TUV SUD Digitally signed by TUV SUD Date: 2024.08.29 12:48:18 +01'00'

2.5.7 Test Results

2.4 GHz Bluetooth LE/HDR

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2374.856	34.22	54.00	-19.78	RMS	118	104	Vertical
4999.889	34.52	54.00	-19.48	RMS	224	279	Vertical

Table 99 - 2402 MHz (CH37), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

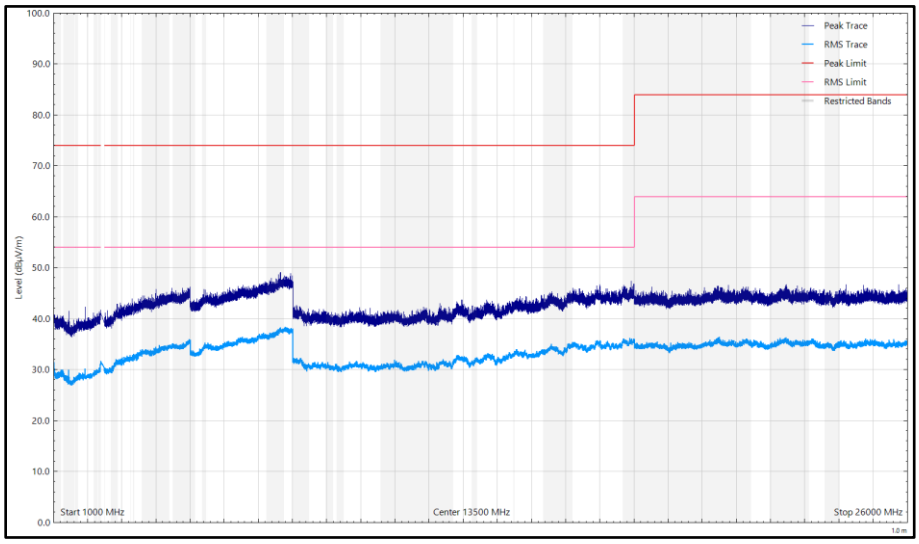

Figure 250 - 2402 MHz (CH37), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz, Horizontal

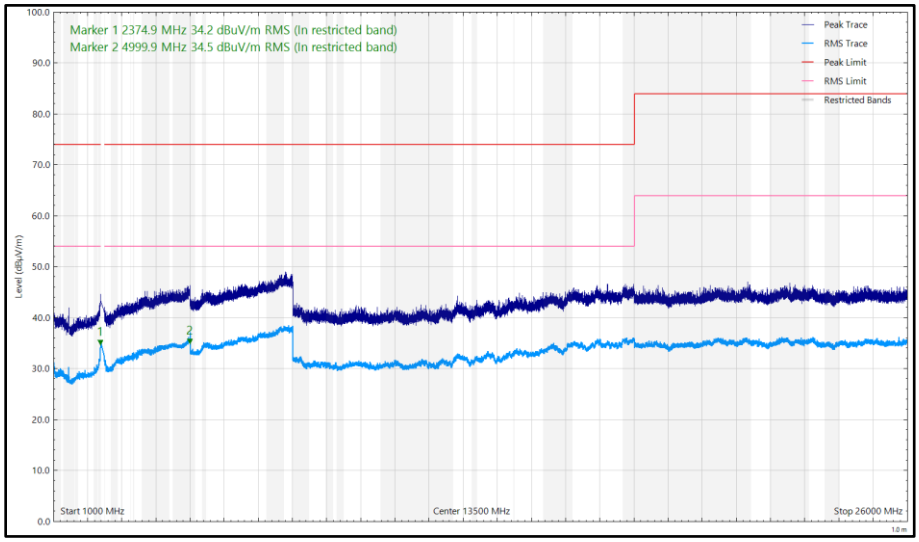

Figure 251 - 2402 MHz (CH37), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
170.145	21.62	43.50	-21.88	Q-Peak	66	276	Horizontal
283.706	22.37	46.00	-23.63	Q-Peak	249	100	Vertical
326.142	27.29	46.00	-18.71	Q-Peak	18	100	Horizontal
2483.581	36.09	54.00	-17.91	RMS	80	100	Vertical

Table 100 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, ePA, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

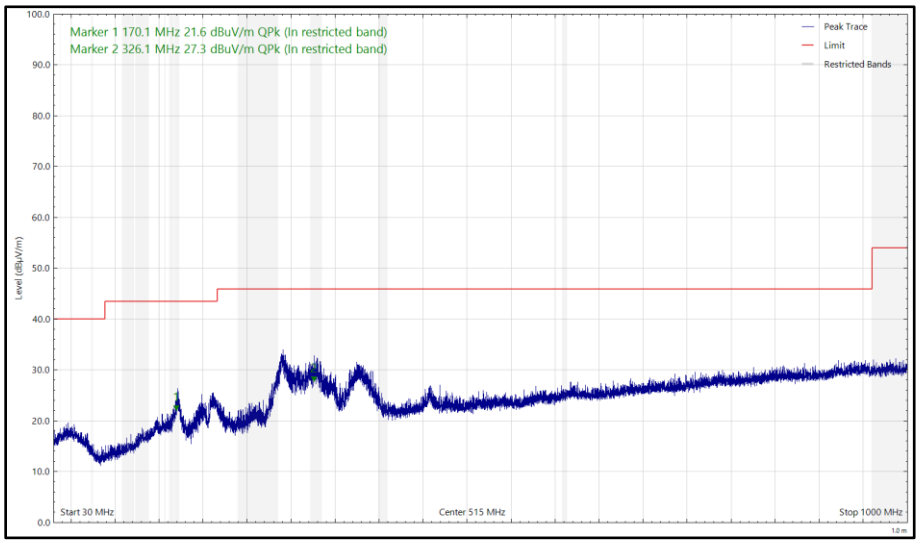

Figure 252 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, ePA, 30 MHz to 1 GHz, Horizontal (Peak)

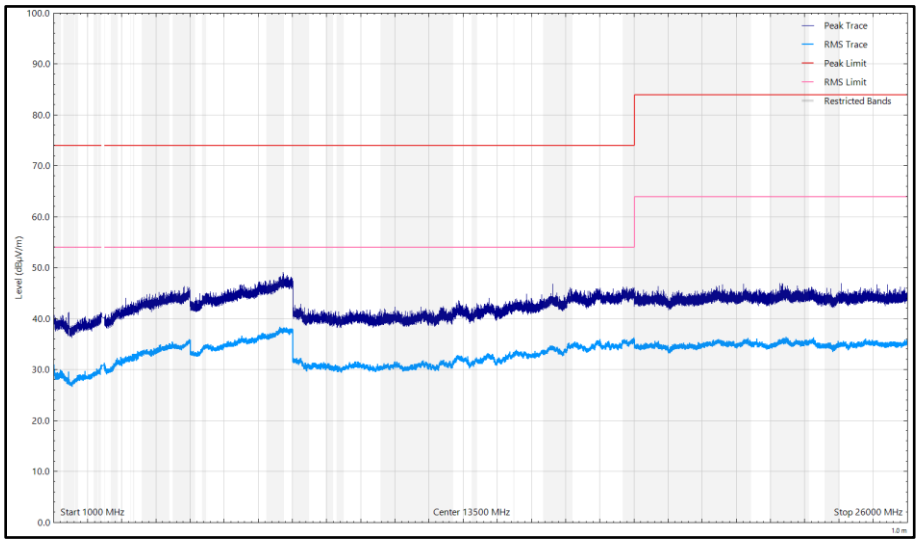

Figure 253 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz, Horizontal

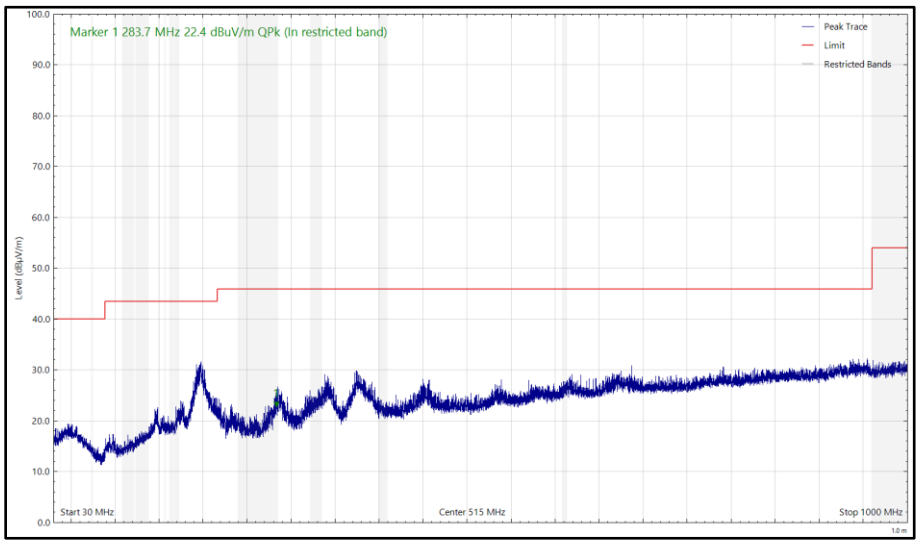

Figure 254 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, ePA, 30 MHz to 1 GHz, Vertical (Peak)

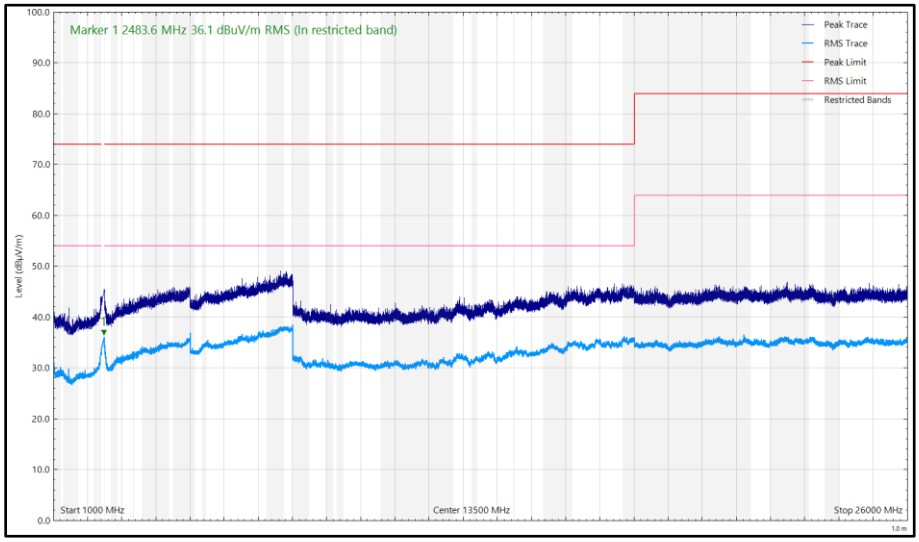

Figure 255 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2498.723	40.11	54.00	-13.89	RMS	85	127	Vertical
2499.526	34.87	54.00	-19.13	RMS	25	136	Horizontal

Table 101 - 2480 MHz (CH39), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

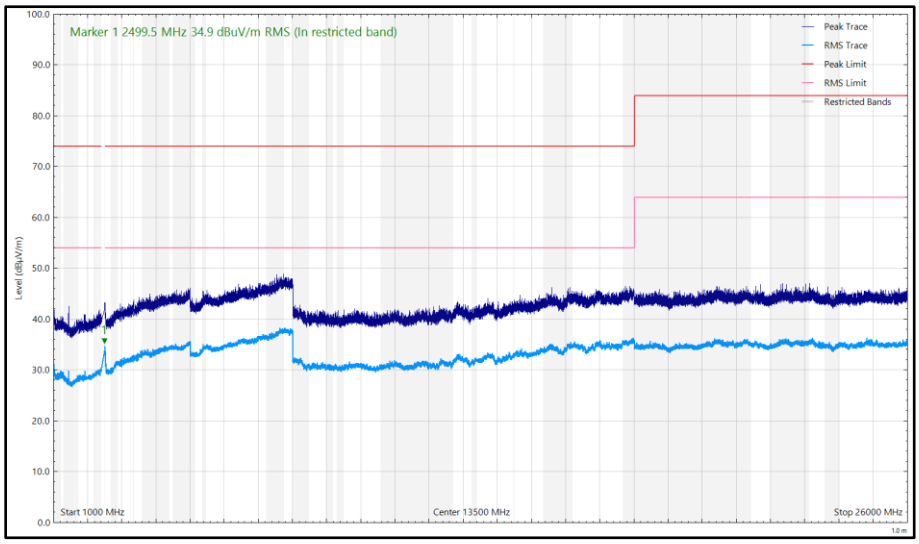

Figure 256 - 2480 MHz (CH39), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz, Horizontal

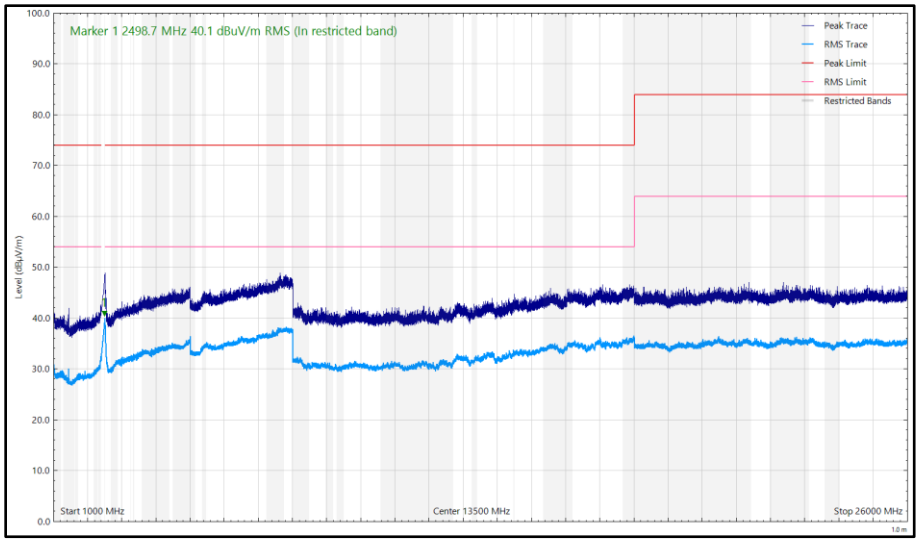

Figure 257 - 2480 MHz (CH39), LE1M, Core 0 - Core 1, ePA, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4003.468	34.34	54.00	-19.66	RMS	248	147	Vertical

Table 102 - 2402 MHz (CH37), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

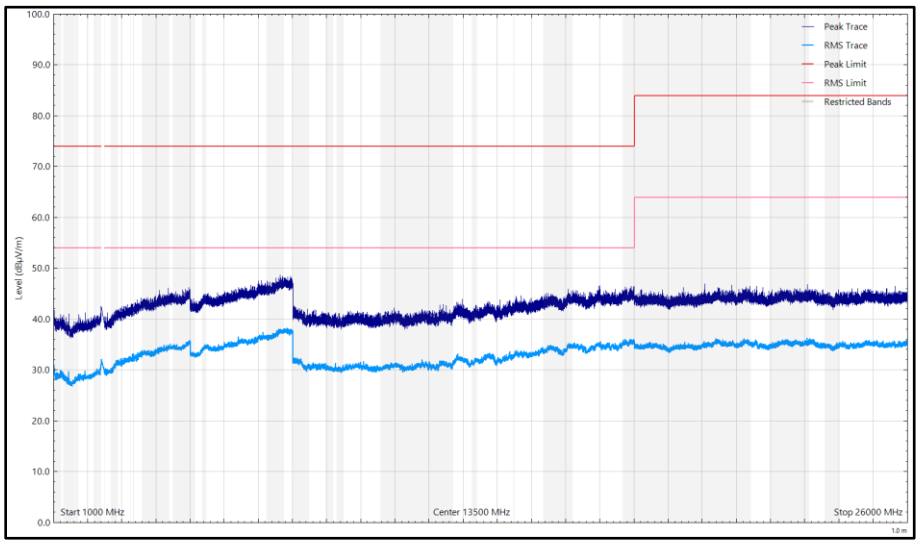

Figure 258 - 2402 MHz (CH37), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz, Horizontal

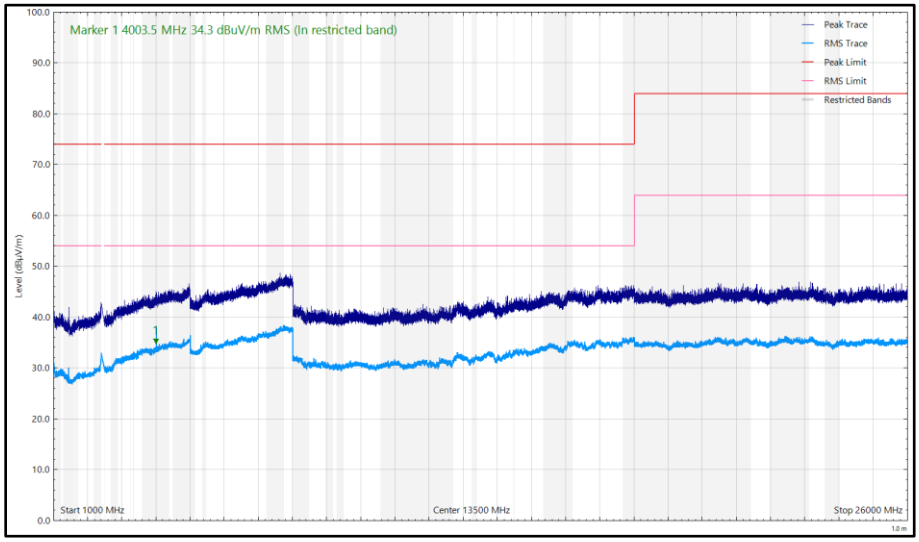

Figure 259 - 2402 MHz (CH37), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
170.728	20.94	43.50	-22.56	Q-Peak	78	376	Horizontal
171.142	20.41	43.50	-23.09	Q-Peak	53	247	Vertical
283.103	21.36	46.00	-24.64	Q-Peak	233	100	Vertical
325.971	26.92	46.00	-19.08	Q-Peak	24	100	Horizontal

Table 103 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, iPA, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

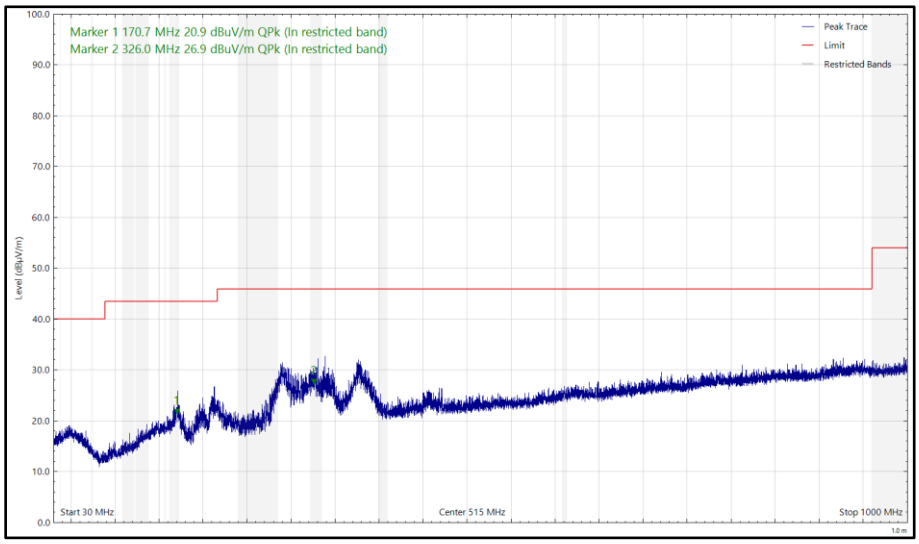

Figure 260 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, iPA, 30 MHz to 1 GHz, Horizontal (Peak)

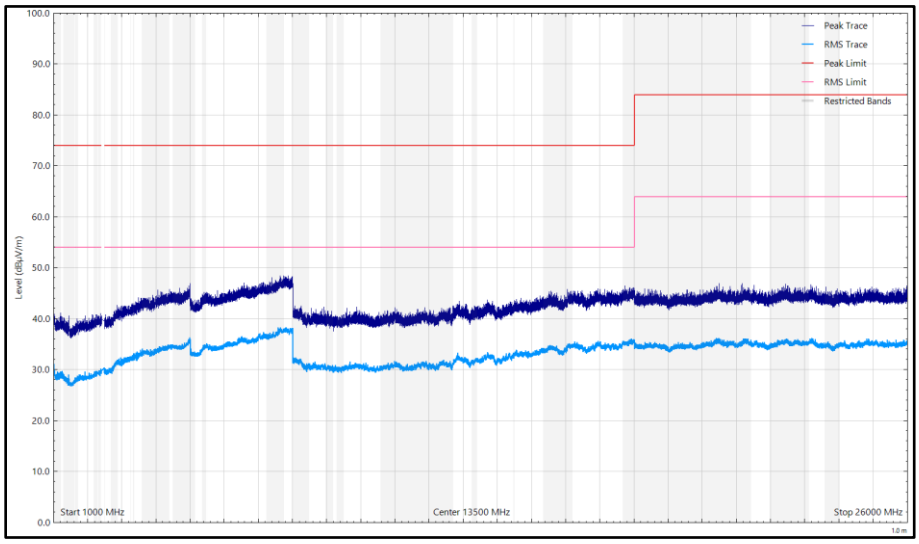

Figure 261 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz, Horizontal

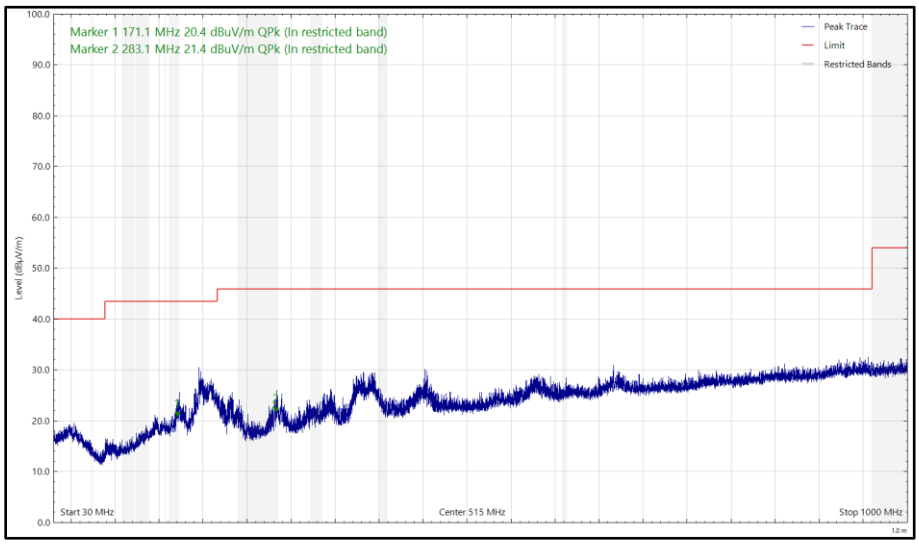

Figure 262 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, iPA, 30 MHz to 1 GHz, Vertical (Peak)

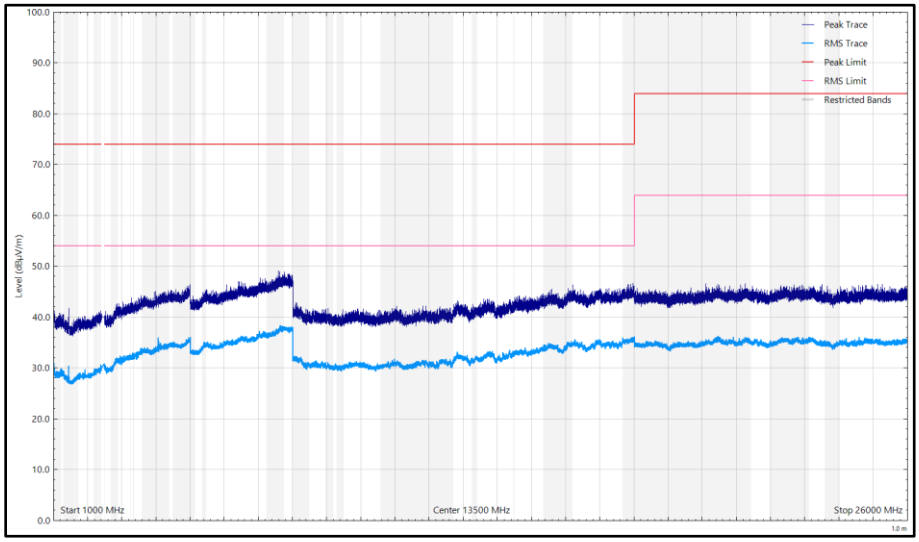

Figure 263 - 2440 MHz (CH17), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz, Vertical

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

Table 104 - 2480 MHz (CH39), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

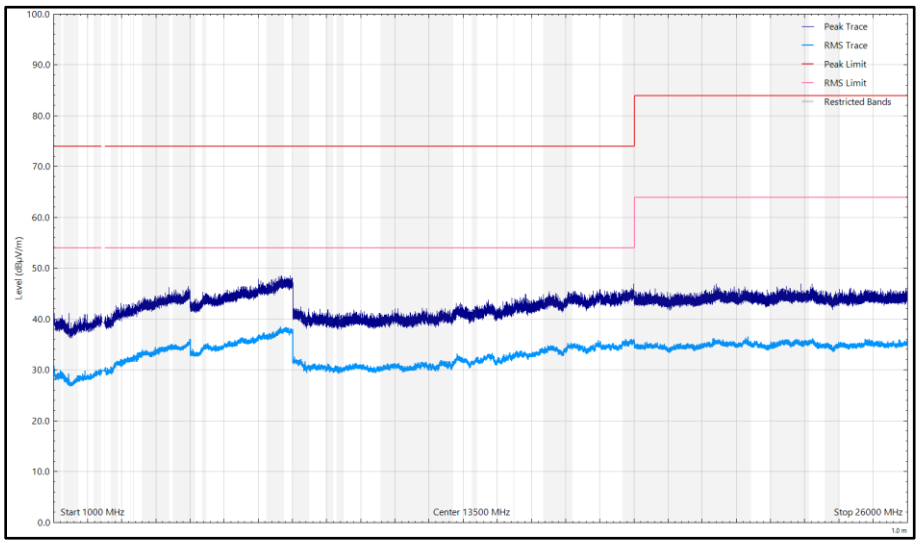

Figure 264 - 2480 MHz (CH39), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz, Horizontal

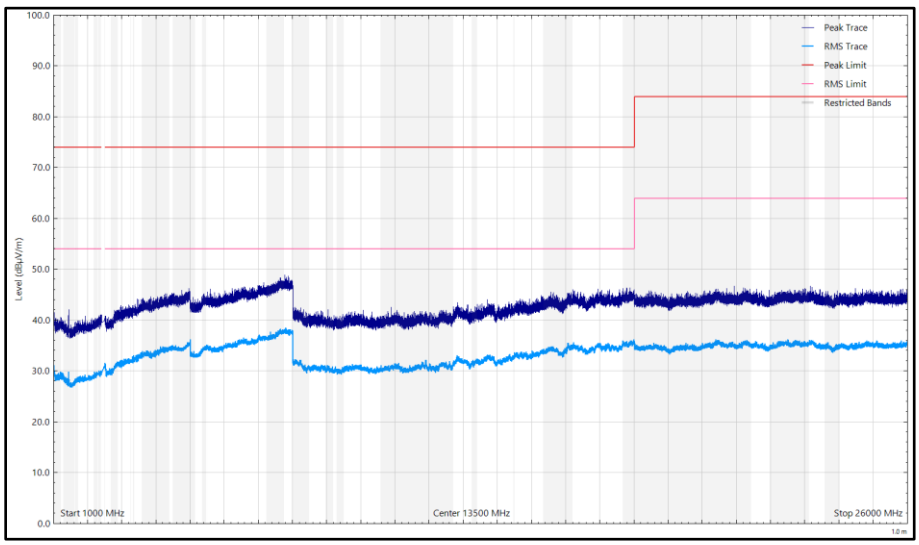

Figure 265 - 2480 MHz (CH39), LE1M, Core 0 - Core 1, iPA, 1 GHz to 26 GHz, Vertical

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

Table 105 - 2402 MHz (CH37), LE1M, Core 2, iPA, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

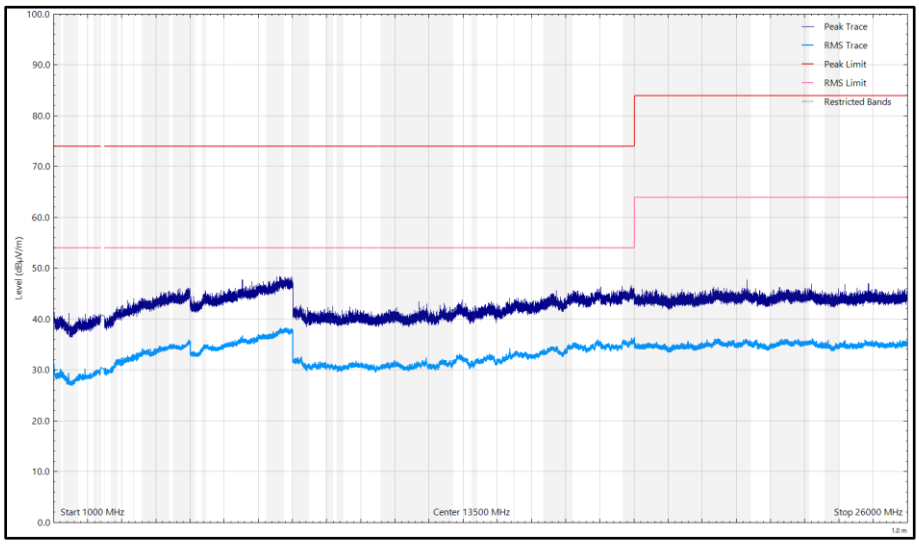

Figure 266 - 2402 MHz (CH37), LE1M, Core 2, iPA, 1 GHz to 26 GHz, Horizontal

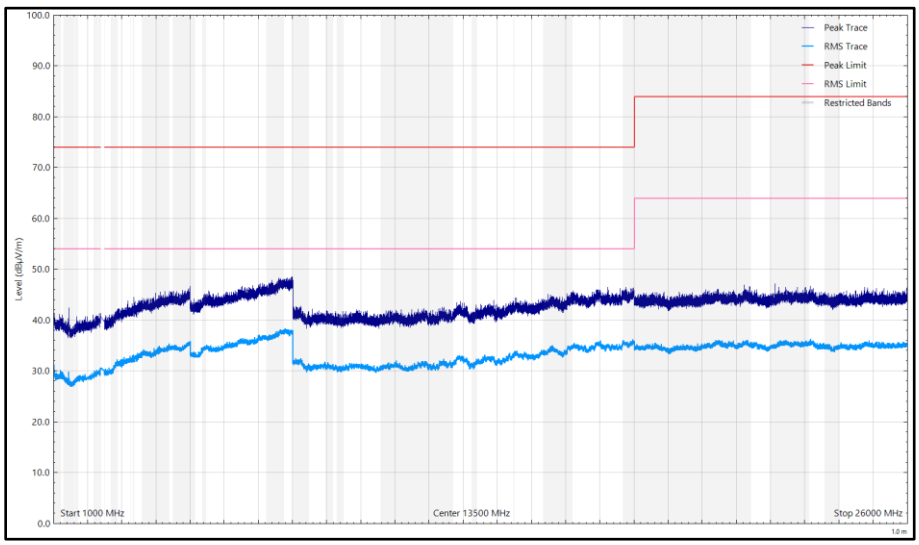

Figure 267 - 2402 MHz (CH37), LE1M, Core 2, iPA, 1 GHz to 26 GHz, Vertical

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
281.454	20.56	46.00	-25.44	Q-Peak	231	138	Vertical
282.611	23.53	46.00	-22.47	Q-Peak	272	118	Horizontal
328.972	26.88	46.00	-19.12	Q-Peak	21	100	Horizontal

Table 106 - 2440 MHz (CH17), LE1M, Core 2, iPA, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

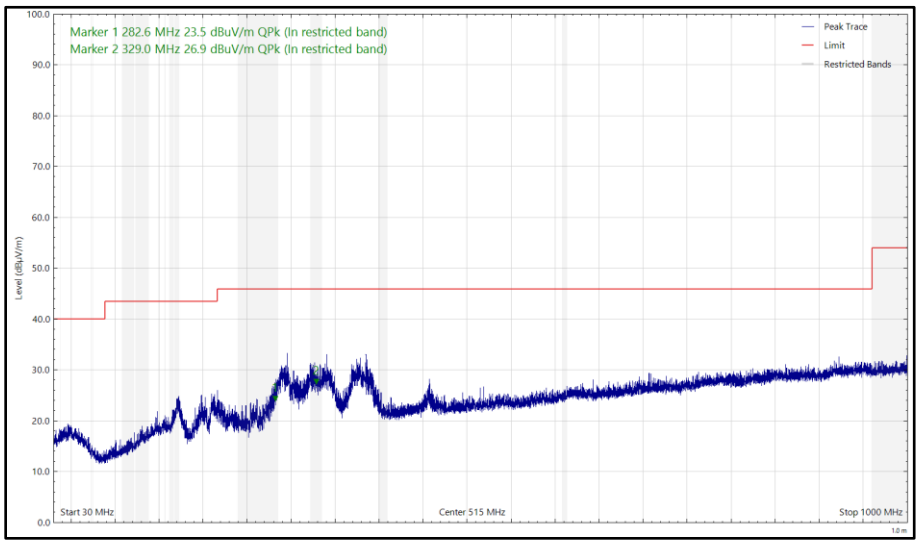

Figure 268 - 2440 MHz (CH17), LE1M, Core 2, iPA, 30 MHz to 1 GHz, Horizontal (Peak)

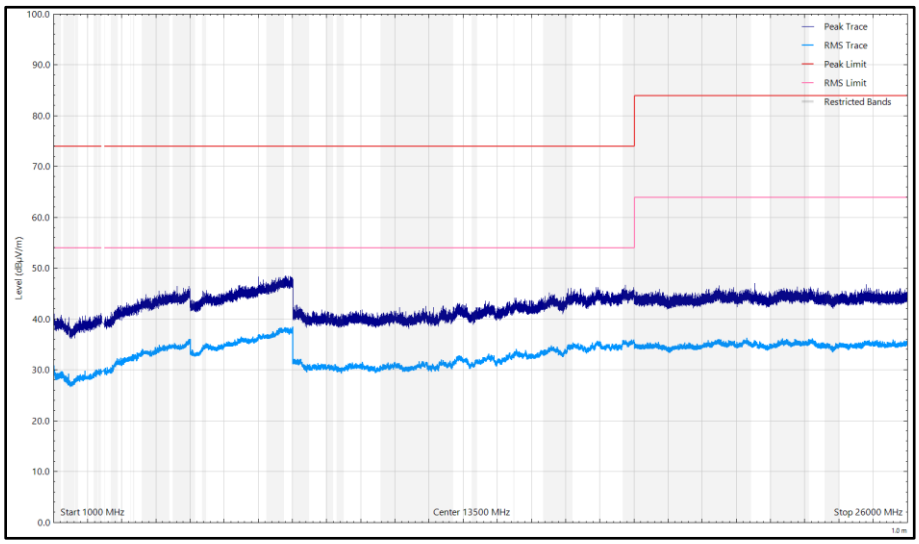

Figure 269 - 2440 MHz (CH17), LE1M, Core 2, iPA, 1 GHz to 26 GHz, Horizontal

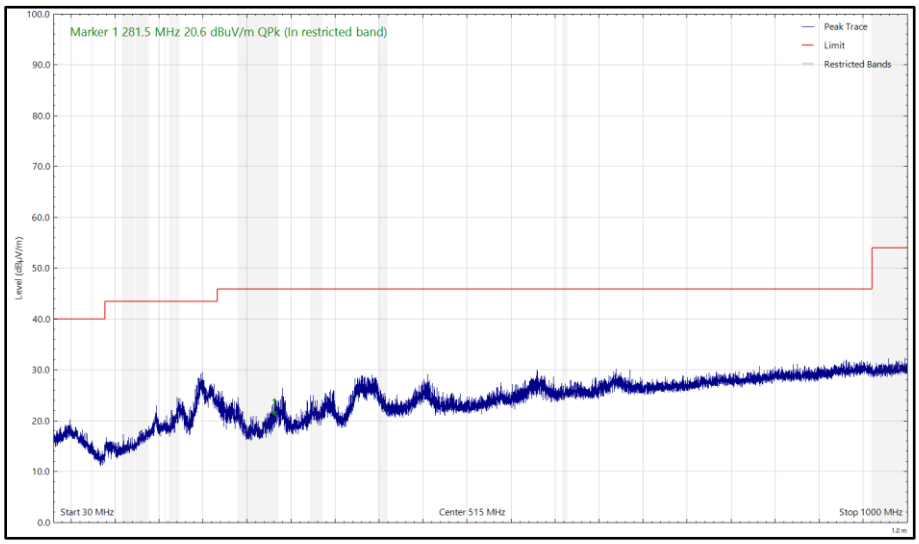

Figure 270 - 2440 MHz (CH17), LE1M, Core 2, iPA, 30 MHz to 1 GHz, Vertical (Peak)

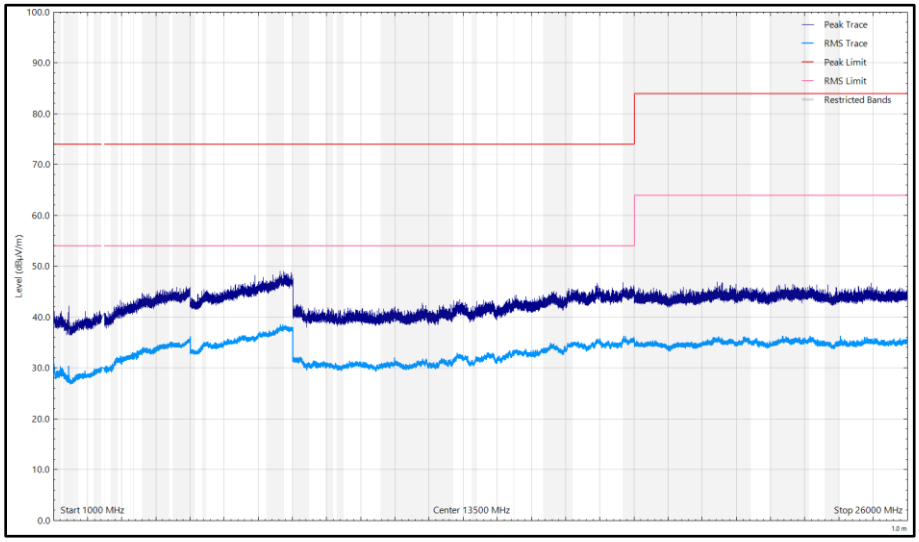

Figure 271 - 2440 MHz (CH17), LE1M, Core 2, iPA, 1 GHz to 26 GHz, Vertical

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

Table 107 - 2480 MHz (CH39), LE1M, Core 2, iPA, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

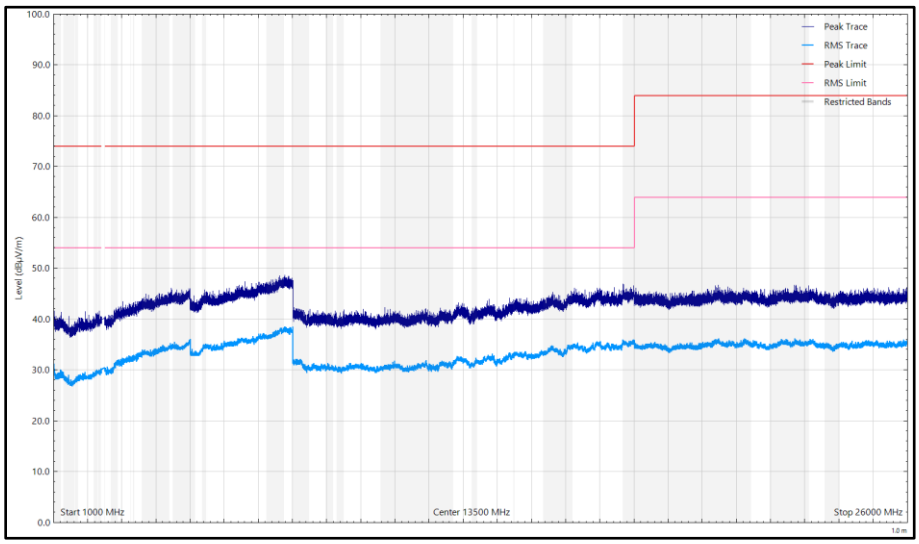

Figure 272 - 2480 MHz (CH39), LE1M, Core 2, iPA, 1 GHz to 26 GHz, Horizontal

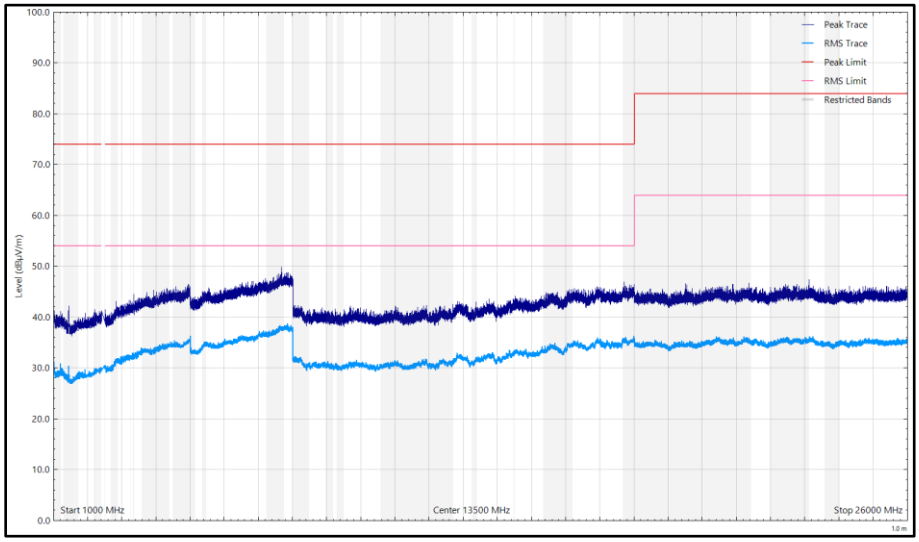

Figure 273 - 2480 MHz (CH39), LE1M, Core 2, iPA, 1 GHz to 26 GHz, Vertical

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.

2.5.8 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 108

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

2.6 Power Spectral Density

2.6.1 Specification Reference

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

2.6.2 Equipment Under Test and Modification State

A3238, S/N: G76H79FX4L - Modification State 0

2.6.3 Date of Test

26-July-2024 to 02-August-2024

2.6.4 Test Method

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

Where the EUT duty cycle was < 98 % and repeatable within 2 %, the spectrum analyser was set to trace (power) averaging and a duty cycle correction was added as calculated in the result tables below (Method AVGPSD-2).

MIMO output port summing was performed in accordance with KDB 662911 D01 E)2)b).

2.6.5 Environmental Conditions

Ambient Temperature	20.3 - 22.5 °C
Relative Humidity	57.5 - 60.8 %

2.6.6 Test Results

2.4 GHz Bluetooth LE/HDR

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-10.74	-	-	-	-	8.00	-18.74
2441	3.0	-10.52	-	-	-	-	8.00	-18.52
2476	3.0	-10.92	-	-	-	-	8.00	-18.92

Table 109 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-10.97	-	-	-	-	8.00	-18.97
2441	3.0	-10.85	-	-	-	-	8.00	-18.85
2476	3.0	-11.00	-	-	-	-	8.00	-19.00

Table 110 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-7.13	-	-	-	-	8.00	-15.13
2440	3.0	-7.47	-	-	-	-	8.00	-15.47
2480	3.0	-7.39	-	-	-	-	8.00	-15.39

Table 111 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-9.31	-	-	-	-	8.00	-17.31
2440	3.0	-9.70	-	-	-	-	8.00	-17.70
2480	3.0	-9.72	-	-	-	-	8.00	-17.72

Table 112 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-	-	-11.29	-	-	8.00	-19.29
2441	3.0	-	-	-10.89	-	-	8.00	-18.89
2476	3.0	-	-	-10.86	-	-	8.00	-18.86

Table 113 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-	-	-11.04	-	-	8.00	-19.04
2441	3.0	-	-	-10.72	-	-	8.00	-18.72
2476	3.0	-	-	-10.54	-	-	8.00	-18.54

Table 114 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.8
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-	-	-7.70	-	-	8.00	-15.70
2440	3.0	-	-	-7.53	-	-	8.00	-15.53
2480	3.0	-	-	-7.39	-	-	8.00	-15.39

Table 115 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-	-	-10.00	-	-	8.00	-18.00
2440	3.0	-	-	-9.81	-	-	8.00	-17.81
2480	3.0	-	-	-9.60	-	-	8.00	-17.60

Table 116 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-1.93	-	-	-	-	8.00	-9.93
2441	3.0	-1.99	-	-	-	-	8.00	-9.99
2476	3.0	-1.64	-	-	-	-	8.00	-9.64

Table 117 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-1.68	-	-	-	-	8.00	-9.68
2441	3.0	-2.07	-	-	-	-	8.00	-10.07
2476	3.0	-2.00	-	-	-	-	8.00	-10.00

Table 118 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-2.07	-	-	-	-	8.00	-10.07
2440	3.0	-2.35	-	-	-	-	8.00	-10.35
2480	3.0	-2.43	-	-	-	-	8.00	-10.43

Table 119 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (LE 2M)	Duty Cycle (%):	31.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-4.45	-	-	-	-	8.00	-12.45
2440	3.0	-4.74	-	-	-	-	8.00	-12.74
2480	3.0	-4.61	-	-	-	-	8.00	-12.61

Table 120 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-10.77	-10.77	-	-	-7.76	8.00	-15.76
2441	3.0	-11.13	-10.83	-	-	-7.97	8.00	-15.97
2476	3.0	-10.87	-11.11	-	-	-7.98	8.00	-15.98

Table 121 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-11.54	-11.09	-	-	-8.30	8.00	-16.30
2441	3.0	-10.98	-10.77	-	-	-7.86	8.00	-15.86
2476	3.0	-10.66	-11.08	-	-	-7.85	8.00	-15.85

Table 122 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-2.21	-2.22	-	-	0.79	8.00	-7.21
2440	3.0	-2.12	-2.22	-	-	0.84	8.00	-7.16
2480	3.0	-2.21	-2.17	-	-	0.82	8.00	-7.18

Table 123 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2402	3.0	-4.39	-4.41	-	-	-1.39	8.00	-9.39
2440	3.0	-4.36	-4.36	-	-	-1.35	8.00	-9.35
2480	3.0	-4.45	-4.36	-	-	-1.39	8.00	-9.39

Table 124 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	ePA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-1.89	-1.91	-	-	1.11	8.00	-6.89
2441	3.0	-1.97	-1.97	-	-	1.04	8.00	-6.96
2476	3.0	-1.65	-1.45	-	-	1.47	8.00	-6.53

Table 125 - Maximum Power Spectral Density Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	ePA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	-

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	∑		
2404	3.0	-1.86	-1.72	-	-	1.22	8.00	-6.78
2441	3.0	-2.76	-1.68	-	-	0.83	8.00	-7.17
2476	3.0	-2.23	-1.85	-	-	0.97	8.00	-7.03

Table 126 - Maximum Power Spectral Density Results

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

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

ISED RSS-247, Limit Clause 5.2(b)

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

2.6.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	13-Dec-2024
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6754	0	06-Feb-2025

Table 127

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
Emission Bandwidth	± 136.57 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
Power Spectral Density	± 1.49 dB

Table 128

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.