Stephen Marshall Digitally signed by Stephen Marshall Date: 2022.02.14 11:48:52 Z

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2404	-	-	8.85	-	-	30.00	-21.15
2441	-	-	9.17	-	-	30.00	-20.83
2476	-	-	9.27	-	-	30.00	-20.73

Table 118 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2404	-	-	8.85	-	-	30.00	-21.15	10.55	36.00	-25.45
2441	-	-	9.17	-	-	30.00	-20.83	10.87	36.00	-25.13
2476	-	-	9.27	-	-	30.00	-20.73	10.97	36.00	-25.03

Table 119 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2404	-	-	9.35	-	-	30.00	-20.65
2441	-	-	9.68	-	-	30.00	-20.32
2476	-	-	9.73	-	-	30.00	-20.27

Table 120 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2404	-	-	9.35	-	-	30.00	-20.65	11.05	36.00	-24.95
2441	-	-	9.68	-	-	30.00	-20.32	11.38	36.00	-24.62
2476	-	-	9.73	-	-	30.00	-20.27	11.43	36.00	-24.57

Table 121 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

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):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2404	9.21	9.19	-	-	12.17	30.00	-17.83
2441	9.08	8.84	-	-	11.93	30.00	-18.07
2476	9.33	8.86	-	-	12.08	30.00	-17.92

Table 122 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2404	9.21	9.19	-	-	12.17	30.00	-17.83	16.99	36.00	-19.01
2441	9.08	8.84	-	-	11.93	30.00	-18.07	16.75	36.00	-19.25
2476	9.33	8.86	-	-	12.08	30.00	-17.92	16.89	36.00	-19.11

Table 123 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA π/4 DQPSK (8-DH5)	Duty Cycle (%):	78.5
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2404	9.47	9.27	-	-	12.37	30.00	-17.63
2441	9.33	9.31	-	-	12.29	30.00	-17.71
2476	9.62	9.29	-	-	12.44	30.00	-17.56

Table 124 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2404	9.47	9.27	-	-	12.37	30.00	-17.63	17.19	36.00	-18.81
2441	9.33	9.31	-	-	12.29	30.00	-17.71	17.11	36.00	-18.89
2476	9.62	9.29	-	-	12.44	30.00	-17.56	17.26	36.00	-18.74

Table 125 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
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):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	12.73	-	-	-	-	30.00	-17.27
2440	13.13	-	-	-	-	30.00	-16.87
2480	13.17	-	-	-	-	30.00	-16.83

Table 126 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	12.73	-	-	-	-	30.00	-17.27	14.93	36.00	-21.07
2440	13.13	-	-	-	-	30.00	-16.87	15.33	36.00	-20.67
2480	13.17	-	-	-	-	30.00	-16.83	15.37	36.00	-20.63

Table 127 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	12.99	-	-	-	-	30.00	-17.01
2440	13.45	-	-	-	-	30.00	-16.55
2480	13.47	-	-	-	-	30.00	-16.53

Table 128 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	12.99	-	-	-	-	30.00	-17.01	15.19	36.00	-20.81
2440	13.45	-	-	-	-	30.00	-16.55	15.65	36.00	-20.35
2480	13.47	-	-	-	-	30.00	-16.53	15.67	36.00	-20.33

Table 129 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	1.40

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	-	12.93	-	-	-	30.00	-17.07
2440	-	13.14	-	-	-	30.00	-16.86
2480	-	13.06	-	-	-	30.00	-16.94

Table 130 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	-	12.93	-	-	-	30.00	-17.07	14.33	36.00	-21.67
2440	-	13.14	-	-	-	30.00	-16.86	14.54	36.00	-21.46
2480	-	13.06	-	-	-	30.00	-16.94	14.46	36.00	-21.54

Table 131 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (Core 1)	Peak Antenna Gain (dBi):	1.40

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	-	13.26	-	-	-	30.00	-16.74
2440	-	13.87	-	-	-	30.00	-16.13
2480	-	13.33	-	-	-	30.00	-16.67

Table 132 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	-	13.26	-	-	-	30.00	-16.74	14.66	36.00	-21.34
2440	-	13.87	-	-	-	30.00	-16.13	15.27	36.00	-20.73
2480	-	13.33	-	-	-	30.00	-16.67	14.73	36.00	-21.27

Table 133 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	-	-	6.70	-	-	30.00	-23.30
2440	-	-	6.50	-	-	30.00	-23.50
2480	-	-	6.65	-	-	30.00	-23.35

Table 134 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	-	-	6.70	-	-	30.00	-23.30	8.40	36.00	-27.60
2440	-	-	6.50	-	-	30.00	-23.50	8.20	36.00	-27.80
2480	-	-	6.65	-	-	30.00	-23.35	8.35	36.00	-27.65

Table 135 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	-	-	6.73	-	-	30.00	-23.27
2440	-	-	6.53	-	-	30.00	-23.47
2480	-	-	7.06	-	-	30.00	-22.94

Table 136 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	-	-	6.73	-	-	30.00	-23.27	8.43	36.00	-27.57
2440	-	-	6.53	-	-	30.00	-23.47	8.23	36.00	-27.77
2480	-	-	7.06	-	-	30.00	-22.94	8.76	36.00	-27.24

Table 137 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.4
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	7.46	7.43	-	-	10.43	30.00	-19.57
2440	7.39	7.26	-	-	10.29	30.00	-19.71
2480	7.12	6.87	-	-	9.99	30.00	-20.01

Table 138 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	7.46	7.43	-	-	10.43	30.00	-19.57	15.25	36.00	-20.75
2440	7.39	7.26	-	-	10.29	30.00	-19.71	15.11	36.00	-20.89
2480	7.12	6.87	-	-	9.99	30.00	-20.01	14.81	36.00	-21.19

Table 139 - ISED Maximum Conducted (peak) Output Power Results

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(3) RSS-247 5.4 d)	Test Method(s):	C63.10 11.9.1.3
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

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):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	∑		
2402	7.19	7.07	-	-	10.09	30.00	-19.91
2440	7.69	7.50	-	-	10.58	30.00	-19.42
2480	7.99	7.58	-	-	10.77	30.00	-19.23

Table 140 - FCC Maximum Conducted (peak) Output Power Results

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	∑					
2402	7.19	7.07	-	-	10.09	30.00	-19.91	14.91	36.00	-21.09
2440	7.69	7.50	-	-	10.58	30.00	-19.42	15.40	36.00	-20.60
2480	7.99	7.58	-	-	10.77	30.00	-19.23	15.59	36.00	-20.41

Table 141 - ISED Maximum Conducted (peak) Output Power Results

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

ISED RSS-247, Limit Clause 5.4 (b)

For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.

2.3.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	79 Series II	3057	12	23-Aug-2022
Hygrometer	Rotronic	I-1000	3220	12	05-Nov-2022
Climatic Chamber	Aralab	FitoTerm 300E45	4823	12	12-Apr-2022
AC Programmable Power Supply	iTech	IT7324	5226	-	O/P Mon
Signal Commissioning Unit	TUV SUD	SCU002	5759	12	30-Jun-2022
USB Power Sensor	Boonton	RTP5008	5830	12	10-May-2022
USB Power Sensor	Boonton	RTP5008	5832	12	10-May-2022
USB Power Sensor	Boonton	RTP5008	5833	12	10-May-2022

Table 142

O/P Mon – Output Monitored using calibrated equipment

2.4 Spurious Radiated Emissions

2.4.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d) and 15.209
ISED RSS-247, Clause 3.3 and 5.5
ISED RSS-GEN, Clause, 6.13 and 8.9

2.4.2 Equipment Under Test and Modification State

A2165, S/N: P1F4F29DL4 - Modification State 0

2.4.3 Date of Test

19-November-2021 to 22-November-2021

2.4.4 Test Method

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

For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10, clause 11.12.2.5.2.

The EUT was placed on the non-conducting platform in a manner typical of a normal installation. Ports on the EUT were terminated with loads as described in ANSI C63.4 clause 6.2.4. One port of each type was loaded with a suitable ancillary/accessory.

In the 30 MHz to 1 GHz range pre-scans were only performed on the main radio mid channel (2440 MHz).

The plots shown are the characterization of the EUT. The limits on the plots represent the most stringent case for restricted bands, (54/74 dBuV/m @ 3 m and 64/84 dBuV/m @ 1 m) when compared to 20 dBc (Peak) and 30 dBc (Average) 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 dBµV/m to µV/m:
10^(Field Strength in dBµV/m / 20).

Above 18 GHz, the measurement distance was reduced to 1 m. The limit line was increased by 20*LOG(3/1) = 9.54 dB.

2.4.5 Example Test Setup Diagram

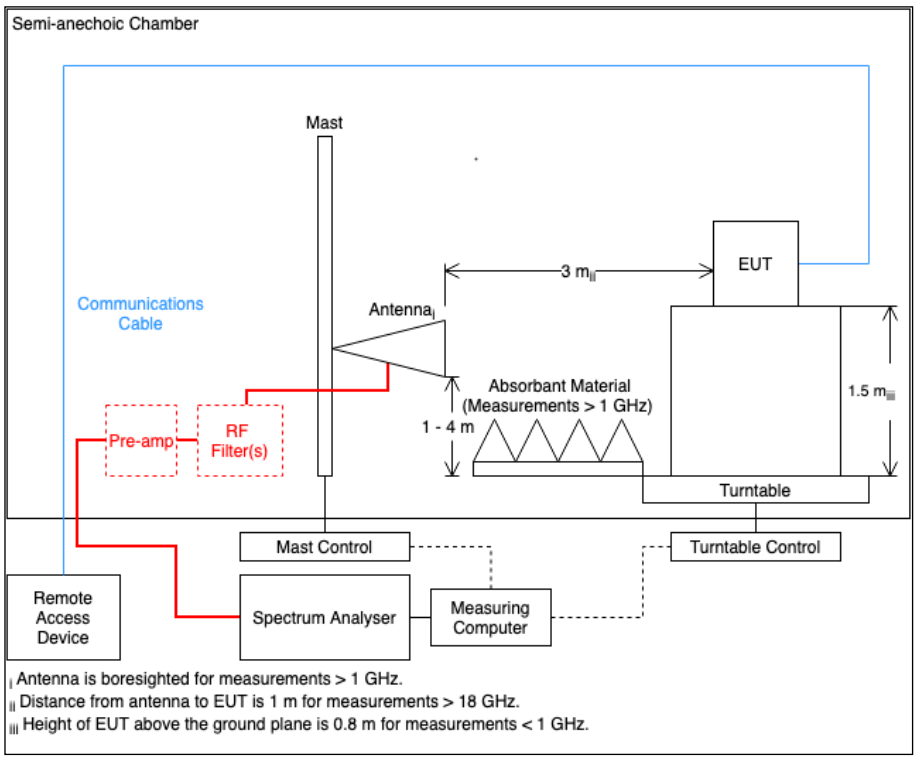

Figure 257

2.4.6 Environmental Conditions

Ambient Temperature	20.0 - 22.5 °C
Relative Humidity	30.5 - 51.1 %

2.4.7 Test Results

2.4 GHz Bluetooth - DTS

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

Table 143 - 2402 MHz (CH37), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

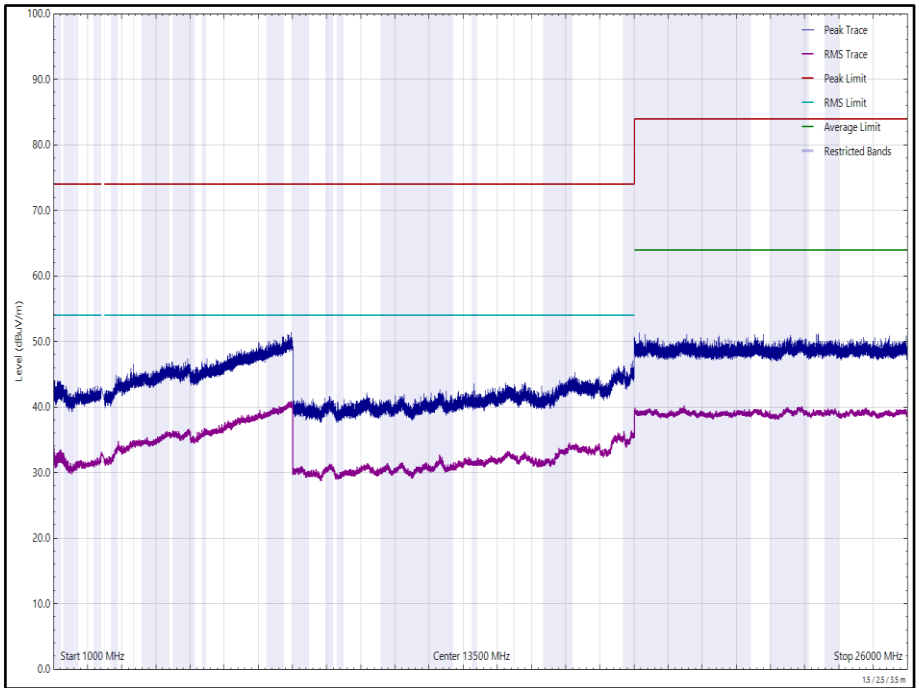

Figure 258 - 2402 MHz (CH37), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

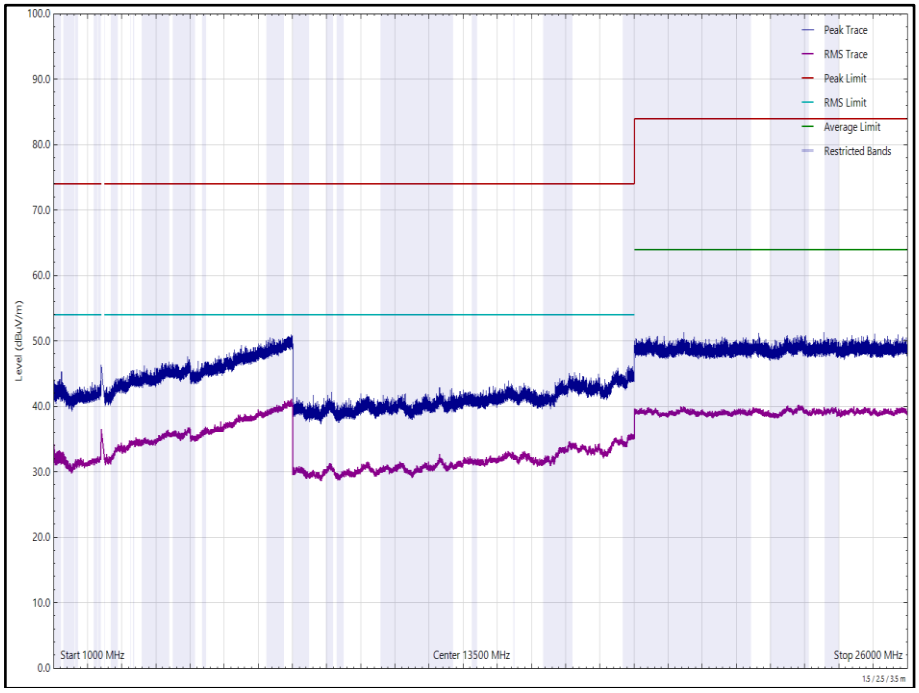

Figure 259 - 2402 MHz (CH37), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 144 - 2440 MHz (CH17), LE1M, ePA, Core 0 + Core 1, 30 MHz to 26 GHz

*No emissions found within 6 dB of the limit.

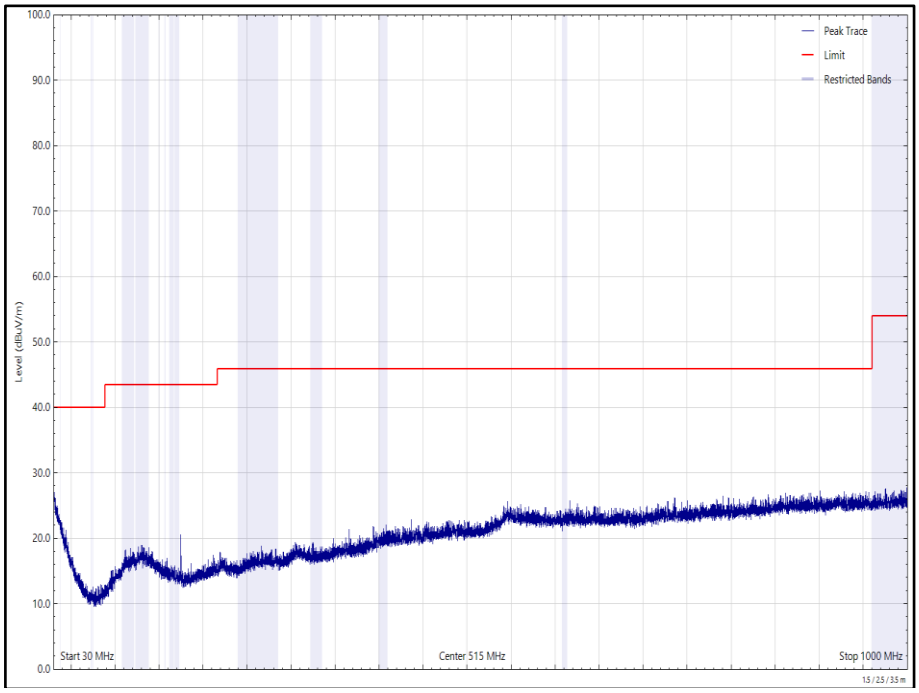

Figure 260 - 2440 MHz (CH17), LE1M, ePA, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

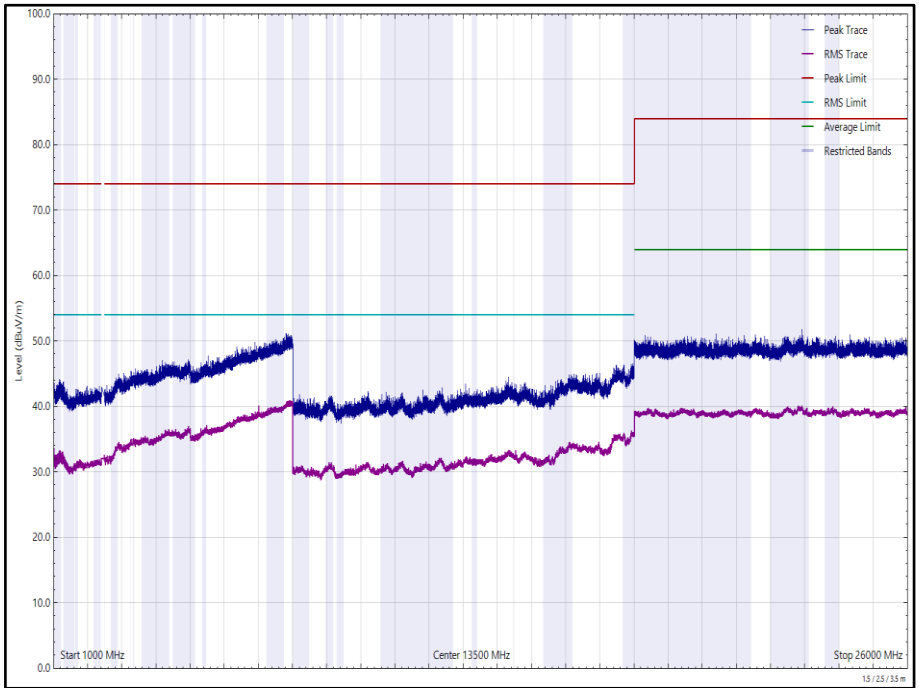

Figure 261 - 2440 MHz (CH17), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

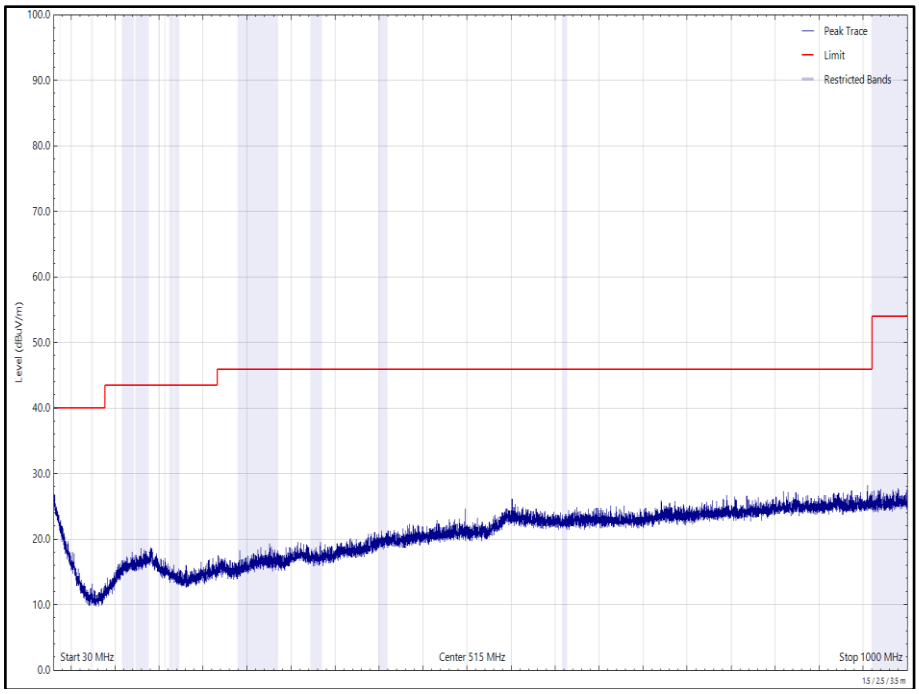

Figure 262 - 2440 MHz (CH17), LE1M, ePA, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

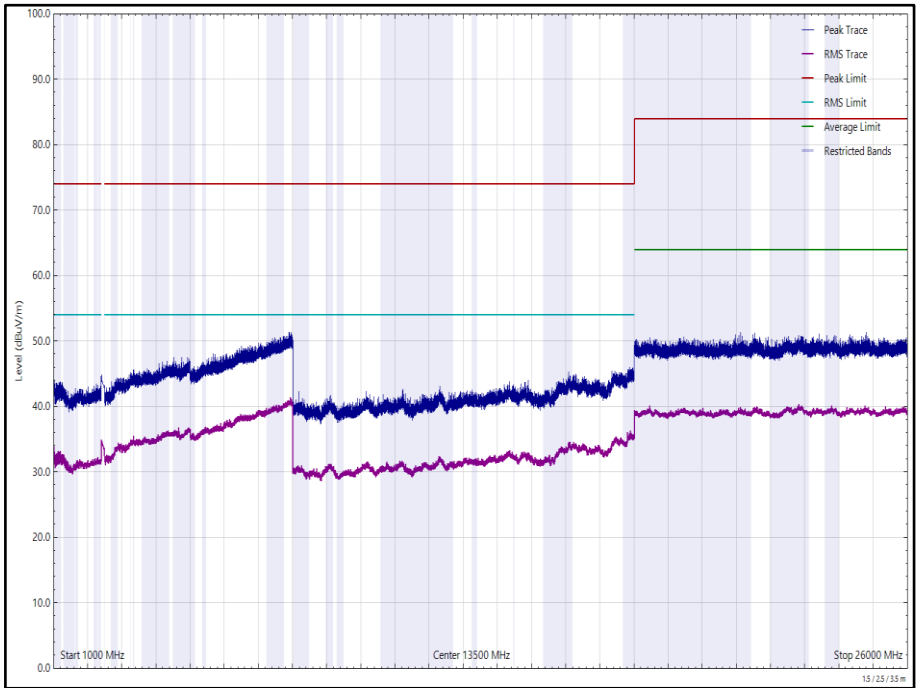

Figure 263 - 2440 MHz (CH17), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 145 - 2480 MHz (CH39), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

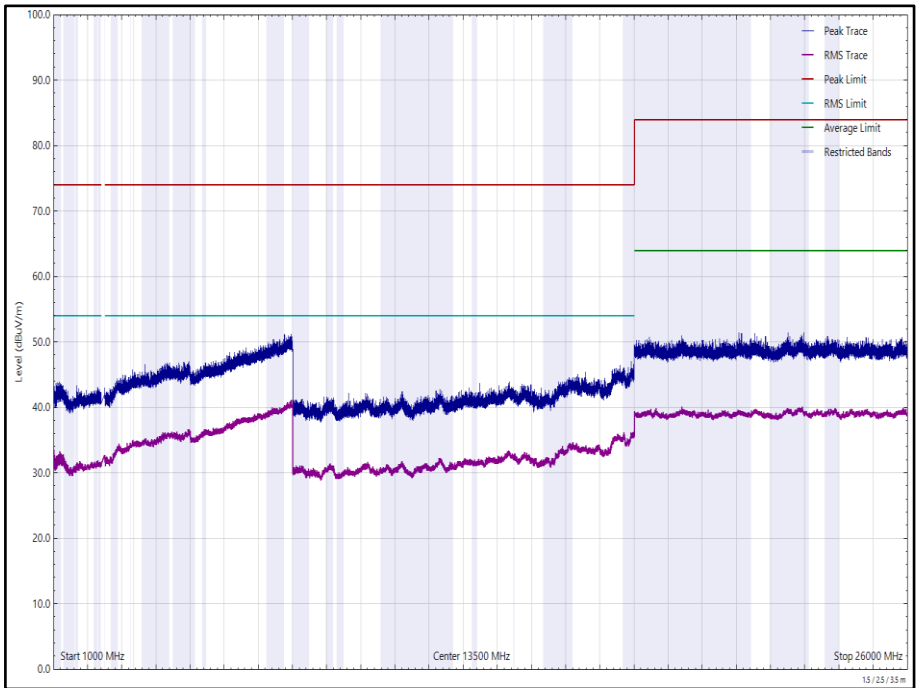

Figure 264 - 2480 MHz (CH39), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

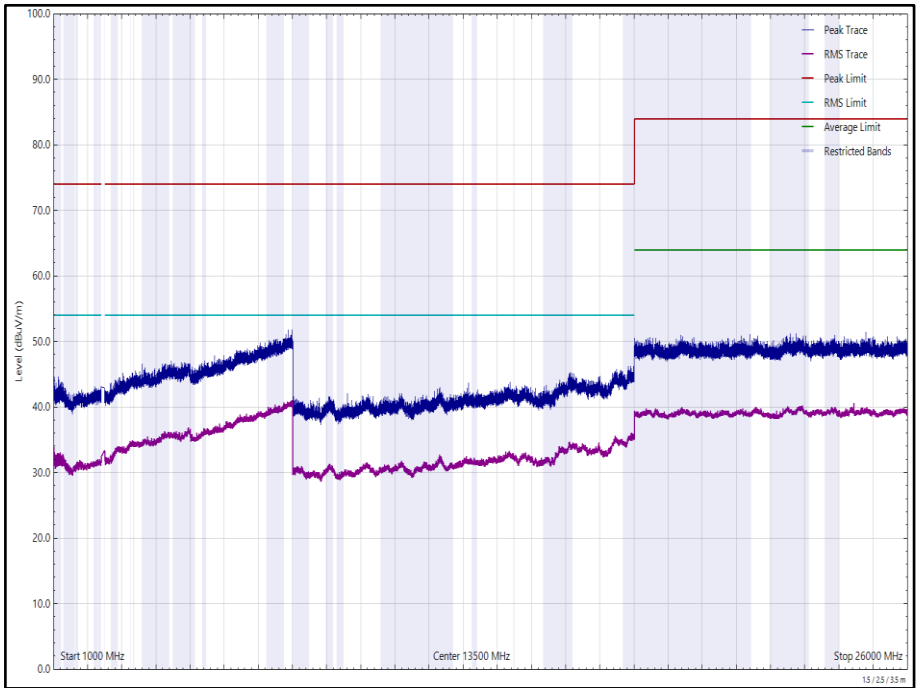

Figure 265 - 2480 MHz (CH39), LE1M, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 146 - 2402 MHz (CH37), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

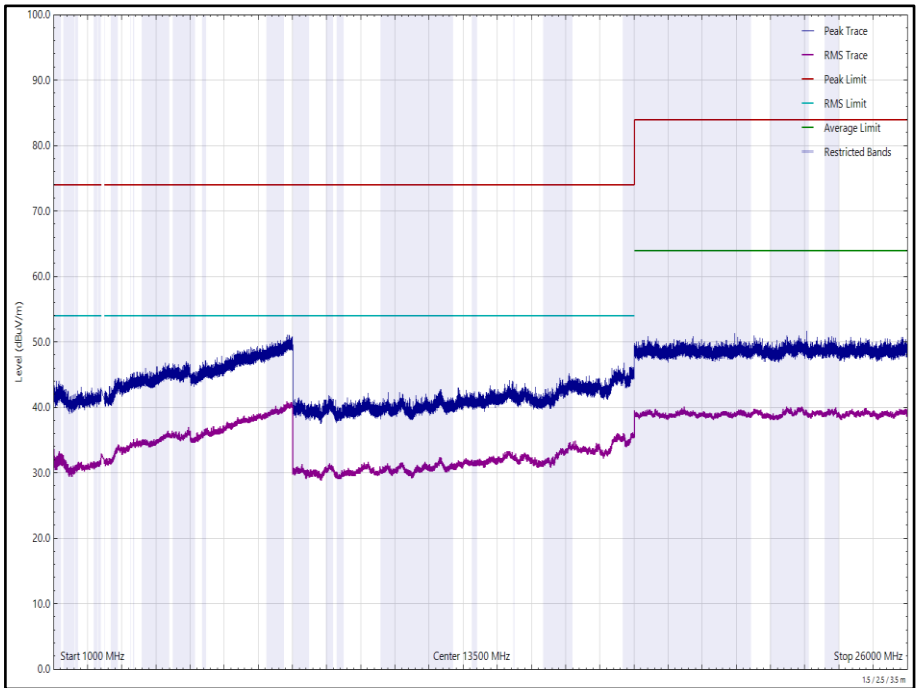

Figure 266 - 2402 MHz (CH37), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

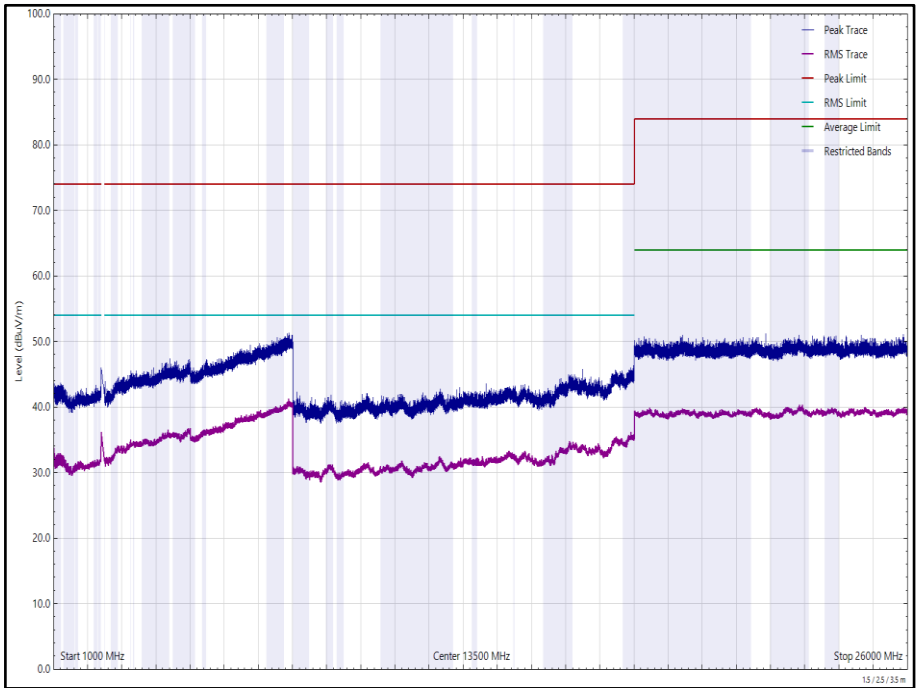

Figure 267 - 2402 MHz (CH37), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 147 - 2440 MHz (CH17), LE1M, iPA, Core 0 + Core 1, 30 MHz to 26 GHz

*No emissions found within 6 dB of the limit.

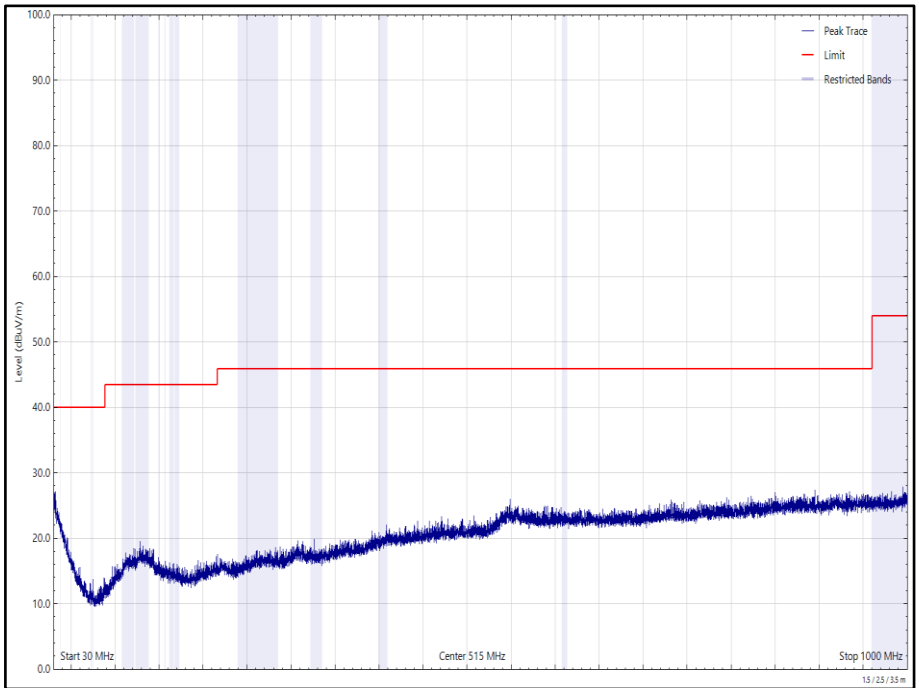

Figure 268 - 2440 MHz (CH17), LE1M, iPA, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

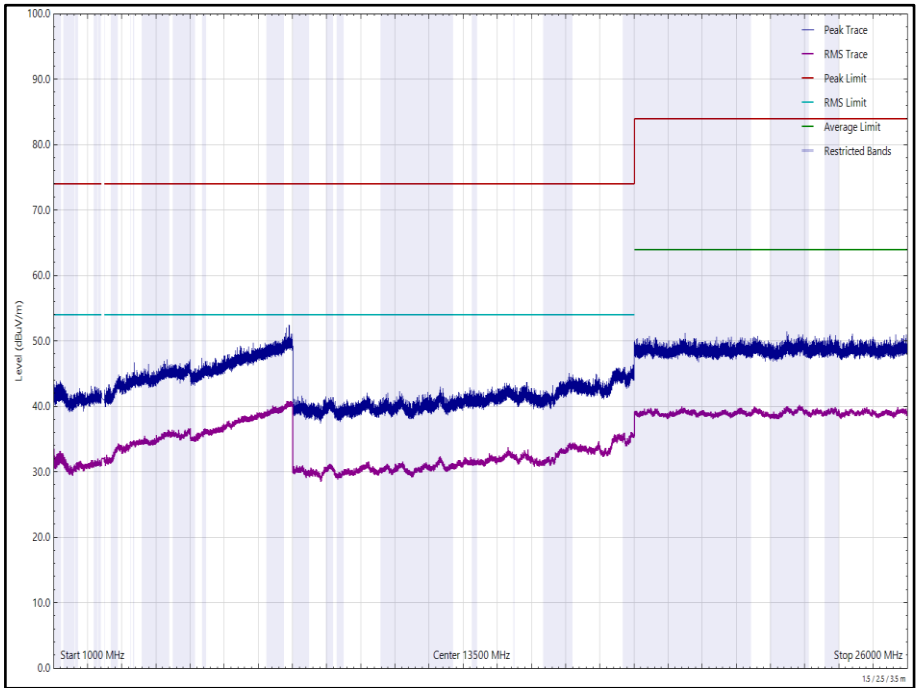

Figure 269 - 2440 MHz (CH17), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

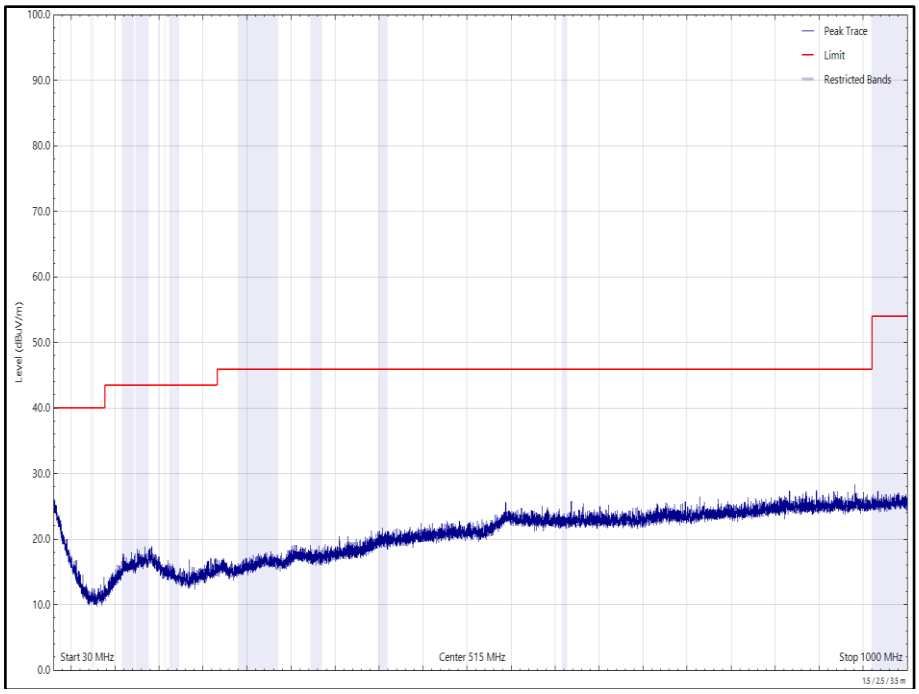

Figure 270 - 2440 MHz (CH17), LE1M, iPA, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

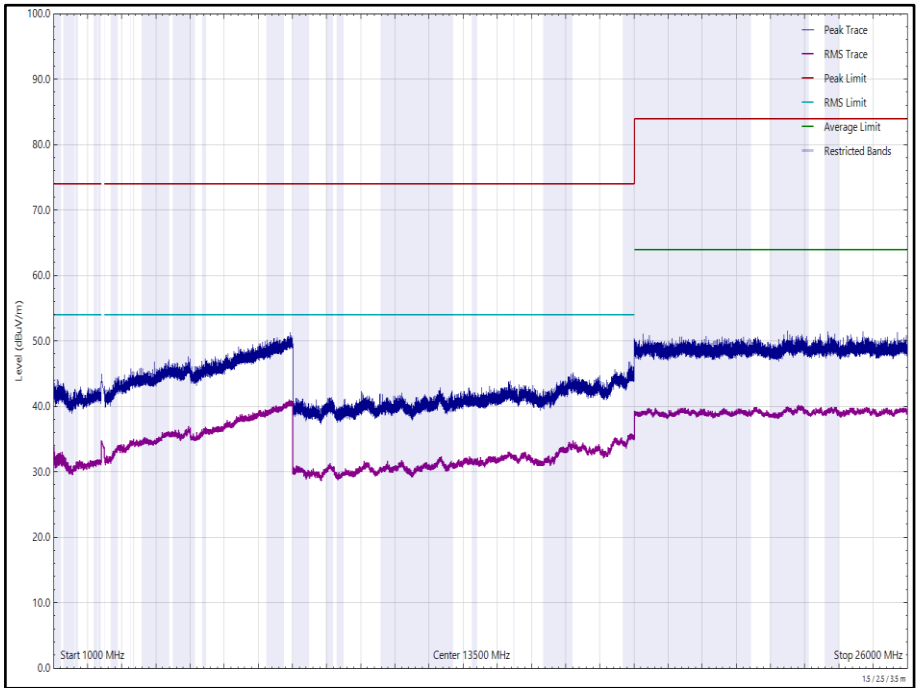

Figure 271 - 2440 MHz (CH17), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 148 - 2480 MHz (CH39), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

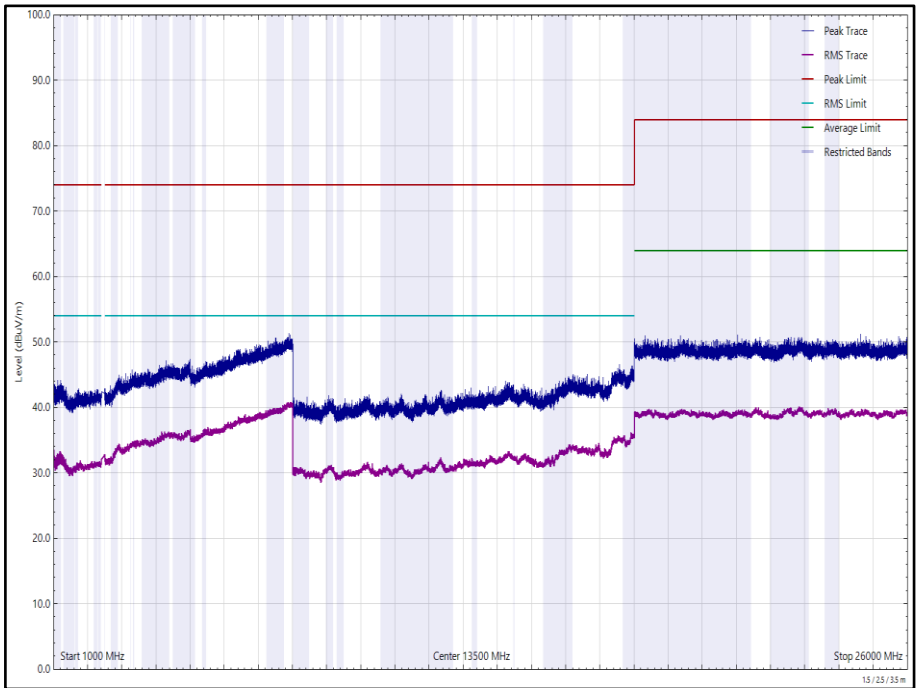

Figure 272 - 2480 MHz (CH39), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

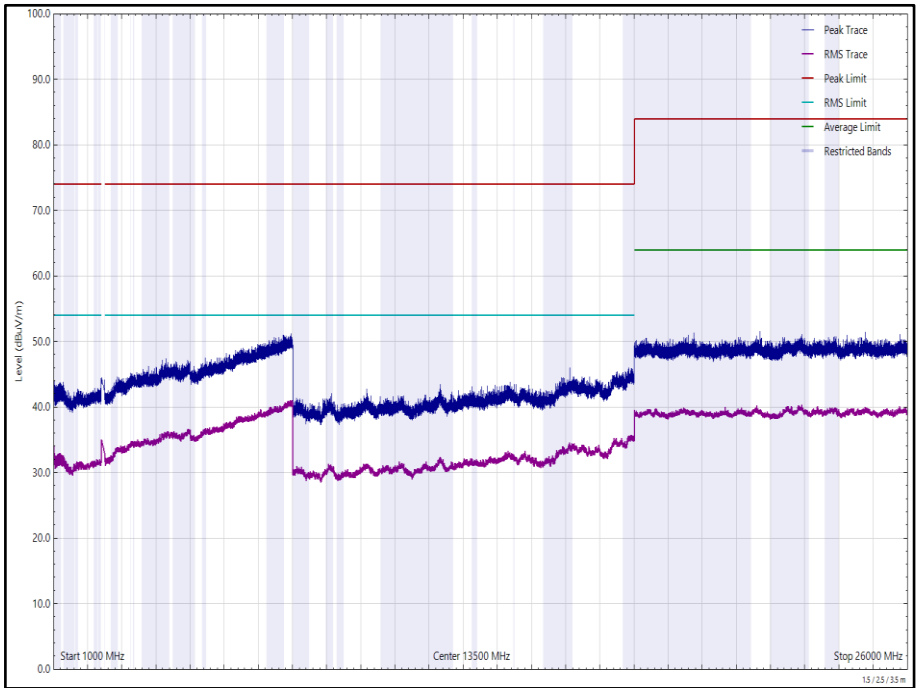

Figure 273 - 2480 MHz (CH39), LE1M, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 149 - 2402 MHz (CH37), LE1M, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

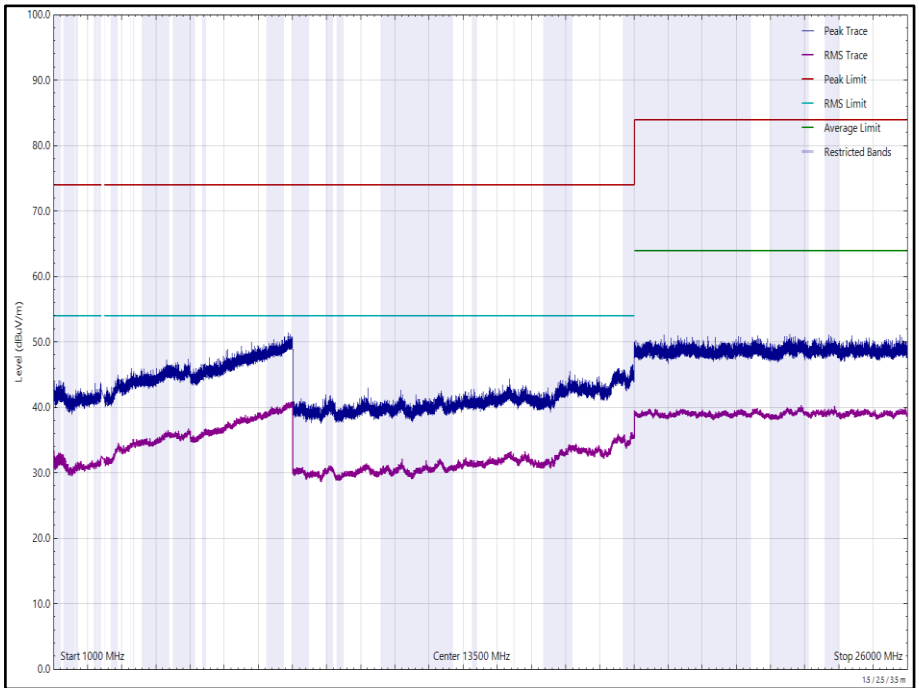

Figure 274 - 2402 MHz (CH37), LE1M, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

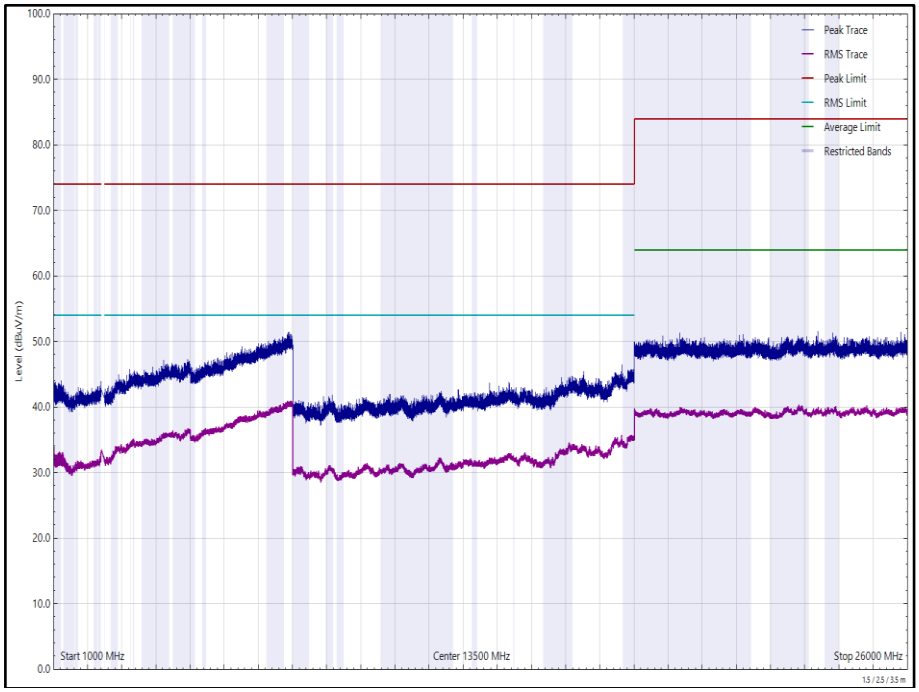

Figure 275 - 2402 MHz (CH37), LE1M, iPA, Core 2, 1 GHz to 26 GHz, Vertical

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

Table 150 - 2440 MHz (CH17), LE1M, iPA, Core 2, 30 MHz to 26 GHz

*No emissions found within 6 dB of the limit.

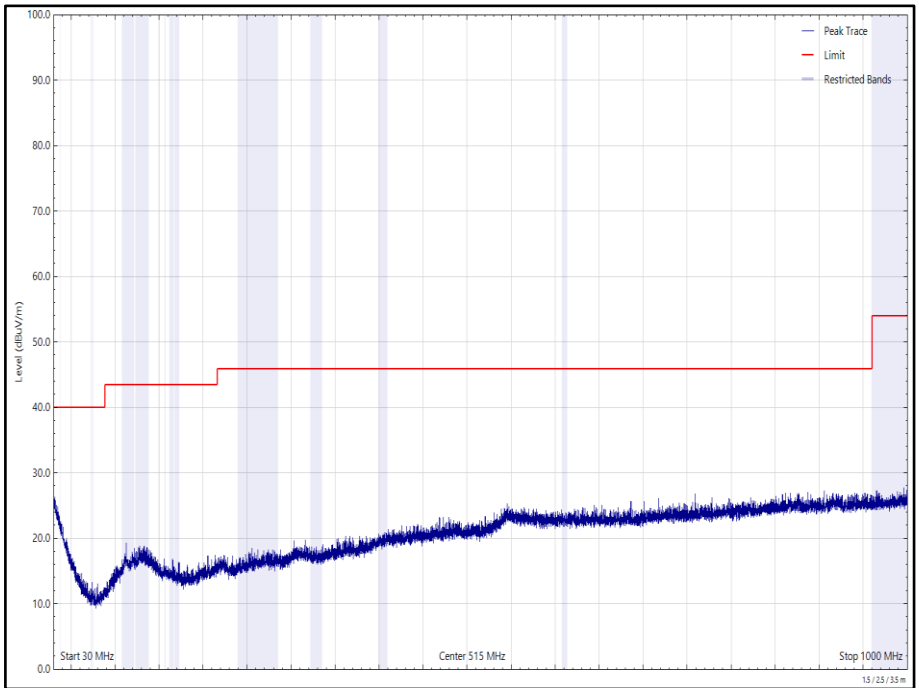

Figure 276 - 2440 MHz (CH17), LE1M, iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

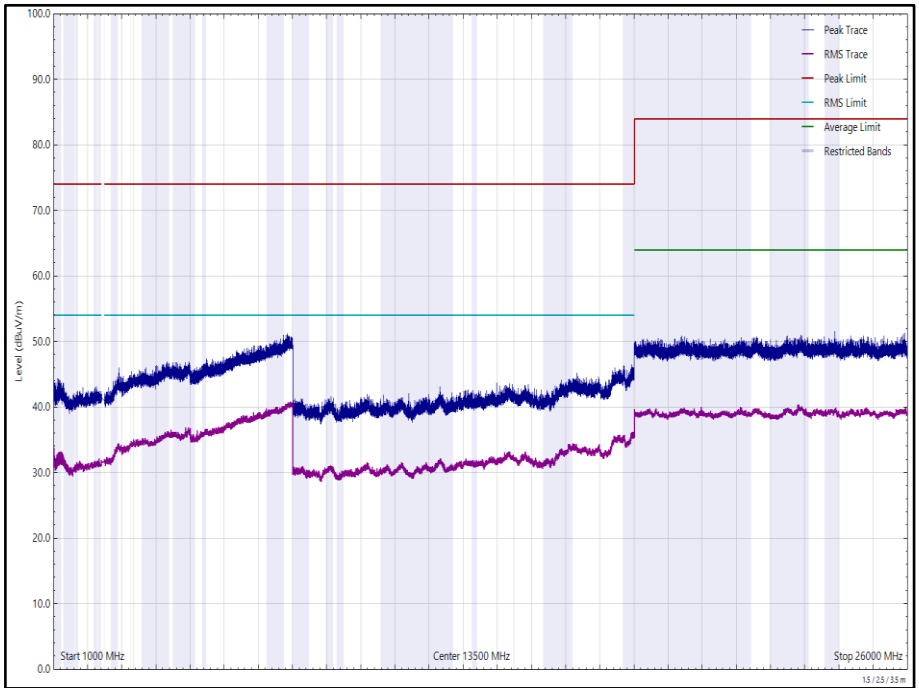

Figure 277 - 2440 MHz (CH17), LE1M, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

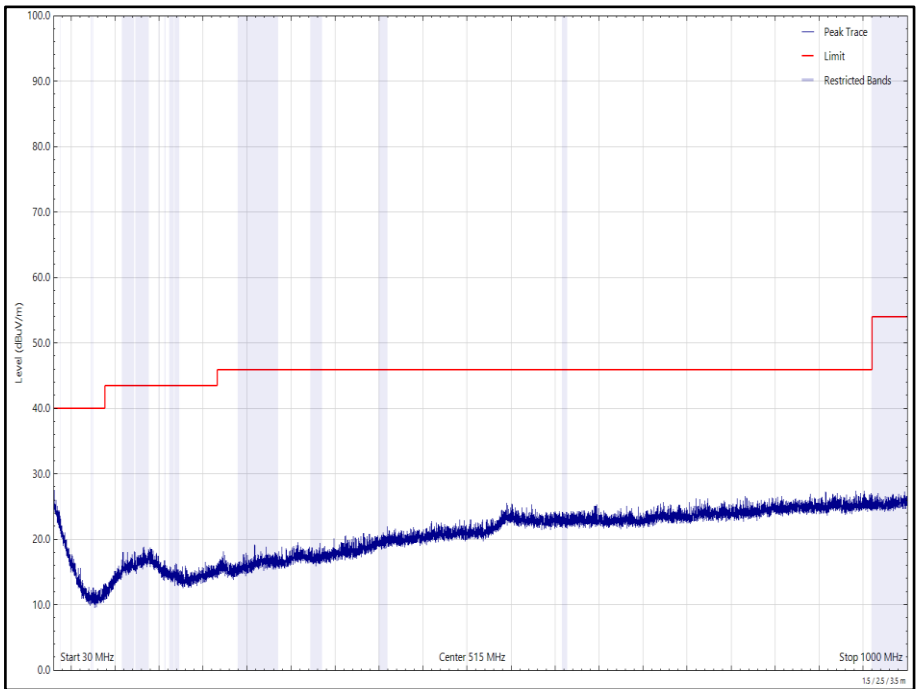

Figure 278 - 2440 MHz (CH17), LE1M, iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

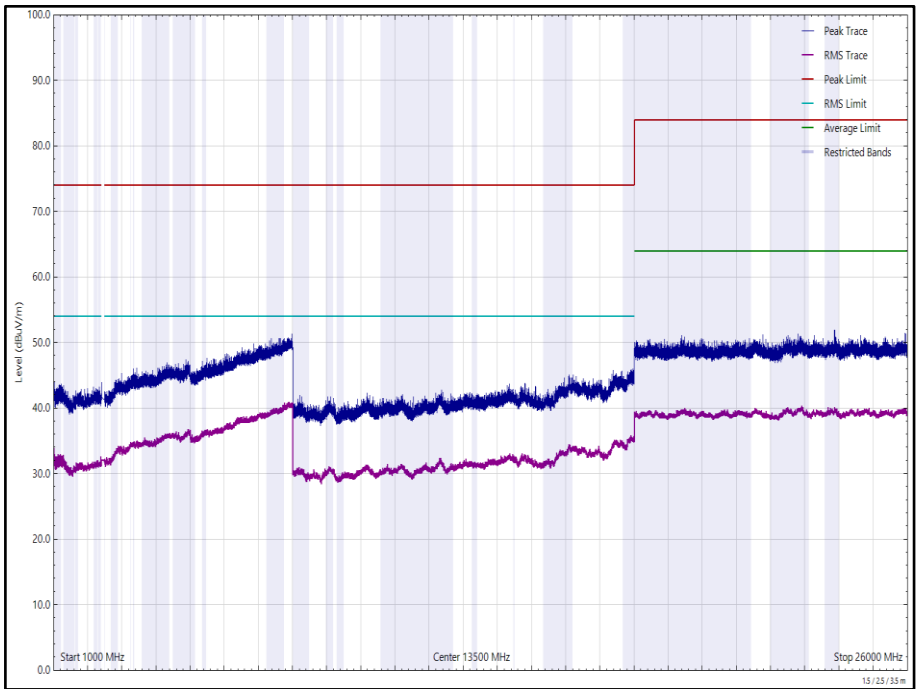

Figure 279 - 2440 MHz (CH17), LE1M, iPA, Core 2, 1 GHz to 26 GHz, Vertical

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

Table 151 - 2480 MHz (CH39), LE1M, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

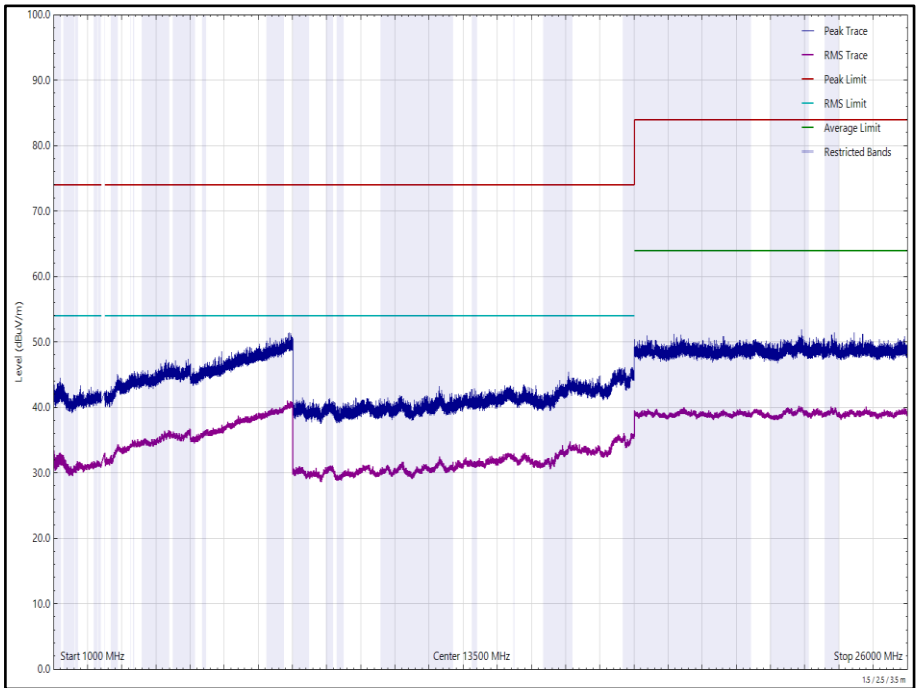

Figure 280 - 2480 MHz (CH39), LE1M, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

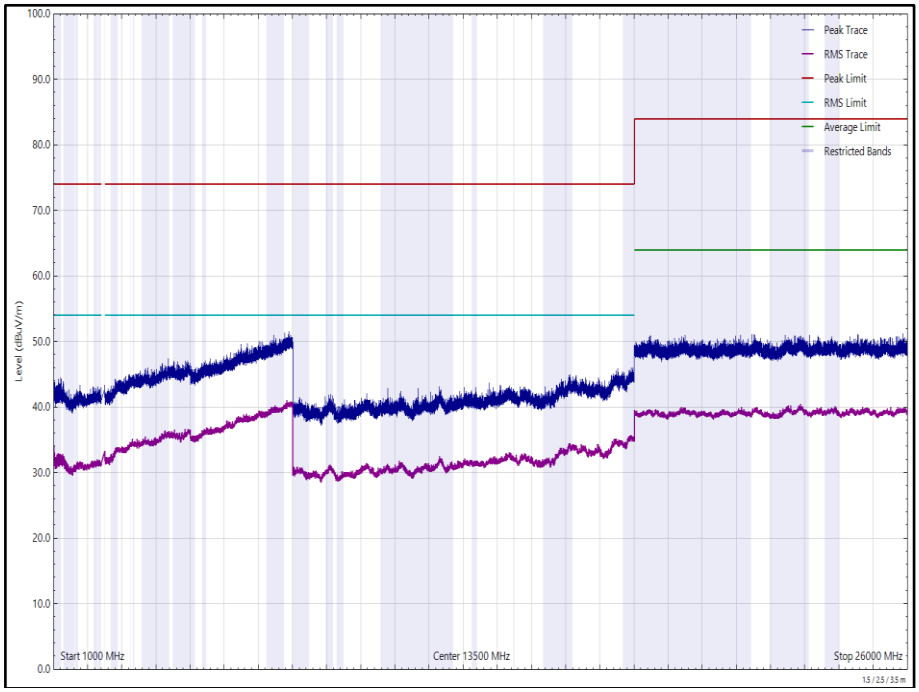

Figure 281 - 2480 MHz (CH39), LE1M, iPA, Core 2, 1 GHz to 26 GHz, Vertical

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

Table 152 - 2404 MHz (CH2), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

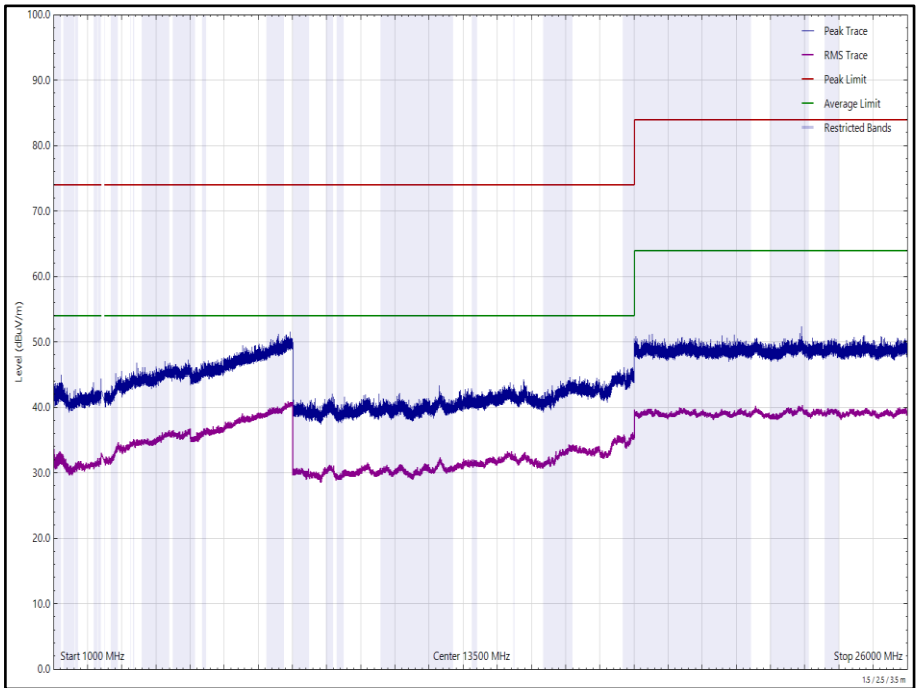

Figure 137 - 2404 MHz (CH2), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

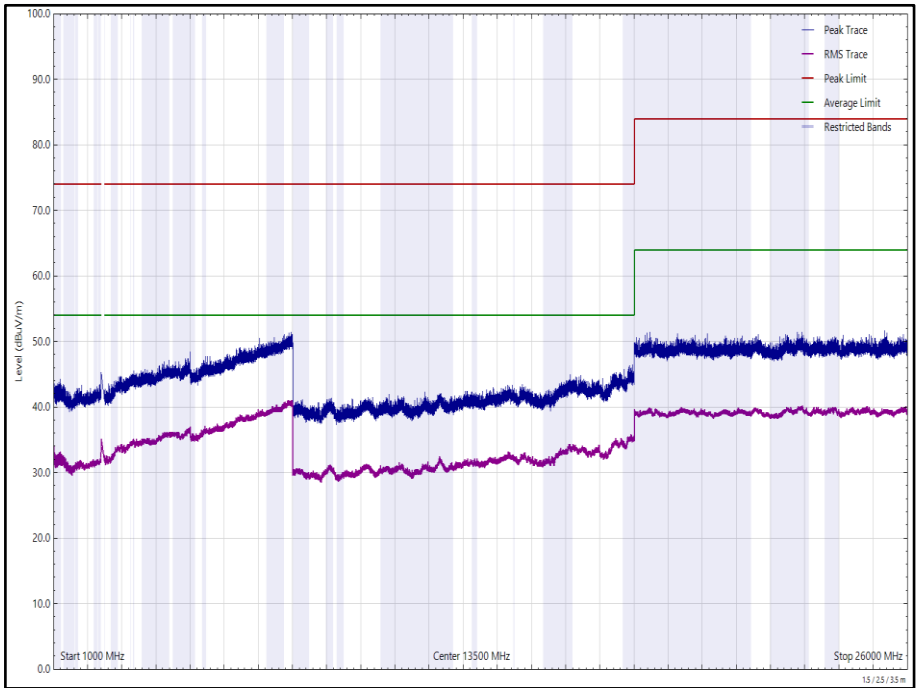

Figure 138 - 2404 MHz (CH2), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 153 - 2440 MHz (CH38), HDR4, ePA, Core 0 + Core 1, 30 MHz to 26 GHz

*No emissions found within 6 dB of the limit.

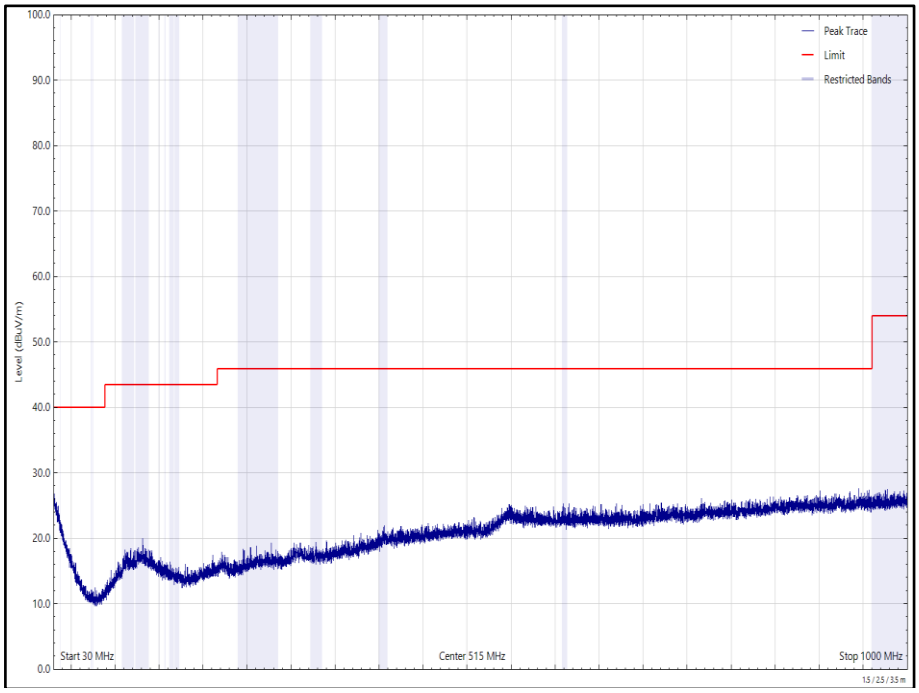

Figure 139 - 2440 MHz (CH38), HDR4, ePA, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

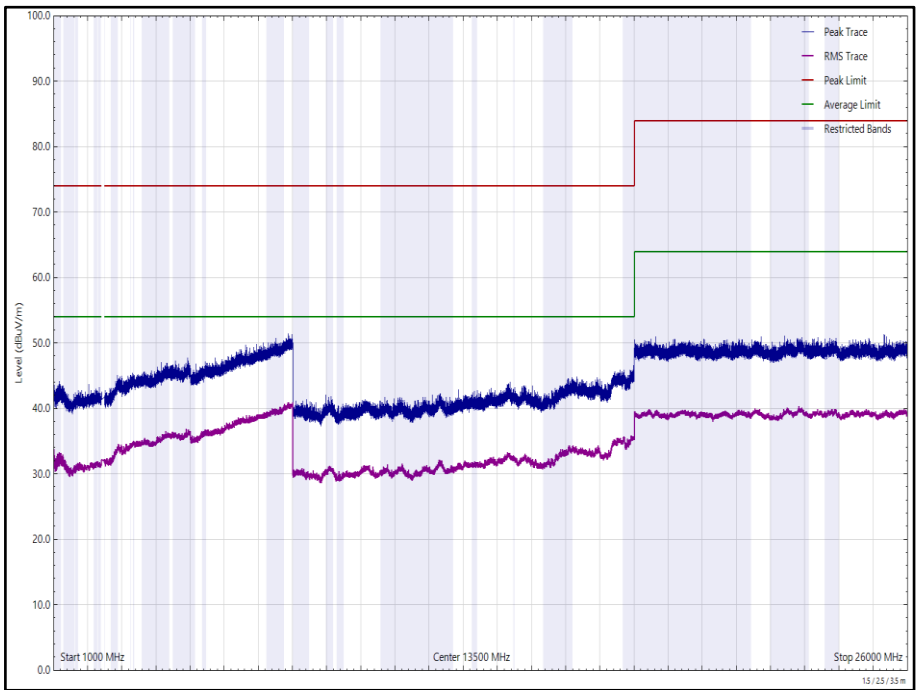

Figure 140 - 2440 MHz (CH38), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

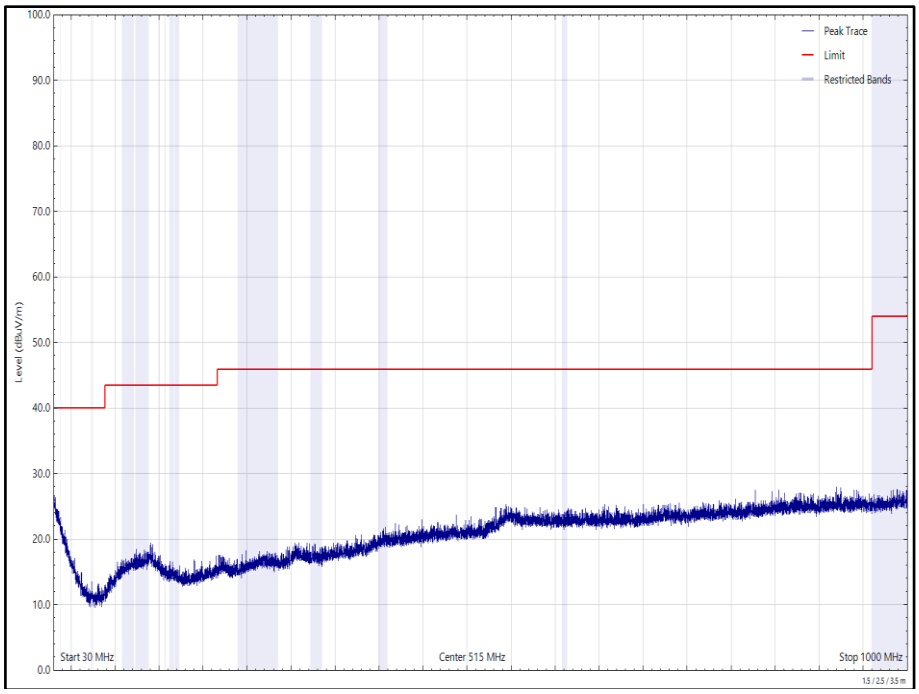

Figure 141 - 2440 MHz (CH38), HDR4, ePA, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

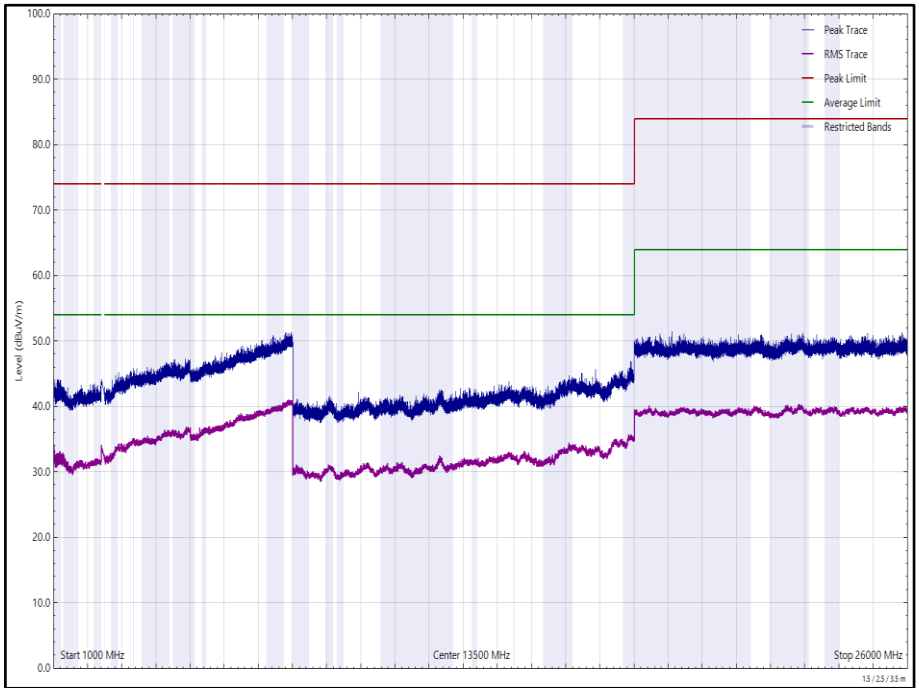

Figure 142 - 2440 MHz (CH38), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 154 - 2476 MHz (CH74), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

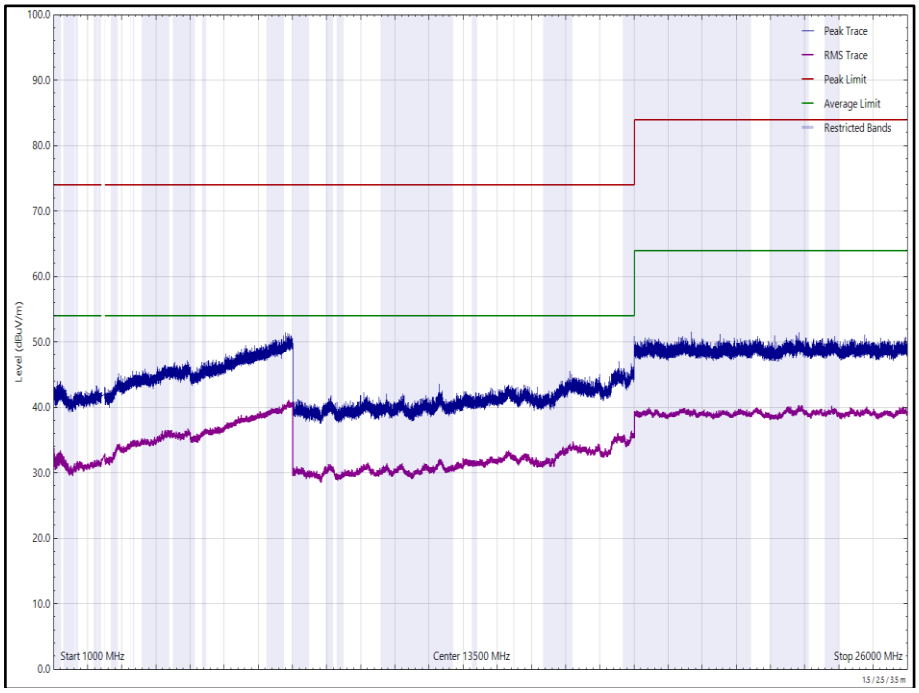

Figure 143 - 2476 MHz (CH74), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

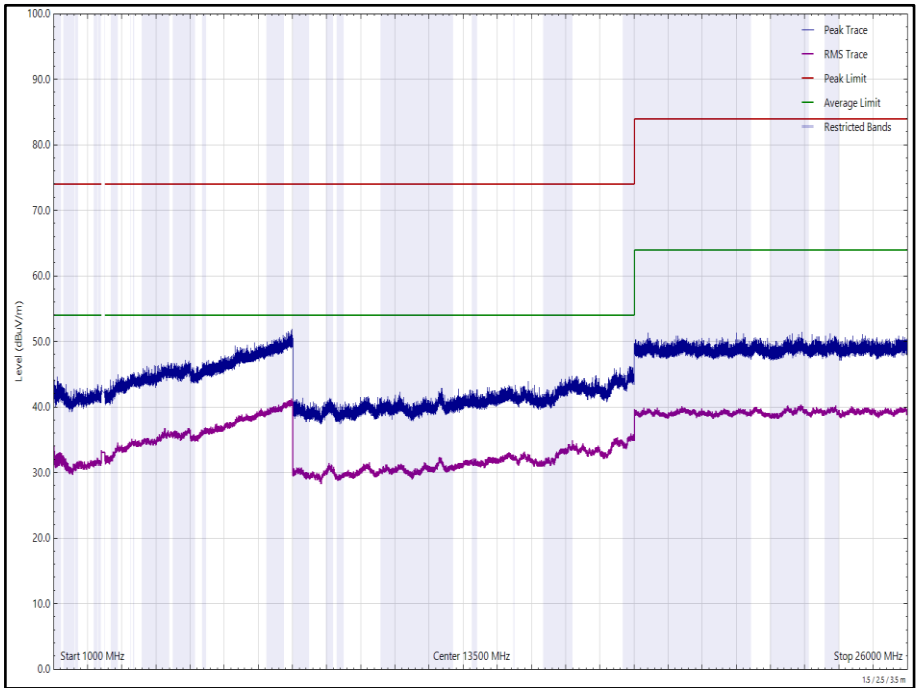

Figure 144 - 2476 MHz (CH74), HDR4, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 155 - 2404 MHz (CH2), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

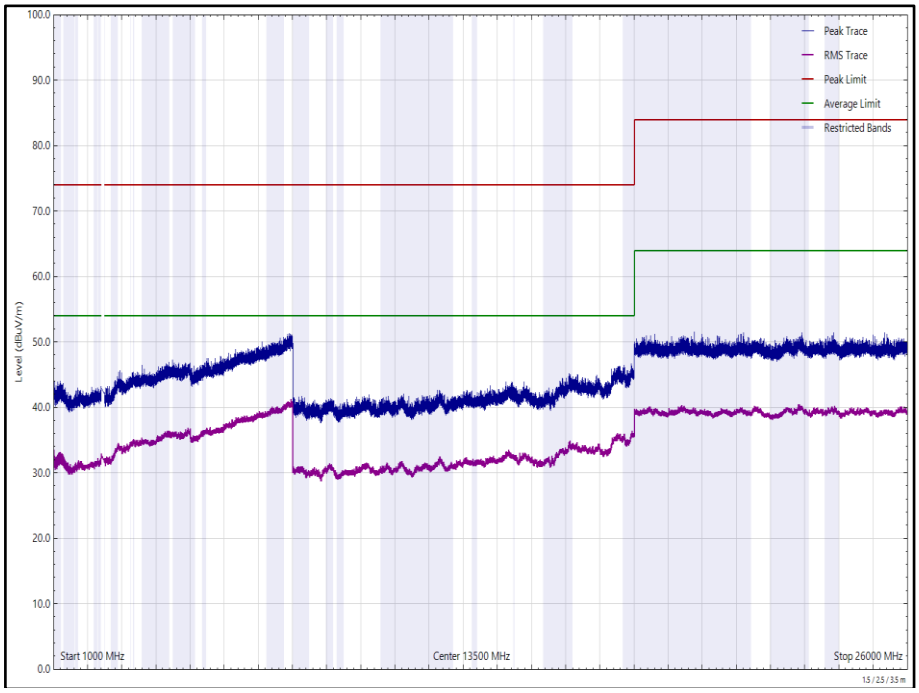

Figure 145 - 2404 MHz (CH2), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

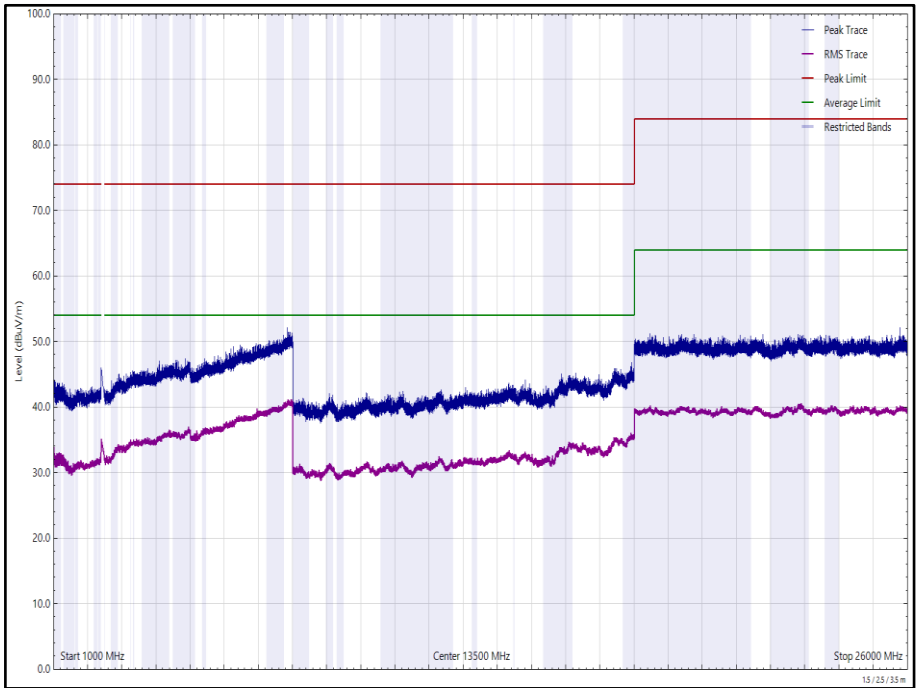

Figure 146 - 2404 MHz (CH2), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 156 - 2440 MHz (CH38), HDR4, iPA, Core 0 + Core 1, 30 MHz to 26 GHz

*No emissions found within 6 dB of the limit.

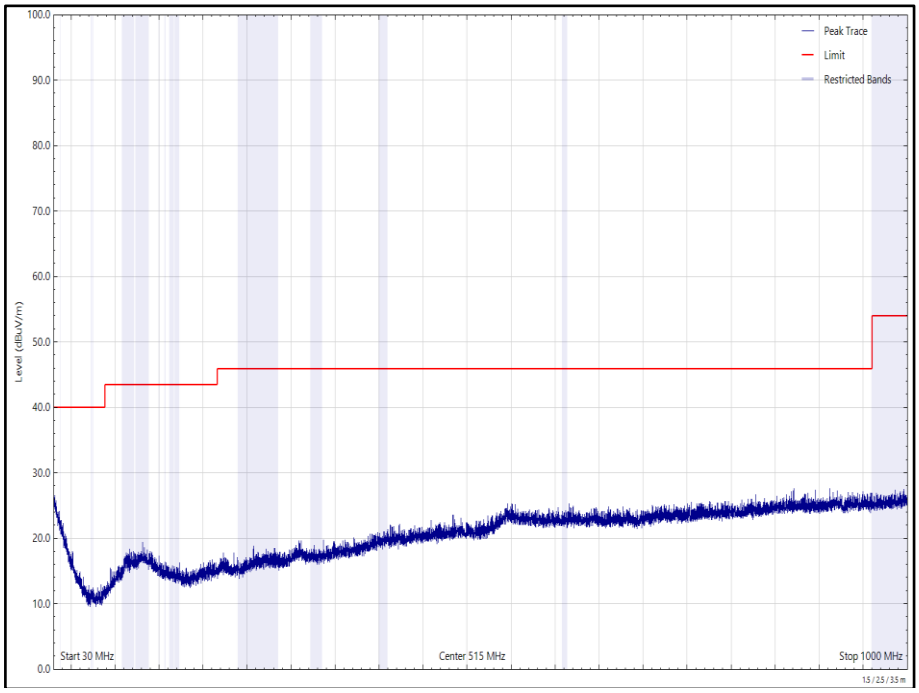

Figure 147 - 2440 MHz (CH38), HDR4, iPA, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

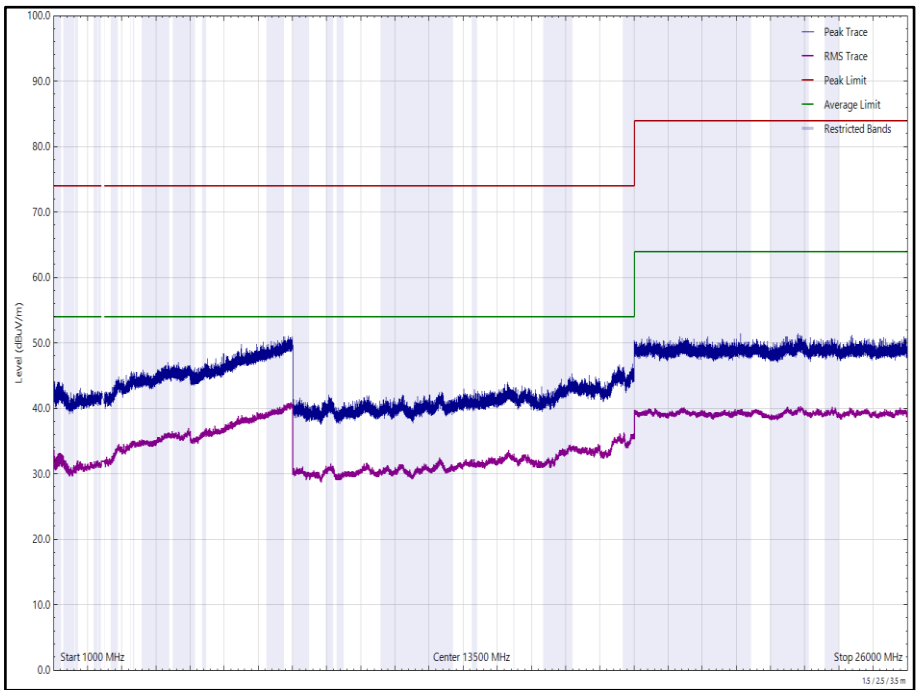

Figure 148 - 2440 MHz (CH38), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

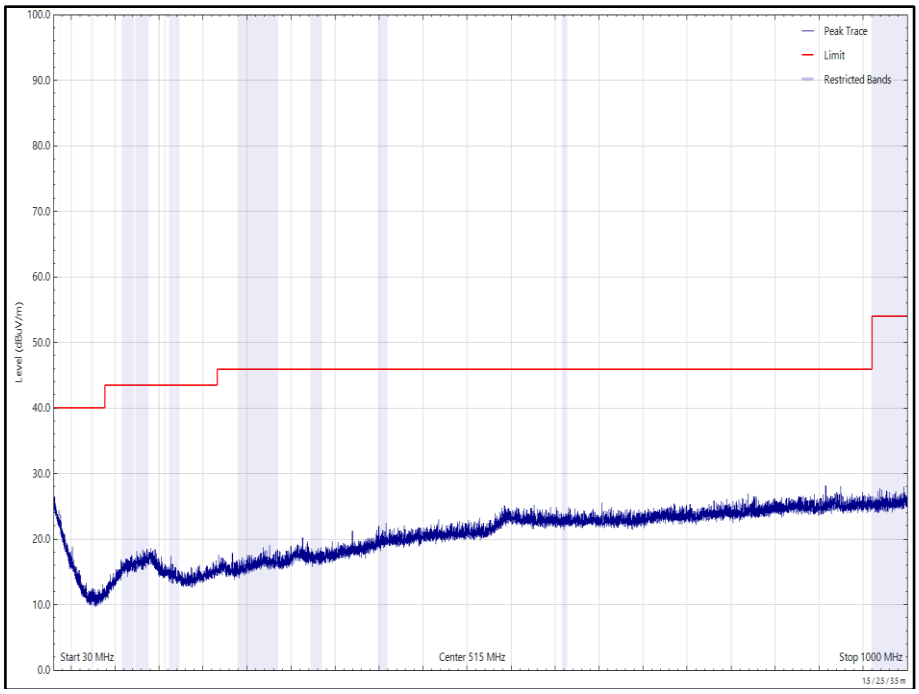

Figure 149 - 2440 MHz (CH38), HDR4, iPA, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

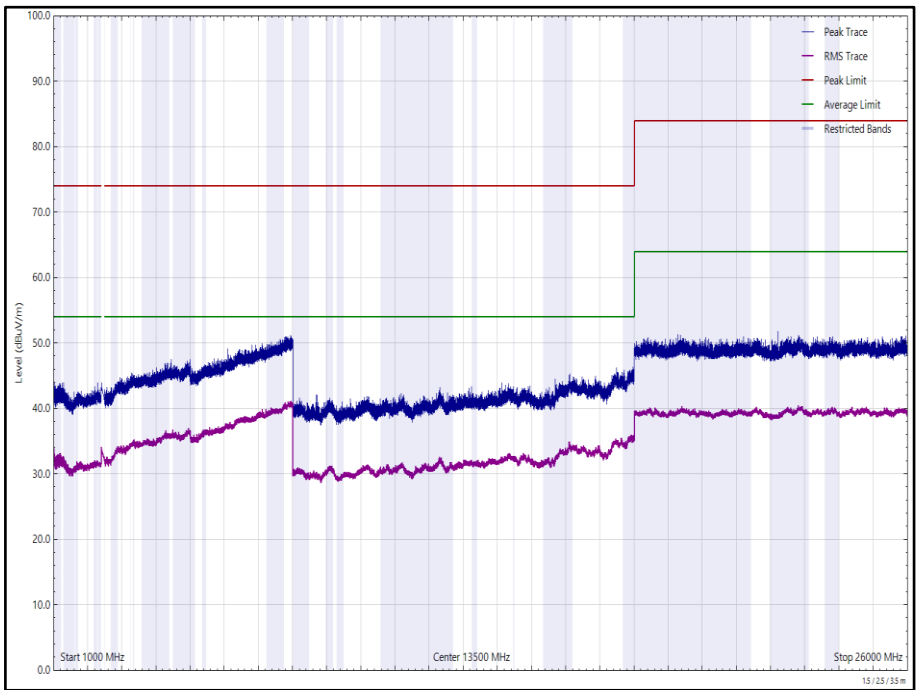

Figure 150 - 2440 MHz (CH38), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 157 - 2476 MHz (CH74), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

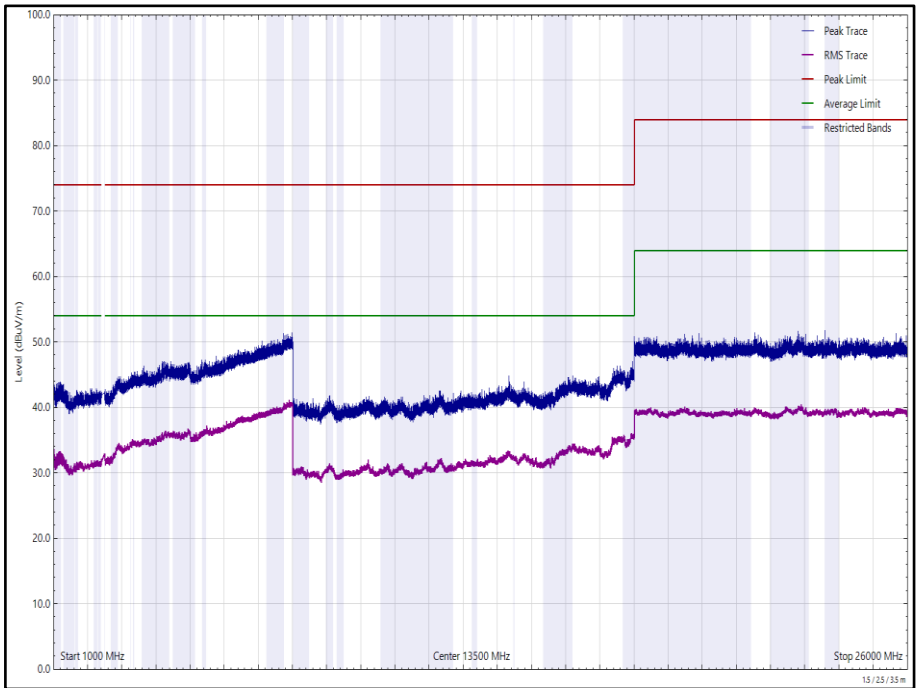

Figure 151 - 2476 MHz (CH74), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

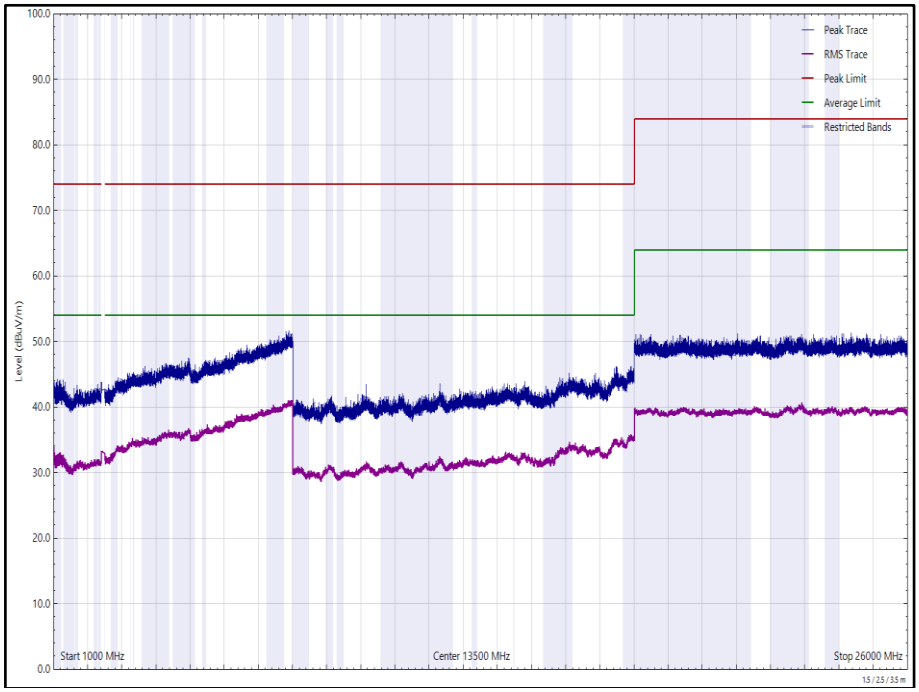

Figure 152 - 2476 MHz (CH74), HDR4, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical

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

Table 158 - 2404 MHz (CH2), HDR4, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

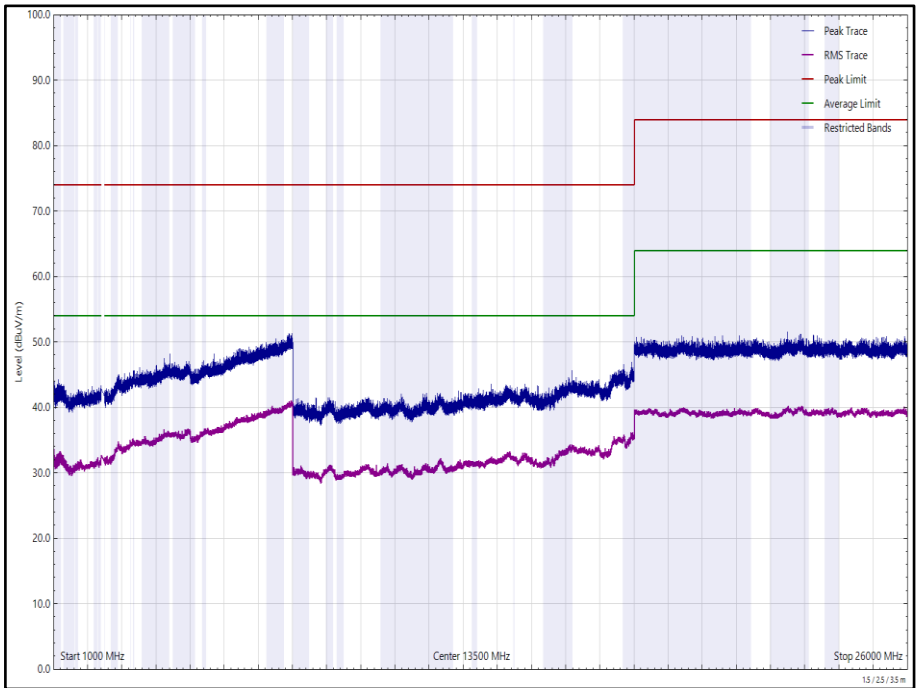

Figure 153 - 2404 MHz (CH2), HDR4, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

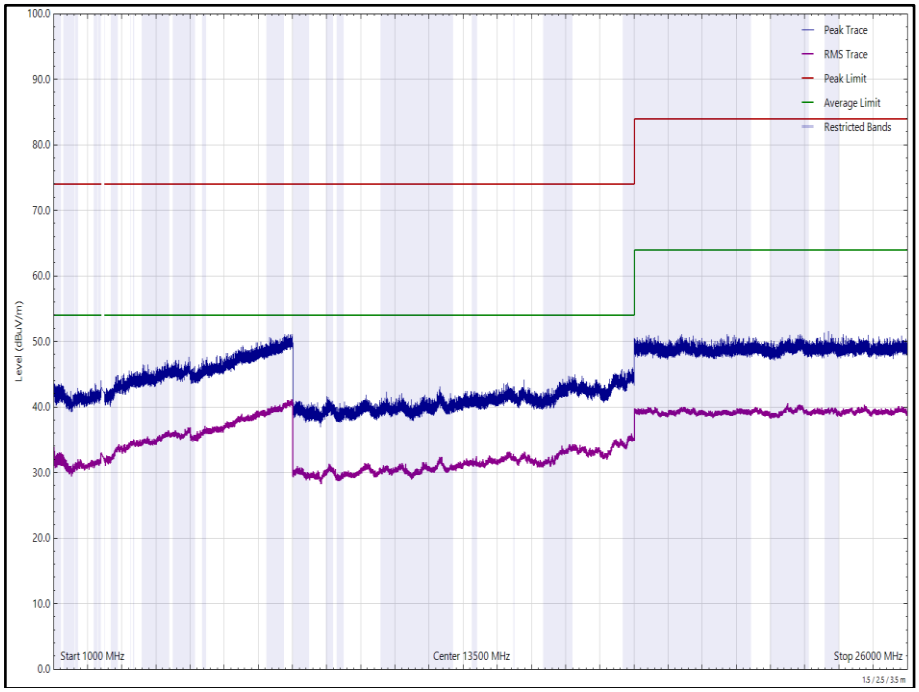

Figure 154 - 2404 MHz (CH2), HDR4, iPA, Core 2, 1 GHz to 26 GHz, Vertical

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

Table 159 - 2440 MHz (CH38), HDR4, iPA, Core 2, 30 MHz to 1 GHz

*No emissions found within 6 dB of the limit.

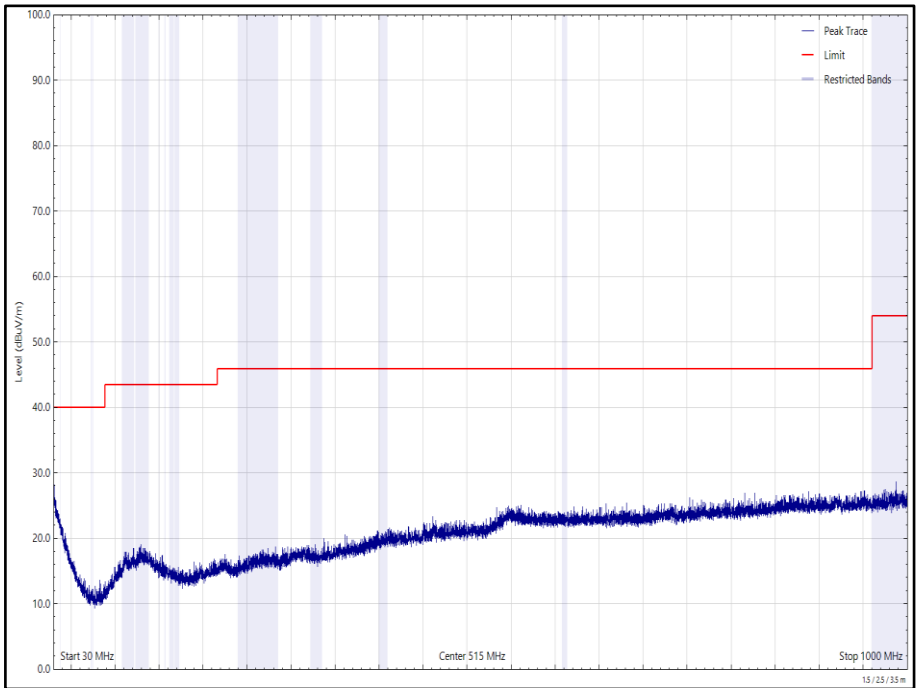

Figure 155 – 2440 MHz (CH38), HDR4, iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)

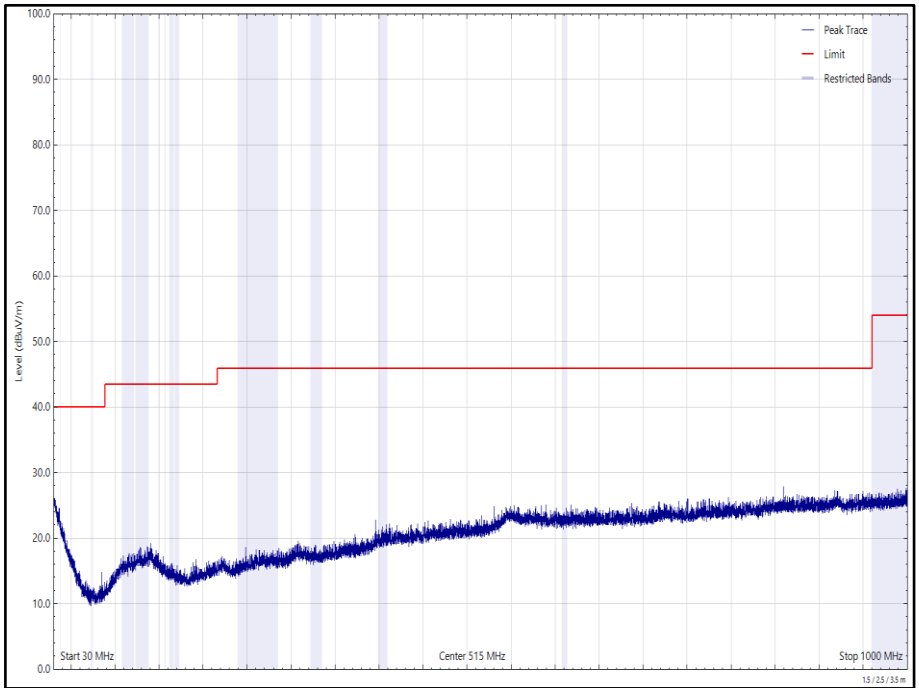

Figure 156 - 2440 MHz (CH38), HDR4, iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

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

Table 160 - 2440 MHz (CH38), HDR4, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

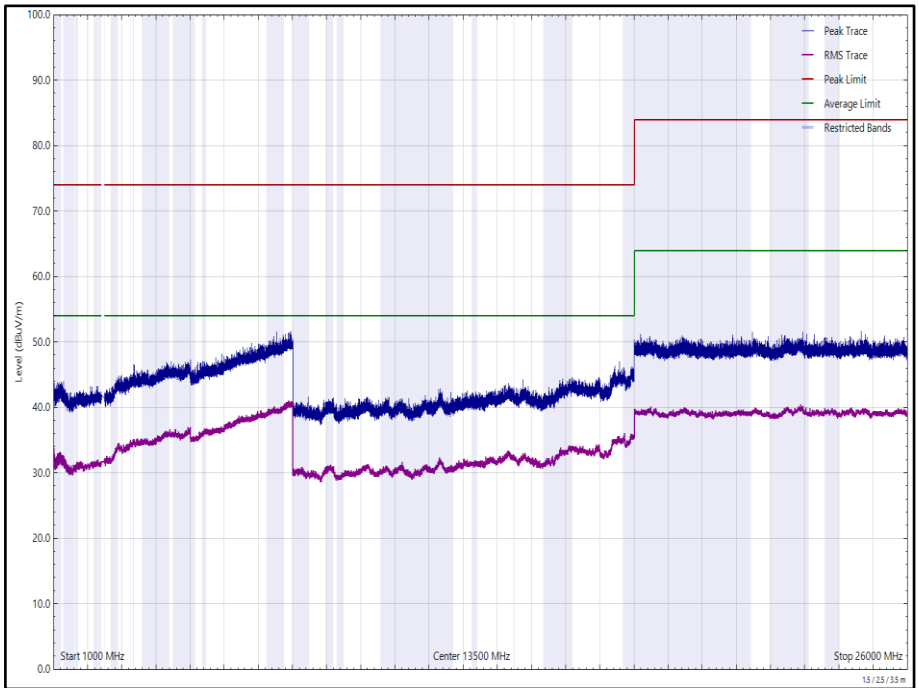

Figure 157 - 2440 MHz (CH38), HDR4, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

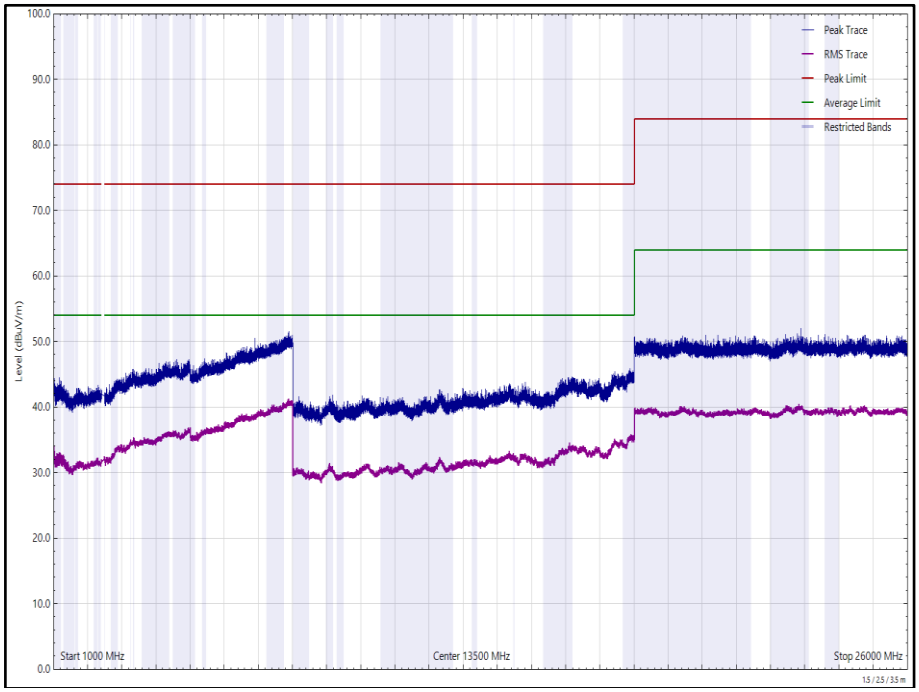

Figure 158 - 2440 MHz (CH38), HDR4, iPA, Core 2, 1 GHz to 26 GHz, Vertical

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

Table 161 - 2476 MHz (CH74), HDR4, iPA, Core 2, 1 GHz to 26 GHz

*No emissions found within 6 dB of the limit.

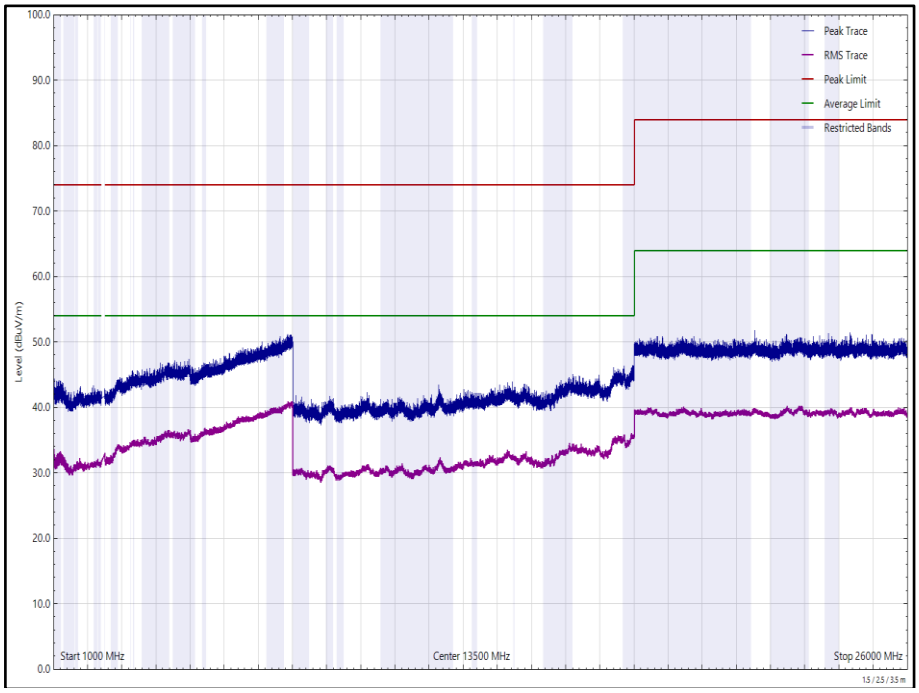

Figure 159 - 2476 MHz (CH74), HDR4, iPA, Core 2, 1 GHz to 26 GHz, Horizontal

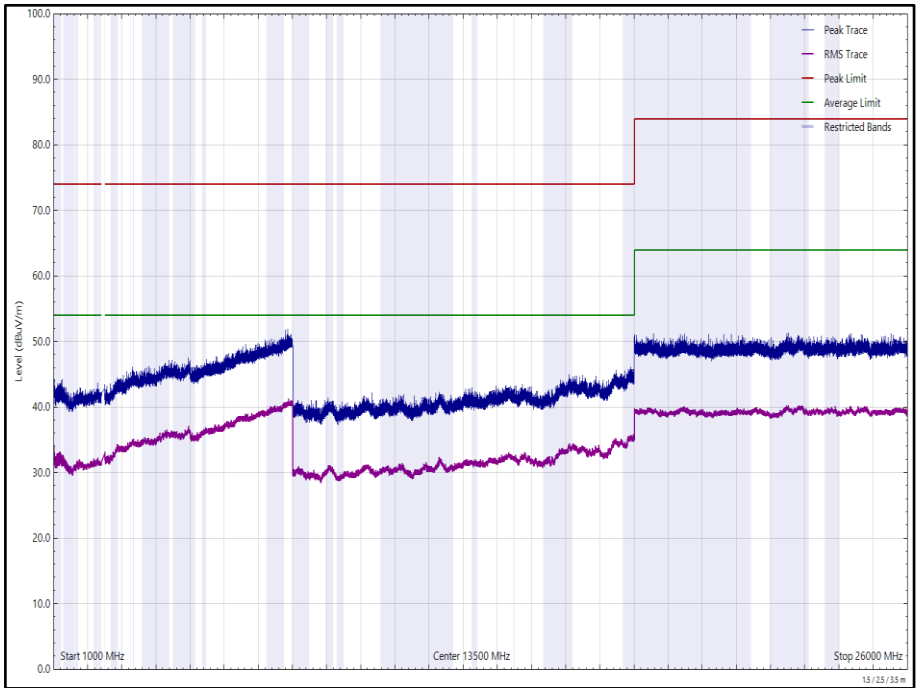

Figure 160 - 2476 MHz (CH74), HDR4, iPA, Core 2, 1 GHz to 26 GHz, Vertical

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.

2.4.8 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	27-Jul-2022
Antenna with attenuator (Bilog, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	14-Oct-2022
Pre-Amplifier (18 GHz to 40 GHz)	Phase One	PSO4-0087	1534	12	02-Aug-2022
Screened Room (11)	Rainford	Rainford	5136	36	24-Nov-2024
Band Reject Filter - 2.425 GHz	Wainwright	WRCGV14-2390-2400-2450-2460-50SS	5066	12	11-Oct-2022
Band Reject Filter - 2.4585 GHz	Wainwright	WRCGV14-2423.5-2433.5-2483.5-2493.5-50SS	5068	12	11-Oct-2022
EMI Test Receiver	Rohde & Schwarz	ESW44	5084	12	08-Mar-2022
Cable (18 GHz)	Rosenberger	LU7-071-1000	5102	12	20-Oct-2022
Cable (18 GHz)	Rosenberger	LU7-071-1000	5103	12	17-Nov-2022

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Cable (18 GHz)	Rosenberger	LU7-071-1000	5104	12	13-Dec-2022
Cable (18 GHz)	Rosenberger	LU7-071-2000	5107	12	13-Dec-2022
Emissions Software	TUV SUD	EmX V2.1.11	5125	-	Software
Screened Room (11)	Rainford	Rainford	5136	36	01-Nov-2021
Screened Room (11)	Rainford	Rainford	5136	36	24-Nov-2024
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Horn Antenna (1-10GHz)	Schwarzbeck	BBHA 9120 B	5215	12	01-Apr-2022
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5216	12	01-Apr-2022
Pre Amp 1 - 26.5 GHz	Agilent Technologies	8449B	5445	12	06-May-2022
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5511	12	09-Apr-2022
2m SMA Cable	Junkosha	MWX221-02000AMSAMS/A	5518	12	09-Apr-2022
8m N Type Cable	Junkosha	MWX221-08000NMSNMS/B	5522	12	24-Mar-2022
2m K Type Cable	Junkosha	MWX241-02000KMSKMS/A	5524	12	24-Mar-2022
3 GHz High pass Filter	Wainwright	WHKX12-2580-3000-18000-80SS	5547	12	07-May-2022
8 - 18 GHz Amplifier	Wright Technologies	APS06-0061	5595	12	24-Aug-2022
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5604	12	22-Sep-2022

Table 162

TU - Traceability Unscheduled

2.5 Authorised Band Edges

2.5.1 Specification Reference

FCC 47 CFR Part 15C, Clause 15.247 (d)
ISED RSS-247, Clause 5.5

2.5.2 Equipment Under Test and Modification State

A2165, S/N: P1F4F29DL4 - Modification State 0

2.5.3 Date of Test

25-October-2021 to 27-October-2021

2.5.4 Test Method

The test was performed in accordance with ANSI C63.10, clause 6.10.4.

2.5.5 Environmental Conditions

Ambient Temperature	20.4 - 22.8 °C
Relative Humidity	42.4 - 46.9 %

2.5.6 Test Results

2.4 GHz Bluetooth - DTS

ePA - LE1M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0	2402	2400.0	-65.53

Table 163 - Authorised Band Edge Results

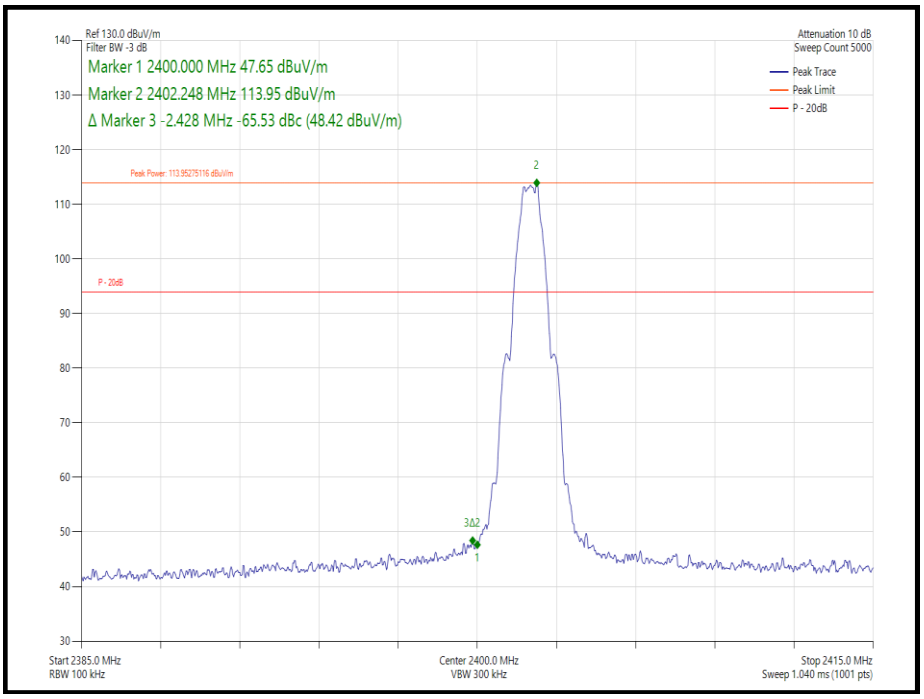

Figure 304 - GFSK/DH1- Core 0 -2402 MHz – Band Edge Frequency 2400.0 MHz

iPA - LE1M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0	2402	2400.0	-61.37

Table 164 - Authorised Band Edge Results

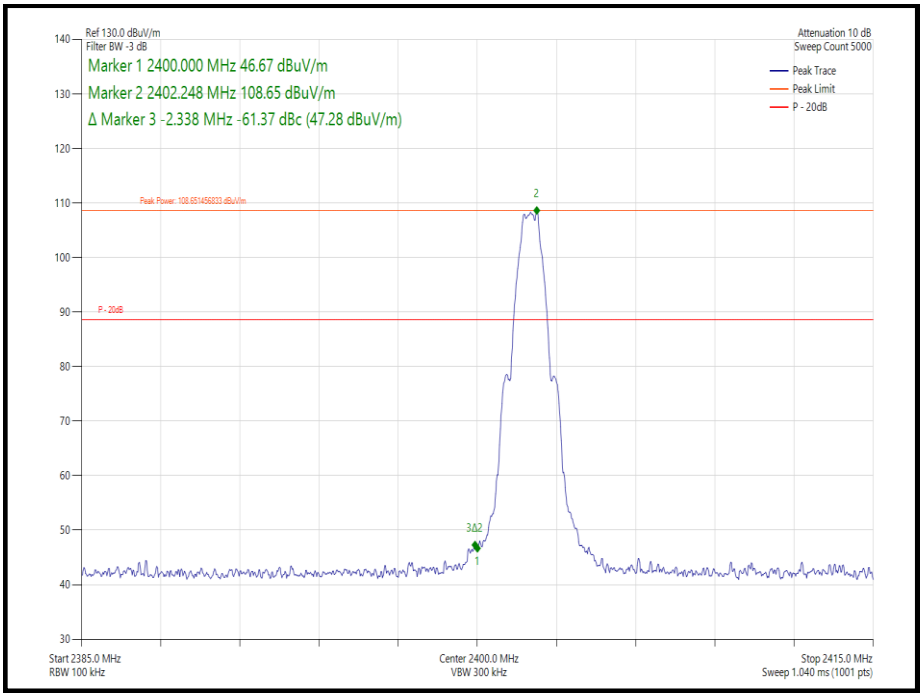

Figure 305 - GFSK/DH1- Core 1 - 2402 MHz – Band Edge Frequency 2400.0 MHz

iPA - LE1M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	2	2402	2400.0	-60.85

Table 165 - Authorised Band Edge Results

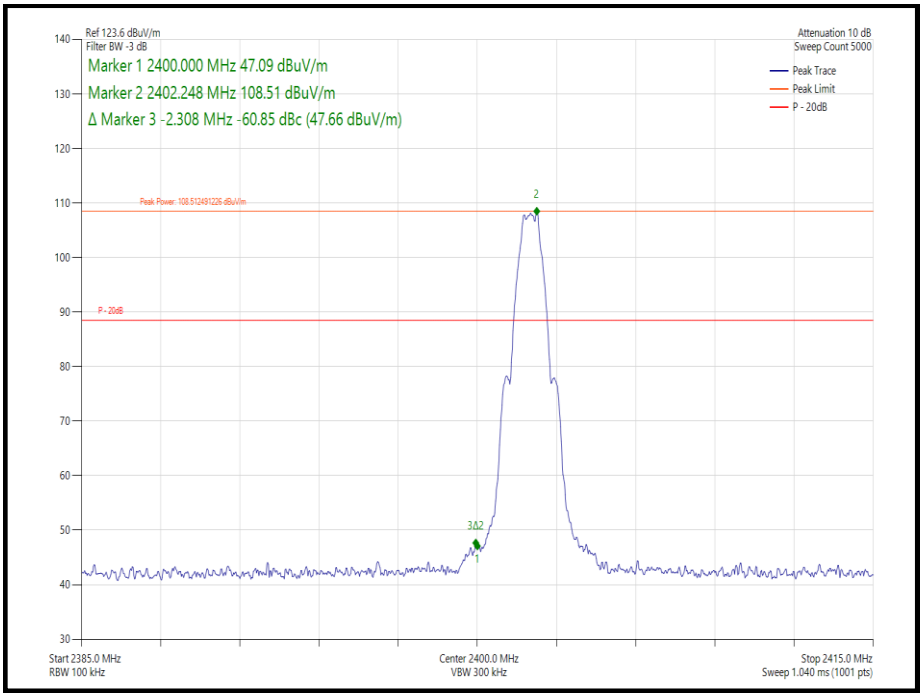

Figure 306- Core 2 - GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

ePA - LE1M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0-1	2402	2400.0	-66.65

Table 166 - Authorised Band Edge Results

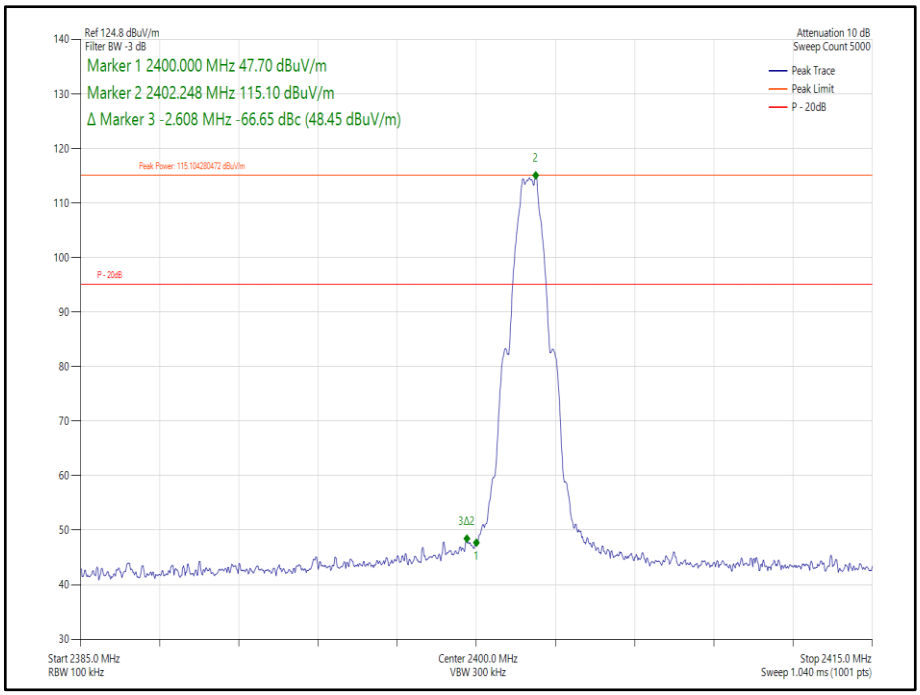

Figure 307 - Core 0-1- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

iPA - LE1M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0-1	2402	2400.0	-64.42

Table 167- Authorised Band Edge Results

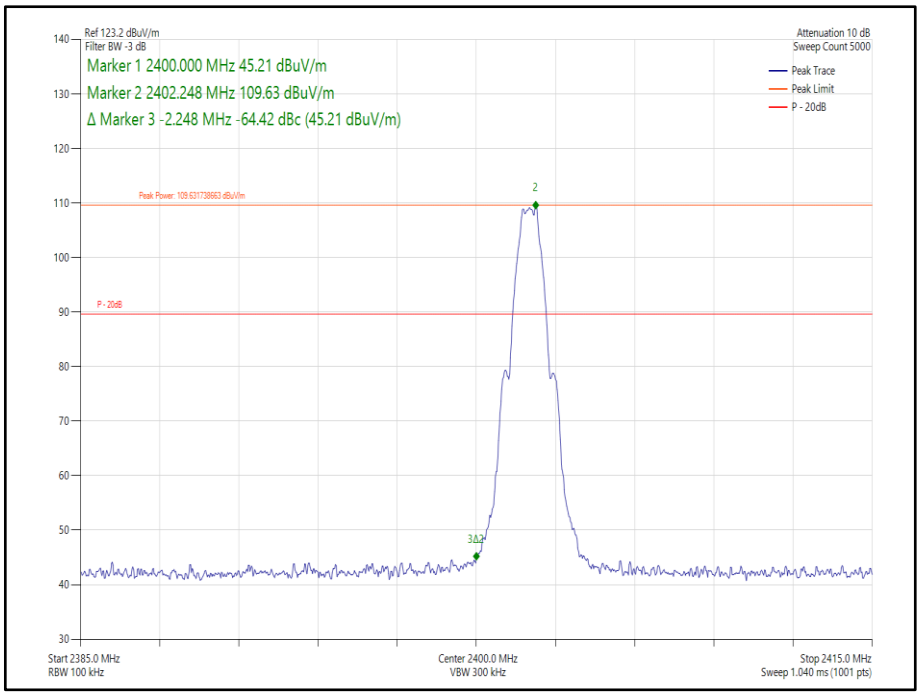

Figure 308 -Core 0-1- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

ePA – LE2M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0	2402	2400.0	-36.12

Table 168 - Authorised Band Edge Results

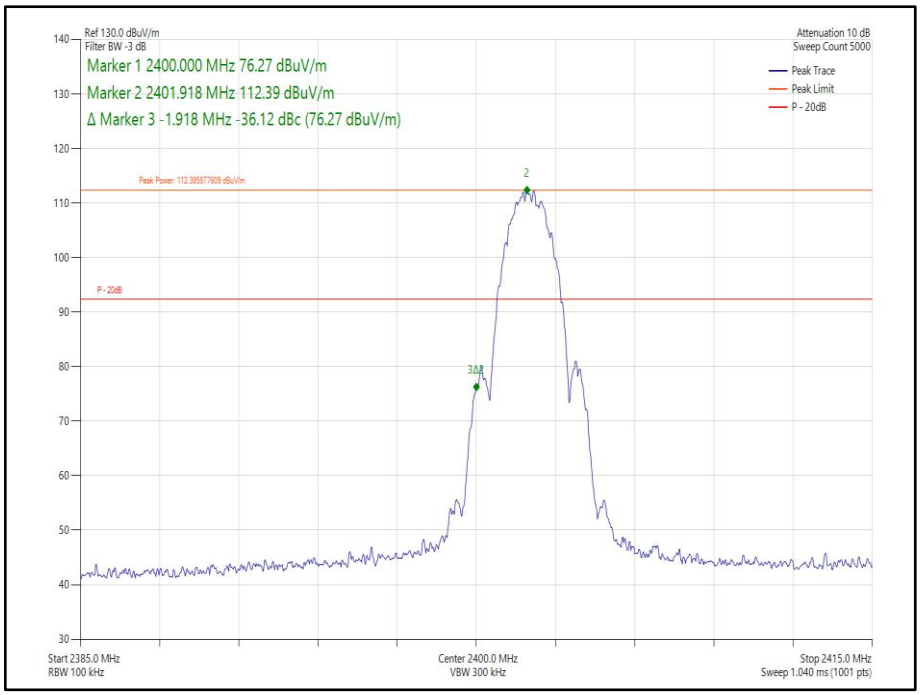

Figure 309 - Core 0- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

iPA – LE2M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0	2402	2400.0	-33.87

Table 169 - Authorised Band Edge Results

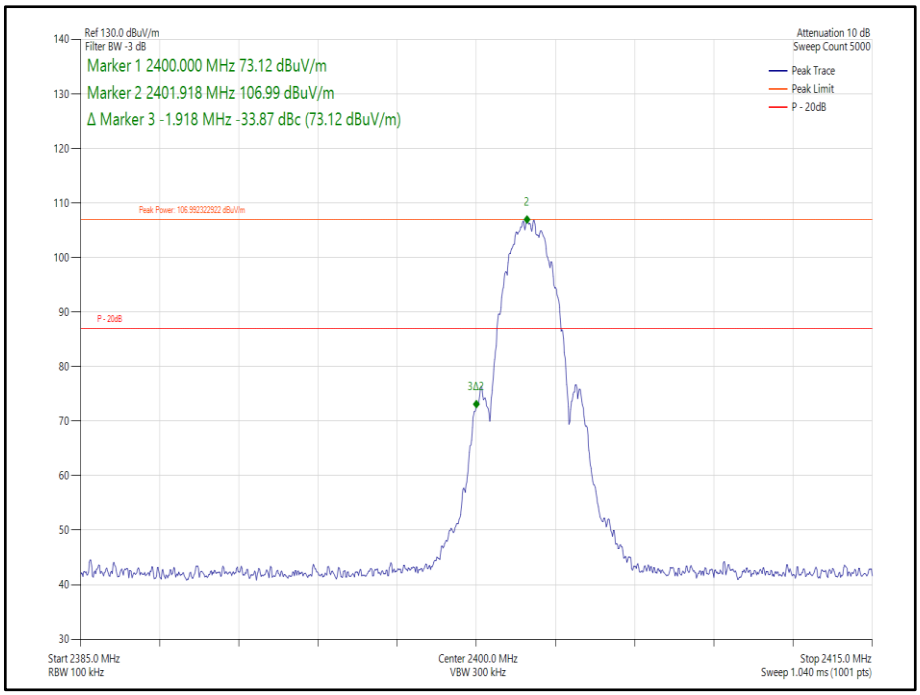

Figure 310 - Core 0- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

iPA – LE2M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	2	2402	2400.0	-33.83

Table 170 - Authorised Band Edge Results

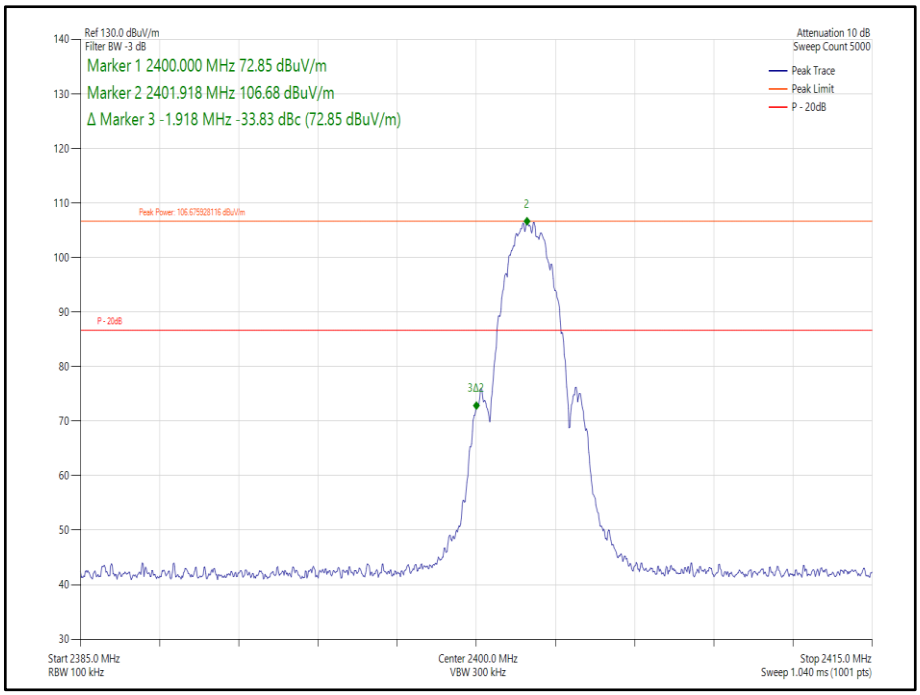

Figure 311 - Core 2- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

ePA – LE2M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0-1	2402	2400.0	-36.13

Table 171- Authorised Band Edge Results

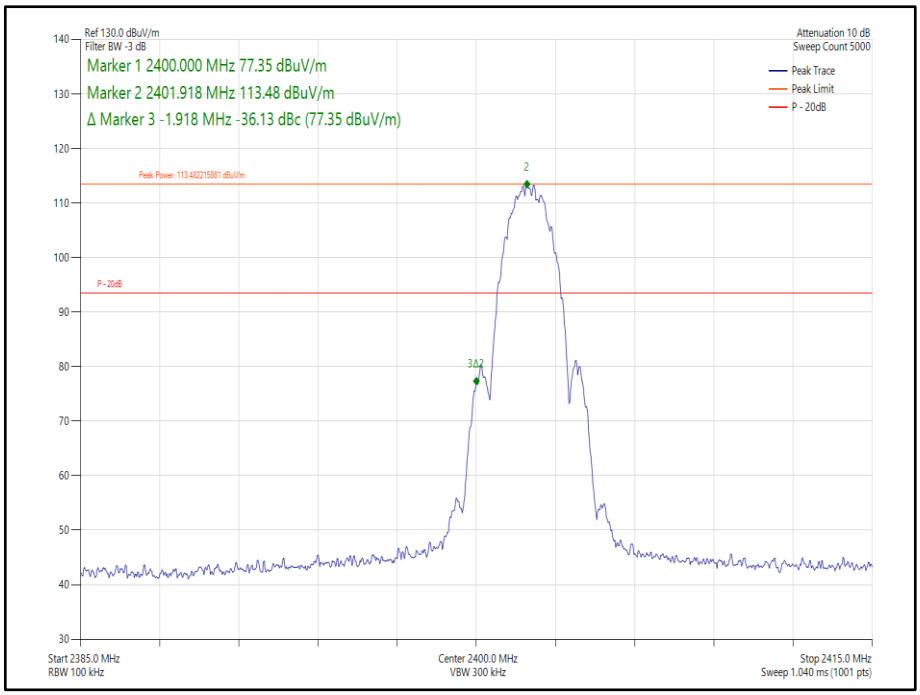

Figure 312 - Core 0-1- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

iPA – LE2M

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
GFSK	DH1	0-1	2402	2400.0	-34.46

Table 172 - Authorised Band Edge Results

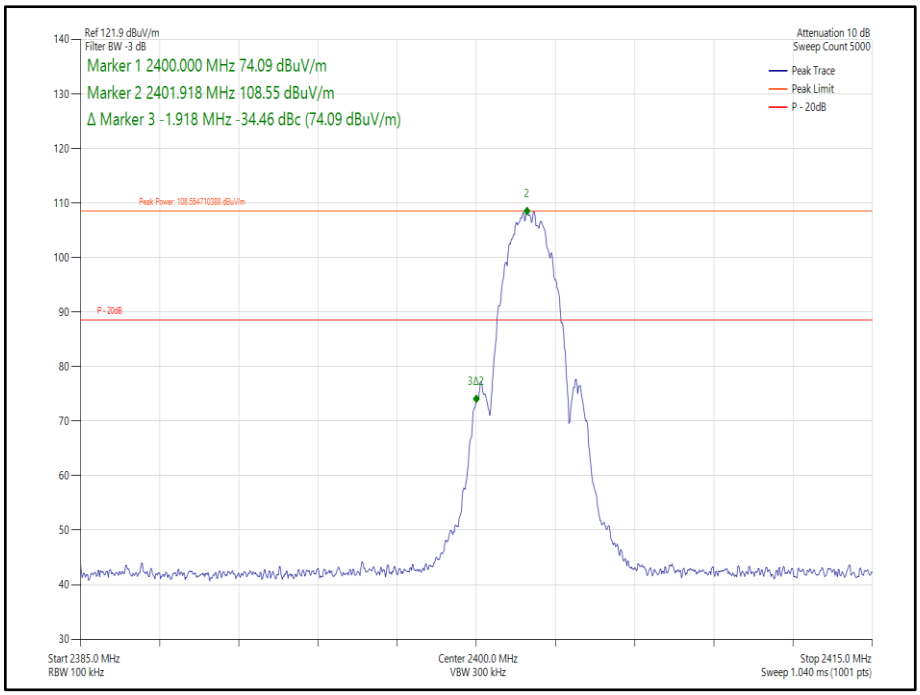

Figure 313 - Core 0-1- GFSK/DH1- 2402 MHz – Band Edge Frequency 2400.0 MHz

ePA - HDR4

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	0	2404	2400.0	-59.84

Table 173 - Authorised Band Edge Results

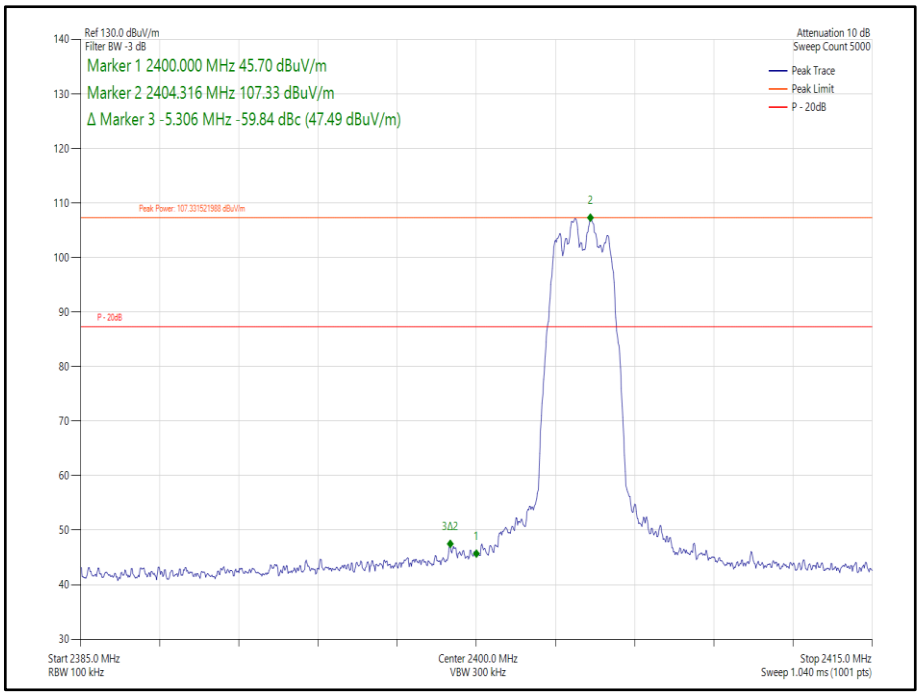

Figure 314 - Core 0- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

iPA - HDR4

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	0	2404	2400.0	-56.19

Table 174 - Authorised Band Edge Results

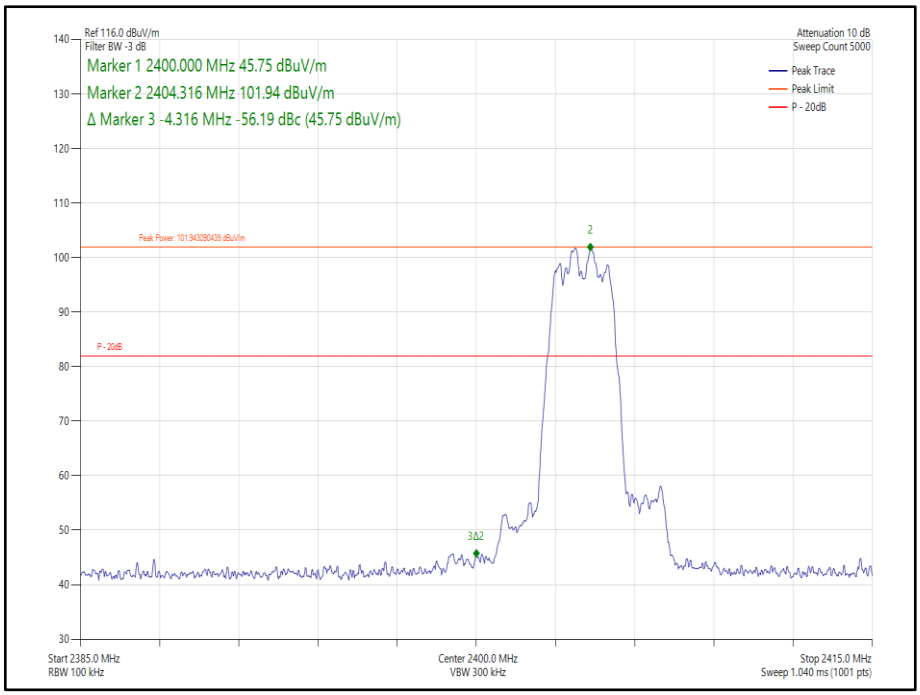

Figure 315 - Core 0- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

iPA - HDR4

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	2	2404	2400.0	-55.31

Table 175 - Authorised Band Edge Results

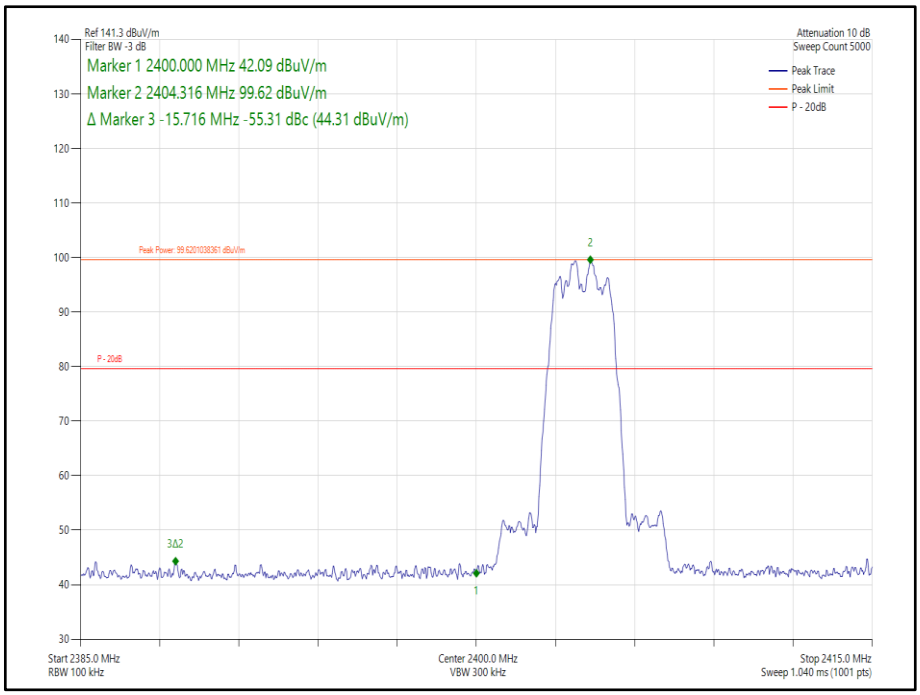

Figure 316 - Core 2- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

ePA - HDR4

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	0-1	2404	2400.0	-56.69

Table 176 - Authorised Band Edge Results

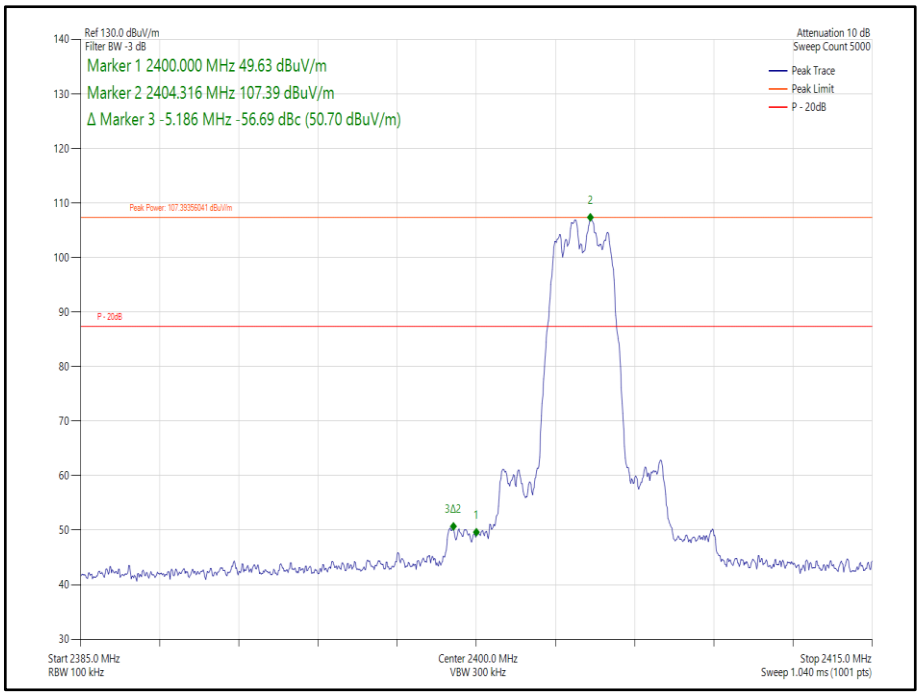

Figure 317 - Core 0-1- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

iPA - HDR4

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR4	0-1	2404	2400.0	-57.30

Table 177 - Authorised Band Edge Results

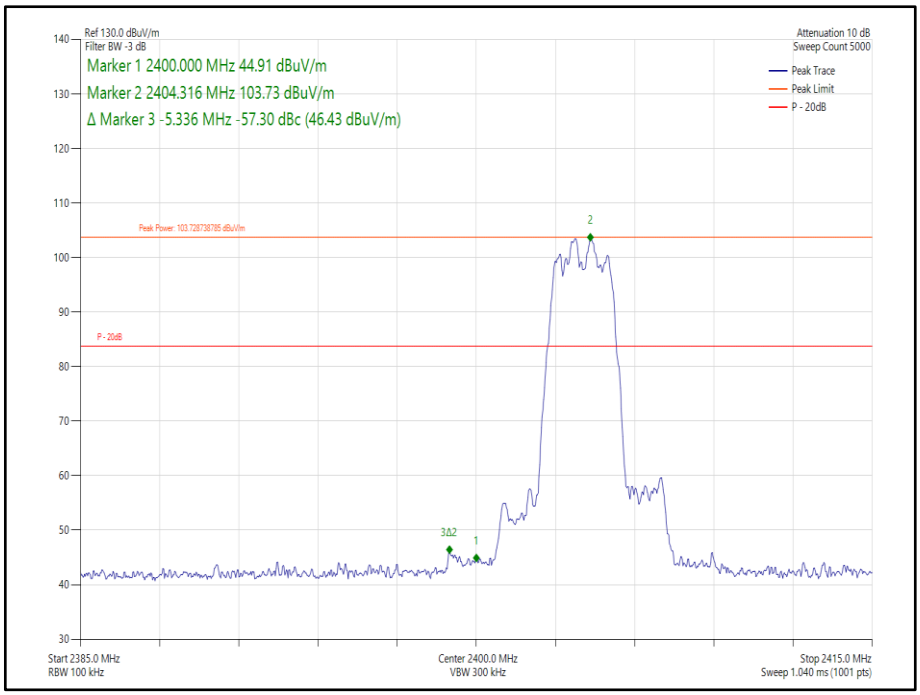

Figure 318 - Core 0-1- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

ePA – HDR8

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	0	2404	2400.0	-51.82

Table 178 - Authorised Band Edge Results

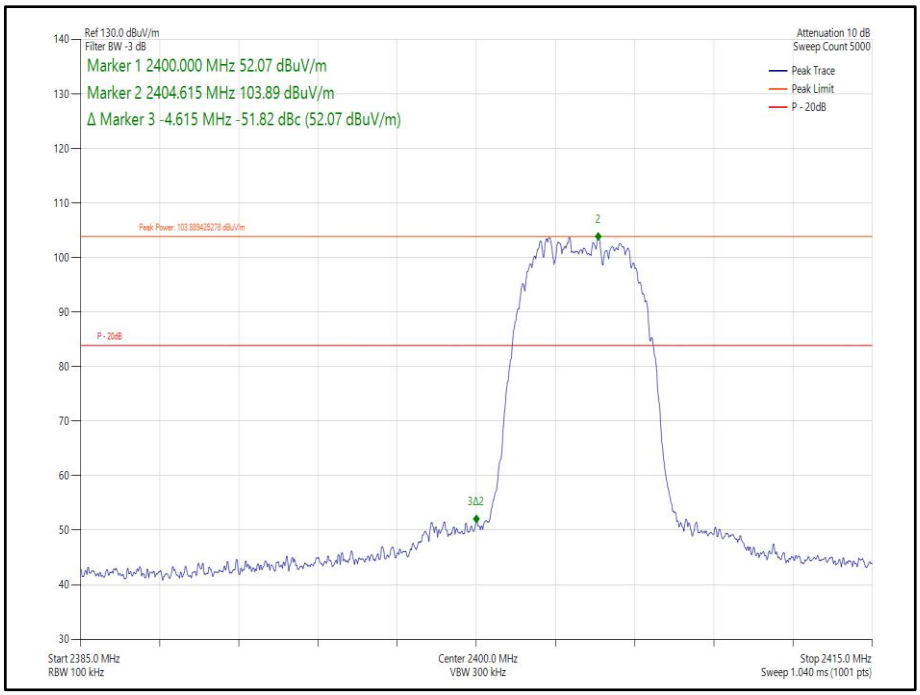

Figure 319 - Core 0- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

iPA – HDR8

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	0	2404	2400.0	-46.87

Table 179 - Authorised Band Edge Results

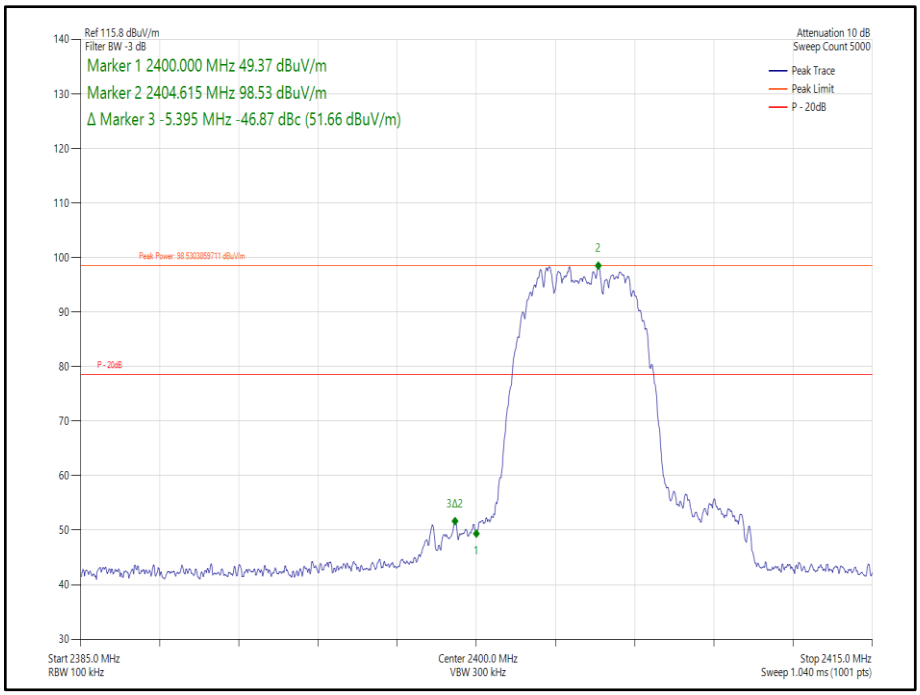

Figure 320 - Core 0- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

iPA – HDR8

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	2	2404	2400.0	-46.08

Table 180 - Authorised Band Edge Results

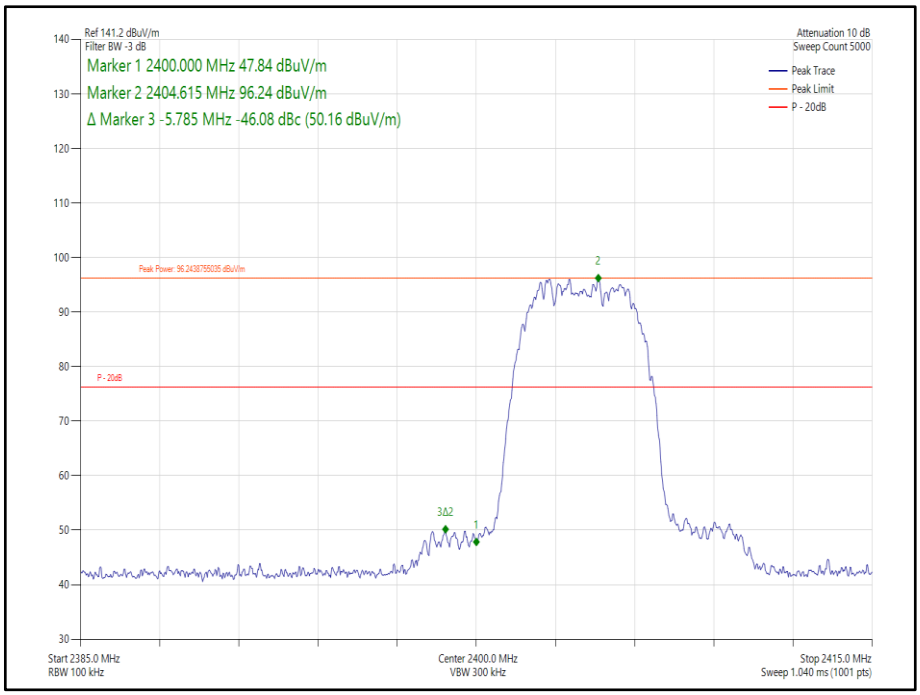

Figure 321 - Core 2- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

ePA – HDR8

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	0-1	2404	2400.0	-45.61

Table 181 - Authorised Band Edge Results

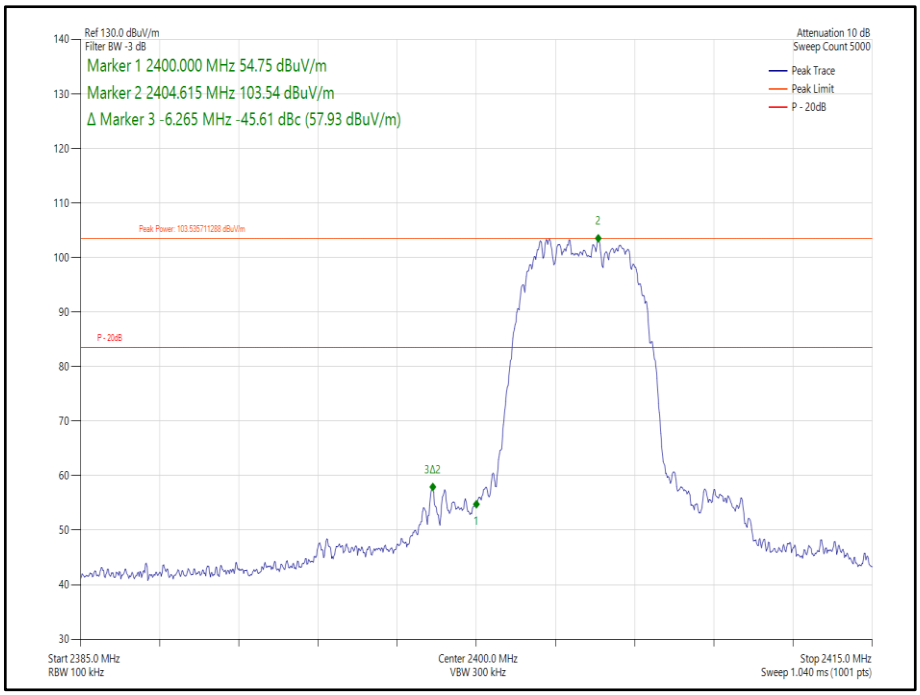

Figure 322 - Core 0-1- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

iPA – HDR8

Modulation	Packet Type	Core	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
π/4 DQPSK	HDR8	0-1	2404	2400.0	-46.52

Table 182 - Authorised Band Edge Results

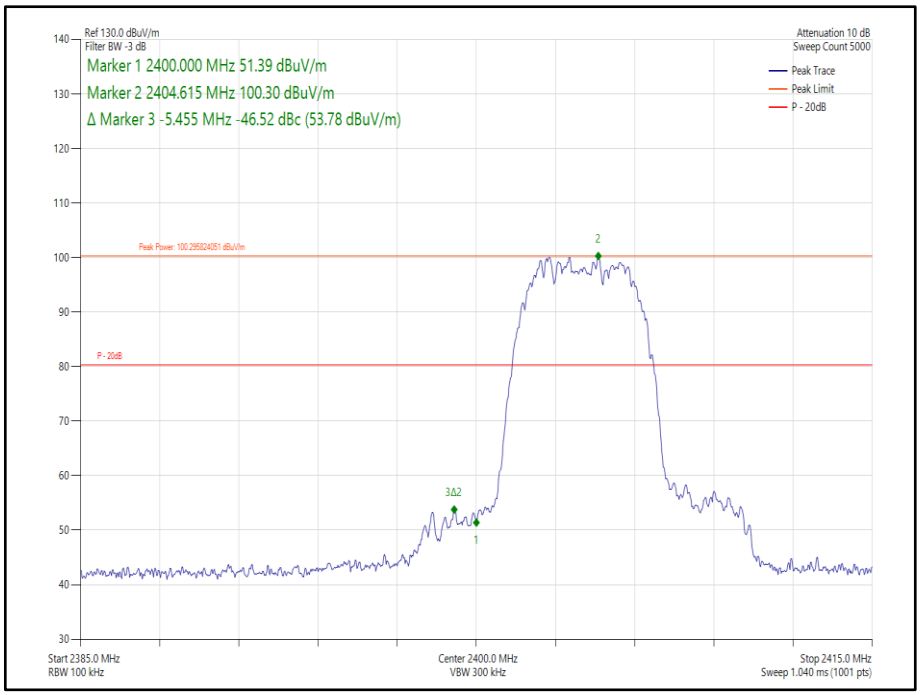

Figure 323 - Core 0-1- GFSK/DH1- 2404 MHz – Band Edge Frequency 2400.0 MHz

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

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

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.

2.5.7 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
Multimeter	Iso-tech	IDM101	2421	12	28-Oct-2021
EMI Test Receiver	Rohde & Schwarz	ESW44	5084	12	08-Mar-2022
Emissions Software	TUV SUD	EmX V2.1.11	5125	-	Software
Screened Room (11)	Rainford	Rainford	5136	36	01-Nov-2021
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Horn Antenna (1-10GHz)	Schwarzbeck	BBHA 9120 B	5215	12	01-Apr-2022
2m SMA Cable	Junkosha	MWX221-02000AMSAMS/A	5518	12	09-Apr-2022
8m N Type Cable	Junkosha	MWX221-08000NMSNMS/B	5522	12	24-Mar-2022
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5604	12	22-Sep-2022

Table 183

TU - Traceability Unscheduled

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

A2165, S/N: H617C20363 - Modification State 0

2.6.3 Date of Test

14-December-2021 to 05-January-2022

2.6.4 Test Method

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

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

2.6.5 Environmental Conditions

Ambient Temperature	21.4 °C
Relative Humidity	26.1 - 50.8 %

2.6.6 Test Results

2.4 GHz Bluetooth - DTS

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	-2.64	-	-	-	-	8.00	-10.64
2441	3.0	-2.57	-	-	-	-	8.00	-10.57
2476	3.0	-2.19	-	-	-	-	8.00	-10.19

Table 184 - 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	-2.38	-	-	-	-	8.00	-10.38
2441	3.0	-2.30	-	-	-	-	8.00	-10.30
2476	3.0	-2.34	-	-	-	-	8.00	-10.34

Table 185 - 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):	B (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	-	-2.82	-	-	-	8.00	-10.82
2441	3.0	-	-3.00	-	-	-	8.00	-11.00
2476	3.0	-	-3.05	-	-	-	8.00	-11.05

Table 186 - 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):	1.07
Active Port(s):	B (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	-	-2.90	-	-	-	8.00	-10.90
2441	3.0	-	-3.03	-	-	-	8.00	-11.03
2476	3.0	-	-2.85	-	-	-	8.00	-10.85

Table 187 - 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	-3.03	-2.88	-	-	0.06	8.00	-7.94
2441	3.0	-2.69	-3.11	-	-	0.12	8.00	-7.88
2476	3.0	-2.84	-3.80	-	-	-0.28	8.00	-8.28

Table 188 - 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	-2.54	-2.78	-	-	0.35	8.00	-7.65
2441	3.0	-2.67	-2.92	-	-	0.22	8.00	-7.78
2476	3.0	-2.46	-3.16	-	-	0.22	8.00	-7.78

Table 189 - 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	-2.83	-	-	-	-	8.00	-10.83
2440	3.0	-1.59	-	-	-	-	8.00	-9.59
2480	3.0	-1.62	-	-	-	-	8.00	-9.62

Table 190 - 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 (%):	31.3
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	-4.81	-	-	-	-	8.00	-12.81
2440	3.0	-4.16	-	-	-	-	8.00	-12.16
2480	3.0	-3.61	-	-	-	-	8.00	-11.61

Table 191 - 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):	B (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	-	-2.62	-	-	-	8.00	-10.62
2440	3.0	-	-1.73	-	-	-	8.00	-9.73
2480	3.0	-	-1.88	-	-	-	8.00	-9.88

Table 192 - 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 (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (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	-	-4.56	-	-	-	8.00	-12.56
2440	3.0	-	-3.84	-	-	-	8.00	-11.84
2480	3.0	-	-3.82	-	-	-	8.00	-11.82

Table 193 - 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 GFSK (LE 1M)	Duty Cycle (%):	60.4
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	-7.80	-8.06	-	-	-4.91	8.00	-12.91
2440	3.0	-7.62	-7.86	-	-	-4.73	8.00	-12.73
2480	3.0	-7.59	-7.85	-	-	-4.71	8.00	-12.71

Table 194 - 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 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	-9.86	-9.90	-	-	-6.87	8.00	-14.87
2440	3.0	-9.60	-9.76	-	-	-6.66	8.00	-14.66
2480	3.0	-9.24	-9.53	-	-	-6.38	8.00	-14.38

Table 195 - 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 (%):	78.1
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	-9.90	-	-	-	-	8.00	-17.90
2441	3.0	-9.73	-	-	-	-	8.00	-17.73
2476	3.0	-9.40	-	-	-	-	8.00	-17.40

Table 196 - 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 (%):	78.5
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	∑		
2404	3.0	-9.74	-	-	-	-	8.00	-17.74
2441	3.0	-10.22	-	-	-	-	8.00	-18.22
2476	3.0	-9.18	-	-	-	-	8.00	-17.18

Table 197 - 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 (%):	78.4
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	B (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	-	-9.99	-	-	-	8.00	-17.99
2441	3.0	-	-9.49	-	-	-	8.00	-17.49
2476	3.0	-	-9.41	-	-	-	8.00	-17.41

Table 198 - 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):	B (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	-	-9.41	-	-	-	8.00	-17.41
2441	3.0	-	-9.33	-	-	-	8.00	-17.33
2476	3.0	-	-9.21	-	-	-	8.00	-17.21

Table 199 - 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 (%):	78.1
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	-	-	-10.08	-	-	8.00	-18.08
2441	3.0	-	-	-9.83	-	-	8.00	-17.83
2476	3.0	-	-	-9.54	-	-	8.00	-17.54

Table 200 - 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):	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	-	-	-9.86	-	-	8.00	-17.86
2441	3.0	-	-	-9.98	-	-	8.00	-17.98
2476	3.0	-	-	-9.55	-	-	8.00	-17.55

Table 201 - 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	-9.51	-9.50	-	-	-6.49	8.00	-14.49
2441	3.0	-10.02	-10.10	-	-	-7.05	8.00	-15.05
2476	3.0	-9.43	-10.03	-	-	-6.71	8.00	-14.71

Table 202 - 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 (%):	78.5
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	∑		
2404	3.0	-9.59	-9.95	-	-	-6.76	8.00	-14.76
2441	3.0	-9.76	-9.76	-	-	-6.75	8.00	-14.75
2476	3.0	-9.12	-9.68	-	-	-6.38	8.00	-14.38

Table 203 - 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	-2.82	-	-	-	-	8.00	-10.82
2440	3.0	-1.97	-	-	-	-	8.00	-9.97
2480	3.0	-1.55	-	-	-	-	8.00	-9.55

Table 204 - 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 (%):	31.3
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	-4.82	-	-	-	-	8.00	-12.82
2440	3.0	-4.02	-	-	-	-	8.00	-12.02
2480	3.0	-3.76	-	-	-	-	8.00	-11.76

Table 205 - 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):	B (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	-	-2.60	-	-	-	8.00	-10.60
2440	3.0	-	-2.05	-	-	-	8.00	-10.05
2480	3.0	-	-1.83	-	-	-	8.00	-9.83

Table 206 - 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 (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	5.04
Active Port(s):	B (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	-	-4.58	-	-	-	8.00	-12.58
2440	3.0	-	-3.71	-	-	-	8.00	-11.71
2480	3.0	-	-3.91	-	-	-	8.00	-11.91

Table 207 - 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 (%):	60.4
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	-	-	-8.84	-	-	8.00	-16.84
2440	3.0	-	-	-8.16	-	-	8.00	-16.16
2480	3.0	-	-	-8.23	-	-	8.00	-16.23

Table 208 - 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 (%):	31.3
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	∑		
2402	3.0	-	-	-10.95	-	-	8.00	-18.95
2440	3.0	-	-	-10.28	-	-	8.00	-18.28
2480	3.0	-	-	-9.65	-	-	8.00	-17.65

Table 209 - 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 (%):	60.4
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	-7.87	-8.14	-	-	-4.99	8.00	-12.99
2440	3.0	-7.63	-7.95	-	-	-4.78	8.00	-12.78
2480	3.0	-7.73	-7.79	-	-	-4.75	8.00	-12.75

Table 210 - 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	-10.40	-10.56	-	-	-7.47	8.00	-15.47
2440	3.0	-9.65	-9.71	-	-	-6.67	8.00	-14.67
2480	3.0	-9.28	-9.48	-	-	-6.37	8.00	-14.37

Table 211 - Maximum Power Spectral Density Results

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

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

ISED RSS-247, Limit Clause 5.2(b)

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

2.6.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	79 Series II	3057	12	23-Aug-2022
Hygrometer	Rotronic	I-1000	3220	12	05-Nov-2022
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	03-Jan-2022
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	30-Jun-2022
AC Programmable Power Supply	iTech	IT7324	5226	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5528	24	04-Mar-2022
Signal Commissioning Unit	TUV SUD	SCU002	5759	12	30-Jun-2022

Table 212

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	± 42.87 kHz
Maximum Conducted Output Power	± 3.2 dB
Spurious Radiated Emissions	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
Power Spectral Density	± 3.2 dB

Table 213

Measurement Uncertainty Decision Rule

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

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