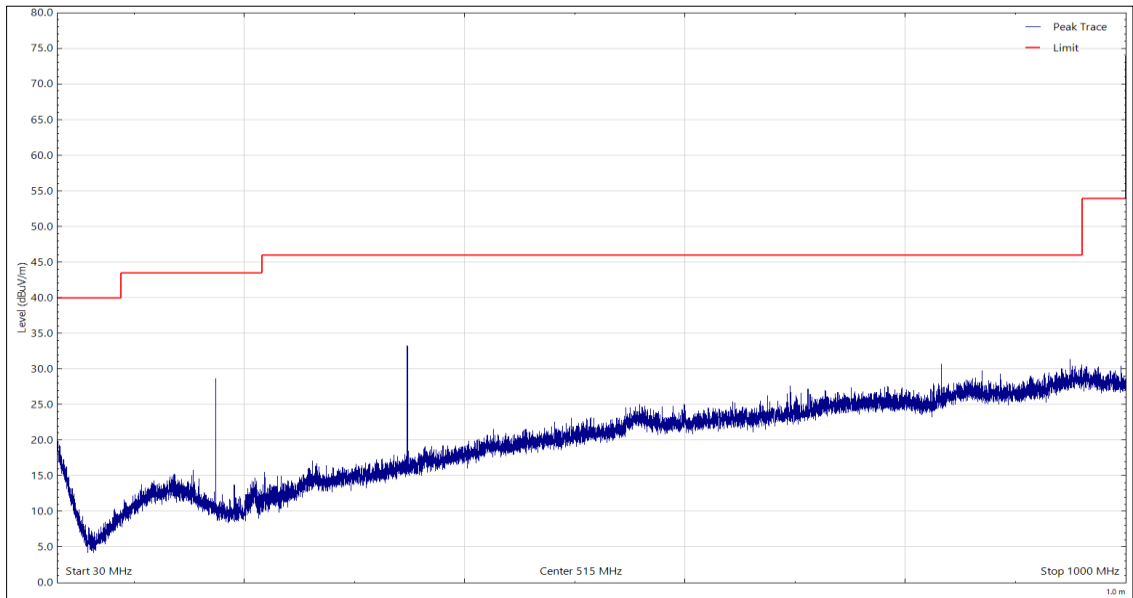


Figure 8 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - X Orientation

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

Table 25

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

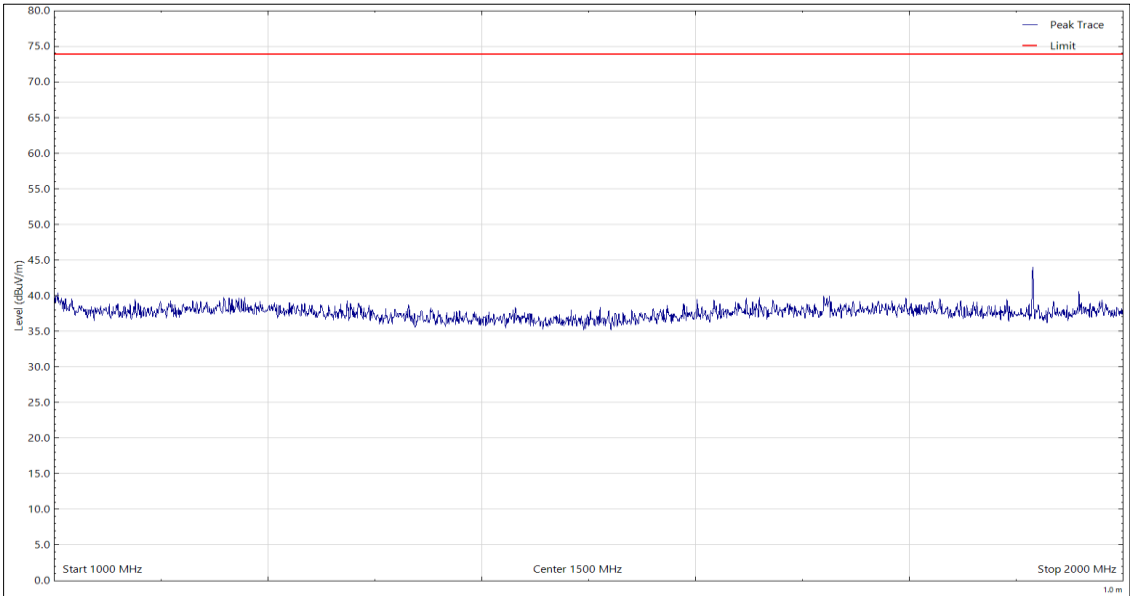


Figure 9 - 1 GHz to 2 GHz, Peak, Vertical - X Orientation

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

Table 26

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

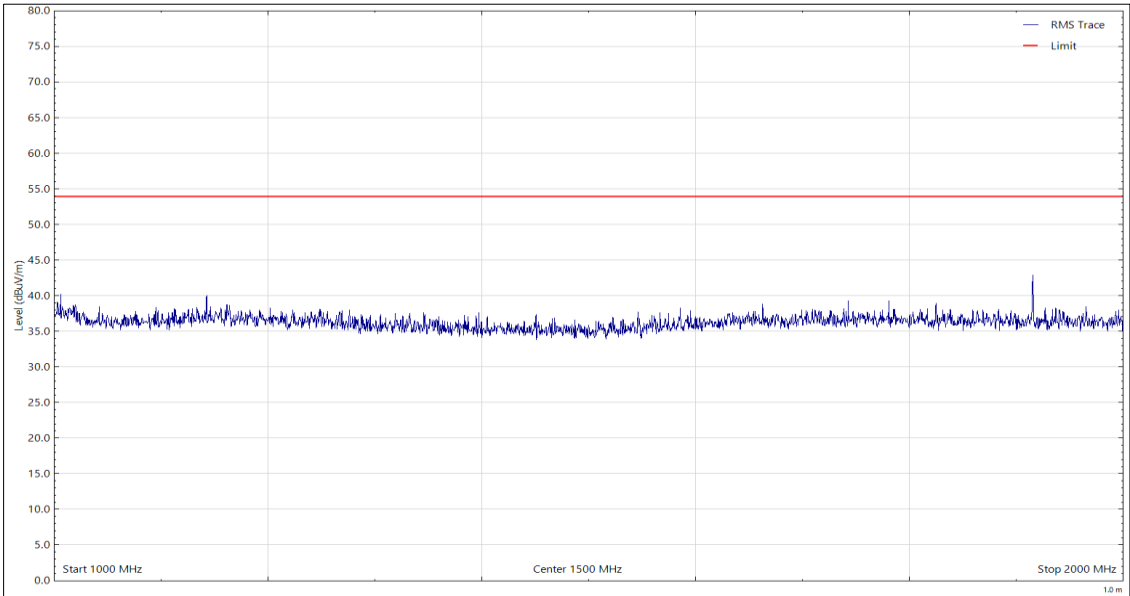


Figure 10 - 1 GHz to 2 GHz, CISPR Average, Vertical - X Orientation

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

Table 27

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

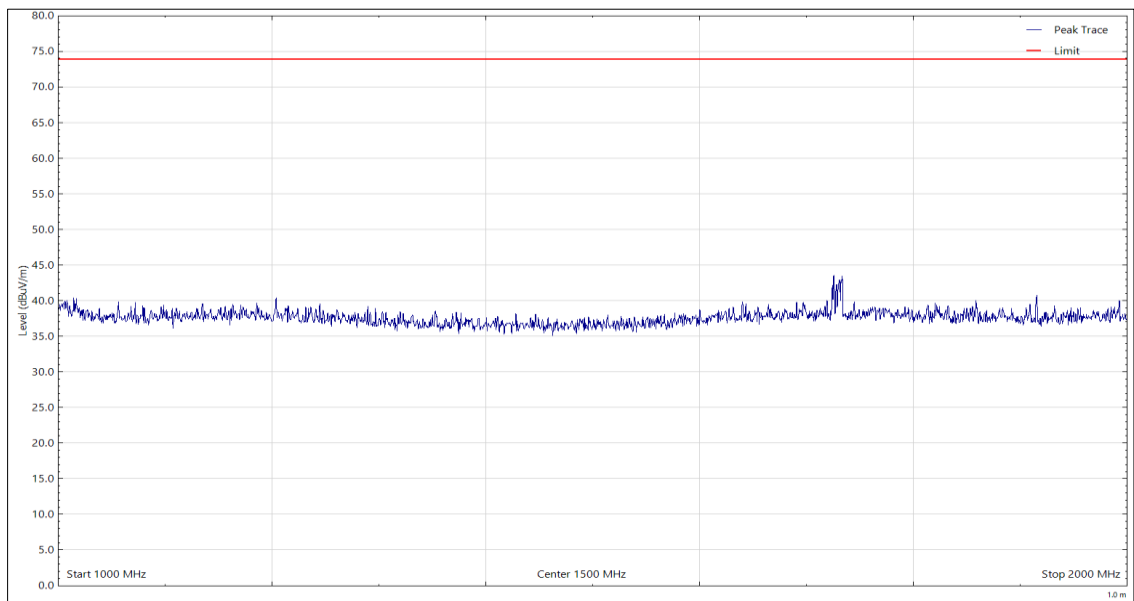


Figure 11 - 1 GHz to 2 GHz, Peak, Horizontal - X Orientation

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

Table 28

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

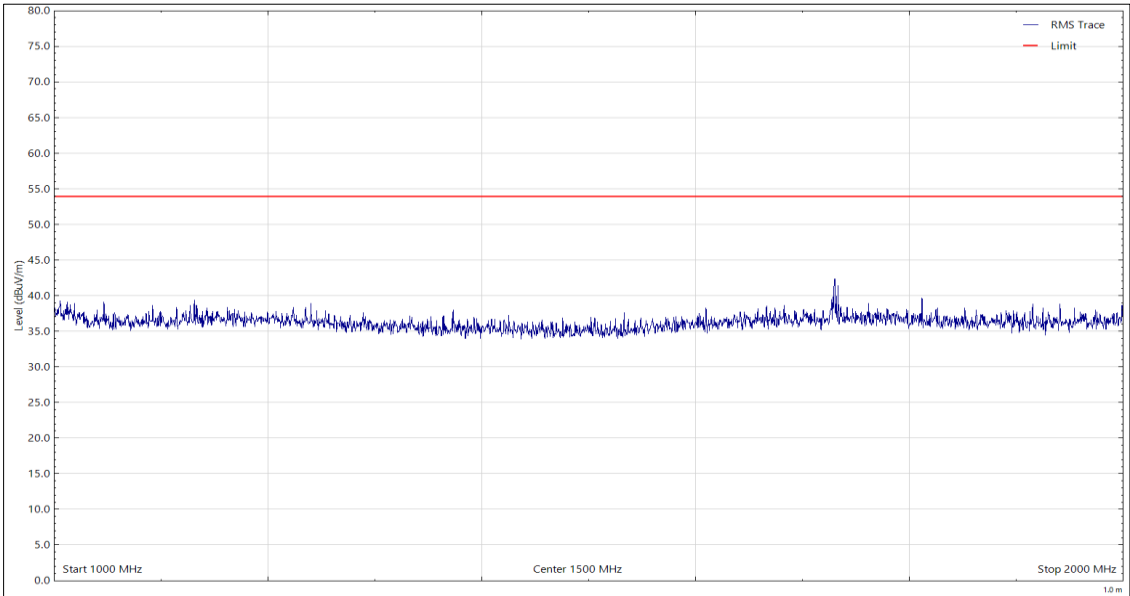


Figure 12 - 1 GHz to 2 GHz, CISPR Average, Horizontal - X Orientation

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

Table 29

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

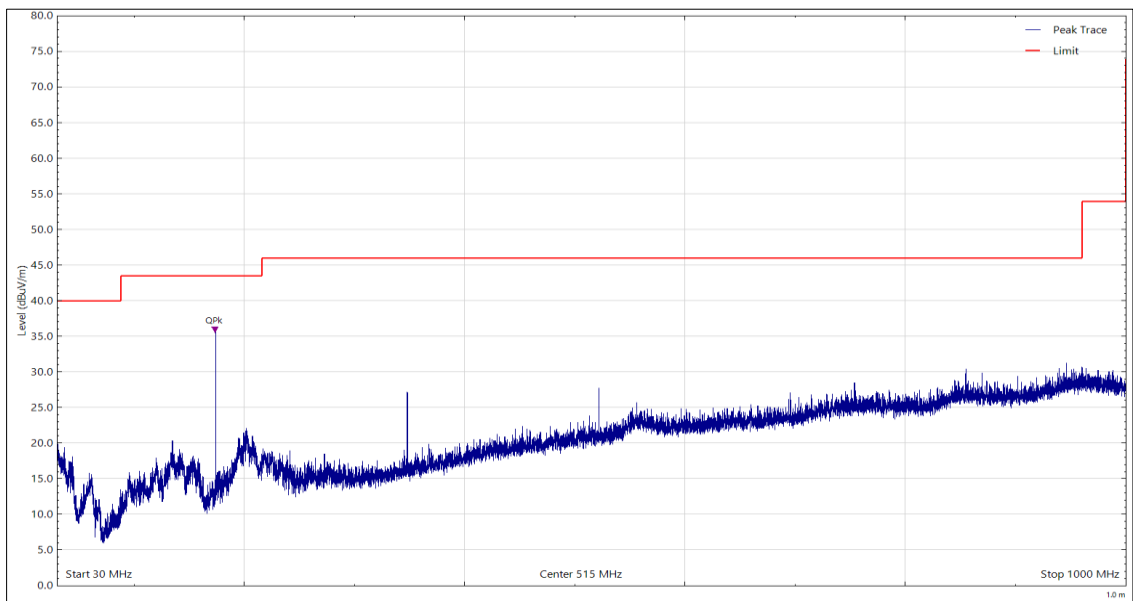


Figure 13 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - Y Orientation

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
173.845	35.3	43.5	-8.2	Q-Peak	10	101	Vertical

Table 30

No other final measurements were made as all other peak emissions seen above the measurement system noise floor during the pre-scan were greater than 10 dB below the test limit.

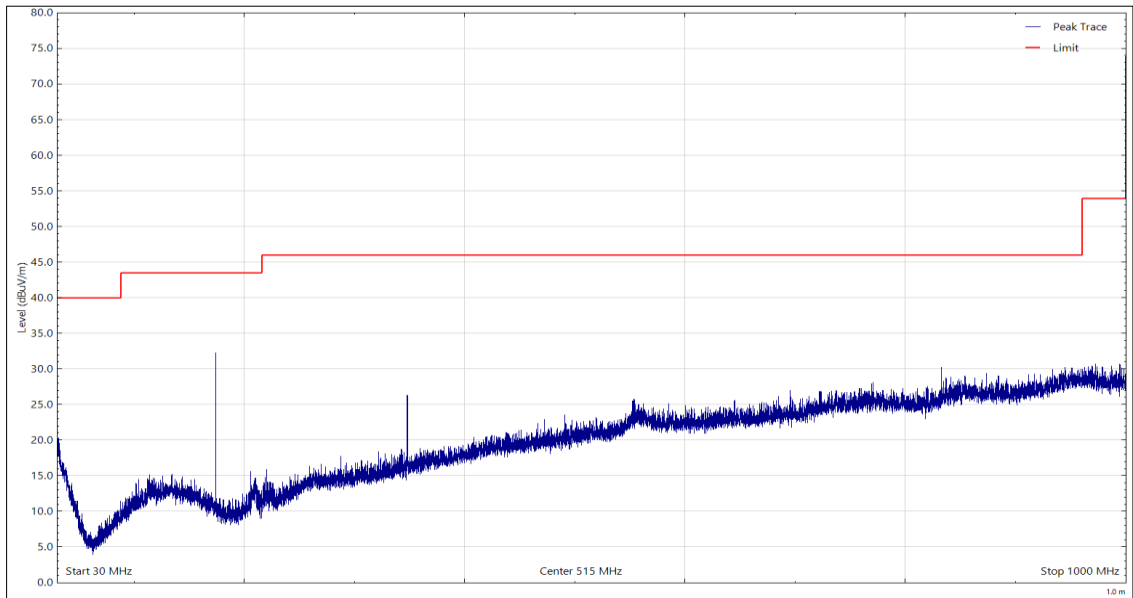


Figure 14 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - Y Orientation

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

Table 31

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

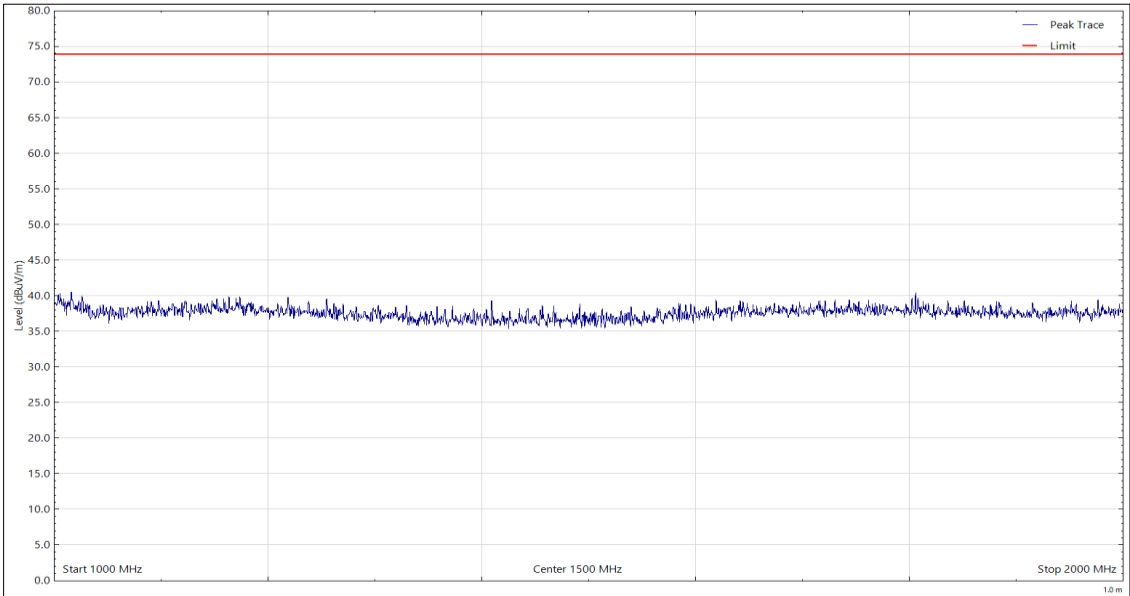


Figure 15 - 1 GHz to 2 GHz, Peak, Vertical - Y Orientation

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

Table 32

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

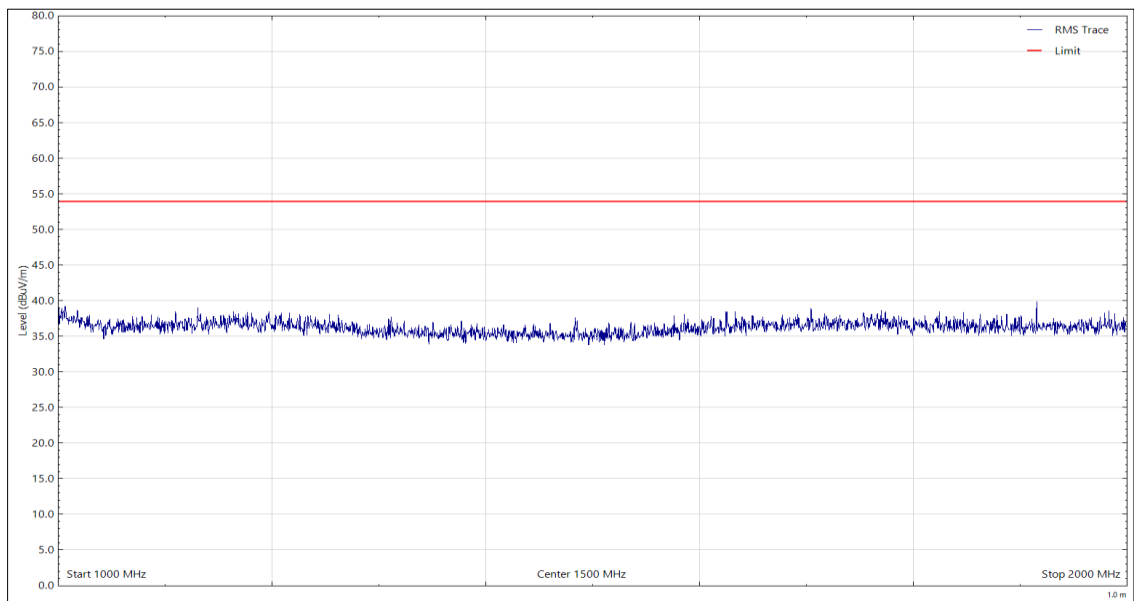


Figure 16 - 1 GHz to 2 GHz, CISPR Average, Vertical - Y Orientation

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

Table 33

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

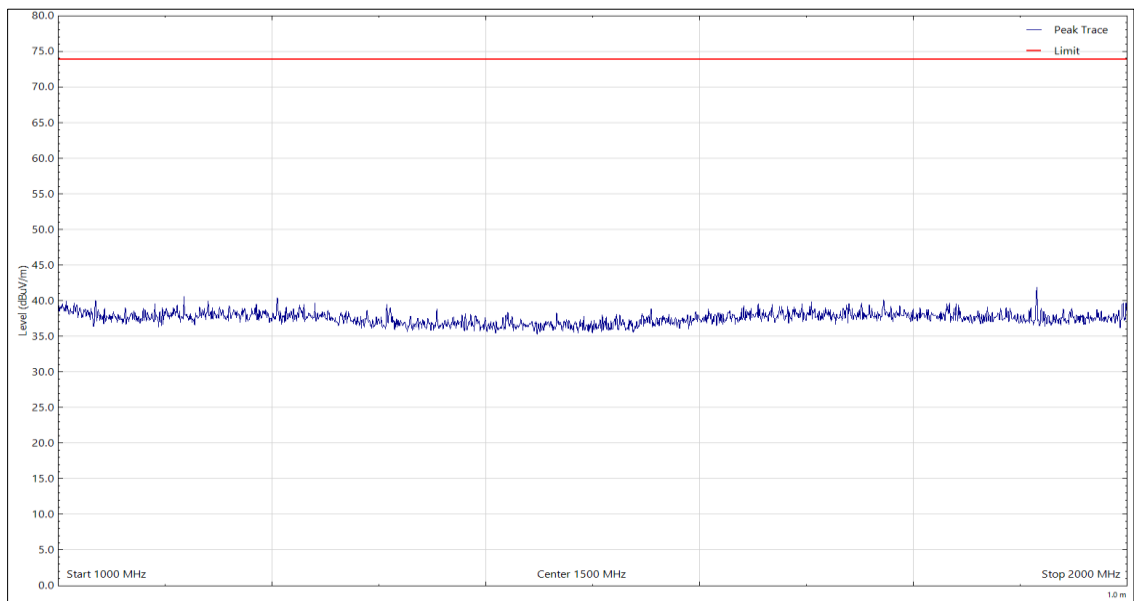


Figure 17 - 1 GHz to 2 GHz, Peak, Horizontal - Y Orientation

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

Table 34

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

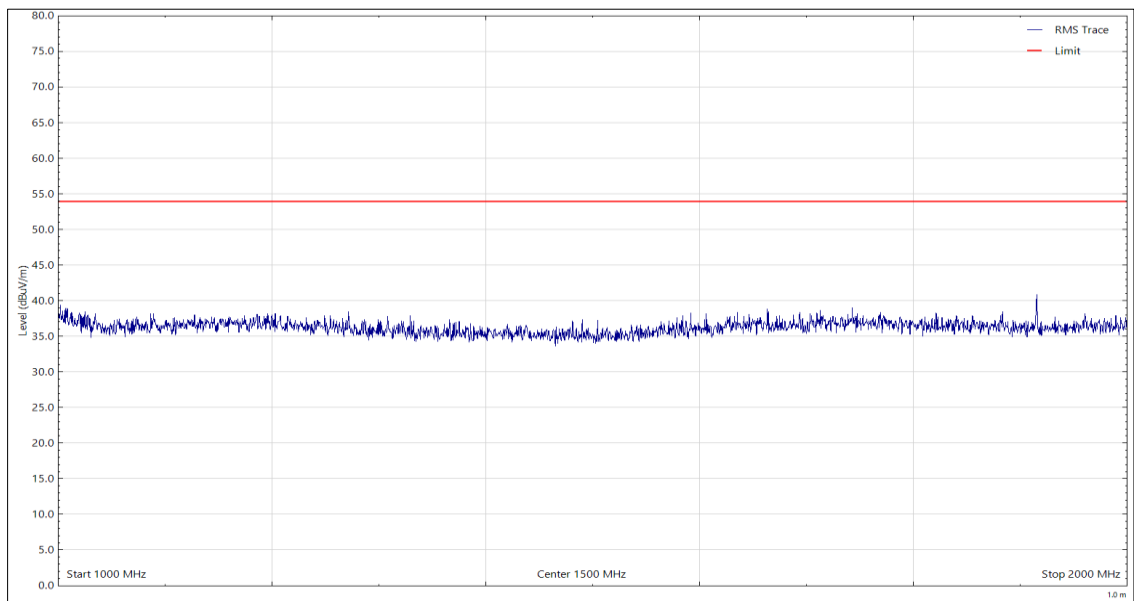


Figure 18 - 1 GHz to 2 GHz, CISPR Average, Horizontal - Y Orientation

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

Table 35

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

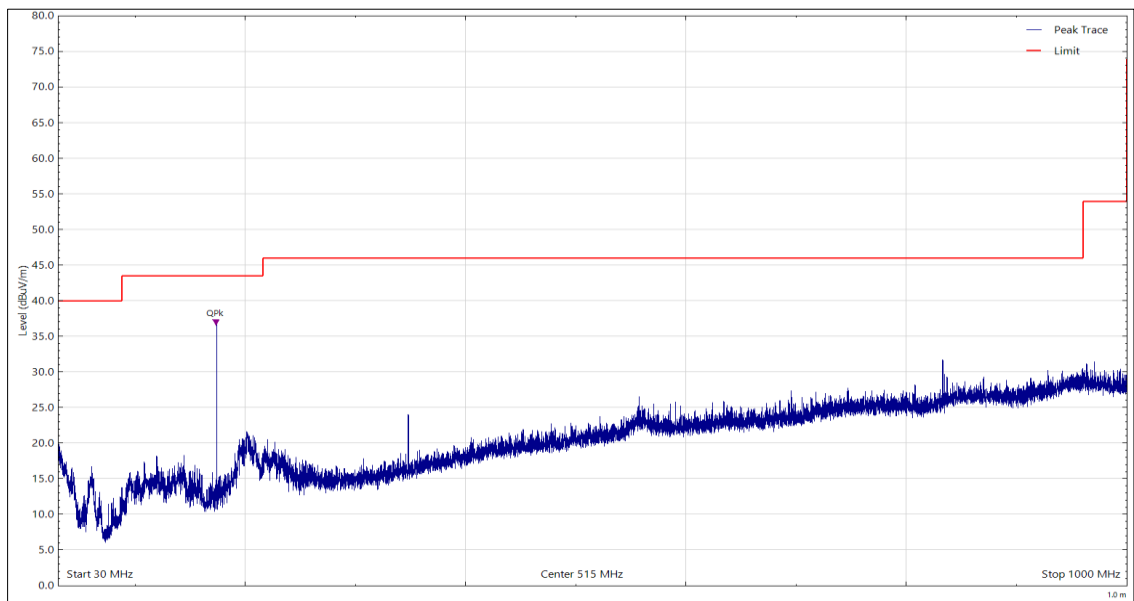


Figure 19 - 30 MHz to 1 GHz, Quasi-Peak, Vertical - Z Orientation

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
173.849	36.3	43.5	-7.2	Q-Peak	354	100	Vertical

Table 36

No other final measurements were made as all other peak emissions seen above the measurement system noise floor during the pre-scan were greater than 10 dB below the test limit.

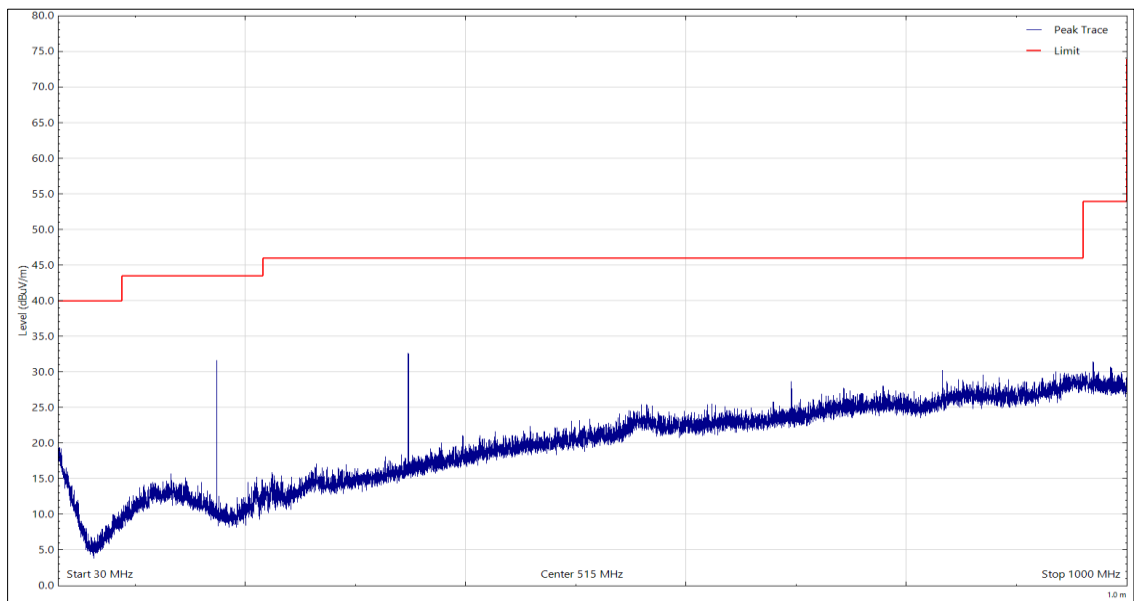


Figure 20 - 30 MHz to 1 GHz, Quasi-Peak, Horizontal - Z Orientation

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

Table 37

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

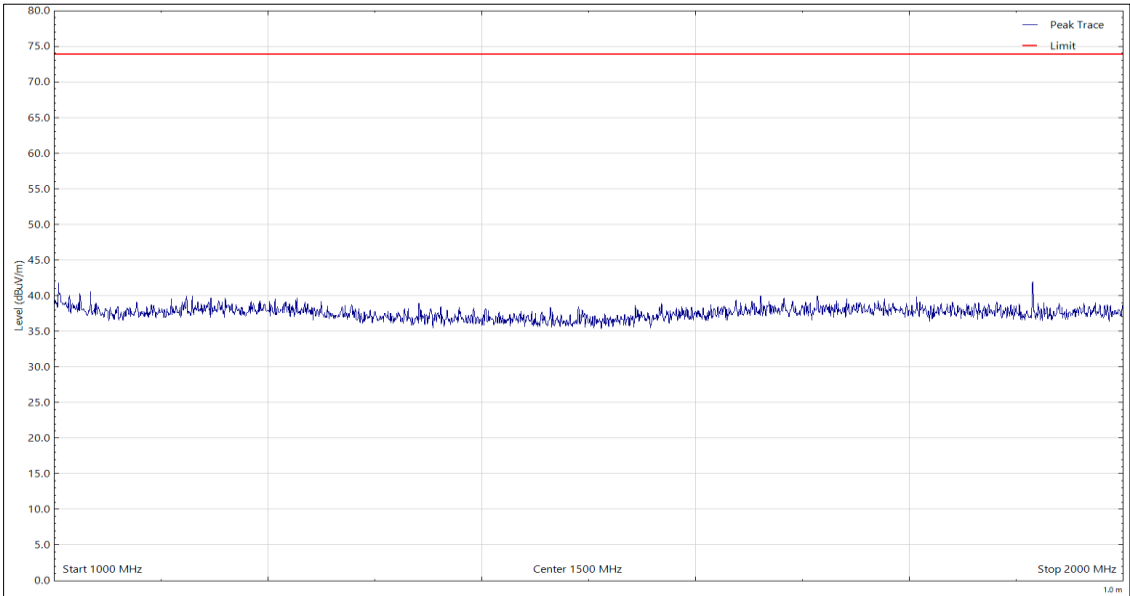


Figure 21 - 1 GHz to 2 GHz, Peak, Vertical - Z Orientation

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

Table 38

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

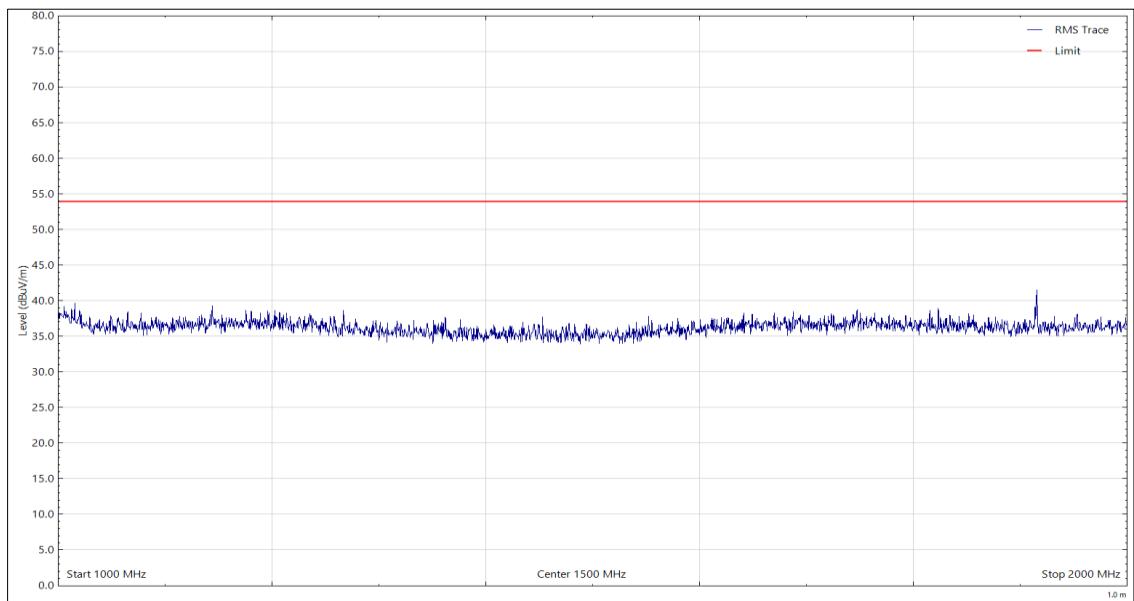


Figure 22 - 1 GHz to 2 GHz, CISPR Average, Vertical - Z Orientation

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

Table 39

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

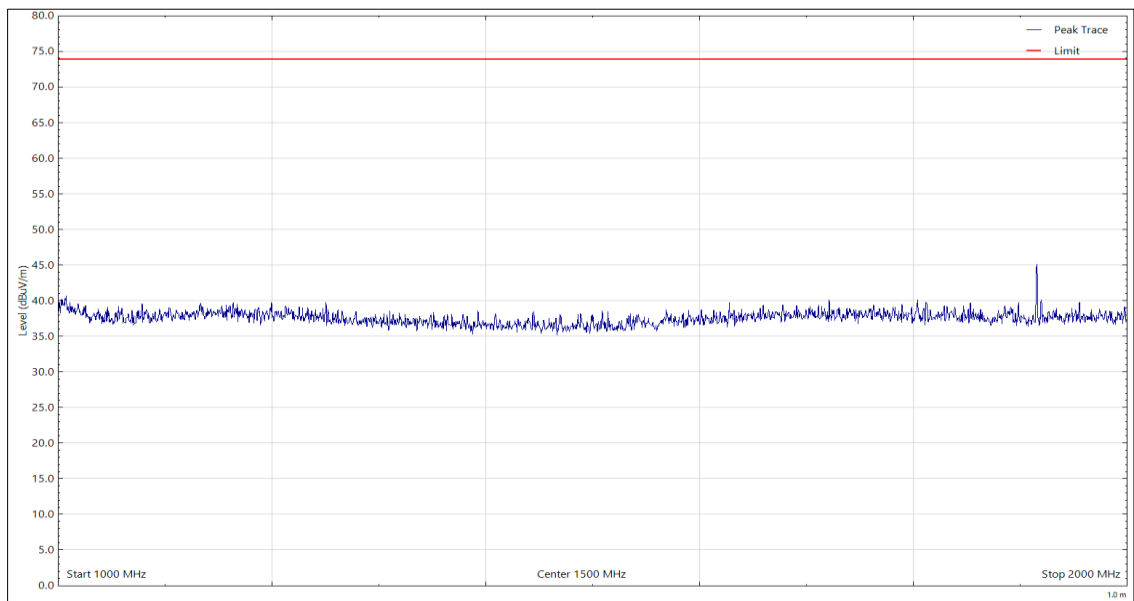


Figure 23 - 1 GHz to 2 GHz, Peak, Horizontal - Z Orientation

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

Table 40

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

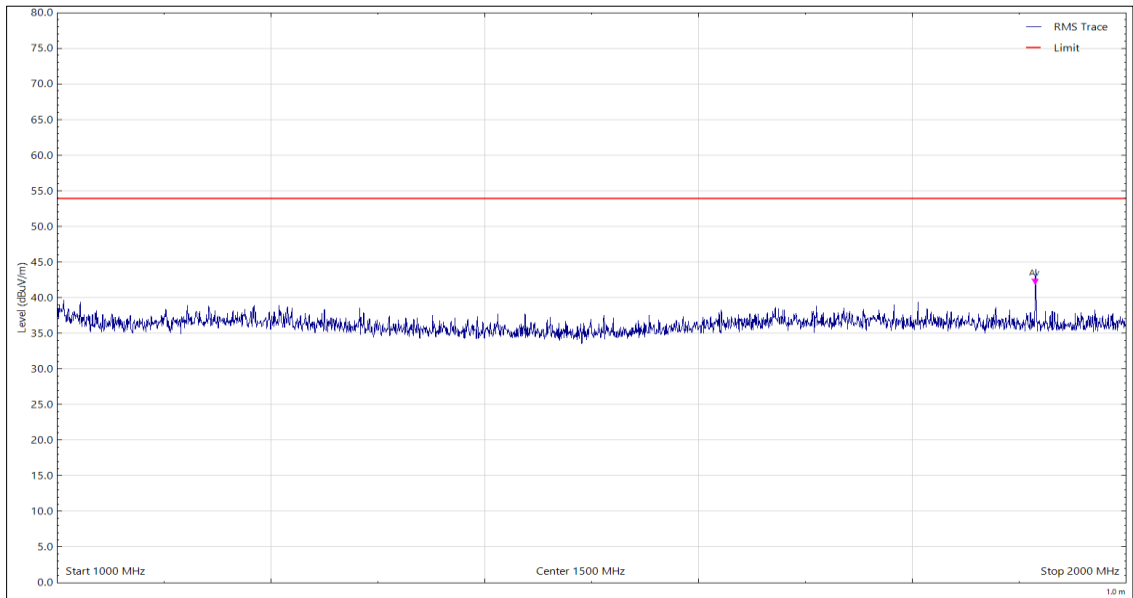


Figure 24 - 1 GHz to 2 GHz, CISPR Average, Horizontal - Z Orientation

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
1915.080	41.5	54.0	-12.5	CISPR Avg	206	100	Horizontal

Table 41

No other final measurements were made as all other peak emissions seen above the measurement system noise floor during the pre-scan were greater than 10 dB below the test limit.

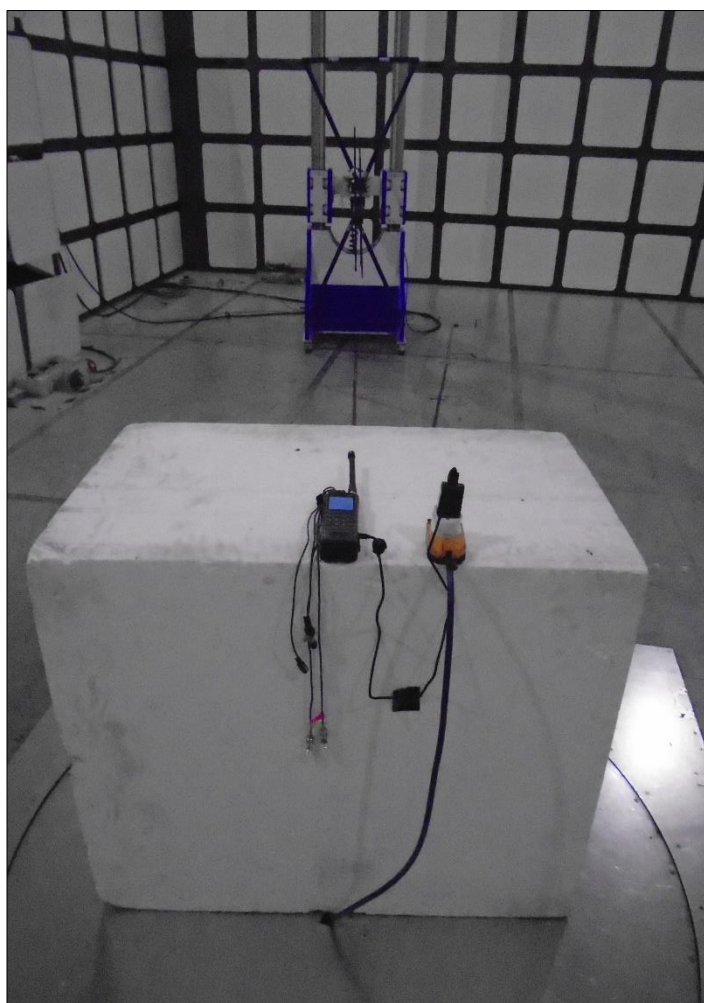


Figure 25 - 30 MHz to 1 GHz - X Orientation

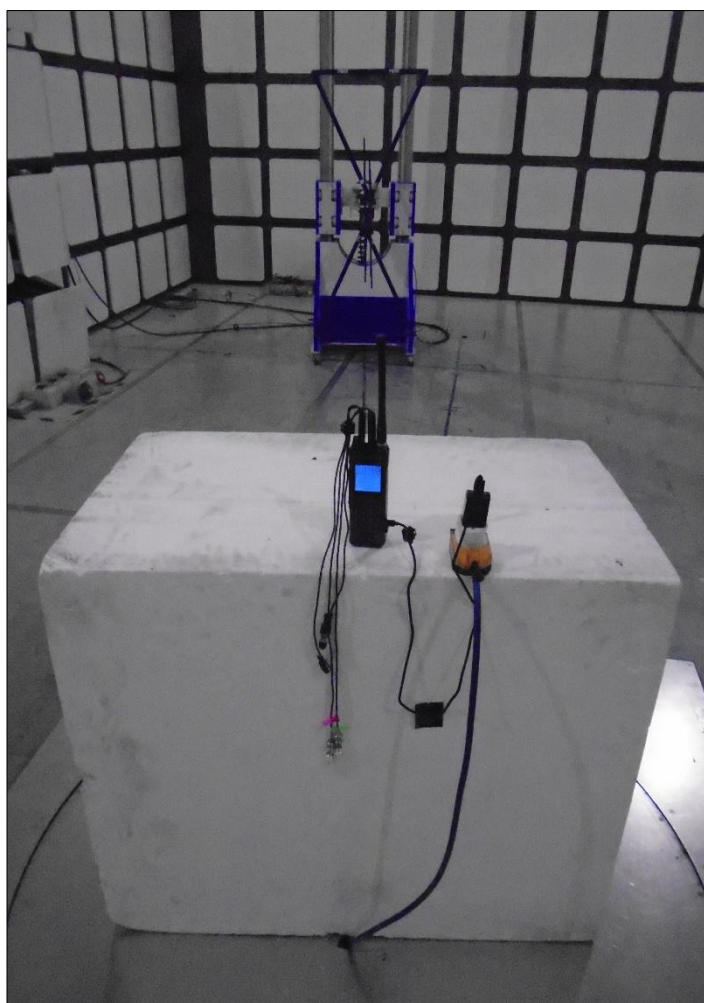


Figure 26 - 30 MHz to 1 GHz - Y Orientation

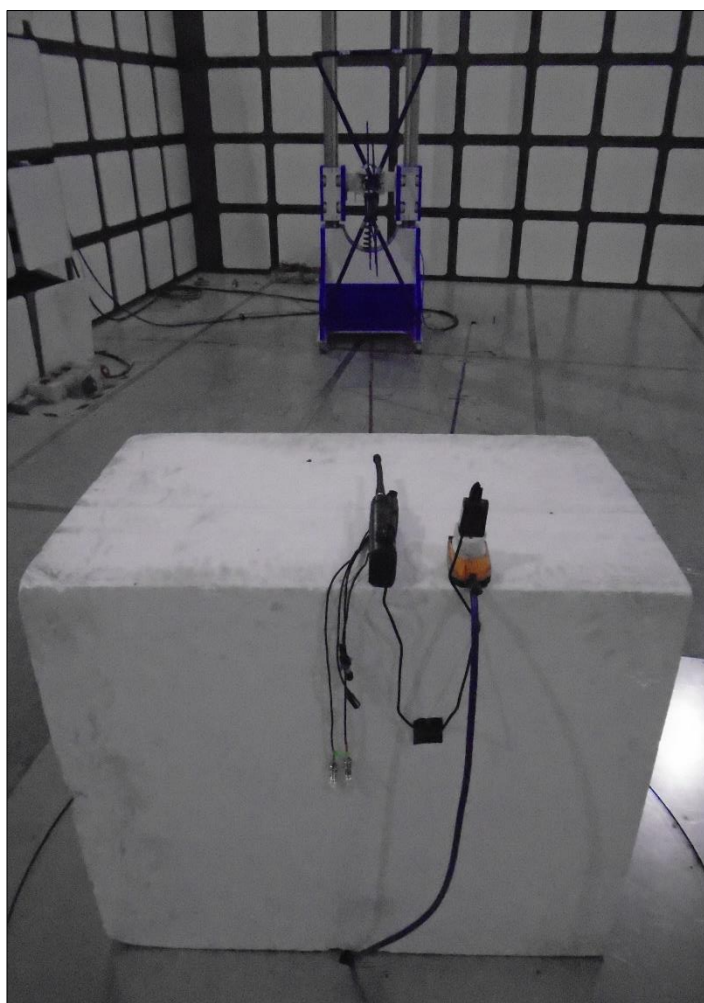


Figure 27 - 30 MHz to 1 GHz - Z Orientation



Figure 28 - 1 GHz to 2 GHz - X Orientation

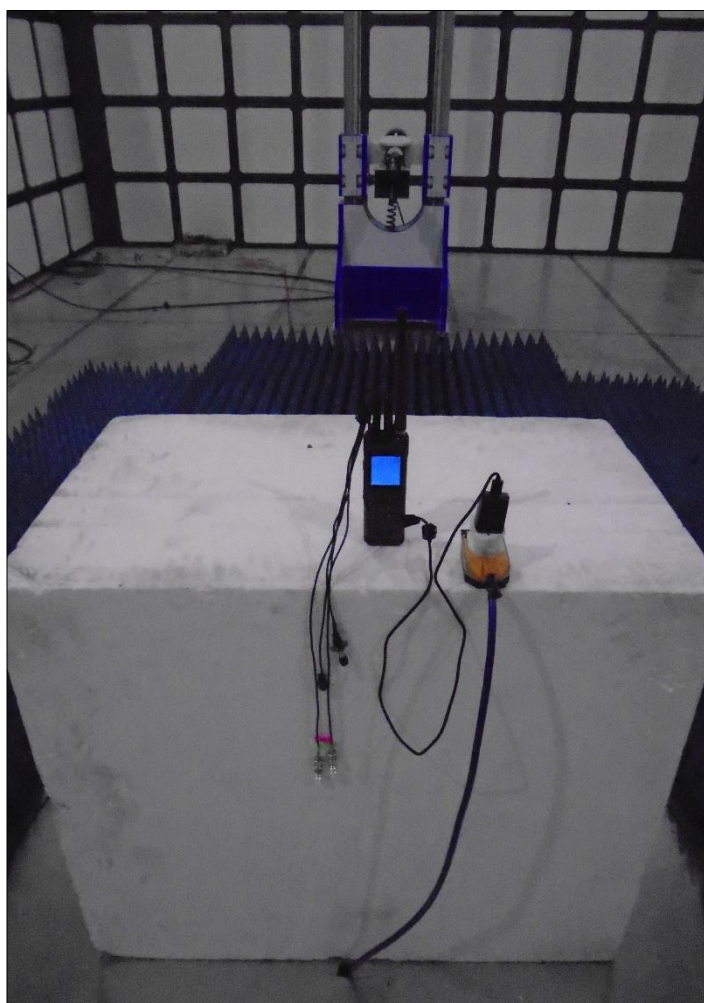


Figure 29 - 1 GHz to 2 GHz - Y Orientation

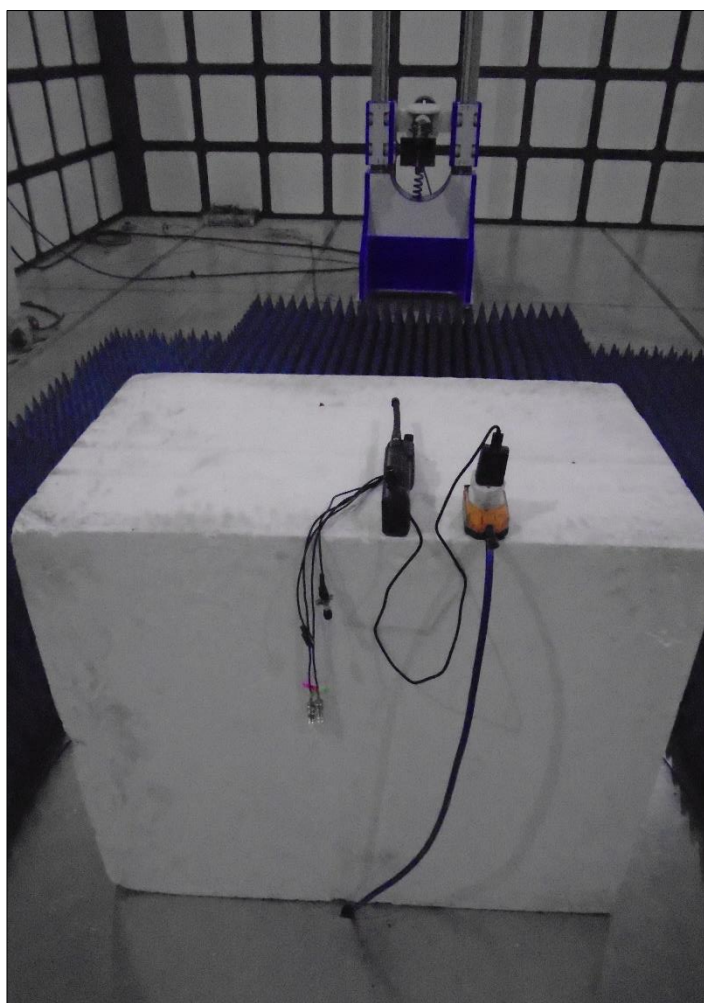


Figure 30 - 1 GHz to 2 GHz - Z Orientation



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 Expires
Screened Room (5)	Rainford	Rainford	1545	36	15-Apr-2024
Emissions Software	TUV SUD	EmX V3.1.4	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	28-Apr-2023
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
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5517	12	12-Apr-2023
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	5520	12	24-Mar-2023
Antenna (Bi-Log, 30 MHz to 1 GHz)	Teseq	CBL6111D	5615	24	16-Oct-2022
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	4848	12	28-May-2023

Table 42

TU - Traceability Unscheduled



3 Test Equipment Information

3.1 General Test Equipment Used

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Comb Generator	Schaffner	RSG1000	3034	-	TU
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5604	12	22-Sep-2022
Thermo-hygro-Barometer	PCE Instruments	PCE-THB-40	5472	12	25-Mar-2023

Table 43

TU - Traceability Unscheduled



4 Incident Reports

No incidents reports were raised.



5 Measurement Uncertainty

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

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

Table 44

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. (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.