

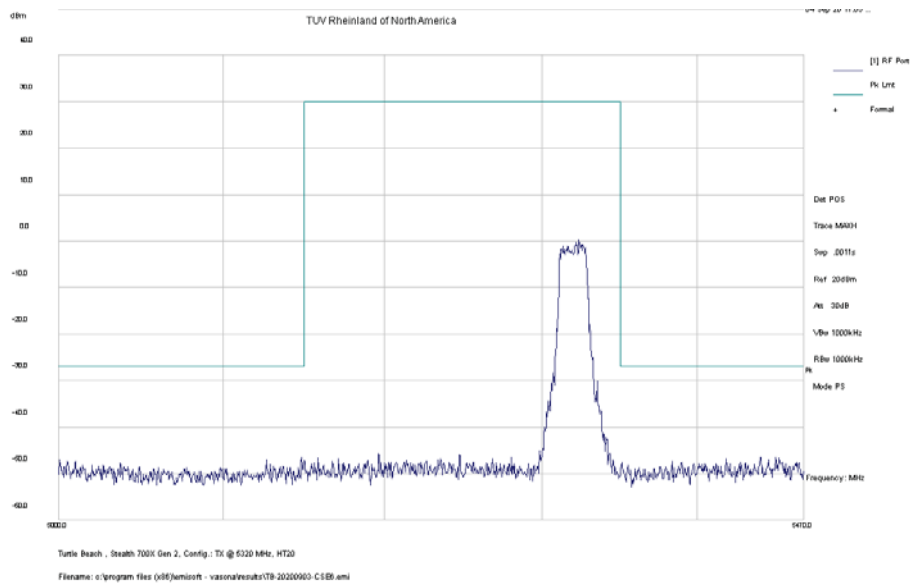


Figure 101: Measured Band-edge for HT20-MCS0 at 5320 MHz

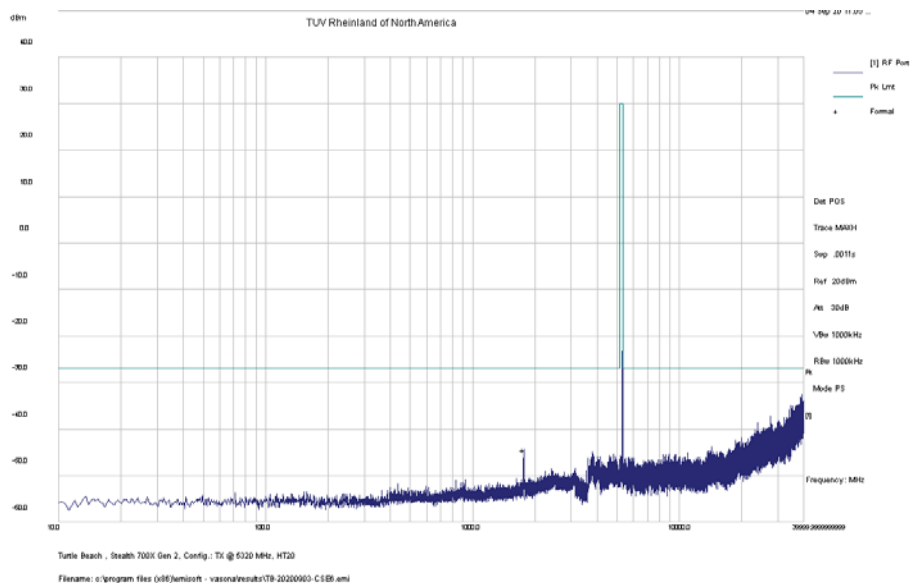


Figure 102: Undesirable Emission for HT20-MCS0 at 5320 MHz

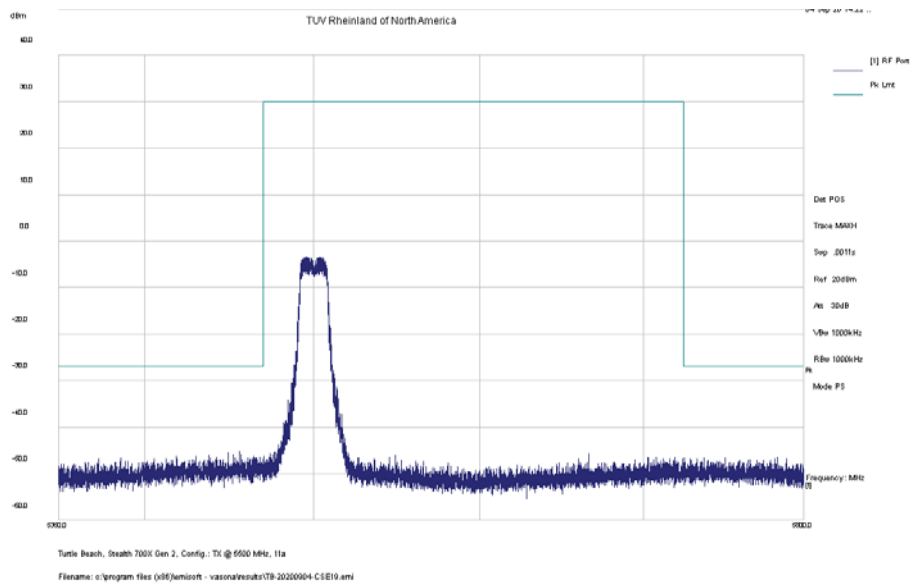


Figure 103: Measured Band-edge for 802.11a-6 Mbps at 5500 MHz

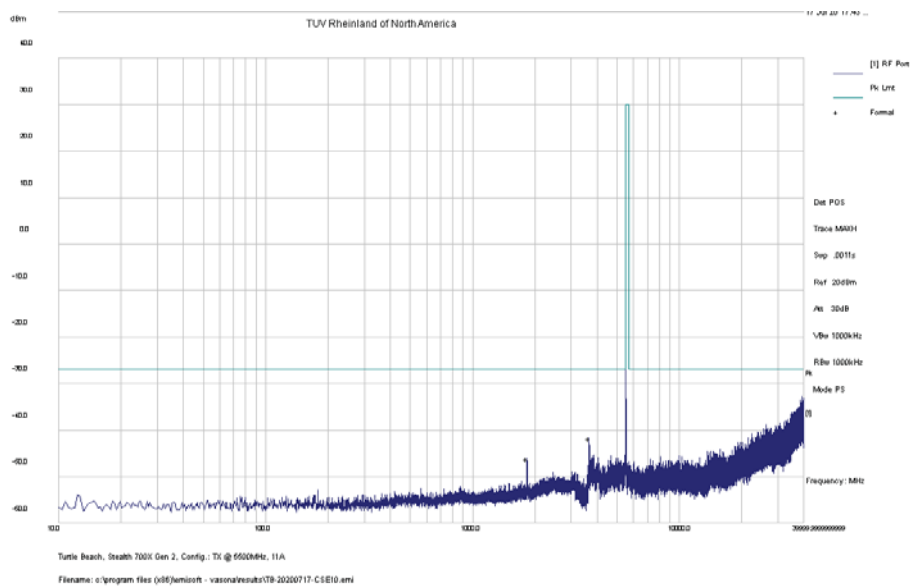


Figure 104: Undesirable Emission for 802.11a-6 Mbps at 5550 MHz

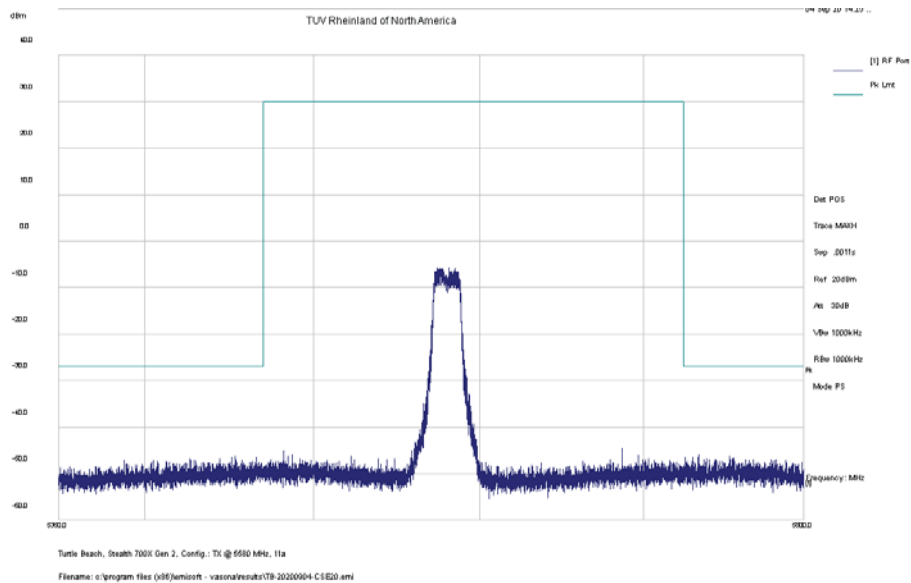


Figure 105: Measured Band-edge for 802.11a-6 Mbps at 5580 MHz

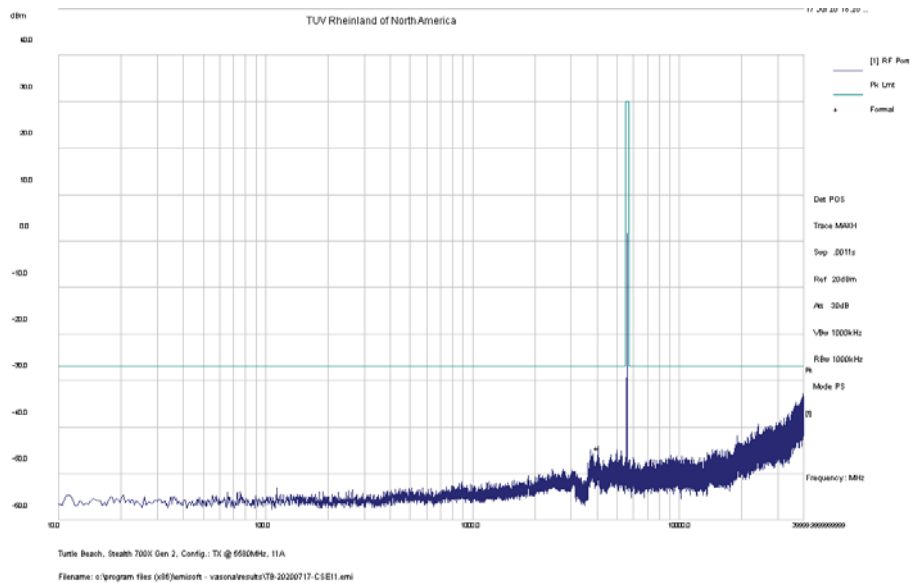


Figure 106: Undesirable Emission for 802.11a-6 Mbps at 5580 MHz

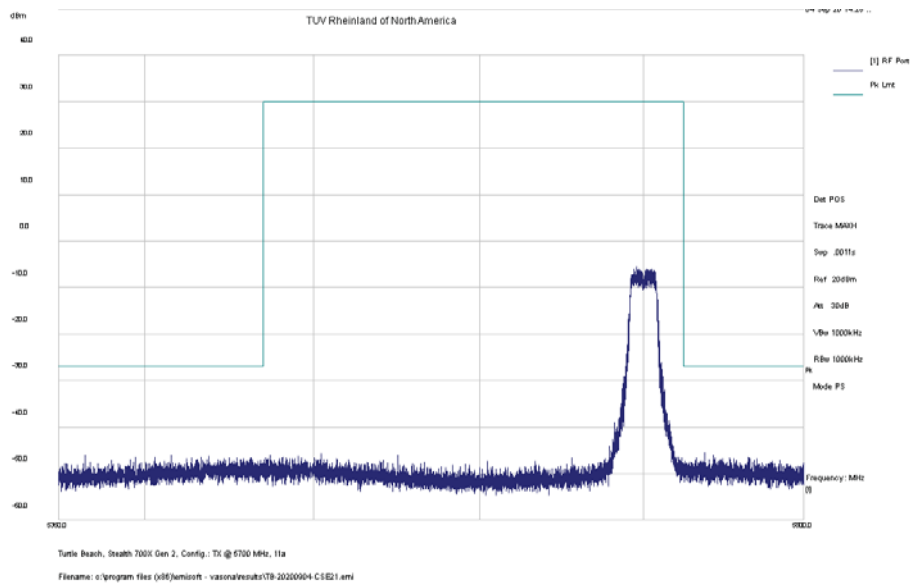


Figure 107: Measured In-Band Band-edge for 802.11a-6 Mbps at 5700 MHz

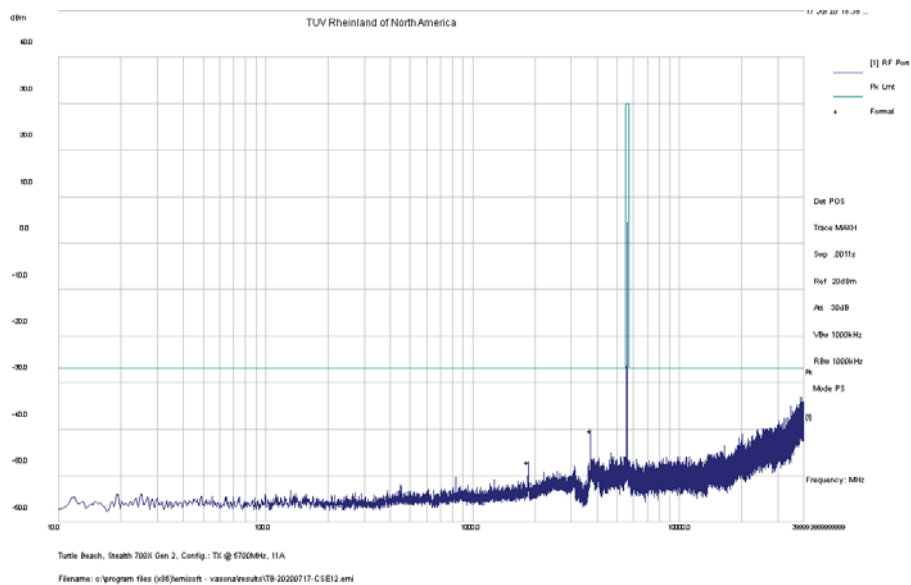


Figure 108: Measured In-Band Band-edge for 802.11a-6 Mbps at 5700 MHz

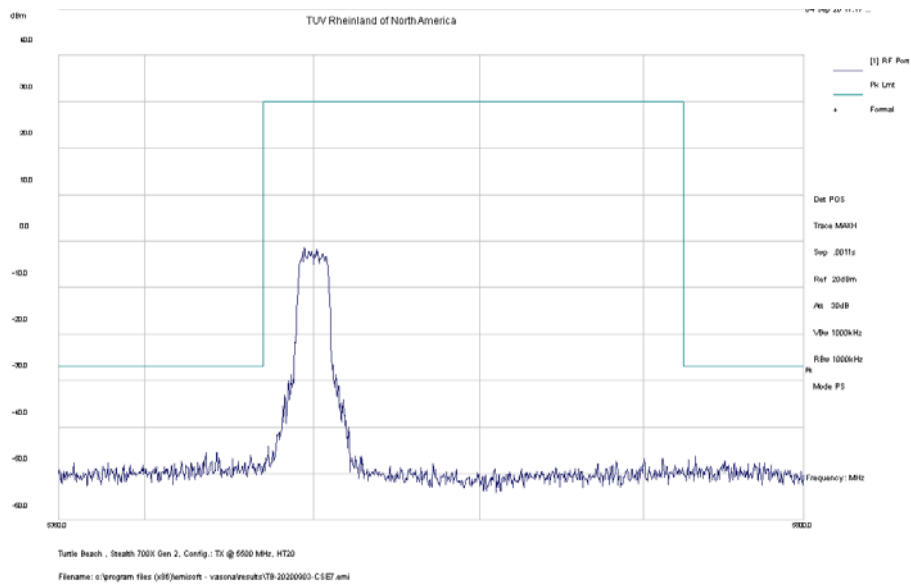


Figure 109: Measured Band-edge for HT20-MCS0 at 5500 MHz

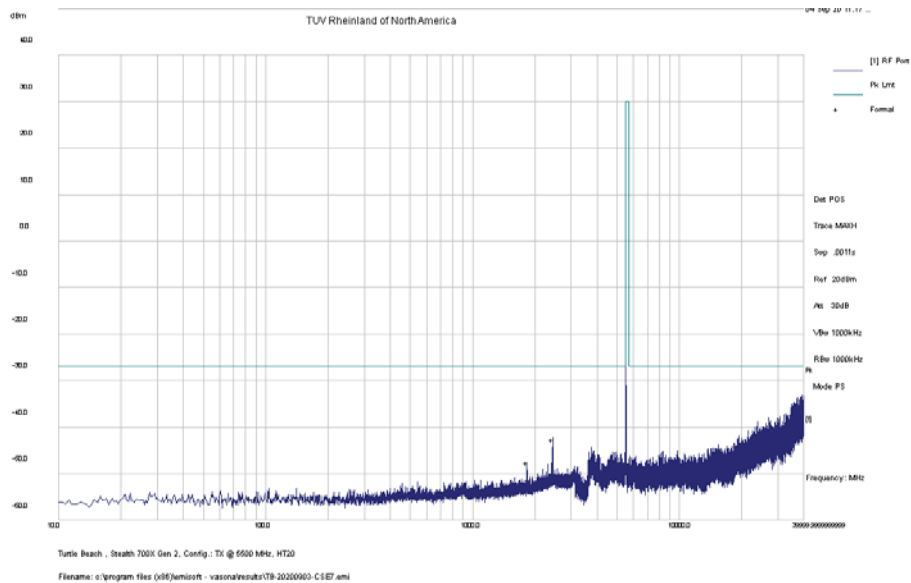


Figure 110: Undesirable Emission for HT20-MCS0 at 5500 MHz

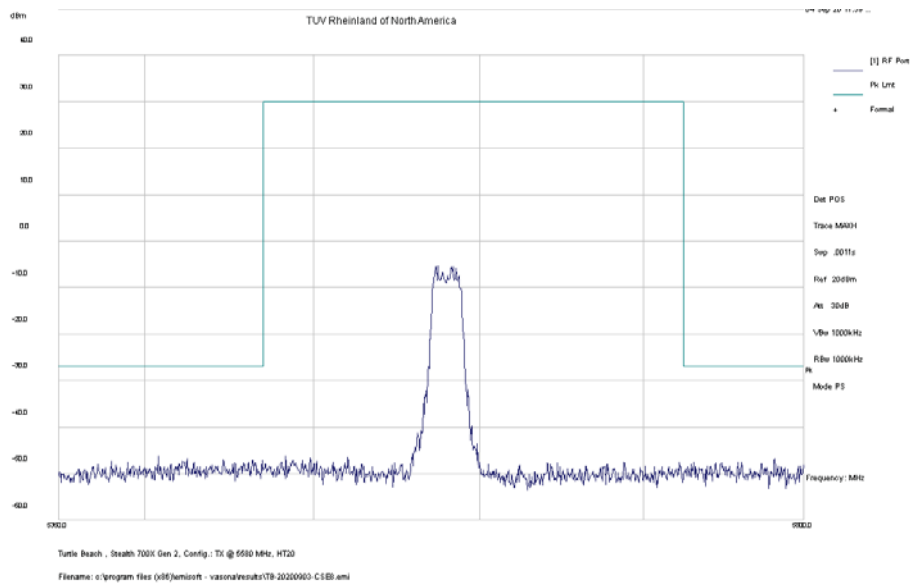


Figure 111: Measured In-Band Band-edge for HT20-MCS0 at 5580 MHz

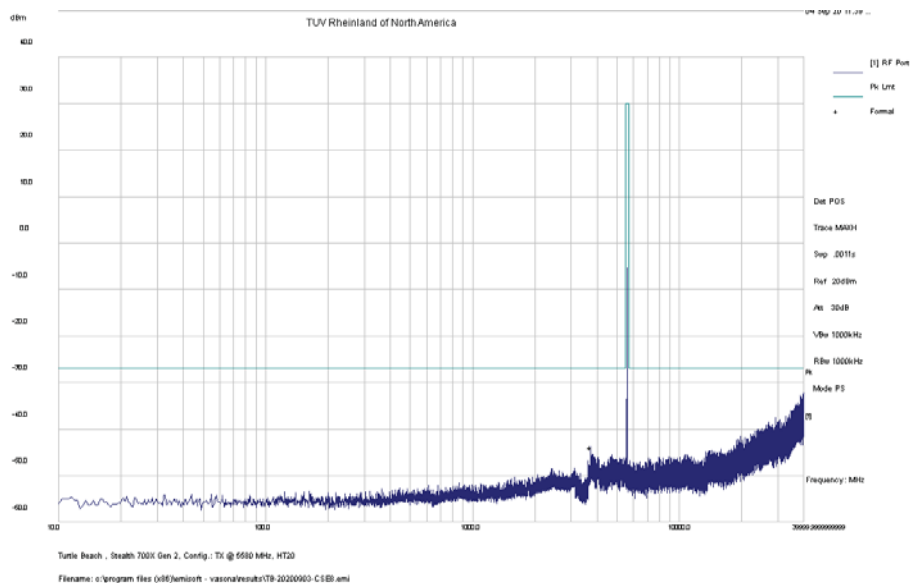


Figure 112: Measured In-Band Band-edge for HT20-MCS0 at 5580 MHz

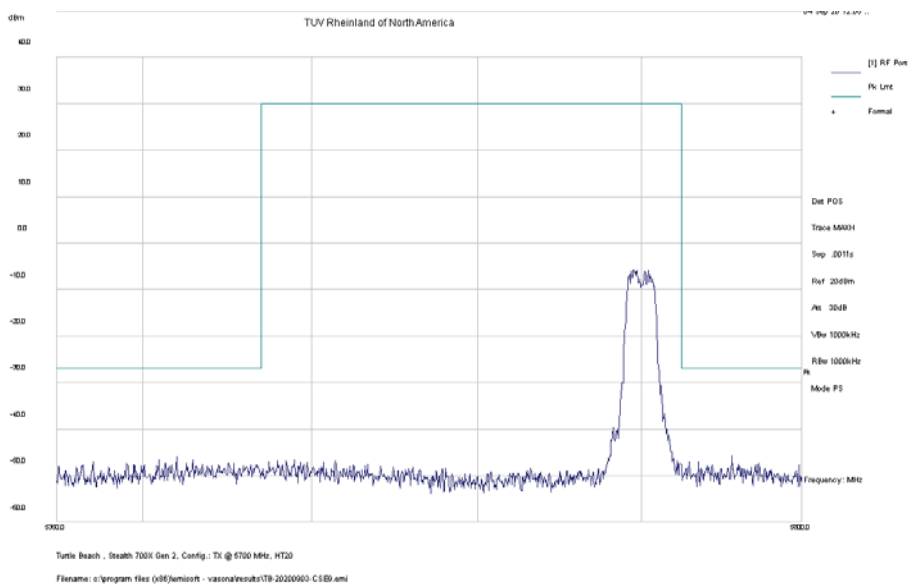


Figure 113: Measured Band-edge for HT20-MCS0 at 5700 MHz

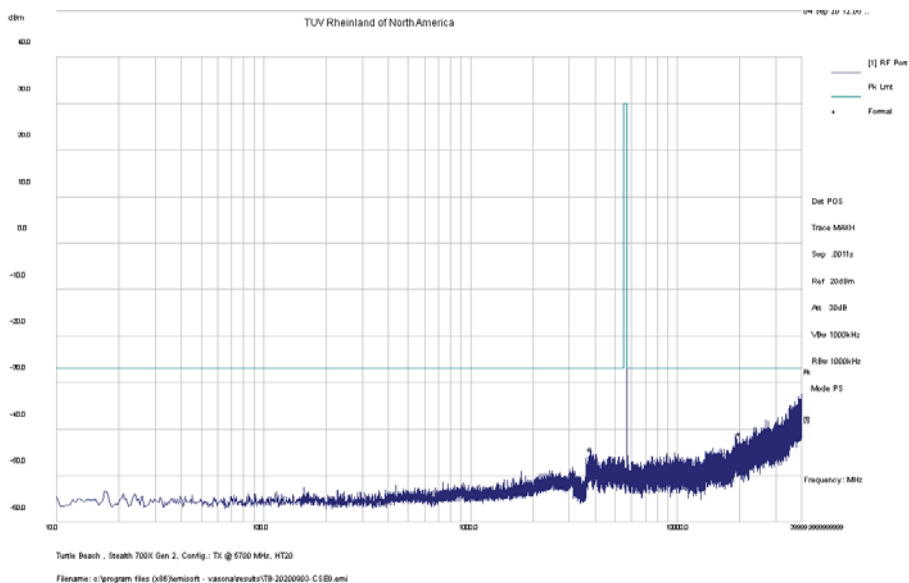


Figure 114: Undesirable Emission for HT20-MCS0 at 5700 MHz

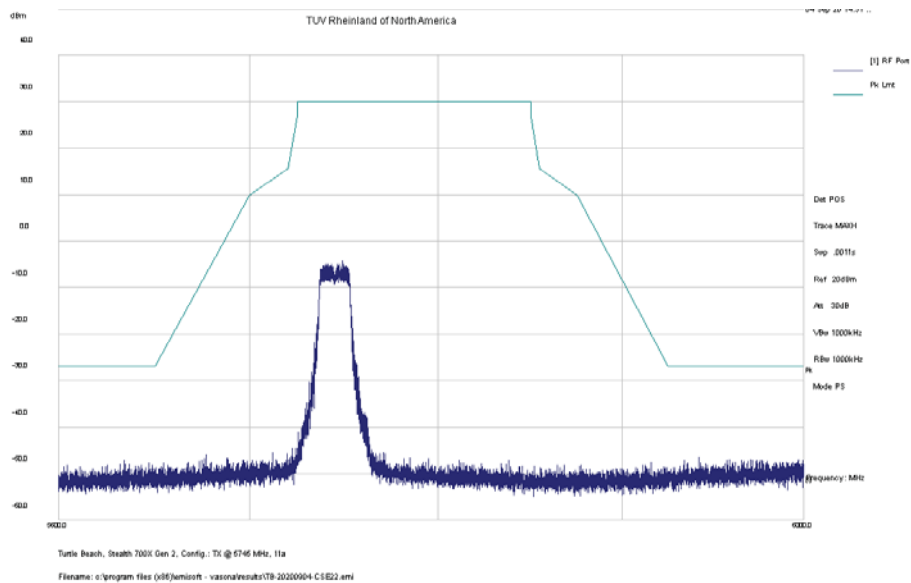


Figure 115: Measured Band-edge for 802.11a-6 Mbps at 5745 MHz

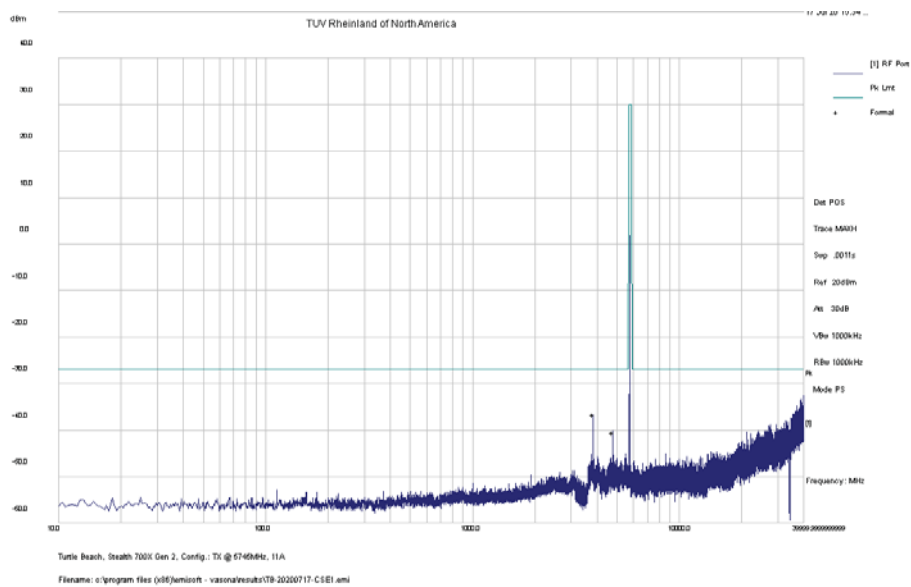


Figure 116: Undesirable Emission for 802.11a-6 Mbps at 5745 MHz

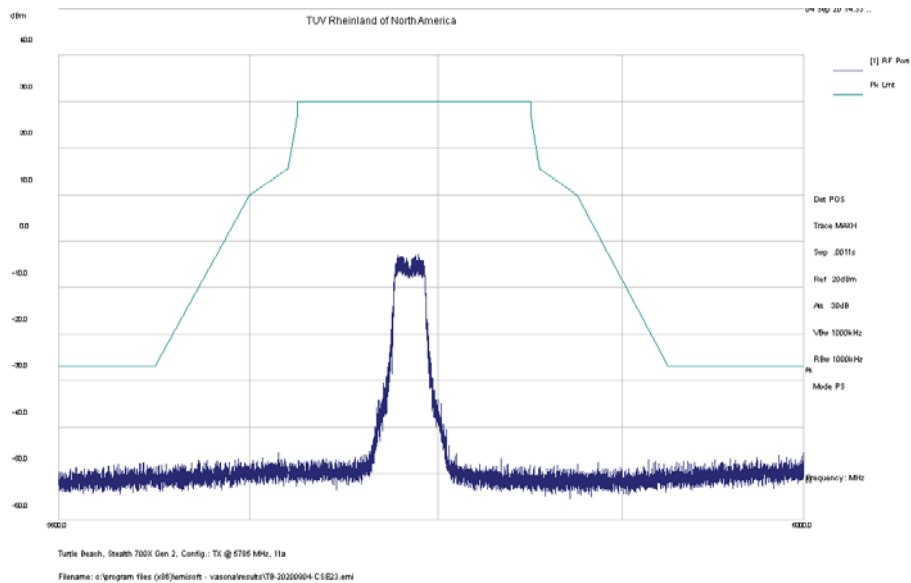


Figure 117: Measured Band-edge for 802.11a-6 Mbps at 5785 MHz

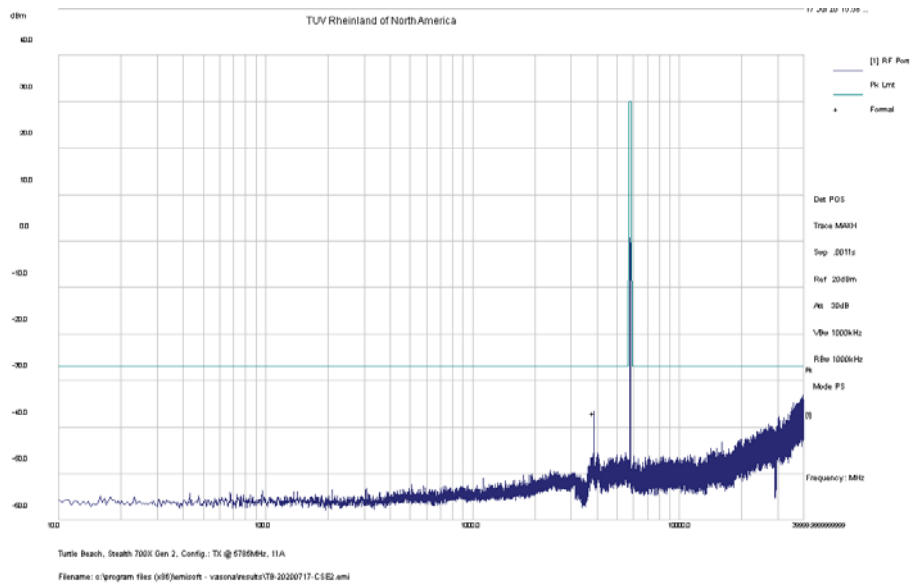


Figure 118: Undesirable Emission for 802.11a-6 Mbps at 5785 MHz

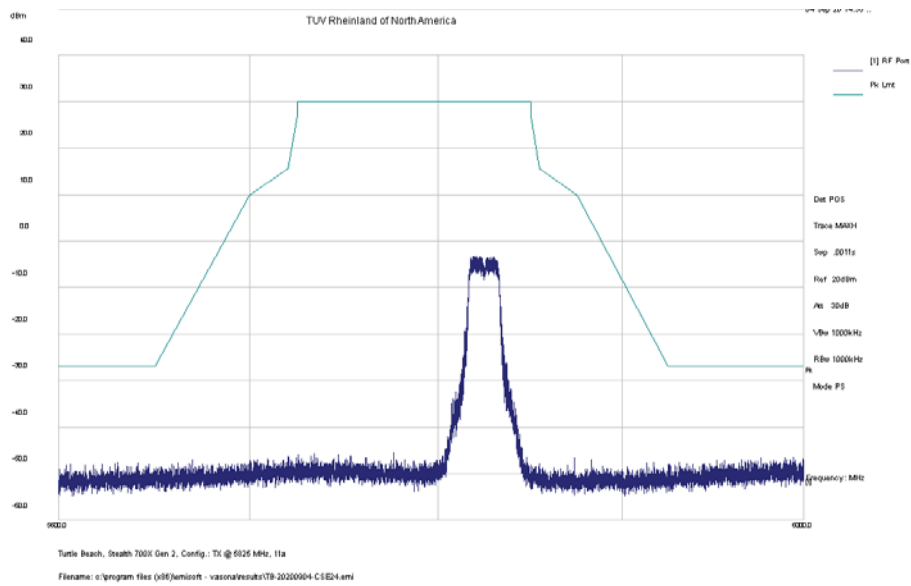


Figure 119: Measured In-Band Band-edge for 802.11a-6 Mbps at 5825 MHz

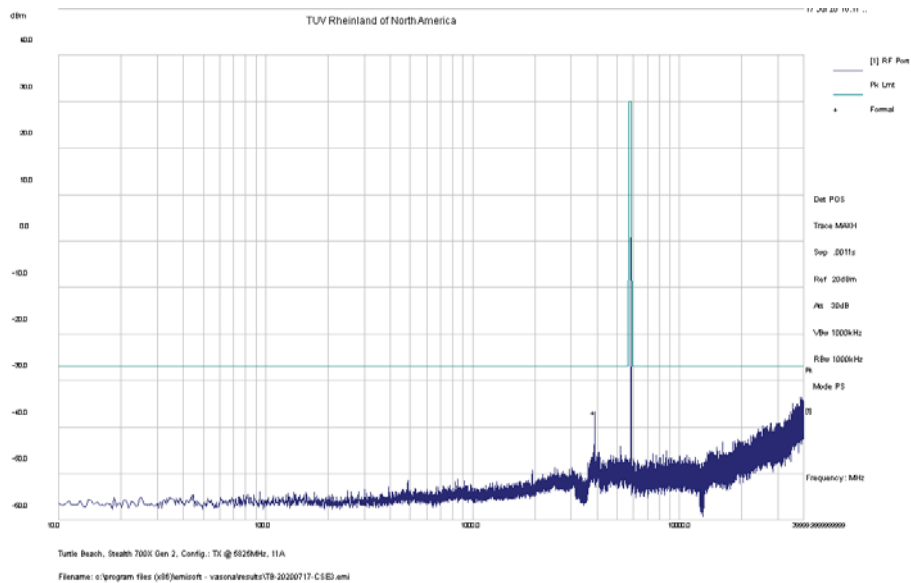


Figure 120: Measured In-Band Band-edge for 802.11a-6 Mbps at 5825 MHz

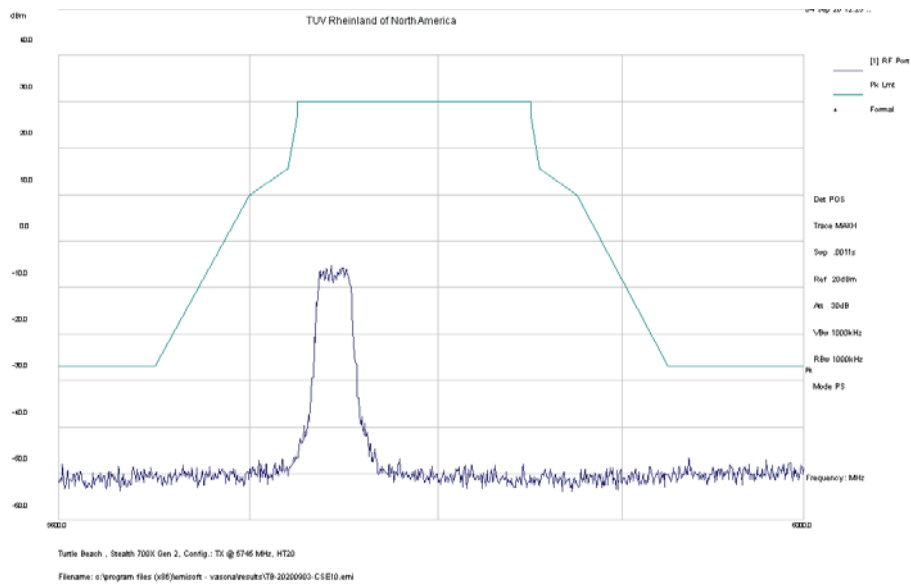


Figure 121: Measured Band-edge for HT20-MCS0 at 5745 MHz

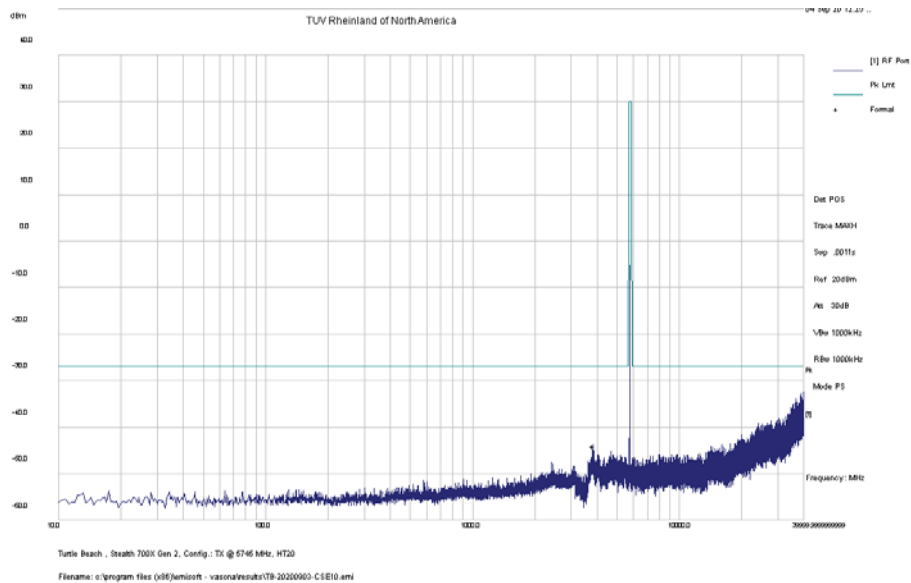


Figure 122: Undesirable Emission for HT20-MCS0 at 5745 MHz

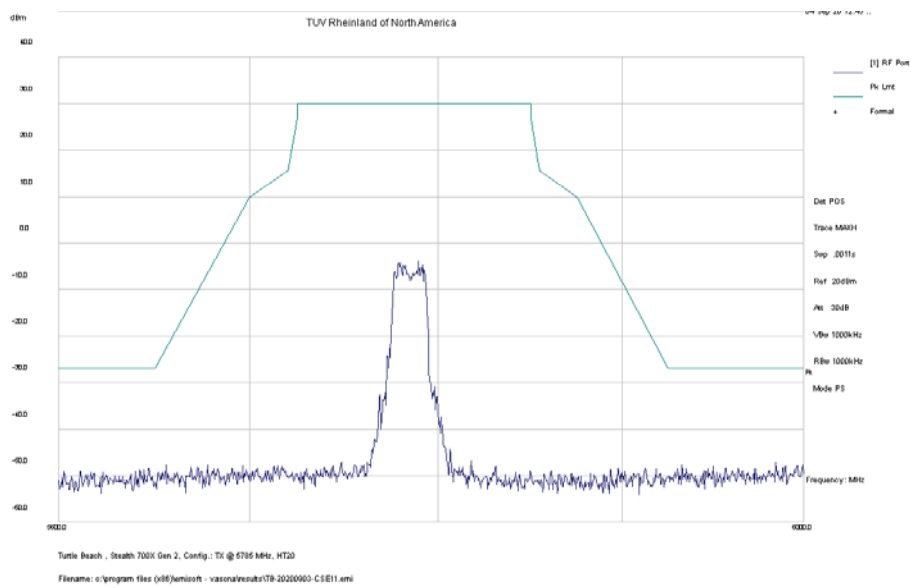


Figure 123: Measured In-Band Band-edge for HT20-MCS0 at 5785 MHz

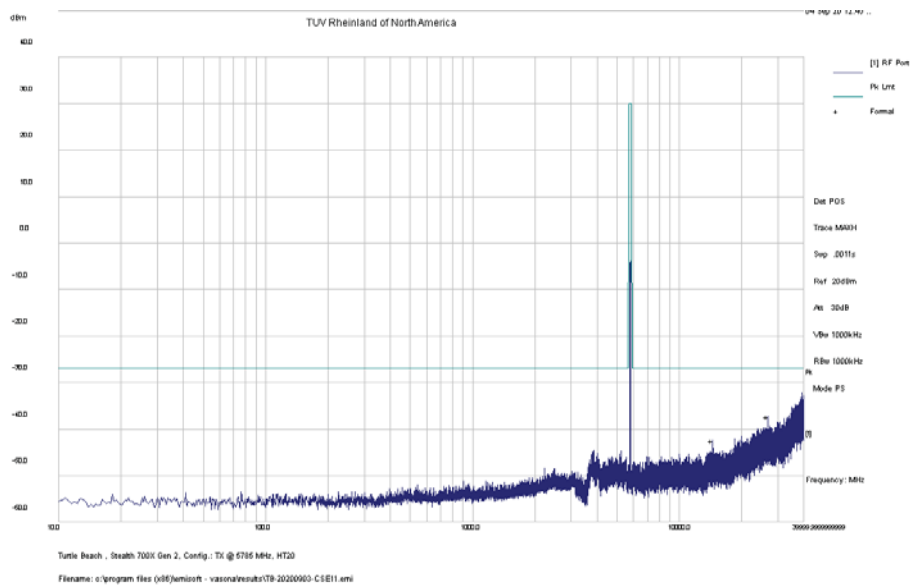


Figure 124: Measured In-Band Band-edge for HT20-MCS0 at 5785 MHz

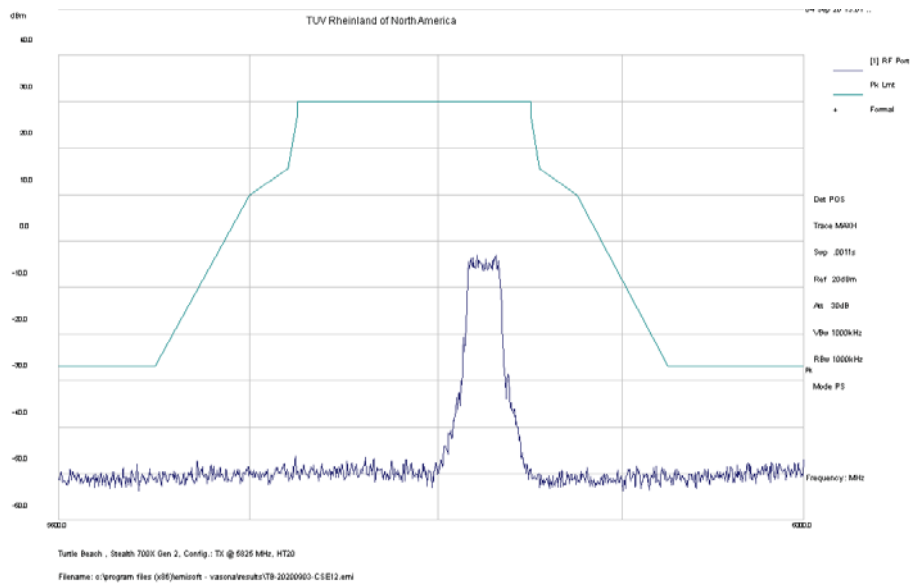


Figure 125: Measured Band-edge for HT20-MCS0 at 5825 MHz

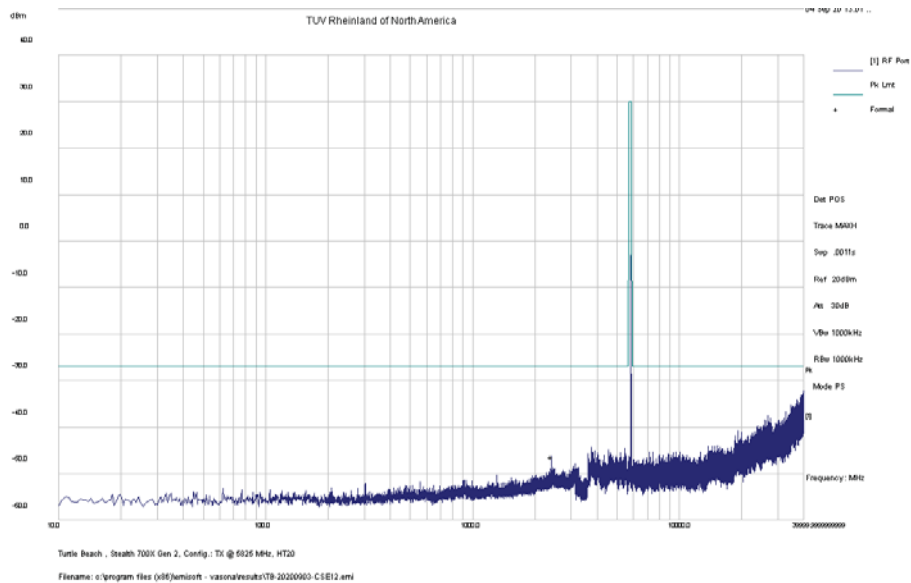


Figure 126: Undesirable Emission for HT20-MCS0 at 5825 MHz

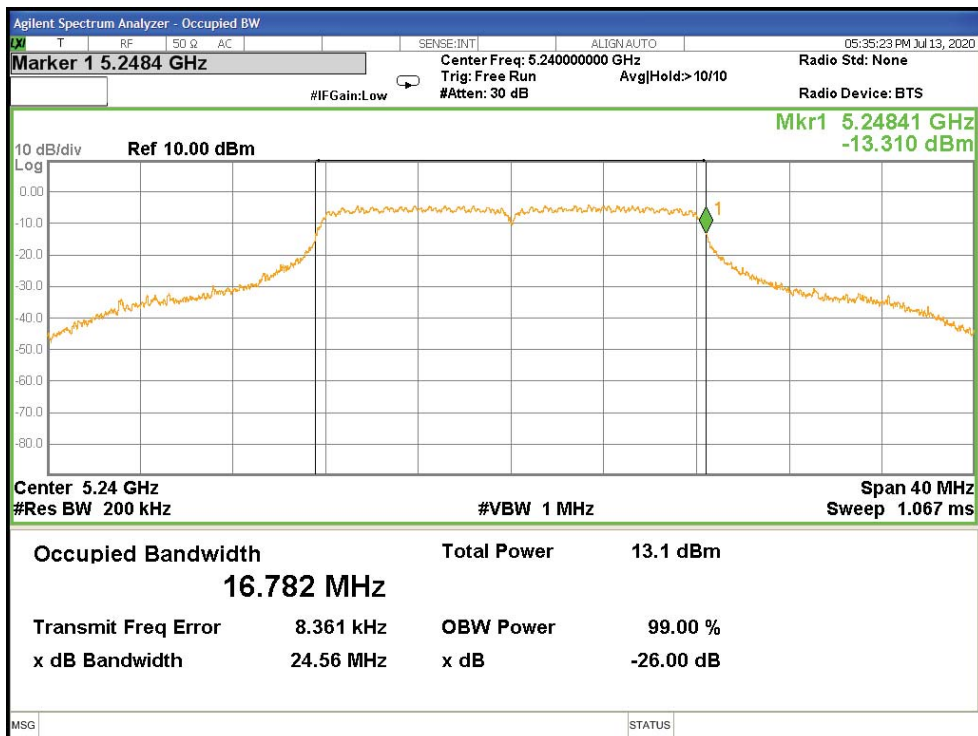


Figure 127: Measured Band-edge for 802.11a-6 Mbps at 5240 MHz

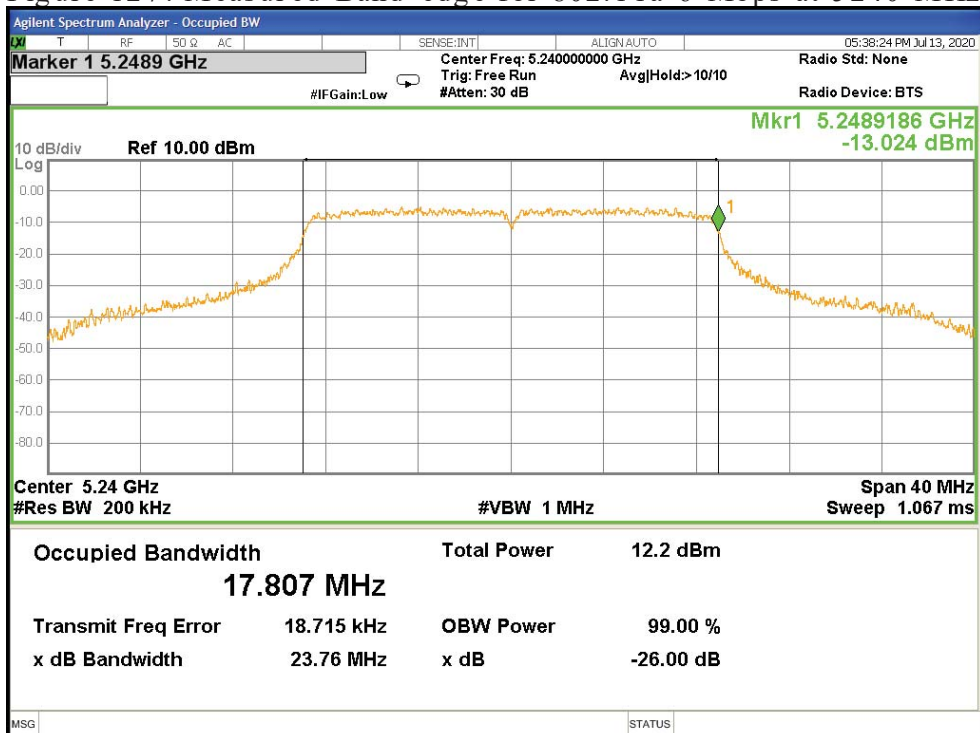


Figure 128: Measured Band-edge for 802.11n HT20-MCS0 at 5240 MHz

Note: Since the 99% bandwidth emission did not cross over into the UNII2a band, DFS is not required for the 5240 MHz operating channel.

4.5 Transmitter Spurious Emissions

Transmitter spurious emissions are emissions outside the frequency range of the equipment when the equipment is in transmit mode; per requirement of CFR47 15.205:2020, 15.209:2020, 15.407(b):2020, RSS 247 Sect. 6:2017, RSS GEN Sect.8.9 and 8.10:2014

4.5.1 Test Methodology

4.5.1.1 Preliminary Test

A test program that controls instrumentation and data logging was used to automate the preliminary RF emission test procedure. The frequency range of interest was divided into sub-ranges to yield a frequency resolution of approximately 120 kHz and provide a reading at each frequency for no more than 12° of turntable rotation. For each frequency sub-range the turntable was rotated 360° while peak emission data was recorded and plotted over the frequency range of interest in horizontal and vertical antenna polarization's.

Preliminary emission profile testing was performed inside the anechoic chamber. The EUT was placed on a 1.0m x 1.5m non-conductive table 80cm (<1 GHz) and 150cm (>1 GHz) above the floor. The EUT was positioned as shown in the setup photographs. The receiving antenna was placed at a distance of 3m at a fixed height of 1m. Measurement equipment was located outside of the chamber. A video camera was placed inside the chamber to view the EUT.

Pres-scans were performed to determine the worst, data rate/ chains for 802.11a and 802.11n (HT20).

4.5.1.2 Final Test

For each frequency measured, the peak emission was maximized by manipulating the receiving antenna from 1 to 4 meters above the ground plane and placing it at the position that produced the maximum signal strength reading. The turntable was then rotated through 360° while observing the peak signal and placing the EUT at the position that produced maximum radiation. The six highest emissions relative to the limit were measured unless such emissions were more than 20 dB below the limit. If less than six emissions are within 20 dB of the limit, then the noise level of the receiver is measured at frequencies where emissions are expected. Multiples of all oscillator and microprocessor frequencies were also checked.

Final testing was performed on an NSA compliant test site. The EUT was placed on a 1.0m x 1.5m non-conductive table 80cm (<1 GHz) and 150cm (>1 GHz) above the ground plane. The placement of EUT and cables were the same as for preliminary testing and is shown in the setup photographs.

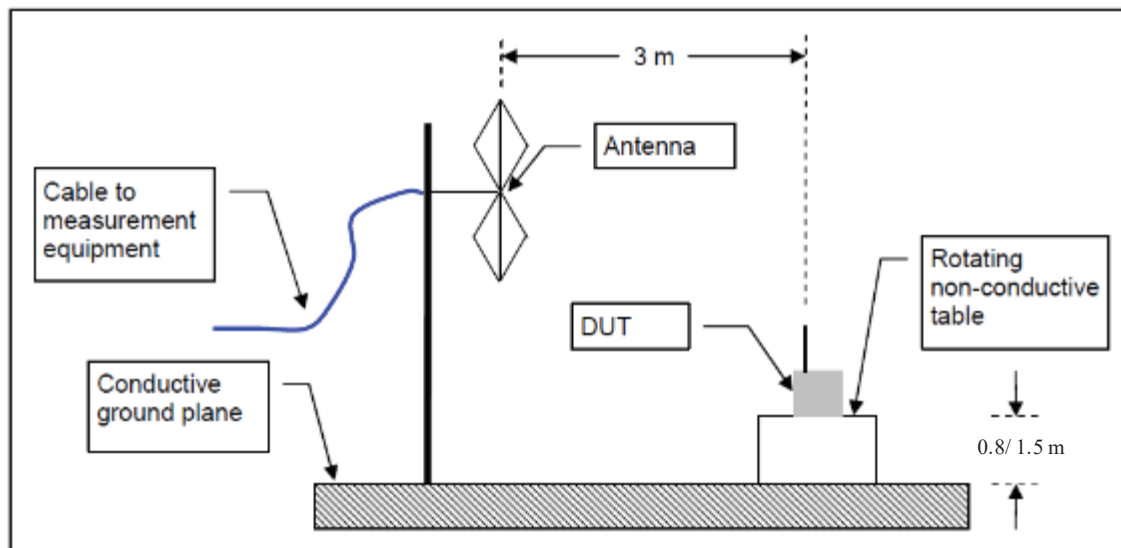
Final results are:

802.11a at 6 Mbps and 802.11n (HT20) at 6.5 Mbps on upright position.

4.5.1.3 Deviations

None.

Test Setup:



4.5.2 Transmitter Spurious Emission Limit

The spurious emissions of the transmitter shall not exceed the values in CFR47 Part 15.205, 15.209, RSS 247 Sect. 6, RSS GEN Sect. 8.9 and 8.10

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490.....	2400/F (kHz)	300
0.490-1.705.....	24000/F (kHz)	30
1.705-30.0.....	30	30
30-88.....	100 **	3
88-216.....	150 **	3
216-960.....	200 **	3
Above 960.....	500	3

According to CFR47 15.407 (b) and RSS 247 Sect. 6.2, all harmonics and spurious emissions which are outside the 5150 MHz - 5250 MHz, 5250 MHz – 5350 MHz, or 5470 MHz – 5725 MHz shall not exceed -27 dBm/MHz. This is equivalent to 68.2 dBuV/m at 3 meter distance.

4.5.3 Results

The final measurement data was taken under the worst case operating modes, configurations, and/or cable positions. It also reflects the results including any modifications and/or special accessories listed in Sections 1.4 and test plan.

As originally tested, the EUT was found to be compliant to the requirements of the test standard(s).

Table 9: Transmit Spurious Emissions at Band-Edge Requirements

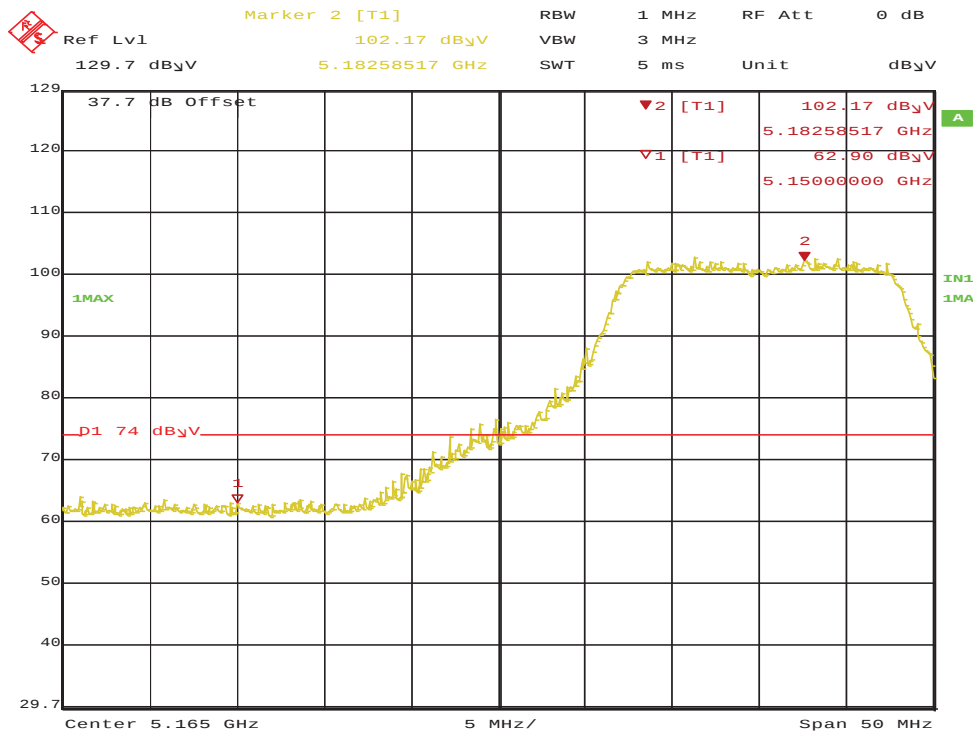
Date: June 5, 2020					Tested By: Jeremy Luong			
Test Method: Radiated Measurements					Power Setting: See test plan.			
Antenna Type: Chip					Antenna Gain: +3.7 dBi			
Operating Mode: Uncorrelated					Signal State: Modulated at 100%			
Ambient Temp.: 23 °C					Relative Humidity: 35%			
Band-Edge Results for 5150 MHz to 5350 MHz								
Freq. (MHz)	Level (dBuV/m)	Pol. (H/V)	Limit (dBuV/m)	Margin (dB)	Det.	Table Deg.	Tower (cm)	Note
5150.00	61.66	V	74.00	-12.34	Pk	218	137	700XV2-11a-5180MHz-6Mbps
5150.00	40.58	V	54.00	-13.42	Ave	218	137	700XV2-11a-5180MHz-6Mbps
5150.00	62.90	H	74.00	-11.10	Pk	126	275	700XV2-11a-5180MHz-6Mbps
5150.00	40.31	H	54.00	-13.69	Ave	126	275	700XV2-11a-5180MHz-6Mbps
5350.00	62.60	H	74.00	-11.40	Pk	138	237	700XV2-11a-5320MHz-6Mbps
5350.00	41.47	H	54.00	-12.53	Ave	138	237	700XV2-11a-5320MHz-6Mbps
5350.00	62.60	V	74.00	-11.40	Pk	247	235	700XV2-11a-5320MHz-6Mbps
5350.00	41.07	V	54.00	-12.93	Ave	247	235	700XV2-11a-5320MHz-6Mbps
5150.00	62.84	V	74.00	-11.16	Pk	251	257	700XV2-HT20-5180MHz-6.5Mbps
5150.00	40.58	V	54.00	-13.42	Ave	251	257	700XV2-HT20-5180MHz-6.5Mbps
5150.00	60.47	H	74.00	-13.53	Pk	135	244	700XV2-HT20-5180MHz-6.5Mbps
5150.00	40.65	H	54.00	-13.35	Ave	135	244	700XV2-HT20-5180MHz-6.5Mbps
5350.00	62.80	H	74.00	-11.20	Pk	140	266	700XV2-HT20-5320MHz-6.5Mbps
5350.00	41.73	H	54.00	-12.27	Ave	140	266	700XV2-HT20-5320MHz-6.5Mbps
5350.00	62.03	V	74.00	-11.97	Pk	248	202	700XV2-HT20-5320MHz-6.5Mbps
5350.00	41.10	V	54.00	-12.90	Ave	248	202	700XV2-HT20-5320MHz-6.5Mbps
Note: 1. Band-edge frequencies were taken at 5150 MHz and 5350 MHz since these band-edges are adjacent to the restricted bands. 2. All of the band-edge measurements met the restricted band requirements of CFR47 15.205. 3. For 5250 MHz In-band-edge, refer to Section 4.4.2. 4. Since the band-edge measurements have margins in the presence of in-band leakage, the band-edge plots were captured with the spectrum analyzer’s span set wider than 2 MHz.								

Table 10: Transmit Spurious Emissions at Band-Edge Requirements Continued

Date: June 5, 2020					Tested By: Jeremy Luong			
Test Method: Radiated Measurements					Power Setting: See test plan.			
Antenna Type: Chip					Antenna Gain: +3.7 dBi			
Operating Mode: Uncorrelated					Signal State: Modulated at 100%			
Ambient Temp.: 23 °C					Relative Humidity: 35%			
Band-Edge Results for 5470 MHz to 5725MHz								
Freq. (MHz)	Level (dBuV/m)	Pol. (H/V)	Limit (dBuV/m)	Margin (dB)	Det.	Table Deg.	Tower (cm)	Note
5350.00	62.80	H	74.00	-11.20	Pk	140	266	700XV2-HT20-5320MHz-6.5Mbps
5350.00	41.73	H	54.00	-12.27	Ave	140	266	700XV2-HT20-5320MHz-6.5Mbps
5350.00	62.03	V	74.00	-11.97	Pk	248	202	700XV2-HT20-5320MHz-6.5Mbps
5350.00	41.10	V	54.00	-12.90	Ave	248	202	700XV2-HT20-5320MHz-6.5Mbps
5470.00	64.64	V	74.00	-9.36	Pk	251	231	700XV2-11a-5500MHz-6Mbps
5470.00	40.94	V	54.00	-13.06	Ave	251	231	700XV2-11a-5500MHz-6Mbps
5470.00	63.80	H	74.00	-10.20	Pk	136	291	700XV2-11a-5500MHz-6Mbps
5470.00	41.39	H	54.00	-12.61	Ave	136	291	700XV2-11a-5500MHz-6Mbps
5725.00	68.66	H	74.00	-5.34	Pk	128	287	700XV2-11a-5700MHz-6Mbps
5725.00	51.56	H	54.00	-2.44	Ave	128	287	700XV2-11a-5700MHz-6Mbps
5725.00	69.33	V	74.00	-4.67	Pk	11	312	700XV2-11a-5700MHz-6Mbps
5725.00	50.82	V	54.00	-3.18	Ave	11	312	700XV2-11a-5700MHz-6Mbps
5470.00	64.23	V	74.00	-9.77	Pk	24	307	700XV2-HT20-5500MHz-6.5Mbps
5470.00	41.22	V	54.00	-12.78	Ave	24	307	700XV2-HT20-5500MHz-6.5Mbps
5470.00	64.35	H	74.00	-9.65	Pk	127	293	700XV2-HT20-5500MHz-6.5Mbps
5470.00	41.98	H	54.00	-12.02	Ave	127	293	700XV2-HT20-5500MHz-6.5Mbps
Note: 1. Band-edge frequencies were evaluated at 5470 MHz and 5725 MHz. 2. All of the band-edge measurements met the restricted band requirements of CFR47 15.205. 3. Refer to Section 4.4.2 for additional undesired emissions at the band-edge. 4. Since the band-edge measurements have margins in the presence of in-band leakage, the band-edge plots were captured with the spectrum analyzer’s span set wider than 2 MHz.								

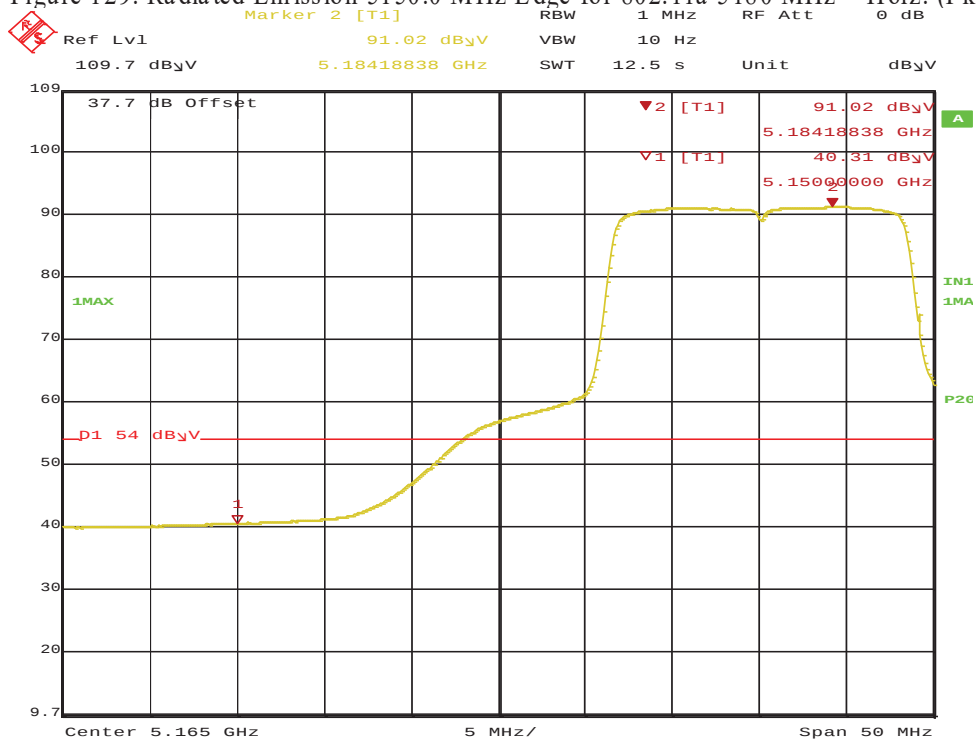
Table 11: Transmit Spurious Emissions at Band-Edge Requirements Continued

Date: June 5, 2020					Tested By: Jeremy Luong			
Test Method: Radiated Measurements					Power Setting: See test plan.			
Antenna Type: Chip					Antenna Gain: +3.7 dBi			
Operating Mode: Uncorrelated					Signal State: Modulated at 100%			
Ambient Temp.: 23 °C					Relative Humidity: 35%			
Band-Edge Results for 5725 MHz to 5850 MHz								
Freq. (MHz)	Level (dBuV/m)	Pol. (H/V)	Limit (dBuV/m)	Margin (dB)	Det.	Table Deg.	Tower (cm)	Note
5947.34	55.65	V	68.20	-12.55	Pk	230	252	700XV2-11a-5745MHz-6Mbps
5936.82	55.87	H	68.20	-12.33	Pk	127	339	700XV2-11a-5745MHz-6Mbps
5931.91	55.64	H	68.20	-12.56	Pk	294	340	700XV2-11a-5825MHz-6Mbps
5624.00	56.74	V	68.20	-11.46	Pk	7	305	700XV2-11a-5825MHz-6Mbps
5933.32	56.09	V	68.20	-12.11	Pk	20	305	700XV2-HT20-5745MHz-6.5Mbps
5931.91	56.25	H	68.20	-11.95	Pk	294	292	700XV2-HT20-5745MHz-6.5Mbps
5934.02	55.48	H	68.20	-12.72	Pk	252	287	700XV2-HT20-5825MHz-6.5Mbps
5934.02	55.65	V	68.20	-12.55	Pk	7	302	700XV2-HT20-5825MHz-6.5Mbps
Note: 1. The spectrum mask was evaluated at band-edge frequencies for the lowest and highest operating channels. 2. All of the band-edge measurements met the undesired emission limit, where 27dBm eirp is 68.3 dBuV/m at 3m. 3. Refer to Section 4.4.2 for additional undesired emissions at the band-edge. 4. Figures 157 to 164 show the full spectrum mask for the above configurations.								



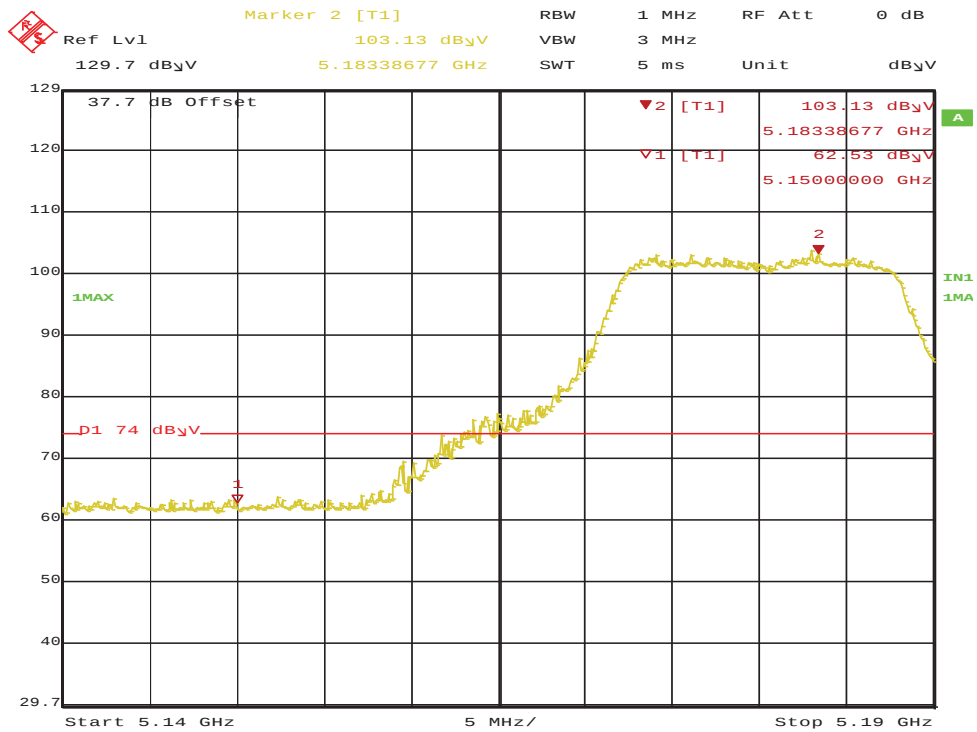
Date: 5 JUN 2020 05:56:30

Figure 129: Radiated Emission 5150.0 MHz Edge for 802.11a 5180 MHz – Horz. (Pk)



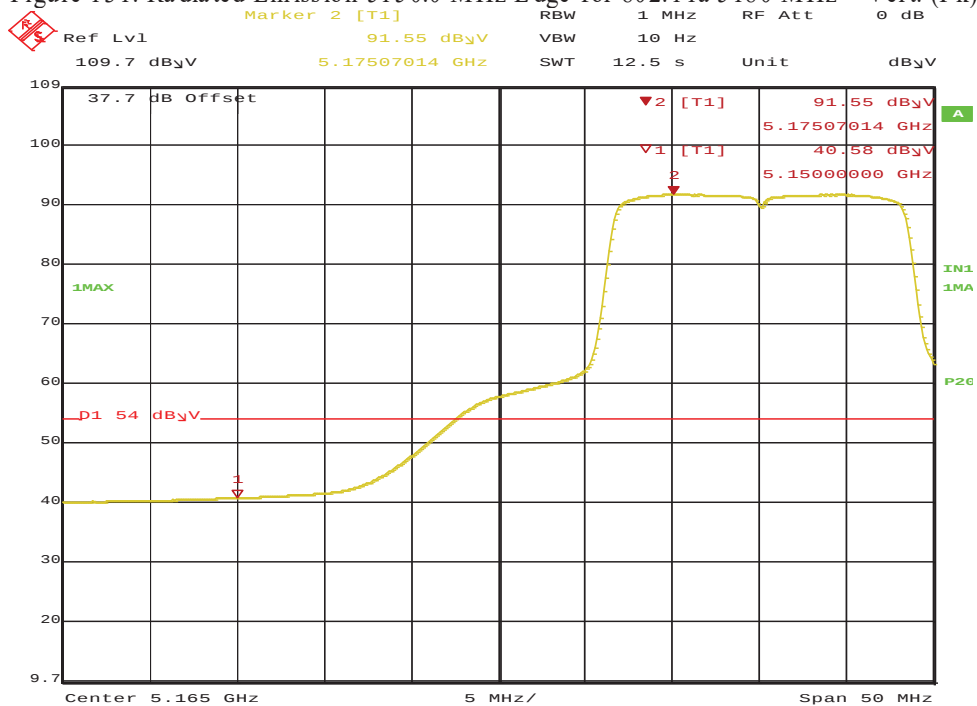
Date: 5 JUN 2020 05:57:04

Figure 130: Radiated Emission 5150.0 MHz Edge for 802.11a 5180 MHz – Horz. (Ave)



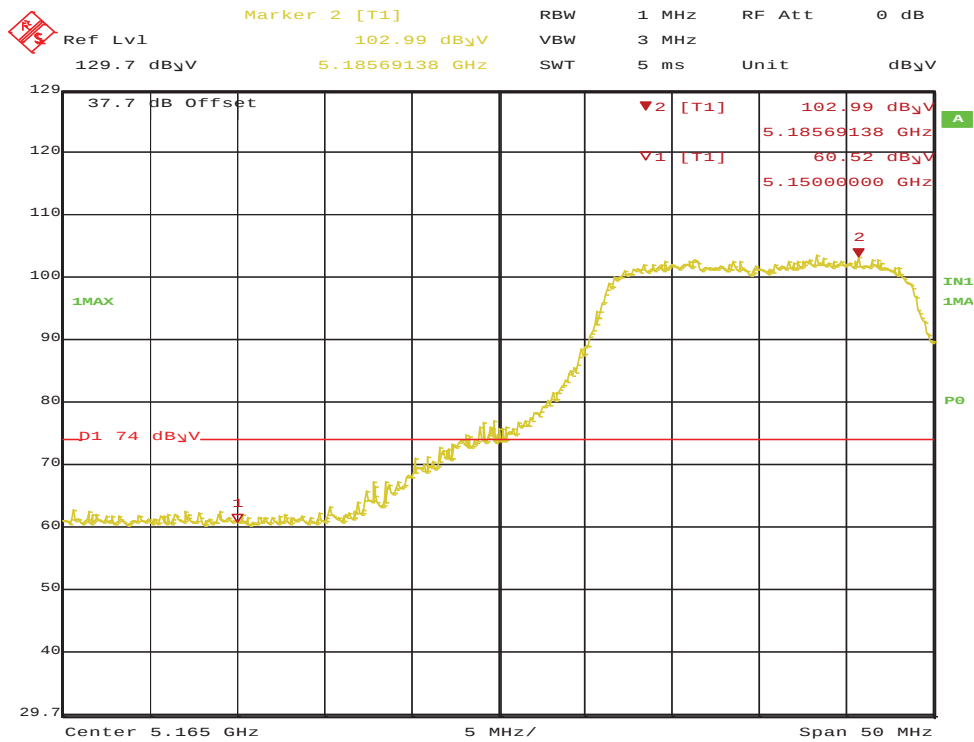
Date: 5 JUN 2020 05:52:56

Figure 131: Radiated Emission 5150.0 MHz Edge for 802.11a 5180 MHz – Vert. (Pk)



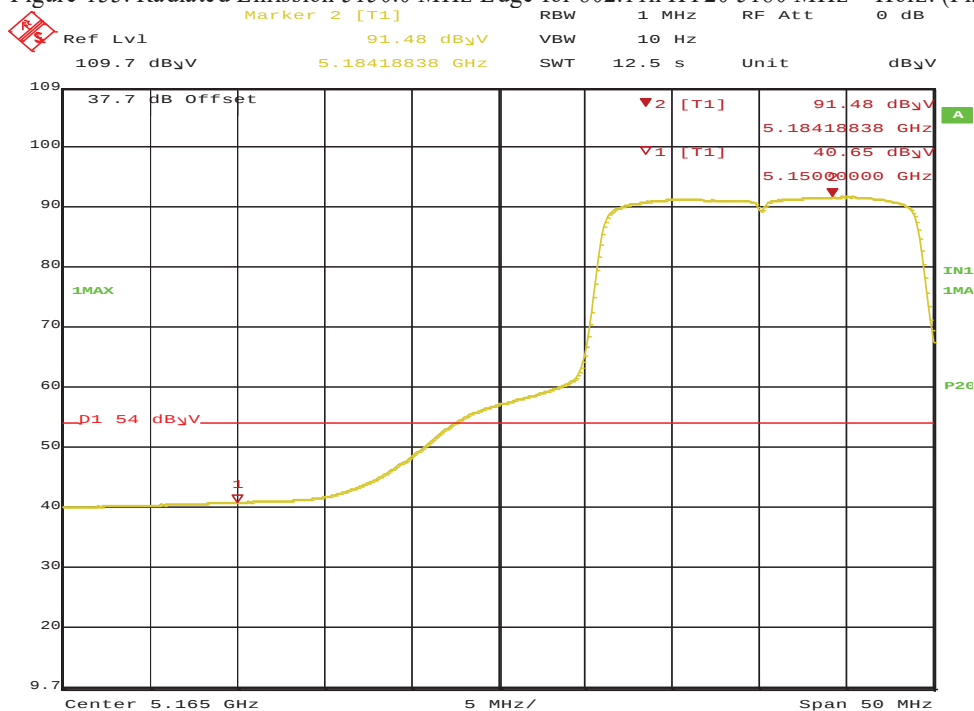
Date: 5 JUN 2020 05:54:13

Figure 132: Radiated Emission 5150.0 MHz Edge for 802.11a 5180 MHz – Vert. (Ave)



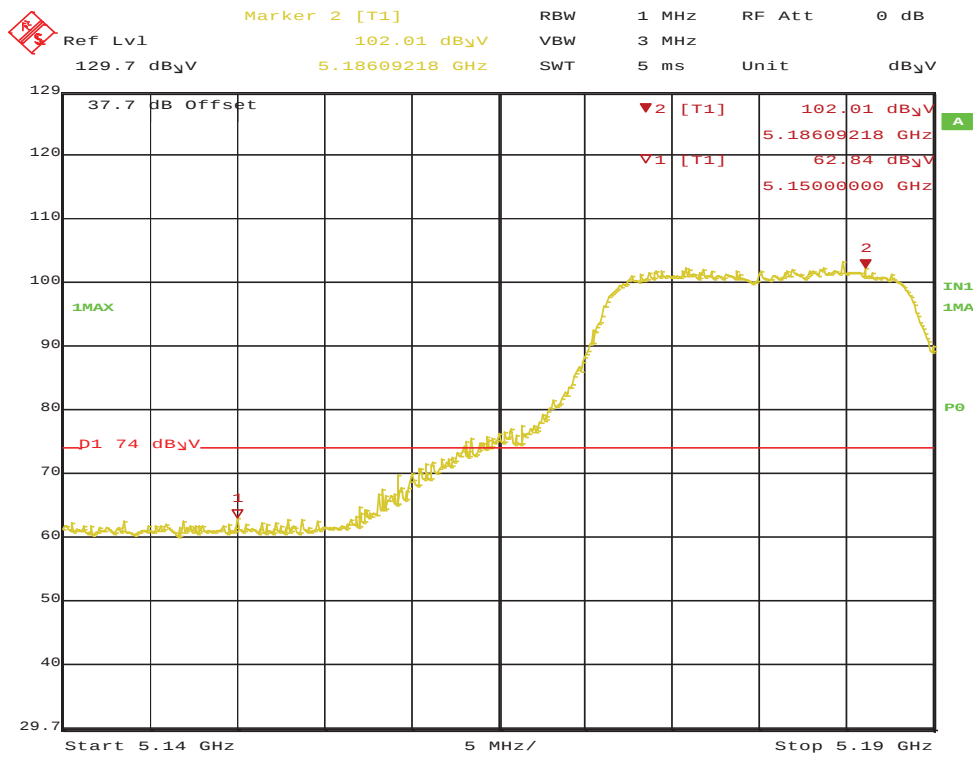
Date: 5 JUN. 2020 06:08:03

Figure 133: Radiated Emission 5150.0 MHz Edge for 802.11n HT20 5180 MHz – Horz. (Pk)



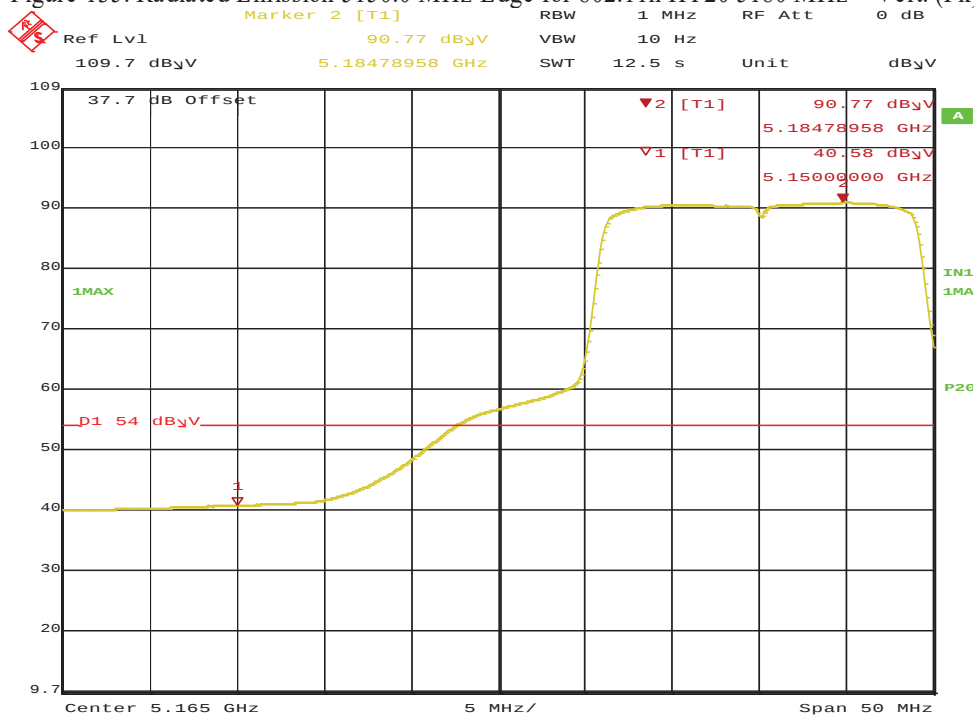
Date: 5 JUN. 2020 06:08:41

Figure 134: Radiated Emission 5150.0 MHz Edge for 802.11n HT20 5180 MHz – Horz. (Ave)



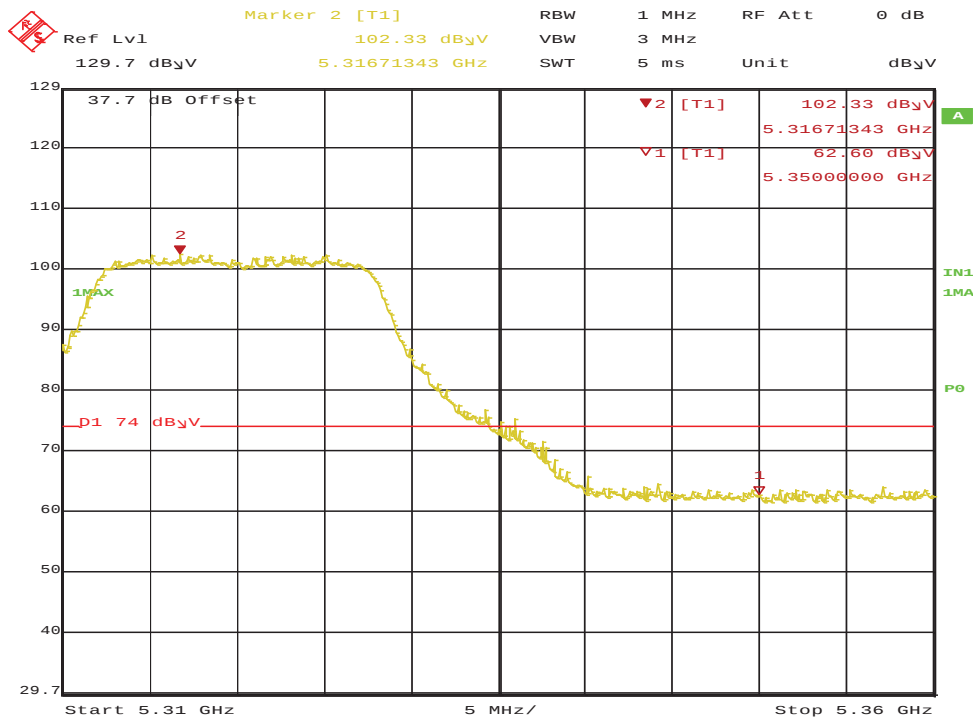
Date: 5 JUN. 2020 06:05:27

Figure 135: Radiated Emission 5150.0 MHz Edge for 802.11n HT20 5180 MHz – Vert. (Pk)



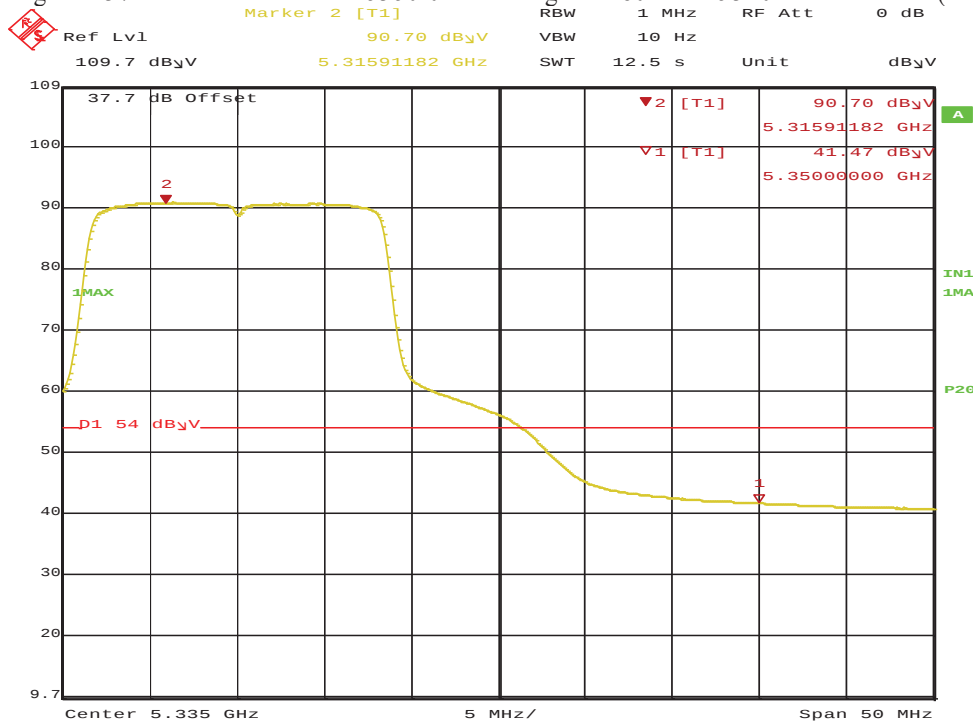
Date: 5 JUN. 2020 06:06:11

Figure 136: Radiated Emission 5150.0 MHz Edge for 802.11n HT20 5180 MHz – Vert. (Ave)



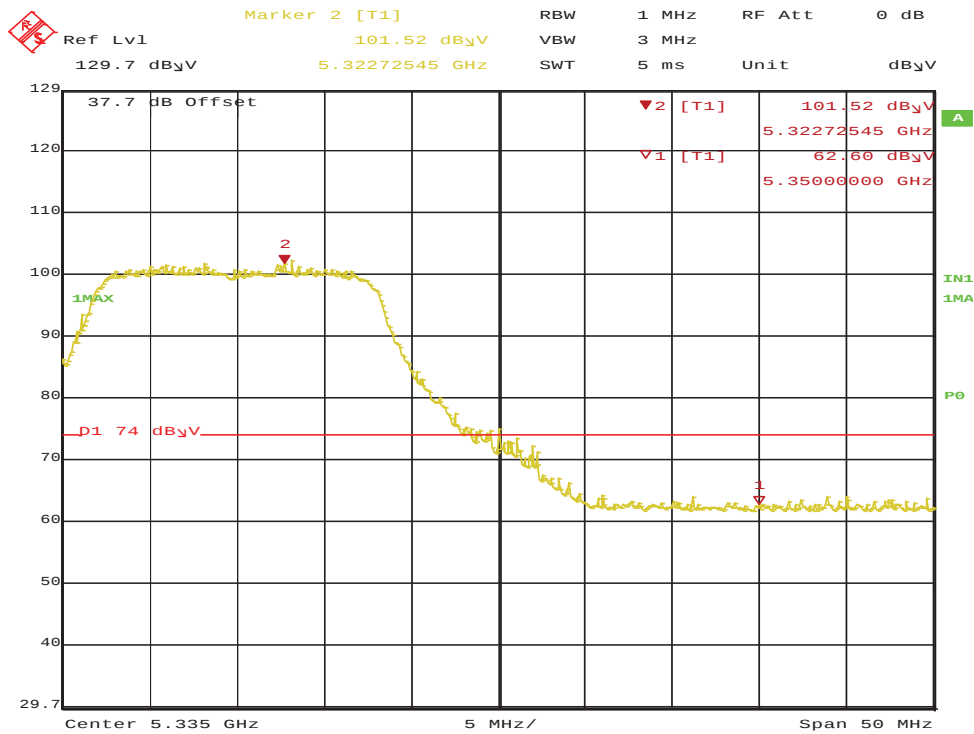
Date: 5. JUN. 2020 05:59:51

Figure 137: Radiated Emission 5350.0 MHz Edge for 802.11a 5320 MHz – Horz. (Pk)



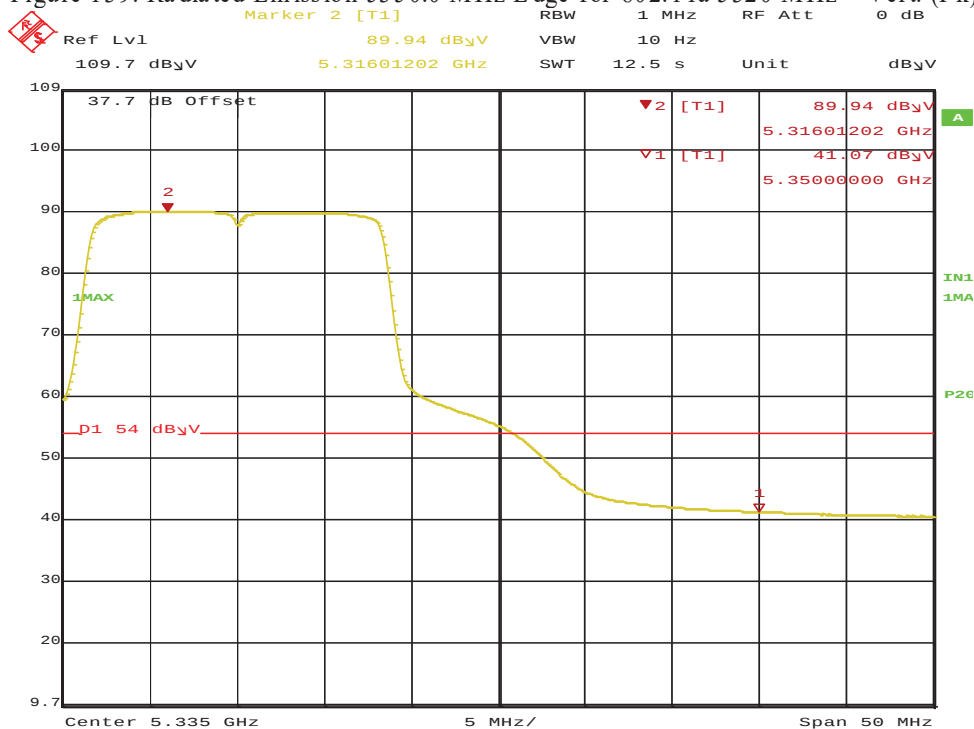
Date: 5. JUN. 2020 06:00:37

Figure 138: Radiated Emission 5350.0 MHz Edge for 802.11a 5320 MHz – Horz. (Ave)



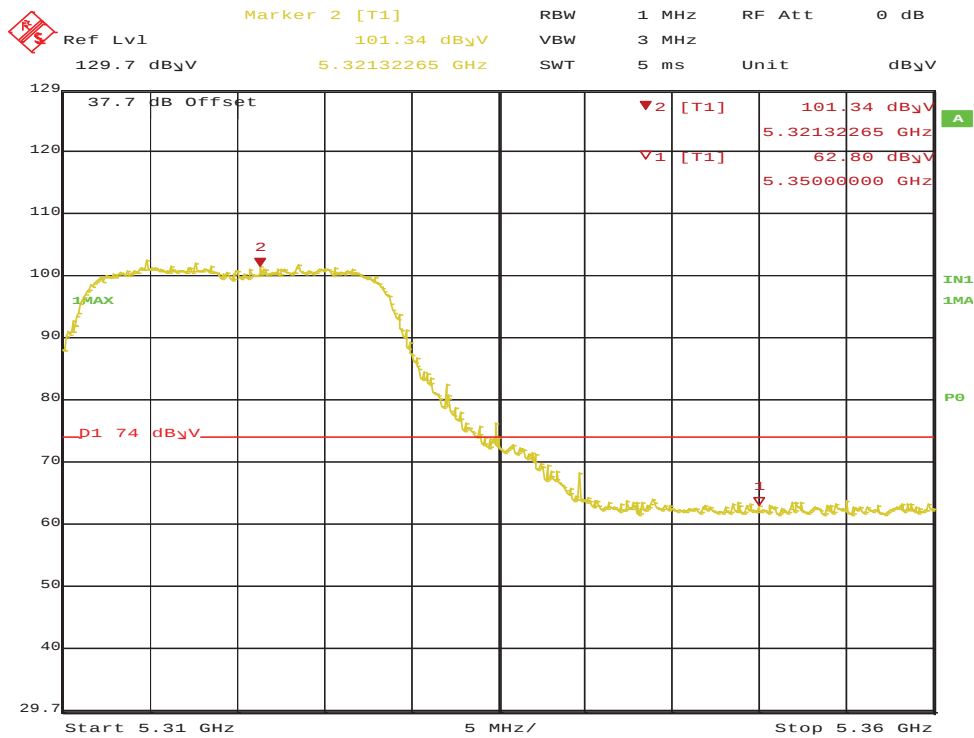
Date: 5 JUN. 2020 06:02:01

Figure 139: Radiated Emission 5350.0 MHz Edge for 802.11a 5320 MHz – Vert. (Pk)

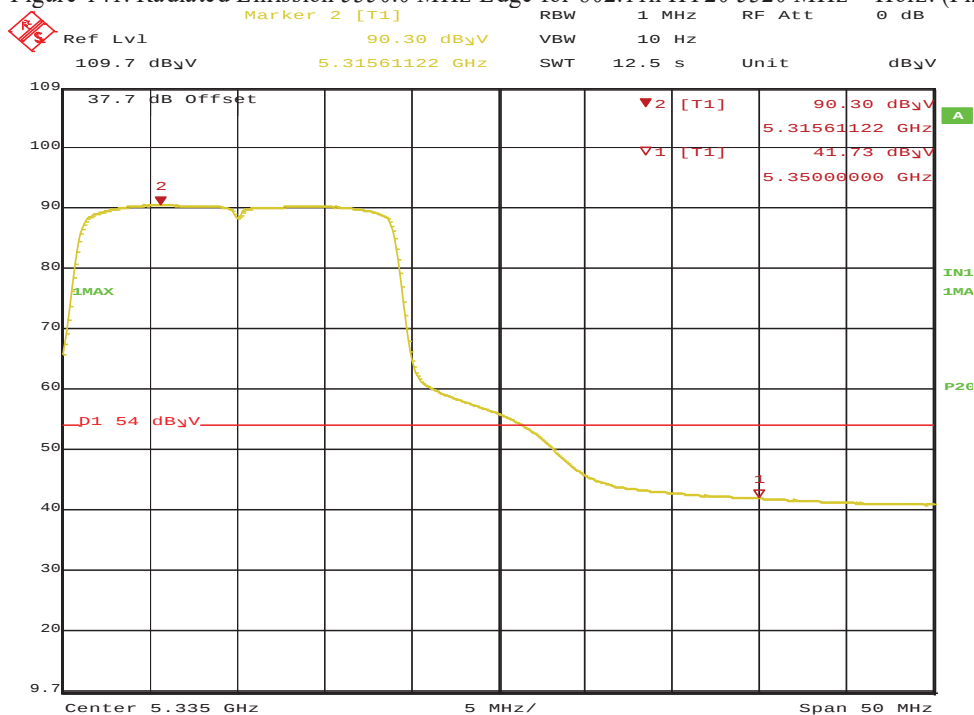


Date: 5 JUN. 2020 06:02:45

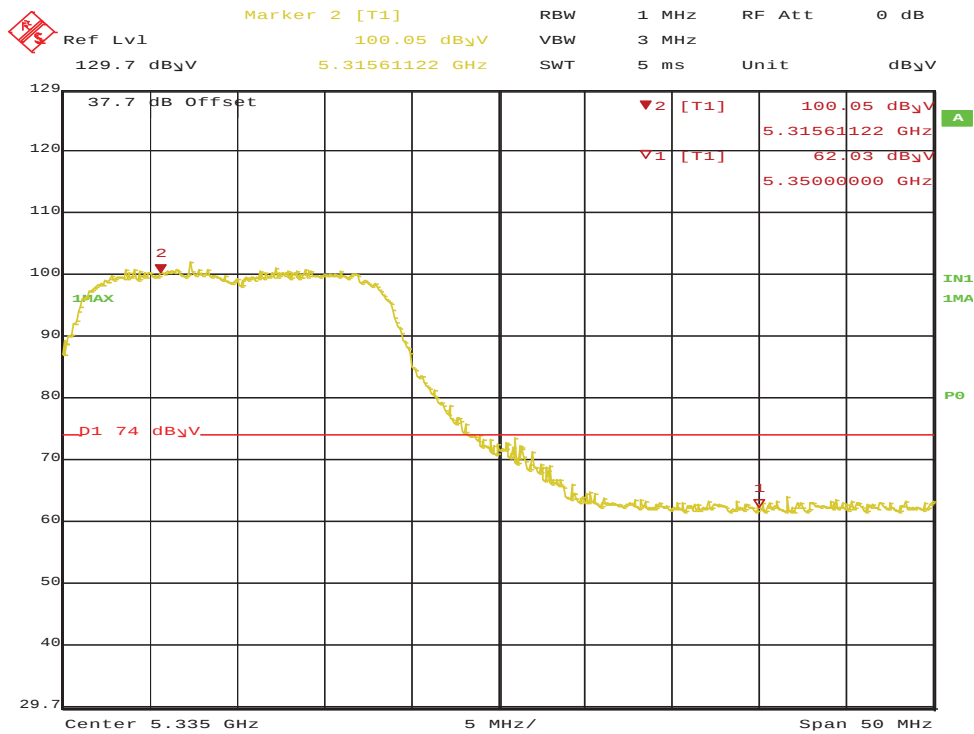
Figure 140: Radiated Emission 5350.0 MHz Edge for 802.11a 5320 MHz – Vert. (Ave)



Date: 5 JUN. 2020 06:11:23
Figure 141: Radiated Emission 5350.0 MHz Edge for 802.11n HT20 5320 MHz – Horz. (Pk)

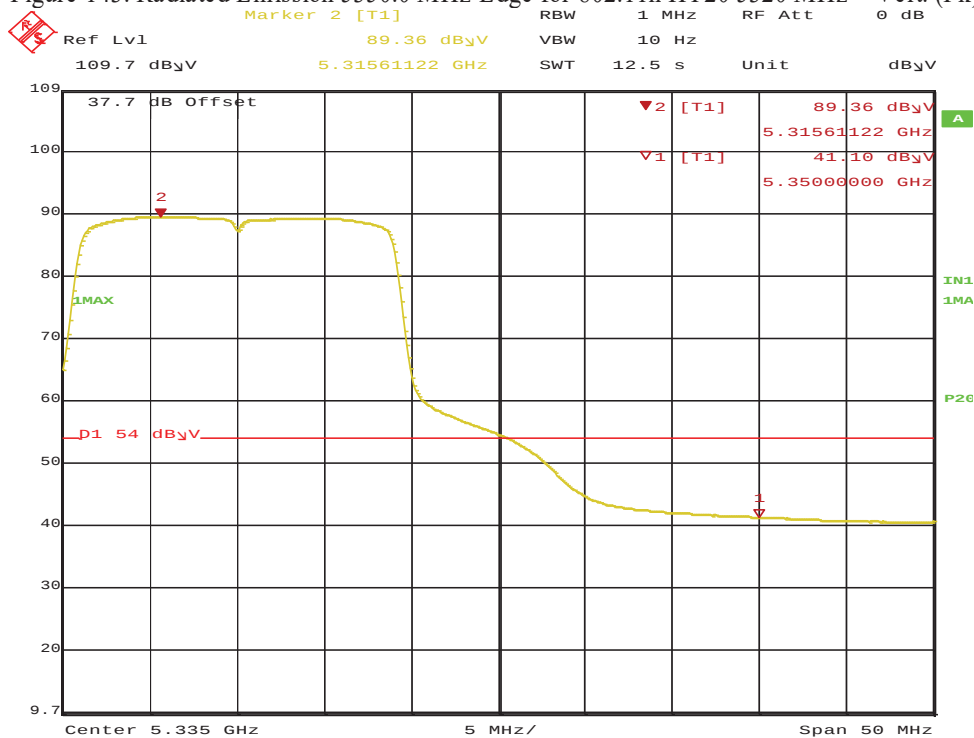


Date: 5 JUN. 2020 06:11:54
Figure 142: Radiated Emission 5350.0 MHz Edge for 802.11n HT20 5320 MHz – Horz. (Ave)



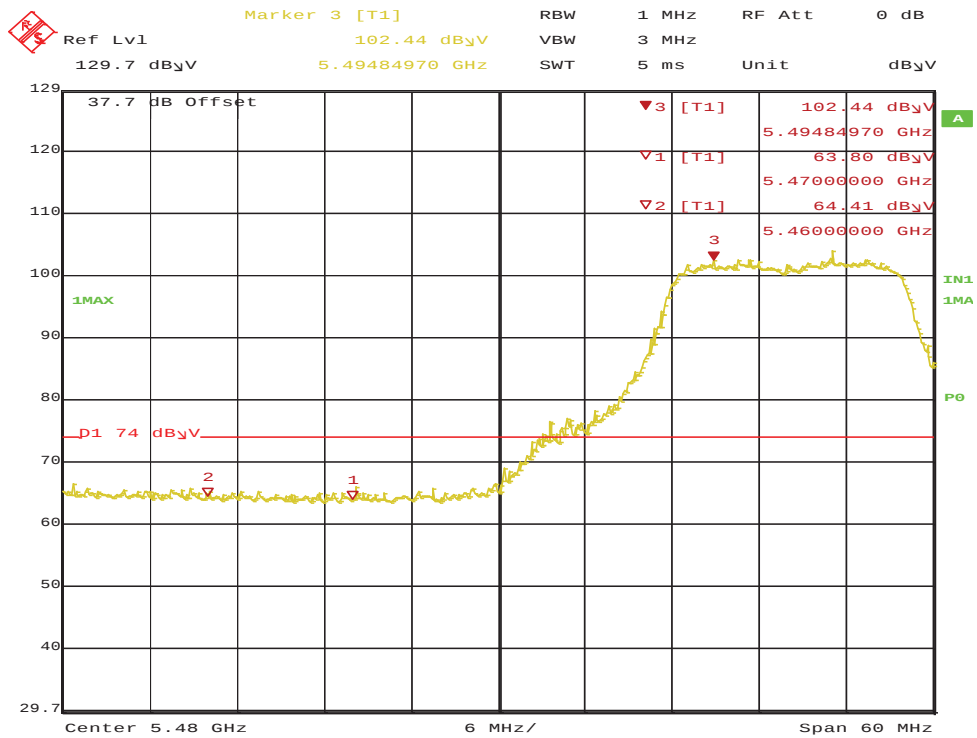
Date: 5 JUN. 2020 06:14:56

Figure 143: Radiated Emission 5350.0 MHz Edge for 802.11n HT20 5320 MHz – Vert. (Pk)



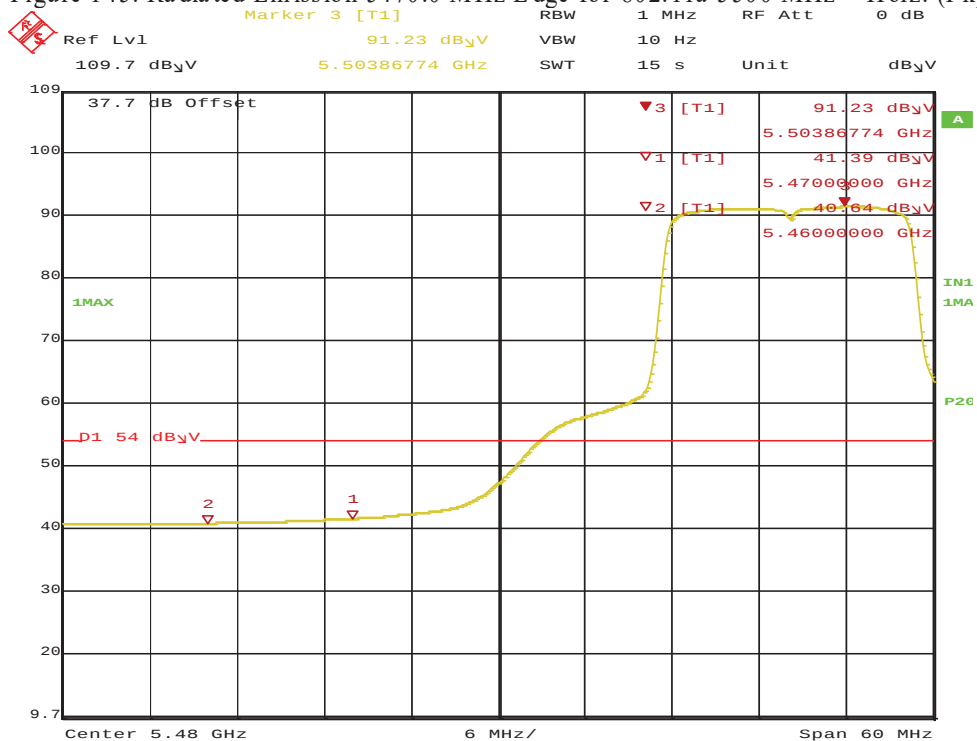
Date: 5 JUN. 2020 06:15:37

Figure 144: Radiated Emission 5350.0 MHz Edge for 802.11n HT20 5320 MHz – Vert. (Ave)



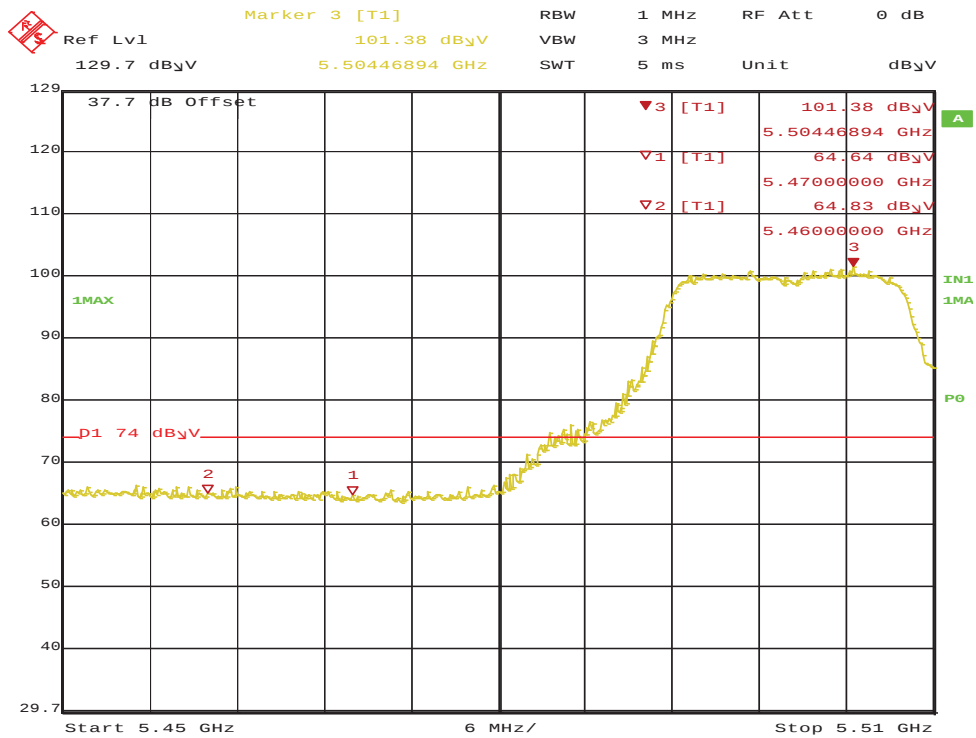
Date: 5 JUN 2020 06:23:36

Figure 145: Radiated Emission 5470.0 MHz Edge for 802.11a 5500 MHz – Horz. (Pk)



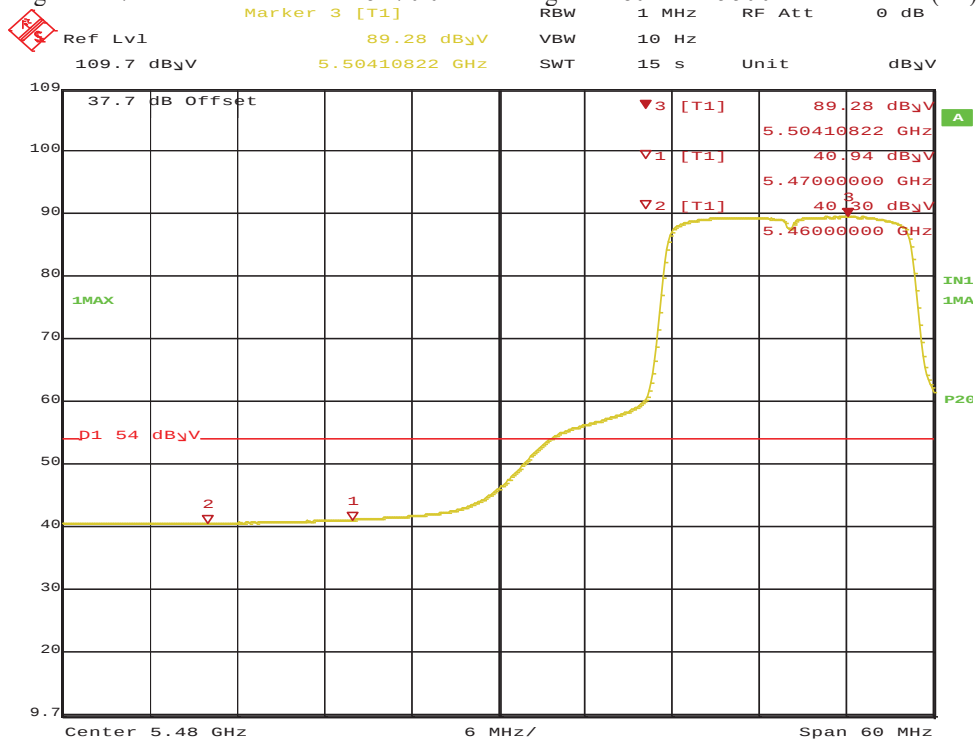
Date: 5 JUN 2020 06:24:11

Figure 146: Radiated Emission 5470.0 MHz Edge for 802.11a 5500 MHz – Horz. (Ave)



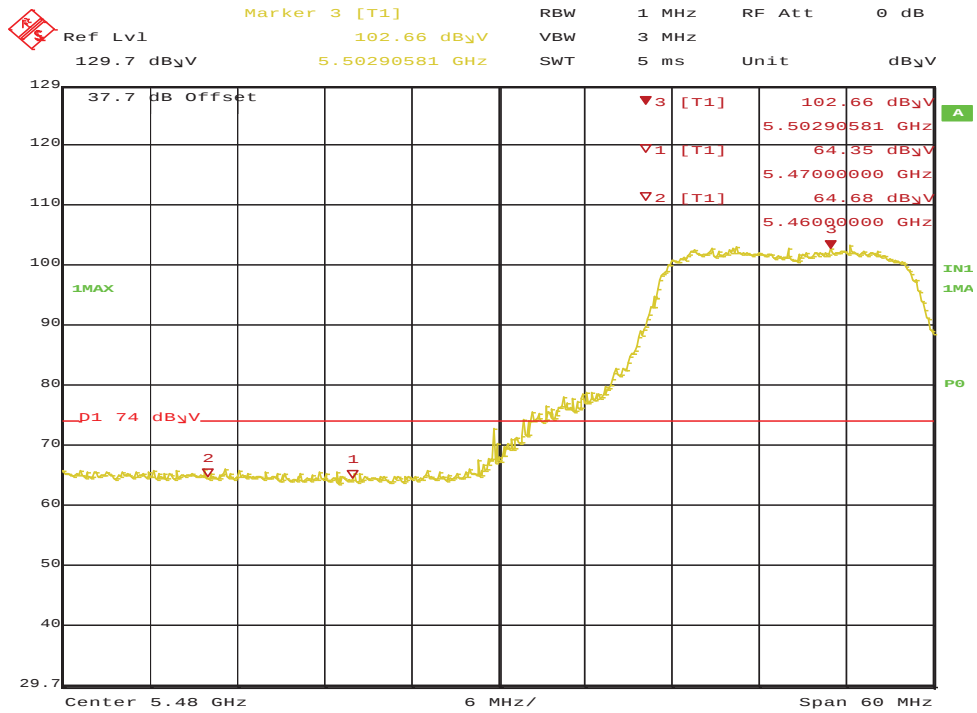
Date: 5 JUN 2020 06:20:51

Figure 147: Radiated Emission 5470.0 MHz Edge for 802.11a 5500 MHz – Vert. (Pk)



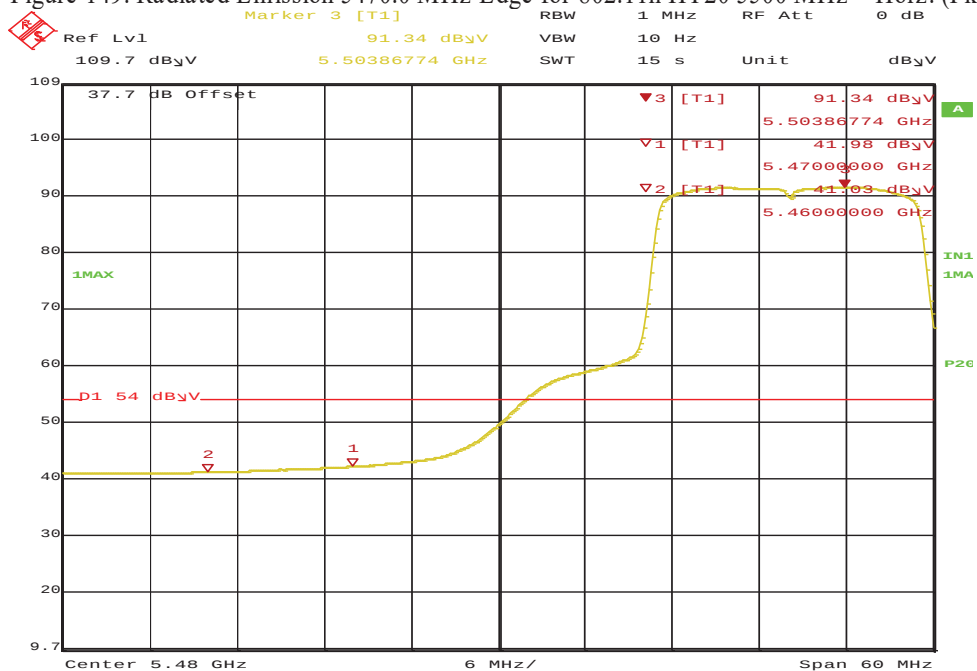
Date: 5 JUN 2020 06:21:30

Figure 148: Radiated Emission 5470.0 MHz Edge for 802.11a 5500 MHz – Vert. (Ave)



Date: 1. JAN. 1997 00:09:17

Figure 149: Radiated Emission 5470.0 MHz Edge for 802.11n HT20 5500 MHz – Horz. (Pk)



Date: 1. JAN. 1997 00:09:55

Figure 150: Radiated Emission 5470.0 MHz Edge for 802.11n HT20 5500 MHz – Horz. (Ave)

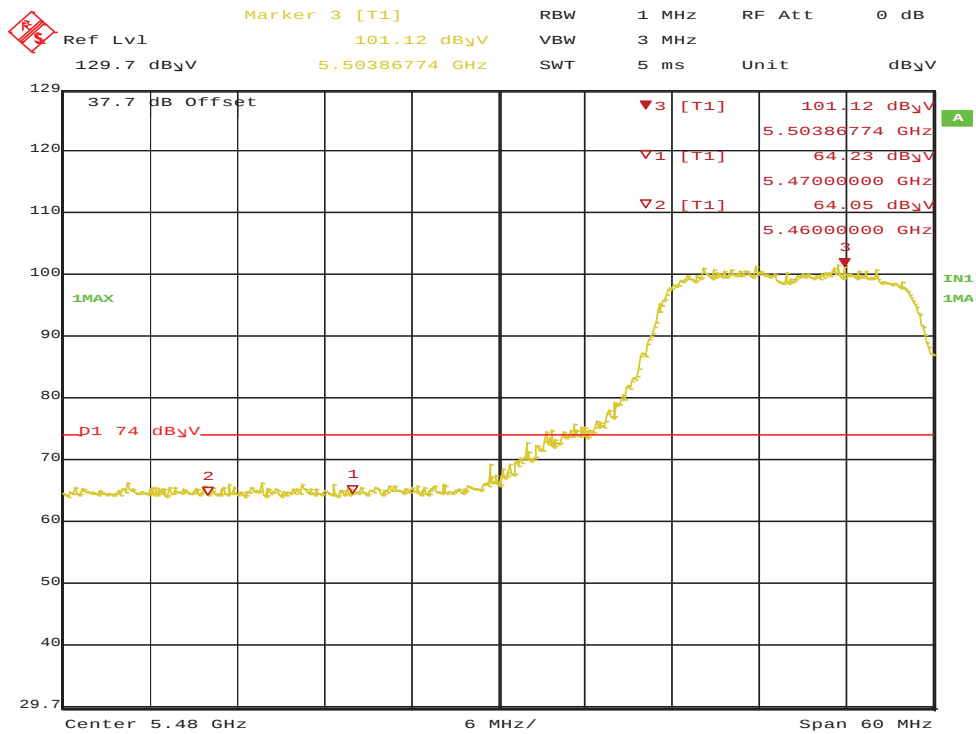


Figure 151: Radiated Emission 5470.0 MHz Edge for 802.11n HT20 5500 MHz – Vert. (Pk)

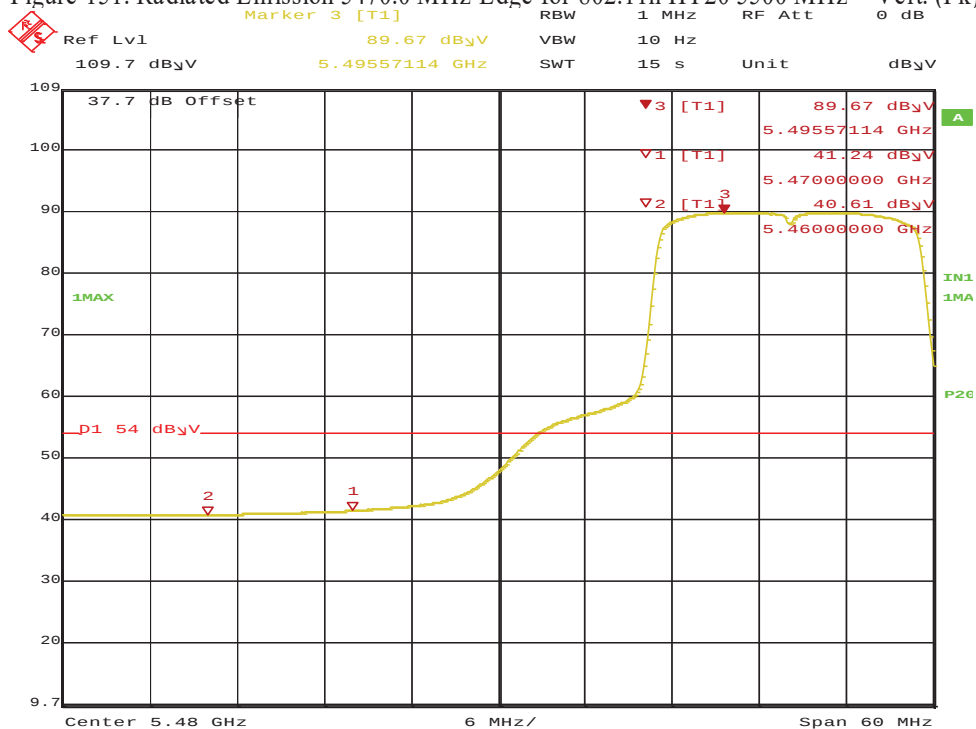
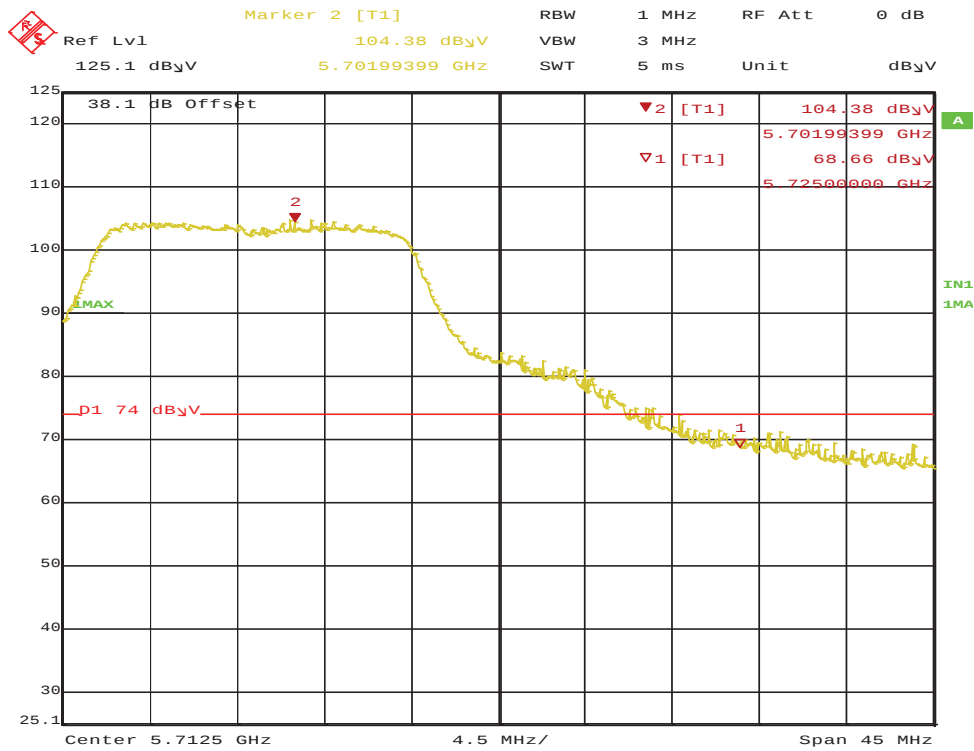
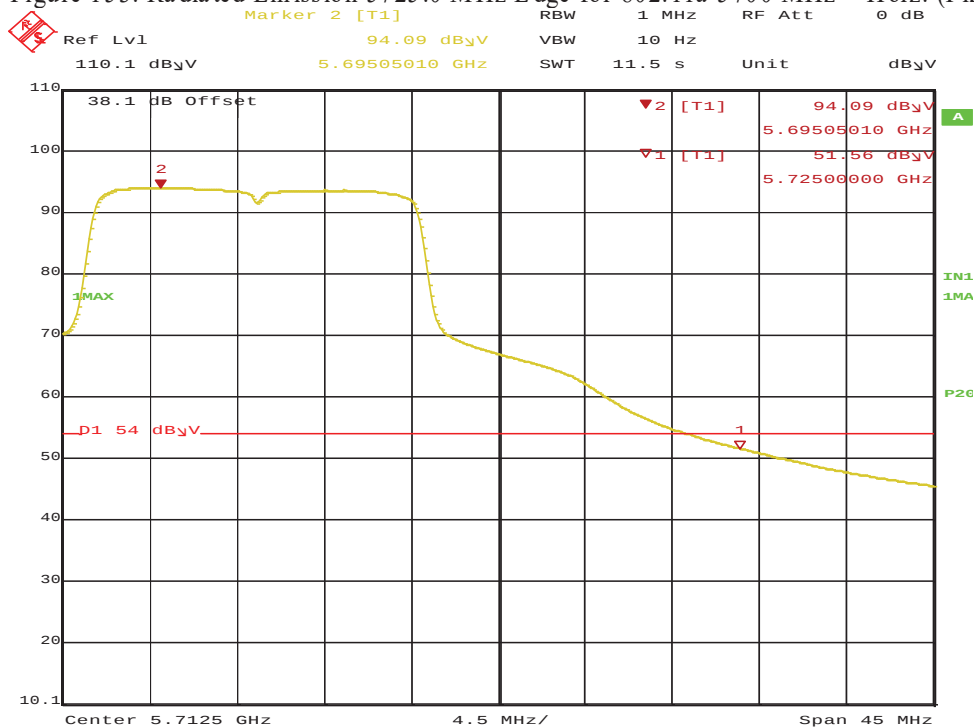


Figure 152: Radiated Emission 5470.0 MHz Edge for 802.11n HT20 5500 MHz – Vert. (Ave)



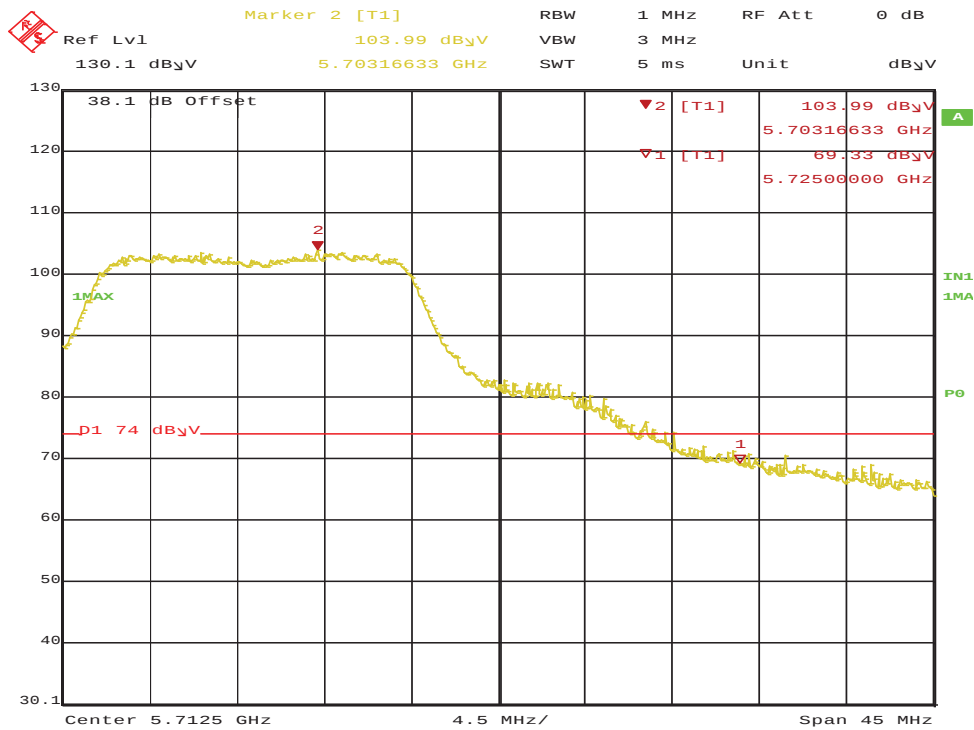
Date: 31.DEC.1996 23:52:24

Figure 153: Radiated Emission 5725.0 MHz Edge for 802.11a 5700 MHz – Horz. (Pk)



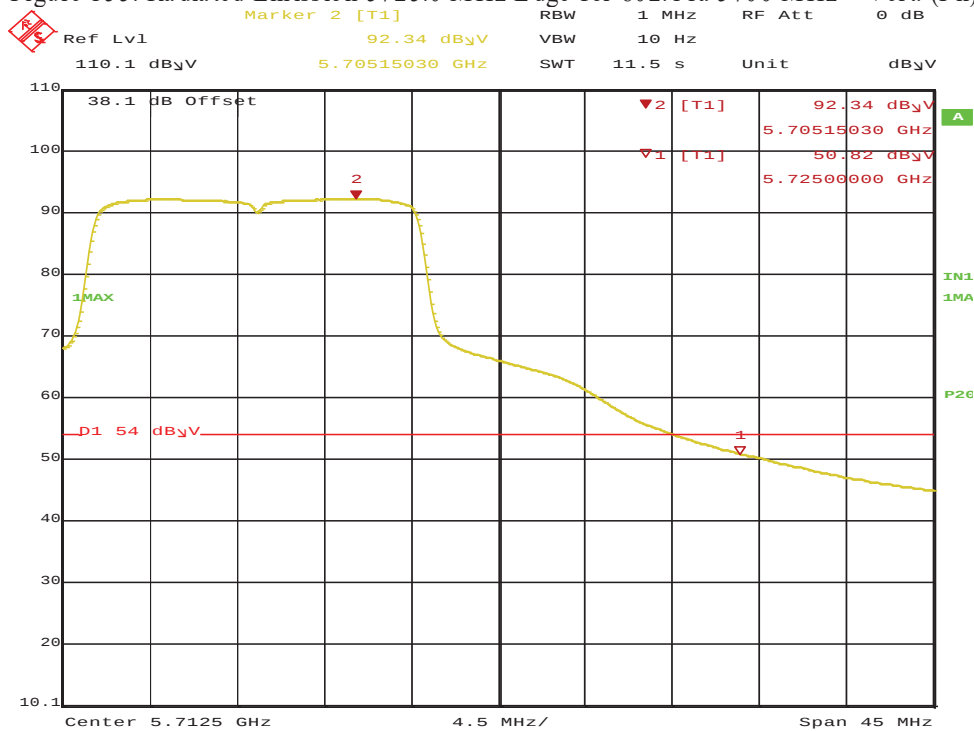
Date: 31.DEC.1996 23:53:25

Figure 154: Radiated Emission 5725.0 MHz Edge for 802.11a 5700 MHz – Horz. (Ave)



Date: 31.DEC.1996 23:56:42

Figure 155: Radiated Emission 5725.0 MHz Edge for 802.11a 5700 MHz – Vert. (Pk)



Date: 31.DEC.1996 23:57:47

Figure 156: Radiated Emission 5725.0 MHz Edge for 802.11a 5700 MHz – Vert. (Ave)

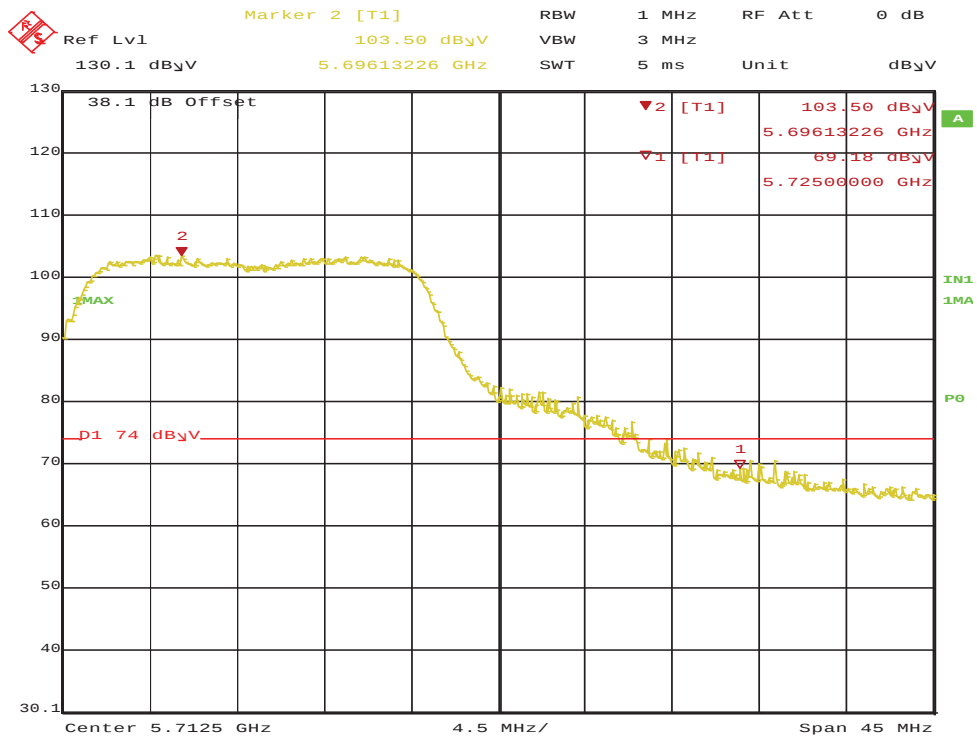


Figure 157: Radiated Emission 5725.0 MHz Edge for 802.11n HT20 5700 MHz – Horz. (Pk)

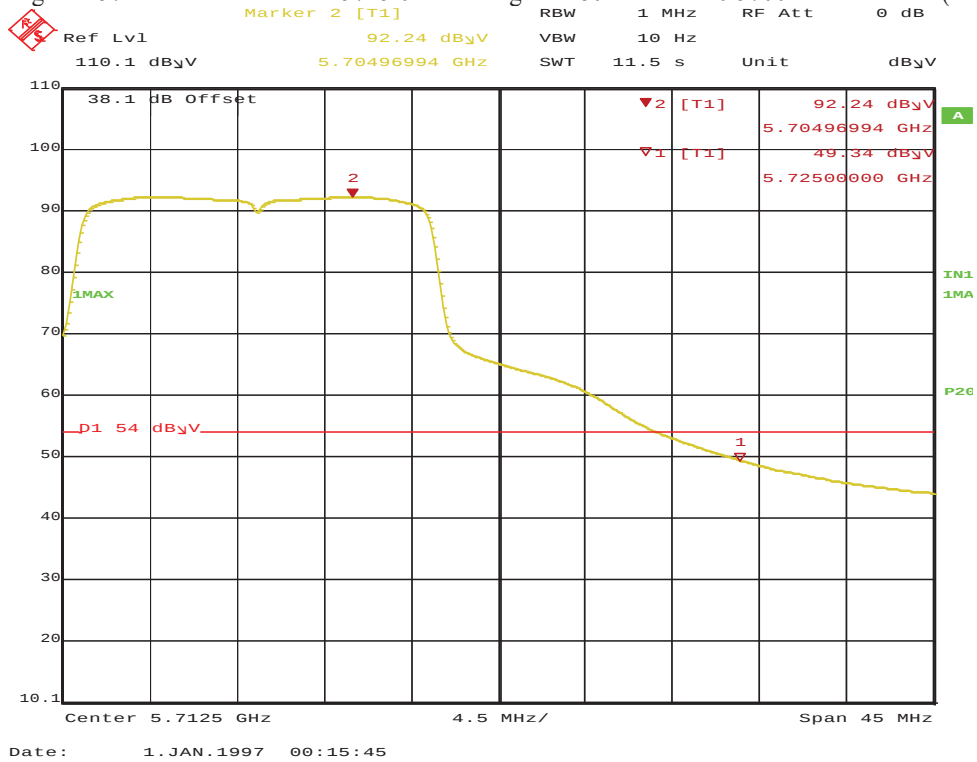
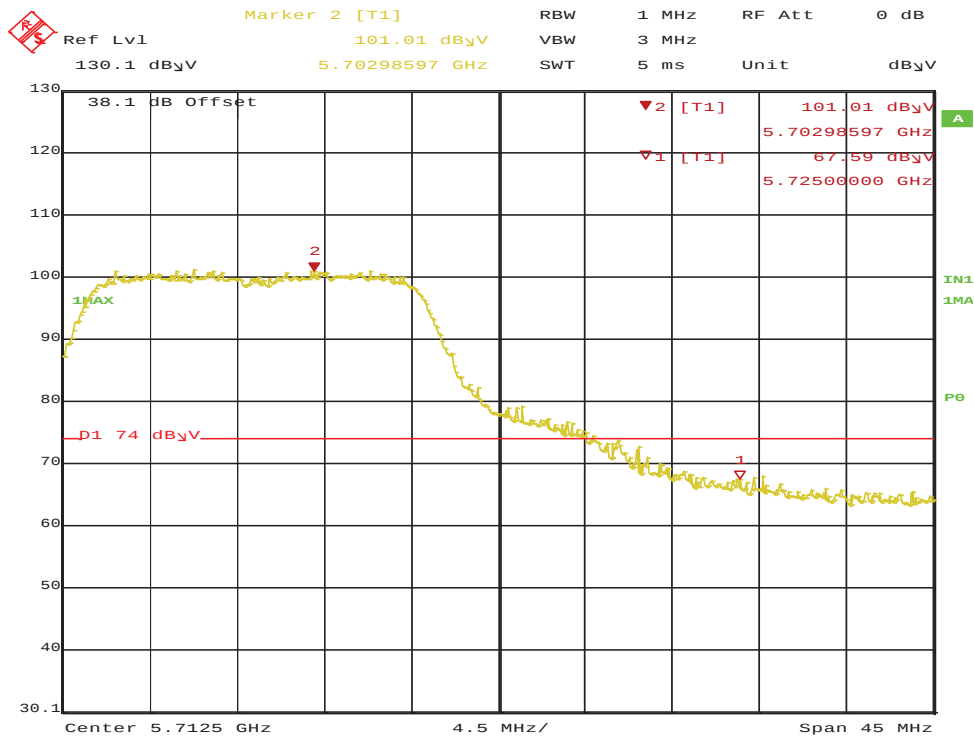
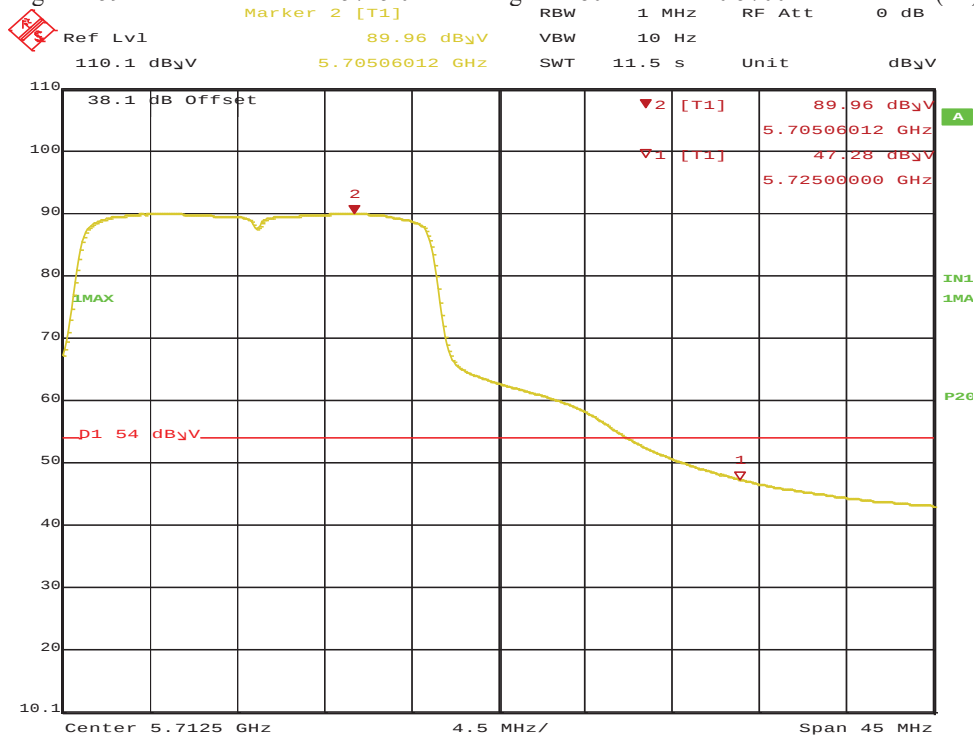


Figure 158: Radiated Emission 5725.0 MHz Edge for 802.11n HT20 5700 MHz – Horz. (Ave)



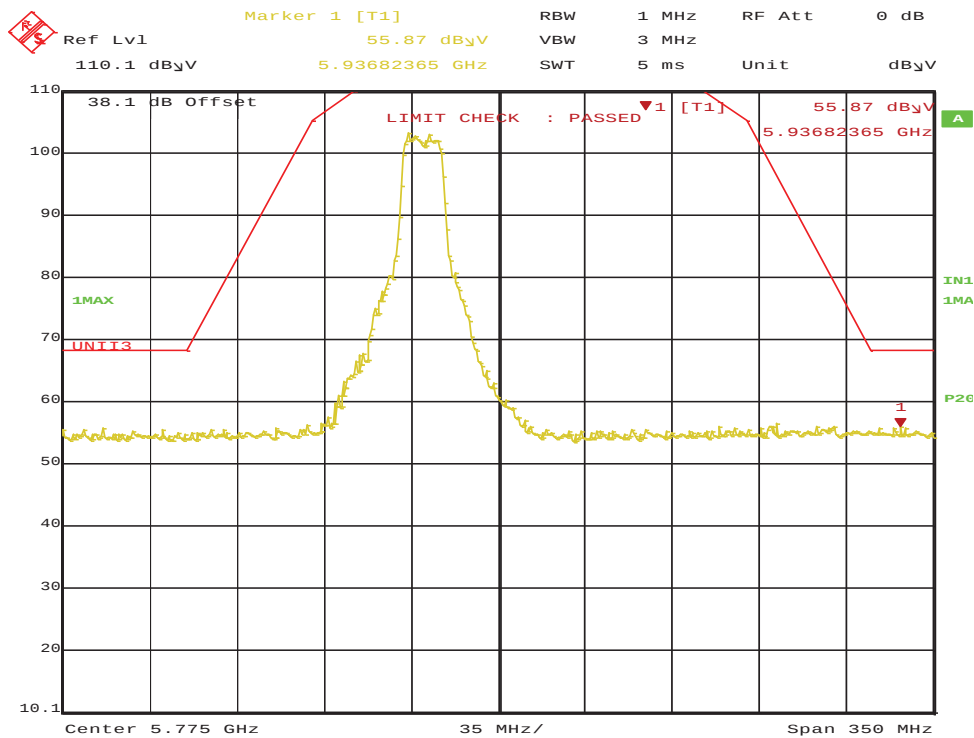
Date: 1.JAN.1997 00:20:44

Figure 159: Radiated Emission 5725.0 MHz Edge for 802.11n HT20 5700 MHz – Vert. (Pk)



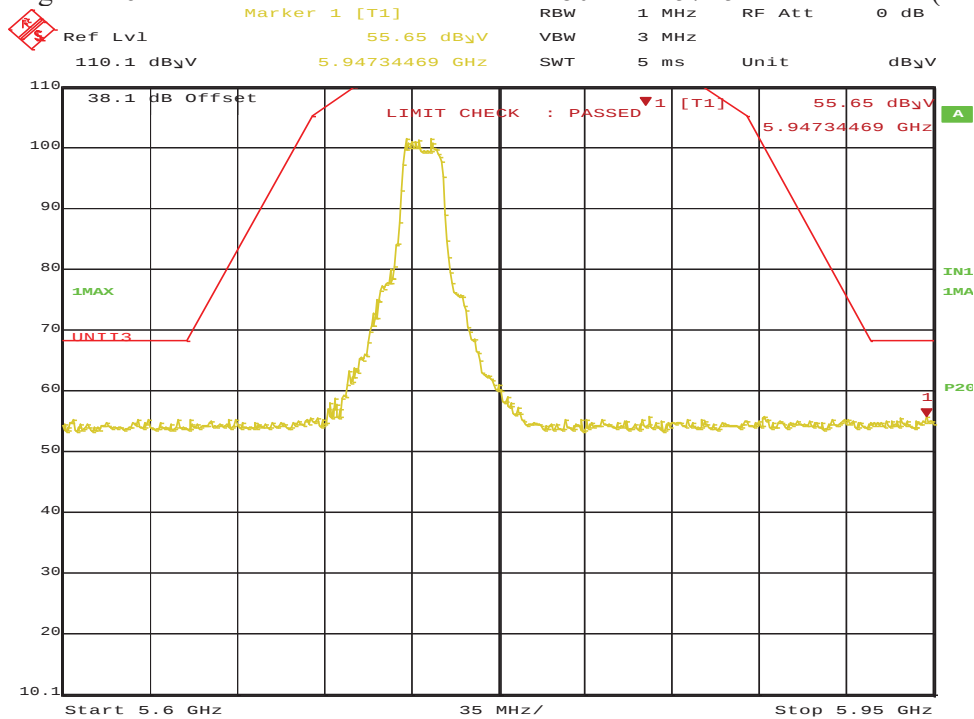
Date: 1.JAN.1997 00:21:16

Figure 160: Radiated Emission 5725.0 MHz Edge for 802.11n HT20 5700 MHz – Vert. (Ave)



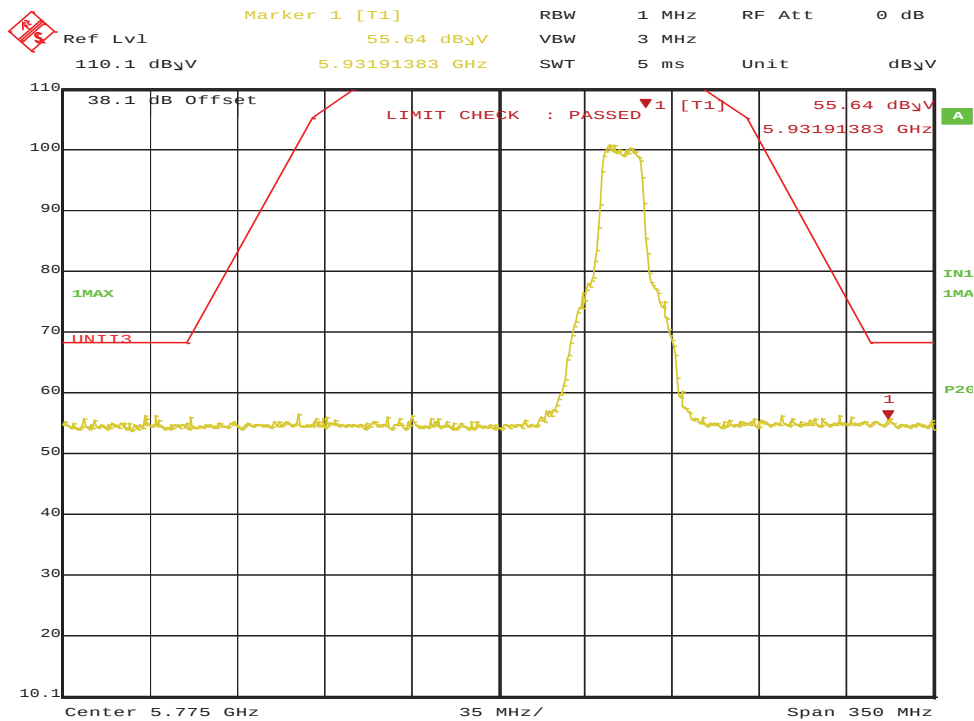
Date: 1. JAN. 1997 00:49:58

Figure 161: Radiated Emission Mask for 802.11a 5745 MHz – Horz. (Pk)



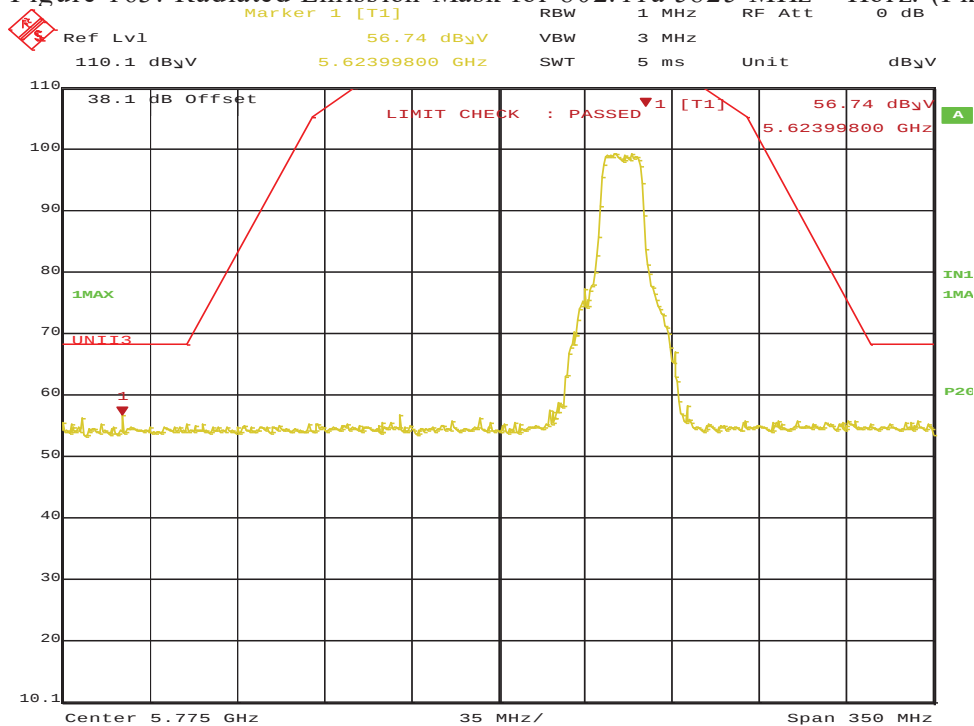
Date: 1. JAN. 1997 00:47:27

Figure 162: Radiated Emission Mask for 802.11a 5745 MHz – Vert. (Pk)



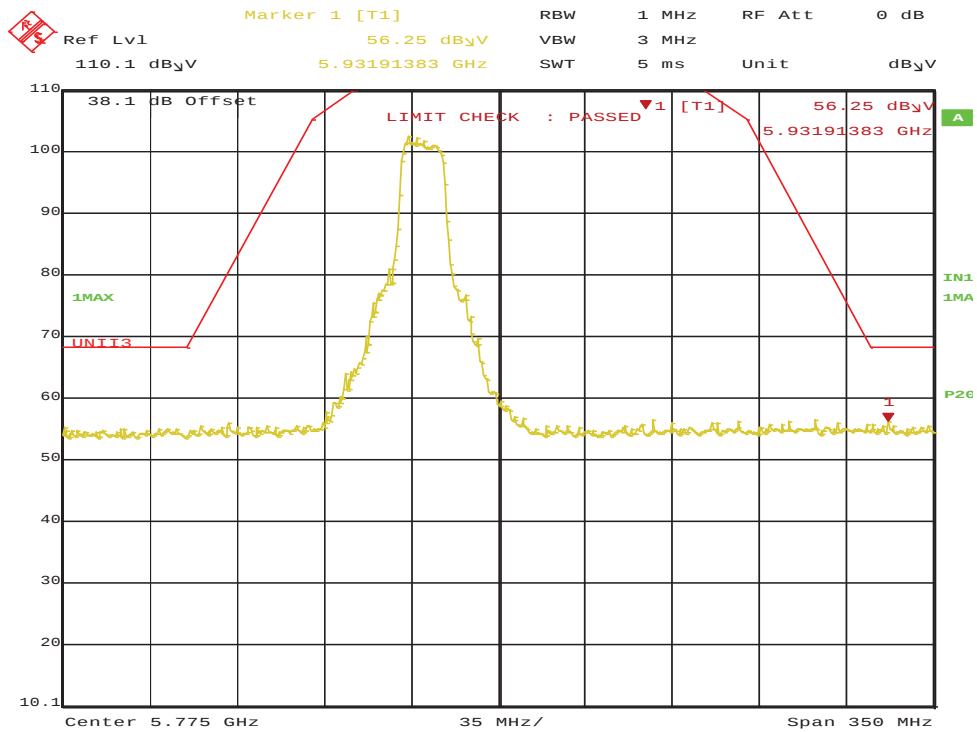
Date: 1.JAN.1997 00:54:44

Figure 163: Radiated Emission Mask for 802.11a 5825 MHz – Horz. (Pk)



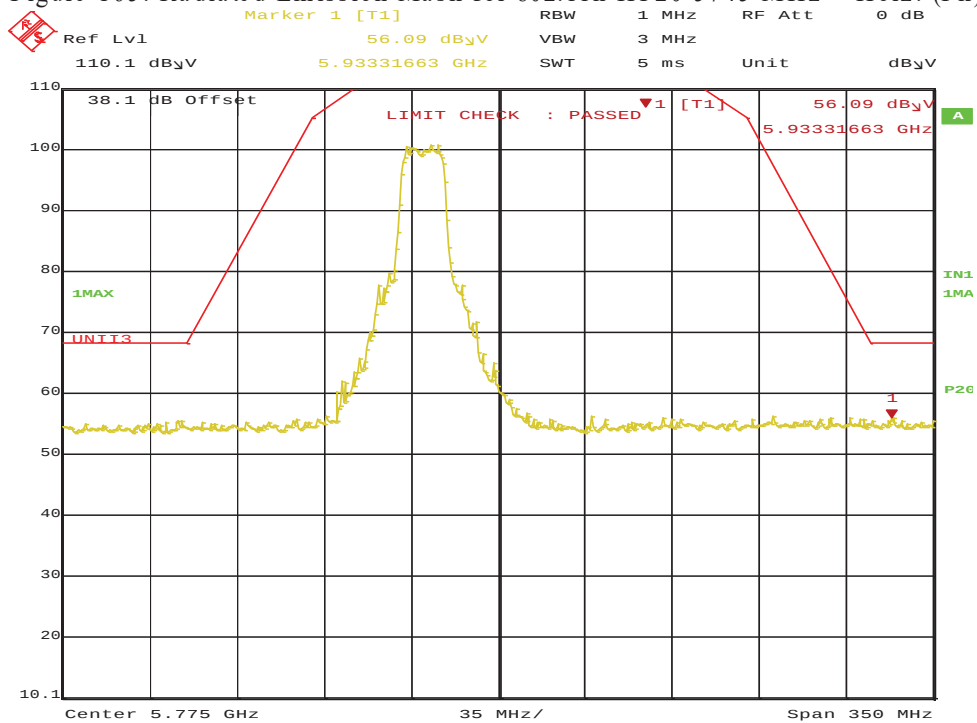
Date: 1.JAN.1997 00:56:56

Figure 164: Radiated Emission Mask for 802.11a 5825 MHz – Vert. (Pk)



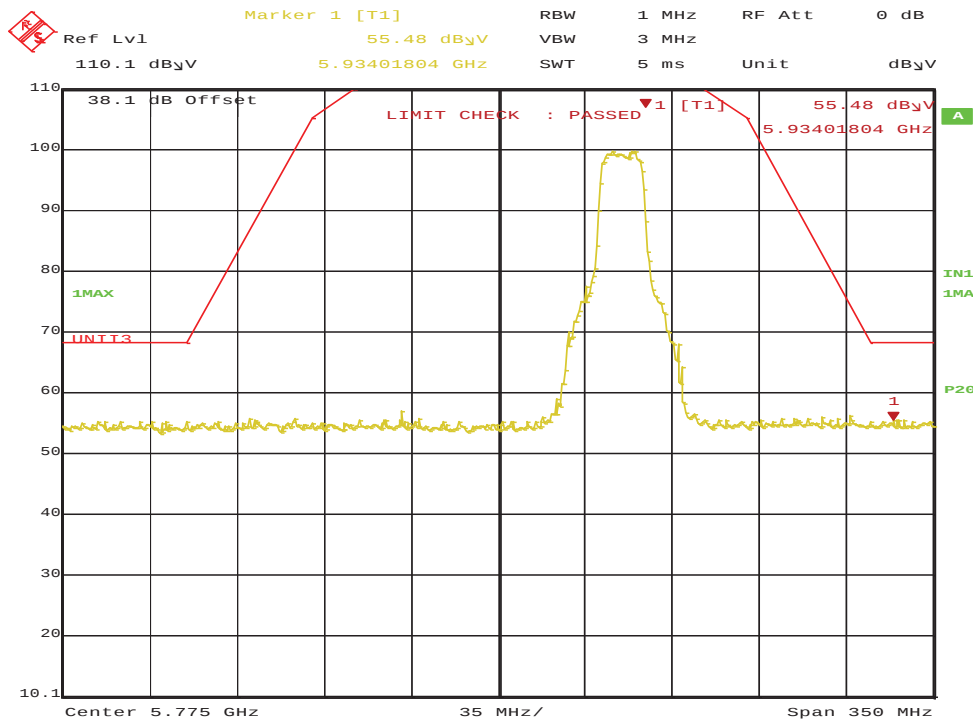
Date: 1.JAN.1997 01:05:24

Figure 165: Radiated Emission Mask for 802.11n HT20 5745 MHz – Horiz. (Pk)



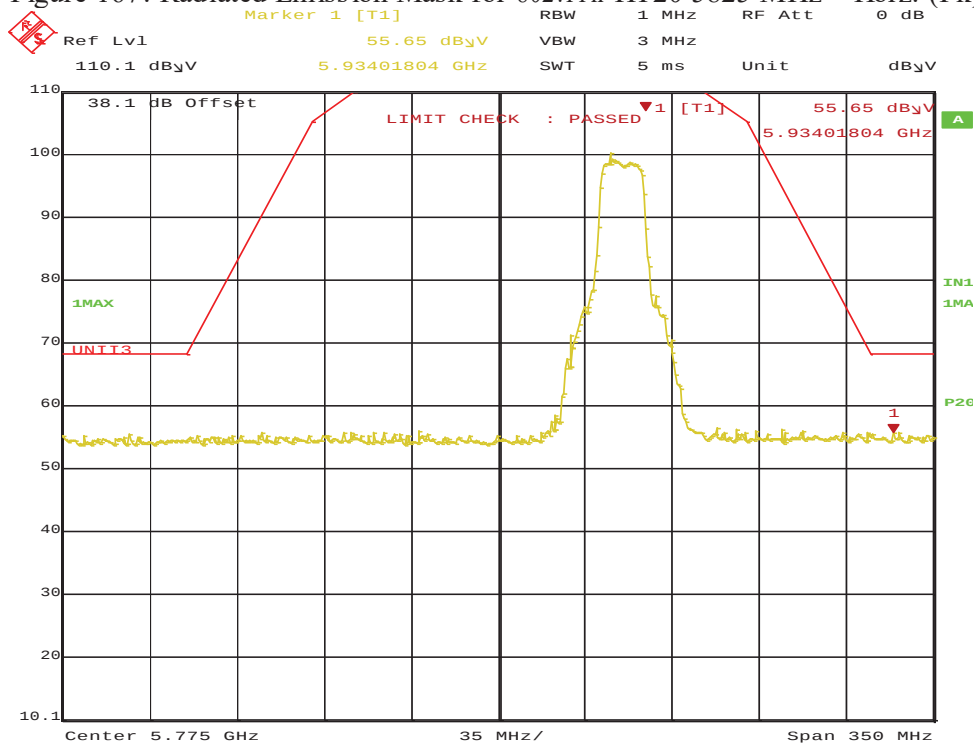
Date: 1.JAN.1997 01:03:18

Figure 166: Radiated Emission Mask for 802.11n HT20 5745 MHz – Vert. (Pk)



Date: 1. JAN. 1997 01:10:37

Figure 167: Radiated Emission Mask for 802.11n HT20 5825 MHz – Horz. (Pk)



Date: 1. JAN. 1997 01:13:33

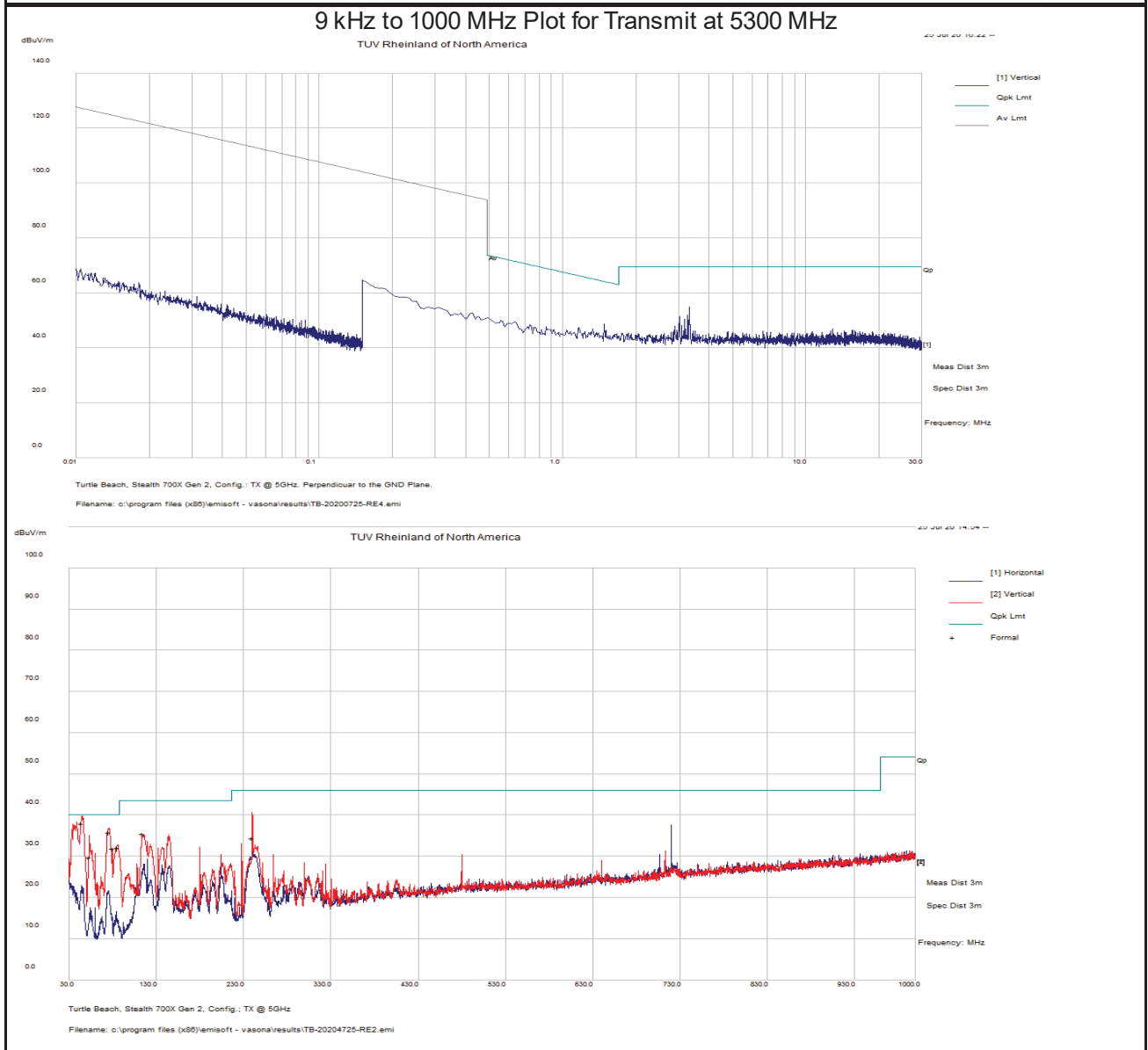
Figure 168: Radiated Emission Mask for 802.11n HT20 5825 MHz – Vert. (Pk)

SOP 1 Radiated Emissions						Tracking # 32063007.001 Page 1 of 44				
EUT Name		Wireless Audio Headset				Date		July 25, 2020		
EUT Model		Stealth 700X Gen 2				Temp / Hum in		23° C / 38%rh		
EUT Serial		PP #2				Temp / Hum out		N/A		
EUT Config.		Headset upright in 802.11a mode at 6 Mbps				Line AC / Freq		3.7Vdc		
Standard		CFR47 Part 15 Subpart C, RSS-247, RSS-GEN				RBW / VBW		Per ANSI C63.10		
Dist/Ant Used		3m / JB3 & 6505				Performed by		Jeremy Luong		
9 kHz – 1 GHz Transmit at 5300 MHz										
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB
44.81	52.70	2.60	-17.30	38.00	QP	V	109	236	40.00	-2.00
53.71	47.63	2.65	-20.56	29.72	QP	V	102	355	40.00	-10.28
75.57	53.09	2.77	-20.04	35.82	QP	V	132	180	40.00	-4.18
80.01	49.53	2.78	-20.38	31.93	QP	V	110	1	40.00	-8.07
85.55	49.94	2.81	-20.67	32.08	QP	V	112	0	40.00	-7.92
115.18	47.22	2.95	-14.72	35.45	QP	V	104	256	43.50	-8.05
240.02	46.92	3.43	-15.92	34.43	QP	V	262	172	46.00	-11.57
Spec Margin = E-Field QP - Limit, E-Field QP = FIM QP+ Total CF ± Uncertainty										
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp										
Note: 1. Modes tested are 802.11a and 802.11n HT20, (low ,mid & high channels).										
2. Worst case emission was observed using 802.11a at 6 Mbps, 5300 MHz with 20 MHz channel BW.										
3. No significant emission was observed below 30 MHz										

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 25, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	23° C / 38%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	Per ANSI C63.10
Dist/Ant Used	3m / JB3 & 6505	Date	Jeremy Luong



Notes: None.

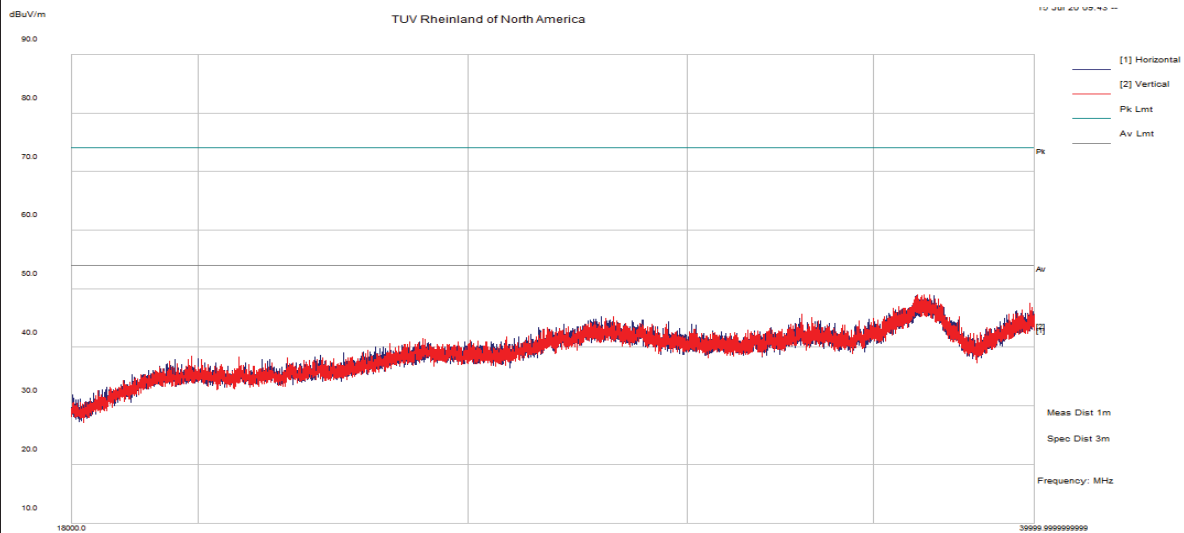
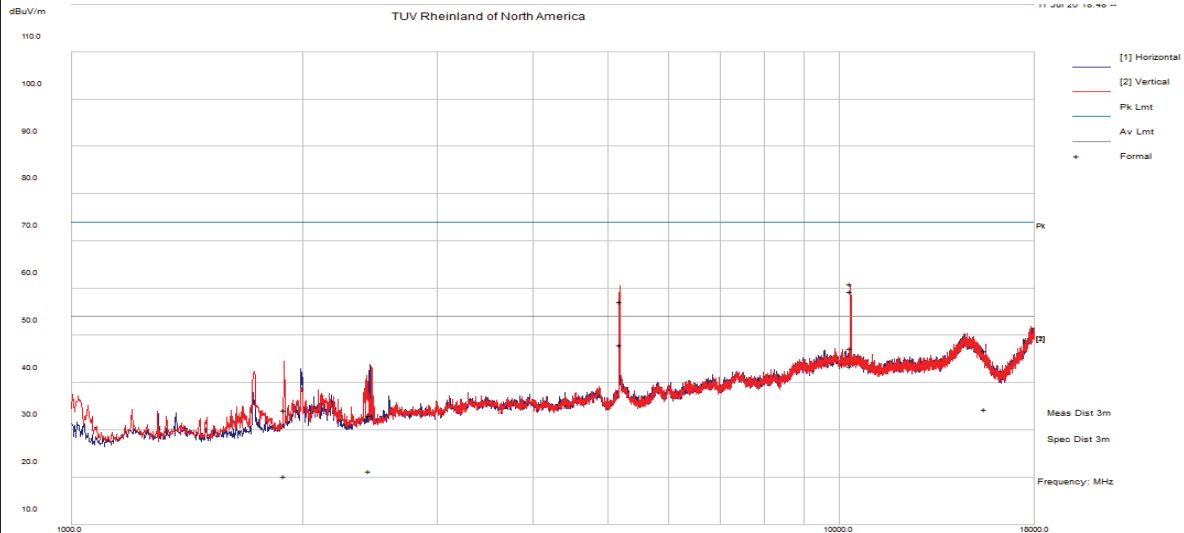
SOP 1 Radiated Emissions						Tracking # 32063007.001 Page 3 of 44				
EUT Name	Wireless Audio Headset					Date	July 11, 2020			
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 36%rh			
EUT Serial	PP#2					Temp / Hum out	N/A			
EUT Config.	Headset upright in 802.11a mode at 6 Mbps					Line AC / Freq	3.7Vdc			
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz			
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong			
1 – 40 GHz Transmit at 5180 MHz (Low Channel)										
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB
2447.20	60.86	1.14	-28.80	33.20	Pk	H	217	23	74.00	-40.80
2447.20	48.92	1.14	-28.80	21.26	Ave	H	217	23	54.00	-32.74
15533.56	58.78	3.82	-15.85	46.75	Pk	H	191	24	74.00	-27.25
15533.56	46.49	3.82	-15.85	34.46	Ave	H	191	24	54.00	-19.54
1894.10	62.79	1.13	-29.74	34.19	Pk	V	251	172	74.00	-39.81
1894.10	48.86	1.13	-29.74	20.25	Ave	V	251	172	54.00	-33.75
5186.17	77.55	1.89	-22.31	57.12	Pk	V	176	272	74.00	-16.88
5186.17	68.50	1.89	-22.31	48.07	Ave	V	176	272	54.00	-5.93
10362.55	74.22	2.77	-16.05	60.94	Pk	V	175	36	74.00	-13.06
10362.55	60.57	2.77	-16.05	47.29	Ave	V	175	36	54.00	-6.71
10370.21	72.46	2.80	-16.04	59.22	Pk	V	214	37	74.00	-14.78
10370.21	56.86	2.80	-16.04	43.62	Ave	V	214	37	54.00	-10.38
1 – 40 GHz Transmit at 5200 MHz (Middle Channel)										
5203.03	80.75	1.85	-22.29	60.31	Pk	H	138	116	74.00	-13.69
5203.03	70.88	1.85	-22.29	50.44	Ave	H	138	116	54.00	-3.57
10409.17	70.33	2.94	-16.12	57.15	Pk	H	262	296	74.00	-16.85
10409.17	56.33	2.94	-16.12	43.16	Ave	H	262	296	54.00	-10.84
1739.55	74.86	0.92	-30.75	45.04	Pk	V	209	0	74.00	-28.96
1739.55	64.55	0.92	-30.75	34.73	Ave	V	209	0	54.00	-19.27
10398.95	73.59	2.90	-16.08	60.41	Pk	V	157	38	74.00	-13.59
10398.95	60.38	2.90	-16.08	47.20	Ave	V	157	38	54.00	-6.80
1 – 40 GHz Transmit at 5240 MHz (High Channel)										
1750.21	76.75	0.92	-30.63	47.04	Pk	V	110	0	74.00	-26.96
1750.21	66.09	0.92	-30.63	36.38	Ave	V	110	0	54.00	-17.63
5235.64	80.19	1.93	-22.28	59.83	Pk	V	188	262	74.00	-14.17
5235.64	70.48	1.93	-22.28	50.13	Ave	V	188	262	54.00	-3.87
10480.78	74.37	2.93	-16.24	61.06	Pk	V	184	344	74.00	-12.94
10480.78	60.23	2.93	-16.24	46.92	Ave	V	184	344	54.00	-7.08
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty										
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp										
Note: Worst case was observed at 6 Mbps for 802.11a mode.										
Headset intended to transmit at about +5 dBm.										

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5180 MHz



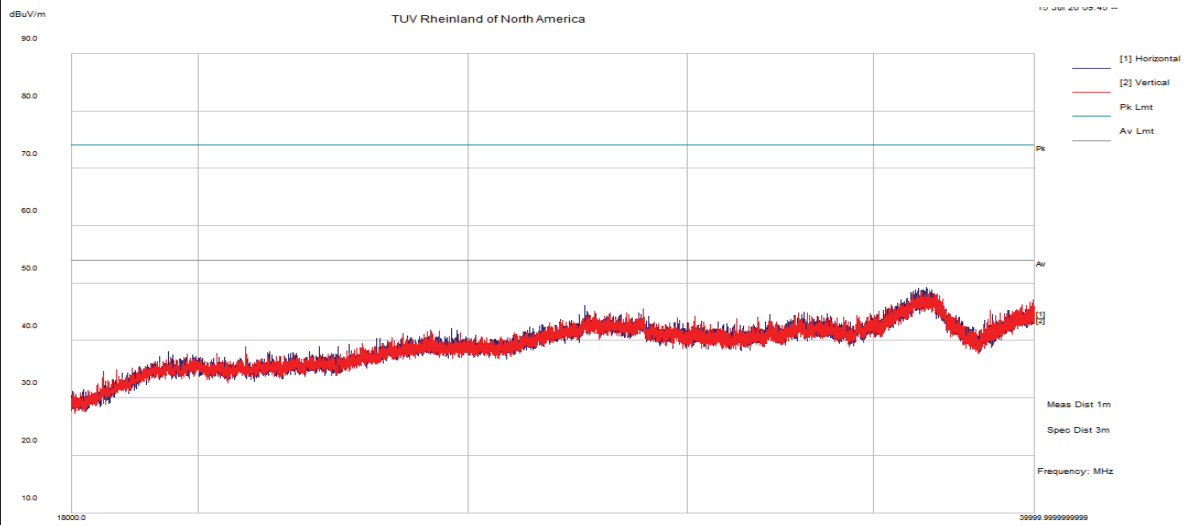
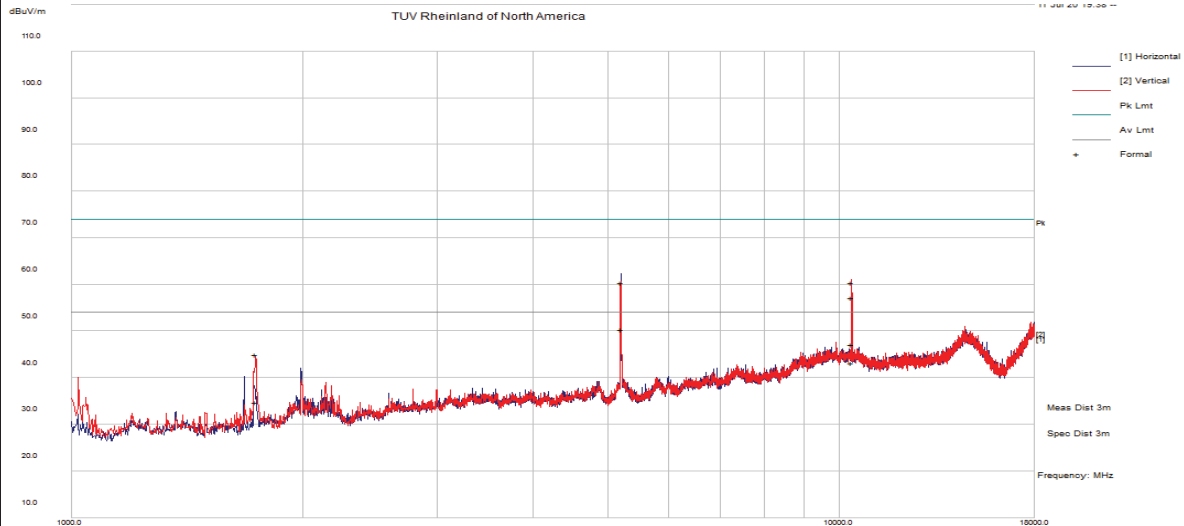
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5200 MHz



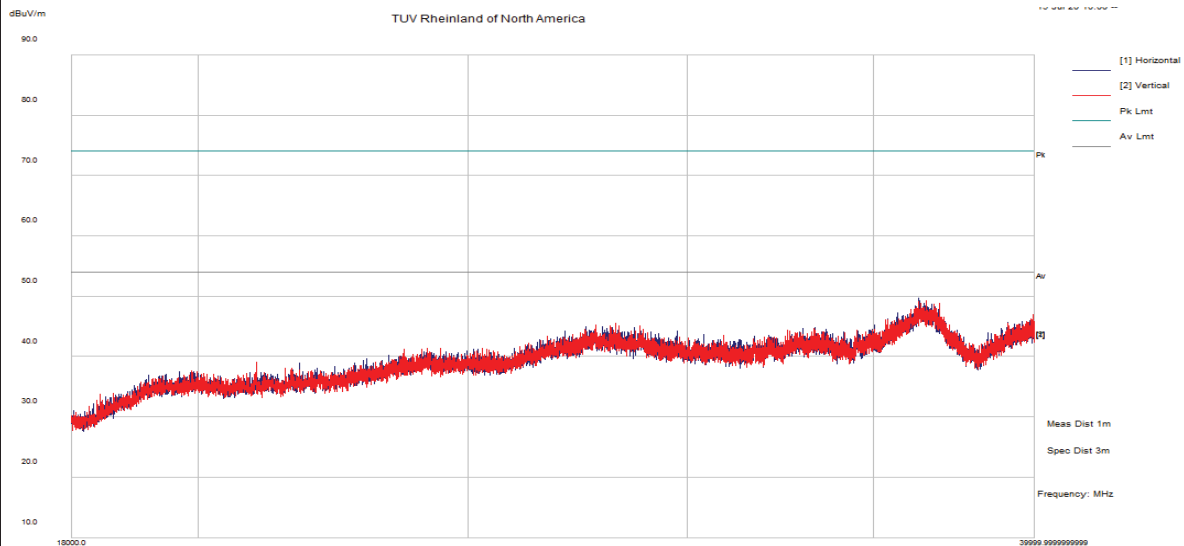
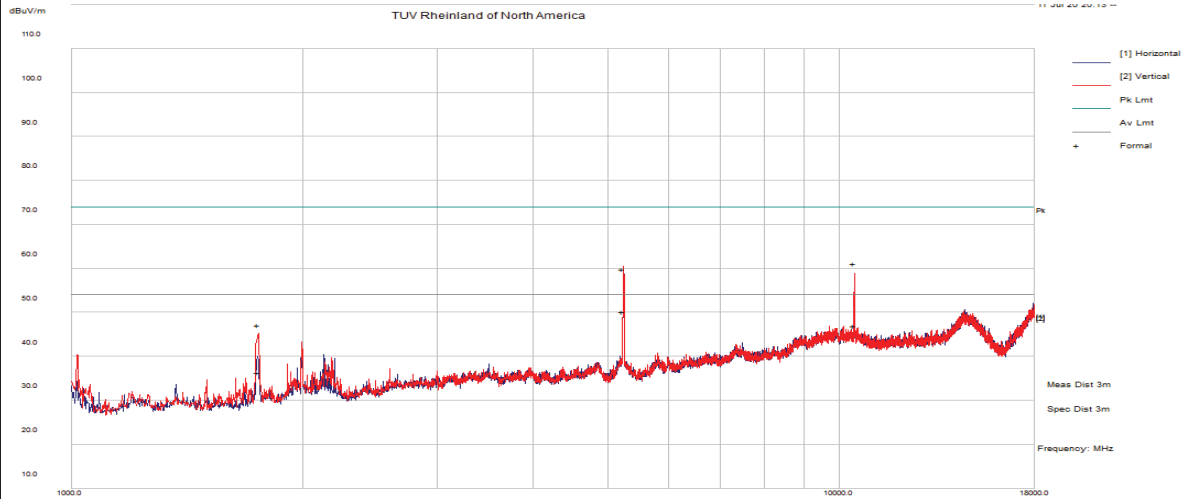
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5240 MHz



Notes: None.

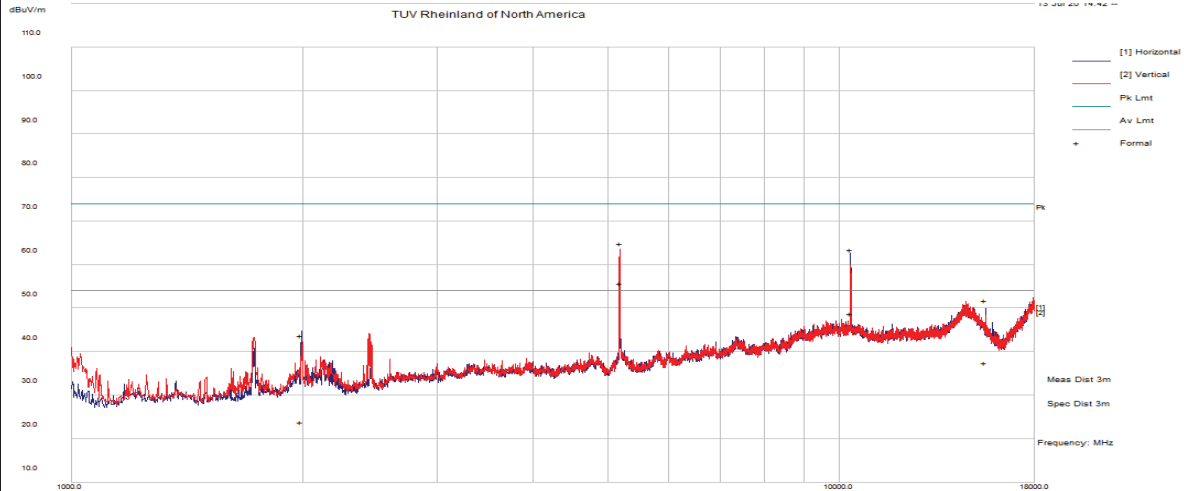
SOP 1 Radiated Emissions						Tracking # 32063007.001 Page 7 of 44					
EUT Name	Wireless Audio Headset					Date	July 13, 2020				
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 34%rh				
EUT Serial	PP#2					Temp / Hum out	N/A				
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps					Line AC / Freq	3.7Vdc				
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz				
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong				
1 – 40 GHz Transmit at 5180 MHz (Low Channel)											
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin	
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB	
1993.44	72.45	0.89	-29.57	43.77	Pk	H	264	300	74.00	-30.23	
1993.44	52.44	0.89	-29.57	23.76	Ave	H	264	300	54.00	-30.24	
10360.63	76.81	2.77	-16.05	63.52	Pk	H	266	314	74.00	-10.48	
10360.63	62.04	2.77	-16.05	48.75	Ave	H	266	314	54.00	-5.25	
15527.03	63.86	3.83	-15.83	51.86	Pk	H	145	174	74.00	-22.14	
15527.03	49.40	3.83	-15.83	37.40	Ave	H	145	174	54.00	-16.60	
1 – 40 GHz Transmit at 5200 MHz (Middle Channel)											
10413.75	73.66	2.97	-16.13	60.49	Pk	H	141	292	74.00	-13.51	
10413.75	58.10	2.97	-16.13	44.93	Ave	H	141	292	54.00	-9.07	
15601.41	62.56	3.83	-15.92	50.46	Pk	H	148	114	74.00	-23.54	
15601.41	49.71	3.83	-15.92	37.61	Ave	H	148	114	54.00	-16.39	
2437.03	61.43	1.16	-28.87	33.72	Pk	V	188	170	74.00	-40.28	
2437.03	50.42	1.16	-28.87	22.71	Ave	V	188	170	54.00	-31.29	
10403.13	76.40	2.92	-16.09	63.22	Pk	V	213	332	74.00	-10.78	
10403.13	61.58	2.92	-16.09	48.40	Ave	V	213	332	54.00	-5.60	
36627.59	46.94	10.25	-4.92	52.27	Pk	H	177	360	74.00	-21.73	
36627.59	33.90	10.20	-4.90	39.20	Ave	H	177	360	54.00	-14.80	
20313.47	41.32	7.40	-8.90	39.82	Pk	V	152	310	74.00	-34.18	
20313.47	32.80	7.40	-8.90	31.30	Ave	V	152	310	54.00	-22.70	
1 – 40 GHz Transmit at 5240 MHz (High Channel)											
10482.81	77.50	2.92	-16.25	64.17	Pk	H	142	328	74.00	-9.83	
10482.81	62.38	2.92	-16.25	49.05	Ave	H	142	328	54.00	-4.95	
2442.34	69.86	1.15	-28.83	42.18	Pk	V	151	100	74.00	-31.83	
2442.34	50.13	1.15	-28.83	22.45	Ave	V	151	100	54.00	-31.55	
10488.13	73.56	2.88	-16.26	60.18	Pk	V	196	38	74.00	-13.82	
10488.13	59.94	2.88	-16.26	46.56	Ave	V	196	38	54.00	-7.44	
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty Total CF= AF+ Cable Loss AF= Antenna factor + Preamp											
Note: Worst case emission was observed at 6.5 Mbps for 802.11n HT20 mode. Headset intended to transmit at about +5 dBm.											

SOP 1 Radiated Emissions

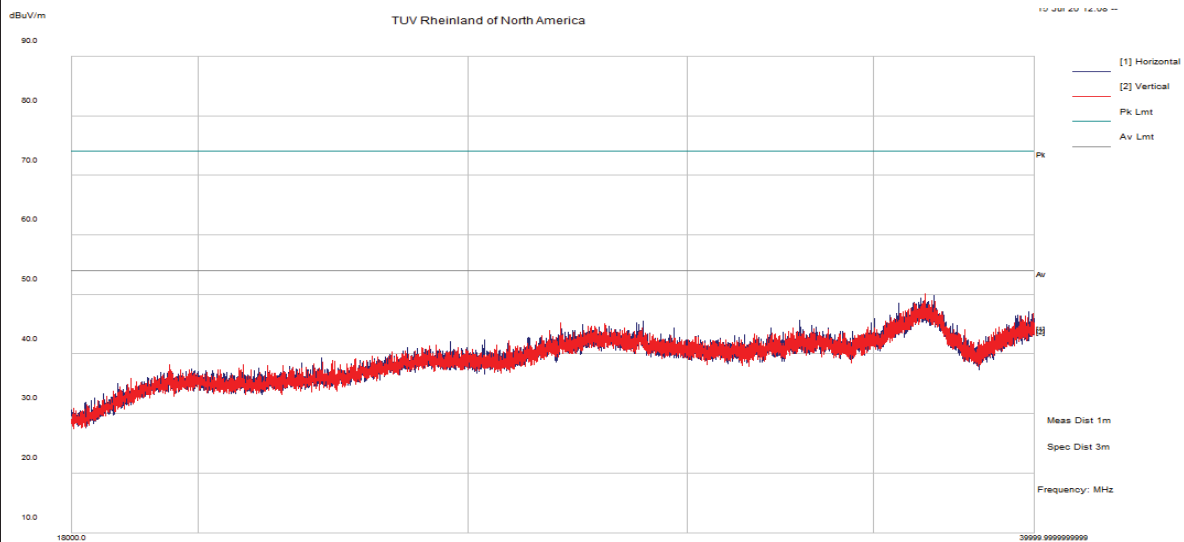
Tracking # 32063007.001 Page 8 of 44

EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5180 MHz



Turtle Beach, Stealth 700X Gen 2, Config: TX @ 5180 MHz, HT20
Filename: c:\program files (x86)\emisoft - vasona\results\TB-20200713-RE5.emi



Turtle Beach, Stealth 700X Gen 2, Config: TX @ 5180MHz, HT20
Filename: c:\program files (x86)\emisoft - vasona\results\TB-20200715-RE13.emi

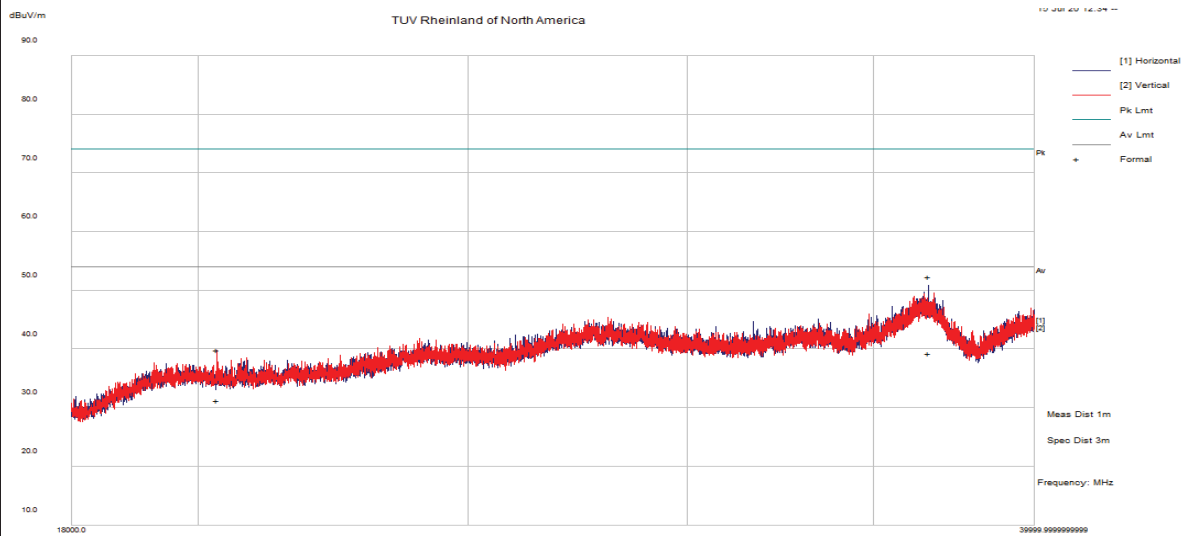
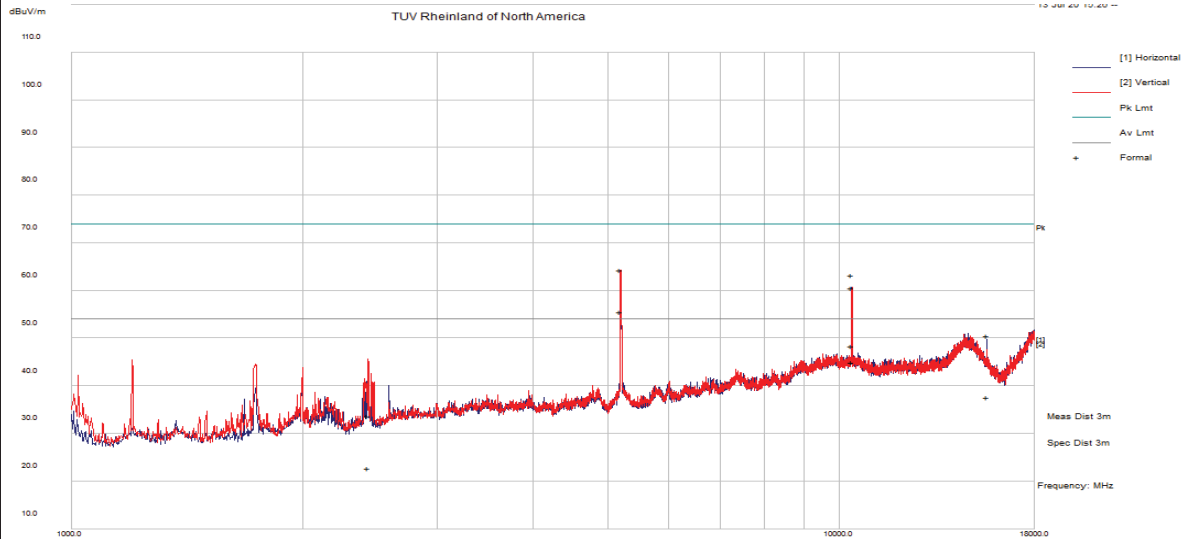
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5200 MHz



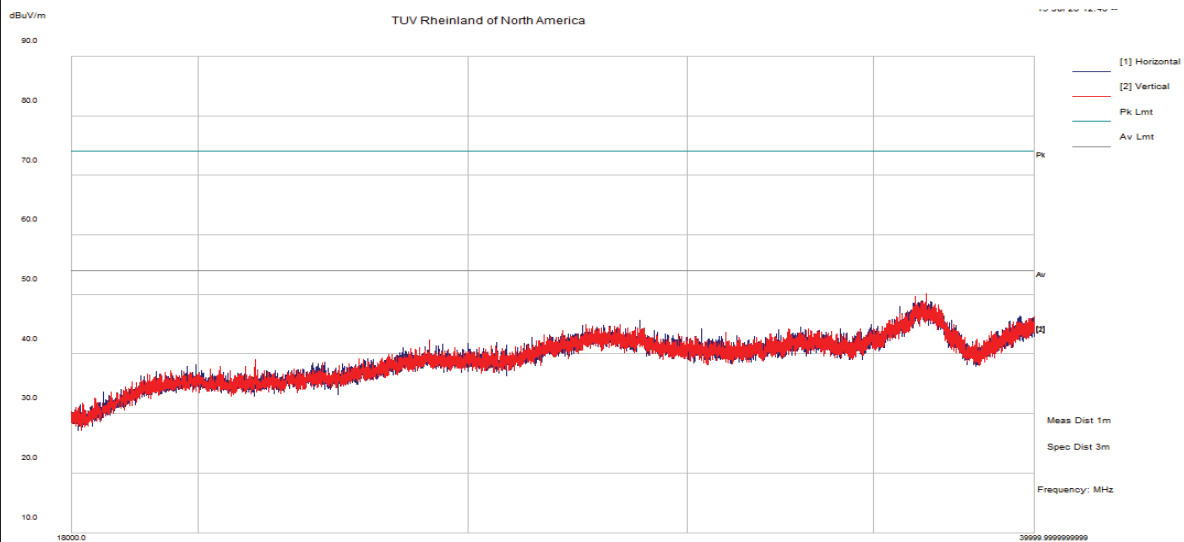
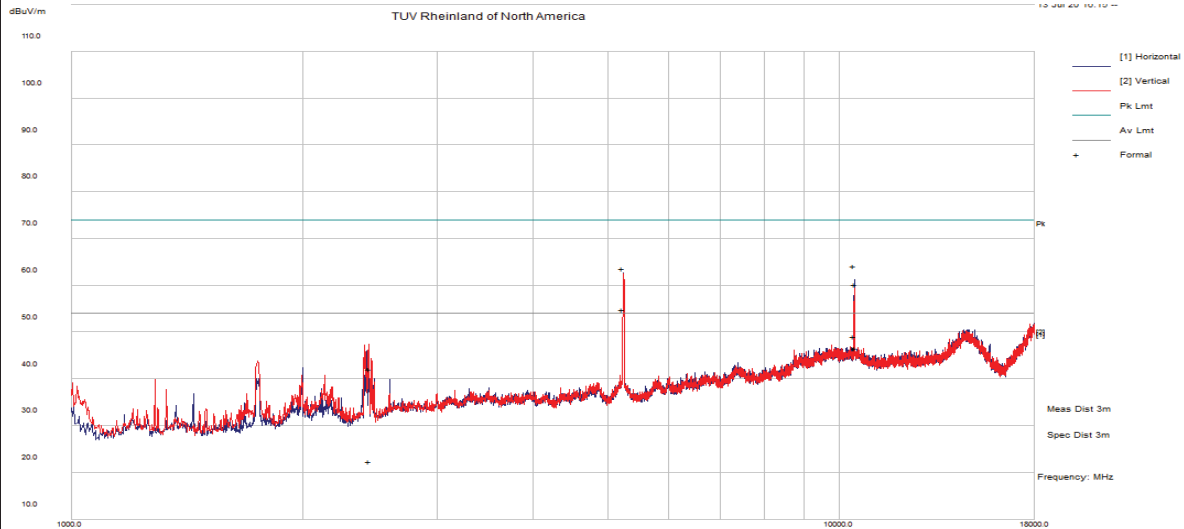
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5240 MHz



Notes: None.

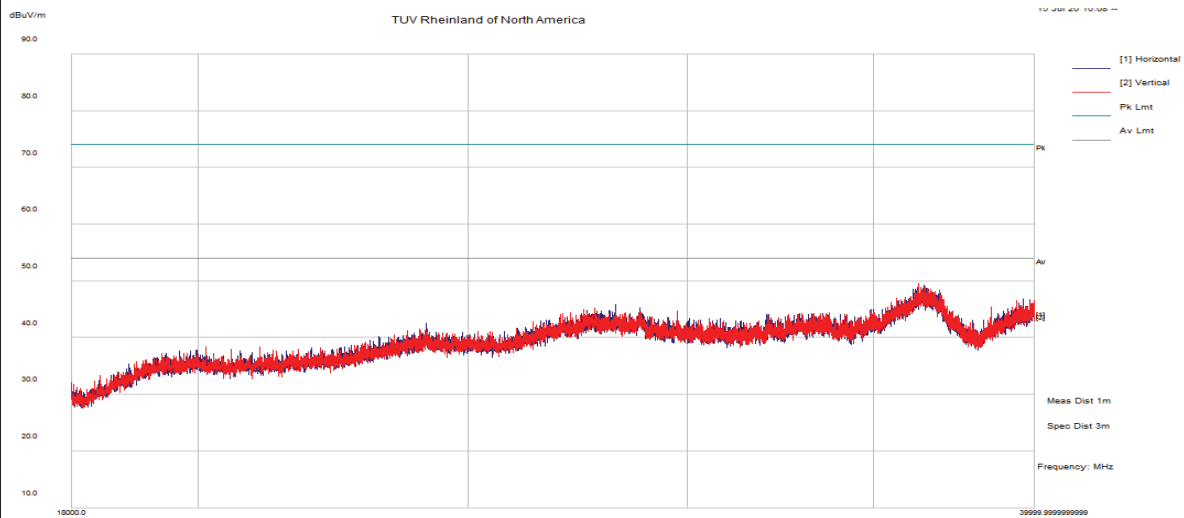
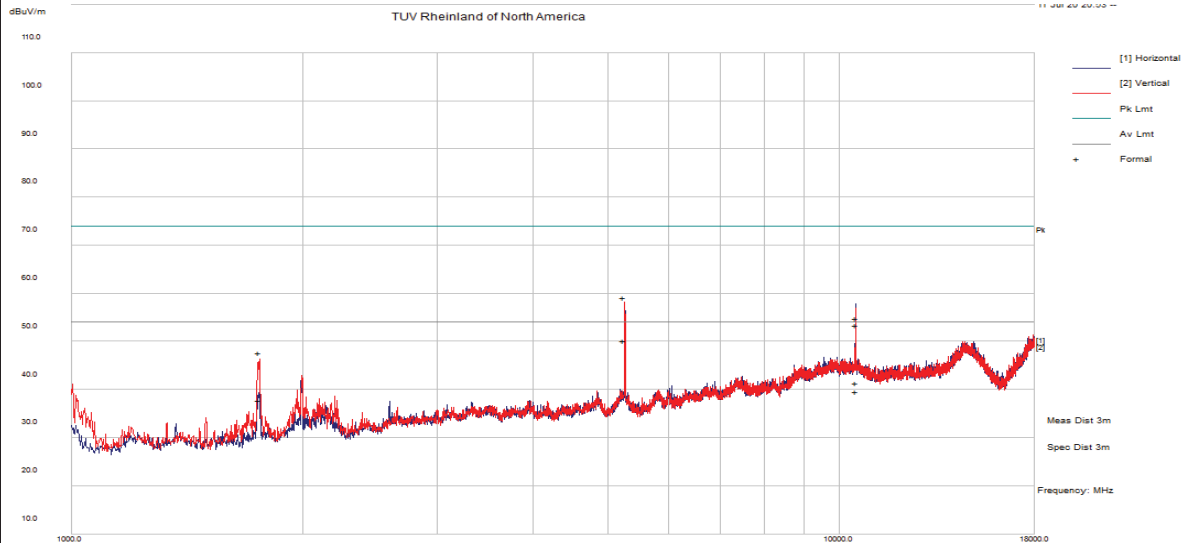
SOP 1 Radiated Emissions						Tracking # 32063007.001 Page 11 of 44				
EUT Name	Wireless Audio Headset					Date	July 11, 2020			
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 36%rh			
EUT Serial	PP#2					Temp / Hum out	N/A			
EUT Config.	Headset upright in 802.11a mode at 6 Mbps					Line AC / Freq	3.7Vdc			
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz			
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong			
1 – 40 GHz Transmit at 5260 MHz (Low Channel)										
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB
10521.76	68.33	2.91	-16.35	54.88	Pk	H	141	300	74.00	-19.12
10521.76	54.80	2.91	-16.35	41.36	Ave	H	141	300	54.00	-12.64
1758.82	77.43	0.88	-30.69	47.63	Pk	V	150	360	74.00	-26.38
1758.82	67.65	0.88	-30.69	37.84	Ave	V	150	360	54.00	-16.16
5253.33	79.46	1.98	-22.33	59.11	Pk	V	255	224	74.00	-14.89
5253.33	70.58	1.98	-22.33	50.22	Ave	V	255	224	54.00	-3.78
10531.91	66.73	2.96	-16.38	53.31	Pk	V	264	354	74.00	-20.69
10531.91	53.07	2.96	-16.38	39.65	Ave	V	264	354	54.00	-14.35
1 – 40 GHz Transmit at 5300 MHz (Middle Channel)										
5296.03	74.28	2.22	-22.28	54.22	Pk	H	104	130	74.00	-19.78
5296.03	65.28	2.22	-22.28	45.21	Ave	H	104	130	54.00	-8.79
1761.08	77.05	0.87	-30.70	47.21	Pk	V	191	360	74.00	-26.79
1761.08	67.42	0.87	-30.70	37.58	Ave	V	191	360	54.00	-16.42
10601.55	73.13	3.06	-16.39	59.80	Pk	V	194	348	74.00	-14.20
10601.55	59.03	3.06	-16.39	45.70	Ave	V	194	348	54.00	-8.30
1 – 40 GHz Transmit at 5320 MHz (High Channel)										
10640.60	70.67	3.03	-16.48	57.22	Pk	H	165	298	74.00	-16.79
10640.60	57.24	3.03	-16.48	43.78	Ave	H	165	298	54.00	-10.22
10651.06	63.41	3.02	-16.48	49.95	Pk	H	239	302	74.00	-24.05
10651.06	50.49	3.02	-16.48	37.03	Ave	H	239	302	54.00	-16.97
1773.36	78.82	0.81	-30.78	48.85	Pk	V	185	0	74.00	-25.15
1773.36	66.61	0.81	-30.78	36.64	Ave	V	185	0	54.00	-17.36
5316.47	68.60	2.10	-22.14	48.56	Pk	V	122	264	74.00	-25.44
5316.47	59.19	2.10	-22.14	39.15	Ave	V	122	264	54.00	-14.85
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty										
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp										
Note: Worst case emission was observed at 6 Mbps for 802.11a mode.										
Headset intended to transmit at about +5 dBm.										

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5260 MHz



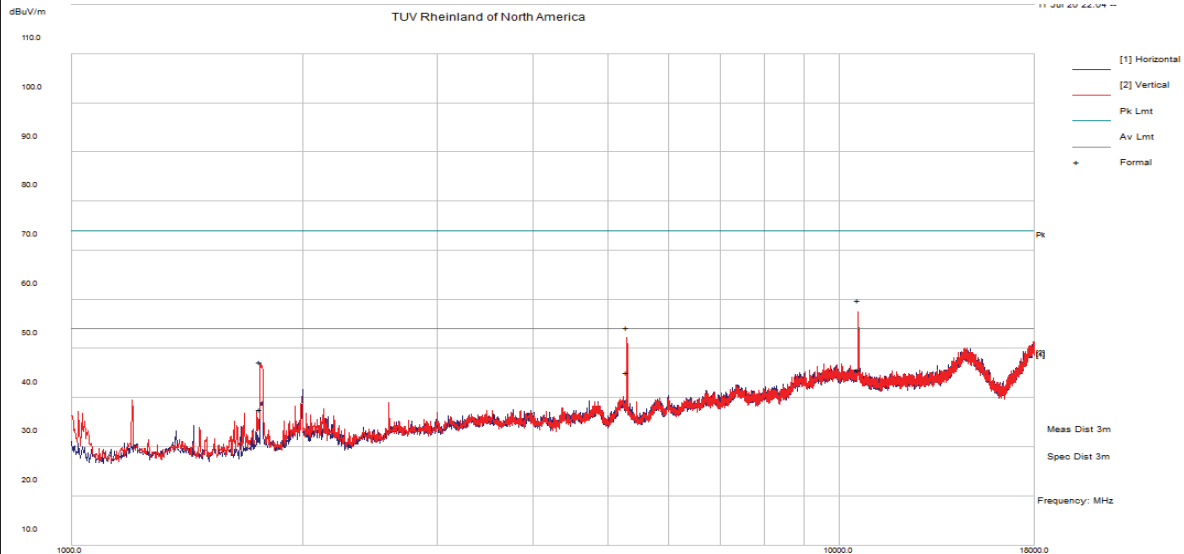
Notes: None.

SOP 1 Radiated Emissions

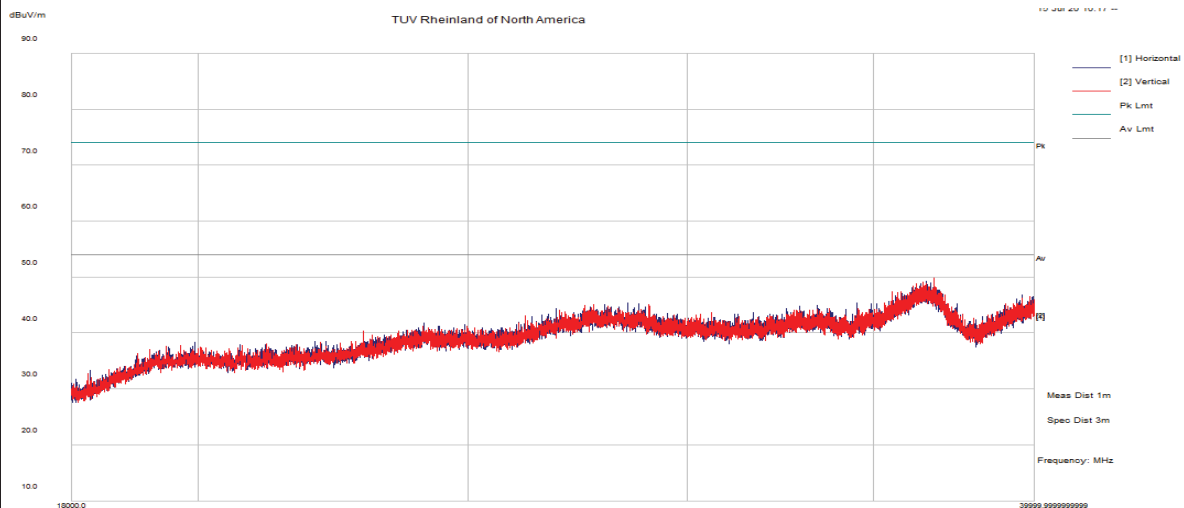
Tracking # 32063007.001 Page 13 of 44

EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5300 MHz



Turtle Beach, Stealth 700X Gen 2, Config: TX @ 5300 MHz, 11A
Filename: c:\program files (x86)\emisoft - vasonal\results\TB-20200711-RE5.emi



Turtle Beach, Stealth 700X Gen 2, Config: TX @ 5300MHz, 11A
Filename: c:\program files (x86)\emisoft - vasonal\results\TB-20200715-RE5.emi

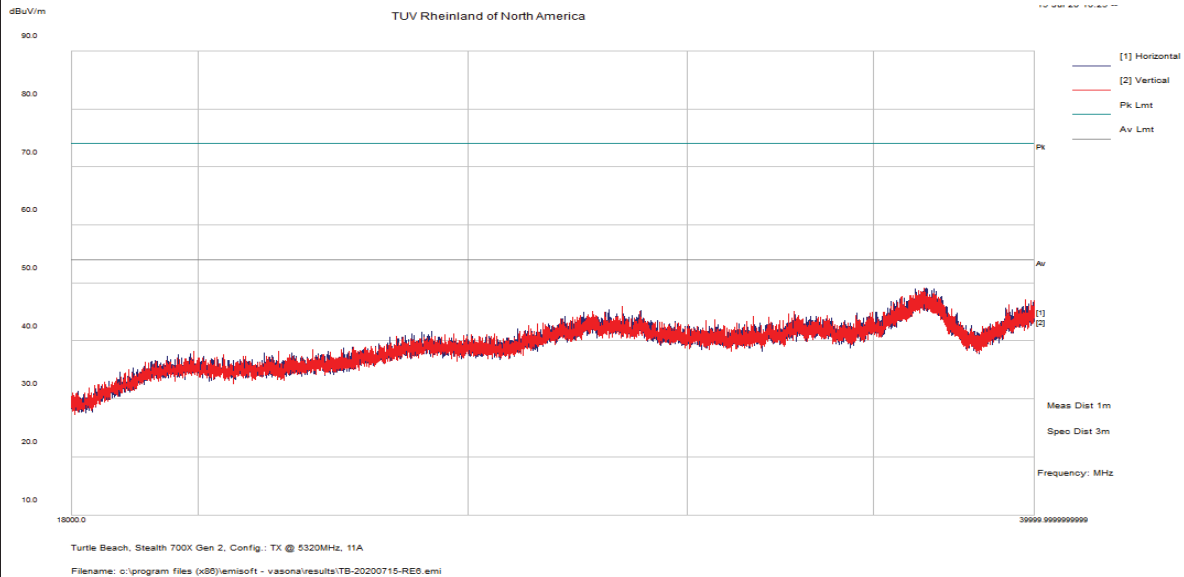
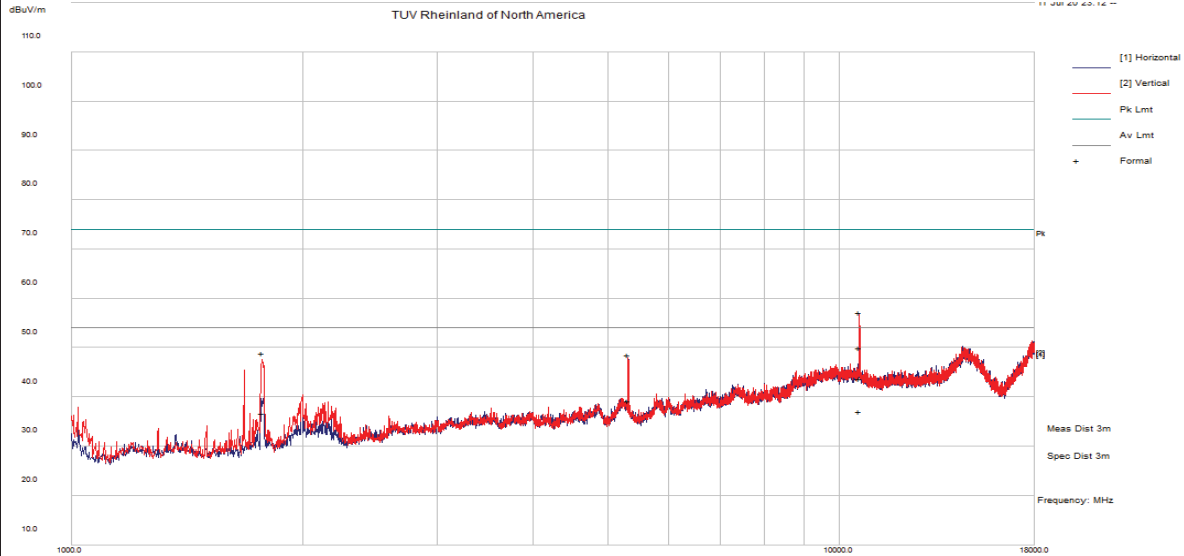
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5320 MHz



Notes: None.

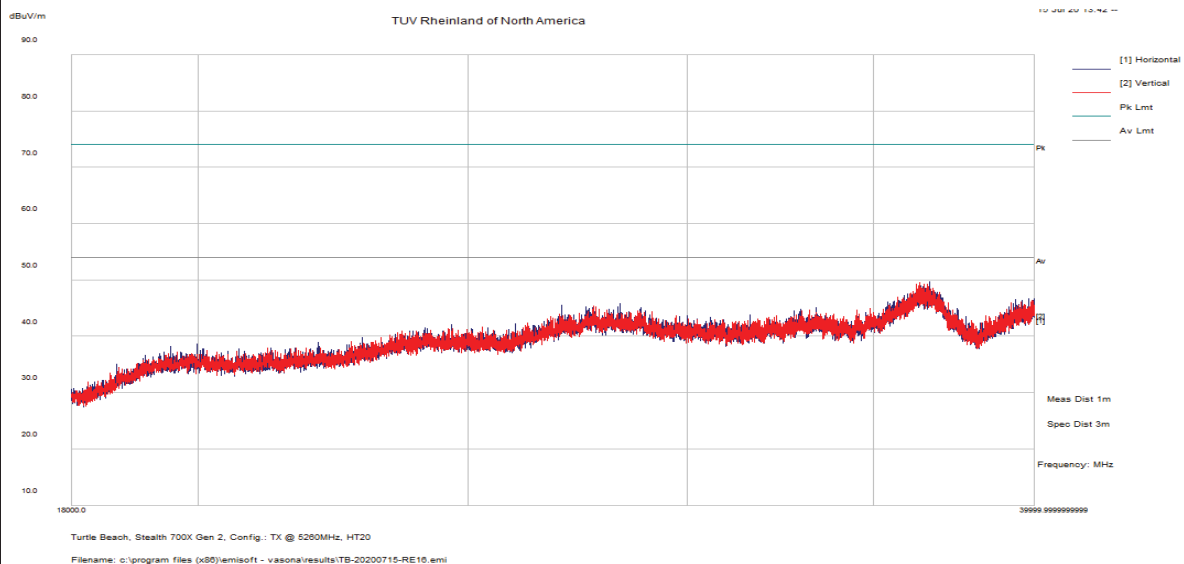
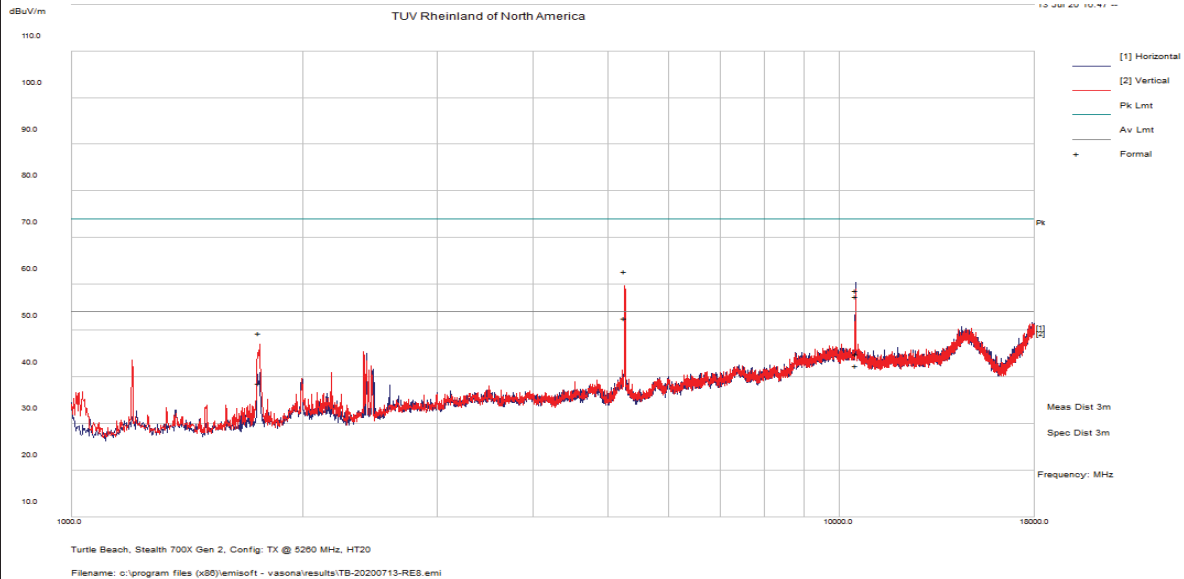
SOP 1 Radiated Emissions						Tracking# 32063007.001 Page 15 of 44				
EUT Name	Wireless Audio Headset					Date	July 13, 2020			
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 34%rh			
EUT Serial	PP#2					Temp / Hum out	N/A			
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps					Line AC / Freq	3.7Vdc			
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz			
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong			
1 – 40 GHz Transmit at 5260 MHz (Low Channel)										
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB
10520.00	72.05	2.90	-16.35	58.60	Pk	H	145	300	74.00	-15.40
10520.00	58.45	2.90	-16.35	45.00	Ave	H	145	300	54.00	-9.00
10533.28	70.80	2.97	-16.38	57.39	Pk	H	137	106	74.00	-16.61
10533.28	55.82	2.97	-16.38	42.41	Ave	H	137	106	54.00	-11.59
1757.03	79.18	0.89	-30.68	49.39	Pk	V	154	356	74.00	-24.61
1757.03	68.48	0.89	-30.68	38.69	Ave	V	154	356	54.00	-15.31
1 – 40 GHz Transmit at 5300 MHz (Middle Channel)										
10605.00	74.55	3.06	-16.40	61.20	Pk	H	163	296	74.00	-12.80
10605.00	61.09	3.06	-16.40	47.75	Ave	H	163	296	54.00	-6.25
1767.66	79.49	0.84	-30.74	49.59	Pk	V	148	356	74.00	-24.41
1767.66	69.19	0.84	-30.74	39.29	Ave	V	148	356	54.00	-14.71
17907.03	55.92	4.12	-7.92	52.12	Pk	V	133	202	74.00	-21.88
17907.03	43.62	4.12	-7.92	39.82	Ave	V	133	202	54.00	-14.18
1 – 40 GHz Transmit at 5320 MHz (High Channel)										
10642.19	71.88	3.03	-16.48	58.42	Pk	H	229	314	74.00	-15.58
10642.19	58.25	3.03	-16.48	44.79	Ave	H	229	314	54.00	-9.21
1778.28	80.17	0.79	-30.81	50.15	Pk	V	188	352	74.00	-23.85
1778.28	69.55	0.79	-30.81	39.53	Ave	V	188	352	54.00	-14.47
2458.28	72.89	1.13	-28.69	45.33	Pk	V	174	134	74.00	-28.67
2458.28	61.19	1.13	-28.69	33.63	Ave	V	174	134	54.00	-20.37
36444.28	47.29	10.23	-4.87	52.65	Pk	H	155	142	74.00	-21.36
36444.28	32.60	10.20	-4.90	38.00	Ave	H	155	142	54.00	-16.00
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty										
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp										
Note: Worst case emission was observed at 6.5 Mbps for 802.11n HT20 mode. Headset intended to transmit at about +5 dBm.										

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5260 MHz



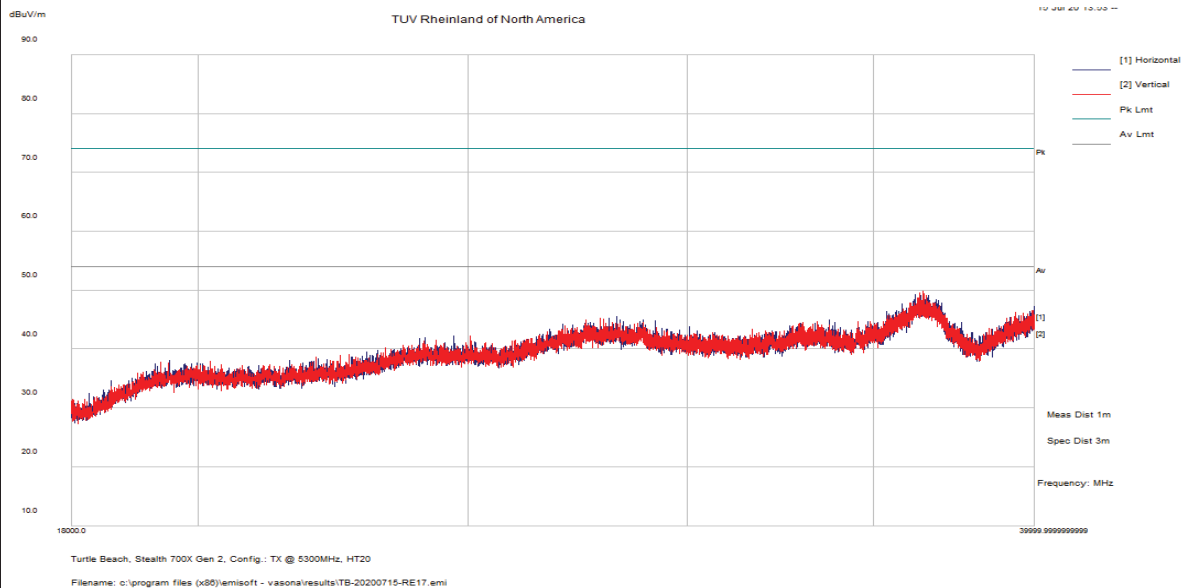
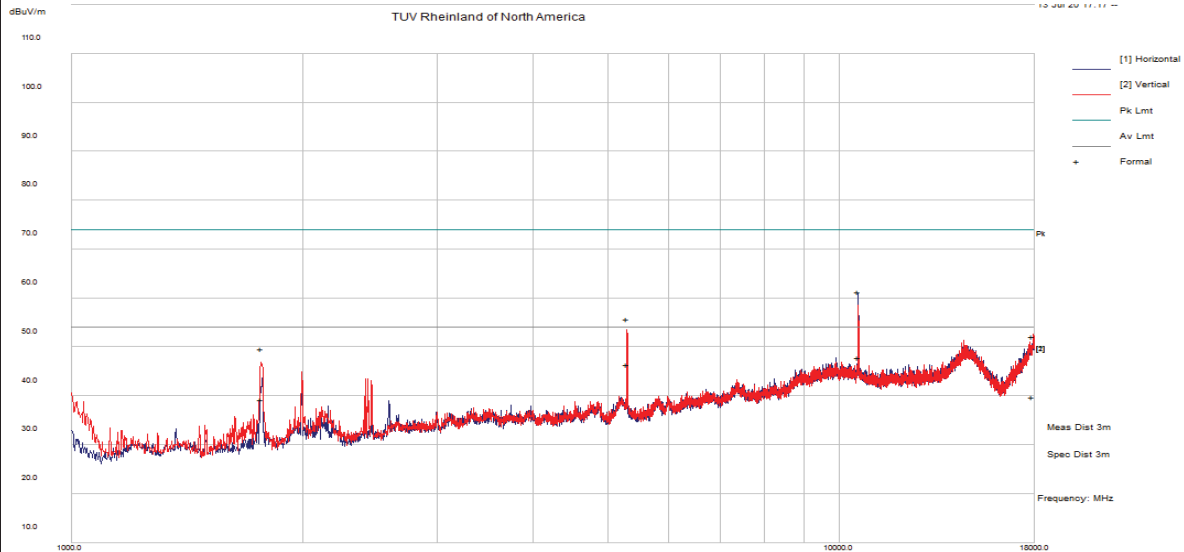
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5300 MHz



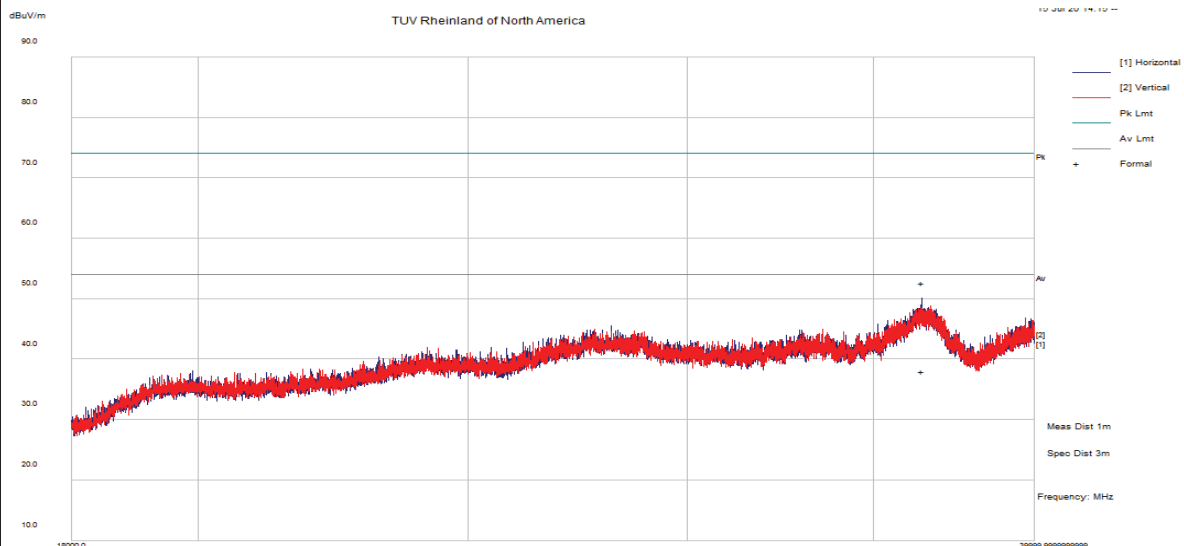
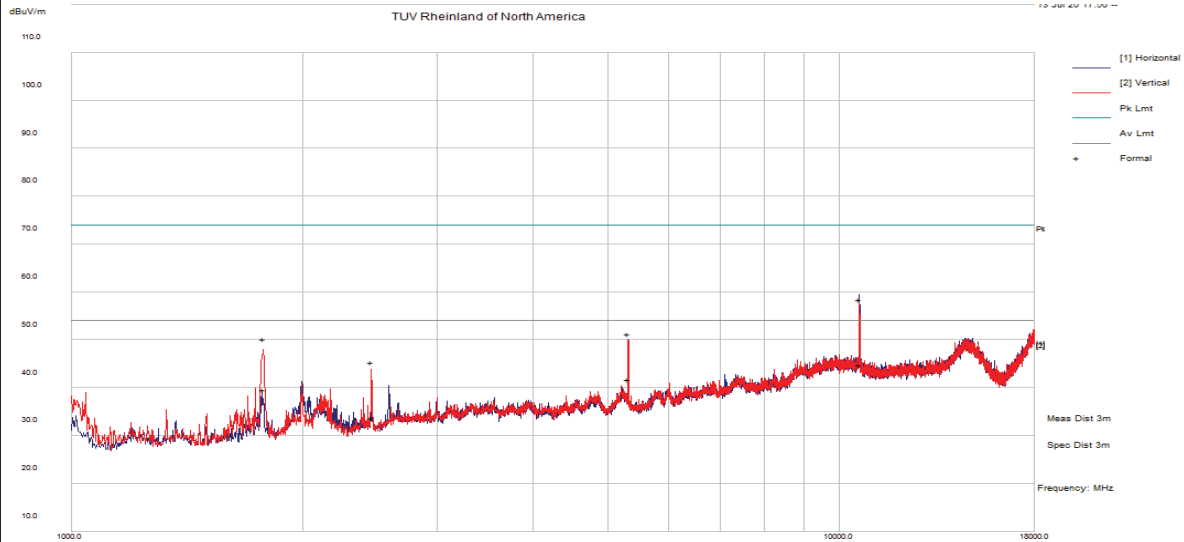
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5320 MHz



Notes: No significant emission observed above 18 GHz.

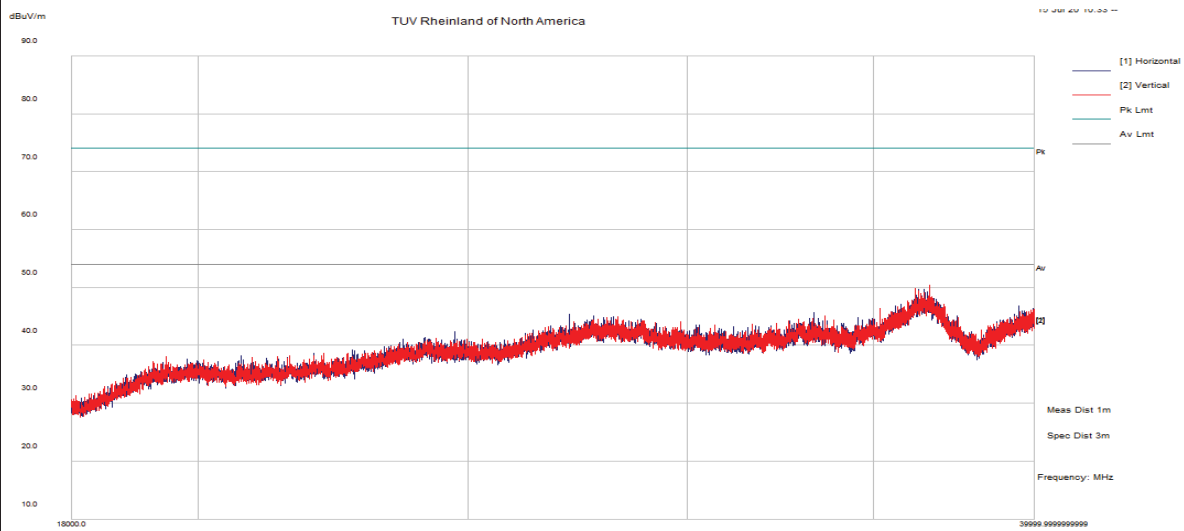
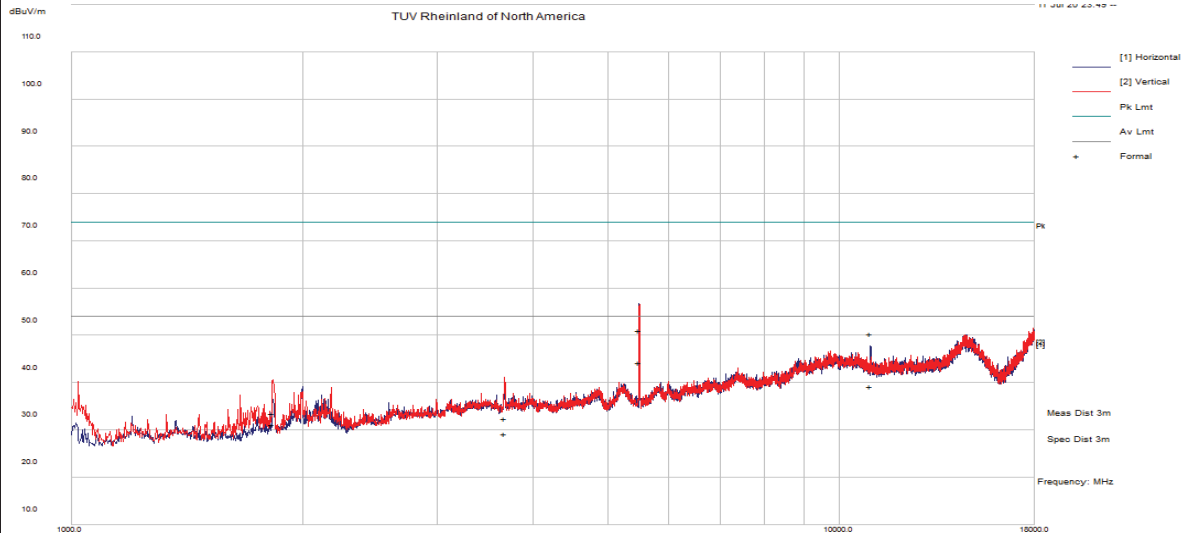
SOP 1 Radiated Emissions							Tracking # 32063007.001 Page 19 of 44			
EUT Name	Wireless Audio Headset					Date	July 11, 2020			
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 36%rh			
EUT Serial	PP#2					Temp / Hum out	N/A			
EUT Config.	Headset upright in 802.11a mode at 6 Mbps					Line AC / Freq	3.7Vdc			
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz			
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong			
1 – 40 GHz Transmit at 5500 MHz (Low Channel)										
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB
11000.78	64.80	3.10	-17.50	50.40	Pk	H	273	161	74.00	-23.60
11000.78	53.70	3.10	-17.50	39.30	Ave	H	273	161	54.00	-14.70
1828.75	62.98	0.90	-30.38	33.50	Pk	V	101	174	74.00	-40.50
1828.75	60.56	0.90	-30.38	31.09	Ave	V	101	174	54.00	-22.92
3666.88	52.86	1.55	-25.29	29.12	Pk	V	102	134	74.00	-44.88
3666.88	56.11	1.55	-25.29	32.38	Ave	V	102	134	54.00	-21.63
1 – 40 GHz Transmit at 5580 MHz (Middle Channel)										
16739.74	63.85	3.86	-16.04	51.67	Pk	H	113	122	74.00	-22.33
16739.74	50.37	3.86	-16.04	38.19	Ave	H	113	122	54.00	-15.82
1998.20	72.33	0.90	-29.58	43.65	Pk	V	127	160	74.00	-30.36
1998.20	52.53	0.90	-29.58	23.84	Ave	V	127	160	54.00	-30.16
3720.12	71.18	1.61	-25.13	47.66	Pk	V	104	290	74.00	-26.34
3720.12	60.11	1.61	-25.13	36.59	Ave	V	104	290	54.00	-17.41
22006.19	45.06	7.69	-8.84	43.91	Pk	V	161	145	74.00	-30.09
22006.19	34.60	7.70	-8.80	33.50	Ave	V	161	145	54.00	-20.50
36668.32	47.11	10.28	-4.99	52.40	Pk	V	179	126	74.00	-21.60
36668.32	35.40	10.30	-5.00	40.70	Ave	V	179	126	54.00	-13.30
1 – 40 GHz Transmit at 5700 MHz (High Channel)										
6640.58	71.56	2.35	-21.32	52.58	Pk	H	123	118	74.00	-21.42
6640.58	56.37	2.35	-21.32	37.40	Ave	H	123	118	54.00	-16.60
3810.74	88.46	1.54	-24.63	65.37	Pk	V	152	296	74.00	-8.63
3810.74	70.60	1.54	-24.63	47.51	Ave	V	152	296	54.00	-6.49
4756.90	92.03	1.97	-23.85	70.15	Pk	V	139	246	74.00	-3.85
4756.90	72.86	1.97	-23.85	50.98	Ave	V	139	246	54.00	-3.02
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty										
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp										
Note: Worst case emission was observed at 6 Mbps for 802.11a mode.										
Headset intended to transmit at about +5 dBm.										

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5500 MHz



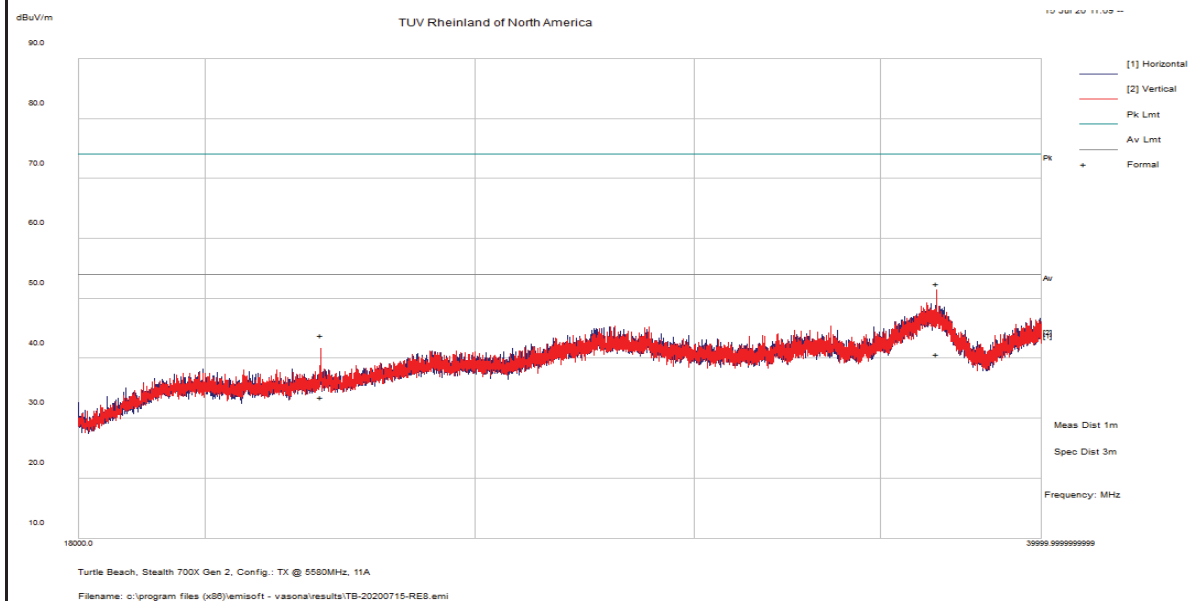
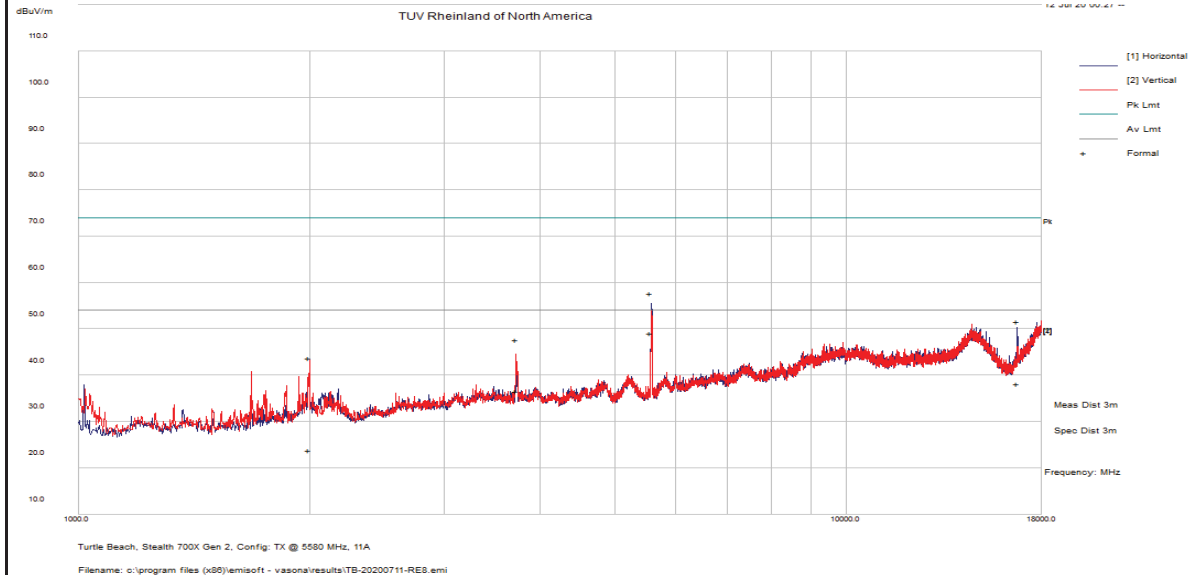
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 11, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 36%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5580 MHz



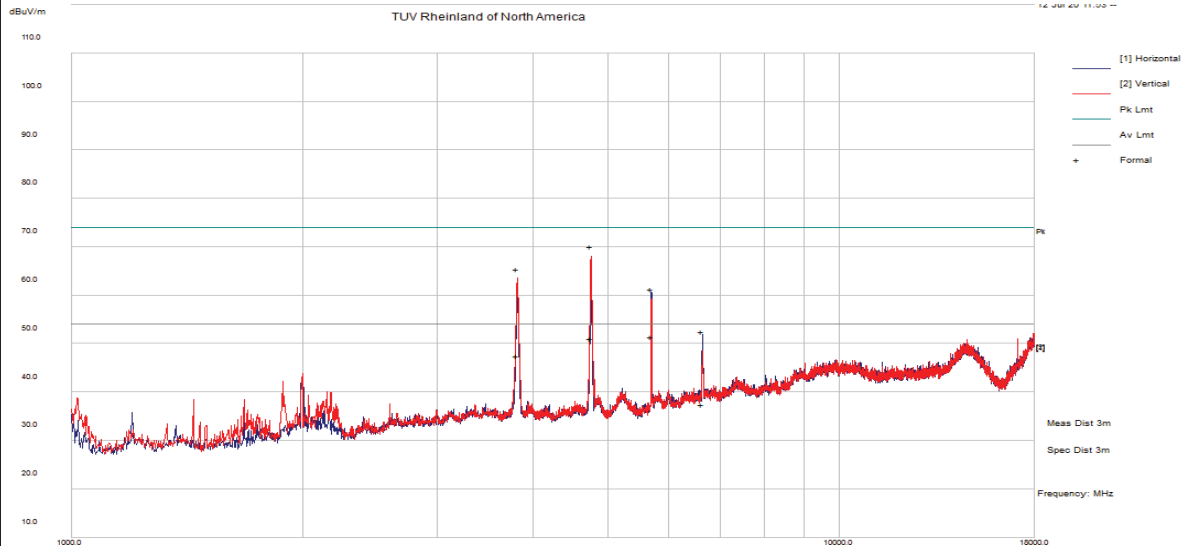
Notes: None.

SOP 1 Radiated Emissions

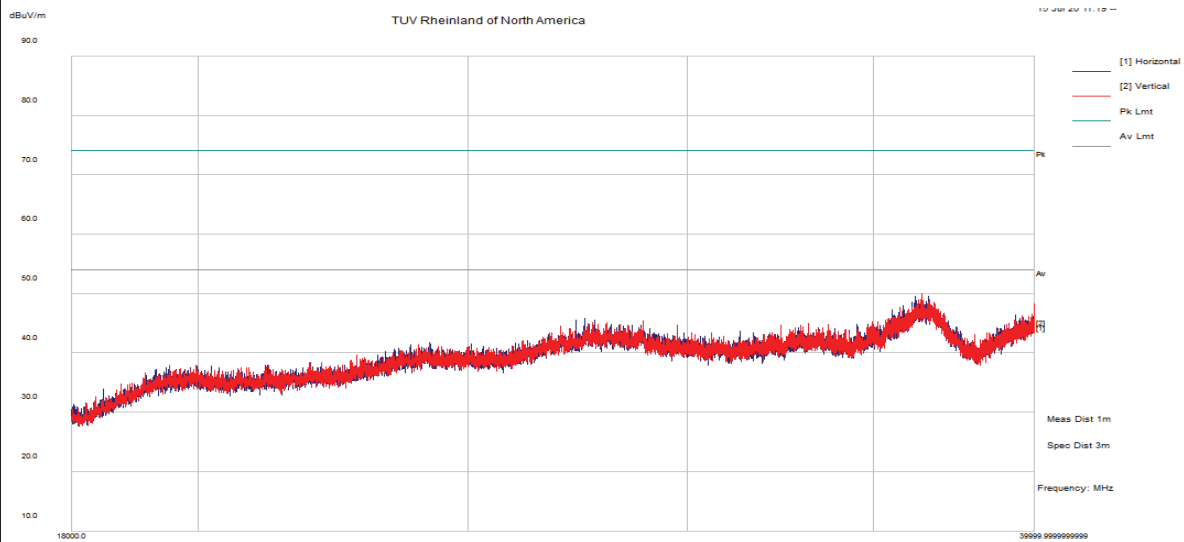
Tracking # 32063007.001 Page 22 of 44

EUT Name	Wireless Audio Headset	Date	July 12, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 40%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5700 MHz



Turtle Beach, Stealth 700X Gen 2, Config: TX @ 5700 MHz, 11A
Filename: c:\program files (x86)\emisoft - vasona\results\TB-20200712-RE1.emi



Turtle Beach, Stealth 700X Gen 2, Config: TX @ 5700MHz, 11A
Filename: c:\program files (x86)\emisoft - vasona\results\TB-20200715-RE9.emi

Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions							Tracking # 32063007.001 Page 23 of 44			
EUT Name	Wireless Audio Headset						Date	July 13, 2020		
EUT Model	Stealth 700X Gen 2						Temp / Hum in	22° C / 34%rh		
EUT Serial	PP#2						Temp / Hum out	N/A		
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps						Line AC / Freq	3.7Vdc		
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN						RBW / VBW	1 MHz/ 3 MHz		
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840						Performed by	Jeremy Luong		
1 – 40 GHz Transmit at 5500 MHz (Low Channel)										
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB
11000.78	64.95	3.07	-17.46	50.56	Pk	H	256	142	74.00	-23.44
11000.78	52.73	3.07	-17.46	38.34	Ave	H	256	142	54.00	-15.66
16493.91	66.56	3.82	-17.58	52.80	Pk	H	153	120	74.00	-21.20
16493.91	52.03	3.82	-17.58	38.27	Ave	H	153	120	54.00	-15.73
3669.53	69.05	1.55	-25.25	45.35	Pk	V	232	354	74.00	-28.65
3669.53	55.59	1.55	-25.25	31.89	Ave	V	232	354	54.00	-22.11
17904.38	54.95	4.12	-7.90	51.16	Pk	V	256	214	74.00	-22.84
17904.38	43.46	4.12	-7.90	39.67	Ave	V	256	214	54.00	-14.33
1 – 40 GHz Transmit at 5580 MHz (Middle Channel)										
16748.91	63.76	3.85	-15.97	51.65	Pk	H	197	124	74.00	-22.35
16748.91	49.99	3.85	-15.97	37.87	Ave	H	197	124	54.00	-16.13
2460.94	61.04	1.13	-28.67	33.51	Pk	V	213	322	74.00	-40.49
2460.94	48.74	1.13	-28.67	21.21	Ave	V	213	322	54.00	-32.79
3720.00	71.16	1.61	-25.13	47.64	Pk	V	147	22	74.00	-26.36
3720.00	60.22	1.61	-25.13	36.70	Ave	V	147	22	54.00	-17.30
11160.16	62.98	3.17	-17.51	48.65	Pk	V	162	104	74.00	-25.36
11160.16	50.77	3.17	-17.51	36.44	Ave	V	162	104	54.00	-17.57
22335.06	41.80	7.70	-8.66	40.84	Pk	V	176	290	74.00	-33.16
22335.06	33.60	7.70	-8.70	32.60	Ave	V	176	290	54.00	-21.40
36654.47	46.81	10.27	-4.96	52.12	Pk	V	158	152	74.00	-21.88
36654.47	36.60	10.30	-5.00	41.90	Ave	V	158	152	54.00	-12.10
1 – 40 GHz Transmit at 5700 MHz (High Channel)										
6636.56	72.51	2.35	-21.34	53.52	Pk	H	139	128	74.00	-20.48
6636.56	56.10	2.35	-21.34	37.11	Ave	H	139	128	54.00	-16.90
14586.72	58.93	3.57	-13.10	49.41	Pk	H	143	12	74.00	-24.60
14586.72	47.38	3.57	-13.10	37.85	Ave	H	143	12	54.00	-16.15
17094.22	59.76	3.89	-13.49	50.16	Pk	H	177	186	74.00	-23.84
17094.22	46.22	3.89	-13.49	36.61	Ave	H	177	186	54.00	-17.39
3815.63	89.16	1.54	-24.61	66.09	Pk	V	125	300	74.00	-7.91
3815.63	71.49	1.54	-24.61	48.42	Ave	V	125	300	54.00	-5.58

3820.94	83.80	1.54	-24.59	60.75	Pk	V	160	334	74.00	-13.25
3820.94	68.90	1.54	-24.59	45.85	Ave	V	160	334	54.00	-8.15
4761.25	87.81	1.96	-23.81	65.96	Pk	V	244	260	74.00	-8.04
4761.25	70.75	1.96	-23.81	48.90	Ave	V	244	260	54.00	-5.10
4771.88	79.66	1.94	-23.72	57.88	Pk	V	205	236	74.00	-16.12
4771.88	63.76	1.94	-23.72	41.98	Ave	V	205	236	54.00	-12.02
36286.07	47.38	10.22	-5.16	52.45	Pk	V	179	202	74.00	-21.55
36286.07	34.10	10.20	-5.20	39.20	Ave	V	179	202	54.00	-14.80

Spec Margin = E-Field AVG - Limit, E-Field AVG = FIM AVG + Total CF ± Uncertainty

Total CF = AF + Cable Loss AF = Antenna factor + Preamp

Note: Worst case emission was observed at 6.5 Mbps for 802.11n HT20 mode.

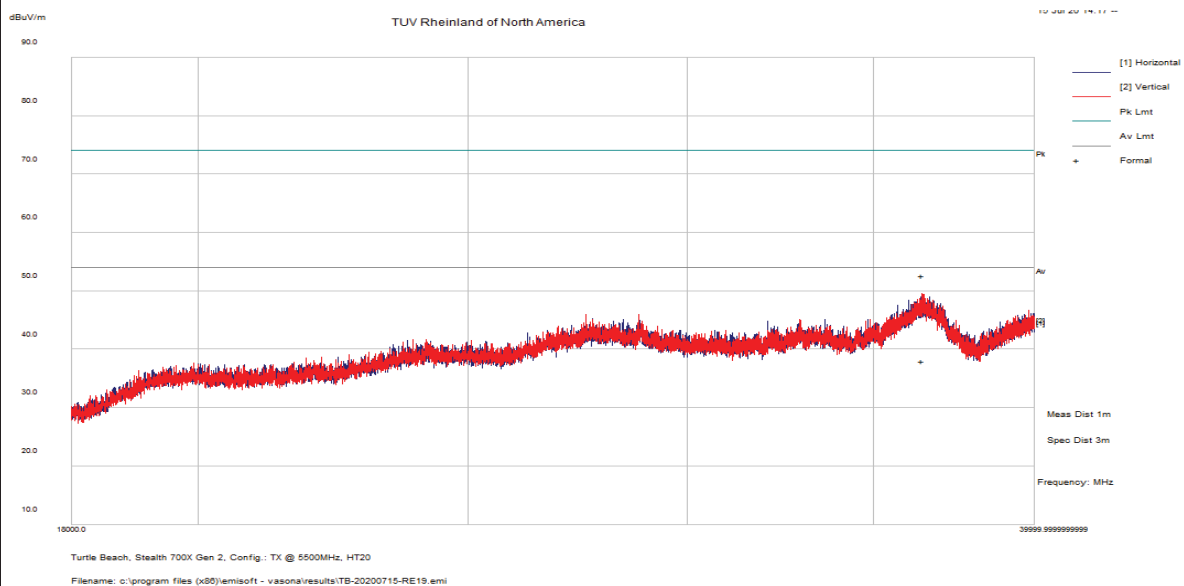
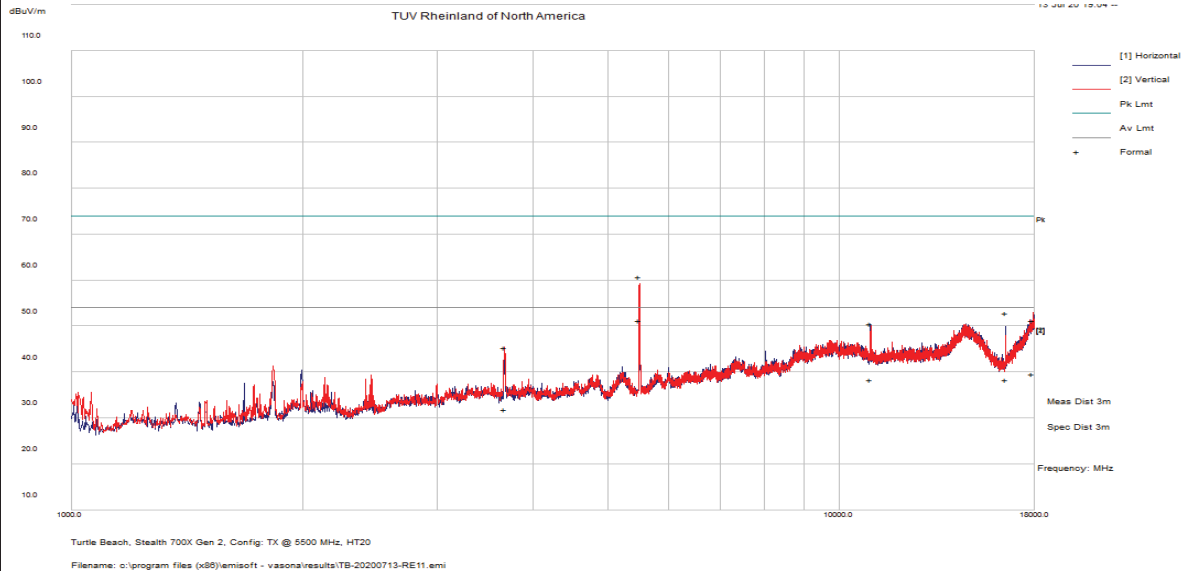
Headset intended to transmit at about +5 dBm.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5500 MHz



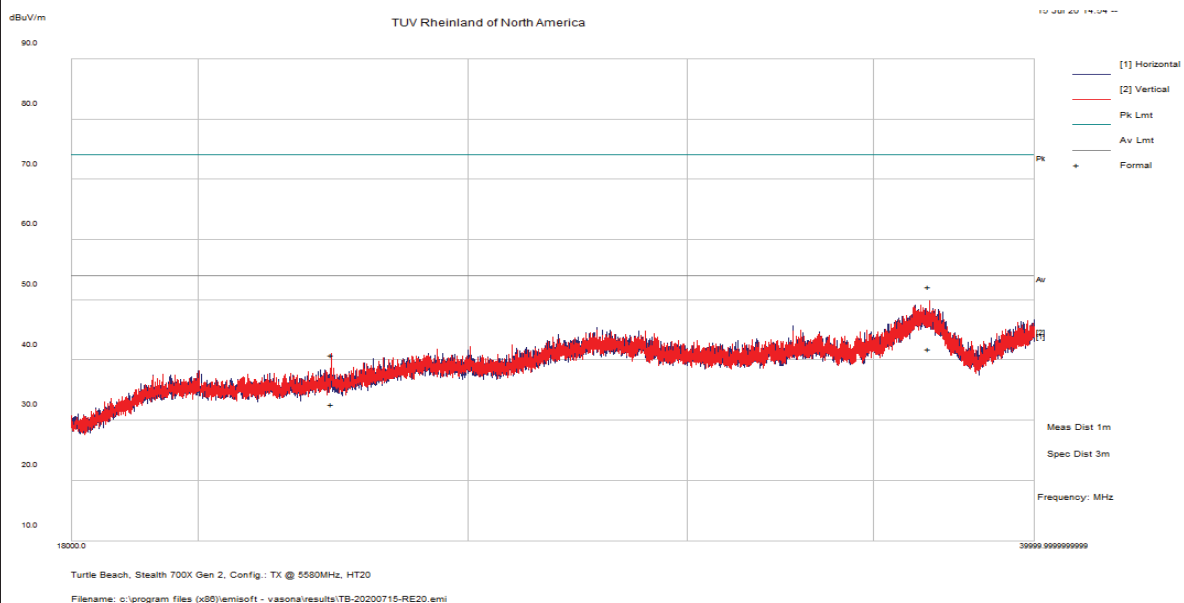
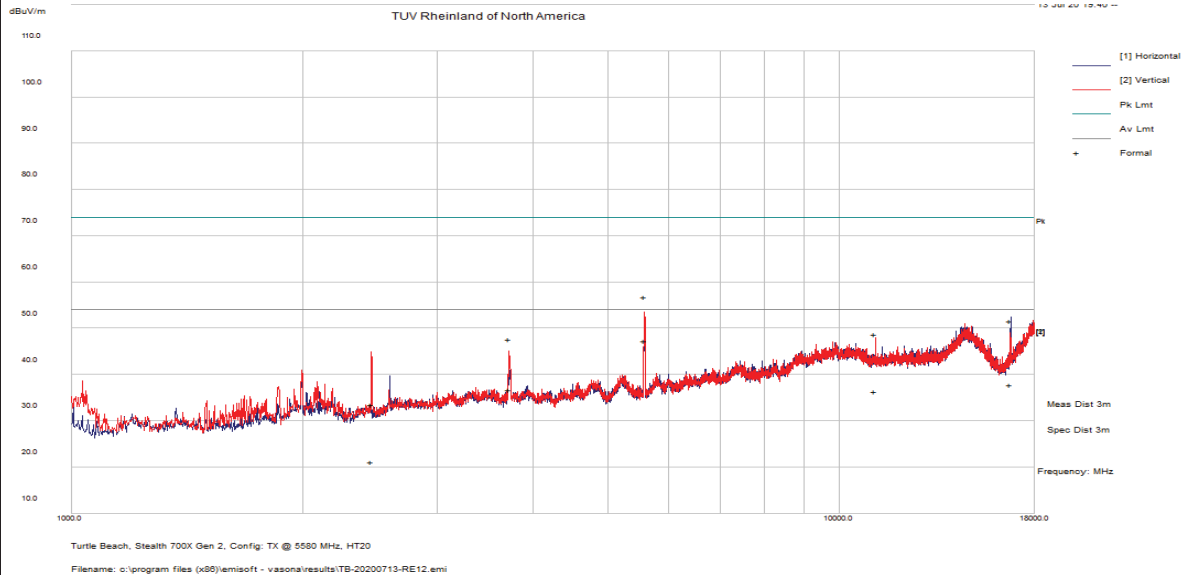
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5580 MHz



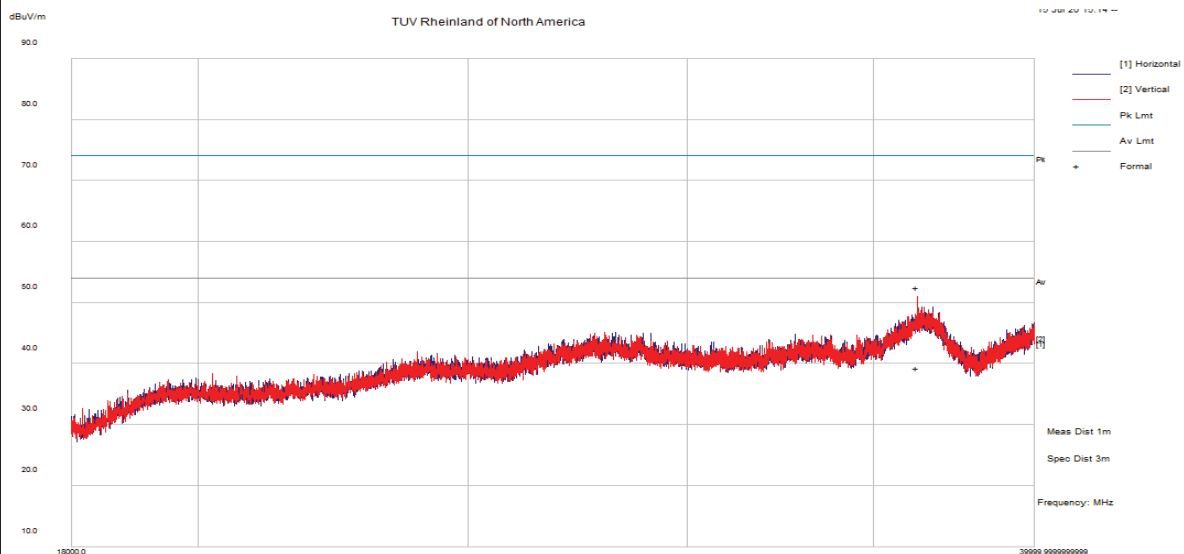
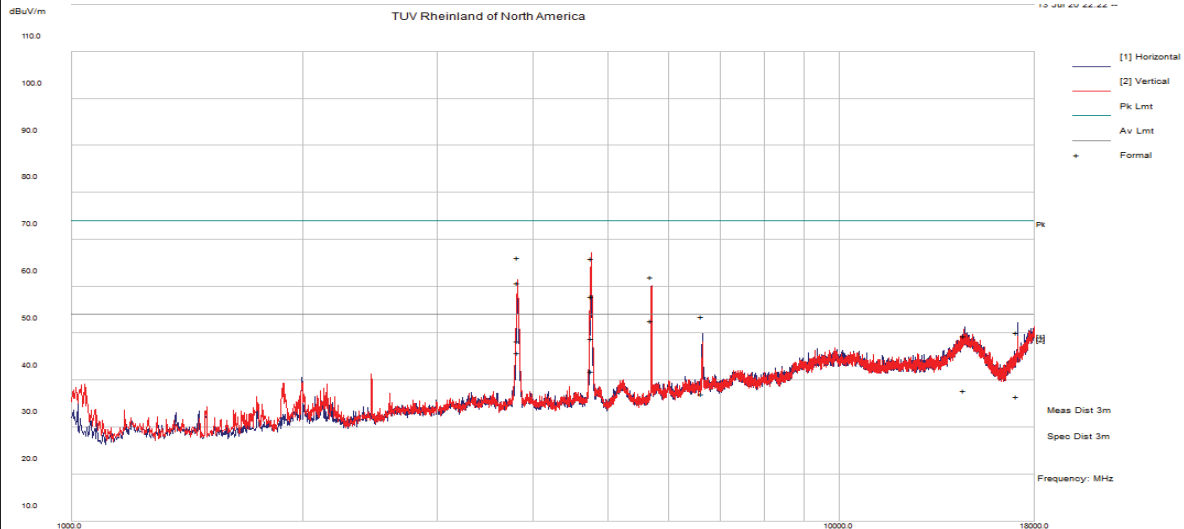
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5700 MHz



Notes: None.

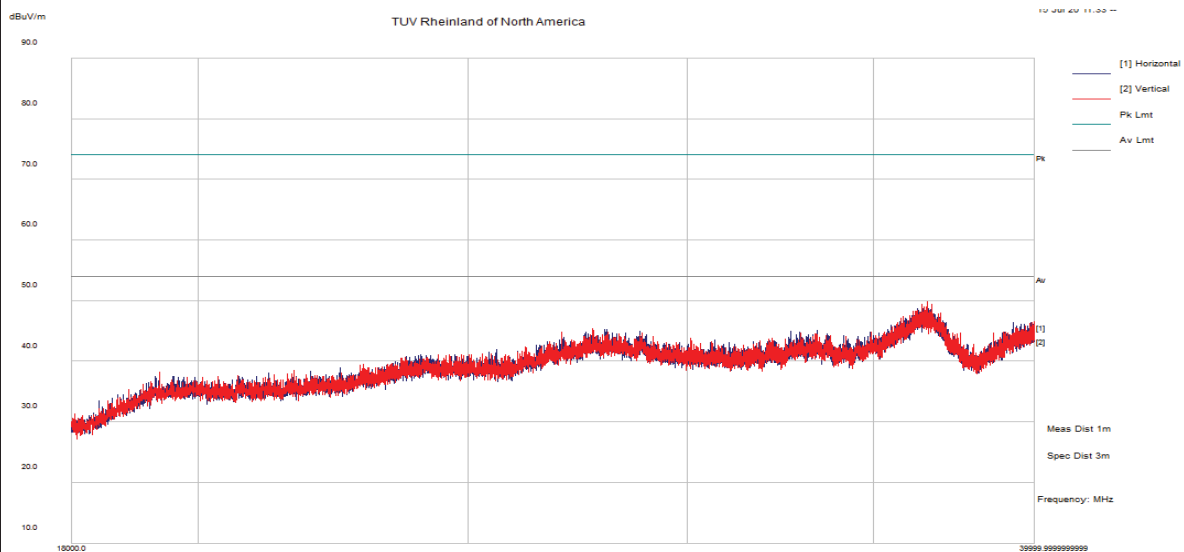
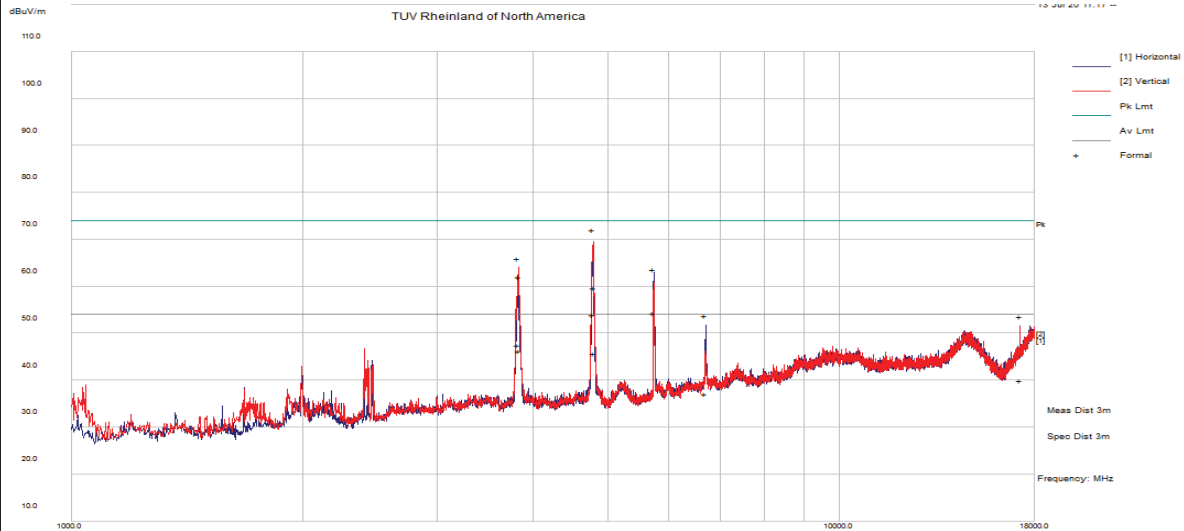
SOP 1 Radiated Emissions						Tracking # 32063007.001 Page 27 of 44					
EUT Name	Wireless Audio Headset					Date	July 13, 2020				
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 34%rh				
EUT Serial	PP#2					Temp / Hum out	N/A				
EUT Config.	Headset upright in 802.11a mode at 6 Mbps					Line AC / Freq	3.7Vdc				
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz				
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong				
1 – 40 GHz Transmit at 5745 MHz (Low Channel)											
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin	
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB	
6707.20	68.56	2.21	-21.03	49.74	Pk	H	207	98	74.00	-24.26	
6707.20	52.89	2.21	-21.03	34.07	Ave	H	207	98	54.00	-19.93	
3822.02	87.25	1.54	-24.58	64.21	Pk	V	172	8	74.00	-9.79	
3822.02	68.28	1.54	-24.58	45.23	Ave	V	172	8	54.00	-8.77	
3827.41	87.59	1.53	-24.56	64.56	Pk	V	177	360	74.00	-9.44	
3827.41	68.75	1.53	-24.56	45.72	Ave	V	177	360	54.00	-8.28	
4783.40	91.88	1.92	-23.64	70.15	Pk	V	128	130	74.00	-3.85	
4783.40	71.88	1.92	-23.64	50.15	Ave	V	128	130	54.00	-3.85	
4802.08	80.88	1.89	-23.59	59.18	Pk	V	124	240	74.00	-14.82	
4802.08	65.44	1.89	-23.59	43.74	Ave	V	124	240	54.00	-10.26	
17232.45	61.01	4.00	-12.50	52.51	Pk	V	132	132	74.00	-21.49	
17232.45	47.22	4.00	-12.50	38.72	Ave	V	132	132	54.00	-15.28	
1 – 40 GHz Transmit at 5785 MHz (Middle Channel)											
3831.56	79.51	1.53	-24.56	56.48	Pk	V	216	224	74.00	-17.52	
3831.56	59.20	1.53	-24.56	36.17	Ave	V	216	224	54.00	-17.84	
4790.47	88.02	1.91	-23.62	66.30	Pk	V	206	218	74.00	-7.70	
4790.47	62.12	1.91	-23.62	40.40	Ave	V	206	218	54.00	-13.60	
4795.78	88.50	1.90	-23.61	66.79	Pk	V	162	8	74.00	-7.21	
4795.78	63.61	1.90	-23.61	41.90	Ave	V	162	8	54.00	-12.10	
4806.41	87.70	1.89	-23.58	66.02	Pk	V	234	162	74.00	-7.98	
4806.41	66.51	1.89	-23.58	44.82	Ave	V	234	162	54.00	-9.18	
1 – 40 GHz Transmit at 5825 MHz (High Channel)											
3799.69	74.26	1.55	-24.68	51.13	Pk	V	213	36	74.00	-22.87	
3799.69	48.84	1.55	-24.68	25.71	Ave	V	213	36	54.00	-28.29	
4801.09	83.06	1.89	-23.59	61.35	Pk	V	191	120	74.00	-12.65	
4801.09	51.65	1.89	-23.59	29.94	Ave	V	191	120	54.00	-24.06	
4814.38	89.79	1.89	-23.56	68.13	Pk	V	148	224	74.00	-5.87	
4814.38	60.43	1.89	-23.56	38.76	Ave	V	148	224	54.00	-15.24	
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty											
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp											
Note: Worst case emission was observed at 6 Mbps for 802.11a mode. Headset intended to transmit at about +5 dBm.											

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5745 MHz



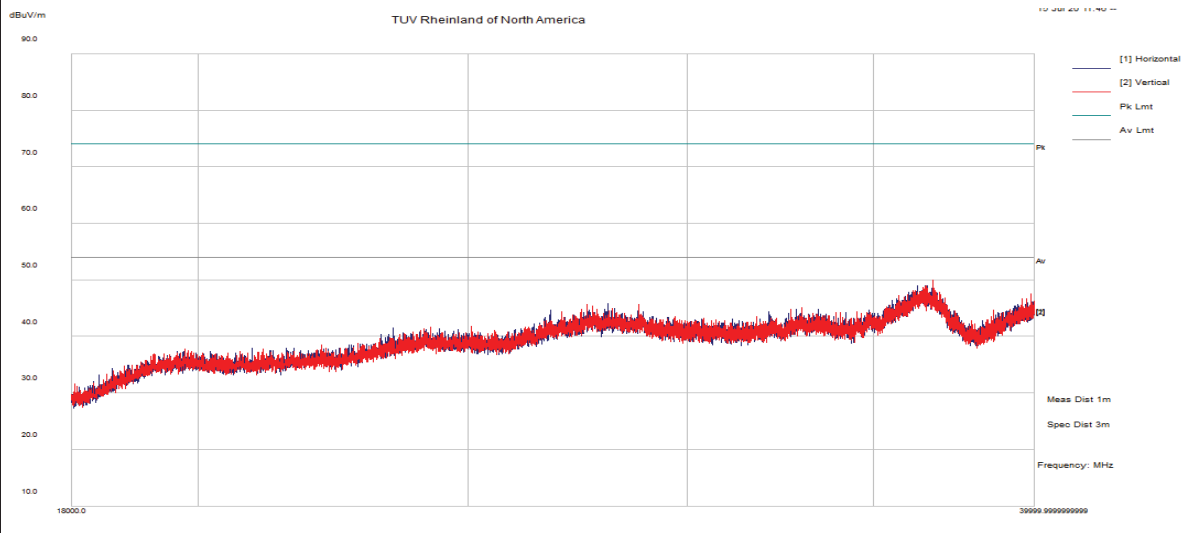
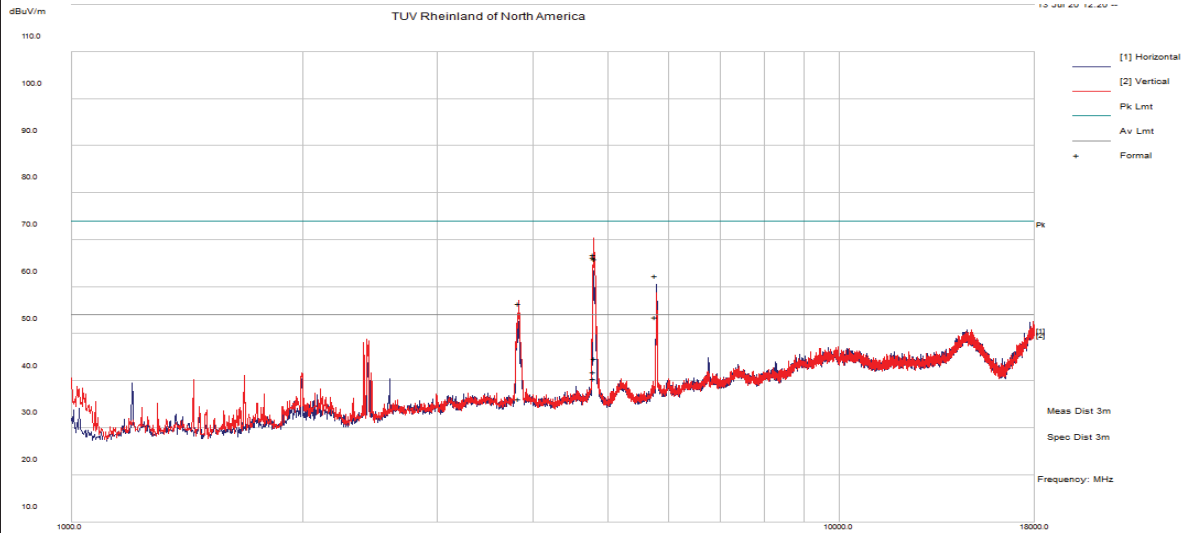
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5785 MHz



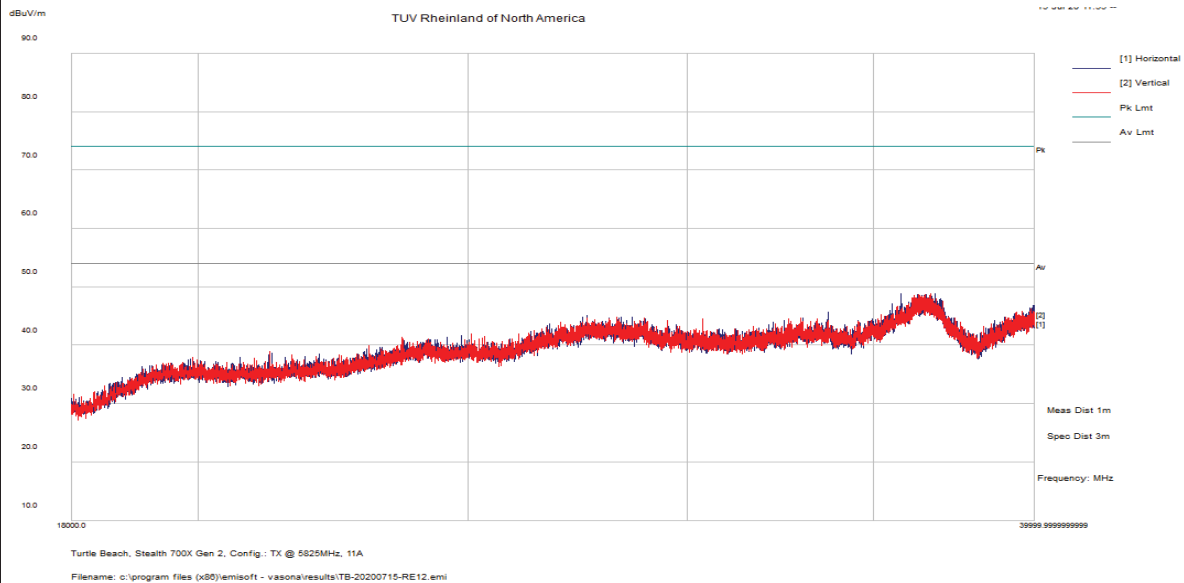
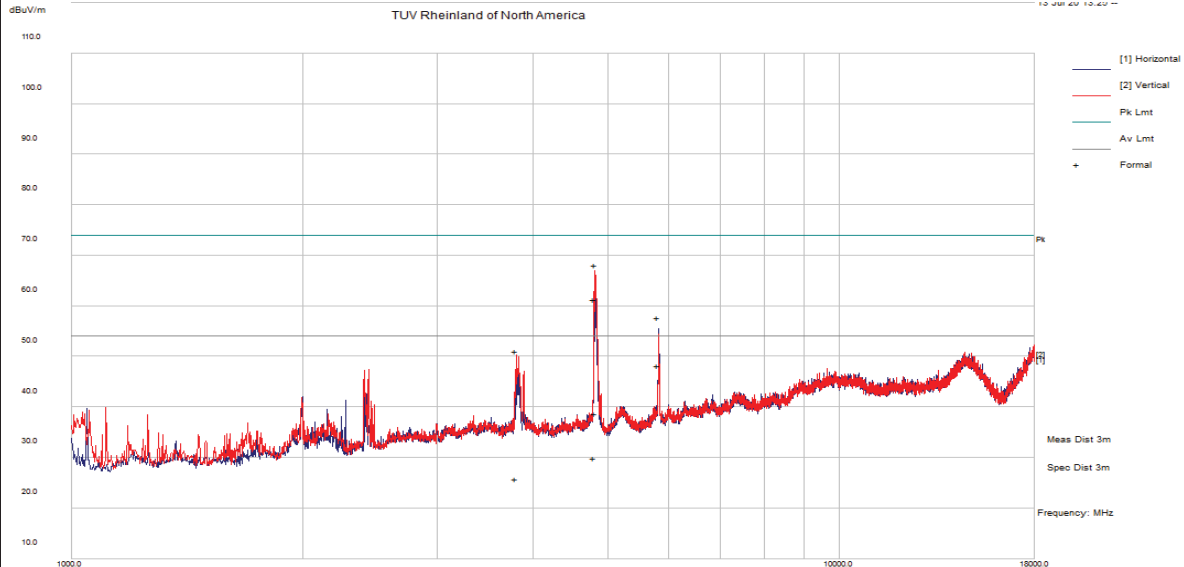
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11a mode at 6 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5825 MHz



Notes: No significant emission observed above 18 GHz.

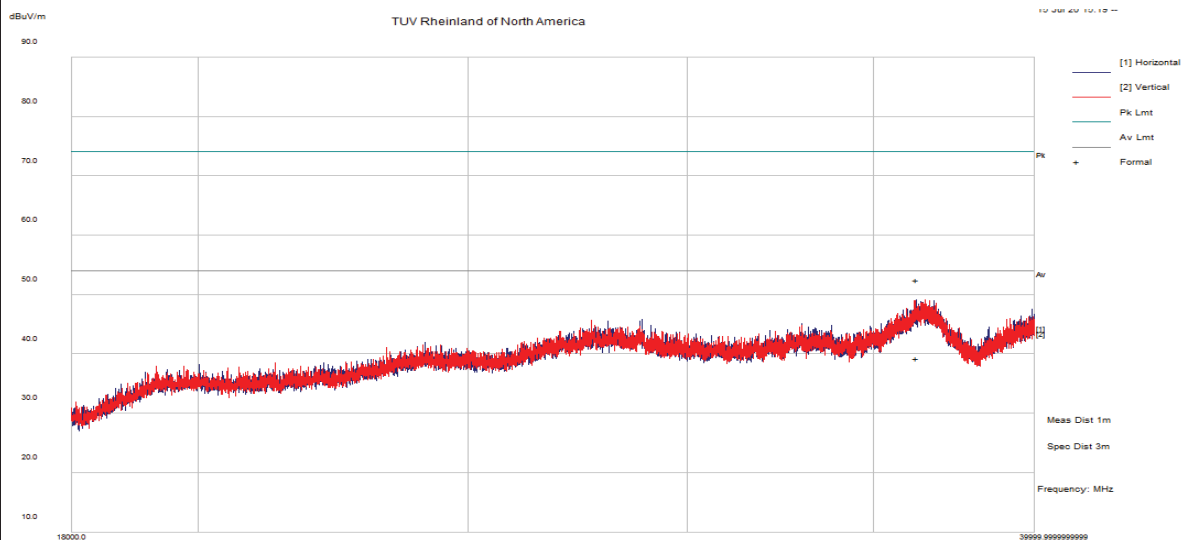
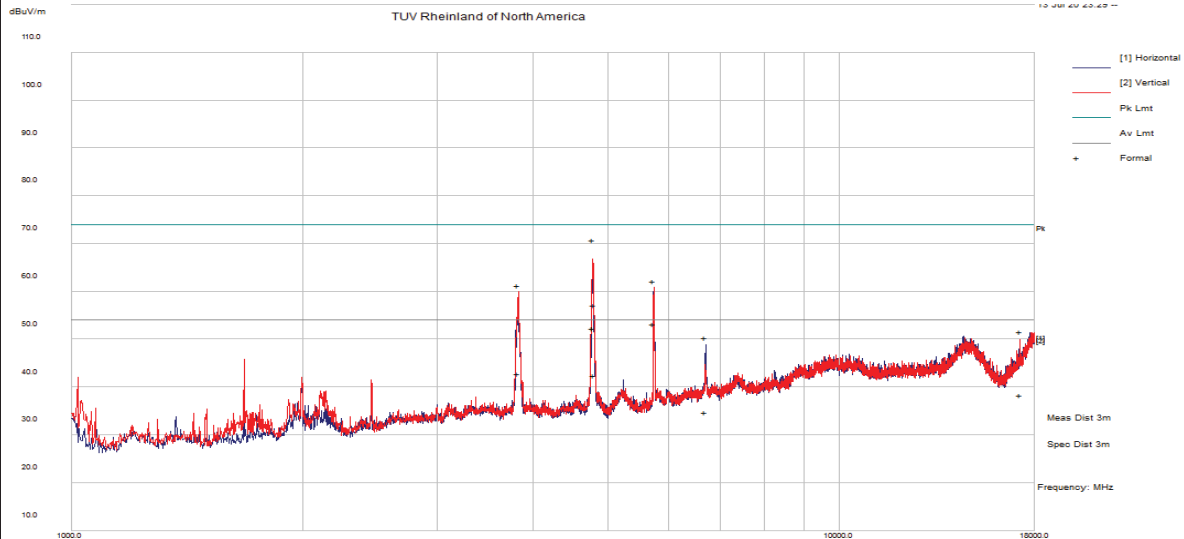
SOP 1 Radiated Emissions						Tracking # 32063007.001 Page 31 of 44					
EUT Name	Wireless Audio Headset					Date	July 13, 2020				
EUT Model	Stealth 700X Gen 2					Temp / Hum in	22° C / 34%rh				
EUT Serial	PP#2					Temp / Hum out	N/A				
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps					Line AC / Freq	3.7Vdc				
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN					RBW / VBW	1 MHz/ 3 MHz				
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840					Performed by	Jeremy Luong				
1 – 40 GHz Transmit at 5745 MHz (Low Channel)											
Frequency	Raw	Cable Loss	AF	Level	Detector	Polarity	Height	Azimuth	Limit	Margin	
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB	
6705.63	69.23	2.21	-21.04	50.40	Pk	H	122	90	74.00	-23.60	
6705.63	53.60	2.21	-21.04	34.78	Ave	H	122	90	54.00	-19.23	
3820.94	84.40	1.54	-24.59	61.35	Pk	V	167	26	74.00	-12.65	
3820.94	65.90	1.54	-24.59	42.85	Ave	V	167	26	54.00	-11.15	
4779.84	92.53	1.93	-23.66	70.80	Pk	V	193	258	74.00	-3.20	
4779.84	74.01	1.93	-23.66	52.29	Ave	V	193	258	54.00	-1.72	
4803.75	78.79	1.89	-23.59	57.10	Pk	V	174	236	74.00	-16.90	
4803.75	64.08	1.89	-23.59	42.38	Ave	V	174	236	54.00	-11.62	
17227.03	60.08	4.00	-12.54	51.54	Pk	V	149	150	74.00	-22.46	
17227.03	46.91	4.00	-12.54	38.37	Ave	V	149	150	54.00	-15.63	
1 – 40 GHz Transmit at 5785 MHz (Middle Channel)											
3812.97	81.77	1.54	-24.62	58.69	Pk	V	211	352	74.00	-15.31	
3812.97	57.82	1.54	-24.62	34.74	Ave	V	211	352	54.00	-19.26	
4771.88	81.02	1.94	-23.72	59.24	Pk	V	106	258	74.00	-14.76	
4771.88	54.97	1.94	-23.72	33.19	Ave	V	106	258	54.00	-20.81	
4801.09	88.41	1.89	-23.59	66.71	Pk	V	243	360	74.00	-7.29	
4801.09	65.61	1.89	-23.59	43.91	Ave	V	243	360	54.00	-10.09	
1 – 40 GHz Transmit at 5825 MHz (High Channel)											
3820.94	80.59	1.54	-24.59	57.53	Pk	H	121	8	74.00	-16.47	
3820.94	63.03	1.54	-24.59	39.98	Ave	H	121	8	54.00	-14.03	
4798.44	91.90	1.90	-23.60	70.20	Pk	V	113	218	74.00	-3.80	
4798.44	72.70	1.90	-23.60	51.00	Ave	V	113	218	54.00	-3.00	
4806.41	90.80	1.90	-23.60	69.10	Pk	V	103	232	74.00	-4.90	
4806.41	73.50	1.90	-23.60	51.80	Ave	V	103	232	54.00	-2.20	
6772.03	68.75	2.34	-20.75	50.35	Pk	H	138	114	74.00	-23.65	
6772.03	52.25	2.34	-20.75	33.85	Ave	H	138	114	54.00	-20.15	
Spec Margin = E-Field AVG - Limit, E-Field AVG= FIM AVG+ Total CF ± Uncertainty											
Total CF= AF+ Cable Loss AF= Antenna factor + Preamp											
Note: Worst case emission was observed at 6.5 Mbps for 802.11n HT20 mode.											
Headset intended to transmit at about +5 dBm.											

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C, RSS-247, RSS-GEN	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5745 MHz



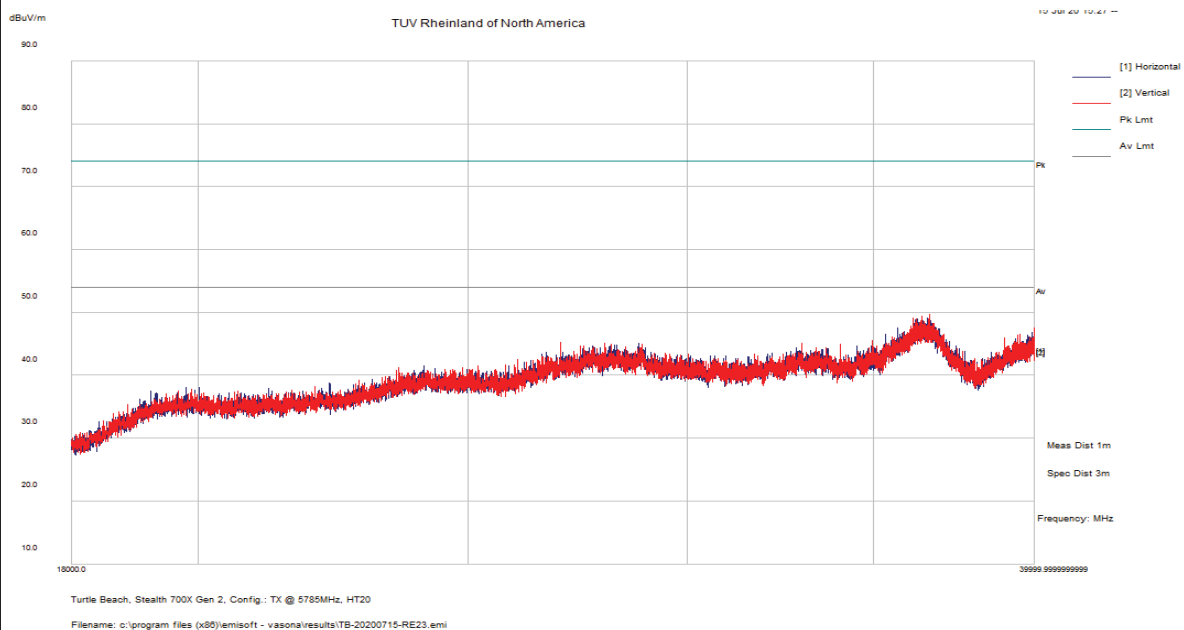
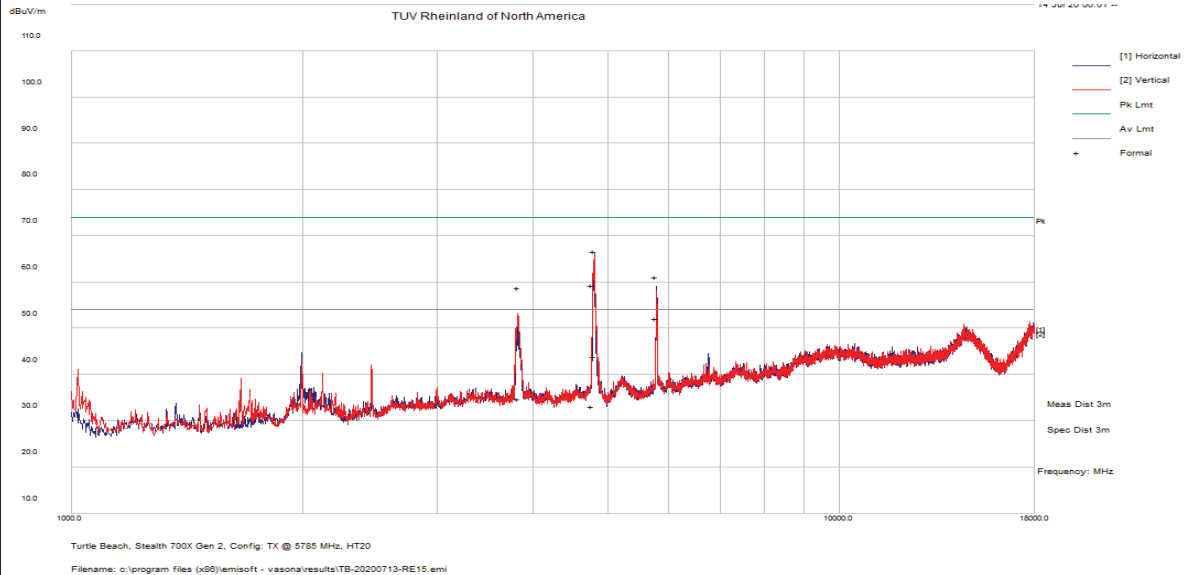
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5785 MHz



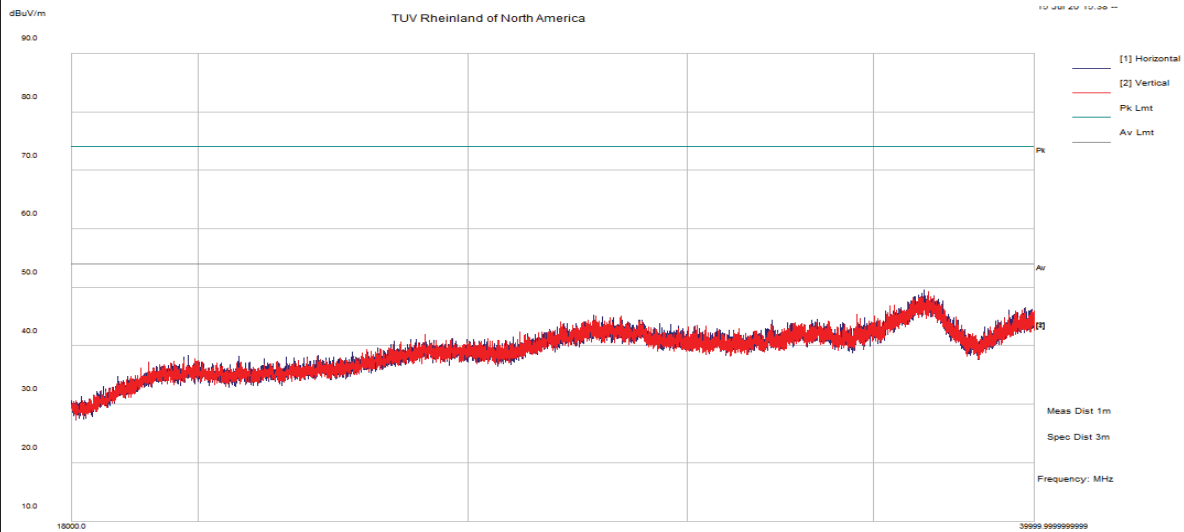
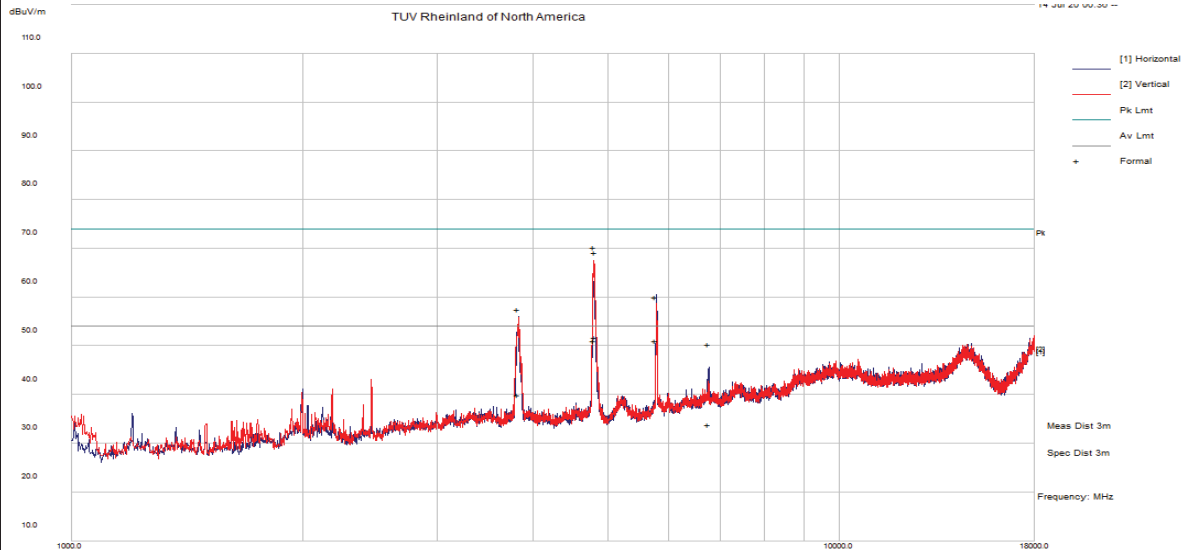
Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	July 13, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	22° C / 34%rh
EUT Serial	PP #2	Temp / Hum out	N/A
EUT Config.	Headset upright in 802.11n HT20 mode 6.5 Mbps	Line AC / Freq	3.7Vdc
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz/ 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / COM-POWER AHA-840	Performed by	Jeremy Luong

Above 1 GHz Plots for Transmit Mode at 5825 MHz



Notes: No significant emission observed above 18 GHz.

SOP 1 Radiated Emissions							Tracking # 32063007.001 Page 35 of 44					
EUT Name	Wireless Audio Headset						Date	September 21, 2020				
EUT Model	Stealth 700X Gen 2						Temp / Hum in	21°C / 42%rh				
EUT Serial	PP #6						Temp / Hum out	N/A				
EUT Config.	Headset upright. Collocation						Line AC / Freq	3.7 VDC				
Standard	CFR47 Part 15 Subpart C						RBW / VBW	1 MHz / 3 MHz				
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840						Performed by	Jeremy Luong				
Freq	Raw	Cbl	AF	Level	Det	Pol	Hght	Azt	Limit	Margin	Comment	
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB		
Transmitted Data. 802.11a @ 5180 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)												
10360.80	66.36	2.77	-16.05	53.08	Pk	H	153	306	74.00	-20.92	Harmonics	
10360.80	52.90	2.77	-16.05	39.61	Ave	H	153	306	54.00	-14.39	Harmonics	
1993.06	76.08	0.89	-29.57	47.40	Pk	V	173	290	74.00	-26.60	Spurious	
1993.06	57.17	0.89	-29.57	28.49	Ave	V	173	290	54.00	-25.51	Spurious	
4804.53	63.35	1.89	-23.59	41.65	Pk	V	195	82	74.00	-32.35	Harmonics	
4804.53	53.28	1.89	-23.59	31.58	Ave	V	195	82	54.00	-22.42	Harmonics	
7206.67	64.40	2.40	-20.04	46.76	Pk	V	109	168	74.00	-27.24	Harmonics	
7206.67	55.39	2.40	-20.04	37.75	Ave	V	109	168	54.00	-16.25	Harmonics	
Transmitted Data. 802.11a @ 5300 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)												
4804.55	64.10	1.90	-23.60	42.40	Pk	V	126	258	74.00	-31.60	Harmonics	
4804.55	48.61	1.89	-23.59	26.91	Ave	V	126	258	54.00	-27.09	Harmonics	
7206.69	58.21	2.40	-20.04	40.57	Pk	V	101	162	74.00	-33.43	Harmonics	
7206.69	46.37	2.40	-20.04	28.74	Ave	V	101	162	54.00	-25.26	Harmonics	
9982.05	58.30	2.79	-15.97	45.11	Pk	V	140	252	74.00	-28.89	Harmonics	
9982.05	46.96	2.79	-15.97	33.78	Ave	V	140	252	54.00	-20.22	Harmonics	
10233.27	58.35	2.91	-15.76	45.51	Pk	H	104	198	74.00	-28.50	Harmonics	
10233.27	46.30	2.91	-15.76	33.46	Ave	H	104	198	54.00	-20.55	Harmonics	
10599.62	67.78	3.06	-16.38	54.46	Pk	H	157	92	74.00	-19.54	Harmonics	
10599.62	54.14	3.06	-16.38	40.82	Ave	H	157	92	54.00	-13.18	Harmonics	
Transmitted Data. 802.11a @ 5500 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)												
1997.42	75.37	0.90	-29.58	46.68	Pk	H	172	278	74.00	-27.32	Spurious	
1997.42	55.20	0.90	-29.58	26.52	Ave	H	172	278	54.00	-27.48	Spurious	
7333.27	63.87	2.49	-19.60	46.76	Pk	H	146	106	74.00	-27.24	Harmonics	
7333.27	58.26	2.49	-19.60	41.15	Ave	H	146	106	54.00	-12.85	Harmonics	
11000.61	68.22	3.07	-17.46	53.83	Pk	H	120	102	74.00	-20.17	Harmonics	
11000.61	55.01	3.07	-17.46	40.62	Ave	H	120	102	54.00	-13.38	Harmonics	
3664.96	66.67	1.55	-25.32	42.90	Pk	V	219	360	74.00	-31.10	Spurious	
3664.96	54.17	1.55	-25.32	30.40	Ave	V	219	360	54.00	-23.60	Spurious	
4804.51	63.93	1.89	-23.59	42.24	Pk	V	161	68	74.00	-31.76	Harmonics	
4804.51	53.97	1.89	-23.59	32.27	Ave	V	161	68	54.00	-21.73	Harmonics	
7206.90	58.20	2.40	-20.04	40.56	Pk	V	170	50	74.00	-33.44	Harmonics	
7206.90	46.41	2.40	-20.04	28.77	Ave	V	170	50	54.00	-25.23	Harmonics	

14673.39	59.11	3.56	-12.65	50.02	Pk	V	132	204	74.00	-23.98	Spurious
14673.39	46.89	3.56	-12.65	37.80	Ave	V	132	204	54.00	-16.20	Spurious
Transmitted Data. 802.11a @ 5745 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)											
6717.99	68.72	2.24	-21.02	49.94	Pk	H	124	110	74.00	-24.07	Spurious
6717.99	50.46	2.24	-21.02	31.68	Ave	H	124	110	54.00	-22.32	Spurious
7208.52	58.15	2.40	-20.02	40.53	Pk	H	159	254	74.00	-33.47	Harmonics
7208.52	46.35	2.40	-20.02	28.73	Ave	H	159	254	54.00	-25.28	Harmonics
17236.07	60.47	4.00	-12.45	52.01	Pk	H	200	124	74.00	-21.99	Harmonics
17236.07	47.00	4.00	-12.45	38.54	Ave	H	200	124	54.00	-15.46	Harmonics
3814.57	79.05	1.54	-24.62	55.98	Pk	V	144	336	74.00	-18.03	Spurious
3814.57	56.25	1.54	-24.62	33.18	Ave	V	144	336	54.00	-20.82	Spurious
4773.32	86.89	1.94	-23.71	65.12	Pk	V	183	148	74.00	-8.88	Spurious
4773.32	61.67	1.94	-23.71	39.89	Ave	V	183	148	54.00	-14.11	Spurious
4779.07	84.51	1.93	-23.66	62.78	Pk	V	126	126	74.00	-11.22	Spurious
4779.07	61.26	1.93	-23.66	39.52	Ave	V	126	126	54.00	-14.48	Spurious
Spec Margin = Level - Limit, Level = Raw + Cbl+ CF $\pm$ Uncertainty. CF= Amp Gain + ANT Factor											
Combined Standard Uncertainty $u_c(y) = \pm 3.2\text{dB}$ Expanded Uncertainty $U = k u_c(y)$ $k = 2$ for 95% confidence											
Notes: All emissions passed the spurious emission limit.											

SOP 1 Radiated Emissions							Tracking # 32063007.001 Page 36 of 44				
EUT Name	Wireless Audio Headset						Date	September 21, 2020			
EUT Model	Stealth 700X Gen 2						Temp / Hum in	21°C / 42%rh			
EUT Serial	PP #6						Temp / Hum out	N/A			
EUT Config.	Headset upright. Collocation						Line AC / Freq	3.7 VDC			
Standard	CFR47 Part 15 Subpart C						RBW / VBW	1 MHz / 3 MHz			
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840						Performed by	Jeremy Luong			
Freq	Raw	Cbl	AF	Level	Det	Pol	Hght	Azt	Limit	Margin	Comment
MHz	dBuV/m	dB	dB	dBuV/m		H/V	cm	deg	dBuV/m	dB	
Transmitted Data. 802.11 HT20 @ 5240 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)											
1996.81	73.69	0.89	-29.58	45.01	Pk	H	244	270	74.00	-29.00	Spurious
1996.81	52.91	0.89	-29.58	24.22	Ave	H	244	270	54.00	-29.78	Spurious
4805.64	63.40	1.90	-23.60	41.70	Pk	V	169	140	74.00	-32.30	Harmonics
4805.64	58.50	1.90	-23.60	36.80	Ave	V	169	140	54.00	-17.20	Harmonics
7209.02	62.70	2.40	-20.00	45.10	Pk	V	231	170	74.00	-28.90	Harmonics
7209.02	56.40	2.40	-20.00	38.80	Ave	V	231	170	54.00	-15.20	Harmonics
10358.66	66.06	2.76	-16.06	52.76	Pk	H	140	308	74.00	-21.24	Harmonics
10358.66	52.91	2.76	-16.06	39.61	Ave	H	140	308	54.00	-14.39	Harmonics
Transmitted Data. 802.11 HT20 @ 5300 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)											
1996.82	78.25	0.89	-29.58	49.56	Pk	V	231	358	74.00	-24.44	Spurious
1996.82	54.72	0.89	-29.58	26.04	Ave	V	231	358	54.00	-27.96	Spurious
4802.14	64.30	1.90	-23.60	42.60	Pk	V	109	20	74.00	-31.40	Harmonics
4802.14	60.90	1.90	-23.60	39.20	Ave	V	109	20	54.00	-14.80	Harmonics
7206.70	57.99	2.40	-20.04	40.35	Pk	V	112	176	74.00	-33.65	Harmonics
7206.70	46.27	2.40	-20.04	28.63	Ave	V	112	176	54.00	-25.37	Harmonics
10600.94	69.56	3.06	-16.38	56.24	Pk	V	189	56	74.00	-17.76	Harmonics
10600.94	55.36	3.06	-16.38	42.03	Ave	V	189	56	54.00	-11.97	Harmonics
Transmitted Data. 802.11 HT20 @ 5580 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)											
3727.90	66.00	1.60	-25.10	42.50	Pk	V	162	96	74.00	-31.50	Spurious
3727.90	57.70	1.60	-25.10	34.20	Ave	V	162	96	54.00	-19.80	Spurious
7206.71	63.46	2.40	-20.04	45.83	Pk	V	125	176	74.00	-28.17	Harmonics
7206.71	54.29	2.40	-20.04	36.65	Ave	V	125	176	54.00	-17.35	Harmonics
7440.01	64.44	2.46	-19.54	47.36	Pk	H	191	110	74.00	-26.64	Harmonics
7440.01	58.95	2.46	-19.54	41.86	Ave	H	191	110	54.00	-12.14	Harmonics
11158.41	64.59	3.18	-17.53	50.25	Pk	V	176	108	74.00	-23.76	Harmonics
11158.41	52.13	3.18	-17.53	37.79	Ave	V	176	108	54.00	-16.21	Harmonics
Transmitted Data. 802.11a @ 5785 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)											
3854.23	68.38	1.54	-24.76	45.16	Pk	V	178	0	74.00	-28.84	Spurious
3854.23	55.34	1.54	-24.76	32.12	Ave	V	178	0	54.00	-21.88	Spurious
4794.28	79.57	1.90	-23.61	57.86	Pk	V	130	284	74.00	-16.14	Spurious
4794.28	50.25	1.90	-23.61	28.54	Ave	V	130	284	54.00	-25.47	Spurious
4818.28	74.33	1.89	-23.55	52.67	Pk	V	160	134	74.00	-21.33	Harmonics

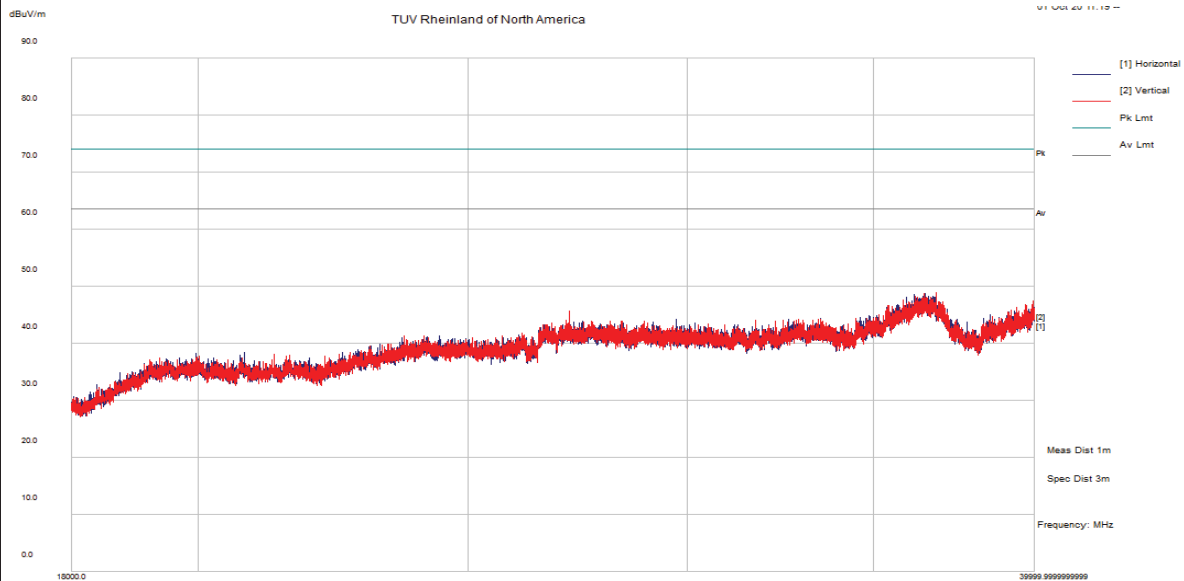
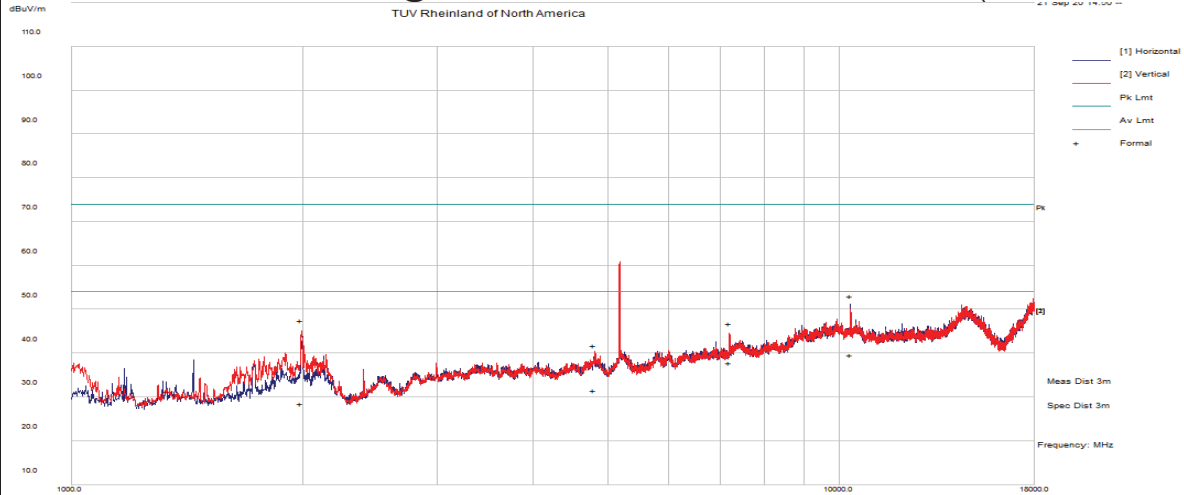
4818.28	53.33	1.89	-23.55	31.68	Ave	V	160	134	54.00	-22.33	Harmonics
7209.53	61.90	2.40	-20.00	44.30	Pk	V	176	208	74.00	-29.70	Harmonics
7209.53	53.30	2.40	-20.00	35.70	Ave	V	176	208	54.00	-18.30	Harmonics
Spec Margin = Level - Limit, Level = Raw + Cbl+ CF $\pm$ Uncertainty. CF= Amp Gain + ANT Factor											
Combined Standard Uncertainty $u_c(y) = \pm 3.2\text{dB}$ Expanded Uncertainty $U = k u_c(y)$ $k = 2$ for 95% confidence											
Notes: All emissions passed the spurious emission limit.											

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11a @ 5180 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



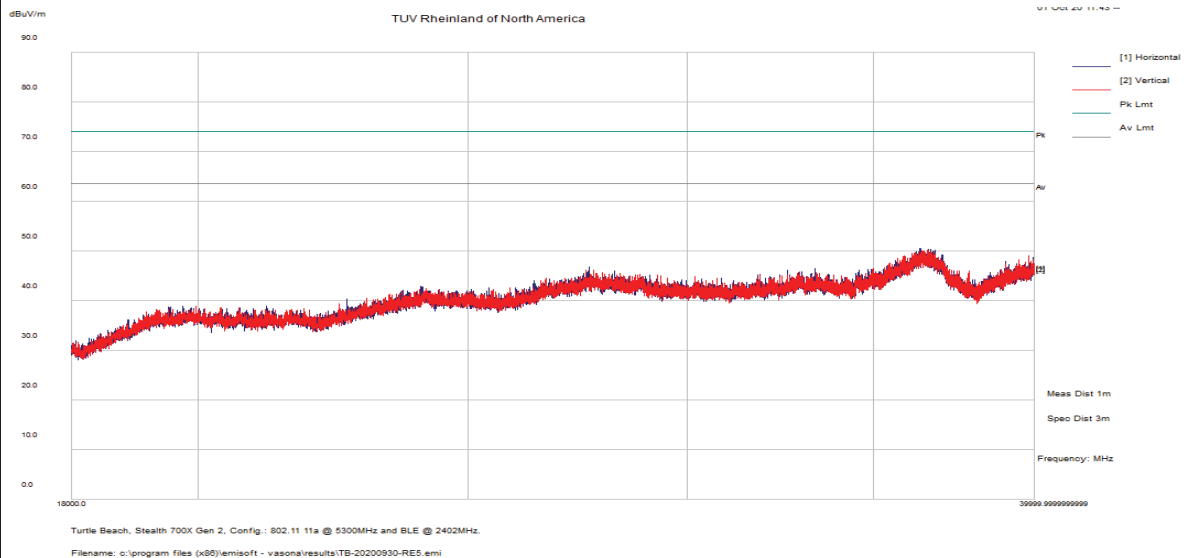
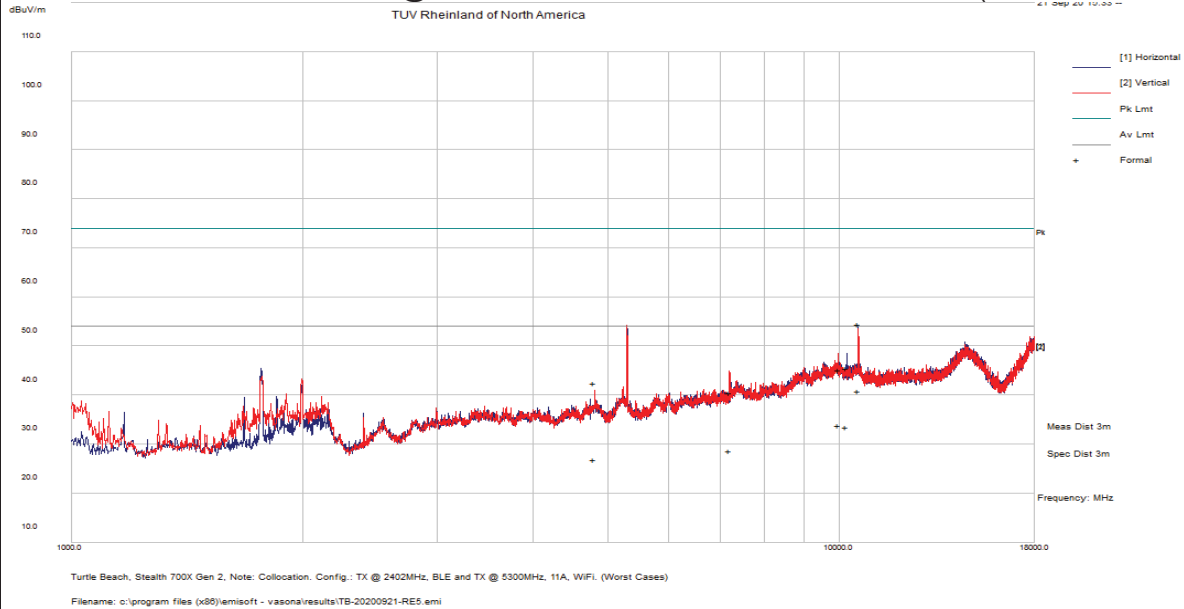
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11a @ 5300 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



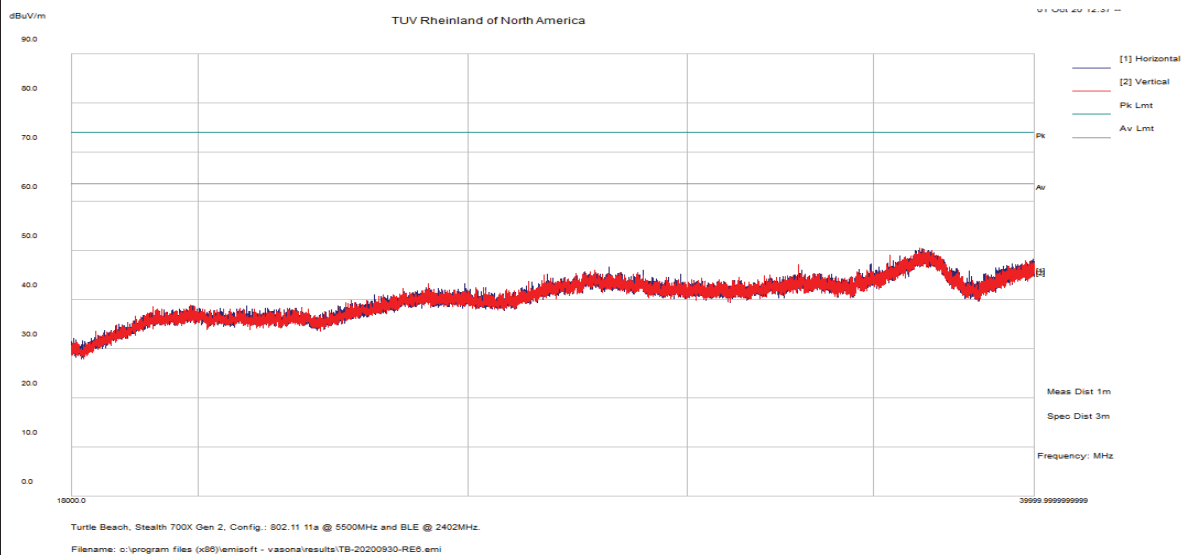
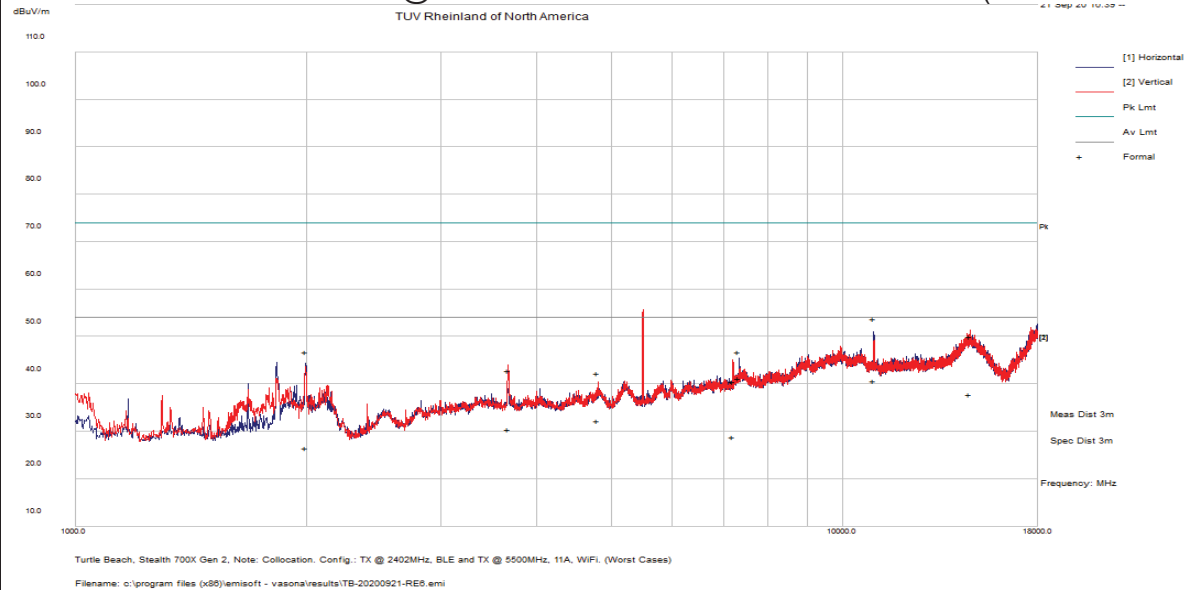
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700P Gen 2 RX	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11a @ 5500 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



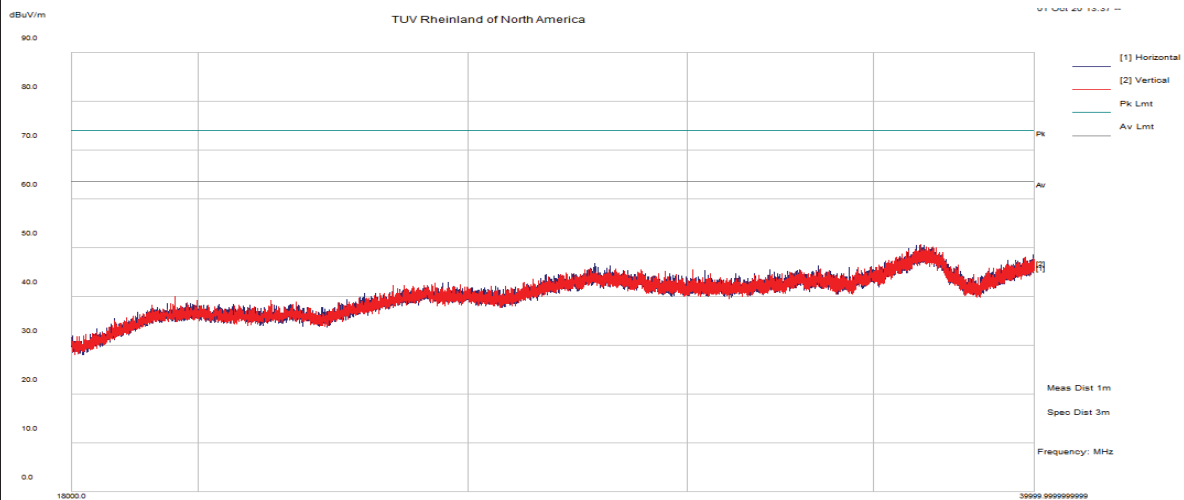
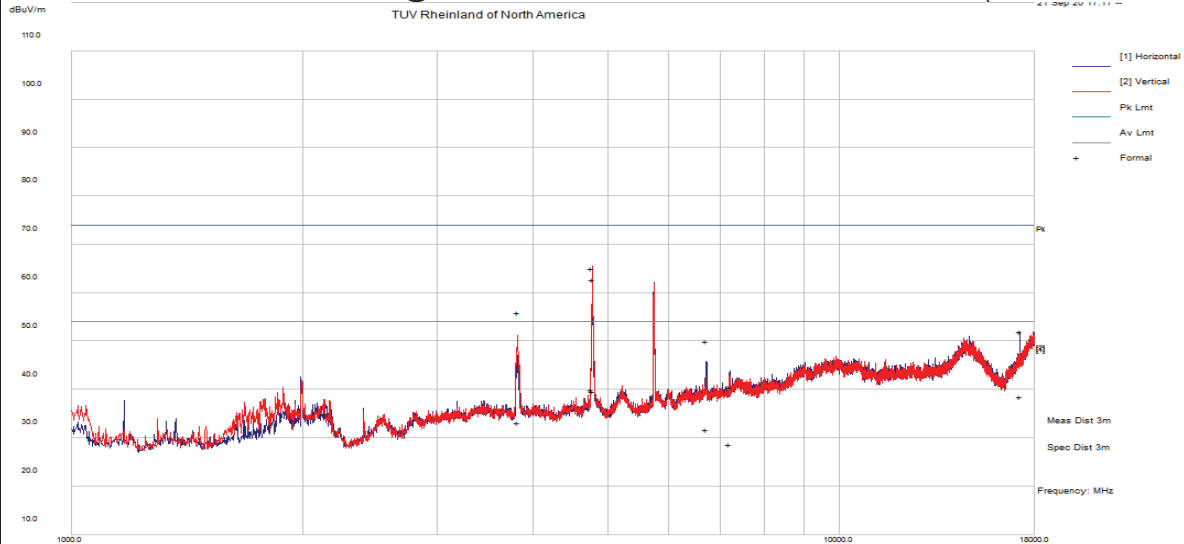
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700P Gen 2 RX	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11a @ 5745 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



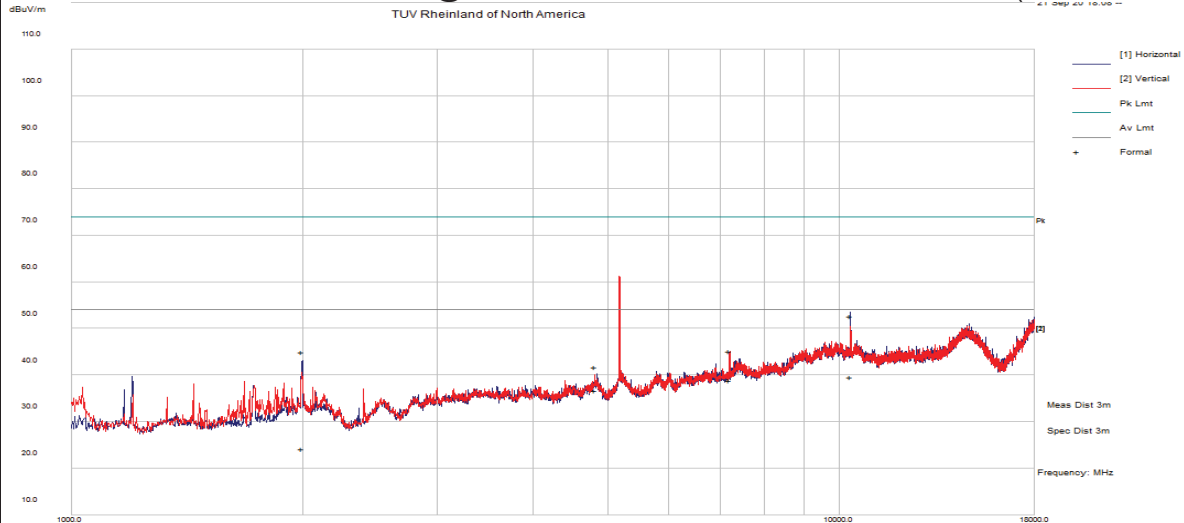
Notes: None.

SOP 1 Radiated Emissions

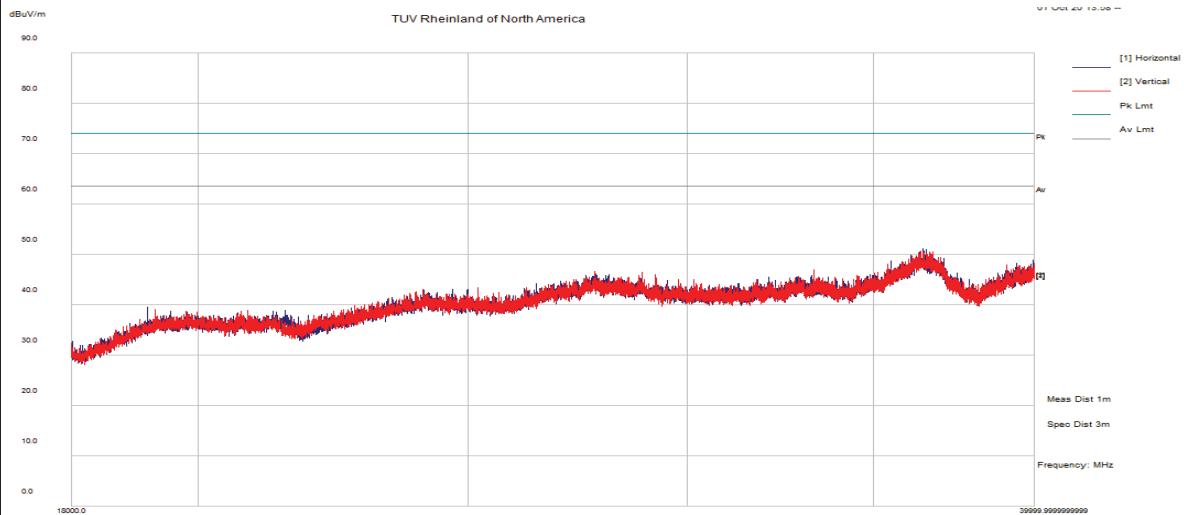
Tracking # 32063007.001 Page 41 of 44

EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11n HT20 @ 5240 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



Turtle Beach, Stealth 700X Gen 2, Note: Collocation. Config.: TX @ 2402MHz, BLE and TX @ 5240MHz, HT20, WiFi. (Worst Cases)
Filename: c:\program files (x86)\emisoft - vasonal\results\TB-20200921-RES.eml



Turtle Beach, Stealth 700X Gen 2, Config.: 802.11 HT20 @ 5240MHz and BLE @ 2402MHz.
Filename: c:\program files (x86)\emisoft - vasonal\results\TB-20200930-RES.eml

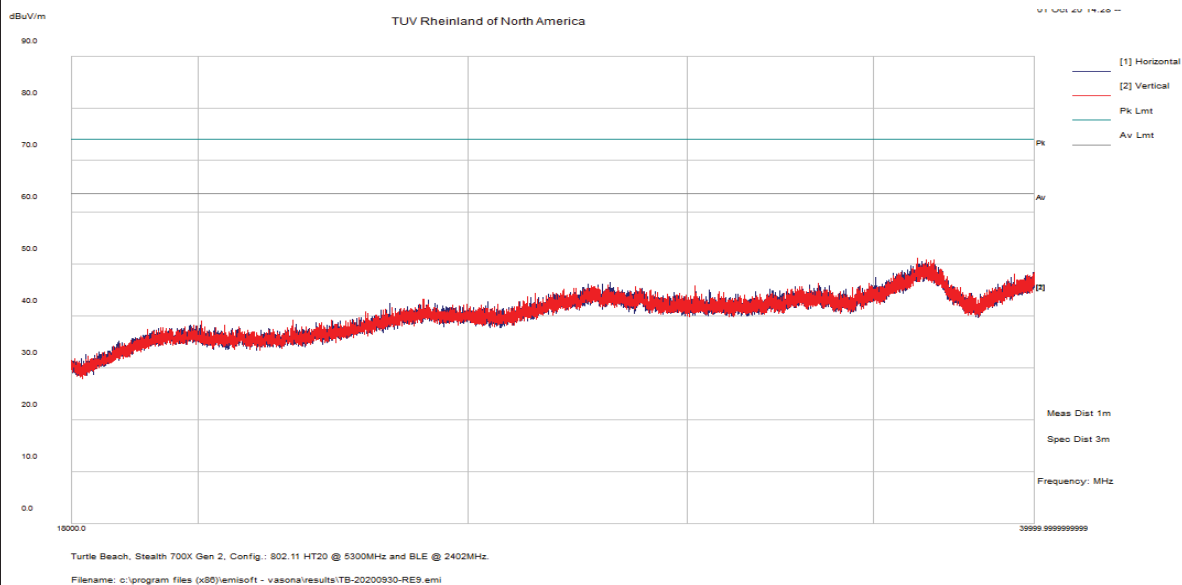
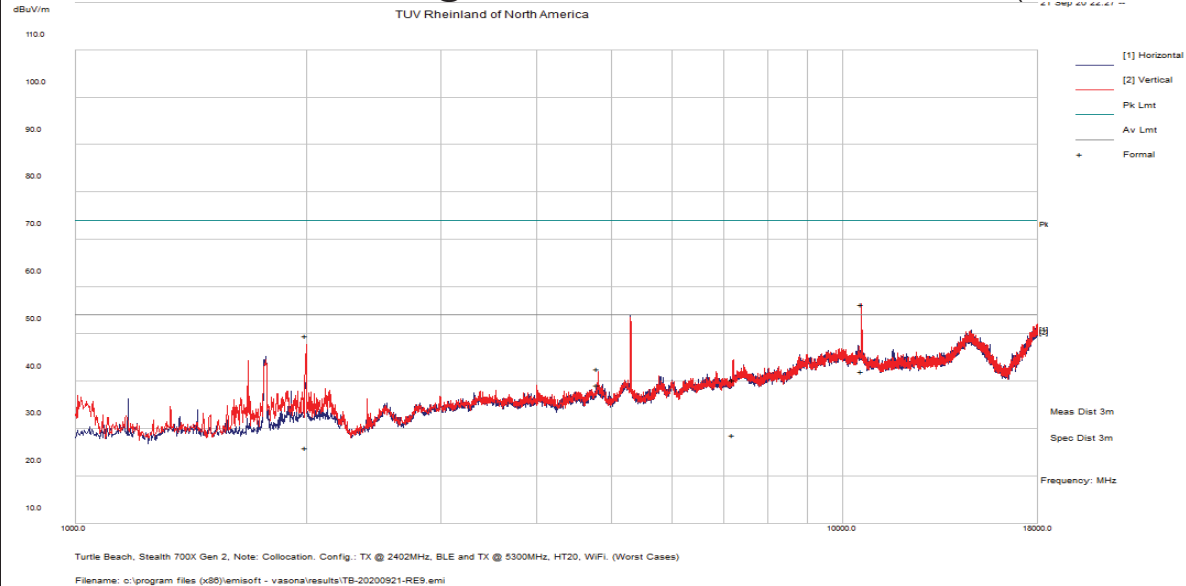
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11n HT20 @ 5300 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



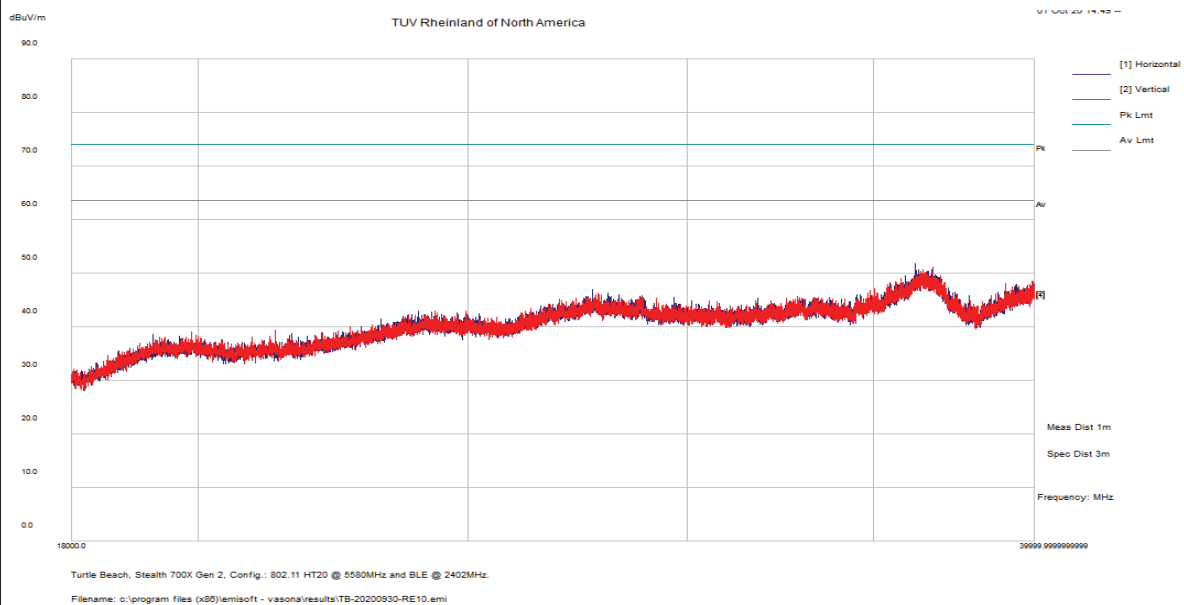
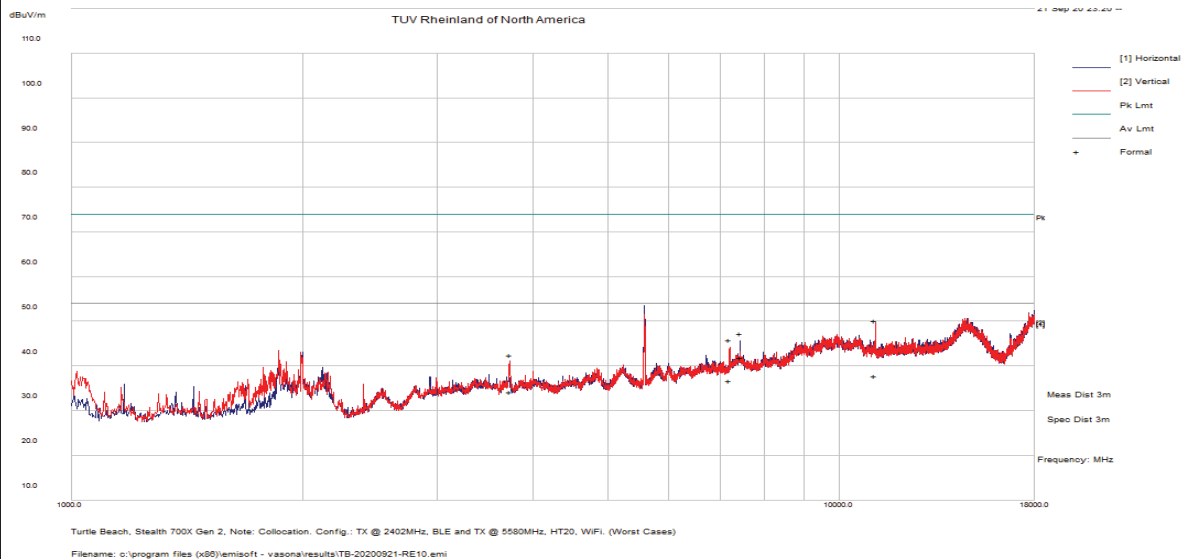
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700P Gen 2 RX	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11n HT20 @ 5580 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



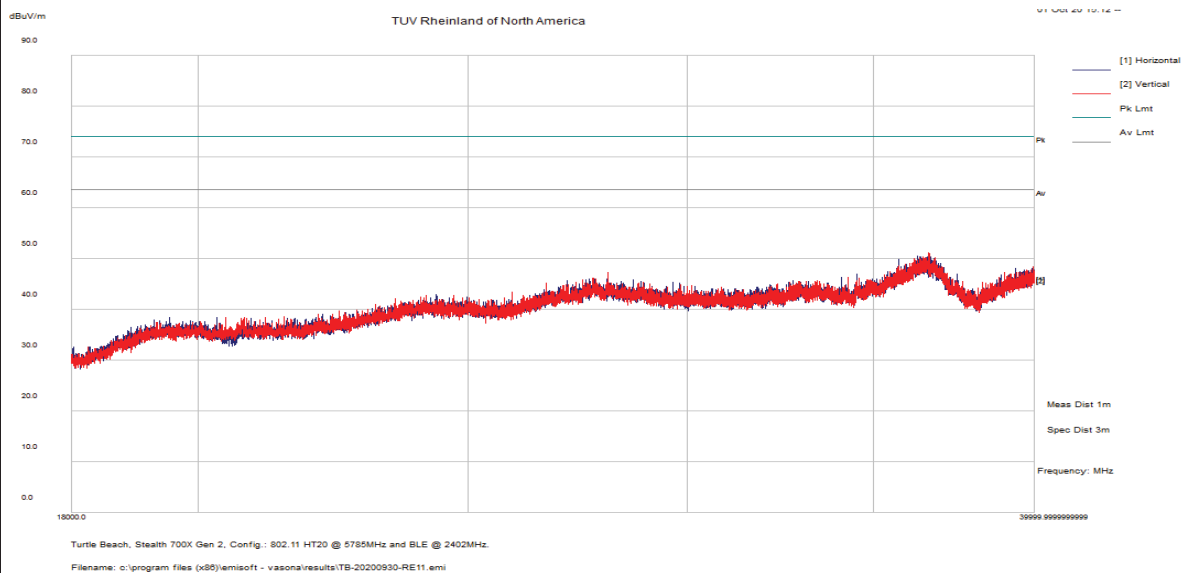
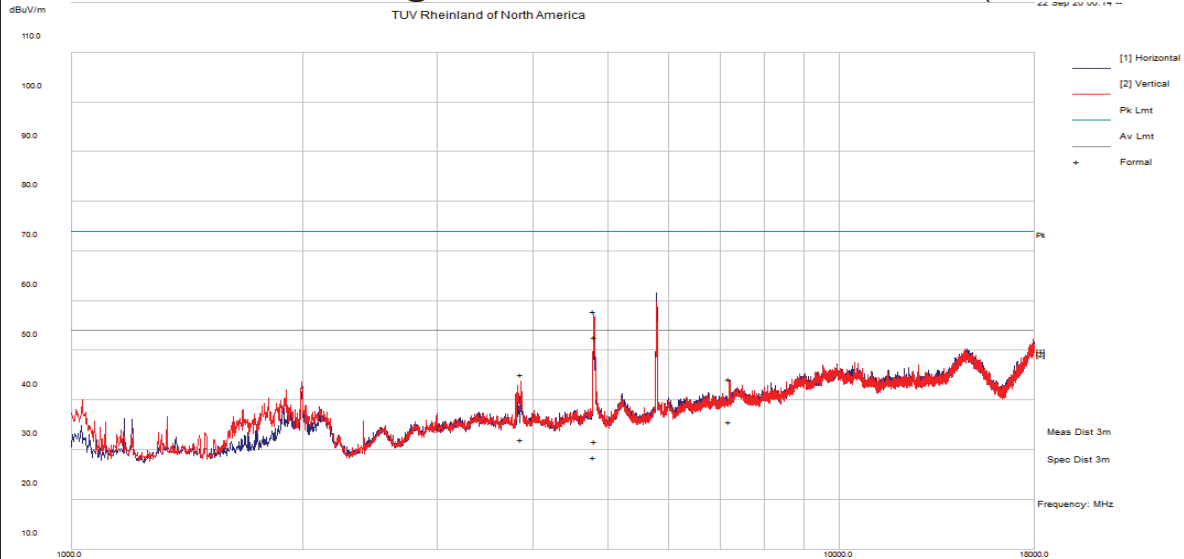
Notes: None.

SOP 1 Radiated Emissions

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EUT Name	Wireless Audio Headset	Date	September 21, 2020
EUT Model	Stealth 700P Gen 2 RX	Temp / Hum in	21°C / 42%rh
EUT Serial	PP #6	Temp / Hum out	N/A
EUT Config.	Headset upright. Collocation	Line AC / Freq	3.7 VDC
Standard	CFR47 Part 15 Subpart C	RBW / VBW	1 MHz / 3 MHz
Dist/Ant Used	3m / EMCO-3115, 1m / ComPower-AHA840	Performed by	Jeremy Luong

Transmitted Data. 802.11a @ 5785 MHz and Bluetooth Radio at 2402 MHz. (Radio Worst Case)



Notes: None.

4.6 AC Conducted Emissions

Testing was performed in accordance with ANSI C63.4: 2014. These test methods are listed under the laboratory's A2LA Scope of Accreditation.

This test measures the levels emanating from the EUT's AC input port, thus evaluating the potential for the EUT to cause radio frequency interference to other electronic devices.

The AC conducted emissions of equipment under test shall not exceed the values in CFR47 Part 15.207: 2020 and RSS GEN: 2019.

4.6.1 Test Methodology

A test program that controls instrumentation and data logging was used to automate the AC Power Line Conducted emission test procedure. The frequency range of interest was divided into sub-ranges such as to yield a frequency resolution of 9 kHz. Each phase and neutral of the AC power line were measured with respect to ground. Measurements were performed using a set of 50 μ H / 50 Ω LISNs.

Testing is performed in Lab 5. The setup photographs clearly identify which site was used. The vertical ground plane used in the semi-anechoic chamber is a 2m x 2m solid aluminum frame and panel, and it is bonded to the horizontal ground plane.

In the case of tabletop equipment, the EUT is placed on a 1.0m x 1.5m non-conductive table 80cm above the ground plane and 40cm from a vertical ground reference plane. The rear of the EUT was positioned flush with the backside of the table and directly over the LISNs. The power and I/O cables were routed over the edge of the table and bundled approximately 40cm from the ground plane. Support equipment was powered from a separate LISN.

4.6.1.1 Deviations

There were no deviations from this test methodology.

4.6.2 Test Results

As originally tested, the EUT was found to be compliant to the requirements of the test standard(s).

Table 12: AC Conducted Emissions – Test Results

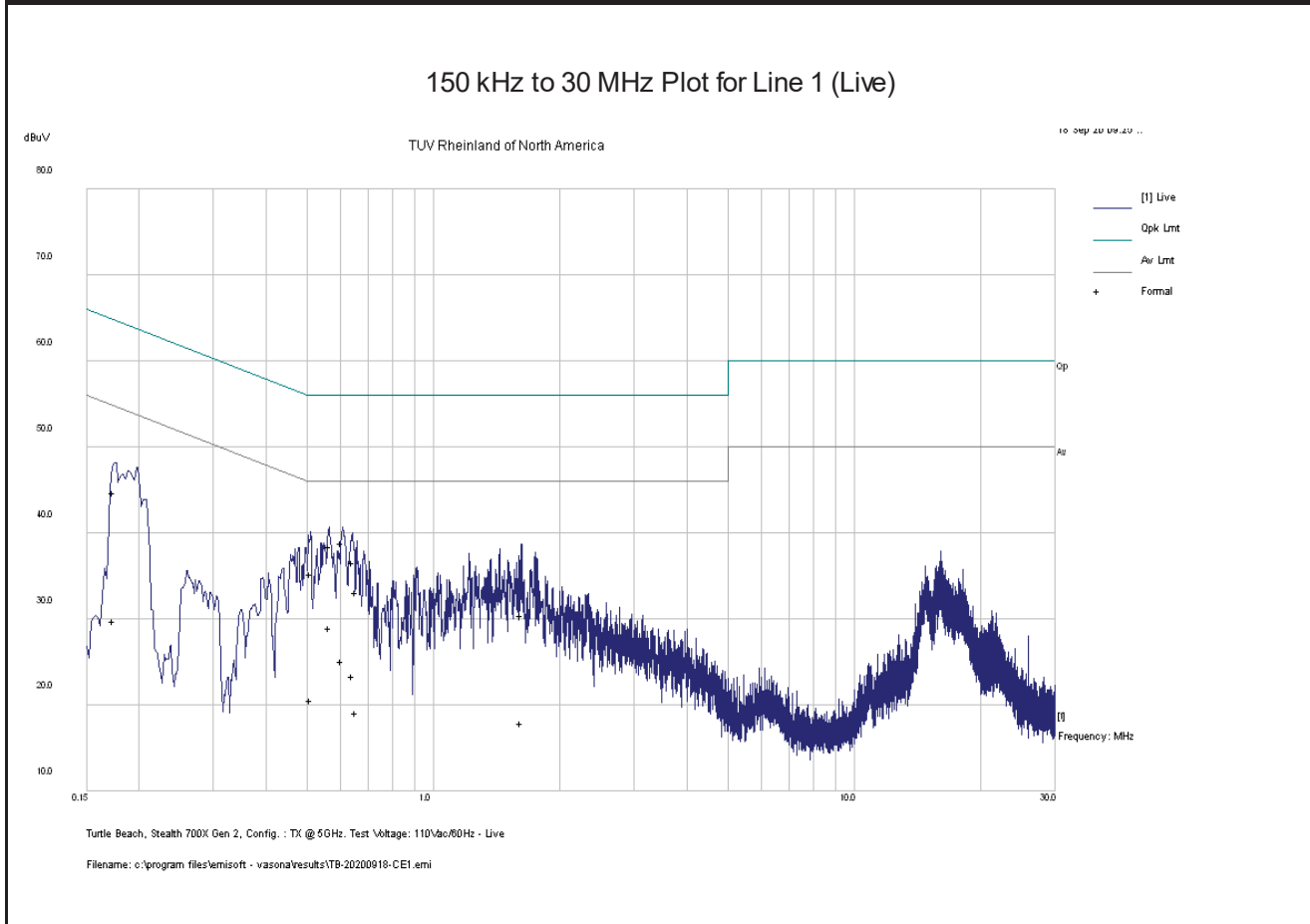
Test Conditions: Conducted Measurement at Normal Conditions only		Date: September 18, 2020
Antenna Type: Chip		Power Level: See Test Plan
AC Power: 110 Vac/60 Hz at host device		Configuration: Tabletop
Ambient Temperature: 23° C		Relative Humidity: 36% RH
Configuration	Frequency Range	Test Result
Line 1 (Hot)	0.15 to 30 MHz	Pass
Line 2 (Neutral)	0.15 to 30 MHz	Pass

SOP 2 Conducted Emissions						Tracking # 32063007.001 Page 1 of 4			
EUT Name	Wireless Audio Headset					Date	September 18, 2020		
EUT Model	Stealth 700X Gen 2					Temp / Hum in	23° C / 36% rh		
EUT Serial	PP#2					Temp / Hum out	N/A		
EUT Config.	TX mode: 802.11a mode at 6 Mbps, 5500 MHz					Line AC / Freq	110Vac / 60Hz (host)		
Standard	CFR47 Part 15.207 and RSS Gen					RBW / VBW	9 kHz / 30 kHz		
Lab/LISN	Lab #5 /Com-Power, Line 1					Performed by	Jeremy Luong		
Frequency	Raw	Limiter	Ins. Loss	Level	Detector	Line	Limit	Margin	Result
MHz	dBuV	dB	dB	dBuV			dBuV	dB	
0.174	34.65	9.95	0.08	44.68	QP	Live	64.75	-20.07	Pass
0.174	19.70	9.95	0.08	29.73	Ave	Live	54.75	-25.02	Pass
0.511	25.25	9.98	0.04	35.27	QP	Live	56.00	-20.73	Pass
0.511	10.54	9.98	0.04	20.56	Ave	Live	46.00	-25.44	Pass
0.565	28.43	9.98	0.04	38.45	QP	Live	56.00	-17.55	Pass
0.565	18.92	9.98	0.04	28.94	Ave	Live	46.00	-17.06	Pass
0.606	28.77	9.98	0.04	38.79	QP	Live	56.00	-17.21	Pass
0.606	15.08	9.98	0.04	25.10	Ave	Live	46.00	-20.90	Pass
0.644	26.59	9.98	0.04	36.61	QP	Live	56.00	-19.39	Pass
0.644	13.40	9.98	0.04	23.42	Ave	Live	46.00	-22.58	Pass
0.657	23.14	9.98	0.04	33.16	QP	Live	56.00	-22.84	Pass
0.657	9.06	9.98	0.04	19.08	Ave	Live	46.00	-26.92	Pass
1.618	20.45	10.00	0.04	30.50	QP	Live	56.00	-25.50	Pass
1.618	7.83	10.00	0.04	17.88	Ave	Live	46.00	-28.12	Pass
Spec Margin = QP/Ave. - Limit, ± Uncertainty									
Combined Standard Uncertainty $U_c(y) = \pm 1.2$ dB Expanded Uncertainty $U = k U_c(y)$ $k = 2$ for 95% confidence									
Notes: EUT was setup as table top equipment and transmitted at 5500 MHz in 802.11a mode at 6 Mbps (worse case configuration).									

SOP 2 Conducted Emissions

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EUT Name	Wireless Audio Headset	Date	September 18, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	23° C / 36% rh
EUT Serial	PP#2	Temp / Hum out	N/A
EUT Config.	TX mode: 802.11a mode at 6 Mbps, 5500 MHz	Line AC	110Vac / 60Hz (host)
Standard	CFR47 Part 15.207 and RSS Gen	RBW / VBW	9 kHz / 30 kHz
Lab/LISN	Lab #5 /Com-Power, Line 1	Performed by	Jeremy Luong



Note: Met FCC Class B limit.

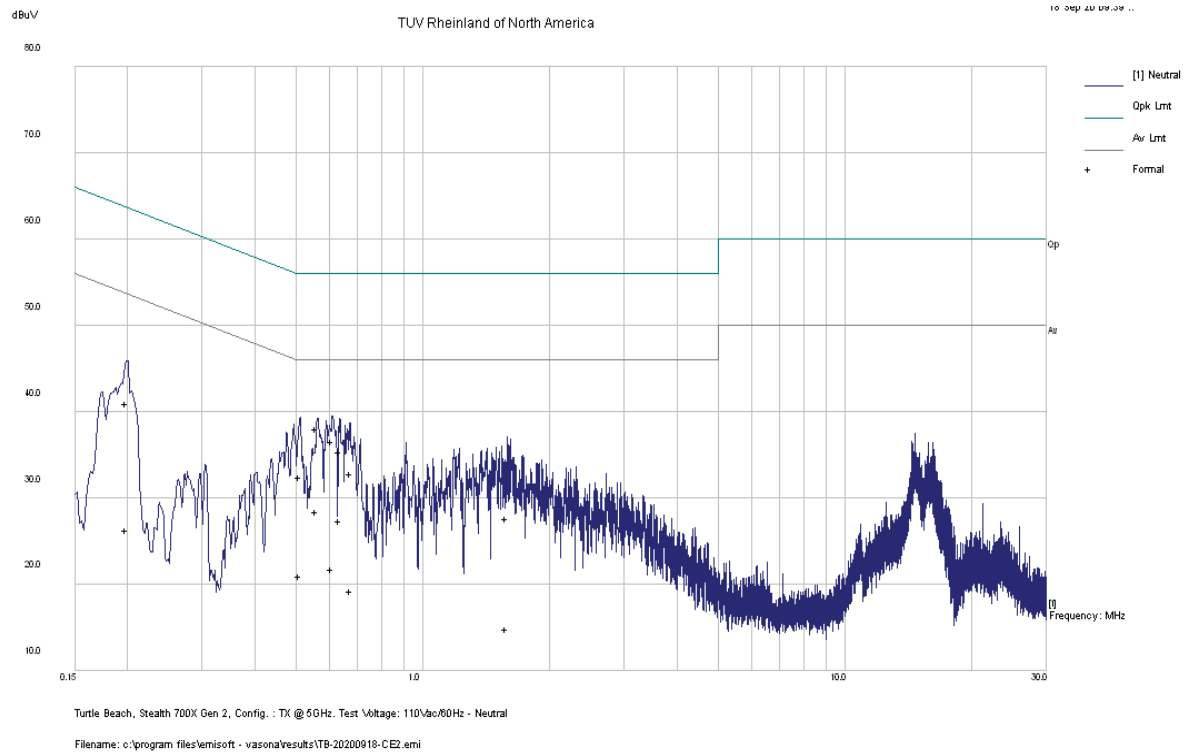
SOP 2 Conducted Emissions						Tracking # 32063007.001 Page 3 of 4			
EUT Name	Wireless Audio Headset					Date	September 18, 2020		
EUT Model	Stealth 700X Gen 2					Temp / Hum in	23° C / 36% rh		
EUT Serial	PP#2					Temp / Hum out	N/A		
EUT Config.	TX mode: 802.11a mode at 6 Mbps, 5500 MHz					Line AC / Freq	110Vac / 60Hz (host)		
Standard	CFR47 Part 15.207 and RSS Gen					RBW / VBW	9 kHz / 30 kHz		
Lab/LISN	Lab #5 /Com-Power, Line 2					Performed by	Jeremy Luong		
Frequency	Raw	Limiter	Ins. Loss	Level	Detector	Line	Limit	Margin	Result
MHz	dBuV	dB	dB	dBuV			dBuV	dB	
0.199	30.99	9.95	0.07	41.01	QP	Neutral	63.67	-22.66	Pass
0.199	16.28	9.95	0.07	26.30	Ave	Neutral	53.67	-27.37	Pass
0.513	22.48	9.98	0.04	32.50	QP	Neutral	56.00	-23.50	Pass
0.513	10.94	9.98	0.04	20.96	Ave	Neutral	46.00	-25.04	Pass
0.561	28.09	9.98	0.04	38.11	QP	Neutral	56.00	-17.89	Pass
0.561	18.39	9.98	0.04	28.41	Ave	Neutral	46.00	-17.59	Pass
0.610	26.54	9.98	0.04	36.56	QP	Neutral	56.00	-19.44	Pass
0.610	11.80	9.98	0.04	21.82	Ave	Neutral	46.00	-24.18	Pass
0.636	25.30	9.98	0.04	35.32	QP	Neutral	56.00	-20.68	Pass
0.636	17.34	9.98	0.04	27.36	Ave	Neutral	46.00	-18.64	Pass
0.674	22.88	9.98	0.04	32.90	QP	Neutral	56.00	-23.10	Pass
0.674	9.22	9.98	0.04	19.24	Ave	Neutral	46.00	-26.76	Pass
1.582	17.56	10.00	0.04	27.60	QP	Neutral	56.00	-28.40	Pass
1.582	4.76	10.00	0.04	14.80	Ave	Neutral	46.00	-31.20	Pass
Spec Margin = QP/Ave. - Limit, ± Uncertainty									
Combined Standard Uncertainty $u_c(y) = \pm 1.2$ dB Expanded Uncertainty $U = k u_c(y)$ $k = 2$ for 95% confidence									
Notes: EUT was setup as table top equipment and transmitted at 5500 MHz in 802.11a mode at 6 Mbps (worse case configuration).									

SOP 2 Conducted Emissions

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EUT Name	Wireless Audio Headset	Date	September 18, 2020
EUT Model	Stealth 700X Gen 2	Temp / Hum in	23° C / 36% rh
EUT Serial	PP#2	Temp / Hum out	N/A
EUT Config.	TX mode: 802.11a mode at 6 Mbps, 5500 MHz	Line AC	110Vac / 60Hz (host)
Standard	CFR47 Part 15.207 and RSS Gen	RBW / VBW	9 kHz / 30 kHz
Lab/LISN	Lab #5 /Com-Power, Line 2	Performed by	Jeremy Luong

150 kHz to 30 MHz Plot for Line 2 (Neutral)



Note: Met FCC Class B Limit.

4.7 Frequency Stability

In accordance with 47 CFR Part 15.407(g) and RSS GEN Sect. 6.11 the frequency stability of U-NII devices must be such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual. The Manufacturer calls out operating temperature ranges of +0° to +50° C

4.7.1 Test Methodology

The manufacturer of the equipment is responsible for ensuring that the frequency stability is such that emissions are always maintained within the band of operation under all conditions. This test performs according to ANSI C63.10-2013 Section 6.8

4.7.2 Manufacturer Declaration

The frequency stability of the reference oscillator sets the frequency stability of the RF transceiver signals. Therefore all of the RF signal should have ± 20 ppm stability.

This stability accounts for room temp tolerance of the crystal oscillator circuit, frequency variation across temperature, and crystal ageing.

Worst case:

5.30 GHz - ± 20 ppm/106 kHz

± 20 ppm at 5.30 GHz translates to a maximum frequency shift of ± 106 kHz. As the edge of the channels are at least one MHz from either of the band edges, ± 106 kHz is more than sufficient to guarantee that the intentional emission will remain in the band over the entire operating range of the radio.

4.7.3 Limit

CFR47 Part 15.407(g) and RSS GEN Sect. 6.11 - Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

4.7.4 Test results:

As originally tested, the EUT was found to be compliant to the requirements of the test standard(s) since the maximum frequency drift was 5.42 ppm.

Table 13: Frequency Stability – Test Results

Date: May 23, 2020		Tested By: Jeremy Luong
Test Method: Radiated Measurements		Power Setting: See test plan.
Antenna Type: Chip		Antenna Gain: +3.7 dBi
Operating Mode: Uncorrelated		Signal State: Modulated at 100%
Ambient Temp.: 23 °C		Relative Humidity: 33%
Temperature	Time	PPM
0° C	Start	2.71
	2 Min.	3.02
	5 Min	2.10
	10 min	2.64
10° C	Start	1.65
	2 Min.	1.82
	5 Min	1.08
	10 min	1.82
20° C	Start	0.83
	2 Min.	0.21
	5 Min	0.12
	10 min	0.28
30° C	Start	1.65
	2 Min.	2.48
	5 Min	1.63
	10 min	2.29
40° C	Start	3.14
	2 Min.	3.92
	5 Min	3.28
	10 min	4.53
50° C	Start	5.42
	2 Min.	4.76
	5 Min	4.41
	10 min	4.43
Note: All frequency drifts were less than ± 20 ppm. The worst frequency drift was 5.42 ppm		



Figure 169: Frequency Stability – Worst Case

4.8 Voltage Variation

In accordance with 47 CFR Part 15.31 (e) intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

4.8.1 Test Methodology

The supply voltage was varied between 85% and 115% of the nominal rated supply voltage. The fundamental frequency was observed during the variation. The EUT was powered 3.7 Vdc by programmable power supply. The voltage was varied from 3.15 Vdc to 4.26 Vdc mean while the fundamental frequencies were observed and recorded for the maximum drift in ppm; part per millions.

4.8.2 Test results

As originally tested, the EUT was found to be compliant to the requirements of the test standard(s). The fundamental frequencies drifted less than ± 20 ppm.

Table 14: Voltage Variation – Test Results

Date: May 23, 2020			Tested By: Jeremy Luong	
Test Method: Radiated Measurements			Power Setting: See test plan.	
Antenna Type: Chip			Antenna Gain: +3.7 dBi	
Operating Mode: Uncorrelated			Signal State: Modulated at 100%	
Ambient Temp.: 23 °C			Relative Humidity: 33%	
Frequency	Nominal (3.7 Vdc)	Lo Voltage (3.15Vdc)	Hi Voltage (4.26Vdc)	Max Drift
MHz	ppm	ppm	ppm	ppm
5300	3.28	3.87	3.25	3.87
Note: EUT has an operating voltage range of 3.3 Vdc to 4.07 Vdc.				



Figure 170: Voltage Variation – Worst Case

5 Test Equipment List

5.1 Equipment List

Equipment	Manufacturer	Model #	Serial/Inst #	Last Cal mm/dd/yyyy	Next Cal mm/dd/yyyy
LISN	Com-Power	LI-200	12100	02/21/2020	02/21/2021
Loop Antenna	EMCO	6502	62531	07/01/2019	07/01/2021
Bilog Antenna	Sunol Sciences	JB3	A020502	03/12/2020	03/12/2022
Horn Ant. (1-18GHz)	EMCO	3115	9211-3969	06/20/2019	06/20/2021
Horn Ant. (18-40GHz)	Com-Power	AHA-840	105005	08/26/2019	08/26/2021
EMI Receiver	Agilent	N9038A	MY52260210	02/15/2020	02/15/2021
Spectrum Analyzer	Agilent	N9030A	MY52350885	10/26/2019	10/26/2020
Preamplifier	Sonoma Inst.	310	185516	02/12/2020	02/12/2021
Preamplifier	Miteq	TTA1800-30-HG	184252	02/12/2020	02/12/2021
RF Power Meter	Agilent	E4418A	MY45103902	02/13/2020	02/13/2021
Power Sensor	Agilent	8481A	US37295801	02/13/2020	02/13/2021
Thermometer	Extech Instruments	SD700	A095319	03/18/2020	03/18/2021
Thermo Chamber	Espec	BTZ-133	0613436	12/20/2019	12/20/2020
DC Power Supply	Agilent	E3634A	MY400004331	02/15/2020	02/15/2021
Signal Generator	Anritsu	MG3694A	042803	02/13/2020	02/13/2021
Notch Filter	Micro-Tronics	BRM50716	003	VBU	VBU

* Calibration of equipment past due for re-calibration will be performed expeditiously. If any equipment is found to be out of tolerance at that time, affected customers will be notified accordingly.

6 EMC Test Plan

6.1 Introduction

This section provides a description of the Equipment Under Test (EUT), configurations, operating conditions, and performance acceptance criteria. It is an overview of information provided by the manufacturer so that the test laboratory may perform the requested testing.

6.2 Customer

Table 15: Customer Information

Company Name	Voyetra Turtle Beach, Inc.
Address	100 Summit Lake Drive, Suite 100
City, State, Zip	Valhalla, New York 10595 USA
Country	USA
Phone	(530) 277-3482

Table 16: Technical Contact Information

Name	Tim Blaney
E-mail	tim@commcepts.net
Phone	(530) 277-3482

6.3 Equipment Under Test (EUT)

Table 17: EUT Specifications

EUT Specifications	
Dimensions	215.8 mm (8.4") x 243 mm (9.5") x 111.5 mm (4.3")
DC Input	Headset Input Voltage: 3.7 Vdc (battery)
Environment	Indoor
Operating Temperature Range:	0 to 50 degrees C
Multiple Feeds:	☐ Yes and how many ☒ No
Product Marketing Name (PMN)	Stealth 700X Gen 2
Hardware Version Identification Number (HVIN)	700X Gen 2
Firmware Version Identification Number (FVIN)	1.2.6
802.11-radio modules	
Operating Mode	802.11a, 802.11b, 802.11g, 802.11n HT20
Transmitter Frequency Band	2.4 – 2.4835 GHz, 5.15– 5.25 GHz, 5.25– 5.35 GHz, 5.47– 5.725 GHz, and 5.725– 5.85 GHz
Max. Rated Power Output	5.18 dBm
Power Setting @ Operating Channel	See Channel Planning Table.
Antenna Type	Chip
Max. Peak Antenna Gain	+3.3 dBi at 2.4GHz, +3.7 dBi at 5 GHz
Modulation Type	☐ Thread (Zigbee) ☐ BLE ☒ DSSS ☒ OFDM ☒ Other describe: 16QAM
Data Rate	802.11b: 1, 2, 5.5, and 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n HT20: 6.5, 13, 19.5, 26, 39, 52, 58.5, 65 Mbps
TX/RX Chain (s)	1
Directional Gain Type	☐ Correlated ☐ Beam-Forming ☒ Other describe: No beam-forming or correlated.
Type of Equipment	☐ Table Top ☐ Wall-mount ☐ Floor standing cabinet ☒ Other: Head wear device.
Note: None.	

Table 18: Antenna Information

Number	Antenna Type	Description	Max Gain (dBi)
Antenna 1	Chip	Max. peak gain at 2.4 GHz	+3.3
		Max. peak gain at 5 GHz	+3.7

Table 19: EUT Channel Power Specifications

No.	Frequency (MHz)	Target Power Level in ART2					
		802.11b	802.11g	802.11a	802.11n HT20	802.11n HT40	
1	2412	6.0	5.5		5.5		
2	2417						
3	2422						
4	2427						
5	2432						
6	2437	7.0	7.0		7.0		
7	2442						
8	2447						
9	2452						
10	2457						
11	2462	7.5	7.0		7.0		
36	5180			9.0	9.0		
40	5200			8.5	8.5		
44	5220						
48	5240			7.5	7.5		
52	5260			7.5	7.5		
56	5280						
60	5300			6.5	6.5		
64	5320			5.5	6.0		
100	5500			6.0	5.5		
104	5520						
108	5540						
112	5560						
116	5580			6.5	6.5		
120	5600						
124	5620						
128	5640						
132	5660						
136	5680						
140	5700			9.0	9.5		
144	5720						
149	5745			9.0	9.5		
153	5765						
157	5785			9.0	9.5		
161	5805						
165	5825			7.5	8.0		
Note: Power output is set using the TX Power Level in the ART2 and followed by power measurement for FCC in dBm.							

Table 20: Interface Specifications

Interface Type	Cabled with what type of cable?	Is the cable shielded?	Maximum potential length of the cable?	Metallic (M), Coax (C), Fiber (F), or Not Applicable?
USB	Laptop	☒ Yes	☒ Metric:3m	☒ M

Table 21: Supported Equipment

Equipment	Manufacturer	Model	Serial	Used for
Laptop	Dell	Latitude	35521341769	Setup EUT operating channel
Note: None.				

Table 22: Description of Sample used for Testing

Device	Serial	RF Connection	CFR47 Part 15.407
Stealth 700X Gen 2	PP#2	Radiated Sample	TX Emissions, AC Conducted Emission
	PP#1	Conducted Sample	Output Power, Power Spectral Density, Occupied Bandwidth Band-Edge Out-of-Band Emission Frequency Stability Voltage Variation
Note: N/A			

Table 23: Description of Test Configuration used for Radiated Measurement.

Device	Antenna	Mode	Setup Photo (X-Axis)	Setup Photo (Y-Axis)	Setup Photo (Z-Axis)
Stealth 700X Gen 2	Chip (Murata)	Transmit	EUT laid flat	Normal usage. Up right.	On the side
Note: The Y-Axis setup configuration used for final testing.					

6.4 Test Specifications

Table 24: Test Specifications

Emissions	
Regulation Rules / Standards	Requirement
CFR 47 Part 15.407: 2020	All
RSS 247 Issue 2, 2017	All

END OF REPORT