

**Figure 121 - Data Rate with the Widest Bandwidth - 9 Mbps -
2472 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



2.4 GHz WLAN - 802.11n 20 MHz Bandwidth

Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
MCS with the Highest Power (12 dBm) and Widest Bandwidth	MCS7	2412	2390	63.76	48.04
MCS with the Highest Power (12 dBm) and Widest Bandwidth	MCS7	2462	2483.5	66.50	49.86
MCS with the Highest Power (10 dBm) and Widest Bandwidth	MCS7	2467	2483.5	69.61	50.05
MCS with the Highest Power (7 dBm) and Widest Bandwidth	MCS7	2472	2483.5	71.71	51.14

Table 42 - Restricted Band Edge Results – Antenna Port 1

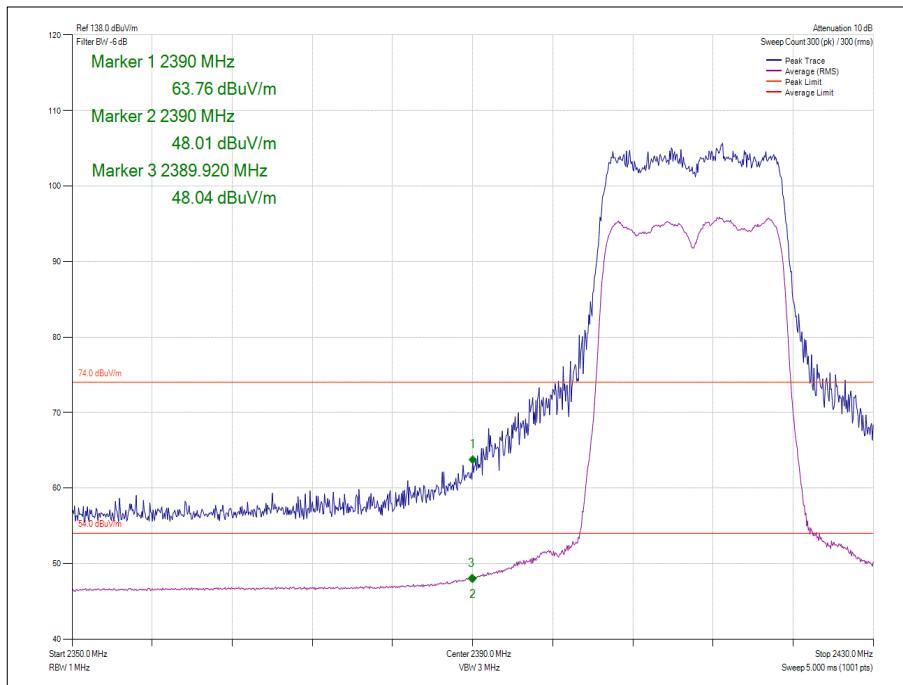
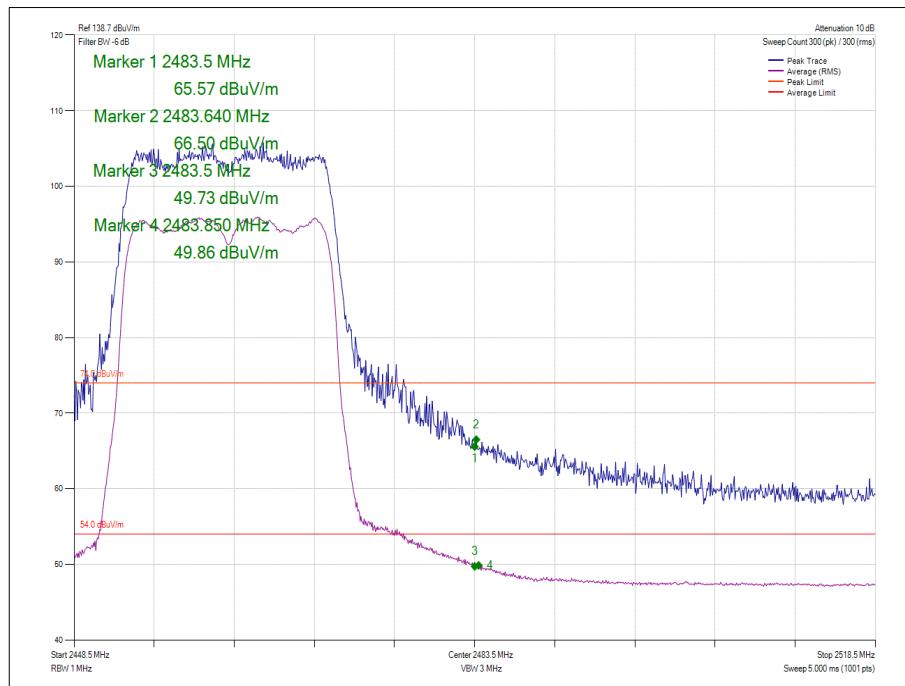
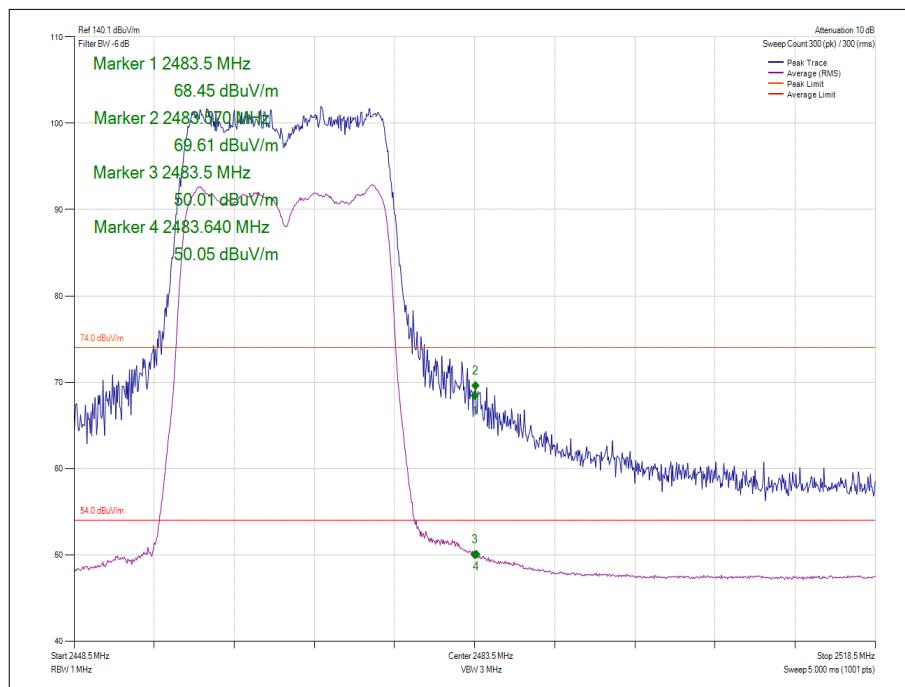


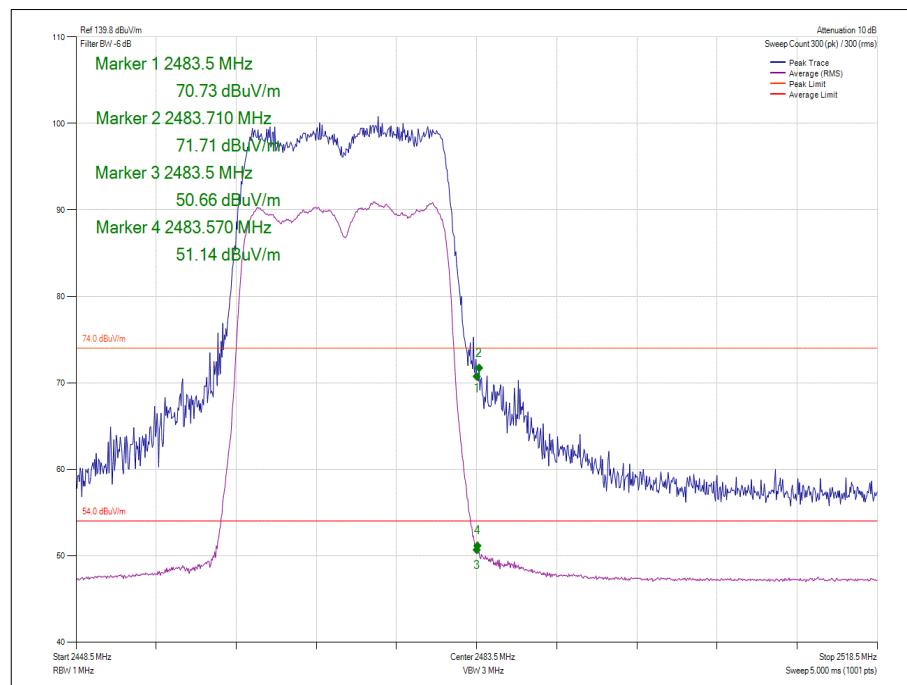
Figure 122 - MCS with the Highest Power and Widest Bandwidth - MCS7 2412 MHz - Band Edge Frequency 2390 MHz – Antenna Port 1



**Figure 123 - MCS with the Highest Power and Widest Bandwidth
MCS7 - 2462 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 1**



**Figure 124 - MCS with the Highest Power and Widest Bandwidth - MCS7
2467 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 1**

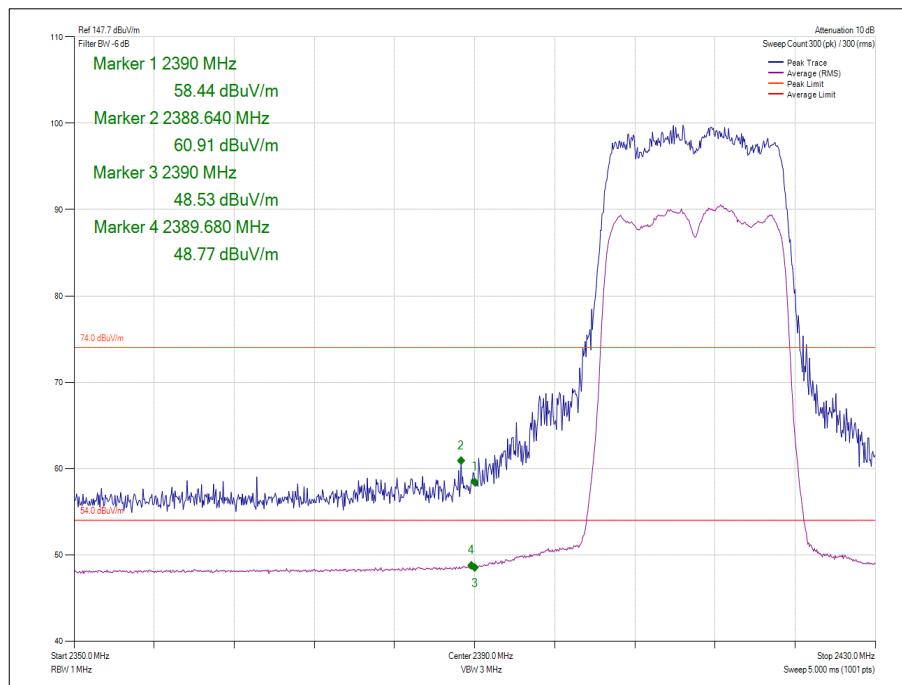


**Figure 125 - MCS with the Highest Power and Widest Bandwidth - MCS7
2472 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 1**

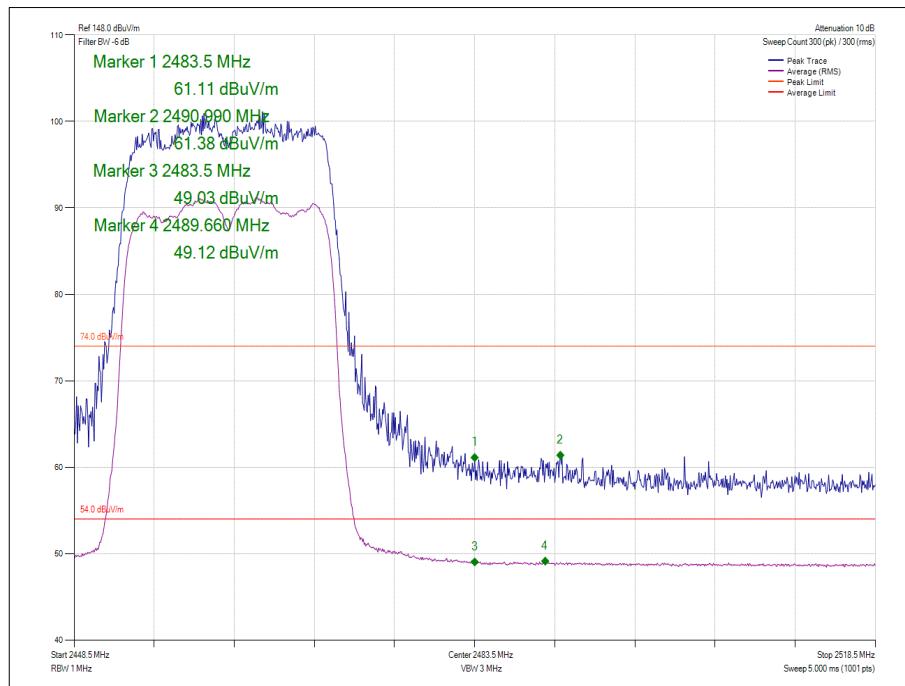


Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
MCS with the Highest Power (12 dBm)	MCS7	2412	2390	60.91	48.77
MCS with the Highest Power (12 dBm)	MCS7	2462	2483.5	61.38	49.12
MCS with the Highest Power (10 dBm)	MCS7	2467	2483.5	65.72	48.50
MCS with the Highest Power (7 dBm)	MCS7	2472	2483.5	68.49	49.41
MCS with the Widest Bandwidth	MCS6	2412	2390	61.45	47.55
MCS with the Widest Bandwidth	MCS6	2462	2483.5	62.01	47.04
MCS with the Widest Bandwidth	MCS6	2467	2483.5	65.27	47.92
MCS with the Widest Bandwidth	MCS6	2472	2483.5	72.10	49.70

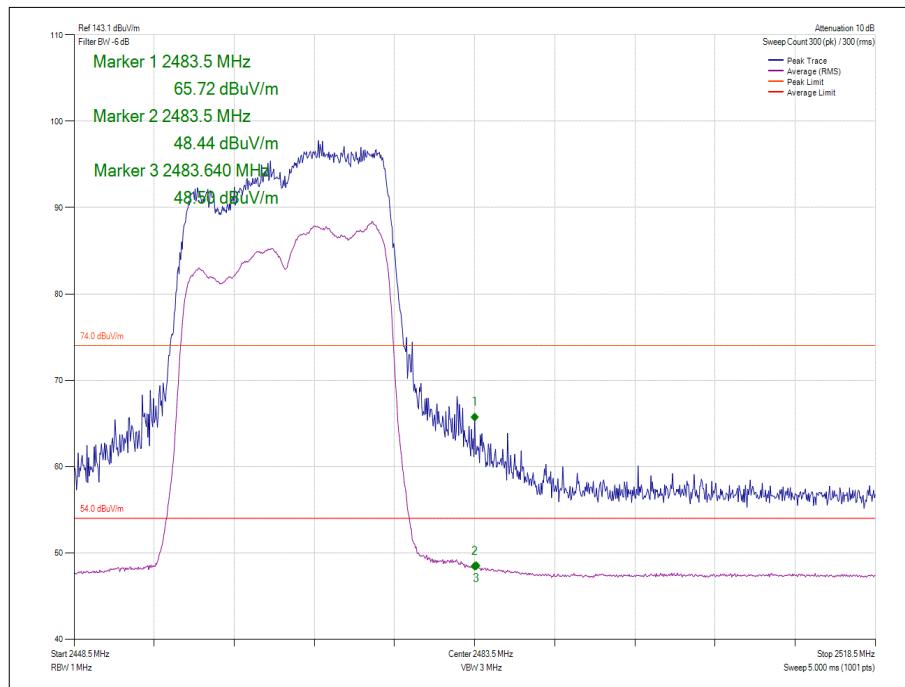
Table 43 - Restricted Band Edge Results – Antenna Port 2



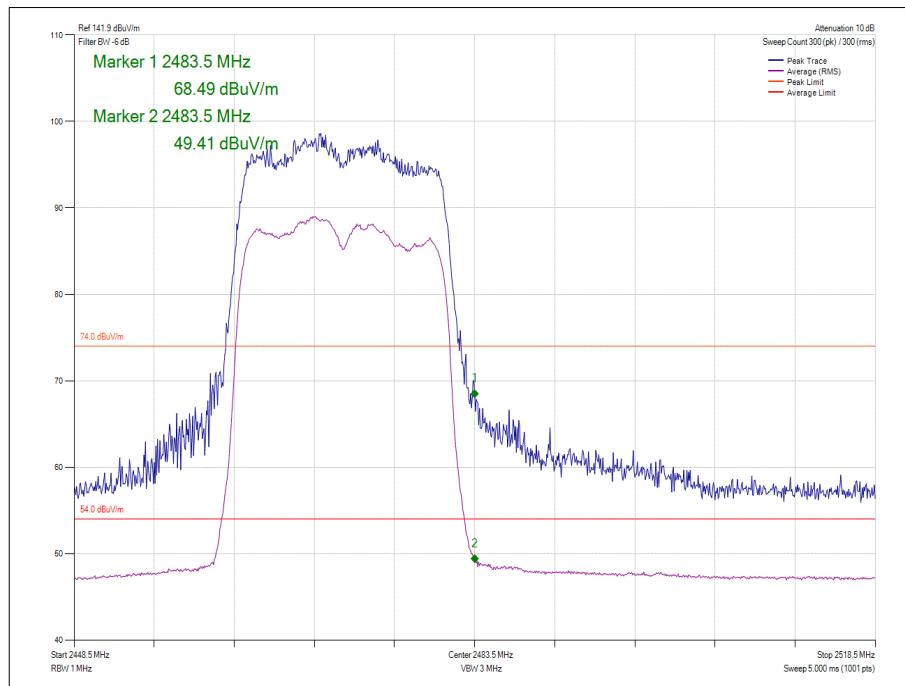
**Figure 126 - MCS with the Highest Power - MCS7
 2412 MHz - Band Edge Frequency 2390 MHz – Antenna Port 2**



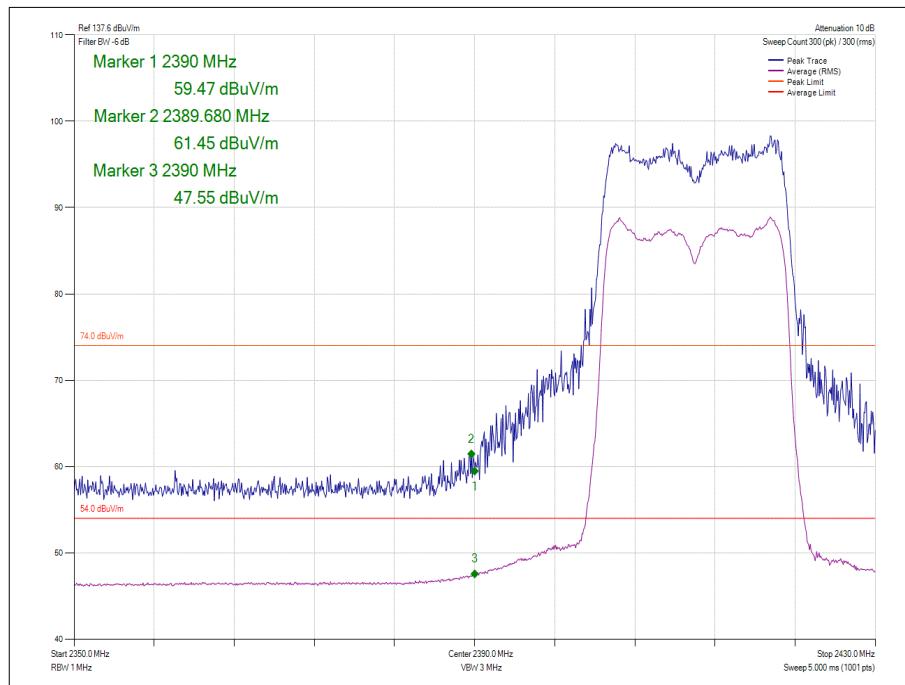
**Figure 127 - MCS with the Highest Power - MCS7
2462 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



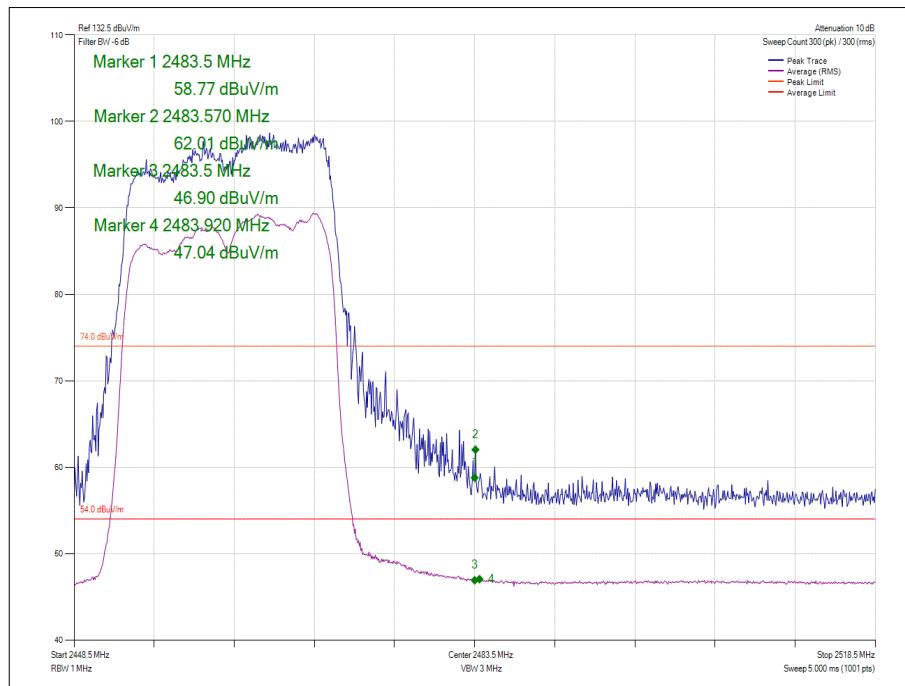
**Figure 128 - MCS with the Highest Power - MCS7
2467 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



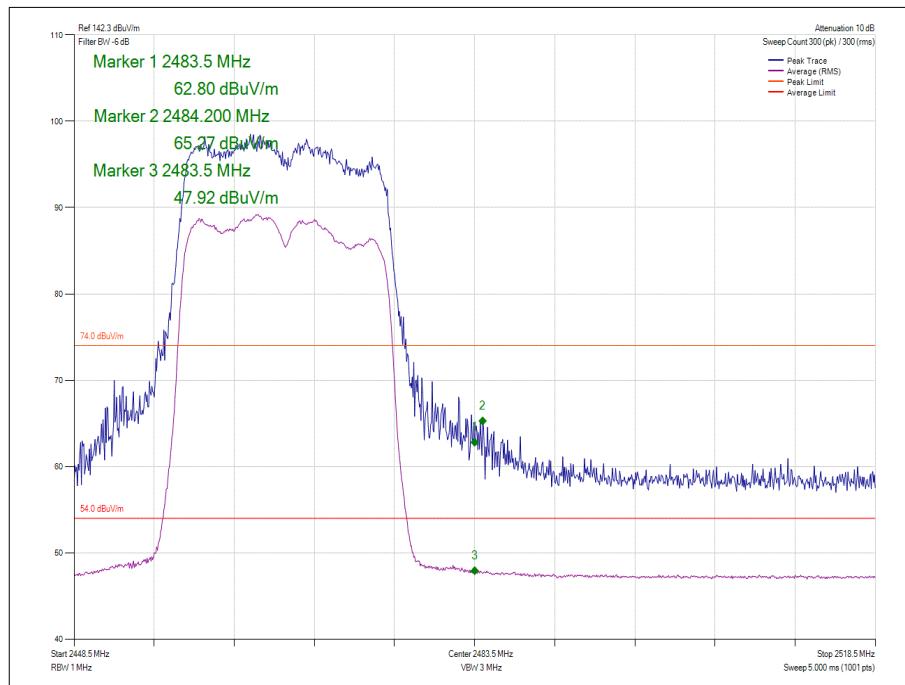
**Figure 129 - MCS with the Highest Power - MCS7
2472 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



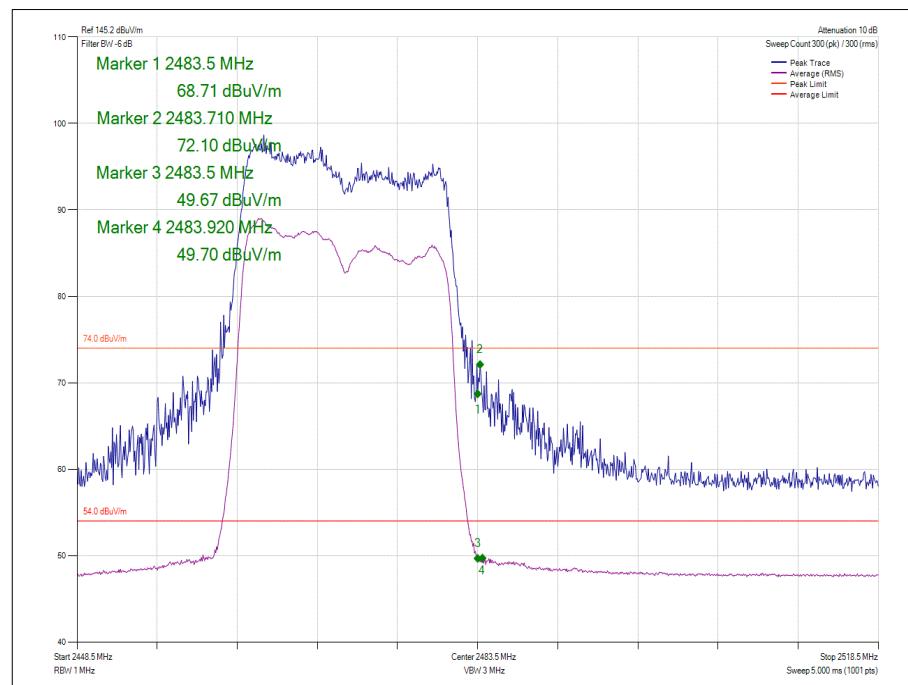
**Figure 130 - MCS with the Widest Bandwidth - MCS6
2412 MHz - Band Edge Frequency 2390 MHz – Antenna Port 2**



**Figure 131 - MCS with the Widest Bandwidth - MCS6
2462 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



**Figure 132 - MCS with the Widest Bandwidth - MCS6
2467 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



**Figure 133 - MCS with the Widest Bandwidth - MCS6
2472 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 2**



Mode	Modulation Coding Scheme	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
MCS with the Highest Power and Widest Bandwidth	MCS0	2412	2390	67.77	49.80
MCS with the Highest Power and Widest Bandwidth	MCS0	2462	2483.5	68.42	49.92
MCS with the Highest Power and Widest Bandwidth	MCS0	2467	2483.5	70.80	50.03
MCS with the Highest Power and Widest Bandwidth	MCS0	2472	2483.5	71.71	47.91

Table 44 - Restricted Band Edge – Antenna Port 1+2 MIMO

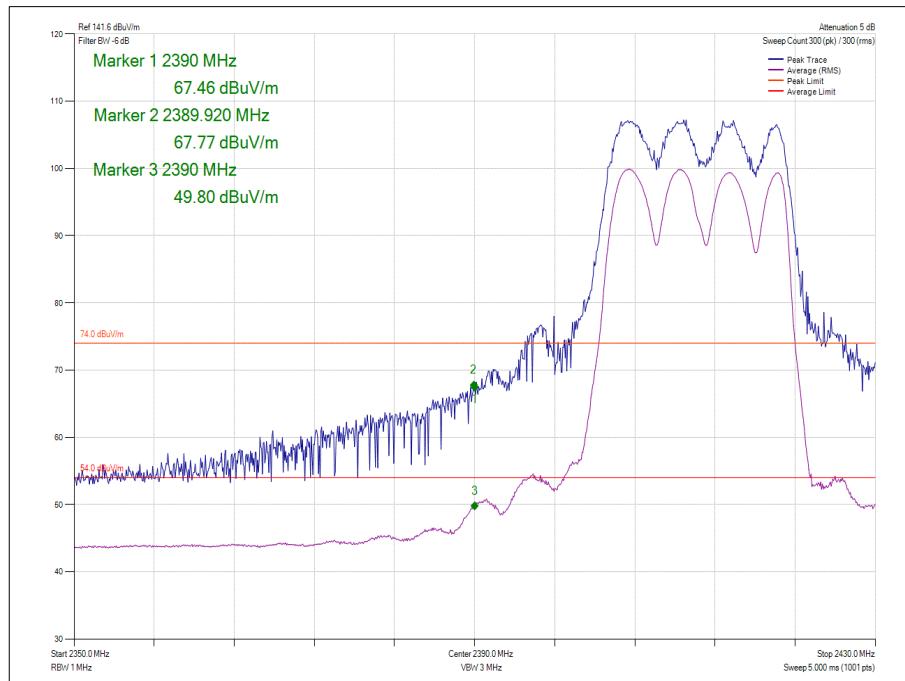


Figure 134 - MCS with the Highest Power and Widest Bandwidth - MCS0 2412 MHz - Band Edge Frequency 2390 MHz – Antenna Port 1+2 MIMO

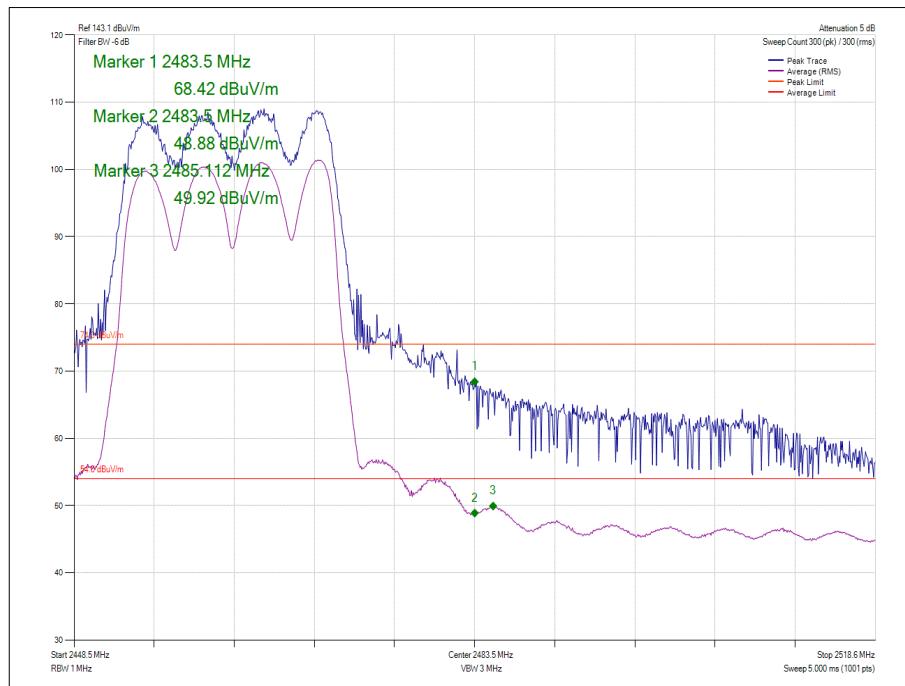


Figure 135 - MCS with the Highest Power and Widest Bandwidth - MCS0 2462 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 1+2 MIMO

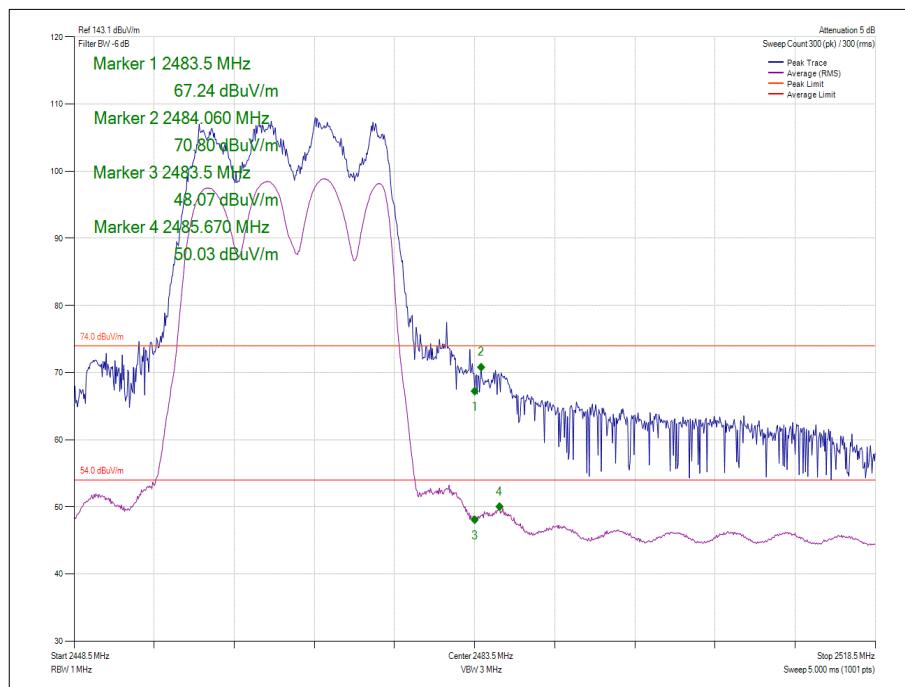


Figure 136 - MCS with the Highest Power and Widest Bandwidth - MCS0 2467 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 1+2 MIMO

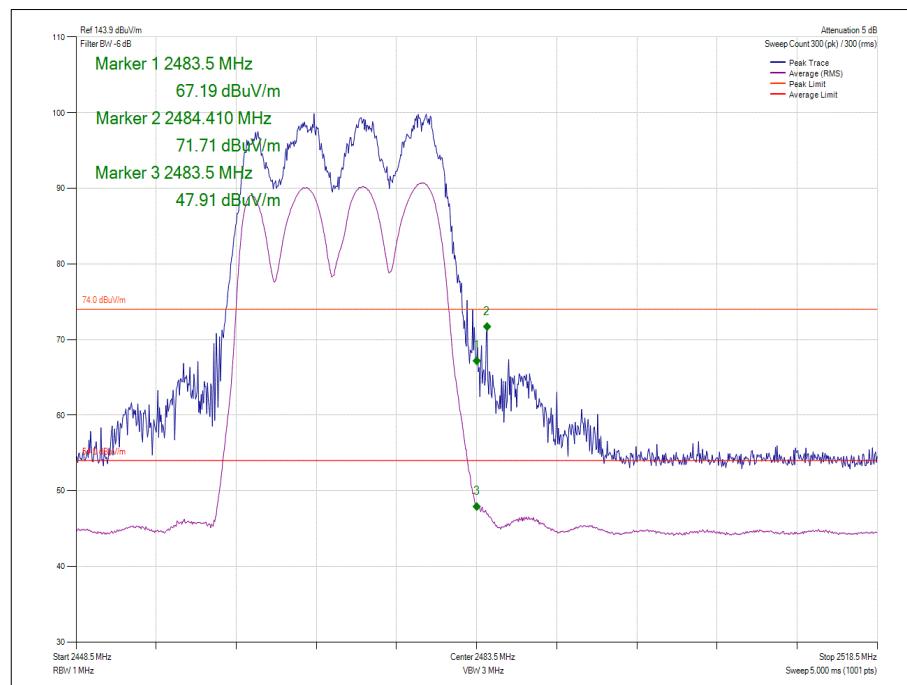


Figure 137 - MCS with the Highest Power and Widest Bandwidth - MCS0 2472 MHz - Band Edge Frequency 2483.5 MHz – Antenna Port 1+2 MIMO



Bluetooth Low Energy

Modulation	Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dB μ V/m)	Average Level (dB μ V/m)
GFSK	2402	2390.0	53.66	42.77
GFSK	2480	2483.5	56.06	45.19

Table 45 - Restricted Band Edge Results

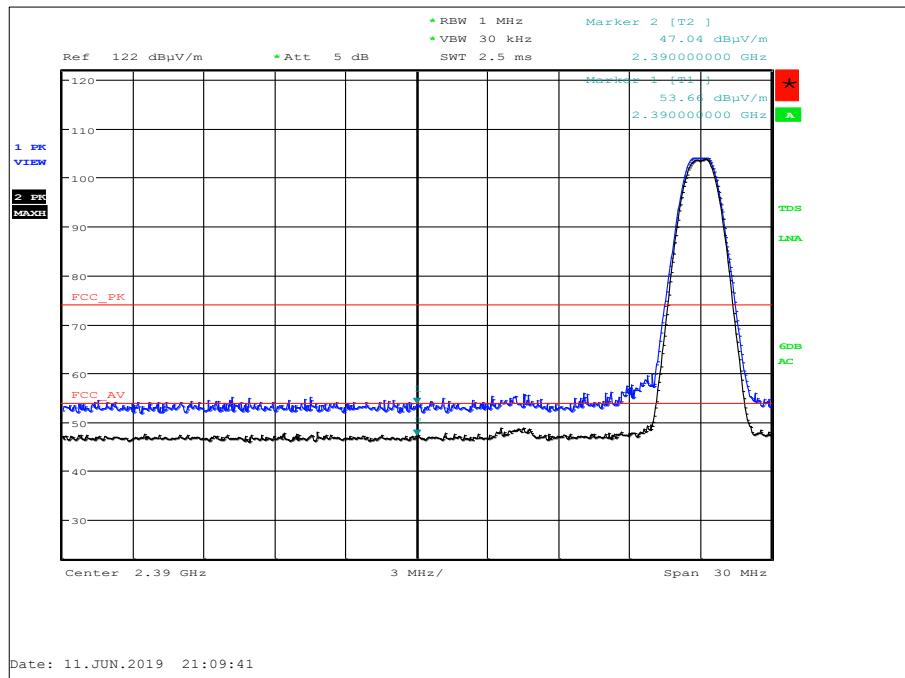


Figure 138 - GFSK - 2402 MHz - Band Edge Frequency 2400 MHz

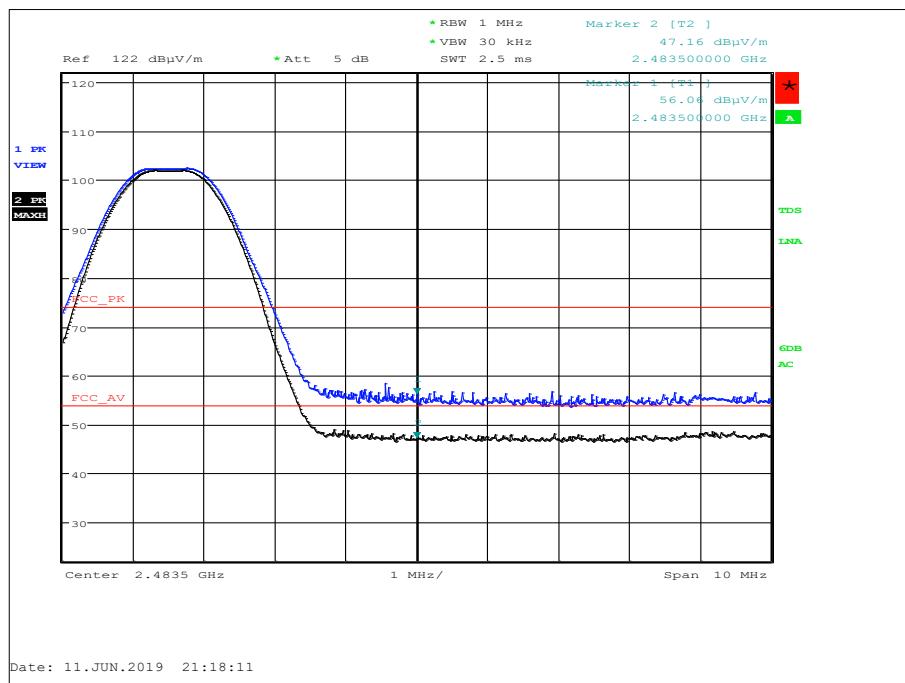


Figure 139 - GFSK - 2480 MHz - Band Edge Frequency 2483.5 MHz

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 46
ISEDC RSS-GEN, Limit Clause 8.9

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

Table 47

*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.



2.6.7 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 5.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Screened Room (5)	Rainford	Rainford	1545	36	23-Jan-2021
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Hygrometer	Rotronic	A1	2677	12	20-Feb-2020
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	17-Dec-2019
Mast Controller	Maturo GmbH	NCD	4810	-	TU
Tilt Antenna Mast	Maturo GmbH	TAM 4.0-P	4811	-	TU
Double Ridge Broadband Horn Antenna	Schwarzbeck	BBHA 9120 B	4848	12	11-Mar-2020
8m N-Type RF Cable	Teledyne	PR90-088-8MTR	5093	12	04-Oct-2019
Cable (18 GHz)	Rosenberger	LU7-071-2000	5109	12	05-Oct-2019
EmX Software	TÜV SUD	EmX	5125	-	Software

Table 48

TU - Traceability Unscheduled



2.7 Spurious Radiated Emissions

2.7.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d) and 15.205
ISEDC RSS-247, Clause 5.5
ISEDC RSS-GEN, Clause 6.13

2.7.2 Equipment Under Test and Modification State

Minuet 2 Module (FS5352), S/N: RAD113254 - Modification State 0
Minuet 2 Module (FS5352), S/N: RAD113219 - Modification State 0

2.7.3 Date of Test

16-June-2019 to 30-June-2019

2.7.4 Test Method

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

The EUT was placed on the non-conducting platform in a manner typical of a normal installation. For an EUT which could reasonably be used in multiple planes, pre-scans were performed with the EUT orientated in X, Y and Z planes with reference to the ground plane.

Ports on the EUT were terminated with loads as described in ANSI C63.4 clause 6.2.4. For EUT's with multiple connectors of the same type, additional interconnecting cables were connected, and pre-scans performed to determine whether the level of the emissions were increased by >2 dB. For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10 clause 4.1.4.2.5 to characterize the EUT. Where emissions were detected, final average measurements were taken in accordance with ANSI C63.10 clause 4.1.4.2.2.

The plots shown are the characterization of the EUT. The limits on the plots represent the most stringent case for restricted bands, (74/54 dB μ V/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 dB μ V/m to μ V/m:

$10^{(Field\ Strength\ in\ dB\mu V/m/20)}$.

To determine the emission characteristic of the EUT above 18 GHz, the test antenna was swept over all faces of the EUT whilst observing a spectral display. The frequency of any emissions of interest was noted for formal measurement at the correct measurement distance of 1m. This procedure was repeated for all relevant transmit operating channels.

At a measurement distance of 1 meter the limit line was increased by $20 * \text{LOG}(3/1) = 9.54$ dB. Representative noise floor plots are presented in the plot section of the report for one operating channel only.

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

2.7.5 Environmental Conditions

Ambient Temperature 23.0 °C



Relative Humidity 57.5 %

2.7.6 Test Results

2.4 GHz WLAN - 802.11b

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 49 - Radiated Emissions Results, 30 MHz to 1 GHz - 2412 MHz

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

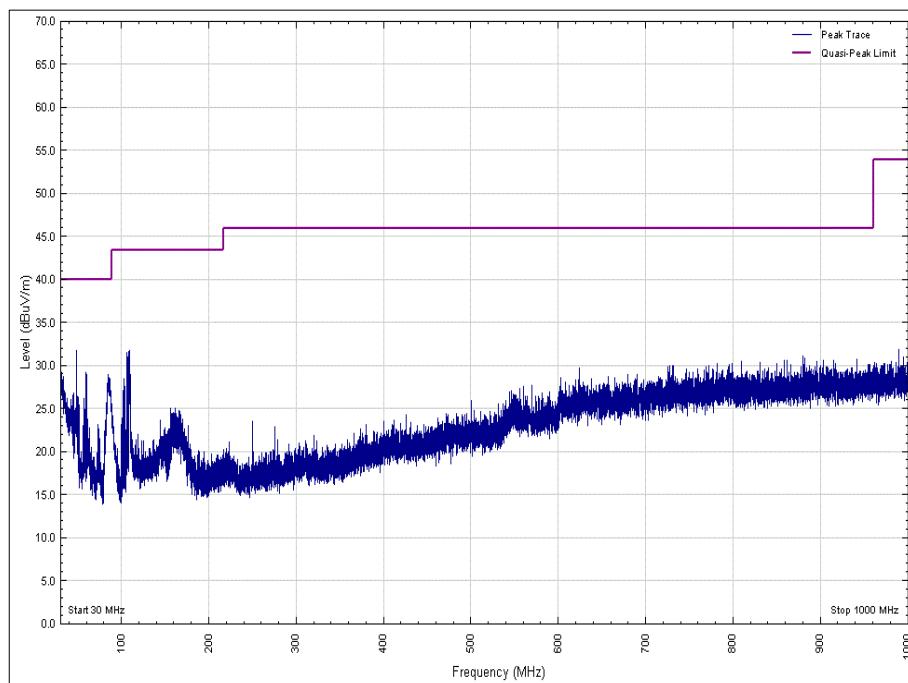


Figure 140 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation X

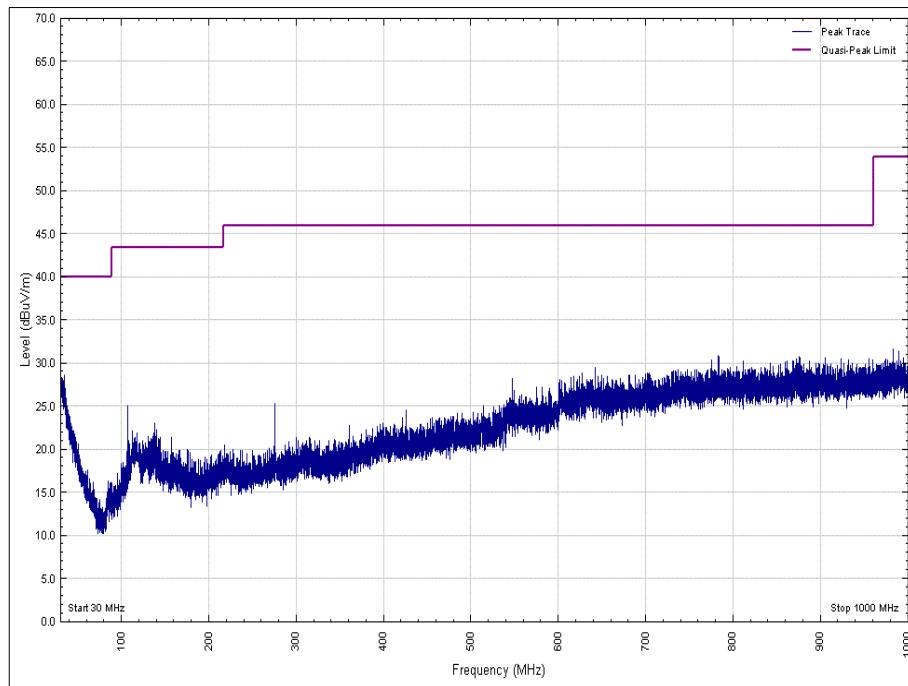


Figure 141 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation X

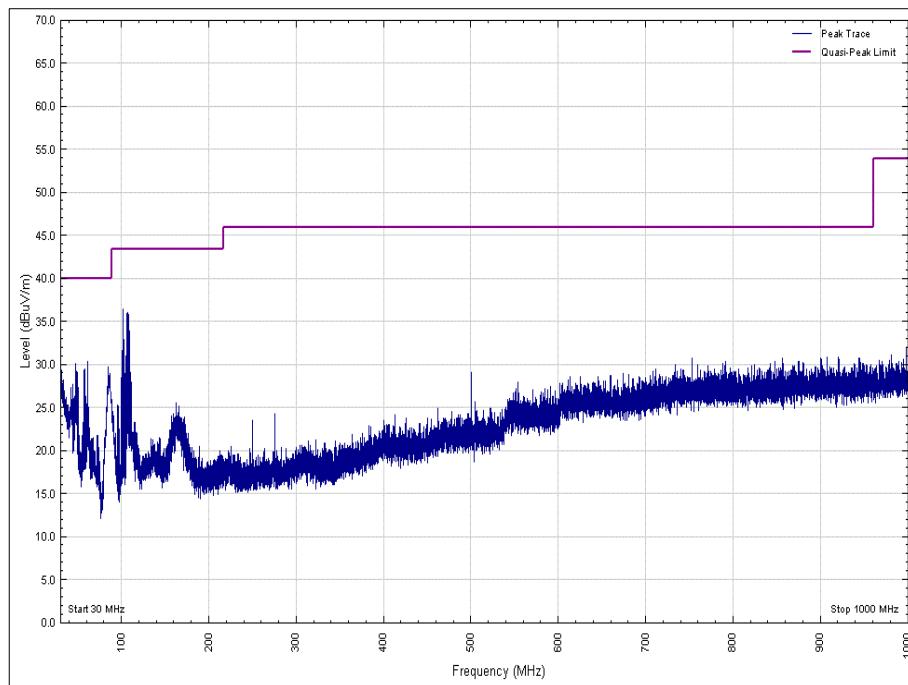


Figure 142 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation Y

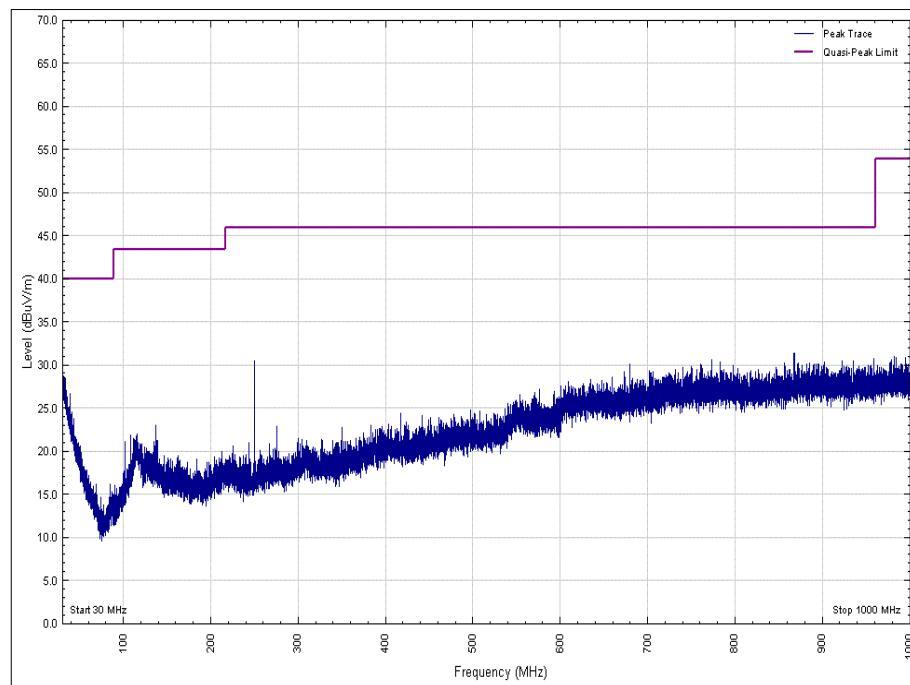


Figure 143 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation Y

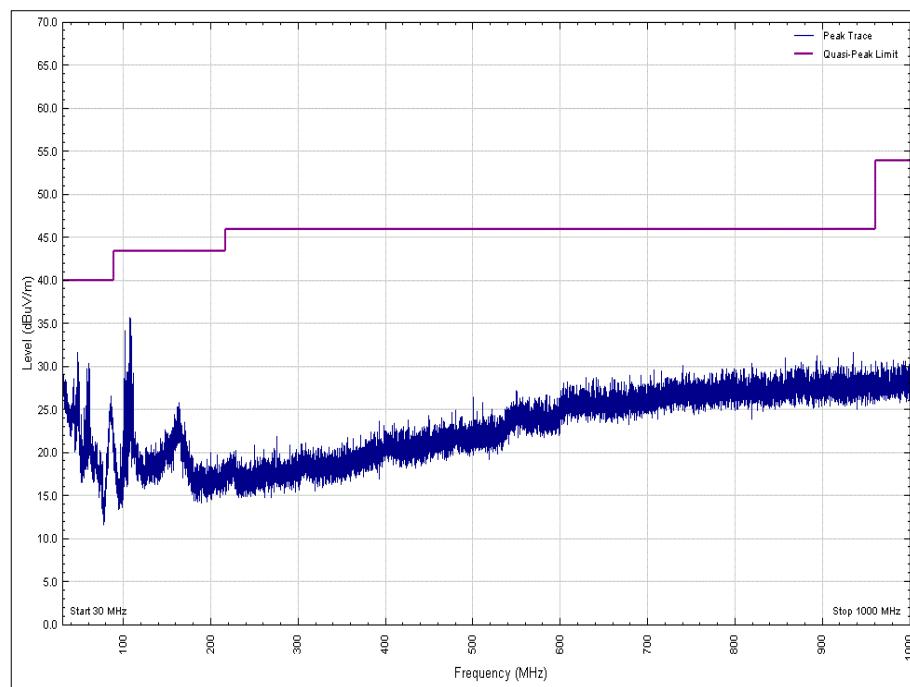


Figure 144 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation Z

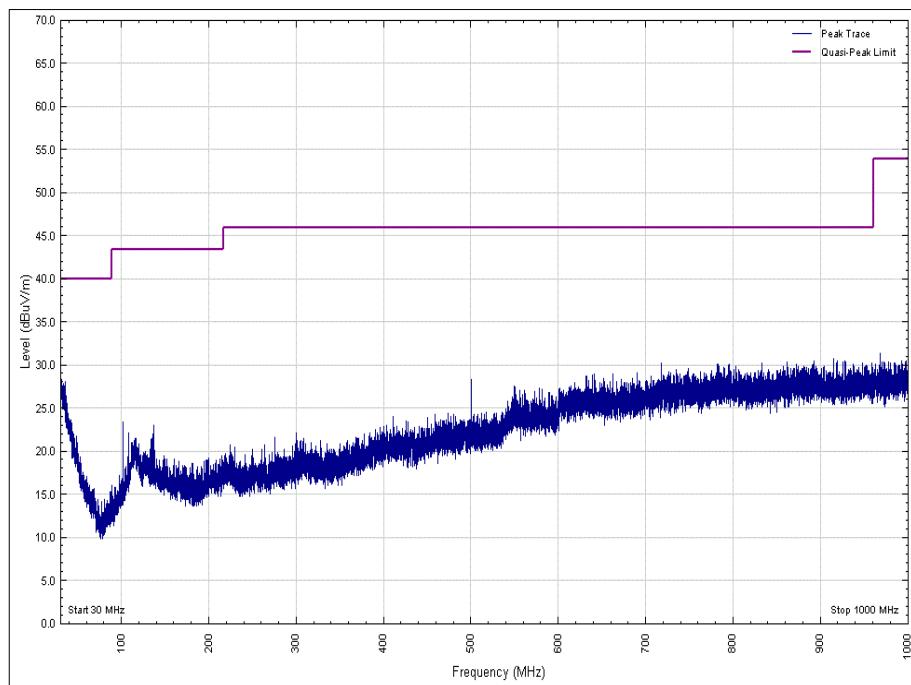


Figure 145 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)	
	Peak	Average	Peak	Average	Peak	Average
4.823995	-	52.13	-	53.98	-	1.85

Table 50 - Radiated Emissions Results, 1 GHz to 25 GHz - 2412 MHz

No other emissions were detected within 10 dB of the limit.

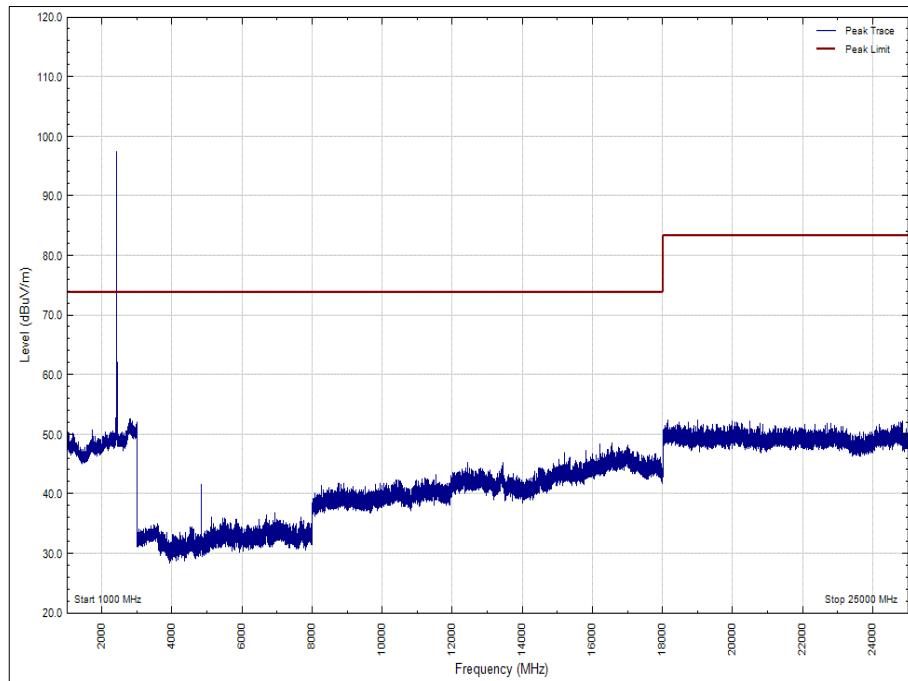


Figure 146 - 2412 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Peak

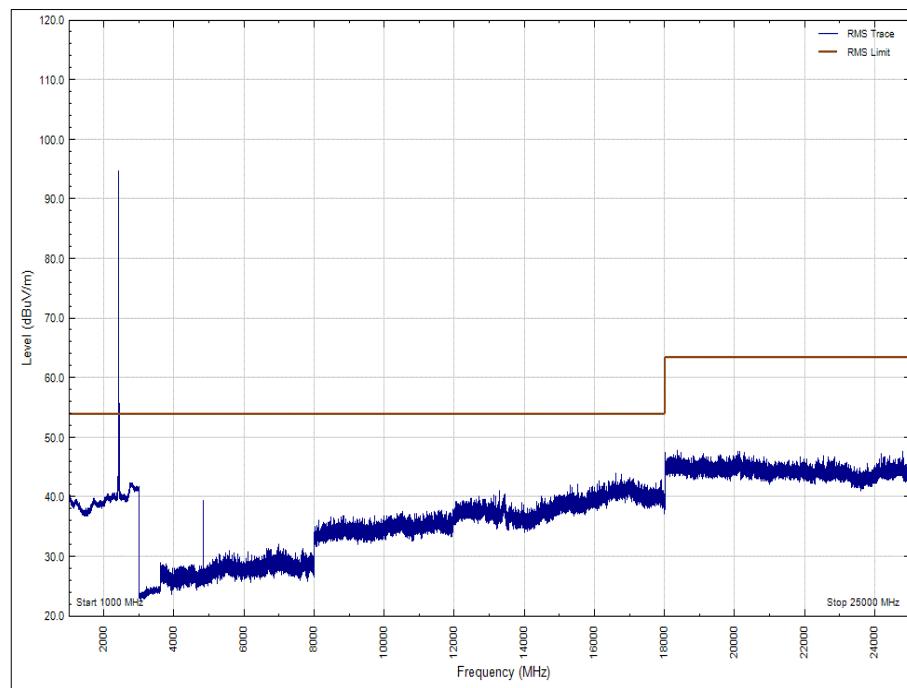


Figure 147 - 2412 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Average

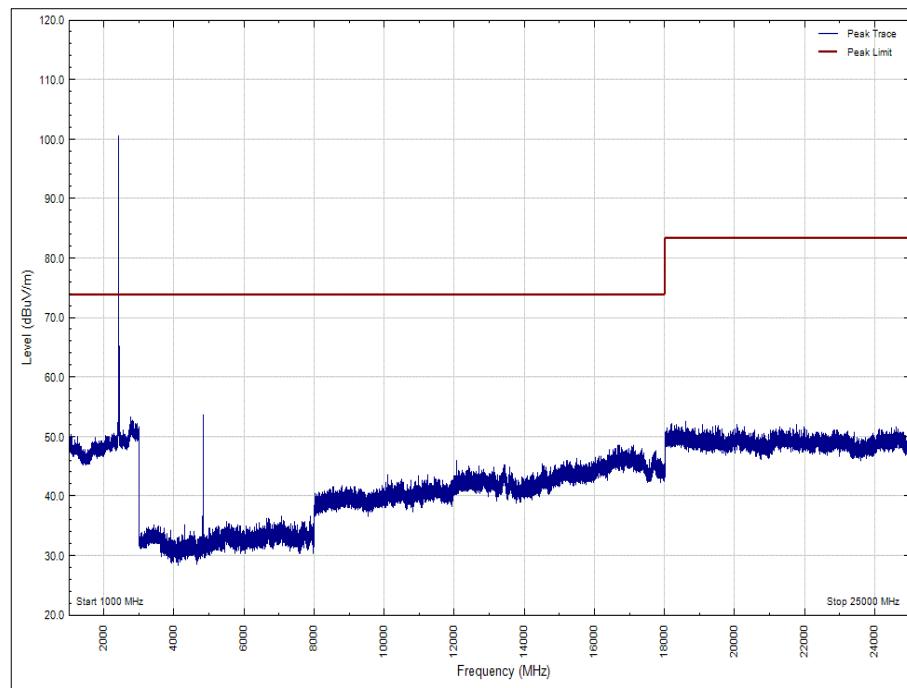


Figure 148 - 2412 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

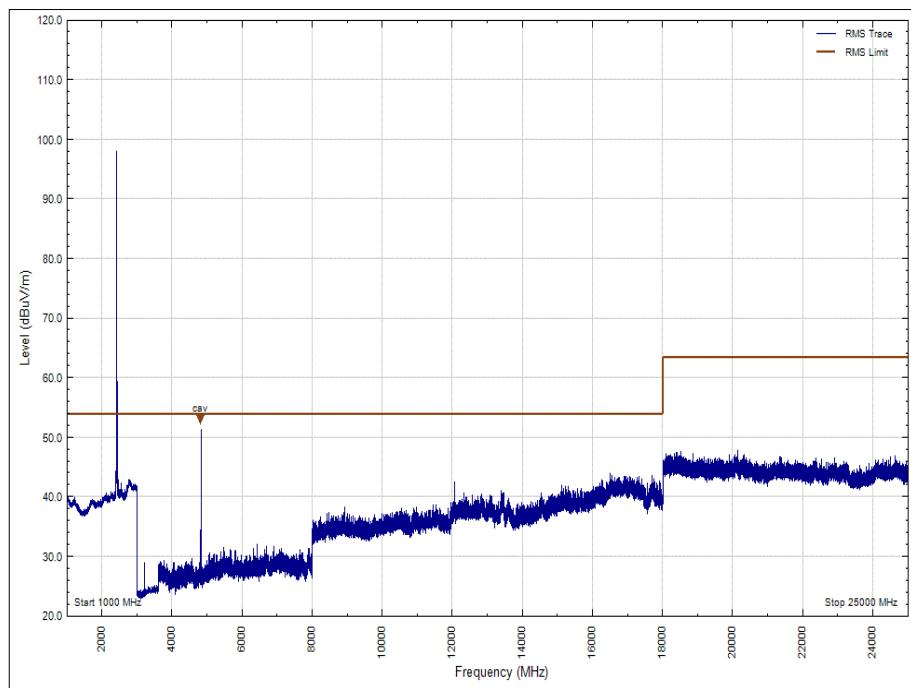


Figure 149 - 2412 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Average

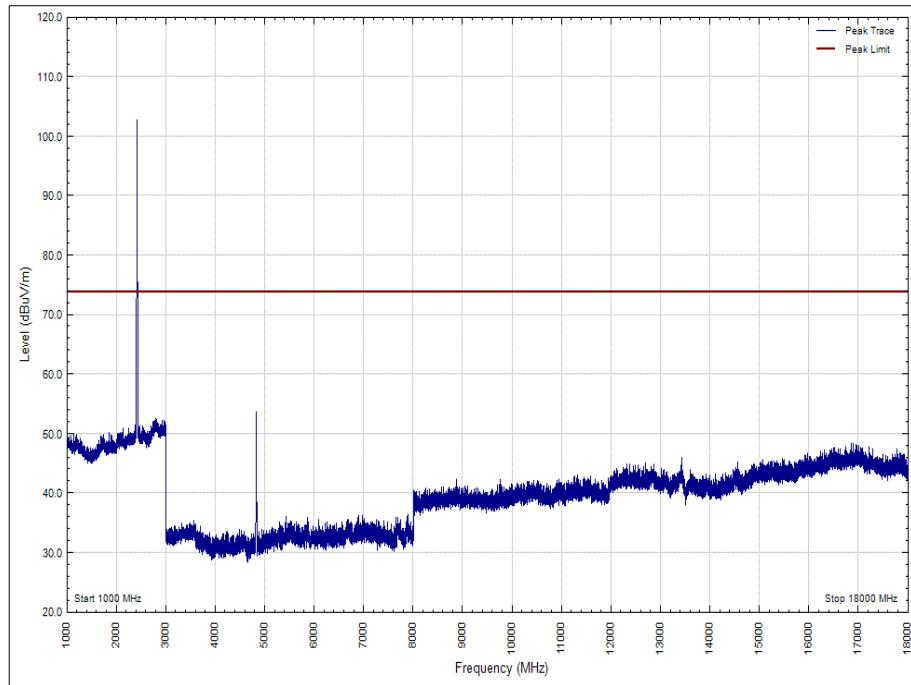


Figure 150 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

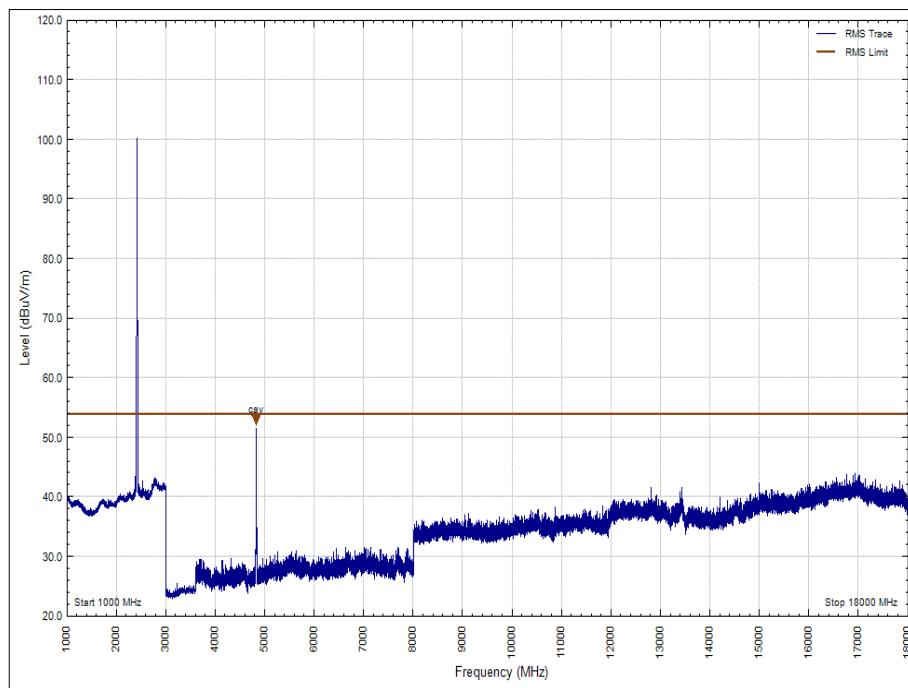


Figure 151 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

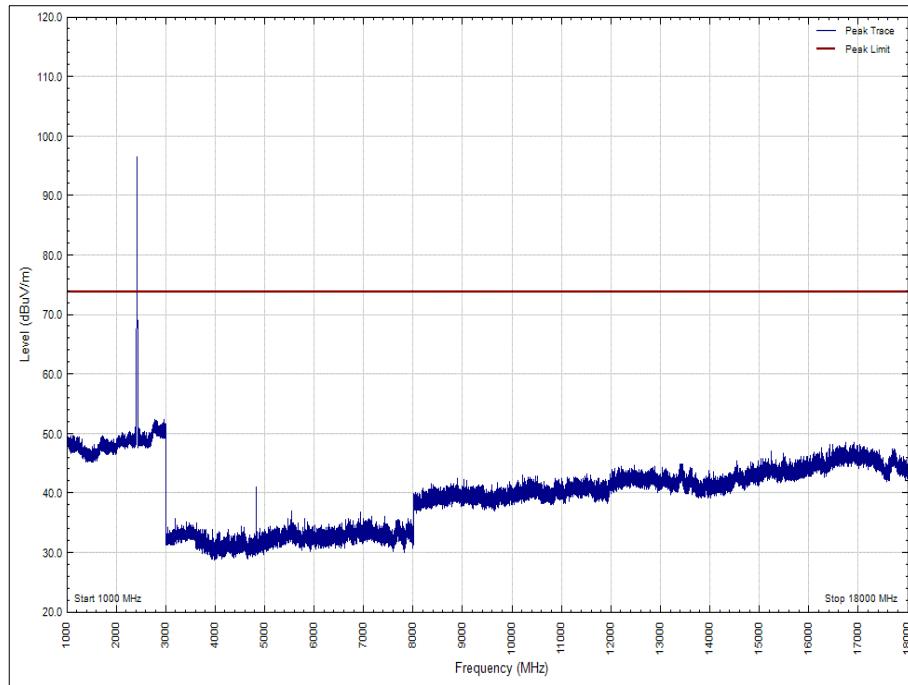


Figure 152 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

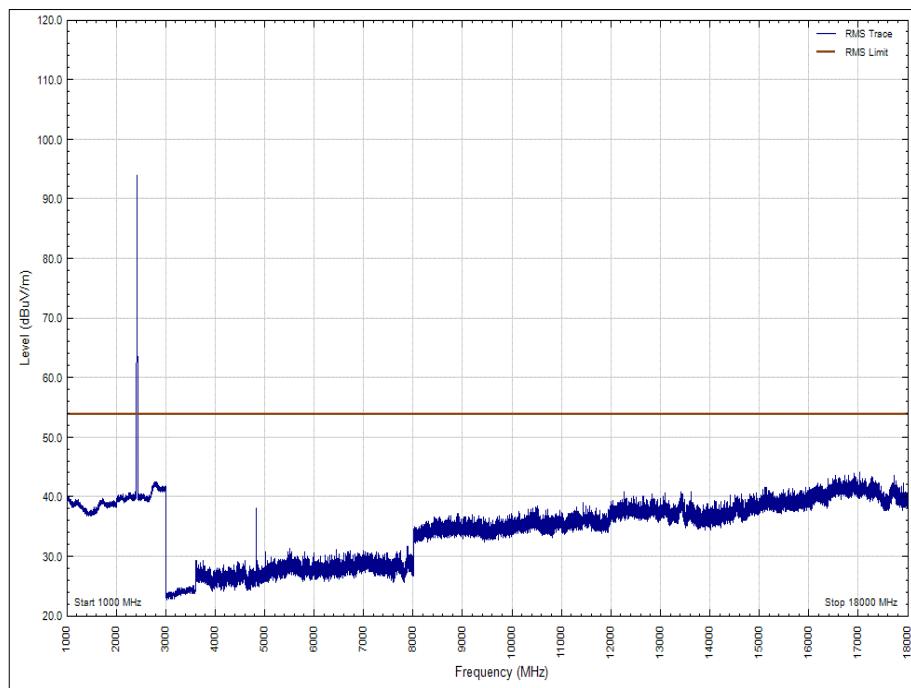


Figure 153 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

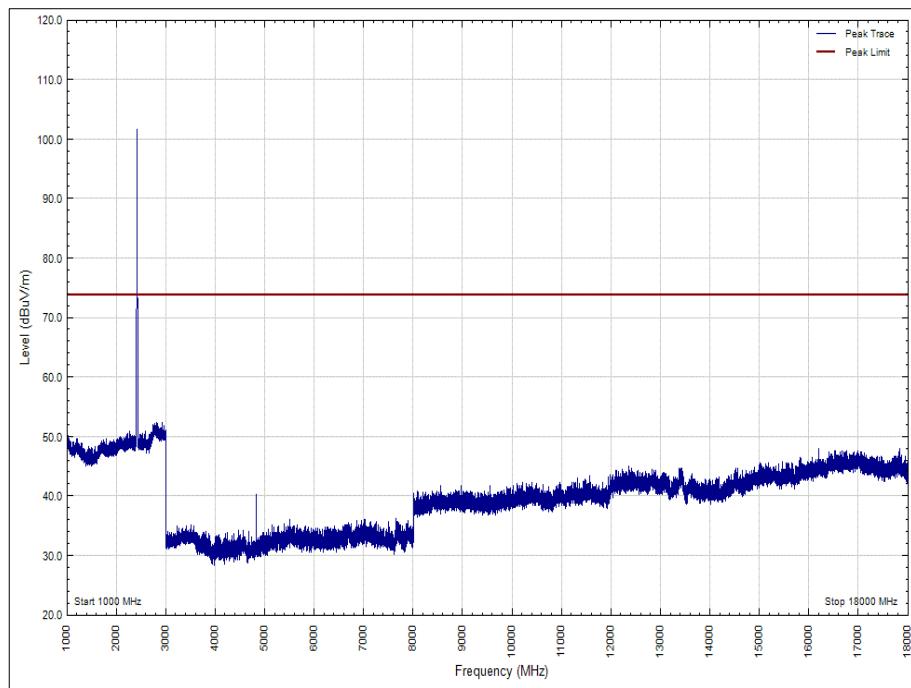


Figure 154 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

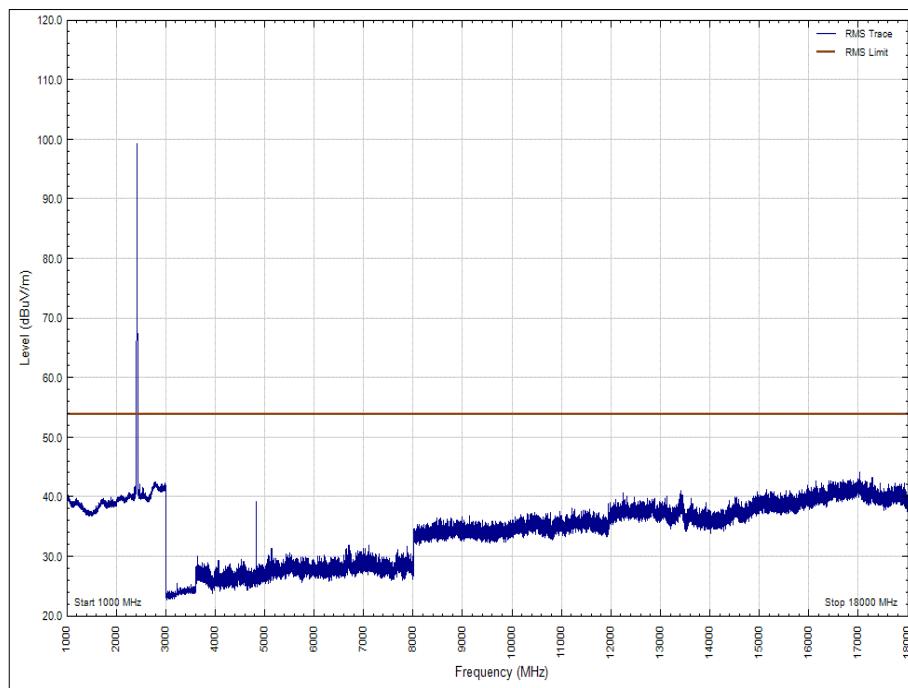


Figure 155 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

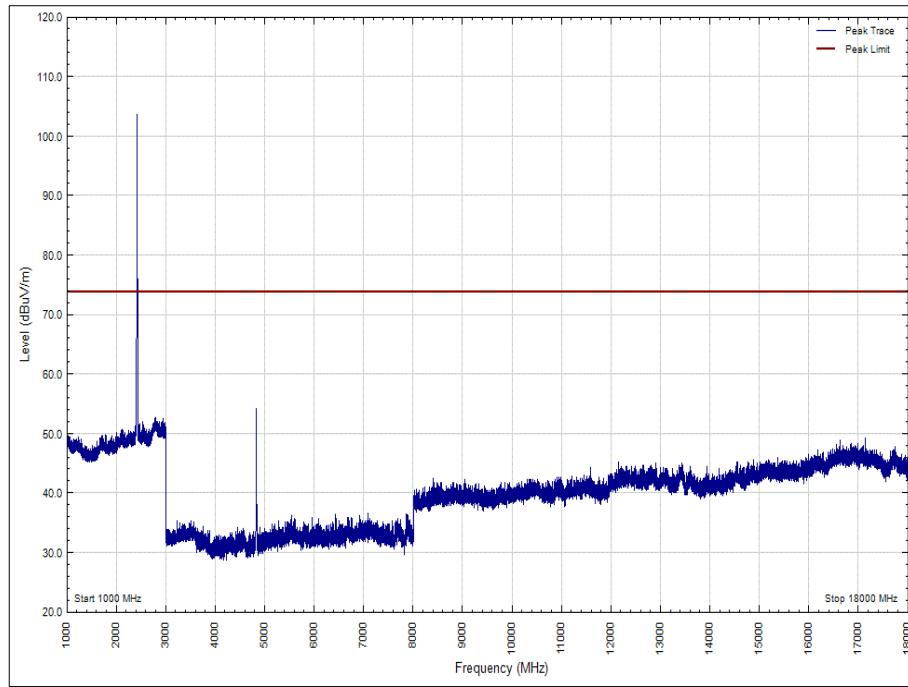


Figure 156 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

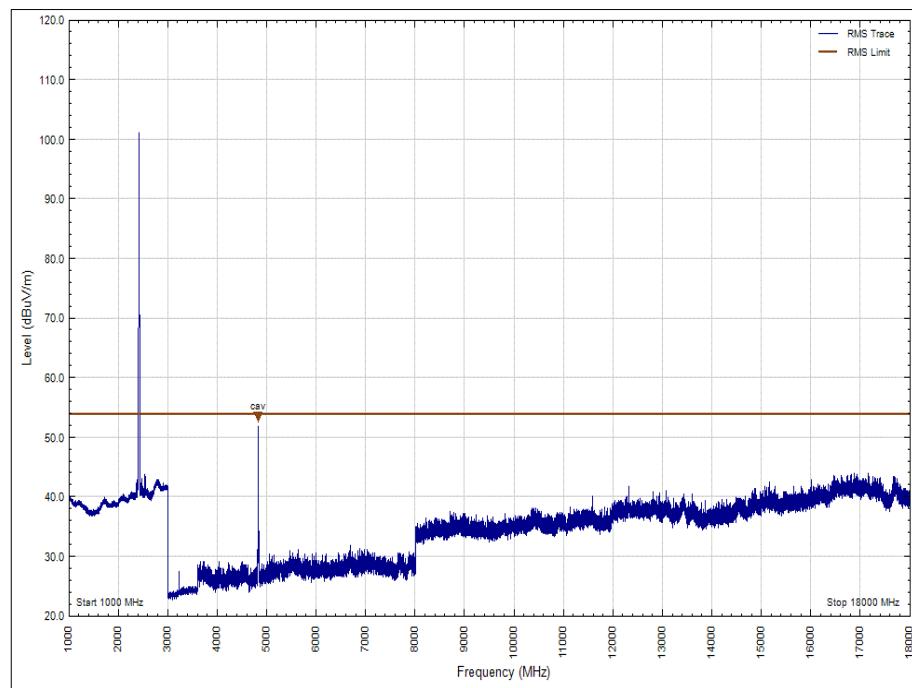


Figure 157 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
107.197	35.85	-	43.50	-	7.65	-	Vertical	Y

Table 51 - Radiated Emissions Results, 30 MHz to 1 GHz – 2437 MHz

No other emissions were detected within 10 dB of the limit.

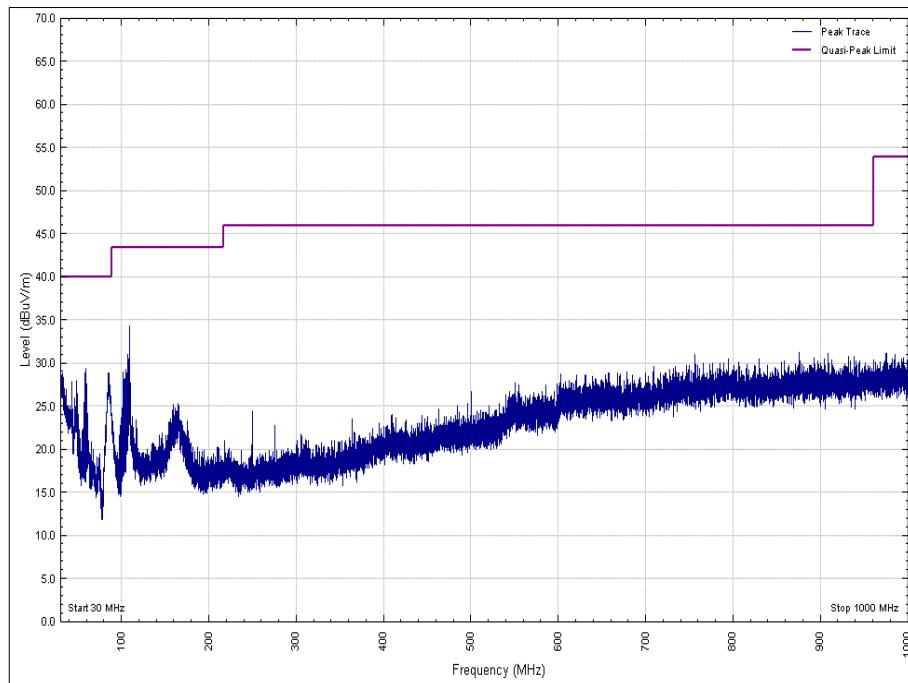


Figure 158 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation X

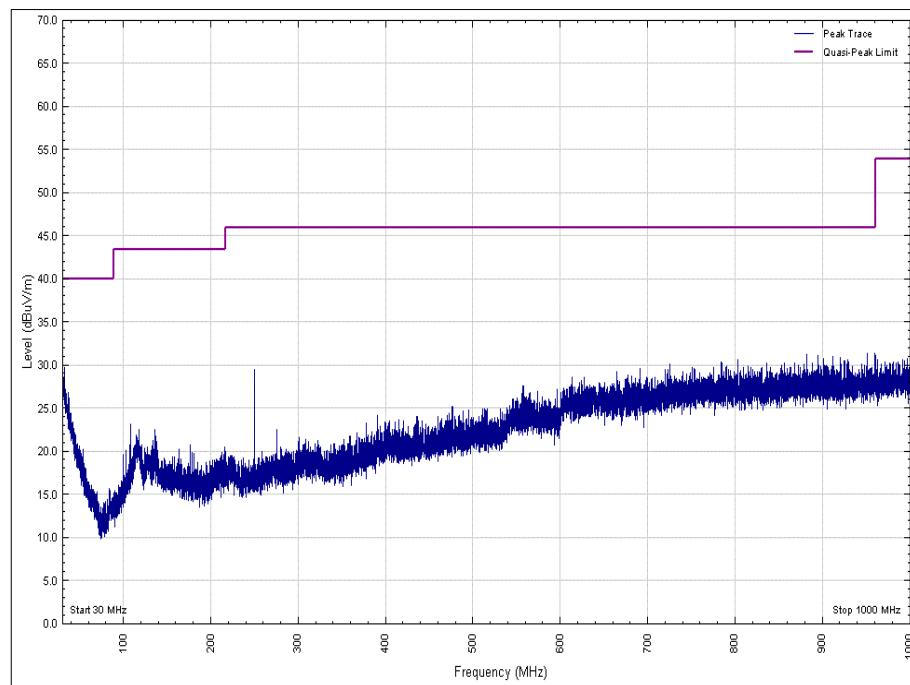


Figure 159 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation X

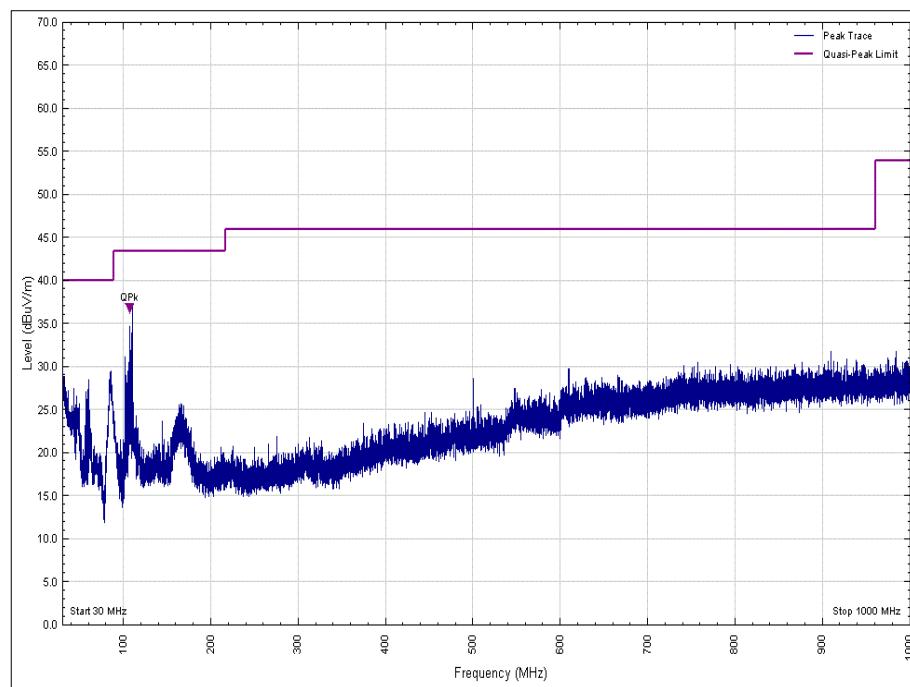


Figure 160 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation Y

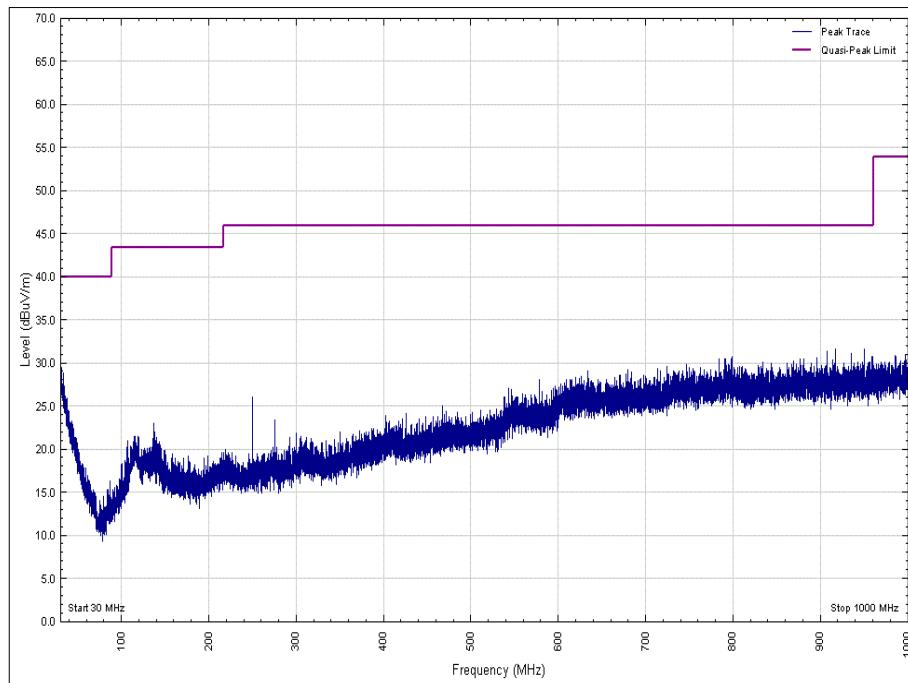


Figure 161 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation Y

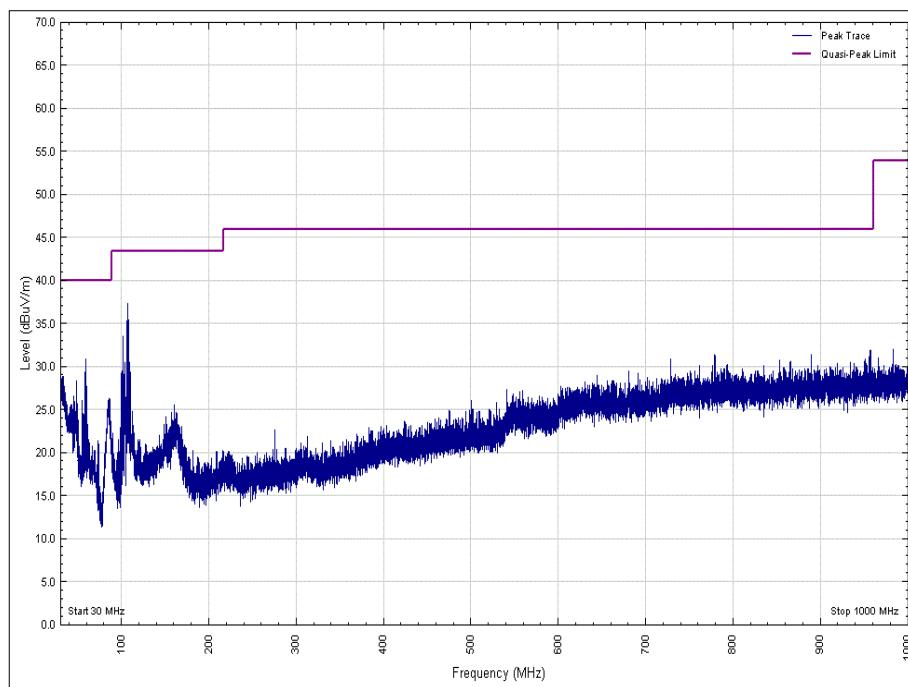


Figure 162 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation Z

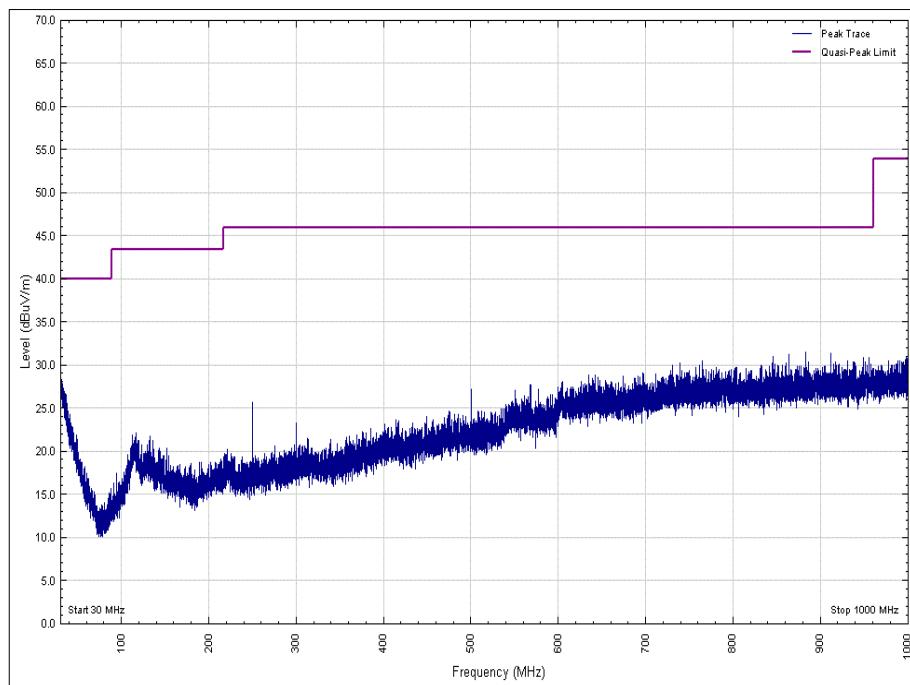


Figure 163 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
4.874034	-	49.28	-	53.98	-	4.7

Table 52 - Radiated Emissions Results, 1 GHz to 25 GHz - 2437 MHz

No other emissions were detected within 10 dB of the limit.

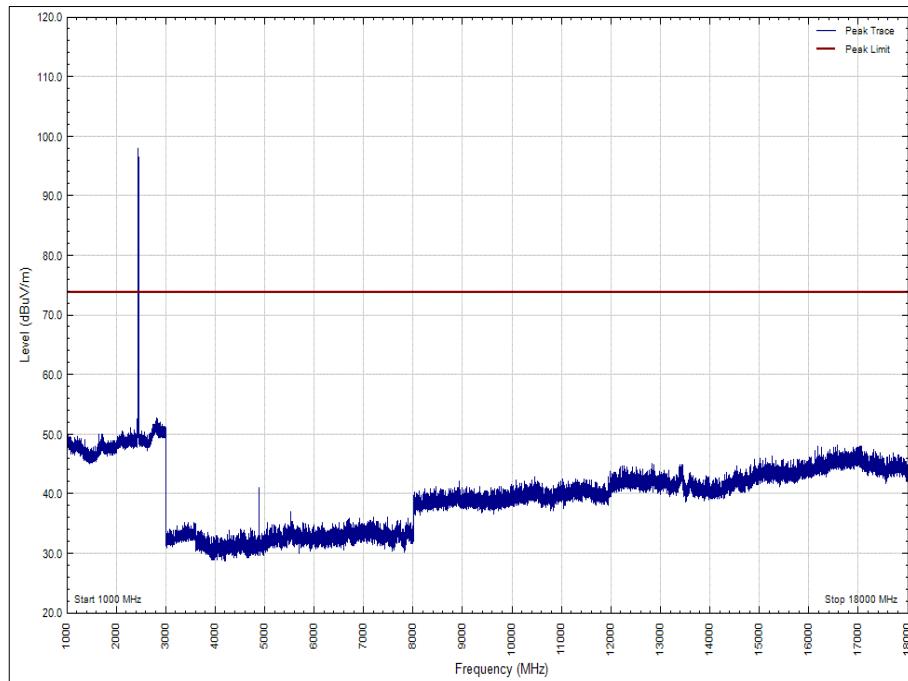


Figure 164 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

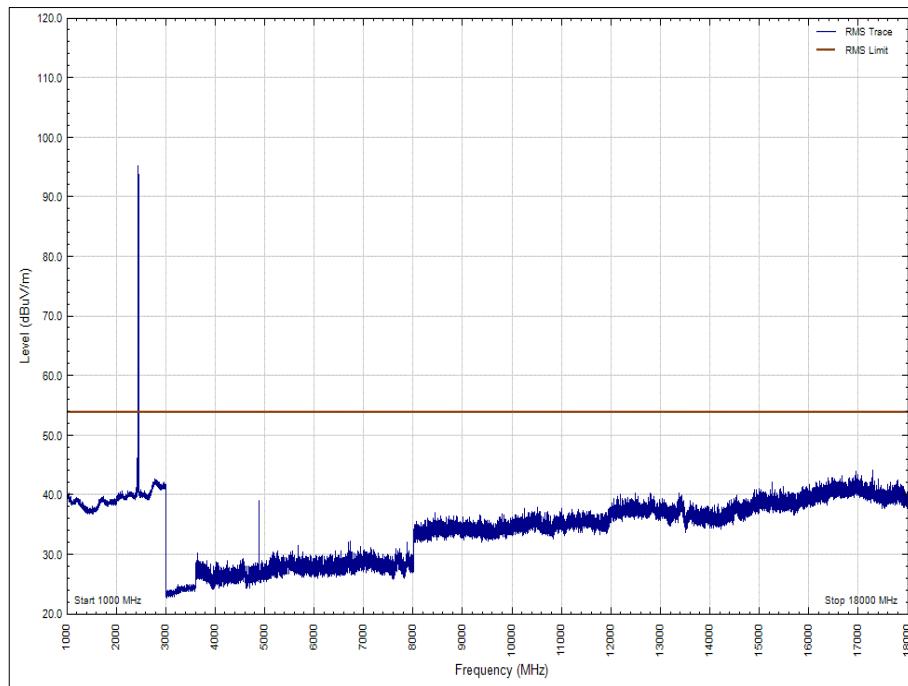


Figure 165 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

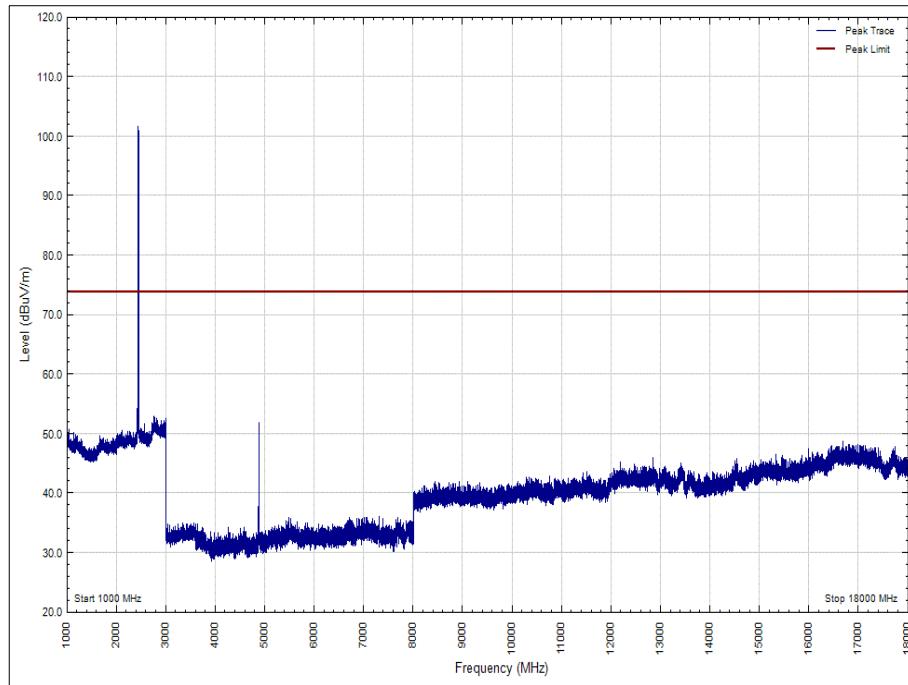


Figure 166 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

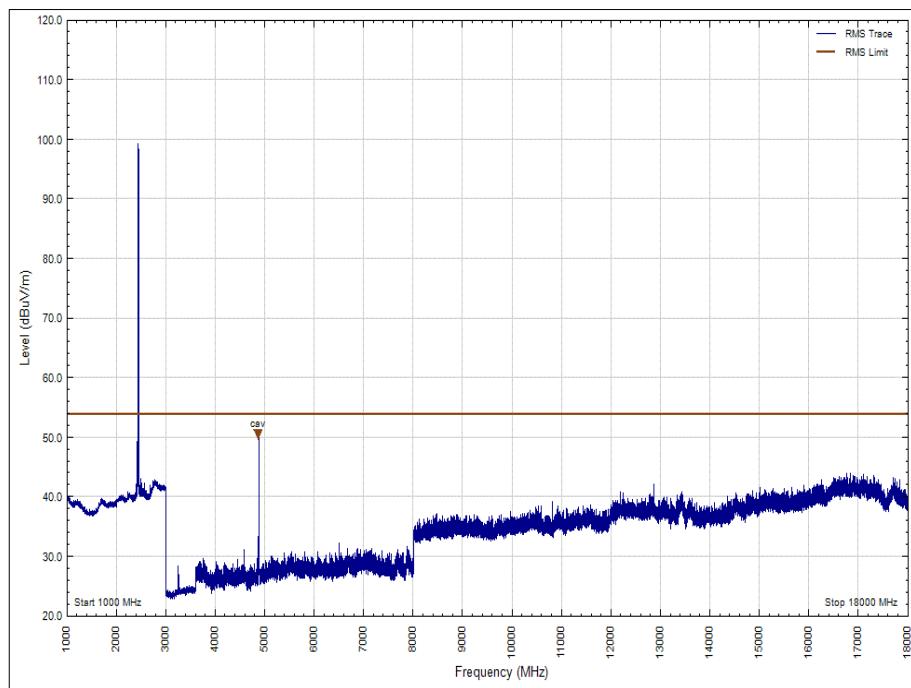


Figure 167 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

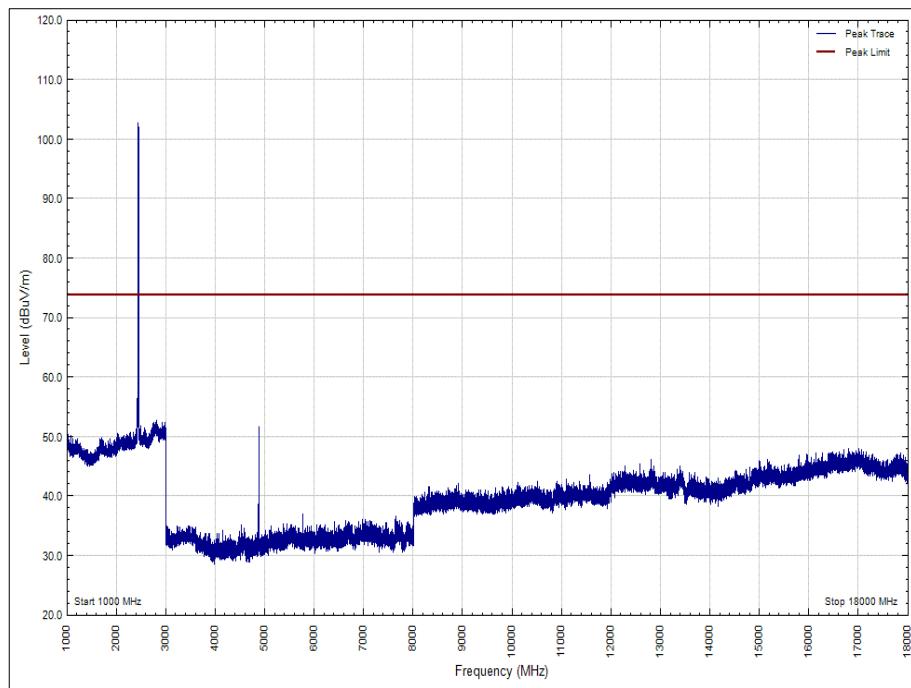


Figure 168 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

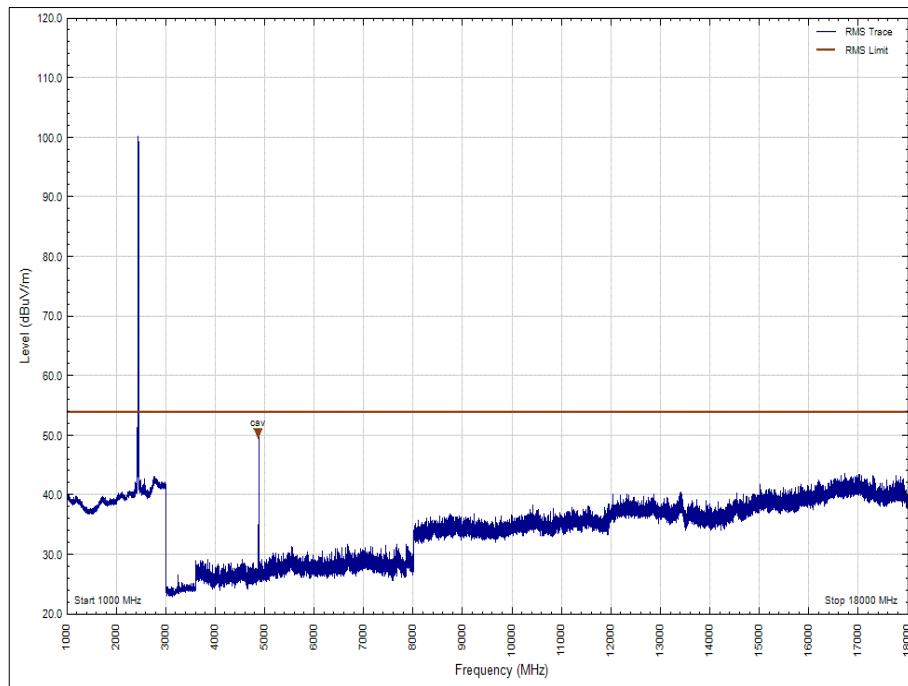


Figure 169 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

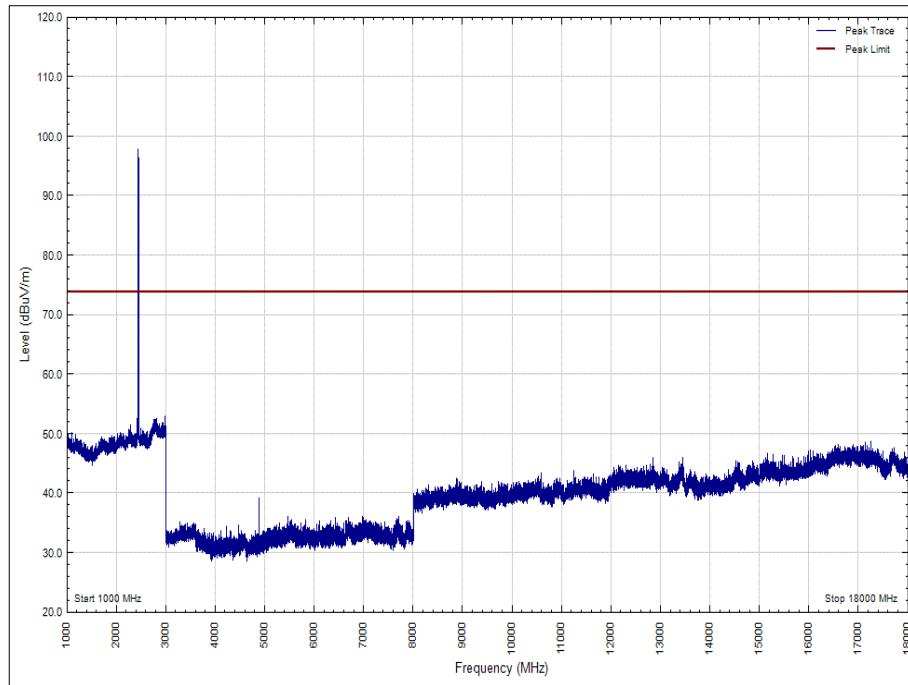


Figure 170 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

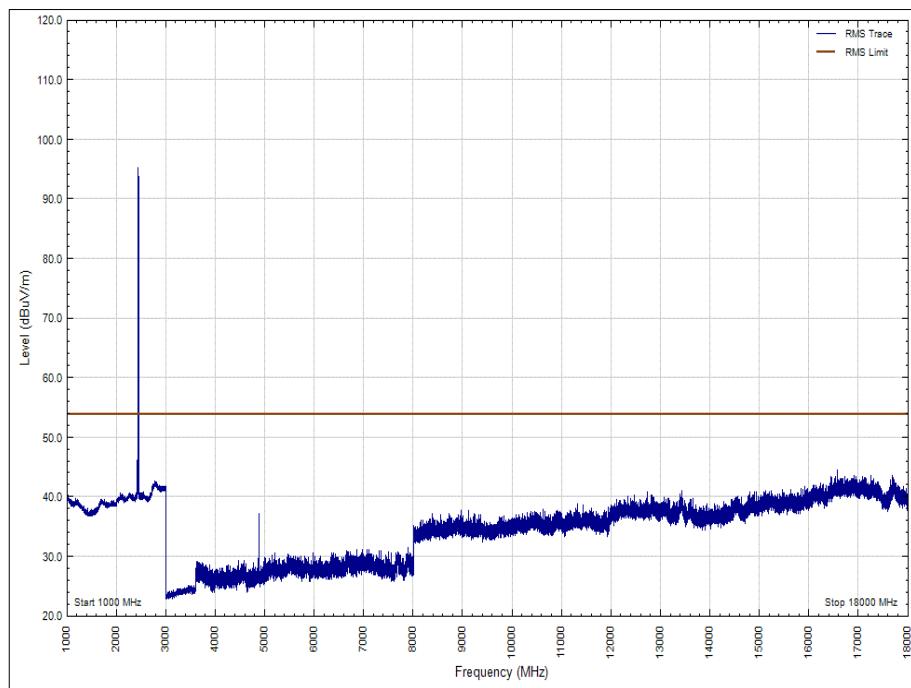


Figure 171 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

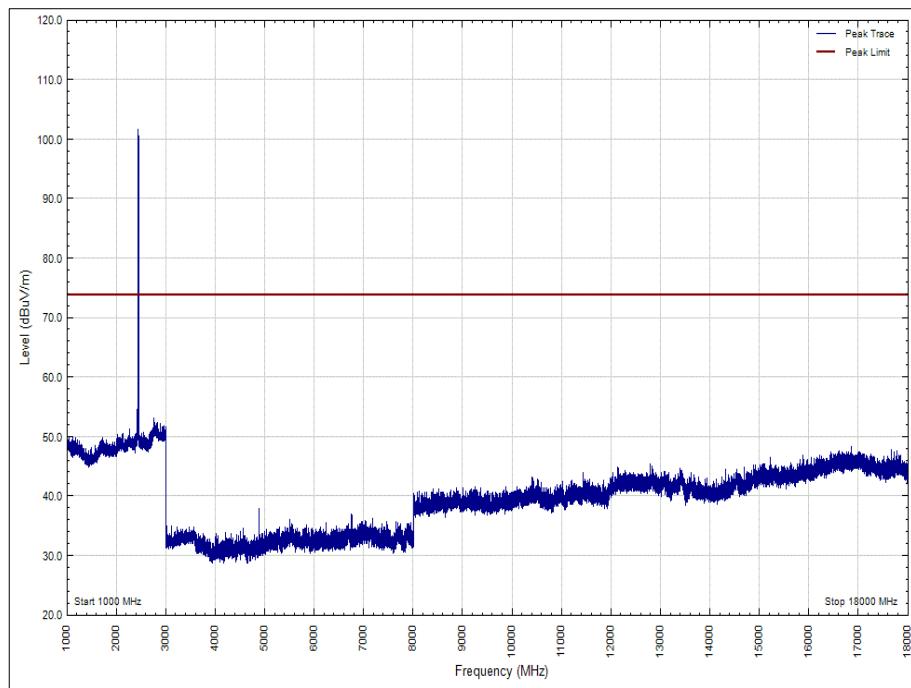


Figure 172 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

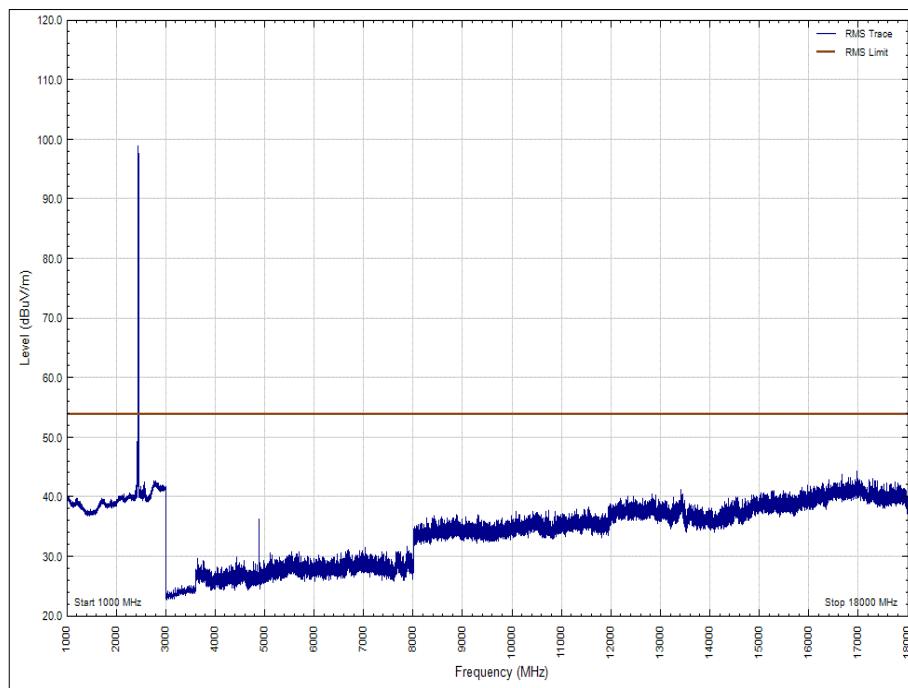


Figure 173 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

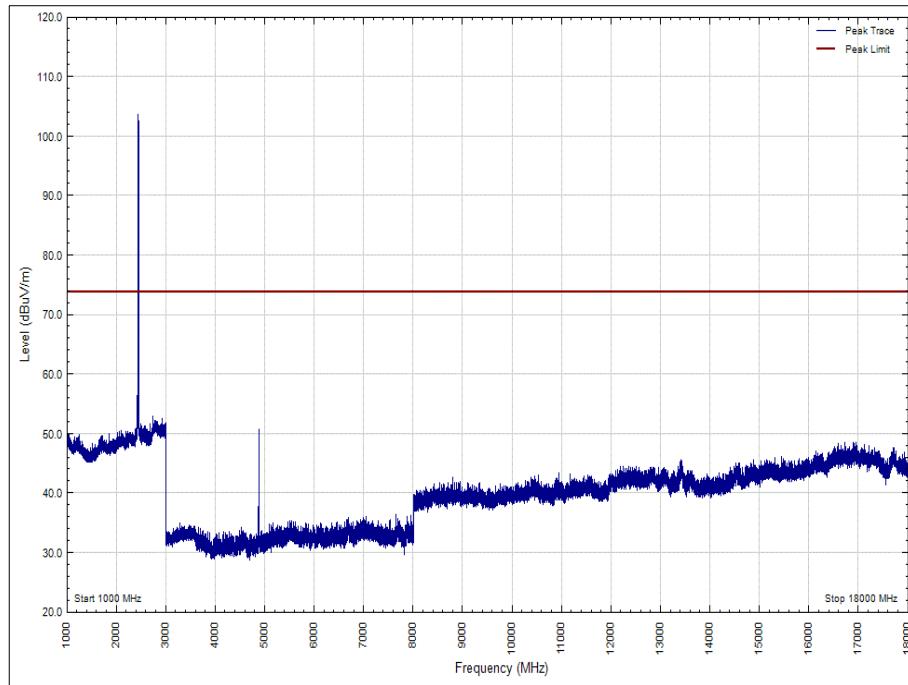


Figure 174 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

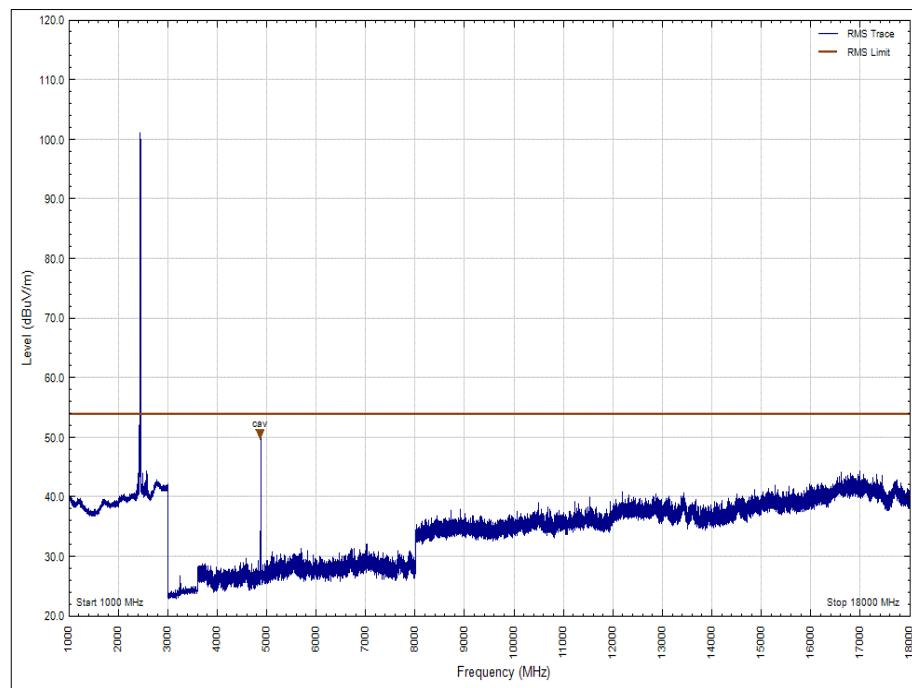


Figure 175 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
107.197	34.13	-	43.50	-	9.37	-	Vertical	Y

Table 53 - Radiated Emissions Results, 30 MHz to 1 GHz - 2462 MHz

No other emissions were detected within 10 dB of the limit.

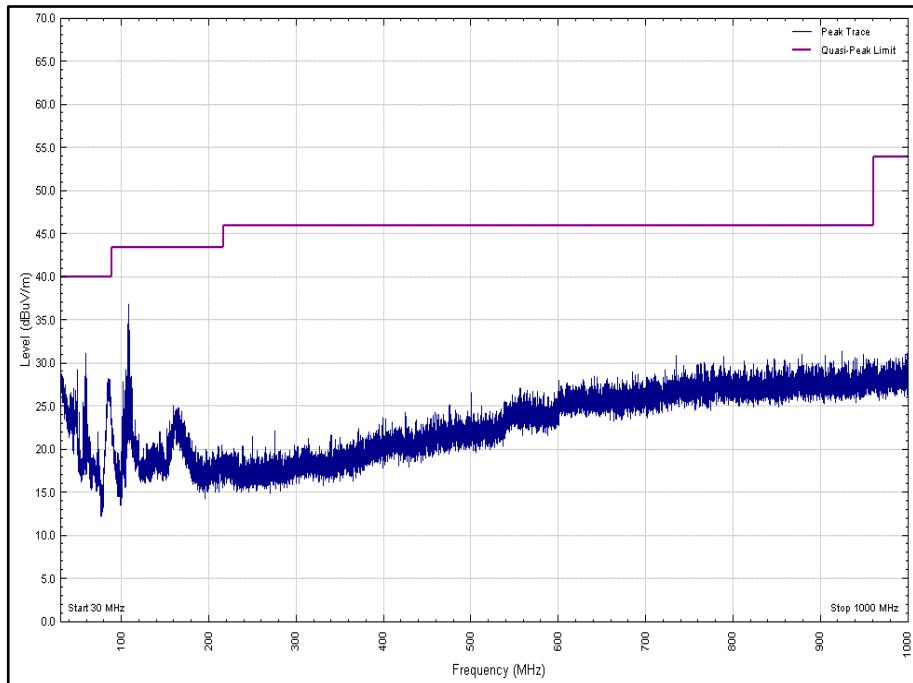


Figure 176 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation X

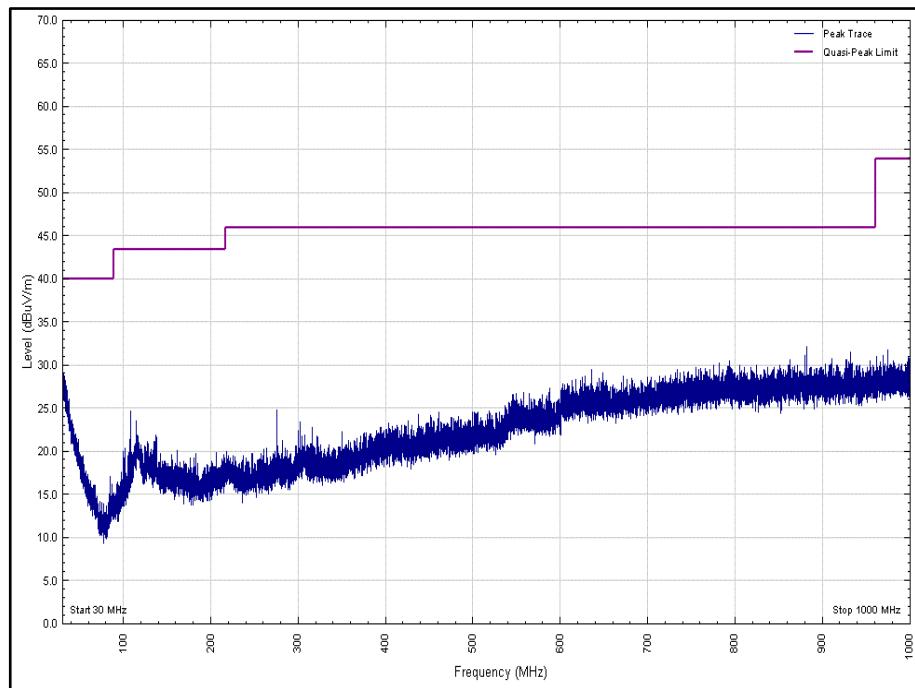


Figure 177 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation X

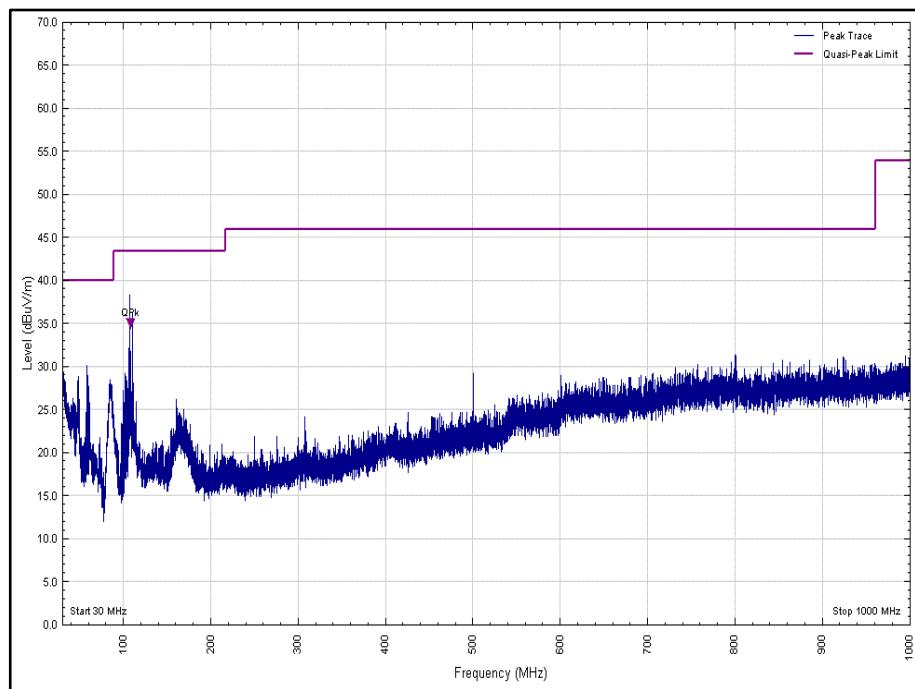


Figure 178 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation Y

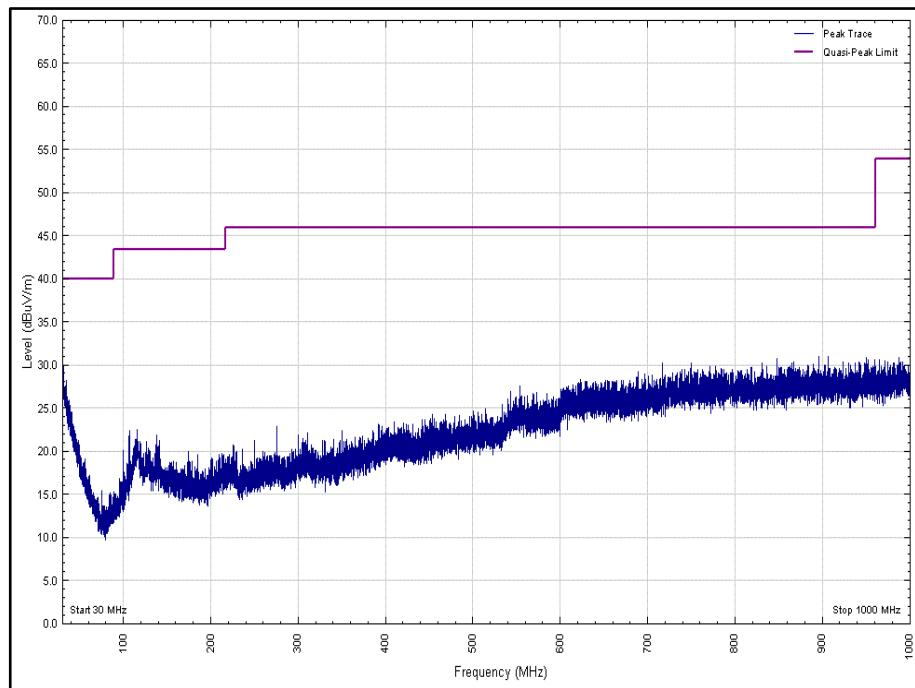


Figure 179 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation Y

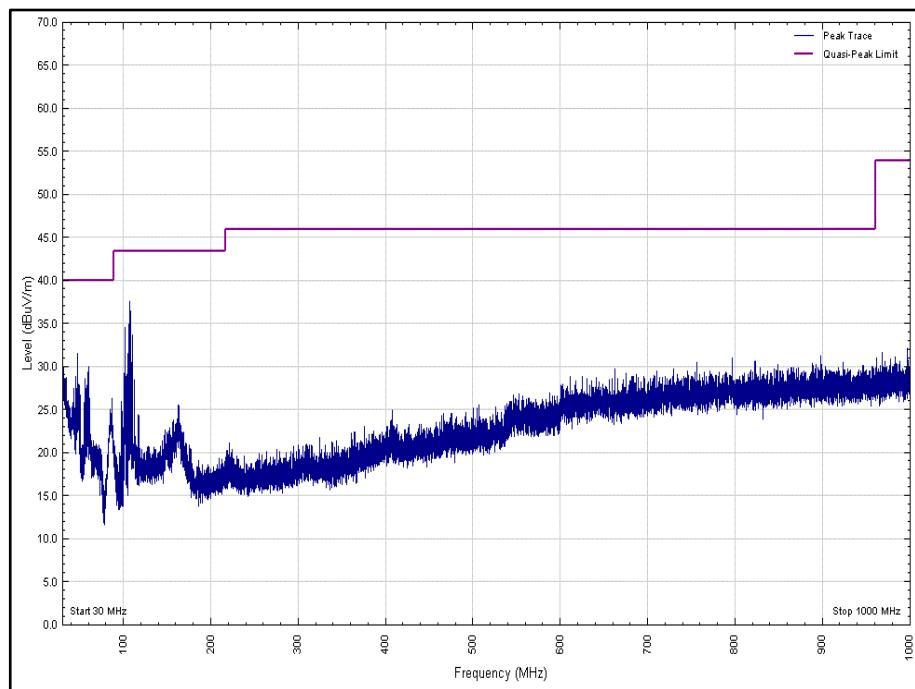


Figure 180 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation Z

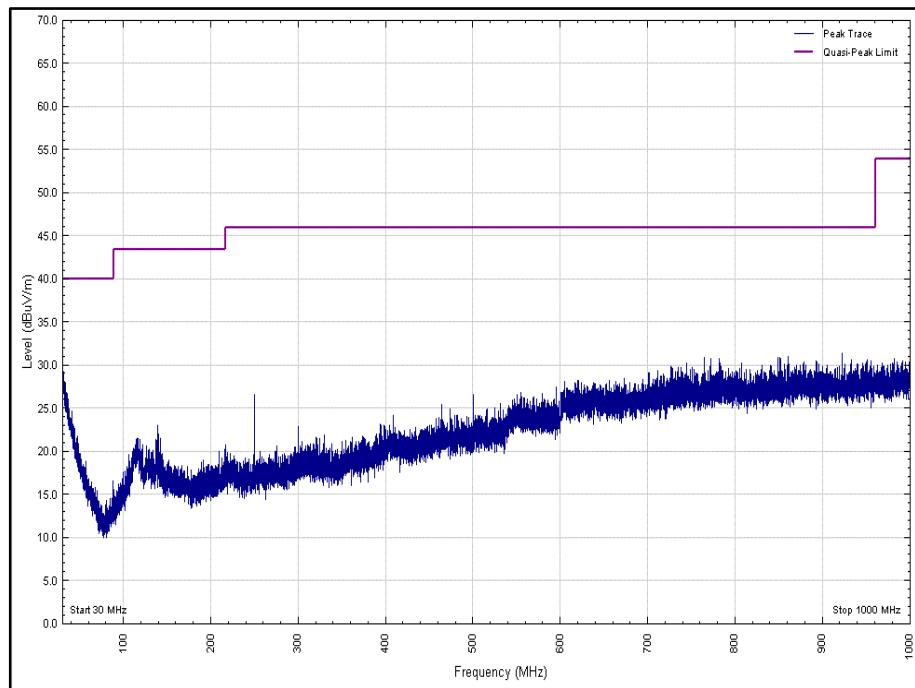


Figure 181 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
4.924051	-	46.69	-	53.98	-	7.29

Table 54 - Radiated Emissions Results, 1 GHz to 25 GHz - 2462 MHz

No other emissions were detected within 10 dB of the limit.

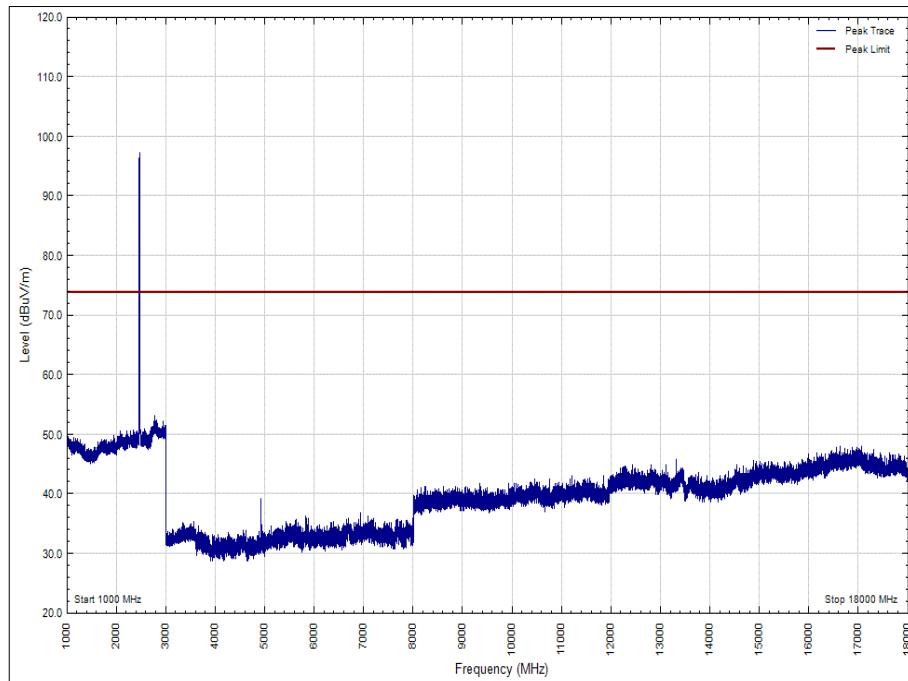


Figure 182 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

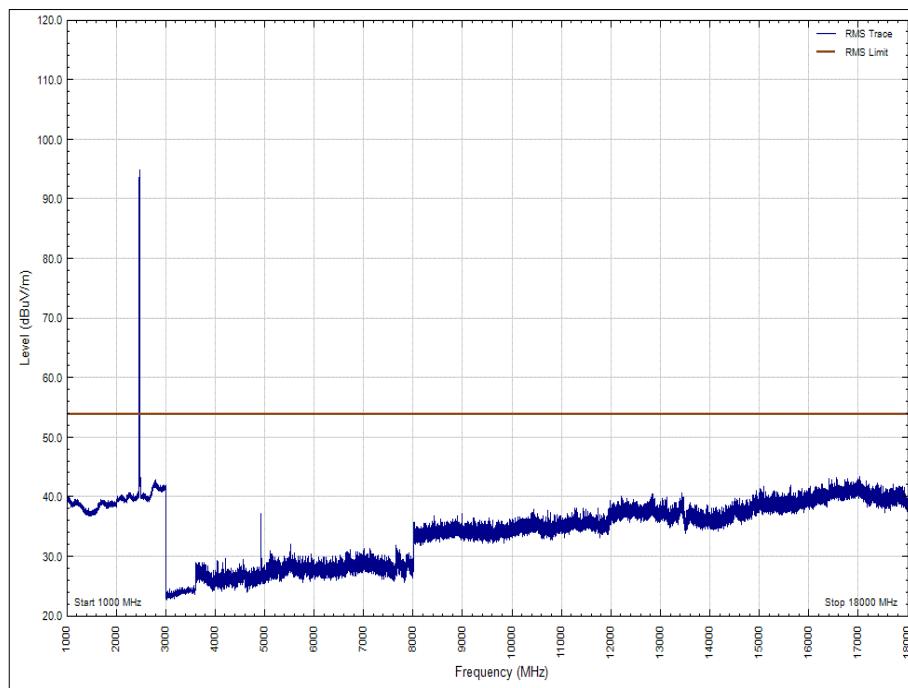


Figure 183 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

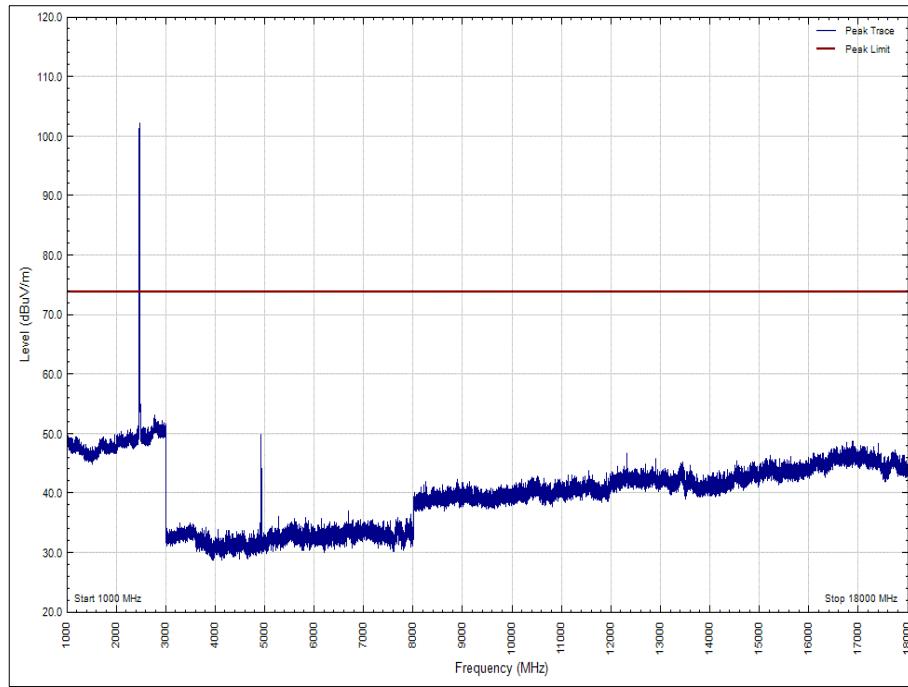


Figure 184 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

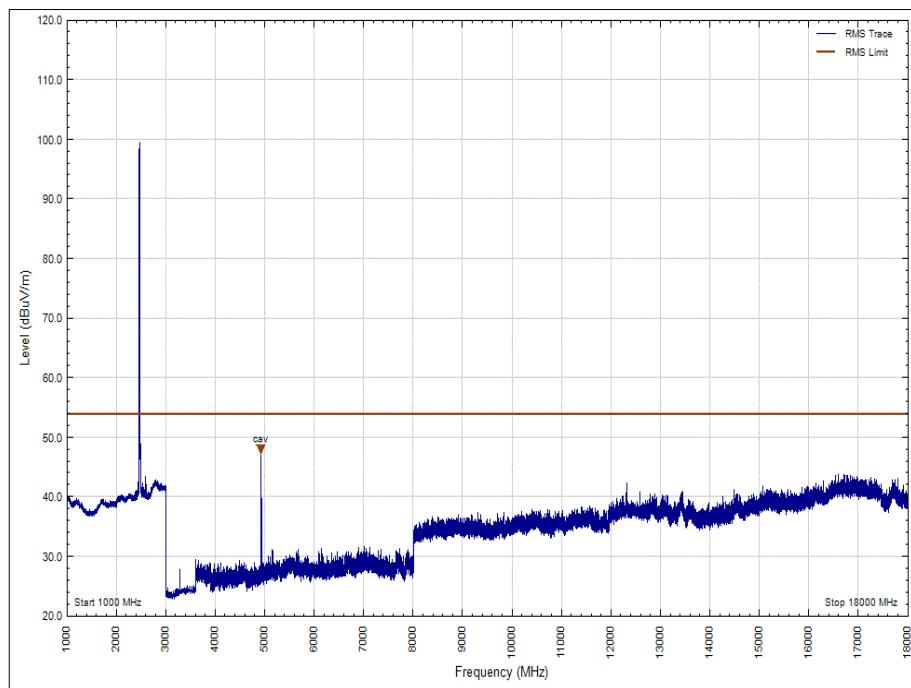


Figure 185 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

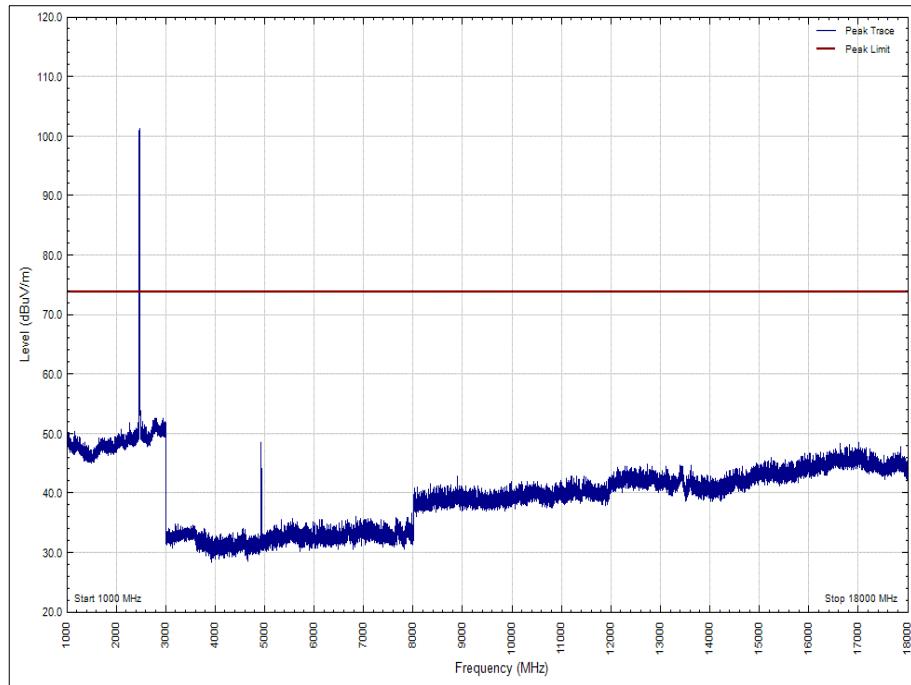


Figure 186 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

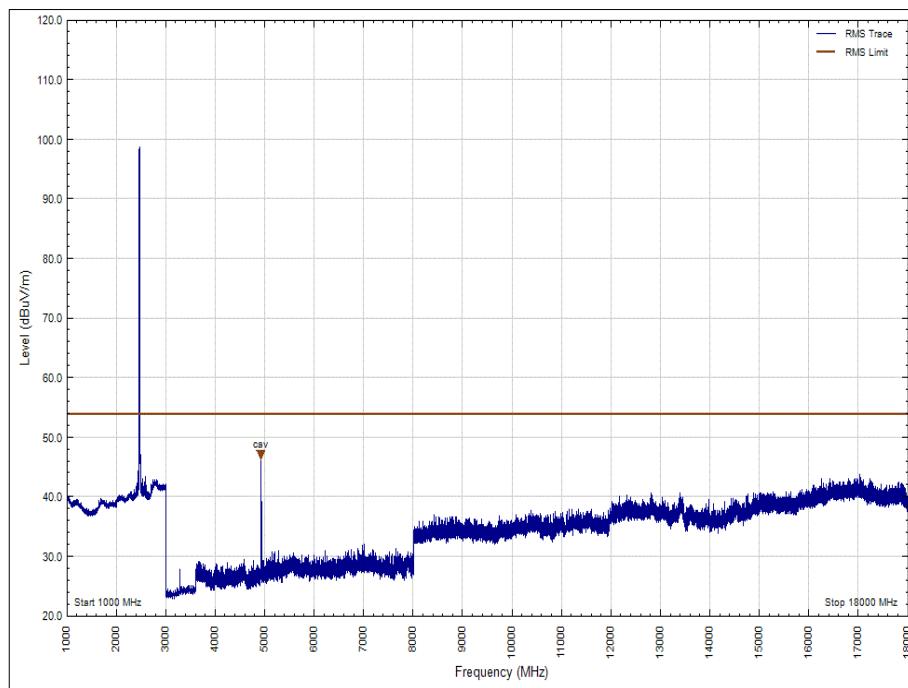


Figure 187 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

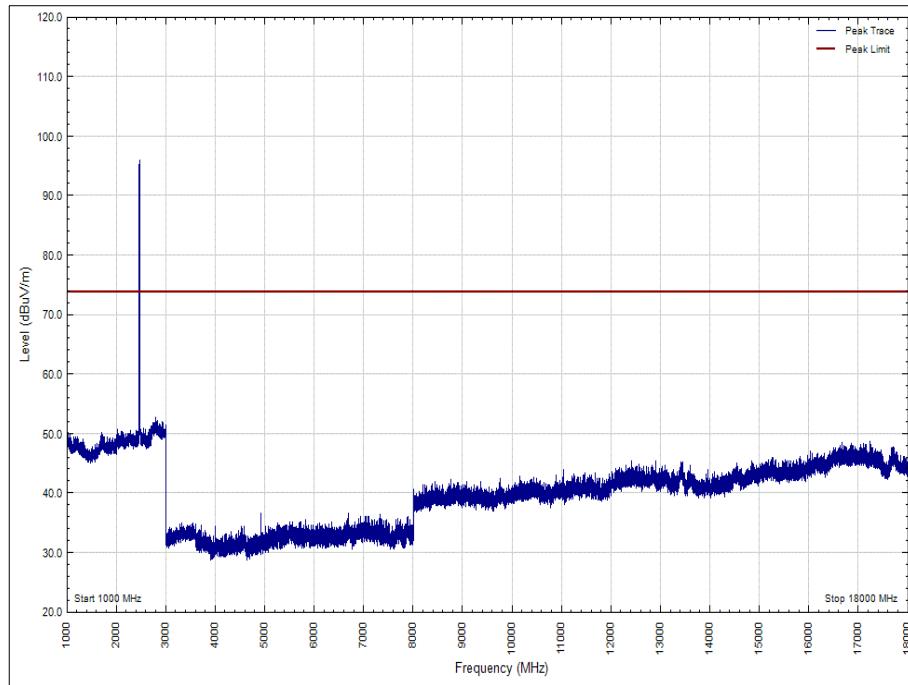


Figure 188 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

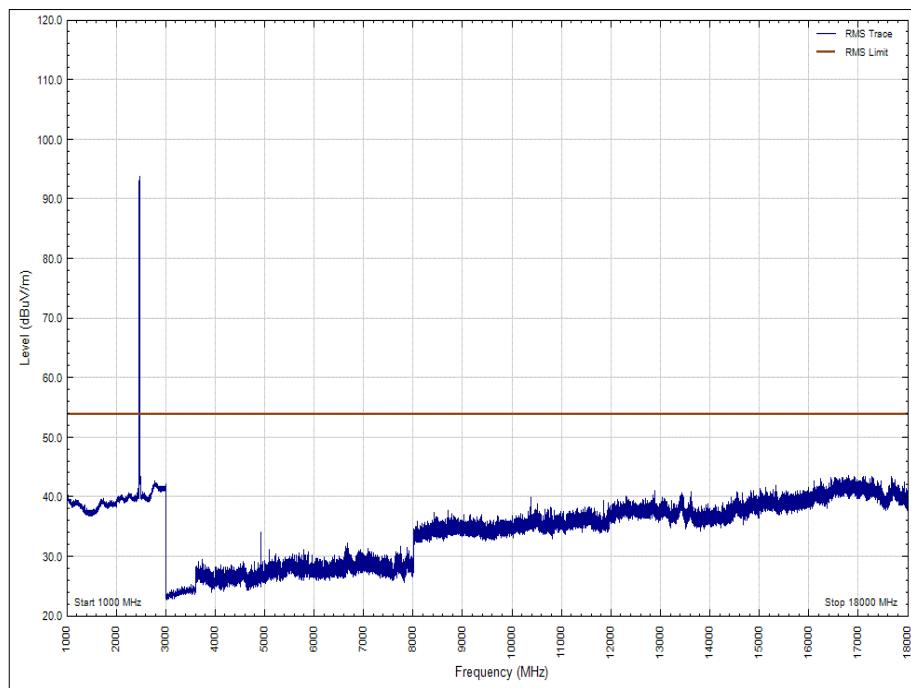


Figure 189 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

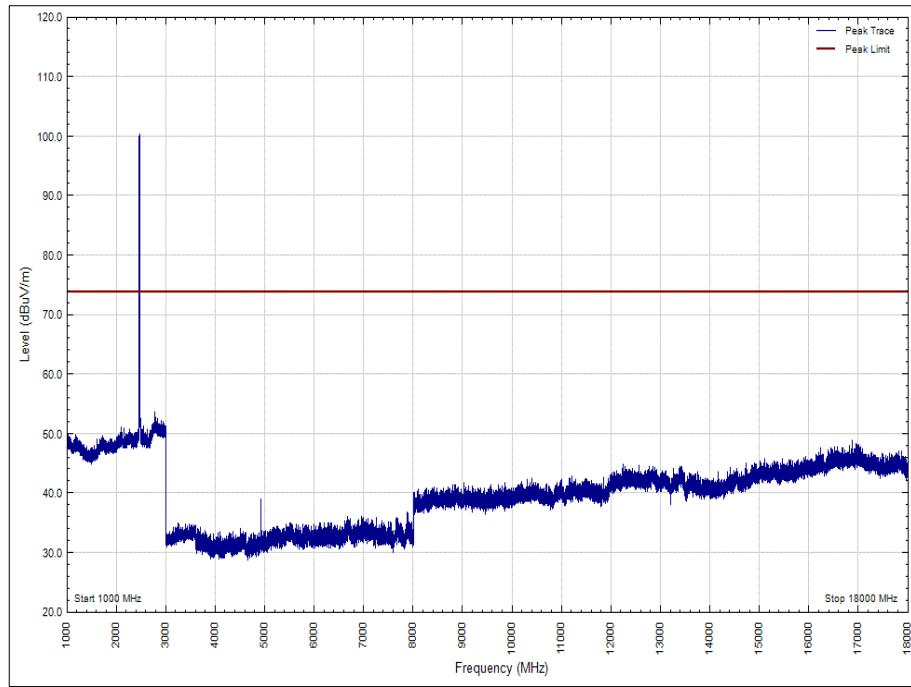


Figure 190 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

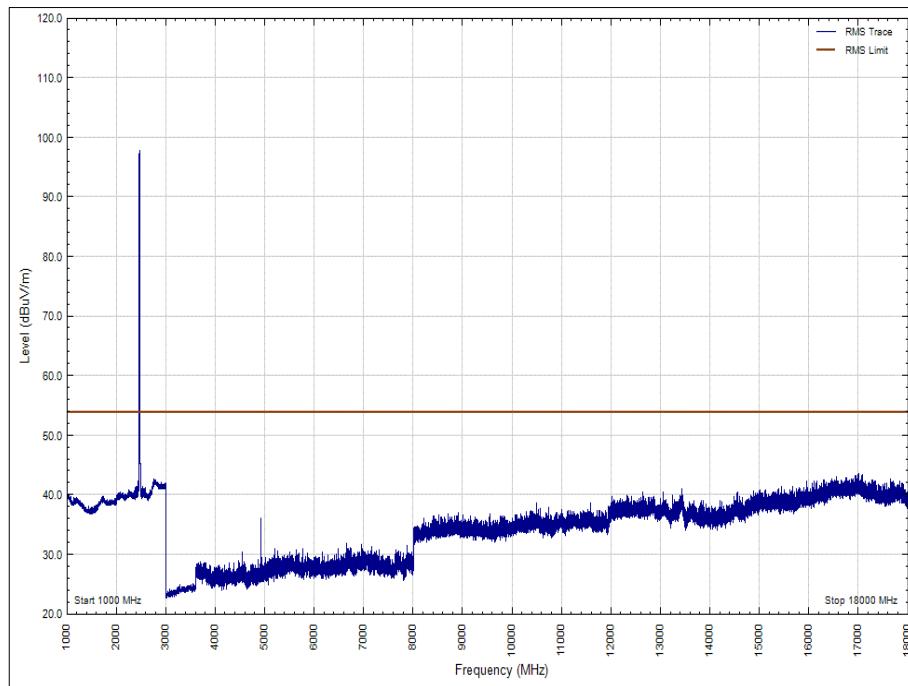


Figure 191 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

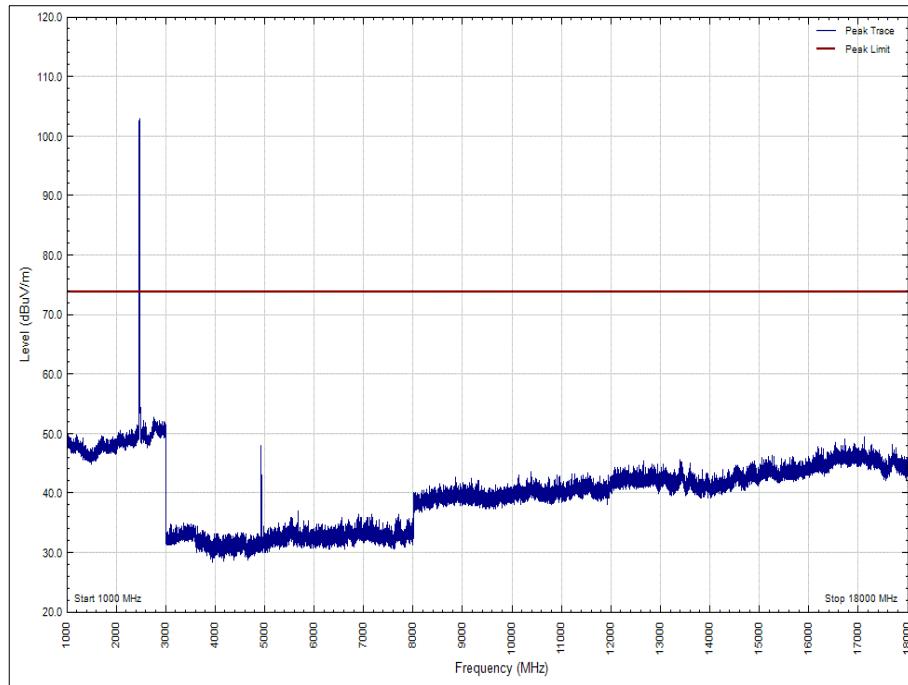


Figure 192 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

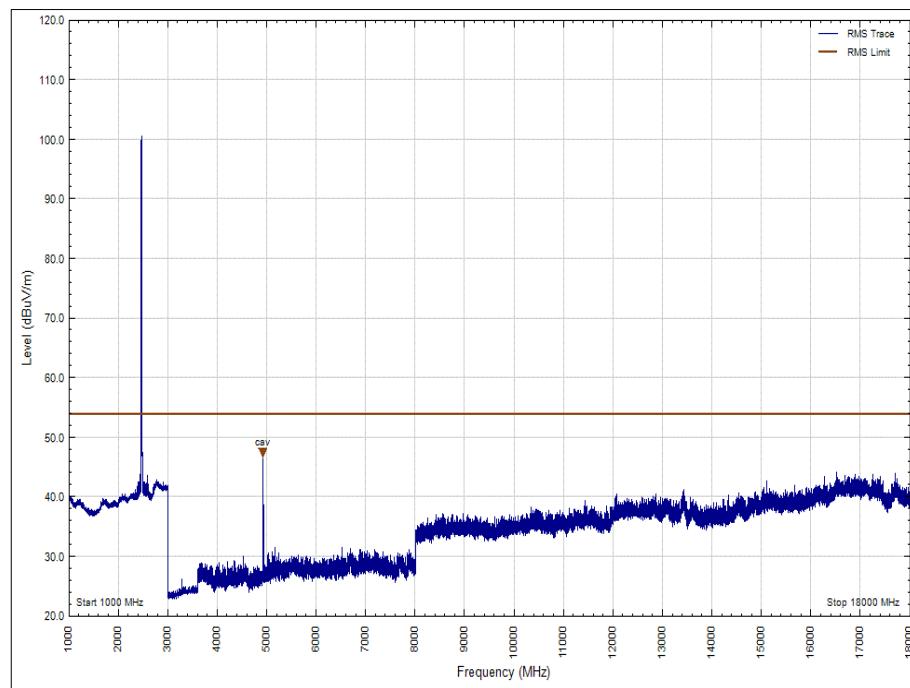


Figure 193 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average



2.4 GHz WLAN - 802.11n 20 MHz Bandwidth

Testing was performed on the Modulation Coding Scheme which resulted in the highest PSD. The Modulation Coding Scheme used during testing was MCS6. For configurations supporting multiple bandwidths, emission measurements were only made in the bandwidth with the highest conducted output power.

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 55 - Radiated Emissions Results, 30 MHz to 1 GHz - 2412 MHz

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

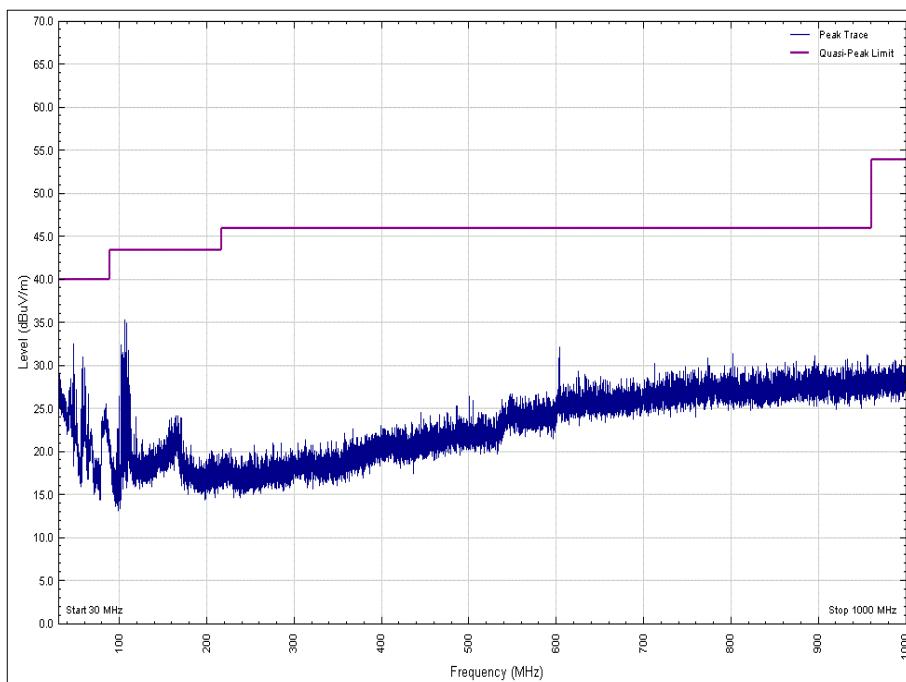


Figure 194 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation X

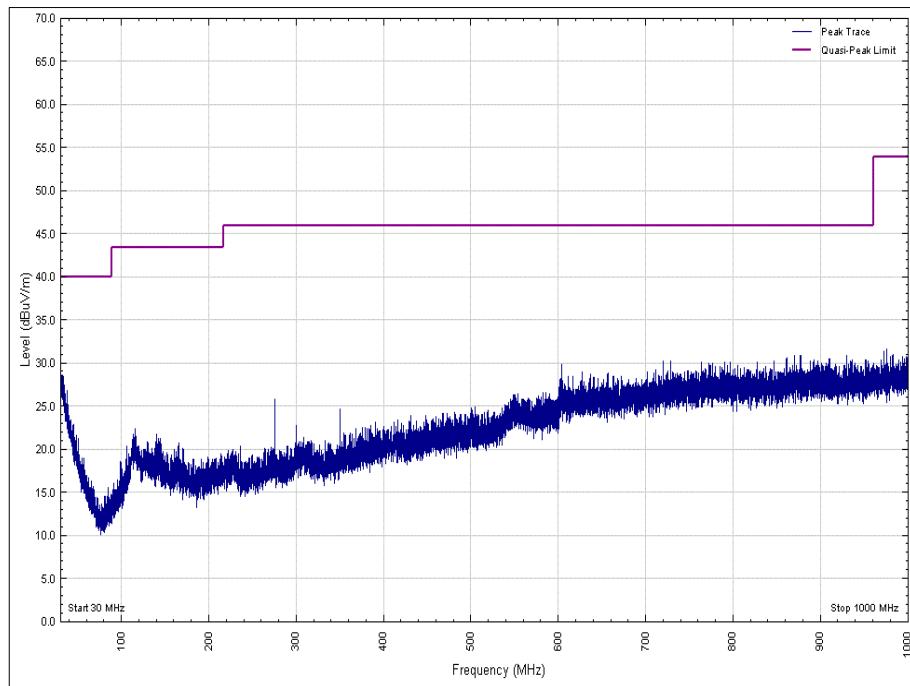


Figure 195 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation X

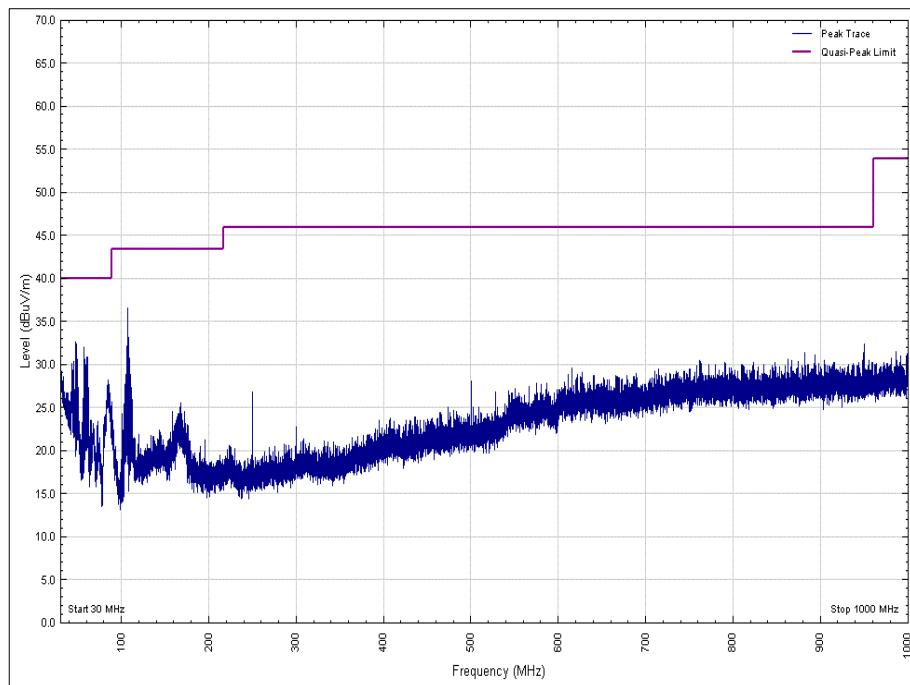


Figure 196 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation Y

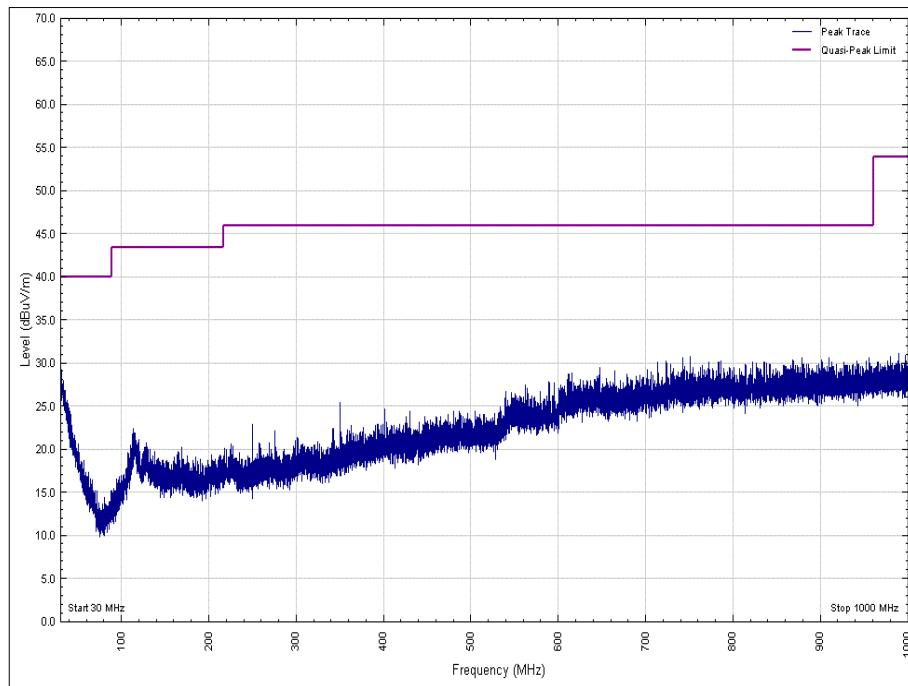


Figure 197 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation Y

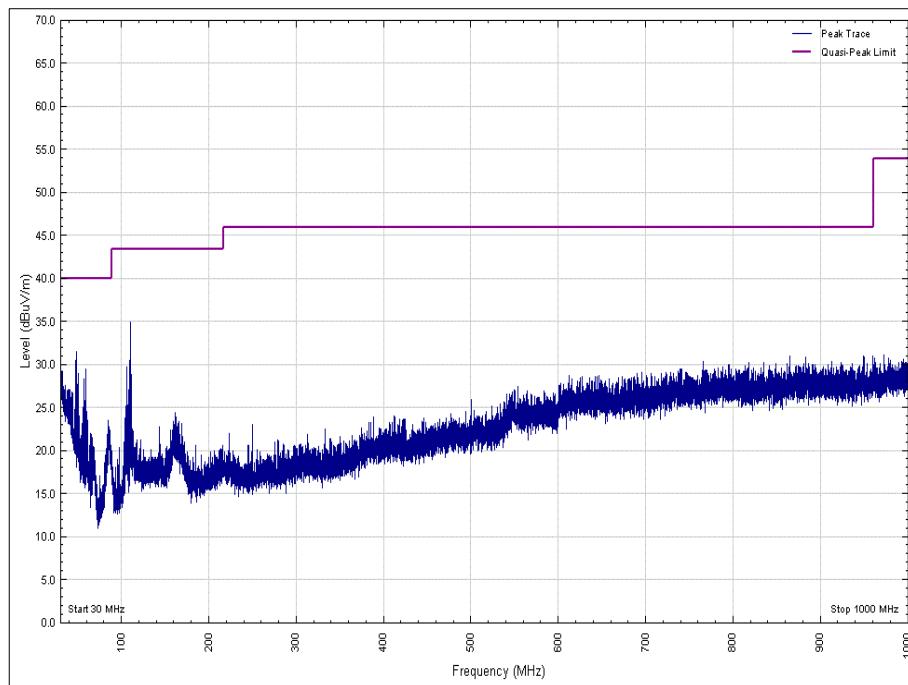


Figure 198 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation Z

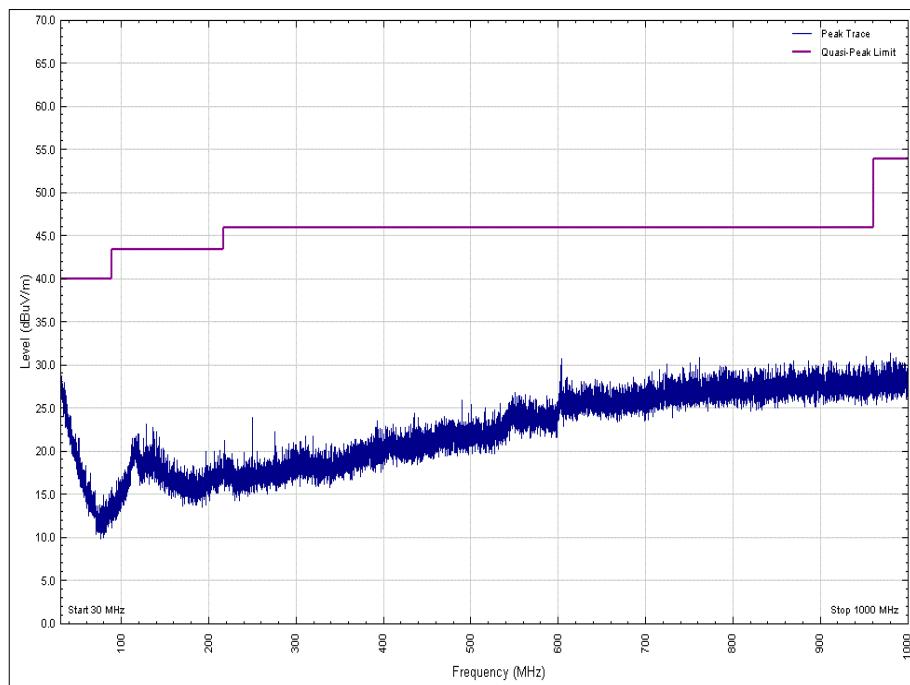


Figure 199 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)	
	Peak	Average	Peak	Average	Peak	Average
4.824235	-	49.57	-	53.98	-	4.41

Table 56 - 2412 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

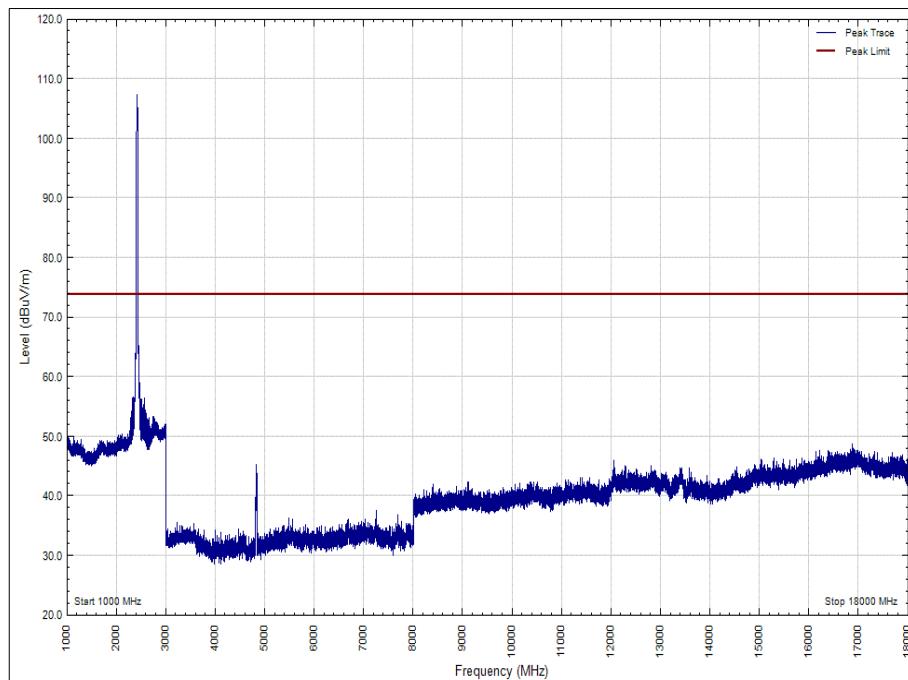


Figure 200 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

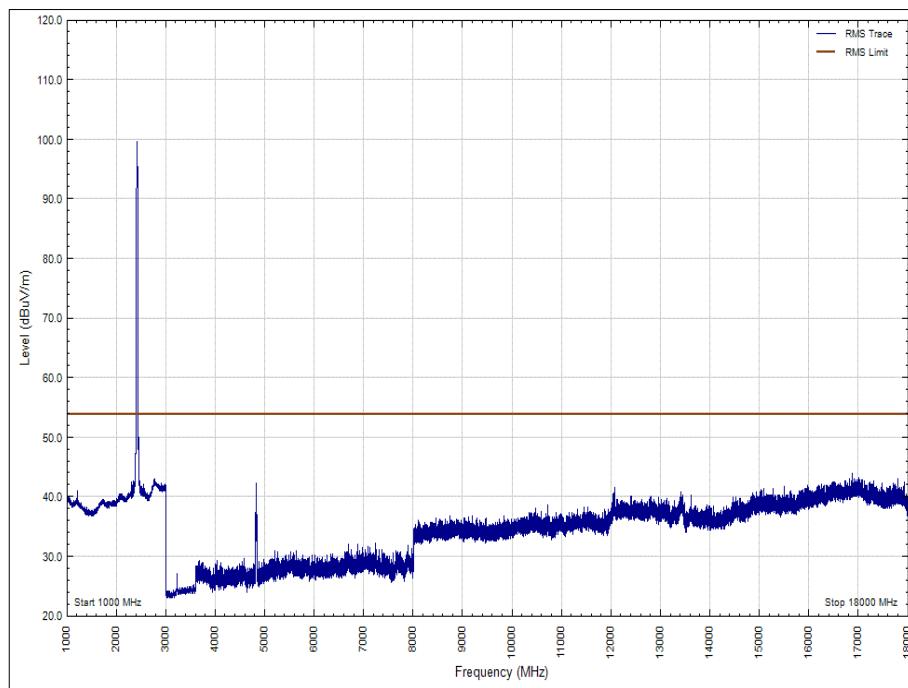


Figure 201 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

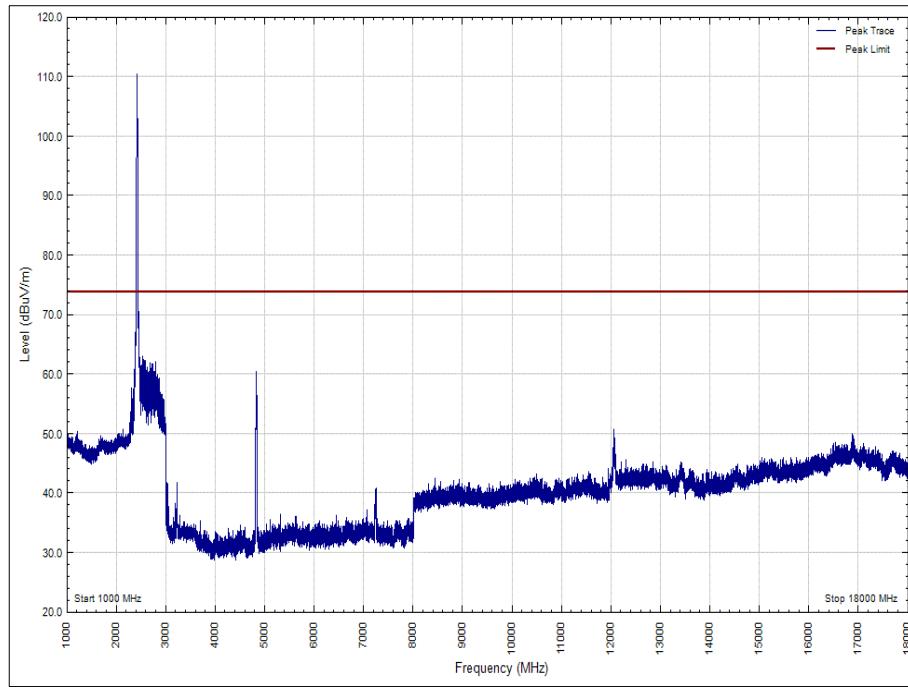


Figure 202 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

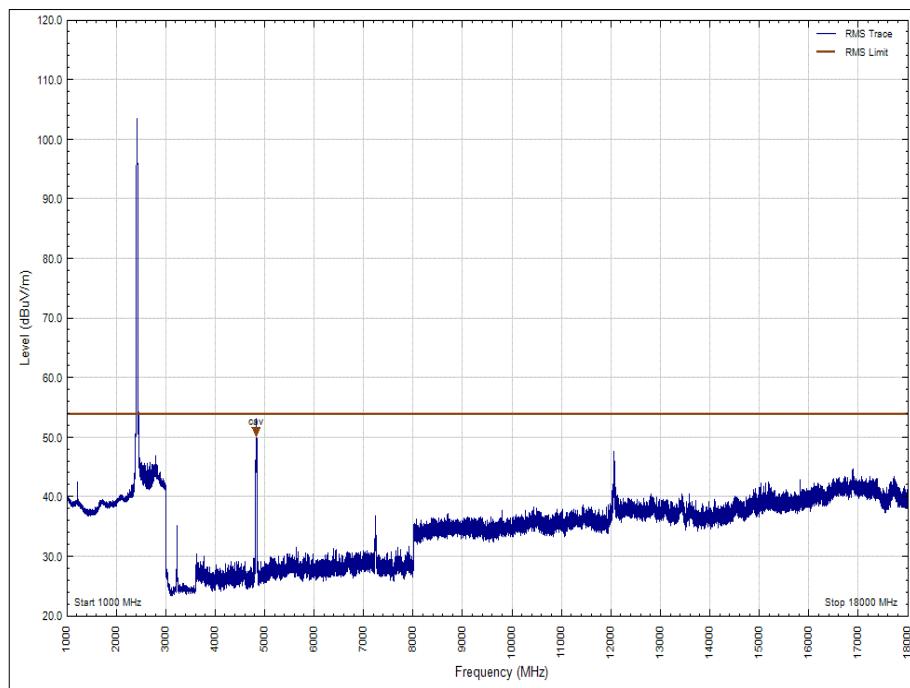


Figure 203 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

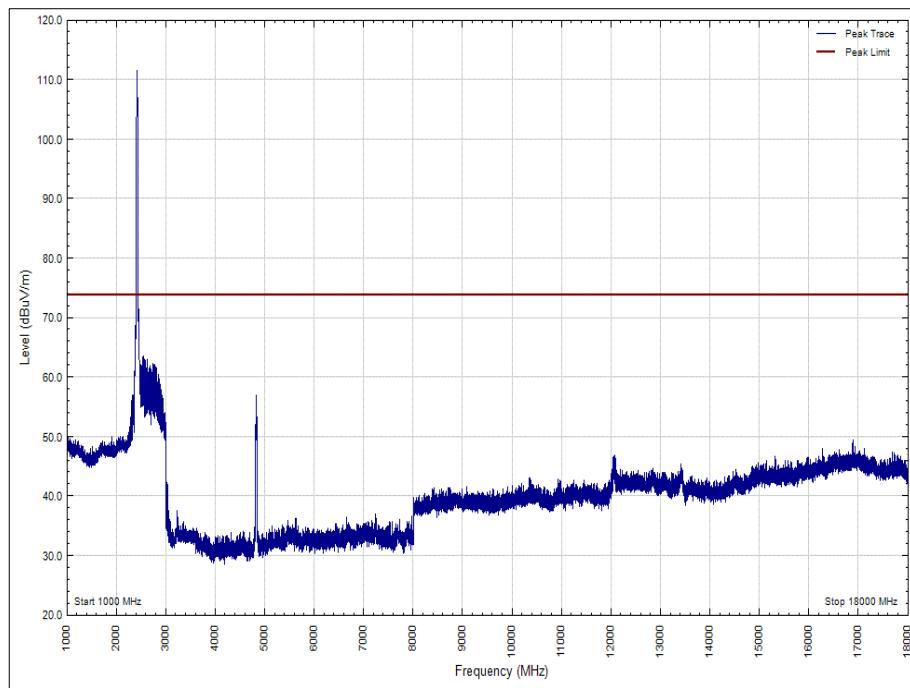


Figure 204 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

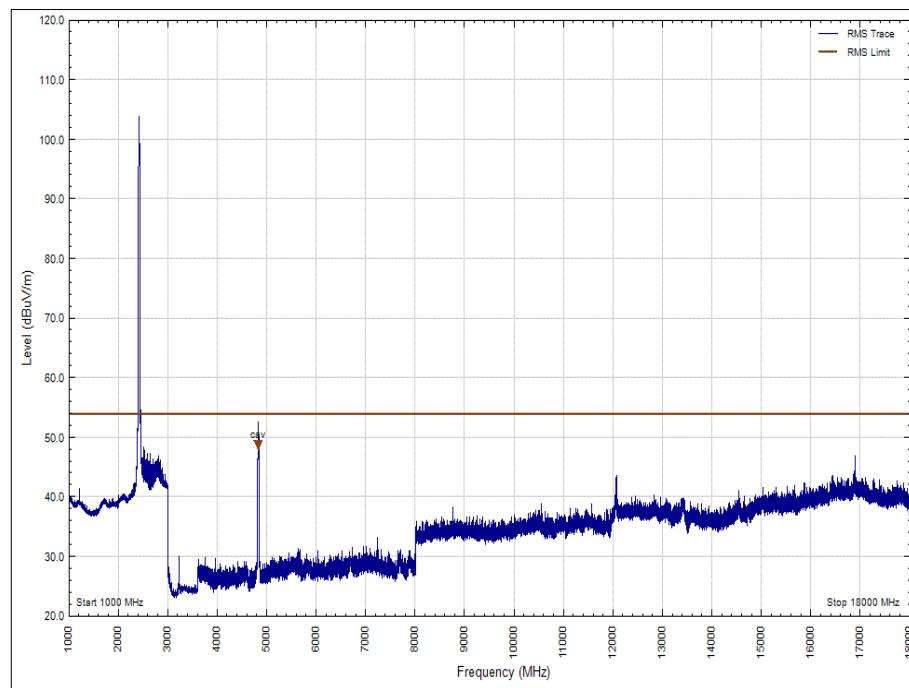


Figure 205 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

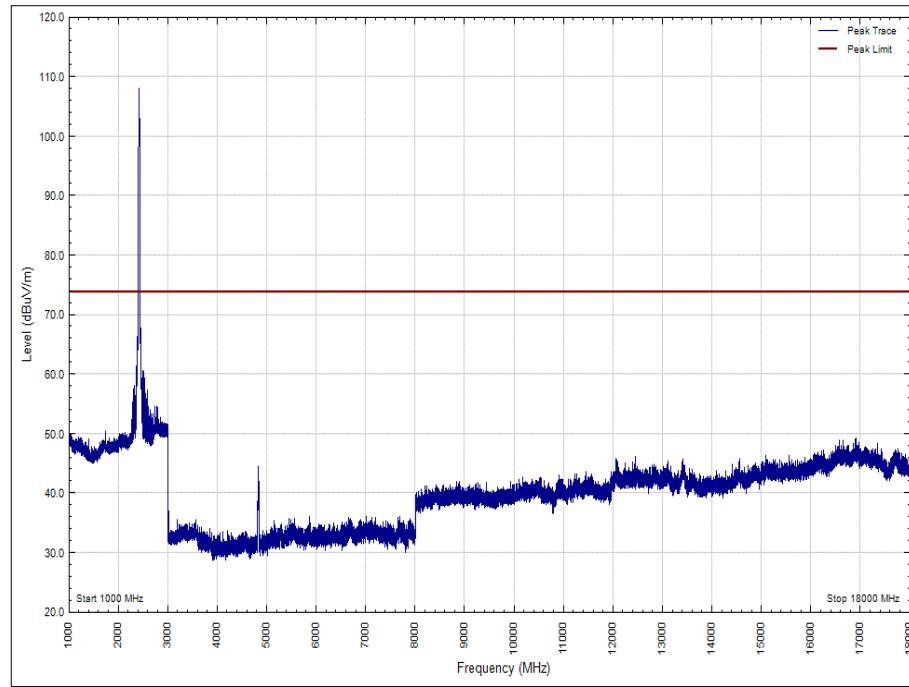


Figure 206 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

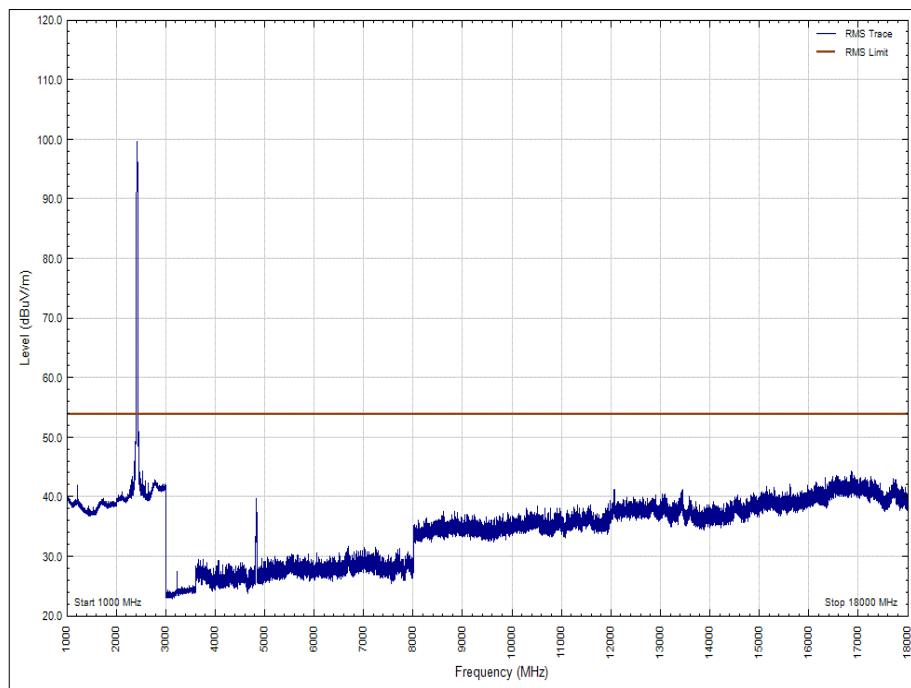


Figure 207 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

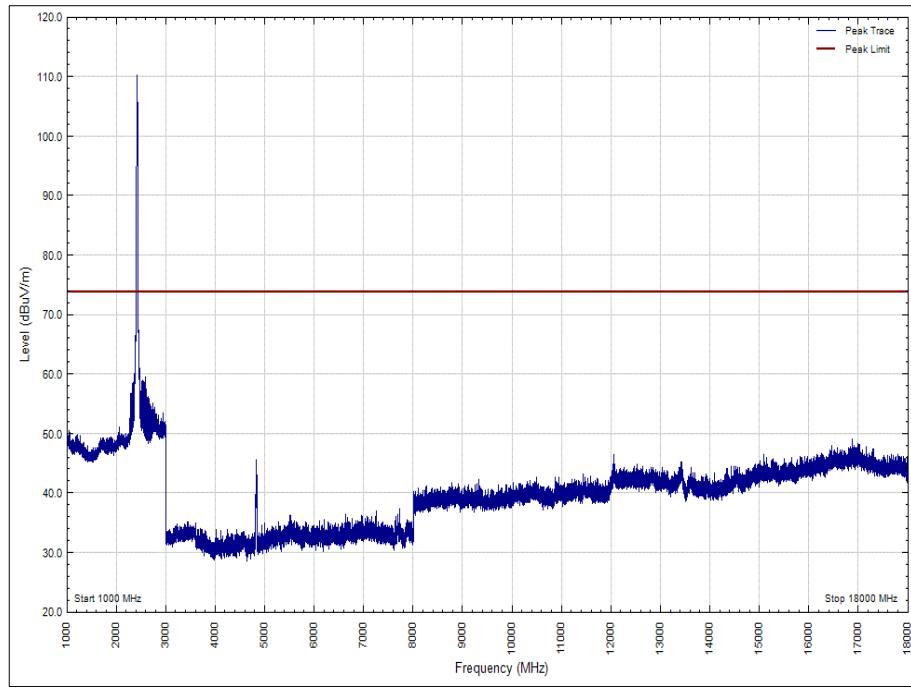


Figure 208 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

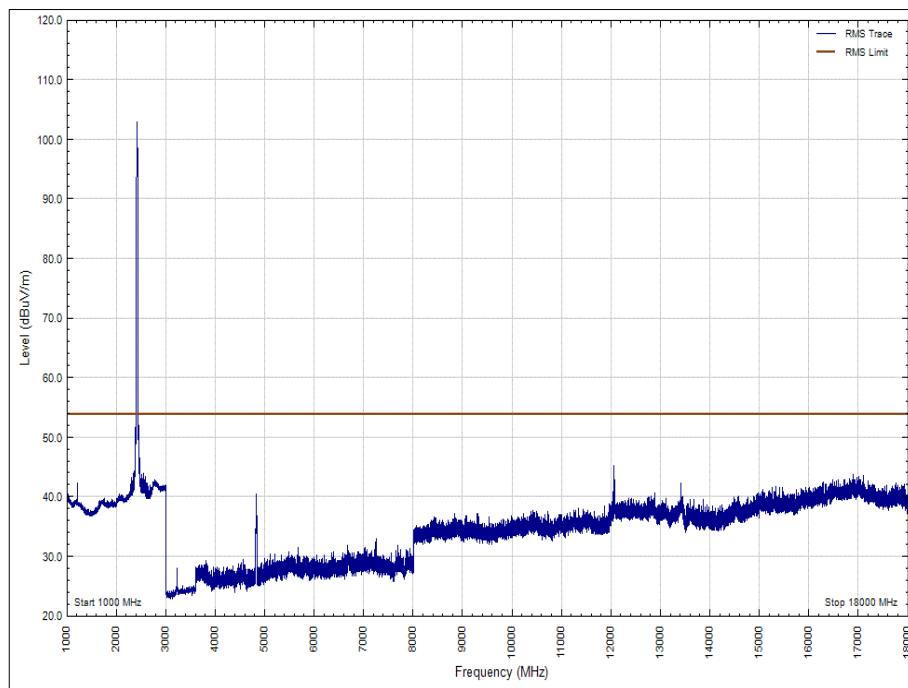


Figure 209 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

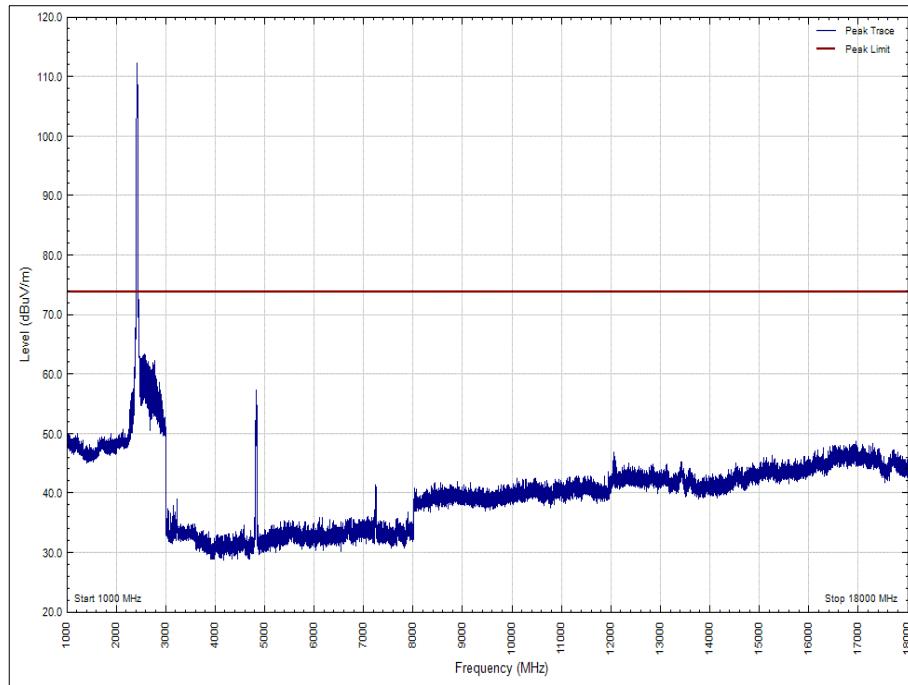


Figure 210 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

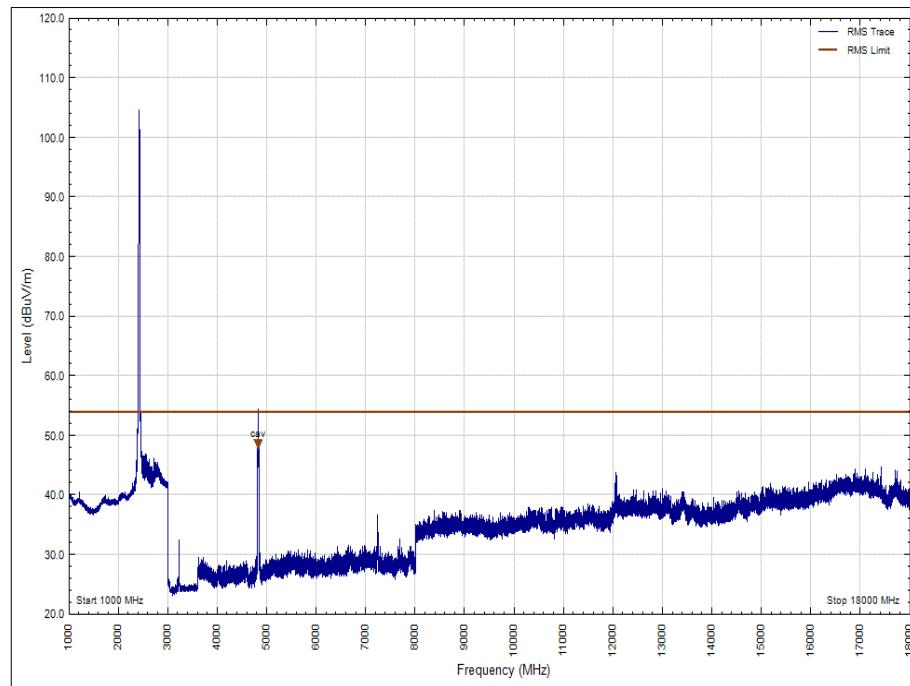


Figure 211 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 57 - Radiated Emissions Results, 30 MHz to 1 GHz - 2437 MHz

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

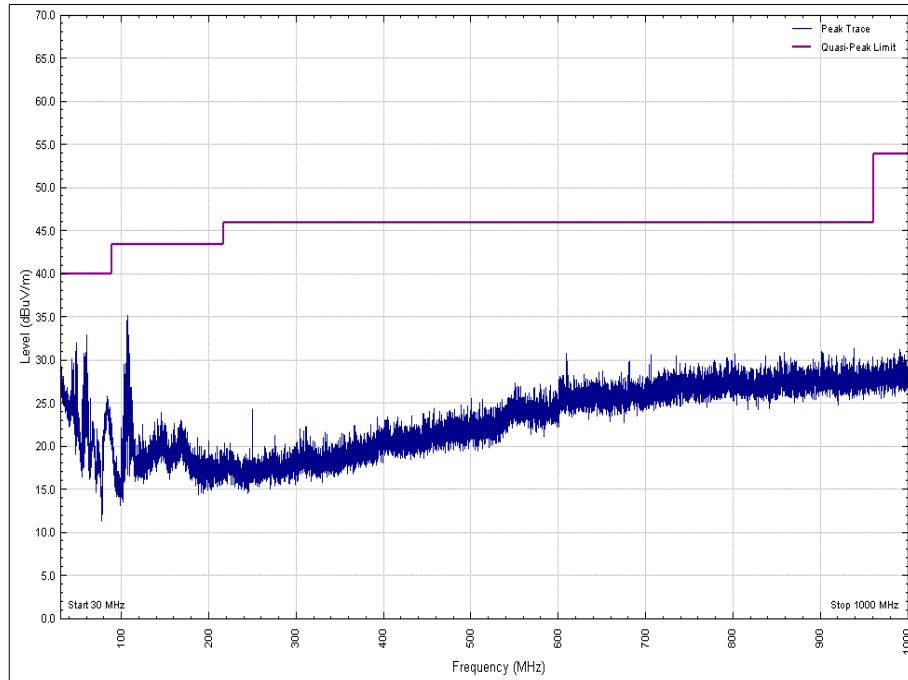


Figure 212 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation X

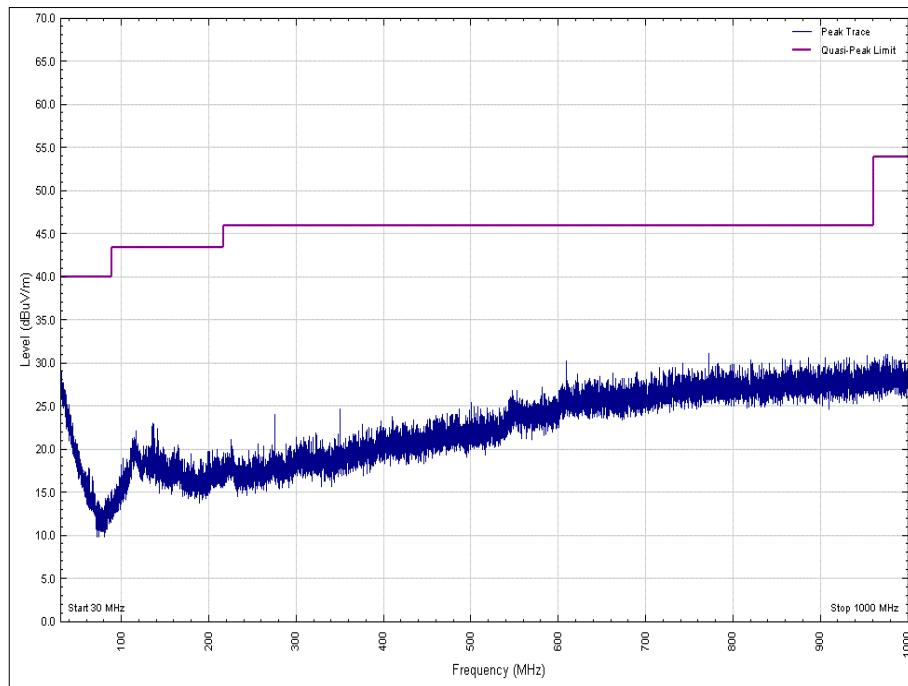


Figure 213 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation X

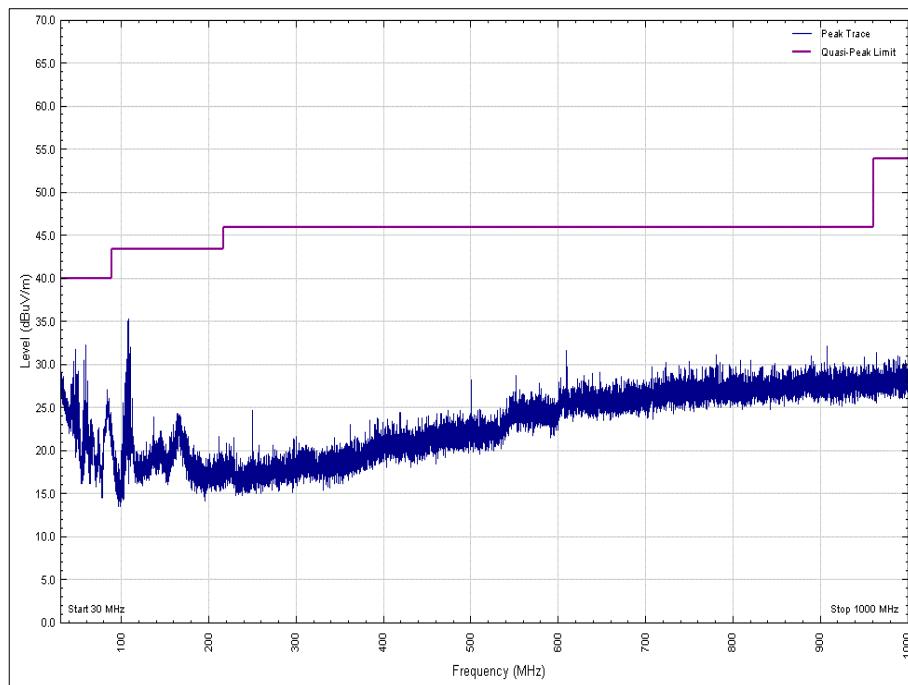


Figure 214 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation Y

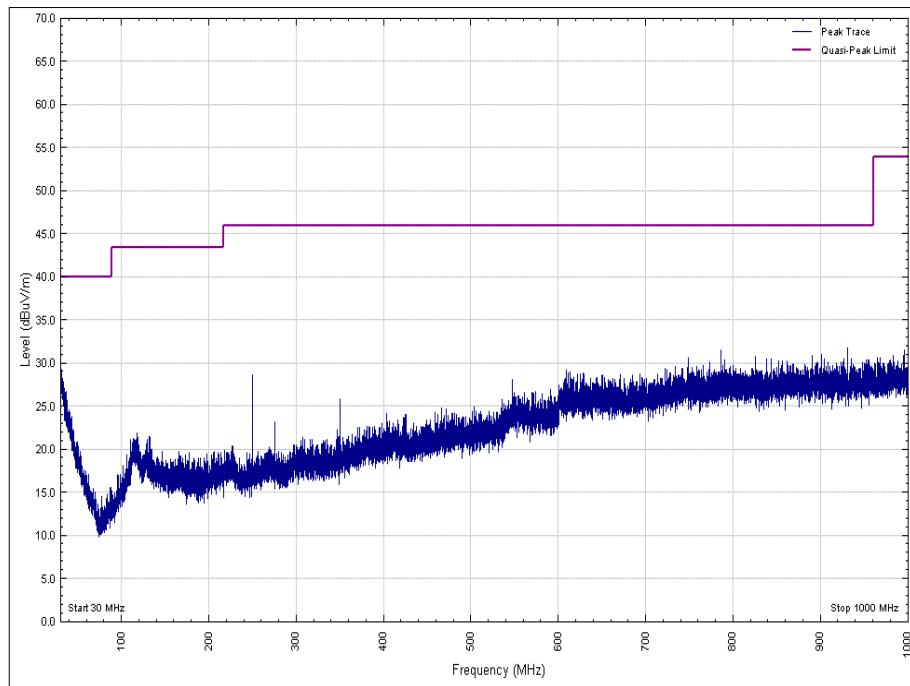


Figure 215 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation Y

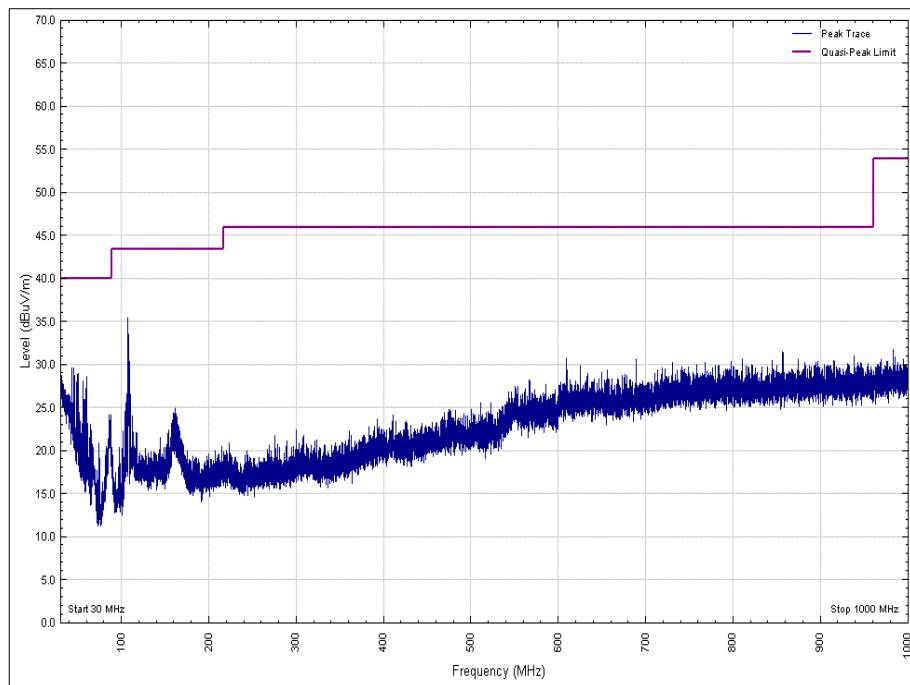


Figure 216 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation Z

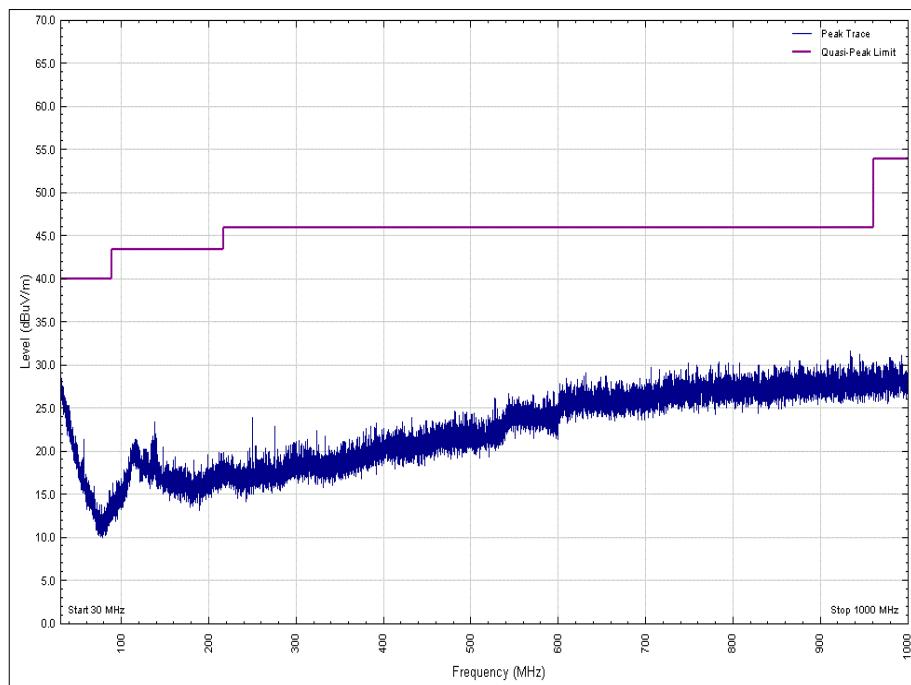


Figure 217 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
4.874210	-	47.98	-	53.98	-	6.00

Table 58 - 2437 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

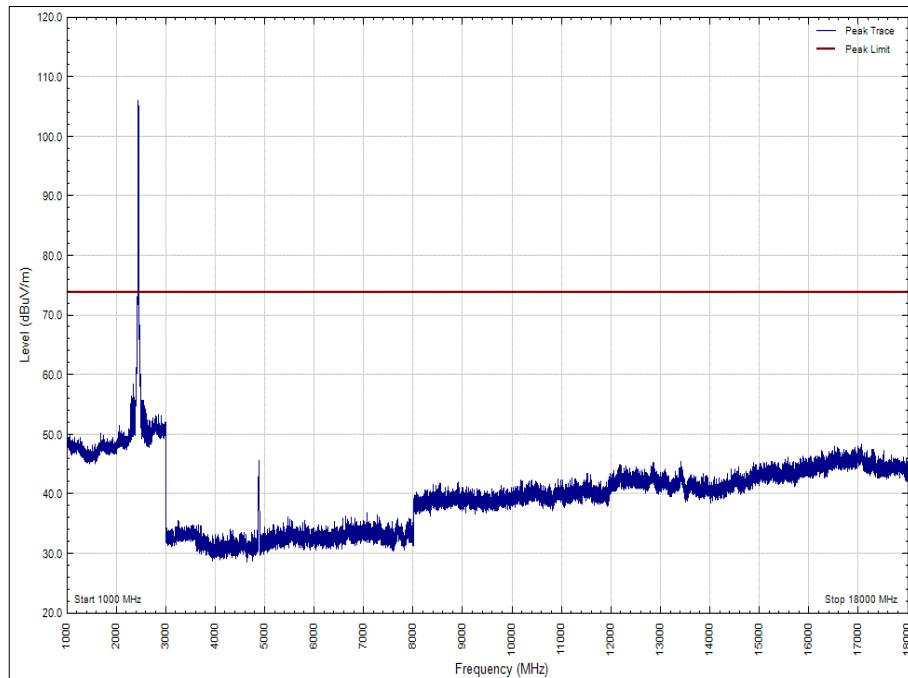


Figure 218 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

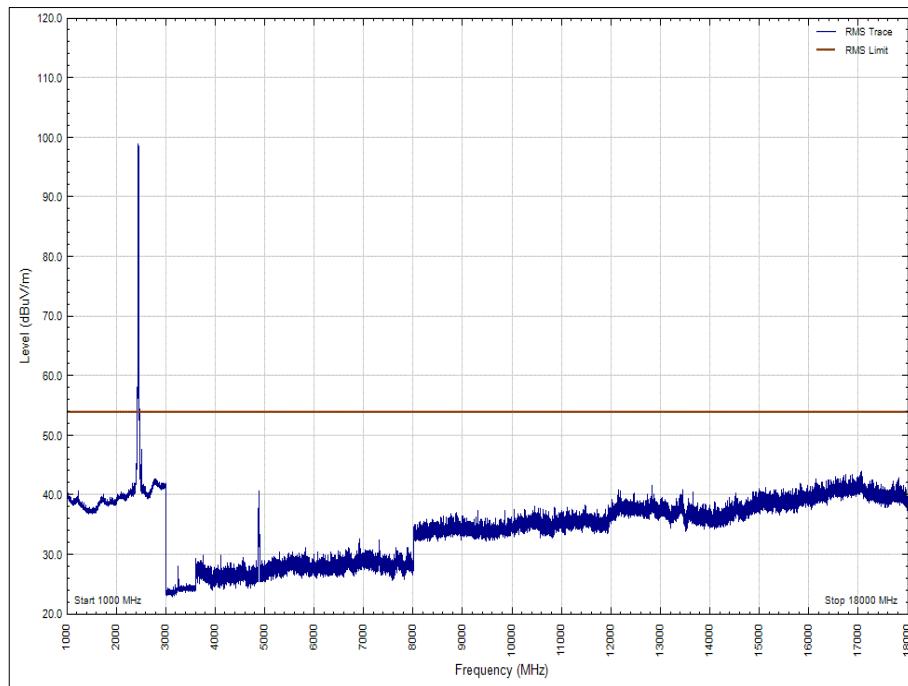


Figure 219 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

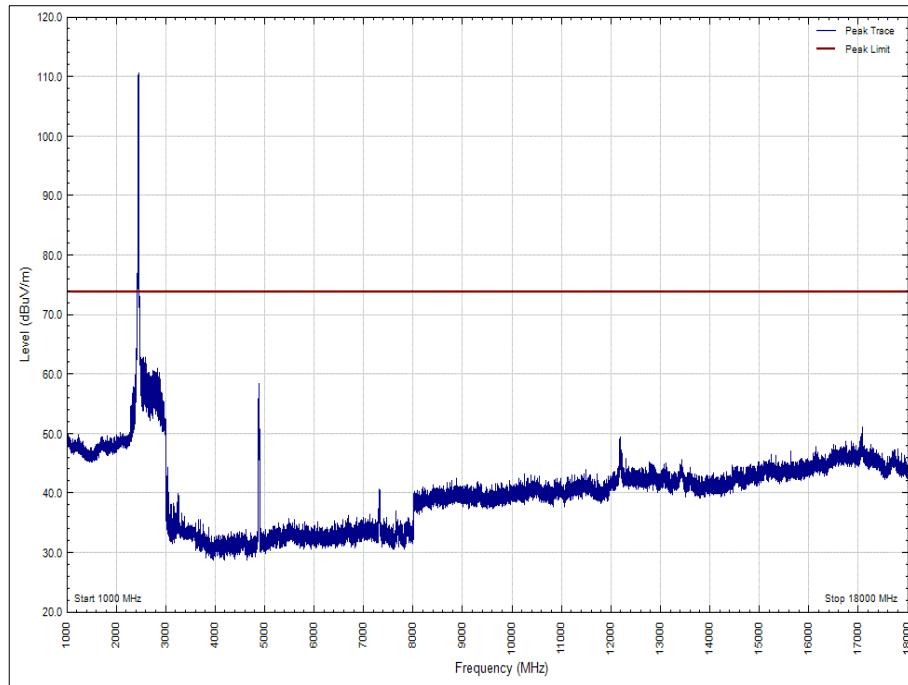


Figure 220 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

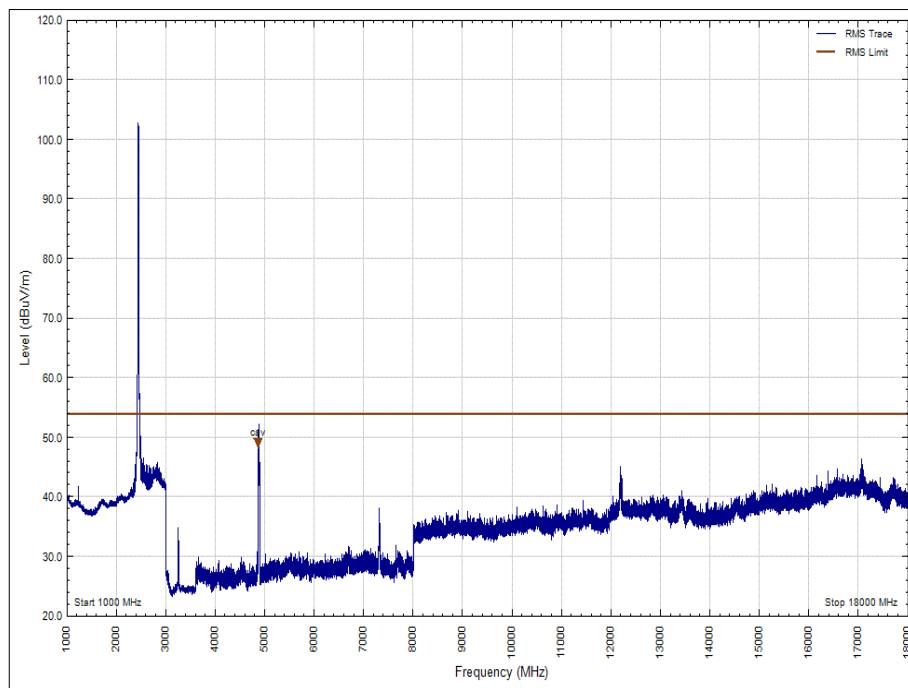


Figure 221 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

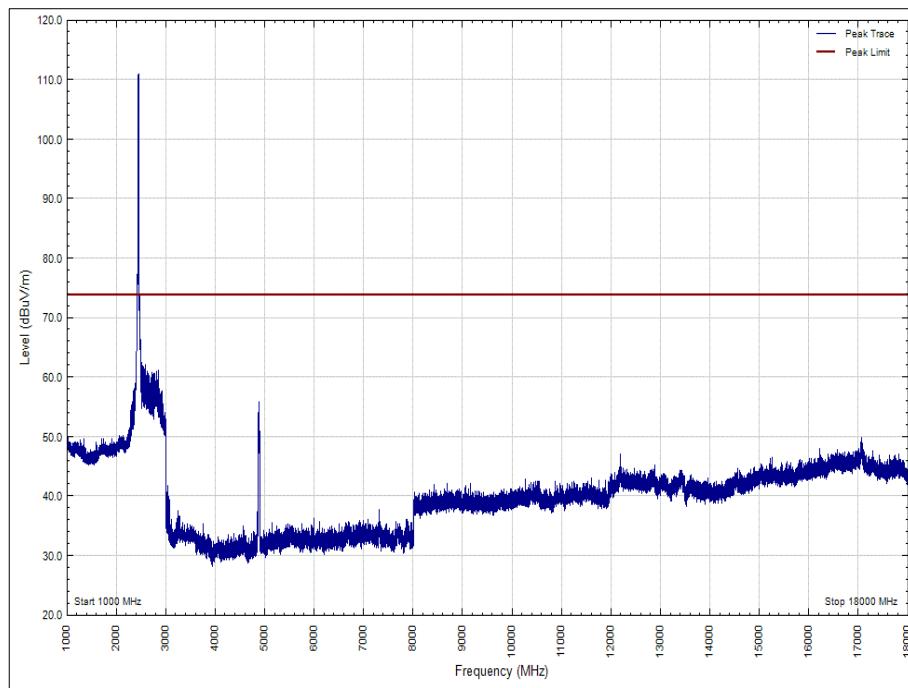


Figure 222 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

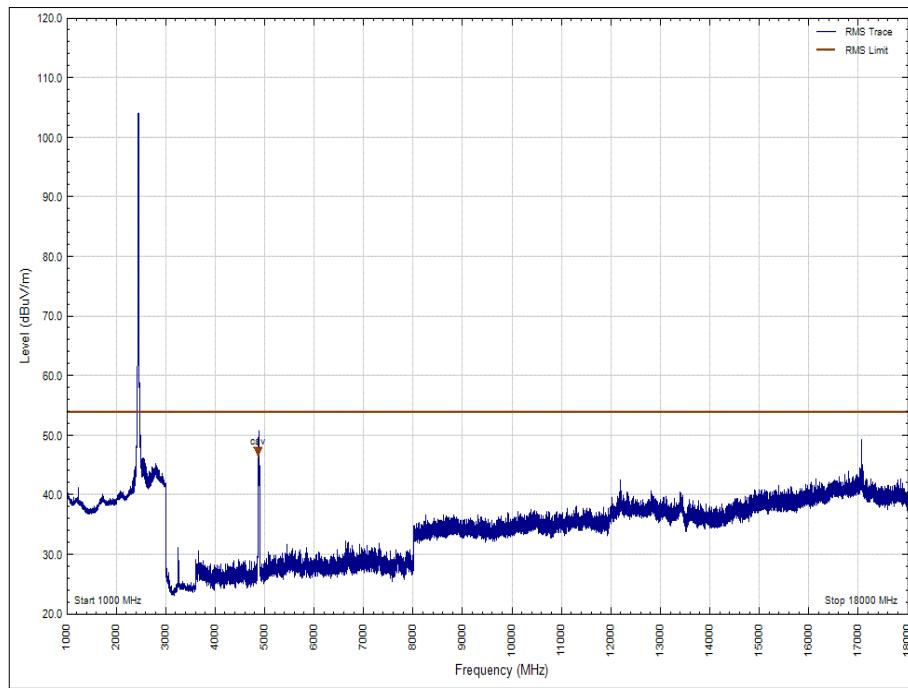


Figure 223 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

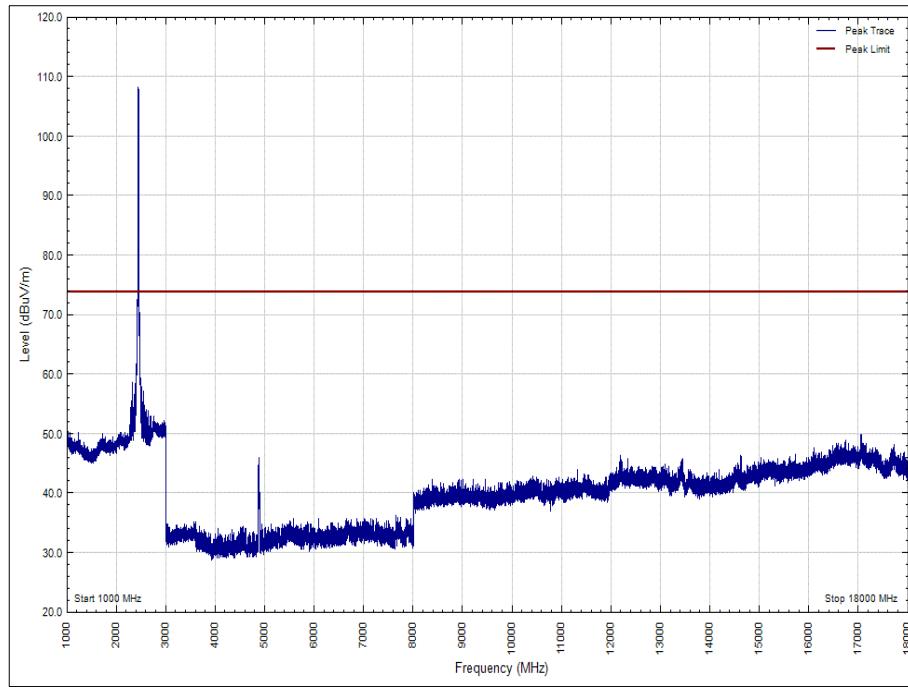


Figure 224 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

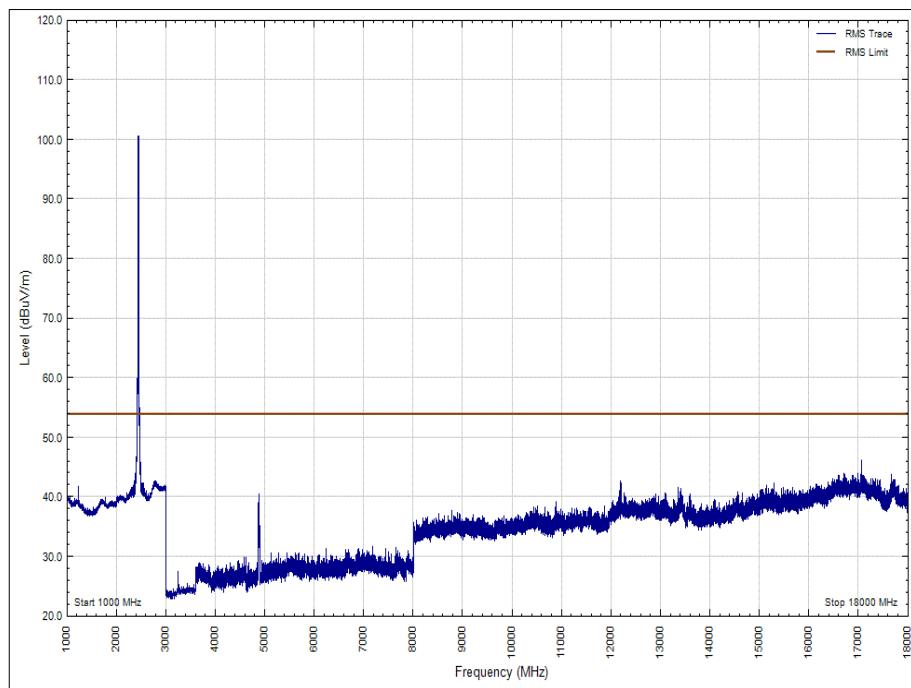


Figure 225 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

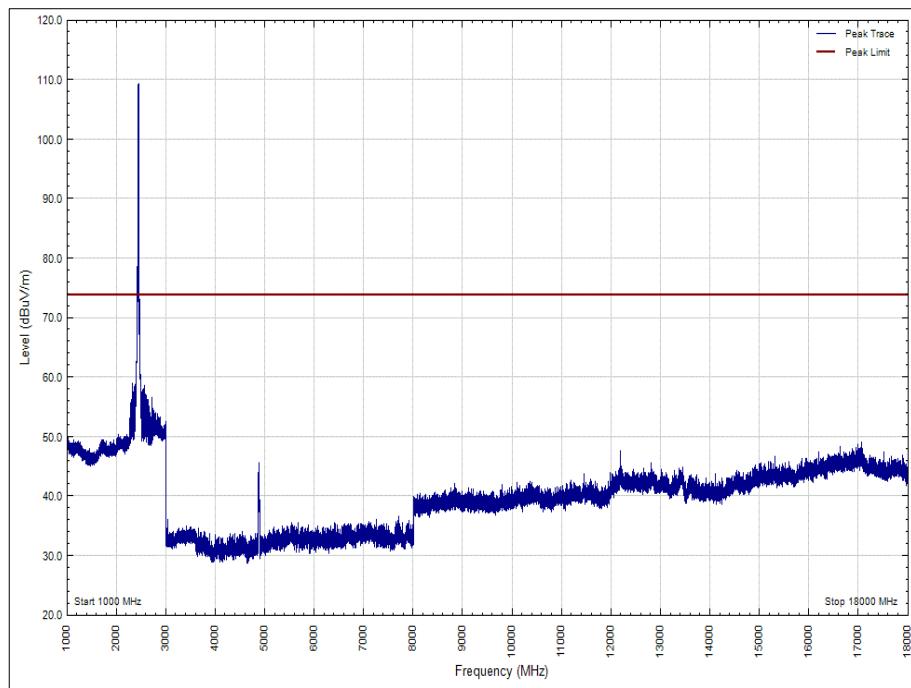


Figure 226 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

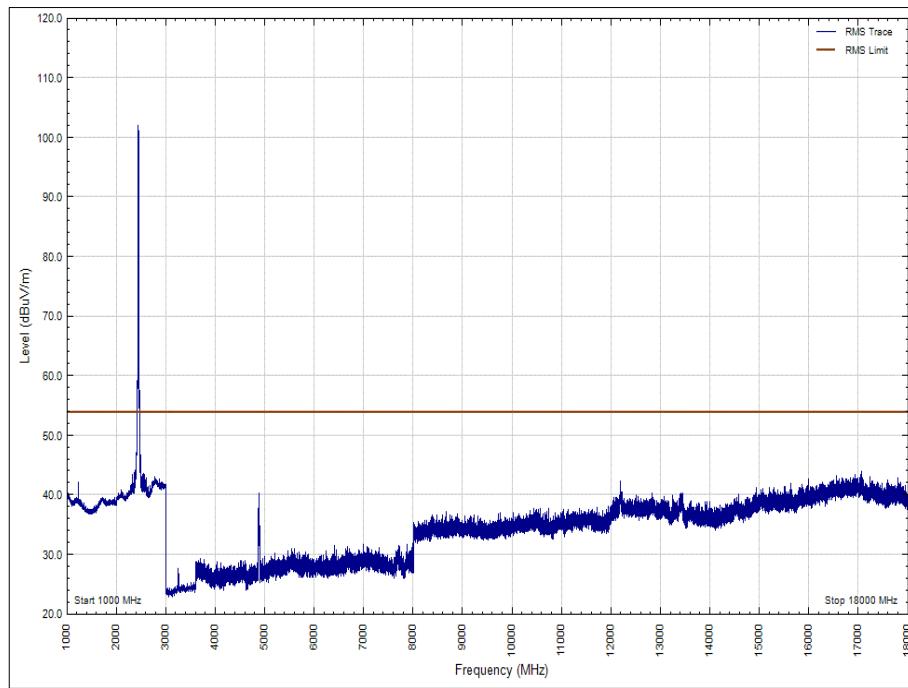


Figure 227 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

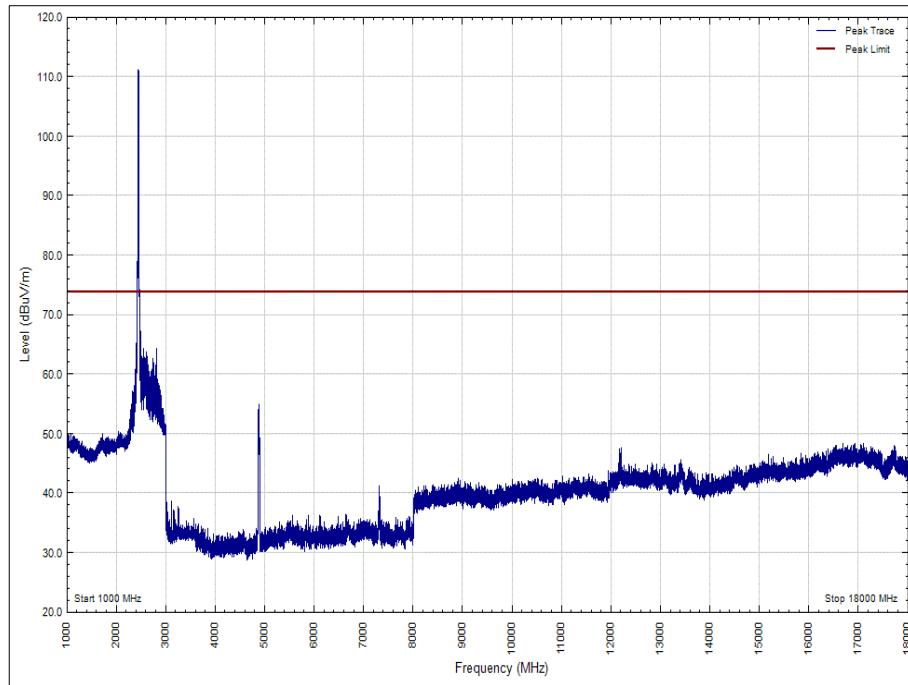


Figure 228 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

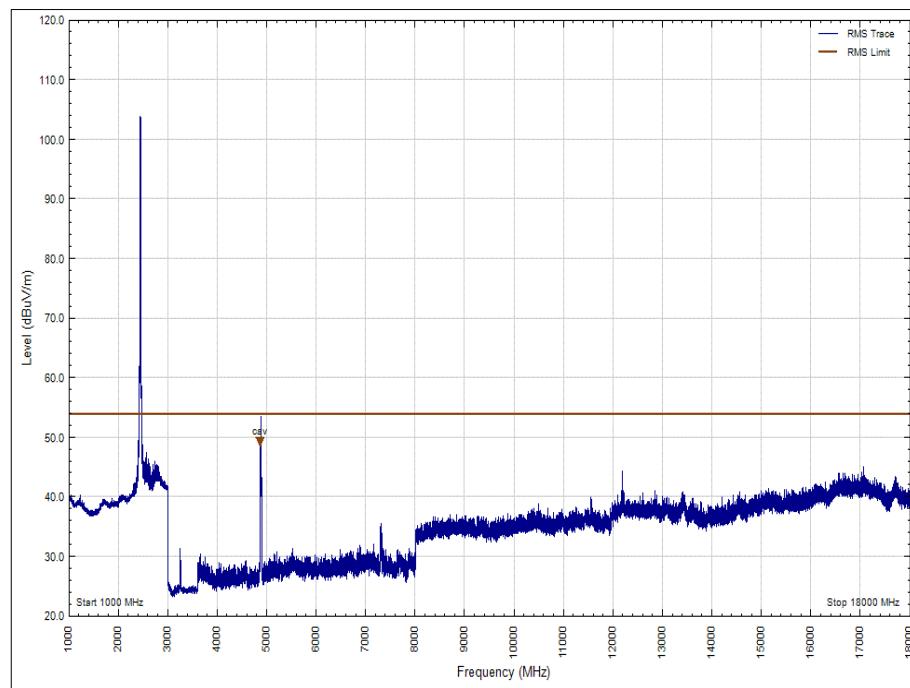


Figure 229 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 59 - Radiated Emissions Results, 30 MHz to 1 GHz - 2642 MHz

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

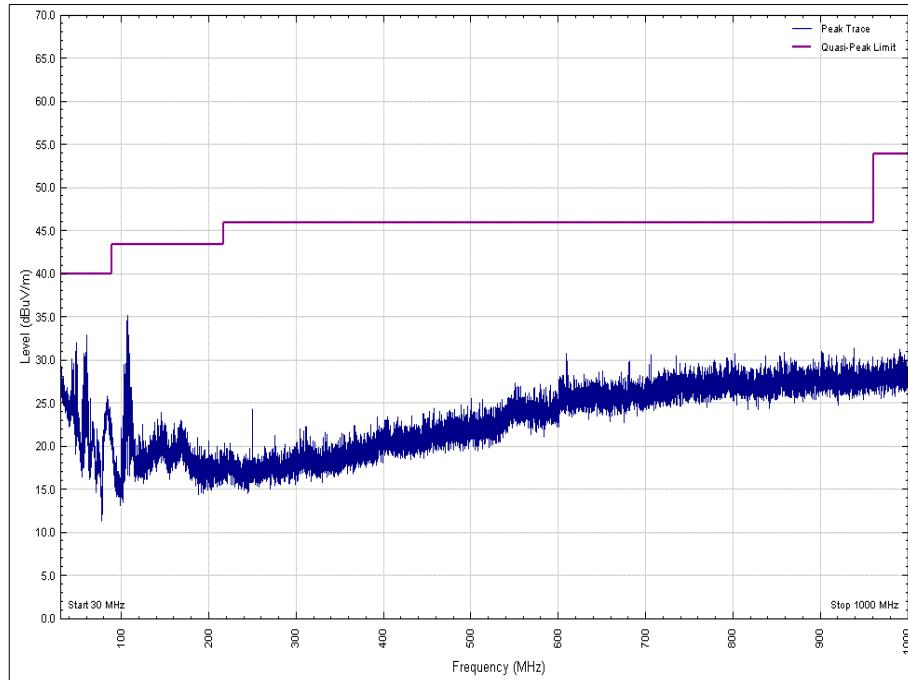


Figure 230 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation X

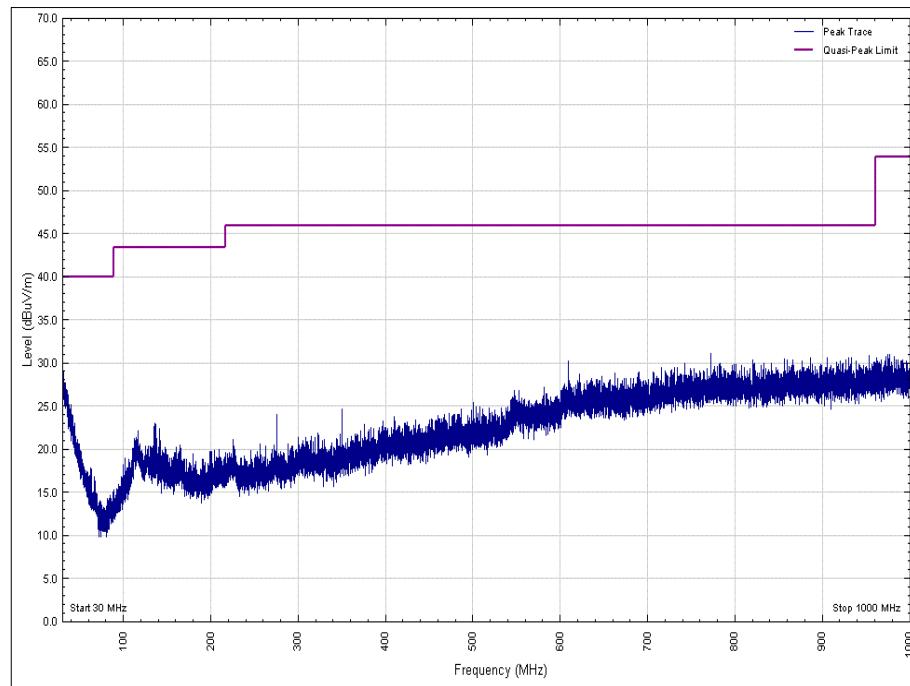


Figure 231 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation X

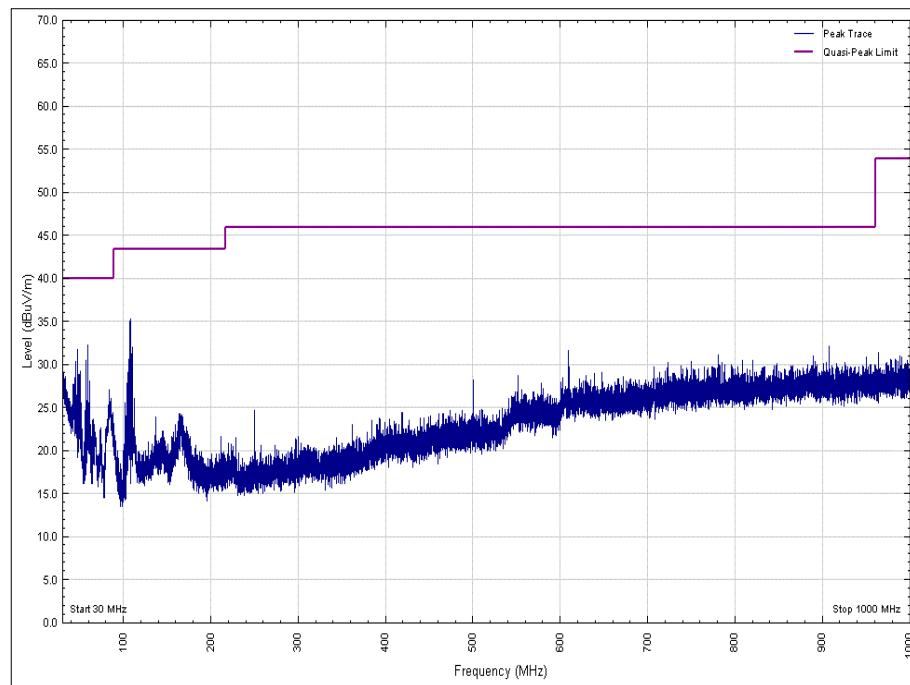


Figure 232 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation Y

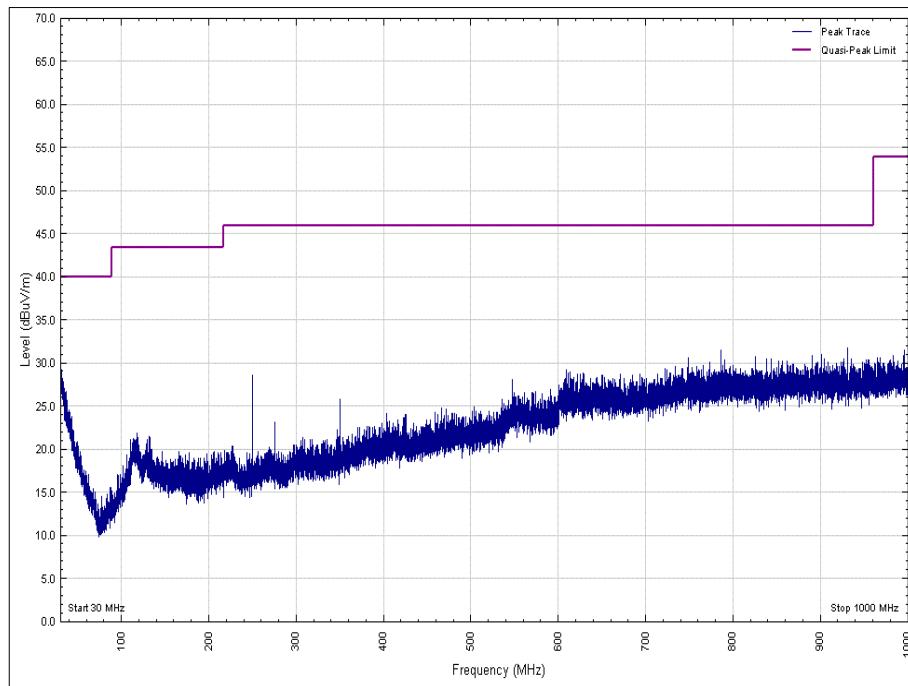


Figure 233 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation Y

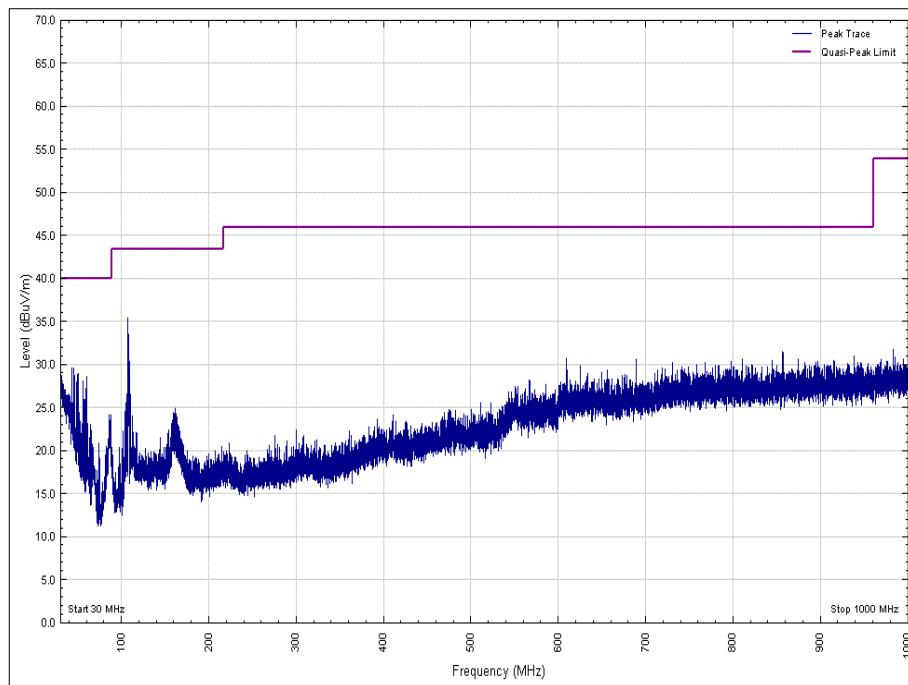


Figure 234 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation Z

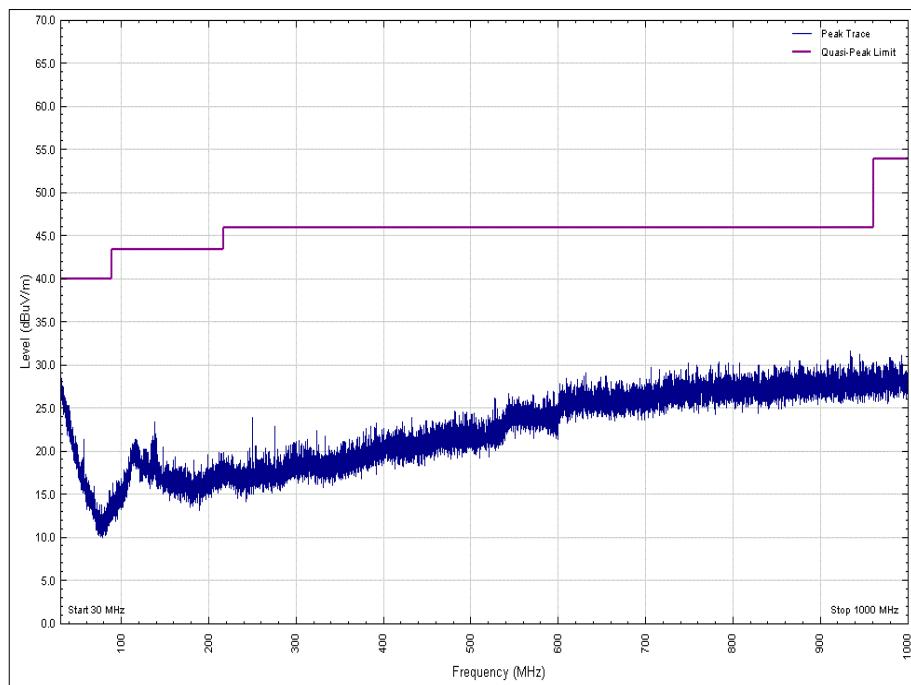


Figure 235 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
4.924045	-	47.34	-	53.98	-	6.64

Table 60 - 2462 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

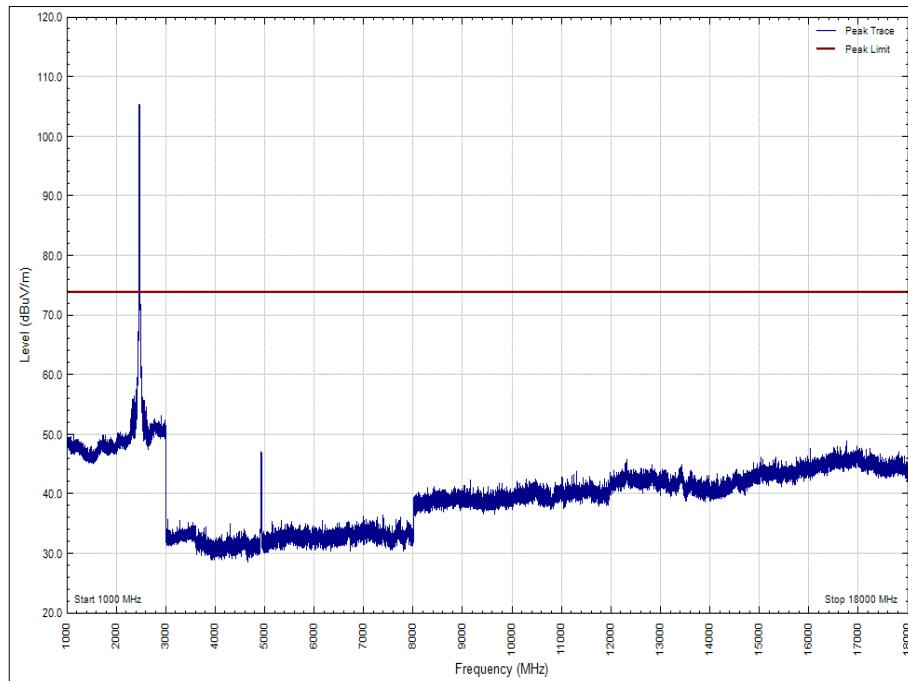


Figure 236 – 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

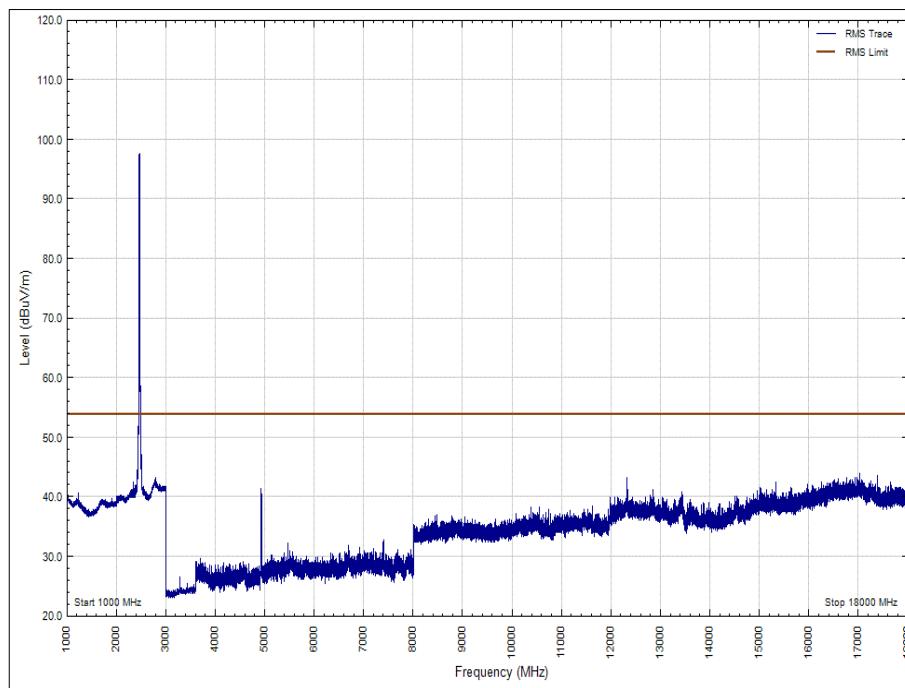


Figure 237 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

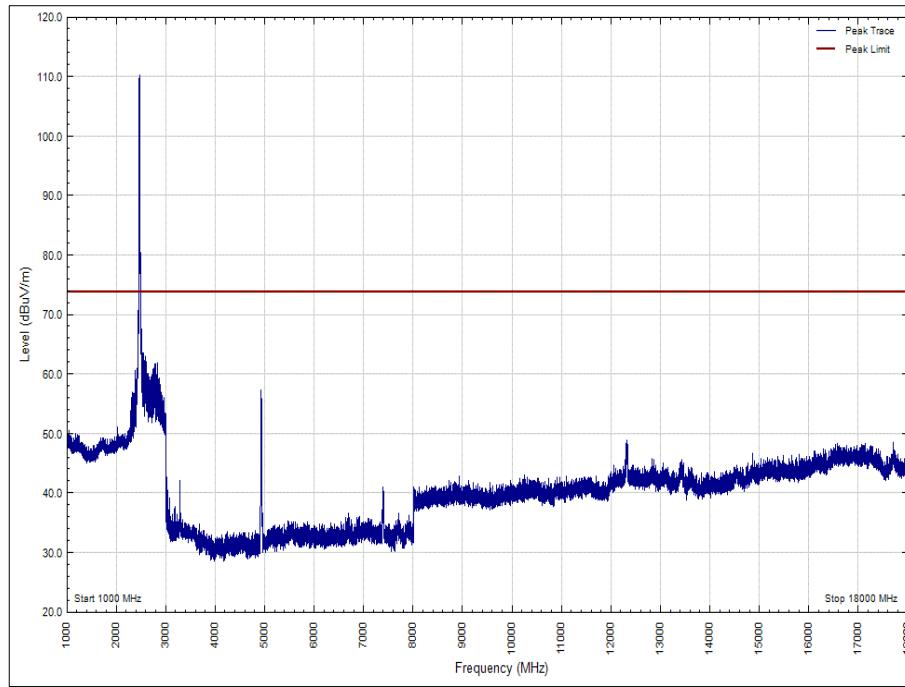


Figure 238 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

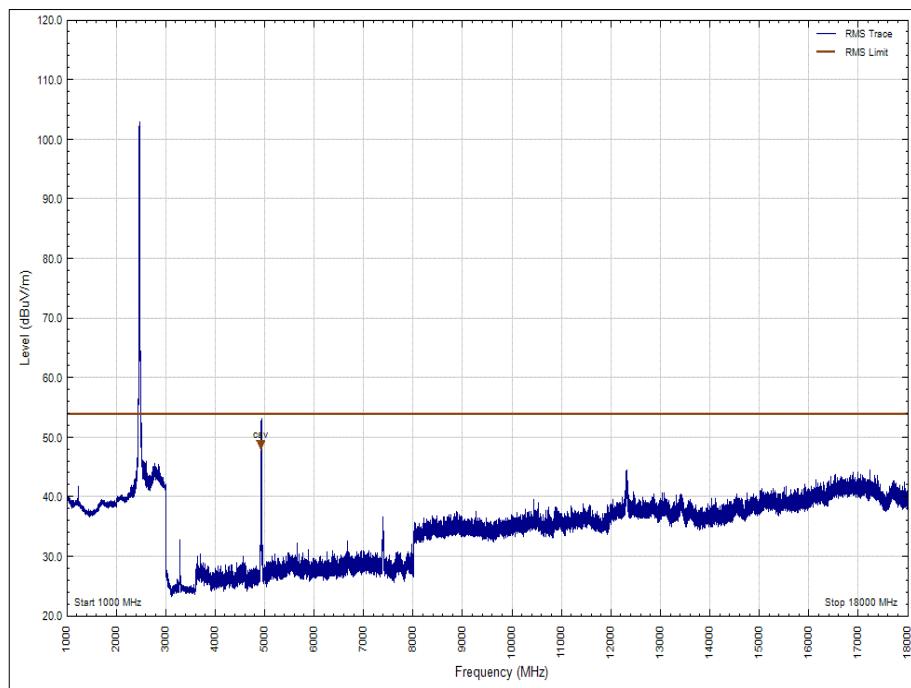


Figure 239 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

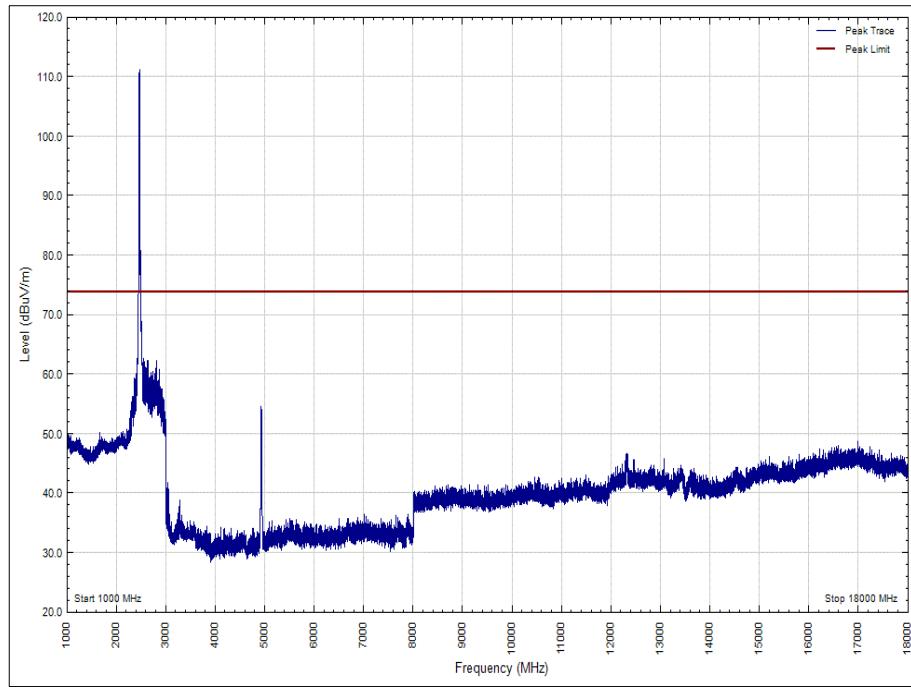


Figure 240 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

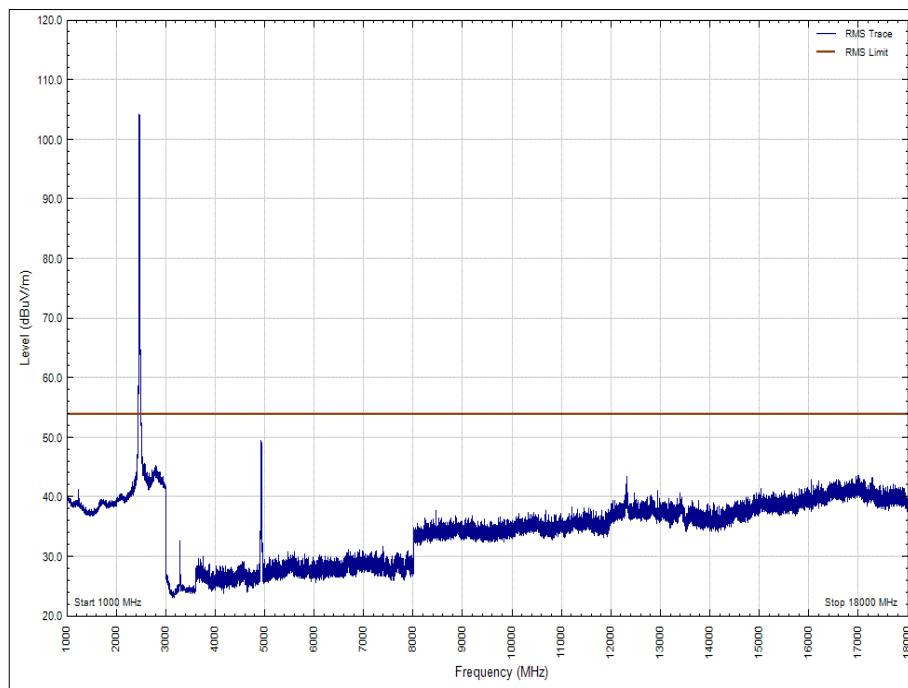


Figure 241 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

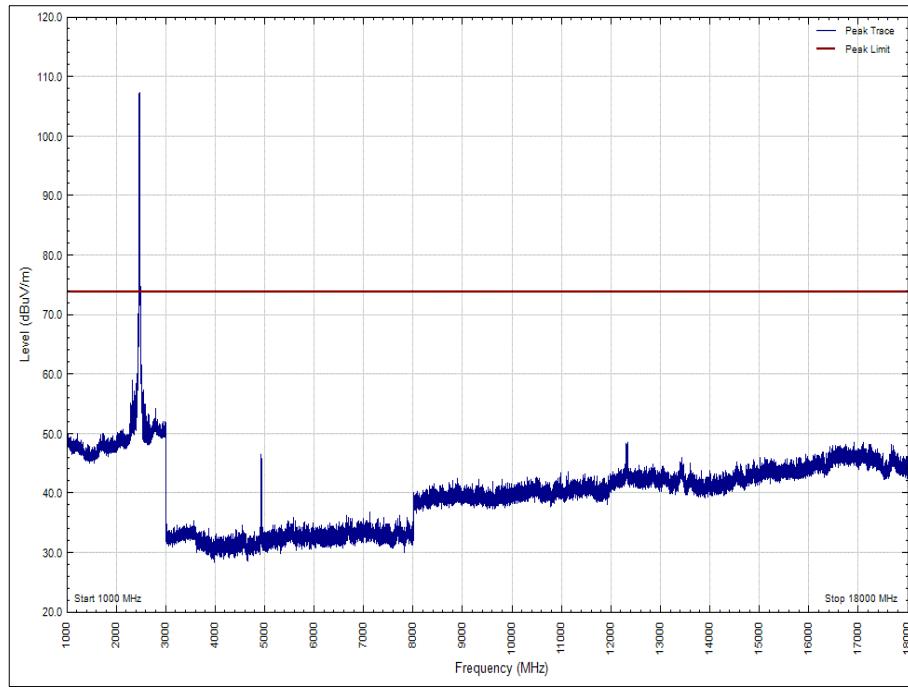


Figure 242 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

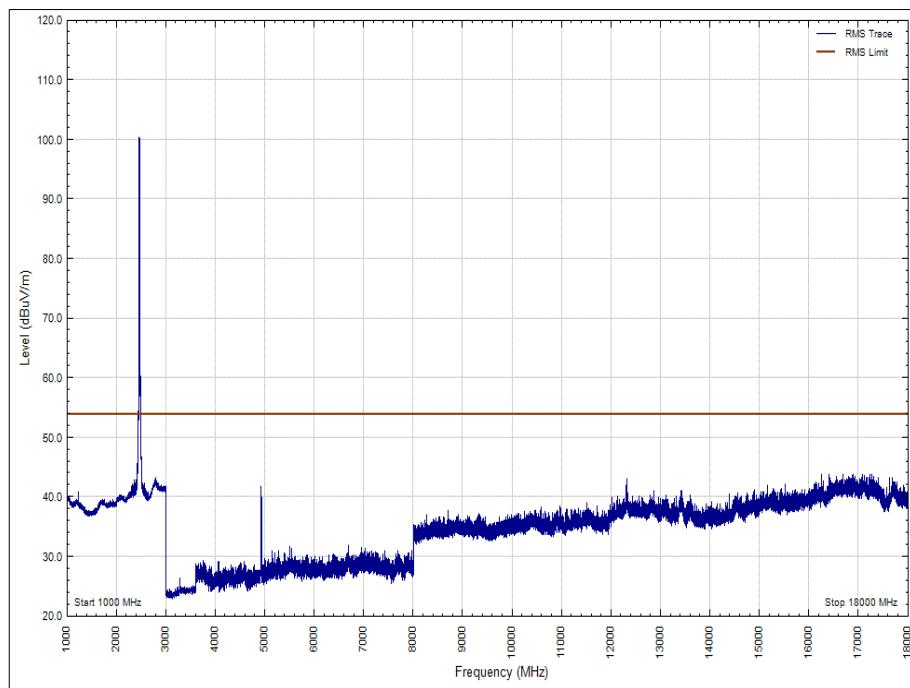


Figure 243 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

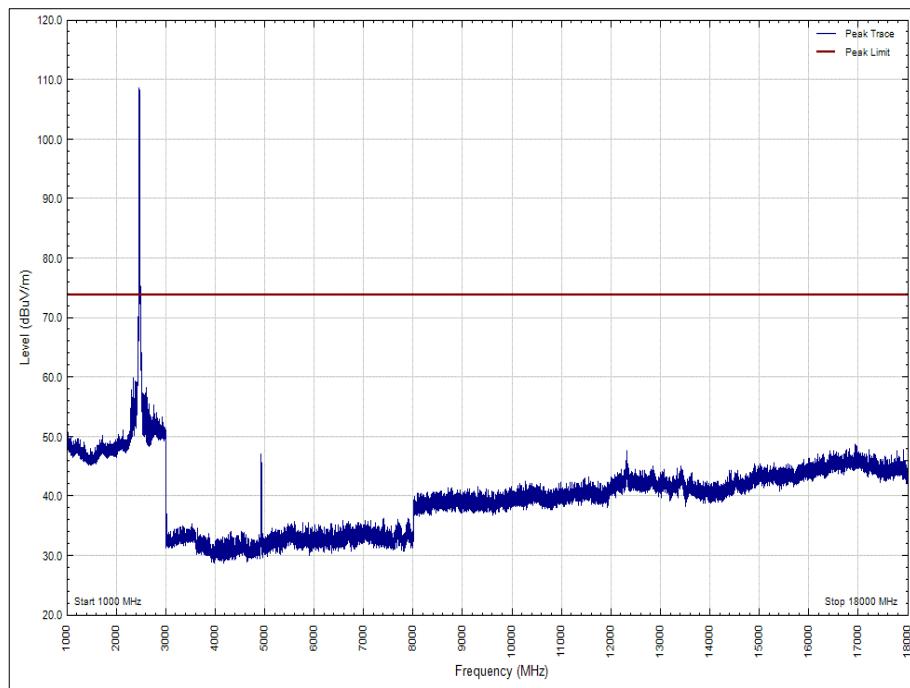


Figure 244 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

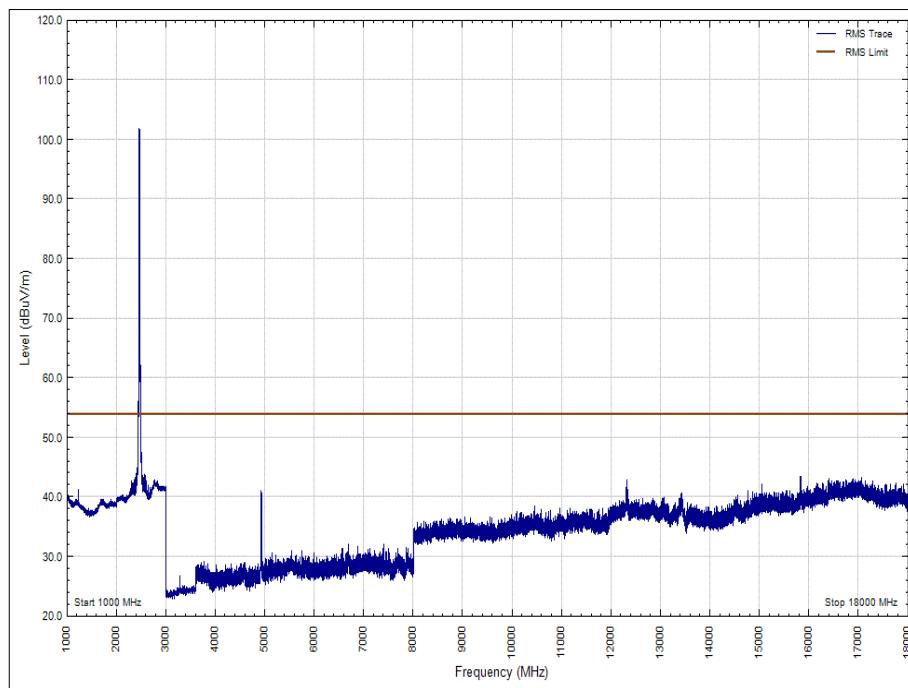


Figure 245 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

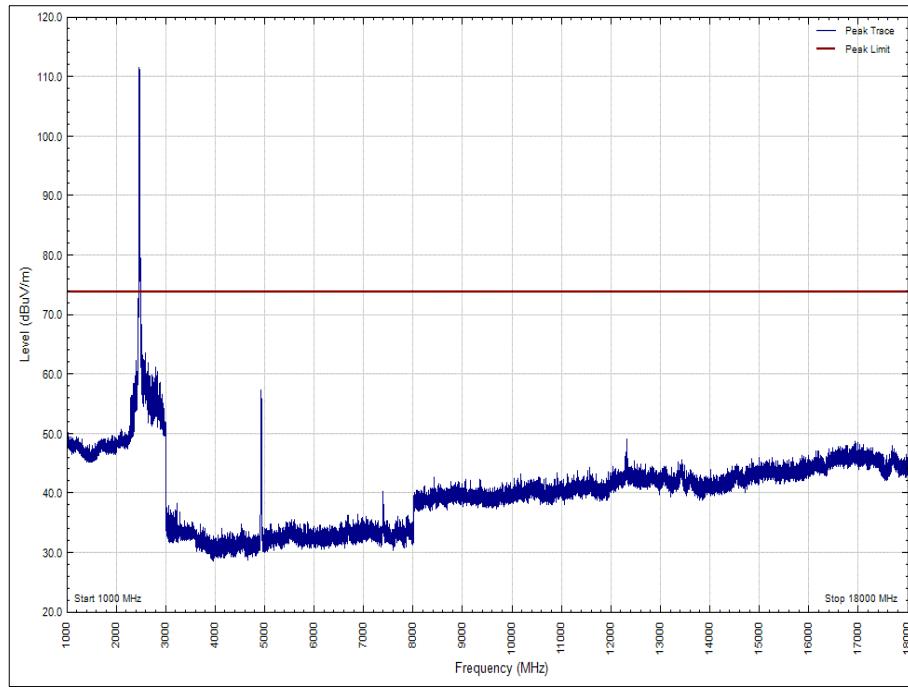


Figure 246 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

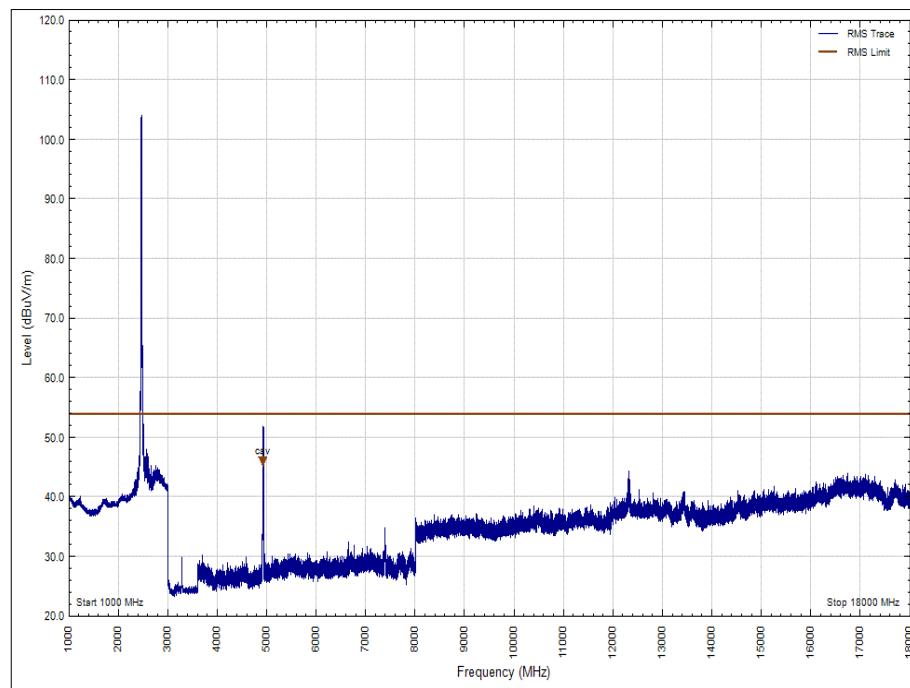


Figure 247 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average



Worst Case Carrier Power

Testing was performed on the Modulation Coding Scheme which resulted in the highest conducted output power. The Modulation Coding Scheme used during testing was MCS0. For configurations supporting multiple bandwidths, emission measurements were only made in the bandwidth with the highest conducted output power.

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 61 - Radiated Emissions Results, 30 MHz to 1 GHz - 2412 MHz

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

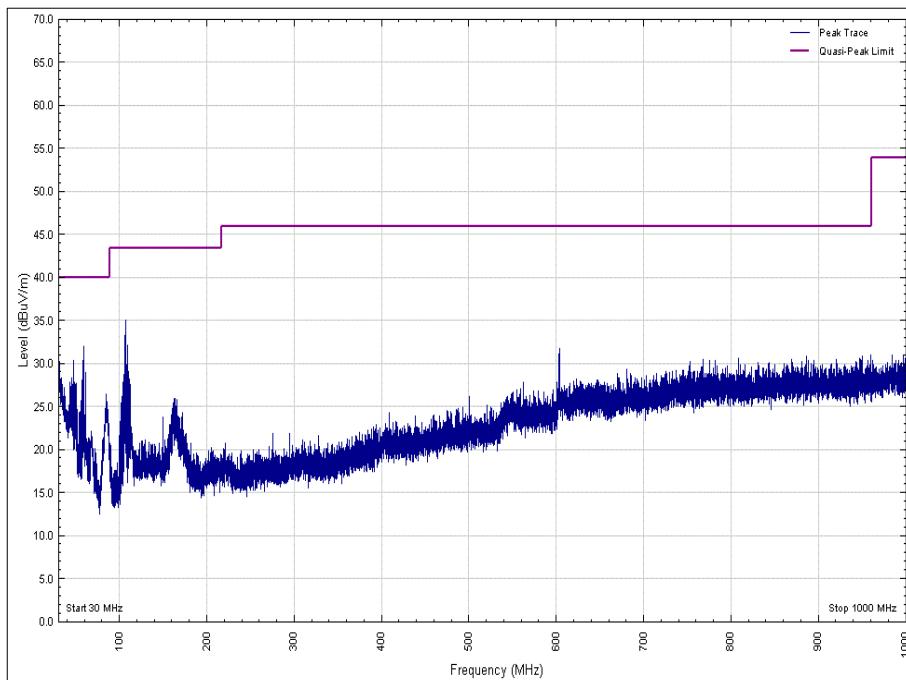


Figure 248 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation X

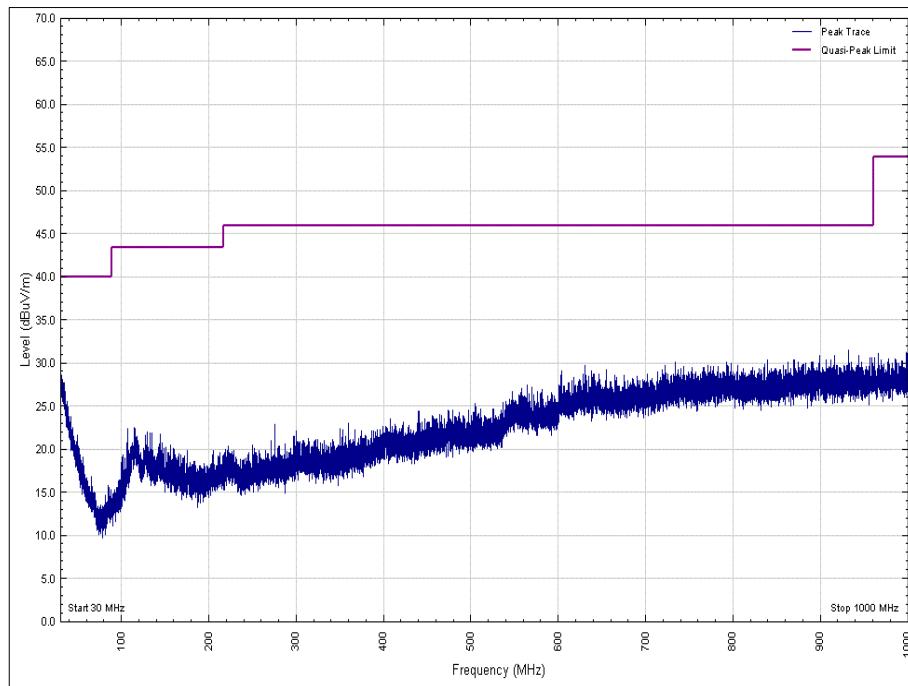


Figure 249 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation X

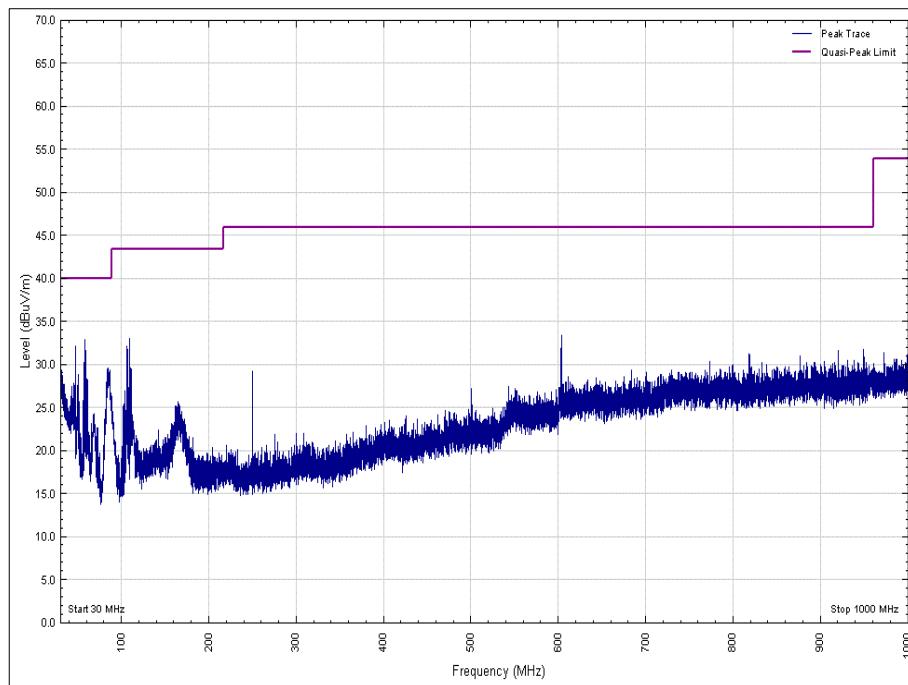


Figure 250 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation Y

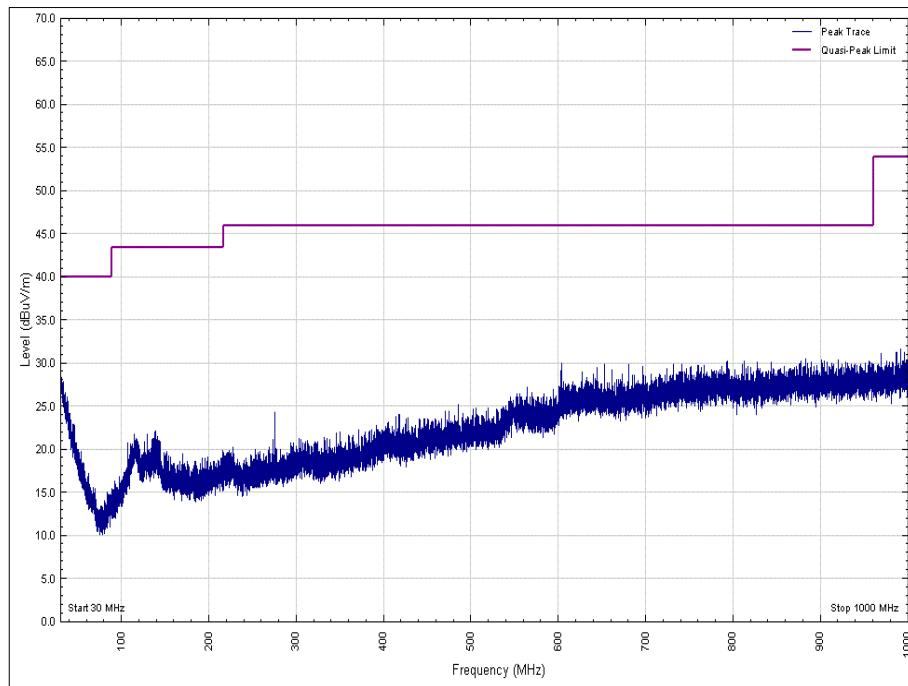


Figure 251 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation Y

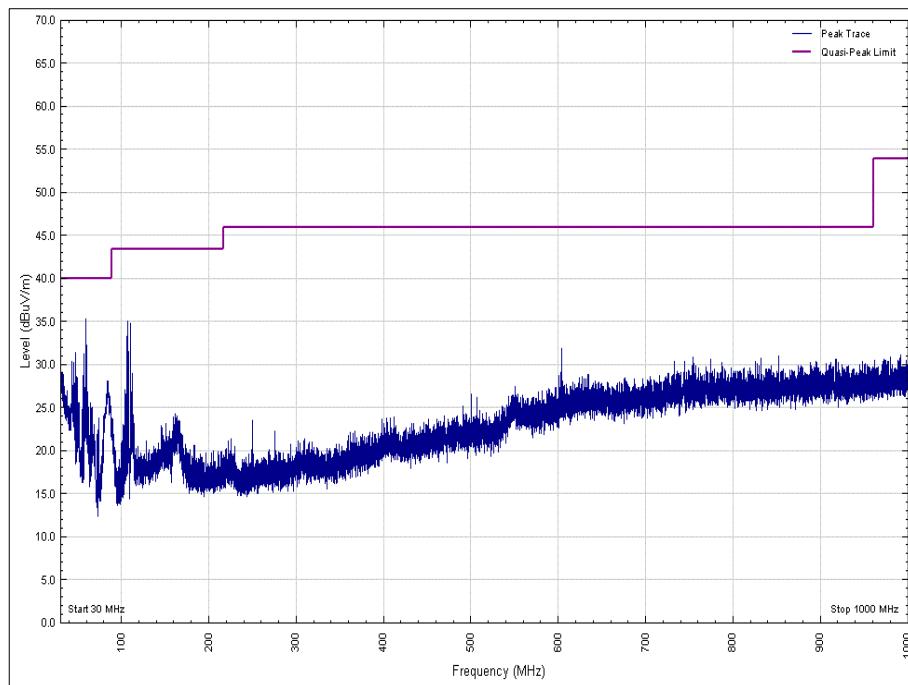


Figure 252 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Vertical, EUT Orientation Z

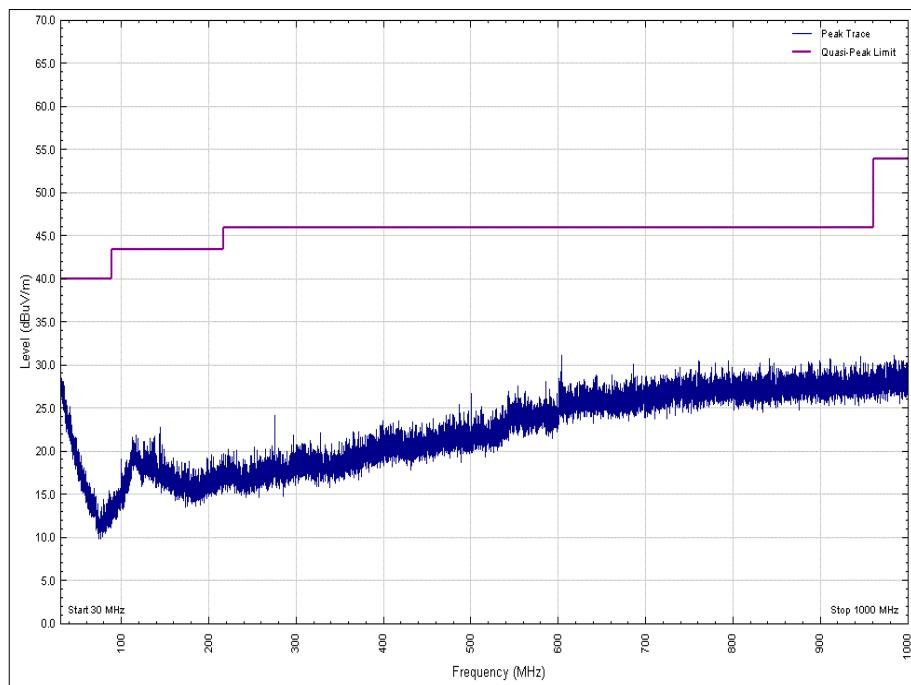


Figure 253 - 30 MHz to 1 GHz, 2412 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)	
	Peak	Average	Peak	Average	Peak	Average
4.822890	-	48.43	-	53.98	-	5.55

Table 62 - 2412 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

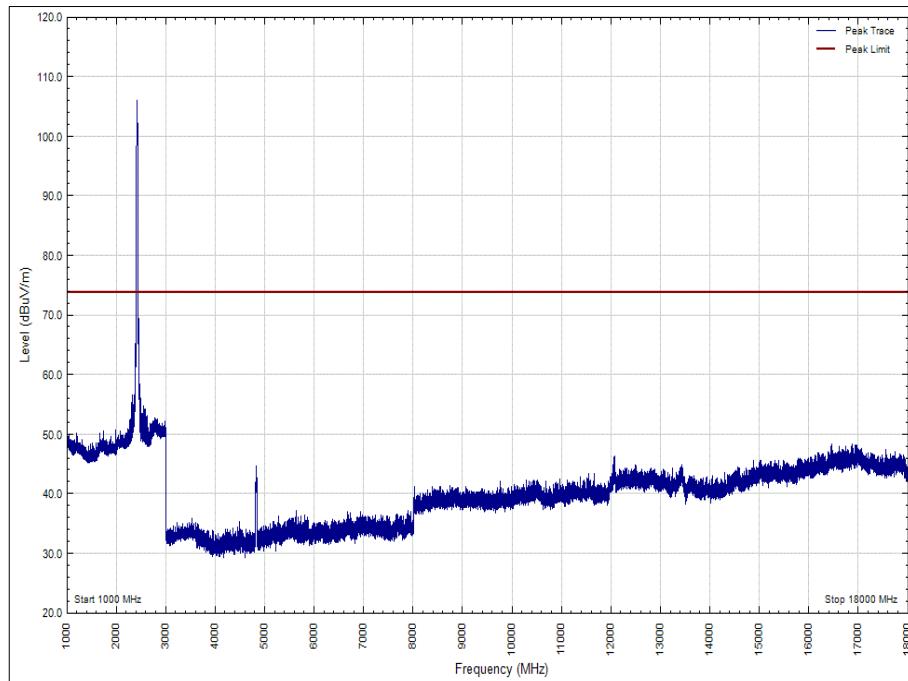


Figure 254 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

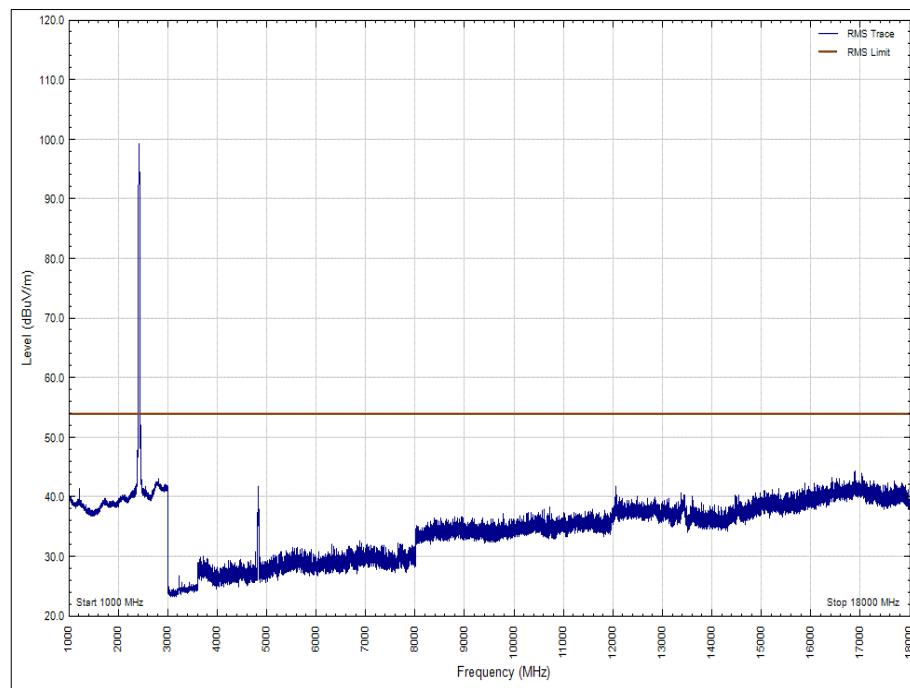


Figure 255 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

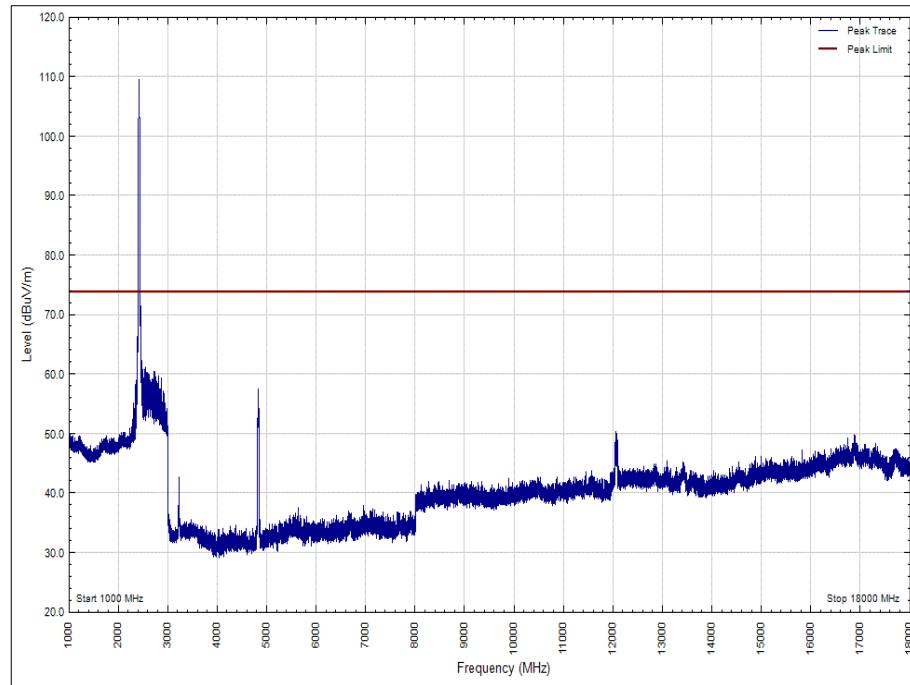


Figure 256 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

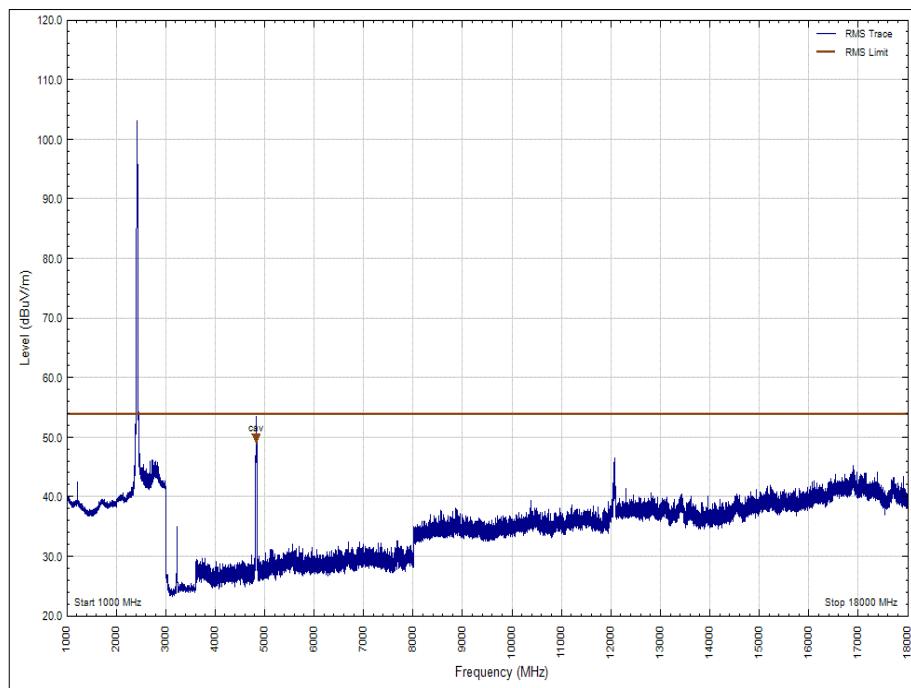


Figure 257 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

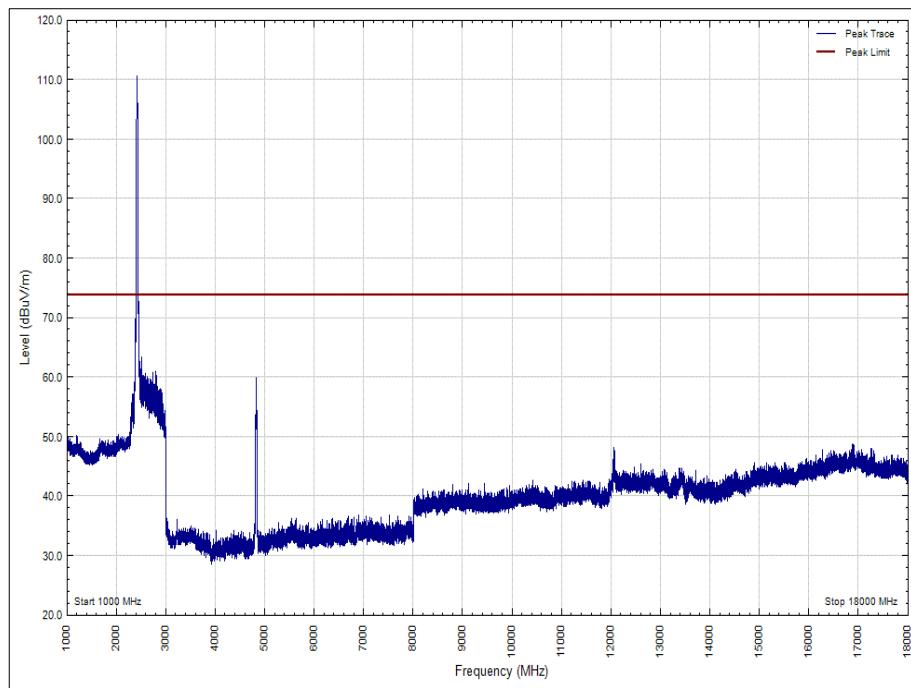


Figure 258 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

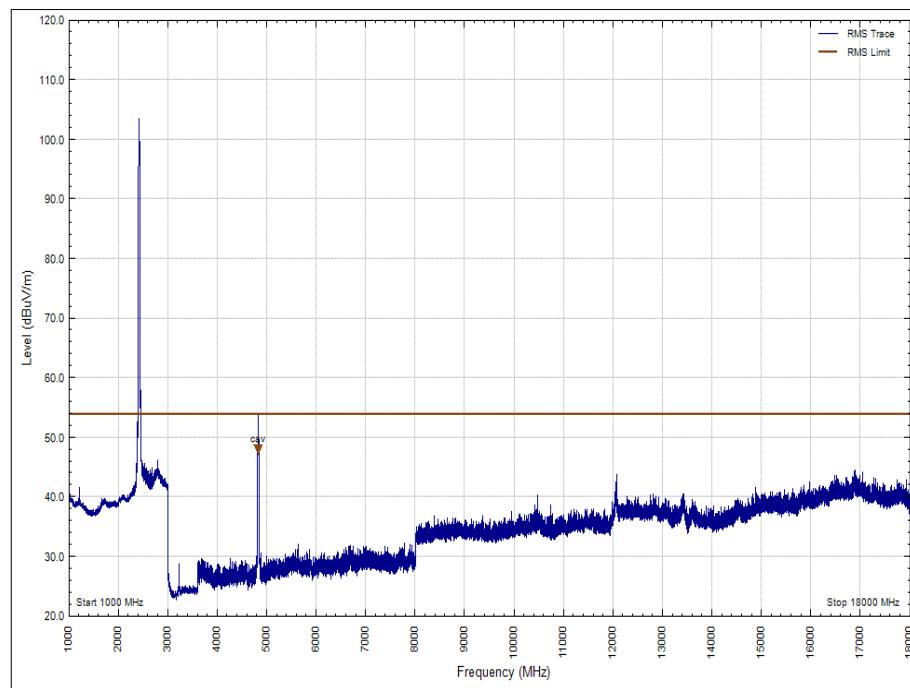


Figure 259 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

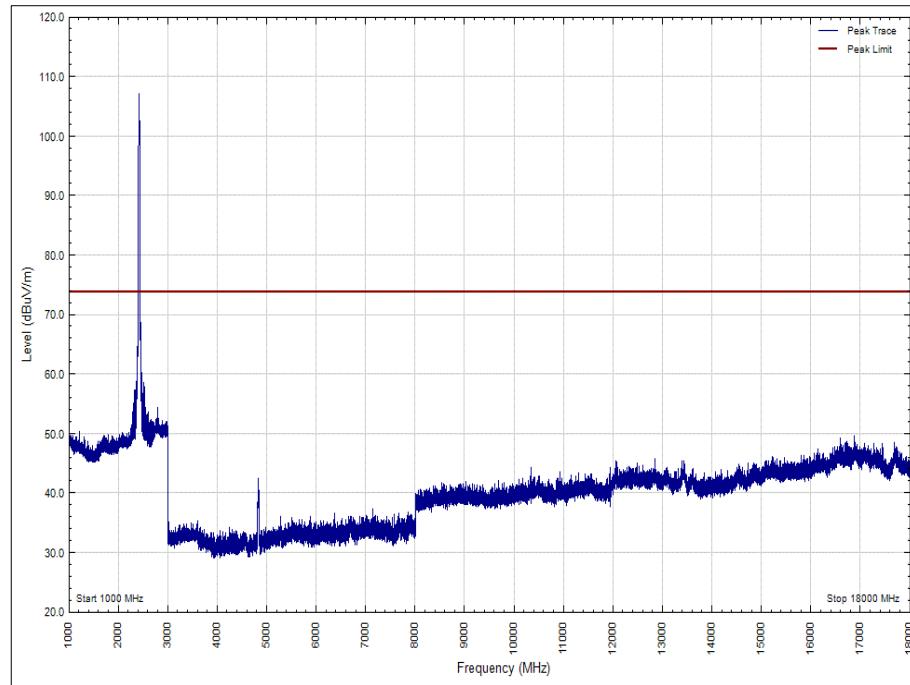


Figure 260 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

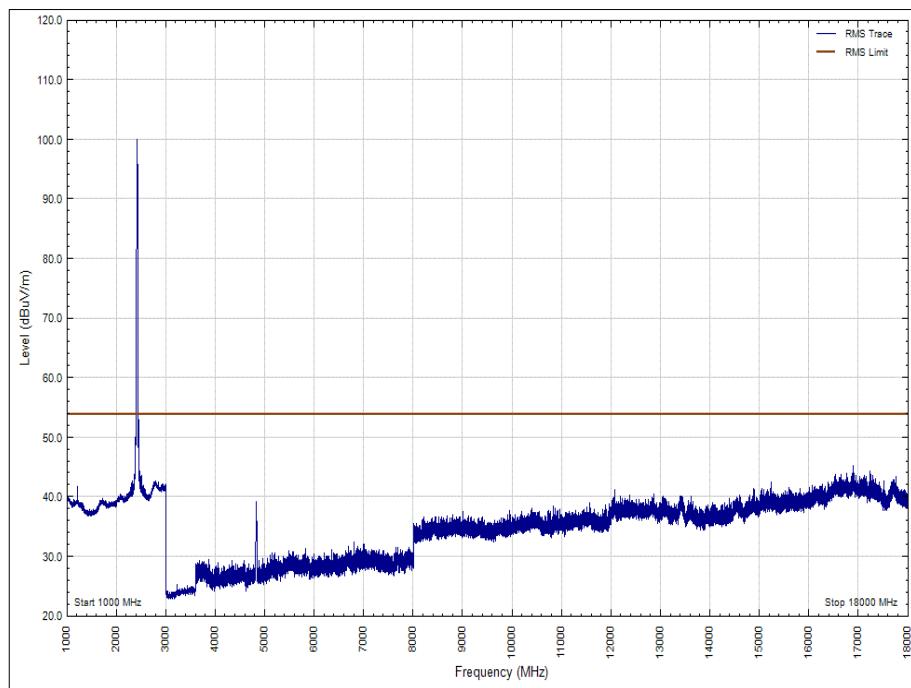


Figure 261 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

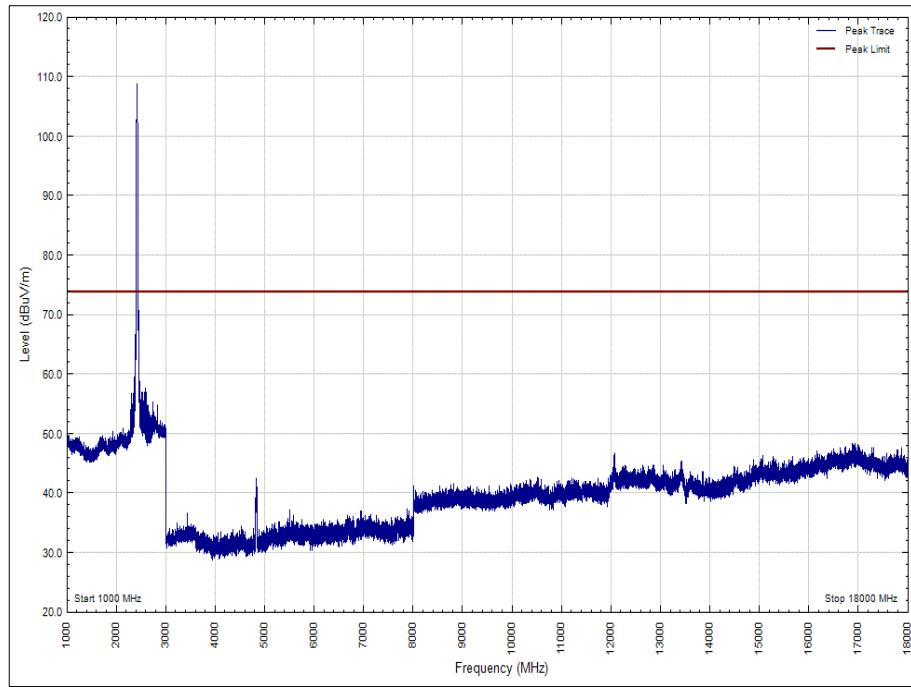


Figure 262 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

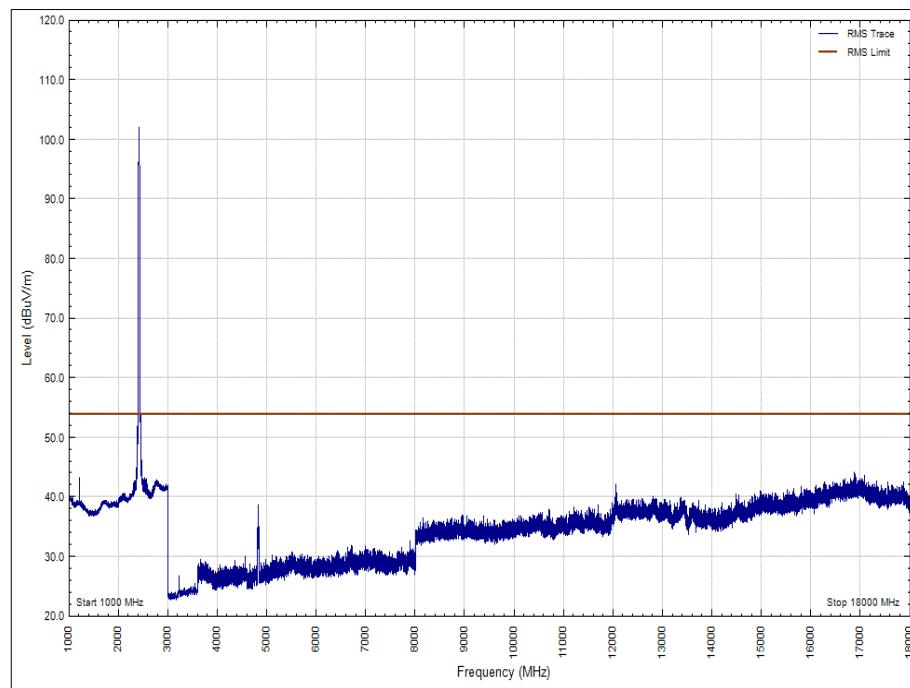


Figure 263 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

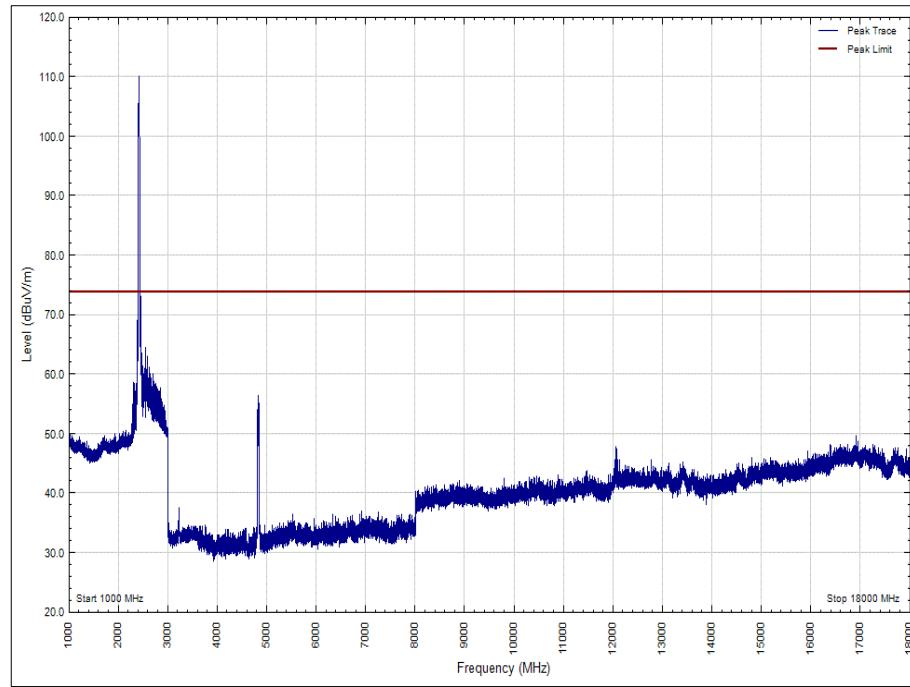


Figure 264 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

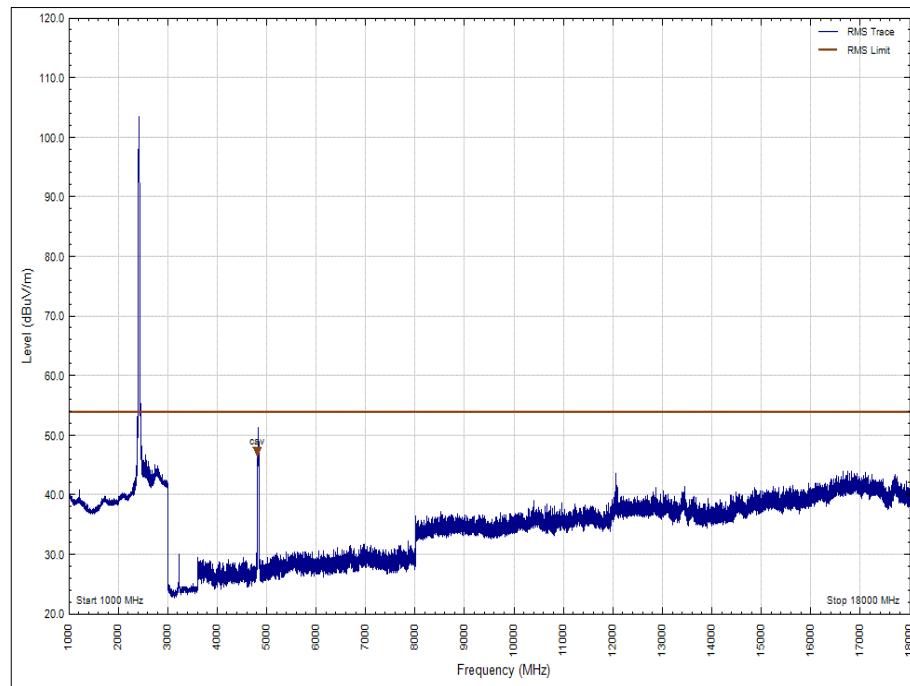


Figure 265 - 2412 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 63 - Radiated Emissions Results, 30 MHz to 1 GHz - 2437 MHz

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

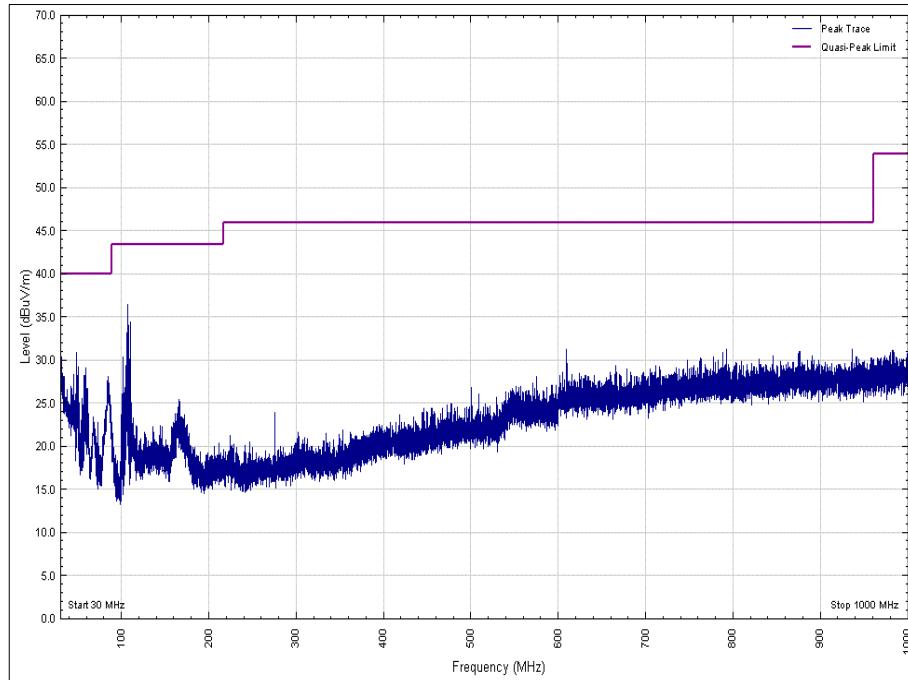


Figure 266 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation X

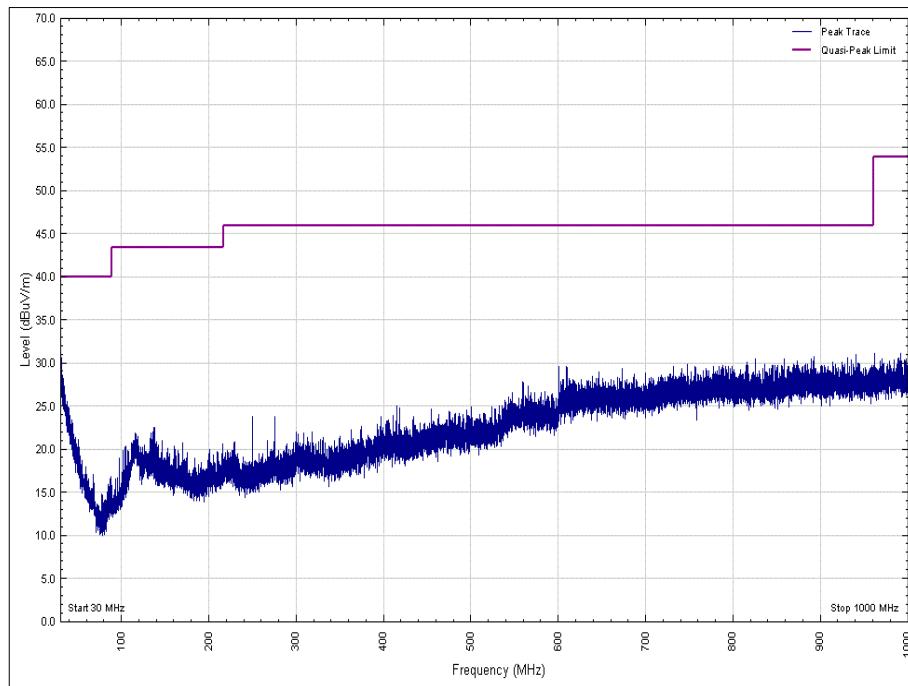


Figure 267 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation X

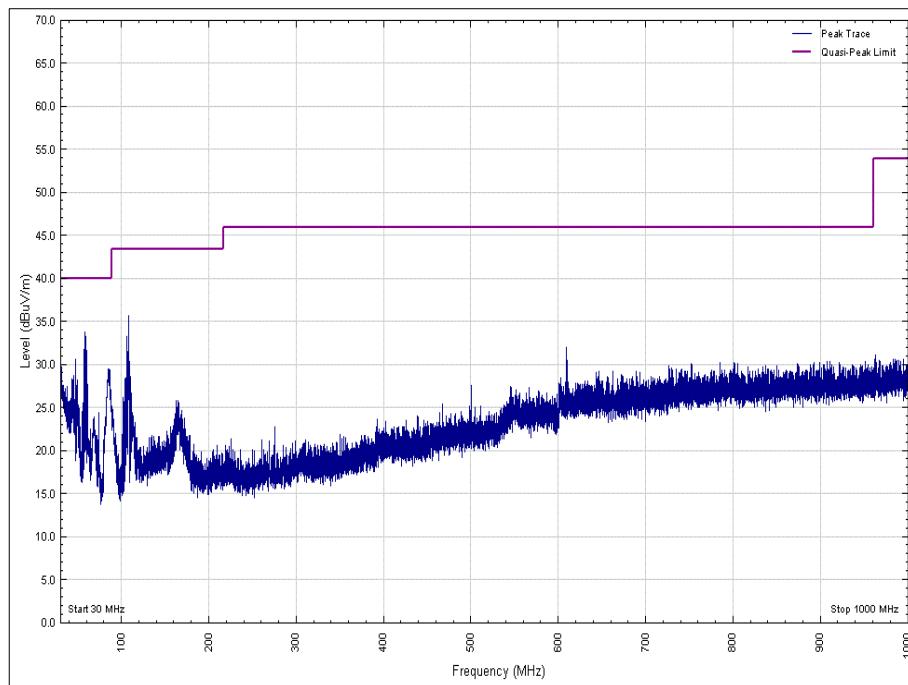


Figure 268 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation Y

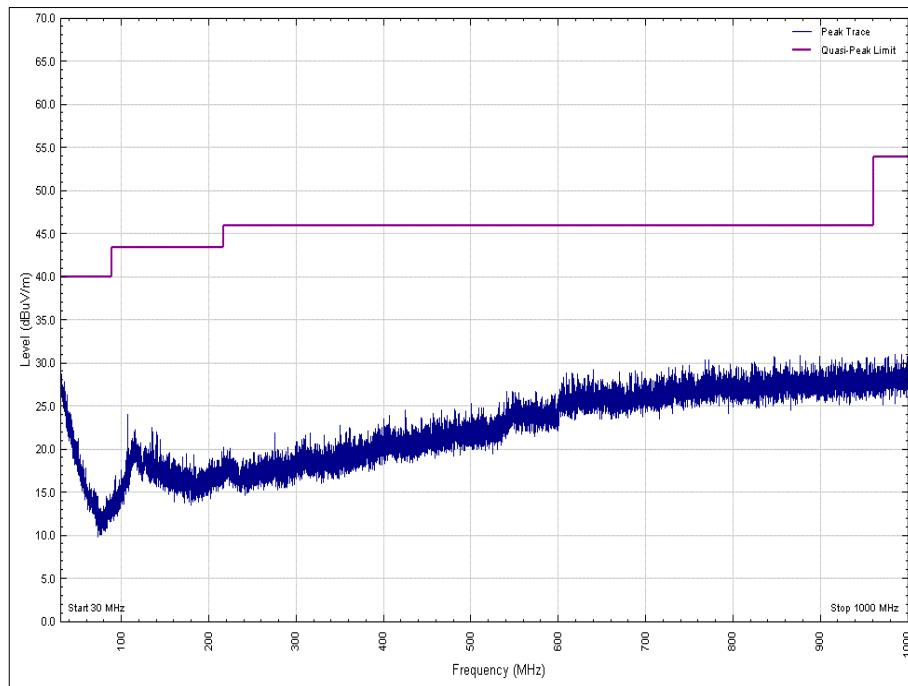


Figure 269 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation Y

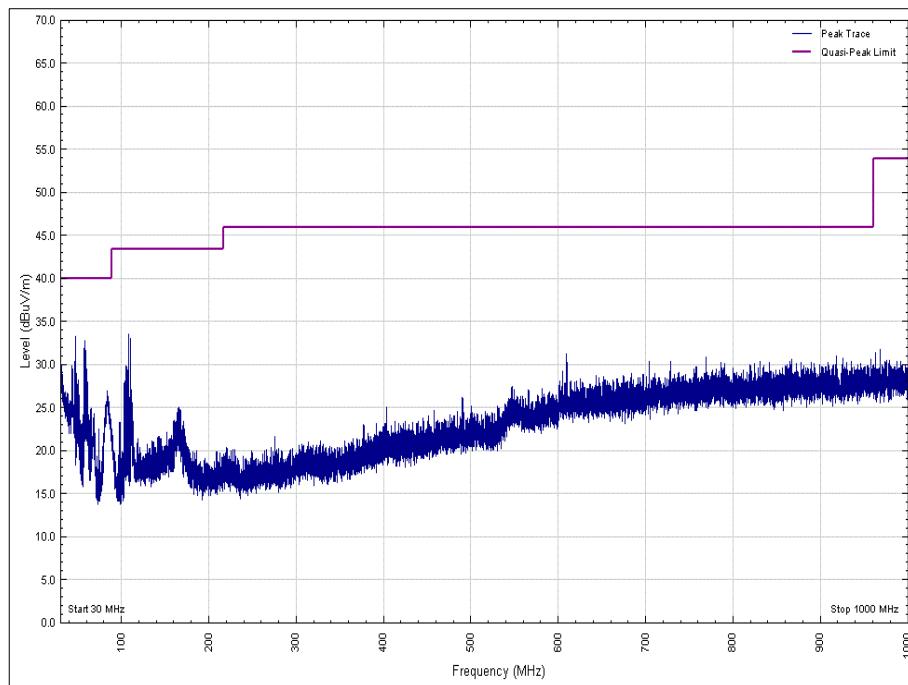


Figure 270 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Vertical, EUT Orientation Z

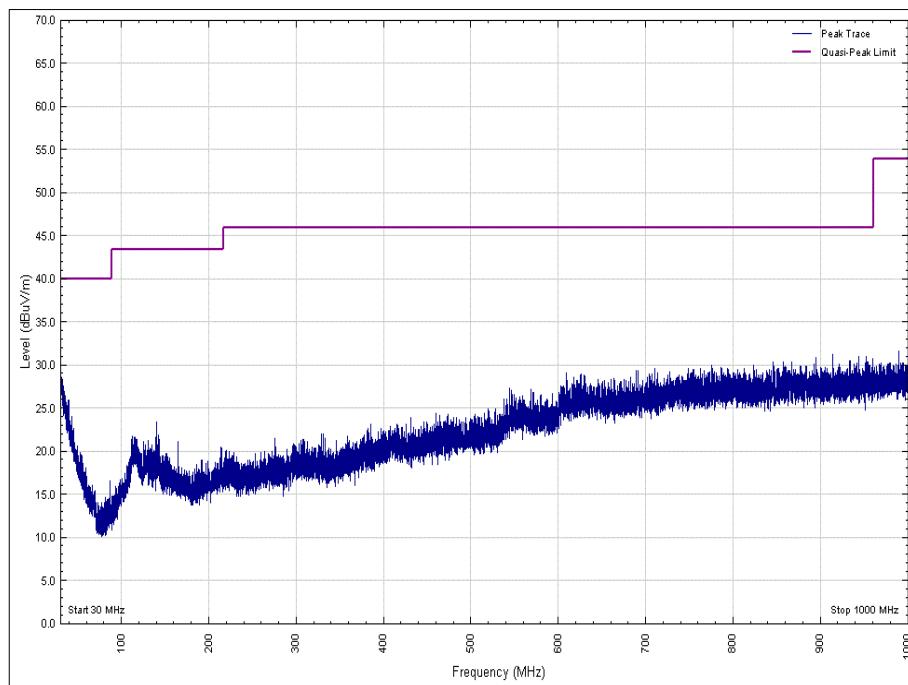


Figure 271 - 30 MHz to 1 GHz, 2437 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
4.870570	-	45.10	-	53.98	-	8.88

Table 64 - 2437 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

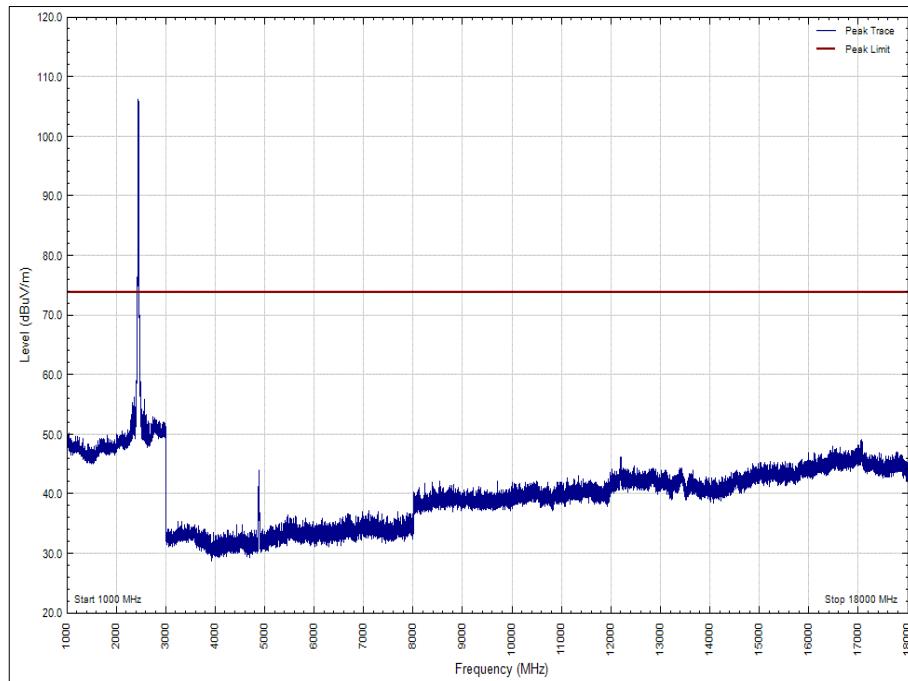


Figure 272 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

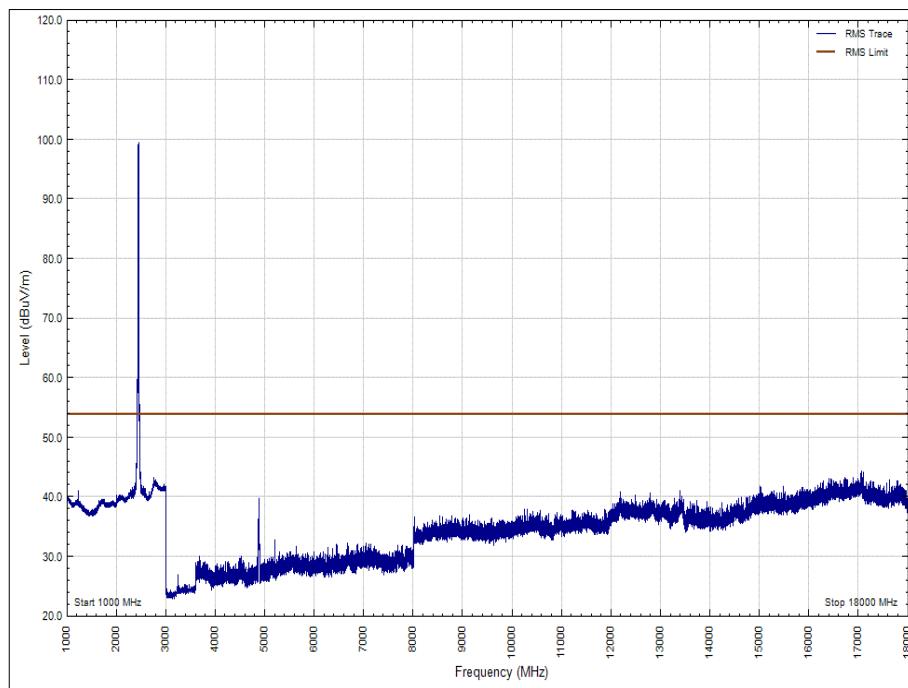


Figure 273 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

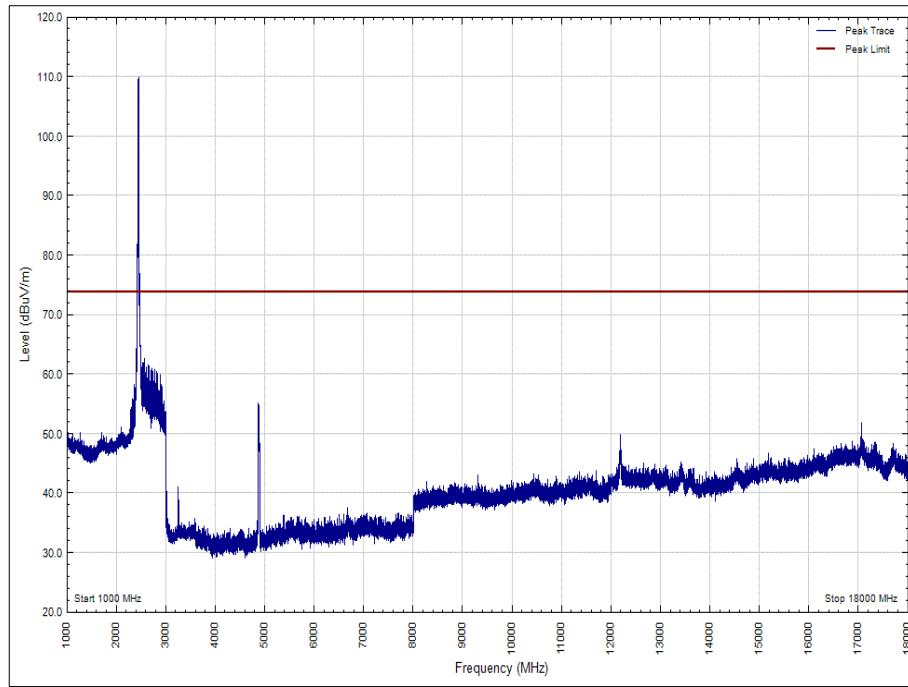


Figure 274 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

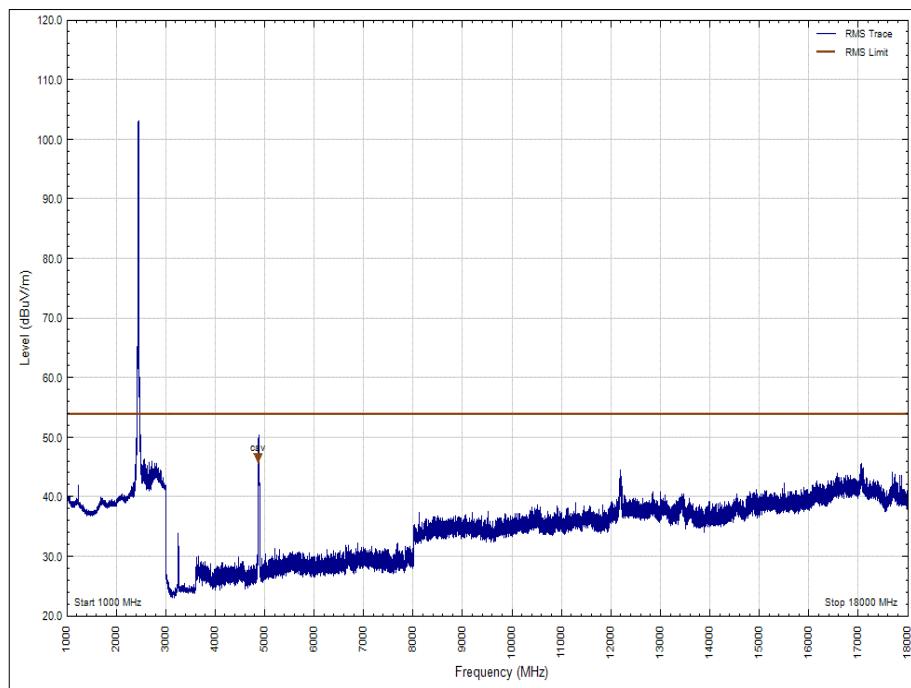


Figure 275 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

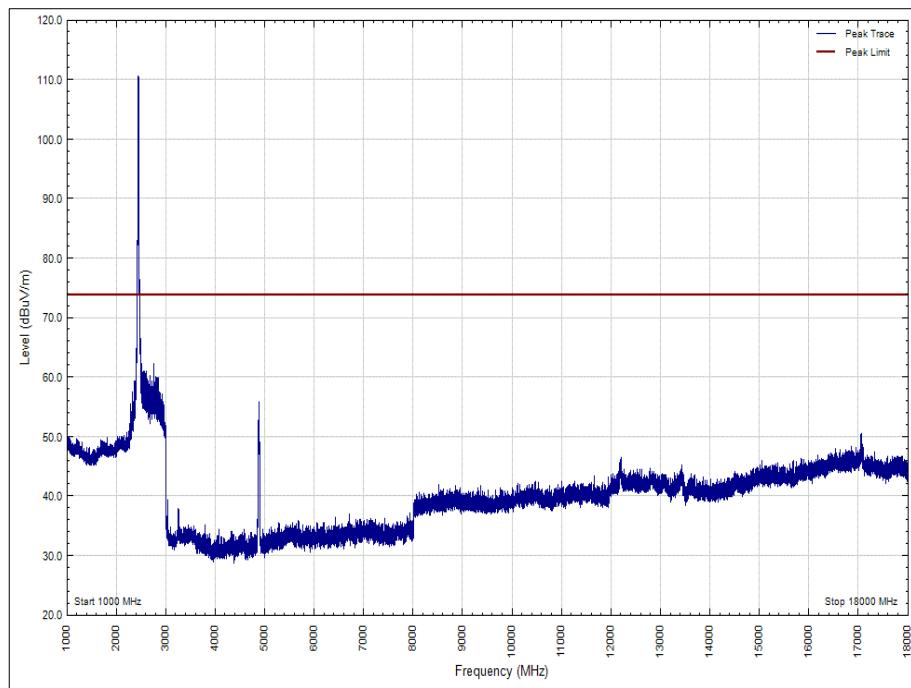


Figure 276 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

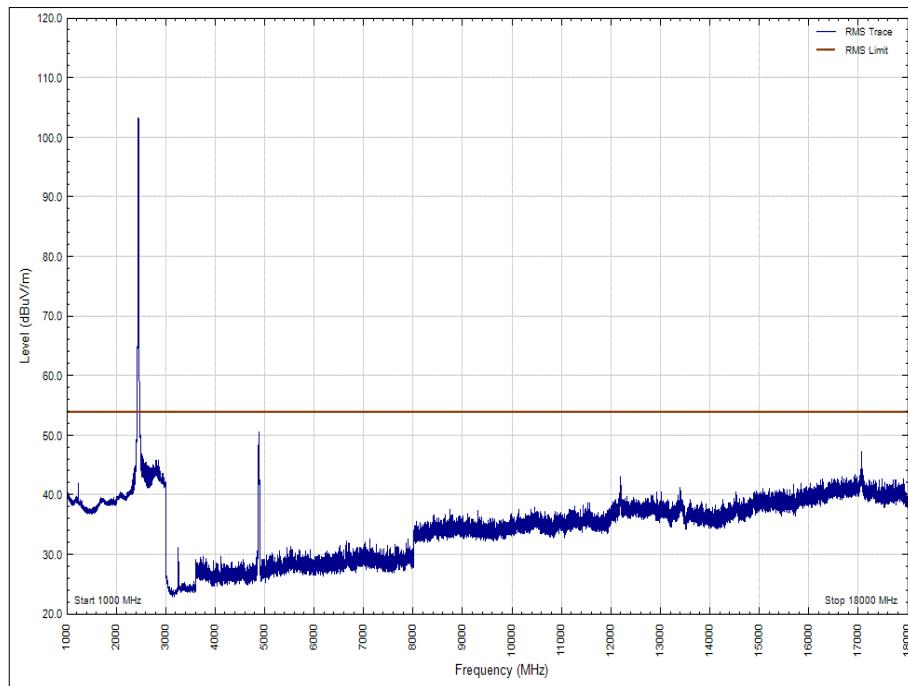


Figure 277 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

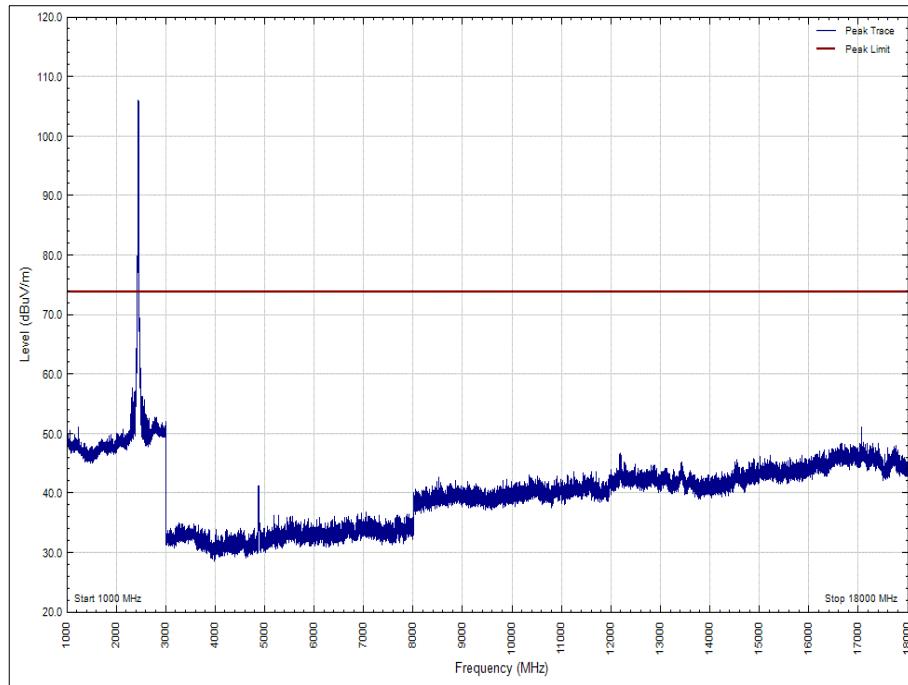


Figure 278 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

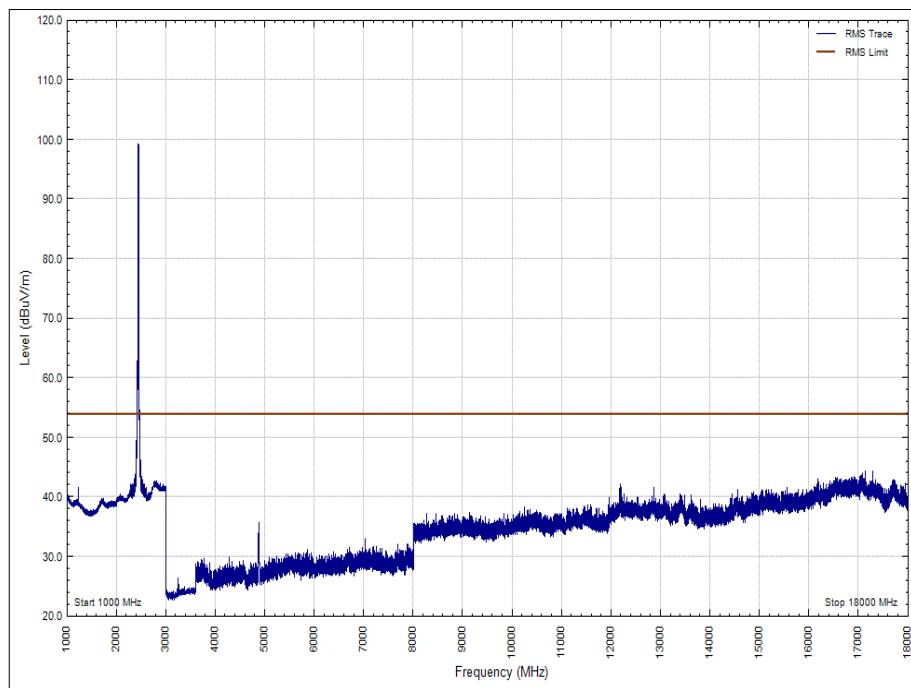


Figure 279 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

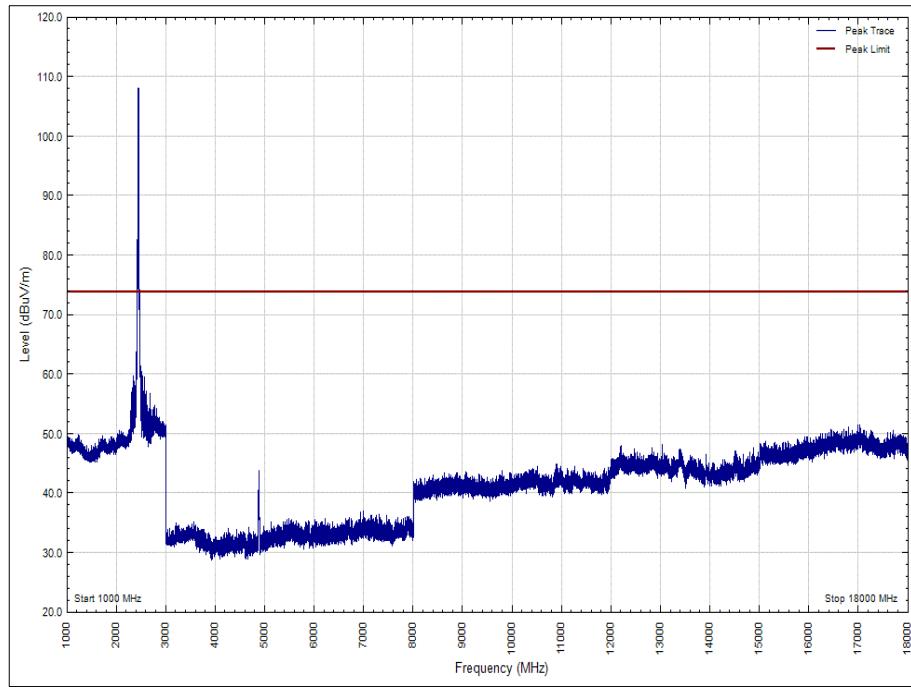


Figure 280 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

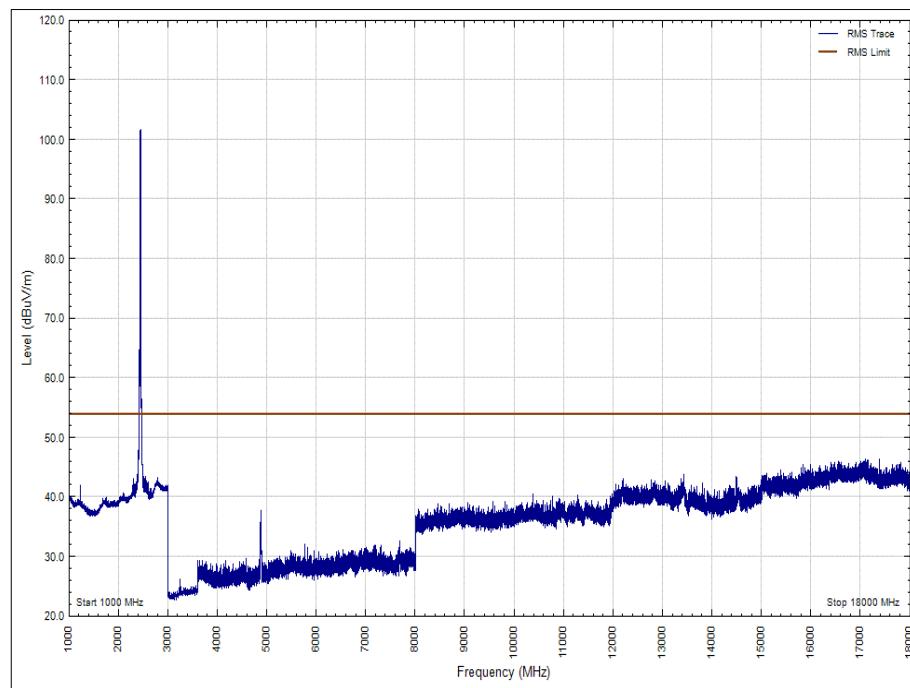


Figure 281 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

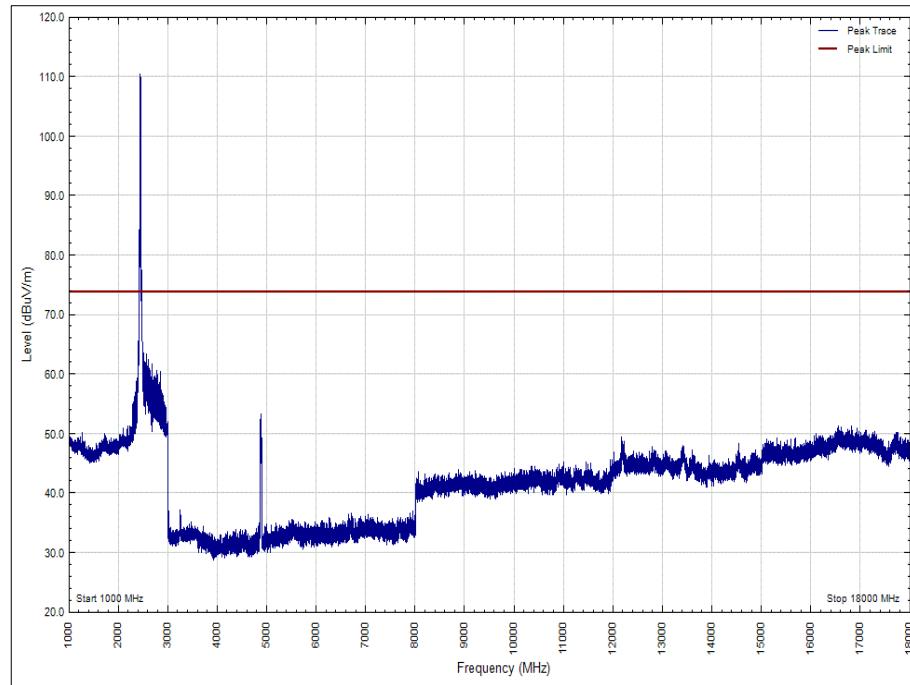


Figure 282 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

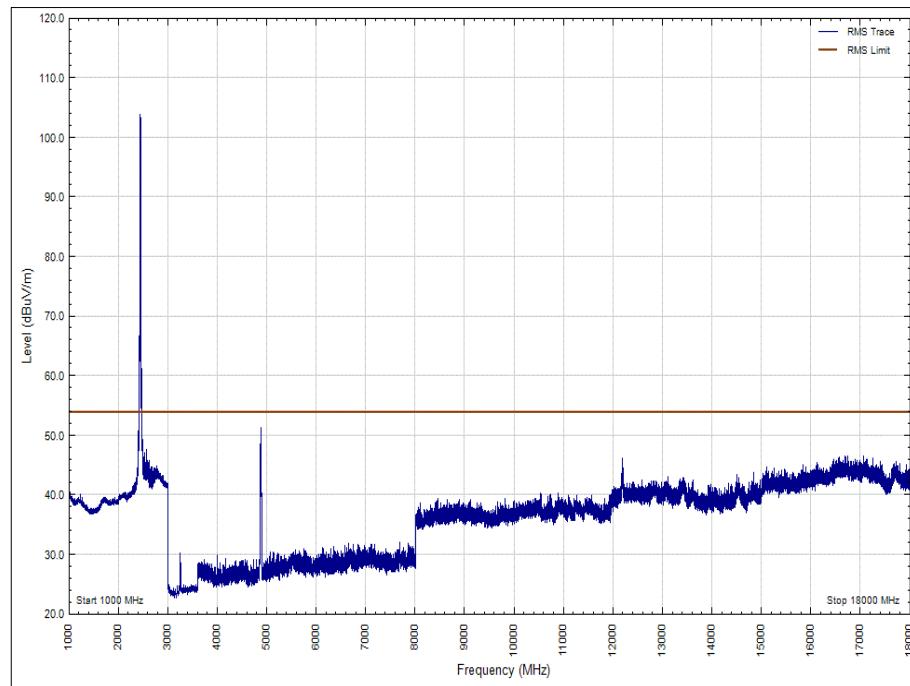


Figure 283 - 2437 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 65 - Radiated Emissions Results, 30 MHz to 1 GHz - 2462 MHz

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

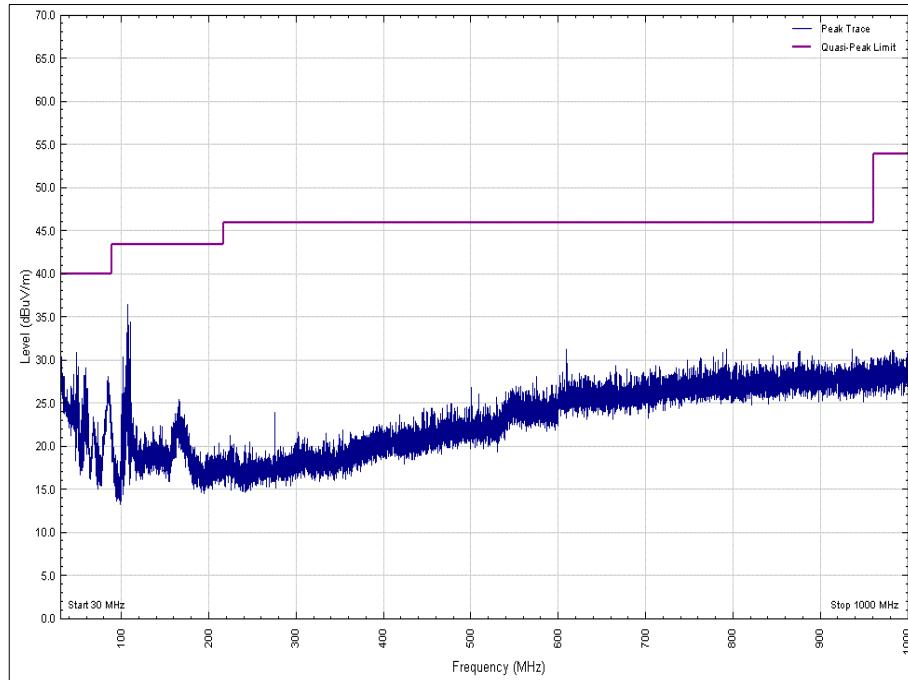


Figure 284 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation X

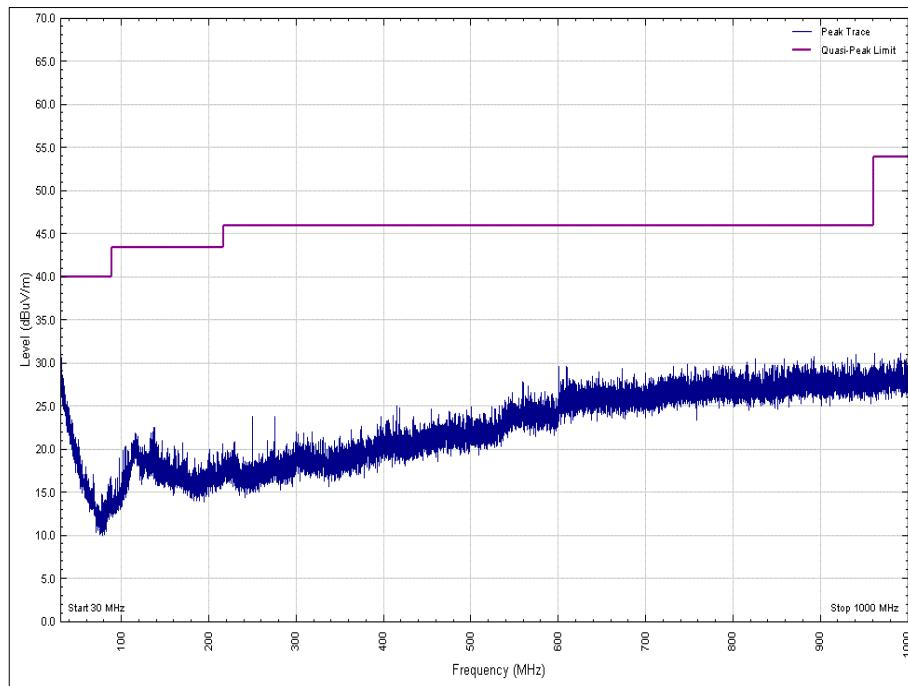


Figure 285 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation X

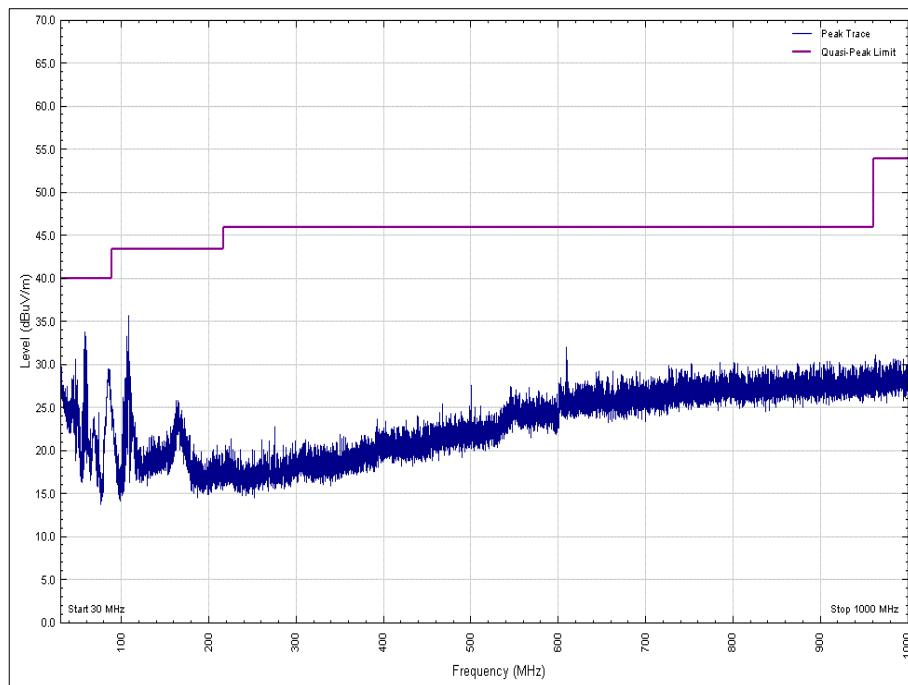


Figure 286 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation Y

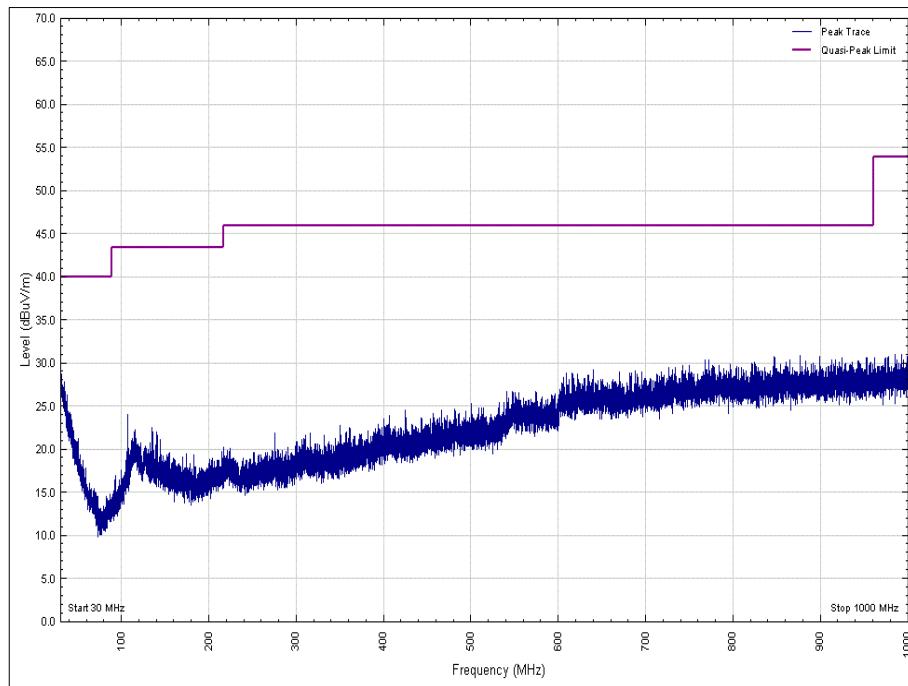


Figure 287 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation Y

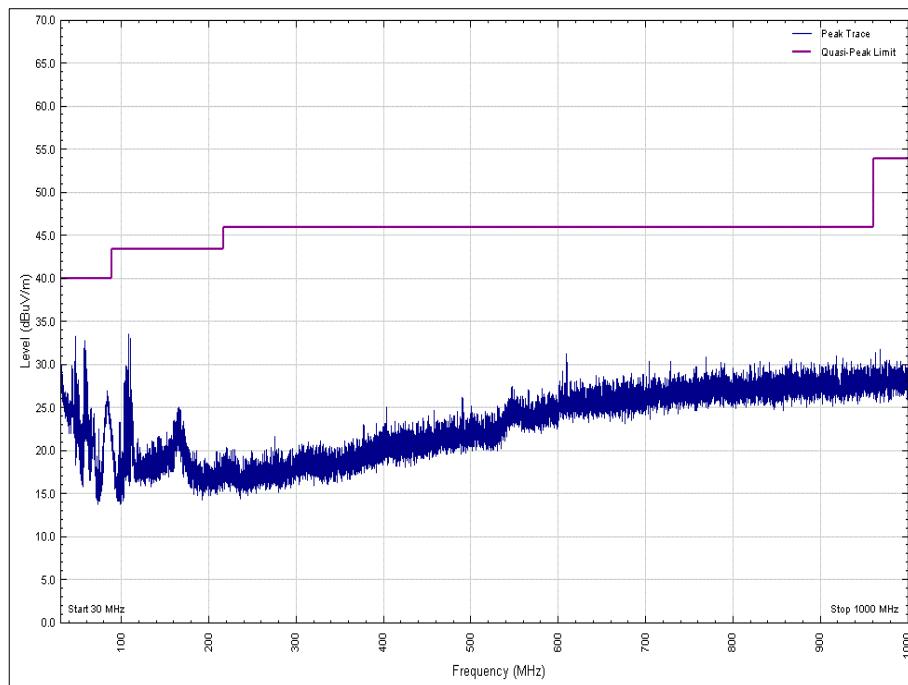


Figure 288 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Vertical, EUT Orientation Z

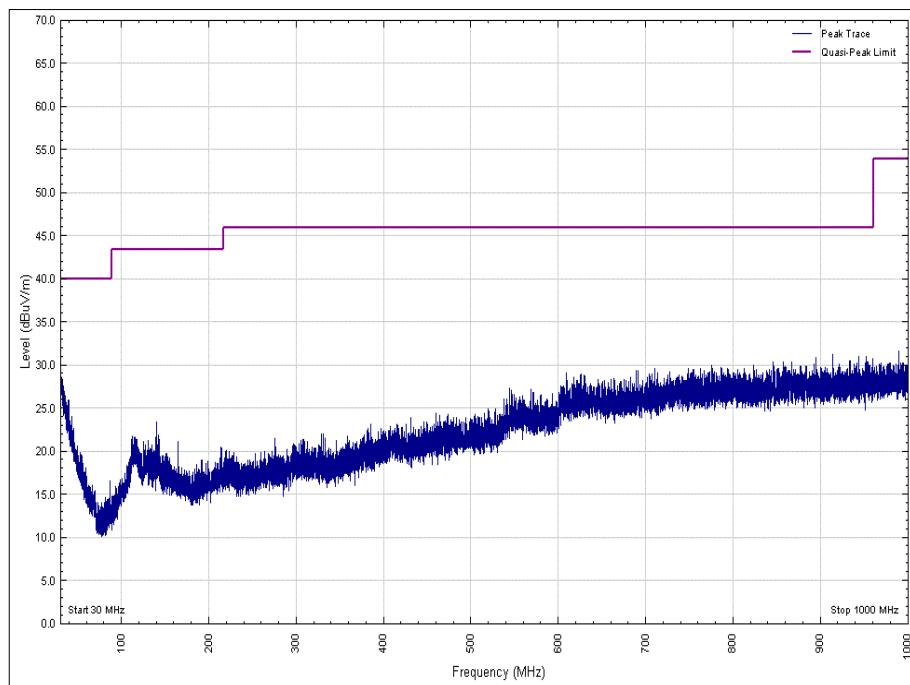


Figure 289 - 30 MHz to 1 GHz, 2462 MHz, Polarity: Horizontal, EUT Orientation Z

Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
*						

Table 66 - 2462 MHz - 1 GHz to 25 GHz Emissions Results

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

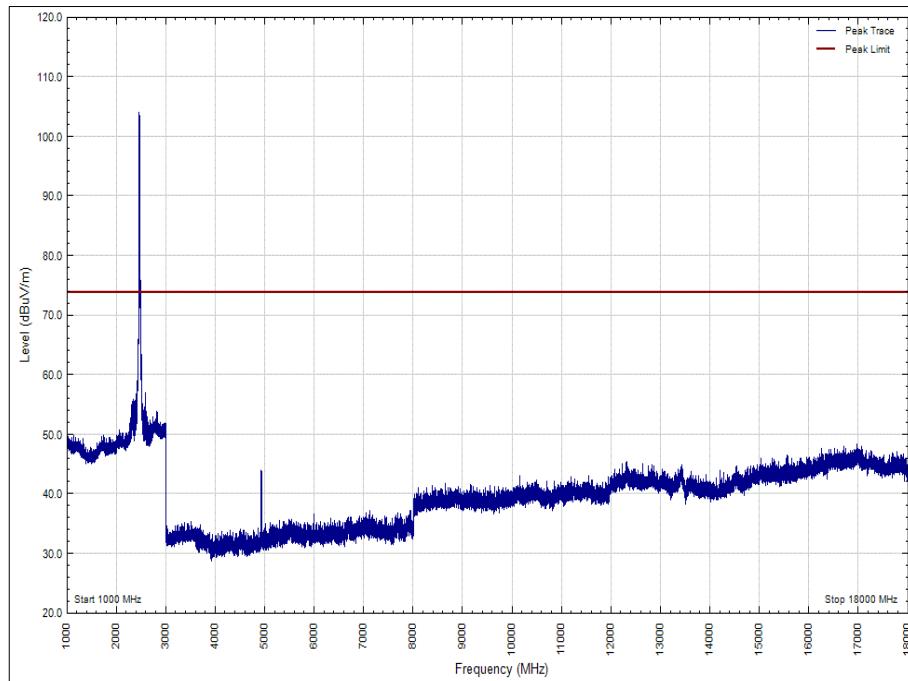


Figure 290 – 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Peak

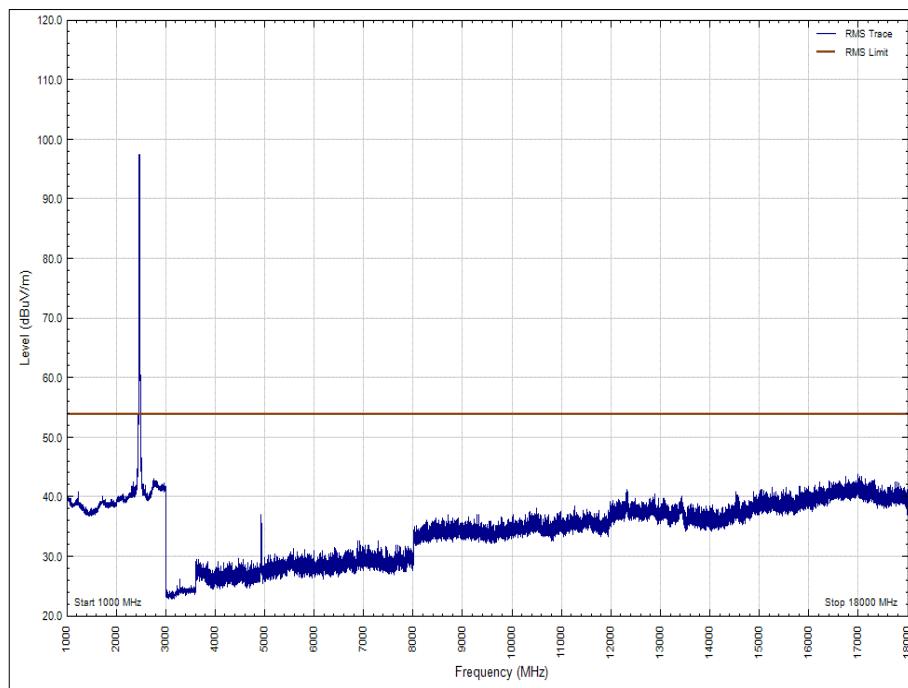


Figure 291 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: X, Average

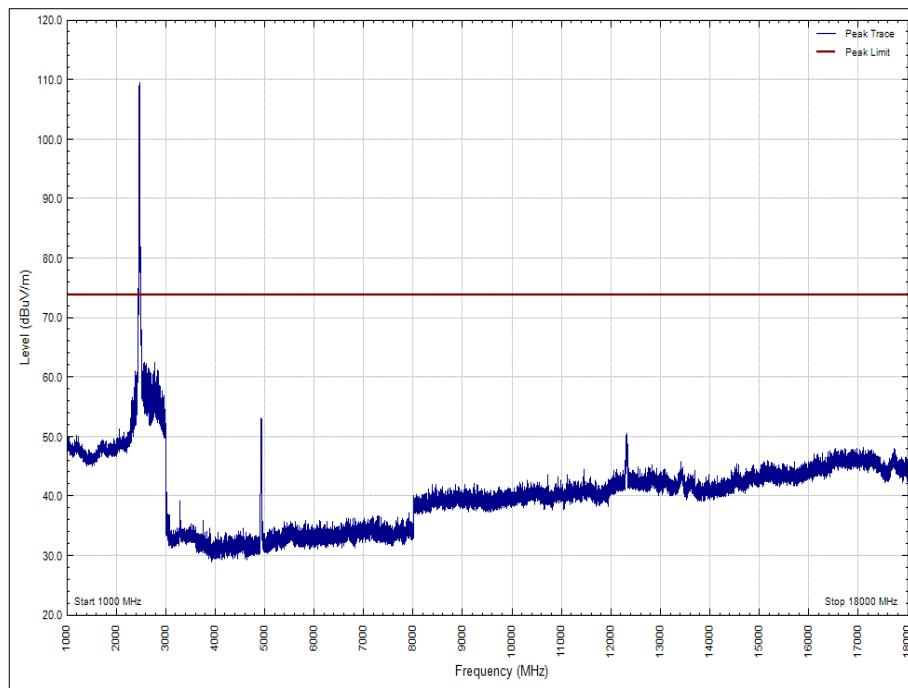


Figure 292 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

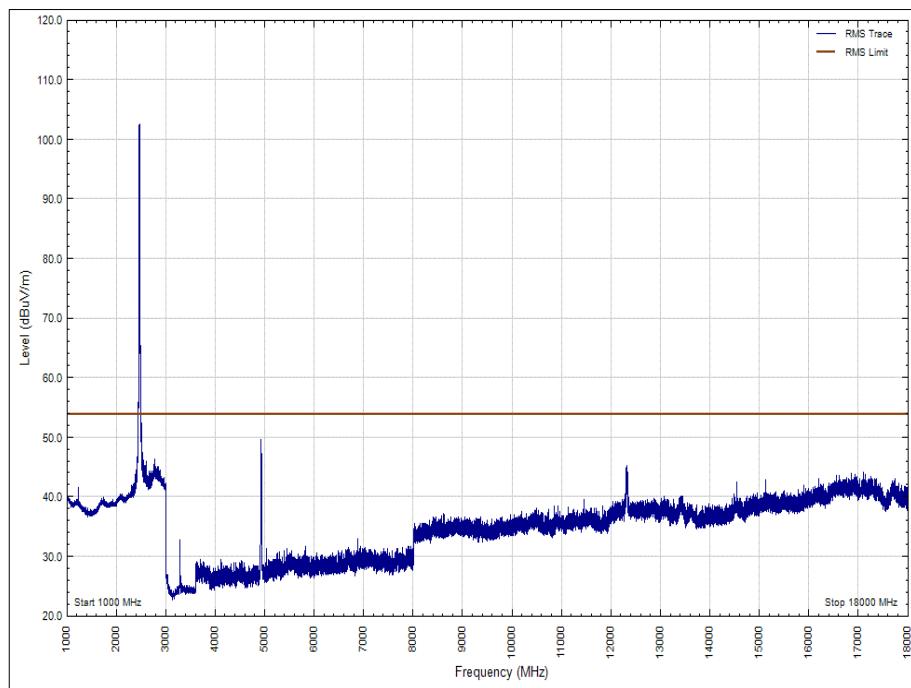


Figure 293 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: X, Average

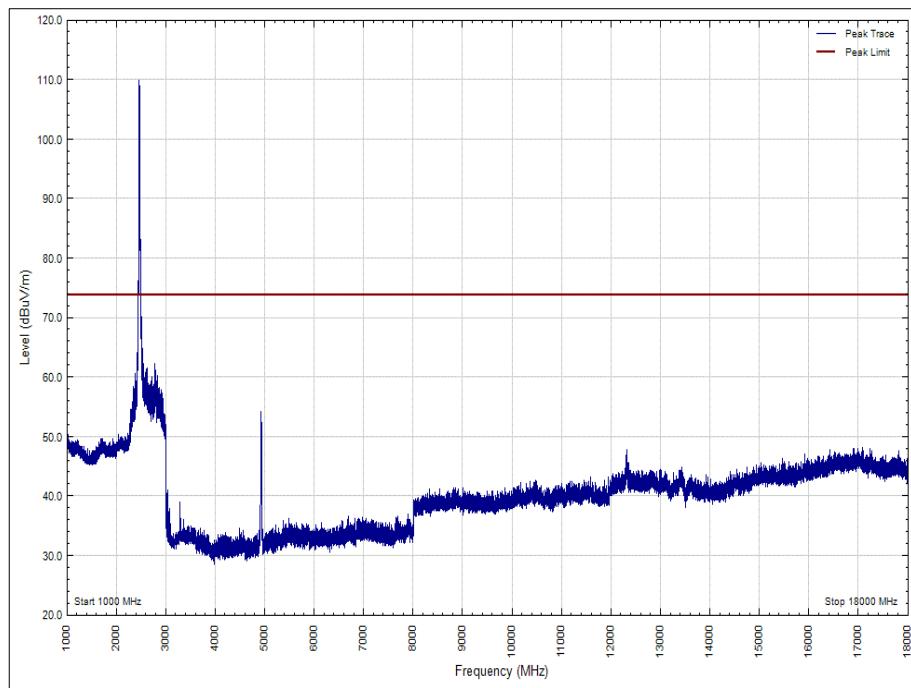


Figure 294 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

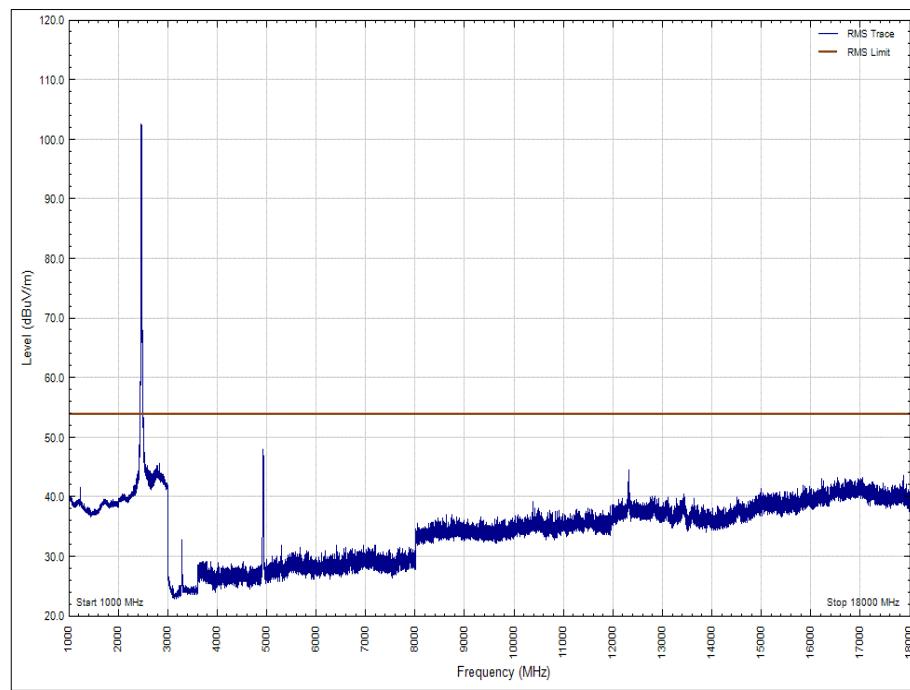


Figure 295 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Y, Average

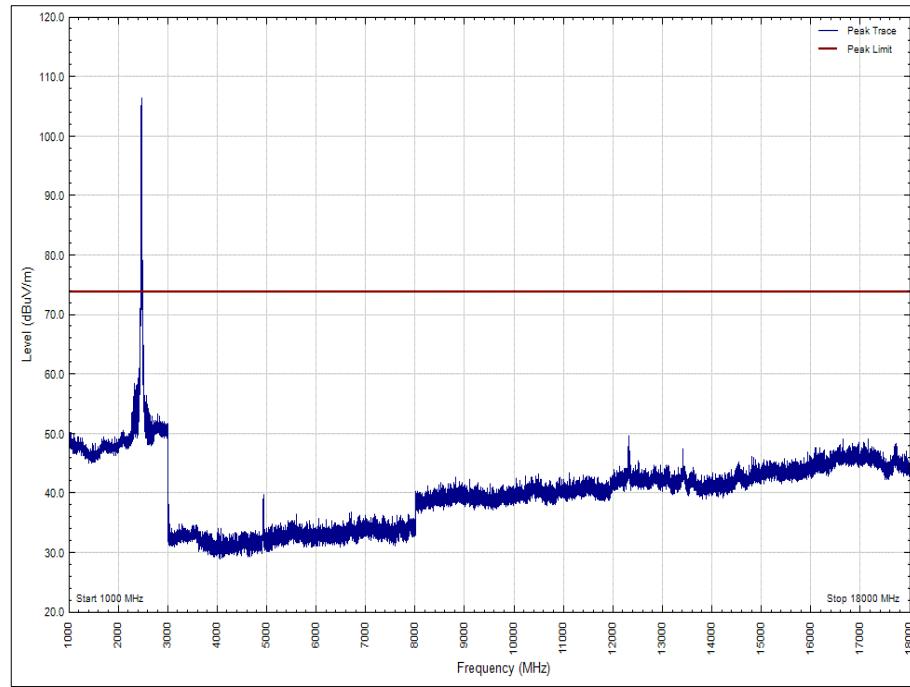


Figure 296 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

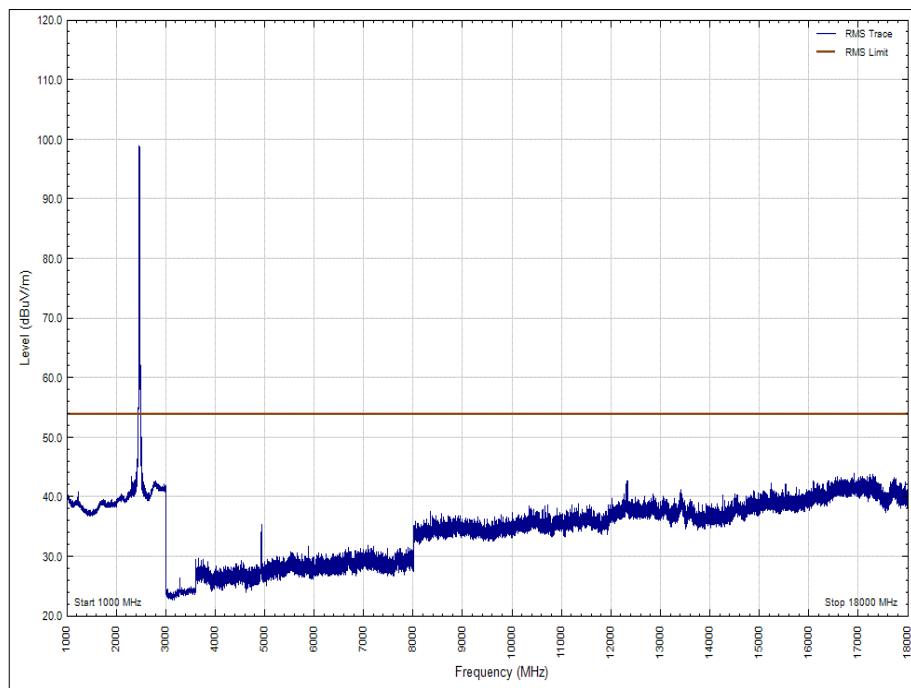


Figure 297 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

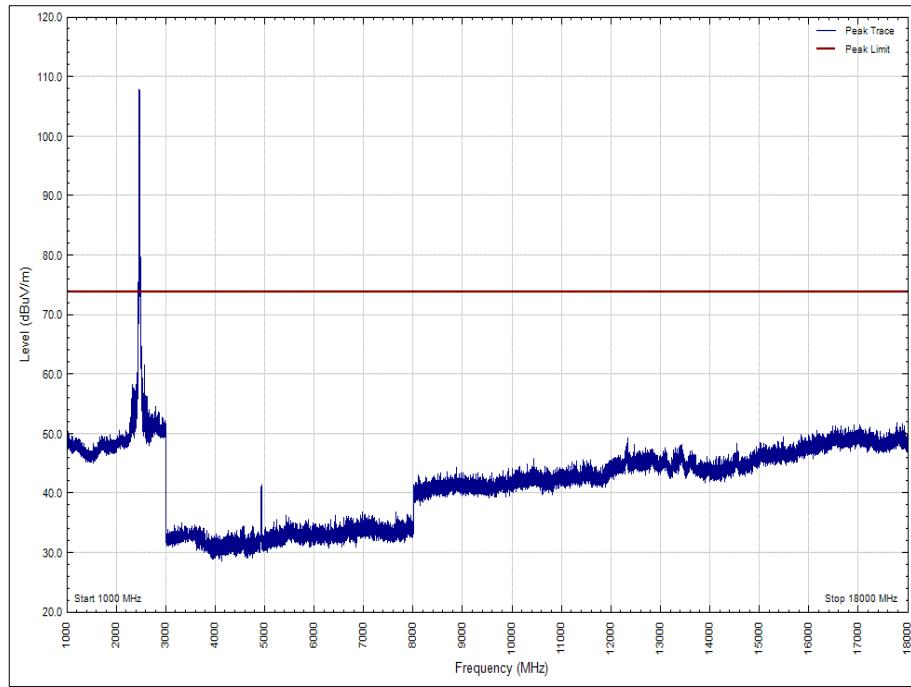


Figure 298 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

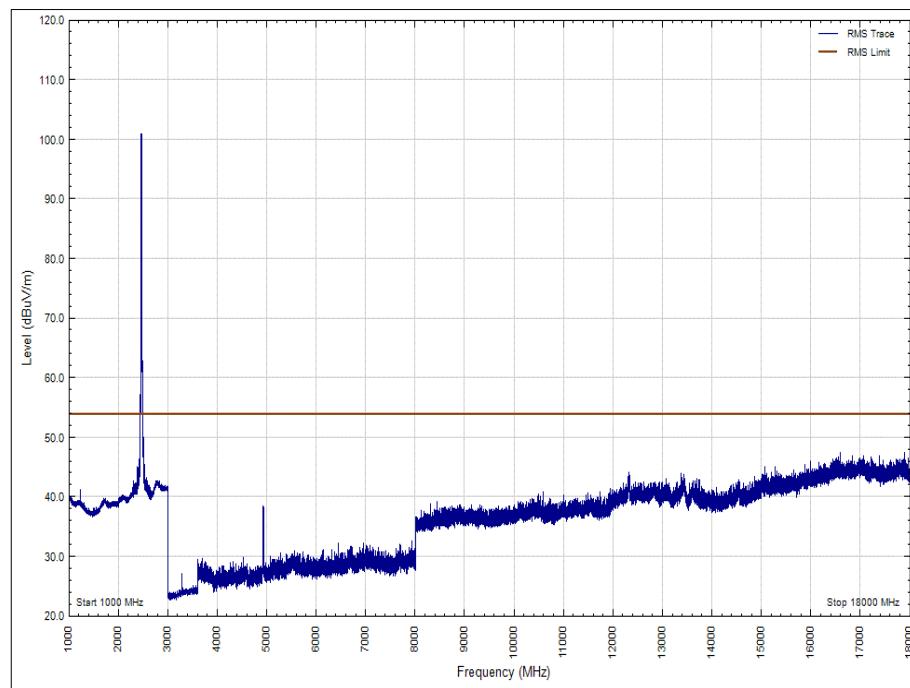


Figure 299 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Vertical, EUT Orientation: Z, Average

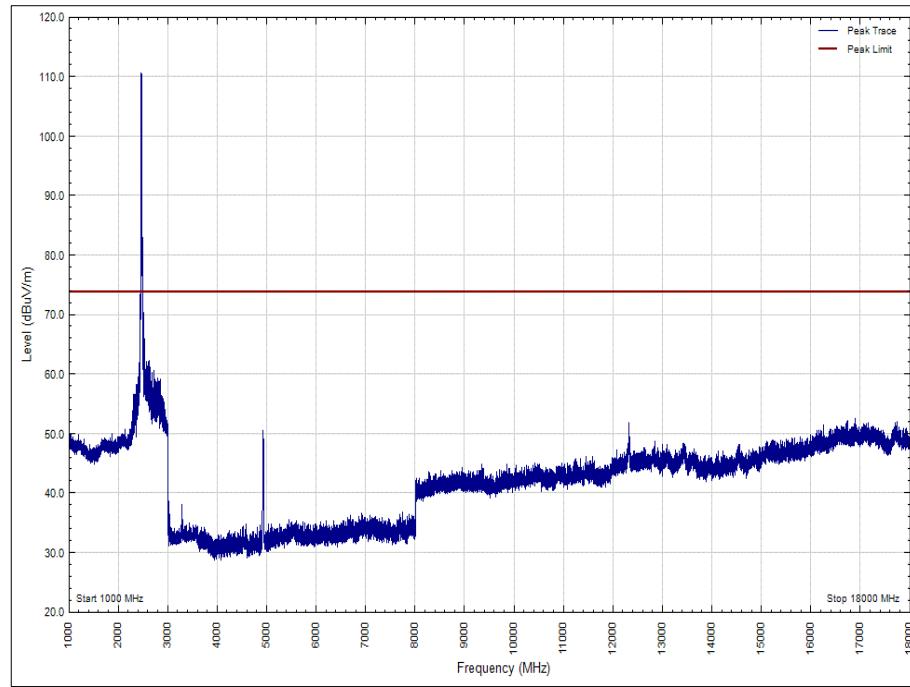


Figure 300 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

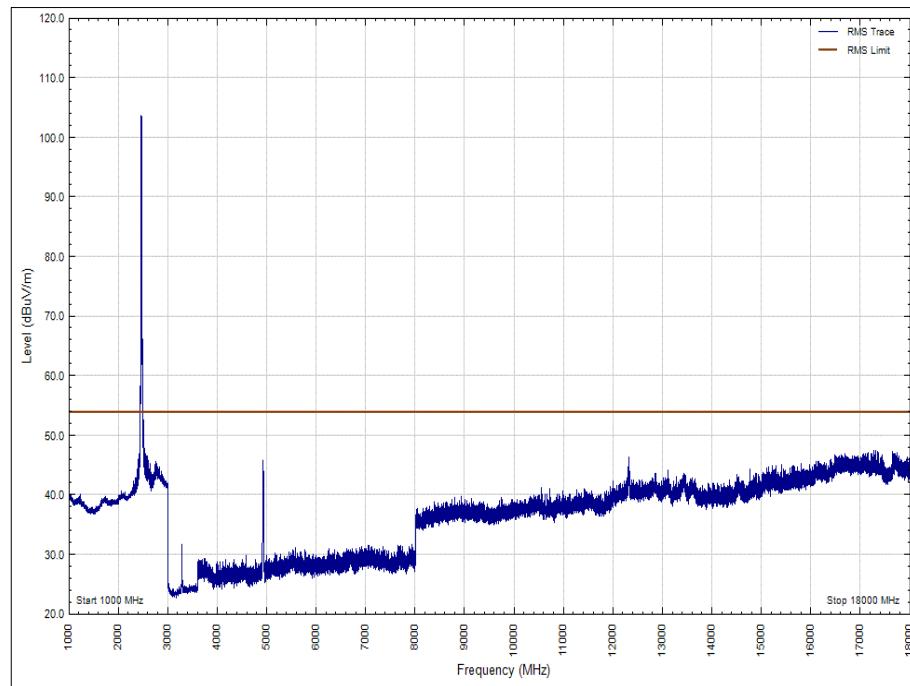


Figure 301 - 2462 MHz - 1 GHz to 18 GHz, Polarity: Horizontal, EUT Orientation: Z, Average



Bluetooth Low Energy

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 67 - Radiated Emissions Results, 30 MHz to 1 GHz - 2402 MHz

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

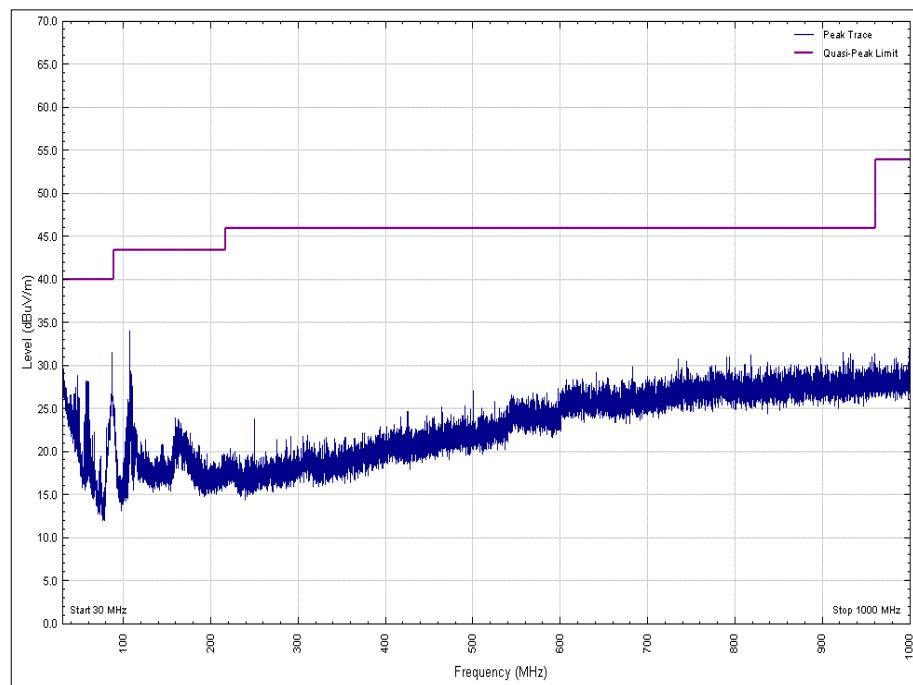


Figure 302 - 30 MHz to 1 GHz, 2402 MHz, Polarity: Vertical, EUT Orientation X

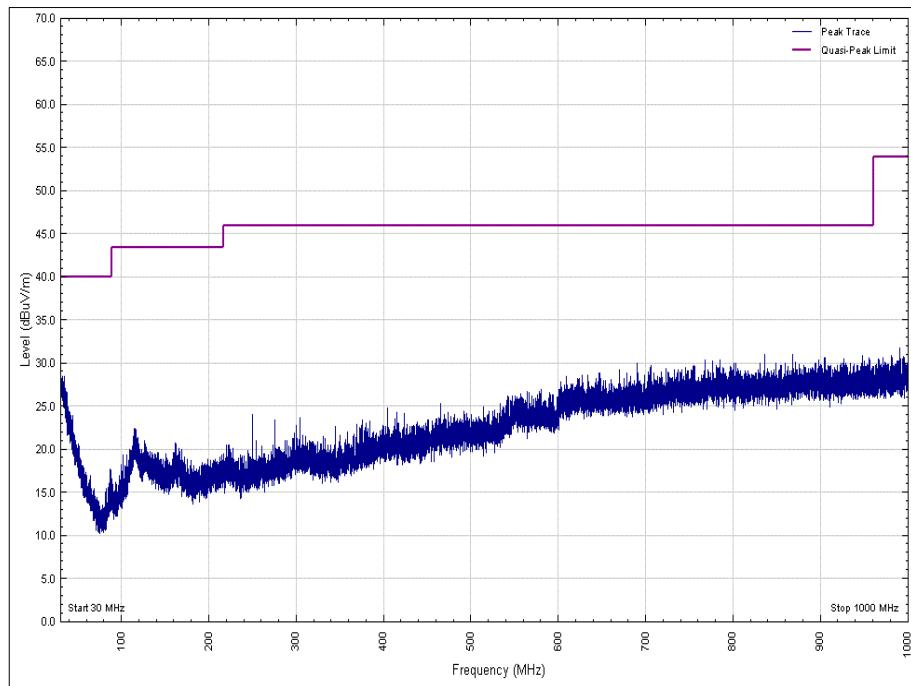


Figure 303 - 30 MHz to 1 GHz, 2402 MHz, Polarity: Horizontal, EUT Orientation X

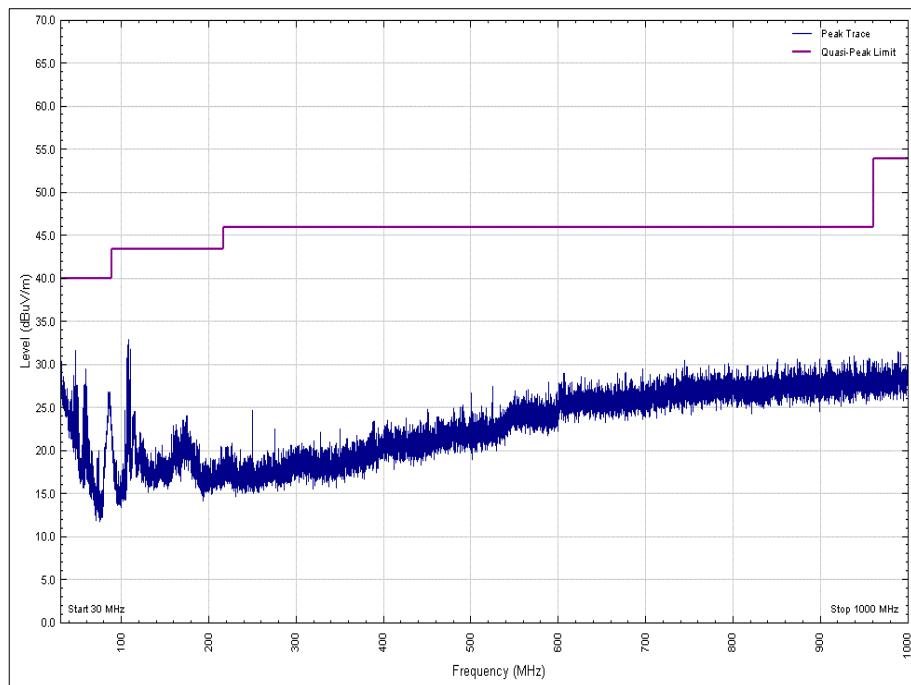


Figure 304 - 30 MHz to 1 GHz, 2402 MHz, Polarity: Vertical, EUT Orientation Y

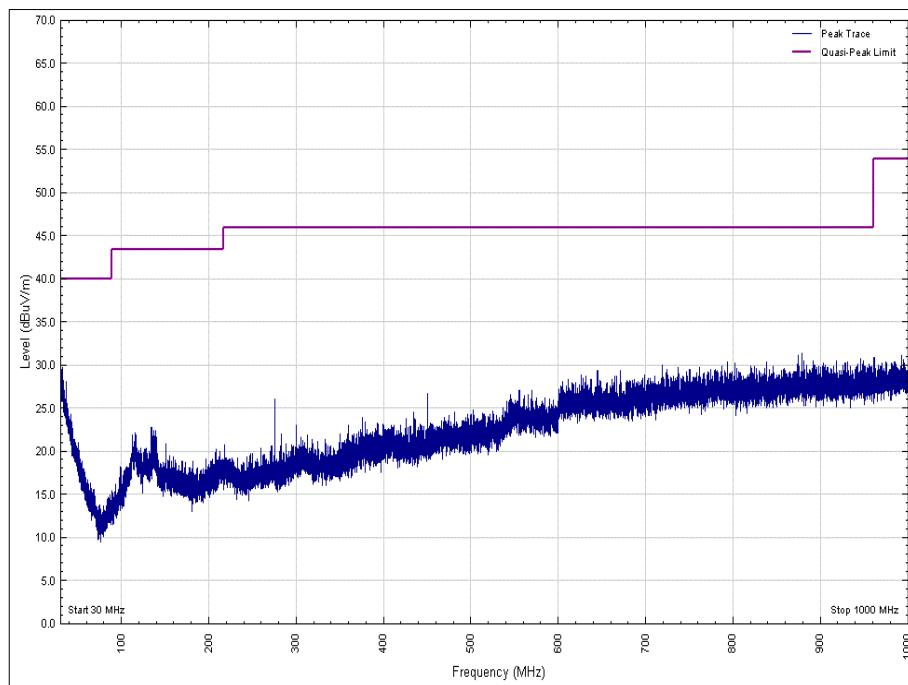


Figure 305 - 30 MHz to 1 GHz, 2402 MHz, Polarity: Horizontal, EUT Orientation Y

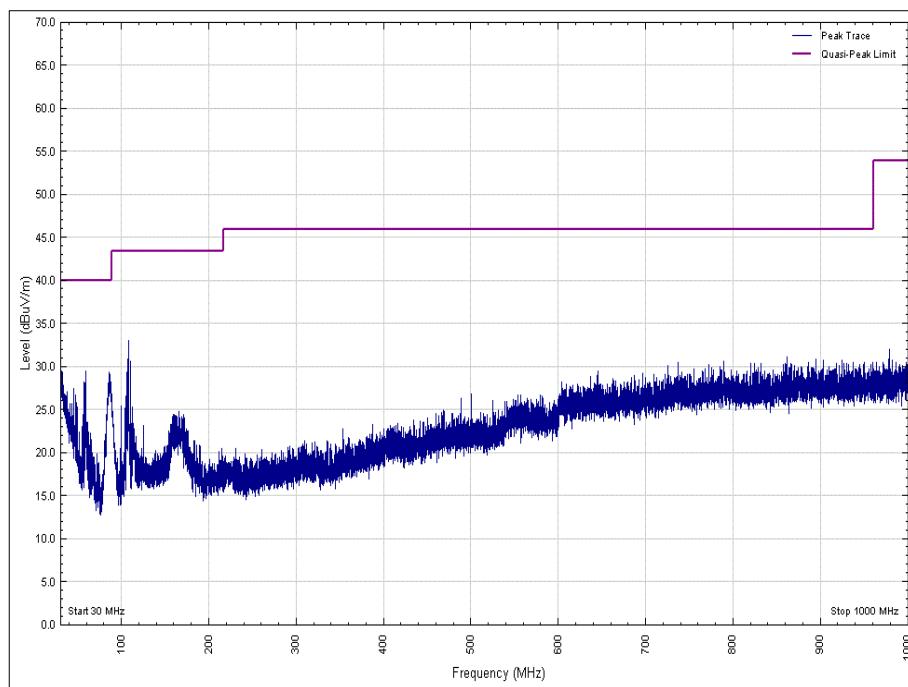


Figure 306 - 30 MHz to 1 GHz, 2402 MHz, Polarity: Vertical, EUT Orientation Z

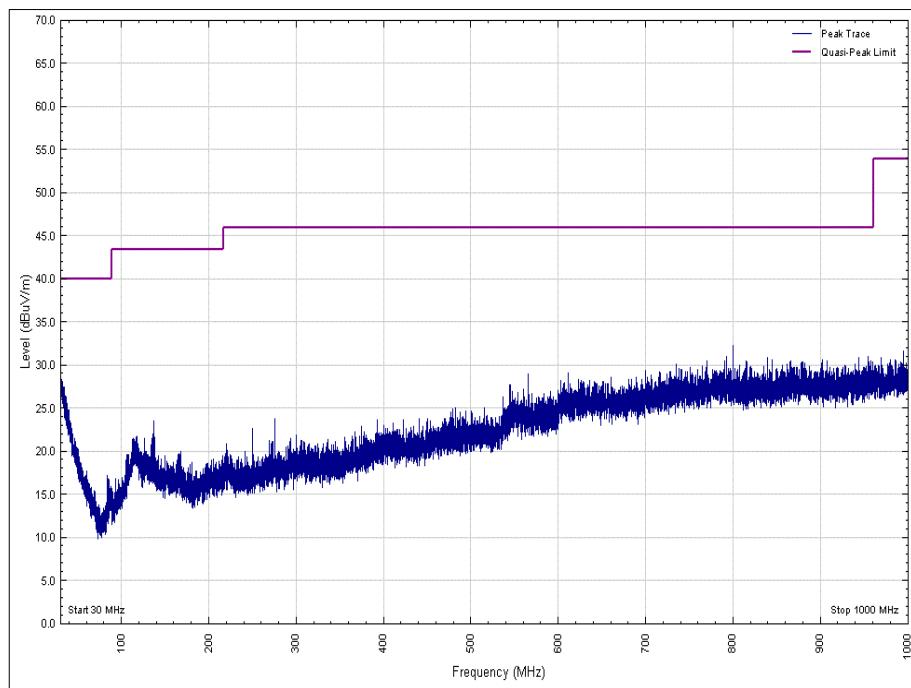


Figure 307 - 30 MHz to 1 GHz, 2402 MHz, Polarity: Horizontal, EUT Orientation Z

Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)	
	Peak	Average	Peak	Average	Peak	Average
1.019945	-	44.10	-	53.98	-	9.88

Table 68 - 2402 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

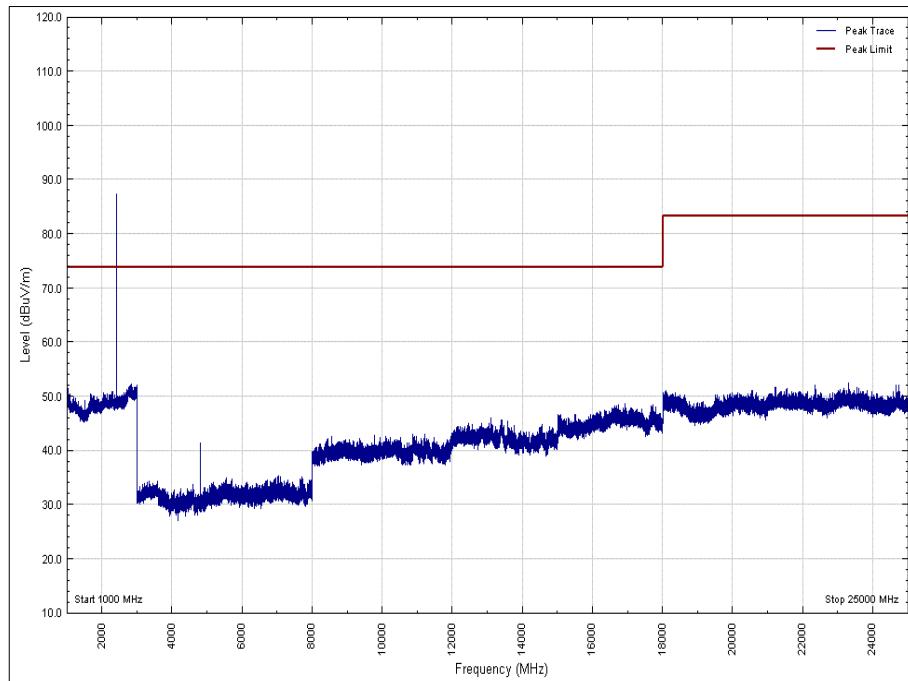


Figure 308 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Peak

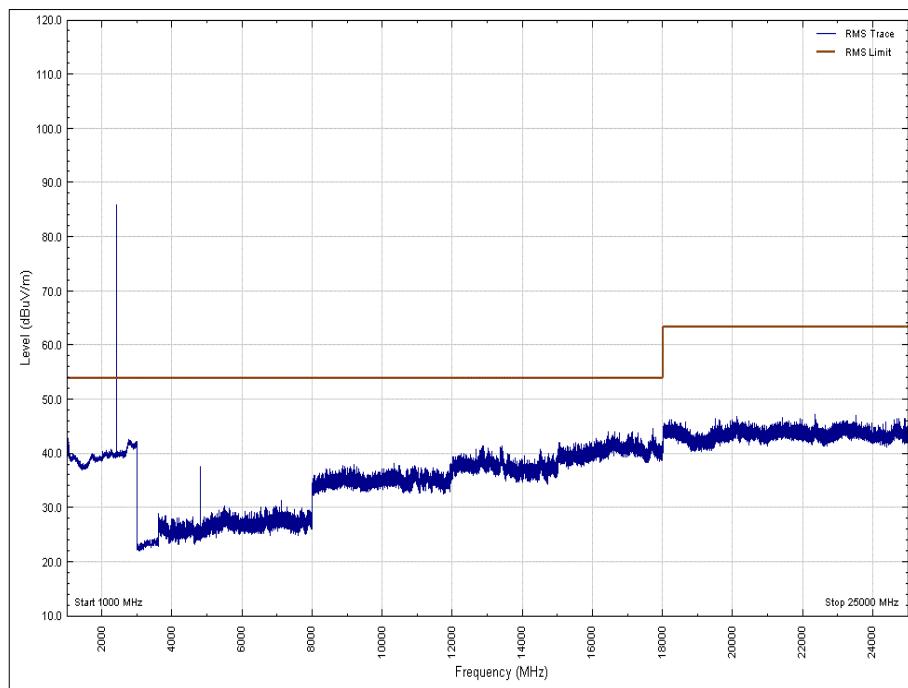


Figure 309 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Average

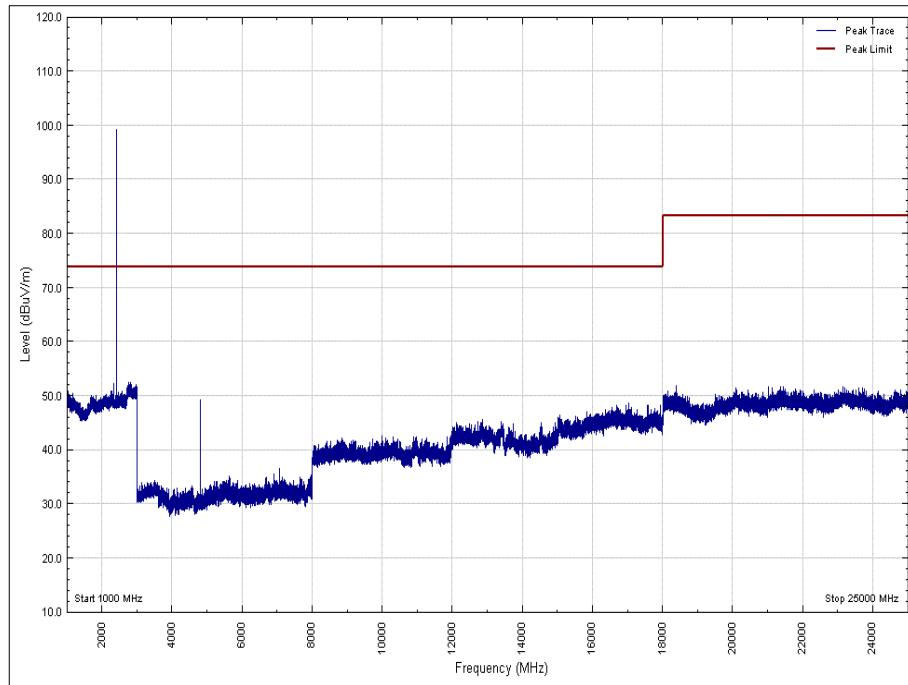


Figure 310 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

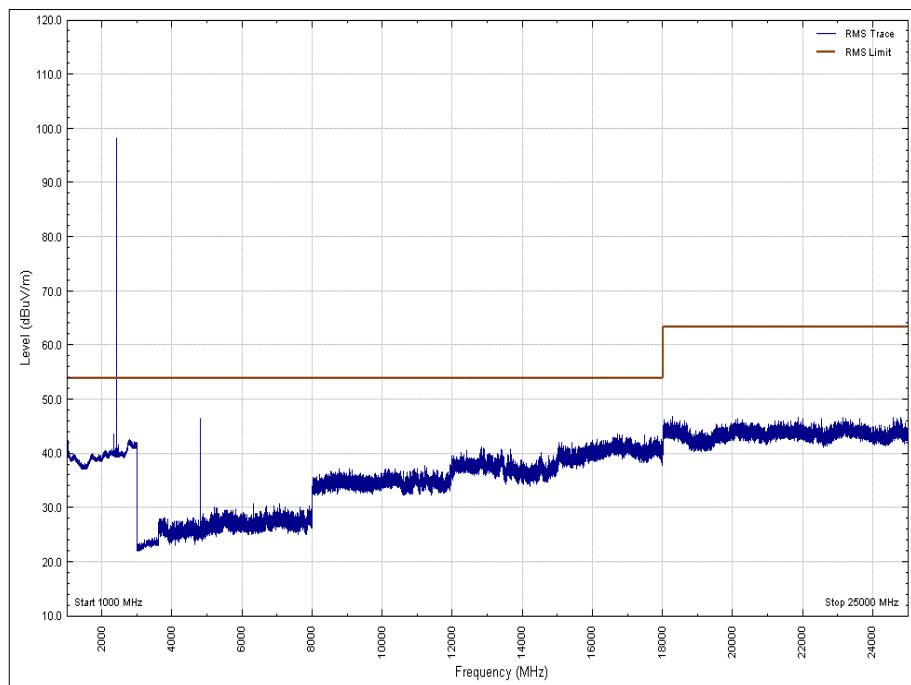


Figure 311 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Average

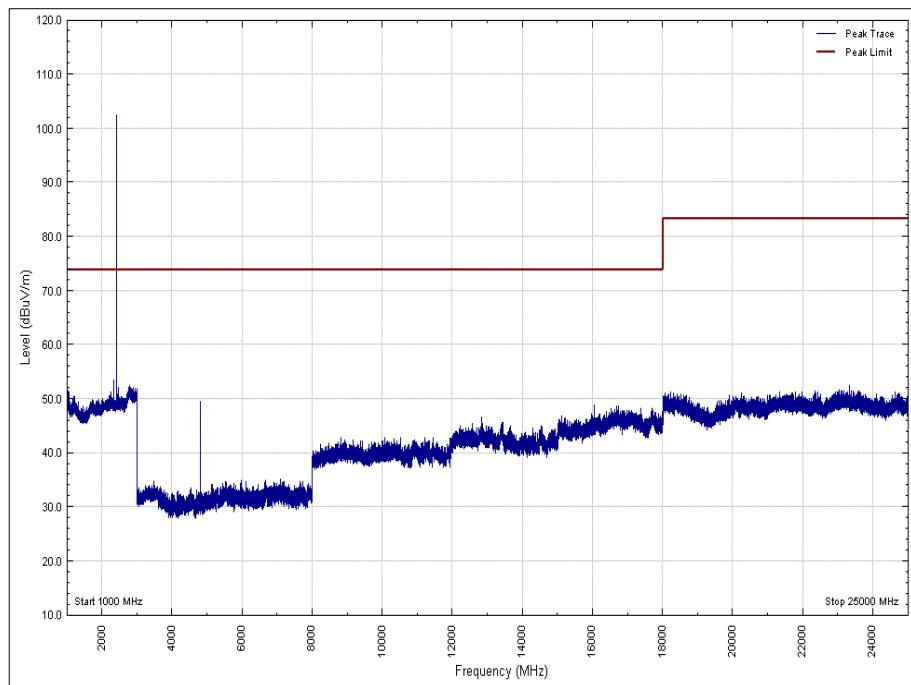


Figure 312 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

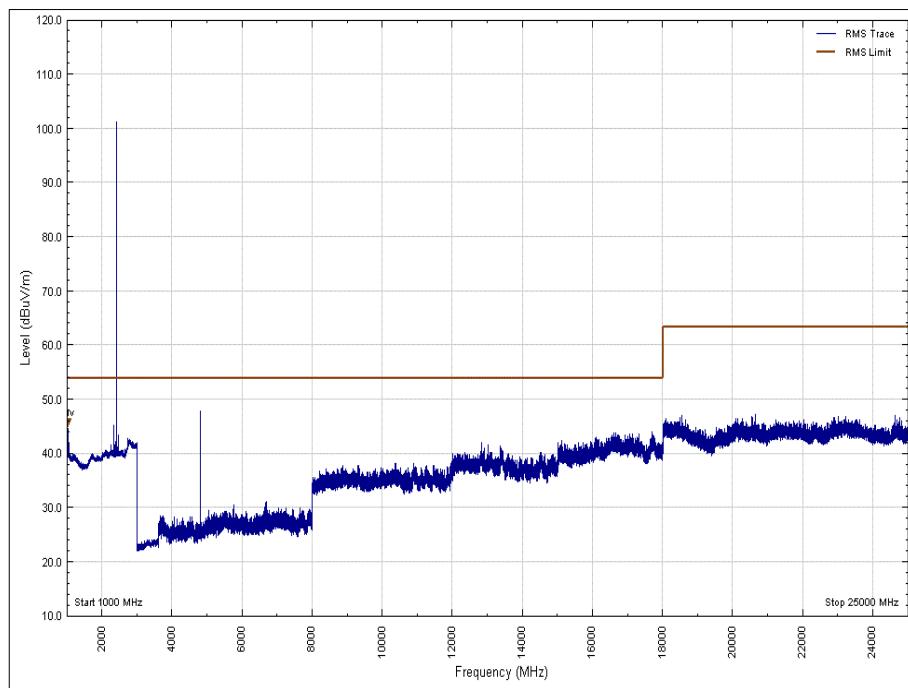


Figure 313 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Y, Average

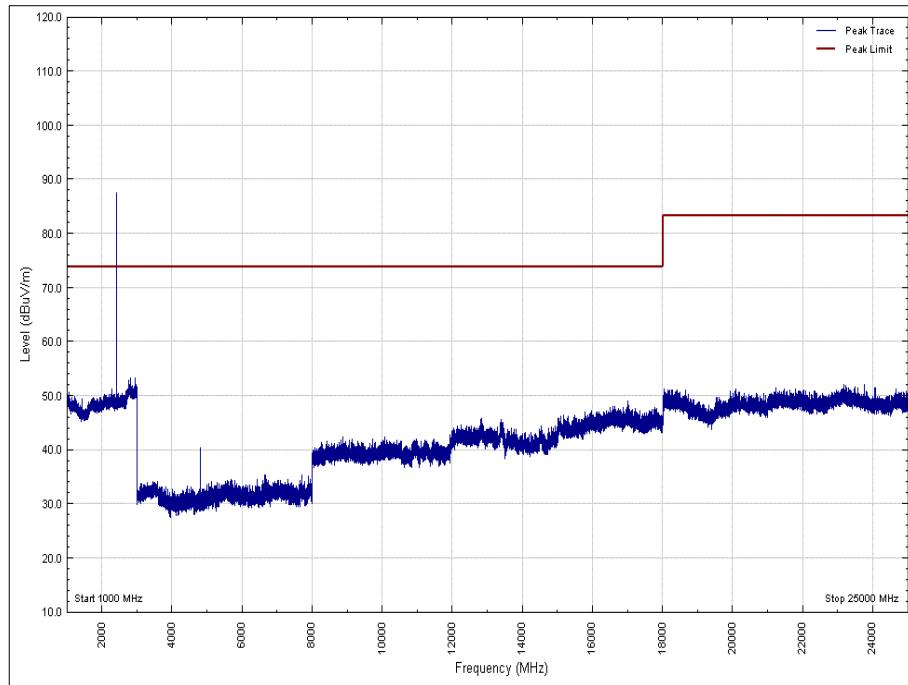


Figure 314 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

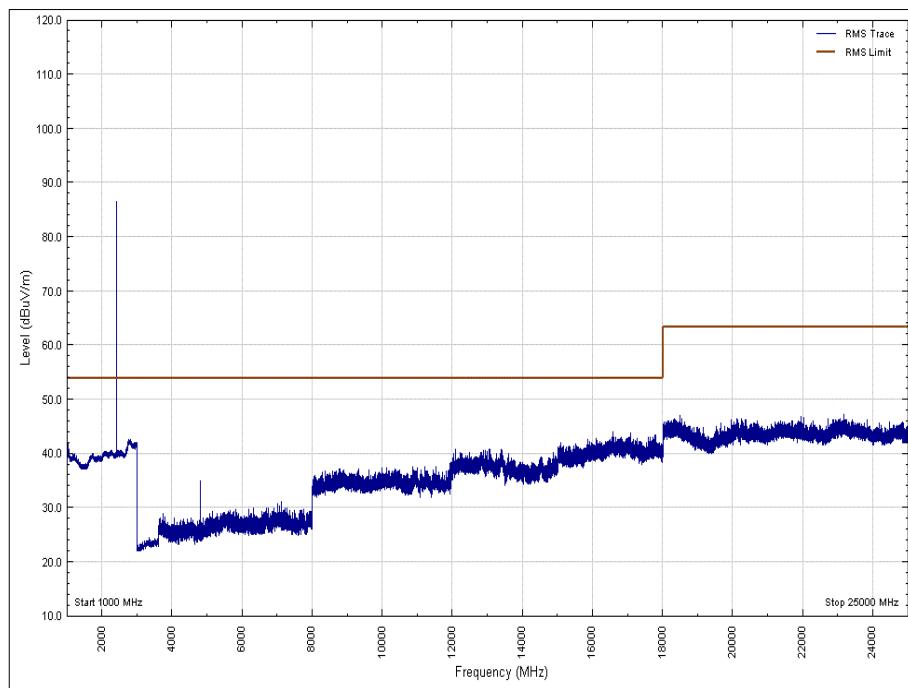


Figure 315 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

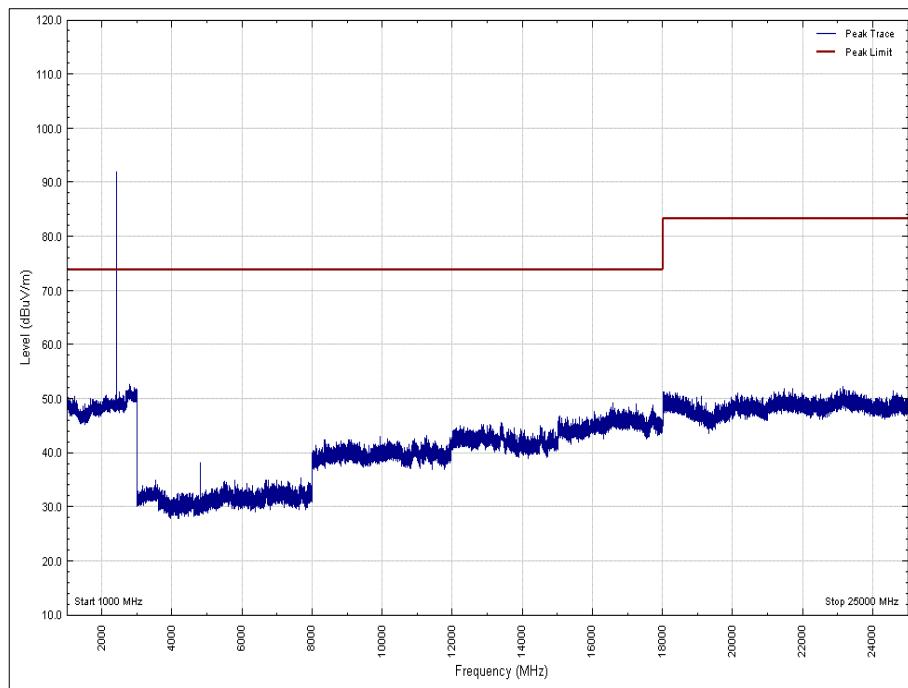


Figure 316 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

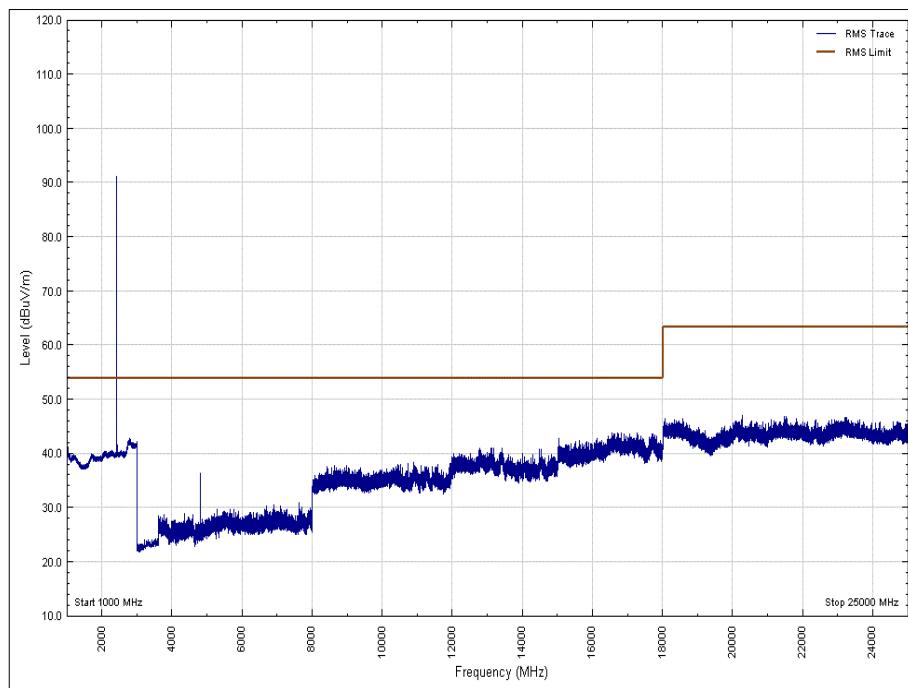


Figure 317 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Z, Average

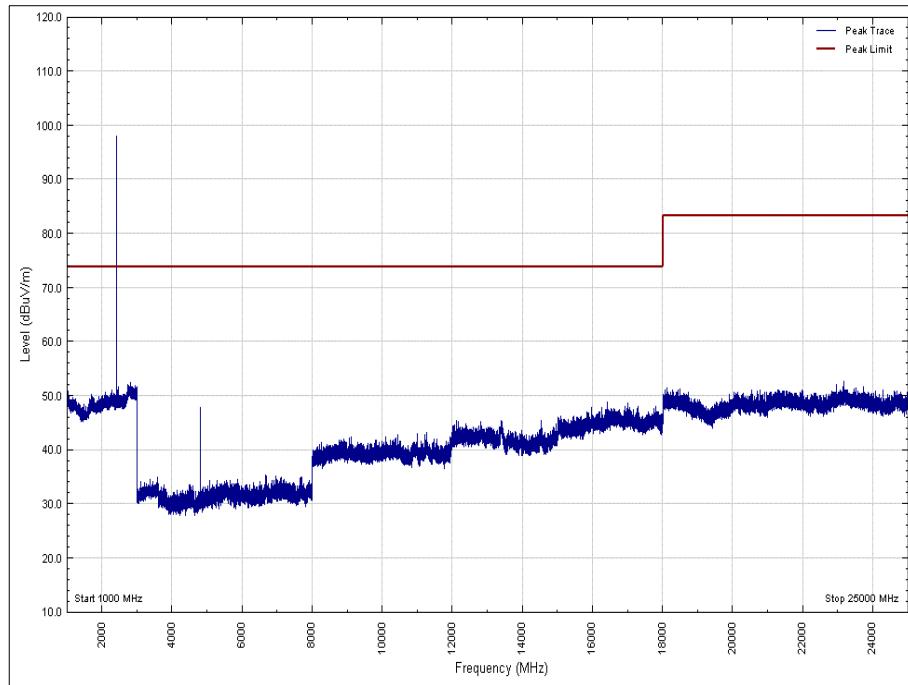


Figure 318 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

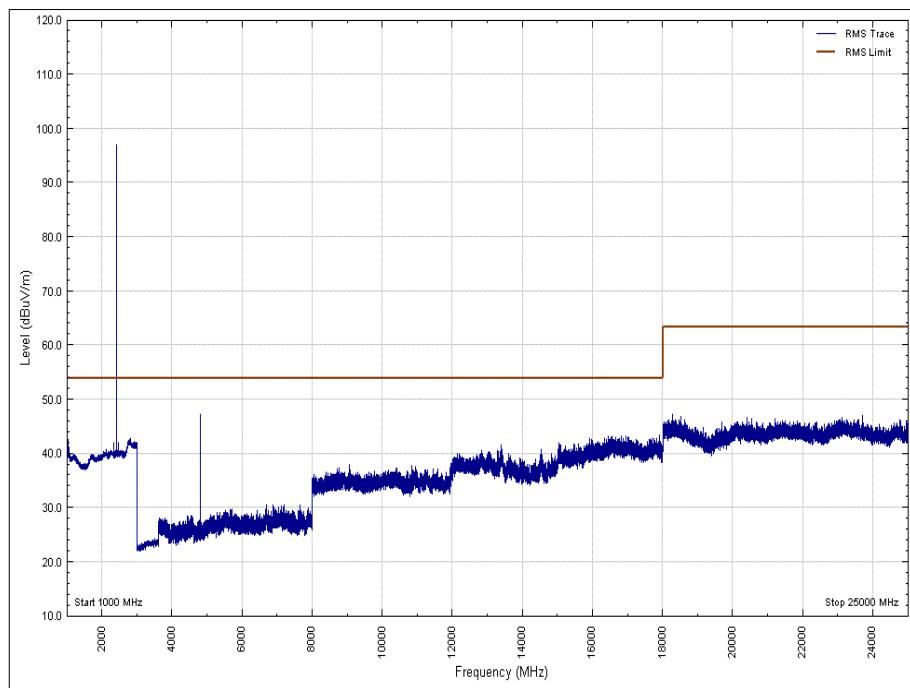


Figure 319 - 2402 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 69 - Radiated Emissions Results, 30 MHz to 1 GHz - 2440 MHz

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

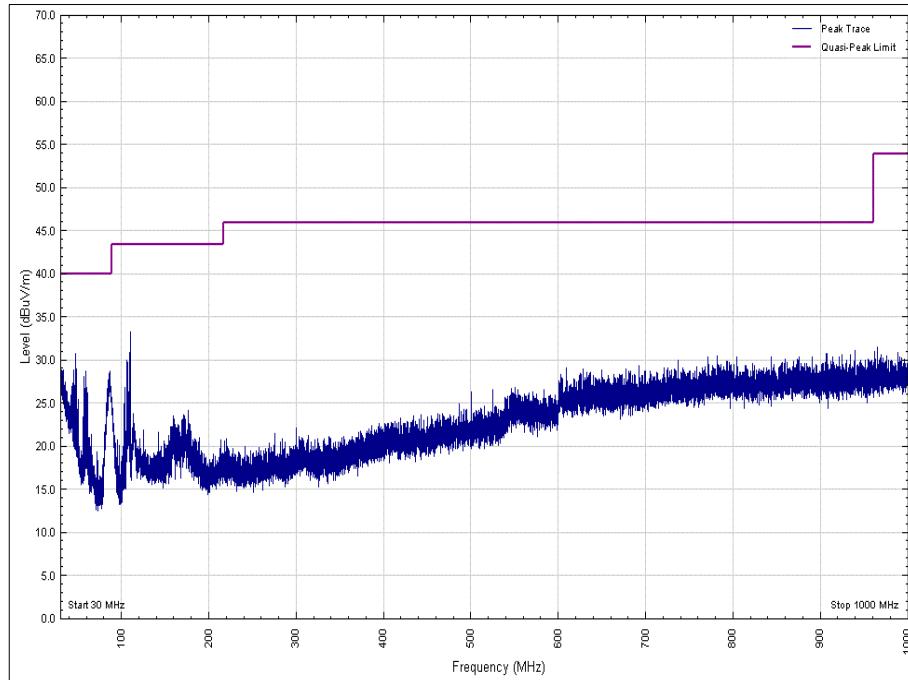


Figure 320 - 30 MHz to 1 GHz, 2440 MHz, Polarity: Vertical, EUT Orientation X

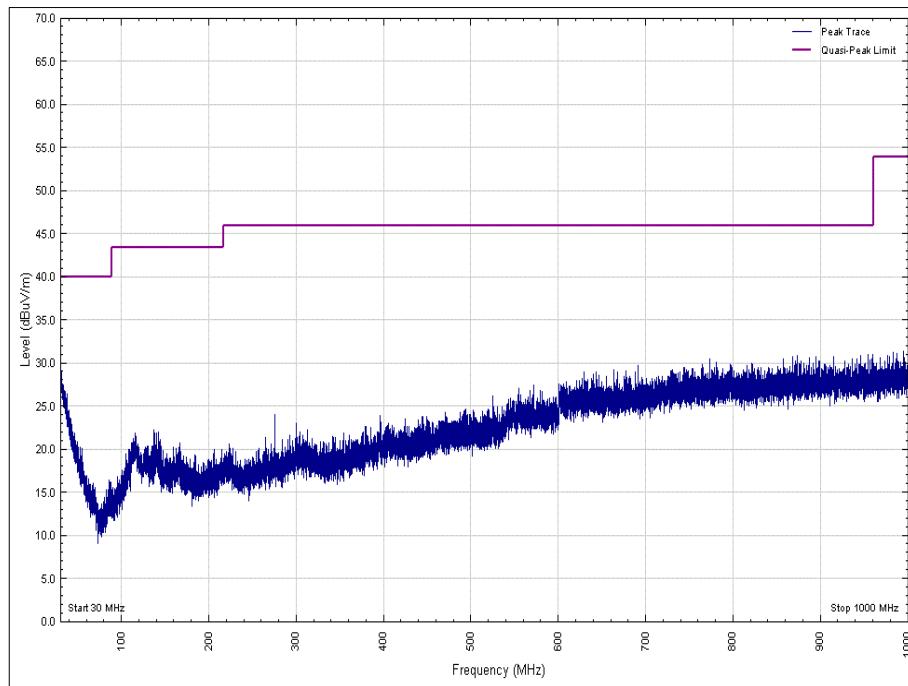


Figure 321 - 30 MHz to 1 GHz, 2440 MHz, Polarity: Horizontal, EUT Orientation X

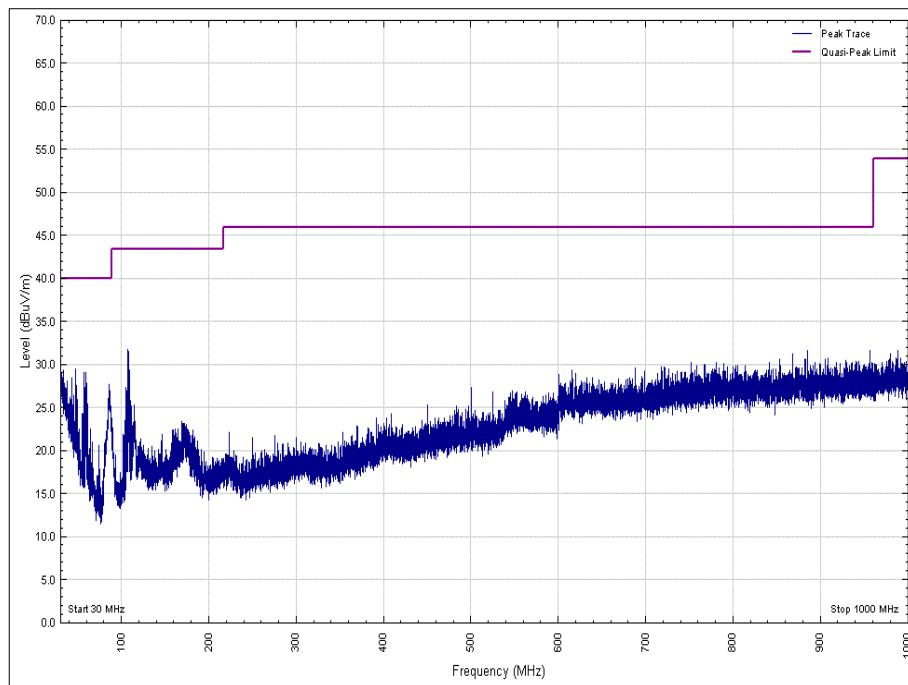


Figure 322 - 30 MHz to 1 GHz, 2440 MHz, Polarity: Vertical, EUT Orientation Y

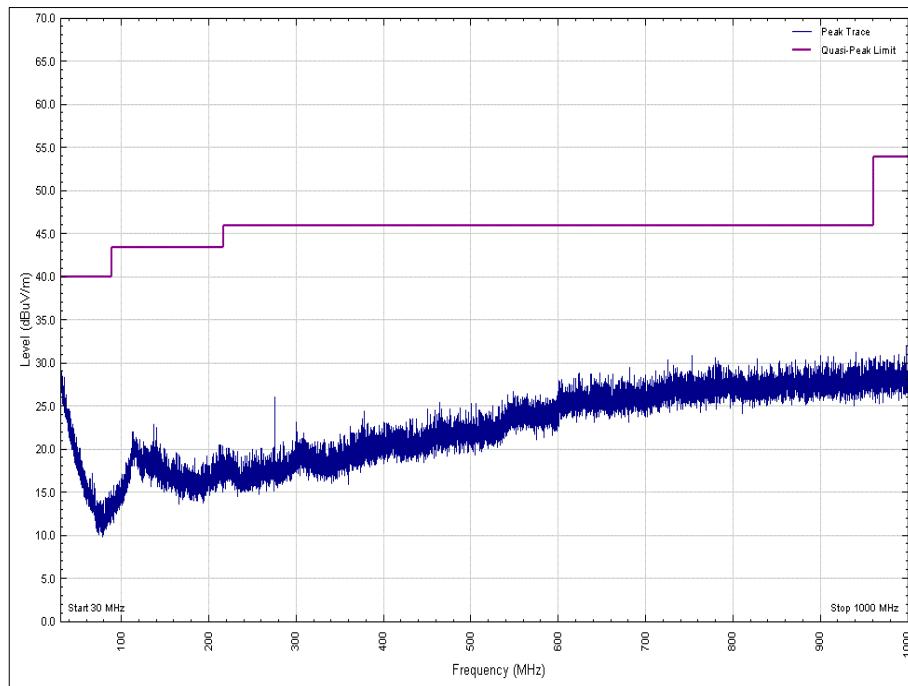


Figure 323 - 30 MHz to 1 GHz, 2440 MHz, Polarity: Horizontal, EUT Orientation Y

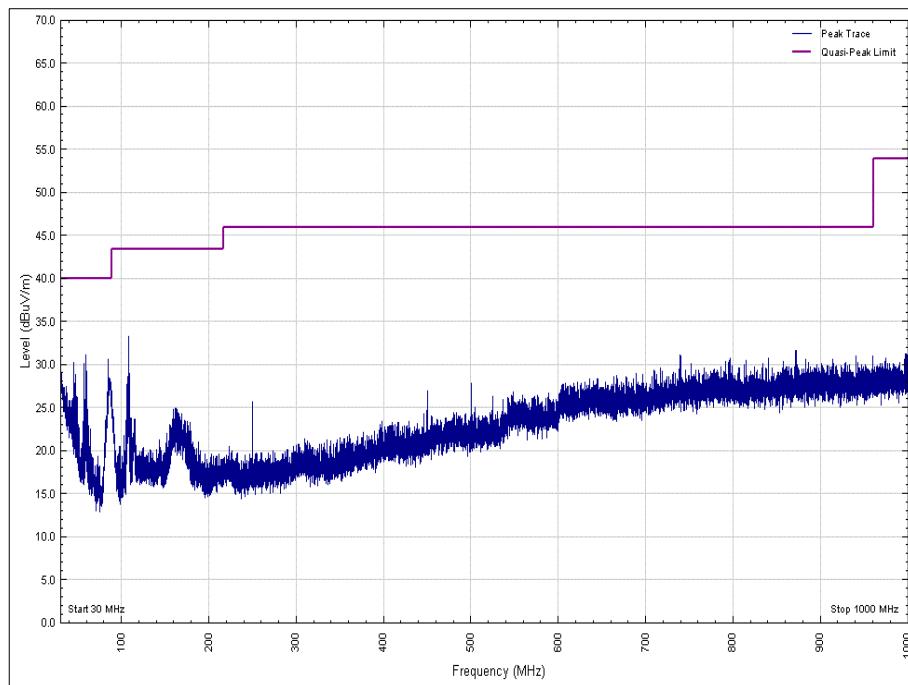


Figure 324 - 30 MHz to 1 GHz, 2440 MHz, Polarity: Vertical, EUT Orientation Z

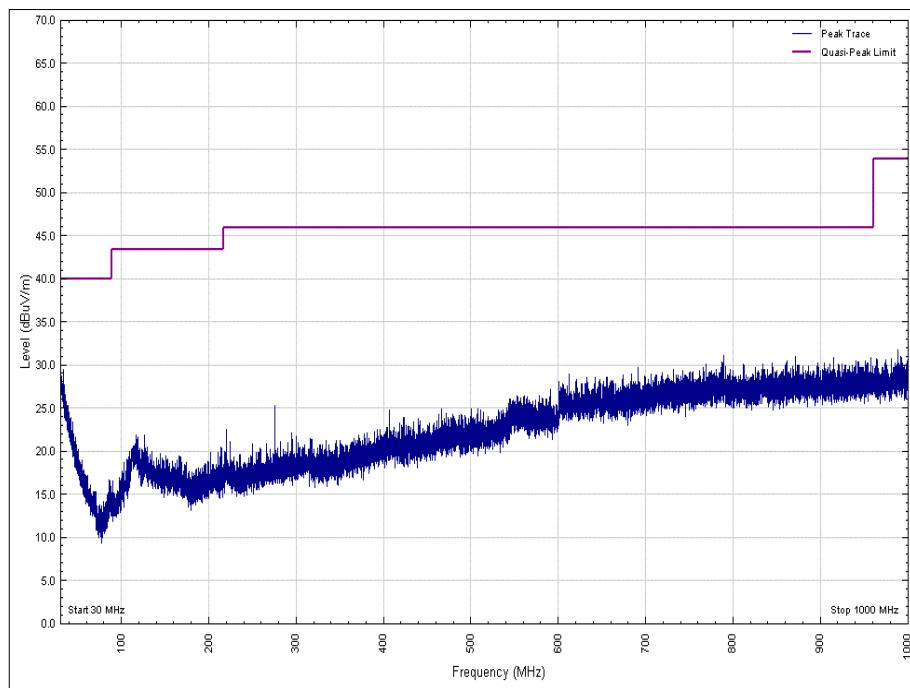


Figure 325 - 30 MHz to 1 GHz, 2440 MHz, Polarity: Horizontal, EUT Orientation Z



Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
1.019800	-	44.02	-	53.98	-	9.96

Table 70 - 2440 MHz - 1 GHz to 25 GHz Emissions Results

No other emissions were detected within 10 dB of the limit.

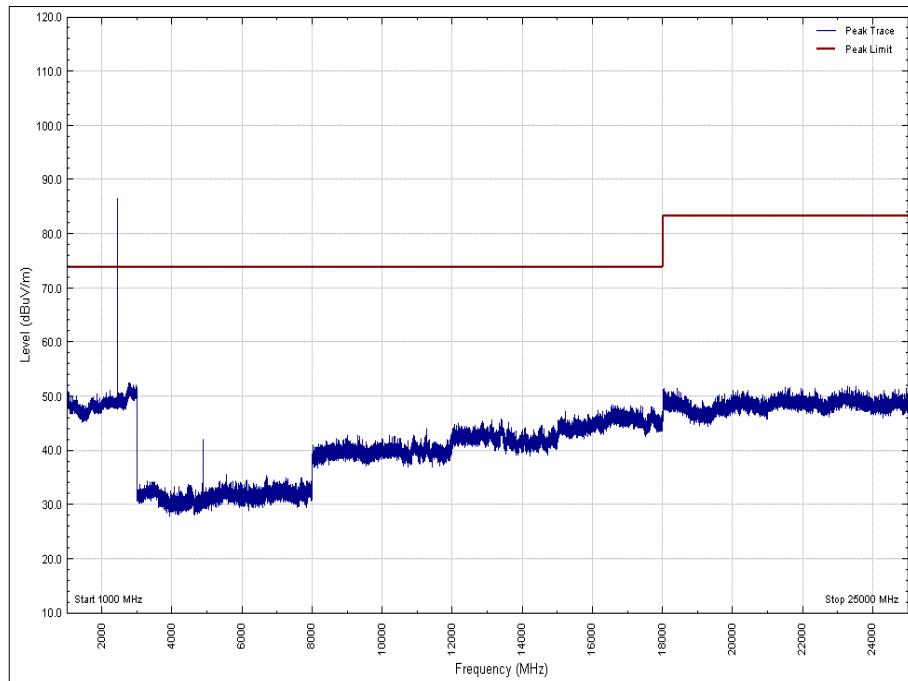


Figure 326 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Peak

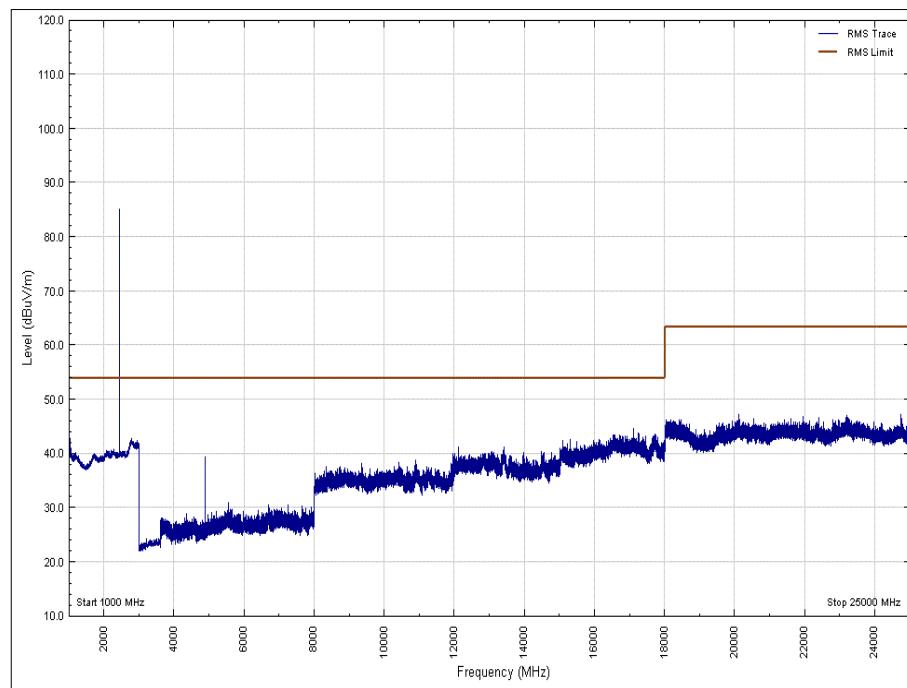


Figure 327 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Average

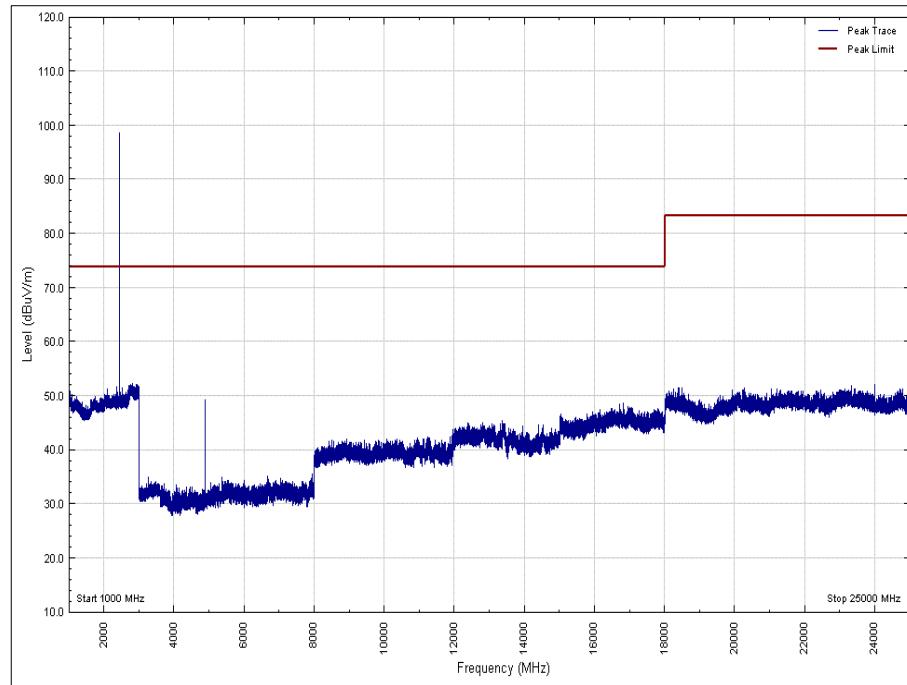


Figure 328 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Peak

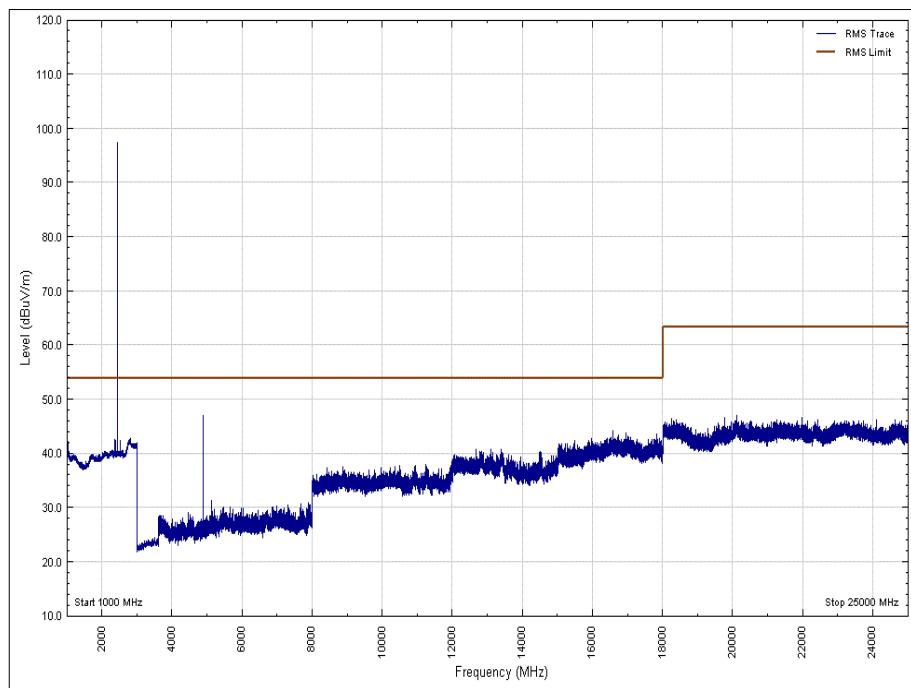


Figure 329 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Average

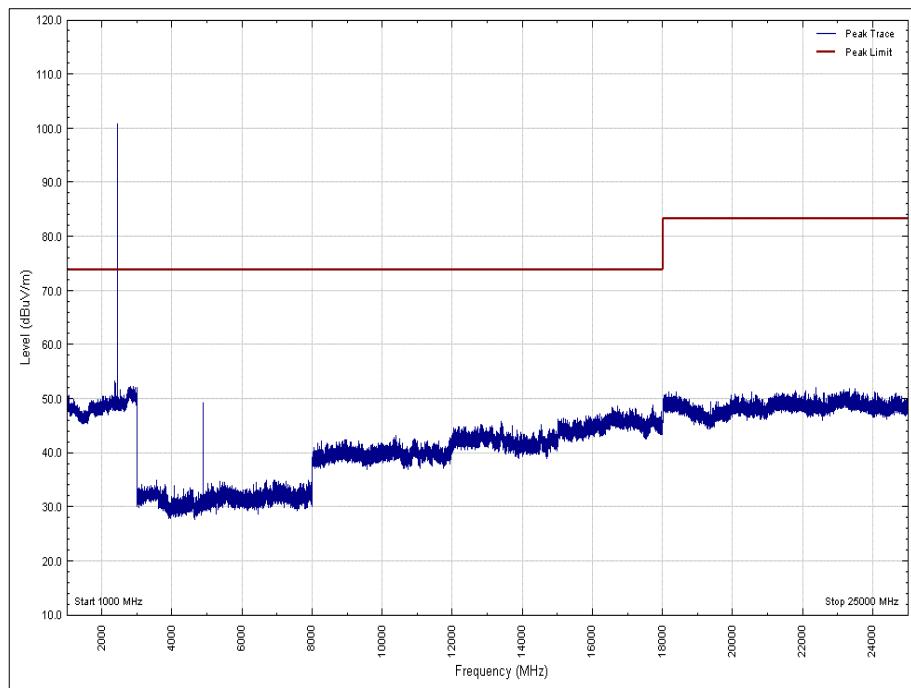


Figure 330 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

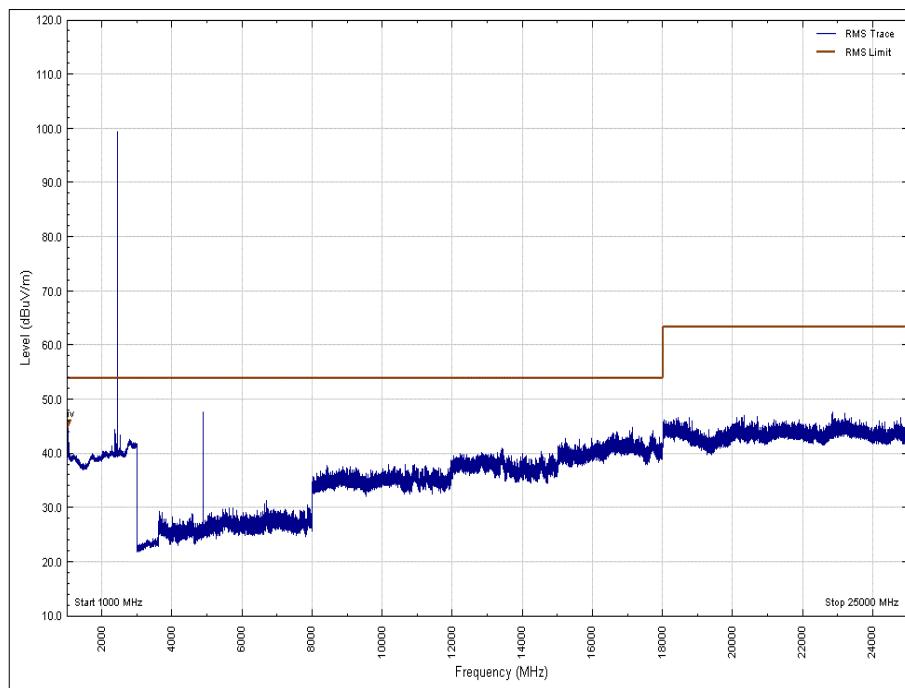


Figure 331 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Y, Average

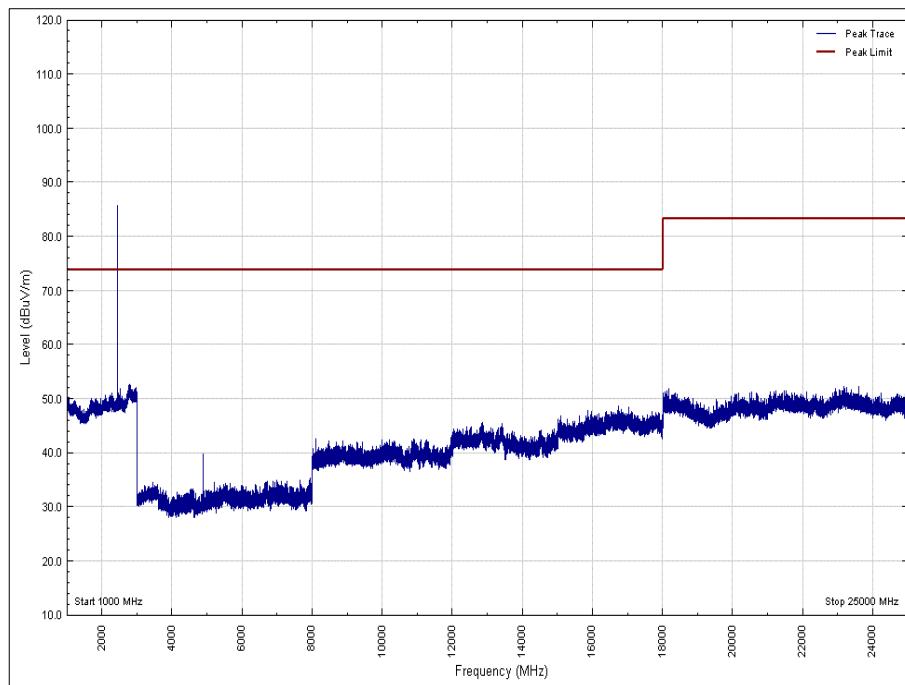


Figure 332 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Y, Peak

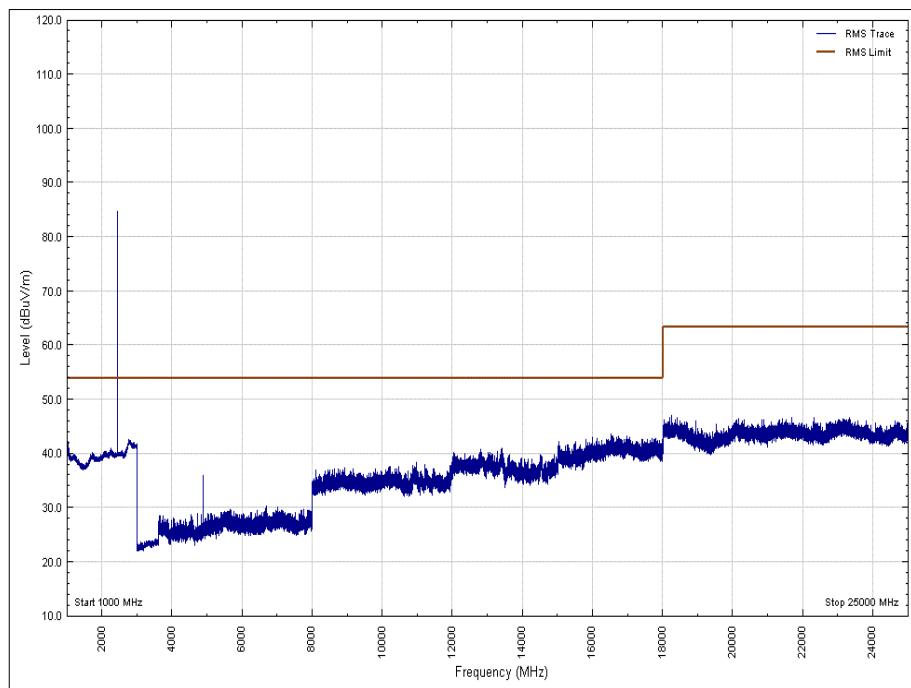


Figure 333 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

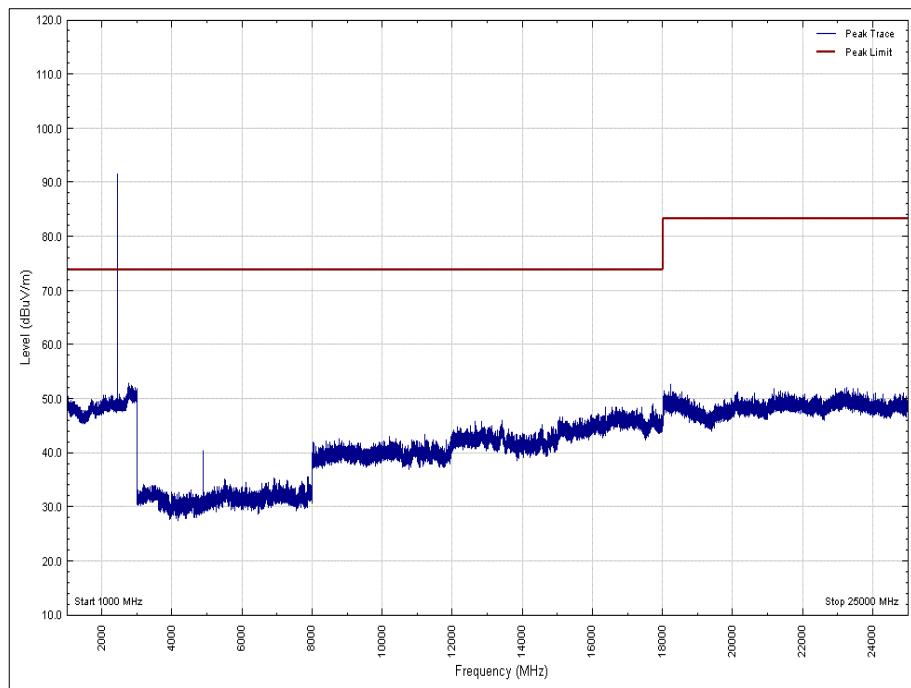


Figure 334 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

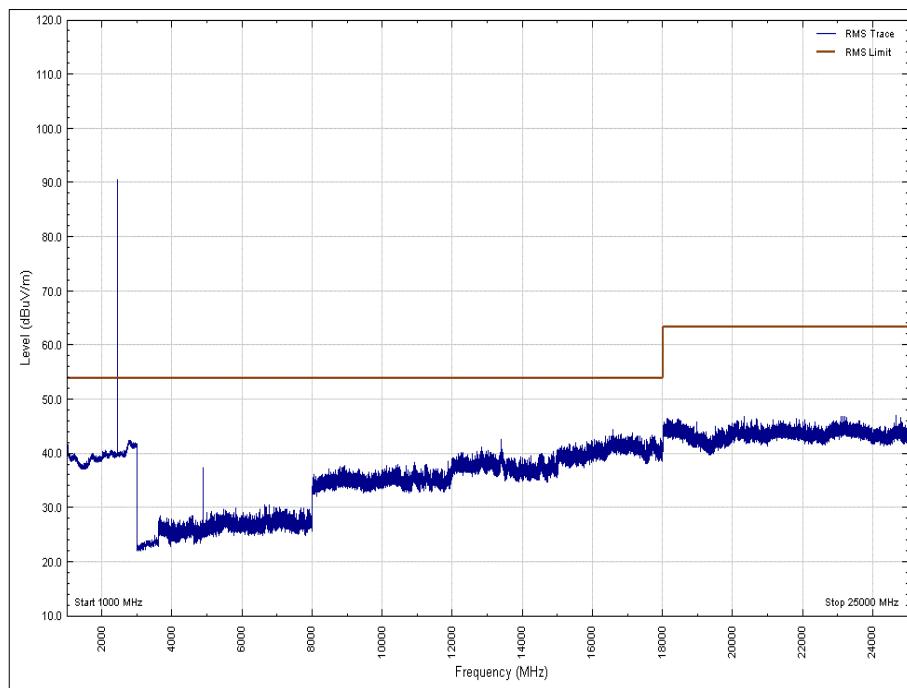


Figure 335 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Z, Average

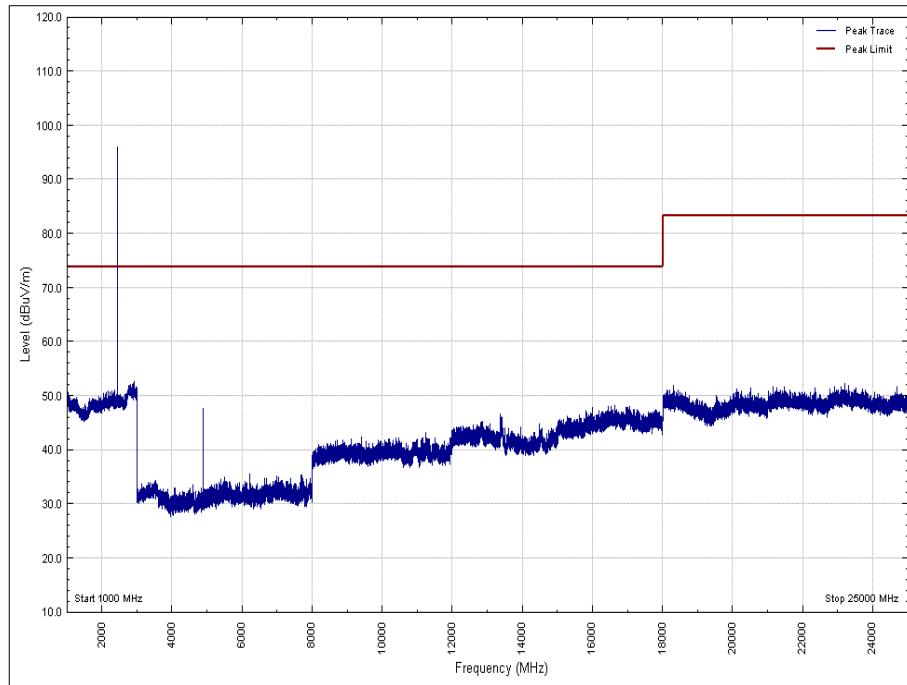


Figure 336 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Z, Peak

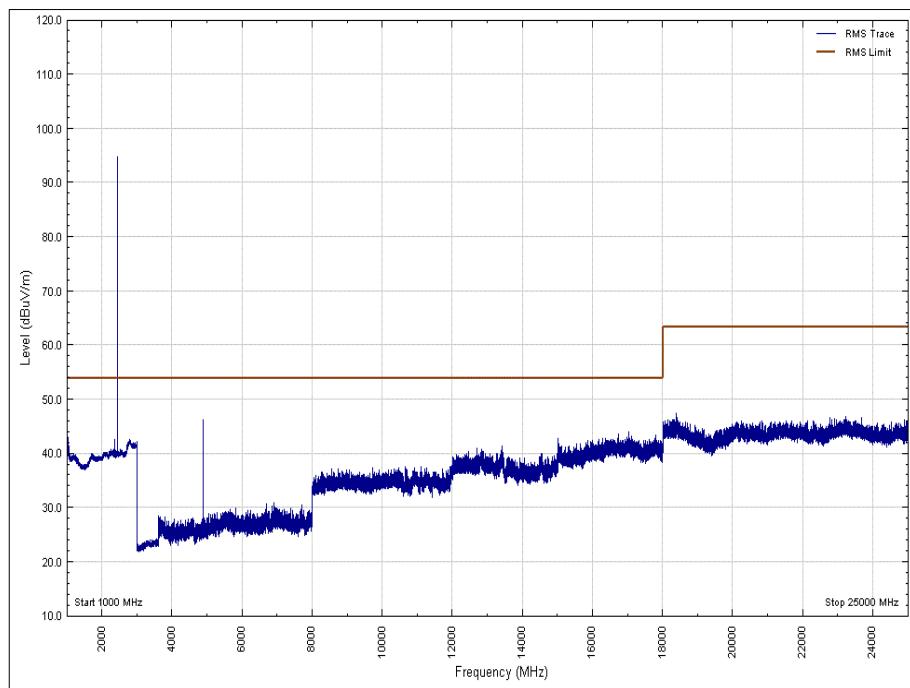


Figure 337 - 2440 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

Frequency (MHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB)		Polarisation	EUT Orientation
	Peak	Average	Peak	Average	Peak	Average		
*								

Table 71 - Radiated Emissions Results, 30 MHz to 1 GHz - 2480 MHz

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

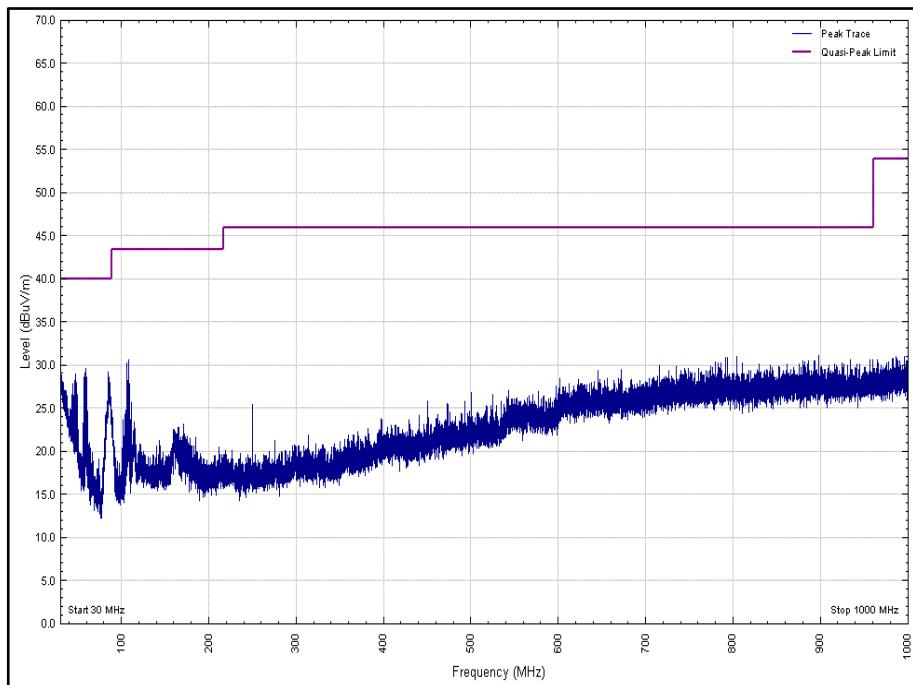


Figure 338 - 30 MHz to 1 GHz, 2480 MHz, Polarity: Vertical, EUT Orientation X

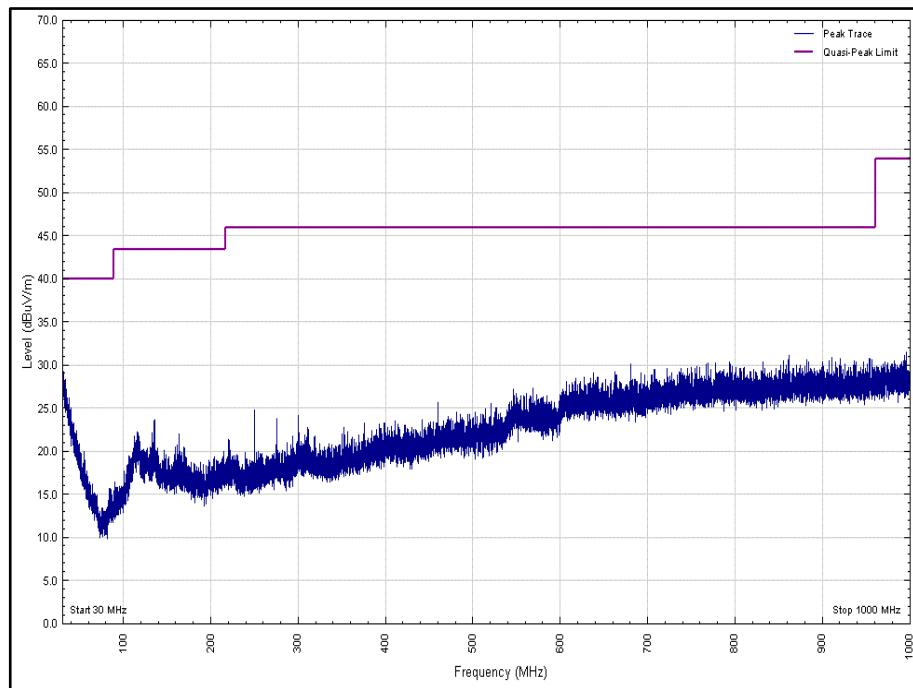


Figure 339 - 30 MHz to 1 GHz, 2480 MHz, Polarity: Horizontal, EUT Orientation X

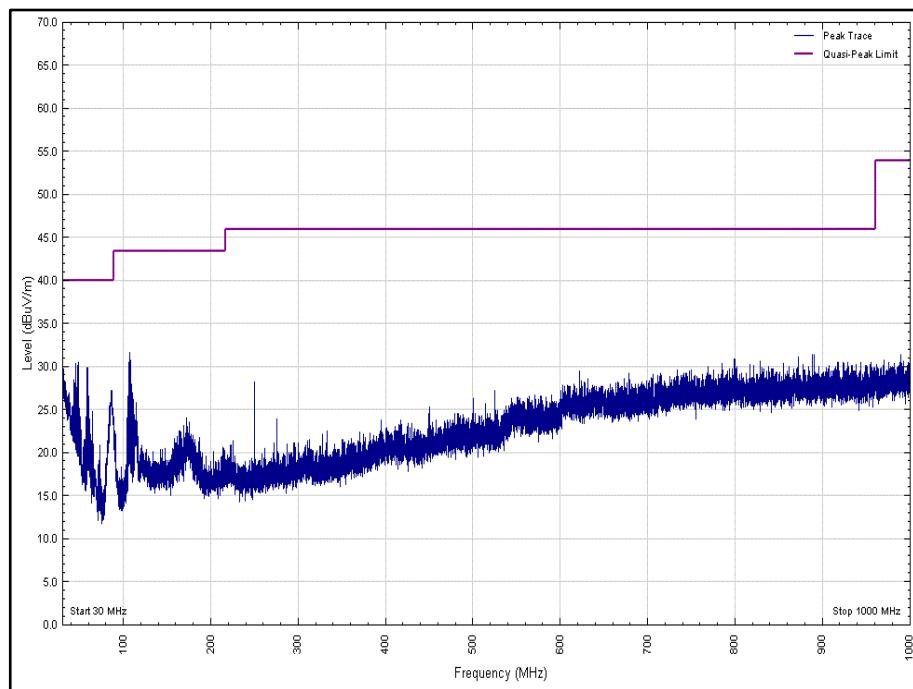


Figure 340 - 30 MHz to 1 GHz, 2480 MHz, Polarity: Vertical, EUT Orientation Y

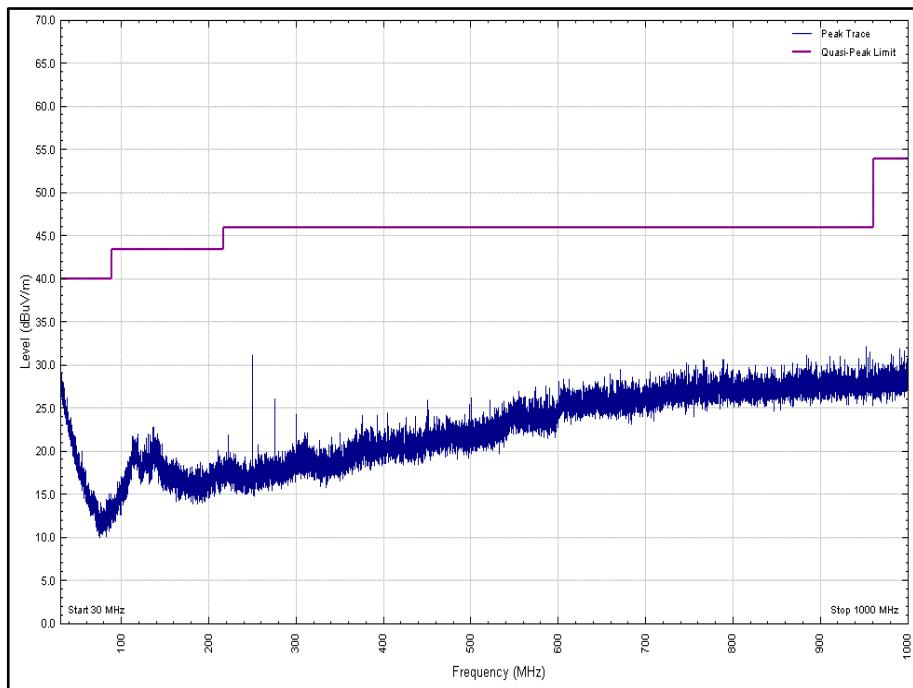


Figure 341 - 30 MHz to 1 GHz, 2480 MHz, Polarity: Horizontal, EUT Orientation Y

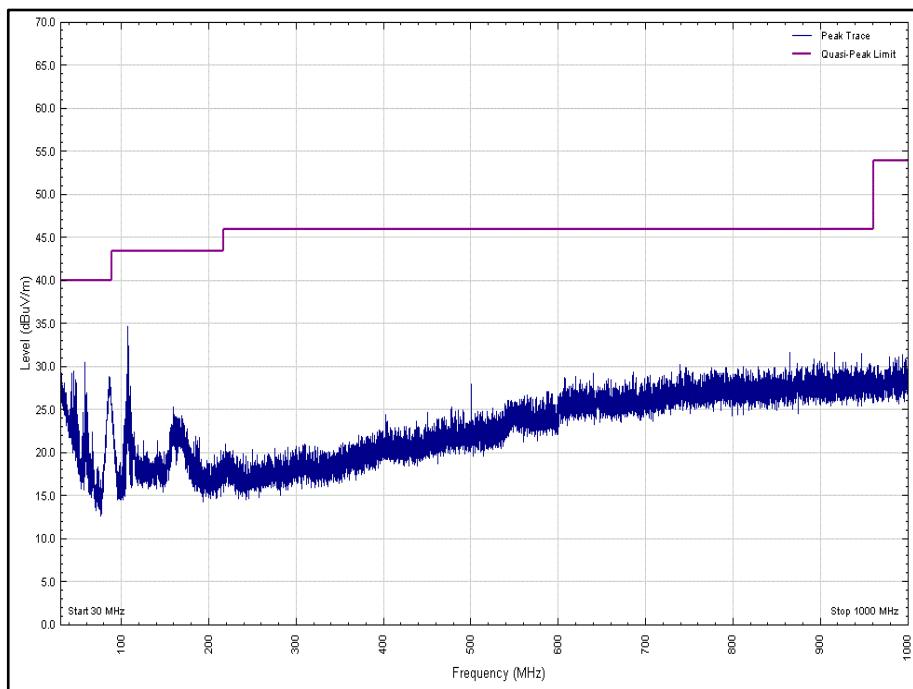


Figure 342 - 30 MHz to 1 GHz, 2480 MHz, Polarity: Vertical, EUT Orientation Z

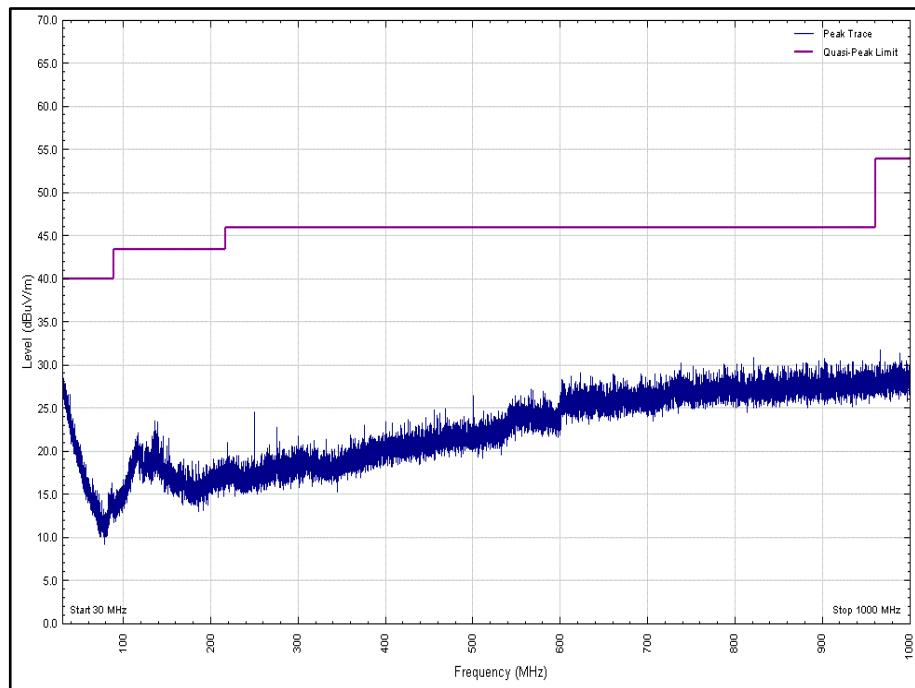


Figure 343 - 30 MHz to 1 GHz, 2480 MHz, Polarity: Horizontal, EUT Orientation Z

Frequency (GHz)	Result (dB μ V/m)		Limit (dB μ V/m)		Margin (dB μ V/m)	
	Peak	Average	Peak	Average	Peak	Average
*						

Table 72 - 2480 MHz - 1 GHz to 25 GHz Emissions Results

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

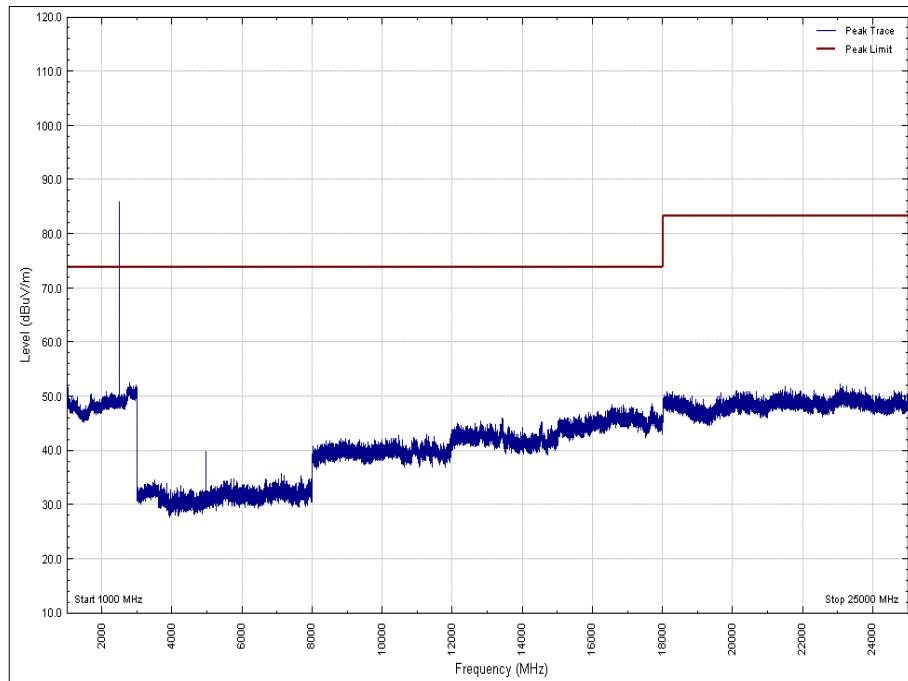


Figure 344 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Peak

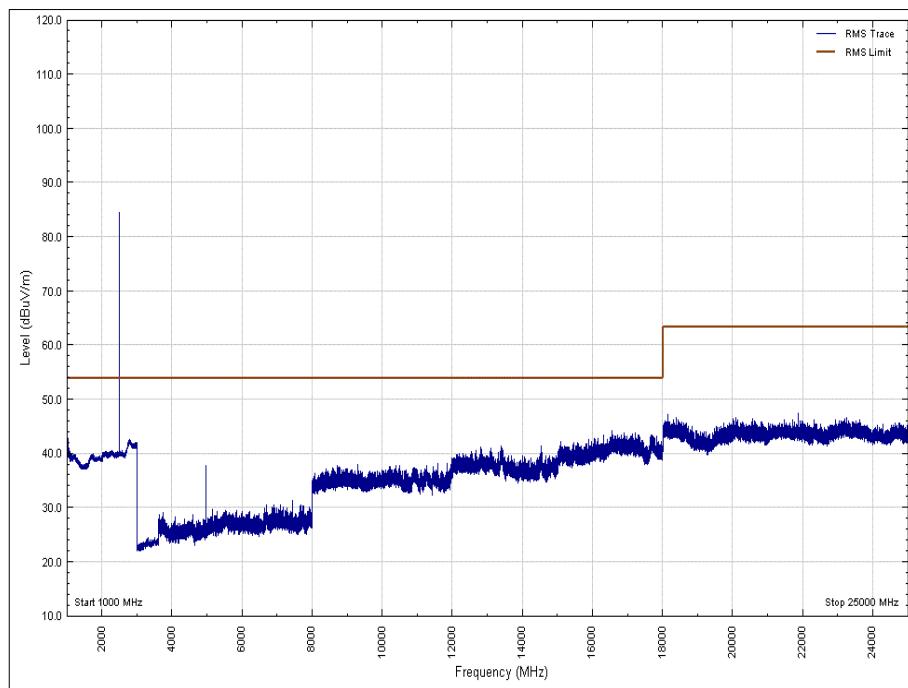


Figure 345 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: X, Peak

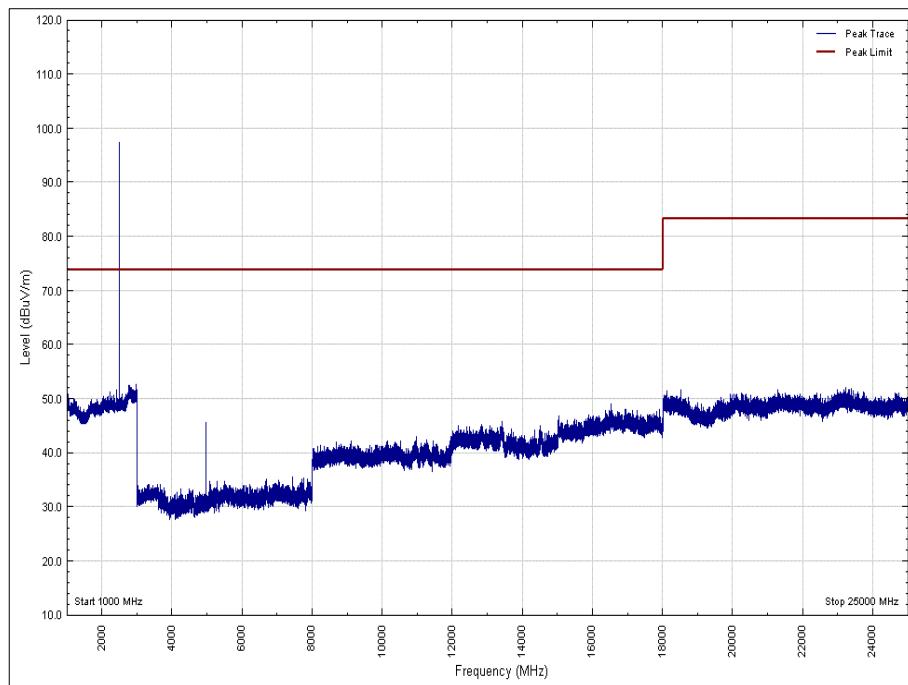


Figure 346 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Average

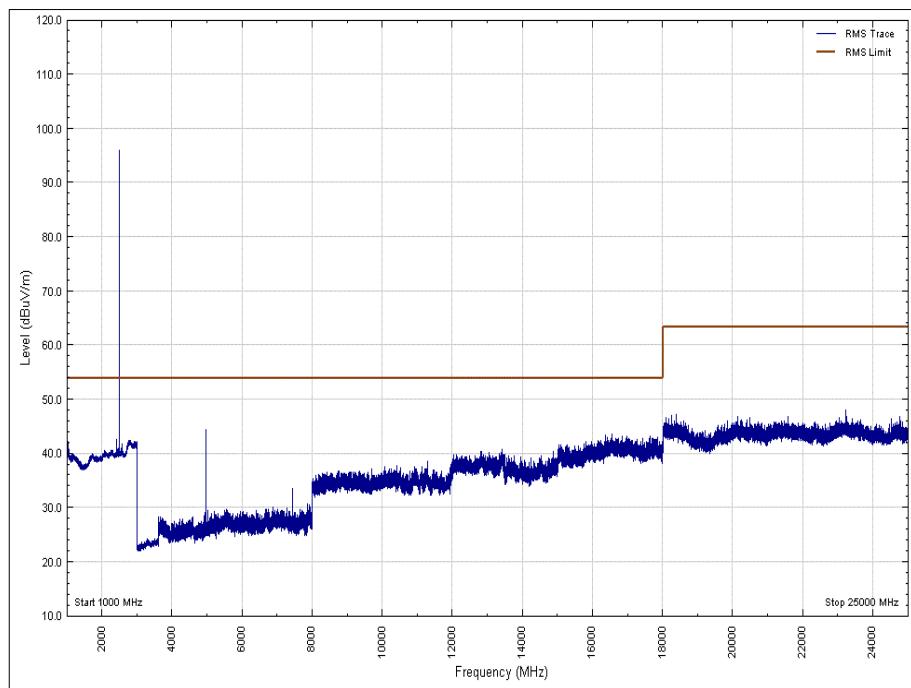


Figure 347 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: X, Average

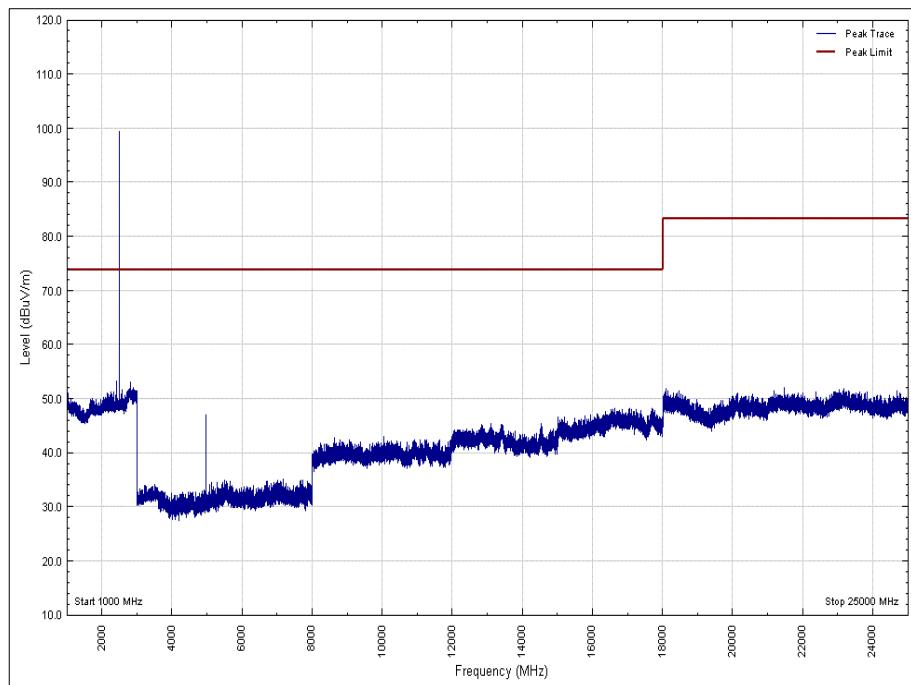


Figure 348 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

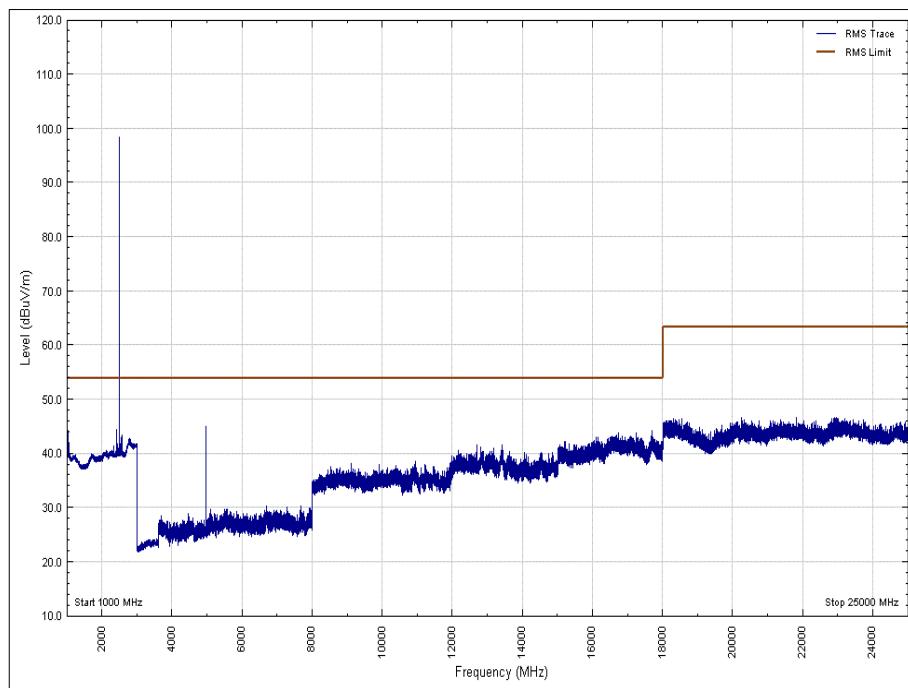


Figure 349 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Y, Peak

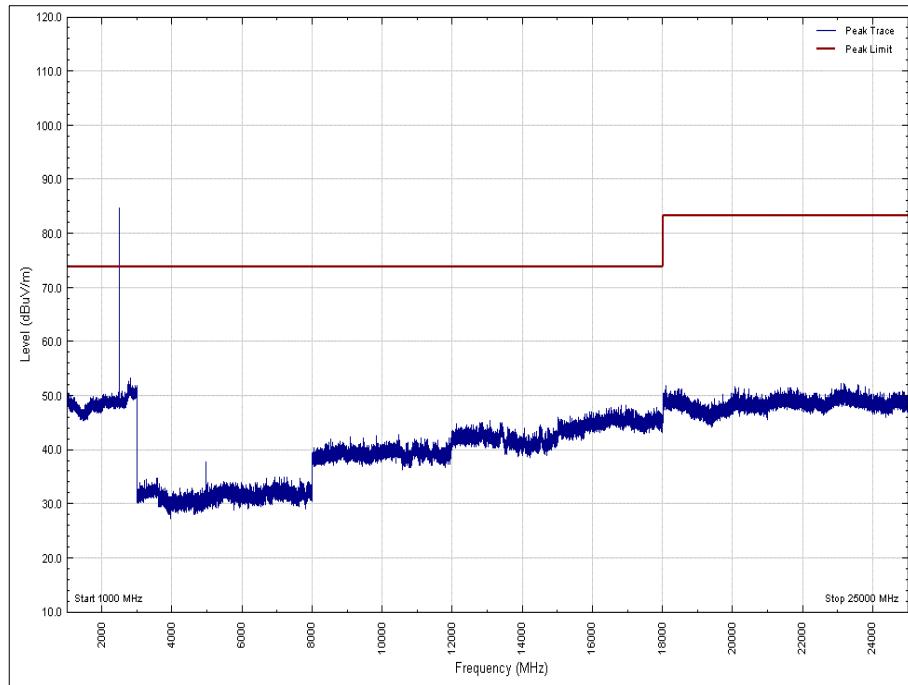


Figure 350 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

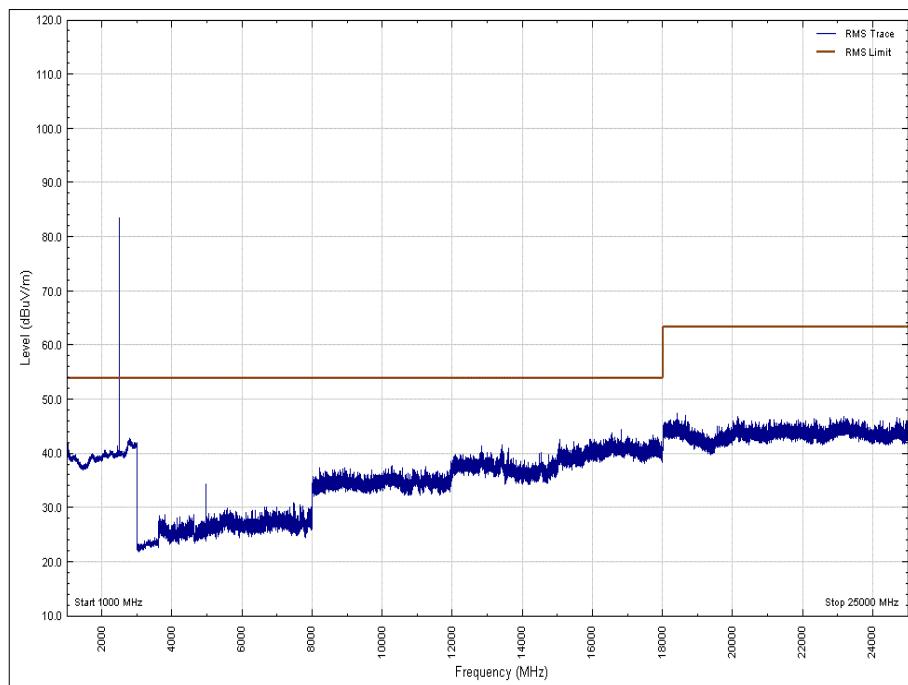


Figure 351 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Y, Average

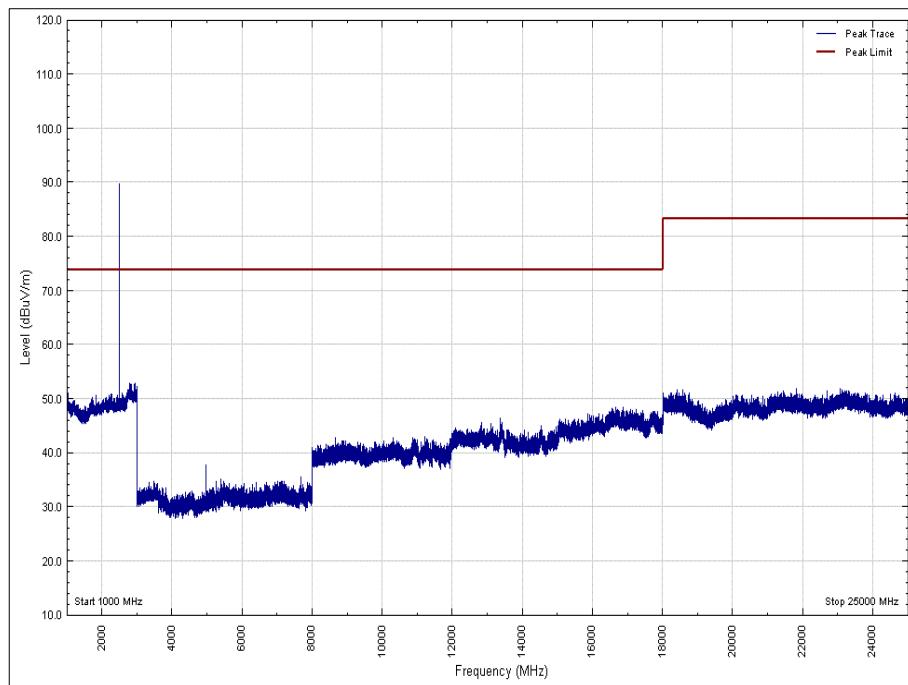


Figure 352 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

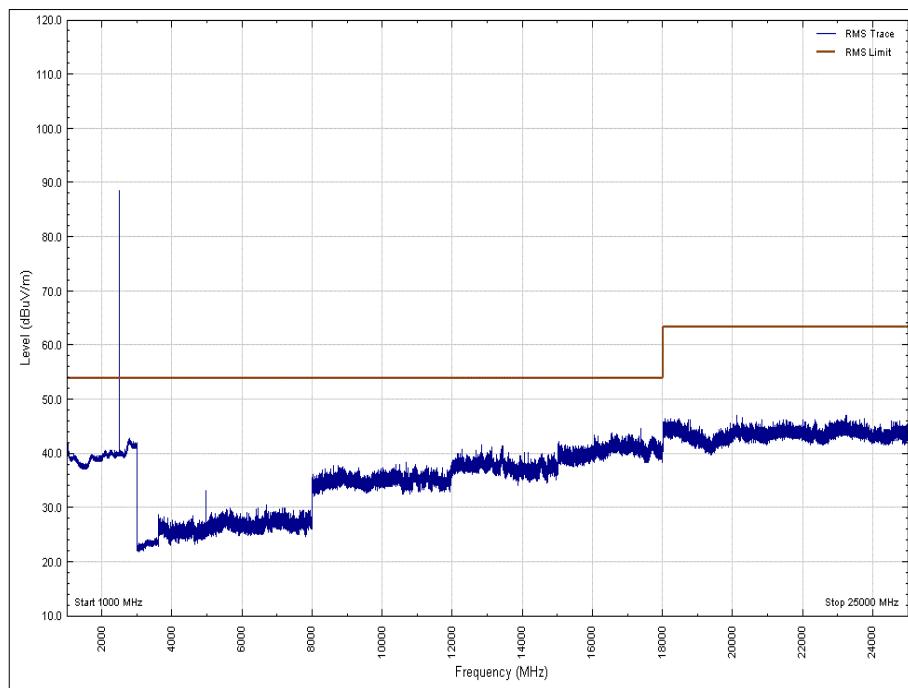


Figure 353 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Vertical, EUT Orientation: Z, Peak

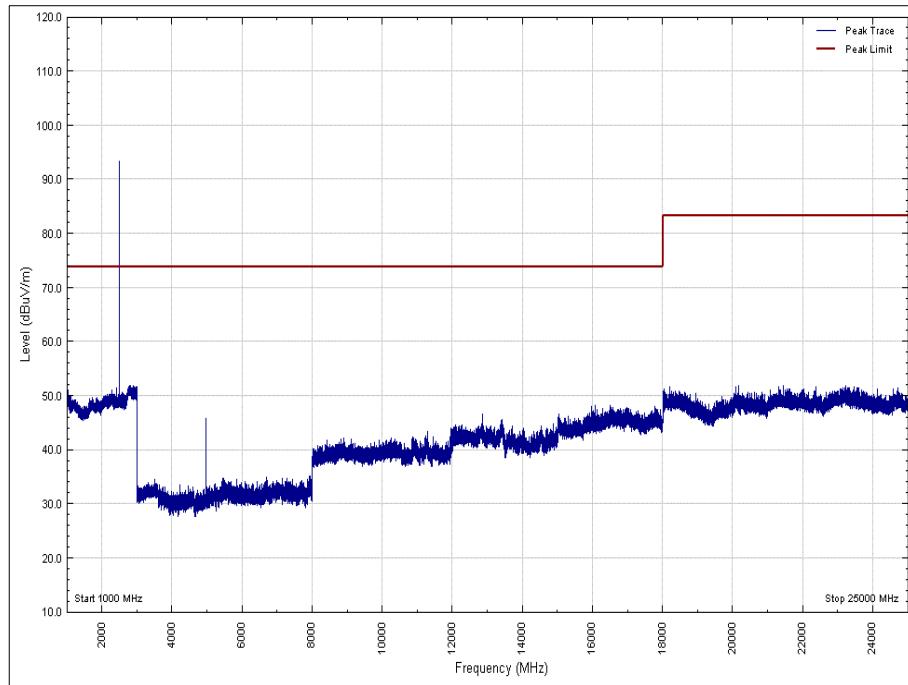


Figure 354 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Z, Average

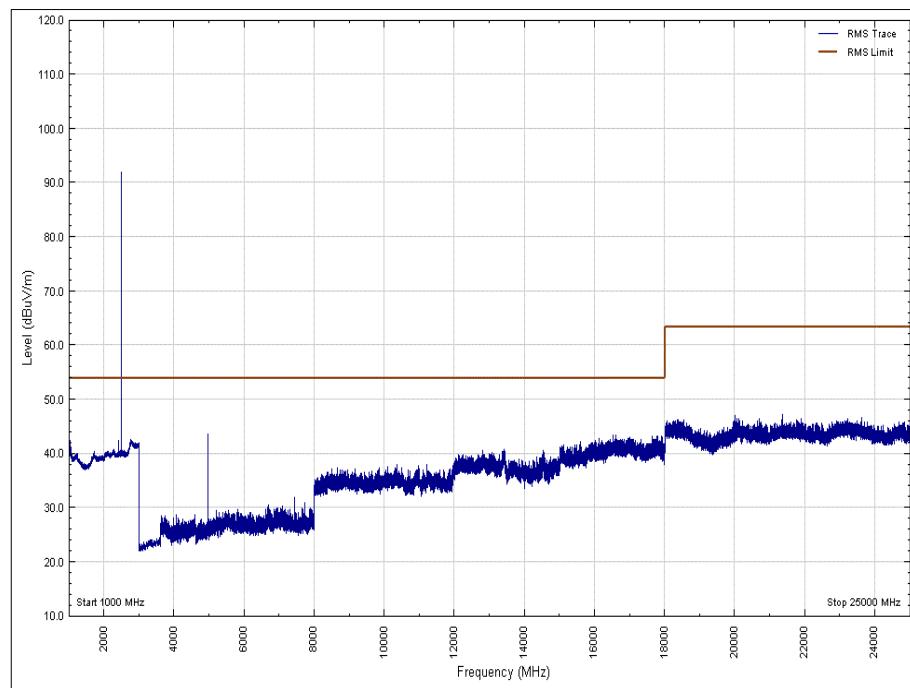


Figure 355 - 2480 MHz - 1 GHz to 25 GHz, Polarity: Horizontal, EUT Orientation: Z, Average



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)

ISEDC 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.



2.7.7 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 5.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Antenna 18-40GHz (Double Ridge Guide)	Link Microtek Ltd	AM180HA-K-TU2	230	24	02-May-2020
Filter (High Pass)	Lorch	SHP7-7000-SR	566	12	06-Jun-2020
Pre-Amplifier	Phase One	PS04-0086	1533	12	08-Feb-2020
18GHz - 40GHz Pre-Amplifier	Phase One	PSO4-0087	1534	12	05-Feb-2020
Screened Room (5)	Rainford	Rainford	1545	36	23-Jan-2021
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Hygrometer	Rotronic	A1	2677	12	20-Feb-2020
Antenna with permanent attenuator (Bilog)	Chase	CBL6143	2904	24	08-Aug-2019
Comb Generator	Schaffner	RSG1000	3034	-	TU
EMI Test Receiver	Rohde & Schwarz	ESU40	3506	12	17-Dec-2019
Cable 1503 2M 2.92(P)m 2.92(P)m	Rhophase	KPS-1503A-2000-KPS	4293	12	26-Oct-2019
1GHz to 8GHz Low Noise Amplifier	Wright Technologies	APS04-0085	4365	12	25-Oct-2019
Cable (Rx, Km-Km 2m)	Scott Cables	KPS-1501-2000-KPS	4526	6	11-Dec-2019
Double Ridged Waveguide Horn Antenna	ETS-Lindgren	3117	4722	12	05-Mar-2020
1 - 18GHz DRG Antenna	ETS-Lindgren	3117	4738	12	05-Mar-2020
Mast Controller	Maturo GmbH	NCD	4810	-	TU
Tilt Antenna Mast	Maturo GmbH	TAM 4.0-P	4811	-	TU
Double Ridge Broadband Horn Antenna	Schwarzbeck	BBHA 9120 B	4848	12	11-Mar-2020
4dB Attenuator	Pasternack	PE7047-4	4935	24	28-Nov-2019
8m N-Type RF Cable	Teledyne	PR90-088-8MTR	5093	12	04-Oct-2019
Cable (18 GHz)	Rosenberger	LU7-071-1000	5105	12	05-Oct-2019
Cable (18 GHz)	Rosenberger	LU7-071-2000	5109	12	05-Oct-2019
EmX Software	TÜV SUD	EmX	5125	-	Software
1.5m 40GHz RF Cable	Scott Cables	KPS-1501-2000-KPS	5127	6	11-Dec-2019
3 GHz High pass filter	Wainwright	WHKX12-2580-3000-18000-80SS	5220	12	15-Feb-2020

Table 73
 TU - Traceability Unscheduled

3 Photographs

3.1 Test Setup Photographs

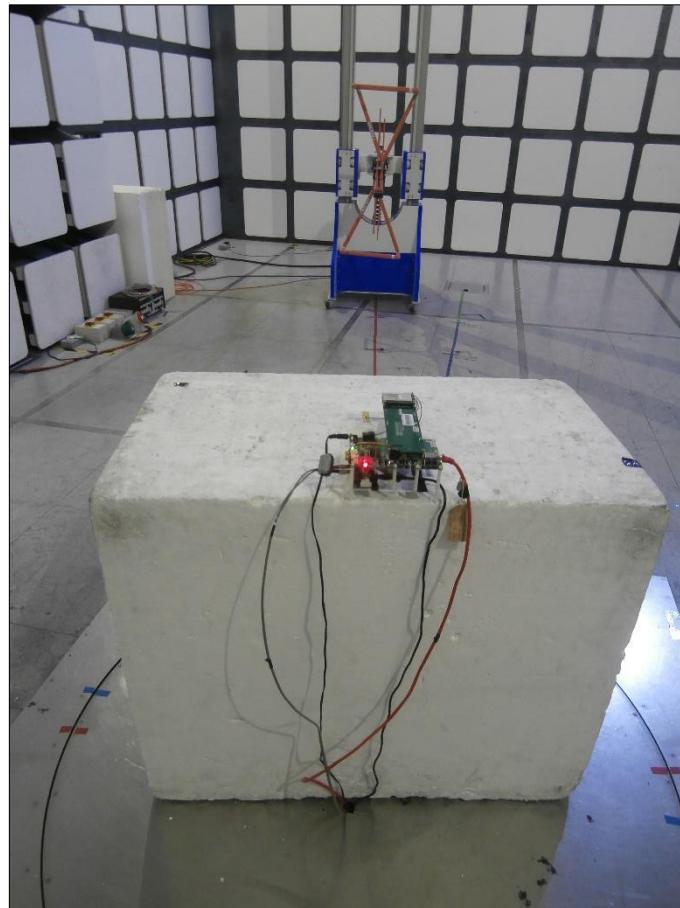


Figure 356 - 30 MHz to 1 GHz - X Orientation

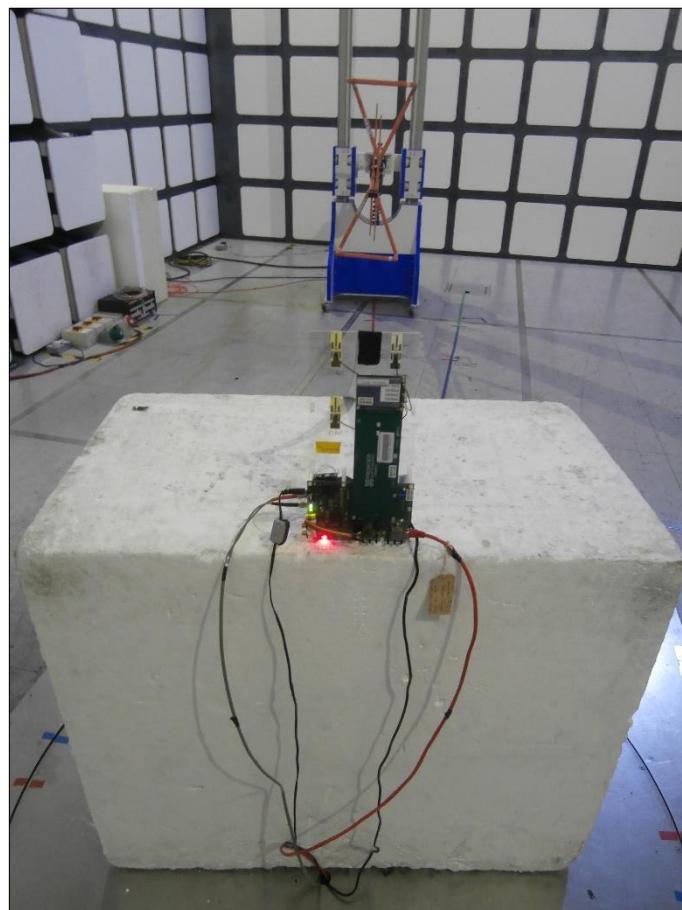


Figure 357 - 30 MHz to 1 GHz - Y Orientation

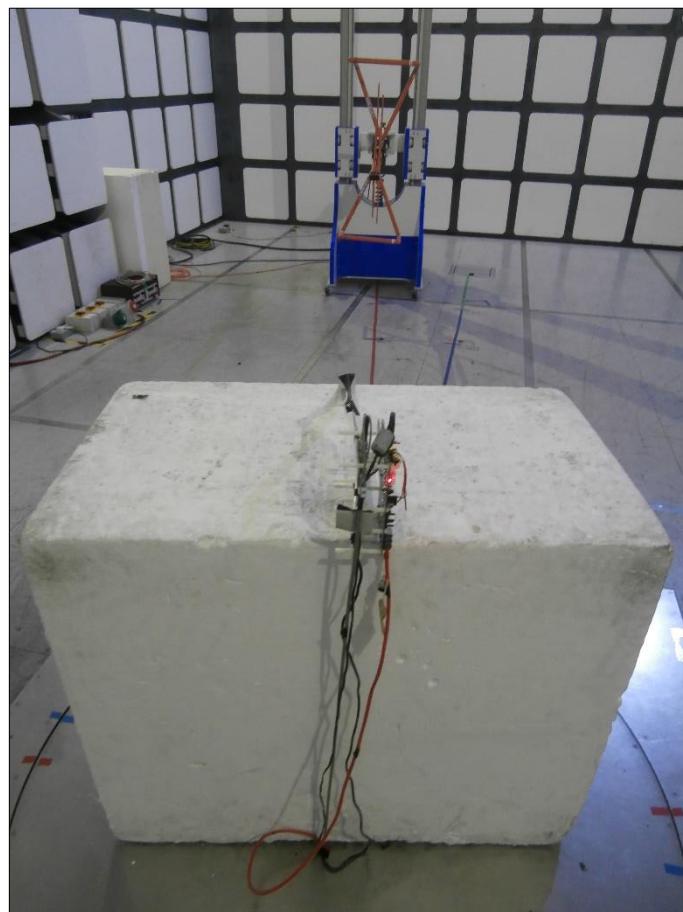


Figure 358 - 30 MHz to 1 GHz - Z Orientation



Figure 359 - 1 GHz to 8 GHz - X Orientation

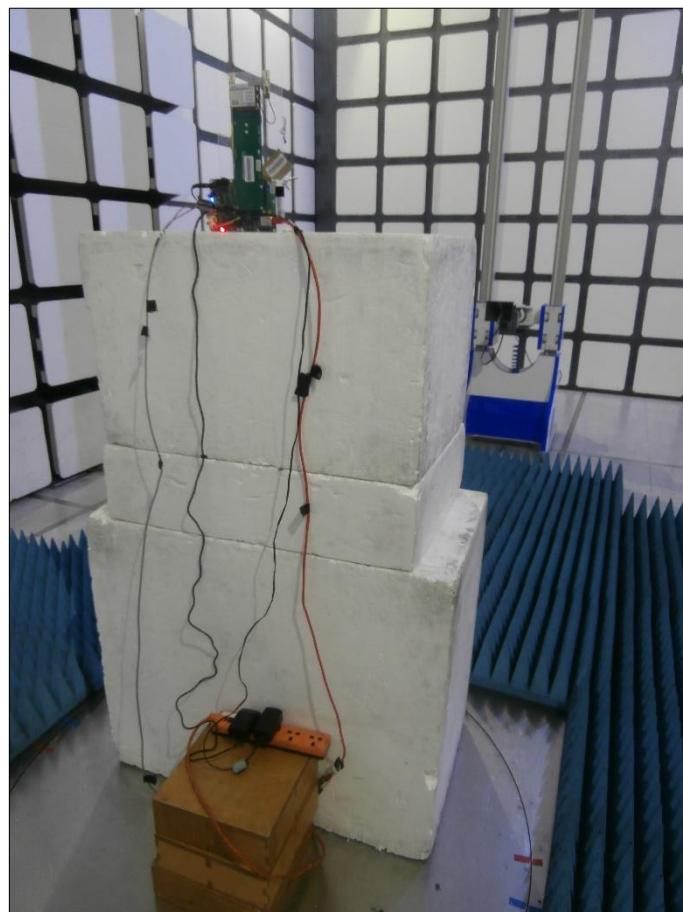


Figure 360 - 1 GHz to 8 GHz - Y Orientation



Figure 361 - 1 GHz to 8 GHz - Z Orientation



Figure 362 - 8 GHz to 18 GHz - X Orientation

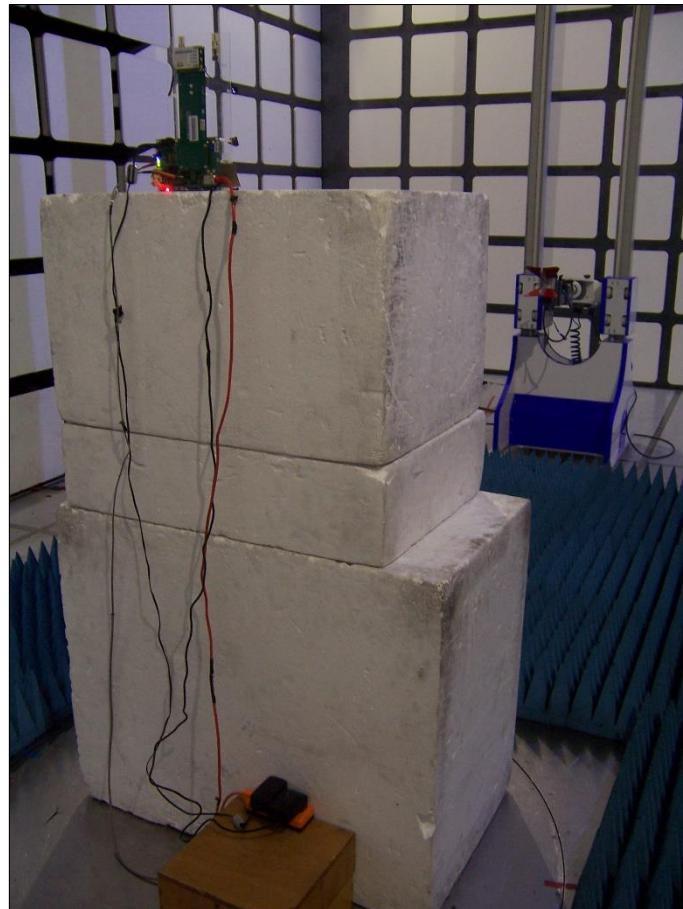


Figure 363 - 8 GHz to 18 GHz - Y Orientation