

Figure 63 - 2.4 GHz 802.15.4-CH19-Z, 2445 MHz, 1 GHz to 25 GHz, Vertical (Peak)

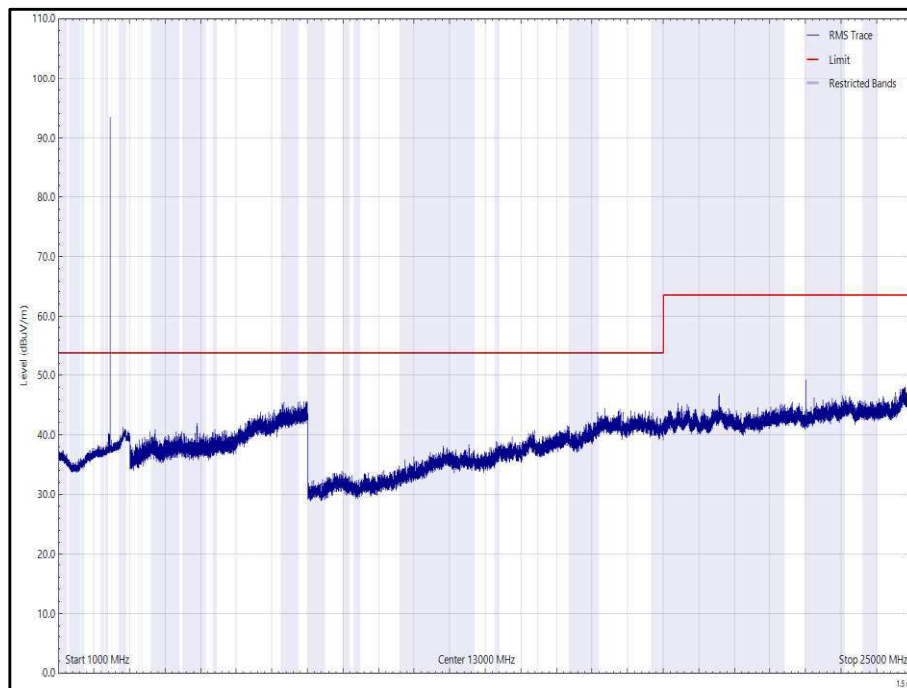


Figure 64 - 2.4 GHz 802.15.4-CH19-Z, 2445 MHz, 1 GHz to 25 GHz, Vertical (rms)



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

Table 45 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

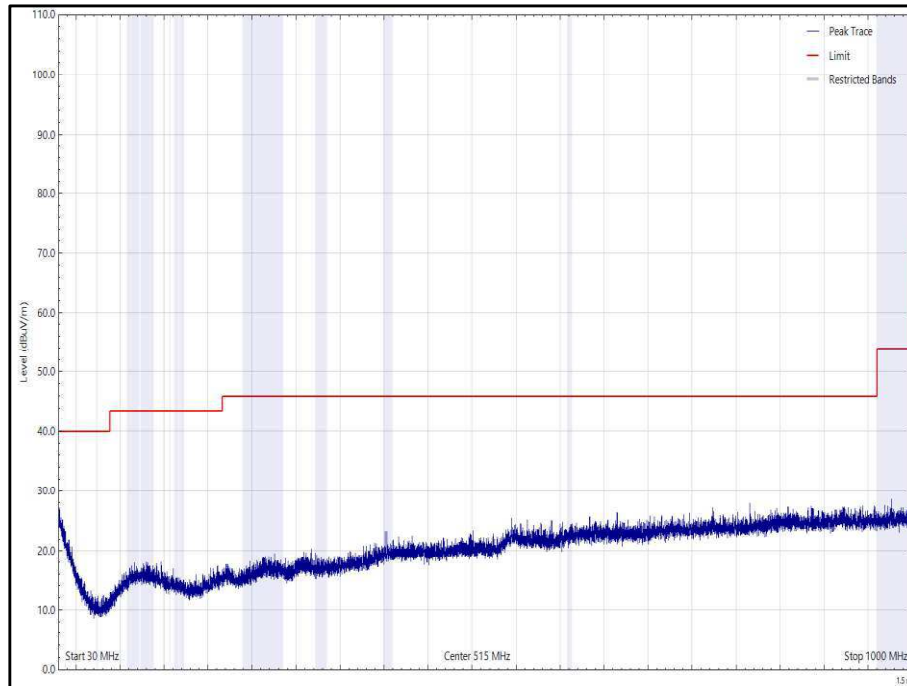


Figure 65 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

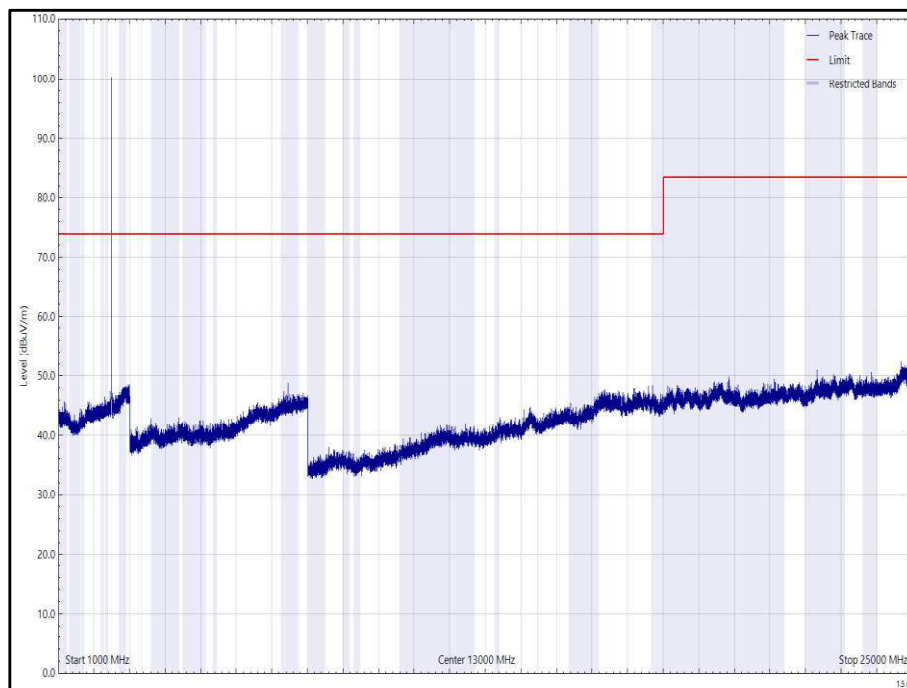


Figure 66 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 1 GHz to 25 GHz, Horizontal (Peak)

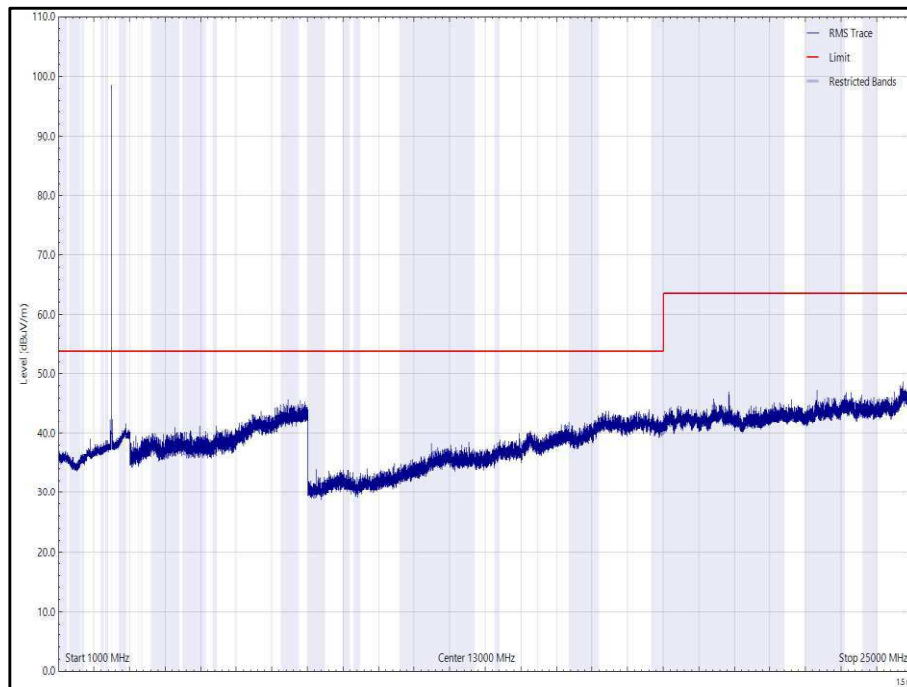


Figure 67 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 1 GHz to 25 GHz, Horizontal (rms)

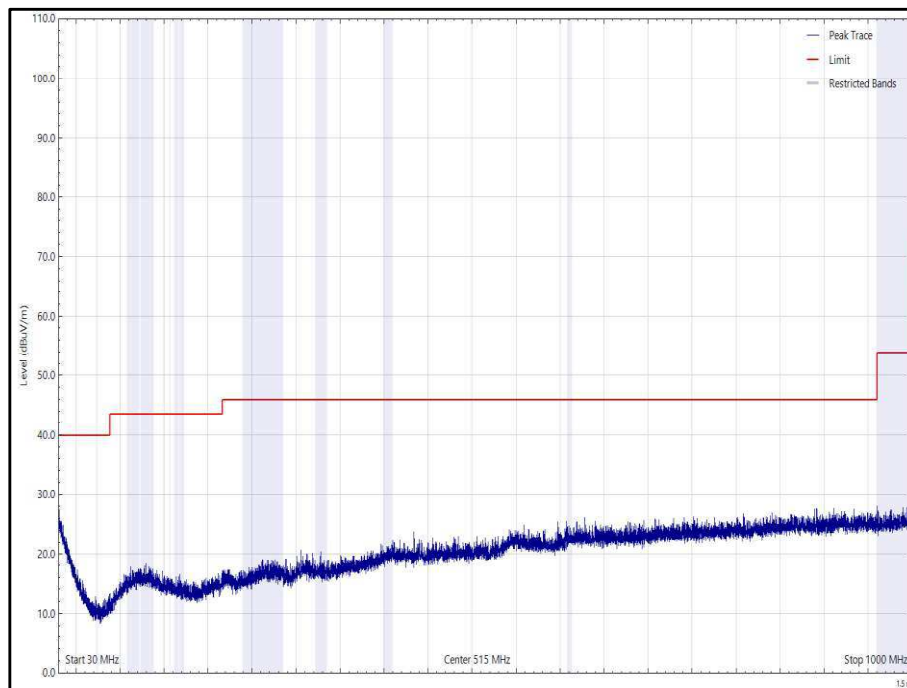


Figure 68 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 30 MHz to 1 GHz, Vertical (Peak)

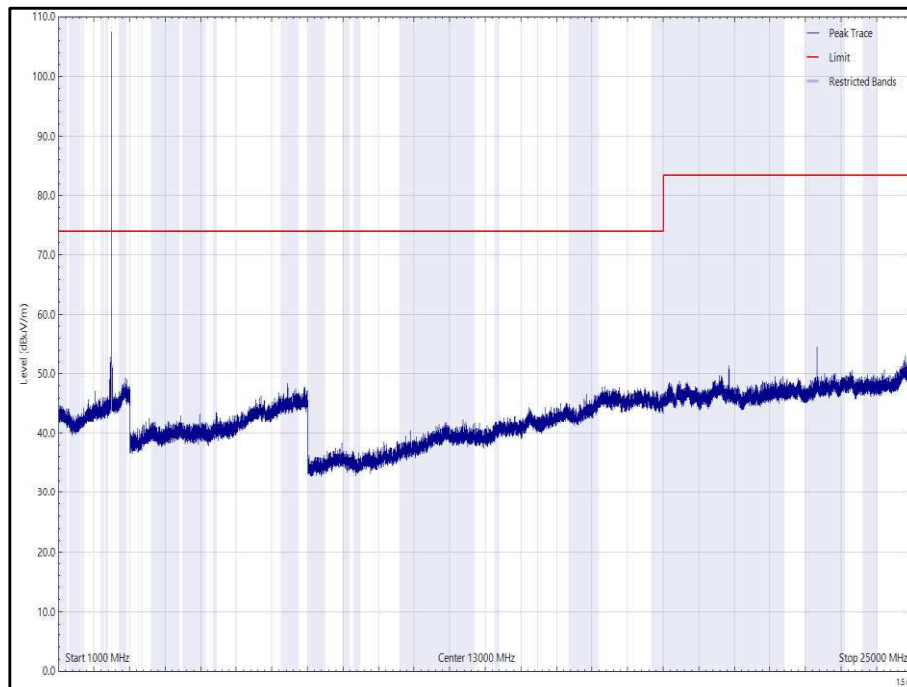


Figure 69 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 1 GHz to 25 GHz, Vertical (Peak)

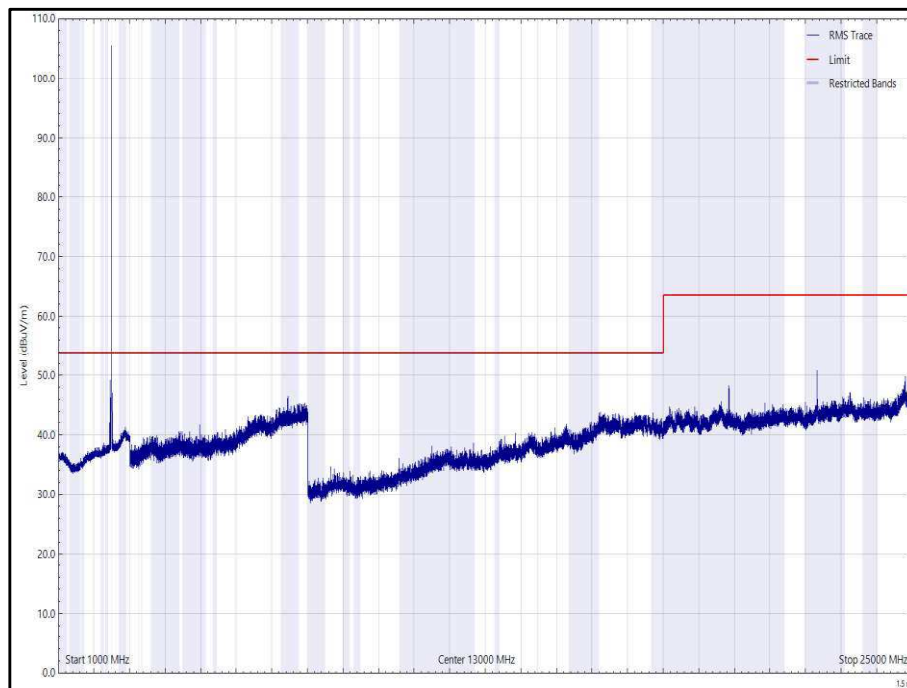


Figure 70 - 2.4 GHz 802.15.4-CH26-X, 2480 MHz, 1 GHz to 25 GHz, Vertical (rms)



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

Table 46 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

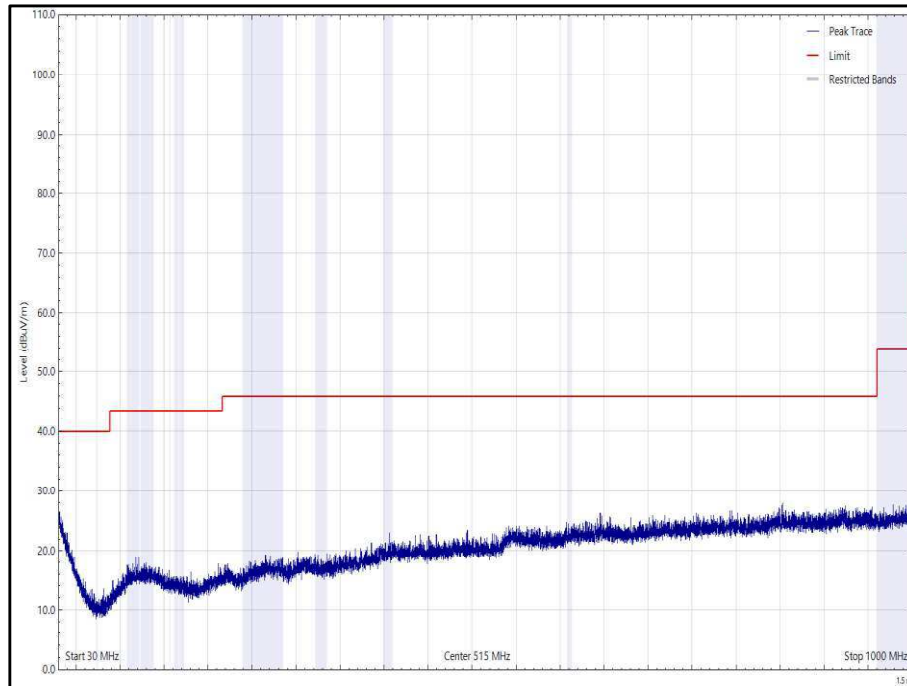


Figure 71 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

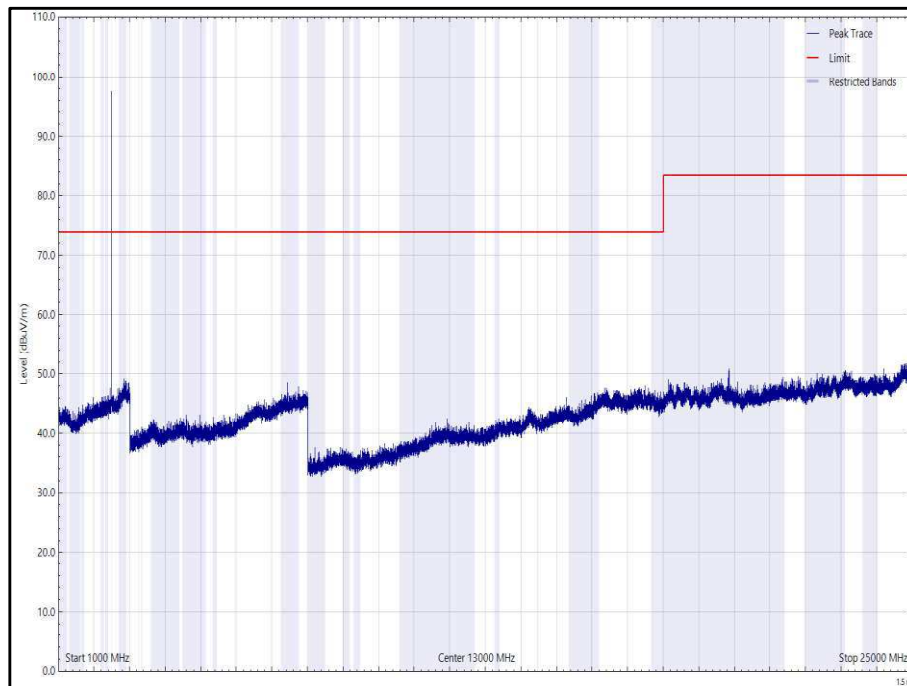


Figure 72 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 1 GHz to 25 GHz, Horizontal (Peak)

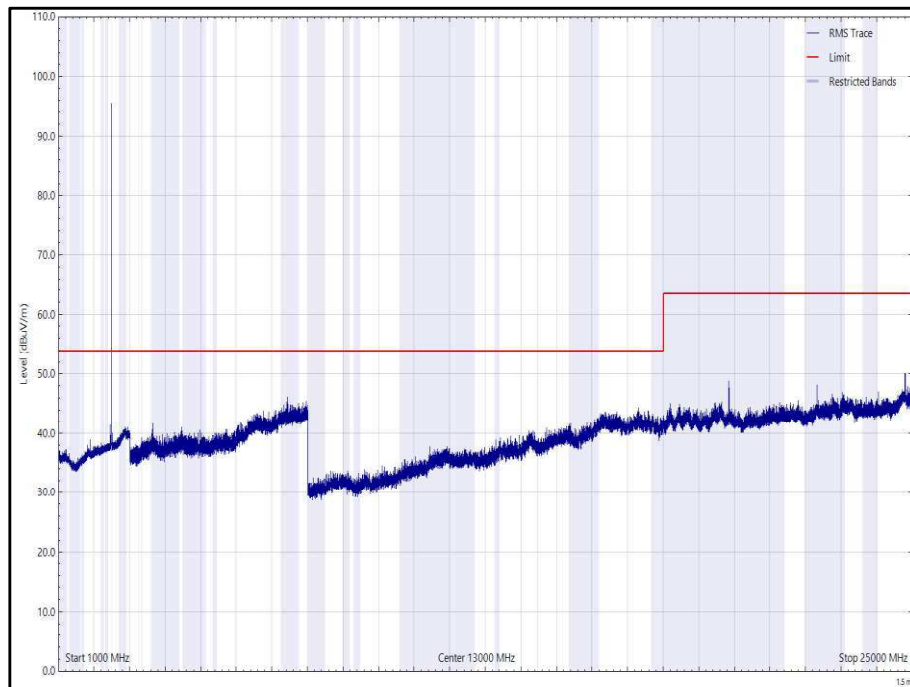


Figure 73 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 1 GHz to 25 GHz, Horizontal (rms)

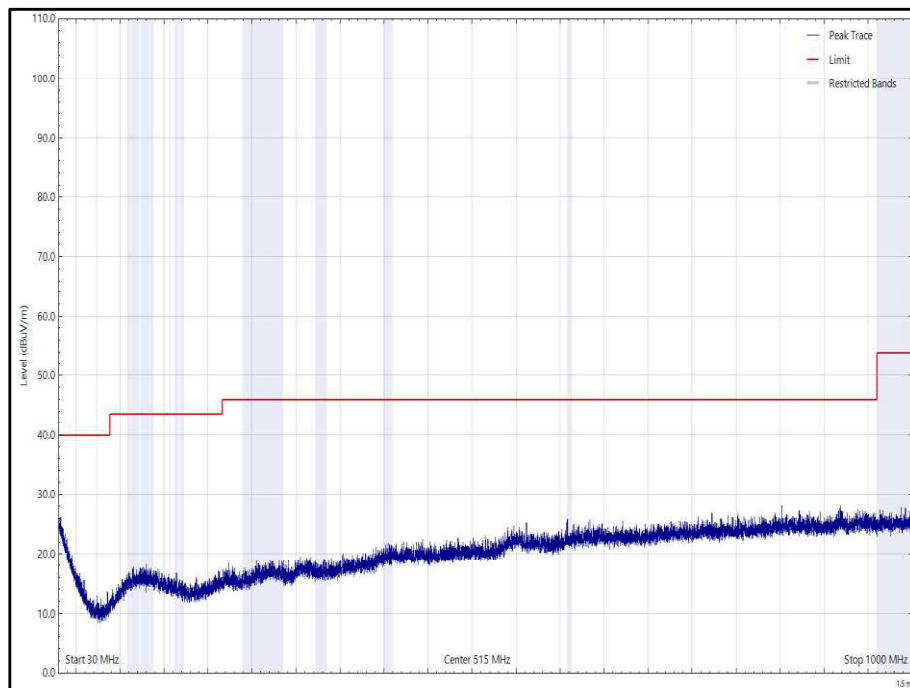


Figure 74 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 30 MHz to 1 GHz, Vertical (Peak)

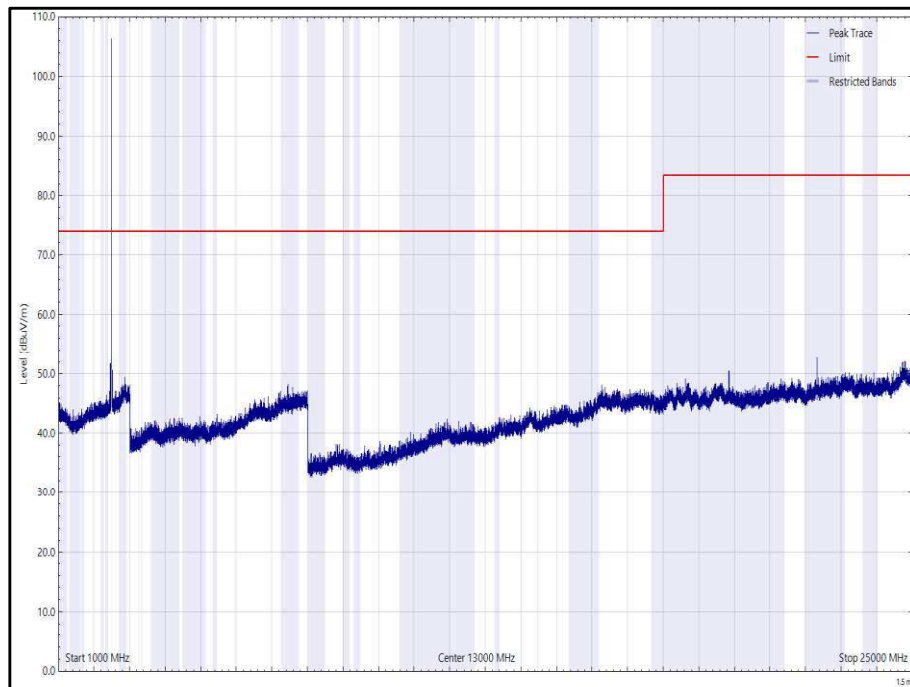


Figure 75 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 1 GHz to 25 GHz, Vertical (Peak)

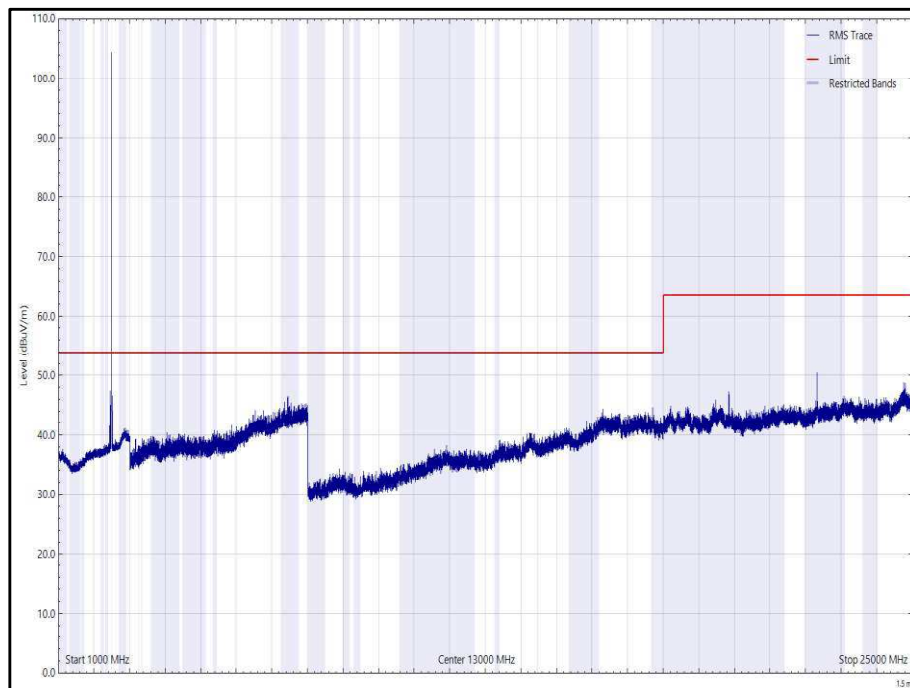


Figure 76 - 2.4 GHz 802.15.4-CH26-Y, 2480 MHz, 1 GHz to 25 GHz, Vertical (rms)



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

Table 47 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

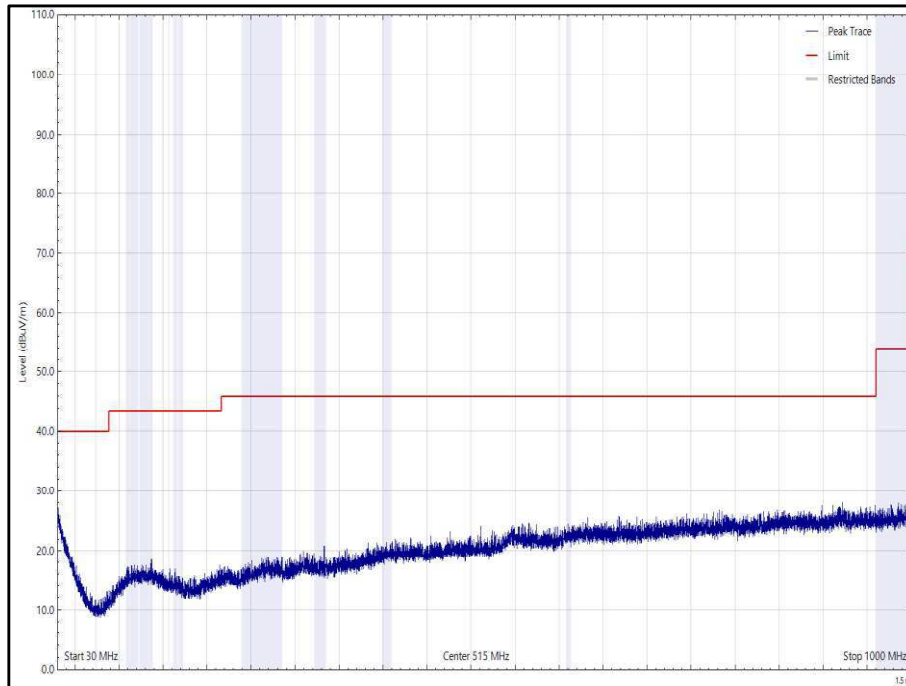


Figure 77 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 30 MHz to 1 GHz, Horizontal (Peak)

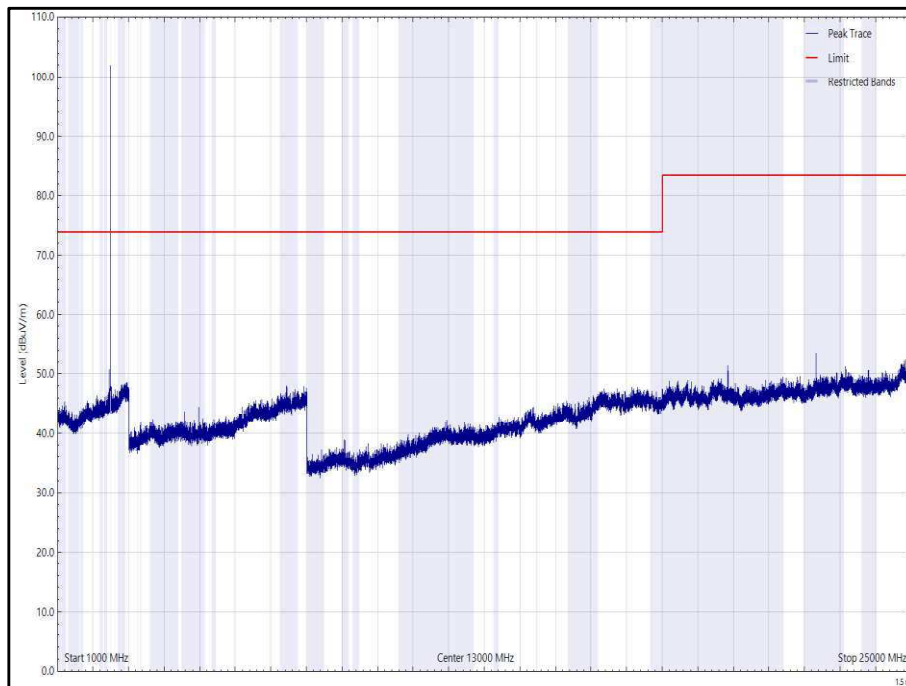


Figure 78 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 1 GHz to 25 GHz, Horizontal (Peak)

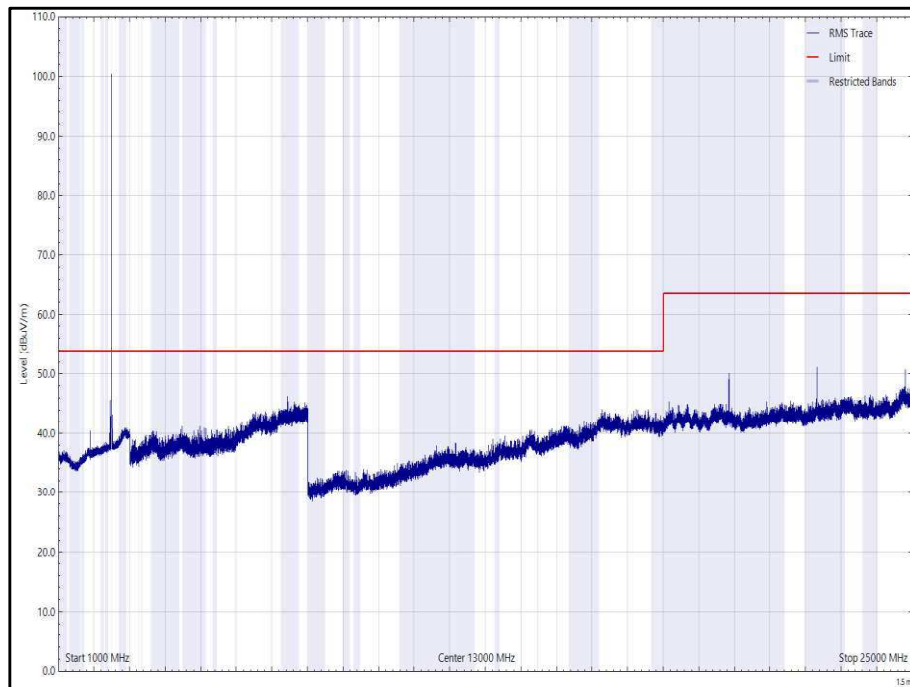


Figure 79 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 1 GHz to 25 GHz, Horizontal (rms)

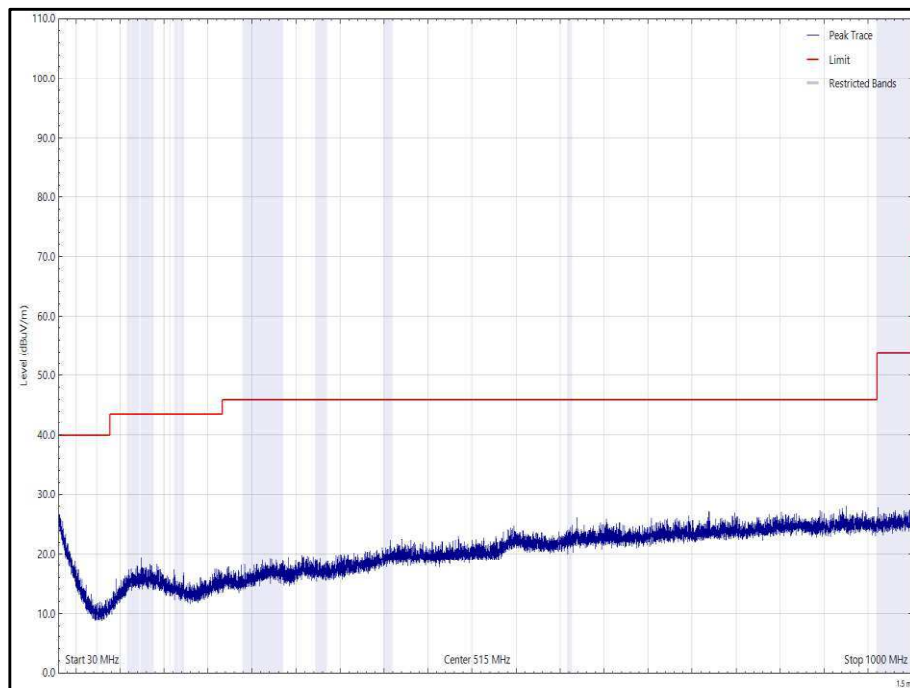


Figure 80 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 30 MHz to 1 GHz, Vertical (Peak)

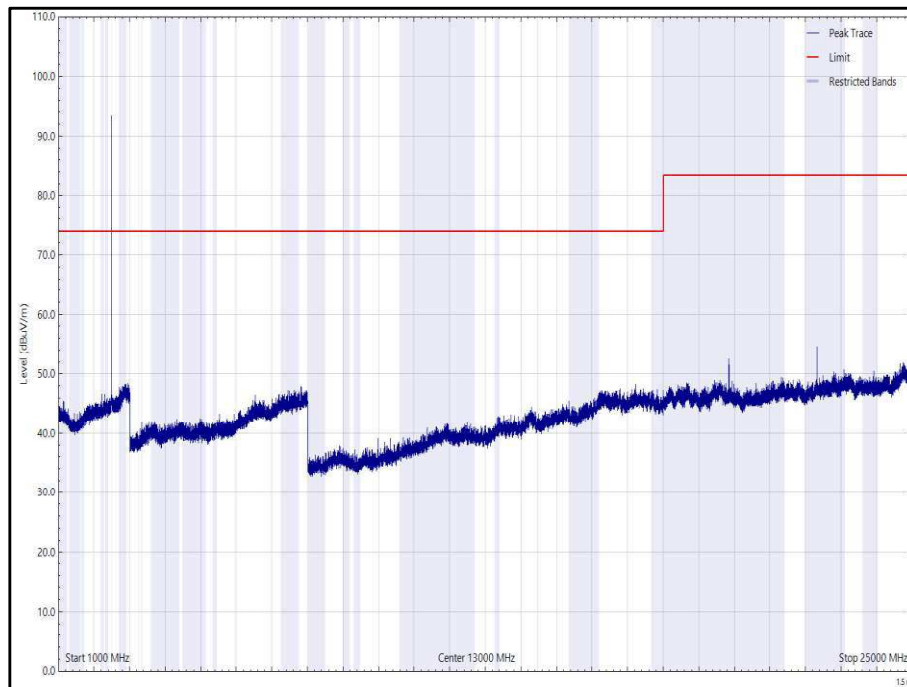


Figure 81 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 1 GHz to 25 GHz, Vertical (Peak)

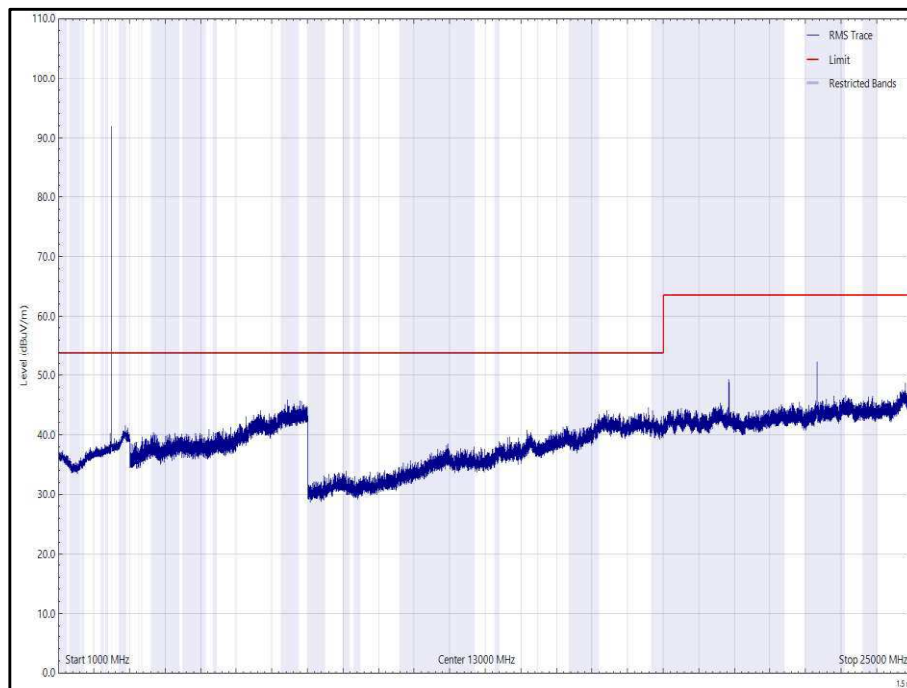


Figure 82 - 2.4 GHz 802.15.4-CH26-Z, 2480 MHz, 1 GHz to 25 GHz, Vertical (rms)



2.4 GHz Bluetooth Low Energy

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

Table 48 - 2402 MHz (CH37), LE1M -X, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

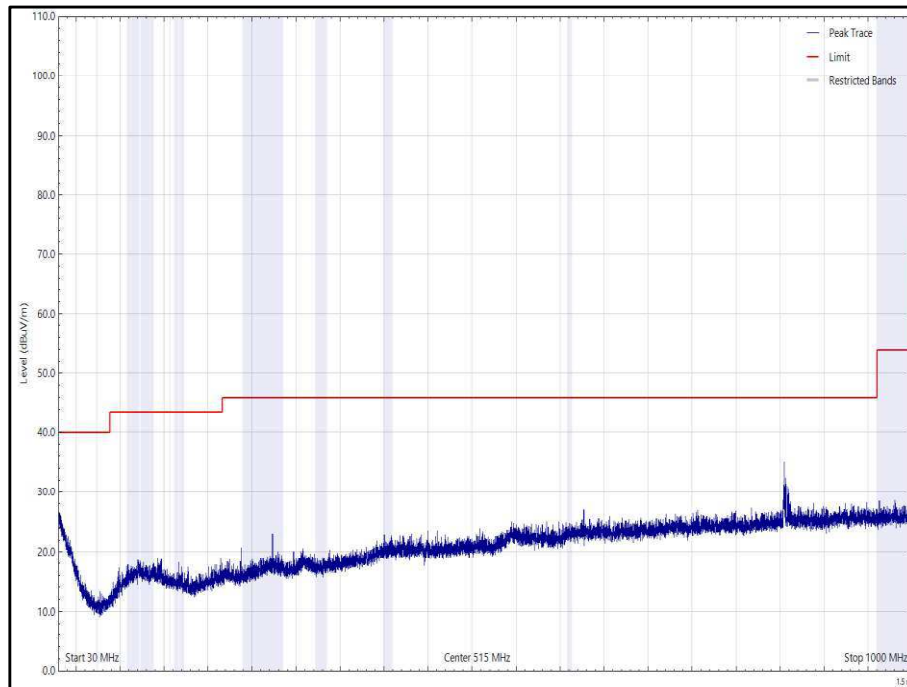


Figure 83 - 2402 MHz (CH37), LE1M -X, 30 MHz to 1 GHz, Horizontal (Peak)

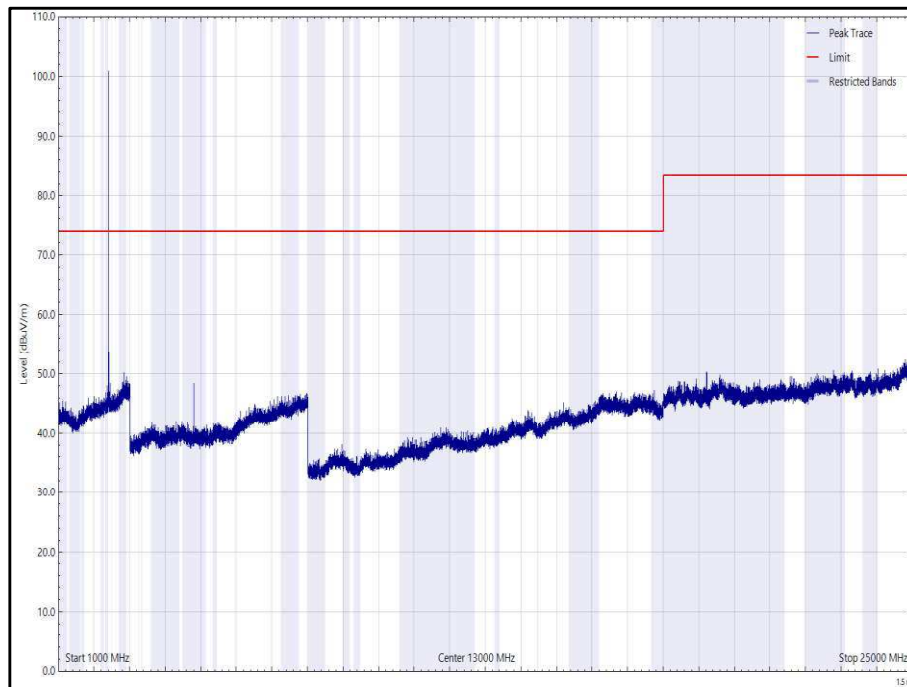


Figure 84 - 2402 MHz (CH37), LE1M -X, 1 GHz to 25 GHz, Horizontal (Peak)

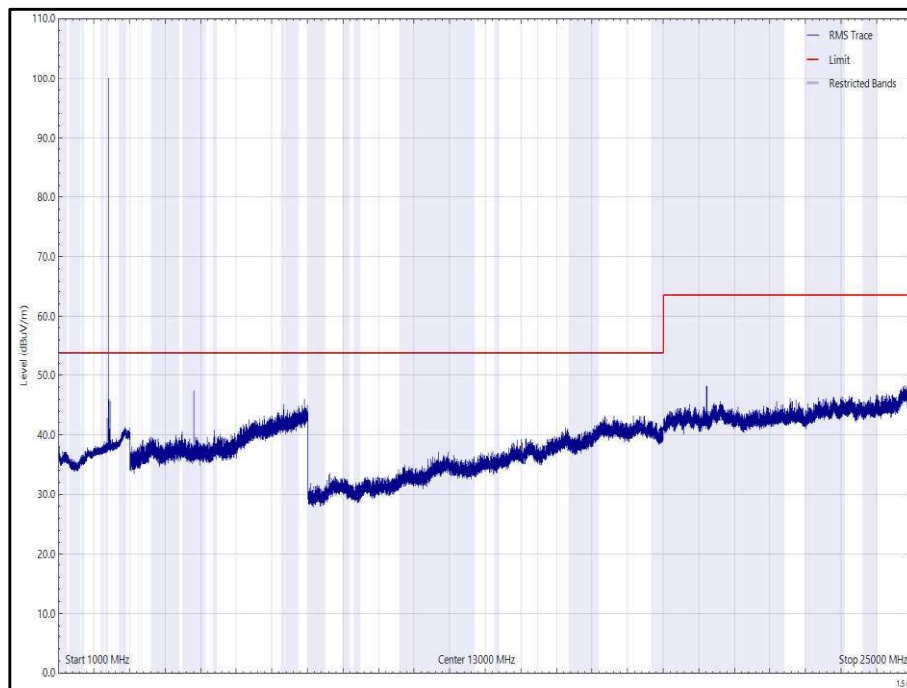


Figure 85 - 2402 MHz (CH37), LE1M -X, 1 GHz to 25 GHz, Horizontal (rms)

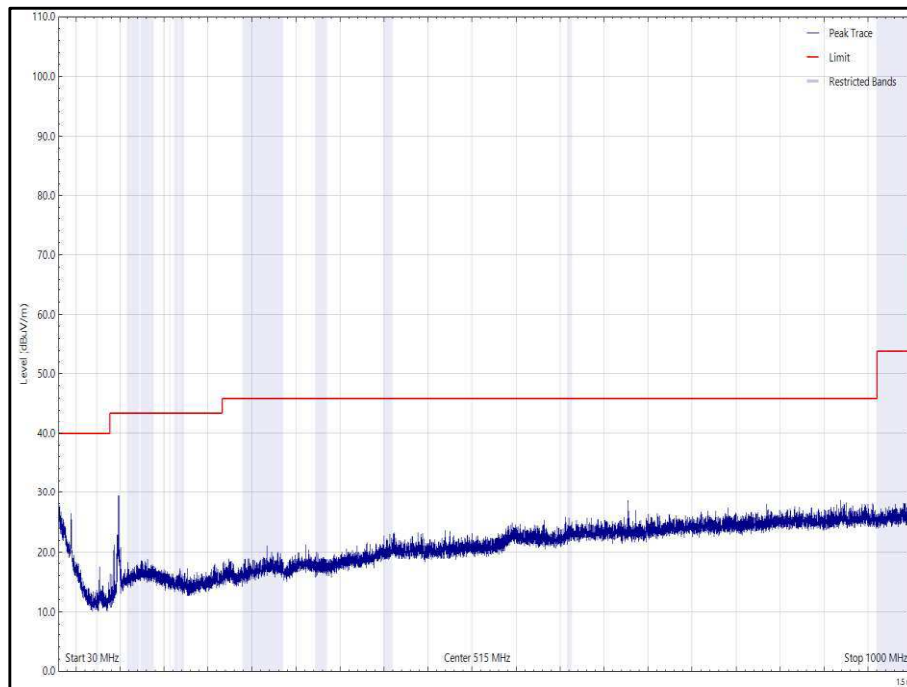


Figure 86 - 2402 MHz (CH37), LE1M -X, 30 MHz to 1 GHz, Vertical (Peak)

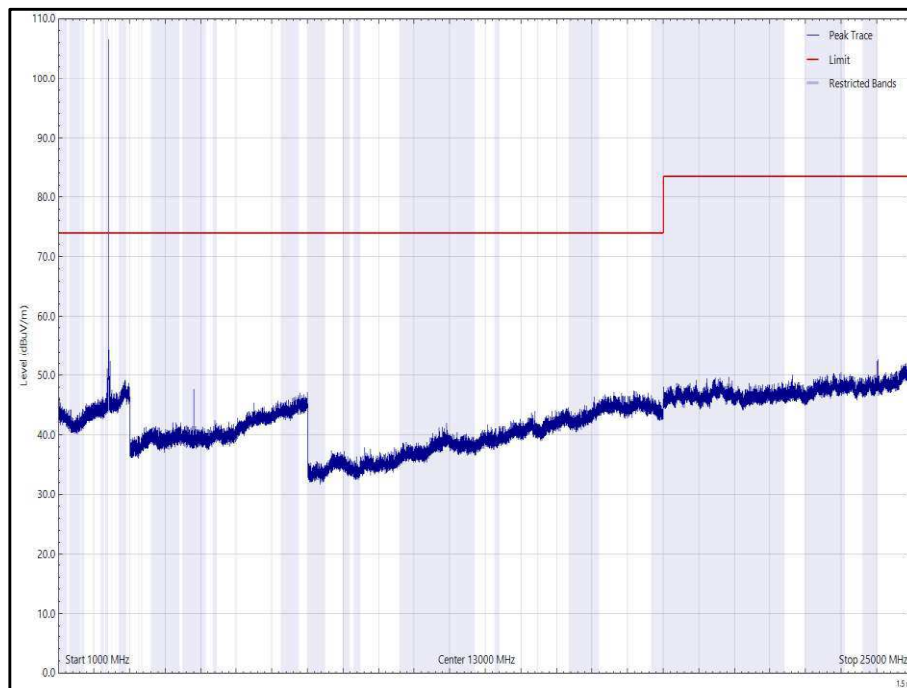


Figure 87 - 2402 MHz (CH37), LE1M -X, 1 GHz to 25 GHz, Vertical (Peak)

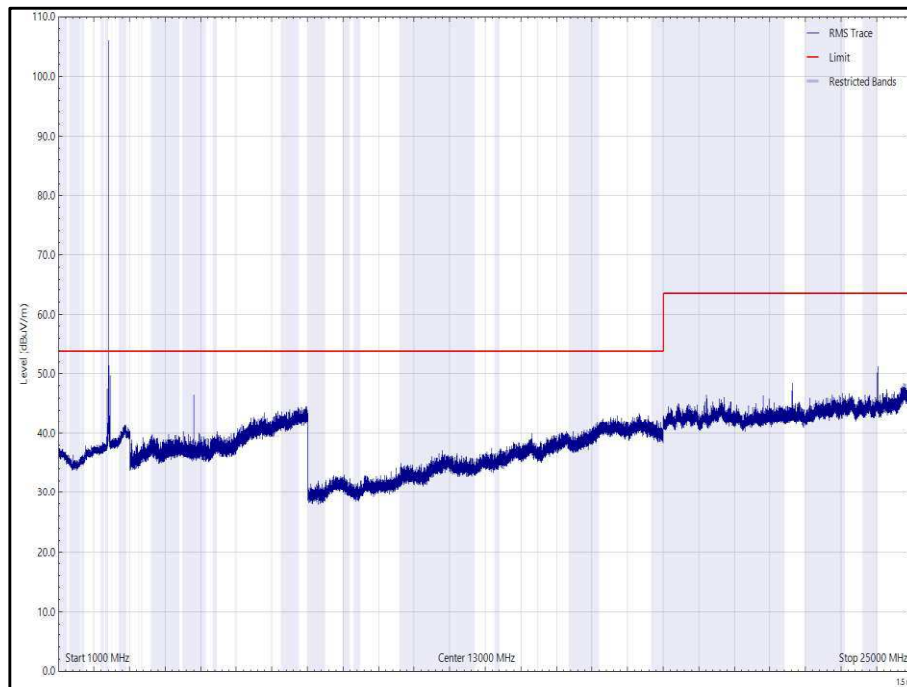


Figure 88 - 2402 MHz (CH37), LE1M -X, 1 GHz to 25 GHz, Vertical (rms)



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

Table 49 - 2402 MHz (CH37) -Y, LE1M, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

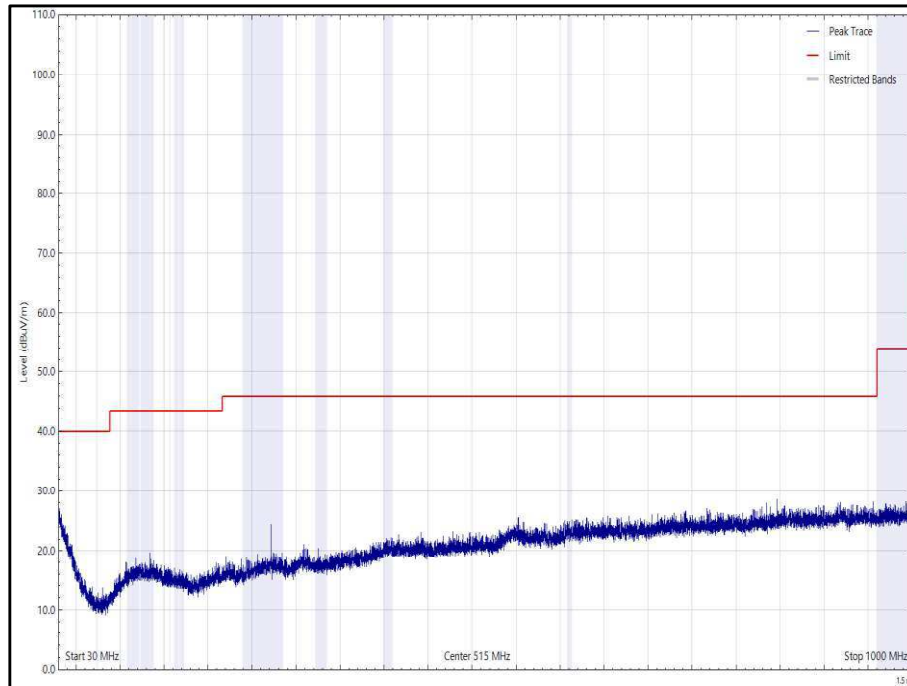


Figure 89 - 2402 MHz (CH37), LE1M -Y, 30 MHz to 1 GHz, Horizontal (Peak)

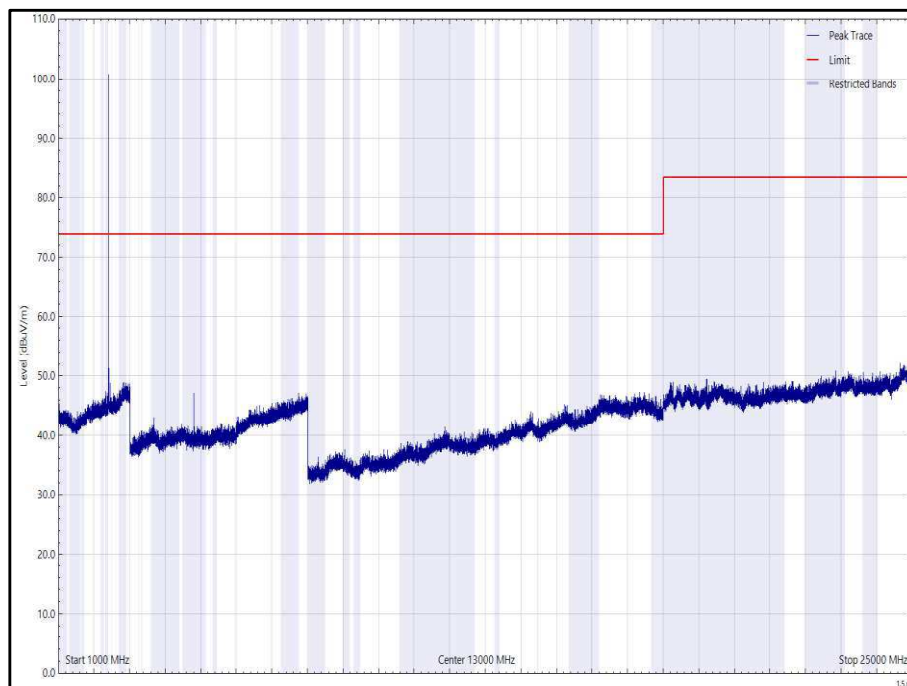


Figure 90 - 2402 MHz (CH37), LE1M -Y, 1 GHz to 25 GHz, Horizontal (Peak)

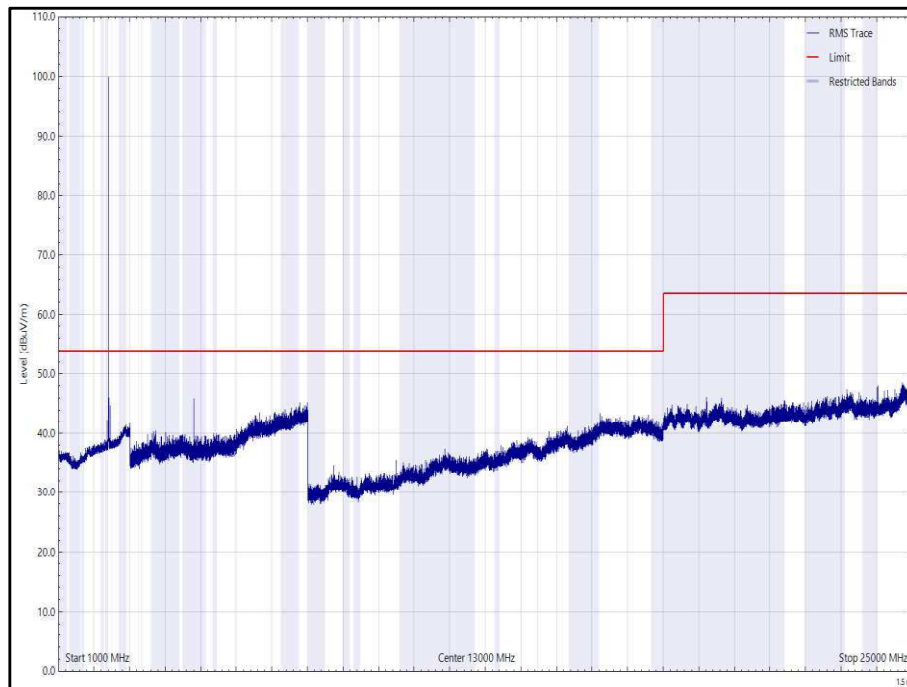


Figure 91 - 2402 MHz (CH37), LE1M -Y, 1 GHz to 25 GHz, Horizontal (rms)

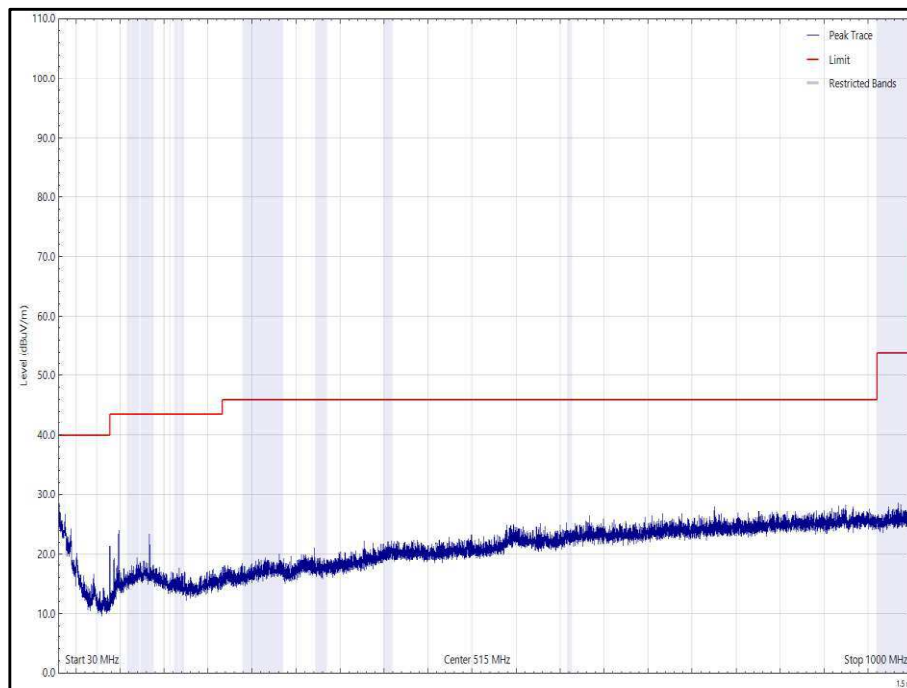


Figure 92 - 2402 MHz (CH37), LE1M -Y, 30 MHz to 1 GHz, Vertical (Peak)

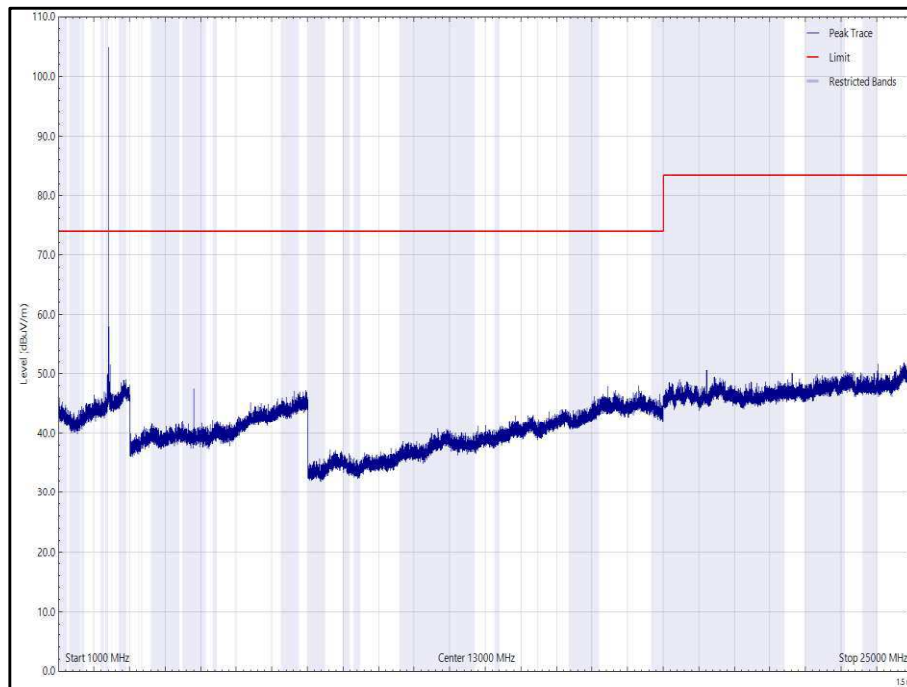


Figure 93 - 2402 MHz (CH37), LE1M -Y, 1 GHz to 25 GHz, Vertical (Peak)

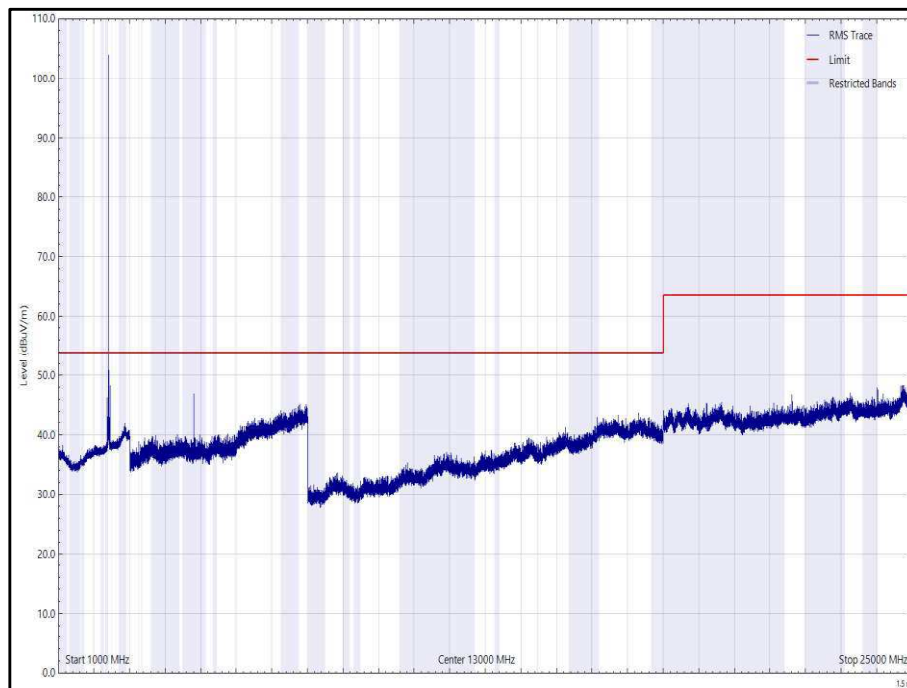


Figure 94 - 2402 MHz (CH37), LE1M -Y, 1 GHz to 25 GHz, Vertical (rms)



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

Table 50 - 2402 MHz (CH37), LE1M -Z, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

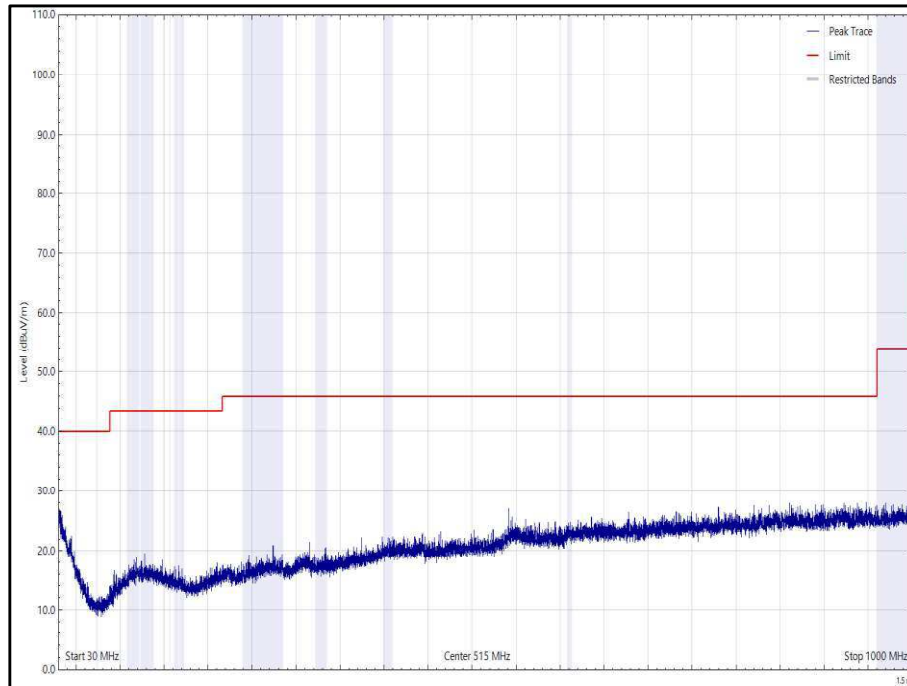


Figure 95 - 2402 MHz (CH37), LE1M -Z, 30 MHz to 1 GHz, Horizontal (Peak)

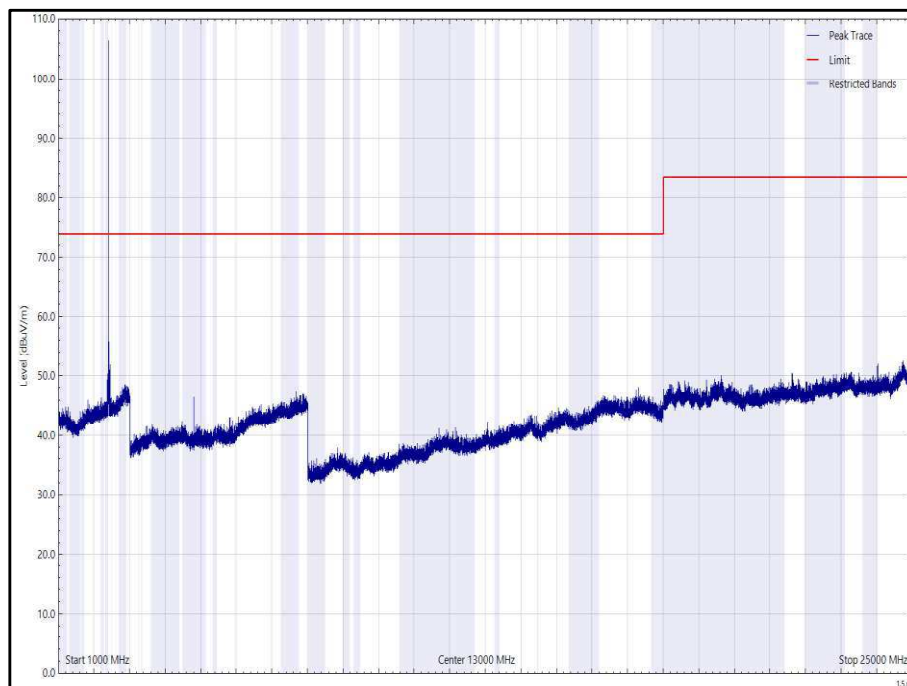


Figure 96 - 2402 MHz (CH37), LE1M -Z, 1 GHz to 25 GHz, Horizontal (Peak)

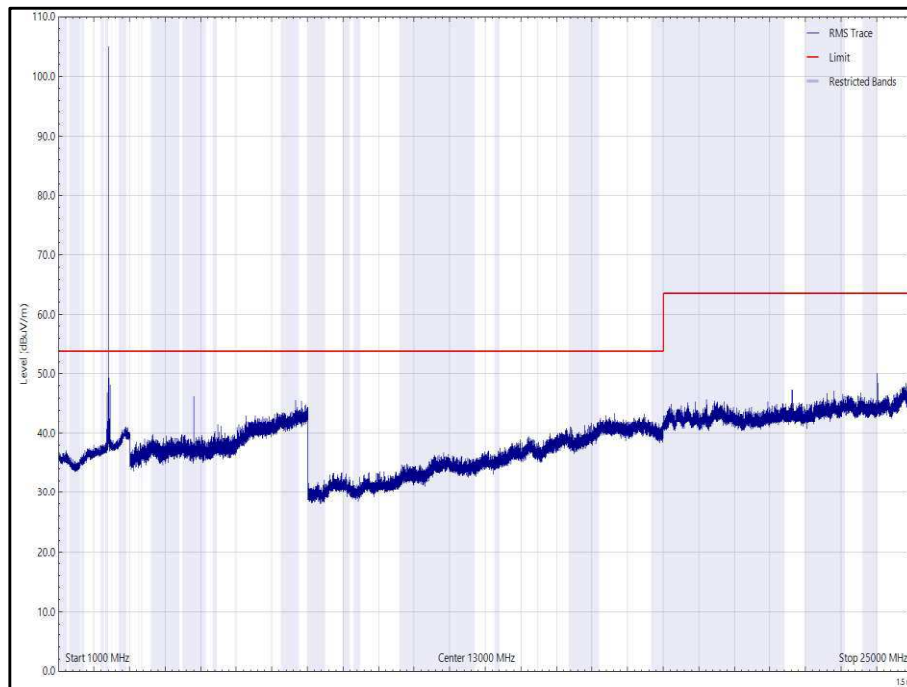


Figure 97 - 2402 MHz (CH37), LE1M -Z, 1 GHz to 25 GHz, Horizontal (rms)

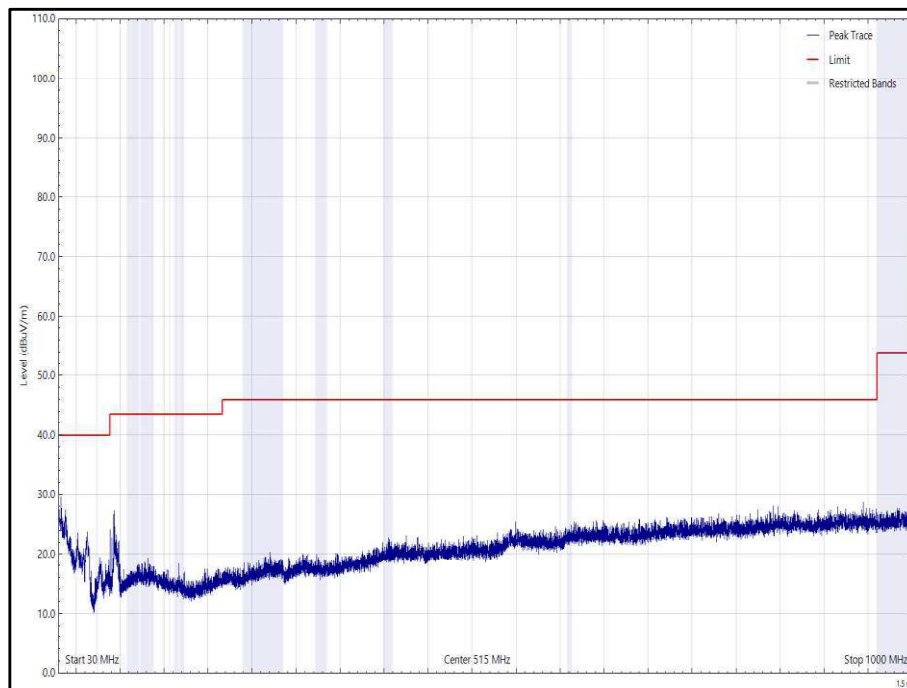


Figure 98 - 2402 MHz (CH37), LE1M -Z, 30 MHz to 1 GHz, Vertical (Peak)

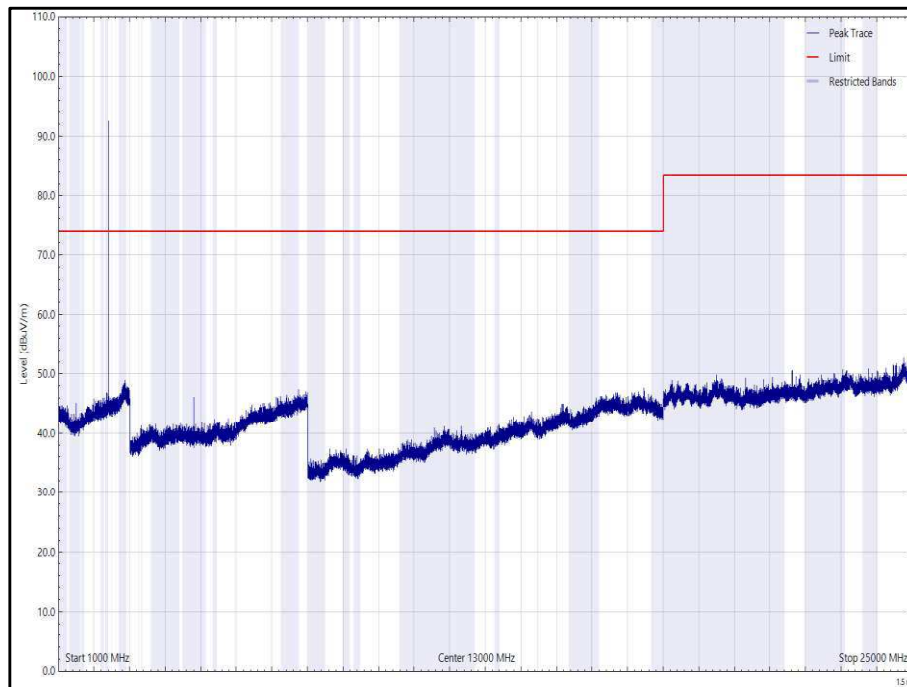


Figure 99 - 2402 MHz (CH37), LE1M -Z, 1 GHz to 25 GHz, Vertical (Peak)

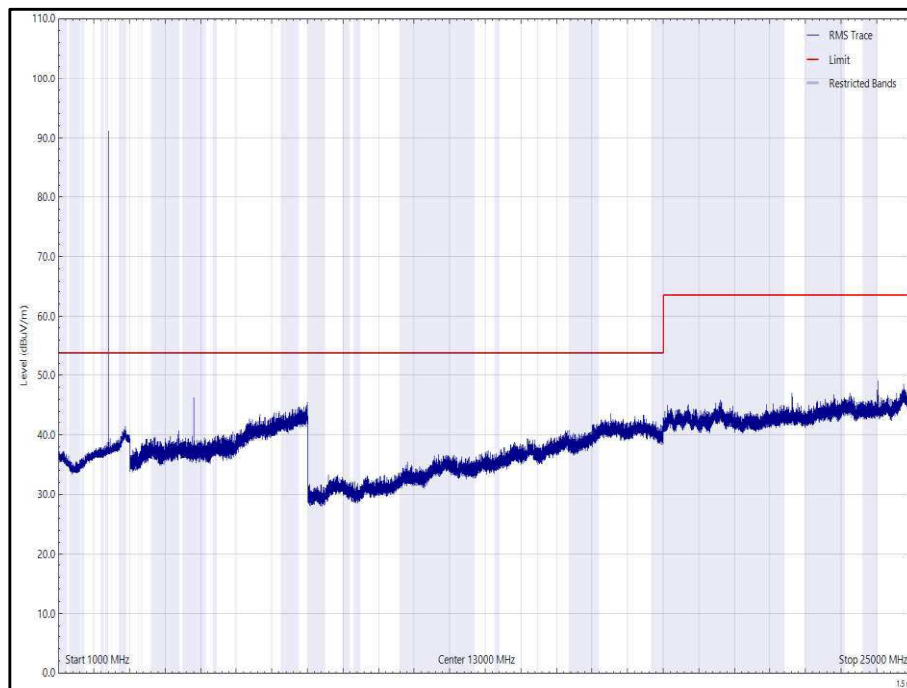


Figure 100 - 2402 MHz (CH37), LE1M -Z, 1 GHz to 25 GHz, Vertical (rms)



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

Table 51 - 2442 MHz (CH19), LE1M - X, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

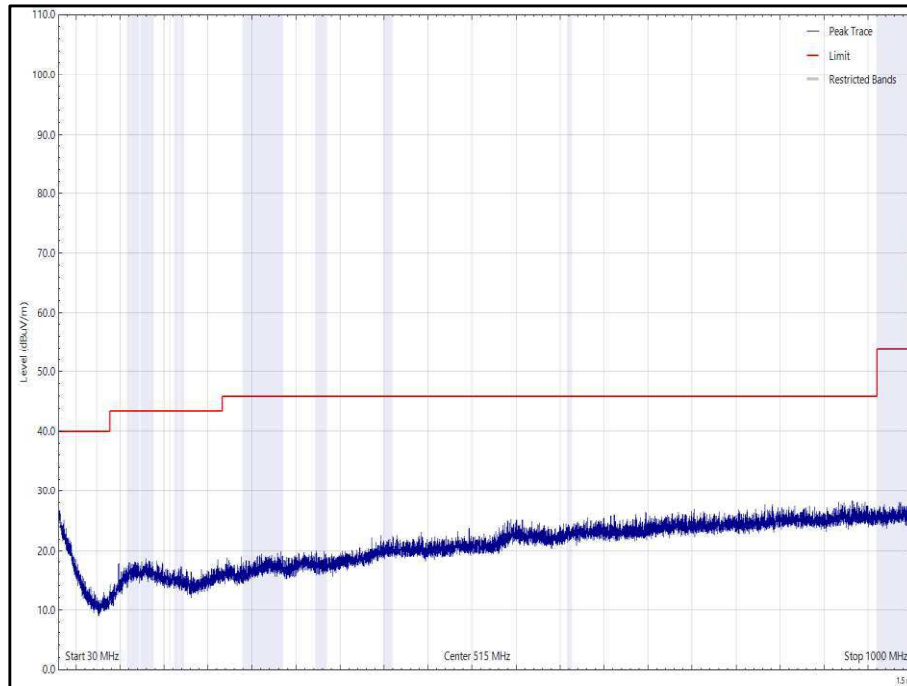


Figure 101 - 2444 MHz (CH19), LE1M - X, 30 MHz to 1 GHz, Horizontal (Peak)

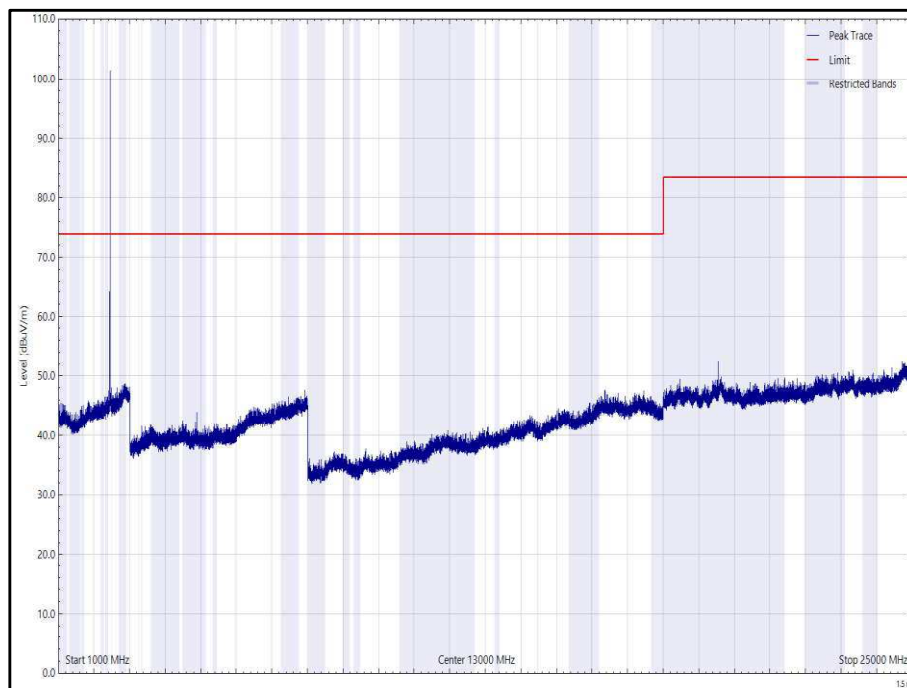


Figure 102 - 2444 MHz (CH19), LE1M - X, 1 GHz to 25 GHz, Horizontal (Peak)

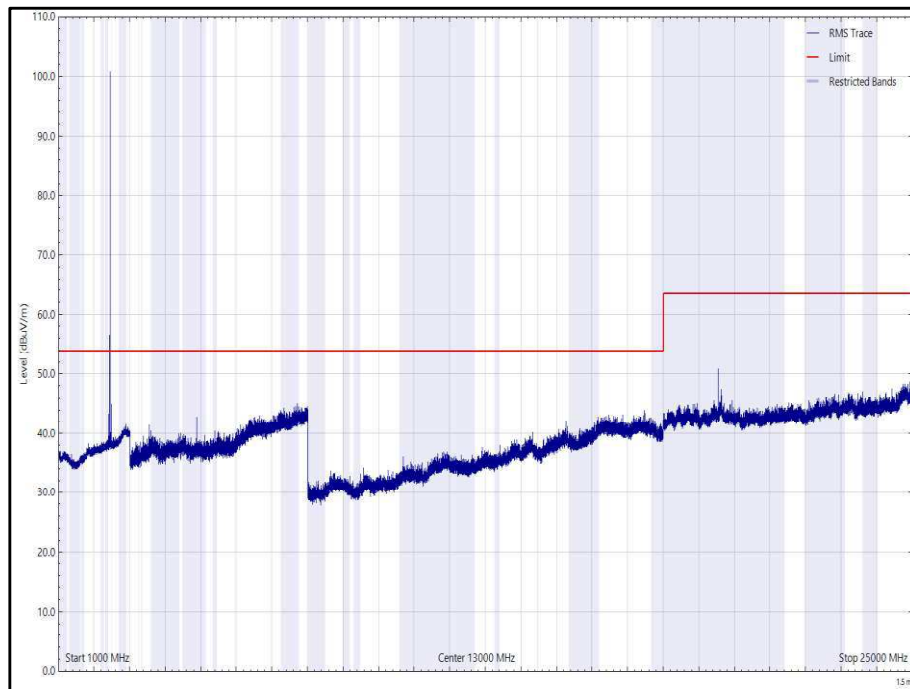


Figure 103 - 2444 MHz (CH19), LE1M - X, 1 GHz to 25 GHz, Horizontal (rms)

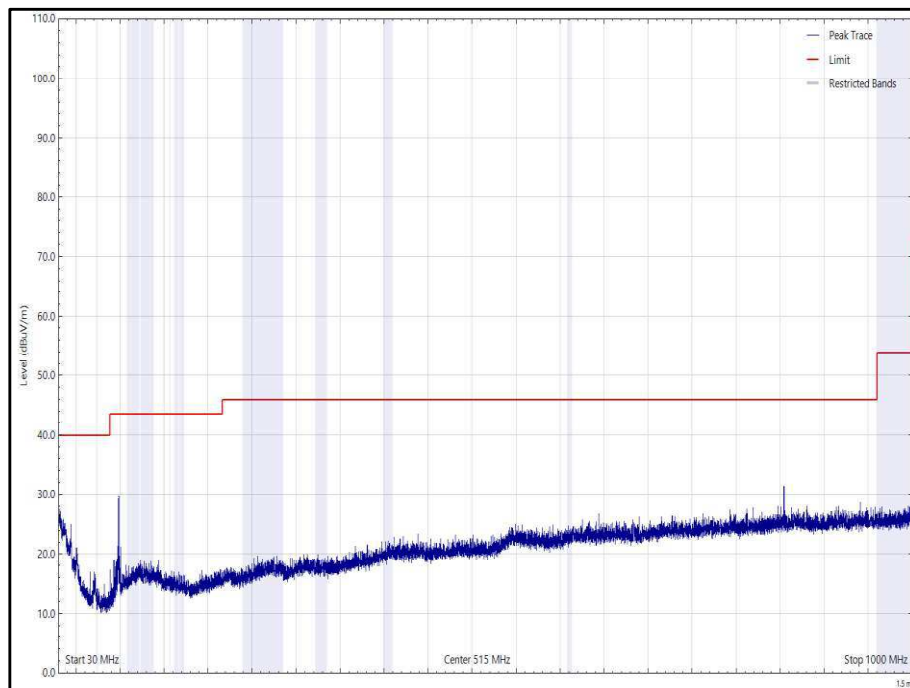


Figure 104 - 2444 MHz (CH19), LE1M - X, 30 MHz to 1 GHz, Vertical (Peak)

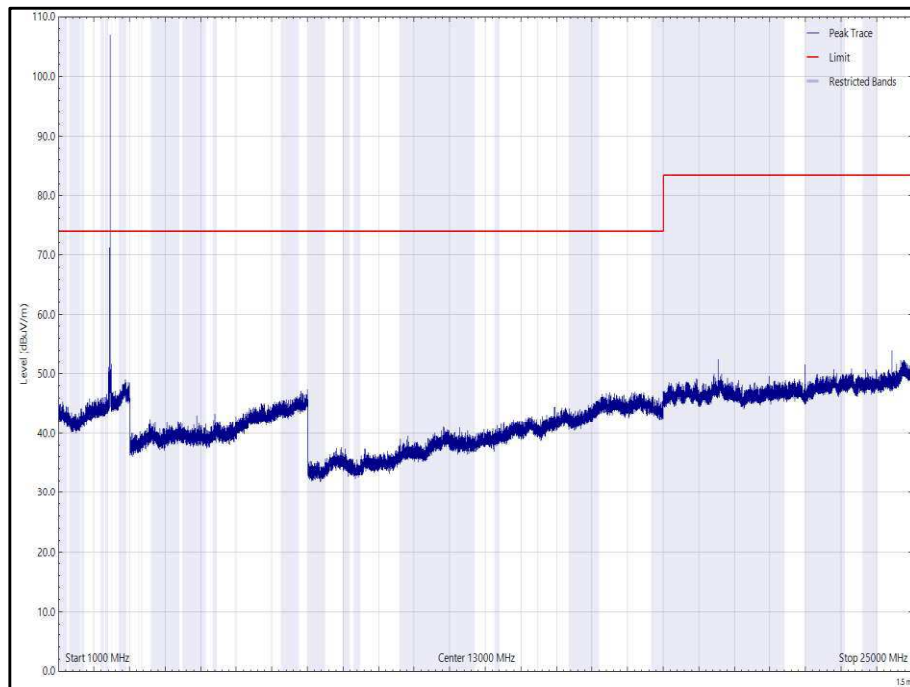


Figure 105 - 2444 MHz (CH19), LE1M - X, 1 GHz to 25 GHz, Vertical (Peak)

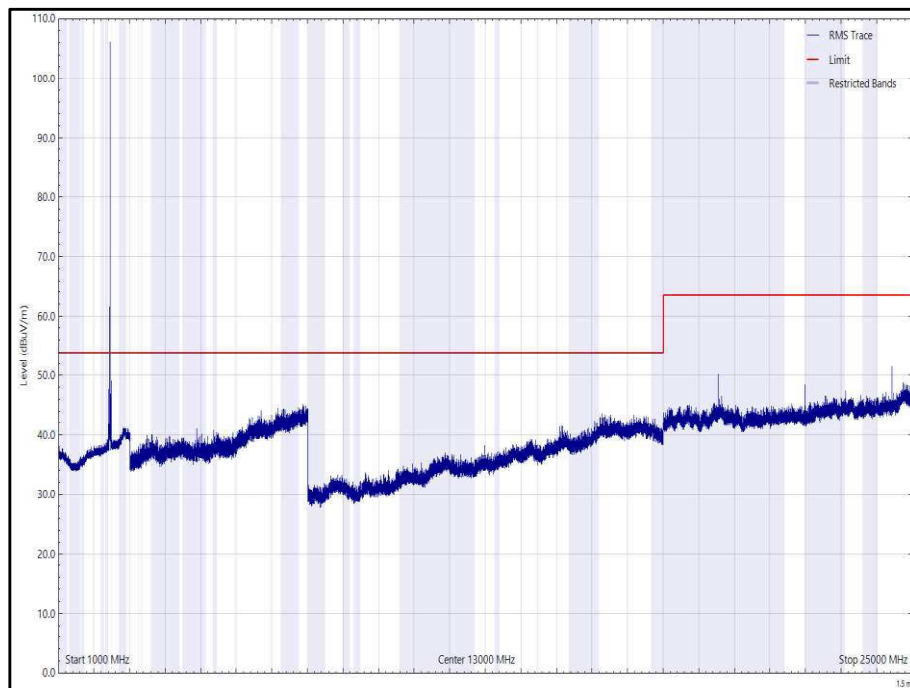


Figure 106 - 2444 MHz (CH19), LE1M - X, 1 GHz to 25 GHz, Vertical (rms)



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

Table 52 - 2444 MHz (CH19), LE1M - Y, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

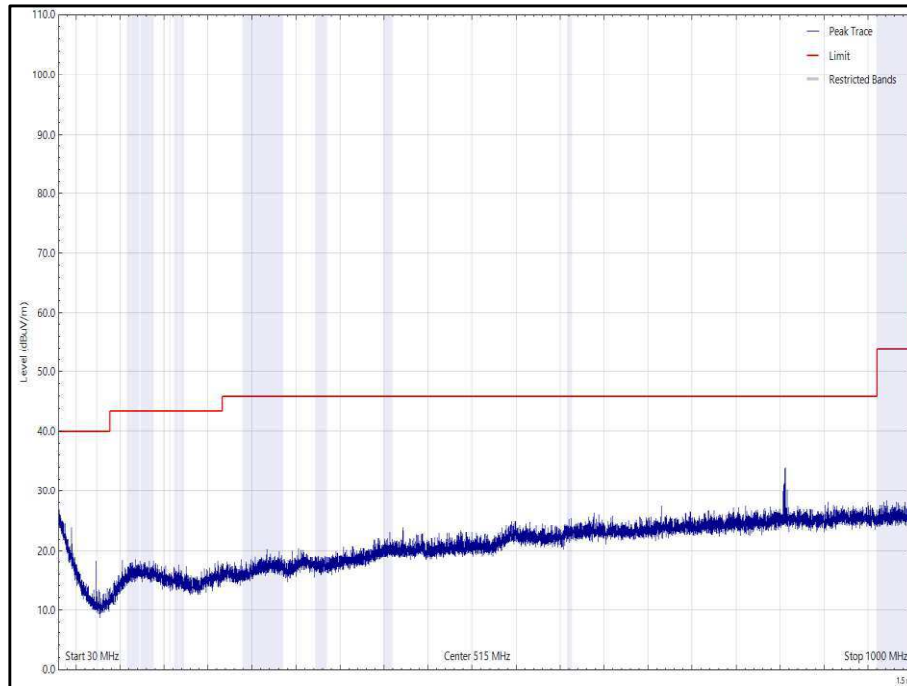


Figure 107 - 2444 MHz (CH19), LE1M - Y, 30 MHz to 1 GHz, Horizontal (Peak)

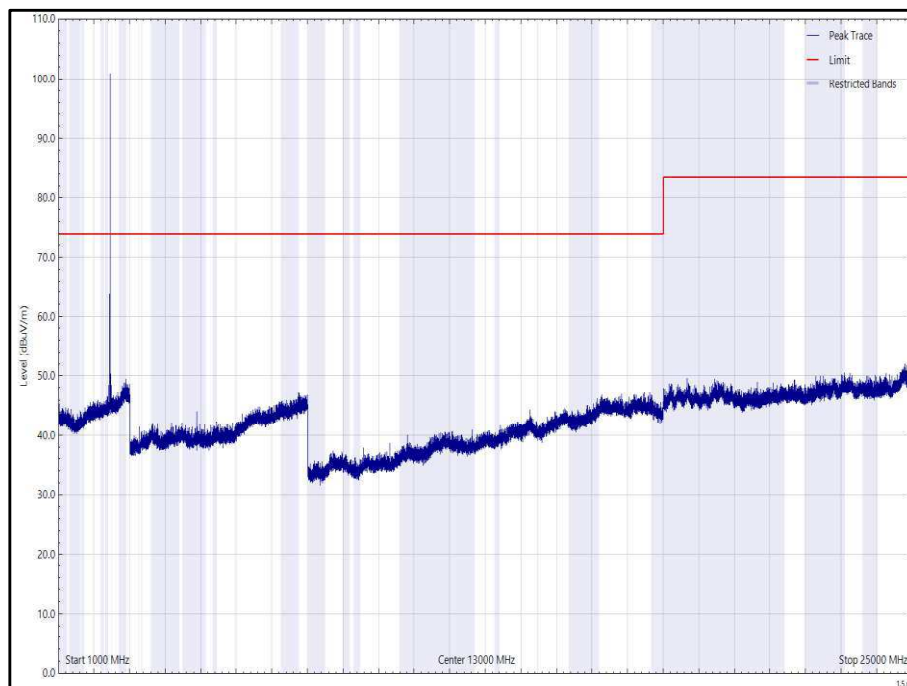


Figure 108 - 2444 MHz (CH19), LE1M - Y, 1 GHz to 25 GHz, Horizontal (Peak)

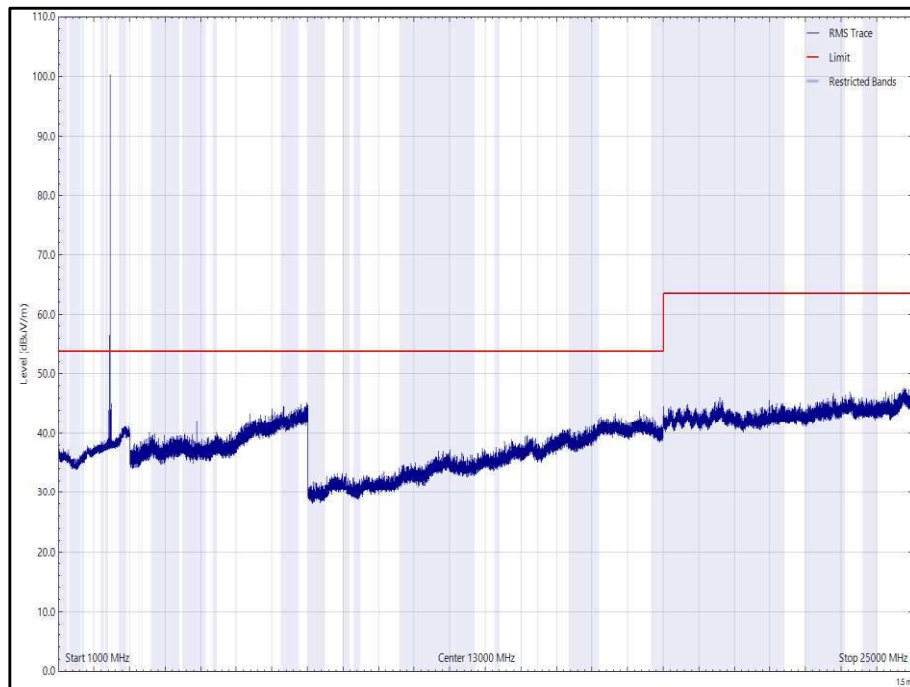


Figure 109 - 2444 MHz (CH19), LE1M - Y, 1 GHz to 25 GHz, Horizontal (rms)

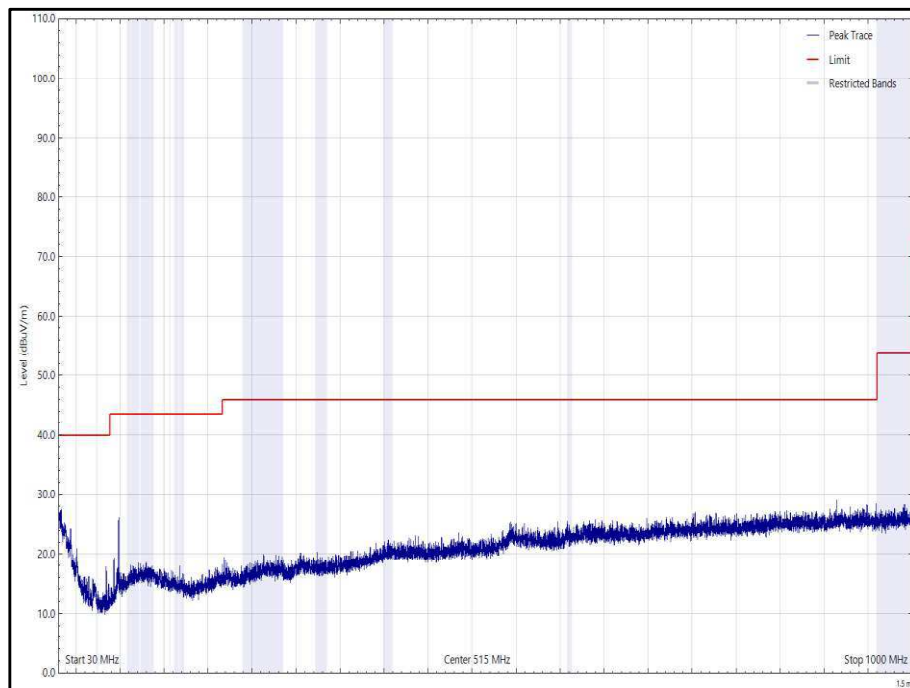


Figure 110 - 2444 MHz (CH19), LE1M - Y, 30 MHz to 1 GHz, Vertical (Peak)

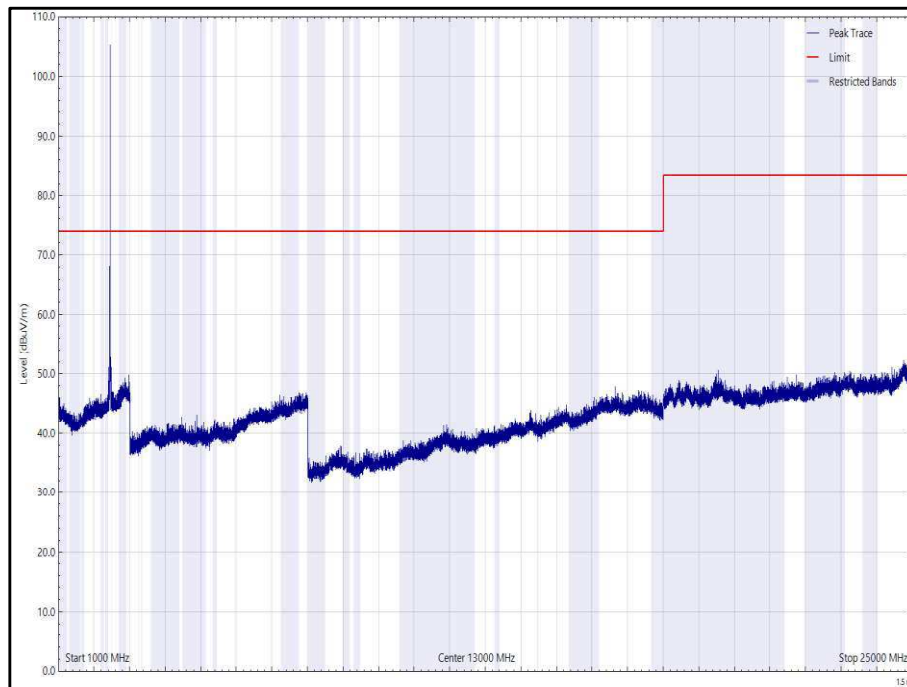


Figure 111 - 2444 MHz (CH19), LE1M - Y, 1 GHz to 25 GHz, Vertical (Peak)

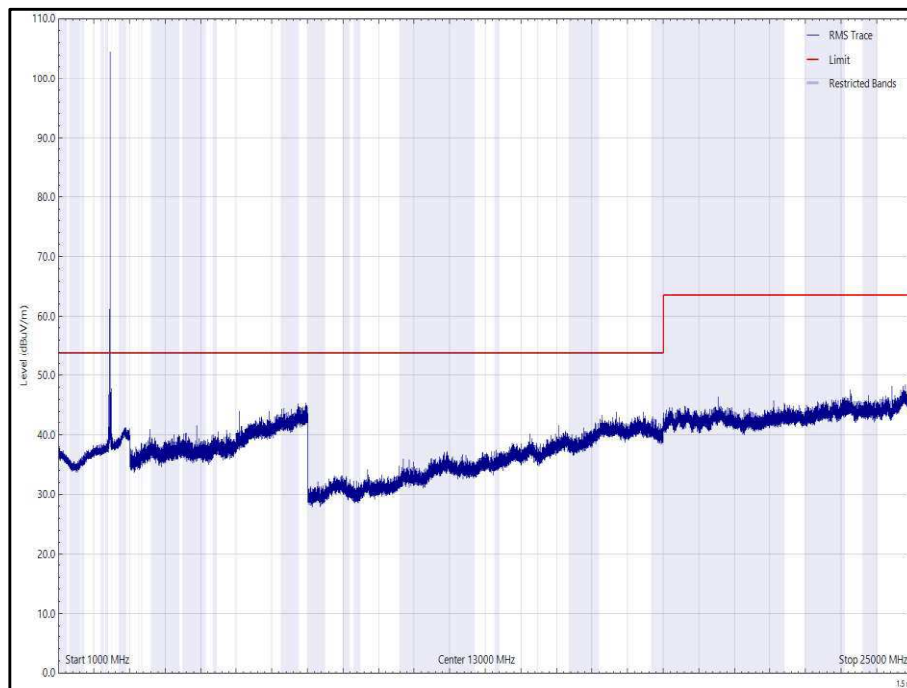


Figure 112 - 2444 MHz (CH19), LE1M - Y, 1 GHz to 25 GHz, Vertical (rms)



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

Table 53 - 2444 MHz (CH19), LE1M - Z, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

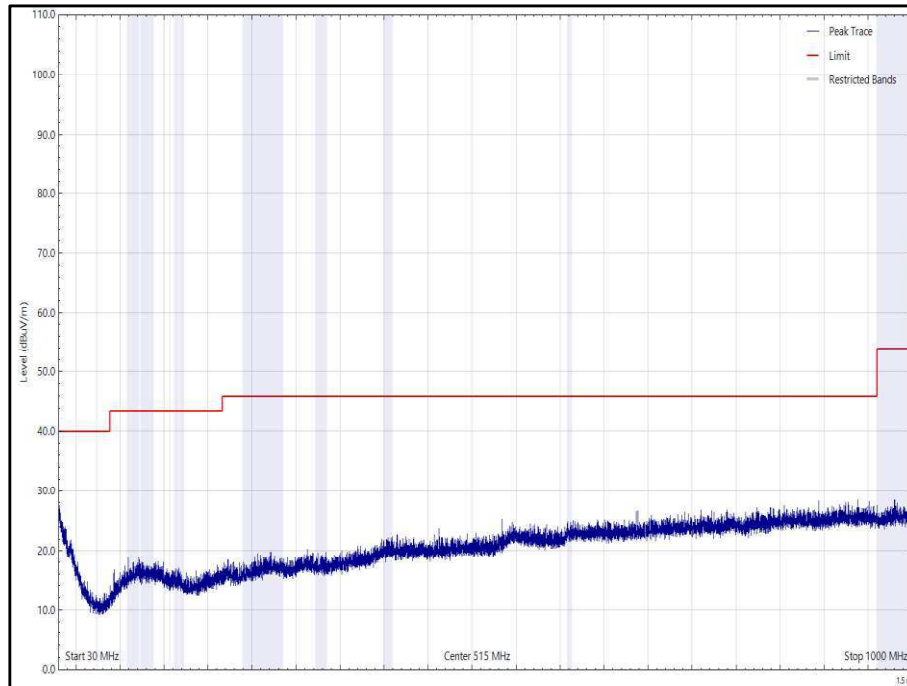


Figure 113 - 2444 MHz (CH19), LE1M - Z, 30 MHz to 1 GHz, Horizontal (Peak)

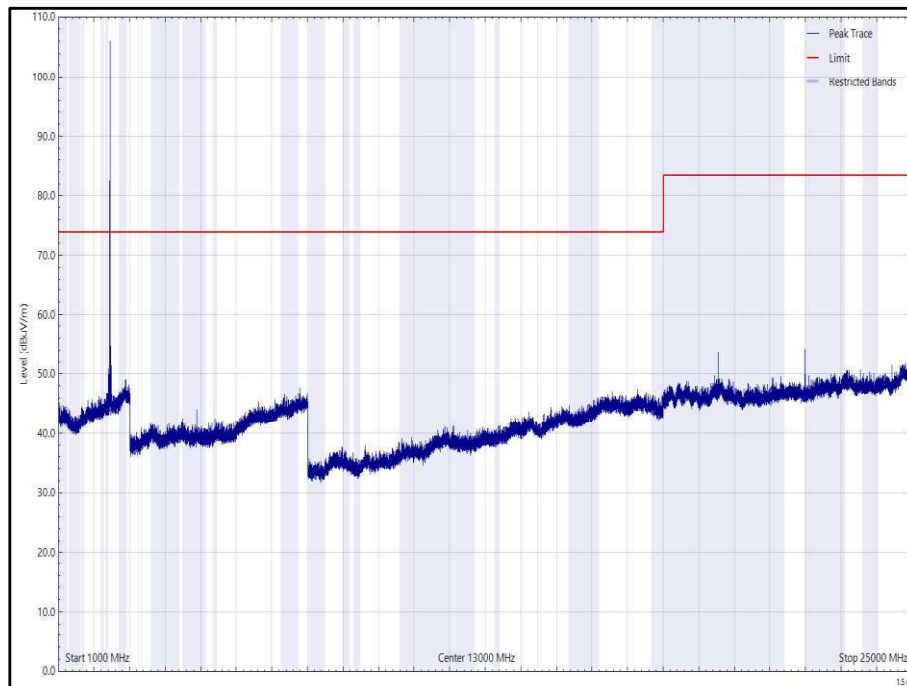


Figure 114 - 2444 MHz (CH19), LE1M - Z, 1 GHz to 25 GHz, Horizontal (Peak)

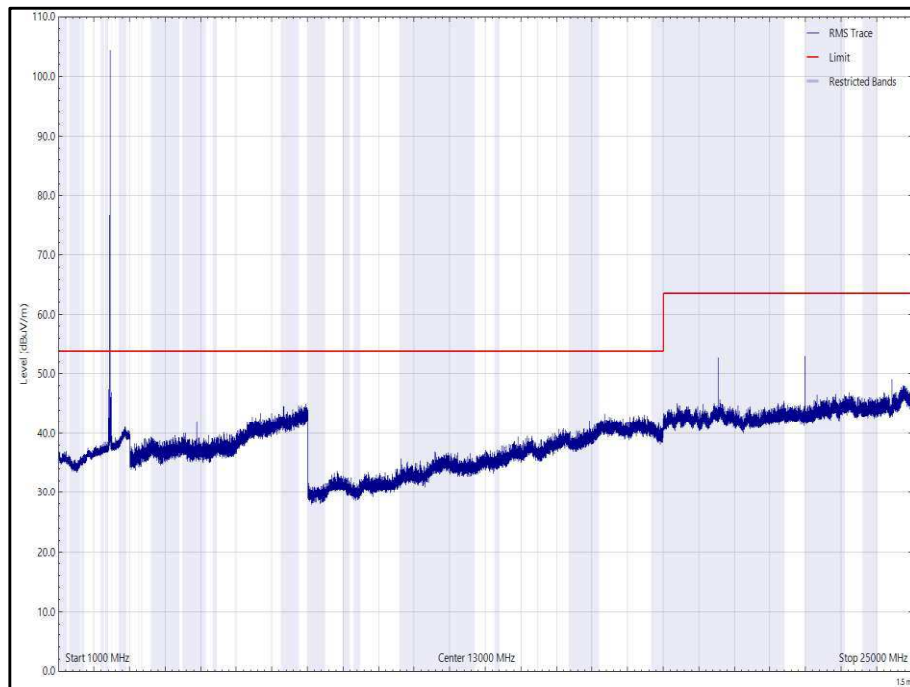


Figure 115 - 2444 MHz (CH19), LE1M - Z, 1 GHz to 25 GHz, Horizontal (rms)

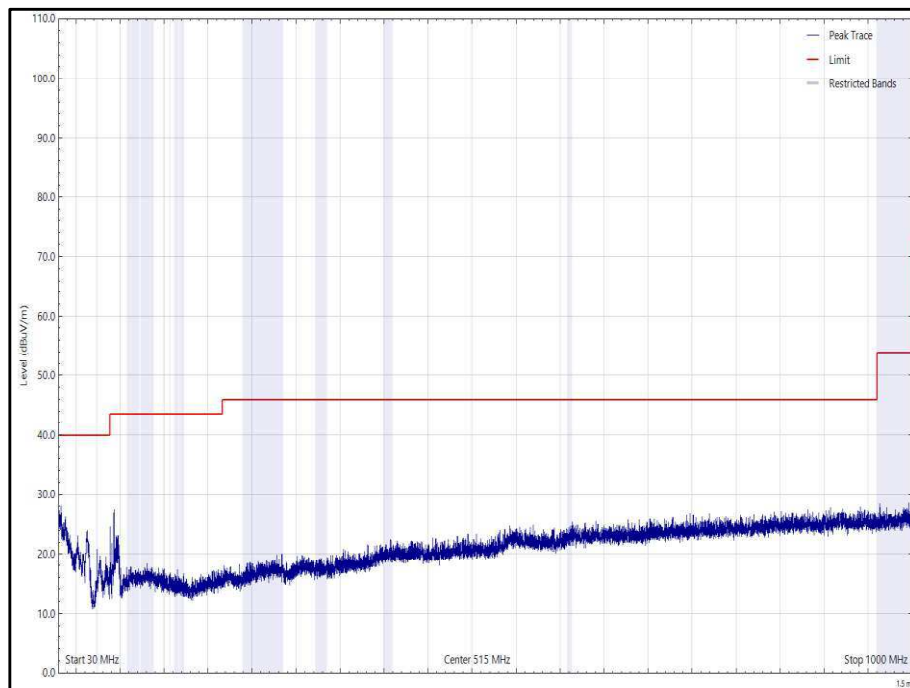


Figure 116 - 2444 MHz (CH19), LE1M - Z, 30 MHz to 1 GHz, Vertical (Peak)

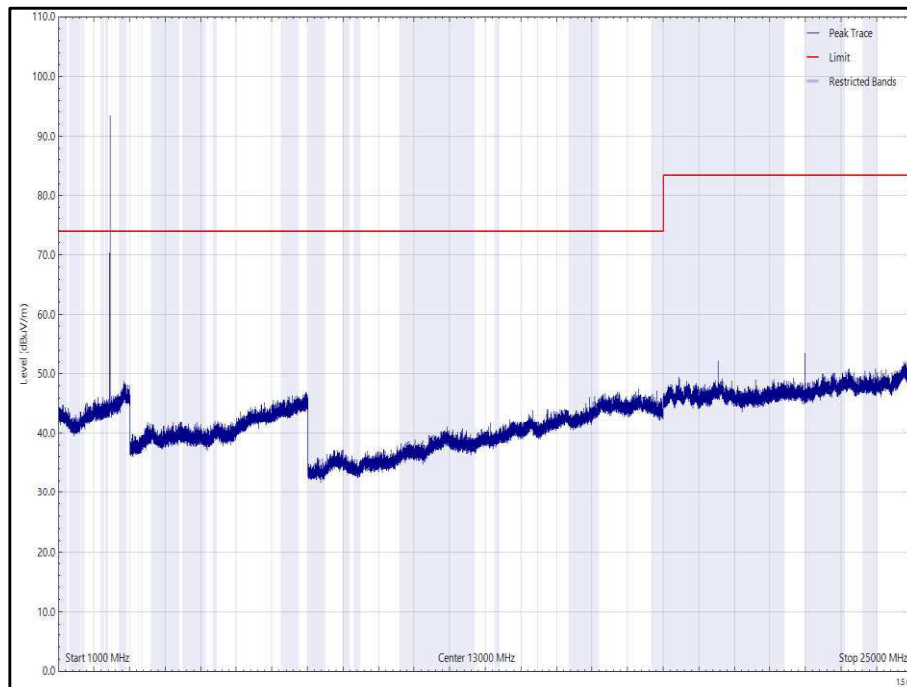


Figure 117 - 2444 MHz (CH19), LE1M - Z, 1 GHz to 25 GHz, Vertical (Peak)

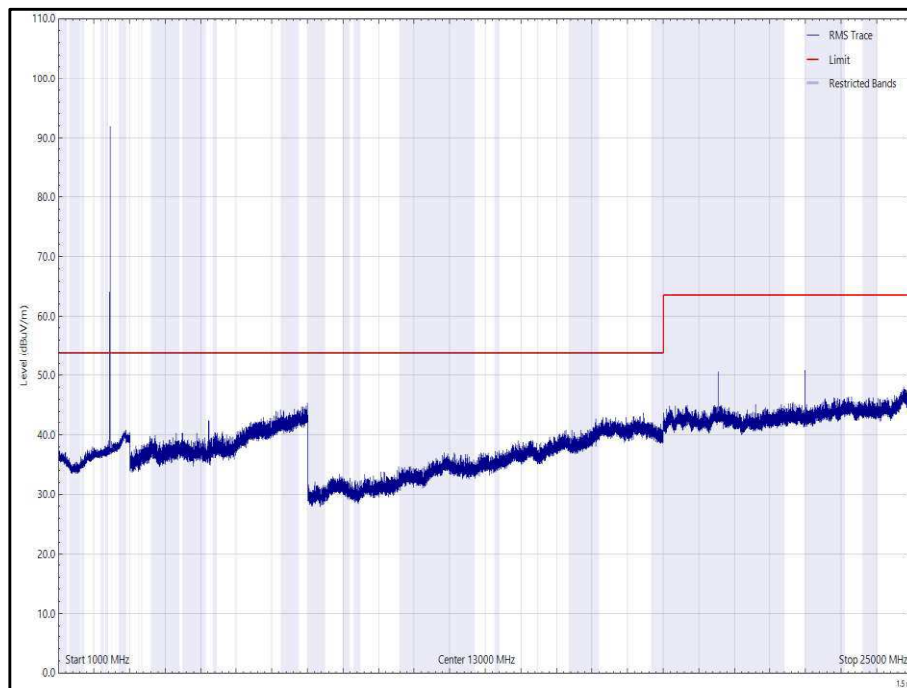


Figure 118 - 2444 MHz (CH19), LE1M - Z, 1 GHz to 25 GHz, Vertical (rms)



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

Table 54 - 2480 MHz (CH39), LE1M - X, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

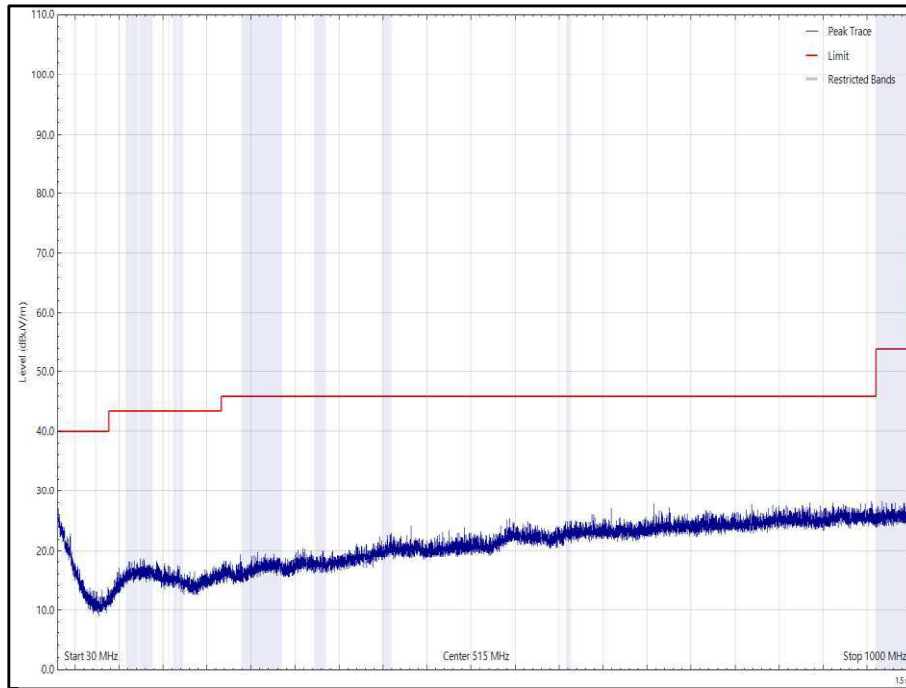


Figure 119 - 2480 MHz (CH39), LE1M - X, 30 MHz to 1 GHz, Horizontal (Peak)

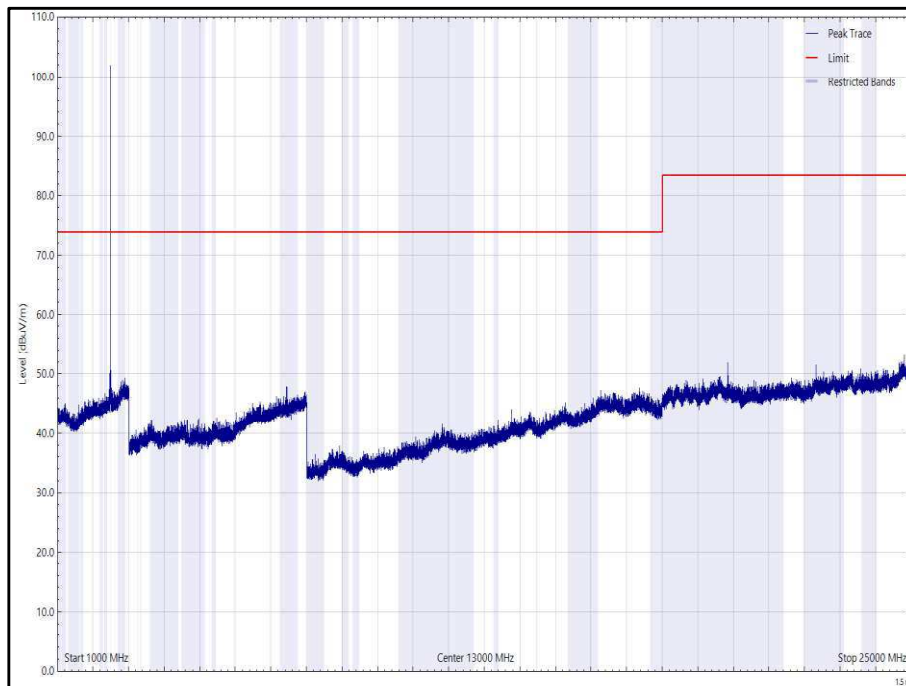


Figure 120 - 2480 MHz (CH39), LE1M - X, 1 GHz to 25 GHz, Horizontal (Peak)

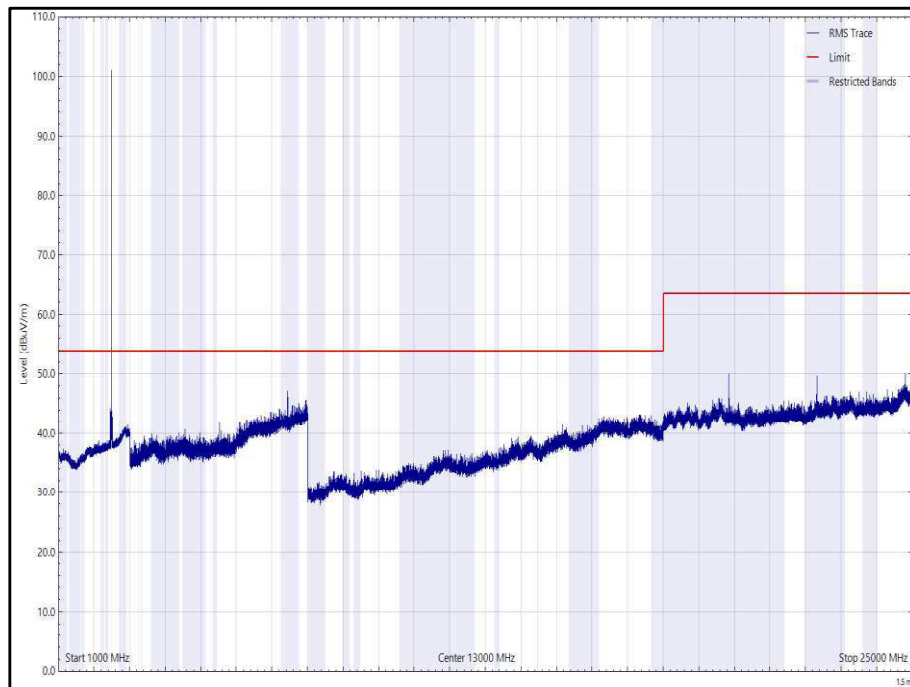


Figure 121 - 2480 MHz (CH39), LE1M - X, 1 GHz to 25 GHz, Horizontal (rms)

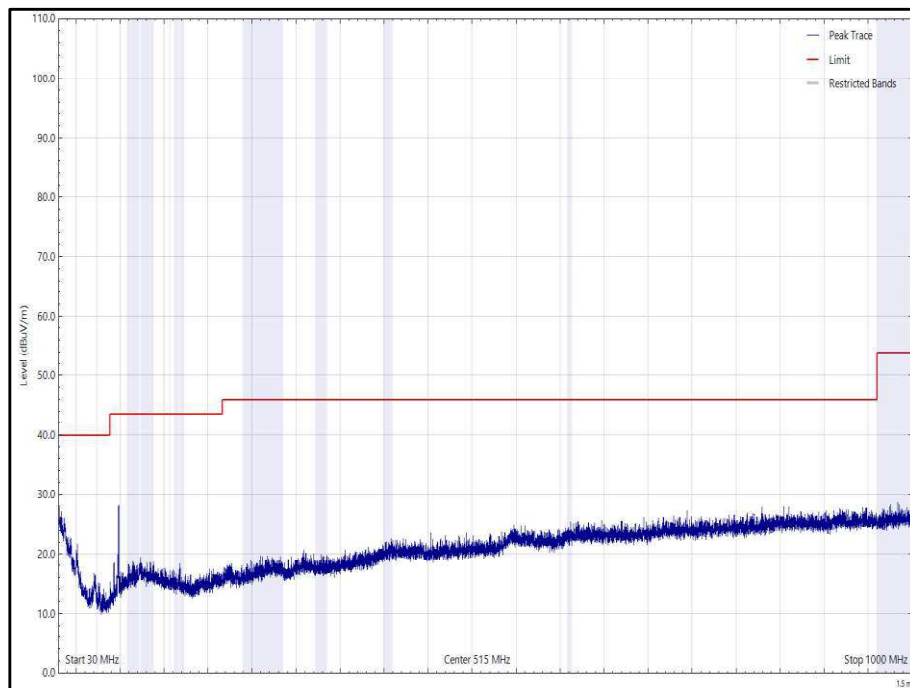


Figure 122 - 2480 MHz (CH39), LE1M - X, 30 MHz to 1 GHz, Vertical (Peak)

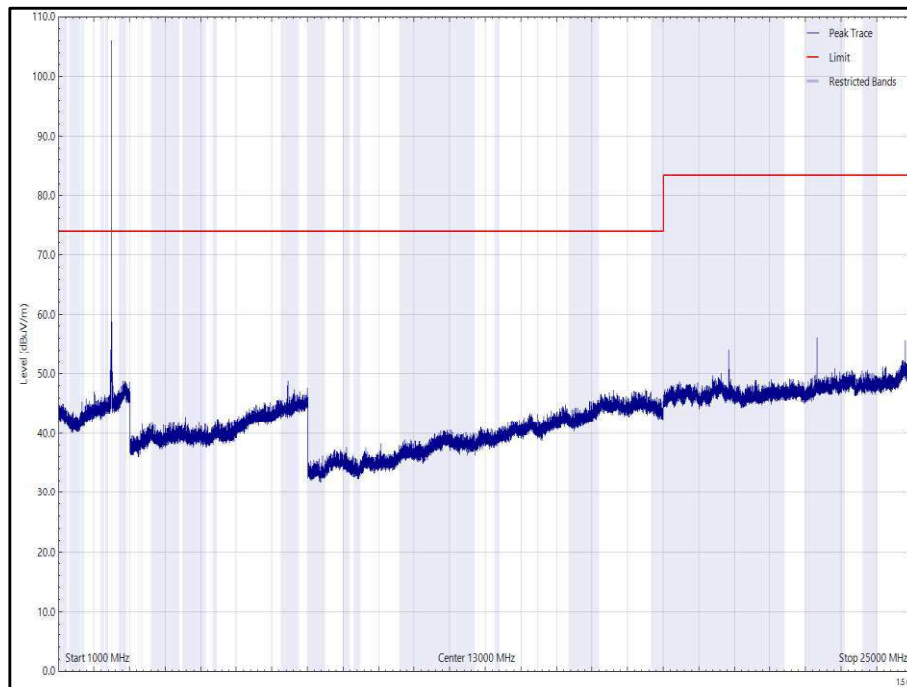


Figure 123 - 2480 MHz (CH39), LE1M - X, 1 GHz to 25 GHz, Vertical (Peak)

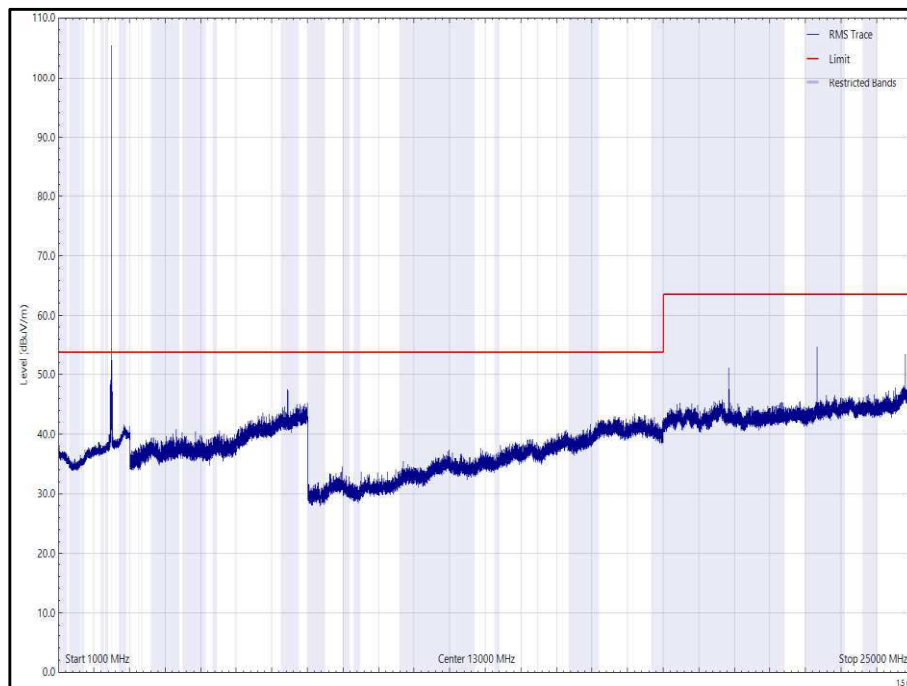


Figure 124 - 2480 MHz (CH39), LE1M - X, 1 GHz to 25 GHz, Vertical (rms)



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

Table 55 - 2480 MHz (CH39), LE1M - Y, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

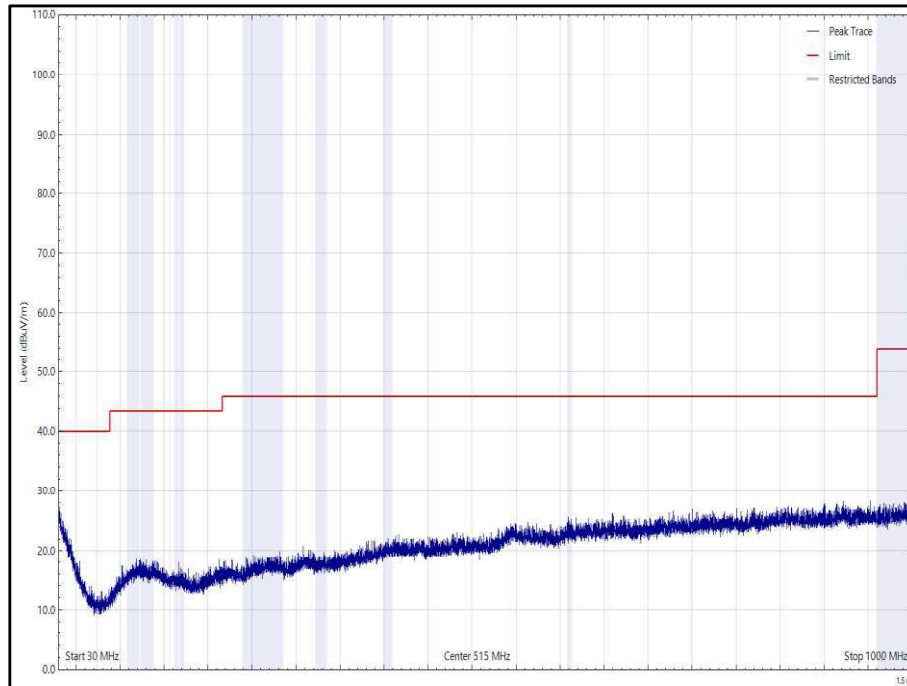


Figure 125 - 2480 MHz (CH39), LE1M - Y, 30 MHz to 1 GHz, Horizontal (Peak)

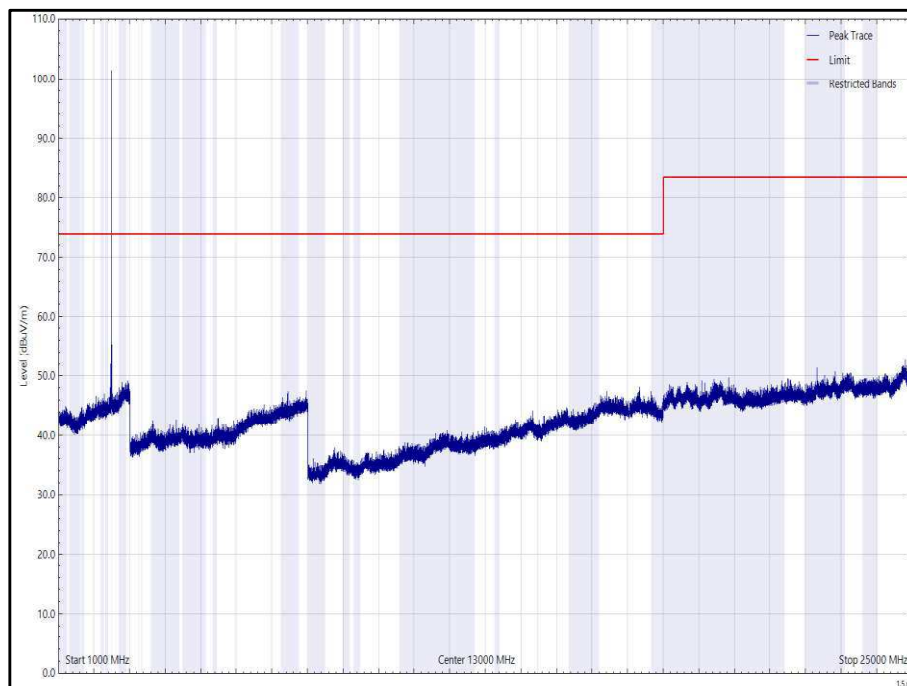


Figure 126 - 2480 MHz (CH39), LE1M - Y, 1 GHz to 25 GHz, Horizontal (Peak)

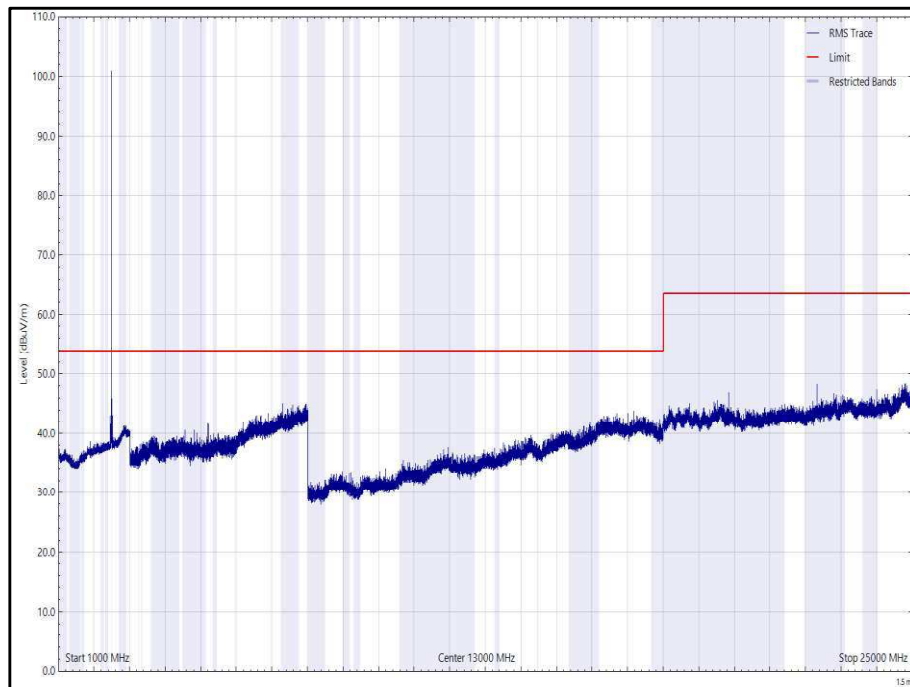


Figure 127 - 2480 MHz (CH39), LE1M - Y, 1 GHz to 25 GHz, Horizontal (rms)

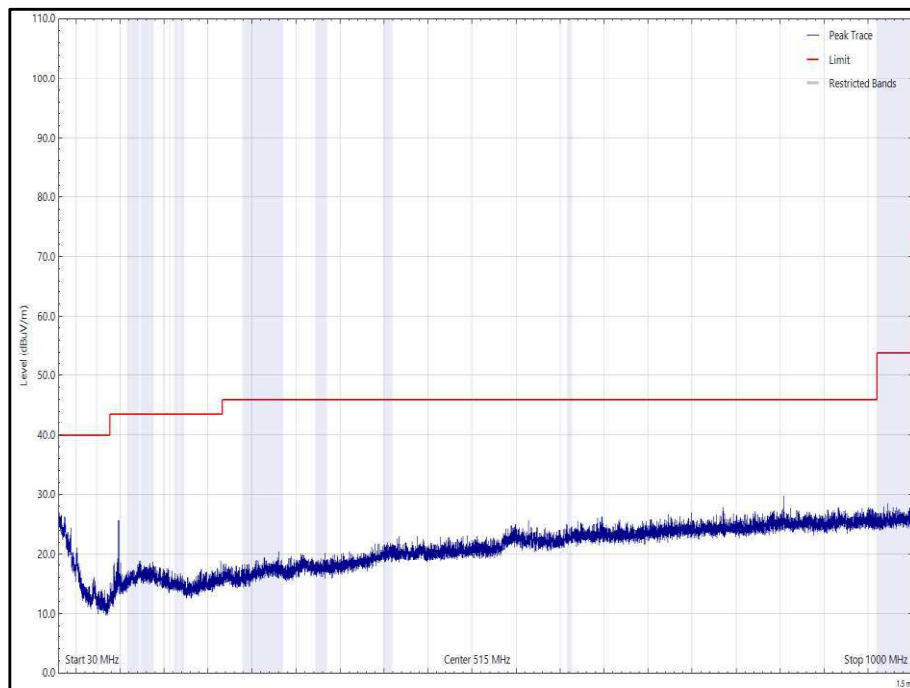


Figure 128 - 2480 MHz (CH39), LE1M - Y, 30 MHz to 1 GHz, Vertical (Peak)

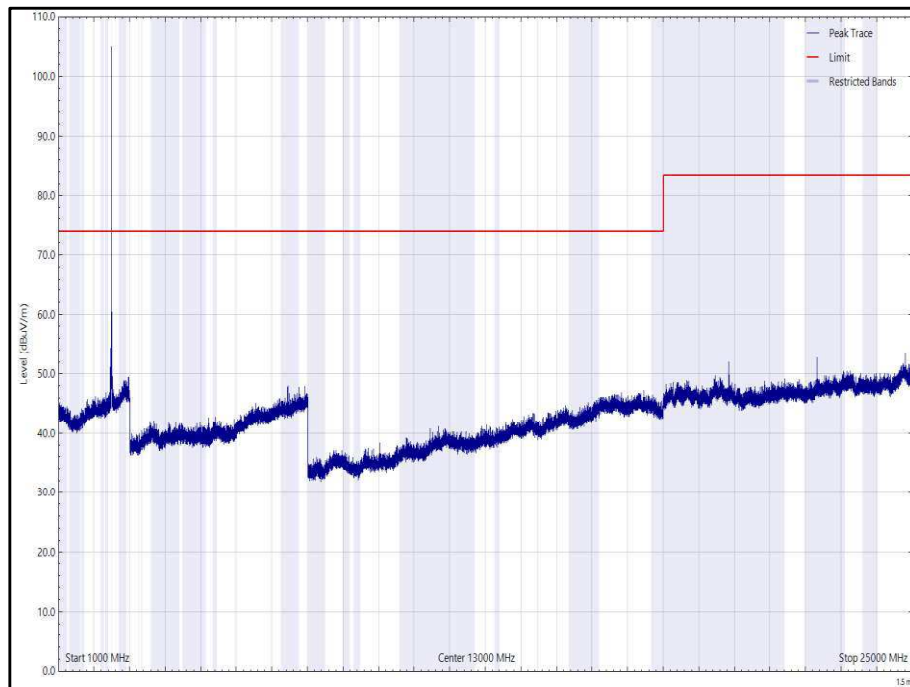


Figure 129 - 2480 MHz (CH39), LE1M - Y, 1 GHz to 25 GHz, Vertical (Peak)

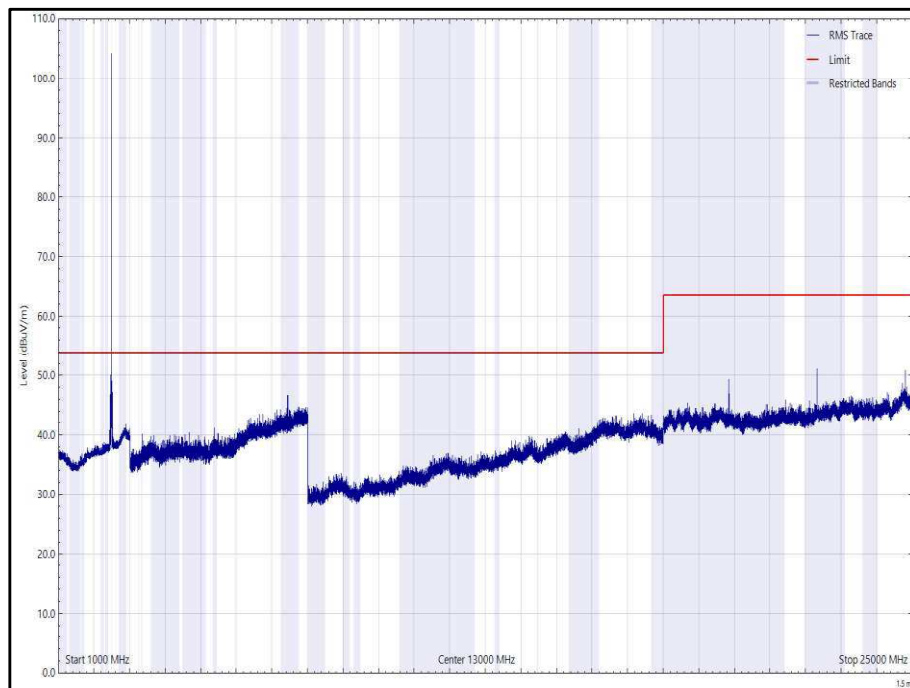


Figure 130 - 2480 MHz (CH39), LE1M - Y, 1 GHz to 25 GHz, Vertical (rms)



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

Table 56 - 2480 MHz (CH39), LE1M - Z, 30 MHz to 25 GHz

*No emissions found within 10 dB of the limit.

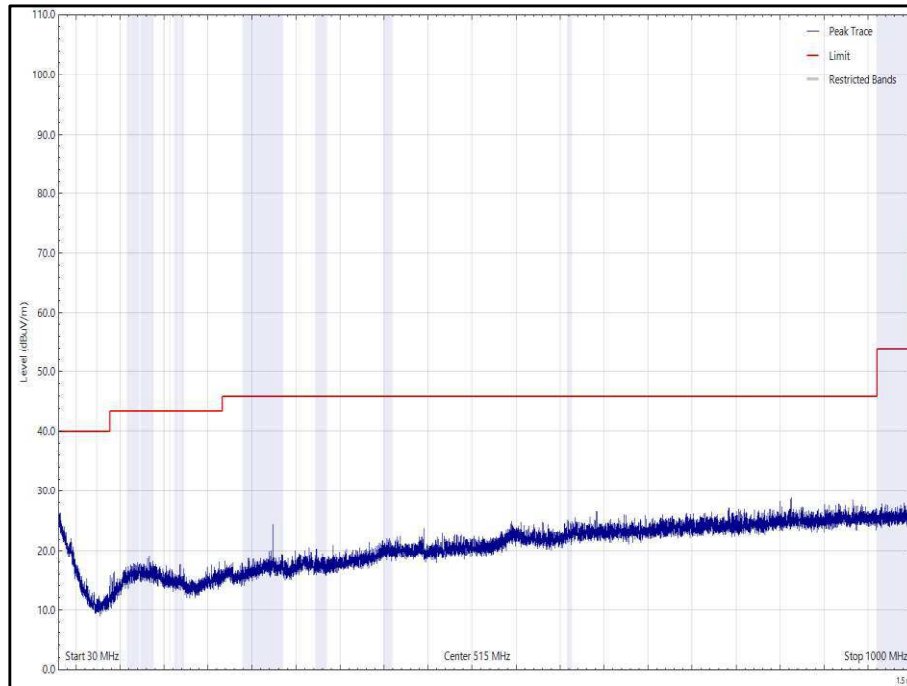


Figure 131 - 2480 MHz (CH39), LE1M - Z, 30 MHz to 1 GHz, Horizontal (Peak)

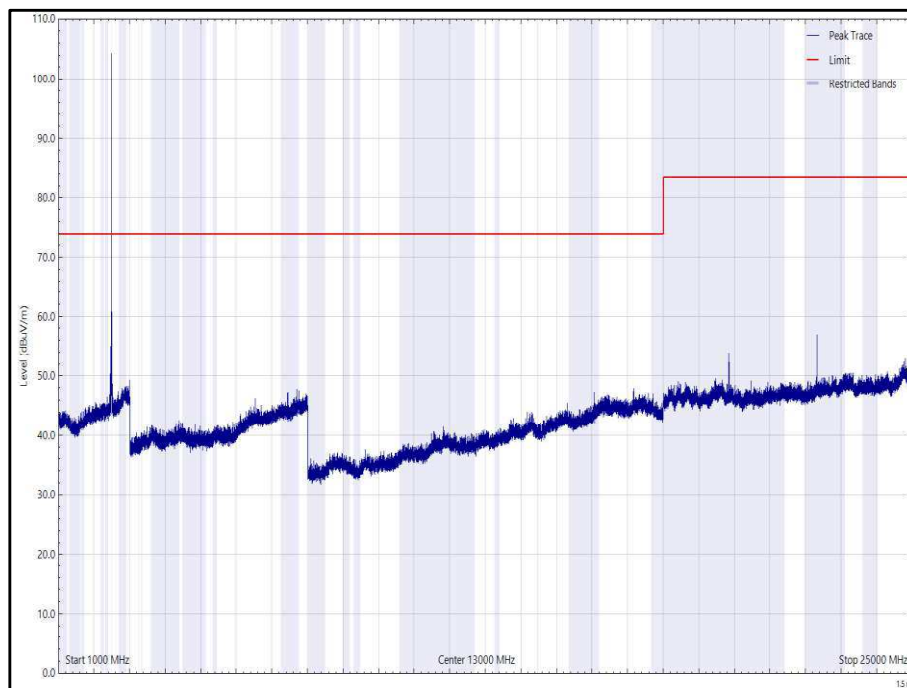


Figure 132 - 2480 MHz (CH39), LE1M - Z, 1 GHz to 25 GHz, Horizontal (Peak)

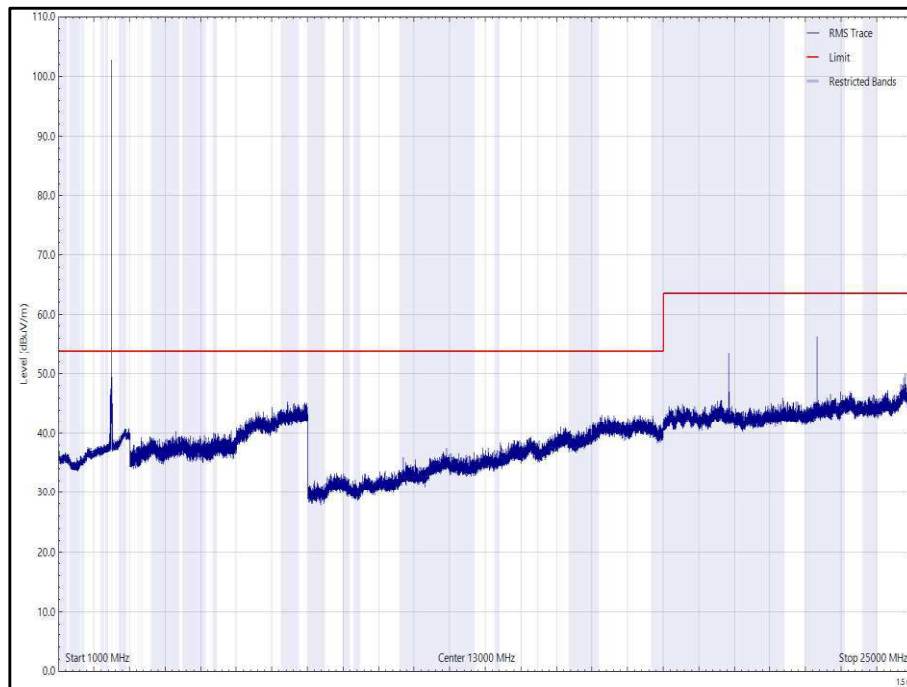


Figure 133 - 2480 MHz (CH39), LE1M - Z, 1 GHz to 25 GHz, Horizontal (rms)

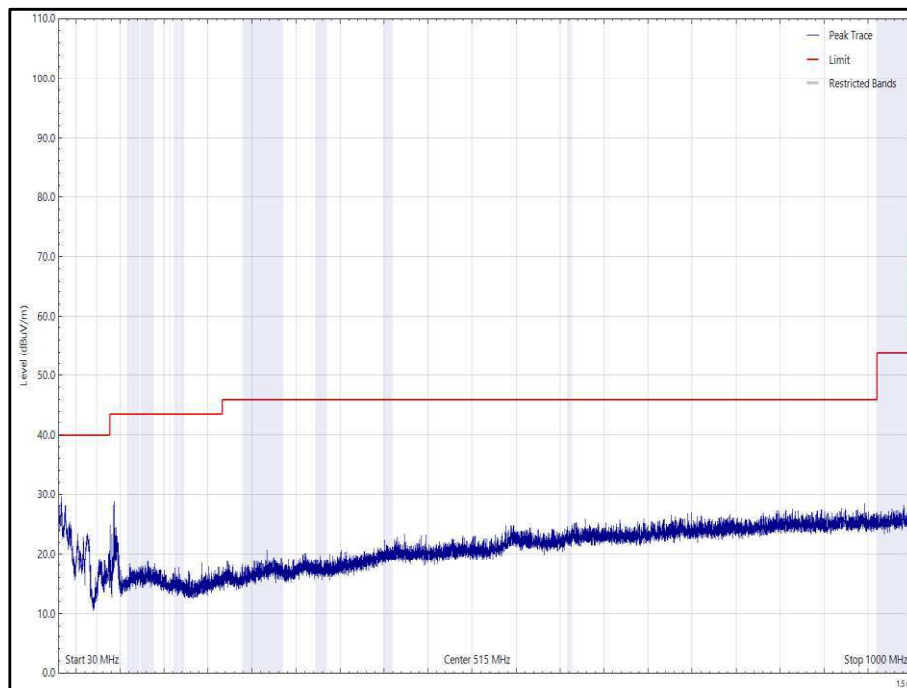


Figure 134 - 2480 MHz (CH39), LE1M - Z, 30 MHz to 1 GHz, Vertical (Peak)

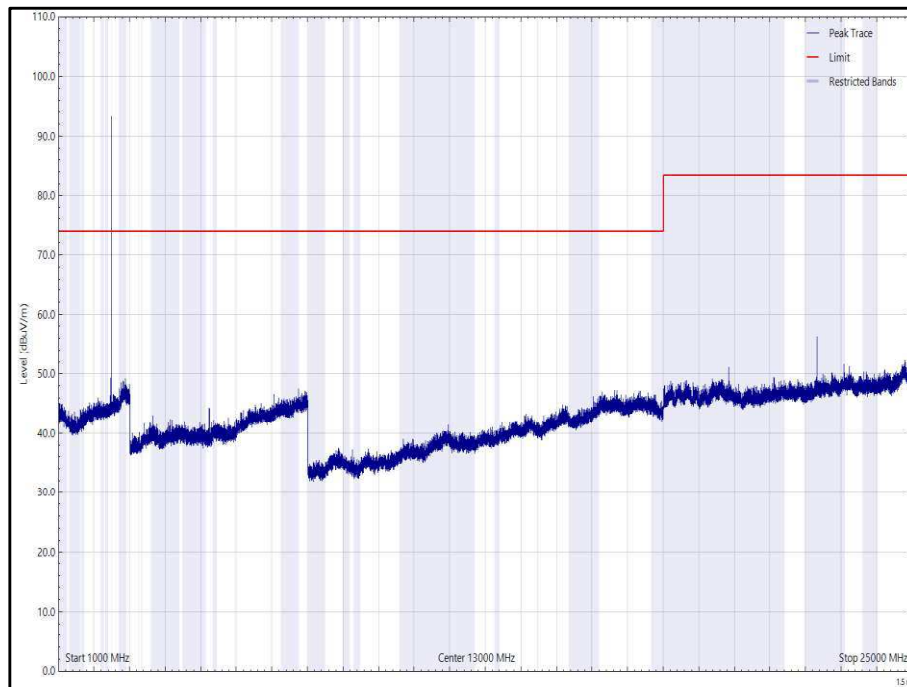


Figure 135 - 2480 MHz (CH39), LE1M - Z, 1 GHz to 25 GHz, Vertical (Peak)

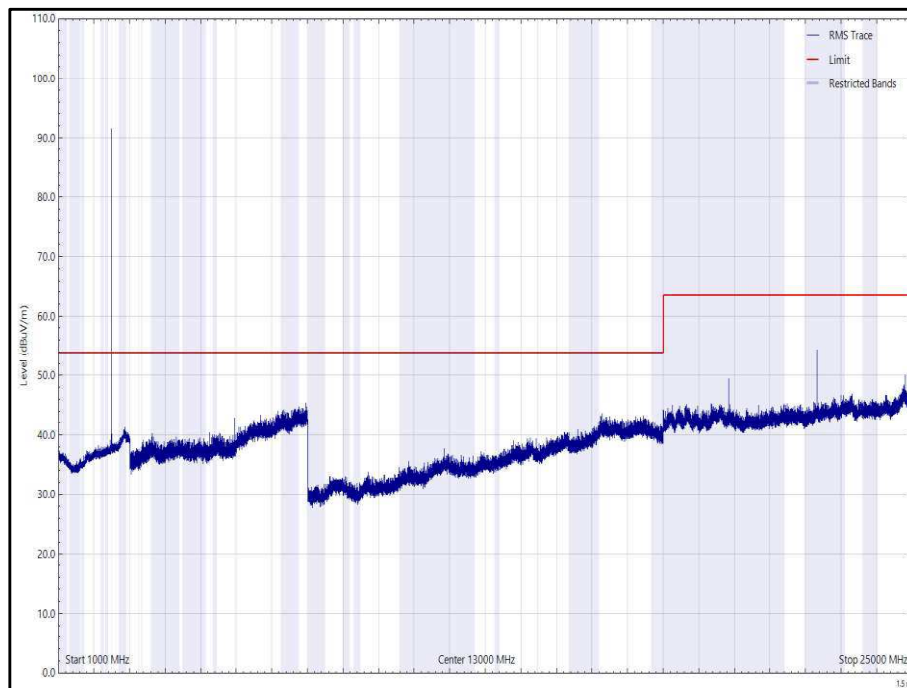


Figure 136 - 2480 MHz (CH39), LE1M - Z, 1 GHz to 25 GHz, Vertical (rms)



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.



2.5.8 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 12.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Antenna with attenuator (Bilog, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	14-Oct-2022
Power Supply Unit	Farnell	D302T	609	12	O/P Mon
Pre-Amplifier (8 GHz to 18 GHz)	Phase One	PS04-0086	1533	12	21-Feb-2023
Multimeter	Fluke	79 Series II	3057	12	23-Aug-2022
Cable (SMA to SMA, 2 m)	Rhophase	3PS-1801A-2000-3PS	4113	12	27-Jan-2023
Cable (N-Type to N-Type, 1 m)	Rosenberger	LU7-036-1000	5031	12	23-Jul-2022
Cable (N to N 8m)	Teledyne	PR90-088-8MTR	5212	12	06-Sep-2022
Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	5217	12	25-Jan-2023
Preamplifier (30dB 18-40GHz)	Schwarzbeck	BBV 9721	5218	12	25-Jan-2023
Pre-Amplifier (1 GHz to 18 GHz)	Schwarzbeck	BBV 9718 C	5350	12	22-Sep-2022
Thermo-hygro-Barometer	PCE Instruments	PCE-THB-40	5472	12	25-Mar-2023
Cable (K-Type to K-Type, 2 m)	Junkosha	MWX241-02000KMSKMS/A	5524	12	21-Apr-2022
3 GHz High pass Filter	Wainwright	WHKX12-2580-3000-18000-80SS	5548	12	07-May-2022
Antenna (DRG, 7.5 GHz to 18 GHz)	Schwarzbeck	HWRD750	5610	12	15-Oct-2022
Antenna (DRG, 1 GHz to 10 GHz)	Schwarzbeck	BBHA 9120 B	5611	12	15-Oct-2022
Turntable & Mast Controller	Maturo Gmbh	NCD/498/2799.01	5612	-	TU
Tilt Antenna Mast	Maturo Gmbh	TAM 4.0-P	5613	-	TU
Turntable	Maturo Gmbh	Turntable 1.5 SI-2t	5614	-	TU
Screened Room (12)	MVG	EMC-3	5621	36	11-Aug-2023
EMI Test Receiver	Rohde & Schwarz	ESW44	5914	12	21-Feb-2023

Table 57

TU - Traceability Unscheduled

O/P Mon – Output Monitored using calibrated equipment



2.6 Power Spectral Density

2.6.1 Specification Reference

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

2.6.2 Equipment Under Test and Modification State

MGM240L, S/N: Not Serialised Storix ID (643242-08) - Modification State 0
MGM240L, S/N: Not Serialised Storix ID (643242-11) - Modification State 0

2.6.3 Date of Test

15-April-2022 to 28-April-2022

2.6.4 Test Method

This test was performed in accordance with ANSI C63.10, clause 11.10.2.

Alongside LE2M, LE 8-coding was selected for testing as the customer declared that LE 8-coding is the worst case out of the supported 1MBaud PHYs.

The device was powered from its USB port.

2.6.5 Environmental Conditions

Ambient Temperature	23.4 - 26.2 °C
Relative Humidity	30.9 - 32.6 %



2.6.6 Test Results

2.4 GHz 802.15.4

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 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.15.4	Duty Cycle (%):	100.0
Data Rate:	-	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (A)	Active Chain(s):	0

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2405	3.0	-4.17	-	-	-	-	8.00	-12.17
2440	3.0	-4.81	-	-	-	-	8.00	-12.81
2480	3.0	-4.22	-	-	-	-	8.00	-12.22

Table 58 - Maximum Power Spectral Density Results



2.4 GHz Bluetooth Low Energy

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 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	BLE GFSK (LE 2M)	Duty Cycle (%):	35.6
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Main)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-5.25	-	-	-	-	8.00	-13.25
2440	3.0	-5.28	-	-	-	-	8.00	-13.28
2478	3.0	-5.18	-	-	-	-	8.00	-13.18

Table 59 - 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 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	BLE GFSK (LE 8-Coding)	Duty Cycle (%):	82.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Main)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	4.22	-	-	-	-	8.00	-3.78
2440	3.0	4.17	-	-	-	-	8.00	-3.83
2480	3.0	4.30	-	-	-	-	8.00	-3.70

Table 60 - 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

2.6.7 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
Hygrometer	Rotronic	I-1000	3220	12	05-Nov-2022
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	30-Jun-2022
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	06-Jun-2022
Signal Conditioning Unit	TUV SUD	SCU002	5759	12	30-Jun-2022

Table 61

3 Photographs

3.1 Test Setup Photographs



Figure 137 - Test Setup - 30 MHz to 1 GHz - X



Figure 138 - Test Setup - 30 MHz to 1 GHz - Y



Figure 139 - Test Setup - 30 MHz to 1 GHz - Z

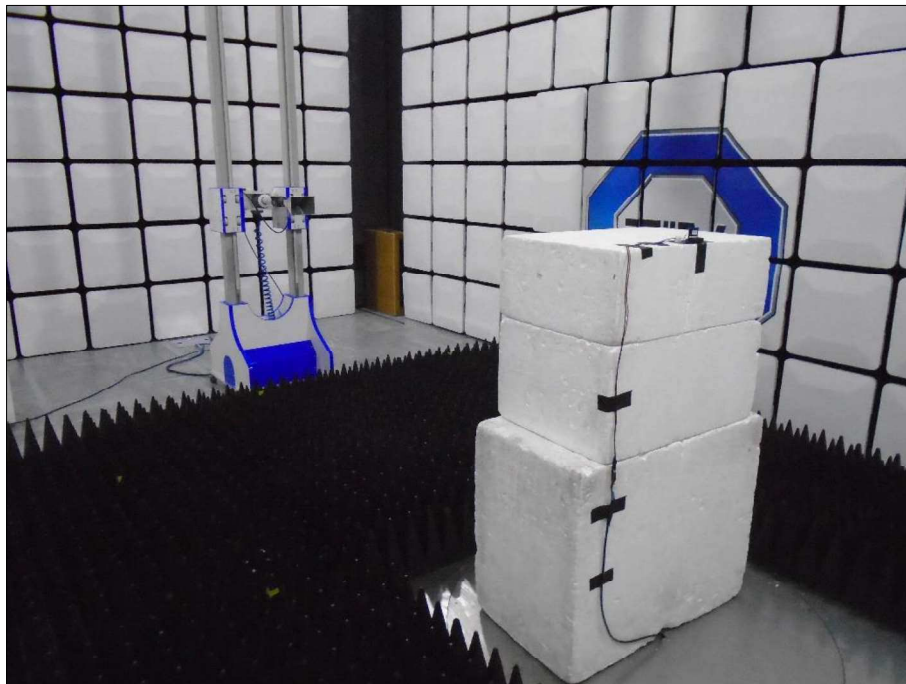


Figure 140 - Test Setup - 1 GHz to 8 GHz - X

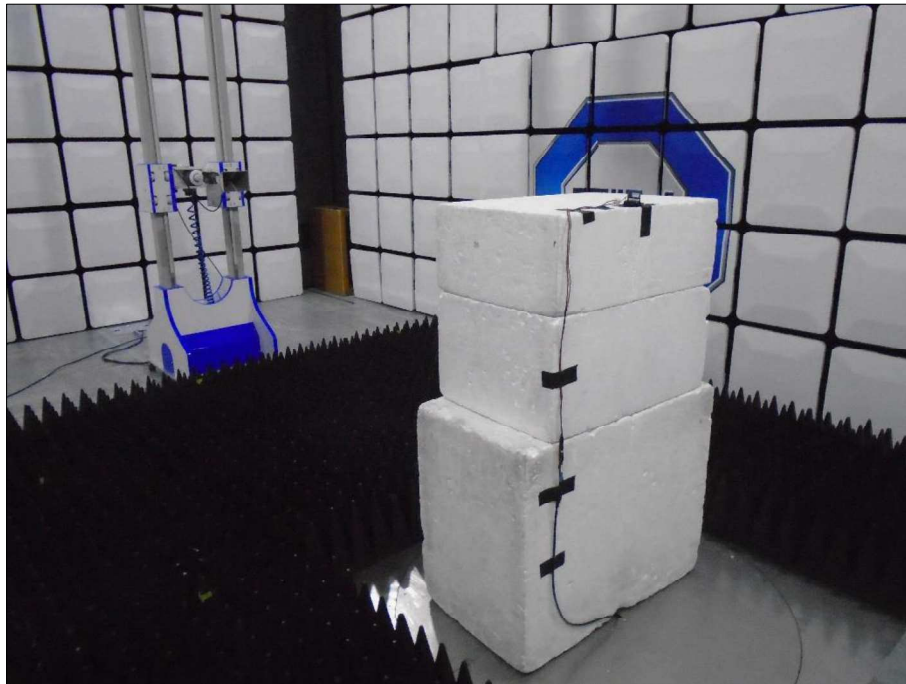


Figure 141 - Test Setup - 1 GHz to 8 GHz - Y

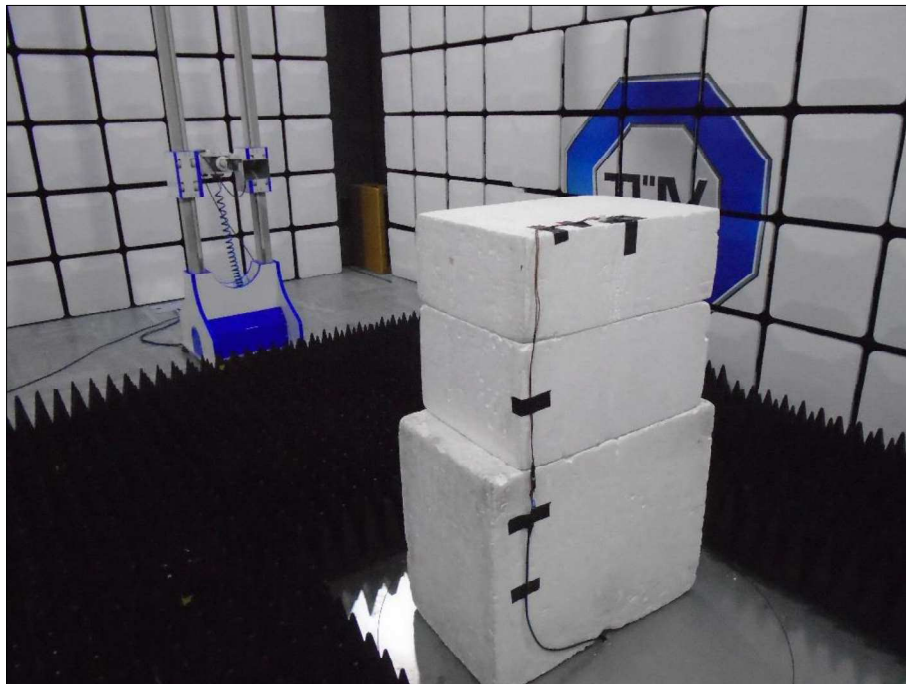


Figure 142 - Test Setup - 1 GHz to 8 GHz - Z

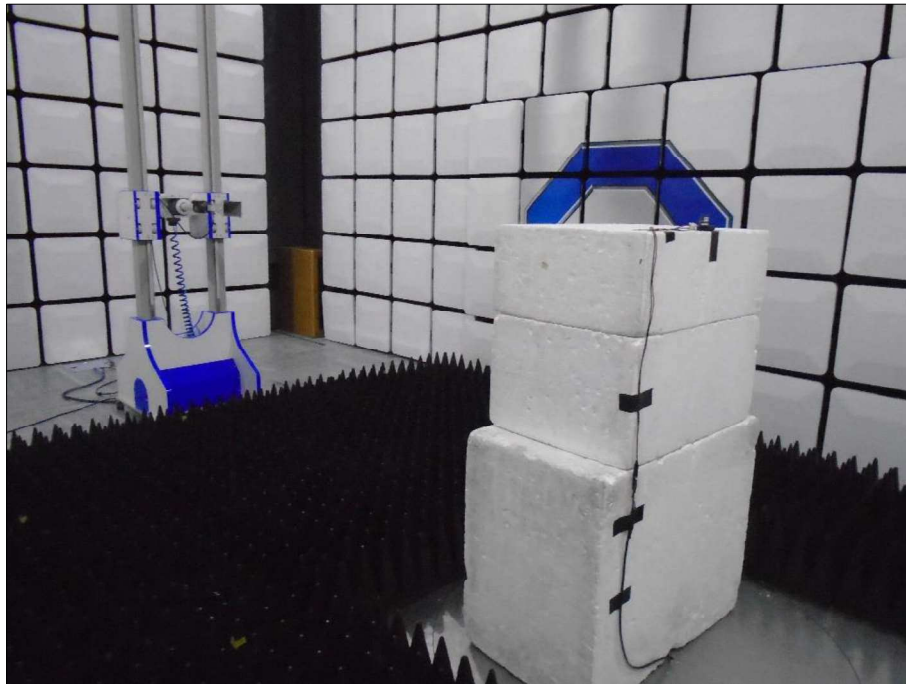


Figure 143 - Test Setup - 8 GHz to 18 GHz - X

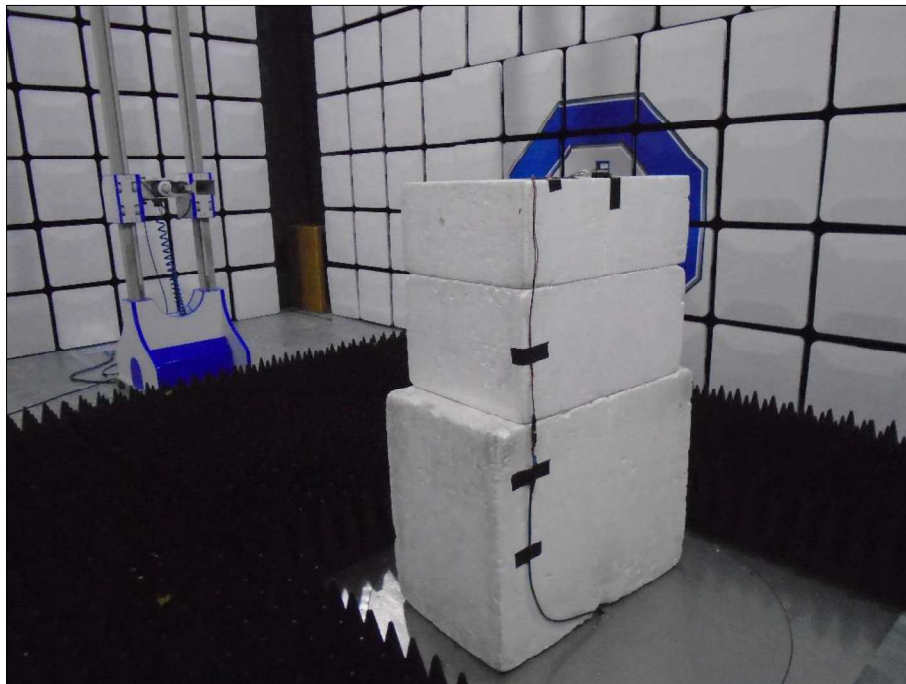


Figure 144 - Test Setup - 8 GHz to 18 GHz - Y

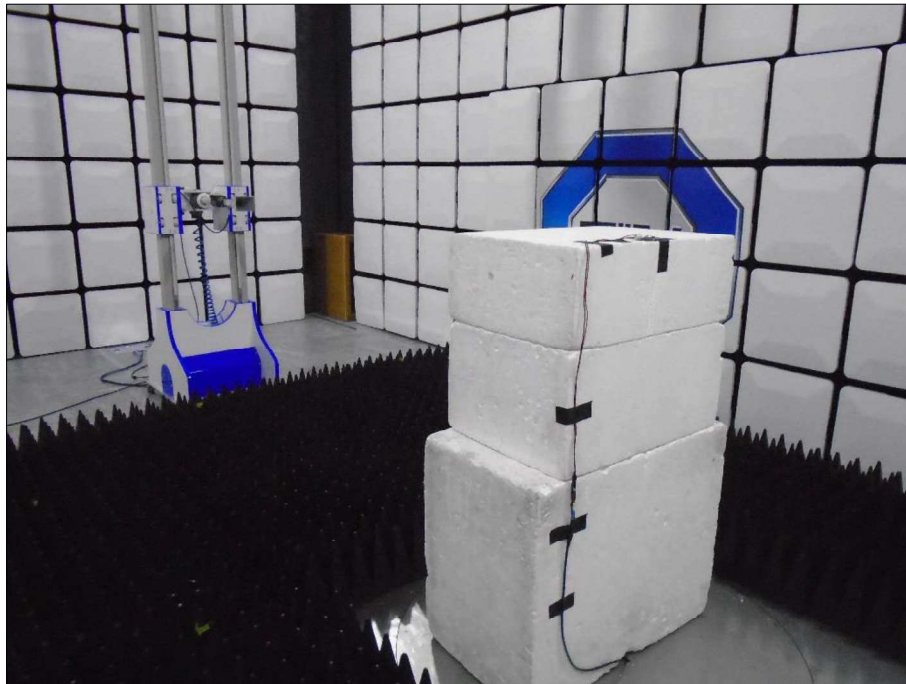


Figure 145 - Test Setup - 8 GHz to 18 GHz - Z



Figure 146 - Test Setup - 18 GHz to 25 GHz - X



Figure 147 - Test Setup - 18 GHz to 25 GHz - Y



Figure 148 - Test Setup - 18 GHz to 25 GHz - Z



4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Restricted Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Emission Bandwidth	± 107.57 kHz
Maximum Conducted Output Power	± 3.2 dB
Authorised Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Power Spectral Density	± 3.2 dB

Table 62

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2007, Clause 4.4.3 and 4.5.1. (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

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