



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)
802.11ac VHT80	MCS2x1	-	-	5530	5470	63.62
802.11ax HE80	MCS2x1	SU	-	5530	5470	63.69
802.11ax HE80	MCS11x1	106	53	5530	5470	63.69
802.11ac VHT80	MCS4x1	-	-	5775	5725	63.63
802.11ax HE80	MCS2x1	SU	-	5775	5725	63.65
802.11ax HE80	MCS11x1	106	60	5775	5725	61.59
802.11ac VHT80	MCS2x1	-	-	5610	5725	63.43
802.11ax HE80	MCS11x1	SU	-	5610	5725	63.44
802.11ax HE80	MCS11x1	106	60	5610	5725	63.40
802.11ac VHT80	MCS8x1	-	-	5690	5850	62.94
802.11ac VHT80	MCS2x1	-	-	5775	5850	63.57
802.11ax HE80	MCS11x1	SU	-	5690	5850	63.41
802.11ax HE80	MCS11x1	106	60	5690	5850	60.52
802.11ax HE80	MCS4x1	SU	-	5775	5850	63.69
802.11ax HE80	MCS11x1	106	60	5775	5850	60.05

Table 758 - CDD Authorised Band Edge Results

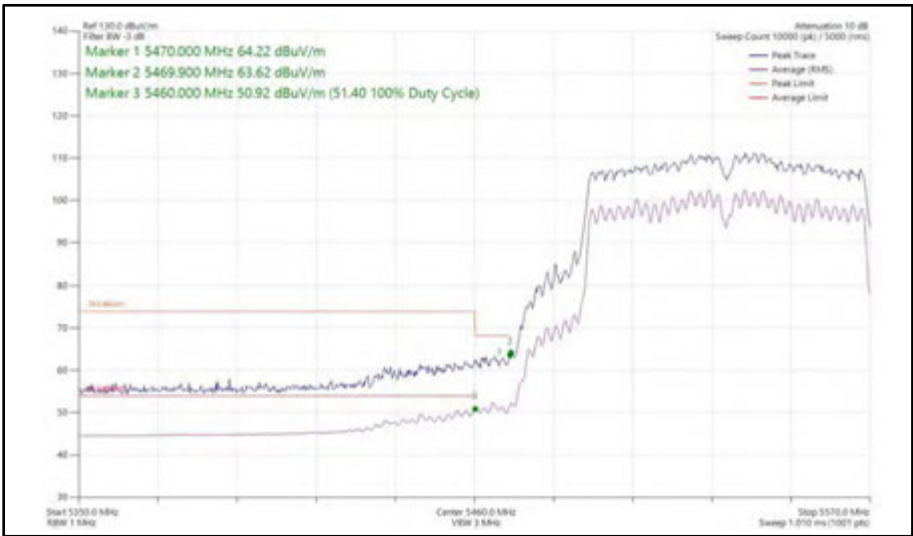


Figure 644 - 802.11ac VHT80, CDD, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

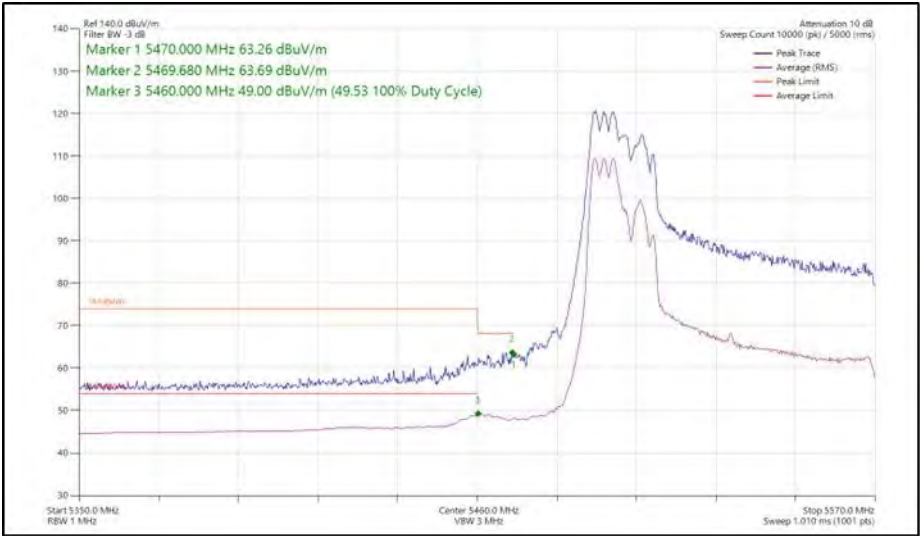


Figure 645 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

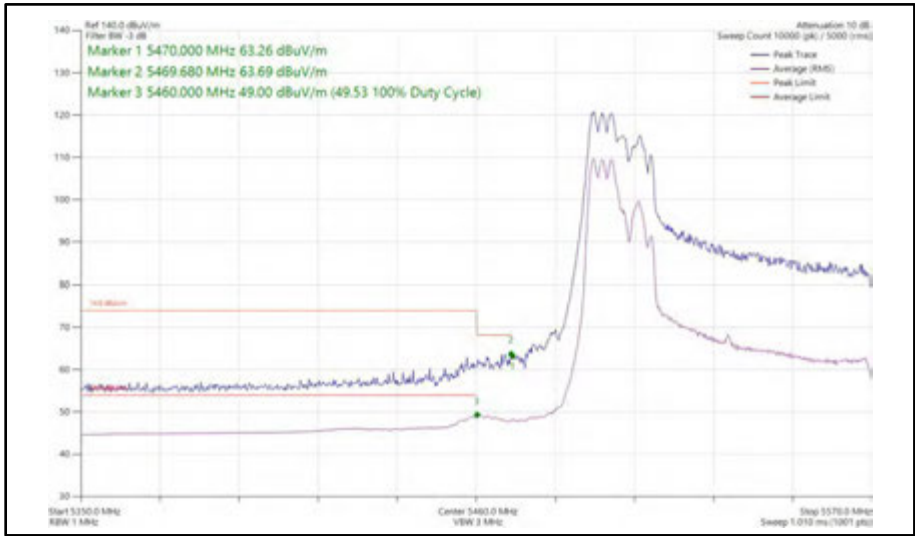


Figure 646 - 802.11ax HE80, RU 106-53, CDD, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

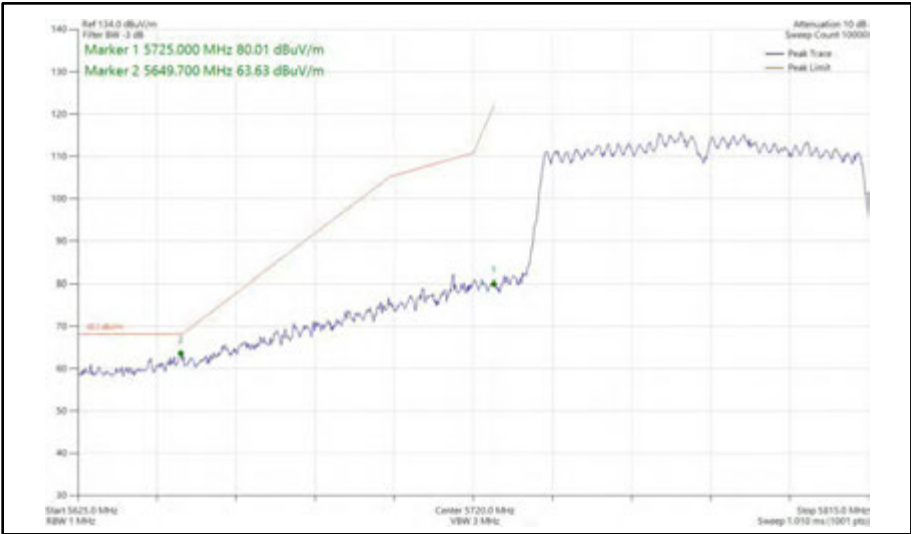


Figure 647 - 802.11ac VHT80, CDD, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

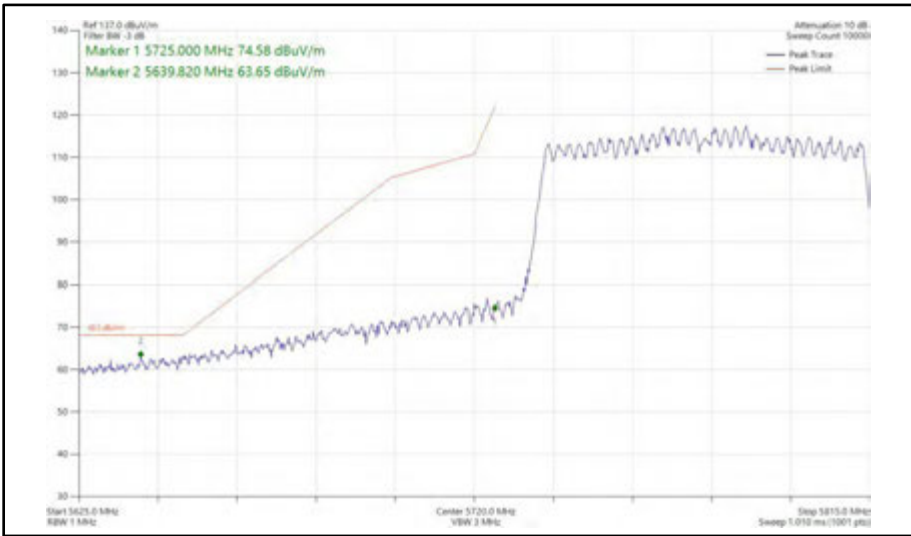


Figure 648 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

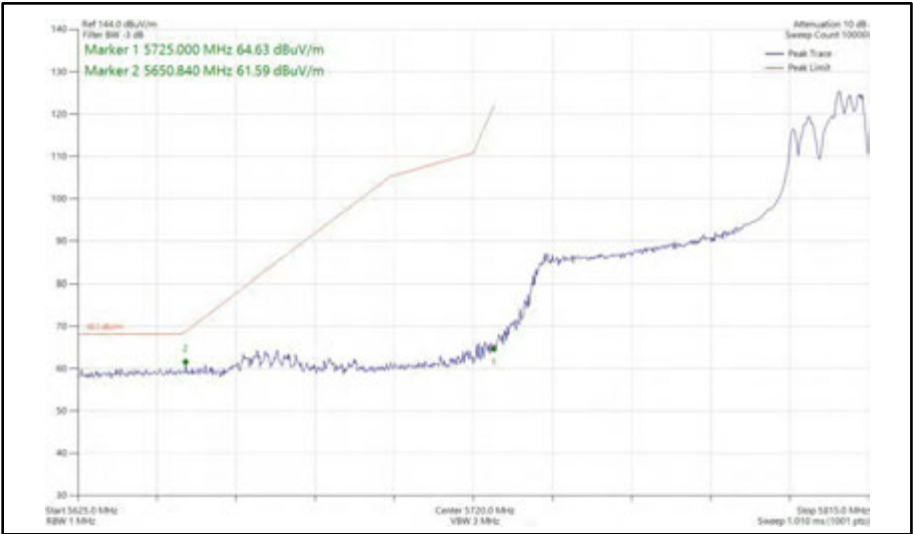


Figure 649 - 802.11ax HE80, RU 106-60, CDD, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

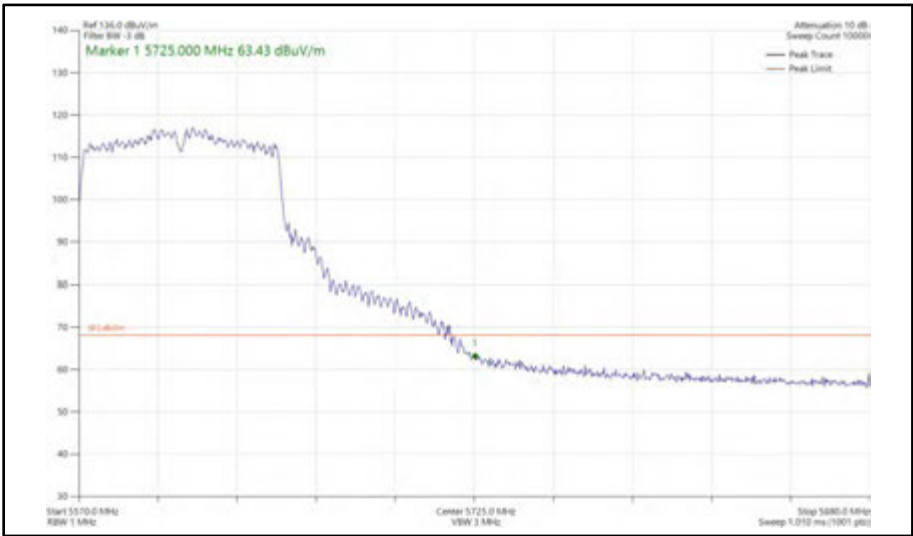


Figure 650 - 802.11ac VHT80, CDD, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

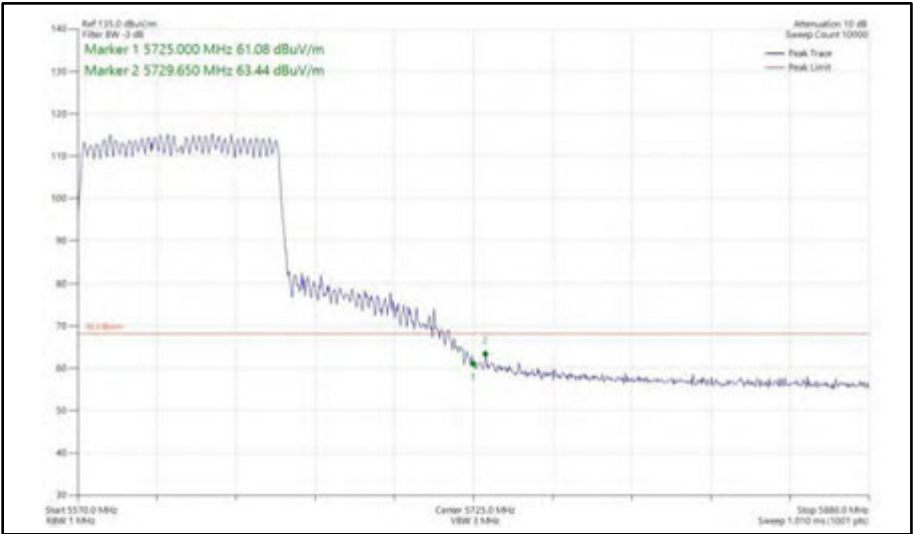


Figure 651 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

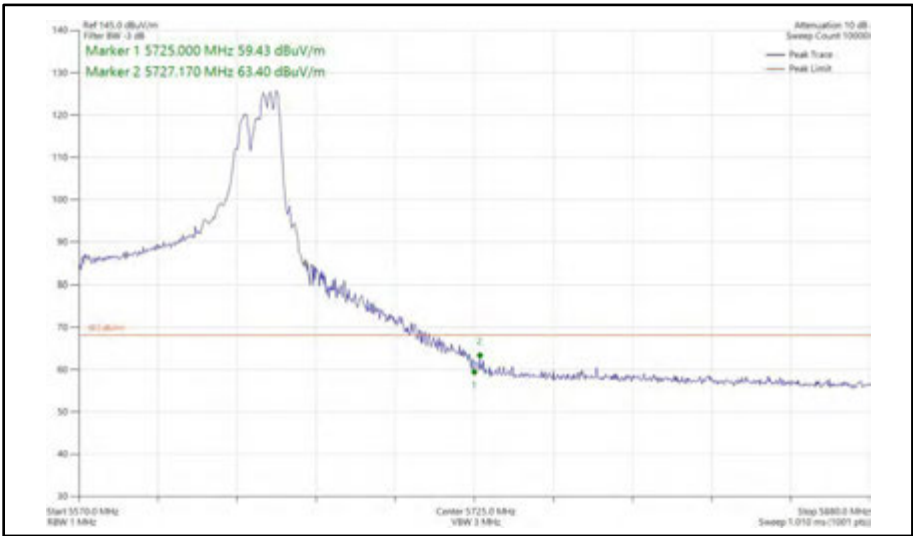


Figure 652 - 802.11ax HE80, RU 106-60, CDD, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

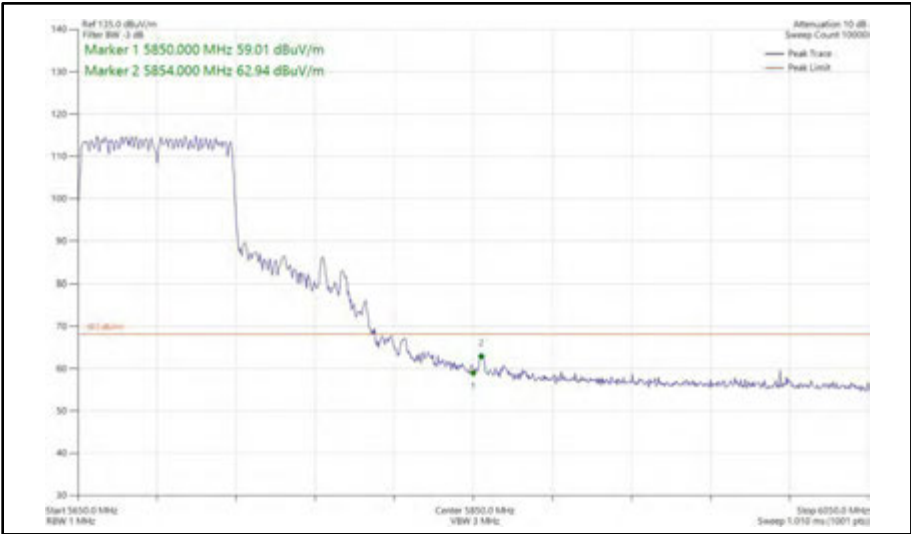


Figure 653 - 802.11ac VHT80, CDD, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz

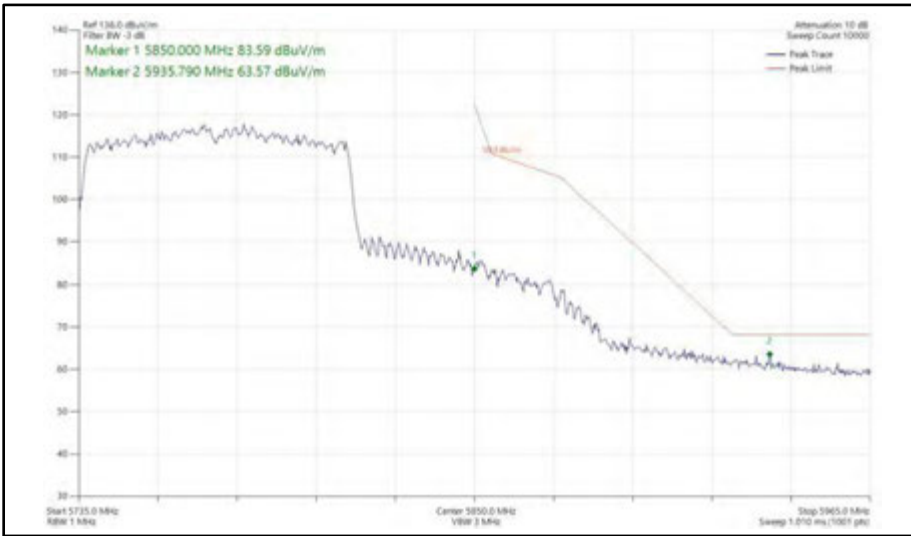


Figure 654 - 802.11ac VHT80, CDD, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz

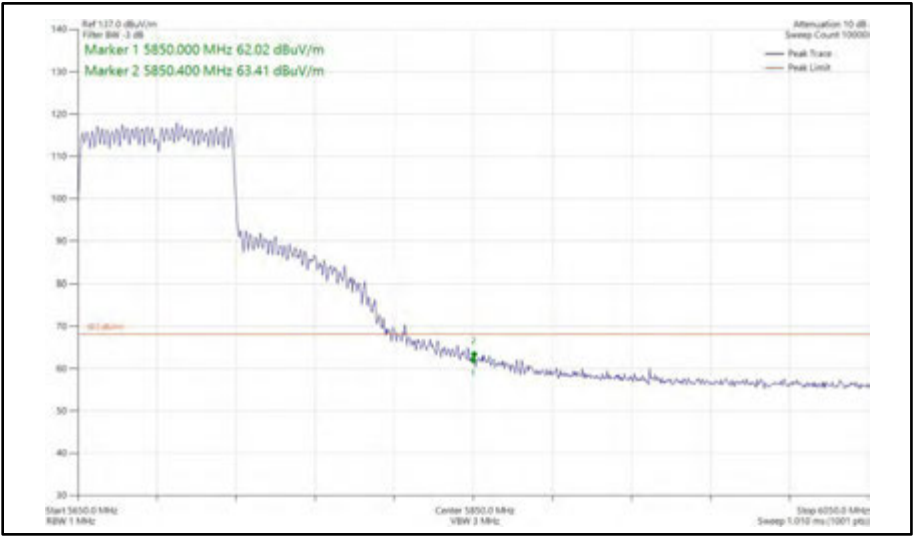


Figure 655 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz

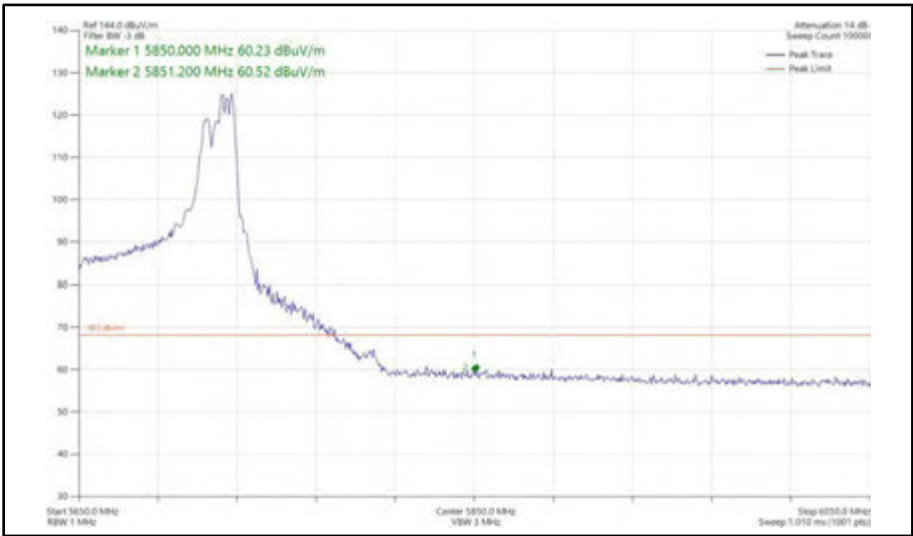


Figure 656 - 802.11ax HE80, RU 106-60, CDD, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz

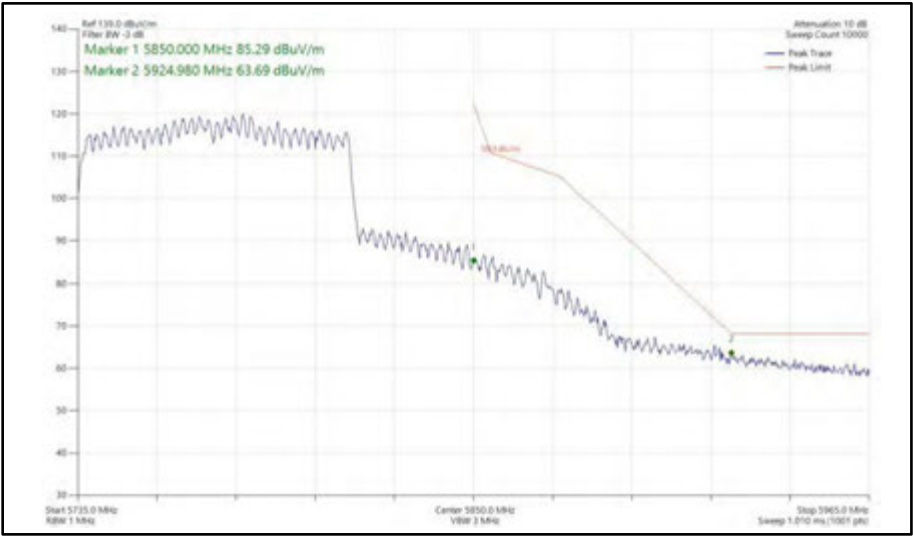


Figure 657 - 802.11ax HE80, SU, CDD, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz

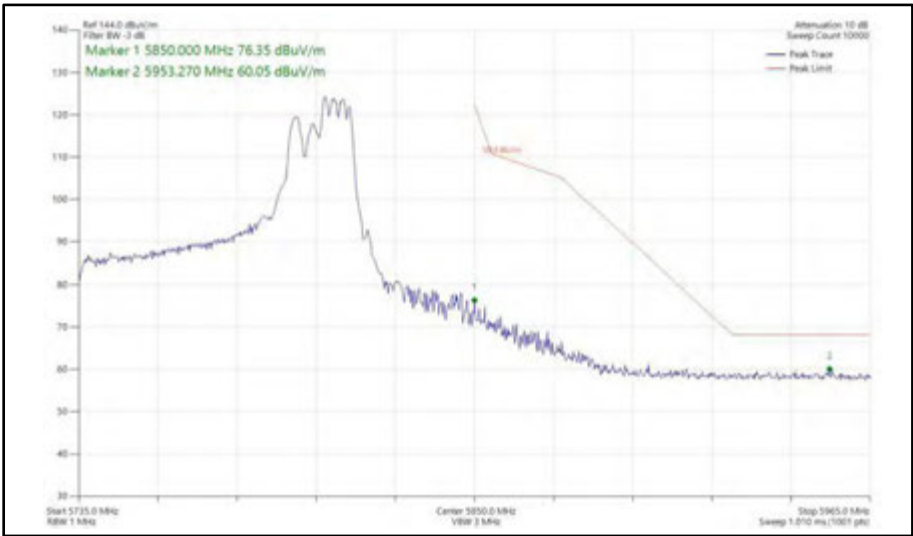


Figure 658 - 802.11ax HE80, RU 106-60, CDD, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz

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)
802.11ac VHT80	MCS2x2	-	-	5530	5470	63.44
802.11ax HE80	MCS4x2	SU	-	5530	5470	63.34
802.11ax HE80	MCS11x2	106	53	5530	5470	63.51
802.11ac VHT80	MCS4x2	-	-	5775	5725	63.46
802.11ax HE80	MCS11x2	SU	-	5775	5725	63.61
802.11ax HE80	MCS11x2	106	53	5775	5725	61.14
802.11ac VHT80	MCS8x2	-	-	5610	5725	63.59
802.11ax HE80	MCS2x2	SU	-	5610	5725	63.10
802.11ax HE80	MCS11x2	52	37	5610	5725	63.46
802.11ac VHT80	MCS8x2	-	-	5690	5850	63.61
802.11ac VHT80	MCS8x2	-	-	5775	5850	63.37
802.11ax HE80	MCS11x2	SU	-	5690	5850	63.47
802.11ax HE80	MCS11x2	106	60	5690	5850	60.81
802.11ax HE80	MCS2x2	SU	-	5775	5850	63.68
802.11ax HE80	MCS11x2	106	60	5775	5850	61.38

Table 759 - SDM Authorised Band Edge Results

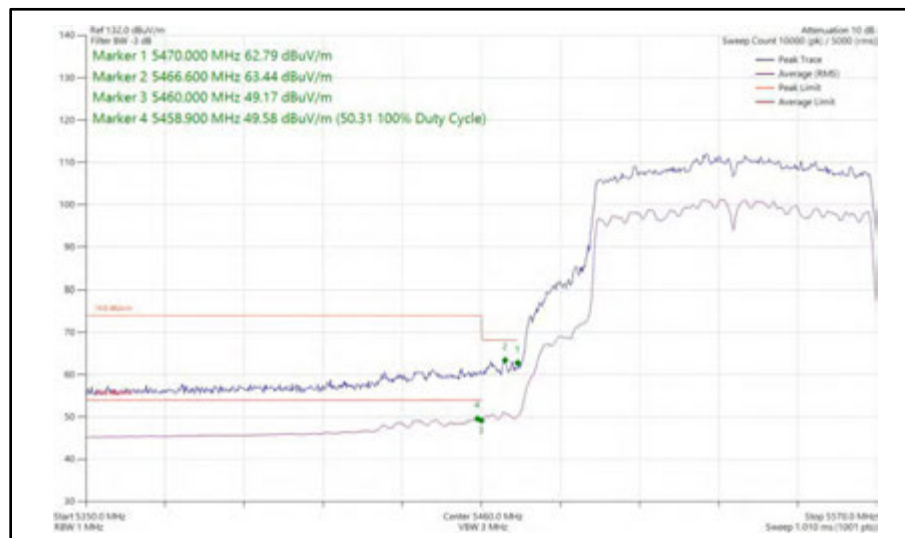


Figure 659 - 802.11ac VHT80, SDM, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

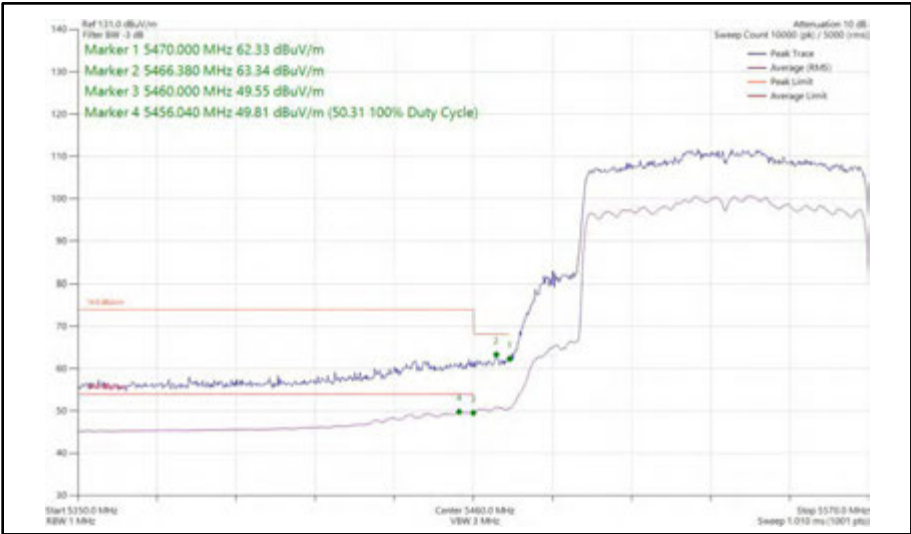


Figure 660 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

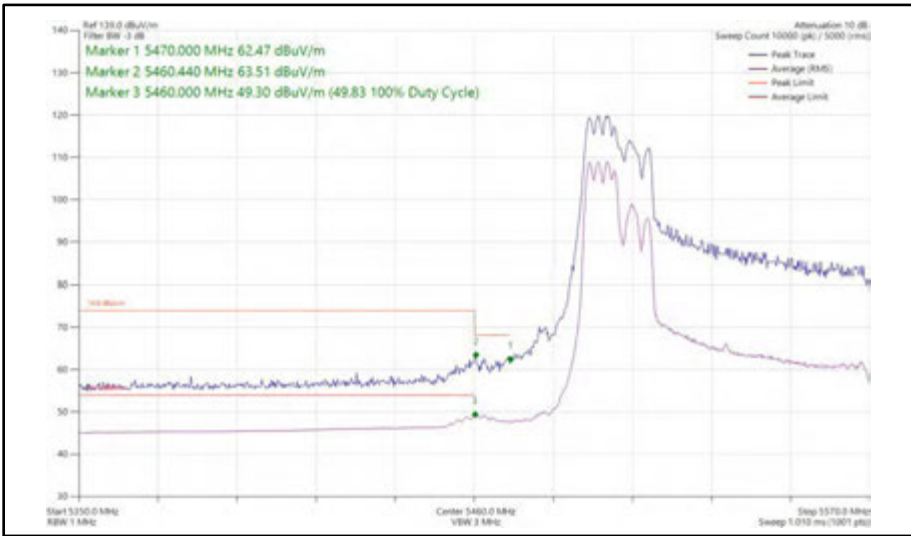


Figure 661 - 802.11ax HE80, RU 106-53, SDM, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

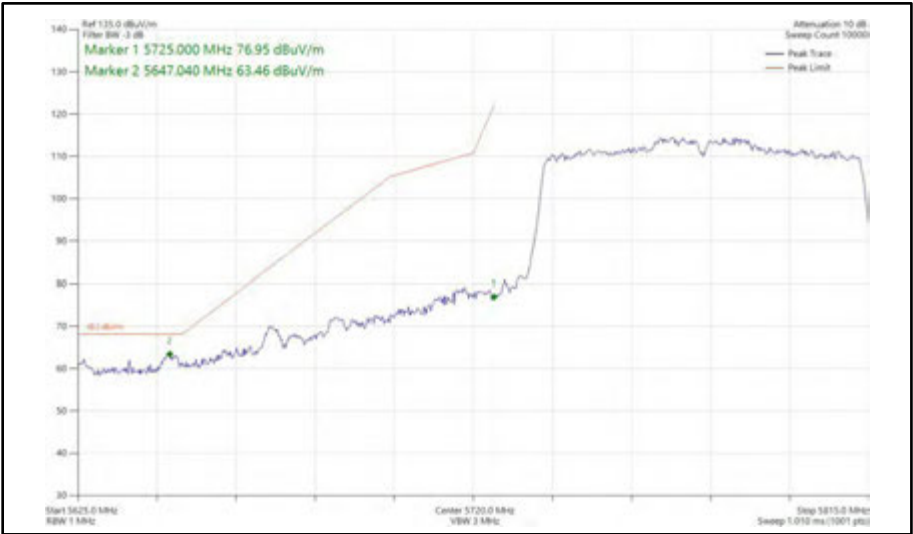


Figure 662 - 802.11ac VHT80, SDM, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

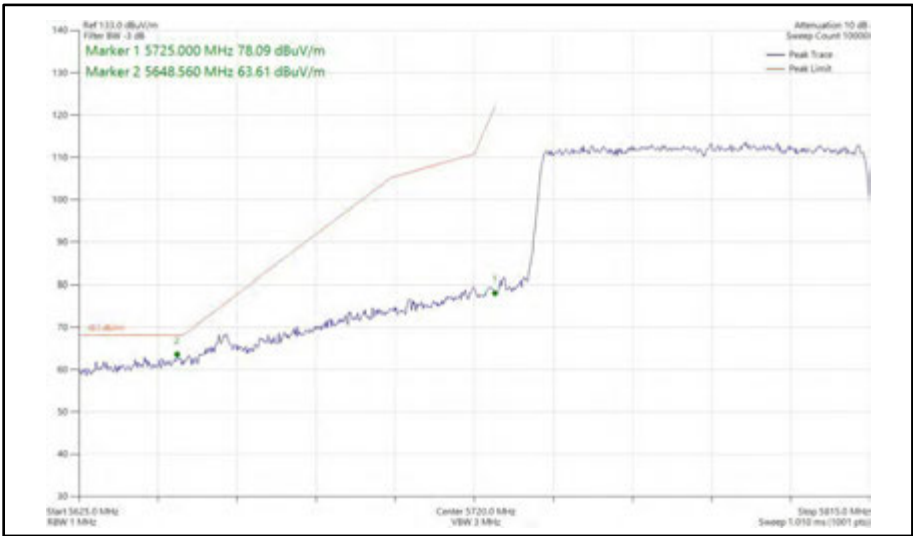


Figure 663 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

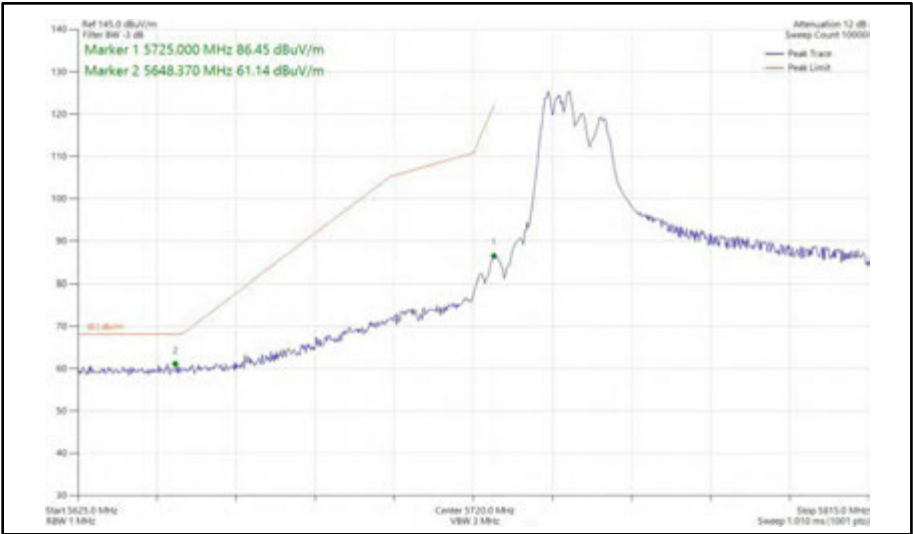


Figure 664 - 802.11ax HE80, RU 106-53, SDM, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

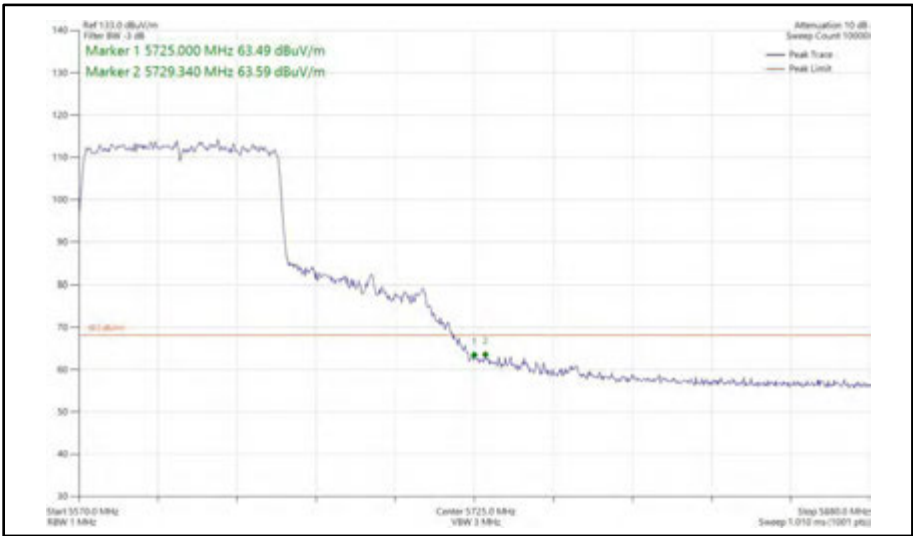


Figure 665 - 802.11ac VHT80, SDM, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

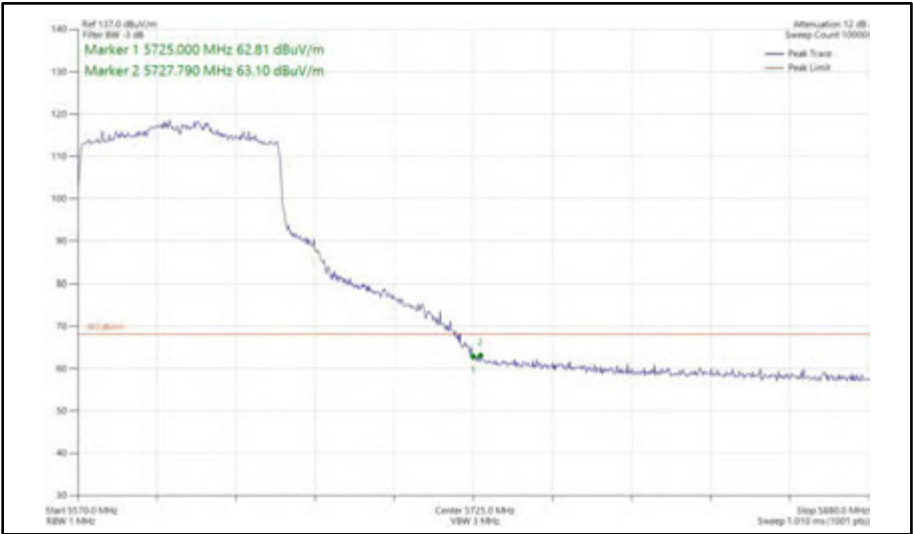


Figure 666 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

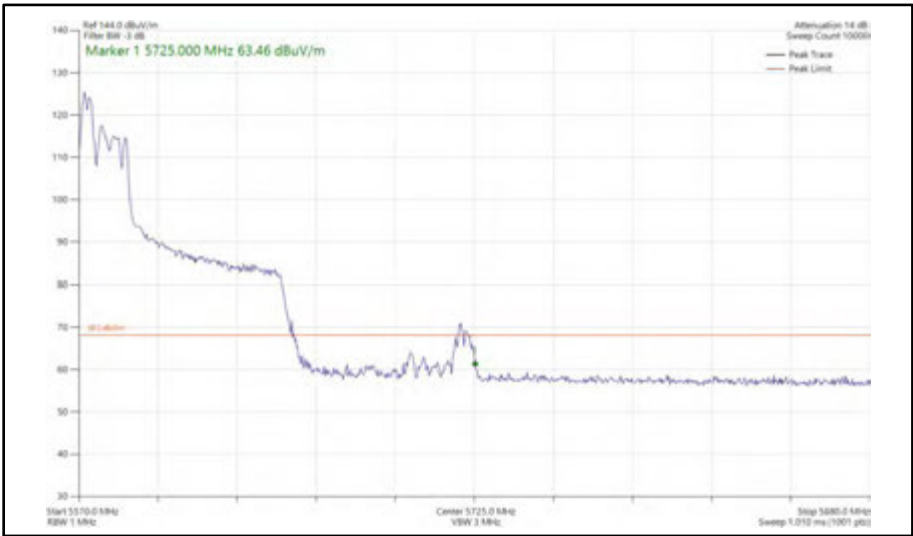


Figure 667 - 802.11ax HE80, RU 52-37, SDM, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

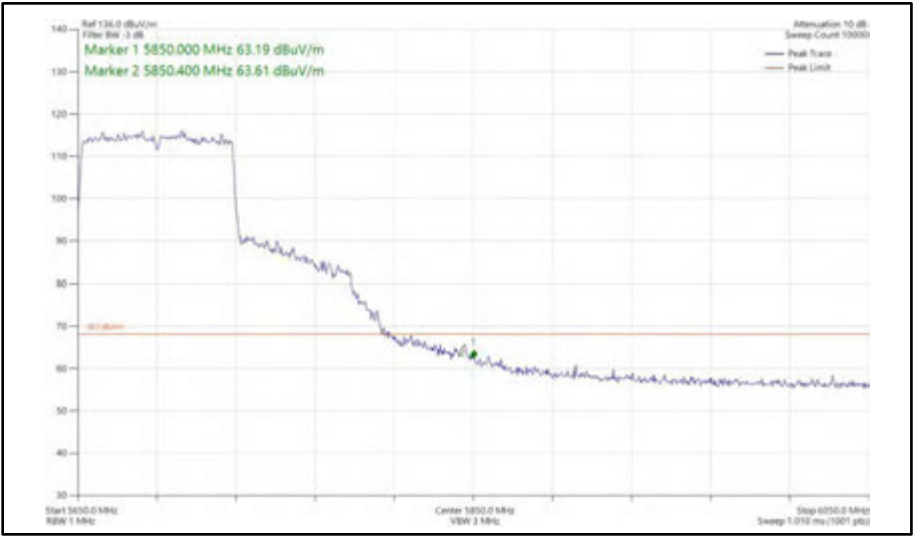


Figure 668 - 802.11ac VHT80, SDM, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz

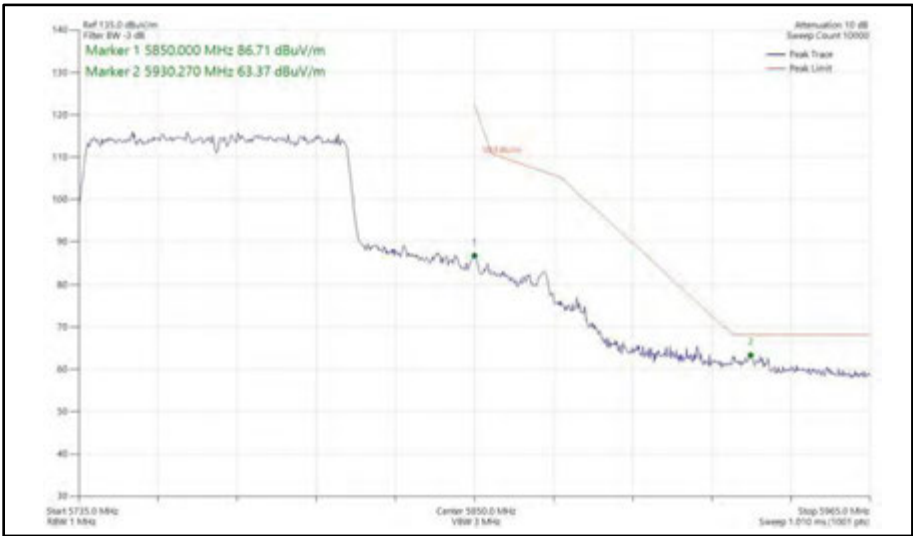


Figure 669 - 802.11ac VHT80, SDM, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz

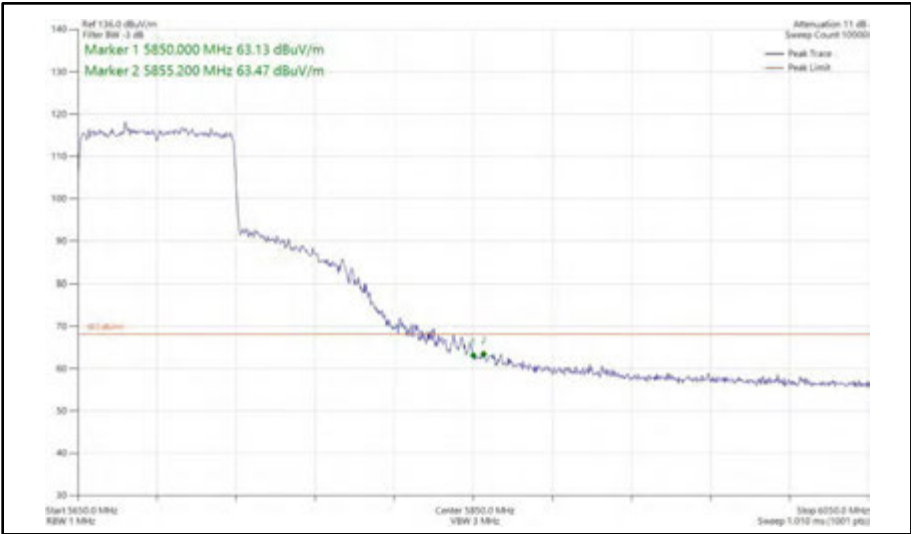


Figure 670 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz

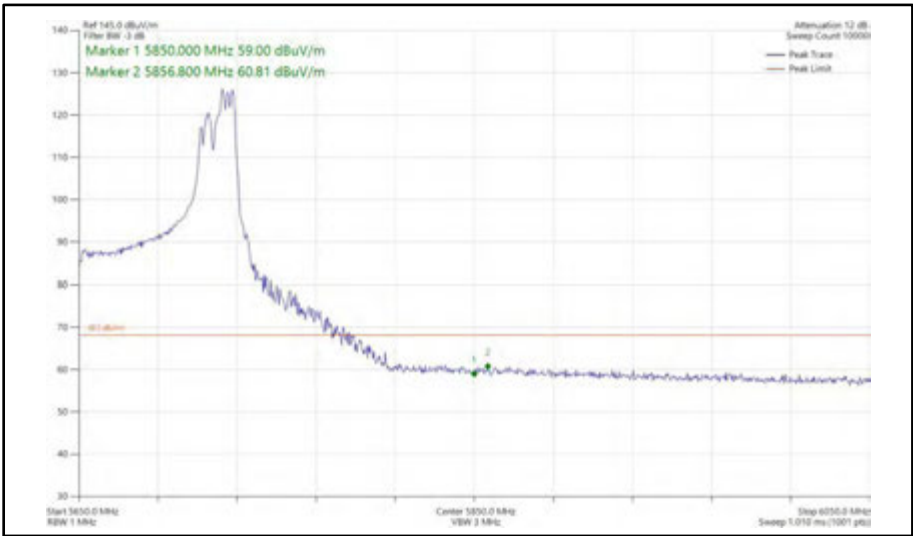


Figure 671 - 802.11ax HE80, RU 106-60, SDM, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz

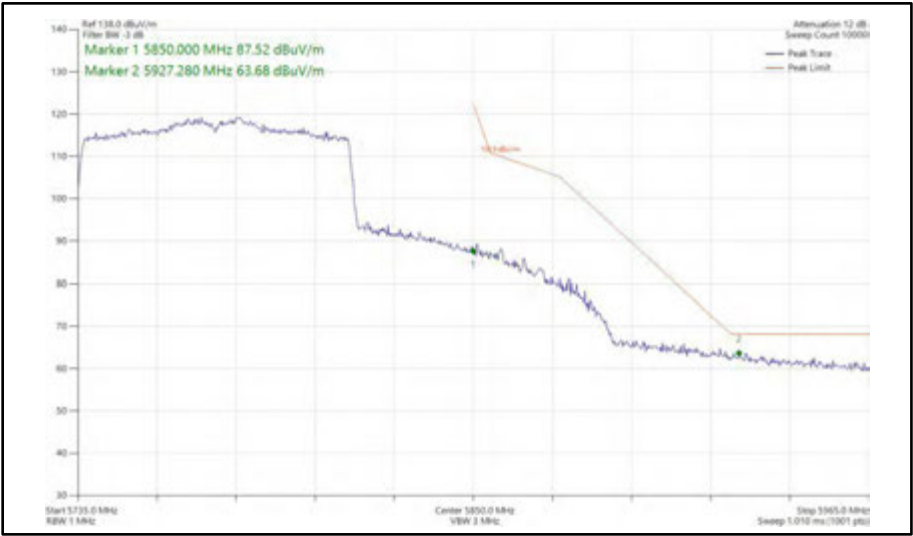


Figure 672 - 802.11ax HE80, SU, SDM, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz

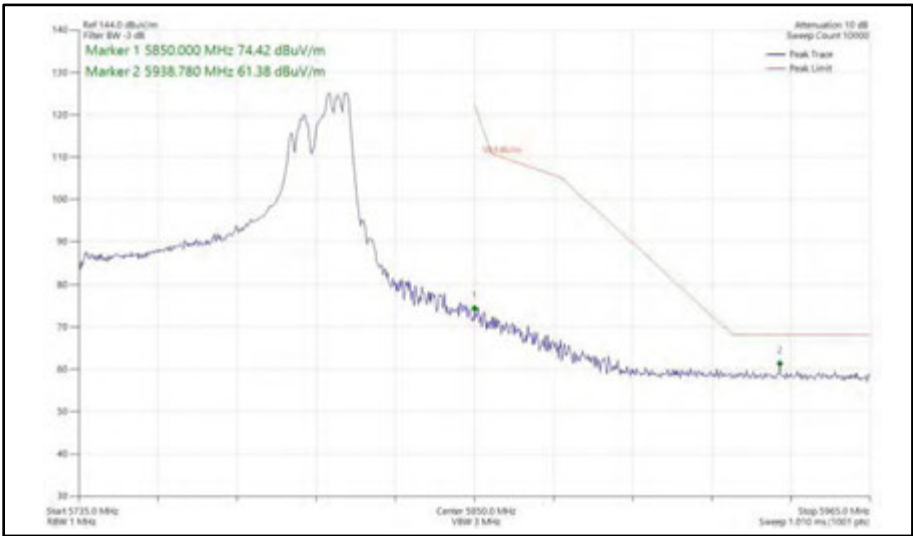


Figure 673 - 802.11ax HE80, RU 106-60, SDM, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz



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)
802.11ac VHT80	MCS2x1	-	-	5530	5470	63.45
802.11ac VHT80	MCS8x1	-	-	5775	5725	63.44
802.11ac VHT80	MCS2x1	-	-	5610	5725	63.34
802.11ac VHT80	MCS4x1	-	-	5690	5850	63.65
802.11ac VHT80	MCS4x1	-	-	5775	5850	63.60

Table 760 - TxBF Authorised Band Edge Results

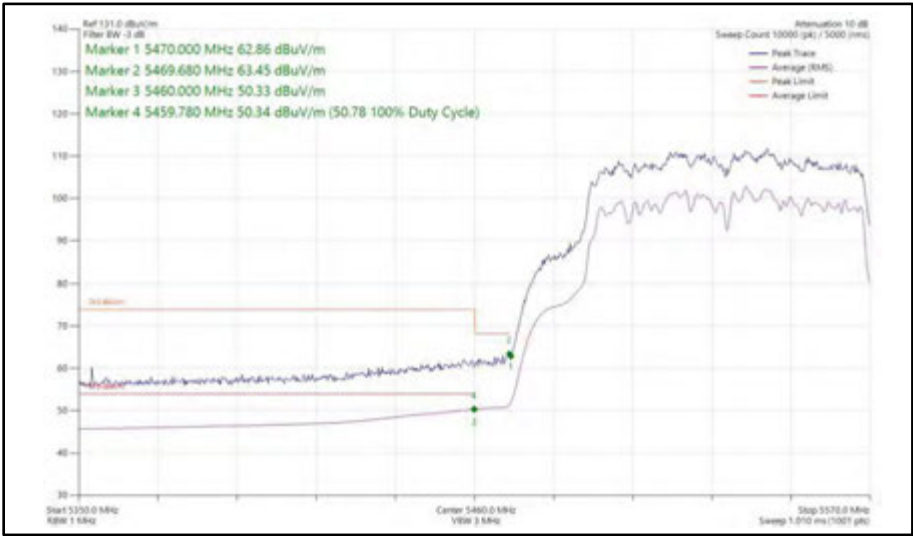


Figure 674 - 802.11ac VHT80, TxBF, Core 0 + Core 1 - 5530 MHz
Band Edge Frequency 5470 MHz

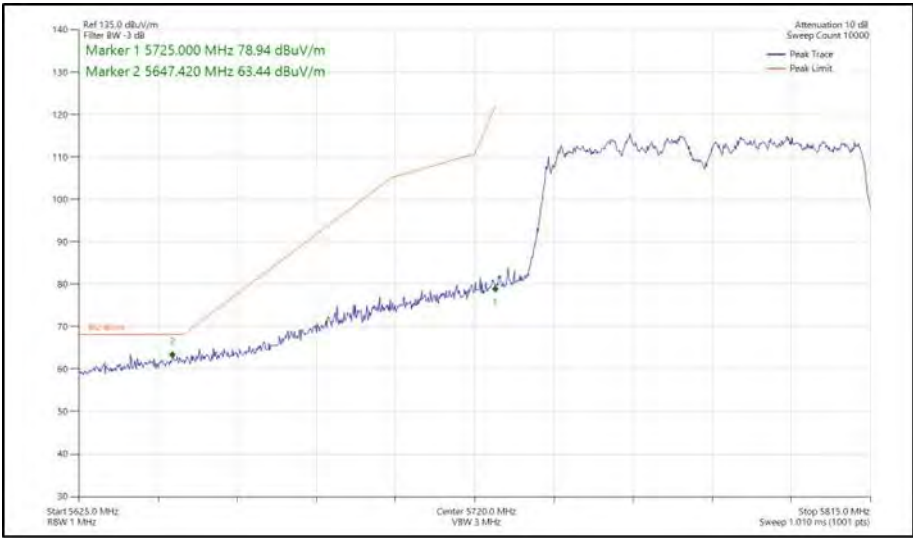


Figure 675 - 802.11ac VHT80, TxBF, Core 0 + Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

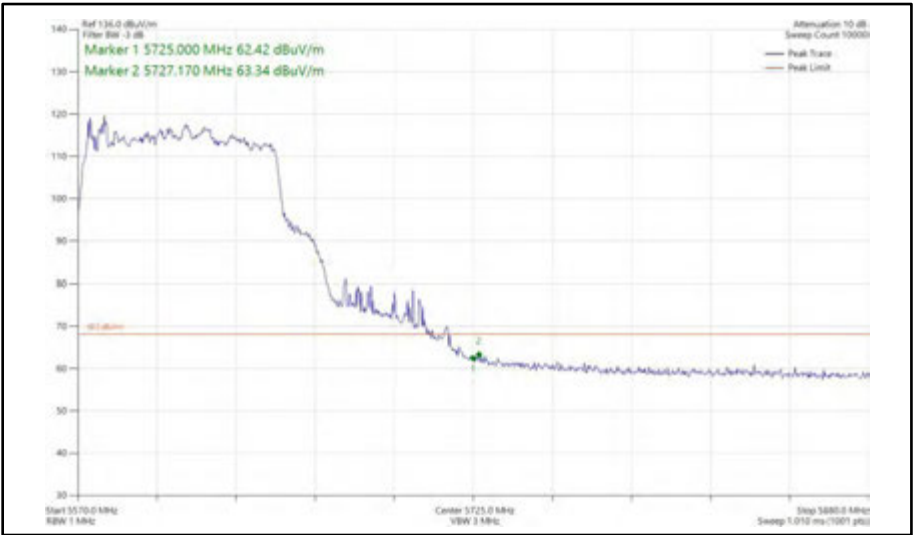


Figure 676 - 802.11ac VHT80, TxBF, Core 0 + Core 1 - 5610 MHz
Band Edge Frequency 5725 MHz

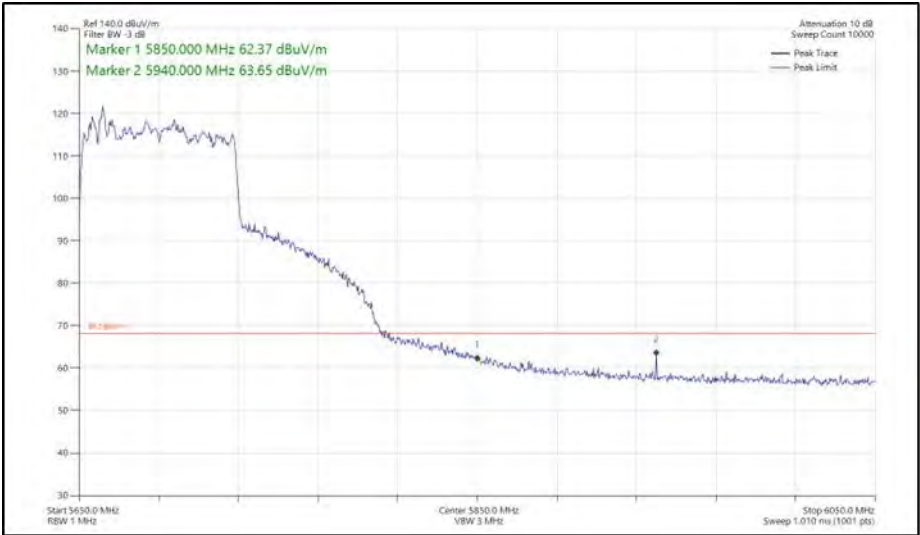


Figure 677 - 802.11ac VHT80, TxBF, Core 0 + Core 1 - 5690 MHz
Band Edge Frequency 5850 MHz





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)
802.11ac VHT160	MCS8x1	-	-	5570	5470	62.80
802.11ax HE160	MCS4x1	SU	-	5570	5470	62.66
802.11ax HE160	MCS11x1	106	53	5570	5470	63.37
802.11ac VHT160	MCS2x1	-	-	5570	5725	63.65
802.11ax HE160	MCS4x1	SU	-	5570	5725	63.57
802.11ax HE160	MCS11x1	52	52	5570	5725	63.62

Table 761 - SISO Authorised Band Edge Results

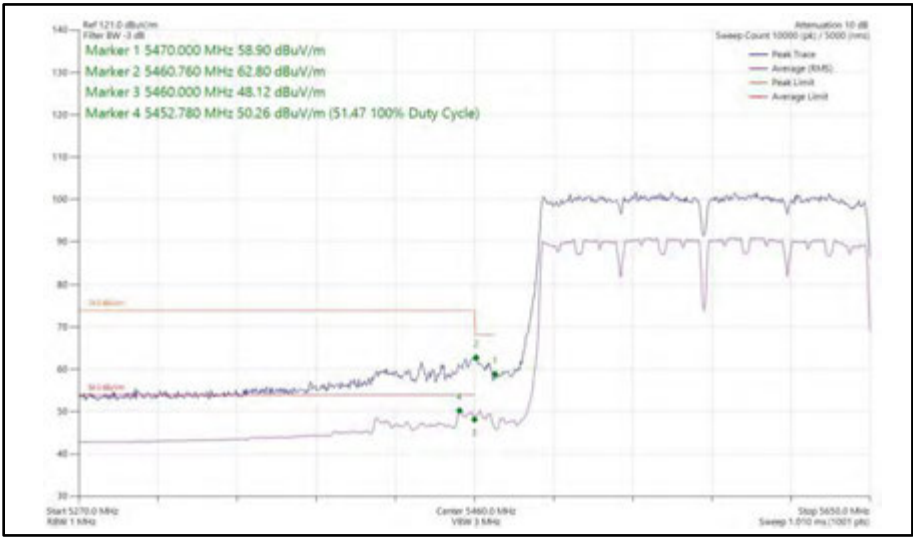


Figure 679 - 802.11ac VHT160, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5470 MHz

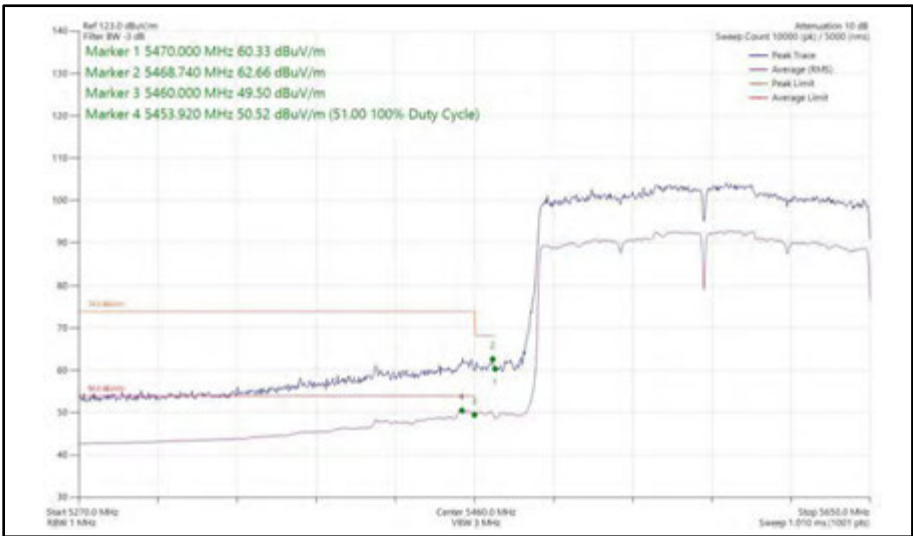




Figure 680 - 802.11ax HE160, SU, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5470 MHz

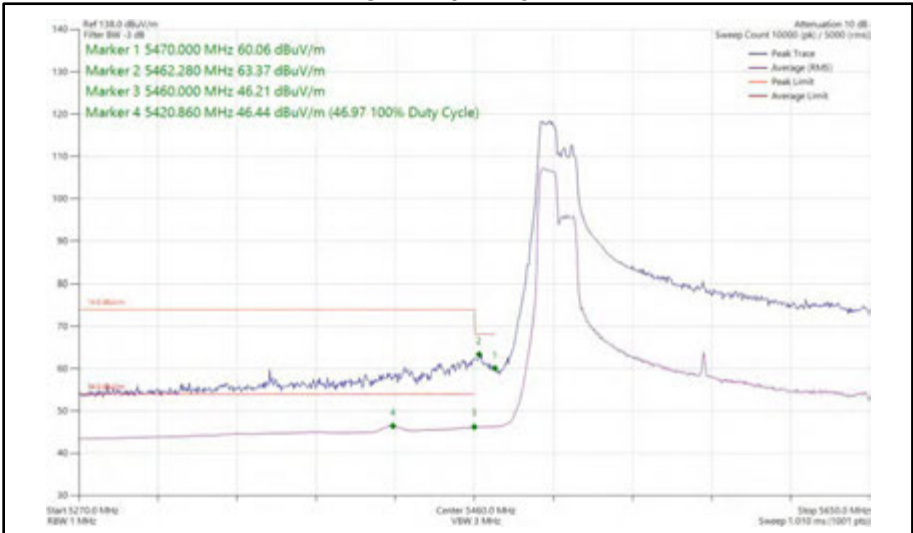


Figure 681 - 802.11ax HE160, RU 106-53, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5470 MHz

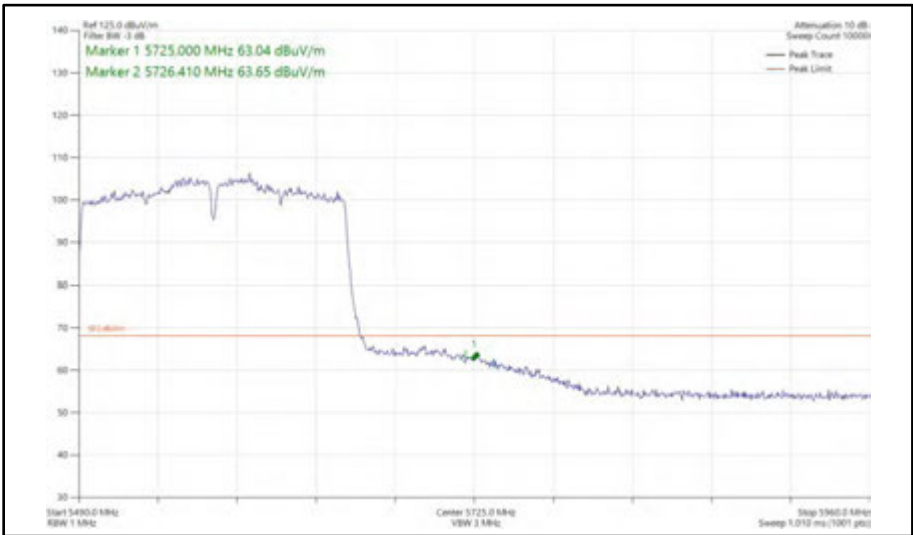


Figure 682 - 802.11ac VHT160, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5725 MHz

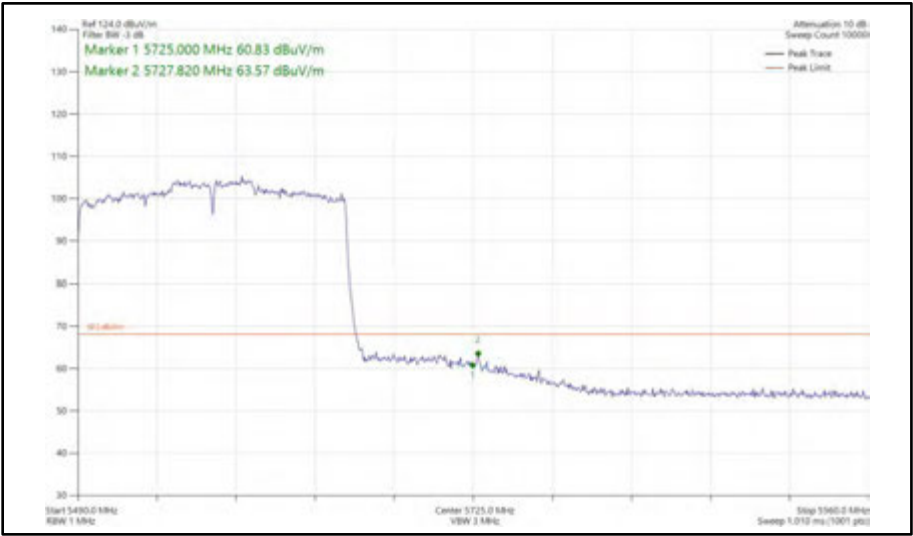


Figure 683 - 802.11ax HE160, SU, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5725 MHz

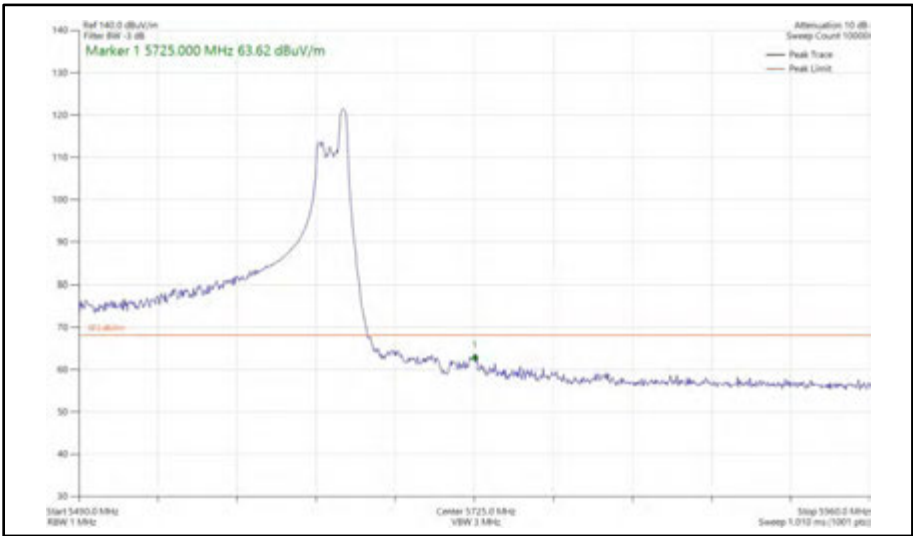


Figure 684 - 802.11ax HE160, RU 52-52, SISO, Core 0 - 5570 MHz
Band Edge Frequency 5725 MHz



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)
802.11ac VHT160	MCS8x1	-	-	5570	5470	62.65
802.11ax HE160	MCS4x1	SU	-	5570	5470	63.33
802.11ax HE160	MCS11x1	106	53	5570	5470	63.20
802.11ac VHT160	MCS8x1	-	-	5570	5725	63.56
802.11ax HE160	MCS4x1	SU	-	5570	5725	63.67
802.11ax HE160	MCS11x1	106	60	5570	5725	63.70

Table 762 - SISO Authorised Band Edge Results

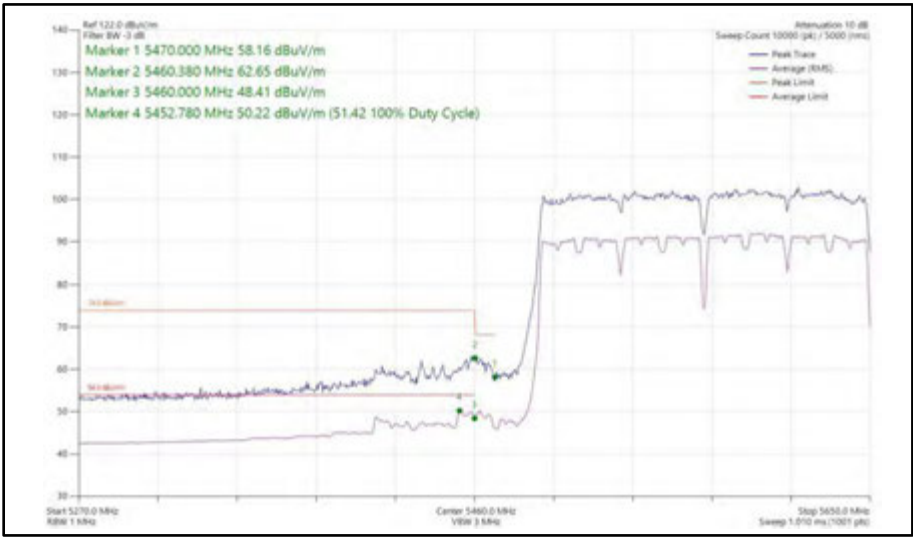


Figure 685 - 802.11ac VHT160, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

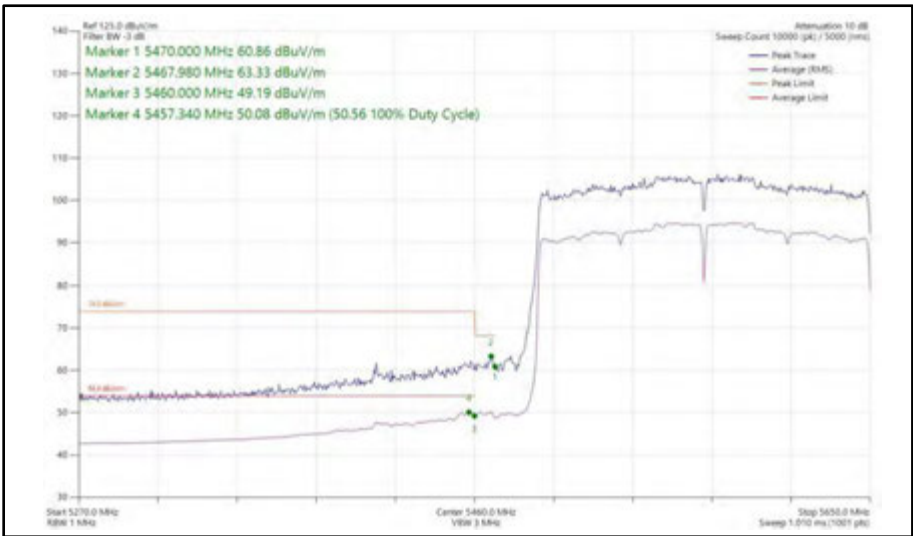




Figure 686 - 802.11ax HE160, SU, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

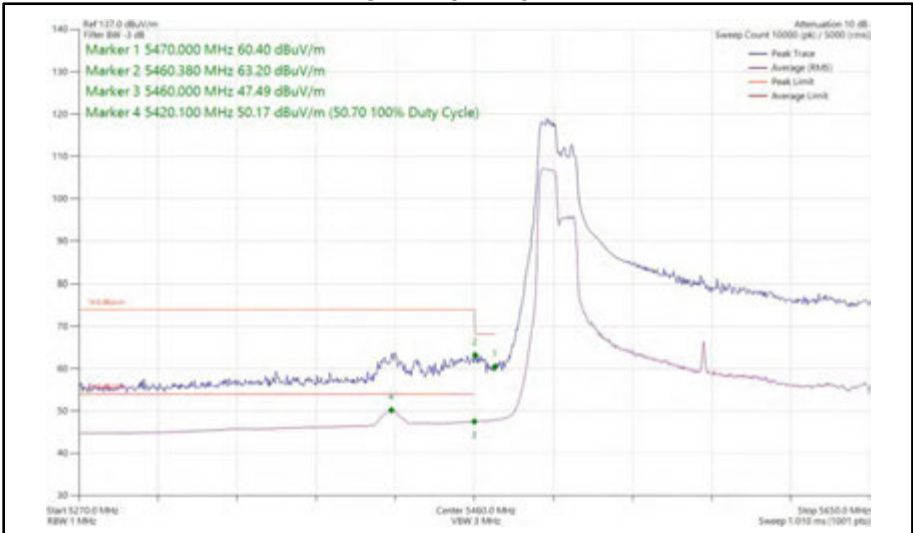


Figure 687 - 802.11ax HE160, RU 106-53, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

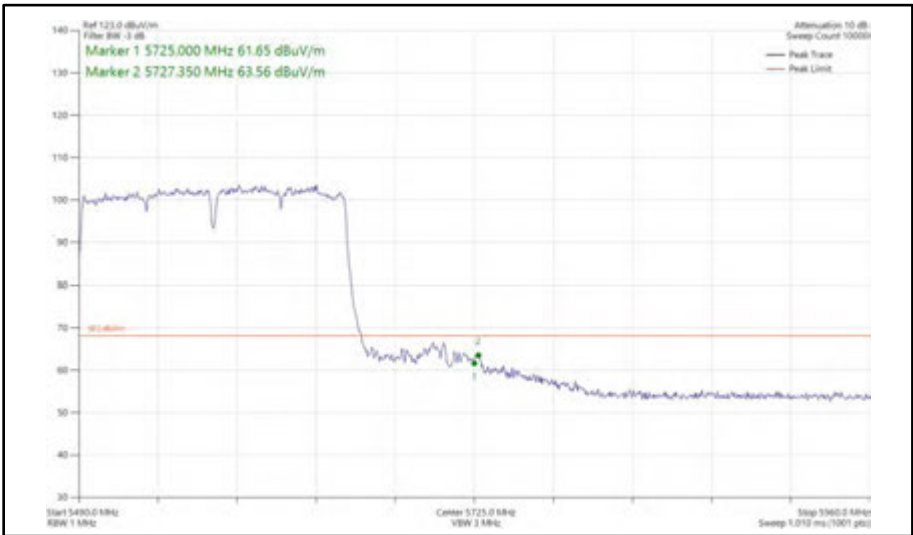


Figure 688 - 802.11ac VHT160, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz

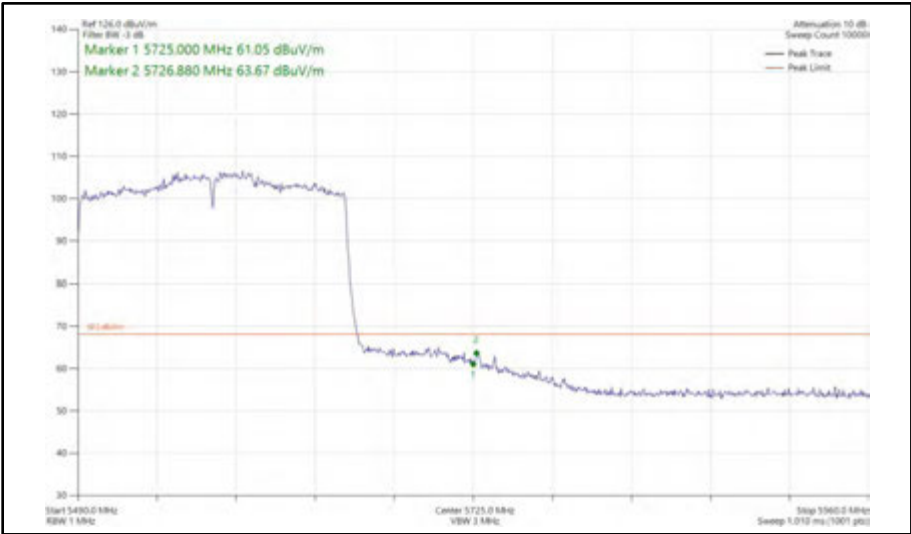


Figure 689 - 802.11ax HE160, SU, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz

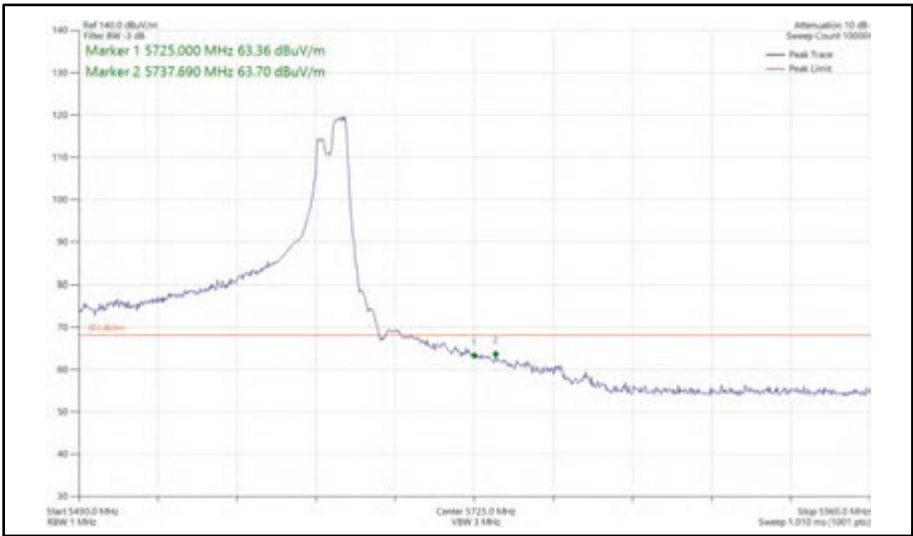


Figure 690 - 802.11ax HE160, RU 106-60, SISO, Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz



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)
802.11ac VHT160	MCS2x1	-	-	5570	5470	62.64
802.11ax HE160	MCS11x1	SU	-	5570	5470	63.44
802.11ax HE160	MCS11x1	52	37	5570	5470	63.31
802.11ac VHT160	MCS8x1	-	-	5570	5725	63.58
802.11ax HE160	MCS4x1	SU	-	5570	5725	63.59
802.11ax HE160	MCS11x1	106	60	5570	5725	63.64

Table 763 - CDD Authorised Band Edge Results

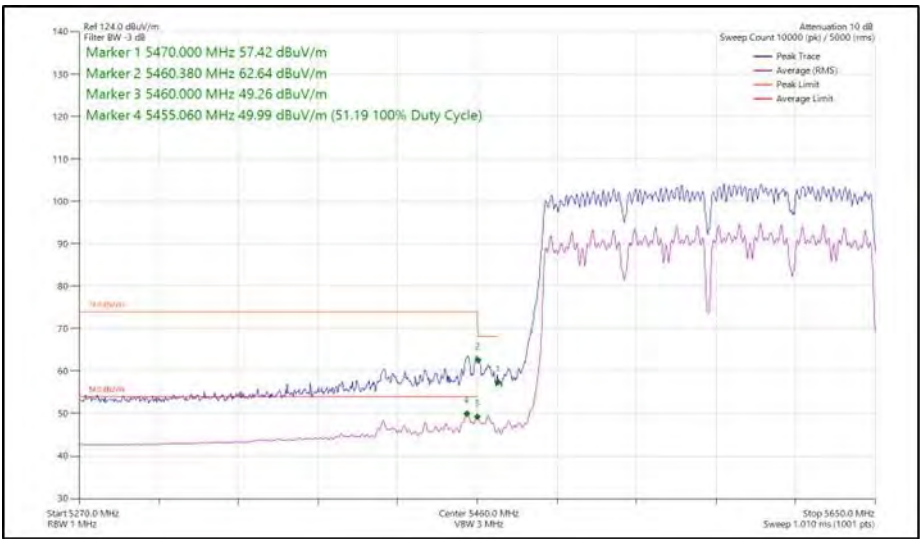


Figure 691 - 802.11ac VHT160, CDD, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

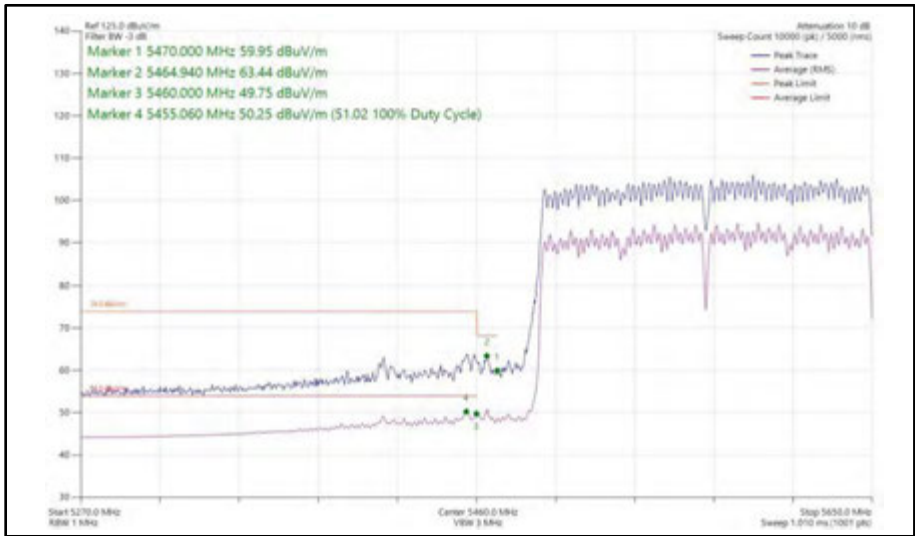




Figure 692 - 802.11ax HE160, SU, CDD, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

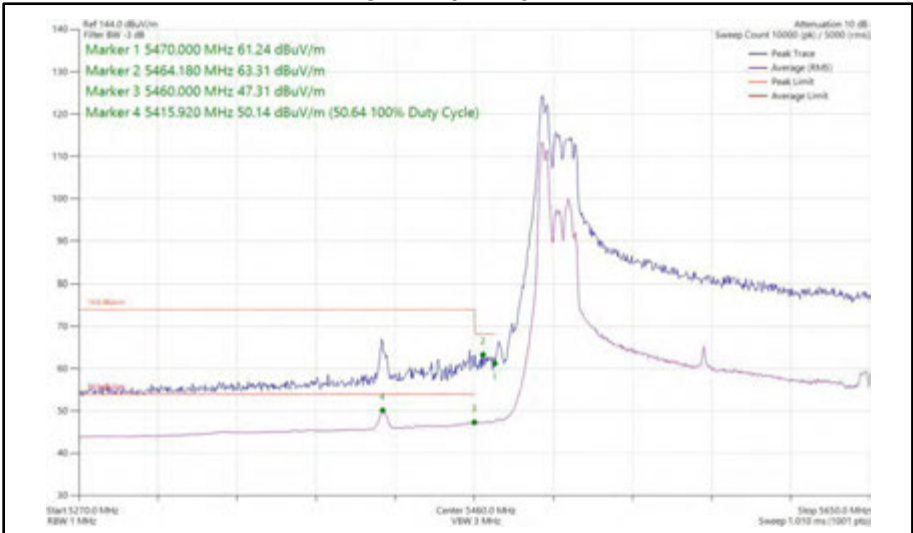


Figure 693 - 802.11ax HE160, RU 52-37, CDD, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

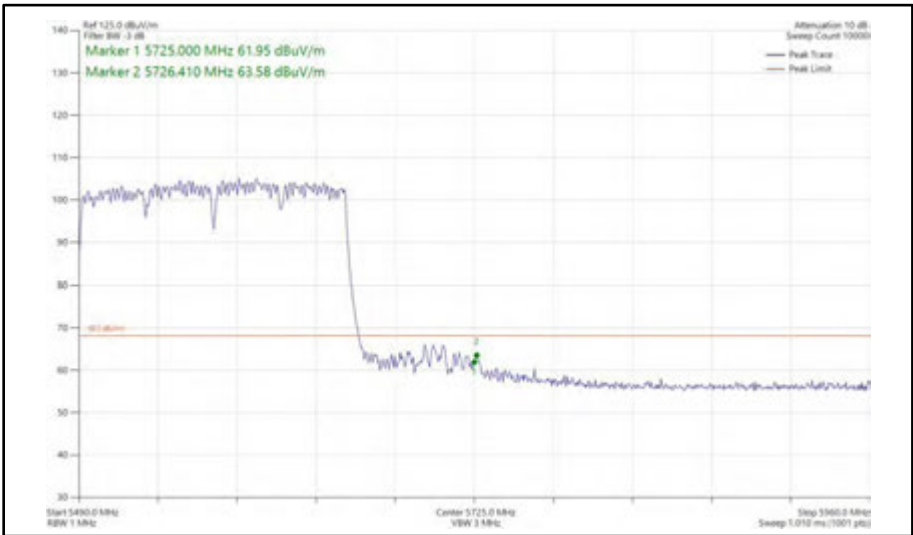


Figure 694 - 802.11ac VHT160, CDD, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz

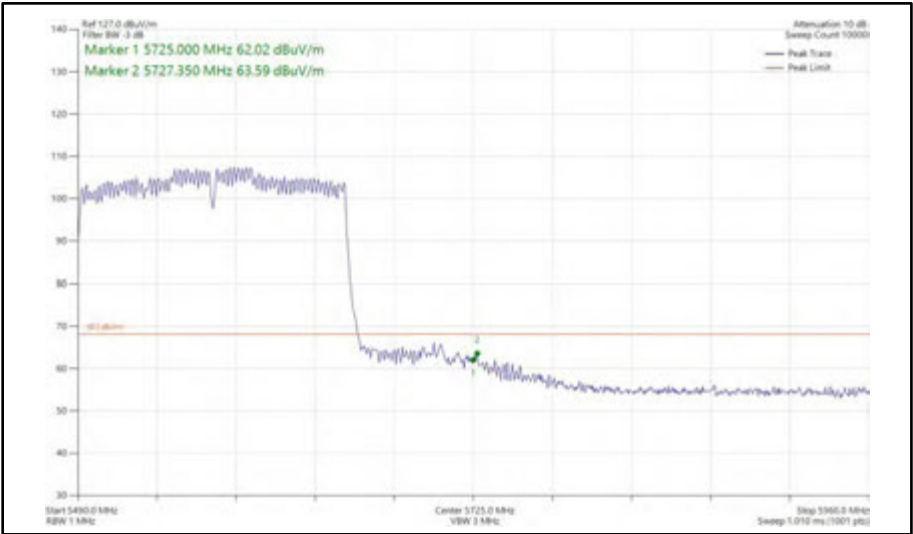


Figure 695 - 802.11ax HE160, SU, CDD, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz

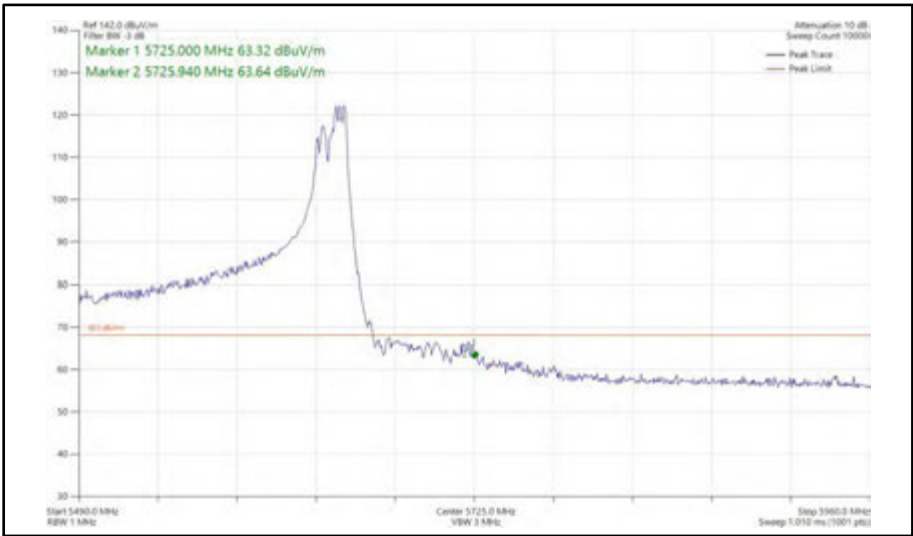


Figure 696 - 802.11ax HE160, RU 106-60, CDD, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz



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)
802.11ac VHT160	MCS4x2	-	-	5570	5470	63.43
802.11ax HE160	MCS2x2	SU	-	5570	5470	63.60
802.11ax HE160	MCS11x2	106	60	5570	5470	63.66
802.11ac VHT160	MCS2x2	-	-	5570	5725	63.60
802.11ax HE160	MCS11x2	SU	-	5570	5725	63.32
802.11ax HE160	MCS11x2	52	37	5570	5725	63.70

Table 764 - SDM Authorised Band Edge Results

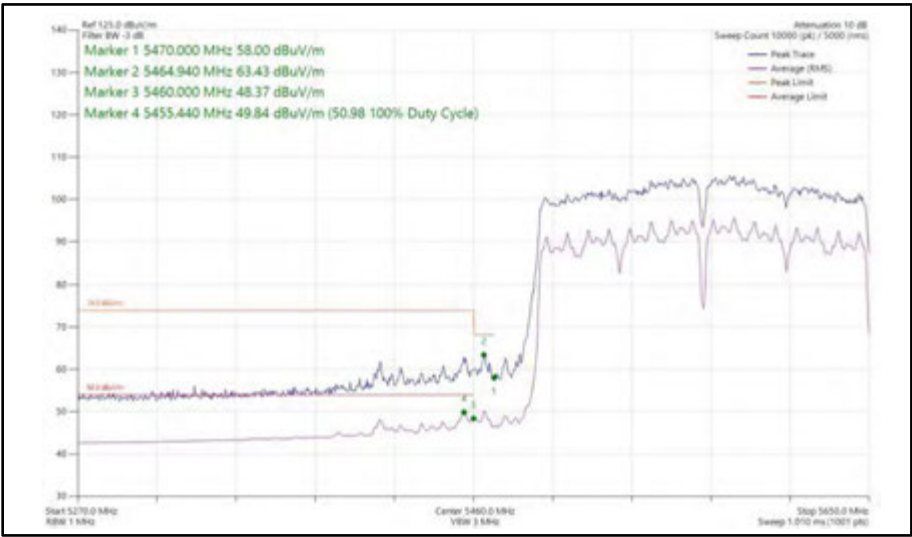


Figure 697 - 802.11ac VHT160, SDM, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

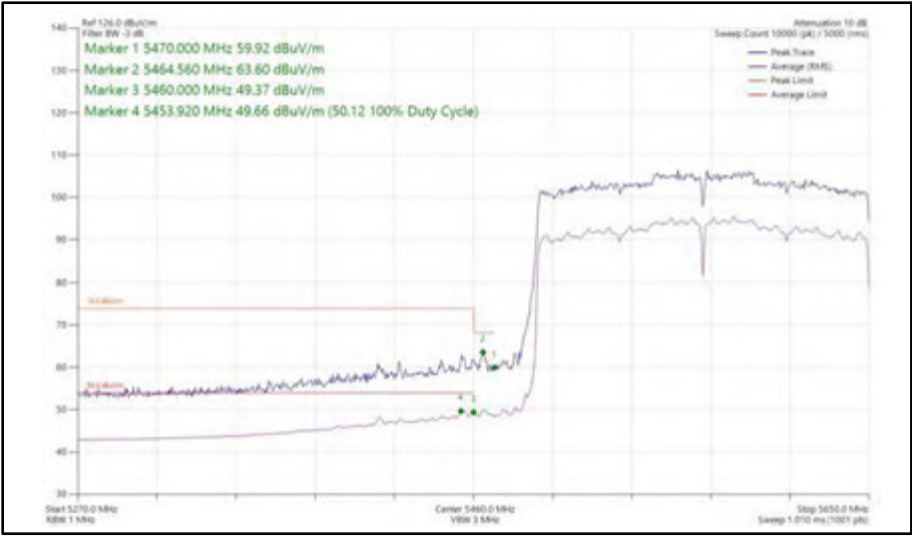




Figure 698 - 802.11ax HE160, SU, SDM, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

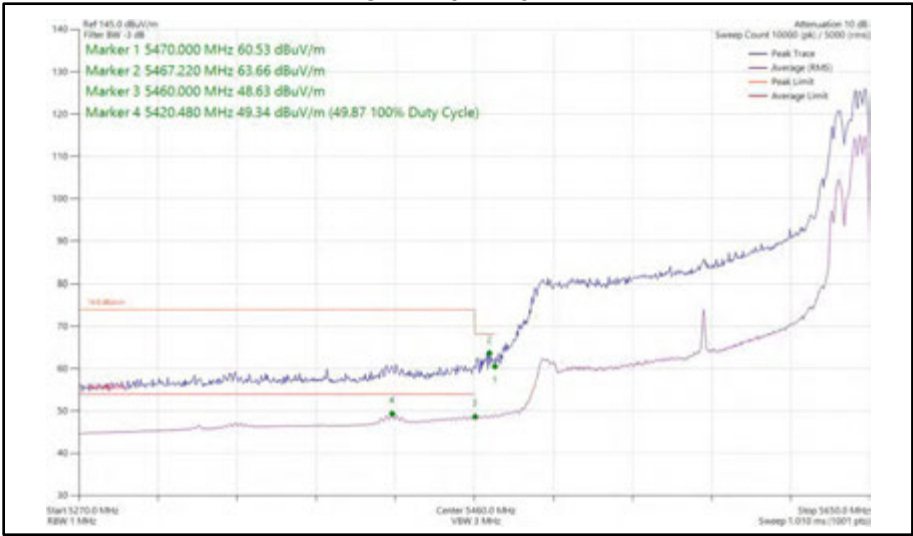


Figure 699 - 802.11ax HE160, RU 106-60, SDM, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5470 MHz

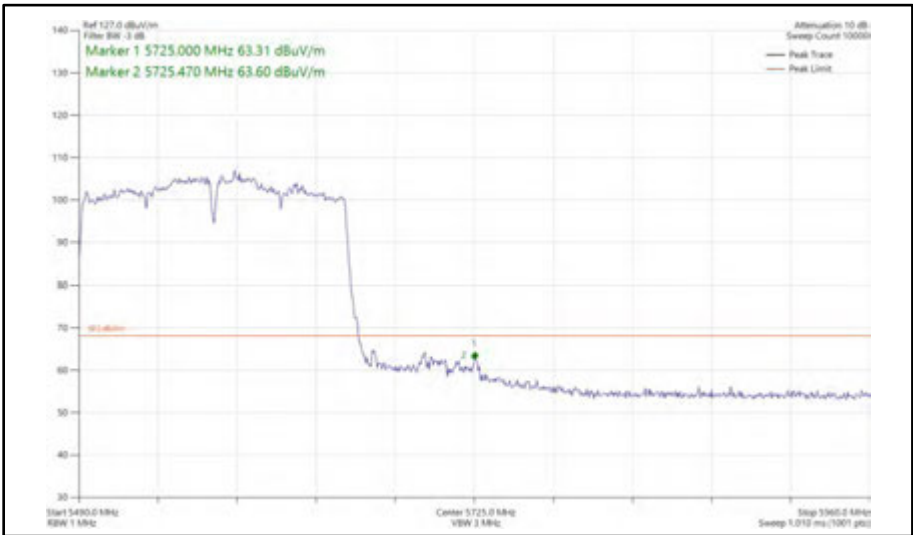


Figure 700 - 802.11ac VHT160, SDM, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz

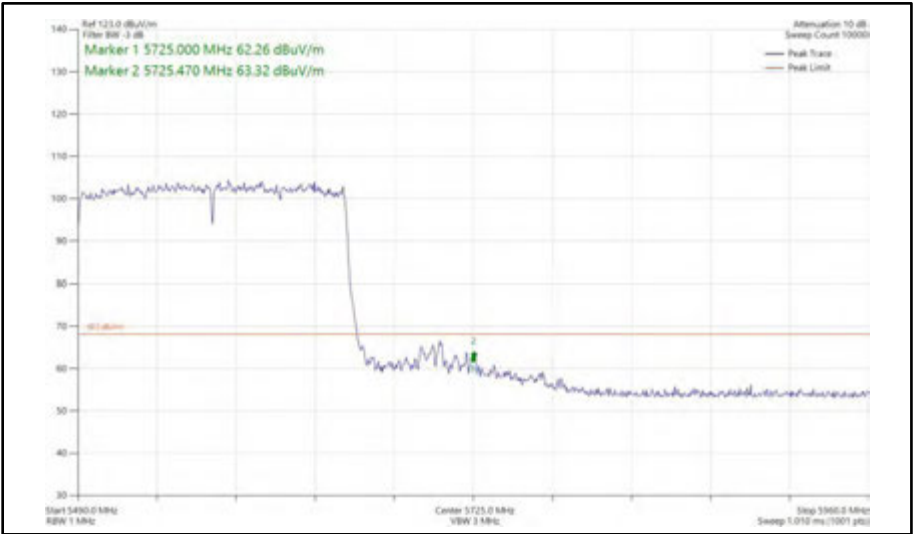


Figure 701 - 802.11ax HE160, SU, SDM, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz

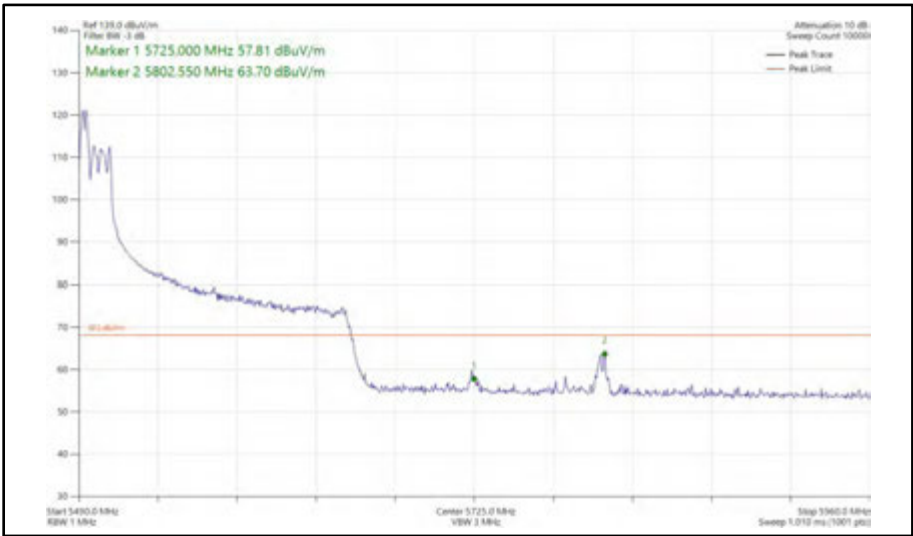


Figure 702 - 802.11ax HE160, RU 52-37, SDM, Core 0 + Core 1 - 5570 MHz
Band Edge Frequency 5725 MHz



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

For transmitters operating in the 5.15-5.25 GHz band: ≤ -27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤ -27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤ -27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

ISED RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.



2.5.7 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14, RF Chamber 15 and RF Chamber 16.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Emissions Software	TUV SUD	EmX V3.1.12	5125	-	Software
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	05-May-2024
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-Feb-2024
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
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
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
Tilt Antenna Mast	Maturo Gmbh	BAM4.5-P	5967	-	TU
Turntable	Maturo Gmbh	TT1.5SI	5968	-	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 (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5996	12	05-Jun-2024
Cable (N to N 1m)	Junkosha	MWX221-01000NMSNMS/B	5999	12	05-Jun-2024
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6003	12	05-Jun-2024
Cable (N to N 8m)	Junkosha	MWX221-08000NMSNMS/A	6006	12	05-Jun-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6007	12	05-Jun-2024
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6014	12	24-Aug-2024
Cable (N to N 7m)	Junkosha	MWX221-07000NMSNMS/B	6016	12	05-Jun-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6018	12	05-Jun-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/B	6019	12	05-Jun-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6140	12	26-Aug-2024



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6141	12	26-Aug-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	26-Aug-2024
Digital Multimeter	Fluke	115	6145	12	15-Jun-2024
Digital Multimeter	Fluke	115	6146	12	15-Jun-2024
Digital Multimeter	Fluke	115	6147	12	16-Jun-2024
Humidity & Temperature meter	R.S Components	1364	6148	12	21-Jul-2024
Humidity & Temperature meter	R.S Components	1364	6149	12	07-Jul-2024
Coaxial Fixed Attenuator DC-18GHz 5W 10dB	RF-Lambda	RFS5G18B10SMP	6177	12	24-Jul-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
Cable (SMA to SMA 8m)	Junkosha	MWX221-08000AMSAMS/B	6318	12	04-Feb-2024
Humidity and Temperature Meter	R.S Components	1364	6486	12	18-Apr-2024
Pre Amp 1 - 26.5 GHz	Agilent Technologies	HP8449B	6570	12	09-Jun-2024
Pre Amp 1 - 26.5 GHz	Hewlett Packard	HP8449B	6571	12	09-Jun-2024

Table 765

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



2.6 Spurious Radiated Emissions

2.6.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.209 and 15.407 (b)
ISED RSS-247, Clause 6.2
ISED RSS-GEN, Clause 6.13 and 8.9

2.6.2 Equipment Under Test and Modification State

A3113, S/N: FNN231249F - Modification State 0
A3113, S/N: NJFQGT4KJT - Modification State 0

2.6.3 Date of Test

23-September-2023 to 24-October-2023

2.6.4 Test Method

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

Measurements were undertaken from 30 MHz to 40 GHz, on channel 36 (5180 MHz) and channel 165 (5825 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 since this was declared worst case by the customer.

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 using trace averaging.

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 EIRP outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

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

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

2.6.5 Test Setup Diagram

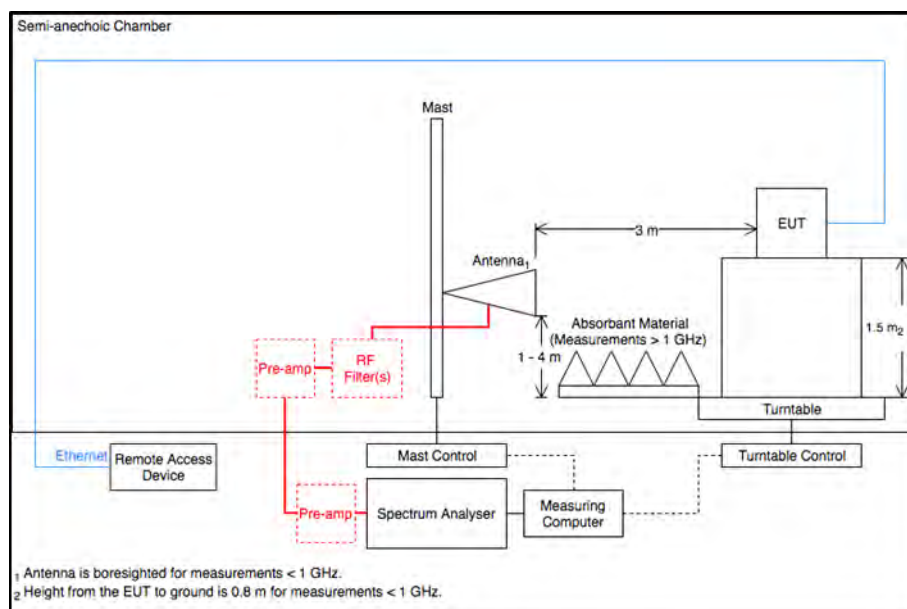


Figure 703 - Radiated Emissions Test Setup Diagram

2.6.6 Environmental Conditions

Ambient Temperature	22.3 - 23.6 °C
Relative Humidity	44.1 - 52.6 %



2.6.7 Test Results

5 GHz WLAN

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

Table 766 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 0, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

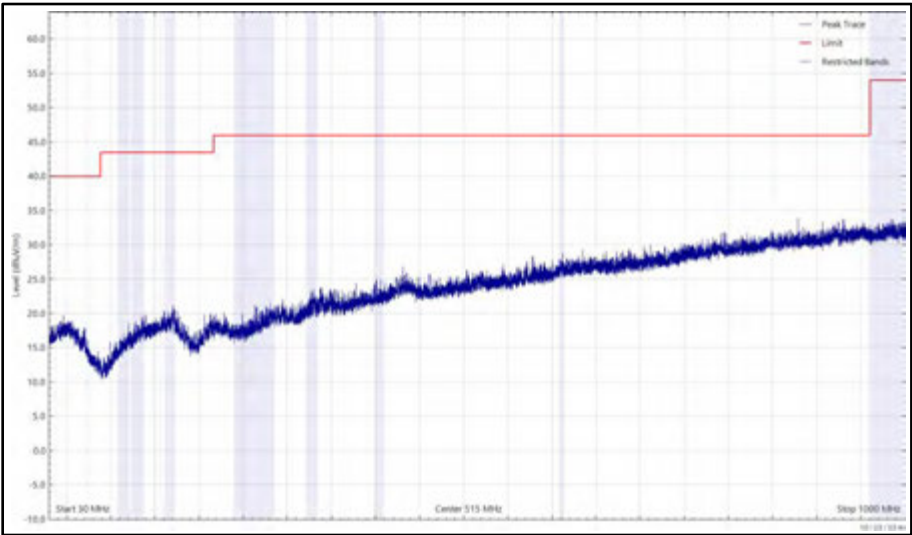


Figure 704 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

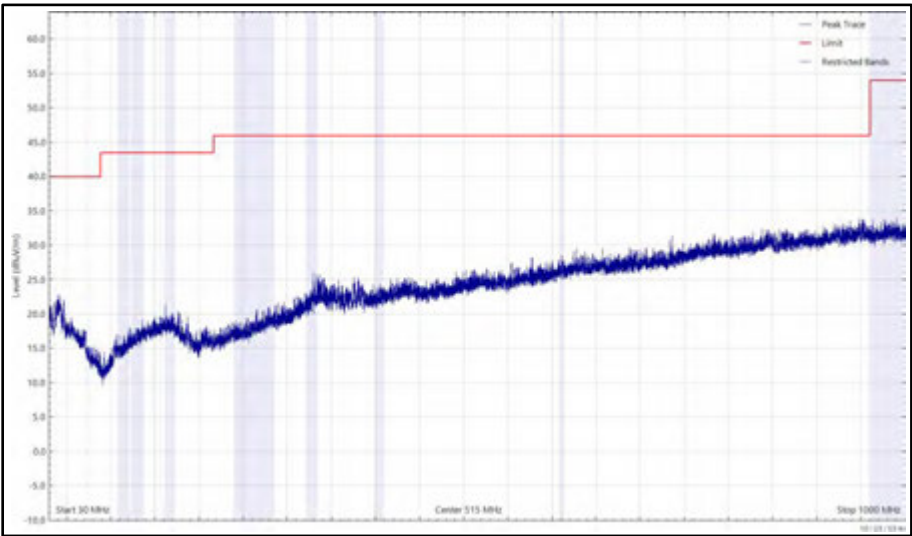


Figure 705 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

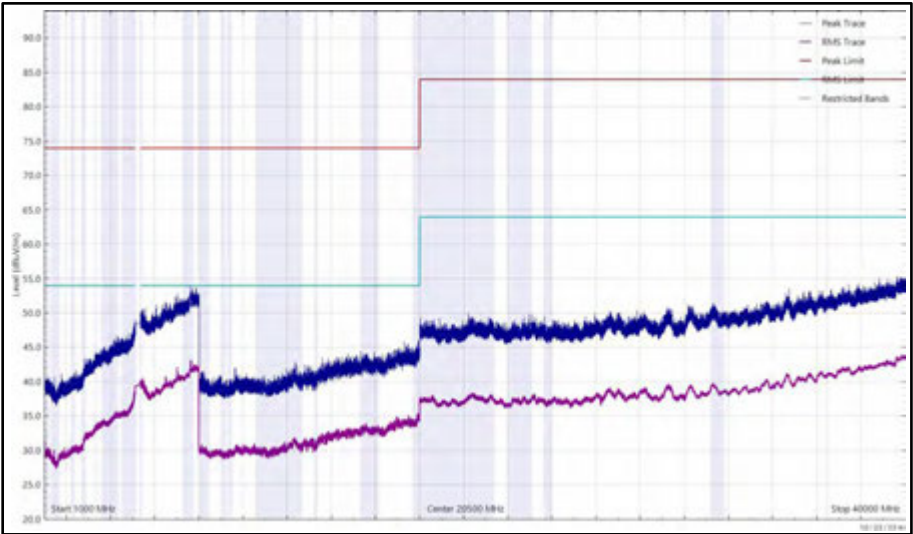


Figure 706 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 0, 1 GHz to 40 GHz, Horizontal

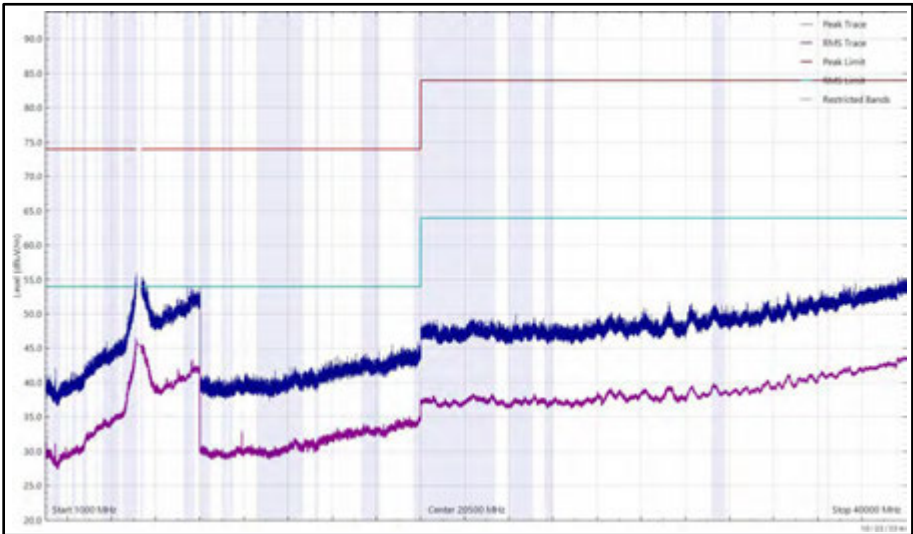


Figure 707 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 0, 1 GHz to 40 GHz, Vertical



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

Table 767 - U-NII-2A - 5320 MHz (CH64), 802.11a, Core 0, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

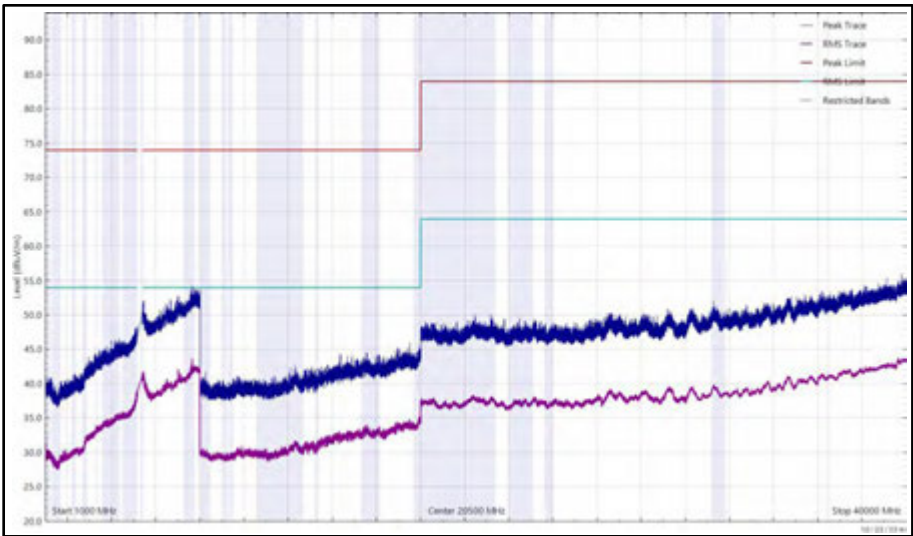


Figure 708 - U-NII-2A - 5320 MHz (CH64), 802.11a, Core 0, 1 GHz to 40 GHz, Horizontal

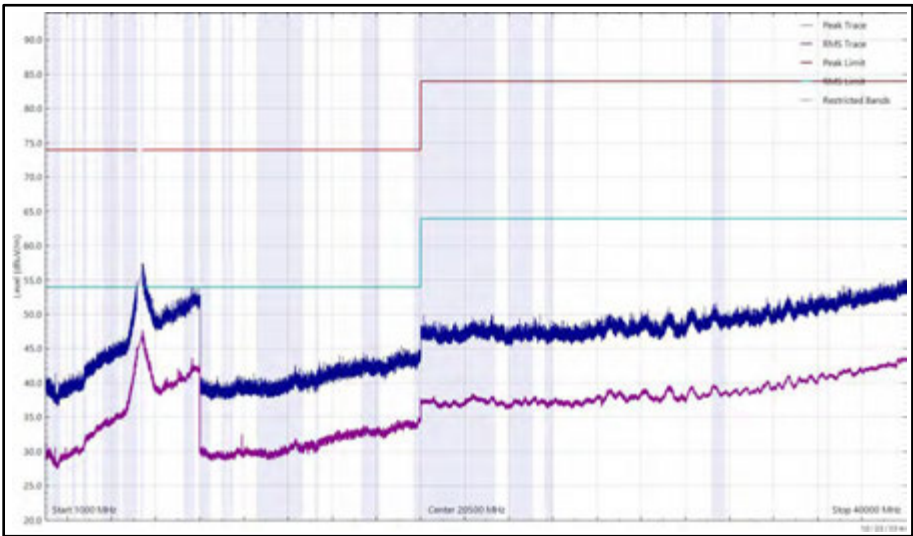


Figure 709 - U-NII-2A - 5320 MHz (CH64), 802.11a, Core 0, 1 GHz to 40 GHz, Vertical



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

Table 768 - U-NII-2C - 5500 MHz (CH100), 802.11a, Core 0, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

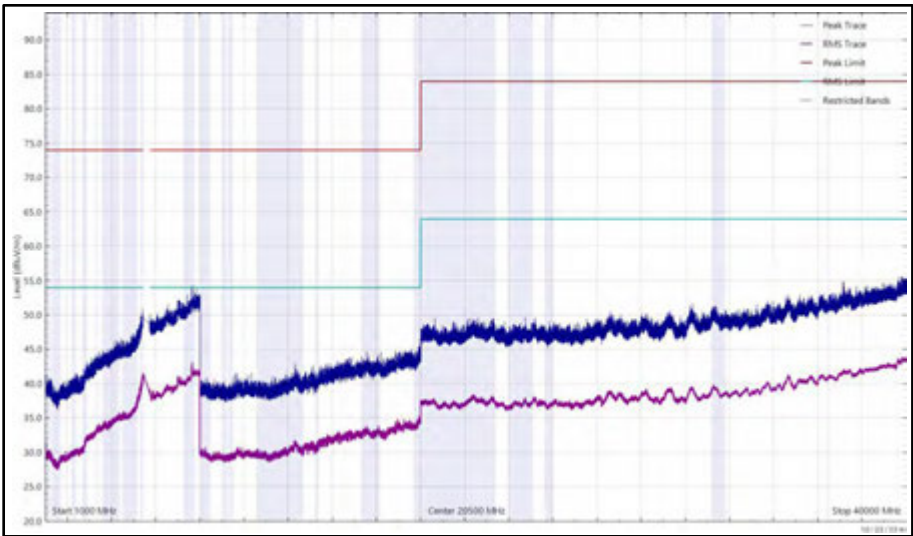


Figure 710 - U-NII-2C - 5500 MHz (CH100), 802.11a, Core 0, 1 GHz to 40 GHz, Horizontal

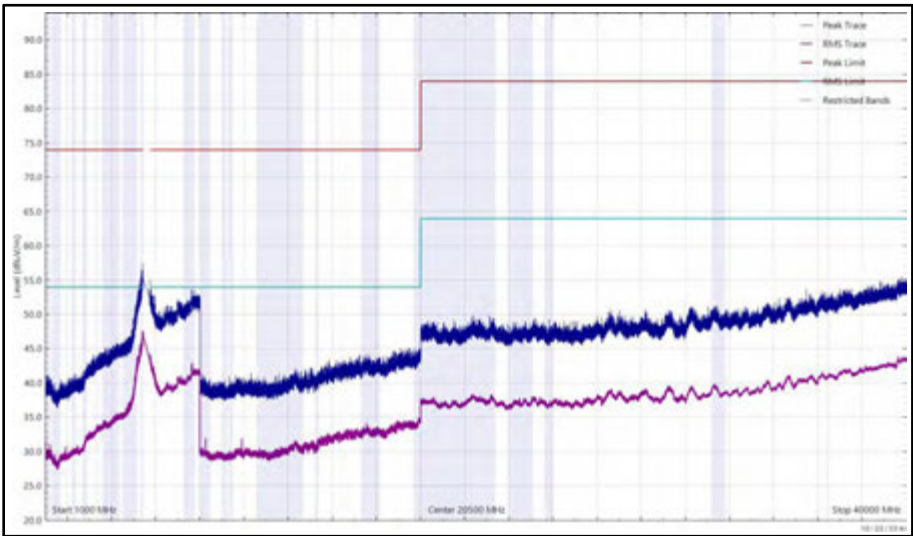


Figure 711 - U-NII-2C - 5500 MHz (CH100), 802.11a, Core 0, 1 GHz to 40 GHz, Vertical



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5407.540	57.25	74.00	-16.75	Peak	325	312	Vertical
5408.372	45.01	54.00	-8.99	RMS	325	312	Vertical

Table 769 - U-NII-2C - 5700 MHz (CH140), 802.11a, Core 0, 1 GHz to 40 GHz

No other emissions found within 10 dB of the limit.

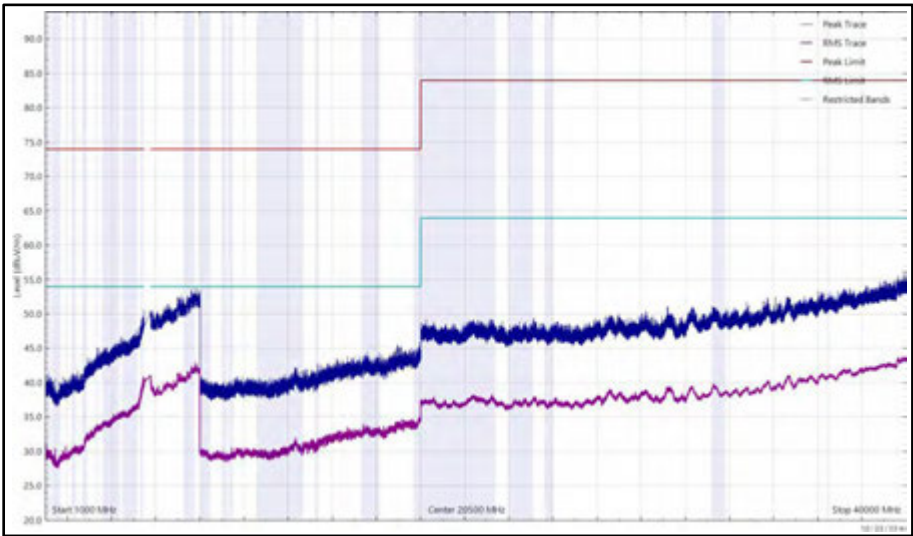


Figure 712 - U-NII-2C - 5700 MHz (CH140), 802.11a, Core 0, 1 GHz to 40 GHz, Horizontal

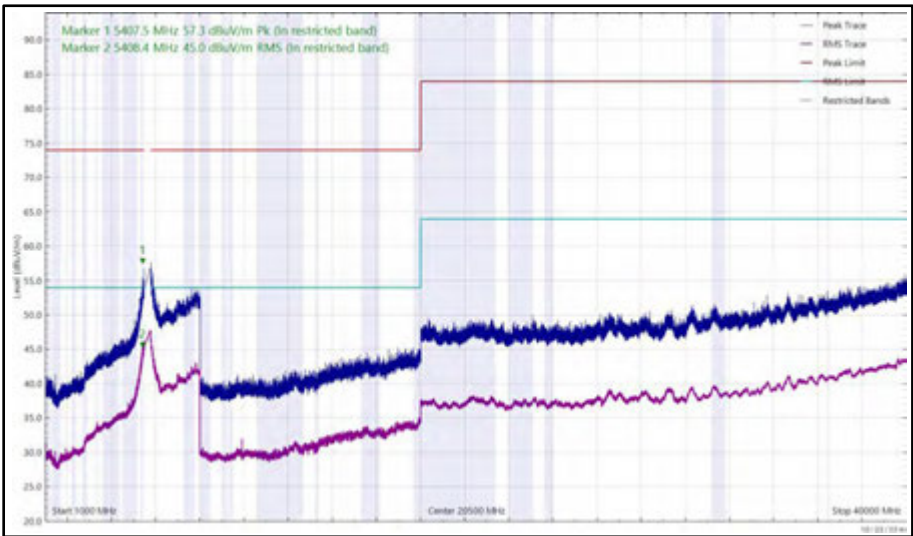


Figure 713 - U-NII-2C - 5700 MHz (CH140), 802.11a, Core 0, 1 GHz to 40 GHz, Vertical



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5437.819	57.43	74.00	-16.57	Peak	328	323	Vertical
7633.869	54.50	74.00	-19.50	Peak	6	376	Vertical
7639.690	54.67	74.00	-19.33	Peak	70	166	Horizontal

Table 770 - U-NII-3 - 5745 MHz (CH149), 802.11a, Core 0, 1 GHz to 40 GHz

No other emissions found within 10 dB of the limit.

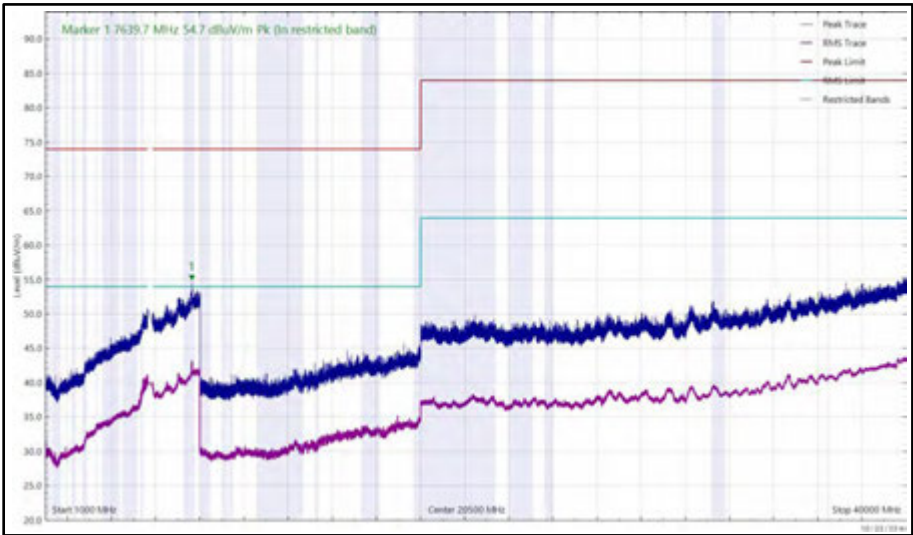


Figure 714 - U-NII-3 - 5745 MHz (CH149), 802.11a, Core 0, 1 GHz to 40 GHz, Horizontal

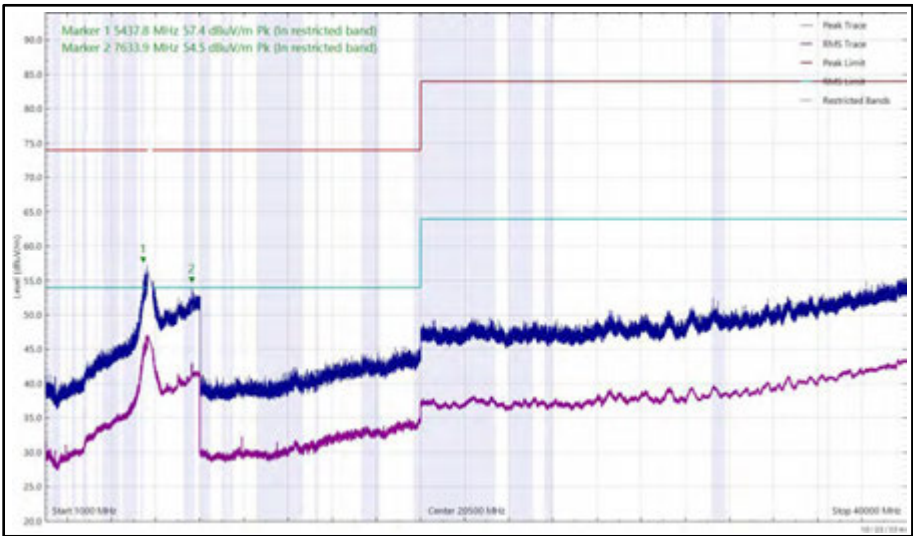


Figure 715 - U-NII-3 - 5745 MHz (CH149), 802.11a, Core 0, 1 GHz to 40 GHz, Vertical



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

Table 771 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 0, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

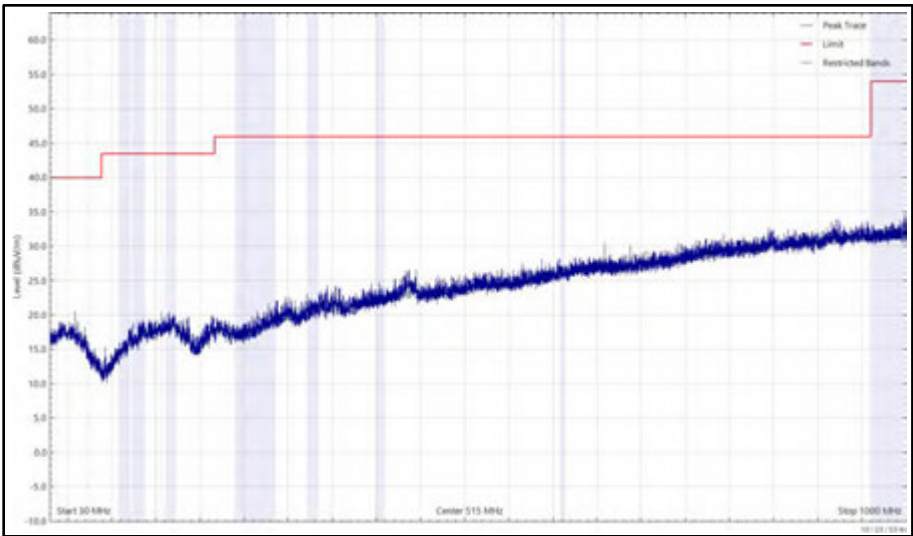


Figure 716 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 0, 30 MHz to 1 GHz, Horizontal (Peak)

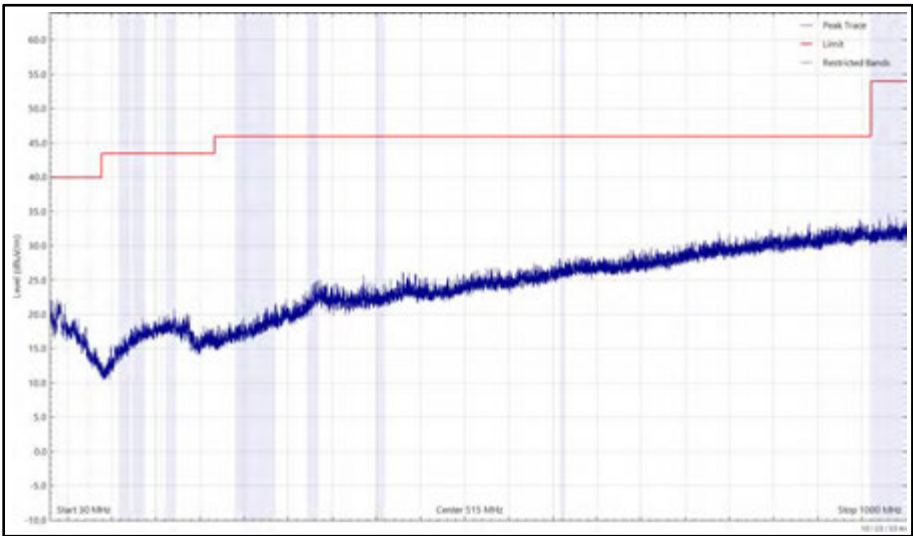


Figure 717 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 0, 30 MHz to 1 GHz, Vertical (Peak)

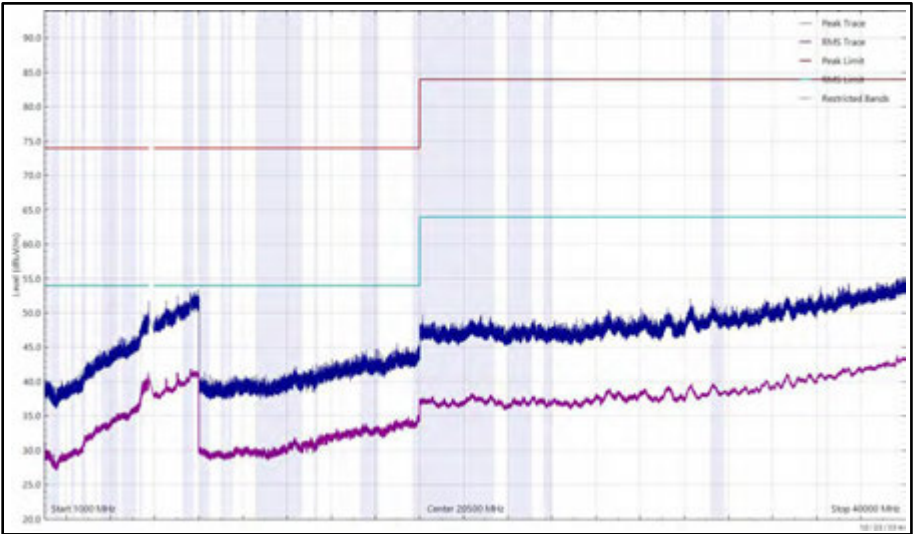


Figure 718 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 0, 1 GHz to 40 GHz, Horizontal

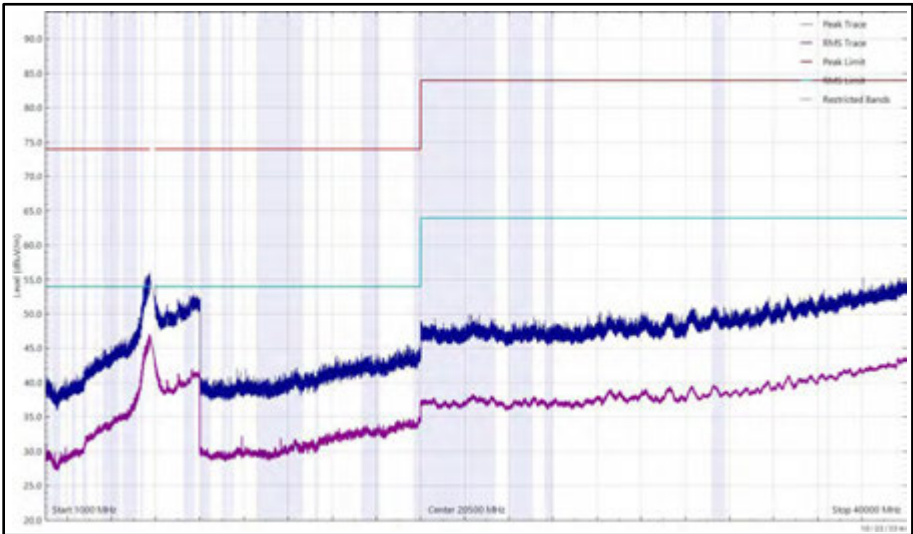


Figure 719 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 0, 1 GHz to 40 GHz, Vertical



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

Table 772 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

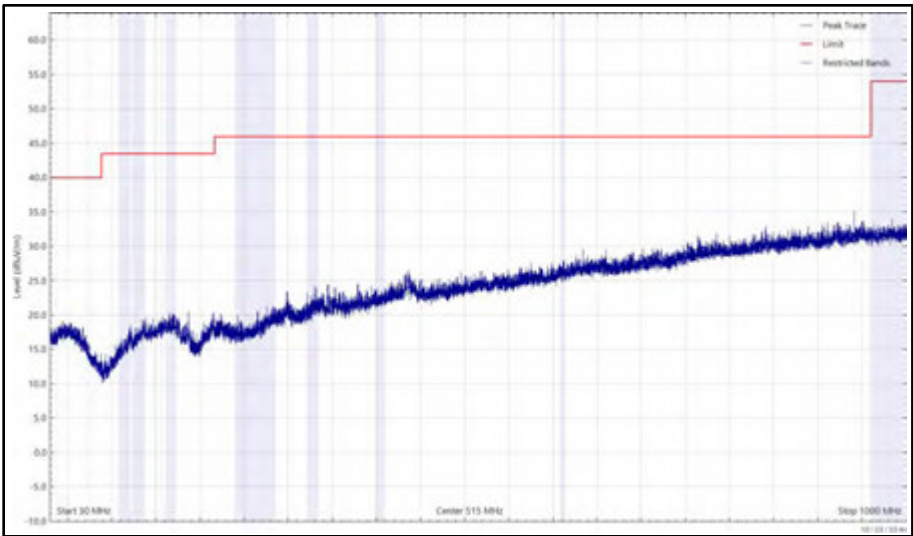


Figure 720 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

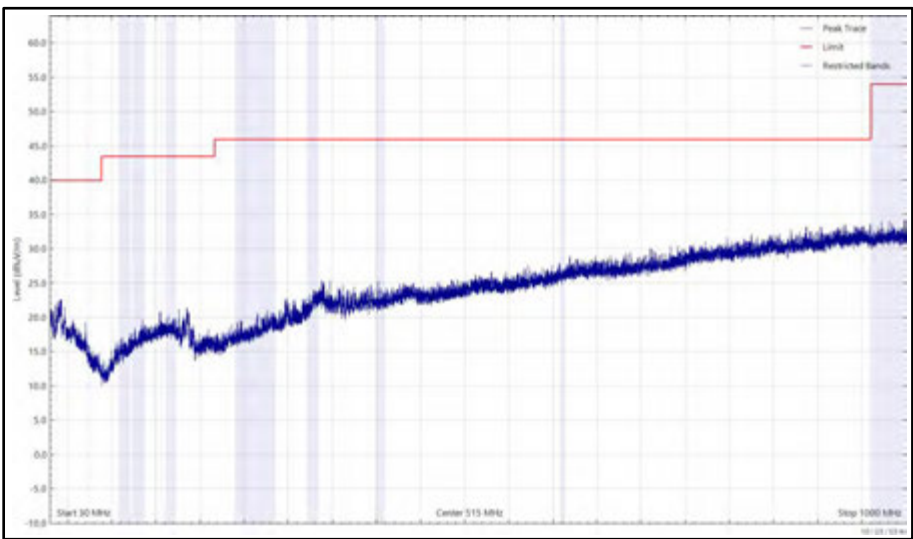


Figure 721 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

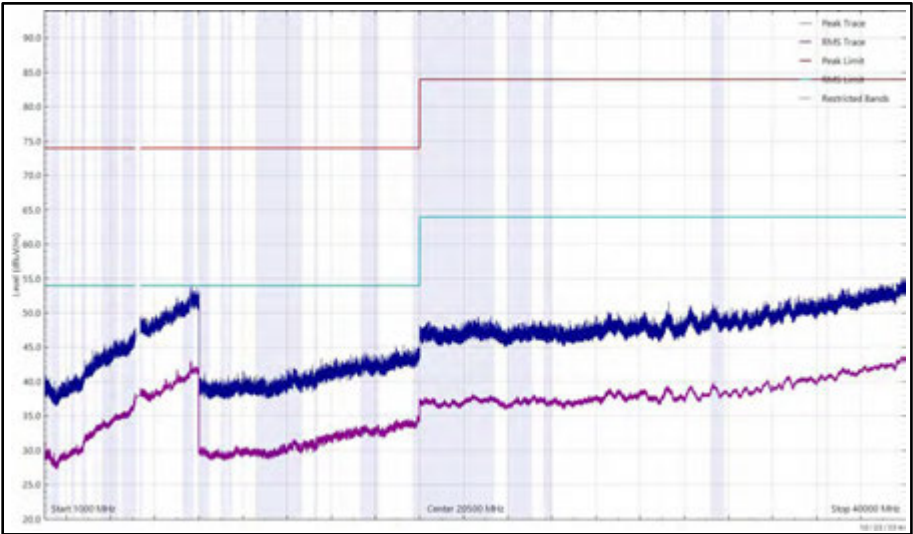


Figure 722 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 1, 1 GHz to 40 GHz, Horizontal

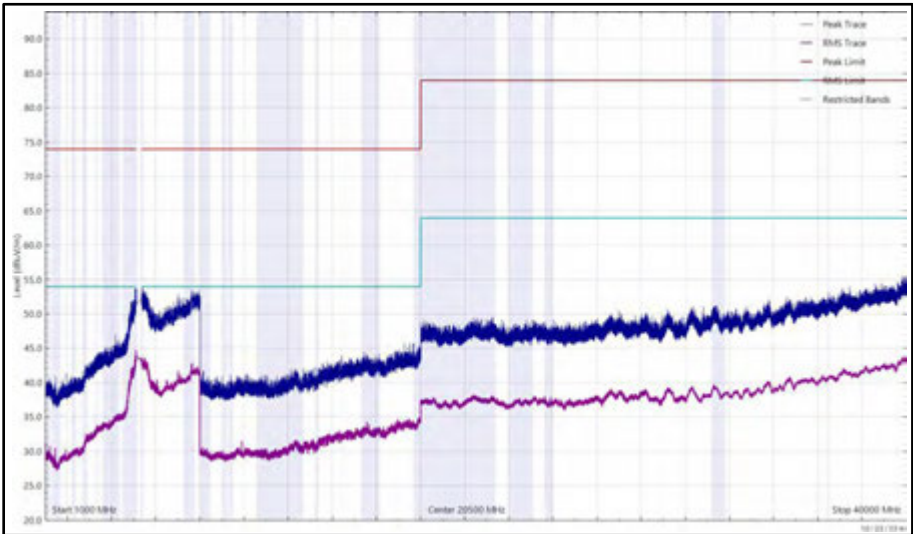


Figure 723 - U-NII-1 - 5180 MHz (CH36), 802.11a, Core 1, 1 GHz to 40 GHz, Vertical



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5406.679	45.48	54.00	-8.52	RMS	15	302	Vertical
5424.808	57.37	74.00	-16.63	Peak	36	284	Vertical

Table 773 - U-NII-2A - 5320 MHz (CH64), 802.11a, Core 1, 1 GHz to 40 GHz

No other emissions found within 10 dB of the limit.

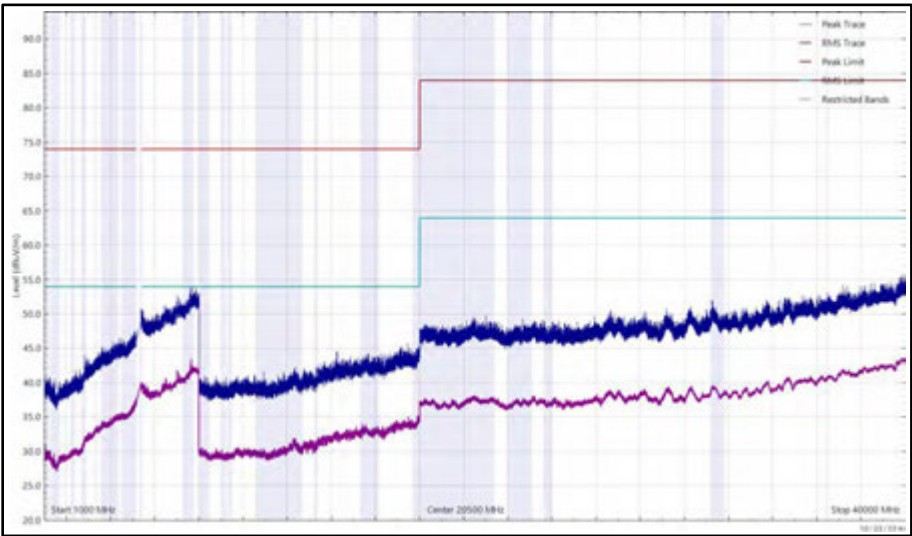


Figure 724 - U-NII-2A - 5320 MHz (CH64), 802.11a, Core 1, 1 GHz to 40 GHz, Horizontal

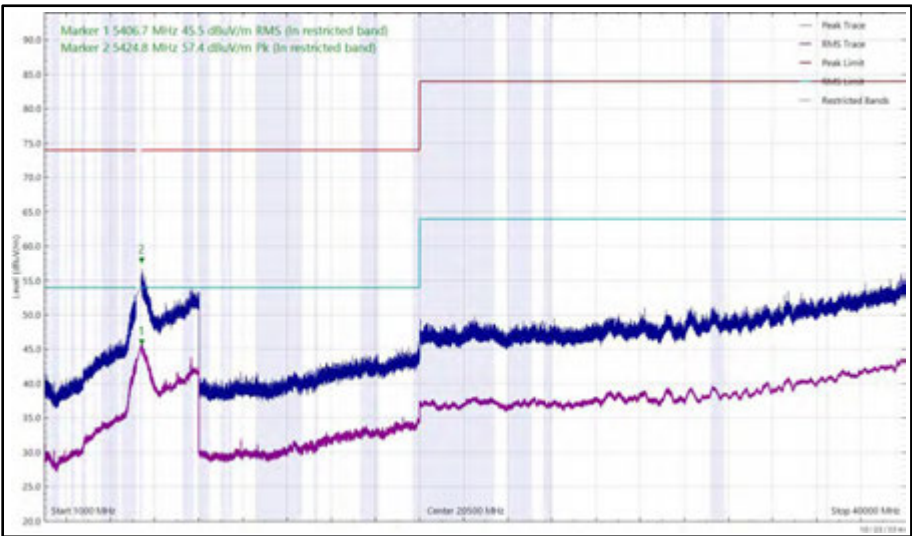


Figure 725 - U-NII-2A - 5320 MHz (CH64), 802.11a, Core 1, 1 GHz to 40 GHz, Vertical



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

Table 774 - U-NII-2C - 5500 MHz (CH100), 802.11a, Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

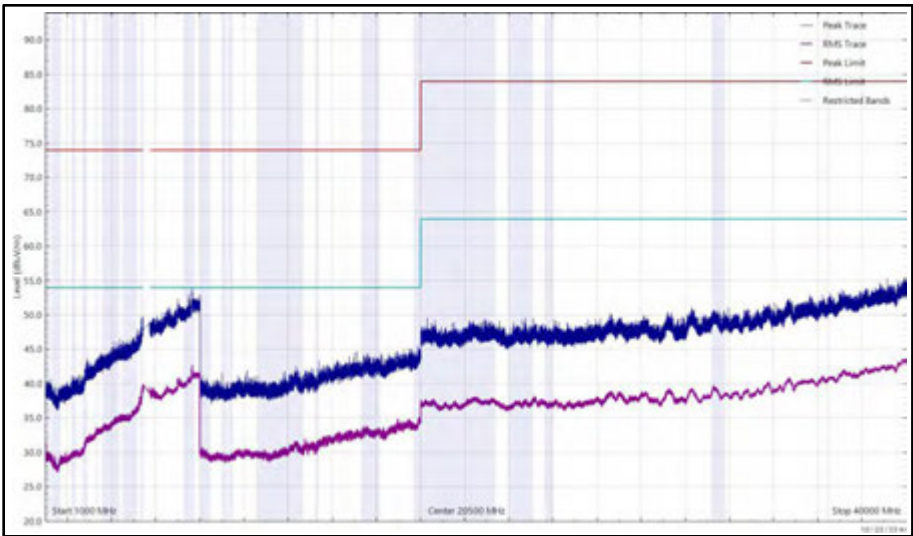


Figure 726 - U-NII-2C - 5500 MHz (CH100), 802.11a, Core 1, 1 GHz to 40 GHz, Horizontal

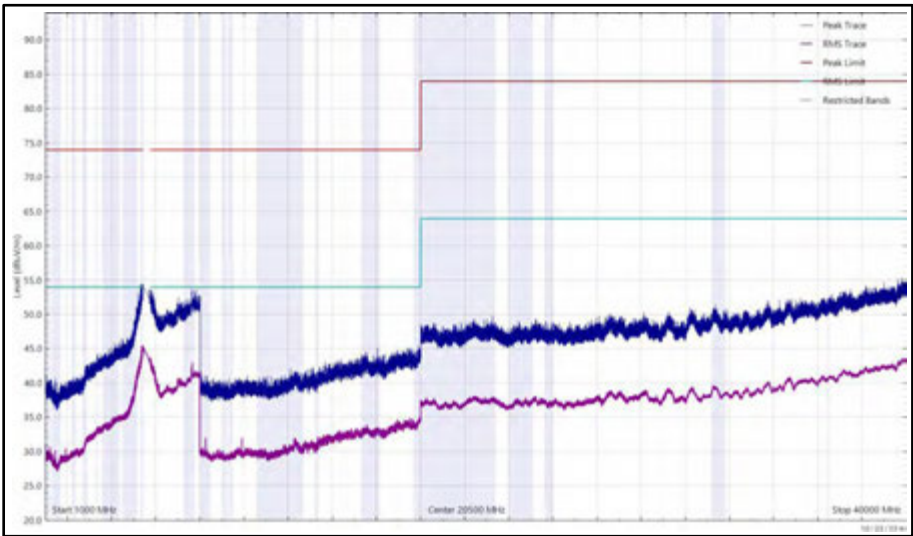


Figure 727 - U-NII-2C - 5500 MHz (CH100), 802.11a, Core 1, 1 GHz to 40 GHz, Vertical



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

Table 775 - U-NII-2C - 5700 MHz (CH140), 802.11a, Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

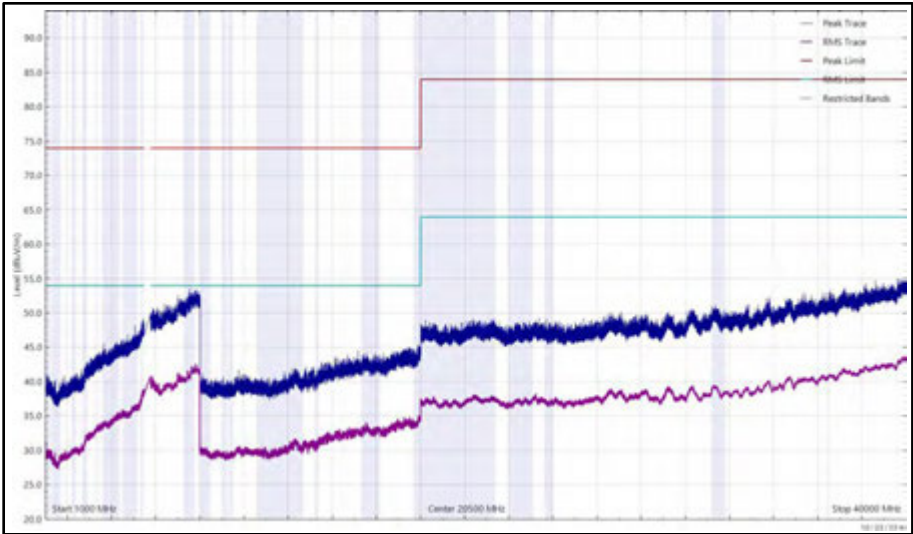


Figure 728 - U-NII-2C - 5700 MHz (CH140), 802.11a, Core 1, 1 GHz to 40 GHz, Horizontal

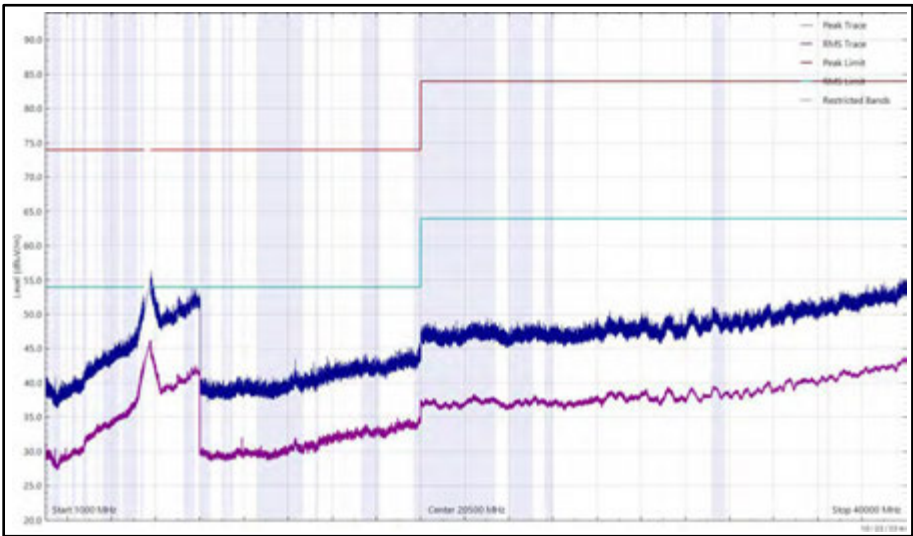


Figure 729 - U-NII-2C - 5700 MHz (CH140), 802.11a, Core 1, 1 GHz to 40 GHz, Vertical



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
7634.335	54.15	74.00	-19.85	Peak	118	395	Horizontal

Table 776 - U-NII-3 - 5745 MHz (CH149), 802.11a, Core 1, 1 GHz to 40 GHz

No other emissions found within 10 dB of the limit.

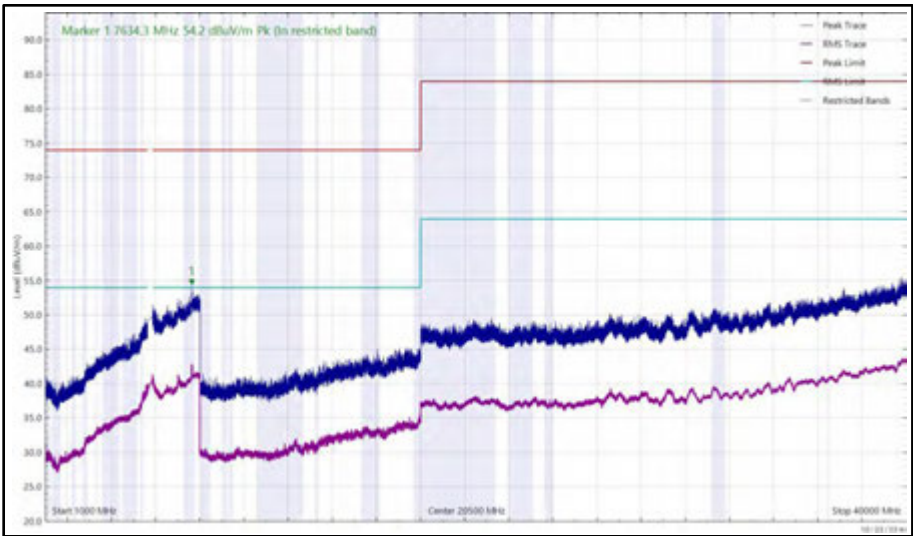


Figure 730 - U-NII-3 - 5745 MHz (CH149), 802.11a, Core 1, 1 GHz to 40 GHz, Horizontal

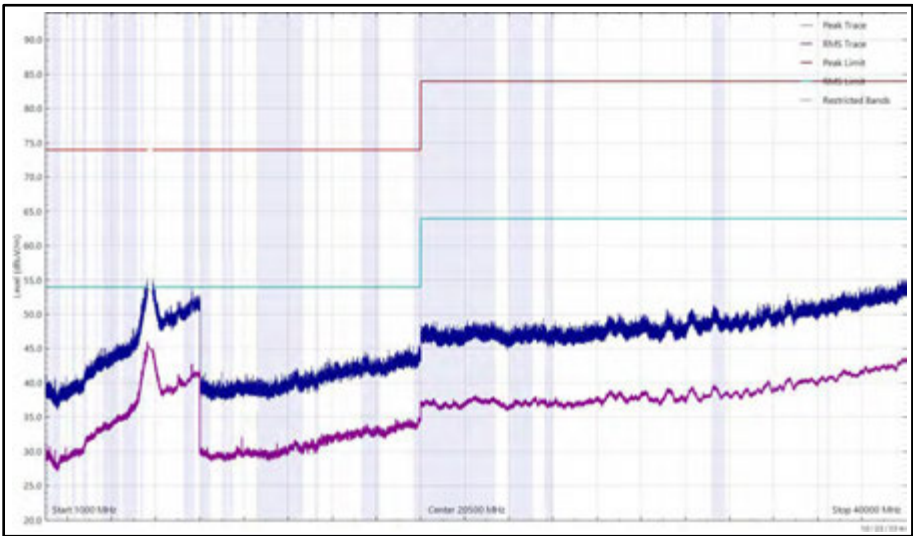


Figure 731 - U-NII-3 - 5745 MHz (CH149), 802.11a, Core 1, 1 GHz to 40 GHz, Vertical



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

Table 777 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

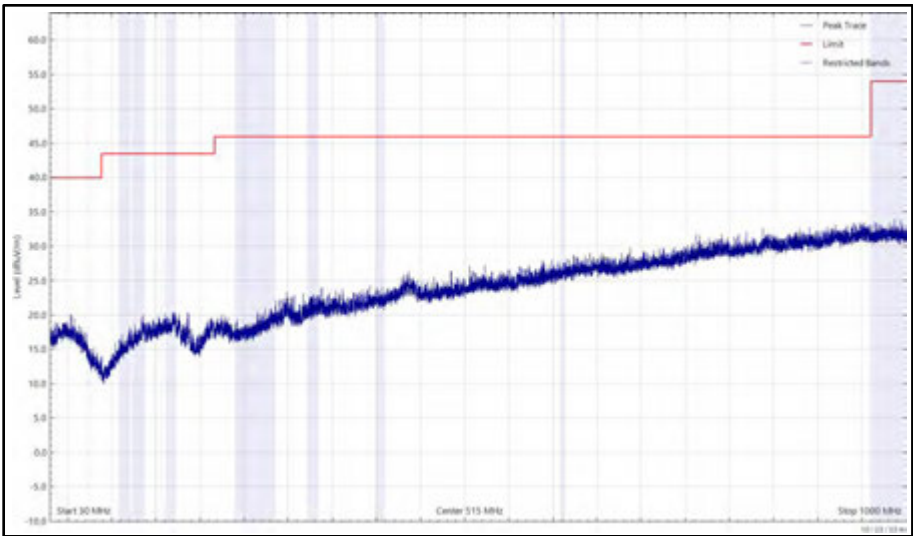


Figure 732 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

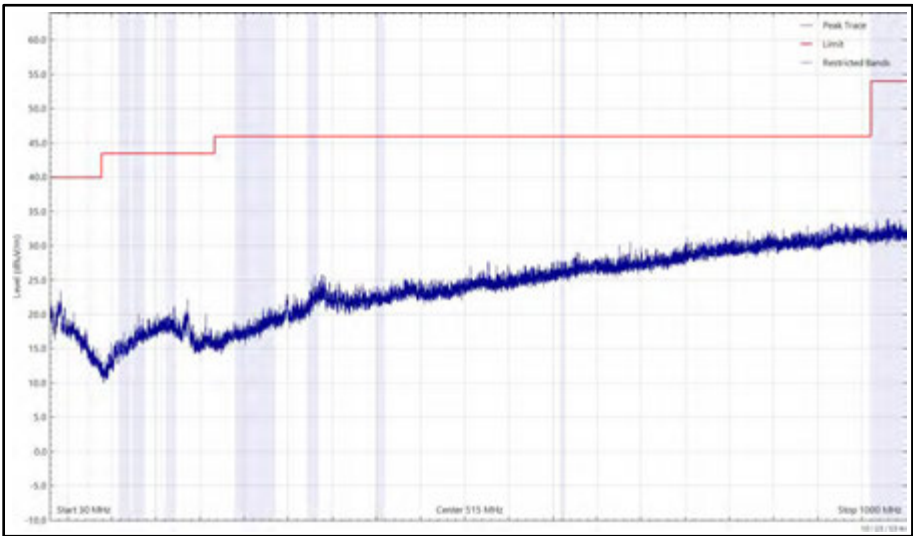


Figure 733 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 1, 30 MHz to 1 GHz, Vertical (Peak)

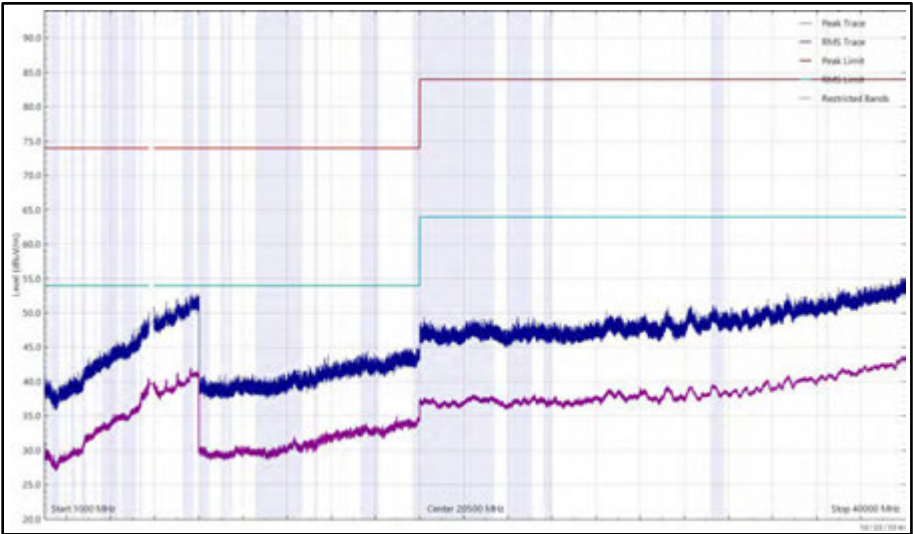


Figure 734 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 1, 1 GHz to 40 GHz, Horizontal

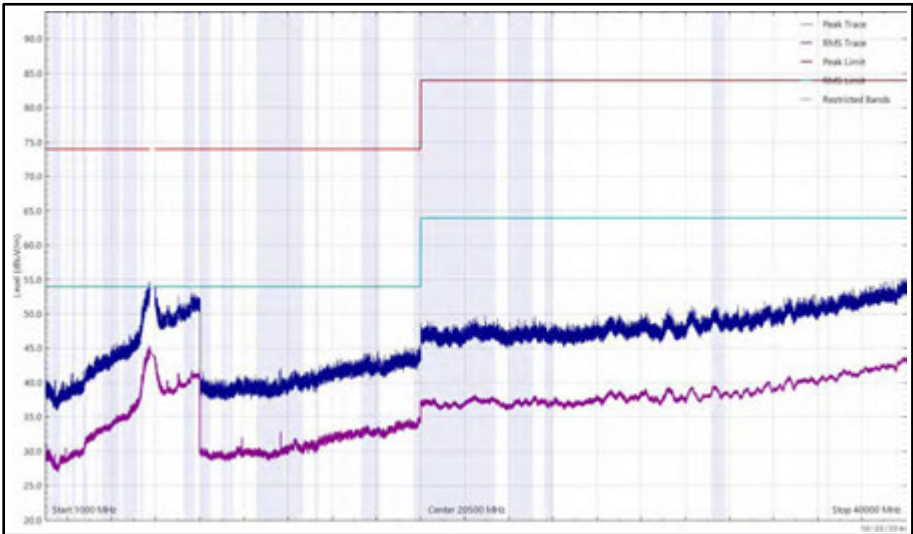


Figure 735 - U-NII-3 - 5825 MHz (CH165), 802.11a, Core 1, 1 GHz to 40 GHz, Vertical



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
5087.453	46.34	54.00	-7.66	RMS	343	288	Vertical

Table 778 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 10 dB of the limit.

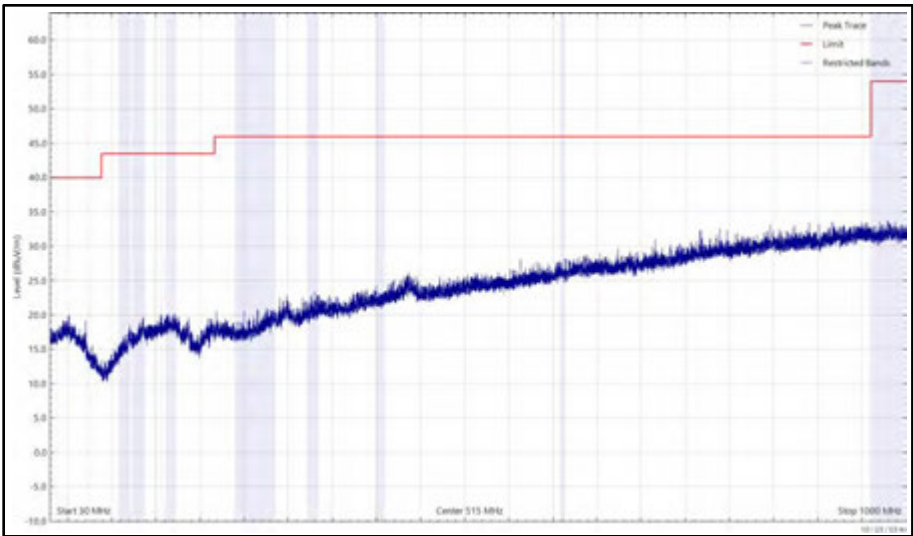


Figure 736 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

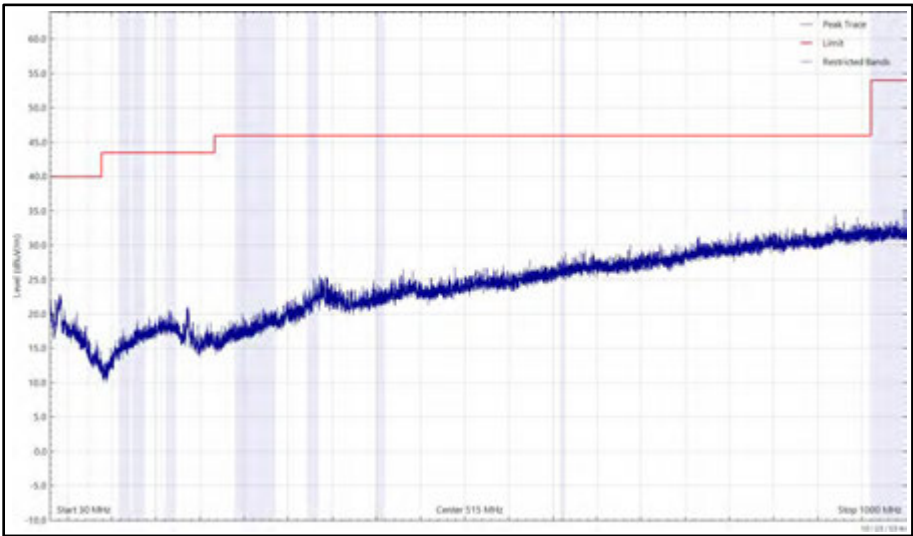


Figure 737 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

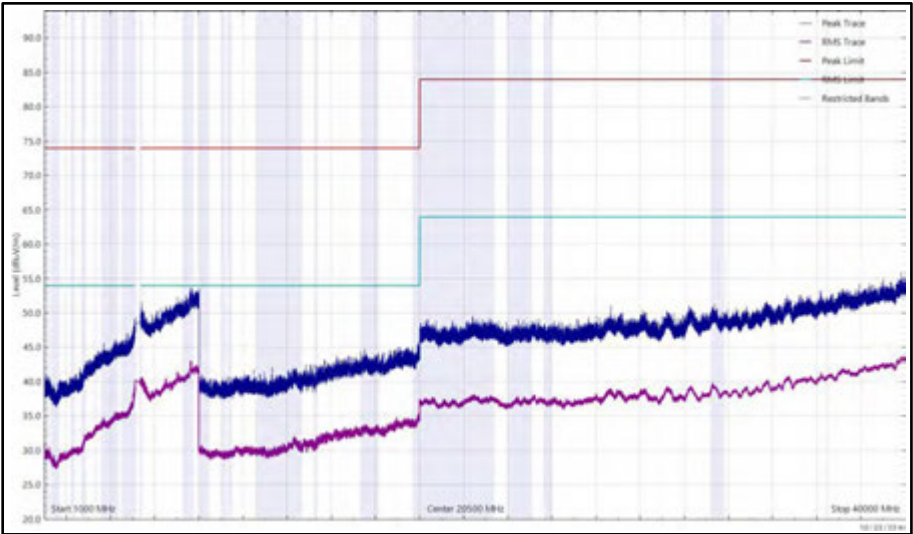


Figure 738 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

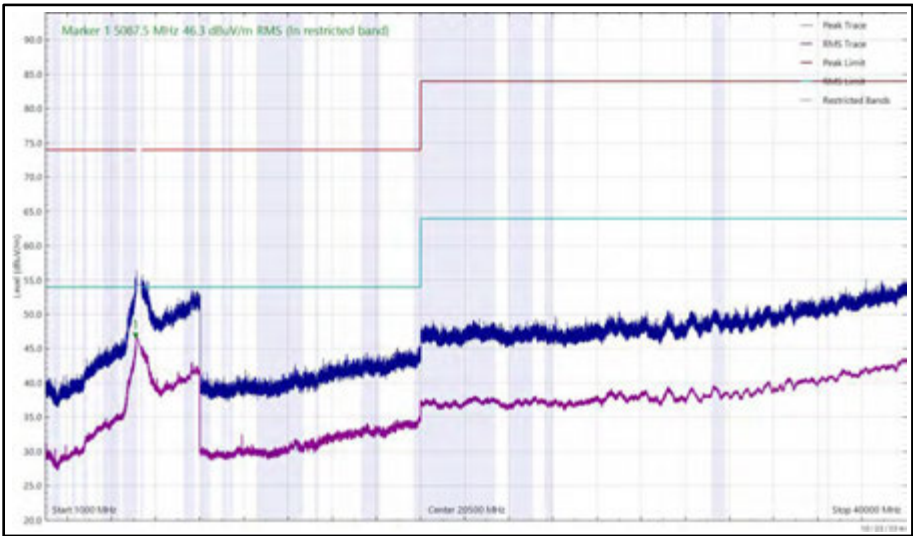


Figure 739 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 779 - U-NII-2A - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

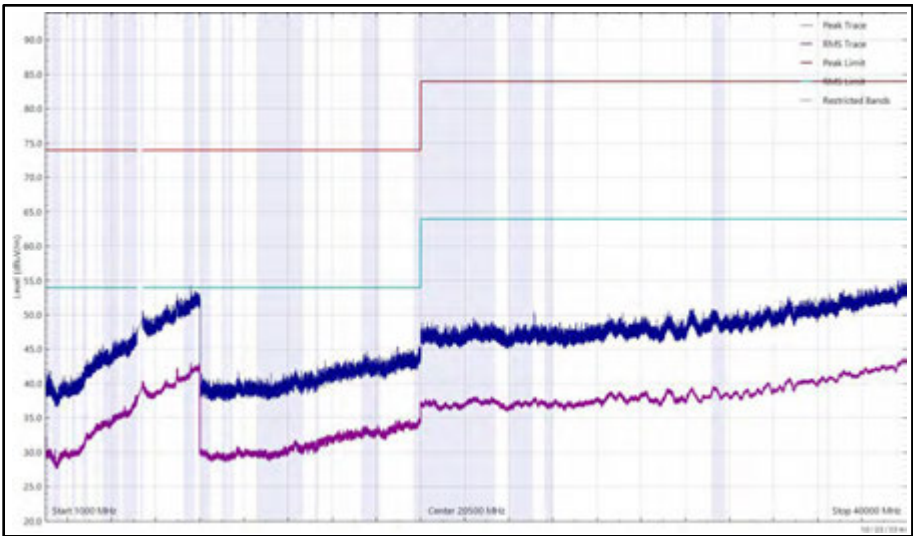


Figure 740 - U-NII-2A - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

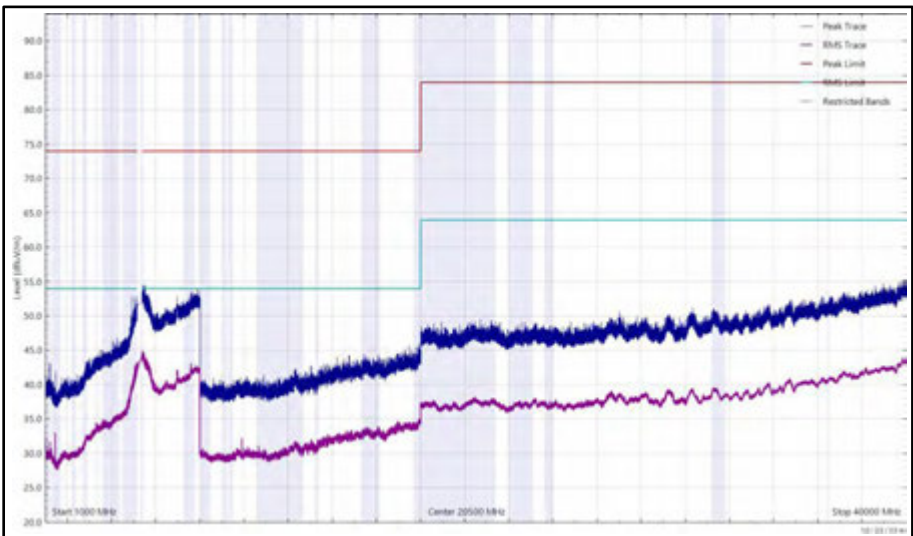


Figure 741 - U-NII-2A - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 780 - U-NII-2C - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

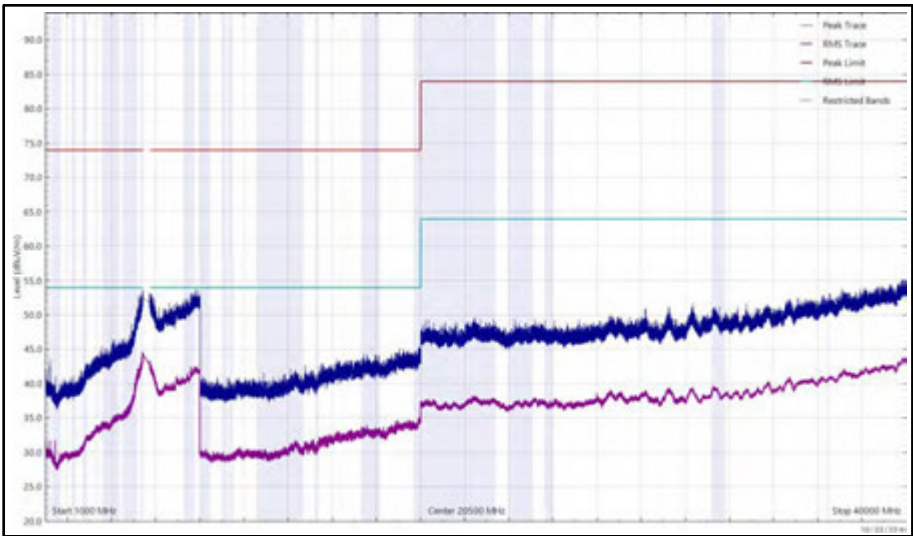


Figure 742 - U-NII-2C - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

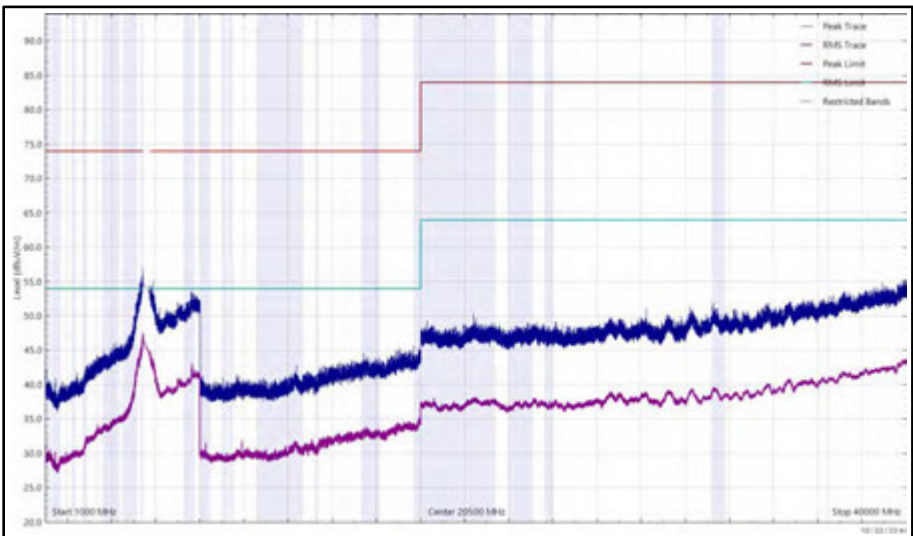


Figure 743 - U-NII-2C - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 781 - U-NII-2C - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

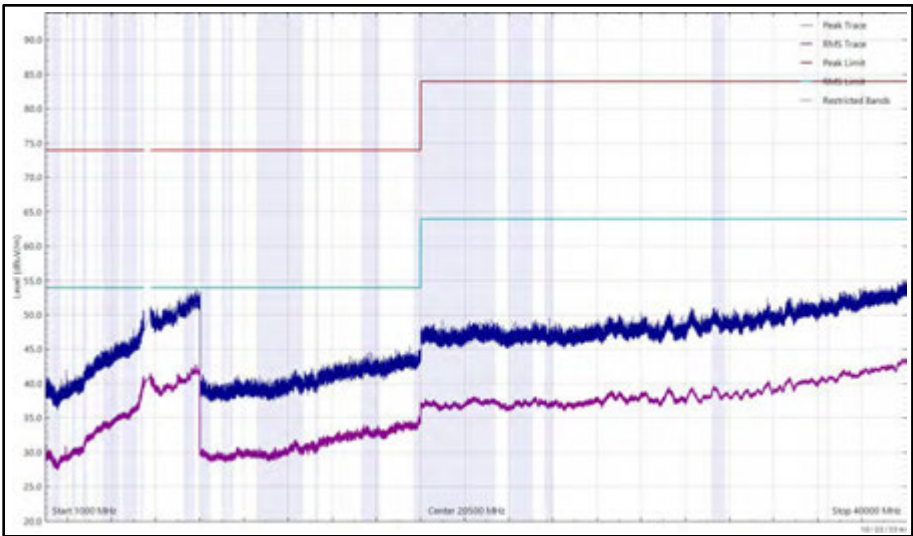


Figure 744 - U-NII-2C - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

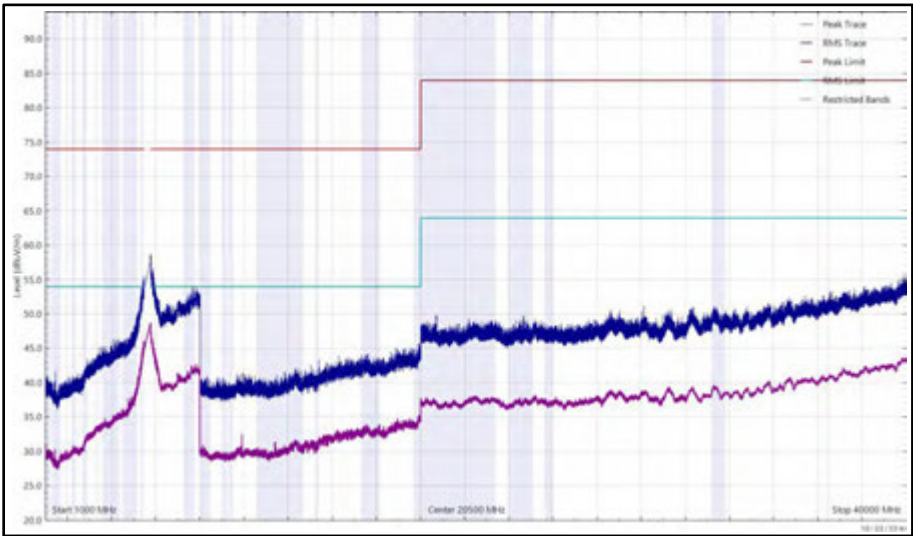


Figure 745 - U-NII-2C - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 782 - U-NII-3 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

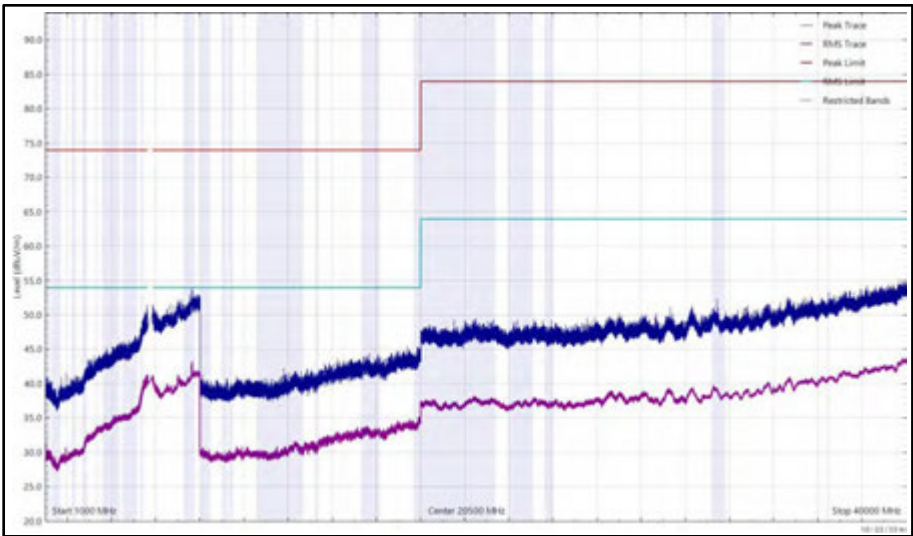


Figure 746 - U-NII-3 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

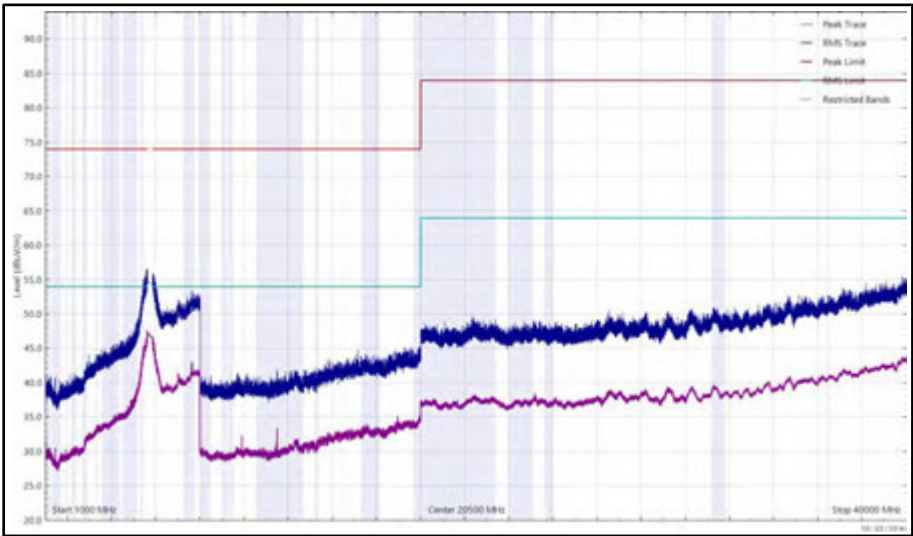


Figure 747 - U-NII-3 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 783 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

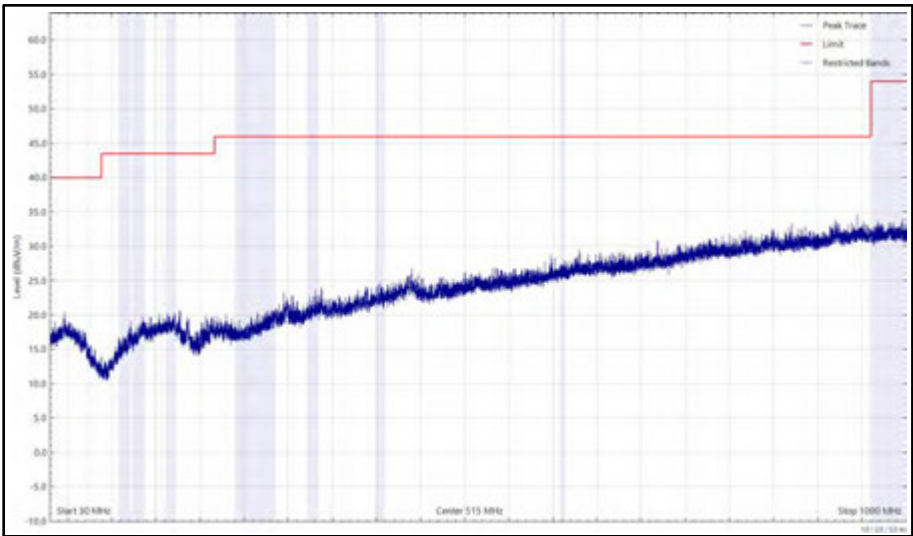


Figure 748 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

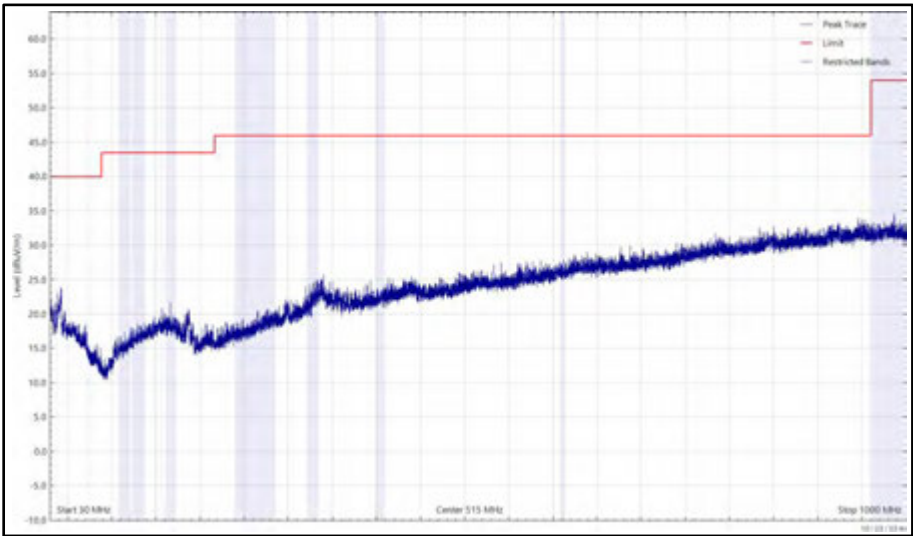


Figure 749 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

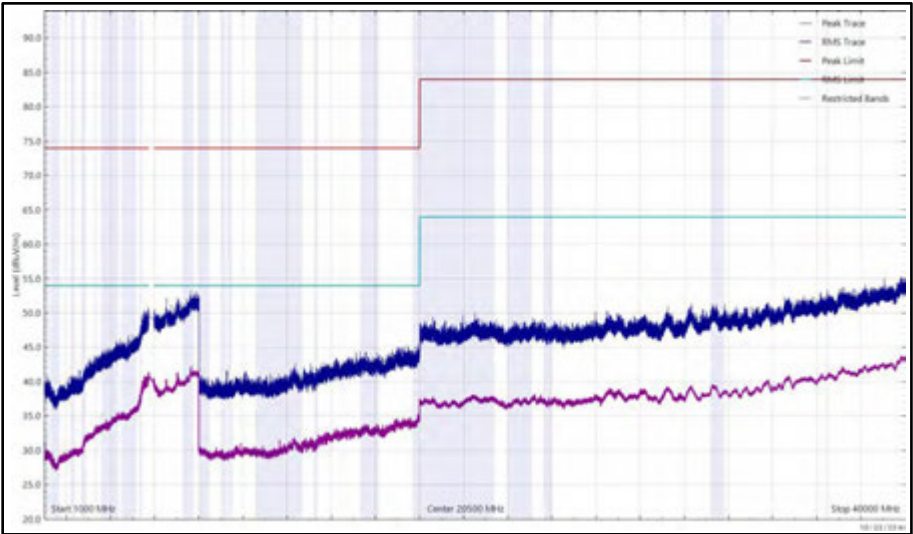


Figure 750 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

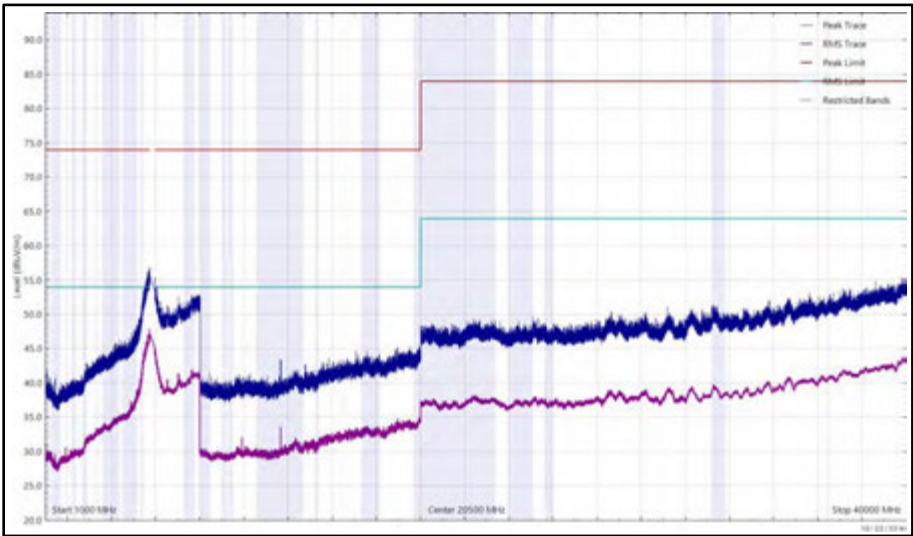


Figure 751 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 784 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

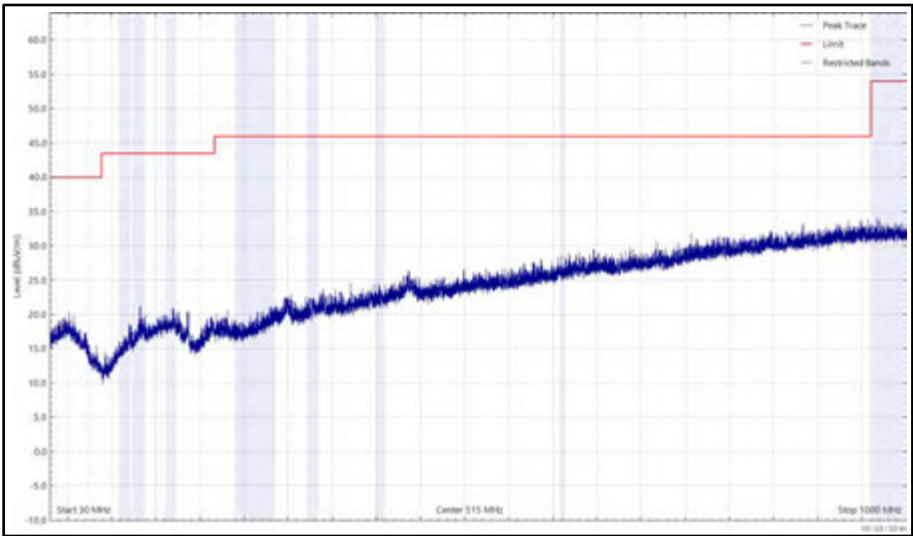


Figure 752 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

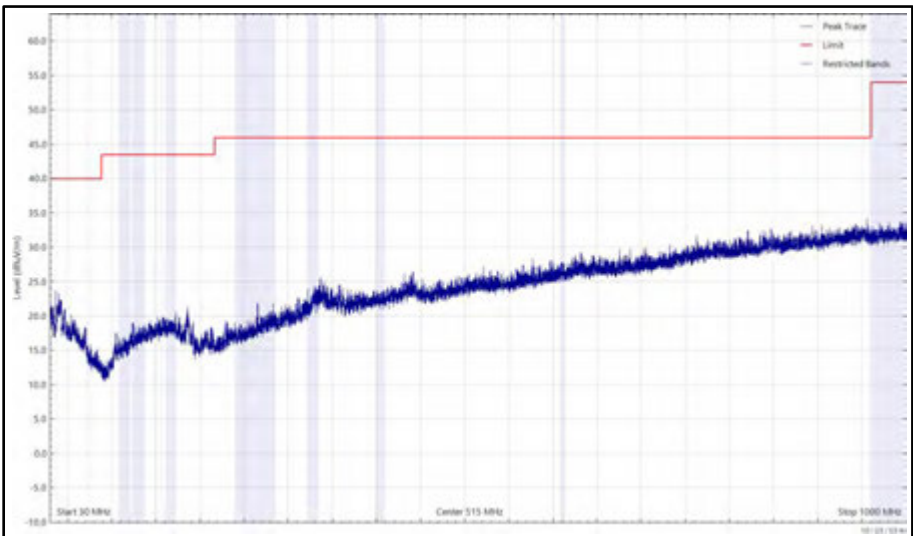


Figure 753 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

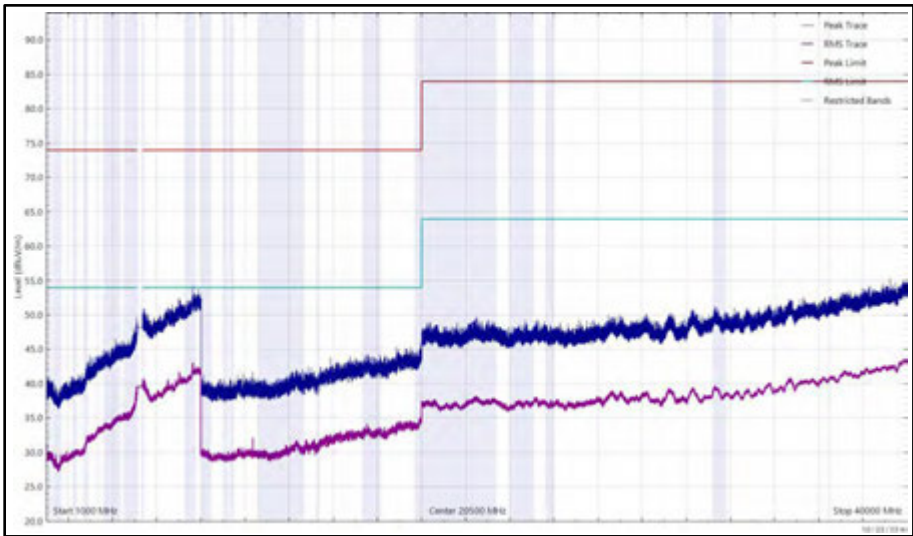


Figure 754 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

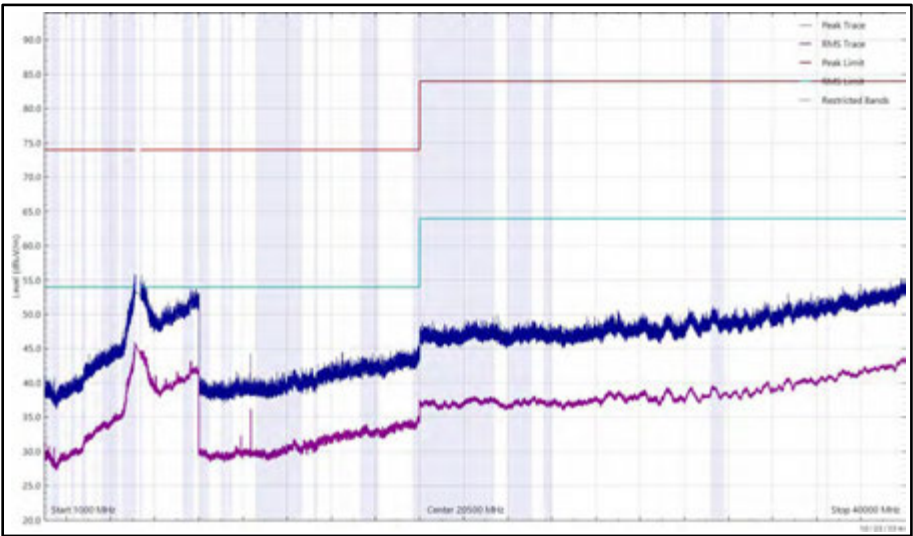


Figure 755 - U-NII-1 - 5180 MHz (CH36), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 785 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

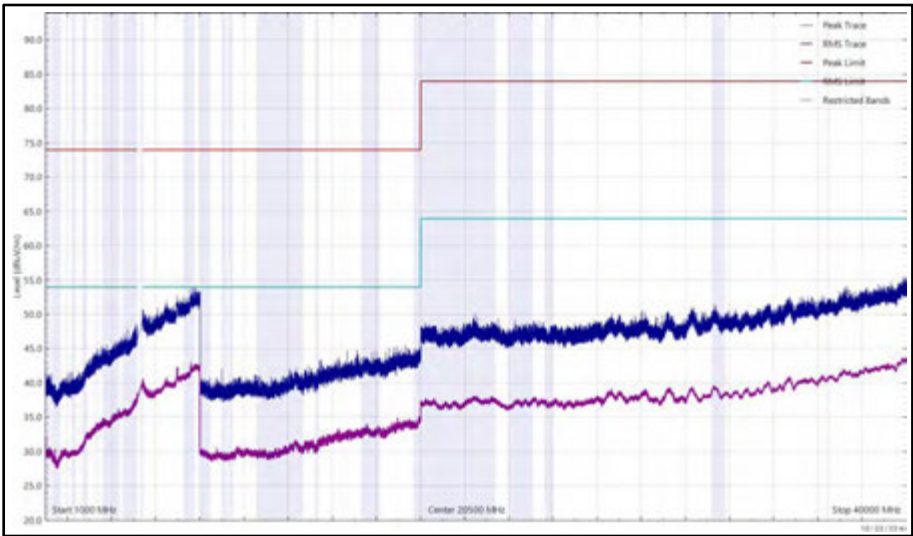


Figure 756 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

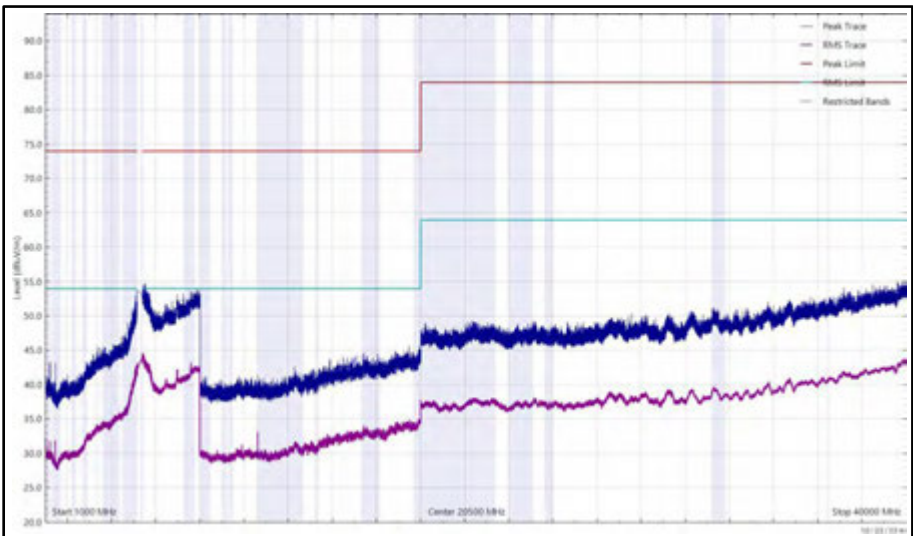


Figure 757 - U-NII-2A - 5320 MHz (CH64), HE20, RU52-37, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 786 - U-NII-2C - 5500 MHz (CH100), HE20, RU52-37, CDD, Core 0 + Core 1,
1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

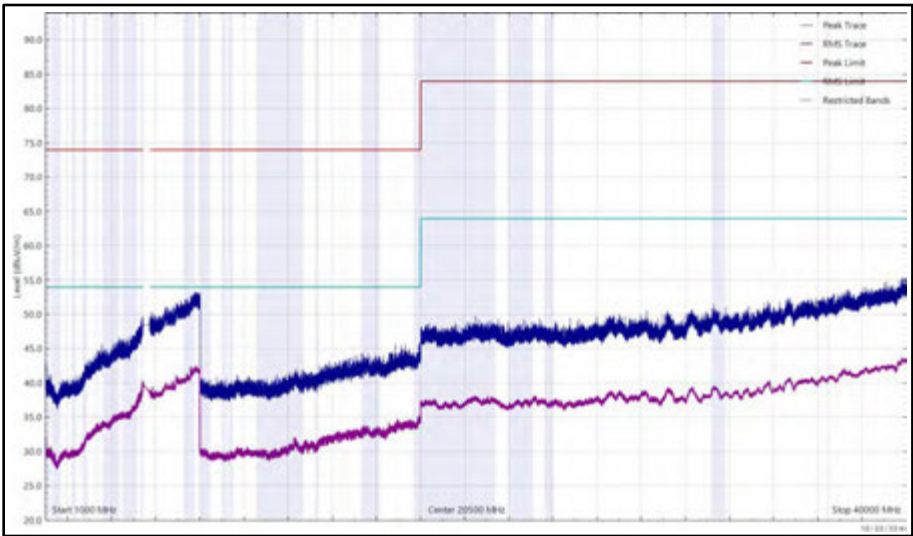


Figure 758 - U-NII-2C - 5500 MHz (CH100), HE20, RU52-37, CDD, Core 0 + Core 1,
1 GHz to 40 GHz, Horizontal

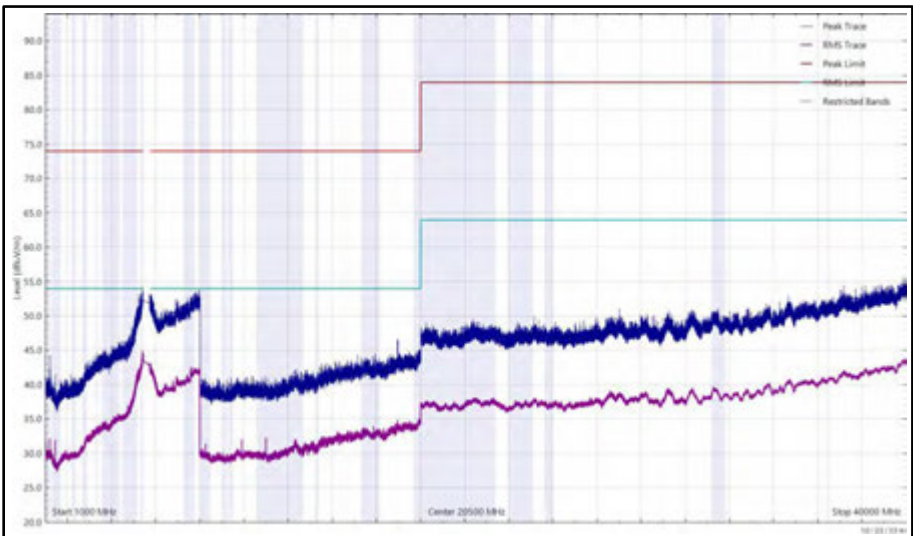


Figure 759 - U-NII-2C - 5500 MHz (CH100), HE20, RU52-37, CDD, Core 0 + Core 1,
1 GHz to 40 GHz, Vertical



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

Table 787 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1,
1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

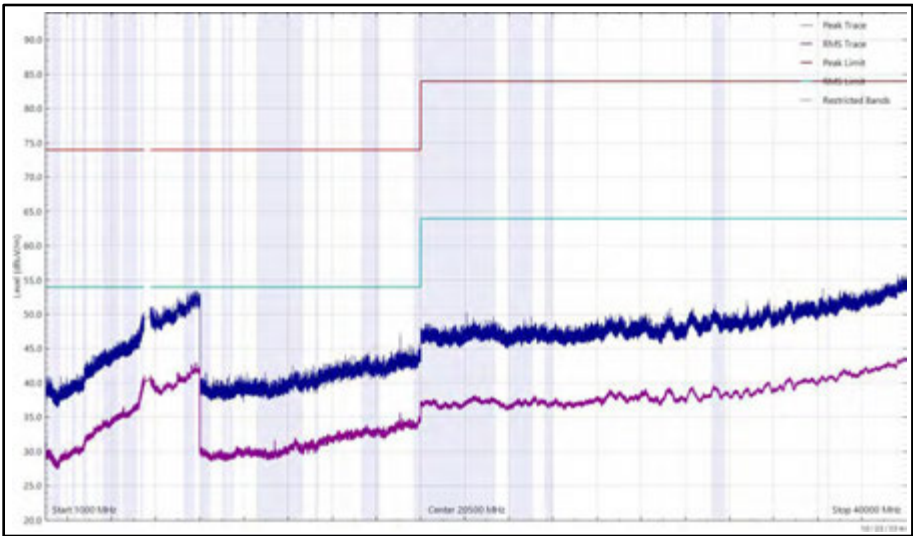


Figure 760 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1,
1 GHz to 40 GHz, Horizontal

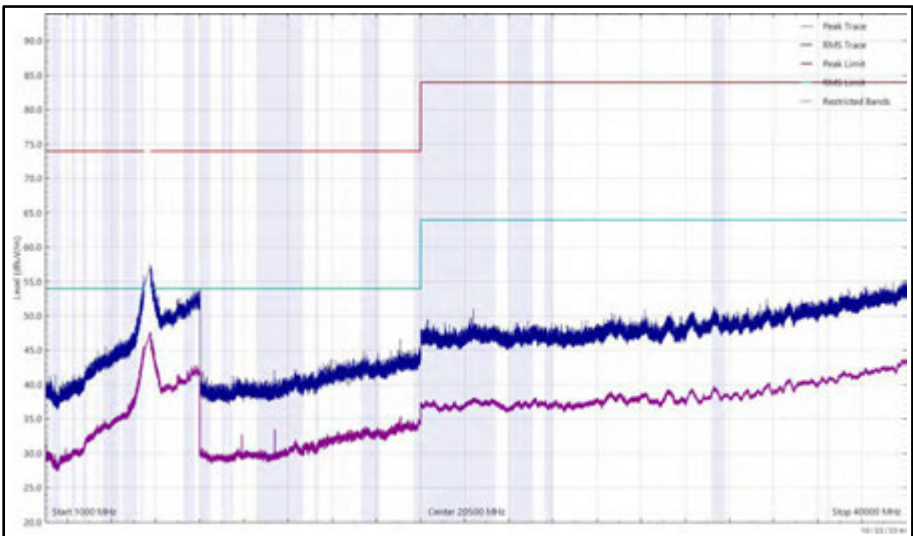


Figure 761 - U-NII-2C - 5700 MHz (CH140), HE20, RU52-37, CDD, Core 0 + Core 1,
1 GHz to 40 GHz, Vertical



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

Table 788 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 10 dB of the limit.

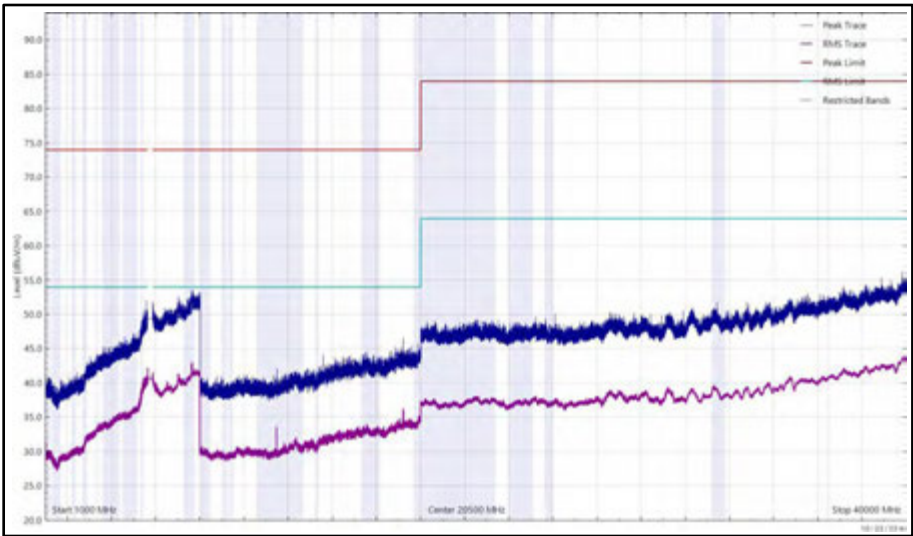


Figure 762 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

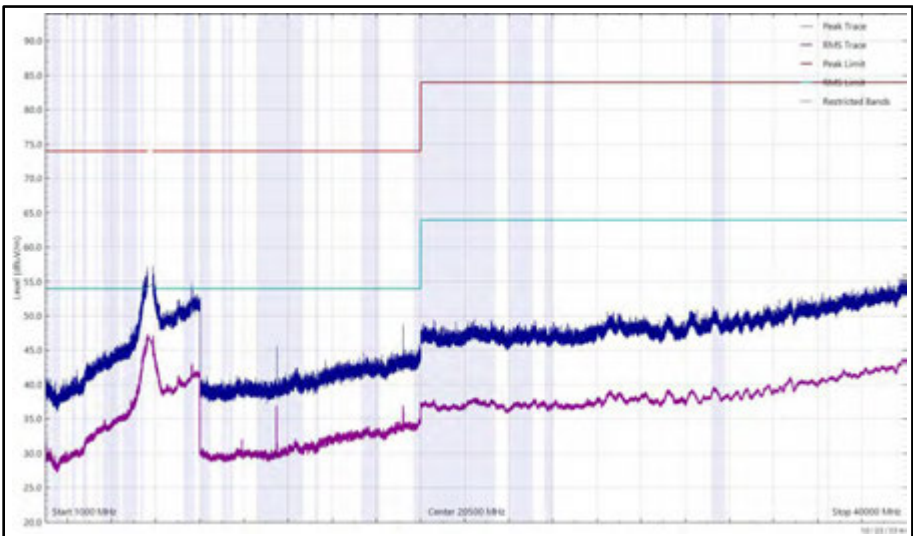


Figure 763 - U-NII-3 - 5745 MHz (CH149), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 789 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

*No emissions found within 10 dB of the limit.

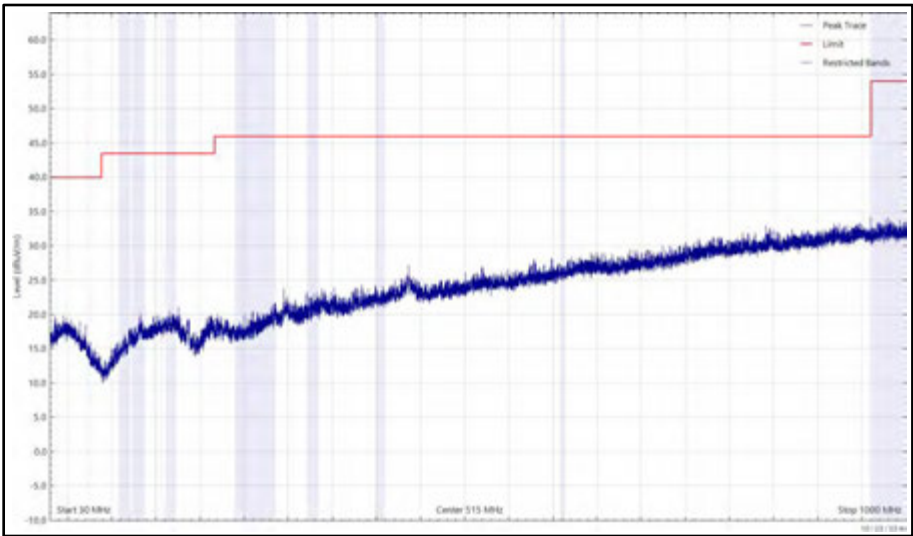


Figure 764 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

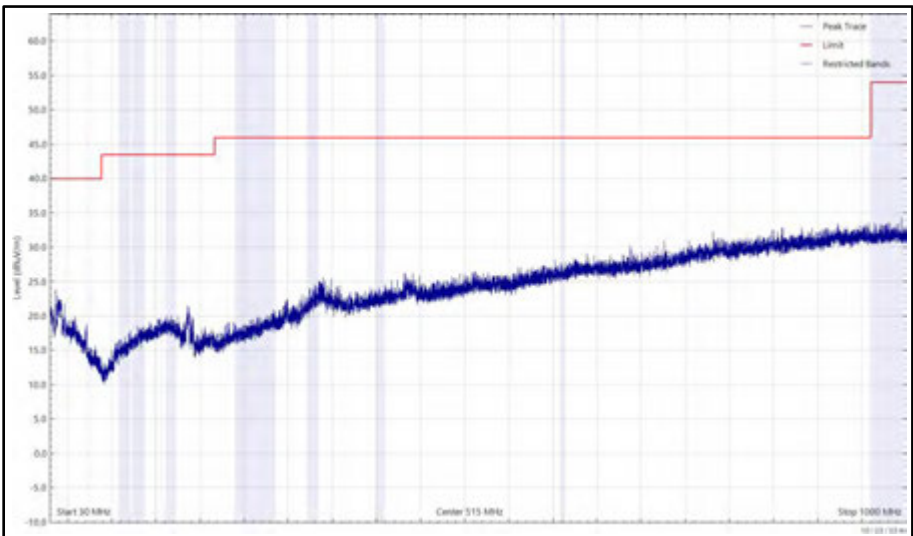


Figure 765 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

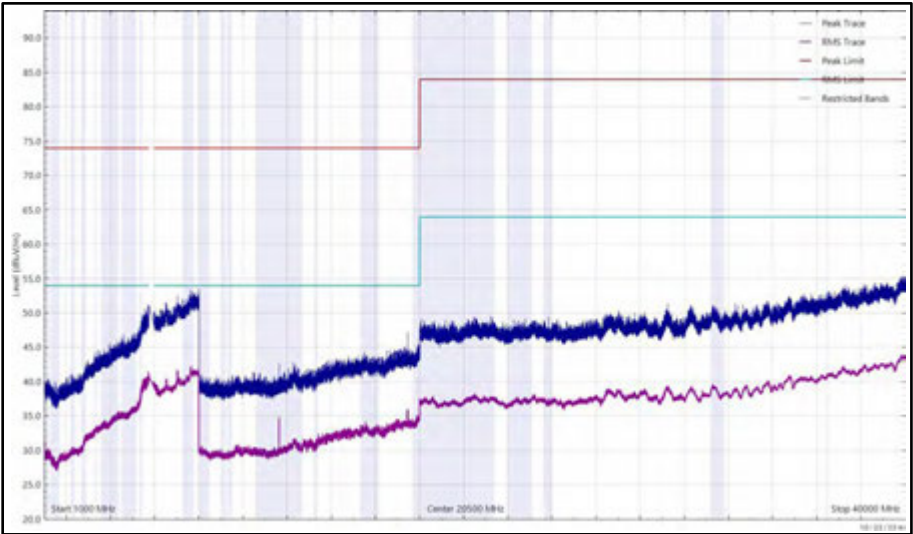


Figure 766 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

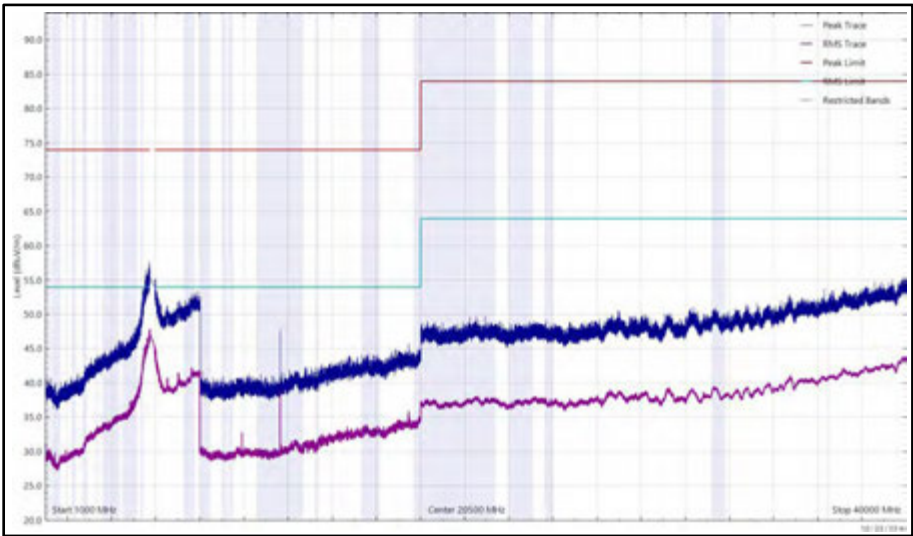


Figure 767 - U-NII-3 - 5825 MHz (CH165), HE20, RU26-0, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Emissions not falling within the restricted bands listed in FCC 47 CFR Part 15.209:

For transmitters operating in the 5.15-5.25 GHz band: ≤ -27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.25-5.35 GHz band: ≤ -27 dBm/MHz outside 5150-5350 MHz.

For transmitters operating in the 5.47-5.725 GHz band: ≤ -27 dBm/MHz outside 5470-5725 MHz

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Emissions within the restricted bands listed in FCC 47 CFR Part 15.209:

Frequency (MHz)	Field Strength (μ V/m) at 3m	Field Strength Limit (dB μ 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 790 - Radiated Emissions Limit Table (FCC)



ISED RSS-247, Limit Clause 6.2.1.2, 6.2.2.2, 6.2.3.2 and 6.2.4.2 and ISED RSS-GEN, Limit Clause 8.9

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

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB.

For transmitters with operating frequencies in the bands 5250-5350 MHz and 5470-5725 MHz, all emissions outside the band 5250-5350 MHz and 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

Devices operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

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 791 - Radiated Emissions Limit Table (ISED)



2.6.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 14, RF Chamber 15 and RF Chamber 16.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (18 GHz)	Rosenberger	LU7-071-1000	5096	12	24-Oct-2024
Emissions Software	TUV SUD	EmX V3.1.12	5125	-	Software
Attenuator 5W 10dB DC-18GHz	Aaren	AT40A-4041-D18-10	5495	12	13-Oct-2023*
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5516	12	23-Oct-2023
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	5516	12	24-Oct-2024
EMI Test Receiver	Rohde & Schwarz	ESW44	5911	12	05-May-2024
Test Receiver	Rohde & Schwarz	ESW44	5914	12	24-Feb-2024
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5940	12	09-Jul-2024
TRILOG Super Broadband Test Antenna	Schwarzbeck	VULB 9168	5944	24	03-Feb-2024
1500W (300V 12A) AC Power Supply	iTech	IT7324	5955	-	O/P Mon
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
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
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	5996	12	05-Jun-2024



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Cable (N to N 1m)	Junkosha	MWX221-01000NMSNMS/B	5999	12	05-Jun-2024
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6003	12	05-Jun-2024
Cable (N to N 8m)	Junkosha	MWX221-08000NMSNMS/A	6006	12	05-Jun-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6007	12	05-Jun-2024
Cable (SMA to SMA 6.5m)	Junkosha	MWX221-06500AMSAMS/B	6014	12	24-Aug-2024
Cable (N to N 7m)	Junkosha	MWX221-07000NMSNMS/B	6016	12	05-Jun-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/A	6018	12	05-Jun-2024
Cable (SMA to SMA 1m)	Junkosha	MWX221-01000AMSAMS/B	6019	12	05-Jun-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6140	12	26-Aug-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6141	12	26-Aug-2024
Horn Antenna (1-10 GHz)	Schwarzbeck	BBHA9120B	6142	12	26-Aug-2024
Digital Multimeter	Fluke	115	6145	12	15-Jun-2024
Digital Multimeter	Fluke	115	6146	12	15-Jun-2024
Digital Multimeter	Fluke	115	6147	12	16-Jun-2024
Humidity & Temperature meter	R.S Components	1364	6148	12	21-Jul-2024
Humidity & Temperature meter	R.S Components	1364	6149	12	07-Jul-2024
Coaxial Fixed Attenuator DC-18GHz 5W 10dB	RF-Lambda	RFS5G18B10SMP	6177	12	24-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	6191	12	12-Dec-2023
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 4dB	Pasternack	PE7074-4	6203	24	16-Jul-2024
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 1m)	Junkosha	MWX221-01000AMSAMS/A	6315	12	04-Feb-2024
Cable (SMA to SMA 8m)	Junkosha	MWX221-08000AMSAMS/B	6318	12	04-Feb-2024
Cable (K Type 2m)	Junkosha	MWX241-02000KMSKMS/B	6323	12	04-Feb-2024
DRG Horn Antenna	Schwarzbeck	HWRD750	6458	12	09-Jul-2024



Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Humidity and Temperature Meter	R.S Components	1364	6486	12	18-Apr-2024
Pre Amp 1 - 26.5 GHz	Agilent Technologies	HP8449B	6570	12	09-Jun-2024
Pre Amp 1 - 26.5 GHz	Hewlett Packard	HP8449B	6571	12	09-Jun-2024
Coax cable sma to sma with N-Type adapter	TUV SUD	N/A	6637	12	24-Jul-2024

Table 792

TU - Traceability Unscheduled

O/P Mon - Output Monitored using calibrated equipment

*NOTE: Only used within its calibration period.



2.7 Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period

2.7.1 Specification Reference

FCC 47 CFR Part 15E, Clause 15.407 (h)(2)(iii)(iv)
ISED RSS-247, Clause 6.3.2(c)(d)(e)

2.7.2 Equipment Under Test and Modification State

A3113, S/N: QVVKQ44WGR - Modification State 0

2.7.3 Date of Test

24-October-2023

2.7.4 Test Method

This test was performed in accordance with FCC KDB 905462 D02, clause 7.8.3.

Radar Pulse Type 0 was then transmitted, and the Spectrum monitored. The transmissions from the UUT were observed for a period of 12 seconds after the final injected Radar Pulse.

It was checked that all transmissions stopped within the 10 second period defined from the point of the end of the final Radar pulse + 10 seconds. In addition, the aggregate on time during the first 200ms and the following 9.8 seconds of the Channel Move Time was computed.

The markers on the trace data correspond to the following time periods:

Yellow - End Of Radar Burst, (T0)

Purple - End Of Channel Move Time, (T0 + 10 seconds)

To verify the non-occupancy period, the external trigger was used to trigger a 30-minute sweep from the moment the radar burst sequence was injected. It was verified that no transmissions occurred on the test channel during this time period.

As per the customer instructions and supplied client device, the testing was performed using an 80 MHz channel, despite the EUT supporting 160 MHz. KDB 905462 D02 requires the widest operational bandwidth to be tested, however 80 MHz was tested due to the required second device the customer supplied being limited to 80 MHz channels.

2.7.5 Environmental Conditions

Ambient Temperature	22.7 °C
Relative Humidity	49.8 %



2.7.6 Test Results

5 GHz WLAN - Master to Client - 802.11ac VHT160

The equipment was set up as shown in the diagram below. The test laptop was configured to run iPerf, transmitting UDP data to the EUT via the DFS Master. The channel loading was set to >17% by adjusting the bandwidth specified in the iPerf UDP transfer.

To calibrate the level of the radar at the input to the companion device, the companion device was replaced by the spectrum analyser and the output of the vector signal generator adjusted to give -62 dBm.

Radar Type	Pulse Width (µs)	PRI (µs)	Number of Pulses
0	1	1428	18

Table 793 - Radar Pulse Type 0 Characteristics

Manufacturer	Model	Serial Number	FCC ID
ASUS	GT-AXE11000	M8IG0X400285XVN	MSQ-RTAXJF00

Table 794 - Details of Master Device used to support testing

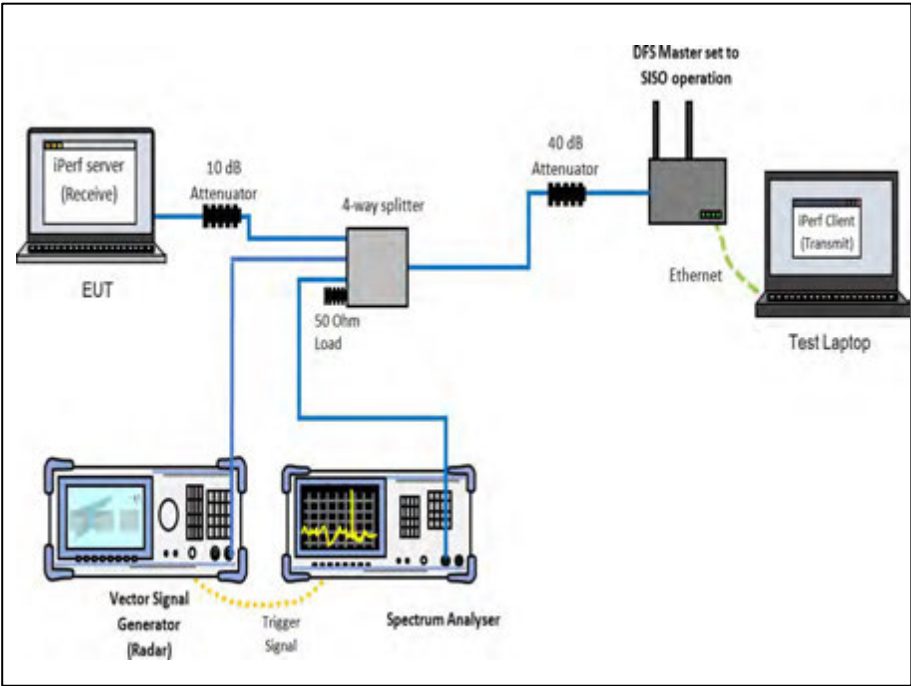


Figure 768 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master



Figure 769 - Verification of Radar Type 0

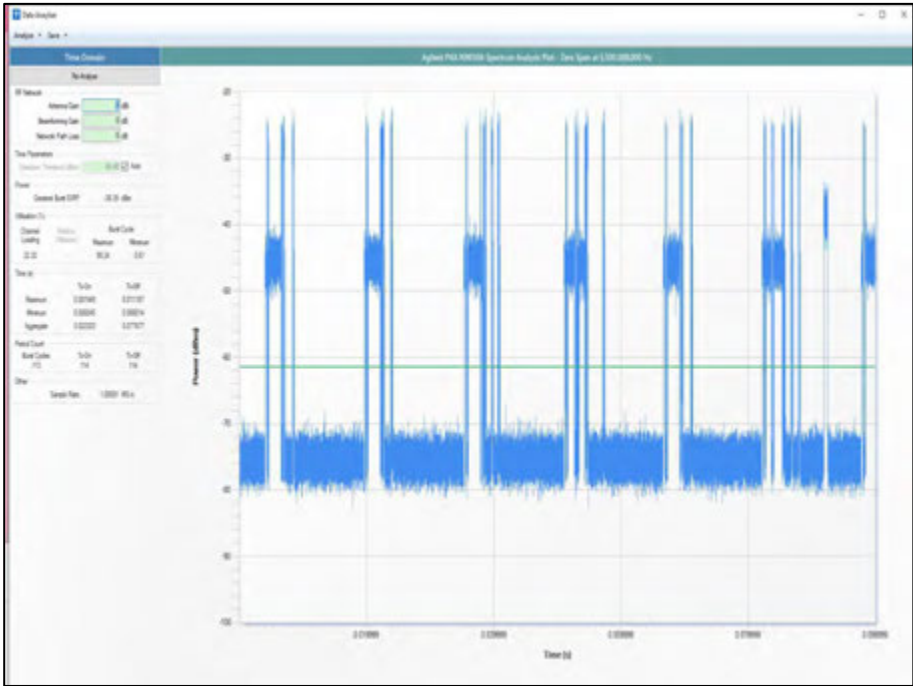


Figure 770 - Channel Loading

The channel loading was 22.32%



Maximum Transmit Power	Value (Notes 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.	
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

Table 795 - DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Test Parameter	Result
Test Channel	CH114 (5570 MHz), Control CH100 (5500 MHz)
Channel Move Time	0.002
Channel Closing Time (Aggregate Time During 200 ms)	0.840
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	0.000
Channel Closing Time (Aggregate Time During 10 s)	0.840
Transmission Observed During Non-Occupancy Period	No

Table 796 - In-Service Monitoring Test Results

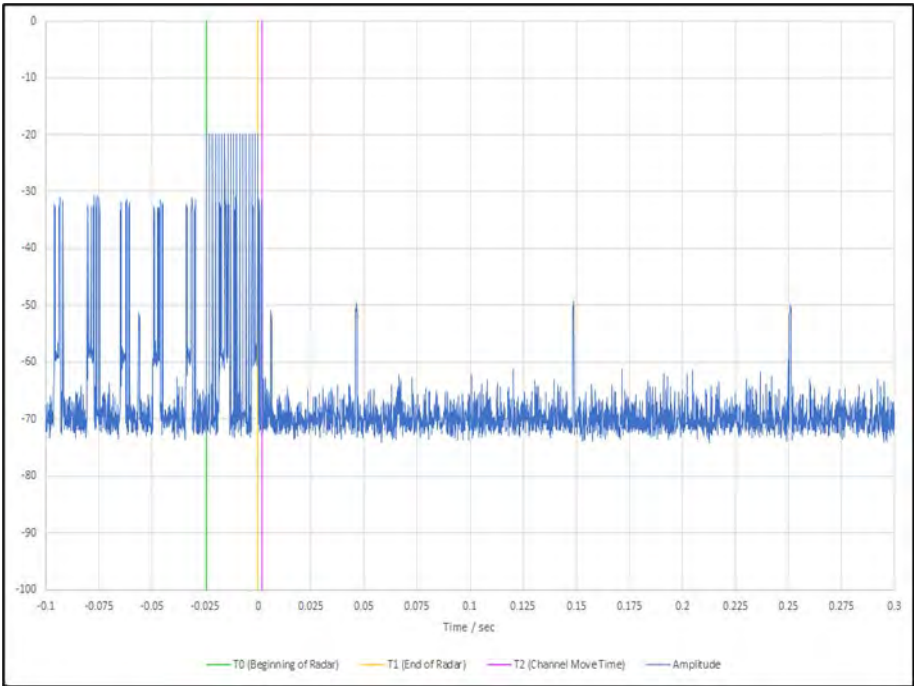


Figure 771 - First 200 ms of Channel Shutdown Period

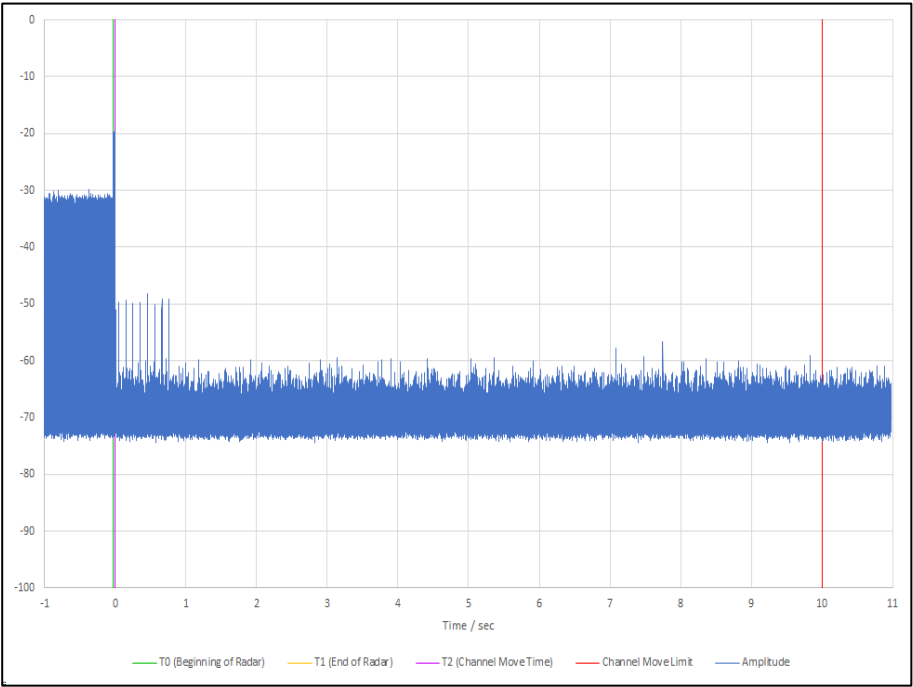


Figure 772 - First 12 s of Channel Shutdown Period



Figure 773 - 30 minute Non-Occupancy Period



5 GHz WLAN - Client to Client - 802.11ac VHT80

The equipment was set up as shown in the diagram below. The EUT and a 2nd client device were both connected to the DFS Master device. The 2nd client device was set to stream video directly to the EUT using the AirPlay protocol, while under the supervision of the DFS master (but without the DFS master re-transmitting the data packets). The channel loading was checked to ensure it was >17%.

To calibrate the level of the radar at the input to the DFS Master, the DFS Master device was replaced by the spectrum analyser and the output of the vector signal generator adjusted to give - 62 dBm.

Radar Type	Pulse Width (µs)	PRI (µs)	Number of Pulses
0	1	1428	18

Table 797 - Radar Pulse Type 0 Characteristics

Manufacturer	Model	Serial Number	FCC ID
ASUS	GT-AXE11000	M8IG0X400285XVN	MSQ-RTAXJF00

Table 798 - Details of Master Device used to support testing

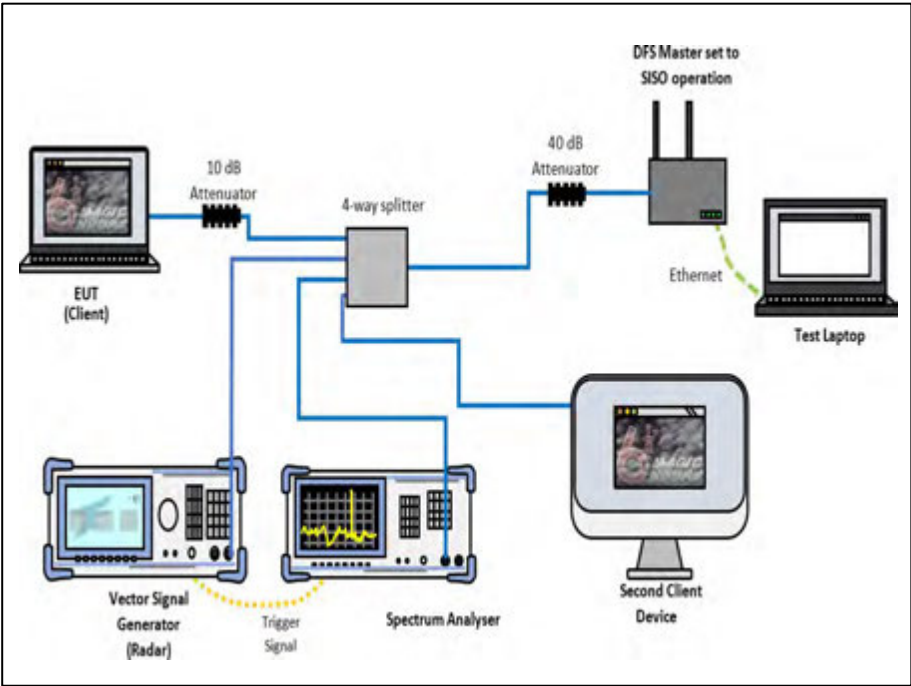


Figure 774 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master



Figure 775 - Verification of Radar Type 0

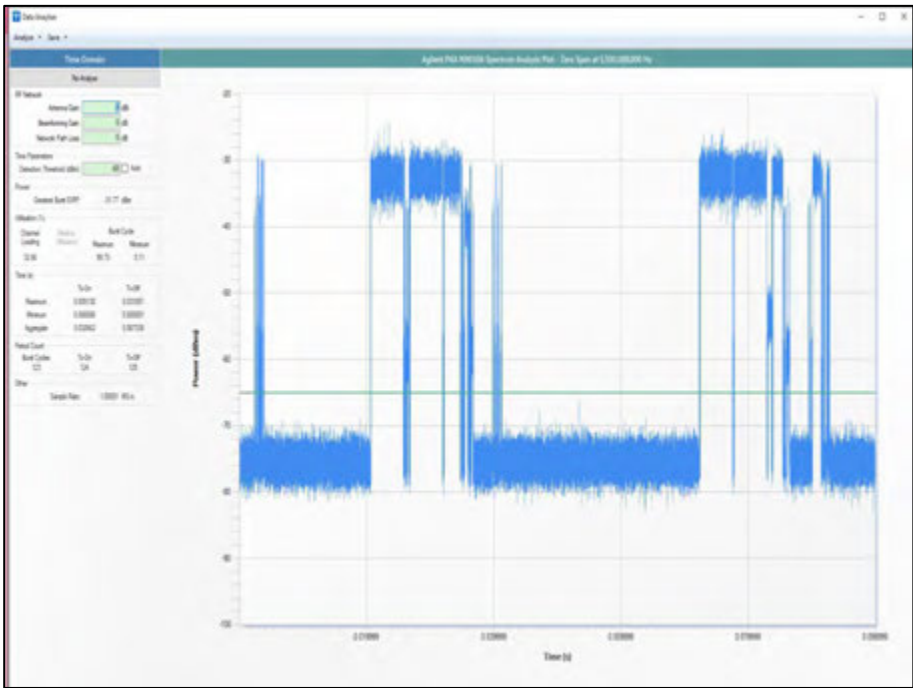


Figure 776 - Channel Loading

The channel loading was 32.66%



Maximum Transmit Power	Value (Notes 1 and 2)
≥ 200 milliwatt	-64 dBm
< 200 milliwatt	-62 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.	
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.	

Table 799 - DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Test Parameter	Result
Test Channel	CH106 (5530 MHz), Control CH100 (5500 MHz)
Channel Move Time	0.080 s
Channel Closing Time (Aggregate Time During 200 ms)	32.520 ms
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	0.000 ms
Channel Closing Time (Aggregate Time During 10 s)	32.520 ms
Transmission Observed During Non-Occupancy Period	No

Table 800 - In-Service Monitoring Test Results

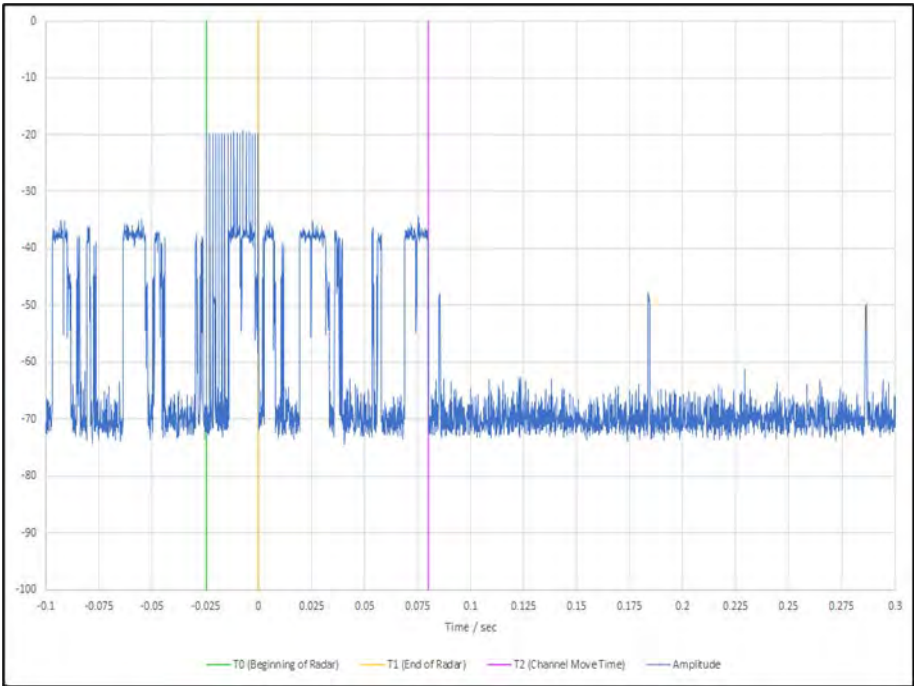


Figure 777 - First 200 ms of Channel Shutdown Period

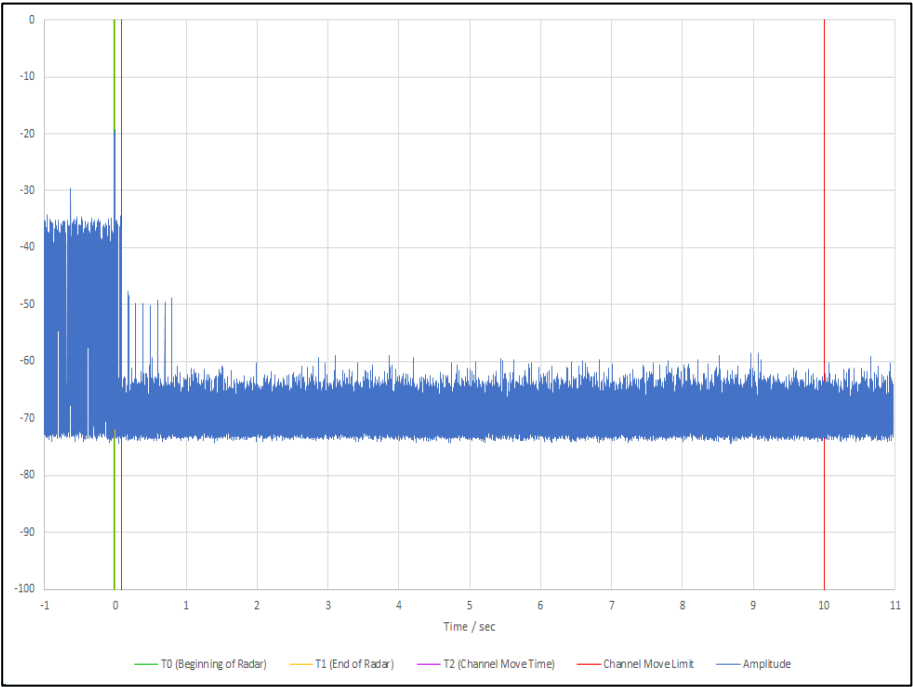


Figure 778 - First 12 s of Channel Shutdown Period



Figure 779 - 30 minute Non-Occupancy Period



FCC 47 CFR Part 15, Limit Clause 15.407 (h)(2)(iii)

Channel Move Time	<10 seconds
Channel Closing Time (Aggregate Time During 200ms)	<200 ms
Channel Closing Time (Aggregate Time During +200ms to 10s)	<60 ms

Table 801 - Channel Move Time and Channel Closing Transmission Time Limit

FCC 47 CFR Part 15, Limit Clause 15.407 (h)(2)(iv)

Non-occupancy Period	> 30 minutes
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Table 802 - Non-Occupancy Limit

ISED RSS-247, Limit Clause 6.3.2

Devices shall comply with the following requirements, however, the requirement for in-service monitoring does not apply to slave devices without radar detection.

In-service monitoring: an LE-LAN device shall be able to monitor the operating channel to check that a co-channel radar has not moved or started operation within range of the LE-LAN device. During in-service monitoring, the LE-LAN radar detection function continuously searches for radar signals between normal LE-LAN transmissions.

Channel availability check time: the device shall check whether there is a radar system already operating on the channel before it initiates a transmission on a channel and when it moves to a channel. The device may start using the channel if no radar signal with a power level greater than the interference threshold value specified in Section 6.3.1 above is detected within 60 seconds. This requirement only applies in the master operational mode.

Channel move time: after a radar signal is detected, the device shall cease all transmissions on the operating channel within 10 seconds.

Channel closing transmission time: is comprised of 200 ms starting at the beginning of the channel move time plus any additional intermittent control signals required to facilitate a channel move (an aggregate of 60 ms) over the remaining 10-second period of the channel move time.

Non-occupancy period: a channel that has been flagged as containing a radar signal, either by a channel availability check or in-service monitoring, is subject to a 30-minute non-occupancy period where the channel cannot be used by the LE-LAN device. The non-occupancy period starts from the time that the radar signal is detected.



2.7.7 Test Location and Test Equipment Used

This test was carried out in Shielded Laboratory 1.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Attenuator (20dB, 1W)	Sealectro	60-674-1020-89	1520	-	O/P Mon
Power splitter - 4 port	Mini-Circuits	ZN4PD1-63-S+	4744	12	21-Feb-2024
EXA Signal Analyser	Keysight Technologies	N9010B	4968	24	19-Jan-2024
Cable (18 GHz)	Rosenberger	LU7-071-2000	5107	12	18-Dec-2023
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	21-May-2024
3.5mm Cable (1m)	Junkosha	MWX221/B	5837	12	27-Jul-2024
WiFi 6E Tri-Band Gaming Router	Asus	GT-AXE110000	5926	-	TU
Cable (K Type 2m)	Junkosha	MWX241-02000KMSKMS/B	5936	12	21-May-2024
Humidity & Temperature meter	R.S Components	1364	6148	12	21-Jul-2024
Vector Signal Generator (7.5GHz)	Rohde & Schwarz	SMM100A	6532	36	11-Apr-2026
Attenuator 5W 10dB DC-18GHz	Aaren	AT40A-4041-D18-10	6550	12	18-Jun-2024
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	6554	12	18-Jun-2024

Table 803

TU - Traceability Unscheduled

O/P Mon - Output Monitored using calibrated equipment



3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Restricted Band Edges	± 6.3 dB
Emission Bandwidth	± 3.9 MHz
Maximum Conducted Output Power	± 1.38 dB
Maximum Conducted Power Spectral Density	± 1.49 dB
Authorised Band Edges	± 6.3 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period	Time: ± 0.47 % Power: ± 1.29 dB

Table 804

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.