

FCC and ISED Test Report

Sepura Limited
TETRA Handheld radio, Model SC2021



In accordance with FCC 47 CFR Part 2, FCC 47 CFR Part 15, FCC 47 CFR Part 90, ISED RSS-119, ISED RSS-247 and ISED RSS-GEN
(Simultaneous Transmission)

Prepared for: Sepura Limited
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United Kingdom

FCC ID: XX6SC2021M

IC: 8739A-SC2021M

COMMERCIAL-IN-CONFIDENCE

Document 75961387-04 Issue 01

SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Steve Marshall	Senior Engineer	Authorised Signatory	17 September 2024

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 2, FCC 47 CFR Part 15, FCC 47 CFR Part 90, ISED RSS-119, ISED RSS-247 and ISED RSS-GEN. The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Pier-Angelo Lorusso	17 September 2024	

FCC Accreditation

492497/UK2010 Octagon House, Fareham Test Laboratory

ISED Accreditation

12669A/UK0003 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 2: 2023, FCC 47 CFR Part 15: 2023, FCC 47 CFR Part 90: 2023, ISED RSS-119: Issue 12 (05-2015) + A1 (04-2022), ISED RSS-247: Issue 3 (08-2023) and ISED RSS-GEN: Issue 5 (04-2018) + A2 (02-2021) for the tests detailed in section 1.3.



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ACCREDITATION

Our UKAS Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our UKAS Accreditation. Results of tests not covered by our UKAS Accreditation Schedule are marked NUA (Not UKAS Accredited). Results of tests covered by our Flexible UKAS Accreditation Schedule are marked FS (Flexible Scope).

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Contents

1 **Report Summary2**

1.1 Report Modification Record.....2

1.2 Introduction.....2

1.3 Brief Summary of Results3

1.4 Application Form4

1.5 Product Information8

1.6 Deviations from the Standard.....8

1.7 EUT Modification Record8

1.8 Test Location8

2 **Test Details9**

2.1 Radiated Spurious Emissions (Simultaneous Transmission)9

3 **Photographs 25**

3.1 Test Setup Photographs 25

4 **Measurement Uncertainty 30**



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	17-September-2024

Table 1

1.2 Introduction

Applicant	Sepura Limited
Manufacturer	Sepura Limited
Model Number(s)	SC2021
Serial Number(s)	1PR002417GKZ790
Hardware Version(s)	PLX-2V16515-03 (Mod State 12 Rev B024)
Software Version(s)	1807 009 07367
Number of Samples Tested	1
Test Specification/Issue/Date	FCC 47 CFR Part 2: 2023 FCC 47 CFR Part 15C: 2023 FCC 47 CFR Part 90: 2023 ISED RSS-119: Issue 12 (05-2015) ISED RSS-247: Issue 3 (2023-08) ISED RSS-GEN: Issue 5 (2018-04) + A2 (2021-02)
Order Number	PLC-PO029056
Date	06-May-2024
Date of Receipt of EUT	18-June-2024
Start of Test	05-August-2024
Finish of Test	07-August-2024
Name of Engineer(s)	Pier-Angelo Lorusso
Related Document(s)	ANSI C63.26 (2015) ANSI C63.10 (2020) KDB 996369 D04 Module Integration Guide v02



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 CFR Part 2, FCC 47 CFR Part 15, FCC 47 CFR Part 90, ISED RSS-119, ISED RSS-247 and ISED RSS-GEN is shown below.

Section	Specification Clause						Test Description	Result	Comments/Base Standard
	Part 2	Part 15C	Part 90	RSS-119	RSS-247	RSS-GEN			
Configuration and Mode: Simultaneous Transmission - Mid ch 150-174MHz Bluetooth Classic									
2.1053	2.1053	15.247(d)	90.210 (b) (3)	5.8.1	5.5	6.13	Radiated Spurious Emissions (Simultaneous Transmission)	Pass	ANSI C63.26 (2015) ANSI C63.10 (2020) KDB 996369 D04 Module Integration Guide v02
Configuration and Mode: Simultaneous Transmission - Mid ch 150-174MHz BLE									
2.2	2.1053	15.247(d)	90.210 (b) (3)	5.8.1	5.5	6.13	Radiated Spurious Emissions (Simultaneous Transmission)	Pass	ANSI C63.26 (2015) ANSI C63.10 (2020) KDB 996369 D04 Module Integration Guide v02
Configuration and Mode: Simultaneous Transmission - Mid ch 150-174MHz 2.4GHz Wi-Fi									
2.2	2.1053	15.247(d)	90.210 (b) (3)	5.8.1	5.5	6.13	Radiated Spurious Emissions (Simultaneous Transmission)	Pass	ANSI C63.26 (2015) ANSI C63.10 (2020) KDB 996369 D04 Module Integration Guide v02

Table 2



1.4 Application Form

Equipment Description

Technical Description: (Please provide a brief description of the intended use of the equipment including the technologies the product supports)		The SC2021 is a portable TETRA radio with GNSS, Bluetooth and WLAN functionality. It has a TETRA frequency range of 136-174 MHz.	
Manufacturer:		Sepura Limited	
Model:		SC2021	
Part Number:		SC2021	
Hardware Version:		PLX-2V16515-03 (Mod State 12 Rev B024)	
Software Version:		1807 009 07367	
FCC ID of the product under test – see guidance here		XX6SC2021M	
IC ID of the product under test – see guidance here		8739A-SC2021M	
Device Category	Mobile ☐	Portable ☒	Fixed ☐
Equipment is fitted with an Audio Low Pass Filter		Yes ☒	No ☐

Table 3

Intentional Radiators

Technology	TETRA	BT Classic / EDR	BLE	WLAN 802.11b	WLAN 802.11g	WLAN 802.11n
Frequency Range (MHz to MHz)	136-174	2402-2480	2402-2480	2412-2462	2412-2462	2412-2462
Conducted Declared Output Power (dBm)	34.3 average	7.34 peak	3.2 average	15.9 average	15.3 average	15.7 average
Antenna Gain (dBi)	1. -6.24 2. 5	2.5	2.5	2.5	2.5	2.5
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	20 kHz	1M20	2M11	11M7	16M9	18M2
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	$\pi/4$ DQPSK	GFSK / $\pi/4$ DQPSK / 8-DPSK	GFSK	CCK / DBPSK / DQPSK	OFDM	OFDM
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)	19K1DXW	1M20F1D	2M11F1D	11M7G1W	16M9D7W	18M2D7W
Bottom Frequency (MHz)	136	2402	2402	2412	2412	2412
Middle Frequency (MHz)	155	2441	2440	2437	2437	2437
Top Frequency (MHz)	174	2480	2480	2462	2462	2462

Table 4

Two antenna gains are given:

1. The maximum free space dBi for the specified frequency range of antennas used in a handheld system using the top antenna connector.
2. The maximum dBi provided by the antenna manufacturer for antennas used in a vehicle system using the rear connector.



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) ☐	

Table 5

AC Power Source

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

Table 6

DC Power Source

Nominal voltage:	7.4	V
Extreme upper voltage:	7.4	V
Extreme lower voltage:	6.29	V
Max current:	2	A

Table 7

Battery Power Source

Voltage:	7.4	V
End-point voltage:	6.2	V (Point at which the battery will terminate)
Alkaline ☐ Leclanche ☐ Lithium ☒ Nickel Cadmium ☐ Lead Acid* ☐ *(Vehicle regulated)		
Other ☐	Please detail:	

Table 8

Charging

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

Table 9

Temperature

Minimum temperature:	-20	°C
Maximum temperature:	+60	°C

Table 10



Cable Loss

Adapter Cable Loss (Conducted sample)	N/A	dB
--	-----	----

Table 11

Antenna Characteristics

Antenna connector ☐ for TETRA			State impedance	50	Ohm
Temporary antenna connector ☐			State impedance		Ohm
Integral antenna ☒ for BT and WLAN	Type:	Inverted F	Gain	2.5	dBi
External antenna ☒	Type:	300-02070 helical (handheld system)	Gain	-6.9	dBi
External antenna ☒	Type:	300-02071 helical (handheld system)	Gain	-6.24	dBi
External antenna ☒	Type:	300-02072 helical (handheld system)	Gain	-6.93	dBi
External antenna ☒	Type:	300-02073 helical (handheld system)	Gain	-14.6	dBi
External antenna ☒	Type:	AVGHB-H4 $\frac{5}{8}$ Wave (vehicle system)	Gain	5	dBi
External antenna ☒	Type:	AVGHB-H5 $\frac{5}{8}$ Wave (vehicle system)	Gain	5	dBi
External antenna ☒	Type:	AVGHB-H6 $\frac{5}{8}$ Wave (vehicle system)	Gain	5	dBi
External antenna ☒	Type:	AVGHB-H7 $\frac{5}{8}$ Wave (vehicle system)	Gain	5	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 ☐ All part 15 applications will need to show how the antenna gain was derived either from a manufacturer data sheet or a measurement. Where the gain of the antenna is inherently accounted for as a result of the measurement, such as field strength measurements on a part 15.249 or 15.231 device, so the gain does not necessarily need to be verified. However, enough information regarding the construction of the antenna shall be provided. Such information maybe photographs, length of wire antenna etc.					

Table 12



Ancillaries (if applicable)

Manufacturer:	Sepura Limited	Part Number:	300-01123
Model:	CSM	Country of Origin:	Made in Taiwan
Manufacturer:	Sepura Limited	Part Number:	300-01930
Model:	1+1 Charger	Country of Origin:	Made in China

Table 13

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

Name:	Chris Beecham
Position held:	Conformance Engineer
Date:	07 August 2024



1.5 Product Information

1.5.1 Technical Description

The SC2021 is a portable TETRA radio with GNSS, Bluetooth and WLAN functionality.

It has a TETRA frequency range of 136-174 MHz.

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: SC2021, Serial Number: 1PR002417GKZ790			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 14

1.8 Test Location

TÜV SÜD conducted the following tests at our Octagon House Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: Simultaneous Transmission - Mid ch 150-174MHz Bluetooth Classic		
Radiated Spurious Emissions (Simultaneous Transmission)	Pier-Angelo Lorusso	UKAS
Configuration and Mode: Simultaneous Transmission - Mid ch 150-174MHz BLE		
Radiated Spurious Emissions (Simultaneous Transmission)	Pier-Angelo Lorusso	UKAS
Configuration and Mode: Simultaneous Transmission - Mid ch 150-174MHz 2.4GHz Wi-Fi		
Radiated Spurious Emissions (Simultaneous Transmission)	Pier-Angelo Lorusso	UKAS

Table 15

Office Address:

TÜV SÜD
Octagon House
Concorde Way
Fareham
Hampshire
PO15 5RL
United Kingdom



2 Test Details

2.1 Radiated Spurious Emissions (Simultaneous Transmission)

2.1.1 Specification Reference

FCC 47 CFR Part 2, Clause 2.1053
FCC 47 CFR Part 15C, Clause 15.247 (d)
FCC 47 CFR Part 90, Clause 90.210 (b) (3)
ISED RSS-119, Clause 5.8.1
ISED RSS-247, Clause 5.5
ISED RSS-GEN, Clause 6.13

2.1.2 Equipment Under Test and Modification State

SC2021, S/N: 1PR002417GKZ790 - Modification State 0

2.1.3 Date of Test

05-August-2024 to 07-August-2024

2.1.4 Test Method

A preliminary profile of the Radiated Spurious Emissions was obtained up to the 5th harmonic, as required by KDB 996369 D04, clause 3.2, by operating the EUT on a remotely controlled turntable within a semi-anechoic chamber

Measurements of emissions from the EUT were obtained with the Measurement Antenna in both Horizontal and Vertical Polarisations. The profiling produced a list of the worst-case emissions together with the EUT azimuth and antenna polarisation.

Testing was performed in accordance with ANSI C63.26, Clause 5.5.

Prescans and final measurements were performed using the direct field strength method.

Field strength measurements were performed and then converted to Equivalent Power Measurements in accordance with ANSI C63.26, Clause 5.2.7 equation c)

Example calculation:

$E \text{ (dBuV/m)} + 20\log(d) - 104.8 = \text{EIRP (dBm)}$ where (d) is the measurement distance.

$82.2 \text{ (dBuV/m)} + 20\log(3) - 104.8 = \text{EIRP (dBm)}$

$-13.0 = \text{EIRP (dBm)}$

2.1.5 Example Test Setup Diagram

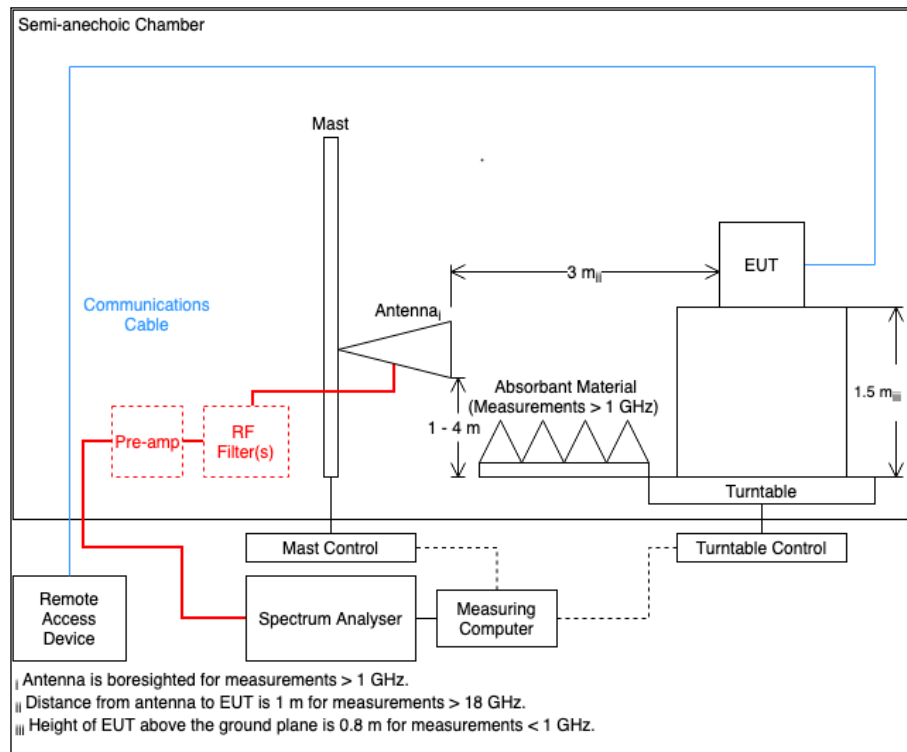


Figure 1

2.1.6 Environmental Conditions

Ambient Temperature	21.6 - 25.4 °C
Relative Humidity	53.2 - 54.1 %



2.1.7 Test Results

TETRA - Mid ch 150-174MHz Bluetooth Classic

The EUT was configured for simultaneous transmission in the following mode of operation:

Technology	Frequency Band	Channel Frequency (MHz)
Bluetooth	2400 MHz to 2483.5 MHz	2441
TETRA	150 MHz to 174 MHz	162

Table 16 – Modes of Operation

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 17 - BT CH39_Tetra_X Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

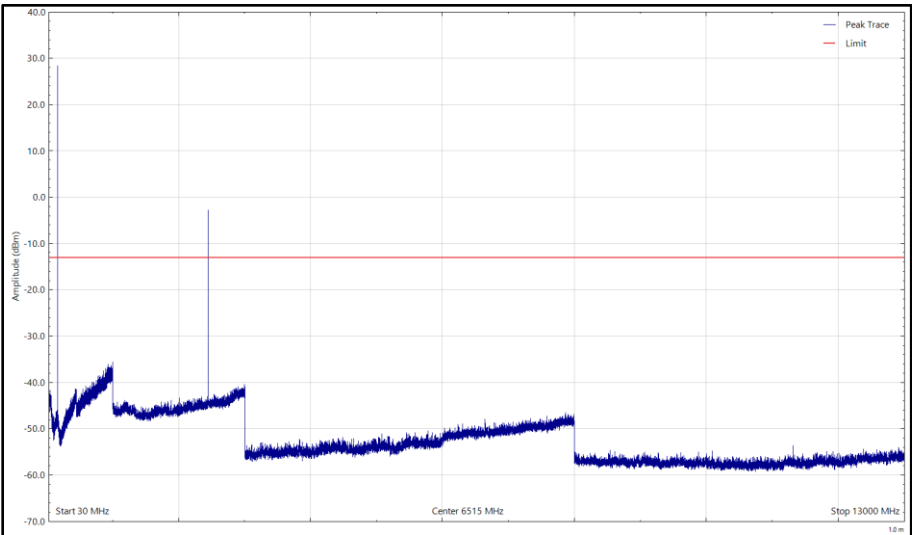


Figure 2 - BT CH39_Tetra_X Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

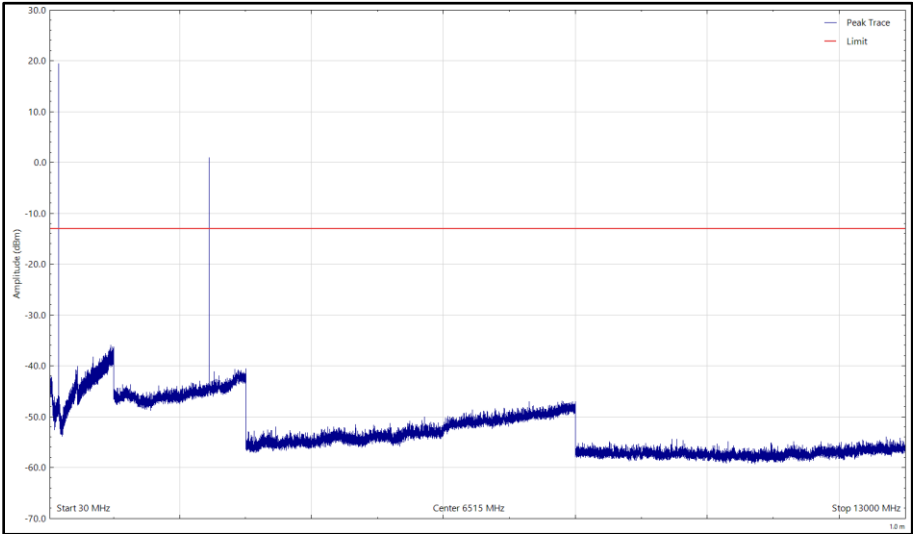


Figure 3 - BT CH39_Tetra_X Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 18 - BT CH39_Tetra_Y Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

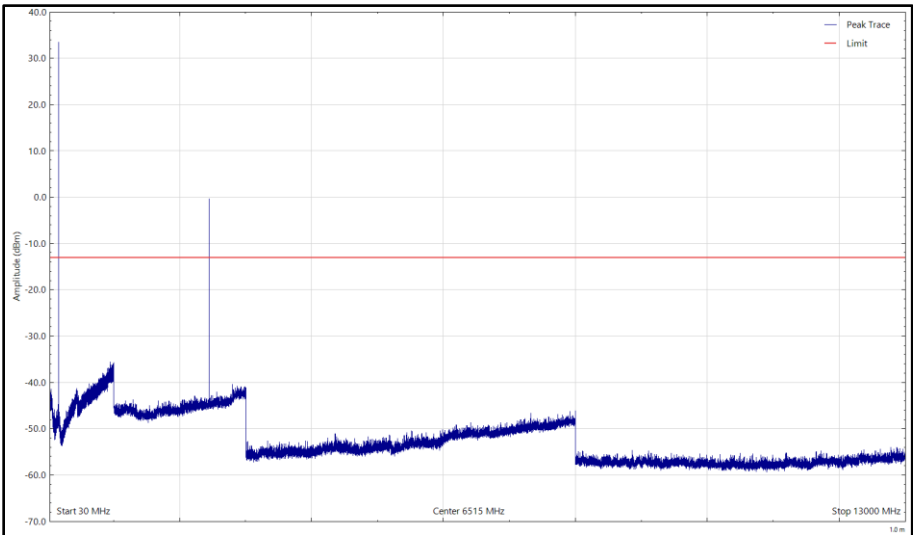


Figure 4 - BT CH39_Tetra_Y Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

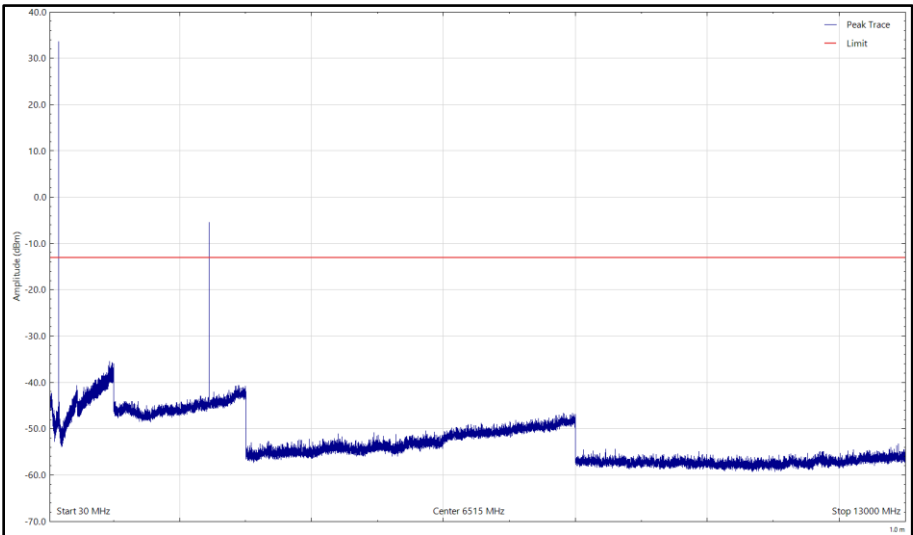


Figure 5 - BT CH39_Tetra_Y Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 19 - BT CH39_Tetra_Z Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

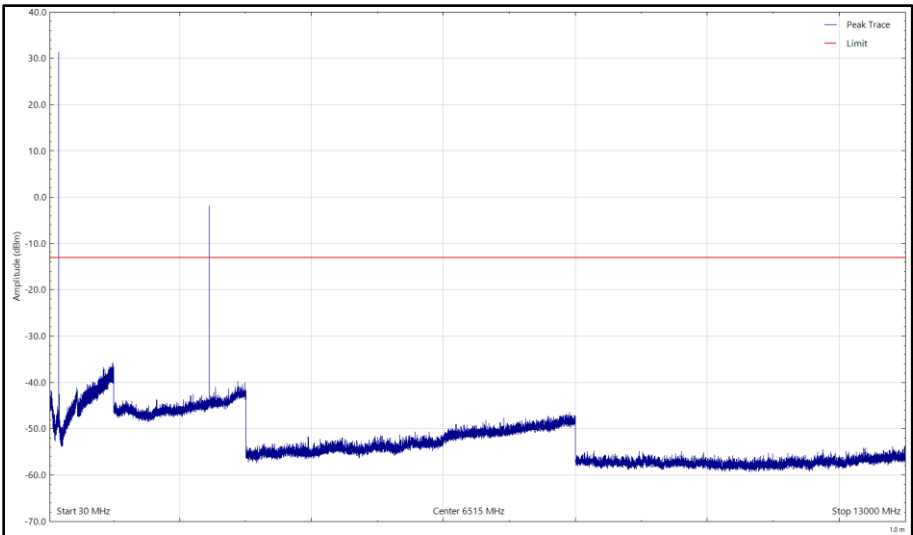


Figure 6 - BT CH39_Tetra_Z Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

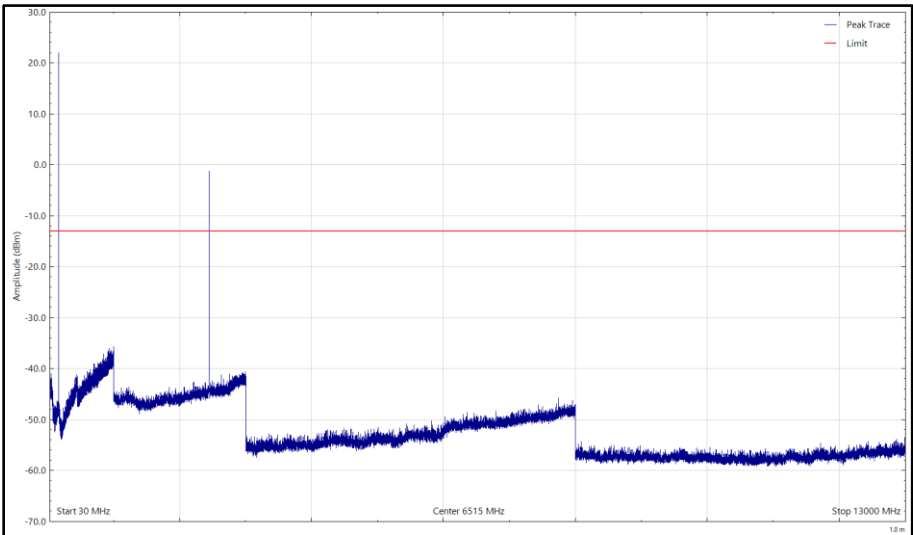


Figure 7 - BT CH39_Tetra_Z Plane, 2441 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



TETRA - Mid ch 150-174MHz BLE

The EUT was configured for simultaneous transmission in the following mode of operation:

Technology	Frequency Band	Channel Frequency (MHz)
Bluetooth Low Energy	2400 MHz to 2483.5 MHz	2440
TETRA	150 MHz to 174 MHz	162

Table 20 – Modes of Operation

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 21 - BLE CH17_Tetra_X Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

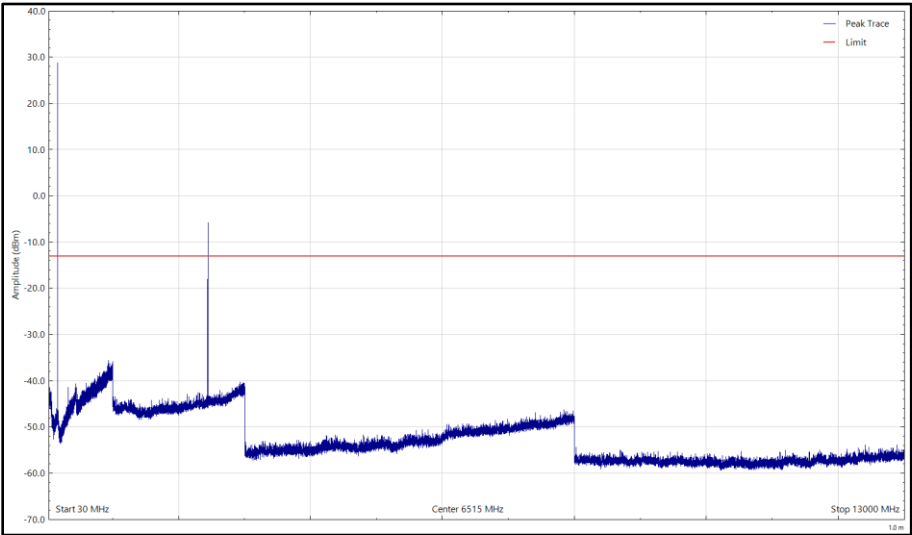


Figure 8 - BLE CH17_Tetra_X Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

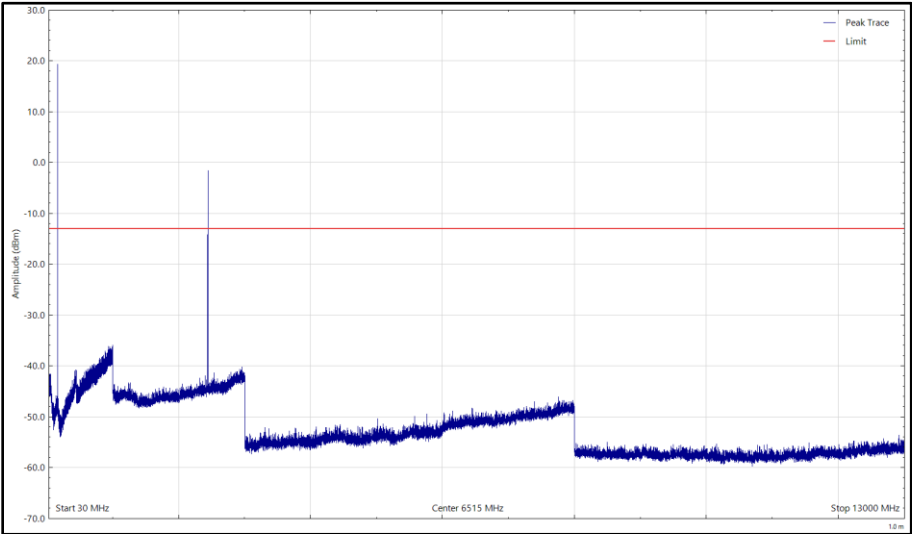


Figure 9 - BLE CH17_Tetra_X Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 22 - BLE CH17_Tetra_Y Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

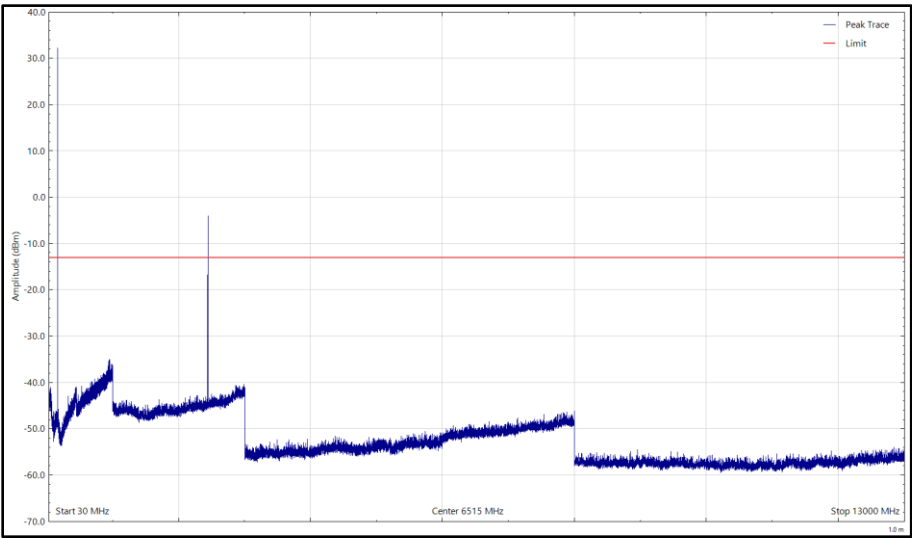


Figure 10 - BLE CH17_Tetra_Y Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

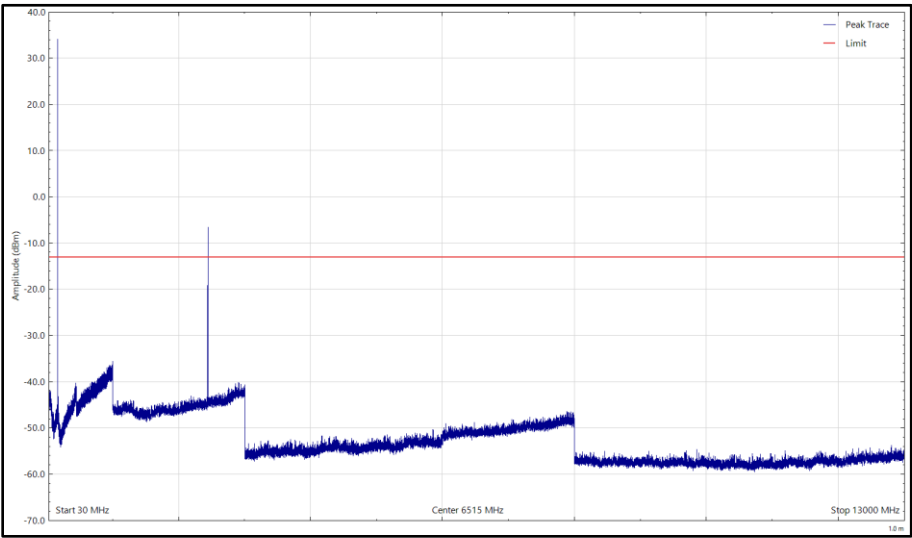


Figure 11 - BLE CH17_Tetra_Y Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 23 - BLE CH17_Tetra_Z Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

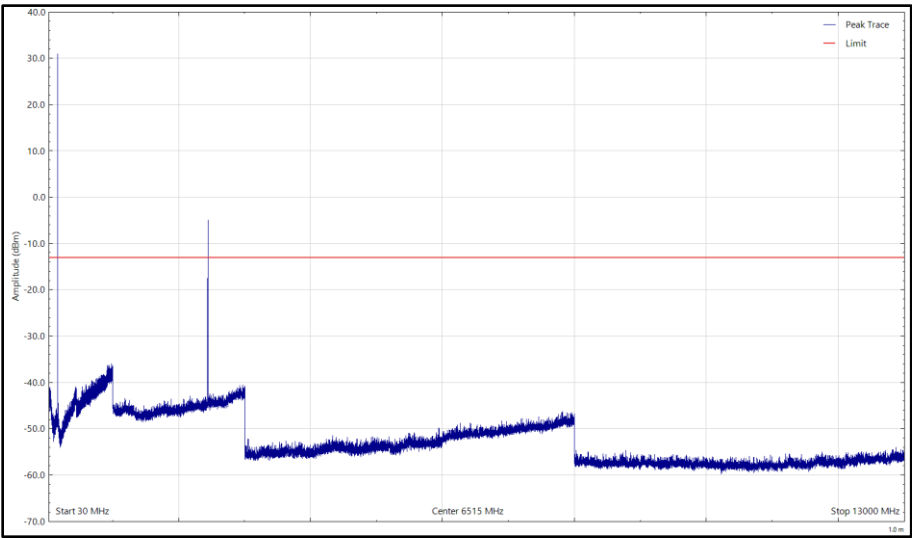


Figure 12 - BLE CH17_Tetra_Z Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

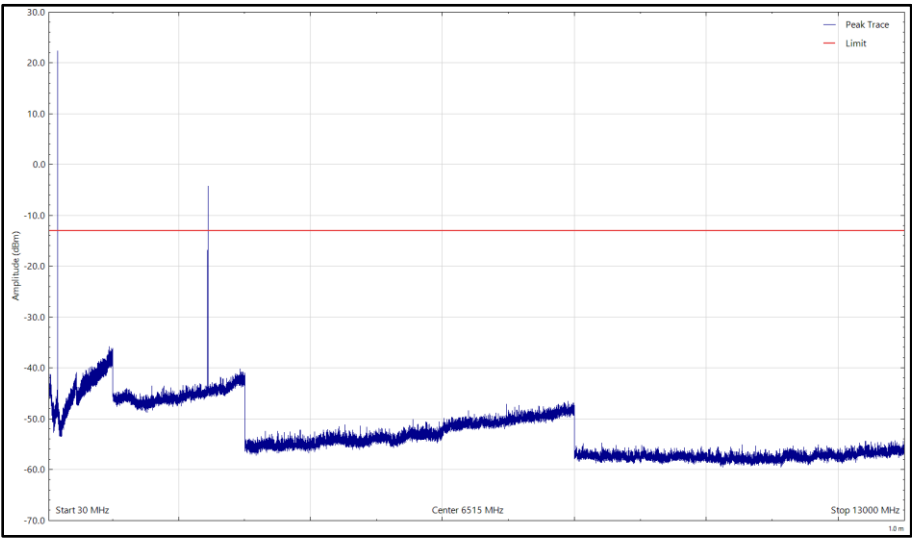


Figure 13 - BLE CH17_Tetra_Z Plane, 2440 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



TETRA - Mid ch 150-174MHz 2.4GHz Wi-Fi

The EUT was configured for simultaneous transmission in the following mode of operation:

Technology	Frequency Band	Channel Frequency (MHz)
802.11g	2400 MHz to 2483.5 MHz	2437
TETRA	150 MHz to 174 MHz	162

Table 24 – Modes of Operation

Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 25 - WLAN CH6_Tetra_X Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

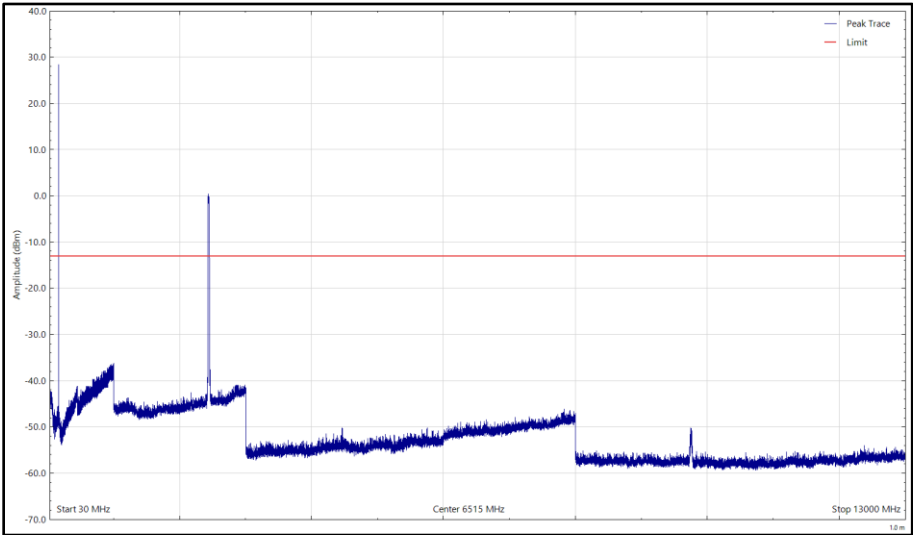


Figure 14 - WLAN CH6_Tetra_X Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

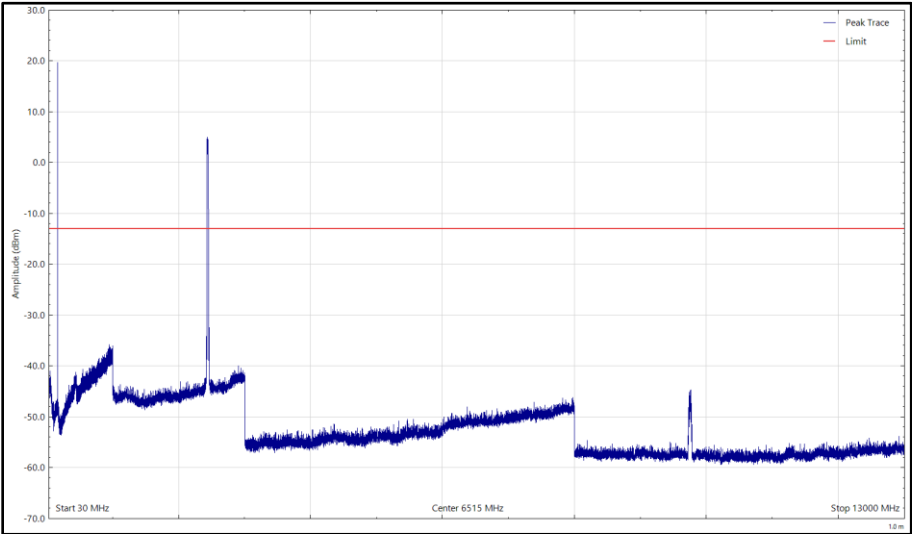


Figure 15 - WLAN CH6_Tetra_X Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 26 - WLAN CH6_Tetra_Y Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

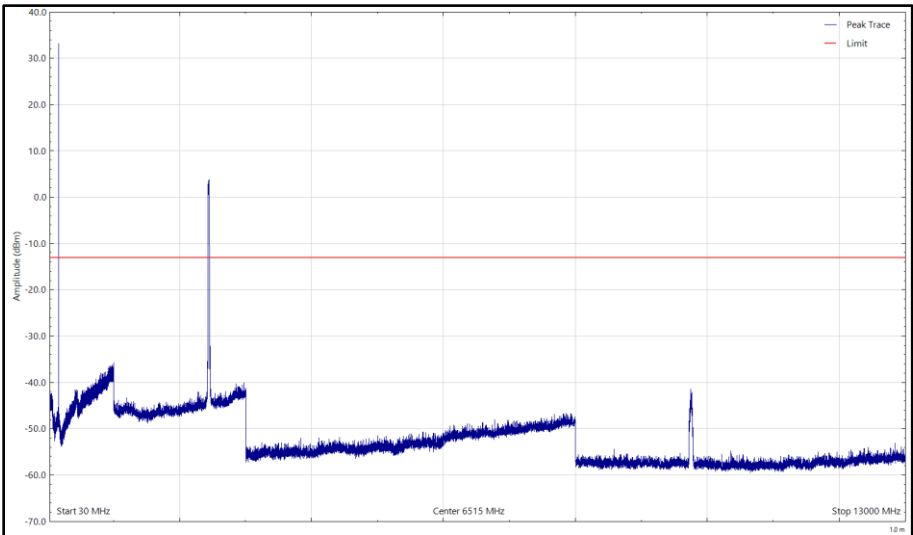


Figure 16 - WLAN CH6_Tetra_Y Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

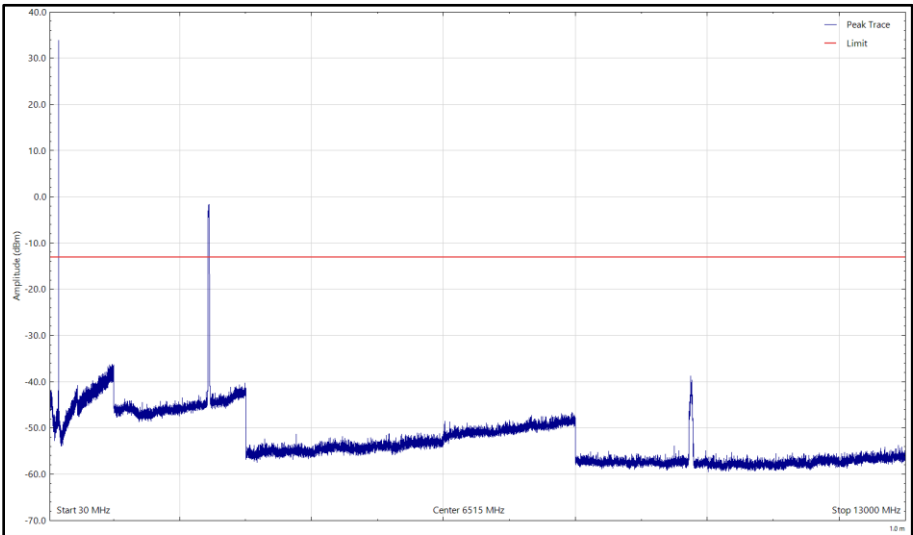


Figure 17 - WLAN CH6_Tetra_Y Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



Frequency (MHz)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

Table 27 - WLAN CH6_Tetra_Z Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz

*No emissions found within 10 dB of the limit.

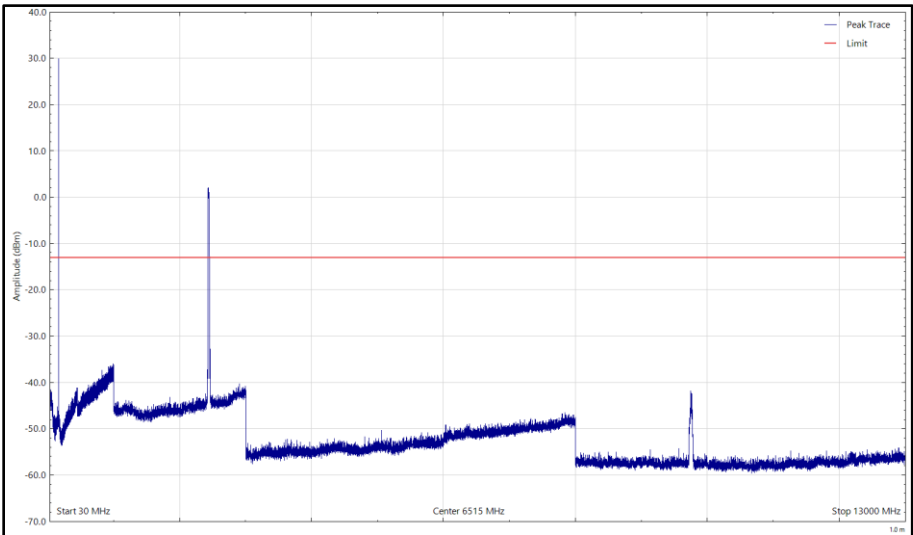


Figure 18 - WLAN CH6_Tetra_Z Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz, Horizontal (Peak)

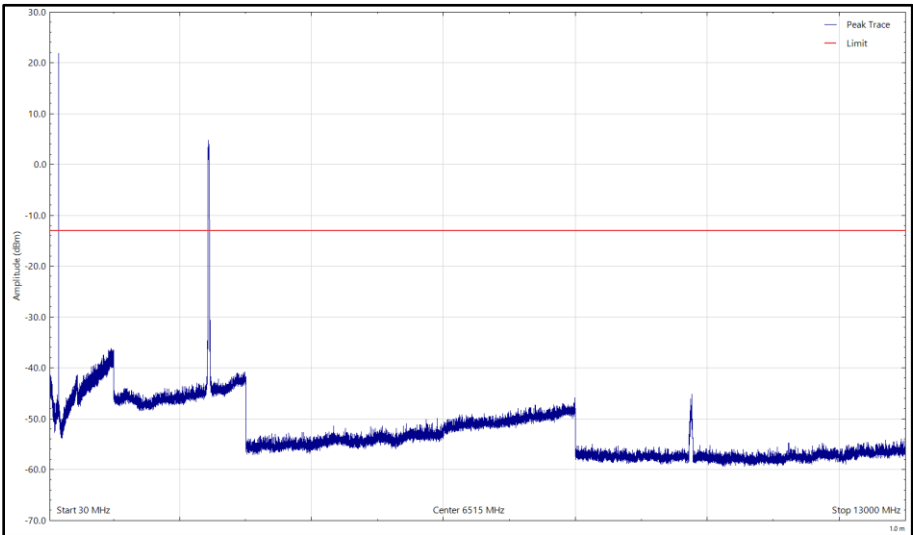


Figure 19 - WLAN CH6_Tetra_Z Plane, 2437 MHz_162 MHz, 30 MHz to 13 GHz, Vertical (Peak)



FCC 47 CFR Part 15, FCC 47 CFR Part 90, ISED RSS-119, ISED RSS-247

The least stringent limit from the applicable rule parts was used to determine compliance for Radiated Emissions testing of multiple transmission sources.

The least stringent applicable limit was:

Clause	Limit
Part 90.210 (b) (3) / RSS-119 Clause 5.8.1	-13 dBm (EIRP) / 82 dBμV/m at 3m.

Table 28



2.1.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Programmable Power Supply	Iso-tech	IPS 2010	2437	-	O/P Mon
True RMS Multimeter	Fluke	179	4006	12	22-Mar-2025
Test Receiver	Rohde & Schwarz	ESW44	5084	12	04-Nov-2024
Emissions Software	TUV SUD	EmX V3.4.2	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	24-Nov-2024
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	14-Jul-2025
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5216	12	14-Jul-2025
3 GHz High pass filter	Wainwright	WHKX12-2580-3000-18000-80SS	5220	12	03-Apr-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	23-May-2025
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB-40	5481	12	13-May-2025
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	23-May-2025
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	18-Apr-2025
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5550	12	30-May-2025
Pre-Amplifier (8 GHz to 18 GHz)	Wright Technologies	APS06-0061	5595	12	26-Oct-2024
Cable (K-Type to K-Type, 2 m)	Junkosha	MWX241-02000KMSKMS/B	5934	12	20-Jun-2025
Antenna (Tri-log, 30 MHz to 1 GHz)	Schwarzbeck	VULB 9168	5942	24	24-May-2026
Cable (N to N 8m)	Junkosha	MWX221-08000NMSNMS/B	6330	12	17-Feb-2025

Table 29

TU - Traceability Unscheduled
O/P Mon – Output Monitored using calibrated equipment

3 Photographs

3.1 Test Setup Photographs

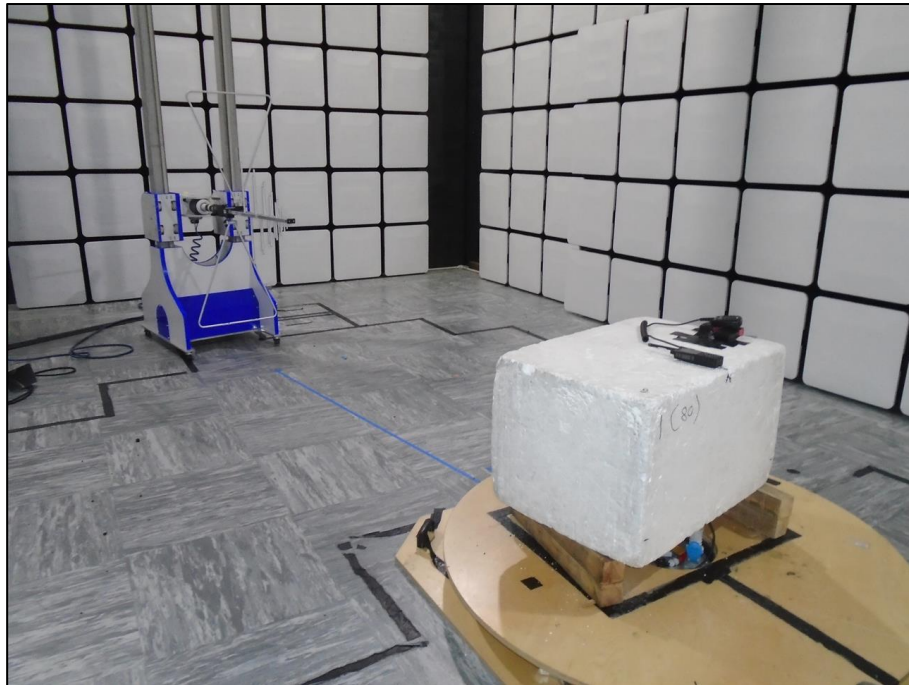


Figure 20 - Test Setup - 30 MHz to 1 GHz X plane

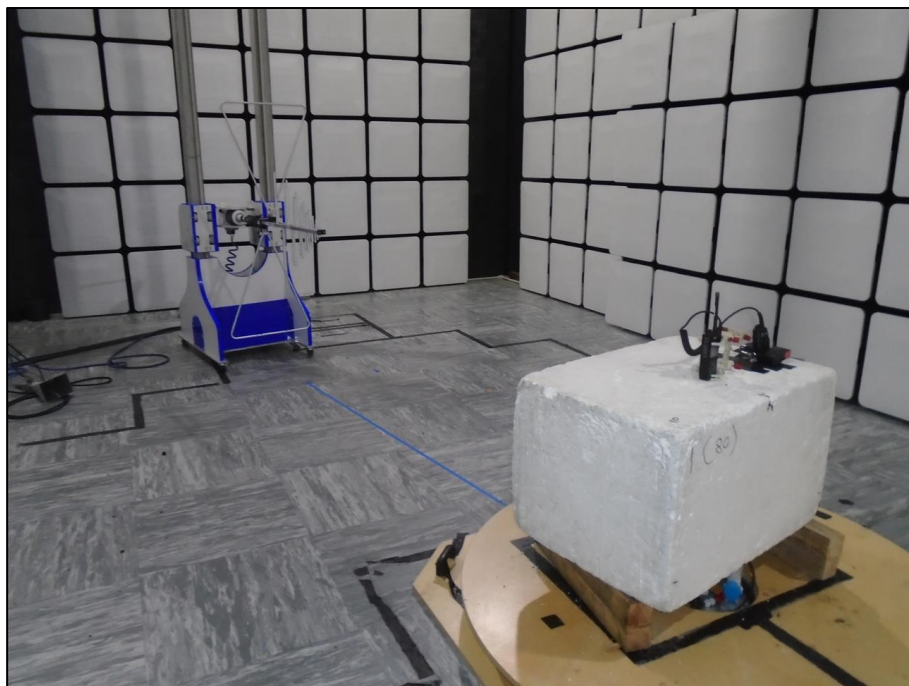


Figure 21 - Test Setup - 30 MHz to 1 GHz Y plane

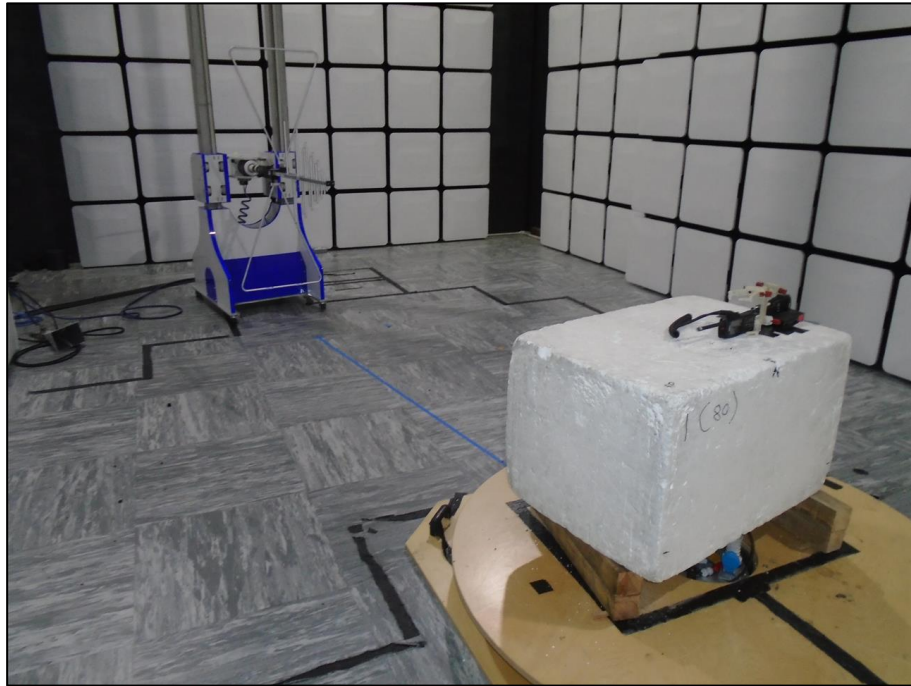


Figure 22 - Test Setup - 30 MHz to 1 GHz Z plane



Figure 23 - Test Setup - 1 GHz to 8 GHz X plane

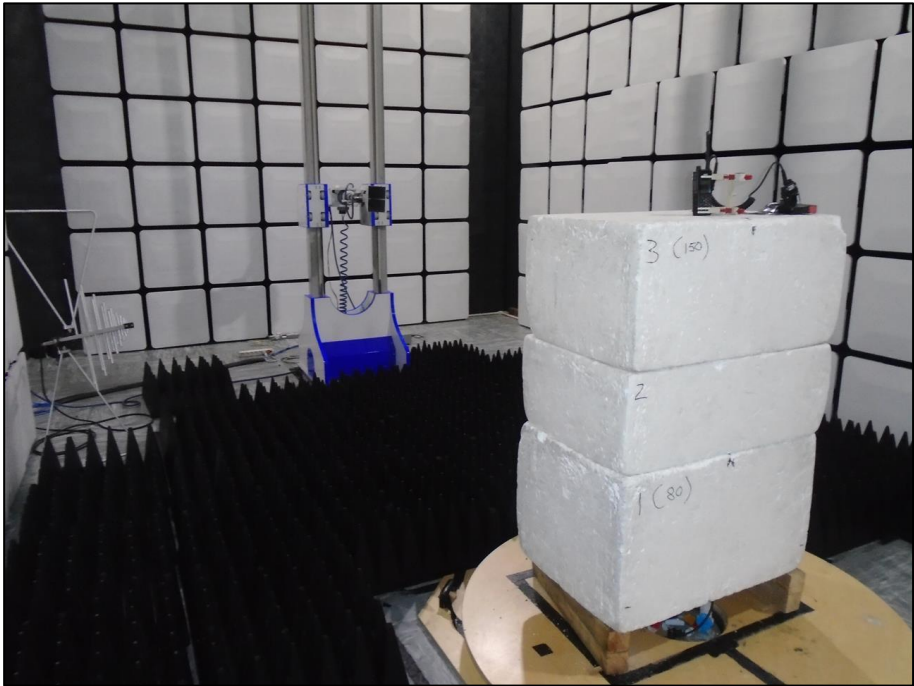


Figure 24 - Test Setup - 1 GHz to 8 GHz Y plane

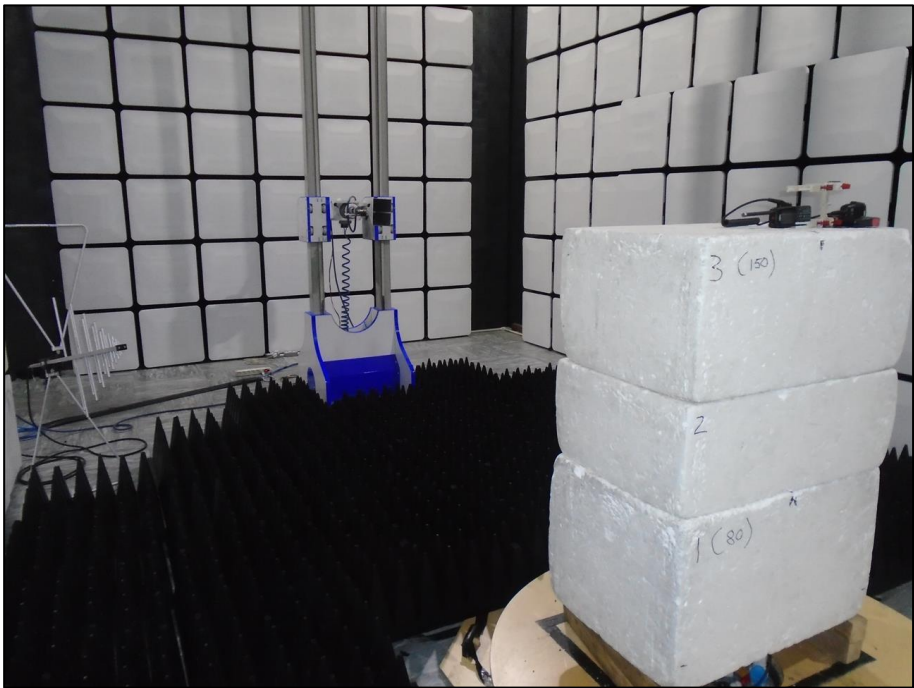


Figure 25 - Test Setup - 1 GHz to 8 GHz Y plane

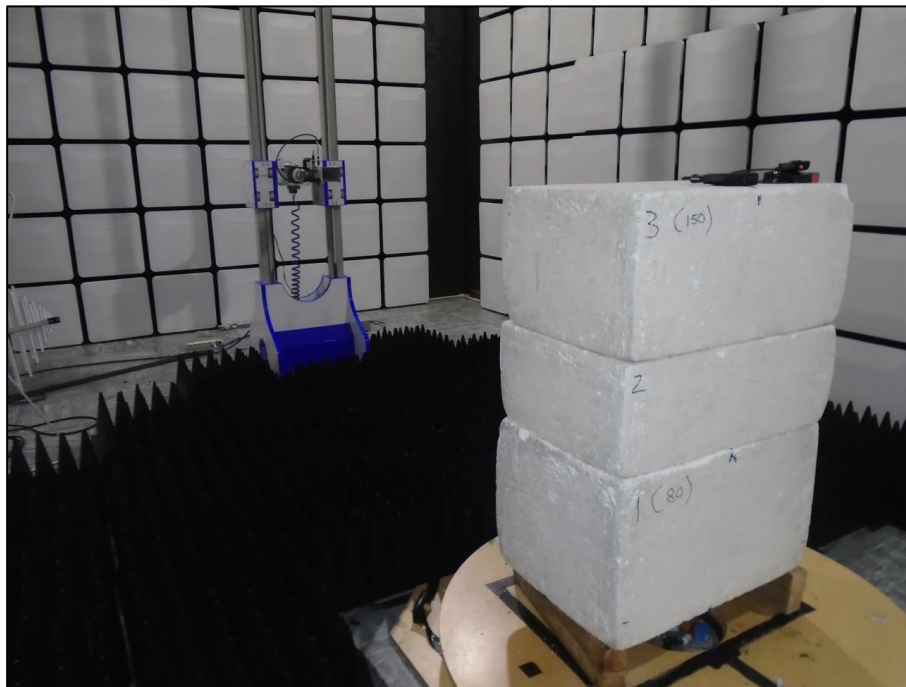


Figure 26 - Test Setup - 8 GHz to 13 GHz X plane

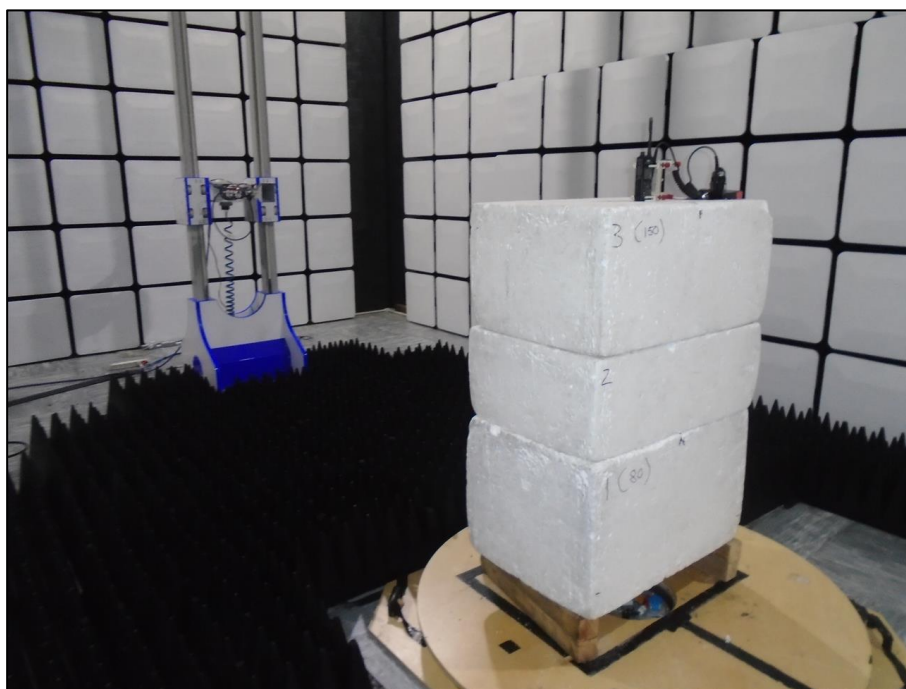


Figure 27 - Test Setup - 8 GHz to 13 GHz Y plane

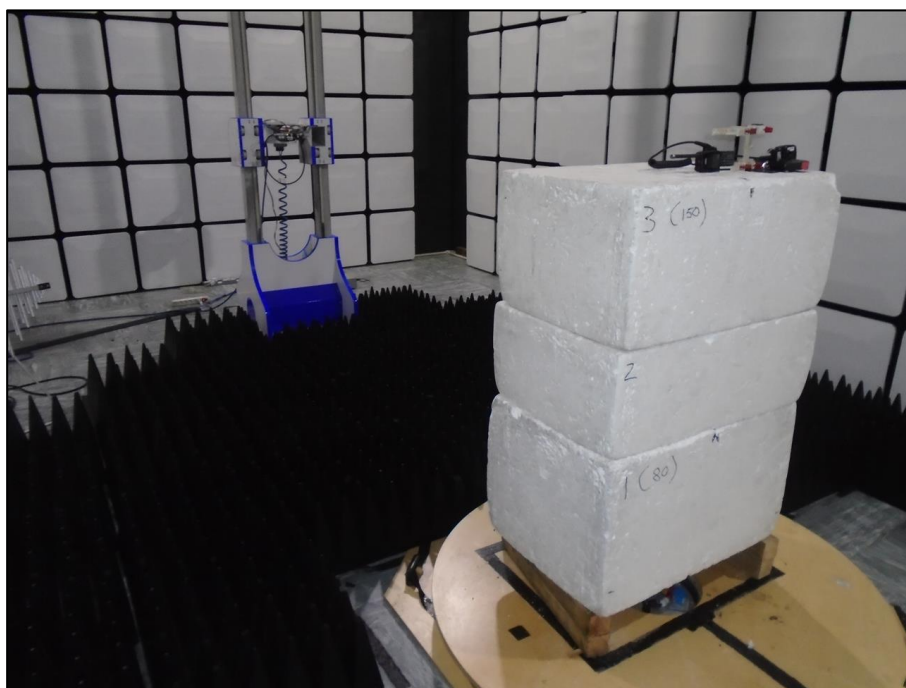


Figure 28 - Test Setup - 8 GHz to 13 GHz Z plane



4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Radiated Spurious Emissions (Simultaneous Transmission)	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB

Table 30

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (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.