



80 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)
802.11ax HE80	MCS11x1	SU	-	5985	5925	81.11	65.69
802.11ax HE80	MCS11x1	26	0	5985	5925	82.35	64.42
802.11ax HE80	MCS4x1	SU	-	7025	7125	79.92	64.92
802.11ax HE80	MCS11x1	26	0	7025	7125	71.46	55.58

Table 500 - CDD Authorised Band Edge Results

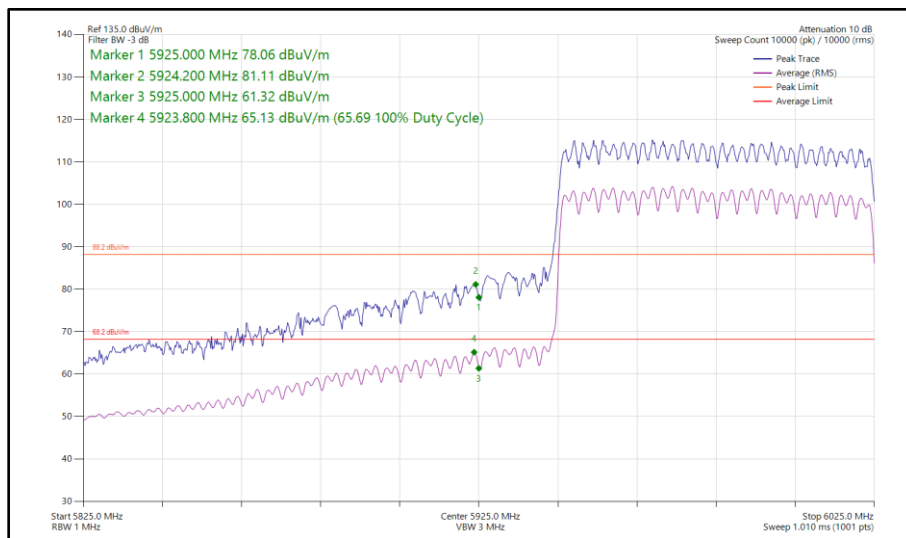


Figure 108 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 5985 MHz
Band Edge Frequency 5925 MHz

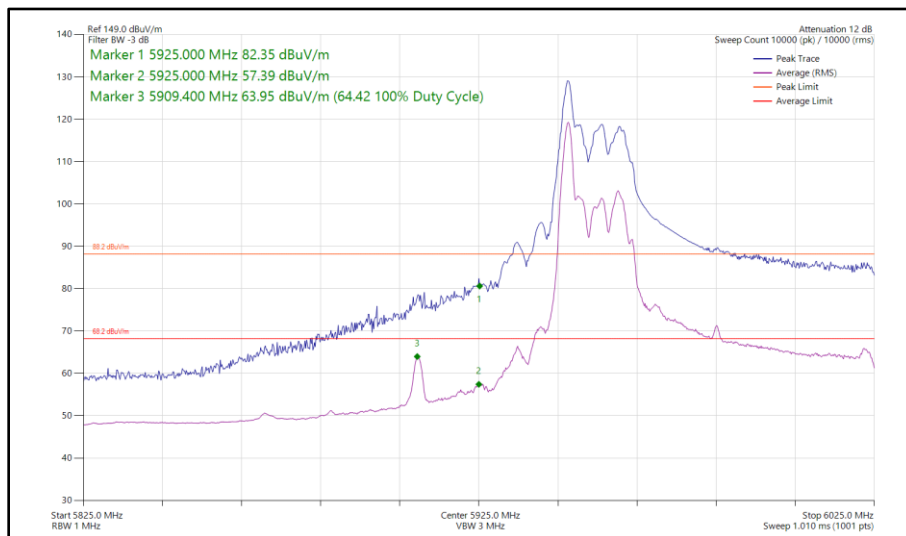
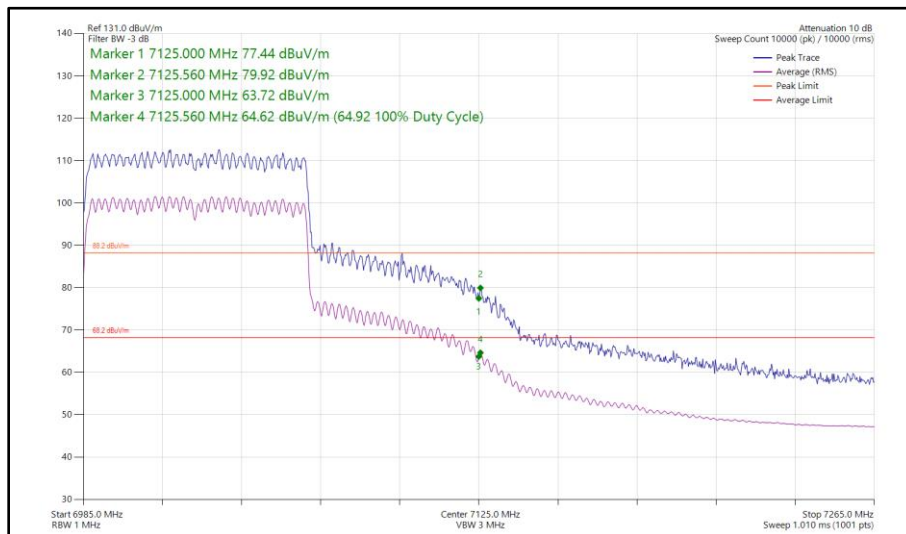
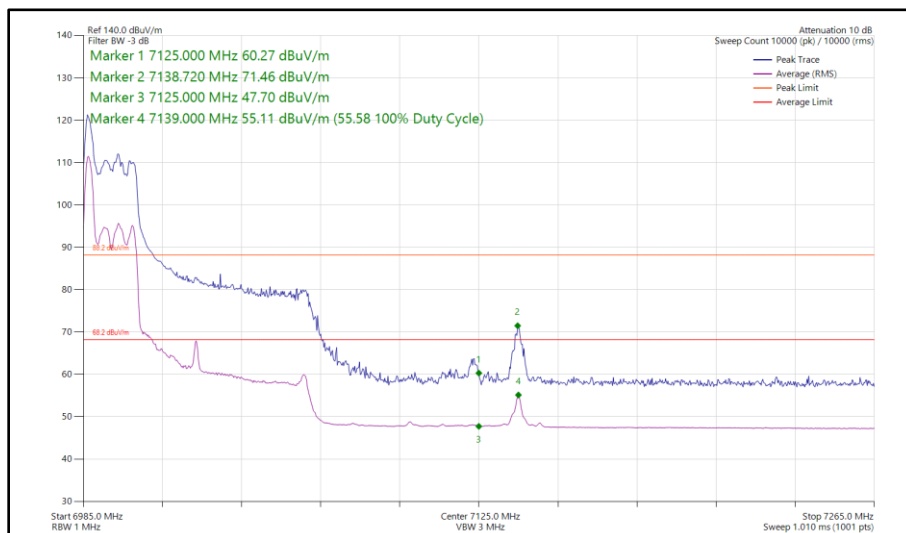


Figure 109 - 802.11ax HE80, RU 26-0, CDD, Core 0 + Core 1 - 5985 MHz
Band Edge Frequency 5925 MHz



**Figure 110 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 7025 MHz
Band Edge Frequency 7125 MHz**



**Figure 111 - 802.11ax HE80, RU 26-0, CDD, Core 0 + Core 1 - 7025 MHz
Band Edge Frequency 7125 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)
802.11ax HE80	MCS11x2	SU	-	5985	5925	79.94	65.57
802.11ax HE80	MCS11x2	26	0	5985	5925	80.79	63.79
802.11ax HE80	MCS11x2	SU	-	7025	7125	74.93	62.46
802.11ax HE80	MCS11x2	26	0	7025	7125	68.70	53.57

Table 501 - SDM Authorised Band Edge Results

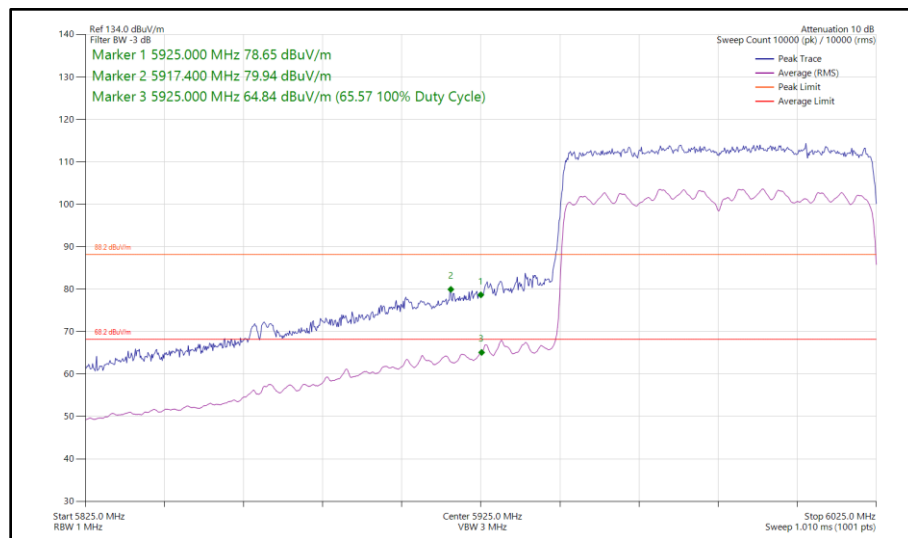


Figure 112 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 5985 MHz
Band Edge Frequency 5925 MHz

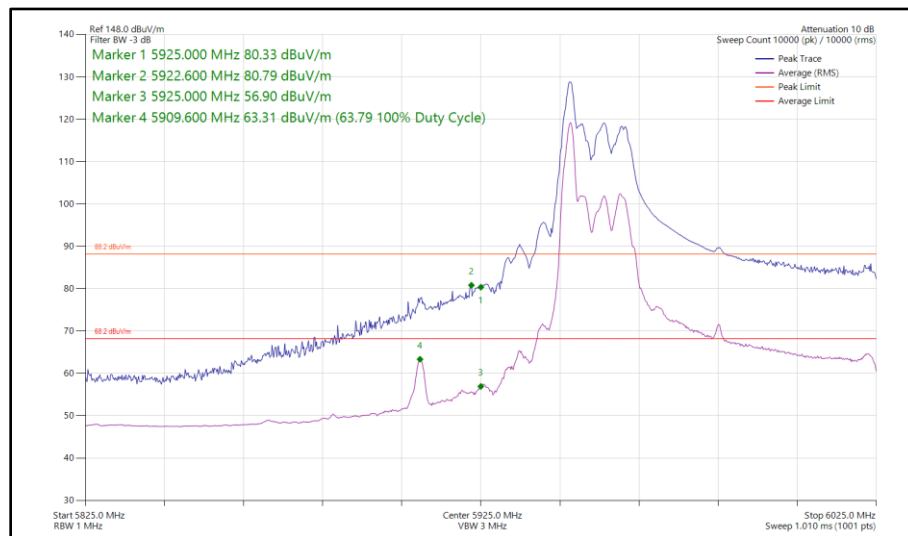
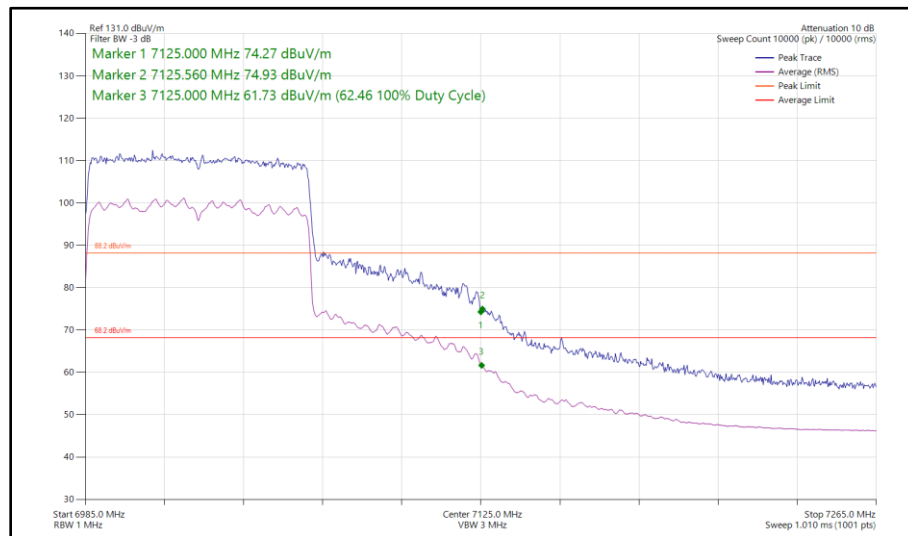
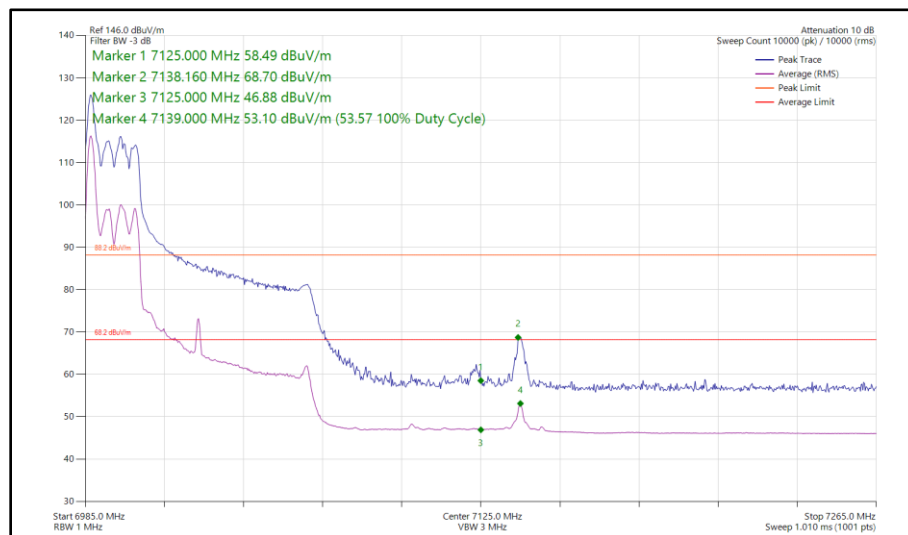


Figure 113 - 802.11ax HE80, RU 26-0, SDM, Core 0 + Core 1 - 5985 MHz
Band Edge Frequency 5925 MHz



**Figure 114 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 7025 MHz
Band Edge Frequency 7125 MHz**



**Figure 115 - 802.11ax HE80, RU 26-0, SDM, Core 0 + Core 1 - 7025 MHz
Band Edge Frequency 7125 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)
802.11ax HE80	MCS2x1	SU	-	5985	5925	78.54	65.02
802.11ax HE80	MCS4x1	SU	-	7025	7125	81.27	65.61

Table 502 - TxBF Authorised Band Edge Results

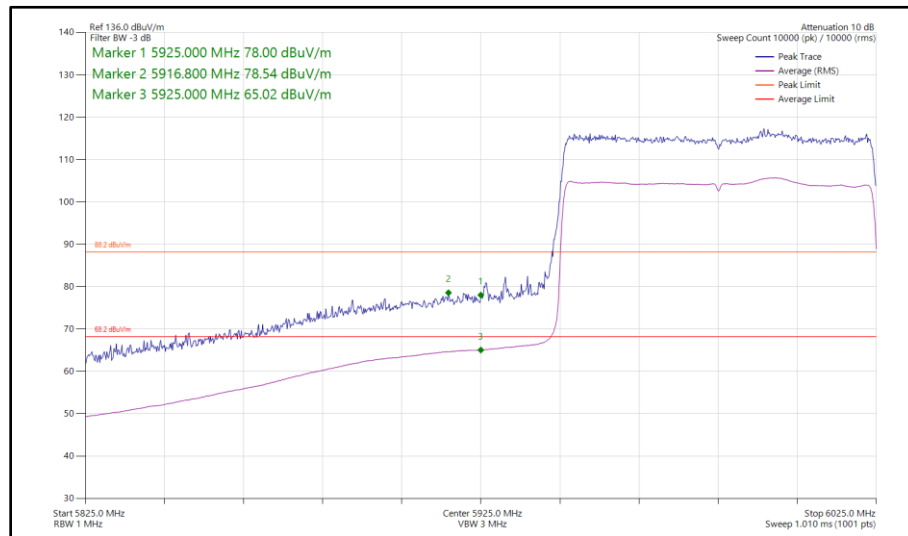


Figure 116 - 802.11ax HE80, SU, TxBF, Core 0 + Core 1 - 5985 MHz
Band Edge Frequency 5925 MHz

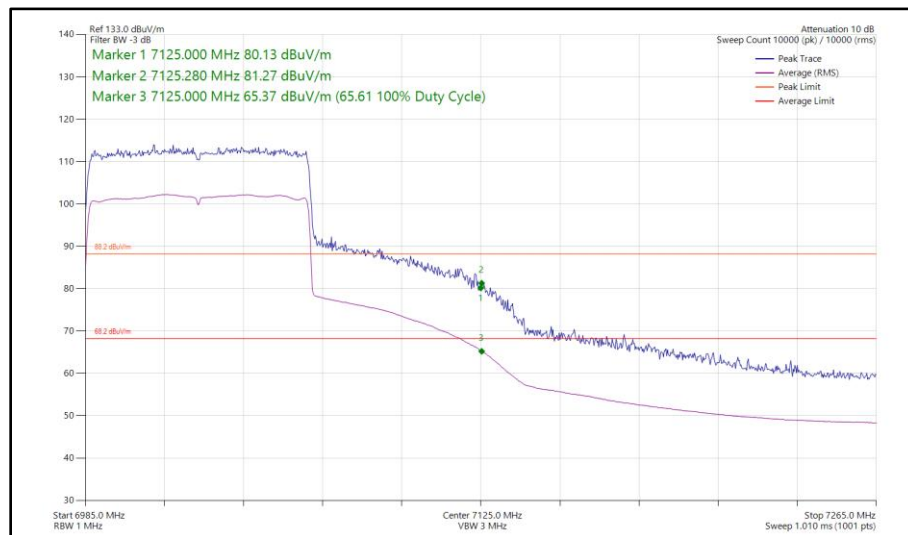
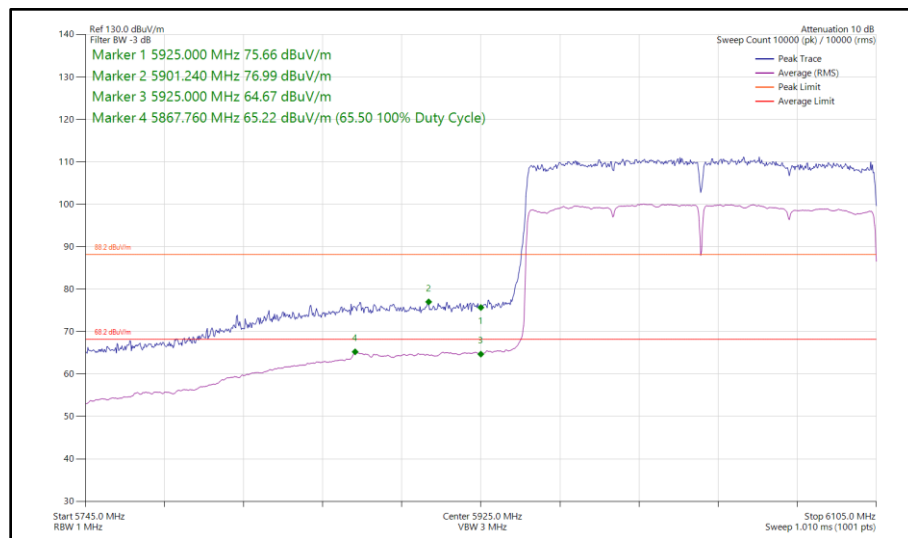


Figure 117 - 802.11ax HE80, SU, TxBF, Core 0 + Core 1 - 7025 MHz
Band Edge Frequency 7125 MHz

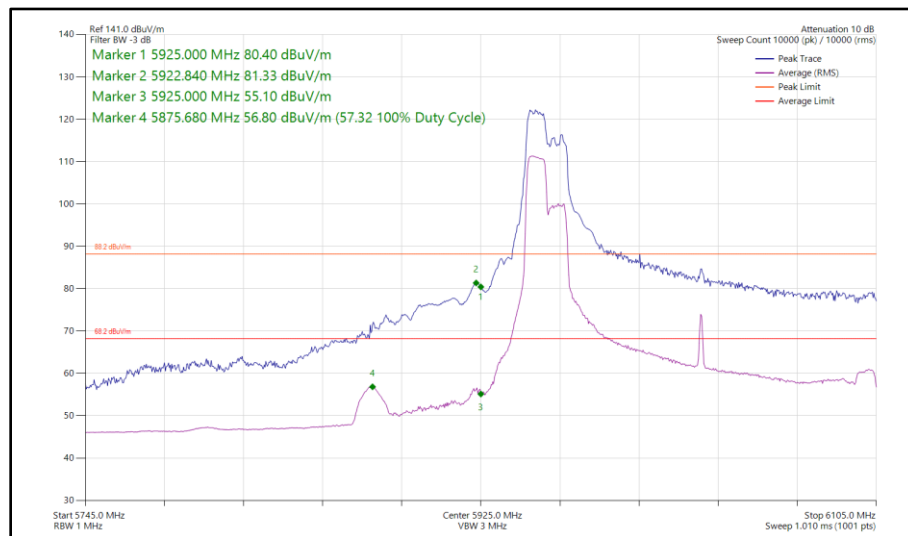
160 MHz Bandwidth - Core 0 (SISO)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ax HE160	MCS2x1	SU	-	6025	5925	76.99	65.50
802.11ax HE160	MCS11x1	106	53	6025	5925	81.33	57.32
802.11ax HE160	MCS11x1	SU	-	6985	7125	78.91	65.42
802.11ax HE160	MCS11x1	26	36	6985	7125	71.45	58.72

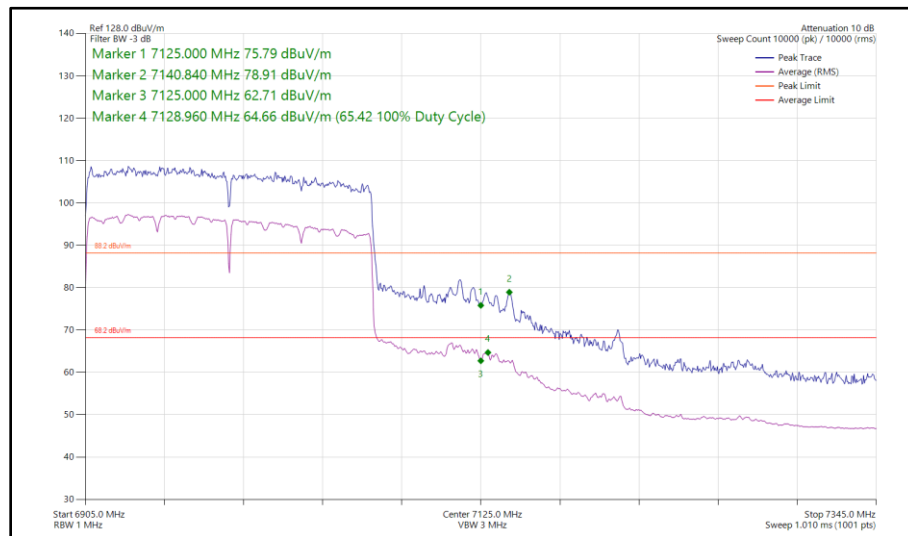
Table 503 - SISO Authorised Band Edge Results



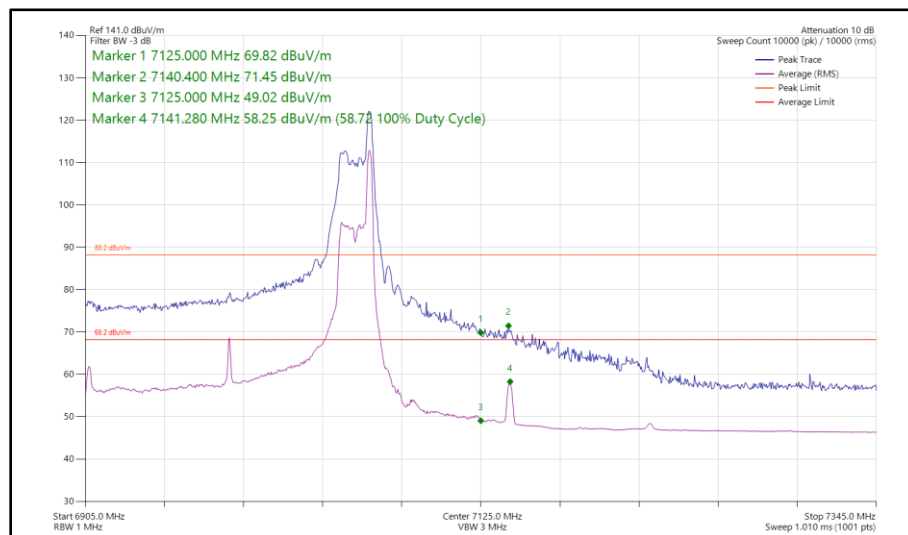
**Figure 118 - 802.11ax HE160, SU, SISO, Core 0 - 6025 MHz
Band Edge Frequency 5925 MHz**



**Figure 119 - 802.11ax HE160, RU 106-53, SISO, Core 0 - 6025 MHz
Band Edge Frequency 5925 MHz**



**Figure 120 - 802.11ax HE160, SU, SISO, Core 0 - 6985 MHz
Band Edge Frequency 7125 MHz**

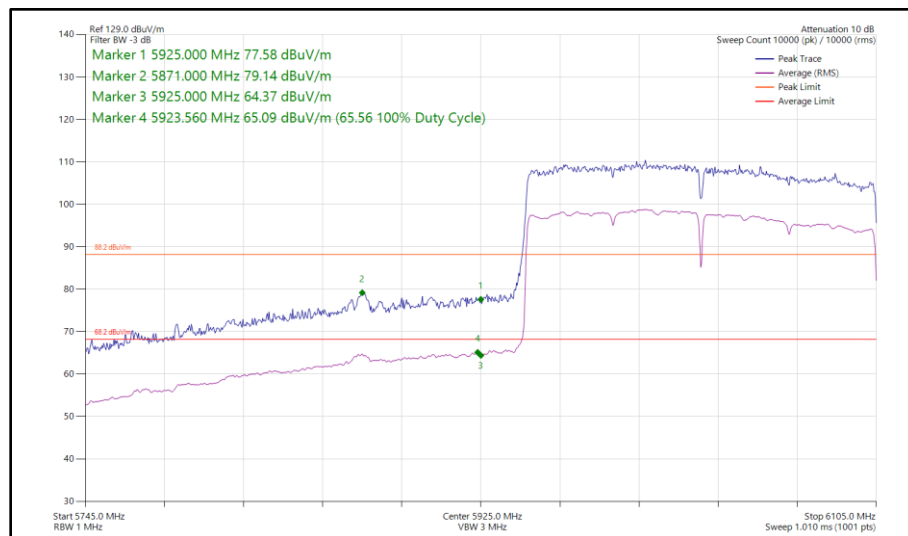


**Figure 121 - 802.11ax HE160, RU 26-36, SISO, Core 0 - 6985 MHz
Band Edge Frequency 7125 MHz**

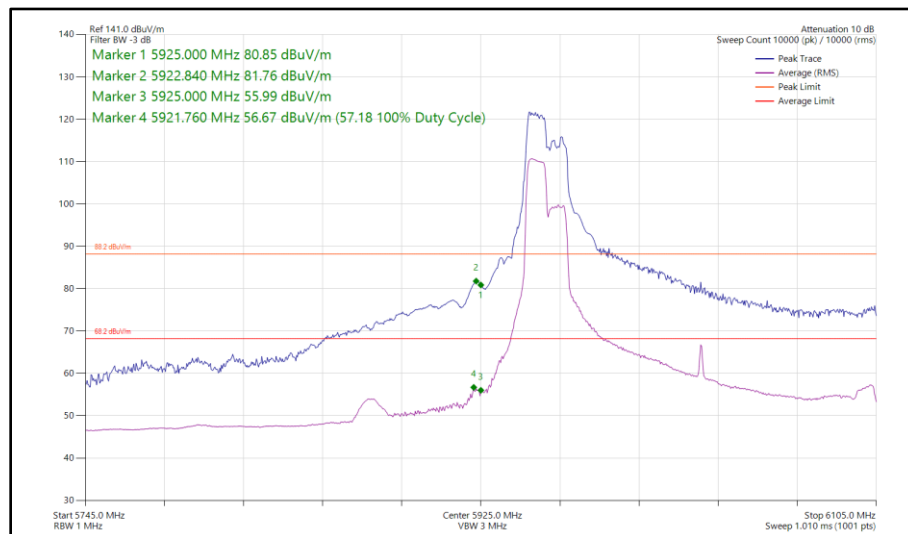
160 MHz Bandwidth - Core 1 (SISO)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ax HE160	MCS4x1	SU	-	6025	5925	79.14	65.56
802.11ax HE160	MCS11x1	106	53	6025	5925	81.76	57.18
802.11ax HE160	MCS4x1	SU	-	6985	7125	77.09	65.28
802.11ax HE160	MCS11x1	26	36	6985	7125	70.83	50.31

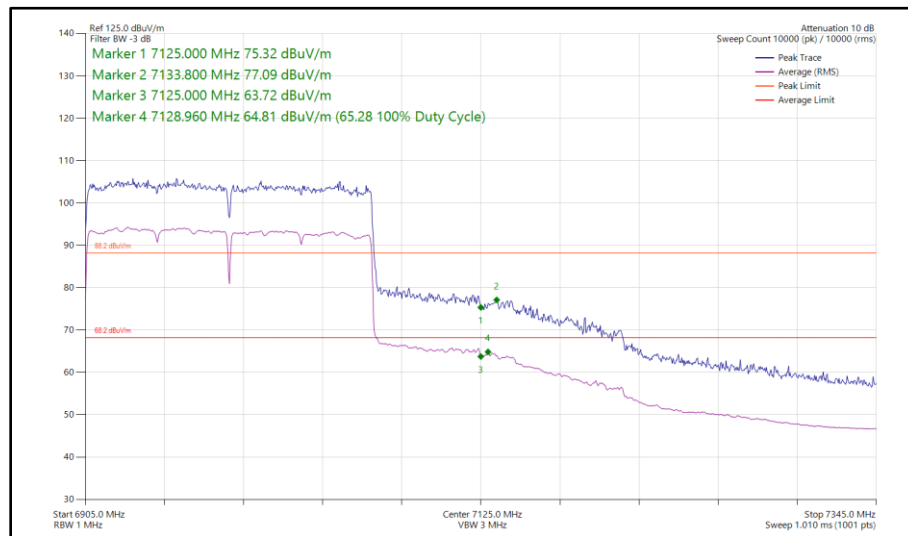
Table 504 - SISO Authorised Band Edge Results



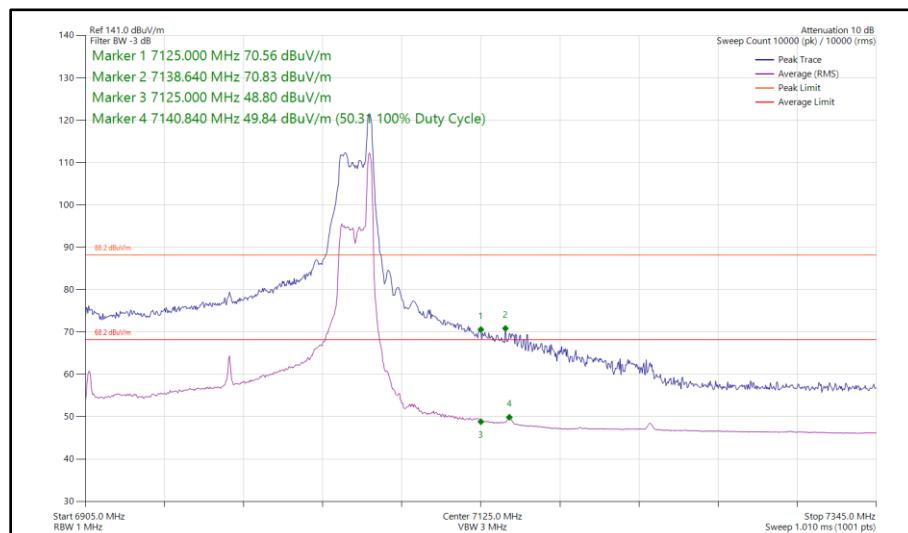
**Figure 122 - 802.11ax HE160, SU, SISO, Core 1 - 6025 MHz
Band Edge Frequency 5925 MHz**



**Figure 123 - 802.11ax HE160, RU 106-53, SISO, Core 1 - 6025 MHz
Band Edge Frequency 5925 MHz**



**Figure 124 - 802.11ax HE160, SU, SISO, Core 1 - 6985 MHz
Band Edge Frequency 7125 MHz**



**Figure 125 - 802.11ax HE160, RU 26-36, SISO, Core 1 - 6985 MHz
Band Edge Frequency 7125 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)
802.11ax HE160	MCS4x1	SU	-	6025	5925	78.39	65.66
802.11ax HE160	MCS11x1	26	0	6025	5925	79.62	65.39
802.11ax HE160	MCS4x1	SU	-	6985	7125	78.99	65.60
802.11ax HE160	MCS11x1	26	36	6985	7125	73.18	59.27

Table 505 - CDD Authorised Band Edge Results

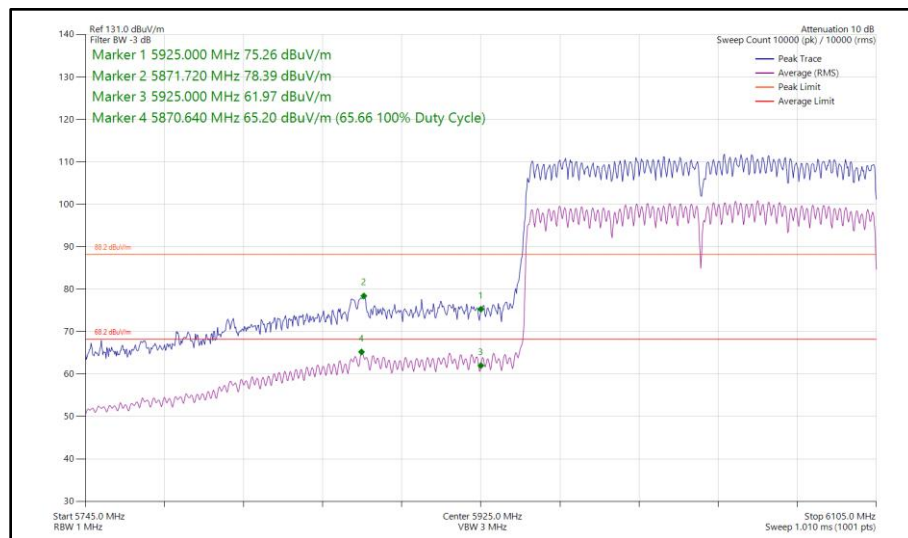


Figure 126 - 802.11ax HE160, SU, CDD, Core 0 + Core 1 - 6025 MHz Band Edge Frequency 5925 MHz

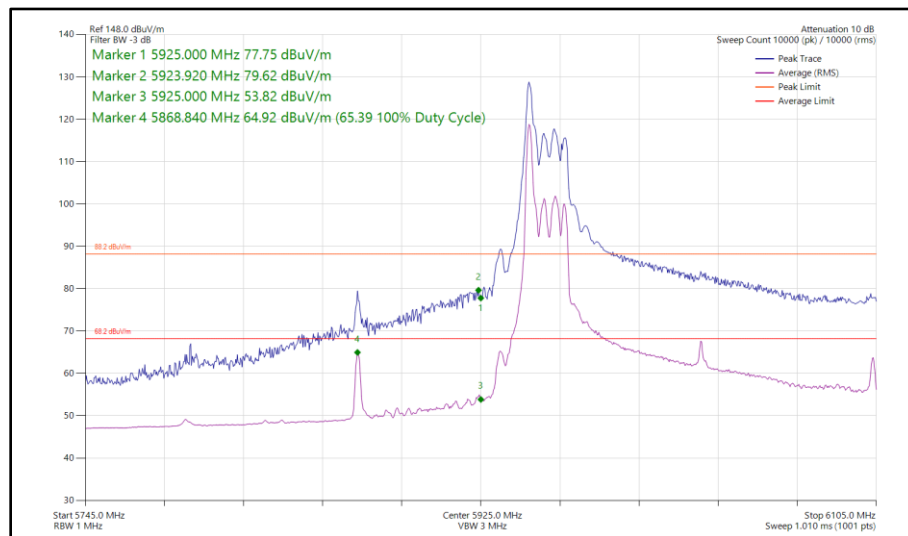
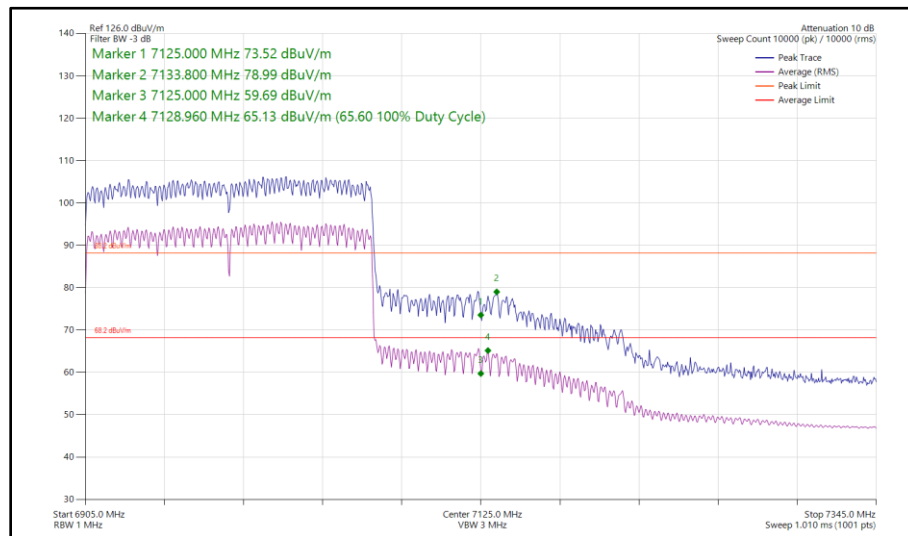
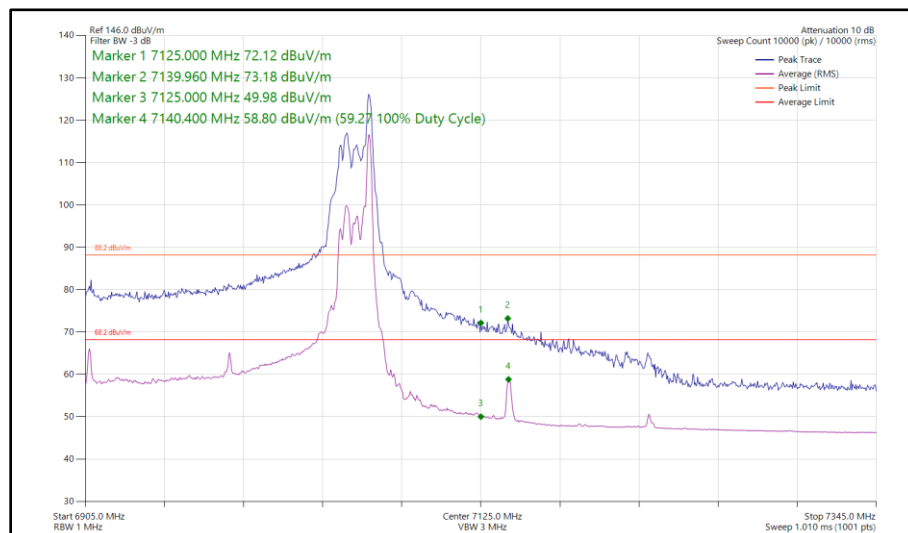


Figure 127 - 802.11ax HE160, RU 26-0, CDD, Core 0 + Core 1 - 6025 MHz Band Edge Frequency 5925 MHz



**Figure 128 - 802.11ax HE160, SU, CDD, Core 0 + Core 1 - 6985 MHz
Band Edge Frequency 7125 MHz**

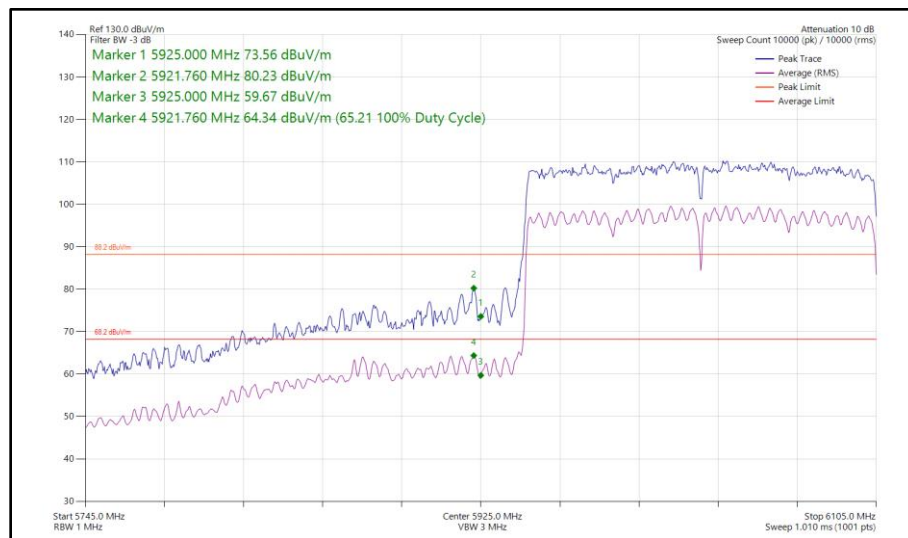


**Figure 129 - 802.11ax HE160, RU 26-36, CDD, Core 0 + Core 1 - 6985 MHz
Band Edge Frequency 7125 MHz**

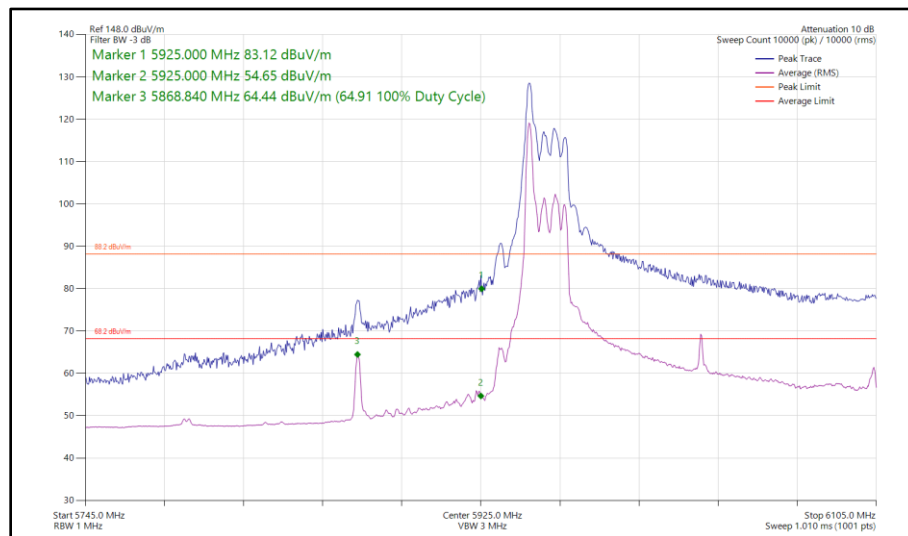
160 MHz Bandwidth - Core 0 + Core 1 (SDM)

Mode	Data Rate/ MCS	Resource Size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Peak Level (dBμV/m)	Average Level (dBμV/m)
802.11ax HE160	MCS11x2	SU	-	6025	5925	80.23	65.21
802.11ax HE160	MCS11x2	26	0	6025	5925	83.12	64.91
802.11ax HE160	MCS11x2	SU	-	6985	7125	80.09	65.57
802.11ax HE160	MCS11x2	26	36	6985	7125	72.95	59.03

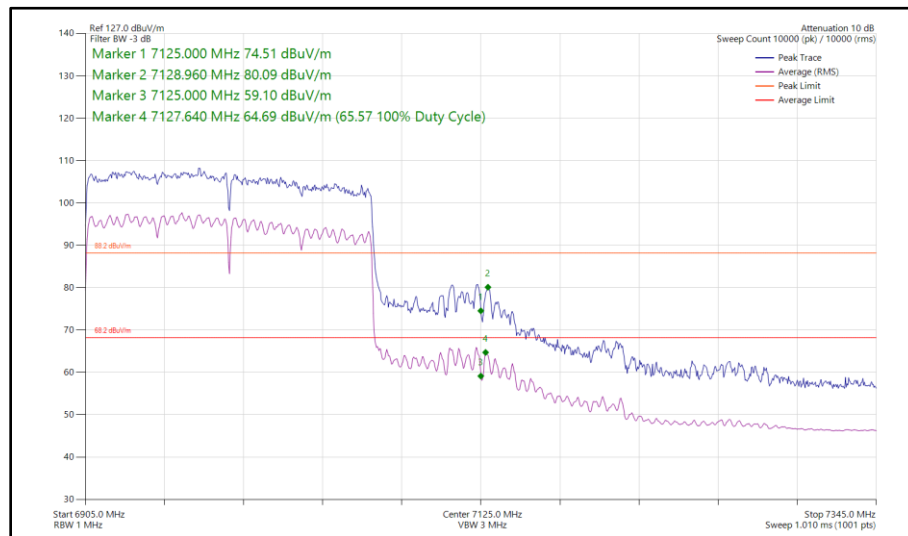
Table 506 - SDM Authorised Band Edge Results



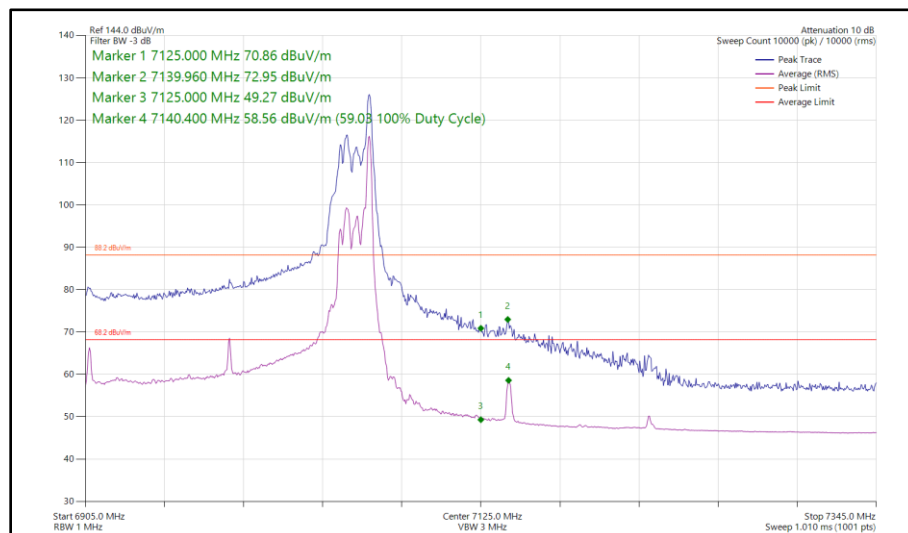
**Figure 130 - 802.11ax HE160, SU, SDM, Core 0 + Core 1 - 6025 MHz
Band Edge Frequency 5925 MHz**



**Figure 131 - 802.11ax HE160, RU 26-0, SDM, Core 0 + Core 1 - 6025 MHz
Band Edge Frequency 5925 MHz**



**Figure 132 - 802.11ax HE160, SU, SDM, Core 0 + Core 1 - 6985 MHz
Band Edge Frequency 7125 MHz**



**Figure 133 - 802.11ax HE160, RU 26-36, SDM, Core 0 + Core 1 - 6985 MHz
Band Edge Frequency 7125 MHz**

FCC 47 CFR Part 15E, Limit Clause 15.407(b)(1)(2)(3)(4)

For transmitters operating within the 5.925–7.125 GHz band: Any emissions outside of the 5.925–7.125 GHz band must not exceed an e.i.r.p. of -27 dBm.

ISED RSS-248, Limit Clause 4.6.2(a)

Any emissions outside of the 5925-7125 MHz band shall not exceed -27 dBm/MHz e.i.r.p.



2.4.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 15.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (18 GHz)	Rosenberger	LU7-071-1000	5096	12	23-Oct-2023
Emissions Software	TUV SUD	EmX V3.1.12	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	05-May-2024
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
5m Semi-Anechoic Chamber (Dual-Axis)	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	5996	12	05-Jun-2024
Cable (N to N 7m)	Junkosha	MWX221-07000NMSNMS/B	6005	12	05-Jun-2024
Cable (N to N 8m)	Junkosha	MWX221-08000NMSNMS/A	6006	12	05-Jun-2024
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6014	12	08-Aug-2023
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6140	12	21-Aug-2023
Digital Multimeter	Fluke	115	6147	12	16-Jun-2024
SAC Switch Unit	TUV SUD	TUV_SSU_001	6191	12	12-Dec-2023
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6315	12	04-Feb-2024
Humidity and Temperature Meter	R.S Components	1364	6486	12	18-Apr-2024

Table 507

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 15E, Clause 15.209 and 15.407 (b)
ISED RSS-248, Clause 4.6
ISED RSS-GEN, Clause 6.13 and 8.9

2.5.2 Equipment Under Test and Modification State

A2992, S/N: C69CLQX700 - Modification State 0

2.5.3 Date of Test

20-July-2023 to 03-August-2023

2.5.4 Test Method

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

Tests were performed in HE20 CDD in 2TX MIMO mode, with measurements undertaken from 30 MHz to 40 GHz on channels 45 (6175 MHz), 105 (6475 MHz), 149 (6695 MHz), and 209 (6995 MHz).

For the purpose of this testing, spurious emissions were limited to 1 GHz to 40 GHz on all other test channels.

All testing was performed using the lowest data rate/modulation scheme for the applicable mode.

Plots for average measurements were taken in accordance with ANSI C63.10, clause 12.7.7.2 with max-hold trace to characterize the EUT. Where emissions were detected, final average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.2.

The plots shown are the characterization of the EUT. The limits on the plots represent the most stringent case for restricted bands, (54/74 dBuV/m @ 3 m and 64/84 dBuV/m @ 1m) when compared to -27 dBm/MHz RMS EIRP and -7dBm/MHz Peak EIRP outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

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

EIRP was converted to field strength at 3m using the following formula:
 $\text{Field Strength (dBuV/m at 3 m)} = \text{EIRP (dBm)} + 95.2 \text{ dB}$.

2.5.5 Test Setup Diagram

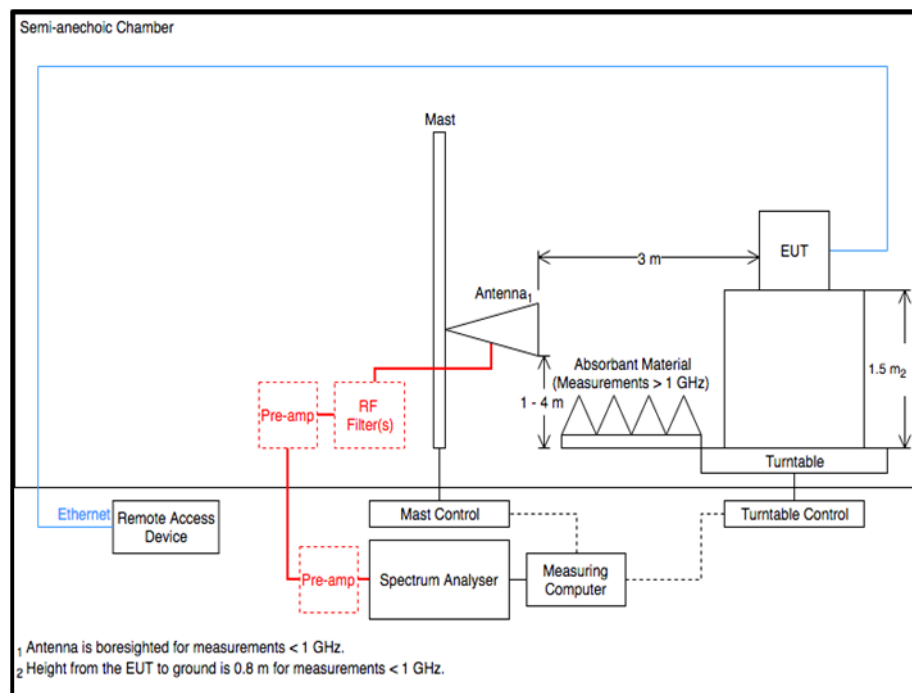


Figure 134 - Radiated Emissions Test Setup Diagram

2.5.6 Environmental Conditions

Ambient Temperature	21.5 - 23.4 °C
Relative Humidity	36.8 - 62.3 %



2.5.7 Test Results

6 GHz WLAN

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

Table 508 - U-NII-5 - 5955 MHz (CH1), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

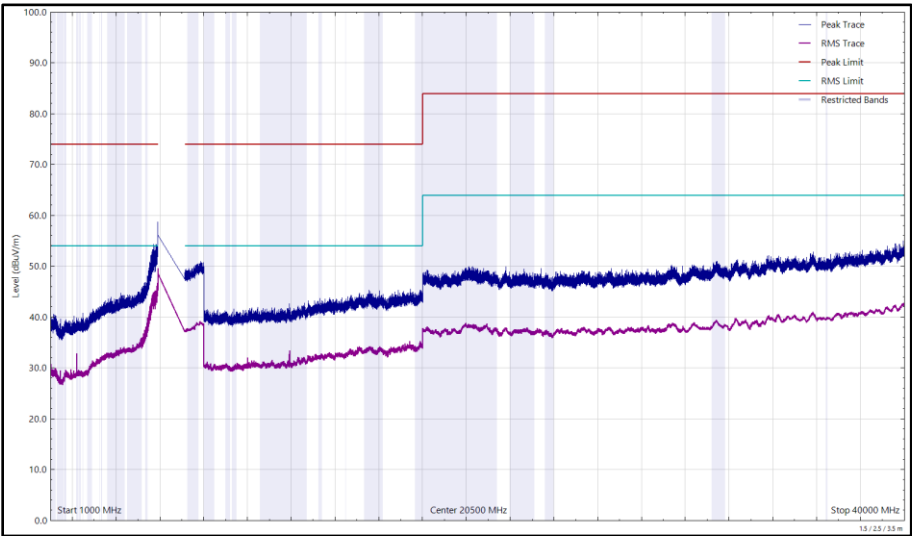


Figure 135 - U-NII-5 - 5955 MHz (CH1), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

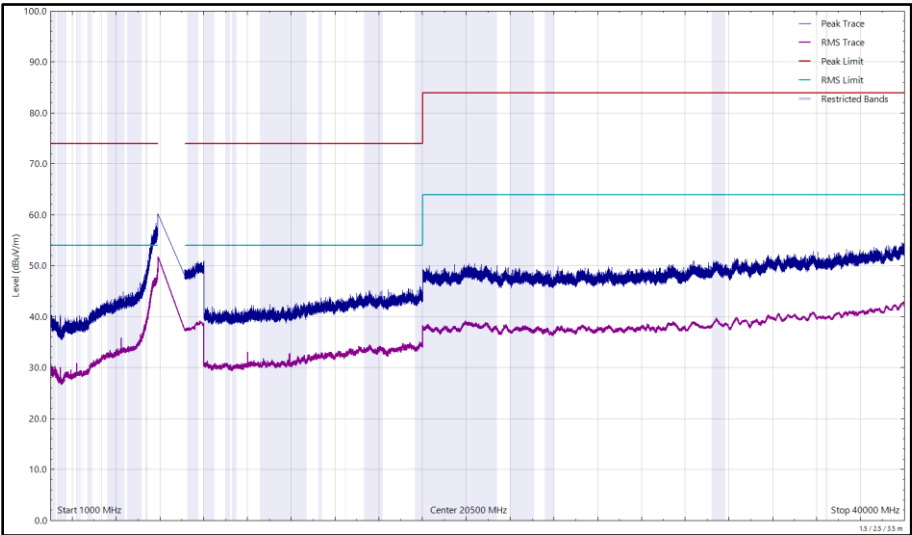


Figure 136 - U-NII-5 - 5955 MHz (CH1), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
50.763	23.75	40.00	-16.25	Q-Peak	350	100	Vertical

Table 509 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

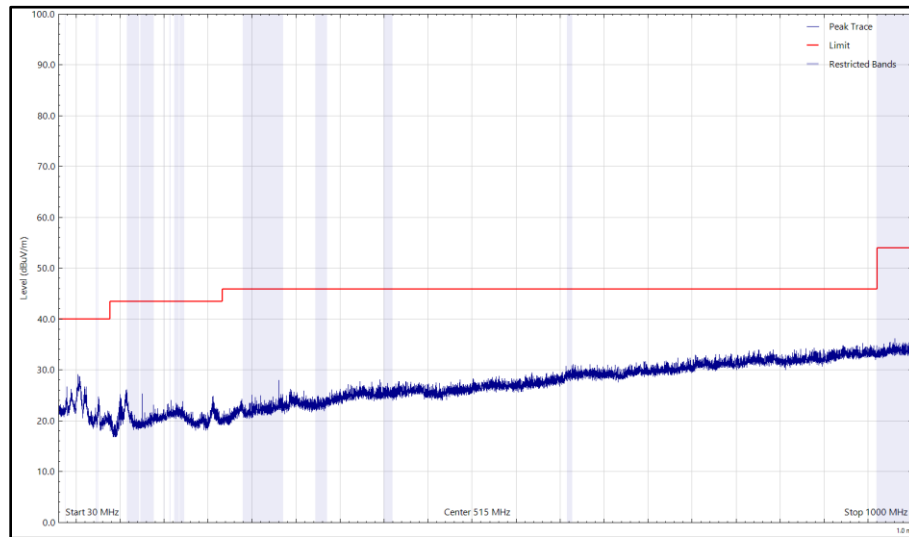


Figure 137 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

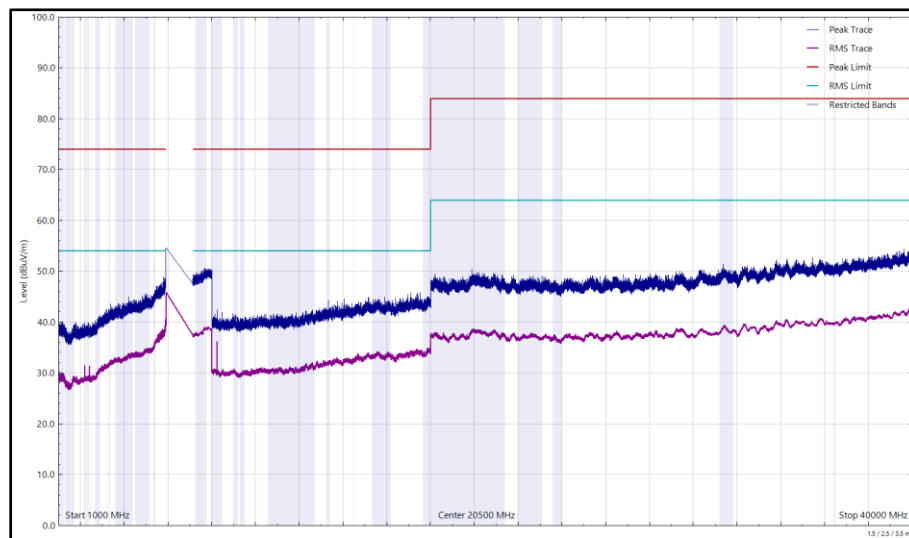


Figure 138 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

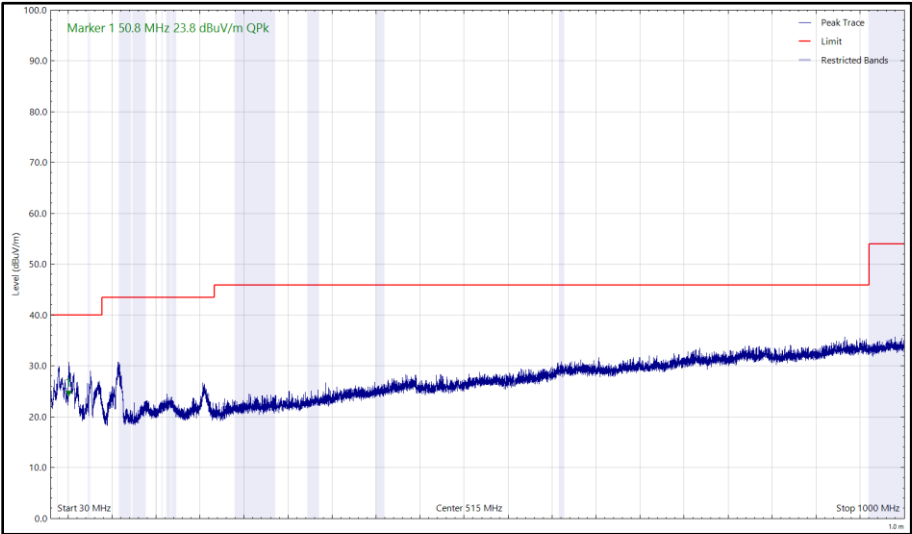


Figure 139 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

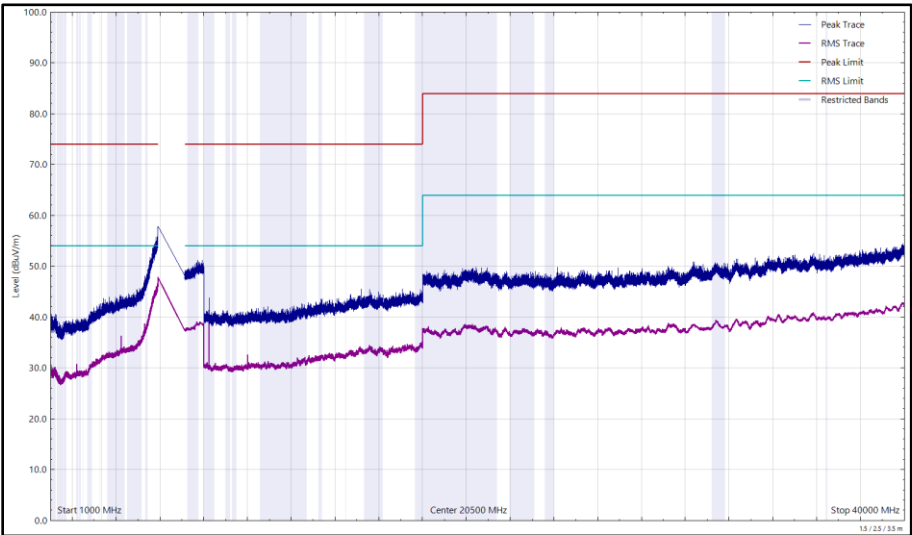


Figure 140 - U-NII-5 - 6175 MHz (CH45), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

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

Table 510 - U-NII-5 - 6415 MHz (CH93), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

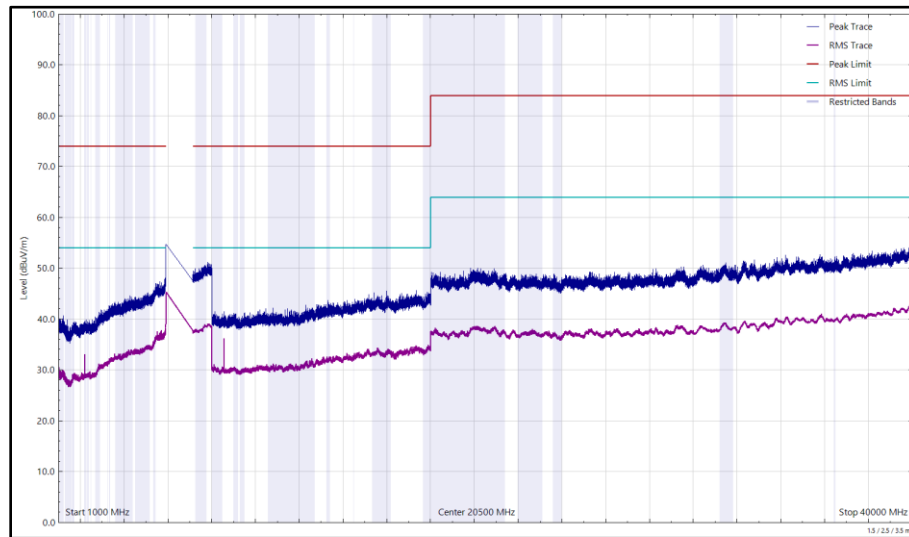


Figure 141 - U-NII-5 - 6415 MHz (CH93), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

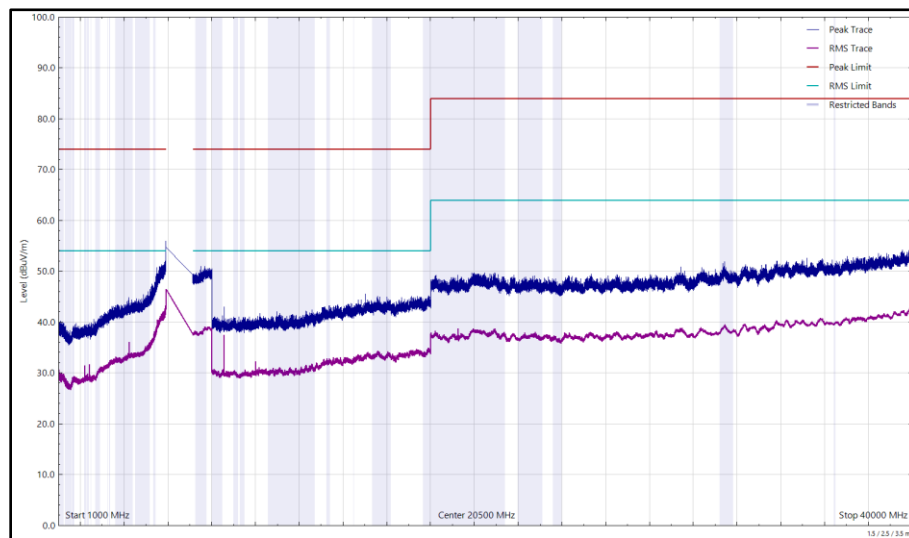


Figure 142 - U-NII-5 - 6415 MHz (CH93), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

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

Table 511 - U-NII-6 - 6435 MHz (CH97), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

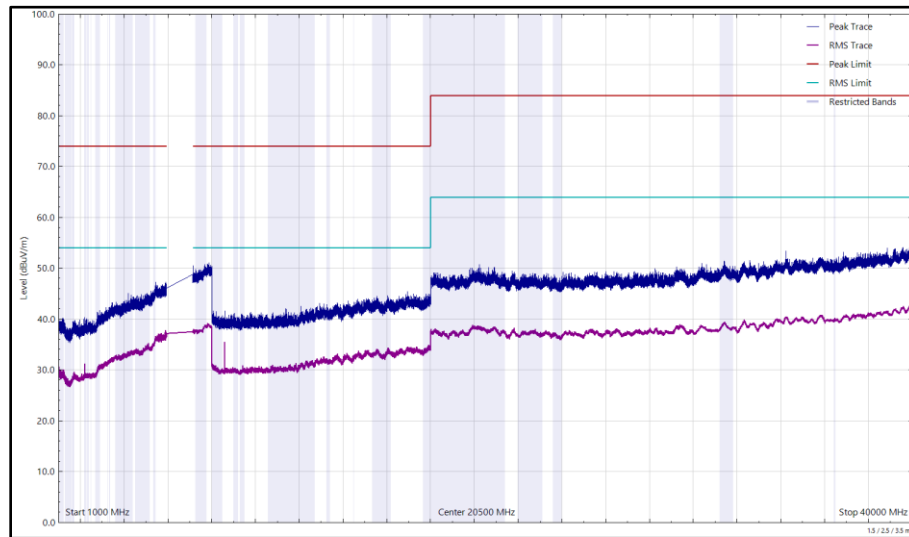


Figure 143 - U-NII-6 - 6435 MHz (CH97), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

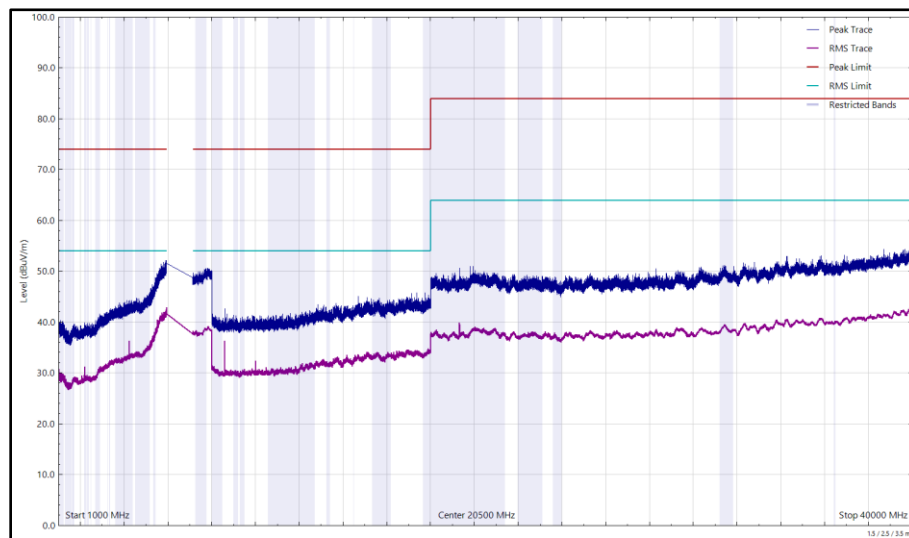


Figure 144 - U-NII-6 - 6435 MHz (CH97), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
56.228	21.59	40.00	-18.41	Q-Peak	171	103	Vertical

Table 512 - U-NII-6 - 6475 MHz (CH105), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

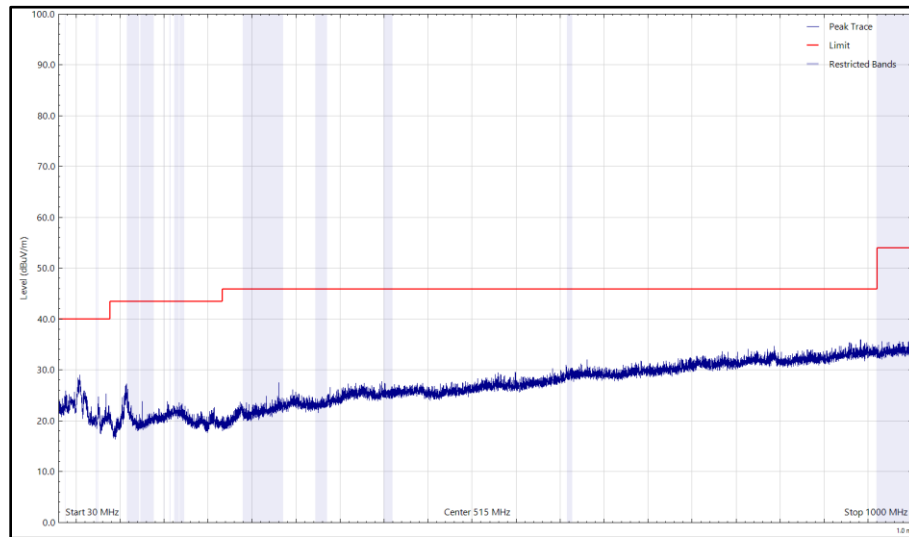


Figure 145 - U-NII-6 - 6475 MHz (CH105), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

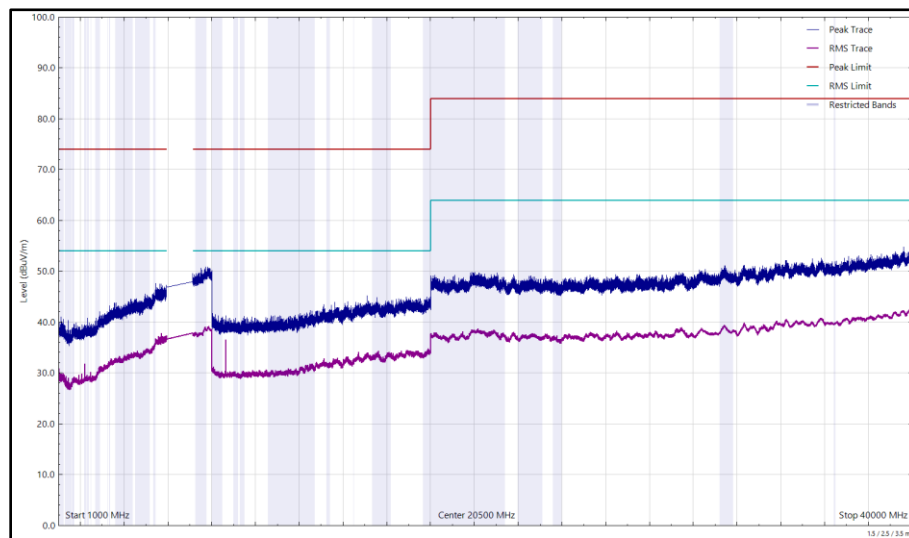


Figure 146 - U-NII-6 - 6475 MHz (CH105), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

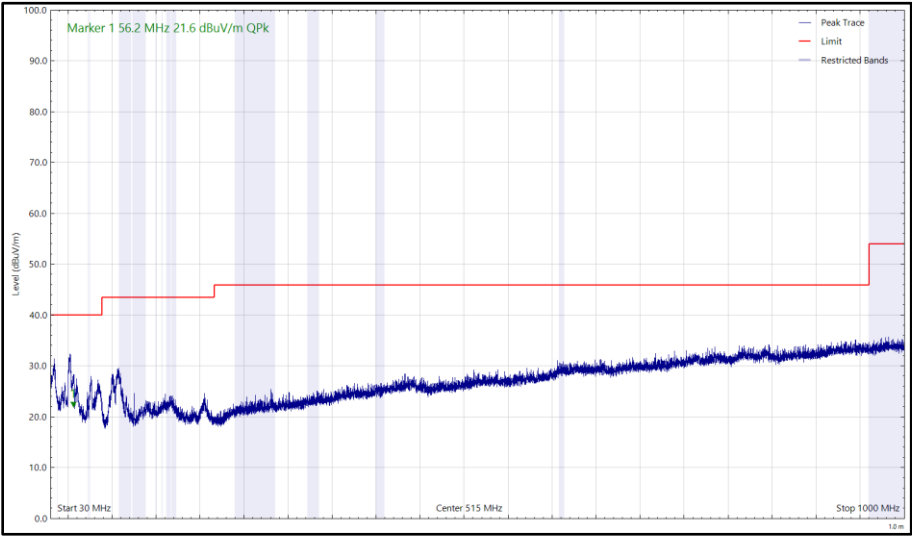


Figure 147 - U-NII-6 - 6475 MHz (CH105), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

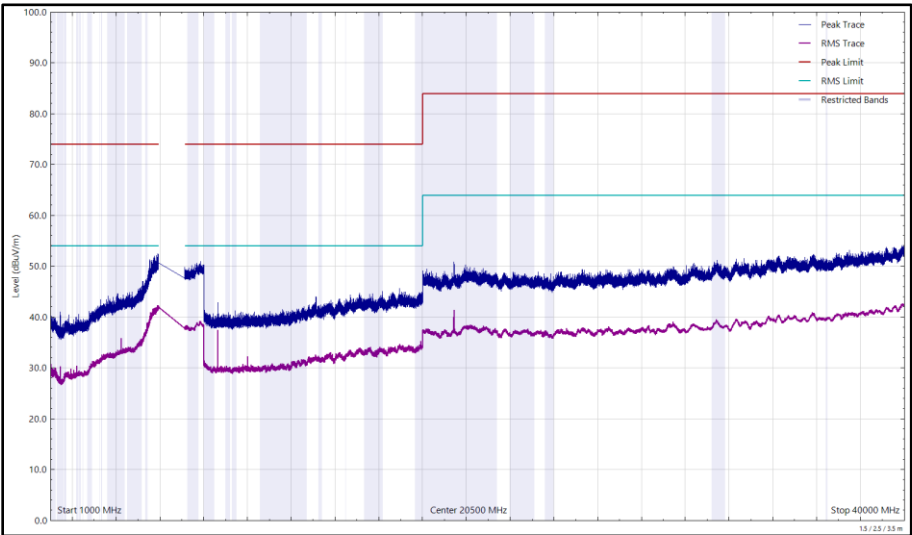


Figure 148 - U-NII-6 - 6475 MHz (CH105), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

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

Table 513 - U-NII-6 - 6515 MHz (CH113), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

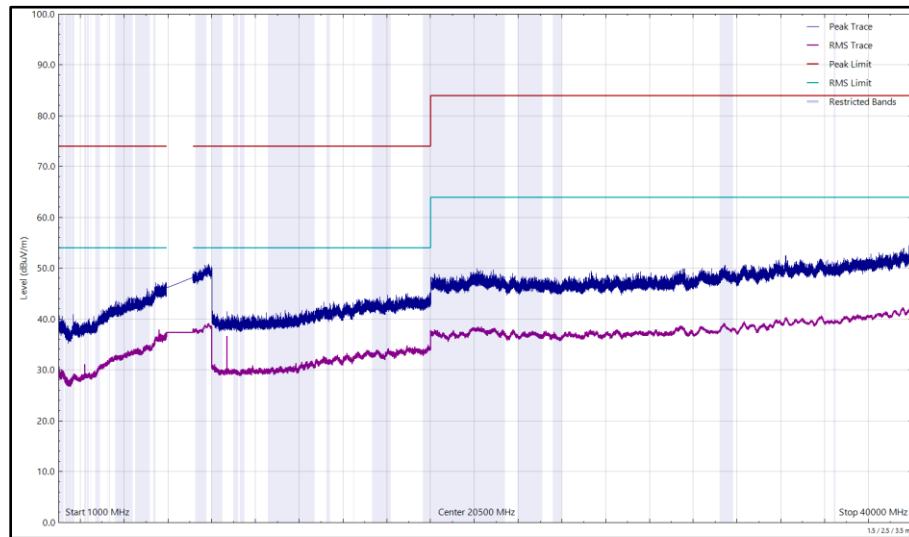


Figure 149 - U-NII-6 - 6515 MHz (CH113), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

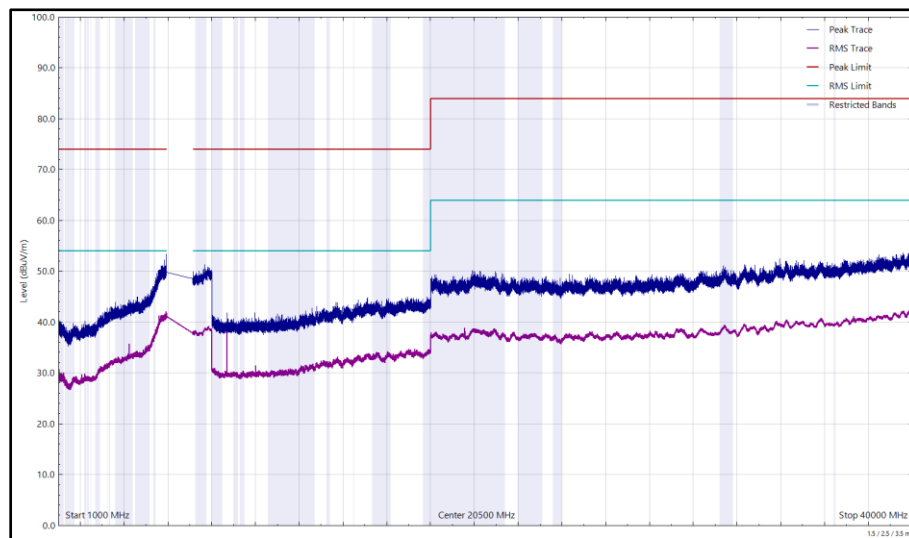


Figure 150 - U-NII-6 - 6515 MHz (CH113), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

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

Table 514 - U-NII-7 - 6535 MHz (CH117), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

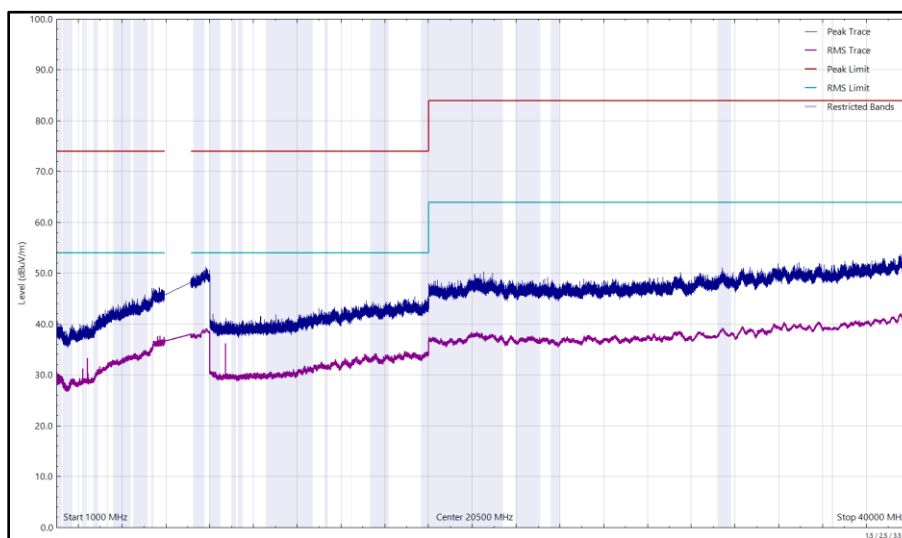


Figure 151 - U-NII-7 - 6535 MHz (CH117), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

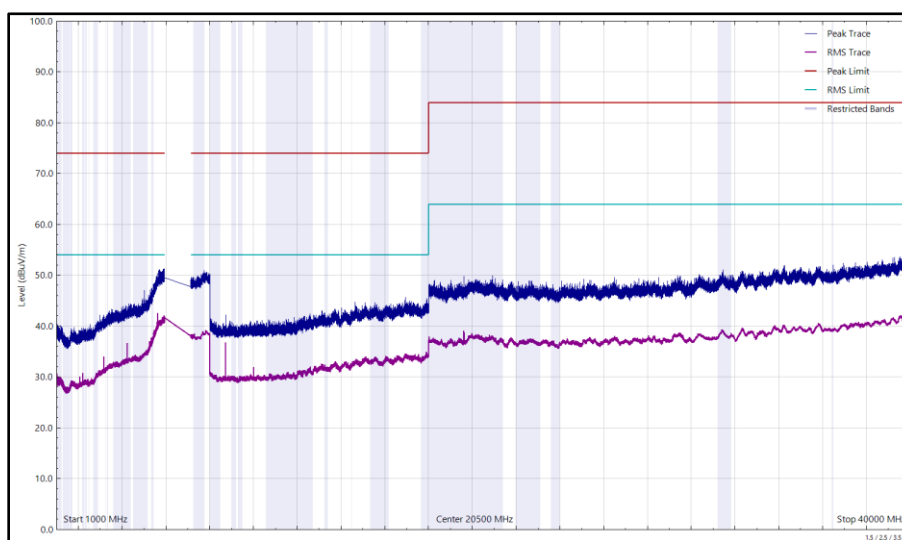


Figure 152 - U-NII-7 - 6535 MHz (CH117), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

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

Table 515 - U-NII-7 - 6695 MHz (CH149), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

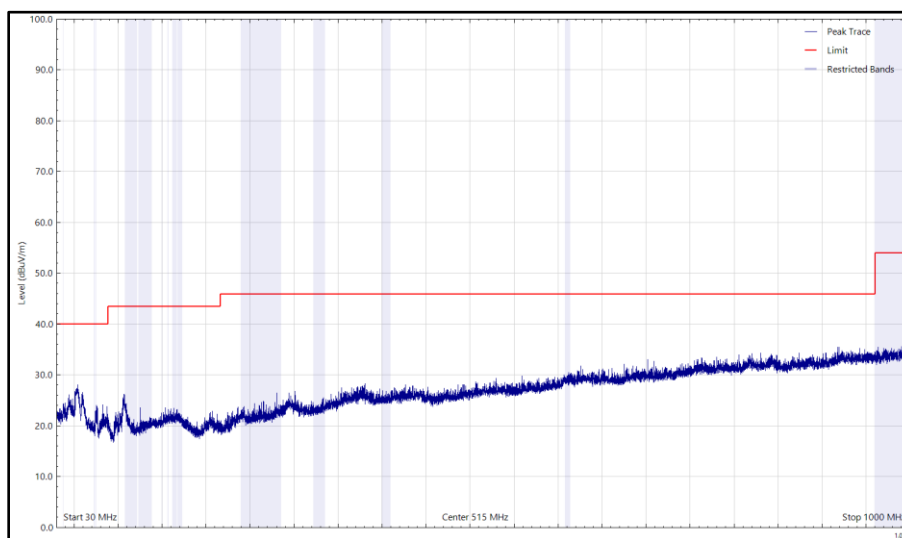


Figure 153 - U-NII-7 - 6695 MHz (CH149), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

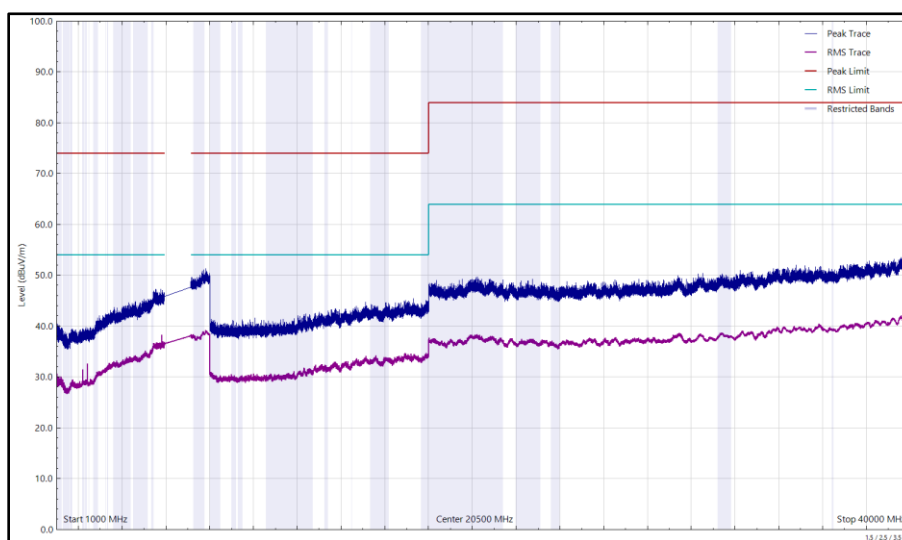


Figure 154 - U-NII-7 - 6695 MHz (CH149), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

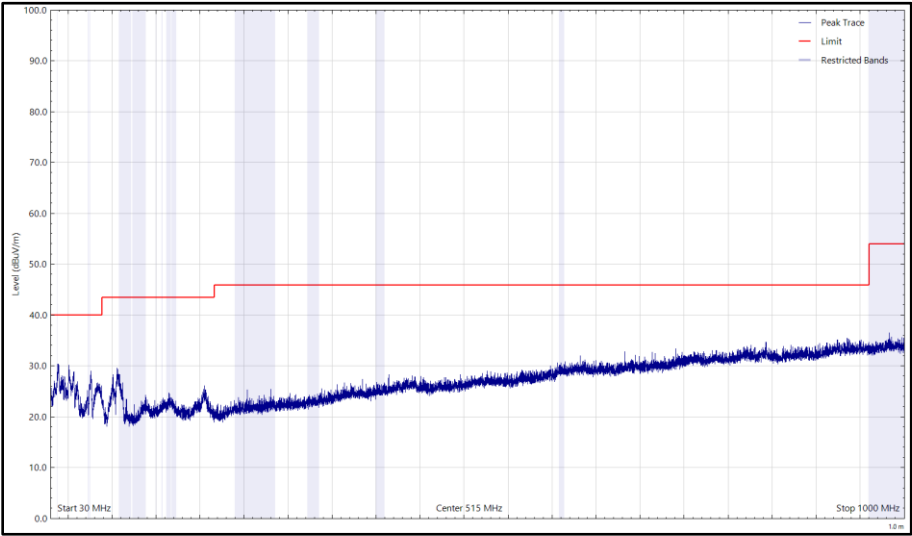


Figure 155 - U-NII-7 - 6695 MHz (CH149), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

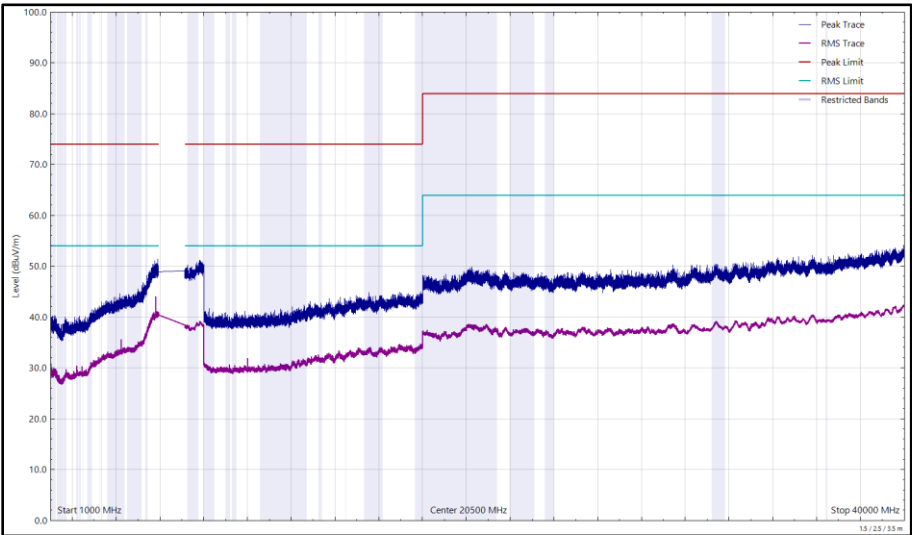


Figure 156 - U-NII-7 - 6695 MHz (CH149), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 516 - U-NII-7 - 6855 MHz (CH181), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

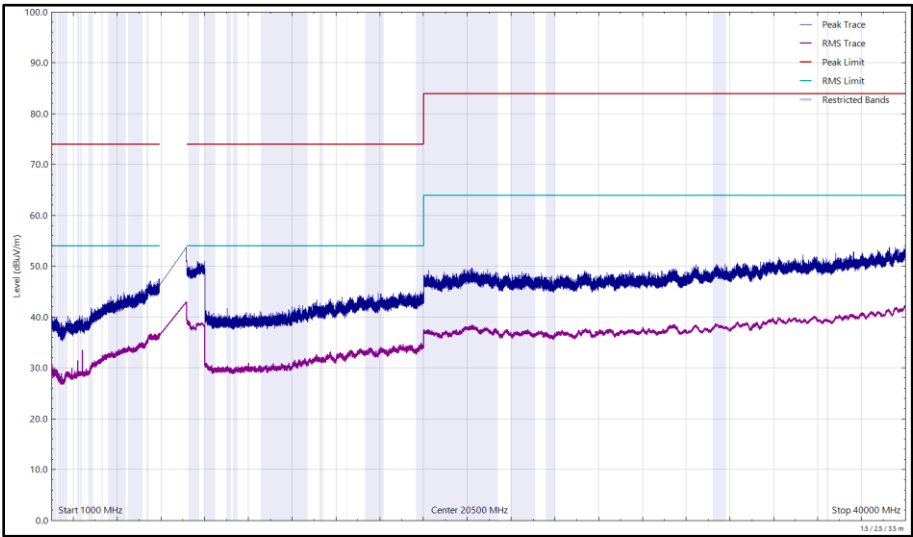


Figure 157 - U-NII-7 - 6855 MHz (CH181), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

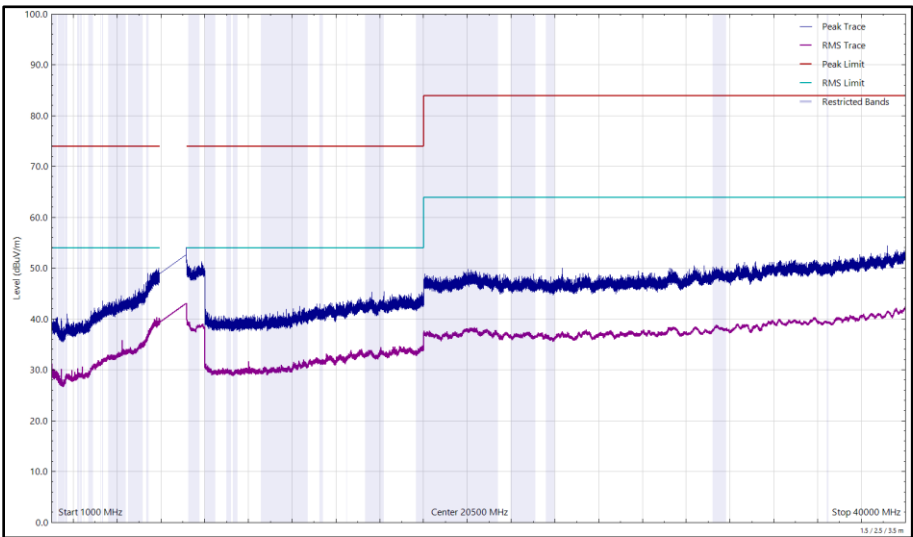


Figure 158 - U-NII-7 - 6855 MHz (CH181), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 517 - U-NII-8 - 6895 MHz (CH189), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

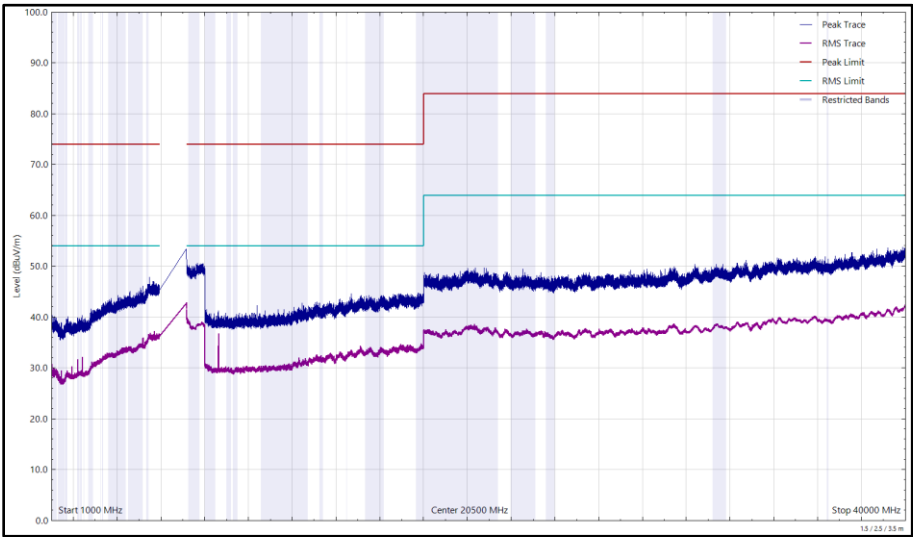


Figure 159 - U-NII-8 - 6895 MHz (CH189), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

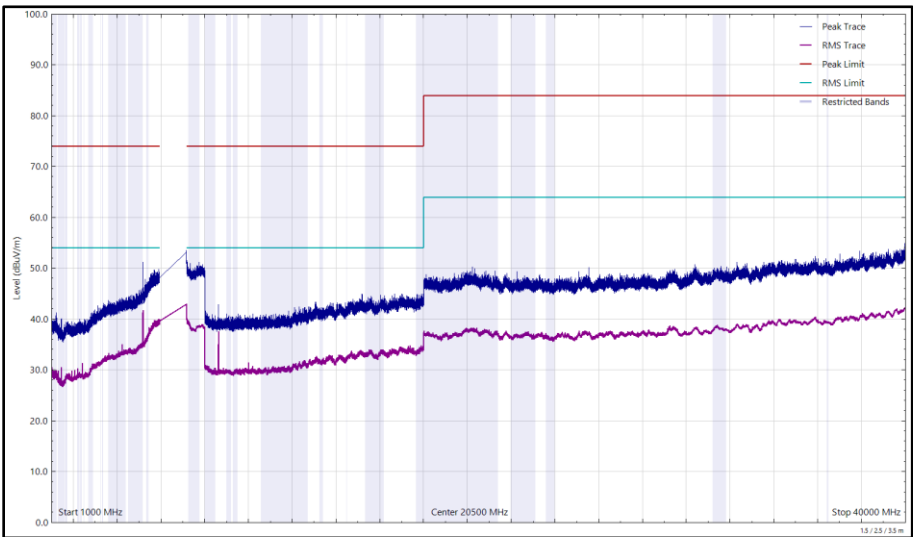


Figure 160 - U-NII-8 - 6895 MHz (CH189), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 518 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

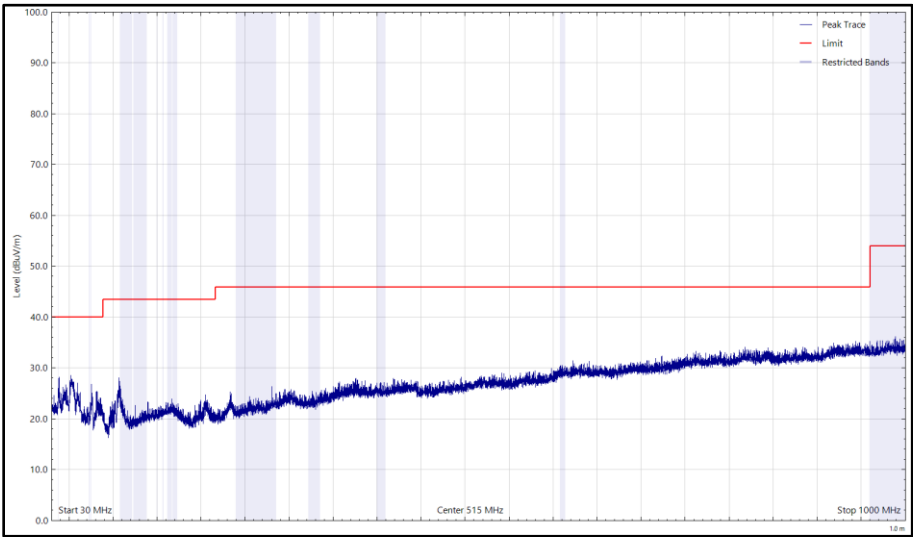


Figure 161 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

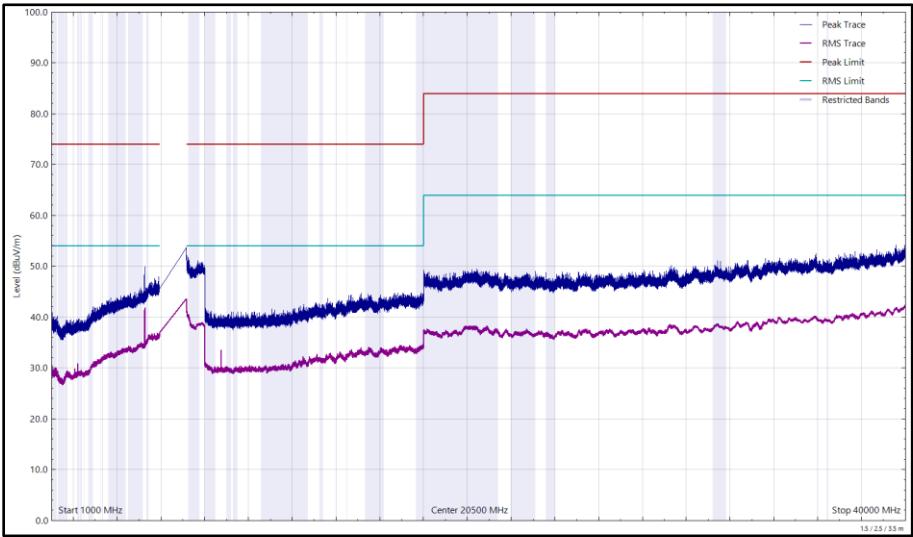


Figure 162 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

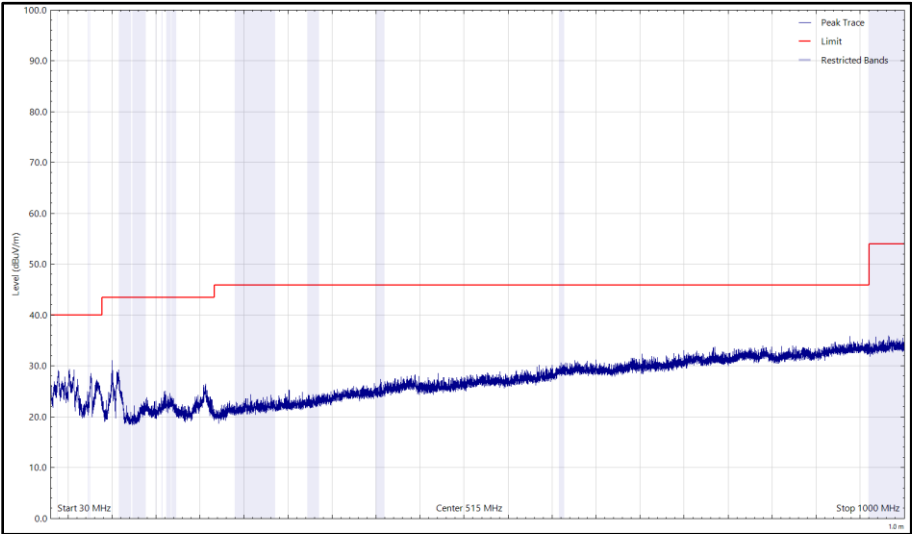


Figure 163 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

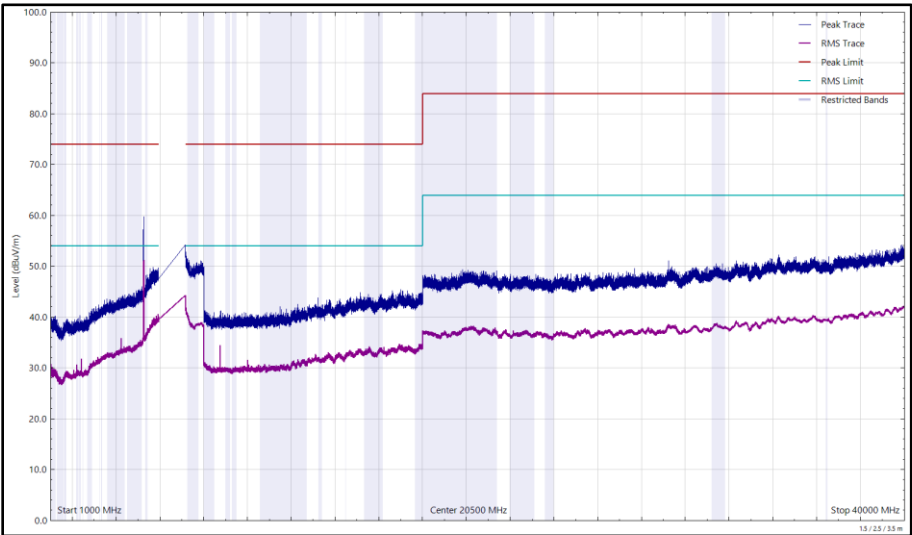


Figure 164 - U-NII-8 - 6995 MHz (CH209), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 519 - U-NII-8 - 7115 MHz (CH233), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

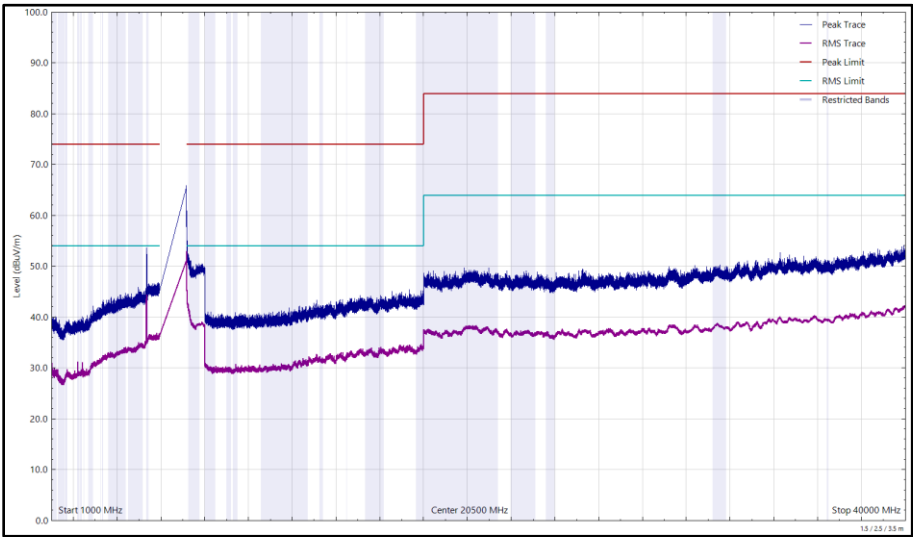


Figure 165 - U-NII-8 - 7115 MHz (CH233), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

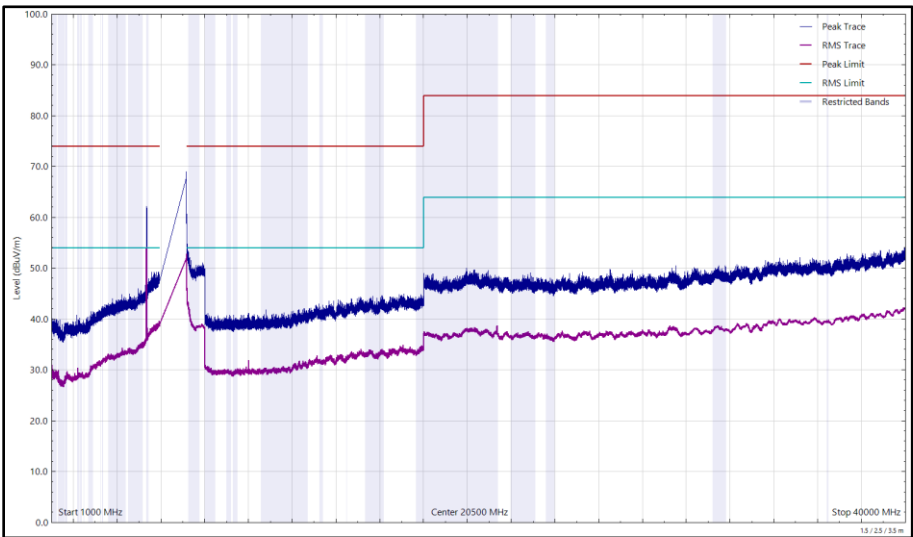


Figure 166 - U-NII-8 - 7115 MHz (CH233), HE20, SU, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



FCC 47 CFR Part 15, Limit Clause 15.407(b)(5) and 15.209

Emissions not falling within the restricted bands listed in 15.205:

For transmitters operating within the 5.925–7.125 GHz band: Any emissions outside of the 5.925–7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in 15.209.

Emissions within the restricted bands listed in FCC 47 CFR Part 15.205:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$) at 3m	Field Strength Limit ($\text{dB}\mu\text{V/m}$) at 3m
30 to 88	100	40.00
88 to 216	150	43.52
216 to 960	200	46.02
Above 960	500	53.98

Table 520 - Radiated Emissions Limit Table (FCC)

ISED RSS-248, Limit Clause 4.6.2(a) and ISED RSS-GEN, Limit Clause 8.9

Emissions not falling within the restricted bands listed in ISED RSS-GEN, Clause 8.10:

Any emissions outside of the 5925-7125 MHz band shall not exceed -27 dBm/MHz e.i.r.p.

Any emissions below 1000 MHz shall meet the general field strength limits specified in RSS-Gen

Emissions falling within the restricted bands listed in ISED RSS-GEN, Clause 8.10:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$) at 3m	Field Strength Limit ($\text{dB}\mu\text{V/m}$) at 3m
30 to 88	100	40.00
88 to 216	150	43.52
216 to 960	200	46.02
Above 960	500	53.98

Table 521 - Radiated Emissions Limit Table (ISED)



2.5.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 16.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (18 GHz)	Rosenberger	LU7-071-1000	5100	12	23-Oct-2023
Emissions Software	TUV SUD	EmX V3.1.12	5125	-	Software
Cable (K Type 2m)	Junkosha	MWX241-02000KMSKMS/B	5935	12	05-Jun-2024
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5940	12	09-Jul-2024
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5943	24	03-Feb-2024
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5944	24	03-Feb-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	6018	12	05-Jun-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	28-Aug-2023*
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	26-Aug-2024*
Digital Multimeter	Fluke	115	6146	12	15-Jun-2024
Humidity & Temperature meter	R.S Components	1364	6148	12	21-Jul-2023*
Humidity & Temperature meter	R.S Components	1364	6148	12	21-Jul-2024*
Double Ridge Active Horn Antenna (18-40 GHz)	Com-Power	AHA-840	6188	24	02-Jun-2024
SAC Switch Unit	TUV SUD	TUV_SSU_001	6190	12	16-Dec-2023
8 GHz Highpass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6194	12	15-Aug-2023*
8 GHz Highpass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6194	12	24-Jul-2024*
8 GHz Highpass Filter	Wainwright	WHKX 7150 8000 18000 50SS	6196	12	24-Jul-2024*
Pre Amp 8 - 18 GHz	Wright Technologies	APS06 0061	6198	12	14-Jul-2024
Pre Amp 8 - 18 GHz	Wright Technologies	APS06 0061	6200	12	14-Jul-2024
Attenuator (4 dB)	Pasternack	PE7074-4	6202	24	16-Jul-2024
Attenuator 4dB	Pasternack	PE7074-4	6203	24	16-Jul-2024
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6215	12	25-Jul-2023*
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6215	12	24-Jul-2024*



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6220	12	10-Aug-2023*
Cable (SMA to SMA 20cm)	TUV SUD	MH-FH 8-18	6220	12	24-Jul-2024*
EMI Test Receiver	Rohde & Schwarz	ESW44	6294	12	03-Nov-2023
Cable (SMA to SMA 8m)	Junkosha	MWX221-08000AMSAMS/B	6318	12	04-Feb-2024

Table 522

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

*NOTE: Only used within its calibration period.



2.6 Unwanted Emissions within the 5925-7125 MHz band

2.6.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (b)
ISED RSS-248, Clause 4.6
ISED RSS-GEN, Clause 6.13

2.6.2 Equipment Under Test and Modification State

A2992, S/N: JYH72K1GF6 - Modification State 0
A2992, S/N: YK6L37Y361 - Modification State 0

2.6.3 Date of Test

18-August-2023 to 06-September-2023

2.6.4 Test Method

This test was performed in accordance with KDB 987594 D02, clause J.

2.6.5 Environmental Conditions

Ambient Temperature	22.2 - 22.4 °C
Relative Humidity	47.4 - 49.5 %

2.6.6 Test Results

6 GHz WLAN

SISO

Protocol	Unwanted Emissions Within the RLAN Band	
	Margin (dB)	Frequency (MHz)
802.11a LPI	6.54	7075.900
802.11ax HE20 SU LPI	7.13	5998.300
802.11ax HE40 SU LPI	6.57	6787.300
802.11ax HE80 SU LPI	6.32	6163.500
802.11ax HE160 SU LPI	6.21	5773.500

Table 523 - Unwanted Emissions Within the RLAN Band Summary Results-SISO LPI

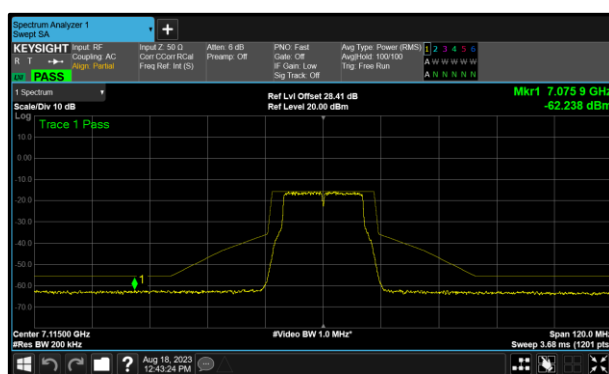


Figure 167 - A (Core 0) 802.11a LPI 7115 MHz (CH233)

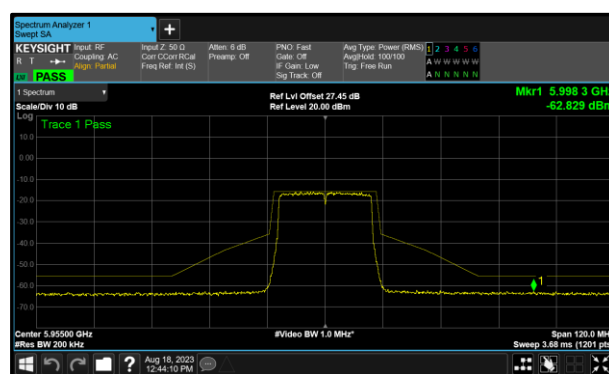


Figure 168 - A (Core 0) 802.11ax HE20 SU LPI 5955 MHz (CH1)

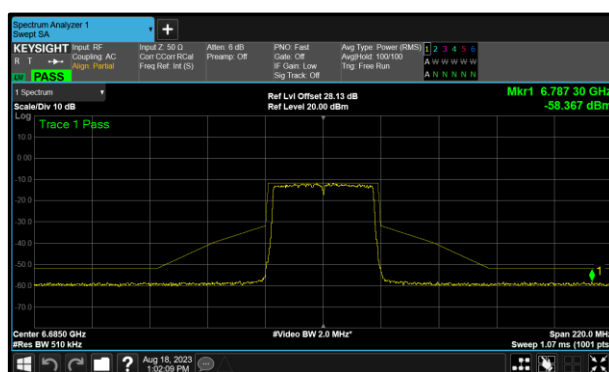


Figure 169 - A (Core 0) 802.11ax HE40 SU LPI 6685 MHz (CH147)

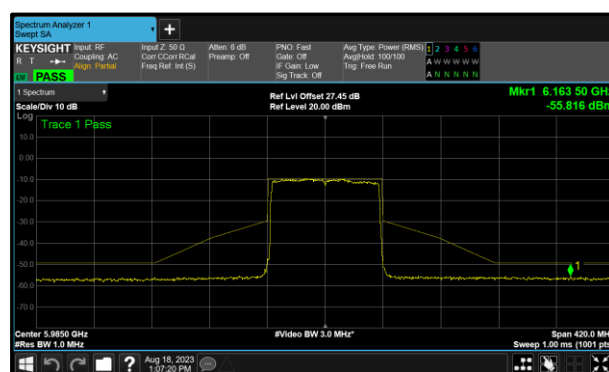


Figure 170 - A (Core 0) 802.11ax HE80 SU LPI 5985 MHz (CH7)

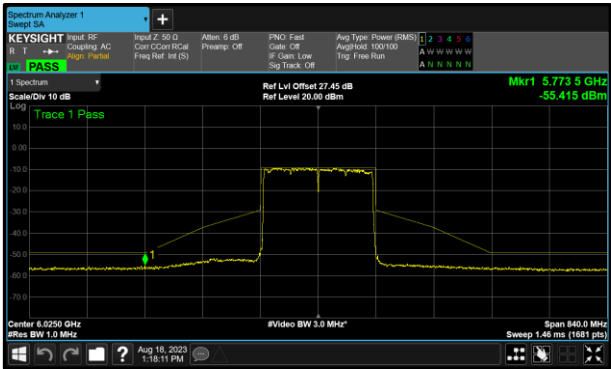
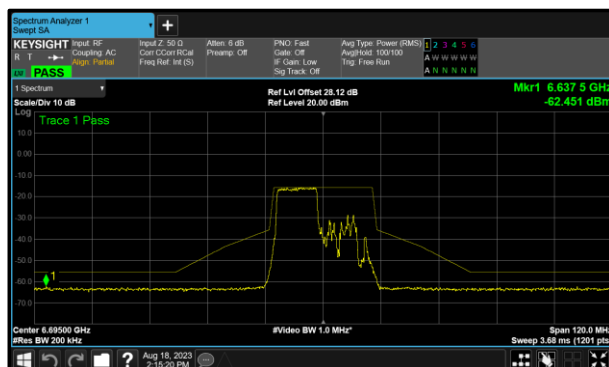


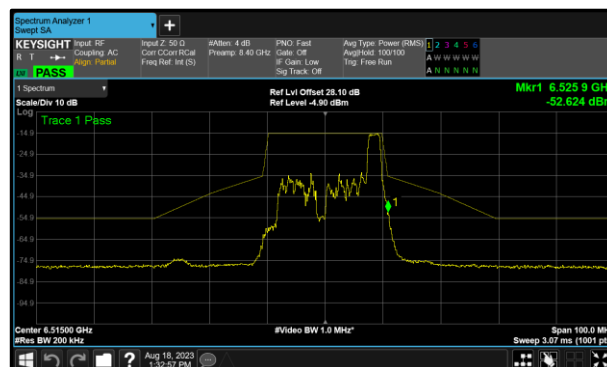
Figure 171 - A (Core 0) 802.11ax HE160 SU LPI
6025 MHz (CH15)

Protocol	Unwanted Emissions Within the RLAN Band	
	Margin (dB)	Frequency (MHz)
802.11ax HE20 RU106 LPI	6.85	6637.500
802.11ax HE20 RU26 LPI	17.40	6525.900
802.11ax HE20 RU52 LPI	5.34	5987.400

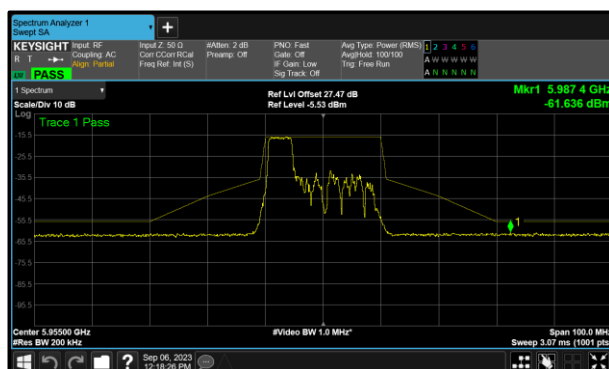
Table 524 - Unwanted Emissions Within the RLAN Band Summary Results- SISO LPI RU



**Figure 172 - A (Core 0) 802.11ax HE20 RU106 LPI
6695 MHz (CH149)**



**Figure 173 - A (Core 0) 802.11ax HE20 RU26 LPI
6515 MHz (CH113)**



**Figure 174 - A (Core 0) 802.11ax HE20 RU52 LPI
5955 MHz (CH1)**



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

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

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5955	7.58	-	-	-
6175	8.45	-	-	-
6415	7.95	-	-	-
6435	8.18	-	-	-
6475	8.69	-	-	-
6515	8.38	-	-	-
6535	7.86	-	-	-
6695	7.05	-	-	-
6855	7.62	-	-	-
6875	7.95	-	-	-
6895	8.58	-	-	-
6995	8.14	-	-	-
7115	6.54	-	-	-

Table 525 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

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

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5955	7.13	-	-	-
6175	7.46	-	-	-
6415	7.43	-	-	-
6435	7.88	-	-	-
6475	8.21	-	-	-
6515	7.62	-	-	-
6535	7.22	-	-	-
6695	7.13	-	-	-
6855	7.21	-	-	-
6875	7.29	-	-	-
6895	8.00	-	-	-
6995	7.43	-	-	-
7095	8.00	-	-	-

Table 526 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE40 SU LPI	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain Id(s):	0

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5965	7.59	-	-	-
6165	7.66	-	-	-
6405	6.86	-	-	-
6445	6.97	-	-	-
6485	7.25	-	-	-
6525	7.13	-	-	-
6565	6.64	-	-	-
6685	6.57	-	-	-
6845	7.23	-	-	-
6885	6.97	-	-	-
6925	7.83	-	-	-
7005	6.66	-	-	-
7085	7.28	-	-	-

Table 527 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE80 SU LPI	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain Id(s):	0

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5985	6.32	-	-	-
6145	7.74	-	-	-
6385	6.66	-	-	-
6465	6.86	-	-	-
6545	7.01	-	-	-
6625	6.66	-	-	-
6705	6.70	-	-	-
6785	6.70	-	-	-
6865	6.74	-	-	-
6945	6.85	-	-	-
7025	7.26	-	-	-

Table 528 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE160 SU LPI	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain Id(s):	0

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
6025	6.21	-	-	-
6185	7.43	-	-	-
6345	6.39	-	-	-
6505	6.67	-	-	-
6665	7.04	-	-	-
6825	6.48	-	-	-
6985	6.73	-	-	-

Table 529 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE20 RU26 LPI	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain Id(s):	0

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5955 (RU26.0)	20.29	-	-	-
6175 (RU26.0)	19.55	-	-	-
6415 (RU26.8)	17.98	-	-	-
6435 (RU26.0)	20.14	-	-	-
6475 (RU26.0)	18.45	-	-	-
6515 (RU26.8)	17.40	-	-	-
6535 (RU26.0)	18.80	-	-	-
6695 (RU26.0)	19.84	-	-	-
6855 (RU26.8)	18.11	-	-	-
6875 (RU26.3)	22.89	-	-	-
6875 (RU26.5)	22.37	-	-	-
6895 (RU26.0)	19.83	-	-	-
6995 (RU26.0)	19.22	-	-	-
7095 (RU26.8)	17.48	-	-	-

Table 530 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE20 RU52 LPI	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain Id(s):	0

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5955 (RU52.37)	5.34	-	-	-
6175 (RU52.37)	7.89	-	-	-
6415 (RU52.40)	7.68	-	-	-
6435 (RU52.37)	7.74	-	-	-
6475 (RU52.37)	8.40	-	-	-
6515 (RU52.40)	7.83	-	-	-
6535 (RU52.37)	7.62	-	-	-
6695 (RU52.37)	7.05	-	-	-
6855 (RU52.40)	7.49	-	-	-
6875 (RU52.38)	7.27	-	-	-
6875 (RU52.39)	6.66	-	-	-
6895 (RU52.37)	8.21	-	-	-
6995 (RU52.37)	8.00	-	-	-
7095 (RU52.40)	7.60	-	-	-

Table 531 - Unwanted Emissions Within the Band Results



Test Configuration			
Frequency Range:	5925 MHz – 7125 MHz	Band:	U-NII-5 to U-NII-8
Limit Clause(s):	15.407(b)	Test Method(s):	KDB 987594 clause j

DUT Configuration			
Mode:	802.11ax HE20 RU106 LPI	Duty Cycle (%):	-
Modulation Coding Scheme:	MCS2x1	DCCF (dB):	-
Antenna Configuration:	SISO	Peak Antenna Gain (dBi):	-
Active Port(s):	A (Core 0)	Active Chain Id(s):	0

Test Frequency (MHz)	Unwanted Emissions Within the RLAN Band Margin (dB)			
	A	B	C	D
5955 (RU106.53)	7.29	-	-	-
6175 (RU106.53)	6.93	-	-	-
6415 (RU106.54)	7.71	-	-	-
6435 (RU106.53)	8.03	-	-	-
6475 (RU106.53)	7.98	-	-	-
6515 (RU106.54)	8.05	-	-	-
6535 (RU106.53)	7.81	-	-	-
6695 (RU106.53)	6.85	-	-	-
6855 (RU106.54)	7.45	-	-	-
6875 (RU106.53)	7.33	-	-	-
6875 (RU106.54)	7.71	-	-	-
6895 (RU106.53)	8.02	-	-	-
6995 (RU106.53)	7.96	-	-	-
7095 (RU106.54)	7.94	-	-	-

Table 532 - Unwanted Emissions Within the Band Results