

Figure 190 - 802.11ax HE80, RU 106-53, CDD, Core 0 - Core 1 - 5290 MHz
Band Edge Frequency 5350 MHz

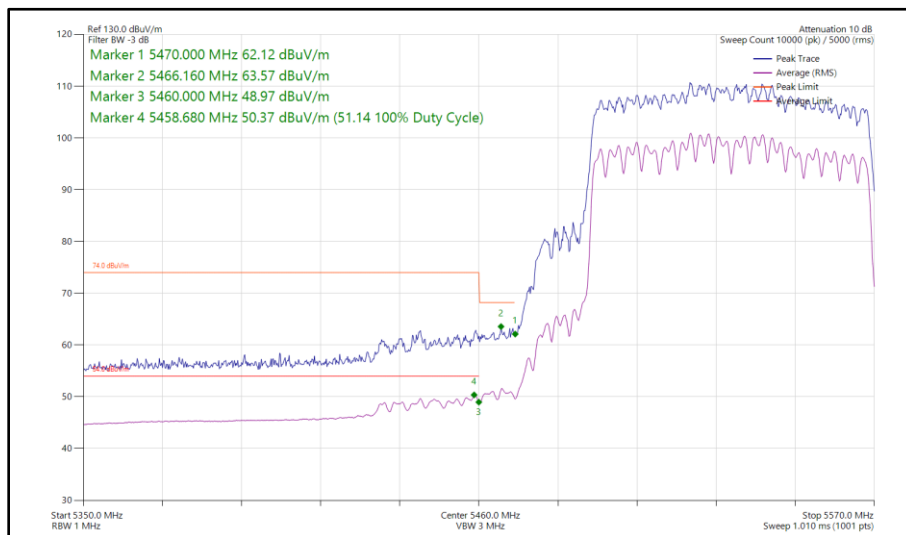
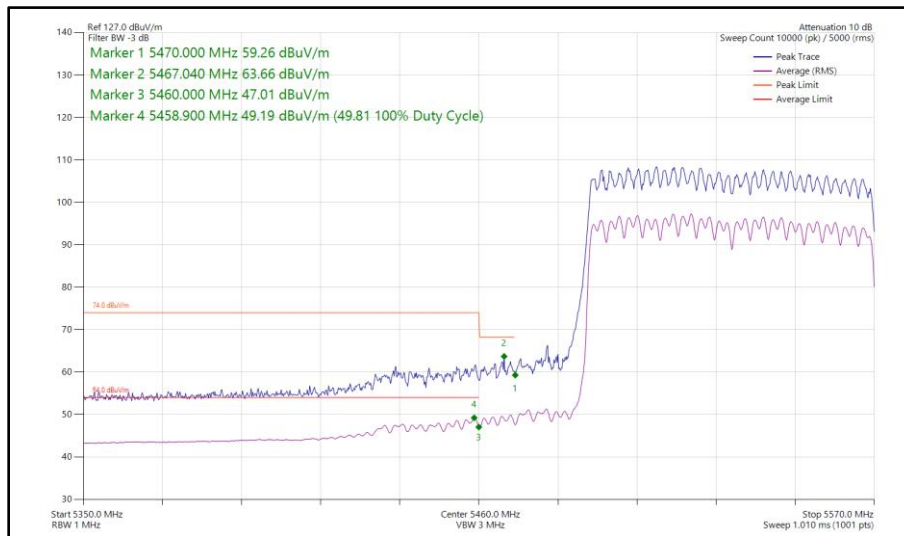
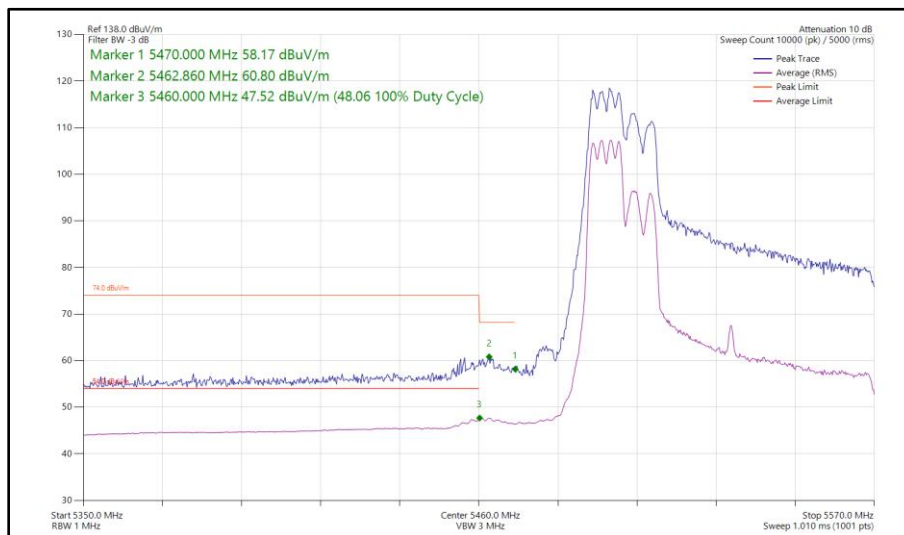


Figure 191 - 802.11ac VHT80, CDD, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz



**Figure 192 - 802.11ax HE80, SU, CDD, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz**



**Figure 193 - 802.11ax HE80, RU 106-53, CDD, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz**



80 MHz Bandwidth - Core 0 - Core 1 (SDM)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ac VHT80	MCS 4x2	-	-	5210	5150	62.54	51.19
802.11ax HE80	MCS 2x2	SU	-	5210	5150	63.13	51.42
802.11ax HE80	MCS 11x2	106	53	5210	5150	56.58	44.14
802.11ac VHT80	MCS 2x2	-	-	5290	5350	63.48	51.41
802.11ax HE80	MCS 2x2	SU	-	5290	5350	63.45	51.22
802.11ax HE80	MCS 11x2	52	37	5290	5350	67.21	48.18
802.11ac VHT80	MCS 2x2	-	-	5530	5460	63.60	51.19
802.11ax HE80	MCS 11x2	SU	-	5530	5460	63.49	49.92
802.11ax HE80	MCS 11x2	106	53	5530	5460	60.36	47.79

Table 20 - SDM Restricted Band Edge Results

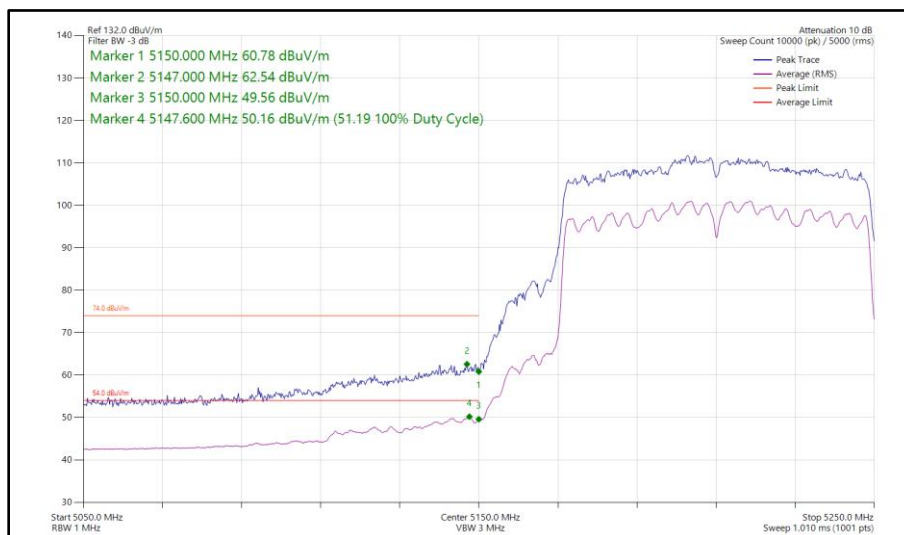
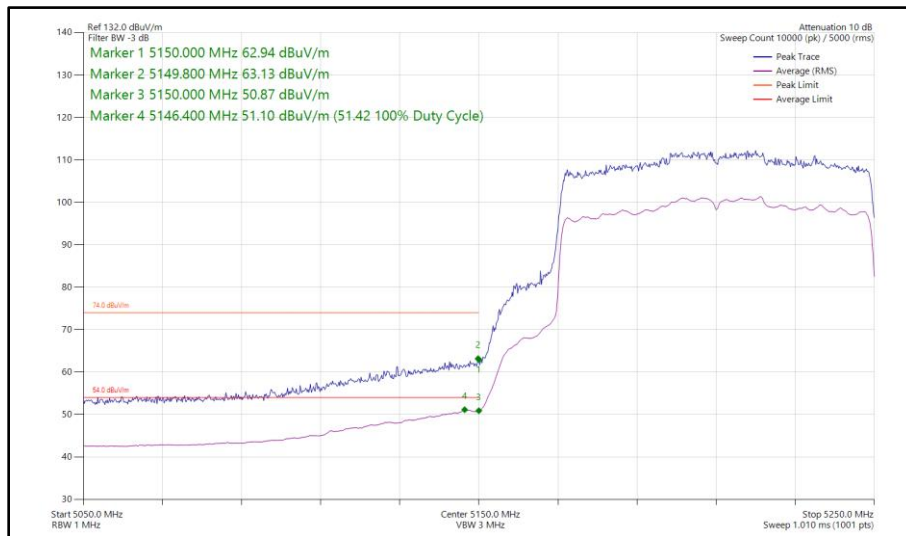
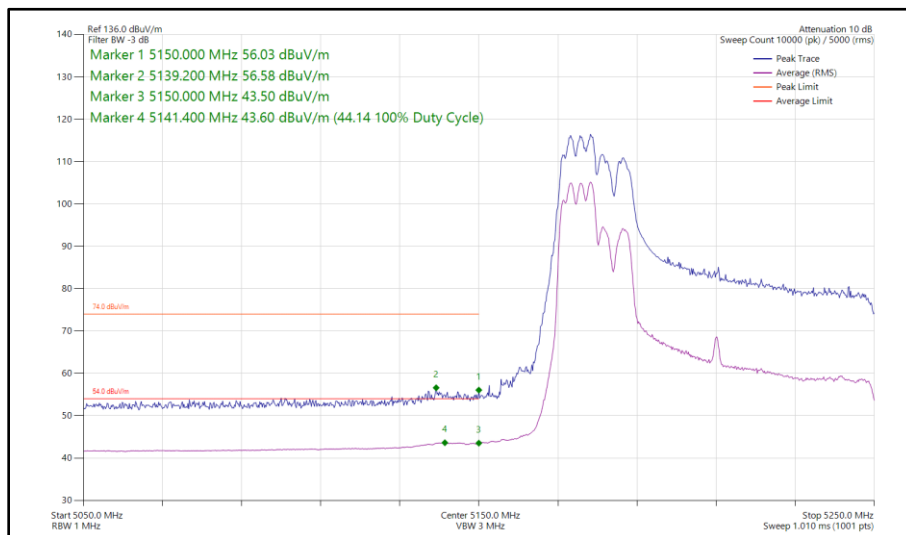


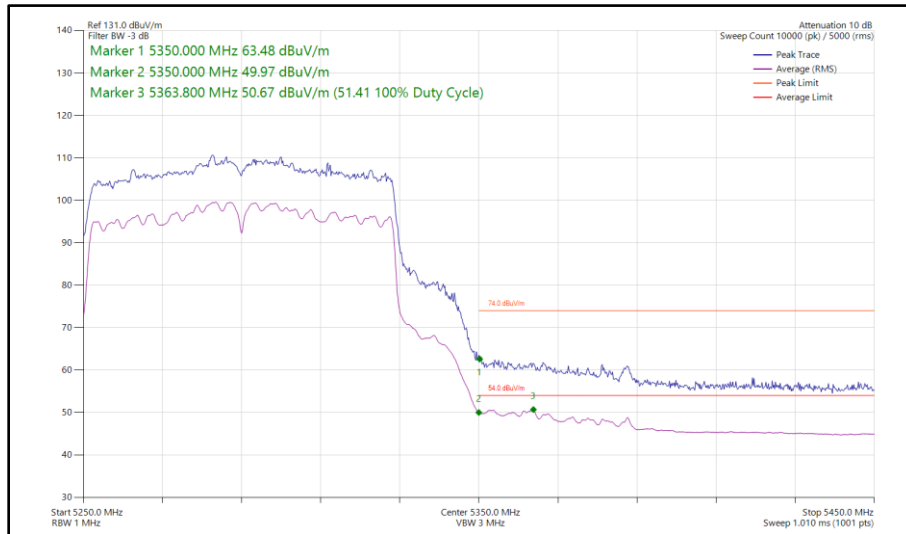
Figure 194 - 802.11ac VHT80, SDM, Core 0 - Core 1 - 5210 MHz Band Edge Frequency 5150 MHz



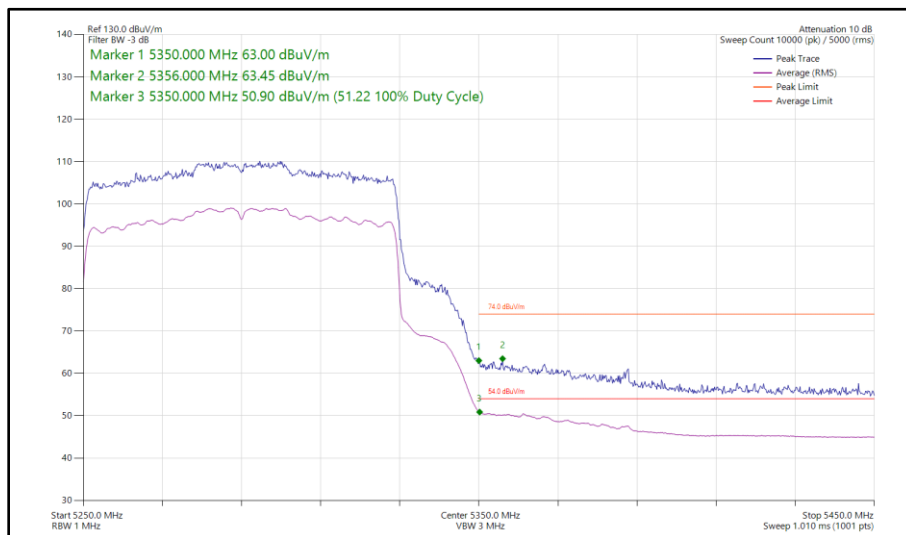
**Figure 195 - 802.11ax HE80, SU, SDM, Core 0 - Core 1 - 5210 MHz
Band Edge Frequency 5150 MHz**



**Figure 196 - 802.11ax HE80, RU 106-53, SDM, Core 0 - Core 1 - 5210 MHz
Band Edge Frequency 5150 MHz**



**Figure 197 - 802.11ac VHT80, SDM, Core 0 - Core 1 - 5290 MHz
Band Edge Frequency 5350 MHz**



**Figure 198 - 802.11ax HE80, SU, SDM, Core 0 - Core 1 - 5290 MHz
Band Edge Frequency 5350 MHz**

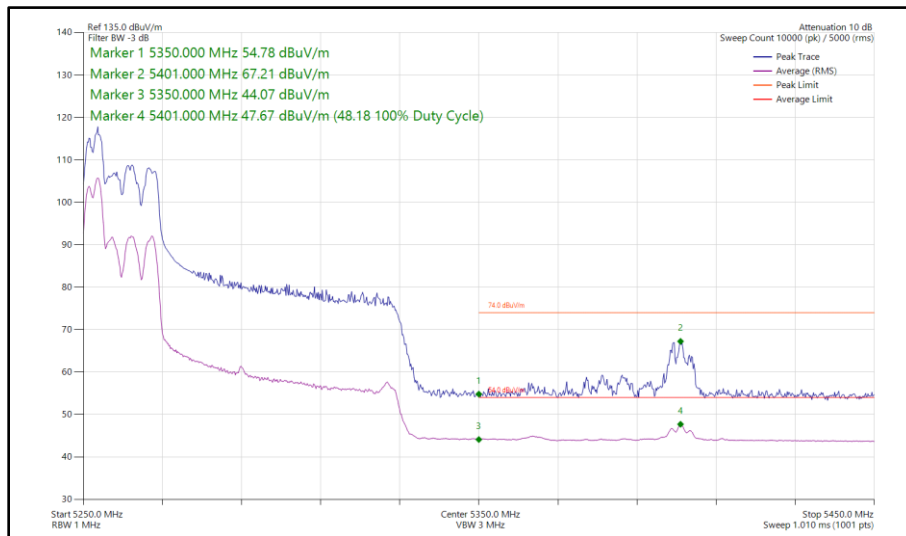


Figure 199 - 802.11ax HE80, RU 52-37, SDM, Core 0 - Core 1 - 5290 MHz
Band Edge Frequency 5350 MHz

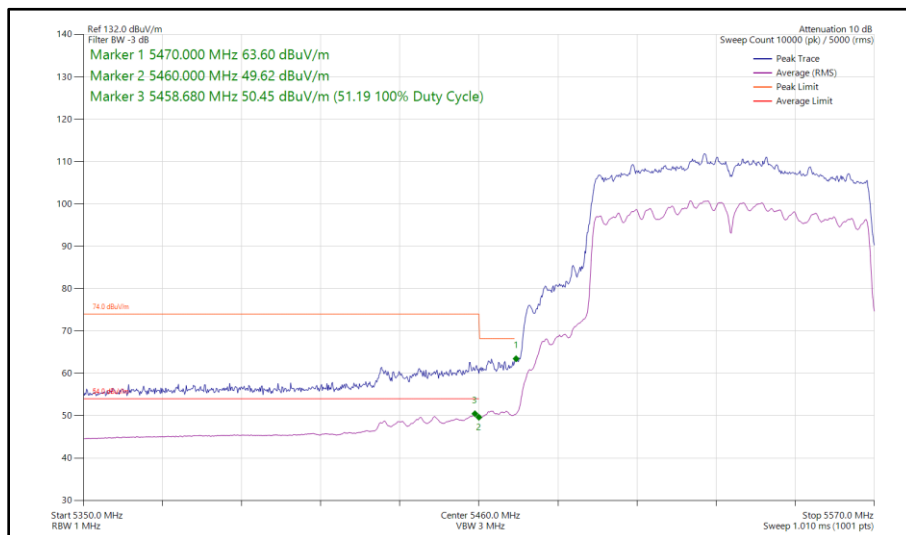
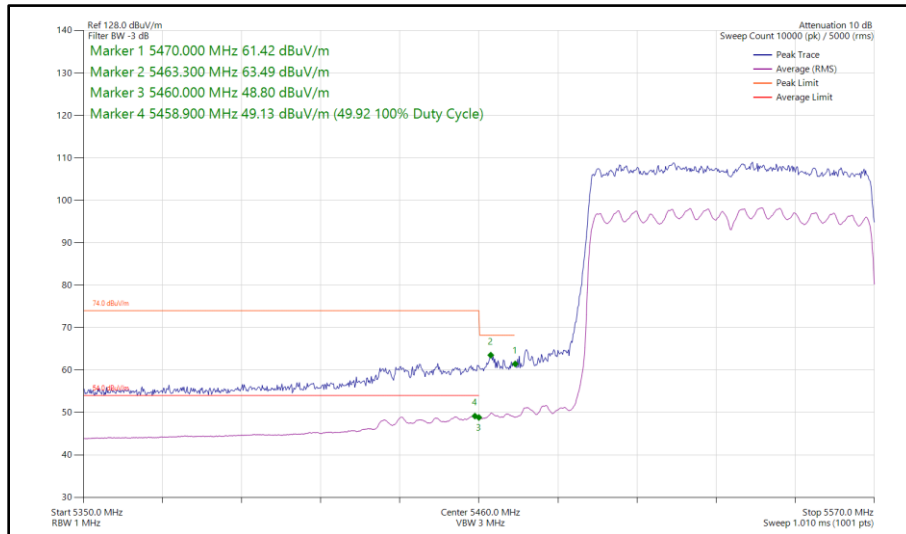
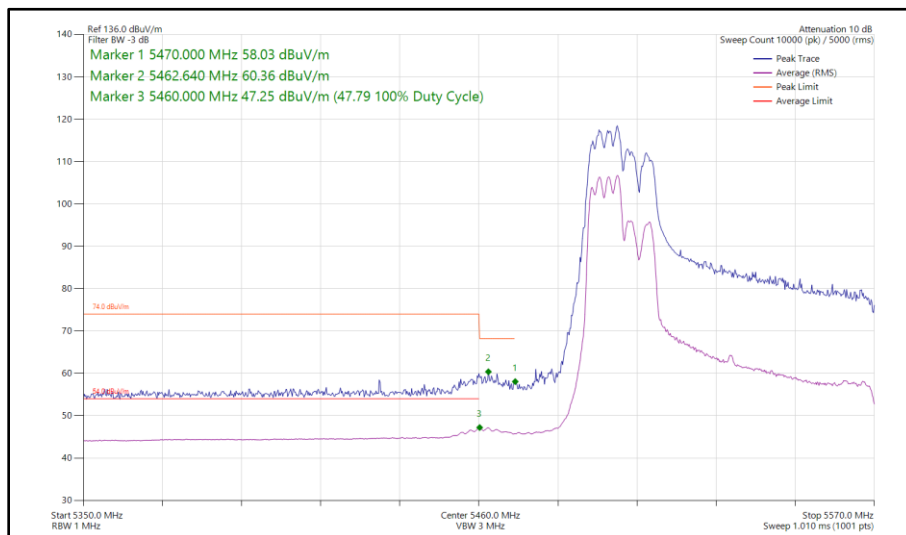


Figure 200 - 802.11ac VHT80, SDM, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz



**Figure 201 - 802.11ax HE80, SU, SDM, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz**



**Figure 202 - 802.11ax HE80, RU 106-53, SDM, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz**



80 MHz Bandwidth - Core 0 - Core 1 (TxBF)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ac VHT80	MCS 2x1	-	-	5210	5150	69.39	50.24
802.11ac VHT80	MCS 8x1	-	-	5290	5350	66.47	51.13
802.11ac VHT80	MCS 2x1	-	-	5530	5460	64.32	50.25

Table 21 - TxBF Restricted Band Edge Results

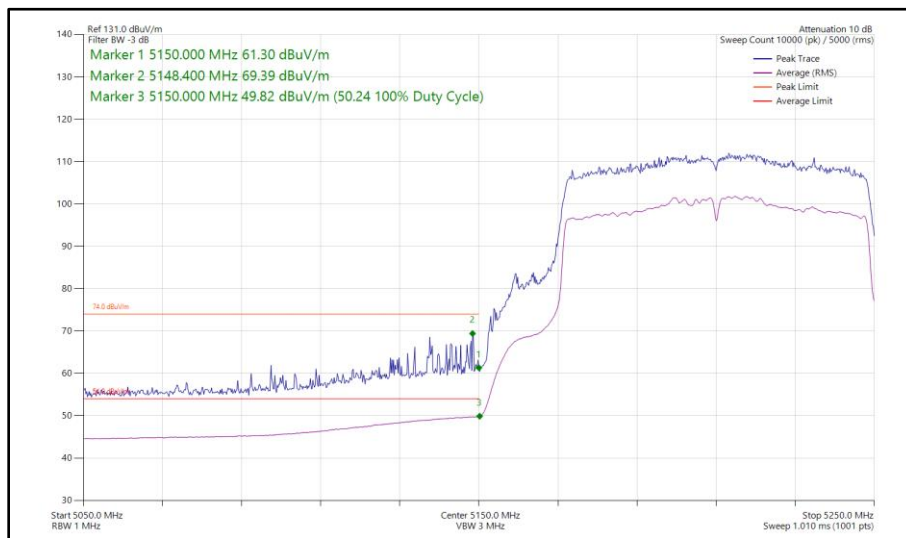


Figure 203 - 802.11ac VHT80, TxBF, Core 0 - Core 1 - 5210 MHz Band Edge Frequency 5150 MHz

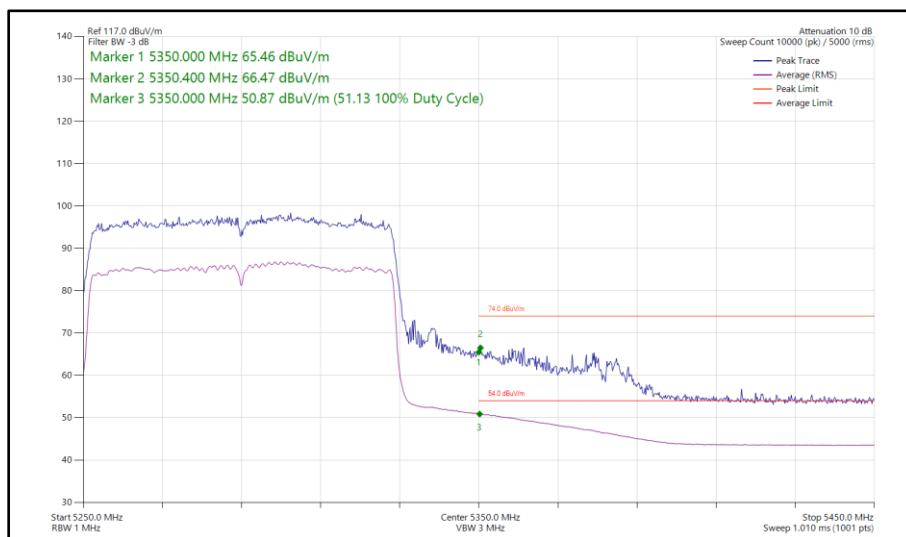
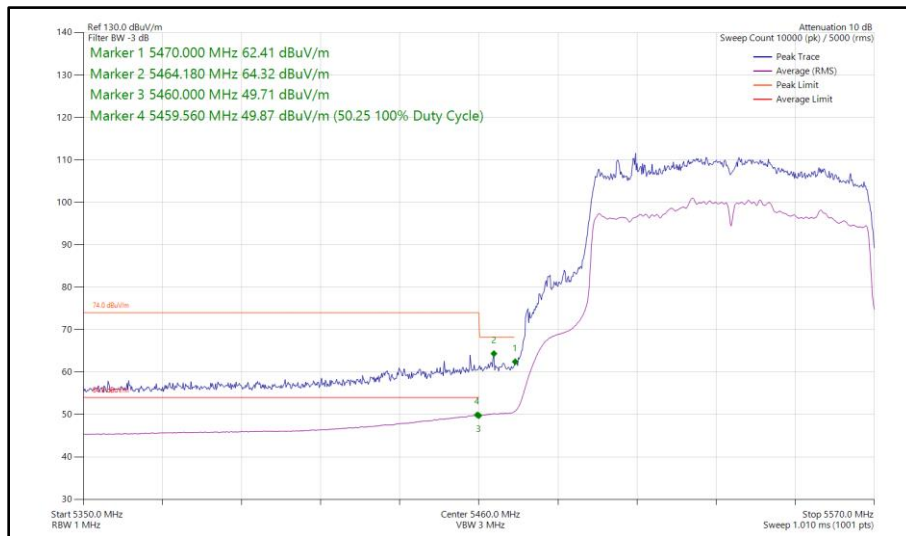


Figure 204 - 802.11ac VHT80, TxBF, Core 0 - Core 1 - 5290 MHz Band Edge Frequency 5350 MHz



**Figure 205 - 802.11ac VHT80, TxBF, Core 0 - Core 1 - 5530 MHz
Band Edge Frequency 5460 MHz**



160 MHz Bandwidth - Core 0 (SISO)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ac VHT160	MCS 4x1	-	-	5250	5150	62.74	51.42
802.11ax HE160	MCS 2x1	SU	-	5250	5150	62.67	51.25
802.11ax HE160	MCS 11x1	106	53P	5250	5150	55.68	43.69
802.11ac VHT160	MCS 7x1	-	-	5250	5350	63.08	51.00
802.11ax HE160	MCS 2x1	SU	-	5250	5350	62.84	51.31
802.11ax HE160	MCS 11x1	106	60S	5250	5350	59.62	46.34
802.11ac VHT160	MCS 2x1	-	-	5570	5460	61.89	51.05
802.11ax HE160	MCS 2x1	SU	-	5570	5460	62.18	51.24
802.11ax HE160	MCS 11x1	106	53P	5570	5460	55.13	45.48

Table 22 - SISO Restricted Band Edge Results

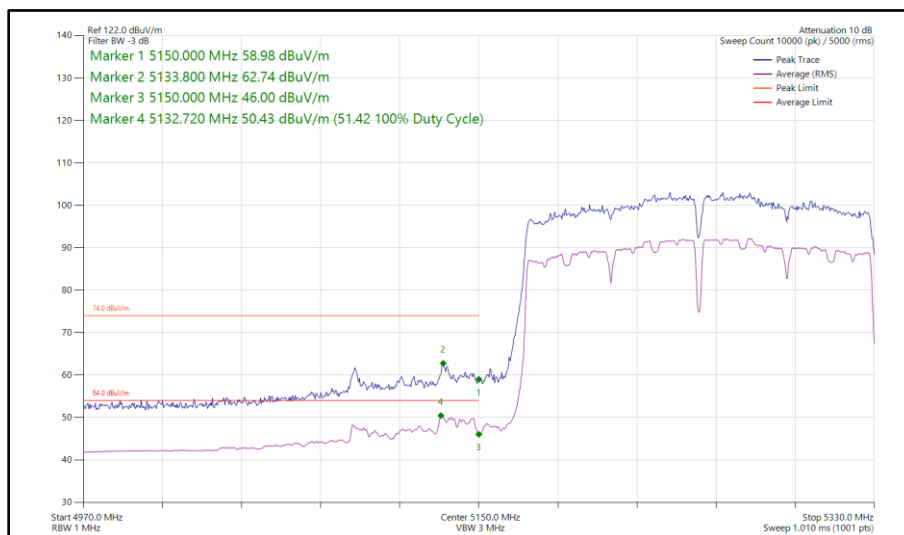
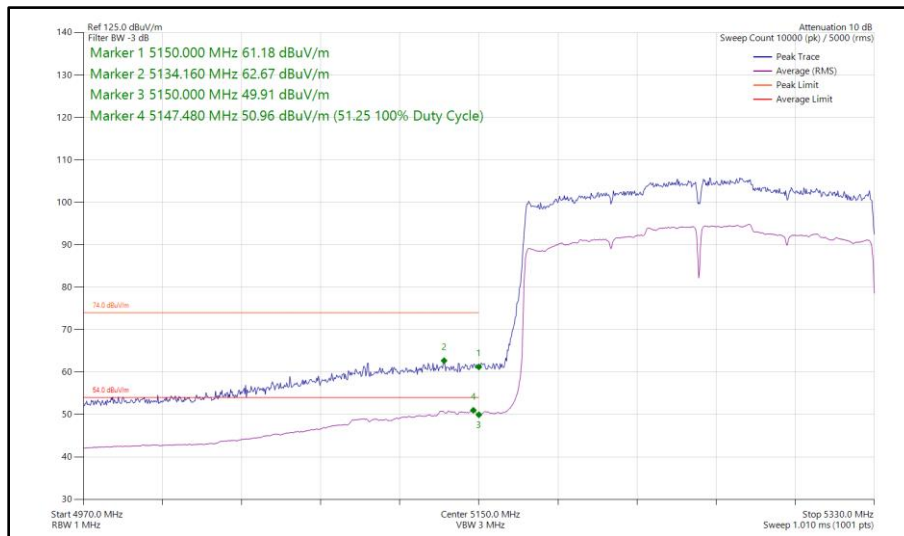
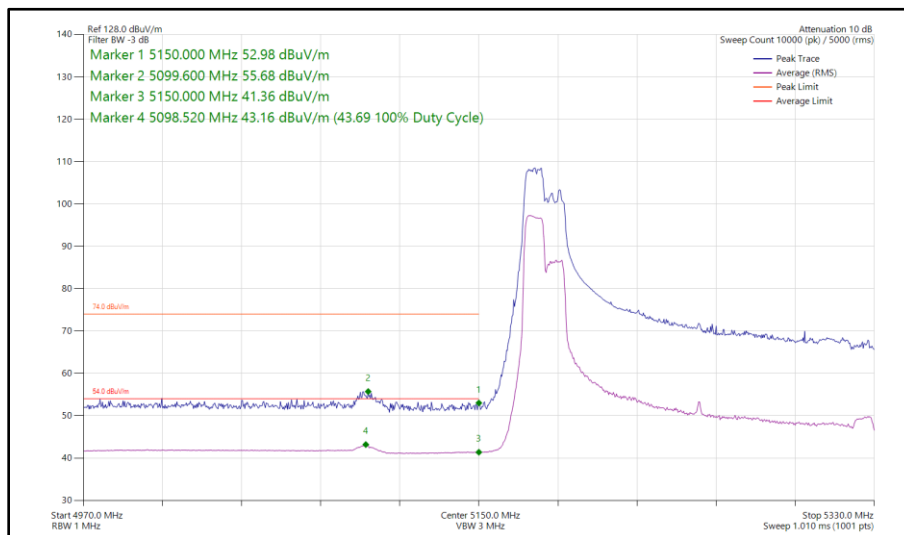


Figure 206 - 802.11ac VHT160, SISO, Core 0 - 5250 MHz
 Band Edge Frequency 5150 MHz



**Figure 207 - 802.11ax HE160, SU, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5150 MHz**



**Figure 208 - 802.11ax HE160, RU 106-53P, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5150 MHz**

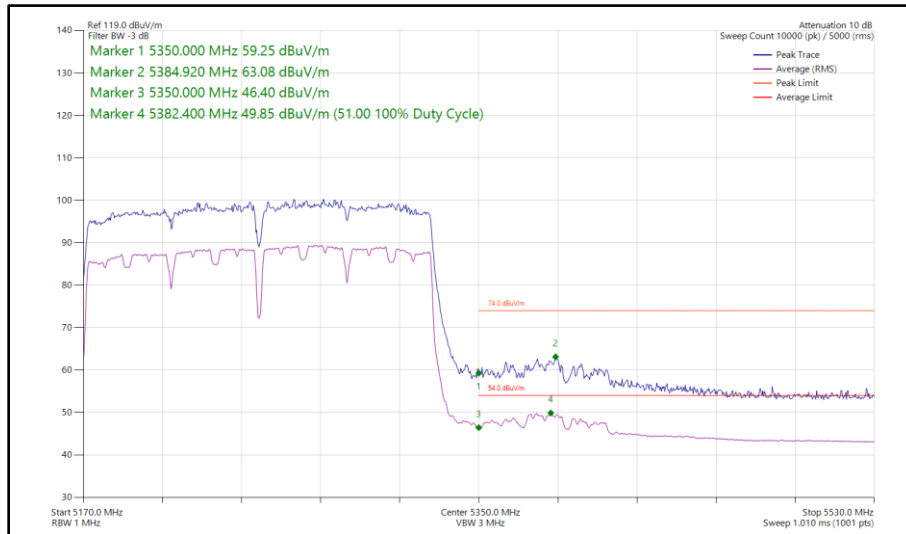


Figure 209 - 802.11ac VHT160, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5350 MHz

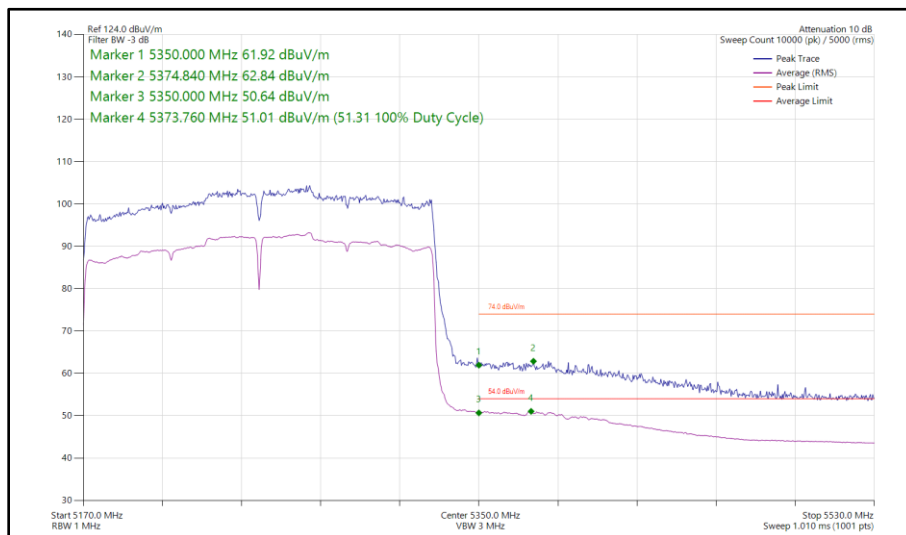
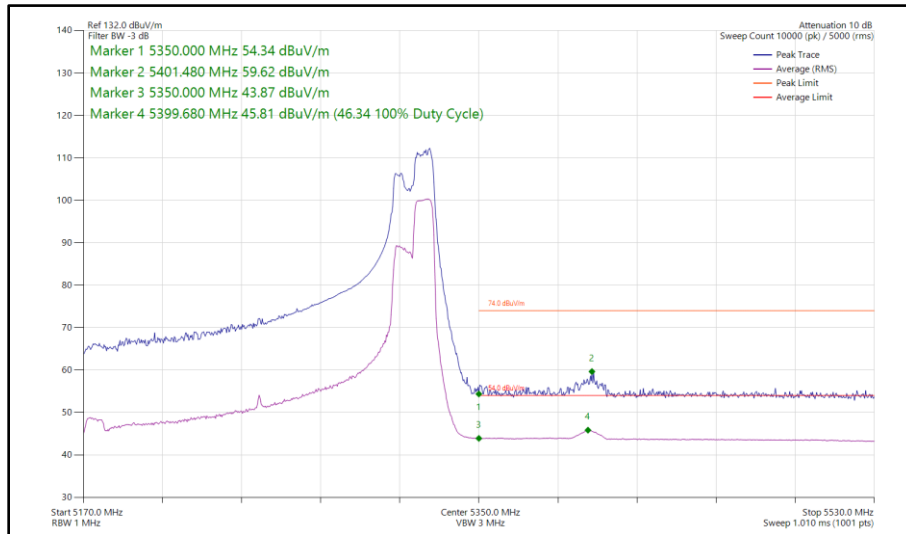
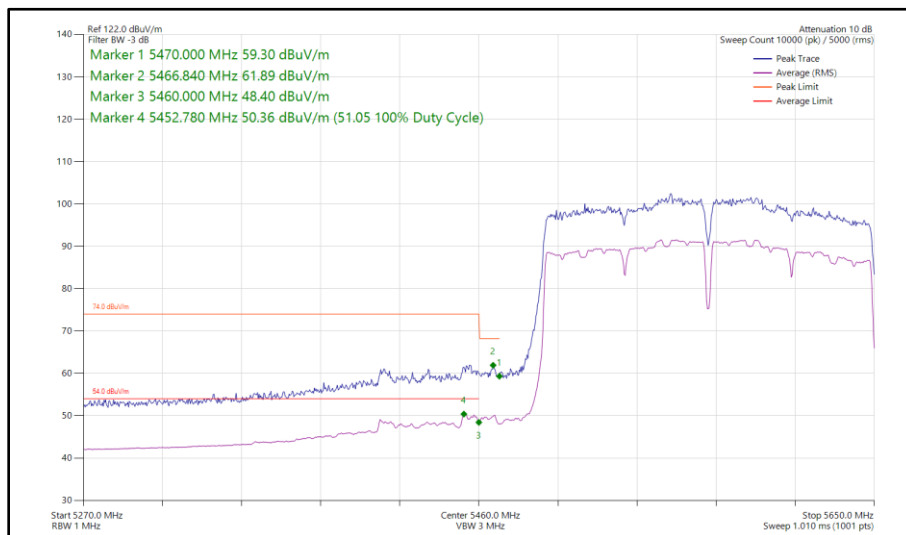


Figure 210 - 802.11ax HE160, SU, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5350 MHz



**Figure 211 - 802.11ax HE160, RU 106-60S, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5350 MHz**



**Figure 212 - 802.11ac VHT160, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5460 MHz**

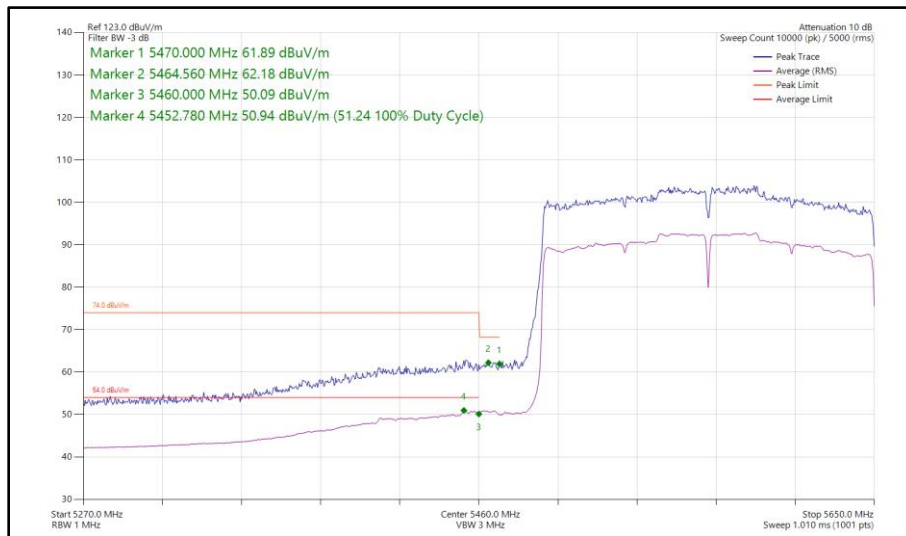


Figure 213 - 802.11ax HE160, SU, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5460 MHz

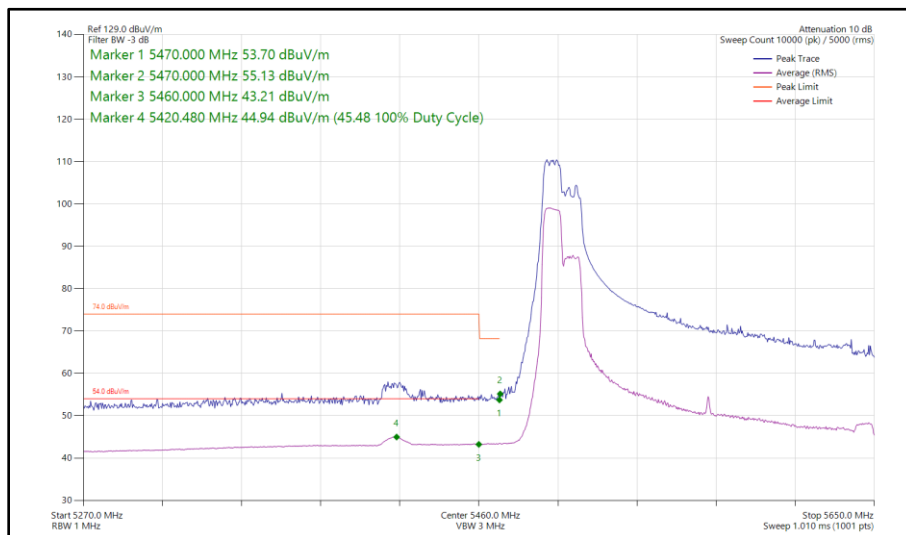


Figure 214 - 802.11ax HE160, RU 106-53P, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5460 MHz



160 MHz Bandwidth - Core 1 (SISO)

Mode	Data Rate/MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ac VHT160	MCS 4x1	-	-	5250	5150	66.96	51.48
802.11ax HE160	MCS 4x1	SU	-	5250	5150	63.81	51.19
802.11ax HE160	MCS 11x1	106	53P	5250	5150	54.52	42.58
802.11ac VHT160	MCS 7x1	-	-	5250	5350	63.77	51.35
802.11ax HE160	MCS 4x1	SU	-	5250	5350	63.52	51.49
802.11ax HE160	MCS 11x1	106	60S	5250	5350	56.22	44.95
802.11ac VHT160	MCS 4x1	-	-	5570	5460	61.35	51.34
802.11ax HE160	MCS 11x1	SU	-	5570	5460	63.65	51.10
802.11ax HE160	MCS 11x1	106	53P	5570	5460	55.23	43.88

Table 23 - SISO Restricted Band Edge Results

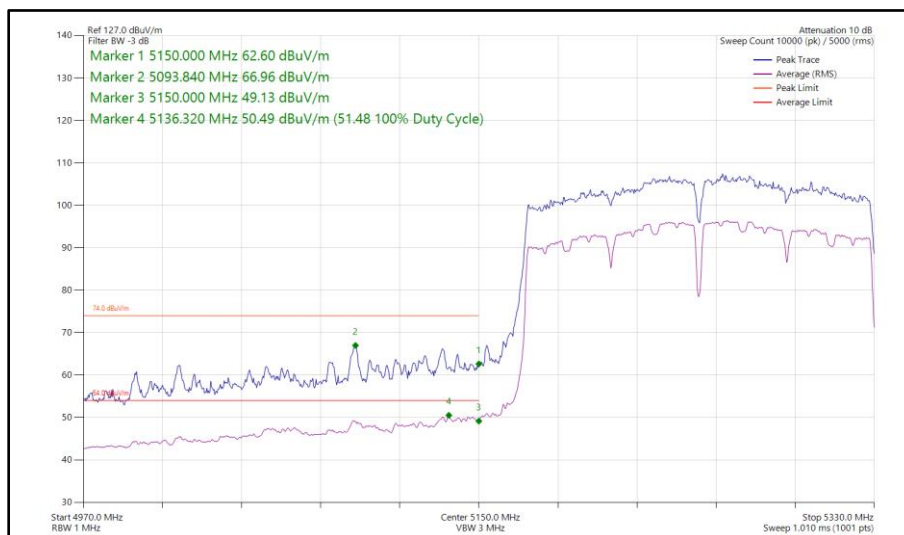


Figure 215 - 802.11ac VHT160, SISO, Core 1 - 5250 MHz
 Band Edge Frequency 5150 MHz

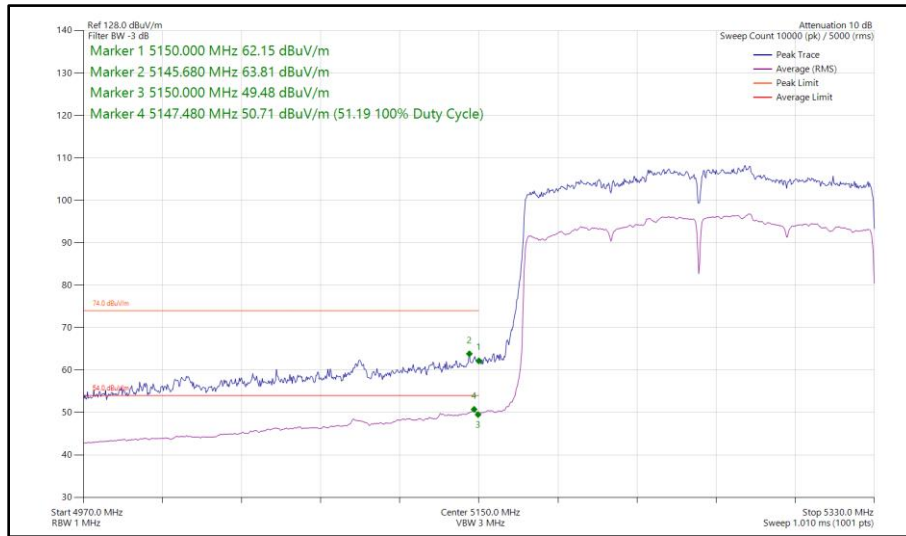


Figure 216 - 802.11ax HE160, SU, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

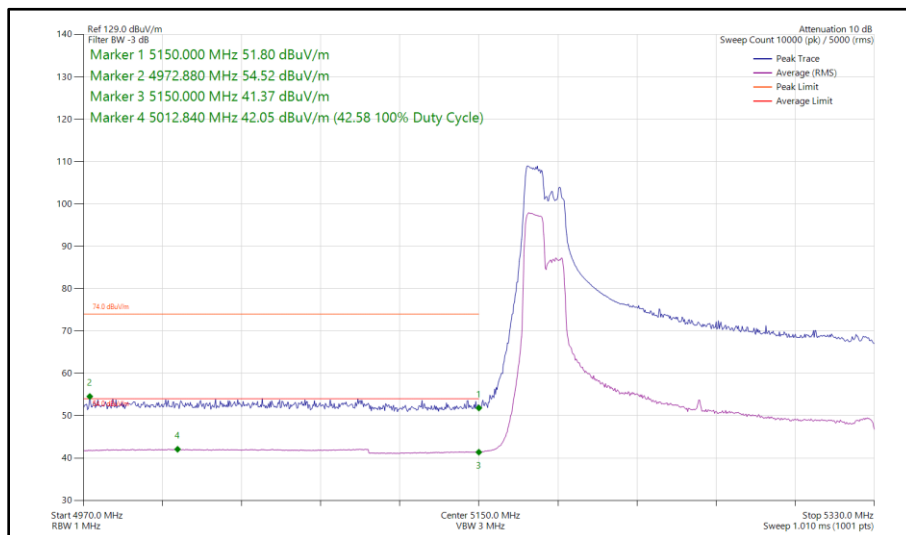


Figure 217 - 802.11ax HE160, RU 106-53P, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

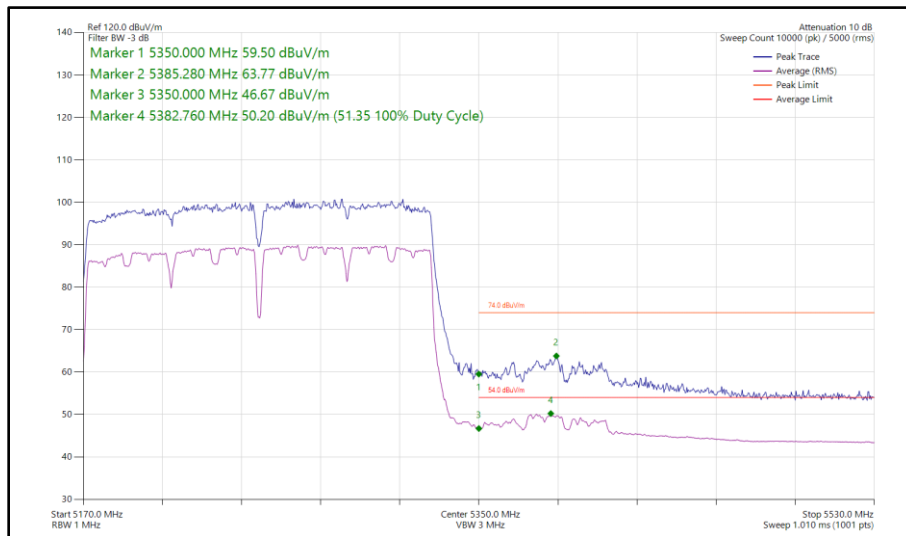


Figure 218 - 802.11ac VHT160, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz

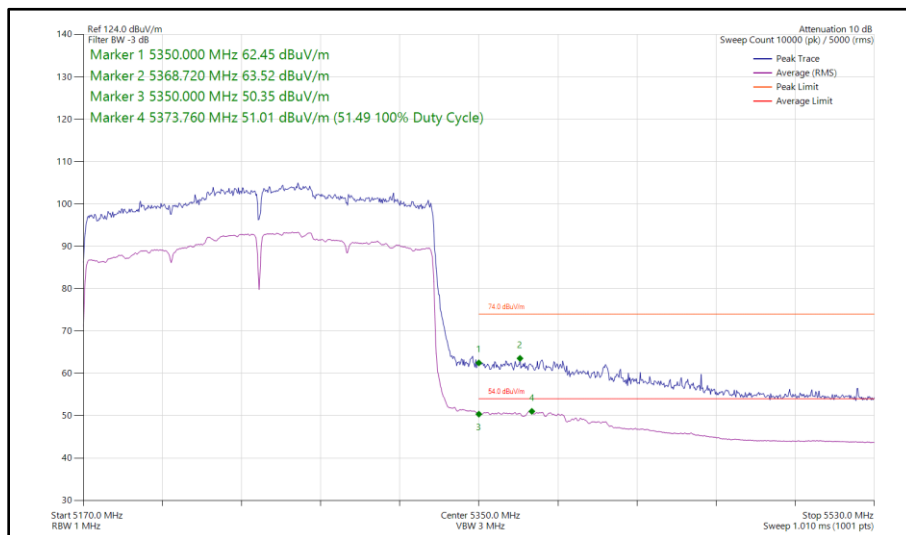
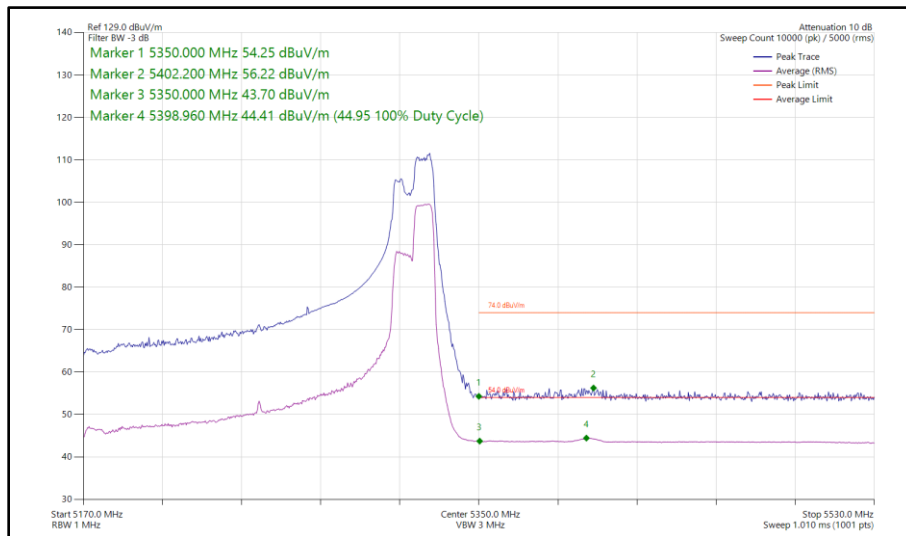
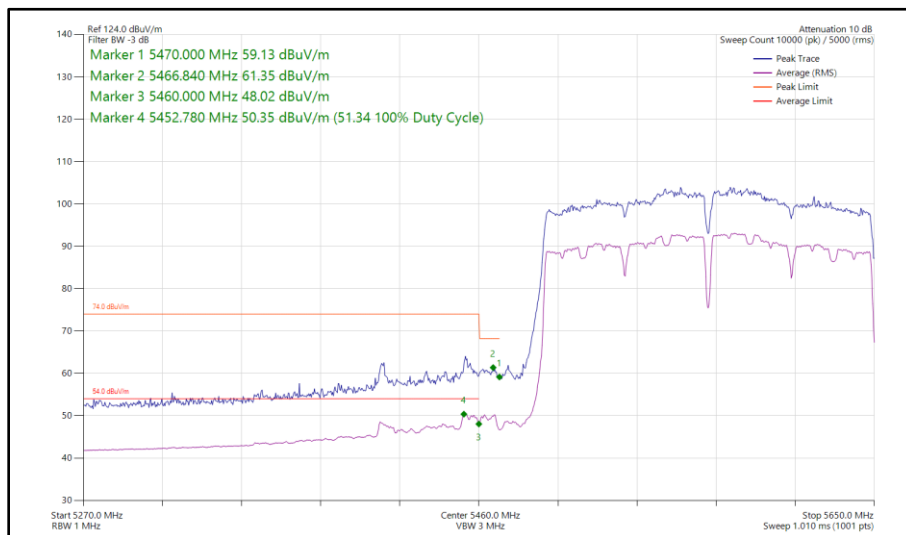


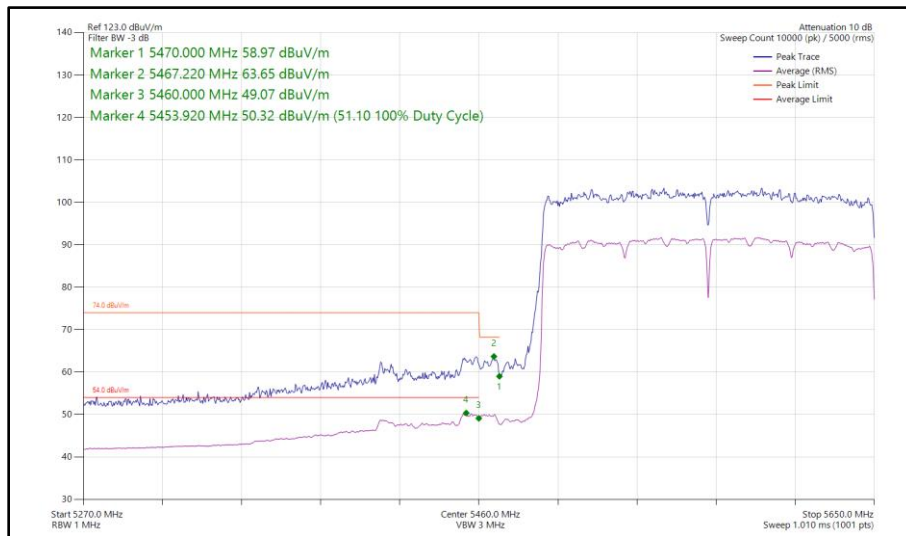
Figure 219 - 802.11ax HE160, SU, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz



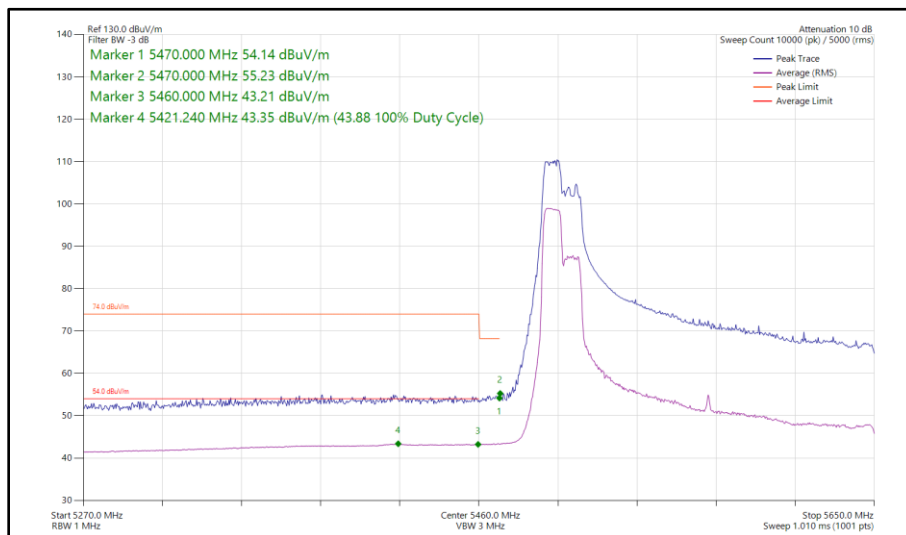
**Figure 220 - 802.11ax HE160, RU 106-60S, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



**Figure 221 - 802.11ac VHT160, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz**



**Figure 222 - 802.11ax HE160, SU, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz**



**Figure 223 - 802.11ax HE160, RU 106-53P, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz**



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

Mode	Data Rate/MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ac VHT160	MCS 2x1	-	-	5250	5150	62.51	51.46
802.11ax HE160	MCS 4x1	SU	-	5250	5150	64.63	51.39
802.11ax HE160	MCS 11x1	106	53P	5250	5150	55.70	43.95
802.11ac VHT160	MCS 7x1	-	-	5250	5350	63.97	51.31
802.11ax HE160	MCS 2x1	SU	-	5250	5350	64.79	51.48
802.11ax HE160	MCS 11x1	106	53P	5250	5350	60.26	46.62
802.11ac VHT160	MCS 2x1	-	-	5570	5460	62.52	51.46
802.11ax HE160	MCS 11x1	SU	-	5570	5460	63.52	50.99
802.11ax HE160	MCS 11x1	106	53P	5570	5460	56.39	45.59

Table 24 - CDD Restricted Band Edge Results

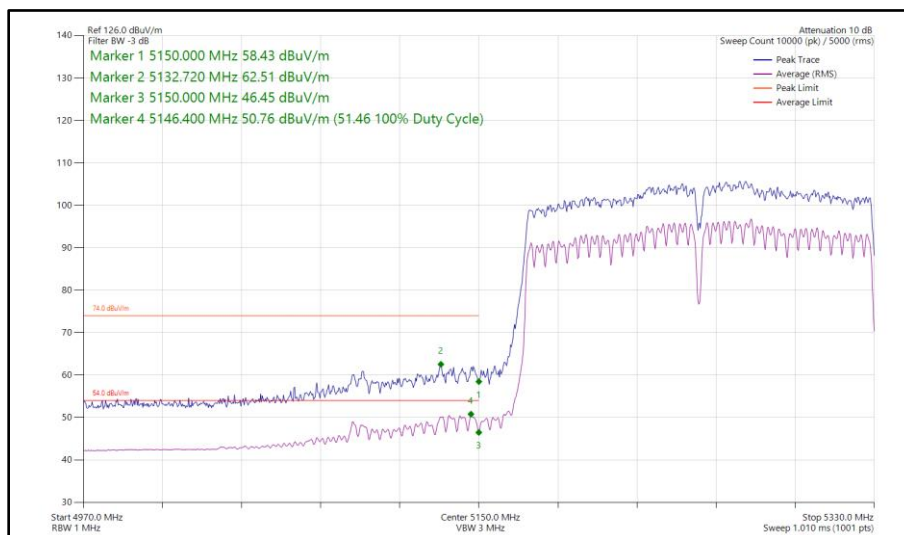


Figure 224 - 802.11ac VHT160, CDD, Core 0 - Core 1 - 5250 MHz Band Edge Frequency 5150 MHz

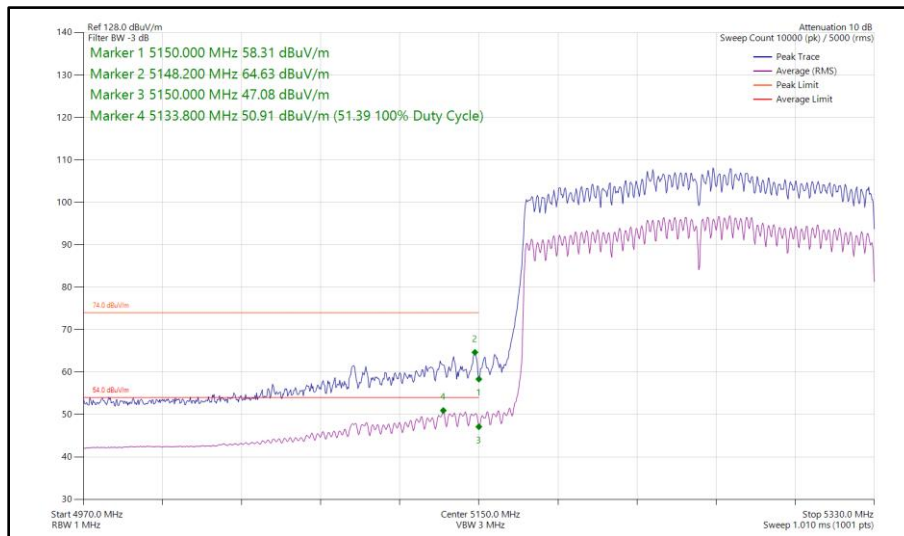


Figure 225 - 802.11ax HE160, SU, CDD, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

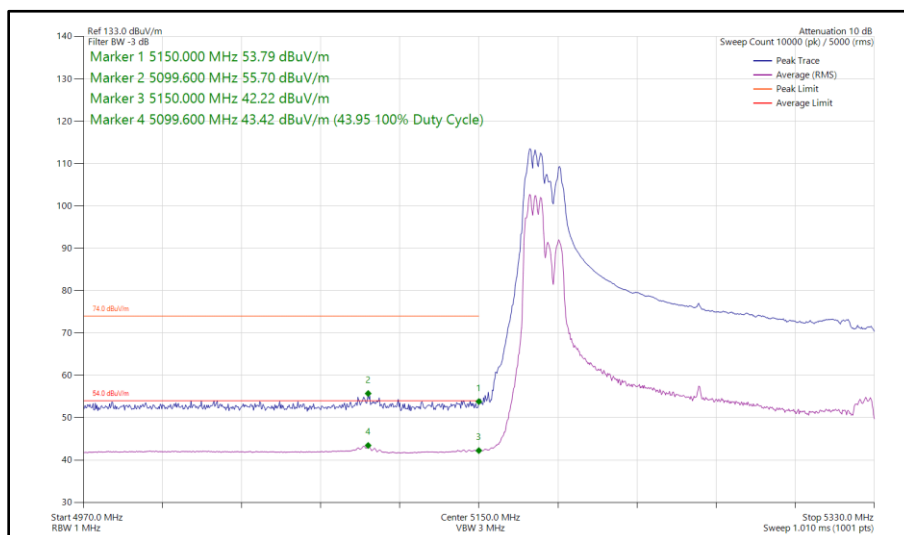
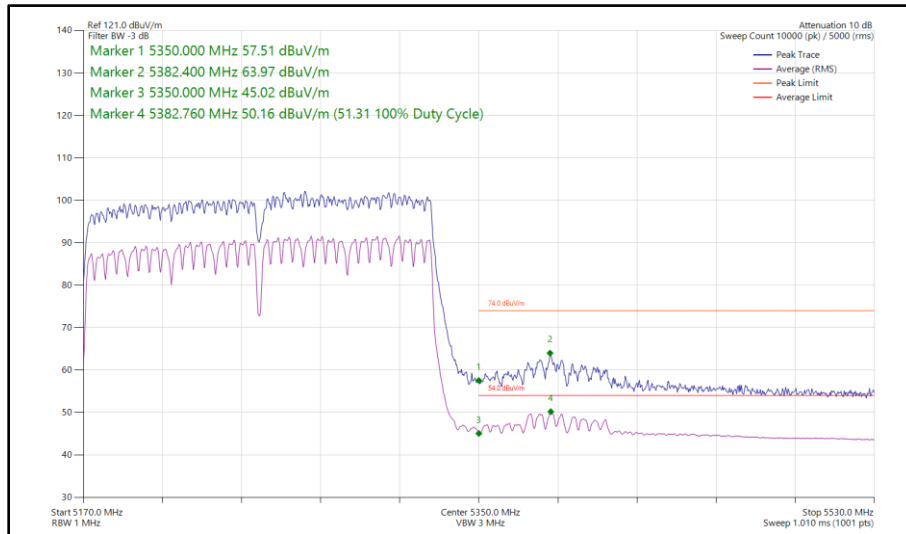
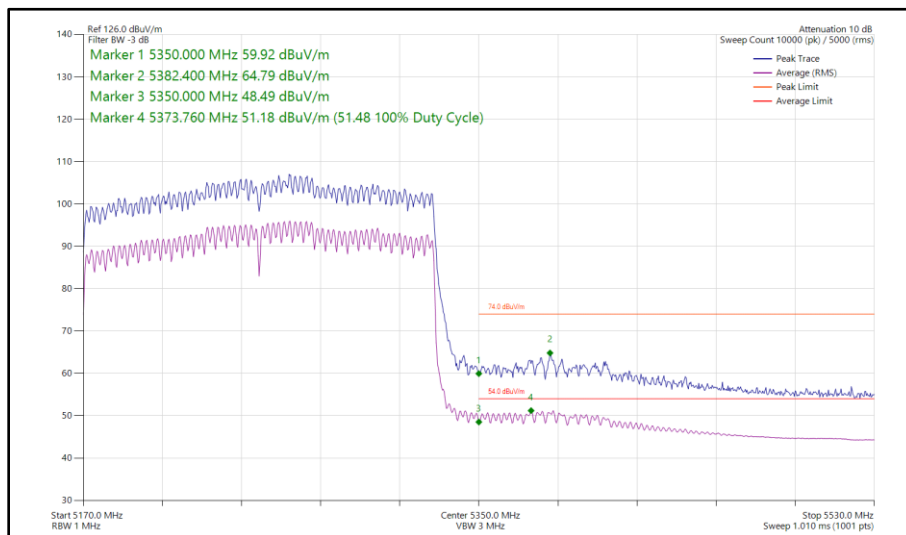


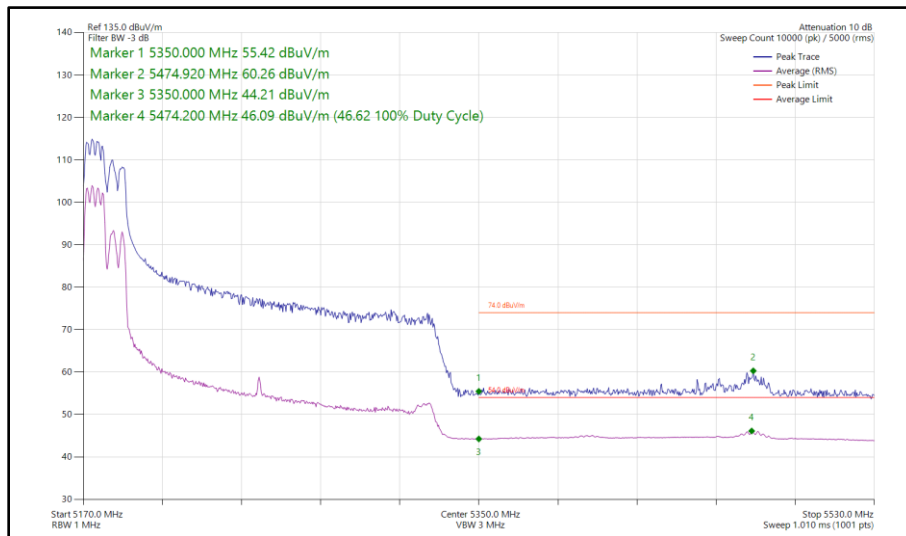
Figure 226 - 802.11ax HE160, RU 106-53P, CDD, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz



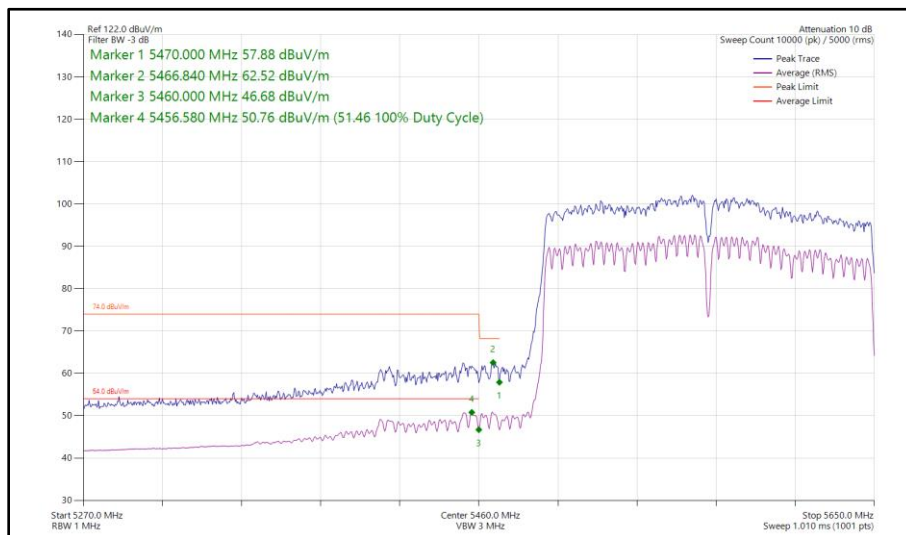
**Figure 227 - 802.11ac VHT160, CDD, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



**Figure 228 - 802.11ax HE160, SU, CDD, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



**Figure 229 - 802.11ax HE160, RU 106-53P, CDD, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



**Figure 230 - 802.11ac VHT160, CDD, Core 0 - Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz**

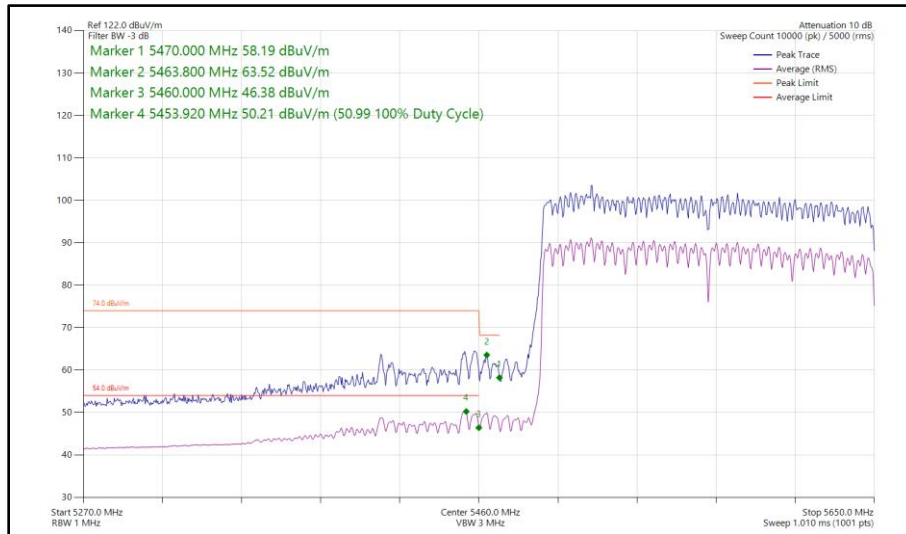


Figure 231 - 802.11ax HE160, SU, CDD, Core 0 - Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz

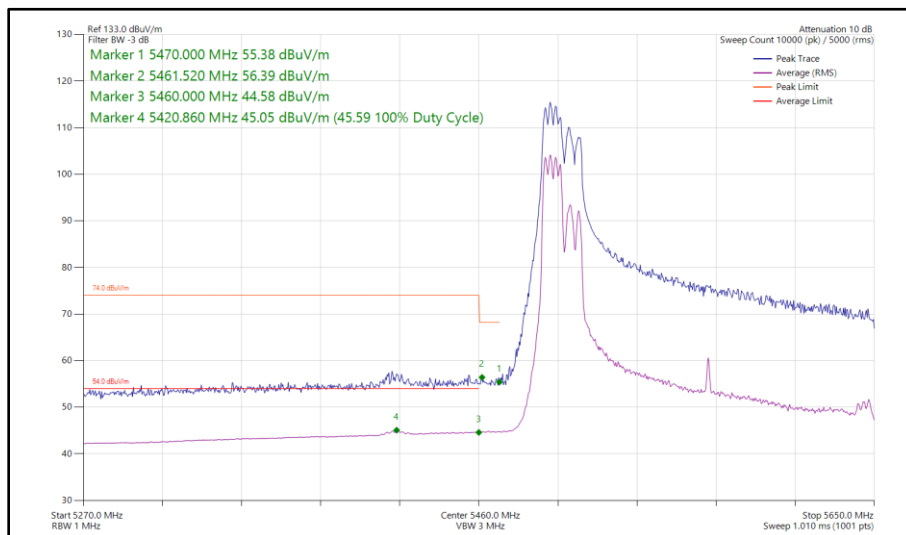


Figure 232 - 802.11ax HE160, RU 106-53P, CDD, Core 0 - Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz



160 MHz Bandwidth - Core 0 - Core 1 (SDM)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ac VHT160	MCS 2x2	-	-	5250	5150	62.20	51.16
802.11ax HE160	MCS 11x2	SU	-	5250	5150	62.79	51.37
802.11ax HE160	MCS 11x2	106	53P	5250	5150	55.76	43.77
802.11ac VHT160	MCS 4x2	-	-	5250	5350	63.79	51.42
802.11ax HE160	MCS 4x2	SU	-	5250	5350	63.88	51.24
802.11ax HE160	MCS 11x2	106	60S	5250	5350	58.96	47.16
802.11ac VHT160	MCS 7x2	-	-	5570	5460	62.13	50.97
802.11ax HE160	MCS 11x2	SU	-	5570	5460	61.57	51.29
802.11ax HE160	MCS 11x2	106	53P	5570	5460	55.53	46.25

Table 25 - SDM Restricted Band Edge Results

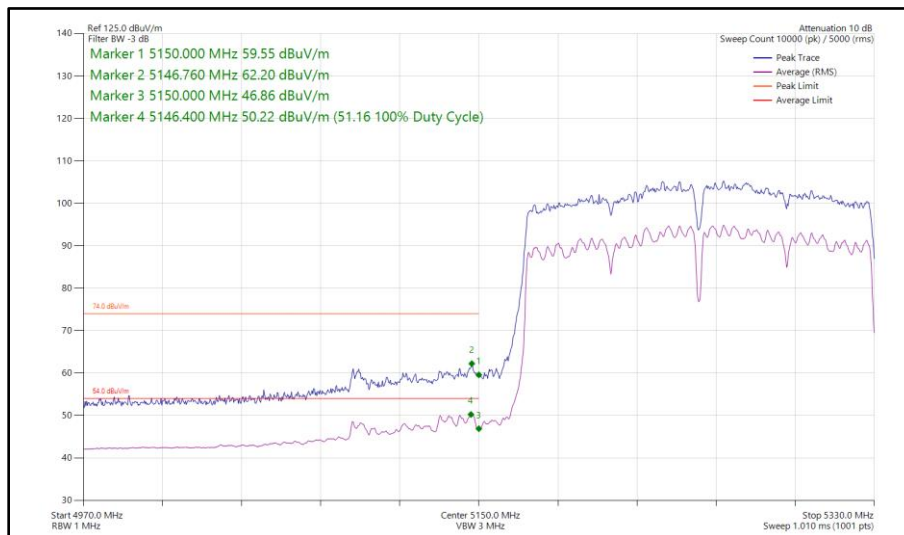


Figure 233 - 802.11ac VHT160, SDM, Core 0 - Core 1 - 5250 MHz
 Band Edge Frequency 5150 MHz

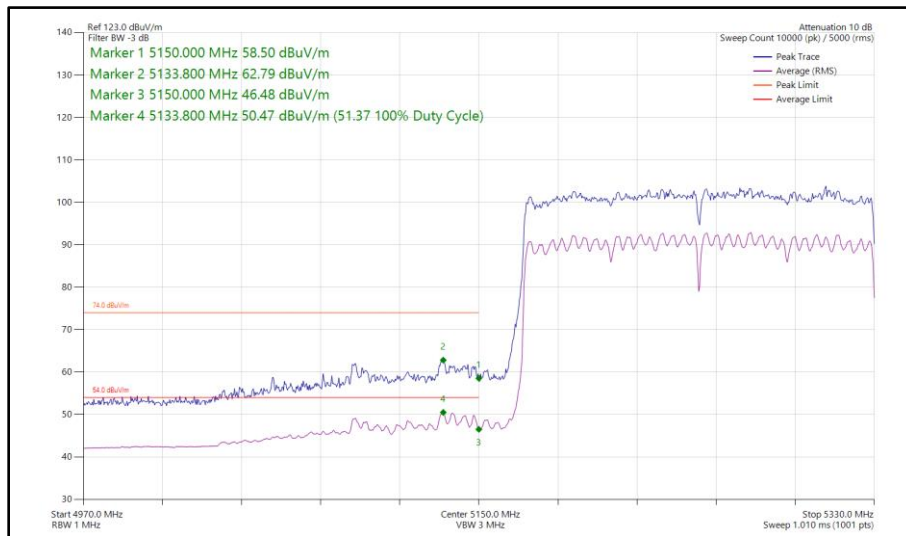


Figure 234 - 802.11ax HE160, SU, SDM, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

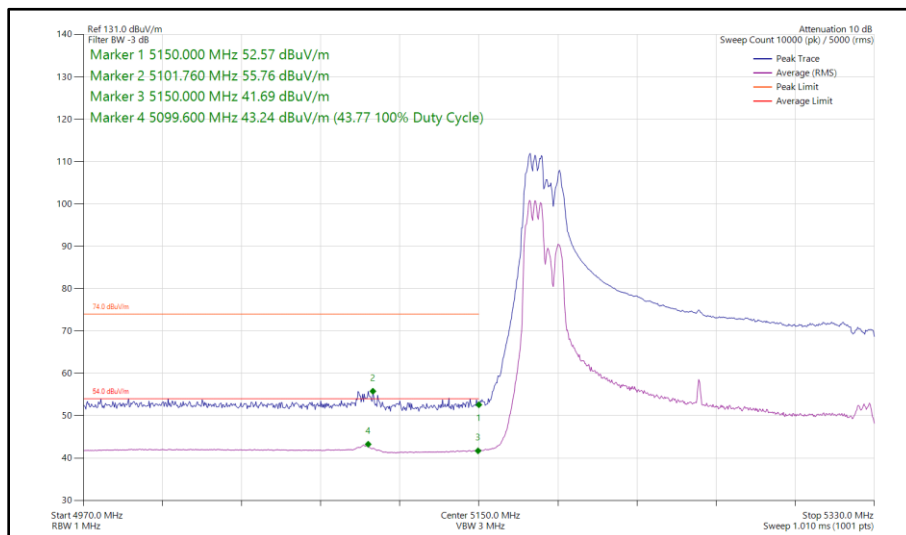
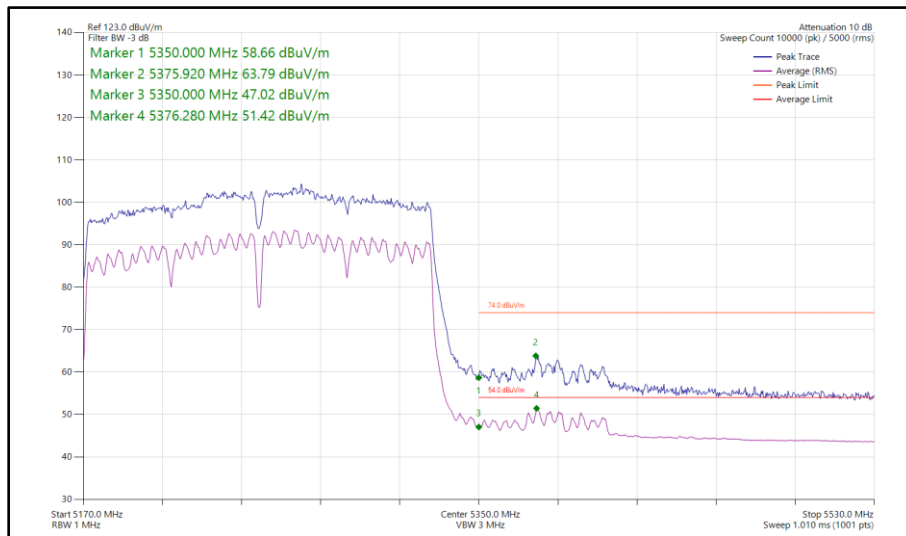
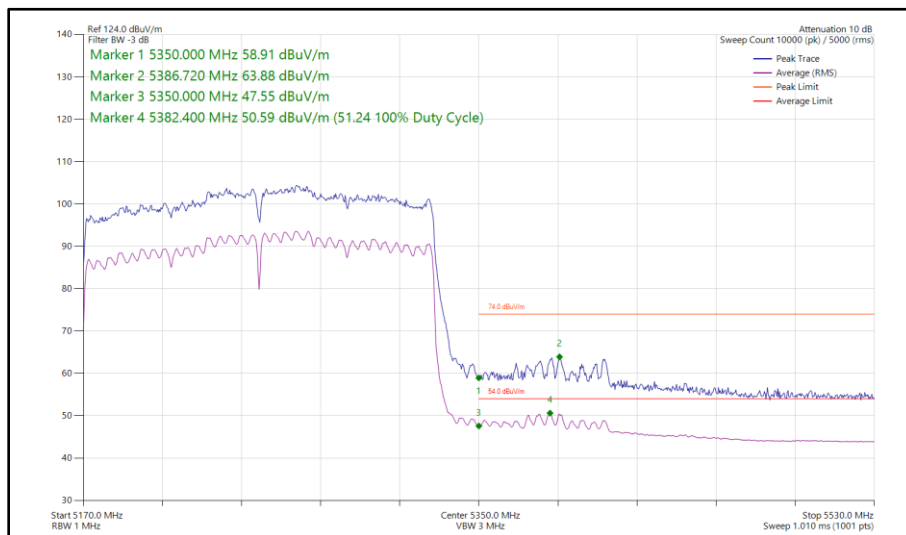


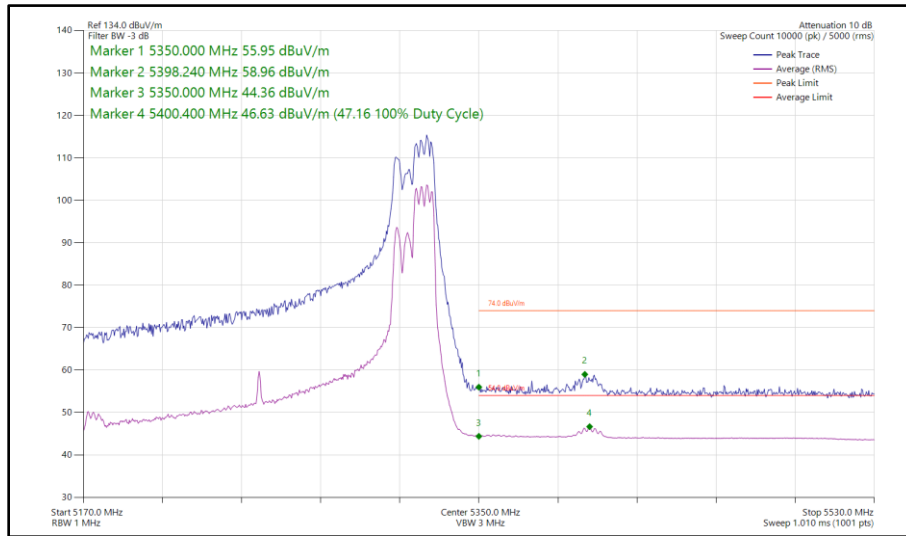
Figure 235 - 802.11ax HE160, RU 106-53P, SDM, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz



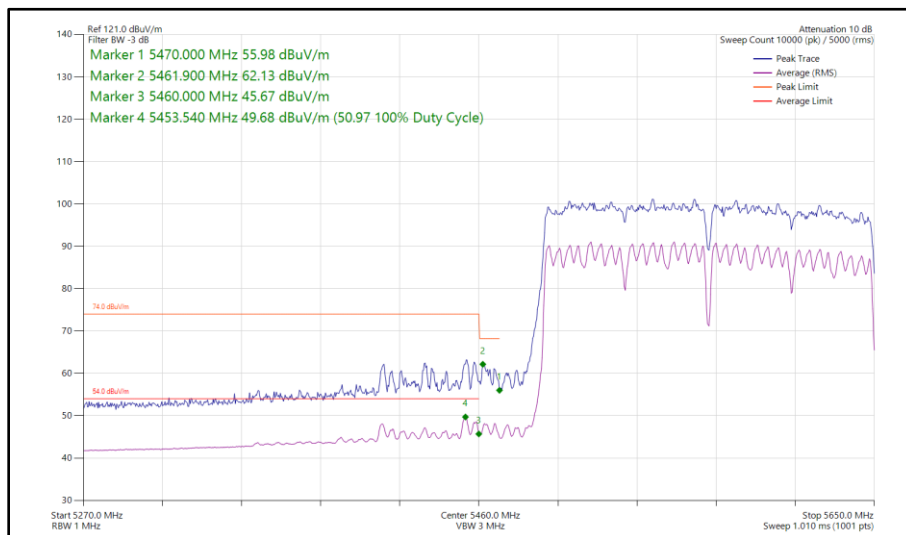
**Figure 236 - 802.11ac VHT160, SDM, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



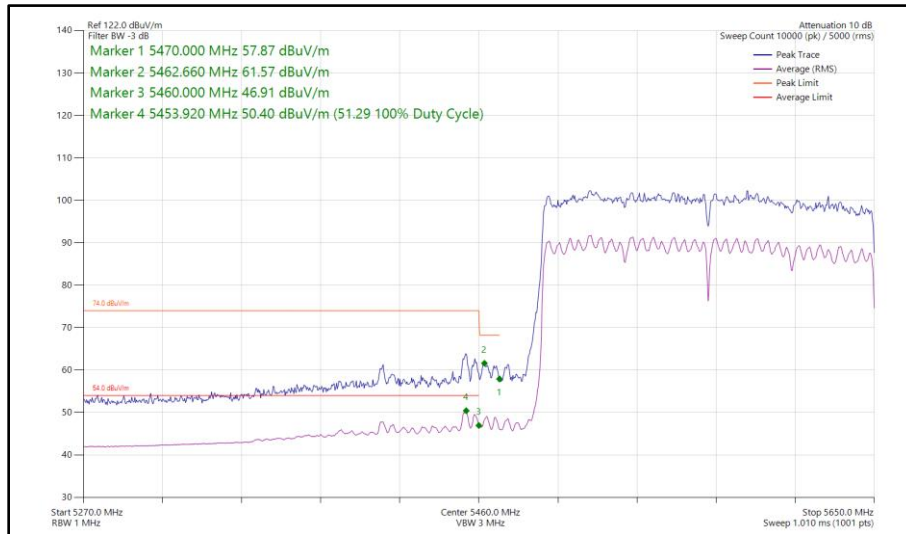
**Figure 237 - 802.11ax HE160, SU, SDM, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



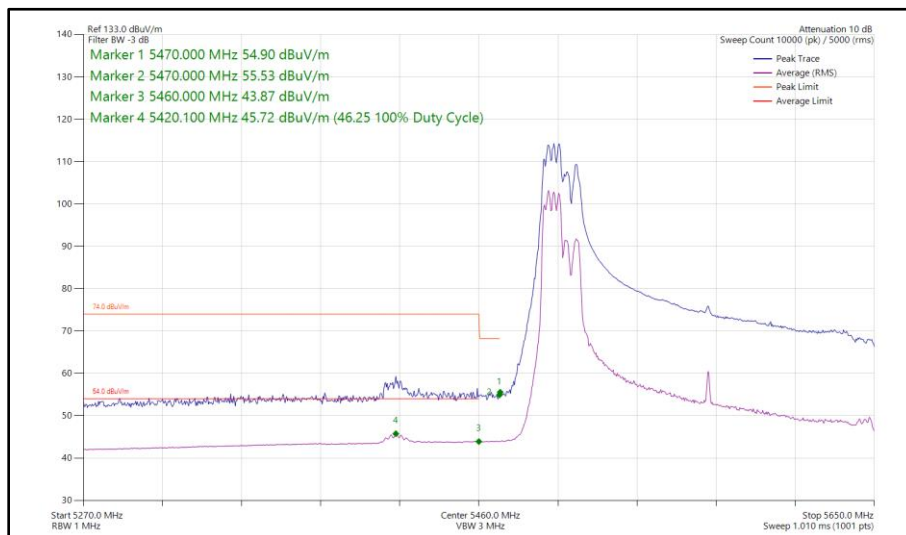
**Figure 238 - 802.11ax HE160, RU 106-60S, SDM, Core 0 - Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz**



**Figure 239 - 802.11ac VHT160, SDM, Core 0 - Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz**



**Figure 240 - 802.11ax HE160, SU, SDM, Core 0 - Core 1 - 5570 MHz
 Band Edge Frequency 5460 MHz**



**Figure 241 - 802.11ax HE160, RU 106-53P, SDM, Core 0 - Core 1 - 5570 MHz
 Band Edge Frequency 5460 MHz**

FCC 47 CFR Part 15, Limit Clause 15.205

	Peak (dB μ V/m)	Average (dB μ V/m)
Restricted Bands of Operation	74	54

Table 26 - Restricted Band Edge Limit Table



2.1.7 Test Location and Test Equipment Used

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

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.4.2	5125	-	Software
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 (N to N 1m)	Junkosha	MWX221-01000NMSNMS/B	5999	12	20-May-2025
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6007	12	20-May-2025
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6014	12	24-Aug-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
Digital Multimeter	Fluke	115	6145	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
Humidity and Temperature Meter	R.S Components	1364	6346	12	06-Mar-2025
Humidity and Temperature Meter	R.S Components	1364	6486	12	04-Jun-2025
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

Table 27

TU - Traceability Unscheduled

O/P Mon - Output Monitored using calibrated equipment

*NOTE: Only used within calibration period.



2.2 Emission Bandwidth

2.2.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (a)

2.2.2 Equipment Under Test and Modification State

A3186, S/N: M44MHNWLH2 - Modification State 0
A3186, S/N: M496C9XMTP - Modification State 0
A3186, S/N: LXXD3YHT0L - Modification State 0

2.2.3 Date of Test

28-August-2024 to 05-September-2024

2.2.4 Test Method

The test was performed in accordance with ANSI C63.10 2020 clause 12.5.1 for 6 dB bandwidth, clause 12.5.2 for 26 dB bandwidth, and clause 12.5.3 for 99% occupied bandwidth measurements.

For modes of operation using multiple cores, measurements were made on each core but only the worst case results are reported. Worst case was considered as the narrowest results for 6 dB bandwidth and the widest result for 26 dB bandwidth and 99% occupied bandwidth.

2.2.5 Environmental Conditions

Ambient Temperature	20.8 - 21.4 °C
Relative Humidity	52.4 - 58.2 %



2.2.6 Test Results

5 GHz WLAN

SISO

Protocol	26 dB Bandwidth (MHz)	
	Minimum	Maximum
802.11a	20.760	21.480
802.11n HT20	20.940	22.080
802.11n HT40	41.280	43.800
802.11ac VHT80	84.260	93.280
802.11ac VHT160	166.320	166.320
802.11ax HE20 SU	20.880	24.360
802.11ax HE40 SU	41.400	45.120
802.11ax HE80 SU	82.940	86.460
802.11ax HE160 SU	165.900	165.900

Table 28 - 26 dB Bandwidth Summary Results - SISO

Protocol	99% Bandwidth (MHz)	
	Minimum	Maximum
802.11a	16.560	16.620
802.11n HT20	17.700	17.820
802.11n HT40	36.240	36.720
802.11ac VHT80	75.680	75.900
802.11ac VHT160	154.140	154.140
802.11ax HE20 SU	18.900	19.020
802.11ax HE40 SU	37.680	37.920
802.11ax HE80 SU	76.780	77.220
802.11ax HE160 SU	155.820	155.820

Table 29 - 99% Bandwidth Summary Results - SISO

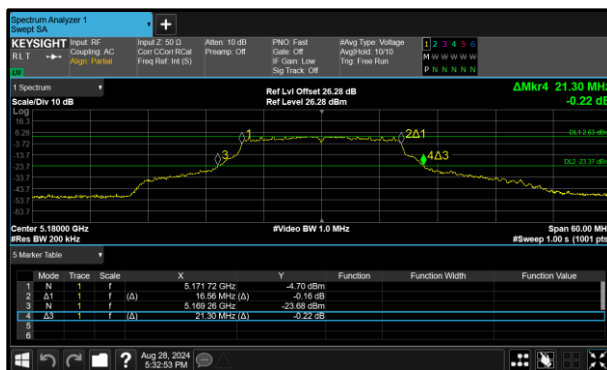


Figure 242 - 802.11a Minimum 99% OBW

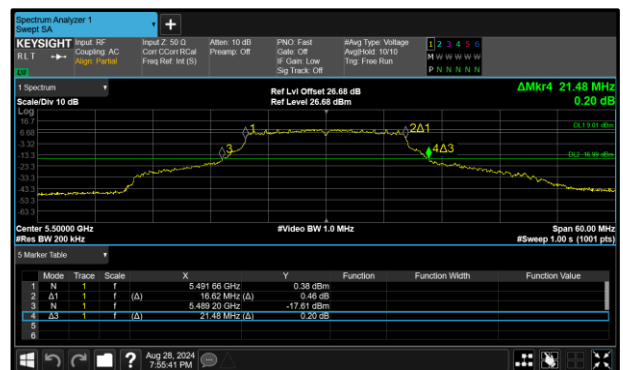


Figure 243 - 802.11a Maximum 99% OBW



Figure 244 - 802.11n HT20 Minimum 99% OBW



Figure 245 - 802.11n HT20 Maximum 99% OBW

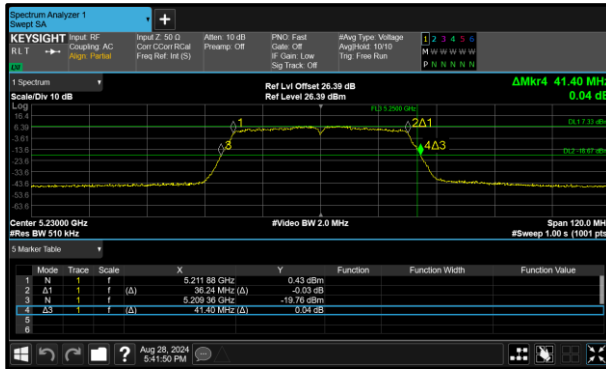


Figure 246 - 802.11n HT40 Minimum 99% OBW



Figure 247 - 802.11n HT40 Maximum 99% OBW



Figure 248 - 802.11ac VHT80 Minimum 99% OBW

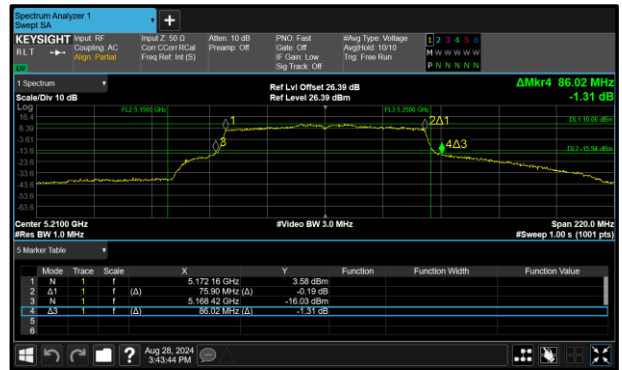


Figure 249 - 802.11ac VHT80 Maximum 99% OBW

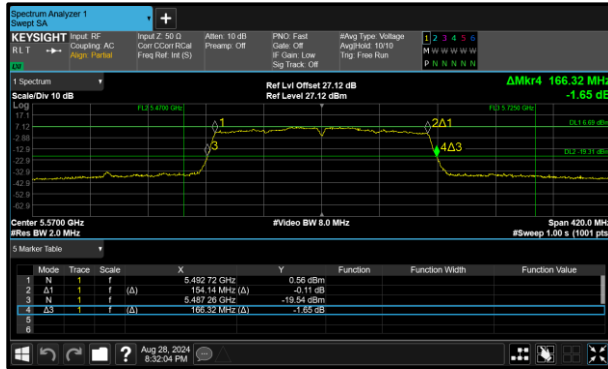


Figure 250 - 802.11ac VHT160 Minimum 99% OBW

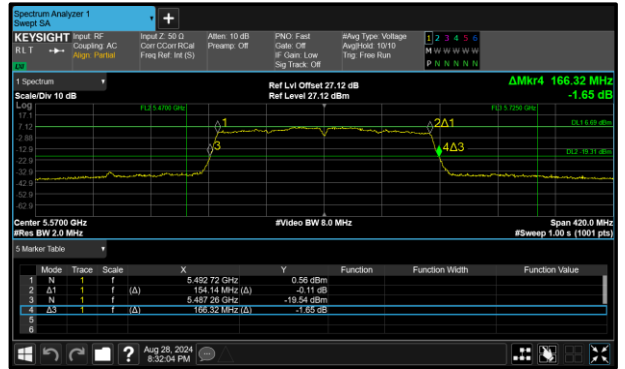


Figure 251 - 802.11ac VHT160 Maximum 99% OBW



Figure 252 - 802.11ax HE20 SU Minimum 99% OBW

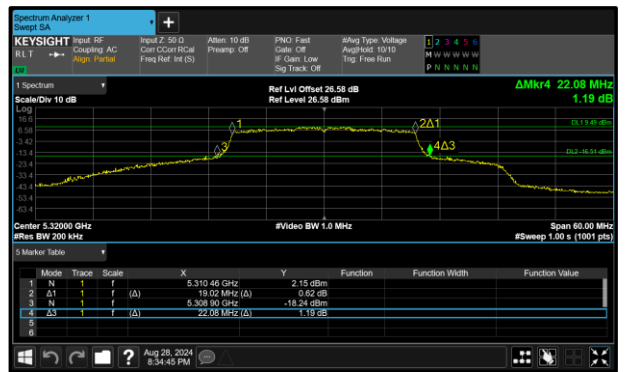


Figure 253 - 802.11ax HE20 SU Maximum 99% OBW

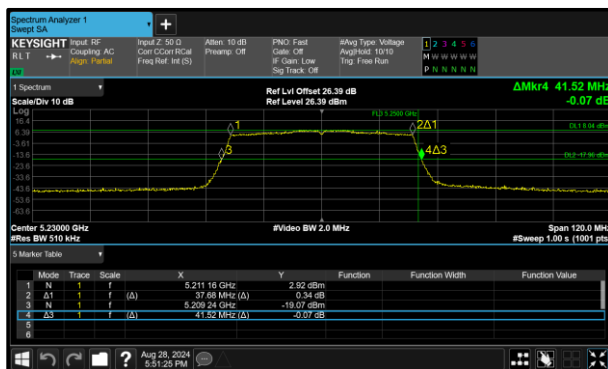


Figure 254 - 802.11ax HE40 SU Minimum 99% OBW

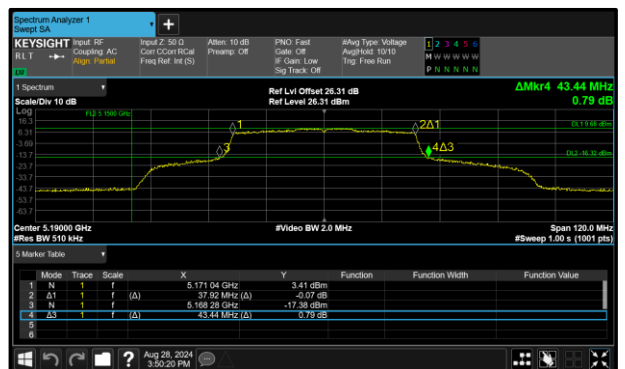


Figure 255 - 802.11ax HE40 SU Maximum 99% OBW

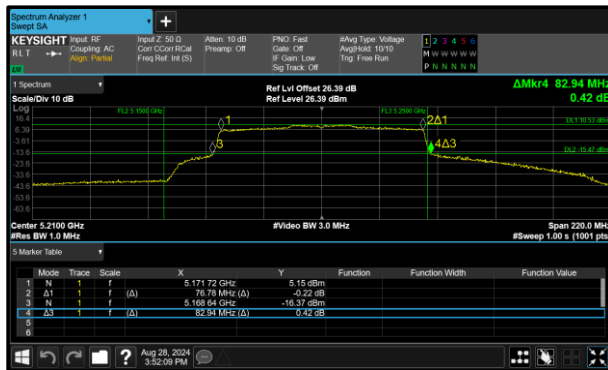


Figure 256 - 802.11ax HE80 SU Minimum 99% OBW

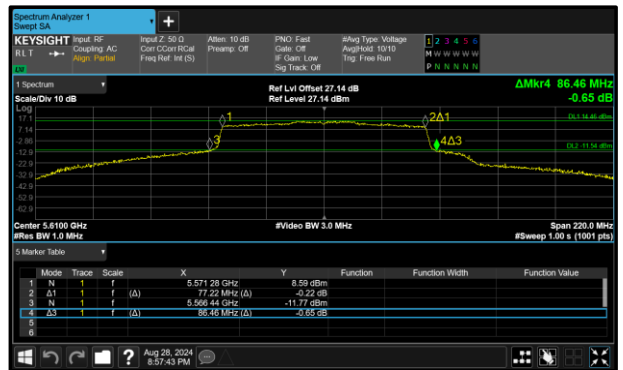


Figure 257 - 802.11ax HE80 SU Maximum 99% OBW

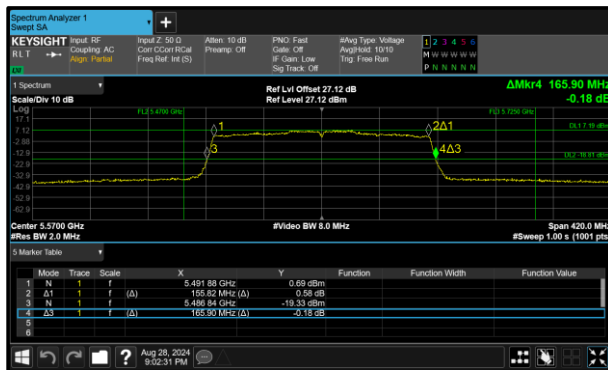


Figure 258 - 802.11ax HE160 SU Minimum 99% OBW

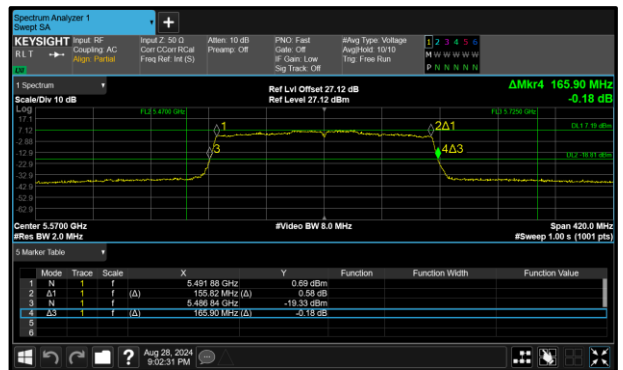


Figure 259 - 802.11ax HE160 SU Maximum 99% OBW