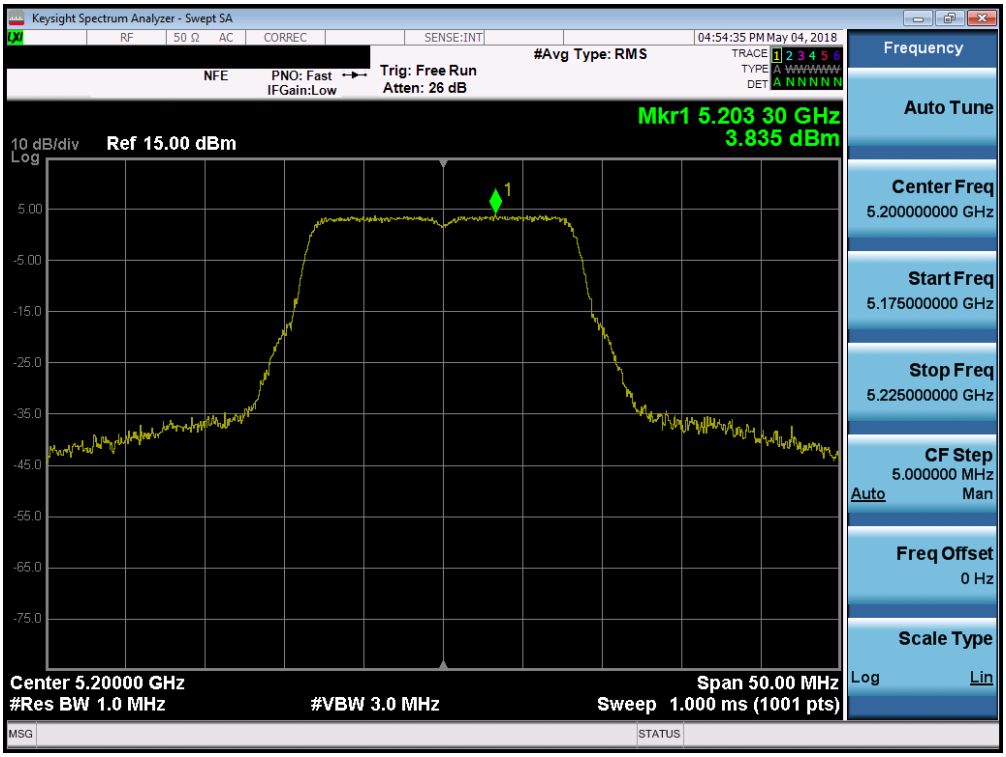
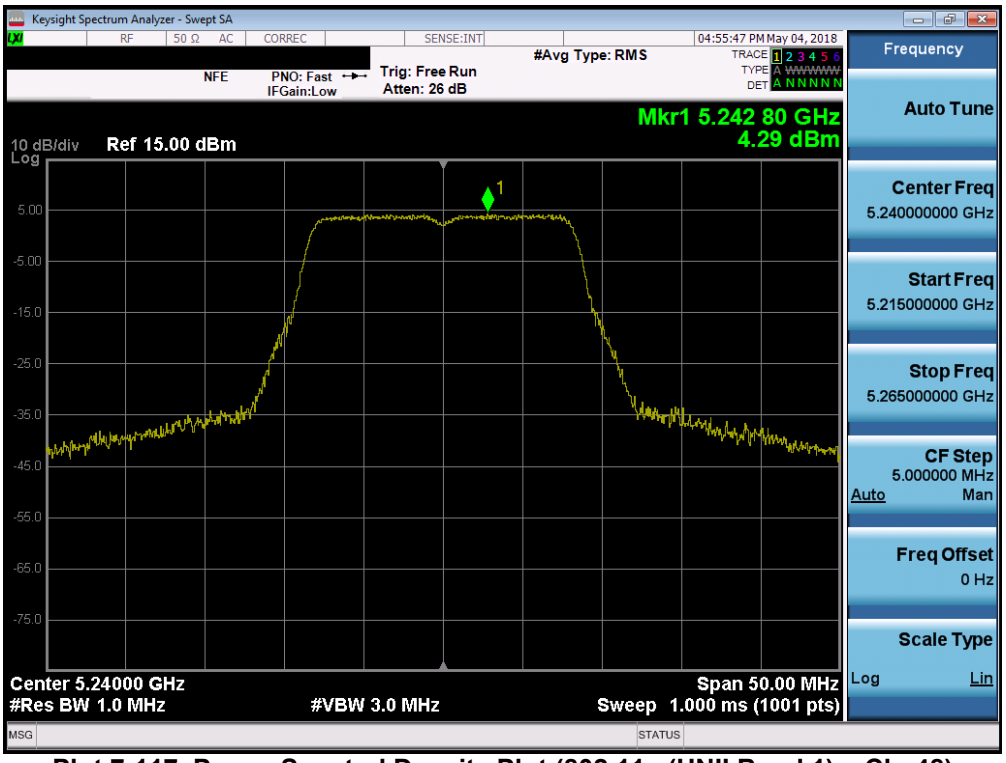
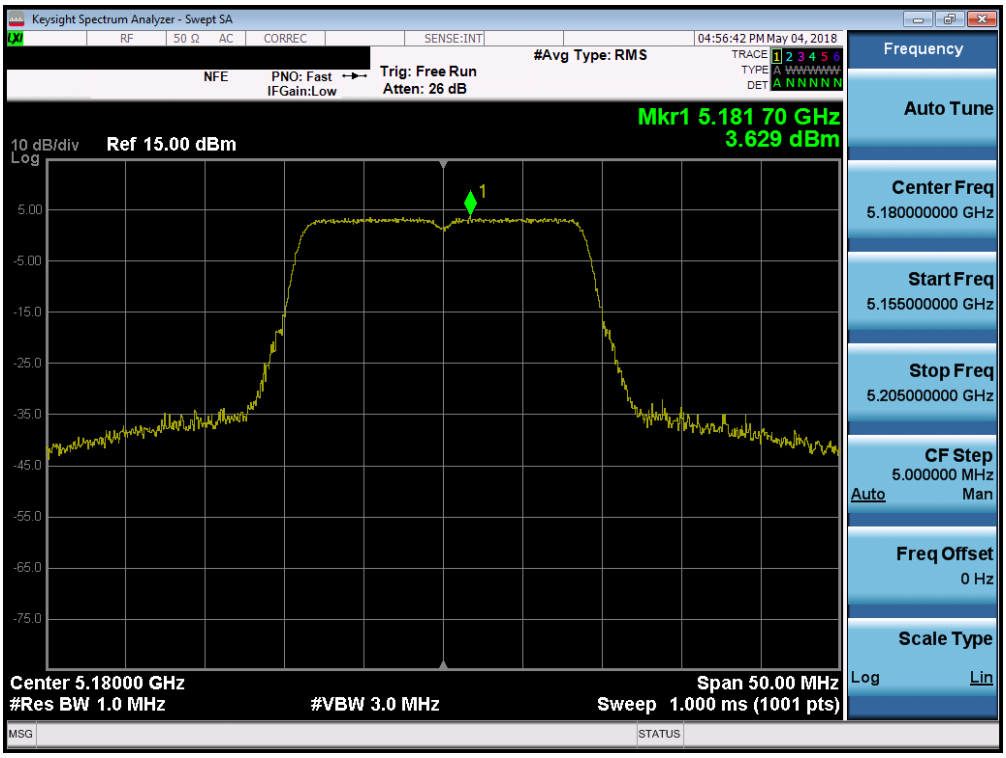
Plot 7-115. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 36)



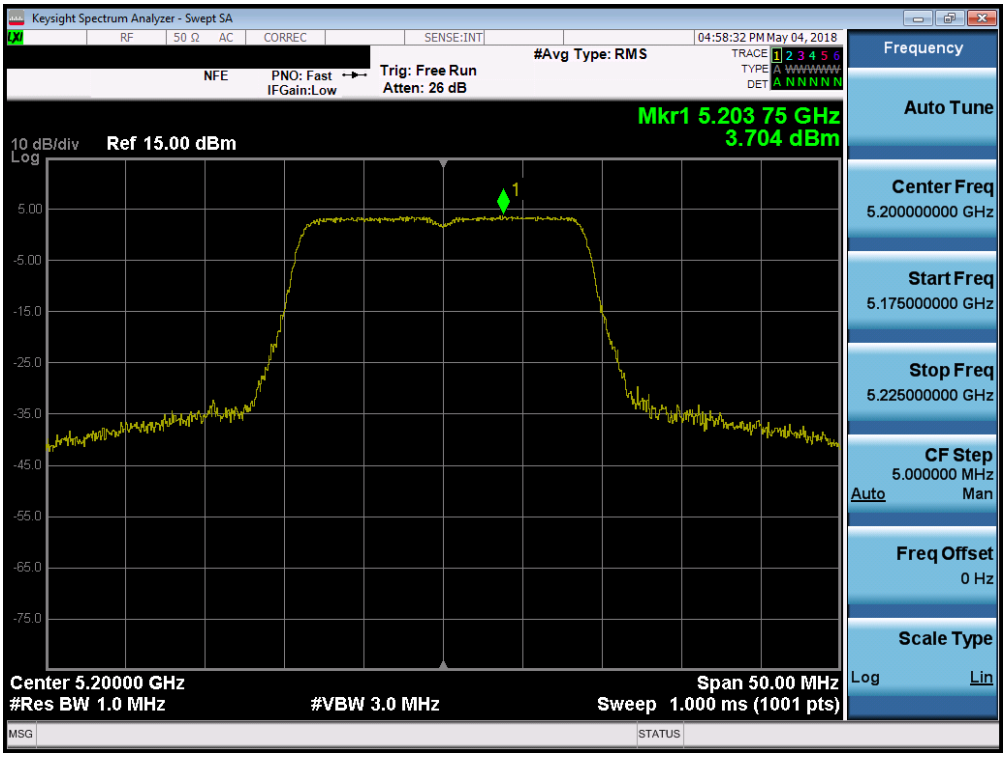
Plot 7-116. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 40)



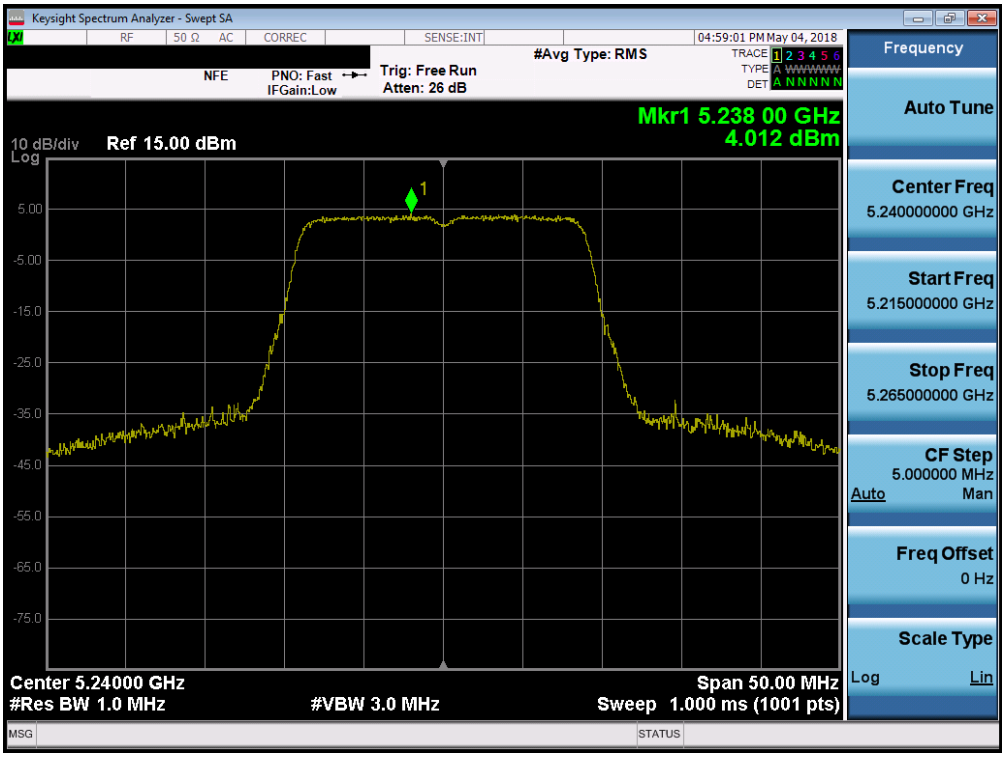
Plot 7-117. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 48)



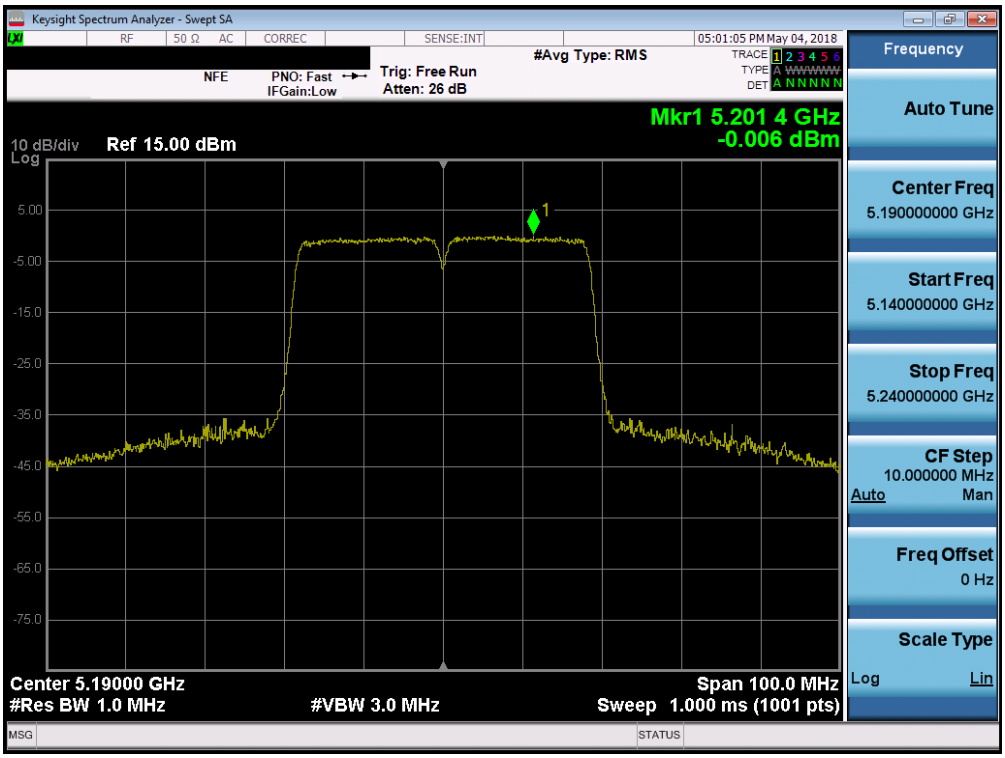
Plot 7-118. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 36)



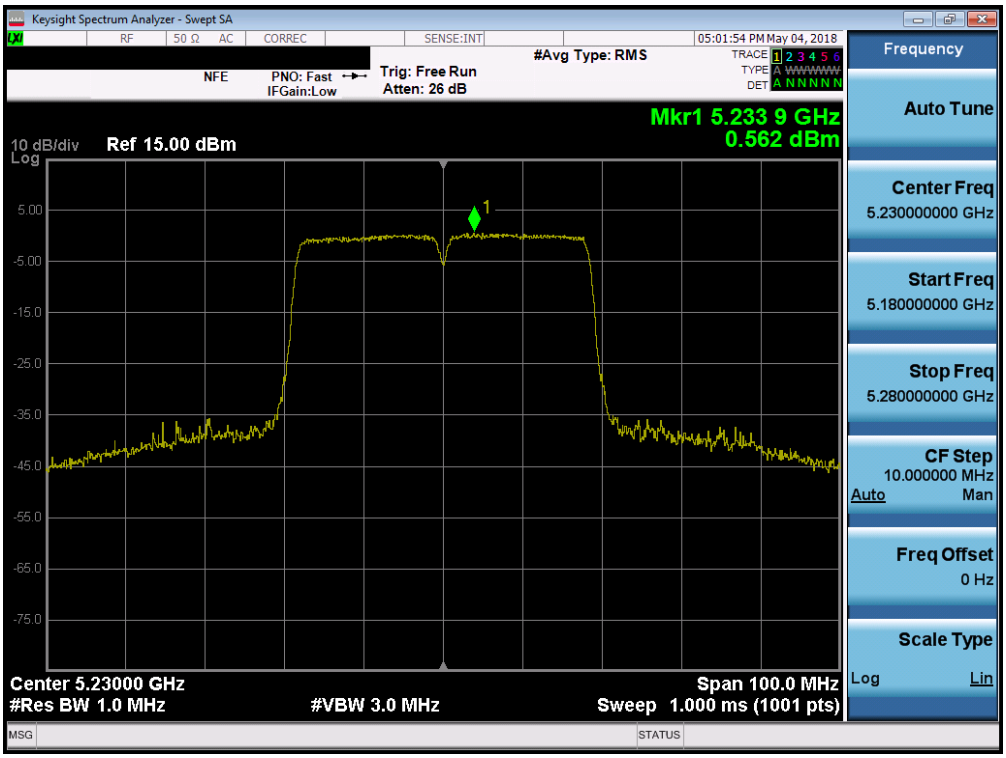
Plot 7-119. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 40)



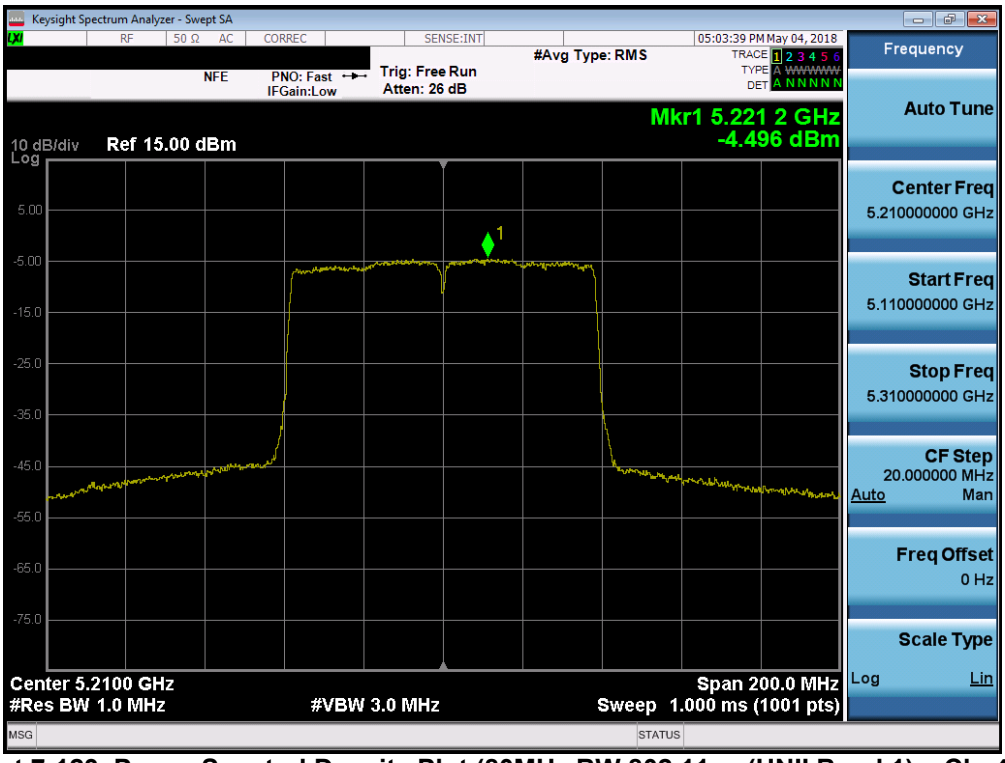
Plot 7-120. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 48)



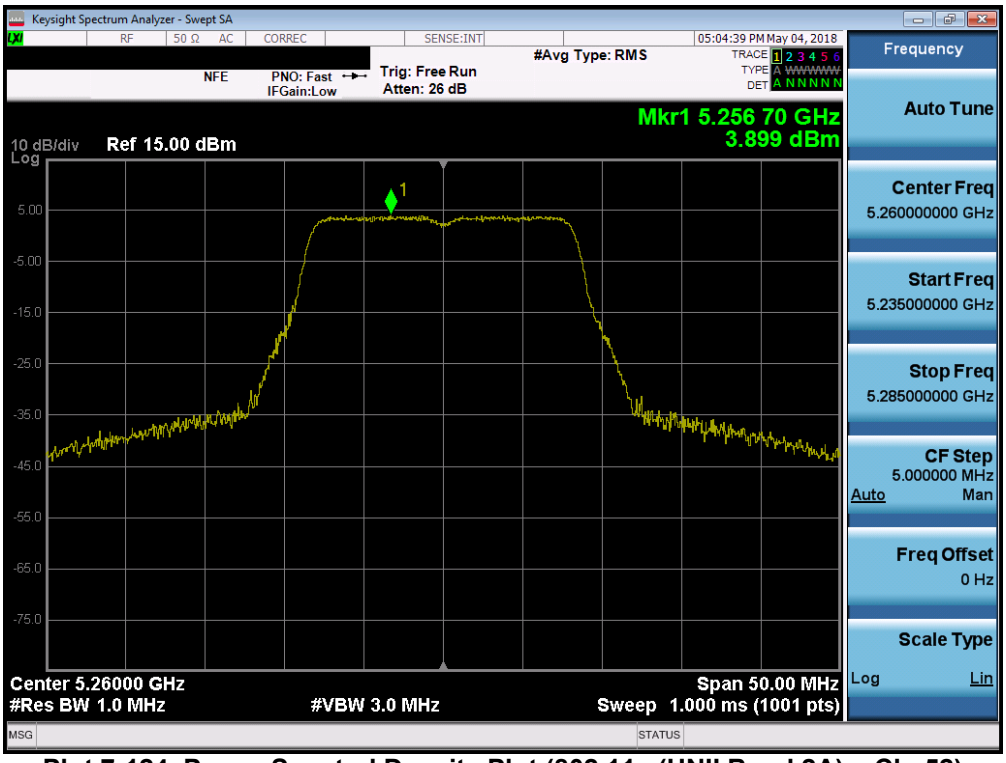
Plot 7-121. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 1) – Ch. 38)



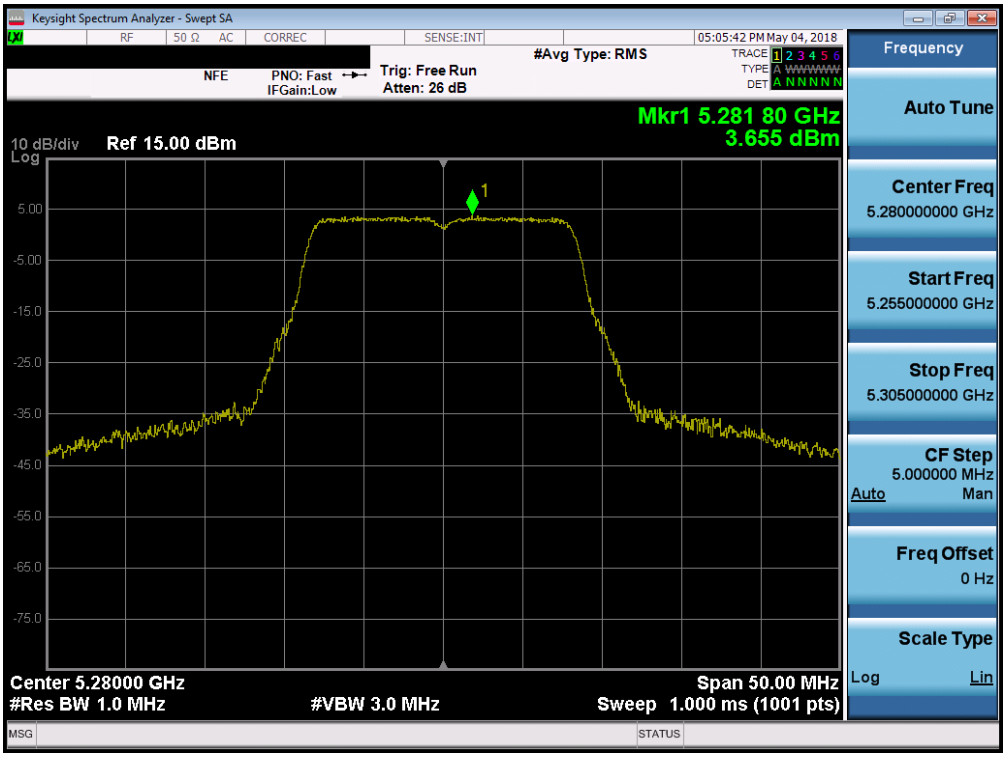
Plot 7-122. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 1) – Ch. 46)



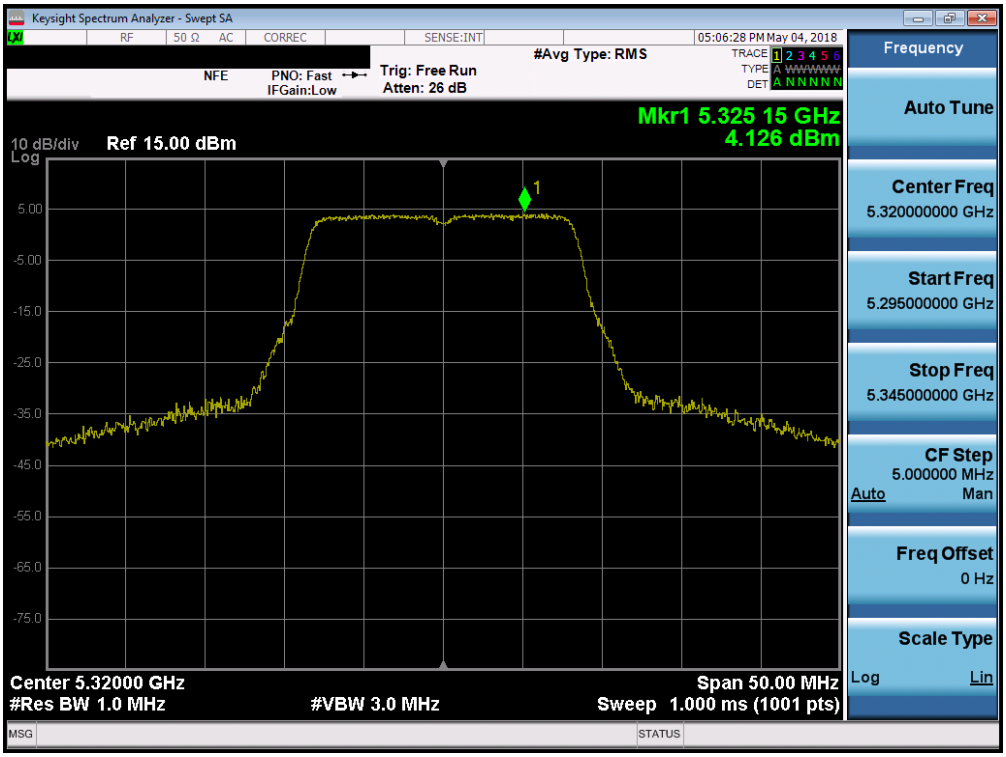
Plot 7-123. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)



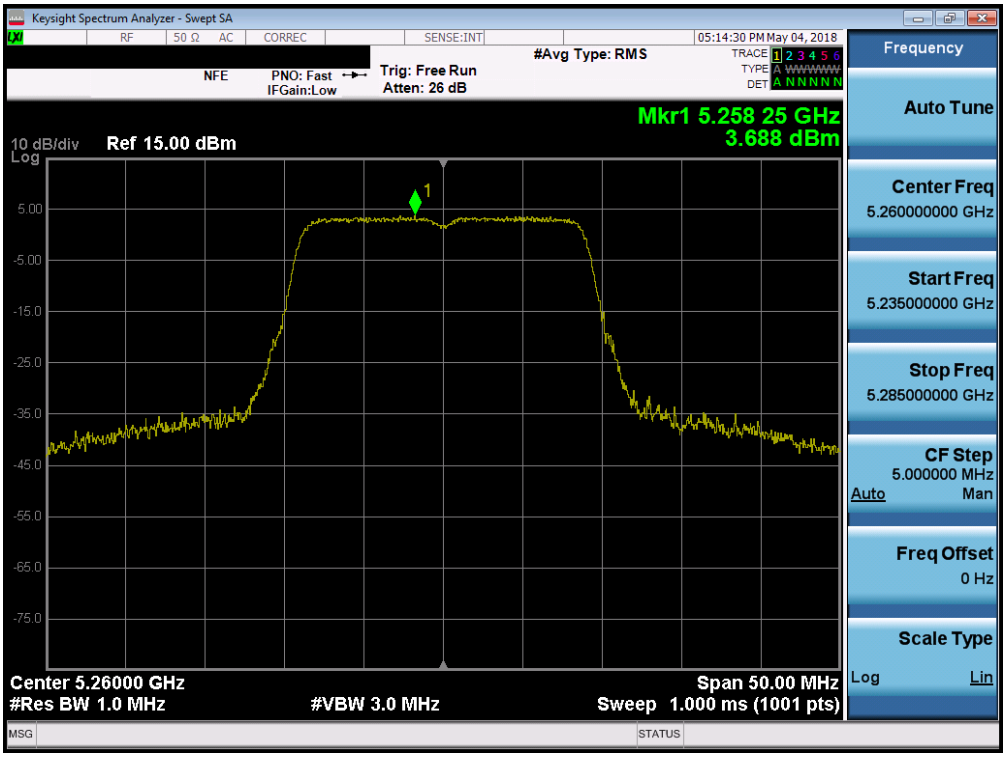
Plot 7-124. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 52)



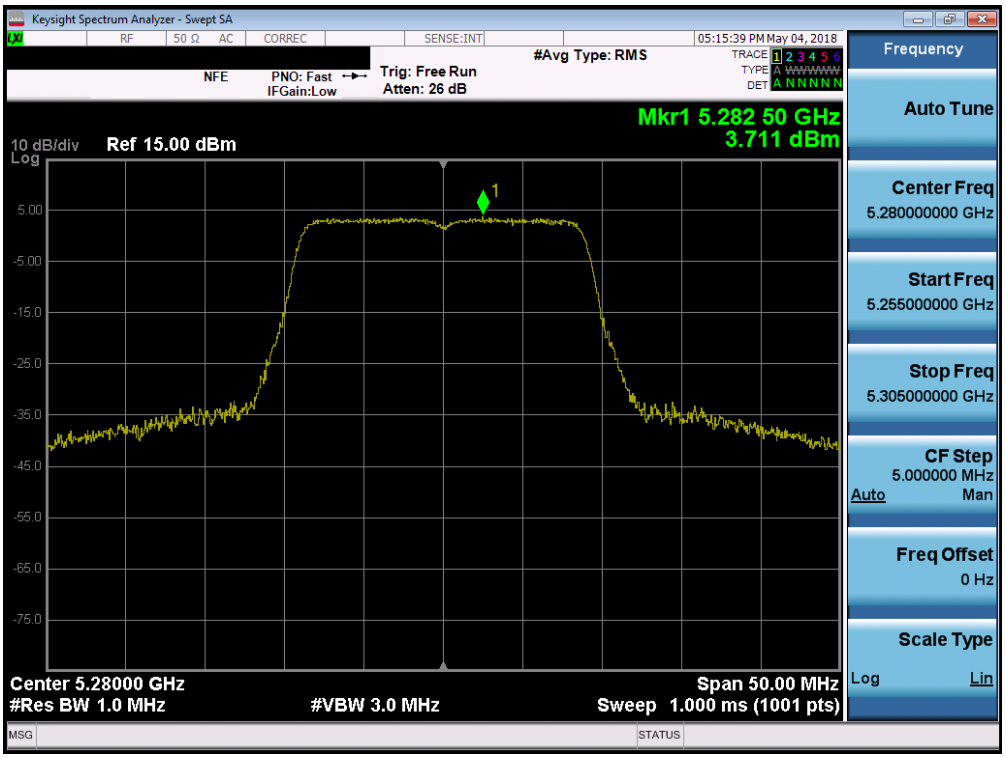
Plot 7-125. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 56)



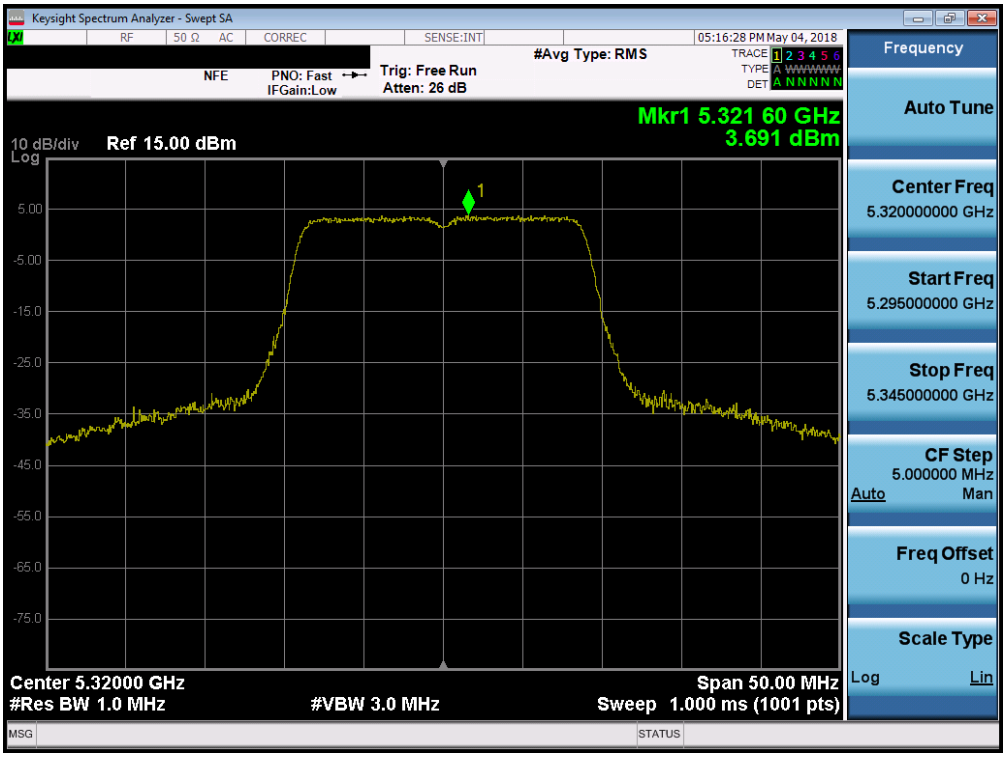
Plot 7-126. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 64)



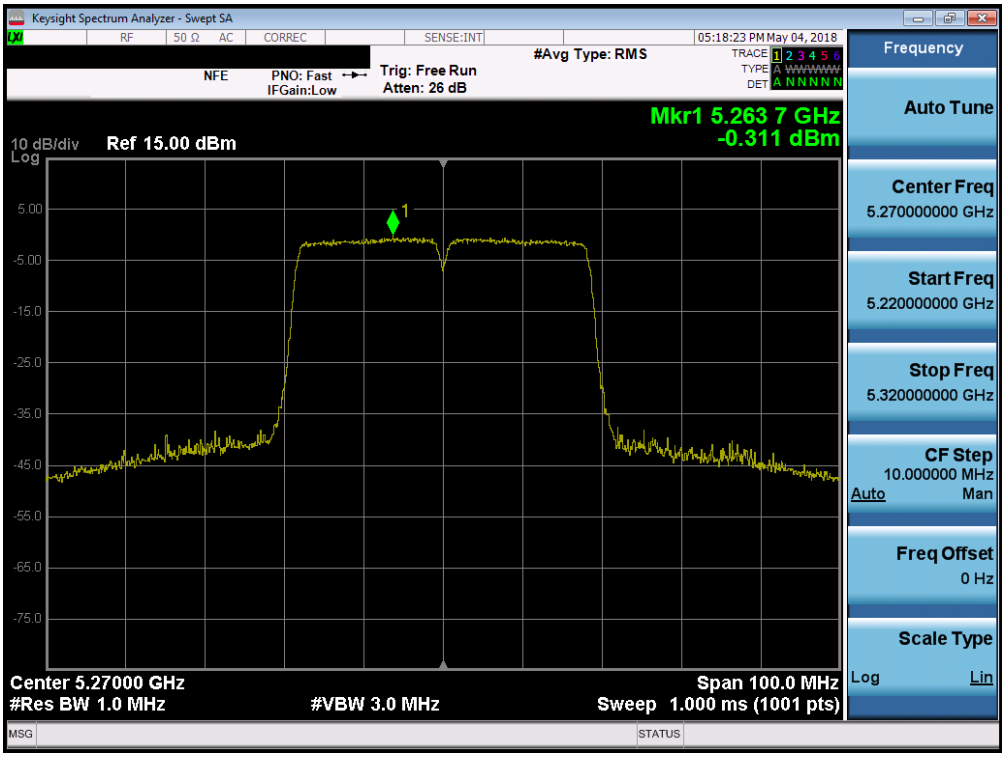
Plot 7-127. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)



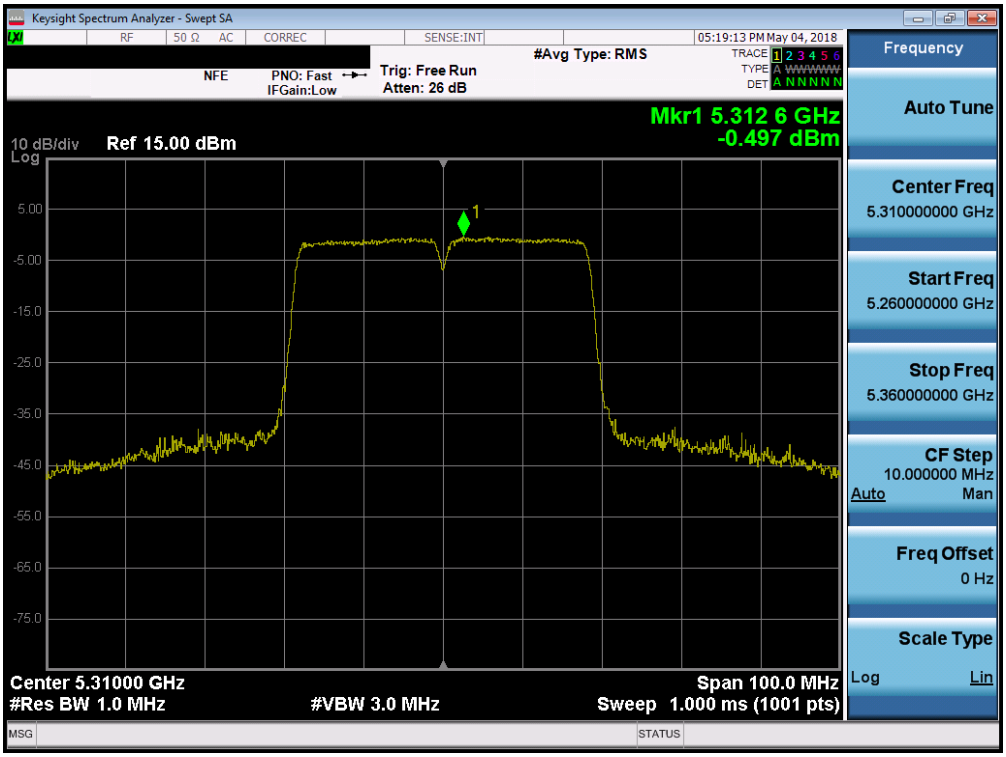
Plot 7-128. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 56)



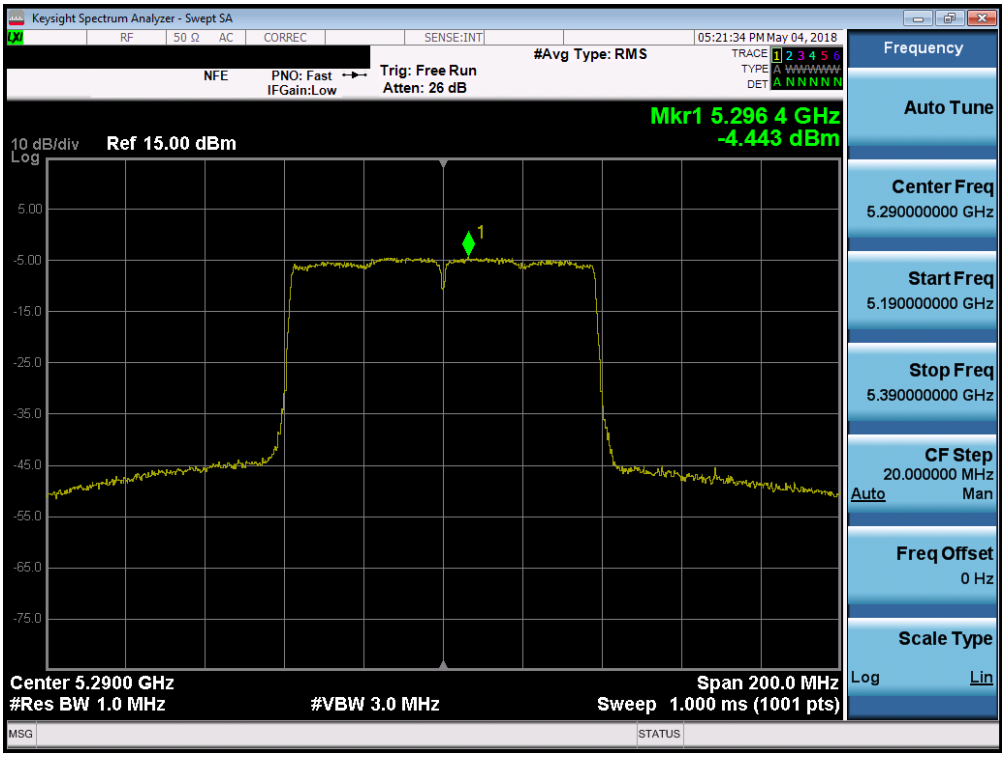
Plot 7-129. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)



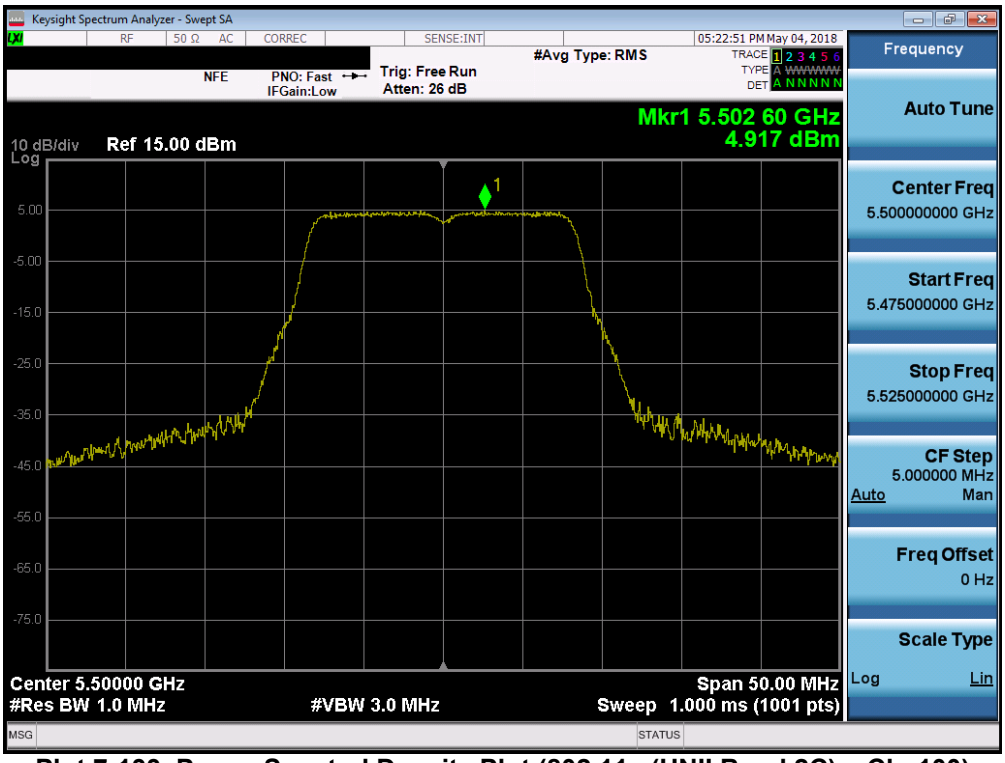
Plot 7-130. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)



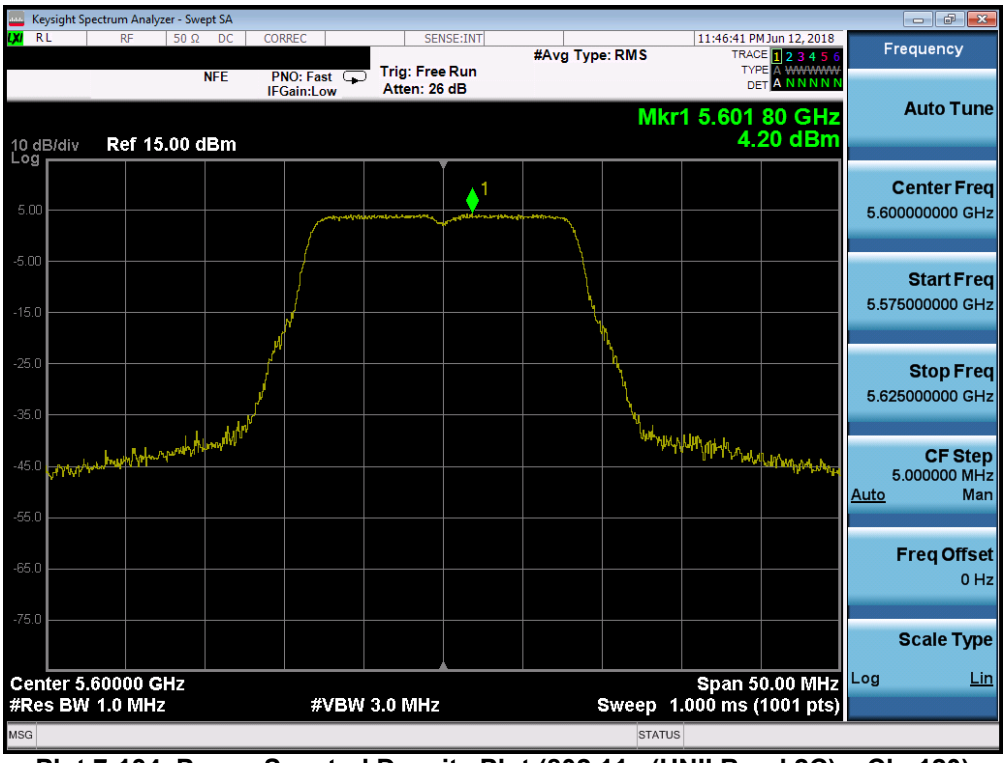
Plot 7-131. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)



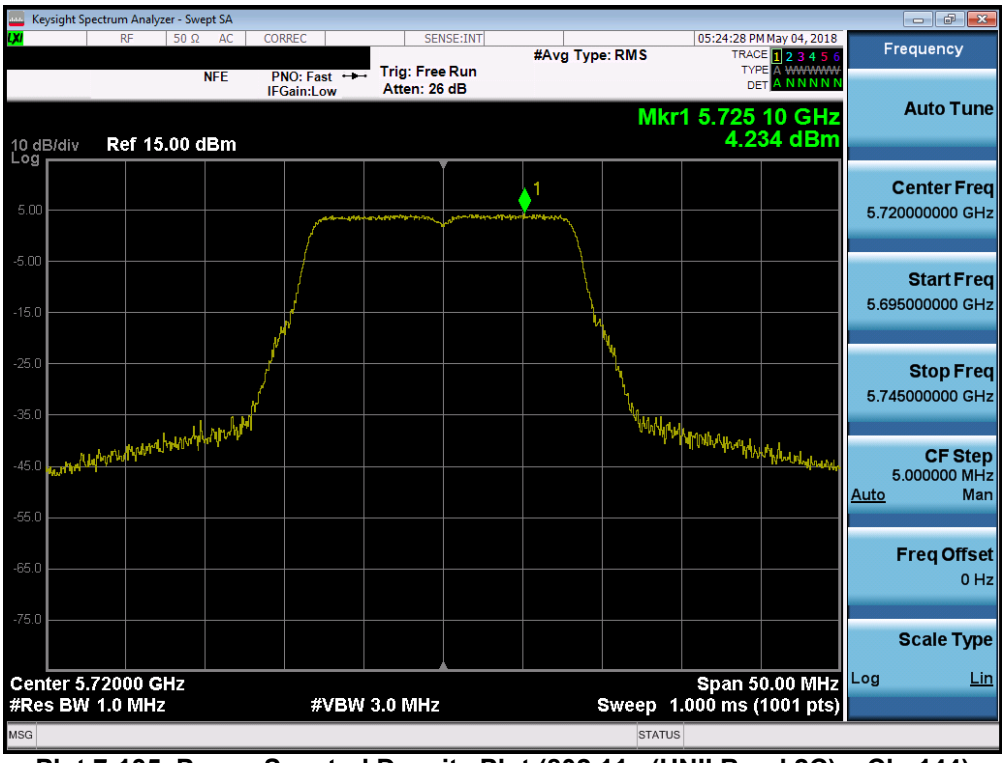
Plot 7-132. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)



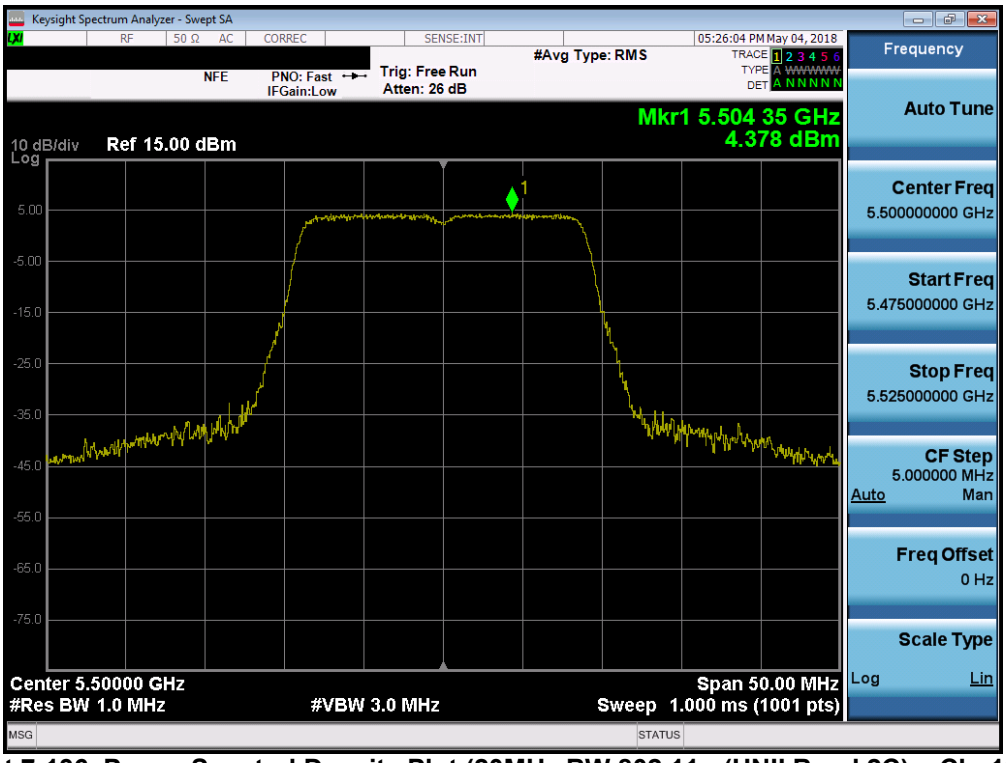
Plot 7-133. Power Spectral Density Plot (802.11a (UNII Band 2C) – Ch. 100)



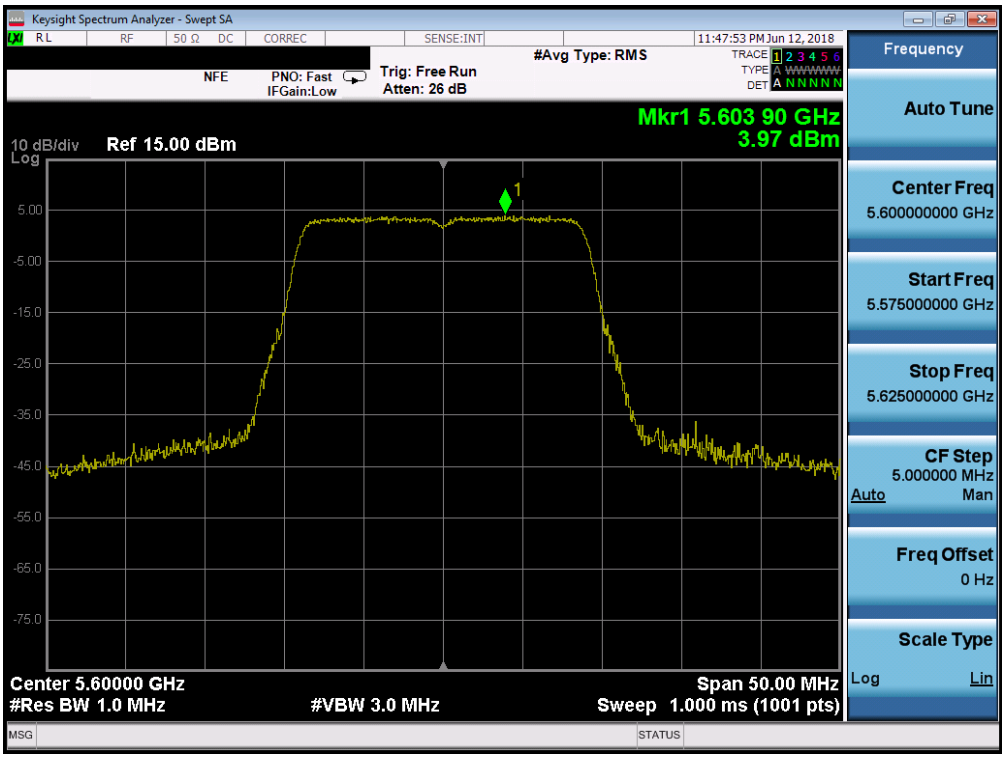
Plot 7-134. Power Spectral Density Plot (802.11a (UNII Band 2C) – Ch. 120)



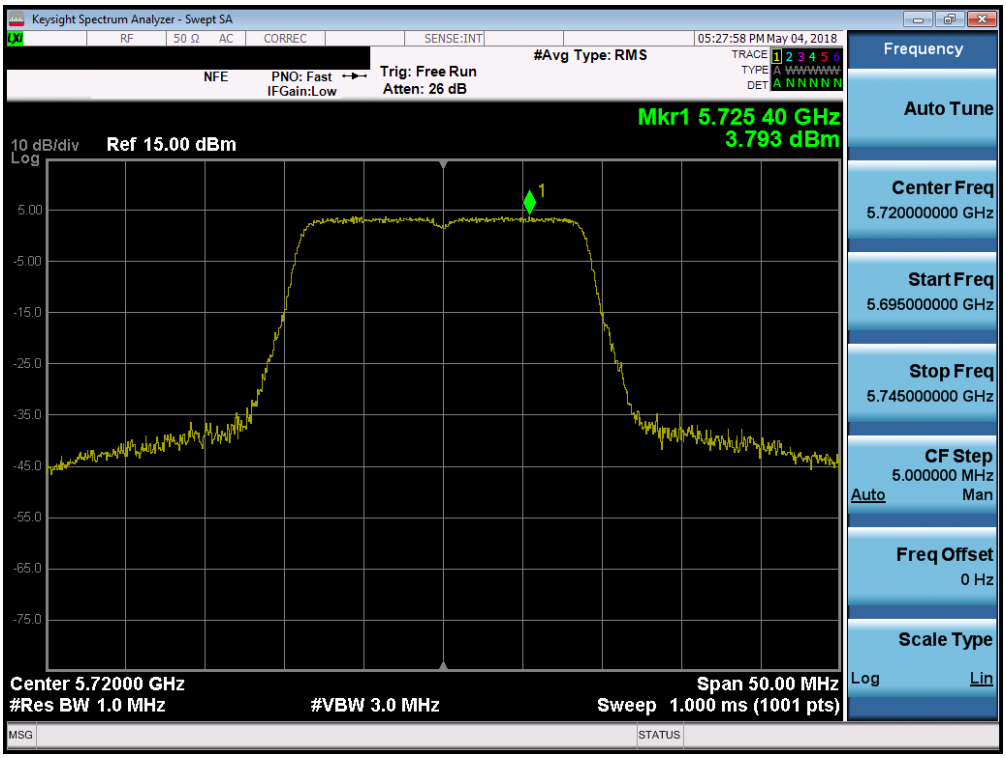
Plot 7-135. Power Spectral Density Plot (802.11a (UNII Band 2C) – Ch. 144)



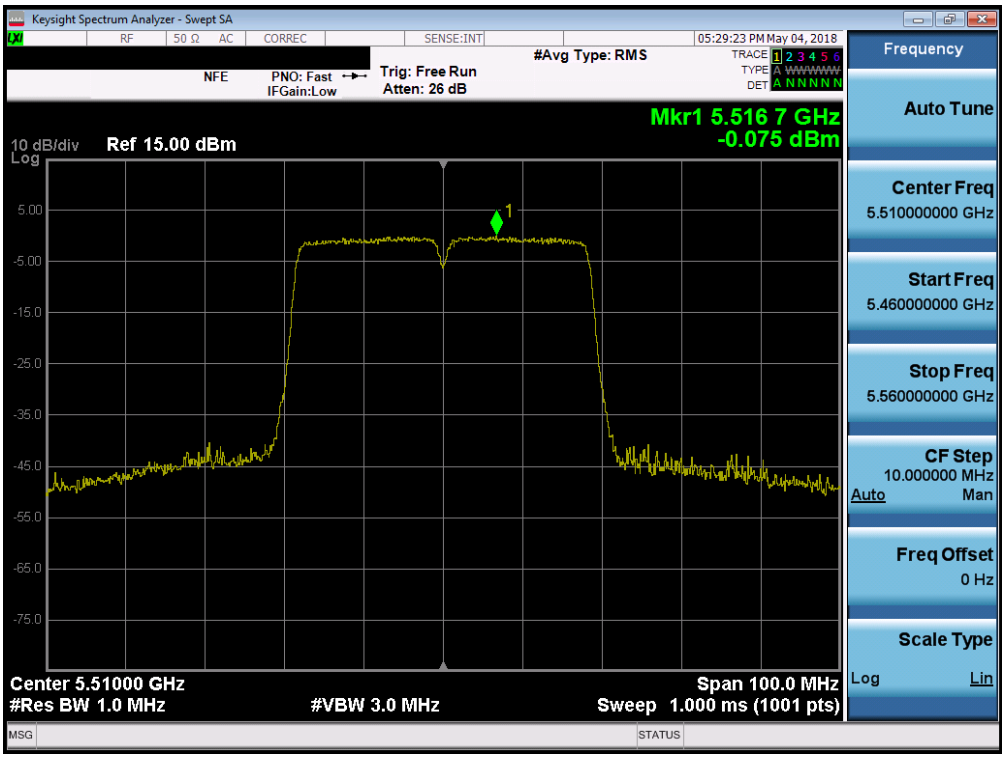
Plot 7-136. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)



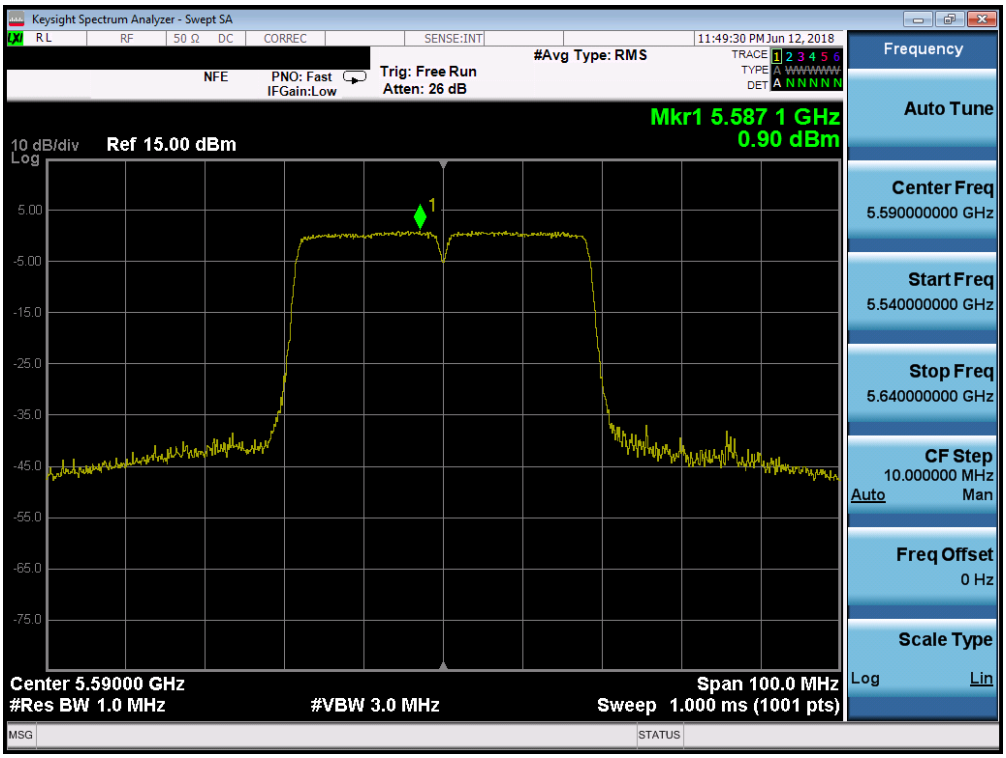
Plot 7-137. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) – Ch. 120)



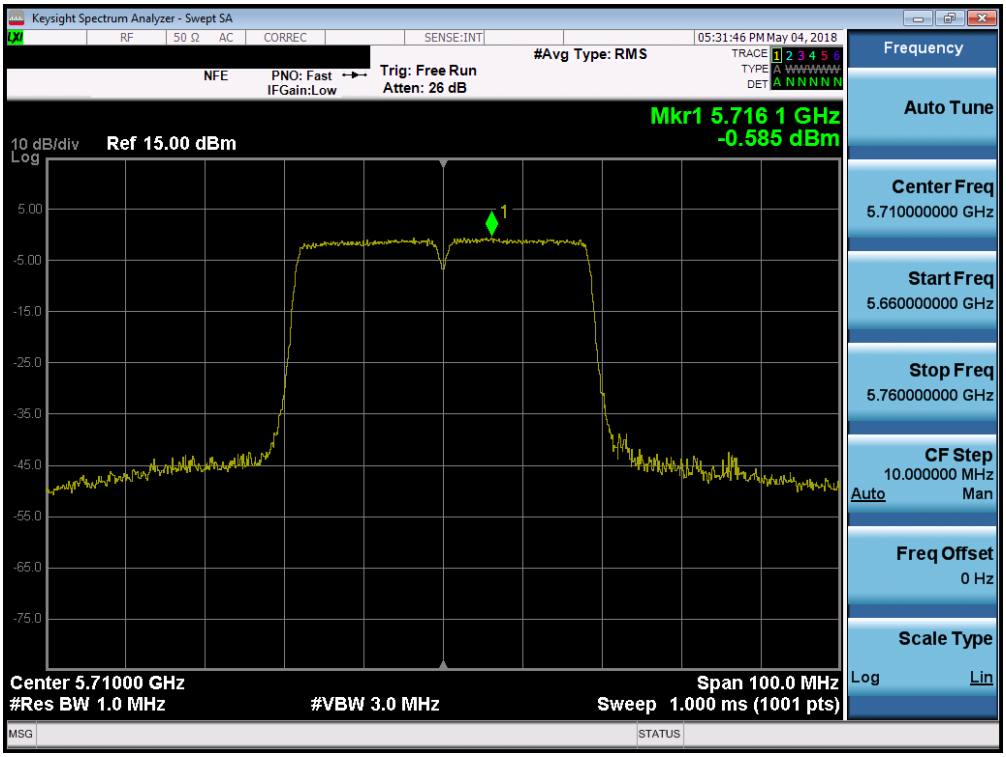
Plot 7-138. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)



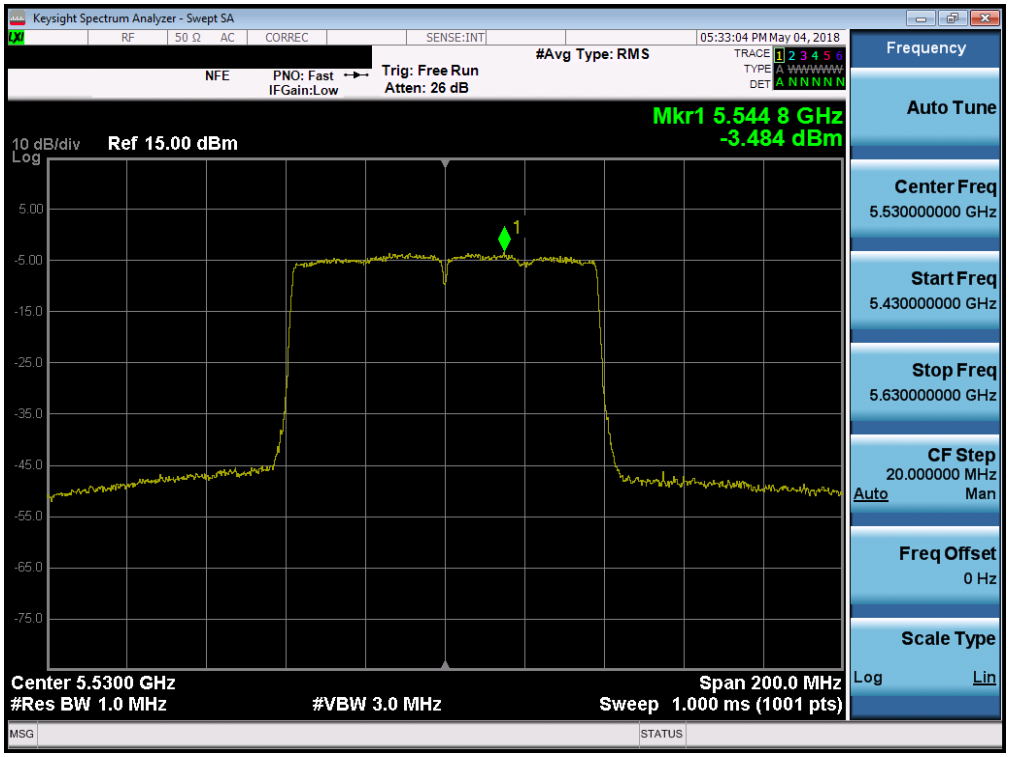
Plot 7-139. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)



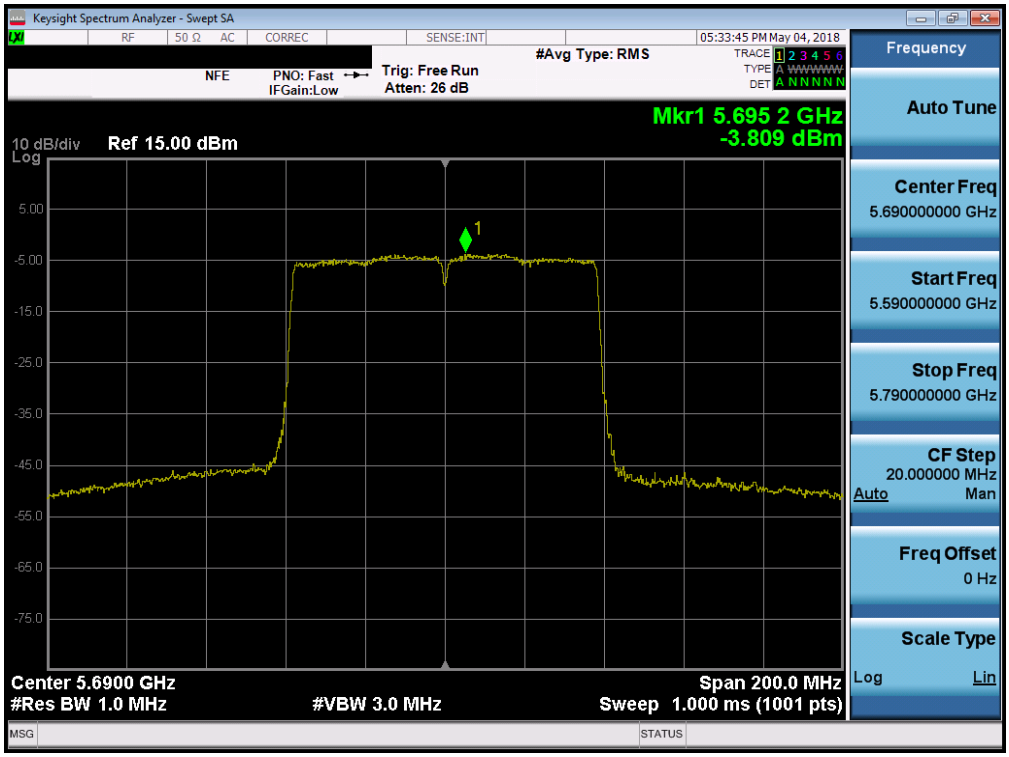
Plot 7-140. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 118)



Plot 7-141. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)



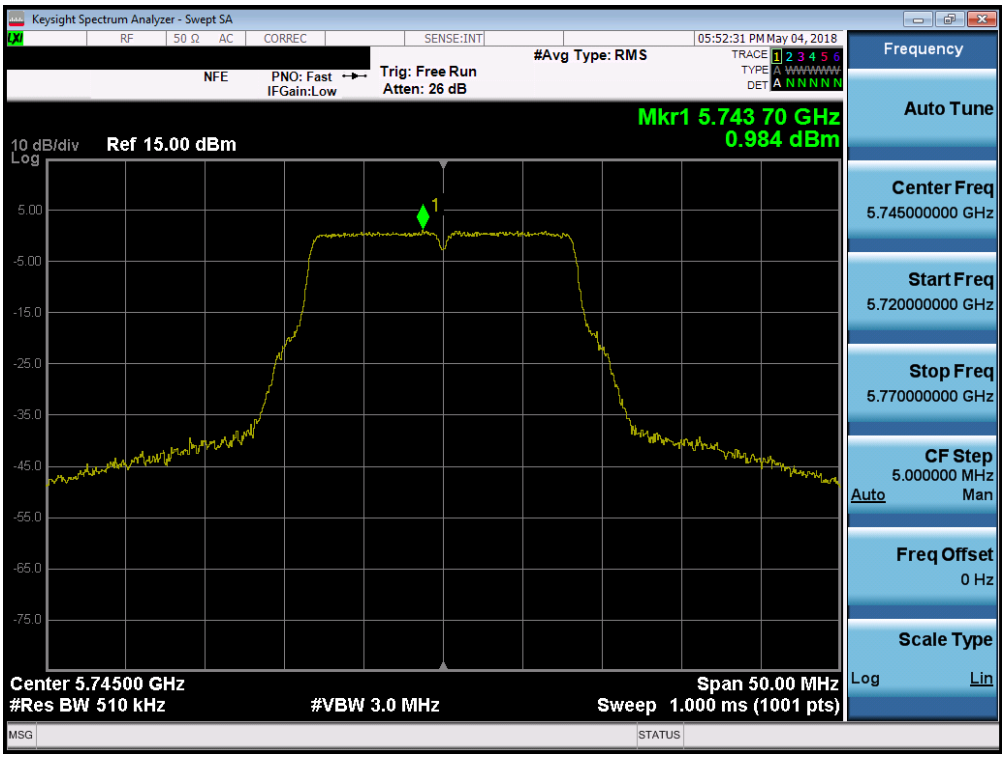
Plot 7-142. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)



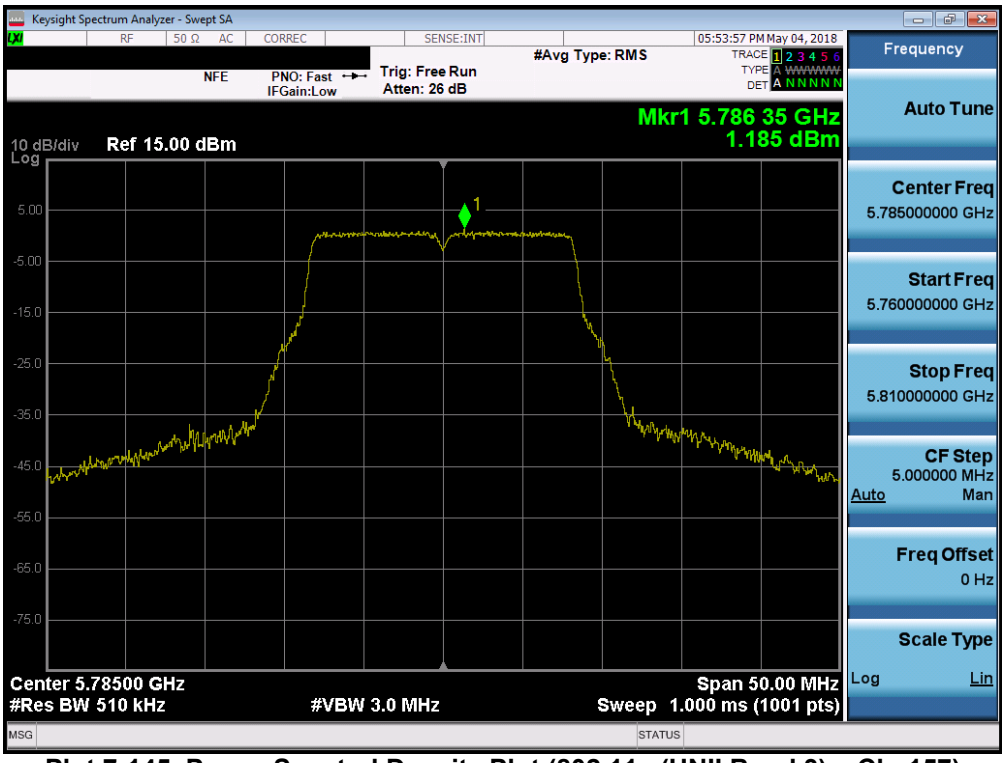
Plot 7-143. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	0.98	30.0	-29.02
	5785	157	a	6	1.19	30.0	-28.82
	5825	165	a	6	1.04	30.0	-28.96
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	0.63	30.0	-29.37
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	0.93	30.0	-29.07
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	1.05	30.0	-28.95
	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.68	30.0	-32.68
	5795	159	n (40MHz)	13.5/15 (MCS0)	-3.50	30.0	-33.50
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-3.73	30.0	-33.73

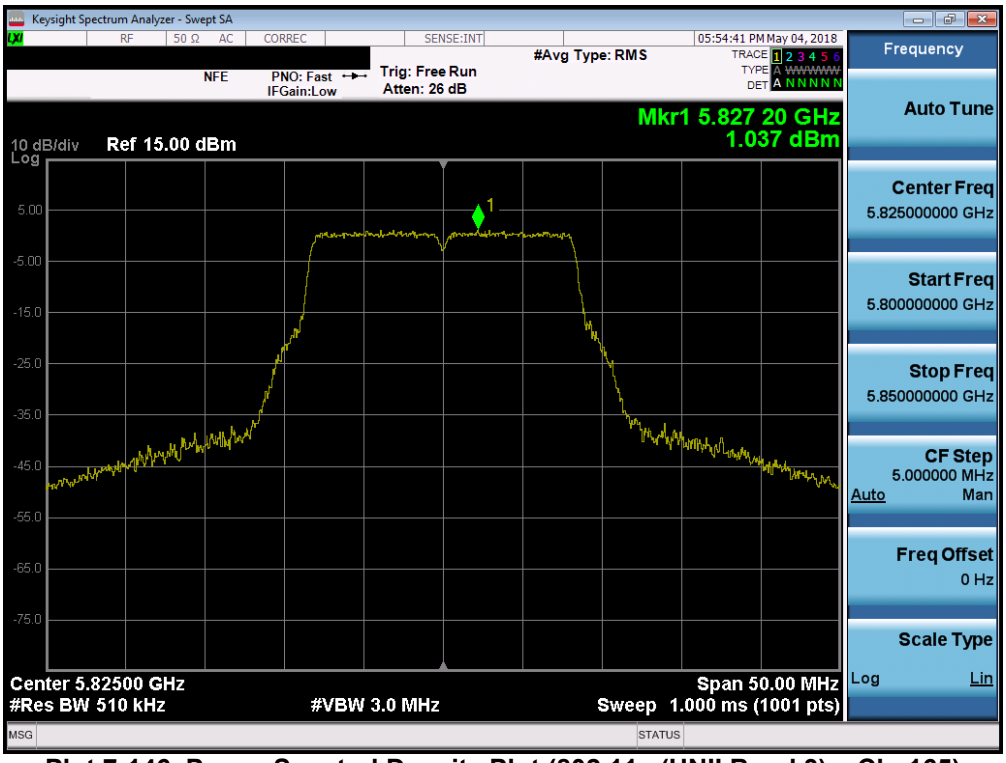
Table 7-21. Band 3 Conducted Power Spectral Density Measurements



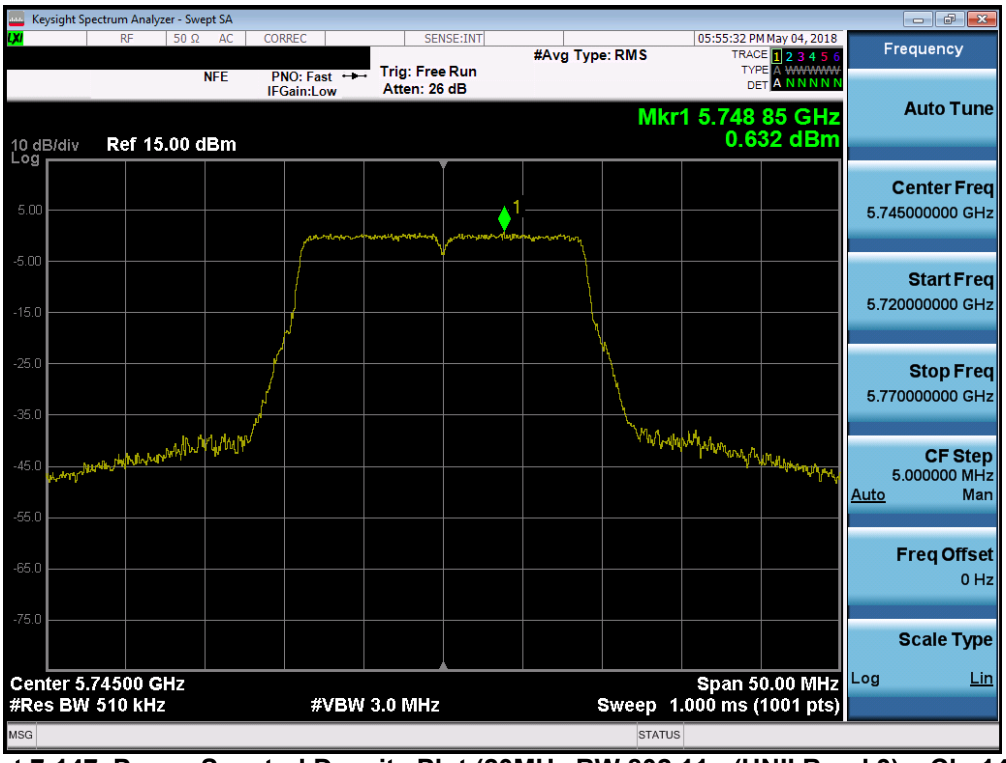
Plot 7-144. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 149)



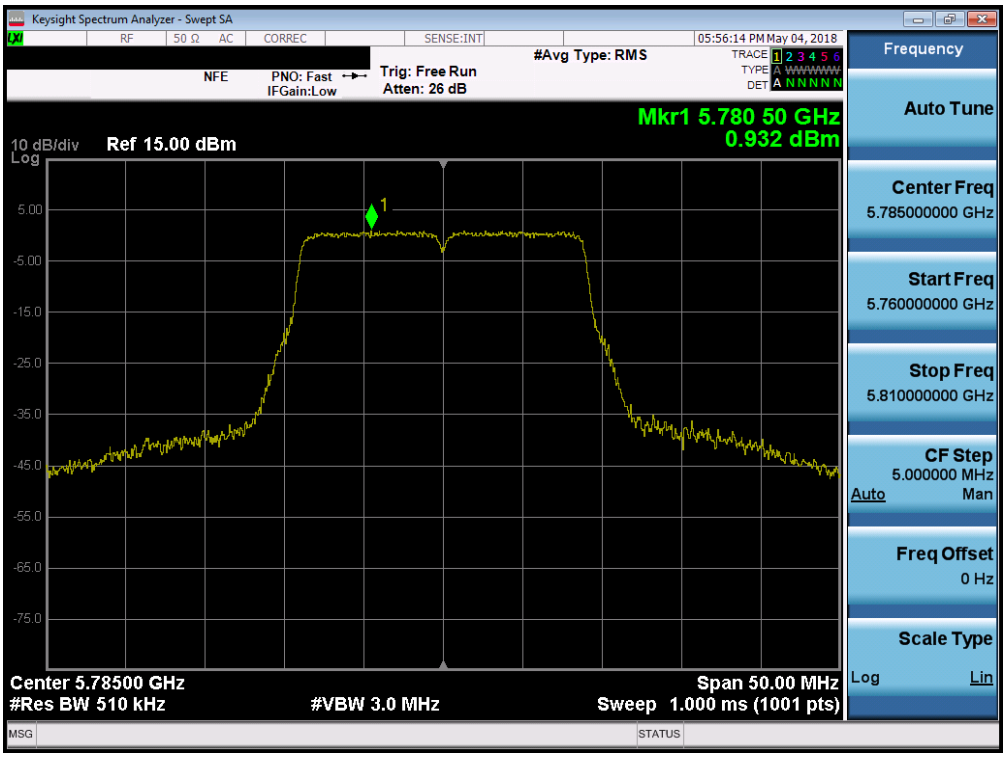
Plot 7-145. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 157)



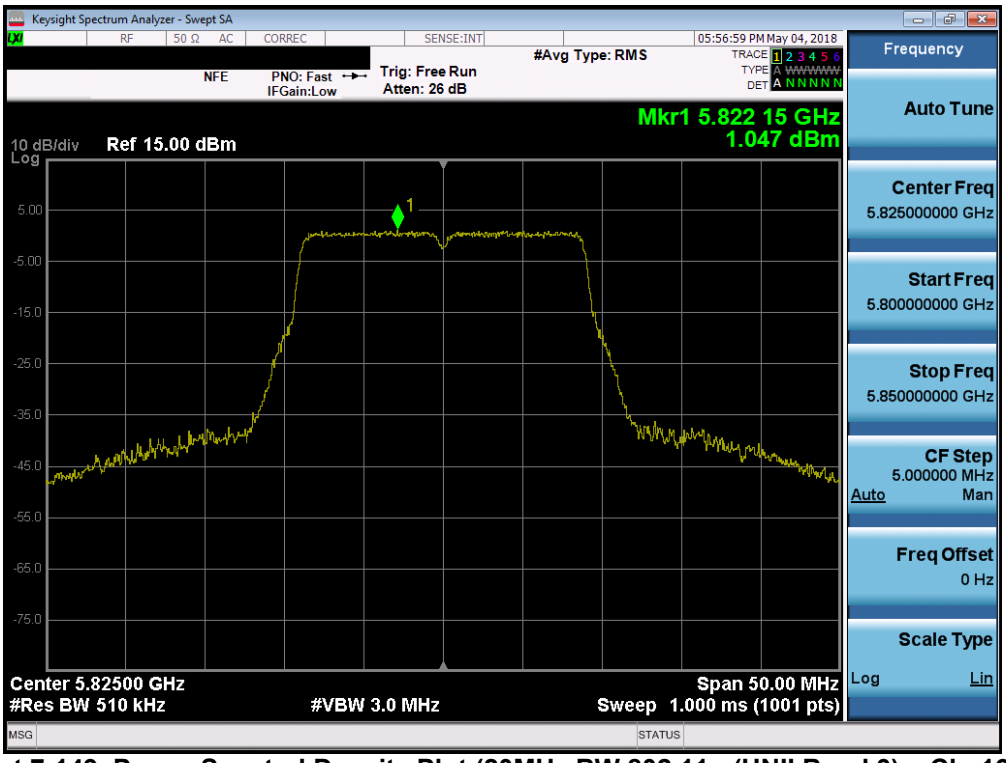
Plot 7-146. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 165)



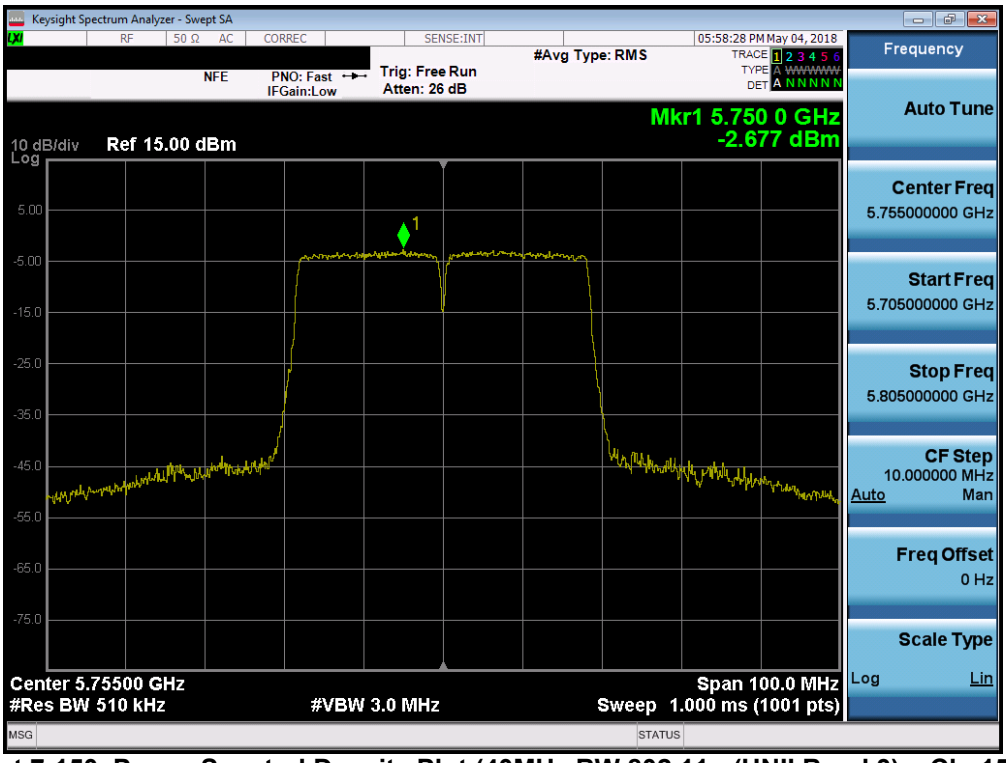
Plot 7-147. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 149)



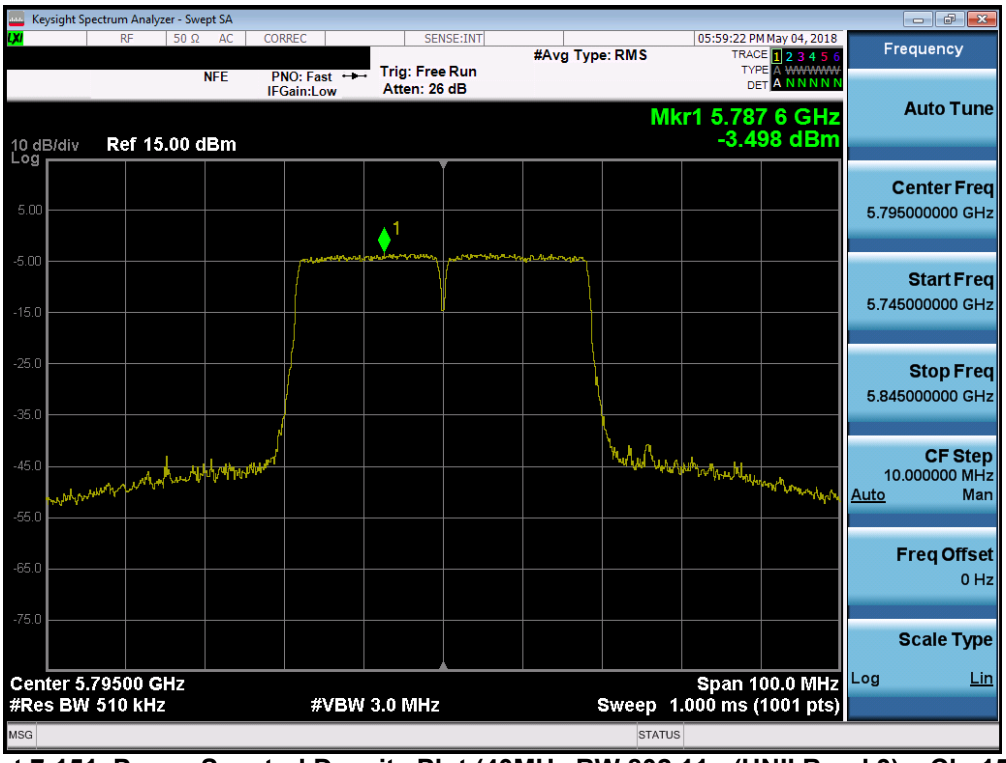
Plot 7-148. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 157)



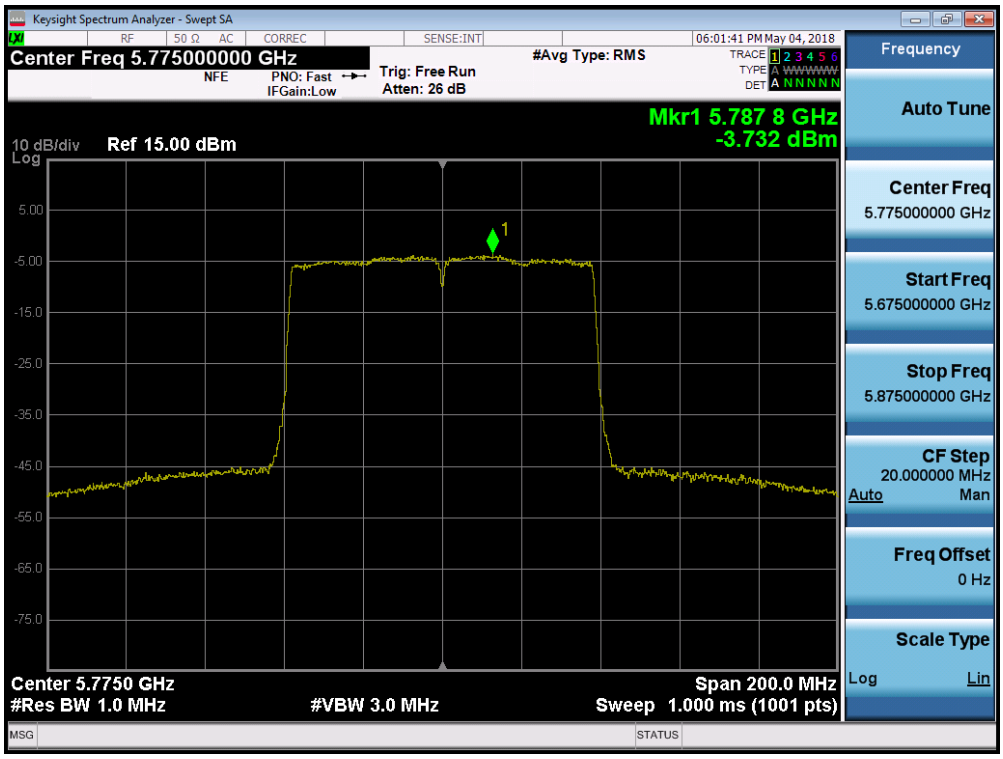
Plot 7-149. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 165)



Plot 7-150. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 151)



Plot 7-151. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-152. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

Summed MIMO Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenna-1 Power Density [dBm]	Antenna-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	a	6.5/7.2 (MCS0)	3.66	2.77	6.25	11.0	-4.75
	5200	40	a	6.5/7.2 (MCS0)	4.18	3.84	7.02	11.0	-3.98
	5240	48	a	6.5/7.2 (MCS0)	4.70	4.29	7.51	11.0	-3.49
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	3.53	3.63	6.59	11.0	-4.41
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	3.69	3.70	6.71	11.0	-4.29
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.25	4.01	7.14	11.0	-3.86
	5190	38	n (40MHz)	13.5/15 (MCS0)	-0.82	-0.01	2.62	11.0	-8.38
	5230	46	n (40MHz)	13.5/15 (MCS0)	-0.49	0.56	3.08	11.0	-7.92
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-4.76	-4.50	-1.62	11.0	-12.62
Band 2A	5260	52	a	6.5/7.2 (MCS0)	4.38	3.90	7.15	11.0	-3.85
	5280	56	a	6.5/7.2 (MCS0)	4.18	3.66	6.93	11.0	-4.07
	5320	64	a	6.5/7.2 (MCS0)	4.29	4.13	7.22	11.0	-3.78
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	2.87	3.69	6.31	11.0	-4.69
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	2.89	3.71	6.33	11.0	-4.67
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	2.67	3.69	6.22	11.0	-4.78
	5270	54	n (40MHz)	13.5/15 (MCS0)	-0.13	-0.31	2.79	11.0	-8.21
	5310	62	n (40MHz)	13.5/15 (MCS0)	-0.25	-0.50	2.64	11.0	-8.36
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-4.28	-4.44	-1.35	11.0	-12.35
Band 2C	5500	100	a	6.5/7.2 (MCS0)	5.18	4.92	8.06	11.0	-2.94
	5600	120	a	6.5/7.2 (MCS0)	4.38	4.20	7.30	11.0	-3.70
	5720	144	a	6.5/7.2 (MCS0)	5.02	4.23	7.65	11.0	-3.35
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	4.87	4.38	7.64	11.0	-3.36
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	3.71	3.97	6.85	11.0	-4.15
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	5.02	3.79	7.46	11.0	-3.54
	5510	102	n (40MHz)	13.5/15 (MCS0)	0.80	-0.08	3.39	11.0	-7.61
	5590	118	n (40MHz)	13.5/15 (MCS0)	0.98	0.90	3.95	11.0	-7.05
	5710	142	n (40MHz)	13.5/15 (MCS0)	-0.06	-0.59	2.69	11.0	-8.31
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-3.97	-3.48	-0.71	11.0	-11.71
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-4.03	-3.81	-0.91	11.0	-11.91

Table 7-22. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6.5/7.2 (MCS0)	1.35	0.98	4.18	30.0	-25.82
	5785	157	a	6.5/7.2 (MCS0)	1.22	1.19	4.21	30.0	-25.79
	5825	165	a	6.5/7.2 (MCS0)	1.18	1.04	4.12	30.0	-25.88
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	0.93	0.63	3.79	30.0	-26.21
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	0.96	0.93	3.95	30.0	-26.05
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	1.17	1.05	4.12	30.0	-25.88
	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.66	-2.68	0.34	30.0	-29.66
	5795	159	n (40MHz)	13.5/15 (MCS0)	-2.83	-3.50	-0.14	30.0	-30.14
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-6.47	-3.73	-1.88	30.0	-31.88

Table 7-23. Band 3 MIMO Conducted Power Spectral Density Measurements

Note:

Per ANSI C63.10-2013 Section 14.3.2.2 and KDB 662911 v02r01 Section E)2), the power spectral density at Antenna 1 and Antenna 2 were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Sample MIMO Calculation:

At 5180MHz in 802.11n (20MHz BW) mode, the average conducted power spectral density was measured to be 3.53 dBm for Antenna-1 and 3.63 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(3.53 dBm + 3.63 dBm) = (2.25 mW + 2.31 mW) = 4.56 mW = 6.59 dBm

7.6 Radiated Spurious Emission Measurements – Above 1GHz

§15.407(b) §15.205 §15.209; RSS-Gen [8.9]

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in ANSI C63.10-2013 and KDB 789033 D02 v02r01, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), and 802.11ac (80MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of −27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of −27 dBm/MHz.

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

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-24 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [μV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-24. Radiated Limits

Test Procedures Used

ANSI C63.10-2013 – Sections 12.7.7.2, 12.7.6, 12.7.5
KDB 789033 D02 v02r01 – Section G

Test Settings

Average Measurements above 1GHz (Method AD)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (RMS)
5. Number of measurement points = 1001 (Number of points must be ≥ 2 x span/RBW)
6. Averaging type = power (RMS)
7. Sweep time = auto couple
8. Trace was averaged over 100 sweeps

Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

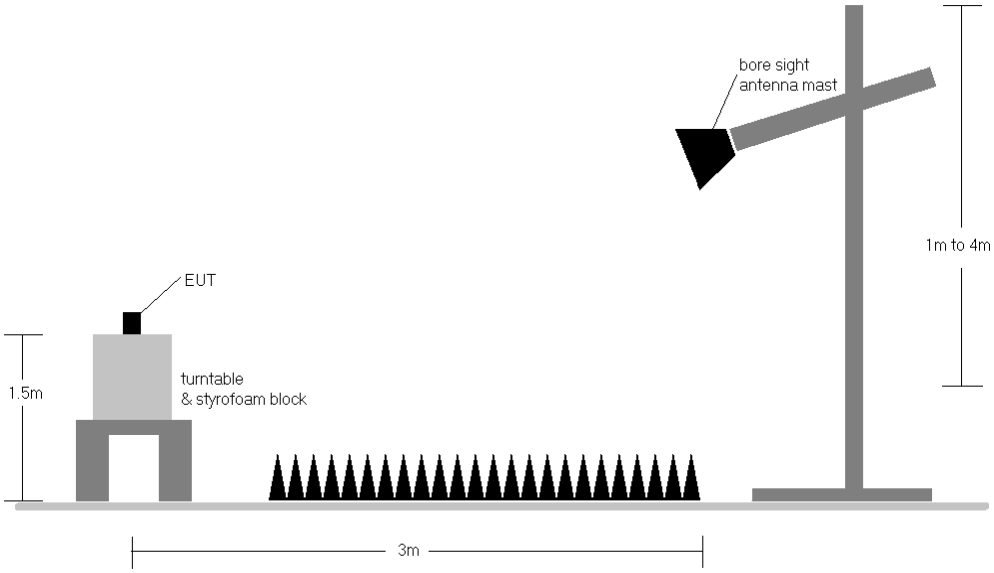


Figure 7-5. Test Instrument & Measurement Setup

Test Notes

1. All emissions that lie in the restricted bands (denoted by a * next to the frequency) specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-24.
2. All spurious emissions lying in restricted bands specified in §15.205 and Section 8.10 of RSS-Gen are below the limit shown in Table 7-24. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBμV/m.
3. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
4. This unit was tested with its standard battery.
5. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
6. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
7. Radiated spurious emissions were investigated while operating in MIMO mode, however, it was determined that single antenna operation produced the worst case emissions. Since the emissions produced from MIMO operation were found to be more than 20dB below the limit, the MIMO emissions are not reported.
8. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section.
9. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

Sample Calculations

Determining Spurious Emissions Levels

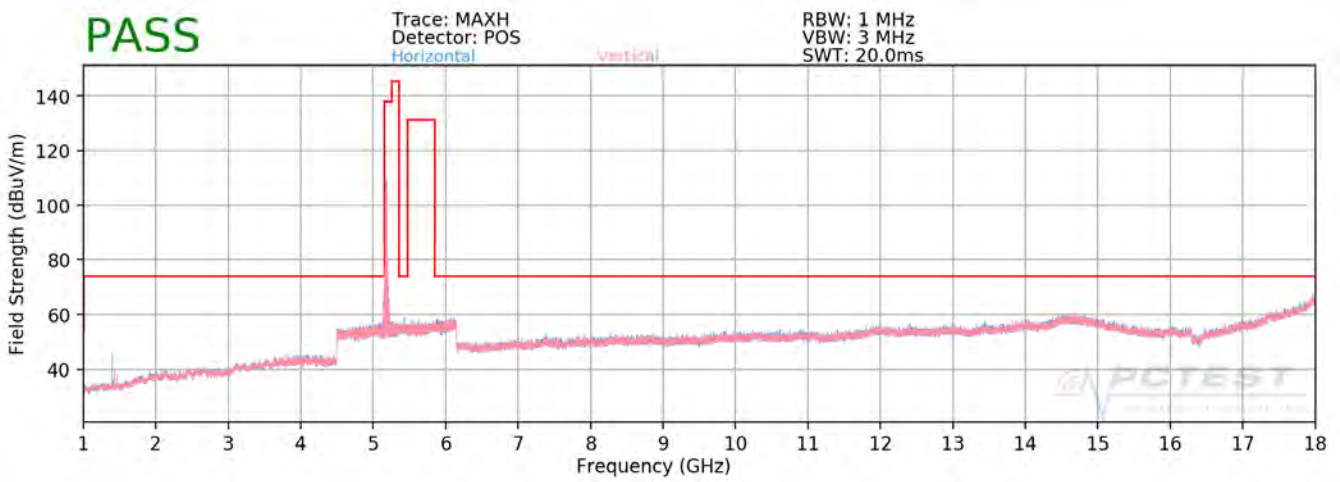
- Field Strength Level $_{[dB\mu V/m]}$ = Analyzer Level $_{[dBm]}$ + 107 + AFCL $_{[dB/m]}$
- AFCL $_{[dB/m]}$ = Antenna Factor $_{[dB/m]}$ + Cable Loss $_{[dB]}$
- Margin $_{[dB]}$ = Field Strength Level $_{[dB\mu V/m]}$ – Limit $_{[dB\mu V/m]}$

Radiated Band Edge Measurement Offset

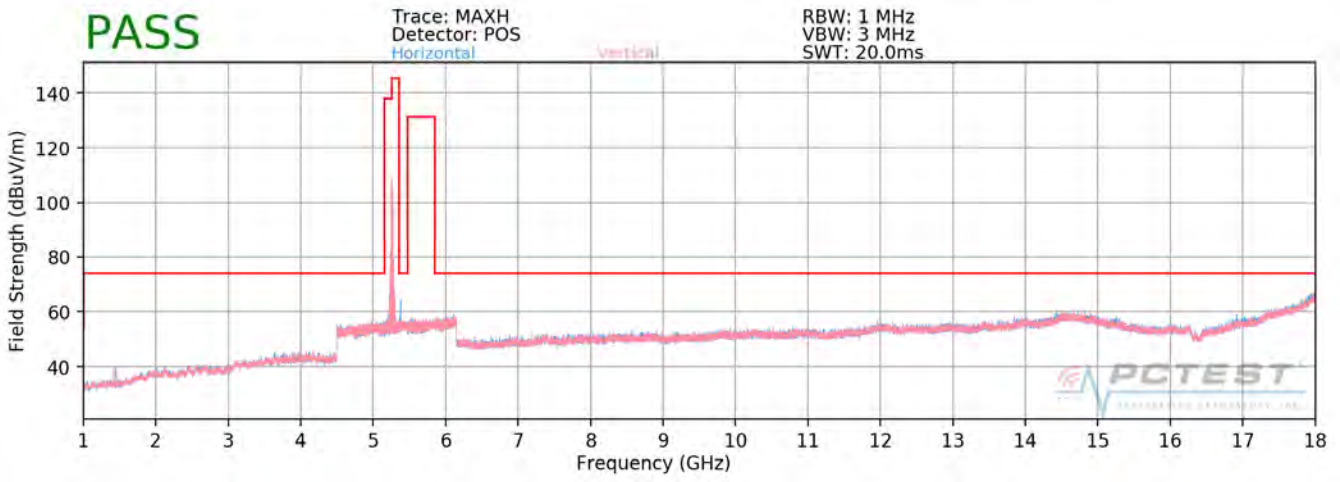
- The amplitude offset shown in the radiated restricted band edge plots in Section 7.6 was calculated using the formula:

  Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) – Preamplifier Gain

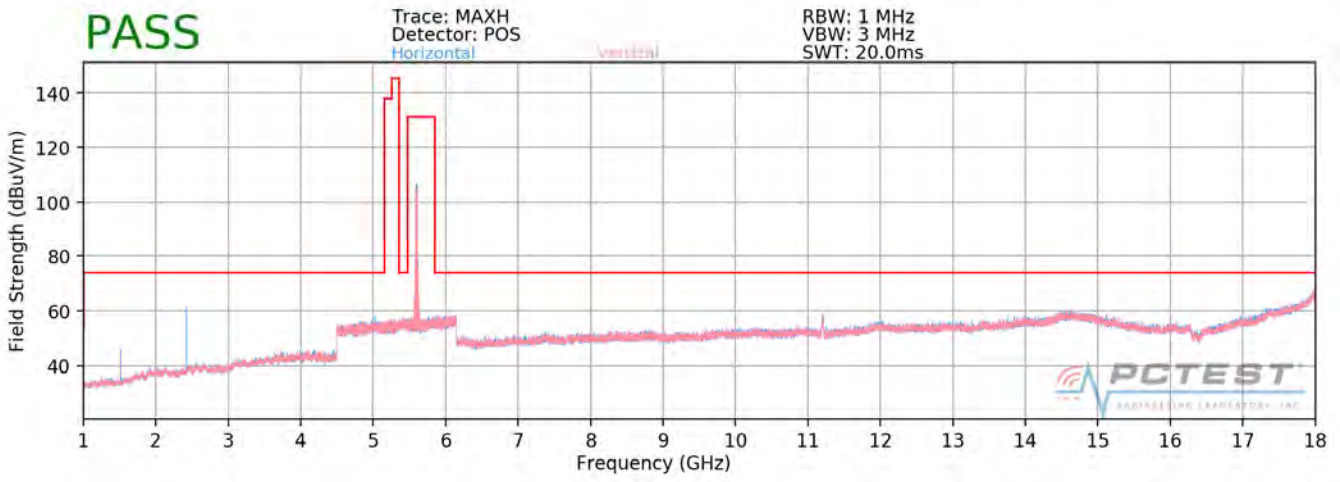
7.6.1 Antenna-1 Radiated Spurious Emission Measurements



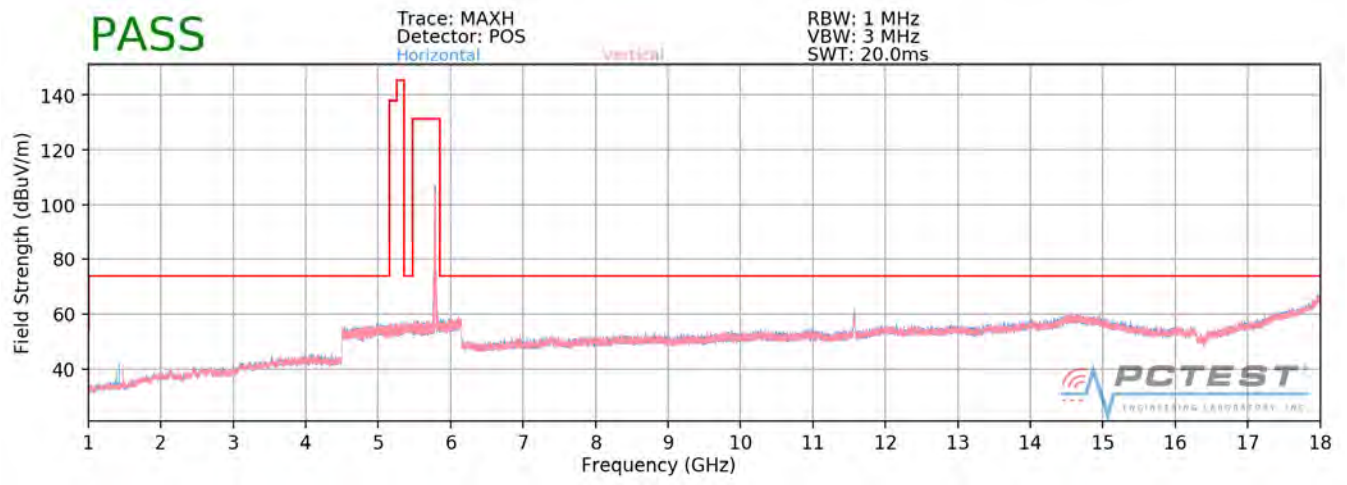
Plot 7-153. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40)



Plot 7-154. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56)

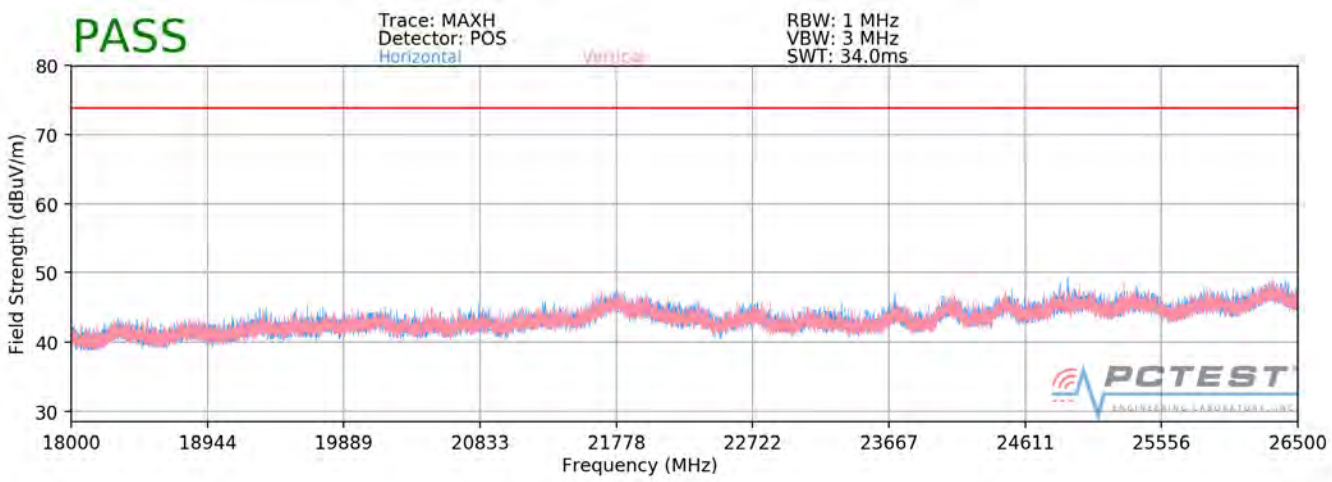


Plot 7-155. Radiated Spurious Plot above 1GHz (802.11a – U2C Ch. 120)

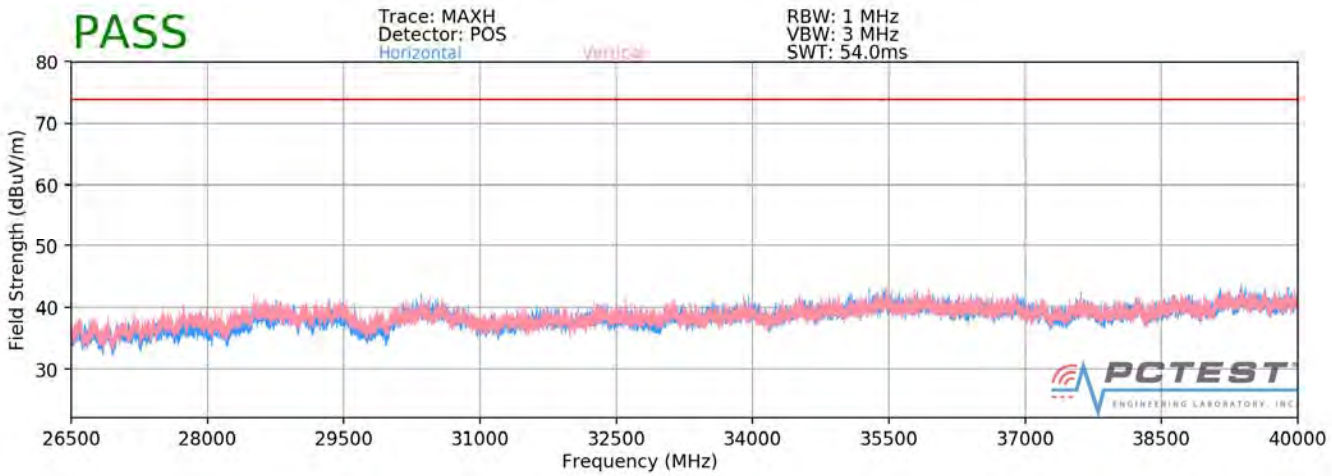


Plot 7-156. Radiated Spurious Plot above 1GHz (802.11a – U3 Ch. 157)

Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-157. Radiated Spurious Plot 18GHz - 26.5GHz (802.11a)



Plot 7-158. Radiated Spurious Plot 26.5GHz - 40GHz (802.11a)

Antenna-1 Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	H	112	338	-64.98	11.48	0.00	53.50	68.20	-14.70
*	15540.00	Average	H	107	333	-79.02	13.68	0.00	41.66	53.98	-12.32
*	15540.00	Peak	H	107	333	-67.62	13.68	0.00	53.06	73.98	-20.92
*	20720.00	Average	H	-	-	-71.42	7.94	-9.54	33.98	53.98	-20.00
*	20720.00	Peak	H	-	-	-61.32	7.94	-9.54	44.08	73.98	-29.90
	25900.00	Peak	H	-	-	-58.49	8.46	-9.54	47.43	68.20	-20.77

Table 7-25. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5200MHz
Channel:	40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	H	100	10	-66.77	11.67	0.00	51.90	68.20	-16.30
*	15600.00	Average	H	343	16	-79.13	13.27	0.00	41.14	53.98	-12.84
*	15600.00	Peak	H	343	16	-67.51	13.27	0.00	52.76	73.98	-21.22
*	20800.00	Average	H	-	-	-71.37	7.95	-9.54	34.04	53.98	-19.94
*	20800.00	Peak	H	-	-	-60.97	7.95	-9.54	44.44	73.98	-29.54
	26000.00	Peak	H	-	-	-58.57	8.60	-9.54	47.49	68.20	-20.71

Table 7-26. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz
Channel: 48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	H	115	368	-66.95	11.70	0.00	51.75	68.20	-16.45
*	15720.00	Average	H	104	32	-79.25	12.83	0.00	40.58	53.98	-13.40
*	15720.00	Peak	H	104	32	-67.52	12.83	0.00	52.31	73.98	-21.67
*	20960.00	Average	H	-	-	-71.80	7.91	-9.54	33.57	53.98	-20.41
*	20960.00	Peak	H	-	-	-61.14	7.91	-9.54	44.23	73.98	-29.75
	26200.00	Peak	H	-	-	-57.86	8.62	-9.54	48.22	68.20	-19.98

Table 7-27. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5180MHz
Channel: 36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	H	131	332	-67.03	11.48	0.00	51.45	68.20	-16.75
*	15540.00	Average	H	265	263	-79.11	13.68	0.00	41.57	53.98	-12.41
*	15540.00	Peak	H	265	263	-66.47	13.68	0.00	54.21	73.98	-19.77
*	20720.00	Average	H	-	-	-71.66	7.94	-9.54	33.74	53.98	-20.24
*	20720.00	Peak	H	-	-	-60.17	7.94	-9.54	45.23	73.98	-28.75
	25900.00	Peak	H	-	-	-57.98	8.46	-9.54	47.94	68.20	-20.26

Table 7-28. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5260MHz
Channel: 52

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	H	104	4	-66.96	11.68	0.00	51.72	68.20	-16.48
*	15780.00	Average	H	-	-	-79.66	12.91	0.00	40.25	53.98	-13.73
*	15780.00	Peak	H	-	-	-68.07	12.91	0.00	51.84	73.98	-22.14
*	21040.00	Average	H	-	-	-71.39	7.92	-9.54	33.99	53.98	-19.99
*	21040.00	Peak	H	-	-	-61.21	7.92	-9.54	44.17	73.98	-29.81
	26300.00	Peak	H	-	-	-57.53	8.73	-9.54	48.66	68.20	-19.54

Table 7-29. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5280MHz
Channel: 56

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	H	177	4	-66.57	11.56	0.00	51.99	68.20	-16.21
*	15840.00	Average	H	-	-	-79.81	12.86	0.00	40.05	53.98	-13.93
*	15840.00	Peak	H	-	-	-68.60	12.86	0.00	51.26	73.98	-22.72
*	21120.00	Average	H	-	-	-71.09	7.96	-9.54	34.33	53.98	-19.65
*	21120.00	Peak	H	-	-	-59.54	7.96	-9.54	45.88	73.98	-28.10
	26400.00	Peak	H	-	-	-58.62	8.94	-9.54	47.78	68.20	-20.42

Table 7-30. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5320MHz
Channel:	64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	H	-	-	-79.69	11.80	0.00	39.11	53.98	-14.87
*	10640.00	Peak	H	-	-	-67.73	11.80	0.00	51.07	73.98	-22.91
*	15960.00	Average	H	100	334	-79.10	13.23	0.00	41.13	53.98	-12.84
*	15960.00	Peak	H	100	334	-66.90	13.23	0.00	53.33	73.98	-20.64
*	21280.00	Average	H	-	-	-70.58	8.04	-9.54	34.92	53.98	-19.06
*	21280.00	Peak	H	-	-	-59.40	8.04	-9.54	46.10	73.98	-27.88
	26600.00	Peak	H	-	-	-49.95	-8.30	-9.54	39.20	68.20	-29.00

Table 7-31. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5320MHz
Channel:	64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	H	-	-	-79.98	11.80	0.00	38.82	53.98	-15.16
*	10640.00	Peak	H	-	-	-68.15	11.80	0.00	50.65	73.98	-23.33
*	15960.00	Average	H	-	-	-79.28	13.23	0.00	40.95	53.98	-13.02
*	15960.00	Peak	H	-	-	-66.34	13.23	0.00	53.89	73.98	-20.08
*	21280.00	Average	H	-	-	-70.61	8.04	-9.54	34.89	53.98	-19.09
*	21280.00	Peak	H	-	-	-59.57	8.04	-9.54	45.93	73.98	-28.05
	26600.00	Peak	H	-	-	-48.82	-8.30	-9.54	40.33	68.20	-27.87

Table 7-32. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5500MHz
Channel: 100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	H	159	4	-73.14	12.04	0.00	45.90	53.98	-8.08
*	11000.00	Peak	H	159	4	-59.37	12.04	0.00	59.67	73.98	-14.31
	16500.00	Peak	H	199	368	-67.29	12.28	0.00	51.99	68.20	-16.21
	22000.00	Peak	H	-	-	-59.40	8.43	-9.54	46.48	68.20	-21.72
	27500.00	Peak	H	-	-	-48.38	-8.80	-9.54	40.28	68.20	-27.92

Table 7-33. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5600MHz
Channel: 120

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11200.00	Average	H	144	7	-68.86	11.28	0.00	49.42	53.98	-4.56
*	11200.00	Peak	H	144	7	-56.58	11.28	0.00	61.70	73.98	-12.28
	16800.00	Peak	H	-	-	-66.82	13.32	0.00	53.50	68.20	-14.70
*	22400.00	Average	H	-	-	-70.82	8.11	-9.54	34.75	53.98	-19.23
*	22400.00	Peak	H	-	-	-60.63	8.11	-9.54	44.94	73.98	-29.04
	28000.00	Peak	H	-	-	-48.08	-9.26	-9.54	40.12	68.20	-28.08

Table 7-34. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	H	109	11	-68.24	11.68	0.00	50.44	53.98	-3.54
*	11440.00	Peak	H	109	11	-56.22	11.68	0.00	62.46	73.98	-11.52
	17160.00	Peak	H	-	-	-67.62	15.62	0.00	55.00	68.20	-13.20
*	22880.00	Average	H	-	-	-71.70	8.28	-9.54	34.04	53.98	-19.94
*	22880.00	Peak	H	-	-	-60.99	8.28	-9.54	44.75	73.98	-29.23
	28600.00	Peak	H	-	-	-46.59	-9.08	-9.54	41.79	68.20	-26.41

Table 7-35. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	H	126	332	-71.63	11.68	0.00	47.05	53.98	-6.93
*	11440.00	Peak	H	126	332	-58.93	11.68	0.00	59.75	73.98	-14.23
	17160.00	Peak	H	-	-	-68.27	15.62	0.00	54.35	68.20	-13.85
*	22880.00	Average	H	-	-	-70.72	8.28	-9.54	35.02	53.98	-18.96
*	22880.00	Peak	H	-	-	-59.25	8.28	-9.54	46.49	73.98	-27.49
	28600.00	Peak	H	-	-	-45.92	-9.08	-9.54	42.46	68.20	-25.74

Table 7-36. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	H	115	6	-69.41	11.70	0.00	49.29	53.98	-4.69
*	11490.00	Peak	H	115	6	-56.74	11.70	0.00	61.96	73.98	-12.02
	17235.00	Peak	H	-	-	-67.91	17.09	0.00	56.18	68.20	-12.02
*	22980.00	Average	H	-	-	-71.50	8.16	-9.54	34.12	53.98	-19.86
*	22980.00	Peak	H	-	-	-61.46	8.16	-9.54	44.16	73.98	-29.82
	28725.00	Peak	H	-	-	-48.05	-9.24	-9.54	40.17	68.20	-28.03

Table 7-37. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	H	109	4	-69.11	11.91	0.00	49.80	53.98	-4.18
*	11570.00	Peak	H	109	4	-56.83	11.91	0.00	62.08	73.98	-11.90
	17355.00	Peak	H	-	-	-68.04	18.72	0.00	57.68	68.20	-10.52
	23140.00	Peak	H	-	-	-60.82	8.37	-9.54	45.01	68.20	-23.19
	28925.00	Peak	H	-	-	-47.65	-9.65	-9.54	40.16	68.20	-28.04

Table 7-38. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5825MHz
Channel:	165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	H	100	10	-70.41	12.16	0.00	48.75	53.98	-5.23
*	11650.00	Peak	H	100	10	-58.47	12.16	0.00	60.69	73.98	-13.29
	17475.00	Peak	H	-	-	-68.31	18.73	0.00	57.42	68.20	-10.78
	23300.00	Peak	H	-	-	-60.67	8.50	-9.54	45.29	68.20	-22.91
	29125.00	Peak	H	-	-	-46.22	-9.87	-9.54	41.37	68.20	-26.83

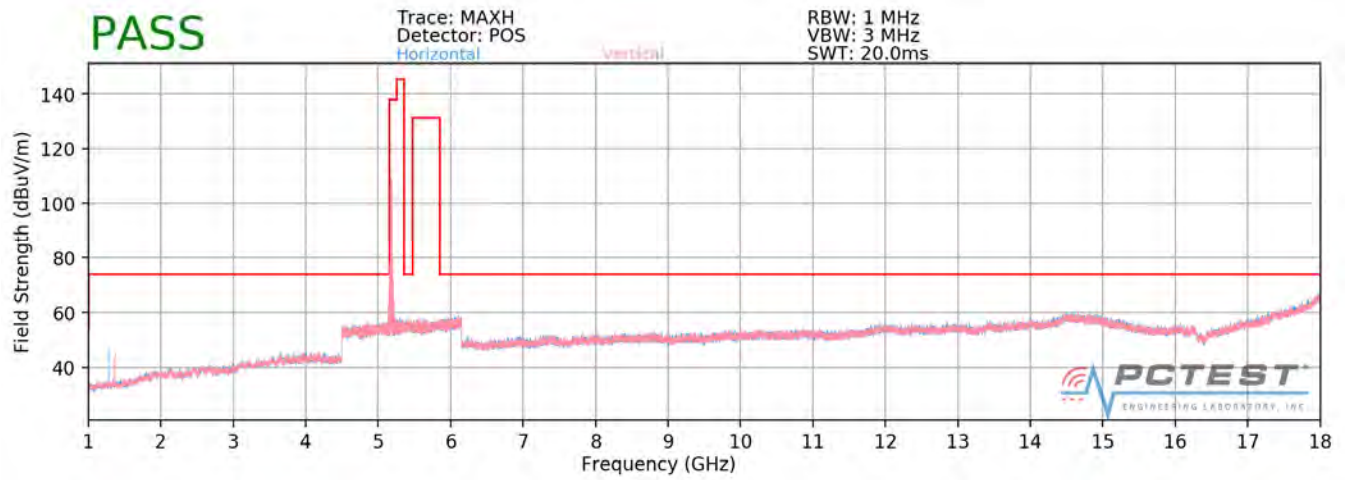
Table 7-39. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5785MHz
Channel:	157

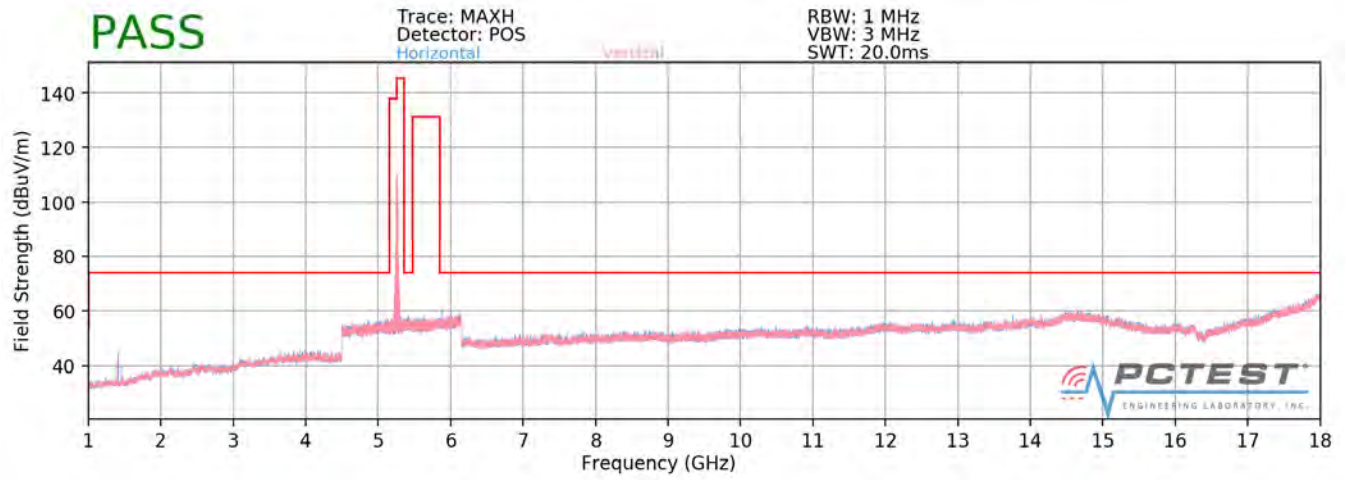
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	H	102	334	-70.18	11.91	0.00	48.73	53.98	-5.25
*	11570.00	Peak	H	102	334	-56.97	11.91	0.00	61.94	73.98	-12.04
	17355.00	Peak	H	-	-	-67.73	18.72	0.00	57.99	68.20	-10.21
	23140.00	Peak	H	-	-	-60.43	8.37	-9.54	45.40	68.20	-22.80
	28925.00	Peak	H	-	-	-46.48	-9.65	-9.54	41.33	68.20	-26.87

Table 7-40. Radiated Measurements with WCP

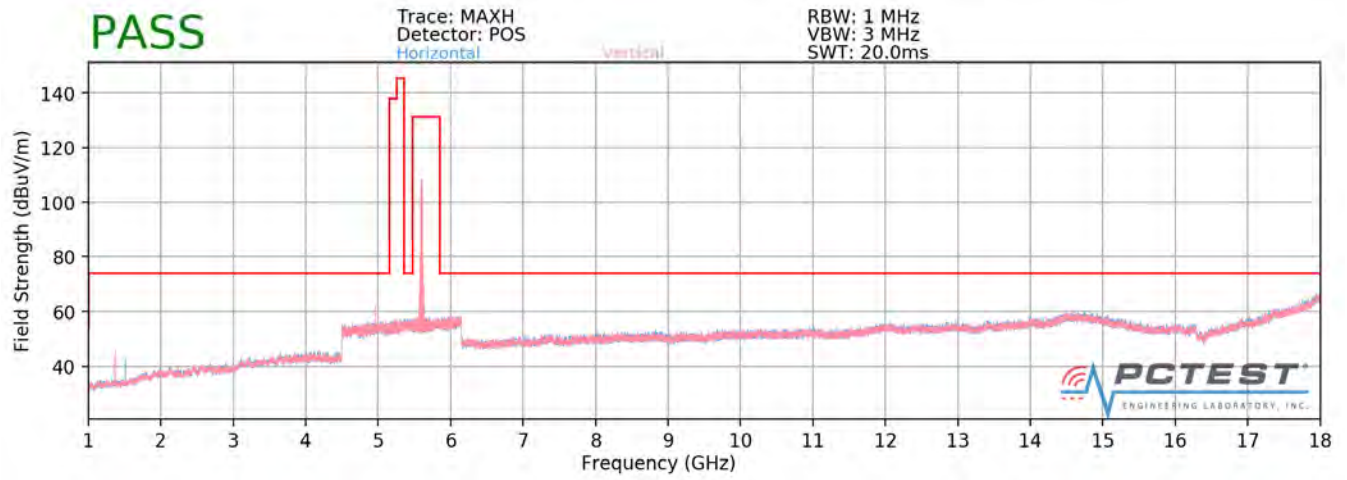
7.6.2 Antenna-2 Radiated Spurious Emission Measurements



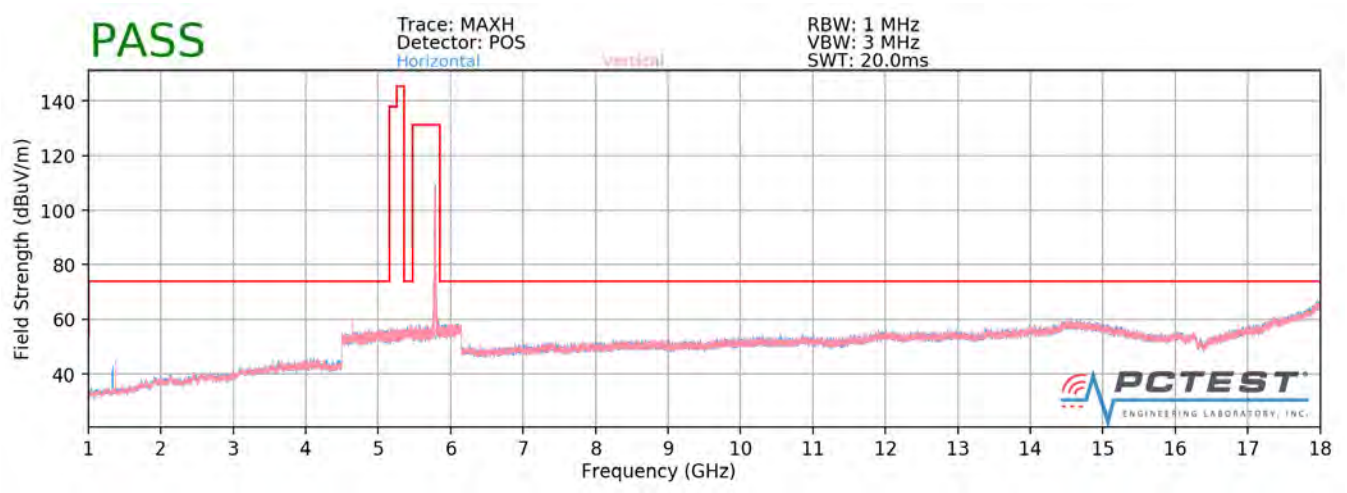
Plot 7-159. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40)



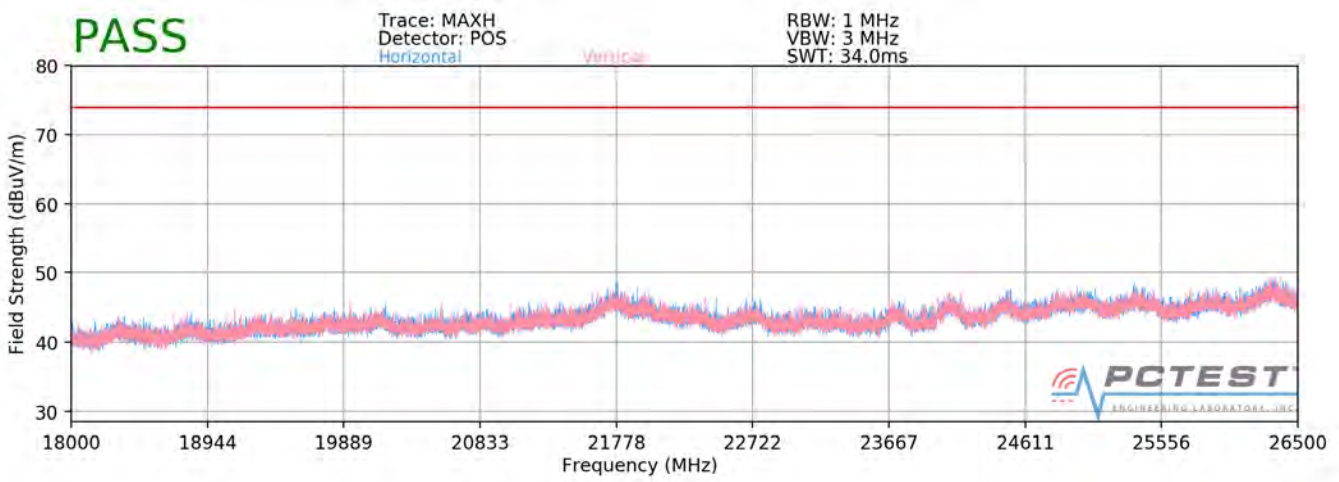
Plot 7-160. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56)



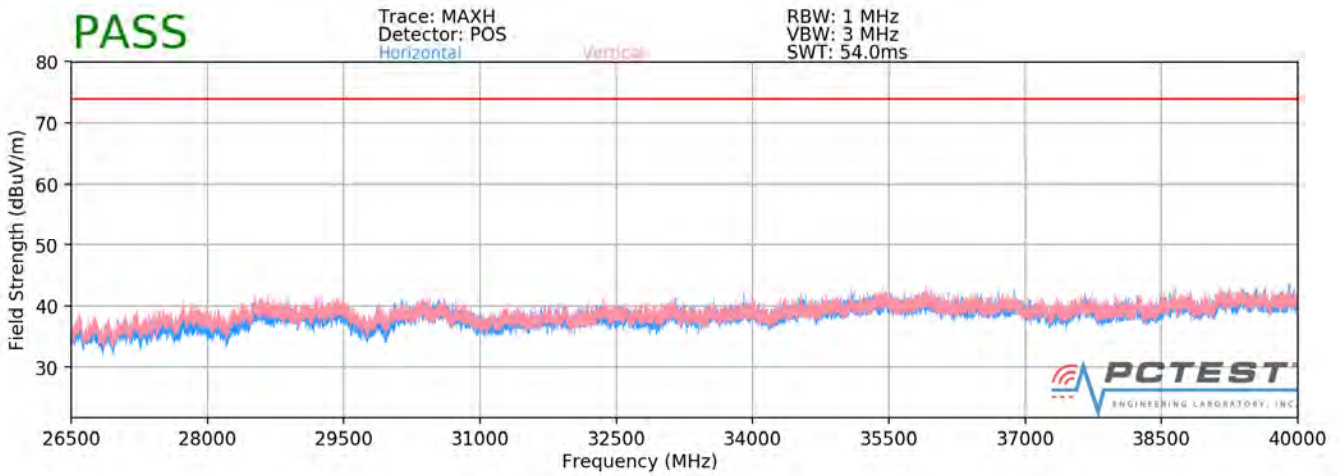
Plot 7-161. Radiated Spurious Plot above 1GHz (802.11a – U2C Ch. 120)



Plot 7-162. Radiated Spurious Plot above 1GHz (802.11a – U3 Ch. 157)



Plot 7-163. Radiated Spurious Plot above 18GHz - 26.5GHz (802.11a)



Plot 7-164. Radiated Spurious Plot 26.5GHz - 40GHz (802.11a)

Antenna-2 Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	H	204	357	-67.59	11.48	0.00	50.89	68.20	-17.31
*	15540.00	Average	H	320	332	-79.05	13.68	0.00	41.63	53.98	-12.35
*	15540.00	Peak	H	320	332	-67.52	13.68	0.00	53.16	73.98	-20.82
*	20720.00	Average	H	-	-	-70.72	7.94	-9.54	34.68	53.98	-19.30
*	20720.00	Peak	H	-	-	-60.43	7.94	-9.54	44.97	73.98	-29.01
	25900.00	Peak	H	-	-	-58.59	8.46	-9.54	47.33	68.20	-20.87

Table 7-41. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5200MHz
Channel:	40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	H	163	358	-66.87	11.67	0.00	51.80	68.20	-16.40
*	15600.00	Average	H	-	-	-79.30	13.27	0.00	40.97	53.98	-13.01
*	15600.00	Peak	H	-	-	-67.23	13.27	0.00	53.04	73.98	-20.94
*	20800.00	Average	H	-	-	-70.71	7.95	-9.54	34.70	53.98	-19.28
*	20800.00	Peak	H	-	-	-60.34	7.95	-9.54	45.07	73.98	-28.91
	26000.00	Peak	H	-	-	-58.49	8.60	-9.54	47.57	68.20	-20.63

Table 7-42. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz
Channel: 48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	H	139	15	-67.53	11.70	0.00	51.17	68.20	-17.03
*	15720.00	Average	H	103	338	-77.74	12.83	0.00	42.09	53.98	-11.89
*	15720.00	Peak	H	103	338	-65.79	12.83	0.00	54.04	73.98	-19.94
*	20960.00	Average	H	-	-	-71.44	7.91	-9.54	33.93	53.98	-20.05
*	20960.00	Peak	H	-	-	-60.69	7.91	-9.54	44.68	73.98	-29.30
	26200.00	Peak	H	-	-	-58.67	8.62	-9.54	47.41	68.20	-20.79

Table 7-43. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5240MHz
Channel: 48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	H	-	-	-68.07	11.70	0.00	50.63	68.20	-17.57
*	15720.00	Average	H	113	344	-78.40	12.83	0.00	41.43	53.98	-12.55
*	15720.00	Peak	H	113	344	-65.36	12.83	0.00	54.47	73.98	-19.51
*	20960.00	Average	H	-	-	-71.87	7.91	-9.54	33.50	53.98	-20.48
*	20960.00	Peak	H	-	-	-60.72	7.91	-9.54	44.65	73.98	-29.33
	26200.00	Peak	H	-	-	-57.49	8.62	-9.54	48.59	68.20	-19.61

Table 7-44. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5260MHz
Channel: 52

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	H	158	23	-67.67	11.68	0.00	51.01	68.20	-17.19
*	15780.00	Average	H	-	-	-79.71	12.91	0.00	40.20	53.98	-13.78
*	15780.00	Peak	H	-	-	-68.35	12.91	0.00	51.56	73.98	-22.42
*	21040.00	Average	H	-	-	-71.25	7.92	-9.54	34.13	53.98	-19.85
*	21040.00	Peak	H	-	-	-60.75	7.92	-9.54	44.63	73.98	-29.35
	26300.00	Peak	H	-	-	-56.97	8.73	-9.54	49.22	68.20	-18.98

Table 7-45. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5280MHz
Channel: 56

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	H	315	30	-67.91	11.56	0.00	50.65	68.20	-17.55
*	15840.00	Average	H	107	329	-78.89	12.86	0.00	40.97	53.98	-13.01
*	15840.00	Peak	H	107	329	-65.38	12.86	0.00	54.48	73.98	-19.50
*	21120.00	Average	H	-	-	-70.99	7.96	-9.54	34.43	53.98	-19.55
*	21120.00	Peak	H	-	-	-59.78	7.96	-9.54	45.64	73.98	-28.34
	26400.00	Peak	H	-	-	-57.76	8.94	-9.54	48.64	68.20	-19.56

Table 7-46. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5320MHz
Channel:	64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	H	-	-	-79.69	11.80	0.00	39.11	53.98	-14.87
*	10640.00	Peak	H	-	-	-67.89	11.80	0.00	50.91	73.98	-23.07
*	15960.00	Average	H	109	328	-78.70	13.23	0.00	41.53	53.98	-12.44
*	15960.00	Peak	H	109	328	-65.63	13.23	0.00	54.60	73.98	-19.37
*	21280.00	Average	H	-	-	-70.33	8.04	-9.54	35.17	53.98	-18.81
*	21280.00	Peak	H	-	-	-60.40	8.04	-9.54	45.10	73.98	-28.88
	26600.00	Peak	H	-	-	-50.10	-8.30	-9.54	39.05	68.20	-29.15

Table 7-47. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5320MHz
Channel:	64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	H	-	-	-79.69	11.80	0.00	39.11	53.98	-14.87
*	10640.00	Peak	H	-	-	-68.34	11.80	0.00	50.46	73.98	-23.52
*	15960.00	Average	H	118	346	-78.74	13.23	0.00	41.49	53.98	-12.48
*	15960.00	Peak	H	118	346	-65.75	13.23	0.00	54.48	73.98	-19.49
*	21280.00	Average	H	-	-	-70.47	8.04	-9.54	35.03	53.98	-18.95
*	21280.00	Peak	H	-	-	-59.30	8.04	-9.54	46.20	73.98	-27.78
	26600.00	Peak	H	-	-	-50.47	-8.30	-9.54	38.68	68.20	-29.52

Table 7-48. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5500MHz
Channel: 100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	H	227	20	-78.00	12.04	0.00	41.04	53.98	-12.94
*	11000.00	Peak	H	227	20	-66.77	12.04	0.00	52.27	73.98	-21.71
	16500.00	Peak	H	104	27	-63.78	12.28	0.00	55.50	68.20	-12.70
	22000.00	Peak	H	-	-	-58.98	8.43	-9.54	46.90	68.20	-21.30
	27500.00	Peak	H	-	-	-47.33	-8.80	-9.54	41.33	68.20	-26.87

Table 7-49. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5600MHz
Channel: 120

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11200.00	Average	H	120	17	-76.84	11.28	0.00	41.44	53.98	-12.54
*	11200.00	Peak	H	120	17	-65.14	11.28	0.00	53.14	73.98	-20.84
	16800.00	Peak	H	100	3	-66.43	13.32	0.00	53.89	68.20	-14.31
*	22400.00	Average	H	-	-	-70.77	8.11	-9.54	34.80	53.98	-19.18
*	22400.00	Peak	H	-	-	-60.88	8.11	-9.54	44.69	73.98	-29.29
	28000.00	Peak	H	-	-	-48.31	-9.26	-9.54	39.89	68.20	-28.31

Table 7-50. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5720MHz
Channel: 144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	H	116	302	-76.93	11.68	0.00	41.75	53.98	-12.23
*	11440.00	Peak	H	116	302	-65.05	11.68	0.00	53.63	73.98	-20.35
	17160.00	Peak	H	144	1	-65.60	15.62	0.00	57.02	68.20	-11.18
*	22880.00	Average	H	-	-	-71.54	8.28	-9.54	34.20	53.98	-19.78
*	22880.00	Peak	H	-	-	-60.83	8.28	-9.54	44.91	73.98	-29.07
	28600.00	Peak	H	-	-	-47.33	-9.08	-9.54	41.05	68.20	-27.15

Table 7-51. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5720MHz
Channel: 144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	H	144	316	-77.52	11.68	0.00	41.16	53.98	-12.82
*	11440.00	Peak	H	144	316	-66.34	11.68	0.00	52.34	73.98	-21.64
	17160.00	Peak	H	168	106	-67.78	15.62	0.00	54.84	68.20	-13.36
*	22880.00	Average	H	-	-	-71.51	8.28	-9.54	34.23	53.98	-19.75
*	22880.00	Peak	H	-	-	-60.62	8.28	-9.54	45.12	73.98	-28.86
	28600.00	Peak	H	-	-	-46.30	-9.08	-9.54	42.08	68.20	-26.12

Table 7-52. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	H	237	27	-77.94	11.70	0.00	40.76	53.98	-13.22
*	11490.00	Peak	H	237	27	-66.13	11.70	0.00	52.57	73.98	-21.41
	17235.00	Peak	H	135	360	-65.83	17.09	0.00	58.26	68.20	-9.94
*	22980.00	Average	H	-	-	-71.63	8.16	-9.54	33.99	53.98	-19.99
*	22980.00	Peak	H	-	-	-60.79	8.16	-9.54	44.83	73.98	-29.15
	28725.00	Peak	H	-	-	-47.65	-9.24	-9.54	40.57	68.20	-27.63

Table 7-53. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	H	208	308	-77.25	11.91	0.00	41.66	53.98	-12.32
*	11570.00	Peak	H	208	308	-64.89	11.91	0.00	54.02	73.98	-19.96
	17355.00	Peak	H	177	1	-67.90	18.72	0.00	57.82	68.20	-10.38
	23140.00	Peak	H	-	-	-59.48	8.37	-9.54	46.35	68.20	-21.85
	28925.00	Peak	H	-	-	-47.80	-9.65	-9.54	40.01	68.20	-28.19

Table 7-54. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5825MHz
Channel: 165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	H	204	310	-77.63	12.16	0.00	41.53	53.98	-12.45
*	11650.00	Peak	H	204	310	-65.32	12.16	0.00	53.84	73.98	-20.14
	17475.00	Peak	H	237	20	-67.68	18.73	0.00	58.05	68.20	-10.15
	23300.00	Peak	H	-	-	-60.63	8.50	-9.54	45.33	68.20	-22.87
	29125.00	Peak	H	-	-	-46.69	-9.87	-9.54	40.90	68.20	-27.30

Table 7-55. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	H	135	316	-77.88	11.91	0.00	41.03	53.98	-12.95
*	11570.00	Peak	H	135	316	-66.06	11.91	0.00	52.85	73.98	-21.13
	17355.00	Peak	H	-	-	-68.25	18.72	0.00	57.47	68.20	-10.73
	23140.00	Peak	H	-	-	-60.15	8.37	-9.54	45.68	68.20	-22.52
	28925.00	Peak	H	-	-	-47.06	-9.65	-9.54	40.75	68.20	-27.45

Table 7-56. Radiated Measurements with WCP

CDD Radiated Spurious Emission Measurements

§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	H	149	327	-65.52	11.48	0.00	52.96	68.20	-15.24
*	15540.00	Average	H	120	209	-79.57	13.68	0.00	41.11	53.98	-12.87
*	15540.00	Peak	H	120	209	-67.66	13.68	0.00	53.02	73.98	-20.96
*	20720.00	Average	H	-	-	-71.31	7.94	-9.54	34.09	53.98	-19.89
*	20720.00	Peak	H	-	-	-60.83	7.94	-9.54	44.57	73.98	-29.41
	25900.00	Peak	H	-	-	-58.47	8.46	-9.54	47.45	68.20	-20.75

Table 7-57. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5200MHz
Channel:	40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	H	140	313	-67.57	11.67	0.00	51.10	68.20	-17.10
*	15600.00	Average	H	104	322	-78.09	13.27	0.00	42.18	53.98	-11.80
*	15600.00	Peak	H	104	322	-63.89	13.27	0.00	56.38	73.98	-17.60
*	20800.00	Average	H	-	-	-71.55	7.95	-9.54	33.86	53.98	-20.12
*	20800.00	Peak	H	-	-	-61.08	7.95	-9.54	44.33	73.98	-29.65
	26000.00	Peak	H	-	-	-58.23	8.60	-9.54	47.83	68.20	-20.37

Table 7-58. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5240MHz
Channel:	48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	H	100	9	-64.85	11.70	0.00	53.85	68.20	-14.35
*	15720.00	Average	H	104	335	-77.03	12.83	0.00	42.80	53.98	-11.18
*	15720.00	Peak	H	104	335	-63.01	12.83	0.00	56.82	73.98	-17.16
*	20960.00	Average	H	-	-	-71.76	7.91	-9.54	33.61	53.98	-20.37
*	20960.00	Peak	H	-	-	-61.77	7.91	-9.54	43.60	73.98	-30.38
	26200.00	Peak	H	-	-	-58.27	8.62	-9.54	47.81	68.20	-20.39

Table 7-59. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5240MHz
Channel:	48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	H	117	322	-67.78	11.70	0.00	50.92	68.20	-17.28
*	15720.00	Average	H	102	322	-78.01	12.83	0.00	41.82	53.98	-12.16
*	15720.00	Peak	H	102	322	-63.87	12.83	0.00	55.96	73.98	-18.02
*	20960.00	Average	H	-	-	-71.92	7.91	-9.54	33.45	53.98	-20.53
*	20960.00	Peak	H	-	-	-60.11	7.91	-9.54	45.26	73.98	-28.72
	26200.00	Peak	H	-	-	-58.04	8.62	-9.54	48.04	68.20	-20.16

Table 7-60. Radiated Measurements with WCP

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5260MHz
Channel:	52

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	H	181	12	-66.48	11.68	0.00	52.20	68.20	-16.00
*	15780.00	Average	H	109	335	-78.19	12.91	0.00	41.72	53.98	-12.26
*	15780.00	Peak	H	109	335	-64.98	12.91	0.00	54.93	73.98	-19.05
*	21040.00	Average	H	-	-	-71.31	7.92	-9.54	34.07	53.98	-19.91
*	21040.00	Peak	H	-	-	-60.68	7.92	-9.54	44.70	73.98	-29.28
	26300.00	Peak	H	-	-	-57.22	8.73	-9.54	48.97	68.20	-19.23

Table 7-61. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5280MHz
Channel:	56

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	H	107	6	-65.46	11.56	0.00	53.10	68.20	-15.10
*	15840.00	Average	H	113	336	-77.53	12.86	0.00	42.33	53.98	-11.65
*	15840.00	Peak	H	113	336	-63.98	12.86	0.00	55.88	73.98	-18.10
*	21120.00	Average	H	-	-	-70.81	7.96	-9.54	34.61	53.98	-19.37
*	21120.00	Peak	H	-	-	-60.35	7.96	-9.54	45.07	73.98	-28.91
	26400.00	Peak	H	-	-	-57.46	8.94	-9.54	48.94	68.20	-19.26

Table 7-62. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5320MHz
Channel:	64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	H	190	6	-77.49	11.80	0.00	41.31	53.98	-12.67
*	10640.00	Peak	H	190	6	-65.16	11.80	0.00	53.64	73.98	-20.34
*	15960.00	Average	H	107	335	-77.34	13.23	0.00	42.89	53.98	-11.08
*	15960.00	Peak	H	107	335	-64.11	13.23	0.00	56.12	73.98	-17.85
*	21280.00	Average	H	-	-	-70.38	8.04	-9.54	35.12	53.98	-18.86
*	21280.00	Peak	H	-	-	-59.88	8.04	-9.54	45.62	73.98	-28.36
	26600.00	Peak	H	-	-	-51.06	-8.30	-9.54	38.09	68.20	-30.11

Table 7-63. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5320MHz
Channel:	64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	H	-	-	-79.49	11.80	0.00	39.31	53.98	-14.67
*	10640.00	Peak	H	-	-	-68.38	11.80	0.00	50.42	73.98	-23.56
*	15960.00	Average	H	102	358	-78.09	13.23	0.00	42.14	53.98	-11.83
*	15960.00	Peak	H	102	358	-64.56	13.23	0.00	55.67	73.98	-18.30
*	21280.00	Average	H	-	-	-70.69	8.04	-9.54	34.81	53.98	-19.17
*	21280.00	Peak	H	-	-	-58.67	8.04	-9.54	46.83	73.98	-27.15
	26600.00	Peak	H	-	-	-49.55	-8.30	-9.54	39.60	68.20	-28.60

Table 7-64. Radiated Measurements with WCP

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5500MHz
Channel:	100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	H	144	9	-72.95	12.04	0.00	46.09	53.98	-7.89
*	11000.00	Peak	H	144	9	-55.89	12.04	0.00	63.15	73.98	-10.83
	16500.00	Peak	H	109	14	-65.44	12.28	0.00	53.84	68.20	-14.36
	22000.00	Peak	H	-	-	-59.44	8.43	-9.54	46.44	68.20	-21.76
	27500.00	Peak	H	-	-	-48.22	-8.80	-9.54	40.44	68.20	-27.76

Table 7-65. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5600MHz
Channel:	120

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11200.00	Average	H	103	14	-69.17	11.28	0.00	49.11	53.98	-4.87
*	11200.00	Peak	H	103	14	-53.88	11.28	0.00	64.40	73.98	-9.58
	16800.00	Peak	H	131	25	-67.01	13.32	0.00	53.31	68.20	-14.89
*	22400.00	Average	H	-	-	-70.73	8.11	-9.54	34.84	53.98	-19.14
*	22400.00	Peak	H	-	-	-60.14	8.11	-9.54	45.43	73.98	-28.55
	28000.00	Peak	H	-	-	-47.28	-9.26	-9.54	40.92	68.20	-27.28

Table 7-66. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	H	109	7	-68.60	11.68	0.00	50.08	53.98	-3.90
*	11440.00	Peak	H	109	7	-54.25	11.68	0.00	64.43	73.98	-9.55
	17160.00	Peak	H	149	7	-65.00	15.62	0.00	57.62	68.20	-10.58
*	22880.00	Average	H	-	-	-71.71	8.28	-9.54	34.03	53.98	-19.95
*	22880.00	Peak	H	-	-	-61.63	8.28	-9.54	44.11	73.98	-29.87
	28600.00	Peak	H	-	-	-47.60	-9.08	-9.54	40.78	68.20	-27.42

Table 7-67. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11440.00	Average	H	106	349	-70.81	11.68	0.00	47.87	53.98	-6.11
*	11440.00	Peak	H	106	349	-57.61	11.68	0.00	61.07	73.98	-12.91
	17160.00	Peak	H	-	-	-68.06	15.62	0.00	54.56	68.20	-13.64
*	22880.00	Average	H	-	-	-71.73	8.28	-9.54	34.01	53.98	-19.97
*	22880.00	Peak	H	-	-	-60.57	8.28	-9.54	45.17	73.98	-28.81
	28600.00	Peak	H	-	-	-46.01	-9.08	-9.54	42.37	68.20	-25.83

Table 7-68. Radiated Measurements with WCP

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5745MHz
Channel: 149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	H	104	15	-69.21	11.70	0.00	49.49	53.98	-4.49
*	11490.00	Peak	H	104	15	-57.65	11.70	0.00	61.05	73.98	-12.93
	17235.00	Peak	H	140	7	-64.14	17.09	0.00	59.95	68.20	-8.25
*	22980.00	Average	H	-	-	-71.31	8.16	-9.54	34.31	53.98	-19.67
*	22980.00	Peak	H	-	-	-60.87	8.16	-9.54	44.75	73.98	-29.23
	28725.00	Peak	H	-	-	-46.48	-9.24	-9.54	41.74	69.20	-27.46

Table 7-69. Radiated Measurements

Worst Case Mode: 802.11a
Worst Case Transfer Rate: 6Mbps
Distance of Measurements: 1 & 3 Meters
Operating Frequency: 5785MHz
Channel: 157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	H	100	11	-68.83	11.91	0.00	50.08	53.98	-3.90
*	11570.00	Peak	H	100	11	-57.11	11.91	0.00	61.80	73.98	-12.18
	17355.00	Peak	H	158	10	-66.53	18.72	0.00	59.19	68.20	-9.01
	23140.00	Peak	H	-	-	-60.77	8.37	-9.54	45.06	68.20	-23.14
	28925.00	Peak	H	-	-	-46.62	-9.65	-9.54	41.19	68.20	-27.01

Table 7-70. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5825MHz
Channel:	165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	H	104	11	-70.66	12.16	0.00	48.50	53.98	-5.48
*	11650.00	Peak	H	104	11	-58.67	12.16	0.00	60.49	73.98	-13.49
	17475.00	Peak	H	154	27	-64.78	18.73	0.00	60.95	68.20	-7.25
	23300.00	Peak	H	-	-	-61.01	8.50	-9.54	44.95	68.20	-23.25
	29125.00	Peak	H	-	-	-44.95	-9.87	-9.54	42.64	68.20	-25.56

Table 7-71. Radiated Measurements

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5785MHz
Channel:	157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	H	120	344	-70.75	11.91	0.00	48.16	53.98	-5.82
*	11570.00	Peak	H	120	344	-57.05	11.91	0.00	61.86	73.98	-12.12
	17355.00	Peak	H	-	-	-68.56	18.72	0.00	57.16	68.20	-11.04
	23140.00	Peak	H	-	-	-60.68	8.37	-9.54	45.15	68.20	-23.05
	28925.00	Peak	H	-	-	-45.34	-9.65	-9.54	42.47	68.20	-25.73

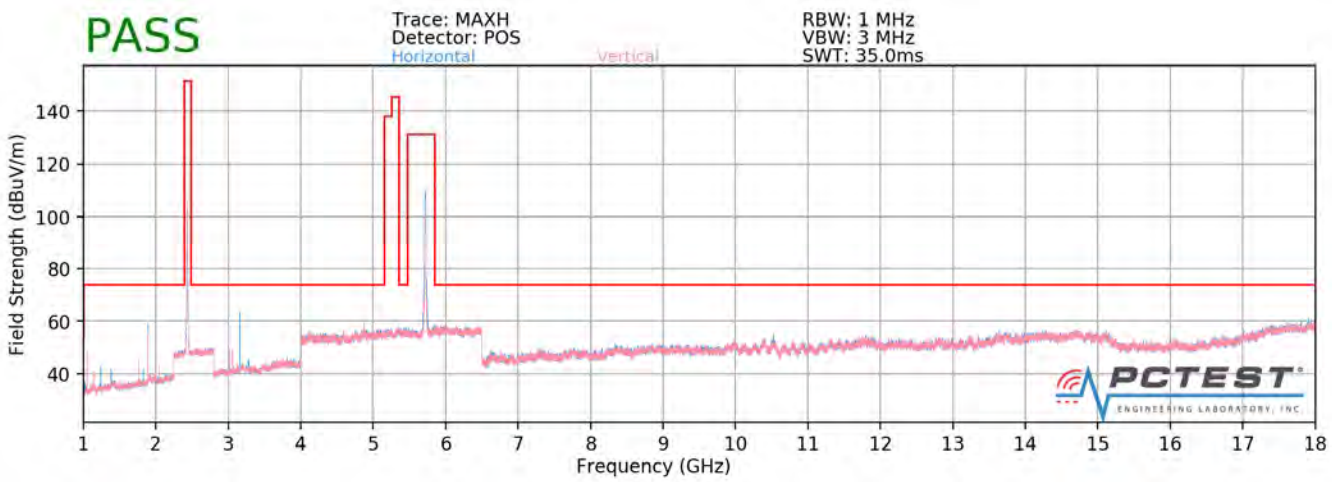
Table 7-72. Radiated Measurements with WCP

7.6.3 Simultaneous Tx Radiated Spurious Emissions Measurements

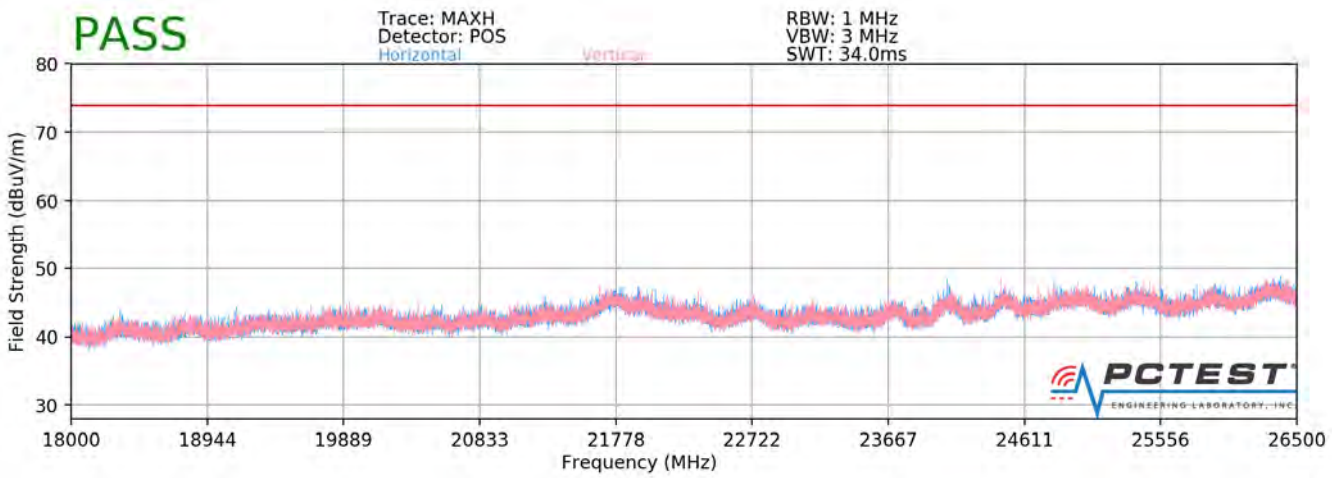
§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	6	144
Operating Frequency (MHz)	2437	5720
Data Rate (Mbps)	1	6
Mode	802.11b	802.11a

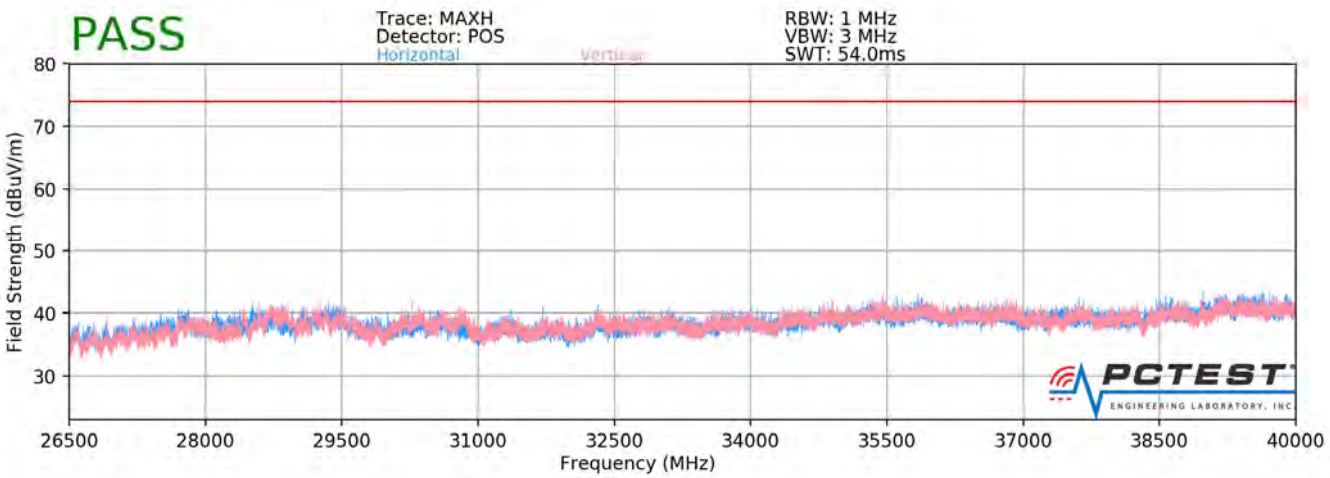
Table 7-73. Simultaneous Transmission Config-1



Plot 7-165. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz)



Plot 7-166. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz)



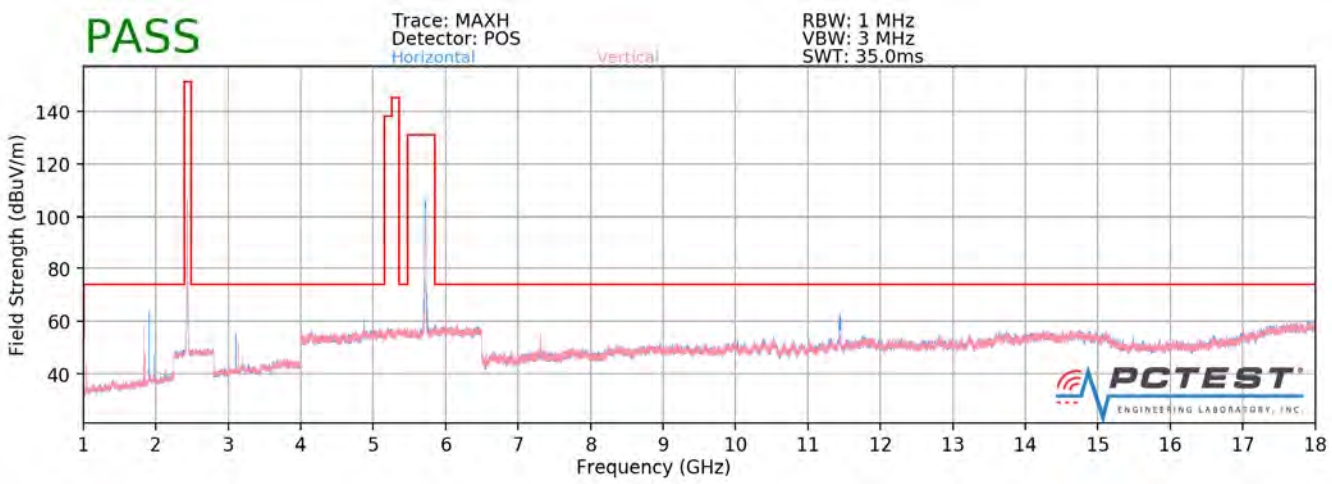
Plot 7-167. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz)

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	4129.00	Average	H	-	-	-77.42	3.50	33.08	53.98	-20.90
*	4129.00	Peak	H	-	-	-65.65	3.50	44.85	73.98	-29.13
*	4874.00	Average	H	171	19	-71.65	4.71	40.06	53.98	-13.92
*	4874.00	Peak	H	171	19	-61.67	4.71	50.04	73.98	-23.94
*	7412.00	Average	H	-	-	-78.56	9.42	37.86	53.98	-16.12
*	7412.00	Peak	H	-	-	-67.10	9.42	49.32	73.98	-24.66
*	9003.00	Average	H	-	-	-79.10	12.59	40.49	53.98	-13.49
*	9003.00	Peak	H	-	-	-67.90	12.59	51.69	73.98	-22.29
*	10695.00	Average	H	-	-	-79.41	13.28	40.87	53.98	-13.11
*	10695.00	Peak	H	-	-	-68.64	13.28	51.64	73.98	-22.34
*	12286.00	Average	H	-	-	-79.64	15.98	43.34	53.98	-10.64
*	12286.00	Peak	H	-	-	-68.86	15.98	54.12	73.98	-19.86
*	15569.00	Average	H	-	-	-79.65	14.05	41.40	53.98	-12.58
*	15569.00	Peak	H	-	-	-68.92	14.05	52.13	73.98	-21.85

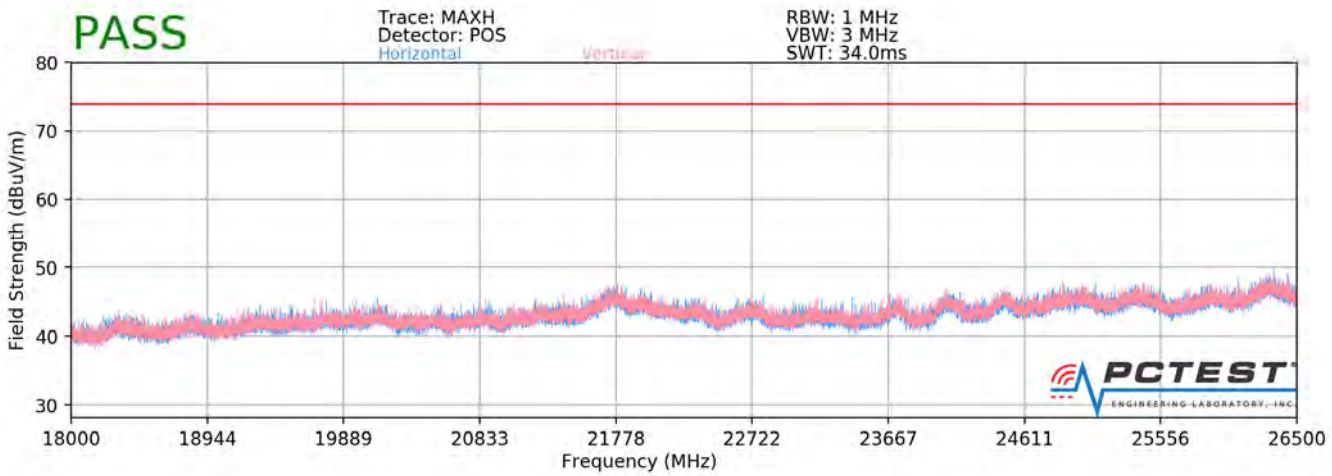
Table 7-74. Radiated Measurements (ANT1 2.4GHz – ANT2 5GHz)

Description	2.4 GHz Emission	5 GHz Emission
Antenna	2	1
Channel	6	144
Operating Frequency (MHz)	2437	5720
Data Rate (Mbps)	1	6
Mode	802.11b	802.11a

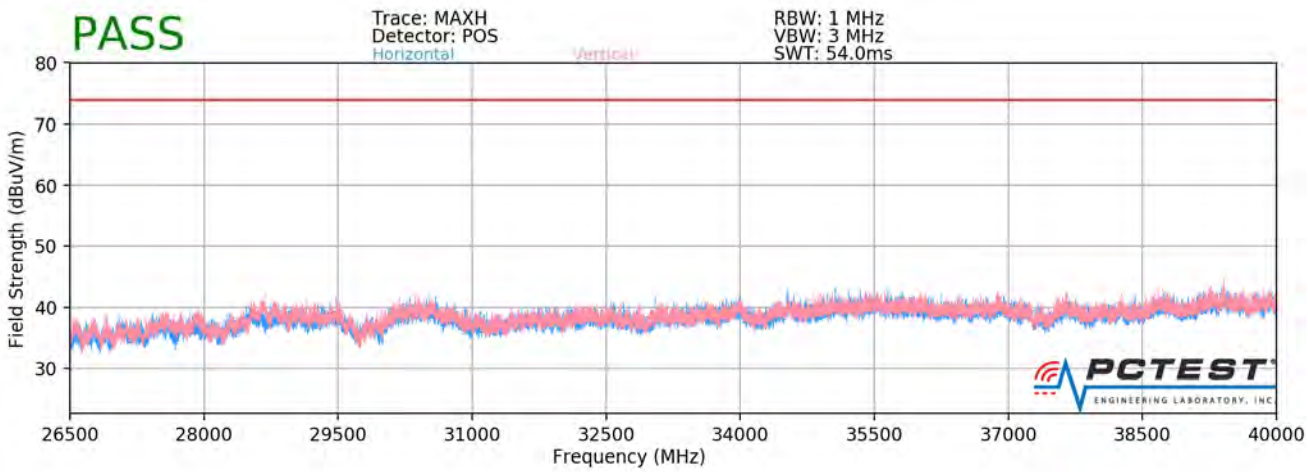
Table 7-75. Simultaneous Transmission Config-2



Plot 7-168. Radiated Spurious Plot above 1GHz (5GHz – 2.4 GHz)



Plot 7-169. Radiated Spurious Plot 18GHz – 26.5GHz (5GHz – 2.4 GHz)



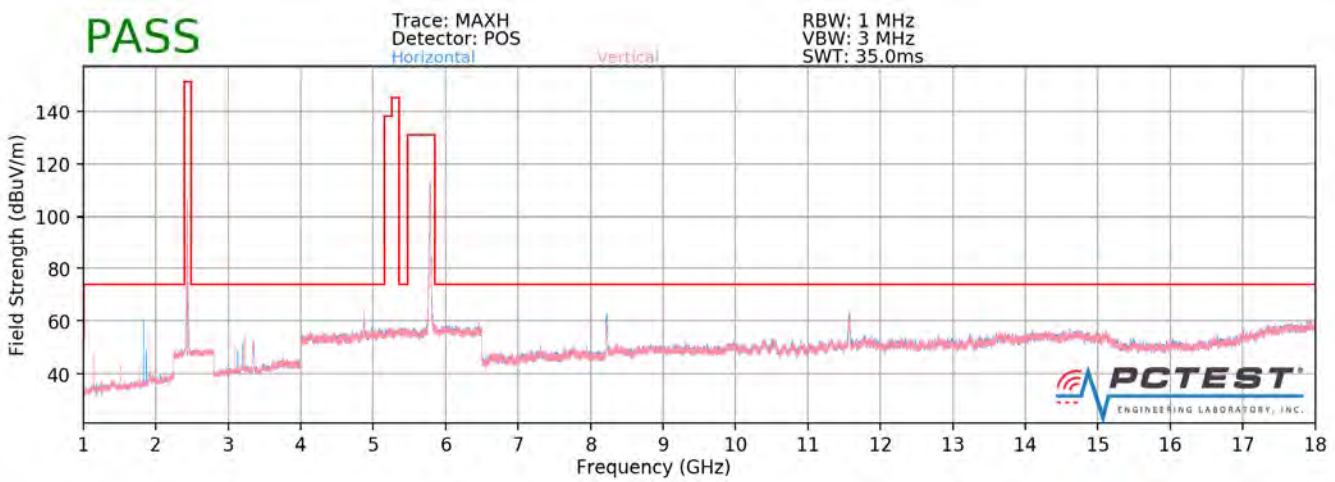
Plot 7-170. Radiated Spurious Plot above 26.5GHz (5GHz – 2.4 GHz)

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	4129.00	Average	H	-	-	-77.21	3.50	33.29	53.98	-20.69
*	4129.00	Peak	H	-	-	-64.83	3.50	45.67	73.98	-28.31
*	4874.00	Average	H	164	308	-73.46	4.71	38.25	53.98	-15.73
*	4874.00	Peak	H	164	308	-62.94	4.71	48.77	73.98	-25.21
*	7412.00	Average	H	-	-	-78.51	9.42	37.91	53.98	-16.07
*	7412.00	Peak	H	-	-	-67.17	9.42	49.25	73.98	-24.73
*	9003.00	Average	H	-	-	-79.17	12.59	40.42	53.98	-13.56
*	9003.00	Peak	H	-	-	-68.71	12.59	50.88	73.98	-23.10
*	10695.00	Average	H	-	-	-79.47	13.28	40.81	53.98	-13.17
*	10695.00	Peak	H	-	-	-68.13	13.28	52.15	73.98	-21.83
*	11440.00	Average	H	113	6	-72.53	15.15	49.62	53.98	-4.36
*	11440.00	Peak	H	113	6	-59.61	15.15	62.54	73.98	-11.44
*	12286.00	Average	H	-	-	-79.64	15.98	43.34	53.98	-10.64
*	12286.00	Peak	H	-	-	-68.24	15.98	54.74	73.98	-19.24
	15569.00	Average	H	-	-	-79.62	14.05	41.43	53.98	-12.55
	15569.00	Peak	H	-	-	-68.84	14.05	52.21	73.98	-21.77

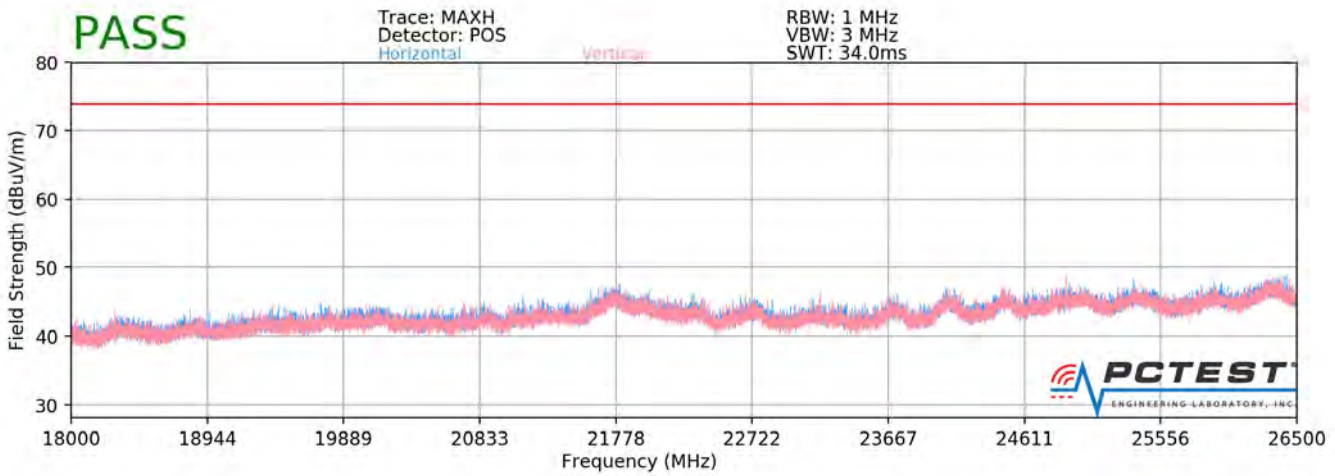
Table 7-76. Radiated Measurements (ANT1 5GHz – ANT2 2.4GHz)

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1, 2	1, 2
Channel	6	157
Operating Frequency (MHz)	2437	5785
Data Rate (Mbps)	6	6
Mode	802.11g	802.11a

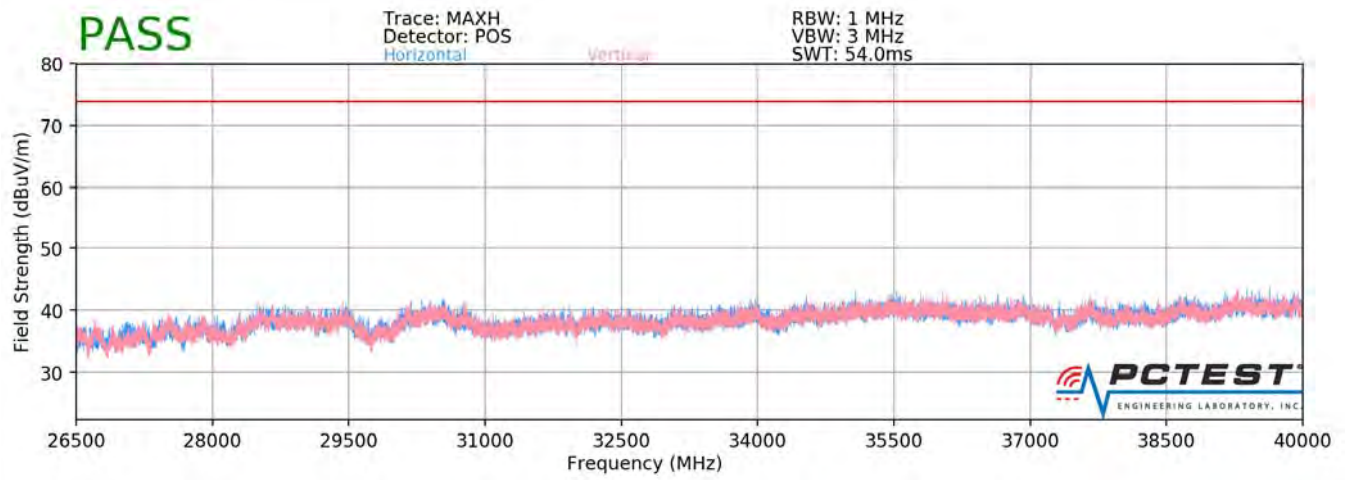
Table 7-77. Dual Band Simultaneous Transmission



Plot 7-171. Radiated Spurious Plot above 1GHz (Dual Band Simult. Tx)



Plot 7-172. Radiated Spurious Plot 18GHz – 26.5GHz (Dual Band Simult. Tx)



Plot 7-173. Radiated Spurious Plot above 26.5GHz (Dual Band Simult. Tx)

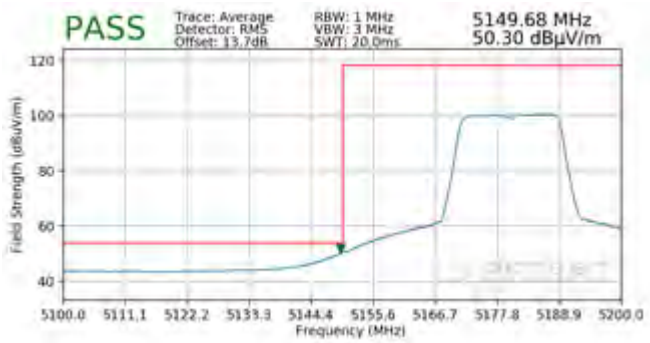
	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	4259.00	Average	H	-	-	-77.24	2.94	32.70	53.98	-21.28
*	4259.00	Peak	H	-	-	-66.27	2.94	43.67	73.98	-30.31
*	4874.00	Average	H	129	14	-68.78	4.71	42.93	53.98	-11.05
*	4874.00	Peak	H	129	14	-57.82	4.71	53.89	73.98	-20.09
*	7607.00	Average	H	-	-	-78.40	9.78	38.38	53.98	-15.60
*	7607.00	Peak	H	-	-	-66.90	9.78	49.88	73.98	-24.10
*	9133.00	Average	H	-	-	-78.67	11.70	40.03	53.98	-13.95
*	9133.00	Peak	H	-	-	-67.15	11.70	51.55	73.98	-22.43
*	10955.00	Average	H	-	-	-79.59	12.94	40.35	53.98	-13.63
*	10955.00	Peak	H	-	-	-68.00	12.94	51.94	73.98	-22.04
*	11570.00	Average	H	111	3	-73.90	14.70	47.80	53.98	-6.18
*	11570.00	Peak	H	111	3	-60.42	14.70	61.28	73.98	-12.70
*	12481.00	Average	H	-	-	-79.73	15.84	43.11	53.98	-10.87
*	12481.00	Peak	H	-	-	-68.57	15.84	54.27	73.98	-19.71
*	15829.00	Average	H	-	-	-79.74	15.12	42.38	53.98	-11.60
*	15829.00	Peak	H	-	-	-69.39	15.12	52.73	73.98	-21.25

Table 7-78. Radiated Measurements (Dual Band Simult. Tx)

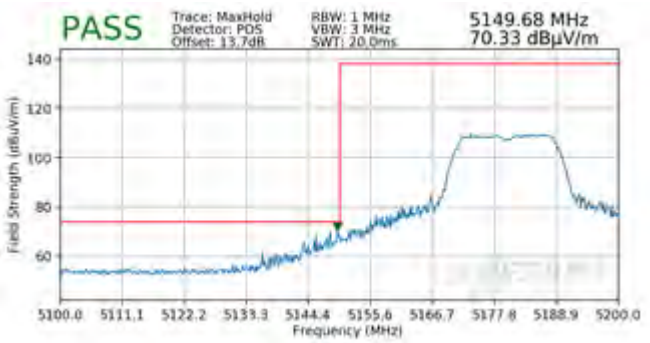
7.6.4 Antenna-1 Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36



Plot 7-174. Radiated Lower Band Edge Plot (Average – UNII Band 1)



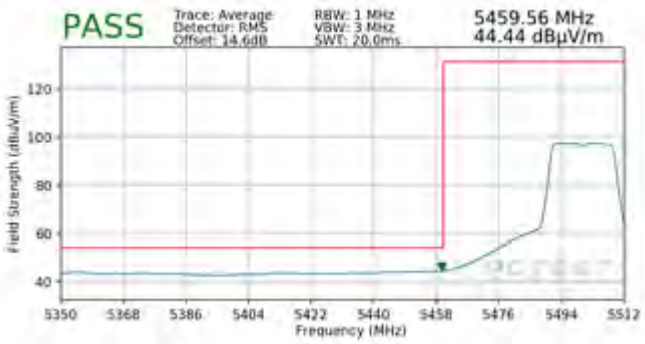
Plot 7-175. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

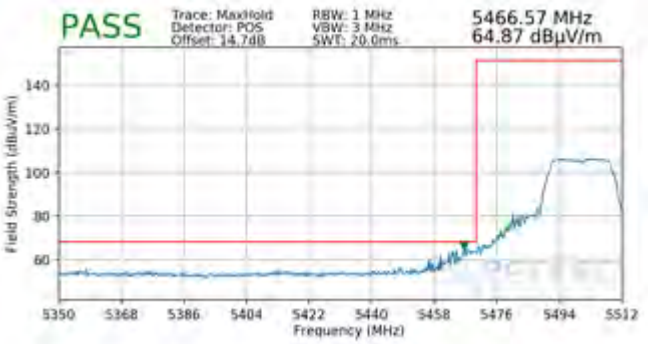
Plot 7-176. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

Plot 7-177. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

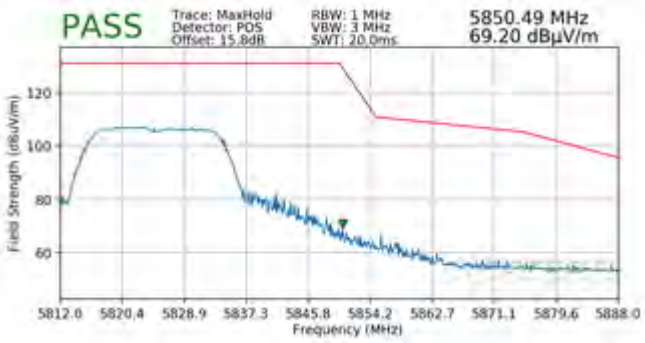


Plot 7-178. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-179. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-180. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

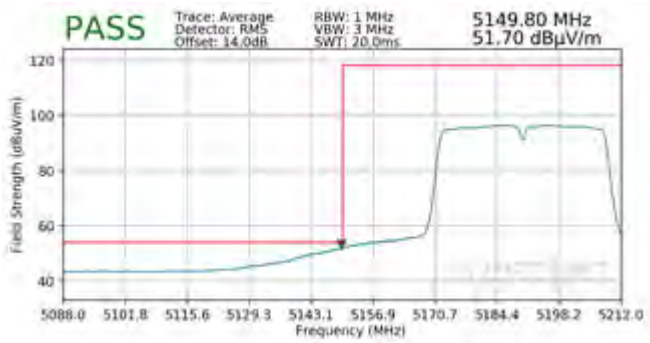
Plot 7-181. Radiated Band Edge Plot (Average – WCP)

Plot 7-182. Radiated Band Edge Plot (Peak – WCP)

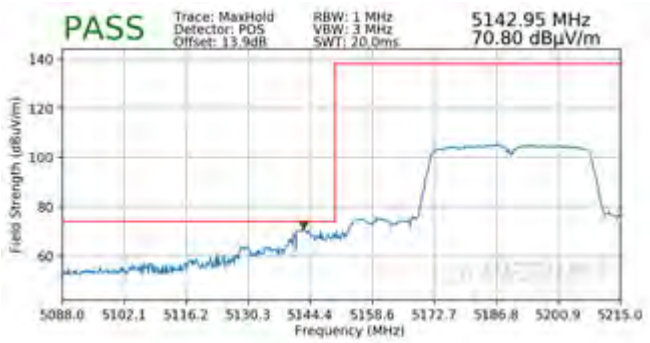
7.6.5 Antenna-1 Radiated Band Edge Measurements (40MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

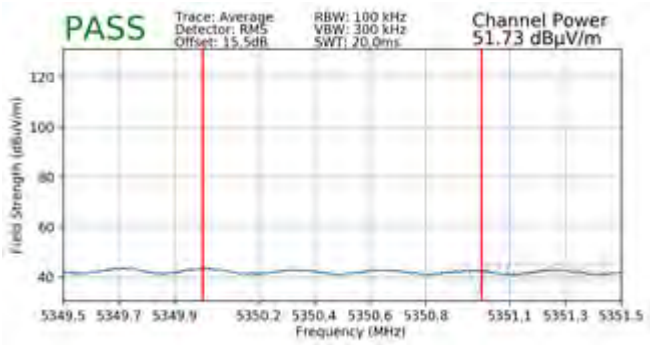


Plot 7-183. Radiated Lower Band Edge Plot (Average – UNII Band 1)

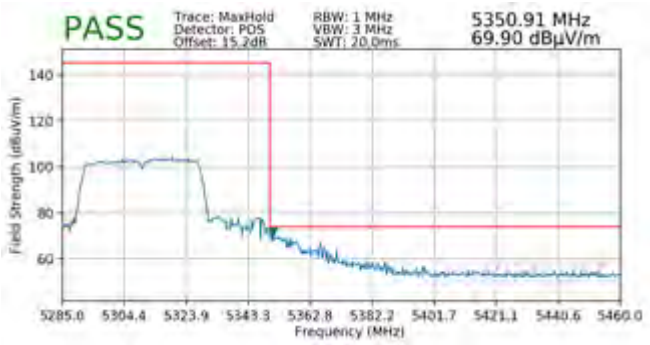


Plot 7-184. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



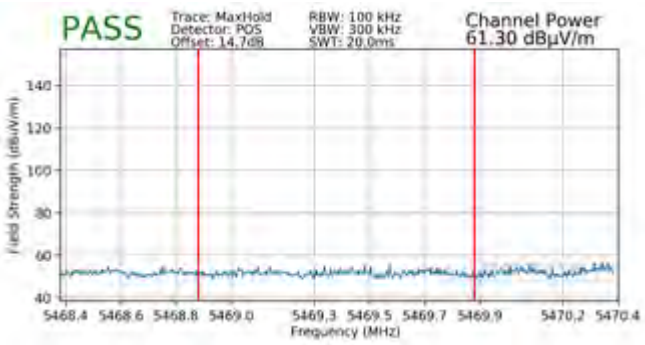
Plot 7-185. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-186. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

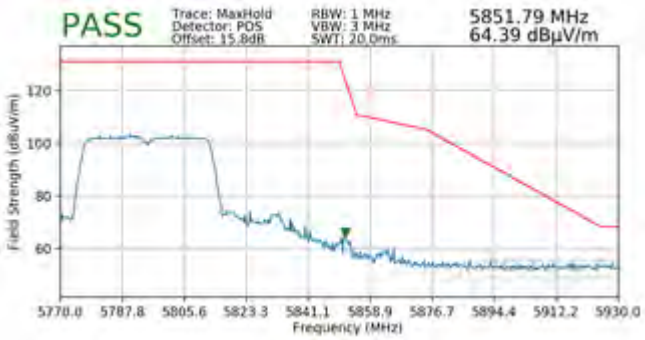
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

Plot 7-187. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-188. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

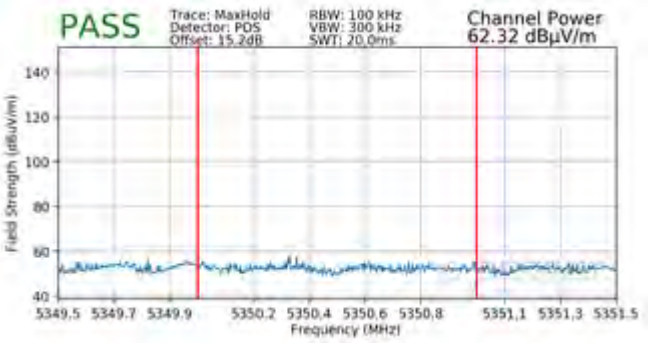
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5795MHz
Channel:	159



Plot 7-189. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62

Plot 7-190. Radiated Band Edge Plot (Average – WCP)

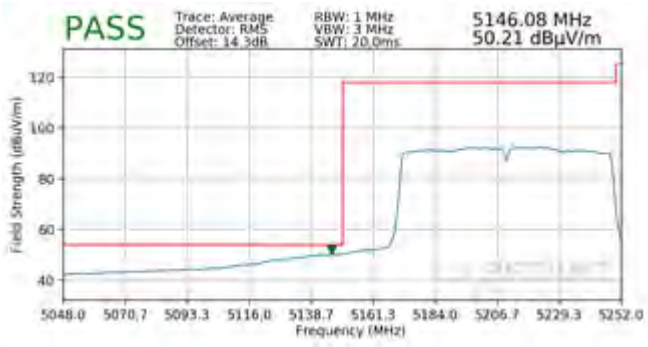


Plot 7-191. Radiated Band Edge Plot (Peak – WCP)

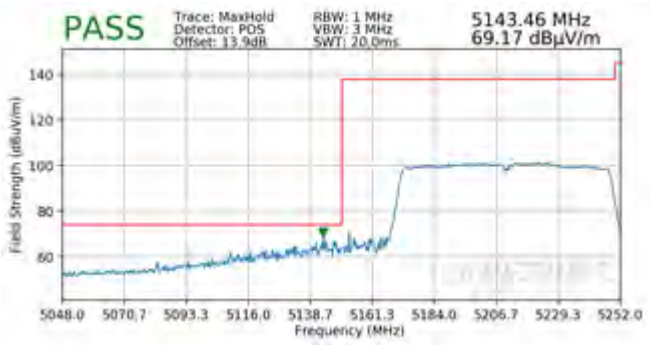
7.6.6 Antenna-1 Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

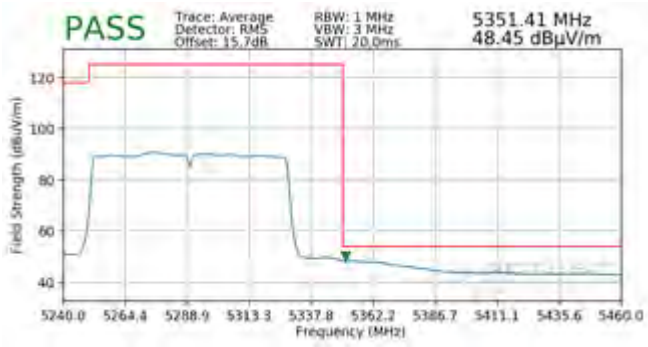


Plot 7-192. Radiated Lower Band Edge Plot (Average – UNII Band 1)

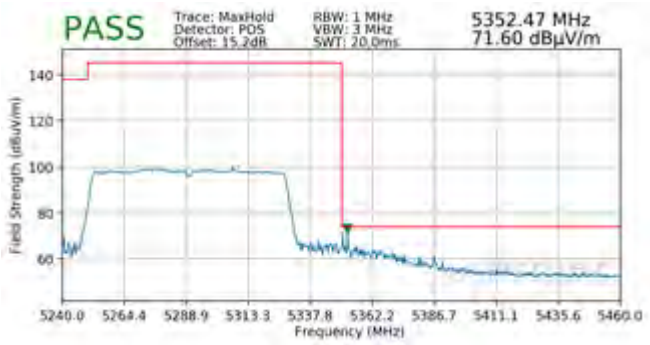


Plot 7-193. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58

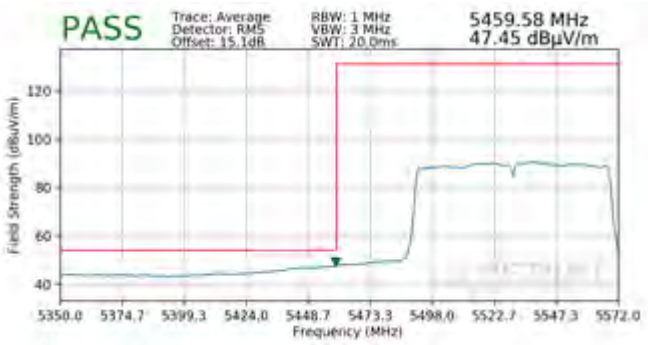


Plot 7-194. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

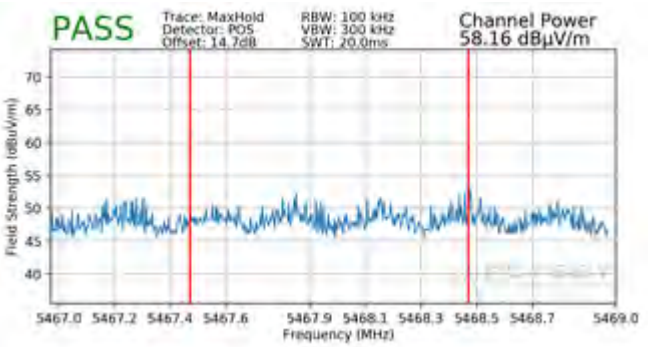


Plot 7-195. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5530MHz
Channel:	106

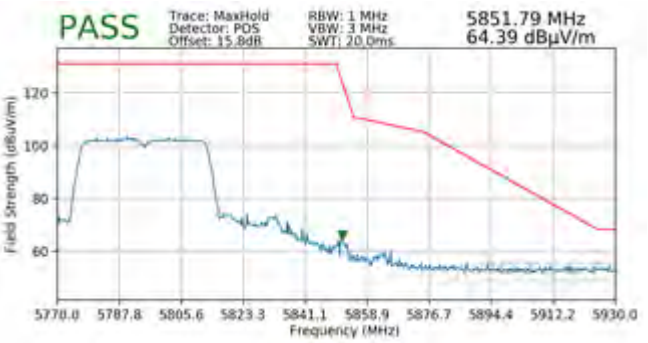


Plot 7-196. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



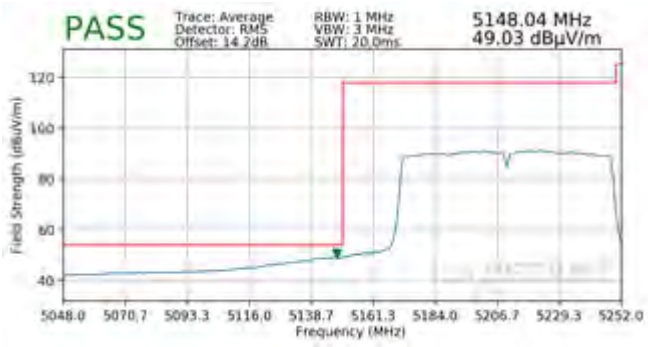
Plot 7-197. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5775MHz
Channel:	155

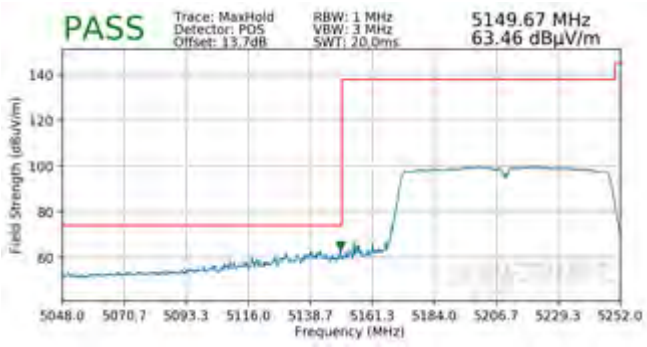


Plot 7-198. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42



Plot 7-199. Radiated Band Edge Plot (Average – WCP)

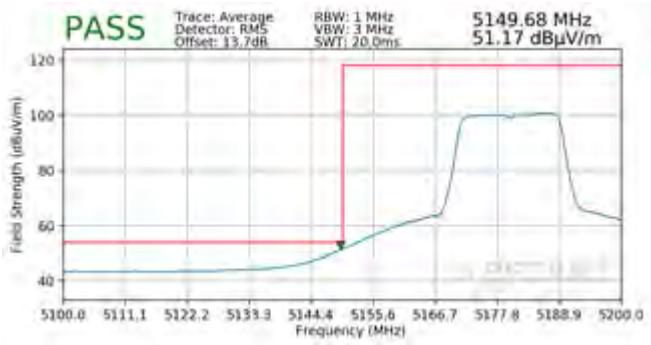


Plot 7-200. Radiated Band Edge Plot (Peak – WCP)

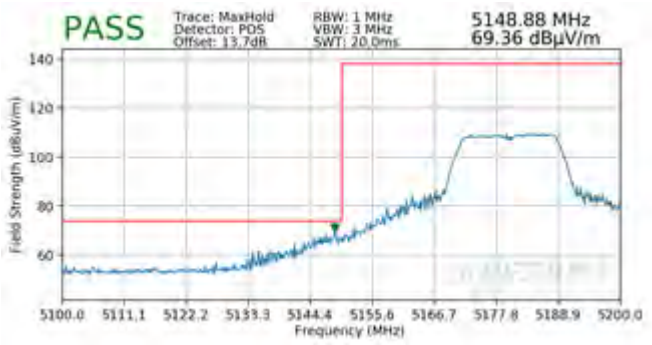
7.6.7 Antenna-2 Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

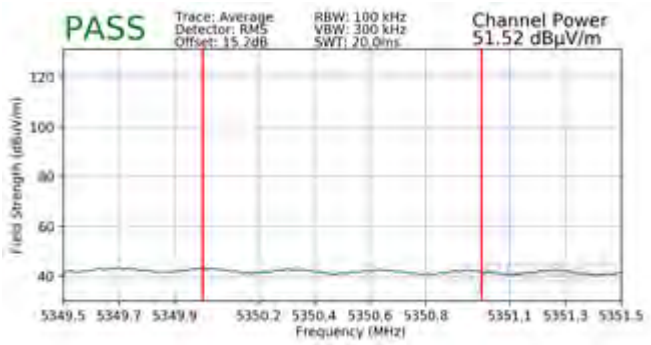


Plot 7-201. Radiated Lower Band Edge Plot (Average – UNII Band 1)



Plot 7-202. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

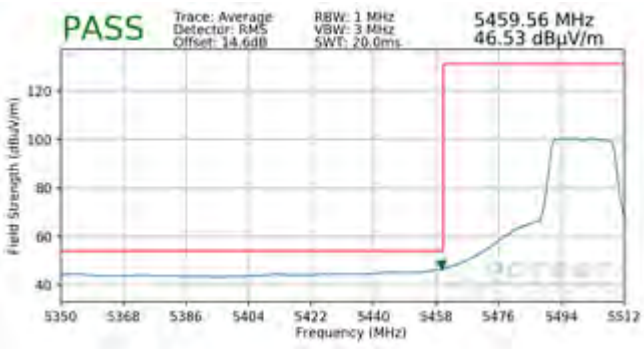
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64



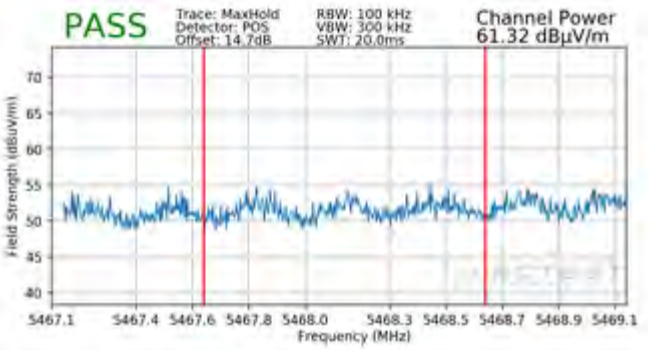
Plot 7-203. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

Plot 7-204. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

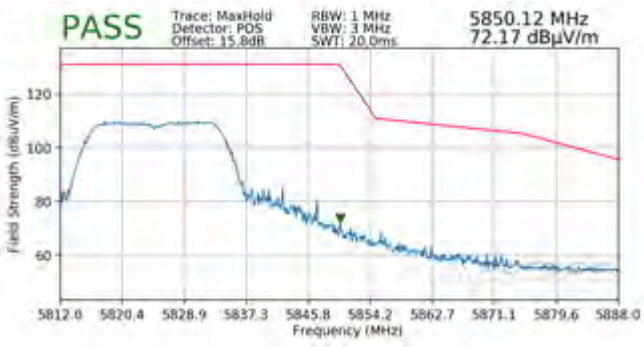


Plot 7-205. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-206. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

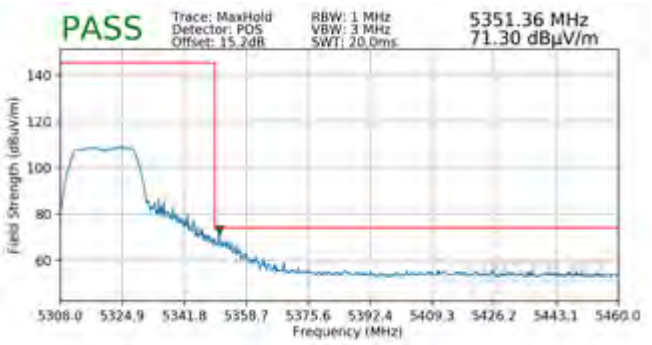
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-207. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

Plot 7-208. Radiated Band Edge Plot (Average – WCP)

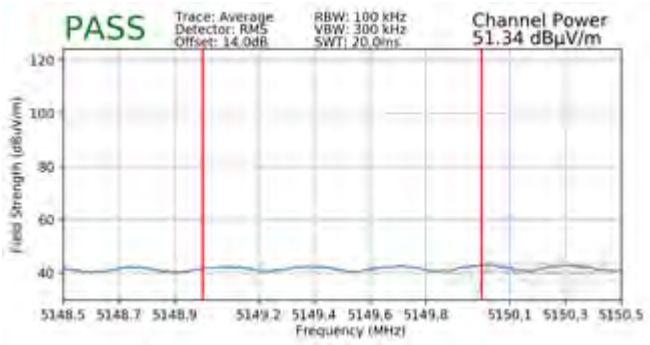


Plot 7-209. Radiated Band Edge Plot (Peak – WCP)

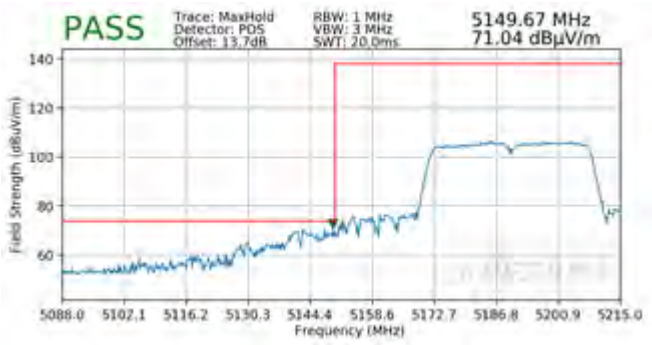
7.6.8 Antenna-2 Radiated Band Edge Measurements (40MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

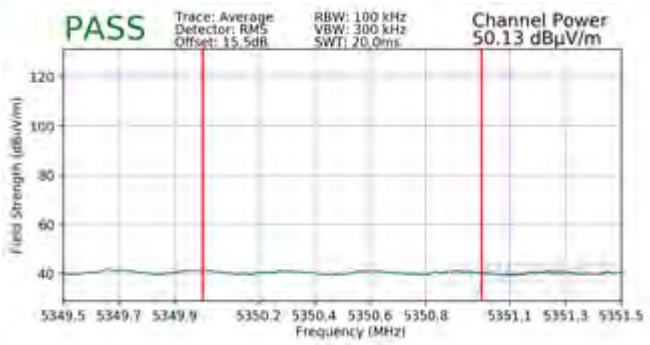


Plot 7-210. Radiated Lower Band Edge Plot (Average – UNII Band 1)

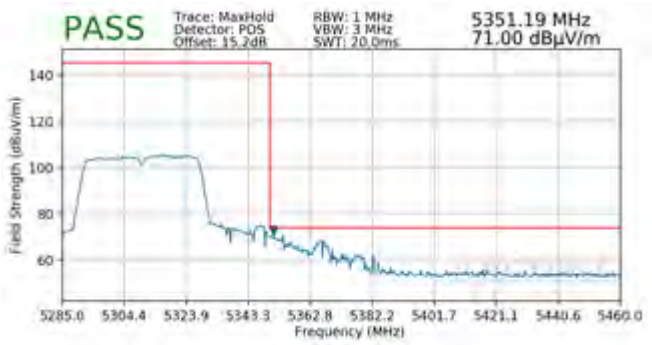


Plot 7-211. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



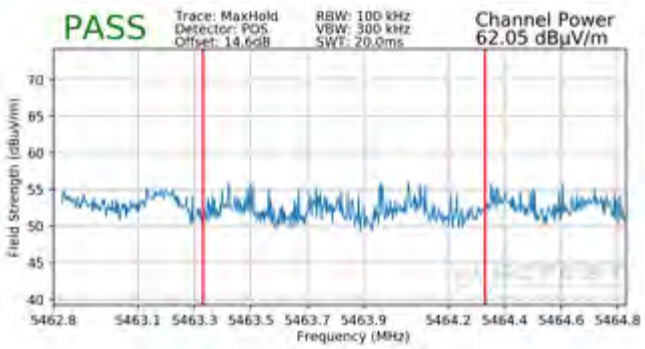
Plot 7-212. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-213. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

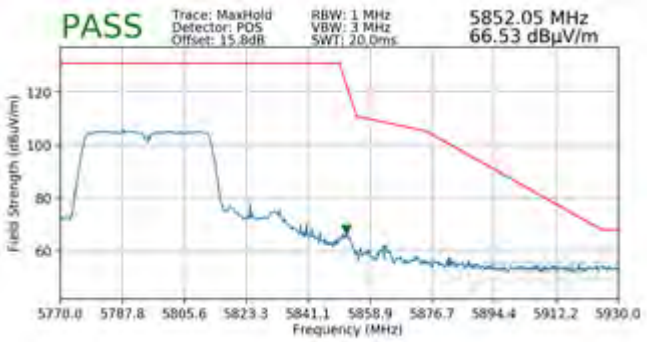
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

Plot 7-214. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



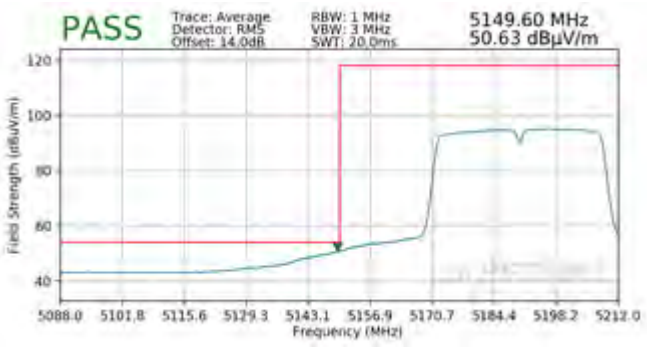
Plot 7-215. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5795MHz
Channel:	159

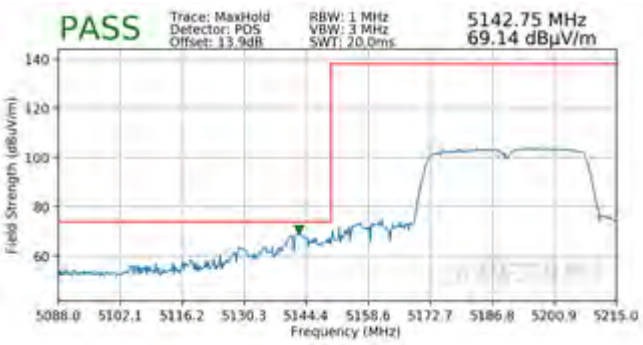


Plot 7-216. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38



Plot 7-217. Radiated Band Edge Plot (Average – WCP)

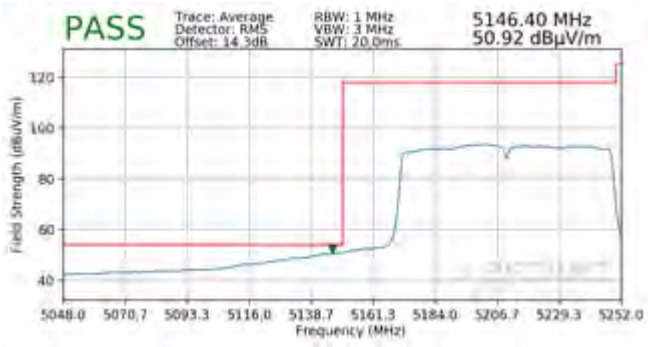


Plot 7-218. Radiated Band Edge Plot (Peak – WCP)

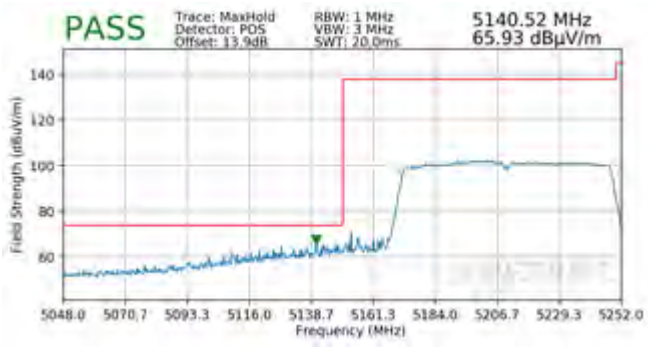
7.6.9 Antenna-2 Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

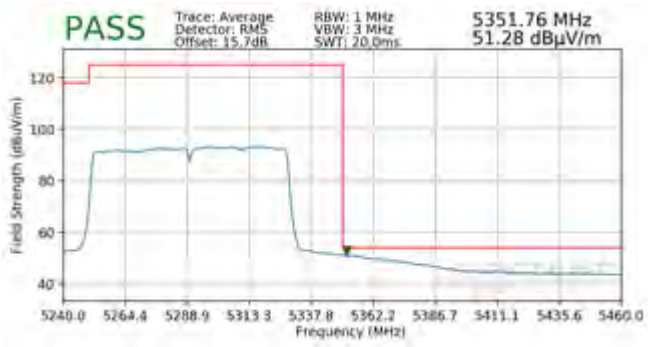


Plot 7-219. Radiated Lower Band Edge Plot (Average – UNII Band 1)

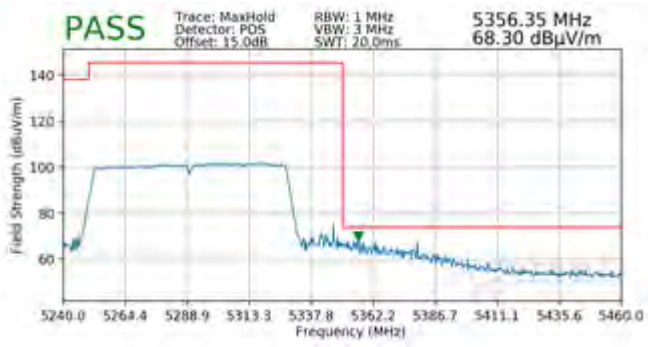


Plot 7-220. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58

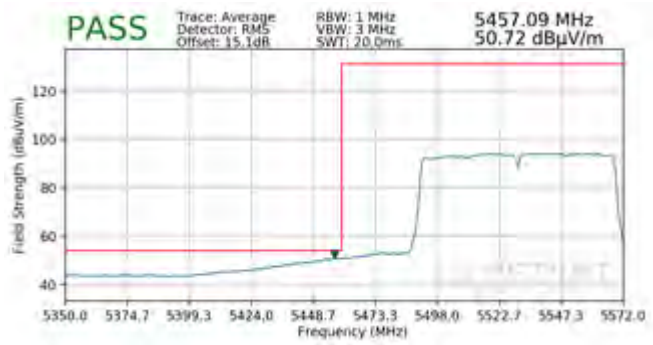


Plot 7-221. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

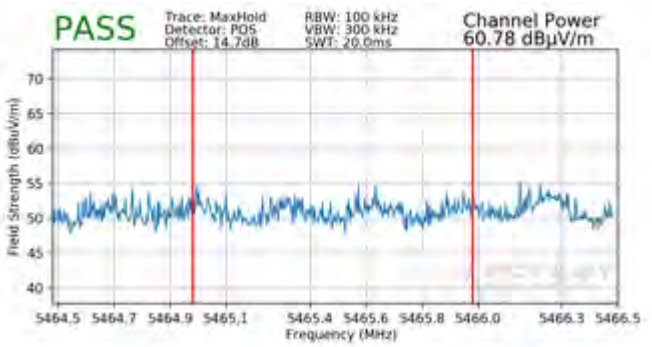


Plot 7-222. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5530MHz
Channel:	106

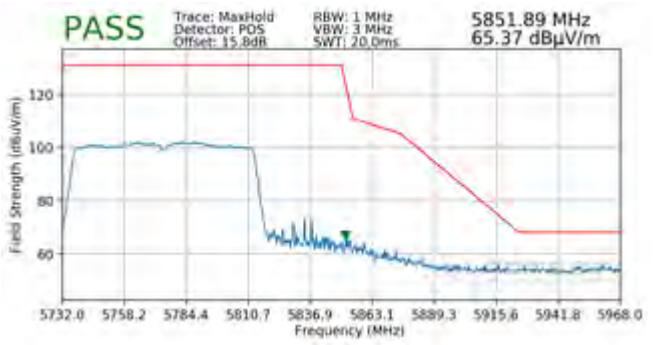


Plot 7-223. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-224. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

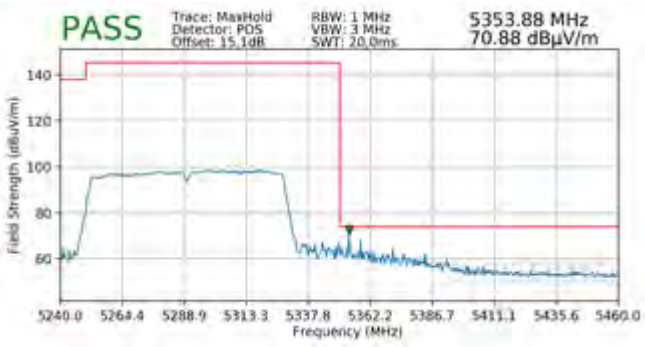
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5775MHz
Channel:	155



Plot 7-225. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58

Plot 7-226. Radiated Band Edge Plot (Average – WCP)

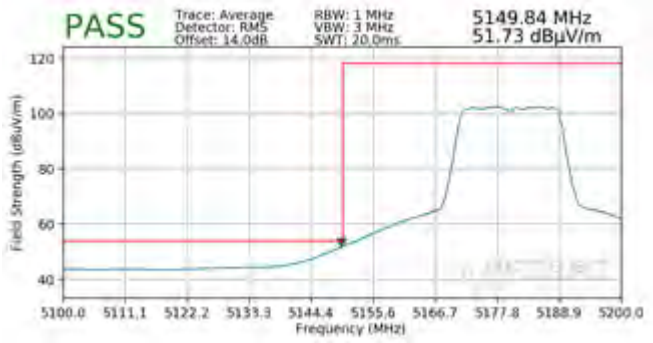


Plot 7-227. Radiated Band Edge Plot (Peak – WCP)

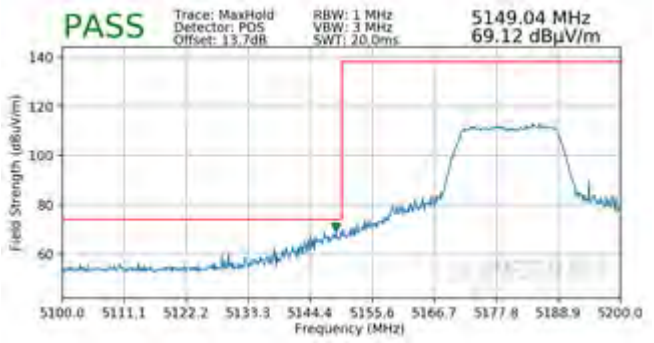
7.6.10 MIMO Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

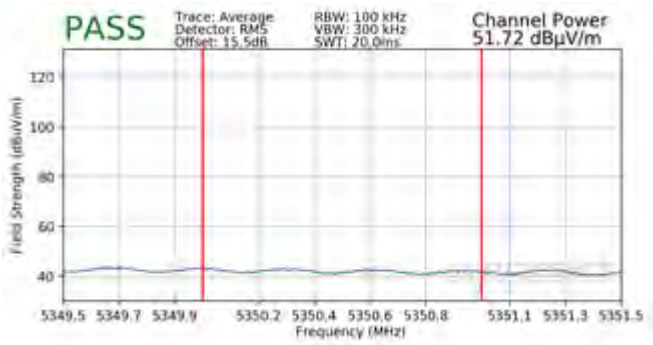


Plot 7-228. Radiated Lower Band Edge Plot (Average – UNII Band 1)

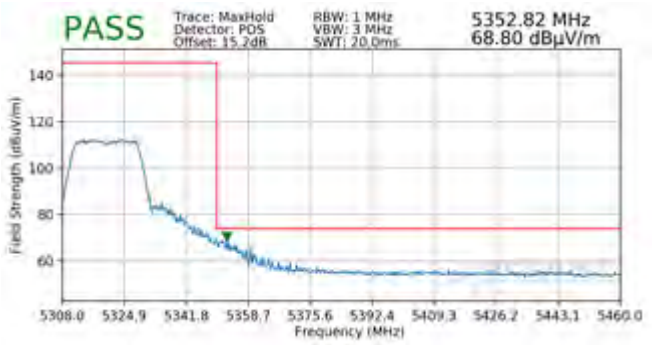


Plot 7-229. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

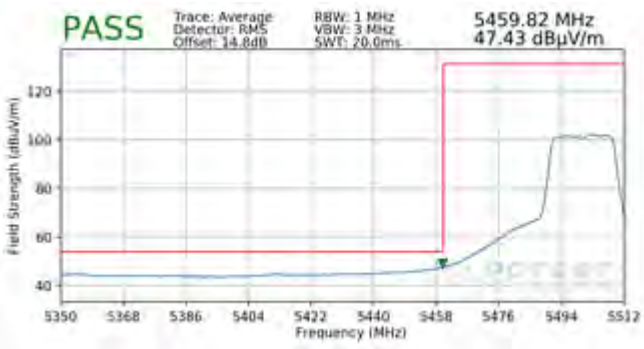


Plot 7-230. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

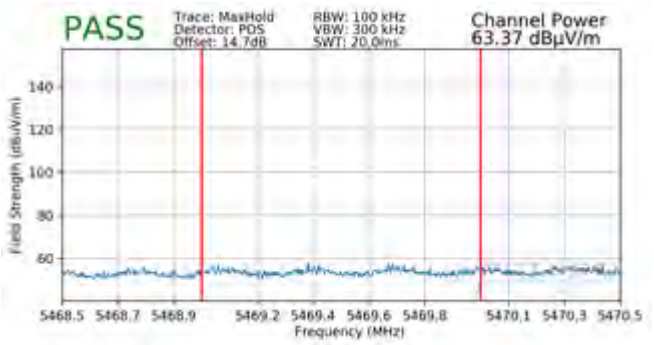


Plot 7-231. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

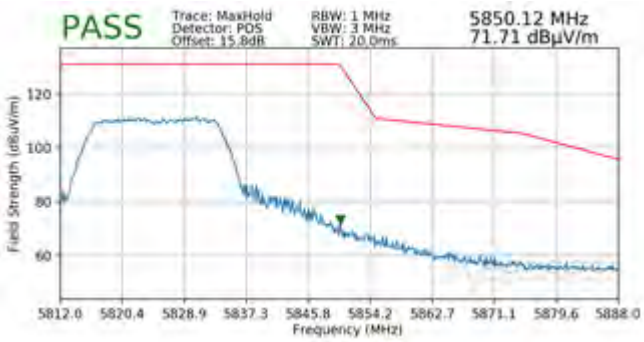


Plot 7-232. Radiated Upper Band Edge Plot (Average – UNII Band 2C)



Plot 7-233. Radiated Upper Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-234. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

Plot 7-235. Radiated Band Edge Plot (Average – WCP)

Plot 7-236. Radiated Band Edge Plot (Peak – WCP)

7.6.11 CDD Radiated Band Edge Measurements (20MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

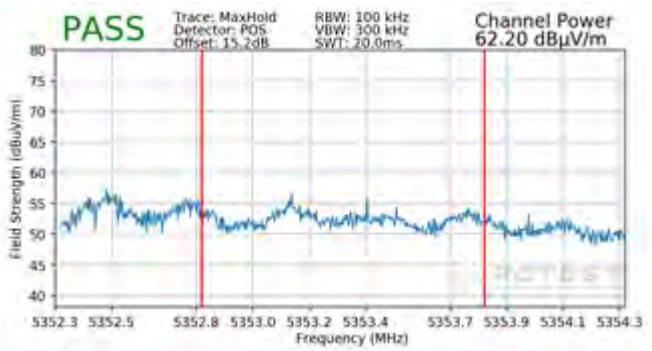
Worst Case Mode:	802.11g
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36

Plot 7-237. Radiated Lower Band Edge Plot (Average – UNII Band 1)

Plot 7-238. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

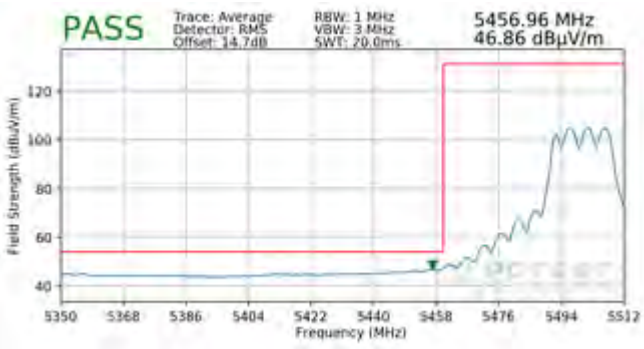
Worst Case Mode:	802.11g
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

Plot 7-239. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

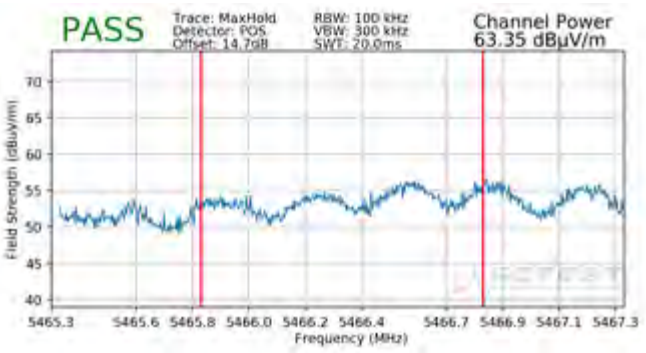


Plot 7-240. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11g
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

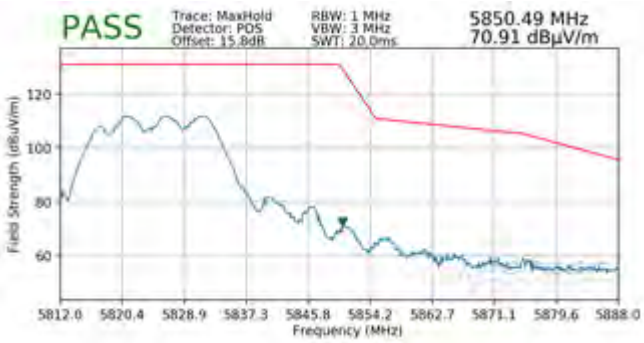


Plot 7-241. Radiated Upper Band Edge Plot (Average – UNII Band 2C)



Plot 7-242. Radiated Upper Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11g
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-243. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11g
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

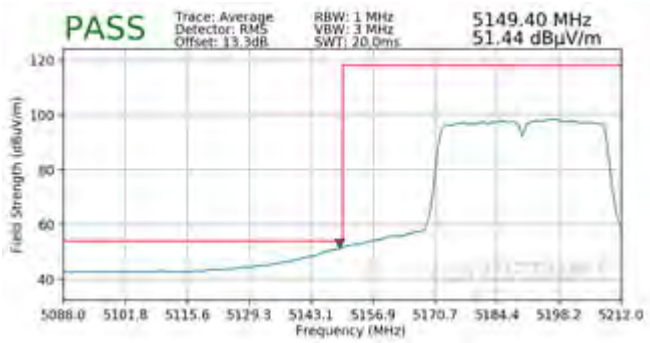
Plot 7-244. Radiated Band Edge Plot (Average – WCP)

Plot 7-245. Radiated Band Edge Plot (Peak – WCP)

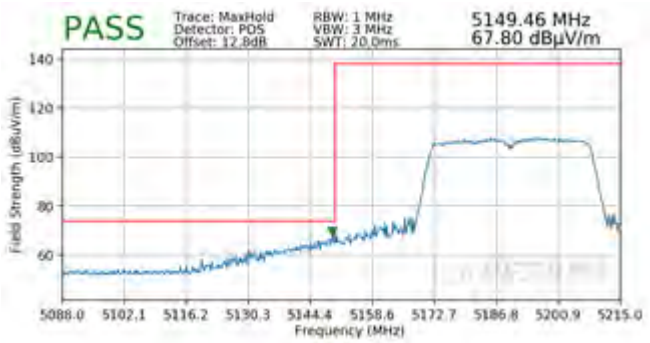
7.6.12 MIMO Radiated Band Edge Measurements (40MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38

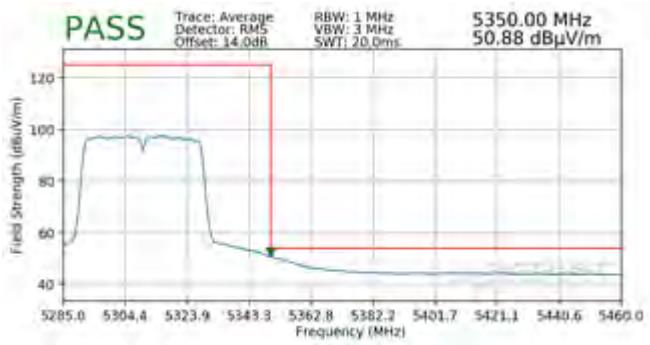


Plot 7-246. Radiated Lower Band Edge Plot (Average – UNII Band 1)

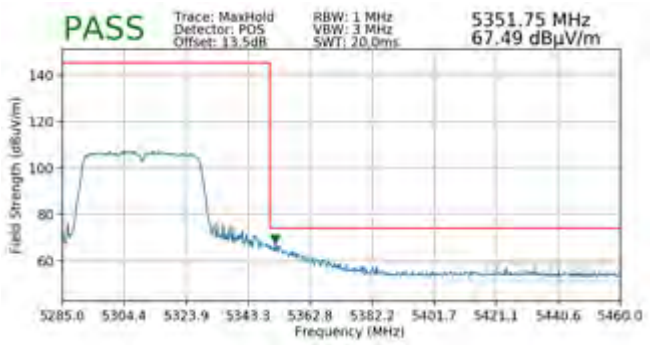


Plot 7-247. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62



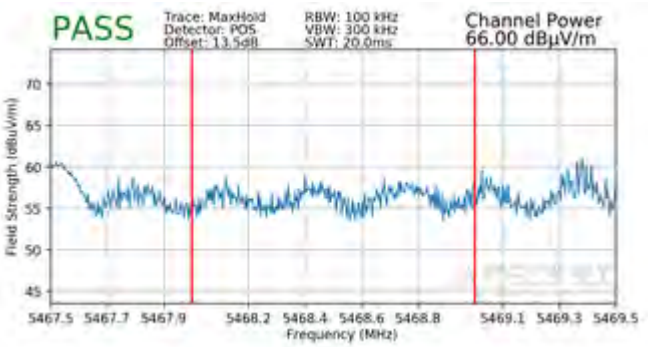
Plot 7-248. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-249. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

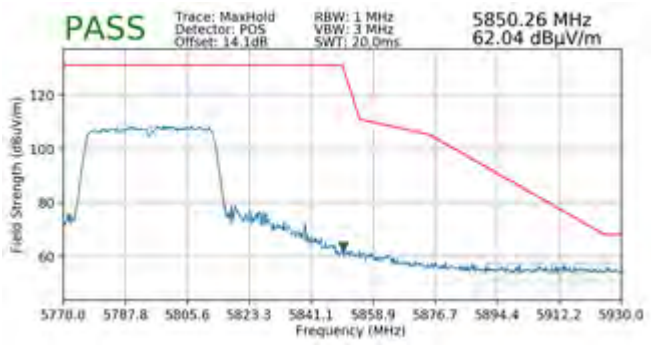
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

Plot 7-250. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-251. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

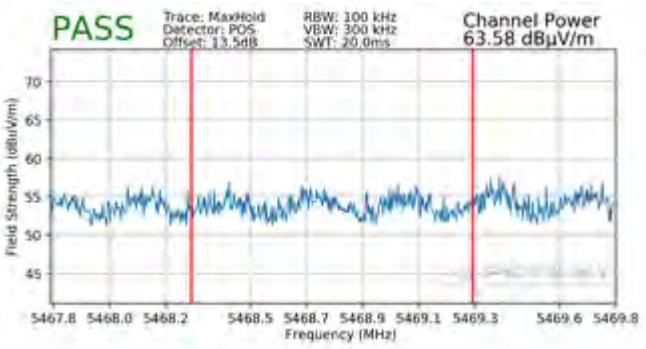
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5795MHz
Channel:	159



Plot 7-252. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

Plot 7-253. Radiated Band Edge Plot (Average – WCP)

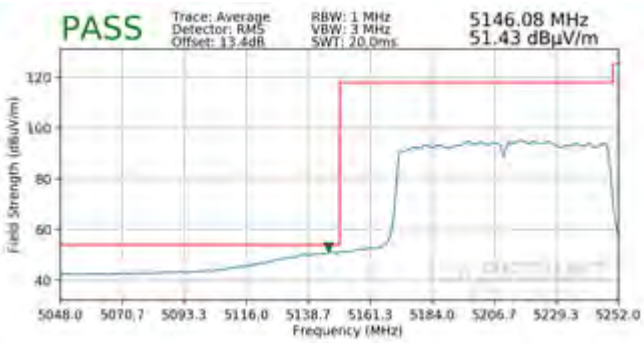


Plot 7-254. Radiated Band Edge Plot (Peak – WCP)

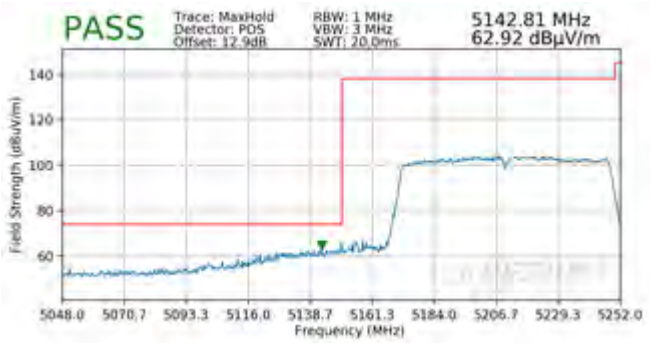
7.6.13 MIMO Radiated Band Edge Measurements (80MHz BW)

§15.407(b.1)(b.2) §15.205 §15.209; RSS-Gen [8.9]

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5210MHz
Channel:	42

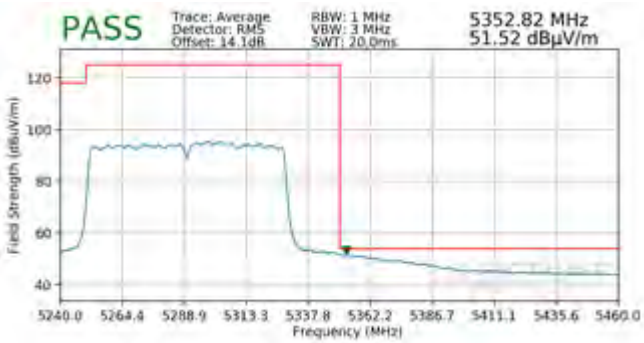


Plot 7-255. Radiated Lower Band Edge Plot (Average – UNII Band 1)

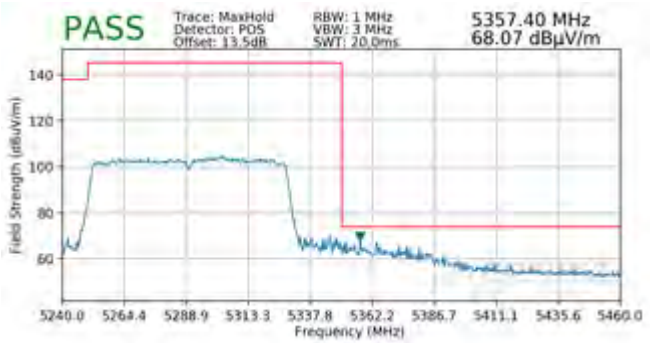


Plot 7-256. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58

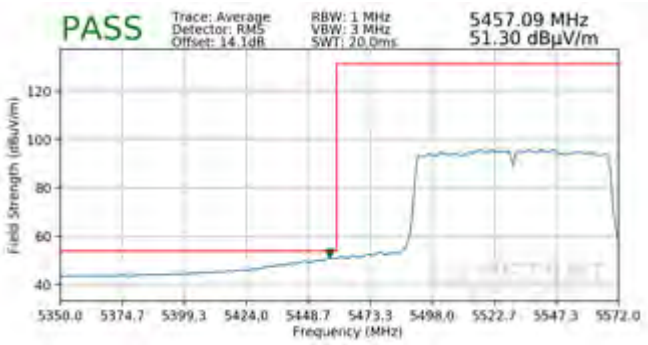


Plot 7-257. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

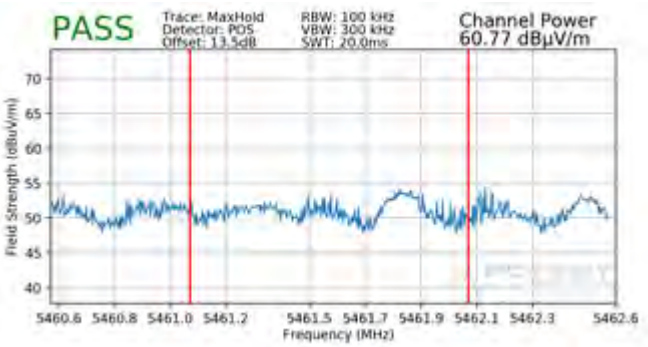


Plot 7-258. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5530MHz
Channel:	106

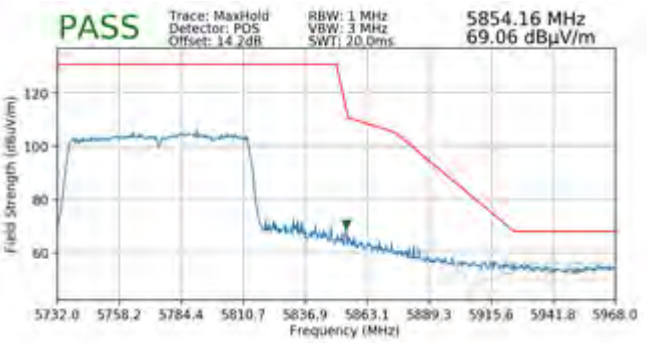


Plot 7-259. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



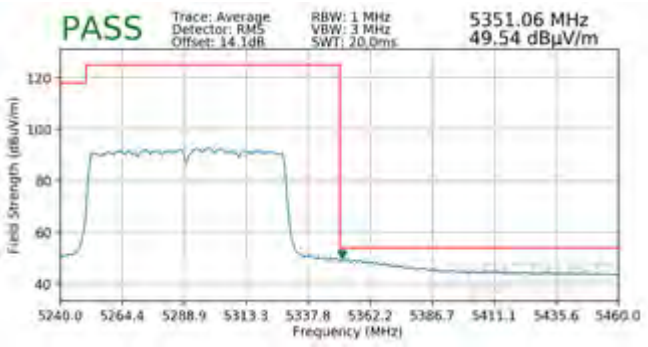
Plot 7-260. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5775MHz
Channel:	155

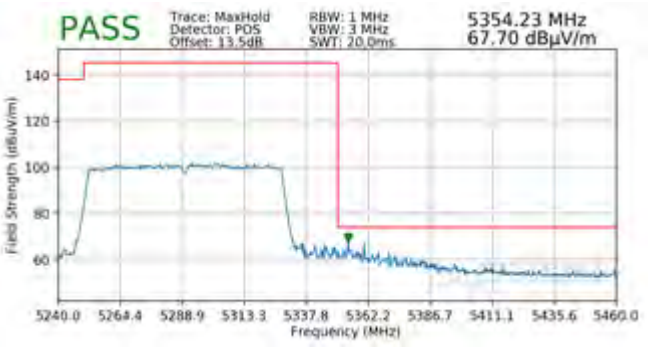


Plot 7-261. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5290MHz
Channel:	58



Plot 7-262. Radiated Band Edge Plot (Average – WCP)



Plot 7-263. Radiated Band Edge Plot (Peak – WCP)

7.7 Radiated Spurious Emissions Measurements – Below 1GHz

§15.209; RSS-Gen [8.9]

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR and Table 6 of RSS-Gen (8.10) must not exceed the limits shown in Table 7-79 per Section 15.209 and RSS-Gen (8.9).

Frequency	Field Strength [µV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-79. Radiated Limits

Test Procedures Used

ANSI C63.10-2013

Test Settings

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 120kHz (for emissions from 30MHz – 1GHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagrams below.

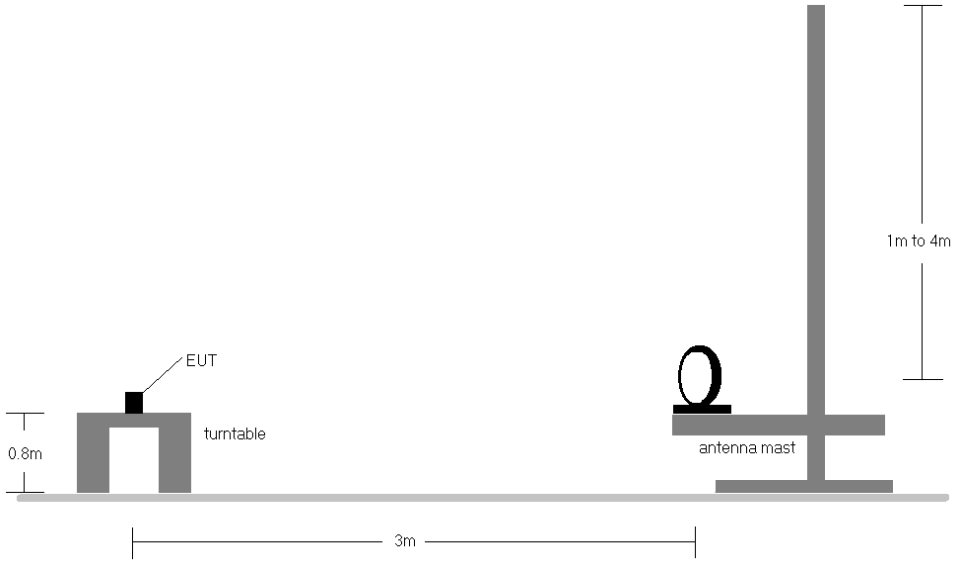


Figure 7-6. Radiated Test Setup < 30MHz

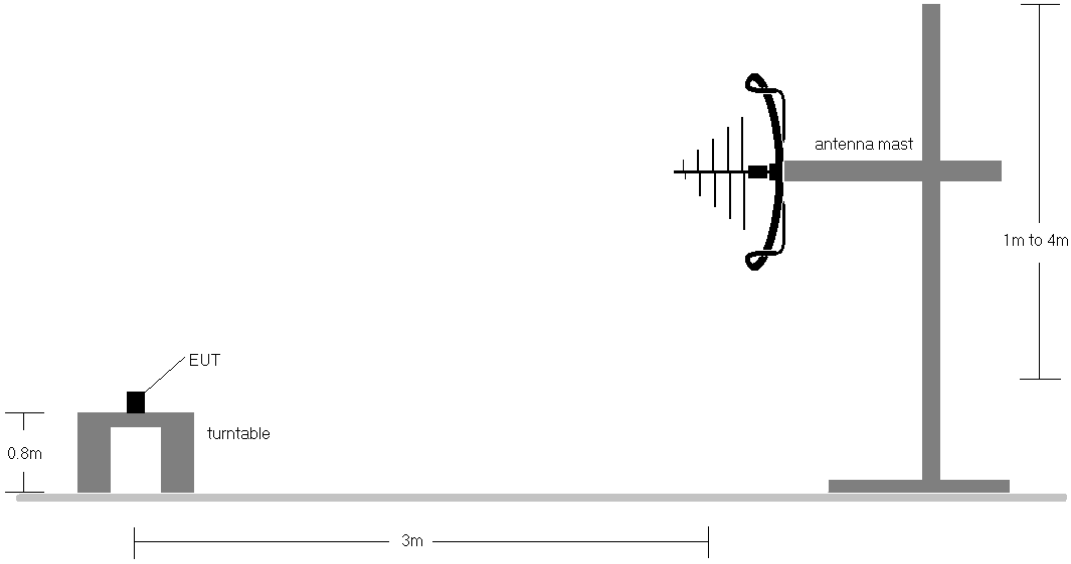


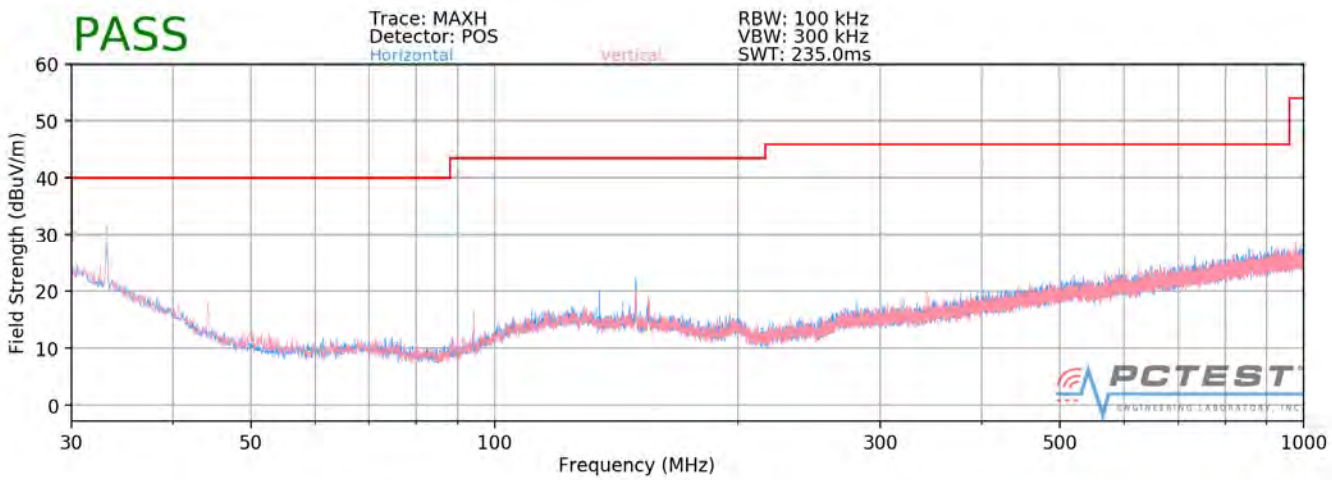
Figure 7-7. Radiated Test Setup < 1GHz

Test Notes

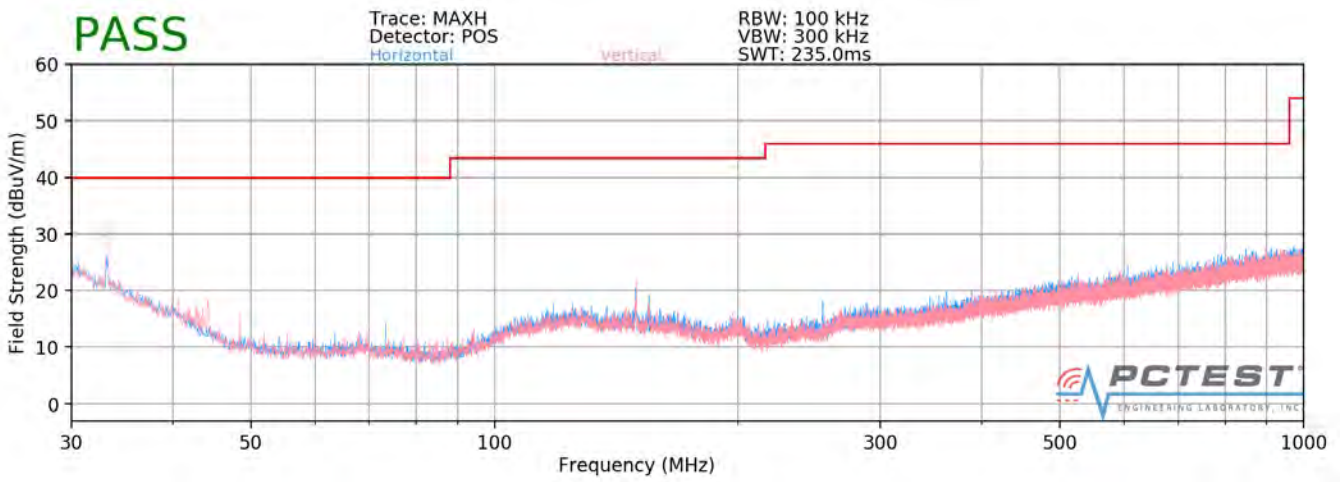
1. All emissions lying in restricted bands specified in §15.205 and RSS-Gen (8.10) are below the limit shown in Table 7-79.
2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
3. This unit was tested with its standard battery.
4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
5. Emissions were measured at a 3 meter test distance.
6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
7. No spurious emissions were detected within 20dB of the limit below 30MHz.
8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

Antenna-1 Radiated Spurious Emissions Measurements (Below 1GHz)

§15.209; RSS-Gen [8.9]



Plot 7-264. Radiated Spurious Plot below 1GHz (802.11a – U3 Ch. 157)



Plot 7-265. Radiated Spurious Plot below 1GHz (802.11a – U3 Ch. 157)

7.8 Line-Conducted Test Data

§15.407; RSS-Gen [8.8]

Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207 and RSS-Gen (8.8).

Frequency of emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15 – 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-80. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = quasi-peak
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the spurious emission of interest
2. RBW = 9kHz (for emissions from 150kHz – 30MHz)
3. Detector = RMS
4. Sweep time = auto couple
5. Trace mode = max hold
6. Trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

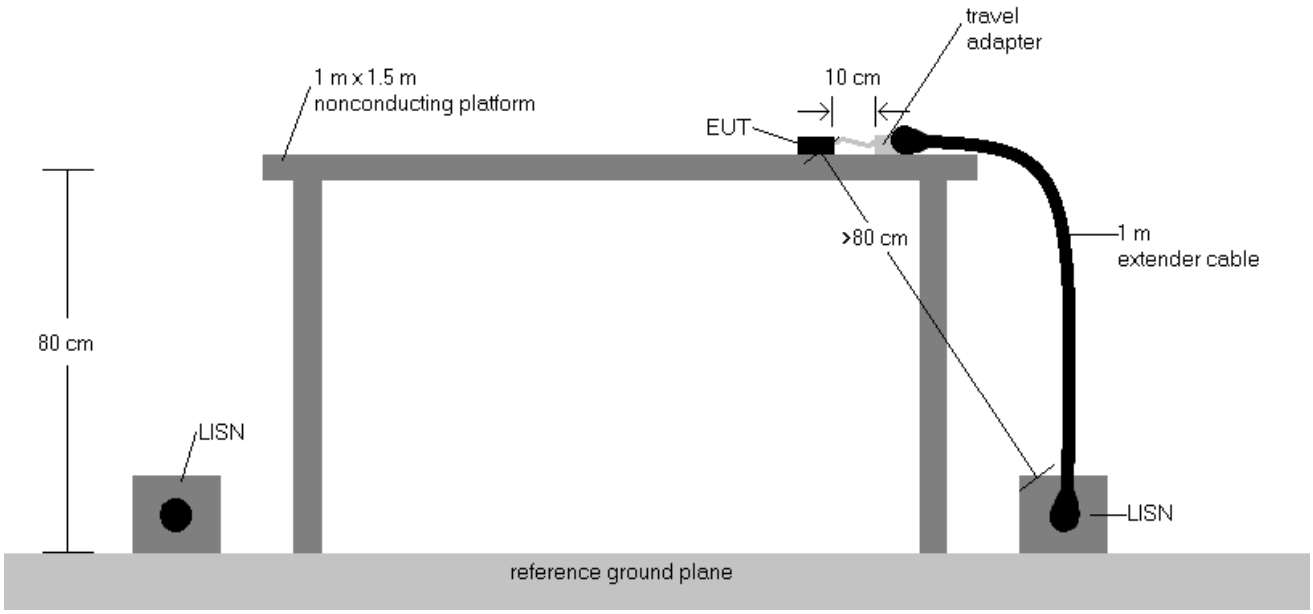
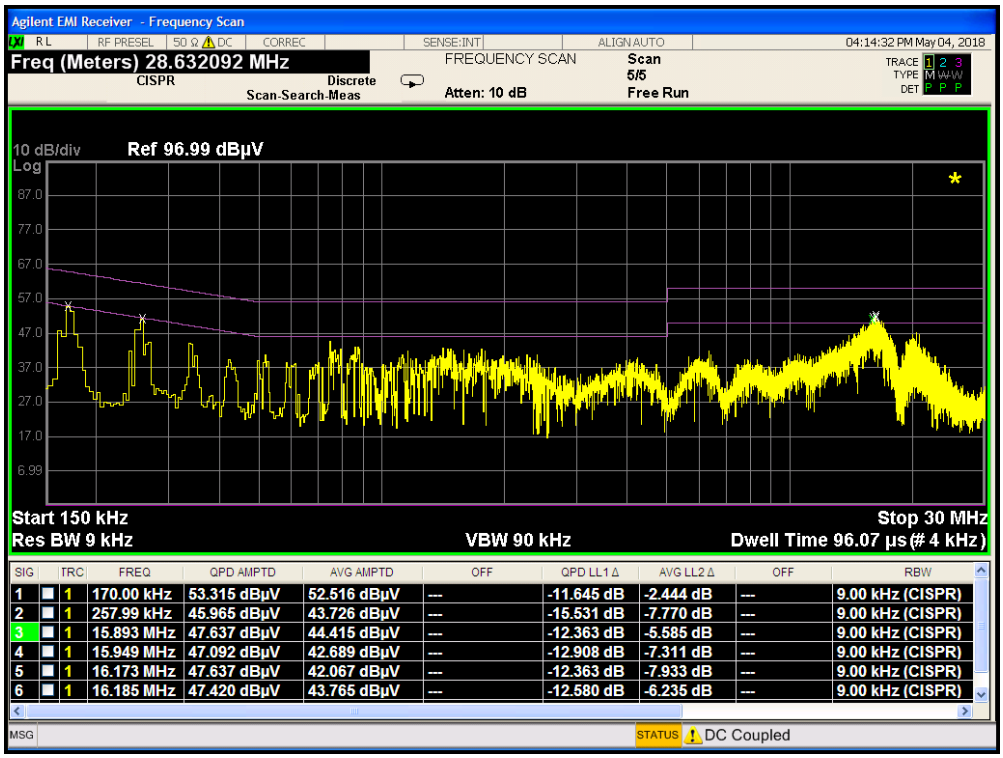


Figure 7-8. Test Instrument & Measurement Setup

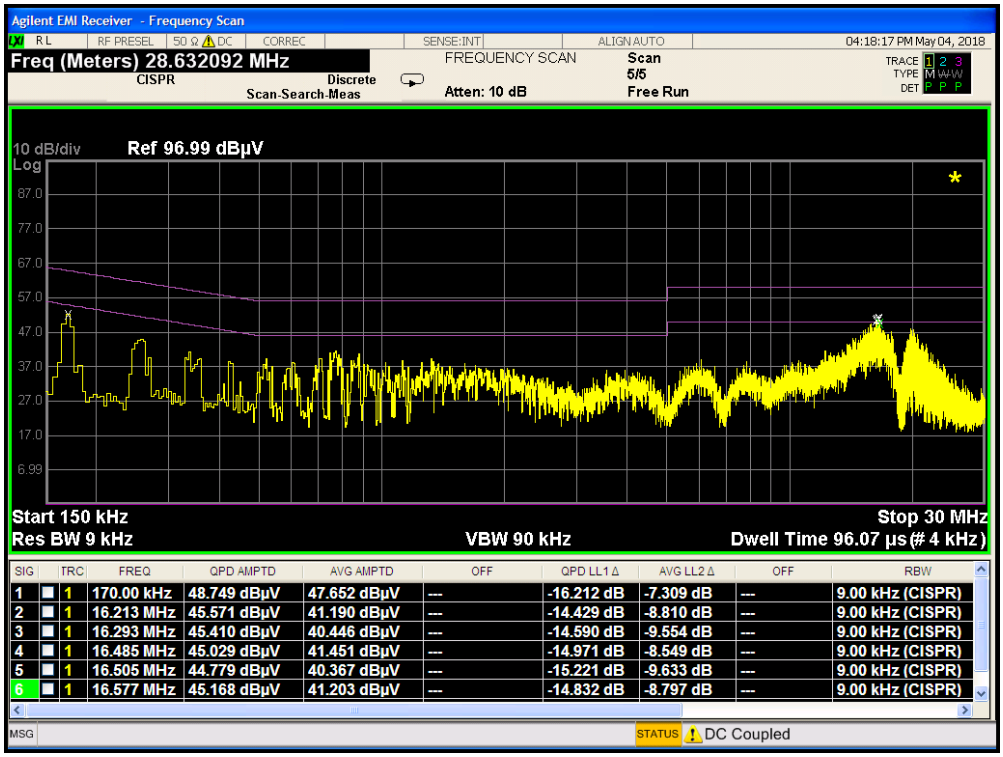
Test Notes

1. All modes of operation were investigated and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
2. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207 and RSS-Gen (8.8).
3. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
4. QP/AV Level (dBμV) = QP/AV Analyzer/Receiver Level (dBμV) + Corr. (dB)
5. Margin (dB) = QP/AV Limit (dBμV) - QP/AV Level (dBμV)
6. Traces shown in plot are made using a peak detector.
7. Deviations to the Specifications: None.



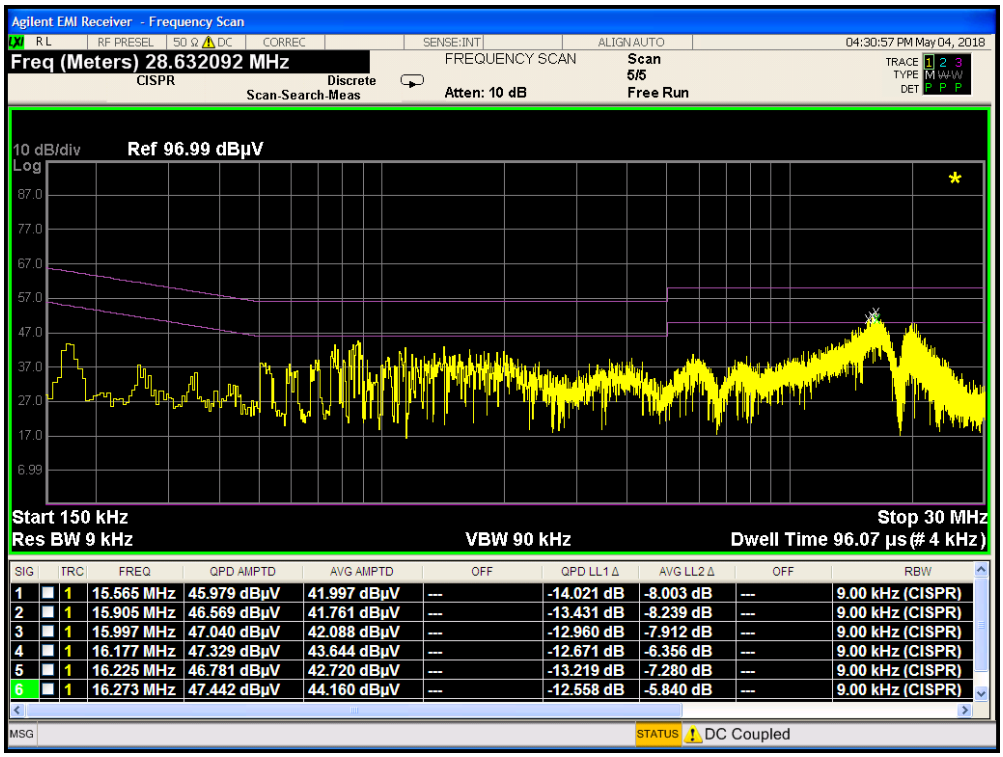
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	170.00 kHz	53.315 dBµV	52.516 dBµV	---	-11.645 dB	-2.444 dB	---	9.00 kHz (CISPR)
2	1	257.99 kHz	45.965 dBµV	43.726 dBµV	---	-15.531 dB	-7.770 dB	---	9.00 kHz (CISPR)
3	1	15.893 MHz	47.637 dBµV	44.415 dBµV	---	-12.363 dB	-5.585 dB	---	9.00 kHz (CISPR)
4	1	15.949 MHz	47.092 dBµV	42.689 dBµV	---	-12.908 dB	-7.311 dB	---	9.00 kHz (CISPR)
5	1	16.173 MHz	47.637 dBµV	42.067 dBµV	---	-12.363 dB	-7.933 dB	---	9.00 kHz (CISPR)
6	1	16.185 MHz	47.420 dBµV	43.765 dBµV	---	-12.580 dB	-6.235 dB	---	9.00 kHz (CISPR)

Plot 7-266. Line Conducted Plot with 802.11a UNII Band 1 (L1) with Travel Adapter



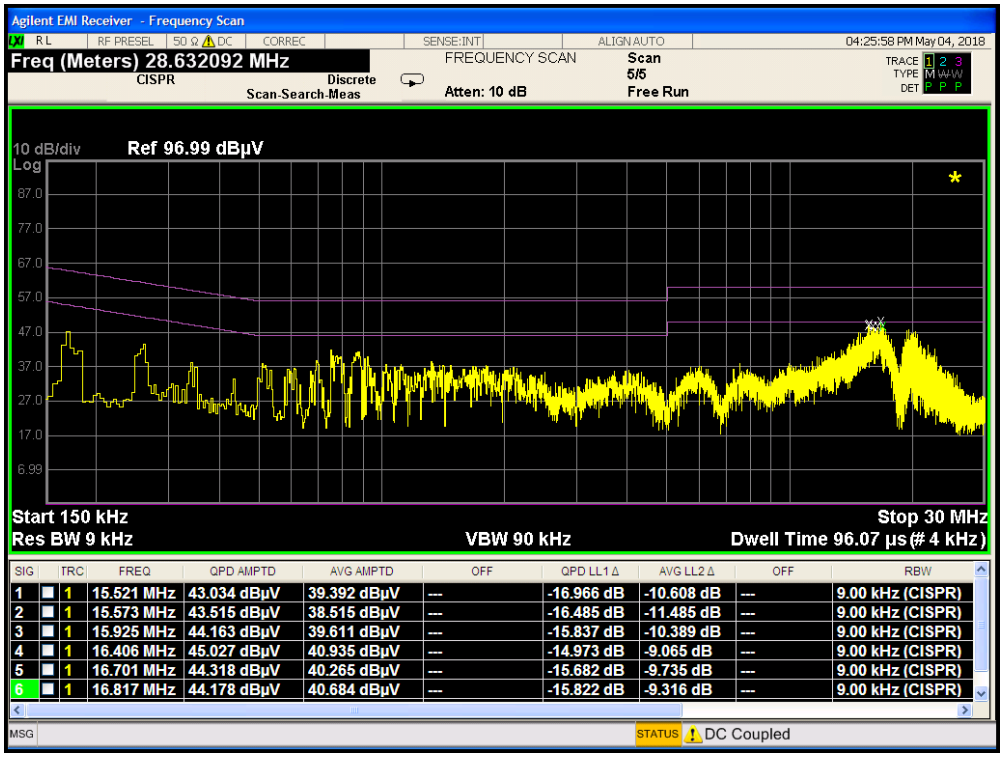
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	170.00 kHz	48.749 dBµV	47.652 dBµV	---	-16.212 dB	-7.309 dB	---	9.00 kHz (CISPR)
2	1	16.213 MHz	45.571 dBµV	41.190 dBµV	---	-14.429 dB	-8.810 dB	---	9.00 kHz (CISPR)
3	1	16.293 MHz	45.410 dBµV	40.446 dBµV	---	-14.590 dB	-9.554 dB	---	9.00 kHz (CISPR)
4	1	16.485 MHz	45.029 dBµV	41.451 dBµV	---	-14.971 dB	-8.549 dB	---	9.00 kHz (CISPR)
5	1	16.505 MHz	44.779 dBµV	40.367 dBµV	---	-15.221 dB	-9.633 dB	---	9.00 kHz (CISPR)
6	1	16.577 MHz	45.168 dBµV	41.203 dBµV	---	-14.832 dB	-8.797 dB	---	9.00 kHz (CISPR)

Plot 7-267. Line Conducted Plot with 802.11a UNII Band 1 (N) with Travel Adapter



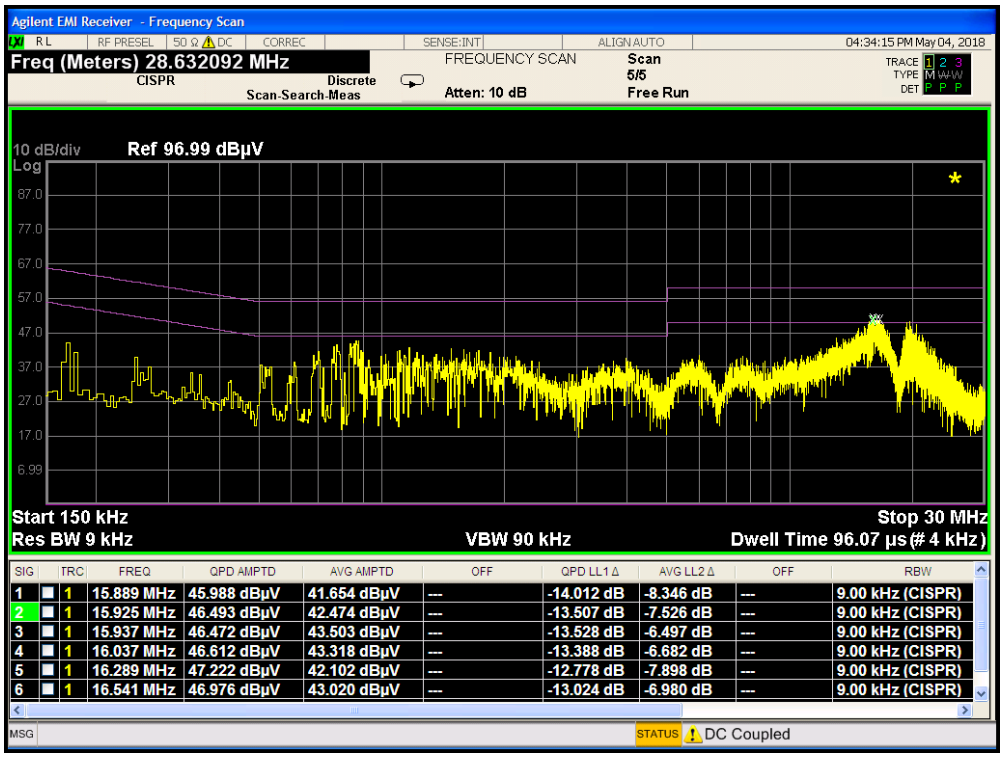
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.565 MHz	45.979 dBµV	41.997 dBµV	---	-14.021 dB	-8.003 dB	---	9.00 kHz (CISPR)
2	1	15.905 MHz	46.569 dBµV	41.761 dBµV	---	-13.431 dB	-8.239 dB	---	9.00 kHz (CISPR)
3	1	15.997 MHz	47.040 dBµV	42.088 dBµV	---	-12.960 dB	-7.912 dB	---	9.00 kHz (CISPR)
4	1	16.177 MHz	47.329 dBµV	43.644 dBµV	---	-12.671 dB	-6.356 dB	---	9.00 kHz (CISPR)
5	1	16.225 MHz	46.781 dBµV	42.720 dBµV	---	-13.219 dB	-7.280 dB	---	9.00 kHz (CISPR)
6	1	16.273 MHz	47.442 dBµV	44.160 dBµV	---	-12.558 dB	-5.840 dB	---	9.00 kHz (CISPR)

Plot 7-268. Line Conducted Plot with 802.11a UNII Band 2A (L1) with Travel Adapter



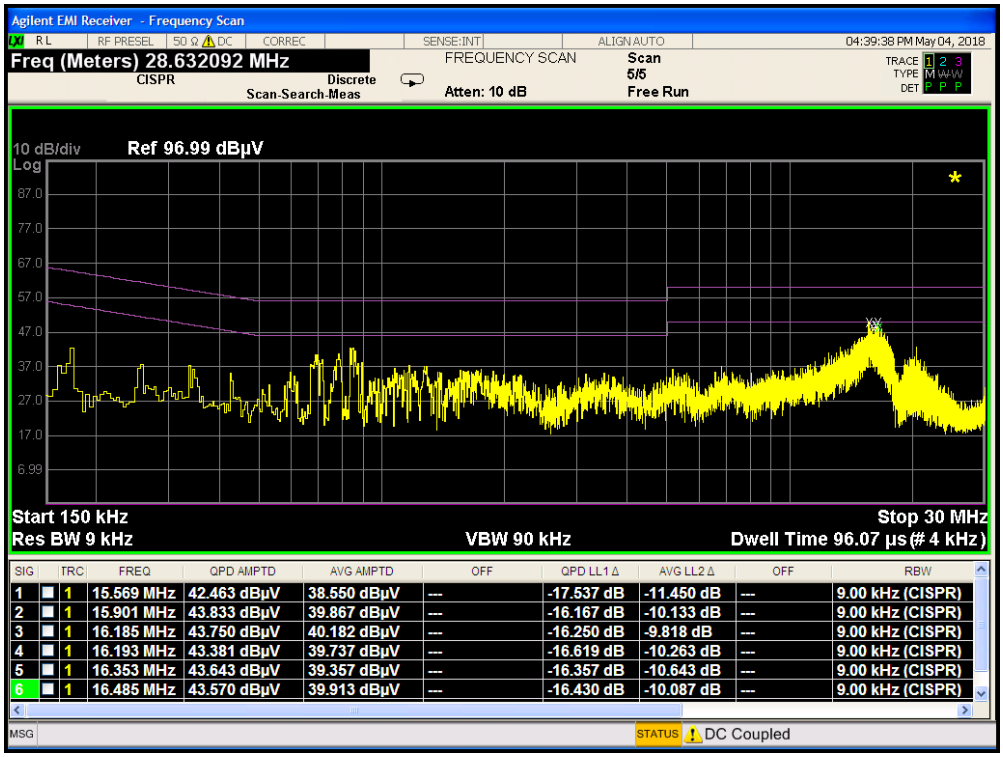
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.521 MHz	43.034 dBµV	39.392 dBµV	---	-16.966 dB	-10.608 dB	---	9.00 kHz (CISPR)
2	1	15.573 MHz	43.515 dBµV	38.515 dBµV	---	-16.485 dB	-11.485 dB	---	9.00 kHz (CISPR)
3	1	15.925 MHz	44.163 dBµV	39.611 dBµV	---	-15.837 dB	-10.389 dB	---	9.00 kHz (CISPR)
4	1	16.406 MHz	45.027 dBµV	40.935 dBµV	---	-14.973 dB	-9.065 dB	---	9.00 kHz (CISPR)
5	1	16.701 MHz	44.318 dBµV	40.265 dBµV	---	-15.682 dB	-9.735 dB	---	9.00 kHz (CISPR)
6	1	16.817 MHz	44.178 dBµV	40.684 dBµV	---	-15.822 dB	-9.316 dB	---	9.00 kHz (CISPR)

Plot 7-269. Line Conducted Plot with 802.11a UNII Band 2A (N) with Travel Adapter



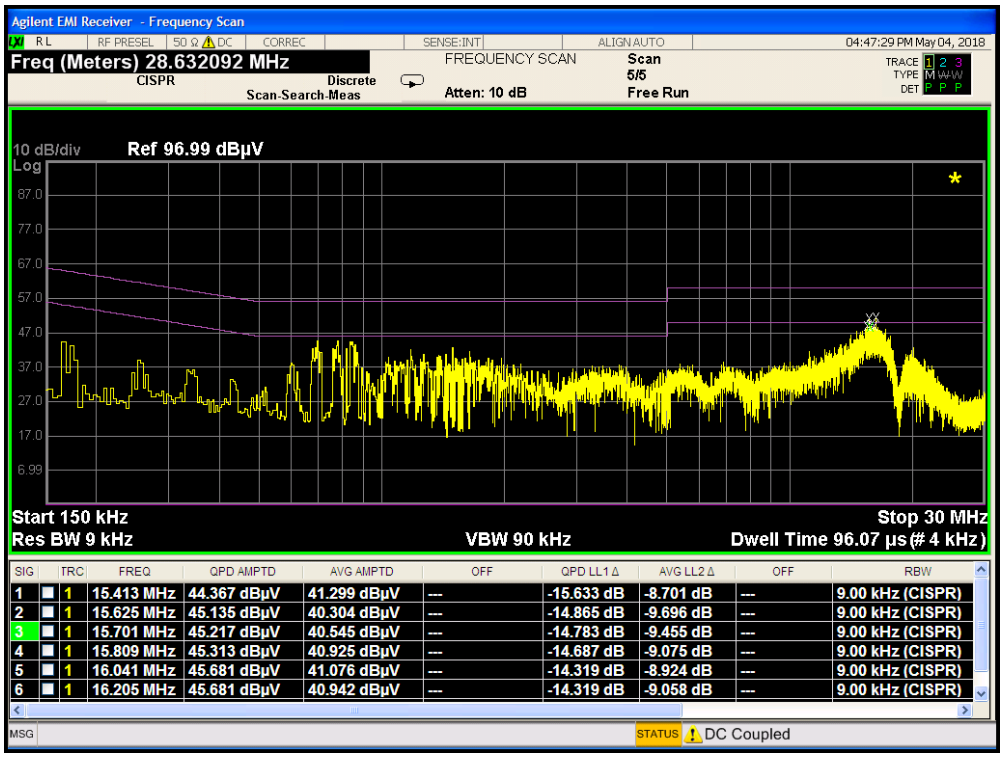
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.889 MHz	45.988 dBµV	41.654 dBµV	---	-14.012 dB	-8.346 dB	---	9.00 kHz (CISPR)
2	1	15.925 MHz	46.493 dBµV	42.474 dBµV	---	-13.507 dB	-7.526 dB	---	9.00 kHz (CISPR)
3	1	15.937 MHz	46.472 dBµV	43.503 dBµV	---	-13.528 dB	-6.497 dB	---	9.00 kHz (CISPR)
4	1	16.037 MHz	46.612 dBµV	43.318 dBµV	---	-13.388 dB	-6.682 dB	---	9.00 kHz (CISPR)
5	1	16.289 MHz	47.222 dBµV	42.102 dBµV	---	-12.778 dB	-7.898 dB	---	9.00 kHz (CISPR)
6	1	16.541 MHz	46.976 dBµV	43.020 dBµV	---	-13.024 dB	-6.980 dB	---	9.00 kHz (CISPR)

Plot 7-270. Line Conducted Plot with 802.11a UNII Band 2C (L1) with Travel Adapter



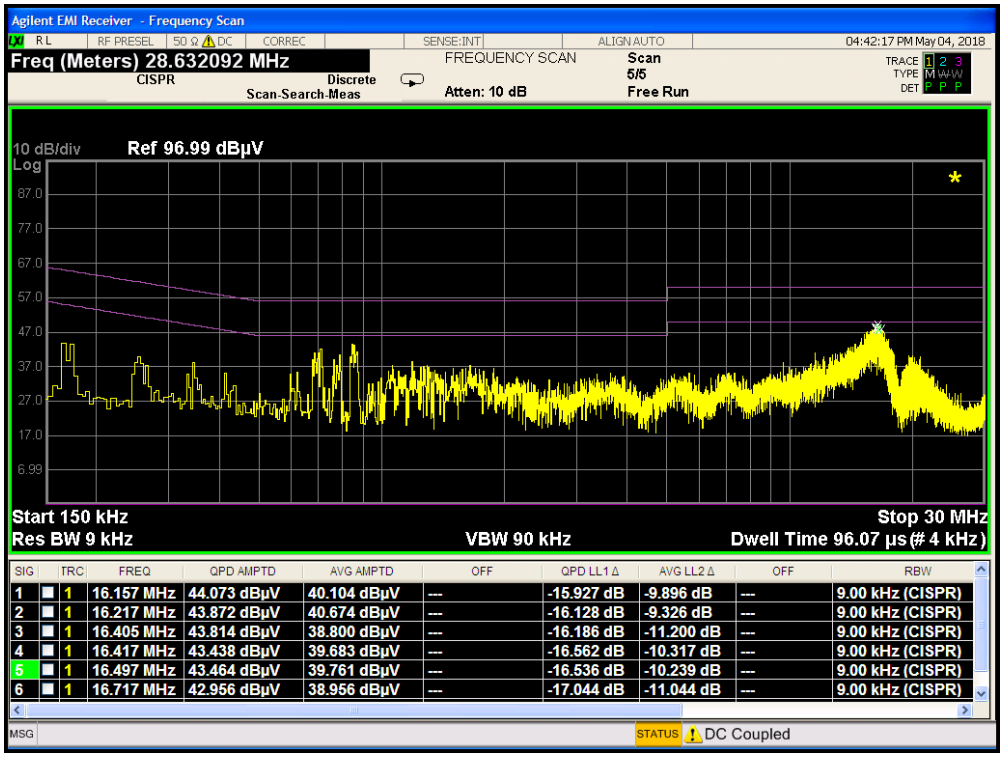
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.569 MHz	42.463 dBµV	38.550 dBµV	---	-17.537 dB	-11.450 dB	---	9.00 kHz (CISPR)
2	1	15.901 MHz	43.833 dBµV	39.867 dBµV	---	-16.167 dB	-10.133 dB	---	9.00 kHz (CISPR)
3	1	16.185 MHz	43.750 dBµV	40.182 dBµV	---	-16.250 dB	-9.818 dB	---	9.00 kHz (CISPR)
4	1	16.193 MHz	43.381 dBµV	39.737 dBµV	---	-16.619 dB	-10.263 dB	---	9.00 kHz (CISPR)
5	1	16.353 MHz	43.643 dBµV	39.357 dBµV	---	-16.357 dB	-10.643 dB	---	9.00 kHz (CISPR)
6	1	16.485 MHz	43.570 dBµV	39.913 dBµV	---	-16.430 dB	-10.087 dB	---	9.00 kHz (CISPR)

Plot 7-271. Line Conducted Plot with 802.11a UNII Band 2C (N) with Travel Adapter



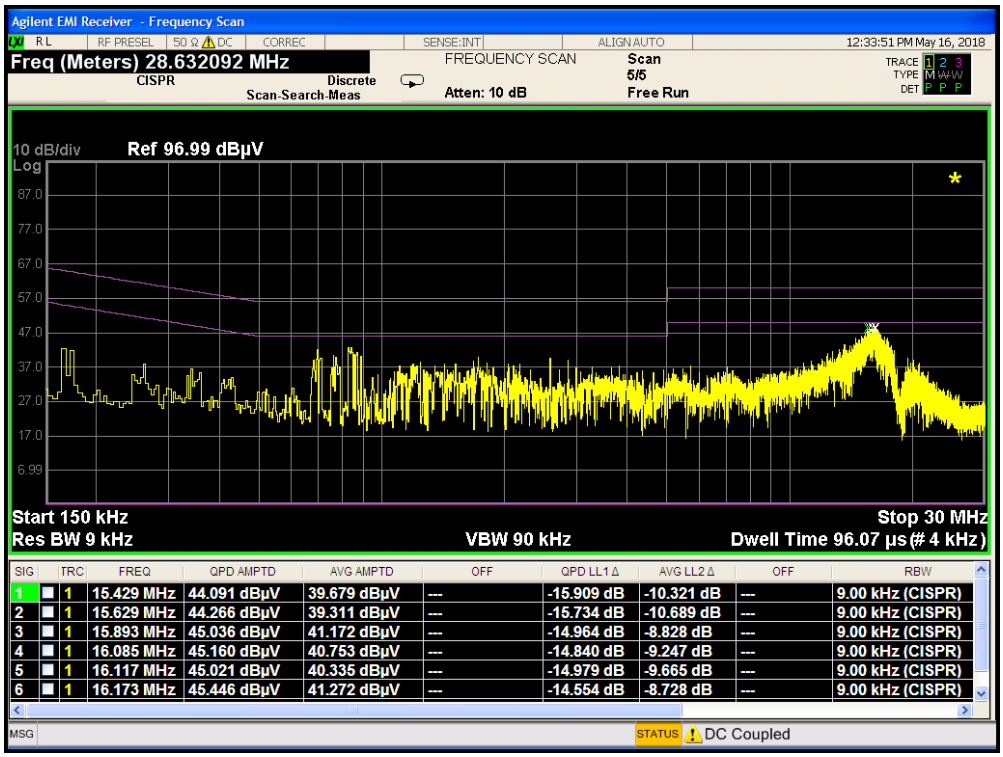
SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.413 MHz	44.367 dBµV	41.299 dBµV	---	-15.633 dB	-8.701 dB	---	9.00 kHz (CISPR)
2	1	15.625 MHz	45.135 dBµV	40.304 dBµV	---	-14.865 dB	-9.696 dB	---	9.00 kHz (CISPR)
3	1	15.701 MHz	45.217 dBµV	40.545 dBµV	---	-14.783 dB	-9.455 dB	---	9.00 kHz (CISPR)
4	1	15.809 MHz	45.313 dBµV	40.925 dBµV	---	-14.687 dB	-9.075 dB	---	9.00 kHz (CISPR)
5	1	16.041 MHz	45.681 dBµV	41.076 dBµV	---	-14.319 dB	-8.924 dB	---	9.00 kHz (CISPR)
6	1	16.205 MHz	45.681 dBµV	40.942 dBµV	---	-14.319 dB	-9.058 dB	---	9.00 kHz (CISPR)

Plot 7-272. Line Conducted Plot with 802.11a UNII Band 3 (L1) with Travel Adapter

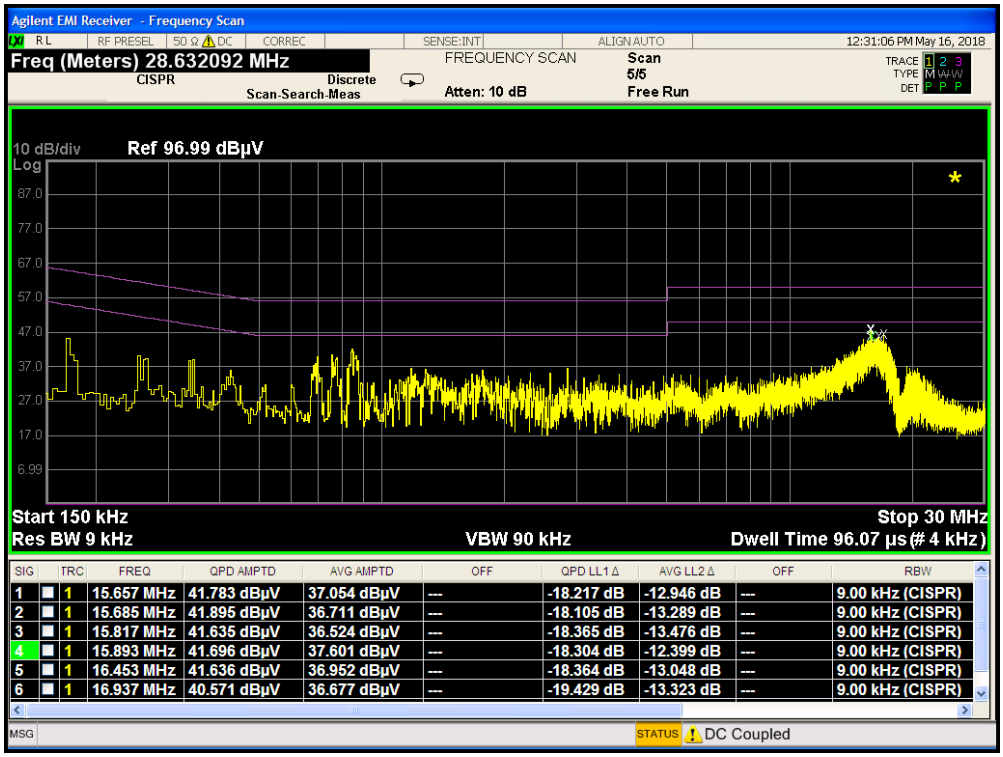


SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	16.157 MHz	44.073 dBµV	40.104 dBµV	---	-15.927 dB	-9.896 dB	---	9.00 kHz (CISPR)
2	1	16.217 MHz	43.872 dBµV	40.674 dBµV	---	-16.128 dB	-9.326 dB	---	9.00 kHz (CISPR)
3	1	16.405 MHz	43.814 dBµV	38.800 dBµV	---	-16.186 dB	-11.200 dB	---	9.00 kHz (CISPR)
4	1	16.417 MHz	43.438 dBµV	39.683 dBµV	---	-16.562 dB	-10.317 dB	---	9.00 kHz (CISPR)
5	1	16.497 MHz	43.464 dBµV	39.761 dBµV	---	-16.536 dB	-10.239 dB	---	9.00 kHz (CISPR)
6	1	16.717 MHz	42.956 dBµV	38.956 dBµV	---	-17.044 dB	-11.044 dB	---	9.00 kHz (CISPR)

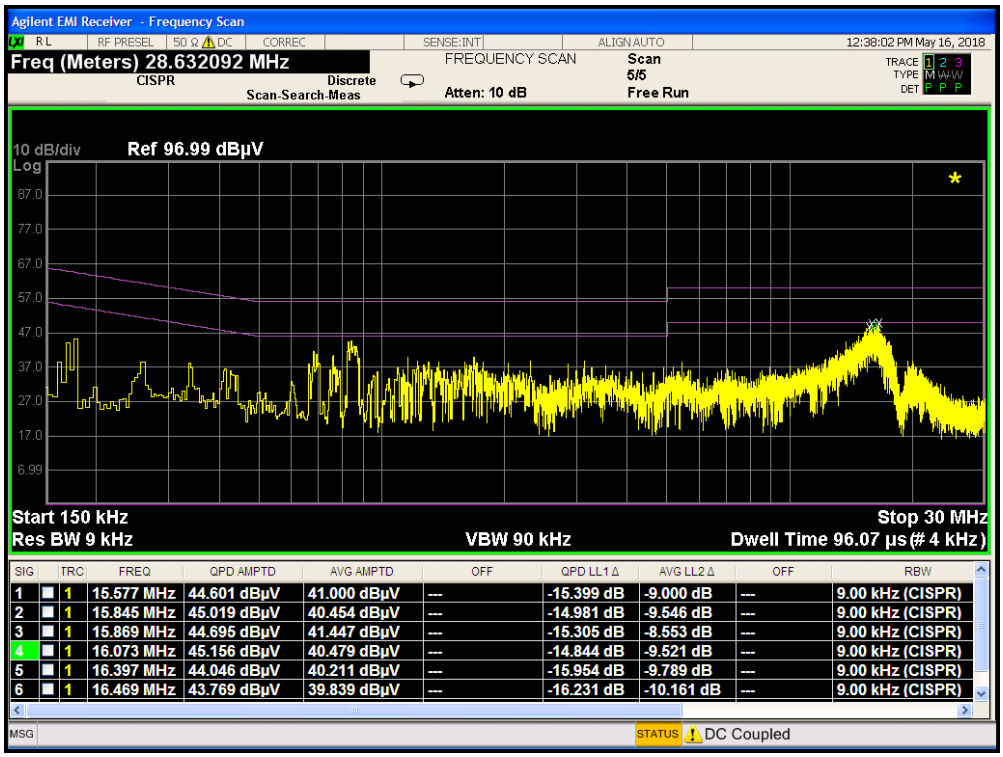
Plot 7-273. Line Conducted Plot with 802.11a UNII Band 3 (N) with Travel Adapter



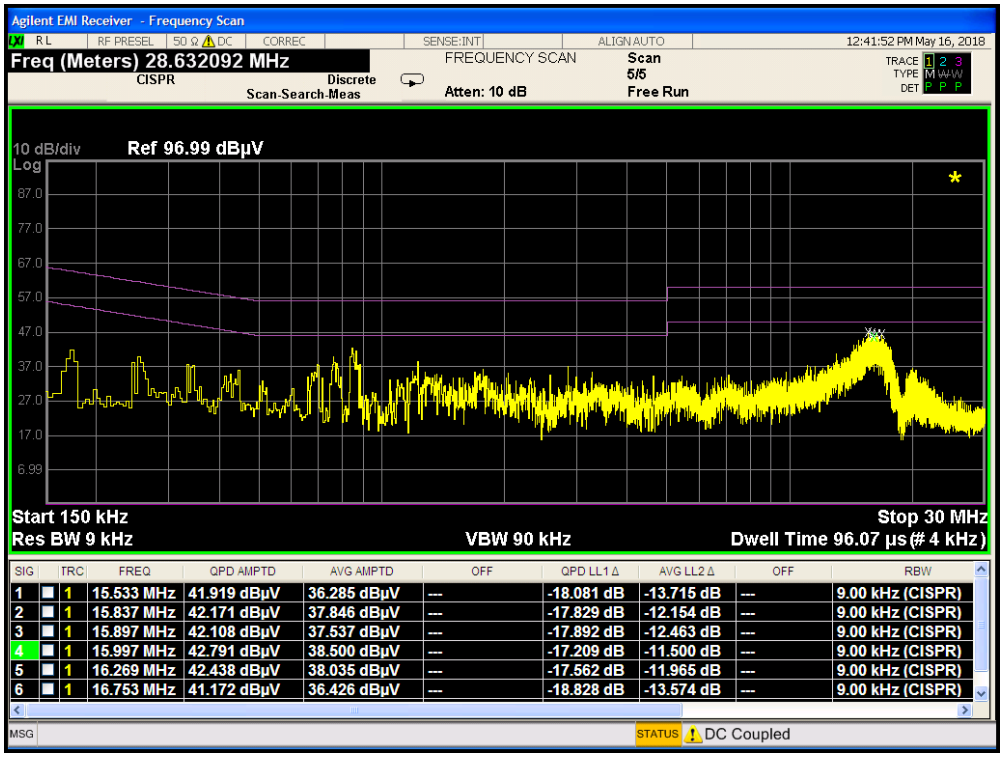
Plot 7-274. Line Conducted Plot with 802.11a UNII Band 1 (L1) with Wireless Charging Pad



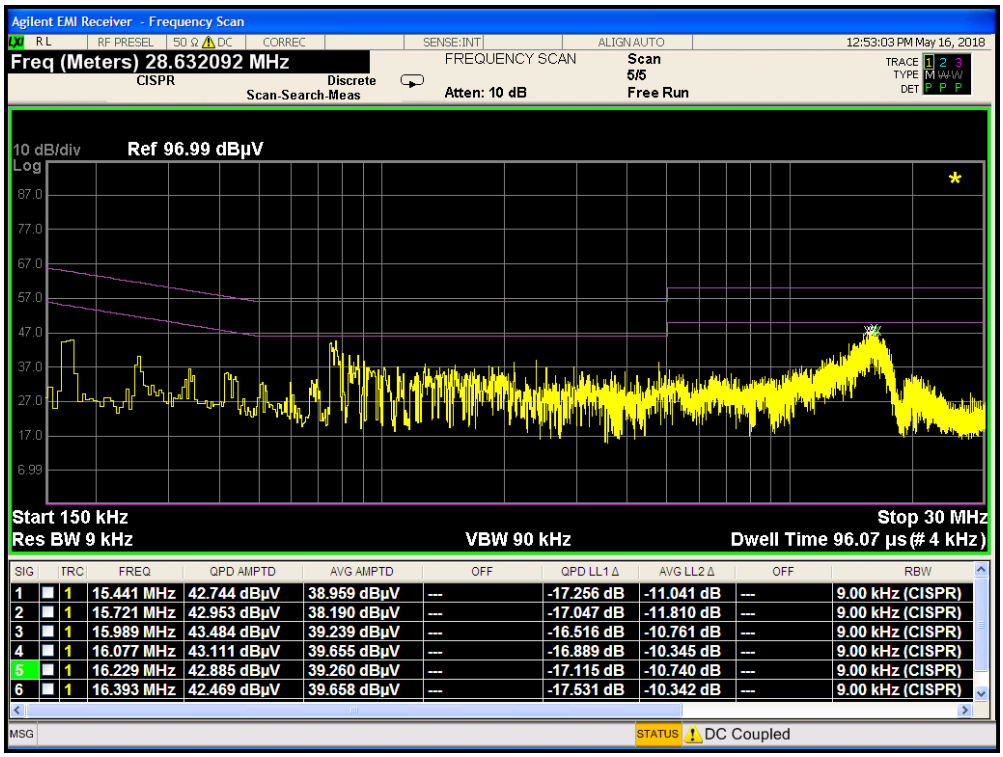
Plot 7-275. Line Conducted Plot with 802.11a UNII Band 1 (N) with Wireless Charging Pad



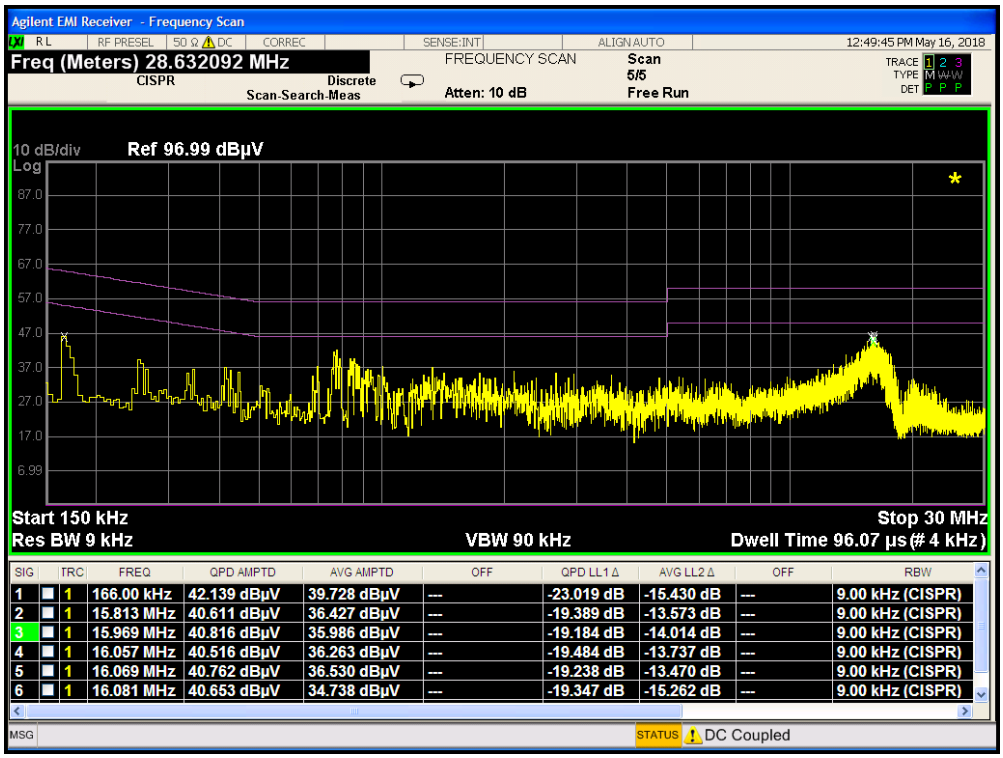
Plot 7-276. Line Conducted Plot with 802.11a UNII Band 2A (L1) with Wireless Charging Pad



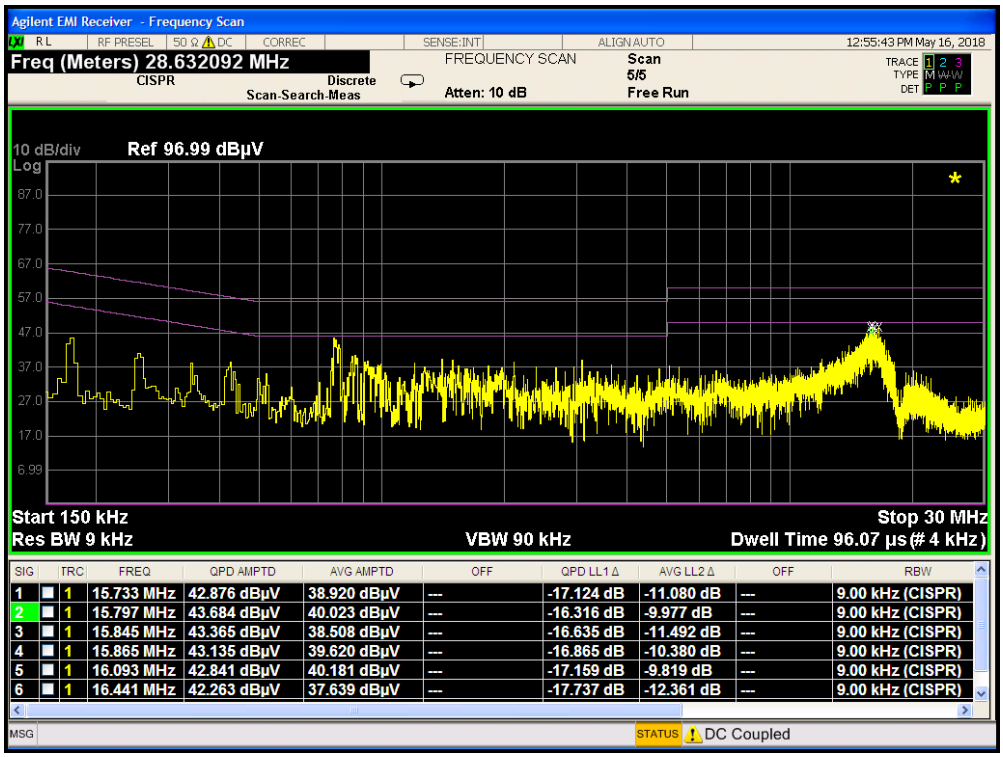
Plot 7-277. Line Conducted Plot with 802.11a UNII Band 2A (N) with Wireless Charging Pad



Plot 7-278. Line Conducted Plot with 802.11a UNII Band 2C (L1) with Wireless Charging Pad

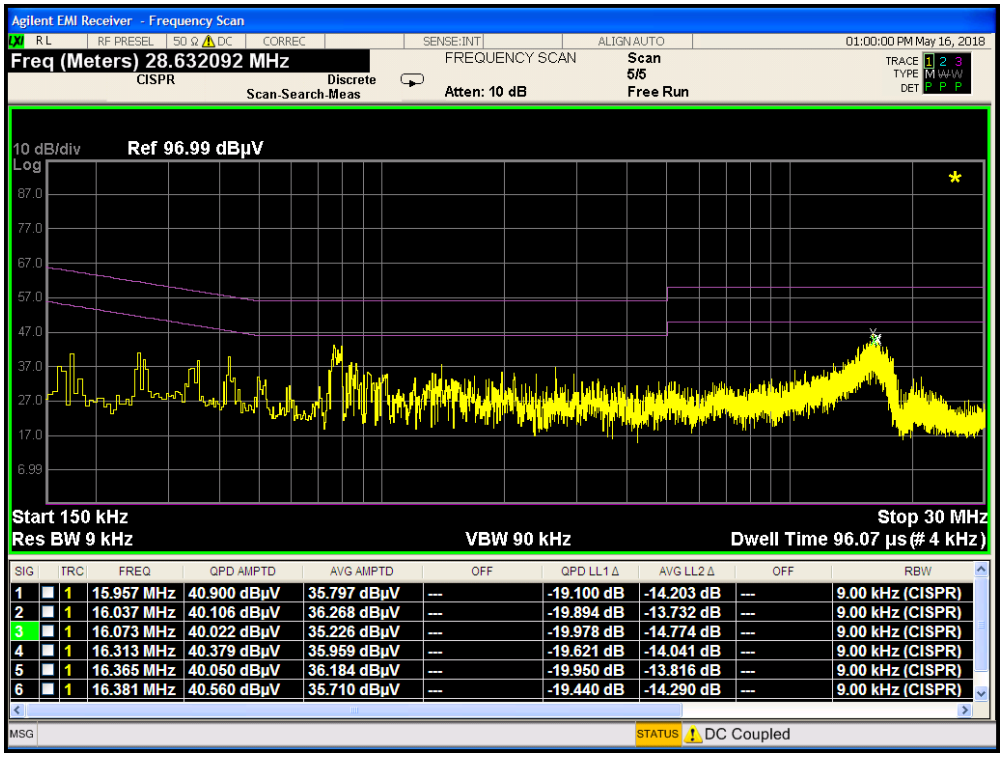


Plot 7-279. Line Conducted Plot with 802.11a UNII Band 2C (N) with Wireless Charging Pad



SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.733 MHz	42.876 dBµV	38.920 dBµV	---	-17.124 dB	-11.080 dB	---	9.00 kHz (CISPR)
2	1	15.797 MHz	43.684 dBµV	40.023 dBµV	---	-16.316 dB	-9.977 dB	---	9.00 kHz (CISPR)
3	1	15.845 MHz	43.365 dBµV	38.508 dBµV	---	-16.635 dB	-11.492 dB	---	9.00 kHz (CISPR)
4	1	15.865 MHz	43.135 dBµV	39.620 dBµV	---	-16.865 dB	-10.380 dB	---	9.00 kHz (CISPR)
5	1	16.093 MHz	42.841 dBµV	40.181 dBµV	---	-17.159 dB	-9.819 dB	---	9.00 kHz (CISPR)
6	1	16.441 MHz	42.263 dBµV	37.639 dBµV	---	-17.737 dB	-12.361 dB	---	9.00 kHz (CISPR)

Plot 7-280. Line Conducted Plot with 802.11a UNII Band 3 (L1) with Wireless Charging Pad



SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	15.957 MHz	40.900 dBµV	35.797 dBµV	---	-19.100 dB	-14.203 dB	---	9.00 kHz (CISPR)
2	1	16.037 MHz	40.106 dBµV	36.268 dBµV	---	-19.894 dB	-13.732 dB	---	9.00 kHz (CISPR)
3	1	16.073 MHz	40.022 dBµV	35.226 dBµV	---	-19.978 dB	-14.774 dB	---	9.00 kHz (CISPR)
4	1	16.313 MHz	40.379 dBµV	35.959 dBµV	---	-19.621 dB	-14.041 dB	---	9.00 kHz (CISPR)
5	1	16.365 MHz	40.050 dBµV	36.184 dBµV	---	-19.950 dB	-13.816 dB	---	9.00 kHz (CISPR)
6	1	16.381 MHz	40.560 dBµV	35.710 dBµV	---	-19.440 dB	-14.290 dB	---	9.00 kHz (CISPR)

Plot 7-281. Line Conducted Plot with 802.11a UNII Band 3 (N) with Wireless Charging Pad

8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMN9600** is in compliance with Part 15 Subpart E (15.407) of the FCC Rules.