

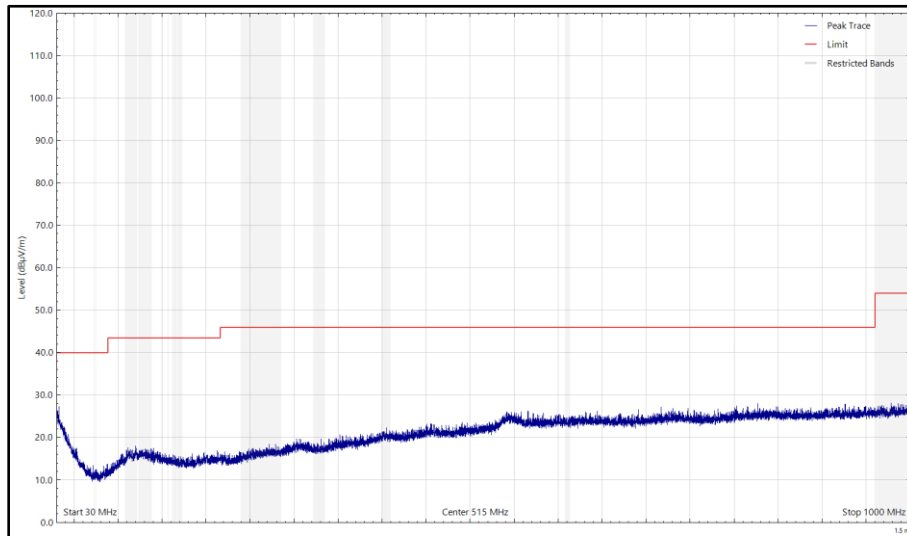


Figure 72-TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Z -Orientation

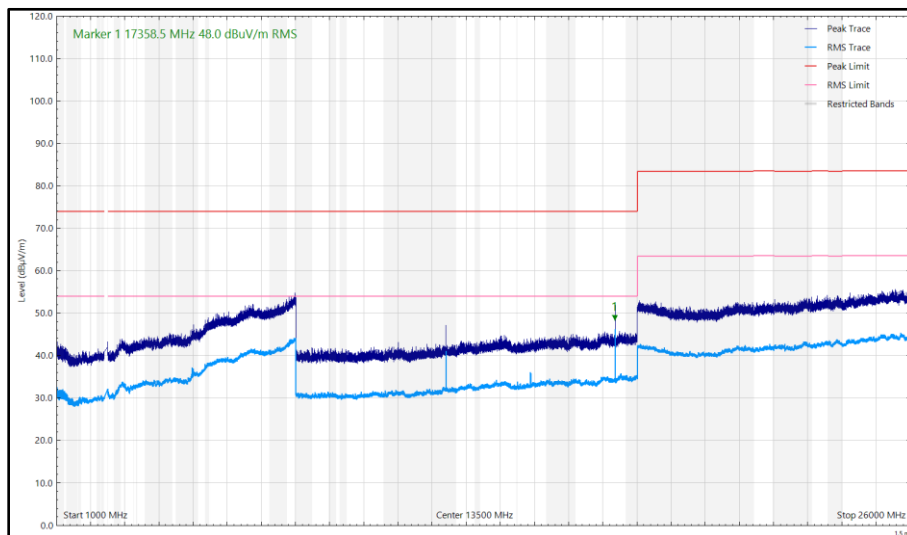


Figure 73 - TOP_2480 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) Z -Orientation

2.4 GHz Bluetooth Low Energy - PCB Trace Antenna (xGM270S S7)

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
12008.834	49.52	54.00	-4.48	RMS	265	252	Vertical
12011.069	51.76	54.00	-2.24	RMS	209	252	Horizontal

Table 51 – Bottom_2402 MHz, LE500k - 30 MHz to 26 GHz X- Orientation

No other emissions found within 10 dB of the limit.

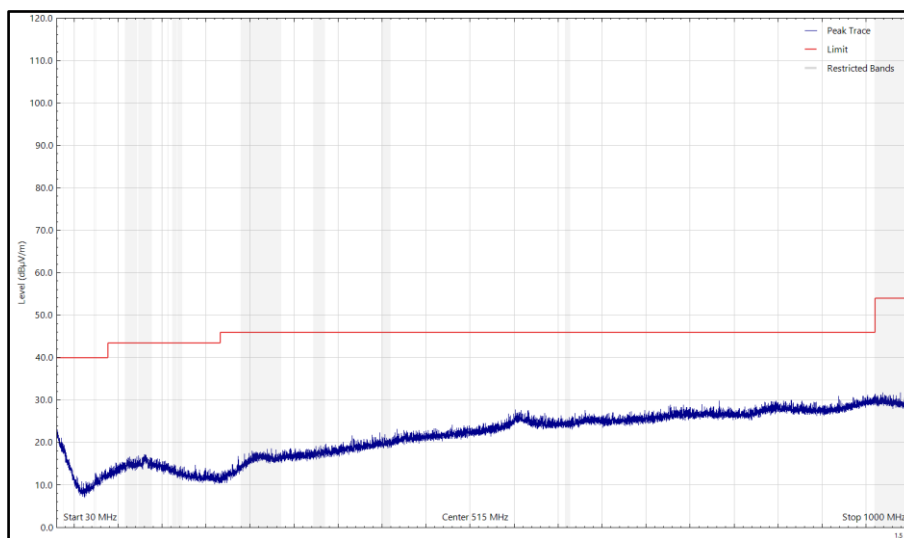


Figure 74- Bottom_2402 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) X- Orientation

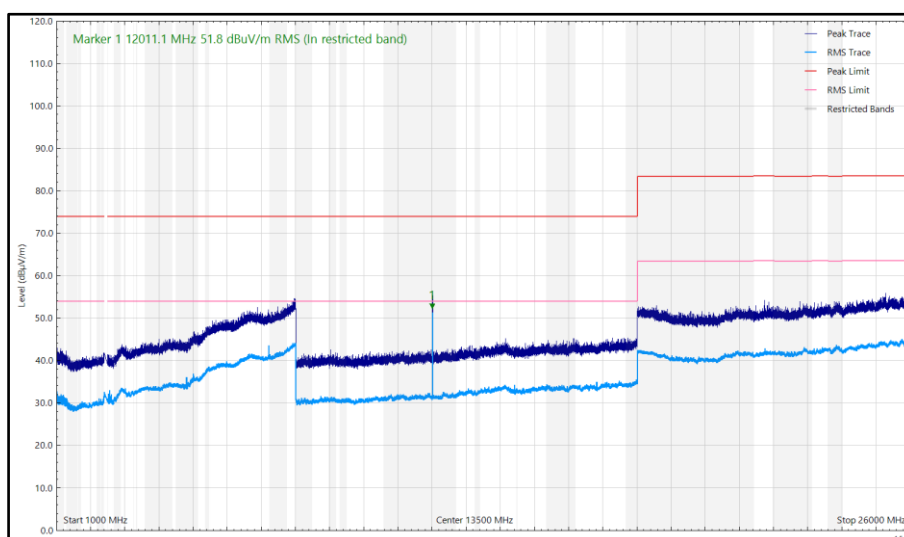


Figure 75- Bottom_2402 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) X- Orientation

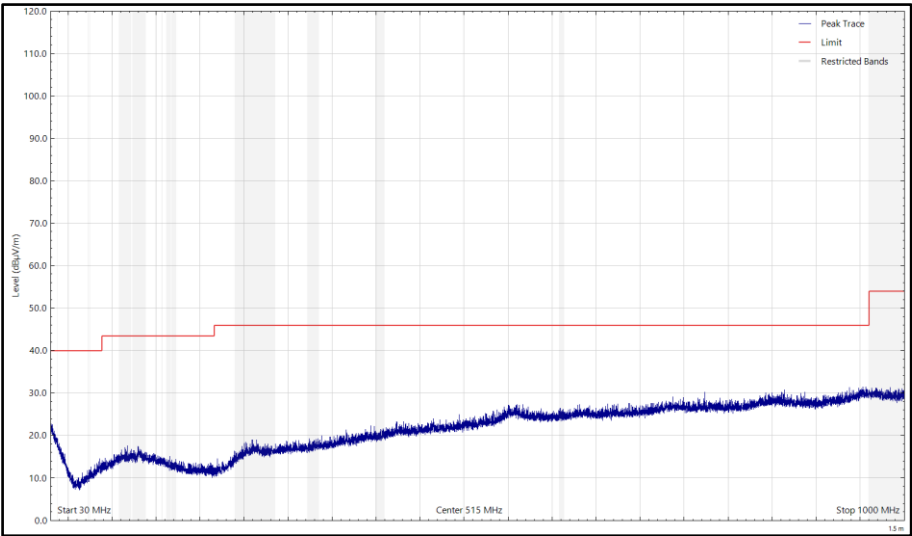


Figure 76- Bottom_2402 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) X- Orientation

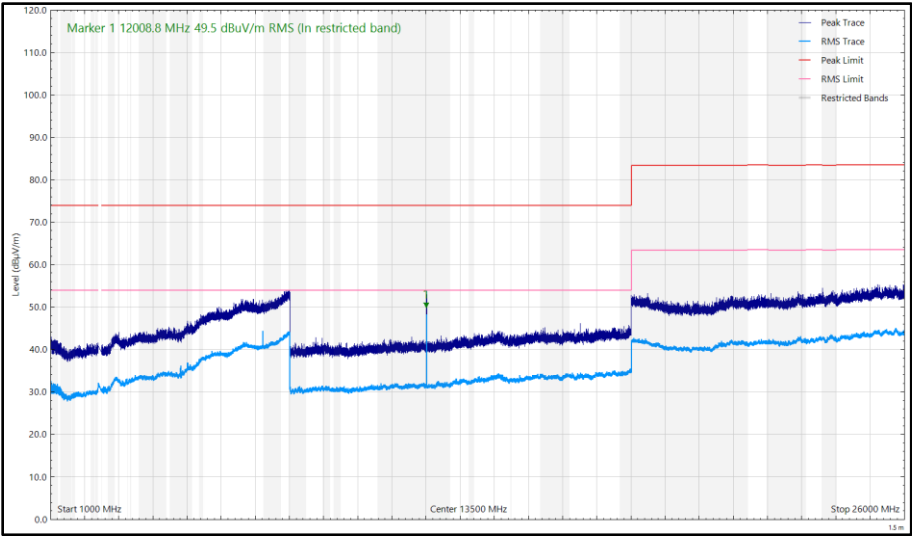


Figure 77- Bottom_2402 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) X- Orientation

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
12198.953	47.95	54.00	-6.05	RMS	208	267	Vertical
12201.050	47.81	54.00	-6.19	RMS	231	250	Horizontal

Table 52 – Mid_2440 MHz, LE500k - 30 MHz to 26 GHz X - Orientation

No other emissions found within 10 dB of the limit.

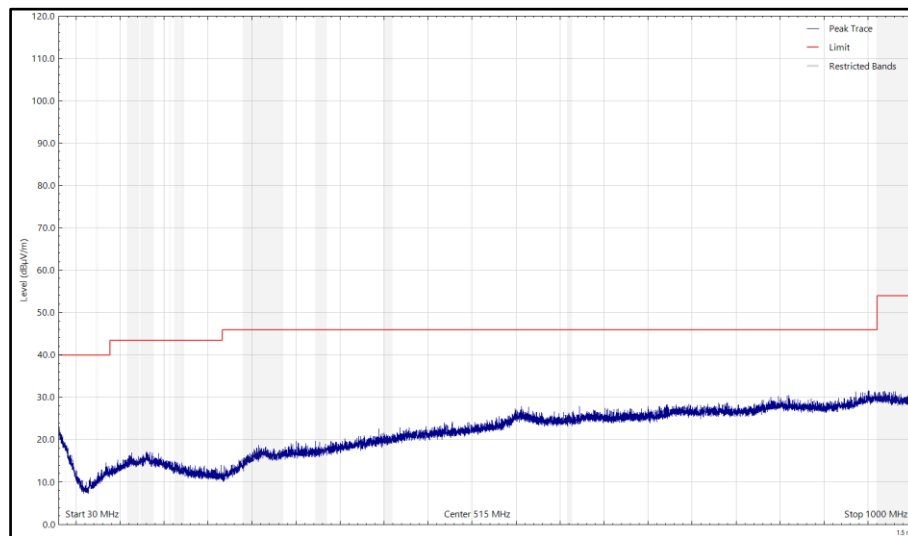


Figure 78- Mid_2440 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) X - Orientation

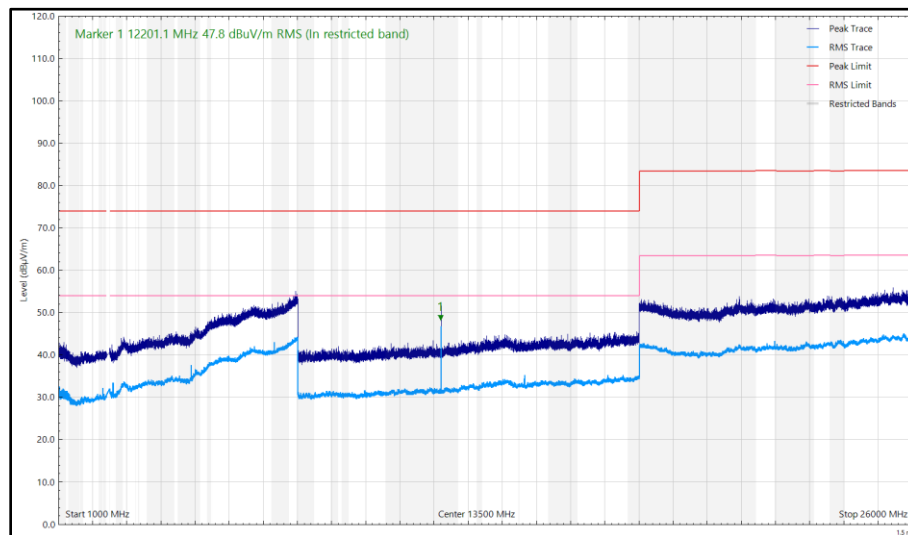


Figure 79- Mid_2440 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) X- Orientation

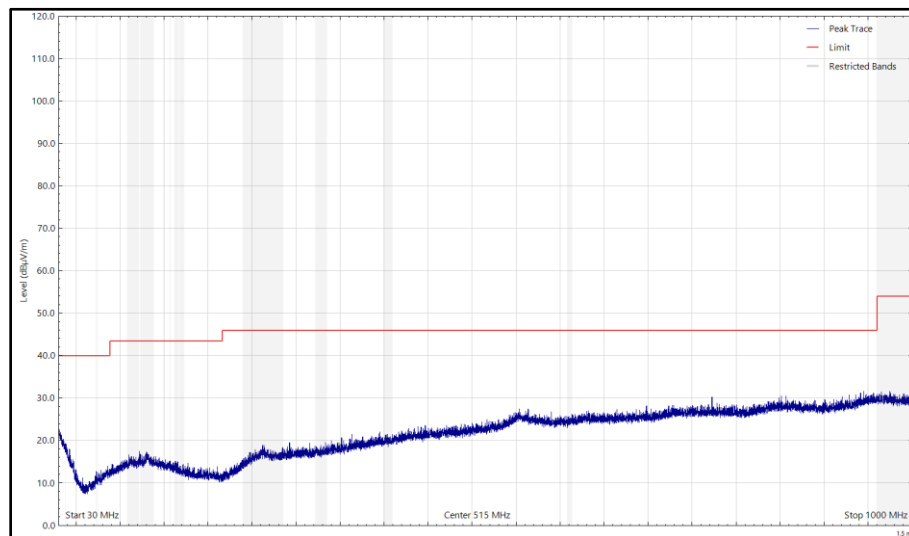


Figure 79 - Mid_2440 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) X- Orientation

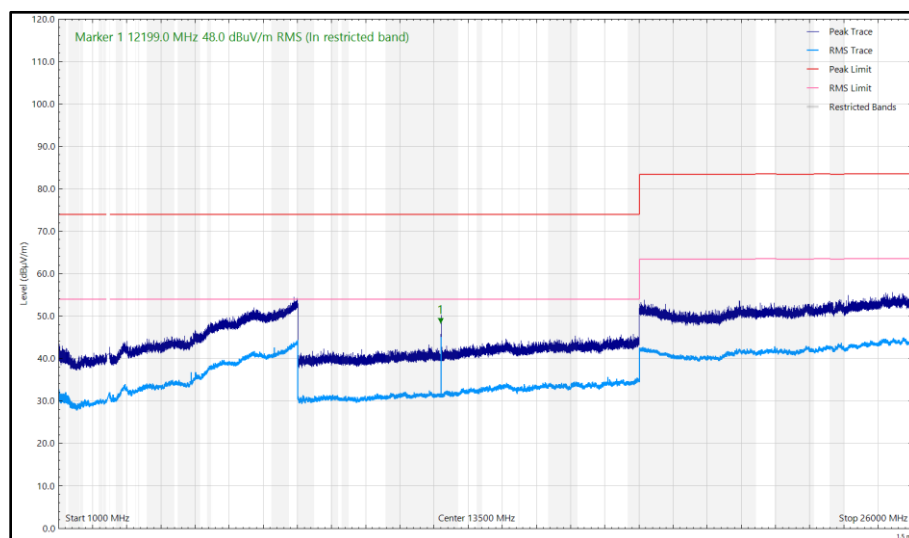


Figure 80 - Mid_2440 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) X- Orientation

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
12398.850	44.78	54.00	-9.22	RMS	213	258	Horizontal

Table 53 -TOP_2480 MHz, LE500k - 30 MHz to 26 GHz X-Orientation

No other emissions found within 10 dB of the limit.

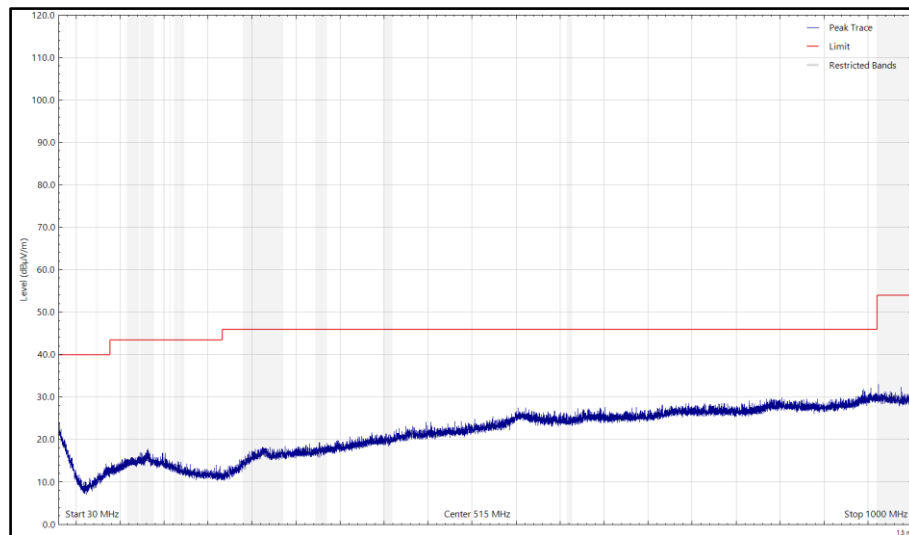


Figure 81 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) X-Orientation

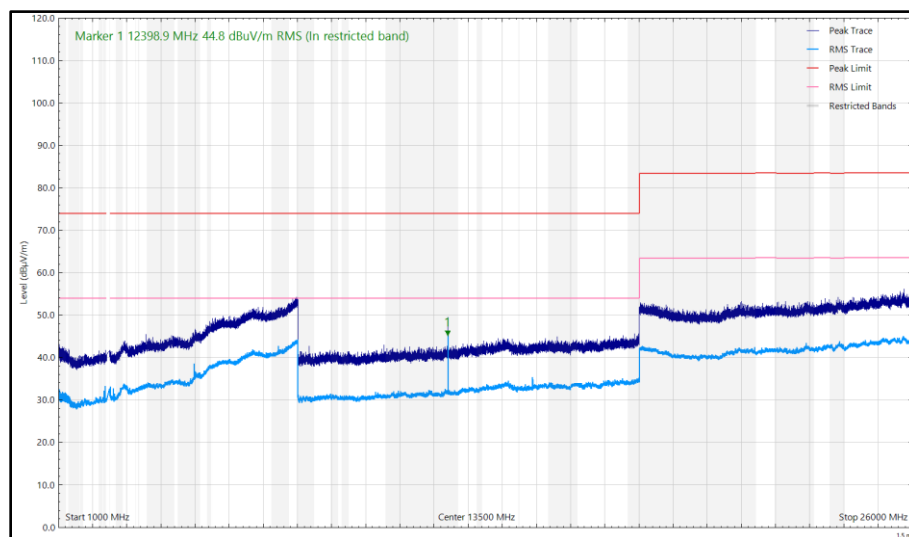


Figure 82 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) X-Orientation

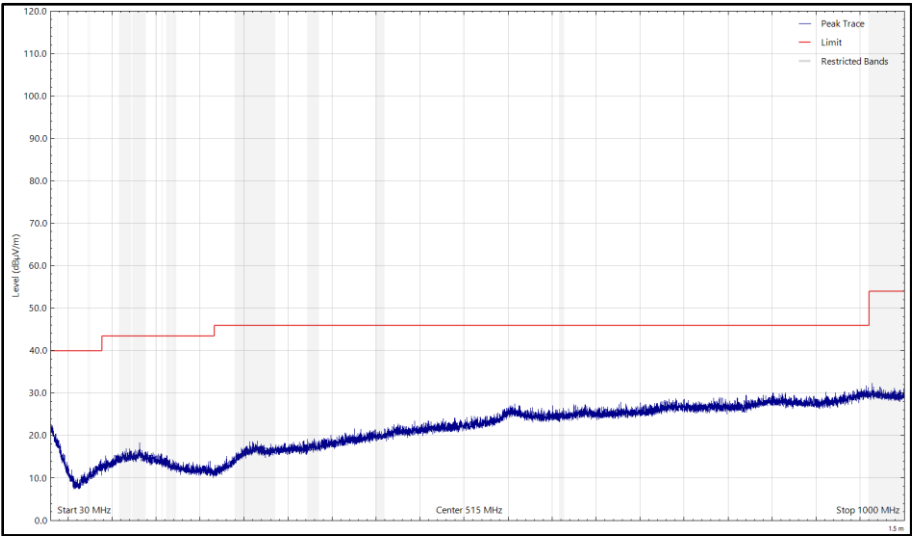


Figure 83 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) X-Orientation

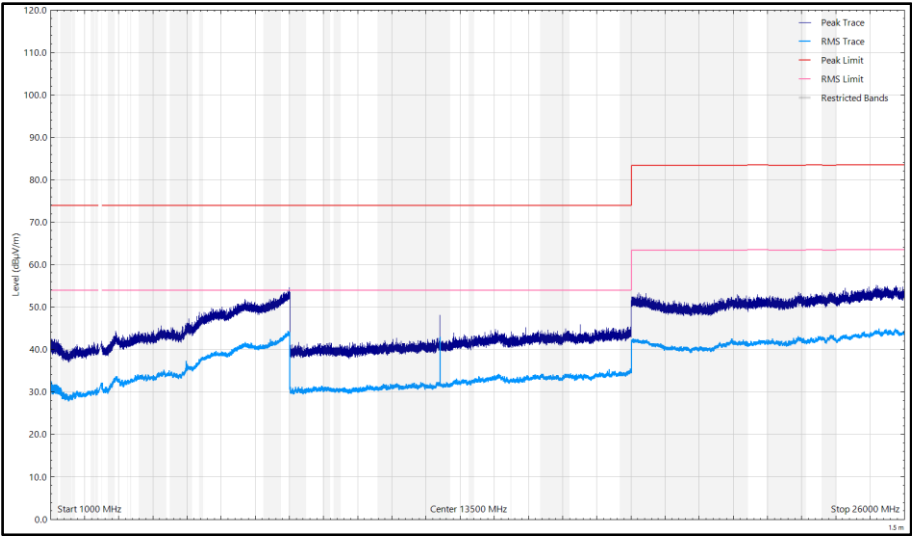


Figure 84 - TOP_2480 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) X-Orientation



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

Table 54 -Bottom_2402 MHz, LE500k - 30 MHz to 26 GHz Y- Orientation

*No emissions found within 10 dB of the limit.

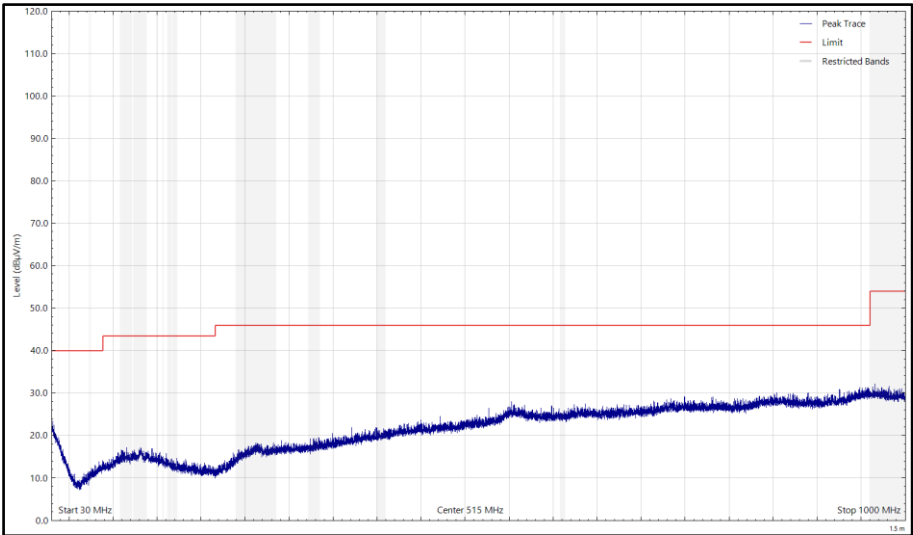


Figure 85 - Bottom_2402 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) Y- Orientation

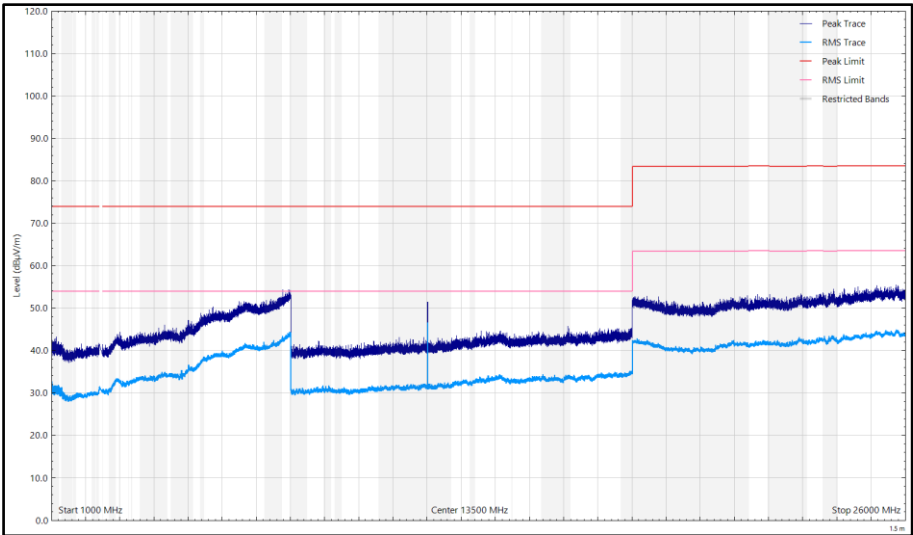


Figure 86 - Bottom_2402 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) Y- Orientation

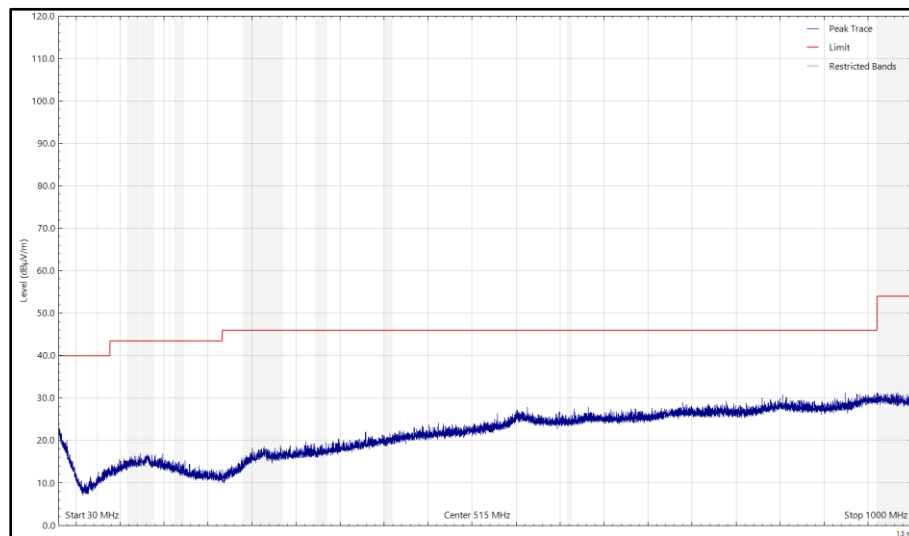


Figure 87 - Bottom_2402 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Y- Orientation

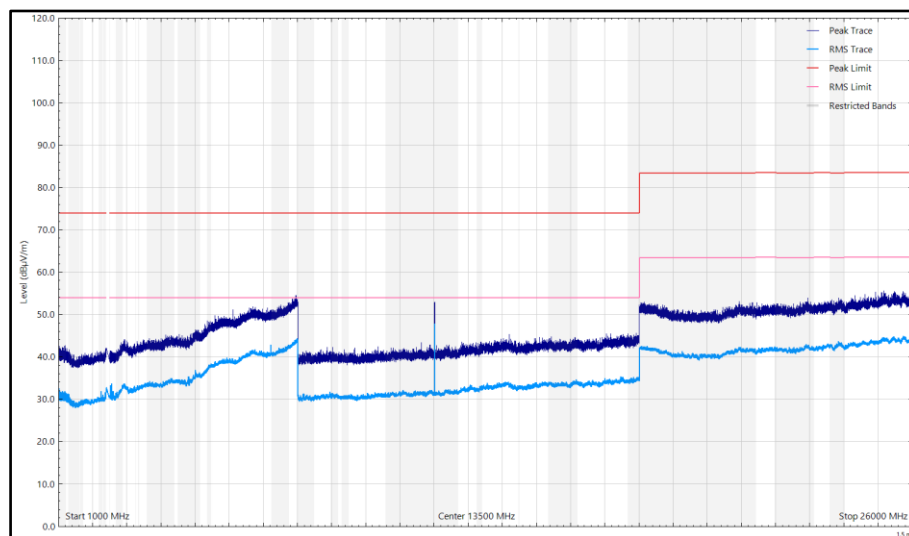


Figure 88 - Bottom_2402 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) Y- Orientation

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

Table 55 - 2440 MHz, LE500k - 30 MHz to 26 GHz Y- Orientation

*No emissions found within 10 dB of the limit.

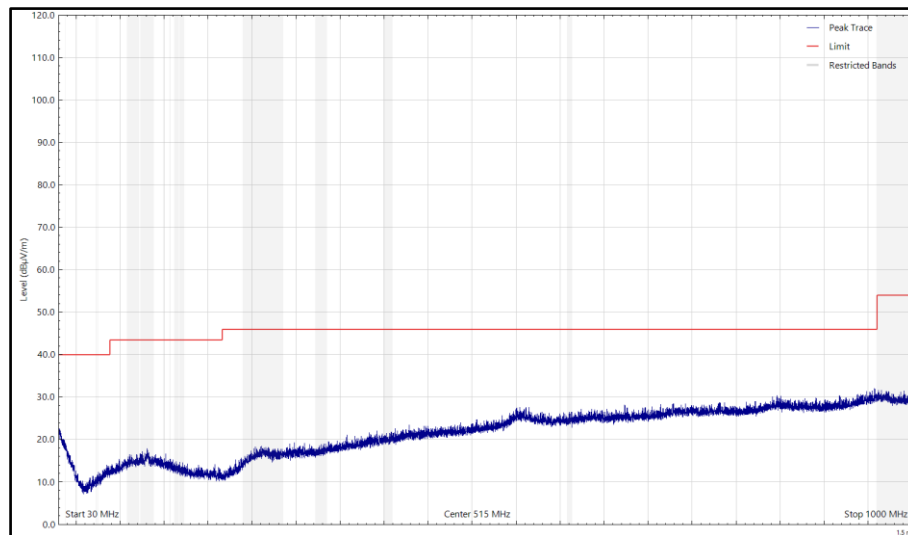


Figure 89 - Mid_2440 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) Y- Orientation

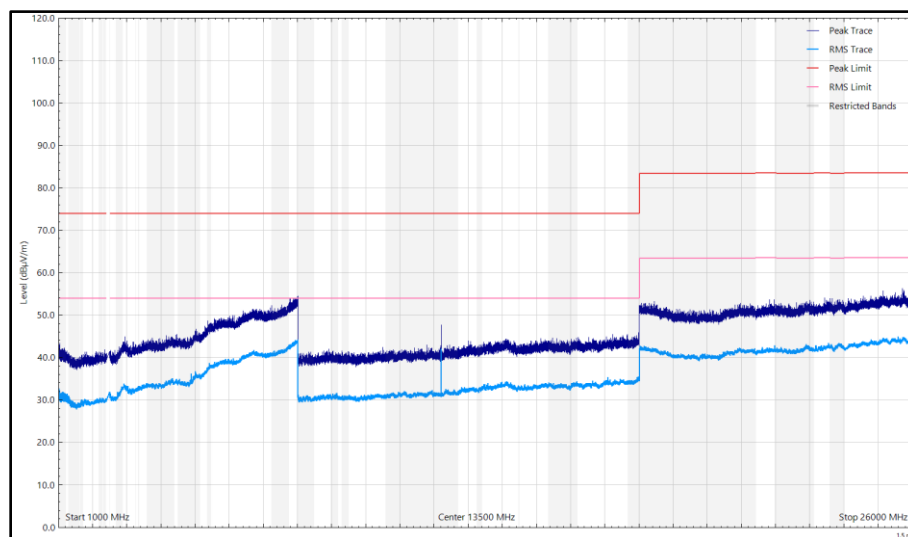


Figure 90 - Mid_2440 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) Y- Orientation

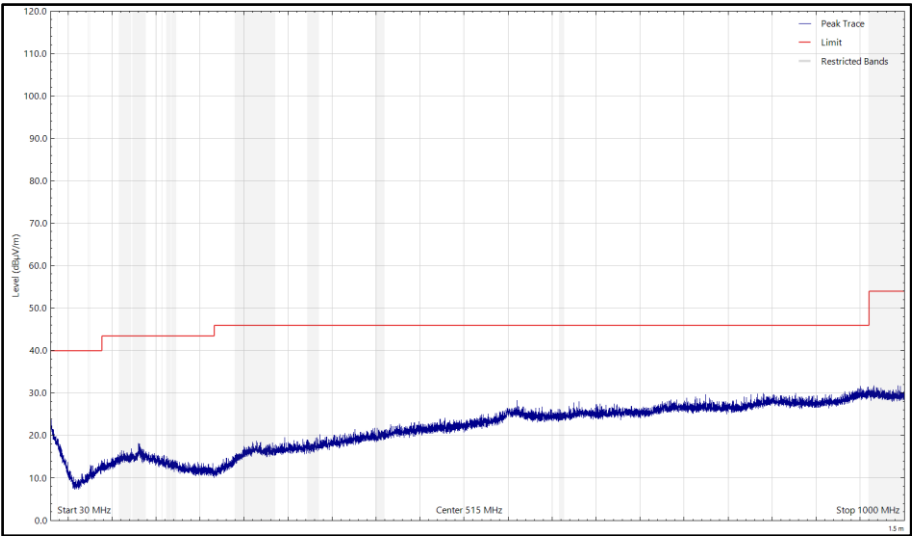


Figure 91 - Mid_2440 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Y- Orientation

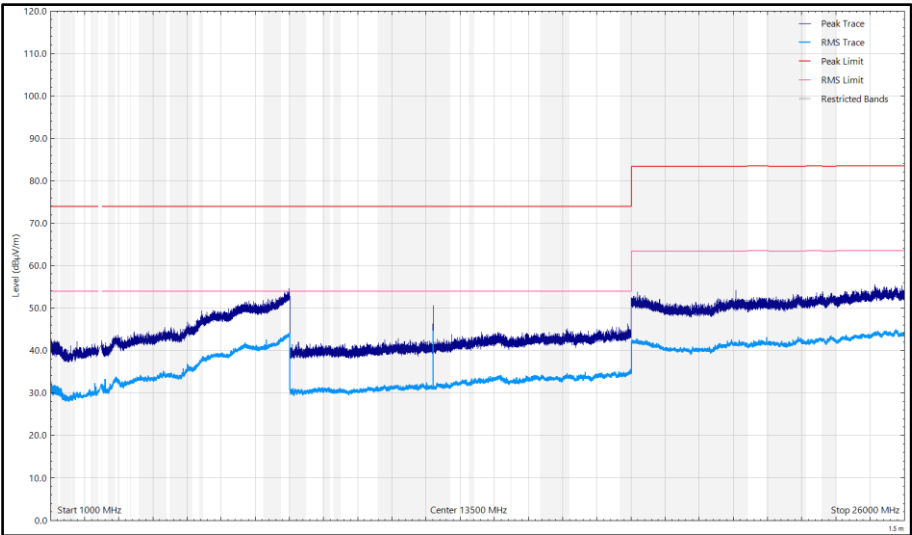


Figure 92 - Mid_2440 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) Y- Orientation

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

Table 56 – Top_2480 MHz, LE500k - 30 MHz to 26 GHz Y- Orientation

*No emissions found within 10 dB of the limit.

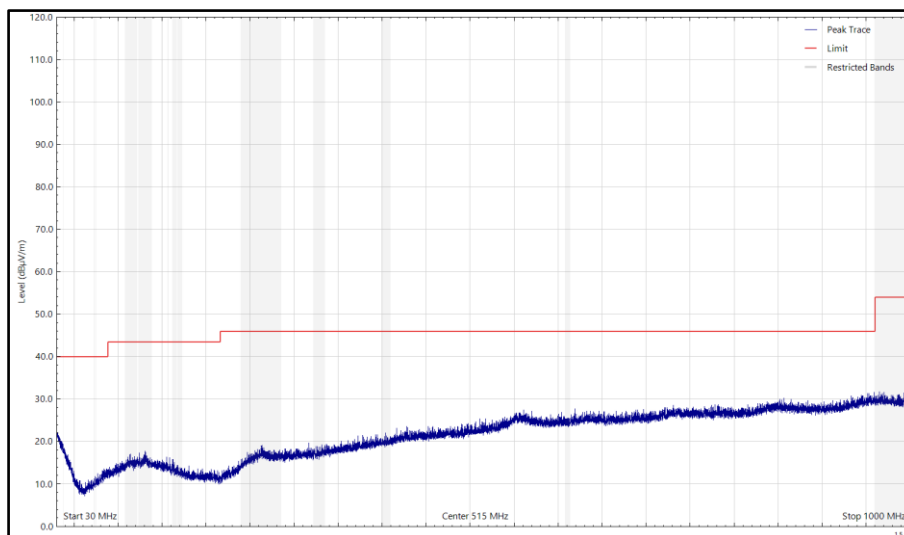


Figure 93 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) Y-Orientation

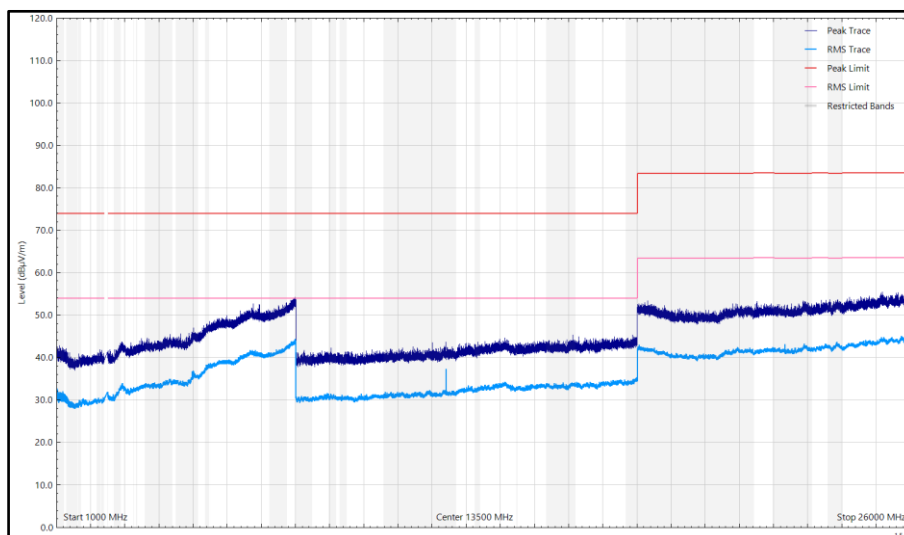


Figure 94 - TOP_2480 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) Y-Orientation

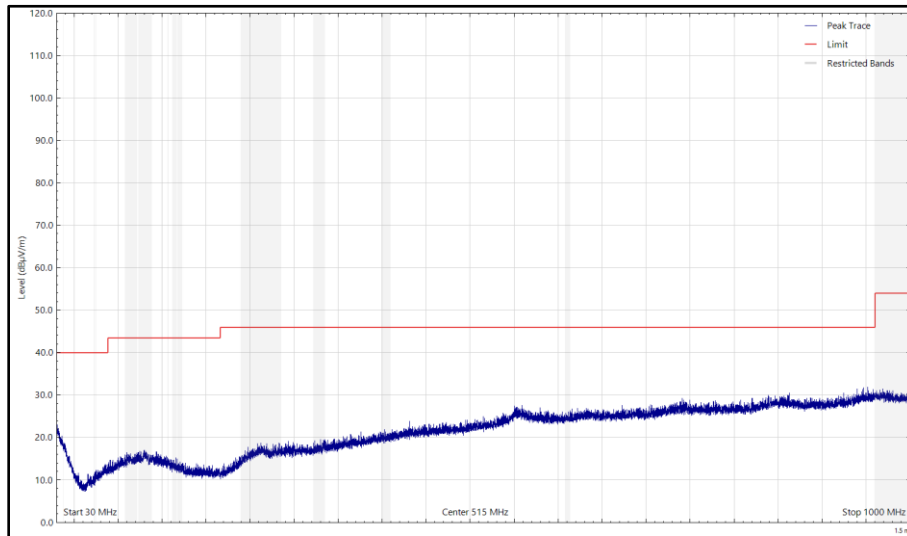


Figure 95 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Y-Orientation

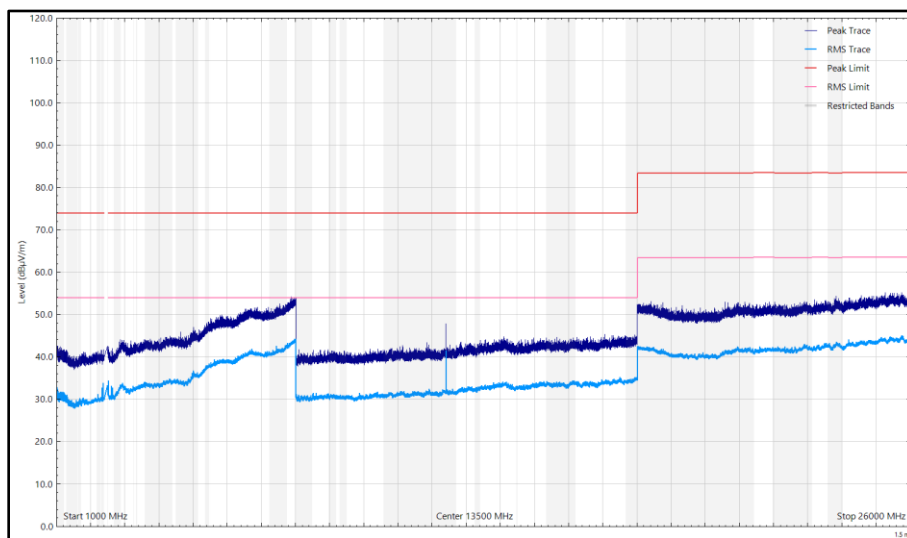


Figure 96 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Y-Orientation

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
12008.910	52.88	54.00	-1.12	RMS	287	221	Horizontal

Table 57 – Bottom_2402 MHz, LE500k - 30 MHz to 26 GHz Z -Orientation

No other emissions found within 10 dB of the limit.

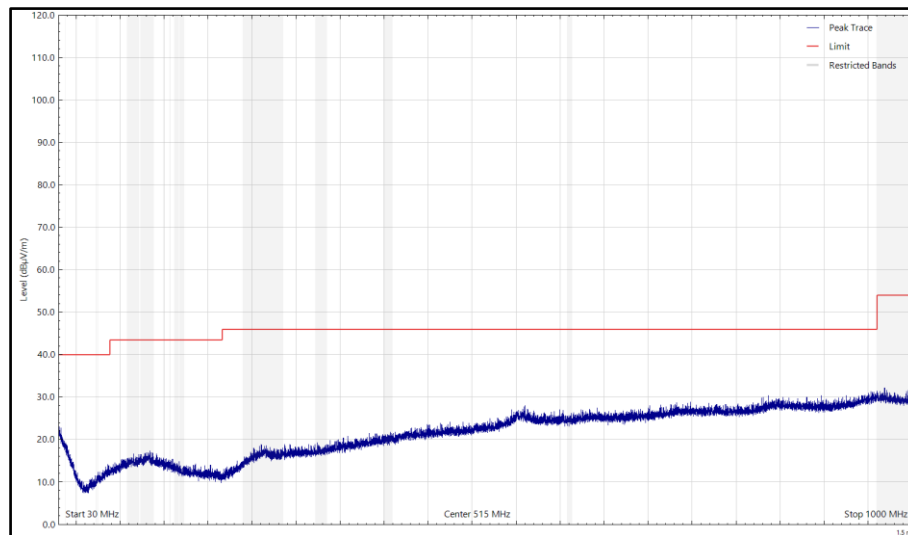


Figure 97 - Bottom_2402 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) Z - Orientation

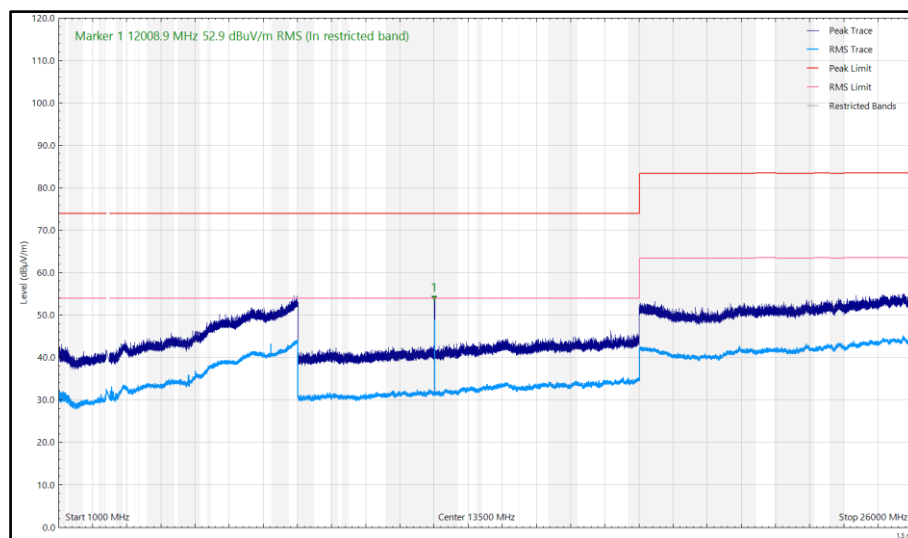


Figure 98 - Bottom_2402 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) Z - Orientation

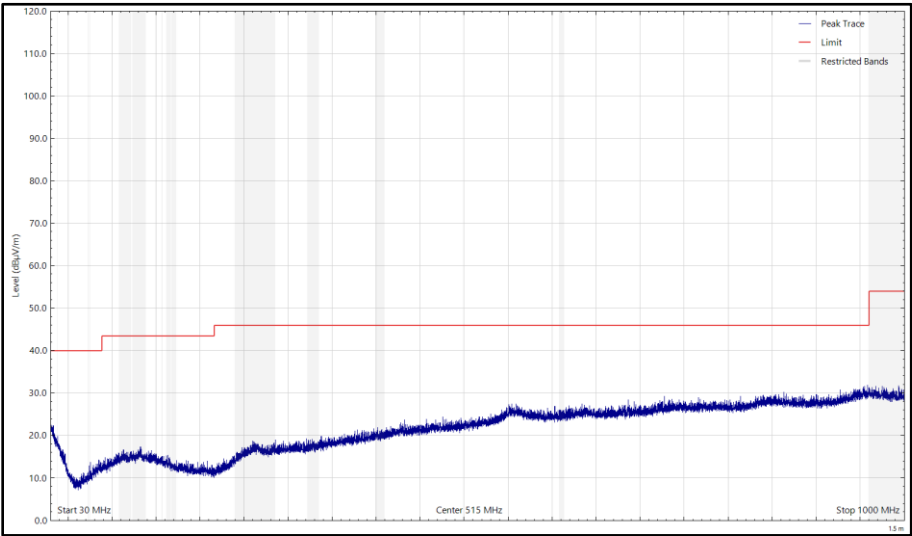


Figure 99 - Bottom_2402 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Z- Orientation

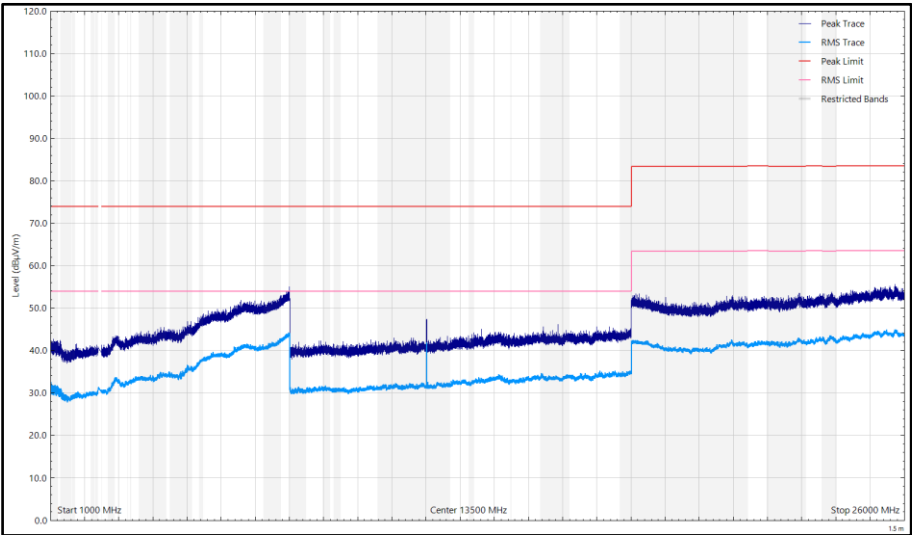


Figure 100 - Bottom_2402 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) Z- Orientation

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
12200.979	51.23	54.00	-2.77	RMS	298	232	Horizontal

Table 58 – Mid_2440 MHz, LE500k - 30 MHz to 26 GHz Z- Orientation

No other emissions found within 10 dB of the limit.

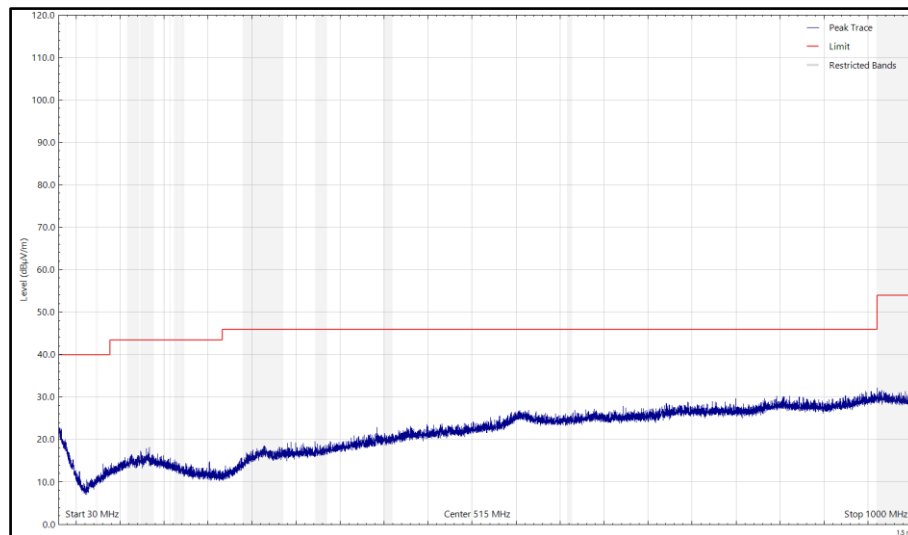


Figure 101 - Mid_2440 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) Z- Orientation

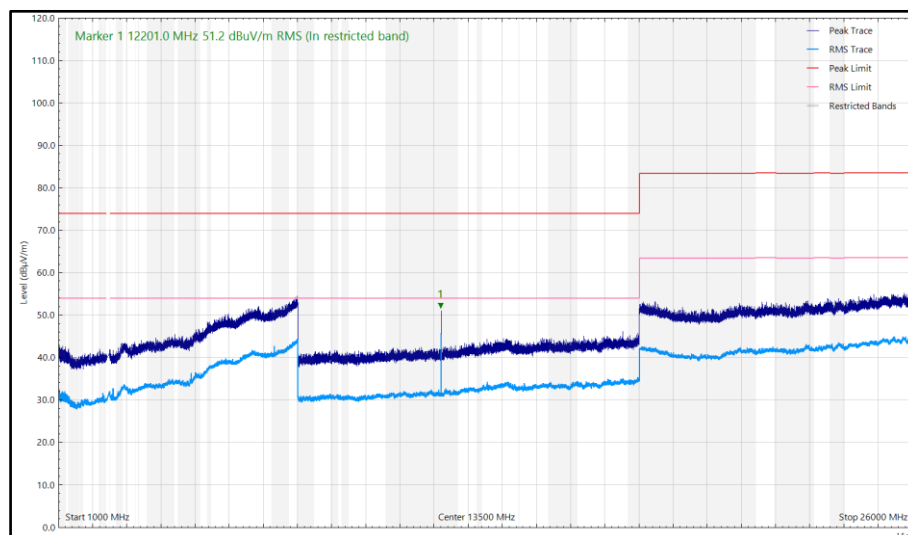


Figure 102 - Mid_2440 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) Z- Orientation

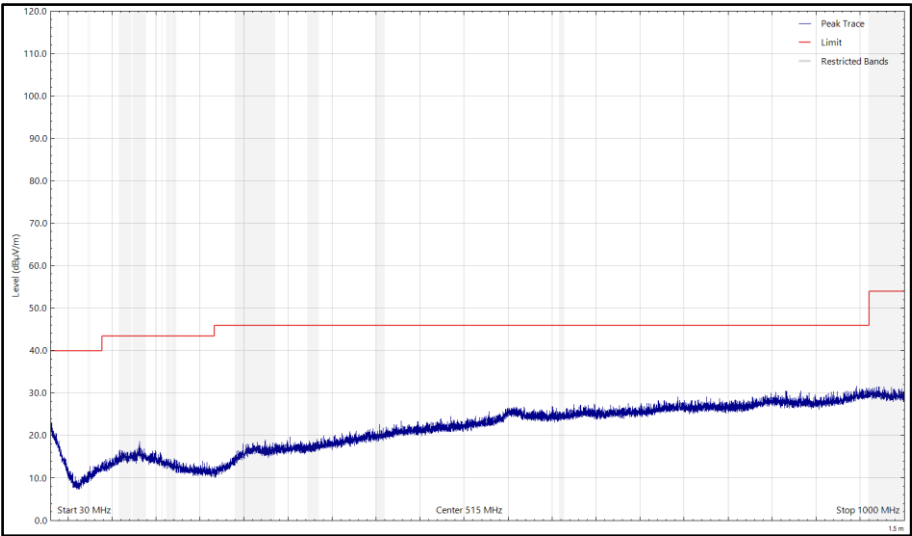


Figure 103 - Mid_2440 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Z- Orientation

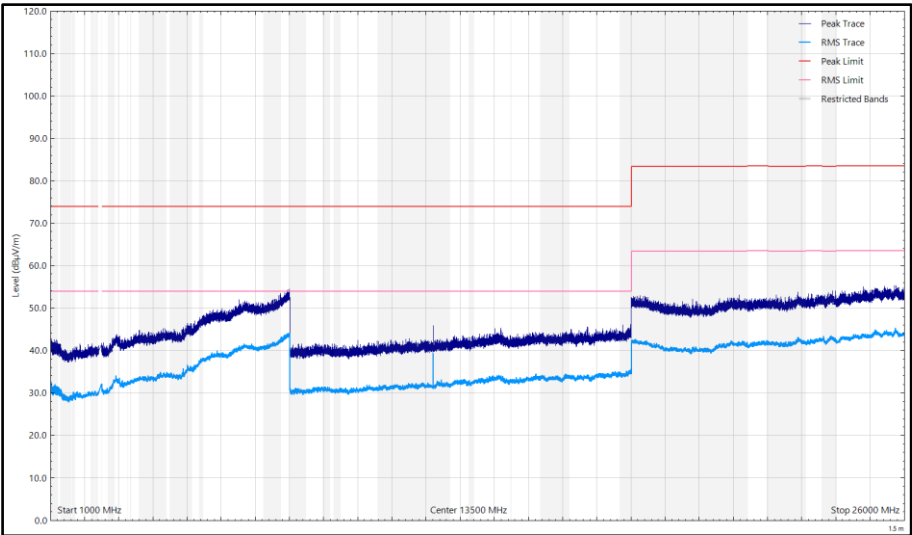


Figure 104 - Mid_2440 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) Z- Orientation

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

Table 59 – TOP_2480 MHz, LE500k - 30 MHz to 26 GHz Z-Orientation

*No emissions found within 10 dB of the limit.

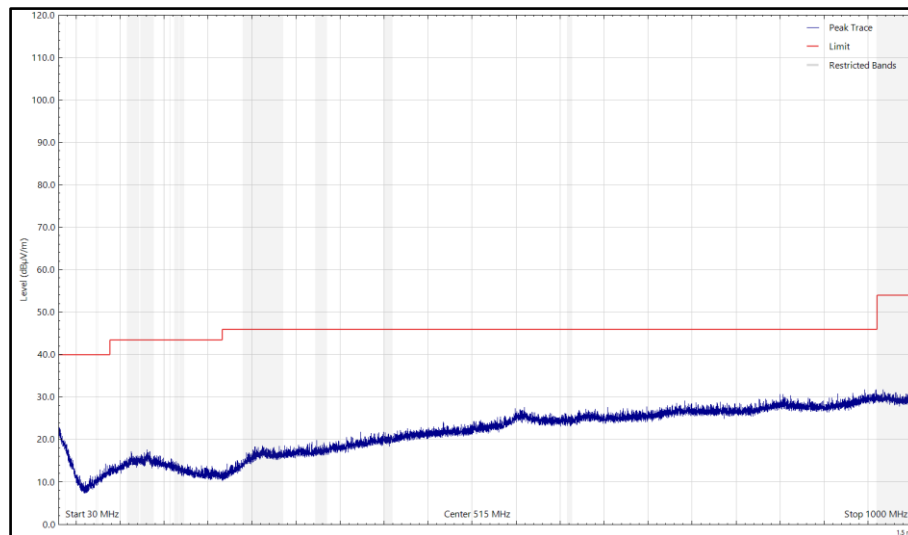


Figure 105 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Horizontal (Peak) Z-Orientation

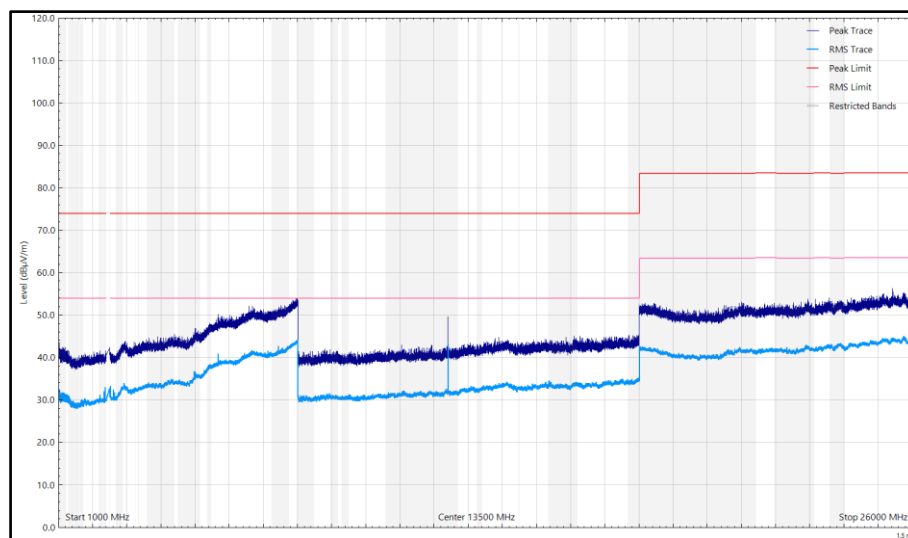


Figure 106 - TOP_2480 MHz, LE500k - 1 GHz to 26 GHz, Horizontal (Peak) Z-Orientation

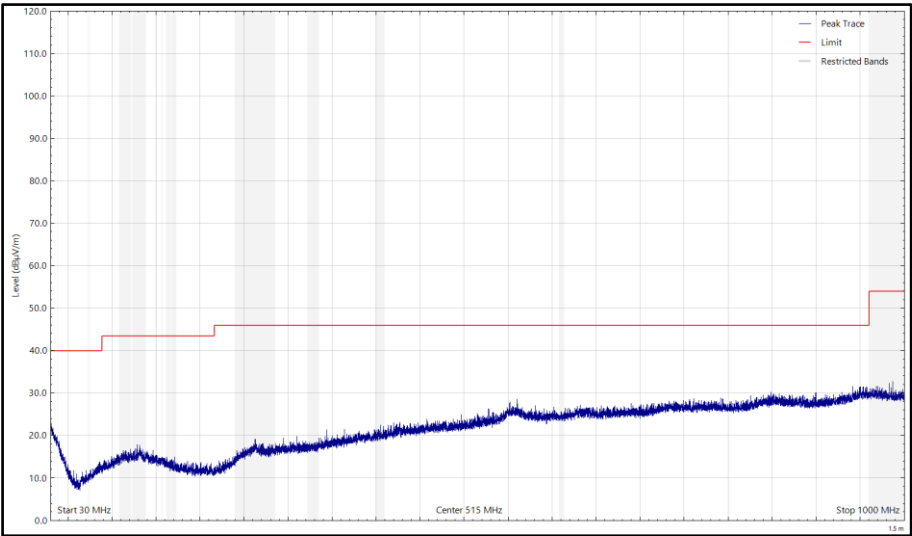


Figure 107 - TOP_2480 MHz, LE500k - 30 MHz to 1 GHz, Vertical (Peak) Z-Orientation

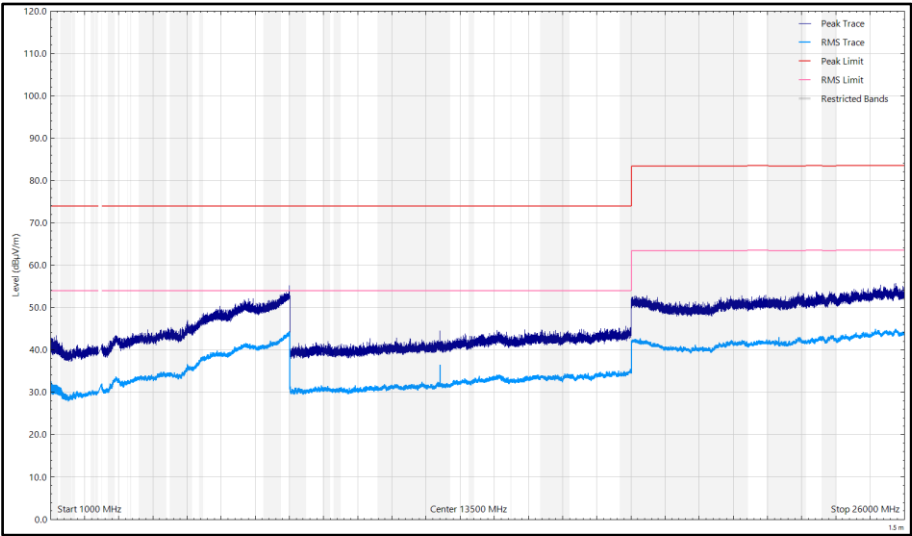


Figure 108 - TOP_2480 MHz, LE500k - 1 GHz to 26 GHz, Vertical (Peak) Z-Orientation



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

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

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

ISED RSS-247, Limit Clause 5.5

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

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



2.6.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Antenna (DRG, 18 GHz to 40 GHz)	Link Microtek Ltd	AM180HA-K-TU2	230	24	08-Oct-2026
Dual Power Supply Unit	Hewlett Packard	6253A	271	-	O/P Mon
Antenna (Bilog with attenuator, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	29-Aug-2026
True RMS Multimeter	Fluke	79 Series III	411	12	09-Jan-2026
Pre-Amplifier (18 GHz to 40 GHz)	Phase One	PSO4-0087	1534	12	16-Aug-2025
Hygrometer	Rotronic	I-1000	3220	12	02-Dec-2025
EXA Signal Analyser	Keysight Technologies	N9010B	4969	24	07-Feb-2026
Band Reject Filter - 2.425 GHz	Wainwright	WRCGV14-2390-2400-2450-2460-50SS	5067	12	14-Oct-2025
Band Reject Filter - 2.4585 GHz	Wainwright	WRCGV14-2423.5-2433.5-2483.5-2493.5-50SS	5069	12	07-Nov-2025
Test Receiver	Rohde & Schwarz	ESW44	5084	12	13-Dec-2025
Emissions Software	TUV SUD	EmX V3.5.3	5125	-	Software
3m Semi-Anechoic Chamber	Rainford	RF Chamber 11	5136	36	14-Nov-2027
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Antenna (DRG, 1 GHz to 10.5 GHz)	Schwarzbeck	BBHA9120B	5215	12	05-Jul-2026
Pre-Amplifier (1 GHz to 18 GHz)	Schwarzbeck	BBV 9718 C	5350	12	16-Dec-2025
Cable 2.92m	Junkosha	MWX241-01000KMS	5412	12	06-Jun-2026
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	23-May-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5514	12	06-Jun-2026
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5516	12	23-Oct-2025
Cable (SMA to SMA, 2 m)	Junkosha	MWX221-02000AMSAMS/A	5517	12	06-Jun-2026
Pre-Amplifier (8 GHz to 18 GHz)	Wright Technologies	APS06-0061	5595	12	28-Oct-2025



Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Pre-Amplifier (8 GHz to 18 GHz)	Wright Technologies	APS06-0061	5596	12	28-Oct-2025
Cable Assy 8m (N to N) 18GHz	Junkosha	MWX221-08000NMSNMS/B	7049	12	01-Jun-2026

Table 60

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

3 Photographs

3.1 Test Setup Photographs 2.4 GHz Bluetooth Low Energy - External dipole whip Antenna



Figure 109 - Test Setup - 30 MHz to 1 GHz

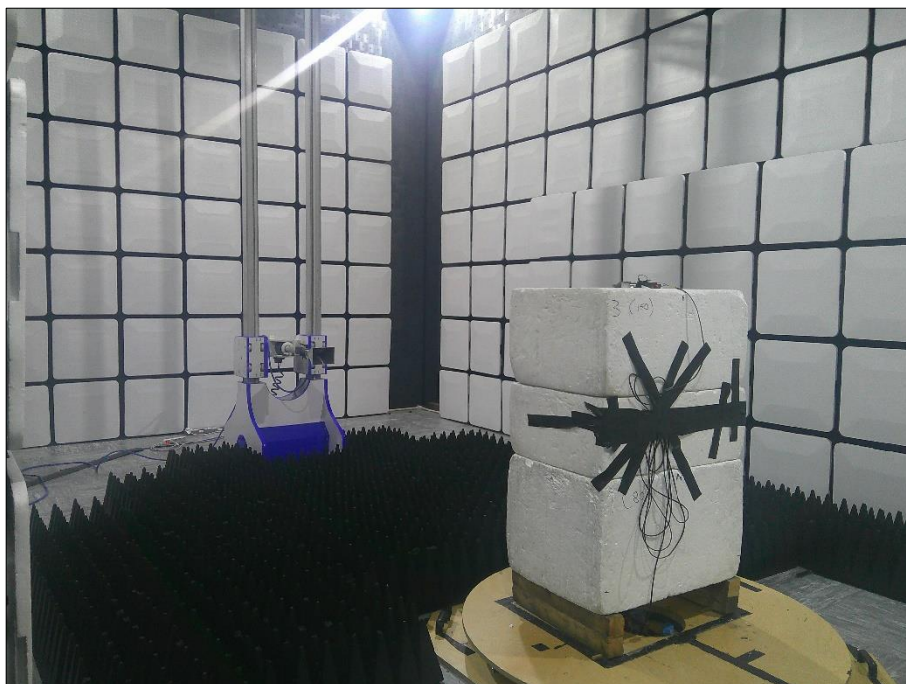


Figure 110 - Test Setup - 1 GHz to 18 GHz

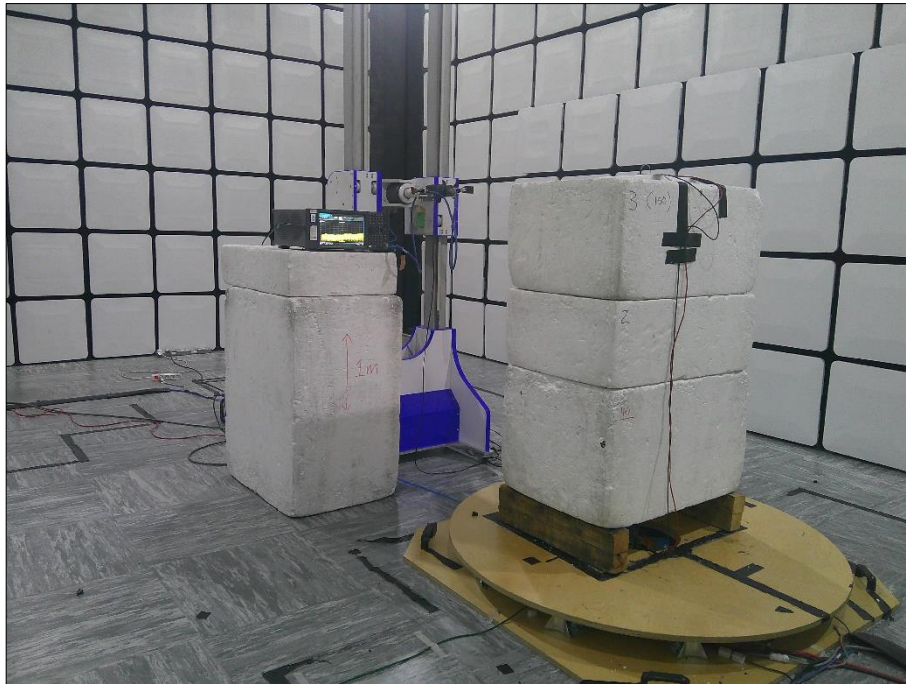


Figure 111 - Test Setup - 18 GHz to 26 GHz

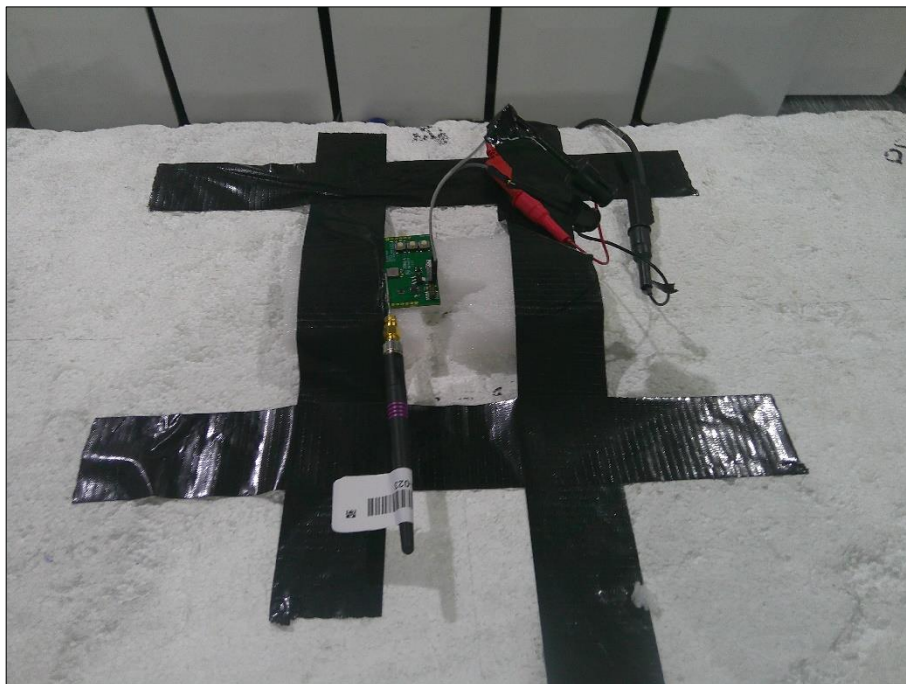


Figure 112 - Test Setup - X - Orientation

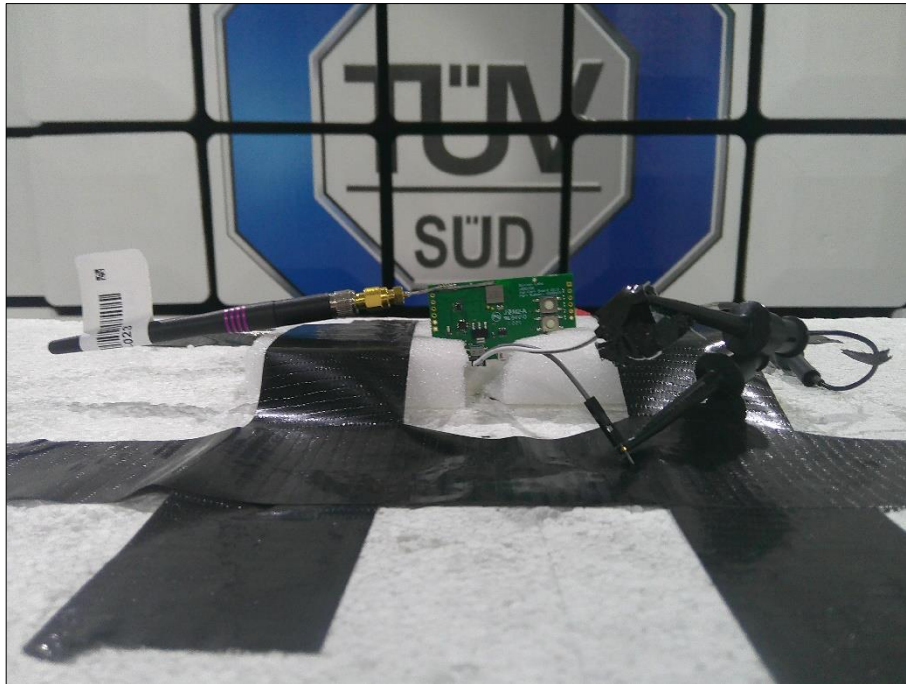


Figure 113 - Test Setup - Y- Orientation

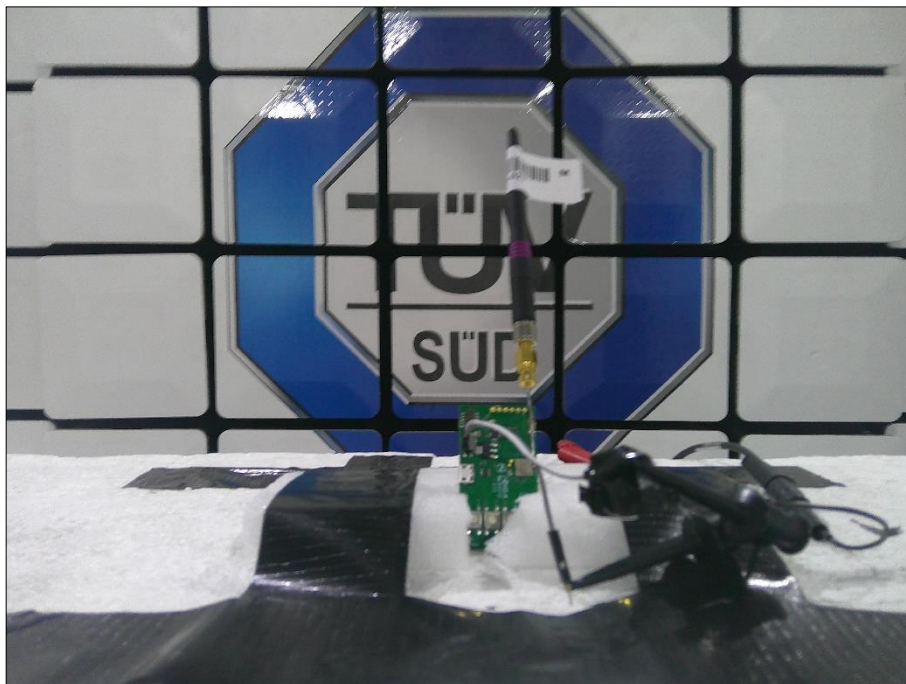


Figure 114 - Test Setup - Z - Orientation

GHz Bluetooth Low Energy - PCB Trace Antenna



Figure 115 - Test Setup - 30 MHz to 1 GHz

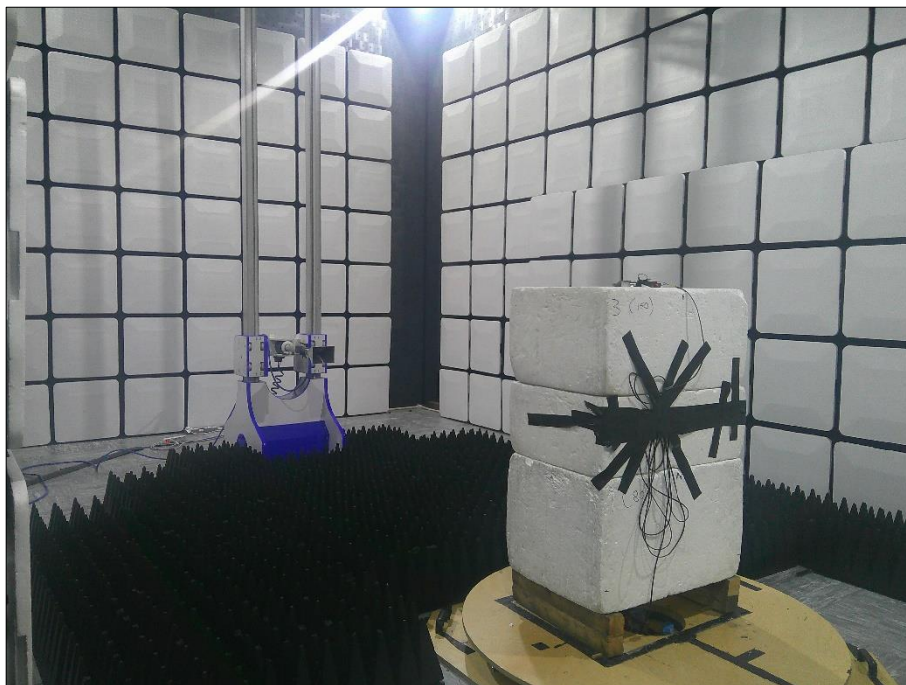


Figure 116 - Test Setup - 1 GHz to 18 GHz

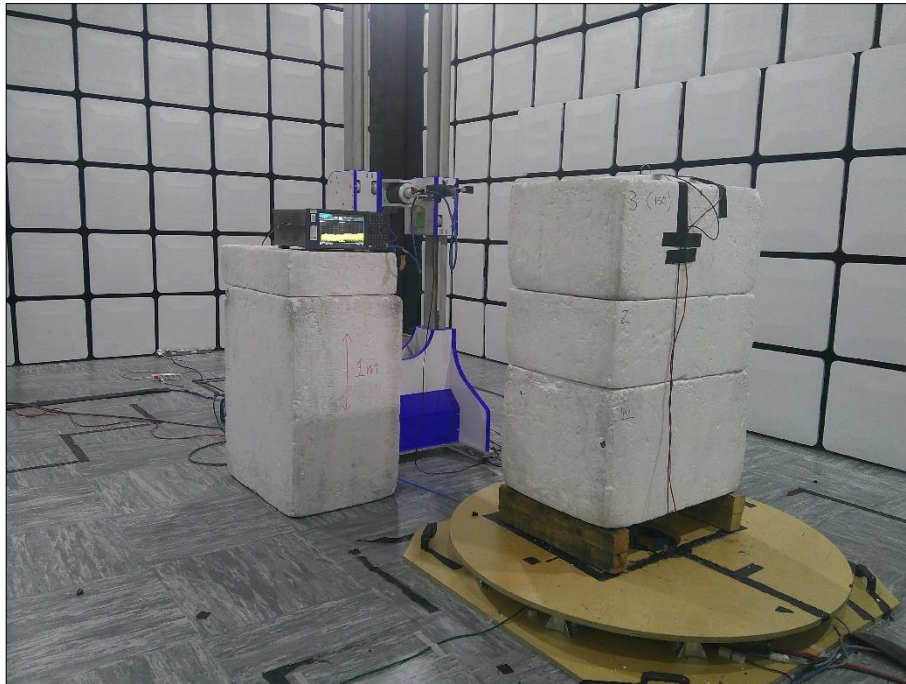


Figure 117 - Test Setup - 18 GHz to 26 GHz

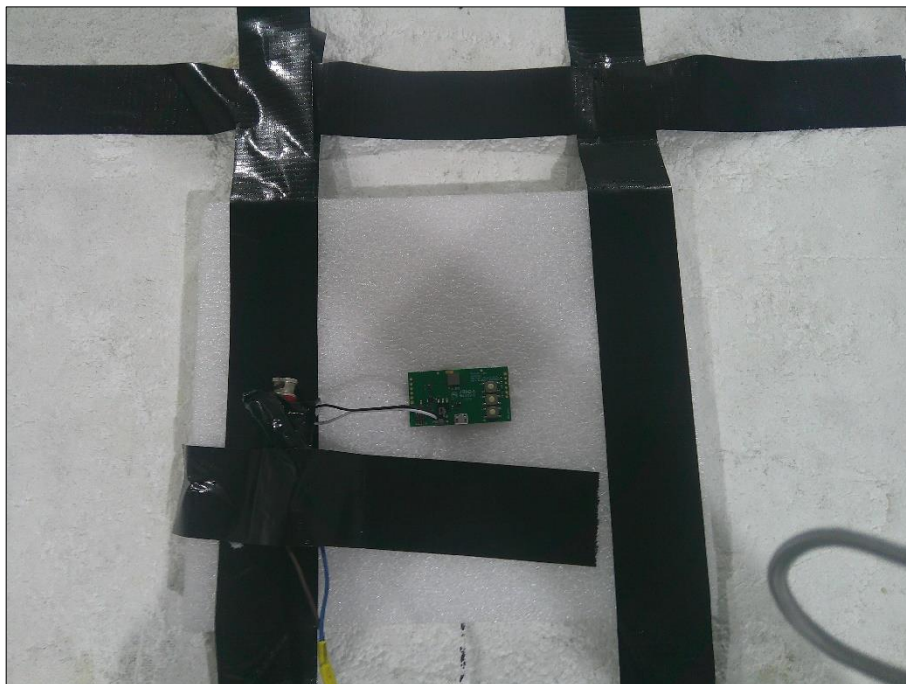


Figure 118 - Test Setup - X- Orientation

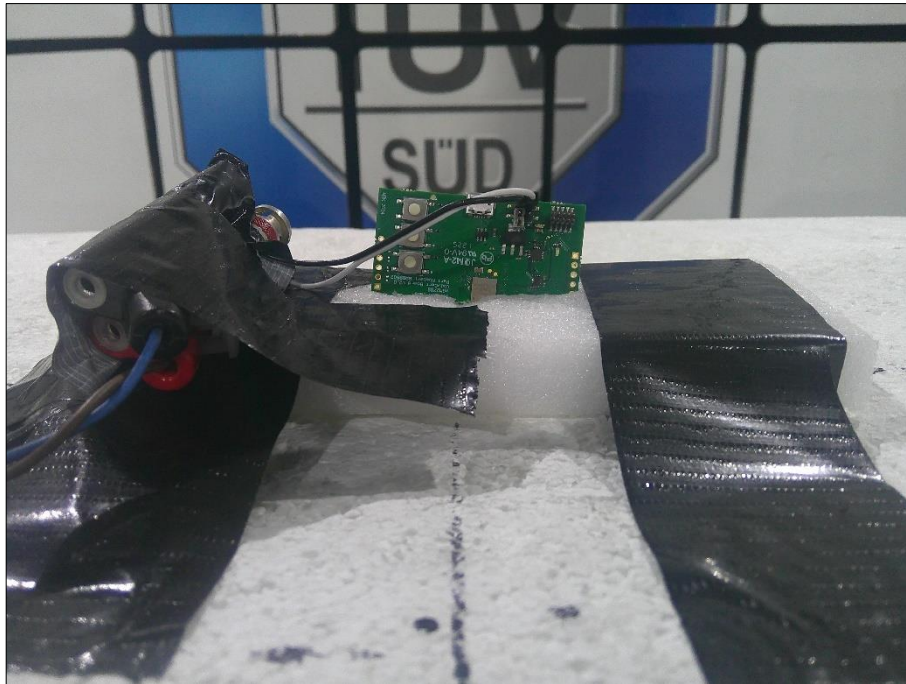


Figure 119 - Test Setup - Y- Orientation

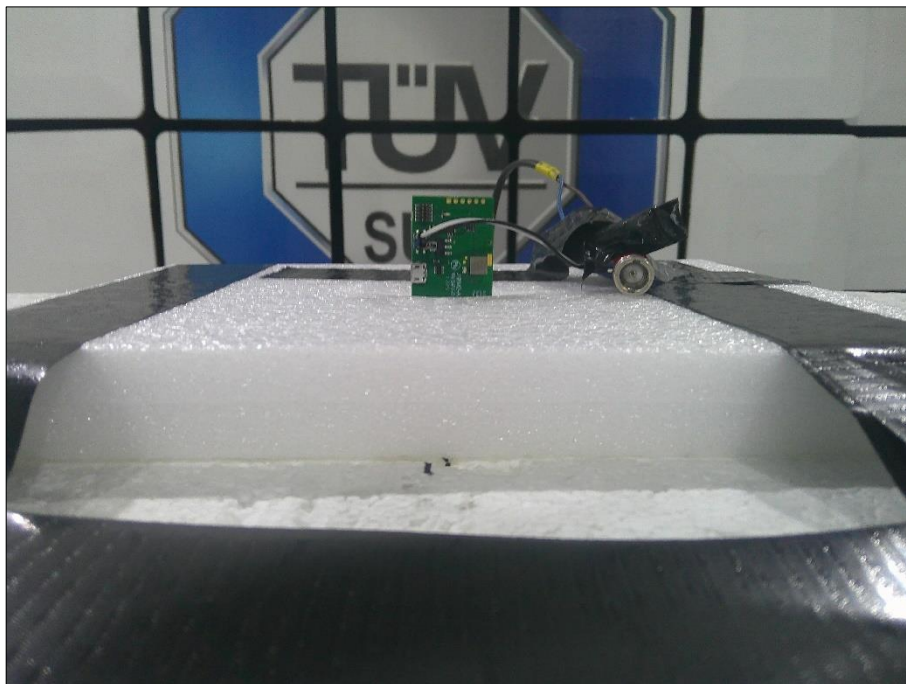


Figure 120 - Test Setup - Z- Orientation

4 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Emission Bandwidth	± 42.87 kHz
Maximum Conducted Output Power	Method PM: ± 0.65 dB Method SA: ± 1.05 dB
Power Spectral Density	± 1.00 dB
Restricted Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Authorised Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB

Table 61

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

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