



MIMO CDD

Protocol	6 dB Bandwidth (MHz)	
	Minimum	Maximum
802.11n HT20	15.300	17.700
802.11ax HE20 SU	18.540	19.080

Table 15 - 6 dB Bandwidth Summary Results - MIMO CDD

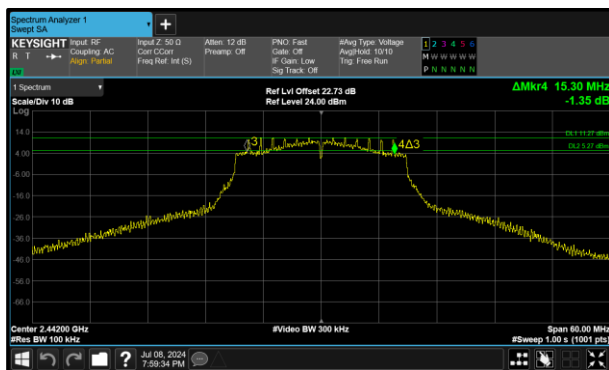


Figure 151 - 802.11n HT20 Minimum 6 dB EBW

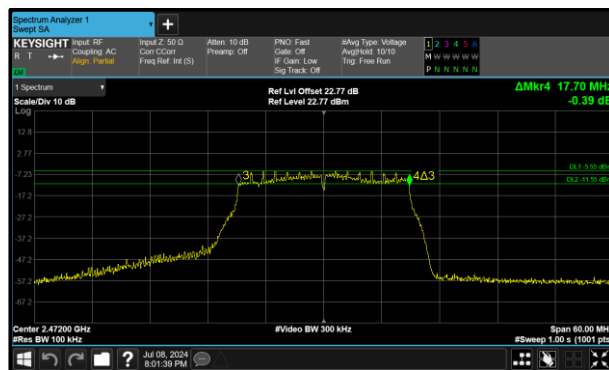


Figure 152 - 802.11n HT20 Maximum 6 dB EBW

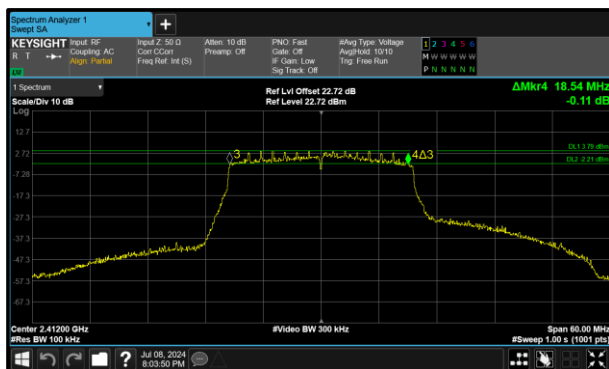


Figure 153 - 802.11ax HE20 SU Minimum 6 dB EBW

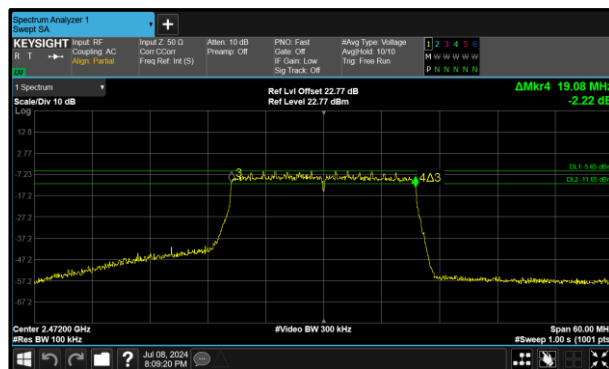


Figure 154 - 802.11ax HE20 SU Maximum 6 dB EBW



Protocol	99% Bandwidth (MHz)	
	Minimum	Maximum
802.11n HT20	17.580	17.760
802.11ax HE20 SU	18.900	18.960

Table 16 - 99% Bandwidth Summary Results - MIMO CDD

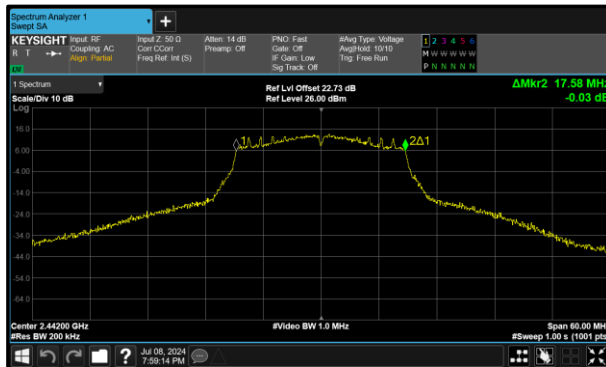


Figure 155 - 802.11n HT20 Minimum 99% OBW

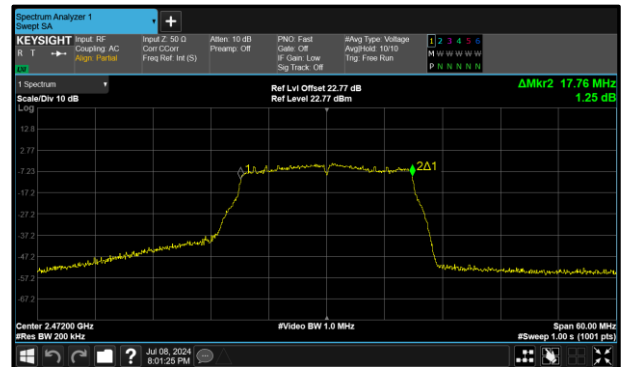


Figure 156 - 802.11n HT20 Maximum 99% OBW

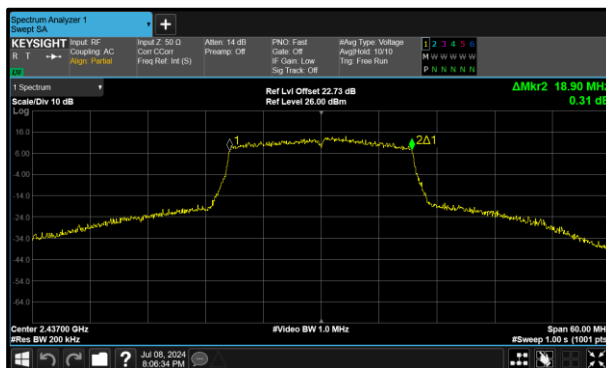


Figure 157 - 802.11ax HE20 SU Minimum 99% OBW

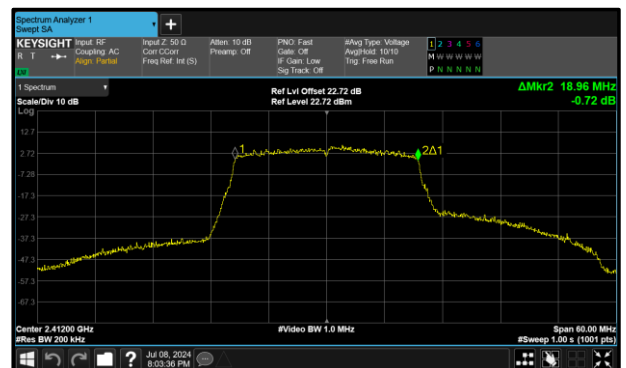


Figure 158 - 802.11ax HE20 SU Maximum 99% OBW



SISO

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11b	Duty Cycle (%):	-
Data Rate:	1 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	8.640	-	-	-	≥500.0
2442	9.120	-	-	-	≥500.0
2472	8.640	-	-	-	≥500.0

**Table 17 - 6 dB Bandwidth Results**

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	12.900	-	-	-	-
2442	12.900	-	-	-	-
2472	13.020	-	-	-	-

**Table 18 - 99% Bandwidth Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11g	Duty Cycle (%):	-
Data Rate:	12 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	15.540	-	-	-	≥500.0
2442	15.480	-	-	-	≥500.0
2472	16.440	-	-	-	≥500.0

**Table 19 - 6 dB Bandwidth Results**

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	16.620	-	-	-	-
2442	16.380	-	-	-	-
2472	16.560	-	-	-	-

**Table 20 - 99% Bandwidth Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	16.440	-	-	-	≥500.0
2442	15.300	-	-	-	≥500.0
2472	17.700	-	-	-	≥500.0

**Table 21 - 6 dB Bandwidth Results**

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	17.700	-	-	-	-
2442	17.580	-	-	-	-
2472	17.760	-	-	-	-

**Table 22 - 99% Bandwidth Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	18.780	-	-	-	≥500.0
2442	18.960	-	-	-	≥500.0
2472	18.960	-	-	-	≥500.0

**Table 23 - 6 dB Bandwidth Results**

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	18.960	-	-	-	-
2442	18.960	-	-	-	-
2472	18.960	-	-	-	-

**Table 24 - 99% Bandwidth Results**



**MIMO CDD**

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	16.440	16.440	-	-	≥500.0
2442	15.300	15.300	-	-	≥500.0
2472	17.700	17.400	-	-	≥500.0

**Table 25 - 6 dB Bandwidth Results**

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	17.700	17.700	-	-	-
2442	17.580	17.580	-	-	-
2472	17.760	17.760	-	-	-

**Table 26 - 99% Bandwidth Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (a)(2) RSS-247 5.2 a)	Test Method(s):	C63.10 6.9.3 C63.10 11.8.1
Additional Reference(s):	-		

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

Test Frequency (MHz)	6 dB Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	18.540	18.600	-	-	≥500.0
2437	18.900	18.780	-	-	≥500.0
2472	19.080	19.080	-	-	≥500.0

**Table 27 - 6 dB Bandwidth Results**

Test Frequency (MHz)	99% Bandwidth (MHz)				Limit (kHz)
	A	B	C	D	
2412	18.960	18.960	-	-	-
2437	18.900	18.960	-	-	-
2472	18.960	18.960	-	-	-

**Table 28 - 99% Bandwidth Results**

FCC 47 CFR Part 15, Limit Clause 15.247(a)(2) and ISSED RSS-247, Clause 5.2(a)

The minimum 6 dB Bandwidth shall be at least 500 kHz.





### 2.2.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 18.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5529	24	13-Dec-2024
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025

**Table 29**

O/P Mon - Output Monitored using calibrated equipment



## **2.3 Maximum Conducted Output Power**

### **2.3.1 Specification Reference**

FCC 47 CFR Part 15C, Clause 15.247 (b)  
ISED RSS-247, Clause 5.4  
ISED RSS-GEN, Clause 6.12

### **2.3.2 Equipment Under Test and Modification State**

A3112, S/N: DQHQ6Q99MH - Modification State 0

### **2.3.3 Date of Test**

08-July-2024

### **2.3.4 Test Method**

The test was performed in accordance with ANSI C63.10 clause 11.9.2.3.2 Method AVGPM-G.

MIMO output port summing was performed in accordance with KDB 662911 D01. For the CDD results, the Directional Gain was calculated in accordance with clause F)2)f)(ii) using the calculations from F)2)f)(i) with worst-case individual gain and an array gain of zero.

### **2.3.5 Environmental Conditions**

Ambient Temperature	22.0 °C
Relative Humidity	53.6 %



**2.3.6 Test Results**

2.4 GHz WLAN

SISO

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:	802.11b	Duty Cycle (%):	99.4
Data Rate:	1 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	18.99	-	-	-	18.99	30.00	-11.01
2442	19.00	-	-	-	19.00	30.00	-11.00
2472	14.94	-	-	-	14.94	30.00	-15.06

**Table 30 - 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	18.99	-	-	-	18.99	30.00	-11.01	23.59	36.00	-12.41
2442	19.00	-	-	-	19.00	30.00	-11.00	23.60	36.00	-12.40
2472	14.94	-	-	-	14.94	30.00	-15.06	19.54	36.00	-16.46

**Table 31 - 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:	802.11g	Duty Cycle (%):	97.7
Data Rate:	12 Mbps	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	17.30	-	-	-	17.30	30.00	-12.70
2442	22.40	-	-	-	22.40	30.00	-7.60
2472	7.40	-	-	-	7.40	30.00	-22.60

**Table 32 - 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	17.30	-	-	-	17.30	30.00	-12.70	21.90	36.00	-14.10
2442	22.40	-	-	-	22.40	30.00	-7.60	27.00	36.00	-9.00
2472	7.40	-	-	-	7.40	30.00	-22.60	12.00	36.00	-24.00

**Table 33 - 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:	802.11n HT20	Duty Cycle (%):	96.7
Modulation Coding Scheme:	MCS2	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	15.91	-	-	-	15.91	30.00	-14.09
2442	22.20	-	-	-	22.20	30.00	-7.80
2472	7.14	-	-	-	7.14	30.00	-22.86

**Table 34 - 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	15.91	-	-	-	15.91	30.00	-14.09	20.51	36.00	-15.49
2442	22.20	-	-	-	22.20	30.00	-7.80	26.80	36.00	-9.20
2472	7.14	-	-	-	7.14	30.00	-22.86	11.74	36.00	-24.26

**Table 35 - 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 SU	Duty Cycle (%):	95.7
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	15.25	-	-	-	15.25	30.00	-14.75
2442	22.47	-	-	-	22.47	30.00	-7.53
2472	7.68	-	-	-	7.68	30.00	-22.32

**Table 36 - 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	15.25	-	-	-	15.25	30.00	-14.75	19.85	36.00	-16.15
2442	22.47	-	-	-	22.47	30.00	-7.53	27.07	36.00	-8.93
2472	7.68	-	-	-	7.68	30.00	-22.32	12.28	36.00	-23.72

**Table 37 - 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 RU26	Duty Cycle (%):	96.5
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	14.32	-	-	-	14.32	30.00	-15.68
2442	14.40	-	-	-	14.40	30.00	-15.60
2472	-4.26	-	-	-	-4.26	30.00	-34.26

**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	14.32	-	-	-	14.32	30.00	-15.68	18.92	36.00	-17.08
2442	14.40	-	-	-	14.40	30.00	-15.60	19.00	36.00	-17.00
2472	-4.26	-	-	-	-4.26	30.00	-34.26	0.34	36.00	-35.66

**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):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	17.33	-	-	-	17.33	30.00	-12.67
2442	17.37	-	-	-	17.37	30.00	-12.63
2472	-2.24	-	-	-	-2.24	30.00	-32.24

**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	17.33	-	-	-	17.33	30.00	-12.67	21.93	36.00	-14.07
2442	17.37	-	-	-	17.37	30.00	-12.63	21.97	36.00	-14.03
2472	-2.24	-	-	-	-2.24	30.00	-32.24	2.36	36.00	-33.64

**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):	4.60
Active Port(s):	A (Core 0)	Active Chain(s):	0

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2412	18.28	-	-	-	18.28	30.00	-11.72
2442	20.35	-	-	-	20.35	30.00	-9.65
2472	-1.45	-	-	-	-1.45	30.00	-31.45

**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	18.28	-	-	-	18.28	30.00	-11.72	22.88	36.00	-13.12
2442	20.35	-	-	-	20.35	30.00	-9.65	24.95	36.00	-11.05
2472	-1.45	-	-	-	-1.45	30.00	-31.45	3.15	36.00	-32.85

**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(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11n HT20	Duty Cycle (%):	96.8
Modulation Coding Scheme:	MCS2	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	4.60
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	15.88	15.90	-	-	18.90	30.00	-11.10
2442	22.15	22.41	-	-	25.30	30.00	-4.70
2472	5.92	5.95	-	-	8.95	30.00	-21.05

**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	15.88	15.90	-	-	18.90	30.00	-11.10	23.50	36.00	-12.50
2442	22.15	22.41	-	-	25.30	30.00	-4.70	29.90	36.00	-6.10
2472	5.92	5.95	-	-	8.95	30.00	-21.05	13.55	36.00	-22.45

**Table 45 - 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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ax HE20 SU	Duty Cycle (%):	95.9
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	4.60
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	14.64	14.90	-	-	17.78	30.00	-12.22
2437	22.30	22.36	-	-	25.34	30.00	-4.66
2472	5.85	5.82	-	-	8.85	30.00	-21.15

**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	14.64	14.90	-	-	17.78	30.00	-12.22	22.38	36.00	-13.62
2437	22.30	22.36	-	-	25.34	30.00	-4.66	29.94	36.00	-6.06
2472	5.85	5.82	-	-	8.85	30.00	-21.15	13.45	36.00	-22.55

**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)(i), 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):	4.60
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	14.39	14.22	-	-	17.32	30.00	-12.68
2442	14.21	14.09	-	-	17.16	30.00	-12.84
2472	-7.13	-7.74	-	-	-4.41	30.00	-34.41

**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	14.39	14.22	-	-	17.32	30.00	-12.68	21.92	36.00	-14.08
2442	14.21	14.09	-	-	17.16	30.00	-12.84	21.76	36.00	-14.24
2472	-7.13	-7.74	-	-	-4.41	30.00	-34.41	0.19	36.00	-35.81

**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)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	802.11ax HE20 RU52	Duty Cycle (%):	96.4
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	MIMO CDD	Peak Antenna Gain (dBi):	4.60
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	17.41	17.40	-	-	20.42	30.00	-9.58
2442	17.24	17.04	-	-	20.15	30.00	-9.85
2472	-3.64	-4.06	-	-	-0.83	30.00	-30.83

**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	17.41	17.40	-	-	20.42	30.00	-9.58	25.02	36.00	-10.98
2442	17.24	17.04	-	-	20.15	30.00	-9.85	24.75	36.00	-11.25
2472	-3.64	-4.06	-	-	-0.83	30.00	-30.83	3.77	36.00	-32.23

**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)(i), 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):	4.60
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	18.89	18.80	-	-	21.86	30.00	-8.14
2442	20.33	20.05	-	-	23.21	30.00	-6.79
2472	-1.13	-1.64	-	-	1.63	30.00	-28.37

**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	18.89	18.80	-	-	21.86	30.00	-8.14	26.46	36.00	-9.54
2442	20.33	20.05	-	-	23.21	30.00	-6.79	27.81	36.00	-8.19
2472	-1.13	-1.64	-	-	1.63	30.00	-28.37	6.23	36.00	-29.77

**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 Chamber 18.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
AC Programmable Power Supply	iTech	IT7324	5225	-	O/P Mon
USB Power Sensor	Boonton	RTP5008	5820	12	07-Feb-2025
USB Power Sensor	Boonton	RTP5008	5821	12	07-Feb-2025
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6426	12	07-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6752	12	06-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6753	12	06-Feb-2025

**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**

A3112, S/N: K67X45QH3Q - Modification State 0  
A3112, S/N: MNV254CLPF - Modification State 0

### **2.4.3 Date of Test**

29-May-2024 to 12-June-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	21.2 - 24.2 °C
Relative Humidity	41.5 - 48.2 %





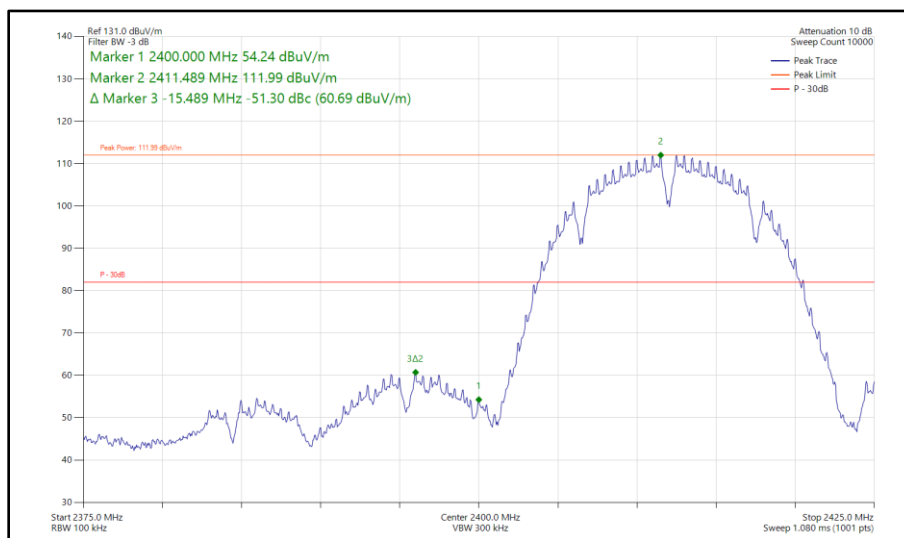
**2.4.6 Test Results**

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	-51.30
802.11b	1 Mbps	-	-	2417	2400	-54.10
802.11g	24 Mbps	-	-	2412	2400	-34.57
802.11g	54 Mbps	-	-	2417	2400	-37.71
802.11g	54 Mbps	-	-	2422	2400	-41.03
802.11g	54 Mbps	-	-	2427	2400	-48.20
802.11g	54 Mbps	-	-	2432	2400	-51.41
802.11n HT20	MCS 7	-	-	2412	2400	-34.66
802.11n HT20	MCS 7	-	-	2417	2400	-35.05
802.11n HT20	MCS 7	-	-	2422	2400	-39.89
802.11n HT20	MCS 7	-	-	2427	2400	-46.58
802.11n HT20	MCS 7	-	-	2432	2400	-50.58
802.11ax HE20	MCS 9x1	SU	-	2412	2400	-34.73
802.11ax HE20	MCS 9x1	106	53	2412	2400	-38.50
802.11ax HE20	MCS 9x1	SU	-	2417	2400	-35.87
802.11ax HE20	MCS 9x1	106	53	2417	2400	-47.97
802.11ax HE20	MCS 9x1	SU	-	2422	2400	-36.08
802.11ax HE20	MCS 9x1	SU	-	2427	2400	-44.88
802.11ax HE20	MCS 9x1	SU	-	2432	2400	-48.71

**Table 55 - SISO Authorised Band Edge Results**



**Figure 159 - 802.11b, SISO, Core 0 - 2412 MHz  
 Band Edge Frequency 2400 MHz**

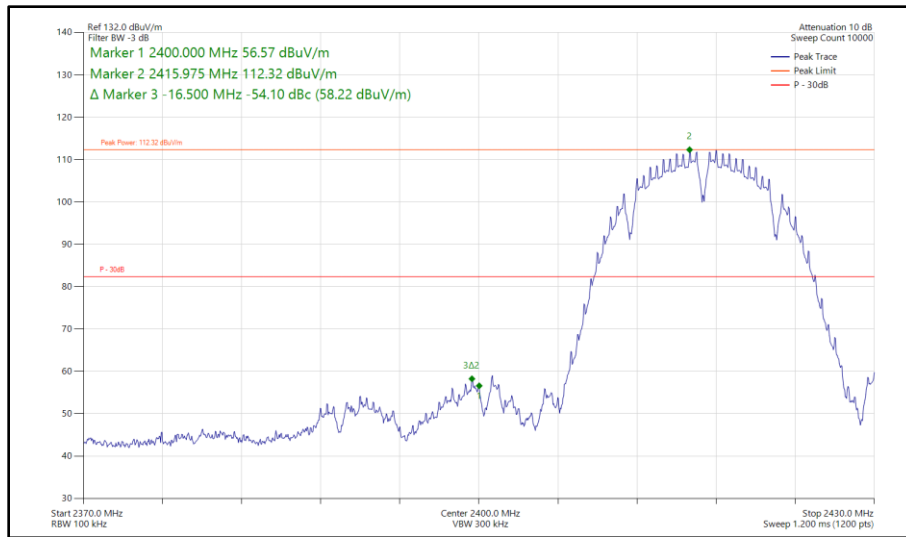


Figure 160 - 802.11b, SISO, Core 0 - 2417 MHz  
Band Edge Frequency 2400 MHz

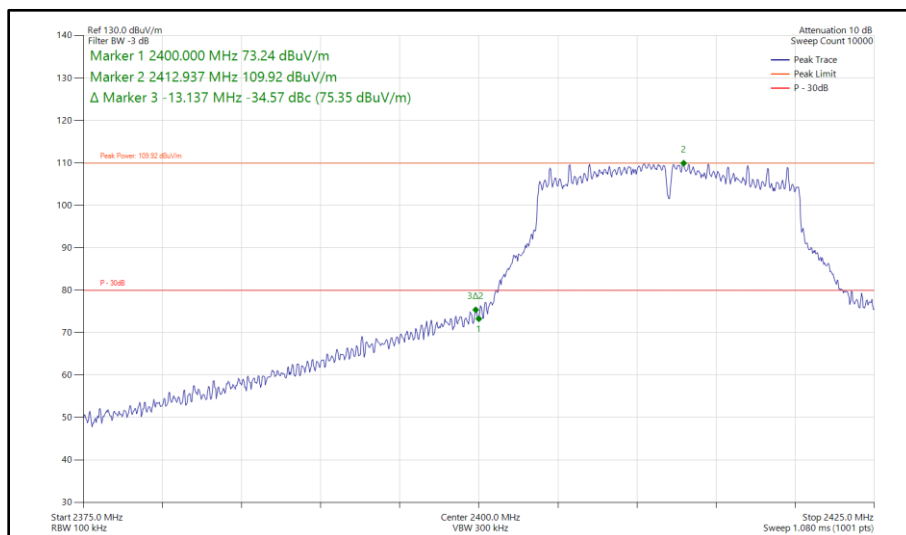


Figure 161 - 802.11g, SISO, Core 0 - 2412 MHz  
Band Edge Frequency 2400 MHz

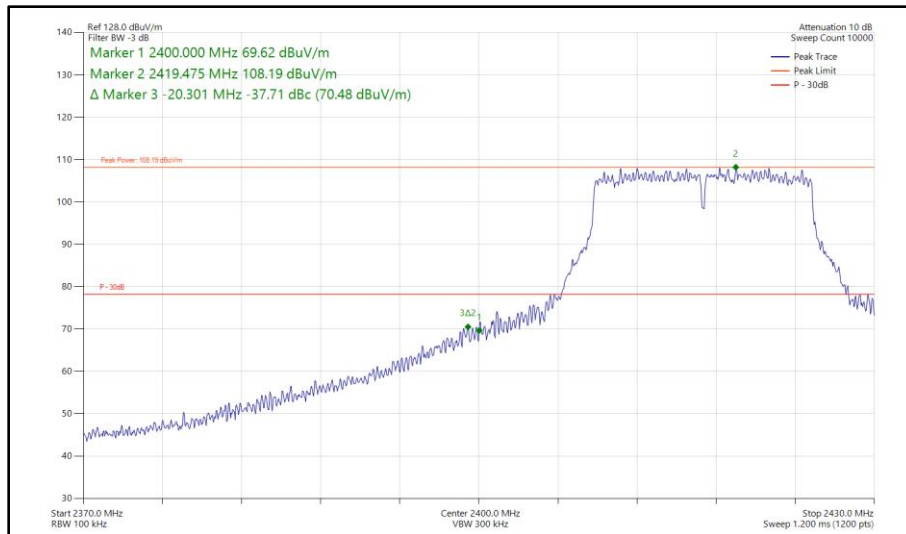


Figure 162 - 802.11g, SISO, Core 0 - 2417 MHz  
Band Edge Frequency 2400 MHz

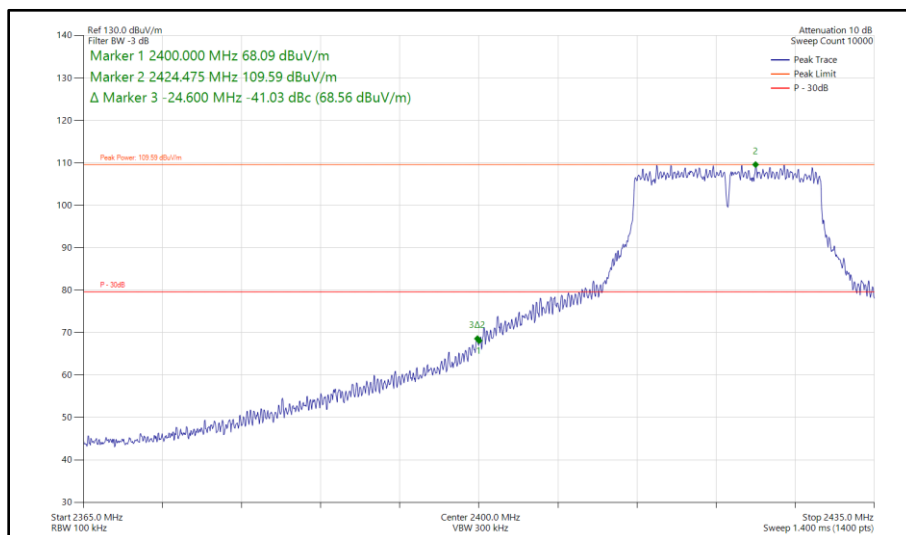
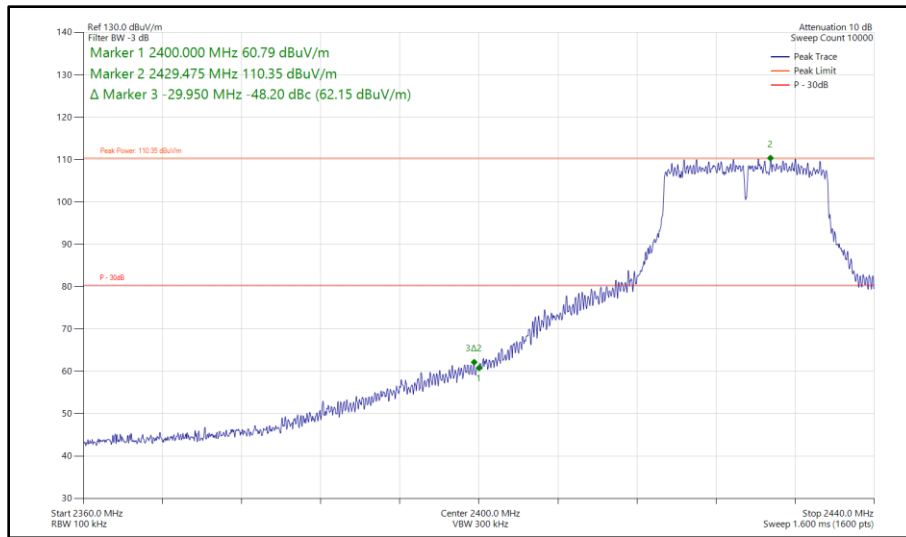
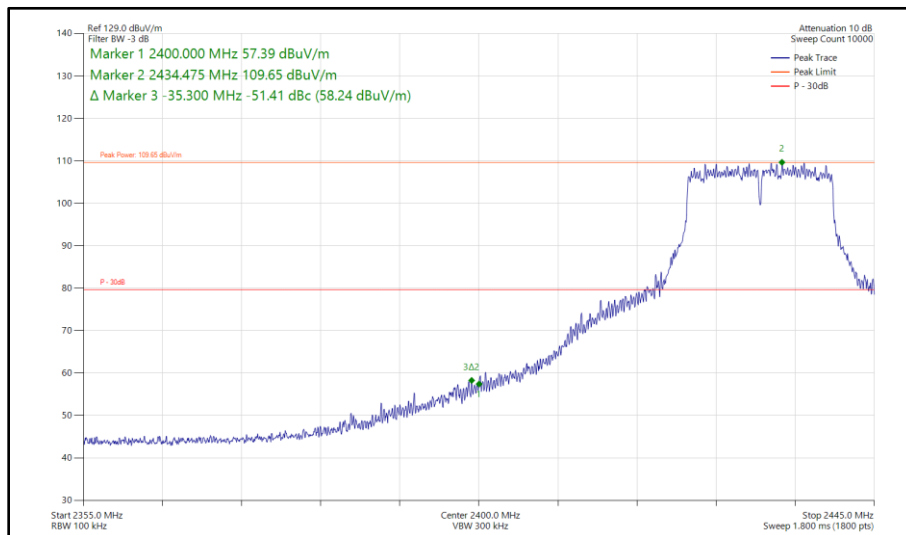


Figure 163 - 802.11g, SISO, Core 0 - 2422 MHz  
Band Edge Frequency 2400 MHz



**Figure 164 - 802.11g, SISO, Core 0 - 2427 MHz  
Band Edge Frequency 2400 MHz**



**Figure 165 - 802.11g, SISO, Core 0 - 2432 MHz  
Band Edge Frequency 2400 MHz**

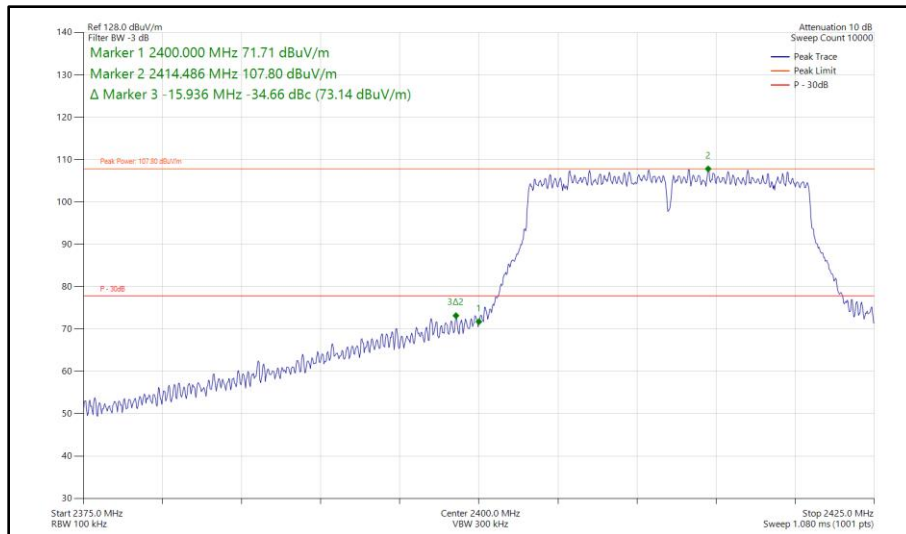


Figure 166 - 802.11n HT20, SISO, Core 0 - 2412 MHz  
Band Edge Frequency 2400 MHz

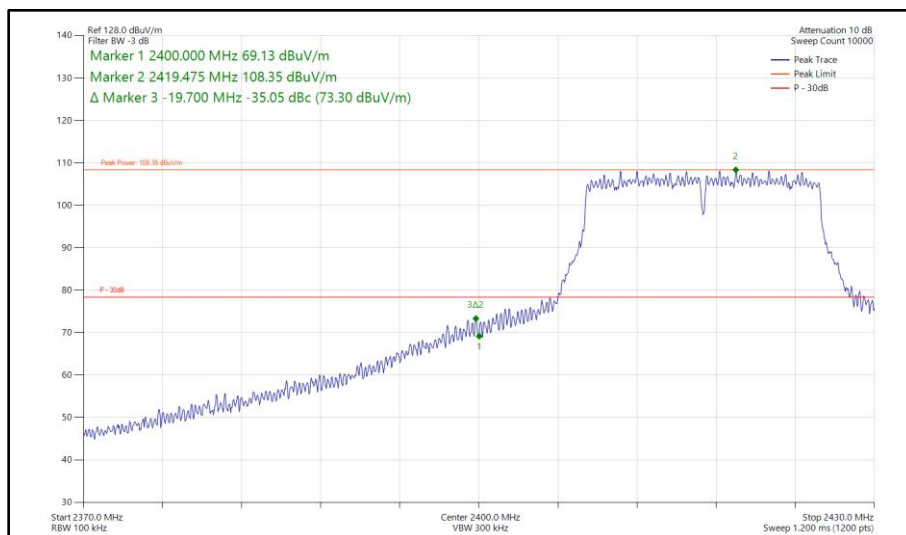
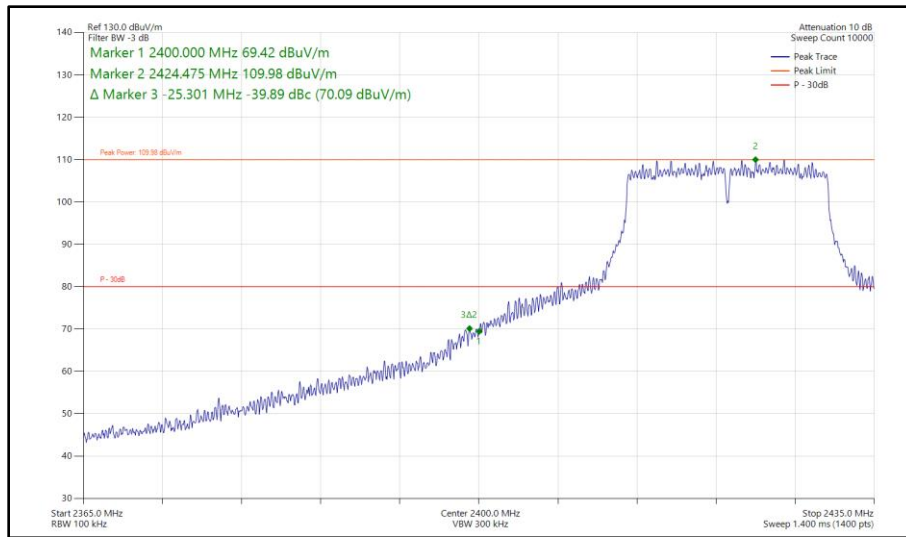
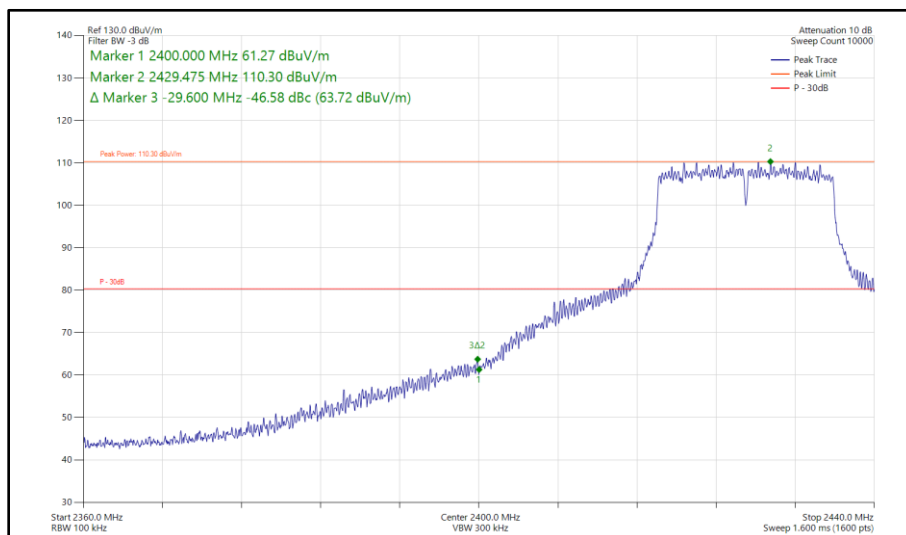


Figure 167 - 802.11n HT20, SISO, Core 0 - 2417 MHz  
Band Edge Frequency 2400 MHz



**Figure 168 - 802.11n HT20, SISO, Core 0 - 2422 MHz  
Band Edge Frequency 2400 MHz**



**Figure 169 - 802.11n HT20, SISO, Core 0 - 2427 MHz  
Band Edge Frequency 2400 MHz**

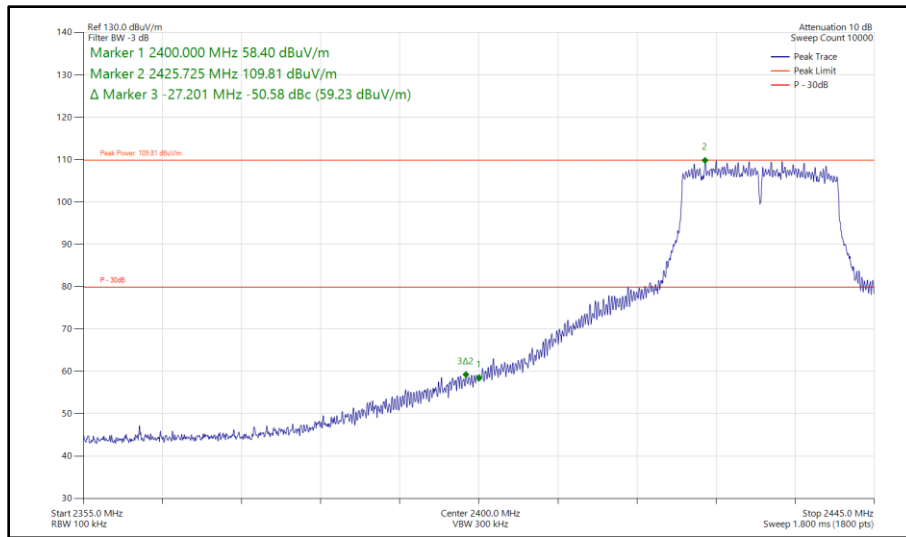


Figure 170 - 802.11n HT20, SISO, Core 0 - 2432 MHz  
Band Edge Frequency 2400 MHz

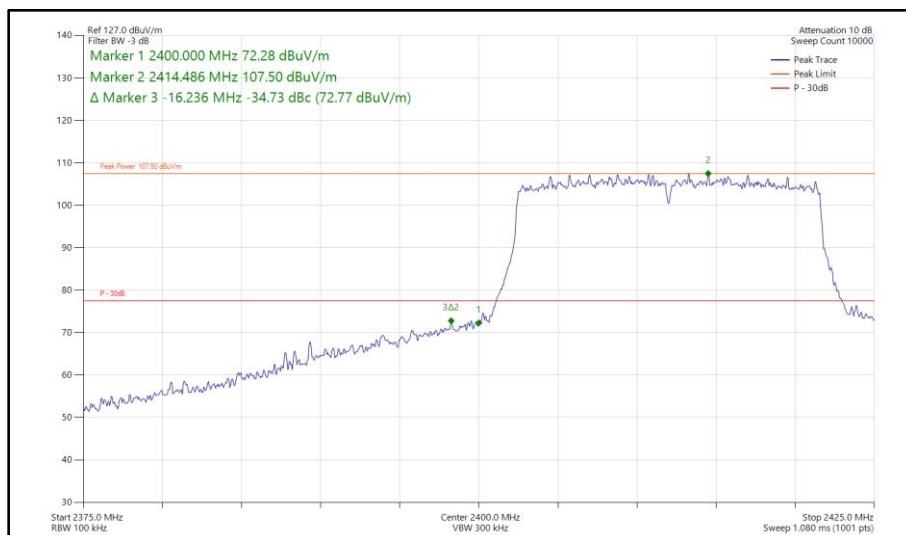
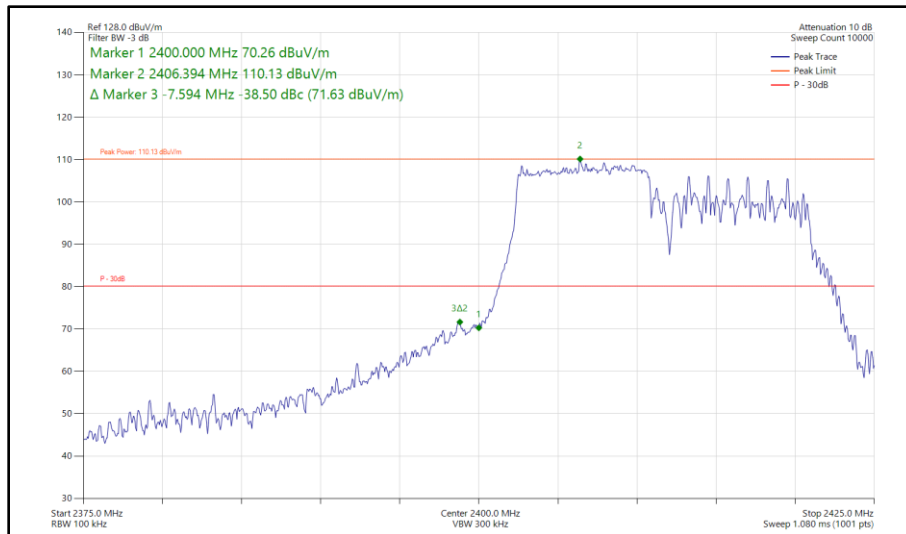
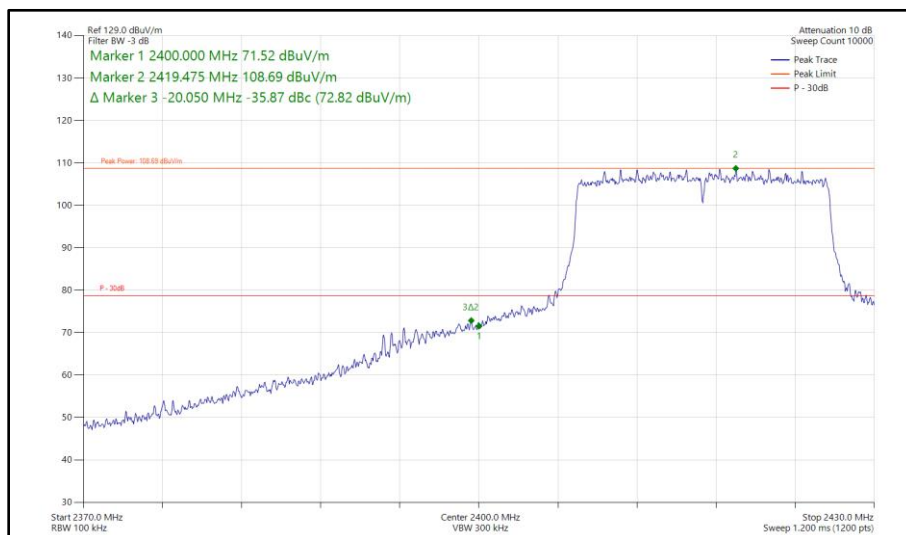


Figure 171 - 802.11ax HE20, SU, SISO, Core 0 - 2412 MHz  
Band Edge Frequency 2400 MHz

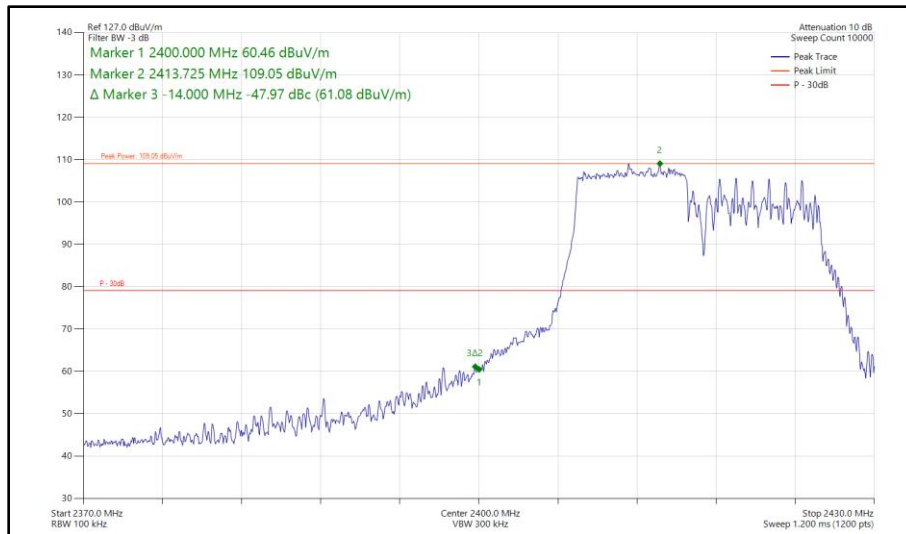


**Figure 172 - 802.11ax HE20, RU 106-53, SISO, Core 0 - 2412 MHz  
Band Edge Frequency 2400 MHz**

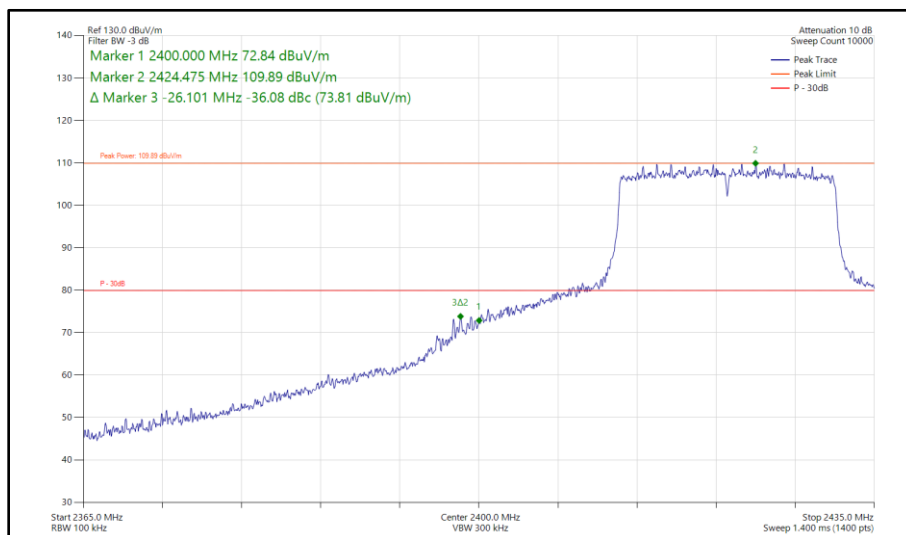


**Figure 173 - 802.11ax HE20, SU, SISO, Core 0 - 2417 MHz  
Band Edge Frequency 2400 MHz**

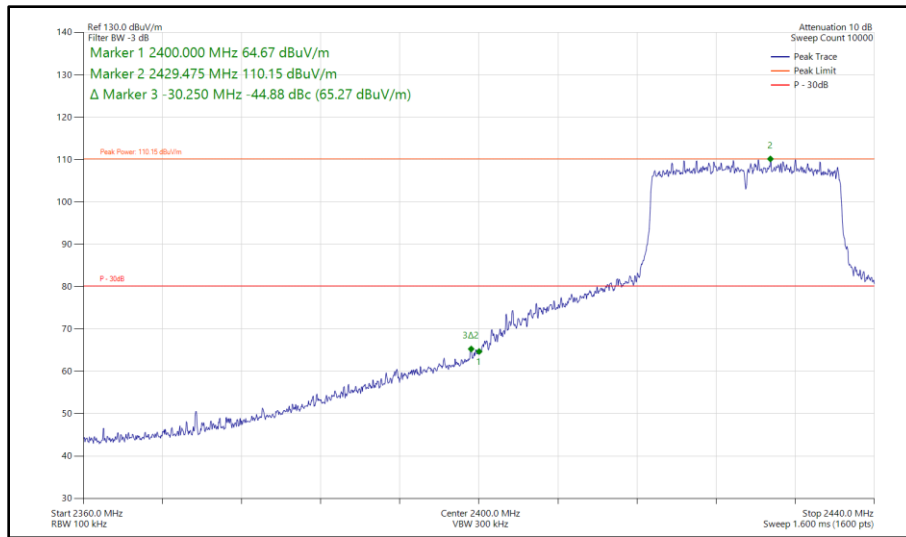




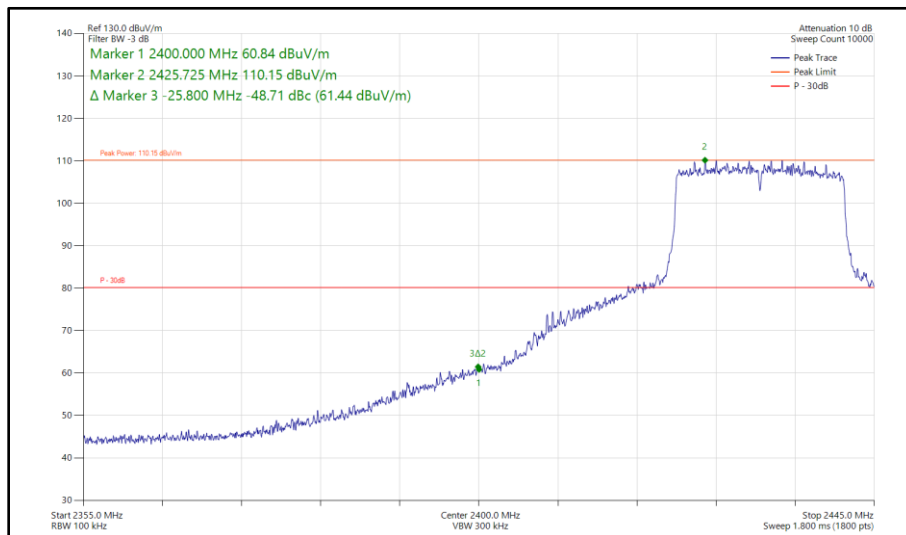
**Figure 174 - 802.11ax HE20, RU 106-53, SISO, Core 0 - 2417 MHz  
Band Edge Frequency 2400 MHz**



**Figure 175 - 802.11ax HE20, SU, SISO, Core 0 - 2422 MHz  
Band Edge Frequency 2400 MHz**



**Figure 176 - 802.11ax HE20, SU, SISO, Core 0 - 2427 MHz  
Band Edge Frequency 2400 MHz**



**Figure 177 - 802.11ax HE20, SU, SISO, Core 0 - 2432 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	-50.64
802.11b	1 Mbps	-	-	2417	2400	-52.65
802.11g	24 Mbps	-	-	2412	2400	-34.64
802.11g	54 Mbps	-	-	2417	2400	-34.94
802.11g	54 Mbps	-	-	2422	2400	-41.43
802.11g	54 Mbps	-	-	2427	2400	-46.99
802.11g	54 Mbps	-	-	2432	2400	-51.57
802.11n HT20	MCS 7	-	-	2412	2400	-34.66
802.11n HT20	MCS 7	-	-	2417	2400	-35.30
802.11n HT20	MCS 7	-	-	2422	2400	-39.88
802.11n HT20	MCS 7	-	-	2427	2400	-47.21
802.11n HT20	MCS 7	-	-	2432	2400	-49.97
802.11ax HE20	MCS 4x1	SU	-	2412	2400	-34.53
802.11ax HE20	MCS 9x1	106	53	2412	2400	-41.44
802.11ax HE20	MCS 9x1	SU	-	2417	2400	-35.06
802.11ax HE20	MCS 9x1	106	53	2417	2400	-48.58
802.11ax HE20	MCS 9x1	SU	-	2422	2400	-36.38
802.11ax HE20	MCS 9x1	SU	-	2427	2400	-44.67
802.11ax HE20	MCS 9x1	SU	-	2432	2400	-48.66

Table 56 - SISO Authorised Band Edge Results

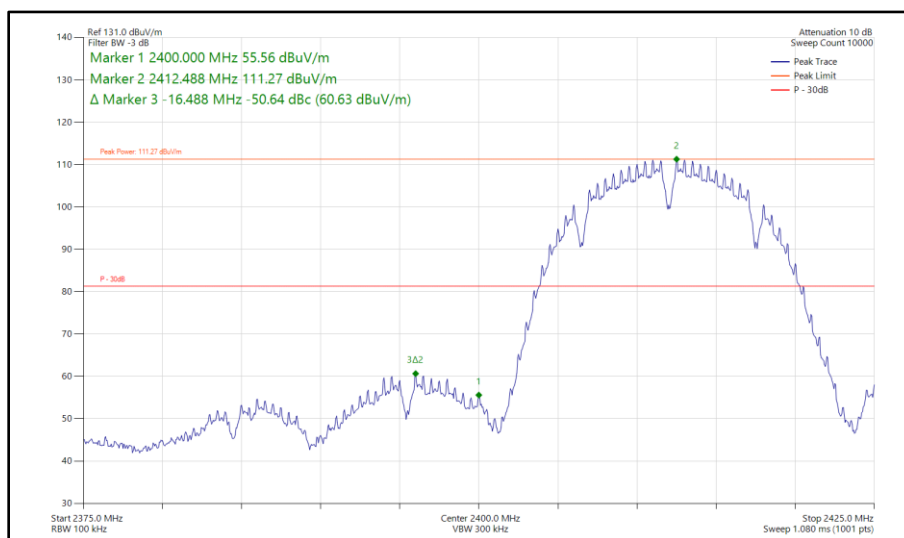


Figure 178 - 802.11b, SISO, Core 1 - 2412 MHz  
 Band Edge Frequency 2400 MHz

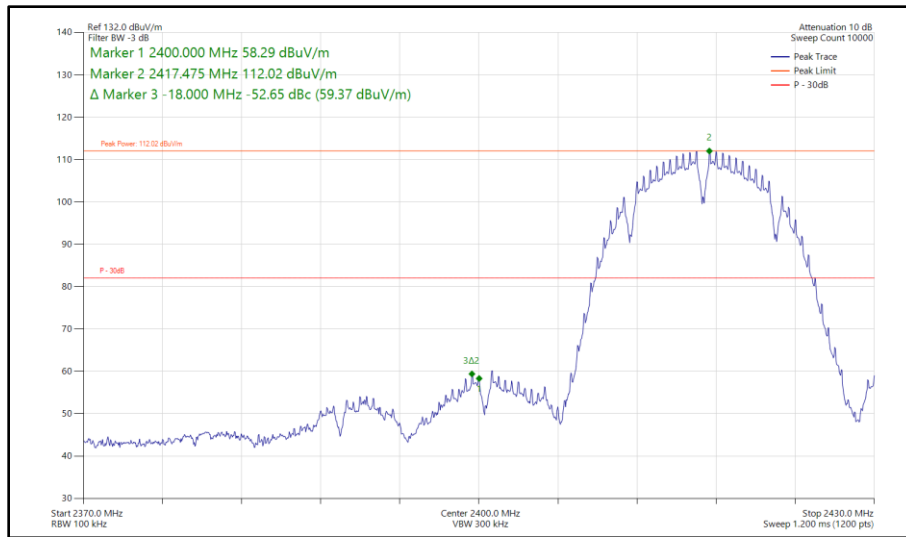


Figure 179 - 802.11b, SISO, Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz

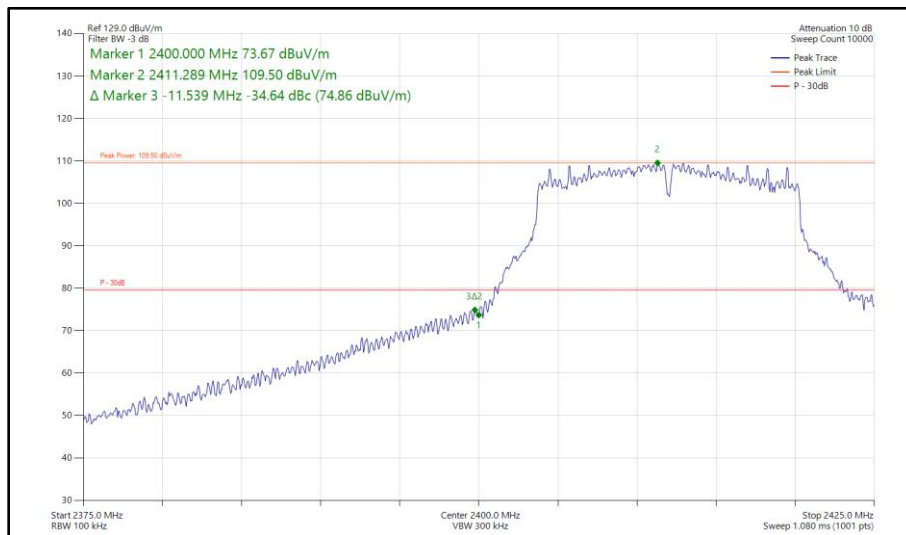
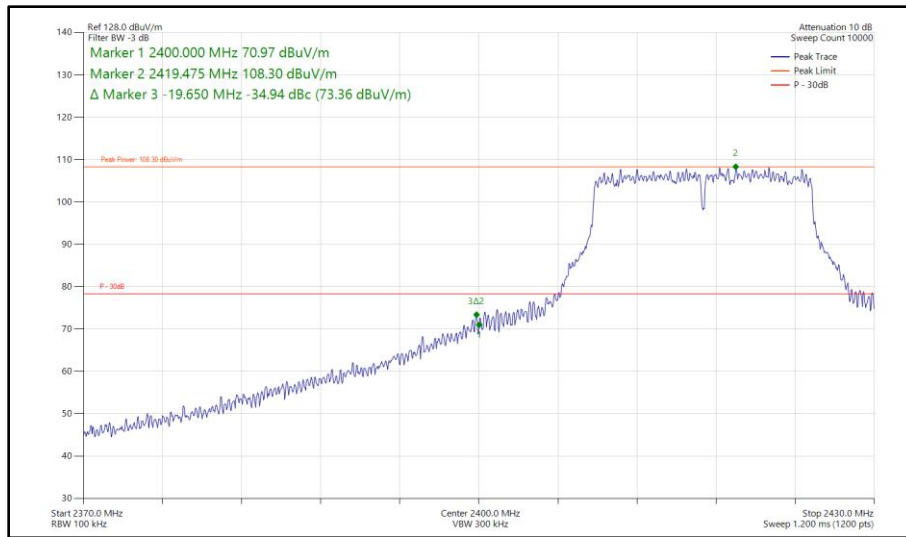
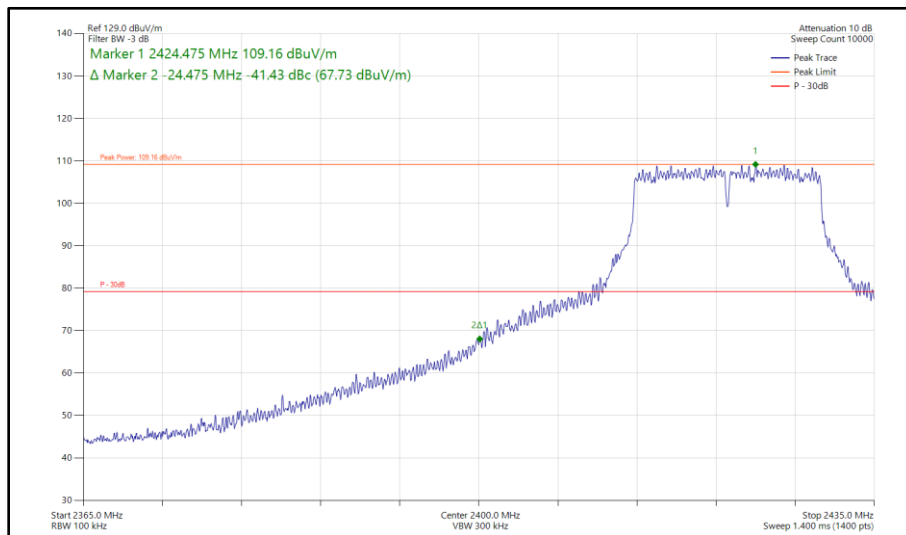


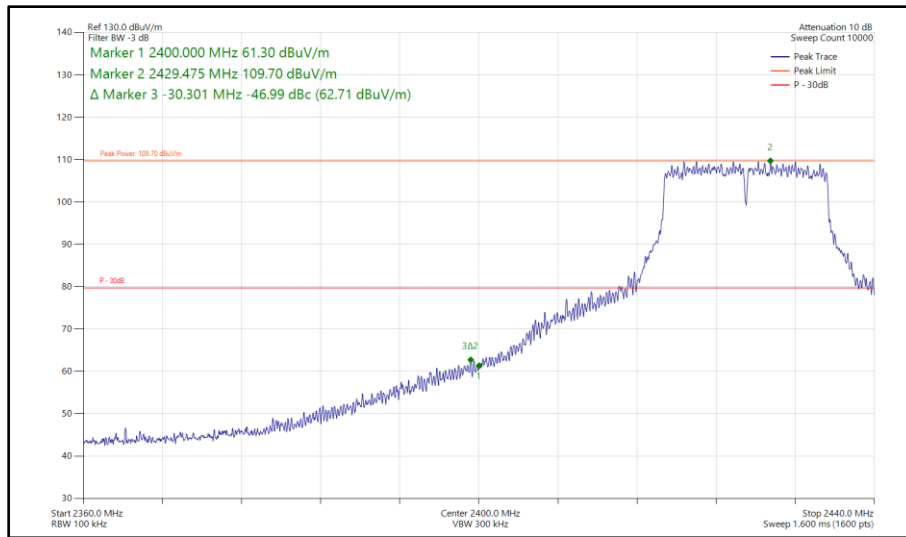
Figure 180 - 802.11g, SISO, Core 1 - 2412 MHz  
Band Edge Frequency 2400 MHz



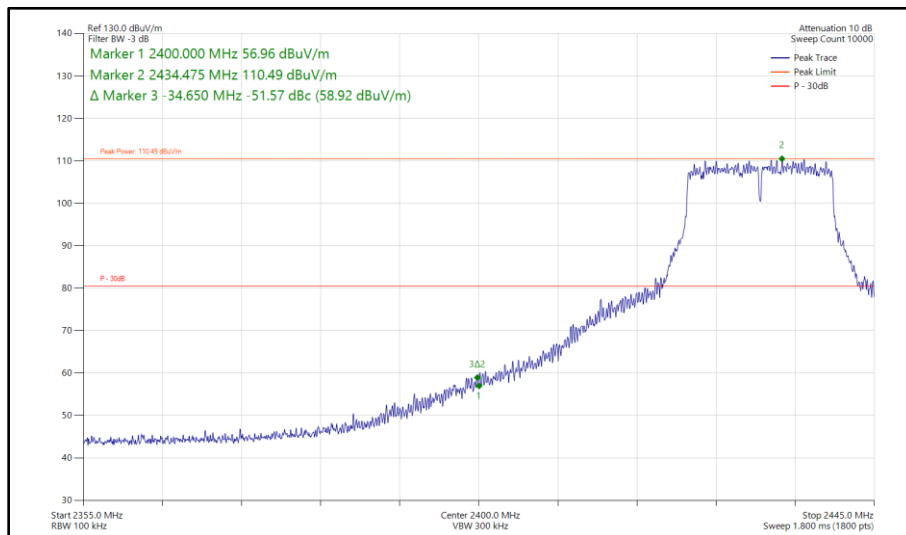
**Figure 181 - 802.11g, SISO, Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**



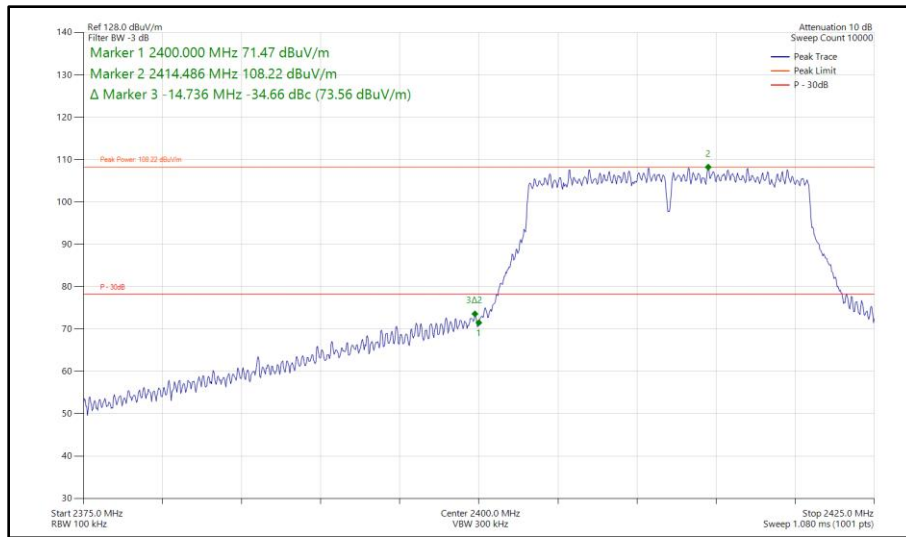
**Figure 182 - 802.11g, SISO, Core 1 - 2422 MHz  
Band Edge Frequency 2400 MHz**



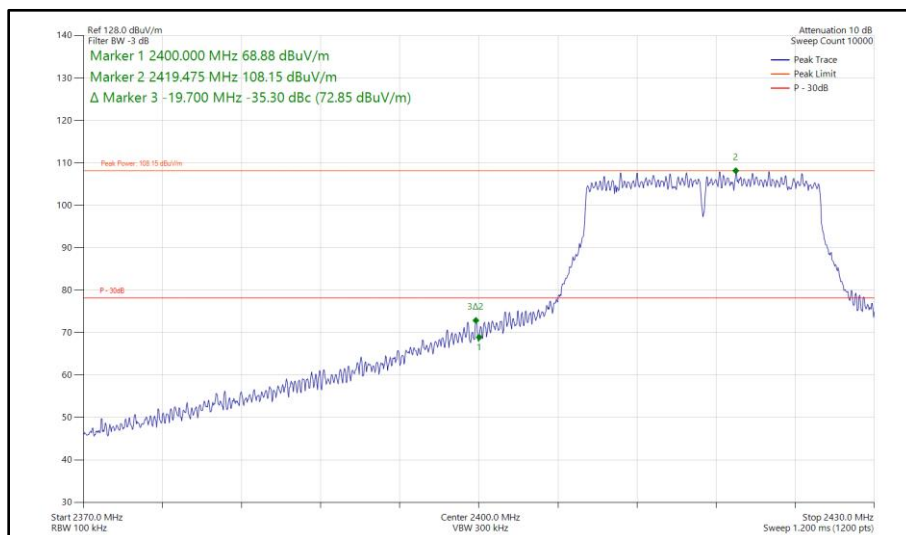
**Figure 183 - 802.11g, SISO, Core 1 - 2427 MHz  
Band Edge Frequency 2400 MHz**



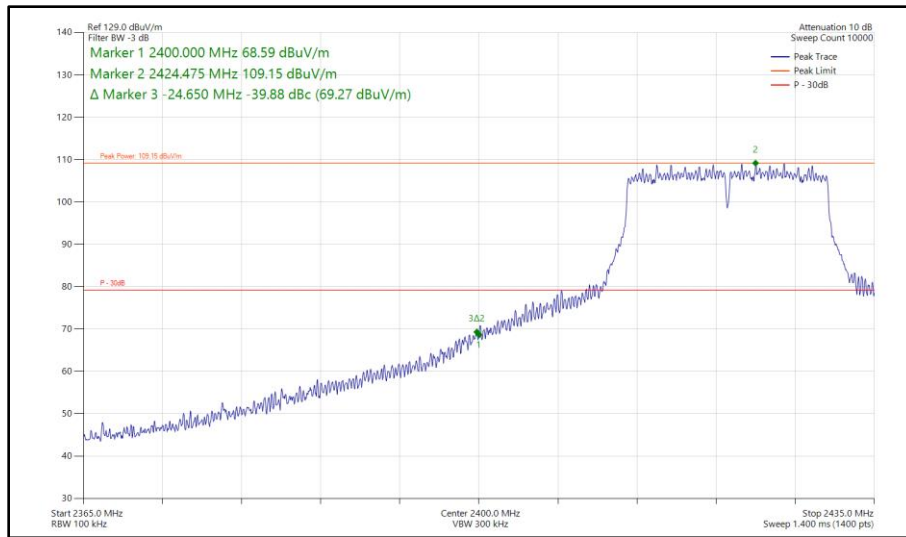
**Figure 184 - 802.11g, SISO, Core 1 - 2432 MHz  
Band Edge Frequency 2400 MHz**



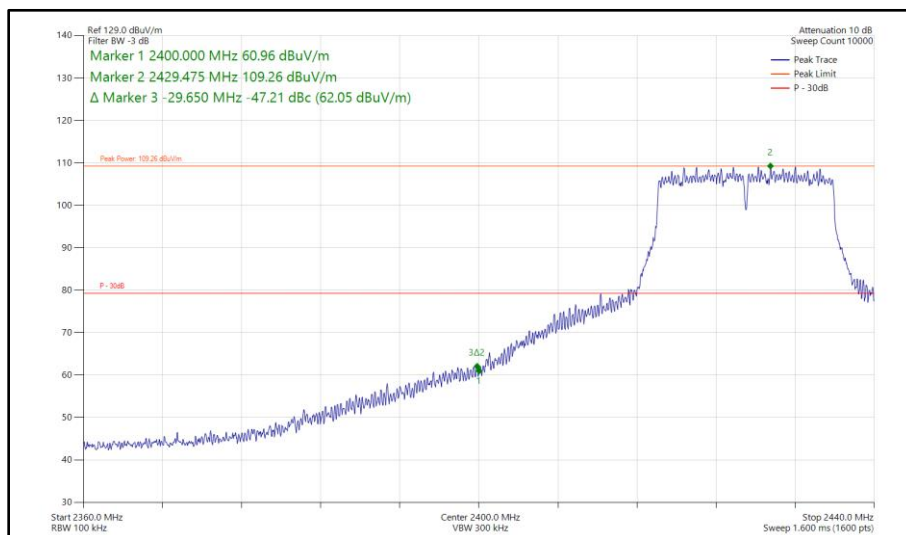
**Figure 185 - 802.11n HT20, SISO, Core 1 - 2412 MHz  
Band Edge Frequency 2400 MHz**



**Figure 186 - 802.11n HT20, SISO, Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**

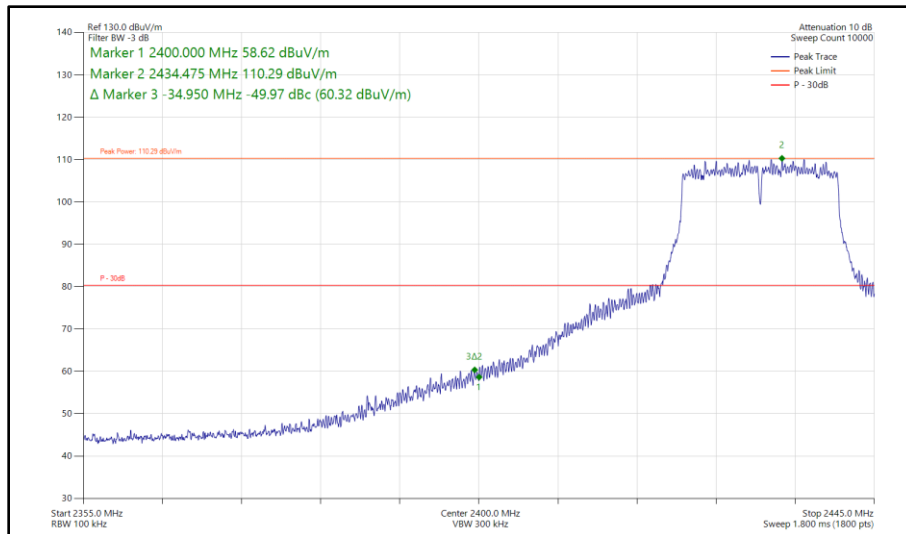


**Figure 187 - 802.11n HT20, SISO, Core 1 - 2422 MHz  
Band Edge Frequency 2400 MHz**

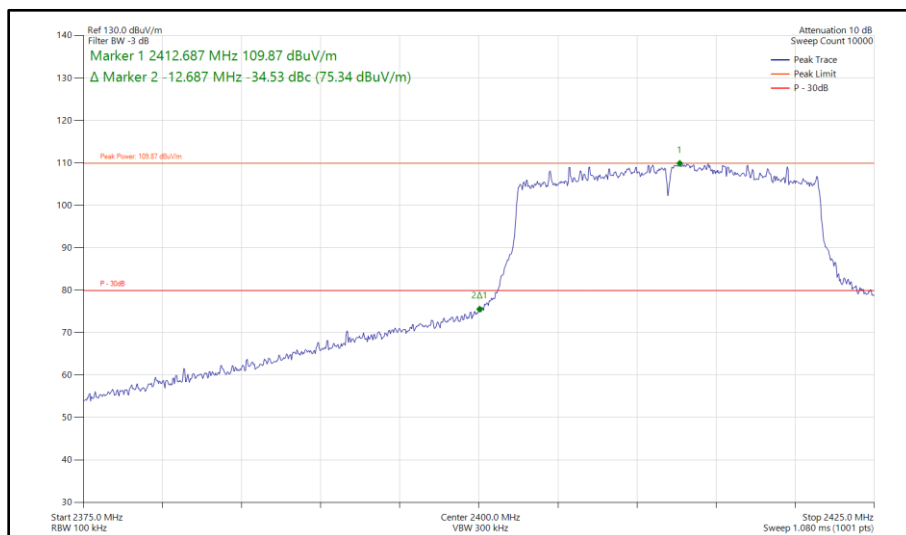


**Figure 188 - 802.11n HT20, SISO, Core 1 - 2427 MHz  
Band Edge Frequency 2400 MHz**

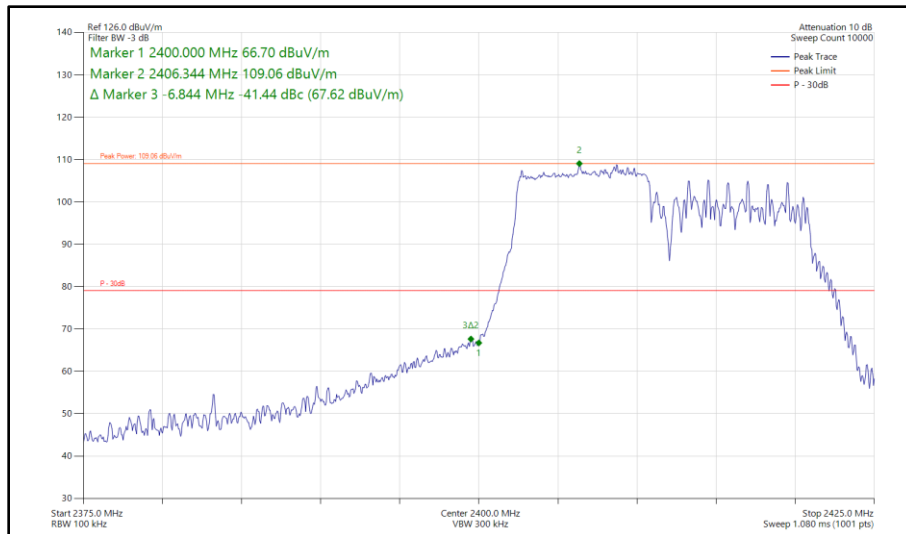




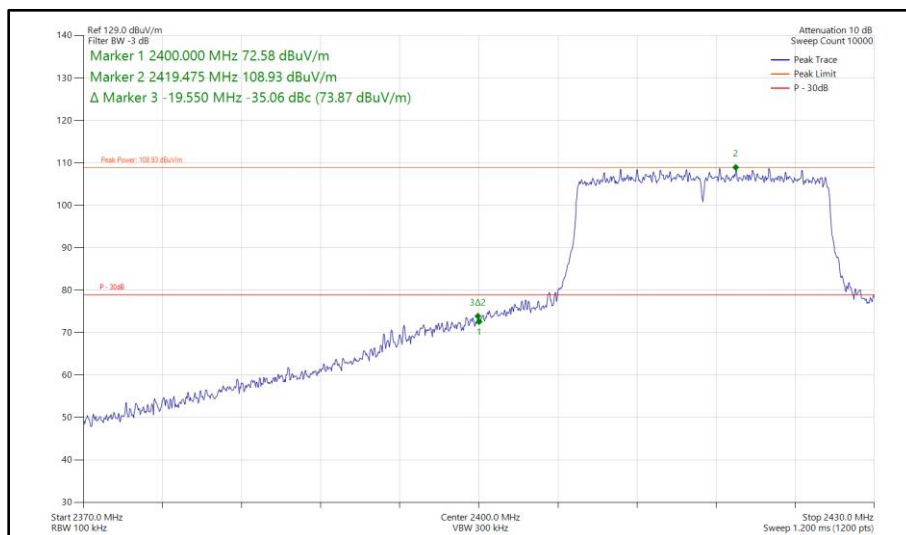
**Figure 189 - 802.11n HT20, SISO, Core 1 - 2432 MHz  
Band Edge Frequency 2400 MHz**



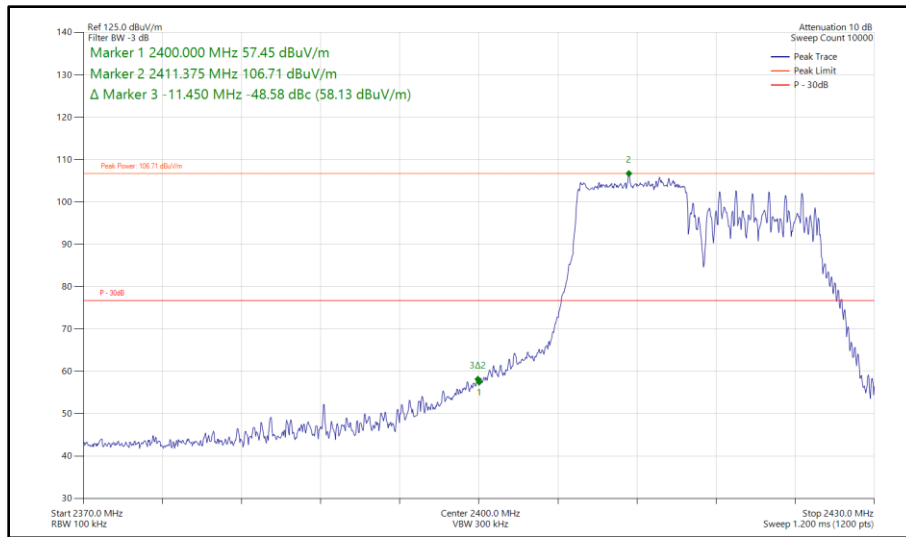
**Figure 190 - 802.11ax HE20, SU, SISO, Core 1 - 2412 MHz  
Band Edge Frequency 2400 MHz**



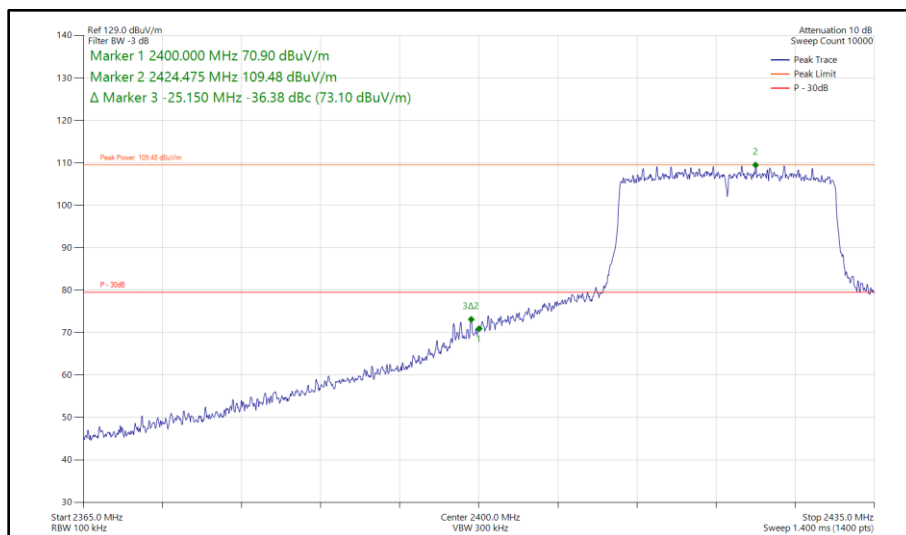
**Figure 191 - 802.11ax HE20, RU 106-53, SISO, Core 1 - 2412 MHz  
Band Edge Frequency 2400 MHz**



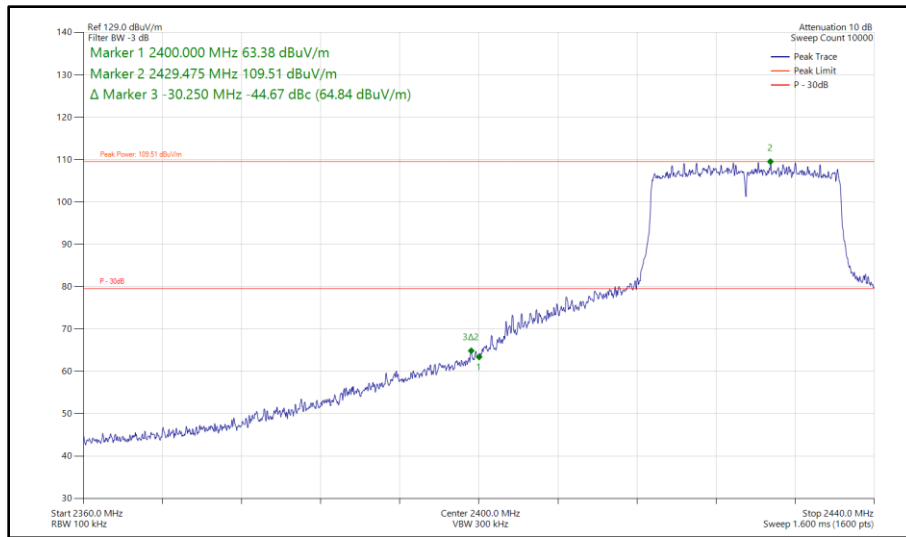
**Figure 192 - 802.11ax HE20, SU, SISO, Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**



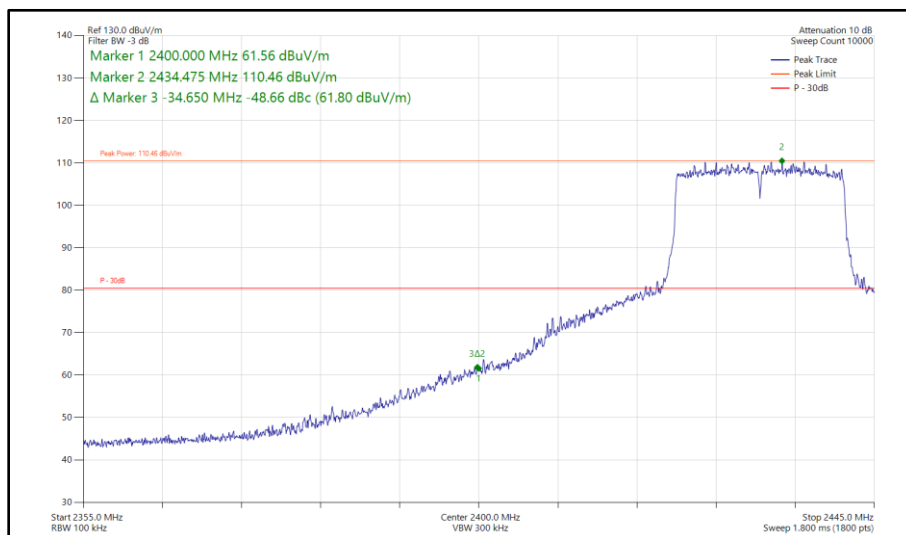
**Figure 193 - 802.11ax HE20, RU 106-53, SISO, Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**



**Figure 194 - 802.11ax HE20, SU, SISO, Core 1 - 2422 MHz  
Band Edge Frequency 2400 MHz**



**Figure 195 - 802.11ax HE20, SU, SISO, Core 1 - 2427 MHz  
Band Edge Frequency 2400 MHz**



**Figure 196 - 802.11ax HE20, SU, SISO, Core 1 - 2432 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 7	-	-	2412	2400	-34.51
802.11n HT20	MCS 7	-	-	2417	2400	-35.52
802.11n HT20	MCS 7	-	-	2422	2400	-39.72
802.11n HT20	MCS 7	-	-	2427	2400	-47.33
802.11n HT20	MCS 7	-	-	2432	2400	-50.85
802.11ax HE20	MCS 4x1	SU	-	2412	2400	-34.78
802.11ax HE20	MCS 9x1	106	53	2412	2400	-37.73
802.11ax HE20	MCS 9x1	SU	-	2417	2400	-34.26
802.11ax HE20	MCS 9x1	106	54	2417	2400	-48.16
802.11ax HE20	MCS 9x1	SU	-	2422	2400	-35.91
802.11ax HE20	MCS 9x1	106	54	2422	2400	-53.33
802.11ax HE20	MCS 9x1	SU	-	2427	2400	-44.18
802.11ax HE20	MCS 4x1	SU	-	2432	2400	-49.49

Table 57 - CDD Authorised Band Edge Results

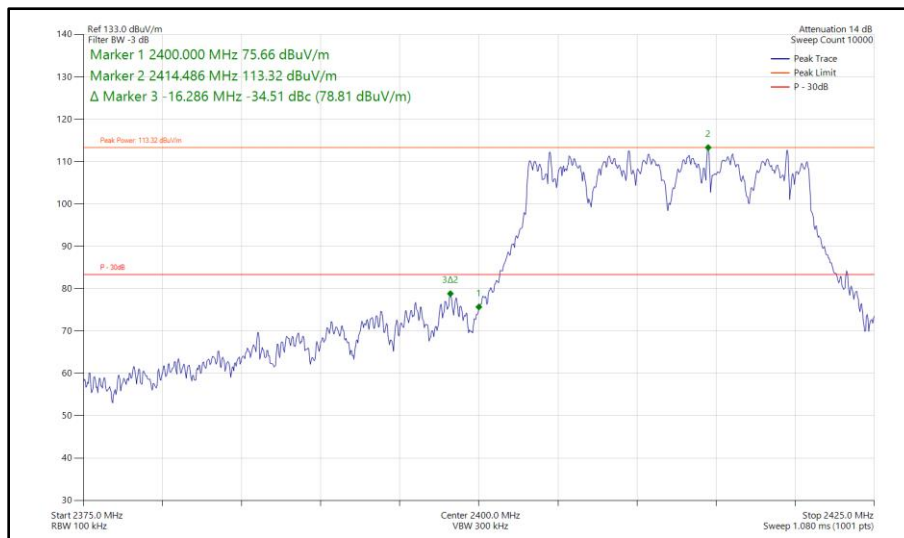
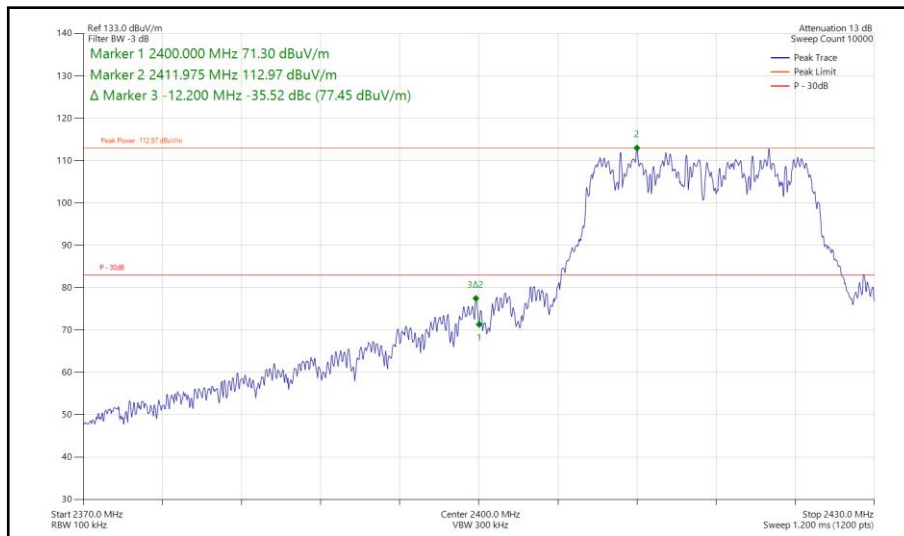
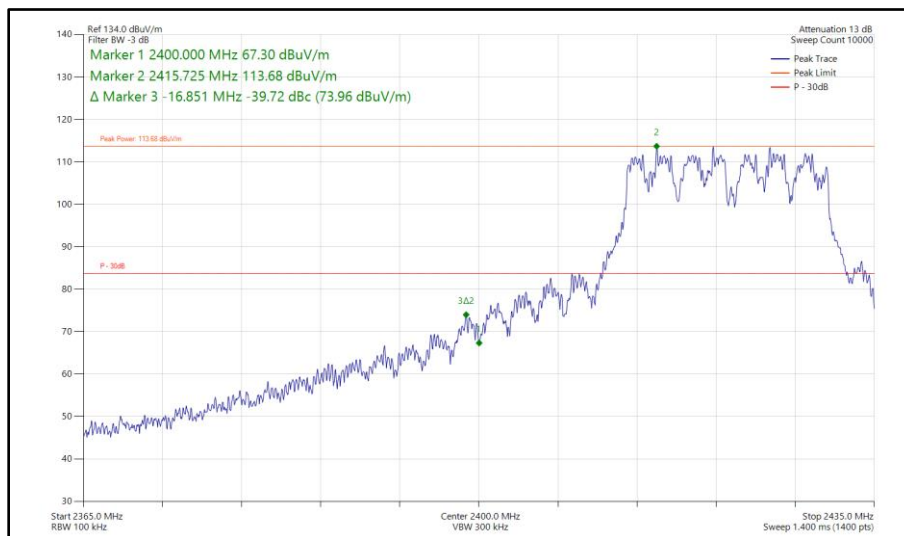


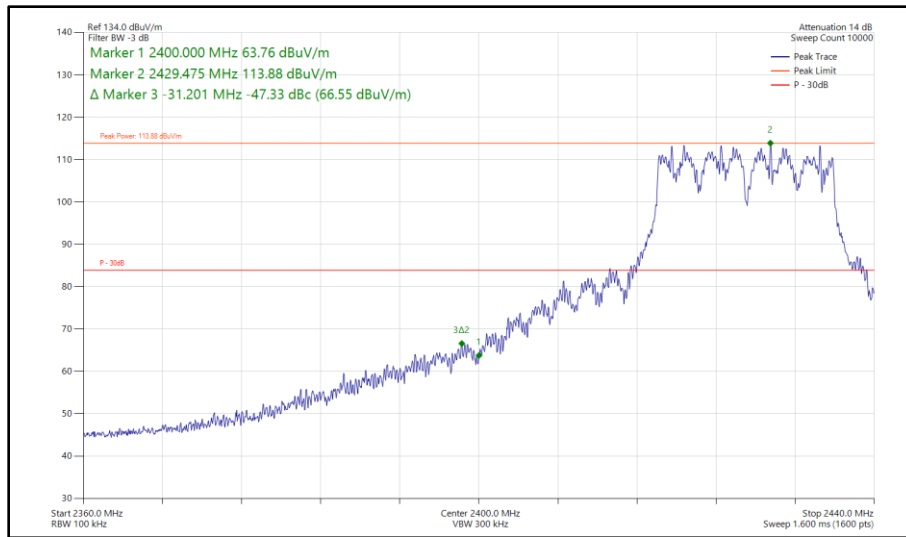
Figure 197 - 802.11n HT20, CDD, Core 0 - Core 1 - 2412 MHz  
 Band Edge Frequency 2400 MHz



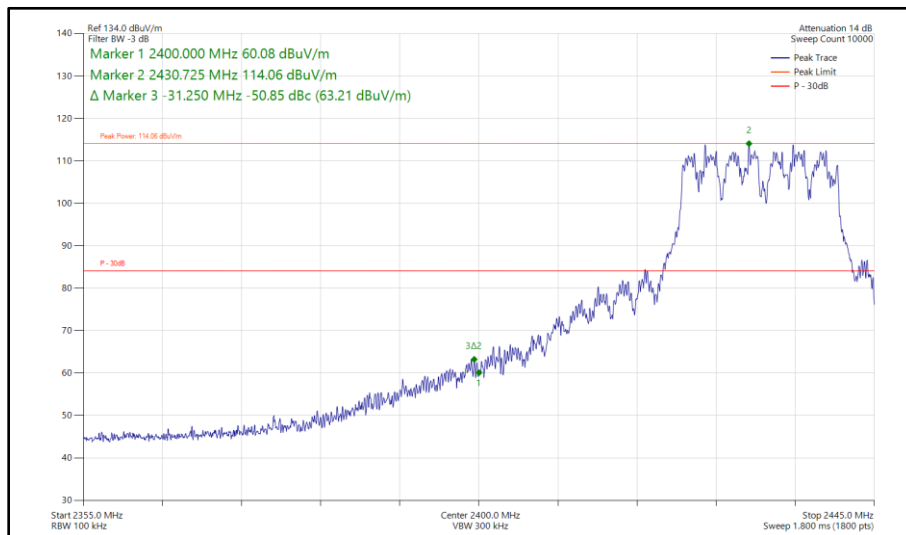
**Figure 198 - 802.11n HT20, CDD, Core 0 - Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**



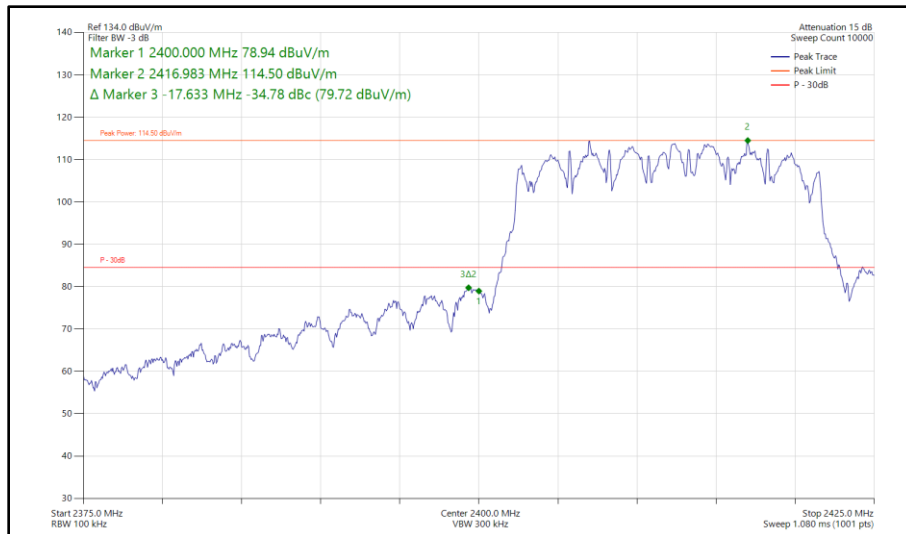
**Figure 199 - 802.11n HT20, CDD, Core 0 - Core 1 - 2422 MHz  
Band Edge Frequency 2400 MHz**



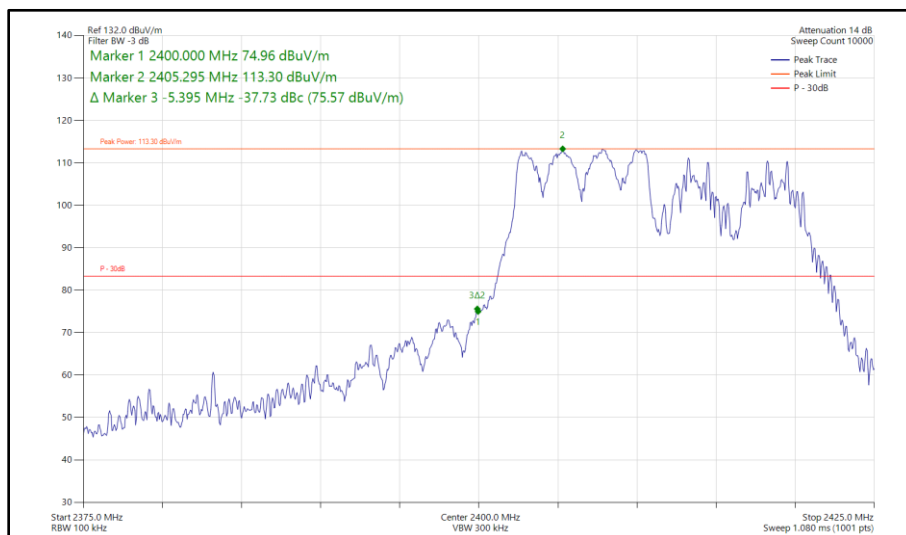
**Figure 200 - 802.11n HT20, CDD, Core 0 - Core 1 - 2427 MHz  
Band Edge Frequency 2400 MHz**



**Figure 201 - 802.11n HT20, CDD, Core 0 - Core 1 - 2432 MHz  
Band Edge Frequency 2400 MHz**

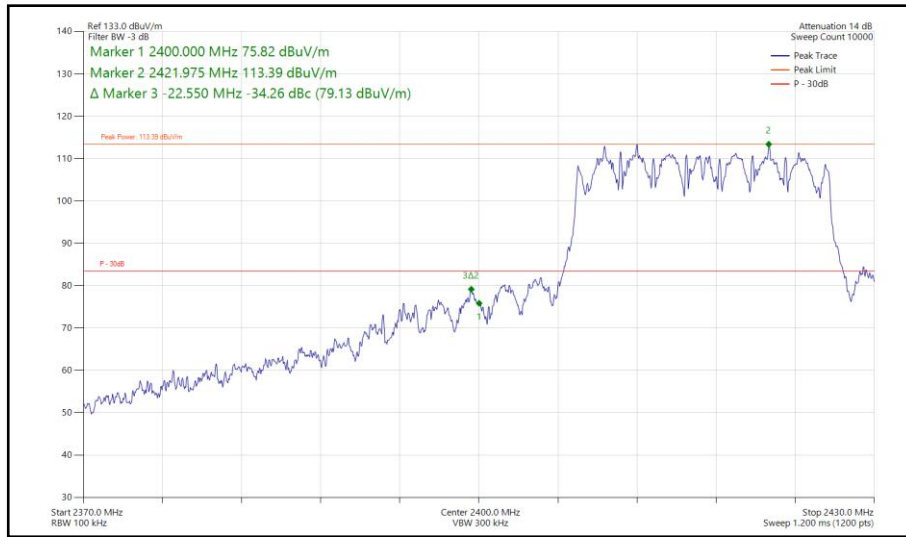


**Figure 202 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2412 MHz  
Band Edge Frequency 2400 MHz**

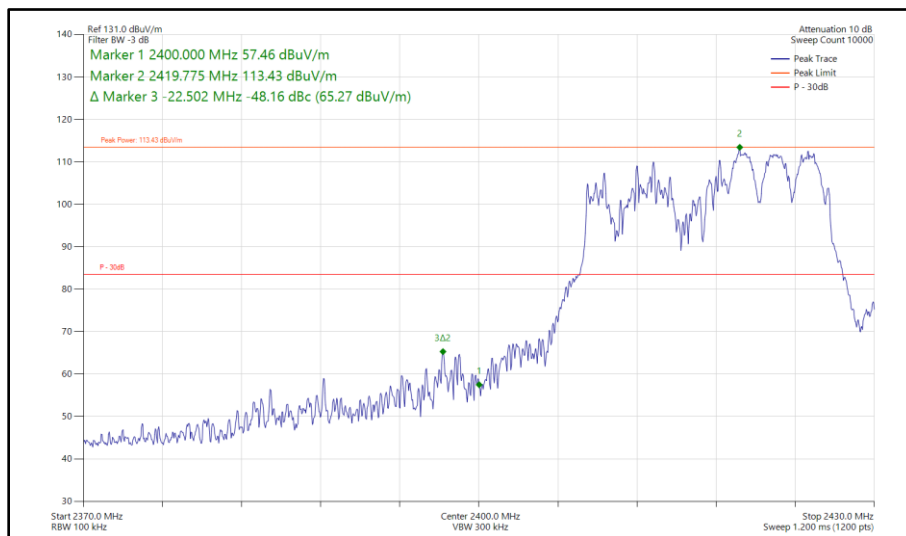


**Figure 203 - 802.11ax HE20, RU 106-53, CDD, Core 0 - Core 1 - 2412 MHz  
Band Edge Frequency 2400 MHz**

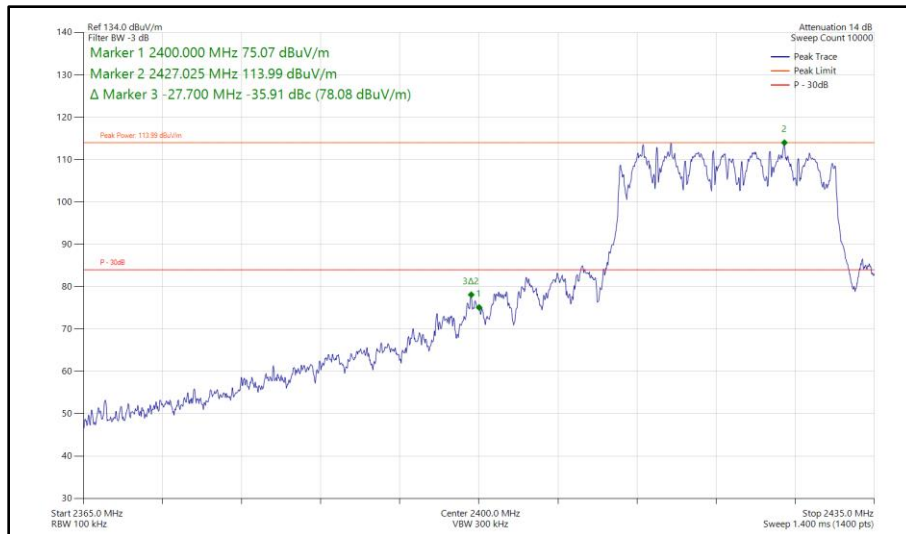




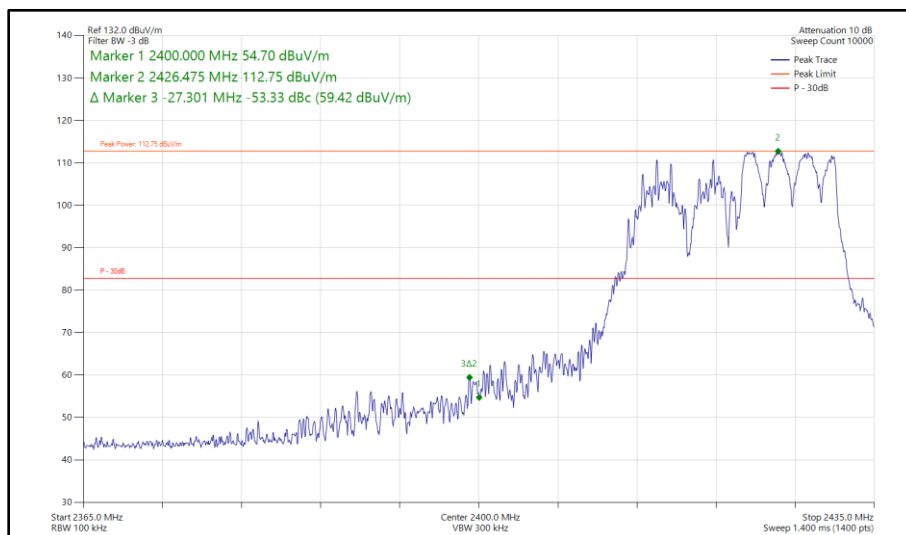
**Figure 204 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**



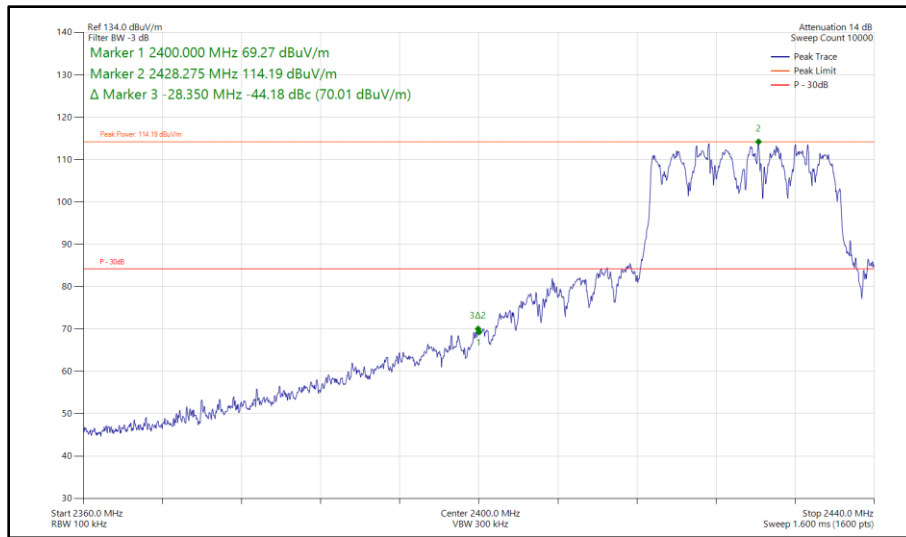
**Figure 205 - 802.11ax HE20, RU 106-54, CDD, Core 0 - Core 1 - 2417 MHz  
Band Edge Frequency 2400 MHz**



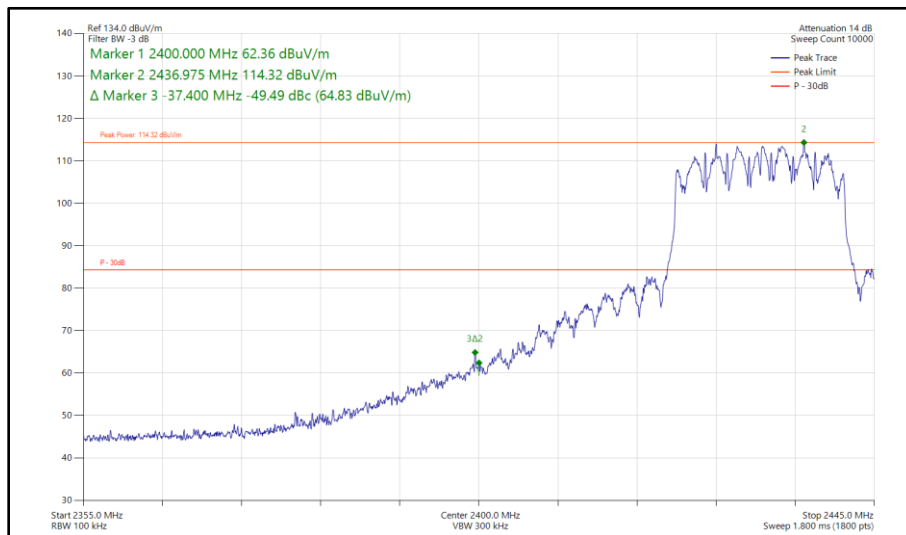
**Figure 206 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2422 MHz  
Band Edge Frequency 2400 MHz**



**Figure 207 - 802.11ax HE20, RU 106-54, CDD, Core 0 - Core 1 - 2422 MHz  
Band Edge Frequency 2400 MHz**



**Figure 208 - 802.11ax HE20, SU, CDD, Core 0 - Core 1 - 2427 MHz  
Band Edge Frequency 2400 MHz**



**Figure 209 - 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 16 and RF Chamber 17.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Power Supply Unit	Hewlett Packard	6253A	441	-	O/P Mon
Emissions Software	TUV SUD	EmX V3.2.0	5125	-	Software
Test Receiver	Rohde & Schwarz	ESW44	5379	12	12-Dec-2024
1500W (300V 12A) AC Power Supply	iTech	IT7324	5957	-	O/P Mon
3m Semi-Anechoic Chamber, Chamber16	Albatross Projects	RF Chamber 16	5972	36	24-May-2025
Mast & Turntable Controller	Maturo Gmbh	FCU3.0	5973	-	TU
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5974	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5975	-	TU
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6008	12	20-May-2025
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6140	12	05-May-2025
SAC Switch Unit	TUV SUD	TUV_SSU_001	6144	12	11-Dec-2024
Digital Multimeter	Fluke	115	6146	12	15-Jun-2024*
Humidity & Temperature meter	R.S Components	1364	6148	12	21-Jul-2024
EMI Test Receiver	Rohde & Schwarz	ESW44	6294	12	06-Jan-2025
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6315	12	04-Feb-2025
Cable (SMA to SMA 8m)	Junkosha	MWX221-08000AMSAMS/B	6319	12	04-Feb-2025
Horn Antenna	Schwarzbeck	BBHA 9120 B	6457	12	05-May-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
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**

A3112, S/N: D2XW4JQFNK - Modification State 0

### **2.5.3 Date of Test**

15-June-2024 to 06-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 30 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 dB $\mu$ V/m to  $\mu$ V/m:  
 $10^{(\text{Field Strength in dB}\mu\text{V/m}/20)}$ .

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.

### 2.5.5 Example Test Setup Diagram

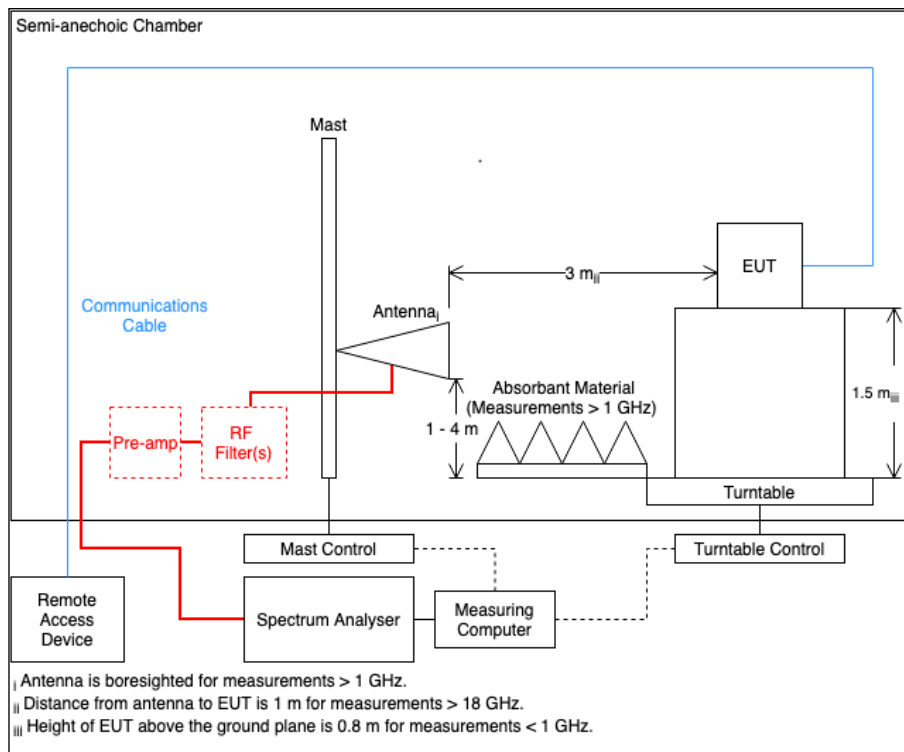


Figure 210

### 2.5.6 Environmental Conditions

Ambient Temperature	22.1 - 22.7 °C
Relative Humidity	40.1 - 47.7 %



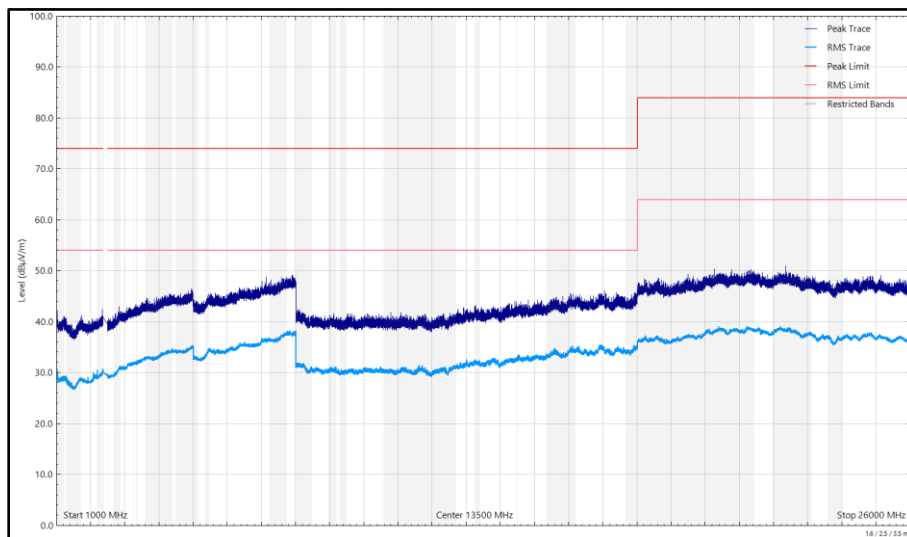
**2.5.7 Test Results**

2.4 GHz WLAN

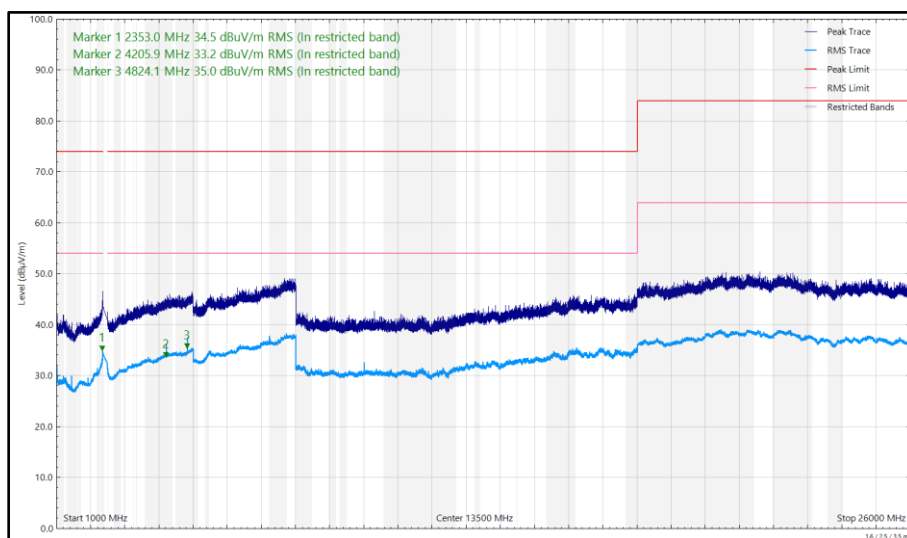
Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
2352.976	34.51	54.00	-19.49	RMS	352	392	Vertical
4205.929	33.21	54.00	-20.79	RMS	126	399	Vertical
4824.058	34.98	54.00	-19.02	RMS	309	187	Vertical

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

No other emissions found within 10 dB of the limit.



**Figure 211 - 2412 MHz (CH1), 802.11b, Core 0, 1 GHz to 26 GHz, Horizontal**



**Figure 212 - 2412 MHz (CH1), 802.11b, Core 0, 1 GHz to 26 GHz, Vertical**

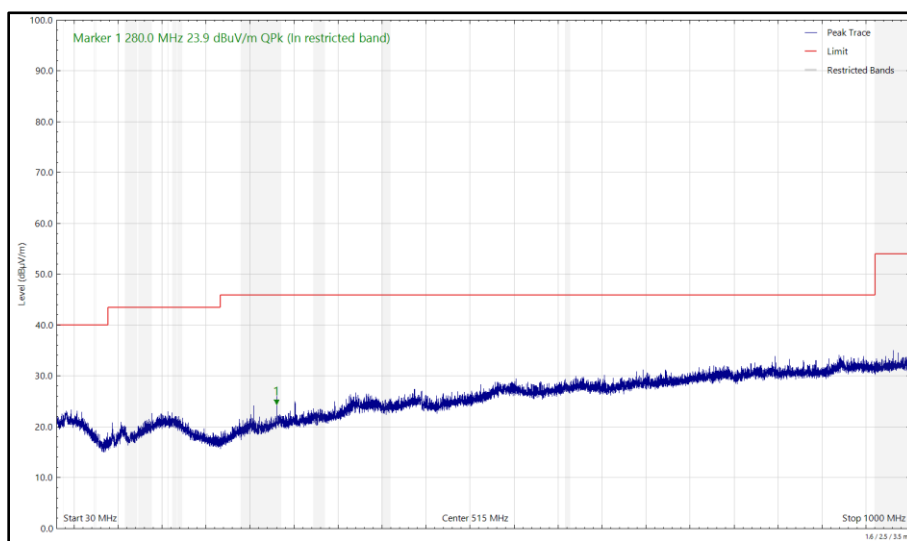




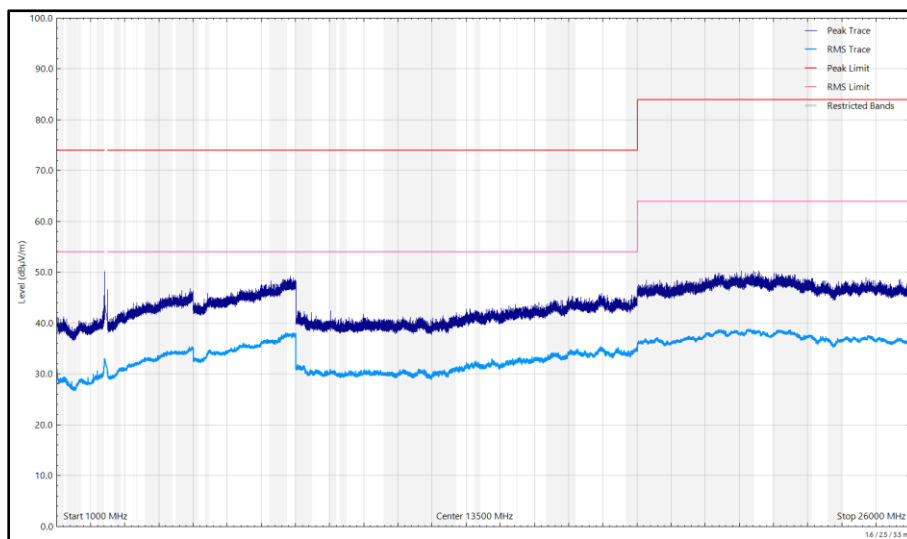
Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
280.021	23.94	46.00	-22.06	Q-Peak	86	103	Horizontal
2389.714	35.92	54.00	-18.08	RMS	0	319	Vertical
2483.624	34.60	54.00	-19.40	RMS	9	341	Vertical
4211.928	33.22	54.00	-20.78	RMS	10	201	Vertical
4883.933	34.21	54.00	-19.79	RMS	55	389	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 213 - 2442 MHz (CH7), 802.11b, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)**



**Figure 214 - 2442 MHz (CH7), 802.11b, Core 0, 1 GHz to 26 GHz, Horizontal**

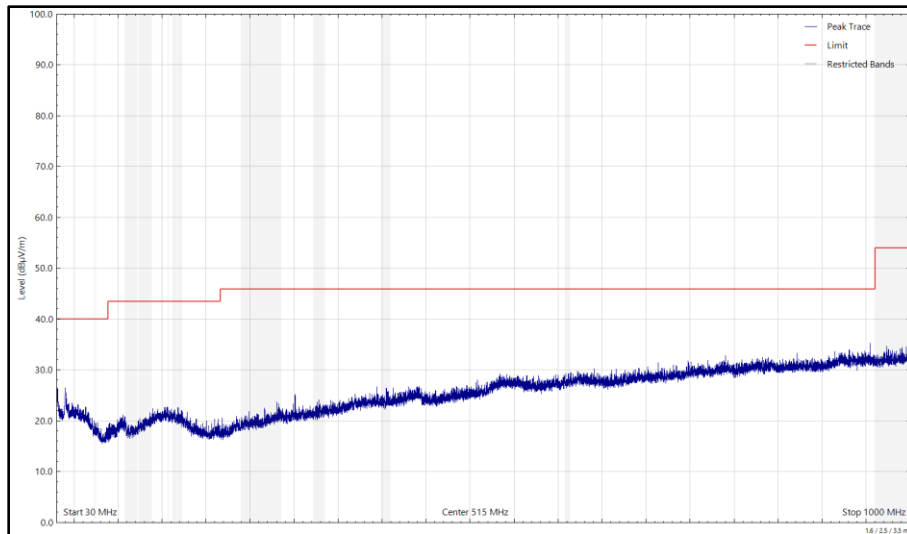


Figure 215 - 2442 MHz (CH7), 802.11b, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

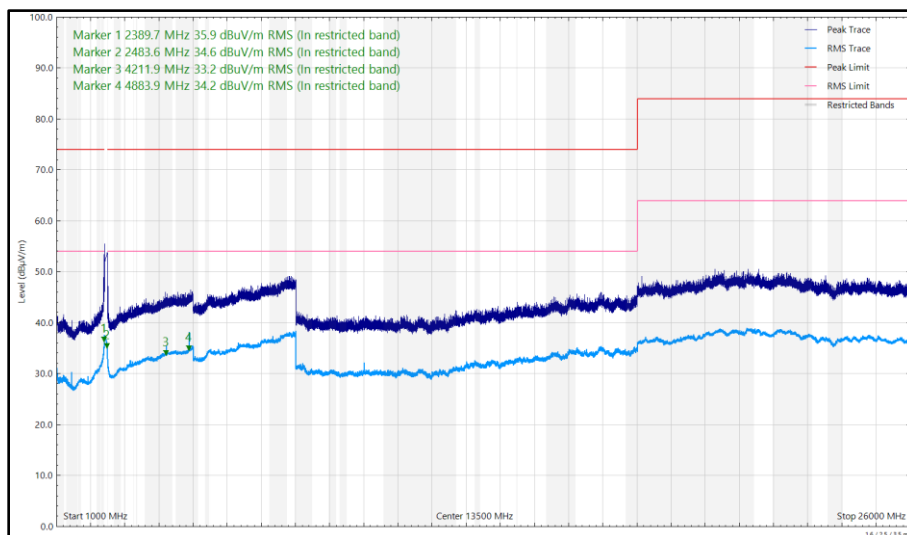


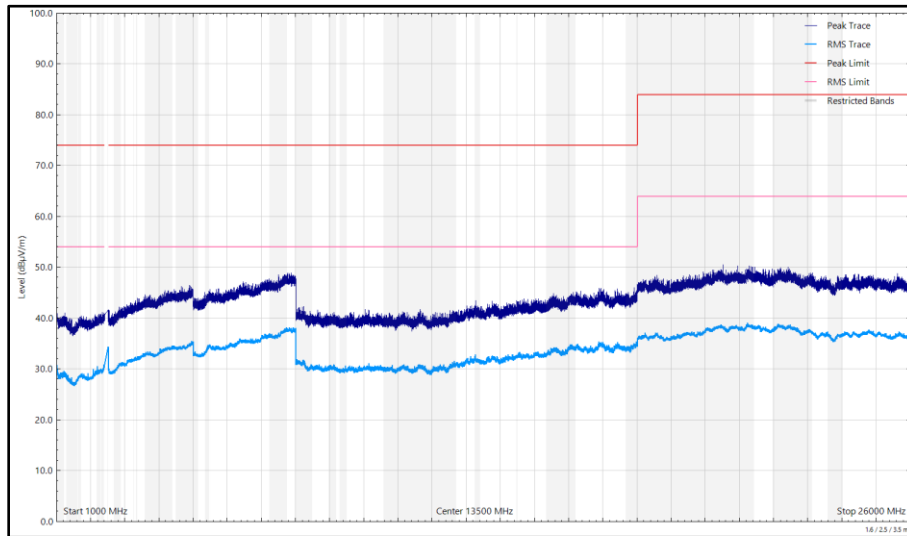
Figure 216 - 2442 MHz (CH7), 802.11b, Core 0, 1 GHz to 26 GHz, Vertical



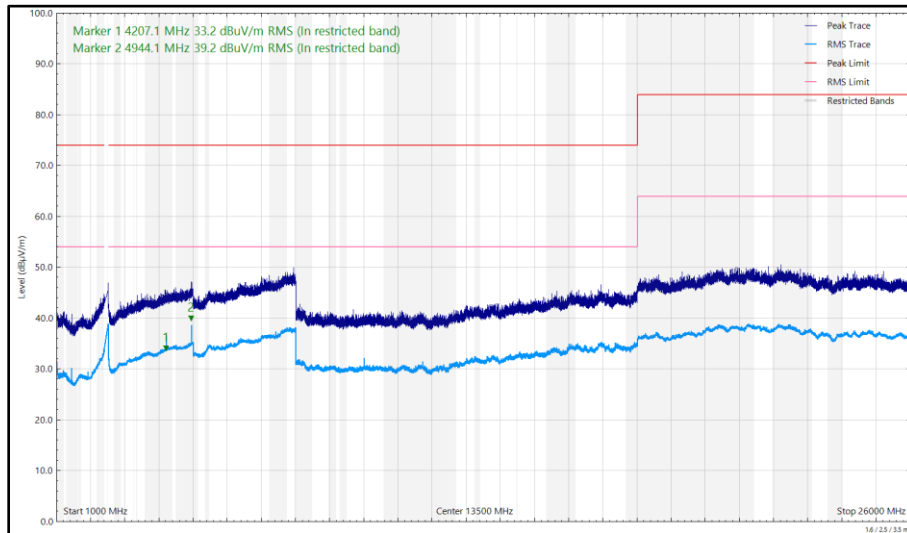
Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4207.149	33.19	54.00	-20.81	RMS	357	156	Vertical
4944.063	39.17	54.00	-14.83	RMS	27	289	Vertical

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

No other emissions found within 10 dB of the limit.



**Figure 217 - 2472 MHz (CH13), 802.11b, Core 0, 1 GHz to 26 GHz, Horizontal**



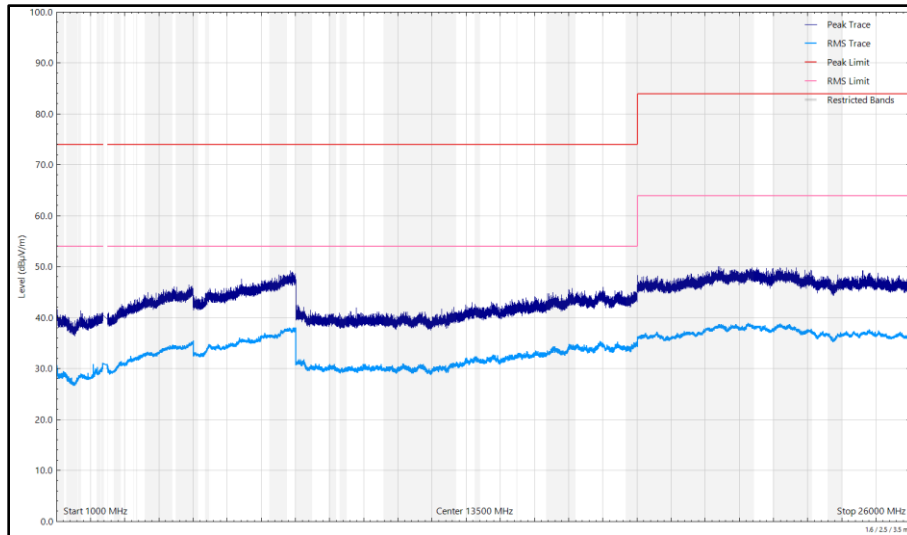
**Figure 218 - 2472 MHz (CH13), 802.11b, Core 0, 1 GHz to 26 GHz, Vertical**



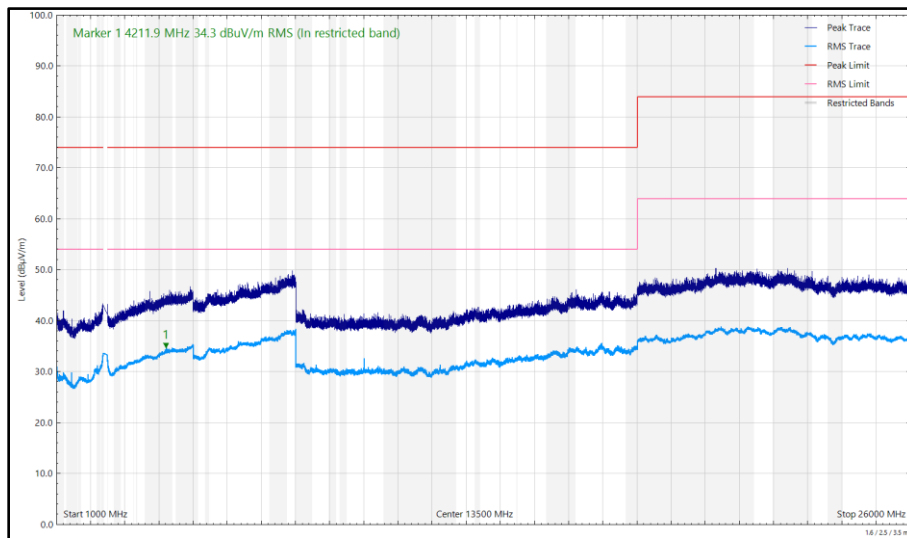
Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
4211.933	34.32	54.00	-19.68	RMS	328	400	Vertical

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

No other emissions found within 10 dB of the limit.



**Figure 219 - 2412 MHz (CH1), 802.11b, Core 1, 1 GHz to 26 GHz, Horizontal**



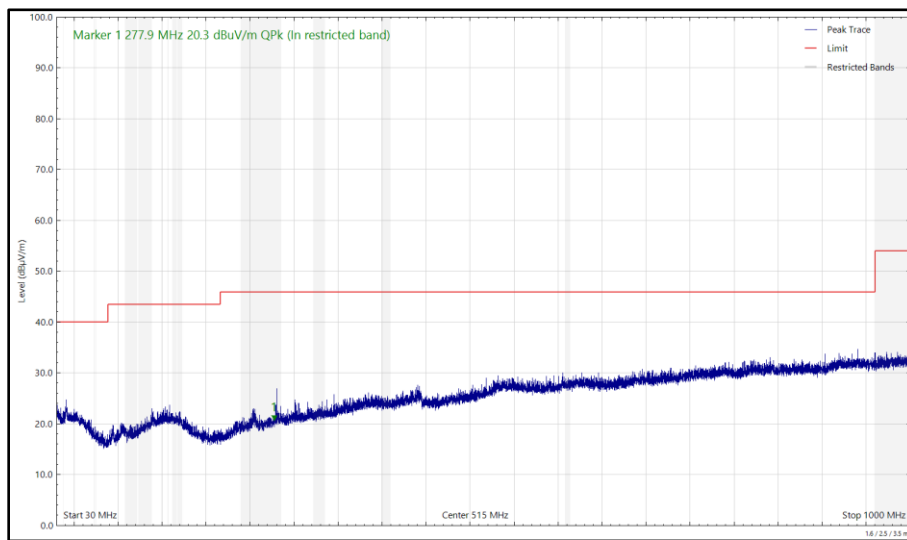
**Figure 220 - 2412 MHz (CH1), 802.11b, Core 1, 1 GHz to 26 GHz, Vertical**



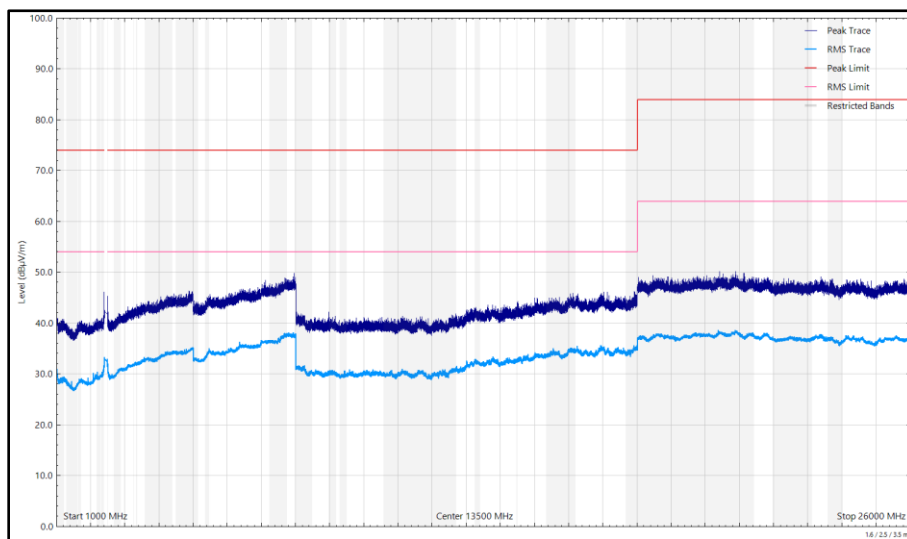
Frequency (MHz)	Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
277.908	20.29	46.00	-25.71	Q-Peak	322	355	Horizontal
2389.798	34.44	54.00	-19.56	RMS	49	390	Vertical
2483.538	57.55	74.00	-16.45	Peak	42	349	Vertical
2484.518	35.88	54.00	-18.12	RMS	46	348	Vertical
4207.169	33.17	54.00	-20.83	RMS	115	111	Vertical

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

No other emissions found within 10 dB of the limit.



**Figure 221 - 2442 MHz (CH7), 802.11b, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**



**Figure 222 - 2442 MHz (CH7), 802.11b, Core 1, 1 GHz to 26 GHz, Horizontal**