



REGULATORY COMPLIANCE TEST REPORT

**FCC CFR 47 Part 15 Subpart E 15.407
ISED RSS-247 Issue 2**

Report No.: HPEN155-U9 Rev A (UNII)

Addendum: TPC, DFS, Radiated

Company: Hewlett Packard Enterprise Company

Model Name: ASIN0304, ASIN0303

REGULATORY COMPLIANCE TEST REPORT

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To: FCC CFR 47 Part 15 Subpart E 15.407

Test Report Serial No.: HPEN155-U9 Rev A (UNII)

Report Addendum: TPC, DFS, Radiated

This report supersedes: NONE

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Issue Date: 23rd July 2021

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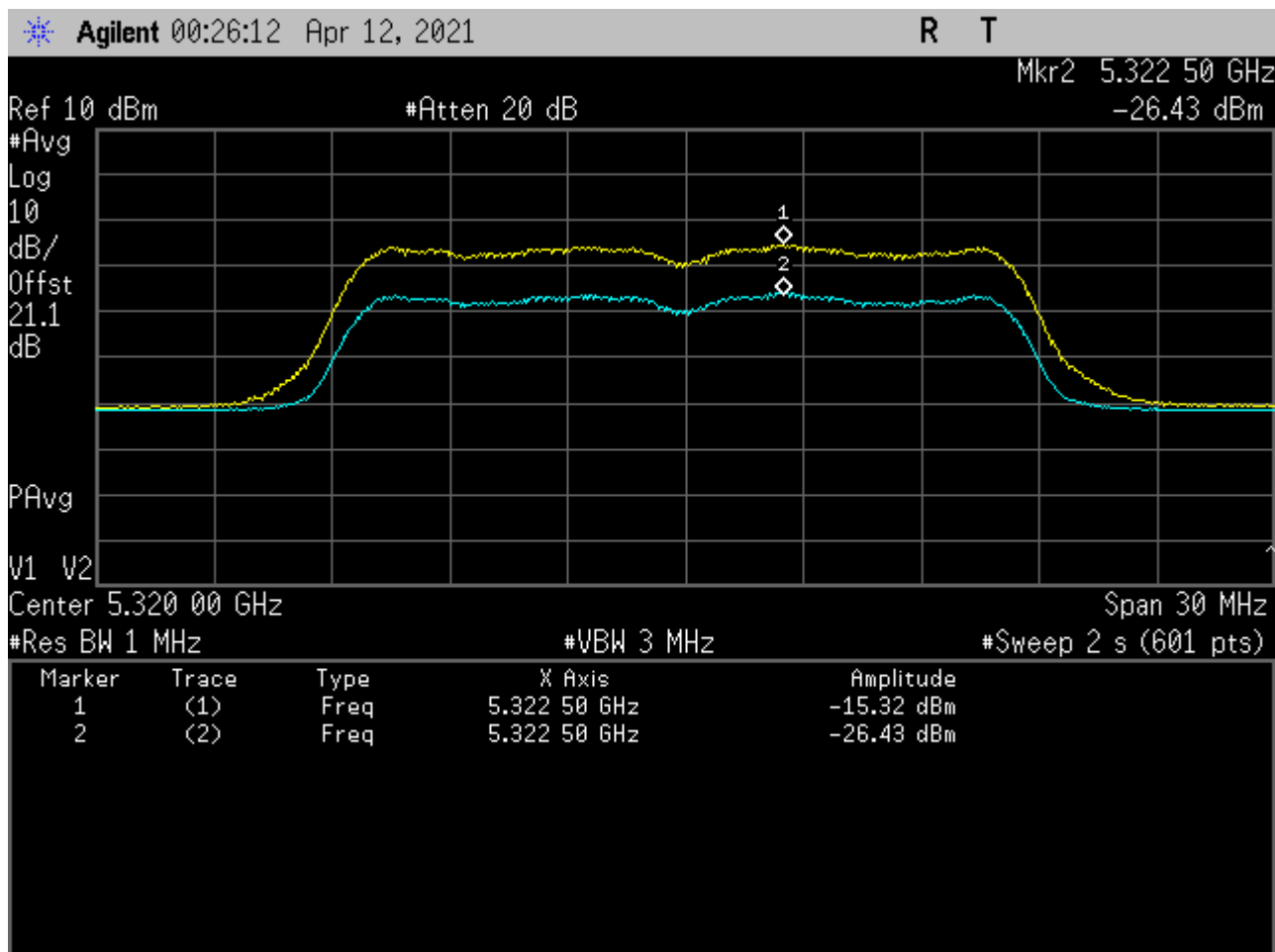
1. TEST RESULTS

1.1. Transmit Power Control (TPC)

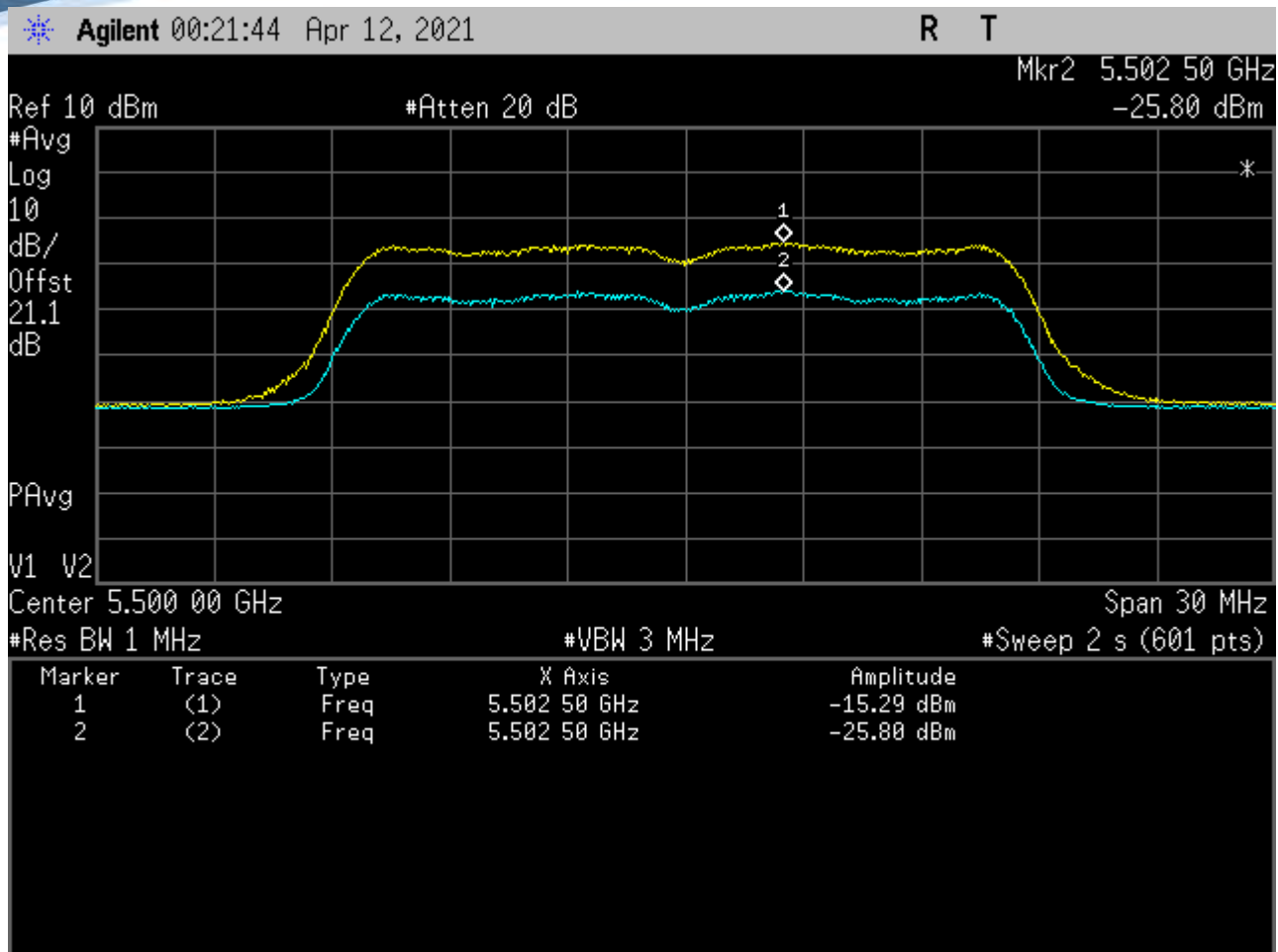
Transmit power control (TPC). U-NII devices operating in the 5.25-5.35 GHz band and the 5.47-5.725 GHz band shall employ a TPC mechanism. The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm. A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

The Hewlett Packard Enterprise ASIN0304 maximum EIRP is greater than 500 mW therefore TPC function has been implemented via attenuation. Below shown as a graphical image is the TPC function implemented via a graphical image. The ASIN0304 meets and exceeds the TPC minimum 6dB minimum attenuation requirements.

Frequency channels 5320 MHz and 5500 MHz graphics are provided.



Frequency Channel 5320 MHz: TPC = >11dB



Frequency Channel 5500 MHz: TPC = >10.5dB

1.2. Dynamic Frequency Selection (DFS)

Test Conditions for Dynamic Frequency Selection (DFS)			
Standard:	FCC 15.407	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Dynamic Frequency Selection (DFS)	Rel. Humidity (%):	32 - 45
Standard Section(s):	KDB 905462	Pressure (mBars):	999 - 1001
EUT Type:	Client without Radar Detection	Frequency Bands:	5,250 – 5,350 MHz 5,470 – 5,725 MHz
Test Environment:	Conducted	Antenna Gain used for Testing:	4.3 dBi
Detection Threshold:	N/A	Test Radar Level: (Threshold + Gain)	N/A
Number of Antenna Chains:	2	Duty Cycle Target:	≥ 17.00%
Transmit Power:	+17 dBm	Minimum Data Rate:	6 Mbit/s / MCS0 / NSS1-MCS0
Uniform Loading:	For the above frequency band(s) the manufacturer declared that the device provides an aggregate uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.		
Communication Method:	iPerf was used to provide the necessary channel loading		
Engineer Notes:			

Client Devices

- a) A Client Device will not transmit before having received appropriate control signals from a Master Device.
- b) A Client Device will stop all its transmissions whenever instructed by a Master Device to which it is associated and will meet the Channel Move Time and Channel Closing Transmission Time requirements. The Client Device will not resume any transmissions until it has again received control signals from a Master Device.
- c) If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply.
- d) Irrespective of Client Device or Master Device detection the Channel Move Time and Channel Closing Transmission Time requirements remain the same.
- e) The client test frequency must be monitored to ensure no transmission of any type has occurred for 30 minutes. Note: If the client moves with the master, the device is considered compliant if nothing appears in the client non-occupancy period test. For devices that shutdown (rather than moving channels), no beacons should appear.

1.2.1. Response Requirements

The following table provides the response requirements for Master and Client Devices incorporating DFS. The EUT is a client device without radar detection.

Requirement	Master Device or Client with Radar Detection	Client without Radar Detection
	Operational Mode	
DFS Detection Threshold	Yes	Not Required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not Required

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

NOTE: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

DFS Response Requirement Values

Parameter	Value
Non-Occupancy Period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds, see NOTE 1
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period, see NOTES 1 and 2
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth, see NOTE 3

NOTE 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

NOTE 2: The Channel Closing Transmission Time is comprised of 200 milliseconds 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 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

NOTE 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

1.2.2. Channel Close / Transmission Time

The steps below define the procedure to determine the above-mentioned parameters when a radar burst with a level of up to 10 dB above the DFS Detection threshold is injected on the Operating Channel of the EUT.

Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel for duration greater than 10 seconds. Measure and record the transmissions from the EUT during the observation time (Channel Move Time). Compare the Channel Move Time and Channel Closing Transmission Time results to the limits defined in the DFS Response requirement values table.

Channel Closing Transmission Time - Measurement

The reference radar signature was introduced to the EUT, from which a 11 second transmission record was captured, as well as 1000ms of pre-trigger data. The Reference radar type was triggered to play at the exact time allowing the end of the pulse to occur at time $t=0$.

The system was setup to capture data for all transmission events above a given threshold level as determined and adjusted by the test engineer. The system time stamps all captured events with respect to T0 (zero time indicating the start of the measurement sequence) starting at the end of the radar pulse indicated by the purple vertical marker line in the Plot (on the next page).

The system captured data over a 12 second period at 10 points per microsecond. The data is analyzed by counting all "bursts" that occur above the threshold limit and aggregating the time each burst is on. The data is then compressed for presentation in one 12 second segment showing all of the activity recorded over the period.

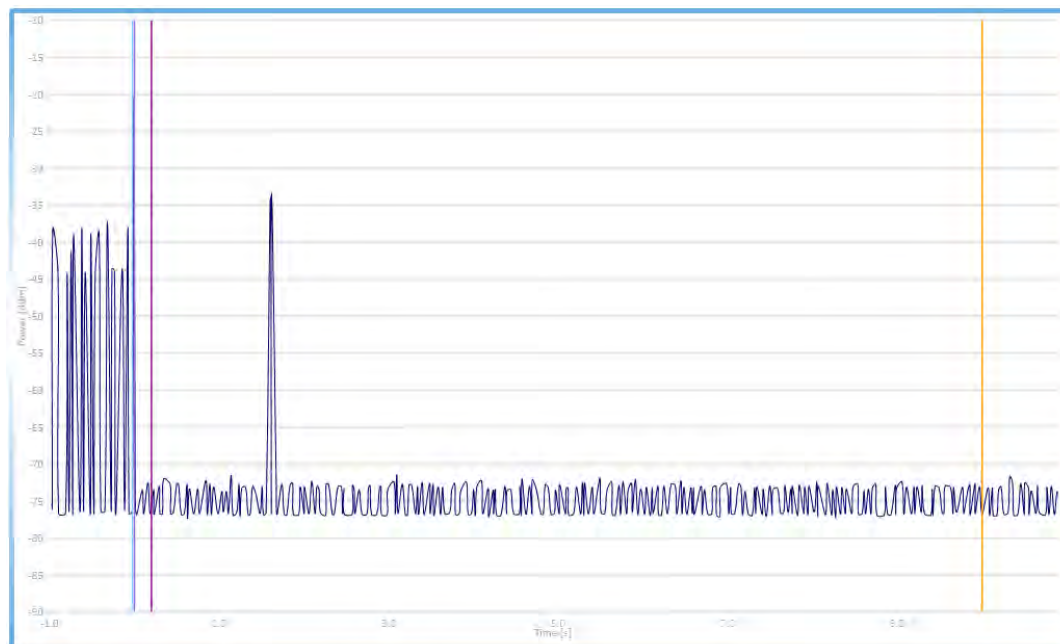
80 MHz Channel 5530 MHz; Observed Frequency 5500 MHz

The system measures and aggregates the pulses occurring after the end of the radar pulse to determine the following parameters:

Test Heading	Time (Secs)	Limit (Secs)	Status
Channel Closing Transmission Time	0.000759	0.260	Complies
Channel Move Time	1.617508	10.0	Complies



Channel Move Time 0-12 Second Capture



Calculation Threshold: -70

Marker Info

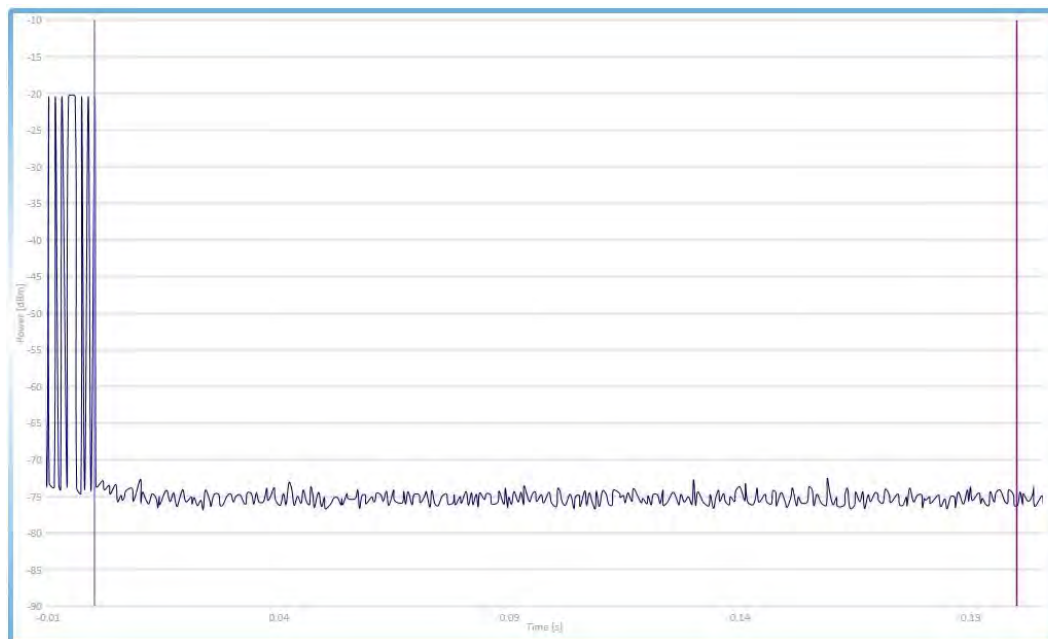
Start Waveform	-0.024275
End Waveform	0.000000
First Boundary	0.200000
Main Boundary	10.000000
Channel Move Time	1.617508

Aggregates

First Boundary:	0.000000
Burst Quantity:	0
Second Boundary:	0.000759
Burst Quantity:	18
Total:	0.000759
Burst Quantity:	18



Channel Closing Transmission Time 0-200 Millisecond Capture



Calculation Threshold: -70

Marker Info

Start Waveform	-0.024275
End Waveform	0.000000
First Boundary	0.200000
Main Boundary	10.000000
Channel Move Time	1.617508

Aggregates

First Boundary:	0.000000
Burst Quantity:	0
Second Boundary:	0.000759
Burst Quantity:	18
Total:	0.000759
Burst Quantity:	18

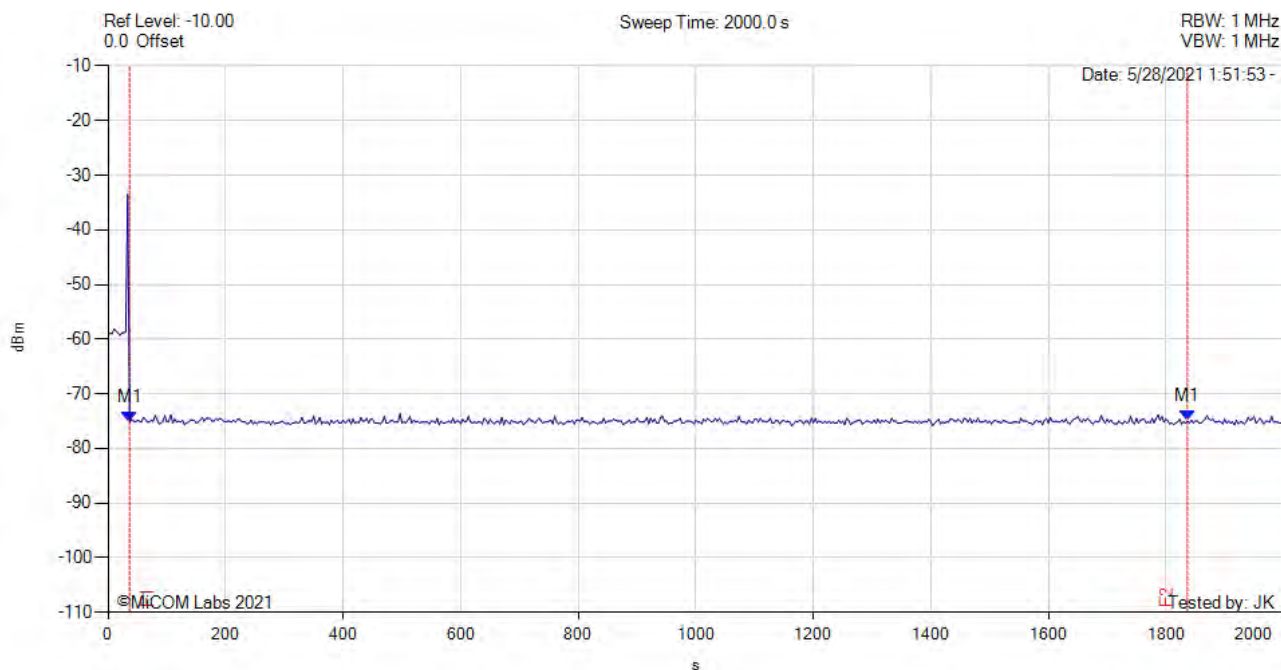
1.2.3. Non-Occupancy Period

The EUT is monitored for more than 30 minutes following the channel close/move time to verify no transmissions resume on this Channel. There should be no transmissions on the frequency of interest during the non-occupancy period.

NON-OCCUPANCY PERIOD



Variant: 802.11ac-80, Channel: 5530.00 MHz, Data Rate: MCS0, Duty Cycle: 17.00%, Antenna Gain: 4.30 dBi



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = POS Sweep Count = View RF Atten (dB) = 0 Trace Mode = 0	M1 : 36.667 s : -75.160 dBm M2 : 1836.667 s : -75.000 dBm	Channel Frequency: 5530.00 MHz Observed Frequency: 5500 MHz F2 - F1 = 1836.667 s - 36.667 s = 1800.00 s

1.3. Radiated Spurious and Band-Edge Emissions

Radiated Test Conditions for Radiated Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	20.0 - 24.5
Test Heading:	Radiated Spurious and Band-Edge Emissions	Rel. Humidity (%):	32 - 45
Standard Section(s):	15.407 (b), 15.205, 15.209	Pressure (mBars):	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Radiated Spurious and Band-Edge Emissions

Radiated emissions for restricted bands above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned. Measurements on any restricted band frequency or frequencies above 1 GHz are based on the use of measurement instrumentation employing peak and average detectors. All measurements were performed using a resolution bandwidth of 1 MHz.

Average Measurements were performed following ANSI C63.10 section 11.12.2.5.2 Trace averaging across on and off times of the EUT transmissions followed by a duty cycle correction.
RMS detector used, DCCF of $10\log(1/D)$ where D is the Duty Cycle.

Test configuration and setup for Undesirable Measurement were per the Radiated Test Set-up specified in this document.

Orientation testing of the EUT was performed and the EUT standing upright was determined to be the worst case for Spurious and Band Edge emissions with the integral antennas attached.

15.407 (b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Limits for Restricted Bands (15.205, 15.209)

Peak emission: 74 dBuV/m

Average emission: 54 dBuV/m

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.

$$FS = R + AF + CORR - FO$$

where:

FS = Field Strength

R = Measured Spectrum analyzer Input Amplitude

AF = Antenna Factor

CORR = Correction Factor = CL – AG + NFL

CL = Cable Loss

AG = Amplifier Gain

FO = Distance Falloff Factor

NFL = Notch Filter Loss

Example:

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz equates to 68.23 dBμV/m

Conversion between dBmV/m (or dBmV) and mV/m (or mV) are as follows:

$$\text{Level (dBmV/m)} = 20 * \text{Log (level (mV/m))}$$

$$40 \text{ dBmV/m} = 100 \text{ mV/m}$$

$$48 \text{ dBmV/m} = 250 \text{ mV/m}$$

Restricted Bands of Operation (15.205)

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Frequency Band			
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0

12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

(b) Except as provided in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

(c) Except as provided in paragraphs (d) and (e) of this section, regardless of the field strength limits specified elsewhere in this subpart, the provisions of this section apply to emissions from any intentional radiator.

(d) The following devices are exempt from the requirements of this section:

(1) Swept frequency field disturbance sensors operating between 1.705 and 37 MHz provided their emissions only sweep through the bands listed in paragraph (a) of this section, the sweep is never stopped with the fundamental emission within the bands listed in paragraph (a) of this section, and the fundamental emission is outside of the bands listed in paragraph (a) of this section more than 99% of the time the device is actively transmitting, without compensation for duty cycle.

(2) Transmitters used to detect buried electronic markers at 101.4 kHz which are employed by telephone companies.

(3) Cable locating equipment operated pursuant to §15.213.

(4) Any equipment operated under the provisions of §15.253, 15.255, and 15.256 in the frequency band 75-85 GHz, or §15.257 of this part.

(5) Biomedical telemetry devices operating under the provisions of §15.242 of this part are not subject to the restricted band 608-614 MHz but are subject to compliance within the other restricted bands.

(6) Transmitters operating under the provisions of subparts D or F of this part.

(7) Devices operated pursuant to §15.225 are exempt from complying with this section for the 13.36-13.41 MHz band only.

(8) Devices operated in the 24.075-24.175 GHz band under §15.245 are exempt from complying with the requirements of this section for the 48.15-48.35 GHz and 72.225-72.525 GHz bands only, and shall not exceed the limits specified in §15.245(b).

(9) Devices operated in the 24.0-24.25 GHz band under §15.249 are exempt from complying with the requirements of this section for the 48.0-48.5 GHz and 72.0-72.75 GHz bands only, and shall not exceed the limits specified in §15.249(a).

(e) Harmonic emissions appearing in the restricted bands above 17.7 GHz from field disturbance sensors operating under the provisions of §15.245 shall not exceed the limits specified in §15.245(b).

1.3.1. TX Spurious Emissions

Tx Spurious - Aruba Wifi Antenna

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz

Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5185.04	75.54	3.03	-12.22	66.35	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5200.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5205.21	78.31	2.99	-12.40	68.90	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5240.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5245.78	81.05	3.01	-12.08	71.98	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5260.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5261.11	75.13	2.92	-12.22	65.83	Fundamental	Horizontal	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5300.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5304.43	79.01	3.06	-11.96	70.11	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5315.13	78.08	2.99	-12.00	69.07	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5502.12	65.02	3.05	-11.64	56.43	Fundamental	Horizontal	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5580.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5583.92	74.22	3.12	-11.55	65.79	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5720.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5715.02	62.43	3.16	-11.29	54.30	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5739.38	57.19	3.17	-11.14	49.22	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5785.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5792.52	59.66	3.14	-10.82	51.98	Fundamental	Vertical	100	5	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

Equipment Configuration for TX Spurious & Restricted Band Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5826.93	63.54	3.14	-10.85	55.83	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

1.3.2. Restricted Band-Edge Emissions

Radiated Band-Edge - Aruba Wifi Antenna

5150 - 5250 MHz

Aruba Wifi		Band-Edge Freq	Limit 74.0dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11a	5180.00	5150.00	63.81	44.09	18
802.11ac-80	5210.00	5150.00	73.28	51.17	17
802.11ax-20	5180.00	5150.00	66.89	45.86	18
802.11ax-40	5190.00	5150.00	71.25	46.52	17
802.11ax-80	5210.00	5150.00	72.75	47.33	17
802.11n HT-20	5180.00	5150.00	66.62	44.89	18
802.11n HT-40	5190.00	5150.00	73.78	48.91	18

5470 - 5725 MHz

Aruba Wifi		Restricted-Edge Freq	Limit 68.2dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11a	5500.00	5460.00	63.52	42.81	18
802.11ac-80	5530.00	5460.00	66.83	44.05	16
802.11ax-20	5500.00	5460.00	67.93	42.81	18
802.11ax-40	5510.00	5460.00	66.89	42.81	16
802.11ax-80	5530.00	5460.00	66.51	43.45	15
802.11n HT-20	5500.00	5460.00	64.93	42.81	18
802.11n HT-40	5510.00	5460.00	66.68	42.81	15

5250 - 5350 MHz

Aruba Wifi		Band-Edge Freq	Limit 74.0dBμV/m	Limit 54.0dBμV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBμV/m	dBμV/m	
802.11a	5320.00	5350.00	66.53	44.42	18
802.11ac-80	5290.00	5350.00	72.15	50.01	17
802.11ax-20	5320.00	5350.00	66.98	46.64	18
802.11ax-40	5310.00	5350.00	73.19	48.91	17
802.11ax-80	5290.00	5350.00	73.02	50.72	17
802.11n HT-20	5320.00	5350.00	65.96	45.48	18
802.11n HT-40	5310.00	5350.00	73.33	51.25	18

5725 – 5850 MHz Low Band-Edge

Aruba Wifi		Band-Edge Freq	Limit 68.2dBµV/m	Limit 122.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5725.00	5725.00	56.43	73.15	18
802.11ac-80	5725.00	5725.00	58.97	74.63	18
802.11ax-20	5725.00	5725.00	56.35	78.04	18
802.11ax-40	5725.00	5725.00	56.37	76.66	18
802.11ax-80	5725.00	5725.00	59.69	76.36	18
802.11n HT-20	5725.00	5725.00	56.38	76.31	18
802.11n HT-40	5725.00	5725.00	56.28	79.12	18

High Band-Edge

Aruba Wifi		Band-Edge Freq	Limit 122.2dBµV/m	Limit 68.2dBµV/m	Power Setting
Operational Mode	Operating Frequency (MHz)	MHz	dBµV/m	dBµV/m	
802.11a	5850.00	5850.00	65.05	57.63	18
802.11ac-80	5850.00	5850.00	70.43	58.29	18
802.11ax-20	5850.00	5850.00	69.57	57.70	18
802.11ax-40	5850.00	5850.00	63.57	57.43	18
802.11ax-80	5850.00	5850.00	71.58	57.76	18
802.11n HT-20	5850.00	5850.00	70.31	57.78	18
802.11n HT-40	5850.00	5850.00	65.00	57.63	18

Click on the links to view the data.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5150.00	6.95	2.93	34.21	44.09	Max Avg	Vertical	176	1	54.0	-9.9	Pass
#2	5150.00	26.67	2.93	34.21	63.81	Max Peak	Vertical	176	1	74.0	-10.2	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ac-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5210.00	Data Rate:	29.30 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5149.30	36.15	2.92	34.21	73.28	Max Peak	Vertical	176	1	74.0	-0.7	Pass
#2	5150.00	14.03	2.93	34.21	51.17	Max Avg	Vertical	176	1	54.0	-2.8	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5148.50	29.77	2.91	34.21	66.89	Max Peak	Vertical	176	1	74.0	-7.1	Pass
#2	5150.00	8.72	2.93	34.21	45.86	Max Avg	Vertical	176	1	54.0	-8.1	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5190.00	Data Rate:	13.50 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5150.00	9.38	2.93	34.21	46.52	Max Avg	Vertical	176	1	54.0	-7.5	Pass
#2	5150.00	34.11	2.93	34.21	71.25	Max Peak	Vertical	176	1	74.0	-2.8	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5210.00	Data Rate:	29.30 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5148.50	35.63	2.91	34.21	72.75	Max Peak	Vertical	176	1	74.0	-1.3	Pass
#2	5150.00	10.19	2.93	34.21	47.33	Max Avg	Vertical	176	1	54.0	-6.7	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5180.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5150.00	7.75	2.93	34.21	44.89	Max Avg	Vertical	176	1	54.0	-9.1	Pass
#2	5150.00	29.48	2.93	34.21	66.62	Max Peak	Vertical	176	1	74.0	-7.4	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5190.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5150.00	11.77	2.93	34.21	48.91	Max Avg	Vertical	176	1	54.0	-5.1	Pass
#2	5150.00	36.64	2.93	34.21	73.78	Max Peak	Vertical	176	1	74.0	-0.2	Pass
#3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
#3	5468.14	25.90	3.07	34.55	63.52	Max Peak	Vertical	179	9	68.2	-4.7	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ac-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5530.00	Data Rate:	29.30 MBit/s
Power Setting:	16	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5457.90	6.48	3.05	34.52	44.05	Max Avg	Vertical	179	9	54.0	-11.0	Pass
#3	5468.42	29.21	3.07	34.55	66.83	Max Peak	Vertical	179	9	68.2	-1.4	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-20
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
#3	5467.52	30.31	3.07	34.55	67.93	Max Peak	Vertical	179	9	68.2	-0.3	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-40
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5510.00	Data Rate:	13.50 MBit/s
Power Setting:	16	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
#3	5468.12	29.27	3.07	34.55	66.89	Max Peak	Vertical	179	9	68.2	-1.3	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5530.00	Data Rate:	29.30 MBit/s
Power Setting:	15	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5458.50	5.88	3.05	34.52	43.45	Max Avg	Vertical	179	9	54.0	-11.6	Pass
#3	5463.31	28.91	3.07	34.53	66.51	Max Peak	Vertical	179	9	68.2	-1.7	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-20
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5500.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
#3	5468.12	27.31	3.07	34.55	64.93	Max Peak	Vertical	179	9	68.2	-3.3	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Lower Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-40
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5510.00	Data Rate:	13.50 MBit/s
Power Setting:	15	Tested By:	JMH

Test Measurement Results

5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
#3	5468.12	29.06	3.07	34.55	66.68	Max Peak	Vertical	179	9	68.2	-1.6	Pass
#2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
#4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5352.26	6.90	3.06	34.46	44.42	Max Avg	Vertical	176	1	54.0	-9.6	Pass
#3	5352.59	29.01	3.05	34.47	66.53	Max Peak	Vertical	176	1	74.0	-7.5	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ac-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5290.00	Data Rate:	29.30 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5351.94	34.63	3.06	34.46	72.15	Max Peak	Vertical	176	1	74.0	-1.9	Pass
#3	5352.59	12.49	3.05	34.47	50.01	Max Avg	Vertical	176	1	54.0	-4.0	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5352.26	9.12	3.06	34.46	46.64	Max Avg	Vertical	176	1	54.0	-7.4	Pass
#3	5352.91	29.46	3.05	34.47	66.98	Max Peak	Vertical	176	1	74.0	-7.0	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5310.00	Data Rate:	13.50 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5351.30	35.67	3.06	34.46	73.19	Max Peak	Vertical	176	1	74.0	-0.8	Pass
#3	5352.26	11.39	3.06	34.46	48.91	Max Avg	Vertical	176	1	54.0	-5.1	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5290.00	Data Rate:	29.30 MBit/s
Power Setting:	17	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5351.62	35.50	3.06	34.46	73.02	Max Peak	Vertical	176	1	74.0	-1.0	Pass
#3	5352.59	13.20	3.05	34.47	50.72	Max Avg	Vertical	176	1	54.0	-3.3	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5320.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5352.59	7.96	3.05	34.47	45.48	Max Avg	Vertical	176	1	54.0	-8.5	Pass
#3	5352.59	28.44	3.05	34.47	65.96	Max Peak	Vertical	176	1	74.0	-8.0	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for Restricted Upper Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5310.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5352.26	13.73	3.06	34.46	51.25	Max Avg	Vertical	176	1	54.0	-2.8	Pass
#3	5352.91	35.81	3.05	34.47	73.33	Max Peak	Vertical	176	1	74.0	-0.7	Pass
#1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBµV	Cable Loss dB	AF dB/m	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
#1	5623.38	18.67	3.12	34.64	56.43	Max Peak	Vertical	200	12	68.2	-11.8	Pass
#2	5725.00	35.24	3.19	34.72	73.15	Max Peak	Vertical	200	12	122.2	-49.1	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ac-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5775.00	Data Rate:	29.30 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5639.25	21.22	3.11	34.64	58.97	Max Peak	Vertical	200	12	68.2	-9.3	Pass
#2	5724.28	36.72	3.19	34.72	74.63	Max Peak	Vertical	200	12	119.9	-45.3	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5625.90	18.59	3.12	34.64	56.35	Max Peak	Vertical	200	12	68.2	-11.9	Pass
#2	5723.56	40.13	3.19	34.72	78.04	Max Peak	Vertical	200	12	119.9	-41.9	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5755.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5641.41	18.63	3.10	34.64	56.37	Max Peak	Vertical	200	12	68.2	-11.9	Pass
#2	5720.67	38.73	3.21	34.72	76.66	Max Peak	Vertical	200	12	113.1	-36.4	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-80
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5775.00	Data Rate:	29.30 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5634.20	21.94	3.11	34.64	59.69	Max Peak	Vertical	200	12	68.2	-8.5	Pass
#2	5724.64	38.45	3.19	34.72	76.36	Max Peak	Vertical	200	12	122.2	-45.8	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5745.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5646.46	18.67	3.08	34.63	56.38	Max Peak	Vertical	200	12	68.2	-11.9	Pass
#2	5724.64	38.40	3.19	34.72	76.31	Max Peak	Vertical	200	12	122.2	-45.9	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5725 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5755.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5640.33	18.54	3.10	34.64	56.28	Max Peak	Vertical	200	12	68.2	-12.0	Pass
#2	5724.28	41.21	3.19	34.72	79.12	Max Peak	Vertical	200	12	119.9	-40.8	Pass
#3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11a
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.00 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	26.85	3.24	34.96	65.05	Max Peak	Vertical	200	12	122.2	-57.2	Pass
#3	5929.02	19.33	3.19	35.11	57.63	Max Peak	Vertical	200	12	68.2	-10.6	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ac-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5775.00	Data Rate:	29.30 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	32.23	3.24	34.96	70.43	Max Peak	Vertical	200	12	122.2	-51.8	Pass
#3	5925.45	20.01	3.17	35.11	58.29	Max Peak	Vertical	200	12	68.2	-9.9	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#2	5851.84	31.38	3.23	34.96	69.57	Max Peak	Vertical	200	12	122.2	-52.7	Pass
#3	5983.99	19.28	3.22	35.20	57.70	Max Peak	Vertical	200	12	68.2	-10.5	Pass
#1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-40
Antenna Gain (dBi):	4.30	Modulation:	OFDM
Beam Forming Gain (Y):	3	Duty Cycle (%):	99
Channel Frequency (MHz):	5795.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	25.37	3.24	34.96	63.57	Max Peak	Vertical	200	12	122.2	-58.7	Pass
#3	5977.54	19.06	3.19	35.18	57.43	Max Peak	Vertical	200	12	68.2	-10.8	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11ax-80
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5775.00	Data Rate:	29.30 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	33.38	3.24	34.96	71.58	Max Peak	Vertical	200	12	122.2	-50.7	Pass
#3	5930.06	19.46	3.19	35.11	57.76	Max Peak	Vertical	200	12	68.2	-10.5	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-20
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5825.00	Data Rate:	6.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	32.11	3.24	34.96	70.31	Max Avg	Vertical	200	12	122.2	-51.9	Pass
#3	5987.68	19.33	3.24	35.21	57.78	Max Avg	Vertical	200	12	68.2	-10.5	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

Equipment Configuration for 5850 MHz Radiated Band-Edge Emissions

Antenna:	Aruba Wifi	Variant:	802.11n HT-40
Antenna Gain (dBi):	Not Applicable	Modulation:	OFDM
Beam Forming Gain (Y):	Not Applicable	Duty Cycle (%):	99
Channel Frequency (MHz):	5795.00	Data Rate:	13.50 MBit/s
Power Setting:	18	Tested By:	JMH

Test Measurement Results

5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
#1	5850.00	26.80	3.24	34.96	65.00	Max Peak	Vertical	200	12	122.2	-57.2	Pass
#3	5965.55	19.30	3.17	35.16	57.63	Max Peak	Vertical	200	12	68.2	-10.6	Pass
#2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

A. APPENDIX - GRAPHICAL IMAGES

A.1. Radiated

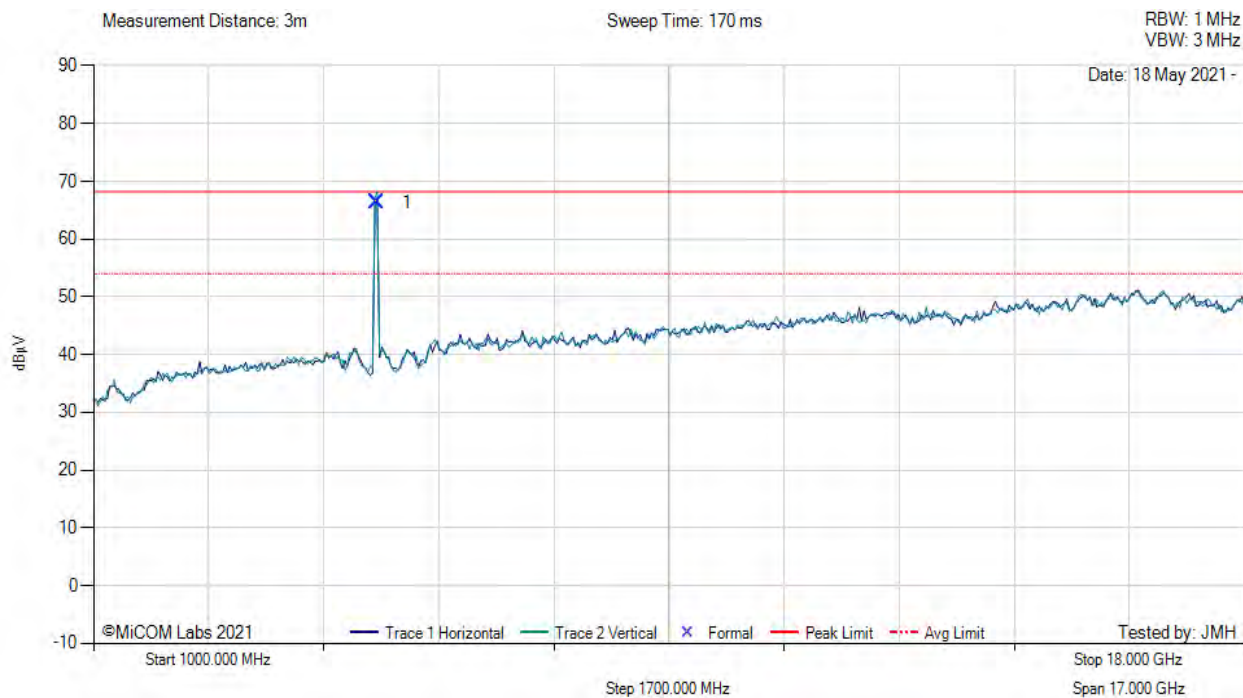
A.1.1. TX Spurious & Restricted Band Emissions

A.1.1.1. Aruba Wifi



TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5180.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5185.04	75.54	3.03	-12.22	66.35	Fundamental	Vertical	100	0	--	--	

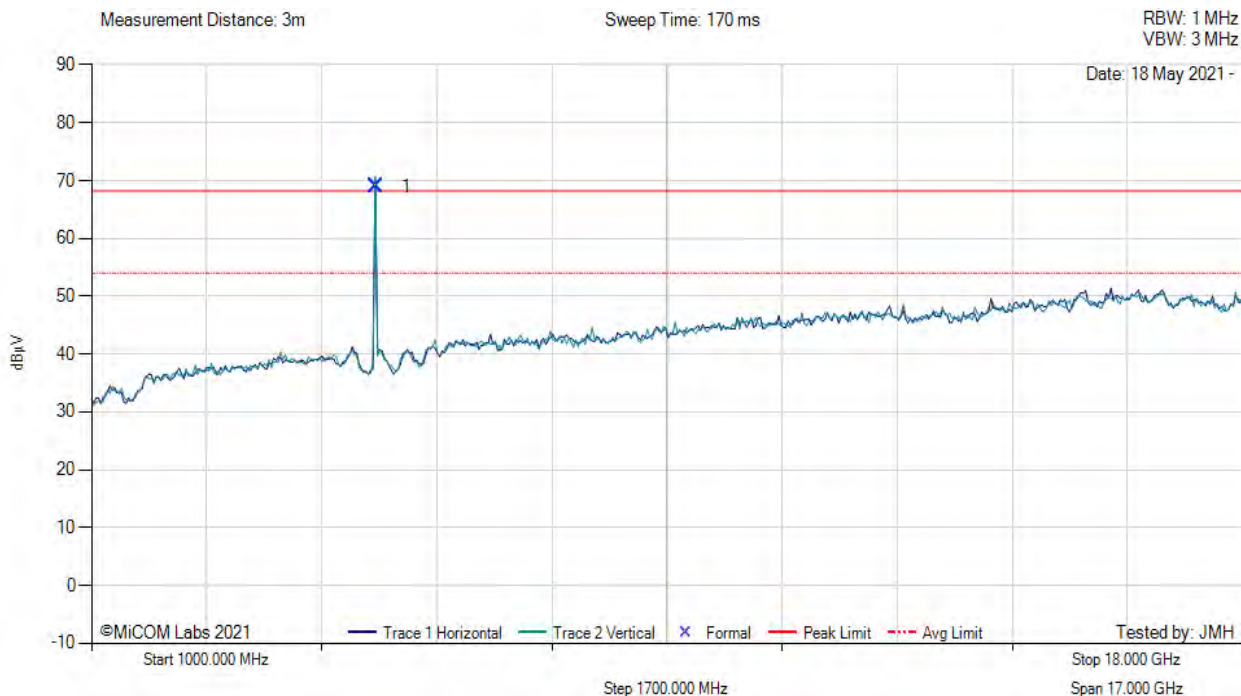
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5200.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5205.21	78.31	2.99	-12.40	68.90	Fundamental	Vertical	100	0	--	--	

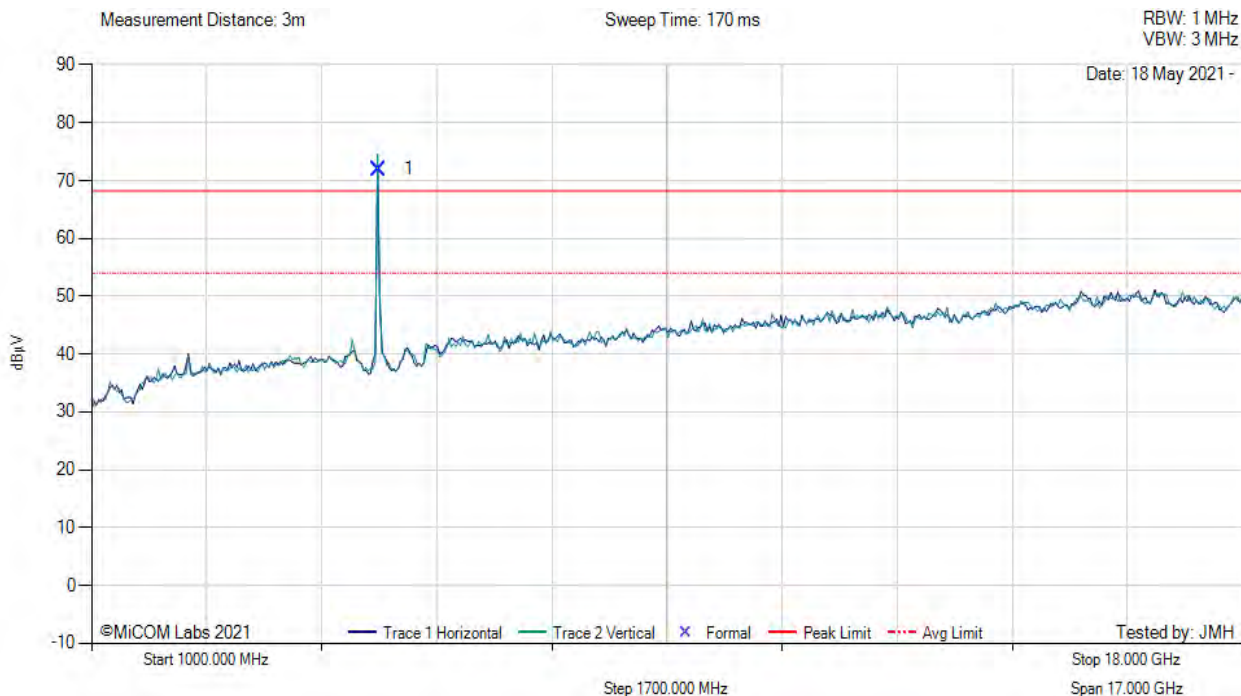
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5240.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5245.78	81.05	3.01	-12.08	71.98	Fundamental	Vertical	100	0	--	--	

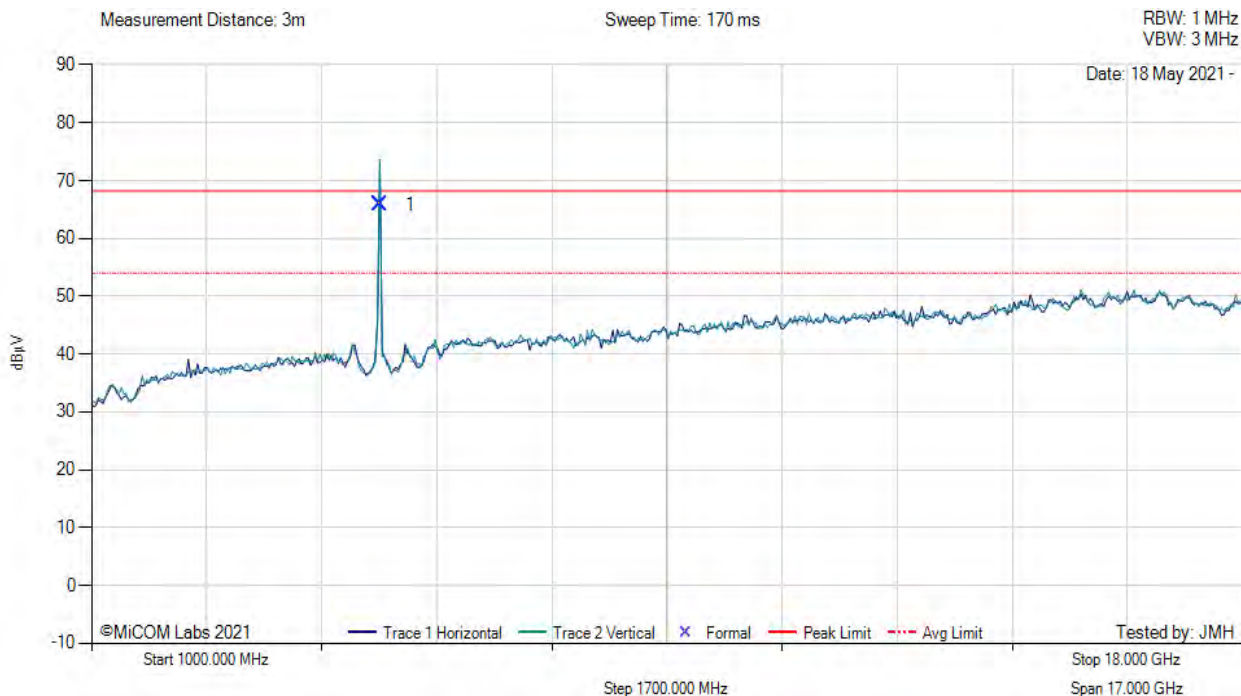
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5260.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5261.11	75.13	2.92	-12.22	65.83	Fundamental	Horizontal	100	0	--	--	

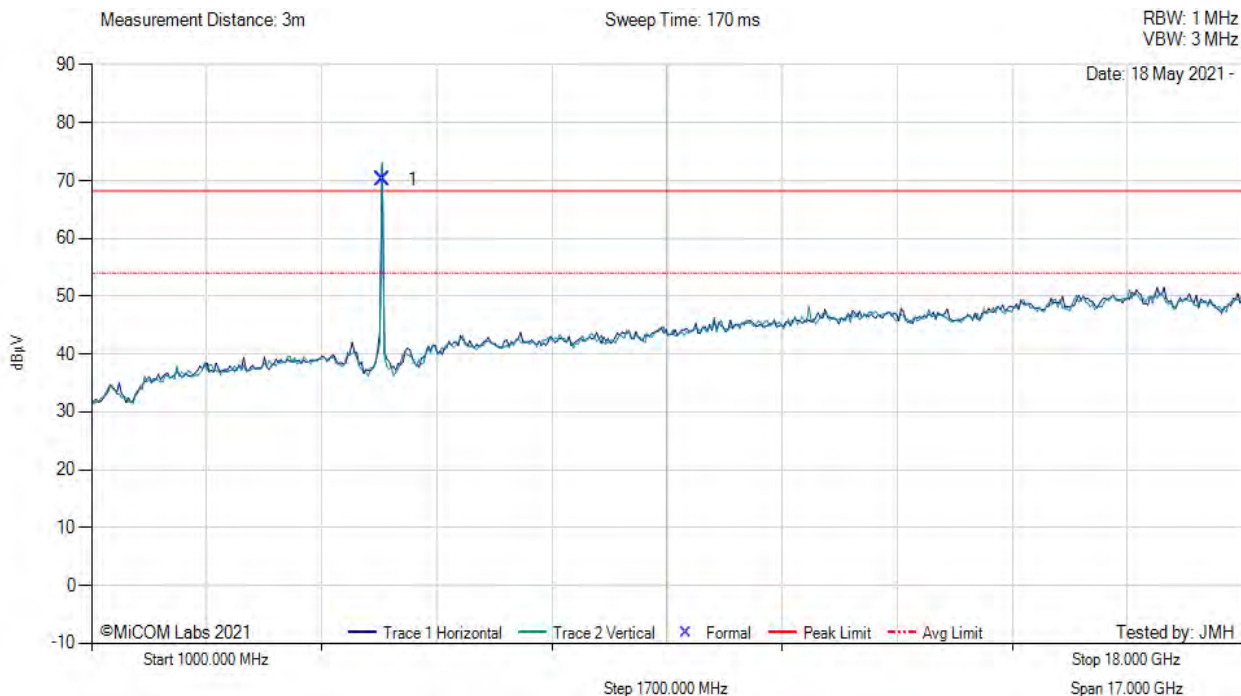
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5300.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5304.43	79.01	3.06	-11.96	70.11	Fundamental	Vertical	100	0	--	--	

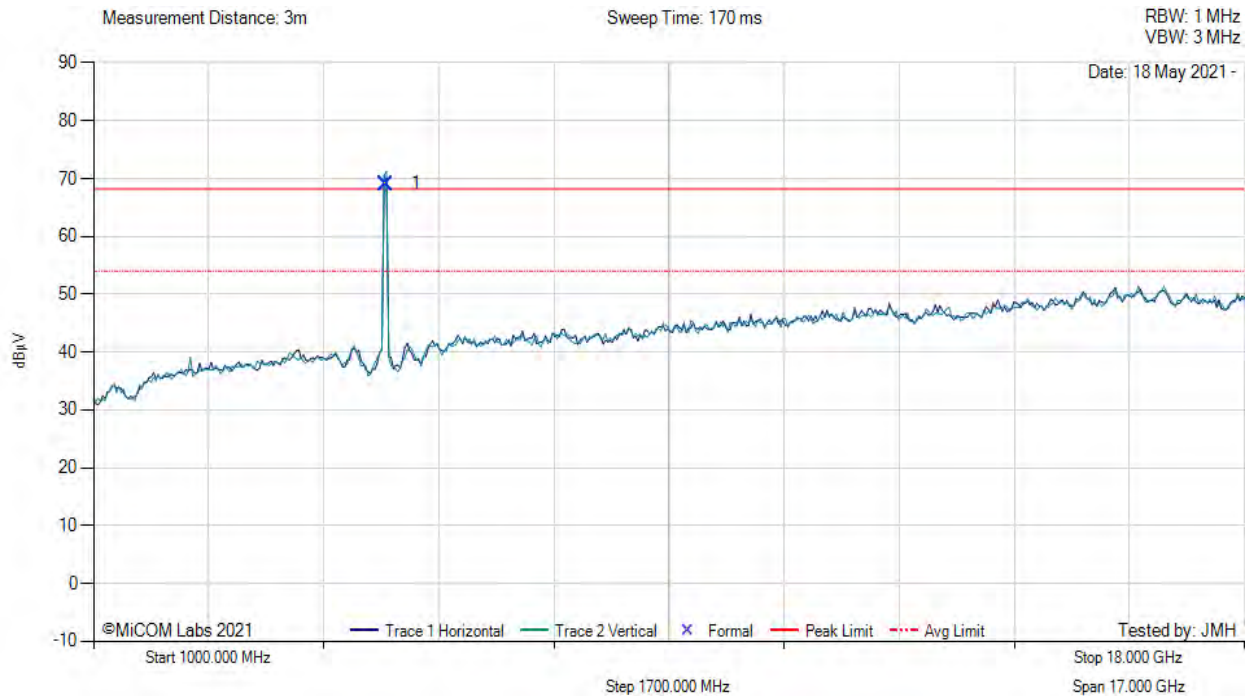
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5320.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5315.13	78.08	2.99	-12.00	69.07	Fundamental	Vertical	100	0	--	--	

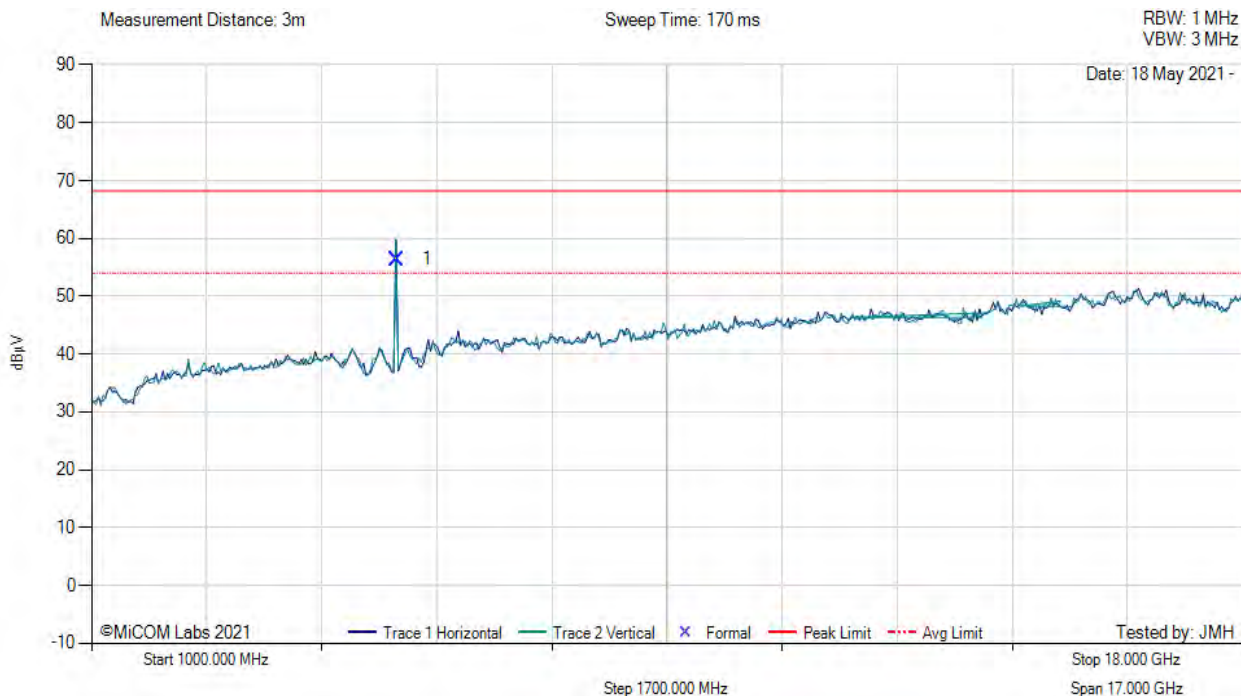
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5500.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5502.12	65.02	3.05	-11.64	56.43	Fundamental	Horizontal	100	0	--	--	

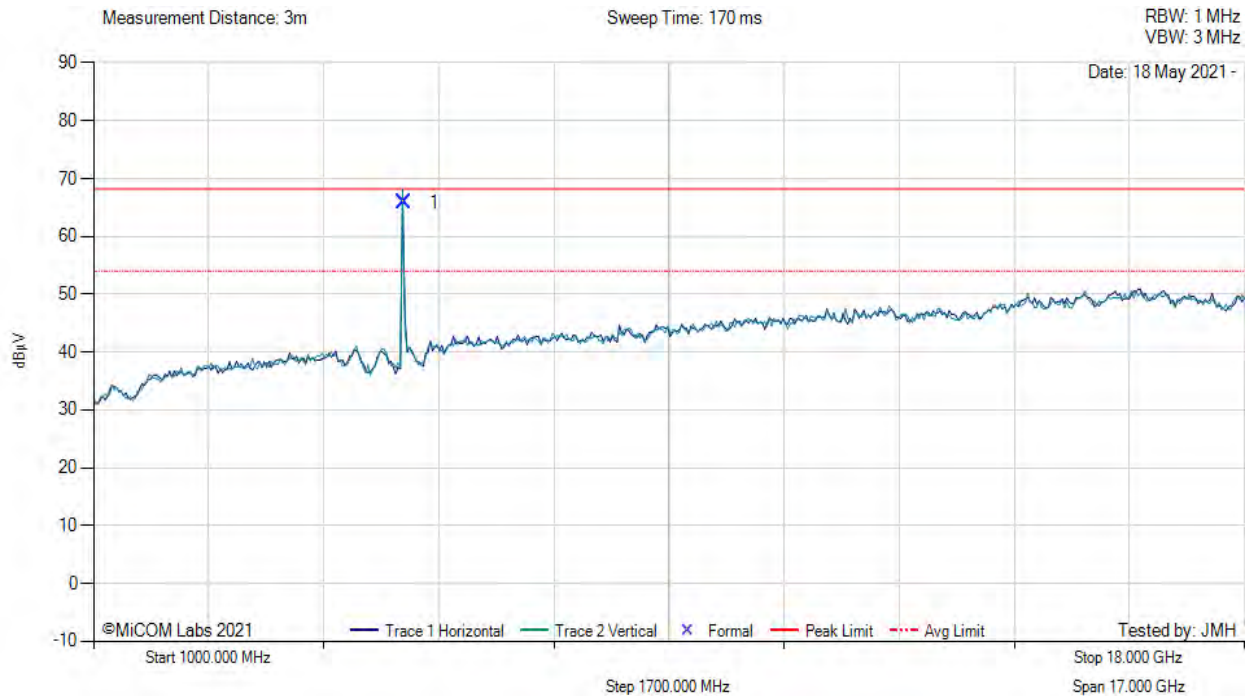
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5580.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5583.92	74.22	3.12	-11.55	65.79	Fundamental	Vertical	100	0	--	--	

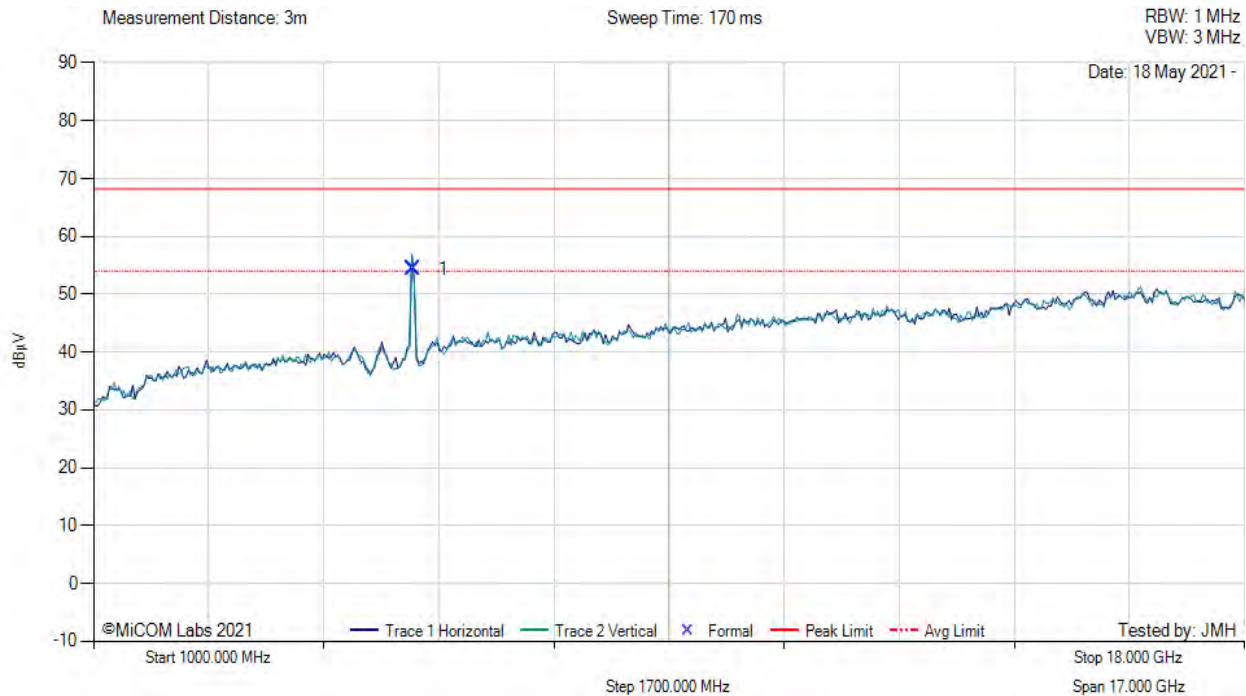
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5720.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5715.02	62.43	3.16	-11.29	54.30	Fundamental	Vertical	100	0	--	--	

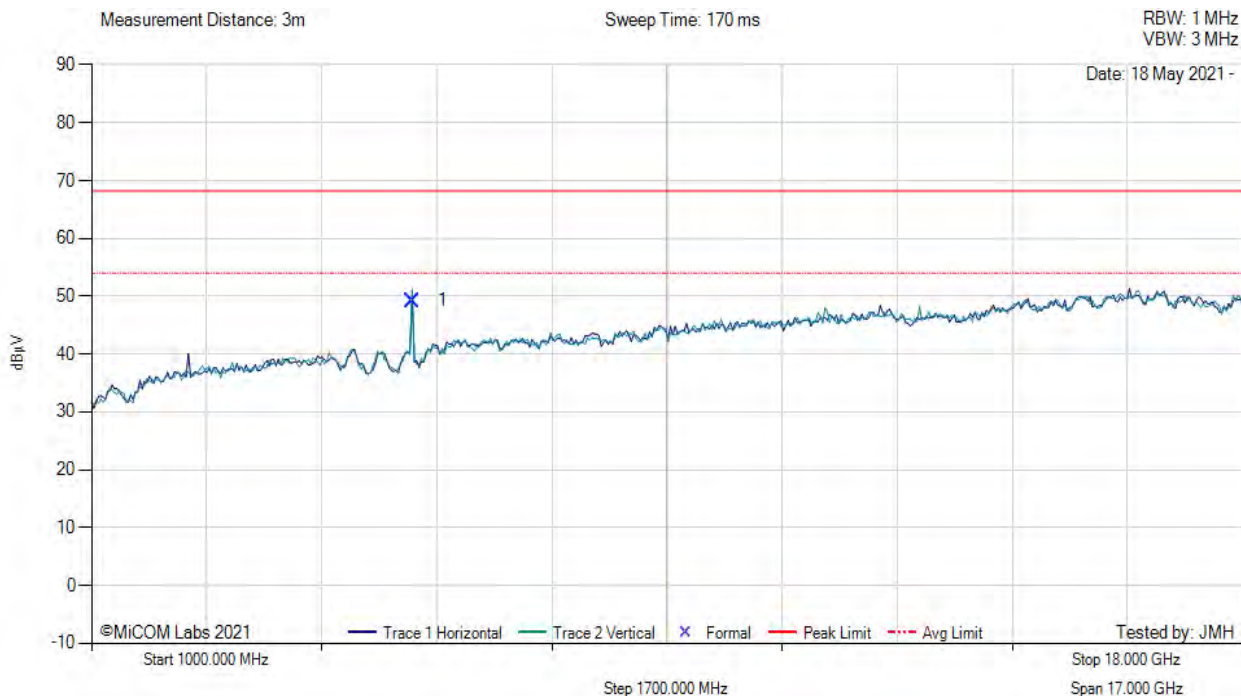
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5745.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5739.38	57.19	3.17	-11.14	49.22	Fundamental	Vertical	100	0	--	--	

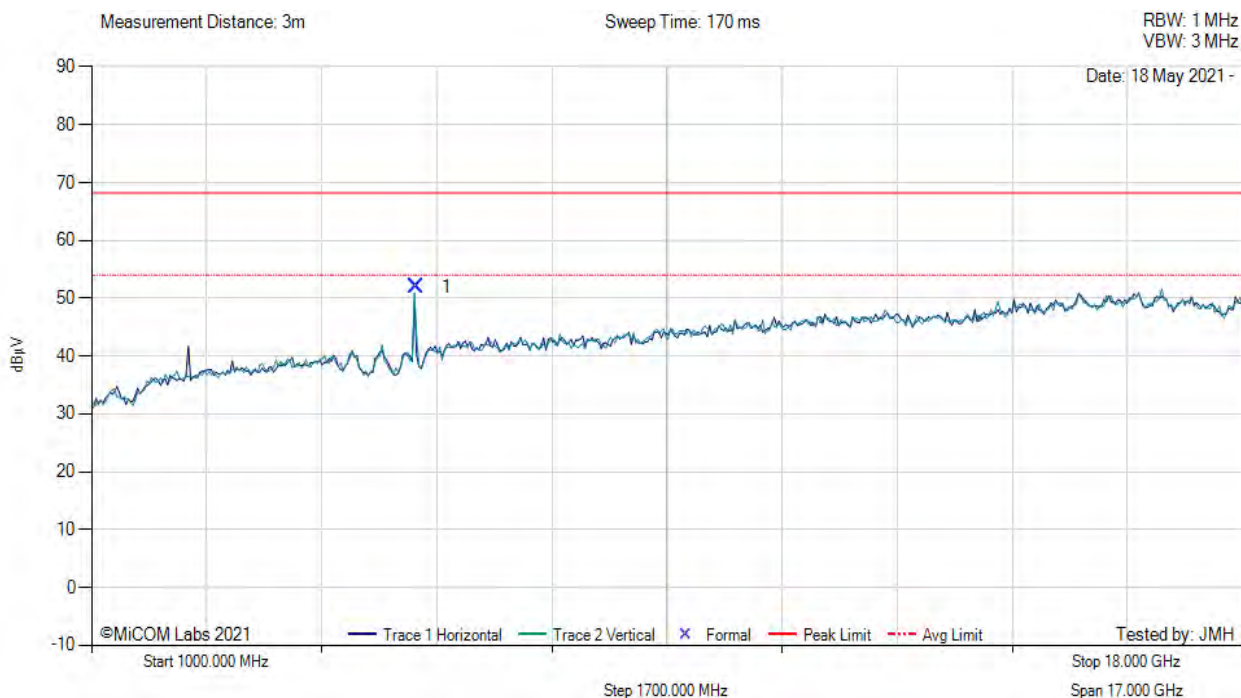
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5785.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5792.52	59.66	3.14	-10.82	51.98	Fundamental	Vertical	100	5	--	--	

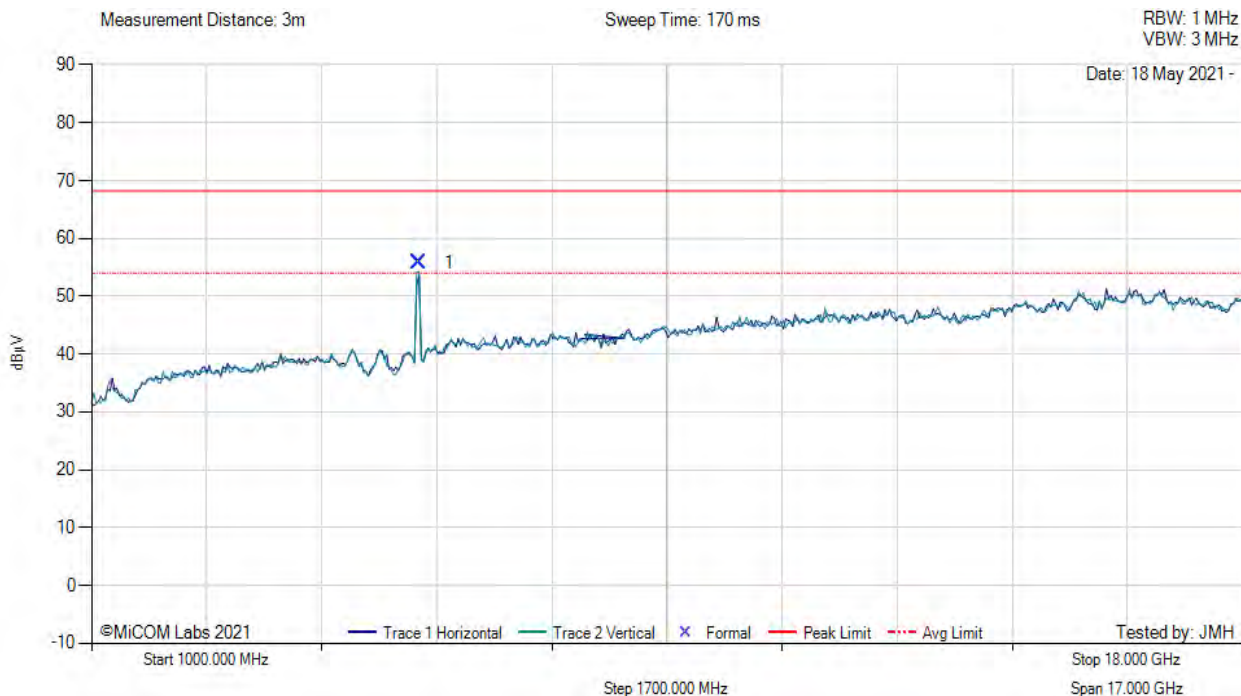
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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TX SPURIOUS & RESTRICTED BAND EMISSIONS

Variant: 802.11a, Test Freq: 5825.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



1000.00 - 18000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5826.93	63.54	3.14	-10.85	55.83	Fundamental	Vertical	100	0	--	--	

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber. 5G notch in front of amp to prevent overload

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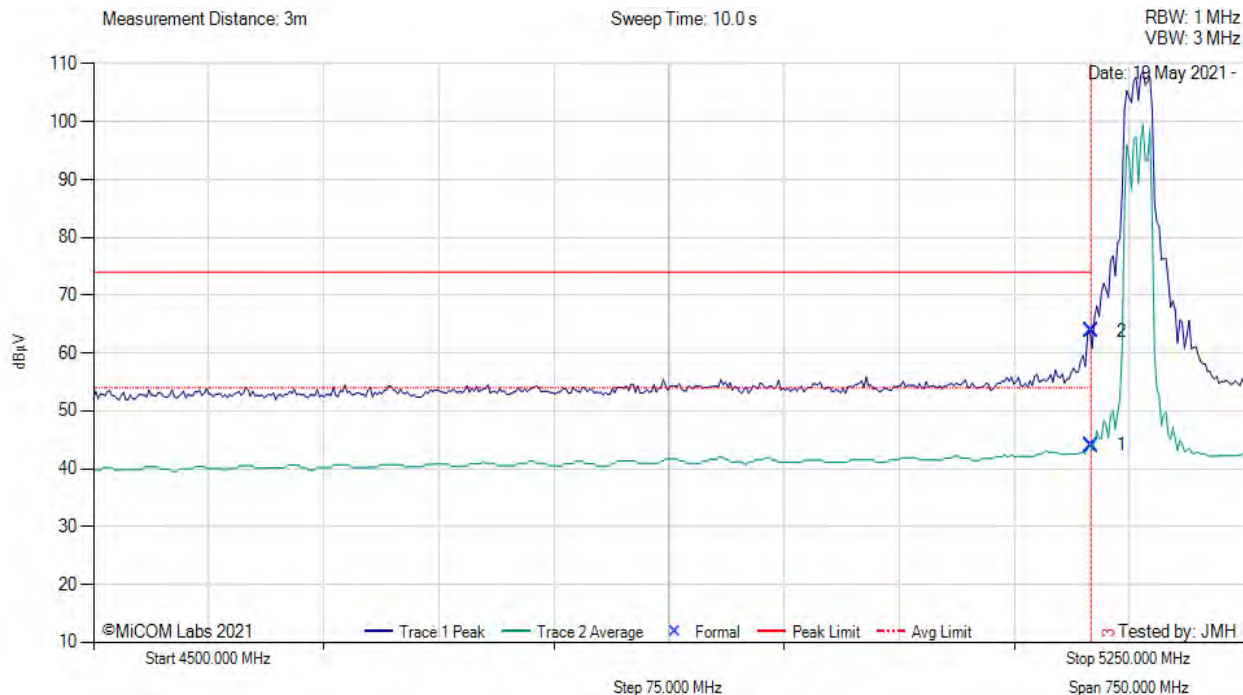
A.1.2. Restricted Edge & Band-Edge Emissions

A.1.2.2. Aruba Wifi



RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5180.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass/Fail
1	5150.00	6.95	2.93	34.21	44.09	Max Avg	Vertical	176	1	54.0	-9.9	Pass
2	5150.00	26.67	2.93	34.21	63.81	Max Peak	Vertical	176	1	74.0	-10.2	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

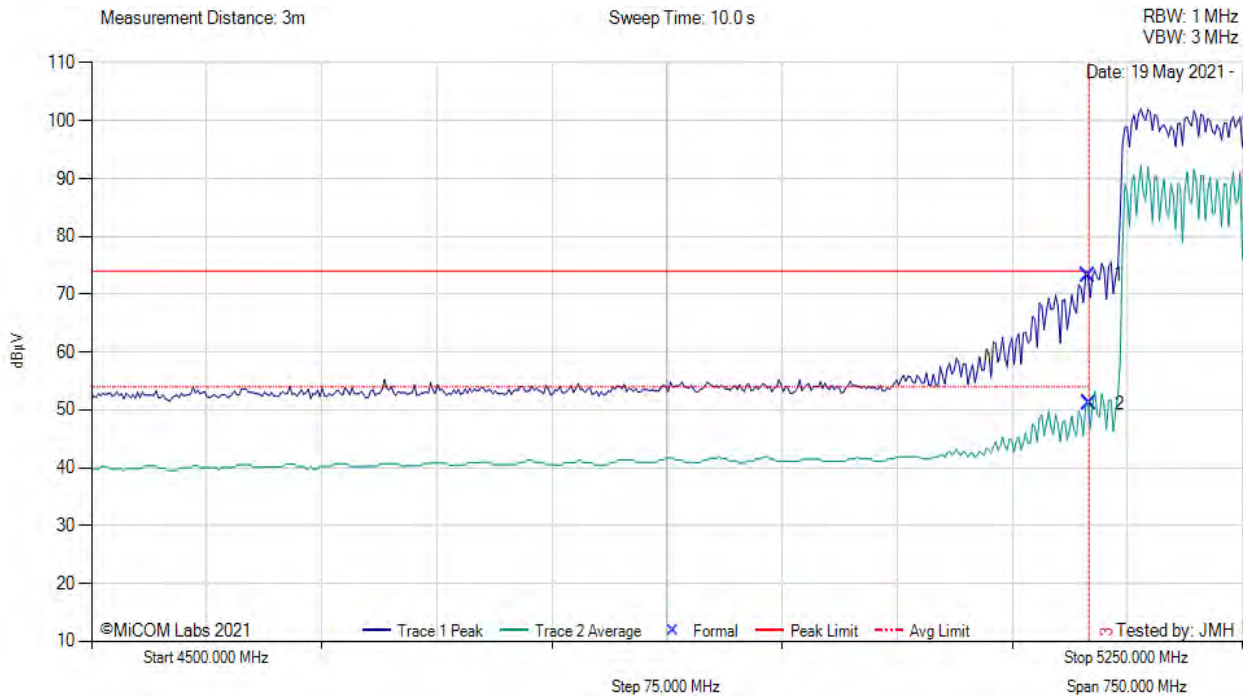
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5210.00 MHz, Antenna: Aruba Wifi, Power Setting: 17, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5149.30	36.15	2.92	34.21	73.28	Max Peak	Vertical	176	1	74.0	-0.7	Pass
2	5150.00	14.03	2.93	34.21	51.17	Max Avg	Vertical	176	1	54.0	-2.8	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

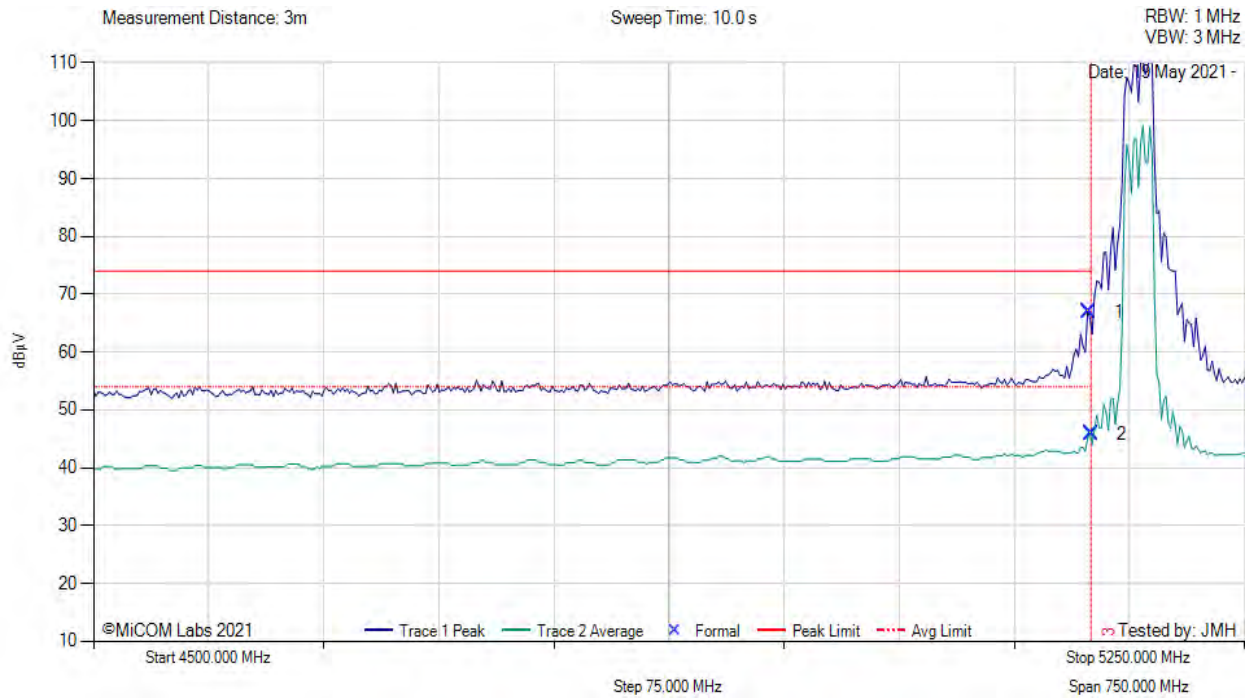
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ax-20, Test Freq: 5180.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5148.50	29.77	2.91	34.21	66.89	Max Peak	Vertical	176	1	74.0	-7.1	Pass
2	5150.00	8.72	2.93	34.21	45.86	Max Avg	Vertical	176	1	54.0	-8.1	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

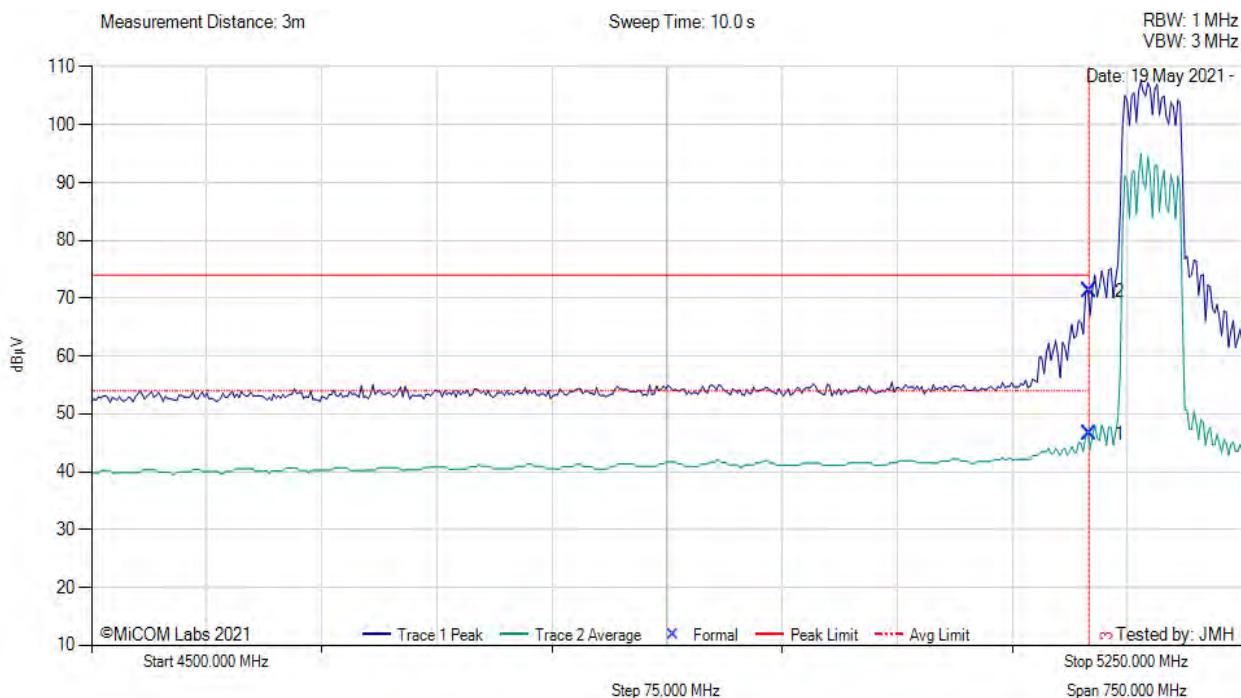
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ax-40, Test Freq: 5190.00 MHz, Antenna: Aruba Wifi, Power Setting: 17, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5150.00	9.38	2.93	34.21	46.52	Max Avg	Vertical	176	1	54.0	-7.5	Pass
2	5150.00	34.11	2.93	34.21	71.25	Max Peak	Vertical	176	1	74.0	-2.8	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

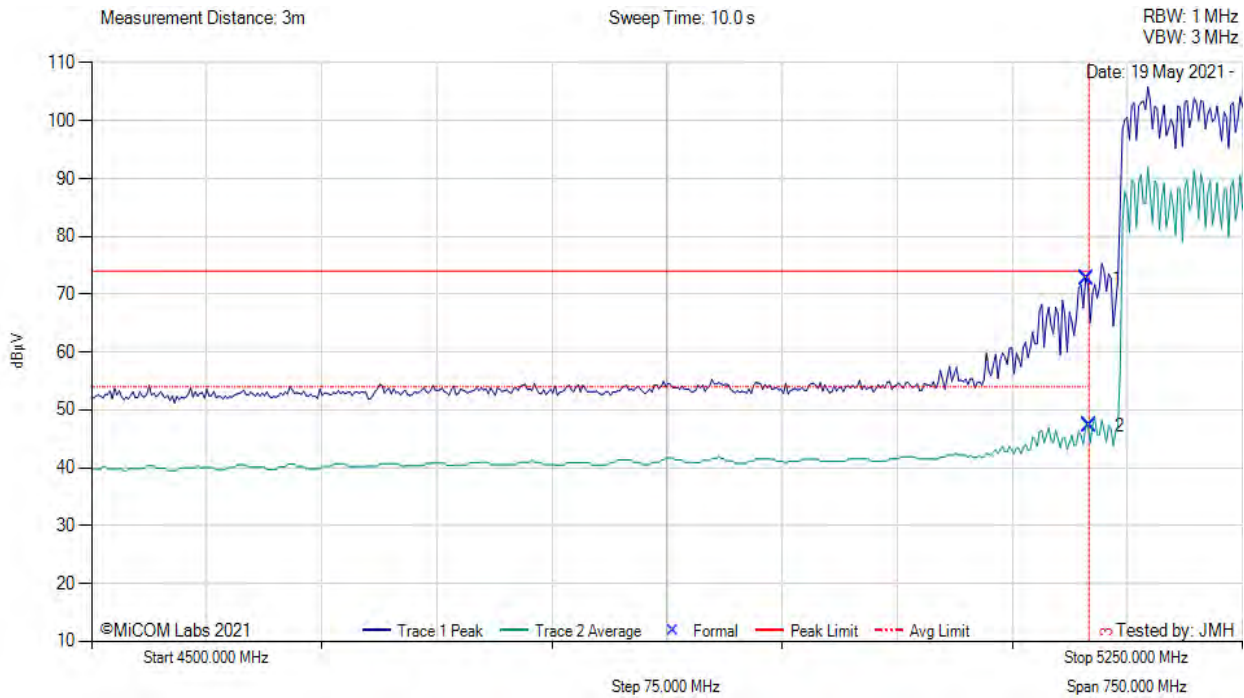
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ax-80, Test Freq: 5210.00 MHz, Antenna: Aruba Wifi, Power Setting: 17, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5148.50	35.63	2.91	34.21	72.75	Max Peak	Vertical	176	1	74.0	-1.3	Pass
2	5150.00	10.19	2.93	34.21	47.33	Max Avg	Vertical	176	1	54.0	-6.7	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

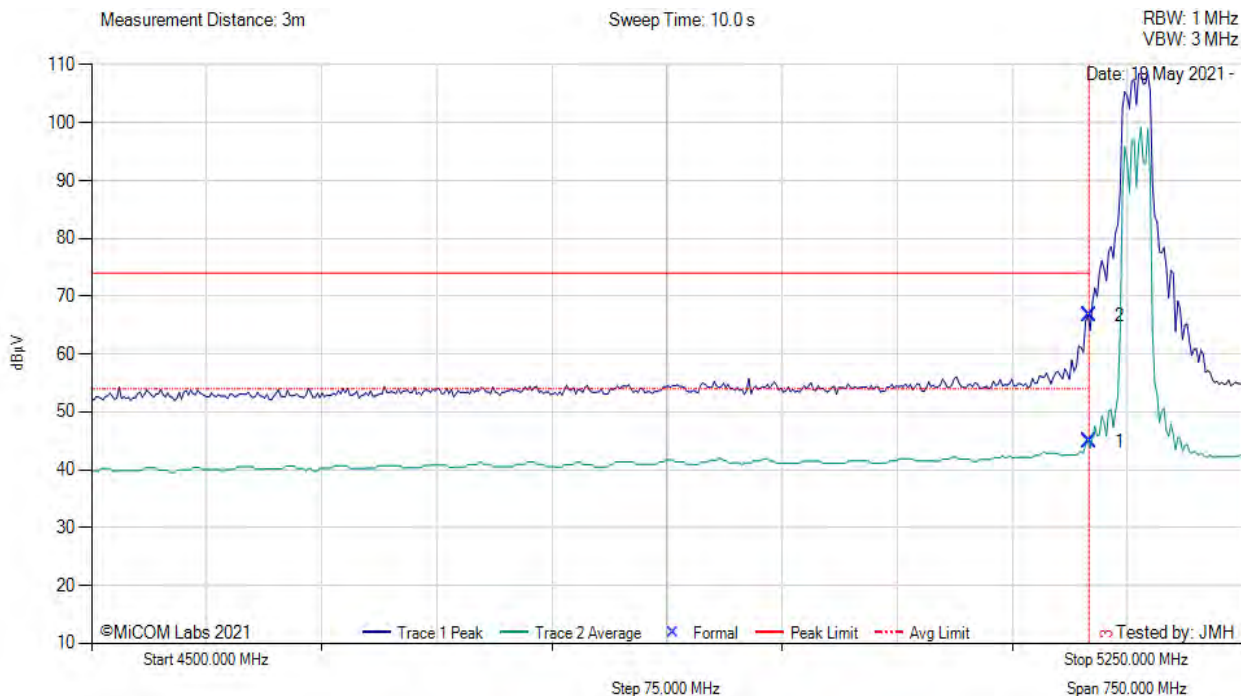
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5180.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5150.00	7.75	2.93	34.21	44.89	Max Avg	Vertical	176	1	54.0	-9.1	Pass
2	5150.00	29.48	2.93	34.21	66.62	Max Peak	Vertical	176	1	74.0	-7.4	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

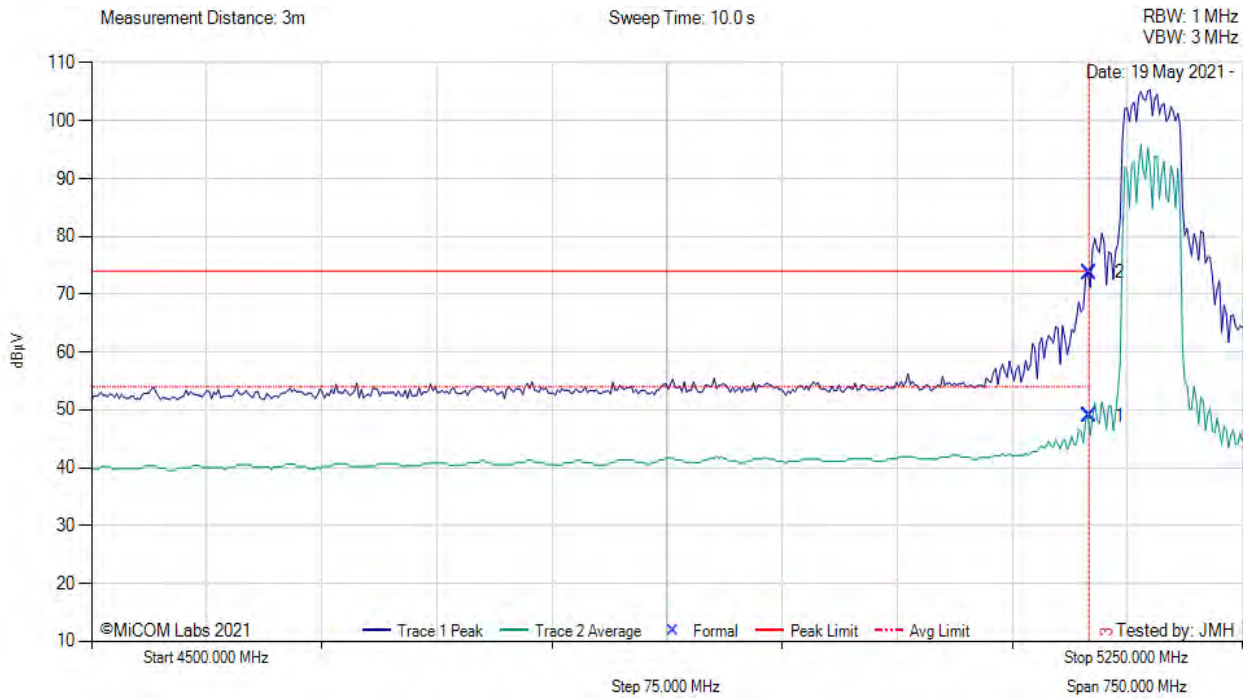
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5190.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



4500.00 - 5250.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5150.00	11.77	2.93	34.21	48.91	Max Avg	Vertical	176	1	54.0	-5.1	Pass
2	5150.00	36.64	2.93	34.21	73.78	Max Peak	Vertical	176	1	74.0	-0.2	Pass
3	5150.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

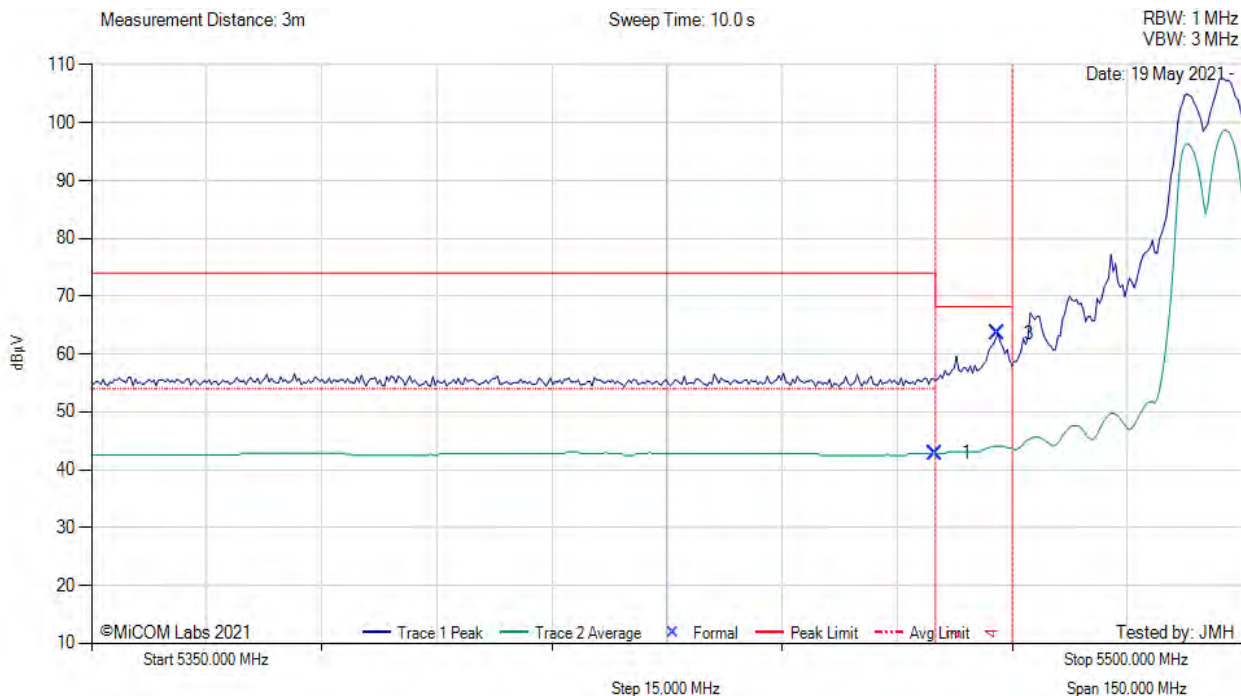
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5500.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
3	5468.14	25.90	3.07	34.55	63.52	Max Peak	Vertical	179	9	68.2	-4.7	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

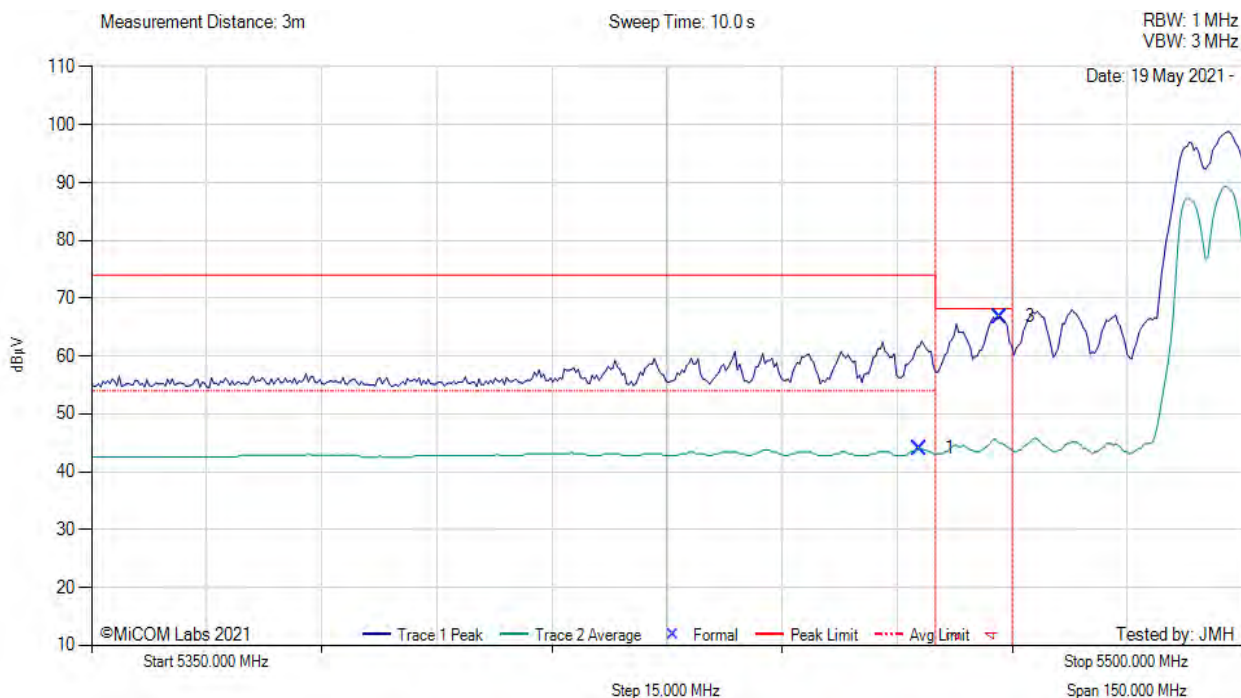
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5530.00 MHz, Antenna: Aruba Wifi, Power Setting: 16, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5457.90	6.48	3.05	34.52	44.05	Max Avg	Vertical	179	9	54.0	-11.0	Pass
3	5468.42	29.21	3.07	34.55	66.83	Max Peak	Vertical	179	9	68.2	-1.4	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

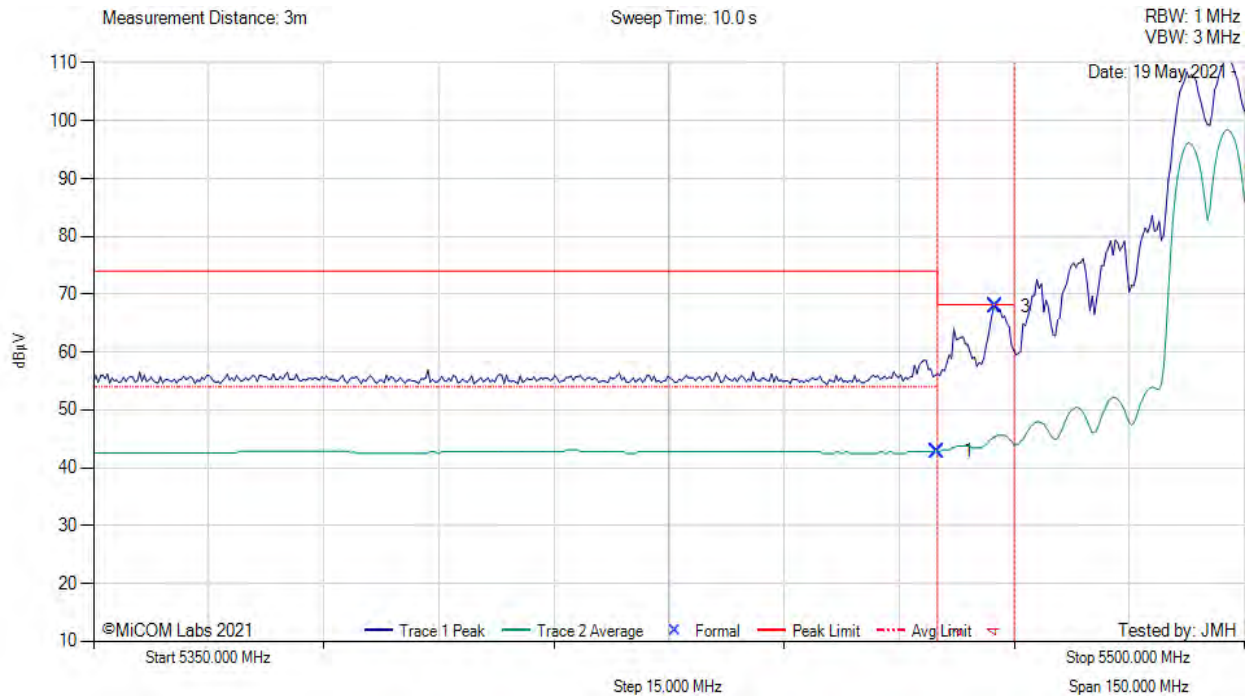
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ax-20, Test Freq: 5500.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
3	5467.52	30.31	3.07	34.55	67.93	Max Peak	Vertical	179	9	68.2	-0.3	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

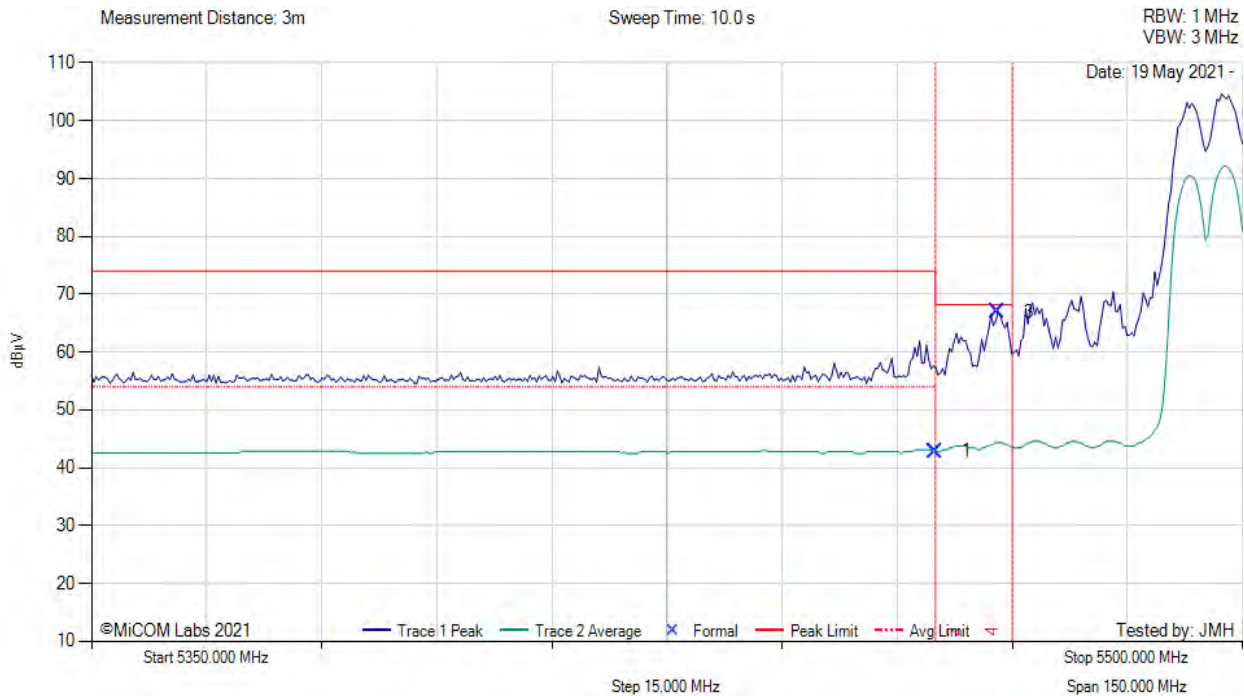
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ax-40, Test Freq: 5510.00 MHz, Antenna: Aruba Wifi, Power Setting: 16, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
3	5468.12	29.27	3.07	34.55	66.89	Max Peak	Vertical	179	9	68.2	-1.3	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

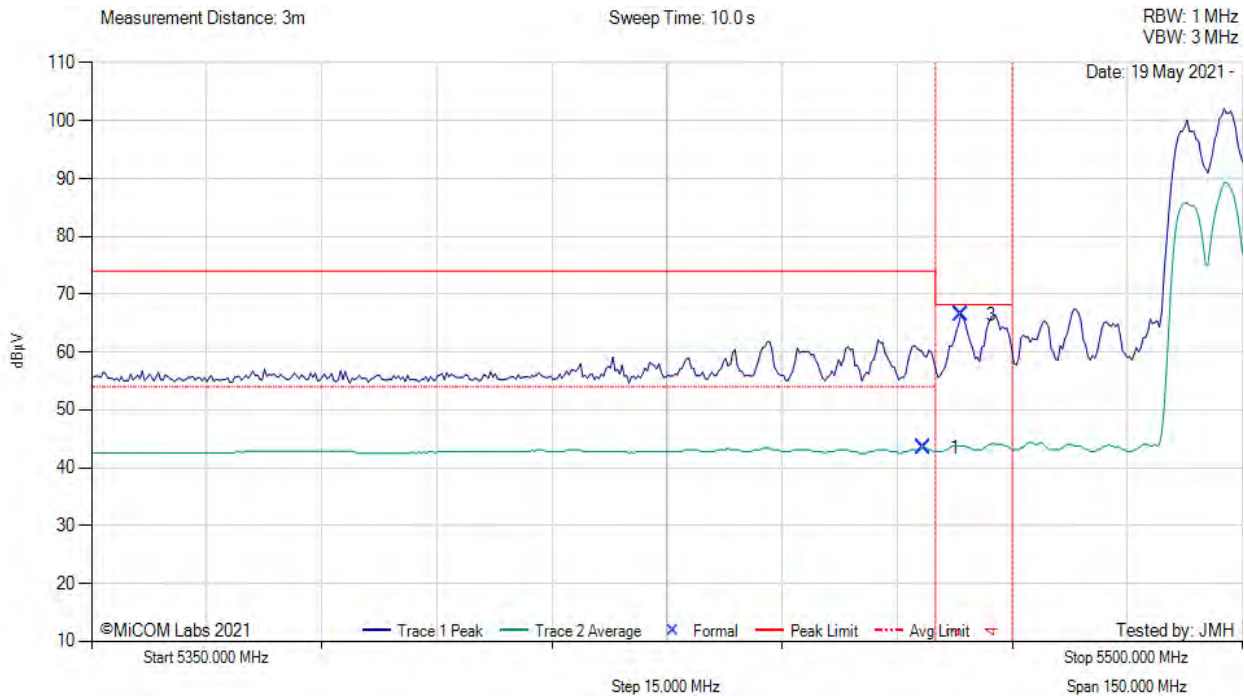
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11ax-80, Test Freq: 5530.00 MHz, Antenna: Aruba Wifi, Power Setting: 15, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5458.50	5.88	3.05	34.52	43.45	Max Avg	Vertical	179	9	54.0	-11.6	Pass
3	5463.31	28.91	3.07	34.53	66.51	Max Peak	Vertical	179	9	68.2	-1.7	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

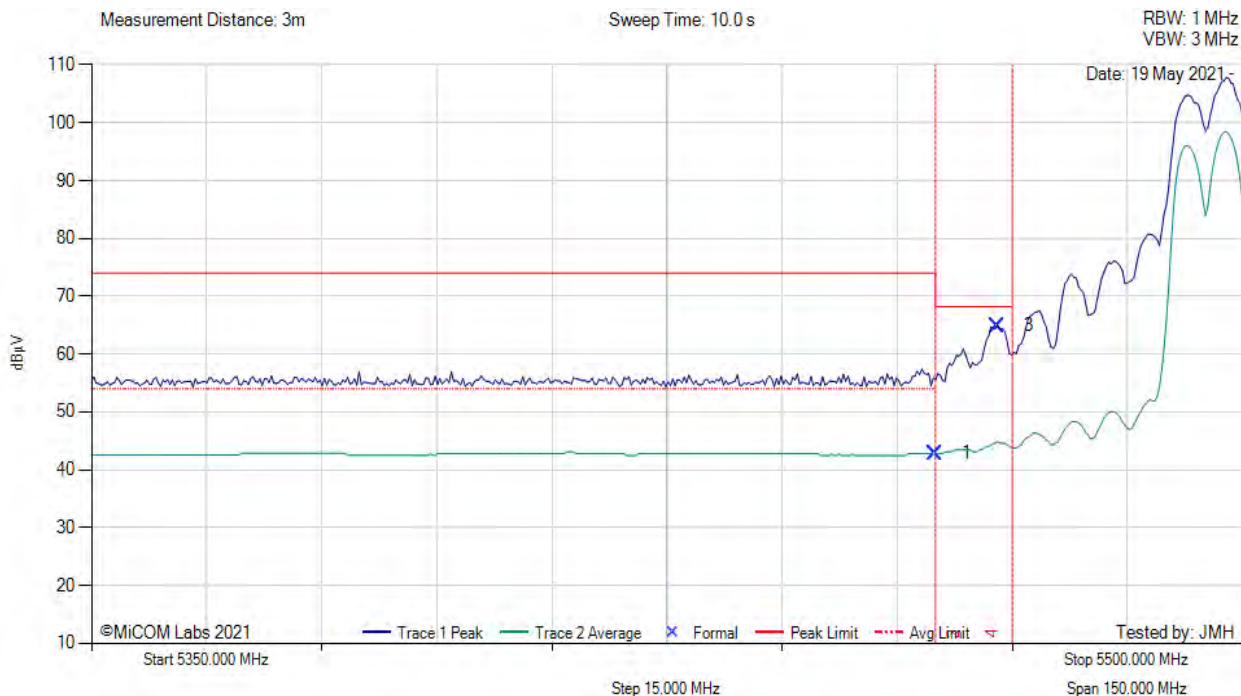
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5500.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
3	5468.12	27.31	3.07	34.55	64.93	Max Peak	Vertical	179	9	68.2	-3.3	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

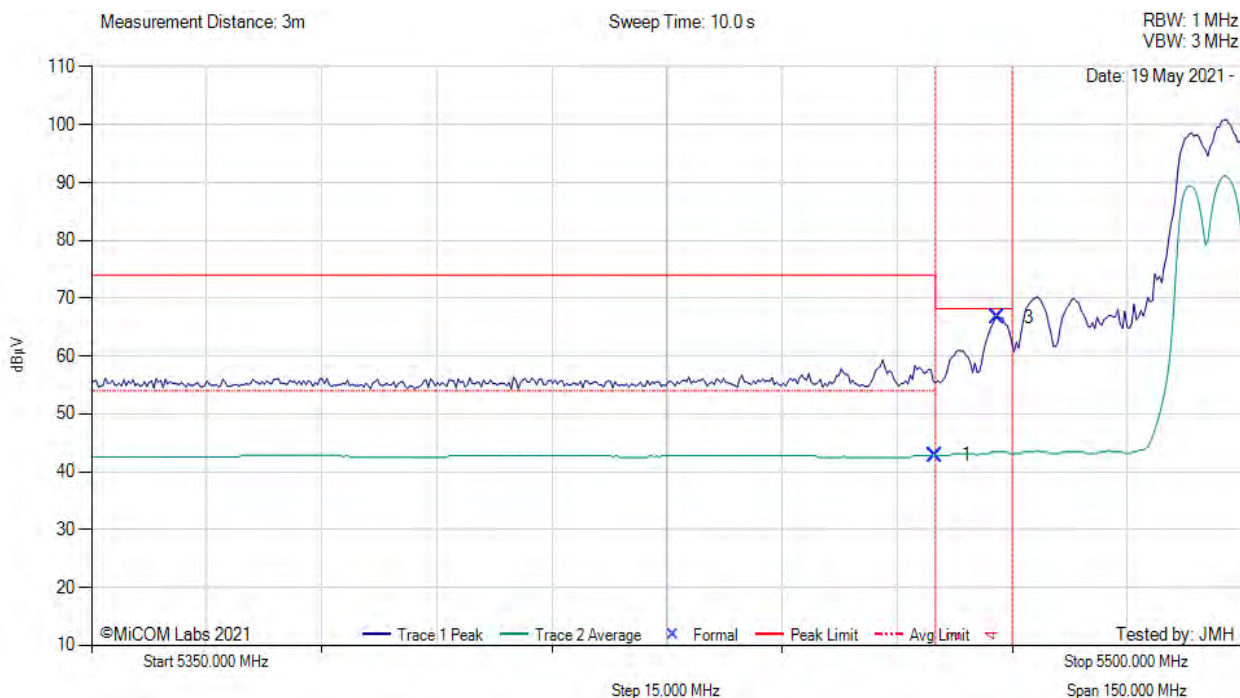
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED LOWER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5510.00 MHz, Antenna: Aruba Wifi, Power Setting: 15, Duty Cycle (%): 99



5350.00 - 5500.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5460.00	5.22	3.06	34.53	42.81	Max Avg	Vertical	179	9	54.0	-11.2	Pass
3	5468.12	29.06	3.07	34.55	66.68	Max Peak	Vertical	179	9	68.2	-1.6	Pass
2	5460.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--
4	5470.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

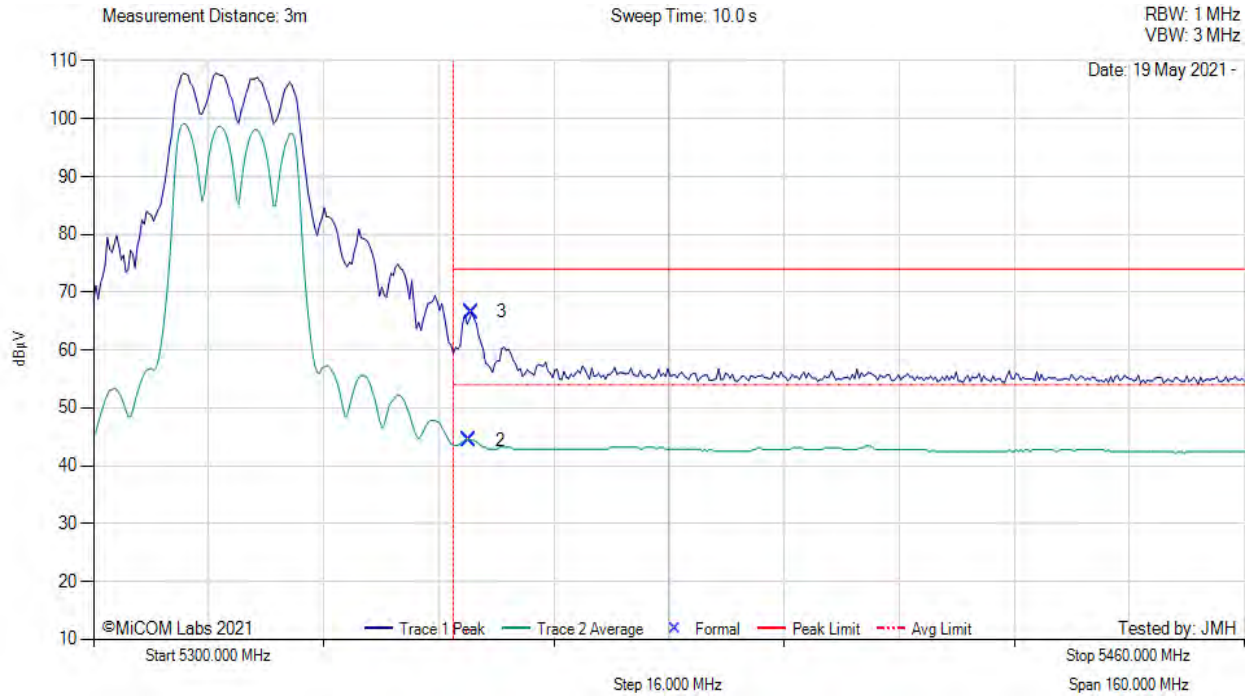
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5320.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5352.26	6.90	3.06	34.46	44.42	Max Avg	Vertical	176	1	54.0	-9.6	Pass
3	5352.59	29.01	3.05	34.47	66.53	Max Peak	Vertical	176	1	74.0	-7.5	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

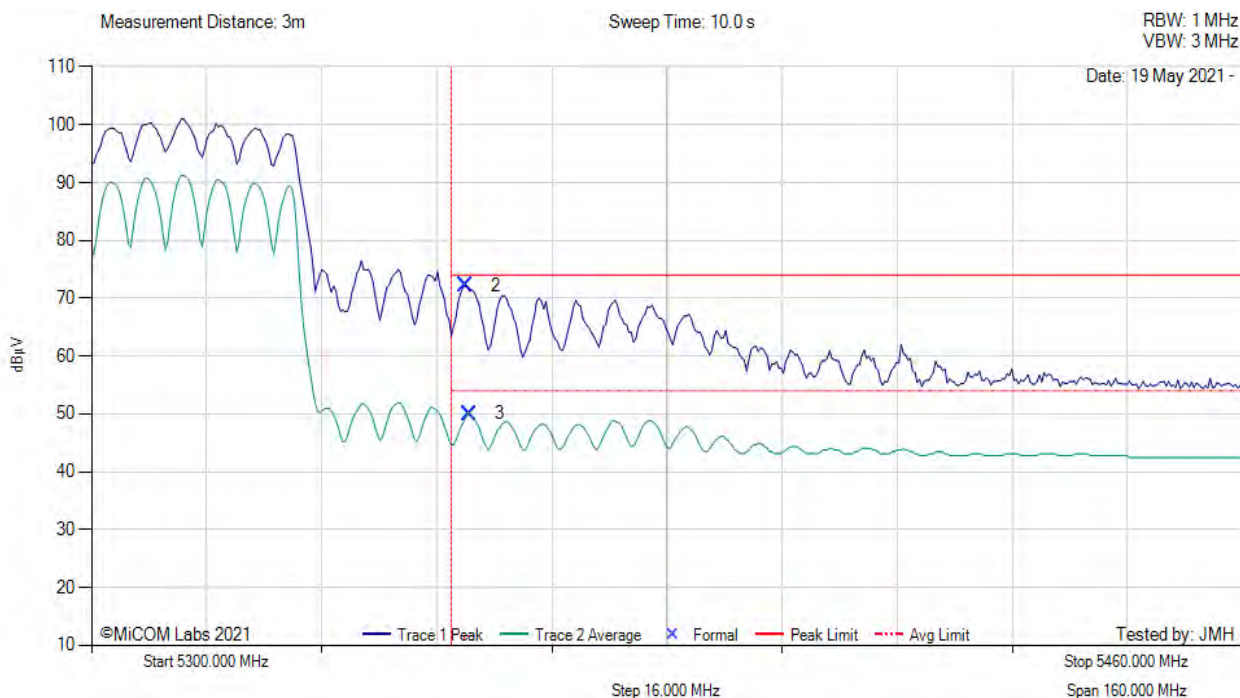
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5290.00 MHz, Antenna: Aruba Wifi, Power Setting: 17, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5351.94	34.63	3.06	34.46	72.15	Max Peak	Vertical	176	1	74.0	-1.9	Pass
3	5352.59	12.49	3.05	34.47	50.01	Max Avg	Vertical	176	1	54.0	-4.0	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

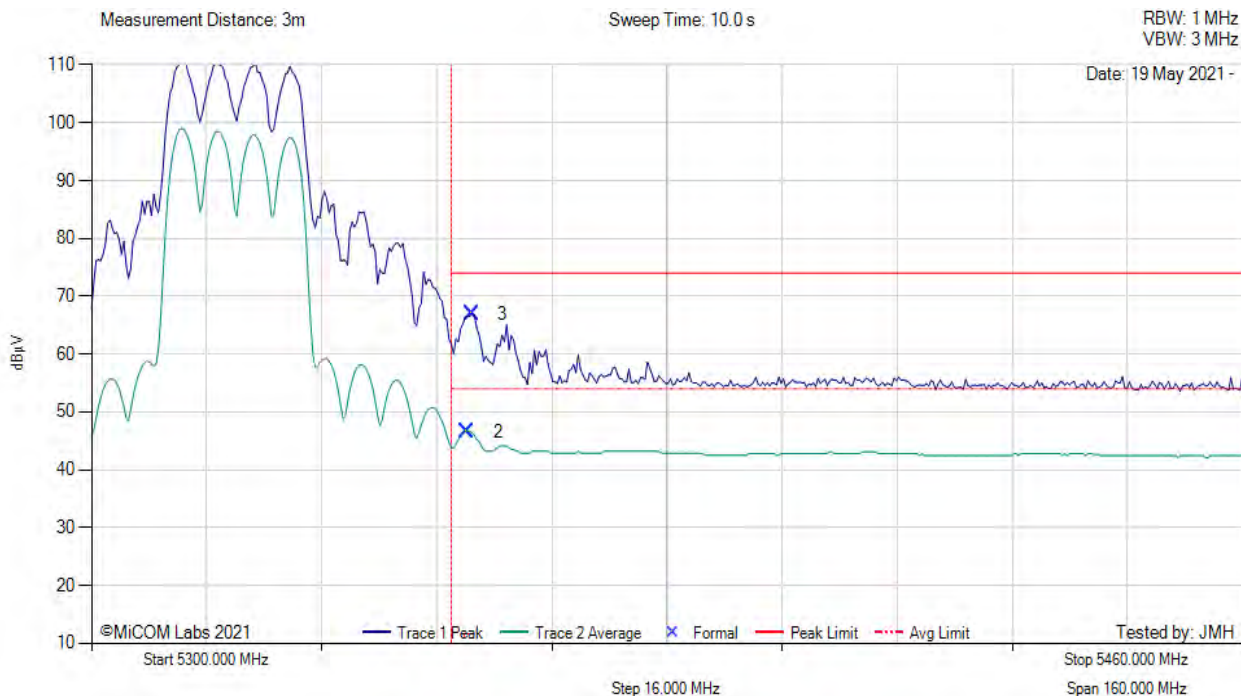
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11ax-20, Test Freq: 5320.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5352.26	9.12	3.06	34.46	46.64	Max Avg	Vertical	176	1	54.0	-7.4	Pass
3	5352.91	29.46	3.05	34.47	66.98	Max Peak	Vertical	176	1	74.0	-7.0	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

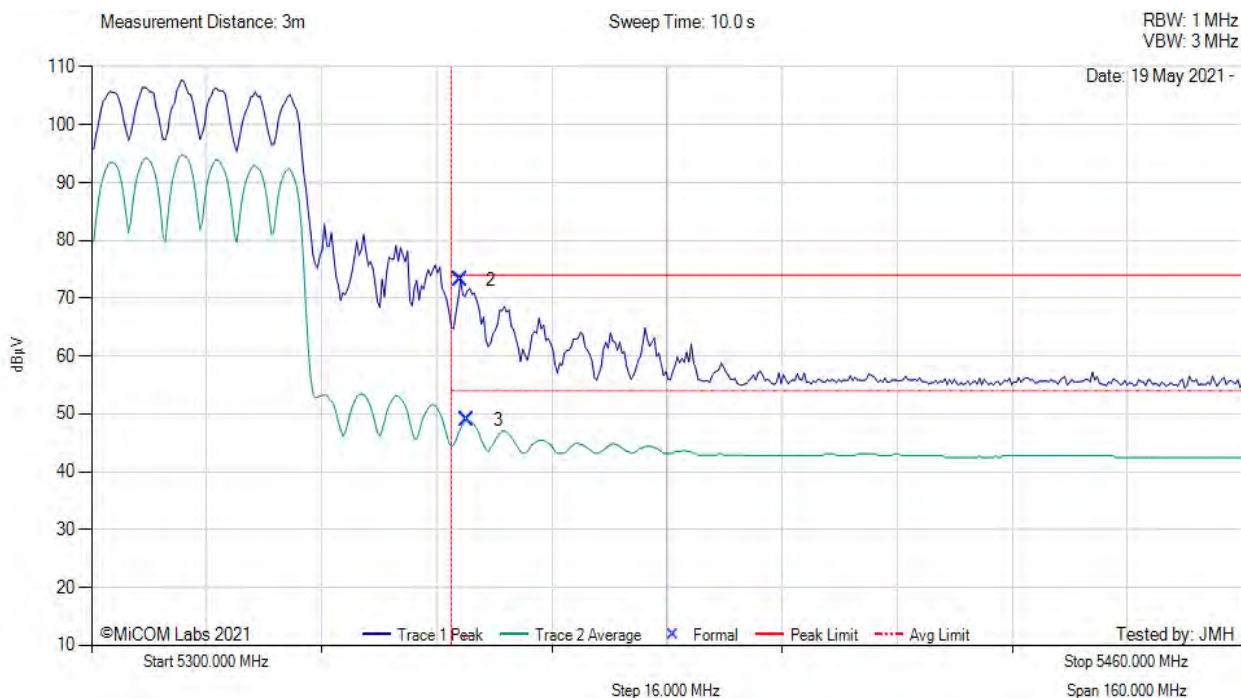
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11ax-40, Test Freq: 5310.00 MHz, Antenna: Aruba Wifi, Power Setting: 17, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5351.30	35.67	3.06	34.46	73.19	Max Peak	Vertical	176	1	74.0	-0.8	Pass
3	5352.26	11.39	3.06	34.46	48.91	Max Avg	Vertical	176	1	54.0	-5.1	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

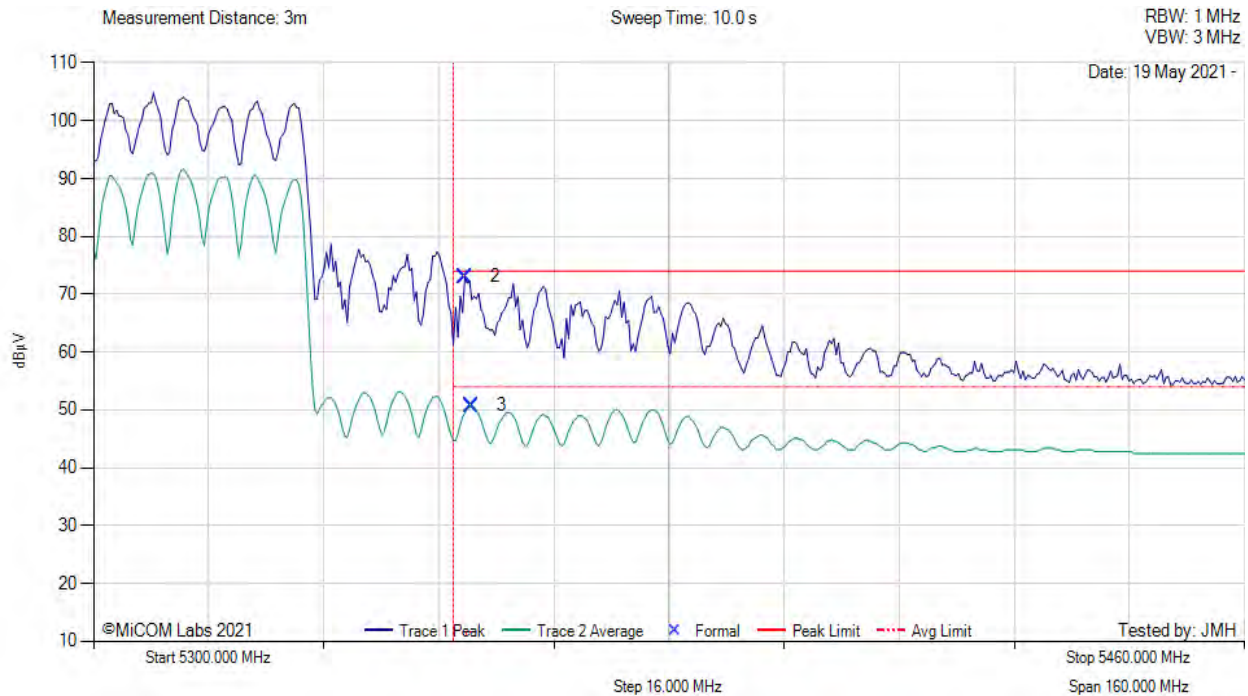
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11ax-80, Test Freq: 5290.00 MHz, Antenna: Aruba Wifi, Power Setting: 17, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5351.62	35.50	3.06	34.46	73.02	Max Peak	Vertical	176	1	74.0	-1.0	Pass
3	5352.59	13.20	3.05	34.47	50.72	Max Avg	Vertical	176	1	54.0	-3.3	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

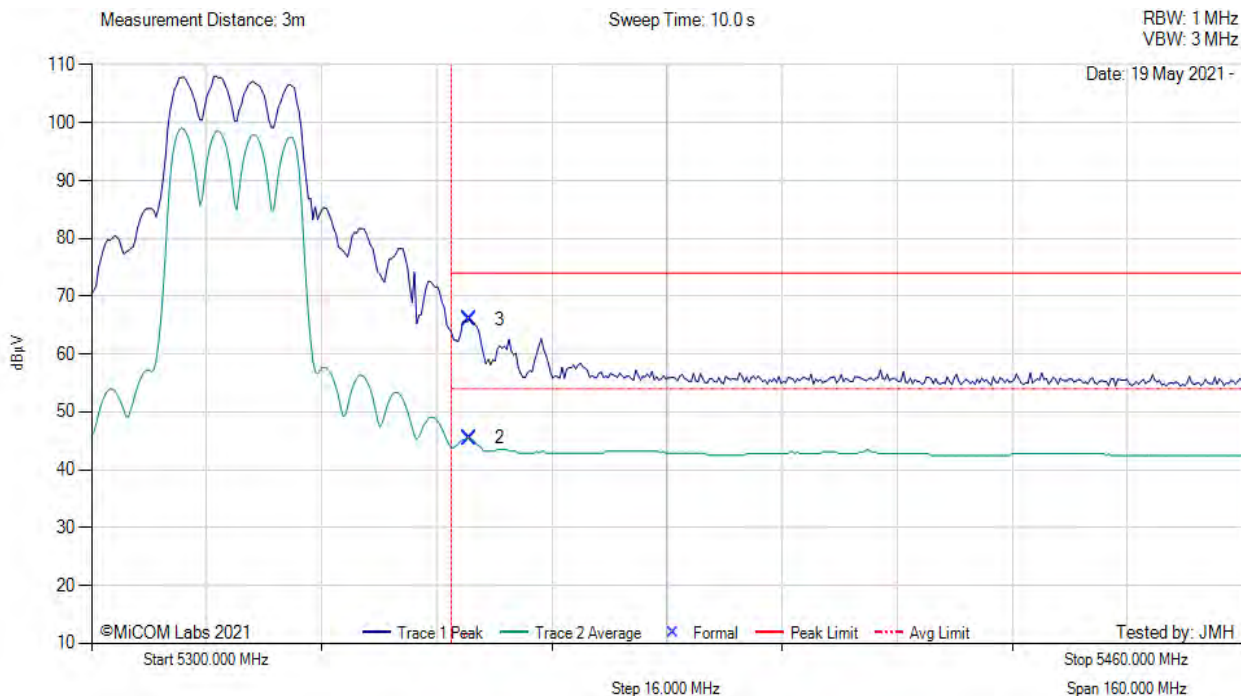
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5320.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5352.59	7.96	3.05	34.47	45.48	Max Avg	Vertical	176	1	54.0	-8.5	Pass
3	5352.59	28.44	3.05	34.47	65.96	Max Peak	Vertical	176	1	74.0	-8.0	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

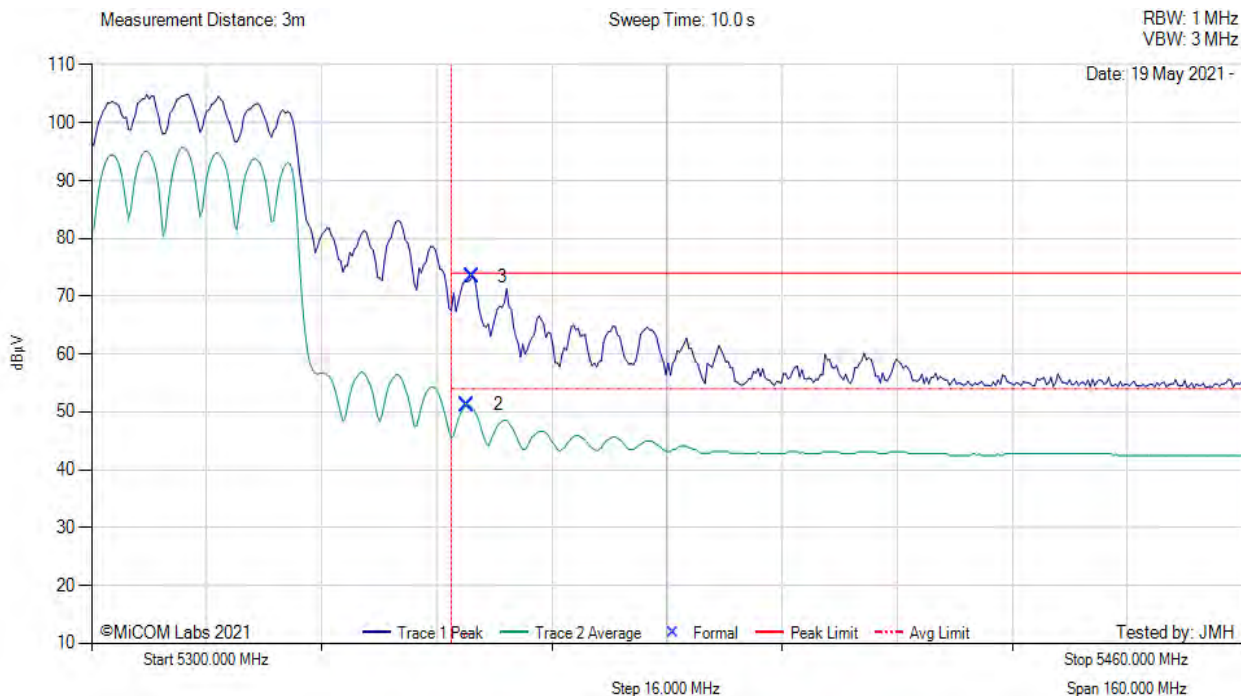
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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RESTRICTED UPPER BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5310.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5300.00 - 5460.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5352.26	13.73	3.06	34.46	51.25	Max Avg	Vertical	176	1	54.0	-2.8	Pass
3	5352.91	35.81	3.05	34.47	73.33	Max Peak	Vertical	176	1	74.0	-0.7	Pass
1	5350.00	--	--	--	--	Restricted-Band	--	--	--	--	--	--

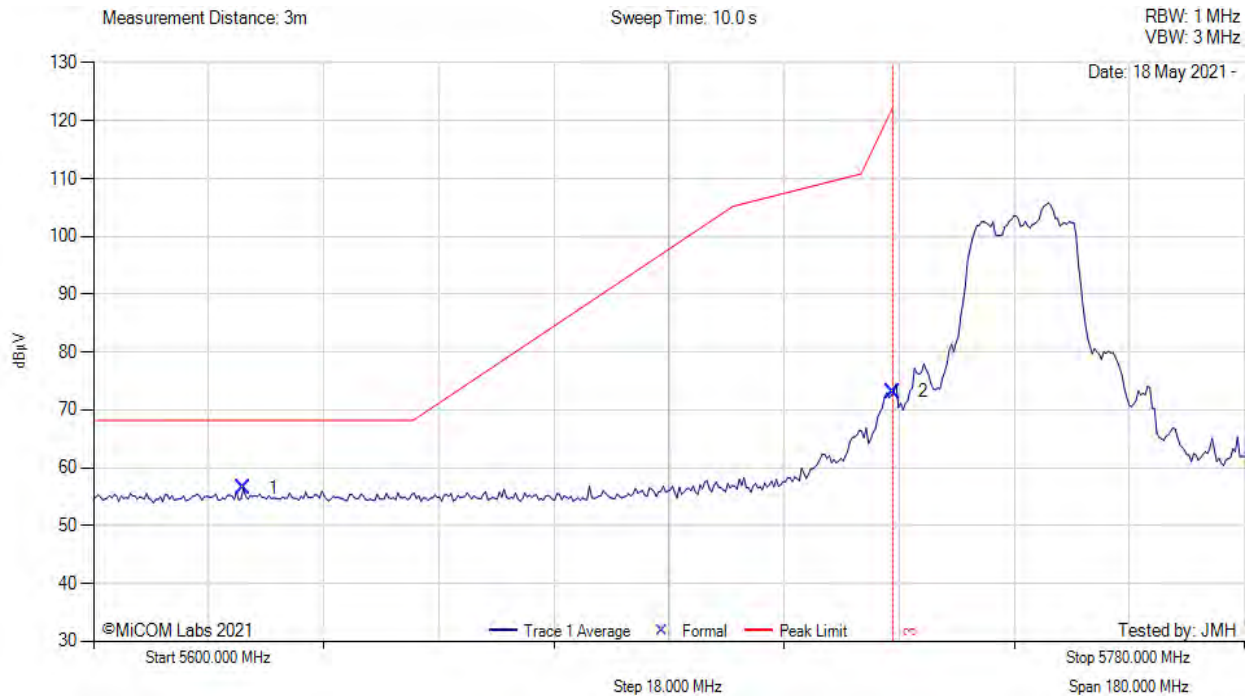
Test Notes: EUT powered by AC/DC ps. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5745.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5623.38	18.67	3.12	34.64	56.43	Max Peak	Vertical	200	12	68.2	-11.8	Pass
2	5725.00	35.24	3.19	34.72	73.15	Max Peak	Vertical	200	12	122.2	-49.1	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

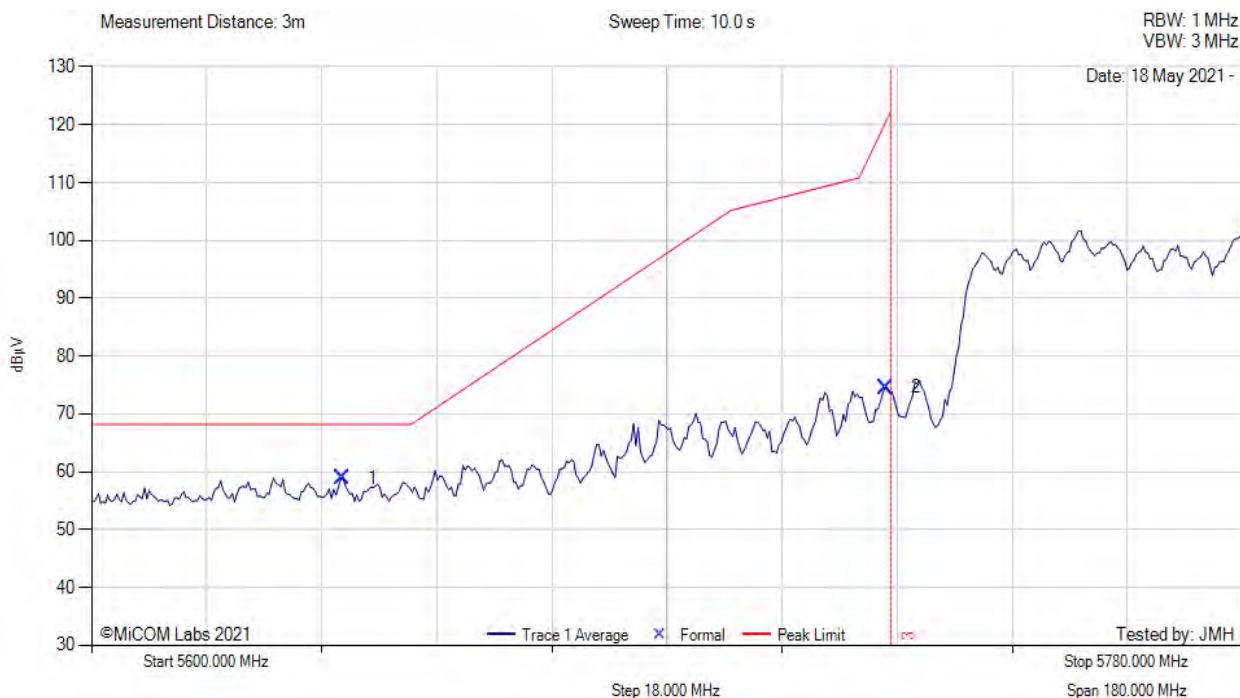
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5775.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5639.25	21.22	3.11	34.64	58.97	Max Peak	Vertical	200	12	68.2	-9.3	Pass
2	5724.28	36.72	3.19	34.72	74.63	Max Peak	Vertical	200	12	119.9	-45.3	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

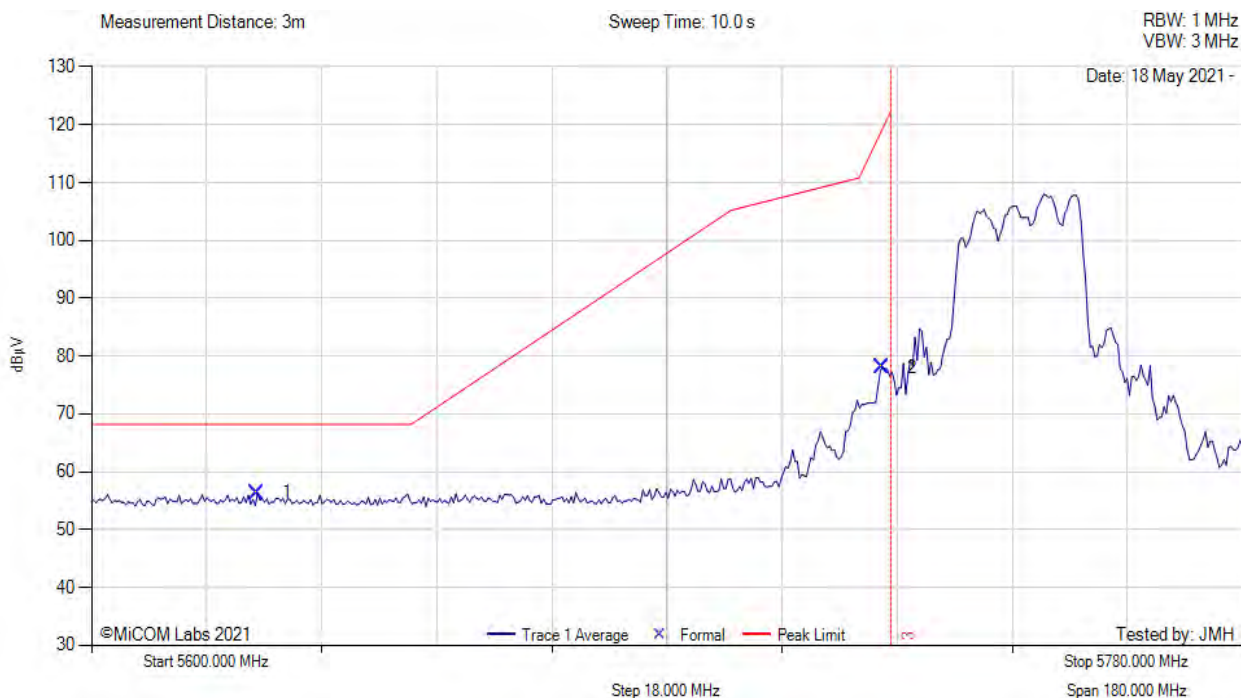
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ax-20, Test Freq: 5745.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5625.90	18.59	3.12	34.64	56.35	Max Peak	Vertical	200	12	68.2	-11.9	Pass
2	5723.56	40.13	3.19	34.72	78.04	Max Peak	Vertical	200	12	119.9	-41.9	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

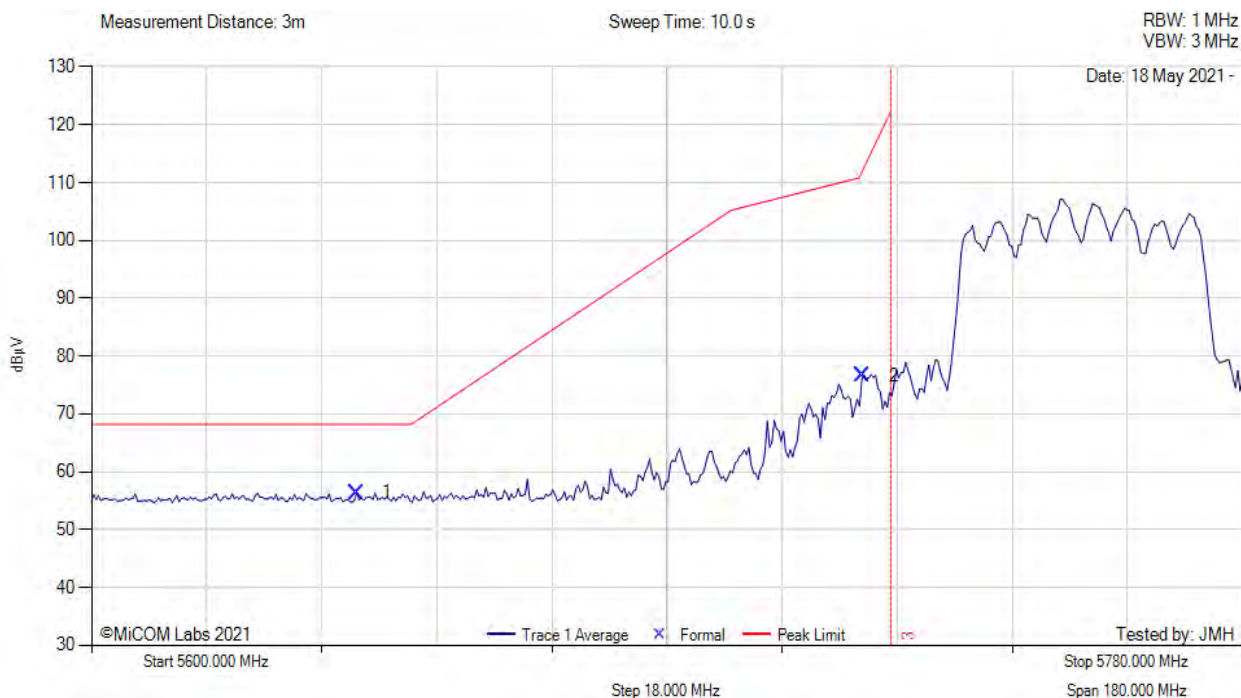
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ax-40, Test Freq: 5755.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5641.41	18.63	3.10	34.64	56.37	Max Peak	Vertical	200	12	68.2	-11.9	Pass
2	5720.67	38.73	3.21	34.72	76.66	Max Peak	Vertical	200	12	113.1	-36.4	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

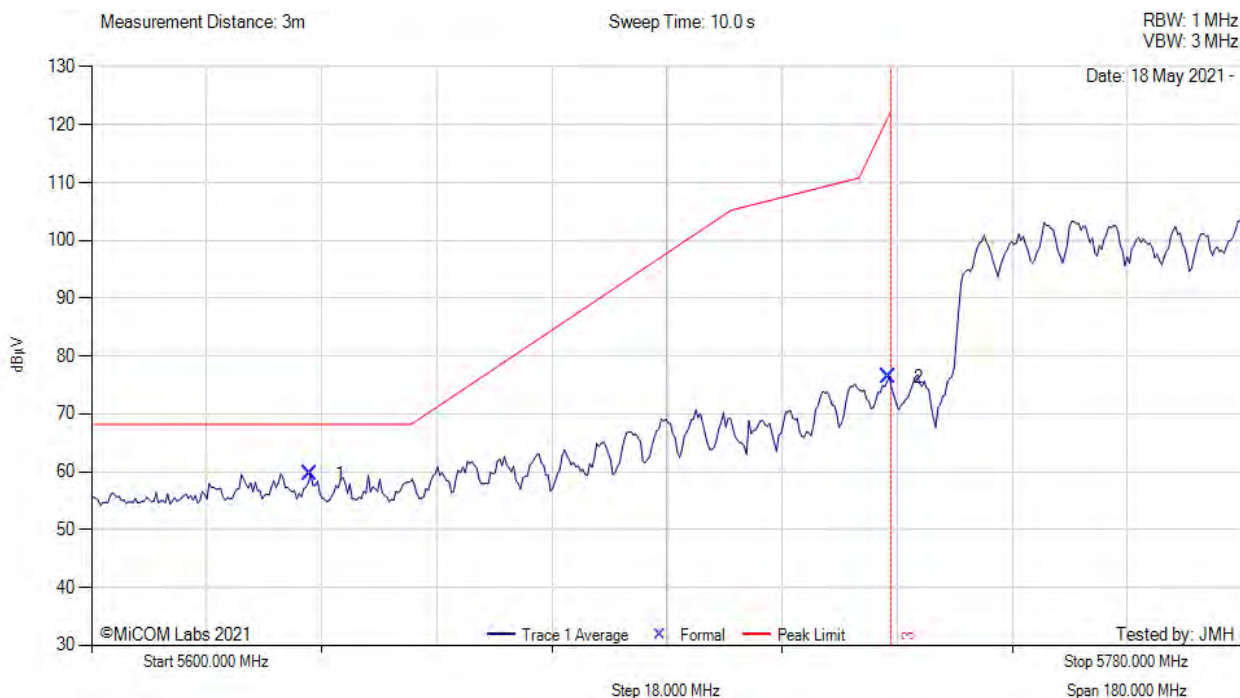
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ax-80, Test Freq: 5775.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5634.20	21.94	3.11	34.64	59.69	Max Peak	Vertical	200	12	68.2	-8.5	Pass
2	5724.64	38.45	3.19	34.72	76.36	Max Peak	Vertical	200	12	122.2	-45.8	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

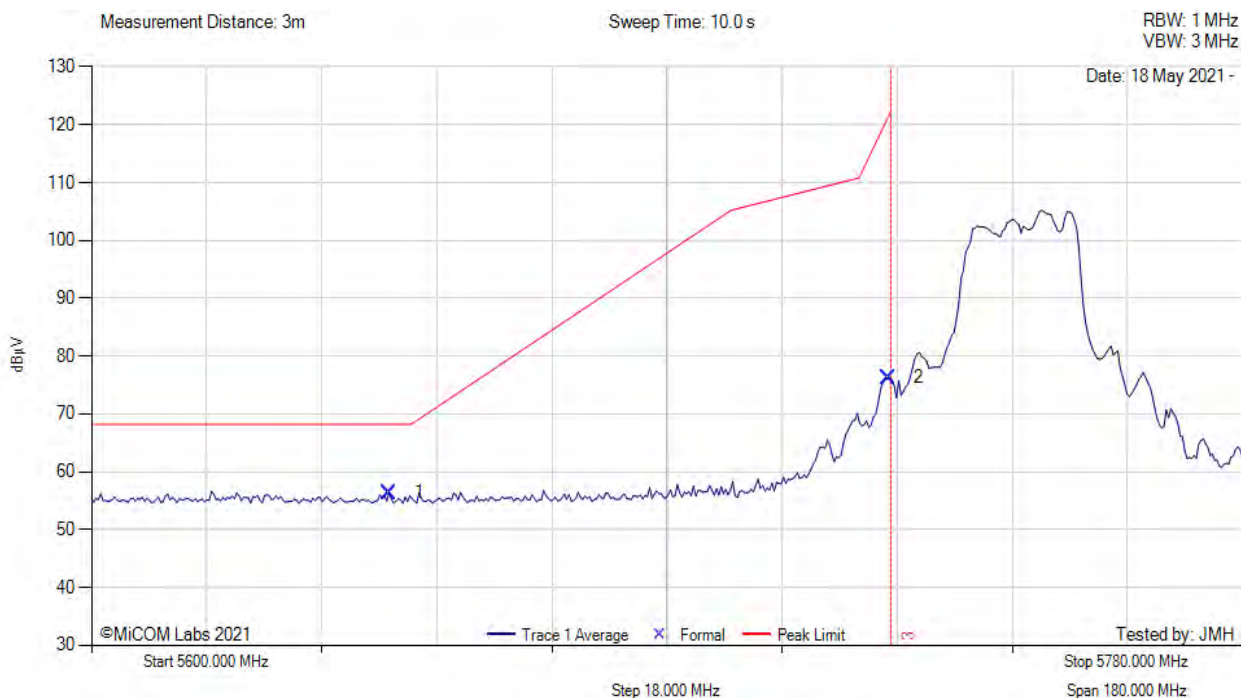
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5745.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5646.46	18.67	3.08	34.63	56.38	Max Peak	Vertical	200	12	68.2	-11.9	Pass
2	5724.64	38.40	3.19	34.72	76.31	Max Peak	Vertical	200	12	122.2	-45.9	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

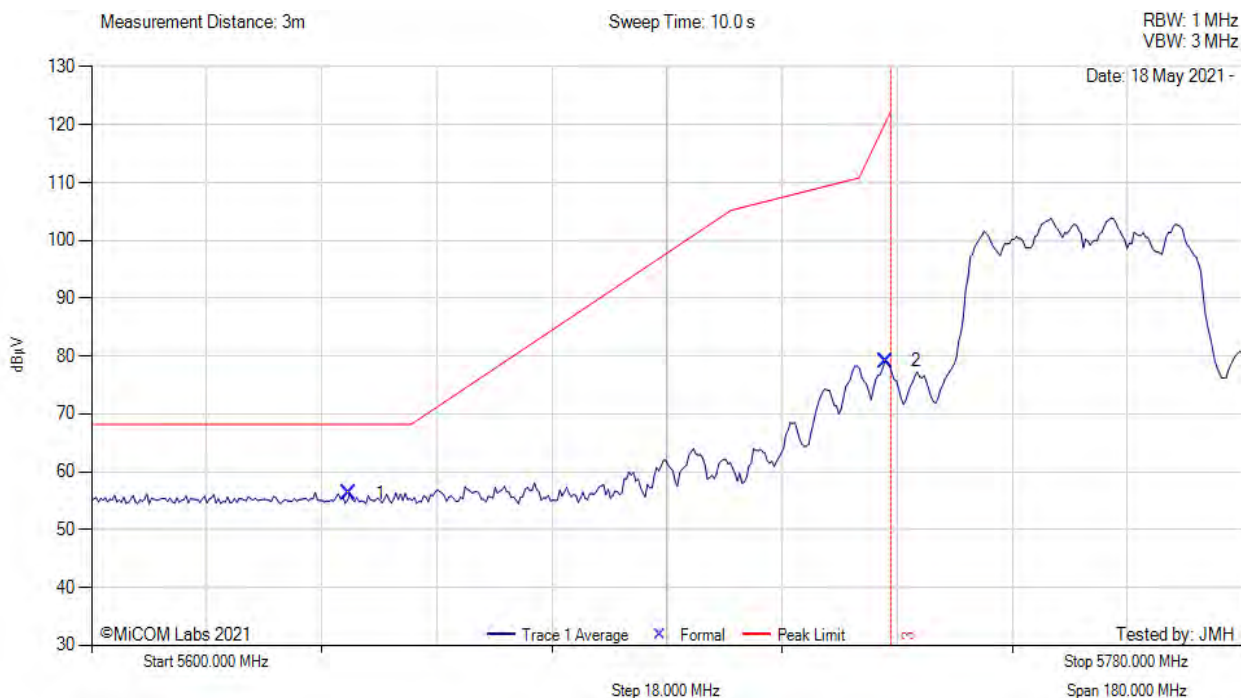
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5725 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5755.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5600.00 - 5780.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5640.33	18.54	3.10	34.64	56.28	Max Peak	Vertical	200	12	68.2	-12.0	Pass
2	5724.28	41.21	3.19	34.72	79.12	Max Peak	Vertical	200	12	119.9	-40.8	Pass
3	5725.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

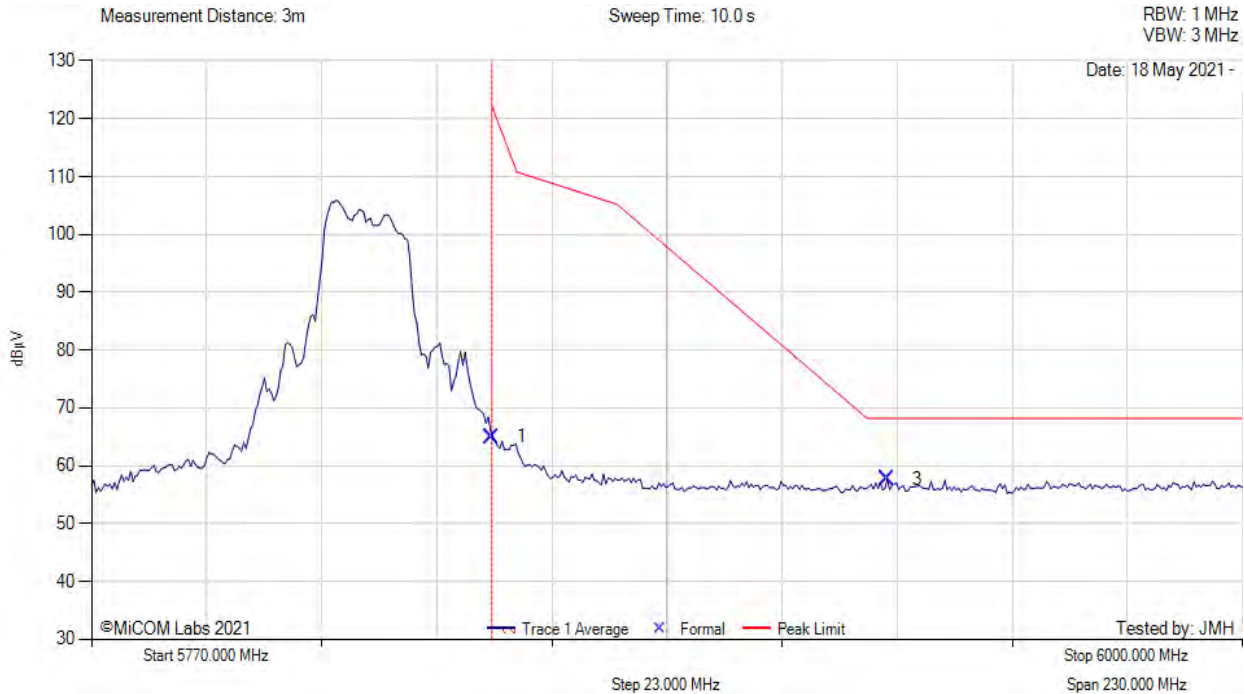
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11a, Test Freq: 5825.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	26.85	3.24	34.96	65.05	Max Peak	Vertical	200	12	122.2	-57.2	Pass
3	5929.02	19.33	3.19	35.11	57.63	Max Peak	Vertical	200	12	68.2	-10.6	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

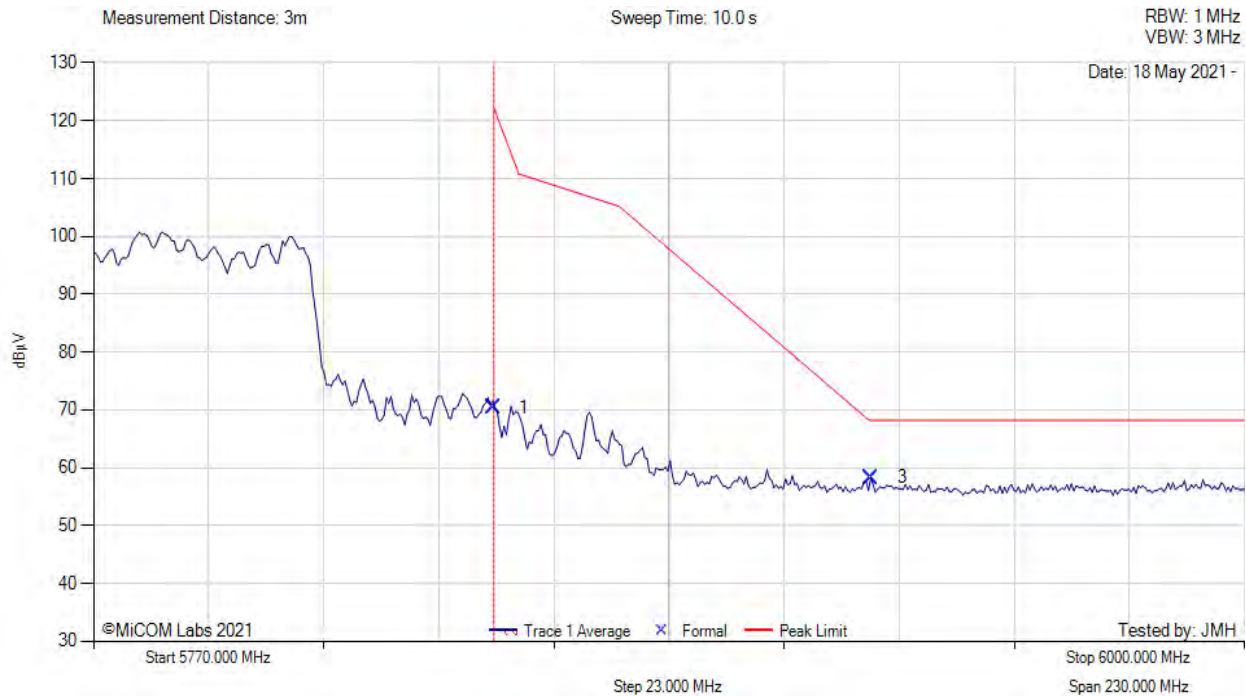
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ac-80, Test Freq: 5775.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	32.23	3.24	34.96	70.43	Max Peak	Vertical	200	12	122.2	-51.8	Pass
3	5925.45	20.01	3.17	35.11	58.29	Max Peak	Vertical	200	12	68.2	-9.9	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

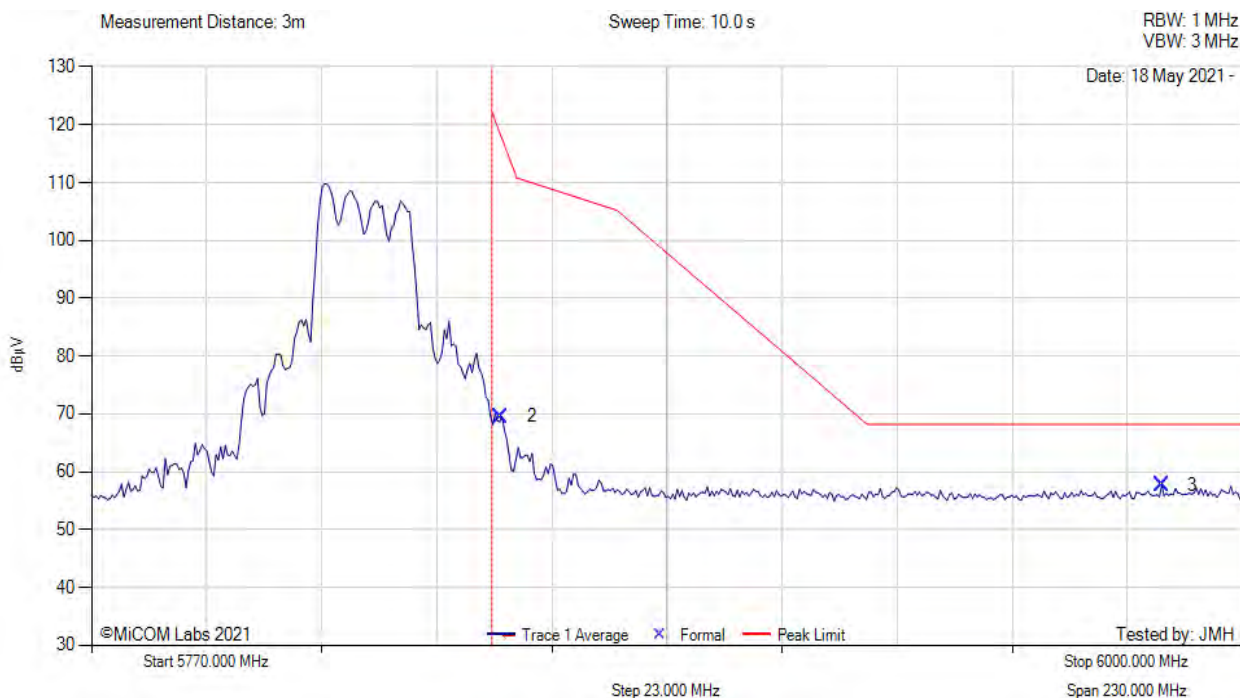
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ax-20, Test Freq: 5825.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
2	5851.84	31.38	3.23	34.96	69.57	Max Peak	Vertical	200	12	122.2	-52.7	Pass
3	5983.99	19.28	3.22	35.20	57.70	Max Peak	Vertical	200	12	68.2	-10.5	Pass
1	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

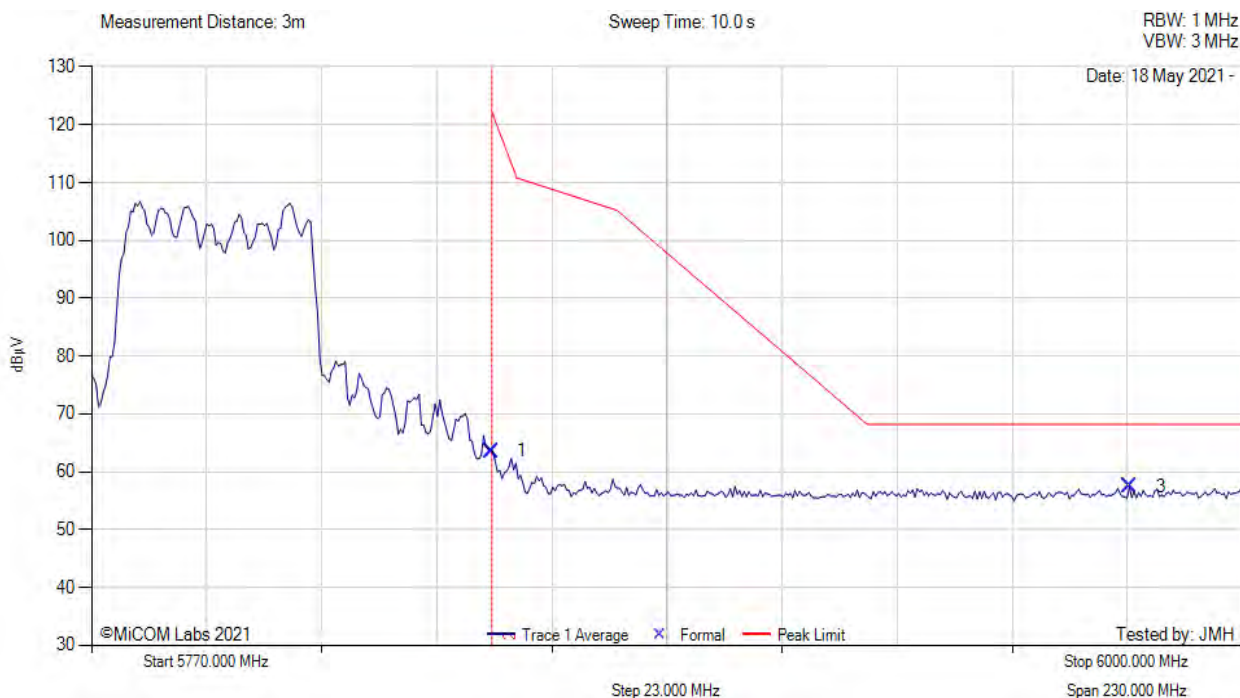
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ax-40, Test Freq: 5795.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	25.37	3.24	34.96	63.57	Max Peak	Vertical	200	12	122.2	-58.7	Pass
3	5977.54	19.06	3.19	35.18	57.43	Max Peak	Vertical	200	12	68.2	-10.8	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

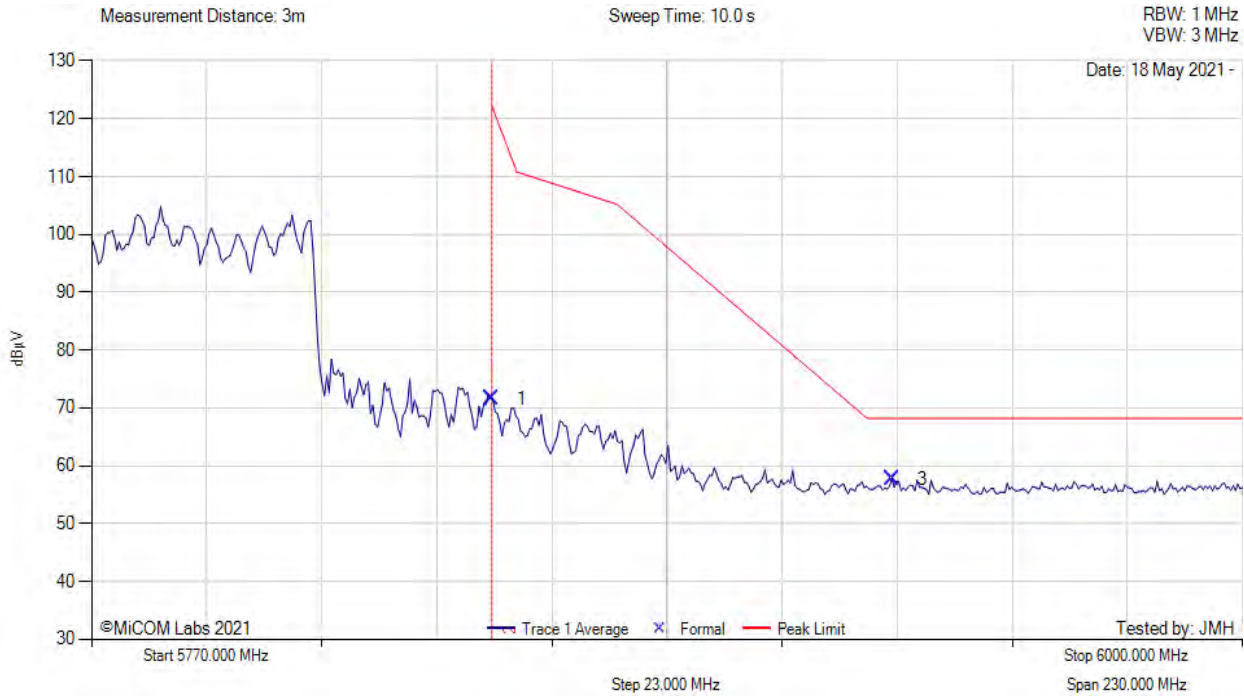
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11ax-80, Test Freq: 5775.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	33.38	3.24	34.96	71.58	Max Peak	Vertical	200	12	122.2	-50.7	Pass
3	5930.06	19.46	3.19	35.11	57.76	Max Peak	Vertical	200	12	68.2	-10.5	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

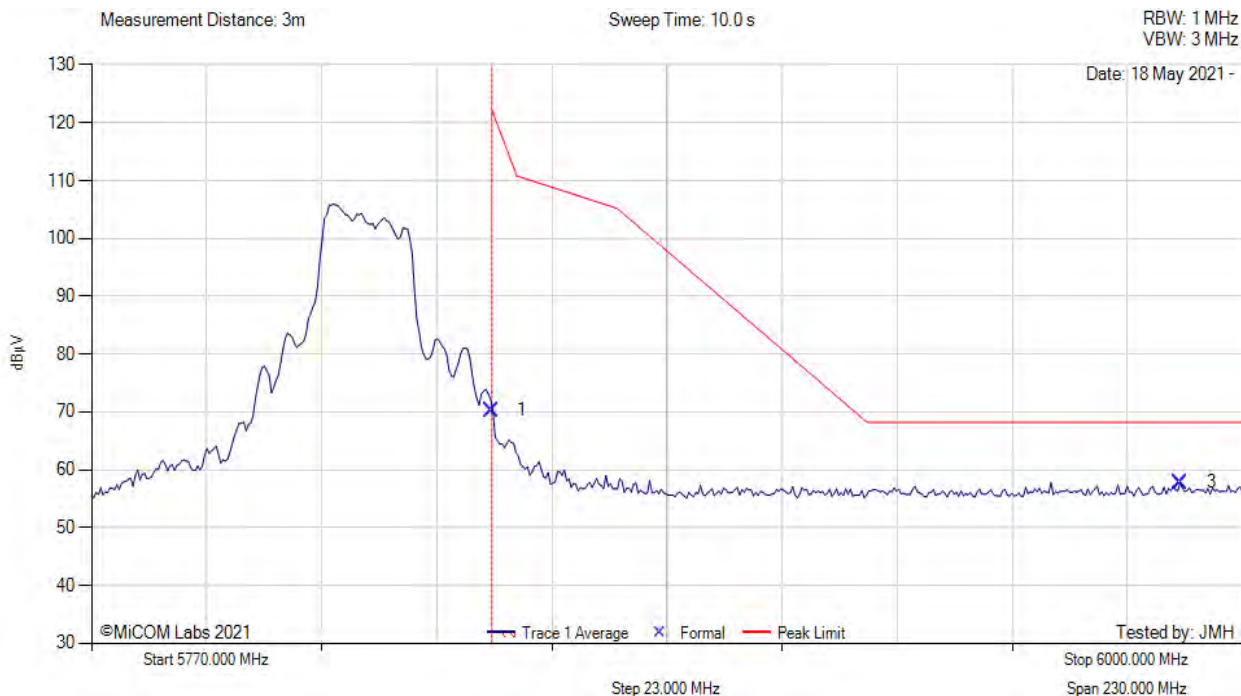
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-20, Test Freq: 5825.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	32.11	3.24	34.96	70.31	Max Avg	Vertical	200	12	122.2	-51.9	Pass
3	5987.68	19.33	3.24	35.21	57.78	Max Avg	Vertical	200	12	68.2	-10.5	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

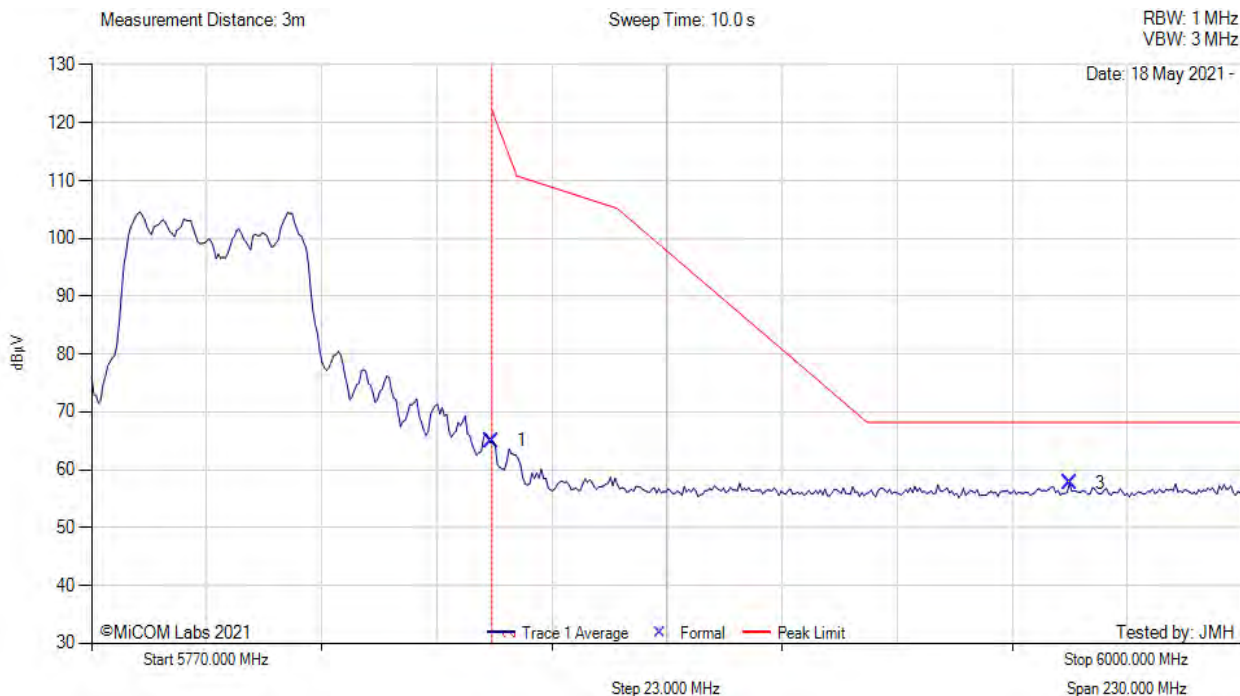
Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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5850 MHz RADIATED BAND-EDGE EMISSIONS

Variant: 802.11n HT-40, Test Freq: 5795.00 MHz, Antenna: Aruba Wifi, Power Setting: 18, Duty Cycle (%): 99



5770.00 - 6000.00 MHz												
Num	Frequency MHz	Raw dBμV	Cable Loss dB	AF dB/m	Level dBμV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBμV/m	Margin dB	Pass /Fail
1	5850.00	26.80	3.24	34.96	65.00	Max Peak	Vertical	200	12	122.2	-57.2	Pass
3	5965.55	19.30	3.17	35.16	57.63	Max Peak	Vertical	200	12	68.2	-10.6	Pass
2	5850.00	--	--	--	--	Band-Edge	--	--	--	--	--	--

Test Notes: EUT powered by AC/DC PS. Connected to laptop outside chamber.

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