

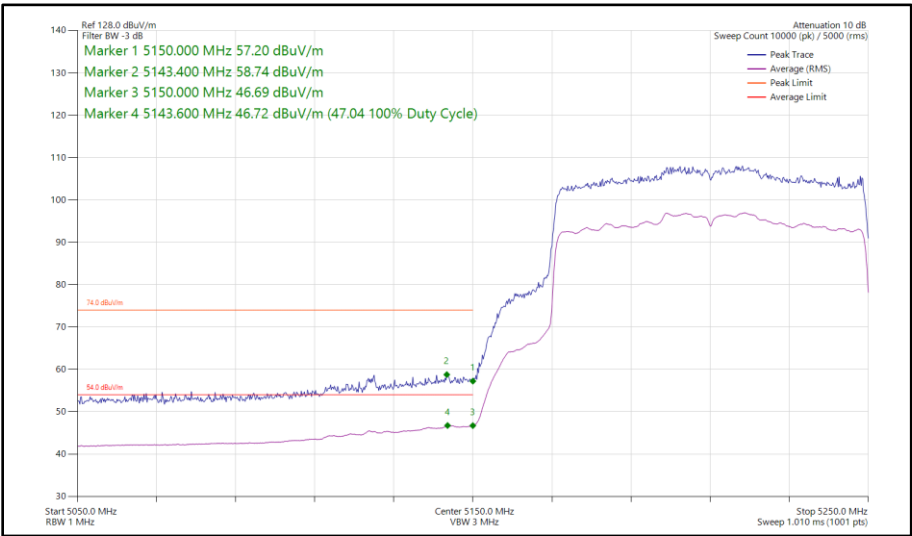


Figure 123 - 802.11ax HE80, SU, SDM, Core 0-1 - 5210 MHz
Band Edge Frequency 5150 MHz

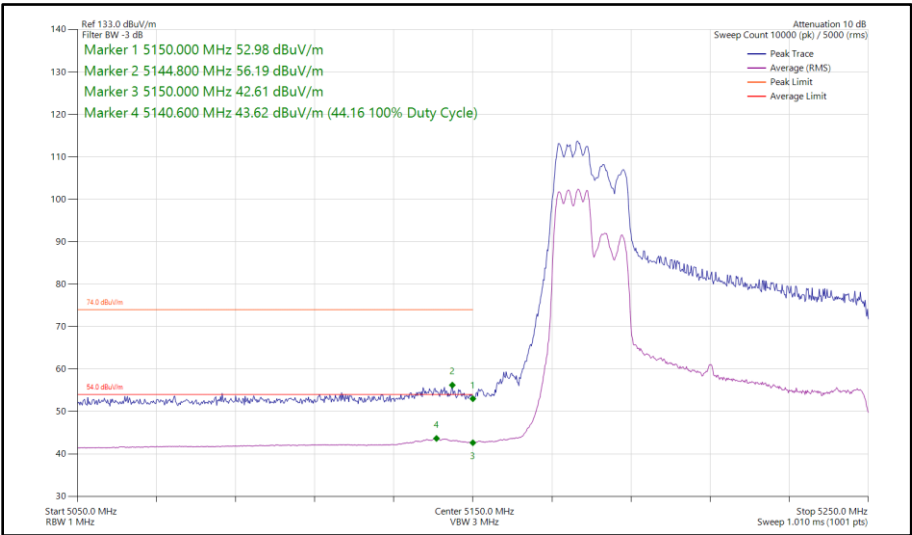


Figure 124 - 802.11ax HE80, RU 106-53, SDM, Core 0-1 - 5210 MHz
Band Edge Frequency 5150 MHz

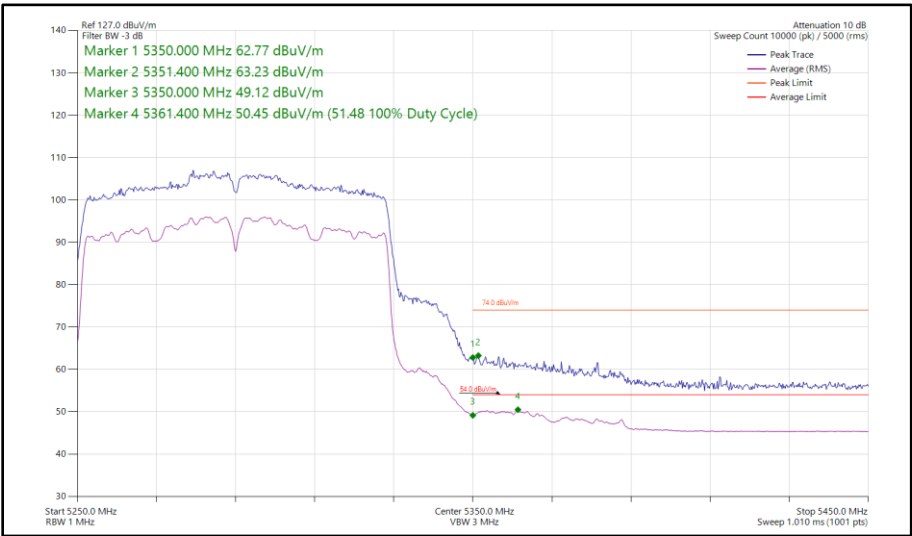


Figure 125 - 802.11ac VHT80, SDM, Core 0-1 - 5290 MHz
Band Edge Frequency 5350 MHz

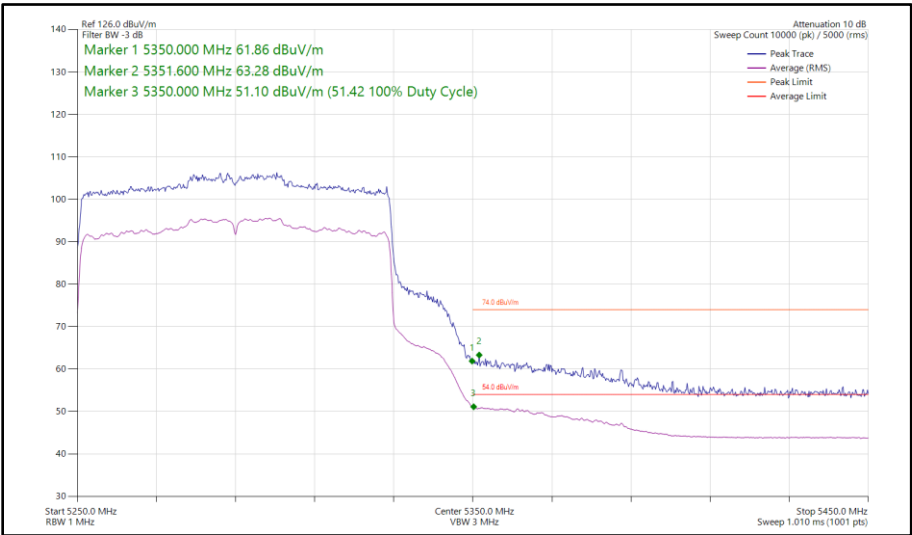


Figure 126 - 802.11ax HE80, SU, SDM, Core 0-1 - 5290 MHz
Band Edge Frequency 5350 MHz

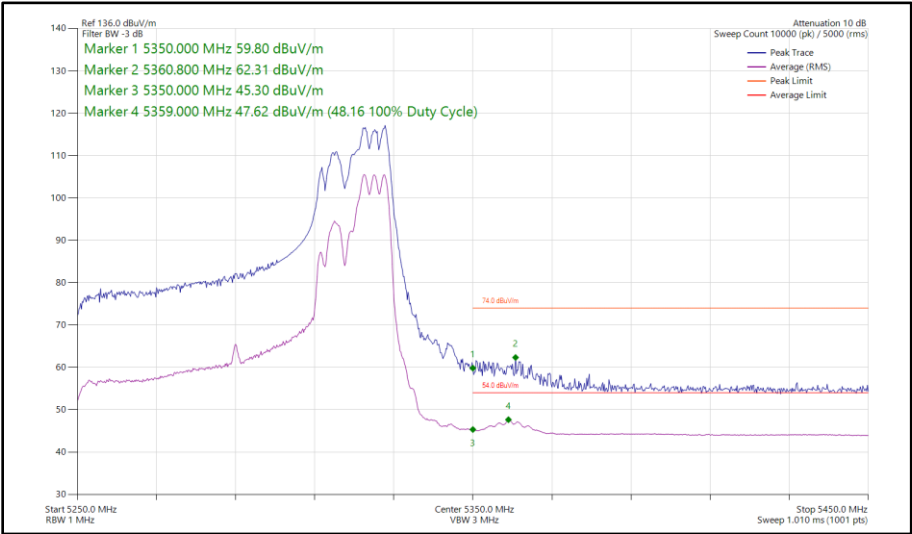


Figure 127 - 802.11ax HE80, RU 106-60, SDM, Core 0-1 - 5290 MHz
Band Edge Frequency 5350 MHz

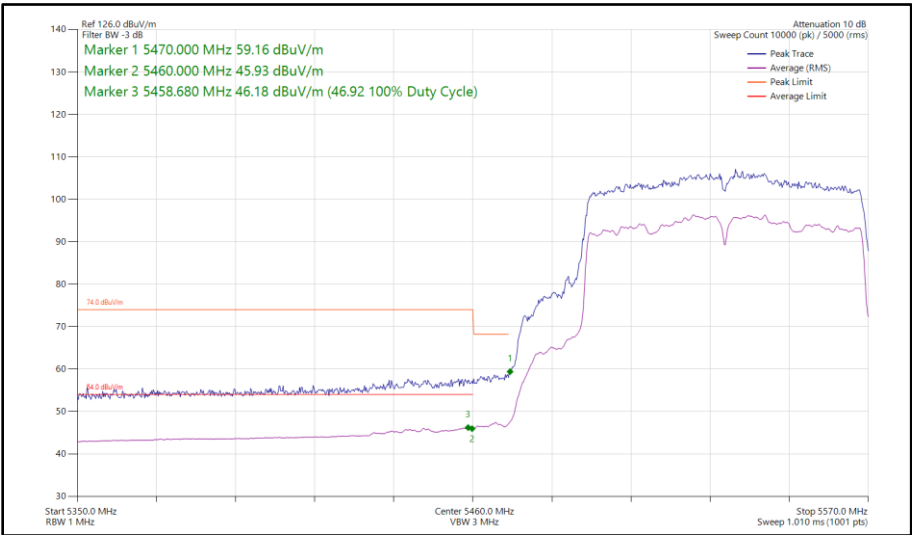


Figure 128 - 802.11ac VHT80, SDM, Core 0-1 - 5530 MHz
Band Edge Frequency 5460 MHz

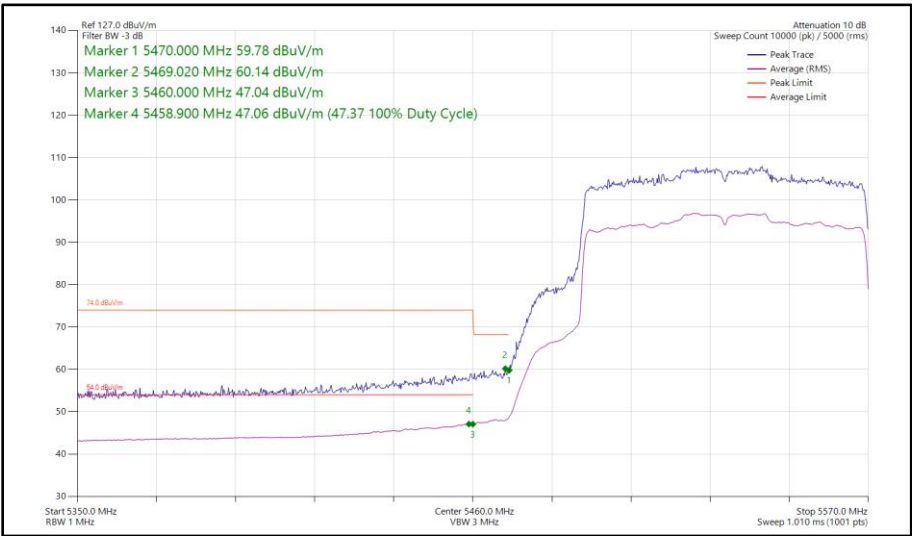


Figure 129 - 802.11ax HE80, SU, SDM, Core 0-1 - 5530 MHz
Band Edge Frequency 5460 MHz

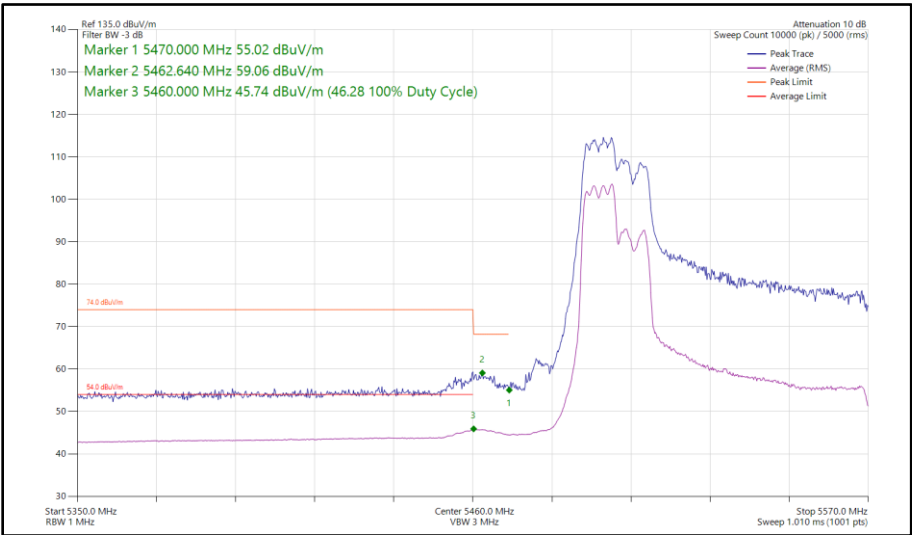


Figure 130 - 802.11ax HE80, RU 106-53, SDM, Core 0-1 - 5530 MHz
Band Edge Frequency 5460 MHz

80 MHz Bandwidth - Core 0-1 (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 4x1	-	-	5210	5150	66.91	46.29
802.11ac VHT80	MCS 2x1	-	-	5290	5350	65.14	50.50
802.11ac VHT80	MCS 8x1	-	-	5530	5460	58.17	45.15

Table 21 - TxBF Restricted Band Edge Results

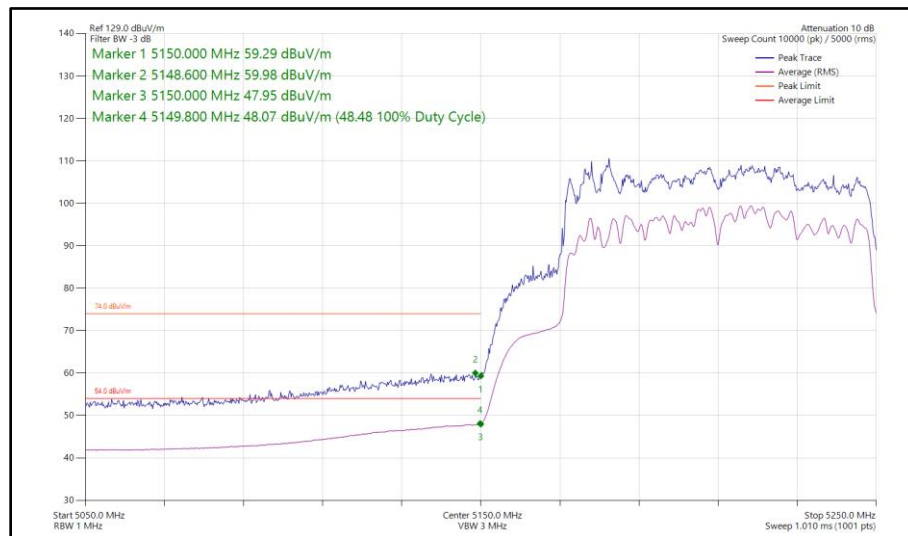


Figure 131 - 802.11ac VHT80, TxBF, Core 0-1 - 5210 MHz
Band Edge Frequency 5150 MHz

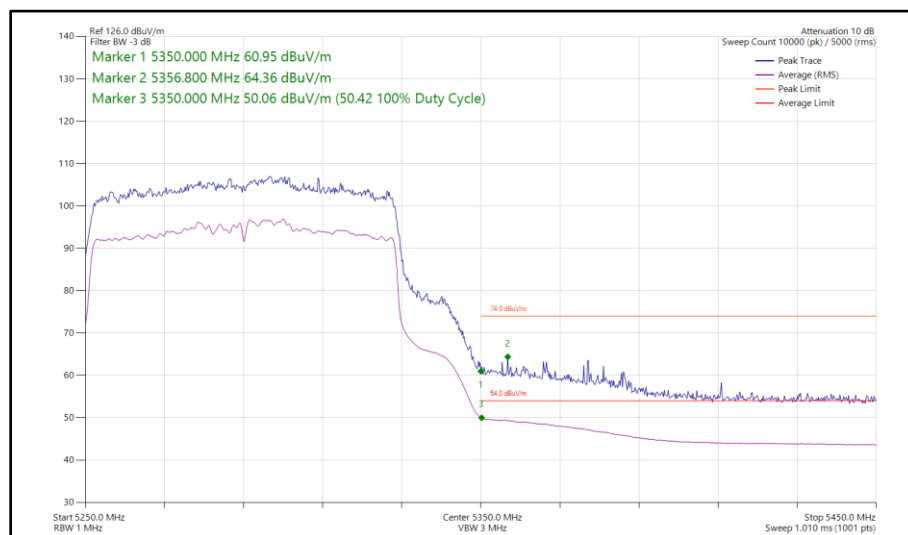
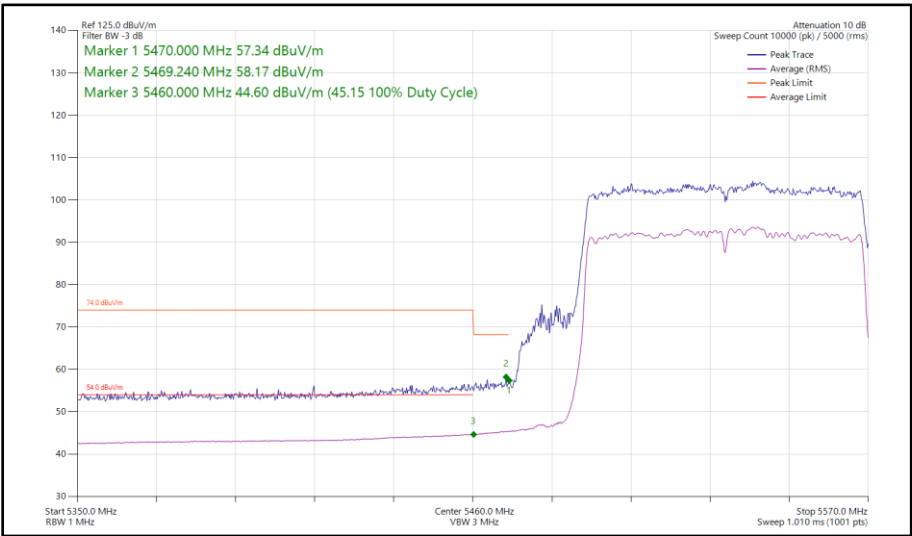


Figure 132 - 802.11ac VHT80, TxBF, Core 0-1 - 5290 MHz
Band Edge Frequency 5350 MHz



**Figure 133 - 802.11ac VHT80, TxBF, Core 0-1 - 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 2x1	-	-	5250	5150	62.13	50.64
802.11ax HE160	MCS 2x1	SU	-	5250	5150	61.82	50.18
802.11ax HE160	MCS 11x1	106	53P	5250	5150	54.91	43.58
802.11ac VHT160	MCS 7x1	-	-	5250	5350	63.74	51.46
802.11ax HE160	MCS 4x1	SU	-	5250	5350	63.53	51.49
802.11ax HE160	MCS 11x1	106	60S	5250	5350	58.13	45.09
802.11ac VHT160	MCS 4x1	-	-	5570	5460	58.09	47.06
802.11ax HE160	MCS 4x1	SU	-	5570	5460	58.09	45.86
802.11ax HE160	MCS 11x1	106	53P	5570	5460	55.80	44.26

Table 22 - SISO Restricted Band Edge Results

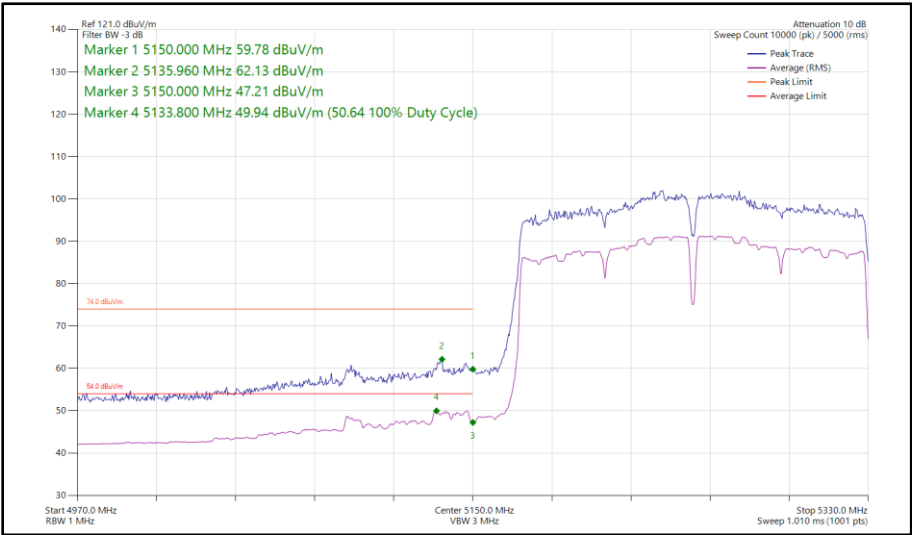


Figure 134 - 802.11ac VHT160, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5150 MHz

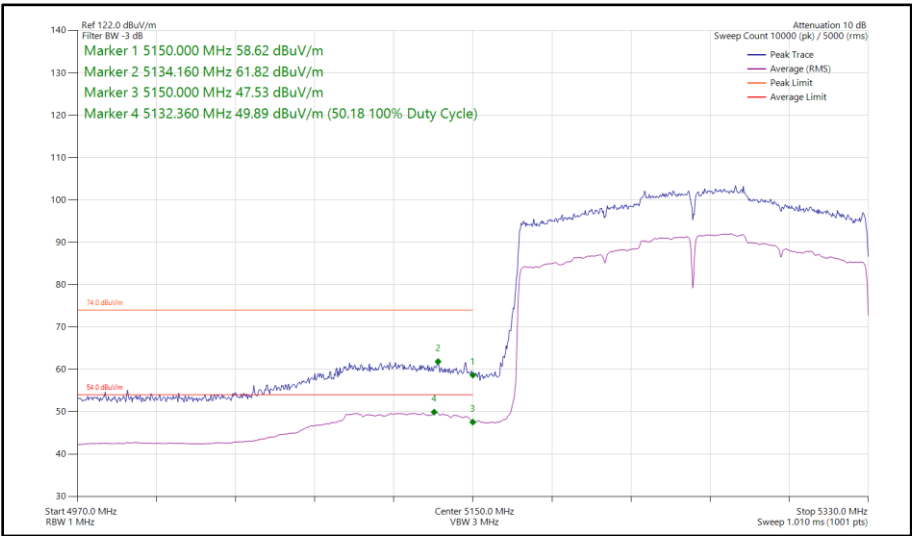


Figure 135 - 802.11ax HE160, SU, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5150 MHz

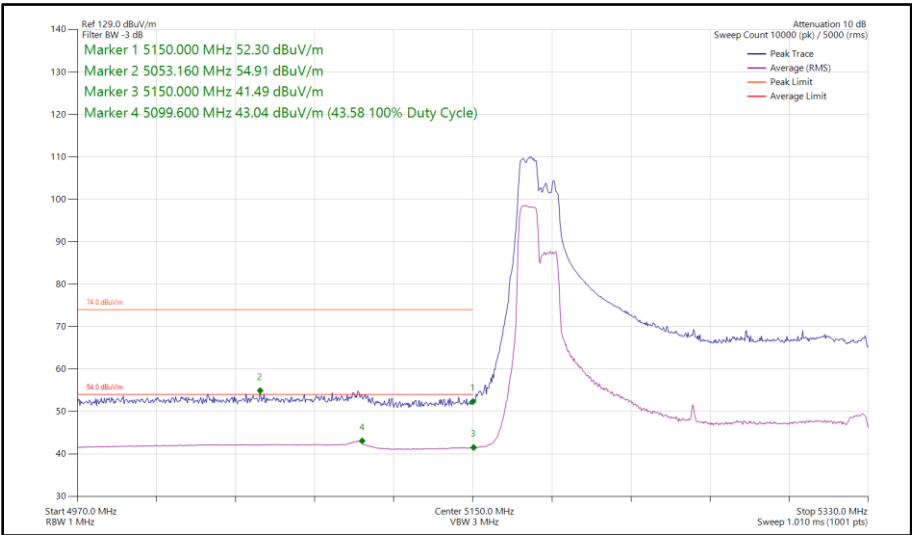


Figure 136 - 802.11ax HE160, RU 106-53P, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5150 MHz

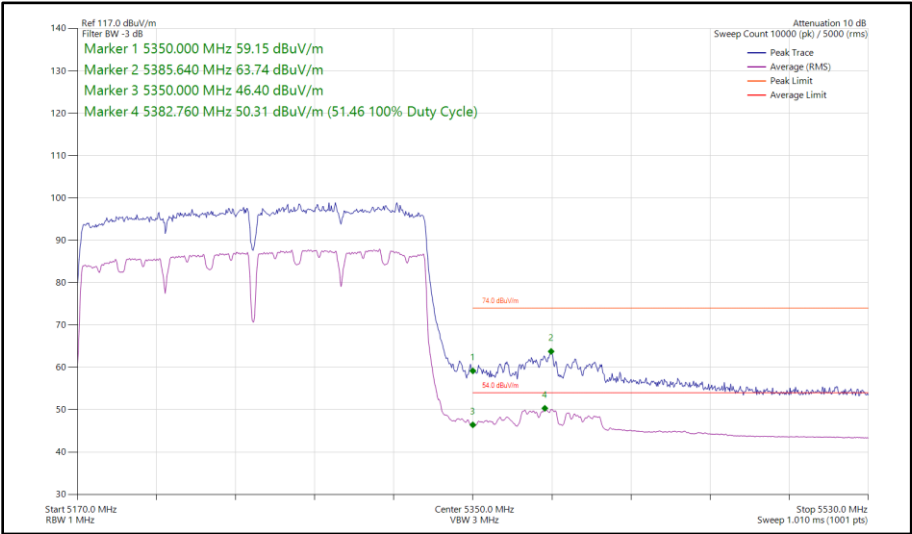


Figure 137 - 802.11ac VHT160, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5350 MHz

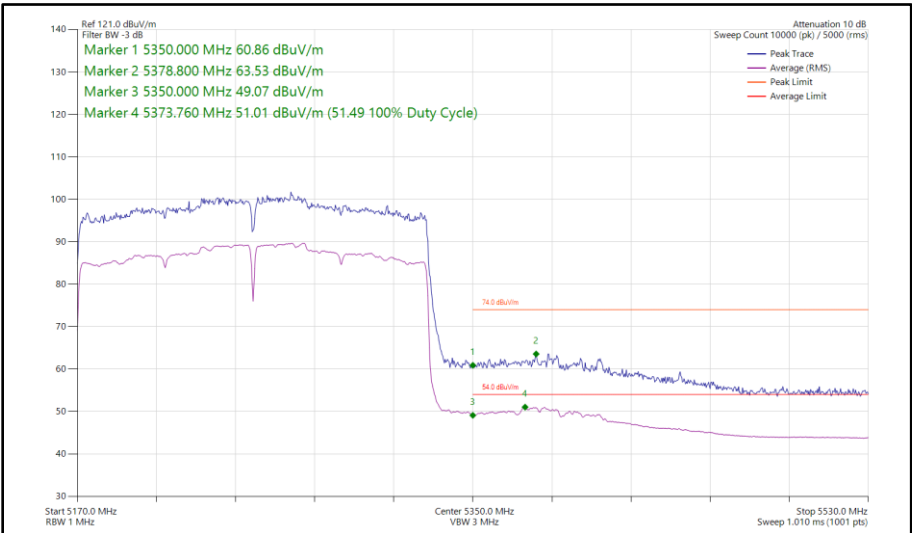


Figure 138 - 802.11ax HE160, SU, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5350 MHz

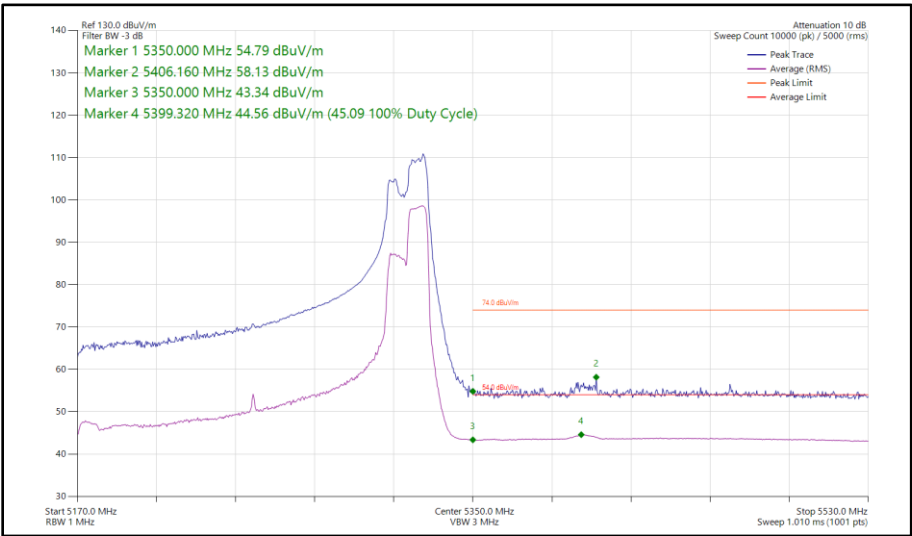


Figure 139 - 802.11ax HE160, RU 106-60S, SISO, Core 0 - 5250 MHz
Band Edge Frequency 5350 MHz

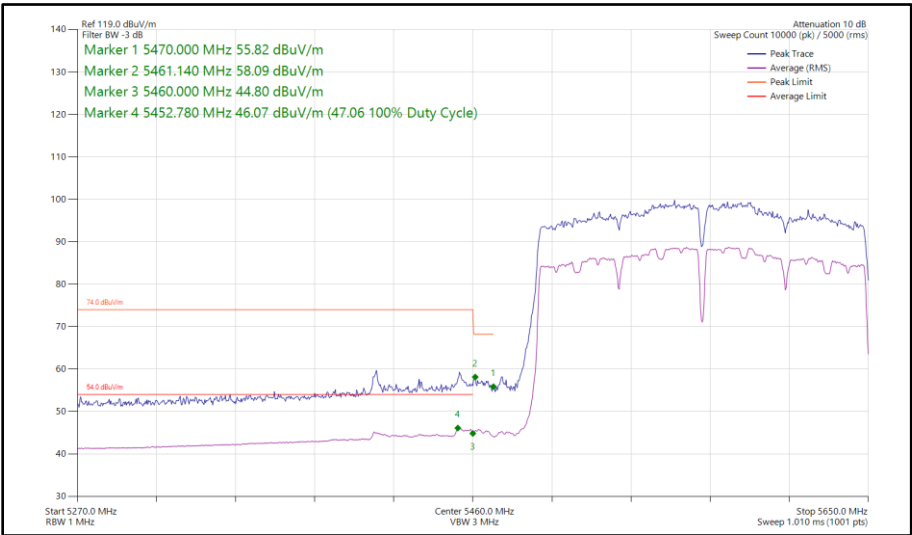


Figure 140 - 802.11ac VHT160, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5460 MHz

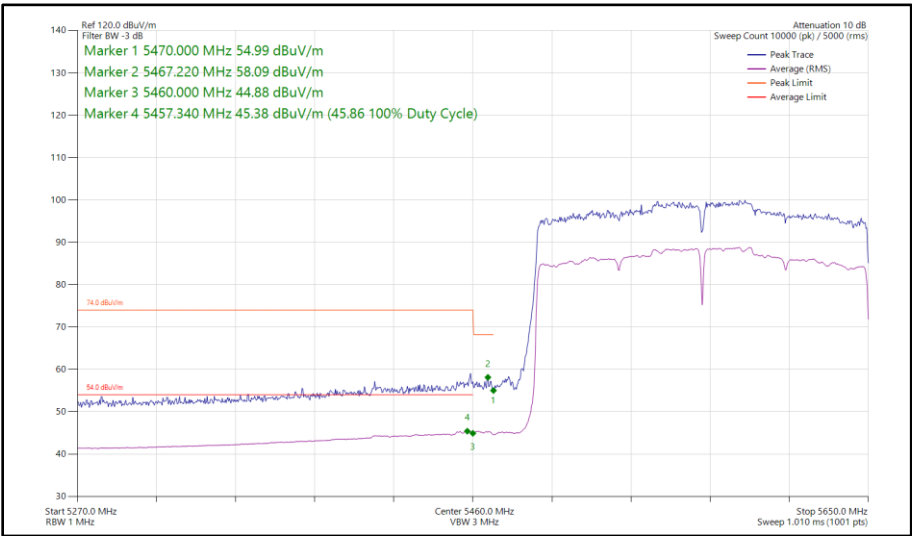


Figure 141 - 802.11ax HE160, SU, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5460 MHz

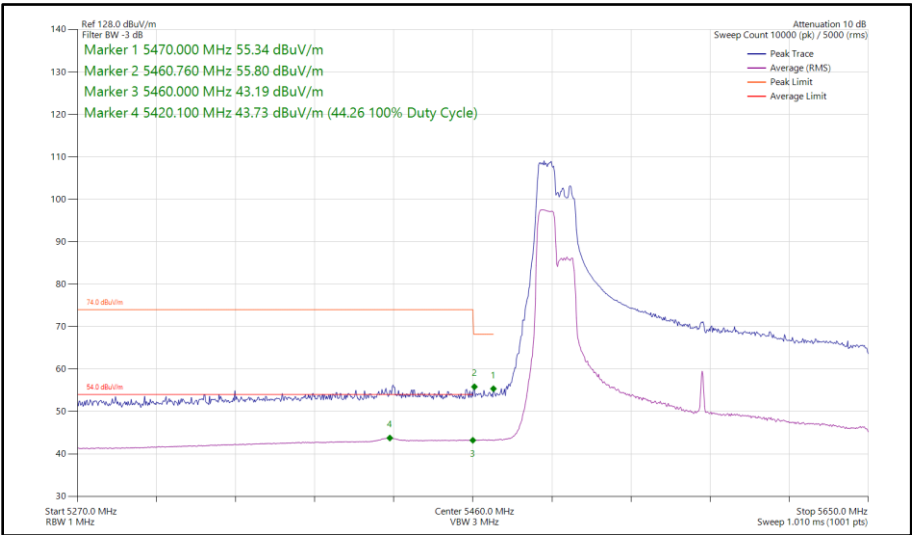


Figure 142 - 802.11ax HE160, RU 106-53P, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5460 MHz



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	62.29	49.42
802.11ax HE160	MCS 4x1	SU	-	5250	5150	59.33	48.30
802.11ax HE160	MCS 11x1	106	60S	5250	5150	54.28	43.24
802.11ac VHT160	MCS 7x1	-	-	5250	5350	63.82	51.48
802.11ax HE160	MCS 4x1	SU	-	5250	5350	63.64	51.47
802.11ax HE160	MCS 11x1	52	37P	5250	5350	59.78	44.78
802.11ac VHT160	MCS 4x1	-	-	5570	5460	57.84	46.88
802.11ax HE160	MCS 4x1	SU	-	5570	5460	58.11	46.16
802.11ax HE160	MCS 11x1	106	53P	5570	5460	55.56	44.71

Table 23 - SISO Restricted Band Edge Results

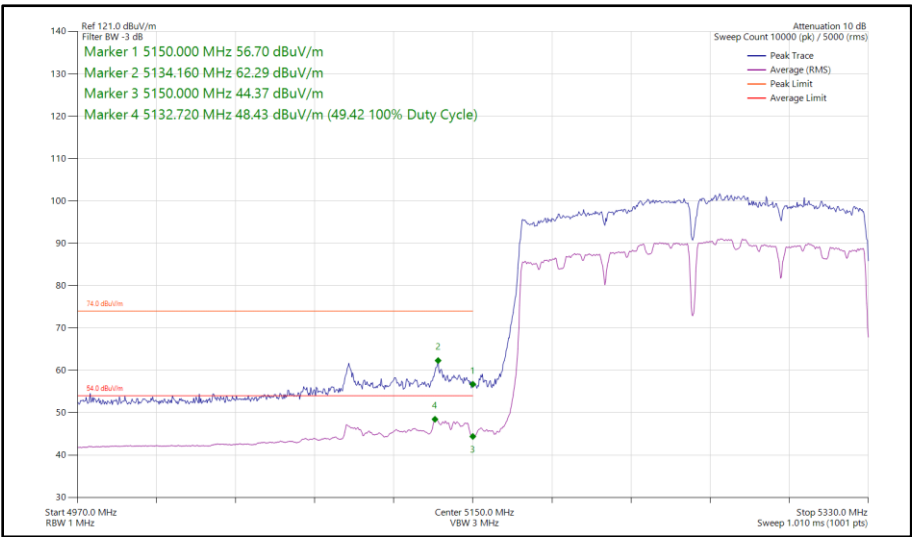


Figure 143 - 802.11ac VHT160, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

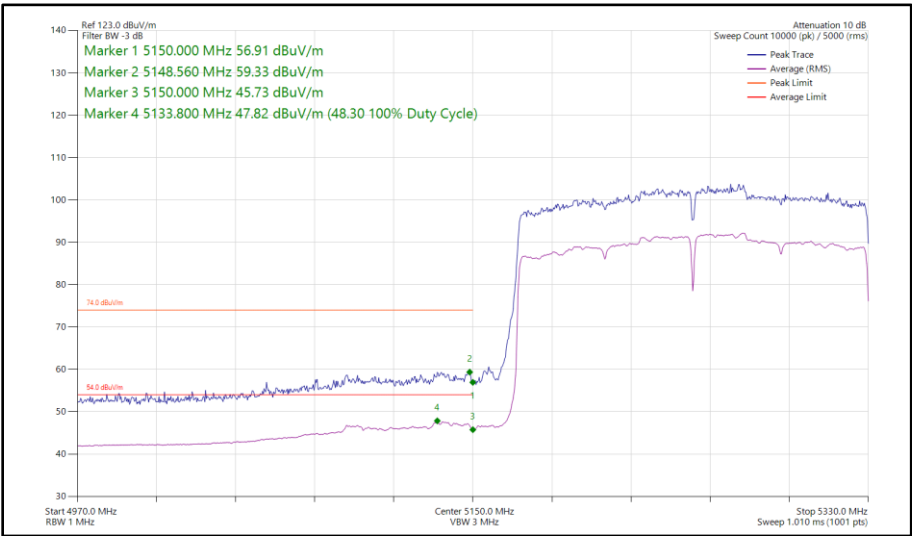


Figure 144 - 802.11ax HE160, SU, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

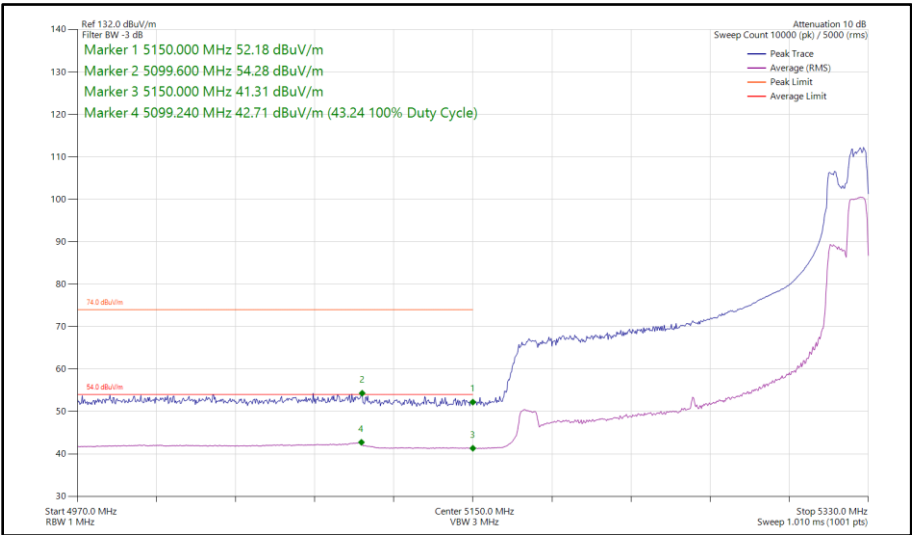


Figure 145 - 802.11ax HE160, RU 106-60S, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5150 MHz

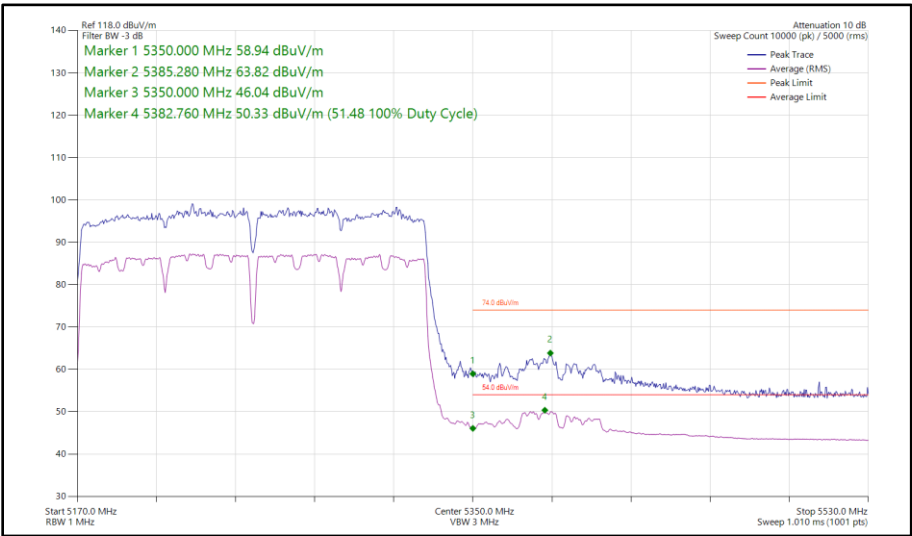


Figure 146 - 802.11ac VHT160, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz

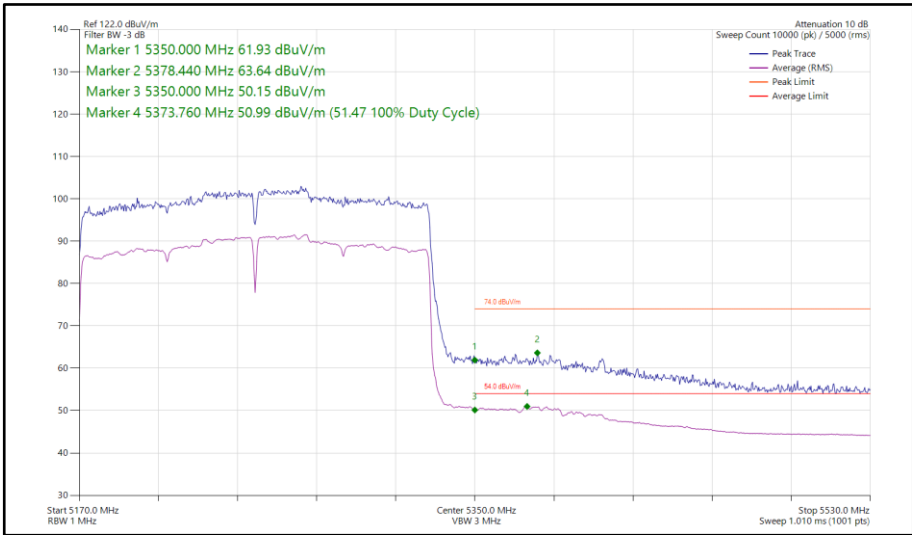


Figure 147 - 802.11ax HE160, SU, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz

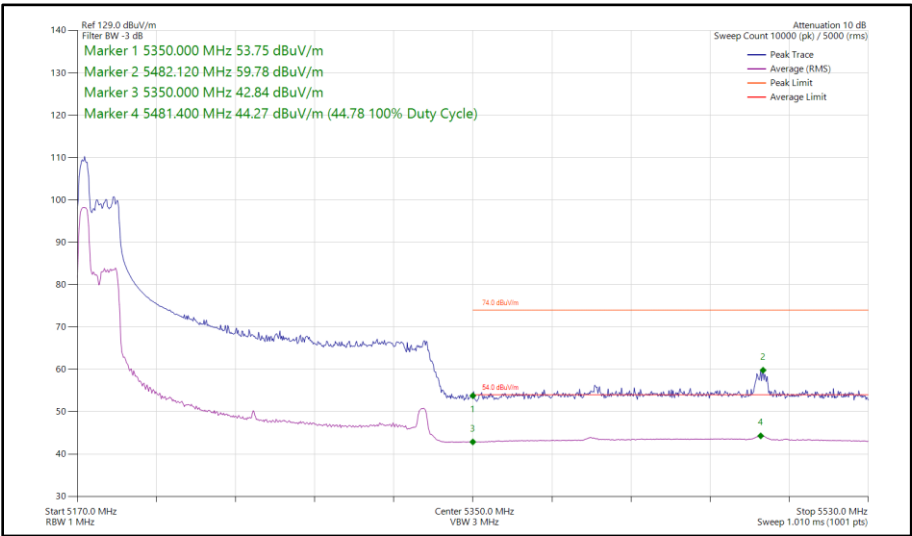


Figure 148 - 802.11ax HE160, RU 52-37P, SISO, Core 1 - 5250 MHz
Band Edge Frequency 5350 MHz

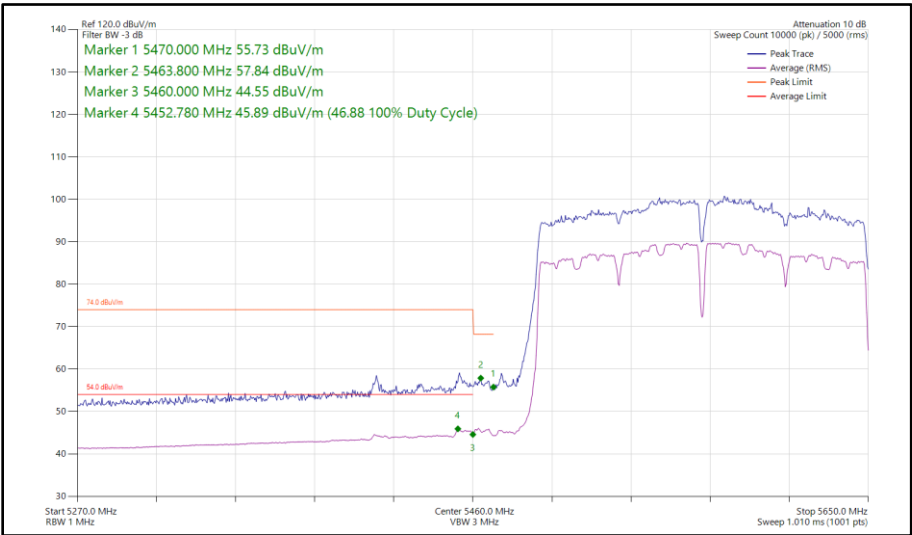


Figure 149 - 802.11ac VHT160, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz

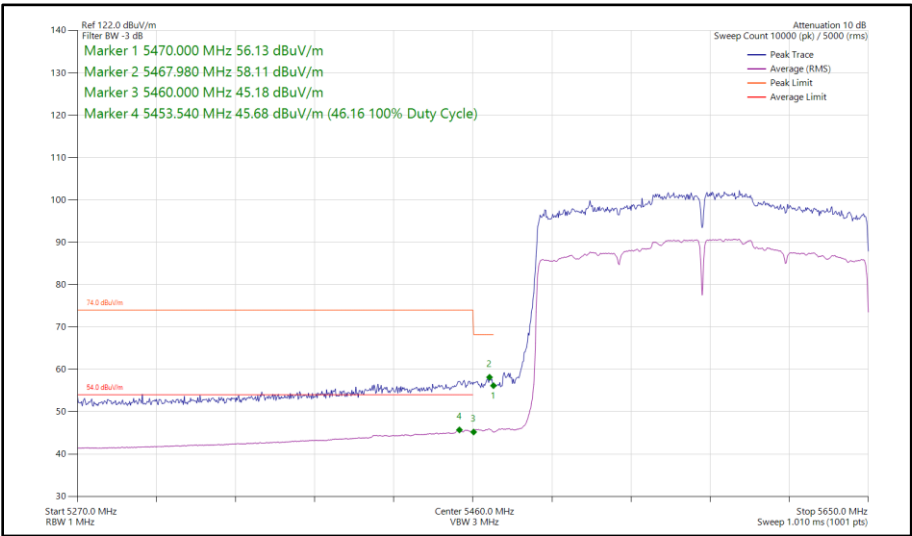


Figure 150 - 802.11ax HE160, SU, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz

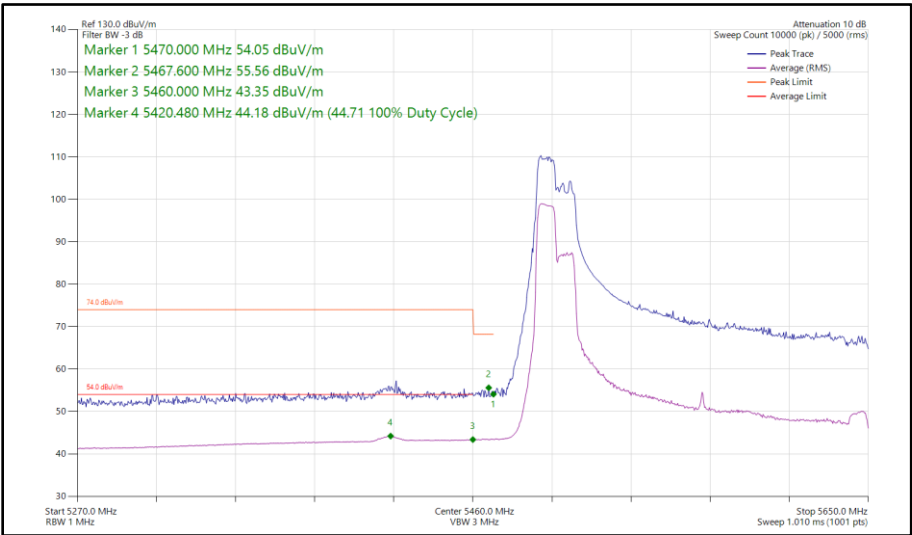


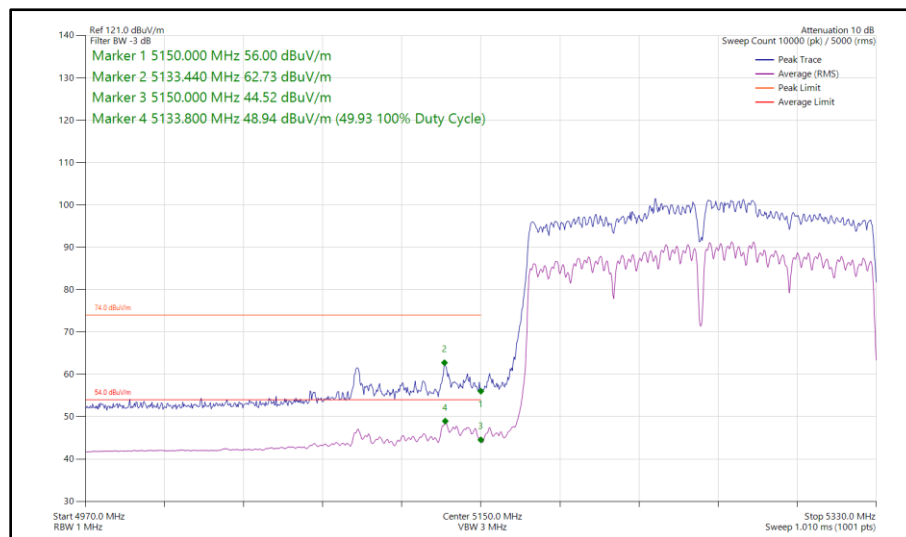
Figure 151 - 802.11ax HE160, RU 106-53P, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5460 MHz



160 MHz Bandwidth - Core 0-1 (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 4x1	-	-	5250	5150	62.73	49.93
802.11ax HE160	MCS 2x1	SU	-	5250	5150	60.03	48.40
802.11ax HE160	MCS 11x1	106	53P	5250	5150	55.08	43.92
802.11ac VHT160	MCS 2x1	-	-	5250	5350	63.60	51.48
802.11ax HE160	MCS 11x1	SU	-	5250	5350	64.39	51.47
802.11ax HE160	MCS 11x1	52	52S	5250	5350	57.23	45.74
802.11ac VHT160	MCS 4x1	-	-	5570	5460	61.31	49.73
802.11ax HE160	MCS 4x1	SU	-	5570	5460	59.98	47.60
802.11ax HE160	MCS 11x1	106	53P	5570	5460	55.80	45.83

Table 24 - CDD Restricted Band Edge Results



**Figure 152 - 802.11ac VHT160, CDD, Core 0-1 - 5250 MHz
Band Edge Frequency 5150 MHz**

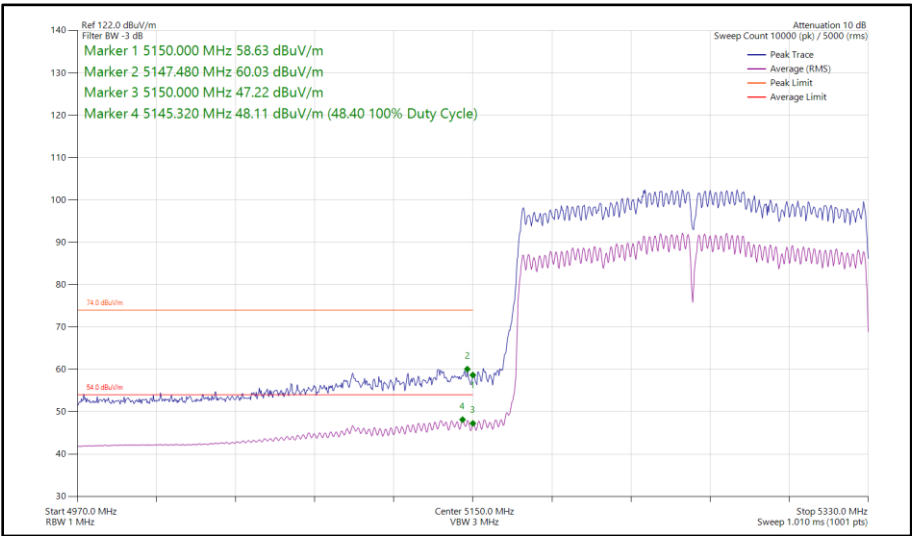


Figure 153 - 802.11ax HE160, SU, CDD, Core 0-1 - 5250 MHz
Band Edge Frequency 5150 MHz

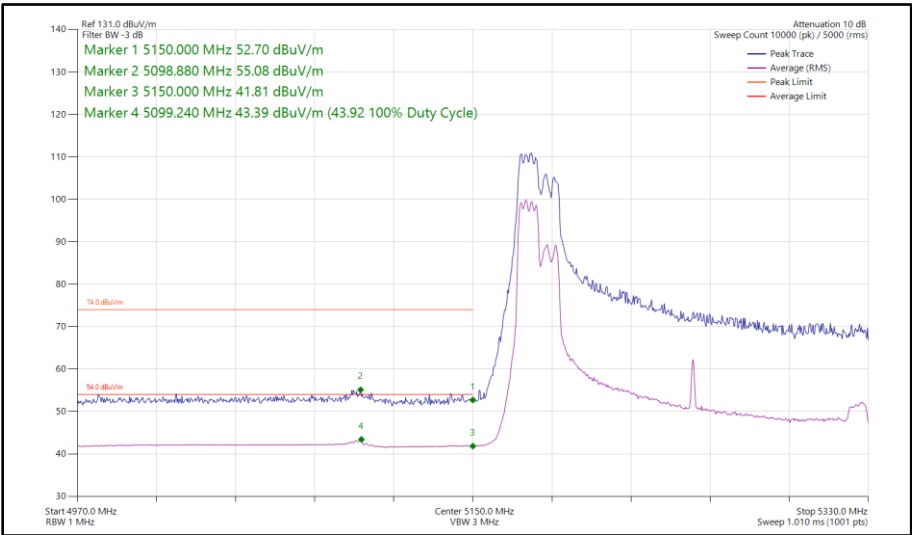


Figure 154 - 802.11ax HE160, RU 106-53P, CDD, Core 0-1 - 5250 MHz
Band Edge Frequency 5150 MHz

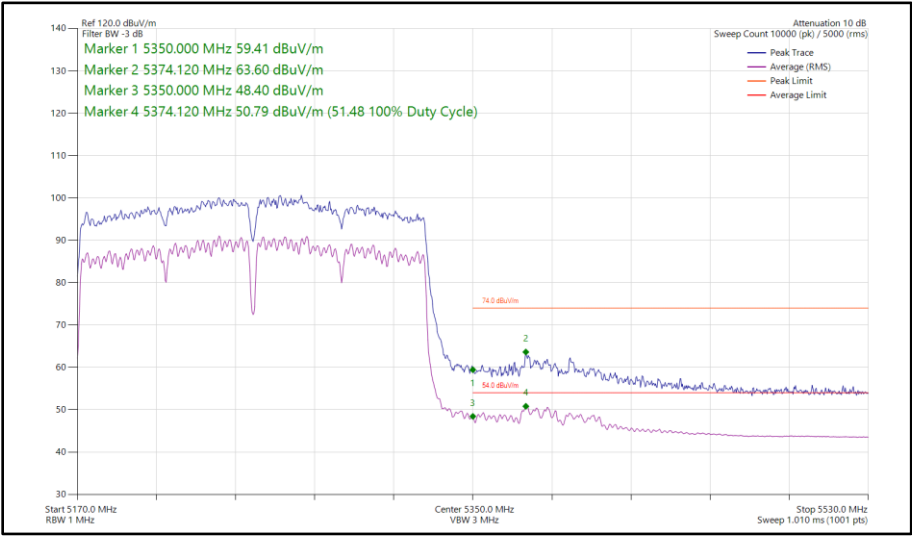


Figure 155 - 802.11ac VHT160, CDD, Core 0-1 - 5250 MHz
Band Edge Frequency 5350 MHz

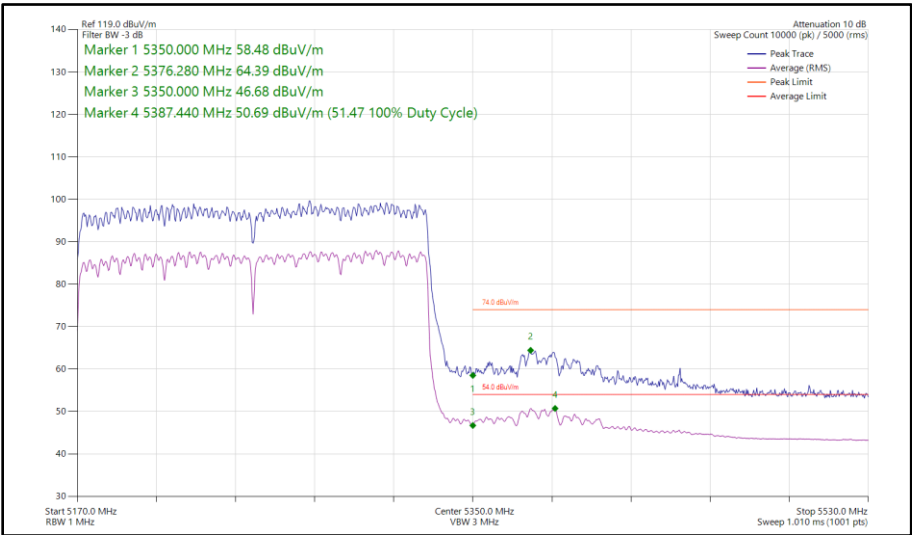


Figure 156 - 802.11ax HE160, SU, CDD, Core 0-1 - 5250 MHz
Band Edge Frequency 5350 MHz

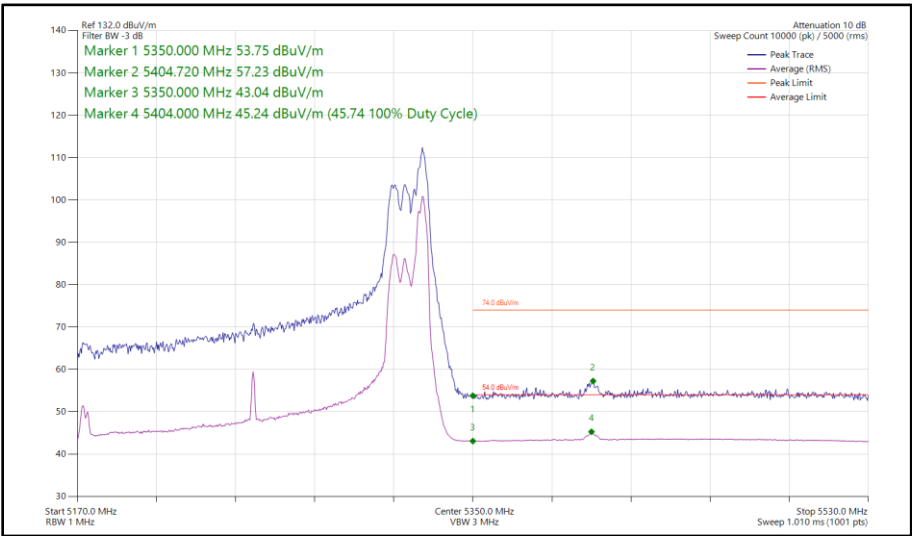


Figure 157 - 802.11ax HE160, RU 52-52S, CDD, Core 0-1 - 5250 MHz
Band Edge Frequency 5350 MHz

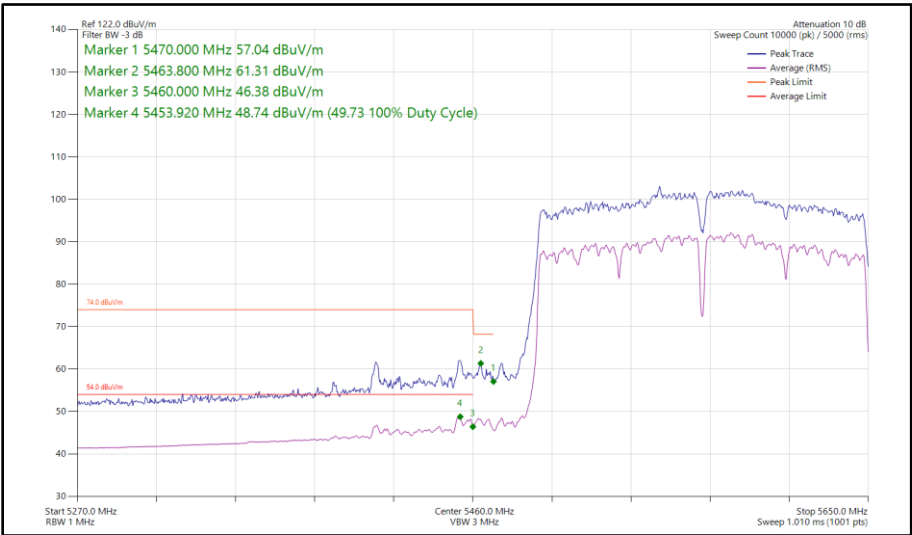


Figure 158 - 802.11ac VHT160, CDD, Core 0-1 - 5570 MHz
Band Edge Frequency 5460 MHz

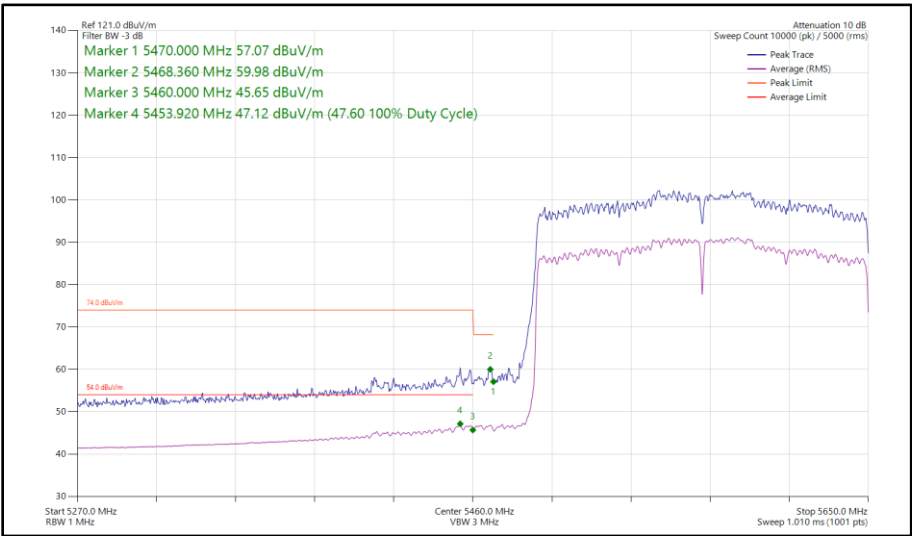


Figure 159 - 802.11ax HE160, SU, CDD, Core 0-1 - 5570 MHz
Band Edge Frequency 5460 MHz

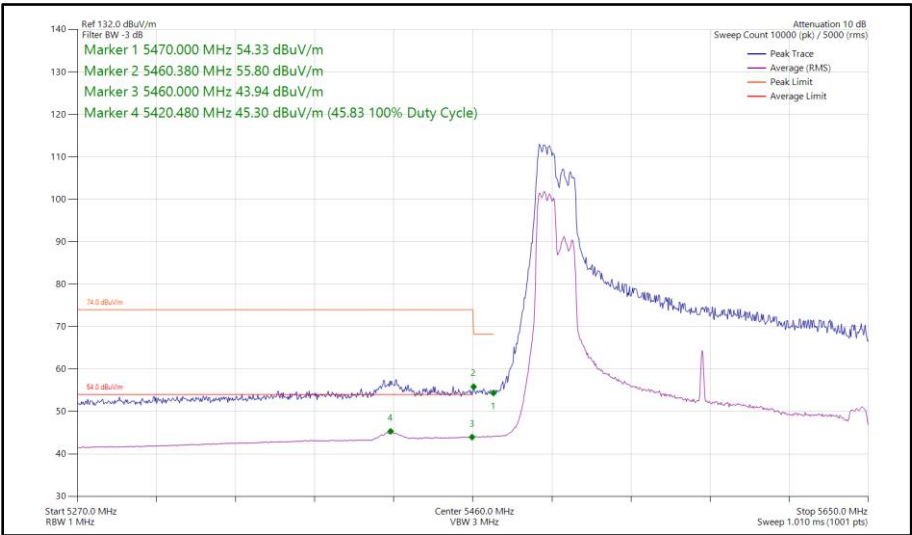


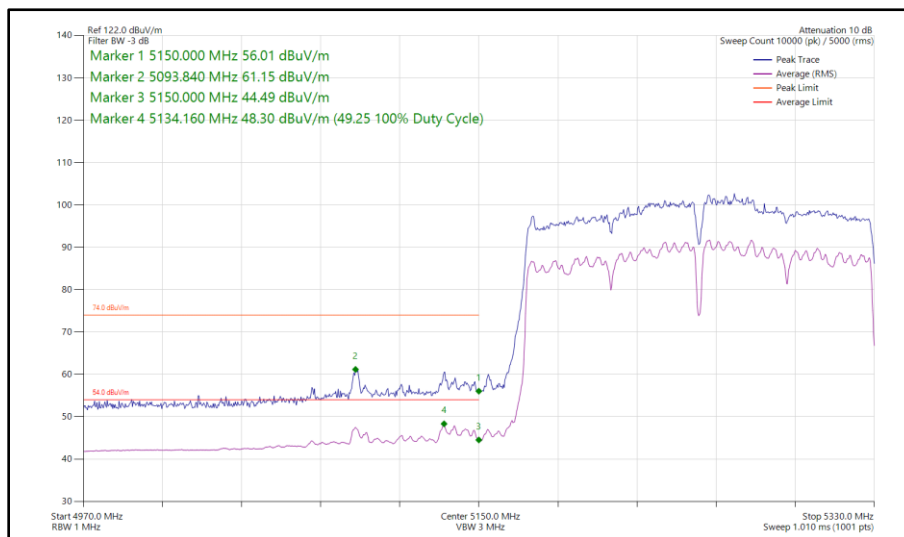
Figure 160 - 802.11ax HE160, RU 106-53P, CDD, Core 0-1 - 5570 MHz
Band Edge Frequency 5460 MHz



160 MHz Bandwidth - Core 0-1 (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	61.15	49.25
802.11ax HE160	MCS 11x2	SU	-	5250	5150	61.69	49.96
802.11ax HE160	MCS 11x2	106	53P	5250	5150	55.35	44.07
802.11ac VHT160	MCS 4x2	-	-	5250	5350	61.51	51.31
802.11ax HE160	MCS 4x2	SU	-	5250	5350	64.44	51.49
802.11ax HE160	MCS 11x2	106	60S	5250	5350	57.50	45.79
802.11ac VHT160	MCS 4x2	-	-	5570	5460	58.25	48.47
802.11ax HE160	MCS 4x2	SU	-	5570	5460	59.46	46.81
802.11ax HE160	MCS 11x2	106	53P	5570	5460	55.19	44.95

Table 25 - SDM Restricted Band Edge Results



**Figure 161 - 802.11ac VHT160, SDM, Core 0-1 - 5250 MHz
Band Edge Frequency 5150 MHz**

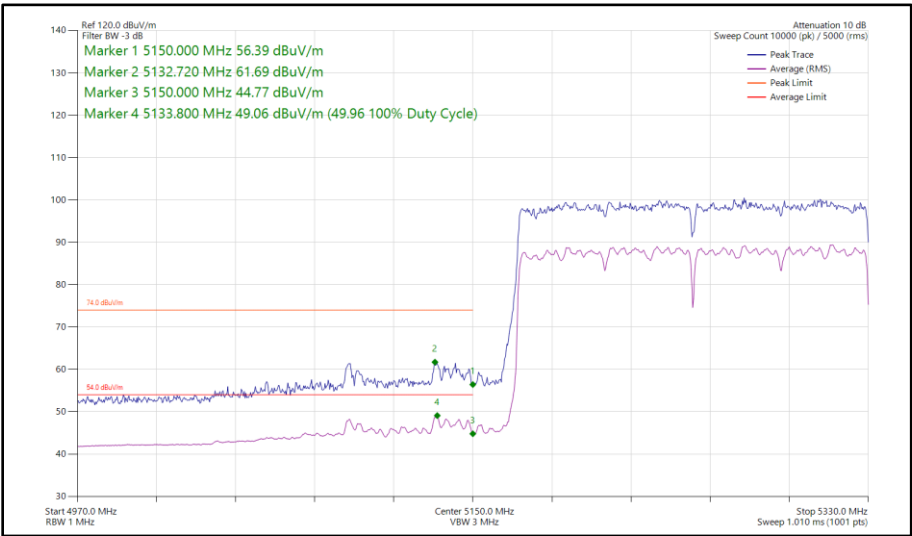


Figure 162 - 802.11ax HE160, SU, SDM, Core 0-1 - 5250 MHz
Band Edge Frequency 5150 MHz

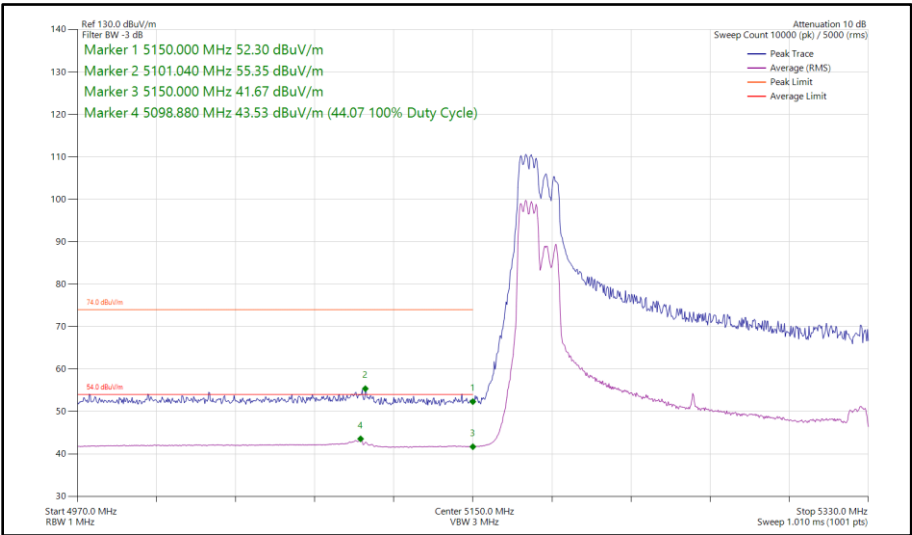


Figure 163 - 802.11ax HE160, RU 106-53P, SDM, Core 0-1 - 5250 MHz
Band Edge Frequency 5150 MHz

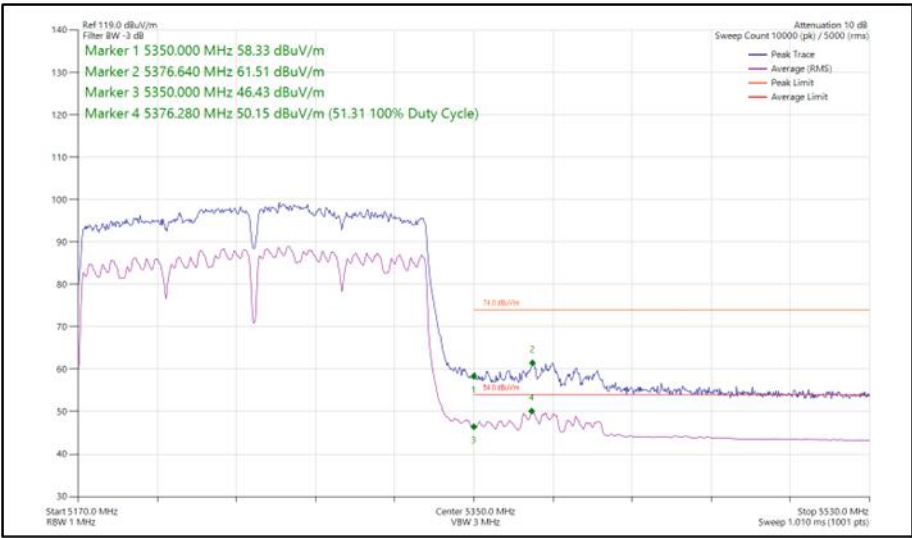


Figure 164 - 802.11ac VHT160, SDM, Core 0-1 - 5250 MHz
Band Edge Frequency 5350 MHz

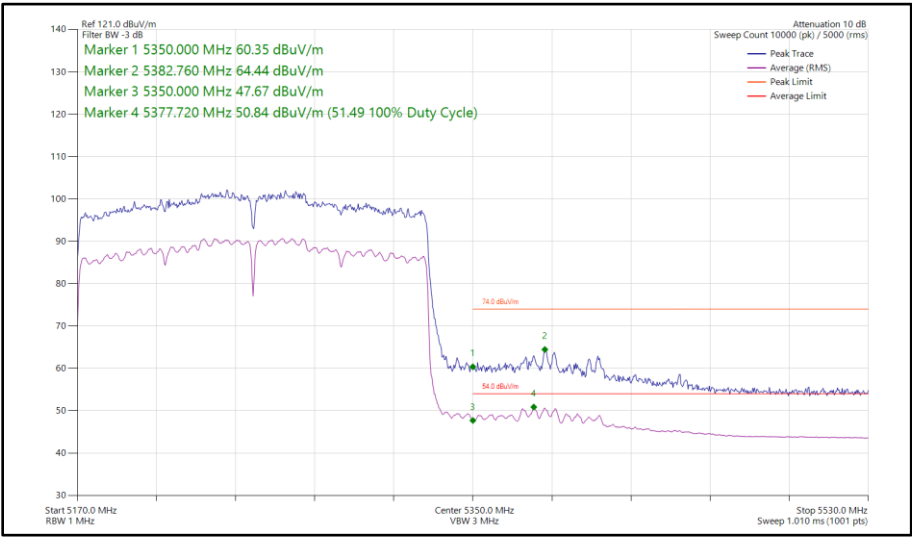


Figure 165 - 802.11ax HE160, SU, SDM, Core 0-1 - 5250 MHz
Band Edge Frequency 5350 MHz

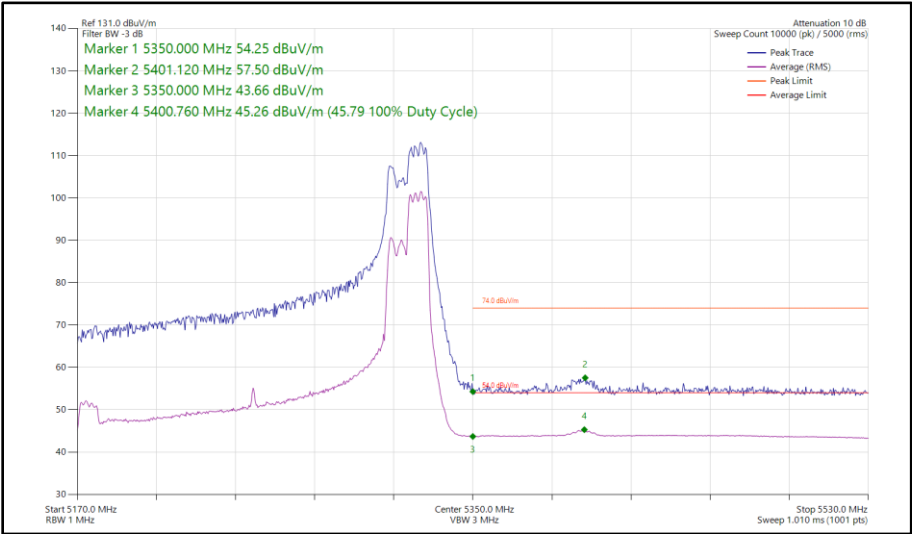


Figure 166 - 802.11ax HE160, RU 106-60S, SDM, Core 0-1 - 5250 MHz
Band Edge Frequency 5350 MHz

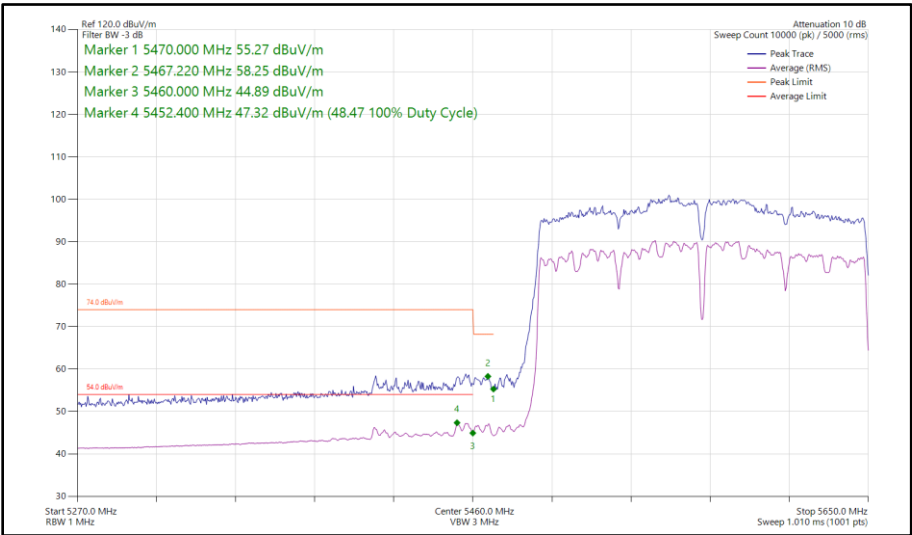


Figure 167 - 802.11ac VHT160, SDM, Core 0-1 - 5570 MHz
Band Edge Frequency 5460 MHz

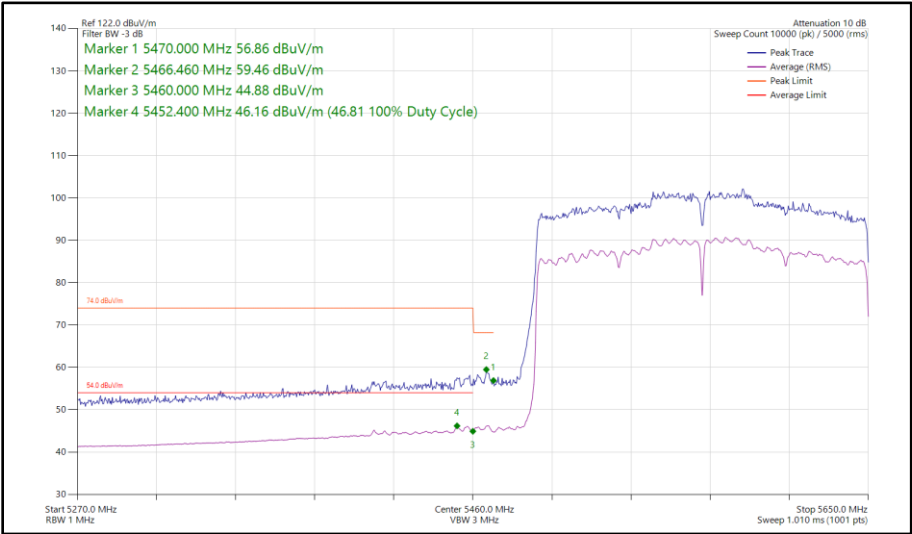


Figure 168 - 802.11ax HE160, SU, SDM, Core 0-1 - 5570 MHz
Band Edge Frequency 5460 MHz

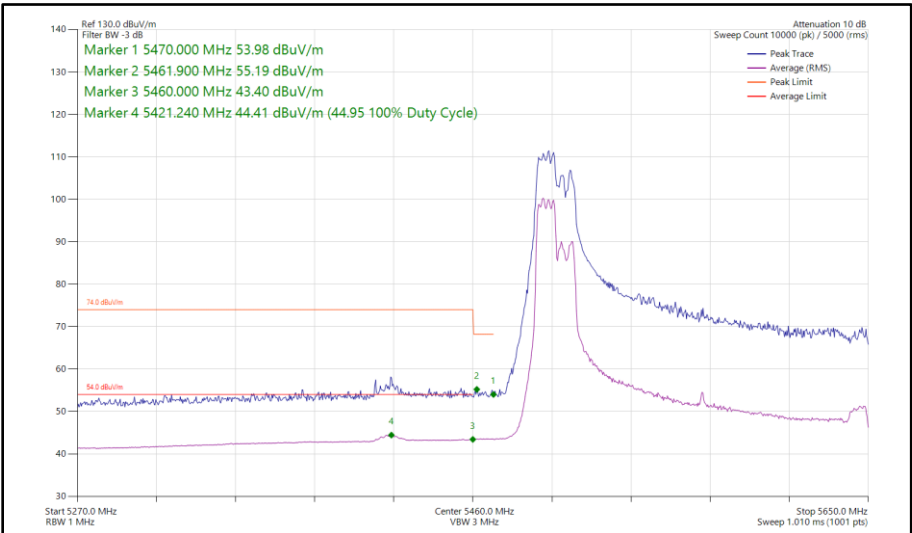


Figure 169 - 802.11ax HE160, RU 106-53P, SDM, Core 0-1 - 5570 MHz
Band Edge Frequency 5460 MHz

FCC 47 CFR Part 15, Limit Clause 15.205 and ISED RSS-GEN Limit Clause 8.10

	Peak (dBμV/m)	Average (dBμV/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, RF Chamber 16 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
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	23-May-2025
EMI Test Receiver	Rohde & Schwarz	ESW44	5912	12	07-Aug-2025
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-May-2025
1500W (300V 12A) AC Power Supply	iTech	IT7324	5956	-	O/P Mon
1500W (300V 12A) AC Power Supply	iTech	IT7324	5957	-	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
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 (N to N 7m)	Junkosha	MWX221-07000NMSNMS/B	6005	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	-	24-Aug-2024*
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6140	12	05-May-2025
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	6146	12	06-Jun-2025
Humidity & Temperature meter	R.S Components	1364	6148	12	29-Jul-2025
Humidity & Temperature meter	R.S Components	1364	6149	12	12-Aug-2025
SAC Switch Unit	TUV SUD	TUV_SSU_001	6190	12	22-Dec-2024
EMI Test Receiver	Rohde & Schwarz	ESW44	6294	12	06-Jan-2025
SAC Switch Unit	TUV SUD	TUV_SSU_004 PLC	6349	12	07-May-2025



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Horn Antenna (1–8 GHz)	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
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	6660	-	TU
Turntable	Maturo Gmbh	TT1.5SI	6661	-	TU
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)
ISED RSS-247, Clause 6.2

2.2.2 Equipment Under Test and Modification State

A3239, S/N: DLX7VG477R - Modification State 0
A3239, S/N: D21W5XX7VQ - Modification State 0

2.2.3 Date of Test

17-September-2024 to 20-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	21.2 - 22.9 °C
Relative Humidity	53.2 % - 56.4 %



2.2.6 Test Results

5 GHz WLAN

SISO

Protocol	26 dB Bandwidth (MHz)	
	Minimum	Maximum
802.11a	20.700	21.480
802.11n HT20	20.940	23.160
802.11n HT40	42.000	51.480
802.11ac VHT80	84.260	87.340
802.11ac VHT160	165.900	165.900
802.11ax HE20 SU	21.060	24.240
802.11ax HE40 SU	42.000	43.680
802.11ax HE80 SU	82.500	84.700
802.11ax HE160 SU	165.480	165.480

Table 28 - 26 dB Bandwidth Summary Results – SISO

Protocol	6 dB Bandwidth (MHz)	
	Minimum	Maximum
802.11a	15.780	16.140
802.11n HT20	17.280	17.640
802.11n HT40	35.400	35.760
802.11ac VHT80	75.680	75.680
802.11ax HE20 SU	18.840	19.020
802.11ax HE40 SU	38.160	38.280
802.11ax HE80 SU	76.560	76.560

Table 29 - 6 dB Bandwidth Summary Results - SISO

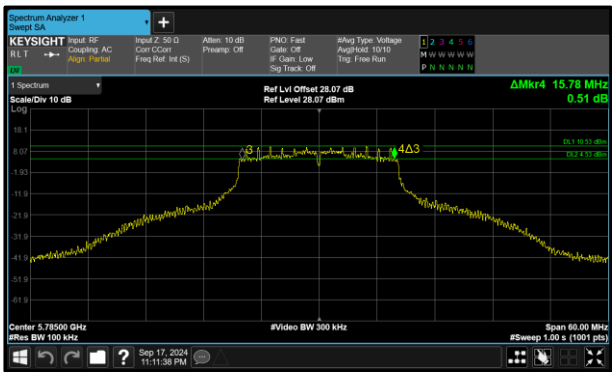


Figure 170 - 802.11a Minimum 6 dB EBW

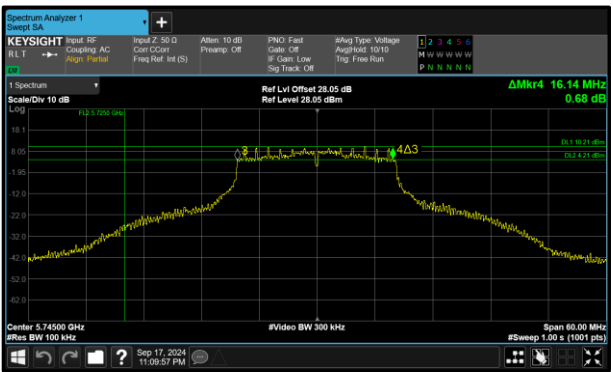


Figure 171 - 802.11a Maximum 6 dB EBW

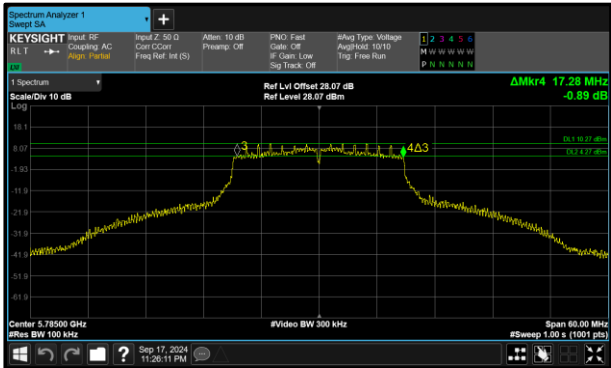


Figure 172 - 802.11n HT20 Minimum 6 dB EBW

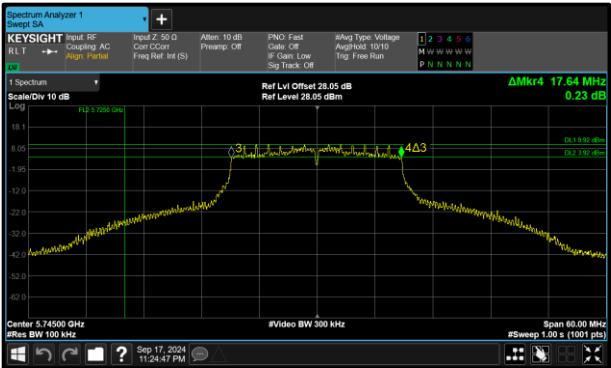


Figure 173 - 802.11n HT20 Maximum 6 dB EBW

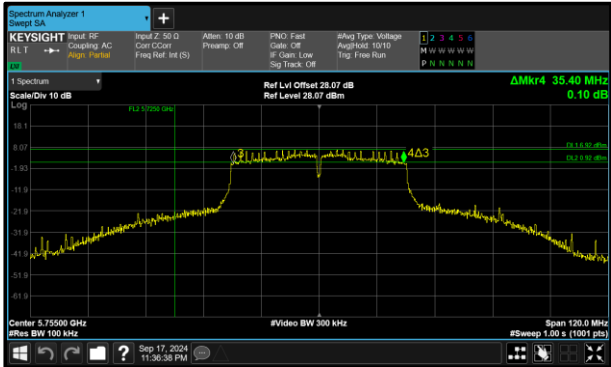


Figure 174 - 802.11n HT40 Minimum 6 dB EBW

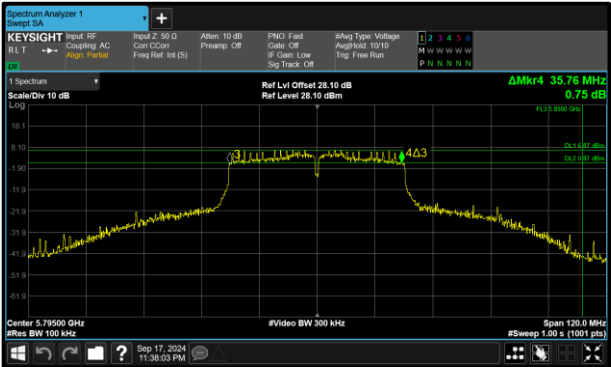


Figure 175 - 802.11n HT40 Maximum 6 dB EBW

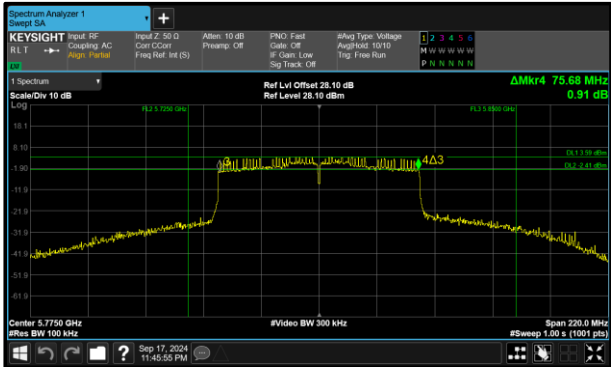


Figure 176 - 802.11ac VHT80 Minimum 6 dB
EBW

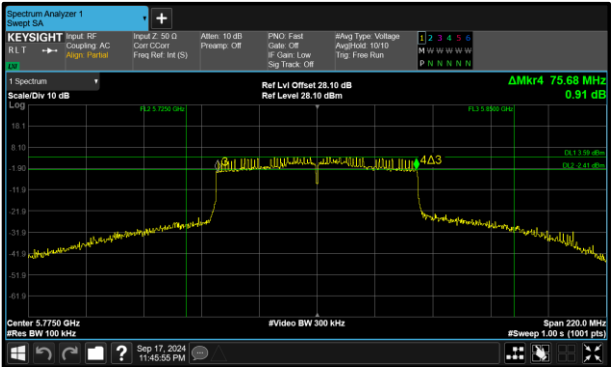


Figure 177 - 802.11ac VHT80 Maximum 6 dB
EBW

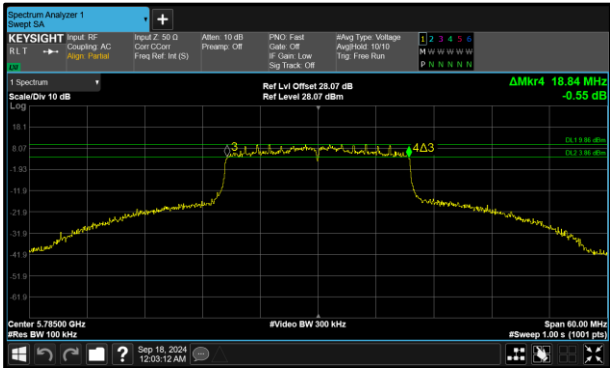


Figure 178 - 802.11ax HE20 SU Minimum 6 dB
EBW

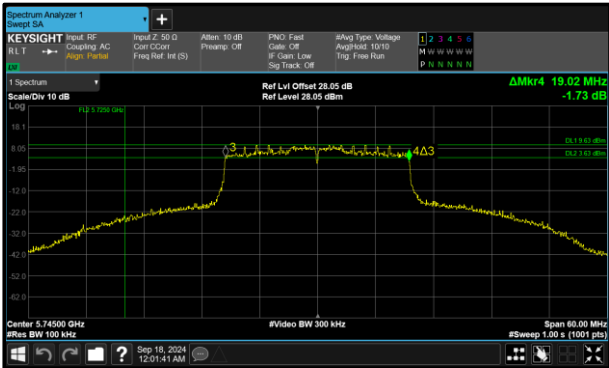


Figure 179 - 802.11ax HE20 SU Maximum 6 dB
EBW

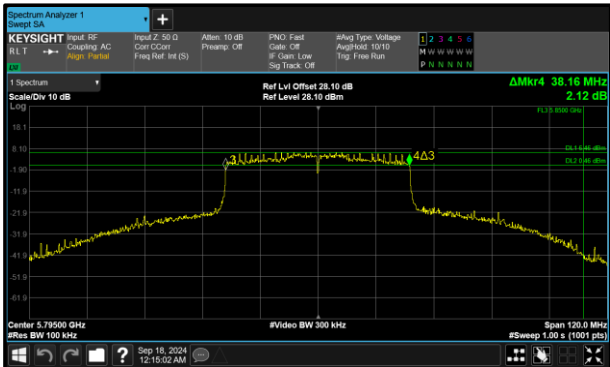


Figure 180 - 802.11ax HE40 SU Minimum 6 dB
EBW

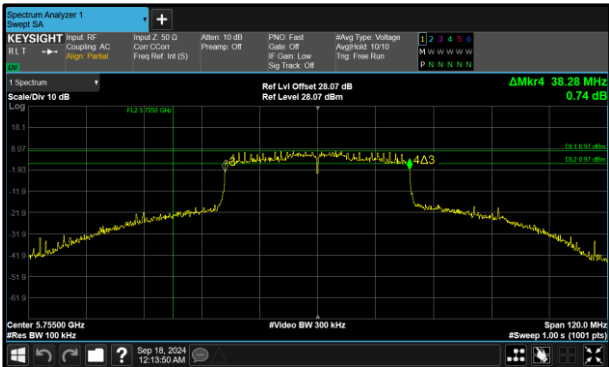


Figure 181 - 802.11ax HE40 SU Maximum 6 dB
EBW

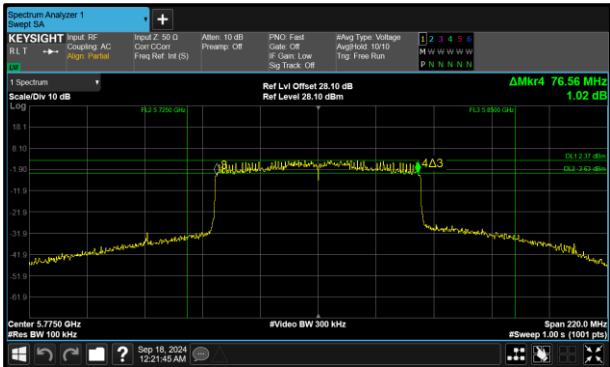


Figure 182 - 802.11ax HE80 SU Minimum 6 dB
EBW

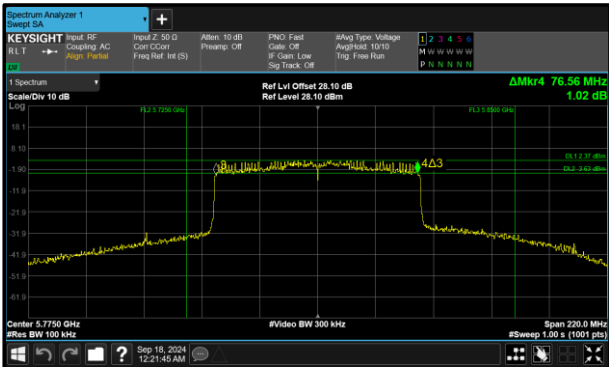


Figure 183 - 802.11ax HE80 SU Maximum 6 dB
EBW



Protocol	99% Bandwidth (MHz)	
	Minimum	Maximum
802.11a	16.500	16.800
802.11n HT20	17.700	17.940
802.11n HT40	36.360	36.840
802.11ac VHT80	75.680	76.120
802.11ac VHT160	154.140	154.140
802.11ax HE20 SU	18.900	19.080
802.11ax HE40 SU	37.800	38.040
802.11ax HE80 SU	77.000	77.000
802.11ax HE160 SU	155.820	155.820

Table 30 - 99% Bandwidth Summary Results - SISO

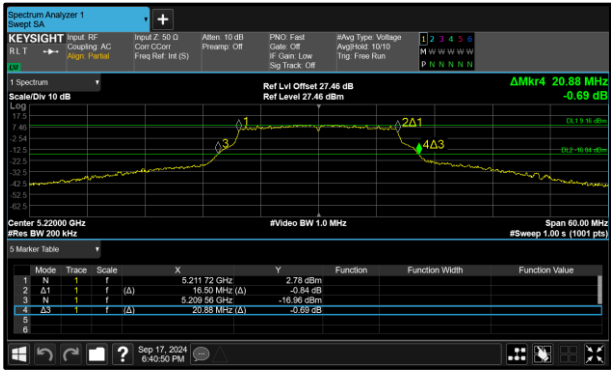


Figure 184 - 802.11a Minimum 99% OBW

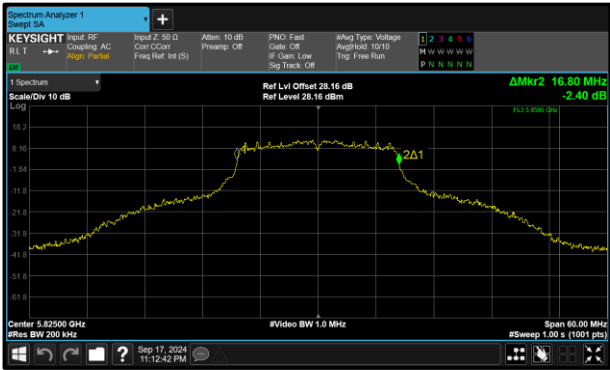


Figure 185 - 802.11a Maximum 99% OBW

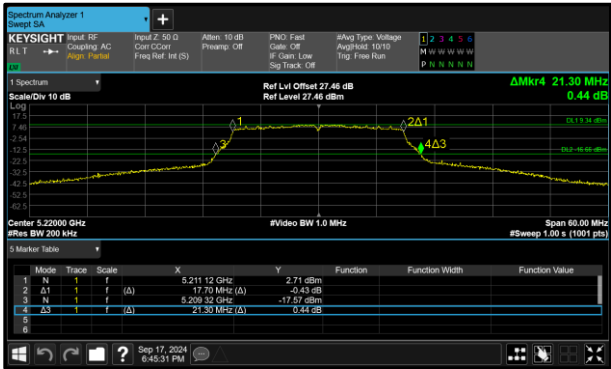


Figure 186 - 802.11n HT20 Minimum 99% OBW

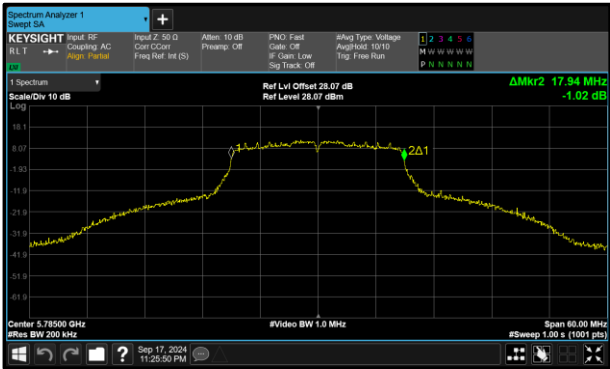


Figure 187 - 802.11n HT20 Maximum 99% OBW