

Report on the FCC and IC Testing of:  
Frontier Smart Technologies Limited  
Minuet 2 Module. Model FS5352 and Minuet 2  
Voice Reference Platform, Model FS6626  
In accordance with FCC 47 CFR Part 15B and  
ICES-003

Prepared for: Frontier Smart Technologies Limited  
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Add value.  
Inspire trust.

FCC ID: YYX-FS5352 IC: 11458A-FS5352  
**COMMERCIAL-IN-CONFIDENCE**

Document Number: 75946124-02 | Issue: 01

**SIGNATURE**

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Andy Lawson	Senior Engineer	Authorised Signatory	13 September 2019

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 and ICES-003. The sample tested was found to comply with the requirements defined in the applied rules.

**SIGNATURE**

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Francis Kane	Test Engineer	Testing	13 September 2019
Graeme Lawler	Test Engineer	Testing	13 September 2019

FCC Accreditation

90987 Octagon House, Fareham Test Laboratory

Industry Canada Accreditation

IC2932B-1 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: 2018 and ICES-003: 2016 for the tests detailed in section 1.3.



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# Contents

<b>1</b>	<b>Report Summary .....</b>	<b>2</b>
1.1	Report Modification Record.....	2
1.2	Introduction.....	2
1.3	Brief Summary of Results .....	3
1.4	Application Form .....	4
1.5	Product Information .....	6
1.6	Deviations from the Standard.....	8
1.7	EUT Modification Record .....	8
1.8	Test Location .....	9
<b>2</b>	<b>Test Details .....</b>	<b>10</b>
2.1	Conducted Disturbance at Mains Terminals .....	10
2.2	Radiated Disturbance .....	15
<b>3</b>	<b>Measurement Uncertainty .....</b>	<b>32</b>



# 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	13 September 2019

**Table 1**

## 1.2 Introduction

Applicant	Frontier Smart Technologies Limited
Manufacturer	Frontier Smart Technologies Limited
Model Number(s)	Minuet 2 Module FS5352 Minuet 2 Voice Reference Platform FS6626
Serial Number(s)	RAD113538 - Minuet 2 Module FS5352 RAD113525 - Minuet 2 Voice Reference Platform FS6626 RAD113253 - Minuet2 Module FS5352 RAD113409 - Minuet 2 Voice Reference Platform FS6626
Hardware Version(s)	Minuet 2 Module: Rev4 Minuet 2 Voice Reference Platform: ES1
Software Version(s)	NS2
Number of Samples Tested	Two platforms with module installed
Test Specification/Issue/Date	FCC 47 CFR Part 15B: 2018 ICES-003: 2016
Order Number	FS190532
Date	22-May-2019
Date of Receipt of EUT	17-June-2019
Start of Test	21-July-2019
Finish of Test	25-July-2019
Name of Engineer(s)	Francis Kane and Graeme Lawler
Reference Standards	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 and ICES-003 is shown below.

Section	Specification Clause		Test Description	Result	Comments/Base Standard
	Part 15B	ICES-003			
Configuration and Mode: AC Powered - Receive Mode					
2.1	15.107	6.1	Conducted Disturbance at Mains Terminals	Pass	ANSI C63.4: 2014
2.2	15.109	6.2	Radiated Disturbance	Pass	ANSI C63.4: 2014

**Table 2**



## 1.4 Application Form

### Equipment Description

Technical Description: (Please provide a brief description of the intended use of the equipment)	Minuet 2 is a module, which when installed in a consumer audio product enables high-quality audio streaming over Wi-Fi, Bluetooth, Ethernet and can be activated via voice commands. Where appropriate the Minuet 2 module is tested in the Minuet 2 Voice Reference Platform.
Manufacturer:	Frontier Smart Technologies Limited
Model:	Minuet 2 module (FS5352)
Part Number:	Minuet 2 module: HA-FS5352-xxxxxx (where xxxxxx denotes the customer variant e.g. HA-FS5352-000001)
Hardware Version:	Minuet 2 module: Rev4
Software Version:	NS2
FCC ID (if applicable)	YYX-FS5352
IC ID (if applicable)	11458A-FS5352

### Intentional Radiators

Technology	Bluetooth	WLAN 2.4GHz	WLAN 5GHz
Frequency Band (MHz)	2400-2483.5	2402-2482	5150-5350, 5470-5825
Conducted Declared Output Power (dBm)	6.5	16.5	16.5
Antenna Gain (dBi)	2.3	2.3	2.2 (5150-5250) 3.5 (5250-5350 MHz) 4.6 (5470-5725 MHz) 3.1 (5725-5825 MHz)
Supported Bandwidth(s) (MHz)	1, 2	20	20,40, 80
Modulation Scheme(s)	GFSK, DQPSK, 8-DPSK	BPSK, QPSK, 16-QAM, 64-QAM	BPSK, QPSK, 16-QAM, 64-QAM
ITU Emission Designator	1M00D, 2M00D	20M00D	20M00D, 40M00D, 80M00D
Bottom Frequency (MHz)	2400	2412	5180
Middle Frequency (MHz)	2441	2437	5500
Top Frequency (MHz)	2480	2472	5825

### Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	5825 MHz
Lowest frequency generated or used in the device or on which the device operates or tunes	2402 MHz
Class A Digital Device (Use in commercial, industrial or business environment) <input checked="" type="checkbox"/>	
Class B Digital Device (Use in residential environment only) <input checked="" type="checkbox"/>	



#### AC Power Source

AC supply frequency: 50 or 60 (Hz)	
100 - 240 V	Max current: 0.8 A
Single Phase <input checked="" type="checkbox"/> Three Phase <input type="checkbox"/>	

#### DC Power Source

Nominal voltage: 5 V
Extreme upper voltage: 5.25 V
Extreme lower voltage: 4.75 V
Max current: 2 A

#### Battery Power Source

Voltage: 11.1 V
End-point voltage: 8.1 V <i>(Point at which the battery will terminate)</i>
Alkaline <input type="checkbox"/> Leclanche <input type="checkbox"/> Lithium <input type="checkbox"/> Nickel Cadmium <input type="checkbox"/> Lead Acid* <input type="checkbox"/> <i>*(Vehicle regulated)</i>
Other <input checked="" type="checkbox"/> Please detail: Lithium-ion Polymer

#### Charging

Can the EUT transmit whilst being charged	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

#### Temperature

Minimum temperature: 0 °C	Maximum temperature: 70 °C
---------------------------	----------------------------

#### Antenna Characteristics

Antenna connector <input checked="" type="checkbox"/> State impedance 50 Ohm
Temporary antenna connector <input type="checkbox"/> State impedance N/A Ohm
Integral antenna <input type="checkbox"/> Type N/A State impedance N/A Ohm
External antenna <input checked="" type="checkbox"/> Type PCB antenna State impedance 50 Ohm

#### Ancillaries (if applicable)

Manufacturer: Southstar	Part Number: N12-2128-R0A
Model: SW700M (SW750M)	Country of Origin: China

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

Name: Abdul Wahed Dewan  
Position held: Principal RF Engineer  
Date: 29/08/2019

## 1.5 Product Information

### 1.5.1 Technical Description

The Equipment Under Test (EUT) was a Frontier Smart Technologies Limited, Minuet 2 Module (FS5352) and Minuet 2 Voice Reference Platform (FS6626).

The primary function of the EUT is to stream radio and music files in a variety of formats including AAC, AAC+, ALAC, MP3, WCISPR Average, WMA and FLAC over Wi-Fi, Bluetooth and Ethernet.

Additionally, the EUT has functionality to operate as an internet radio, wireless speaker or docking platform with full graphic display. Minuet 2 is a module, which when installed in a consumer audio product enables high-quality audio streaming over Wi-Fi, Bluetooth and Ethernet and can be activated via voice commands. Where appropriate the Minuet 2 module is tested in the Minuet 2 Voice Reference Platform.

A full description and detailed product specification details are available from the manufacturer.



Figure 1 - General View

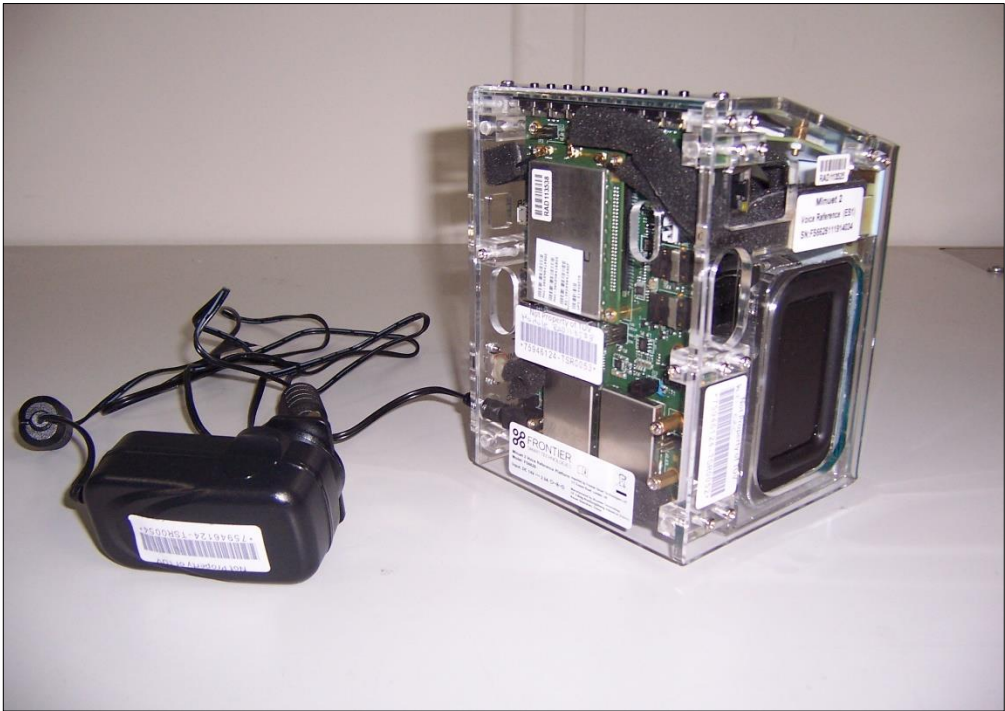


Figure 2 - Rear View

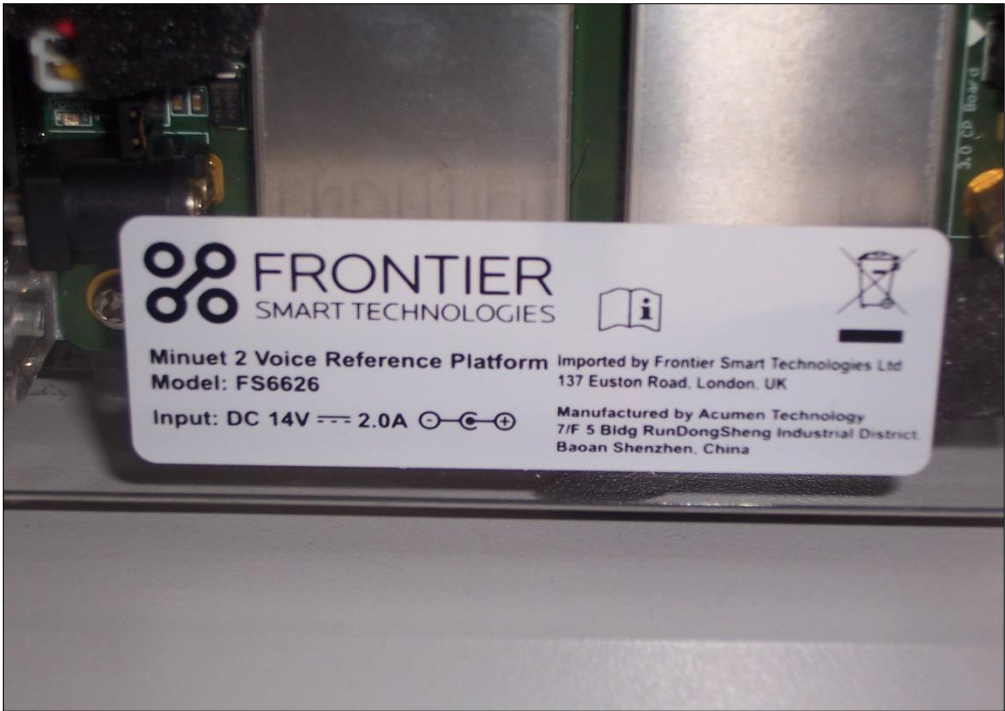


Figure 3 - Rating Plate





### 1.5.2 EUT Port/Cable Identification

Port	Max Cable Length specified	Usage	Type	Screened
Configuration and Mode: AC Powered - Receive Mode				
Wired Network Port	3 meters	Data Transfer	Cat 5 Ethernet Cable	No
AC Power Port	1.9 meter	110 volt 60Hz AC to 14 volt DC Power Supply	Twin Pair	No

**Table 3**

### 1.5.3 Test Configuration

Configuration	Description
AC Powered	The EUT was powered from a 110 V 60 Hz AC supply. The EUTs Auxiliary output port was terminated into a tablet device.

### 1.5.4 Modes of Operation

Mode	Description
Receive Mode	EUT was powered and waiting to receive data stream. The EUTs 2.4 GHz and 5 GHz Wi-Fi was in receive mode.

### 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
Serial Number: RAD113538			
0	As supplied by the customer	Not Applicable	Not Applicable
Serial Number: RAD113525			
0	As supplied by the customer	Not Applicable	Not Applicable

**Table 4**



**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: AC Powered - Receive Mode		
Conducted Disturbance at Mains Terminals	Francis Kane	UKAS
Radiated Disturbance	Francis Kane and Graeme Lawler	UKAS

**Table 5**

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  
ICES-003, Clause 6.1

#### 2.1.2 Equipment Under Test and Modification State

Minuet 2 Voice Reference Platform (FS6626), S/N: RAD113525 - Modification State 0  
Minuet 2 Module (FS5352), S/N: RAD113538 - Modification State 0

#### 2.1.3 Date of Test

21-July-2019

#### 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 0.8m above a reference ground plane and 0.4m away from a vertical coupling plane.

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) = Limit (dBμV) – Quasi-Peak level (dBμV)

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



2.1.6 Example Test Setup Diagram

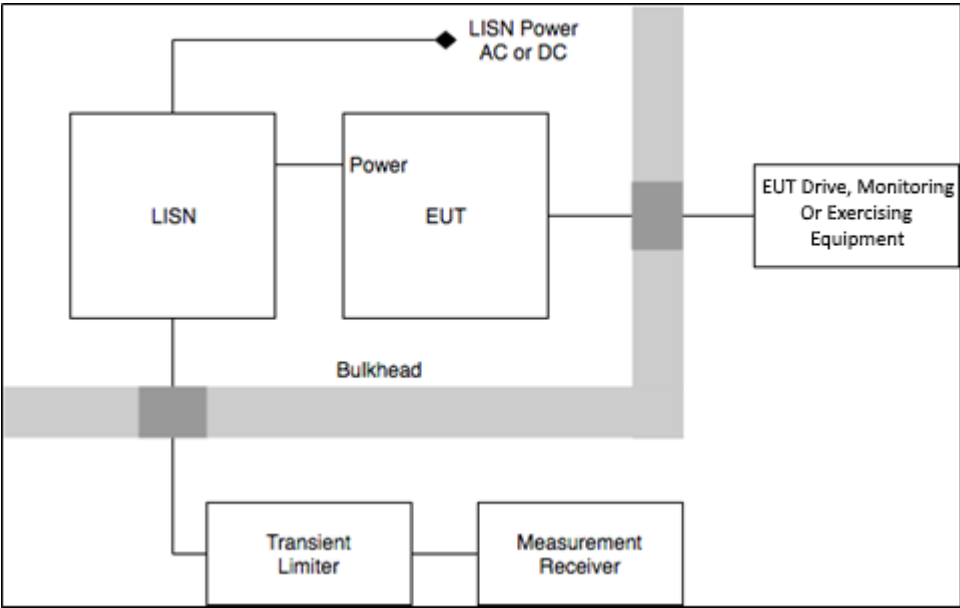


Figure 4 - Conducted Disturbance Example Test Setup

2.1.7 Environmental Conditions

Ambient Temperature     17.3 °C  
Relative Humidity        76.5 %

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*	56 to 46*
	0.5 to 5	56	46
	5 to 30	60	50
Supplementary information: *Decreases with the logarithm of the frequency.			

Table 6

## 2.1.9 Test Results

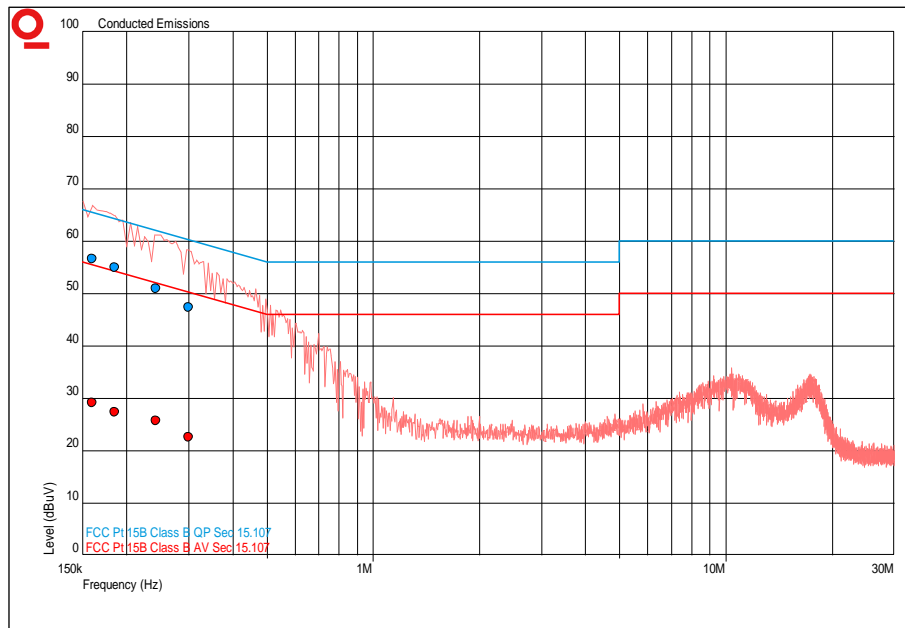
**Results for Configuration and Mode: AC Powered - Receive Mode.**

**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.

Line Under Test: Live Line



**Figure 5 - 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)
0.160	56.7	65.5	-8.8	29.2	55.5	-26.2
0.185	55.0	64.3	-9.3	27.4	54.3	-26.9
0.243	51.0	62.0	-11.0	25.7	52.0	-26.3
0.300	47.3	60.2	-12.9	22.6	50.2	-27.6

**Table 7**



Line Under Test: Neutral Line

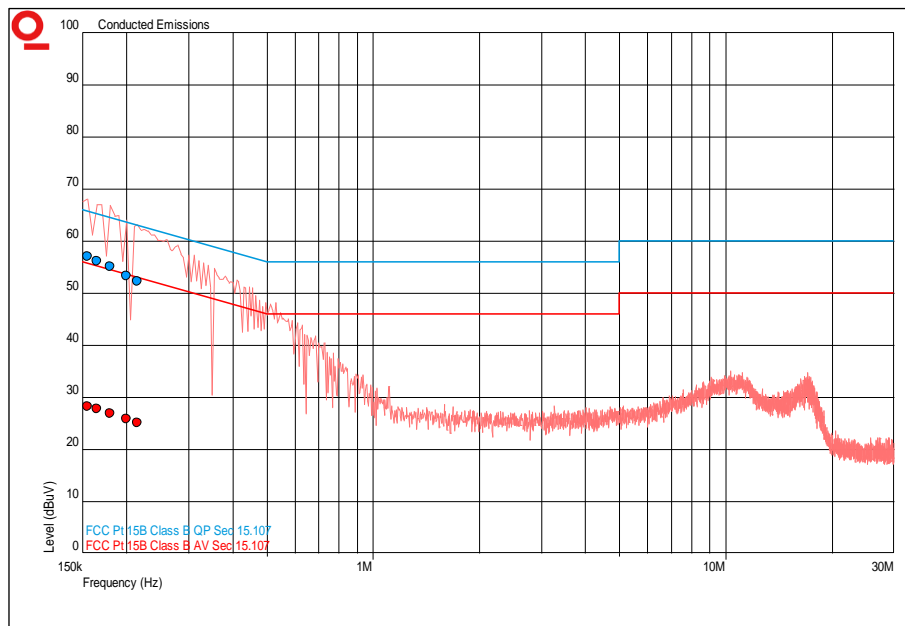
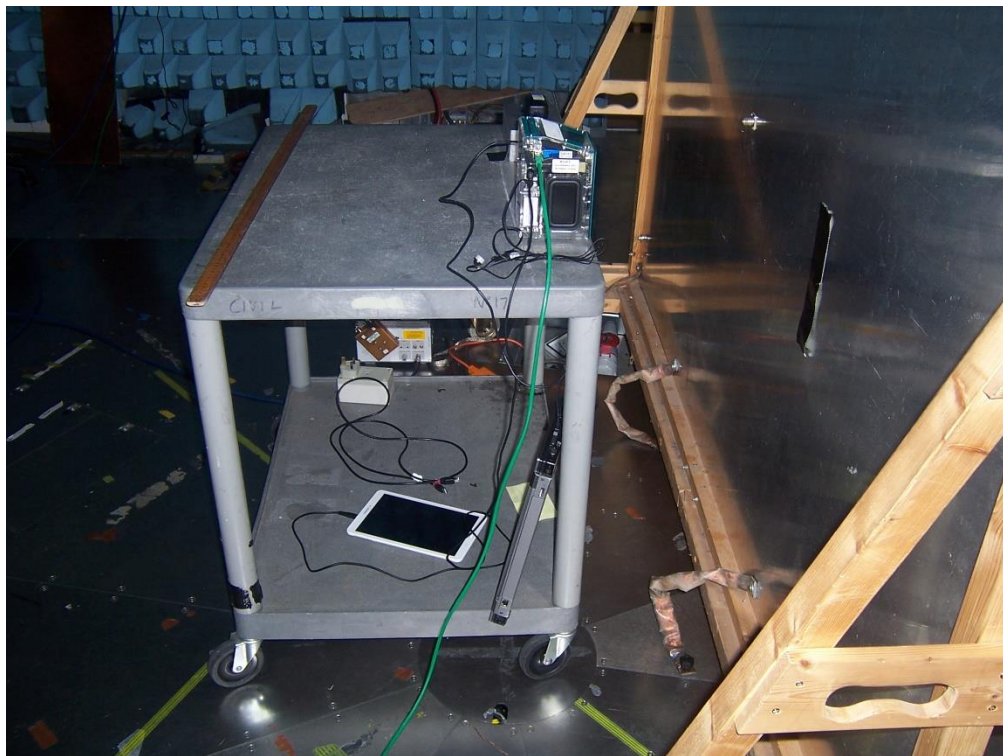


Figure 6 - Graphical Results – Neutral Line

Frequency (MHz)	QP Level (dBμV)	QP Limit (dBμV)	QP Margin (dB)	CISPR Average Level (dBμV)	CISPR Average Limit (dBμV)	CISPR Average Margin (dB)
0.155	57.1	65.7	-8.6	28.3	55.7	-27.4
0.165	56.2	65.2	-9.0	27.9	55.2	-27.3
0.180	55.1	64.5	-9.4	27.0	54.5	-27.5
0.200	53.4	63.6	-10.2	26.0	53.6	-27.6
0.215	52.3	63.0	-10.7	25.1	53.0	-27.9

Table 8



**Figure 7 – Test Setup - Conducted Emissions**

#### **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	17-Dec-2019
Transient Limiter	Hewlett Packard	11947A	15	12	26-Jul-2019
LISN	Rohde & Schwarz	ESH3-Z5	1390	12	20-Nov-2019

**Table 9**



## **2.2 Radiated Disturbance**

### **2.2.1 Specification Reference**

FCC 47 CFR Part 15B, Clause 15.109  
ICES-003, Clause 6.2

### **2.2.2 Equipment Under Test and Modification State**

Minuet 2 Voice Reference Platform (FS6626), S/N: RAD113409 - Modification State 0  
Minuet 2 Module (FS5352), S/N: RAD113253 - Modification State 0  
Minuet 2 Voice Reference Platform (FS6626), S/N: RAD113525- Modification State 0  
Minuet 2 Module (FS5352), S/N: RAD113538 - Modification State 0

### **2.2.3 Date of Test**

25-July-2019

### **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 0.8m 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 3m 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 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 1GHz:

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

Above 1GHz:

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

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





## 2.2.9 Test Results

**Results for Configuration and Mode: AC Powered - Receive Mode.**

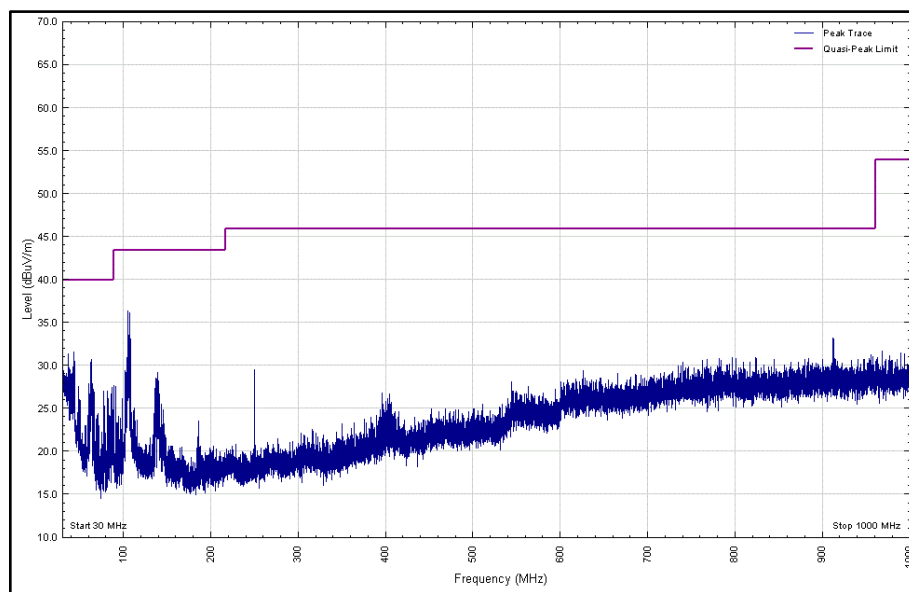
**The test was performed in accordance with the Class B limits.**

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

Detailed results are shown below.

Highest frequency generated or used within the EUT: 5.825 GHz  
Which necessitates an upper frequency test limit of: 30 GHz

Frequency Range of Test: 30 MHz to 1 GHz - X Orientation



**Figure 9 - Graphical Results - Vertical Polarity**

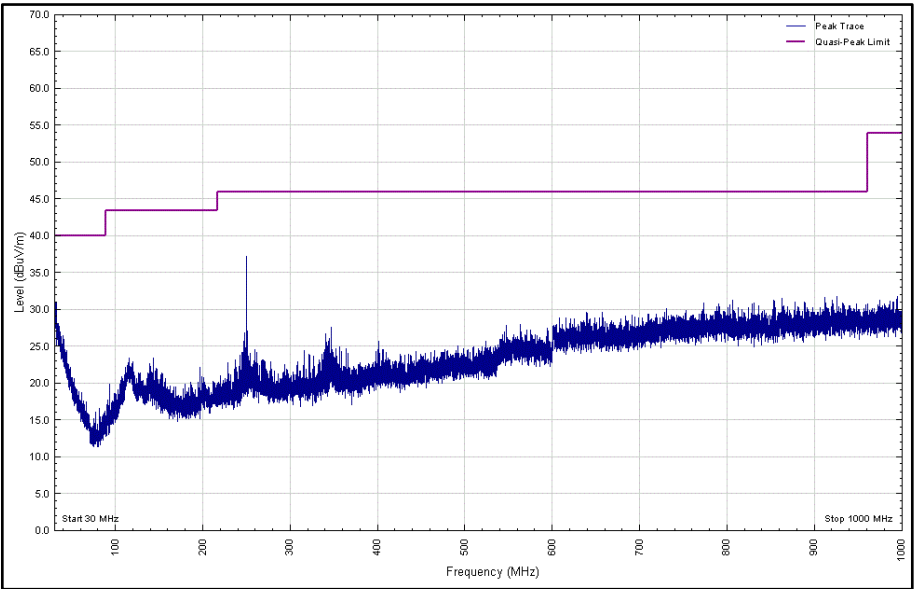


Figure 10 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 11

\*No emissions were detected within 6 dB of the limit.



Frequency Range of Test: 30 MHz to 1 GHz - Y Orientation

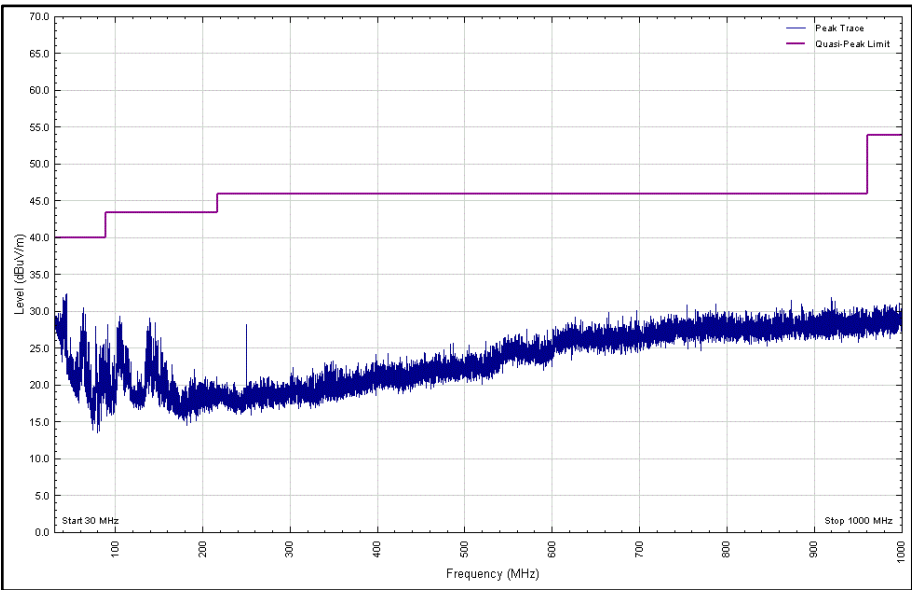


Figure 11 - Graphical Results - Vertical Polarity

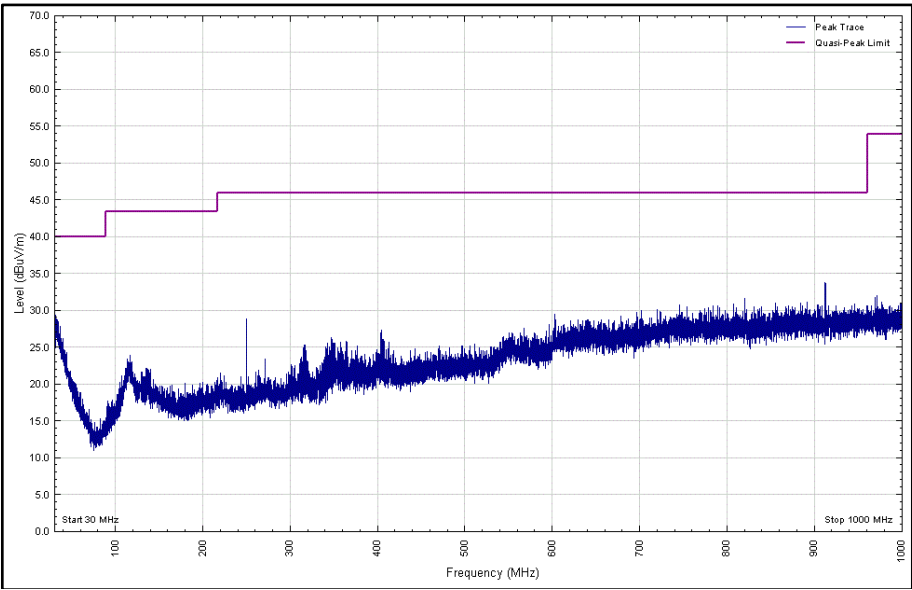


Figure 12 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 12

\*No emissions were detected within 6 dB of the limit.



Frequency Range of Test: 30 MHz to 1 GHz - Z Orientation

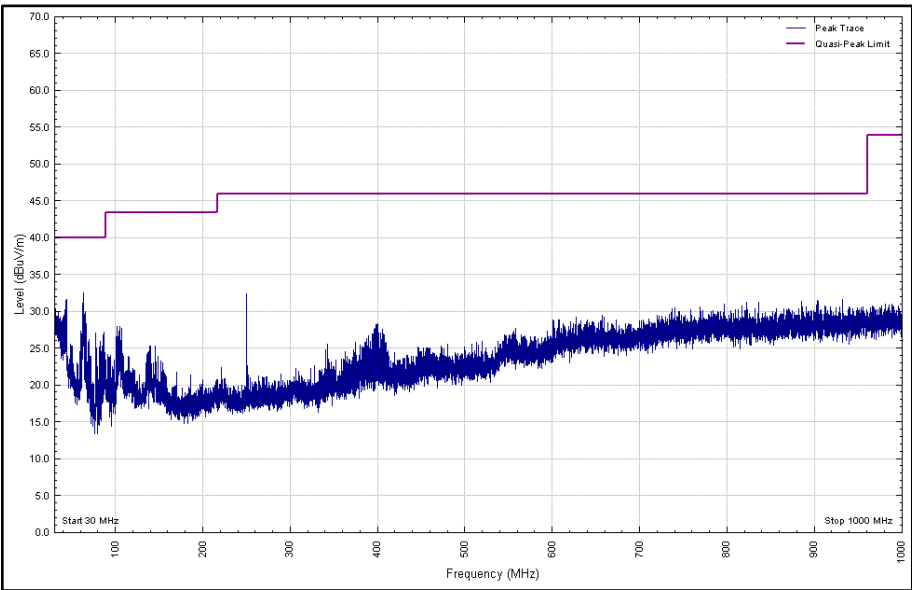


Figure 13 - Graphical Results - Vertical Polarity

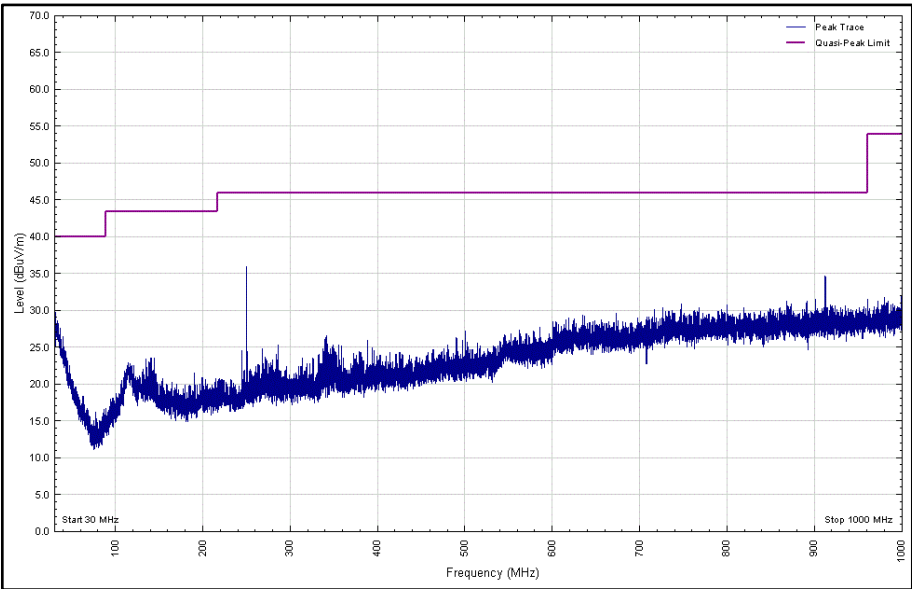


Figure 14 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 13

\*No emissions were detected within 6 dB of the limit.



Frequency Range of Test: 1 GHz to 18 GHz - X Orientation CISPR Average

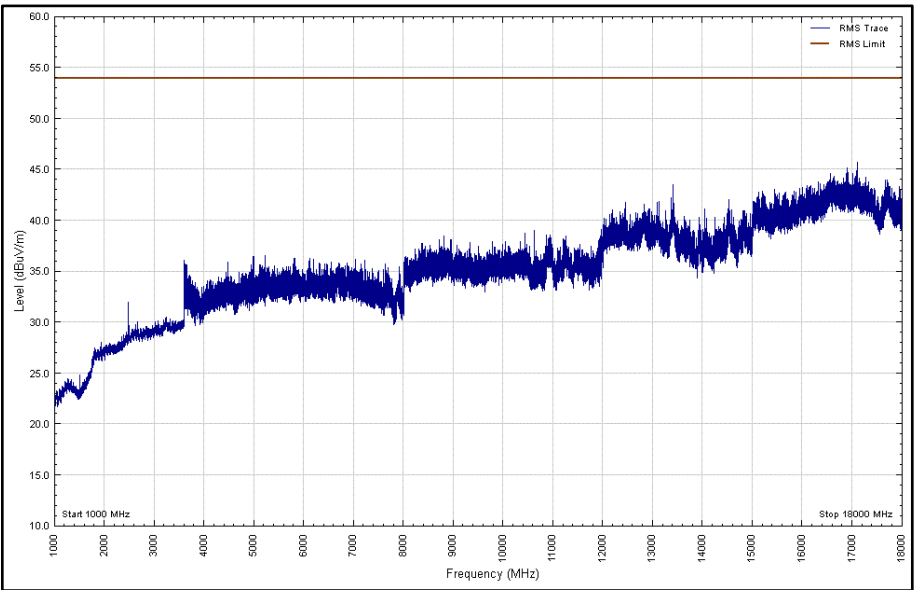


Figure 15 - Graphical Results - Vertical Polarity

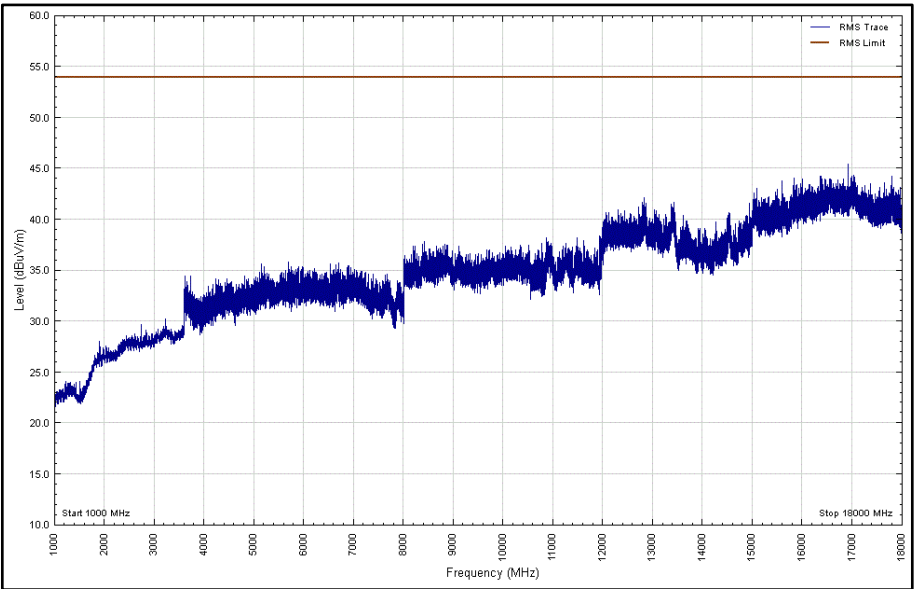


Figure 16 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 14

\*No emissions were detected within 6 dB of the limit.



Frequency Range of Test: 1 GHz to 18 GHz - X Orientation Peak

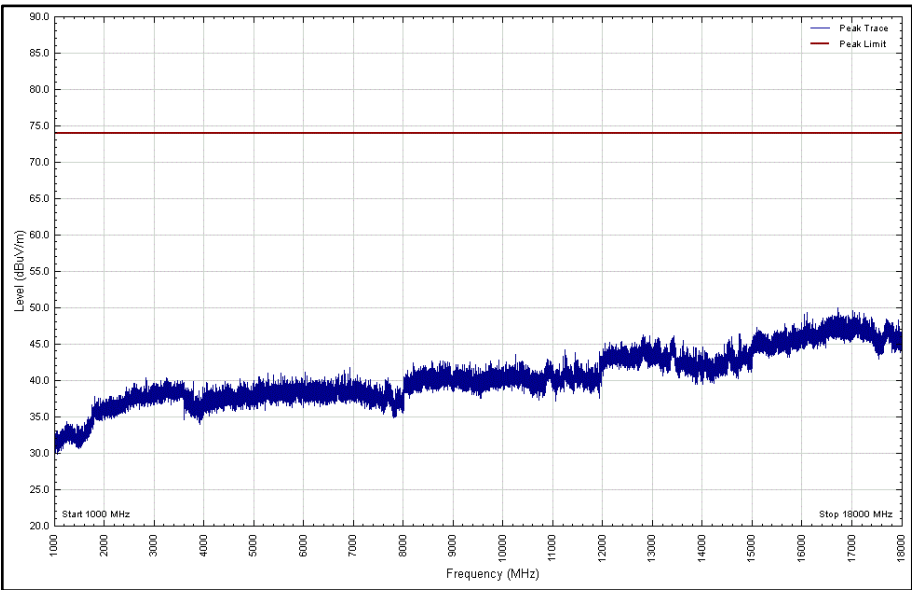


Figure 17 - Graphical Results - Vertical Polarity

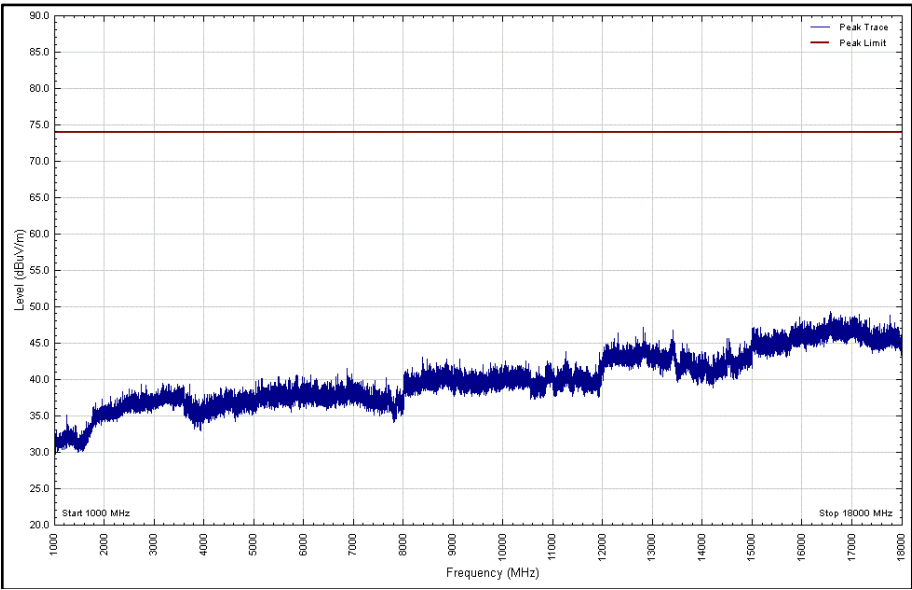


Figure 18 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 15

\*No emissions were detected within 20 dB of the limit.



Frequency Range of Test: 1 GHz to 18 GHz - Y Orientation CISPR Average

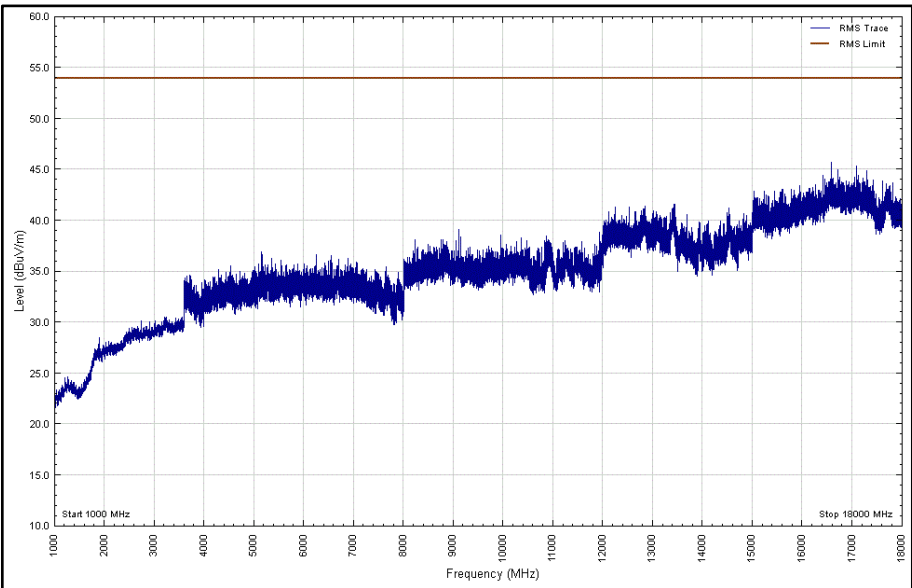


Figure 19 - Graphical Results - Vertical Polarity

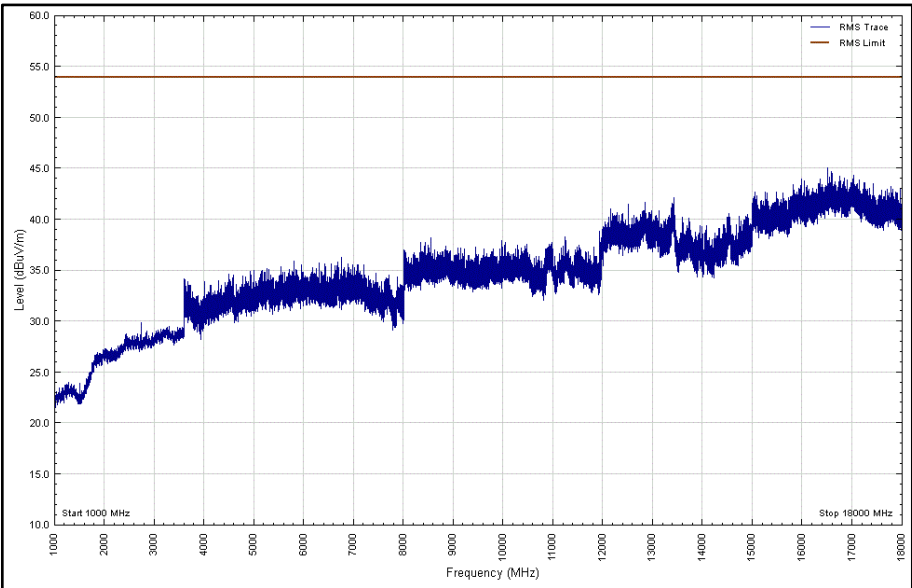


Figure 20 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 16

\*No emissions were detected within 6 dB of the limit.





Frequency Range of Test: 1 GHz to 18 GHz - Y Orientation Peak

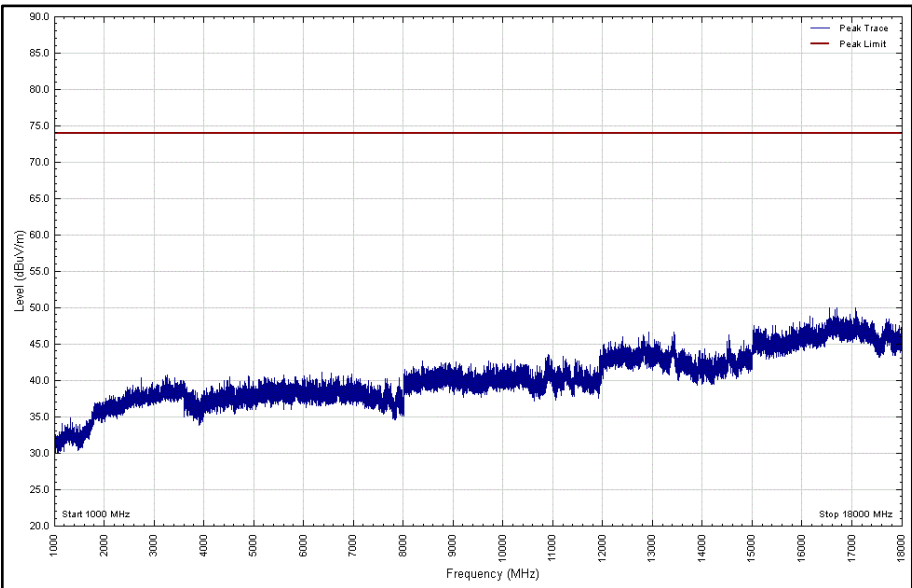


Figure 21 - Graphical Results - Vertical Polarity

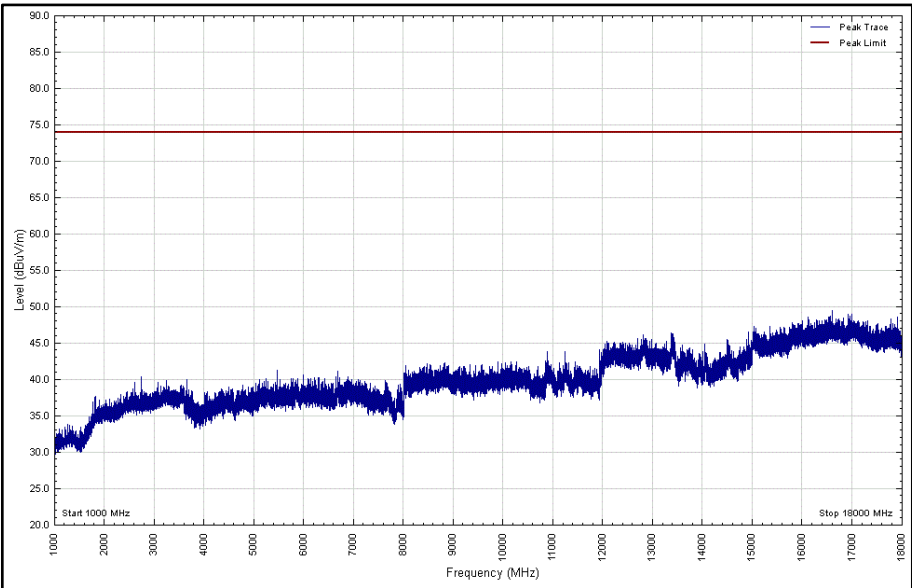


Figure 22 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 17

\*No emissions were detected within 20 dB of the limit.



Frequency Range of Test: 1 GHz to 18 GHz - Z Orientation CISPR Average

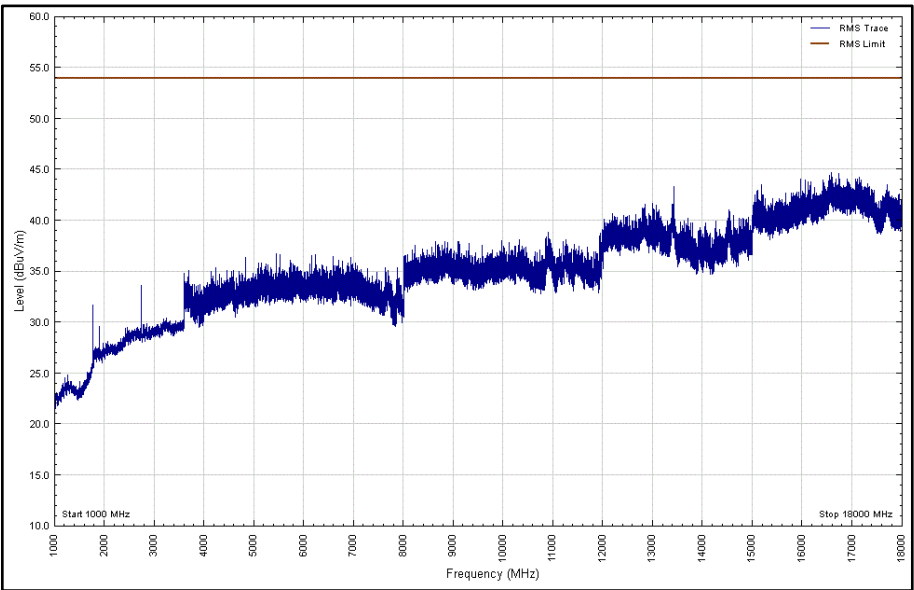


Figure 23 - Graphical Results - Vertical Polarity

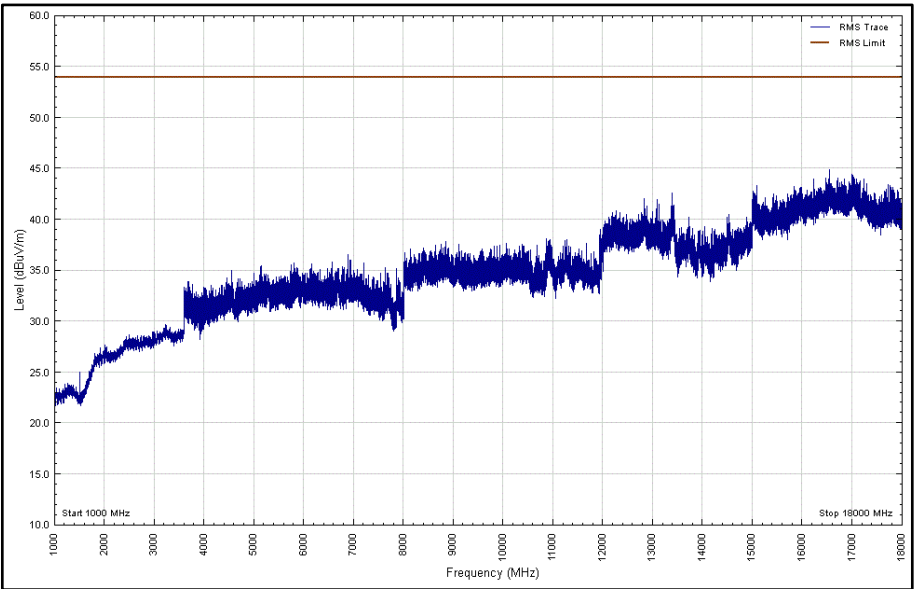


Figure 24 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 18

\*No emissions were detected within 6 dB of the limit.



Frequency Range of Test: 1 GHz to 18 GHz - Z Orientation Peak

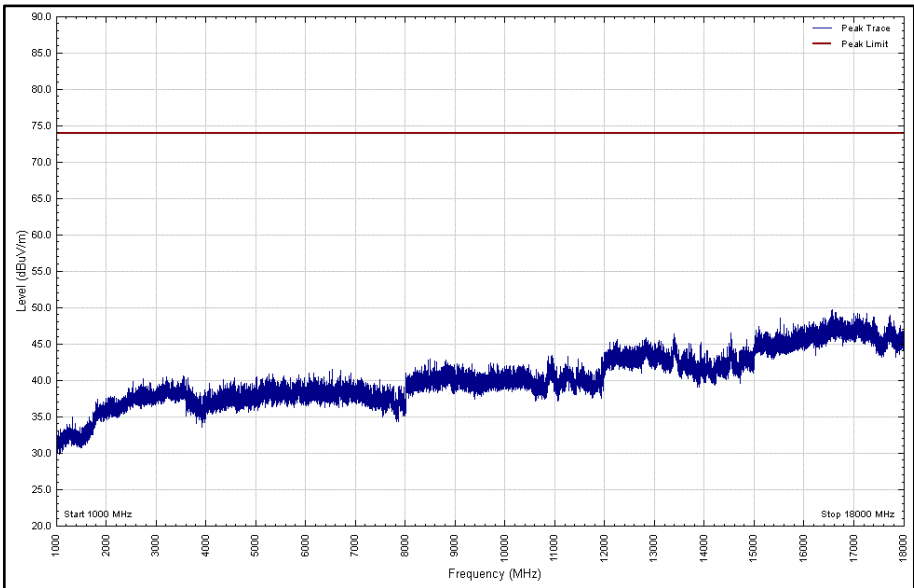


Figure 25 - Graphical Results - Vertical Polarity

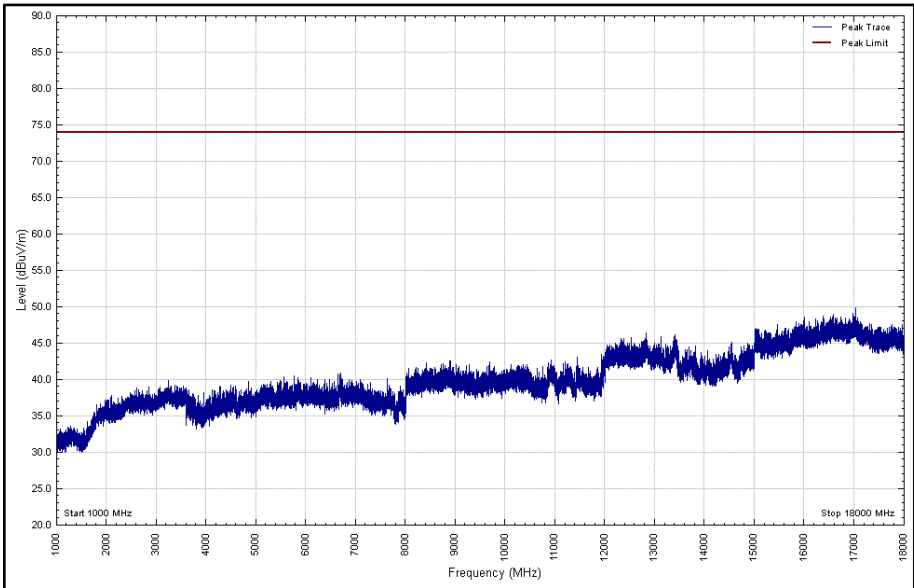


Figure 26 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 19

\*No emissions were detected within 20 dB of the limit.



Frequency Range of Test: 18 GHz to 30 GHz – Multi-Orientation CISPR Average

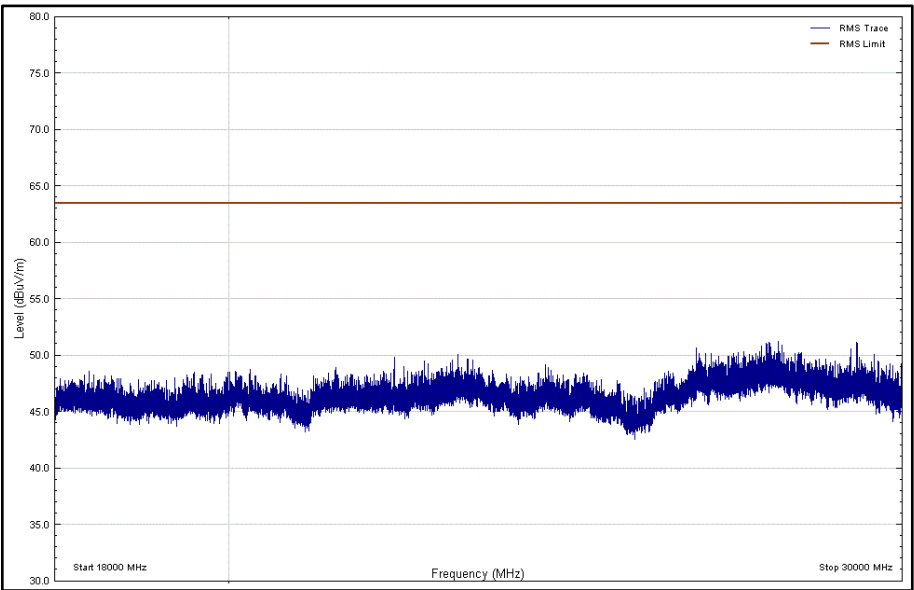


Figure 27 - Graphical Results - Vertical Polarity

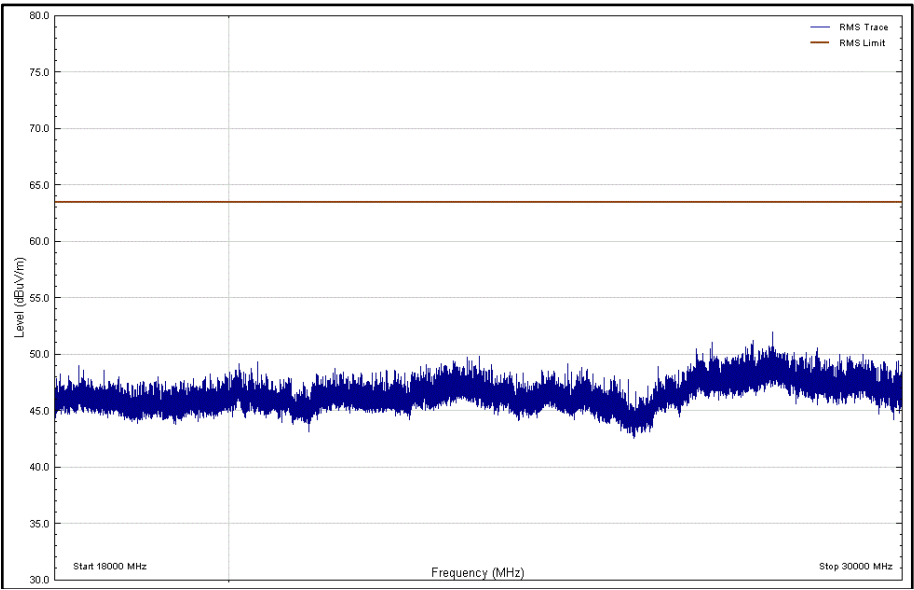


Figure 28 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 20

\*No emissions were detected within 10 dB of the limit.



Frequency Range of Test: 18 GHz to 30 GHz – Multi-Orientation Peak

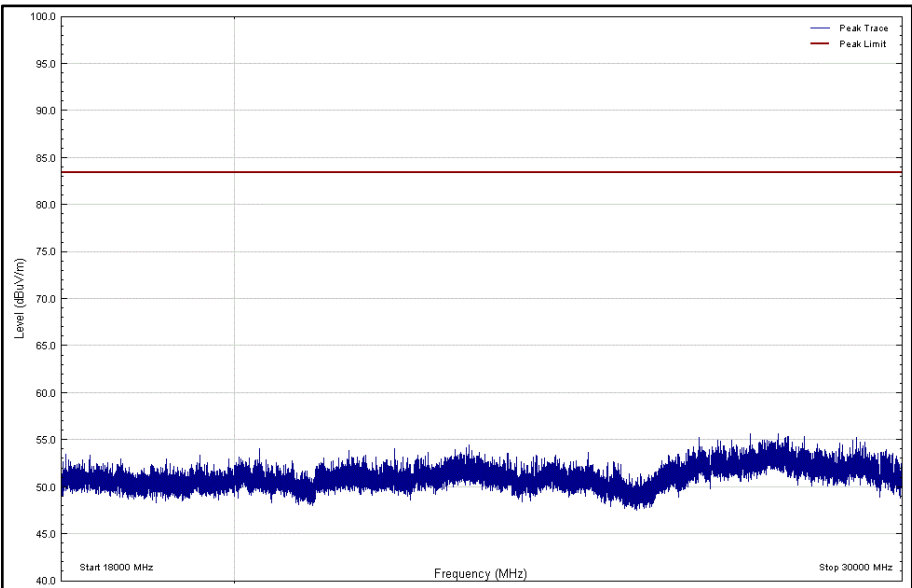


Figure 29 - Graphical Results - Vertical Polarity

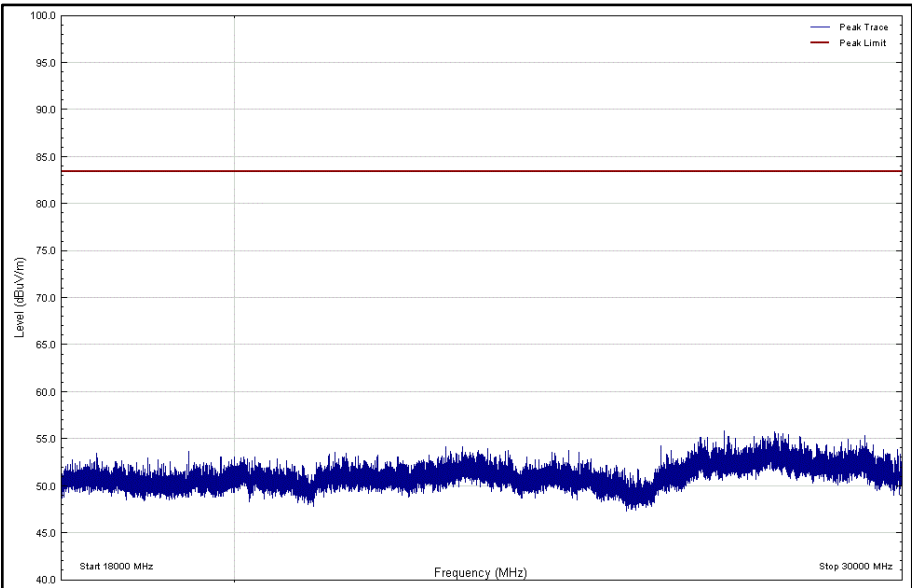


Figure 30 - Graphical Results - Horizontal Polarity

Frequency (MHz)	Level	Limit	Margin	Detector	Unit	Angle (°)	Height (cm)	Polarisation	Orientation
*									

Table 21

\*No emissions were detected within 20 dB of the limit.



**Figure 31 – Test Setup - Radiated Emissions – 30 MHz to 1 GHz**



**Figure 32 – Test Setup - Radiated Emissions – 1 GHz to 18 GHz**



**Figure 33 – Test Setup - Radiated Emissions – 18 GHz to 30 GHz**





## 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 Software	TUV SUD	EmX	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	17-Dec-2019
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	08-Aug-2019
1GHz to 8GHz Low Noise Amplifier	Wright Technologies	APS04-0085	4365	12	25-Oct-2019
8GHz to 18GHz Low Noise Amplifier	Phase One	PS04-0086	1533	12	08-Feb-2020
18GHz - 40GHz Low Noise Amplifier	Phase One	PS04-0087	1534	12	05-Feb-2020
Double Ridged Waveguide Horn Antenna	ETS-Lindgren	3117	4722	12	05-Mar-2020
Antenna 18-40GHz (Double Ridge Guide)	Link Microtek Ltd	AM180HA-K-TU2	230	24	02-May-2020
Cable (Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4526	6	11-Dec-2019
4dB Attenuator	Pasternack	PE7047-4	4935	24	28-Nov-2019
8m N-Type RF Cable	Teledyne	PR90-088-8MTR	5093	12	04-Oct-2019
Cable (18 GHz)	Rosenberger	LU7-071-2000	5109	12	05-Oct-2019
1.5m 40GHz RF Cable	Scott Cables	KPS-1501-2000-KPS	5127	6	11-Dec-2019
WR90 / WG16 Waveguide Directional Coupler	Quasar	QCC 16SB-UBR-UBR-N-F-30	5145	-	O/P Mon

**Table 22**

TU - Traceability Unscheduled

O/P Mon – Output Monitored using calibrated equipment





### 3 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 23

Worst case error for both Time and Frequency measurement 12 parts in 10<sup>6</sup>.  
All measurement uncertainties have been calculated using CISPR guidelines.