



2.8.7 Test Result

2.4 GHz Bluetooth BDR/EDR

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

Table 121 - 2402 MHz (CH0), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

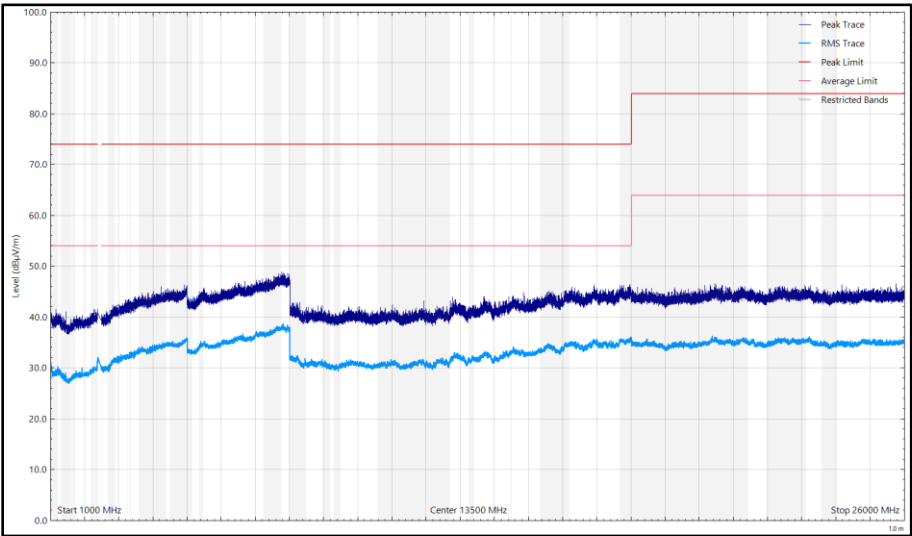


Figure 221 - 2402 MHz (CH0), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz, Horizontal

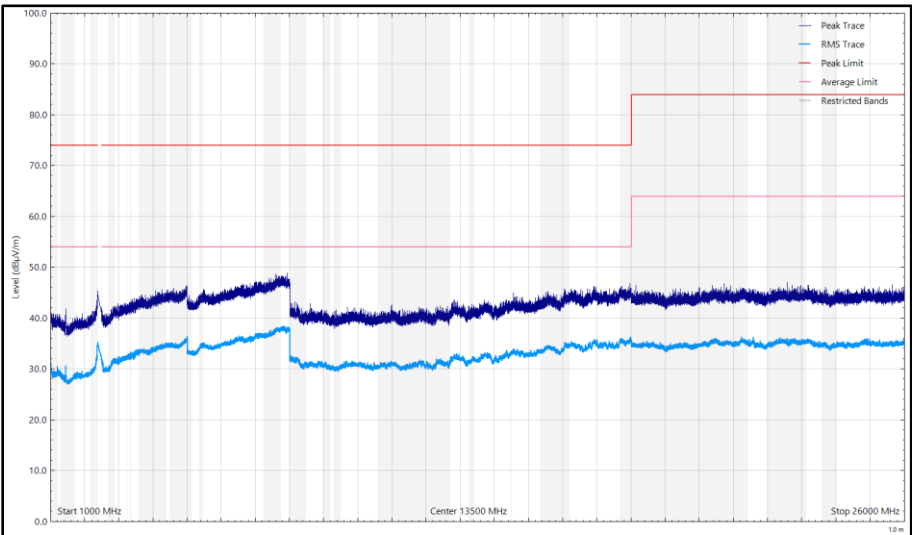


Figure 222 - 2402 MHz (CH0), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
170.473	21.26	43.50	-22.24	Q-Peak	247	147	Horizontal
172.812	19.94	43.50	-23.56	Q-Peak	62	373	Vertical
284.156	24.88	46.00	-21.12	Q-Peak	59	112	Horizontal
324.540	26.62	46.00	-19.38	Q-Peak	37	100	Horizontal

Table 122 - 2441 MHz (CH39), DH5, ePA, Core 0 - Core 1, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

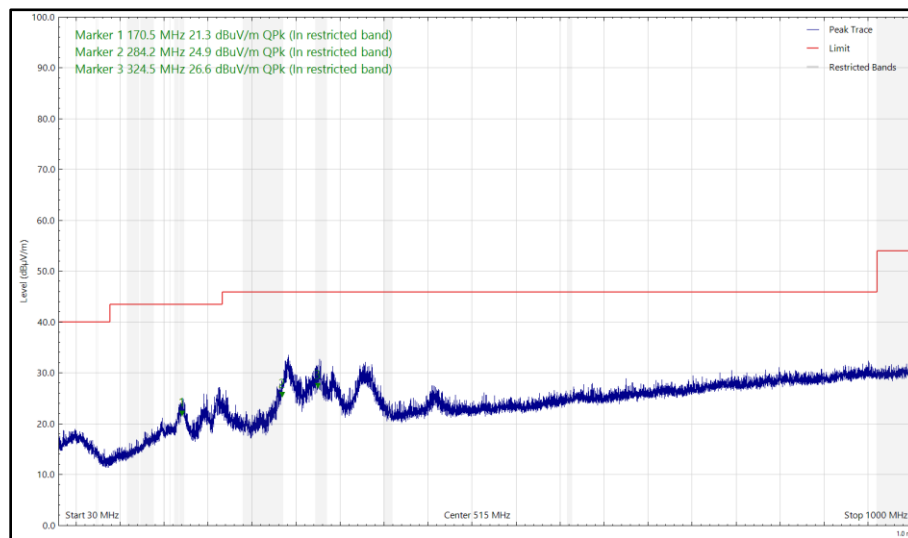


Figure 223 - 2441 MHz (CH39), DH5, ePA, Core 0 - Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

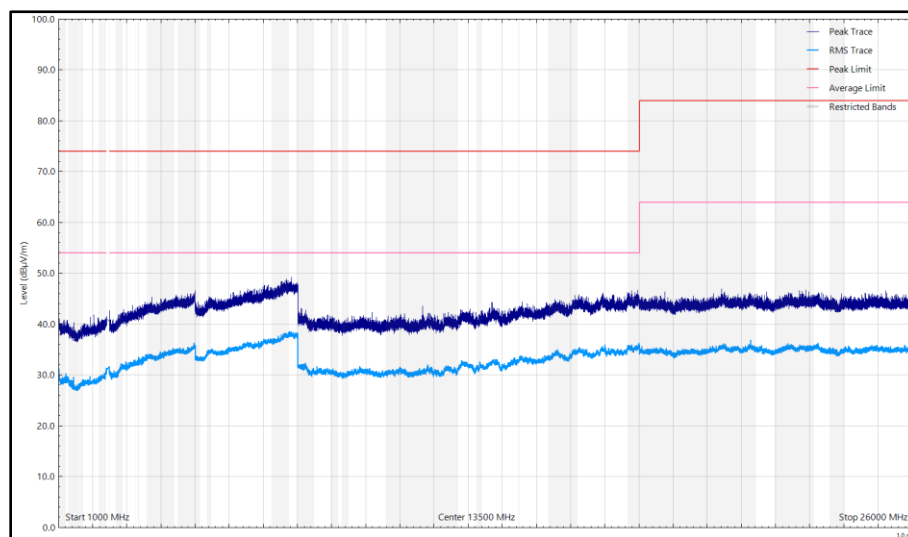


Figure 224 - 2441 MHz (CH39), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz, Horizontal

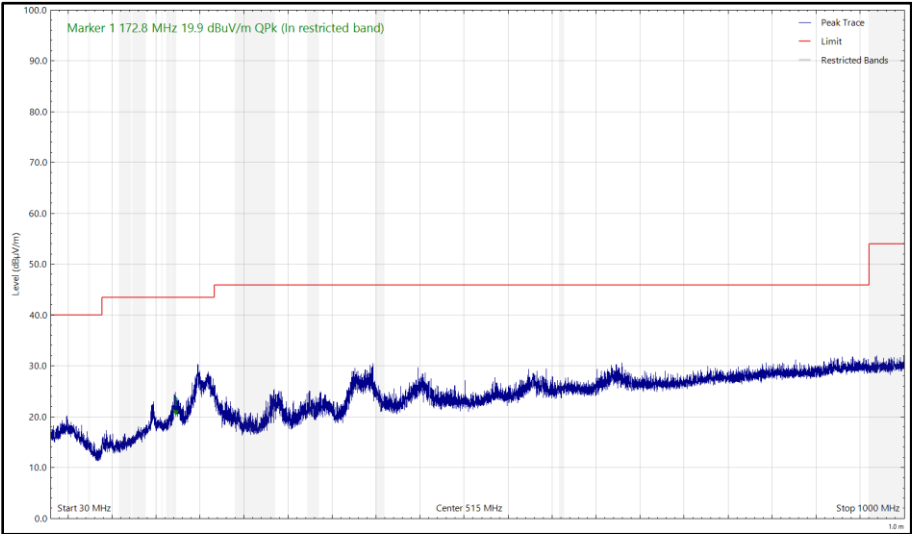


Figure 225 - 2441 MHz (CH39), DH5, ePA, Core 0 - Core 1, 30 MHz to 1 GHz, Vertical (Peak)

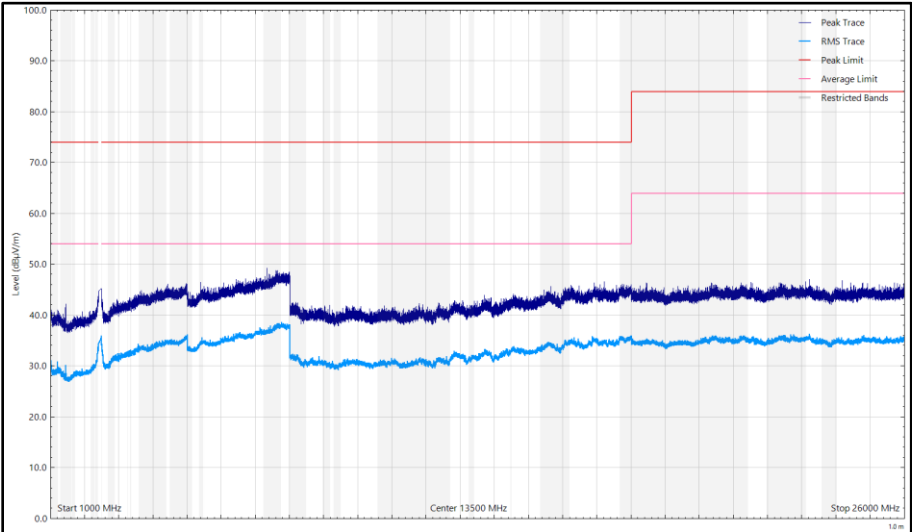


Figure 226 - 2441 MHz (CH39), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2498.990	35.69	54.00	-18.31	CISPR Avg	87	100	Vertical

Table 123 - 2480 MHz (CH78), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

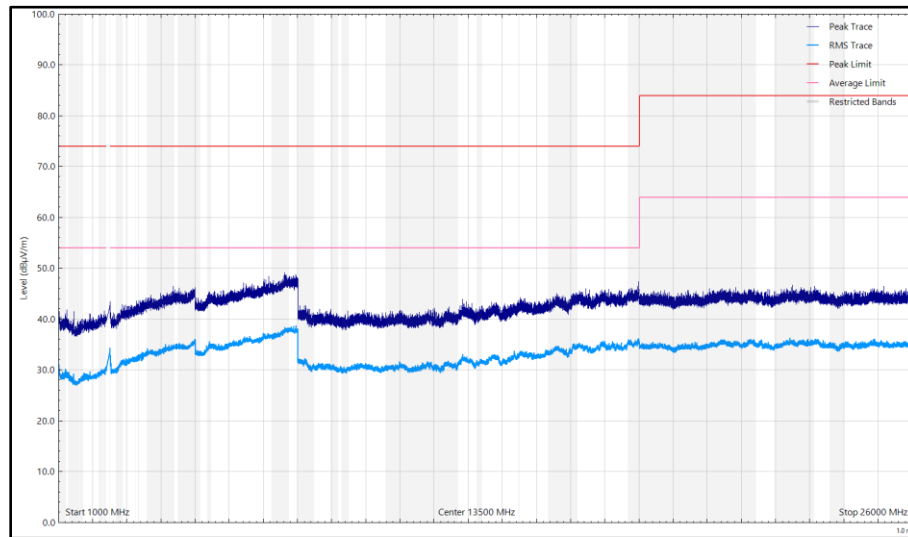


Figure 227 - 2480 MHz (CH78), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz, Horizontal

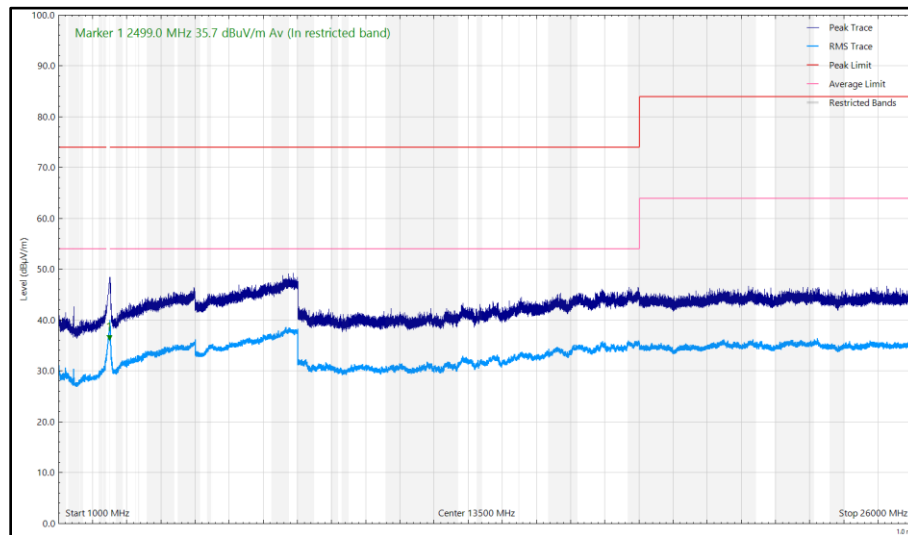


Figure 228 - 2480 MHz (CH78), DH5, ePA, Core 0 - Core 1, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4003.483	36.14	54.00	-17.86	CISPR Avg	90	100	Vertical

Table 124 - 2402 MHz (CH0), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

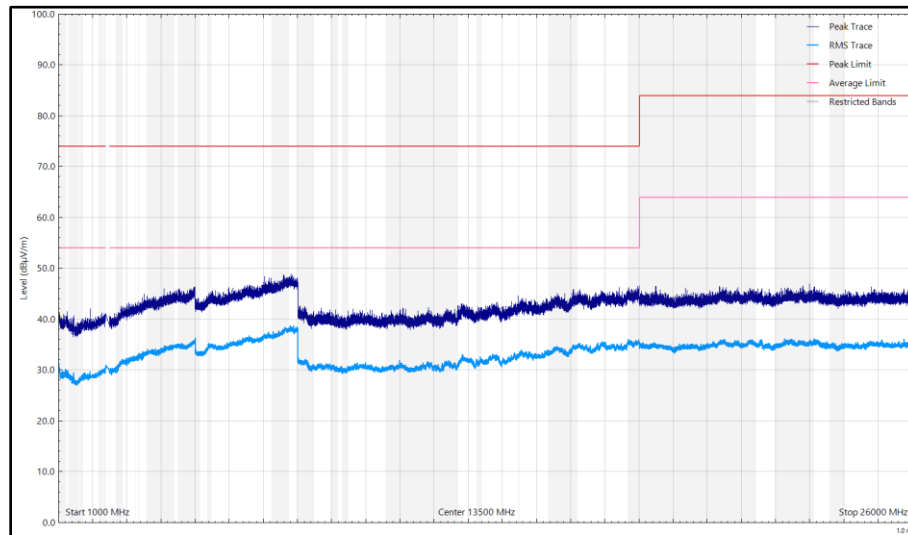


Figure 229 - 2402 MHz (CH0), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz, Horizontal

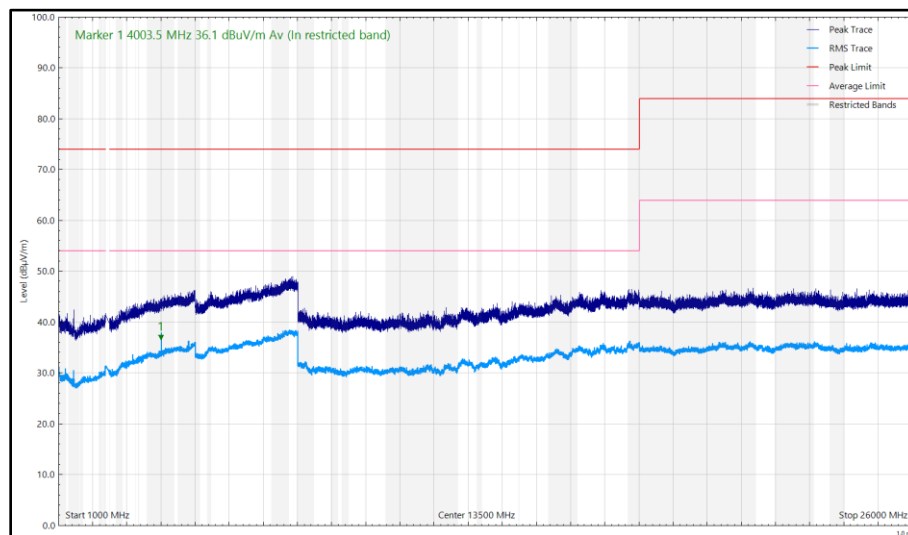


Figure 230 - 2402 MHz (CH0), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
167.771	21.01	43.50	-22.49	Q-Peak	74	245	Horizontal
172.048	20.92	43.50	-22.58	Q-Peak	224	100	Vertical
283.553	24.30	46.00	-21.70	Q-Peak	275	133	Horizontal
326.344	27.39	46.00	-18.61	Q-Peak	21	100	Horizontal
405.965	23.93	46.00	-22.07	Q-Peak	20	177	Vertical

Table 125 - 2441 MHz (CH39), DH5, iPA, Core 0 - Core 1, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

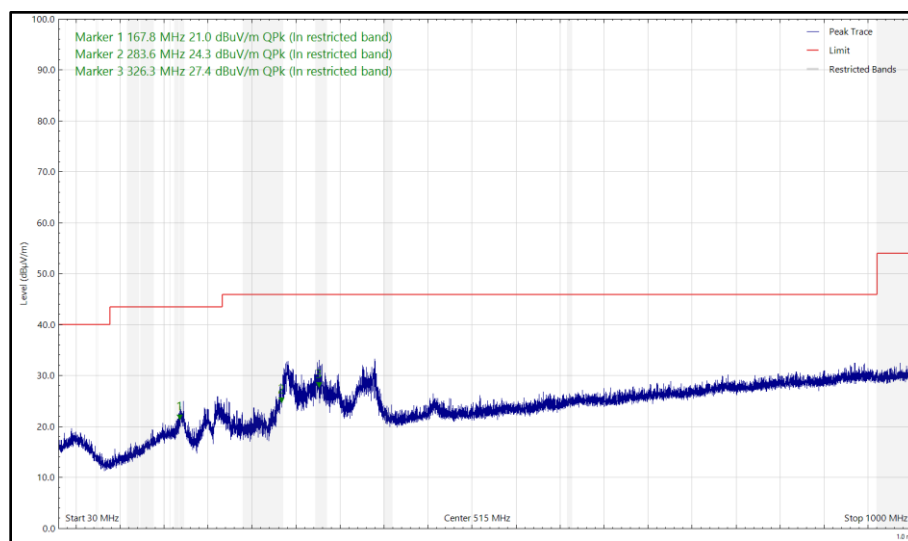


Figure 231 - 2441 MHz (CH39), DH5, iPA, Core 0 - Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

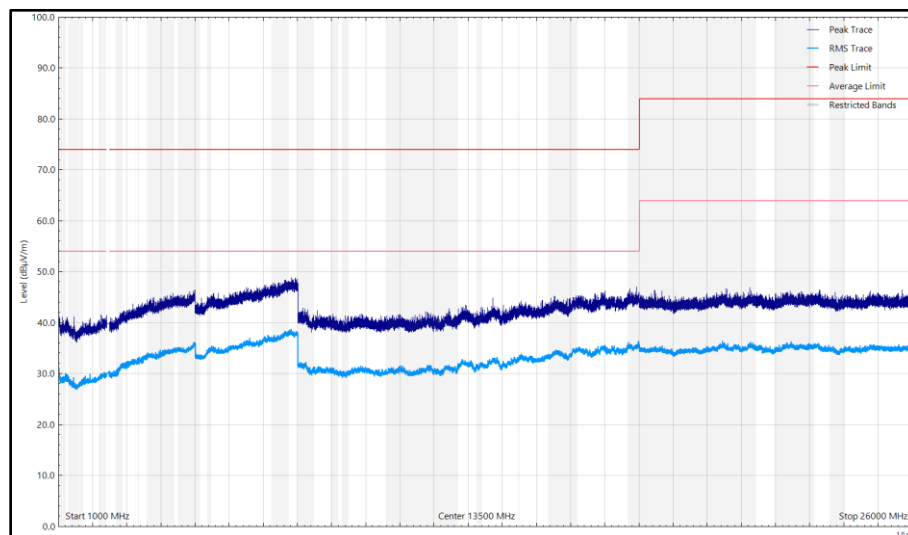


Figure 232 - 2441 MHz (CH39), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz, Horizontal

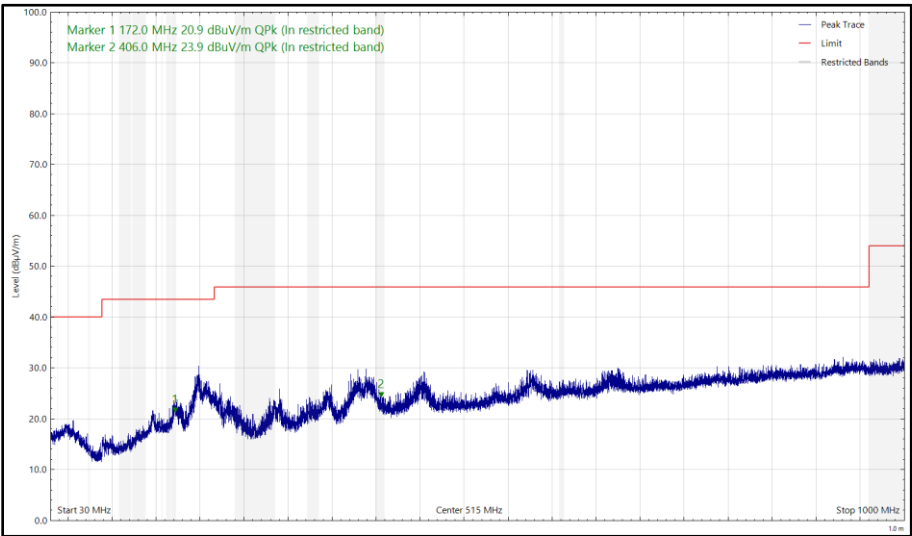


Figure 233 - 2441 MHz (CH39), DH5, iPA, Core 0 - Core 1, 30 MHz to 1 GHz, Vertical (Peak)

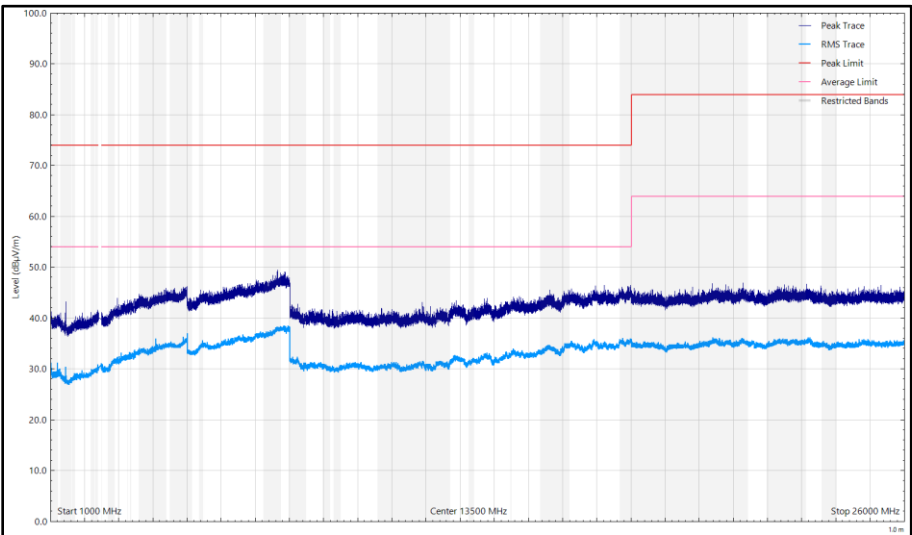


Figure 234 - 2441 MHz (CH39), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz, Vertical



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

Table 126 - 2480 MHz (CH78), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

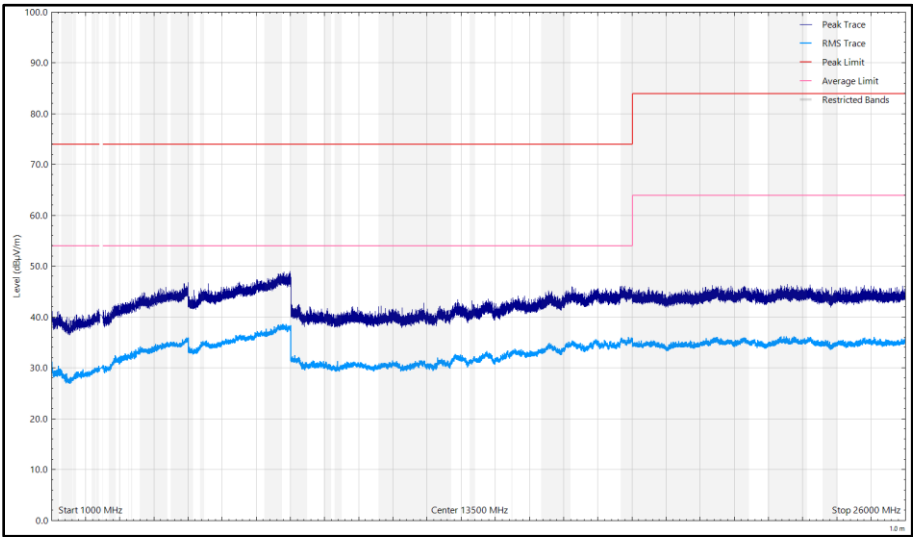


Figure 235 - 2480 MHz (CH78), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz, Horizontal

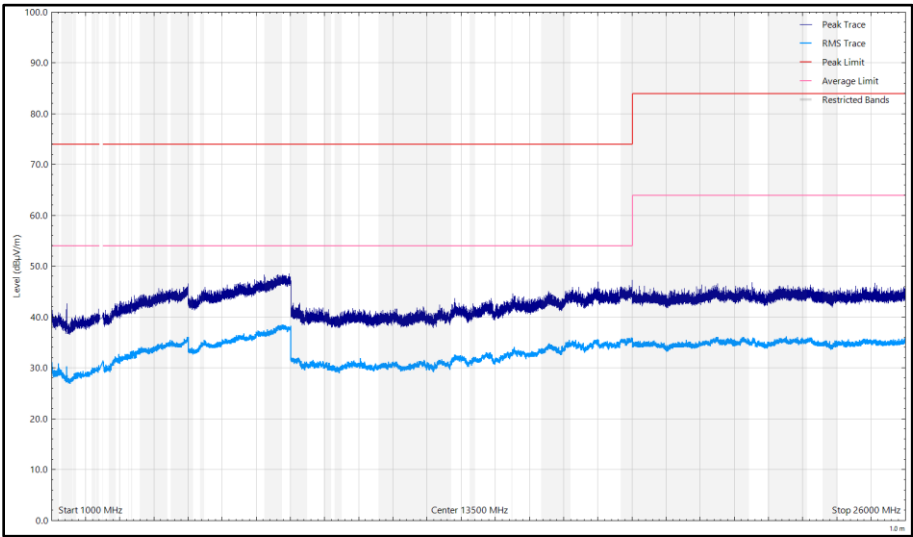


Figure 236 - 2480 MHz (CH78), DH5, iPA, Core 0 - Core 1, 1 GHz to 26 GHz, Vertical



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

Table 127 - 2402 MHz (CH0), DH5, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

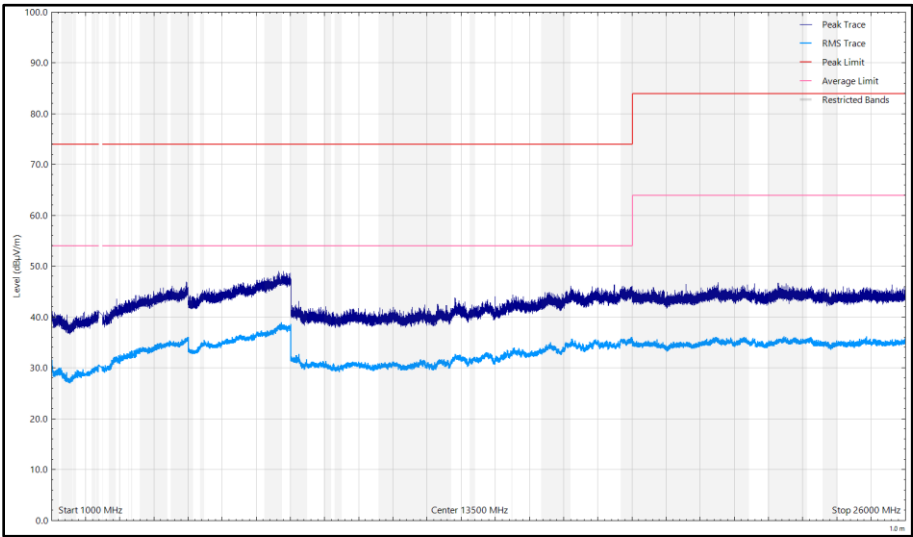


Figure 237 - 2402 MHz (CH0), DH5, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

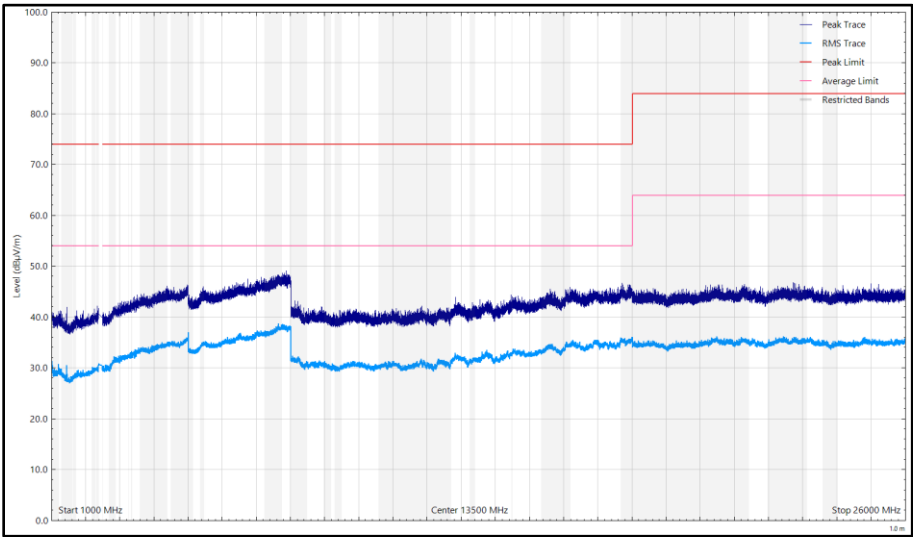


Figure 238 - 2402 MHz (CH0), DH5, iPA, Core 2, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
167.778	20.70	43.50	-22.80	Q-Peak	117	340	Horizontal
169.748	20.48	43.50	-23.02	Q-Peak	174	100	Vertical
284.218	24.19	46.00	-21.81	Q-Peak	41	106	Horizontal
323.794	26.06	46.00	-19.94	Q-Peak	17	100	Horizontal
405.378	23.75	46.00	-22.25	Q-Peak	355	328	Vertical

Table 128 - 2441 MHz (CH39), DH5, iPA, Core 2, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

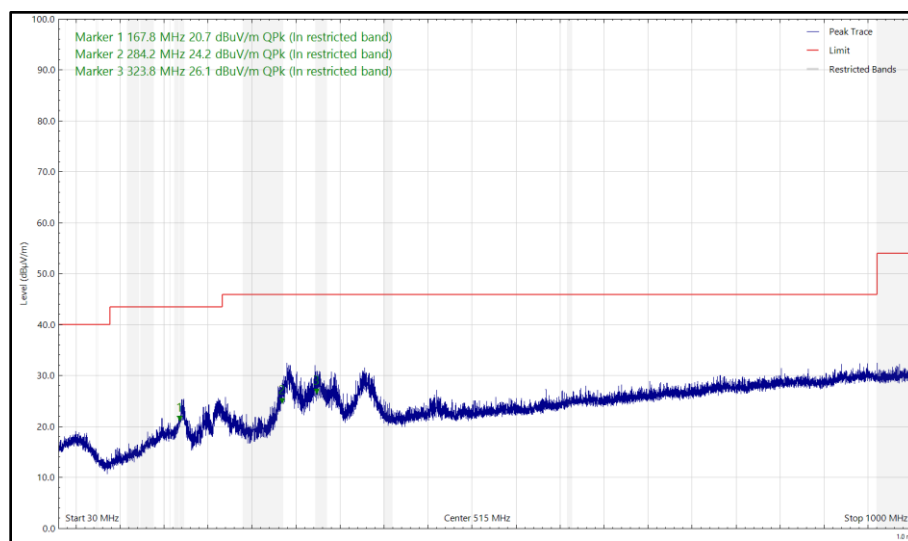


Figure 239 - 2441 MHz (CH39), DH5, iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

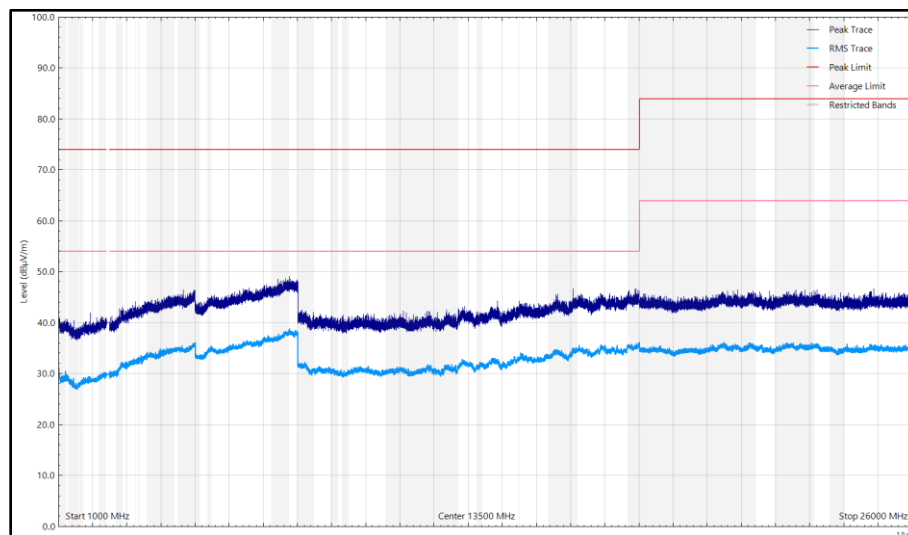


Figure 240 - 2441 MHz (CH39), DH5, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

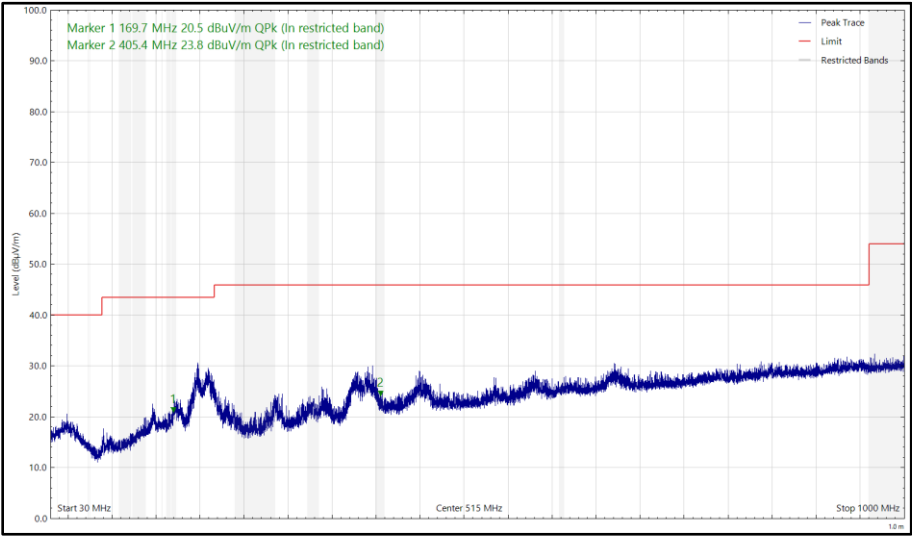


Figure 241 - 2441 MHz (CH39), DH5, iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

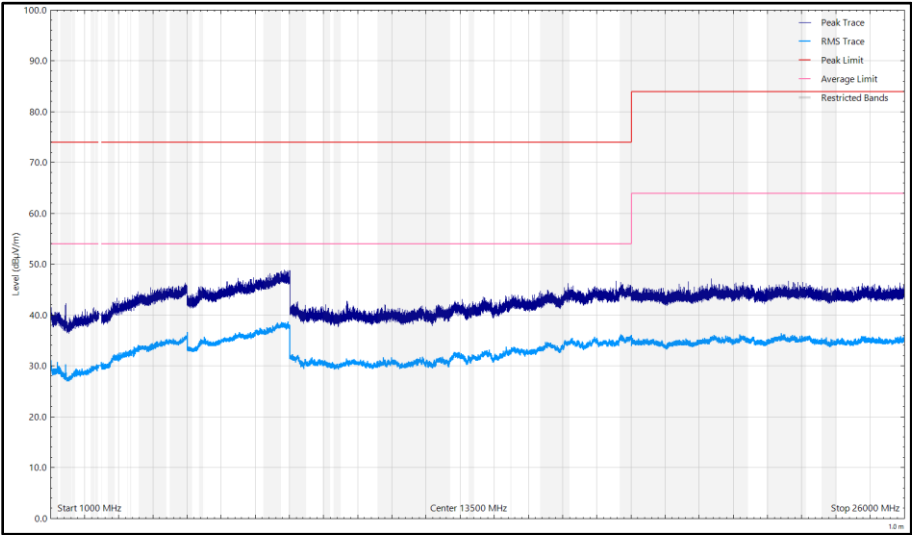


Figure 242 - 2441 MHz (CH39), DH5, iPA, Core 2, 1 GHz to 26 GHz, Vertical



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

Table 129 - 2480 MHz (CH78), DH5, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

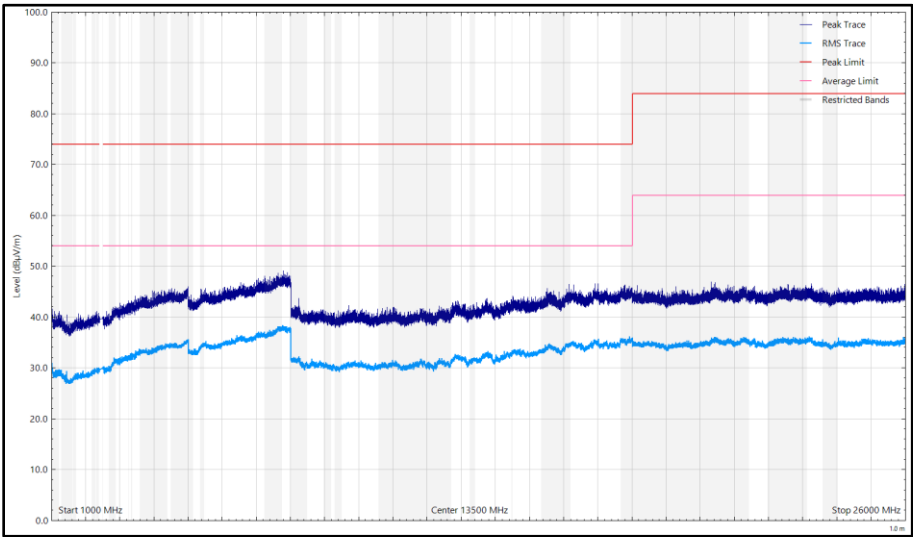


Figure 243 - 2480 MHz (CH78), DH5, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

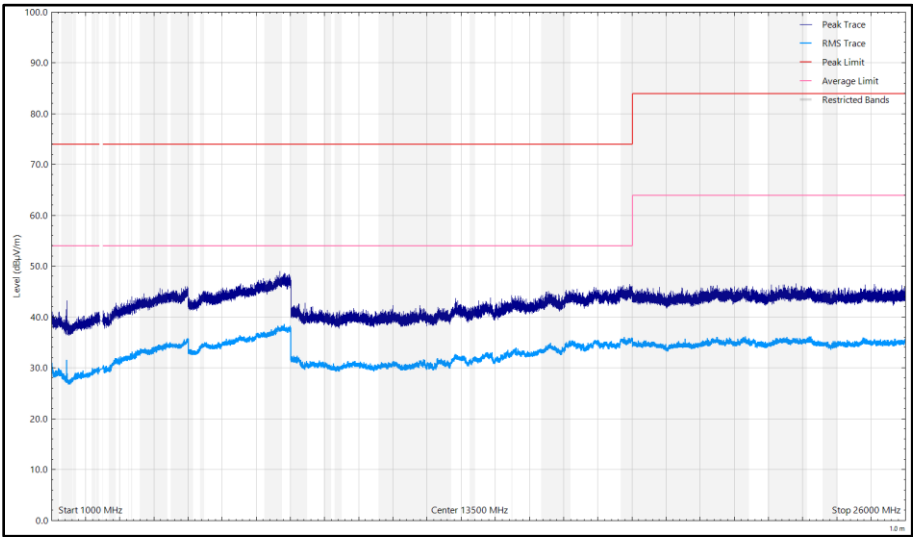


Figure 244 - 2480 MHz (CH78), DH5, iPA, Core 2, 1 GHz to 26 GHz, Vertical



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

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

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

ISED RSS-247, Limit Clause 5.5

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

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



2.8.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14, RF Chamber 15 and RF Chamber 18.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5912	12	05-Jul-2024
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-May-2025
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5939	12	05-May-2025
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5944	24	24-May-2026
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
1500W (300V 12A) AC Power Supply	iTech	IT7324	5956	-	O/P Mon
5m Semi-Anechoic Chamber (Dual-Axis)	Albatross Projects	RF Chamber 14	5958	36	26-Apr-2025
Compact Antenna Mast	Maturo Gmbh	CAM4.0-P	5959	-	TU
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5960	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5961	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5962	-	TU
5m Semi-Anechoic Chamber (Dual-Axis), Chamber 15	Albatross Projects	RF Chamber 15	5963	36	28-Apr-2025
Compact Antenna Mast	Maturo Gmbh	CAM4.0-P	5964	-	TU
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5966	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5967	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5968	-	TU
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5997	12	14-Sep-2024
Cable (N to N 1m)	Junkosha	MWX221-01000NMSNMS/B	5999	12	20-May-2025
Cable (SMA to SMA 4.5m)	Junkosha	MWX221-04500AMSAMS/A	6002	12	14-Sep-2024
Cable (N to N 8m)	Junkosha	MWX221-08000NMSNMS/A	6017	12	14-Sep-2024
Cable (SMA to SMA 3m)	Junkosha	MWX221-03000AMSAMS/A	6021	12	14-Sep-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6140	12	05-May-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Digital Multimeter	Fluke	115	6147	12	06-Jun-2025
Humidity & Temperature meter	R.S Components	1364	6149	12	07-Jul-2024
SAC Switch Unit	TUV SUD	TUV_SSU_001	6190	12	22-Dec-2024
SAC Switch Unit	TUV SUD	TUV_SSU_001	6191	12	18-Dec-2024
Cable (SMA to SMA 3m)	Junkosha	MWX221-03000AMSAMS/A	6316	12	04-Feb-2025



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (K Type 2m)	Junkosha	MWX241-02000KMSKMS/B	6323	12	04-Feb-2025
EMC Test Receiver	Rohde & Schwarz	ESW44	6333	12	16-Feb-2025
Humidity and Temperature Meter	R.S Components	1364	6346	12	06-Mar-2025
8 GHz High Pass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6427	12	23-Apr-2025
3m Semi-Anechoic Chamber, Chamber18	Albatross Projects	Chamber 18	6597	36	07-Feb-2026
AC Power Supply	iTech	IT7324	6657	-	O/P Mon
1m Cable	Junkosha	MWX241-01000AMSAMS/B	6740	12	01-Feb-2025
1m Cable	Junkosha	MWX241-01000AMSAMS/B	6741	12	01-Feb-2025
6.5m Cable	Junkosha	MWX221-06500AMSAMS/B	6744	12	01-Feb-2025
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6771	24	17-Jan-2025
Pre Amp 8 - 18 GHz	Wright Technologies	APS06-0061	6783	12	23-Apr-2025
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	6795	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	6796	-	TU
Turntable	Maturo Gmbh	TT1.5SI	6797	-	TU

Table 130

TU - Traceability Unscheduled

O/P Mon - Output Monitored using calibrated equipment

3 Measurement Uncertainty

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

Test Name	Measurement Uncertainty
Restricted Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Frequency Hopping Systems - Average Time of Occupancy	-
Frequency Hopping Systems - Channel Separation	± 42.30 kHz
Frequency Hopping Systems - Number of Hopping Channels	-
Frequency Hopping Systems - 99% & 20 dB Bandwidth	± 45.99 kHz
Maximum Conducted Output Power	± 1.38 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 131

Measurement Uncertainty Decision Rule – Accuracy Method

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

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