

FCC and ISED Test Report Silicon Laboratories Finland Oy

Main Model: SiW917Y1GA
Series Model: SiW917Y1GN

In accordance with FCC 47 CFR Part 15C, ISED
RSS-247 and ISED RSS-GEN
(2.4 GHz WLAN)



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COMMERCIAL-IN-CONFIDENCE

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SIGNATURE

NAME	JOB TITLE	RESPONSIBLE FOR	ISSUE DATE
Steve Marshall	Senior Engineer	Authorised Signatory	04 September 2024

Signatures in this approval box have checked this document in line with the requirements of TUV SUD 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 15C, 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	Thomas Biddlecombe	04 September 2024	
	Ahmad Javid	04 September 2024	
	George Williams	04 September 2024	

FCC Accreditation

492497/UK2010 Octagon House, Fareham Test Laboratory

ISED Accreditation

12669A Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 15C: 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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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	04-September-2024

Table 1

1.2 Introduction

Applicant	Silicon Laboratories Finland Oy
Manufacturer	Silicon Laboratories Finland Oy
Model Number(s)	Main Model SiW917Y1GA Series Model: SiW917Y1GN
Serial Number(s)	WLAN MAC address: ec:f6:4c:a0:f:4 WLAN MAC address: ec:f6:4c:a0:ac:c
Hardware Version(s)	1.0
Software Version(s)	Stack's "Connectivity Firmware" version 2.10.1.2.0.4
Number of Samples Tested	2
Test Specification/Issue/Date	FCC 47 CFR Part 15C: 2022 ISED RSS-247: Issue 3 (08-2023) ISED RSS-GEN: Issue 5 (04-2018) + A2 (02-2021)
Order Number	PTP ~ 6000530772
Date	08-March-2024
Date of Receipt of EUT	21-February-2024 and 04-March-2024
Start of Test	03-April-2024
Finish of Test	10-July-2024
Name of Engineer(s)	Thomas Biddlecombe, Ahmad Javid and George Williams
Related Document(s)	ANSI C63.10 (2020) ANSI C63.10 (2013)



1.3 Brief Summary of Results

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

Section	Specification Clause			Test Description	Result	Comments/Base Standard
	Part 15C	RSS-247	RSS-GEN			
Configuration and Mode: 2.4 GHz WLAN Conducted Tests (SiW917Y1GN)						
2.1	15.247 (a)(2)	5.2	6.7	Emission Bandwidth	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
2.2	15.247 (b)	5.4	6.12	Maximum Conducted Output Power	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
2.3	15.247 (e)	5.2	6.12	Power Spectral Density	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
Configuration and Mode: 2.4 GHz WLAN - PCB Trace Antenna (SiW917Y1GA)						
2.4	15.209 & 15.247 (d)	3.3 & 5.5	6.13 & 8.9	Spurious Radiated Emissions	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013) ANSI C63.4 (2014)
2.5	15.205	3.3	8.10	Restricted Band Edges	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
2.6	15.247 (d)	5.5	-	Authorised Band Edges	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
-	15.203	-	-	Antenna Requirement	N/T	The device complies with the provisions of this section, as it uses permanently attached integral antennas.



Configuration and Mode: 2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna (SiW917Y1GN)						
2.4	15.209 & 15.247 (d)	3.3 & 5.5	6.13 & 8.9	Spurious Radiated Emissions	Pass	ANSI C63.10 (2020) KDB 996369 D04 Module Integration Guide v02 ANSI C63.10 (2013) ANSI C63.4 (2014)
2.5	15.205	3.3	8.10	Restricted Band Edges	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
2.6	15.247 (d)	5.5	-	Authorised Band Edges	Pass	ANSI C63.10 (2020) ANSI C63.10 (2013)
-	15.203	-	-	Antenna Requirement	N/T	The device complies with the provisions of this section, as it uses a non-standard antenna jack.
Configuration and Mode: 2.4 GHz WLAN - Extreme Voltages (SiW917Y1GN)						
-	15.247 (b)	5.4	6.12	Maximum Conducted Output Power at Extreme Voltages	Pass	Refer to Annex A

Table 2

Note: For conducted testing, antenna gain was taken as 2.80 dBi as per the ANT-2.4-CW-CT-SMA/RPS Antenna as this is the highest gain antenna.



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)	Bluetooth Low Energy (LE), and Wi-Fi 802.11b/g/n/ax wireless radio module		
Legal Manufacturer (Technology Owner):	Silicon Laboratories Finland Oy		
Model name(s):	Main Model: SiW917Y1GA (with integral antenna) Series Model: SiW917Y1GN (with no integral antenna but RF pin)		
Brand Name:	SILICON LABS		
Hardware Version:	1.0		
Software Version:	Connectivity Firmware (runs the wireless stacks): 2.10.1.2.0.4		
FCC ID of the product under test – see guidance here	QOQ-917AC		
IC ID of the product under test – see guidance here	5123A-917AC		
Device Category	Mobile ☒	Portable ☒	Fixed ☐
Equipment is fitted with an Audio Low Pass Filter	Yes ☐	No ☒	

Table 3

Intentional Radiators

Technology	Bluetooth Low Energy	Wi-Fi 802.11b	Wi-Fi 802.11g	Wi-Fi 802.11n	Wi-Fi 802.11ax
Frequency Range (MHz to MHz)	2402-2480 MHz	2412-2462 MHz			
Conducted Declared Output Power (dBm)	Max: 9	Max: 20			Max: 18
Antenna Gain (dBi)	Integral Antenna: 2.26 External Reference Dipole Antenna (1/2 Wave Whip 2.4GHz RPS): 2.80				
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	1MBaud PHYs: 1 2MBaud PHY: 2	20			
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	GFSK	DSSS / CCK	OFDM (Orthogonal Frequency Division Multiplexing) / Subcarriers: BPSK, QPSK, 16- QAM or 64-QAM / Up to MCS7		OFDMA (Orthogonal frequency-division multiple access) / Subcarriers: BPSK, QPSK, 16-QAM or 64-QAM / Up to MCS7
ITU Emission Designator (see guidance here) (not mandatory for Part 15 devices)					
Bottom Frequency (MHz)	Adv mode: 2402 Data mode: 2404	2412			
Middle Frequency (MHz)	Data mode: 2444	2437			
Top Frequency (MHz)	Adv mode: 2480 Data mode: 2478	2462			

Table 4



Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	180 MHz (embedded MCU clock, for ARM® Cortex® M4 core) 40 MHz (module's on-board crystal, for radio portion)
Lowest frequency generated or used in the device or on which the device operates or tunes	
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:	3.3	V
Extreme upper voltage:	3.63	V
Extreme lower voltage:	3.0	V
Max current:	400	mA

Table 7

Battery Power Source

Voltage:		V
End-point voltage:		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:	-40	°C
Maximum temperature:	+85	°C

Table 10

Cable Loss

Adapter Cable Loss (Conducted sample)	0.5 (u.FL and SMA connectors, plus coax cable, for external reference dipole antenna)	dB
--	--	----

Table 11

Antenna Characteristics

Antenna connector ☐			State impedance		Ohm
Temporary antenna connector ☐			State impedance		Ohm
Integral antenna ☒	Type:	PCB Trace	Gain	2.26	dBi
External antenna ☒	Type:	Dipole, 1/2 Wave Whip, 2.4GHz, RPS (reference only, not sold with module)	Gain	2.80	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 / RF Pin ☒ 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)

Legal Manufacturer (Technology Owner):	Silicon Laboratories Finland Oy	Brand Name:	SILICON LABS
Model(s):	Main Model: SiW917Y1GA (with integral antenna) Series Model: SiW917Y1GN (with no integral antenna but RF pin)	Country of Origin:	China

Table 13

Data in the tables above is provided by the Manufacturer.



1.5 Product Information

1.5.1 Technical Description

Bluetooth Low Energy (LE), and Wi-Fi 802.11b/g/n/ax wireless radio module.

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: SiW917Y1GN, Serial Number: WLAN MAC address: ec:f6:4c:a0:f:4			
0	As supplied by the customer	Not Applicable	Not Applicable
Model: SiW917Y1GA, Serial Number: WLAN MAC address: ec:f6:4c:a0:ac:c			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 14

Note: The serial numbers used throughout this report are the MAC address of the equipment under test.



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: 2.4 GHz WLAN Conducted Tests		
Emission Bandwidth	Thomas Biddlecombe	UKAS
Maximum Conducted Output Power	Thomas Biddlecombe	UKAS
Power Spectral Density	Thomas Biddlecombe	UKAS
Configuration and Mode: 2.4 GHz WLAN - PCB Trace Antenna		
Spurious Radiated Emissions	Ahmad Javid	UKAS
Restricted Band Edges	Ahmad Javid	UKAS
Authorised Band Edges	Ahmad Javid	UKAS
Configuration and Mode: 2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna		
Spurious Radiated Emissions	Ahmad Javid	UKAS
Restricted Band Edges	Ahmad Javid	UKAS
Authorised Band Edges	Ahmad Javid	UKAS
Configuration and Mode: 2.4 GHz WLAN - Extreme Voltages		
Maximum Conducted Output Power at Extreme Voltages	George Williams	UKAS

Table 15

Office Address:

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



2 Test Details

2.1 Emission Bandwidth

2.1.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (a)(2),
ISED RSS-247, Clause 5.2
ISED RSS-GEN, Clause 6.7

2.1.2 Equipment Under Test and Modification State

SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.1.3 Date of Test

11-April-2024

2.1.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.8.1 for 6 dB BW and 6.9.3 for 99% occupied bandwidth measurements.

The EUT was supplied with 3.3 VDC directly with a DC PSU.

2.1.5 Environmental Conditions

Ambient Temperature	21.3 °C
Relative Humidity	56.5 %



2.1.6 Test Results

2.4 GHz WLAN Conducted Tests

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11b	Duty Cycle (%):	-
Data Rate:	1 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	6 dB Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	15.00	8.640	-	-	-	≥500.0
2437	20.00	9.120	-	-	-	≥500.0
2462	15.00	9.120	-	-	-	≥500.0

Table 16 - 6 dB Bandwidth Results

Test Frequency (MHz)	Power Index	99% Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	15.00	13.740	-	-	-	-
2437	20.00	14.400	-	-	-	-
2462	15.00	13.500	-	-	-	-

Table 17 - 99% Bandwidth Results

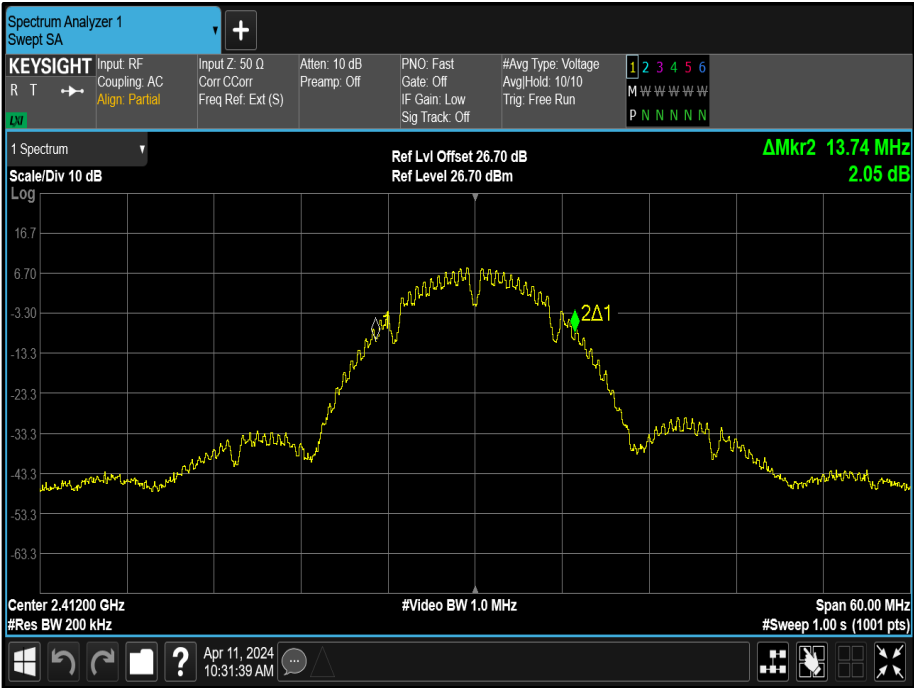


Figure 1 - 2412 MHz (CH1) 99% Bandwidth

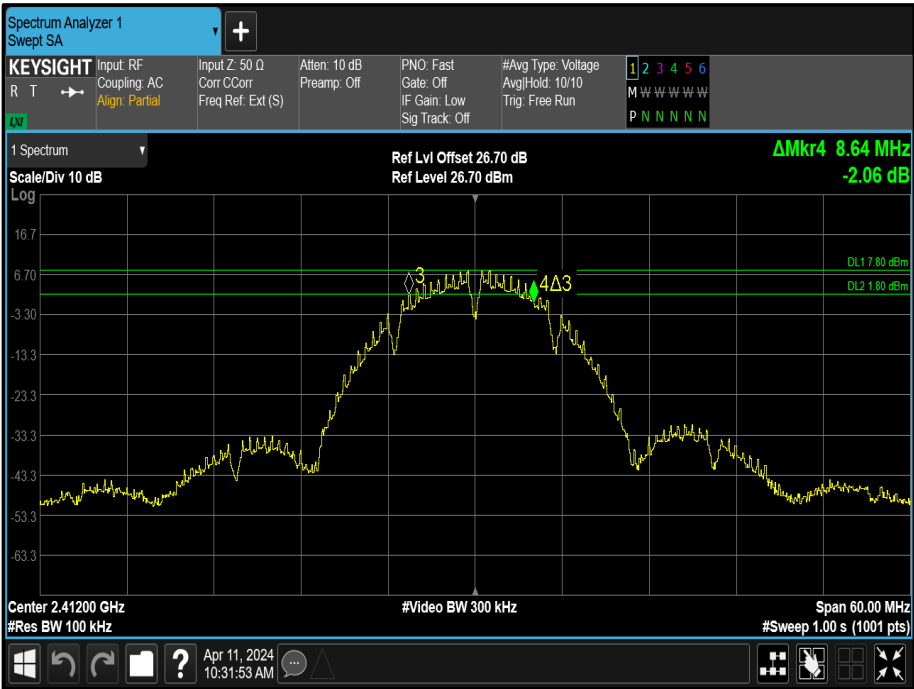


Figure 2 - 2412 MHz (CH1) 6 dB Bandwidth



Figure 3 - 2437 MHz (CH6) 99% Bandwidth

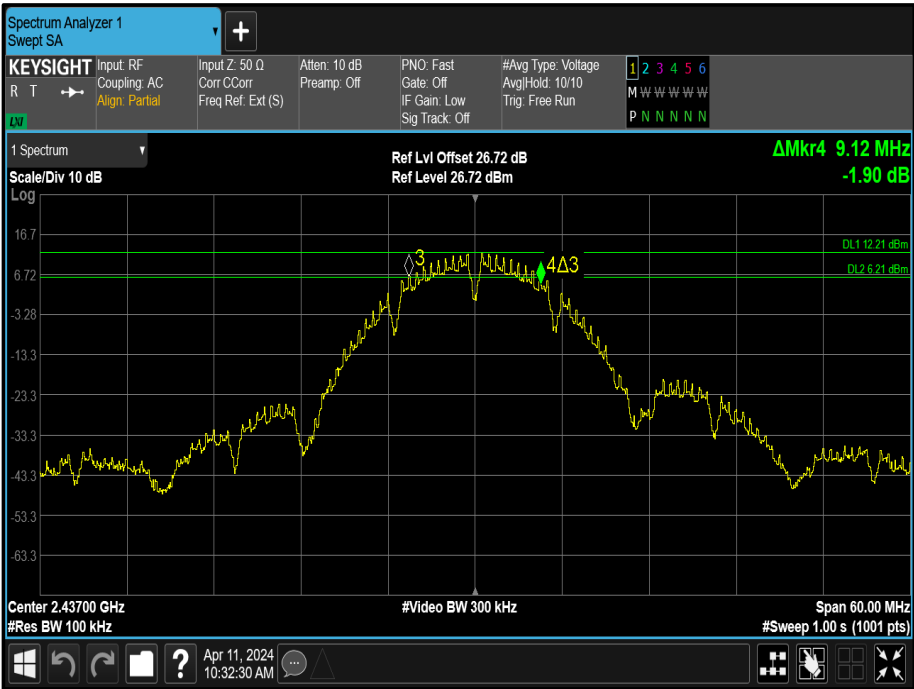


Figure 4 - 2437 MHz (CH6) 6 dB Bandwidth

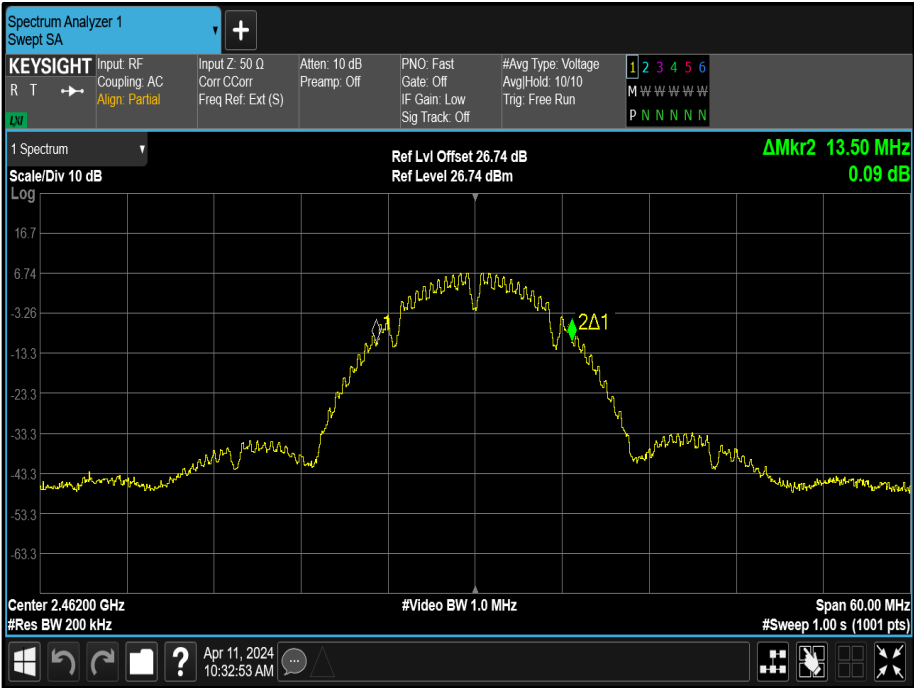


Figure 5 - 2462 MHz (CH11) 99% Bandwidth

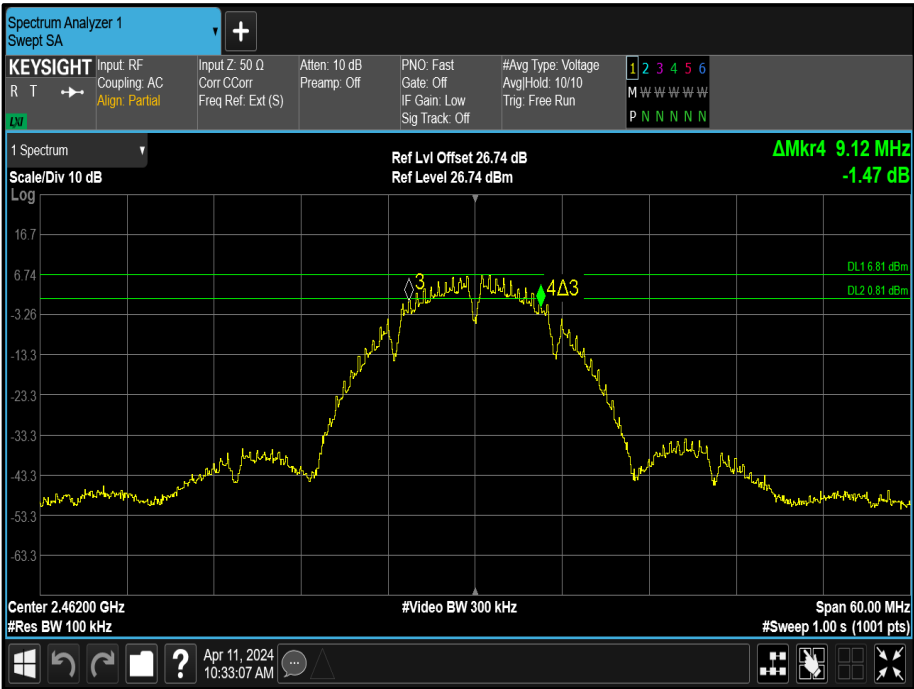


Figure 6 - 2462 MHz (CH11) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11g	Duty Cycle (%):	-
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	6 dB Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	11.00	16.680	-	-	-	≥500.0
2437	20.00	16.600	-	-	-	≥500.0
2462	10.00	16.620	-	-	-	≥500.0

Table 18 - 6 dB Bandwidth Results

Test Frequency (MHz)	Power Index	99% Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	11.00	16.740	-	-	-	-
2437	20.00	26.500	-	-	-	-
2462	10.00	16.680	-	-	-	-

Table 19 - 99% Bandwidth Results

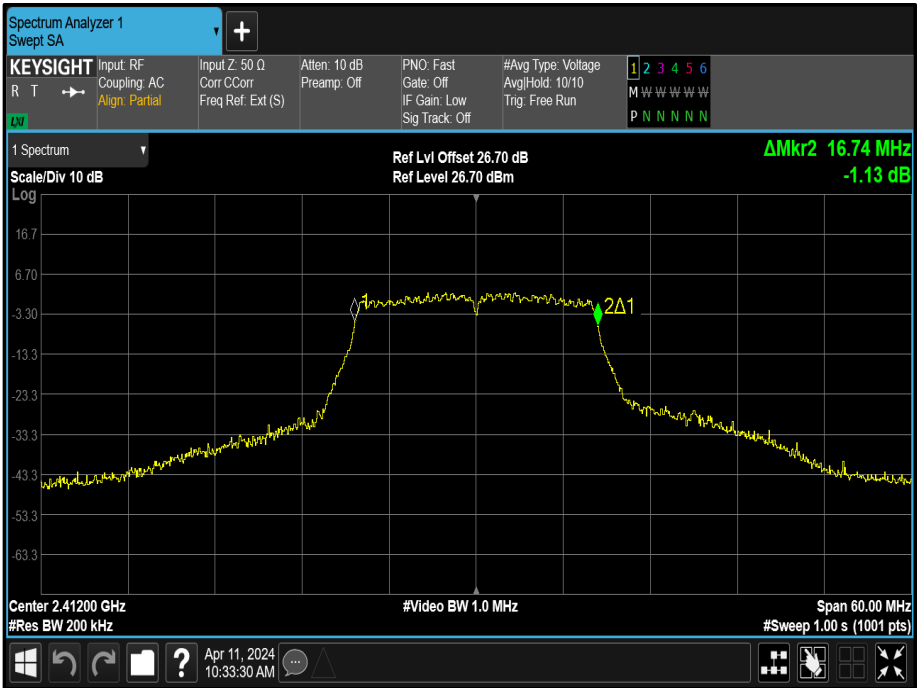


Figure 7 - 2412 MHz (CH1) 99% Bandwidth

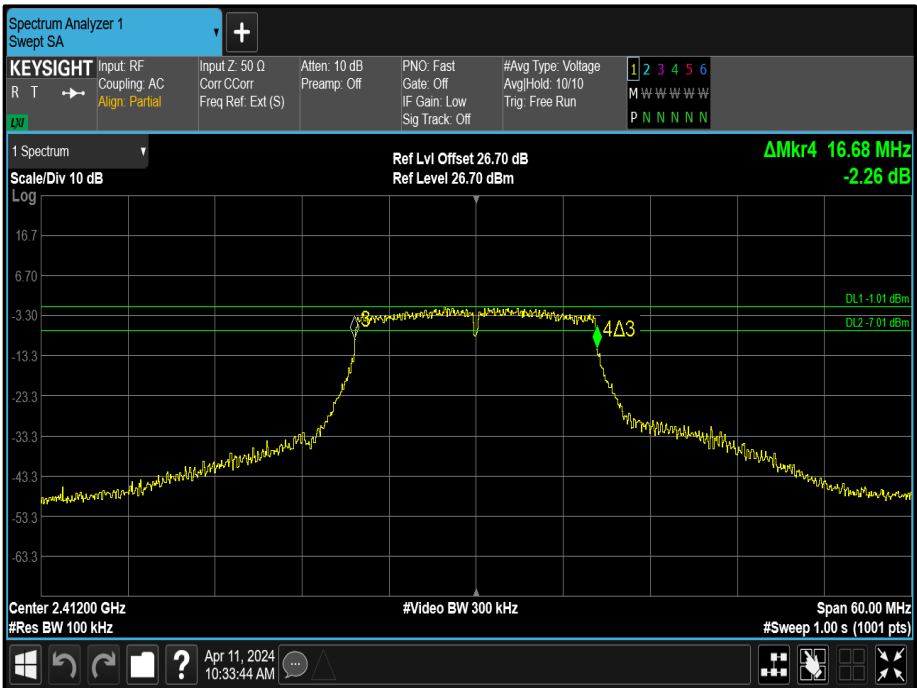


Figure 8 - 2412 MHz (CH1) 6 dB Bandwidth

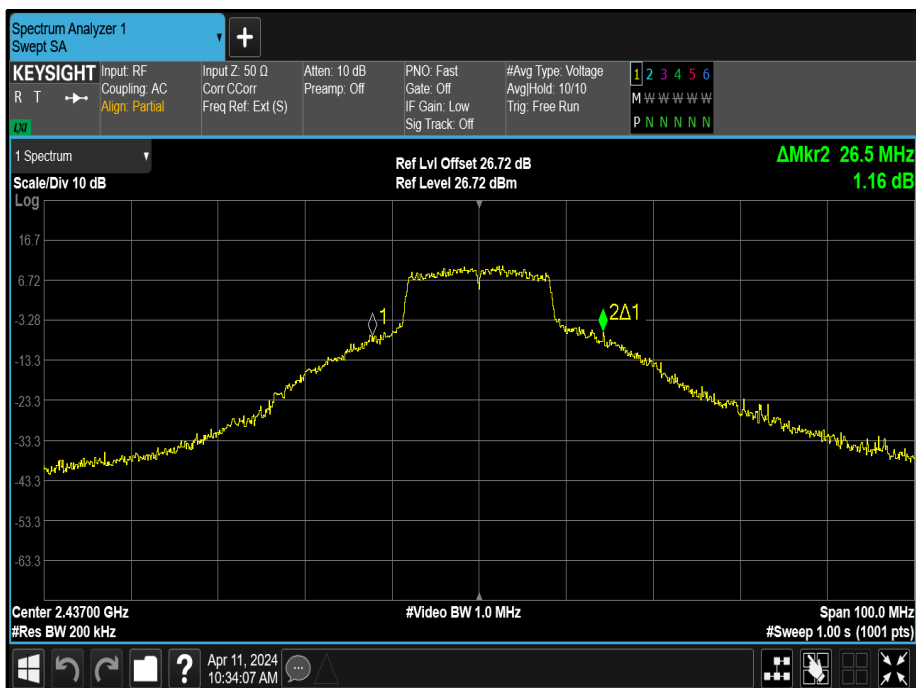


Figure 9 - 2437 MHz (CH6) 99% Bandwidth

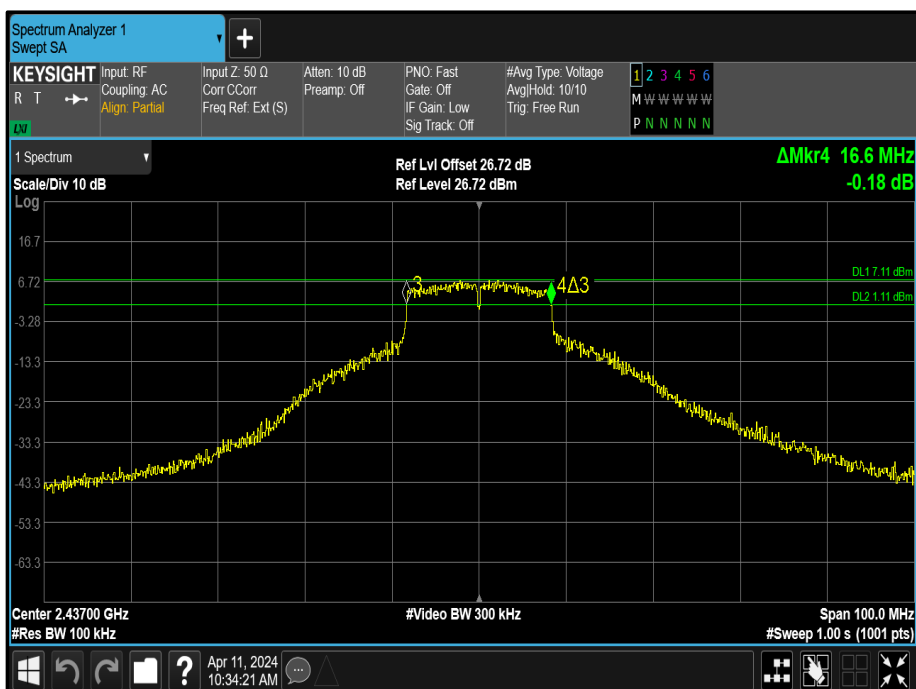


Figure 10 - 2437 MHz (CH6) 6 dB Bandwidth

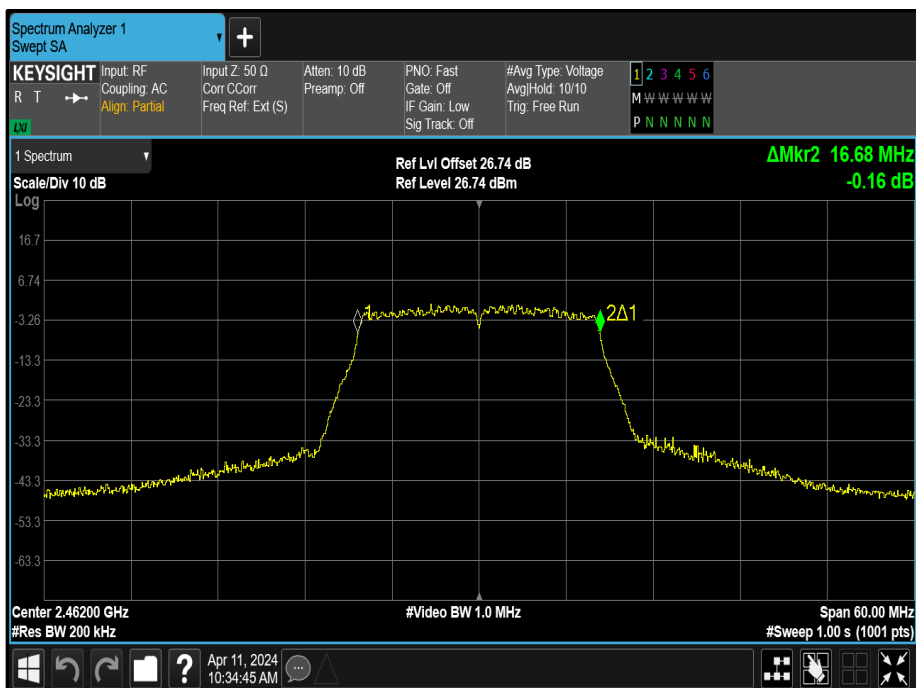


Figure 11 - 2462 MHz (CH11) 99% Bandwidth

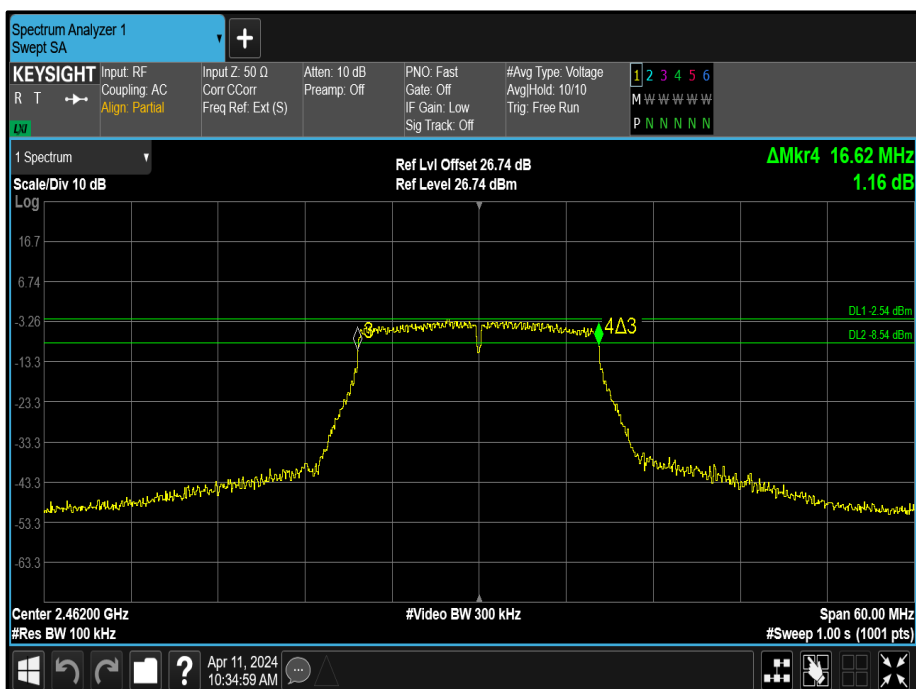


Figure 12 - 2462 MHz (CH11) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

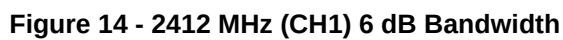
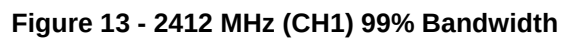
DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	6 dB Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	10.00	17.880	-	-	-	≥500.0
2437	20.00	17.900	-	-	-	≥500.0
2462	10.00	17.880	-	-	-	≥500.0

Table 20 - 6 dB Bandwidth Results

Test Frequency (MHz)	Power Index	99% Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	10.00	17.880	-	-	-	-
2437	20.00	22.400	-	-	-	-
2462	10.00	17.940	-	-	-	-

Table 21 - 99% Bandwidth Results



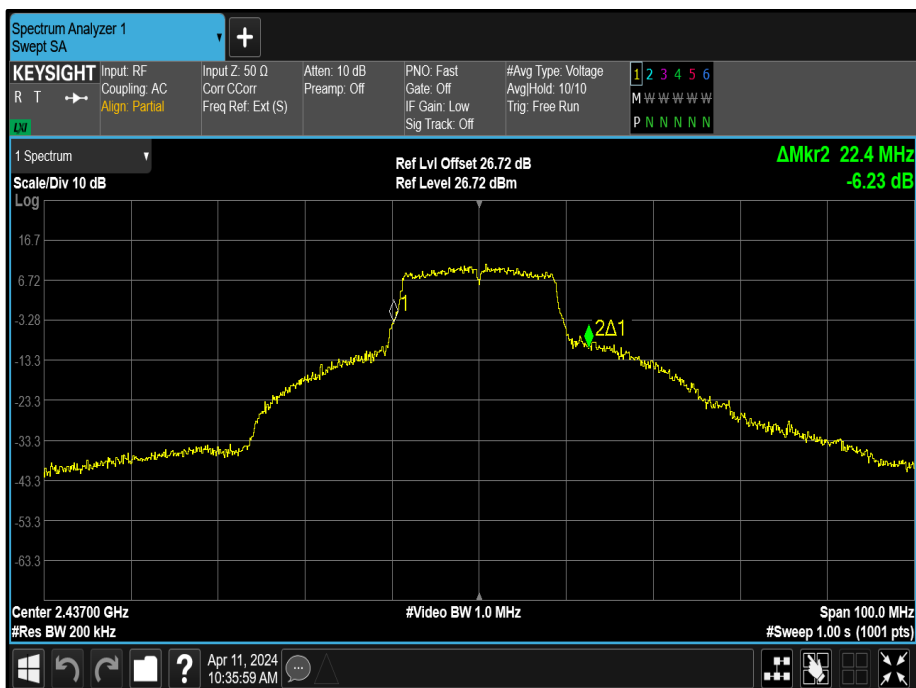


Figure 15 - 2437 MHz (CH6) 99% Bandwidth

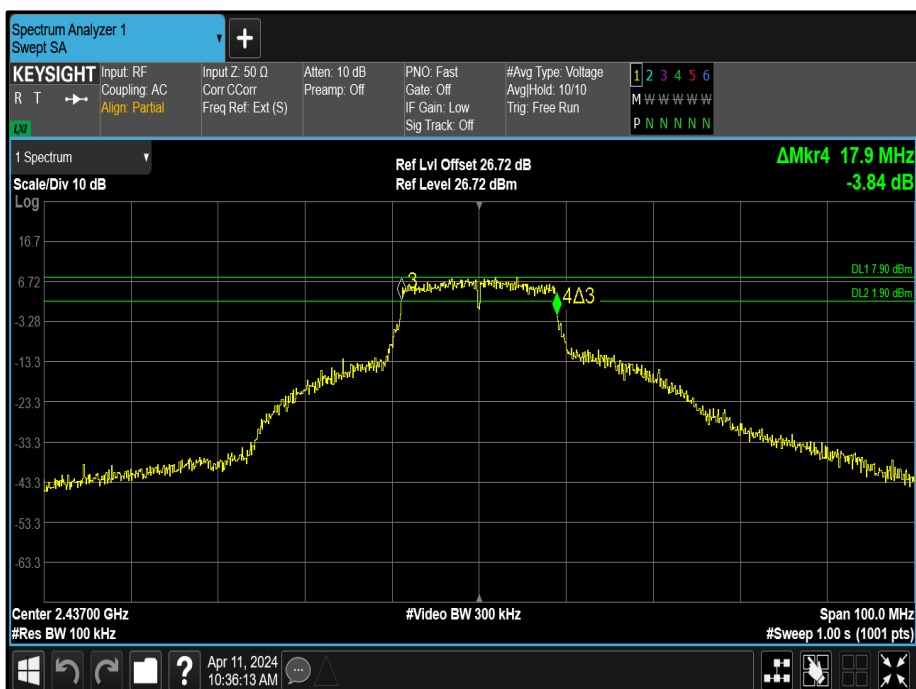


Figure 16 - 2437 MHz (CH6) 6 dB Bandwidth

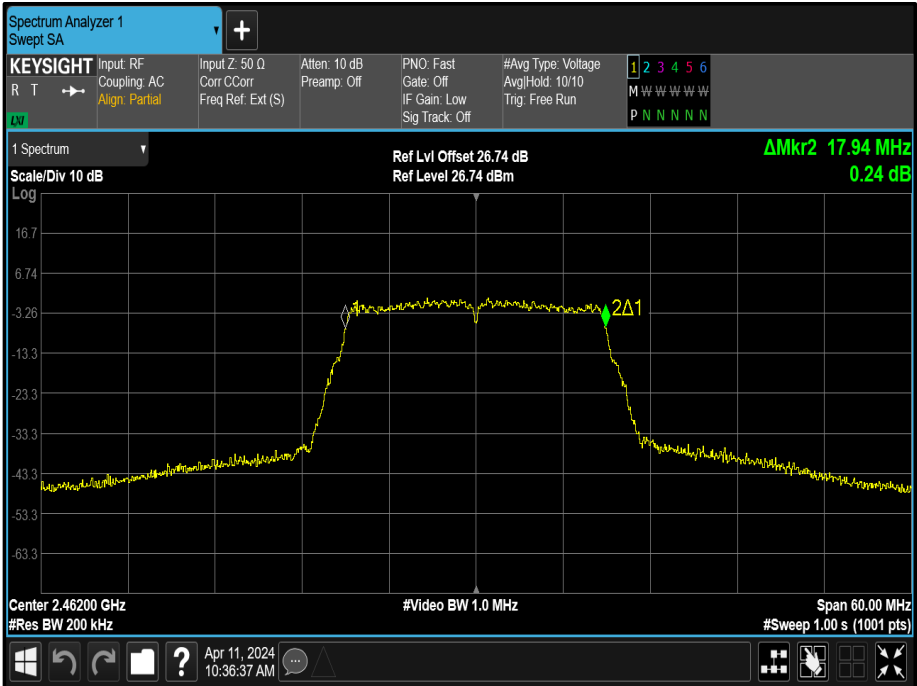


Figure 17 - 2462 MHz (CH11) 99% Bandwidth

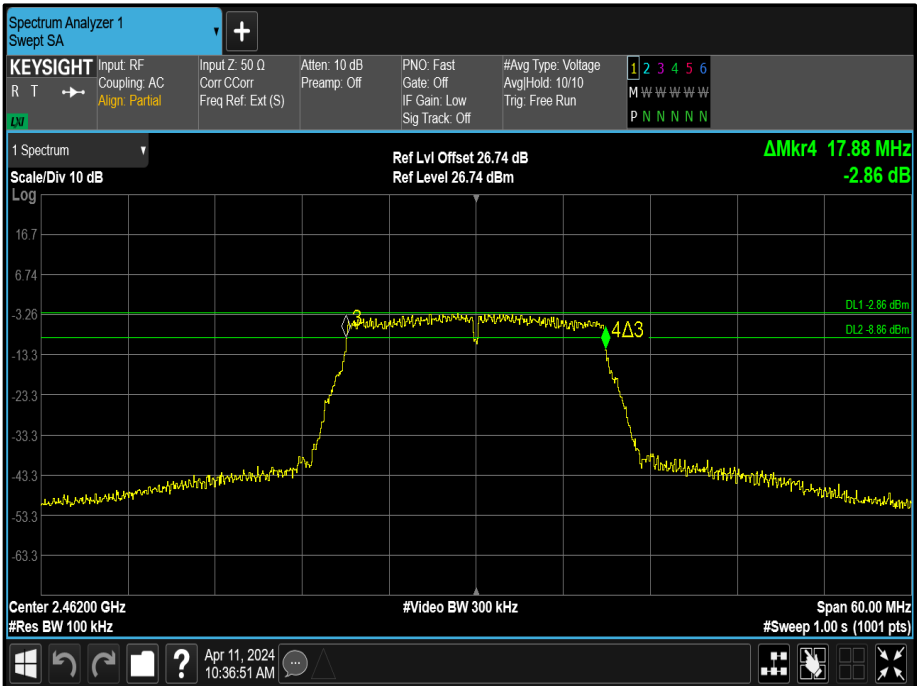


Figure 18 - 2462 MHz (CH11) 6 dB Bandwidth



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

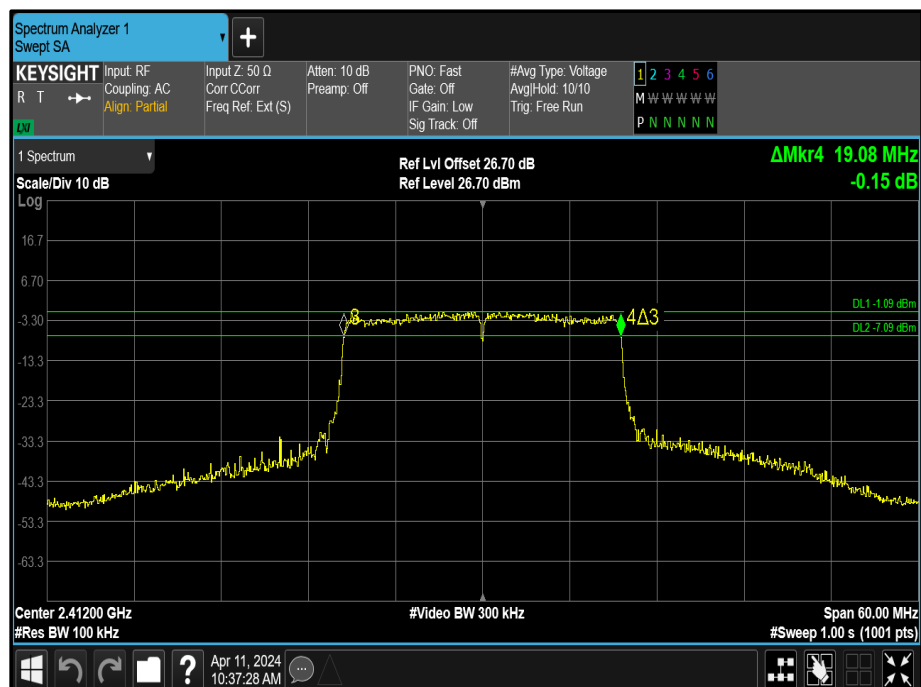
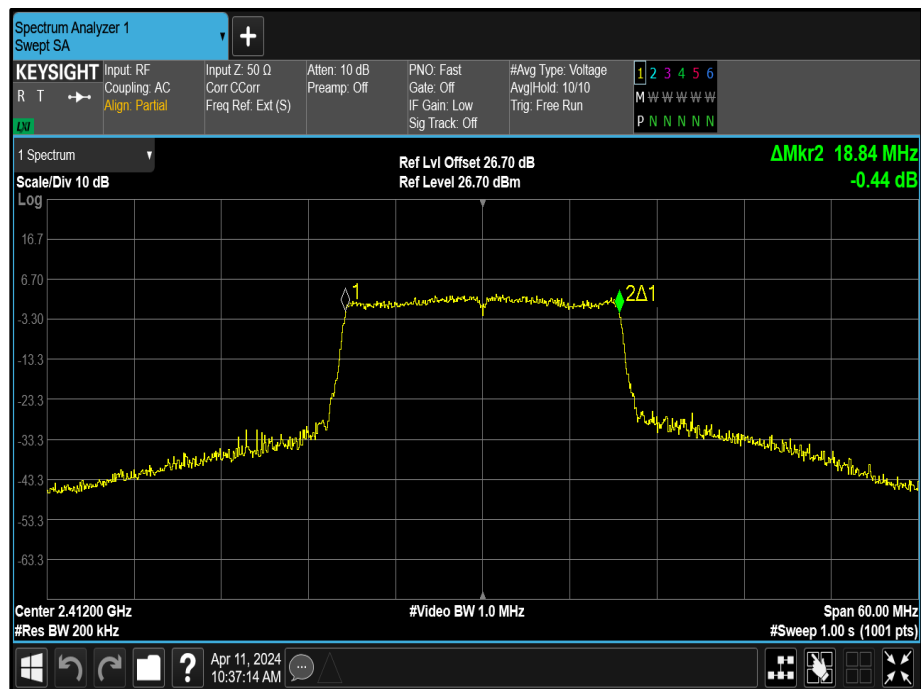
DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	6 dB Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	10.00	19.080	-	-	-	≥500.0
2437	18.00	19.200	-	-	-	≥500.0
2462	10.00	19.080	-	-	-	≥500.0

Table 22 - 6 dB Bandwidth Results

Test Frequency (MHz)	Power Index	99% Bandwidth (MHz)				Limit (kHz)
		A	B	C	D	
2412	10.00	18.840	-	-	-	-
2437	18.00	20.500	-	-	-	-
2462	10.00	18.900	-	-	-	-

Table 23 - 99% Bandwidth Results



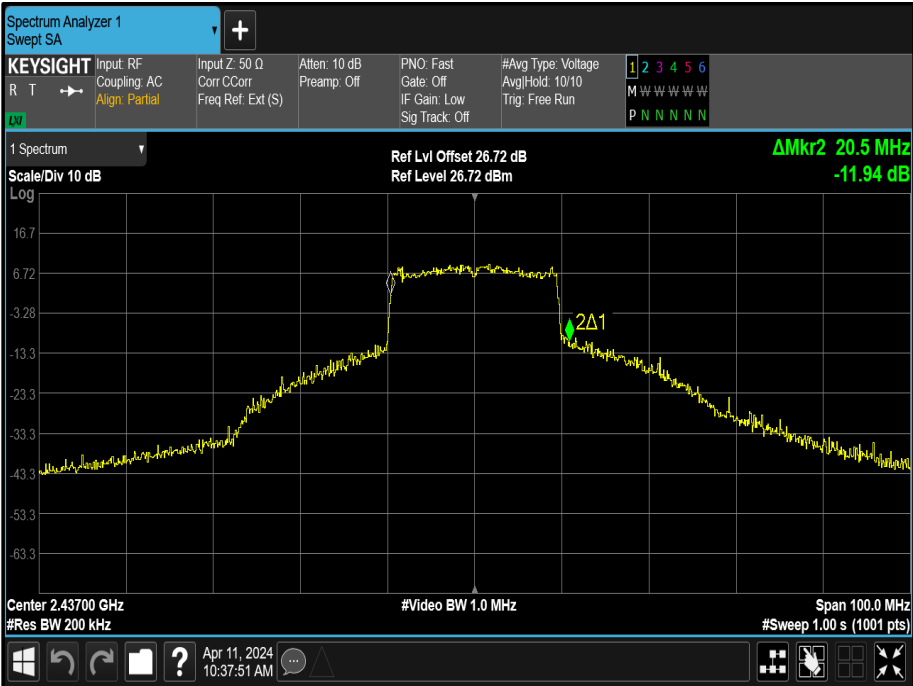


Figure 21 - 2437 MHz (CH6) 99% Bandwidth

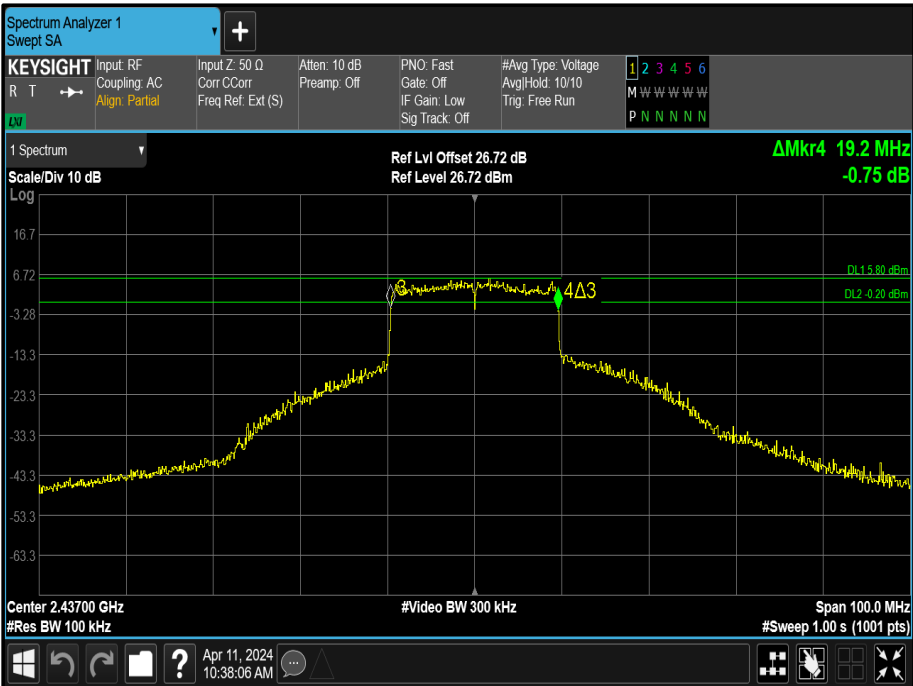


Figure 22 - 2437 MHz (CH6) 6 dB Bandwidth

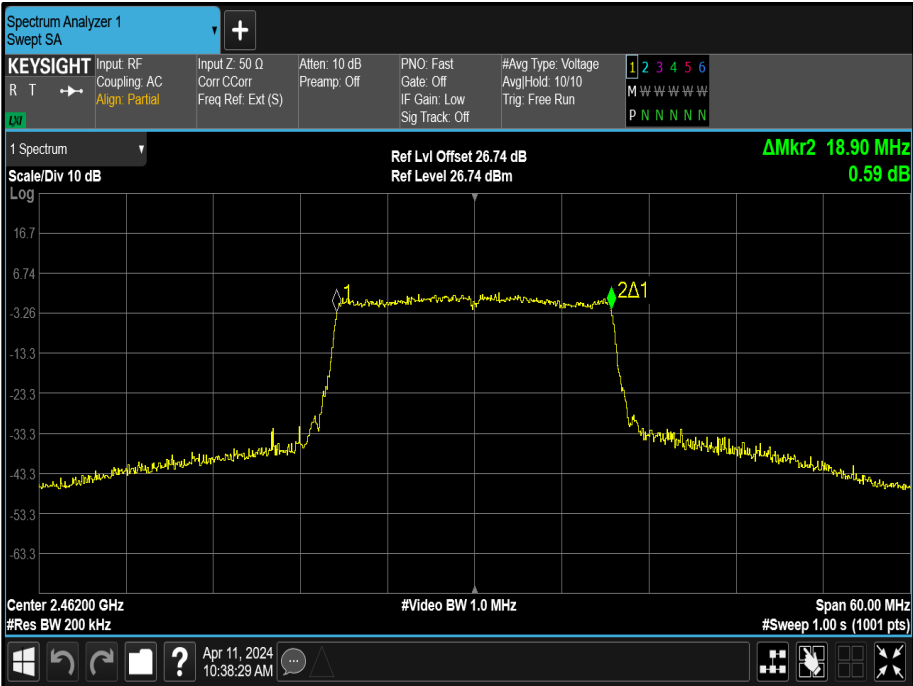


Figure 23 - 2462 MHz (CH11) 99% Bandwidth

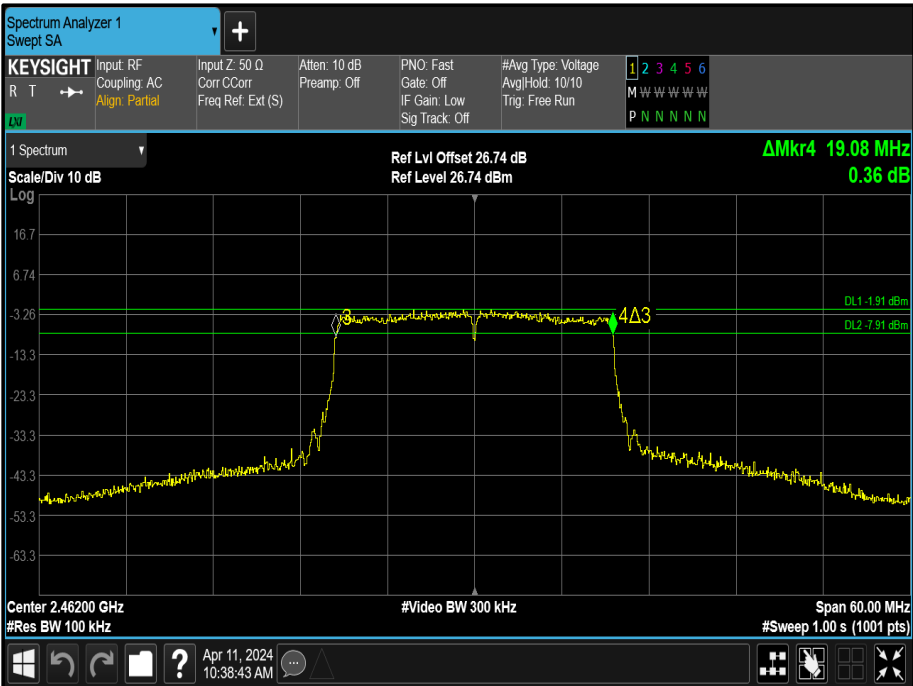


Figure 24 - 2462 MHz (CH11) 6 dB Bandwidth



FCC 47 CFR Part 15, Limit Clause 15.247(a)(2) and ISSED RSS-247, Clause 5.2(a)

The minimum 6 dB Bandwidth shall be at least 500 kHz.

2.1.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	79 Series III	411	12	12-Jan-2025
Hygrometer	Rotronic	I-1000	3220	12	28-Nov-2024
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	18-Sep-2025
Modular Power System Mainframe	Keysight Technologies	N6701C	5835	-	TU
DC Power Module	Keysight Technologies	N6754A	5836	-	O/P Mon
GPSDR Frequency standard	Orolia	SecureSync 2402-053	6339	6	14-Sep-2024
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	-	26-Jul-2024
SCU Cable Assembly SCU	TUV SUD	SPECTRUM_SCU_CA	6638	12	26-Jul-2024

Table 24

TU – Traceability Unscheduled
O/P Mon – Output Monitored



2.2 Maximum Conducted Output Power

2.2.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b),
ISED RSS-247, Clause 5.4
ISED RSS-GEN, Clause 6.12

2.2.2 Equipment Under Test and Modification State

SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.2.3 Date of Test

11-April-2024

2.2.4 Test Method

The test was performed in accordance with ANSI C63.10 clause 11.9.2.3.2 Method AVGPM-G

The EUT was supplied with 3.3 VDC directly with a DC PSU.

2.2.5 Environmental Conditions

Ambient Temperature	21.3 °C
Relative Humidity	56.5 %



2.2.6 Test Results

2.4 GHz WLAN Conducted Tests

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11b	Duty Cycle (%):	100.0
Data Rate:	1 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
		A	B	C	D	Σ		
2412 (CH1)	15.00	15.83	-	-	-	-	30.00	-14.17
2437 (CH6)	20.00	20.69	-	-	-	-	30.00	-9.31
2462 (CH11)	15.00	14.98	-	-	-	-	30.00	-15.02

Table 25 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
		A	B	C	D	Σ					
2412 (CH1)	15.00	15.83	-	-	-	-	30.00	-14.17	18.63	36.00	-17.37
2437 (CH6)	20.00	20.69	-	-	-	-	30.00	-9.31	23.49	36.00	-12.51
2462 (CH11)	15.00	14.98	-	-	-	-	30.00	-15.02	17.78	36.00	-18.22

Table 26 - ISED Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11g	Duty Cycle (%):	100.0
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
		A	B	C	D	Σ		
2412 (CH1)	11.00	12.63	-	-	-	-	30.00	-17.37
2437 (CH6)	20.00	20.16	-	-	-	-	30.00	-9.84
2462 (CH11)	10.00	10.90	-	-	-	-	30.00	-19.10

Table 27 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
		A	B	C	D	Σ					
2412 (CH1)	11.00	12.63	-	-	-	-	30.00	-17.37	15.43	36.00	-20.57
2437 (CH6)	20.00	20.16	-	-	-	-	30.00	-9.84	22.96	36.00	-13.04
2462 (CH11)	10.00	10.90	-	-	-	-	30.00	-19.10	13.70	36.00	-22.30

Table 28 - ISED Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
		A	B	C	D	Σ		
2412 (CH1)	10.00	11.38	-	-	-	-	30.00	-18.63
2437 (CH6)	20.00	19.99	-	-	-	-	30.00	-10.01
2462 (CH11)	10.00	10.34	-	-	-	-	30.00	-19.66

Table 29 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
		A	B	C	D	Σ					
2412 (CH1)	10.00	11.38	-	-	-	-	30.00	-18.63	14.18	36.00	-21.83
2437 (CH6)	20.00	19.99	-	-	-	-	30.00	-10.01	22.79	36.00	-13.21
2462 (CH11)	10.00	10.34	-	-	-	-	30.00	-19.66	13.14	36.00	-22.86

Table 30 - ISD Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
		A	B	C	D	Σ		
2412 (CH1)	10.00	12.03	-	-	-	-	30.00	-17.97
2437 (CH6)	18.00	17.81	-	-	-	-	30.00	-12.19
2462 (CH11)	10.00	10.72	-	-	-	-	30.00	-19.28

Table 31 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
		A	B	C	D	Σ					
2412 (CH1)	10.00	12.03	-	-	-	-	30.00	-17.97	14.83	36.00	-21.17
2437 (CH6)	18.00	17.81	-	-	-	-	30.00	-12.19	20.61	36.00	-15.39
2462 (CH11)	10.00	10.72	-	-	-	-	30.00	-19.28	13.52	36.00	-22.48

Table 32 - ISSED Maximum Conducted (average) Output Power Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU26	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
		A	B	C	D	Σ		
2412 (CH1) (RU26.0)	10.00	11.46	-	-	-	-	30.00	-18.54
2437 (CH6) (RU26.0)	18.00	17.38	-	-	-	-	30.00	-12.62
2462 (CH11) (RU26.8)	10.00	10.16	-	-	-	-	30.00	-19.84

Table 33 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
		A	B	C	D	Σ					
2412 (CH1) (RU26.0)	10.00	11.46	-	-	-	-	30.00	-18.54	14.26	36.00	-21.74
2437 (CH6) (RU26.0)	18.00	17.38	-	-	-	-	30.00	-12.62	20.18	36.00	-15.82
2462 (CH11) (RU26.8)	10.00	10.16	-	-	-	-	30.00	-19.84	12.96	36.00	-23.04

Table 34 - ISSED Maximum Conducted (average) Output Power Results



FCC 47 CFR Part 15, Limit Clause 15.247 (b)(3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

ISED RSS-247, Limit Clause 5.4 (d)

For DTSSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(2)

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels.

ISED RSS-247, Limit Clause 5.4 (a)

For FHSs operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1.0 W, and the e.i.r.p. shall not exceed 4 W if the hopset uses 50 or more hopping channels; the maximum peak conducted output power shall not exceed 0.25 W and the e.i.r.p. shall not exceed 1 W if the hopset uses less than 50 hopping channels.

2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	79 Series III	411	12	12-Jan-2025
Hygrometer	Rotronic	I-1000	3220	12	28-Nov-2024
USB Power Sensor	Boonton	RTP5008	5833	12	12-Jul-2024
Modular Power System Mainframe	Keysight Technologies	N6701C	5835	-	TU
DC Power Module	Keysight Technologies	N6754A	5836	-	O/P Mon
GPSDR Frequency standard	Orolia	SecureSync 2402-053	6339	6	14-Sep-2024
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	-	26-Jul-2024
SCU Cable Assembly SCU	TUV SUD	SPECTRUM_SCU_CA	6638	12	26-Jul-2024

Table 35

TU – Traceability Unscheduled
O/P Mon – Output Monitored



2.3 Power Spectral Density

2.3.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (e),
ISED RSS-247, Clause 5.2
ISED RSS-GEN, Clause 6.12

2.3.2 Equipment Under Test and Modification State

SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.3.3 Date of Test

11-April-2024

2.3.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.10.5.

The EUT was supplied with 3.3 VDC directly with a DC PSU.

2.3.5 Environmental Conditions

Ambient Temperature	21.3 °C
Relative Humidity	56.5 %



2.3.6 Test Results

2.4 GHz WLAN Conducted Tests

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11b	Duty Cycle (%):	100.0
Data Rate:	1 Mbps	DCCF (dB):	0.00
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
			A	B	C	D	Σ		
2412	15.00	100.0	-0.72	-	-	-	-	8.00	-8.72
2437	20.00	100.0	3.72	-	-	-	-	8.00	-4.28
2462	15.00	100.0	-2.06	-	-	-	-	8.00	-10.06

Table 36 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11g	Duty Cycle (%):	100.0
Data Rate:	6 Mbps	DCCF (dB):	0.00
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
			A	B	C	D	Σ		
2412	11.00	100.0	-7.13	-	-	-	-	8.00	-15.13
2437	20.00	100.0	0.35	-	-	-	-	8.00	-7.65
2462	10.00	100.0	-8.98	-	-	-	-	8.00	-16.98

Table 37 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0	DCCF (dB):	0.00
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
			A	B	C	D	Σ		
2412	10.00	100.0	-8.34	-	-	-	-	8.00	-16.34
2437	20.00	100.0	0.58	-	-	-	-	8.00	-7.42
2462	10.00	100.0	-9.75	-	-	-	-	8.00	-17.75

Table 38 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	0.00
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
			A	B	C	D	Σ		
2412	10.00	100.0	-9.26	-	-	-	-	8.00	-17.26
2437	18.00	100.0	-2.34	-	-	-	-	8.00	-10.34
2462	10.00	100.0	-10.53	-	-	-	-	8.00	-18.53

Table 39 - Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU26	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	0.00
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Supply Voltage:	3.30 V	TX Mode:	Continuous Modulated Stream

Test Frequency (MHz)	Power Index	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
			A	B	C	D	Σ		
2412	10.00	100.0	-0.63	-	-	-	-	8.00	-8.63
2437	18.00	51.0	3.11	-	-	-	-	8.00	-4.89
2462	10.00	100.0	-1.72	-	-	-	-	8.00	-9.72

Table 40 - Maximum Power Spectral Density Results

FCC 47 CFR Part 15, Limit Clause 15.247 (e)

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

ISED RSS-247, Limit Clause 5.2(b)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission



2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	79 Series III	411	12	12-Jan-2025
Hygrometer	Rotronic	I-1000	3220	12	28-Nov-2024
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	18-Sep-2025
Modular Power System Mainframe	Keysight Technologies	N6701C	5835	-	TU
DC Power Module	Keysight Technologies	N6754A	5836	-	O/P Mon
GPSDR Frequency standard	Orolia	SecureSync 2402-053	6339	6	12-Mar-2024
GPSDR Frequency standard	Orolia	SecureSync 2402-053	6339	6	14-Sep-2024
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	-	26-Jul-2024
SCU Cable Assembly SCU	TUV SUD	SPECTRUM_SCU_CA	6638	12	26-Jul-2024

Table 41

TU – Traceability Unscheduled
O/P Mon – Output Monitored



2.4 Spurious Radiated Emissions

2.4.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.209 and 15.247 (d)
ISED RSS-247, Clause 3.3 and 5.5
ISED RSS-GEN, Clause 6.13 and 8.9

2.4.2 Equipment Under Test and Modification State

SiW917Y1GA, S/N: WLAN MAC address: ec:f6:4c:a0:ac:c - Modification State 0

2.4.3 Date of Test

03-April-2024 to 10-April-2024

2.4.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 6.3, 6.5 and 6.6.

For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10, clause 11.12.2.5.2.

The EUT was placed on the non-conducting platform in a manner typical of a normal installation. As the EUT was considered mobile/portable and therefore reasonable to 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.

The plots shown are the characterisation of the EUT. The limits on the plots represent the most stringent case for restricted bands, (74/54 dBuV/m) when compared to 20 dBc outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

The following conversion can be applied to convert from dBuV/m to uV/m:

$10^{(\text{Field Strength in dBuV/m}/20)}$.

Above 18 GHz, the measurement distance was reduced to 1 m. The limit line was increased by $20 \cdot \text{LOG}(3/1) = 9.54$ dB.

Where formal measurements have been necessary, the results have been presented in the emissions table.

The EUT was supplied with 3.3 VDC by means of a regulator residing in the host certification board, which was in turn being powered over the host certification board's USB connector.

The Power Settings used for testing are as follows:
802.11b Channel 1, 15; Channel 6, 20; Channel 11, 15
802.11g Channel 1, 11; Channel 6, 20; Channel 11, 10
802.11n Channel 1, 10; Channel 6, 20; Channel 11, 10
802.11ax Channel 1, 10; Channel 6, 18; Channel 11, 10

2.4.5 Example Test Setup Diagram

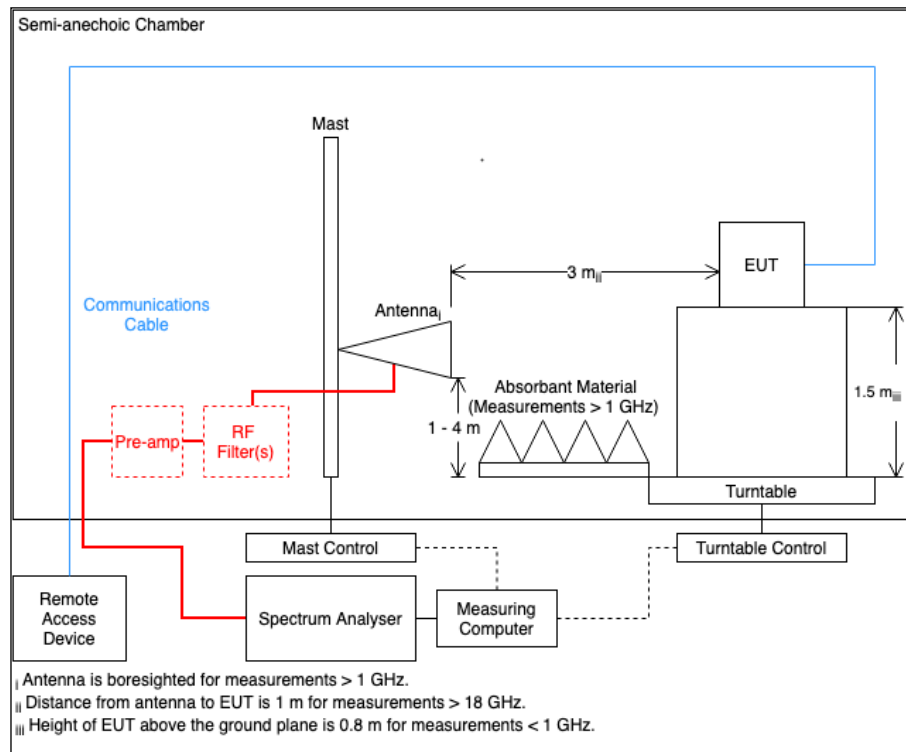


Figure 25

2.4.6 Environmental Conditions

Ambient Temperature	19.8 - 22.7 °C
Relative Humidity	46.1 - 49.3 %

2.4.7 Test Results

2.4 GHz WLAN - PCB Trace Antenna

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

Table 42 - CH1_802.11b_1Mbps_X, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

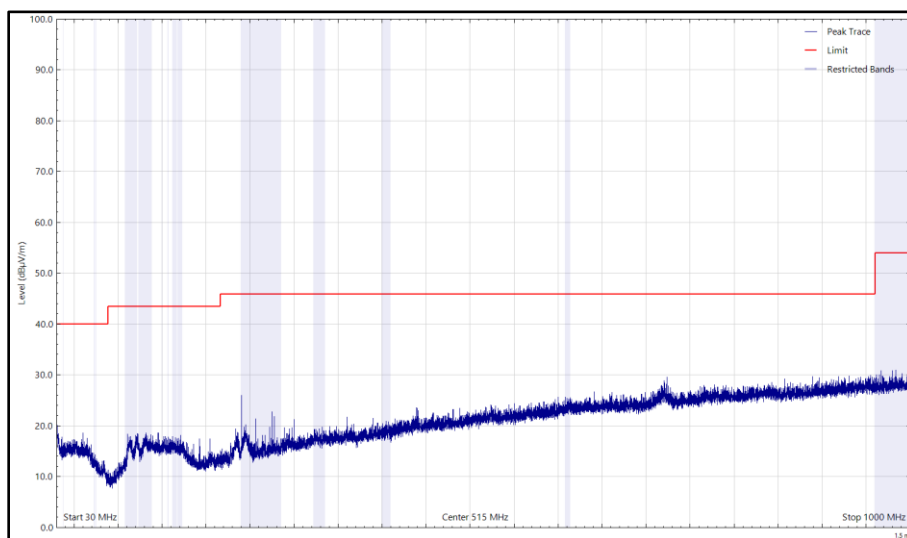


Figure 26 - CH1_802.11b_1Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

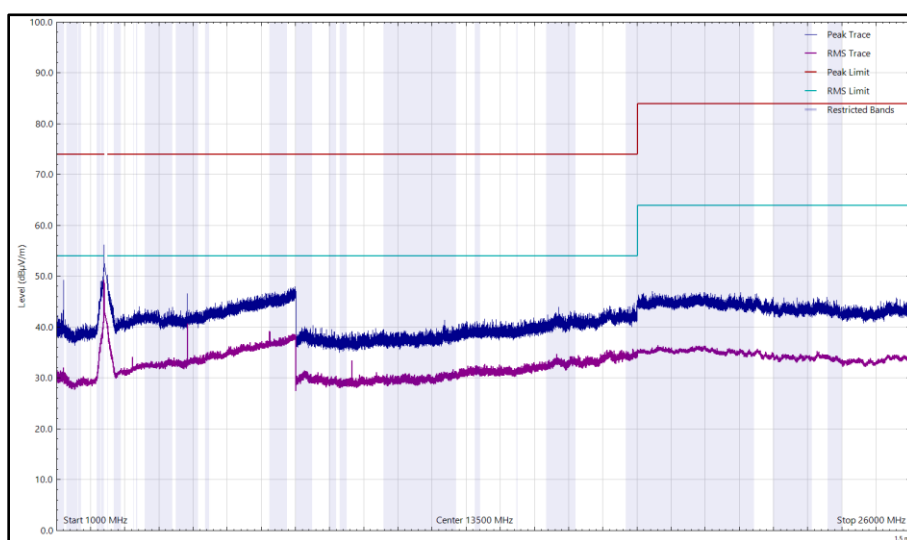


Figure 27 - CH1_802.11b_1Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Horizontal

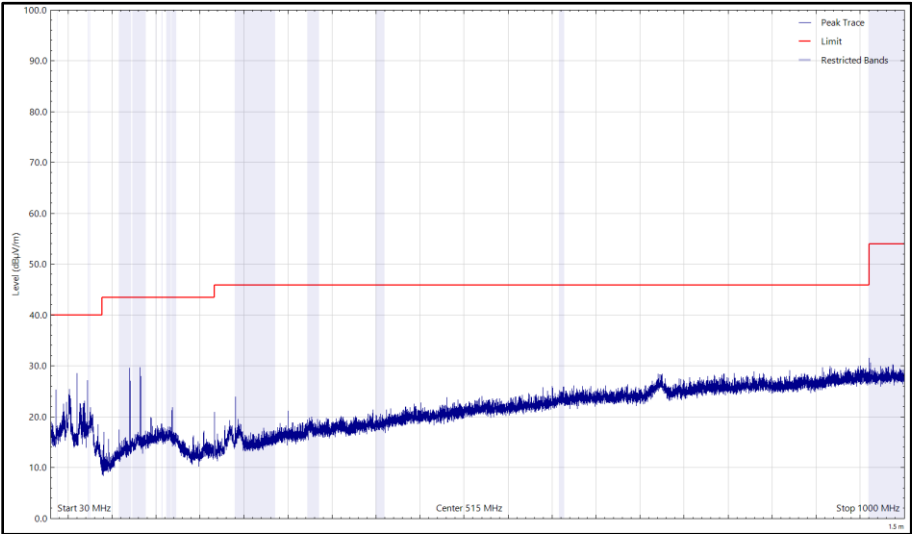


Figure 28 - CH1_802.11b_1Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

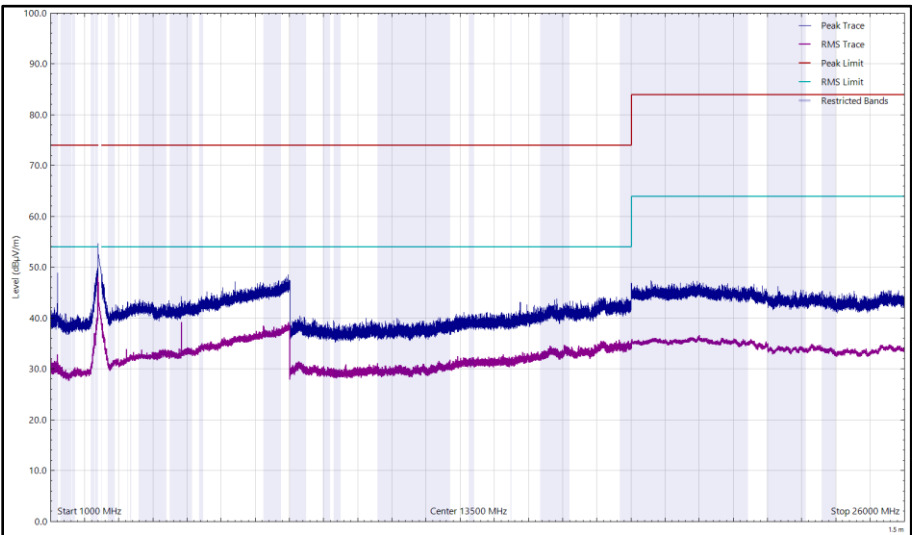


Figure 29 - CH1_802.11b_1Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 43 - CH1_802.11b_1Mbps_Y, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

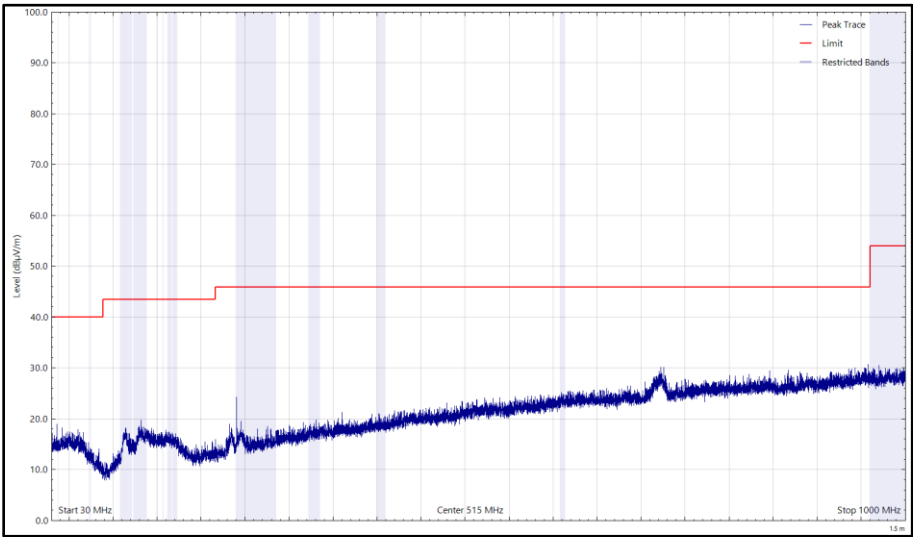


Figure 30 - CH1_802.11b_1Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

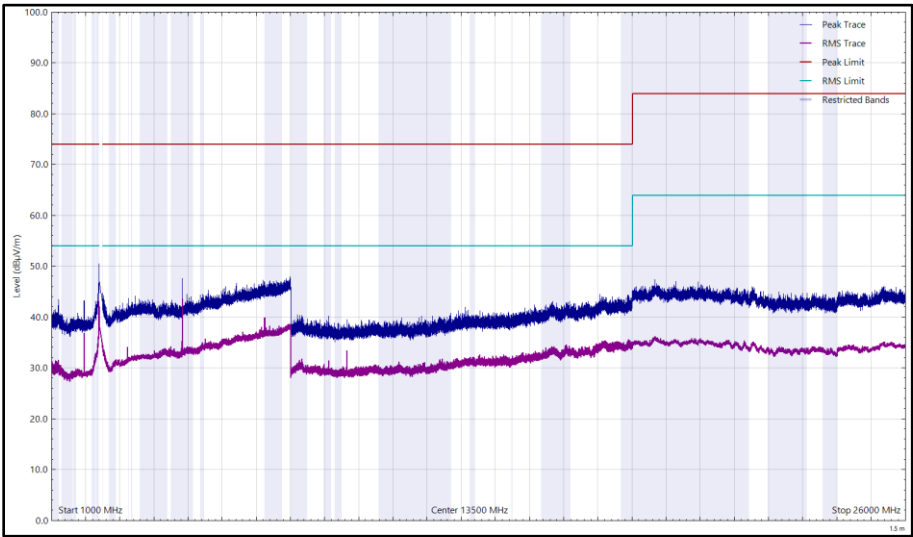


Figure 31 - CH1_802.11b_1Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Horizontal

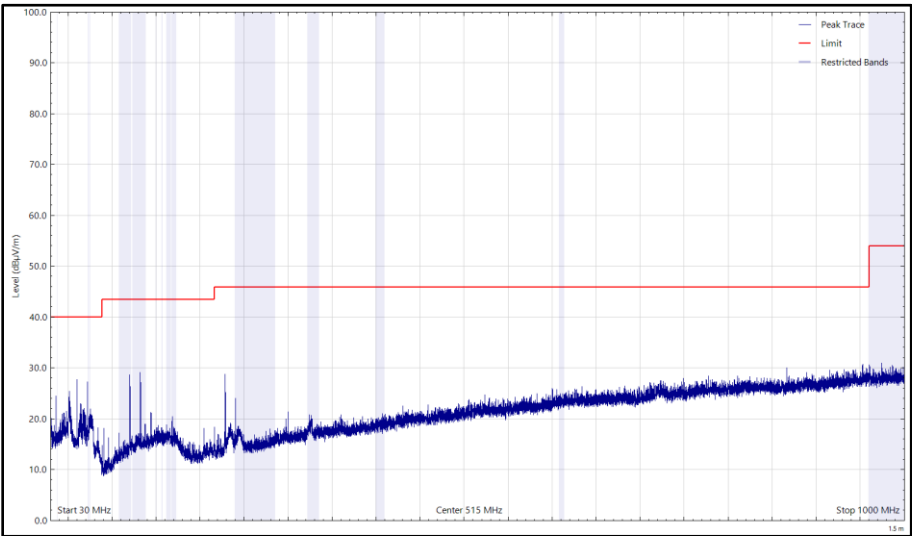


Figure 32 - CH1_802.11b_1Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

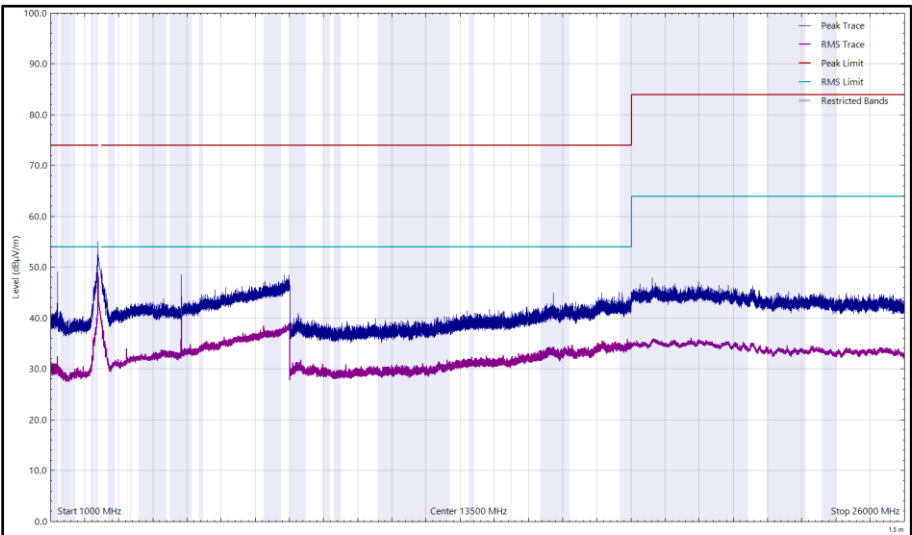


Figure 33 - CH1_802.11b_1Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 44 - CH1_802.11b_1Mbps_Z, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

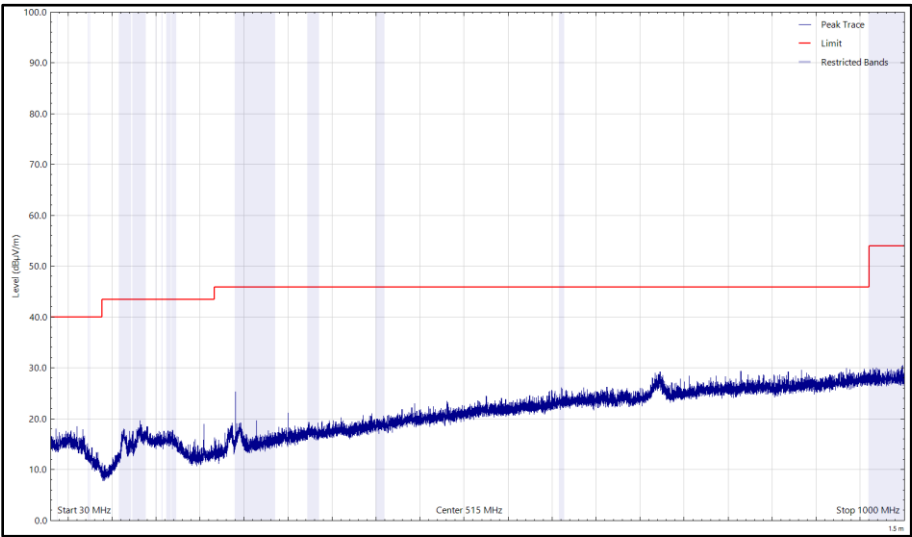


Figure 34 - CH1_802.11b_1Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

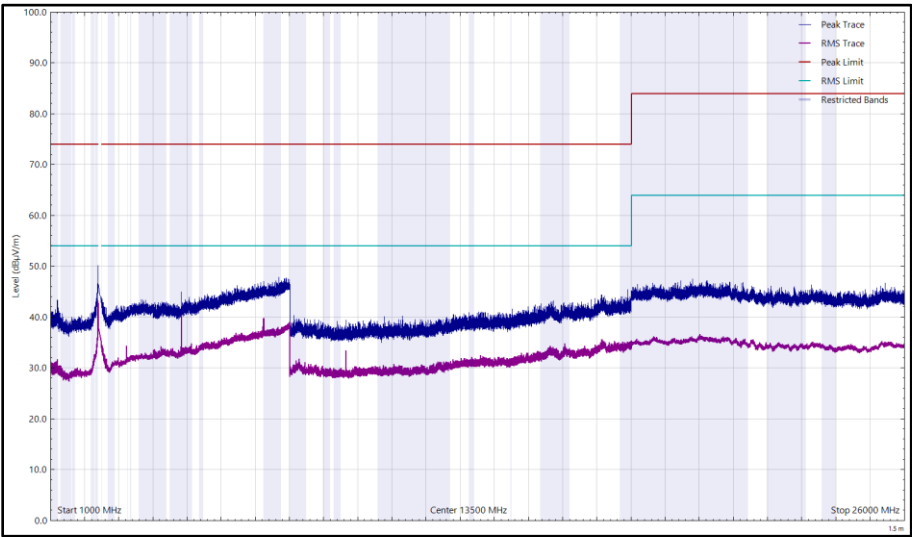


Figure 35 - CH1_802.11b_1Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Horizontal

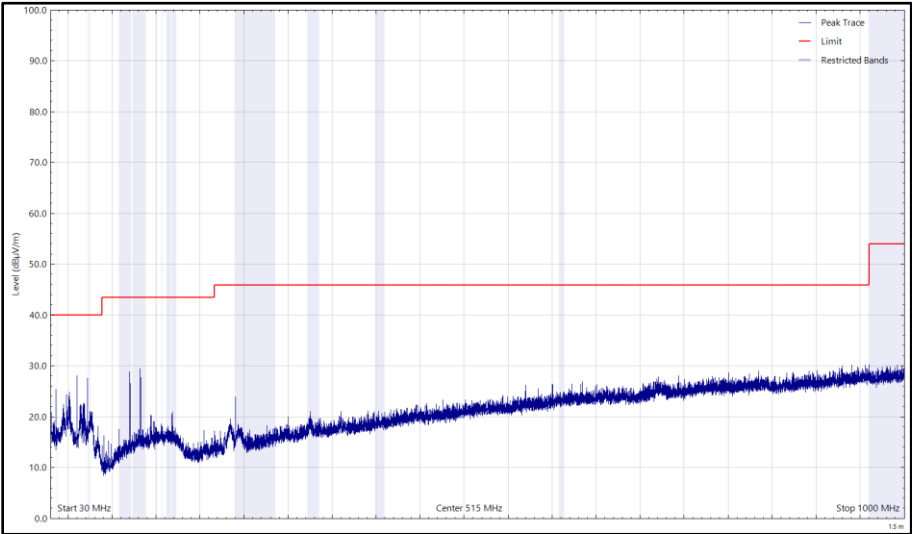


Figure 36 - CH1_802.11b_1Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

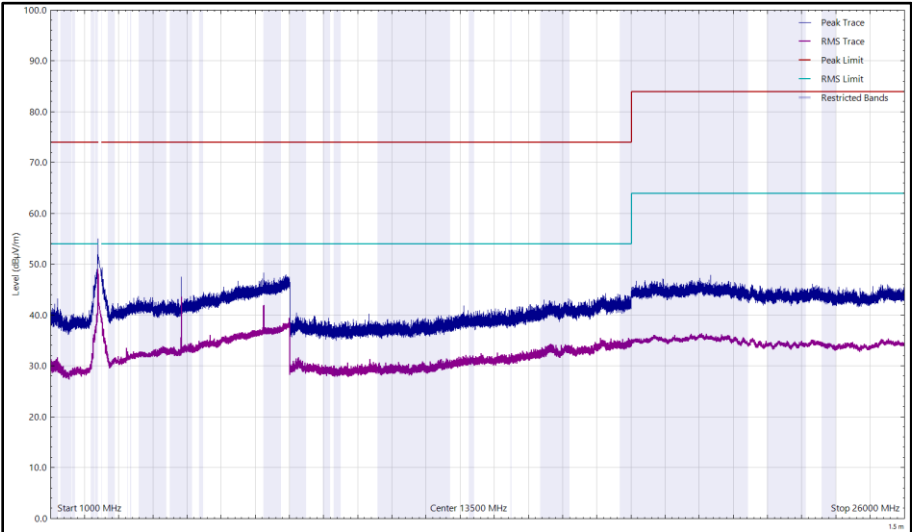


Figure 37 - CH1_802.11b_1Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 45 - CH6_802.11b_1Mbps_X, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

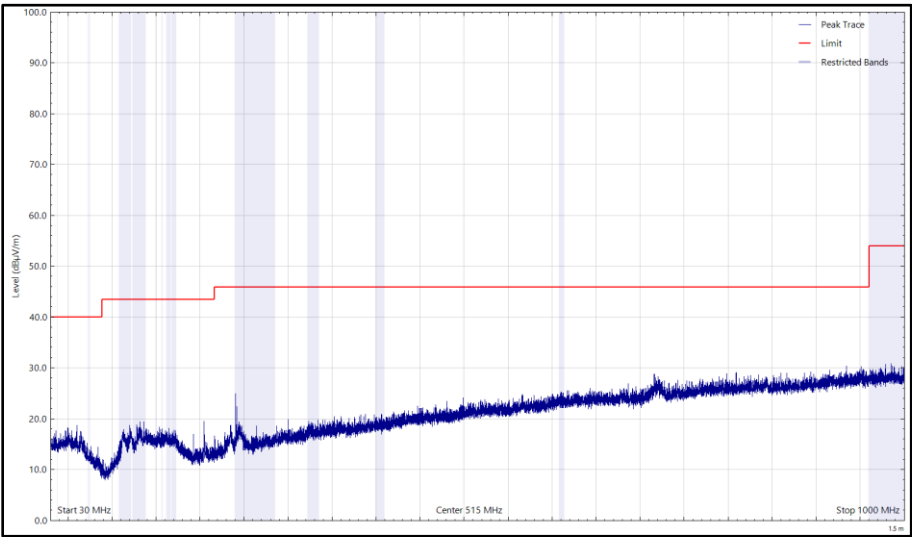


Figure 38 - CH6_802.11b_1Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

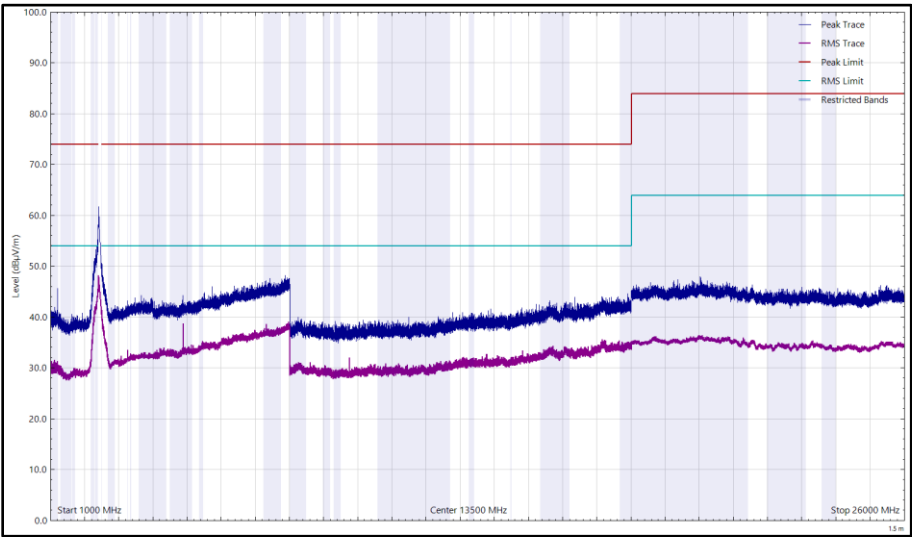


Figure 39 - CH6_802.11b_1Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Horizontal

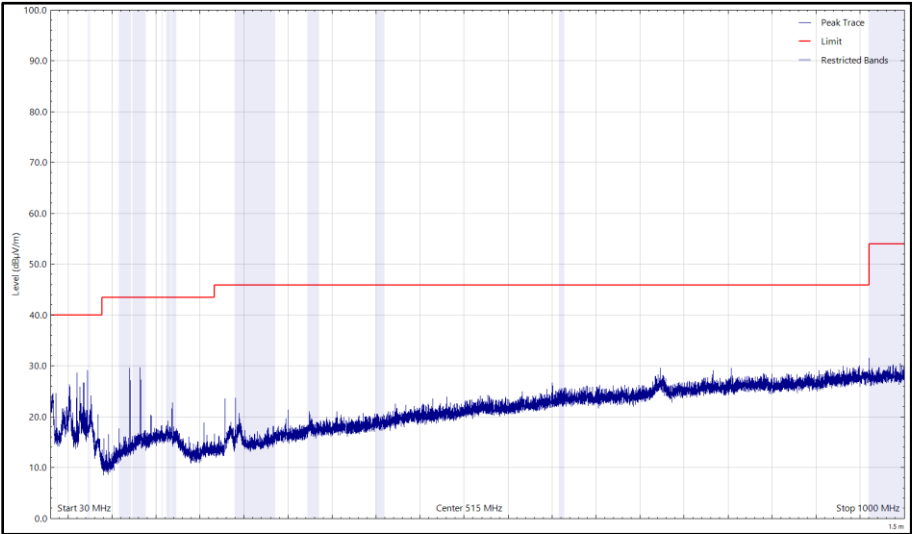


Figure 40 - CH6_802.11b_1Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

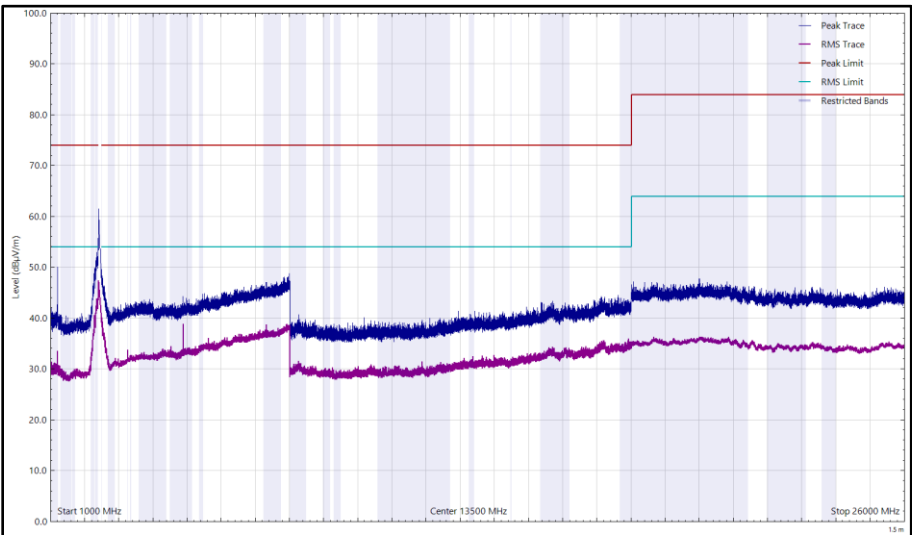


Figure 41 - CH6_802.11b_1Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 46 - CH6_802.11b_1Mbps_Y, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

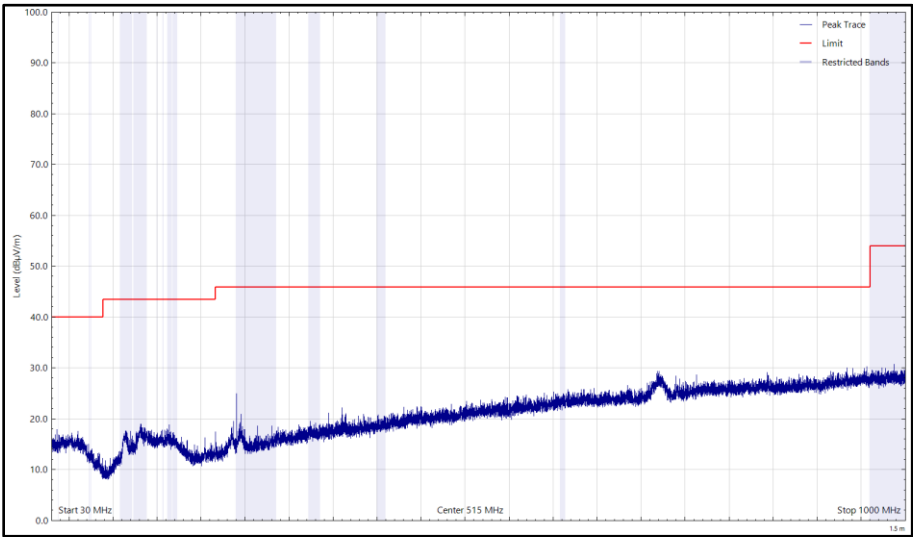


Figure 42 - CH6_802.11b_1Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

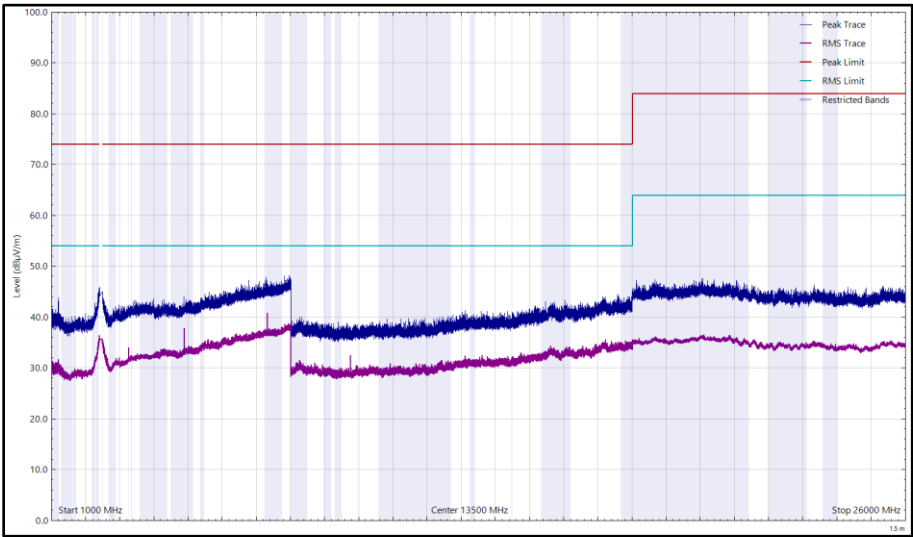


Figure 43 - CH6_802.11b_1Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Horizontal

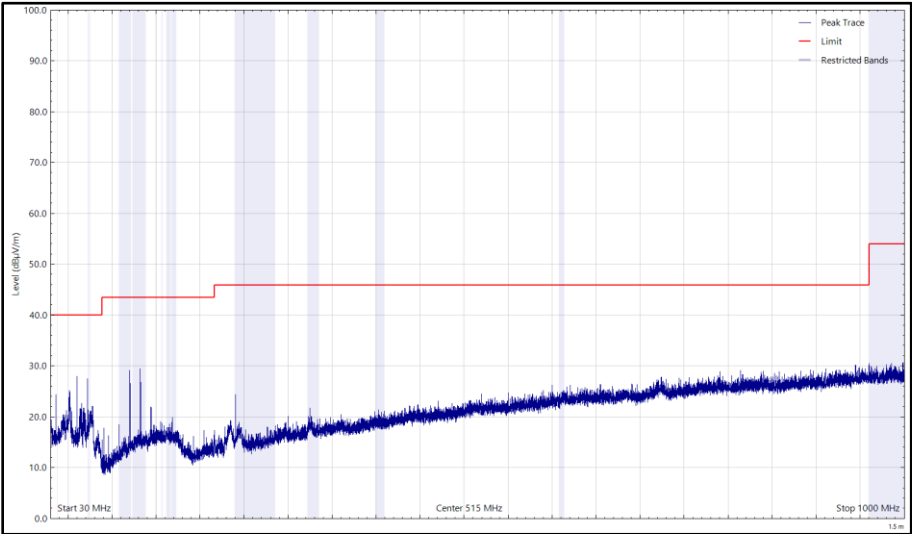


Figure 44 - CH6_802.11b_1Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

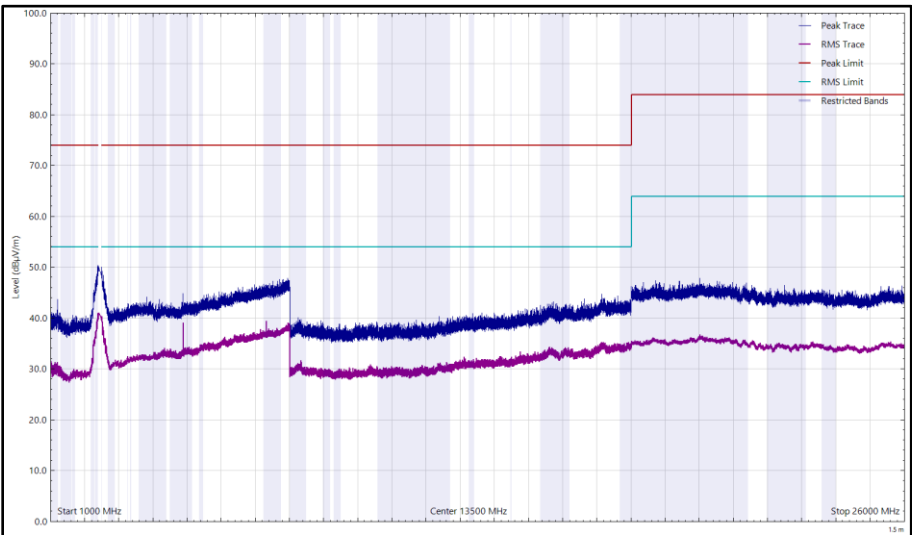


Figure 45 - CH6_802.11b_1Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 47 - CH6_802.11b_1Mbps_Z, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

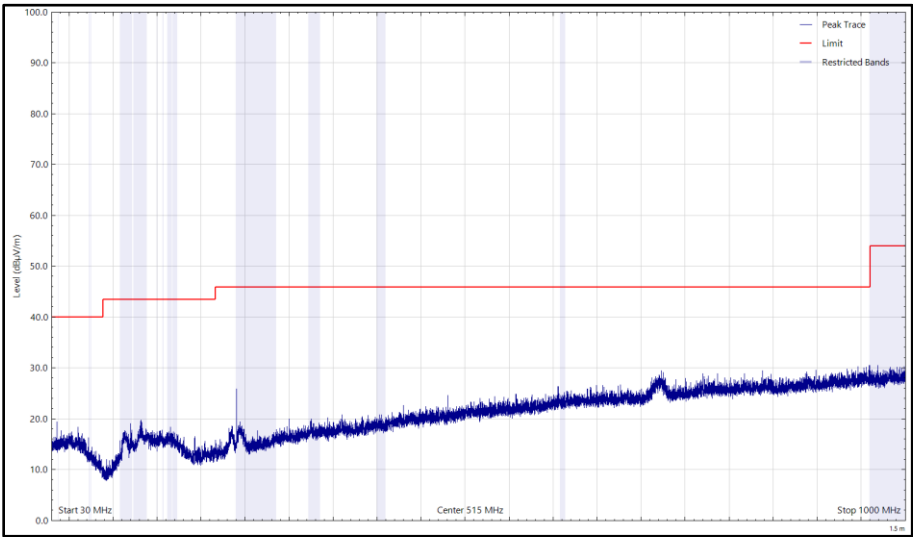


Figure 46 - CH6_802.11b_1Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

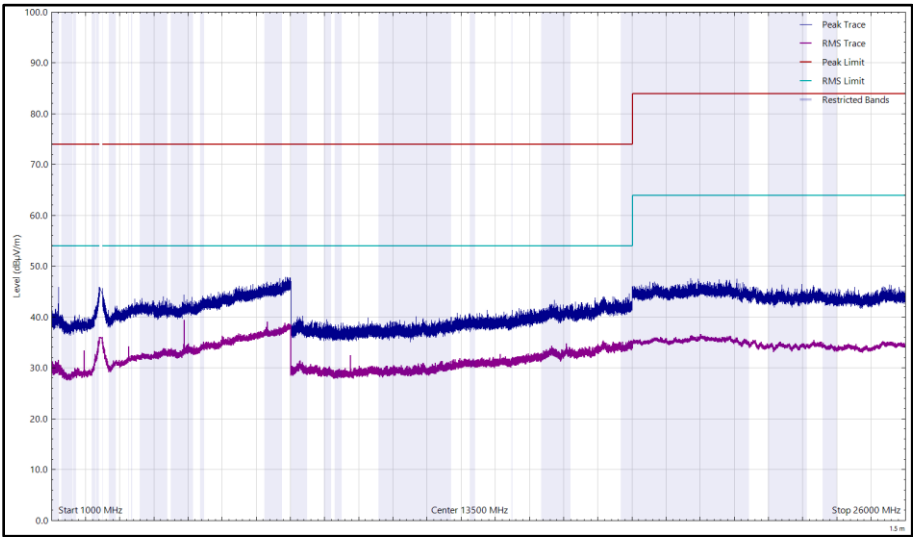


Figure 47 - CH6_802.11b_1Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Horizontal

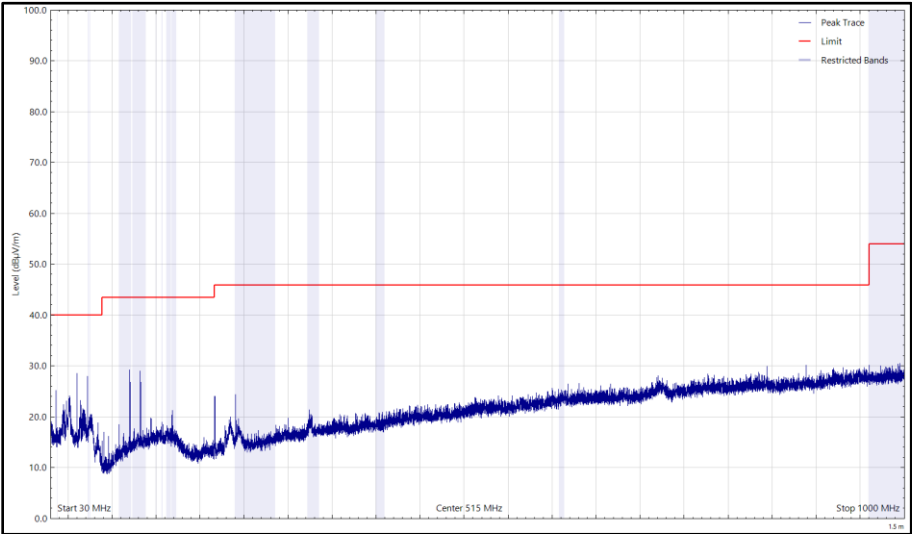


Figure 48 - CH6_802.11b_1Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

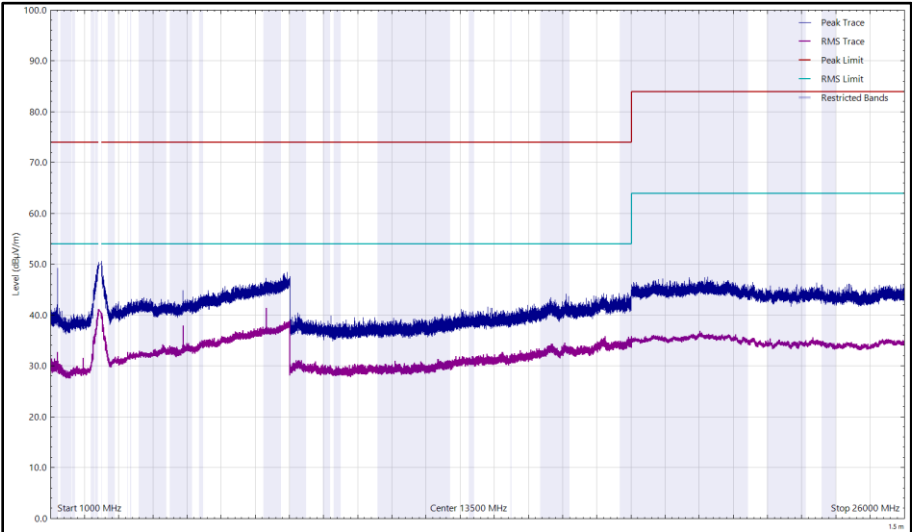


Figure 49 - CH6_802.11b_1Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 48 - CH11_802.11b_1Mbps_X, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

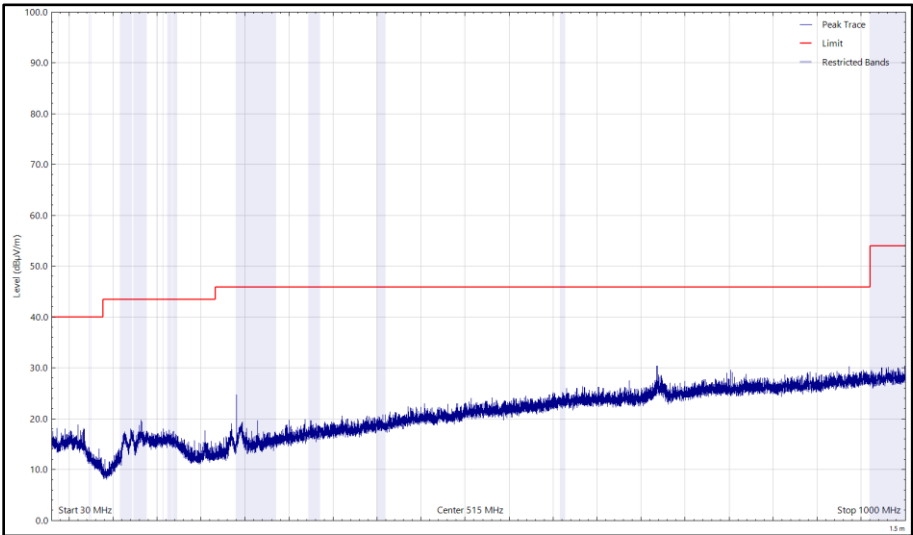


Figure 50 - CH11_802.11b_1Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

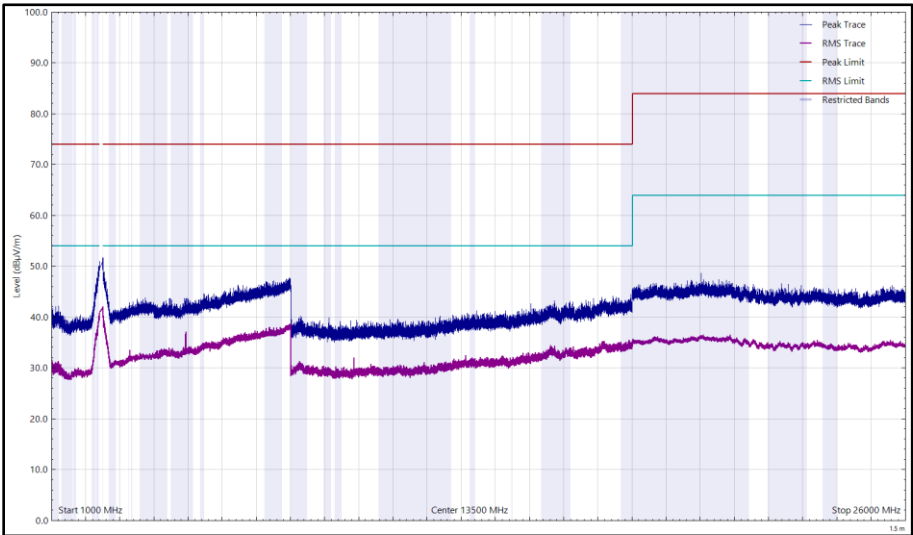


Figure 51 - CH11_802.11b_1Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Horizontal

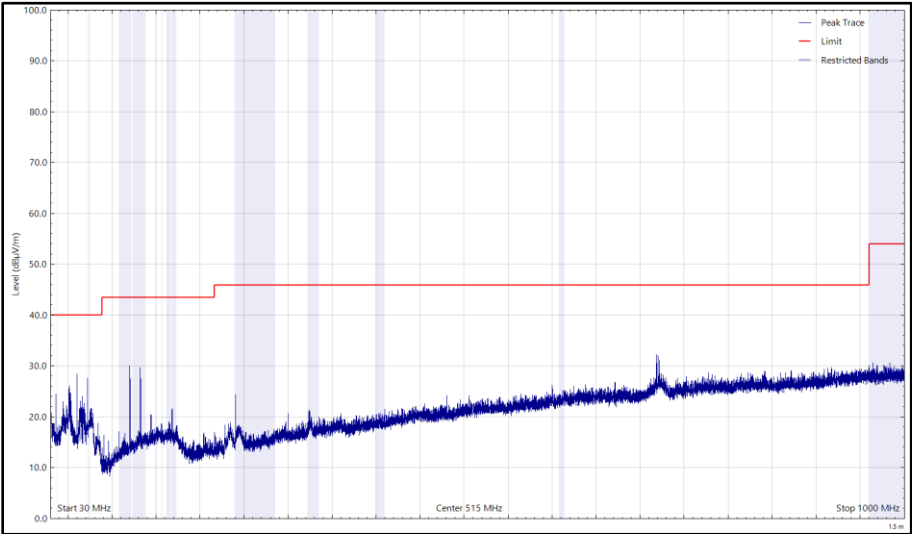


Figure 52 - CH11_802.11b_1Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

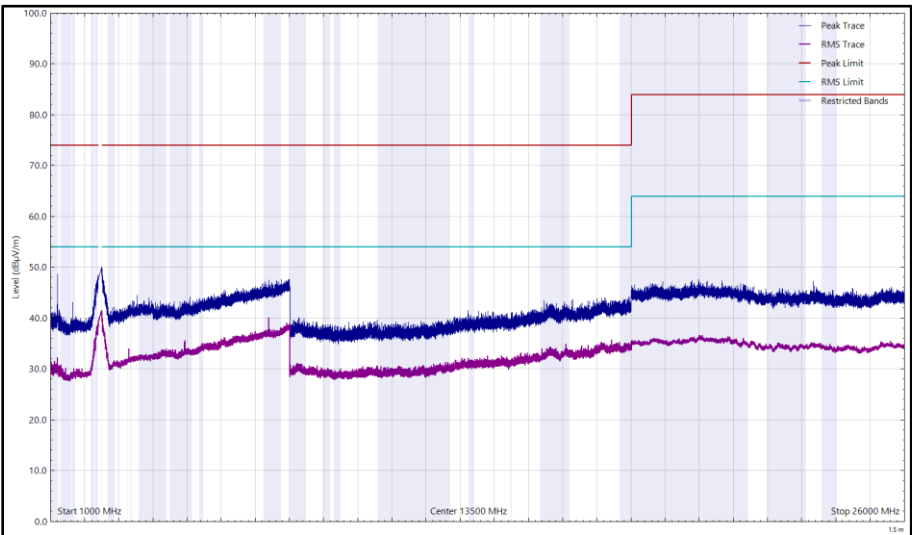


Figure 53 - CH11_802.11b_1Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 49 - CH11_802.11b_1Mbps_Y, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

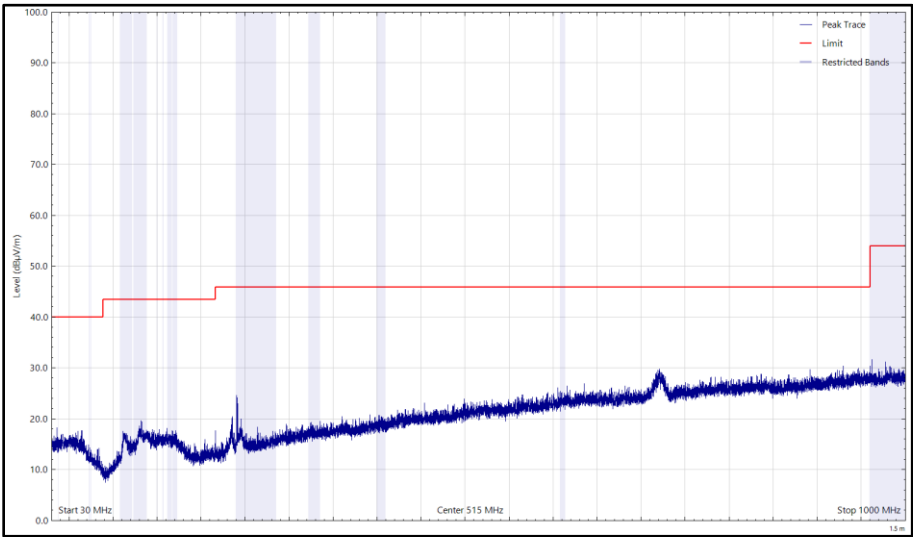


Figure 54 - CH11_802.11b_1Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

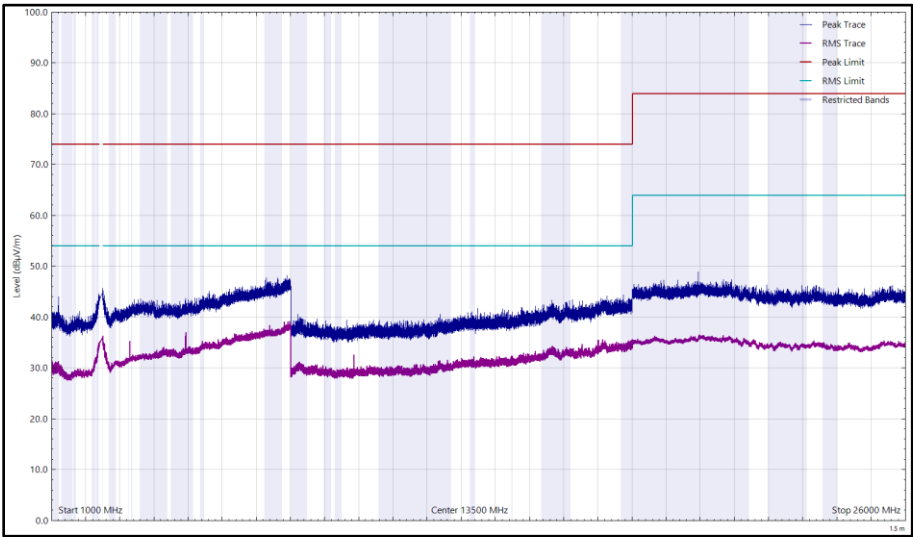


Figure 55 - CH11_802.11b_1Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Horizontal

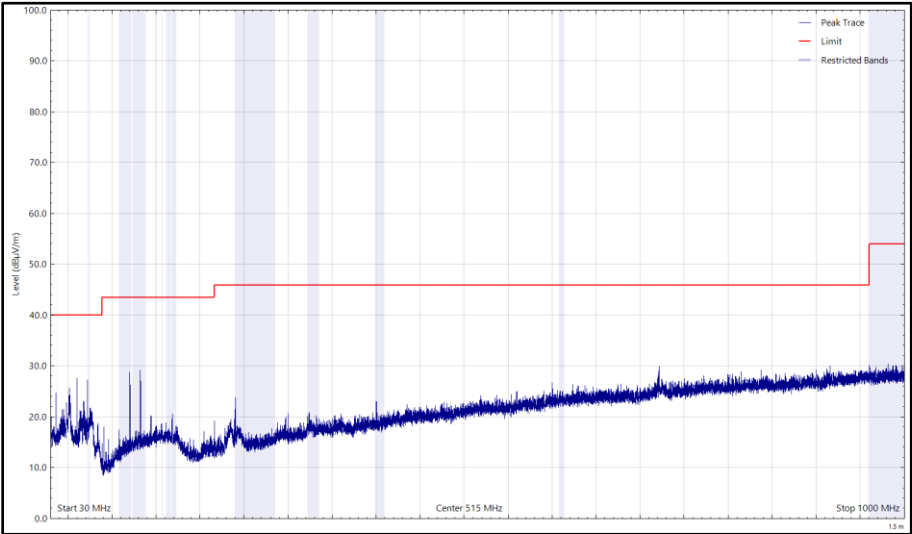


Figure 56 - CH11_802.11b_1Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

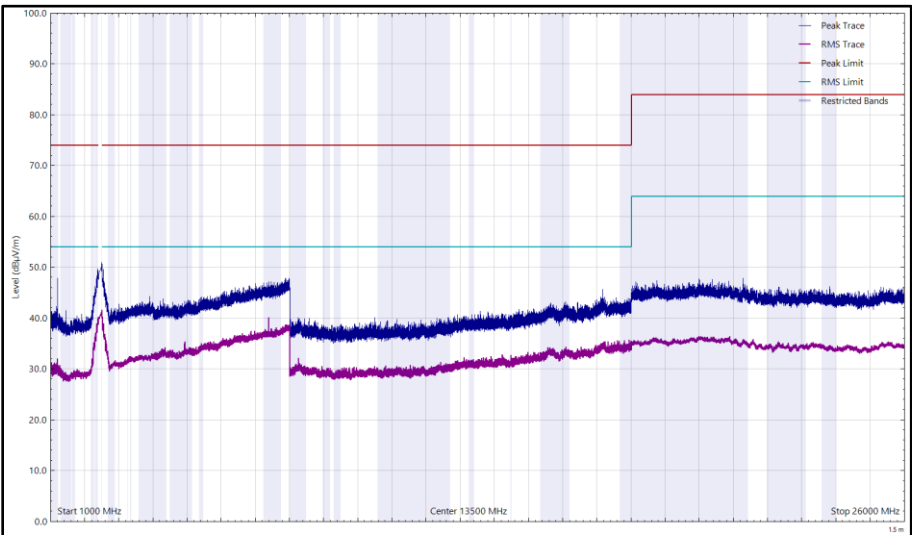


Figure 57 - CH11_802.11b_1Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 50 - CH11_802.11b_1Mbps_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

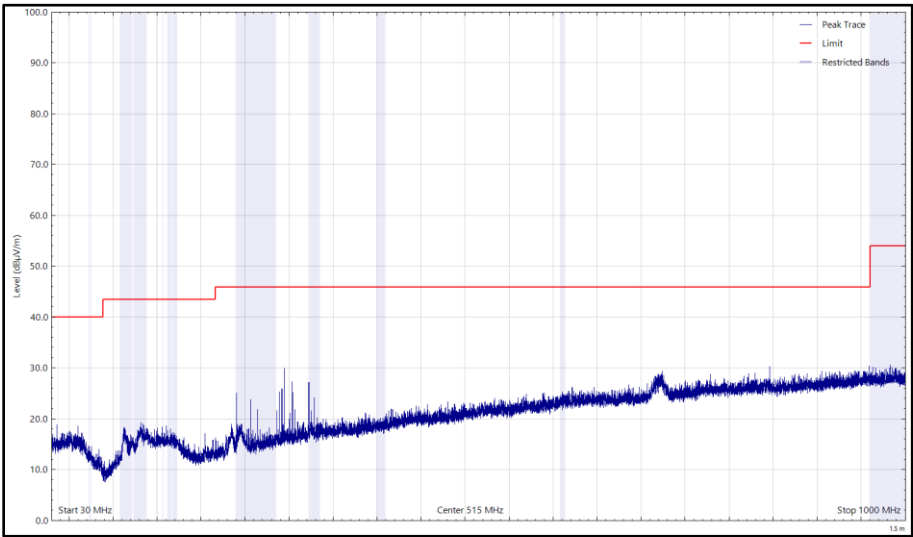


Figure 58 - CH11_802.11b_1Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

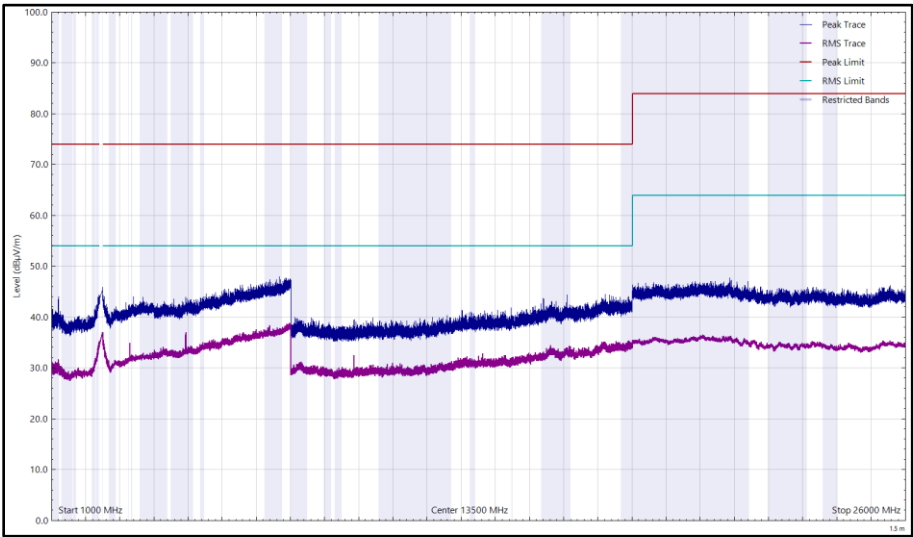


Figure 59 - CH11_802.11b_1Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

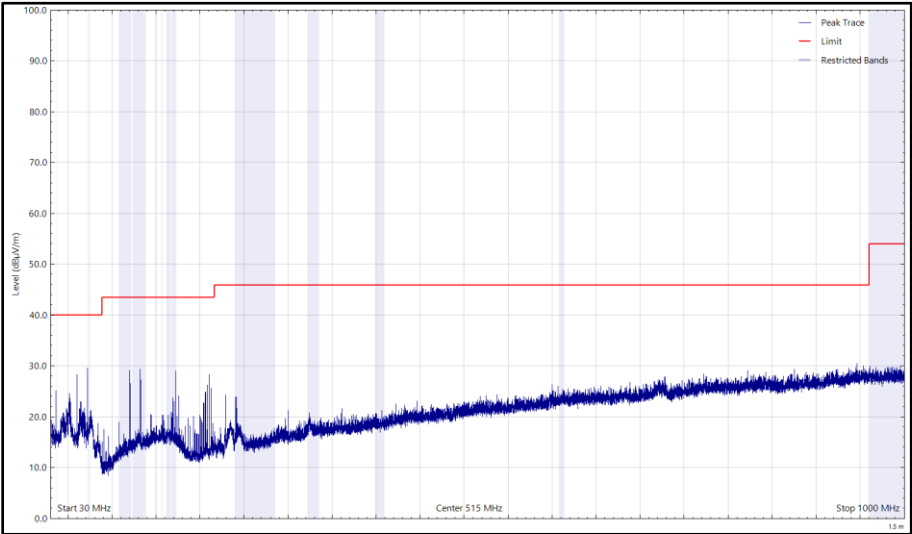


Figure 60 - CH11_802.11b_1Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

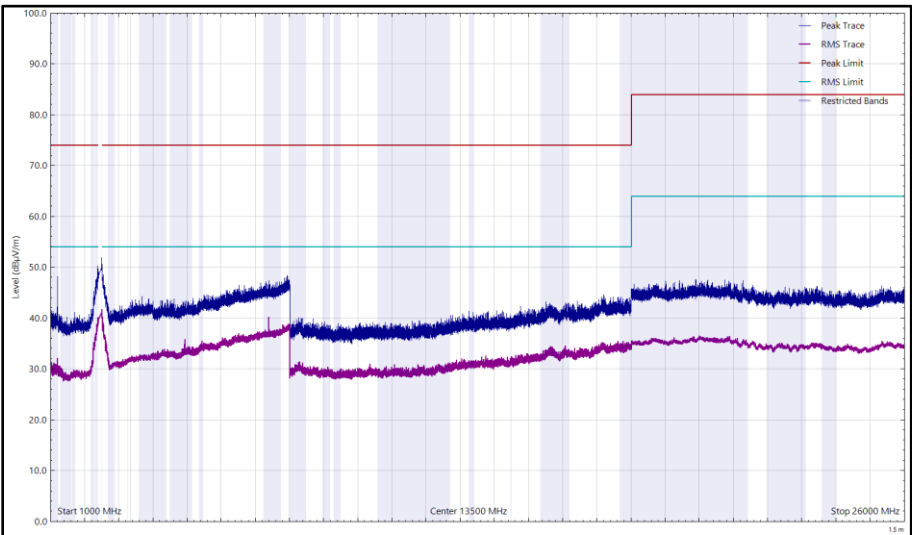


Figure 61 - CH11_802.11b_1Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 51 - CH1_802.11g_6Mbps_X, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

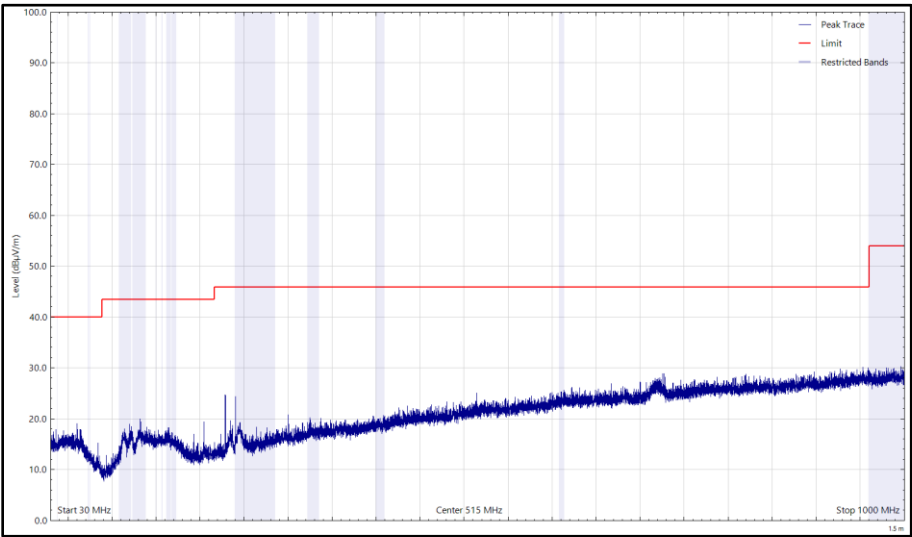


Figure 62 - CH1_802.11g_6Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

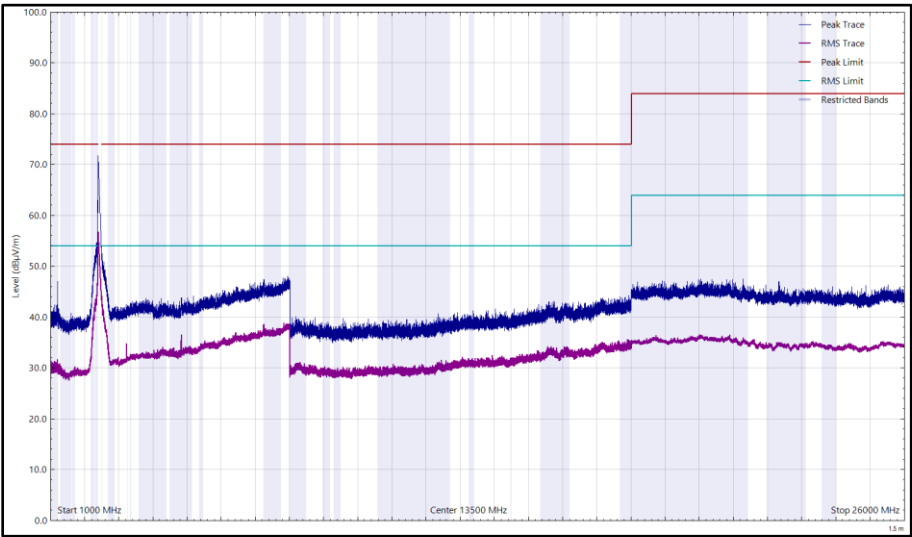


Figure 63 - CH1_802.11g_6Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Horizontal

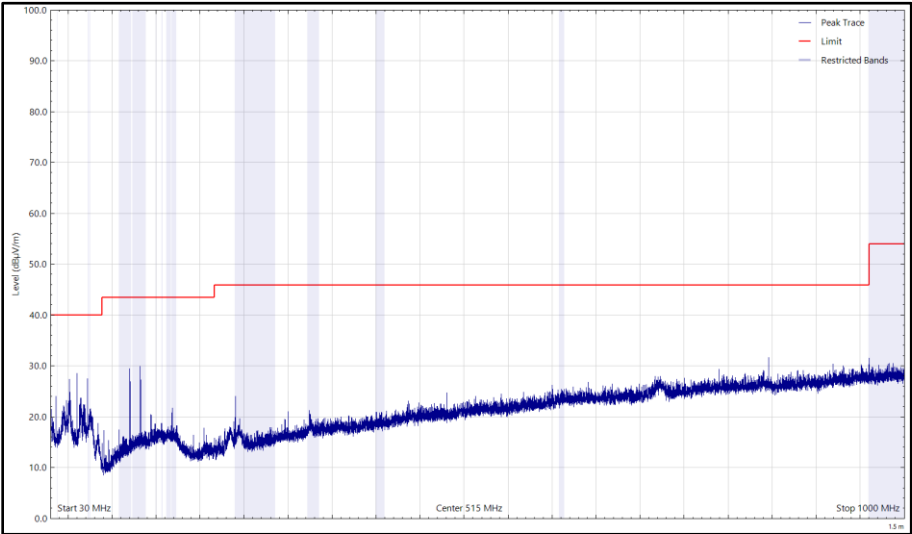


Figure 64 - CH1_802.11g_6Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

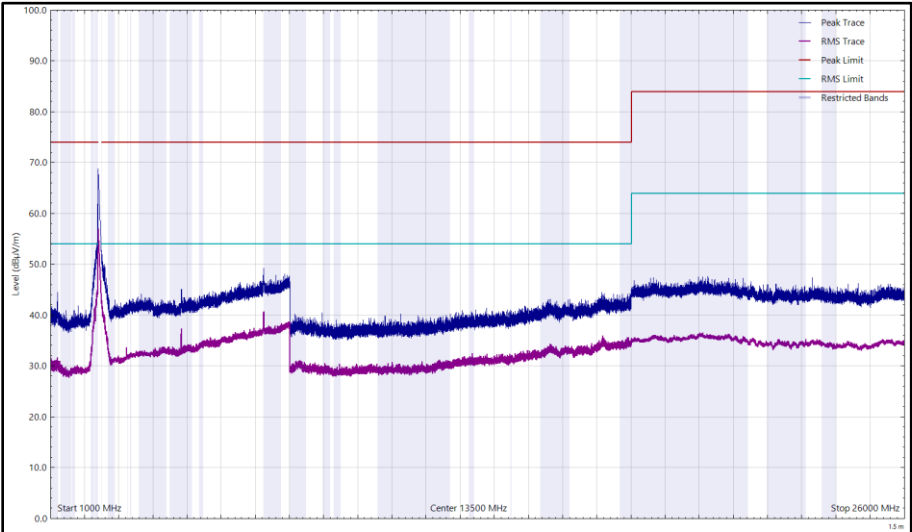


Figure 65 - CH1_802.11g_6Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 52 - CH1_802.11g_6Mbps_Y, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

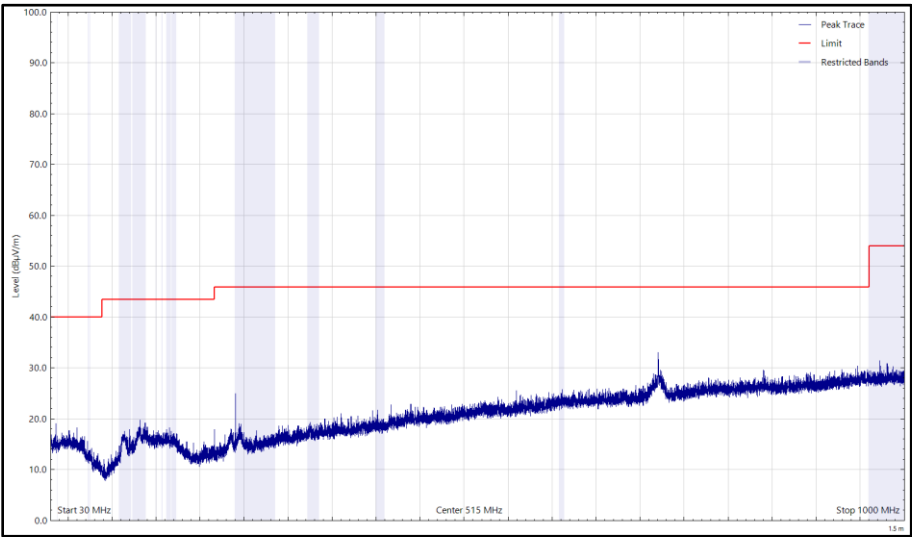


Figure 66 - CH1_802.11g_6Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

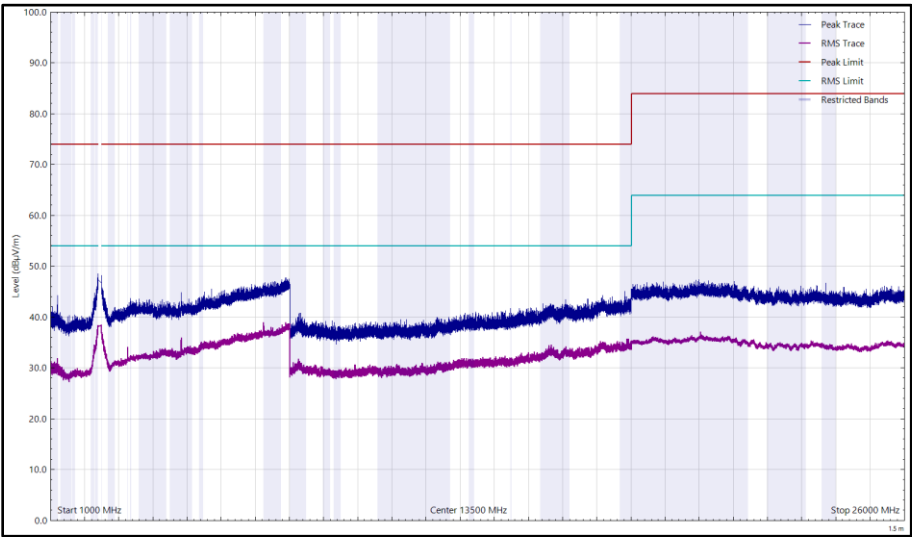


Figure 67 - CH1_802.11g_6Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Horizontal

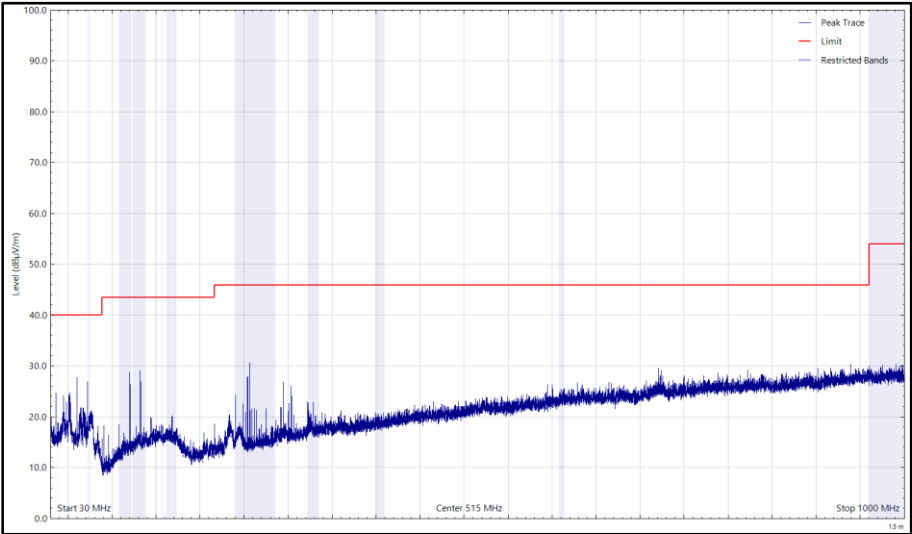


Figure 68 - CH1_802.11g_6Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

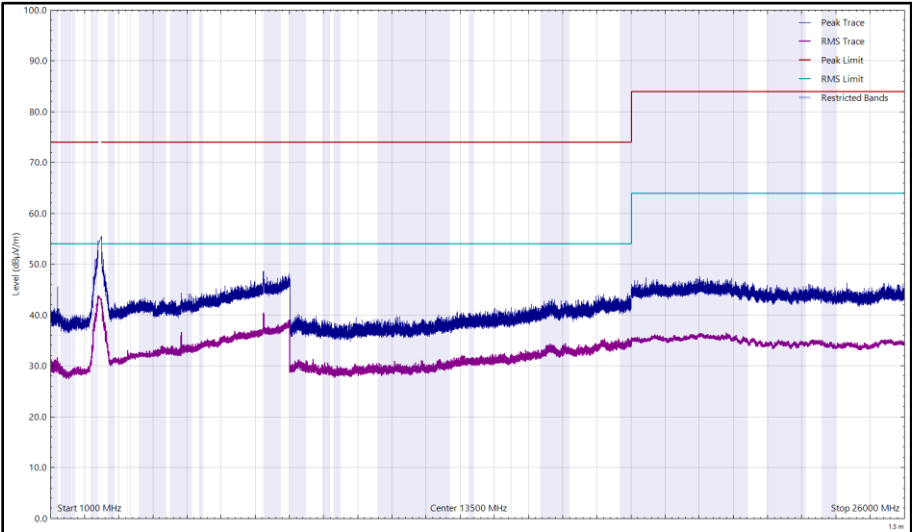


Figure 69 - CH1_802.11g_6Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 53 - CH1_802.11g_6Mbps_Z, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

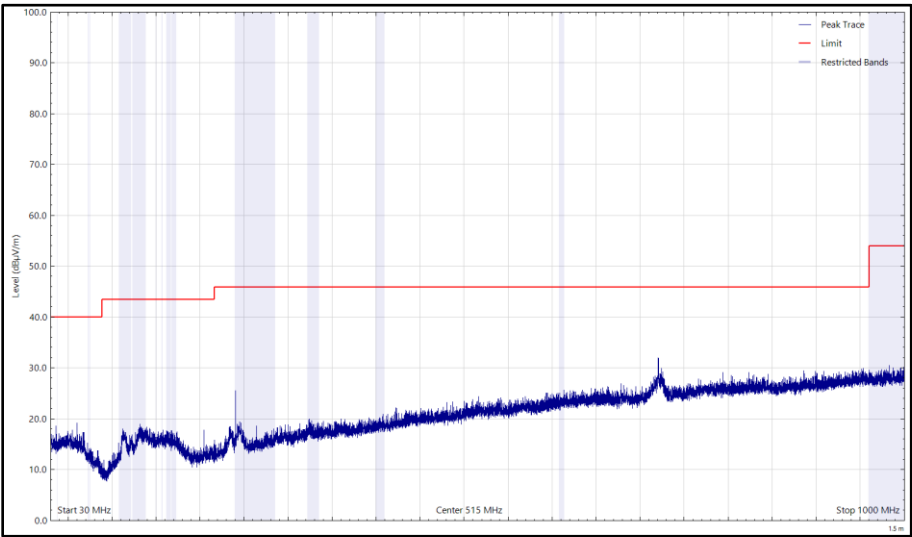


Figure 70 - CH1_802.11g_6Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

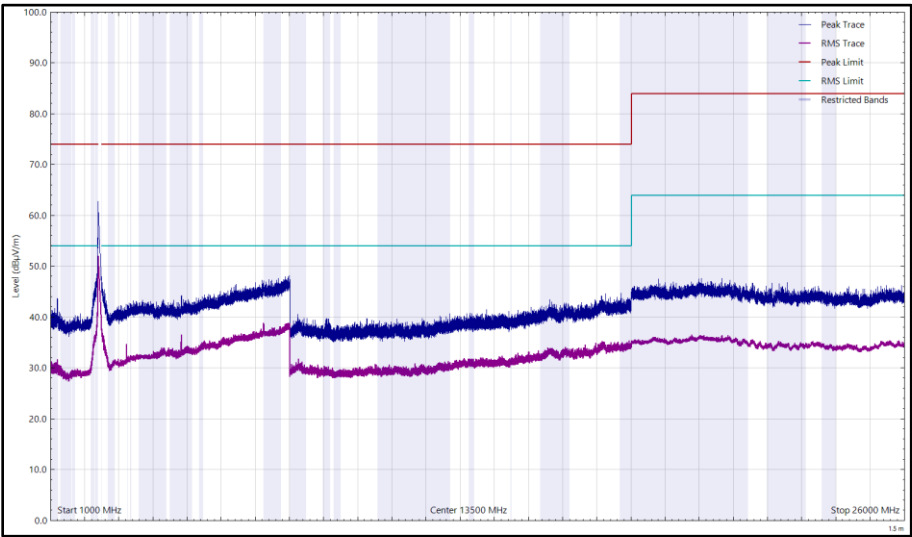


Figure 71 - CH1_802.11g_6Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Horizontal

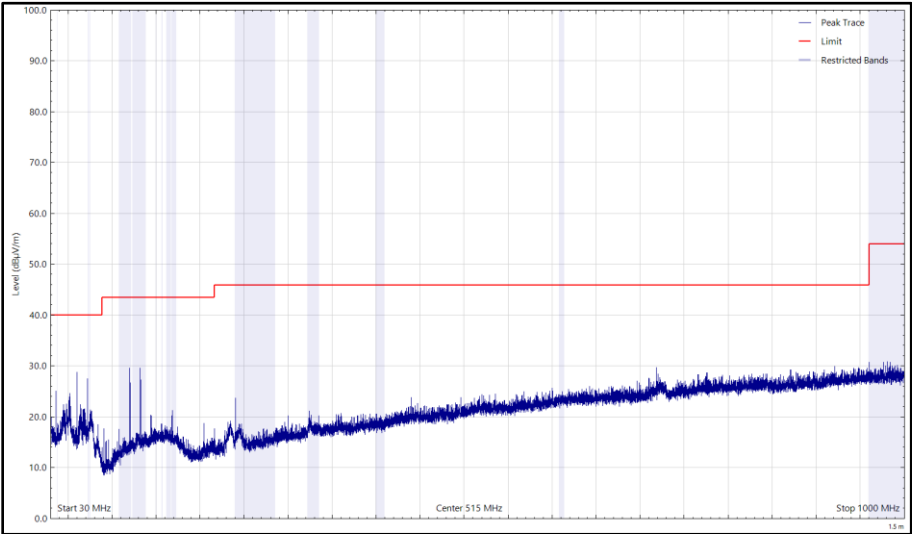


Figure 72 - CH1_802.11g_6Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

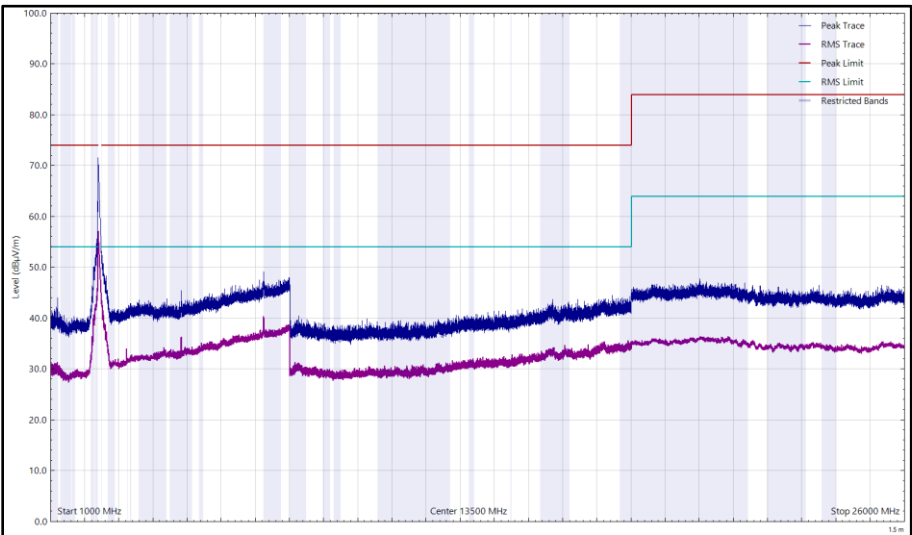


Figure 73 - CH1_802.11g_6Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 54 - CH6_802.11g_6Mbps_X, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

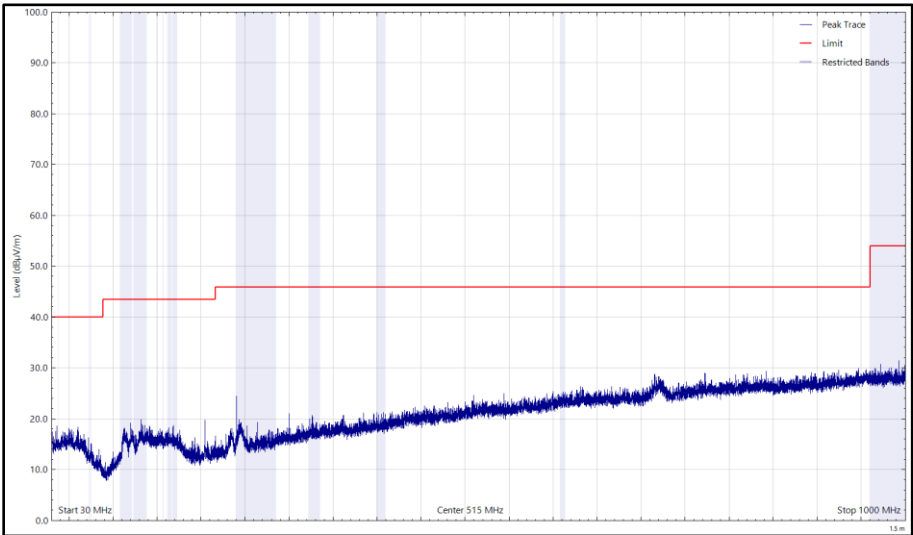


Figure 74 - CH6_802.11g_6Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

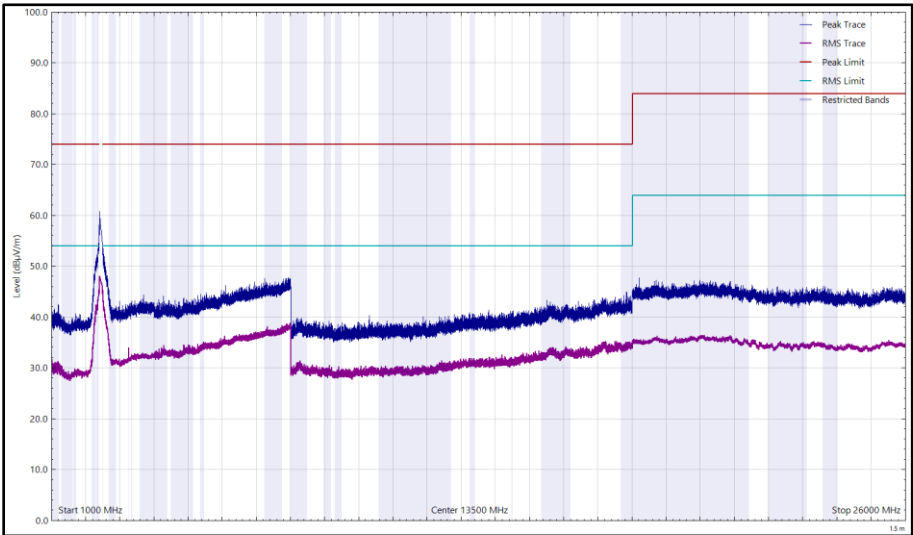


Figure 75 - CH6_802.11g_6Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Horizontal

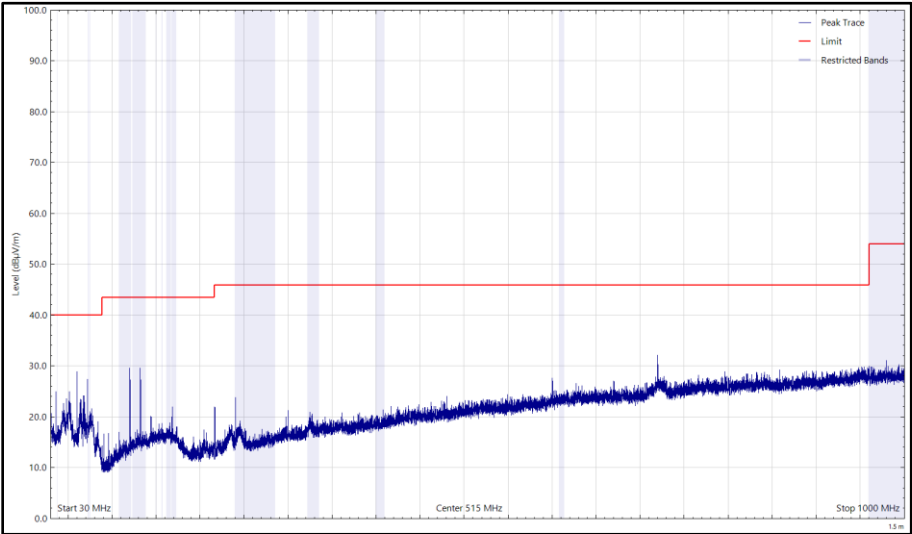


Figure 76 - CH6_802.11g_6Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

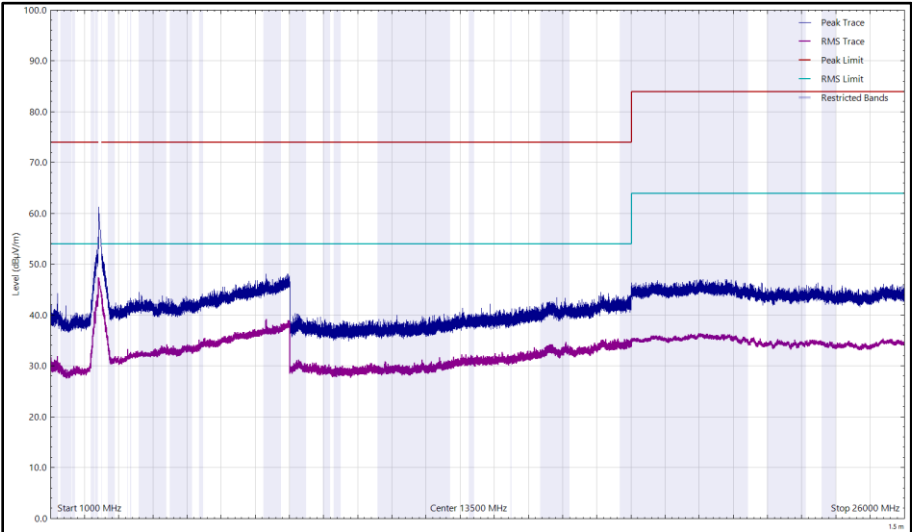


Figure 77 - CH6_802.11g_6Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 55 - CH6_802.11g_6Mbps_Y, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

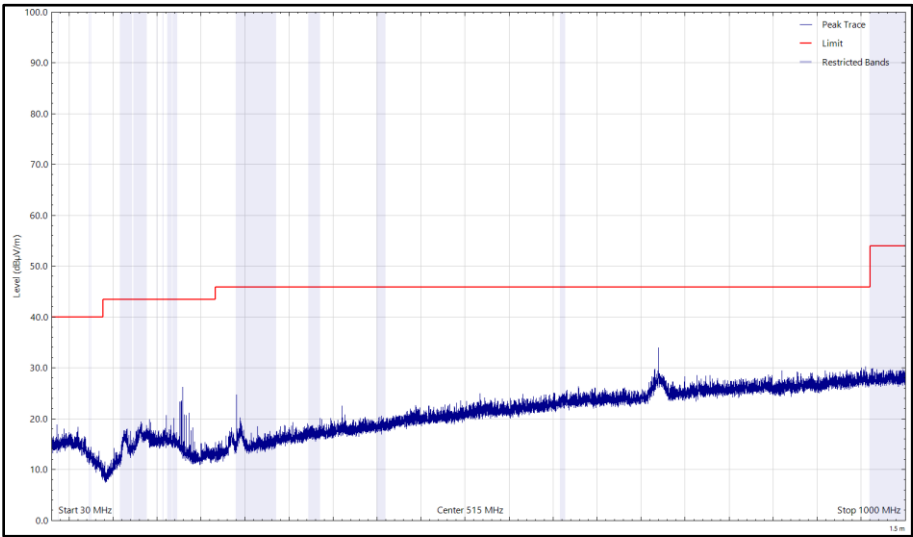


Figure 78 - CH6_802.11g_6Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

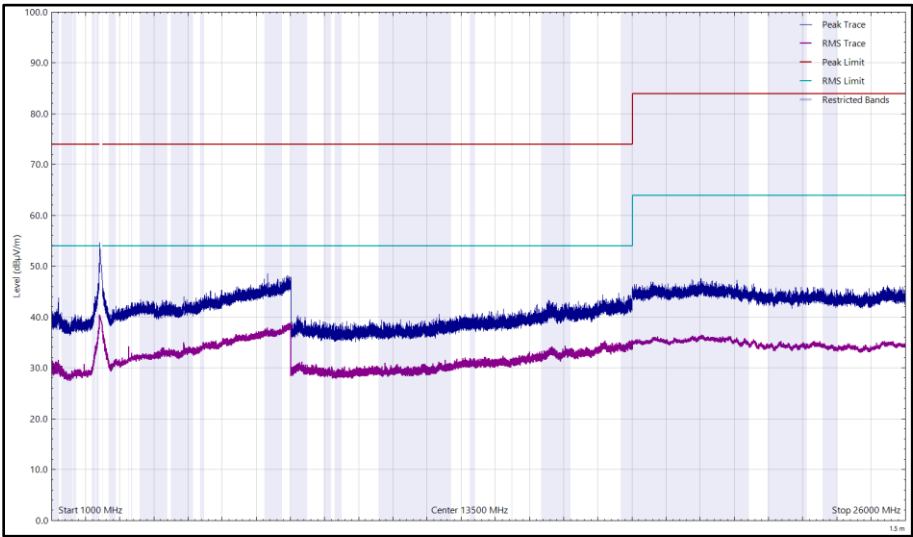


Figure 79 - CH6_802.11g_6Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Horizontal

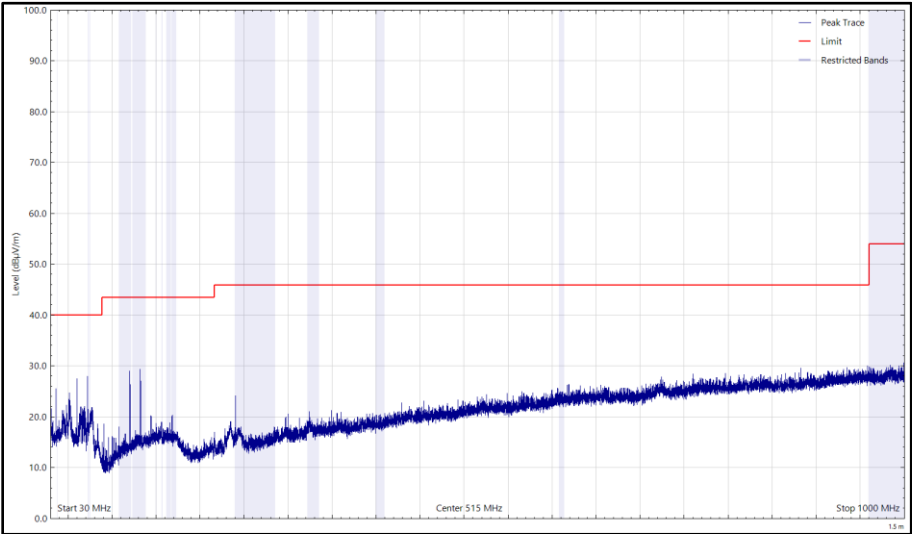


Figure 80 - CH6_802.11g_6Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

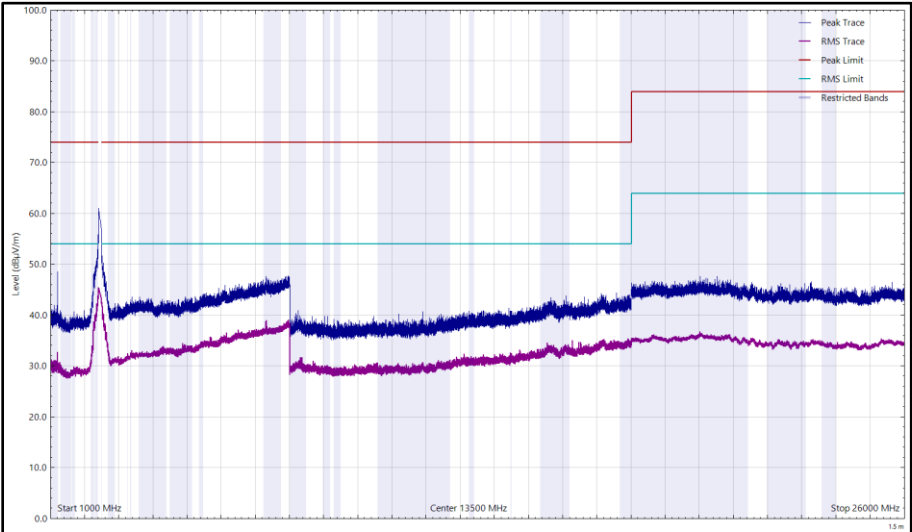


Figure 81 - CH6_802.11g_6Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 56 - CH6_802.11g_6Mbps_Z, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

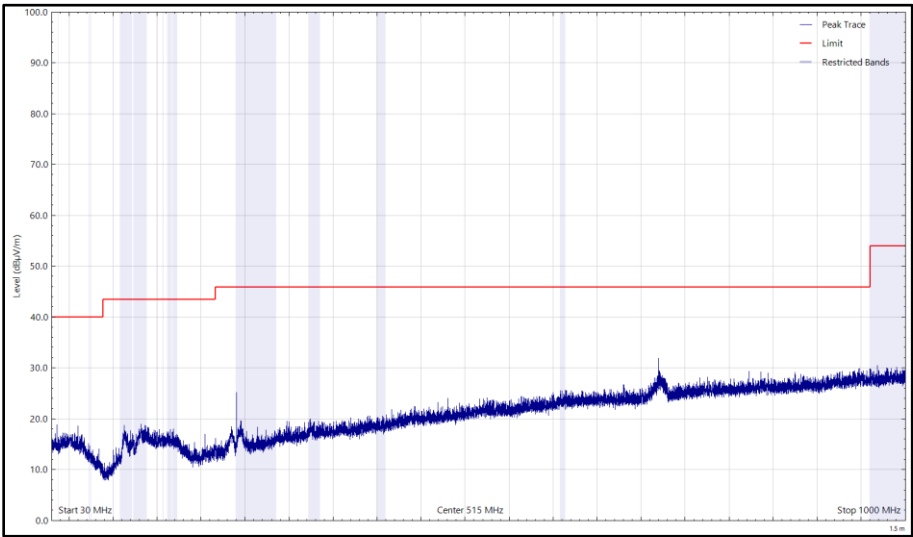


Figure 82 - CH6_802.11g_6Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

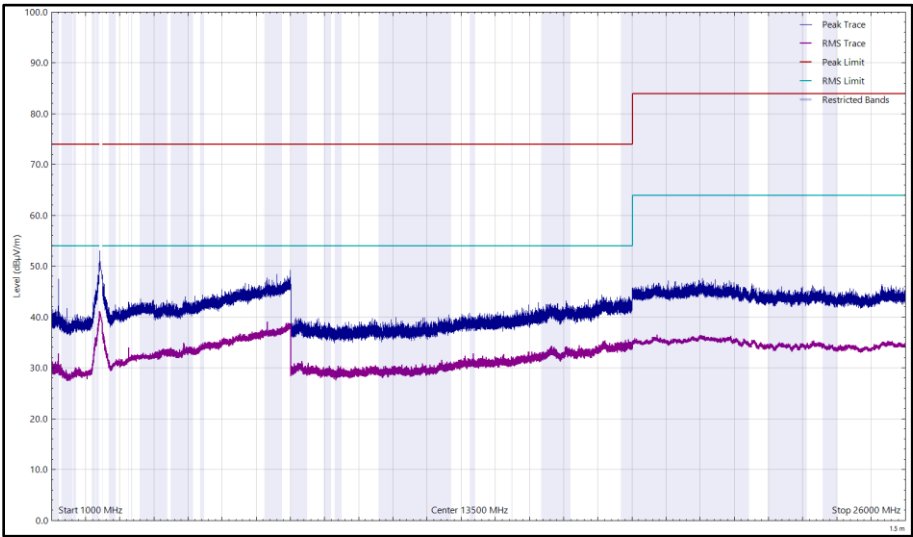


Figure 83 - CH6_802.11g_6Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Horizontal

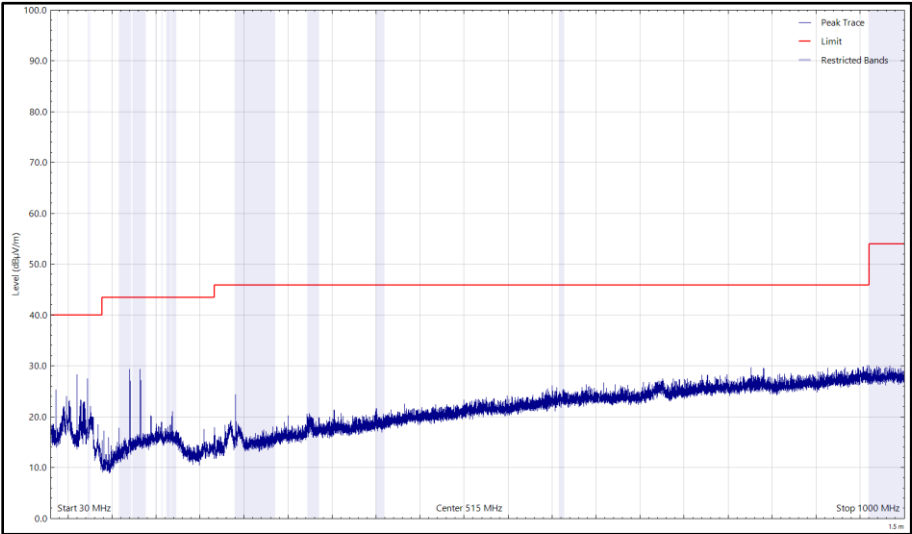


Figure 84 - CH6_802.11g_6Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

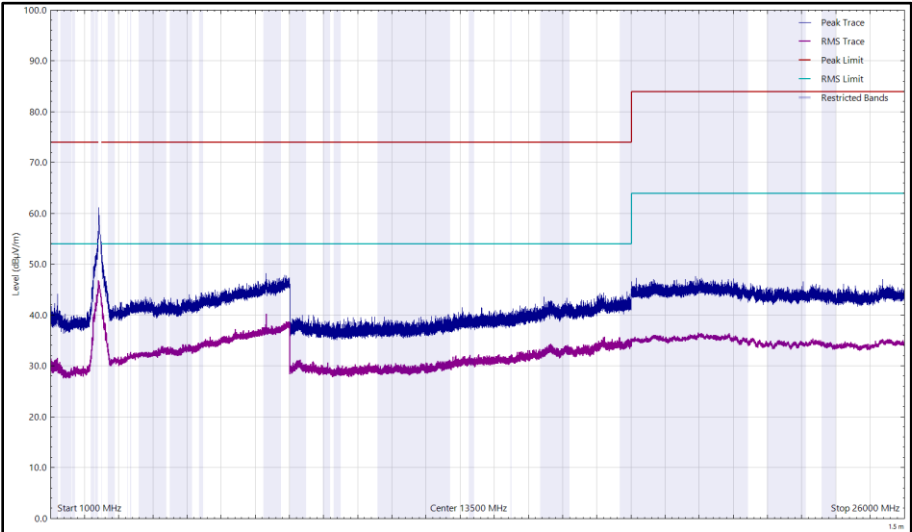


Figure 85 - CH6_802.11g_6Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 57 - CH11_802.11g_6Mbps_X, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

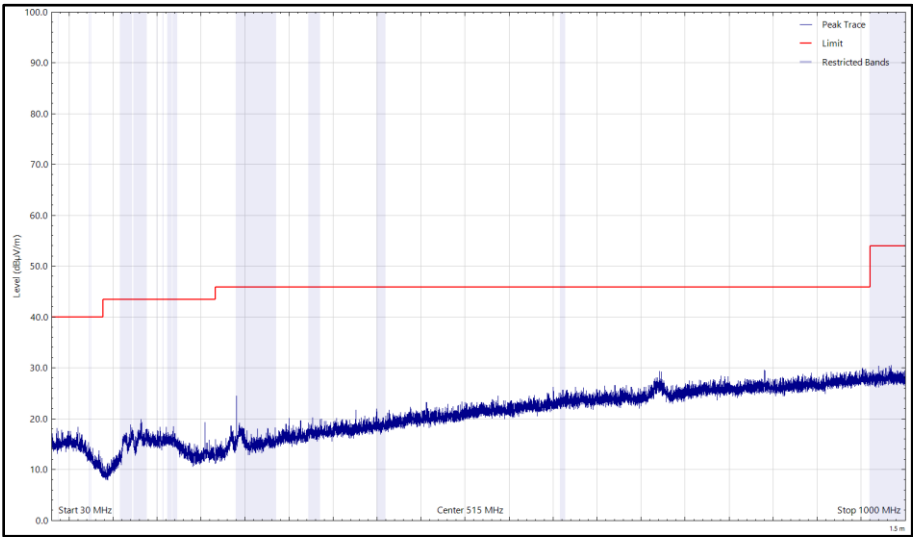


Figure 86 - CH11_802.11g_6Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

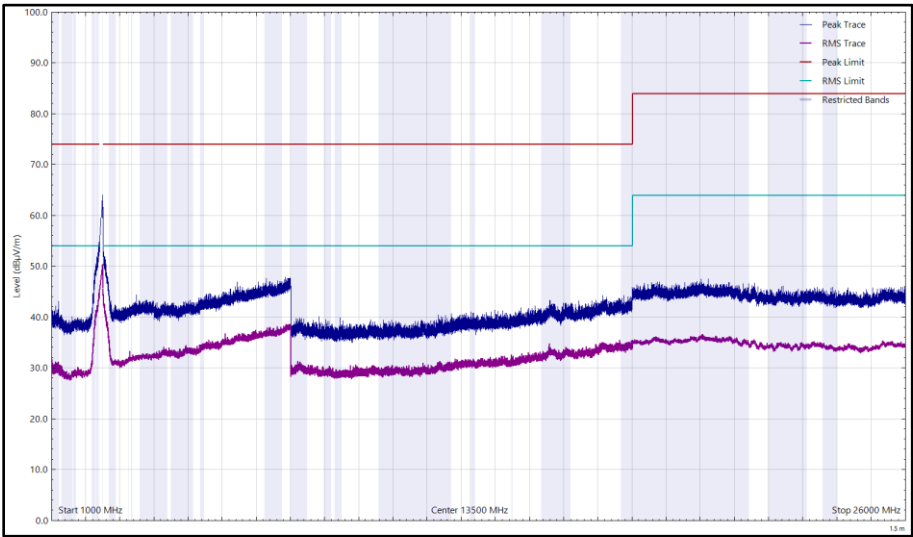


Figure 87 - CH11_802.11g_6Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Horizontal

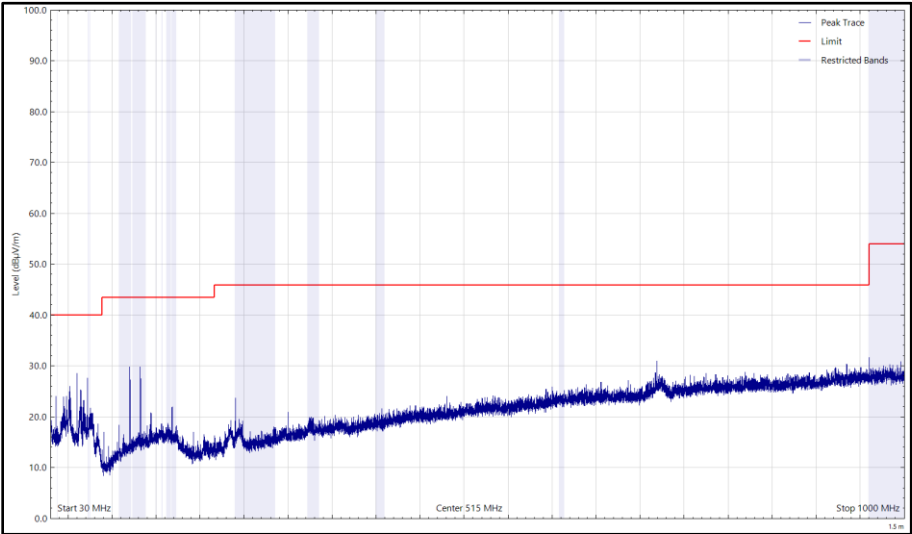


Figure 88 - CH11_802.11g_6Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

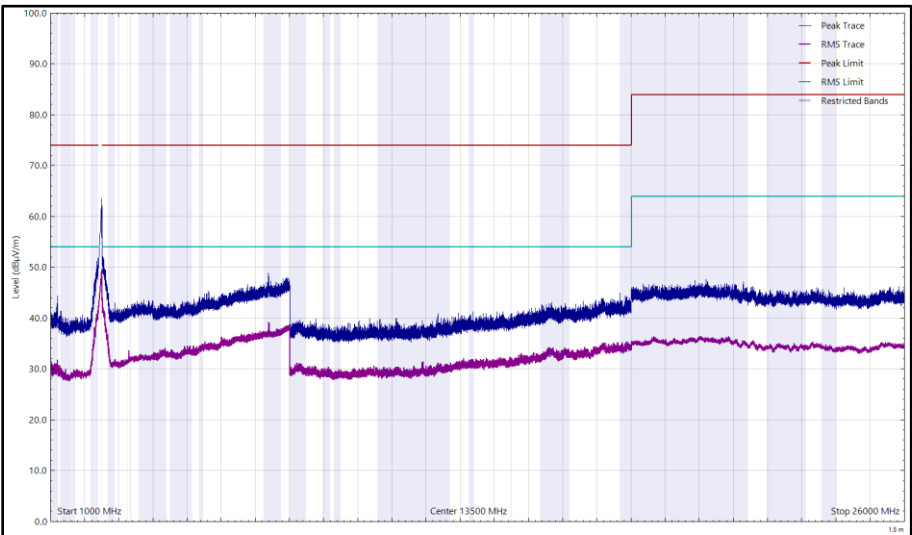


Figure 89 - CH11_802.11g_6Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 58 - CH11_802.11g_6Mbps_Y, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

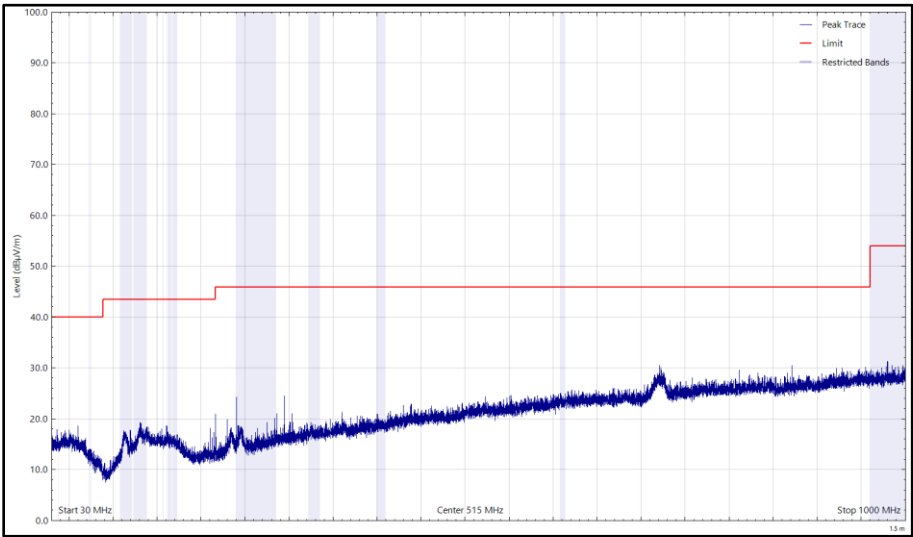


Figure 90 - CH11_802.11g_6Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

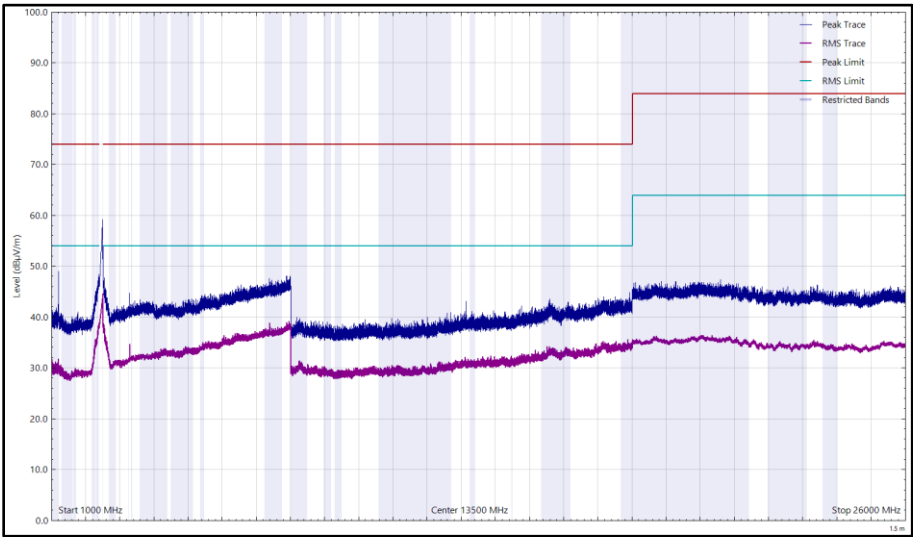


Figure 91 - CH11_802.11g_6Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Horizontal

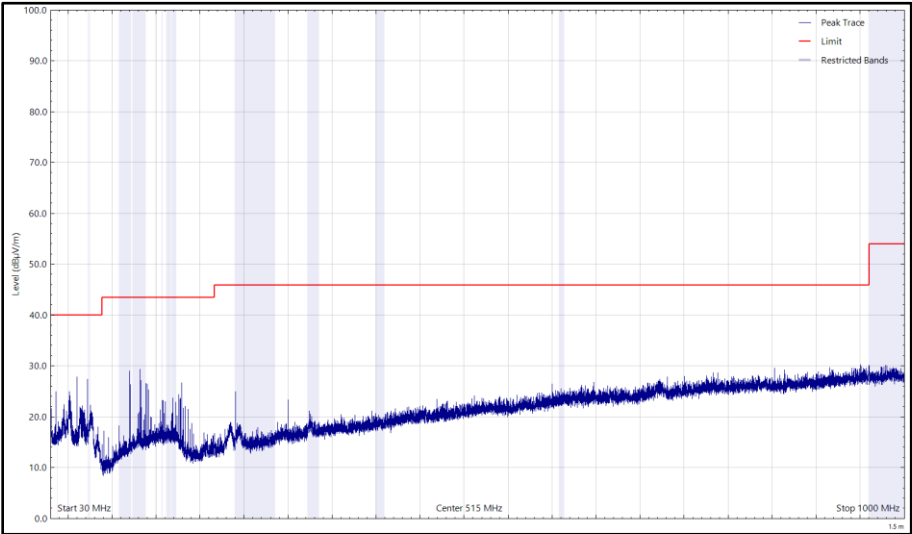


Figure 92 - CH11_802.11g_6Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

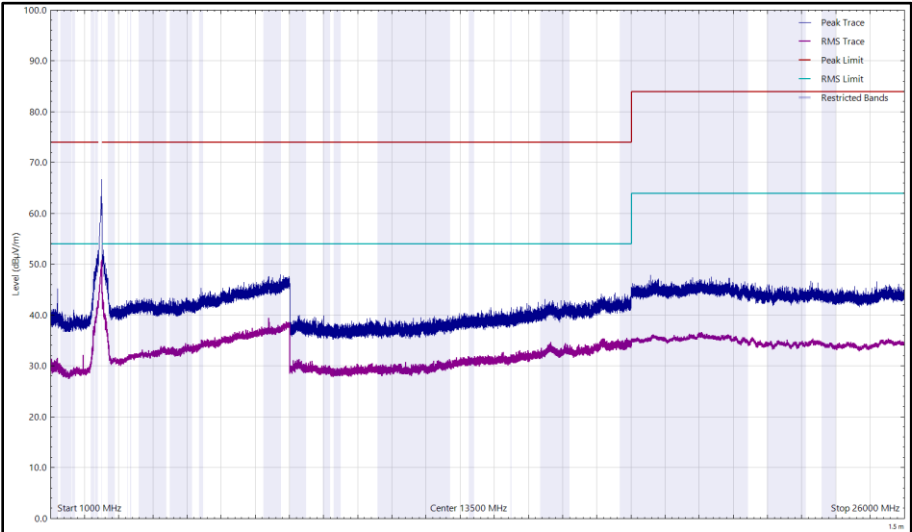


Figure 93 - CH11_802.11g_6Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 59 - CH11_802.11g_6Mbps_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

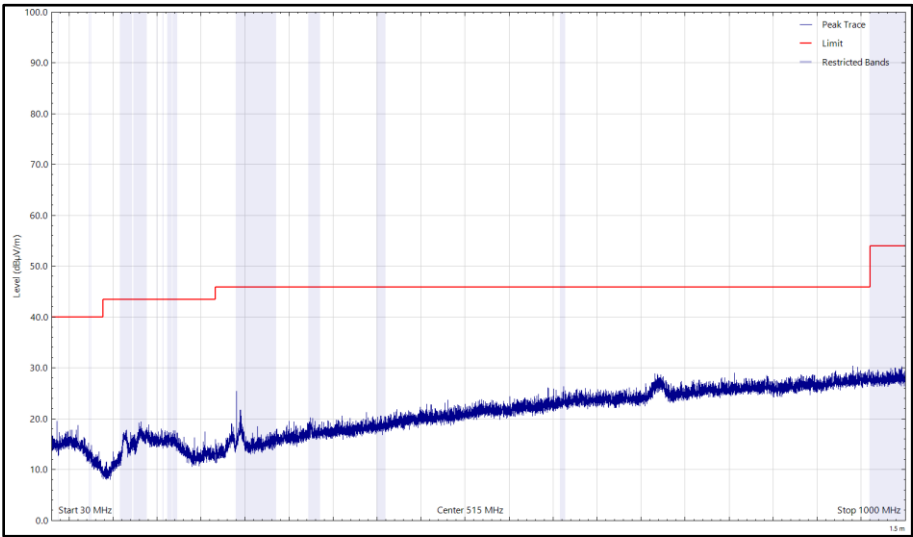


Figure 94 - CH11_802.11g_6Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

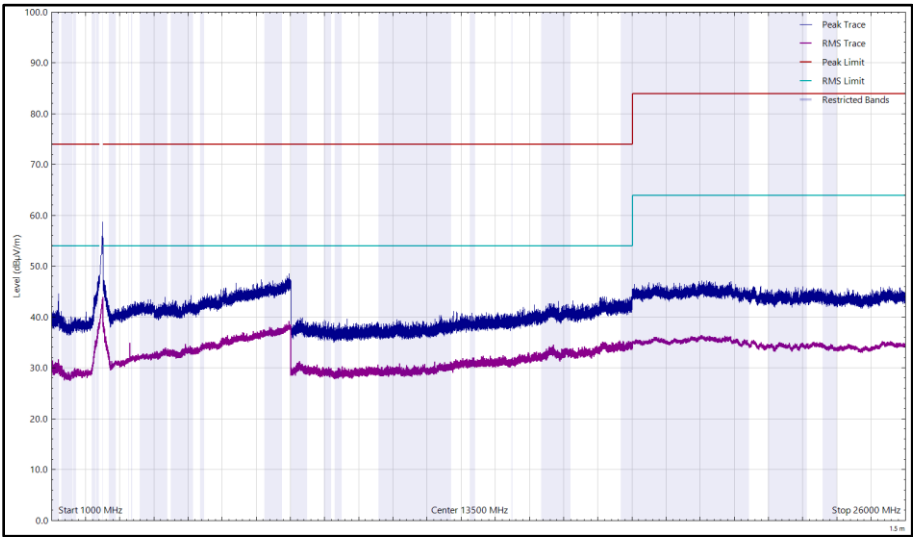


Figure 95 - CH11_802.11g_6Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

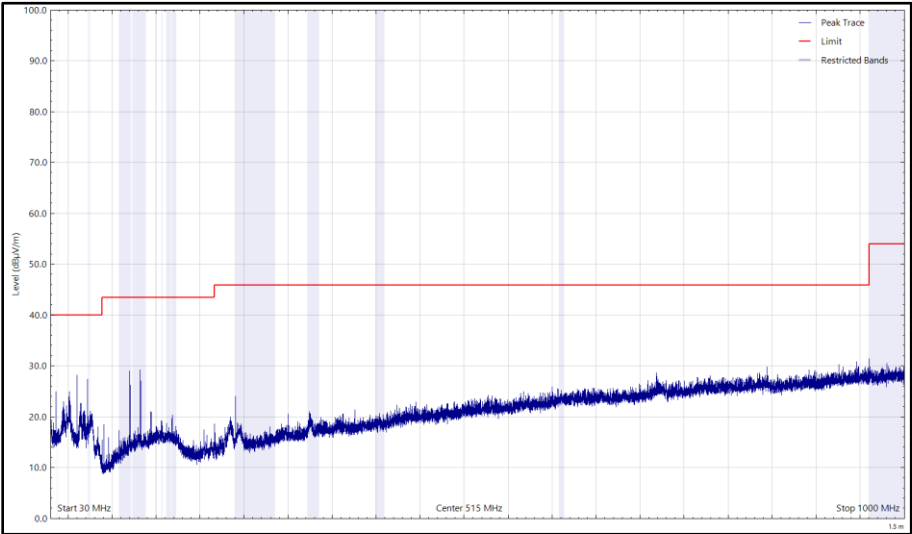


Figure 96 - CH11_802.11g_6Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

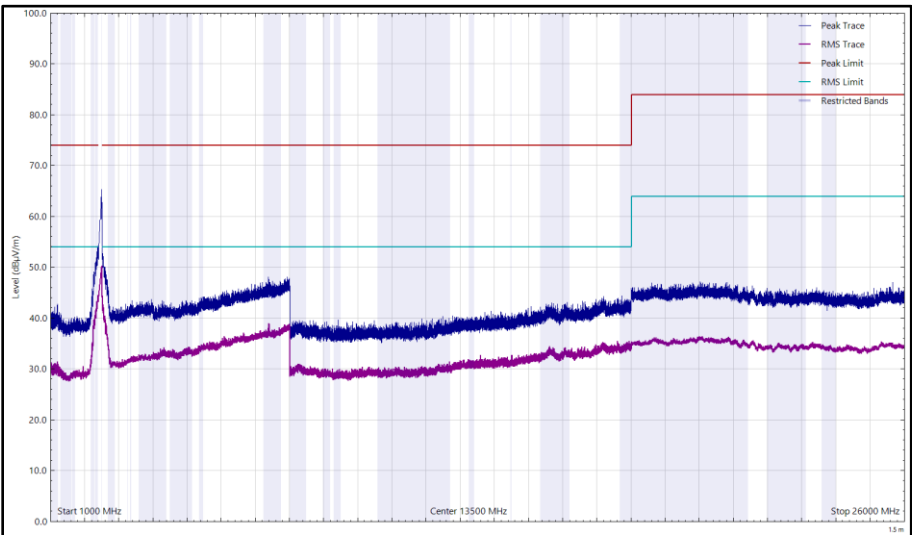


Figure 97 - CH11_802.11g_6Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 60 - CH1_HE20_MCS0_X, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

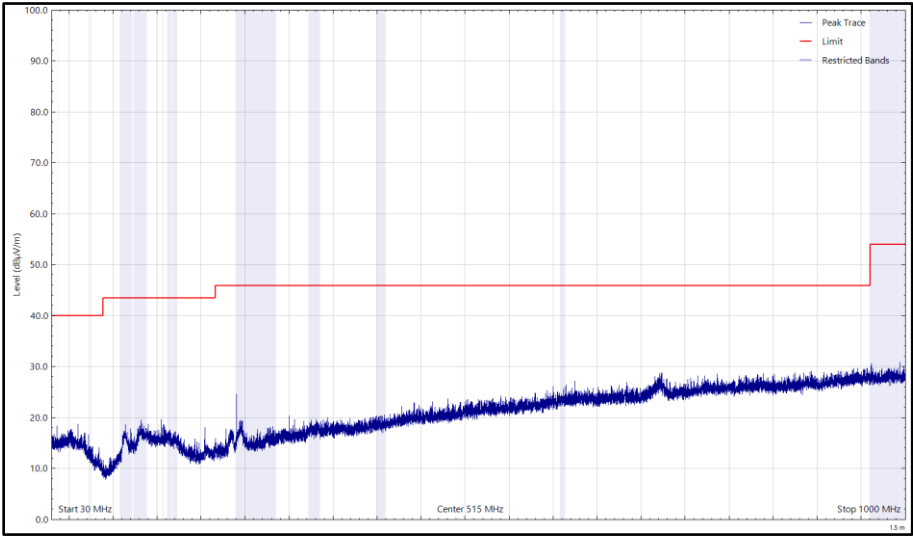


Figure 98 - CH1_HE20_MCS0_X, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

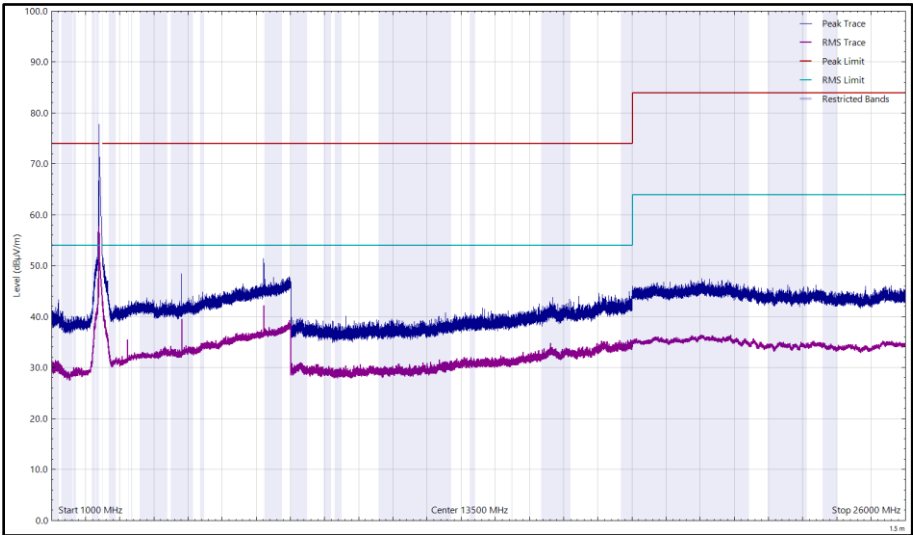


Figure 99 - CH1_HE20_MCS0_X, 2412 MHz, 1 GHz to 26 GHz, Horizontal

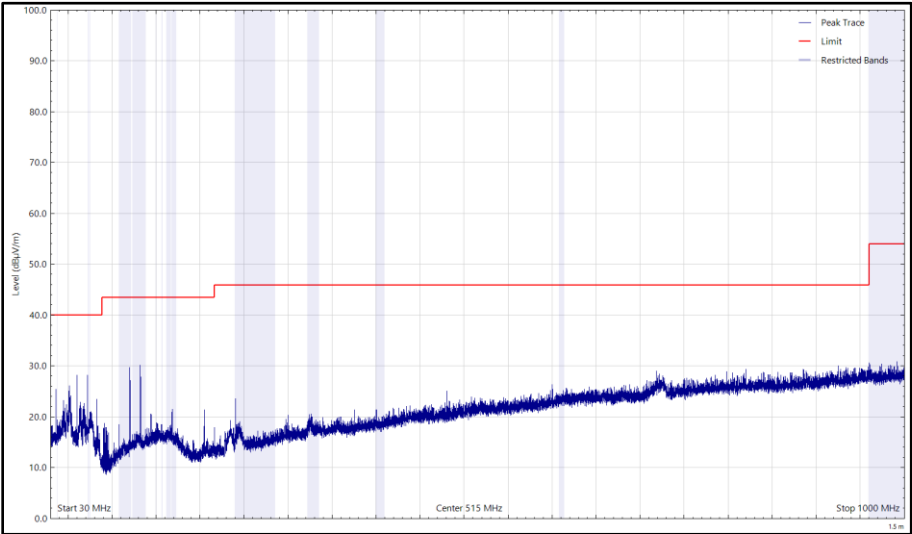


Figure 100 - CH1_HE20_MCS0_X, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

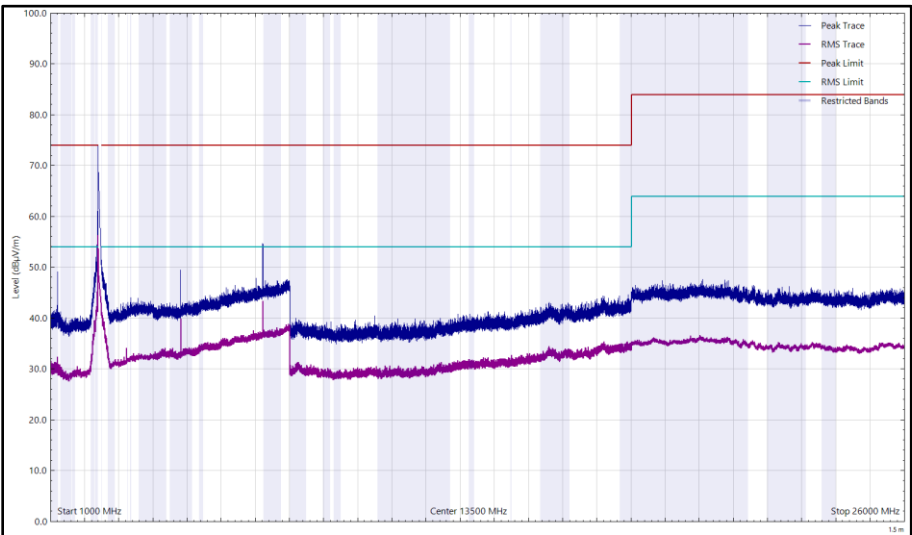


Figure 101 - CH1_HE20_MCS0_X, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 61 - CH1_HE20_MCS0_Y, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

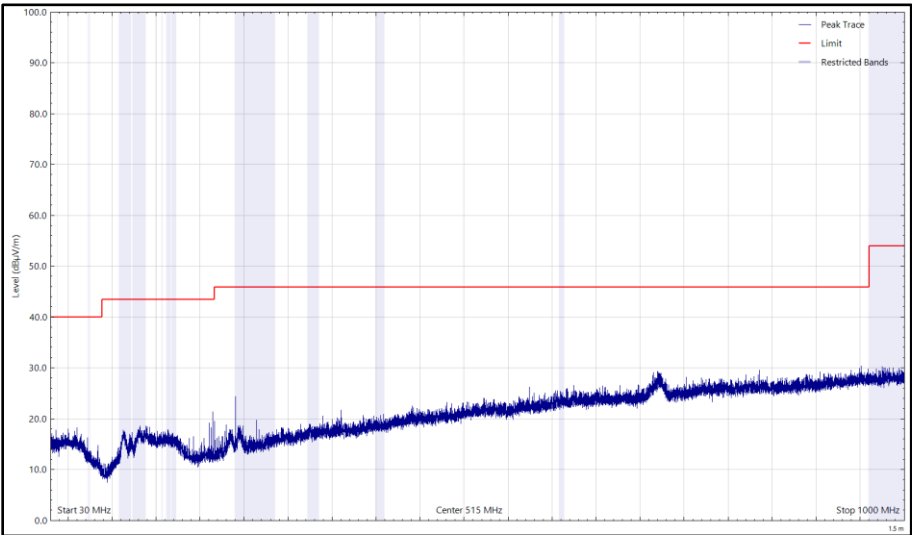


Figure 102 - CH1_HE20_MCS0_Y, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

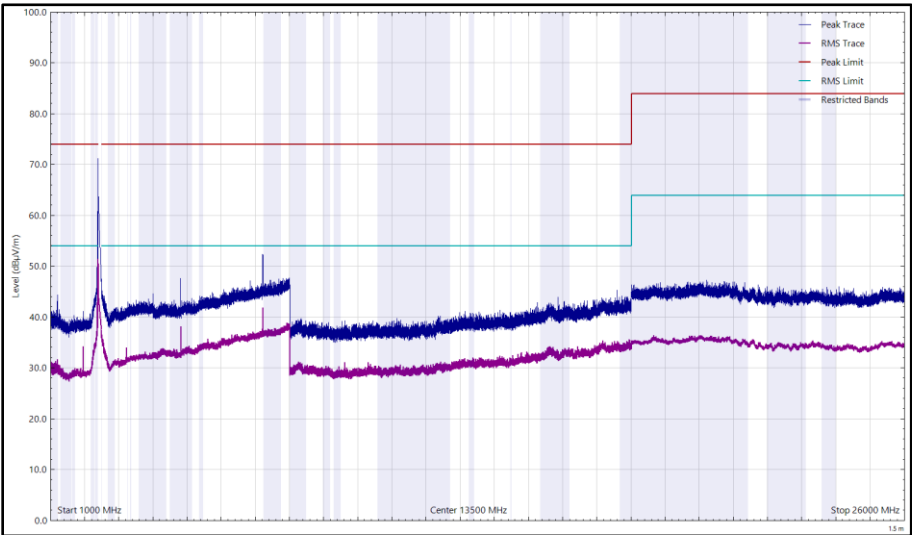


Figure 103 - CH1_HE20_MCS0_Y, 2412 MHz, 1 GHz to 26 GHz, Horizontal

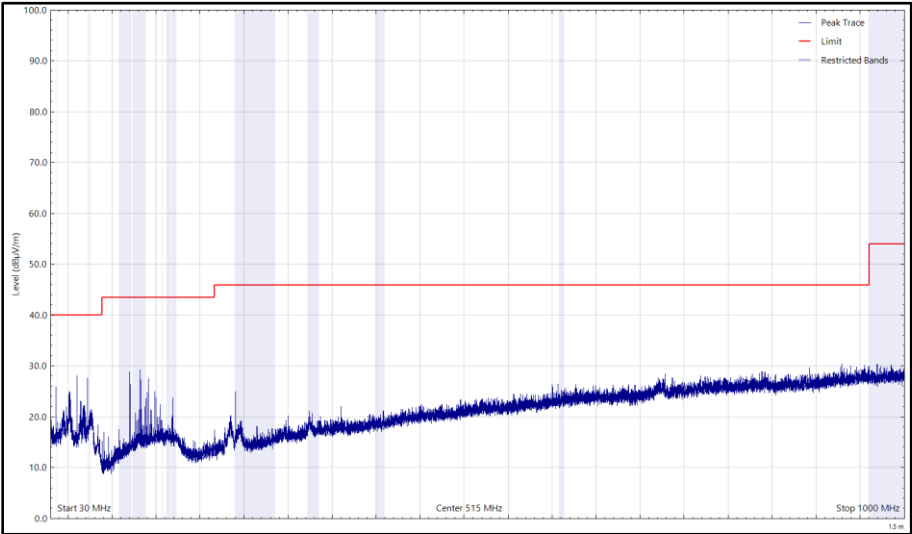


Figure 104 - CH1_HE20_MCS0_Y, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

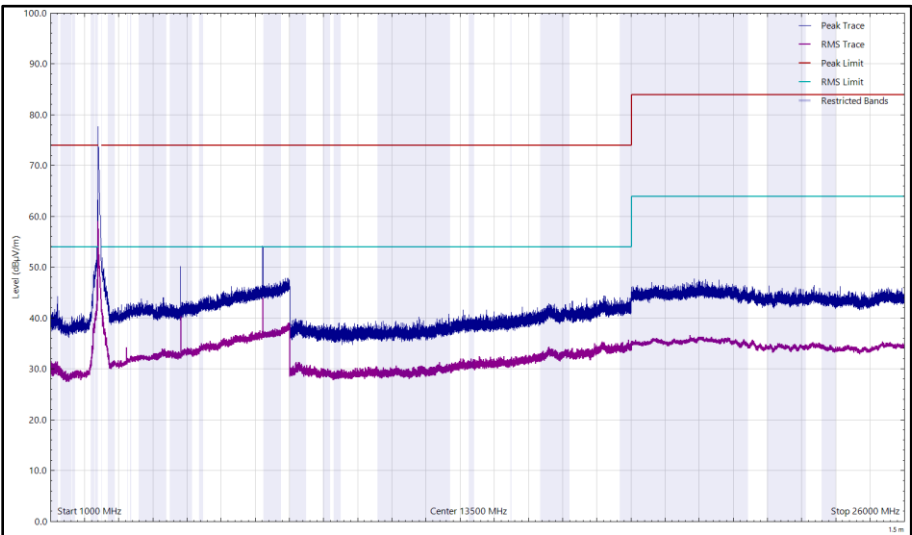


Figure 105 - CH1_HE20_MCS0_Y, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 62 - CH1_HE20_MCS0_Z, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

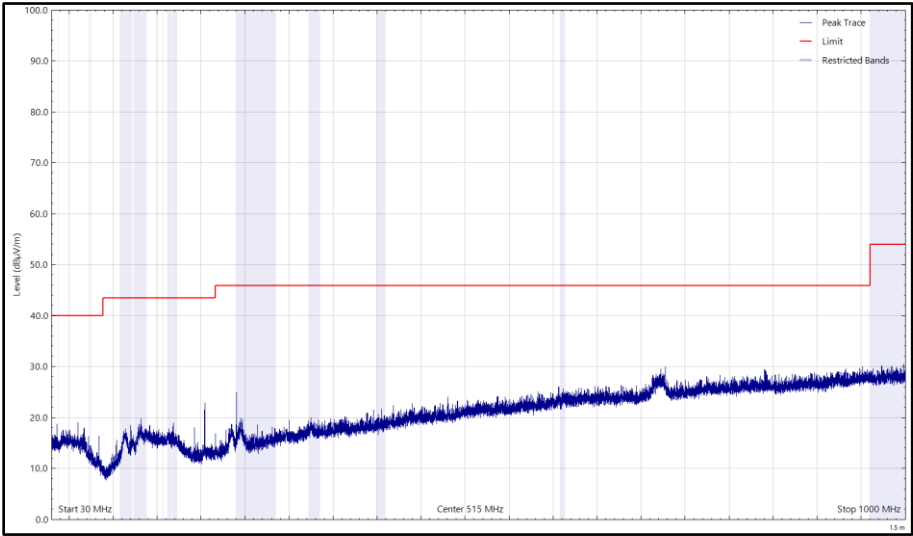


Figure 106 - CH1_HE20_MCS0_Z, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

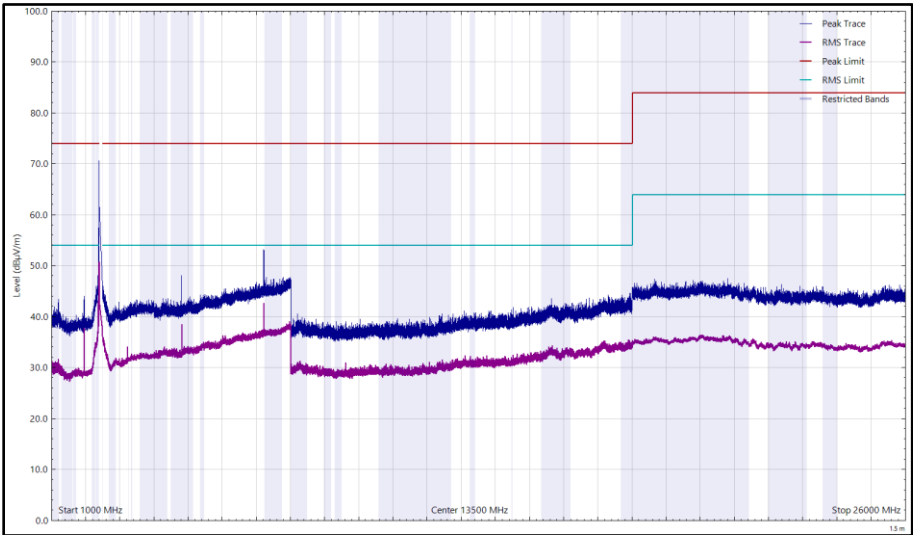


Figure 107 - CH1_HE20_MCS0_Z, 2412 MHz, 1 GHz to 26 GHz, Horizontal

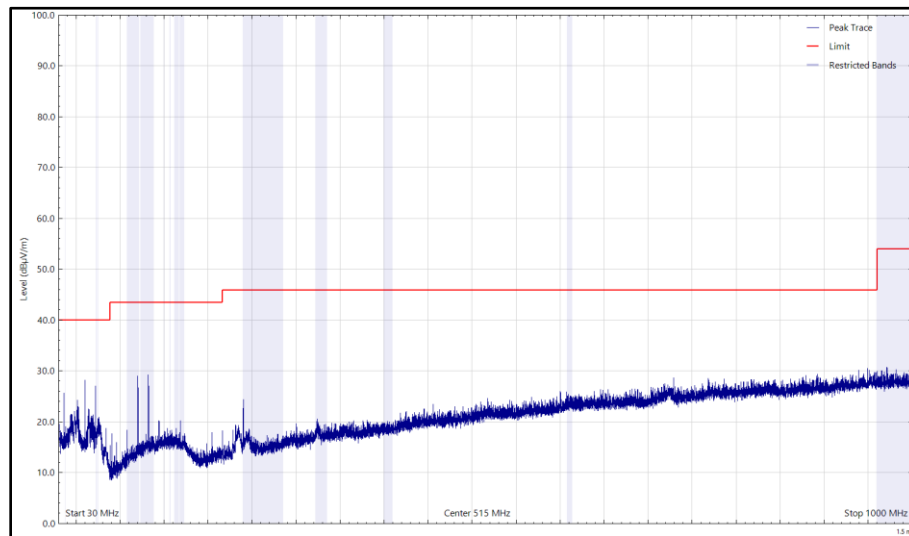


Figure 108 - CH1_HE20_MCS0_Z, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

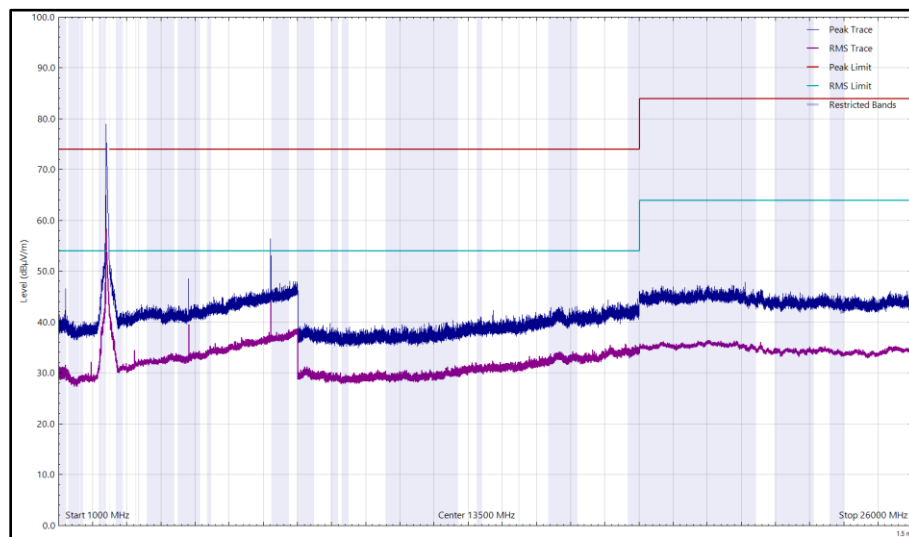


Figure 109 - CH1_HE20_MCS0_Z, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 63 - CH6_HE20_MCS0_X, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

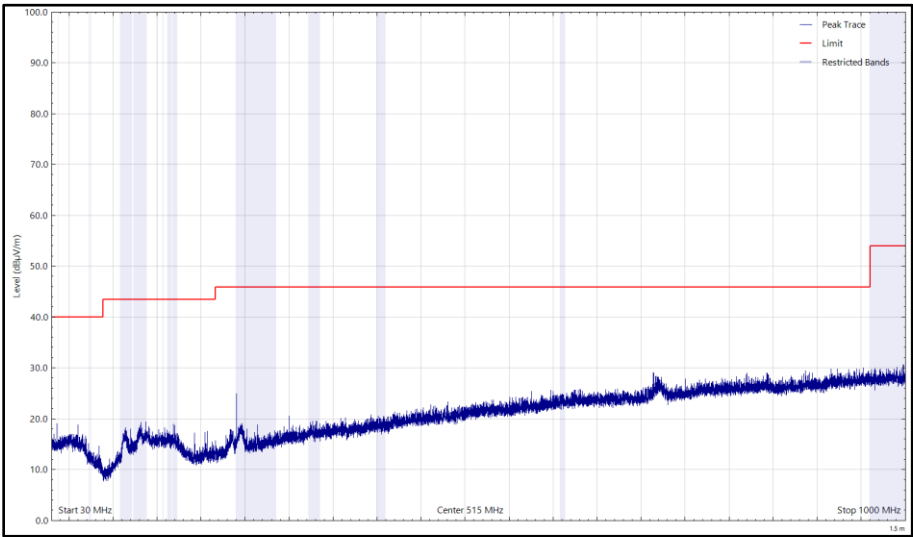


Figure 110 - CH6_HE20_MCS0_X, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

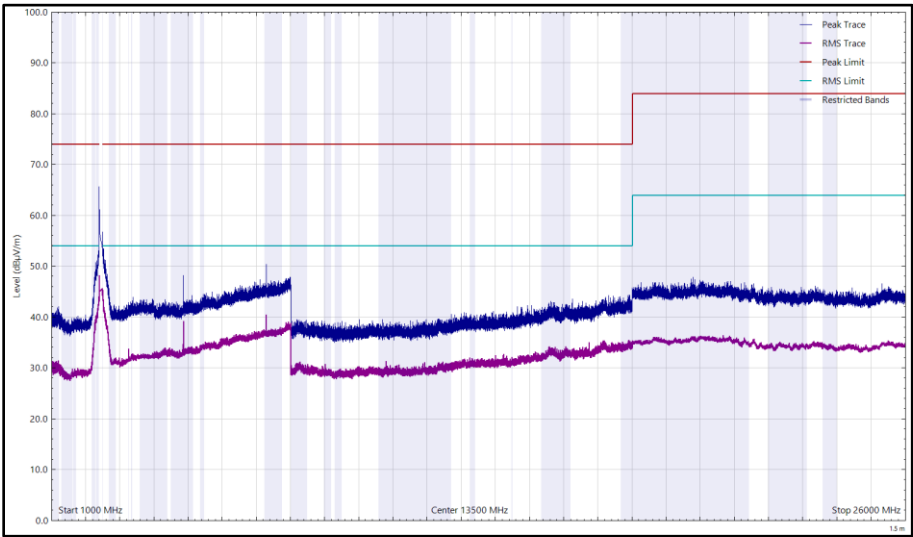


Figure 111 - CH6_HE20_MCS0_X, 2437 MHz, 1 GHz to 26 GHz, Horizontal

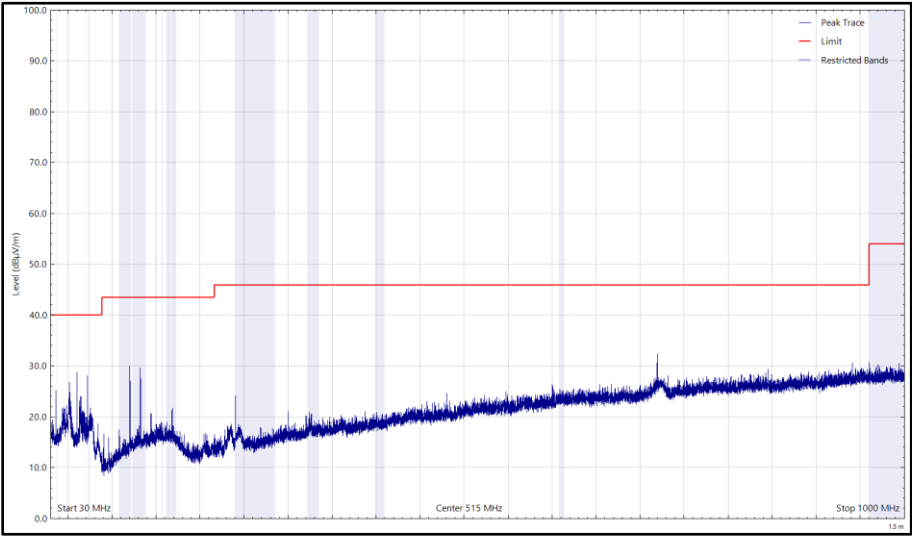


Figure 112 - CH6_HE20_MCS0_X, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

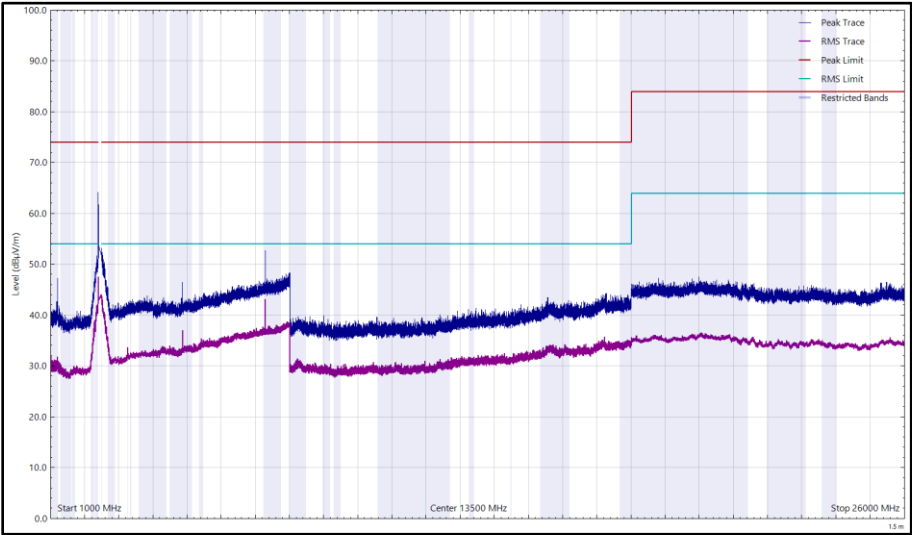


Figure 113 - CH6_HE20_MCS0_X, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 64 - CH6_HE20_MCS0_Y, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

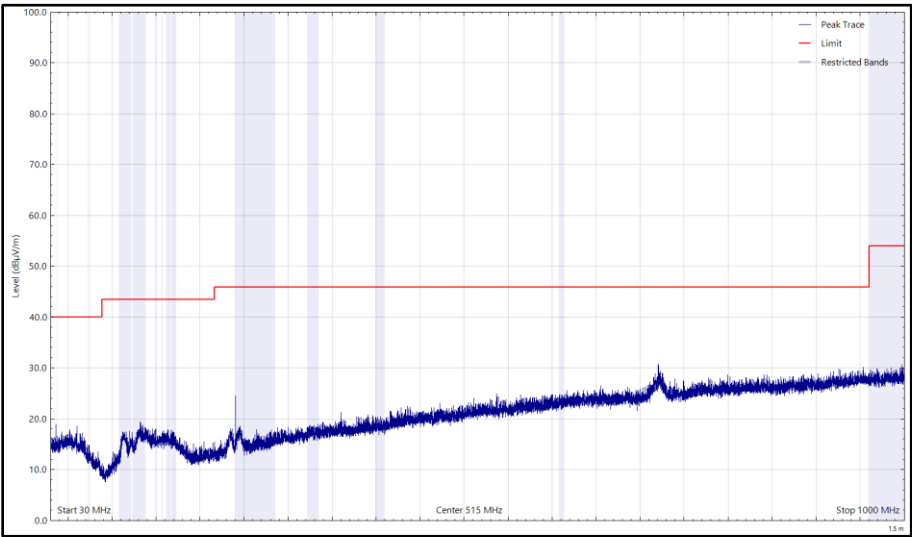


Figure 114 - CH6_HE20_MCS0_Y, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

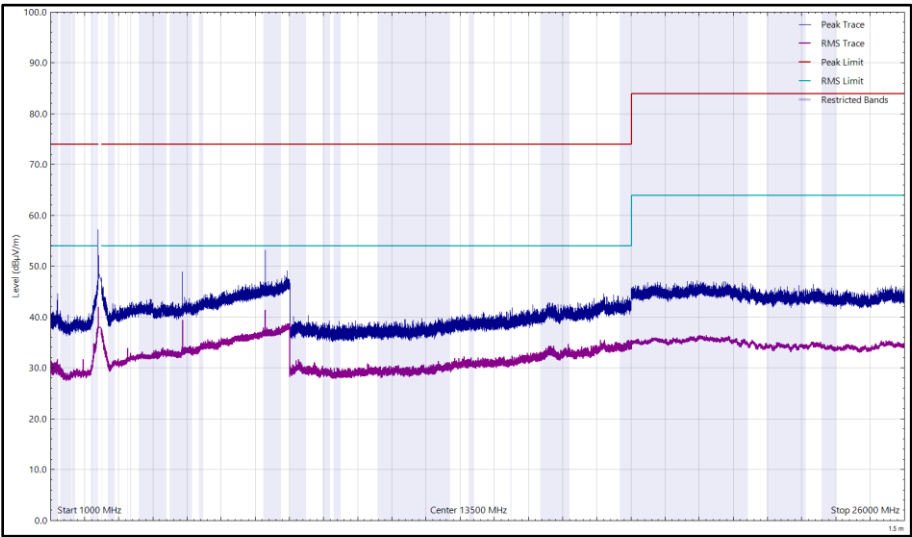


Figure 115 - CH6_HE20_MCS0_Y, 2437 MHz, 1 GHz to 26 GHz, Horizontal

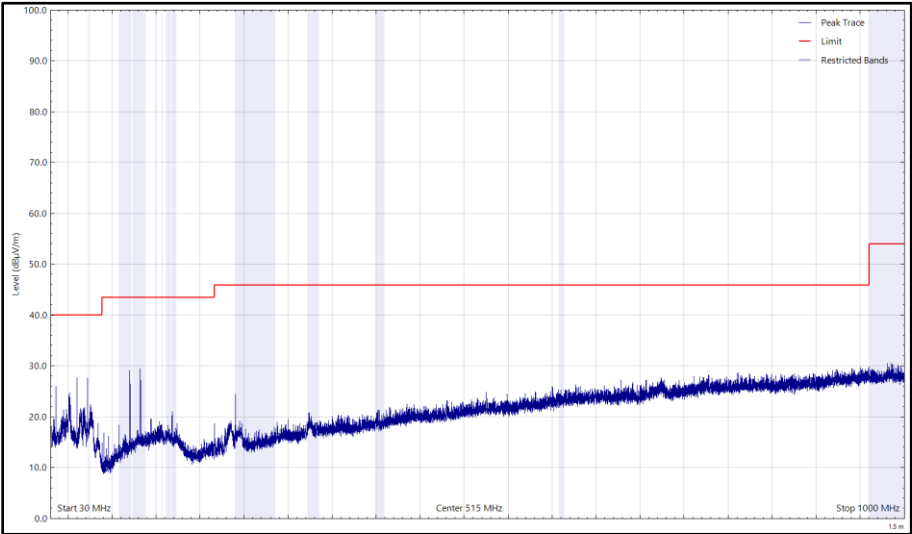


Figure 116 - CH6_HE20_MCS0_Y, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

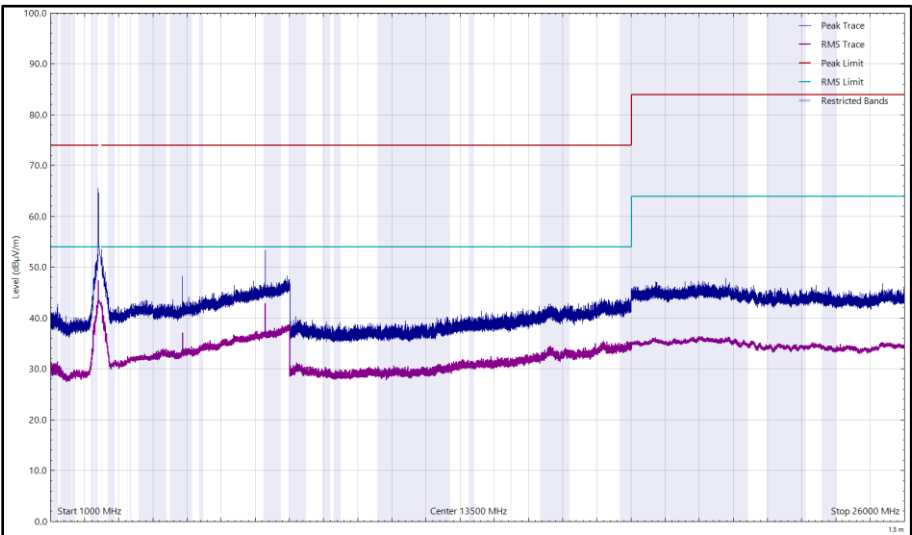


Figure 117 - CH6_HE20_MCS0_Y, 2437 MHz, 1 GHz to 26 GHz, Vertical

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

Table 65 - CH6_HE20_MCS0_Z, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

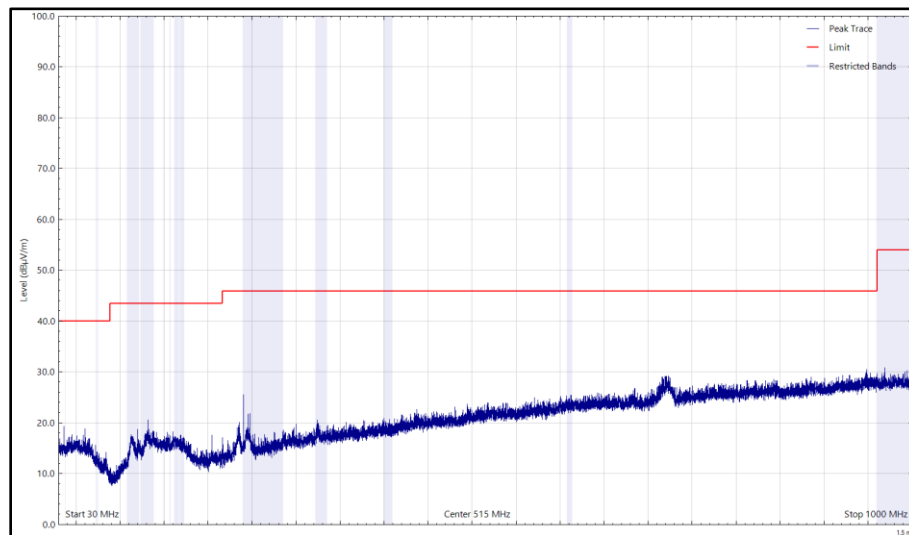


Figure 118 - CH6_HE20_MCS0_Z, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

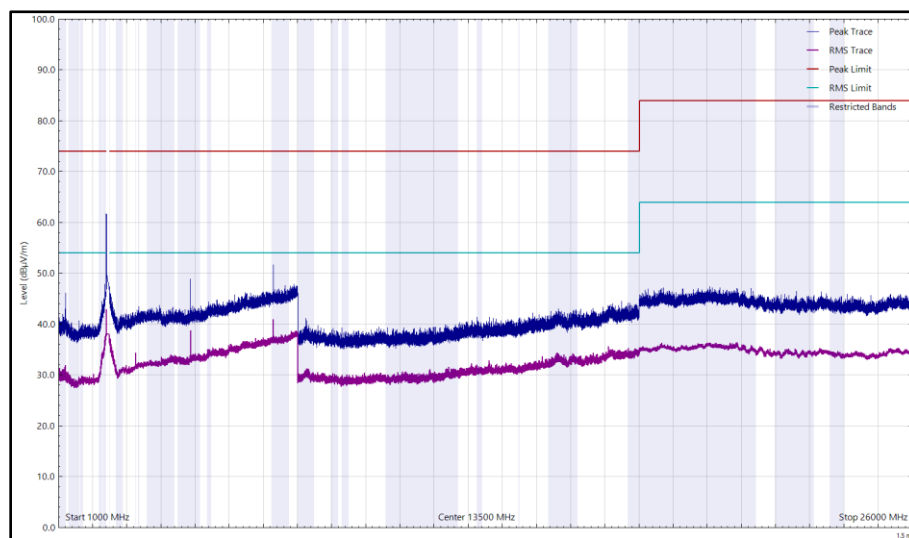


Figure 119 - CH6_HE20_MCS0_Z, 2437 MHz, 1 GHz to 26 GHz, Horizontal

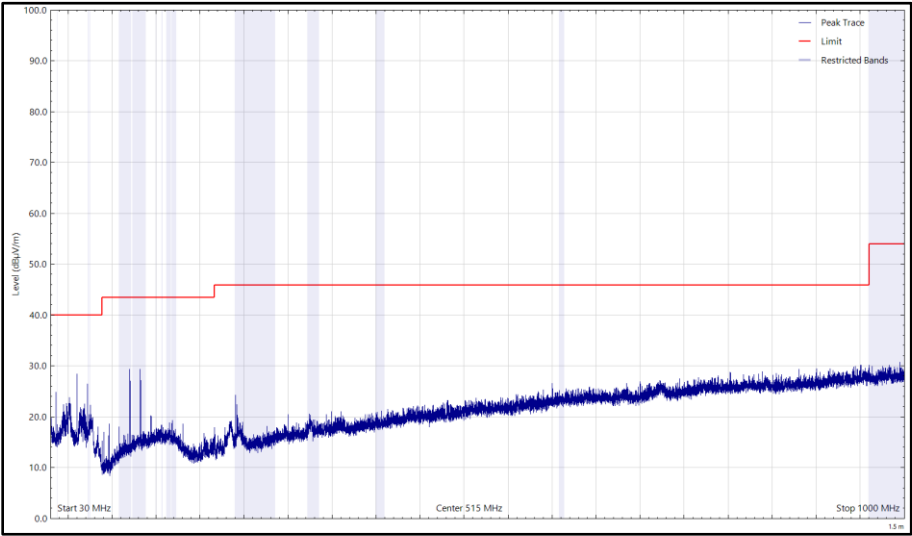


Figure 120 - CH6_HE20_MCS0_Z, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

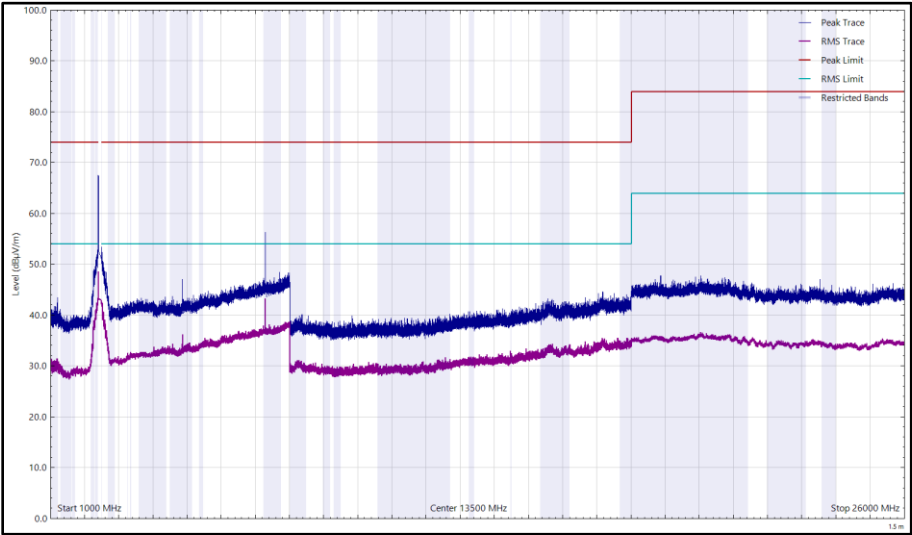


Figure 121 - CH6_HE20_MCS0_Z, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 66 - CH11_HE20_MCS0_X, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

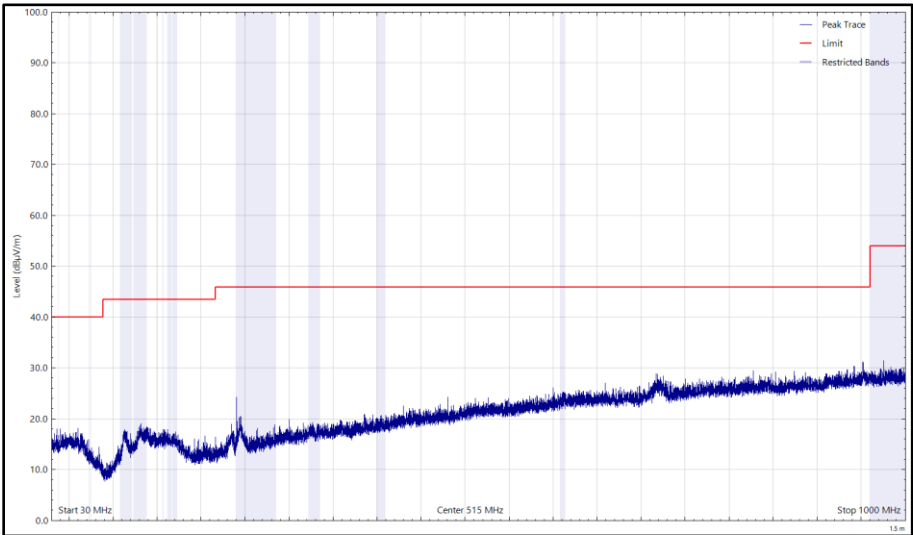


Figure 122 - CH11_HE20_MCS0_X, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

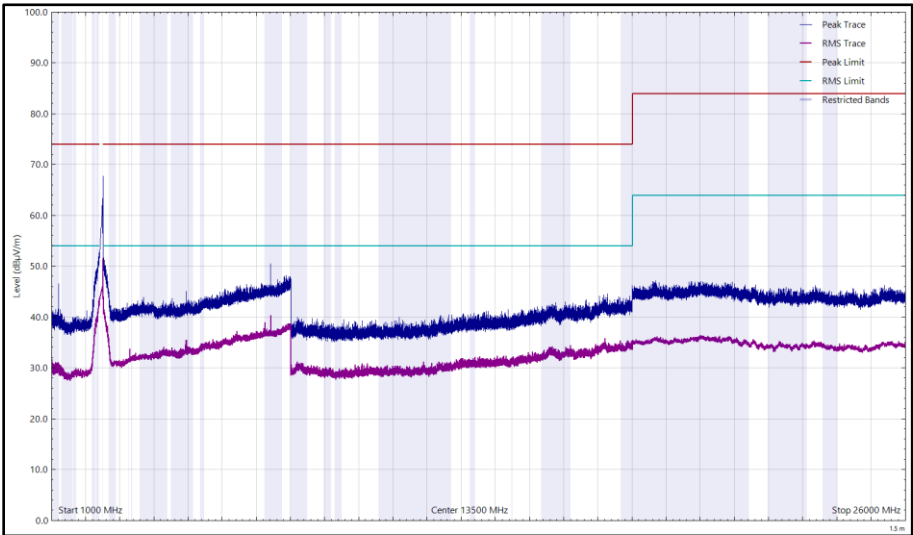


Figure 123 - CH11_HE20_MCS0_X, 2462 MHz, 1 GHz to 26 GHz, Horizontal

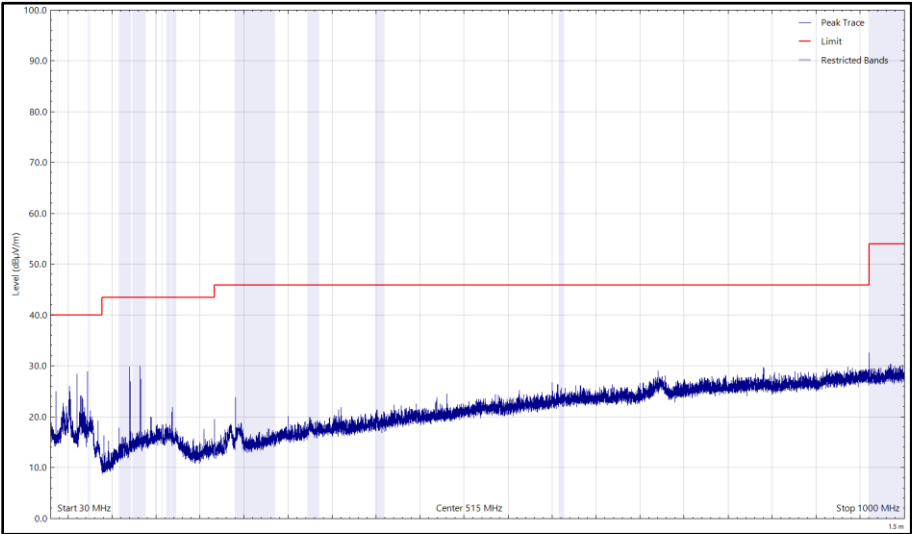


Figure 124 - CH11_HE20_MCS0_X, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

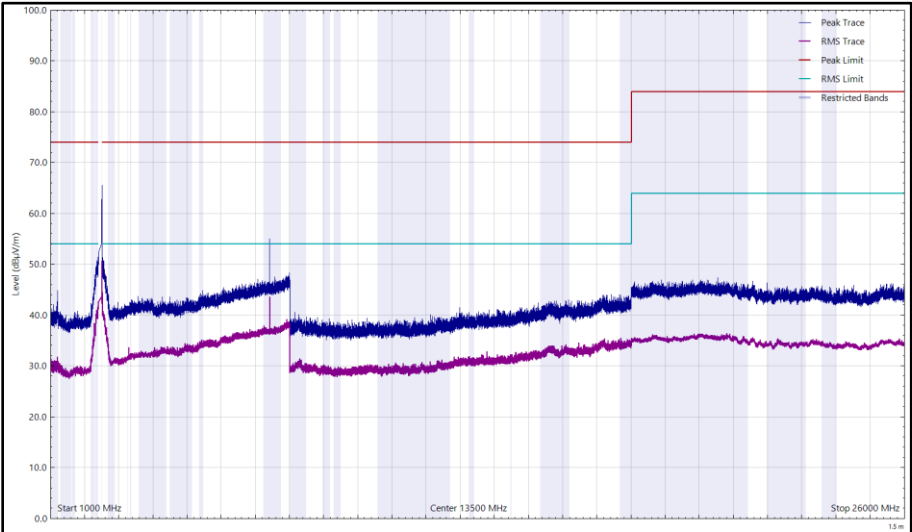


Figure 125 - CH11_HE20_MCS0_X, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 67 - CH11_HE20_MCS0_Y, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

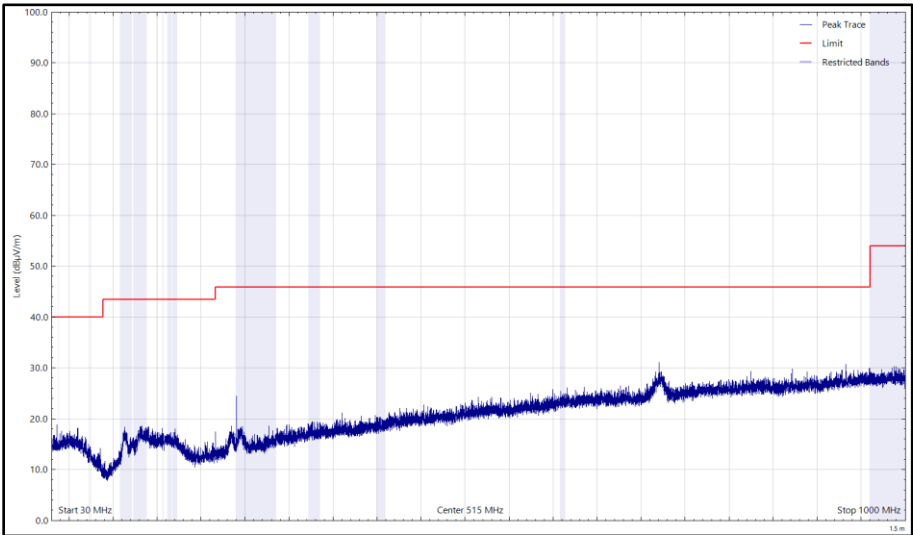


Figure 126 - CH11_HE20_MCS0_Y, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

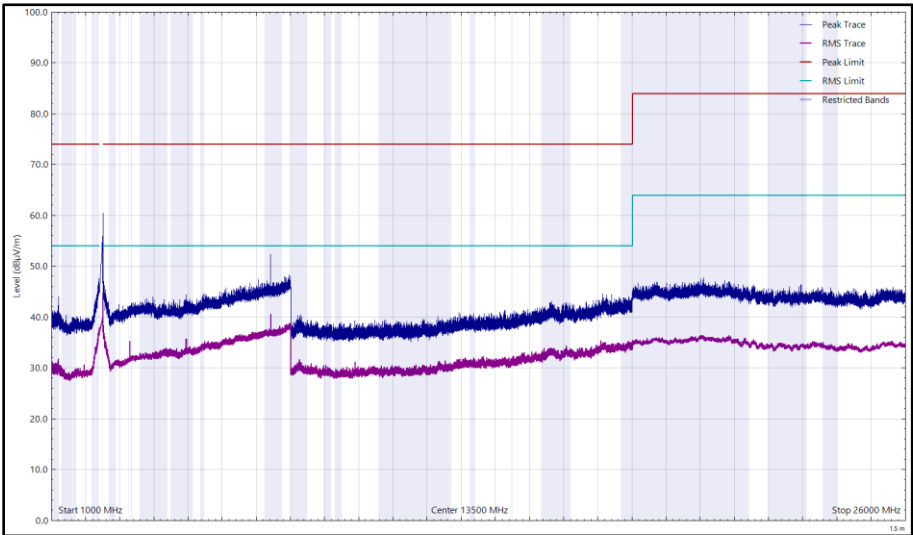


Figure 127 - CH11_HE20_MCS0_Y, 2462 MHz, 1 GHz to 26 GHz, Horizontal

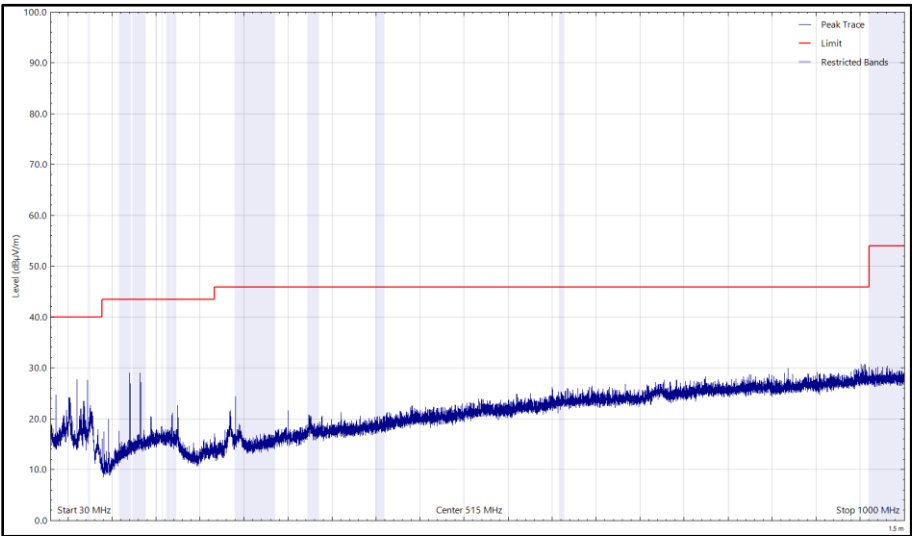


Figure 128 - CH11_HE20_MCS0_Y, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

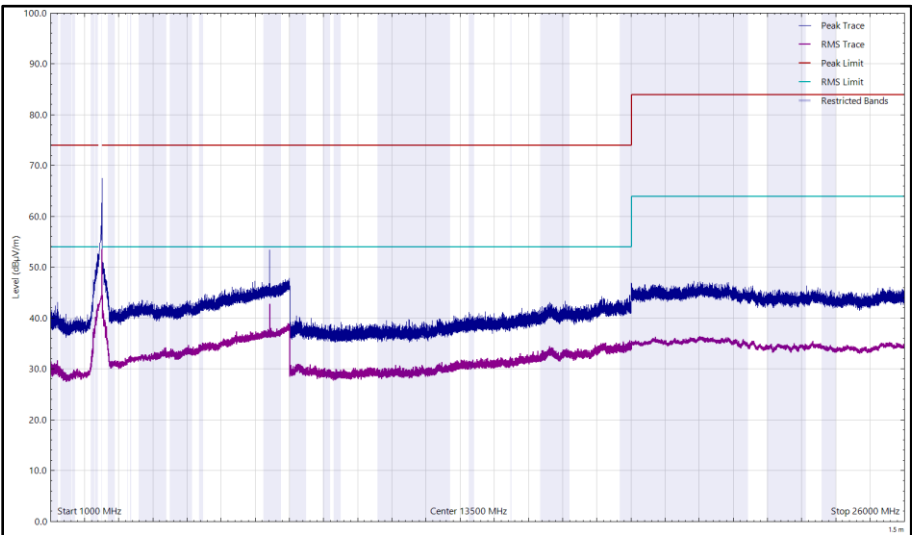


Figure 129 - CH11_HE20_MCS0_Y, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 68 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

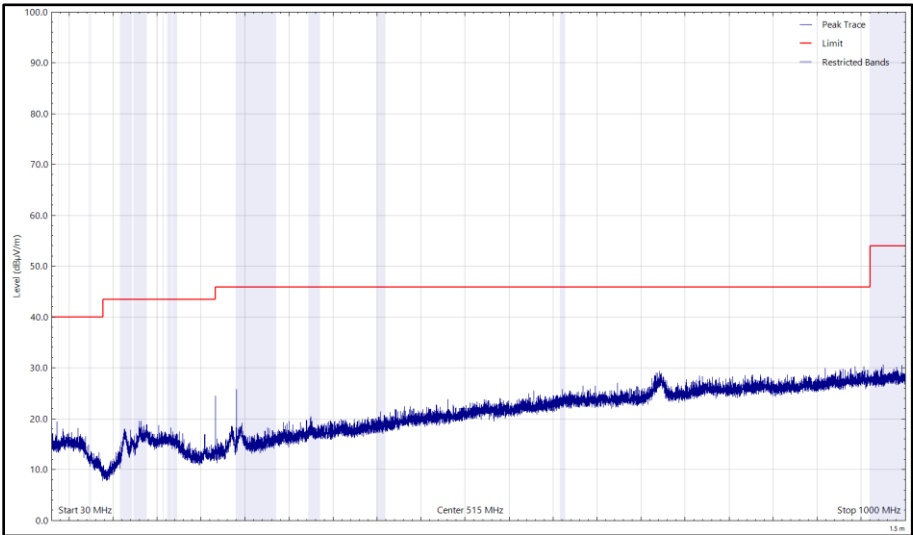


Figure 130 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

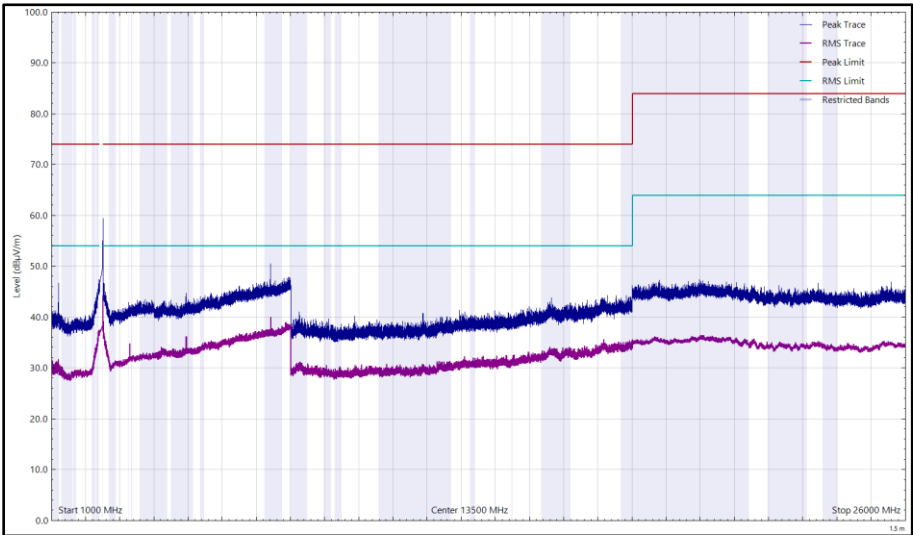


Figure 131 - CH11_HE20_MCS0_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

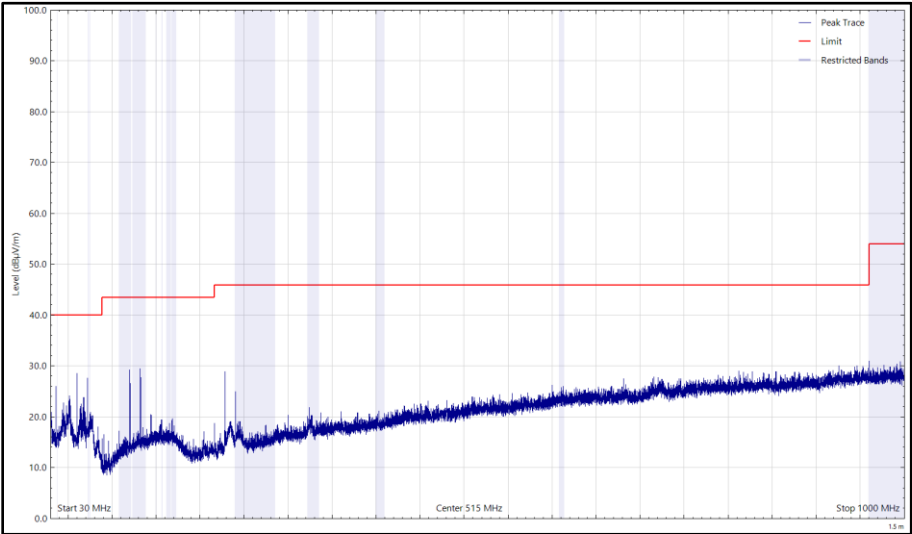


Figure 132 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

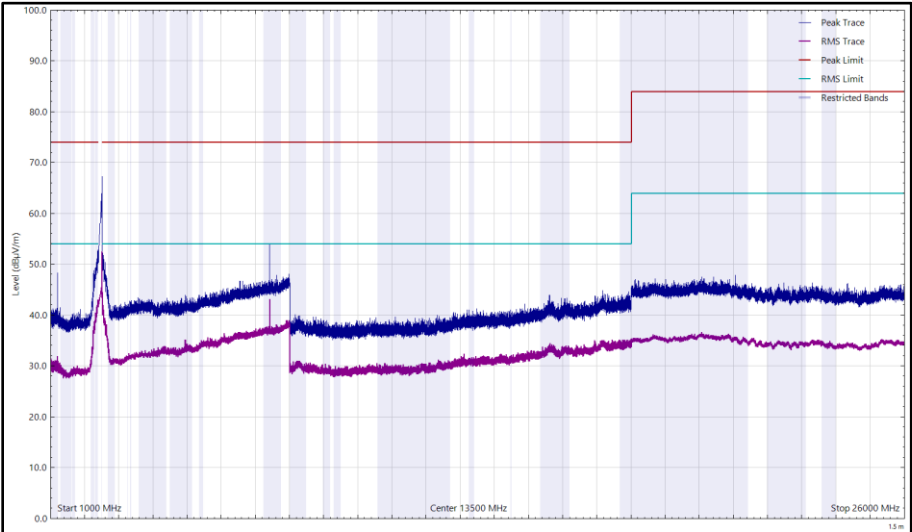


Figure 133 - CH11_HE20_MCS0_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical



2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna

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

Table 69 - CH1_802.11b_1Mbps_X, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

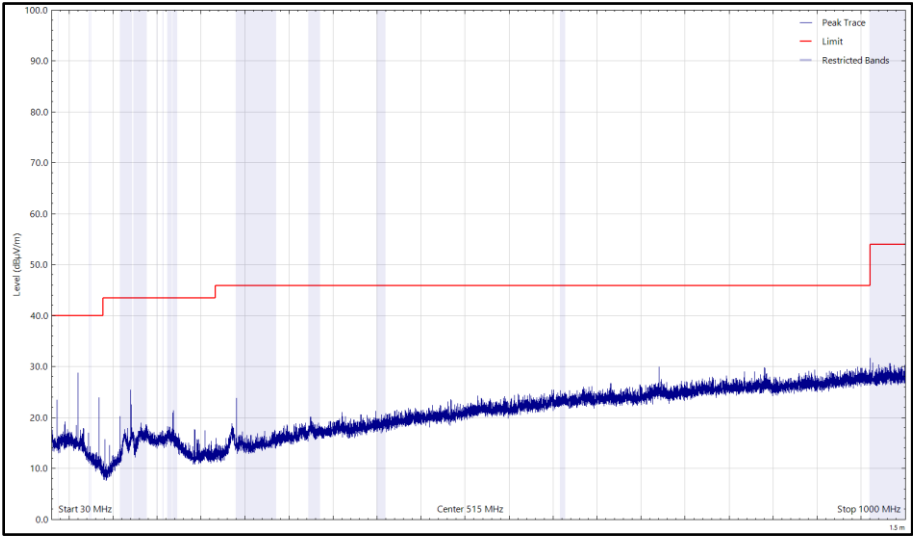


Figure 134 - CH1_802.11b_1Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

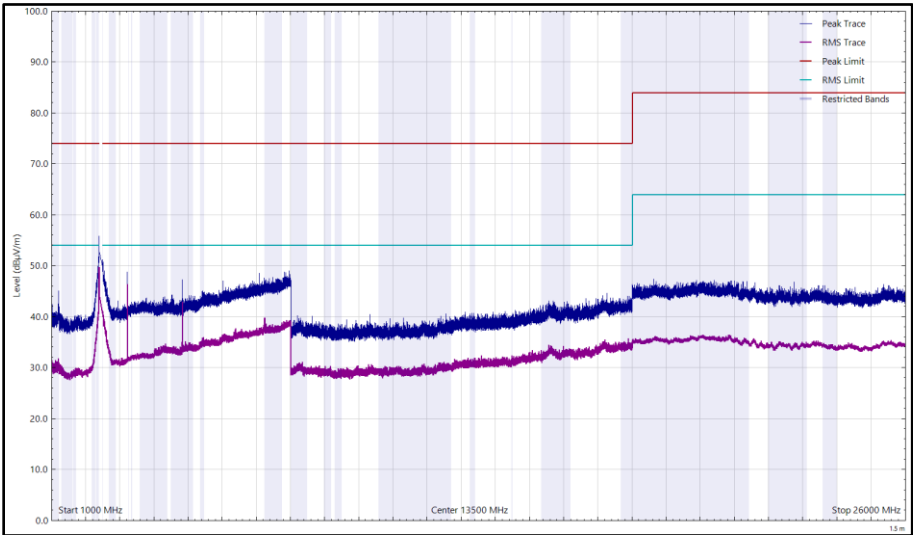


Figure 135 - CH1_802.11b_1Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Horizontal

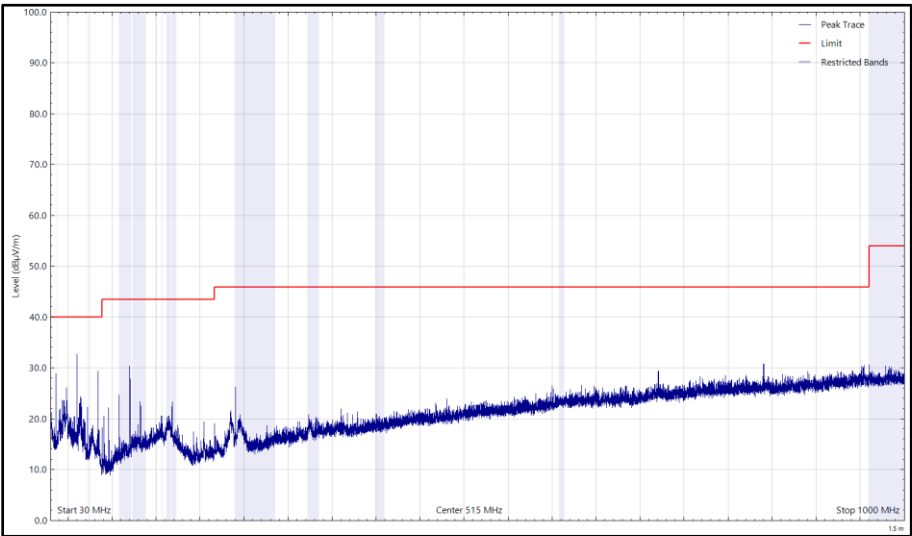


Figure 136 - CH1_802.11b_1Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

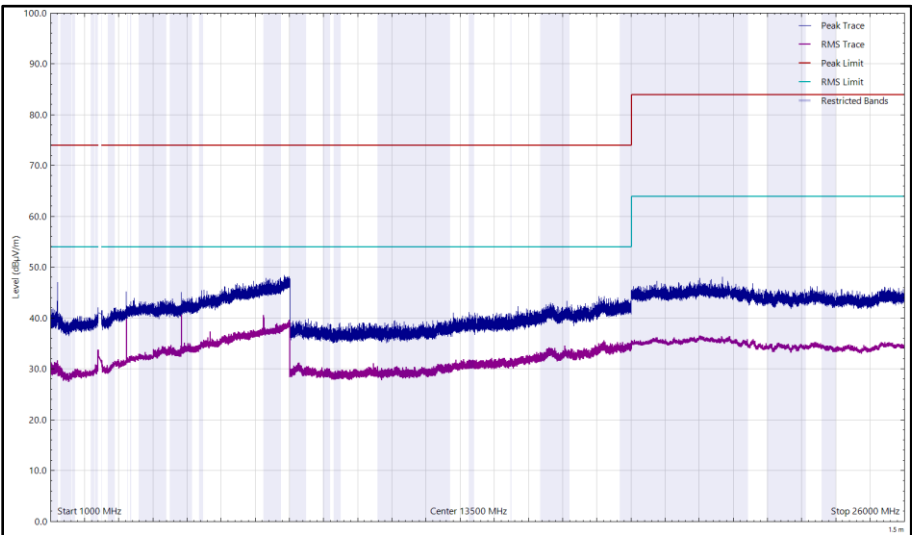


Figure 137 - CH1_802.11b_1Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 70 - CH1_802.11b_1Mbps_Y, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

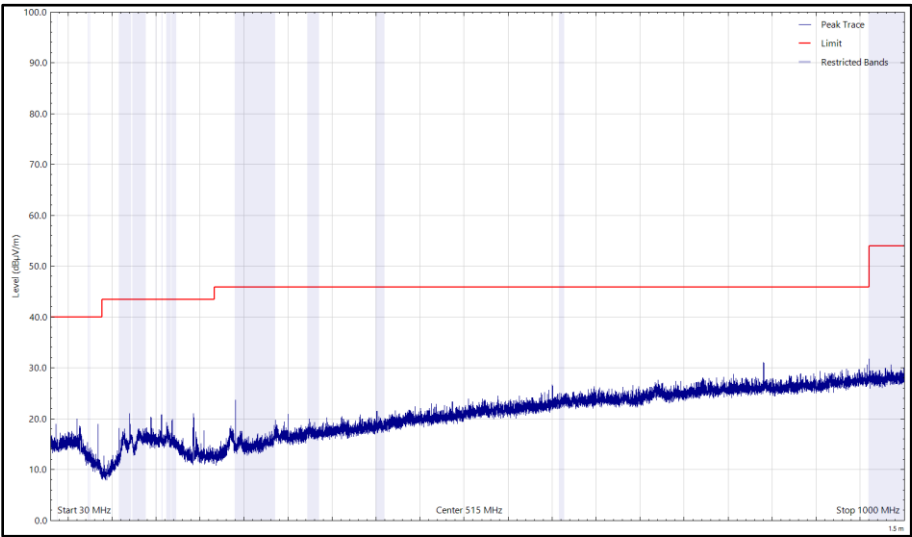


Figure 138 - CH1_802.11b_1Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

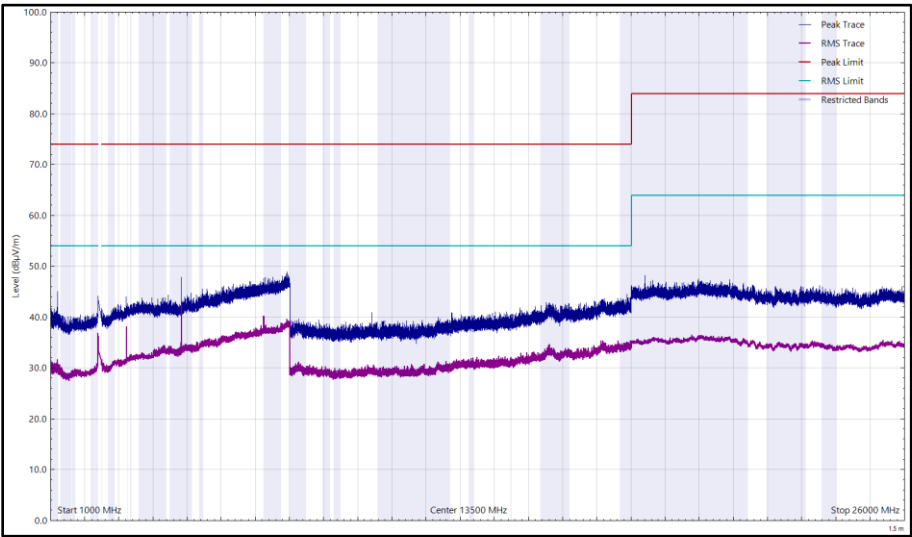


Figure 139 - CH1_802.11b_1Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Horizontal

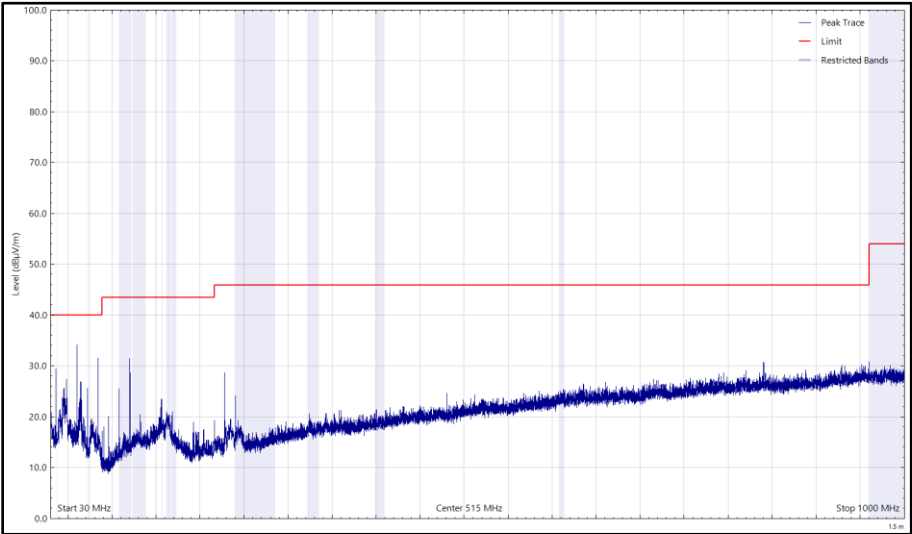


Figure 140 - CH1_802.11b_1Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

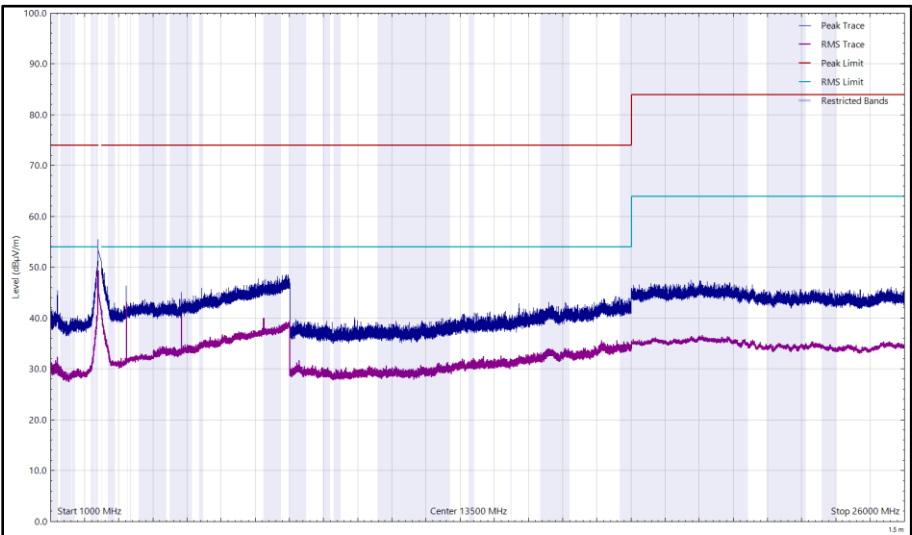


Figure 141 - CH1_802.11b_1Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 71 - CH1_802.11b_1Mbps_Z, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

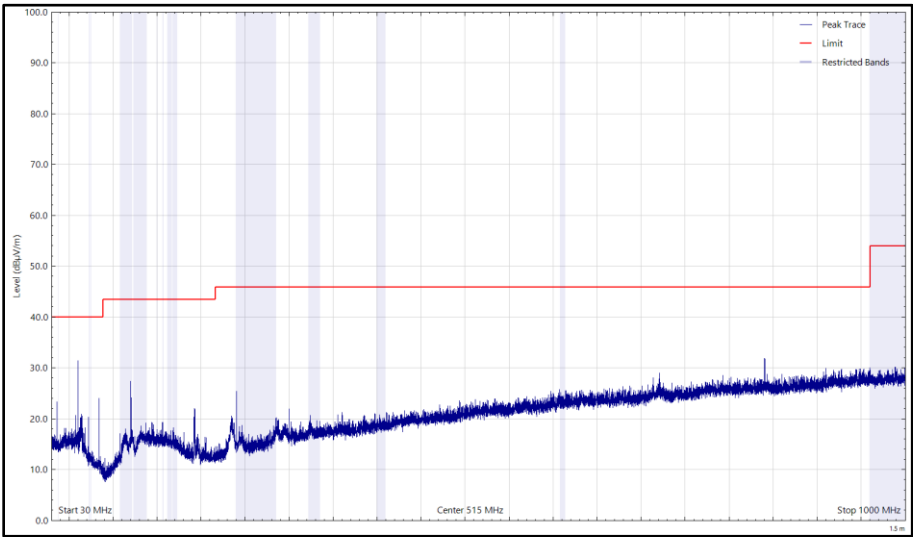


Figure 142 - CH1_802.11b_1Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

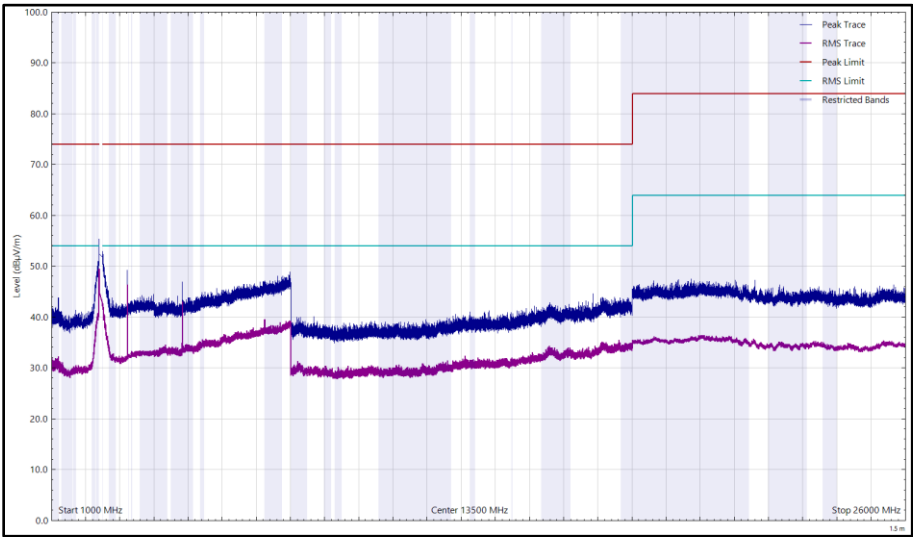


Figure 143 - CH1_802.11b_1Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Horizontal

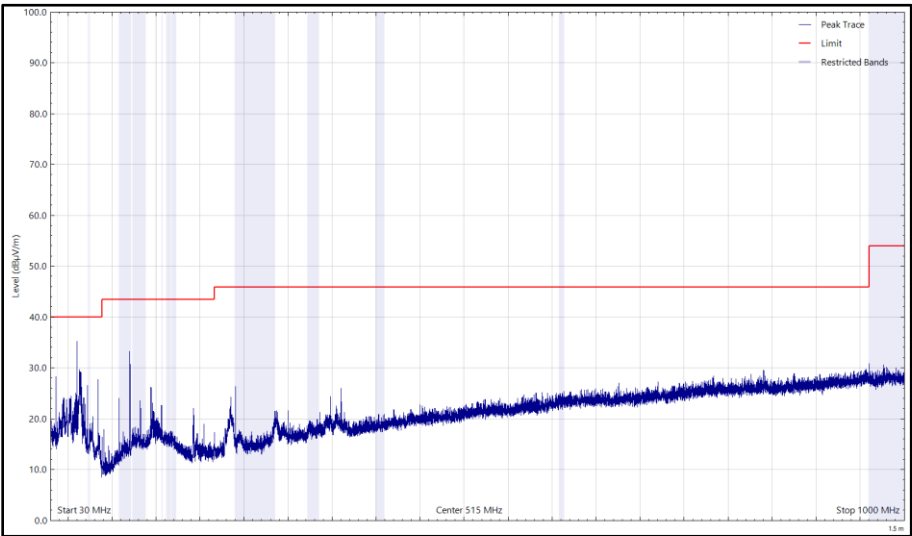


Figure 144 - CH1_802.11b_1Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

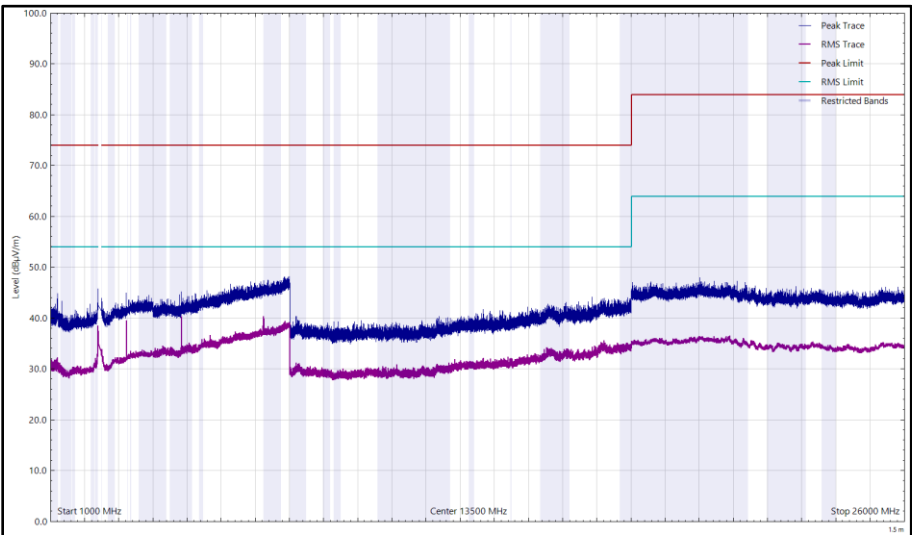


Figure 145 - CH1_802.11b_1Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 72 - CH6_802.11b_1Mbps_X, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

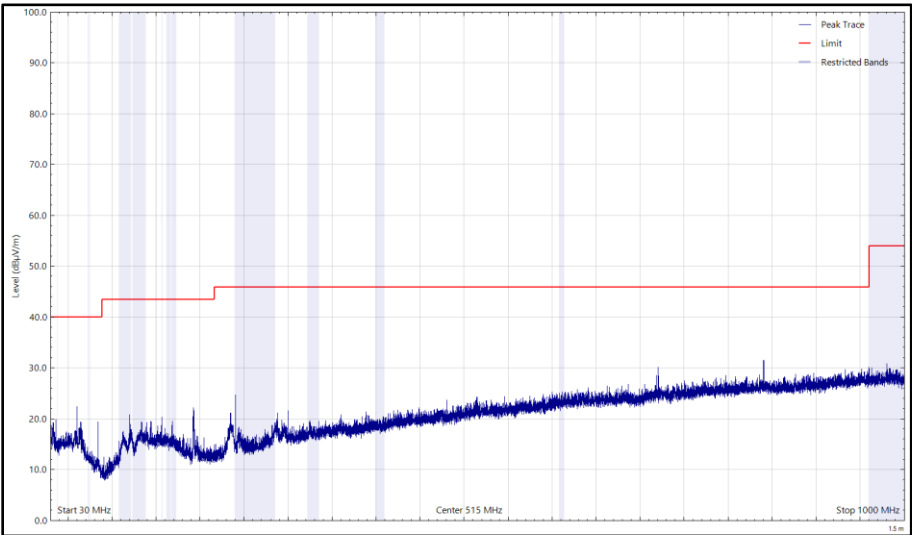


Figure 146 - CH6_802.11b_1Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

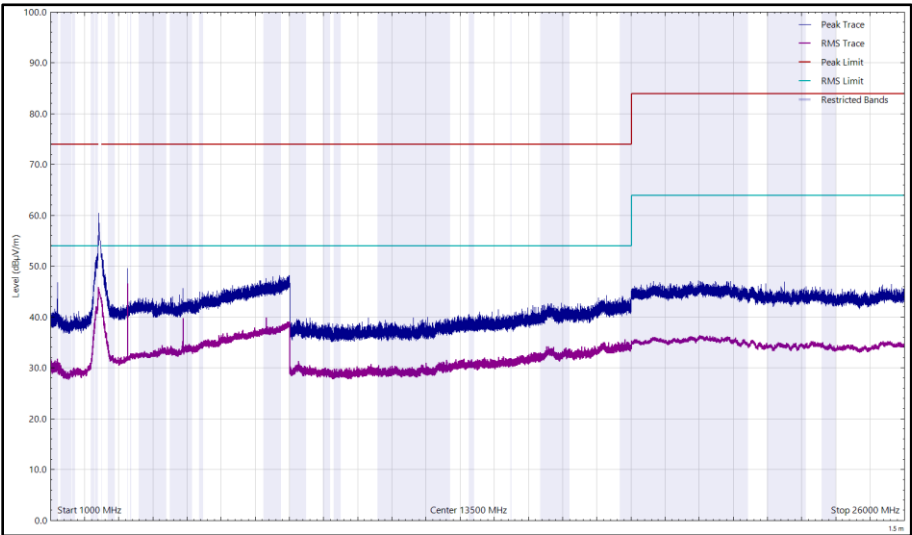


Figure 147 - CH6_802.11b_1Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Horizontal

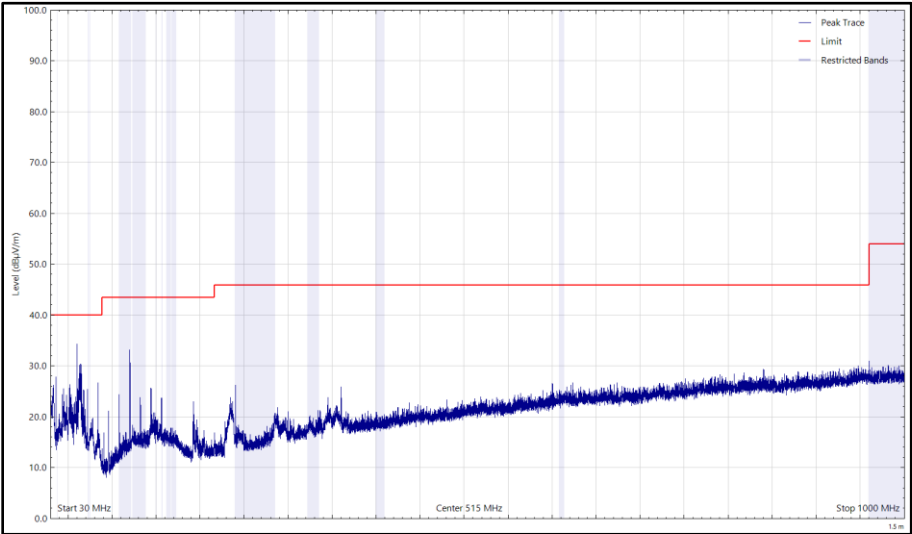


Figure 148 - CH6_802.11b_1Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

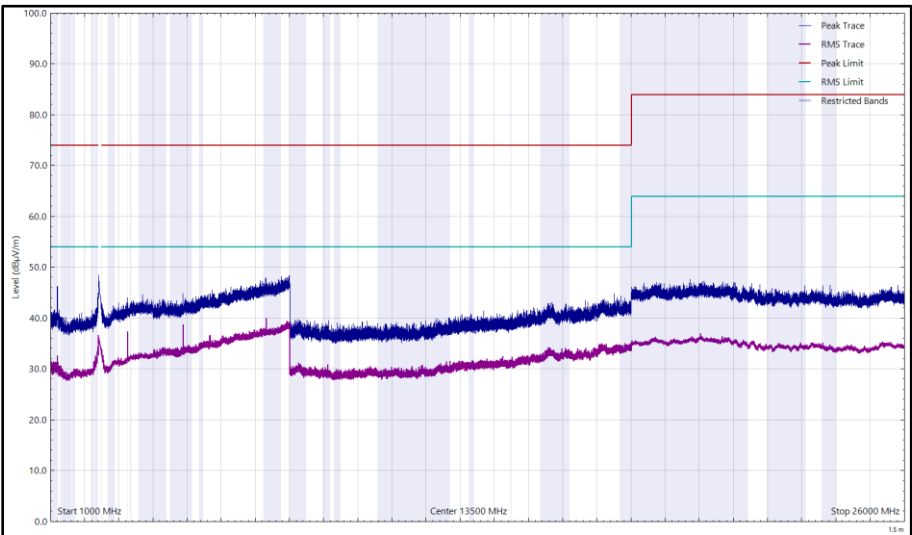


Figure 149 - CH6_802.11b_1Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 73 - CH6_802.11b_1Mbps_Y, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

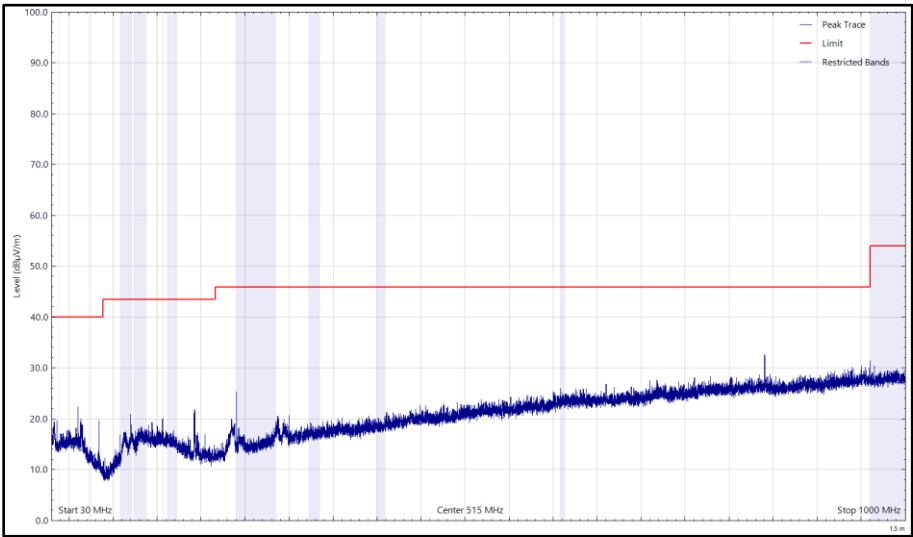


Figure 150 - CH6_802.11b_1Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

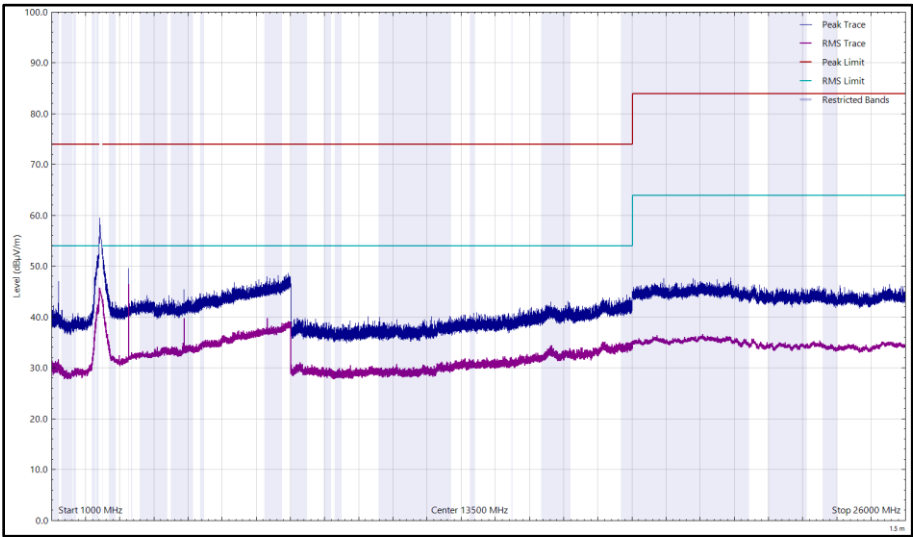


Figure 151 - CH6_802.11b_1Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Horizontal

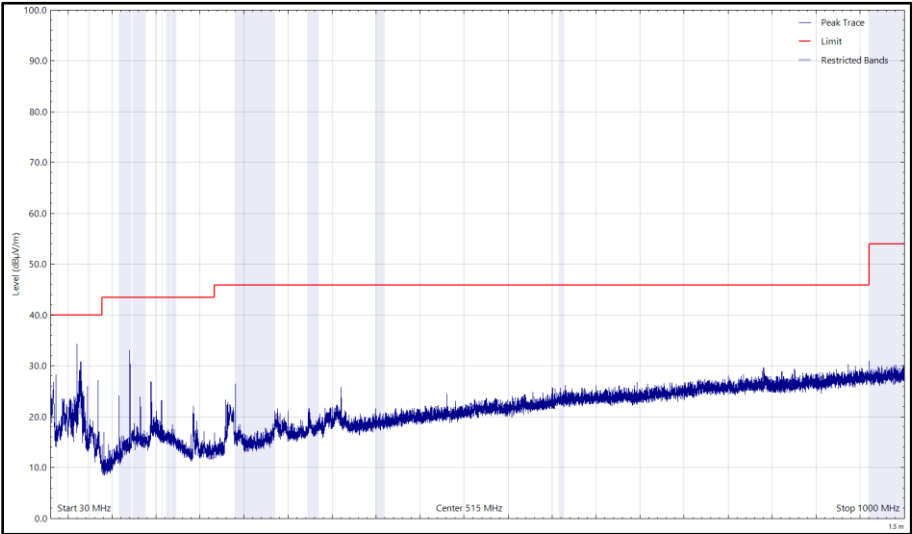


Figure 152 - CH6_802.11b_1Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

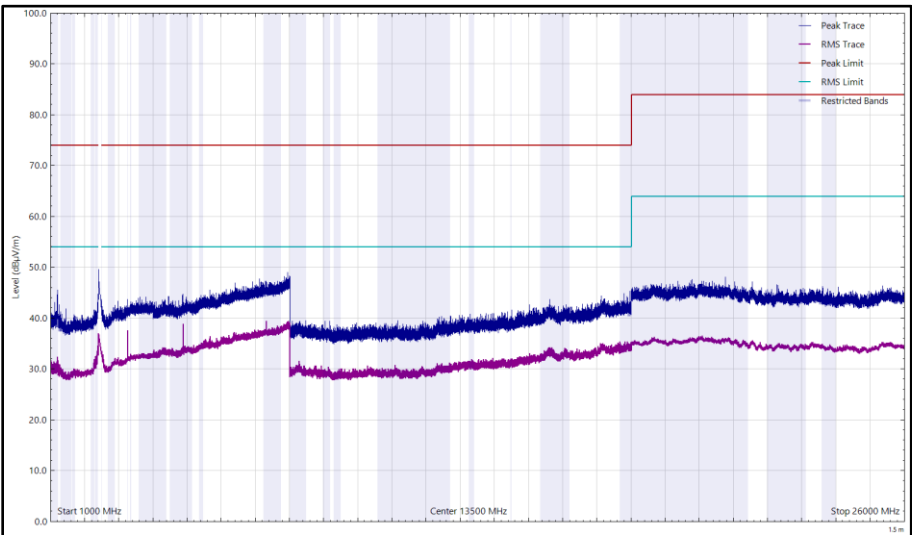


Figure 153 - CH6_802.11b_1Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 74 - CH6_802.11b_1Mbps_Z, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

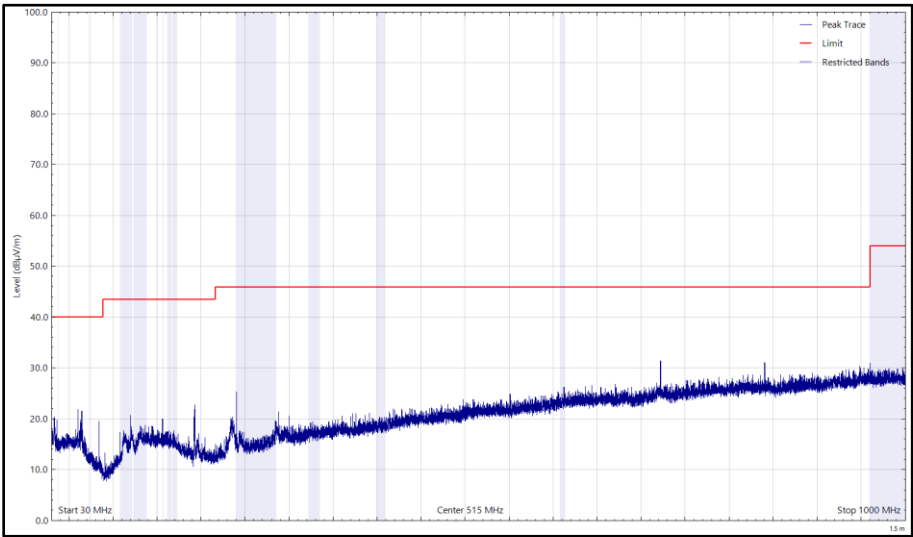


Figure 154 - CH6_802.11b_1Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

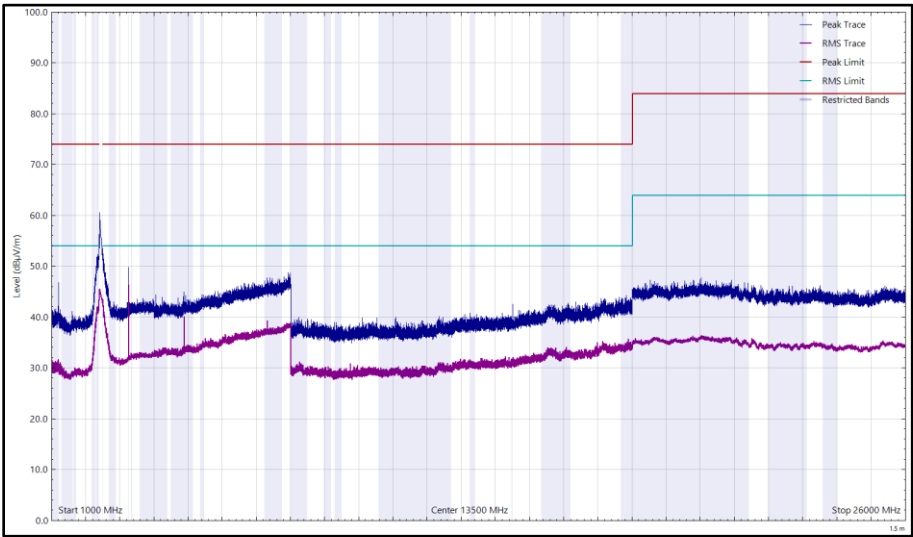


Figure 155 - CH6_802.11b_1Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Horizontal

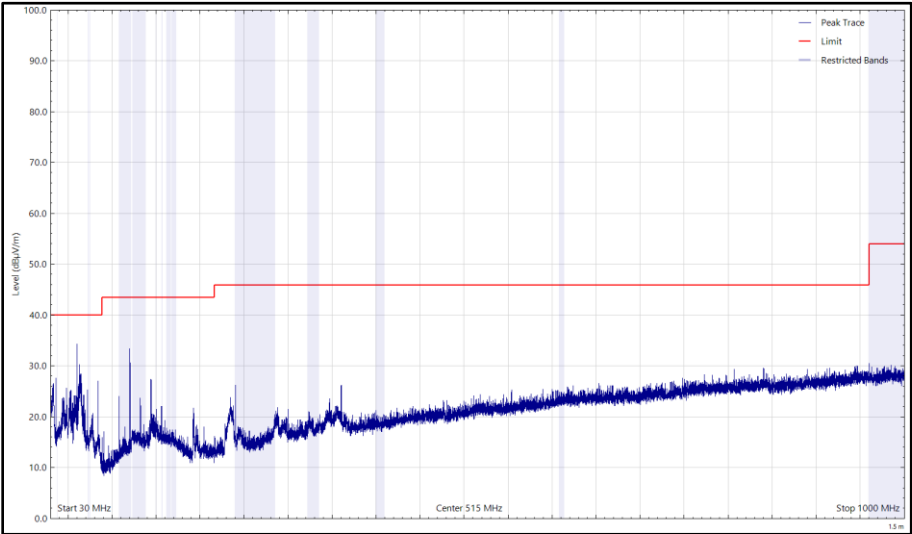


Figure 156 - CH6_802.11b_1Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

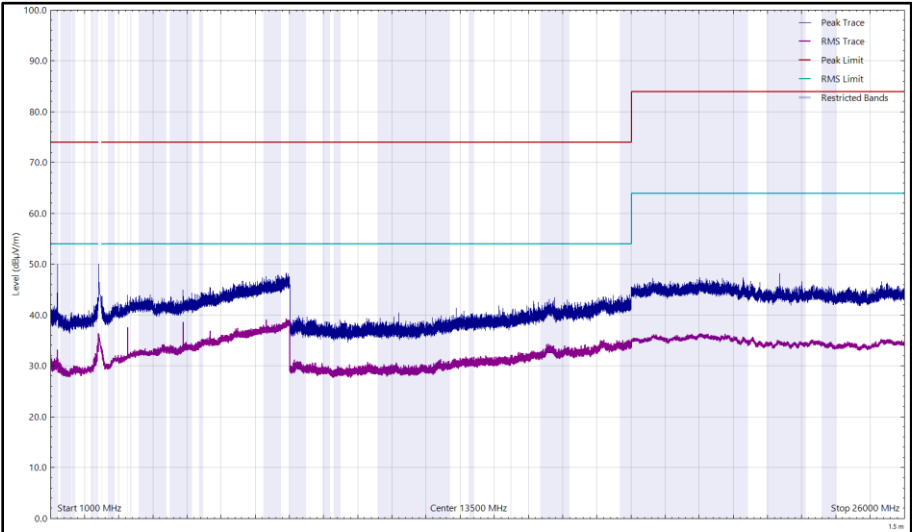


Figure 157 - CH6_802.11b_1Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 75 - CH11_802.11b_1Mbps_X, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

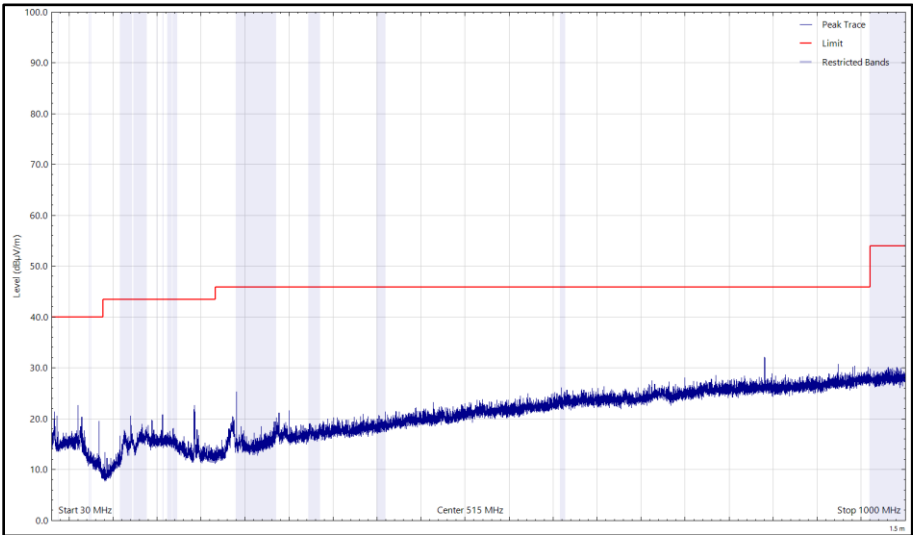


Figure 158 - CH11_802.11b_1Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

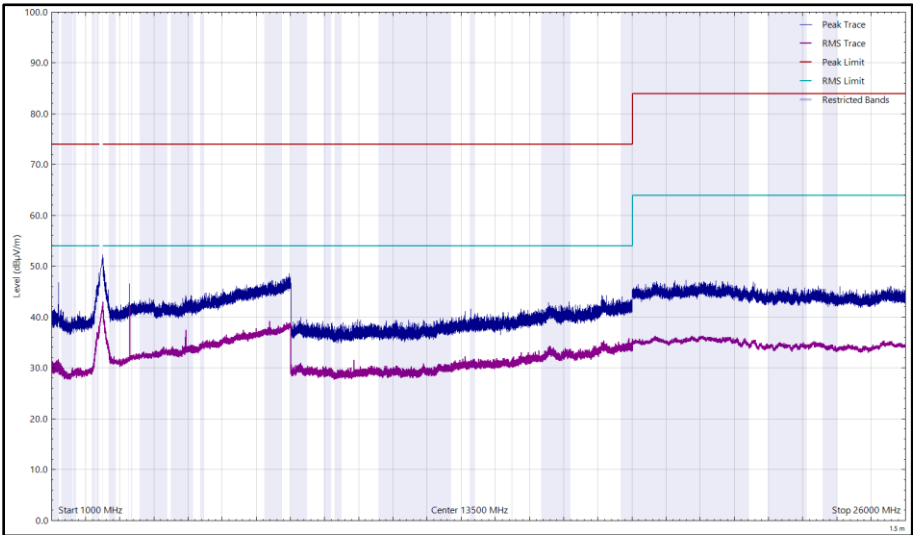


Figure 159 - CH11_802.11b_1Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Horizontal

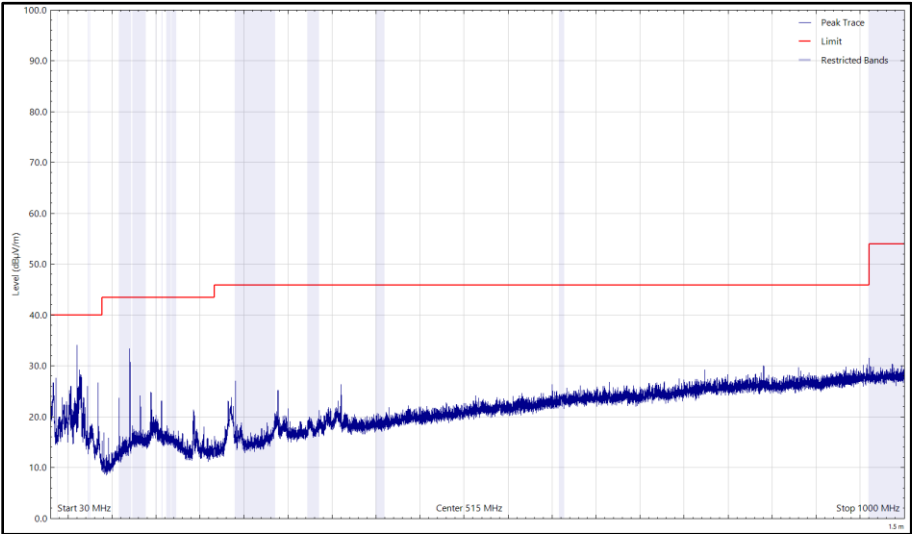


Figure 160 - CH11_802.11b_1Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

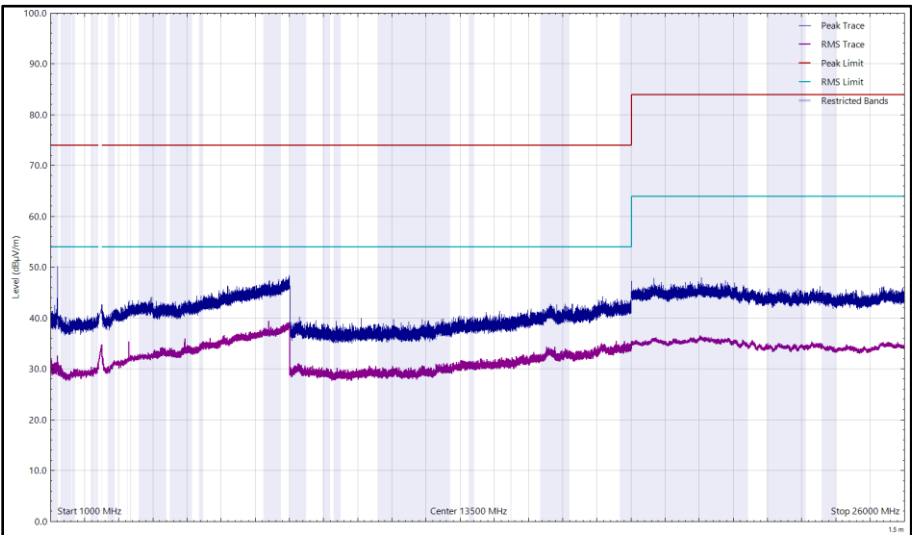


Figure 161 - CH11_802.11b_1Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 76 - CH11_802.11b_1Mbps_Y, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

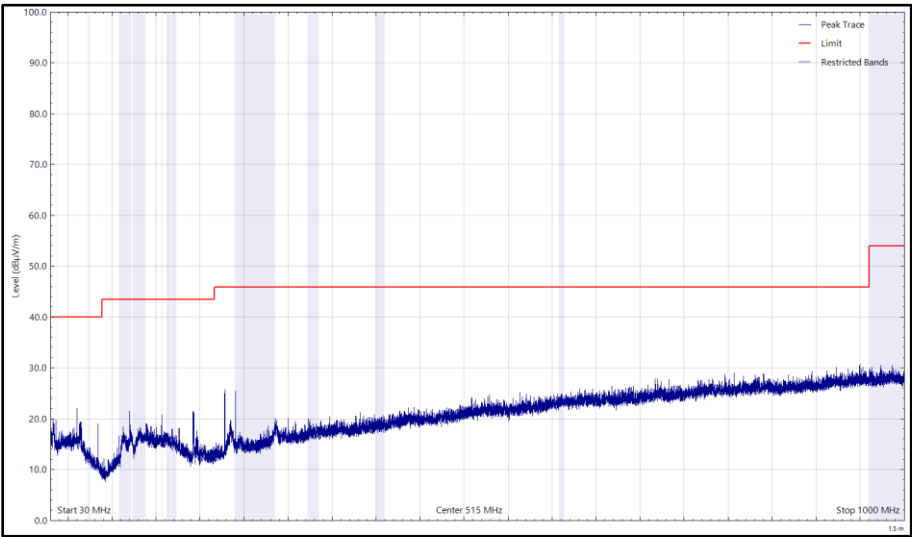


Figure 162 - CH11_802.11b_1Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

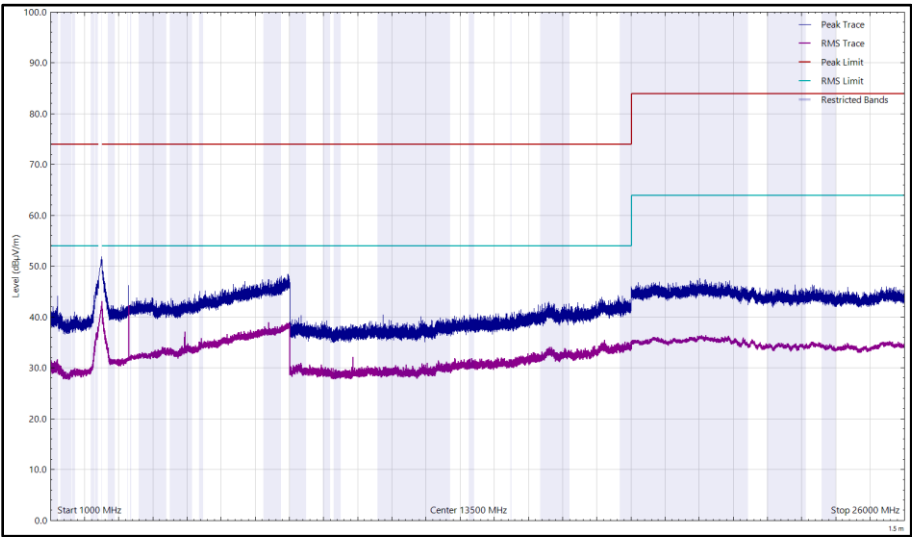


Figure 163 - CH11_802.11b_1Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Horizontal

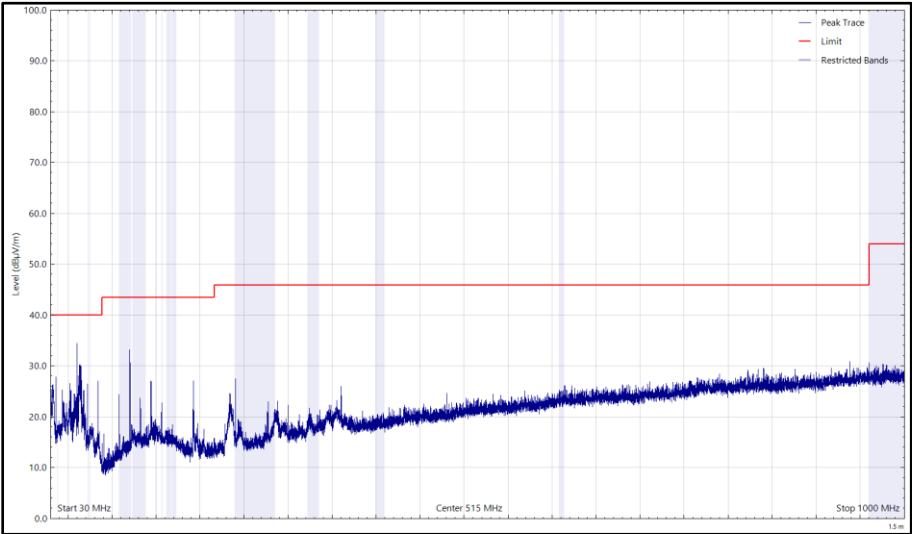


Figure 164 - CH11_802.11b_1Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

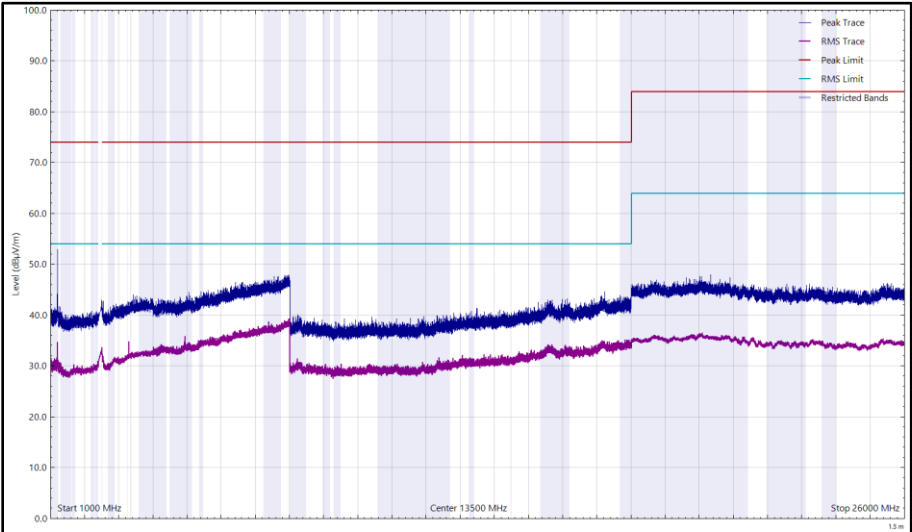


Figure 165 - CH11_802.11b_1Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 77 - CH11_802.11b_1Mbps_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

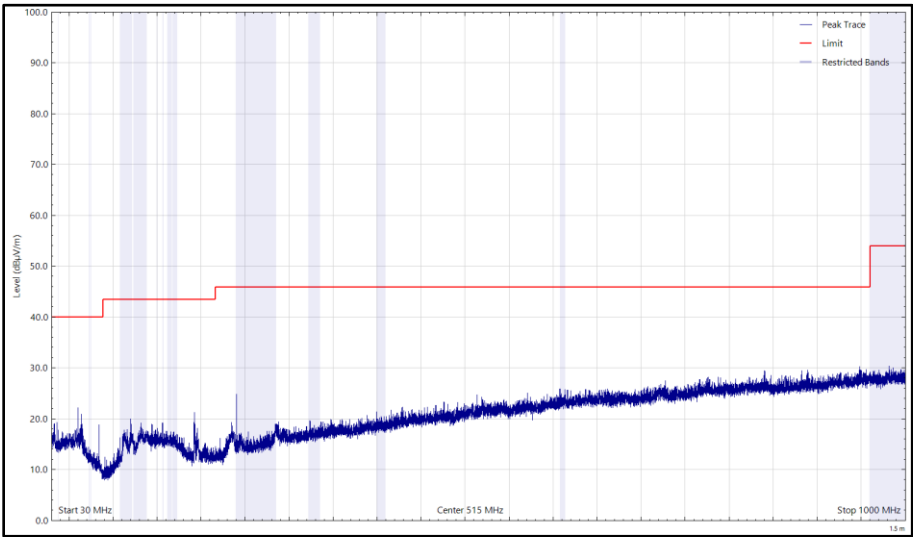


Figure 166 - CH11_802.11b_1Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

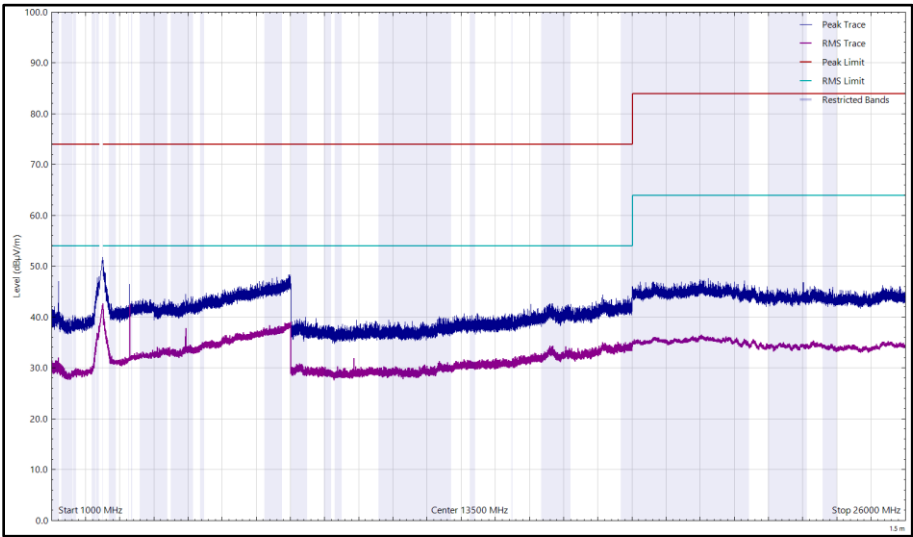


Figure 167 - CH11_802.11b_1Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

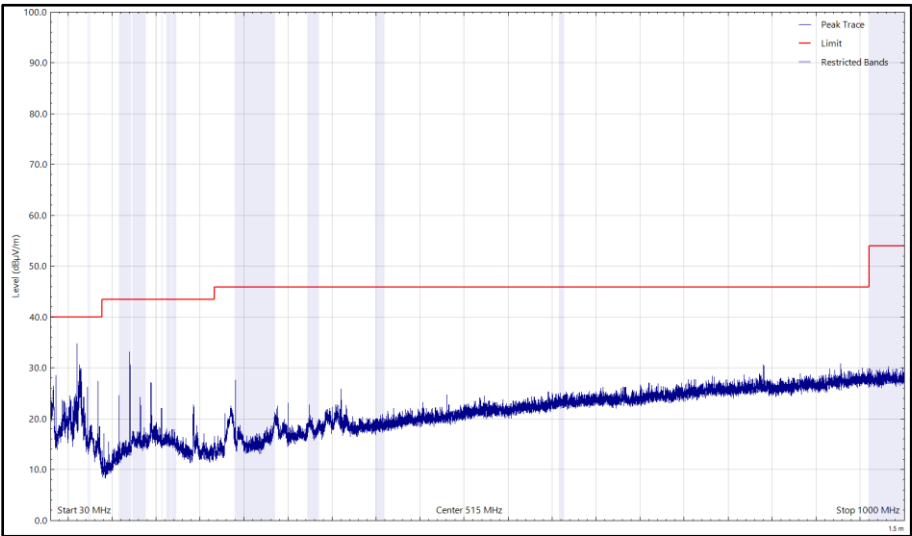


Figure 168 - CH11_802.11b_1Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

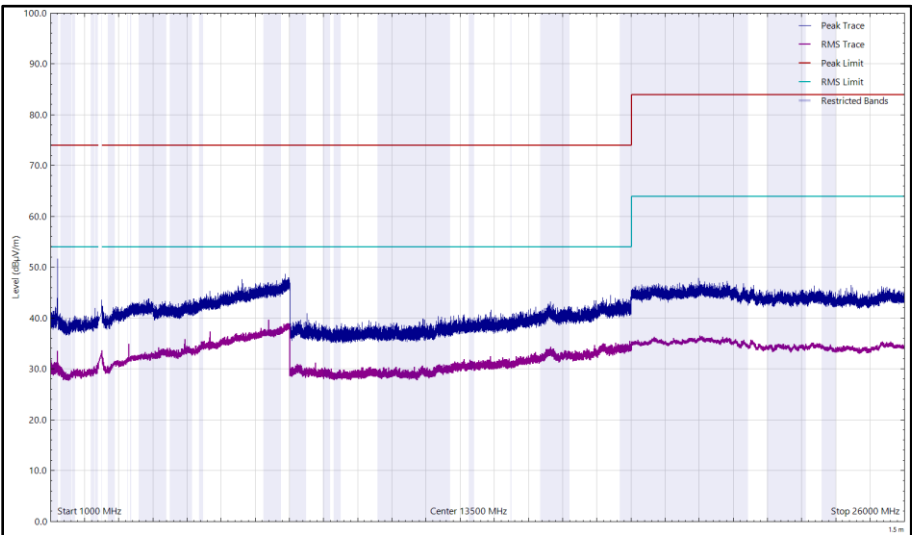


Figure 169 - CH11_802.11b_1Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 78 - CH1_802.11g_6Mbps_X, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

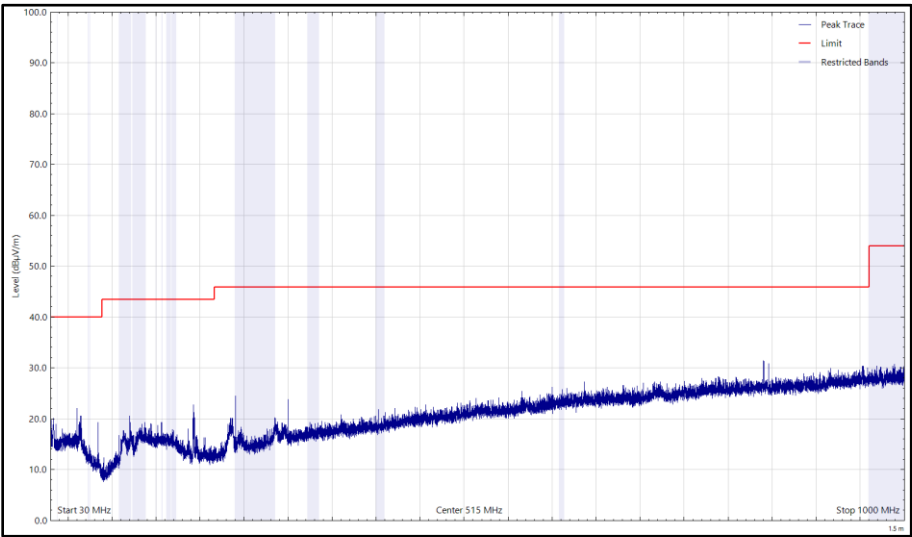


Figure 170 - CH1_802.11g_6Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

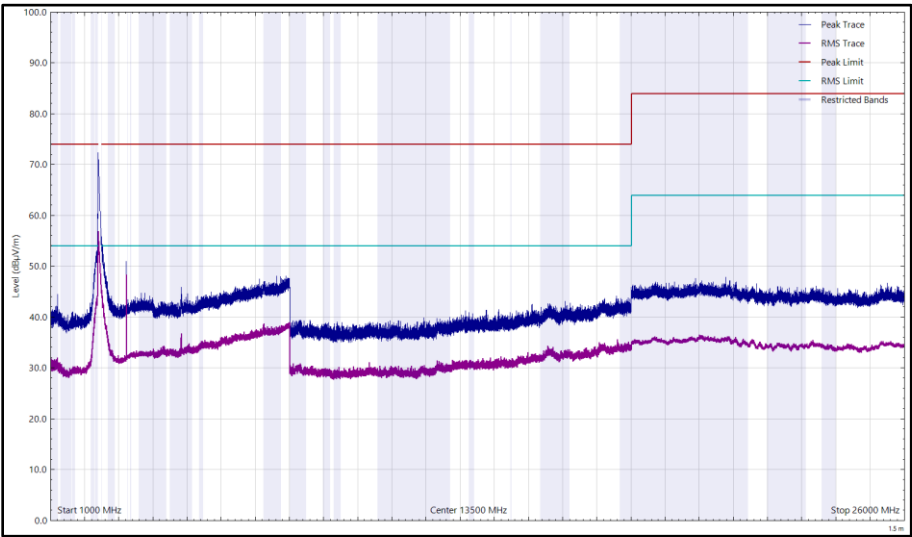


Figure 171 - CH1_802.11g_6Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Horizontal

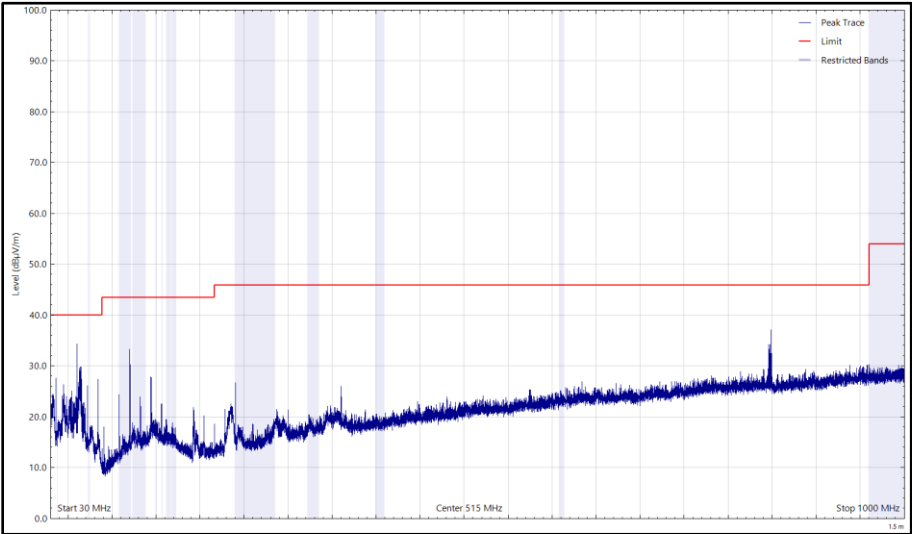


Figure 172 - CH1_802.11g_6Mbps_X, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

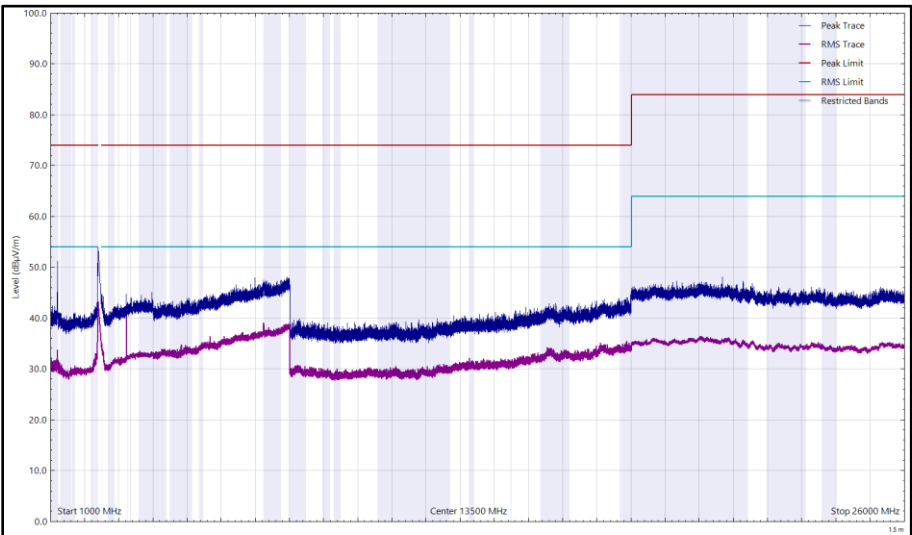


Figure 173 - CH1_802.11g_6Mbps_X, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 79 - CH1_802.11g_6Mbps_Y, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

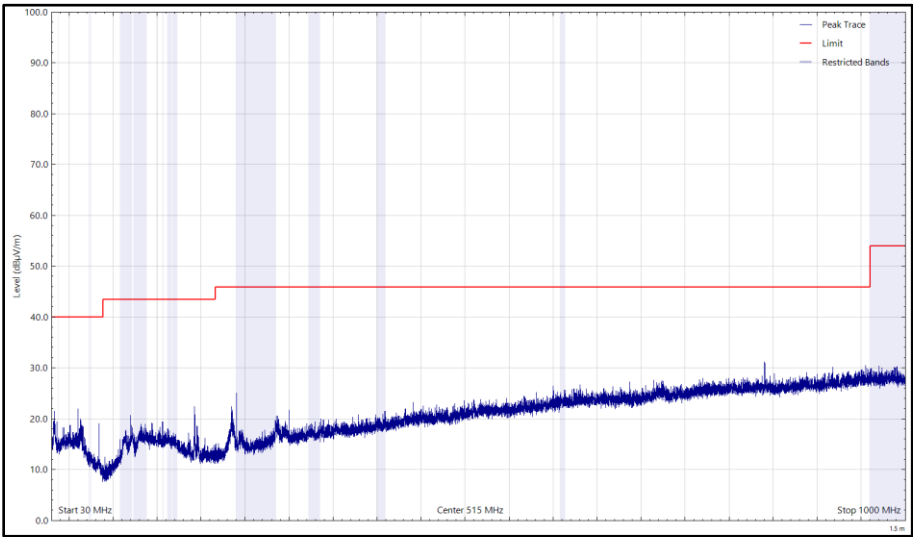


Figure 174 - CH1_802.11g_6Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

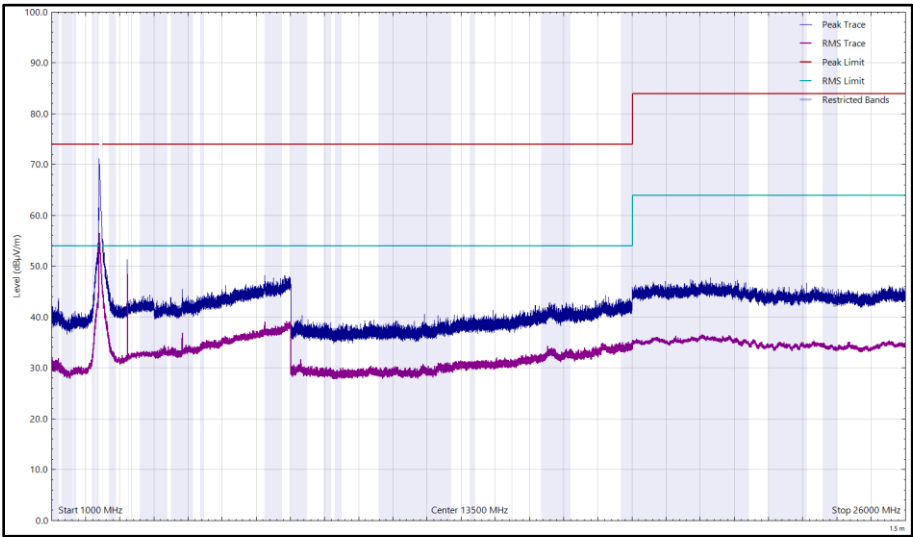


Figure 175 - CH1_802.11g_6Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Horizontal

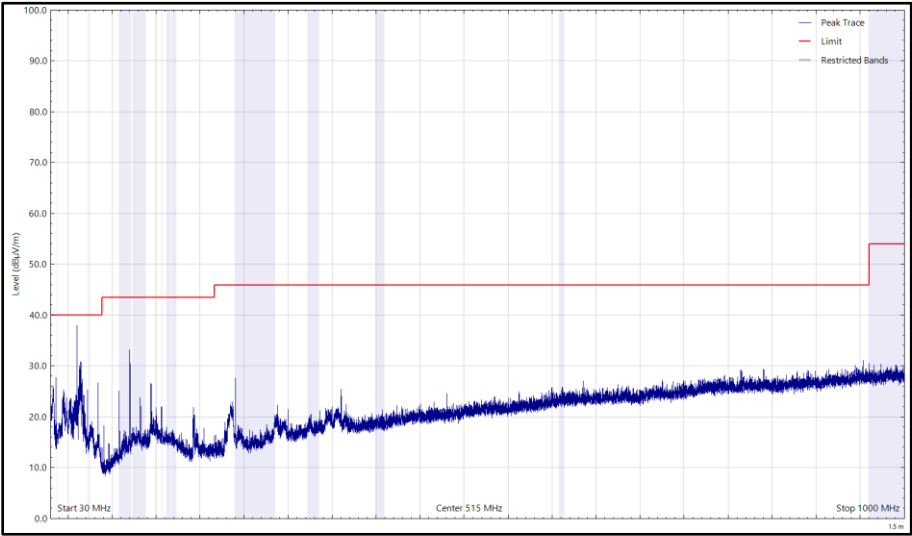


Figure 176 - CH1_802.11g_6Mbps_Y, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

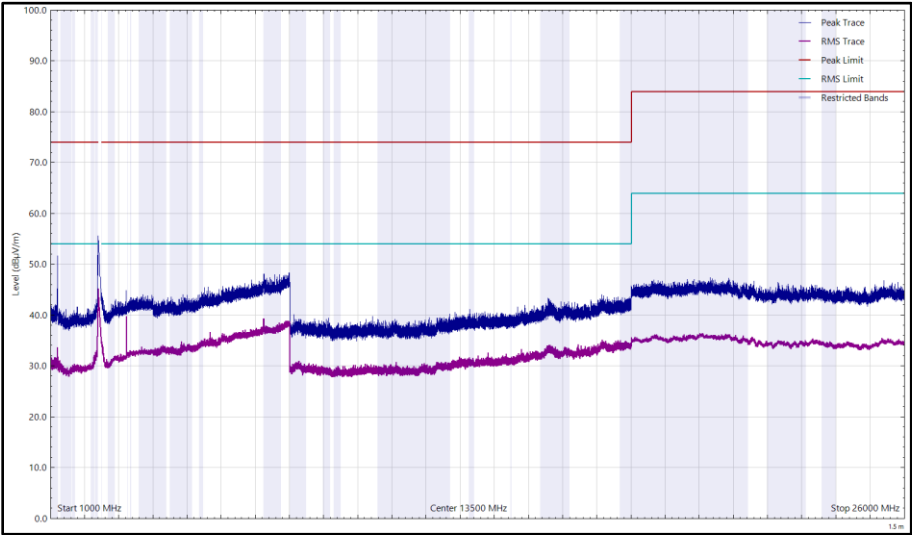


Figure 177 - CH1_802.11g_6Mbps_Y, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 80 - CH1_802.11g_6Mbps_Z, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

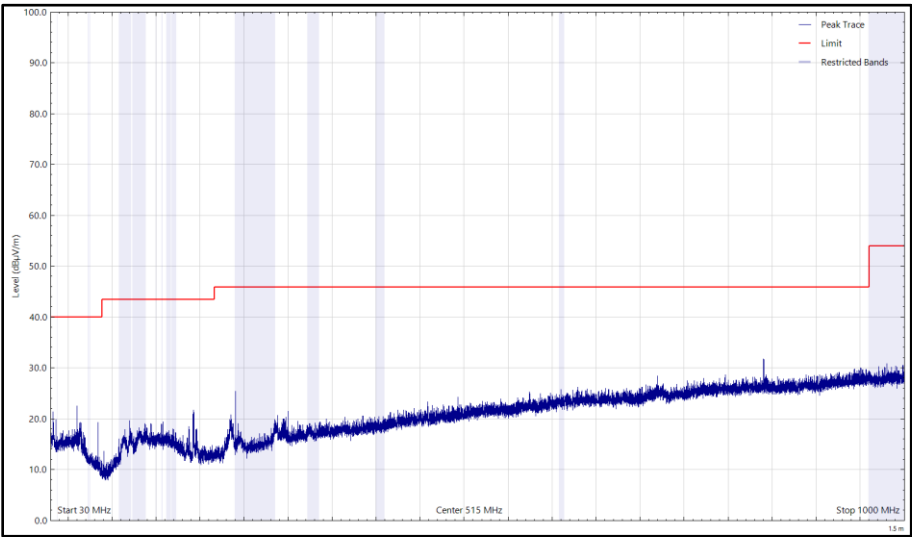


Figure 178 - CH1_802.11g_6Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

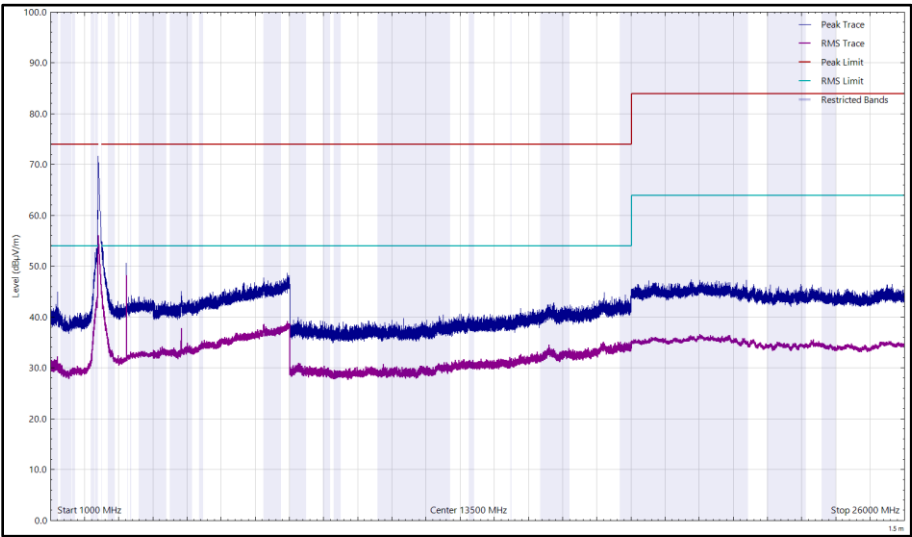


Figure 179 - CH1_802.11g_6Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Horizontal

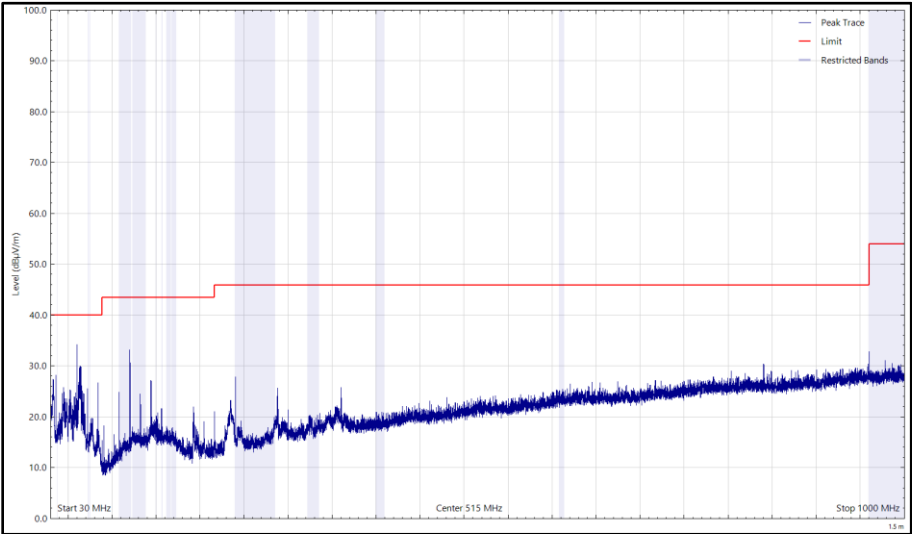


Figure 180 - CH1_802.11g_6Mbps_Z, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

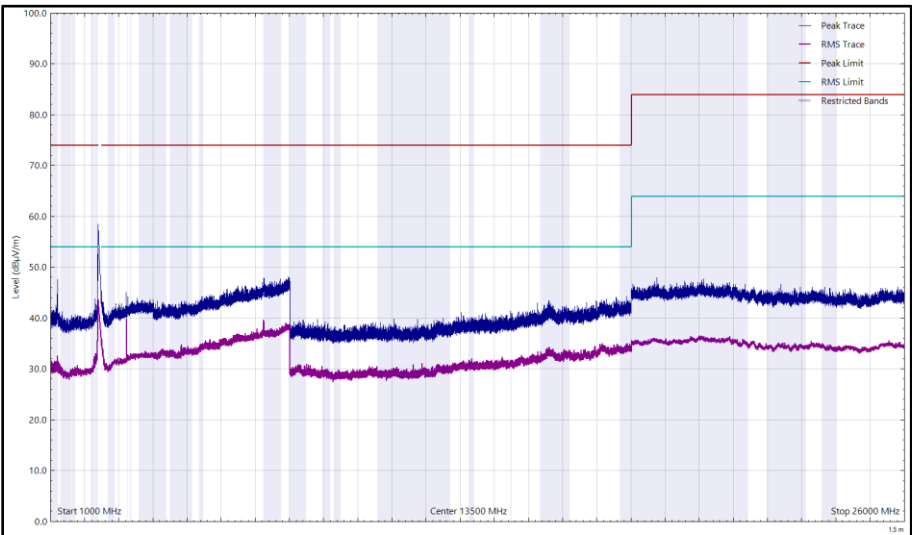


Figure 181 - CH1_802.11g_6Mbps_Z, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 81 - CH6_802.11g_6Mbps_X, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

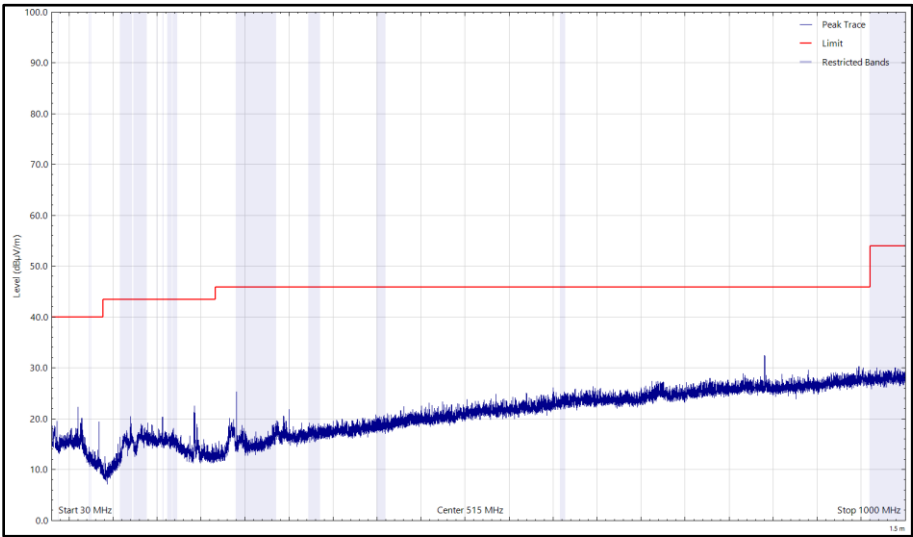


Figure 182 - CH6_802.11g_6Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

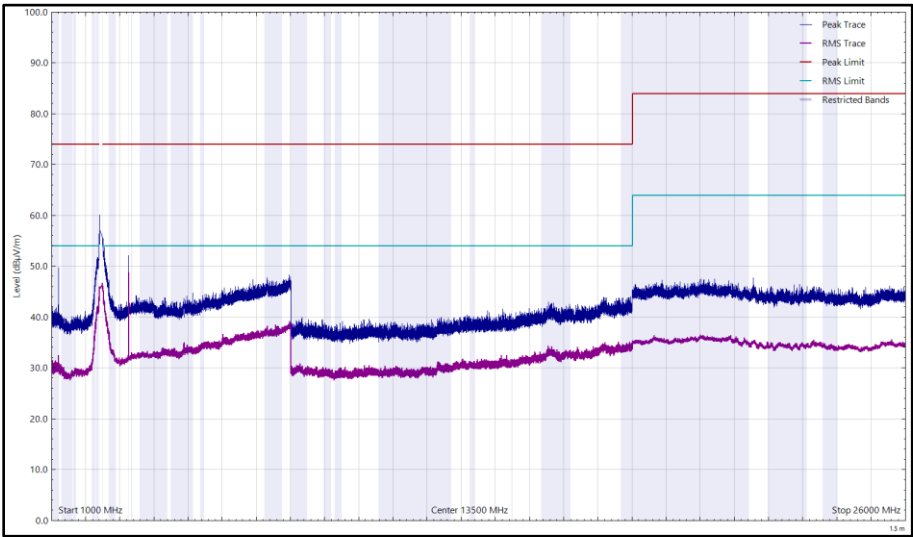


Figure 183 - CH6_802.11g_6Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Horizontal

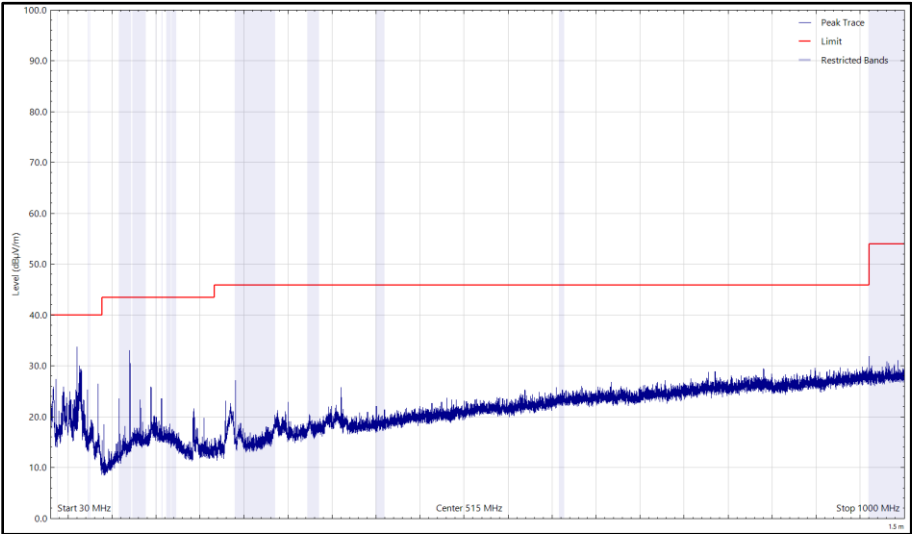


Figure 184 - CH6_802.11g_6Mbps_X, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

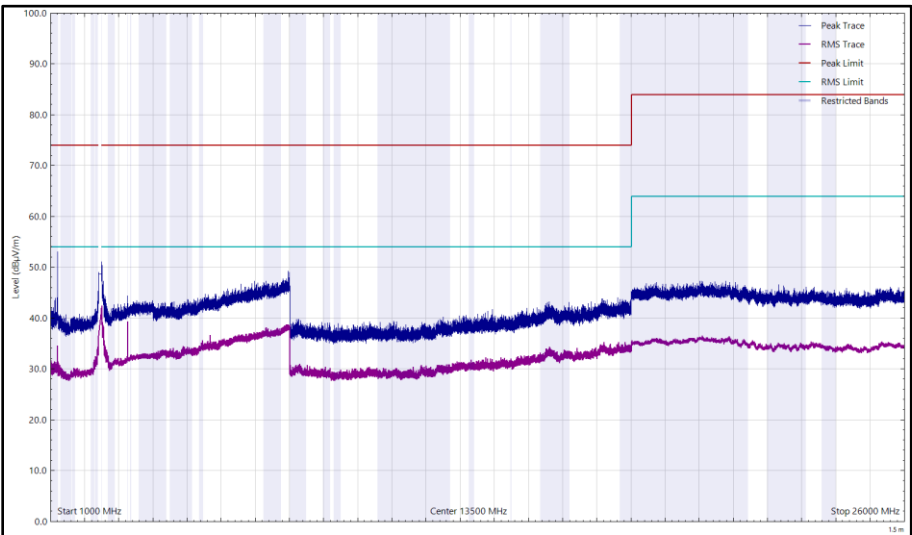


Figure 185 - CH6_802.11g_6Mbps_X, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 82 - CH6_802.11g_6Mbps_Y, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

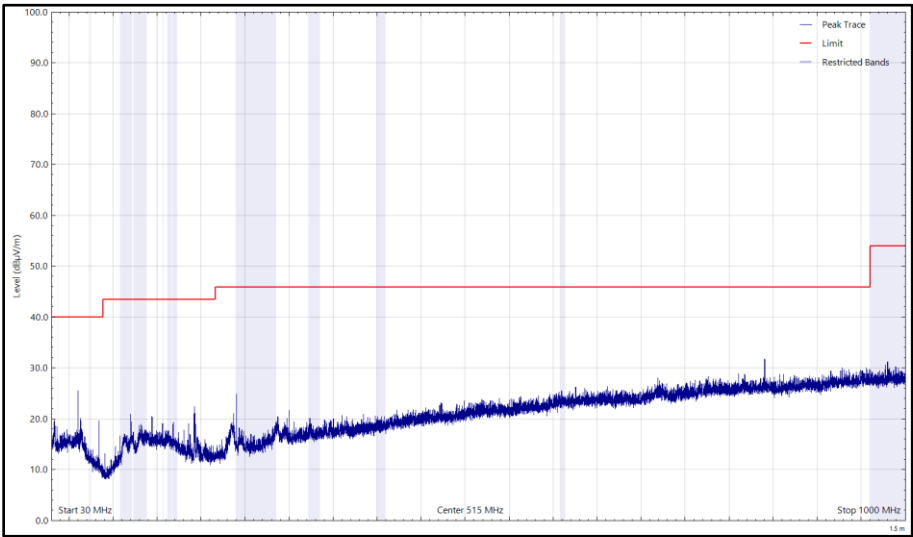


Figure 186 - CH6_802.11g_6Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

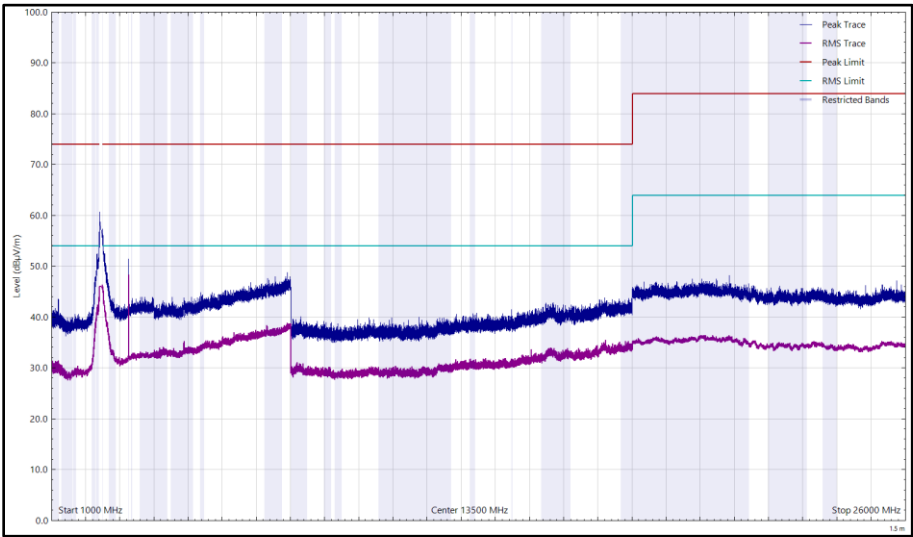


Figure 187 - CH6_802.11g_6Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Horizontal

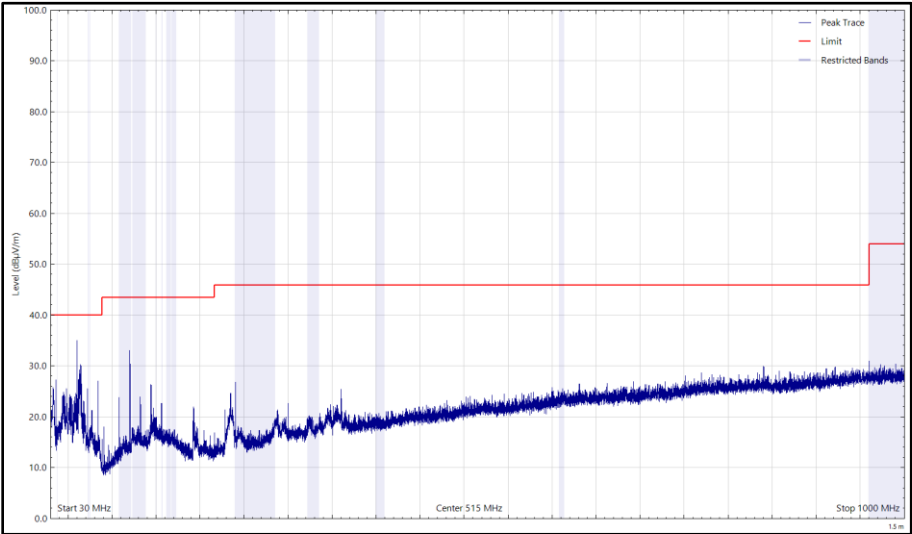


Figure 188 - CH6_802.11g_6Mbps_Y, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

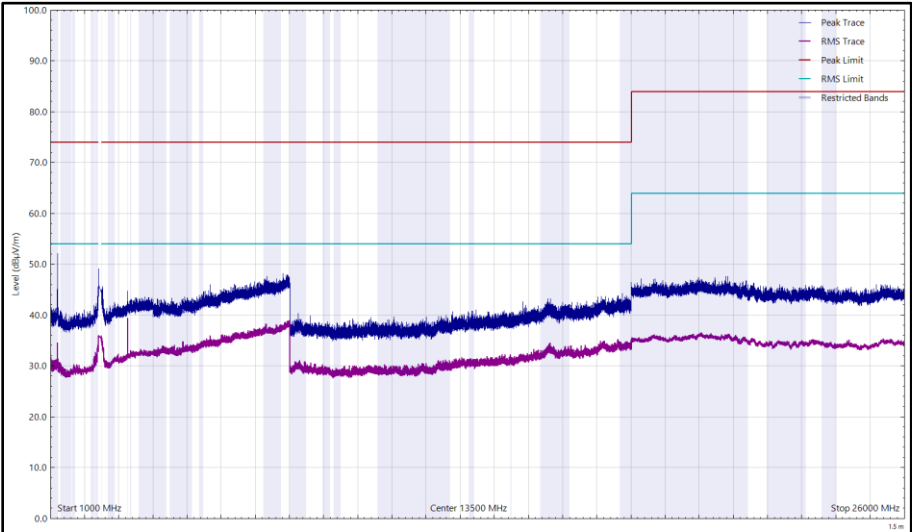


Figure 189 - CH6_802.11g_6Mbps_Y, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 83 - CH6_802.11g_6Mbps_Z, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

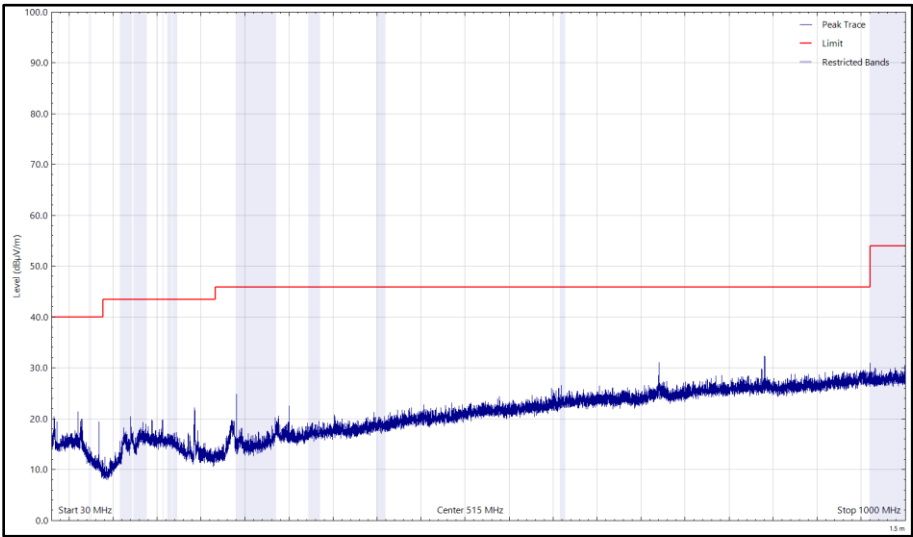


Figure 190 - CH6_802.11g_6Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

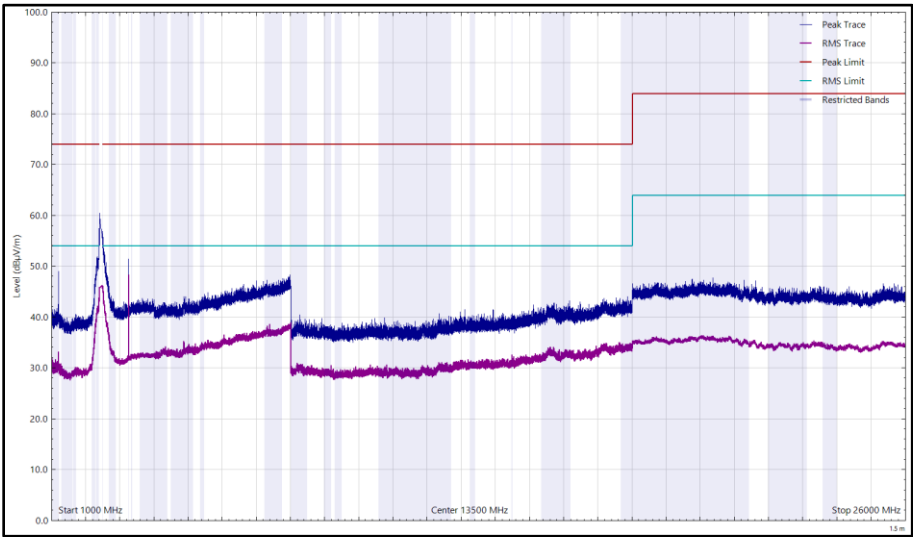


Figure 191 - CH6_802.11g_6Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Horizontal

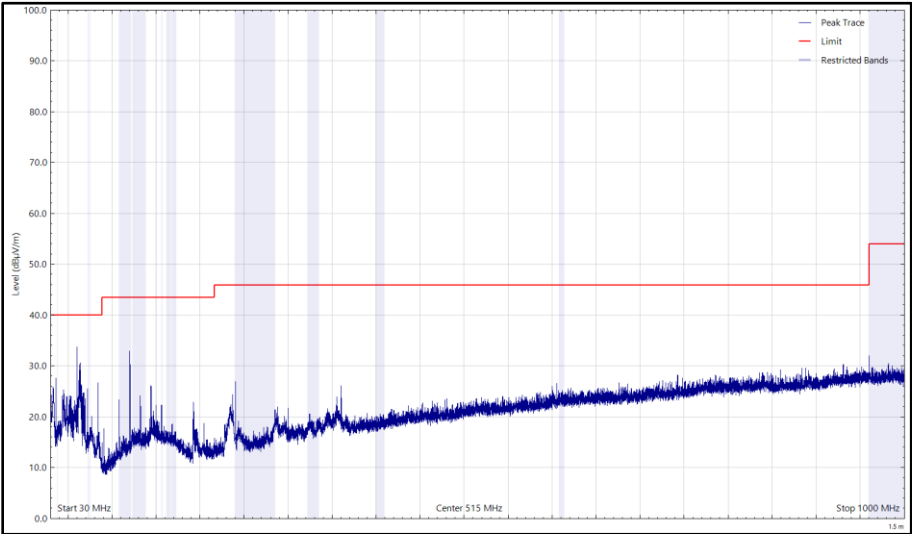


Figure 192 - CH6_802.11g_6Mbps_Z, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

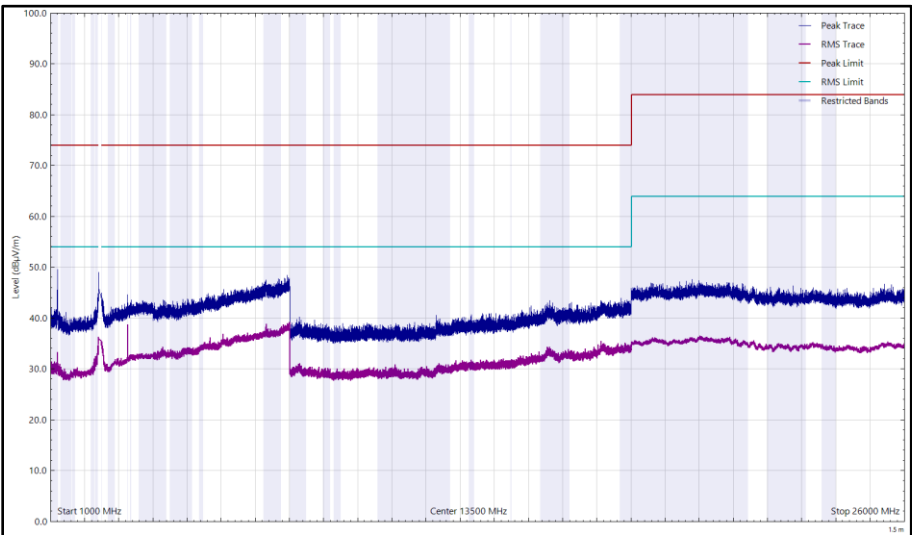


Figure 193 - CH6_802.11g_6Mbps_Z, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 84 - CH11_802.11g_6Mbps_X, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

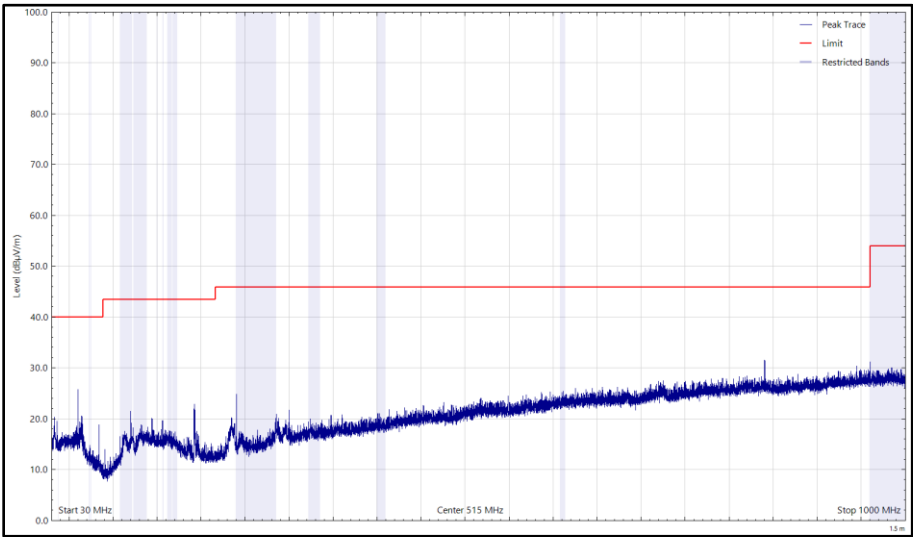


Figure 194 - CH11_802.11g_6Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

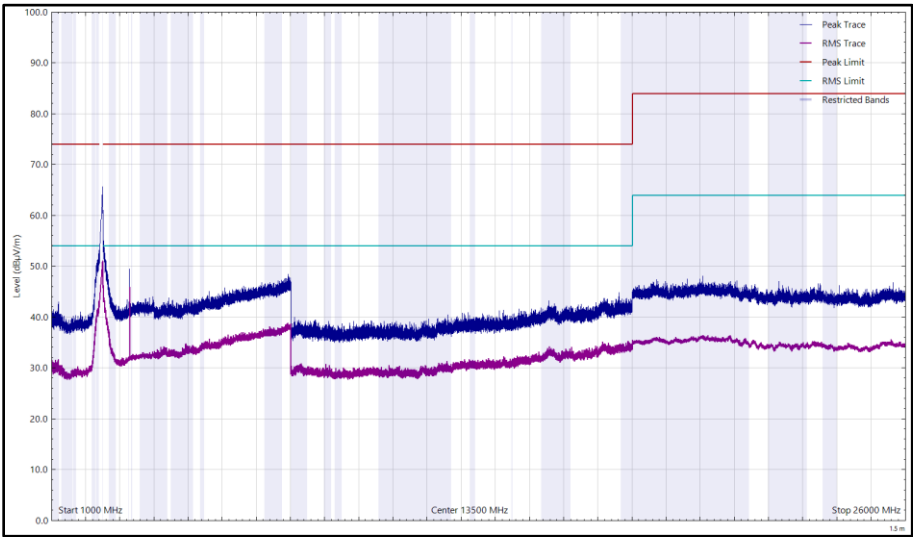


Figure 195 - CH11_802.11g_6Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Horizontal

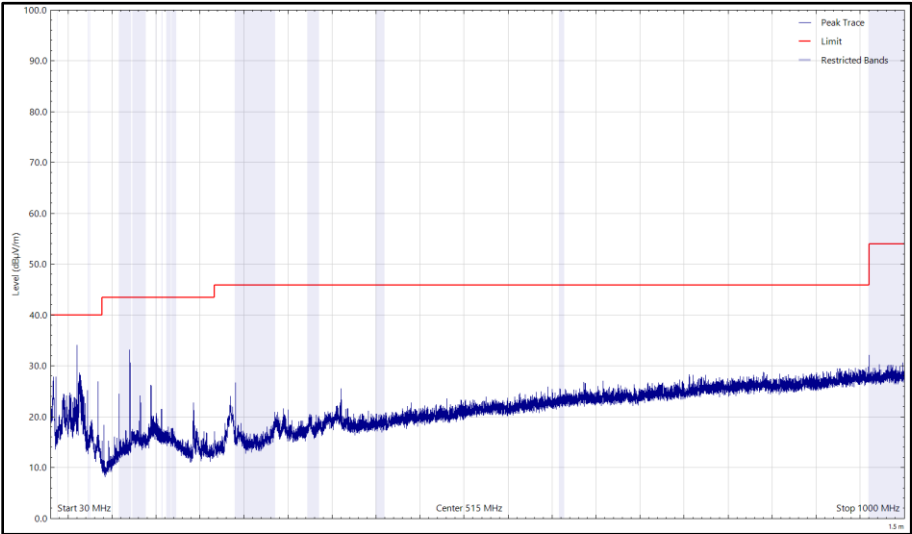


Figure 196 - CH11_802.11g_6Mbps_X, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

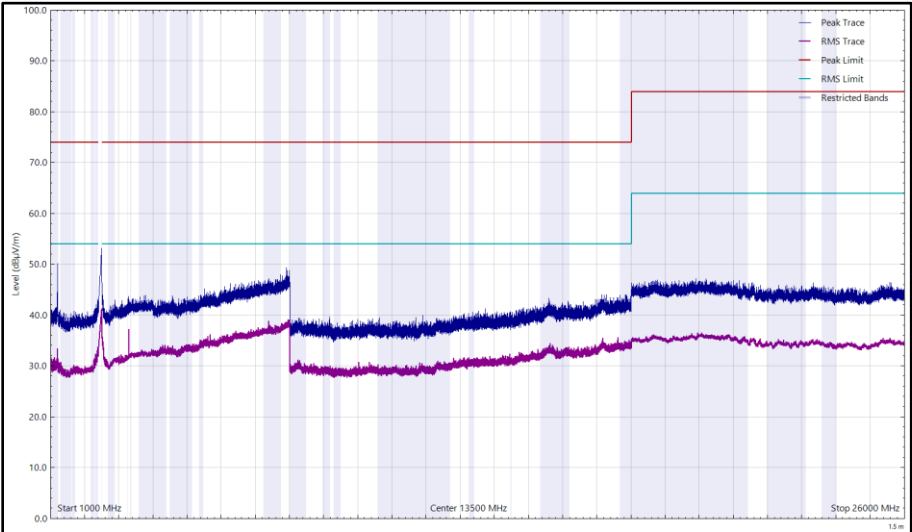


Figure 197 - CH11_802.11g_6Mbps_X, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 85 - CH11_802.11g_6Mbps_Y, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

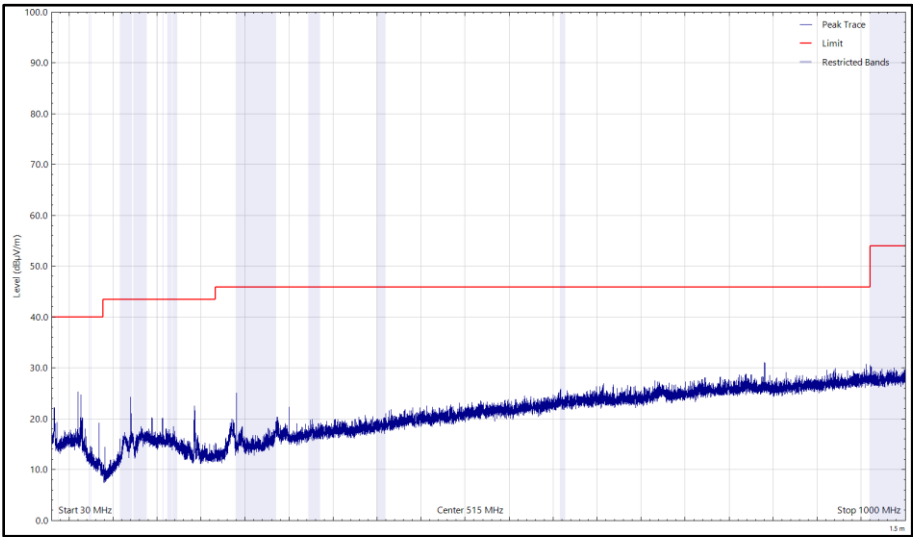


Figure 198 - CH11_802.11g_6Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

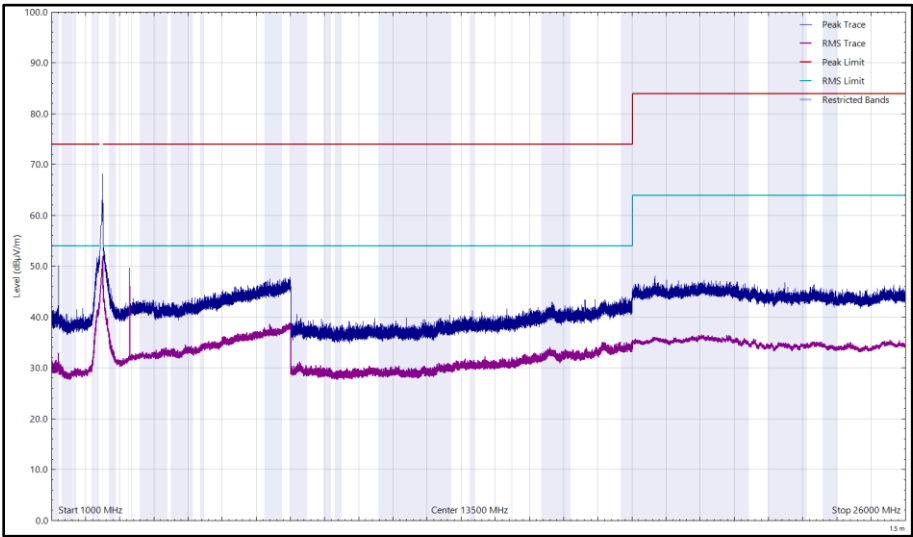


Figure 199 - CH11_802.11g_6Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Horizontal

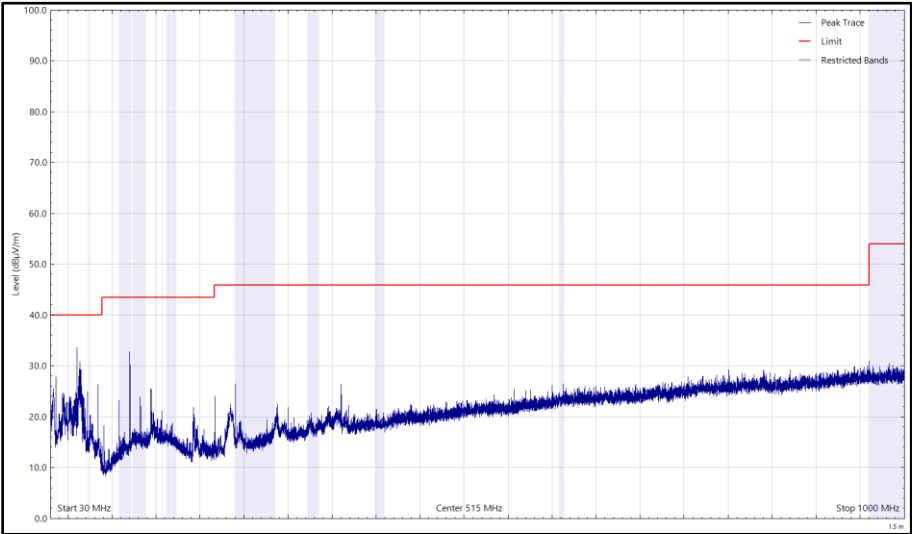


Figure 200 - CH11_802.11g_6Mbps_Y, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

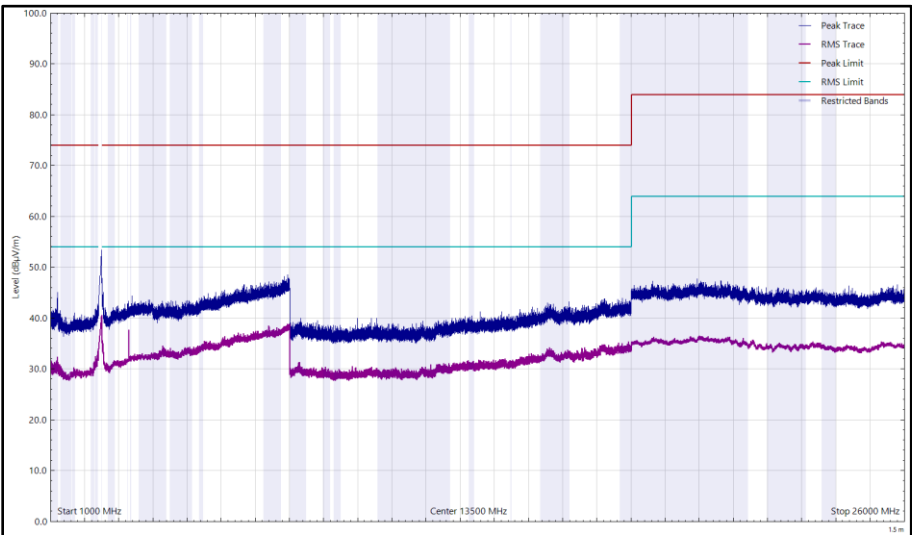


Figure 201 - CH11_802.11g_6Mbps_Y, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 86 - CH11_802.11g_6Mbps_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

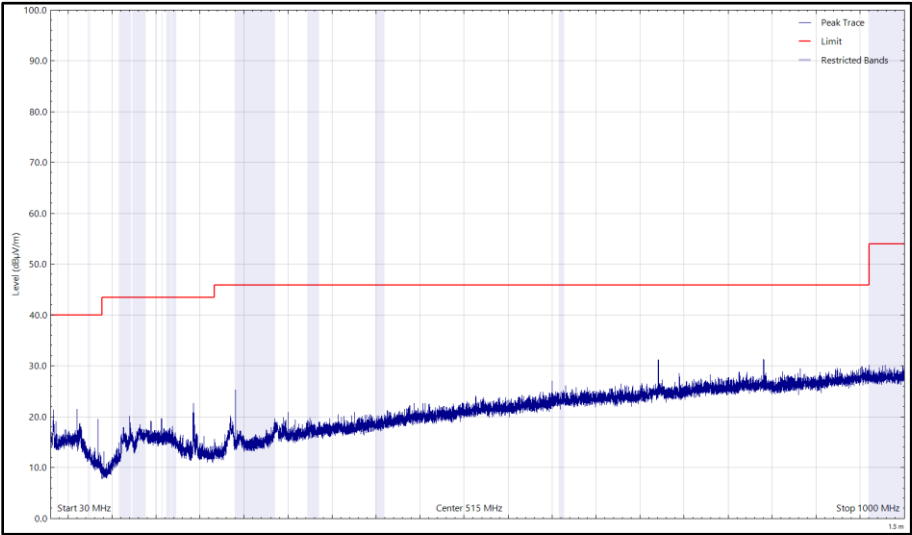


Figure 202 - CH11_802.11g_6Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

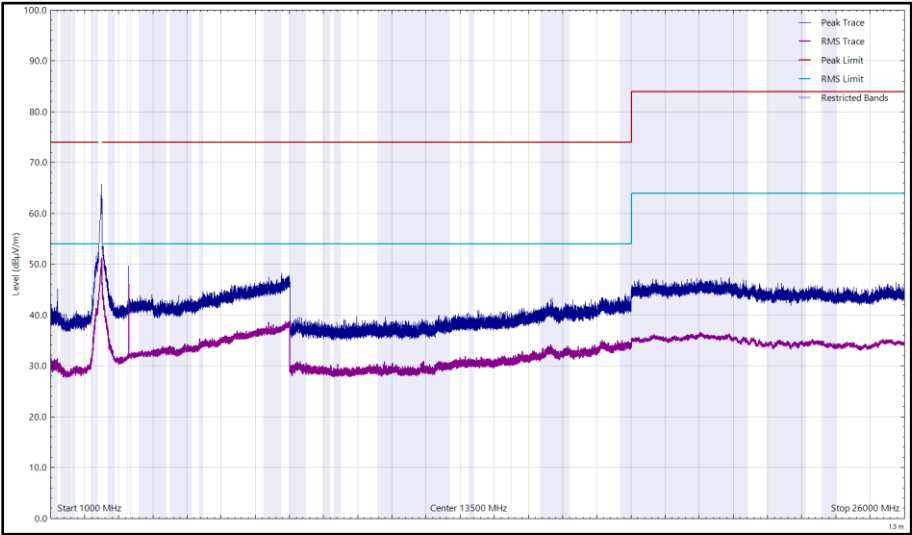


Figure 203 - CH11_802.11g_6Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

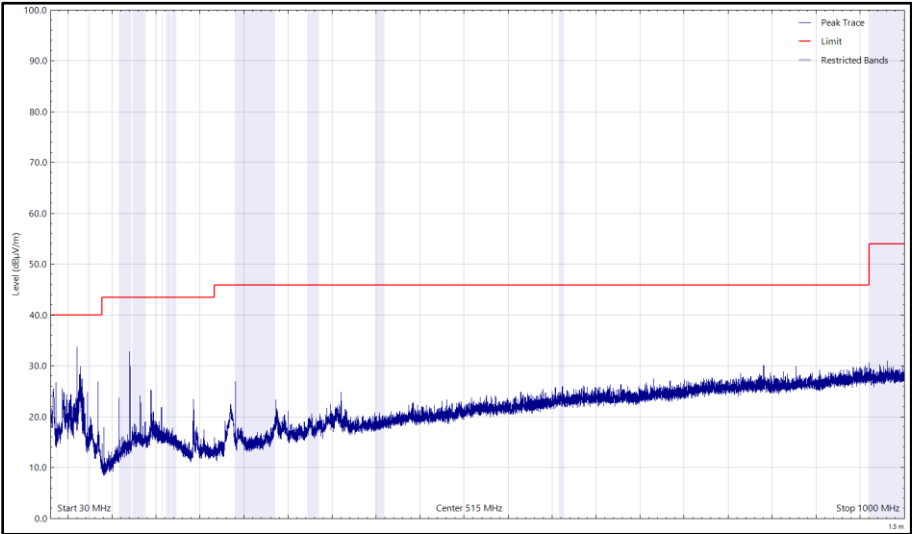


Figure 204 - CH11_802.11g_6Mbps_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

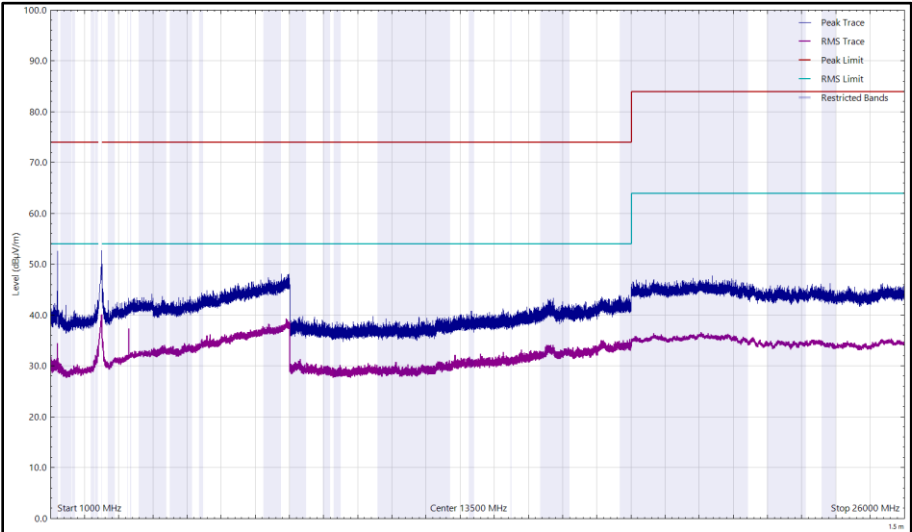


Figure 205 - CH11_802.11g_6Mbps_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 87 - CH1_HE20_MCS0_X, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

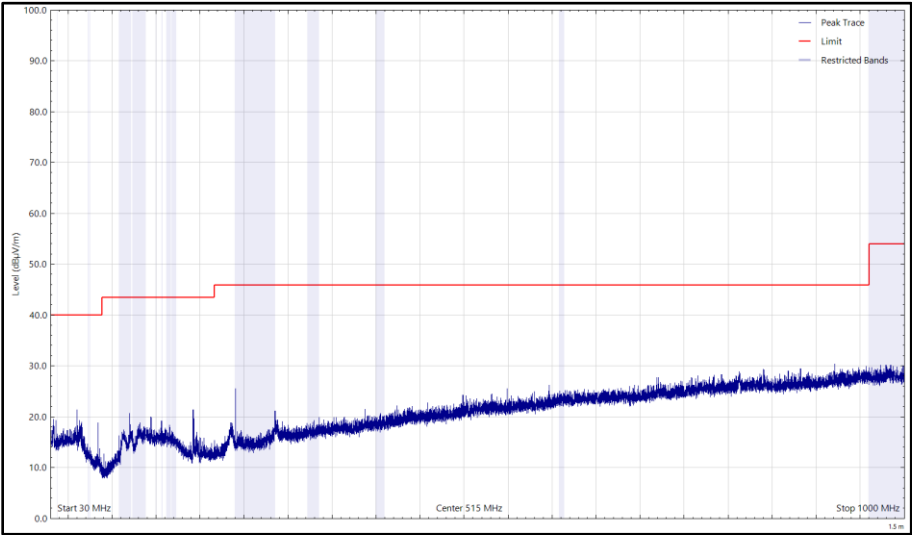


Figure 206 - CH1_HE20_MCS0_X, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

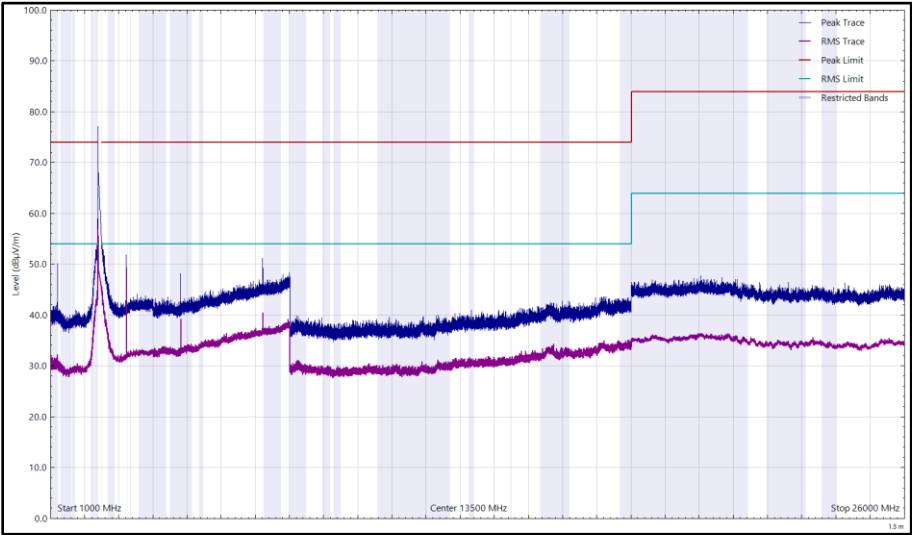


Figure 207 - CH1_HE20_MCS0_X, 2412 MHz, 1 GHz to 26 GHz, Horizontal

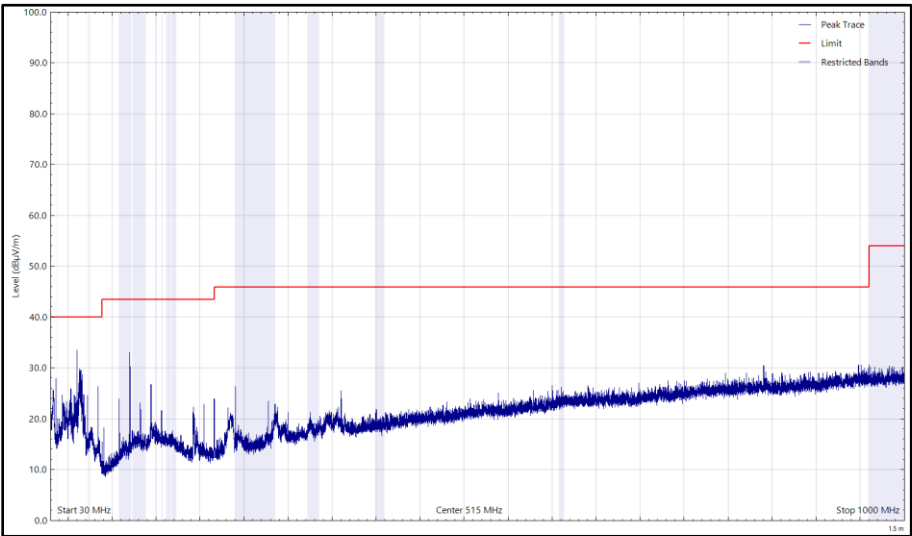


Figure 208 - CH1_HE20_MCS0_X, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

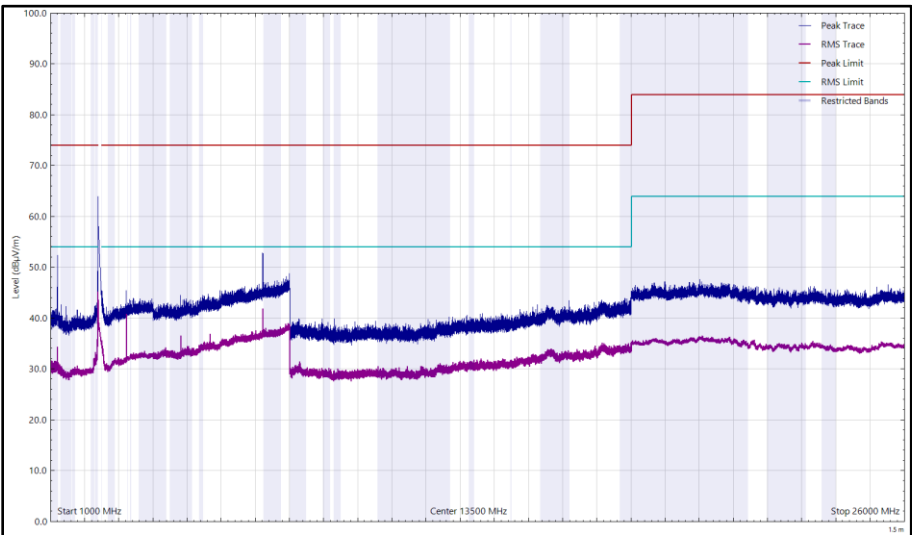


Figure 209 - CH1_HE20_MCS0_X, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 88 - CH1_HE20_MCS0_Y, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

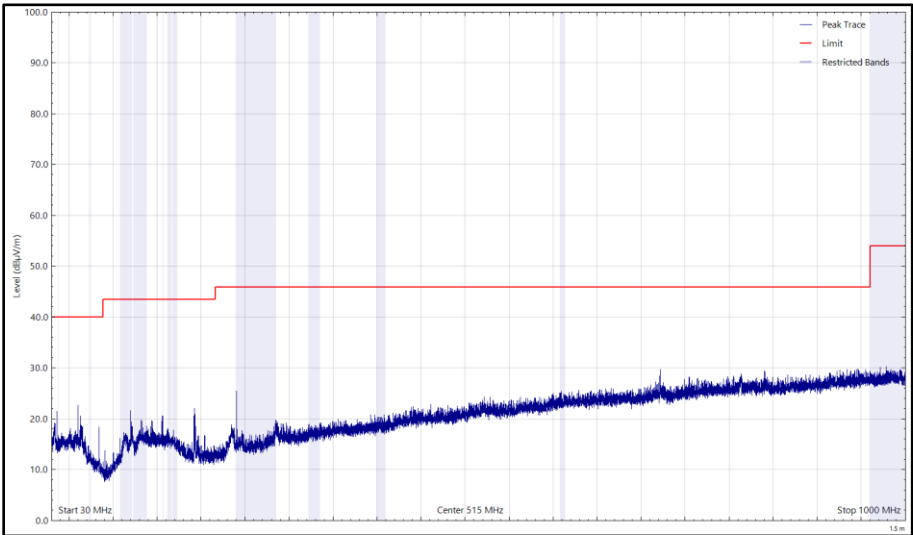


Figure 210 - CH1_HE20_MCS0_Y, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

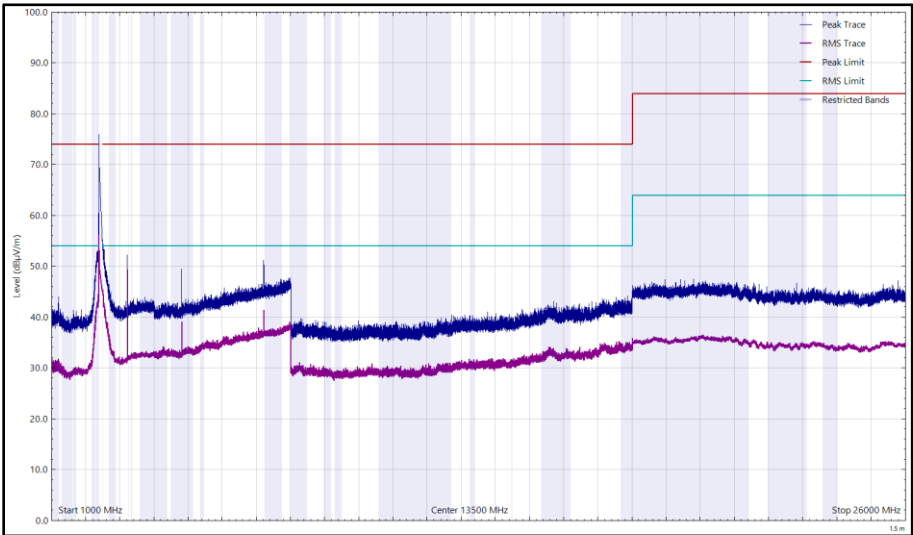


Figure 211 - CH1_HE20_MCS0_Y, 2412 MHz, 1 GHz to 26 GHz, Horizontal

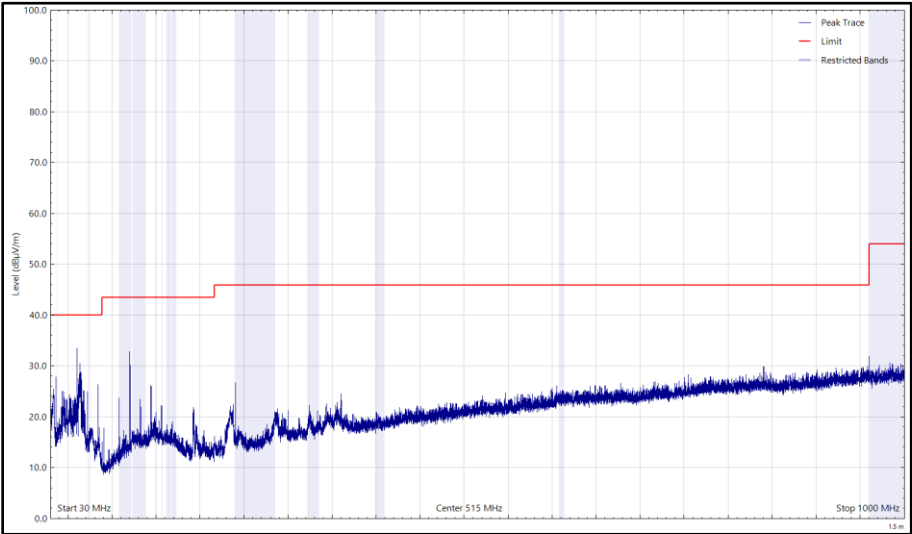


Figure 212 - CH1_HE20_MCS0_Y, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

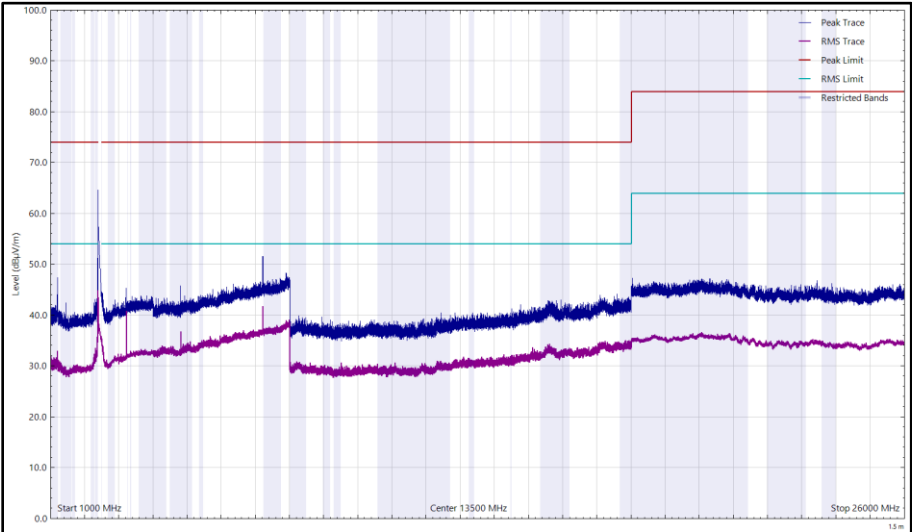


Figure 213 - CH1_HE20_MCS0_Y, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 89 - CH1_HE20_MCS0_Z, 2412 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

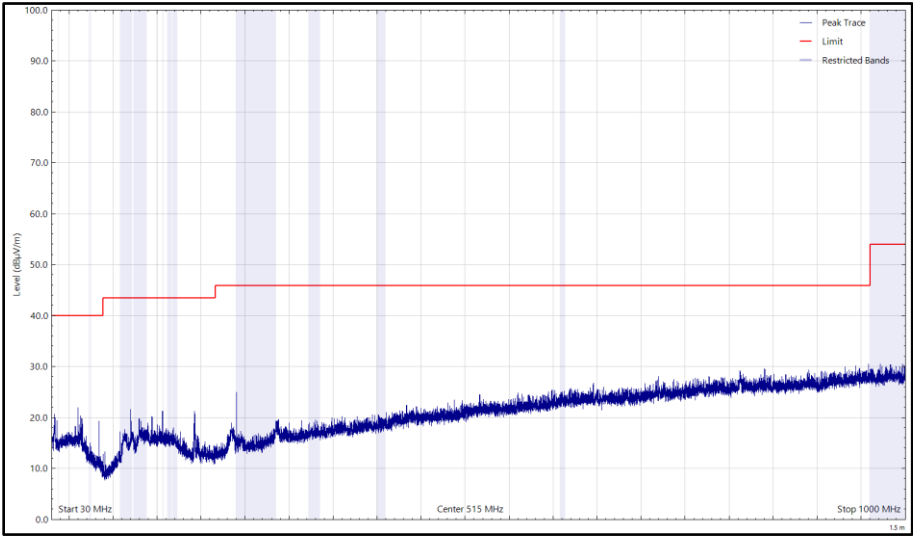


Figure 214 - CH1_HE20_MCS0_Z, 2412 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

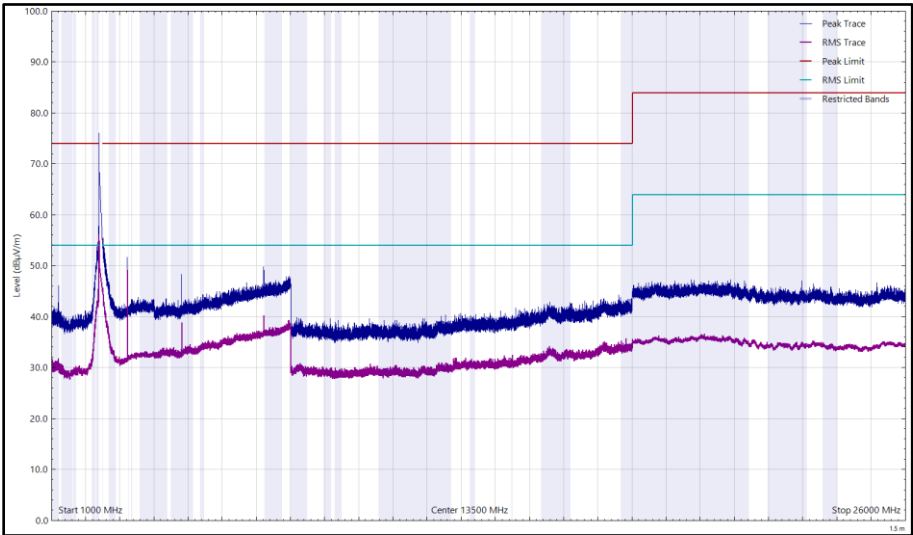


Figure 215 - CH1_HE20_MCS0_Z, 2412 MHz, 1 GHz to 26 GHz, Horizontal

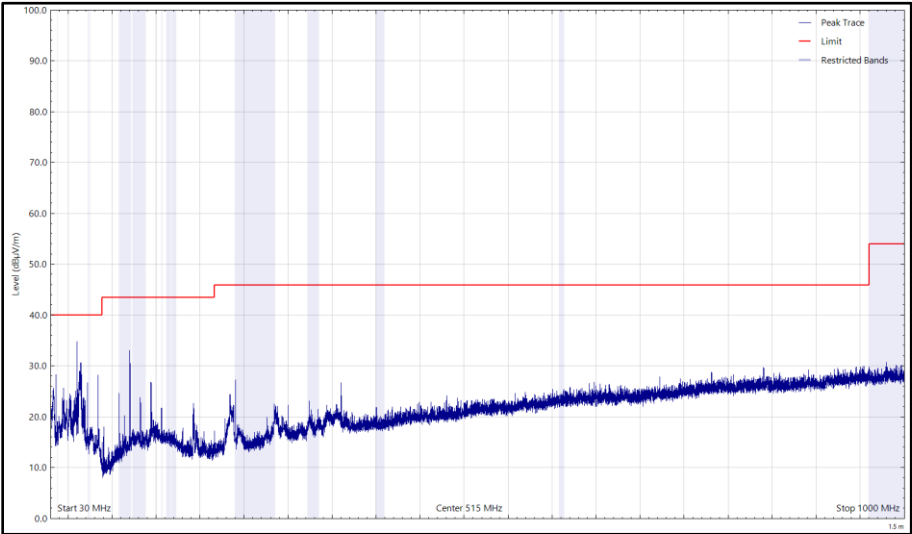


Figure 216 - CH1_HE20_MCS0_Z, 2412 MHz, 30 MHz to 1 GHz, Vertical (Peak)

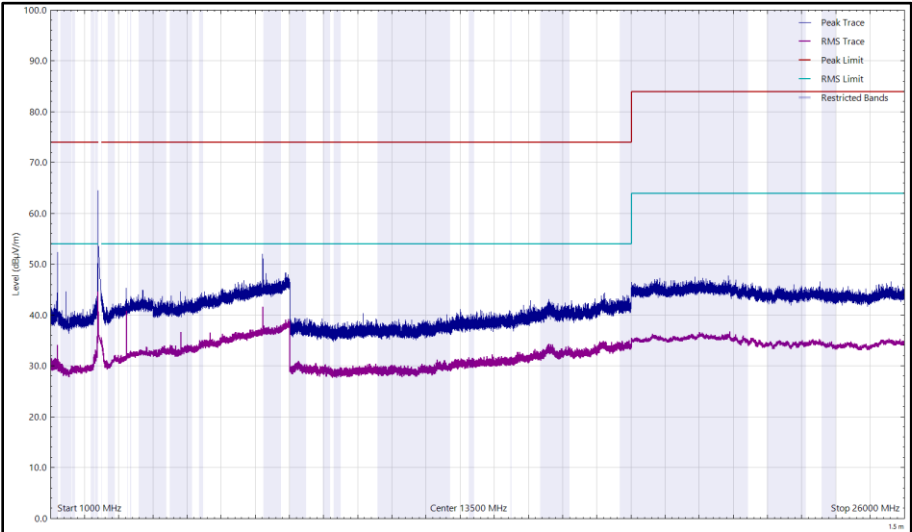


Figure 217 - CH1_HE20_MCS0_Z, 2412 MHz, 1 GHz to 26 GHz, Vertical



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

Table 90 - CH6_HE20_MCS0_X, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

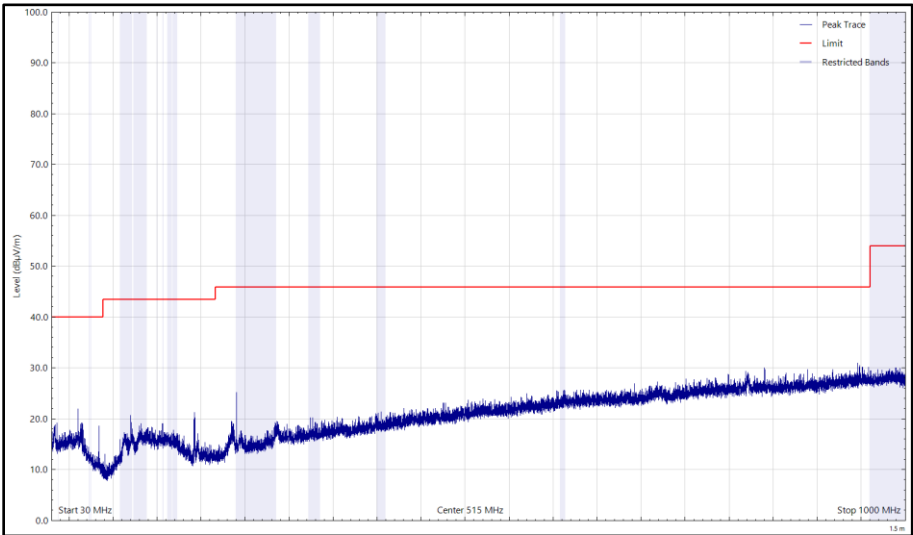


Figure 218 - CH6_HE20_MCS0_X, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

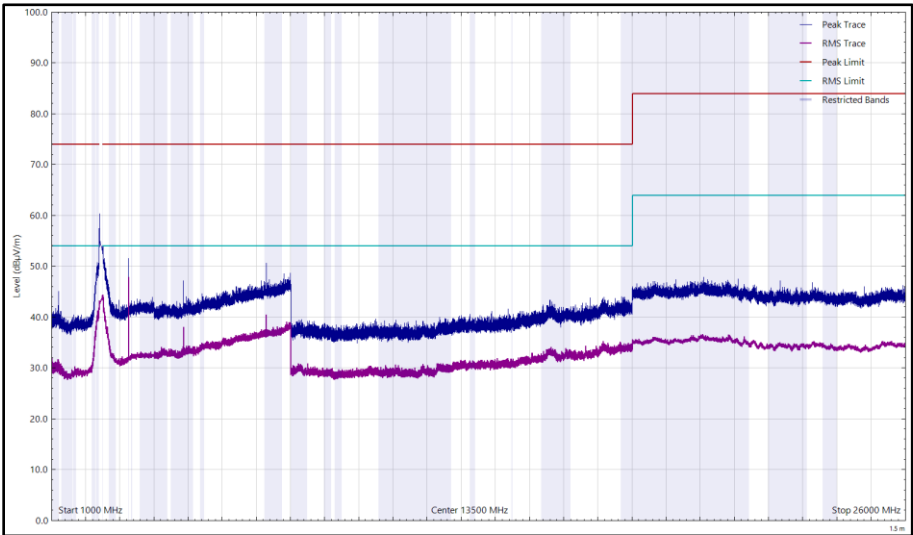


Figure 219 - CH6_HE20_MCS0_X, 2437 MHz, 1 GHz to 26 GHz, Horizontal

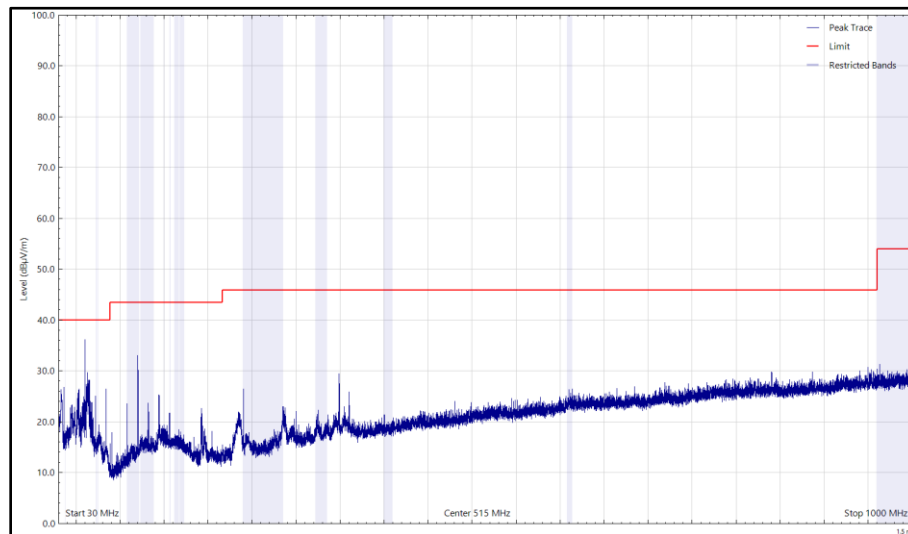


Figure 220 - CH6_HE20_MCS0_X, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

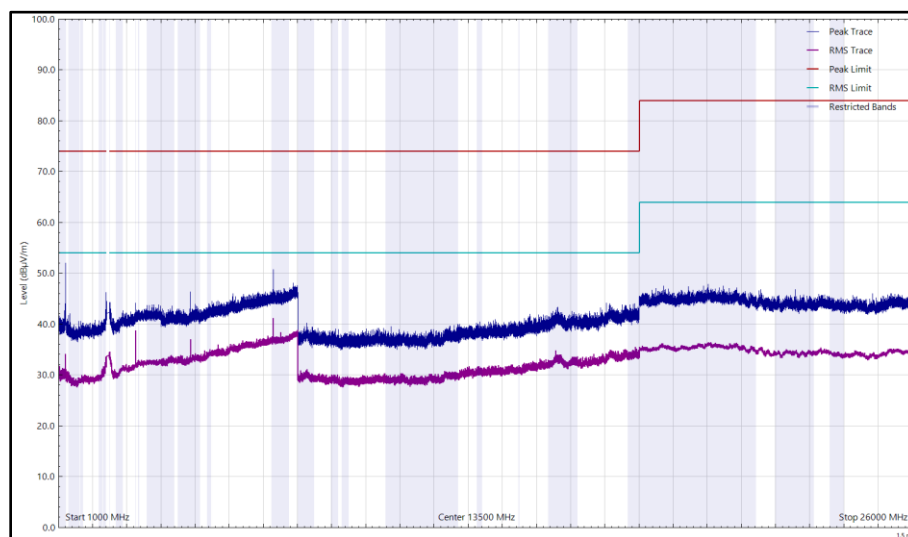


Figure 221 - CH6_HE20_MCS0_X, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 91 - CH6_HE20_MCS0_Y, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

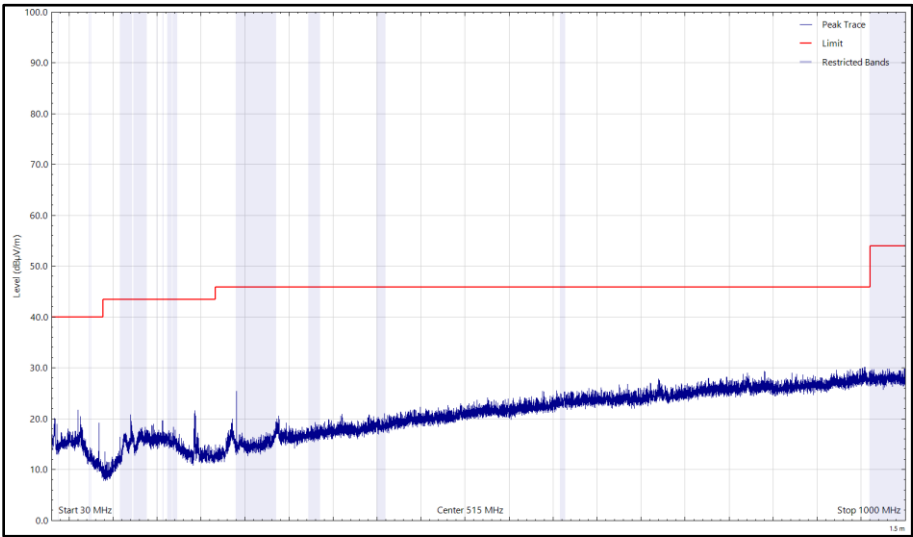


Figure 222 - CH6_HE20_MCS0_Y, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

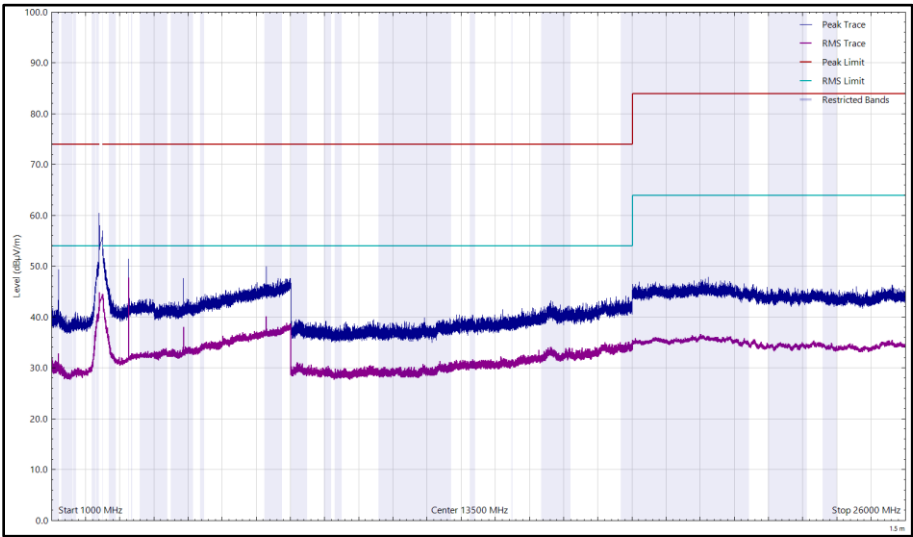


Figure 223 - CH6_HE20_MCS0_Y, 2437 MHz, 1 GHz to 26 GHz, Horizontal

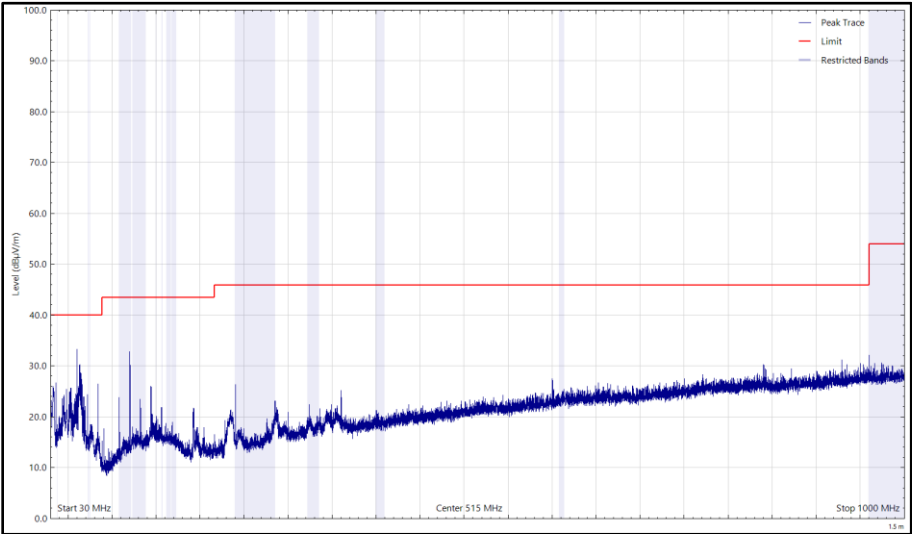


Figure 224 - CH6_HE20_MCS0_Y, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

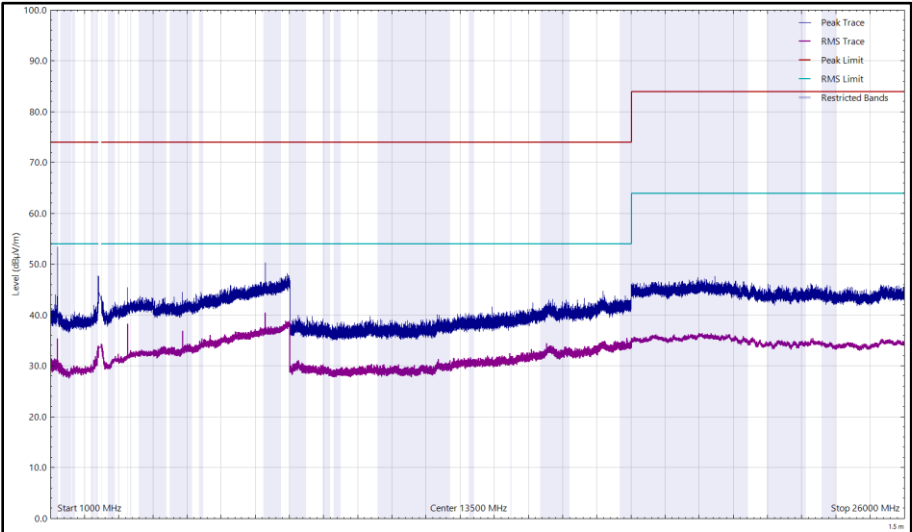


Figure 225 - CH6_HE20_MCS0_Y, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 92 - CH6_HE20_MCS0_Z, 2437 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

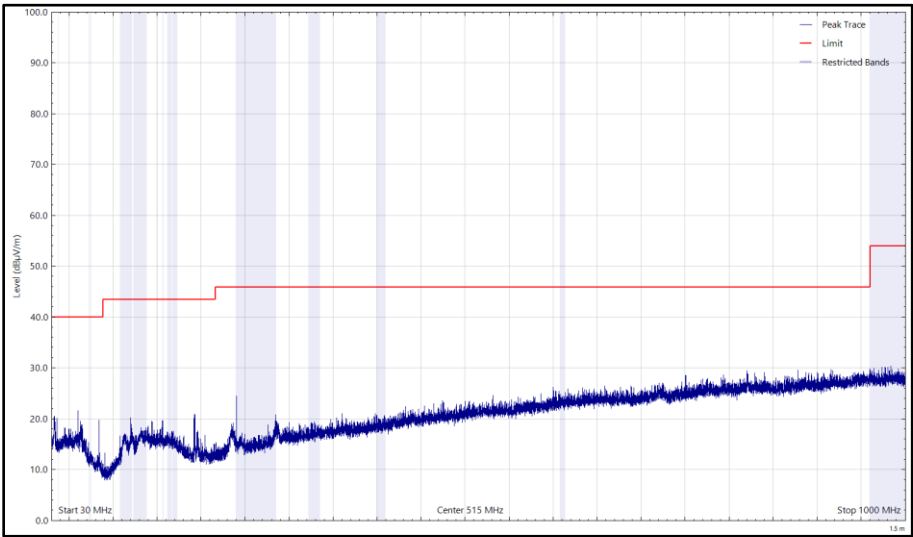


Figure 226 - CH6_HE20_MCS0_Z, 2437 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

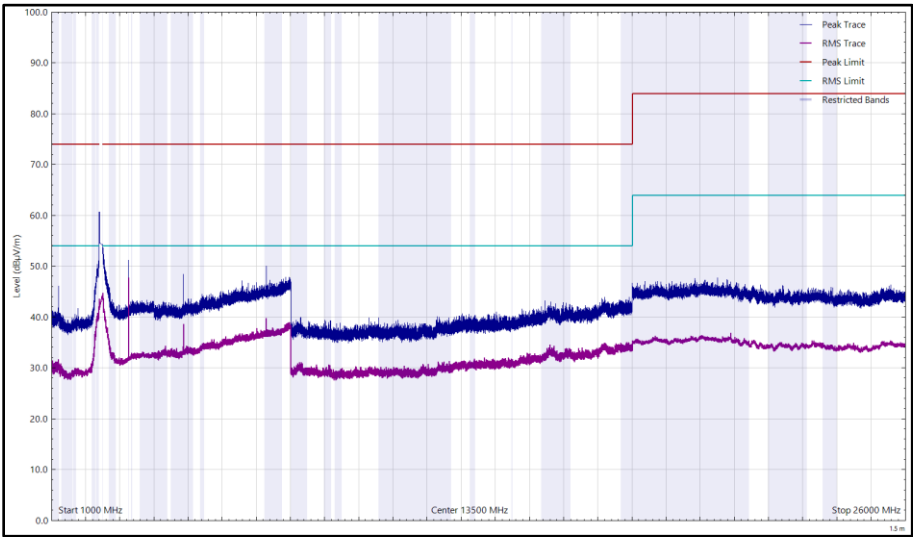


Figure 227 - CH6_HE20_MCS0_Z, 2437 MHz, 1 GHz to 26 GHz, Horizontal

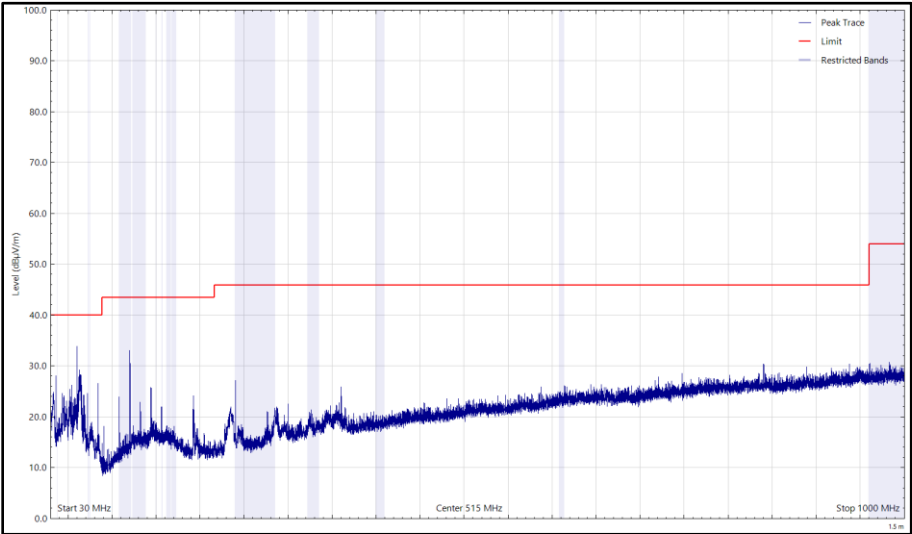


Figure 228 - CH6_HE20_MCS0_Z, 2437 MHz, 30 MHz to 1 GHz, Vertical (Peak)

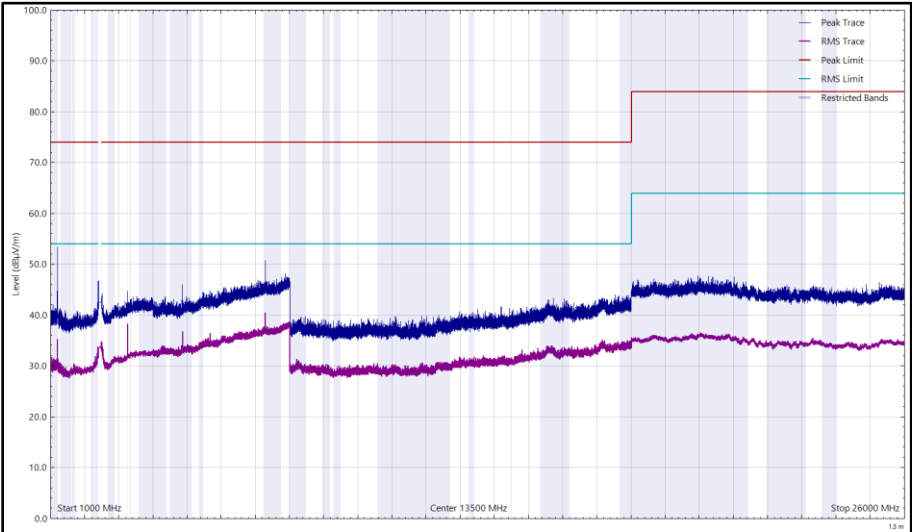


Figure 229 - CH6_HE20_MCS0_Z, 2437 MHz, 1 GHz to 26 GHz, Vertical



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

Table 93 - CH11_HE20_MCS0_X, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

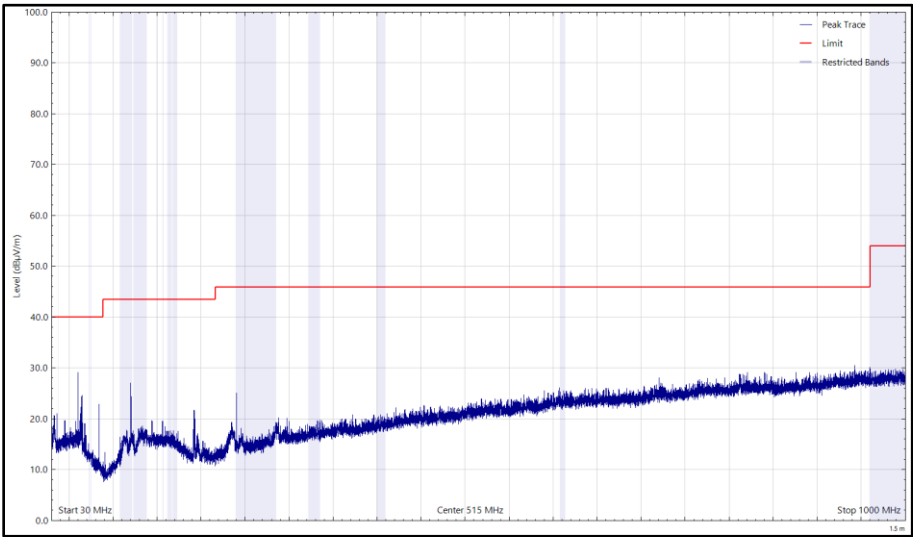


Figure 230 - CH11_HE20_MCS0_X, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

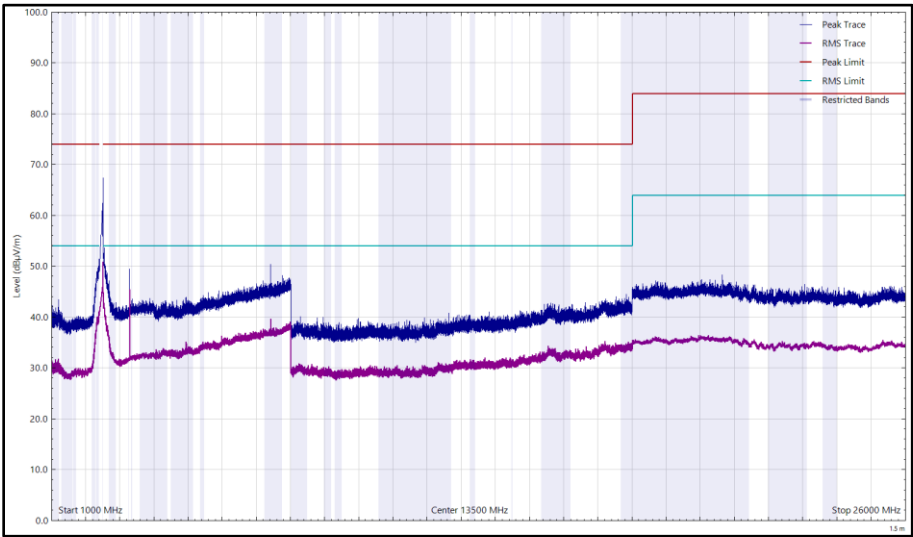


Figure 231 - CH11_HE20_MCS0_X, 2462 MHz, 1 GHz to 26 GHz, Horizontal

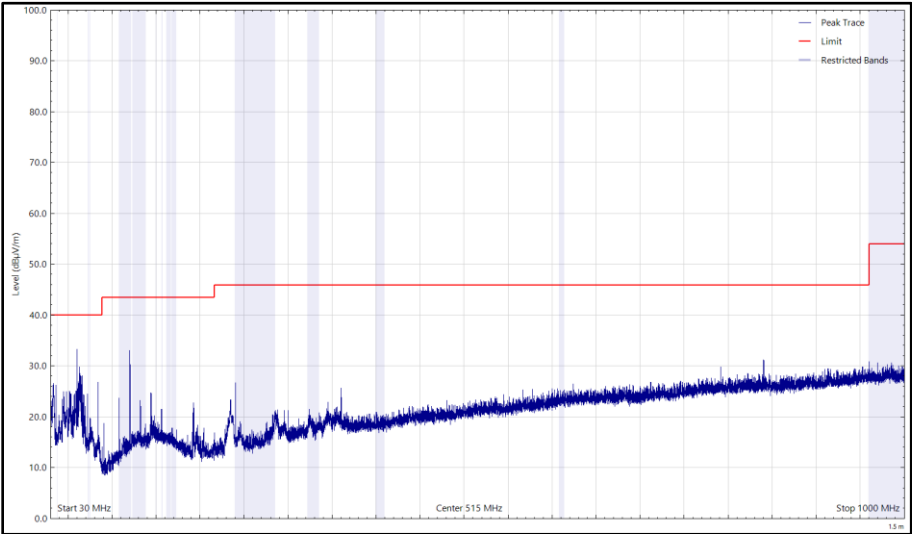


Figure 232 - CH11_HE20_MCS0_X, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

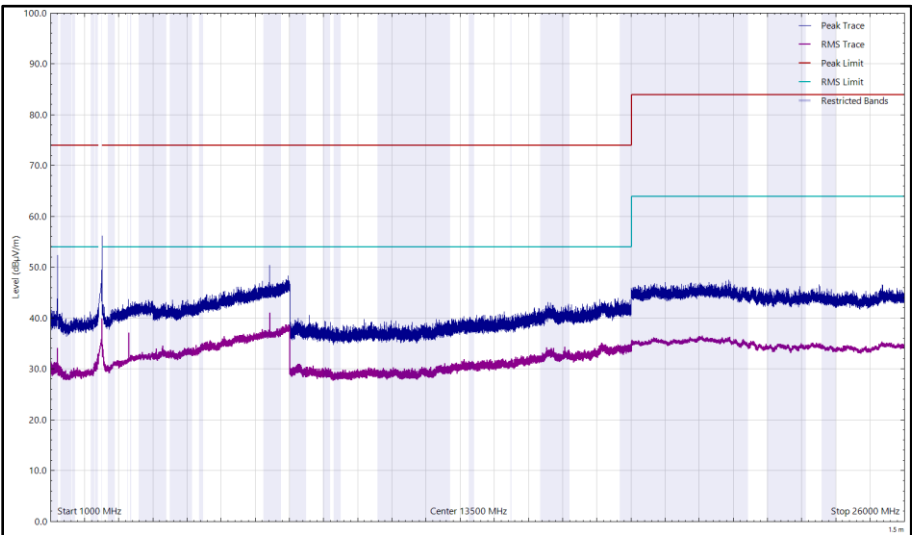


Figure 233 - CH11_HE20_MCS0_X, 2462 MHz, 1 GHz to 26 GHz, Vertical

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

Table 94 - CH11_HE20_MCS0_Y, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

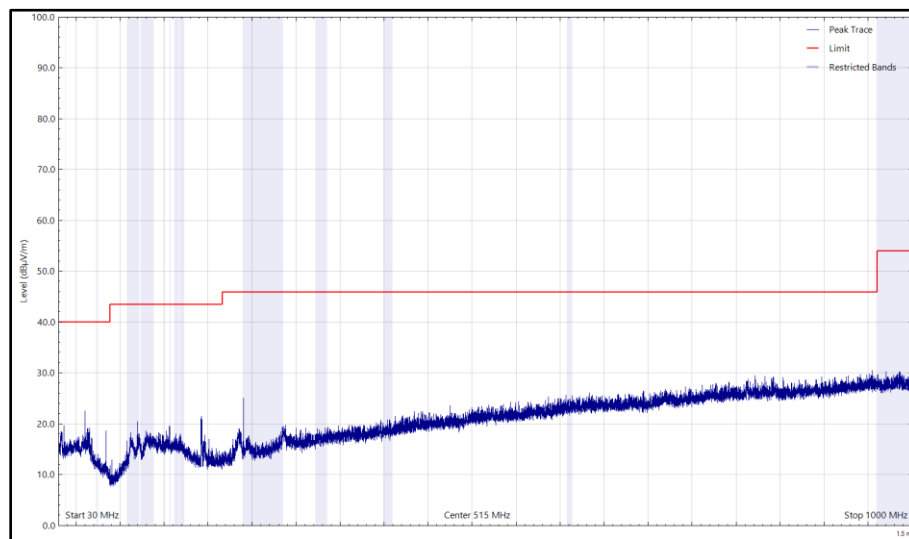


Figure 234 - CH11_HE20_MCS0_Y, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

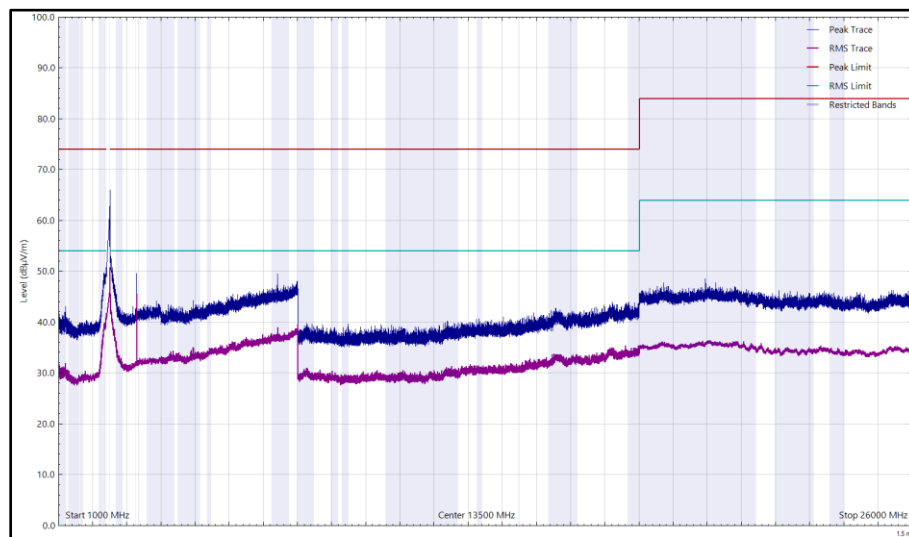


Figure 235 - CH11_HE20_MCS0_Y, 2462 MHz, 1 GHz to 26 GHz, Horizontal

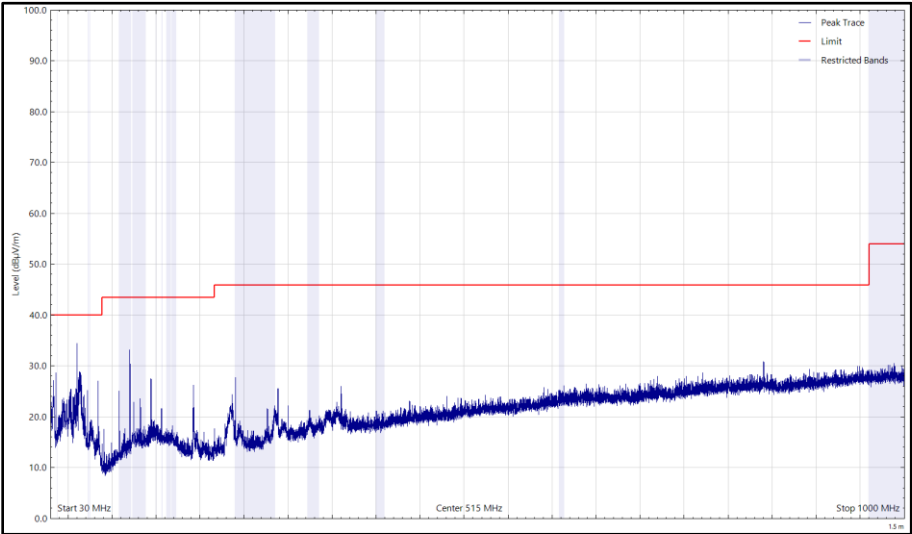


Figure 236 - CH11_HE20_MCS0_Y, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

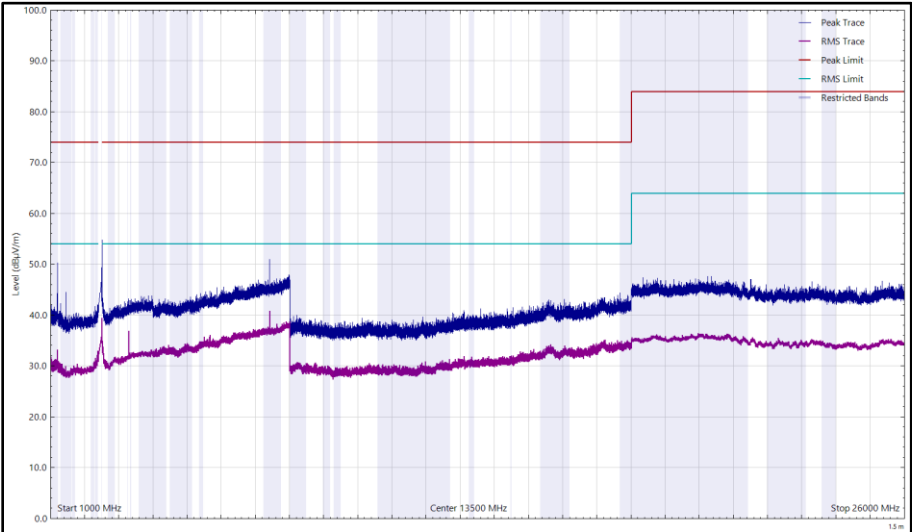


Figure 237 - CH11_HE20_MCS0_Y, 2462 MHz, 1 GHz to 26 GHz, Vertical



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

Table 95 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

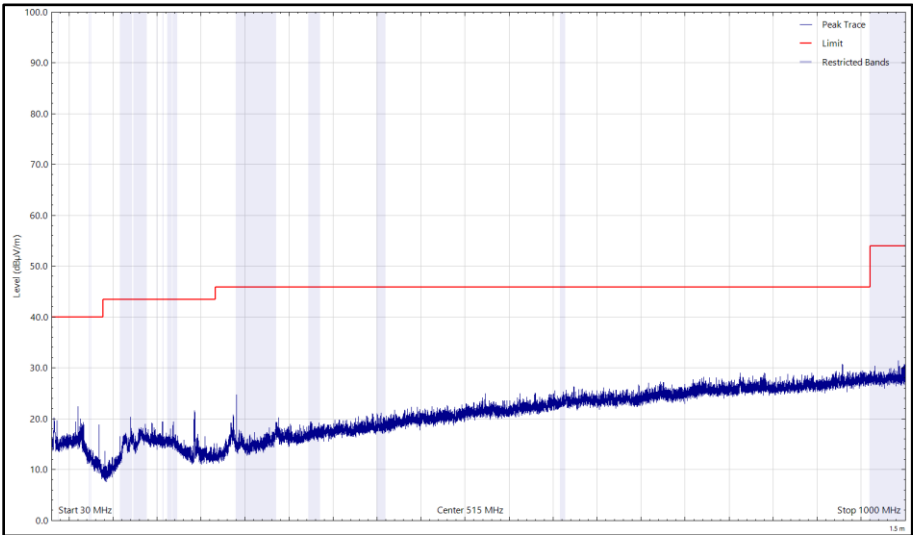


Figure 238 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

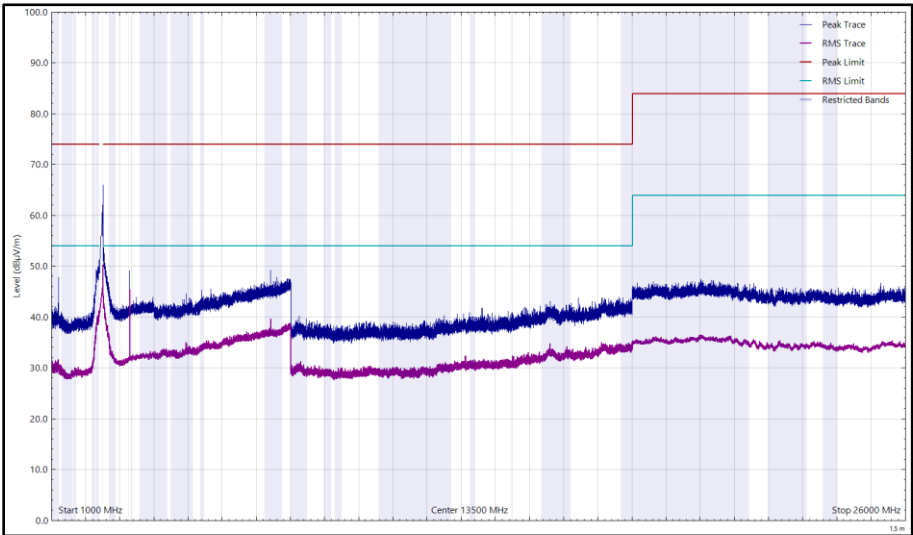


Figure 239 - CH11_HE20_MCS0_Z, 2462 MHz, 1 GHz to 26 GHz, Horizontal

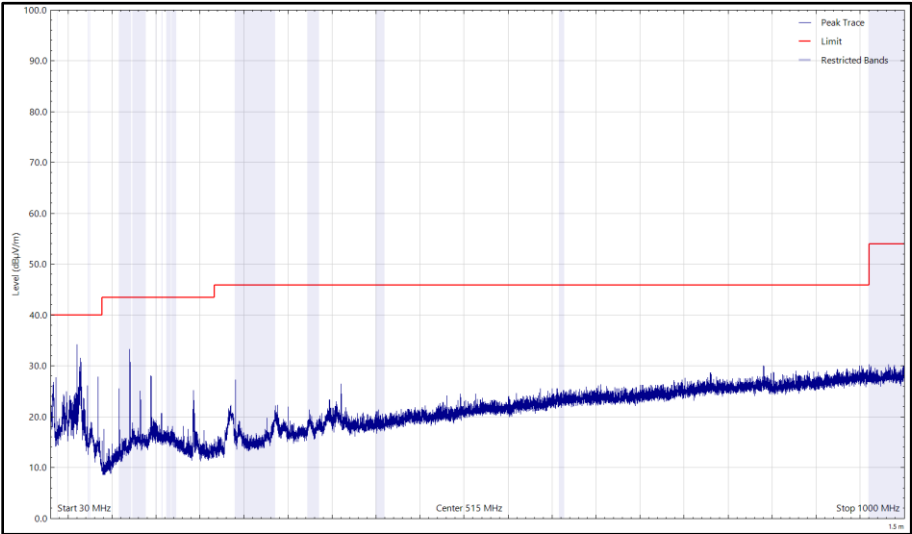


Figure 240 - CH11_HE20_MCS0_Z, 2462 MHz, 30 MHz to 1 GHz, Vertical (Peak)

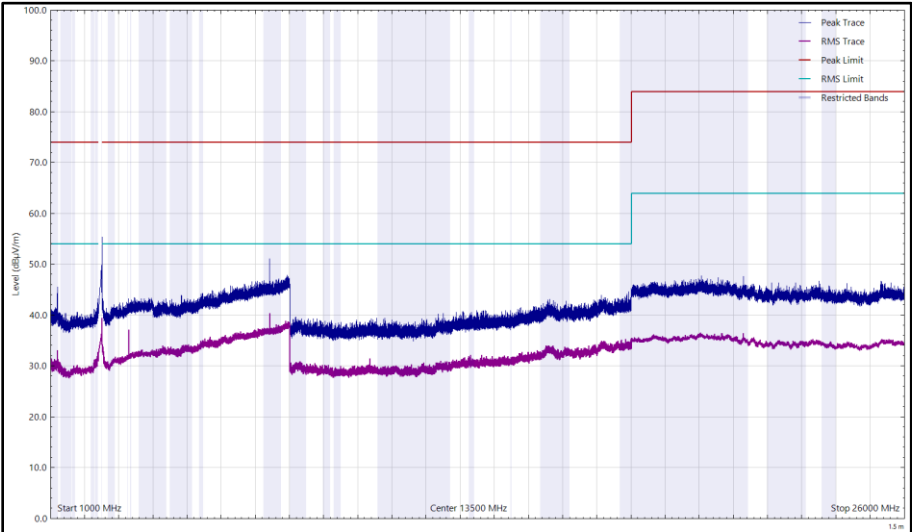


Figure 241 - CH11_HE20_MCS0_Z, 2462 MHz, 1 GHz to 26 GHz, Vertical



FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in RSS-GEN, clause 8.10, must also comply with the radiated emission limits specified in RSS-GEN clause 8.9.



2.4.8 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
Dual Power Supply Unit	Hewlett Packard	6253A	292	-	O/P Mon
True RMS Multimeter	Fluke	179	4007	12	17-Nov-2024
4dB Attenuator	Pasternack	PE7047-4	4935	12	20-Jul-2024
Band Reject Filter - 2.425 GHz	Wainwright	WRCGV14-2390-2400-2450-2460-50SS	5066	12	22-Feb-2025
Band Reject Filter - 2.4585 GHz	Wainwright	WRCGV14-2423.5-2433.5-2483.5-2493.5-50SS	5068	12	06-Nov-2024
Test Receiver	Rohde & Schwarz	ESW44	5084	12	31-Aug-2024
Emissions Software	TUV SUD	EmX V3.2.0	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	09-Jul-2024
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5216	12	09-Jul-2024
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	25-May-2024
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	20-Apr-2024
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	21-May-2024
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	14-Apr-2024
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	5522	12	14-Apr-2024
3 GHz High pass Filter	Wainwright	WHKX12-2580-3000-18000-80SS	5547	12	30-May-2024
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5550	12	30-May-2024
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	18-Jun-2024
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6189	24	02-Jun-2024
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9168	6635	24	13-Jun-2025

Table 96

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



2.5 Restricted Band Edges

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.205
ISED RSS-247, Clause 3.3
ISED RSS-GEN, Clause 8.10

2.5.2 Equipment Under Test and Modification State

SiW917Y1GA, S/N: WLAN MAC address: ec:f6:4c:a0:ac:c - Modification State 0
SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.5.3 Date of Test

12-April-2024 to 10-July-2024

2.5.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 6.10.5 and 11.12.1.

Plots for average measurements were taken in accordance with ANSI C63.10, clause 11.12.2.5.2.

The following conversion can be applied to convert from dBμV/m to μV/m:
 $10^{(\text{Field Strength in dB}\mu\text{V/m}/20)}$

The EUT was supplied with 3.3 VDC by means of a regulator residing in the host certification board, which was in turn being powered over the host certification board's USB connector.

The Power Settings used for testing are as follows:

802.11b Channel 1, 15; Channel 11, 15
802.11g Channel 1, 11; Channel 11, 10
802.11n Channel 1, 10; Channel 11, 10
802.11ax Channel 1, 10; Channel 11, 10

In addition to measurements performed on the worst-case modes of operation as determined by ANSI C63.10 clause 5.6.2.2, measurements were also performed on HE20 RU26-8 for 2412 MHz and RU26-0 for 2462 MHz which were identified as worst-case modes of operation as identified during preliminary measurements performed by the applicant.

2.5.5 Environmental Conditions

Ambient Temperature	19.8 - 19.9 °C
Relative Humidity	39.8 - 47.8 %

2.5.6 Test Results

2.4 GHz WLAN - PCB Trace Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11b	1Mbps	2412	2390	57.20	48.19
802.11b	1Mbps	2462	2483.5	56.93	47.96
802.11g	6Mbps	2412	2390	60.62	50.60
802.11g	6Mbps	2462	2483.5	59.69	48.88
802.11n	MCS0	2412	2390	59.07	49.78
802.11n	MCS0	2462	2483.5	60.63	49.58
802.11ax	MCS0	2412	2390	59.23	49.10
802.11ax	MCS0	2462	2483.5	61.66	50.25
802.11ax	RU26-8	2412	2390	63.11	48.91
802.11ax	RU26-0	2462	2483.5	64.16	49.84

Table 29

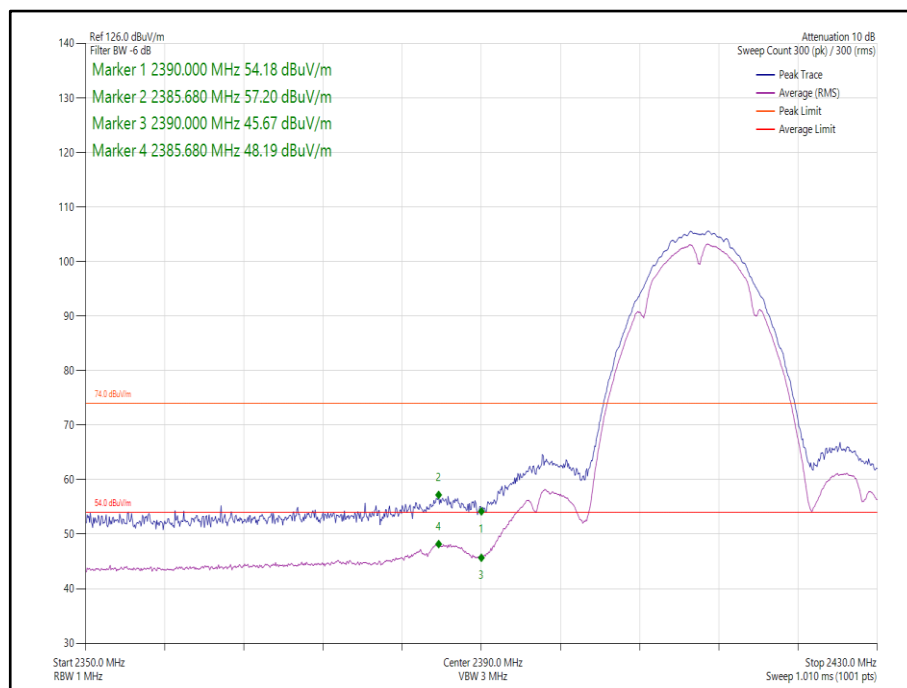


Figure 242 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2390 MHz

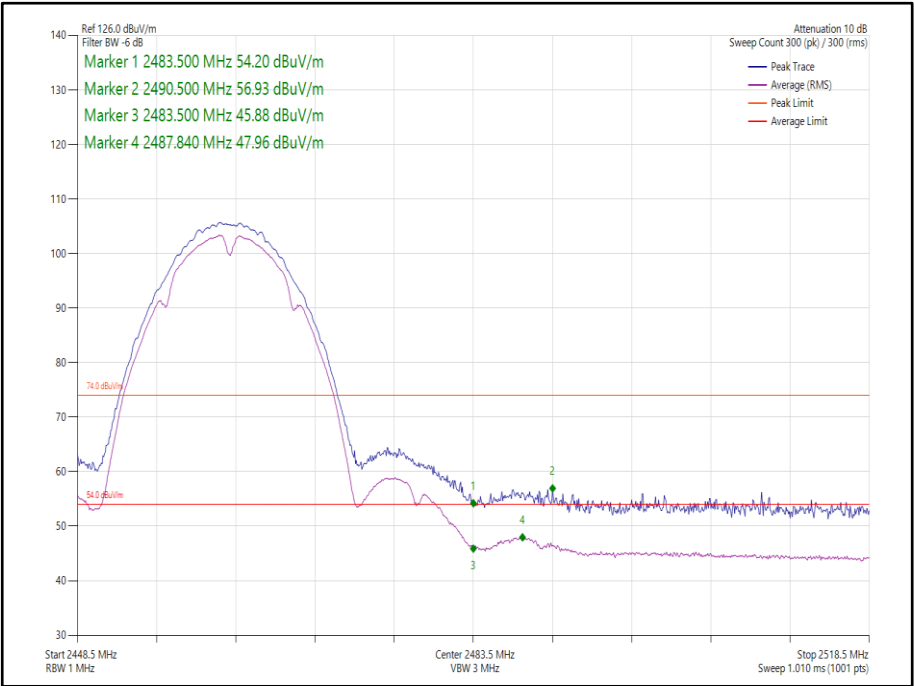


Figure 243 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

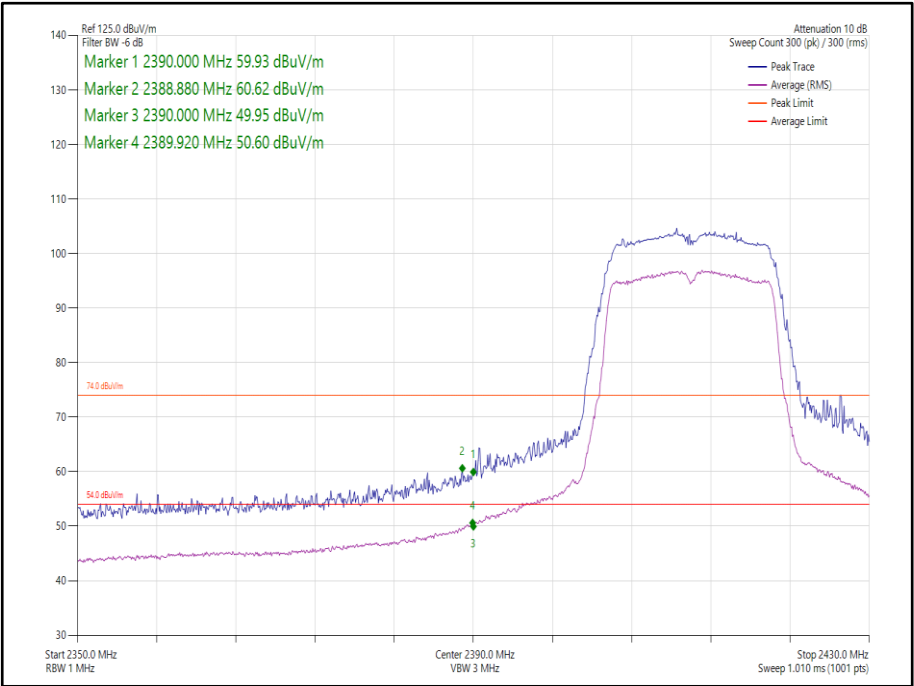


Figure 244 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2390 MHz

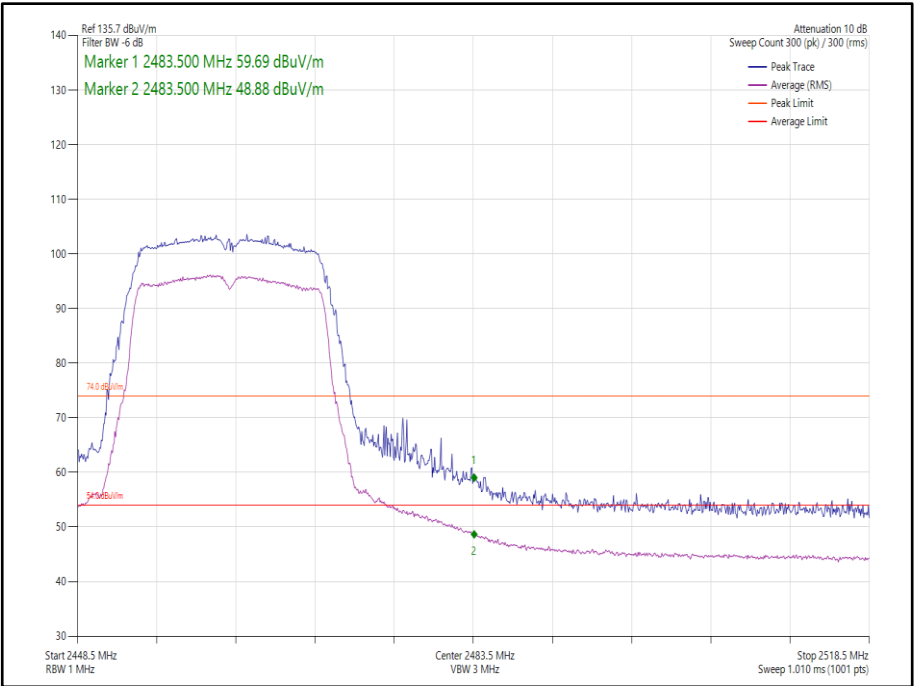


Figure 245 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

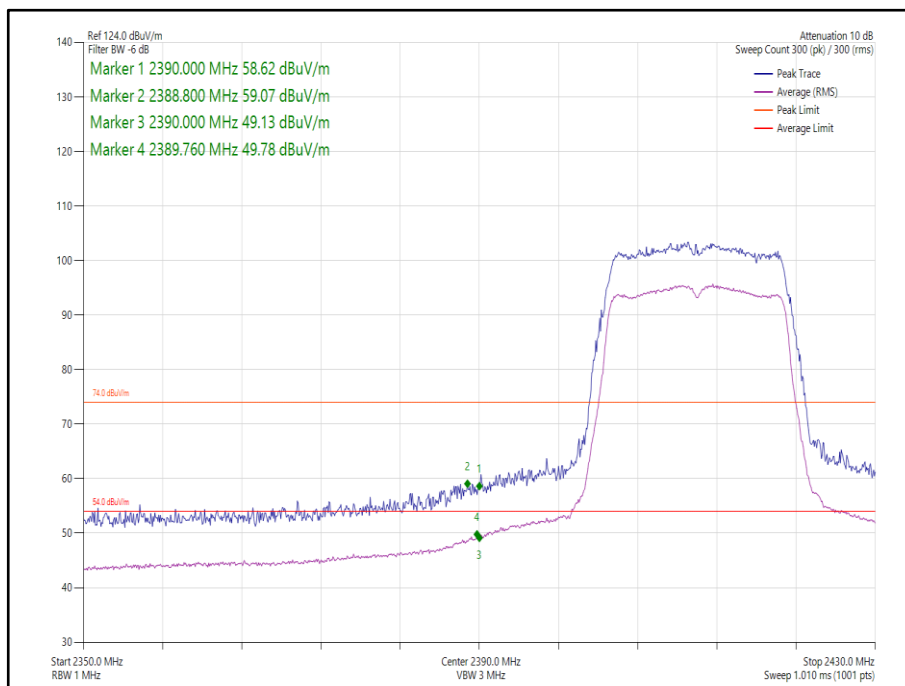


Figure 246 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2390 MHz

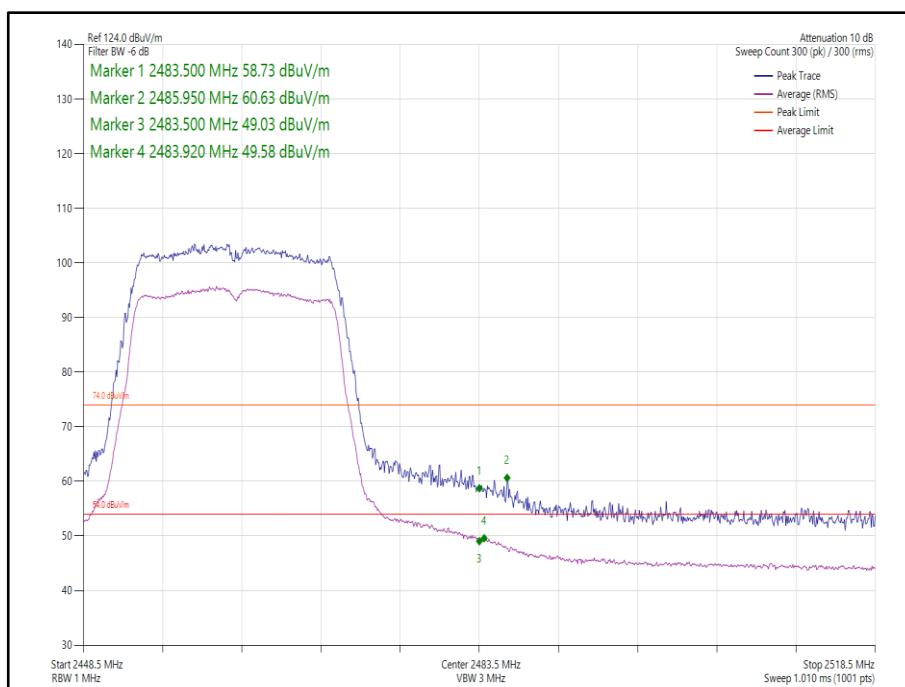


Figure 247 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

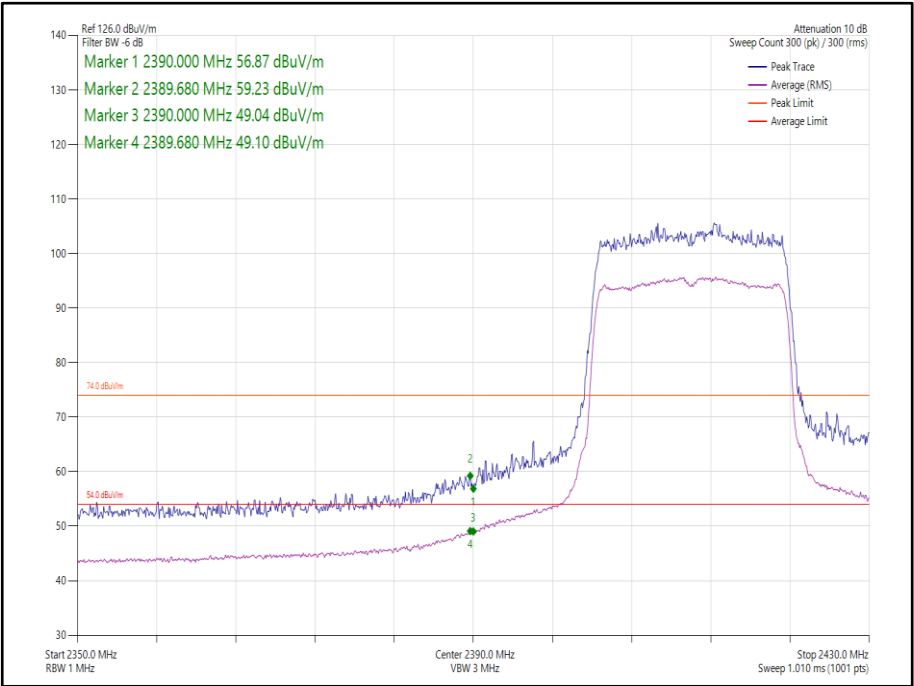


Figure 248 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2390 MHz

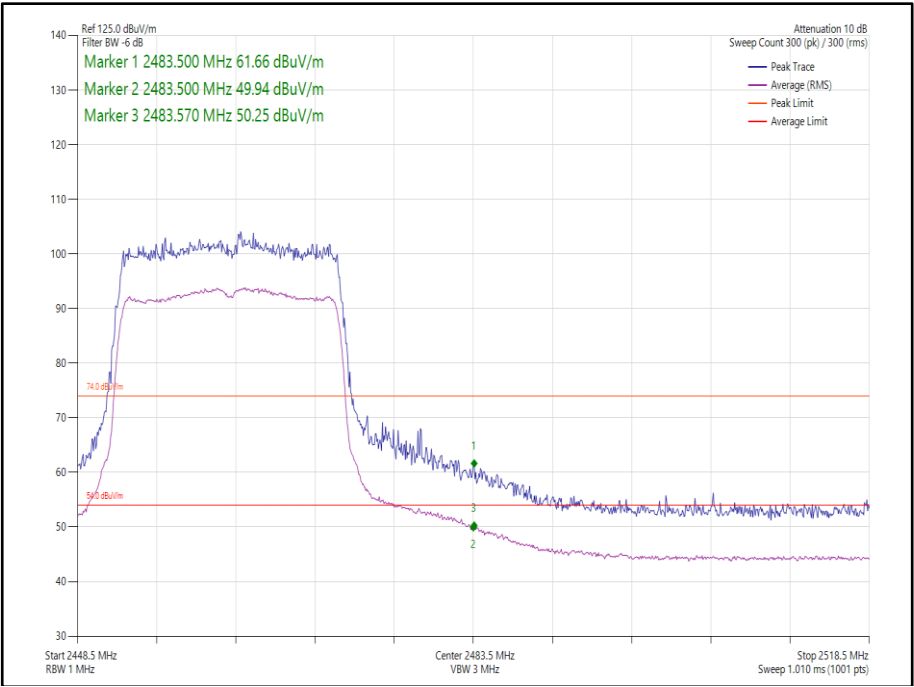


Figure 249 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

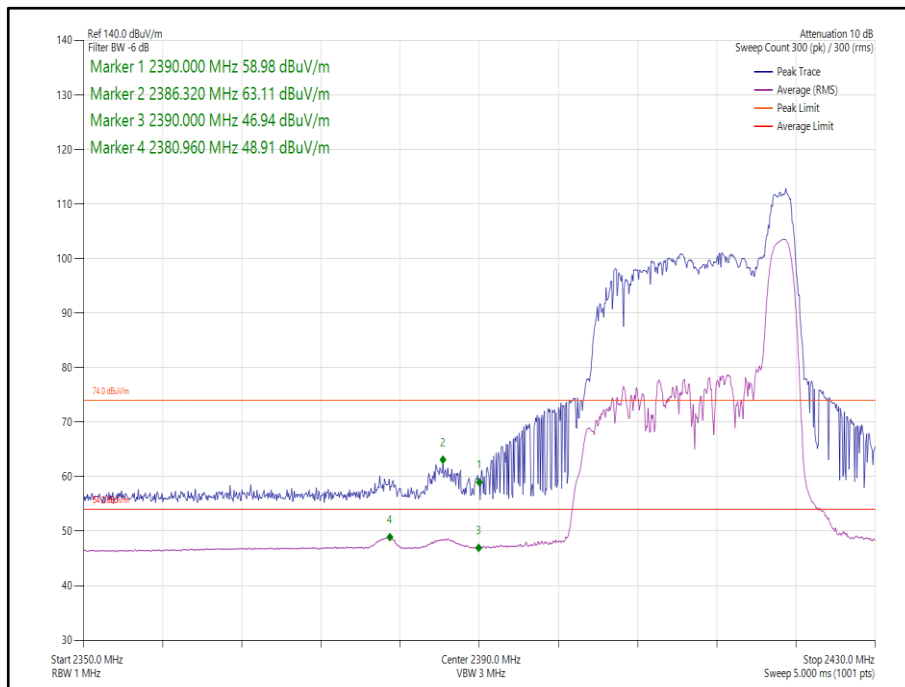


Figure 250 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2390 MHz

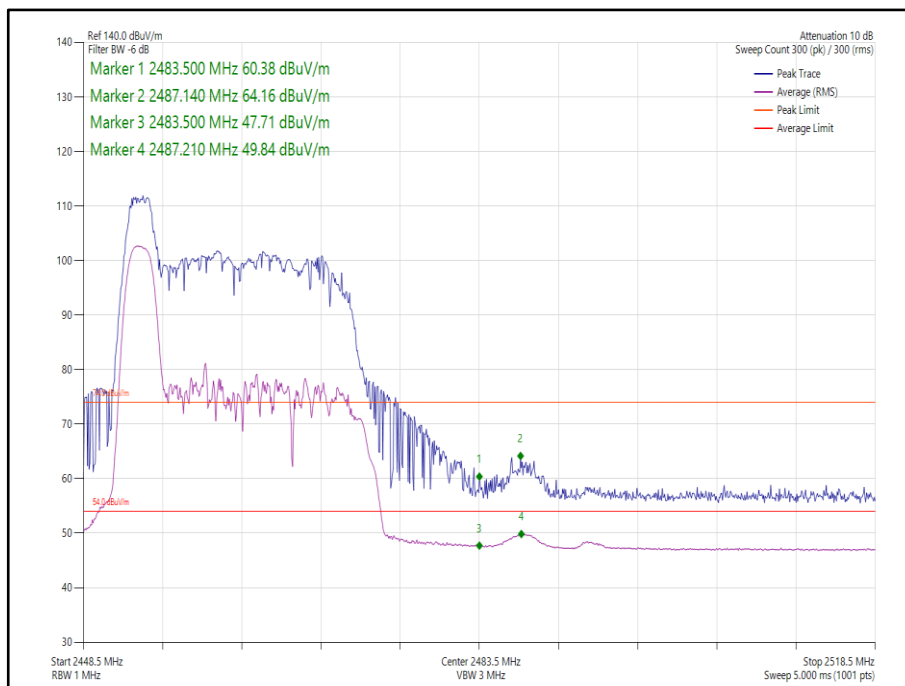


Figure 251 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz

2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11b	1Mbps	2412	2390	57.00	48.09
802.11b	1Mbps	2462	2483.5	57.33	48.07
802.11g	6Mbps	2412	2390	62.96	49.64
802.11g	6Mbps	2462	2483.5	64.47	50.16
802.11n	MCS0	2412	2390	59.69	48.81
802.11n	MCS0	2462	2483.5	61.66	48.95
802.11ax	MCS0	2412	2390	60.70	49.61
802.11ax	MCS0	2462	2483.5	66.21	52.38
802.11ax	RU26-8	2412	2390	67.60	50.36
802.11ax	RU26-0	2462	2483.5	64.56	48.99

Table 29

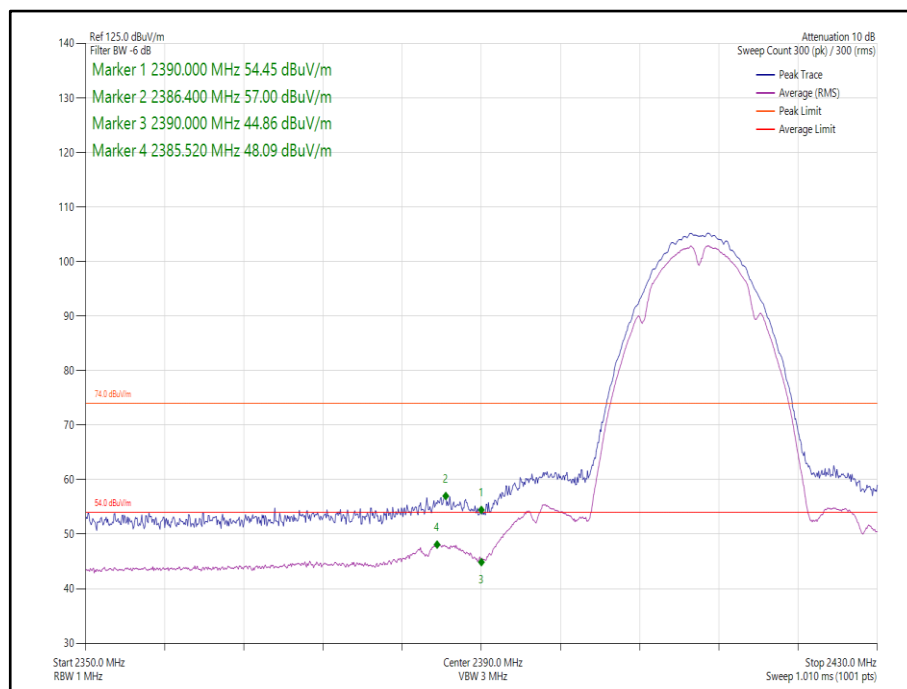


Figure 252 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2390 MHz

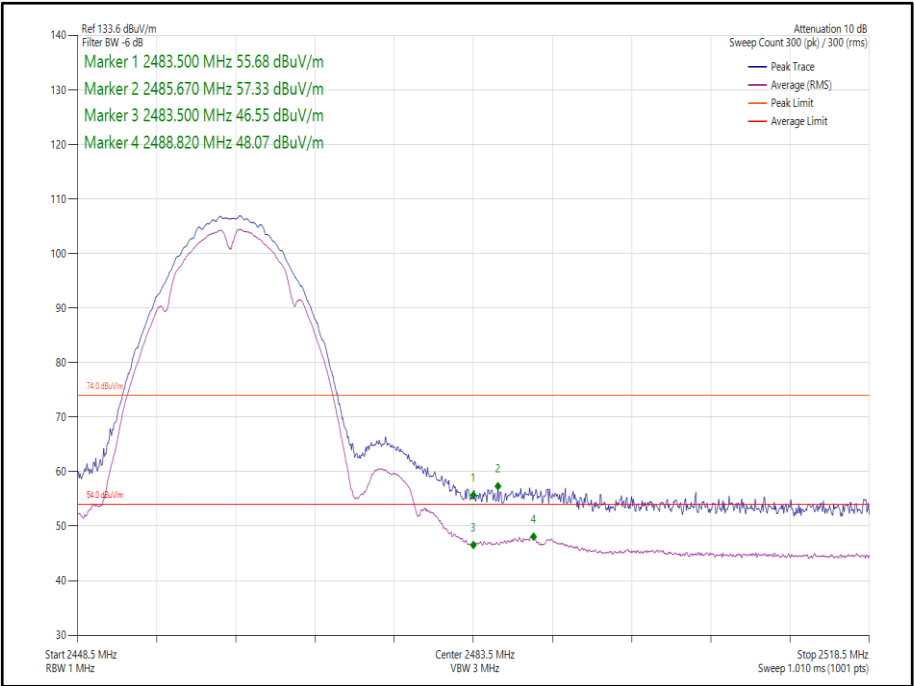


Figure 253 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

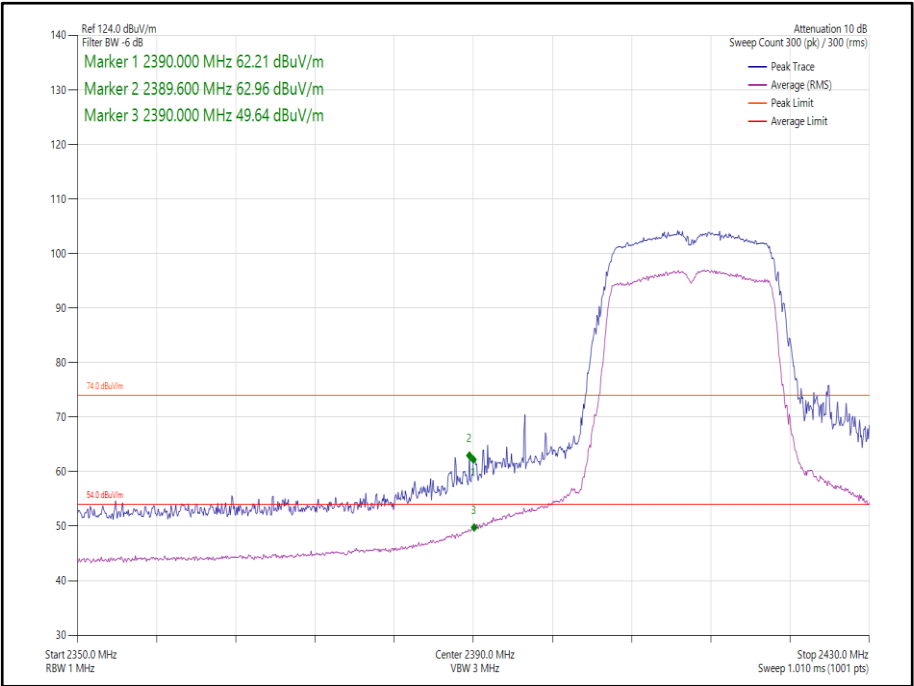


Figure 254 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2390 MHz

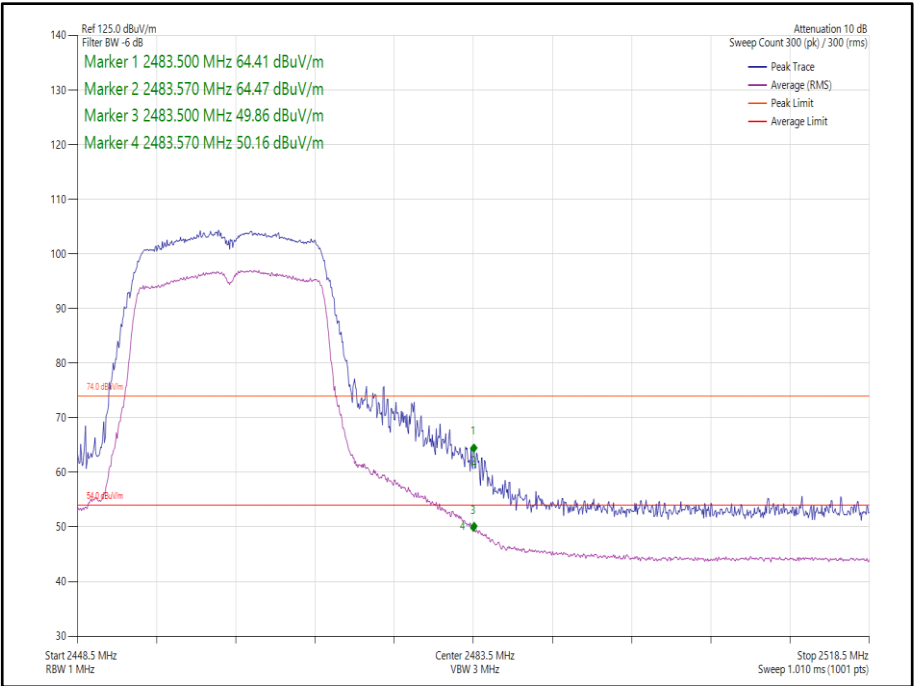


Figure 255 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

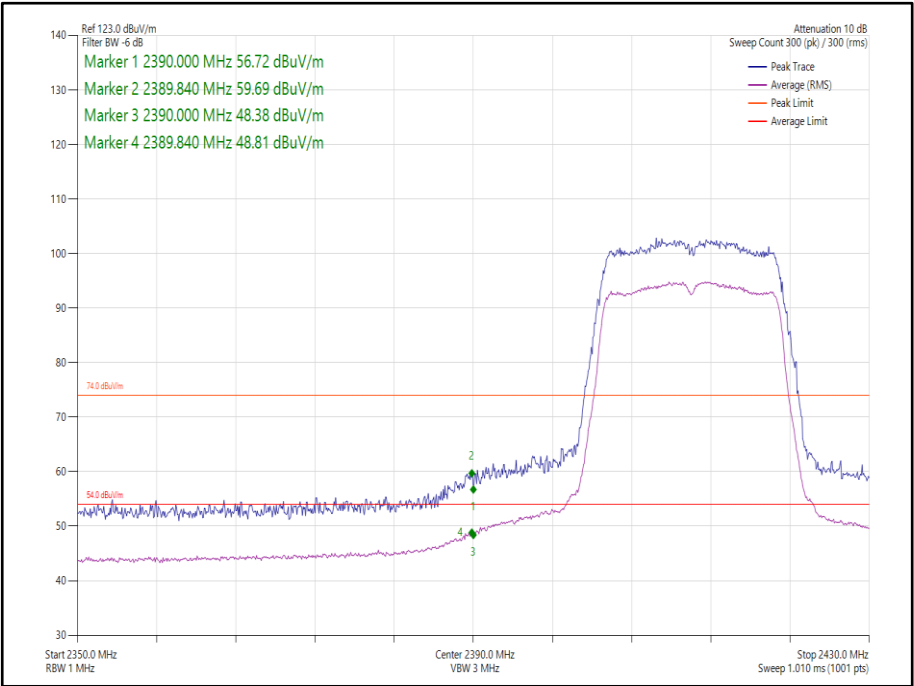


Figure 256 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2390 MHz

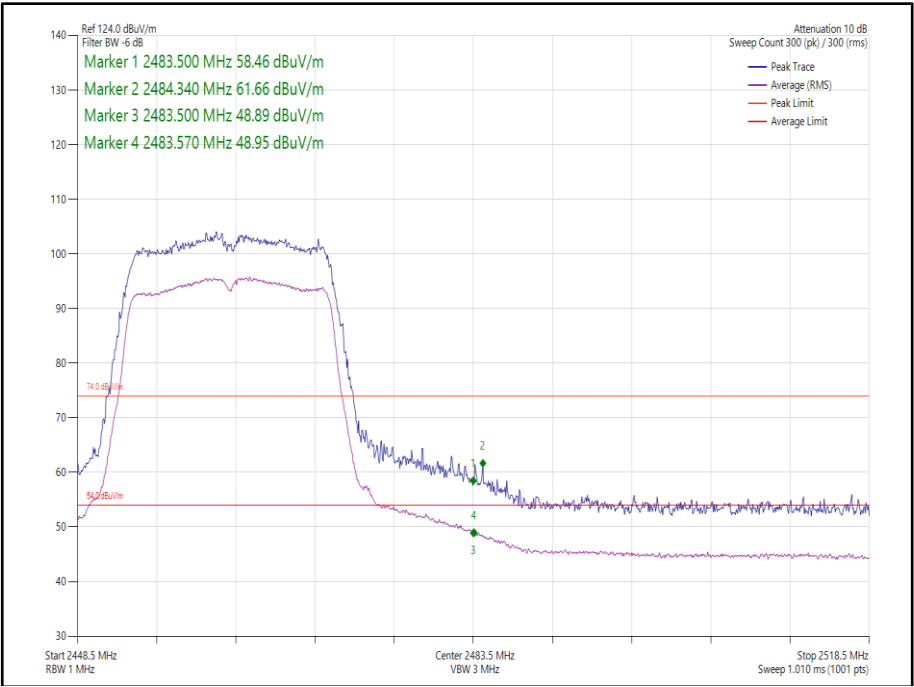


Figure 257 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

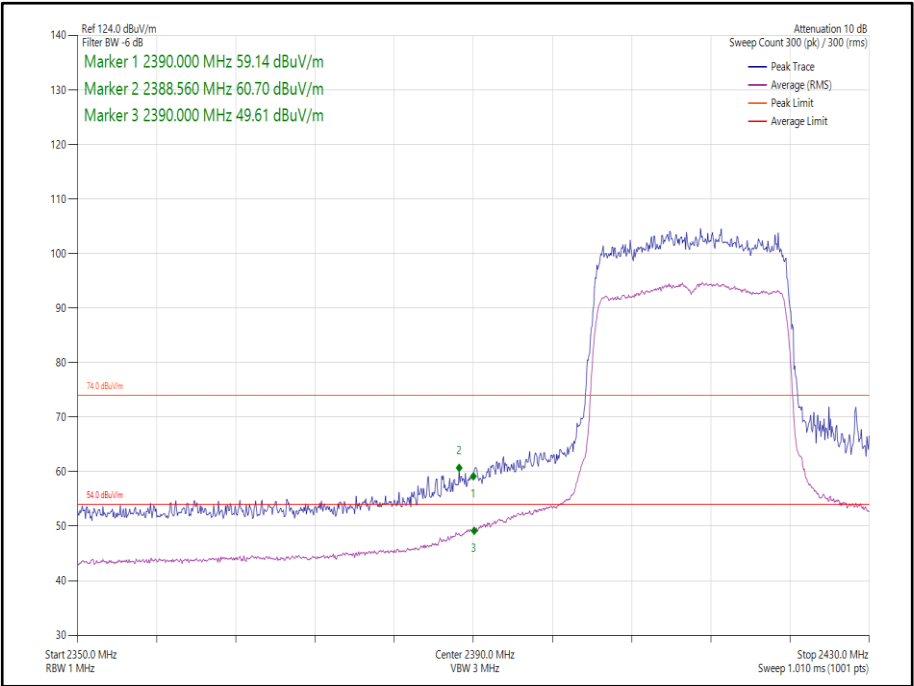


Figure 258 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2390 MHz

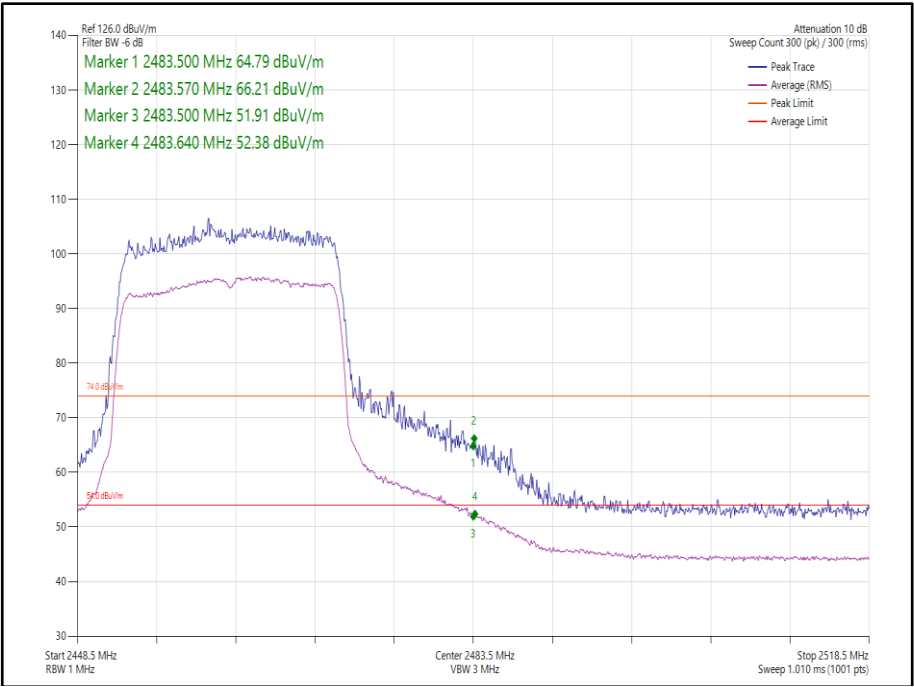


Figure 259 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

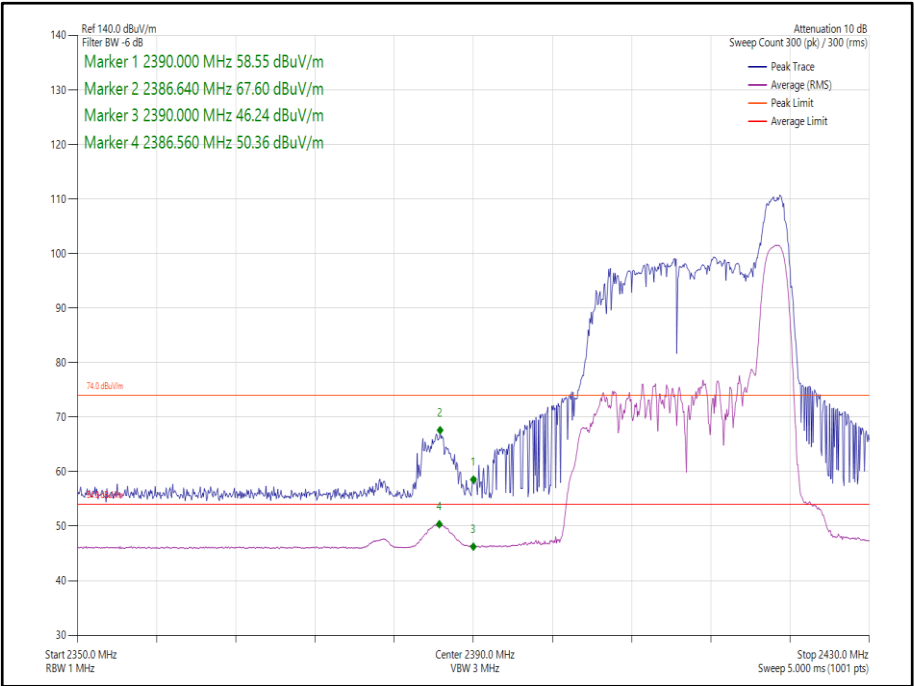


Figure 260 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2390 MHz

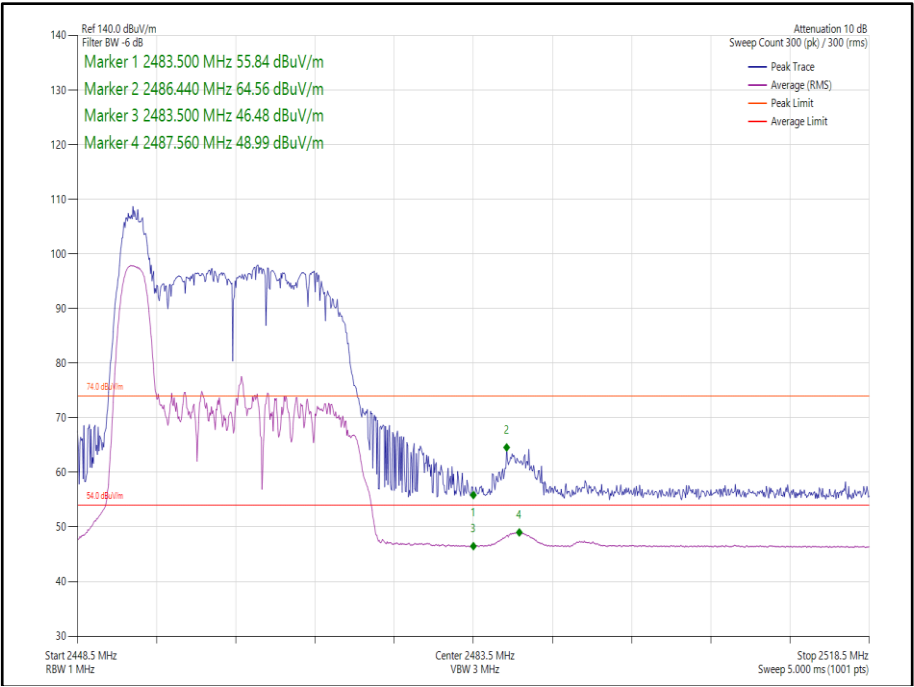


Figure 261 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz



FCC 47 CFR Part 15, Limit Clause 15.209

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$ at 3 m)
30 to 88	100
88 to 216	150
216 to 960	200
Above 960	500

Table 97

ISED RSS-GEN, Limit Clause 8.9

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$ at 3 m)
30 to 88	100
88 to 216	150
216 to 960	200
Above 960*	500

Table 98

*Unless otherwise specified, for all frequencies greater than 1 GHz, the radiated emission limits for licence-exempt radio apparatus stated in applicable RSSs (including RSS-Gen) are based on measurements using a linear average detector function having a minimum resolution bandwidth of 1 MHz. If an average limit is specified for the EUT, then the peak emission shall also be measured with instrumentation properly adjusted for such factors as pulse desensitization to ensure the peak emission is less than 20 dB above the average limit.



2.5.7 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
Power Supply	Hewlett Packard	6253A	292	-	O/P Mon
Meter	Fluke	179	4006	12	22-Mar-2025
Test Receiver	Rohde & Schwarz	ESW44	5084	12	04-Nov-2024
Emissions Software	TUV SUD	EmX V3.2.0	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
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	09-Jul-2024
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	14-Jul-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	23-May-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	25-May-2024
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	07-May-2025
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	20-Apr-2024
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	23-May-2025
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	21-May-2024
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	18-Apr-2025
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	14-Apr-2024
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	6330	12	17-Feb-2025

Table 99

TU - Traceability Unscheduled
O/P Mon – Output Monitored



2.6 Authorised Band Edges

2.6.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d)
ISED RSS-247, Clause 5.5

2.6.2 Equipment Under Test and Modification State

SiW917Y1GA, S/N: WLAN MAC address: ec:f6:4c:a0:ac:c - Modification State 0
SiW917Y1GN, S/N: WLAN MAC address: ec:f6:4c:a0:f:4 - Modification State 0

2.6.3 Date of Test

12-April-2024 to 10-July-2024

2.6.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.10.4.

The EUT was supplied with 3.3 VDC by means of a regulator residing in the host certification board, which was in turn being powered over the host certification board's USB connector.

The Power Settings used for testing are as follows:

802.11b Channel 1, 15; Channel 11, 15

802.11g Channel 1, 11; Channel 11, 10

802.11n Channel 1, 10; Channel 11, 10

802.11ax Channel 1, 10; Channel 11, 10

In addition to measurements performed on the worst-case modes of operation as determined by ANSI C63.10 clause 5.6.2.2, measurements were also performed on HE20 RU26-8 for 2412 MHz and RU26-0 for 2462 MHz which were identified as worst-case modes of operation as identified during preliminary measurements performed by the applicant.

2.6.5 Environmental Conditions

Ambient Temperature 19.8 - 19.9 °C

Relative Humidity 39.8 - 47.8 %

2.6.6 Test Results

2.4 GHz WLAN - PCB Trace Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11b	1Mbps	2412	2400	-45.49
802.11b	1Mbps	2462	2483.5	-52.98
802.11g	6Mbps	2412	2400	-37.11
802.11g	6Mbps	2462	2483.5	-44.11
802.11n	MCS0	2412	2400	-38.68
802.11n	MCS0	2462	2483.5	-43.19
802.11ax	MCS0	2412	2400	-37.91
802.11ax	MCS0	2462	2483.5	-41.82
802.11ax	RU26-8	2412	2400	-42.22
802.11ax	RU26-0	2462	2483.5	-49.35

Table 29

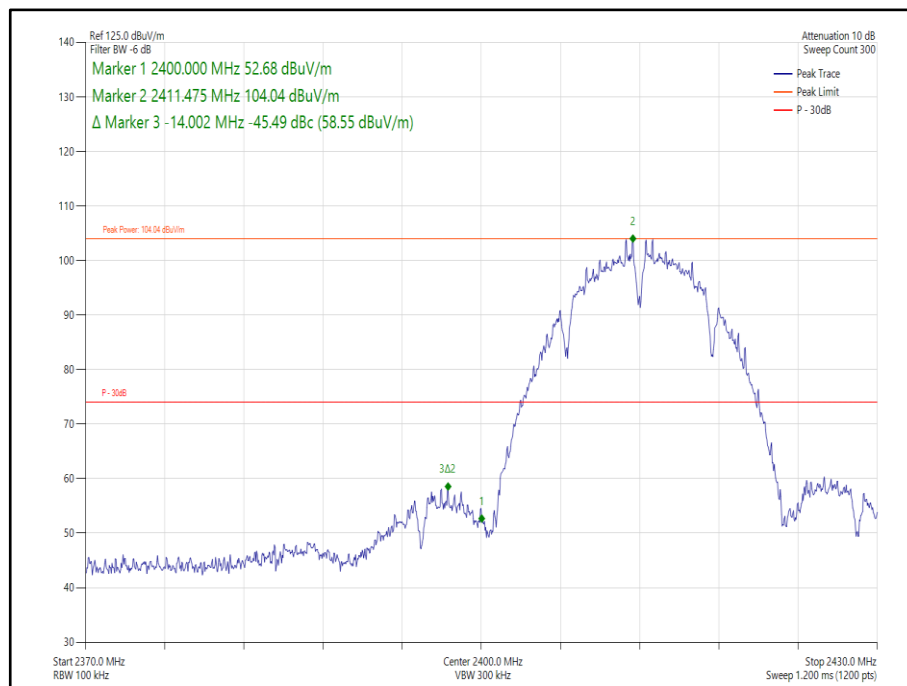


Figure 262 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2400 MHz

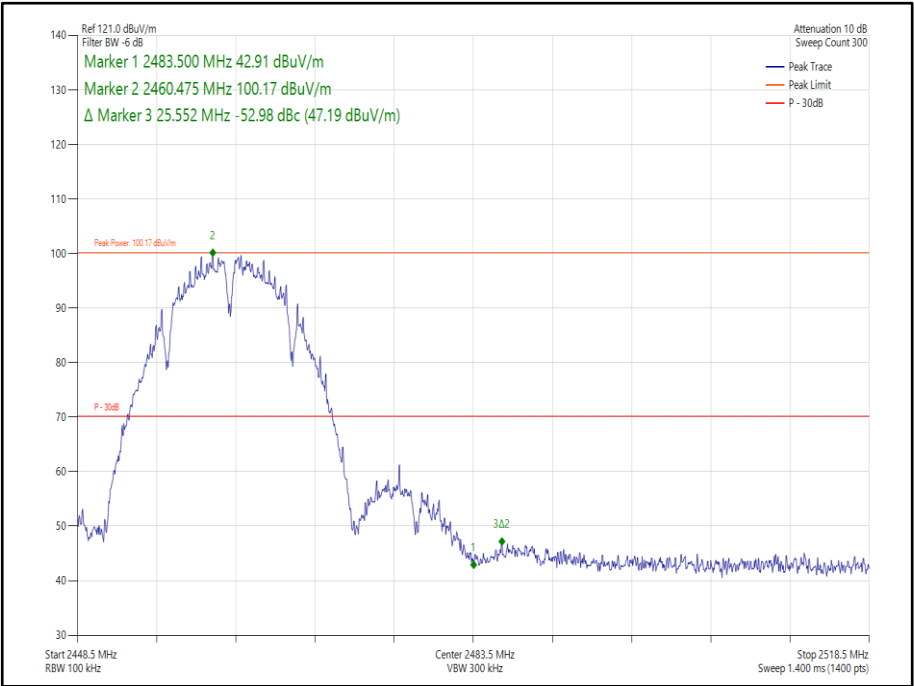


Figure 263 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

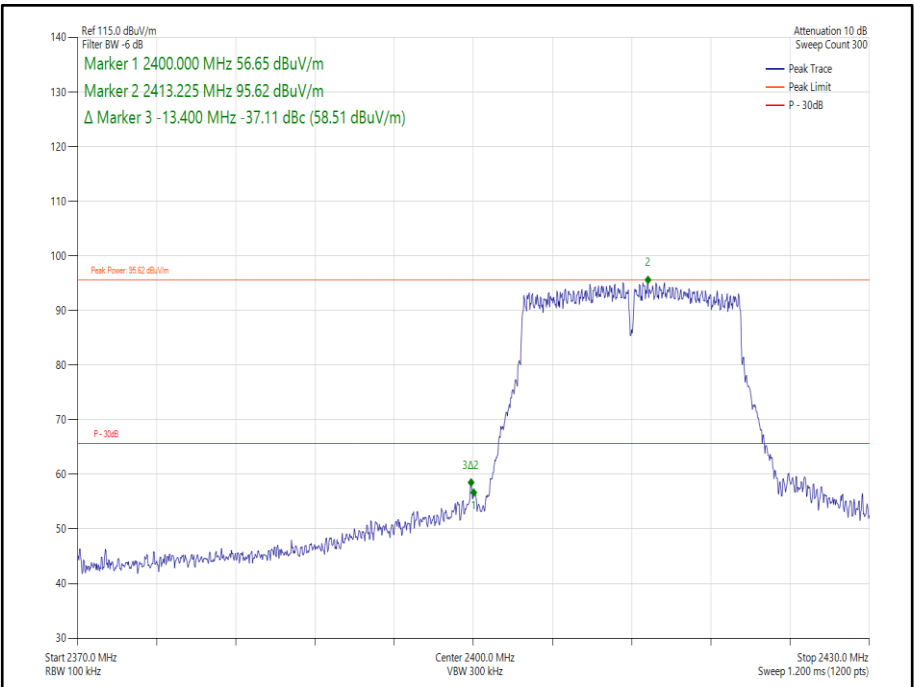


Figure 264 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2400 MHz

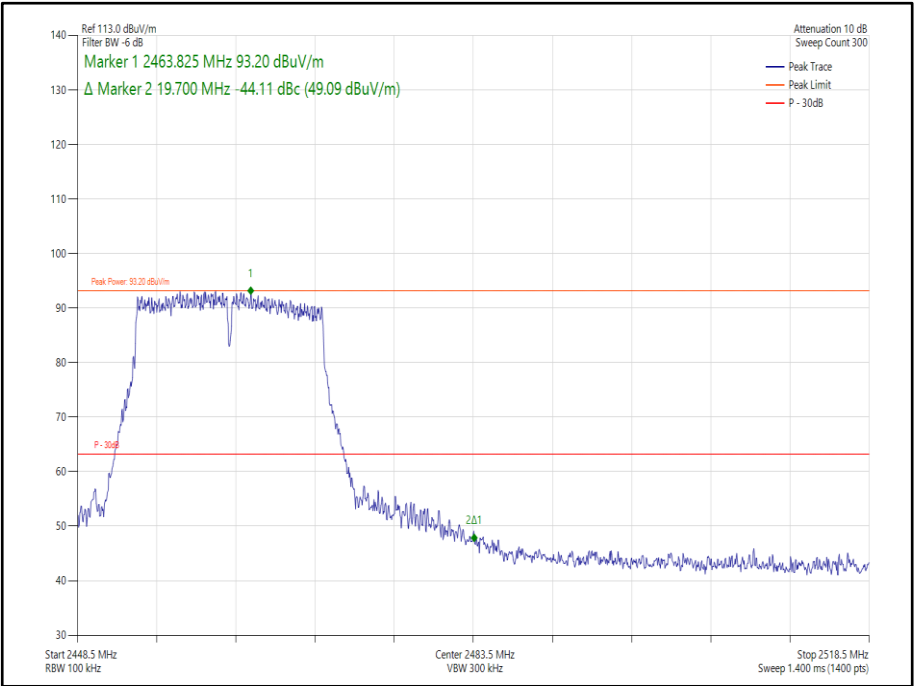


Figure 265 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz

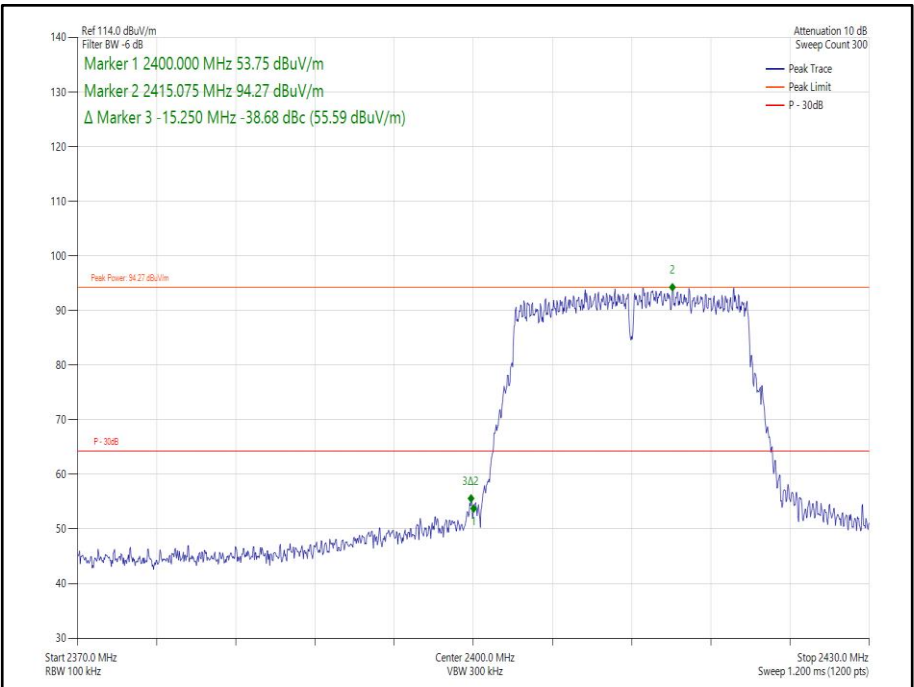


Figure 266 - CH1_802.11n, 2412 MHz, Band Edge Frequency 2400 MHz

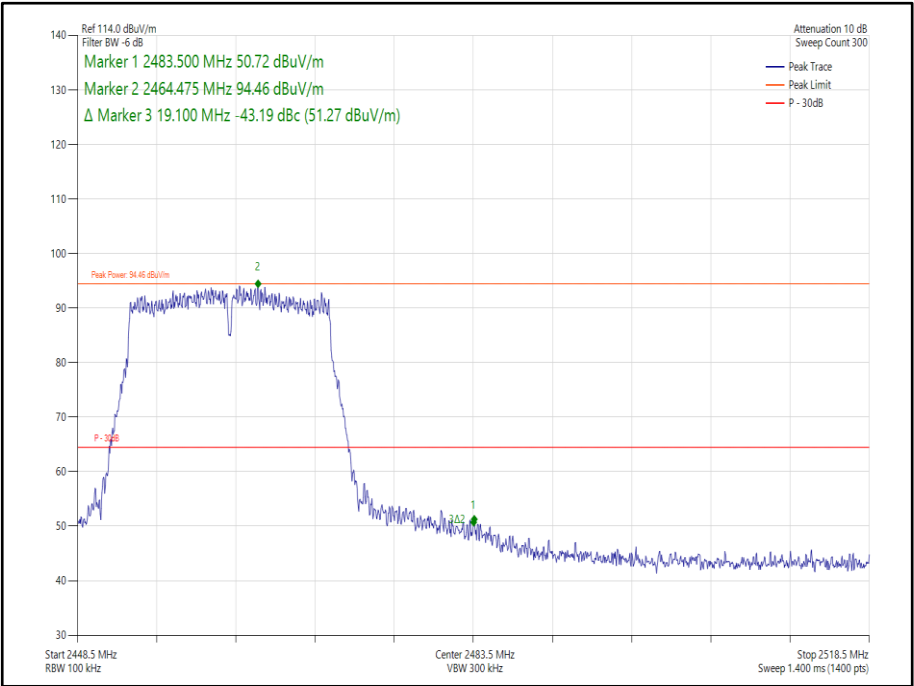


Figure 267 - CH11_802.11n, 2462 MHz, Band Edge Frequency 2483.5 MHz

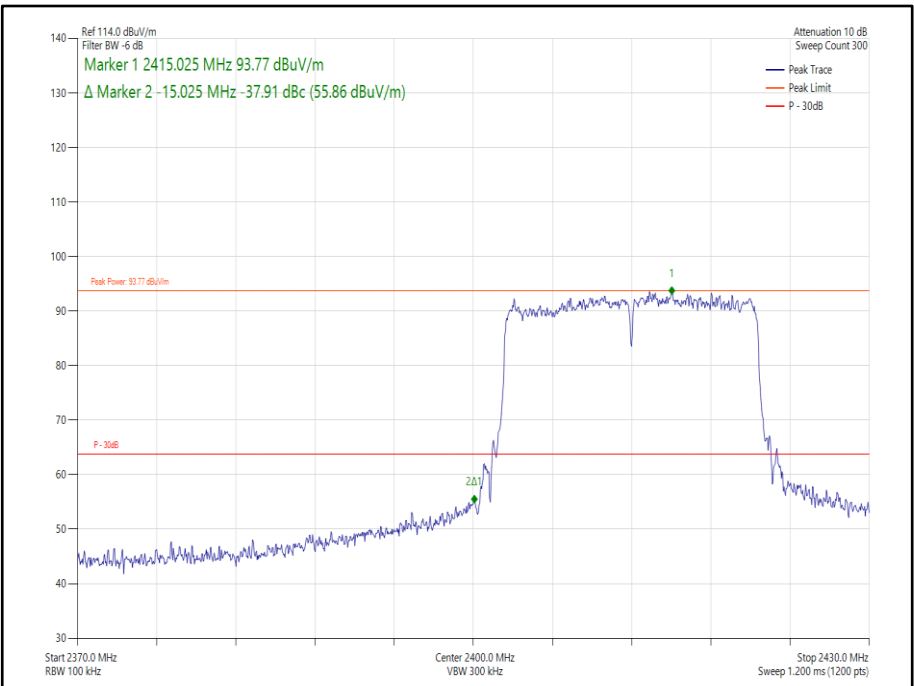


Figure 268 - CH11_802.11ax, 2412 MHz, Band Edge Frequency 2400 MHz

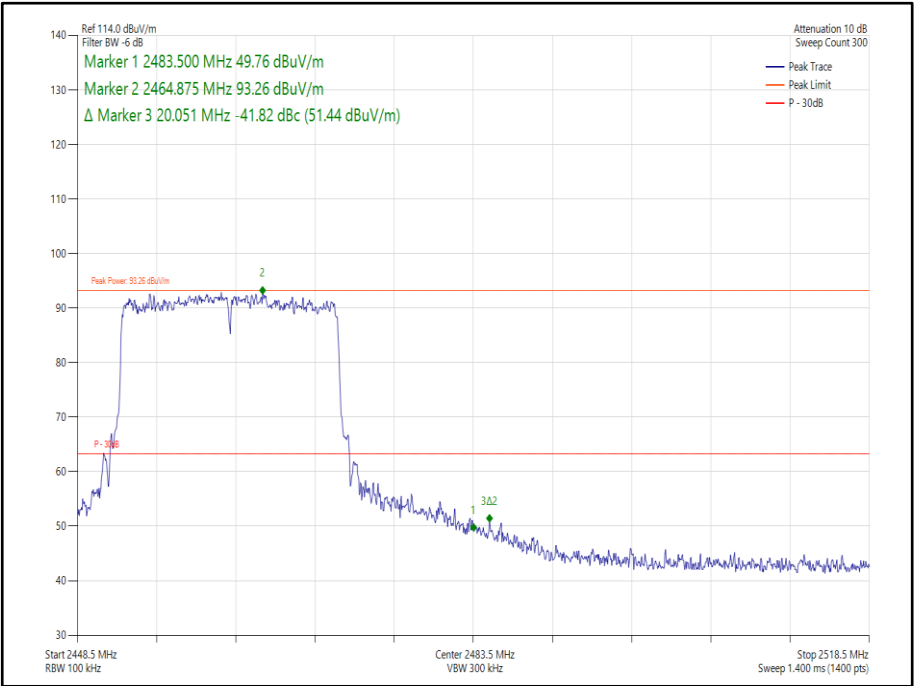


Figure 269 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

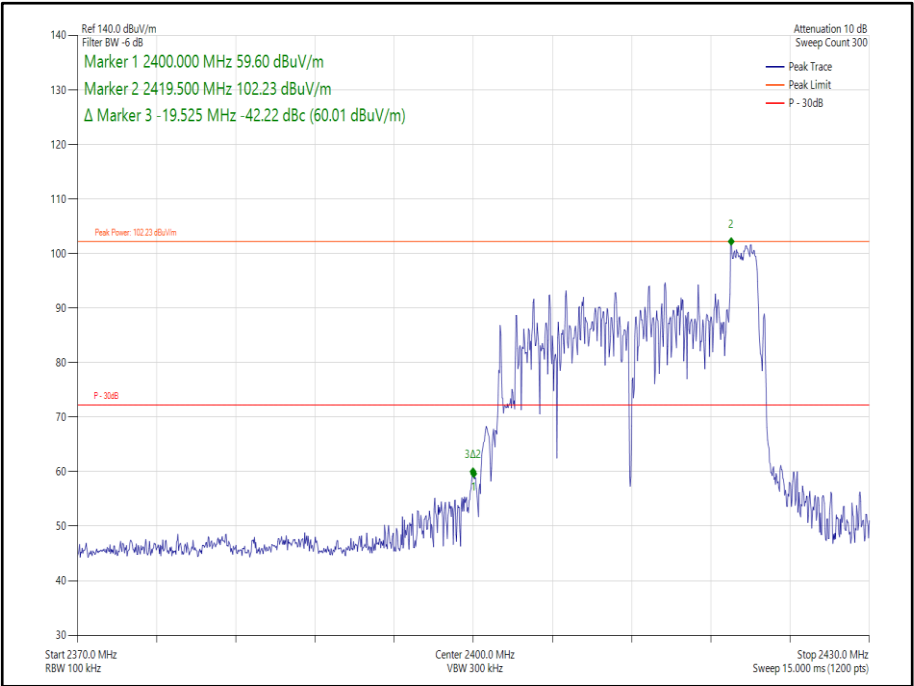


Figure 270 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2400 MHz

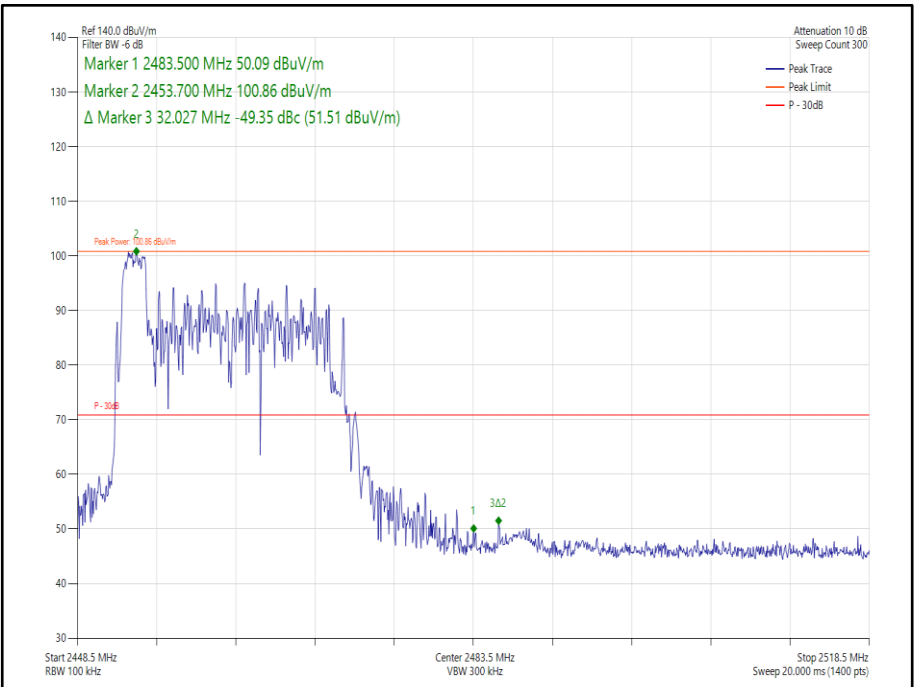


Figure 271 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz

2.4 GHz WLAN - ANT-2.4-CW-CT-SMA/RPS Antenna

Mode	Data Rate/MCS	Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11b	1Mbps	2412	2400	-47.04
802.11b	1Mbps	2462	2483.5	-54.74
802.11g	6Mbps	2412	2400	-37.20
802.11g	6Mbps	2462	2483.5	-46.16
802.11n	MCS0	2412	2400	-36.81
802.11n	MCS0	2462	2483.5	-43.47
802.11ax	MCS0	2412	2400	-35.11
802.11ax	MCS0	2462	2483.5	-39.38
802.11ax	RU26-8	2412	2400	-40.18
802.11ax	RU26-0	2462	2483.5	-45.08

Table 29

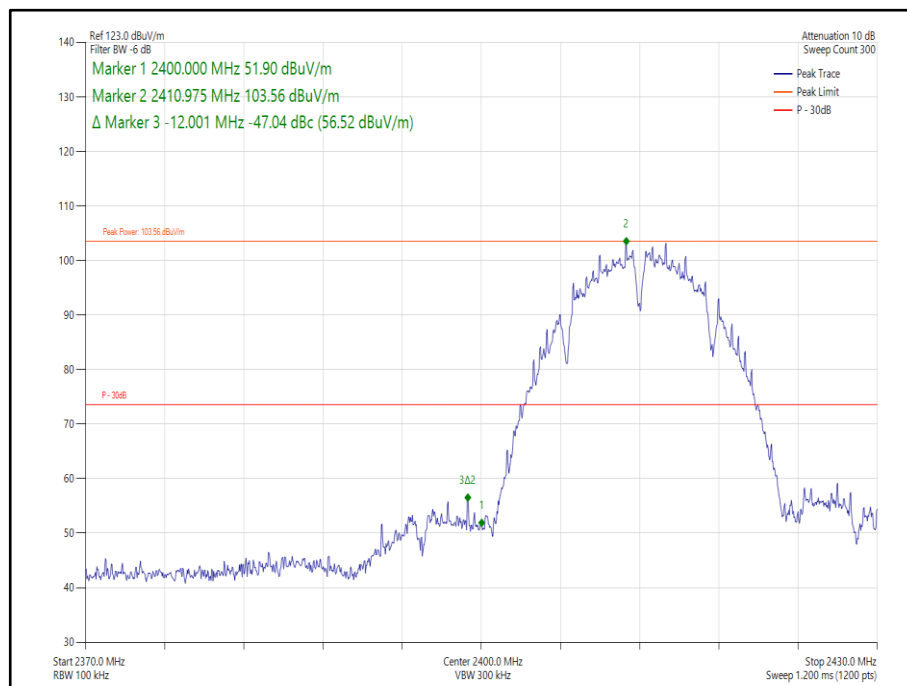


Figure 272 - CH1_802.11b, 2412 MHz, Band Edge Frequency 2400 MHz

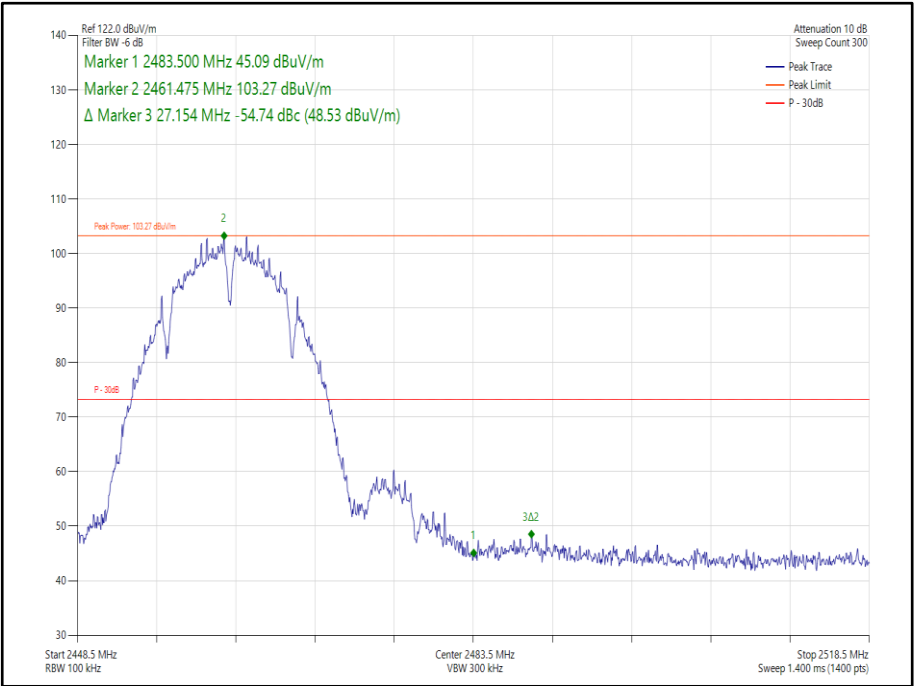


Figure 273 - CH11_802.11b, 2462 MHz, Band Edge Frequency 2483.5 MHz

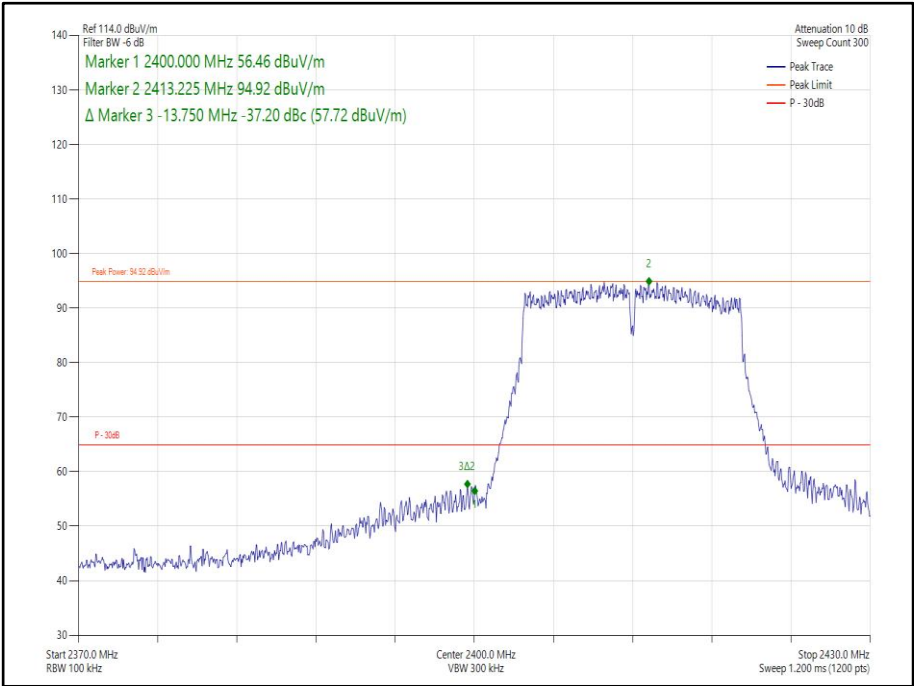


Figure 274 - CH1_802.11g, 2412 MHz, Band Edge Frequency 2400 MHz

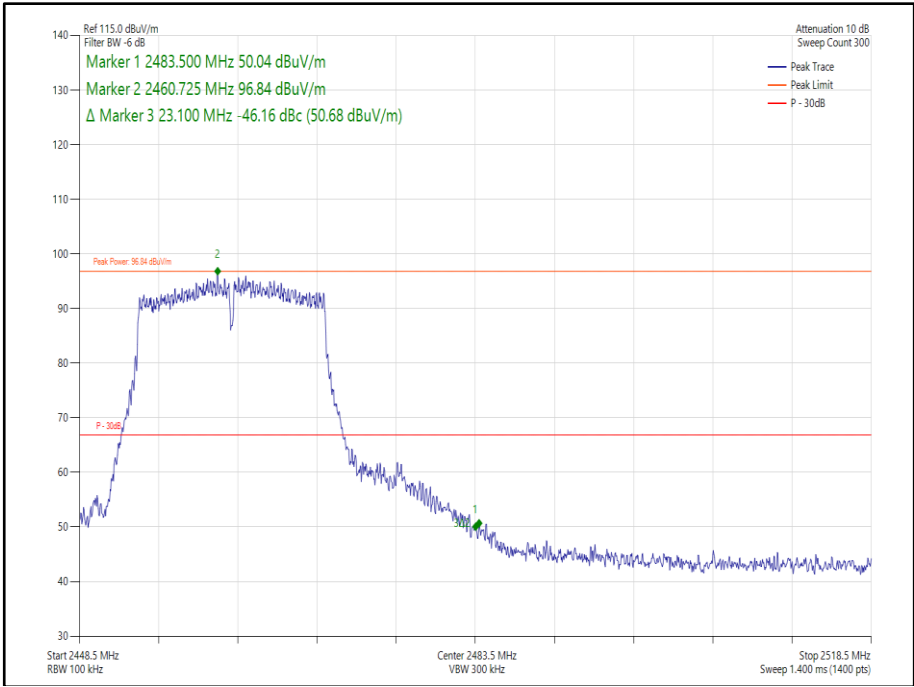
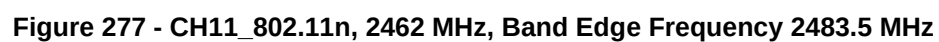


Figure 275 - CH11_802.11g, 2462 MHz, Band Edge Frequency 2483.5 MHz



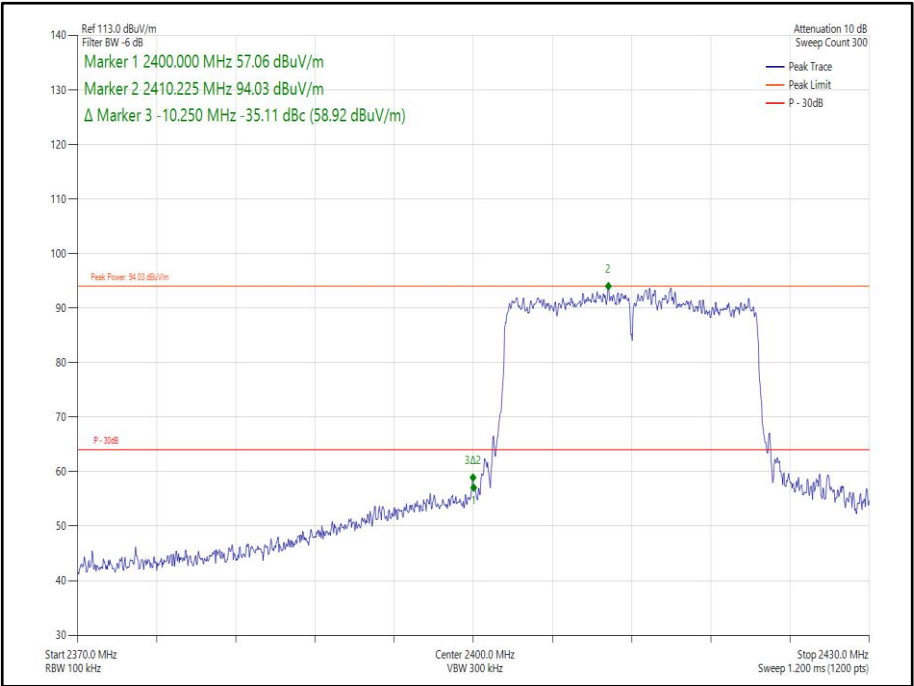


Figure 278 - CH1_802.11ax, 2412 MHz, Band Edge Frequency 2400 MHz

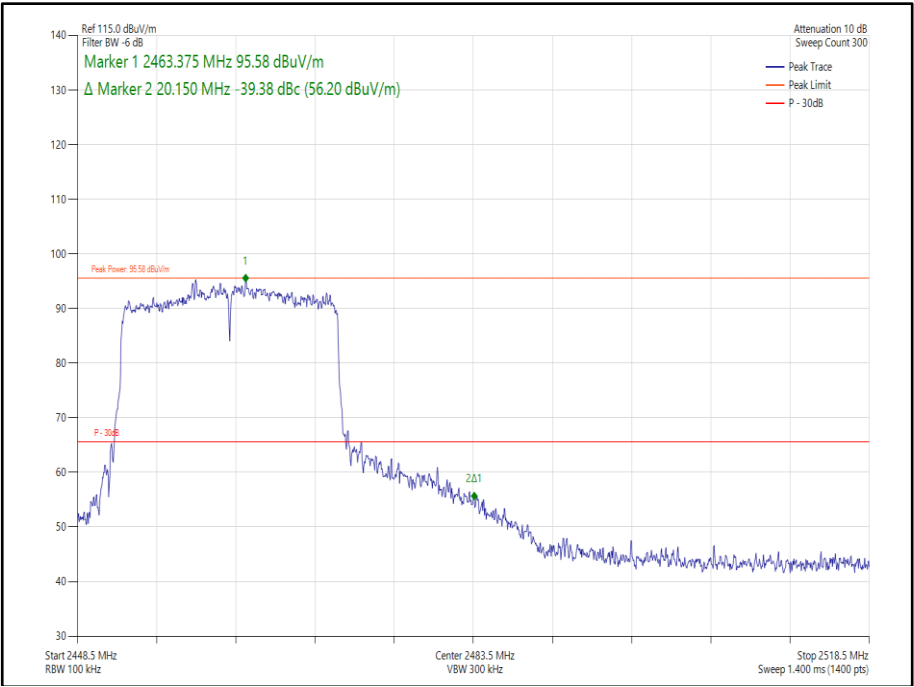


Figure 279 - CH11_802.11ax, 2462 MHz, Band Edge Frequency 2483.5 MHz

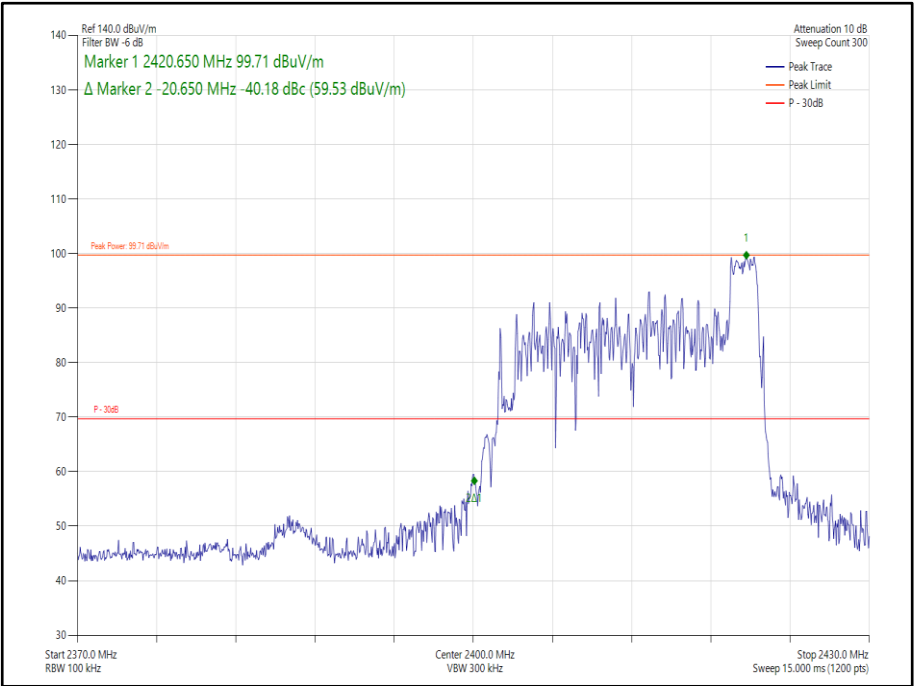


Figure 280 - CH1_802.11ax_RU26-8, 2412 MHz, Band Edge Frequency 2400 MHz

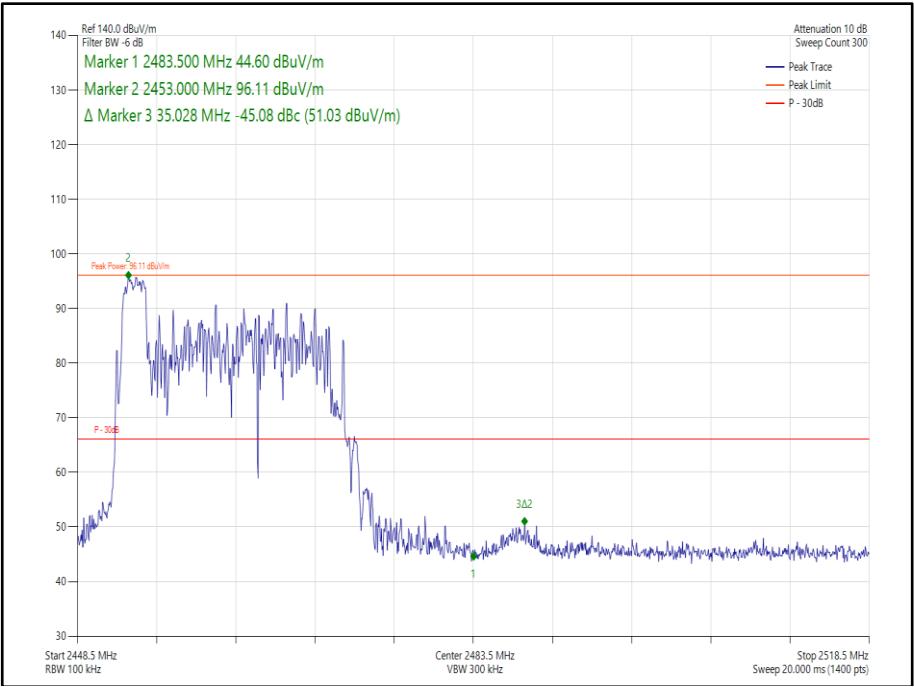


Figure 281 - CH11_802.11ax_RU26-0, 2462 MHz, Band Edge Frequency 2483.5 MHz



FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



2.6.7 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
Power Supply	Hewlett Packard	6253A	292	-	O/P Mon
Meter	Fluke	179	4006	12	22-Mar-2025
Test Receiver	Rohde & Schwarz	ESW44	5084	12	04-Nov-2024
Emissions Software	TUV SUD	EmX V3.2.0	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
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	09-Jul-2024
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	14-Jul-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	23-May-2025
Pre-Amplifier (1 GHz to 26.5 GHz)	Agilent Technologies	8449B	5445	12	25-May-2024
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	07-May-2025
Thermo-Hygro-Barometer	PCE Instruments	OCE-THB-40	5470	12	20-Apr-2024
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	23-May-2025
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5512	12	21-May-2024
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	18-Apr-2025
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5518	12	14-Apr-2024
Cable (N-Type to N-Type, 8 m)	Junkosha	MWX221-08000NMSNMS/B	6330	12	17-Feb-2025

Table 100

TU - Traceability Unscheduled

3 Photographs

3.1 Test Setup Photographs

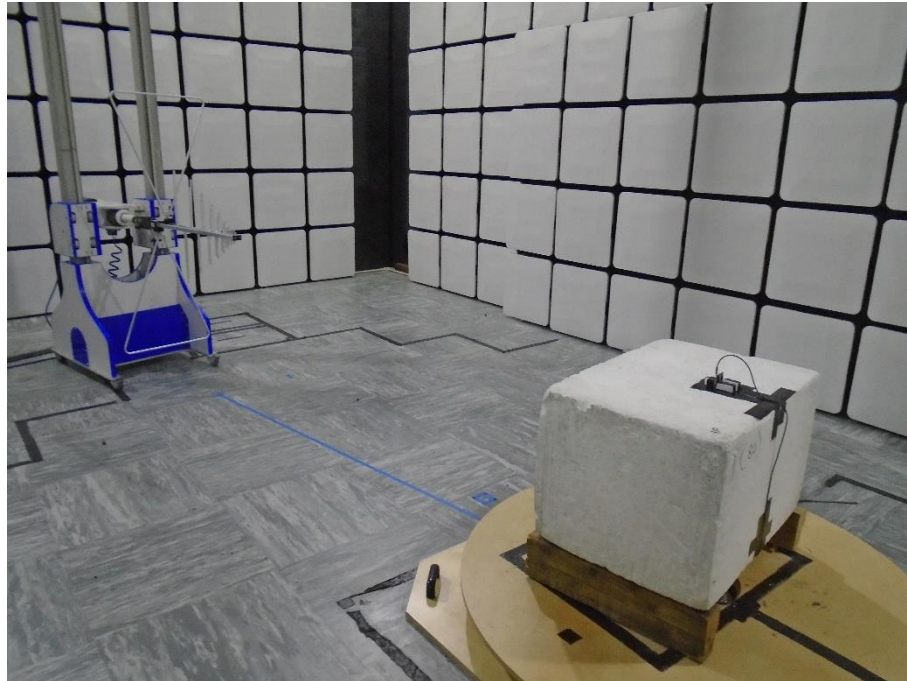


Figure 282 – 30 GHz to 1 GHz – Internal Antenna

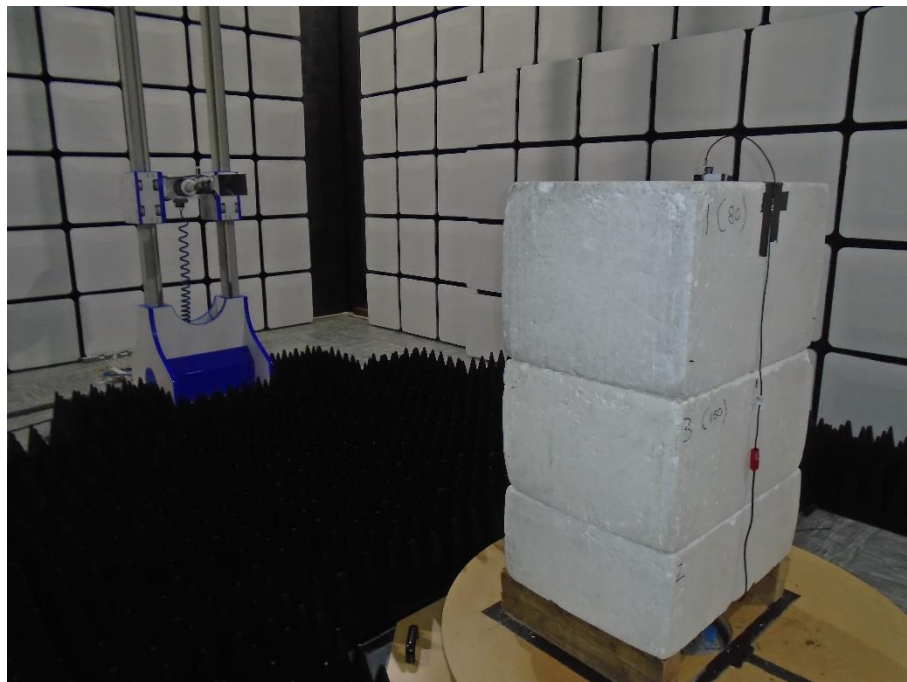


Figure 283 – 1 GHz to 18 GHz - Internal Antenna



Figure 284 – 18 GHz to 26 GHz - Internal Antenna



Figure 285 – 30 MHz to 1 GHz – External Antenna

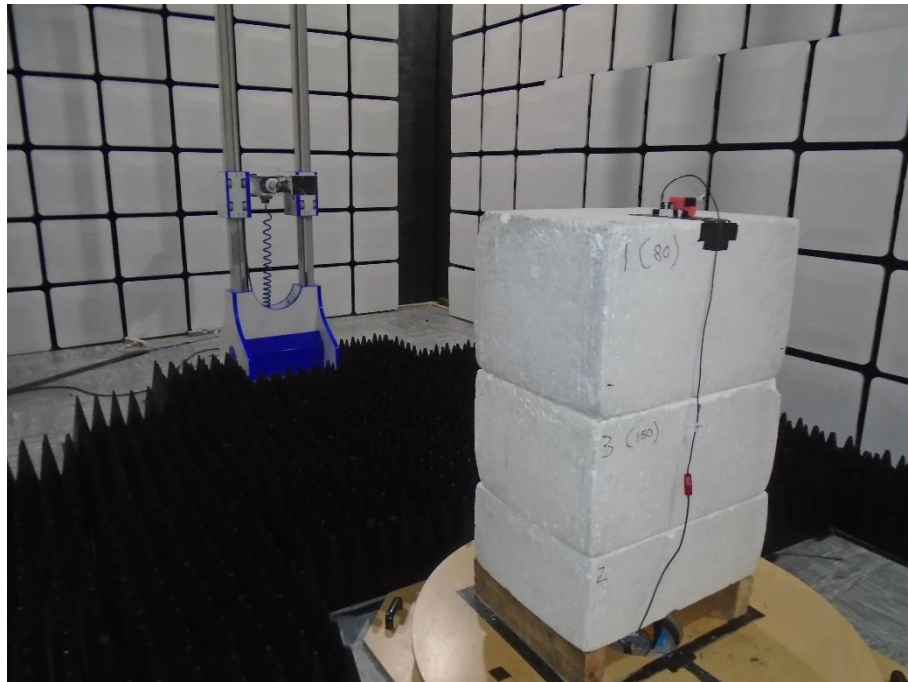


Figure 286 – 1 GHz to 18 GHz – External Antenna



Figure 287 – 18 GHz to 26 GHz – External Antenna



4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Emission Bandwidth	± 447.29 kHz
Maximum Conducted Output Power	± 1.38 dB
Power Spectral Density	± 1.49 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Restricted Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Authorised Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB

Table 101

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.



ANNEX A

Maximum Conducted Output Power at Extreme Voltages

Measurements in this section were performed at the request of the manufacturer to show that the RF Output power remained compliant when subjected to the extreme voltage conditions stated by the manufacturer to provide evidence that the implementation is satisfactory to comply to the requirements of FCC 47 CFR 15.212.



Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (b),
ISED RSS-247, Clause 5.4
ISED RSS-GEN, Clause 6.12

Equipment Under Test and Modification State

SiW917Y1GN, S/N: WLAN MAC ec:f6:4c:a0:f:4 - Modification State 0

Date of Test

29-April-2024

Test Method

The test was performed in accordance with ANSI C63.10 clause 11.9.2.3.2 Method AVGPM-G.

The EUT was supplied directly with a DC PSU.

Environmental Conditions

Ambient Temperature 20.2 °C
Relative Humidity 41.3 %

Test Results

2.4 GHz WLAN - Extreme Voltages

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11b	Duty Cycle (%):	100.0
Data Rate:	1 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream



Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	15	3.63	16.10	-	-	-	30.00	-13.90
2412	15	3.00	15.45	-	-	-	30.00	-14.55
2437	20	3.63	20.90	-	-	-	30.00	-9.10
2437	20	3.00	19.91	-	-	-	30.00	-10.09
2462	15	3.63	15.24	-	-	-	30.00	-14.76
2462	15	3.00	14.86	-	-	-	30.00	-15.14

Table 102 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	15	3.63	16.10	-	-	-	30.00	-13.90	18.90	36.00	-17.10
2412	15	3.00	15.45	-	-	-	30.00	-14.55	18.25	36.00	-17.75
2437	20	3.63	20.90	-	-	-	30.00	-9.10	23.70	36.00	-12.30
2437	20	3.00	19.91	-	-	-	30.00	-10.09	22.71	36.00	-13.29
2462	15	3.63	15.24	-	-	-	30.00	-14.76	18.04	36.00	-17.96
2462	15	3.00	14.86	-	-	-	30.00	-15.14	17.66	36.00	-18.34

Table 103 - ISSED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11g	Duty Cycle (%):	100.0
Data Rate:	6 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream



Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	11	3.63	12.93	-	-	-	30.00	-17.07
2412	11	3.00	12.65	-	-	-	30.00	-17.35
2437	20	3.63	20.91	-	-	-	30.00	-9.09
2437	20	3.00	19.75	-	-	-	30.00	-10.25
2462	10	3.63	11.07	-	-	-	30.00	-18.93
2462	10	3.00	10.85	-	-	-	30.00	-19.15

Table 104 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	11	3.63	12.93	-	-	-	30.00	-17.07	15.73	36.00	-20.27
2412	11	3.00	12.65	-	-	-	30.00	-17.35	15.45	36.00	-20.55
2437	20	3.63	20.91	-	-	-	30.00	-9.09	23.71	36.00	-12.29
2437	20	3.00	19.75	-	-	-	30.00	-10.25	22.55	36.00	-13.45
2462	10	3.63	11.07	-	-	-	30.00	-18.93	13.87	36.00	-22.13
2462	10	3.00	10.85	-	-	-	30.00	-19.15	13.65	36.00	-22.35

Table 105 - ISED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream



Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	10	3.63	11.86	-	-	-	30.00	-18.14
2412	10	3.00	11.68	-	-	-	30.00	-18.32
2437	20	3.63	20.77	-	-	-	30.00	-9.23
2437	20	3.00	19.74	-	-	-	30.00	-10.26
2462	10	3.63	10.59	-	-	-	30.00	-19.41
2462	10	3.00	10.46	-	-	-	30.00	-19.54

Table 106 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	10	3.63	11.86	-	-	-	30.00	-18.14	14.66	36.00	-21.34
2412	10	3.00	11.68	-	-	-	30.00	-18.32	14.48	36.00	-21.52
2437	20	3.63	20.77	-	-	-	30.00	-9.23	23.57	36.00	-12.43
2437	20	3.00	19.74	-	-	-	30.00	-10.26	22.54	36.00	-13.46
2462	10	3.63	10.59	-	-	-	30.00	-19.41	13.39	36.00	-22.61
2462	10	3.00	10.46	-	-	-	30.00	-19.54	13.26	36.00	-22.74

Table 107 - ISED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream



Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	10	3.63	12.11	-	-	-	30.00	-17.89
2412	10	3.00	11.98	-	-	-	30.00	-18.02
2437	18	3.63	18.71	-	-	-	30.00	-11.29
2437	18	3.00	17.85	-	-	-	30.00	-12.15
2462	10	3.63	11.44	-	-	-	30.00	-18.56
2462	10	3.00	10.82	-	-	-	30.00	-19.18

Table 108 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	10	3.63	12.11	-	-	-	30.00	-17.89	14.91	36.00	-21.09
2412	10	3.00	11.98	-	-	-	30.00	-18.02	14.78	36.00	-21.22
2437	18	3.63	18.71	-	-	-	30.00	-11.29	21.51	36.00	-14.49
2437	18	3.00	17.85	-	-	-	30.00	-12.15	20.65	36.00	-15.35
2462	10	3.63	11.44	-	-	-	30.00	-18.56	14.24	36.00	-21.76
2462	10	3.00	10.82	-	-	-	30.00	-19.18	13.62	36.00	-22.38

Table 109 - ISSED Maximum Conducted (average) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU26	Duty Cycle (%):	100.0
Modulation Coding Scheme:	MCS0x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	2.80
Supply Voltage:	See Table	TX Mode:	Continuous Modulated Stream



Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)
			A	B	C	D		
2412	10	3.63	11.53	-	-	-	30.00	-18.47
2412	10	3.00	11.41	-	-	-	30.00	-18.59
2437	18	3.63	18.29	-	-	-	30.00	-11.71
2437	18	3.00	17.45	-	-	-	30.00	-12.55
2462	10	3.63	10.85	-	-	-	30.00	-19.15
2462	10	3.00	10.27	-	-	-	30.00	-19.73

Table 110 - FCC Maximum Conducted (average) Output Power Results

Test Frequency (MHz)	Power Index	Supply Voltage (VDC)	Maximum Conducted Output Power (dBm)				Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
			A	B	C	D					
2412	10	3.63	11.53	-	-	-	30.00	-18.47	14.33	36.00	-21.67
2412	10	3.00	11.41	-	-	-	30.00	-18.59	14.21	36.00	-21.79
2437	18	3.63	18.29	-	-	-	30.00	-11.71	21.09	36.00	-14.91
2437	18	3.00	17.45	-	-	-	30.00	-12.55	20.25	36.00	-15.75
2462	10	3.63	10.85	-	-	-	30.00	-19.15	13.65	36.00	-22.35
2462	10	3.00	10.27	-	-	-	30.00	-19.73	13.07	36.00	-22.93

Table 111 - ISED Maximum Conducted (average) Output Power Results

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

ISED RSS-247, Limit Clause 5.4 (d)

For DTSSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.



FCC 47 CFR Part 15, Limit Clause 15.247 (b)(2)

For frequency hopping systems operating in the 902–928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels.

ISED RSS-247, Limit Clause 5.4 (a)

For FHSs operating in the band 902-928 MHz, the maximum peak conducted output power shall not exceed 1.0 W, and the e.i.r.p. shall not exceed 4 W if the hopset uses 50 or more hopping channels; the maximum peak conducted output power shall not exceed 0.25 W and the e.i.r.p. shall not exceed 1 W if the hopset uses less than 50 hopping channels.

Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	75 Mk3	455	12	15-Dec-2024
Hygrometer	Rotronic	I-1000	3220	12	28-Nov-2024
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	18-Sep-2025
USB Power Sensor	Boonton	RTP5008	5833	12	12-Jul-2024
Modular Power System Mainframe	Keysight Technologies	N6701C	5835	-	TU
DC Power Module 60V 20A 300W	Keysight Technologies	N6754A	5836	-	O/P Mon
GPSDR Frequency standard	Orolia	SecureSync 2402-053	6339	6	14-Sep-2024
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6350	-	26-Jul-2024
SCU Cable Assembly SCU	TUV SUD	SPECTRUM_SCU_CA	6638	12	26-Jul-2024

Table 112

TU - Traceability Unscheduled

O/P Mon – Output Monitored using calibrated equipment