



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 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU26	Duty Cycle (%):	96.5
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	1.55
Active Port(s):	B (Core 1)	Active Chain(s):	1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	-	14.13	-	-	14.13	30.00	-15.87
2442	-	14.27	-	-	14.27	30.00	-15.73
2472	-	-0.11	-	-	-0.11	30.00	-30.11

Table 38 - FCC Maximum Conducted (average) 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	Σ					
2412	-	14.13	-	-	14.13	30.00	-15.87	15.68	36.00	-20.32
2442	-	14.27	-	-	14.27	30.00	-15.73	15.82	36.00	-20.18
2472	-	-0.11	-	-	-0.11	30.00	-30.11	1.44	36.00	-34.56

Table 39 - ISED Maximum Conducted (average) 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 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU52	Duty Cycle (%):	96.4
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	1.55
Active Port(s):	B (Core 1)	Active Chain(s):	1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	-	17.43	-	-	17.43	30.00	-12.57
2442	-	17.30	-	-	17.30	30.00	-12.70
2472	-	3.80	-	-	3.80	30.00	-26.20

Table 40 - FCC Maximum Conducted (average) 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	Σ					
2412	-	17.43	-	-	17.43	30.00	-12.57	18.98	36.00	-17.02
2442	-	17.30	-	-	17.30	30.00	-12.70	18.85	36.00	-17.15
2472	-	3.80	-	-	3.80	30.00	-26.20	5.35	36.00	-30.65

Table 41 - ISED Maximum Conducted (average) 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 11.9.2.3.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 RU106	Duty Cycle (%):	97.9
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	1.55
Active Port(s):	B (Core 1)	Active Chain(s):	1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	-	19.37	-	-	19.37	30.00	-10.63
2442	-	20.43	-	-	20.43	30.00	-9.57
2472	-	3.82	-	-	3.82	30.00	-26.18

Table 42 - FCC Maximum Conducted (average) 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	Σ					
2412	-	19.37	-	-	19.37	30.00	-10.63	20.92	36.00	-15.08
2442	-	20.43	-	-	20.43	30.00	-9.57	21.98	36.00	-14.02
2472	-	3.82	-	-	3.82	30.00	-26.18	5.37	36.00	-30.63

Table 43 - ISED Maximum Conducted (average) Output Power Results



MIMO CDD

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 11.9.2.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)f(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	96.5
Modulation Coding Scheme:	MCS2	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	1.55
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	17.24	17.46	-	-	20.36	30.00	-9.64
2442	22.28	22.76	-	-	25.53	30.00	-4.47
2472	7.90	8.02	-	-	10.97	30.00	-19.03

Table 44 - FCC Maximum Conducted (average) 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	Σ					
2412	17.24	17.46	-	-	20.36	30.00	-9.64	21.91	36.00	-14.09
2442	22.28	22.76	-	-	25.53	30.00	-4.47	27.08	36.00	-8.92
2472	7.90	8.02	-	-	10.97	30.00	-19.03	12.52	36.00	-23.48

Table 45 - ISSED Maximum Conducted (average) 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 11.9.2.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)f(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	95.7
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	1.55
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	14.33	14.80	-	-	17.58	30.00	-12.42
2442	22.39	22.81	-	-	25.61	30.00	-4.39
2472	7.19	7.60	-	-	10.41	30.00	-19.59

Table 46 - FCC Maximum Conducted (average) 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	Σ					
2412	14.33	14.80	-	-	17.58	30.00	-12.42	19.13	36.00	-16.87
2442	22.39	22.81	-	-	25.61	30.00	-4.39	27.16	36.00	-8.84
2472	7.19	7.60	-	-	10.41	30.00	-19.59	11.96	36.00	-24.04

Table 47 - ISED Maximum Conducted (average) 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 11.9.2.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)f(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ax HE20 RU26	Duty Cycle (%):	96.4
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	1.55
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	13.75	14.10	-	-	16.94	30.00	-13.06
2442	13.86	14.18	-	-	17.03	30.00	-12.97
2472	-0.21	-0.16	-	-	2.82	30.00	-27.18

Table 48 - FCC Maximum Conducted (average) 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	Σ					
2412	13.75	14.10	-	-	16.94	30.00	-13.06	18.49	36.00	-17.51
2442	13.86	14.18	-	-	17.03	30.00	-12.97	18.58	36.00	-17.42
2472	-0.21	-0.16	-	-	2.82	30.00	-27.18	4.37	36.00	-31.63

Table 49 - ISED Maximum Conducted (average) 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 11.9.2.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)f(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ax HE20 RU52	Duty Cycle (%):	96.5
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	1.55
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	17.12	17.22	-	-	20.18	30.00	-9.82
2442	17.30	17.44	-	-	20.38	30.00	-9.62
2472	0.57	0.62	-	-	3.61	30.00	-26.39

Table 50 - FCC Maximum Conducted (average) 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	Σ					
2412	17.12	17.22	-	-	20.18	30.00	-9.82	21.73	36.00	-14.27
2442	17.30	17.44	-	-	20.38	30.00	-9.62	21.93	36.00	-14.07
2472	0.57	0.62	-	-	3.61	30.00	-26.39	5.16	36.00	-30.84

Table 51 - ISED Maximum Conducted (average) 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 11.9.2.3.2
Additional Reference(s):	662911 D01 v02r01 F)2)f(ii), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ax HE20 RU106	Duty Cycle (%):	97.9
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	1.55
Active Port(s):	A+B (Core 0 + Core 1)	Active Chain(s):	0+1

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	19.36	19.84	-	-	22.62	30.00	-7.38
2442	20.09	20.41	-	-	23.26	30.00	-6.74
2472	2.23	2.54	-	-	5.40	30.00	-24.60

Table 52 - FCC Maximum Conducted (average) 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	Σ					
2412	19.36	19.84	-	-	22.62	30.00	-7.38	24.17	36.00	-11.83
2442	20.09	20.41	-	-	23.26	30.00	-6.74	24.81	36.00	-11.19
2472	2.23	2.54	-	-	5.40	30.00	-24.60	6.95	36.00	-29.05

Table 53 - ISED Maximum Conducted (average) 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 (d)

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 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6518	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6529	12	16-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6530	12	16-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6587	12	13-Feb-2025
USB Wideband Power Sensor	Boonton	RTP5008	6588	12	13-Feb-2025
AC Programmable Power Supply	iTech	IT7324	6662	-	O/P Mon

Table 54

O/P Mon - Output Monitored using calibrated equipment



2.4 Authorised Band Edges

2.4.1 Specification Reference

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

2.4.2 Equipment Under Test and Modification State

A3143, S/N: P44KN4197F - Modification State 0
A3143, S/N: VCXLW6763J - Modification State 0
A3143, S/N: GCYK43TX1V - Modification State 0

2.4.3 Date of Test

14-July-2024 to 22-July-2024

2.4.4 Test Method

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

2.4.5 Environmental Conditions

Ambient Temperature	21.3 - 23.3 °C
Relative Humidity	36.6 - 52.5 %

2.4.6 Test Results

2.4 GHz WLAN

20 MHz Bandwidth - Core 0 (SISO)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11b	1 Mbps	-	-	2412	2400	-50.33
802.11b	1 Mbps	-	-	2417	2400	-48.63
802.11g	12 Mbps	-	-	2412	2400	-41.11
802.11g	54 Mbps	-	-	2417	2400	-34.52
802.11g	54 Mbps	-	-	2422	2400	-39.06
802.11g	54 Mbps	-	-	2427	2400	-47.78
802.11n HT20	MCS 7	-	-	2412	2400	-34.78
802.11n HT20	MCS 7	-	-	2417	2400	-35.22
802.11n HT20	MCS 7	-	-	2422	2400	-37.98
802.11n HT20	MCS 7	-	-	2427	2400	-46.02
802.11ax HE20	MCS 4x1	SU	-	2412	2400	-35.19
802.11ax HE20	MCS 9x1	106	53	2412	2400	-40.41
802.11ax HE20	MCS 4x1	SU	-	2417	2400	-35.87
802.11ax HE20	MCS 9x1	106	53	2417	2400	-45.84
802.11ax HE20	MCS 9x1	SU	-	2422	2400	-35.19
802.11ax HE20	MCS 9x1	SU	-	2427	2400	-43.96

Table 55 - SISO Authorised Band Edge Results

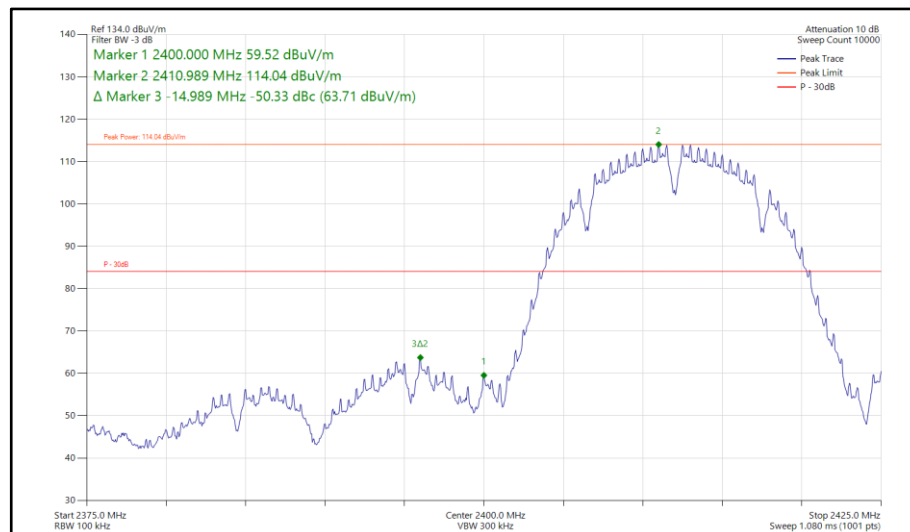


Figure 128 - 802.11b, SISO, Core 0 - 2412 MHz
Band Edge Frequency 2400 MHz

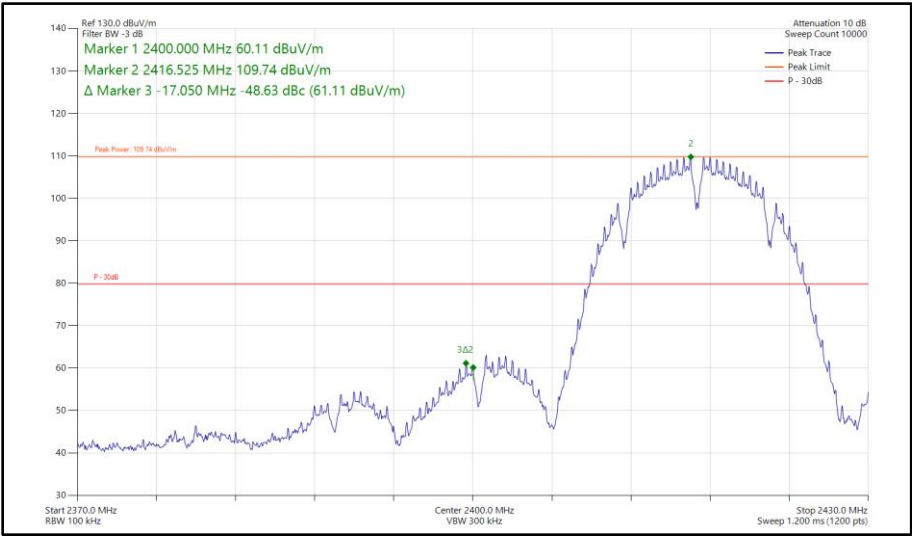


Figure 129 - 802.11b, SISO, Core 0 - 2417 MHz
Band Edge Frequency 2400 MHz

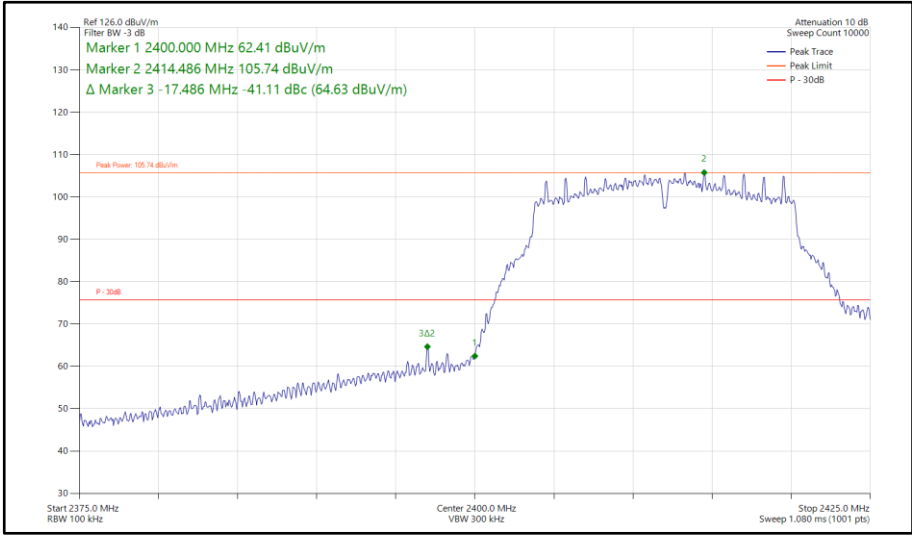


Figure 130 - 802.11g, SISO, Core 0 - 2412 MHz
Band Edge Frequency 2400 MHz

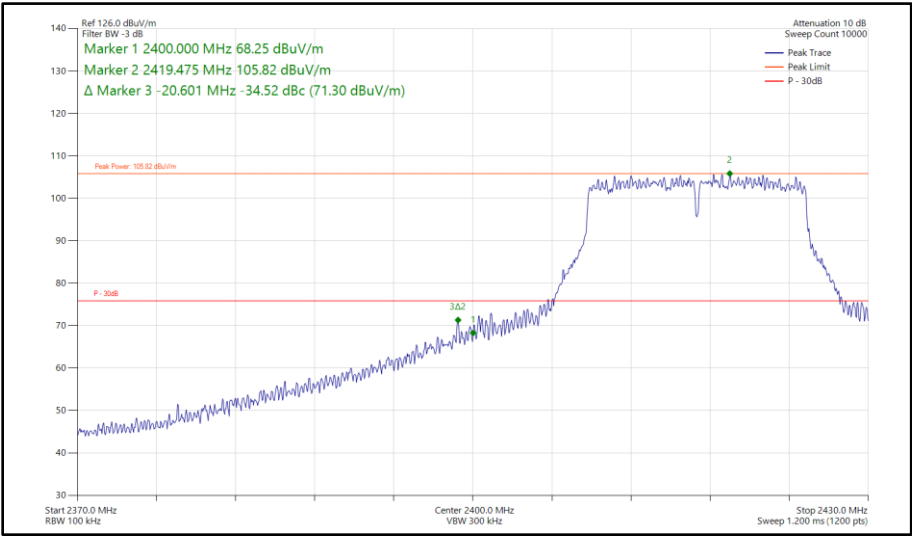


Figure 131 - 802.11g, SISO, Core 0 - 2417 MHz
Band Edge Frequency 2400 MHz

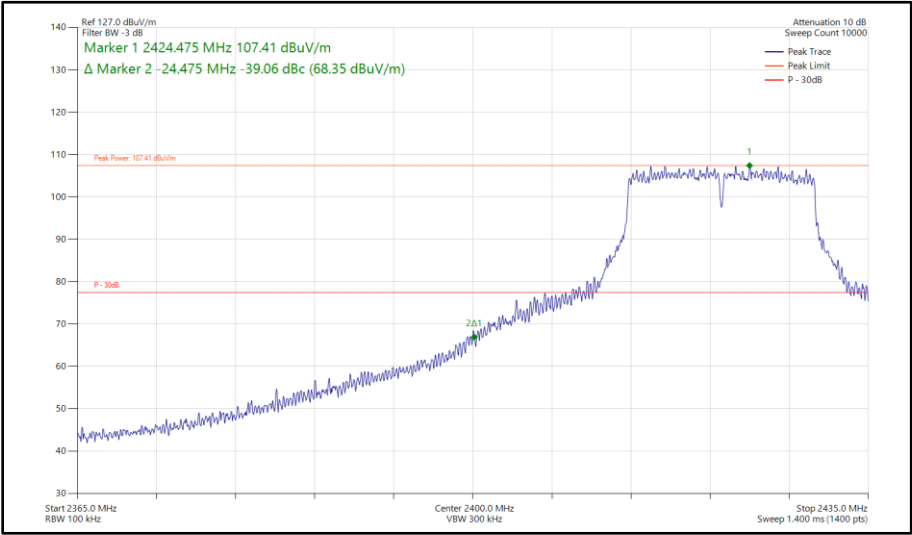


Figure 132 - 802.11g, SISO, Core 0 - 2422 MHz
Band Edge Frequency 2400 MHz

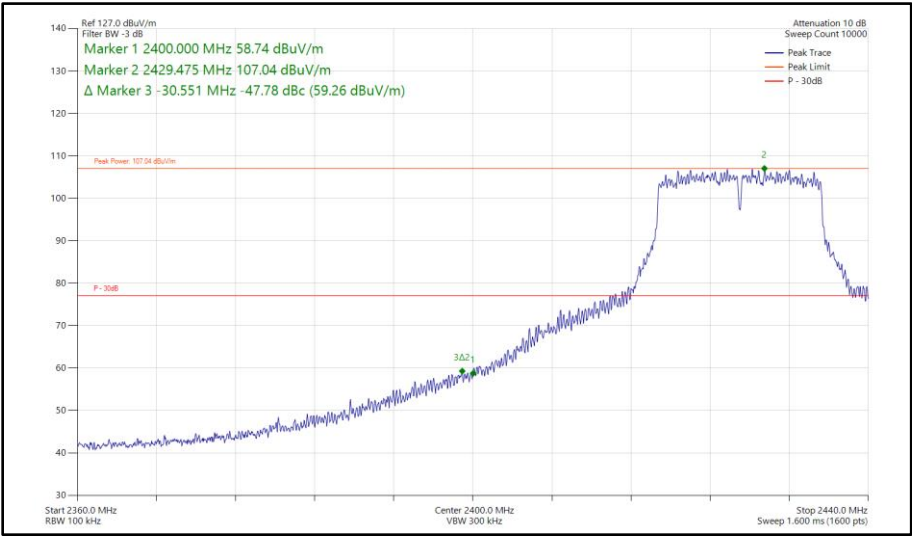


Figure 133 - 802.11g, SISO, Core 0 - 2427 MHz
Band Edge Frequency 2400 MHz

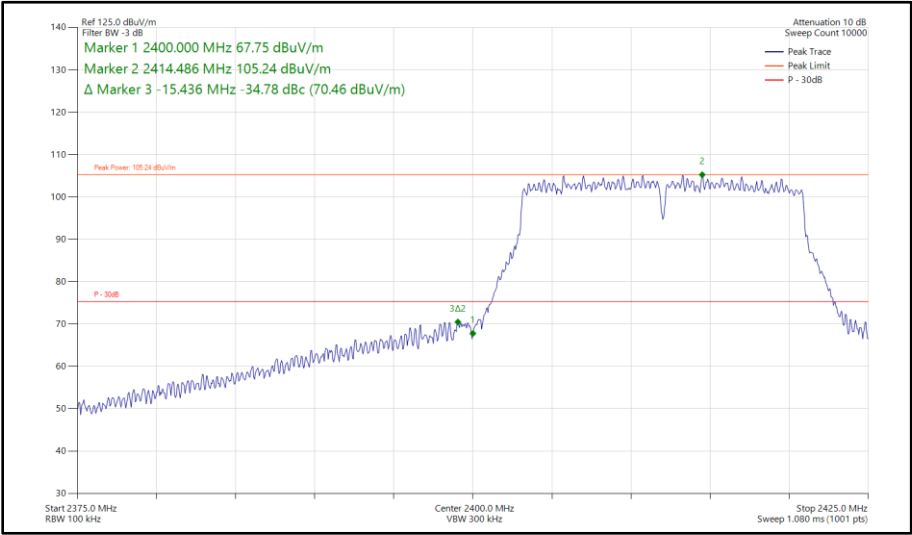


Figure 134 - 802.11n HT20, SISO, Core 0 - 2412 MHz
Band Edge Frequency 2400 MHz

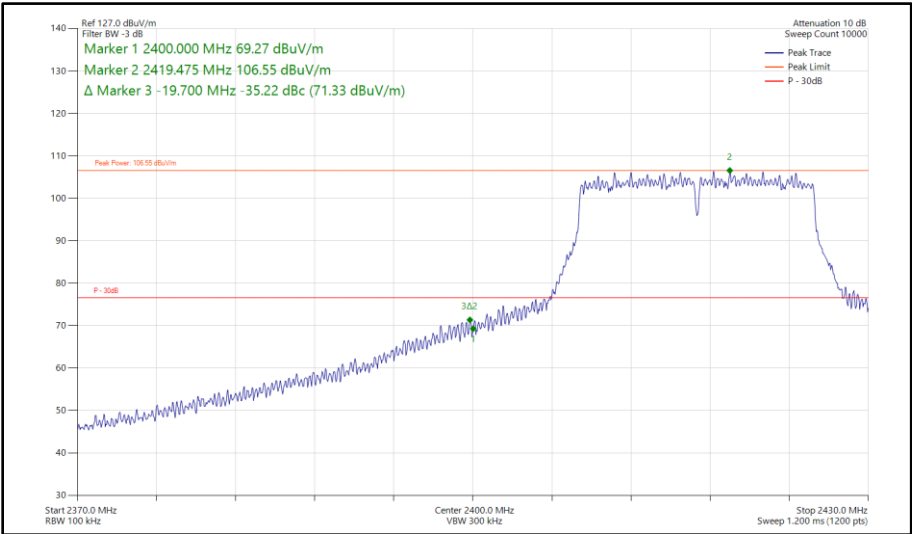


Figure 135 - 802.11n HT20, SISO, Core 0 - 2417 MHz
Band Edge Frequency 2400 MHz

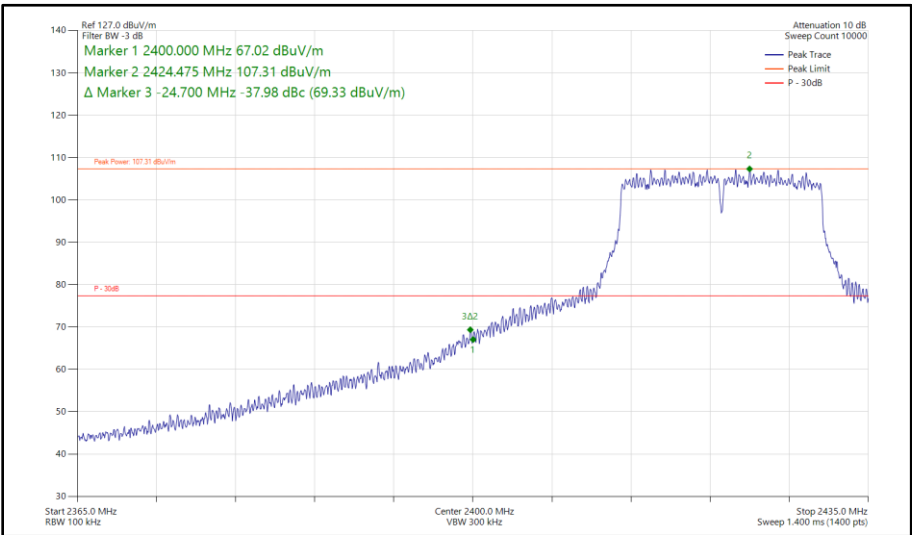


Figure 136 - 802.11n HT20, SISO, Core 0 - 2422 MHz
Band Edge Frequency 2400 MHz

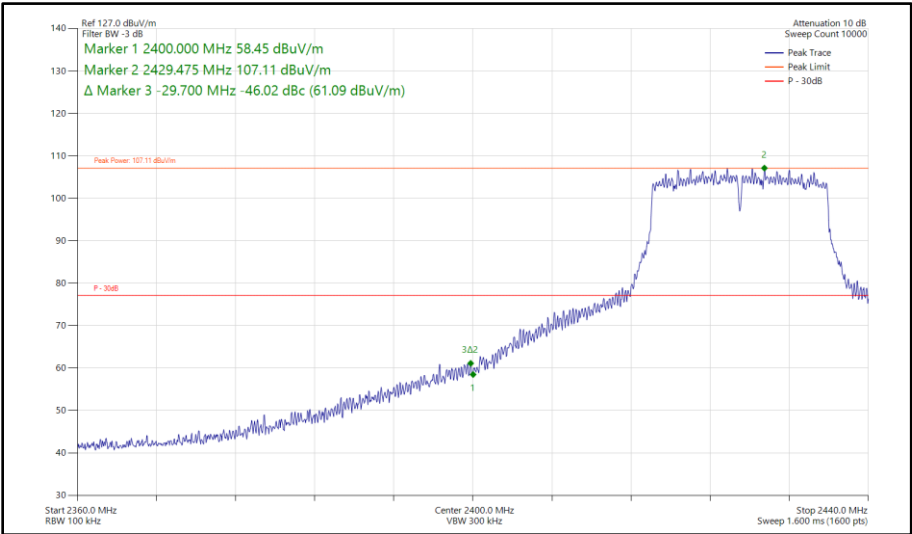


Figure 137 - 802.11n HT20, SISO, Core 0 - 2427 MHz
Band Edge Frequency 2400 MHz

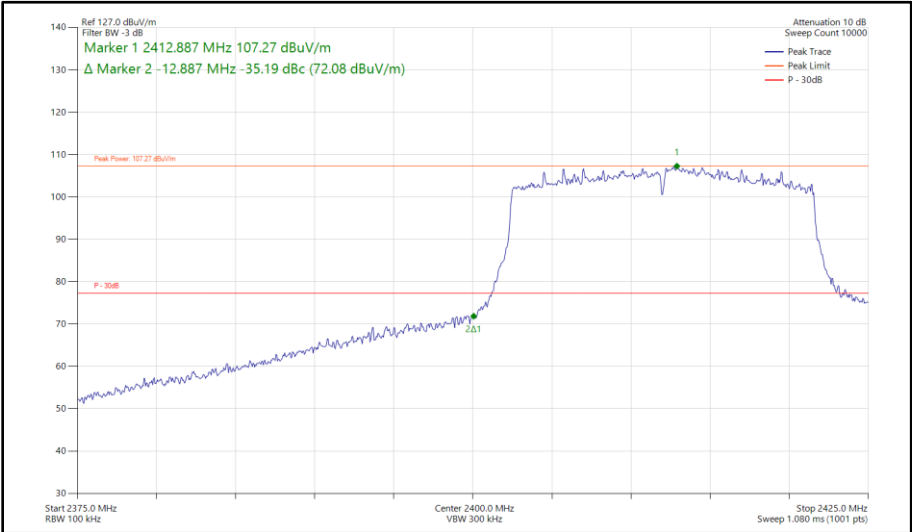


Figure 138 - 802.11ax HE20, SU, SISO, Core 0 - 2412 MHz
Band Edge Frequency 2400 MHz

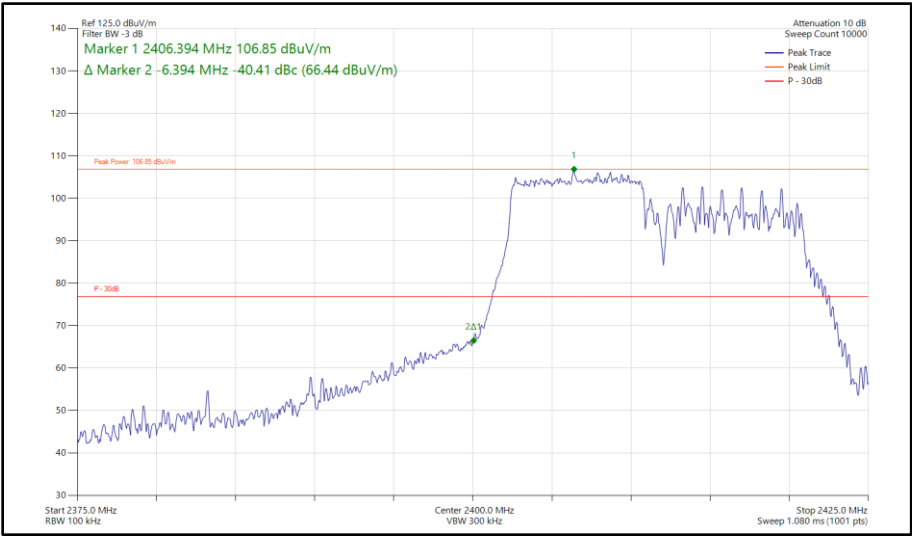


Figure 139 - 802.11ax HE20, RU 106-53, SISO, Core 0 - 2412 MHz
Band Edge Frequency 2400 MHz

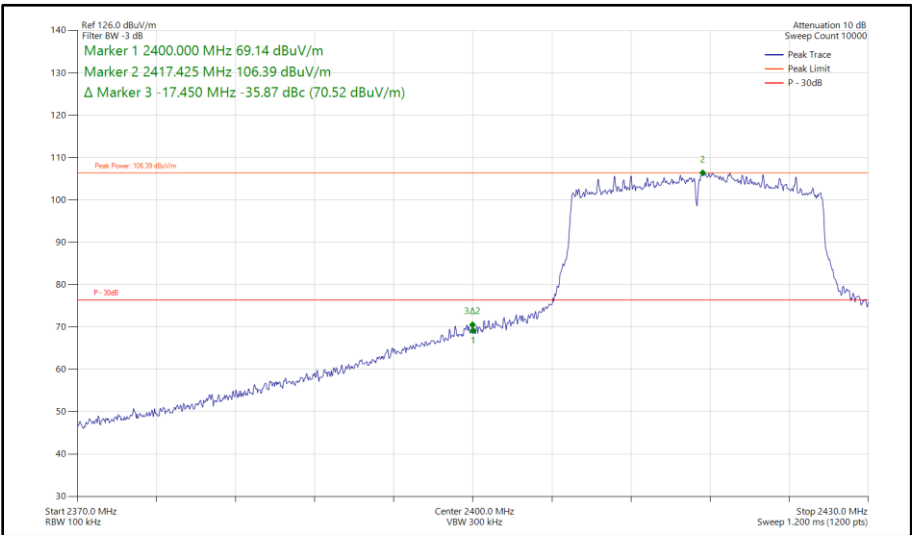


Figure 140 - 802.11ax HE20, SU, SISO, Core 0 - 2417 MHz
Band Edge Frequency 2400 MHz

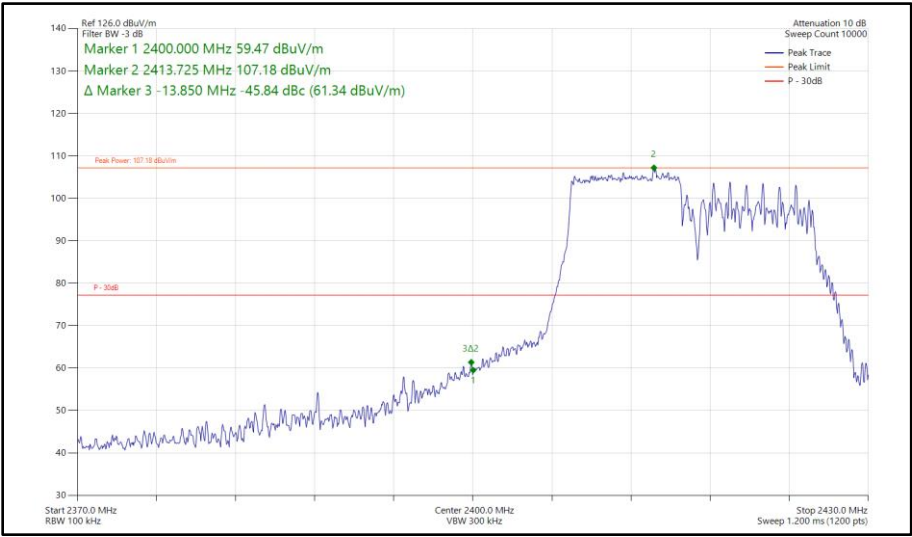


Figure 141 - 802.11ax HE20, RU 106-53, SISO, Core 0 - 2417 MHz
Band Edge Frequency 2400 MHz

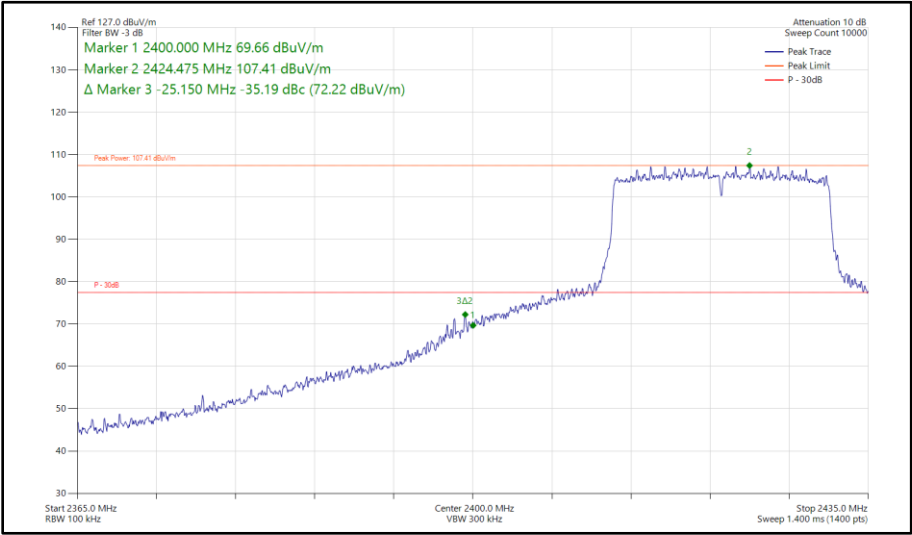
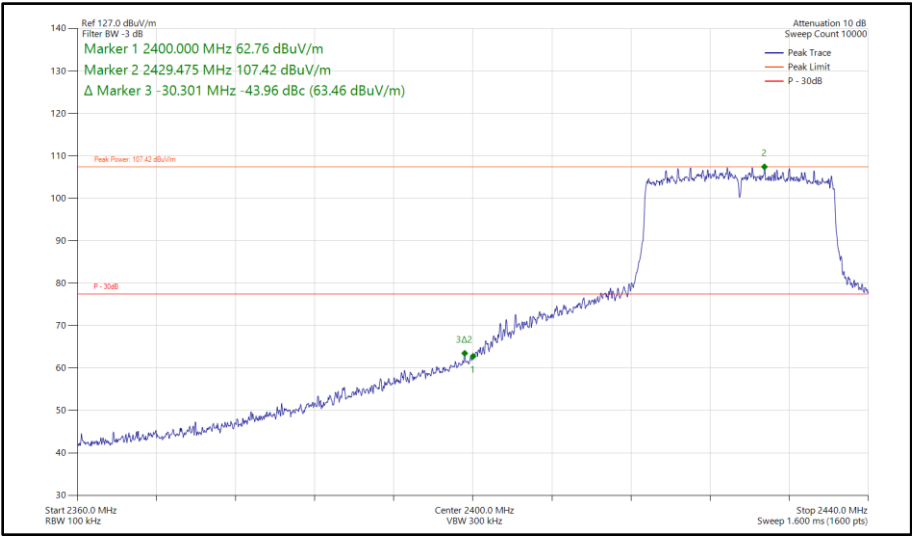


Figure 142 - 802.11ax HE20, SU, SISO, Core 0 - 2422 MHz
Band Edge Frequency 2400 MHz

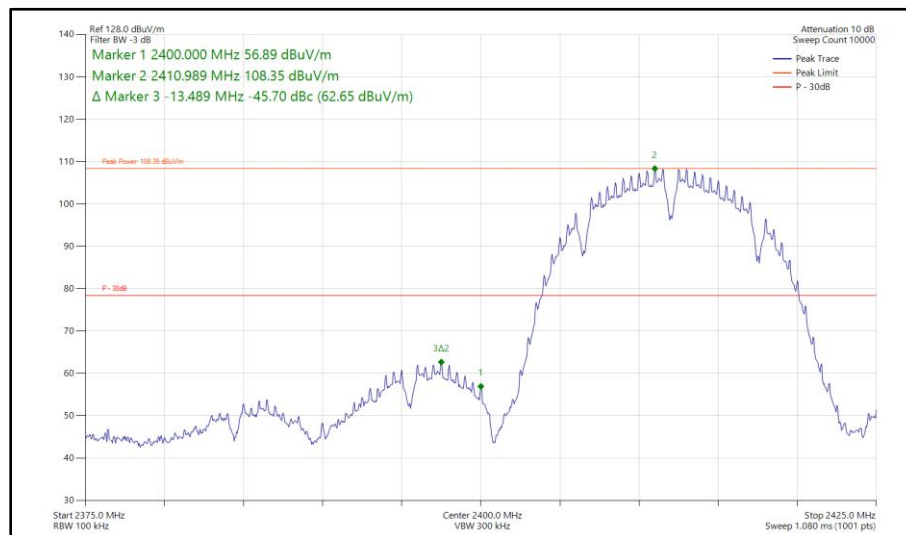


**Figure 143 - 802.11ax HE20, SU, SISO, Core 0 - 2427 MHz
Band Edge Frequency 2400 MHz**

20 MHz Bandwidth - Core 1 (SISO)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11b	1 Mbps	-	-	2412	2400	-45.70
802.11b	1 Mbps	-	-	2417	2400	-49.16
802.11g	54 Mbps	-	-	2412	2400	-34.90
802.11g	54 Mbps	-	-	2417	2400	-35.03
802.11g	54 Mbps	-	-	2422	2400	-40.42
802.11g	54 Mbps	-	-	2427	2400	-46.26
802.11n HT20	MCS 7	-	-	2412	2400	-34.79
802.11n HT20	MCS 7	-	-	2417	2400	-34.71
802.11n HT20	MCS 7	-	-	2422	2400	-38.82
802.11n HT20	MCS 7	-	-	2427	2400	-45.09
802.11ax HE20	MCS 4x1	SU	-	2412	2400	-34.73
802.11ax HE20	MCS 9x1	106	53	2412	2400	-41.70
802.11ax HE20	MCS 9x1	SU	-	2417	2400	-35.95
802.11ax HE20	MCS 9x1	106	53	2417	2400	-46.75
802.11ax HE20	MCS 9x1	SU	-	2422	2400	-36.68
802.11ax HE20	MCS 9x1	SU	-	2427	2400	-44.57

Table 56 - SISO Authorised Band Edge Results



**Figure 144 - 802.11b, SISO, Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz**

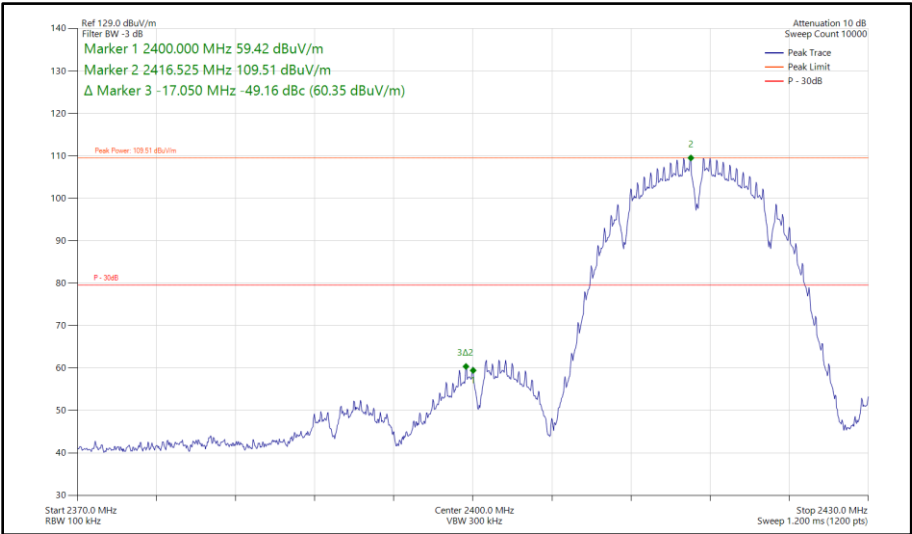


Figure 145 - 802.11b, SISO, Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

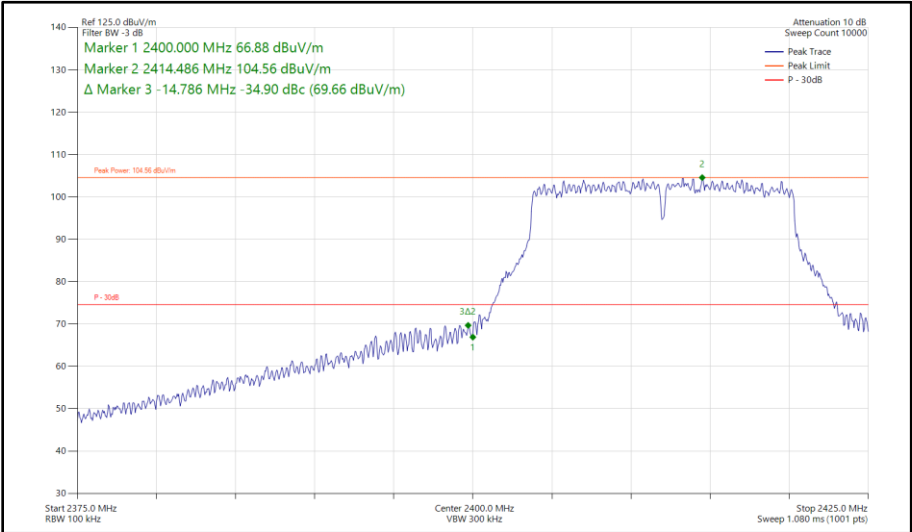


Figure 146 - 802.11g, SISO, Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

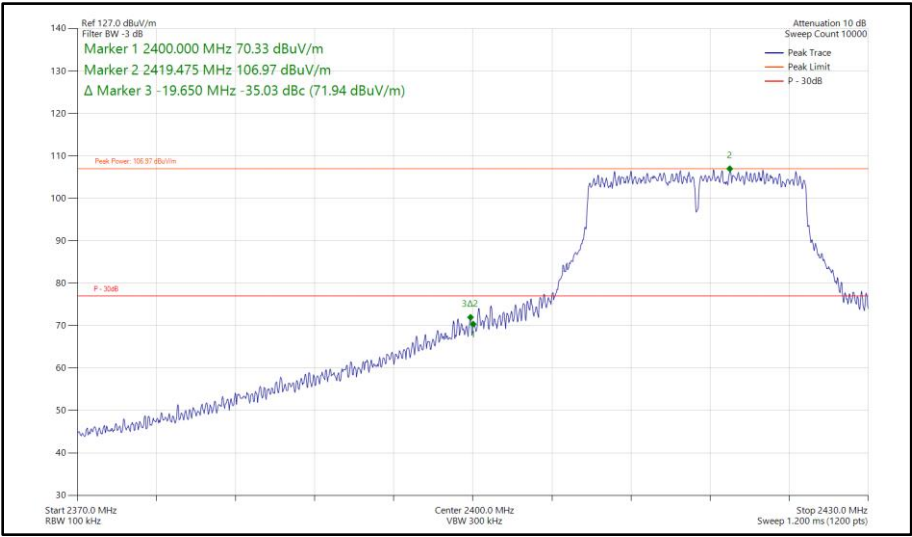


Figure 147 - 802.11g, SISO, Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

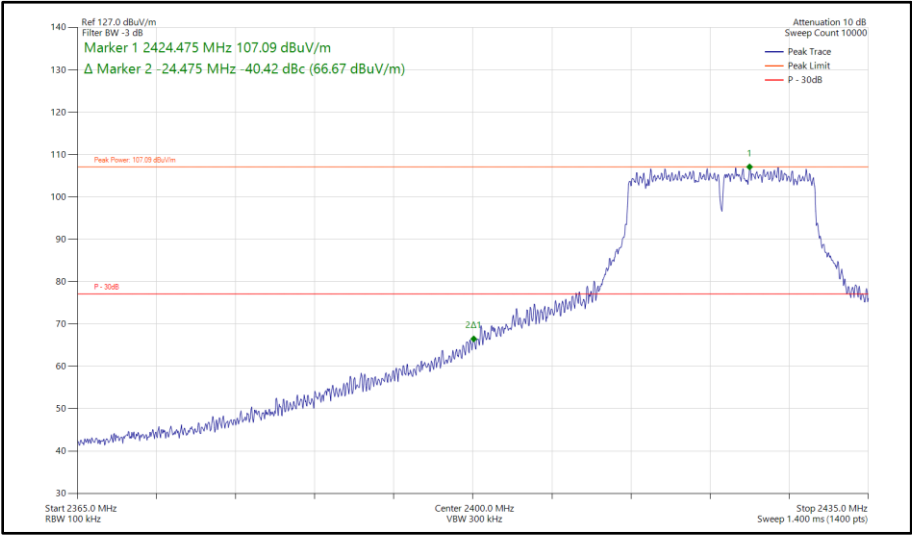


Figure 148 - 802.11g, SISO, Core 1 - 2422 MHz
Band Edge Frequency 2400 MHz

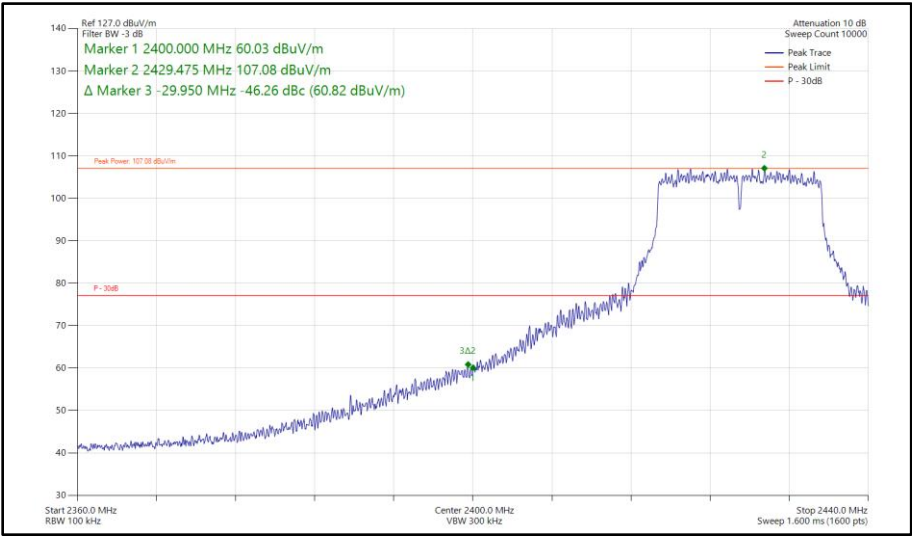


Figure 149 - 802.11g, SISO, Core 1 - 2427 MHz
Band Edge Frequency 2400 MHz

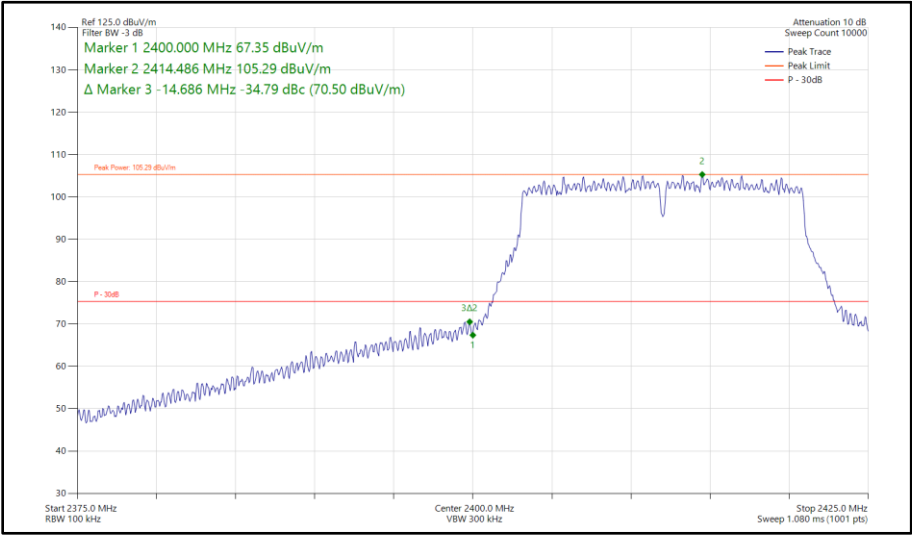


Figure 150 - 802.11n HT20, SISO, Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

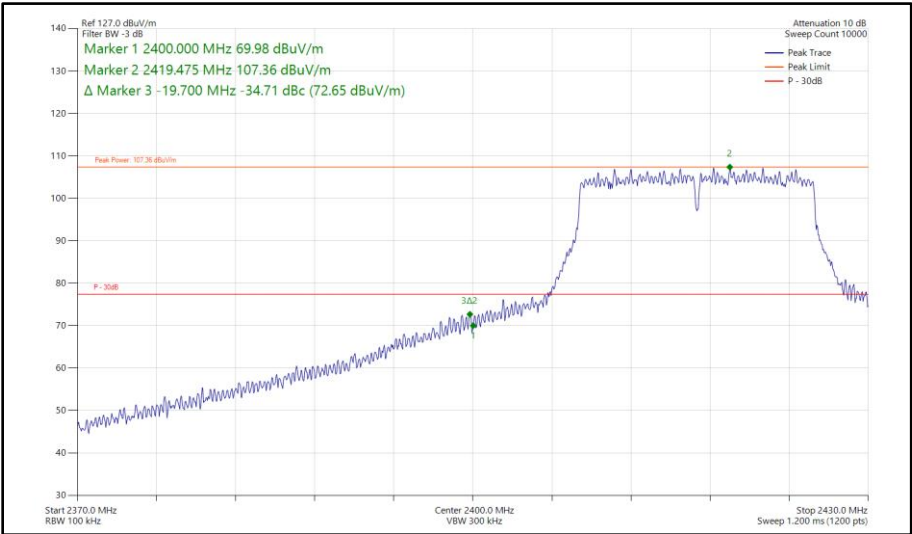


Figure 151 - 802.11n HT20, SISO, Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

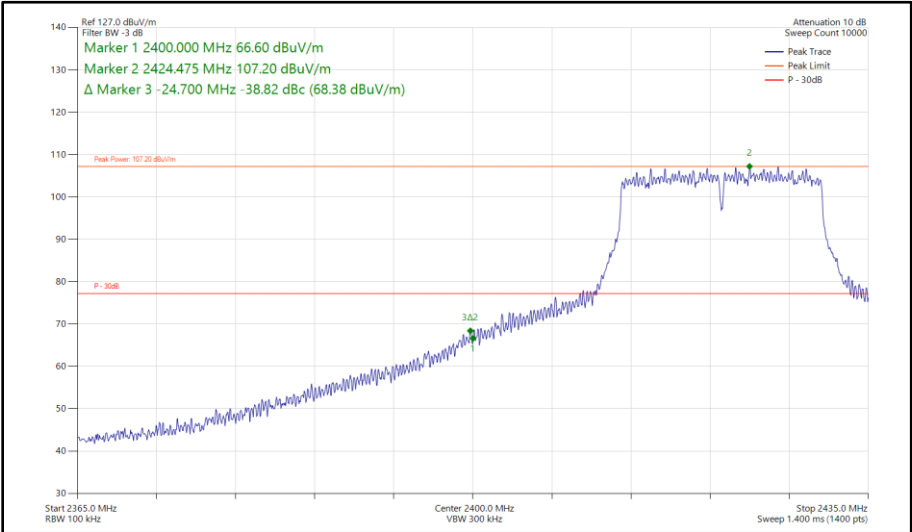


Figure 152 - 802.11n HT20, SISO, Core 1 - 2422 MHz
Band Edge Frequency 2400 MHz

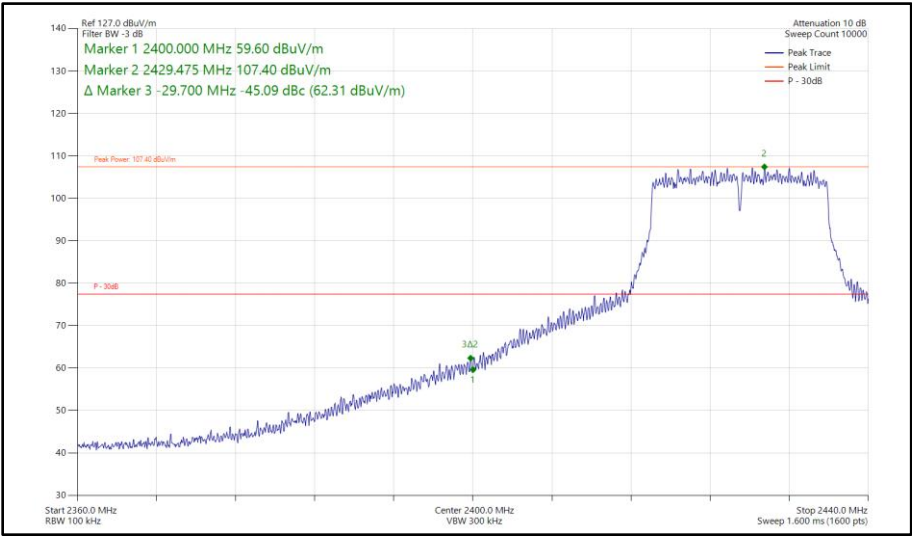


Figure 153 - 802.11n HT20, SISO, Core 1 - 2427 MHz
Band Edge Frequency 2400 MHz

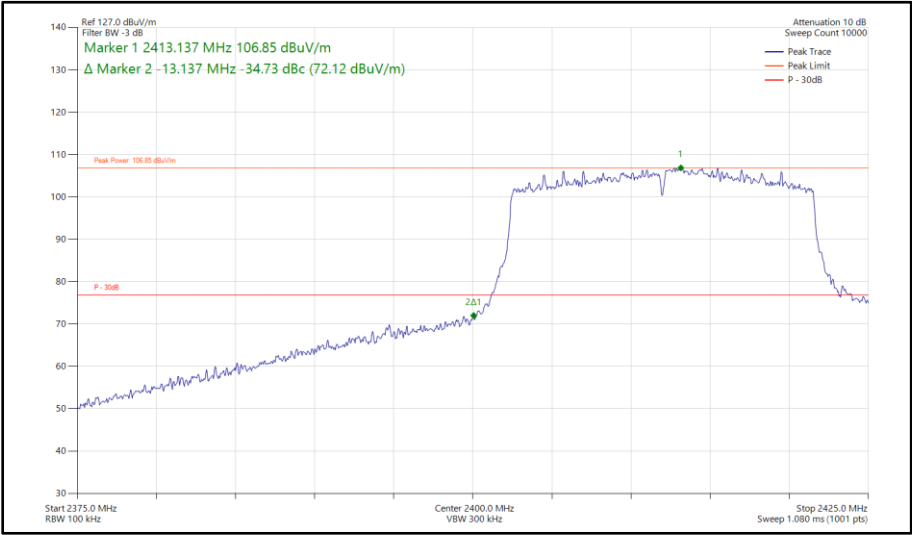


Figure 154 - 802.11ax HE20, SU, SISO, Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

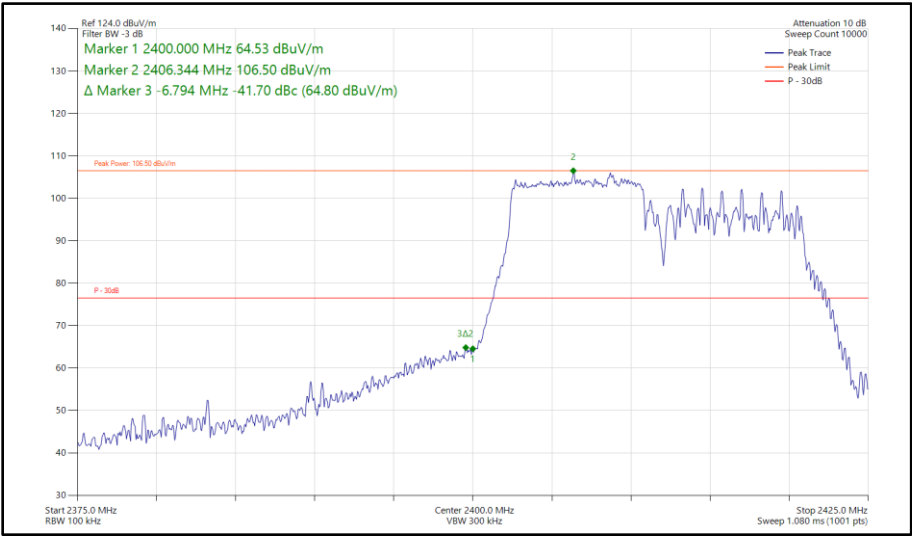


Figure 155 - 802.11ax HE20, RU 106-53, SISO, Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

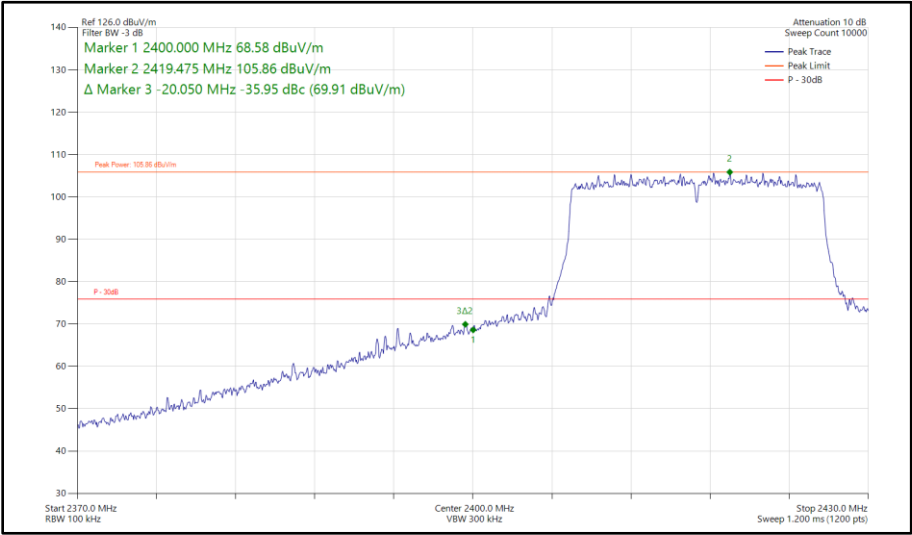


Figure 156 - 802.11ax HE20, SU, SISO, Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

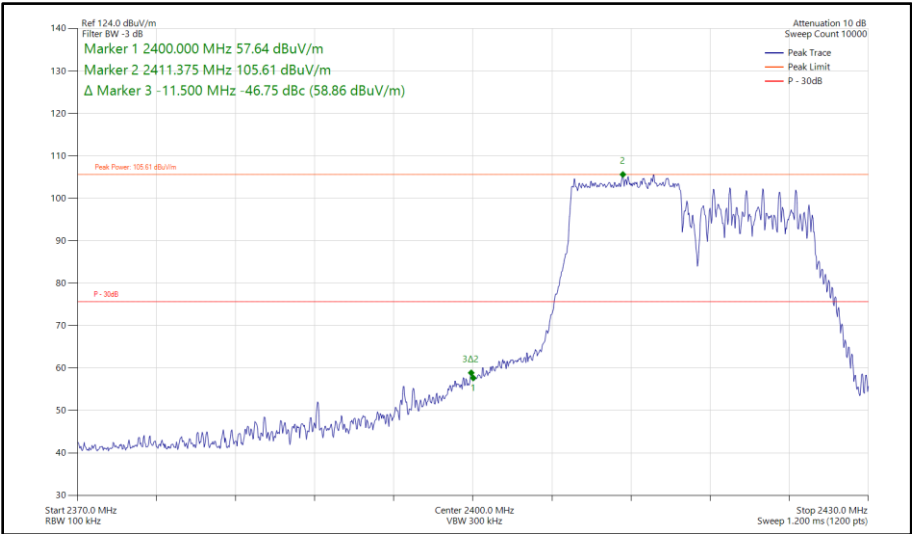


Figure 157 - 802.11ax HE20, RU 106-53, SISO, Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

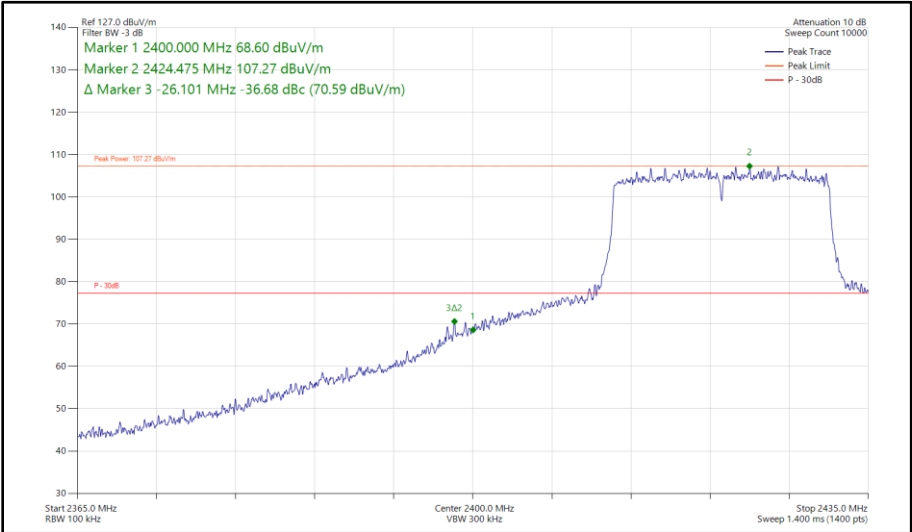
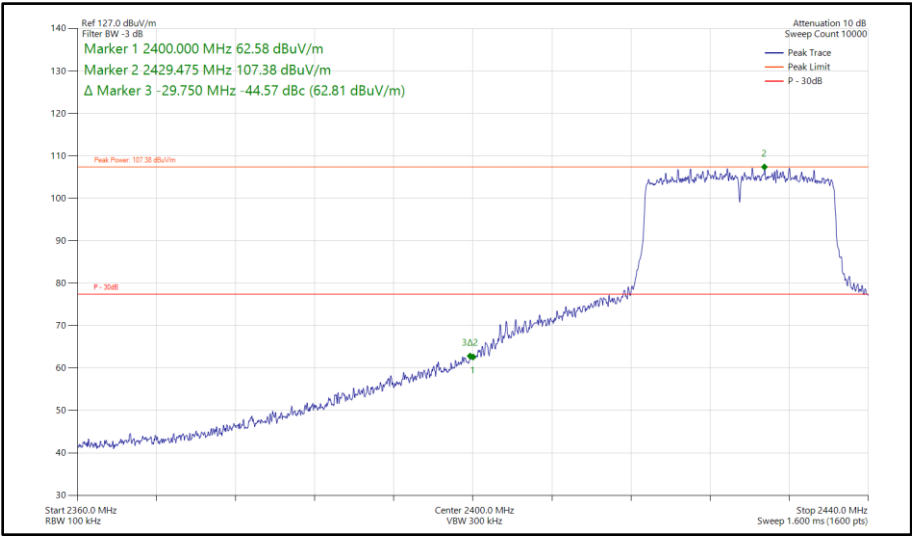


Figure 158 - 802.11ax HE20, SU, SISO, Core 1 - 2422 MHz
Band Edge Frequency 2400 MHz



**Figure 159 - 802.11ax HE20, SU, SISO, Core 1 - 2427 MHz
Band Edge Frequency 2400 MHz**



20 MHz Bandwidth - Core 0 - Core 1 (CDD)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
802.11n HT20	MCS 4	-	-	2412	2400	-34.78
802.11n HT20	MCS 7	-	-	2417	2400	-34.75
802.11n HT20	MCS 7	-	-	2422	2400	-39.20
802.11n HT20	MCS 7	-	-	2427	2400	-45.54
802.11n HT20	MCS 7	-	-	2432	2400	-50.01
802.11ax HE20	MCS 9x1	SU	-	2412	2400	-34.88
802.11ax HE20	MCS 9x1	106	53	2412	2400	-40.44
802.11ax HE20	MCS 9x1	SU	-	2417	2400	-35.35
802.11ax HE20	MCS 9x1	106	53	2417	2400	-46.44
802.11ax HE20	MCS 9x1	SU	-	2422	2400	-36.23
802.11ax HE20	MCS 9x1	106	53	2422	2400	-50.21
802.11ax HE20	MCS 9x1	SU	-	2427	2400	-44.16
802.11ax HE20	MCS 9x1	SU	-	2432	2400	-47.84

Table 57 - CDD Authorised Band Edge Results

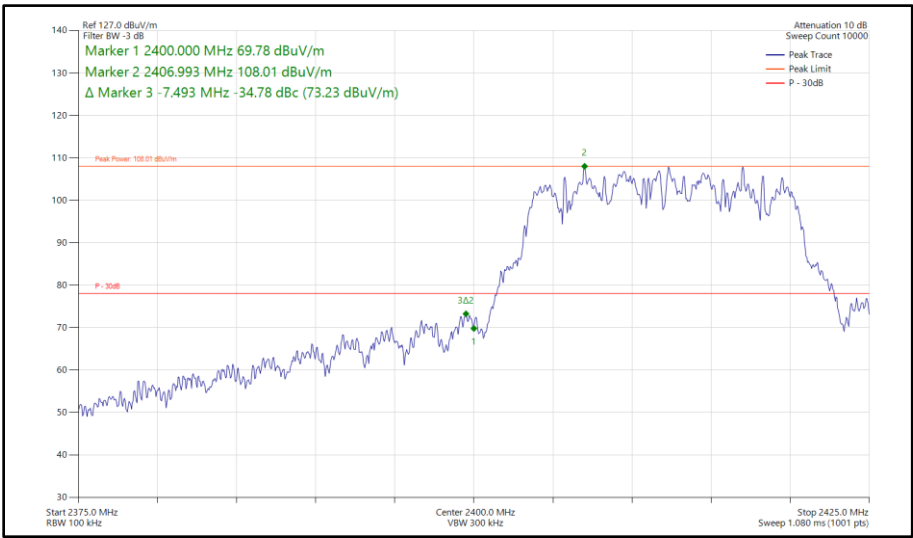


Figure 160 - 802.11n HT20, CDD, Core 0 - Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

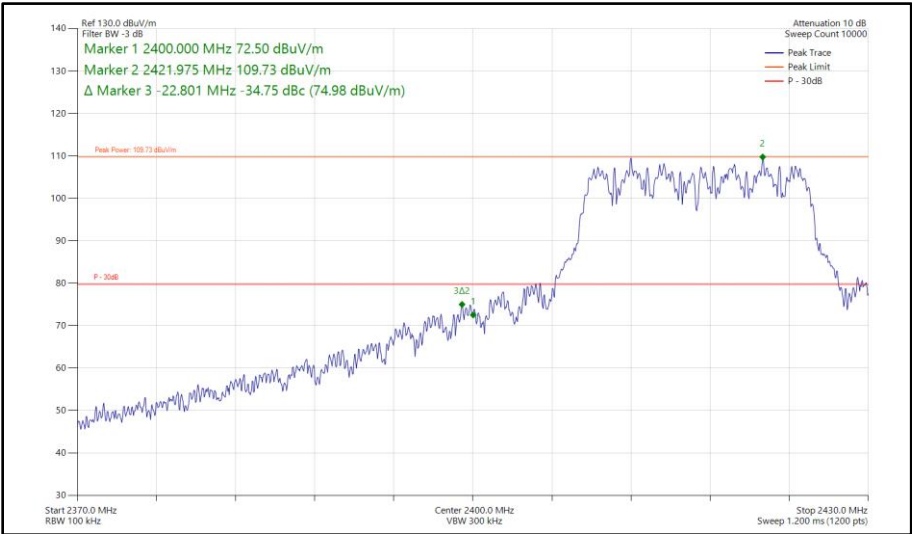


Figure 161 - 802.11n HT20, CDD, Core 0 - Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

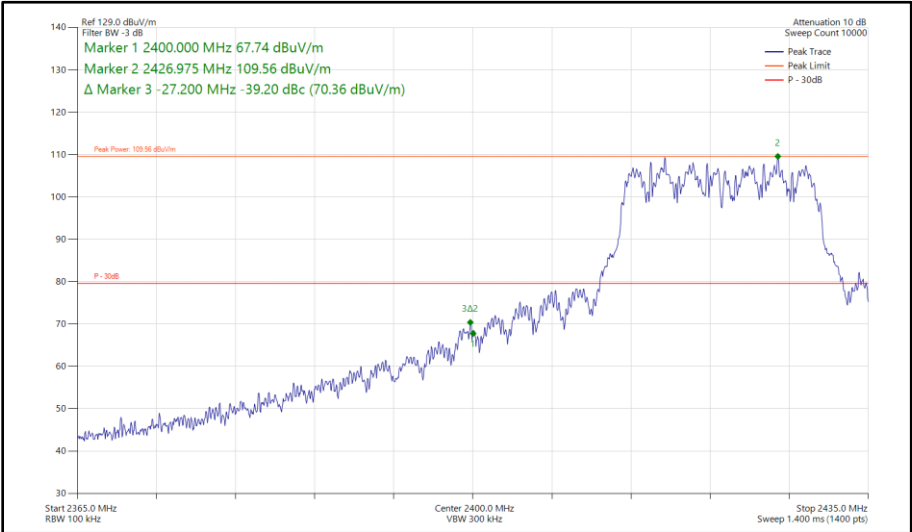


Figure 162 - 802.11n HT20, CDD, Core 0 - Core 1 - 2422 MHz
Band Edge Frequency 2400 MHz

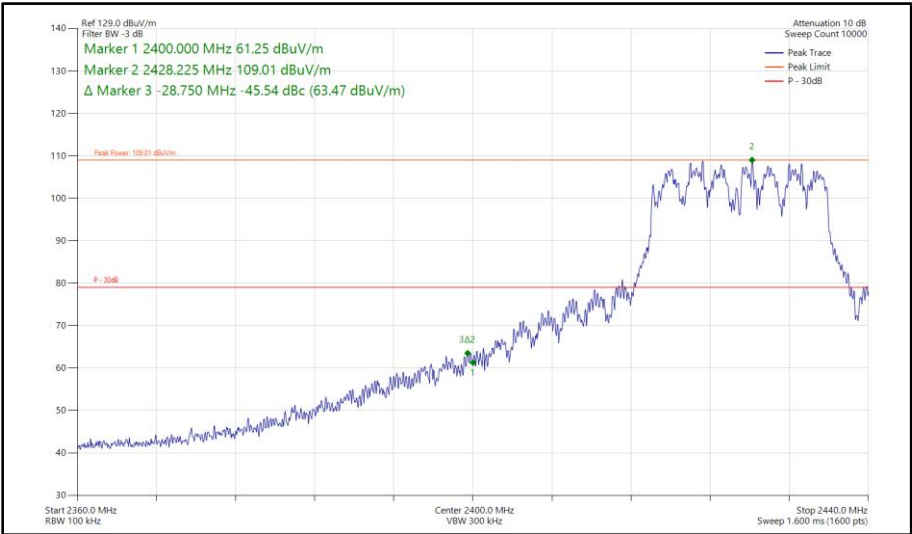


Figure 163 - 802.11n HT20, CDD, Core 0 - Core 1 - 2427 MHz
Band Edge Frequency 2400 MHz

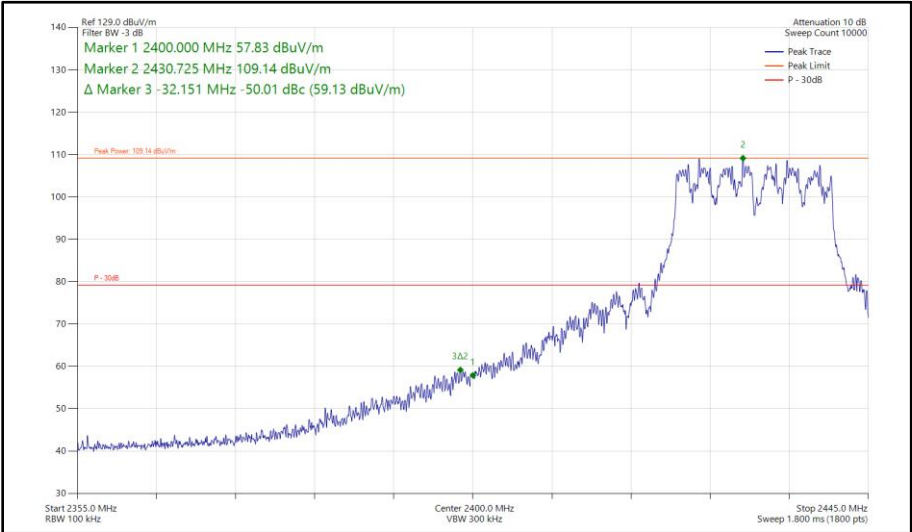


Figure 164 - 802.11n HT20, CDD, Core 0 - Core 1 - 2432 MHz
Band Edge Frequency 2400 MHz

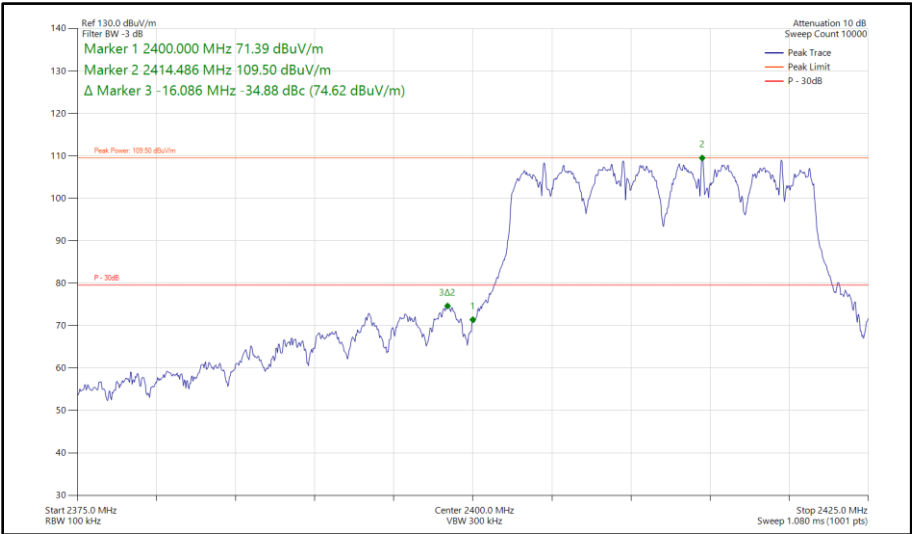


Figure 165 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

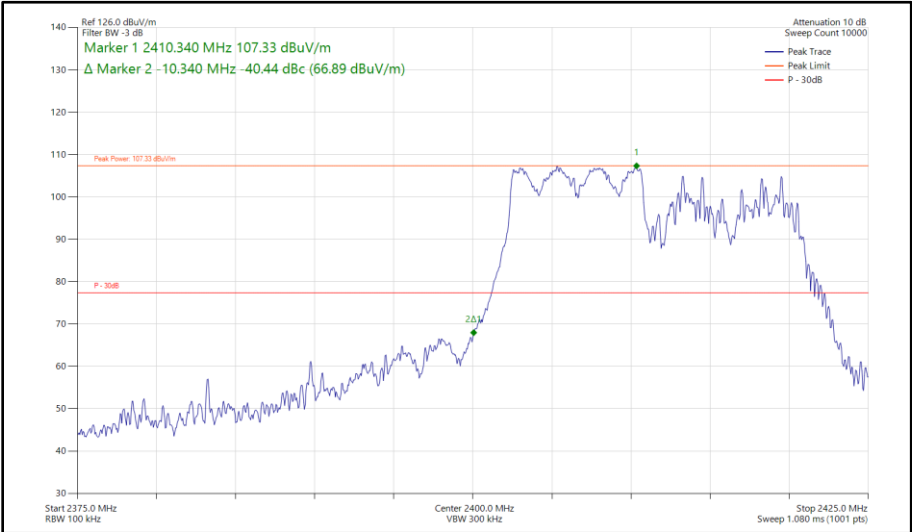


Figure 166 - 802.11ax HE20, RU 106-53, CDD, Core 0 - Core 1 - 2412 MHz
Band Edge Frequency 2400 MHz

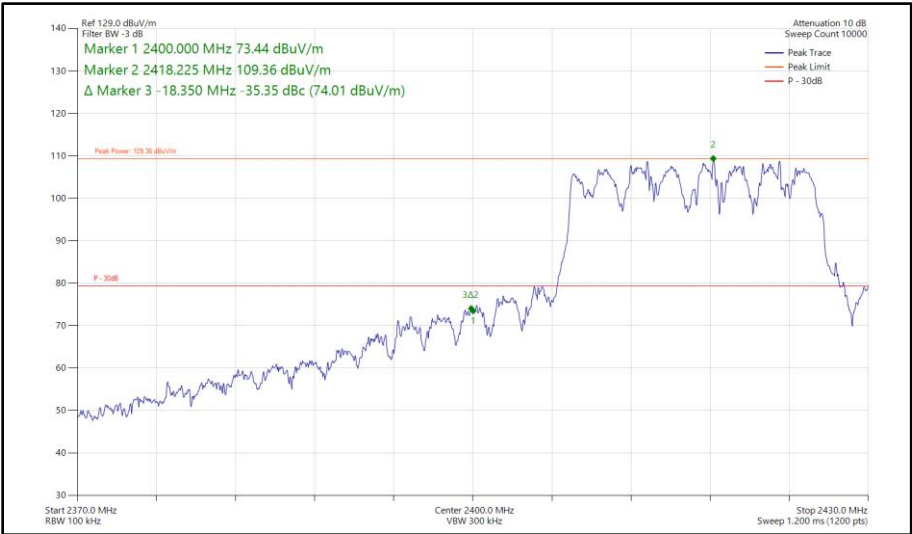


Figure 167 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

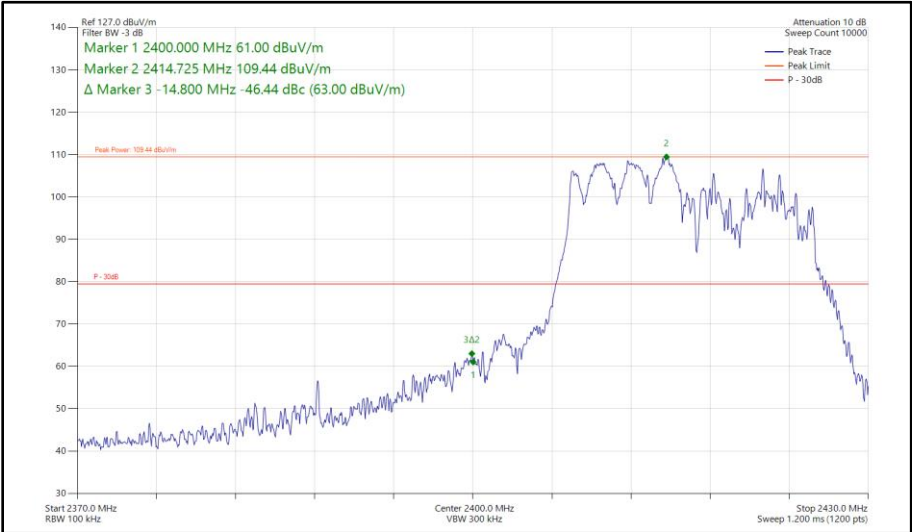


Figure 168 - 802.11ax HE20, RU 106-53, CDD, Core 0 - Core 1 - 2417 MHz
Band Edge Frequency 2400 MHz

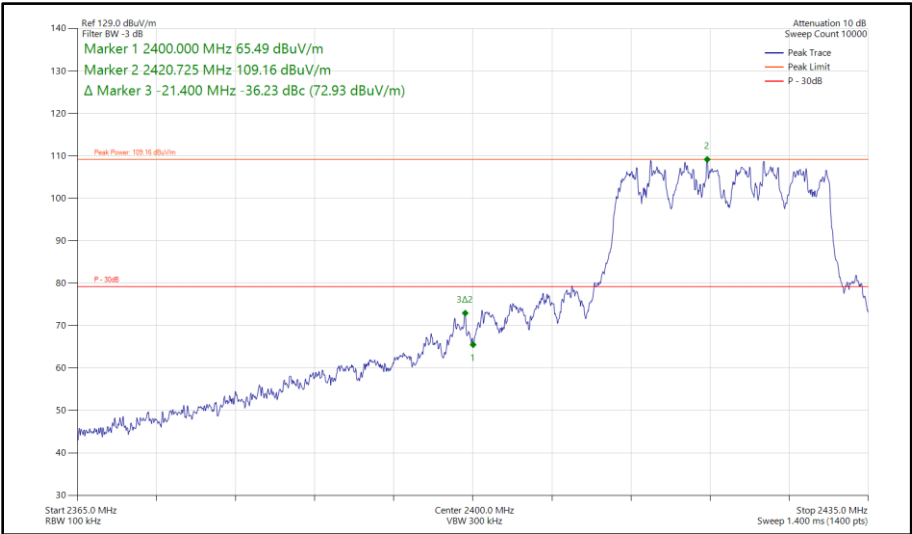


Figure 169 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2422 MHz
Band Edge Frequency 2400 MHz

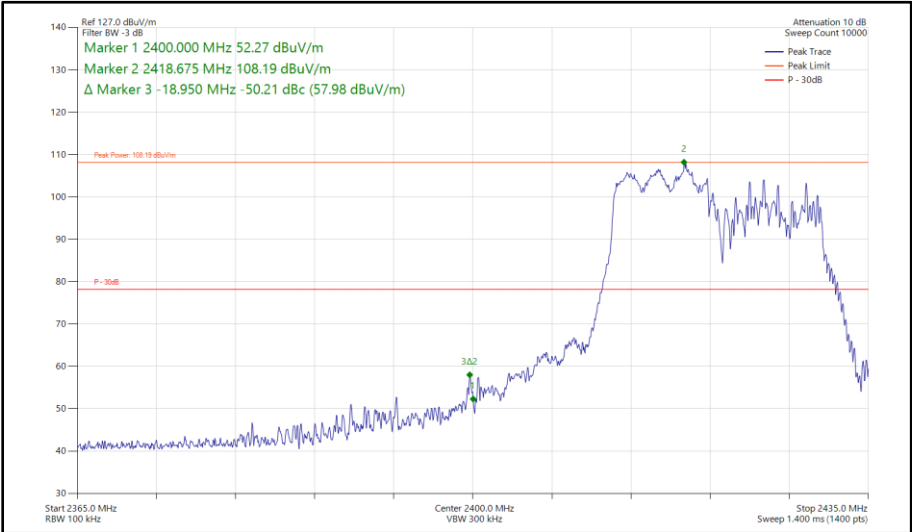


Figure 170 - 802.11ax HE20, RU 106-53, CDD, Core 0 - Core 1 - 2422 MHz
Band Edge Frequency 2400 MHz

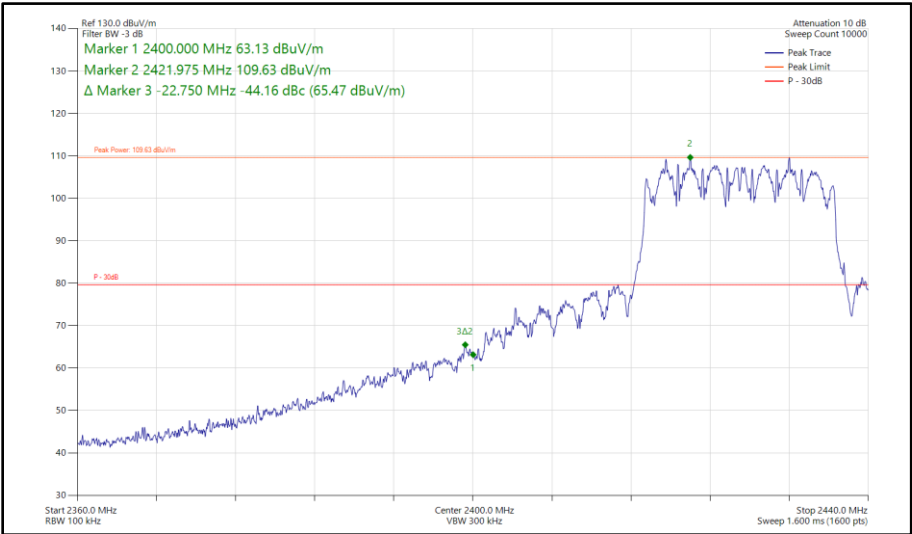


Figure 171 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2427 MHz
Band Edge Frequency 2400 MHz

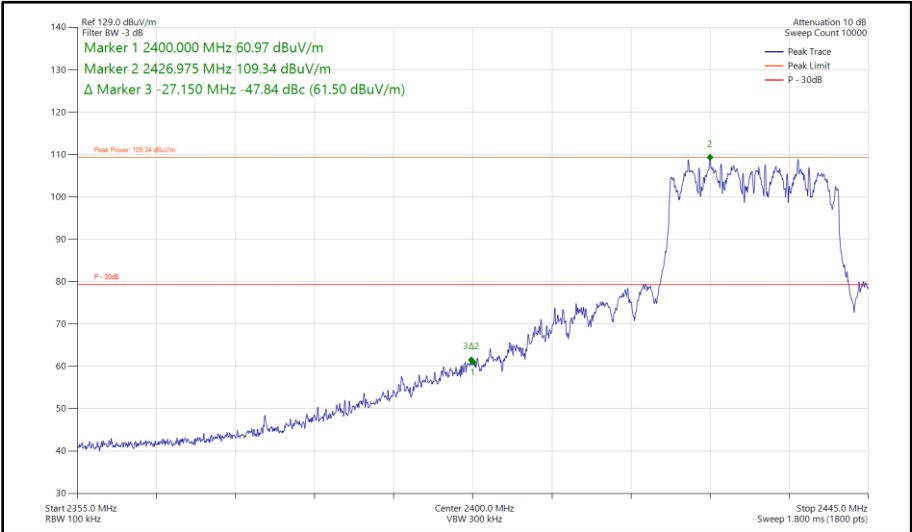


Figure 172 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2432 MHz
Band Edge Frequency 2400 MHz



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.



2.4.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14, RF Chamber 15 and RF Chamber 17.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.4.2	5125	-	Software
Test Receiver	Rohde & Schwarz	ESW44	5379	12	12-Dec-2024
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	11-Sep-2024
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-May-2025
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 (SMA to SMA 4.5m)	Junkosha	MWX221-04500AMSAMS/A	6002	12	14-Sep-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6008	12	20-May-2025
Cable (N to N 1m)	Junkosha	MWX221-01000AMSAMS/B	6009	12	20-May-2025
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6014	-	24-Aug-2024
Cable (SMA to SMA 3m)	Junkosha	MWX221-03000AMSAMS/A	6021	12	14-Sep-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6141	12	05-May-2025
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	05-May-2025
SAC Switch Unit	TUV SUD	TUV_SSU_001	6144	12	11-Dec-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Digital Multimeter	Fluke	115	6146	12	06-Jun-2025
Digital Multimeter	Fluke	115	6147	12	06-Jun-2025
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



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6315	12	04-Feb-2025
Cable (SMA to SMA 3m)	Junkosha	MWX221-03000AMSAMS/A	6316	12	04-Feb-2025
Cable (SMA to SMA 8m)	Junkosha	MWX221-08000AMSAMS/B	6319	-	04-Feb-2025
Humidity and Temperature Meter	R.S Components	1364	6346	12	06-Mar-2025
Humidity & Temperature meter	R.S Components	1364	6348	12	06-Mar-2025
Horn Antenna (1–10.5 GHz)	Schwarzbeck	BBHA 9120 B	6457	12	05-May-2025
Humidity and Temperature Meter	R.S Components	1364	6486	12	04-Jun-2025
AC Power Supply	iTech	IT7324	6657	-	O/P Mon
3m Semi-Anechoic Chamber	Albatross Projects	RF Chamber 17	6658	36	28-Jan-2026
Mast and Turntable Controller	Maturo Gmbh	FCU3.0	6659	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	6660	-	TU
Turntable	Maturo Gmbh	TT1.5SI	6661	-	TU
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
8m Cable	Junkosha	MWX221-08000AMSAMS/B	6748	12	01-Feb-2025

Table 58

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



2.5 Spurious Radiated Emissions

2.5.1 Specification Reference

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

2.5.2 Equipment Under Test and Modification State

A3143, S/N: C3QWHF6CNX - Modification State 0

2.5.3 Date of Test

15-July-2024 to 24-July-2024

2.5.4 Test Method

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

Ports on the EUT were terminated with loads as described in ANSI C63.10 clause 6.2.3.

The EUT was placed on the non-conducting platform in a manner typical of a normal installation.

In the 30 MHz to 1 GHz range pre-scans were only performed on the mid channel (2442 MHz) only.

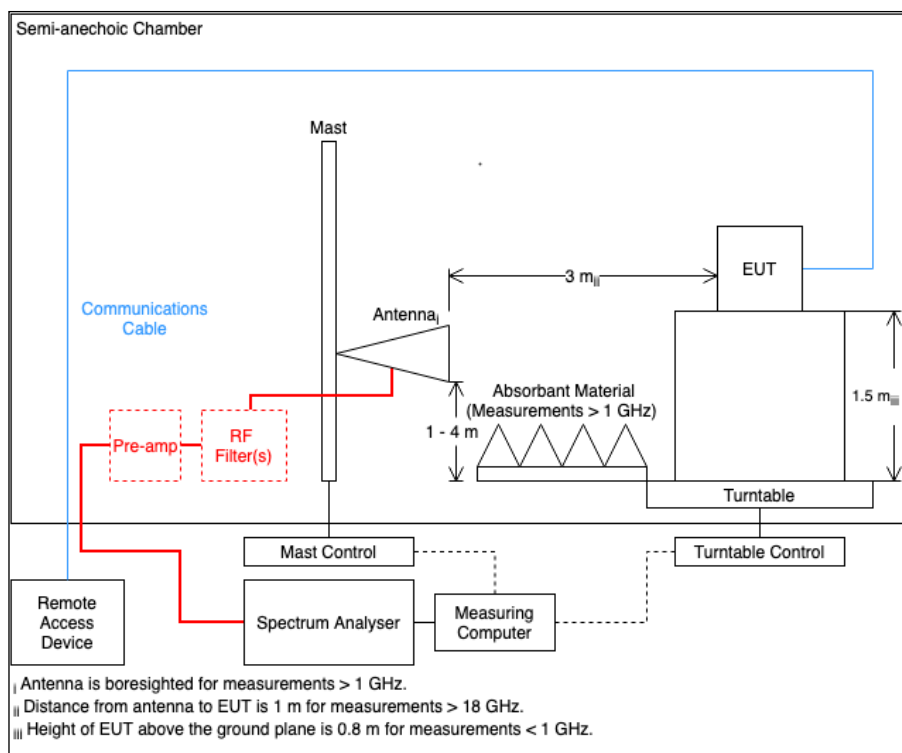
For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10, clause 11.12.2.5.2.

The plots shown are the characterisation of the EUT. The limits on the plots represent the most stringent case for restricted bands, (74/54 dBuV/m) when compared to 20 dBc outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

The following conversion can be applied to convert from dBuV/m to uV/m:
 $10^{(\text{Field Strength in dBuV/m}/20)}$.

Above 18 GHz, the measurement distance was reduced to 1 m. The limit line was increased by $20 \cdot \text{LOG}(3/1) = 9.54$ dB.

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



Ambient Temperature	21.6 - 23.3 °C
Relative Humidity	39.5 - 49.5 %



2.5.7 Test Results

2.4 GHz WLAN

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

Table 59 - 2412 MHz (CH1), 802.11b, Core 0, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

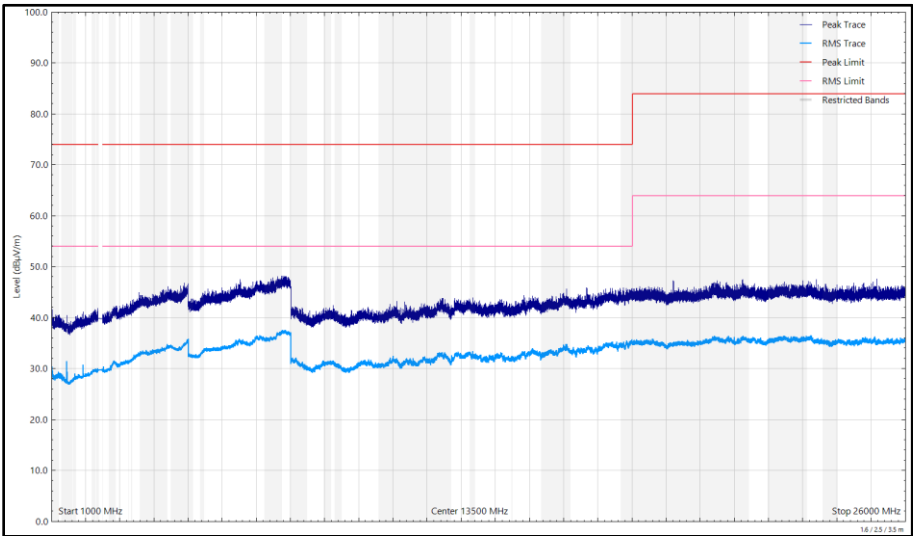


Figure 174 - 2412 MHz (CH1), 802.11b, Core 0, 1 GHz to 26 GHz, Horizontal

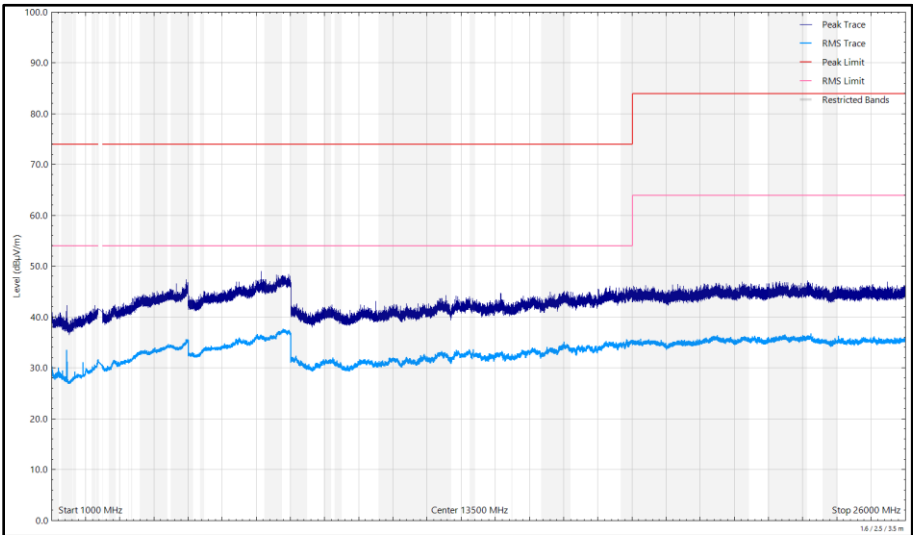


Figure 175 - 2412 MHz (CH1), 802.11b, Core 0, 1 GHz to 26 GHz, Vertical



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
1440.764	34.05	54.00	-19.95	RMS	221	355	Vertical

Table 60 - 2442 MHz (CH7), 802.11b, Core 0, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

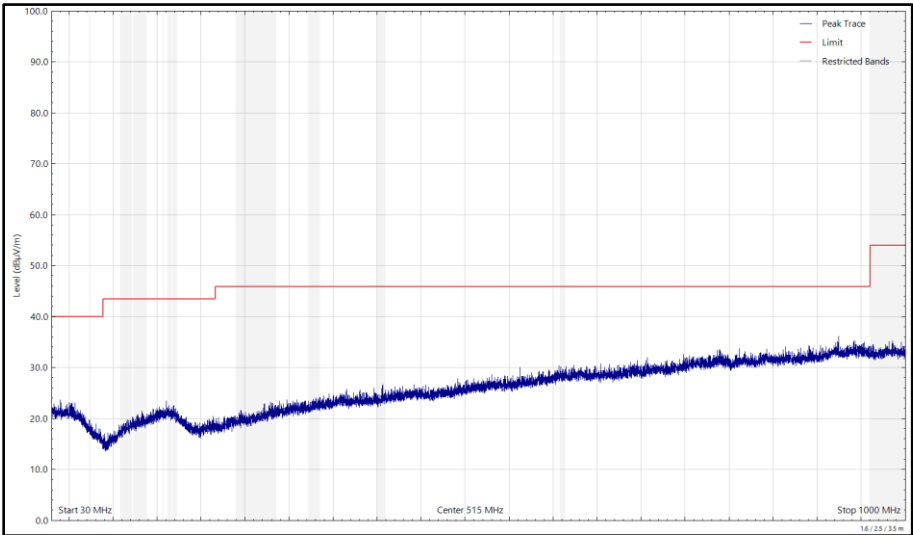


Figure 176 - 2442 MHz (CH7), 802.11b, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

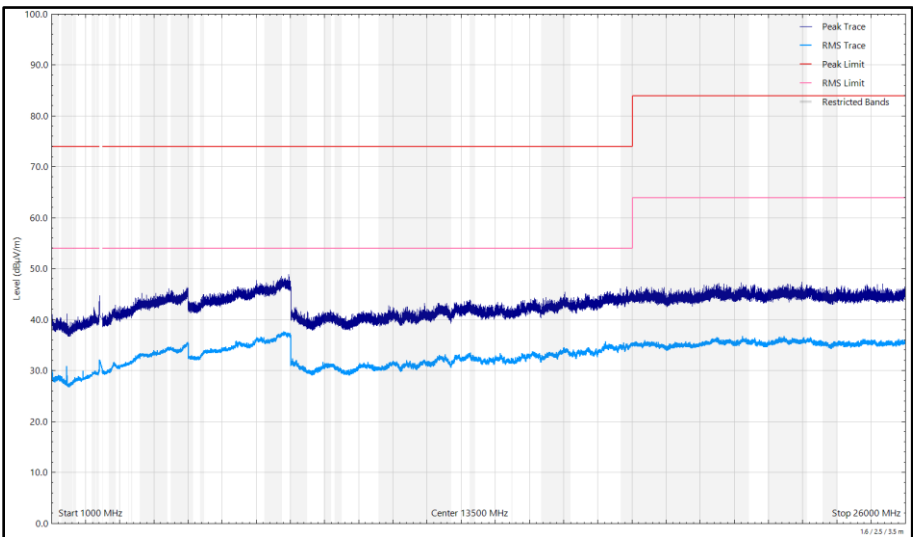


Figure 177 - 2442 MHz (CH7), 802.11b, Core 0, 1 GHz to 26 GHz, Horizontal

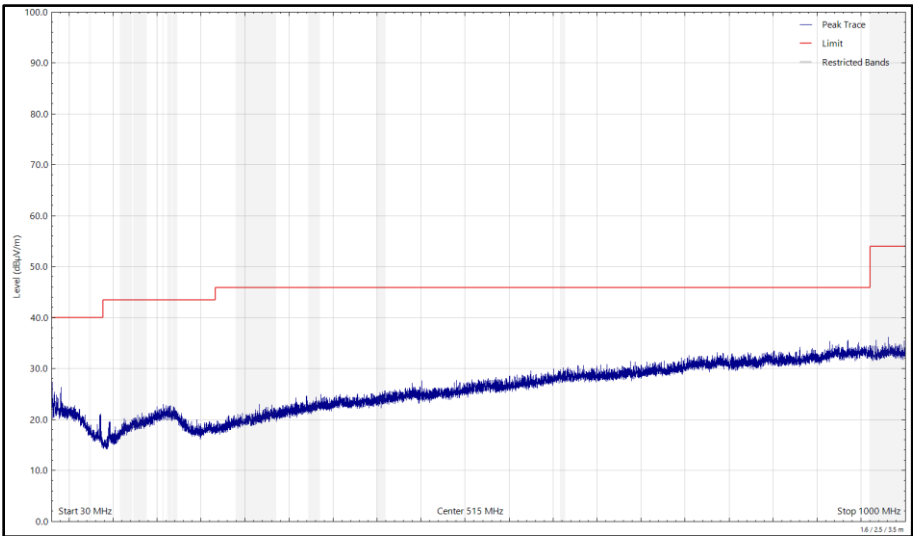


Figure 178 - 2442 MHz (CH7), 802.11b, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

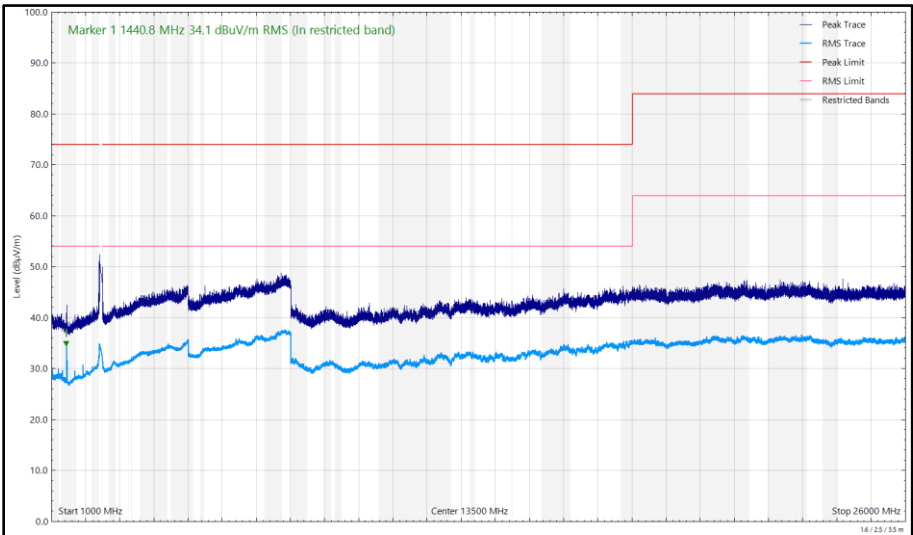


Figure 179 - 2442 MHz (CH7), 802.11b, Core 0, 1 GHz to 26 GHz, Vertical



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

Table 61 - 2472 MHz (CH13), 802.11b, Core 0, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

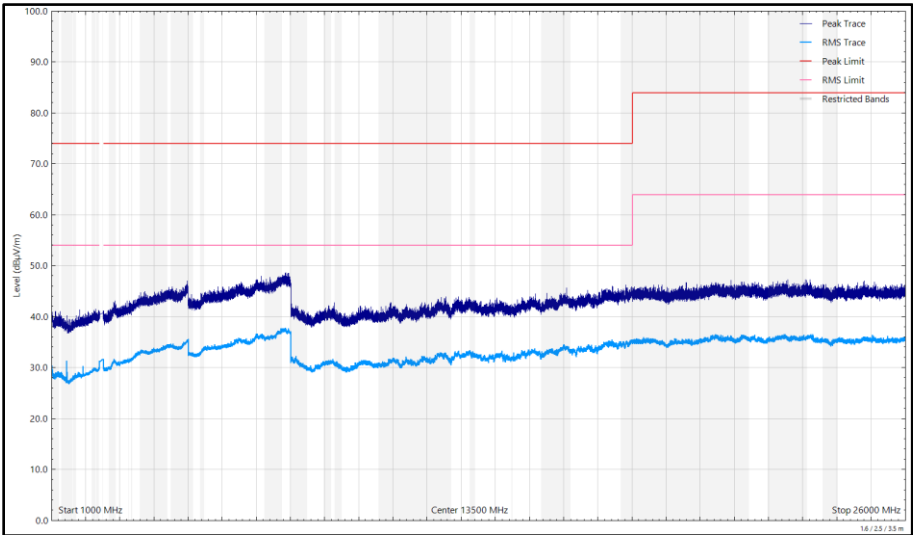


Figure 180 - 2472 MHz (CH13), 802.11b, Core 0, 1 GHz to 26 GHz, Horizontal

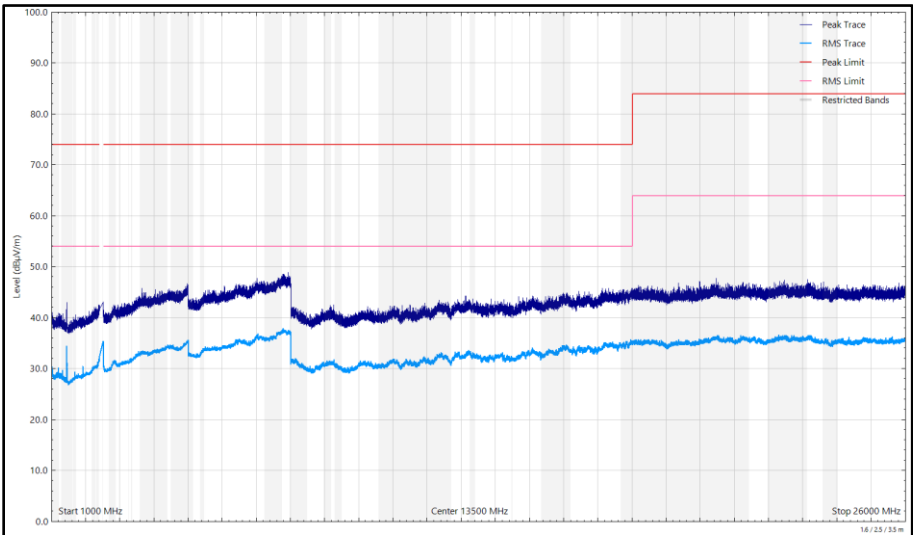


Figure 181 - 2472 MHz (CH13), 802.11b, Core 0, 1 GHz to 26 GHz, Vertical



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

Table 62 - 2412 MHz (CH1), 802.11b, Core 1, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

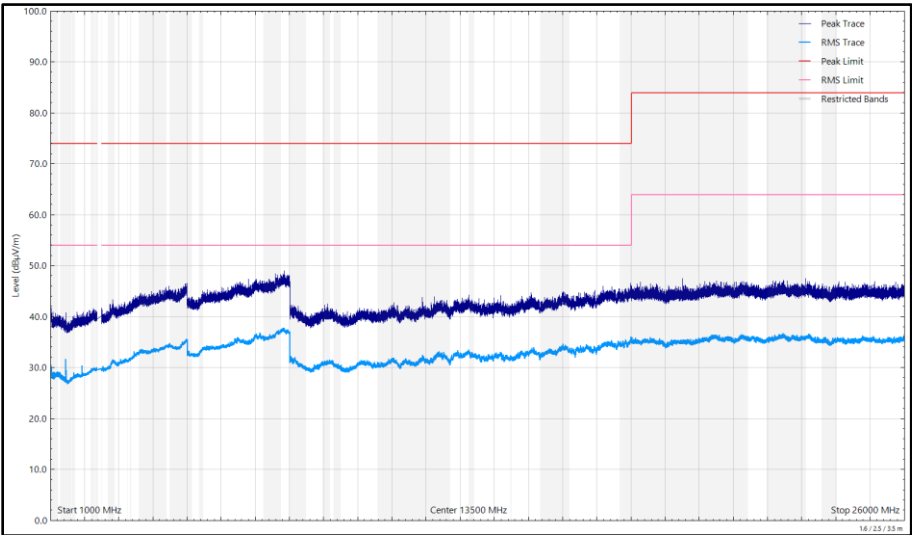


Figure 182 - 2412 MHz (CH1), 802.11b, Core 1, 1 GHz to 26 GHz, Horizontal

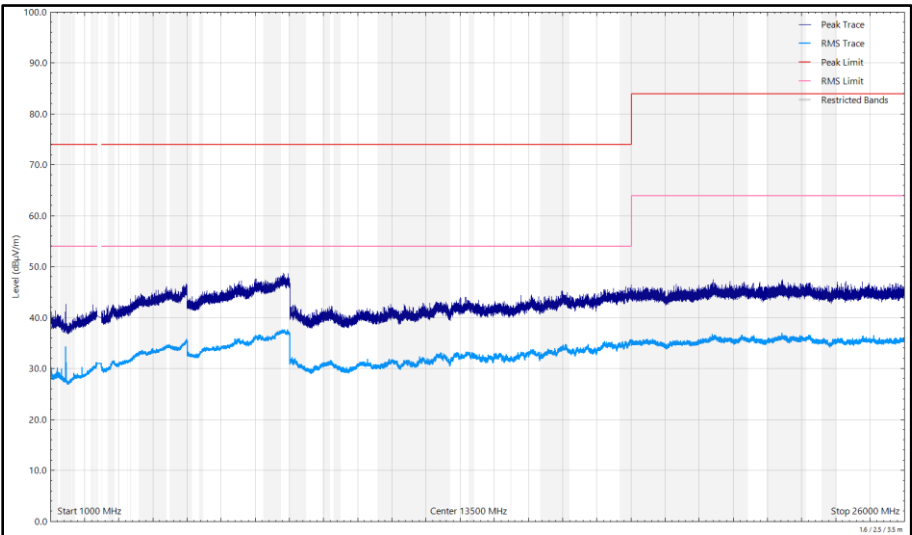


Figure 183 - 2412 MHz (CH1), 802.11b, Core 1, 1 GHz to 26 GHz, Vertical



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

Table 63 - 2442 MHz (CH7), 802.11b, Core 1, 30 MHz to 26 GHz

*No emissions found within 10 dB of the limit.

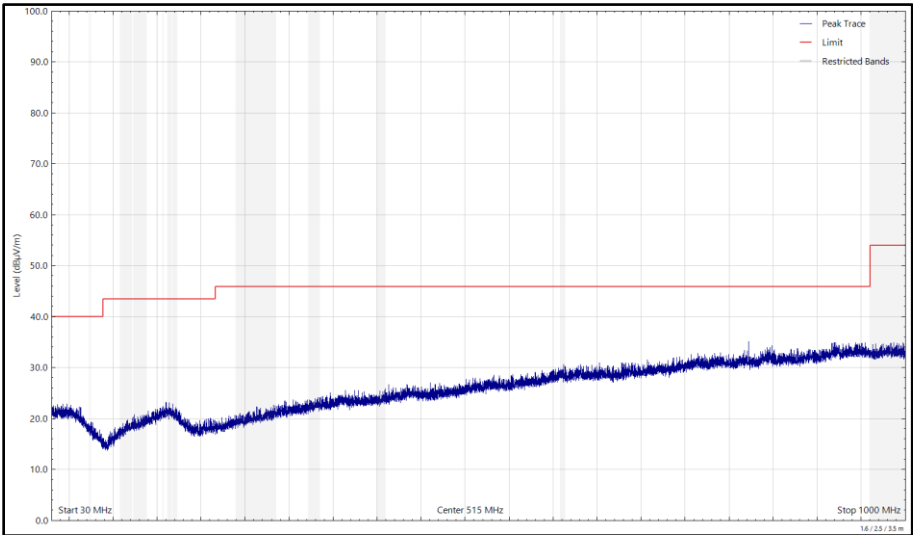


Figure 184 - 2442 MHz (CH7), 802.11b, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

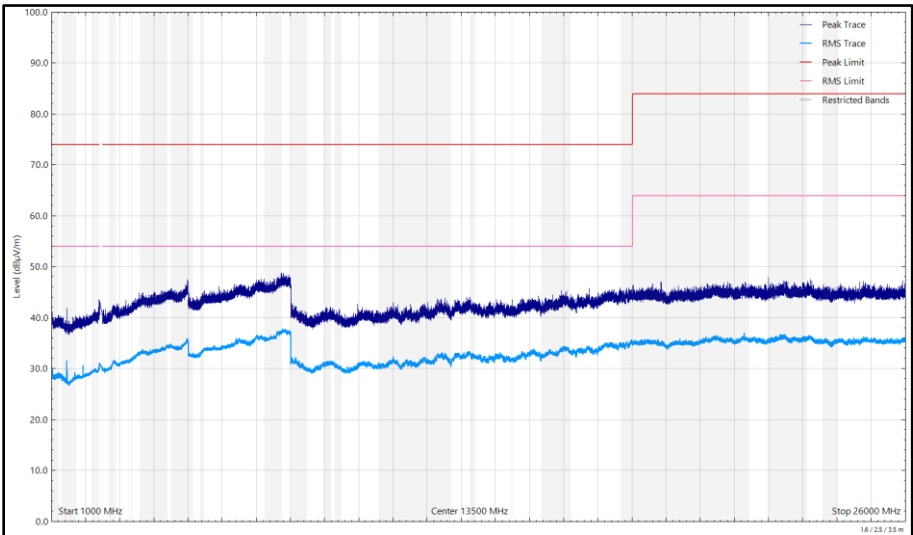


Figure 185 - 2442 MHz (CH7), 802.11b, Core 1, 1 GHz to 26 GHz, Horizontal

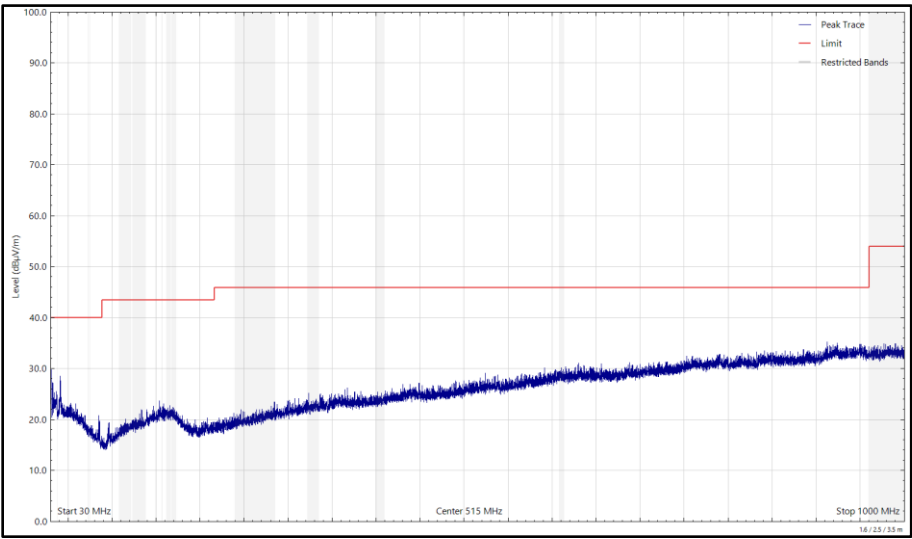


Figure 186 - 2442 MHz (CH7), 802.11b, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

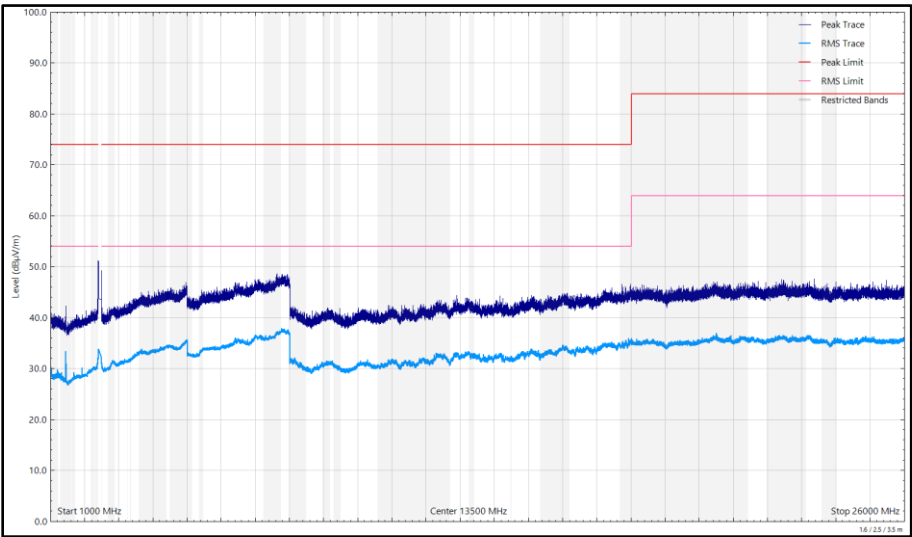


Figure 187 - 2442 MHz (CH7), 802.11b, Core 1, 1 GHz to 26 GHz, Vertical



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

Table 64 - 2472 MHz (CH13), 802.11b, Core 1, 1 GHz to 26 GHz

*No emissions found within 10 dB of the limit.

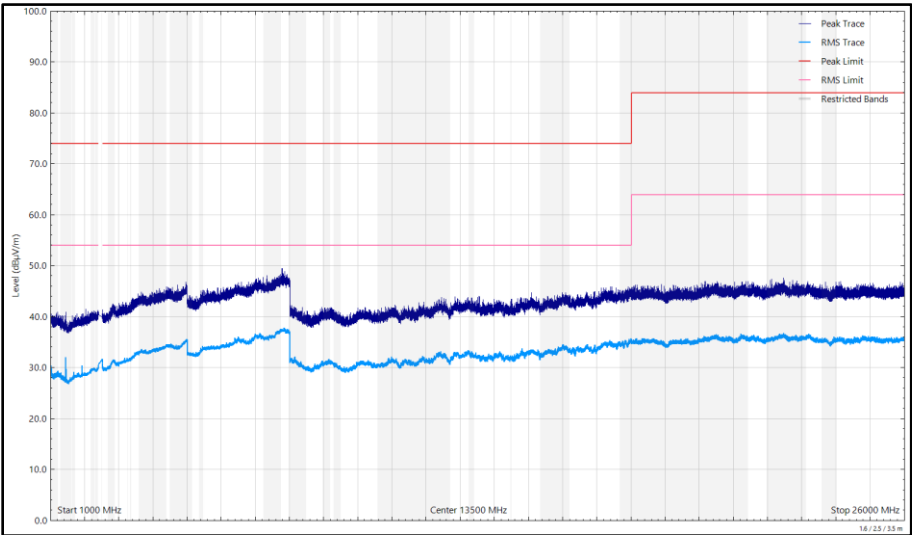


Figure 188 - 2472 MHz (CH13), 802.11b, Core 1, 1 GHz to 26 GHz, Horizontal

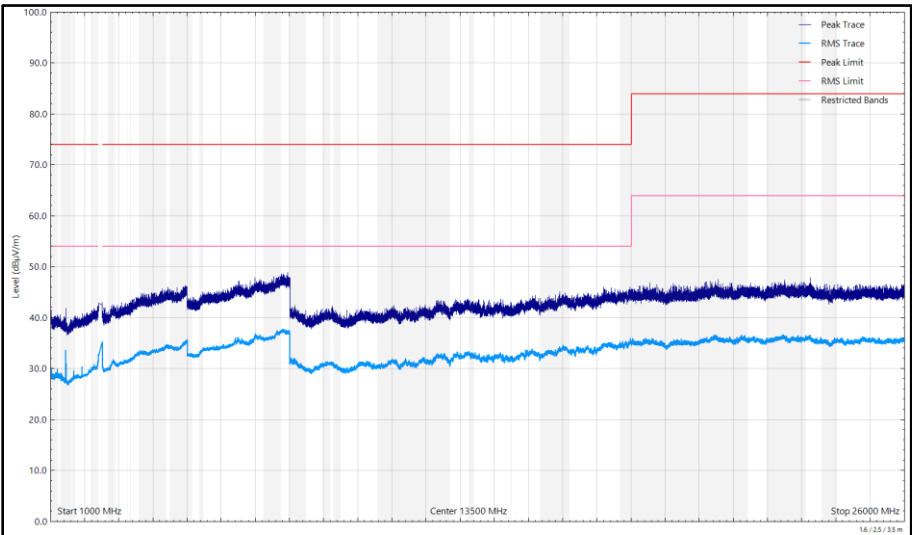


Figure 189 - 2472 MHz (CH13), 802.11b, Core 1, 1 GHz to 26 GHz, Vertical



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2354.694	35.79	54.00	-18.21	RMS	0	288	Vertical

Table 65 - 2412 MHz (CH1), 802.11g, Core 0, 1 GHz to 26 GHz

No other emissions found within 10 dB of the limit.

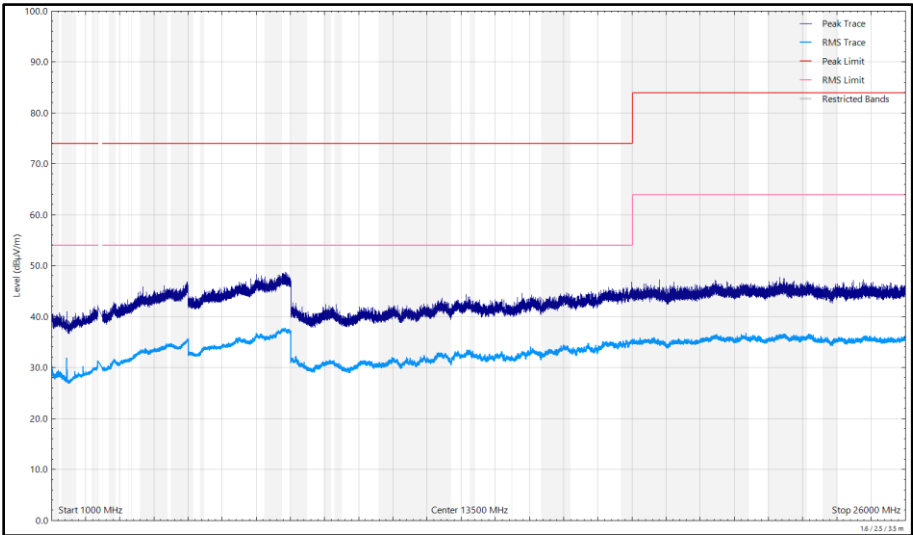


Figure 190 - 2412 MHz (CH1), 802.11g, Core 0, 1 GHz to 26 GHz, Horizontal

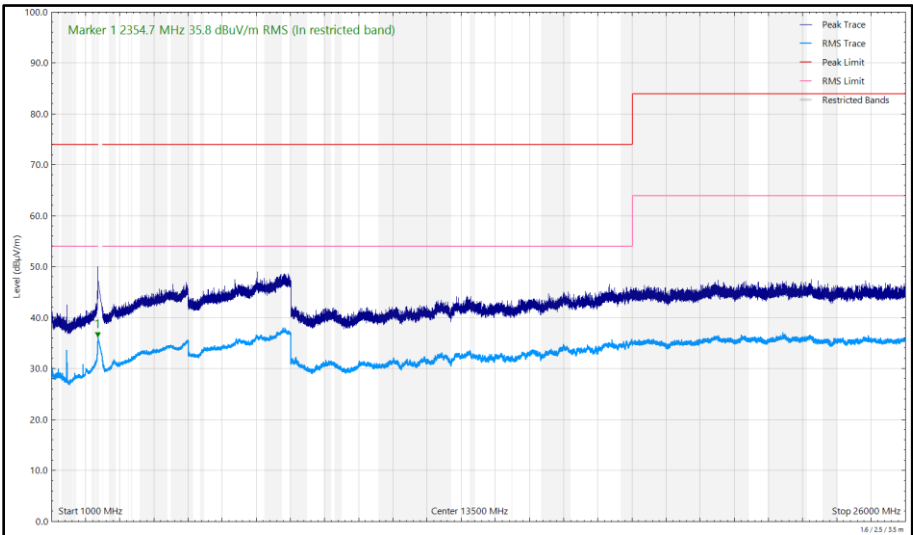


Figure 191 - 2412 MHz (CH1), 802.11g, Core 0, 1 GHz to 26 GHz, Vertical



Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2389.801	36.85	54.00	-17.15	RMS	350	100	Vertical
2483.504	40.54	54.00	-13.46	RMS	360	385	Vertical

Table 66 - 2442 MHz (CH7), 802.11g, Core 0, 30 MHz to 26 GHz

No other emissions found within 10 dB of the limit.

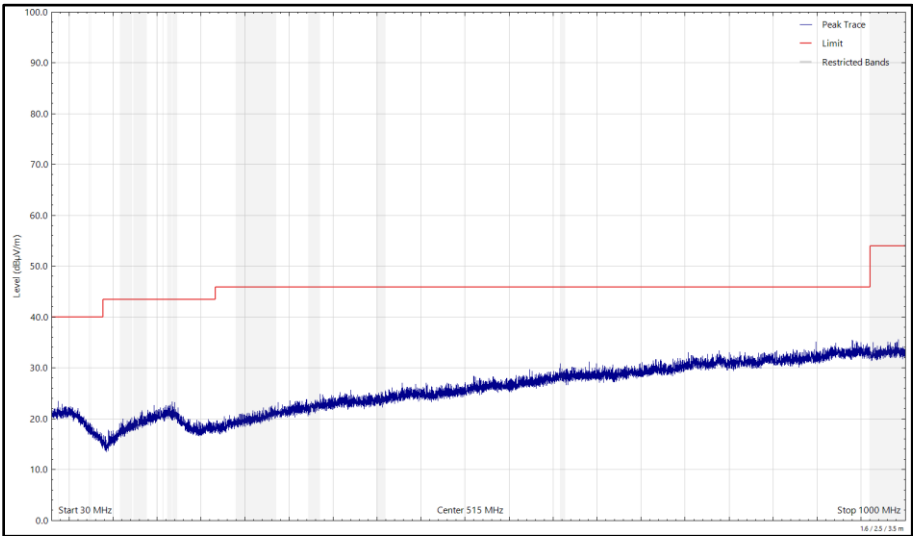


Figure 192 - 2442 MHz (CH7), 802.11g, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

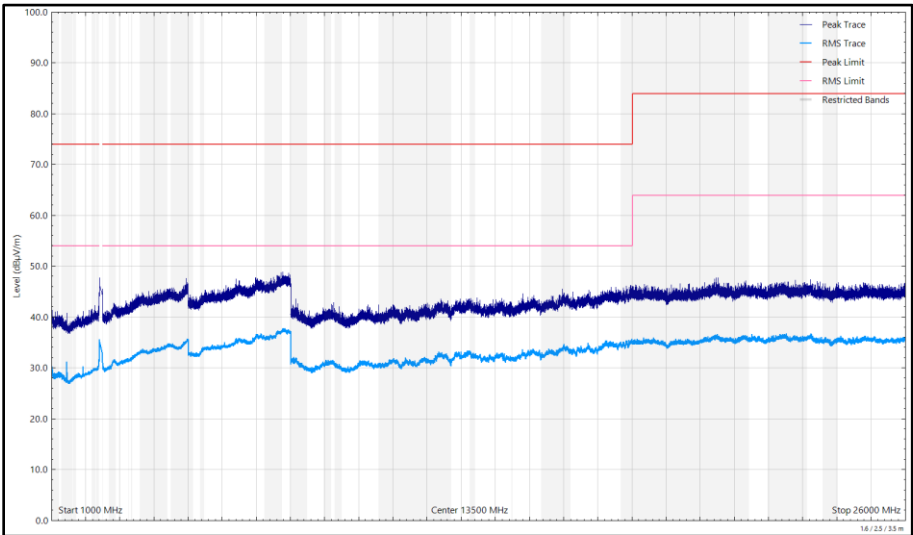


Figure 193 - 2442 MHz (CH7), 802.11g, Core 0, 1 GHz to 26 GHz, Horizontal

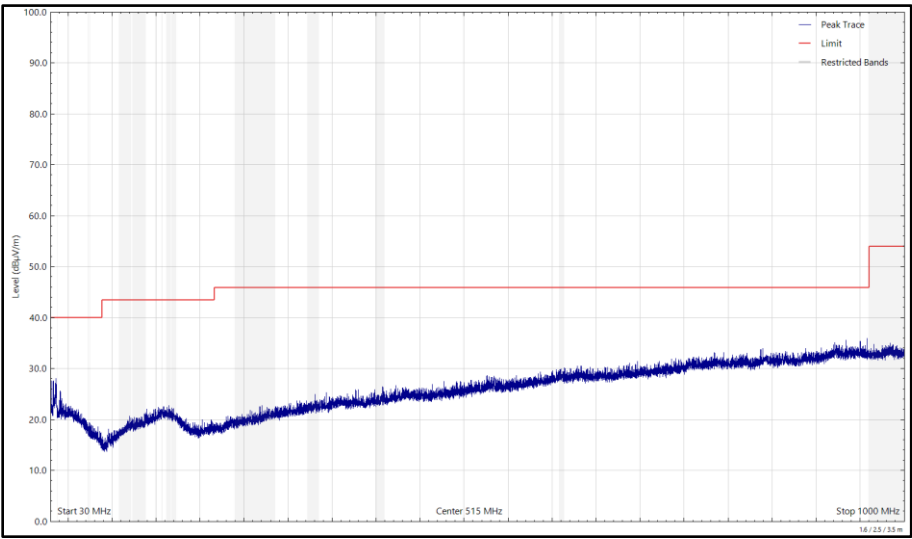


Figure 194 - 2442 MHz (CH7), 802.11g, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

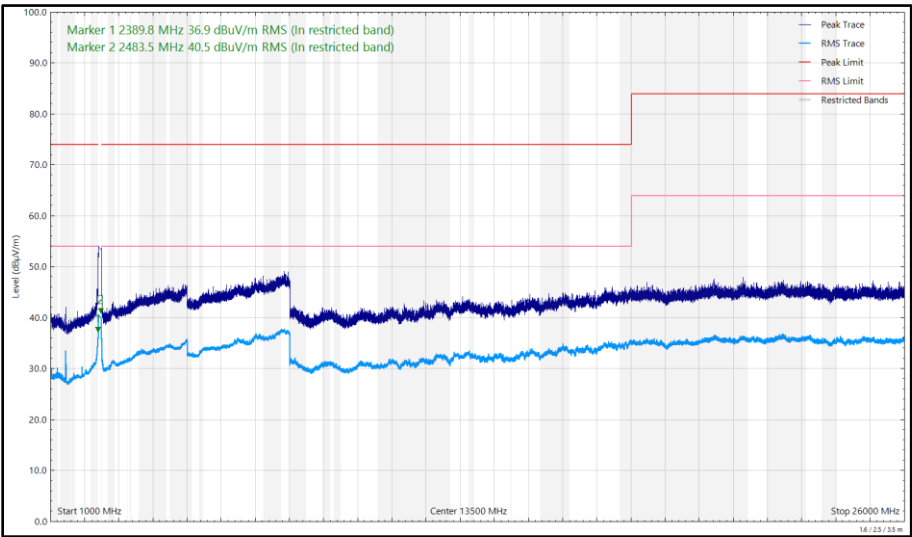


Figure 195 - 2442 MHz (CH7), 802.11g, Core 0, 1 GHz to 26 GHz, Vertical