

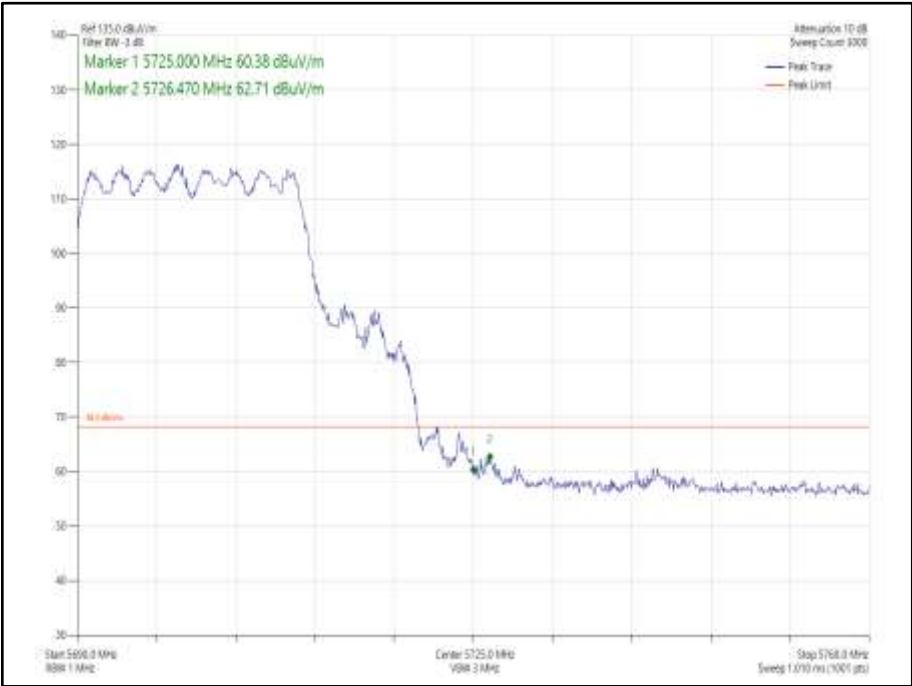


Figure 959 - 802.11ax HE20 CDD, Cores 0-1, SU - 5700 MHz
Band Edge Frequency 5725 MHz

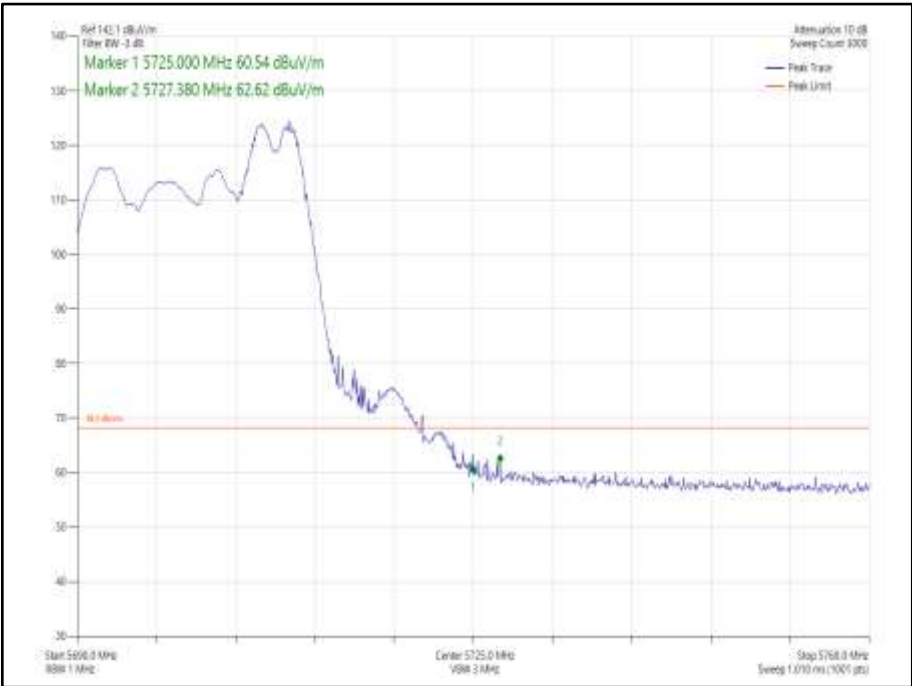


Figure 960 - 802.11ax HE20 CDD, Cores 0-1, 52-40 - 5700 MHz
Band Edge Frequency 5725 MHz

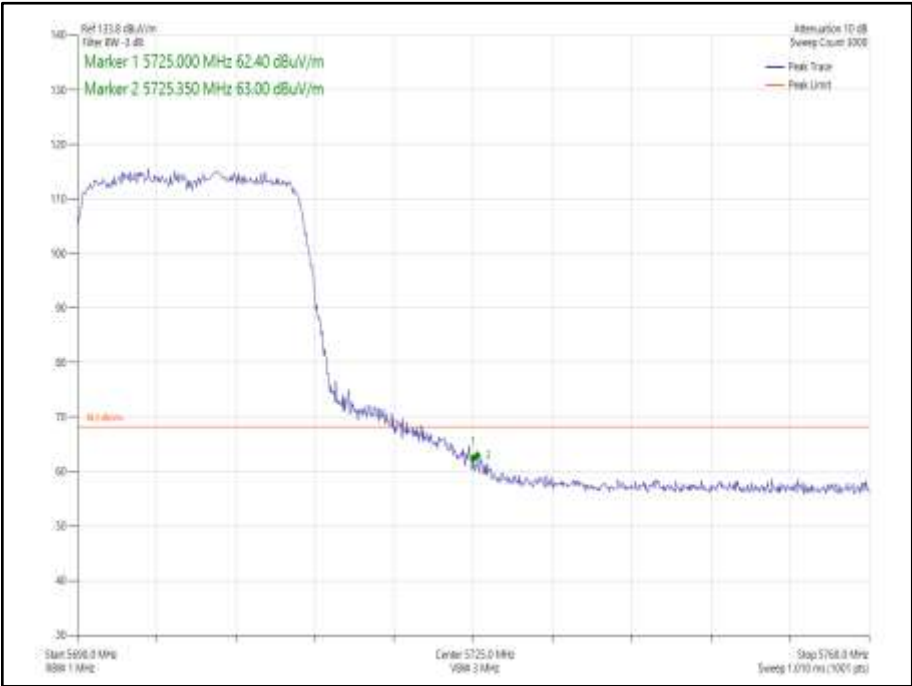


Figure 961 - 802.11ax HE20 SDM, Cores 0-1, SU - 5700 MHz
Band Edge Frequency 5725 MHz

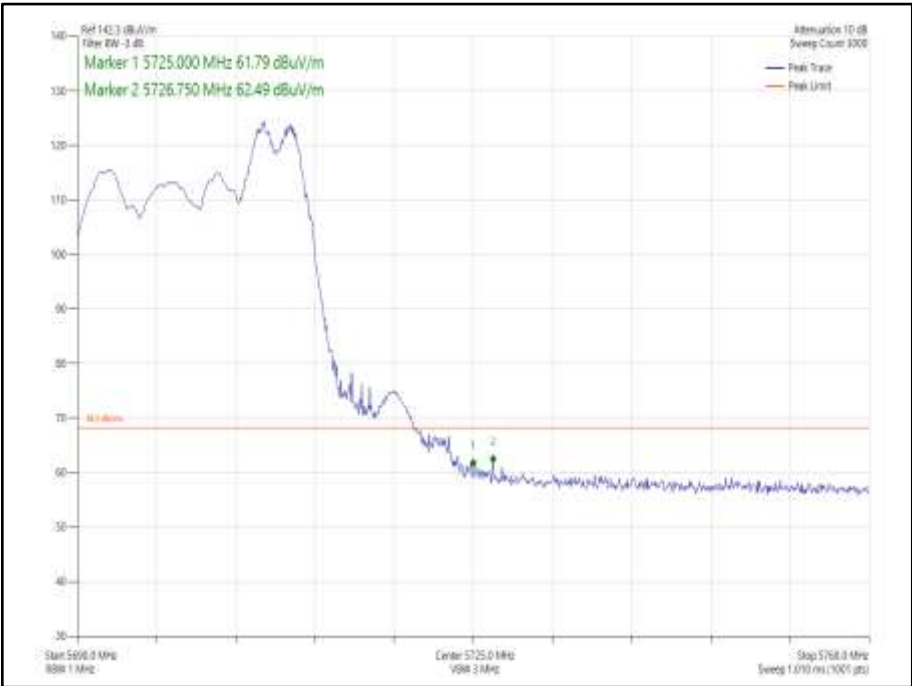


Figure 962 - 802.11ax HE20 SDM, Cores 0-1, 52-40 - 5700 MHz
Band Edge Frequency 5725 MHz

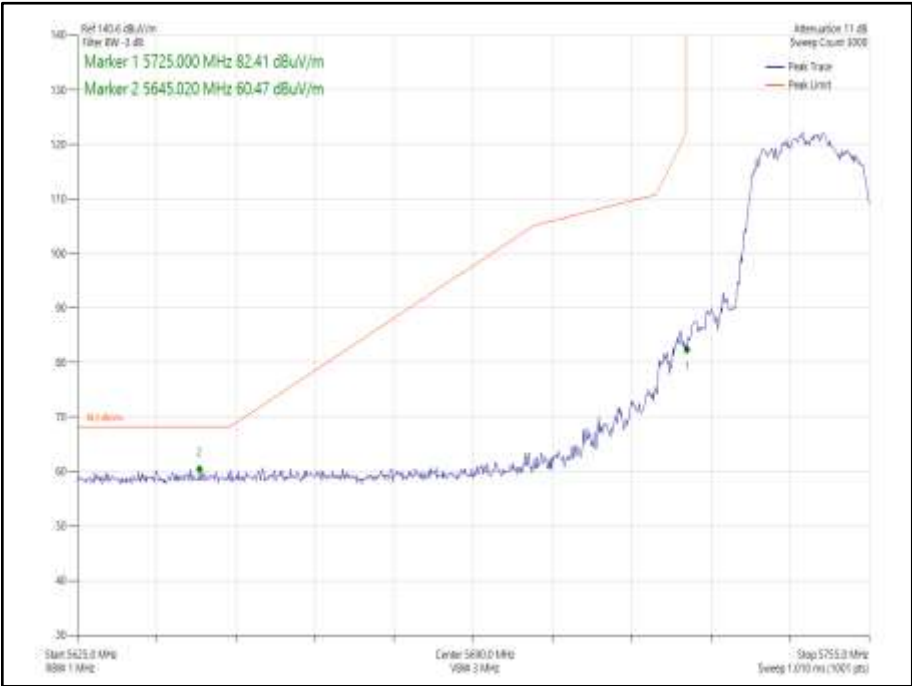


Figure 963 - 802.11n HT20 CDD, Cores 0-1 - 5745 MHz
Band Edge Frequency 5725 MHz

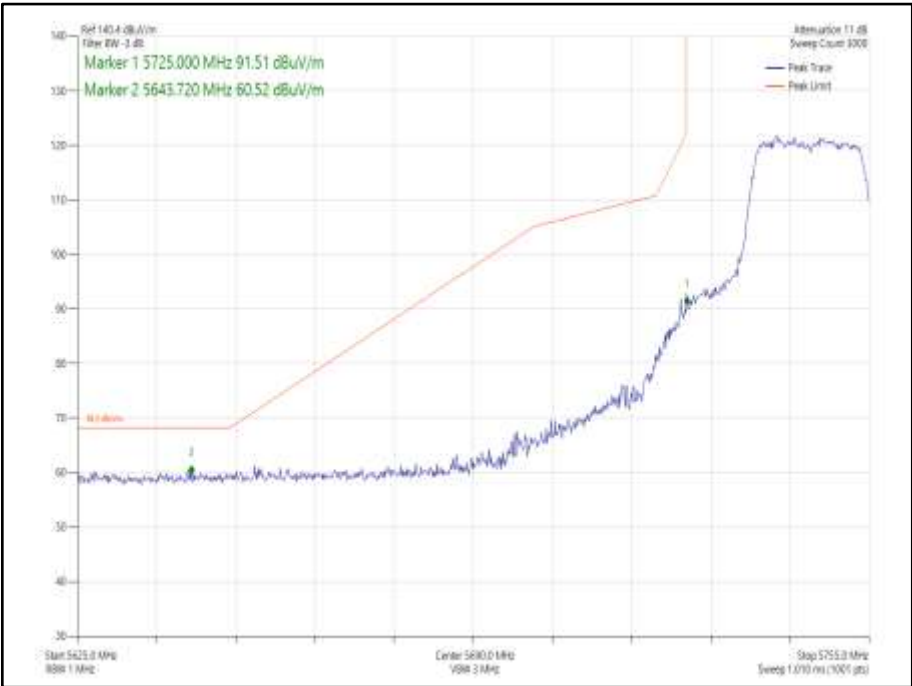
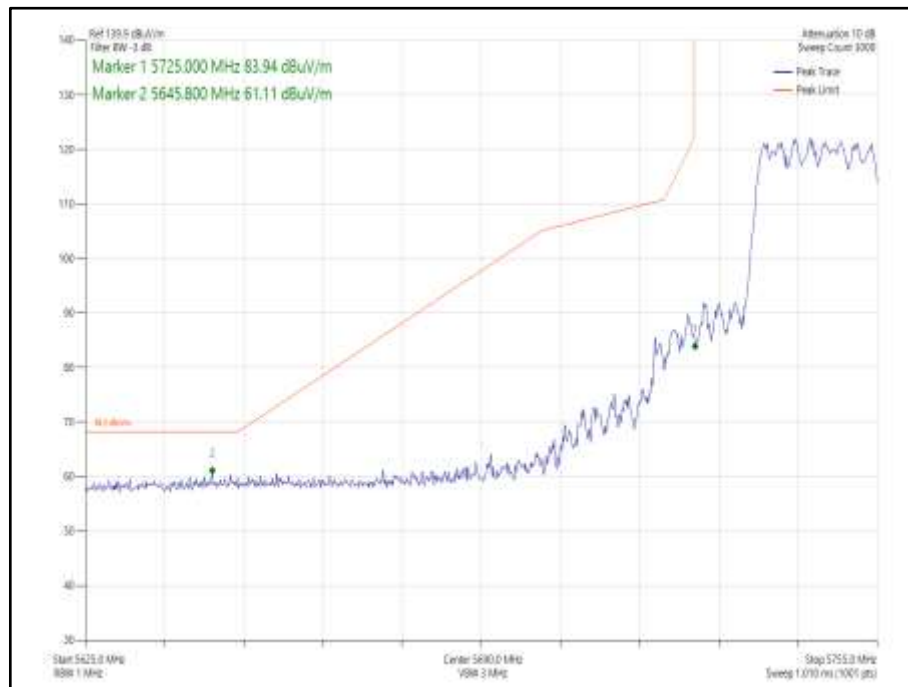
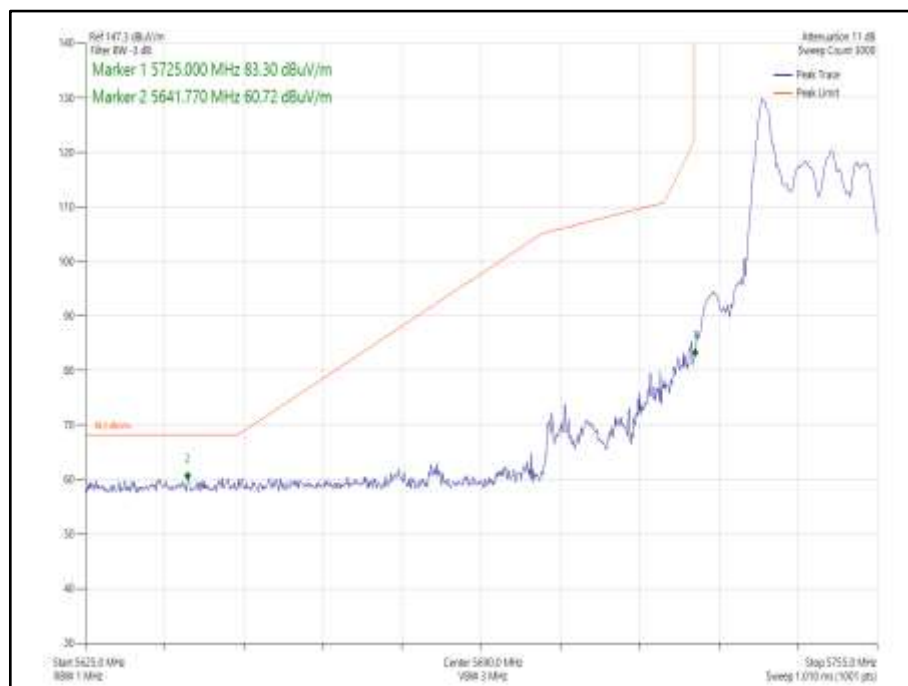


Figure 964 - 802.11n HT20 SDM, Cores 0-1 - 5745 MHz
Band Edge Frequency 5725 MHz



**Figure 965 - 802.11ax HE20 CDD, Cores 0-1, SU - 5745 MHz
Band Edge Frequency 5725 MHz**



**Figure 966 - 802.11ax HE20 CDD, Cores 0-1, 26-0 - 5745 MHz
Band Edge Frequency 5725 MHz**

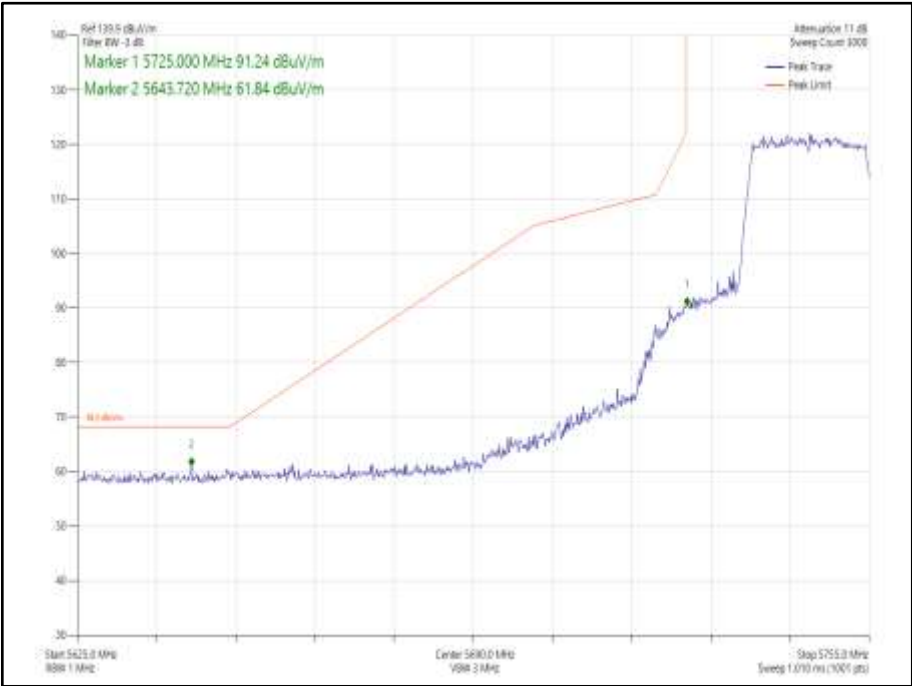


Figure 967 - 802.11ax HE20 SDM, Cores 0-1, SU - 5745 MHz
Band Edge Frequency 5725 MHz

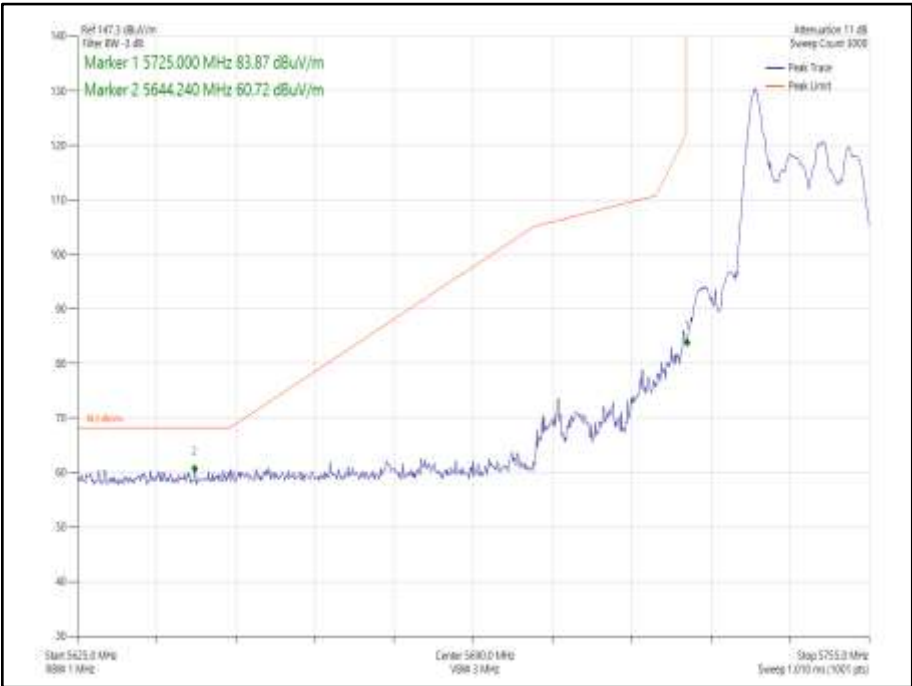


Figure 968 - 802.11ax HE20 SDM, Cores 0-1, 26-0 - 5745 MHz
Band Edge Frequency 5725 MHz

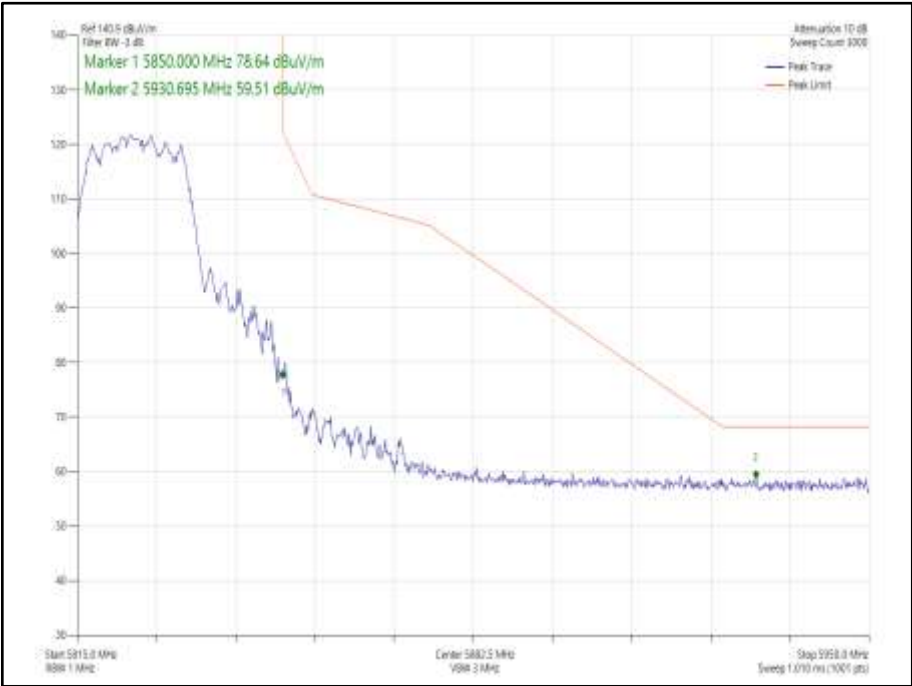


Figure 969 - 802.11n HT20 CDD, Cores 0-1 - 5825 MHz
Band Edge Frequency 5850 MHz

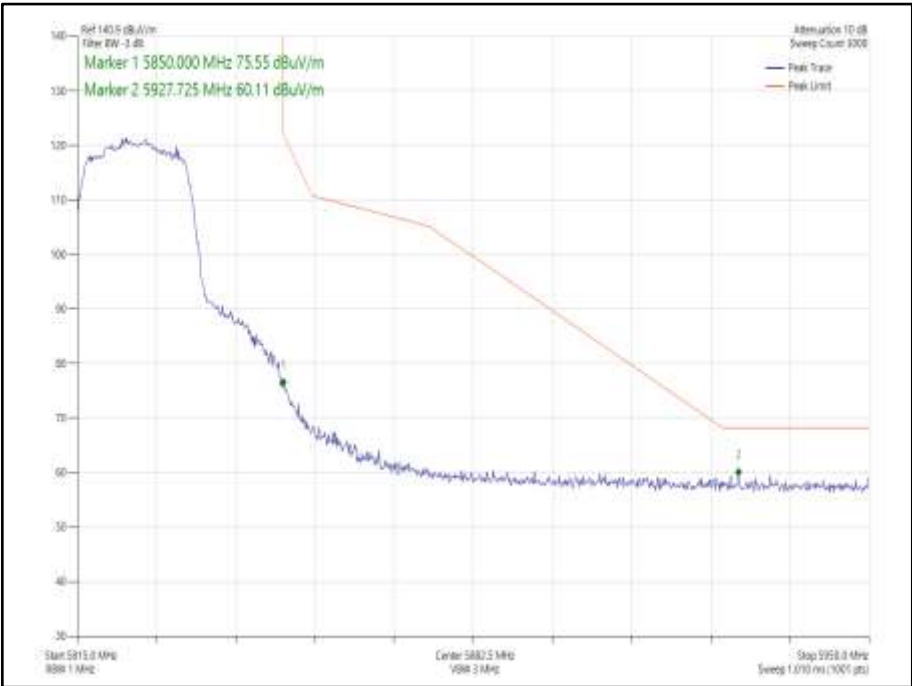


Figure 970 - 802.11n HT20 SDM, Cores 0-1 - 5825 MHz
Band Edge Frequency 5850 MHz

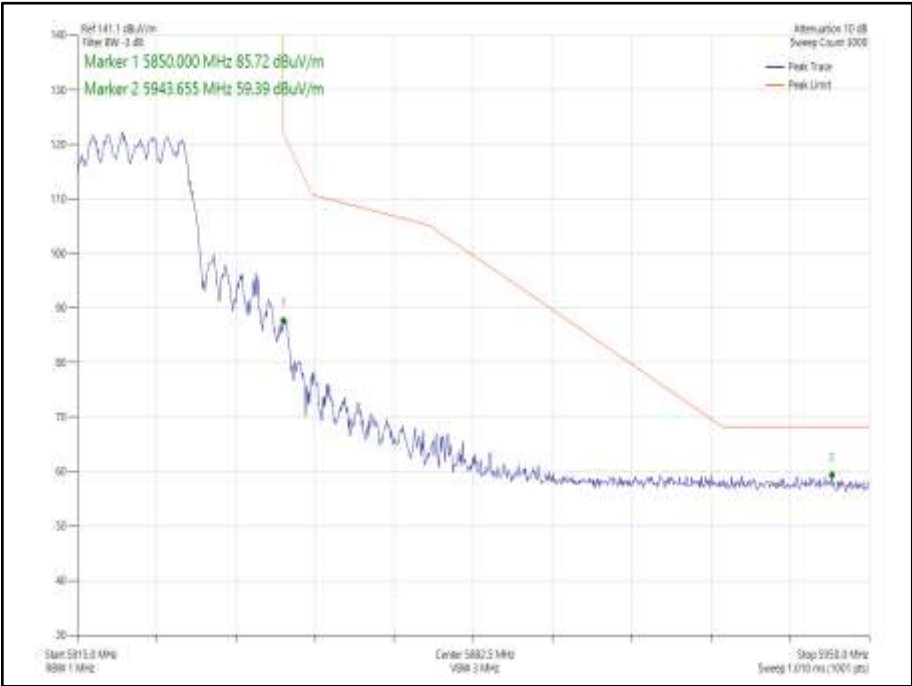


Figure 971 - 802.11ax HE20 CDD, Cores 0-1, SU - 5825 MHz
Band Edge Frequency 5850 MHz

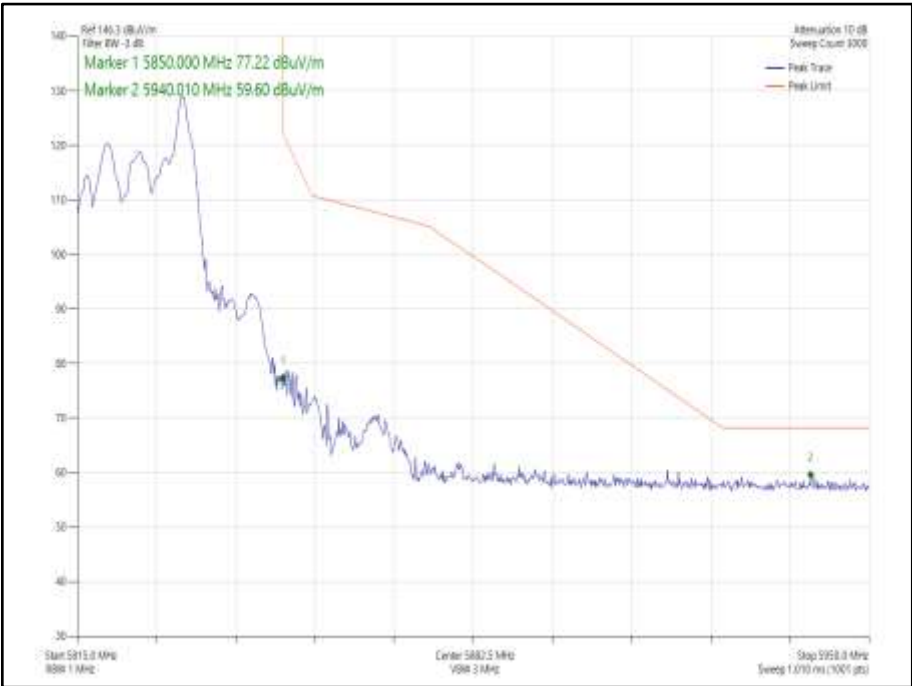


Figure 972 - 802.11ax HE20 CDD, Cores 0-1, 26-8 - 5825 MHz
Band Edge Frequency 5850 MHz

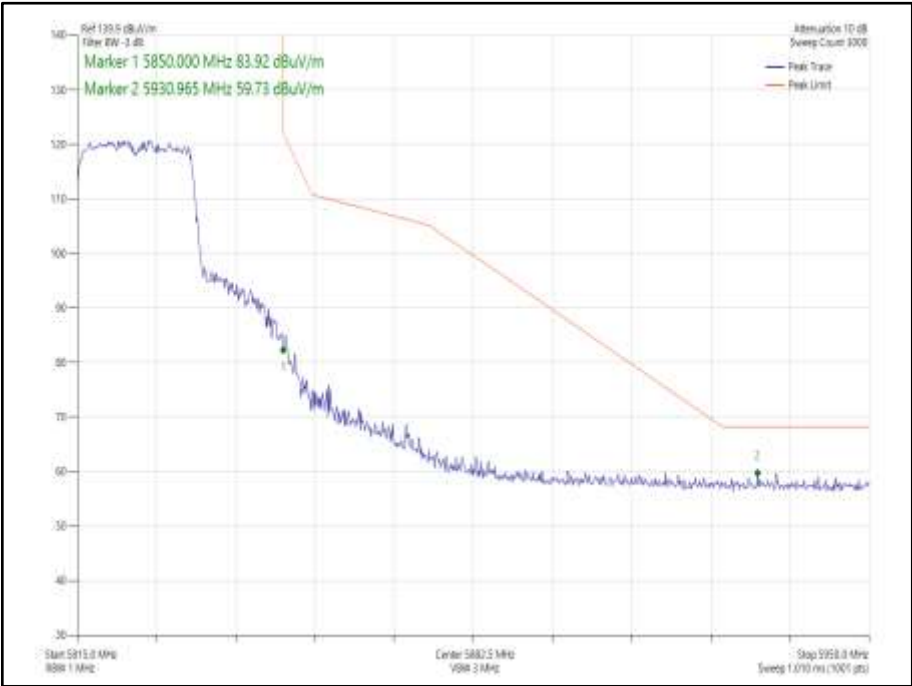


Figure 973 - 802.11ax HE20 SDM, Cores 0-1, SU - 5825 MHz
Band Edge Frequency 5850 MHz

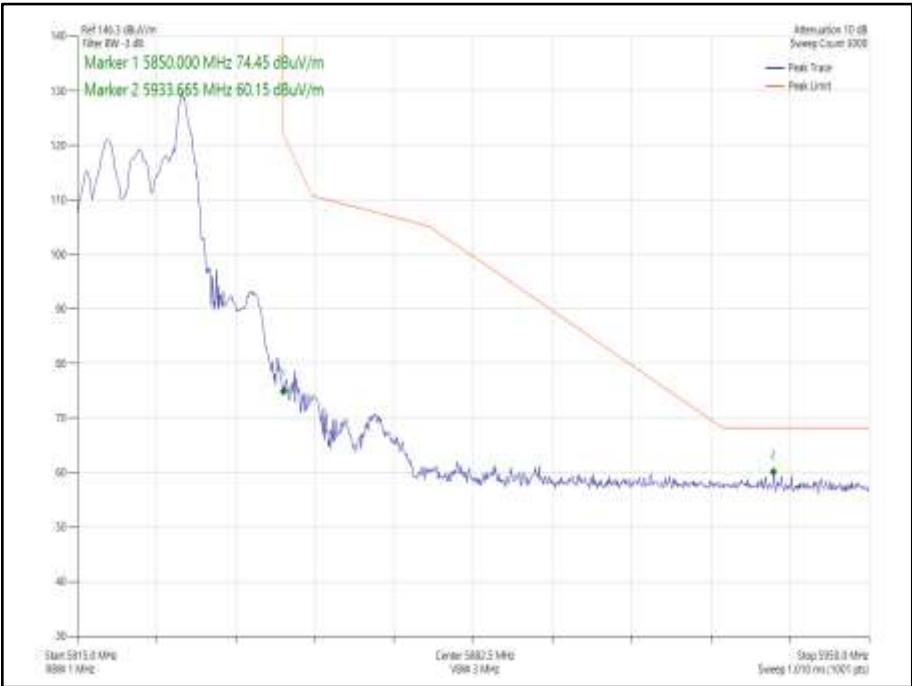
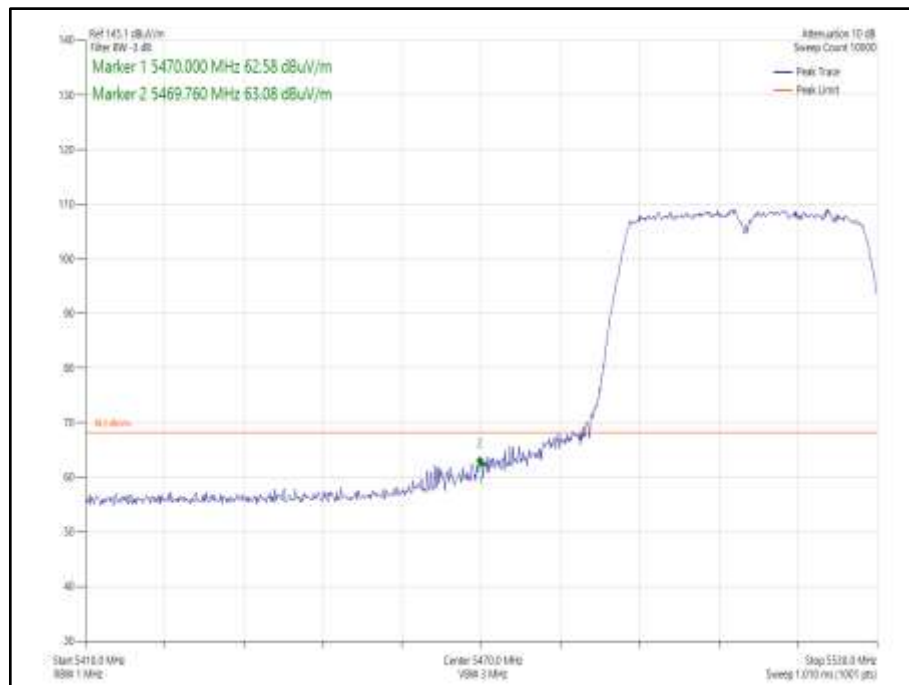


Figure 974 - 802.11ax HE20 SDM, Cores 0-1, 26-8 - 5825 MHz
Band Edge Frequency 5850 MHz

Mode	Data Rate /MCS	Resource size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11n HT40, Core 0	MCS7	-	-	5510	5470	63.08
802.11n HT40, Core 0	MCS7	-	-	5670	5725	63.19
802.11n HT40, Core 1	MCS7	-	-	5755	5725	62.59
802.11n HT40, Core 1	MCS7	-	-	5795	5850	60.39
802.11ax HE40, Core 0	MCS4x1	SU	-	5510	5470	62.69
802.11ax HE40, Core 0	MCS11x1	52	37	5510	5470	62.90
802.11ax HE40, Core 0	MCS4x1	SU	-	5670	5725	63.09
802.11ax HE40, Core 0	MCS11x1	52	44	5670	5725	63.16
802.11ax HE40, Core 1	MCS11x1	SU	-	5755	5725	62.18
802.11ax HE40, Core 1	MCS11x1	26	0	5755	5725	69.60
802.11ax HE40, Core 1	MCS11x1	SU	-	5795	5850	59.82
802.11ax HE40, Core 1	MCS11x1	26	17	5795	5850	58.52

Table 697 - 40 MHz Bandwidth SISO Authorised Band Edge Results



**Figure 975 - 802.11n HT40, Core 0 - 5510 MHz
Band Edge Frequency 5470 MHz**

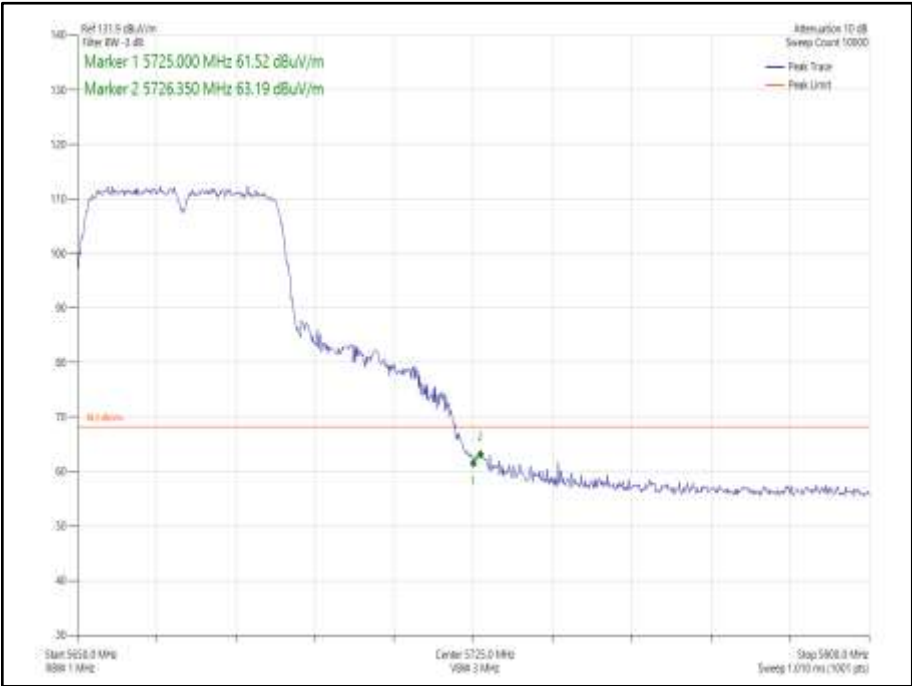


Figure 976 - 802.11n HT40, Core 0 - 5670 MHz
Band Edge Frequency 5725 MHz

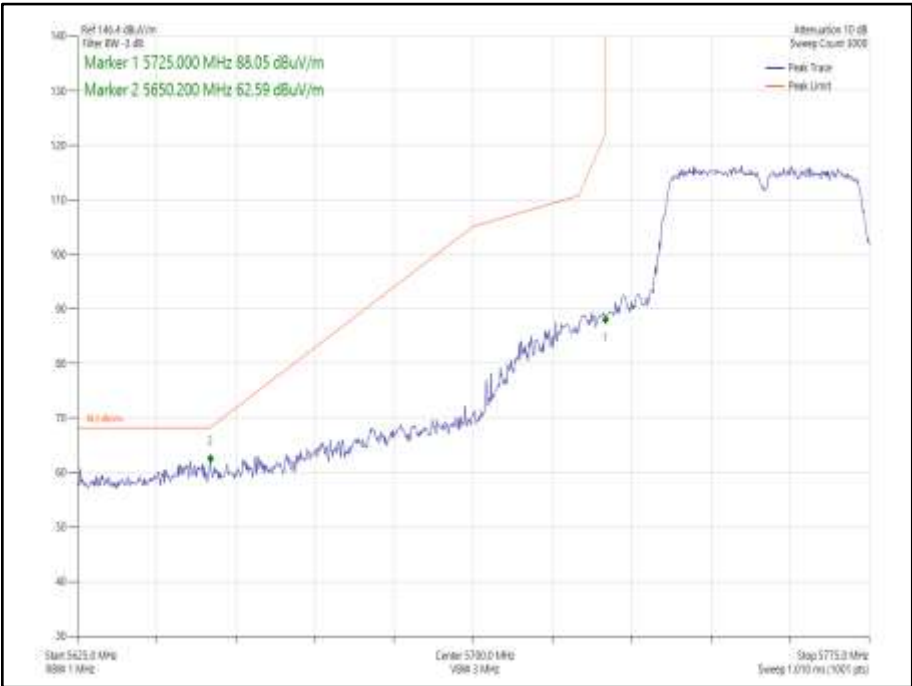


Figure 977 - 802.11n HT40, Core 1 - 5755 MHz
Band Edge Frequency 5725 MHz

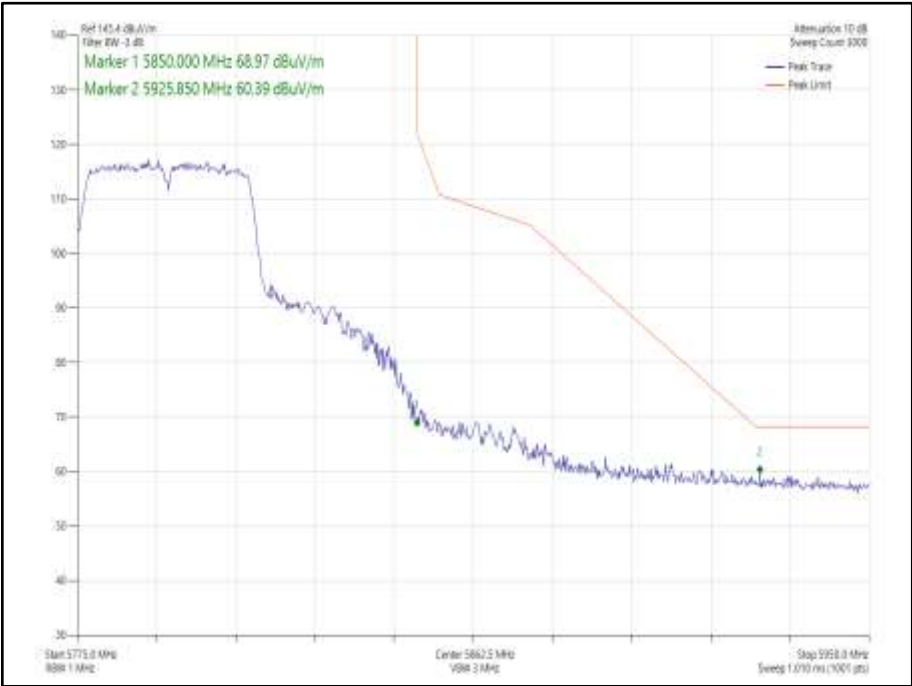


Figure 978 - 802.11n HT40, Core 1 - 5795 MHz
Band Edge Frequency 5850 MHz

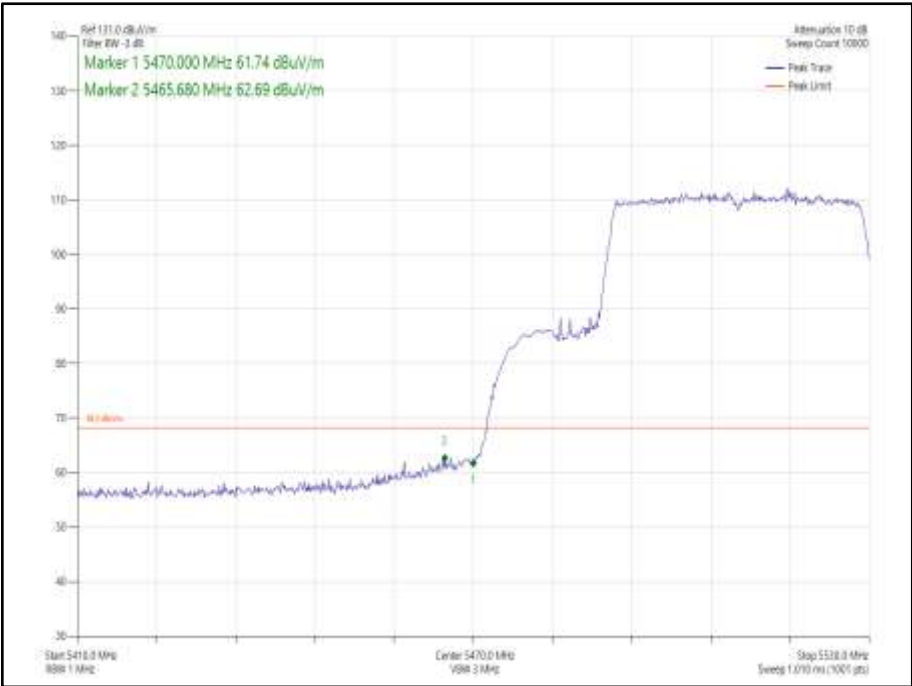


Figure 979 - 802.11ax HE40, Core 0, SU - 5510 MHz
Band Edge Frequency 5470 MHz

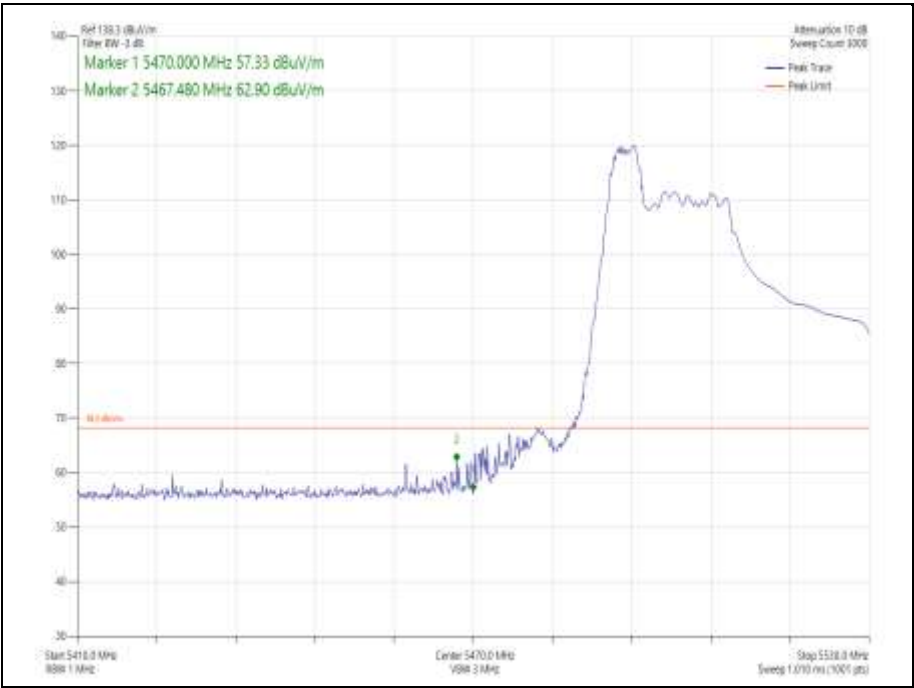


Figure 980 - 802.11ax HE40, Core 0, 52-37 - 5510 MHz
Band Edge Frequency 5470 MHz

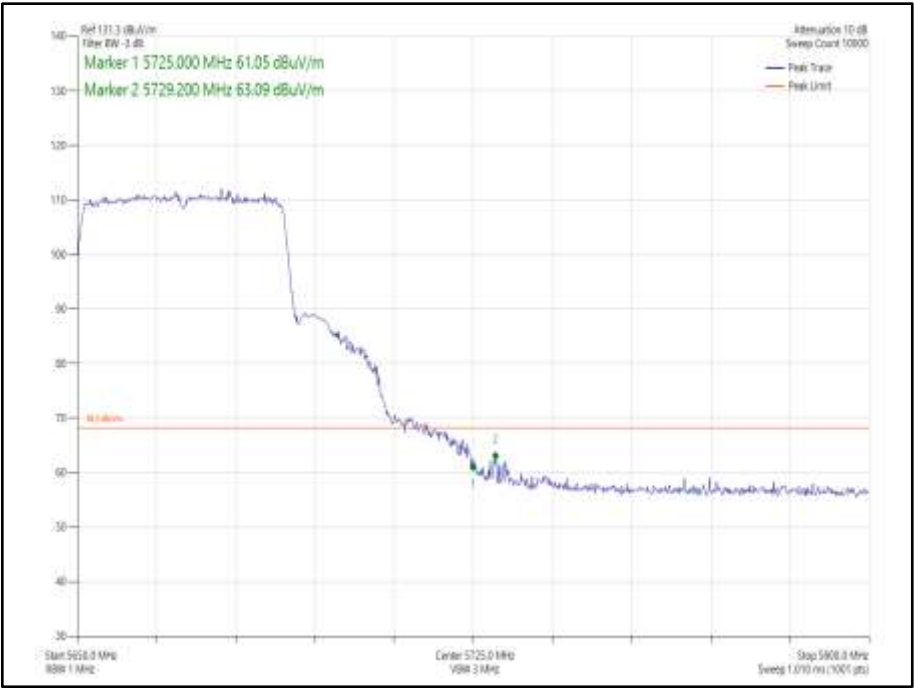


Figure 981 - 802.11ax HE40, Core 0, SU - 5670 MHz
Band Edge Frequency 5725 MHz

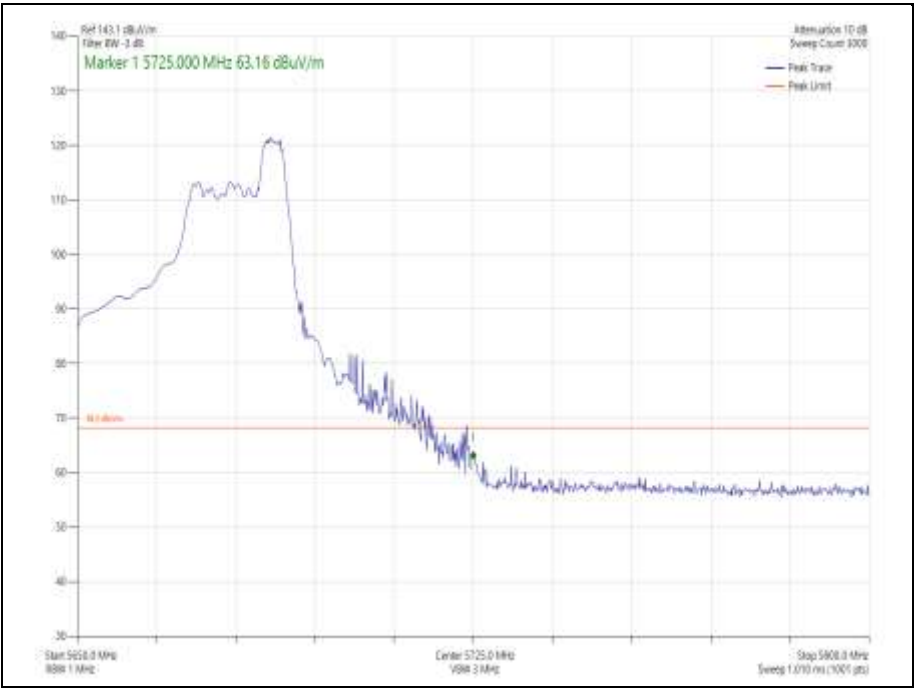


Figure 982 - 802.11ax HE40, Core 0, 52-44 - 5670 MHz
Band Edge Frequency 5725 MHz

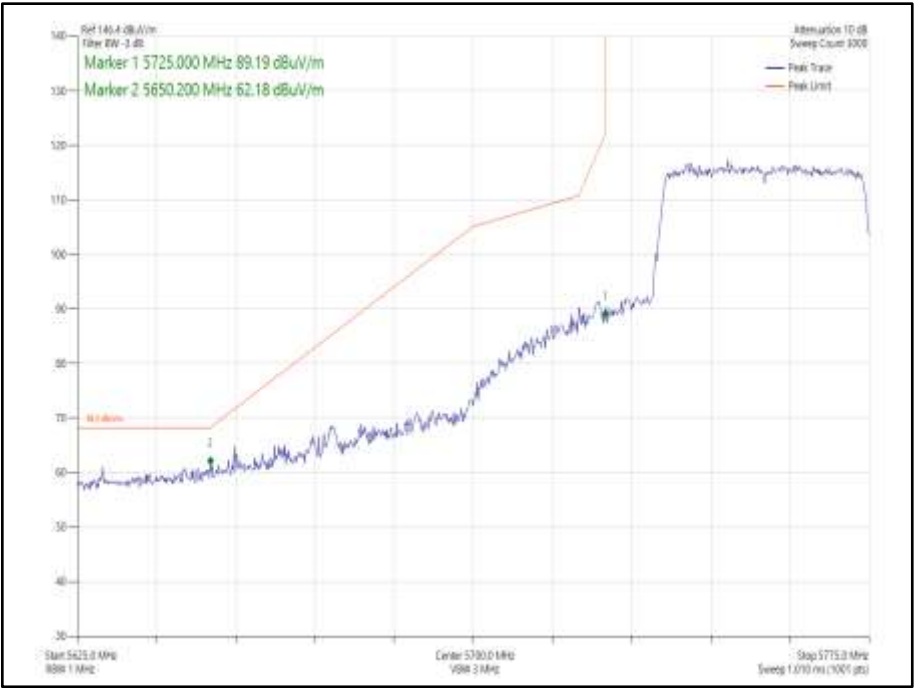


Figure 983 - 802.11ax HE40, Core 1, SU - 5755 MHz
Band Edge Frequency 5725 MHz

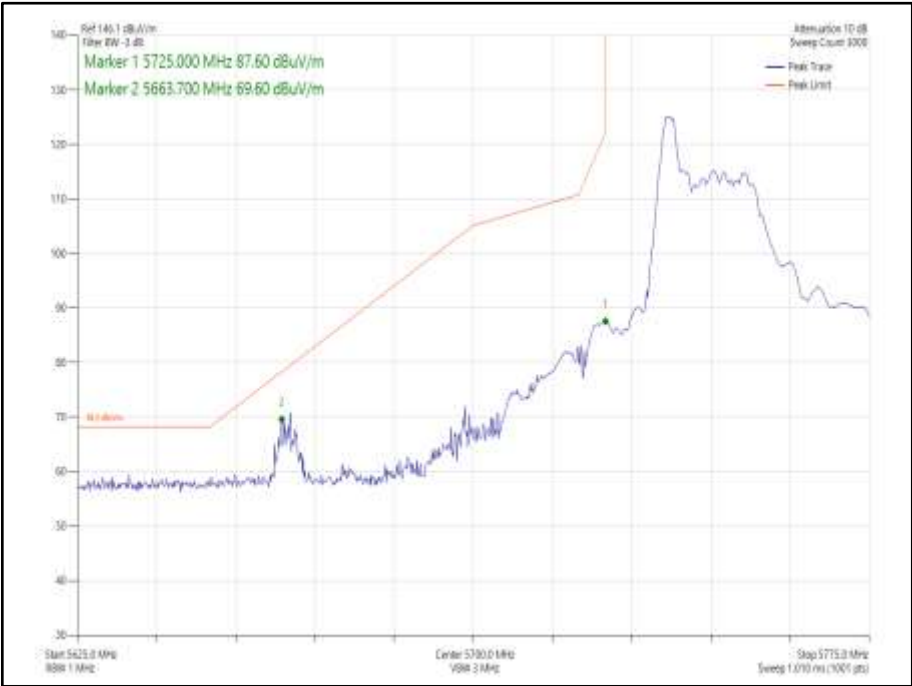


Figure 984 - 802.11ax HE40, Core 1, 26-0 - 5755 MHz
Band Edge Frequency 5725 MHz

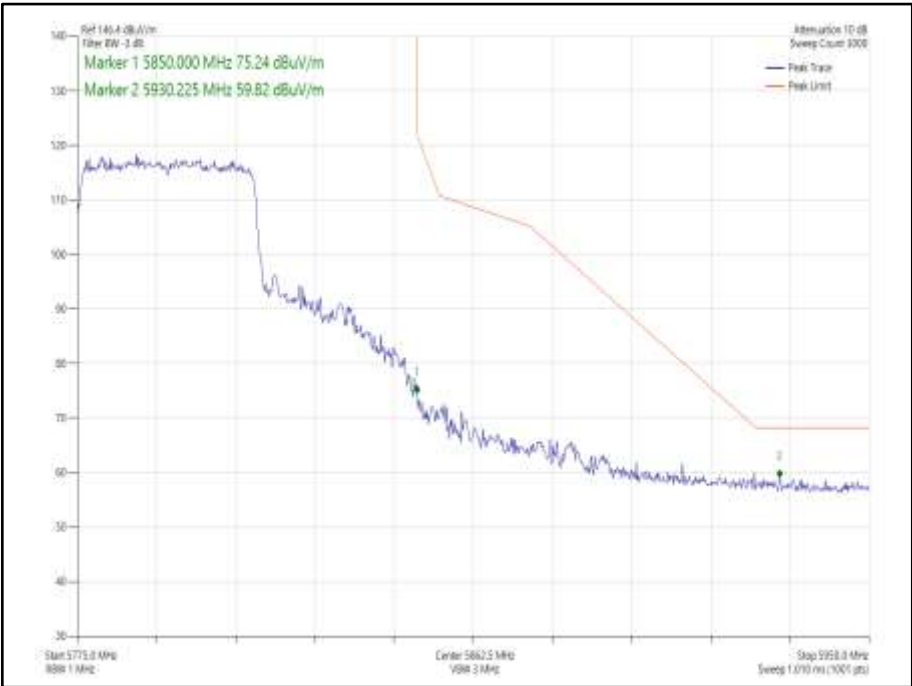
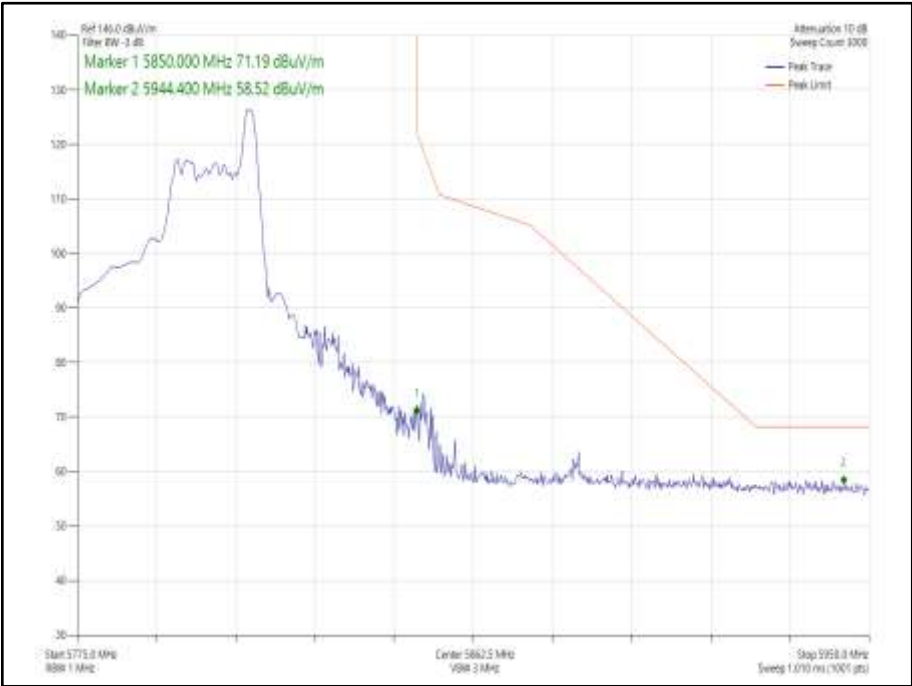


Figure 985 - 802.11ax HE40, Core 1, SU - 5795 MHz
Band Edge Frequency 5850 MHz



**Figure 986 - 802.11ax HE40, Core 1, 26-17 - 5795 MHz
Band Edge Frequency 5850 MHz**



Mode	Data Rate/ MCS	Resource size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11n HT40 CDD, Cores 0-1	MCS2	-	-	5510	5470	62.96
802.11n HT40 SDM, Cores 0-1	MCS10	-	-	5510	5470	62.90
802.11ax HE40 CDD, Cores 0-1	MCS11x1	SU	-	5510	5470	62.36
802.11ax HE40 CDD, Cores 0-1	MCS11x1	52	37	5510	5470	60.87
802.11ax HE40 SDM, Cores 0-1	MCS2x2	SU	-	5510	5470	62.45
802.11ax HE40 SDM, Cores 0-1	MCS11x2	52	37	5510	5470	62.70
802.11n HT40 CDD, Cores 0-1	MCS2	-	-	5670	5725	62.99
802.11n HT40 SDM, Cores 0-1	MCS10	-	-	5670	5725	63.08
802.11ax HE40 CDD, Cores 0-1	MCS4x1	SU	-	5670	5725	62.96
802.11ax HE40 CDD, Cores 0-1	MCS11x1	52	44	5670	5725	62.35
802.11ax HE40 SDM, Cores 0-1	MCS4x2	SU	-	5670	5725	62.69
802.11ax HE40 SDM, Cores 0-1	MCS11x2	52	44	5670	5725	62.59
802.11n HT40, CDD Cores 0-1	MCS7	-	-	5755	5725	62.40
802.11n HT40, SDM Cores 0-1	MCS15	-	-	5755	5725	64.93
802.11ax HE40 CDD, Cores 0-1	MCS11x1	SU	-	5755	5725	62.80
802.11ax HE40 CDD, Cores 0-1	MCS11x1	26	0	5755	5725	70.94
802.11ax HE40 SDM, Cores 0-1	MCS11x2	SU	-	5755	5725	61.74
802.11ax HE40 SDM, Cores 0-1	MCS11x2	26	0	5755	5725	71.42
802.11n HT40 CDD, Cores 0-1	MCS7	-	-	5795	5850	60.40
802.11n HT40 SDM, Cores 0-1	MCS15	-	-	5795	5850	61.48
802.11ax HE40 CDD, Cores 0-1	MCS11x1	SU	-	5795	5850	59.05
802.11ax HE40 CDD, Cores 0-1	MCS11x1	26	17	5795	5850	58.42
802.11ax HE40 SDM, Cores 0-1	MCS4x2	SU	-	5795	5850	58.90
802.11ax HE40 SDM, Cores 0-1	MCS11x2	26	17	5795	5850	59.31

Table 698 - 40 MHz Bandwidth 2TX MIMO Authorised Band Edge Results

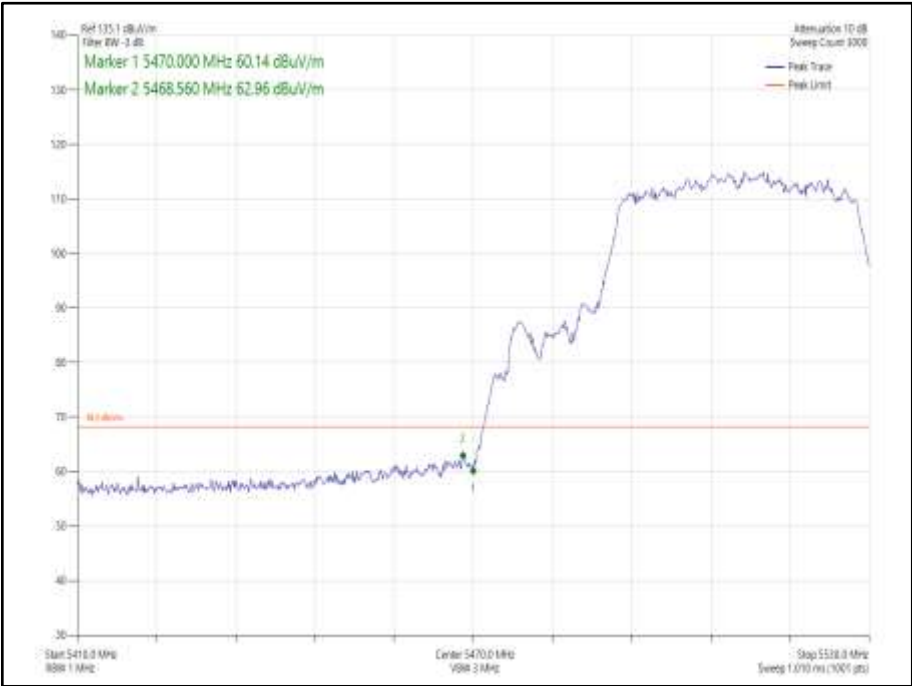


Figure 987 - 802.11n HT40 CDD, Cores 0-1 - 5510 MHz
Band Edge Frequency 5470 MHz

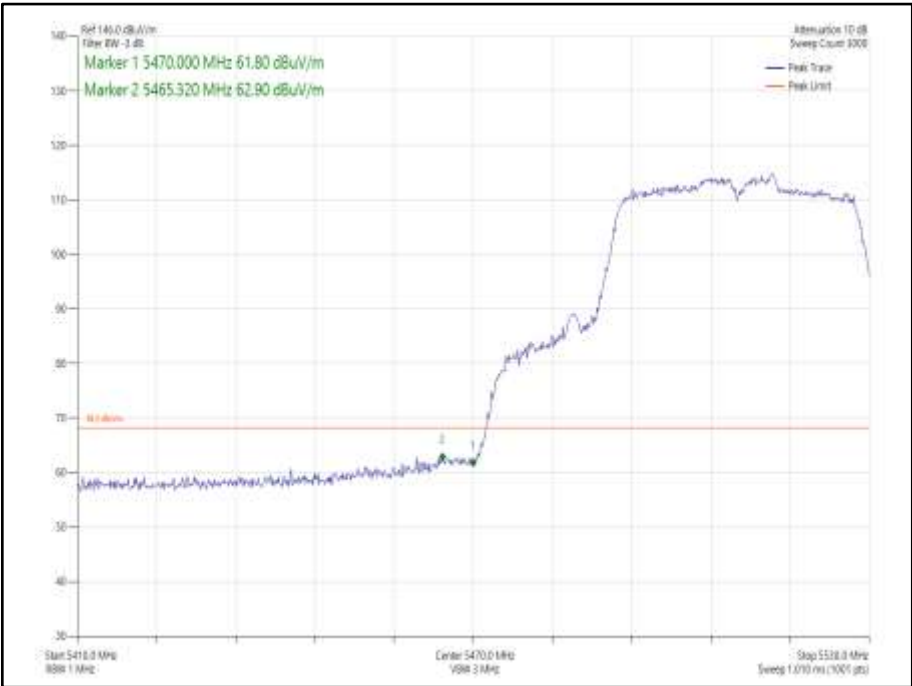


Figure 988 - 802.11n HT40 SDM, Cores 0-1 - 5510 MHz
Band Edge Frequency 5470 MHz

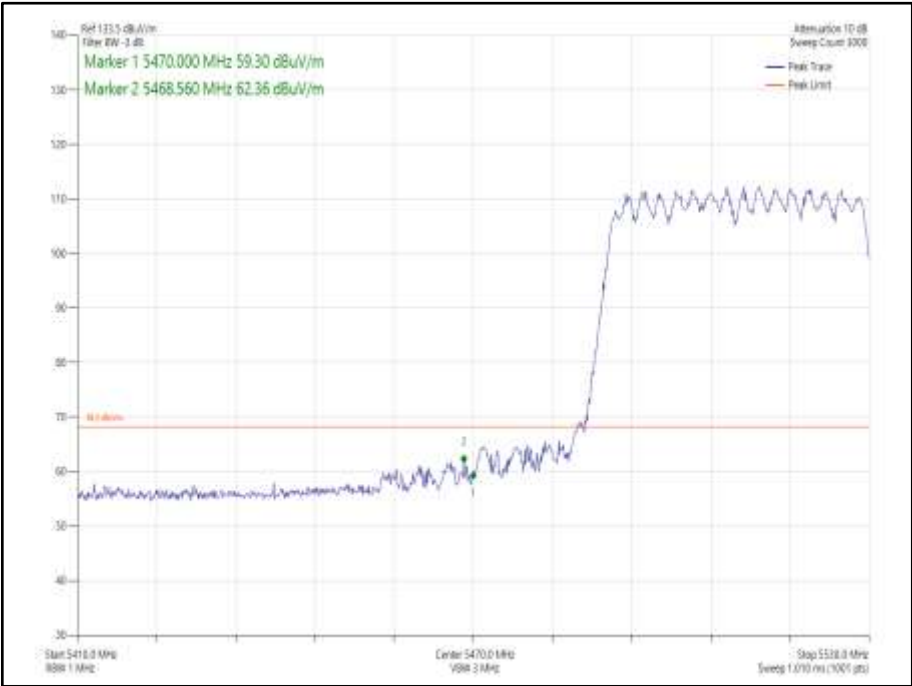


Figure 989 - 802.11ax HE40 CDD, Cores 0-1, SU - 5510 MHz
Band Edge Frequency 5470 MHz

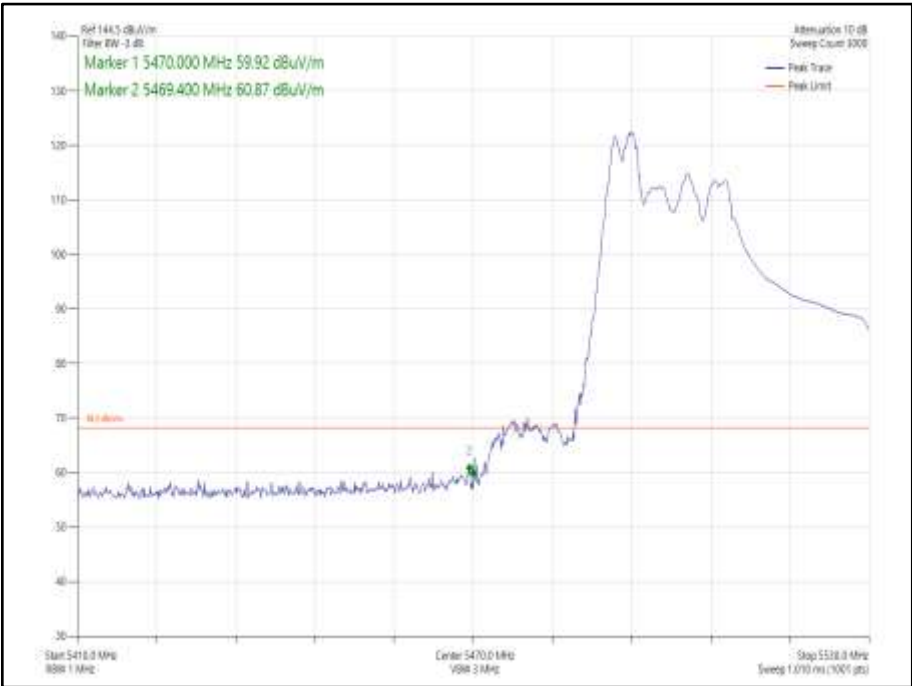


Figure 990 - 802.11ax HE40 CDD, Cores 0-1, 26-0 - 5510 MHz
Band Edge Frequency 5470 MHz

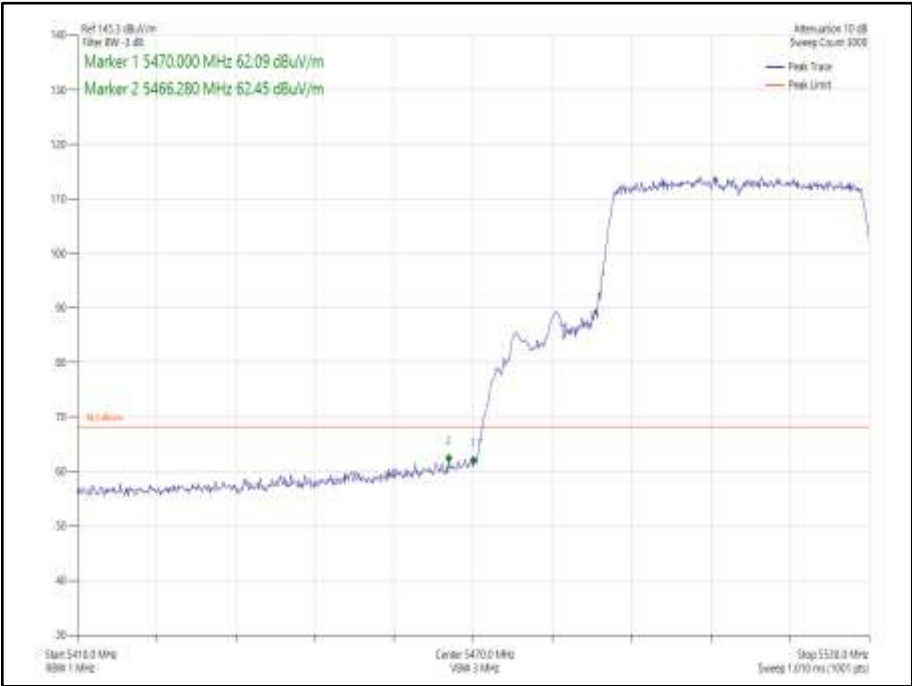


Figure 991 - 802.11ax HE40 SDM, Cores 0-1, SU - 5510 MHz
Band Edge Frequency 5470 MHz

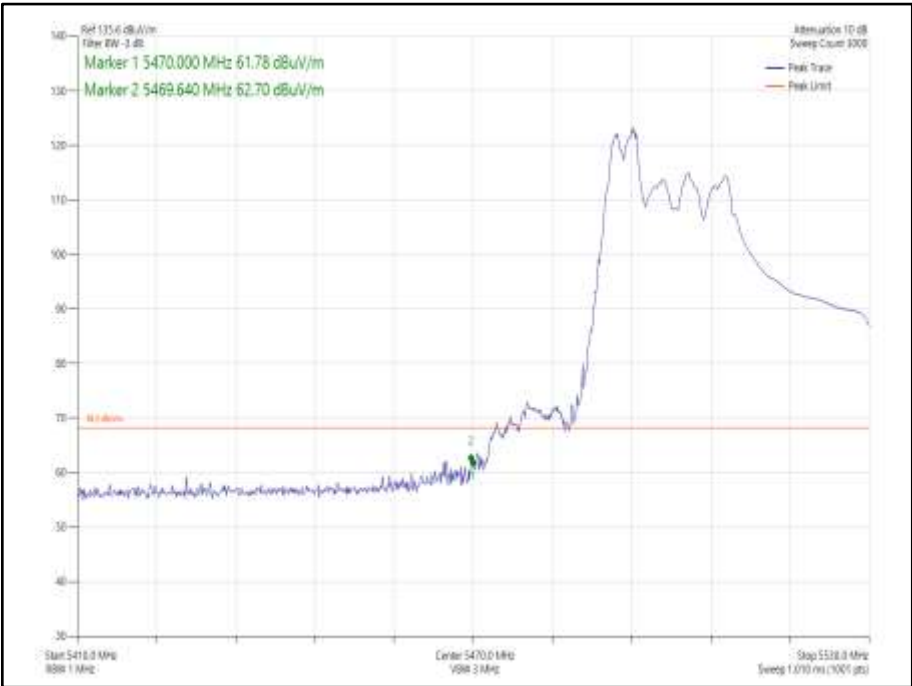


Figure 992 - 802. 11ax HE40 SDM, Cores 0-1, 26-0 - 5510 MHz
Band Edge Frequency 5470 MHz

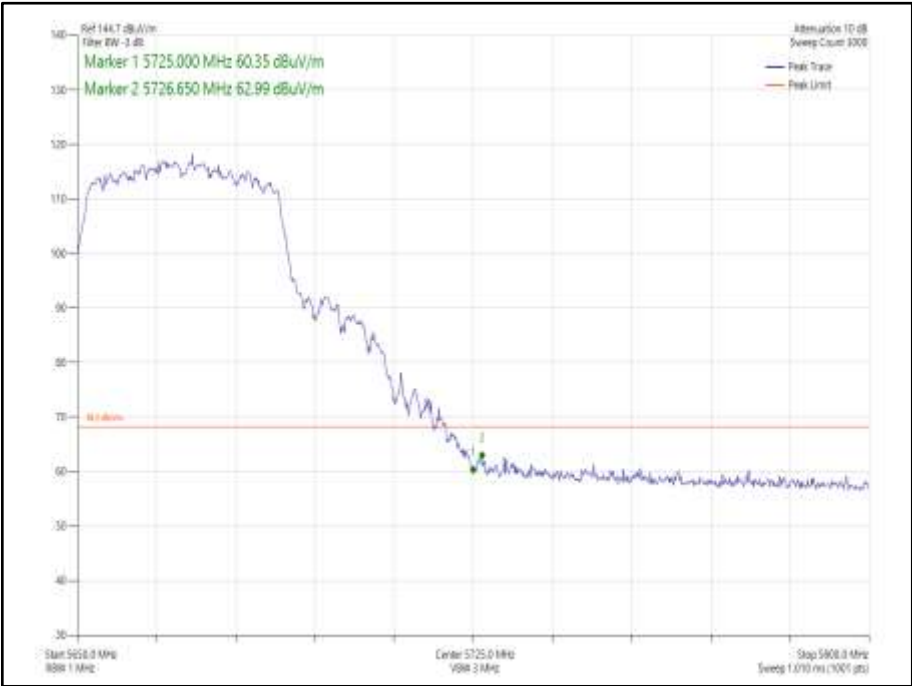


Figure 993 - 802.11n HT40 CDD, Cores 0-1 - 5670 MHz
Band Edge Frequency 5725 MHz

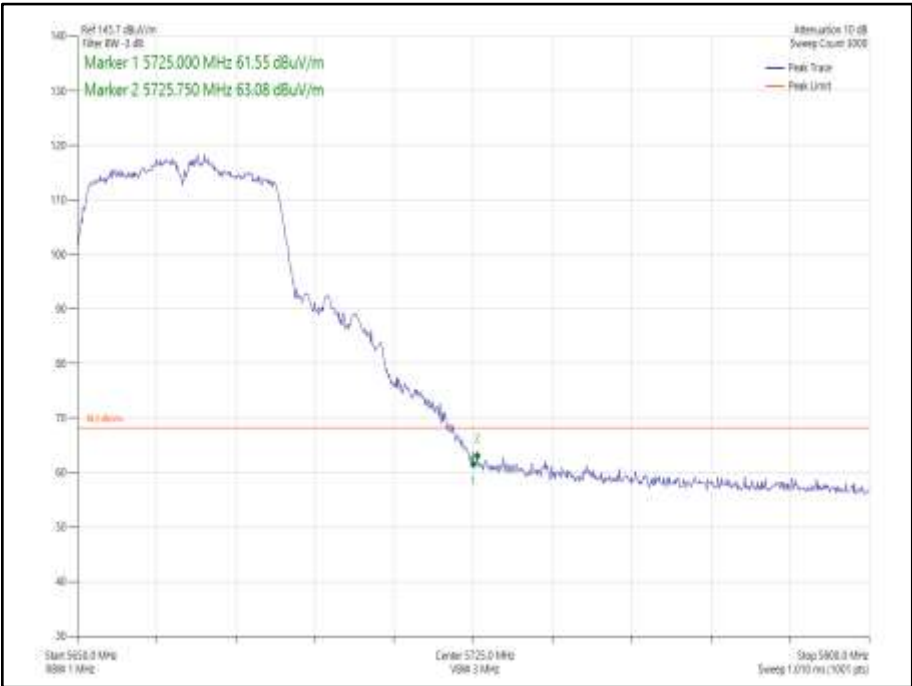


Figure 994 - 802.11n HT40 SDM, Cores 0-1 - 5670 MHz
Band Edge Frequency 5725 MHz

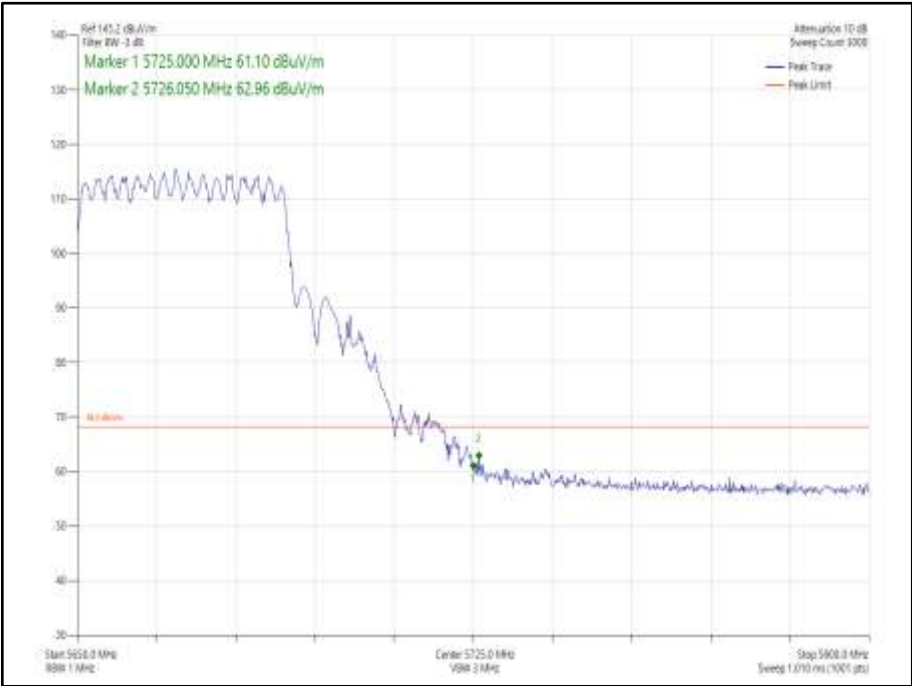


Figure 995 - 802.11ax HE40 CDD, Cores 0-1, SU - 5670 MHz
Band Edge Frequency 5725 MHz

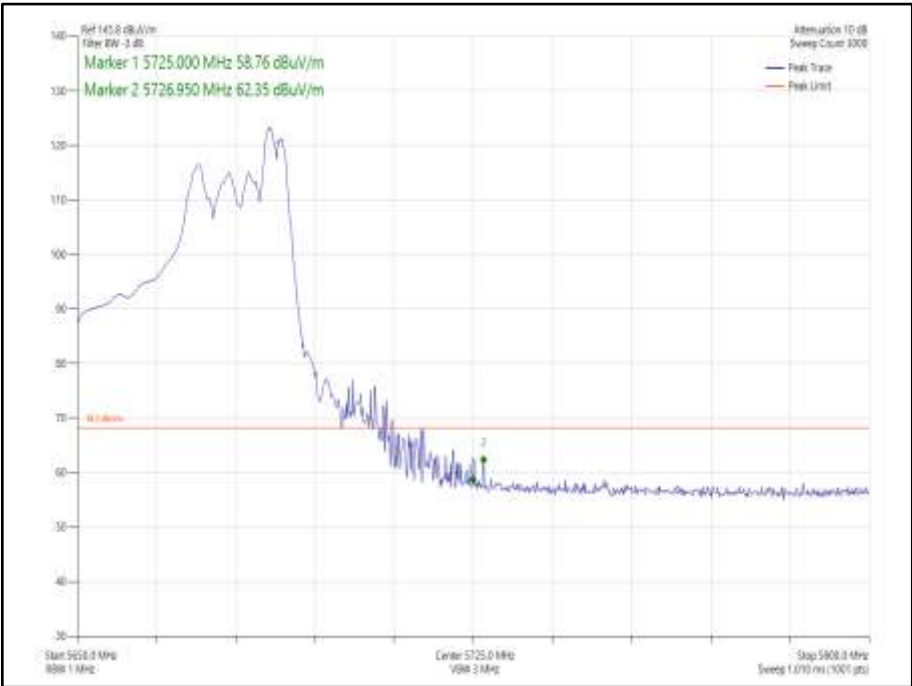


Figure 996 - 802.11ax HE40 CDD, Cores 0-1, 52-44 - 5670 MHz
Band Edge Frequency 5725 MHz

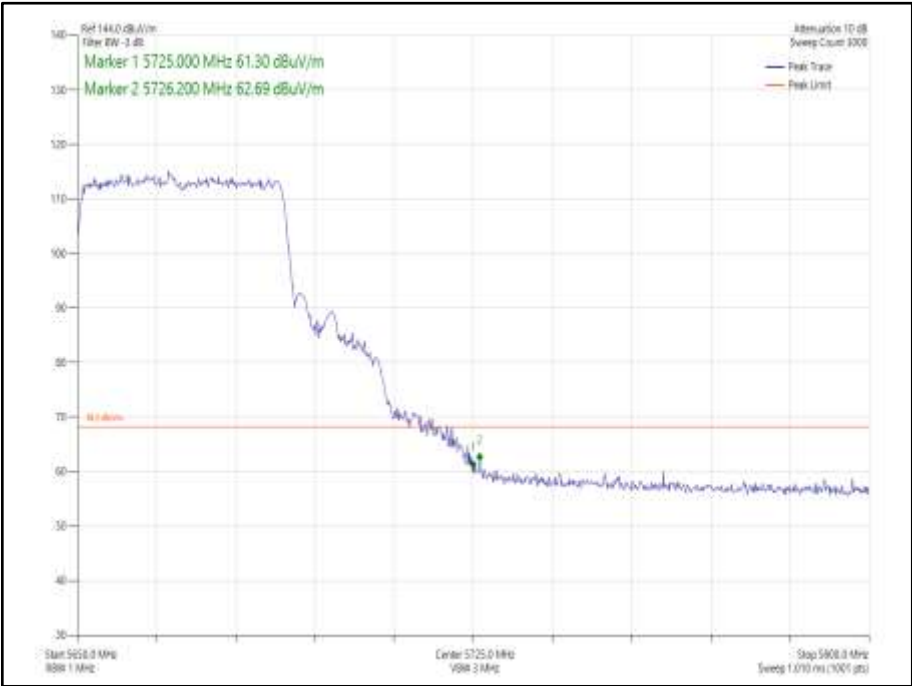


Figure 997 - 802.11ax HE40 SDM, Cores 0-1, SU - 5670 MHz
Band Edge Frequency 5725 MHz

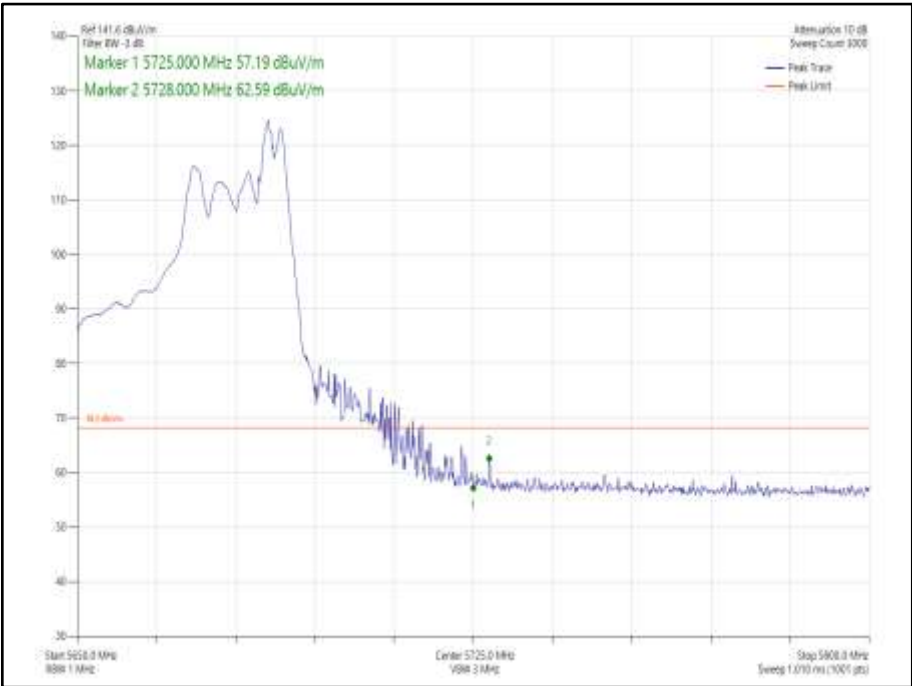


Figure 998 - 802.11ax HE40 SDM, Cores 0-1, 52-44 - 5670 MHz
Band Edge Frequency 5725 MHz

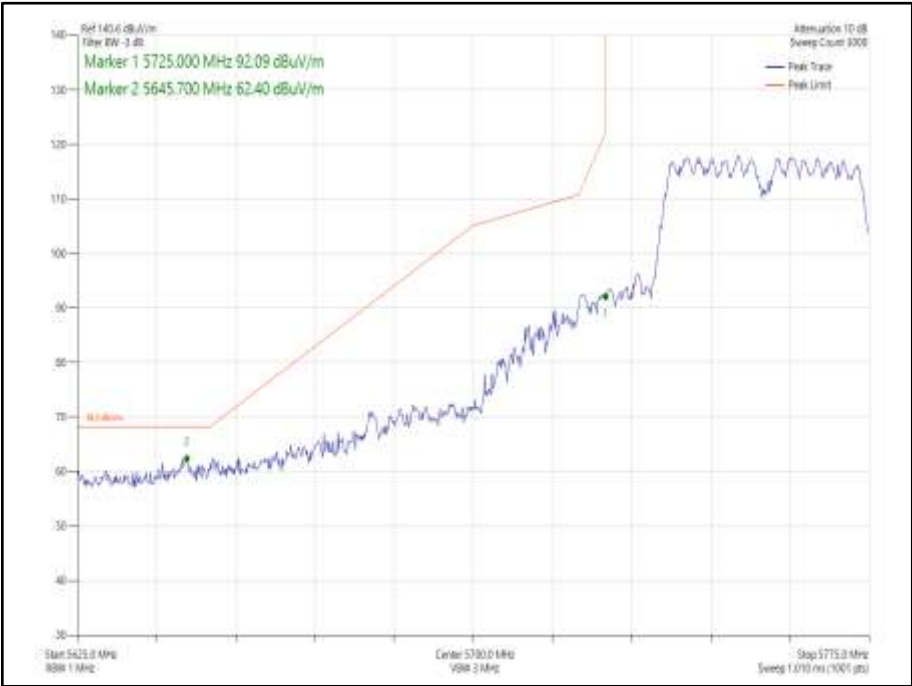


Figure 999 - 802.11n HT40 CDD, Cores 0-1 - 5755 MHz
Band Edge Frequency 5725 MHz

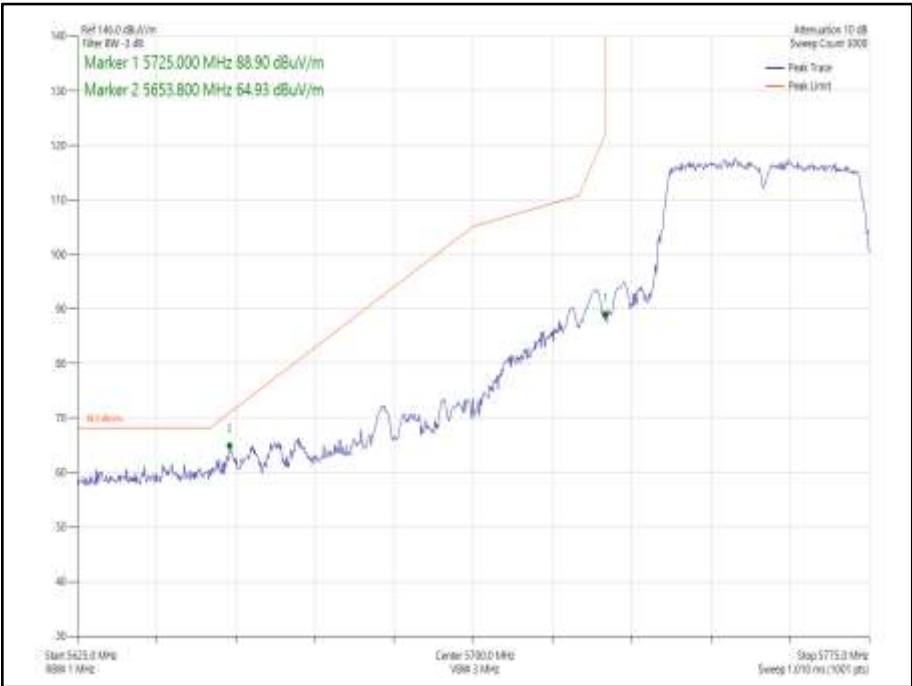


Figure 1000 - 802.11n HT40 SDM, Cores 0-1 - 5755 MHz
Band Edge Frequency 5725 MHz

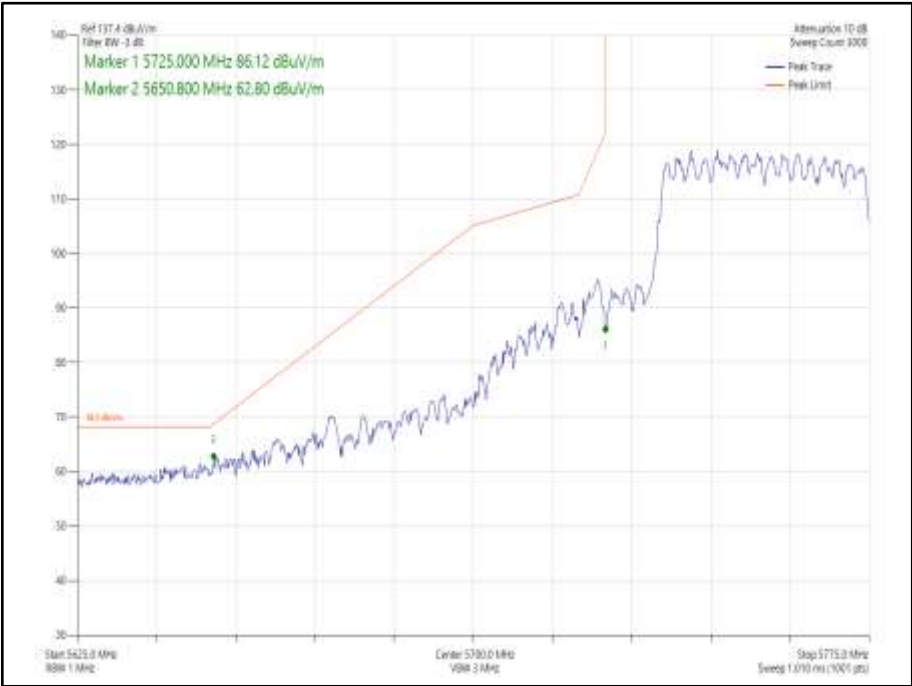


Figure 1001 - 802.11ax HE40 CDD, Cores 0-1, SU - 5755 MHz
Band Edge Frequency 5725 MHz

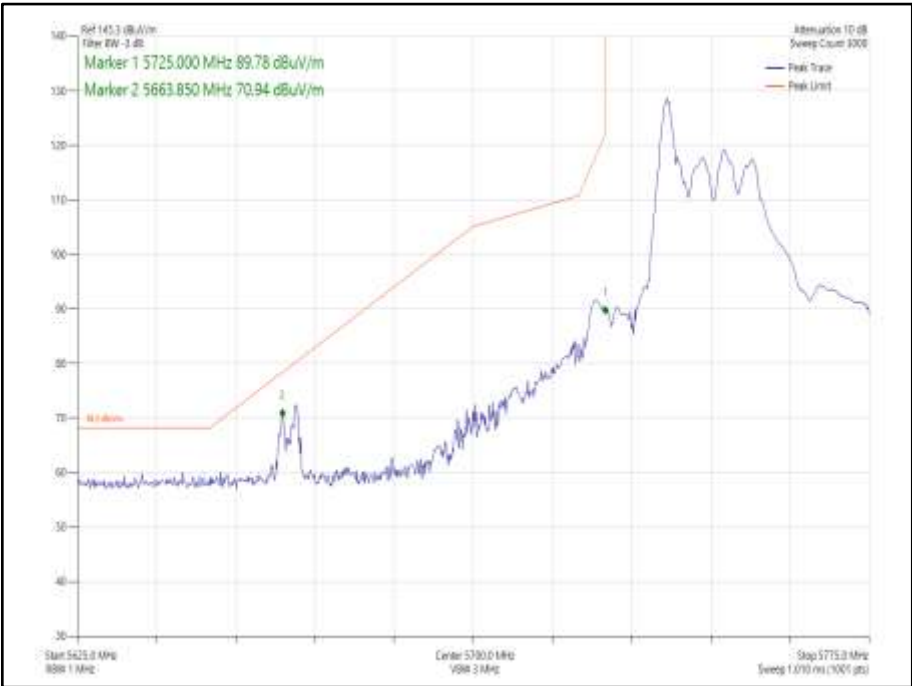


Figure 1002 - 802.11ax HE40 CDD, Cores 0-1, 26-0 - 5755 MHz
Band Edge Frequency 5725 MHz

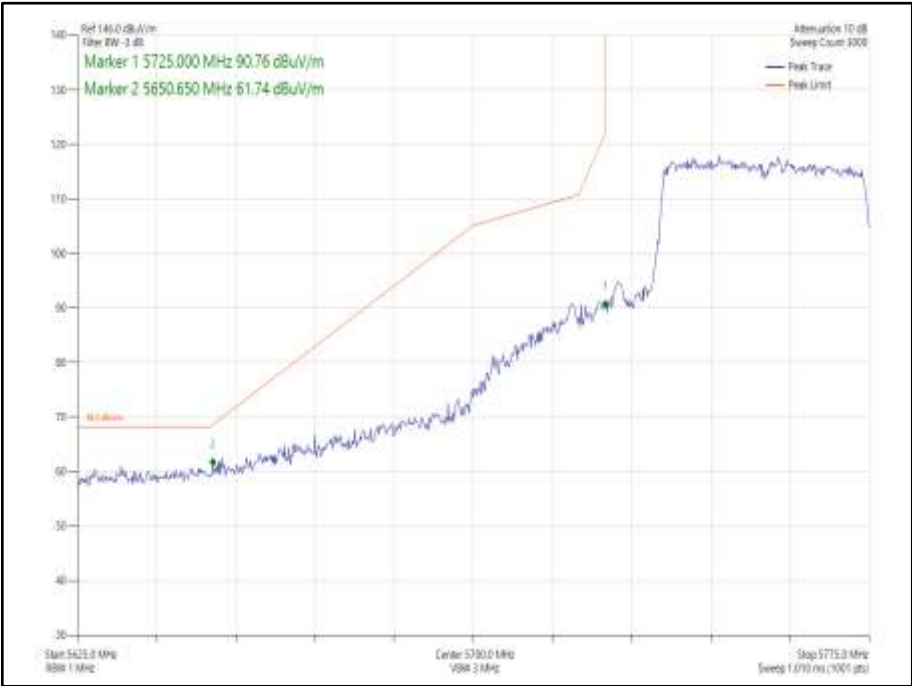


Figure 1003 - 802.11ax HE40 SDM, Cores 0-1, SU - 5755 MHz
Band Edge Frequency 5725 MHz

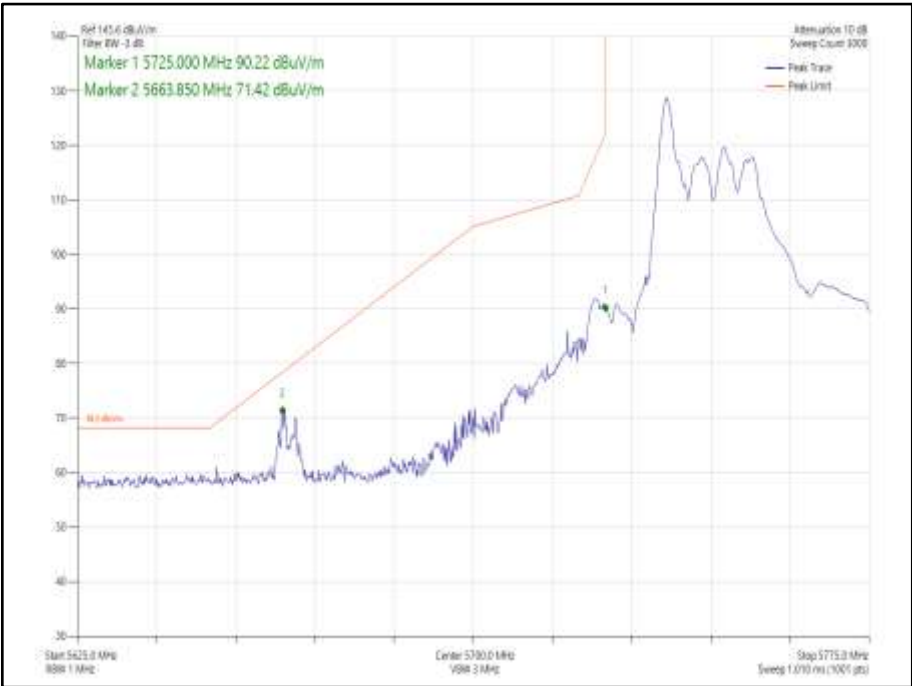


Figure 1004 - 802.11ax HE40 SDM, Cores 0-1, 26-0 - 5755 MHz
Band Edge Frequency 5725 MHz

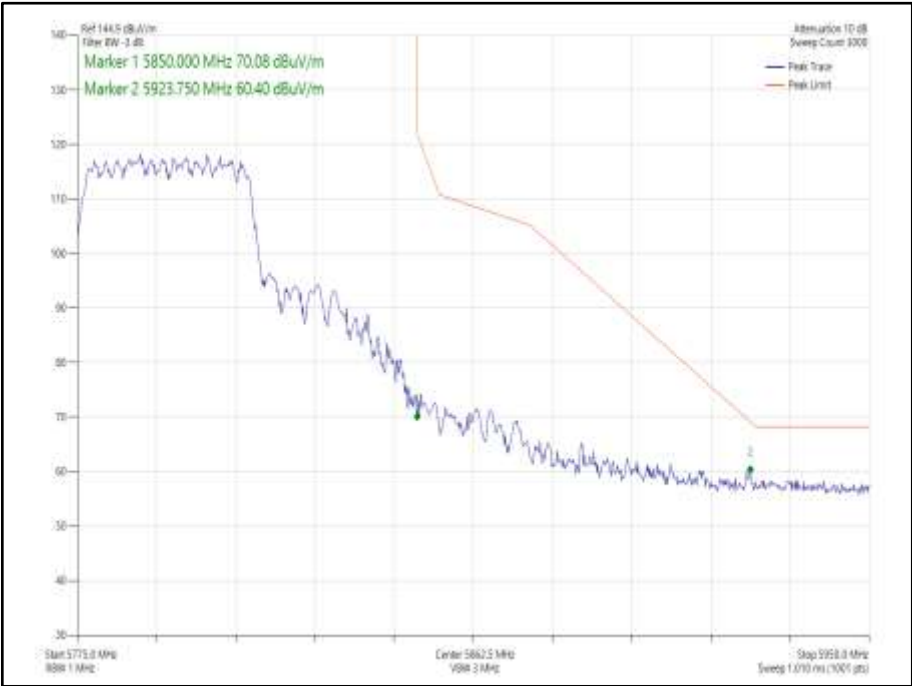


Figure 1005 - 802.11n HT40 CDD, Cores 0-1 - 5795 MHz
Band Edge Frequency 5850 MHz

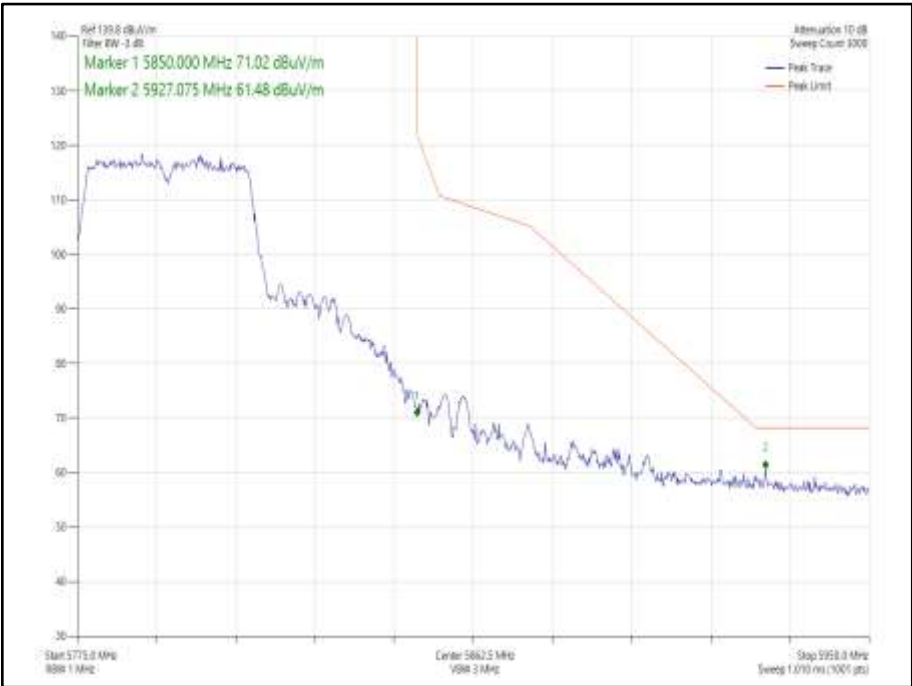


Figure 1006 - 802.11n HT40 SDM, Cores 0-1 - 5795 MHz
Band Edge Frequency 5850 MHz

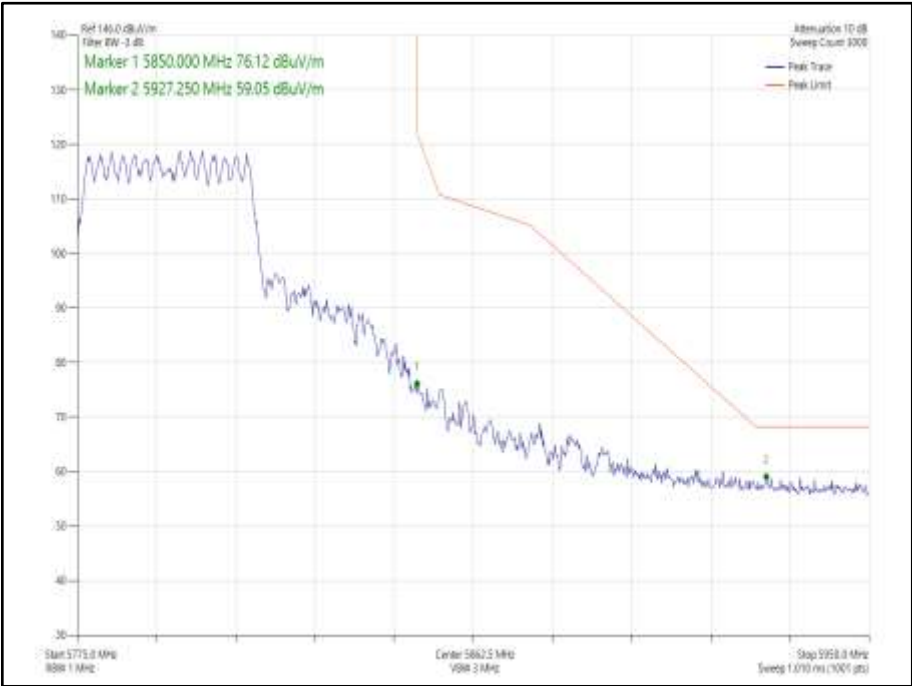


Figure 1007 - 802.11ax HE40 CDD, Cores 0-1, SU - 5795 MHz
Band Edge Frequency 5850 MHz

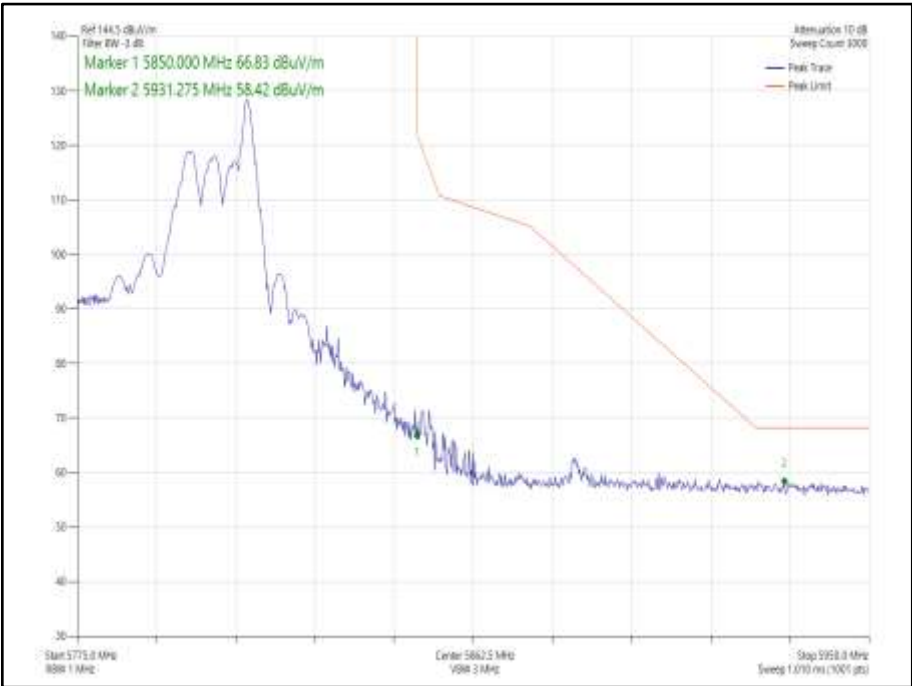


Figure 1008 - 802.11ax HE40 CDD, Cores 0-1, 26-17 - 5795 MHz
Band Edge Frequency 5850 MHz

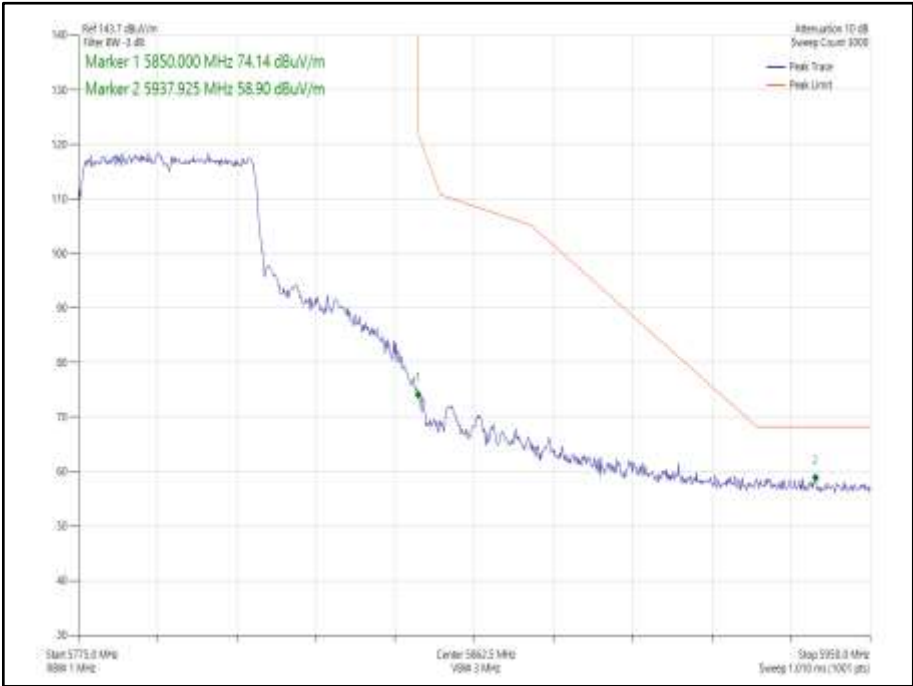


Figure 1009 - 802.11ax HE40 SDM, Cores 0-1, SU - 5795 MHz
Band Edge Frequency 5850 MHz

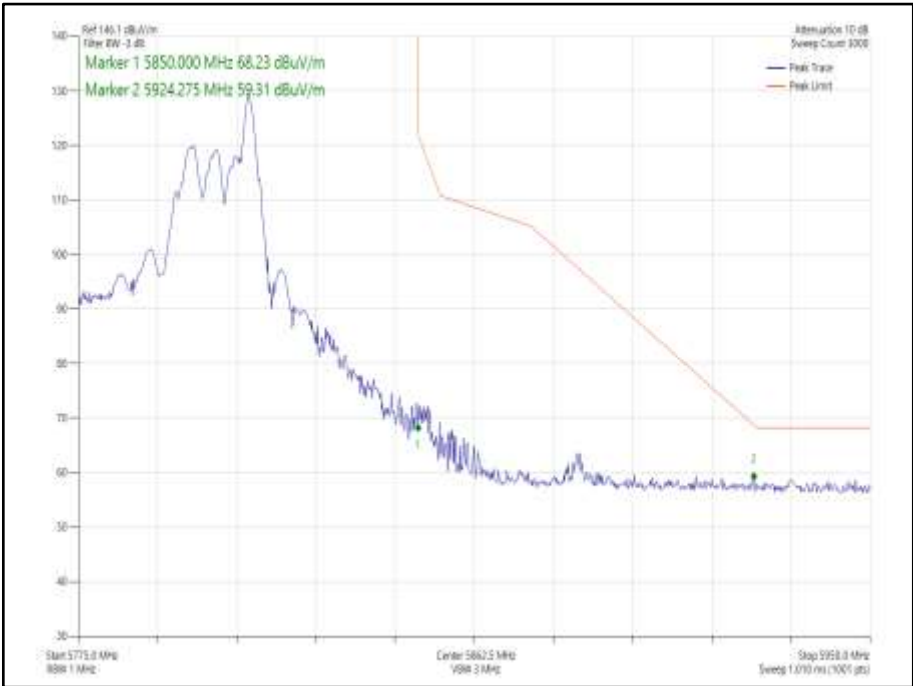
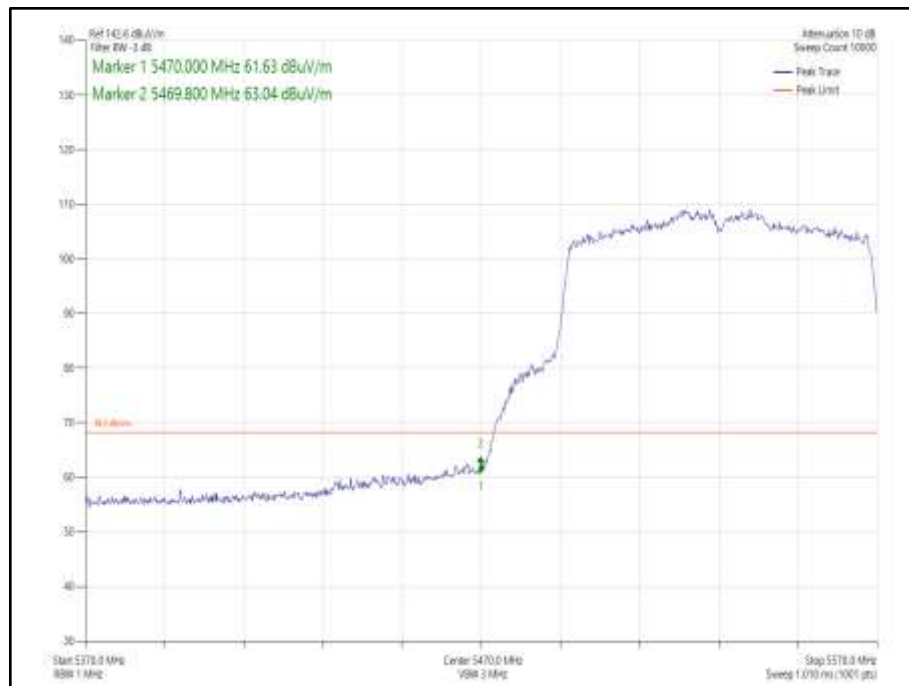


Figure 1010 - 802.11ax HE40 SDM, Cores 0-1, 26-17 - 5795 MHz
Band Edge Frequency 5850 MHz



Mode	Data Rate /MCS	Resource size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11ac VHT80, Core 0	MCS2x1	-	-	5530	5470	63.04
802.11ac VHT80, Core 0	MCS4x1	-	-	5610	5725	62.64
802.11ac VHT80, Core 1	MCS7x1	-	-	5775	5725	63.05
802.11ac VHT80, Core 1	MCS7x1	-	-	5775	5850	61.92
802.11ax HE80, Core 0	MCS11x1	SU	-	5530	5470	62.92
802.11ax HE80, Core 0	MCS11x1	52	37	5530	5470	63.07
802.11ax HE80, Core 0	MCS4x1	SU	-	5610	5725	63.15
802.11ax HE80, Core 0	MCS11x1	52	52	5610	5725	62.78
802.11ax HE80, Core 1	MCS11x1	SU	-	5775	5725	62.45
802.11ax HE80, Core 1	MCS11x1	26	0	5775	5725	61.99
802.11ax HE80, Core 1	MCS11x1	SU	-	5775	5850	62.90
802.11ax HE80, Core 1	MCS11x1	26	36	5775	5850	59.78

Table 699 - 80 MHz Bandwidth SISO Band Edge Results



**Figure 1011 - 802.11ac VHT80 Core 0 - 5530 MHz
Band Edge Frequency 5470 MHz**

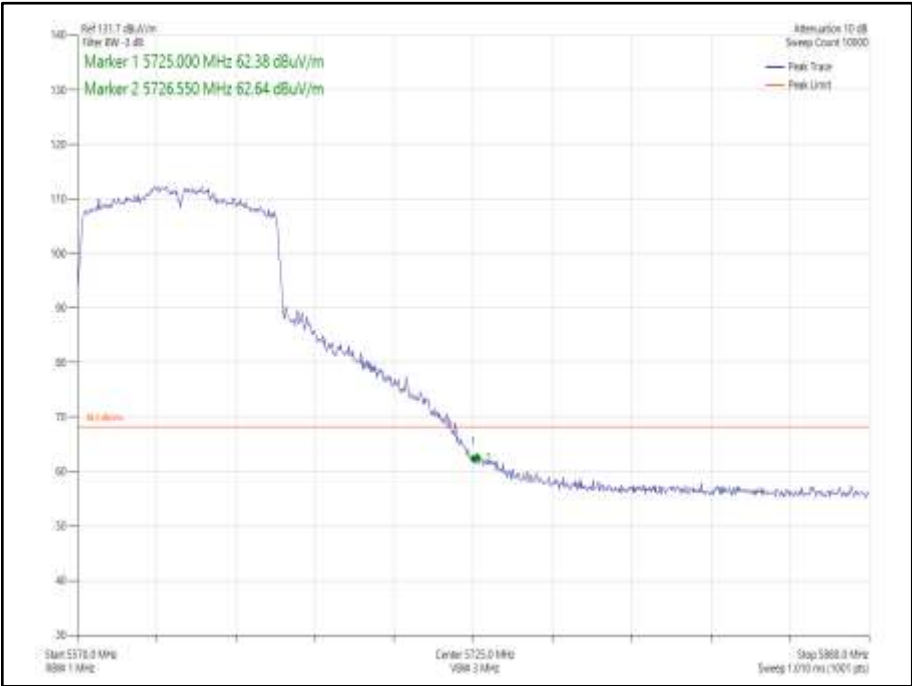


Figure 1012 - 802.11ac VHT80 Core 0 - 5610 MHz
Band Edge Frequency 5725 MHz

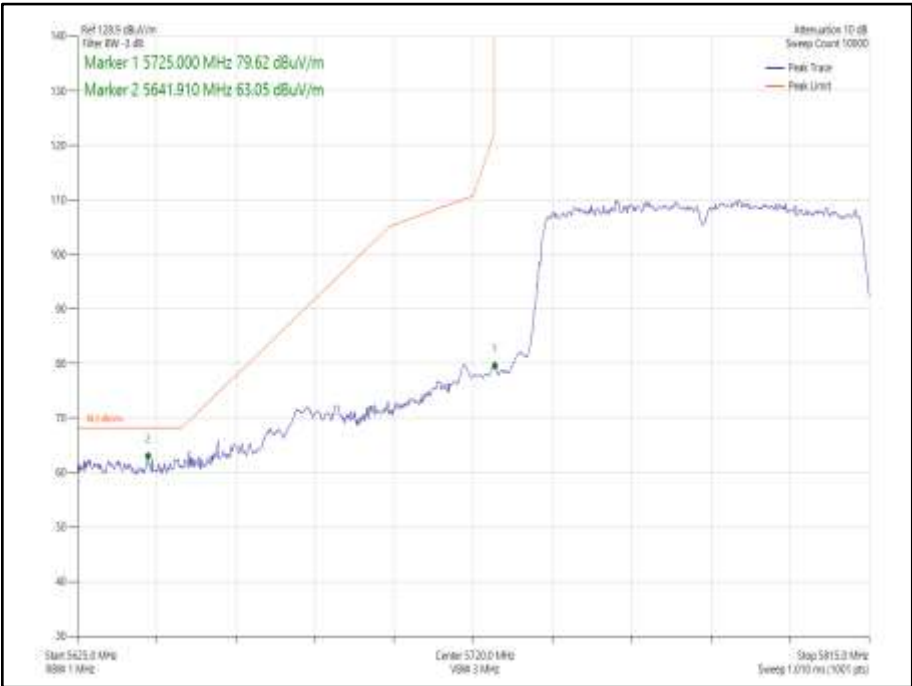


Figure 1013 - 802.11ac VHT80 Core 1 - 5775 MHz
Band Edge Frequency 5725 MHz

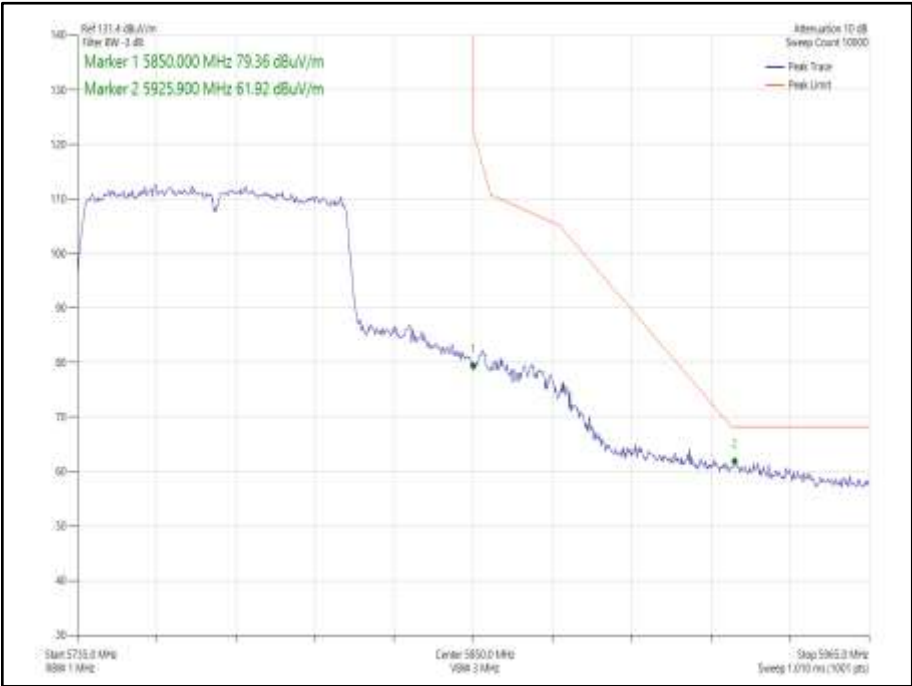


Figure 1014 - 802.11ac VHT80 Core 1 - 5775 MHz
Band Edge Frequency 5850 MHz

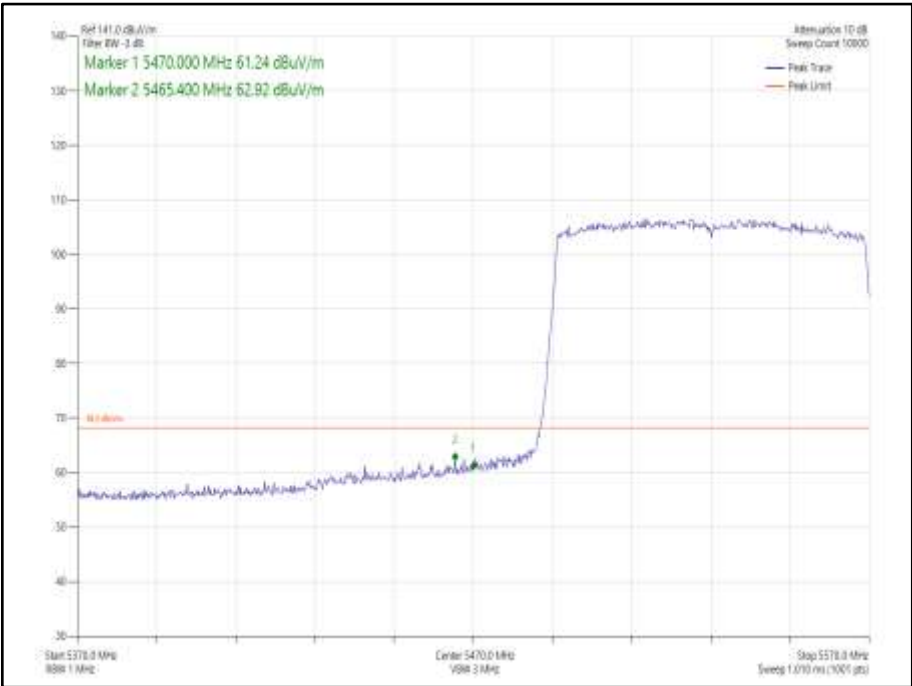


Figure 1015 - 802.11ax HE80 Core 0 SU - 5530 MHz
Band Edge Frequency 5470 MHz

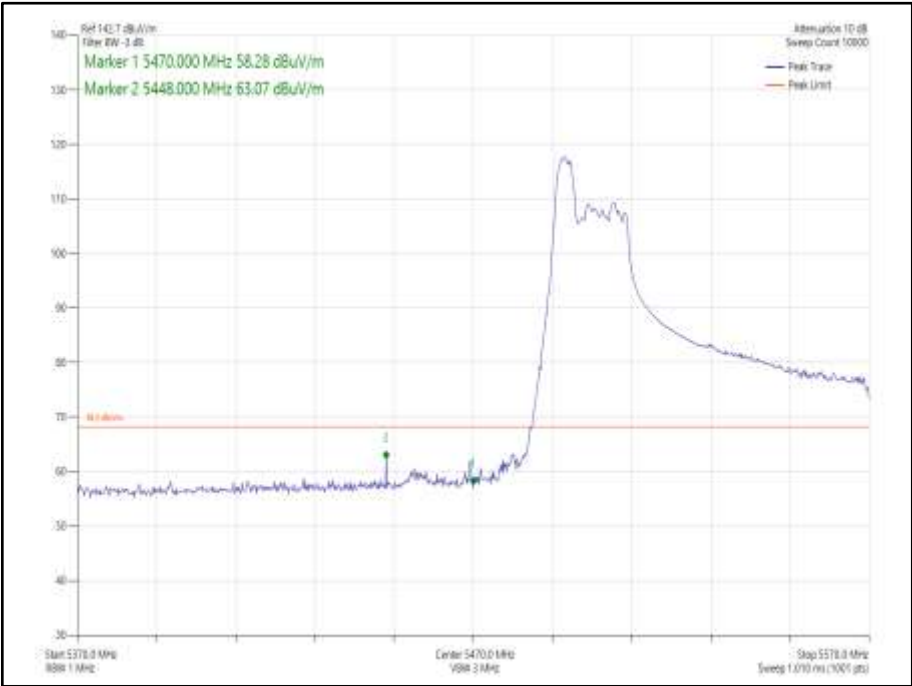


Figure 1016 - 802.11ax HE80 Core 0 52-37- 5530 MHz
Band Edge Frequency 5470 MHz

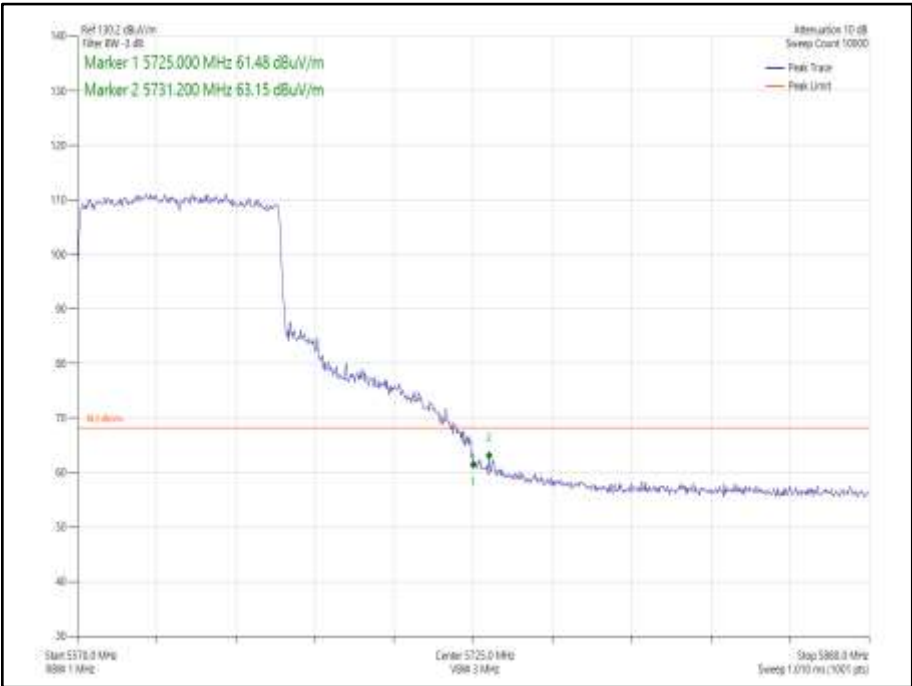
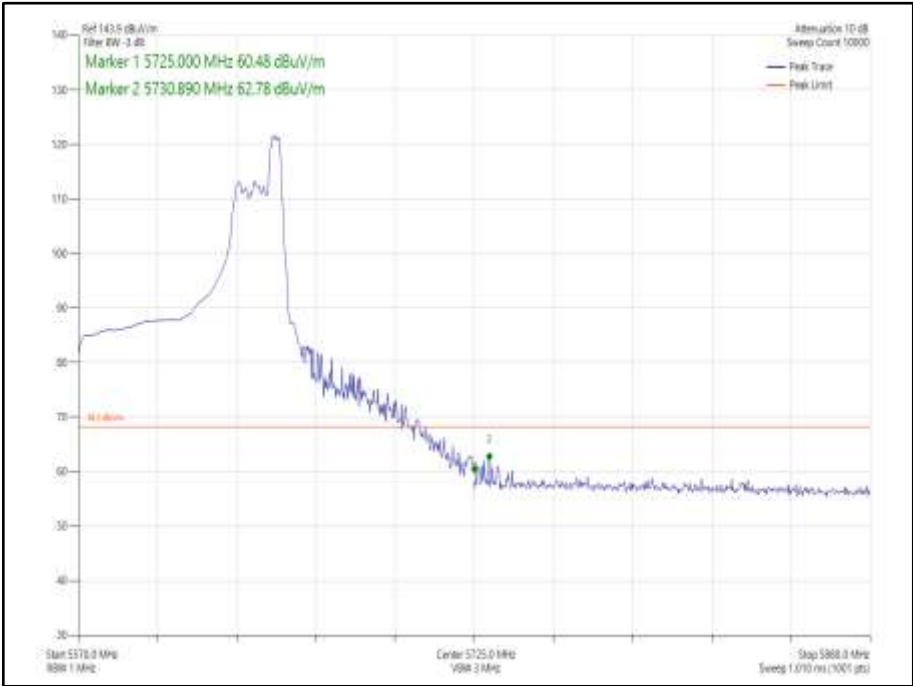
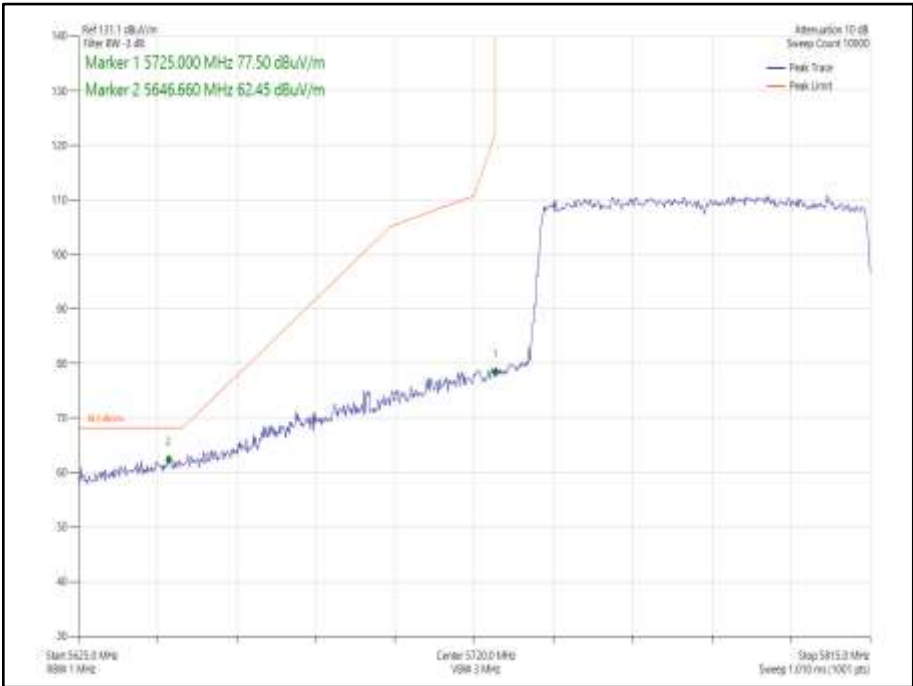


Figure 1017 - - 802.11ax HE80 Core 0 SU - 5610 MHz
Band Edge Frequency 5725 MHz



**Figure 1018 - - 802.11ax HE80 Core 0 52-52 - 5610 MHz
Band Edge Frequency 5725 MHz**



**Figure 1019 - 802.11ax HE80 Core 1 SU - 5775 MHz
Band Edge Frequency 5725 MHz**

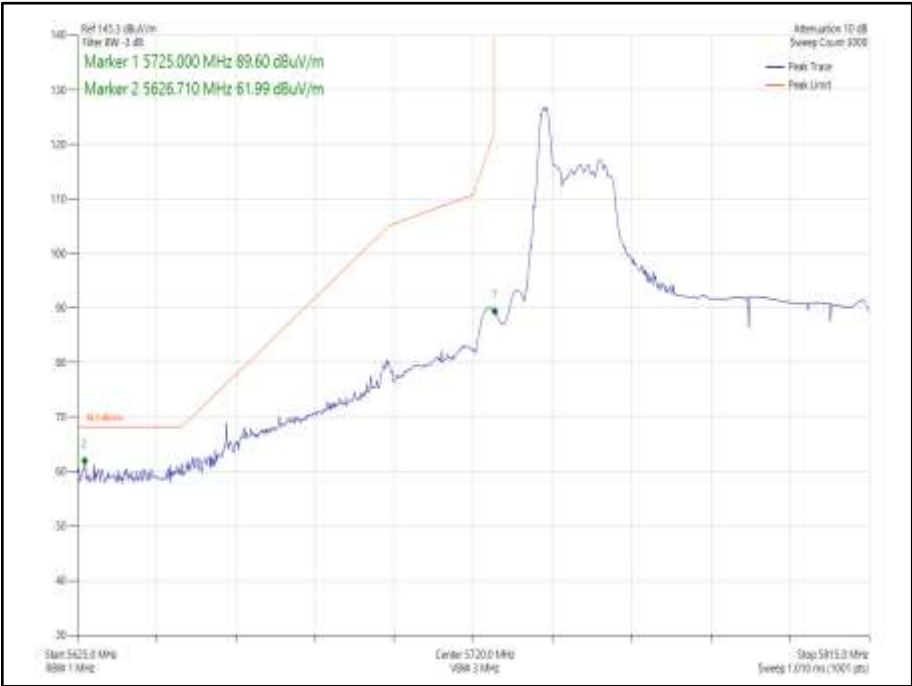


Figure 1020 - 802.11ax HE80 Core 1 26-0 - 5775 MHz
Band Edge Frequency 5725 MHz

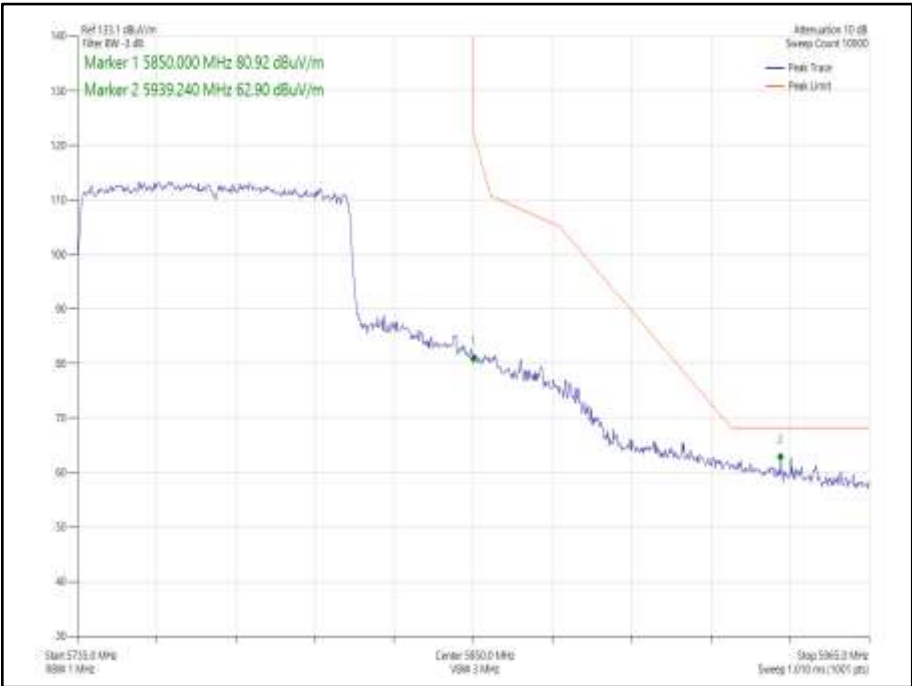


Figure 1021 - 802.11ax HE80 Core 1 SU - 5775 MHz
Band Edge Frequency 5850 MHz

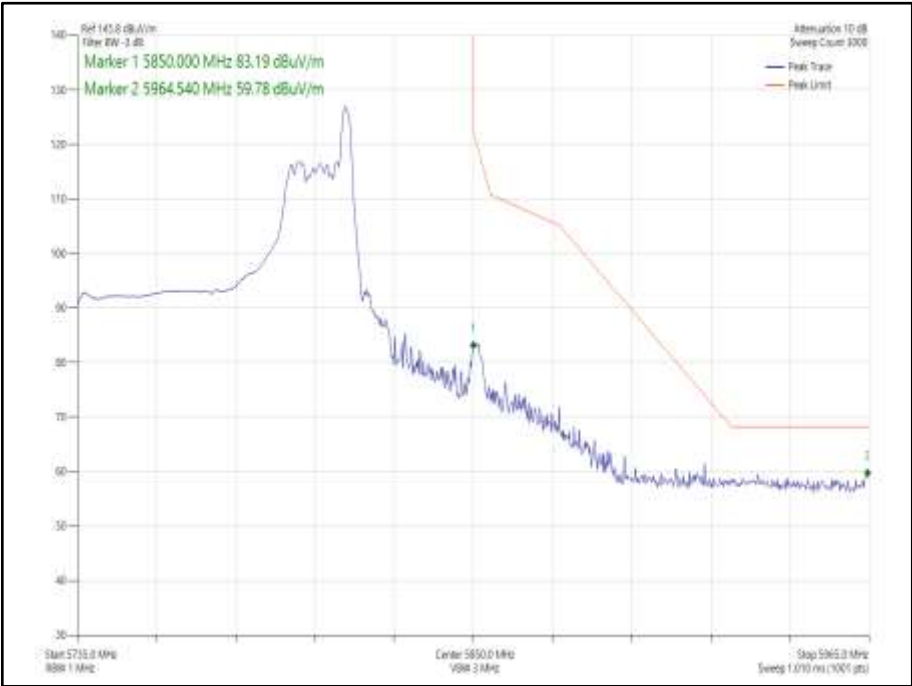


Figure 1022 - 802.11ax HE80 Core 1 26-36 - 5775 MHz
Band Edge Frequency 5850 MHz



Mode	Data Rate/ MCS	Resource size	Resource Index	TX Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBuV/m)
802.11ac VHT80 CDD, Cores 0-1	MCS7x1	-	-	5530	5470	63.14
802.11ac VHT80 SDM, Cores 0-1	MCS7x2	-	-	5530	5470	62.62
802.11ax HE80 CDD, Cores 0-1	MCS2x1	SU	-	5530	5470	62.37
802.11ax HE80 CDD, Cores 0-1	MCS11x1	52	37	5530	5470	63.06
802.11ax HE80 SDM, Cores 0-1	MCS11x2	SU	-	5530	5470	62.68
802.11ax HE80 SDM, Cores 0-1	MCS11x2	52	37	5530	5470	62.89
802.11ac VHT80 CDD, Cores 0-1	MCS4x1	-	-	5610	5725	63.20
802.11ac VHT80 SDM, Cores 0-1	MCS4x2	-	-	5610	5725	63.04
802.11ax HE80 CDD, Cores 0-1	MCS11x1	SU	-	5610	5725	62.85
802.11ax HE80 CDD, Cores 0-1	MCS11x1	52	52	5610	5725	62.96
802.11ax HE80 SDM, Cores 0-1	MCS2x2	SU	-	5610	5725	63.01
802.11ax HE80 SDM, Cores 0-1	MCS11x2	52	52	5610	5725	61.98
802.11ac VHT80 CDD, Cores 0-1	MCS4x1	-	-	5775	5725	62.94
802.11ac VHT80 SDM, Cores 0-1	MCS4x2	-	-	5775	5725	62.80
802.11ax HE80 CDD, Cores 0-1	MCS11x1	SU	-	5775	5725	63.01
802.11ax HE80 CDD, Cores 0-1	MCS11x1	26	0	5775	5725	62.93
802.11ax HE80 SDM, Cores 0-1	MCS4x2	SU	-	5775	5725	62.81
802.11ax HE80 SDM, Cores 0-1	MCS11x2	26	0	5775	5725	62.10
802.11ac VHT80 CDD, Cores 0-1	MCS7x1	-	-	5775	5850	62.21
802.11ac VHT80 SDM, Cores 0-1	MCS7x2	-	-	5775	5850	62.76
802.11ax HE80 CDD, Cores 0-1	MCS11x1	SU	-	5775	5850	63.01
802.11ax HE80 CDD, Cores 0-1	MCS11x1	26	36	5775	5850	61.39
802.11ax HE80 SDM, Cores 0-1	MCS11x2	SU	-	5775	5850	62.56
802.11ax HE80 SDM, Cores 0-1	MCS11x2	26	36	5775	5850	62.26

Table 700 - 80 MHz Bandwidth 2TX MIMO Authorised Band Edge Results

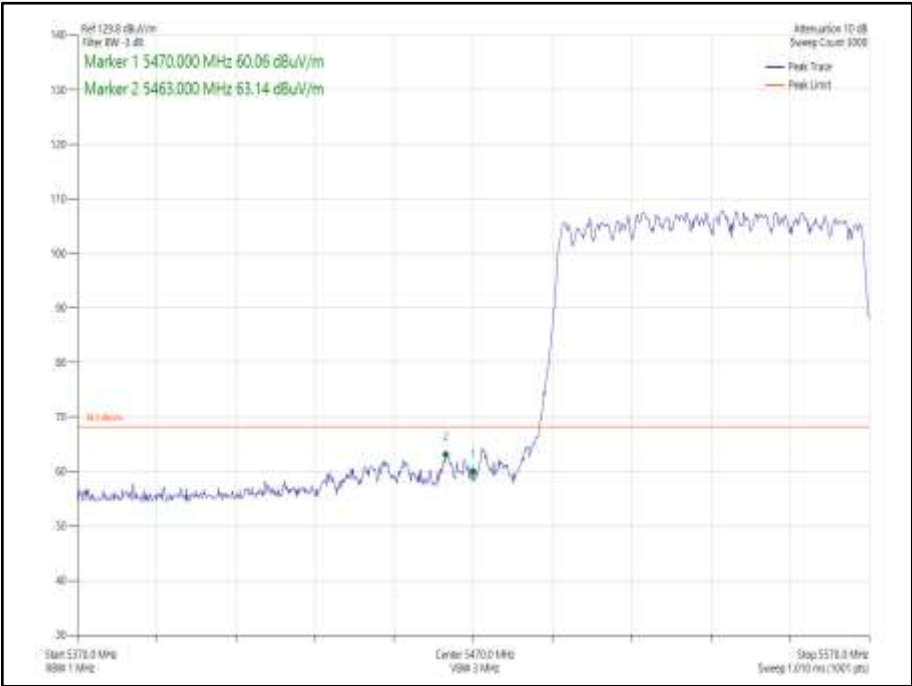


Figure 1023 - 802.11ac VHT80 CDD, Cores 0-1 - 5530 MHz
Band Edge Frequency 5470 MHz

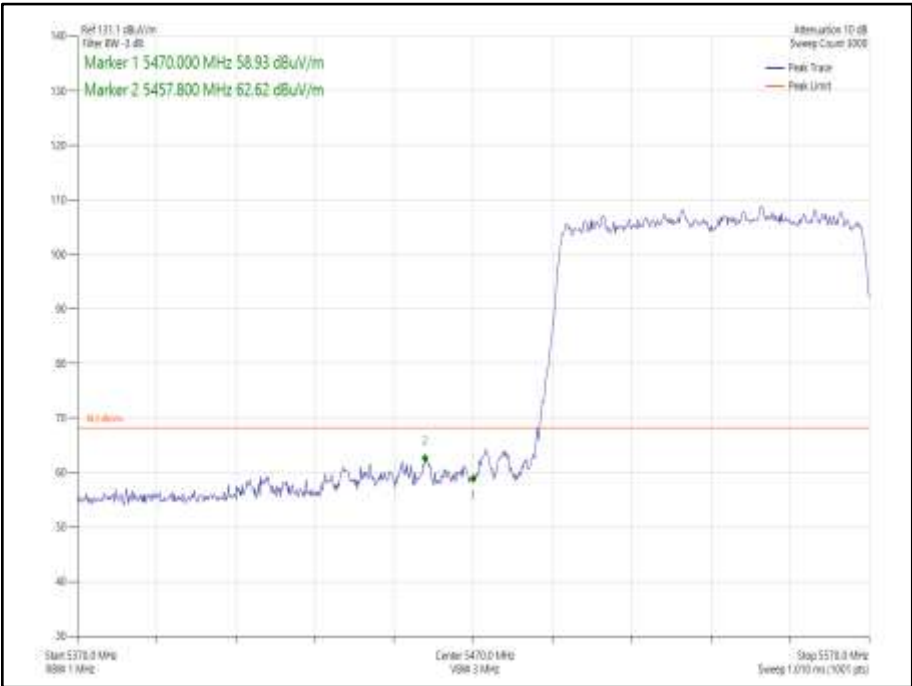


Figure 1024 - 802.11ac VHT80 SDM, Cores 0-1 - 5530 MHz
Band Edge Frequency 5470 MHz

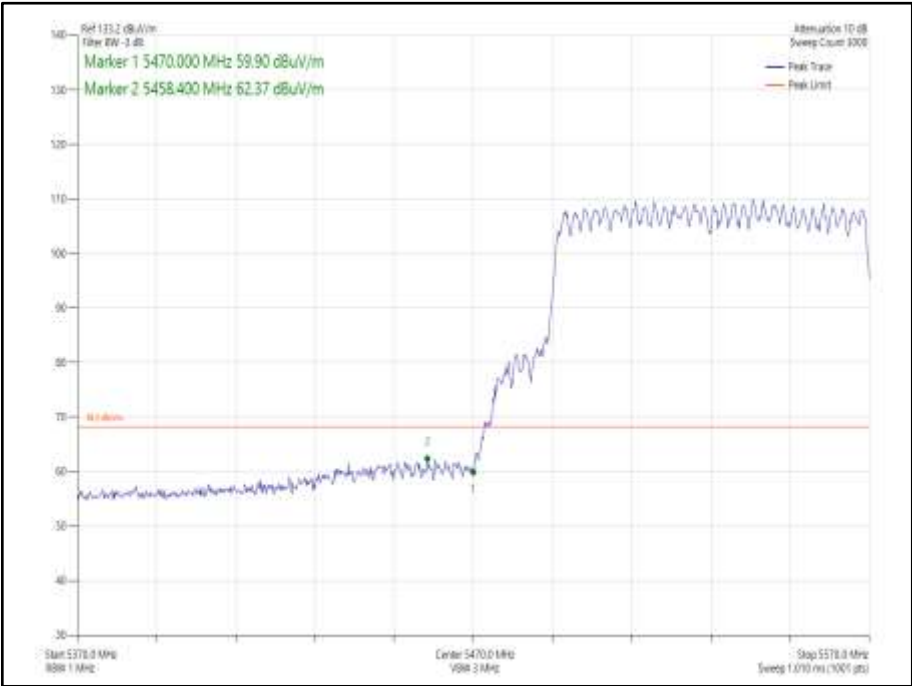


Figure 1025 - 802.11ax HE80 CDD, Cores 0-1, SU - 5530 MHz
Band Edge Frequency 5470 MHz

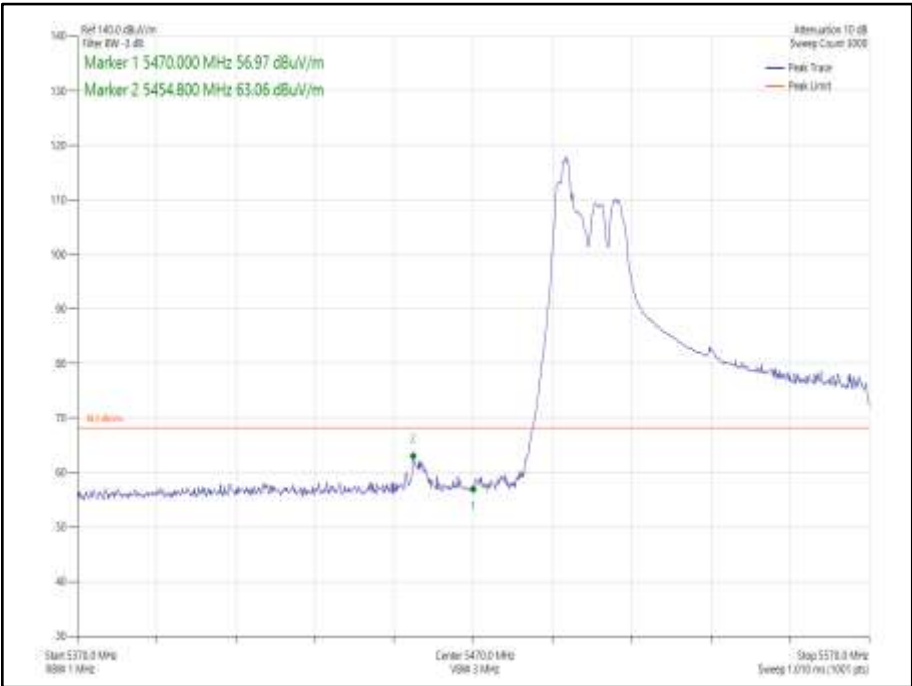


Figure 1026 - 802.11ax HE80 CDD, Cores 0-1, 52-37- 5530 MHz
Band Edge Frequency 5470 MHz



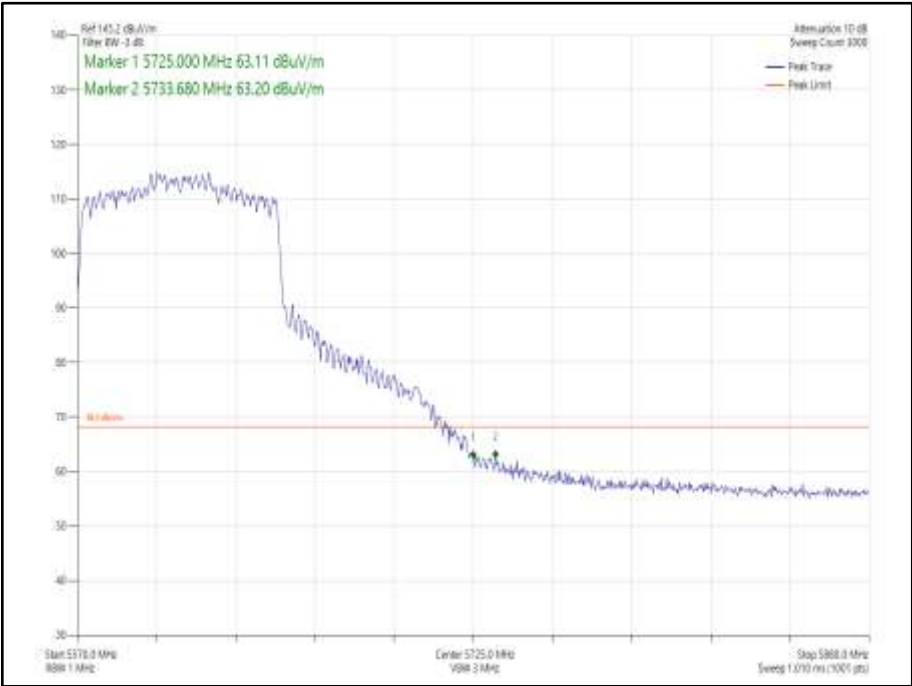


Figure 1029 - 802.11ac VHT80 CDD, Cores 0-1 - 5610 MHz
Band Edge Frequency 5725 MHz

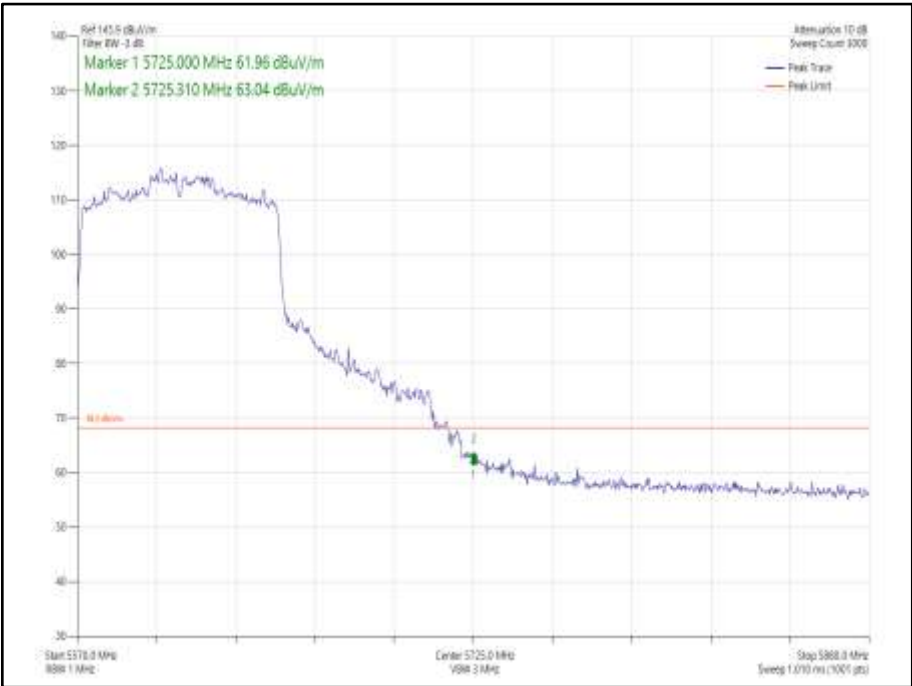


Figure 1030 - 802.11ac VHT80 SDM, Cores 0-1 - 5610 MHz
Band Edge Frequency 5725 MHz

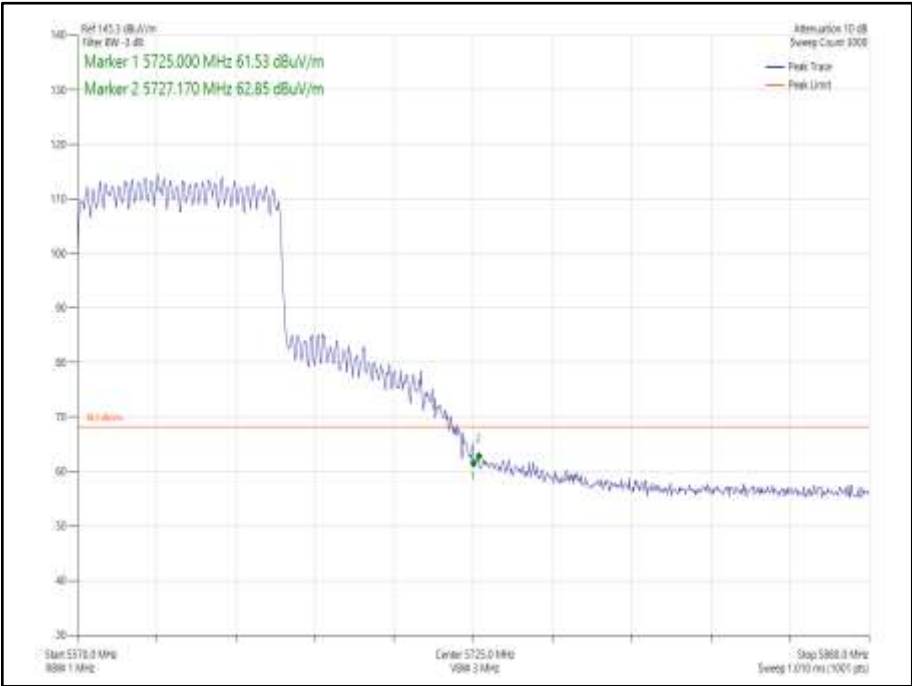


Figure 1031 - 802.11ax HE80 CDD, Cores 0-1, SU - 5610 MHz
Band Edge Frequency 5725 MHz

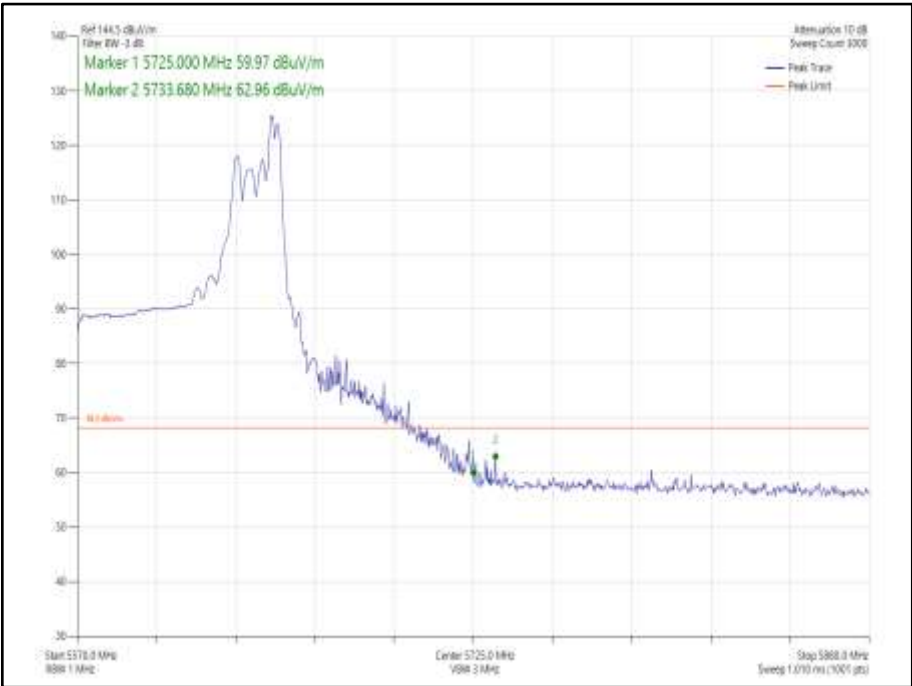


Figure 1032 - 802.11ax HE80 CDD, Cores 0-1, 52-52- 5610 MHz
Band Edge Frequency 5725 MHz

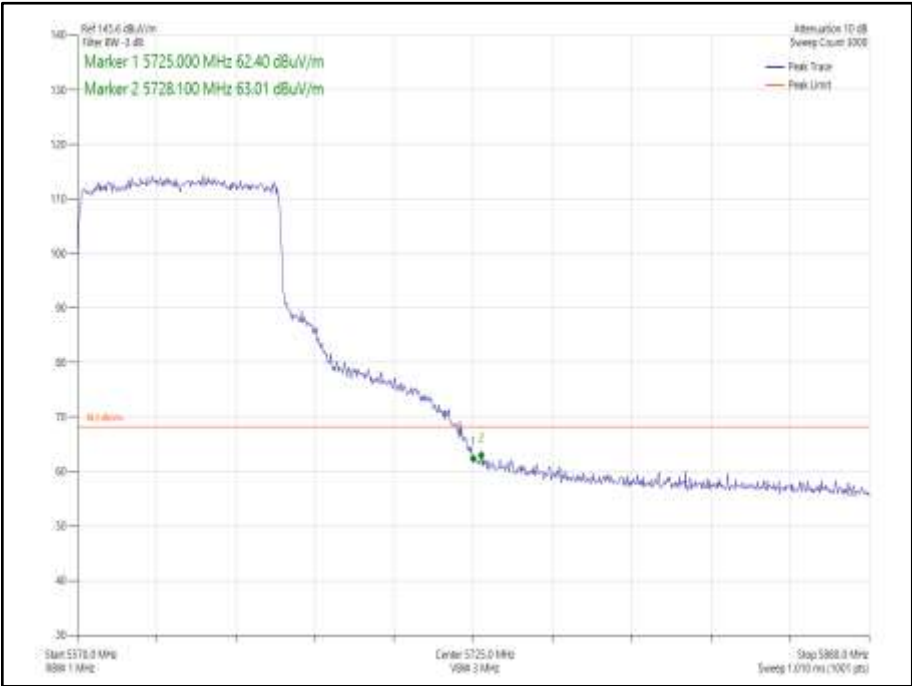


Figure 1033 - 802.11ax HE80 SDM, Cores 0-1, SU - 5610 MHz
Band Edge Frequency 5725 MHz

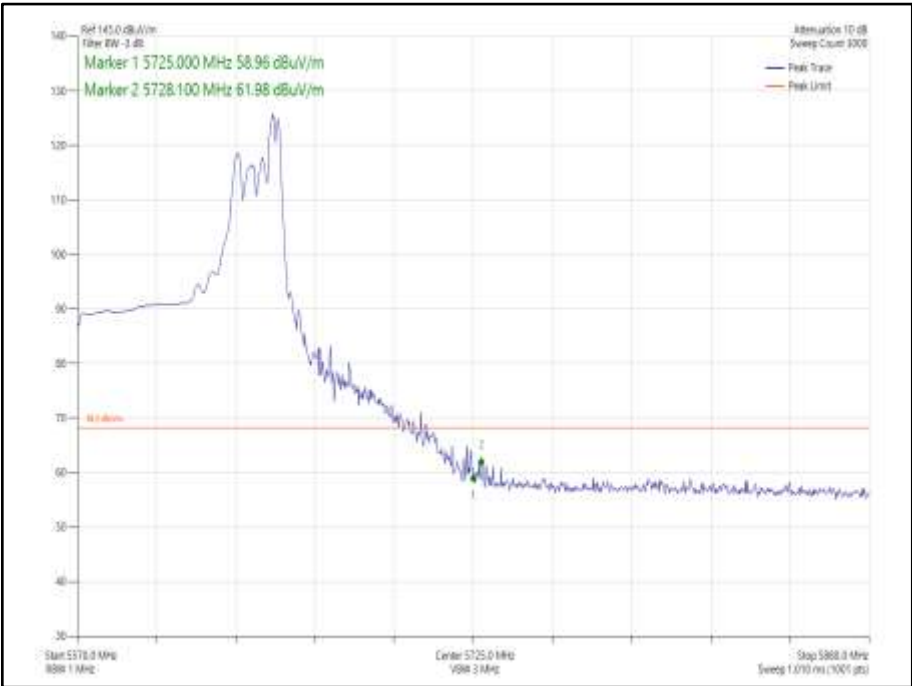


Figure 1034 - 802.11ax HE80 SDM, Cores 0-1, 26-36 - 5610 MHz
Band Edge Frequency 5725 MHz

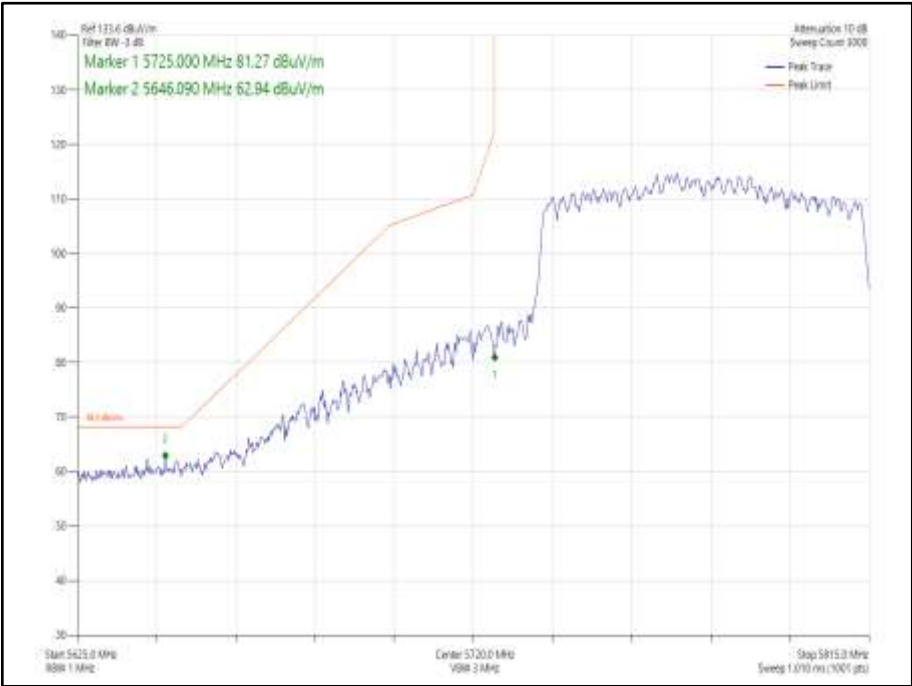


Figure 1035 - 802.11ac VHT80 CDD, Cores 0-1 - 5775 MHz
Band Edge Frequency 5725 MHz

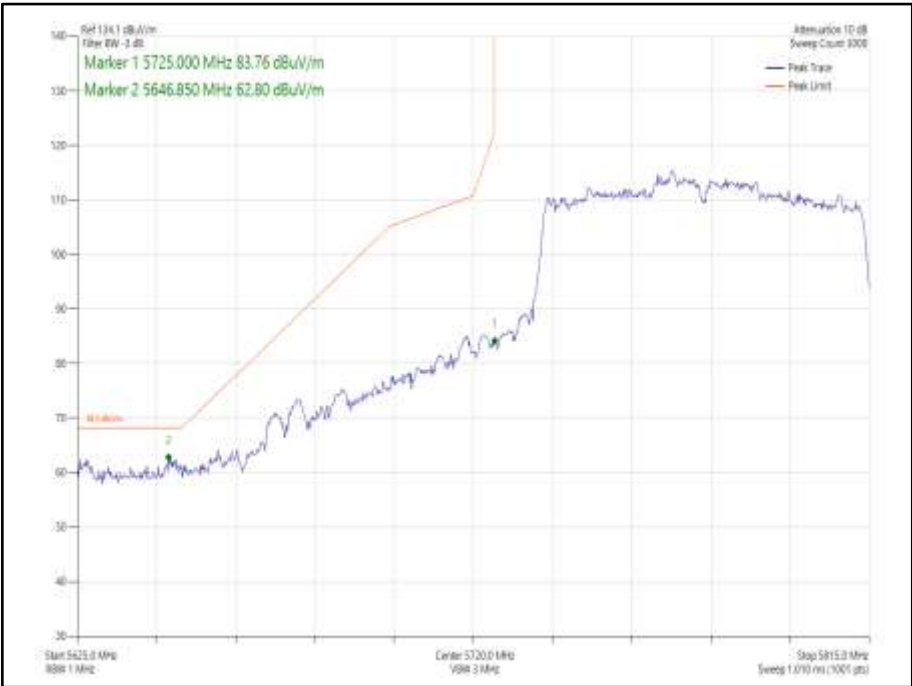


Figure 1036 - 802.11ac VHT80 SDM, Cores 0-1 - 5775 MHz
Band Edge Frequency 5725 MHz

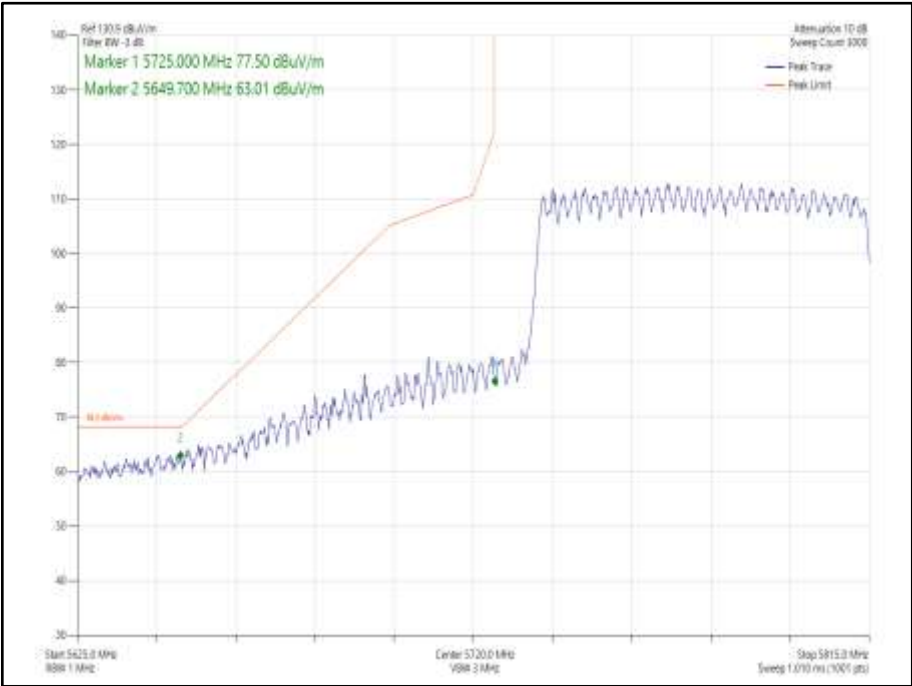


Figure 1037 - 802.11ax HE80 CDD, Cores 0-1, SU - 5775 MHz
Band Edge Frequency 5725 MHz

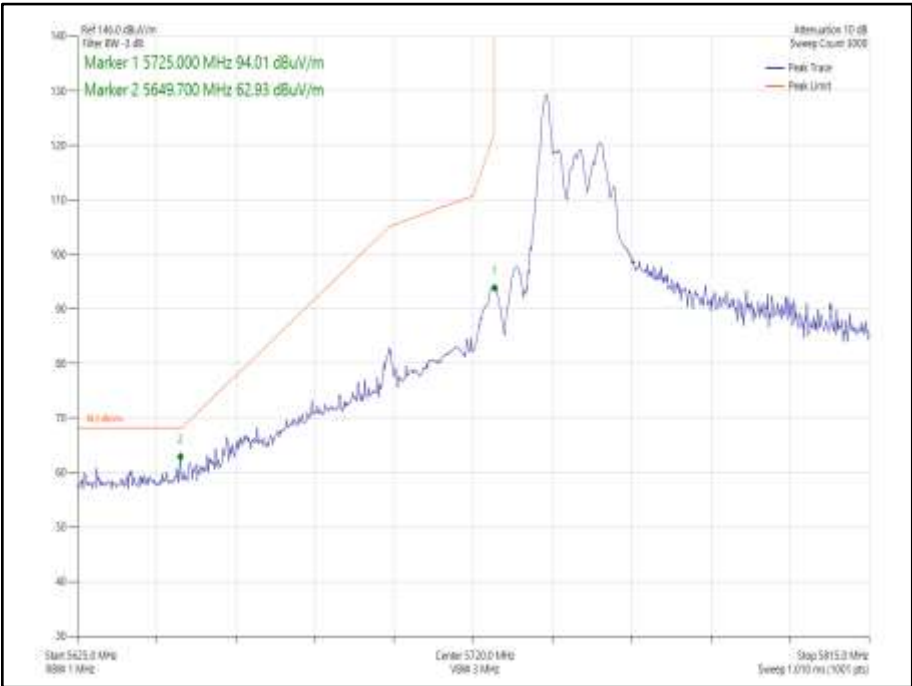


Figure 1038 - 802.11ax HE80 CDD, Cores 0-1, 26-0 - 5775 MHz
Band Edge Frequency 5725 MHz

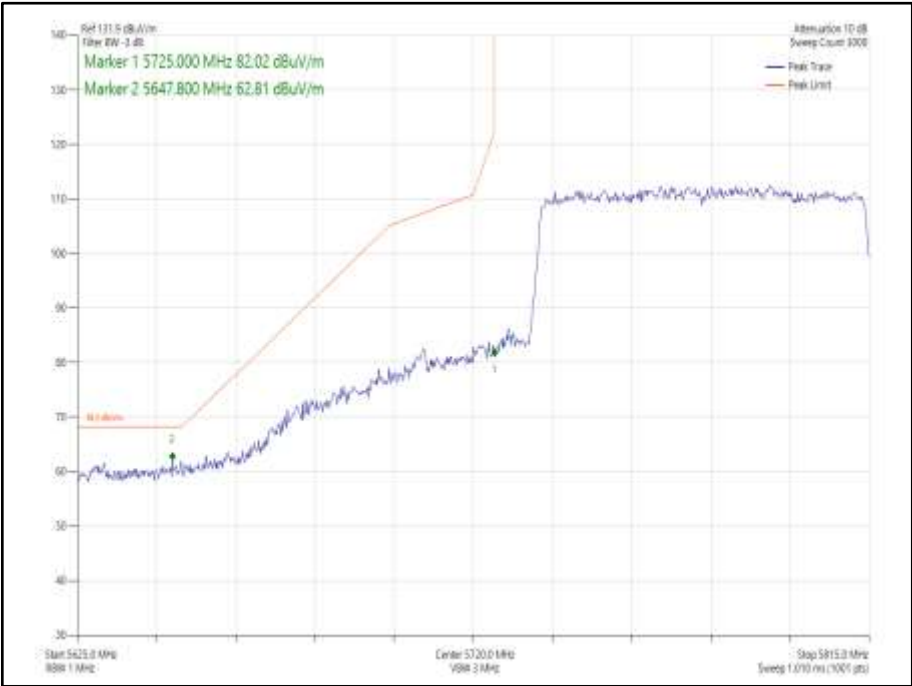


Figure 1039 - 802.11ax HE80 SDM, Cores 0-1, SU - 5775 MHz
Band Edge Frequency 5725 MHz

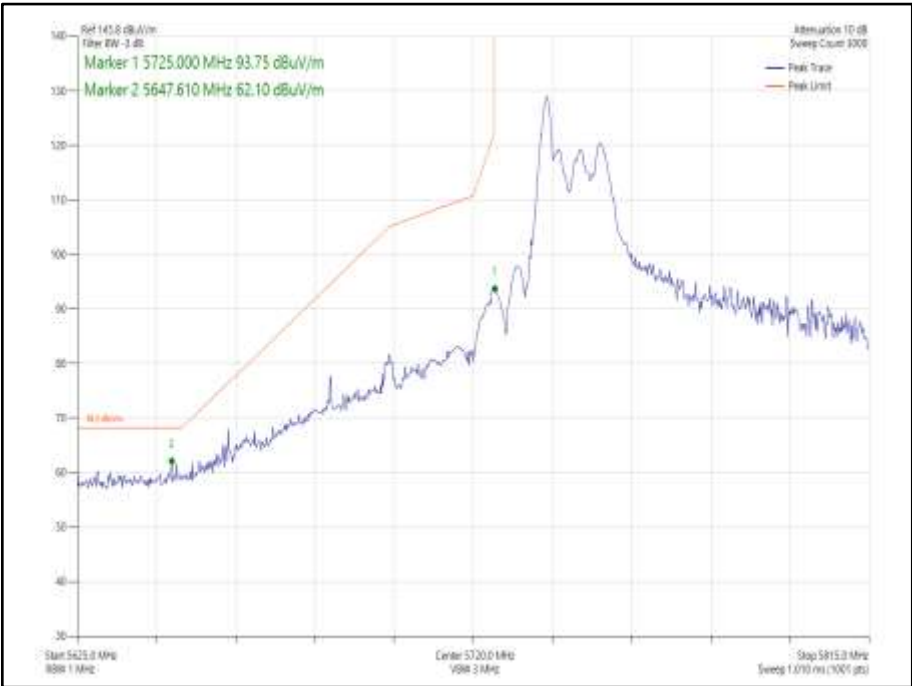


Figure 1040 - 802.11ax HE80 SDM, Cores 0-1, 26-0 - 5775 MHz
Band Edge Frequency 5725 MHz

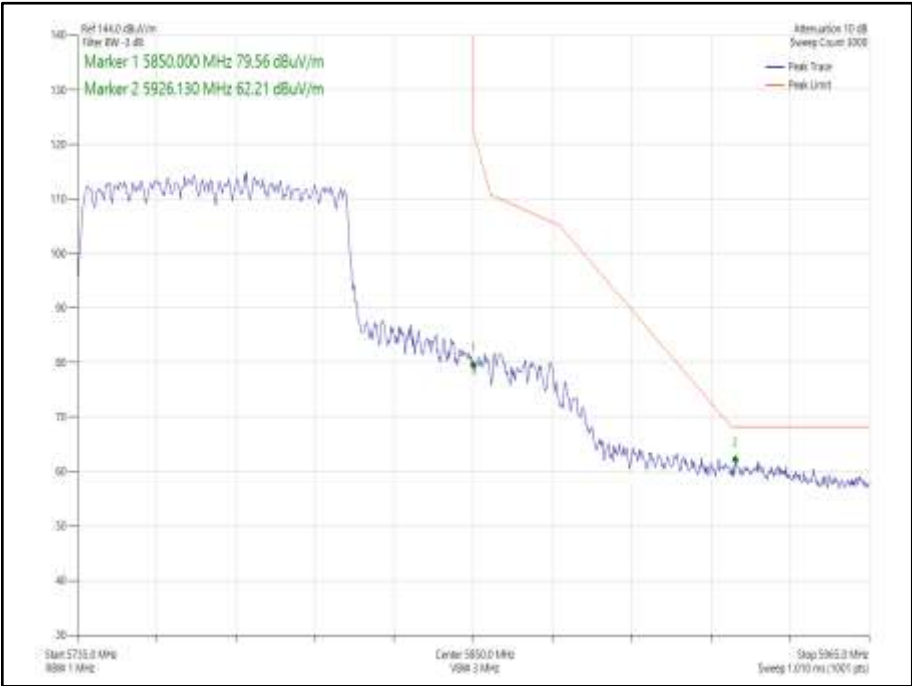


Figure 1041 - 802.11ac VHT80 CDD, Cores 0-1 - 5775 MHz
Band Edge Frequency 5850 MHz

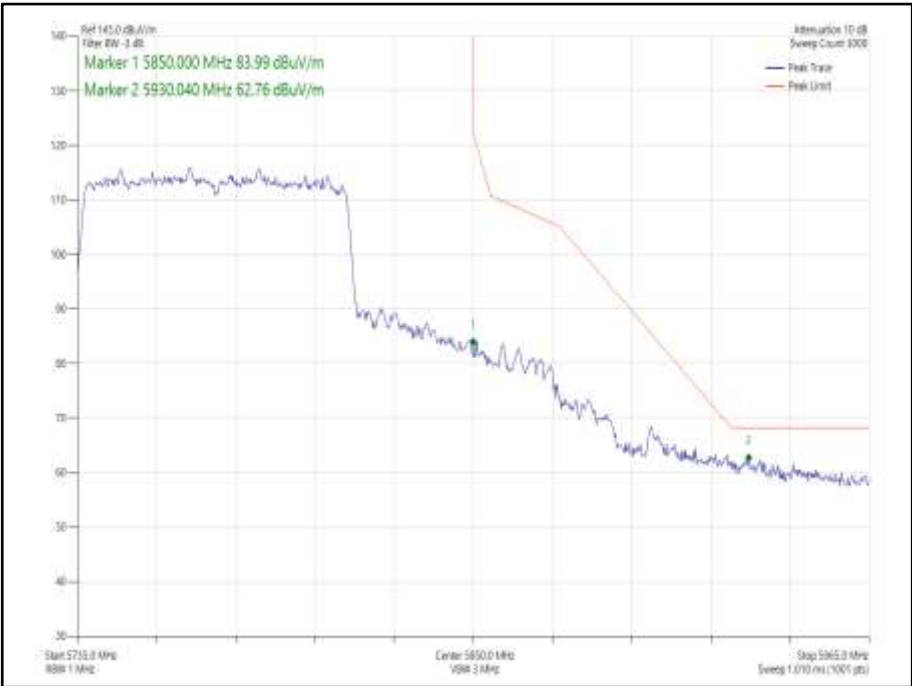


Figure 1042 - 802.11ac VHT80 SDM, Cores 0-1 - 5775 MHz
Band Edge Frequency 5850 MHz

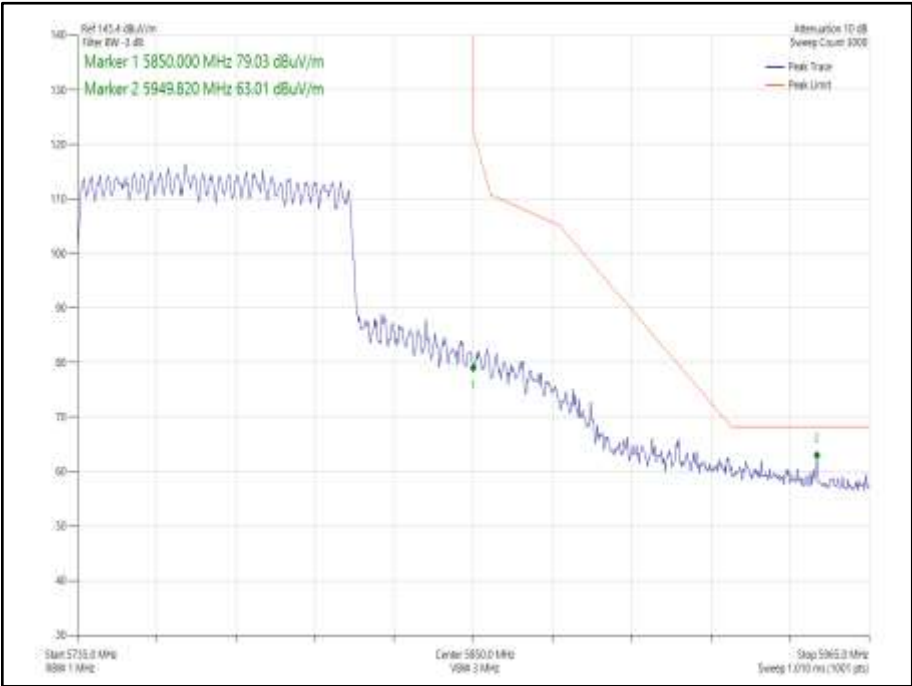


Figure 1043 - 802.11ax HE80 CDD, Cores 0-1, SU - 5775 MHz
Band Edge Frequency 5850 MHz

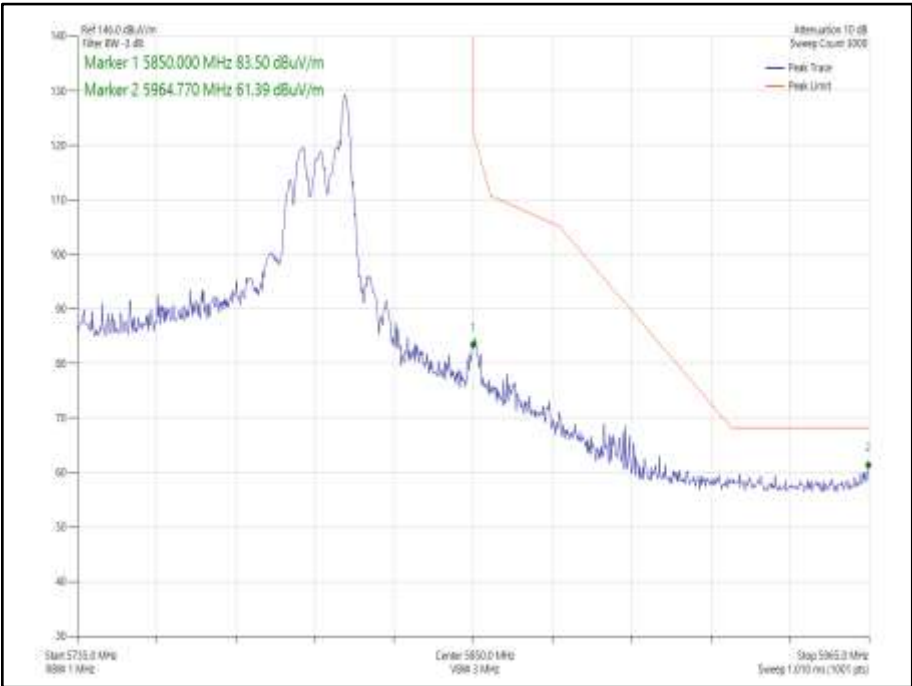


Figure 1044 - 802.11ax HE80 CDD, Cores 0-1, 2d 6-36 - 5775 MHz
Band Edge Frequency 5850 MHz

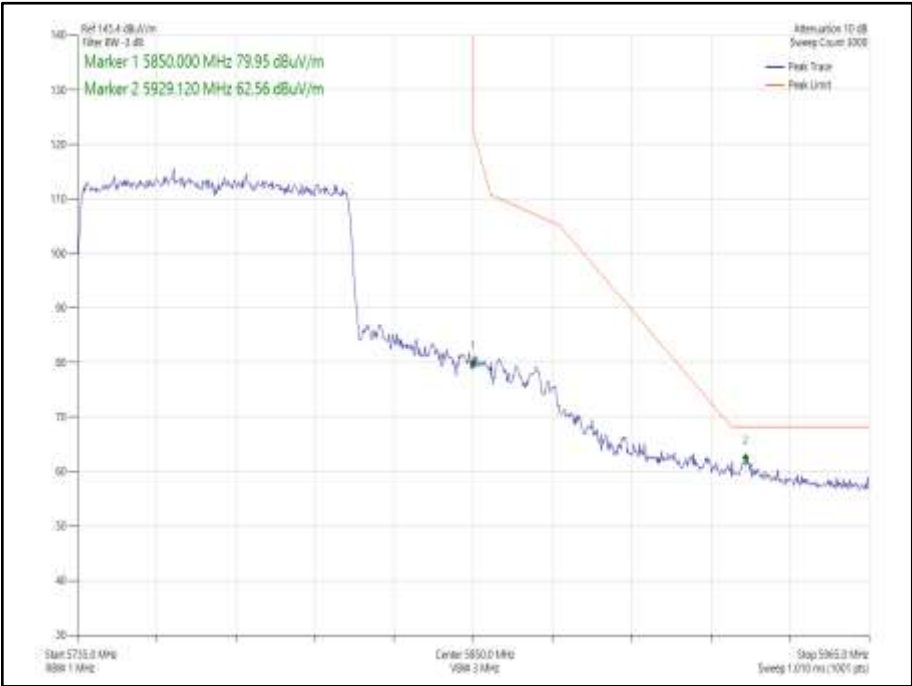


Figure 1045 - 802.11ax HE80 SDM, Cores 0-1, SU -- 5775 MHz
Band Edge Frequency 5850 MHz

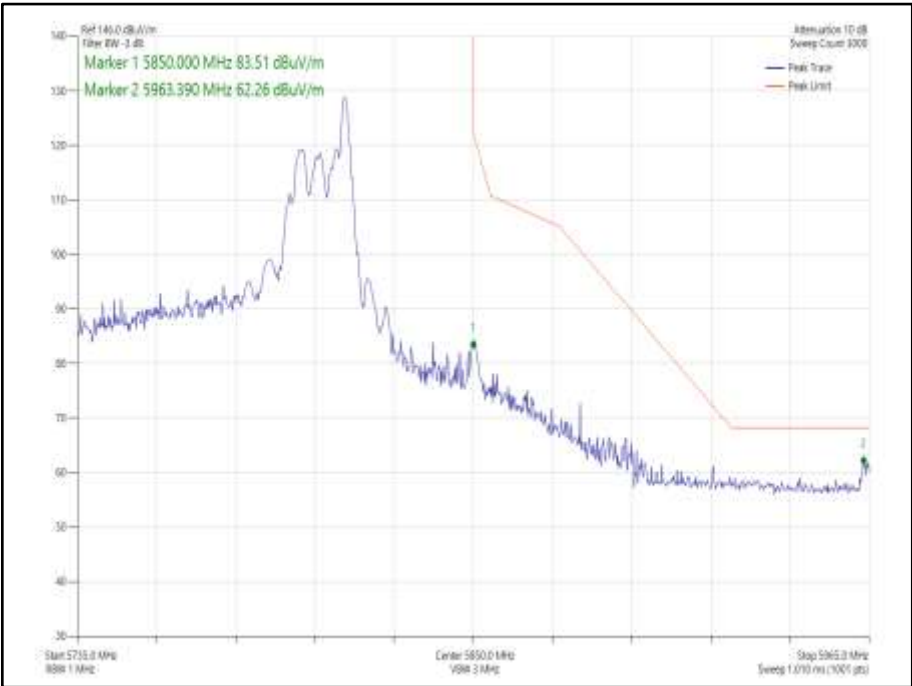


Figure 1046 - 802.11ax HE80 SDM, Cores 0-1, 26-36 - 5775 MHz
Band Edge Frequency 5850 MHz



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

-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 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
EMI Test Receiver	Rohde & Schwarz	ESW44	5084	12	08-Mar-2022
Cable (18 GHz)	Rosenberger	LU7-071-2000	5107	12	09-Jul-2022
EmX Emissions Software	TUV SUD	V2.1.11	5125	-	Software
Screened Room (11)	Rainford	Rainford	5136	36	01-Nov-2021
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Horn Antenna (1-10GHz)	Schwarzbeck	BBHA 9120 B	5215	12	01-Apr-2022
8m N Type Cable	Junkosha	MWX221-08000NMSNMS/B	5522	12	24-Mar-2022
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5604	12	08-Sep-2021
Preamp 1 - 26.5 GHz	Agilent Technologies	8449B	5445	12	6-May-2022
Attenuator 5W 10dB DC-18GHz	Aaren	AT40A-4041-D18-10	5492	12	14-Apr-2022

Table 701

TU - Traceability Unscheduled



2.6 Spurious Radiated Emissions

2.6.1 Specification Reference

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

2.6.2 Equipment Under Test and Modification State

A2442, S/N: DNQHW6Y3WY - Modification State 0

2.6.3 Date of Test

15-July-2021 to 22-July-2021

2.6.4 Test Method

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

Tests were performed from 30 MHz to 1 GHz on channel 36 (5180 MHz) and channel 165 (5825 MHz) only. Spurious emissions from 1 GHz to 40 GHz was performed on all test channels.

All spurious emissions testing, regardless of channel or mode, was performed at the EUT's maximum output power specified for any channel, mode and/or bandwidth given in the customer's power table. Therefore, due to some modes and channels in the final product being limited to lower output powers, these spurious emissions results are deemed "worst-case".

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 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:
 $\text{Field Strength (dBuV/m at 3 m)} = \text{EIRP (dBm)} + 95.2 \text{ dB}$

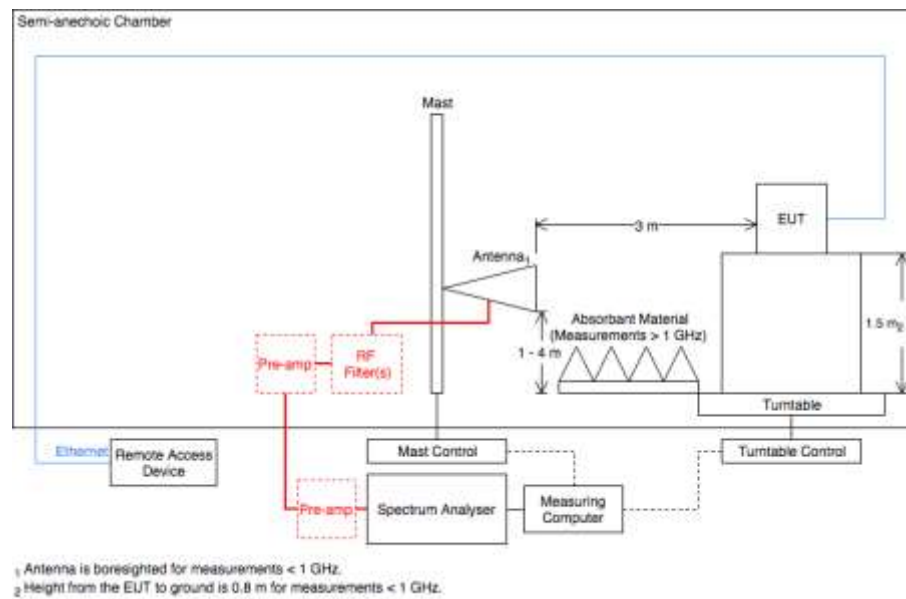


Figure 1047 - Radiated Emissions Test Setup Diagram

2.6.5 Environmental Conditions

Ambient Temperature	20.7 - 26.0 °C
Relative Humidity	47.0 - 60.0 %

2.6.6 Test Results

5 GHz WLAN

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

Table 702 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

*No emissions found within 6 dB of the limit.

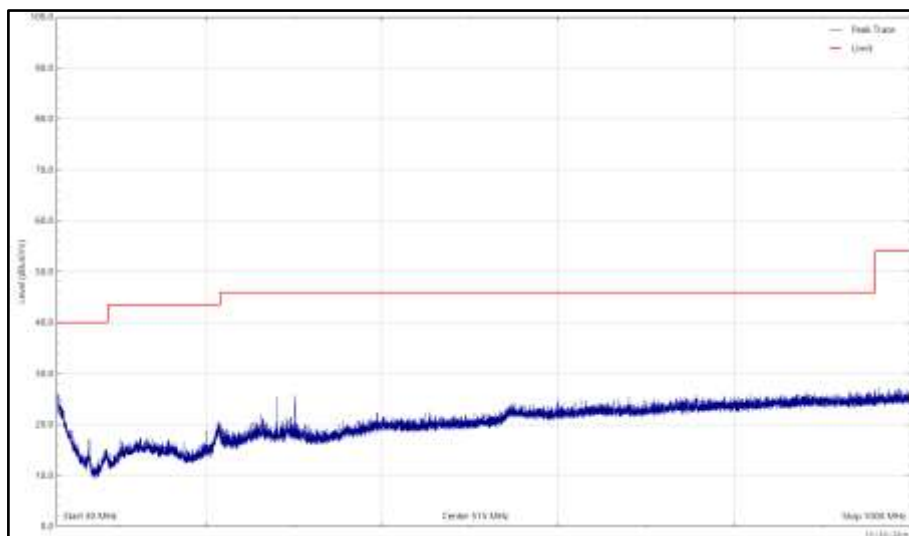


Figure 1048 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

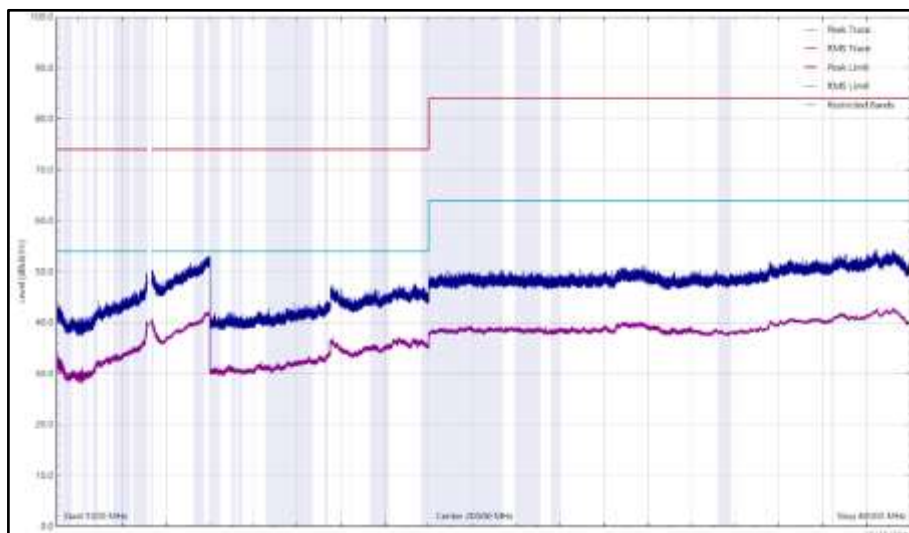


Figure 1049 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

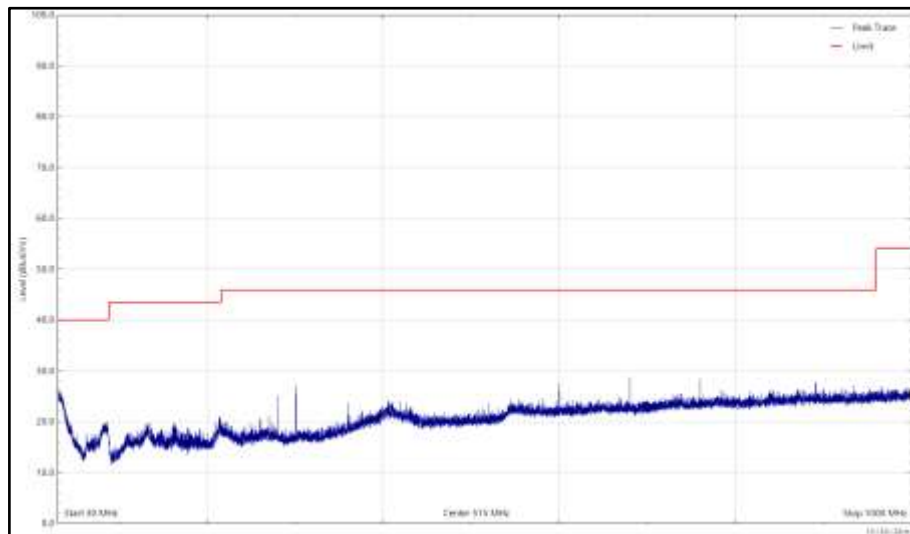


Figure 1050 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

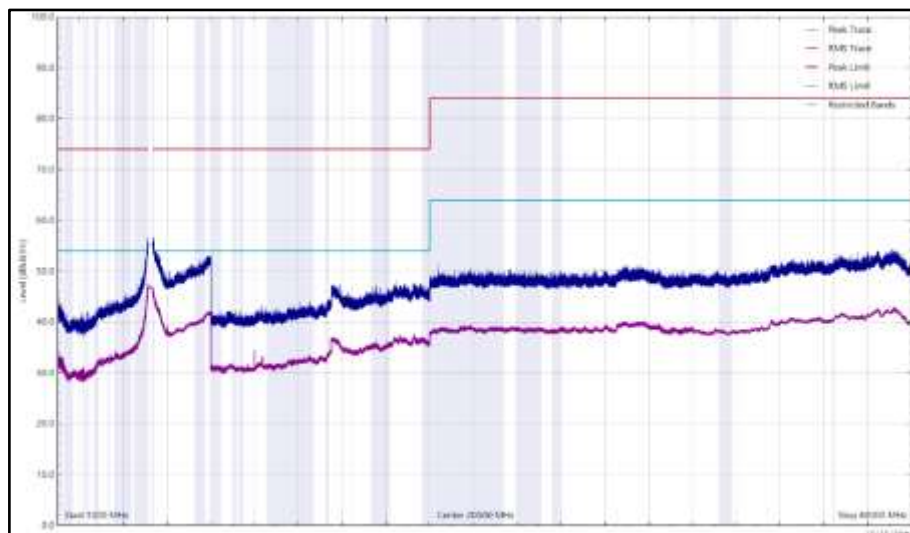


Figure 1051 - U-NII-1 - 5180 MHz (CH36), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
10634.267	40.6	54.0	-13.4	RMS	68	121	Vertical
10642.249	35.4	54.0	-18.7	RMS	69	326	Horizontal

Table 703 - U-NII-2A - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 6 dB of the limit.

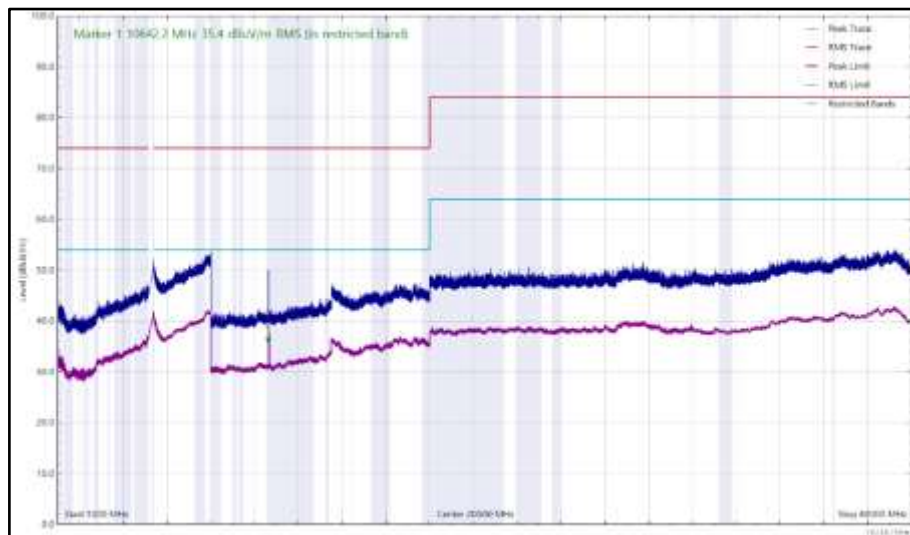


Figure 1052 - U-NII-2A - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

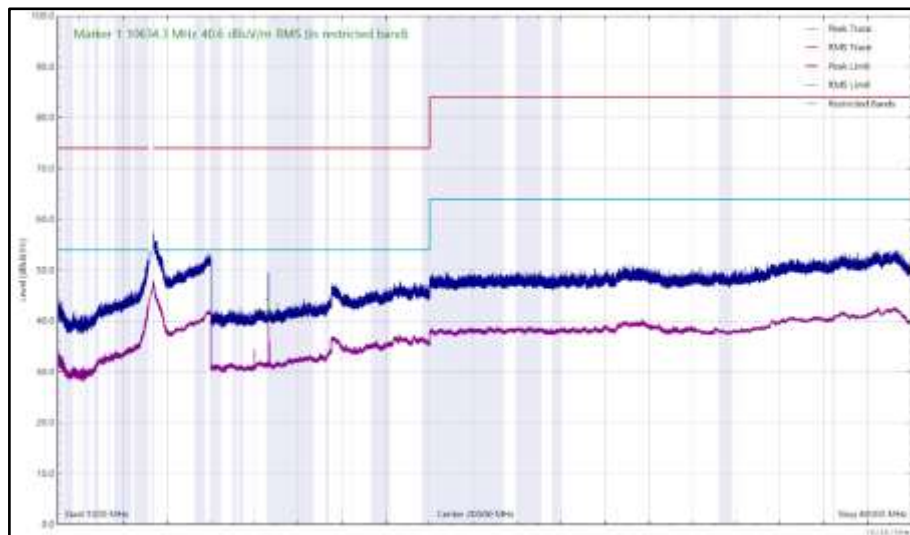


Figure 1053 - U-NII-2A - 5320 MHz (CH64), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 704 - U-NII-2C - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 6 dB of the limit.

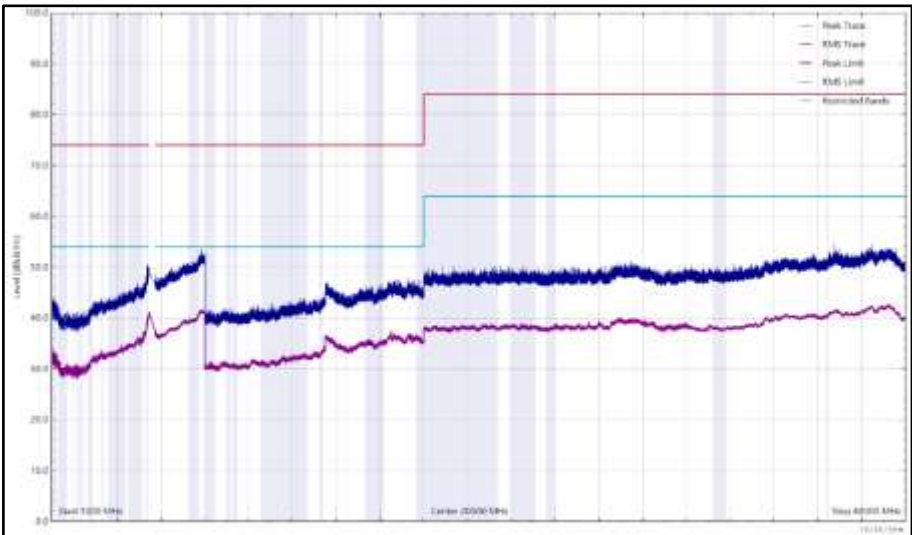


Figure 1054 - U-NII-2C - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

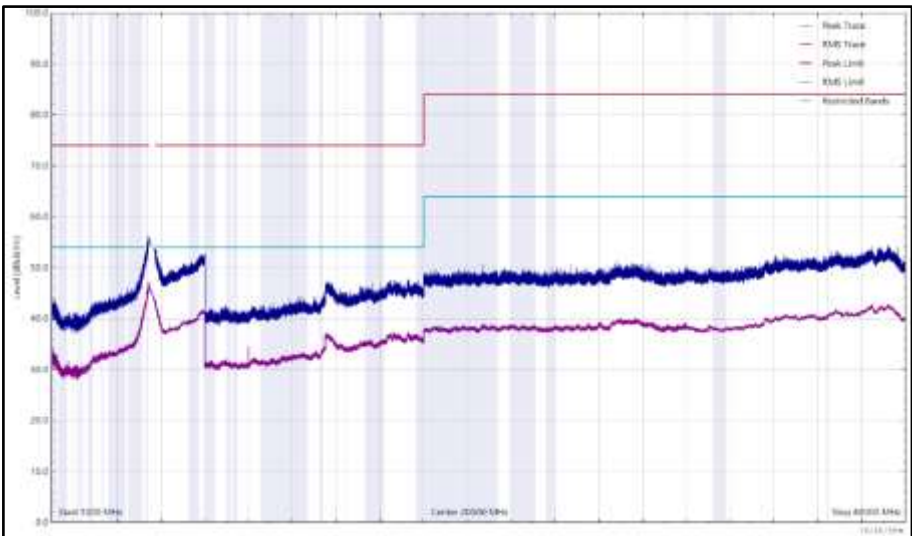


Figure 1055 - U-NII-2C - 5500 MHz (CH100), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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

Table 705 - U-NII-2C - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

*No emissions found within 6 dB of the limit.

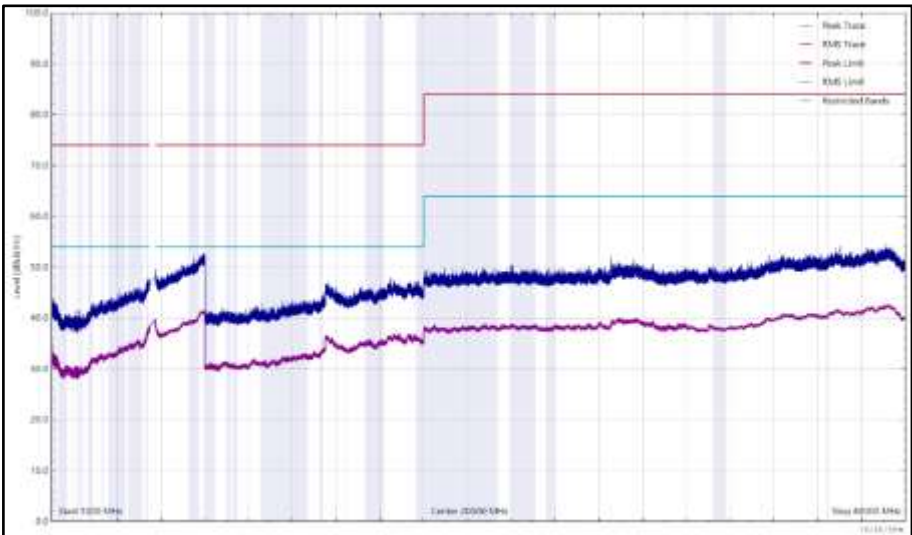


Figure 1056 - U-NII-2C - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

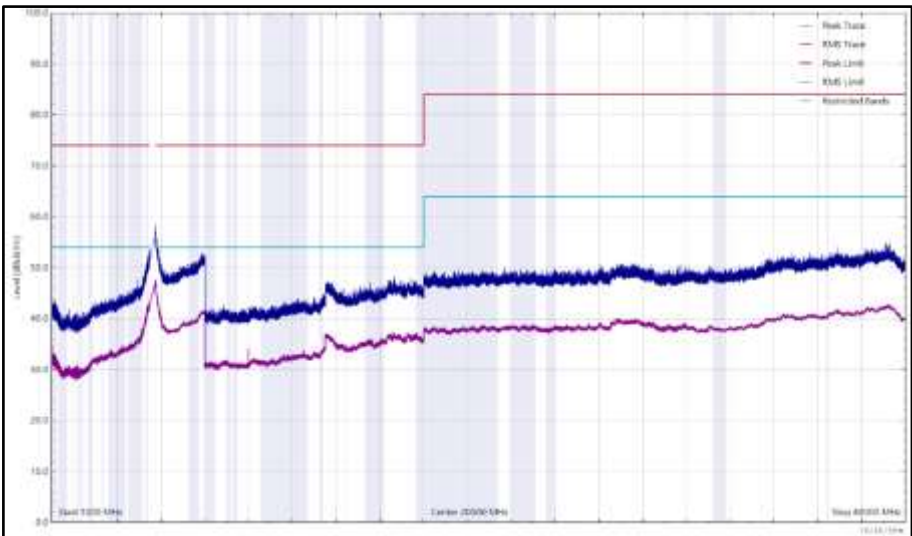


Figure 1057 - U-NII-2C - 5700 MHz (CH140), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
11489.959	35.4	54.0	-18.6	RMS	249	144	Vertical

Table 706 - U-NII-3 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 6 dB of the limit.

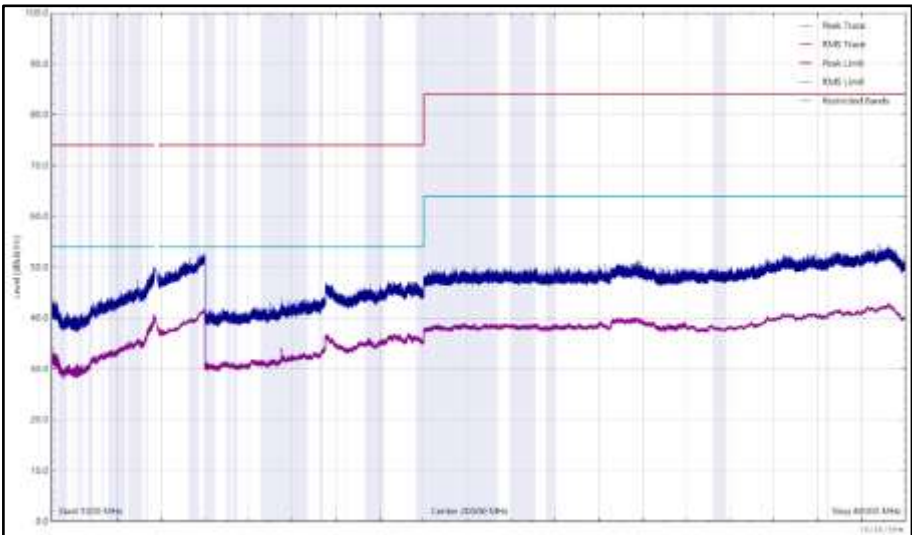


Figure 1058 - U-NII-3 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

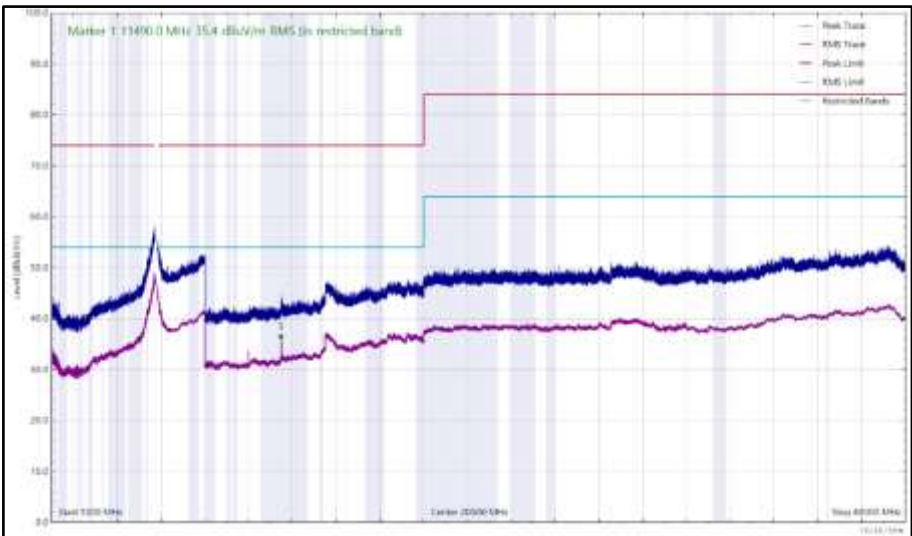


Figure 1059 - U-NII-3 - 5745 MHz (CH149), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
11649.785	41.3	54.0	-12.7	RMS	265	299	Horizontal
11652.203	41.0	54.0	-13.0	RMS	249	137	Vertical

Table 707 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 6 dB of the limit.

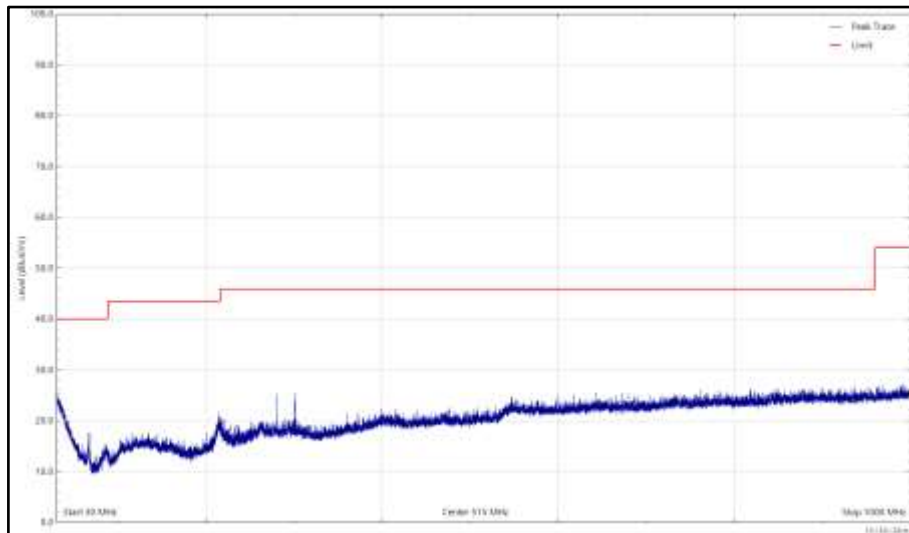


Figure 1060 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

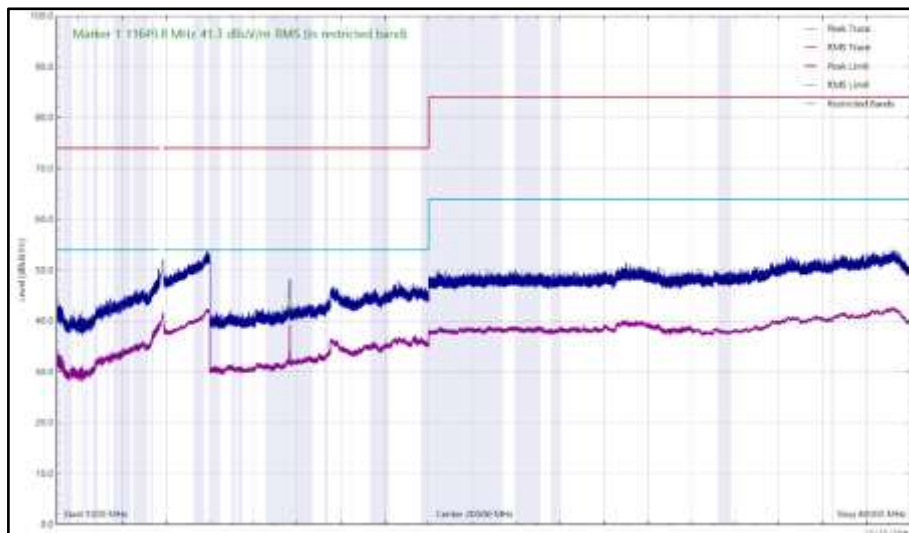


Figure 1061 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

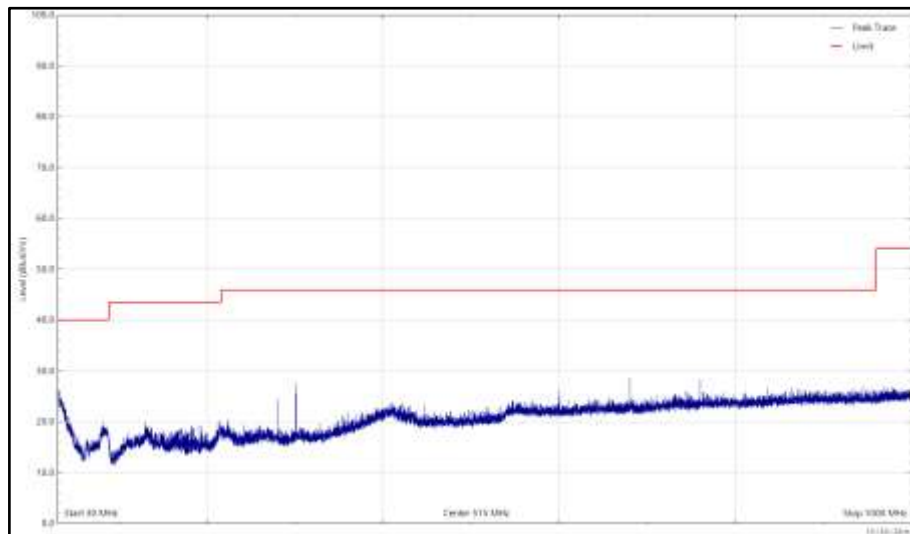


Figure 1062 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

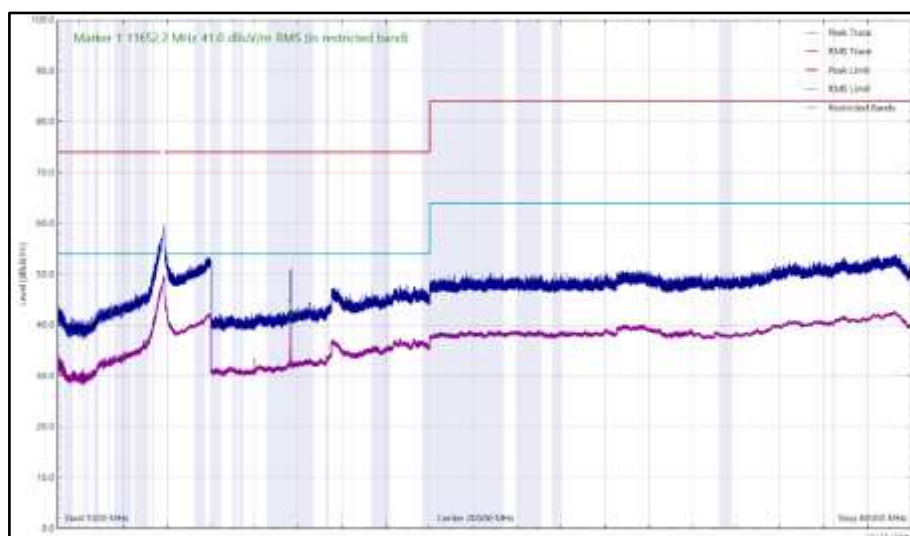


Figure 1063 - U-NII-3 - 5825 MHz (CH165), HT20, CDD, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
15513.949	36.6	54.0	-17.4	RMS	157	116	Vertical

Table 708 - 5180 MHz (CH36), HE20, RU26-0, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 6 dB of the limit.

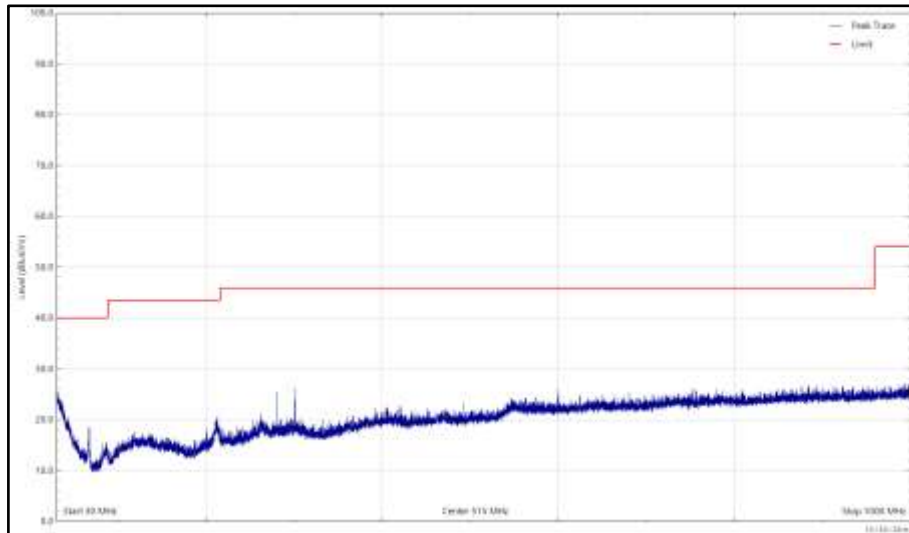


Figure 1064 - 5180 MHz (CH36), HE20, RU26-0, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

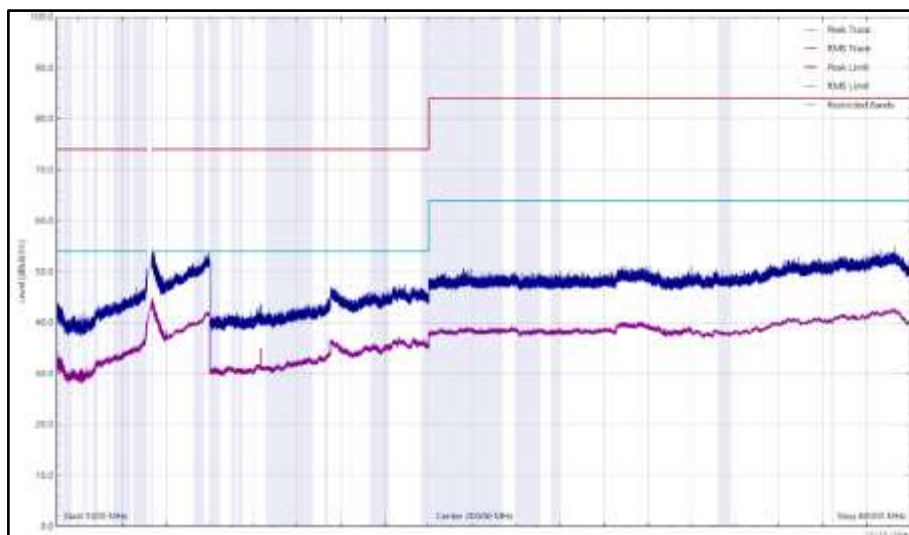


Figure 1065 - 5180 MHz (CH36), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

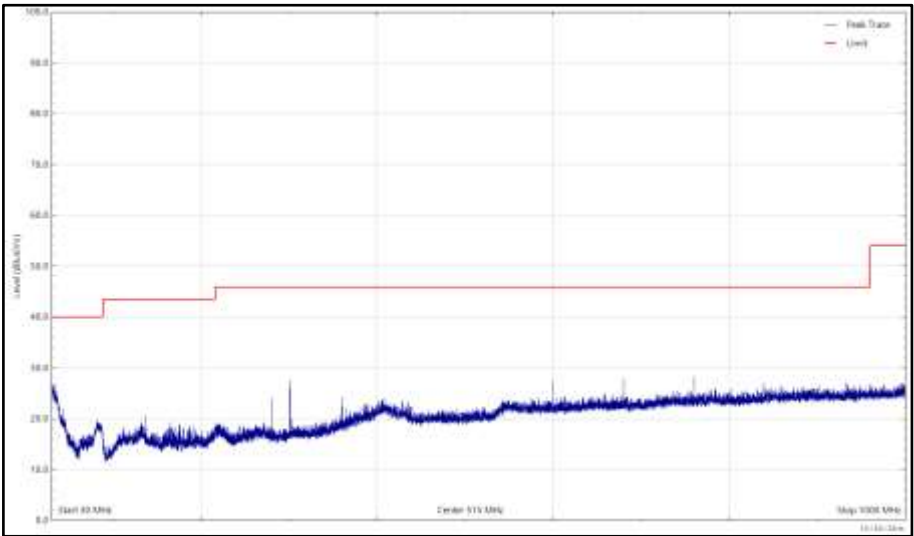


Figure 1066 - 5180 MHz (CH36), HE20, RU26-0, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

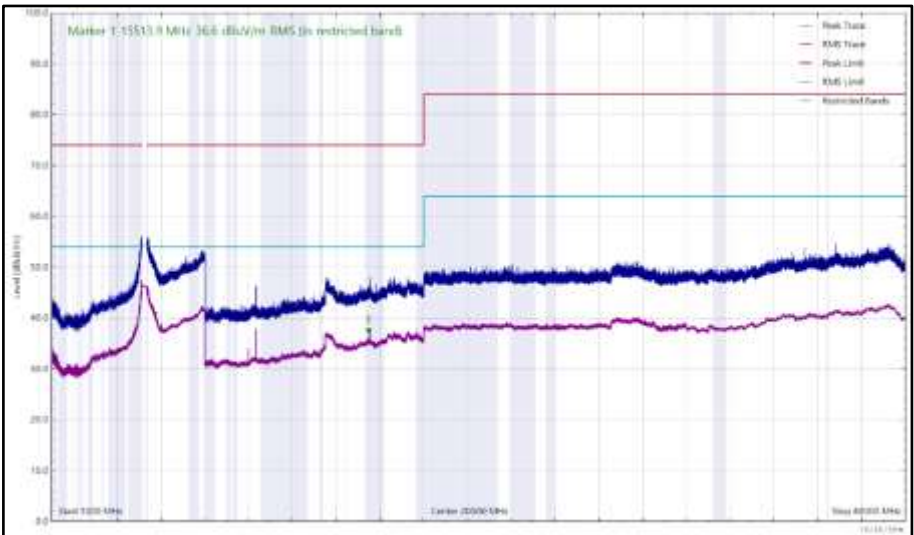


Figure 1067 - 5180 MHz (CH36), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
10623.965	45.5	54.0	-8.5	RMS	246	152	Vertical
10626.661	57.4	74.0	-16.6	Peak	266	309	Horizontal
10626.898	55.5	74.0	-18.5	Peak	246	152	Vertical
10626.906	45.6	54.0	-8.5	RMS	266	309	Horizontal
15937.329	36.0	54.0	-18.0	RMS	95	339	Horizontal
15941.146	34.6	54.0	-19.4	RMS	358	320	Vertical

Table 709 - 5320 MHz (CH64), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 6 dB of the limit.

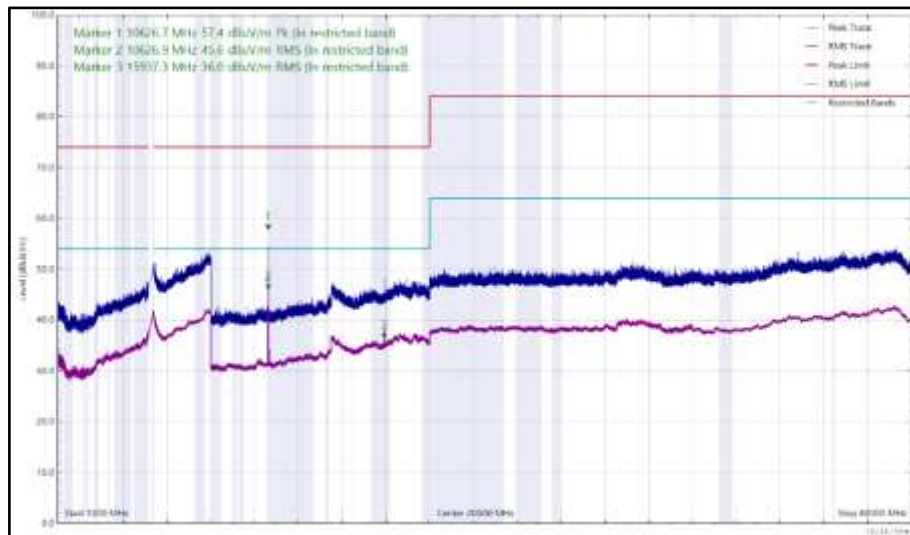


Figure 1068 - 5320 MHz (CH64), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

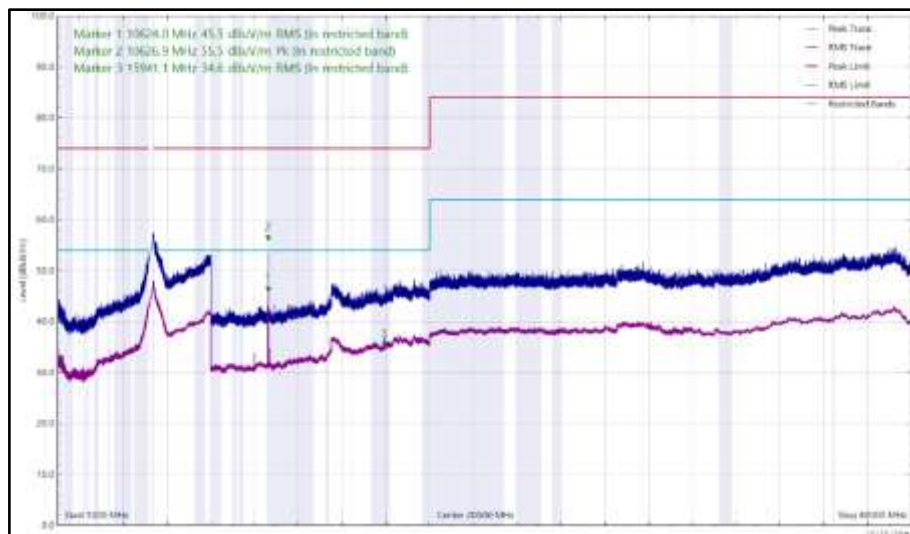


Figure 1069 - 5320 MHz (CH64), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
16475.888	52.5	74.0	-21.5	Peak	75	398	Horizontal
16476.038	54.7	74.0	-19.3	Peak	218	127	Vertical

Table 710 - 5500 MHz (CH100), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 6 dB of the limit.

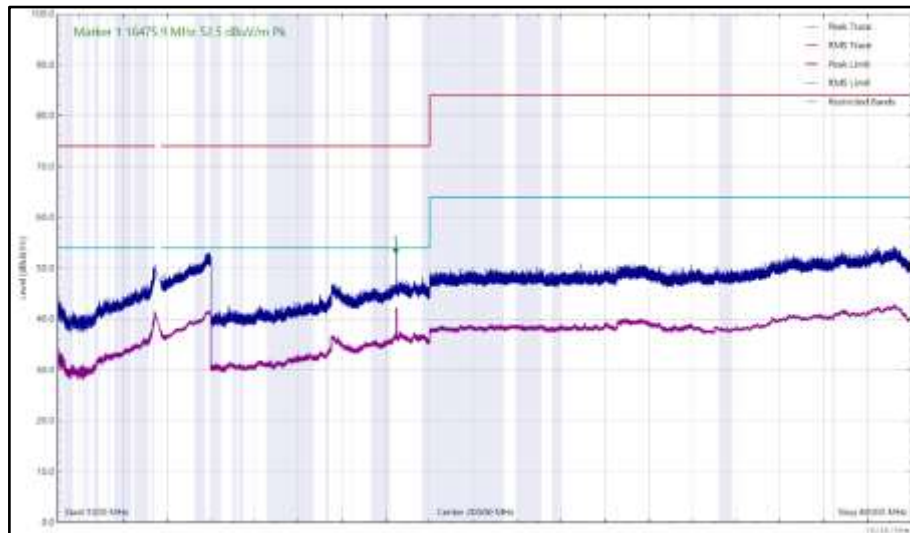


Figure 1070 - 5500 MHz (CH100), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

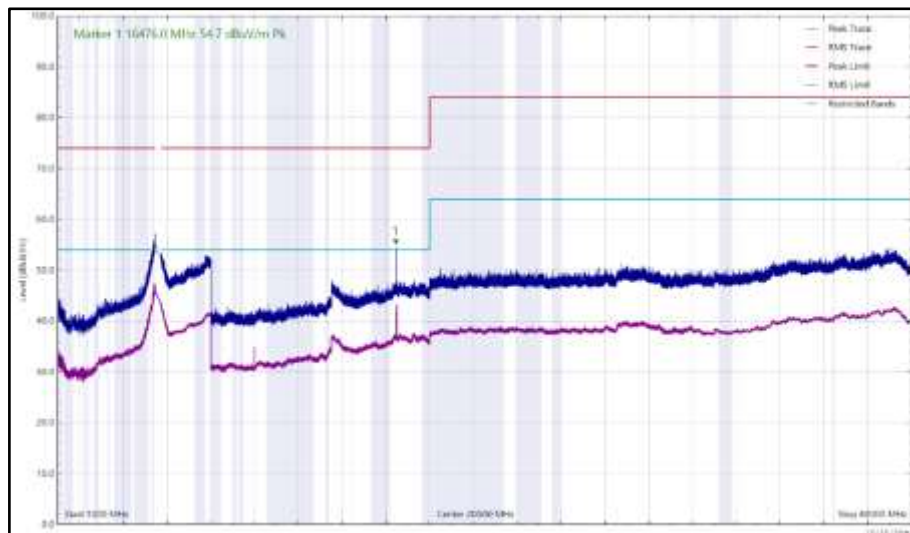


Figure 1071 - 5500 MHz (CH100), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
17076.738	57.7	74.0	-16.3	Peak	86	400	Horizontal
17077.348	56.6	74.0	-17.4	Peak	69	268	Vertical

Table 711 - 5700 MHz (CH140), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 6 dB of the limit.

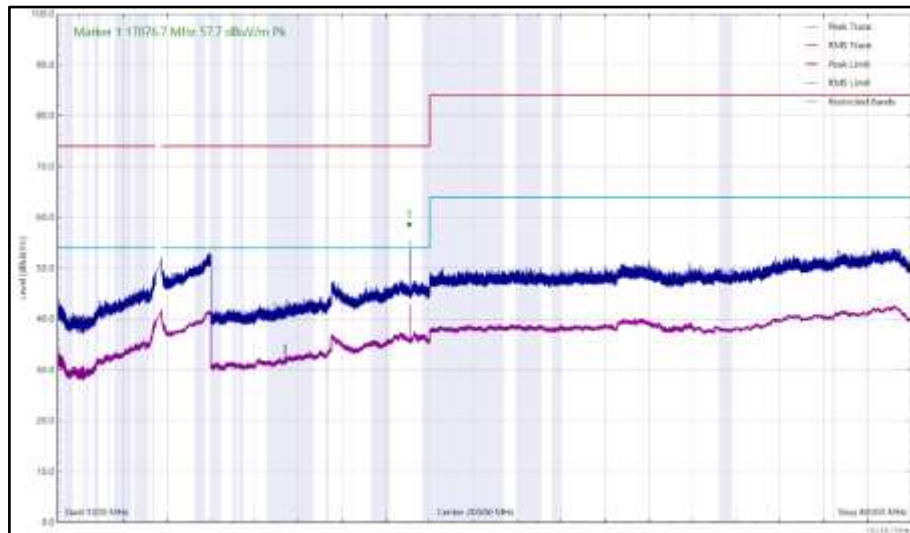


Figure 1072 - 5700 MHz (CH140), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

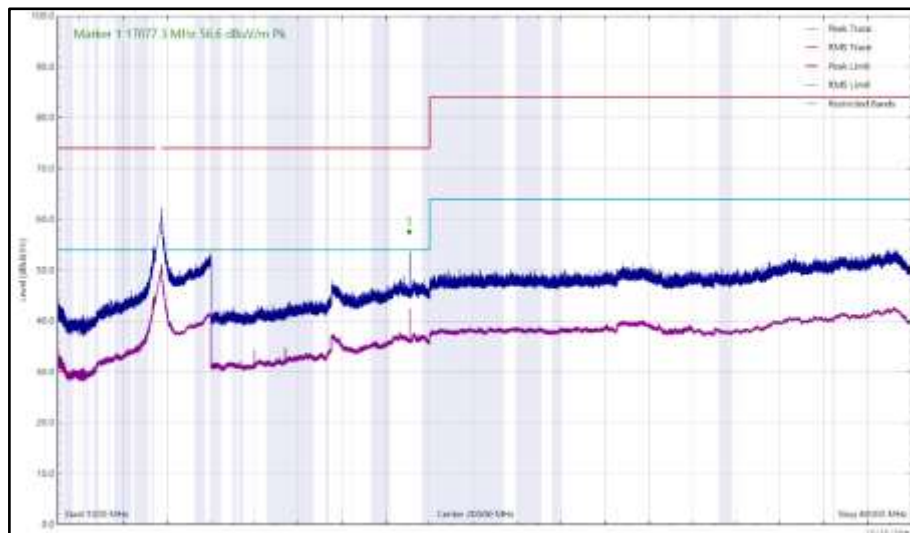


Figure 1073 - 5700 MHz (CH140), HE20, RU52-37, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
11472.135	39.9	54.0	-14.1	RMS	250	120	Vertical
11472.440	36.2	54.0	-17.8	RMS	248	392	Horizontal
17210.880	57.3	74.0	-16.7	Peak	2	304	Vertical
17211.681	56.1	74.0	-17.9	Peak	93	393	Horizontal

Table 712 - 5745 MHz (CH149), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz

No other emissions found within 6 dB of the limit.

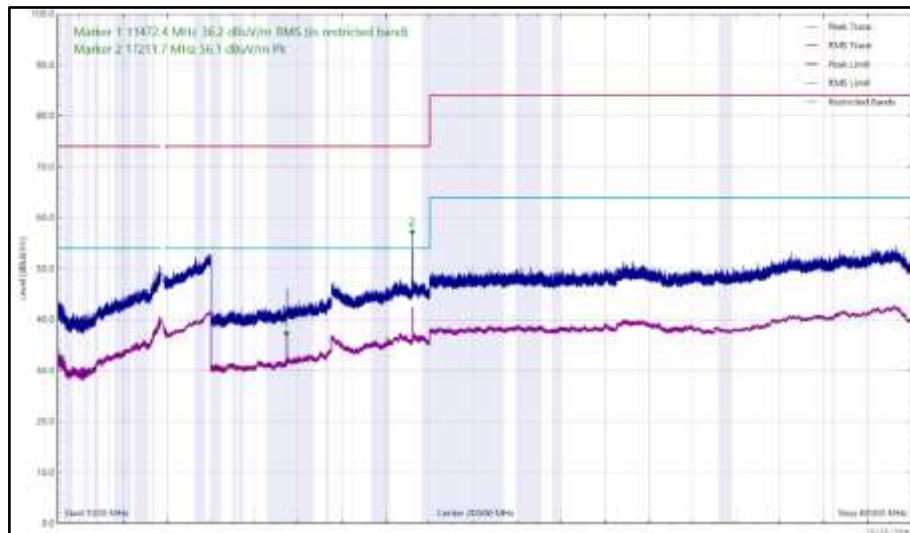


Figure 1074 - 5745 MHz (CH149), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

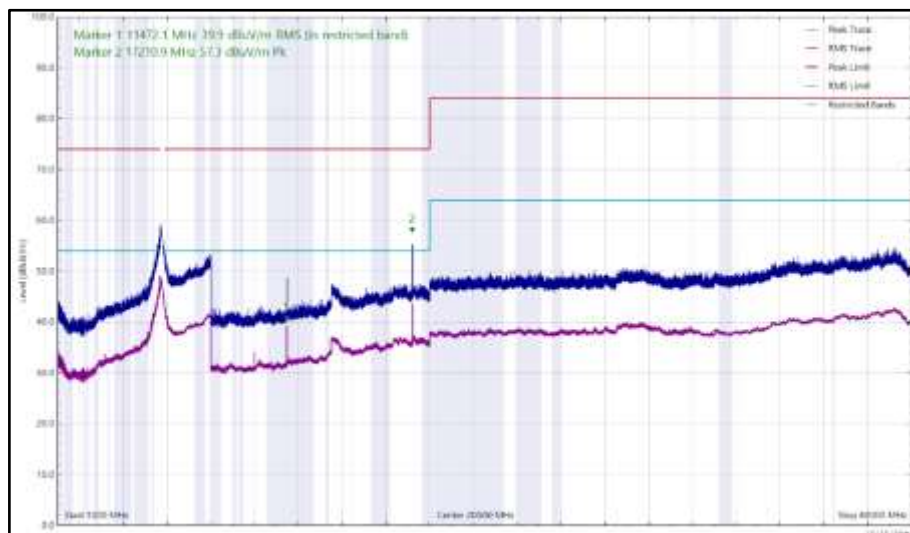


Figure 1075 - 5745 MHz (CH149), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
11632.213	51.6	74.0	-22.5	Peak	293	357	Horizontal
11632.216	46.3	54.0	-7.7	RMS	247	127	Vertical
11632.588	41.8	54.0	-12.2	RMS	293	357	Horizontal
11632.728	56.2	74.0	-17.8	Peak	247	127	Vertical

Table 713 - 5825 MHz (CH165), HE20, RU26-0, Core 0 + Core 1, 30 MHz to 40 GHz

No other emissions found within 6 dB of the limit.

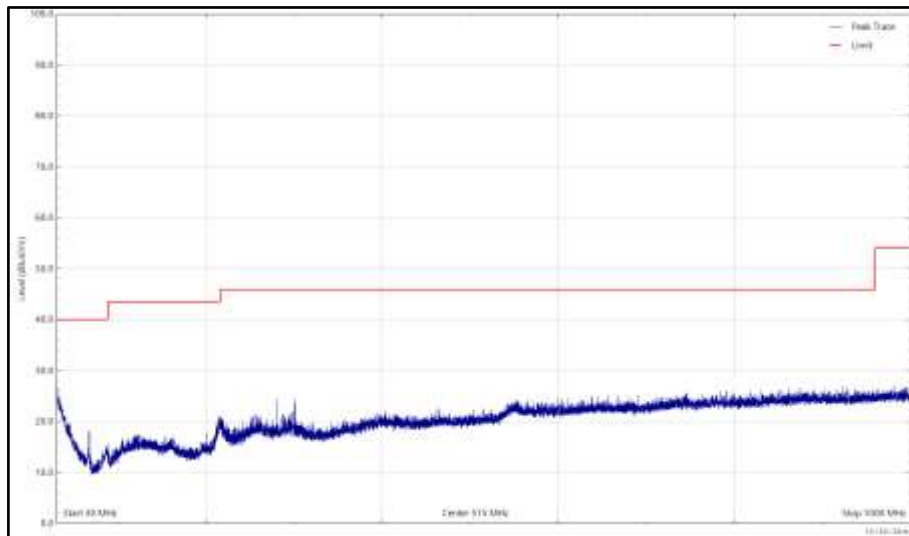


Figure 1076 - 5825 MHz (CH165), HE20, RU26-0, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)

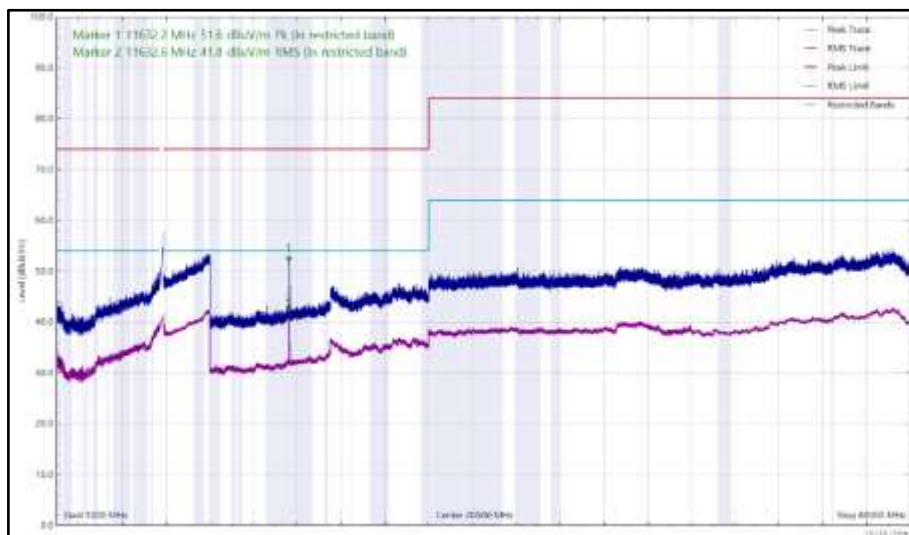


Figure 1077 - 5825 MHz (CH165), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz, Horizontal

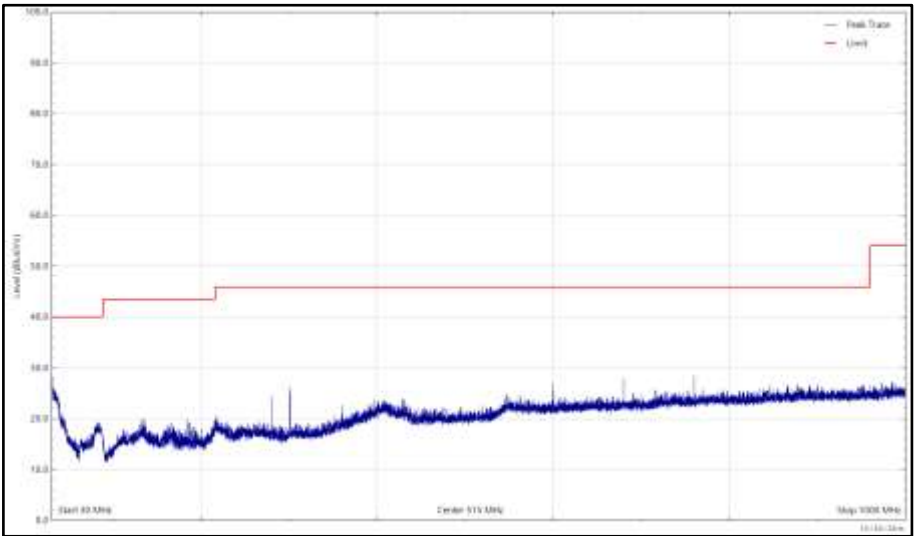


Figure 1078 - 5825 MHz (CH165), HE20, RU26-0, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

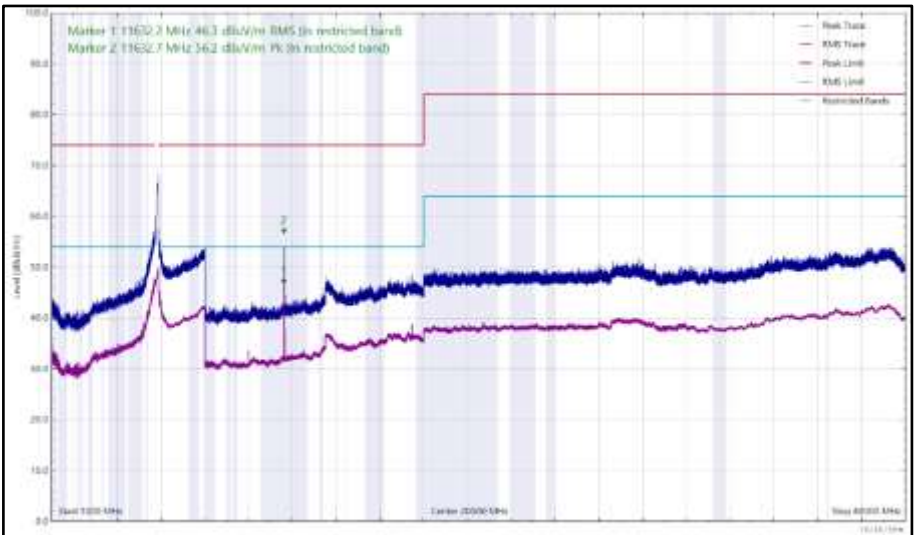


Figure 1079 - 5825 MHz (CH165), HE20, RU26-0, Core 0 + Core 1, 1 GHz to 40 GHz, Vertical



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 714 - 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 not 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 (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 715 - Radiated Emissions Limit Table (ISED)



2.6.7 Test Location and Test Equipment Used

This test was carried out in EMC Chamber 5.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Antenna 18-40GHz (Double Ridge Guide)	Link Microtek Ltd	AM180HA-K-TU2	230	24	27-Jul-2022
18GHz - 40GHz Pre-Amplifier	Phase One	PSO4-0087	1534	12	18-Feb-2022
Screened Room (5)	Rainford	Rainford	1545	36	15-Apr-2024
Turntable Controller	Inn-Co GmbH	CO 1000	1606	-	TU
Programmable Power Supply	Iso-tech	IPS 2010	2437	-	O/P Mon
Antenna with permanent attenuator (Bilog)	Chase	CBL6143	2904	24	30-Sep-2021
Tilt Antenna Mast	Maturo GmbH	TAM 4.0-P	3916	-	TU
Mast Controller	Maturo GmbH	NCD	3917	-	TU
True RMS Multimeter	Fluke	179	4007	12	29-Oct-2021
Double Ridge Broadband Horn Antenna	Schwarzbeck	BBHA 9120 B	4848	12	01-Apr-2022
4dB Attenuator	Pasternack	PE7047-4	4935	24	30-Sep-2021
8 - 18 GHz pre amp	Wright Technologies	PS06-0061/PS06-0060	4971	6	04-Nov-2021
Band Reject Filter - 5.795 GHz	Wainwright	WRCJV10-5725-5755-5835-5865-50SS	5071	12	30-Sep-2021
Band Reject Filter - 5.22 GHz	Wainwright	WRCJV12-5120-5150-5290-5320-50SS	5073	12	02-Oct-2021
Band Reject Filter - 5.28 GHz	Wainwright	WRCJV12-5180-5210-5350-5380-50SS	5075	12	30-Sep-2021
Band Reject Filter - 5.775 GHz	Wainwright	WRCJV10-5700-5735-5815-5850-50SS	5077	12	12-Nov-2021
Band Reject Filter - 5.570 GHz	Wainwright	WRCJV10-5440-5490-5650-5700-50SS	5079	12	12-Nov-2021
Band Reject Filter - 5.690 GHz	Wainwright	WRCJV8-5635-5670-5710-5745-50SS	5081	12	02-Oct-2021
EmX Emissions Software	TUV SUD	V2.1.11	5125	-	Software
Preamplifier (30dB 1GHz to 18GHz)	Schwarzbeck	BBV 9718 C	5261	12	08-Apr-2022
Antenna (DRG Horn 7.5-18GHz)	Schwarzbeck	HWRD750	5348	12	22-Sep-2021
1m SMA Cable	Junkosha	MWX221-01000AMSAMS/A	5513	12	09-Apr-2022
1m SMA Cable	Junkosha	MWX221-	5514	12	09-Apr-2022



Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
		01000AMSAMS/A			
2m SMA Cable	Junkosha	MWX221-02000AMSAMS/A	5517	12	09-Apr-2022
8m N-Type Cable	Junkosha	MWX221-08000NMSNMS/B	5520	12	24-Mar-2022
2m K Type Cable	Junkosha	MWX241-02000KMSKMS/A	5523	12	09-Apr-2022
EMI Test Receiver	Rohde & Schwarz	ESW44	5527	12	15-Apr-2022
7 GHz High pass Filter	Wainwright	WHKX12-5850-6800-18000-80SS	5549	12	20-May-2022
1200 MHz Low Pass Filter (01)	Mini-Circuits	VLF-1200+	5559	12	24-May-2022

Table 716

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



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

A2442, S/N: MVX7LW3GV6 - Modification State 0
A2442, S/N: XH2DGXFKY6 - Modification State 0

2.7.3 Date of Test

17-August-2021 to 31-August-2021

2.7.4 Test Method

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

The EUT was a Client Device without Radar Detection.

A computer was connected via an Ethernet cable to the Master device and a video file was then streamed from the Client device to another Client device ensuring the Channel Loading was >17%.

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 by the Aeroflex DFS Software.

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

Red - End Of Radar Burst, (T0)
Purple - End Of 200ms Period, (T0 + 200 ms)
Orange - End Of Channel Move Time, (T0 + 10 seconds)

To verify the non-occupancy period, the PXI digitiser was replaced with a Spectrum Analyser. The external trigger from the Aeroflex DFS test system 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.

2.7.5 Environmental Conditions

Ambient Temperature	22.0 - 22.3 °C
Relative Humidity	51.3 - 57.2 %

2.7.6 Test Results

5 GHz WLAN - Master to Client

802.11ac VHT80

The equipment was set up as shown in the diagram below. The EUT was configured to run iPerf, transmitting UDP to the client laptop. 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 DFS Master, the DFS Master was replaced by the spectrum analyser and the output of the PXI RF generator adjusted to give -62 dBm.

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

Table 717 - Radar Pulse Type 0 Characteristics

Manufacturer	Model	Serial Number	FCC ID
TP-Link Technologies Co	AX3000 Gigabit Wi-Fi 6 Router AX50	22151C8002486	TE7AX50

Table 718 - Details of Master Device used to support testing

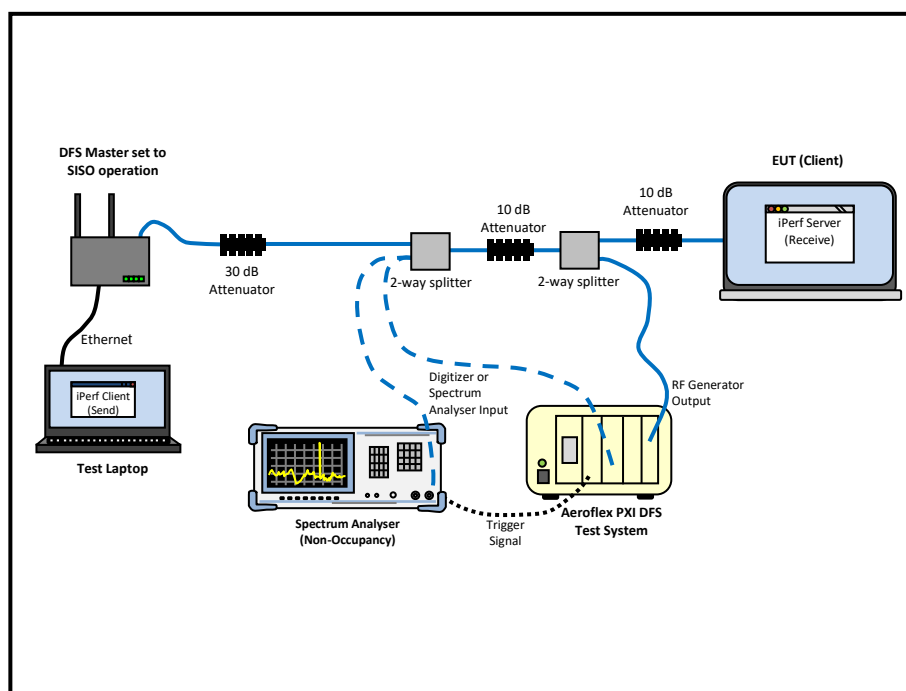


Figure 1080 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master

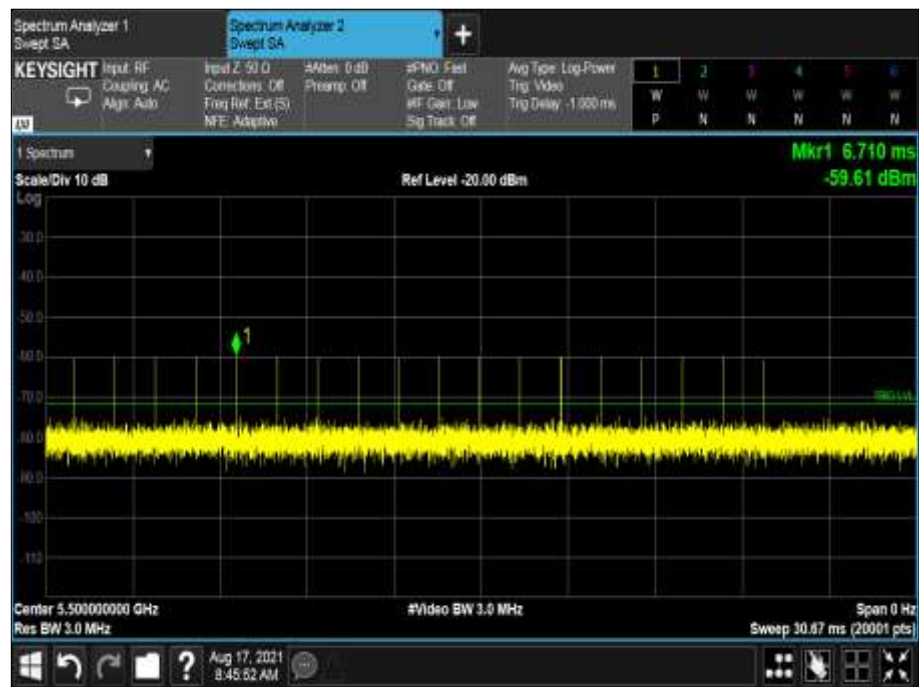


Figure 1081 - Verification of Radar Type 0

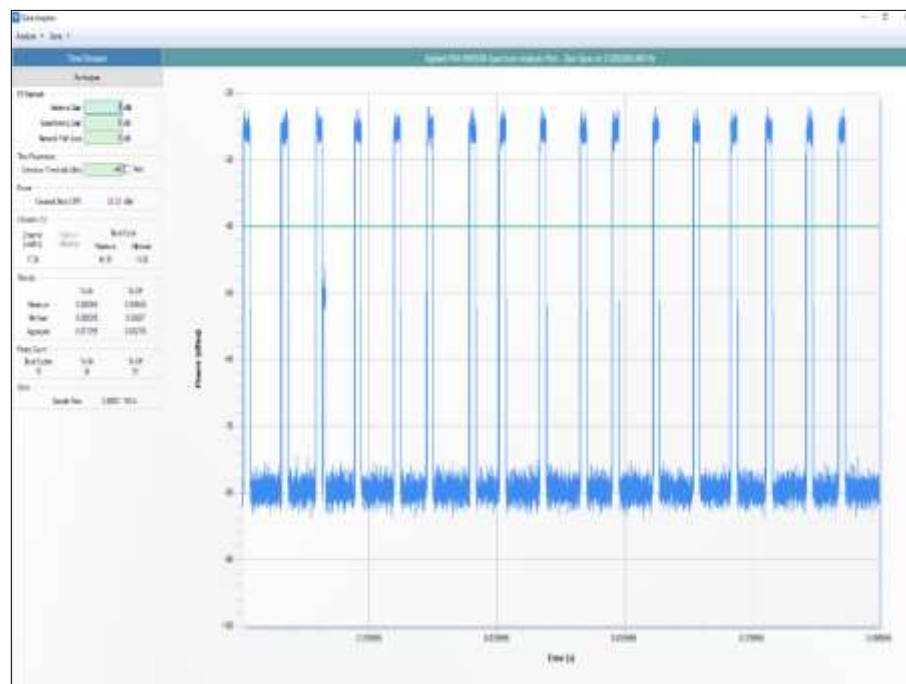


Figure 1082 - Channel Loading

The channel loading was 17.30%



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 719 - 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	0.320 s
Channel Closing Time (Aggregate Time During 200 ms)	16.058 ms
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	0.114 ms
Channel Closing Time (Aggregate Time During 10 s)	16.172 ms
Transmission Observed During Non-Occupancy Period	0

Table 720 - In-Service Monitoring Test Results

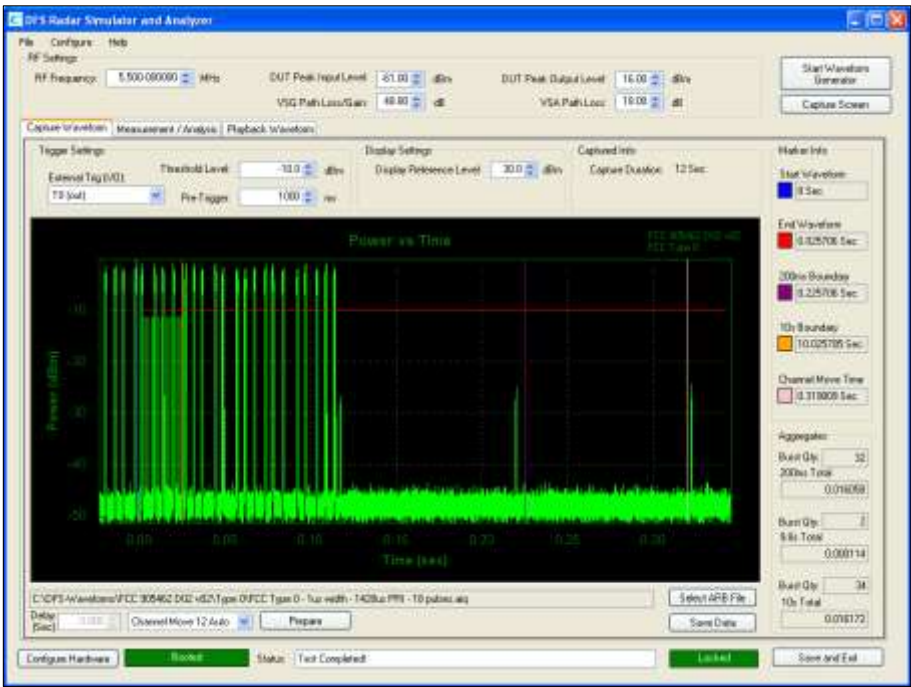


Figure 1083 - First 200 ms of Channel Shutdown Period

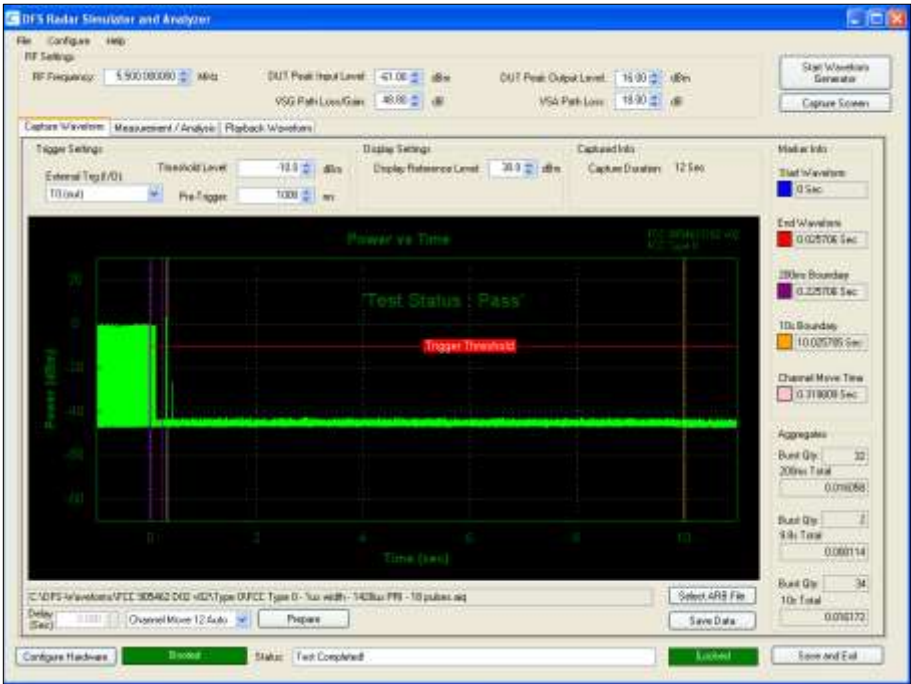


Figure 1084 - First 12 s of Channel Shutdown Period

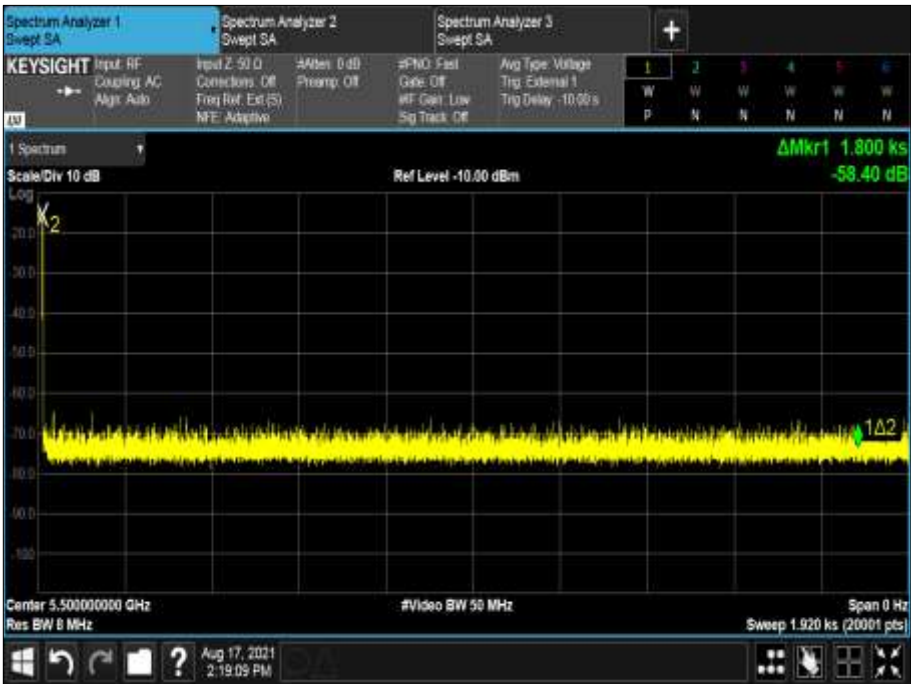


Figure 1085 - 30 minute Non-Occupancy Period

5 GHz WLAN - Client to Client

802.11ac VHT80

The EUT could operate a direct client-to-client mode and so this was also tested as required by KDB 905462 D03 v01r02 clause (b)3.

The equipment was set up as shown in the diagram below. The EUT was configured to screencast its display (showing video playback), directly to the Apple TV box using the AirPlay transfer protocol. A spectrum analyser was used to measure the channel loading was >17 %. It was also used to verify the EUT mode of operation was correctly transmitting directly to the other client, with the DFS Master only doing occasional signalling and not re-transmitting the data.

To calibrate the level of the radar at the input to the DFS Master, the DFS Master was replaced by the spectrum analyser and the output of the PXI RF generator adjusted to give -62 dBm + 1 dB.

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

Table 721 - Radar Pulse Type 0 Characteristics

Manufacturer	Model	Serial Number	FCC ID
ASUS	RT-AC68U	GA10H002628	MSQ-RTAC68U

Table 722 - Details of Master Device used to support testing

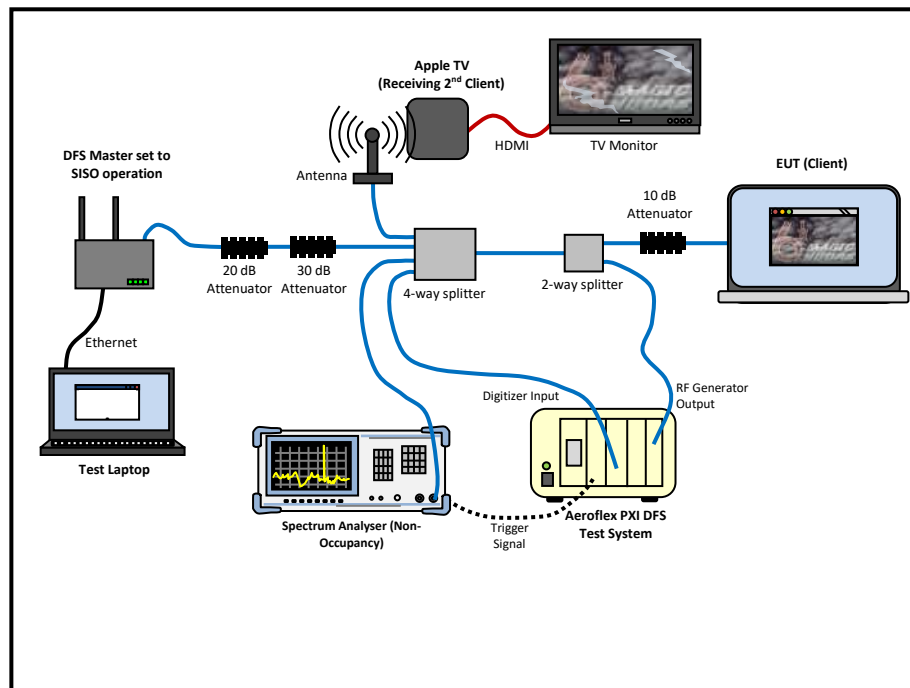


Figure 1086 - Test Equipment Setup Diagram for Client without Radar Detection with Injection at the Master

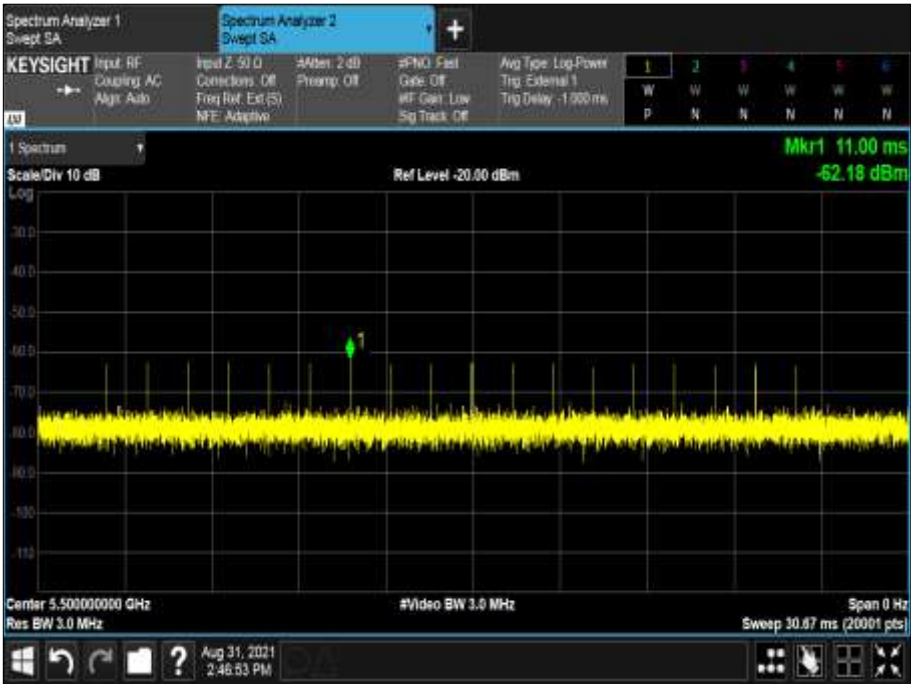


Figure 1087 - Verification of Radar Type 0

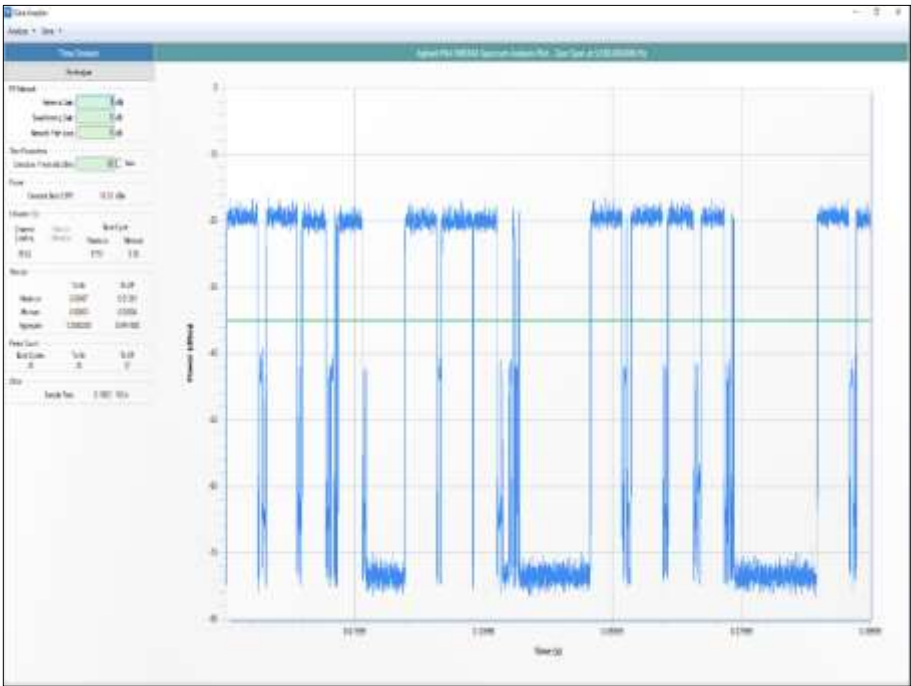


Figure 1088 - Channel Loading

The channel loading was 55.82%



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 723 - 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	0.069 s
Channel Closing Time (Aggregate Time During 200 ms)	23.994 ms
Channel Closing Time (Aggregate Time During 200 ms to 10 s)	0 ms
Channel Closing Time (Aggregate Time During 10 s)	23.994 ms
Transmission Observed During Non-Occupancy Period	0

Table 724 - In-Service Monitoring Test Results

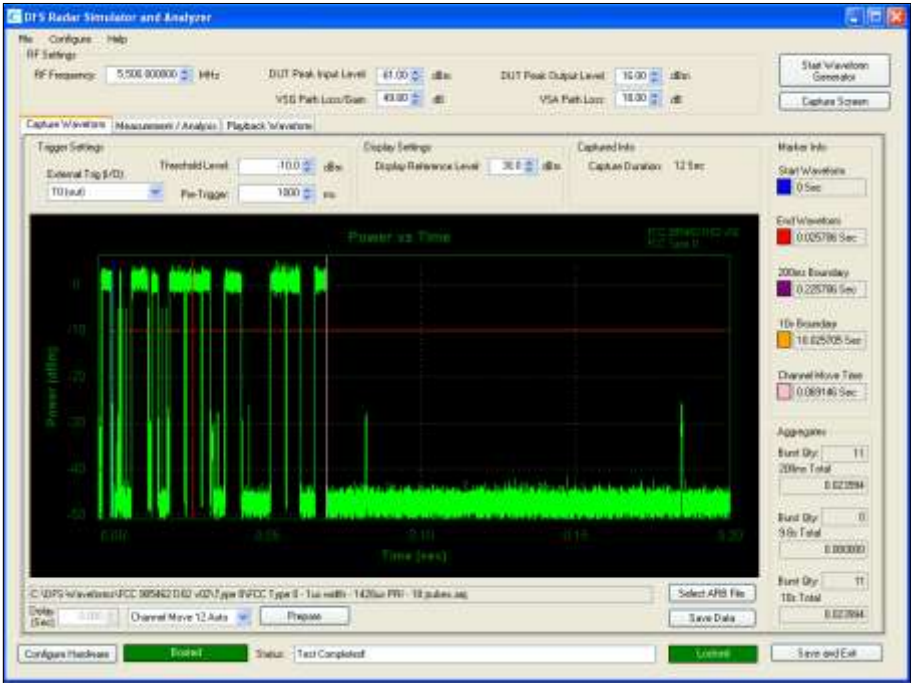


Figure 1089 - First 200 ms of Channel Shutdown Period

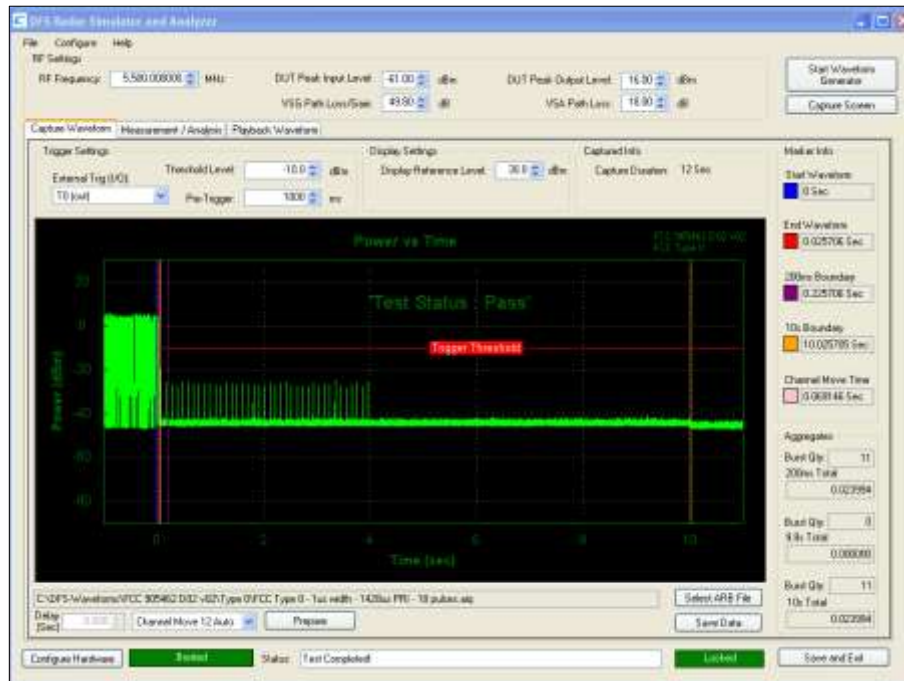


Figure 1090 - First 12 s of Channel Shutdown Period

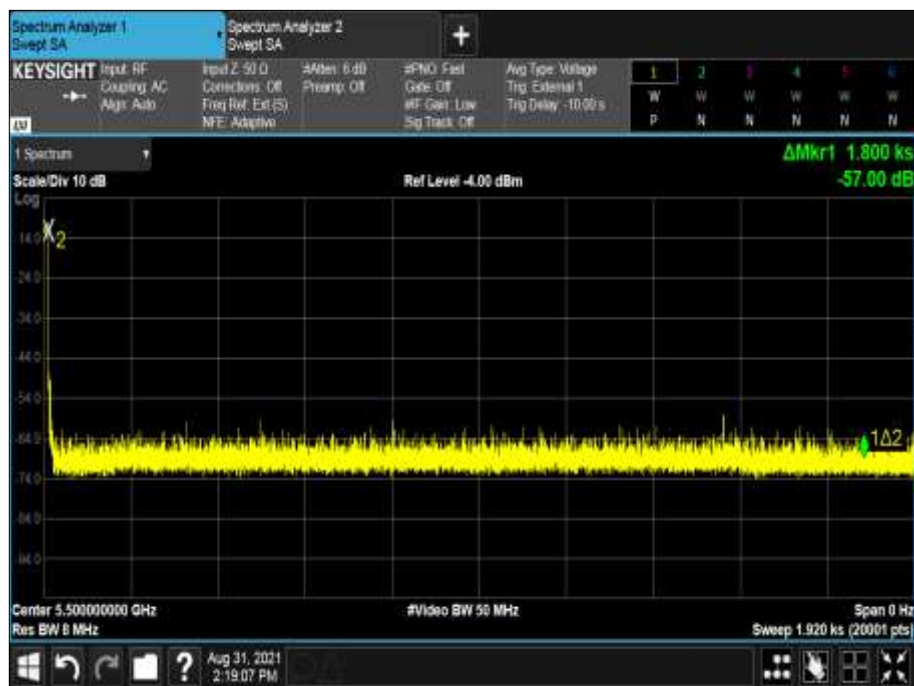


Figure 1091 - 30 minute Non-Occupancy Period



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 725 - 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 726 - 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 RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Attenuator (10dB, 1W)	Sealectro	60-674-1010-89	1224	-	O/P Mon
Rubidium Standard	Rohde & Schwarz	XSRM	1316	6	03-Dec-2021
Hygrometer	Rotronic	I-1000	3220	12	16-Oct-2021
PXI RF Digitizer	Aeroflex	3035	4012	24	12-Nov-2022
PXI RF Synthesizer	Aeroflex	3010	4013	24	12-Nov-2022
PXI RF Synthesizer	Aeroflex	3011	4014	24	12-Nov-2022
PXI Digital RF Signal Generator	Aeroflex	3025	4015	24	12-Nov-2022
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	03-Dec-2021
Wireless Cable & Fibre Router - AC 1900, Dual-band	Asus	RT-AC68U	4881	-	TU
EXA	Keysight Technologies	N9010B	4968	24	23-Dec-2021
Cable (40 GHz)	Rosenberger	LU1-001-2000	5024	-	O/P Mon
Power Splitter, 4 way	Mini-Circuits	ZN4PD1-63-S+	5236	-	O/P Mon
Power Splitter, 2 way	Mini-Circuits	ZN2PD2-63-S+	5238	-	O/P Mon
Power Splitter, 2 way	Mini-Circuits	ZN2PD2-63-S+	5239	-	O/P Mon
Cable 2.92m	Junkosha	MWX241/B	5411	12	23-Jun-2022
Cable 2.92m	Junkosha	MWX241-01000KMS	5413	12	23-Jul-2022
Cable 2.92mm 1m	Junkosha	MWX241-01000KMS	5414	12	23-Jun-2022
2.92mm 1m cable	Junkosha	MWX211/B	5415	12	23-Jul-2022
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5416	12	09-Jul-2022
3.5 mm 1m Cable	Junkosha	MWX221-01000DMS	5417	12	23-Jun-2022
3.5 mm 2m Cable	Junkosha	MWX221-02000DMS	5429	12	23-Jun-2022
10dB/5W Attenuator	Aaren	AT40A-404-D18-10	5486	12	14-Apr-2022
Attenuator 5W 10dB DC-18GHz	Aaren	AT40A-4041-D18-10	5493	12	14-Apr-2022
Attenuator 5W 20dB DC-18GHz	Aaren	AT40A-4041-D18-20	5498	12	10-May-2022
Attenuator 5W 30dB DC-18GHz	Aaren	AT40A-4041-D18-30	5502	12	14-Apr-2022
2-Way Power Divider (2 to 8 GHz)	Aaren	AT30A-TE0208-2-AF	5684	12	18-Dec-2021



Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
2-Way Power Divider (2-8 GHz)	Aaren	AT30A-TE0208-2-AF	5685	12	18-Dec-2021
2-Way Power Divider (2-8 GHz)	Aaren	AT30A-TE0208-2-AF	5687	12	18-Dec-2021
Wireless Cable & Fibre Router - AC 1900, Dual-band	Asus	RT-AC68U	5815		TU
3.5mm Cable (1m)	Junkosha	MWX221/B	5838	12	23-Jul-2022

Table 727

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
Maximum Conducted Output Power	± 3.2 dB
Maximum Conducted Power Spectral Density	± 3.2 dB
Emission Bandwidth	± 974.922 kHz
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 728

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2007, clause 4.4.3 and 4.5.1.