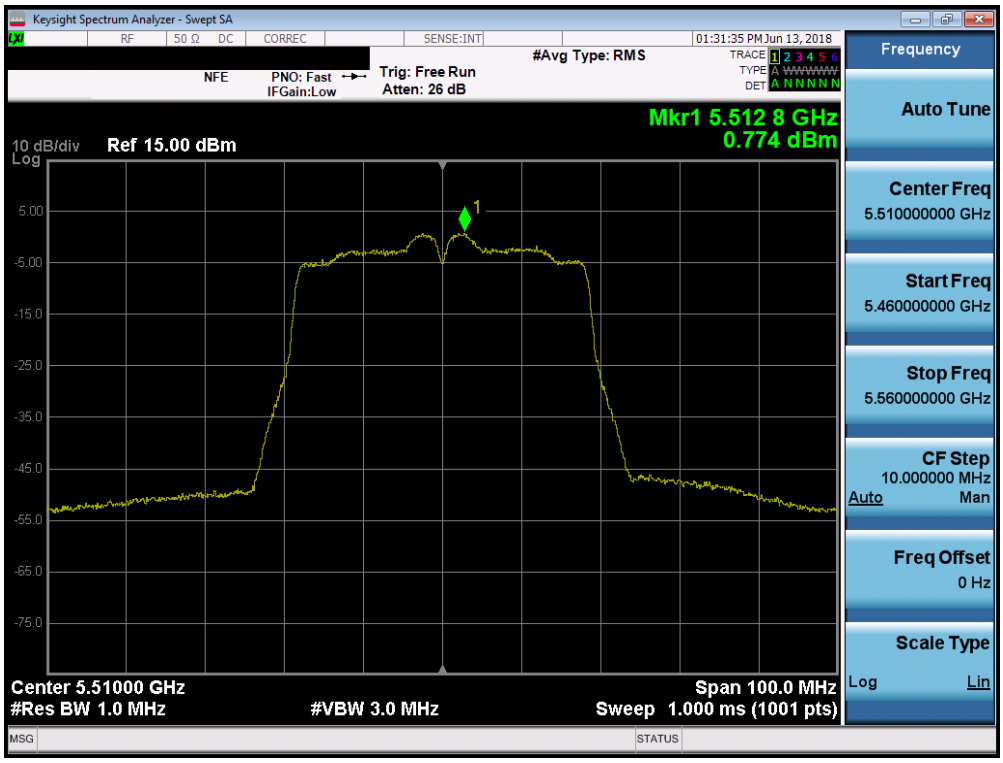
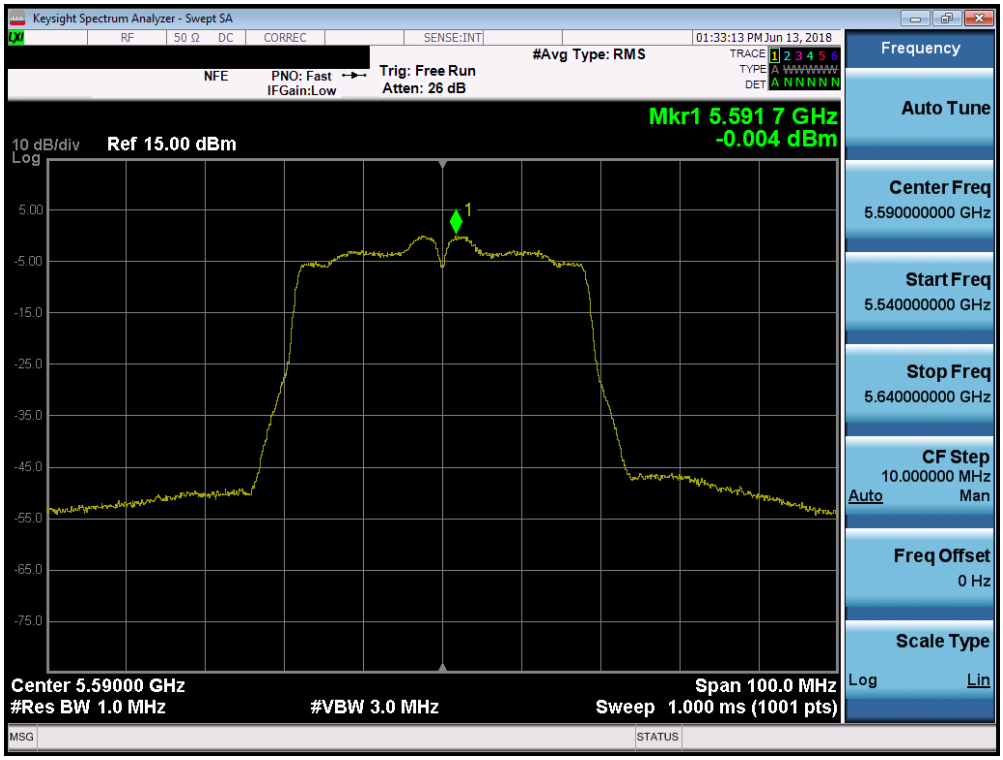


Plot 7-103. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)



Plot 7-104. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 118)

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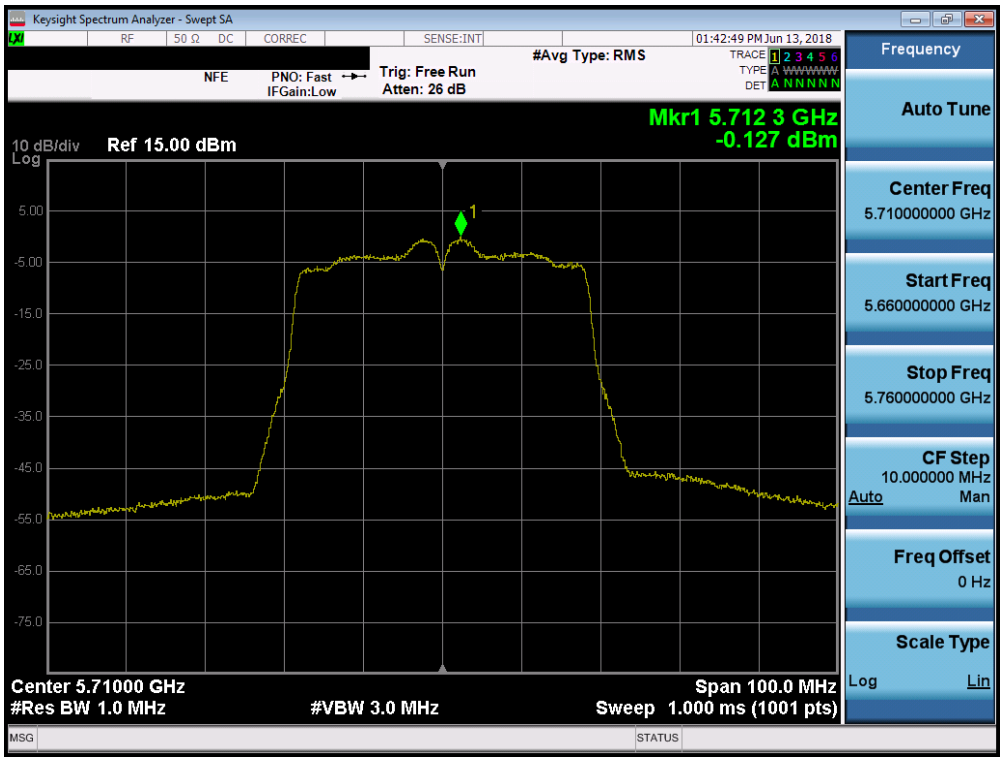
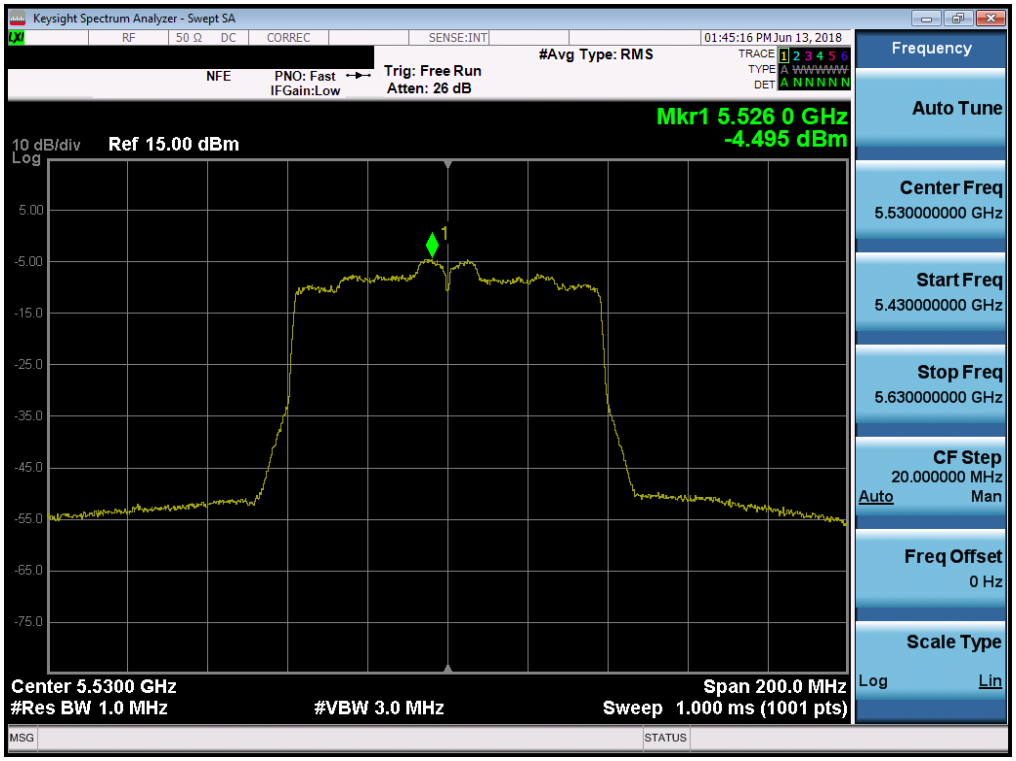


Plot 7-105. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)



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

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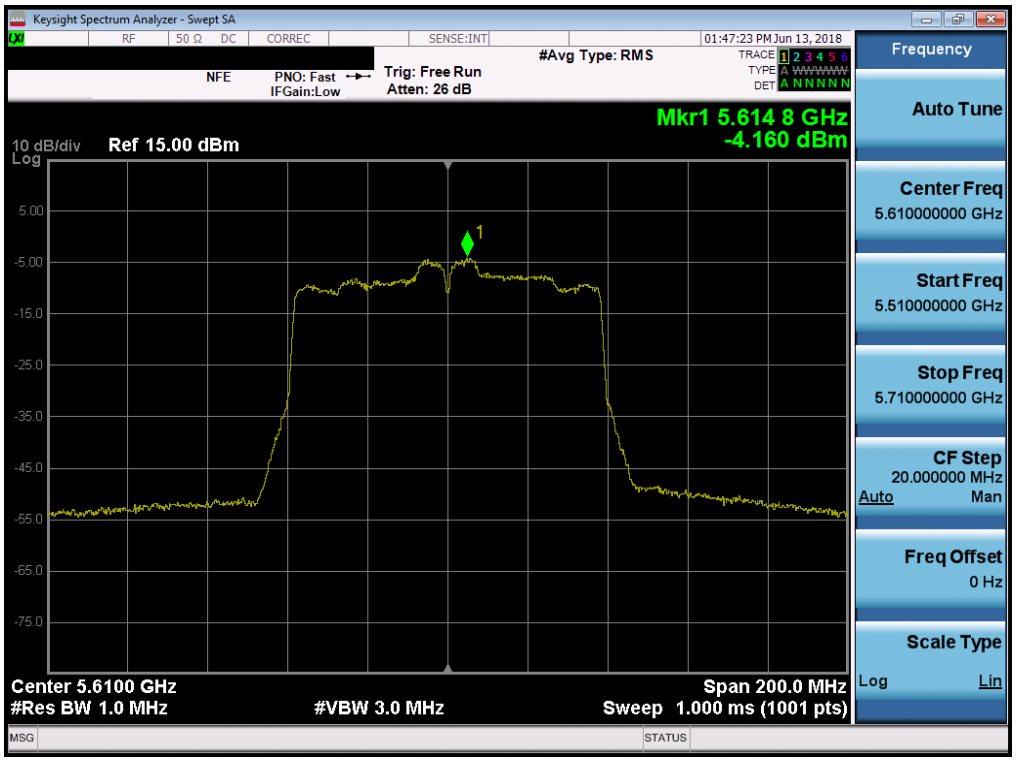
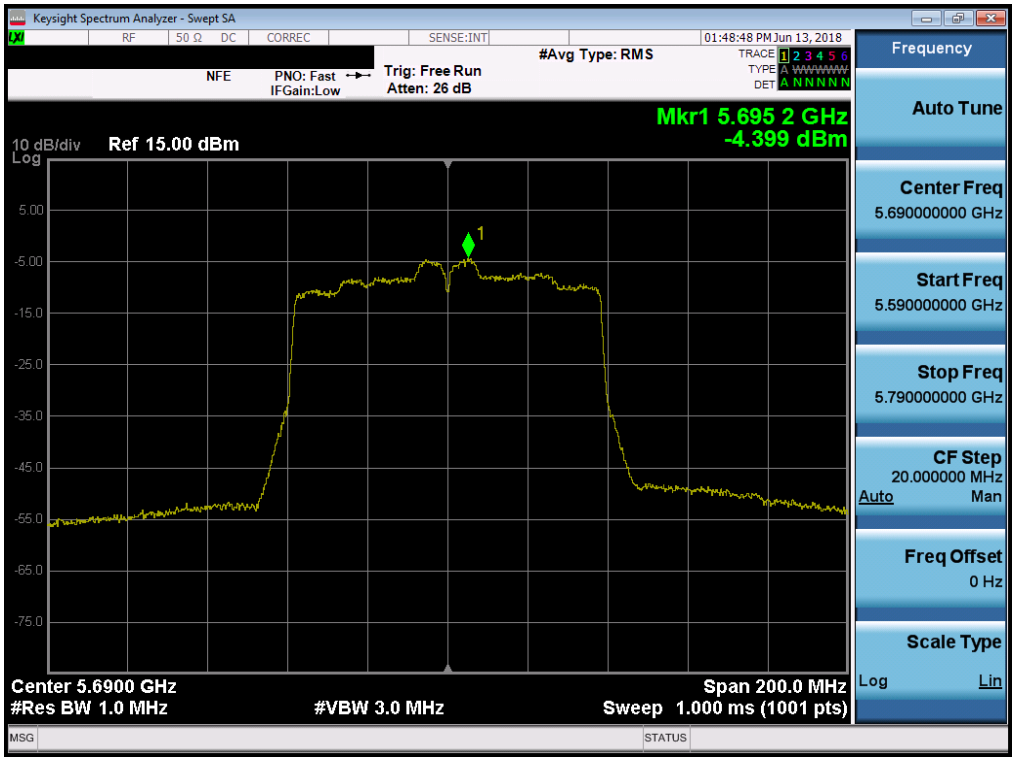


Plot 7-107. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)



Plot 7-108. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

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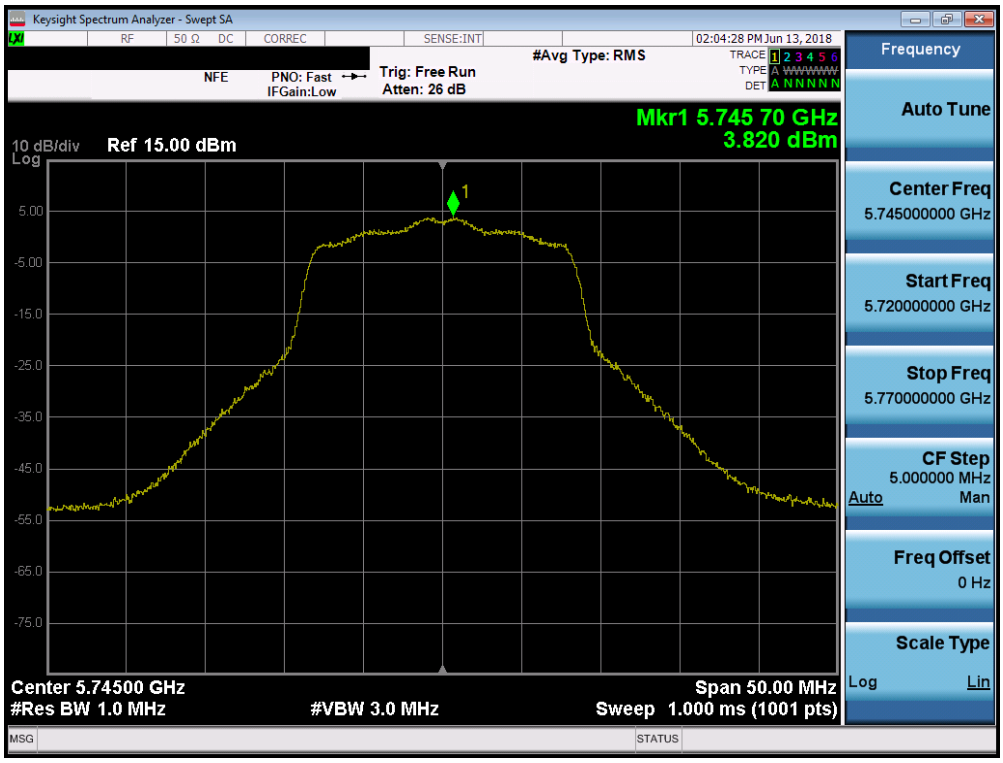
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	3.82	30.0	-26.18
	5785	157	a	6	3.17	30.0	-26.83
	5825	165	a	6	3.21	30.0	-26.79
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.37	30.0	-26.63
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	2.74	30.0	-27.26
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	2.56	30.0	-27.44
	5755	151	n (40MHz)	13.5/15 (MCS0)	0.58	30.0	-29.42
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.69	30.0	-30.69
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-4.79	30.0	-34.79

Table 7-19. Band 3 Conducted Power Spectral Density Measurements



Plot 7-109. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 149)

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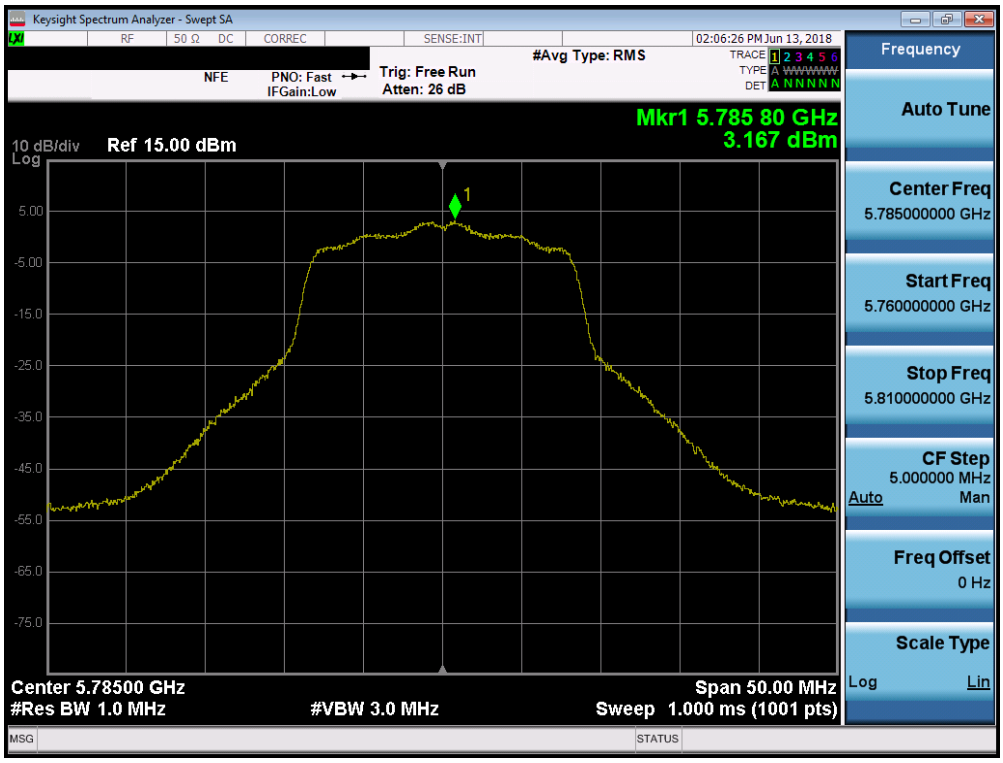
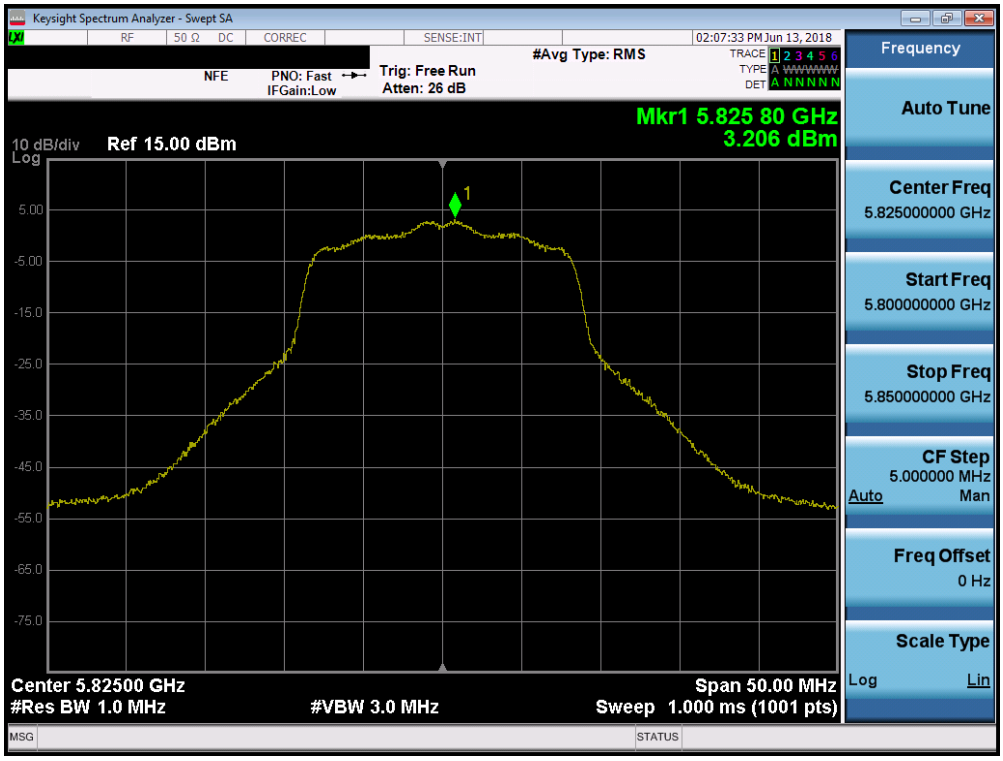


Plot 7-110. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 157)



Plot 7-111. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 165)

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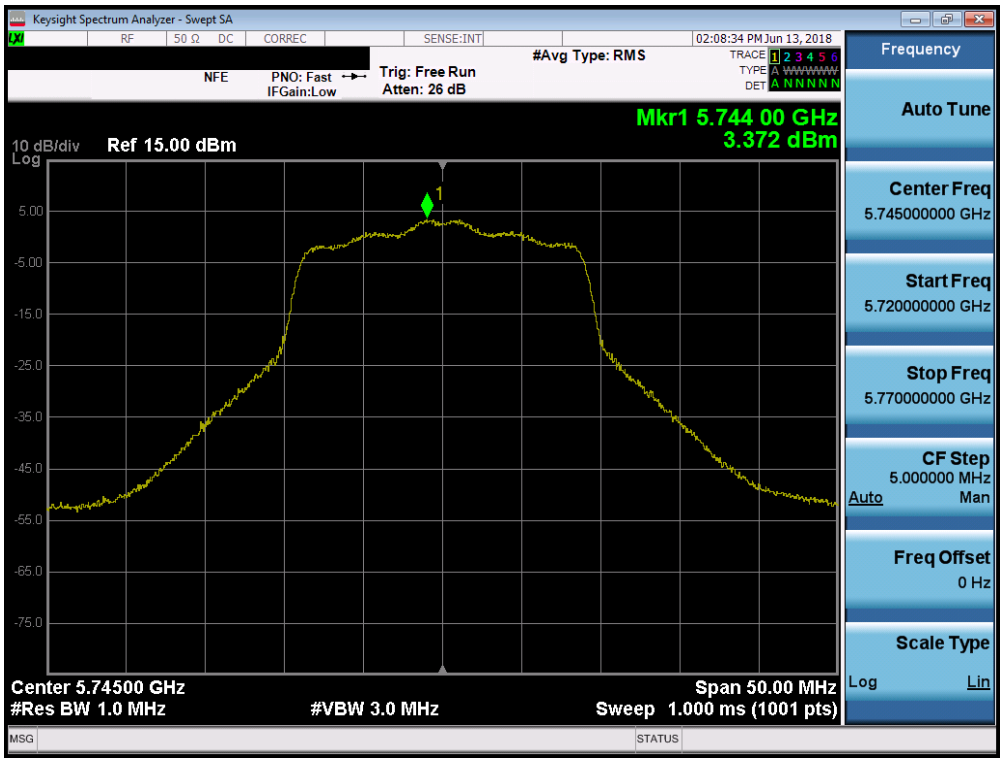
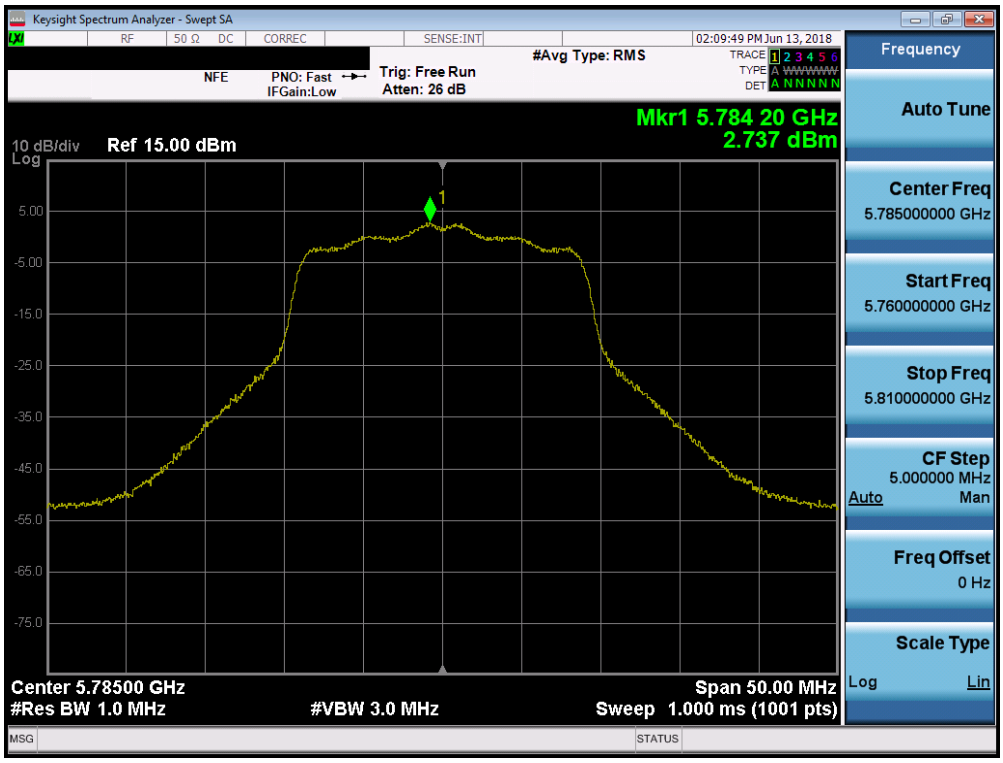


Plot 7-112. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 149)



Plot 7-113. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

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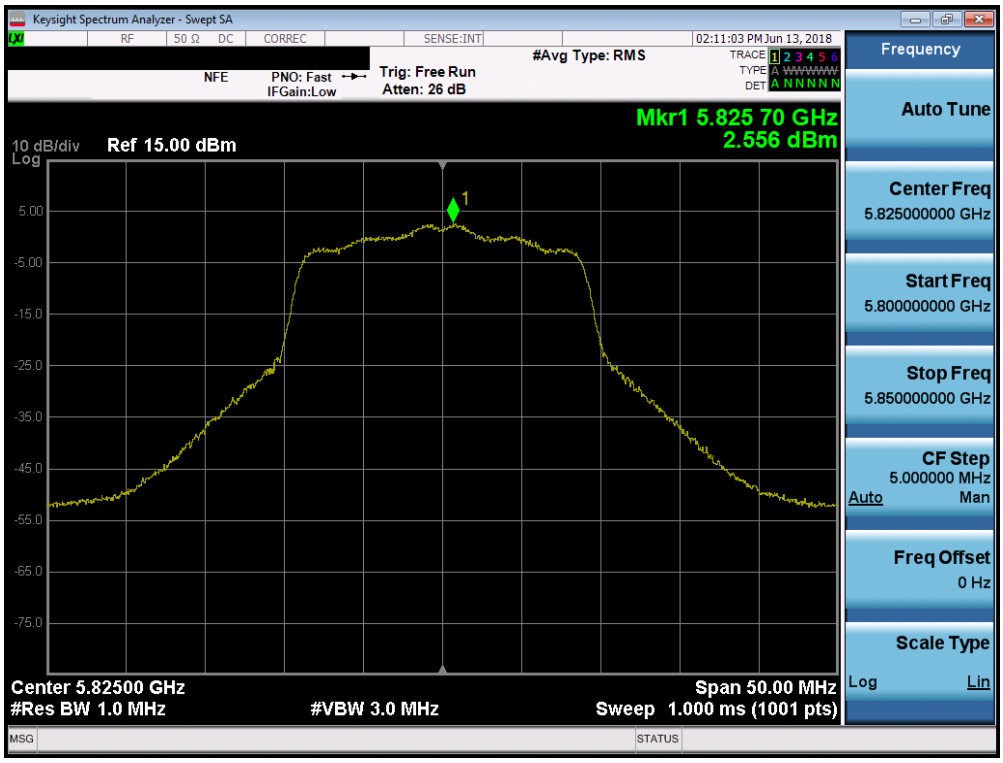
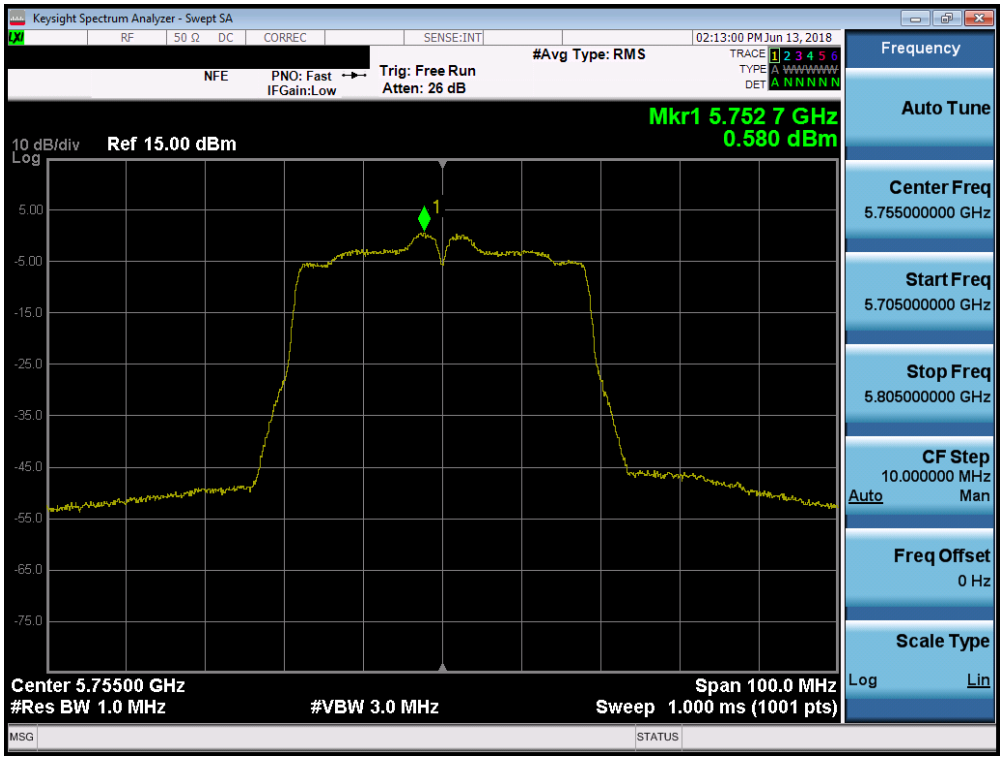


Plot 7-114. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 165)



Plot 7-115. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

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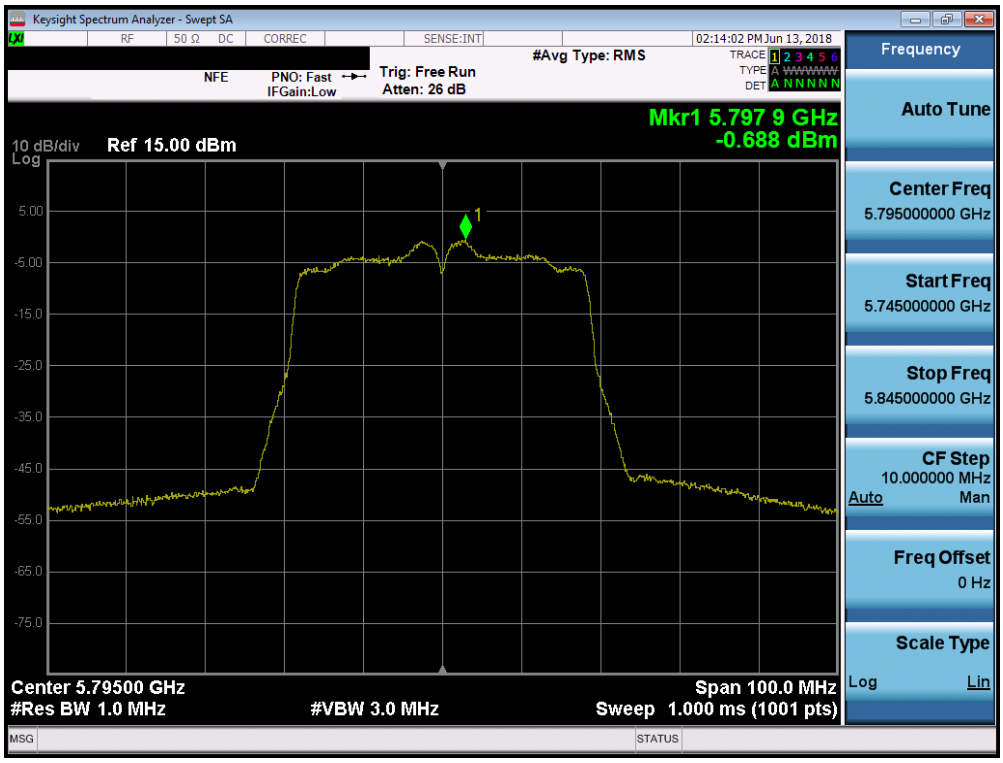
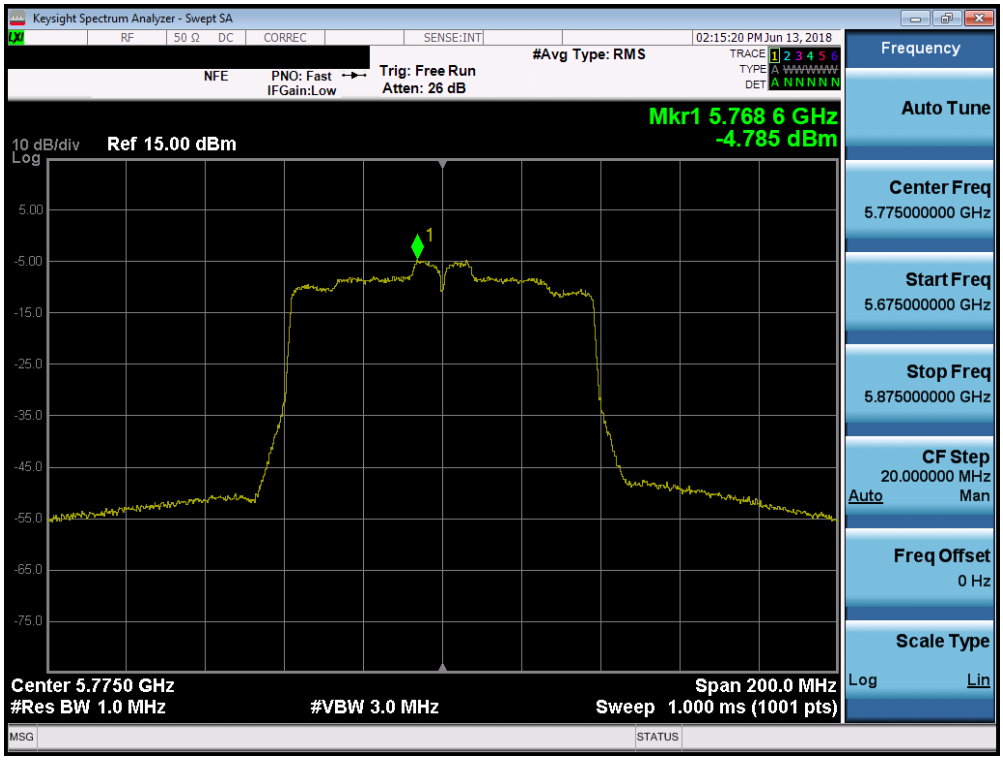


Plot 7-116. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-117. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

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Antenna-2 Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Power Density [dBm/MHz]	Margin [dB]
Band 1	5180	36	a	6	4.04	11.0	-6.96
	5200	40	a	6	3.72	11.0	-7.28
	5240	48	a	6	4.49	11.0	-6.51
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	3.32	11.0	-7.68
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	3.56	11.0	-7.44
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.68	11.0	-6.32
	5190	38	n (40MHz)	13.5/15 (MCS0)	1.50	11.0	-9.50
	5230	46	n (40MHz)	13.5/15 (MCS0)	1.82	11.0	-9.19
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-3.34	11.0	-14.34
Band 2A	5260	52	a	6	4.66	11.0	-6.34
	5280	56	a	6	4.65	11.0	-6.35
	5320	64	a	6	4.76	11.0	-6.24
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	4.67	11.0	-6.34
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	4.50	11.0	-6.50
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	4.24	11.0	-6.76
	5270	54	n (40MHz)	13.5/15 (MCS0)	0.65	11.0	-10.36
	5310	62	n (40MHz)	13.5/15 (MCS0)	1.10	11.0	-9.90
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-3.10	11.0	-14.10
Band 2C	5500	100	a	6	4.43	11.0	-6.57
	5600	120	a	6	3.39	11.0	-7.61
	5720	144	a	6	3.99	11.0	-7.01
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	3.85	11.0	-7.15
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	3.35	11.0	-7.65
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	3.82	11.0	-7.18
	5510	102	n (40MHz)	13.5/15 (MCS0)	1.51	11.0	-9.49
	5590	118	n (40MHz)	13.5/15 (MCS0)	0.90	11.0	-10.10
	5710	142	n (40MHz)	13.5/15 (MCS0)	1.06	11.0	-9.95
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-3.10	11.0	-14.10
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-3.54	11.0	-14.54
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-3.63	11.0	-14.63

Table 7-20. Conducted Power Spectral Density Measurements

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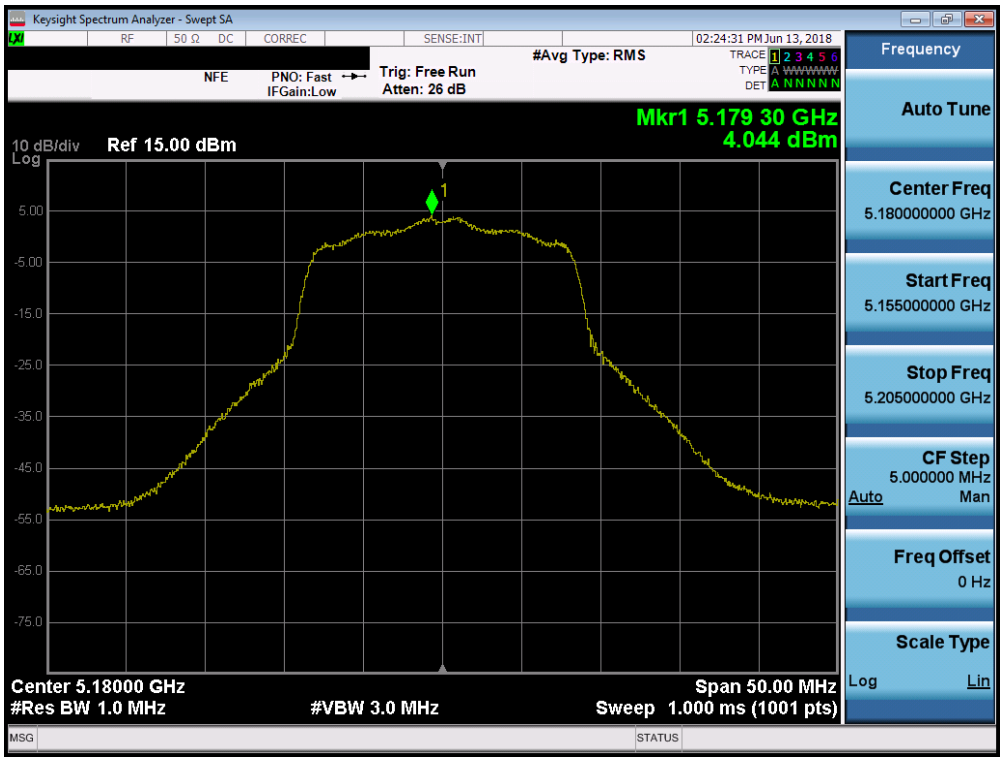
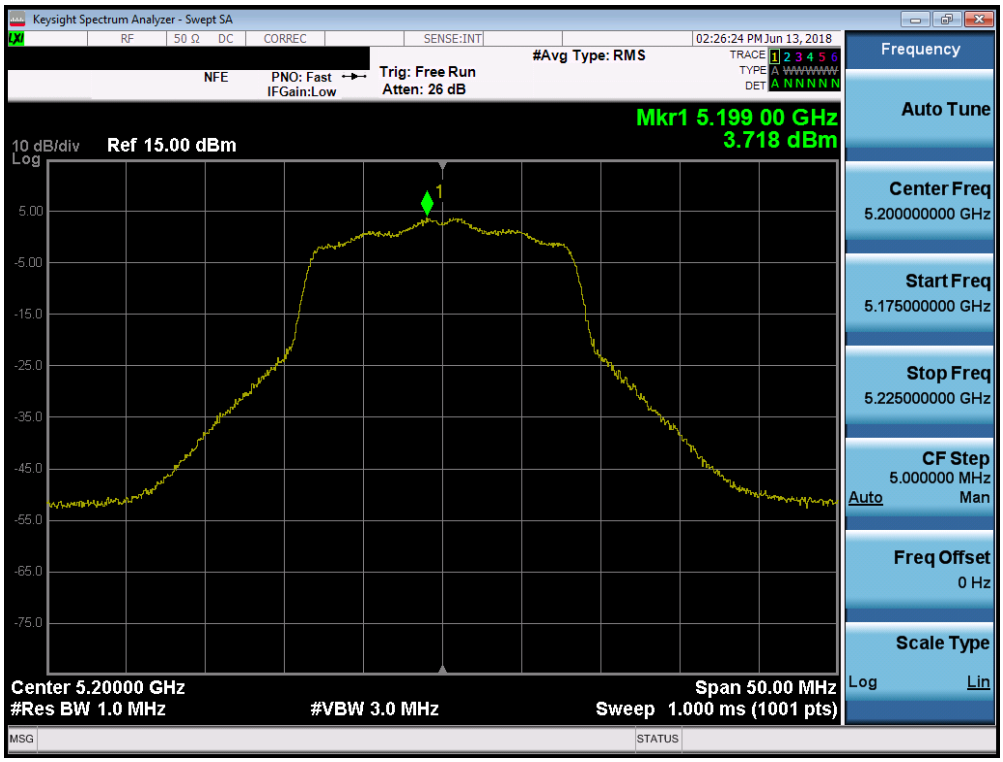


Plot 7-118. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 36)



Plot 7-119. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 40)

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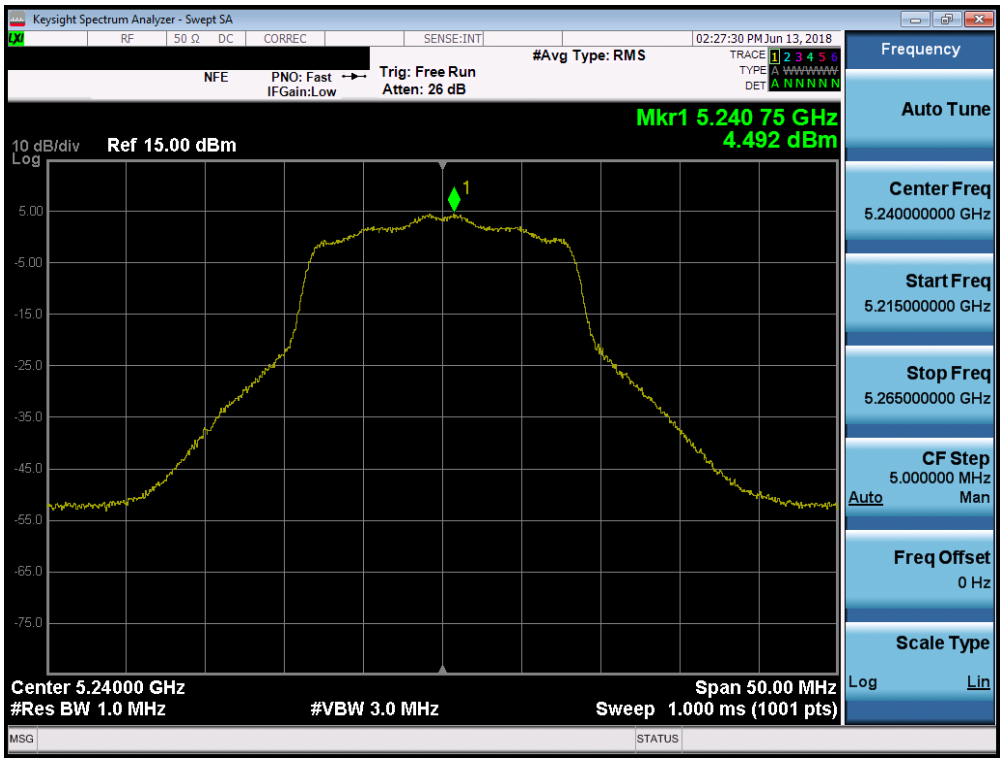
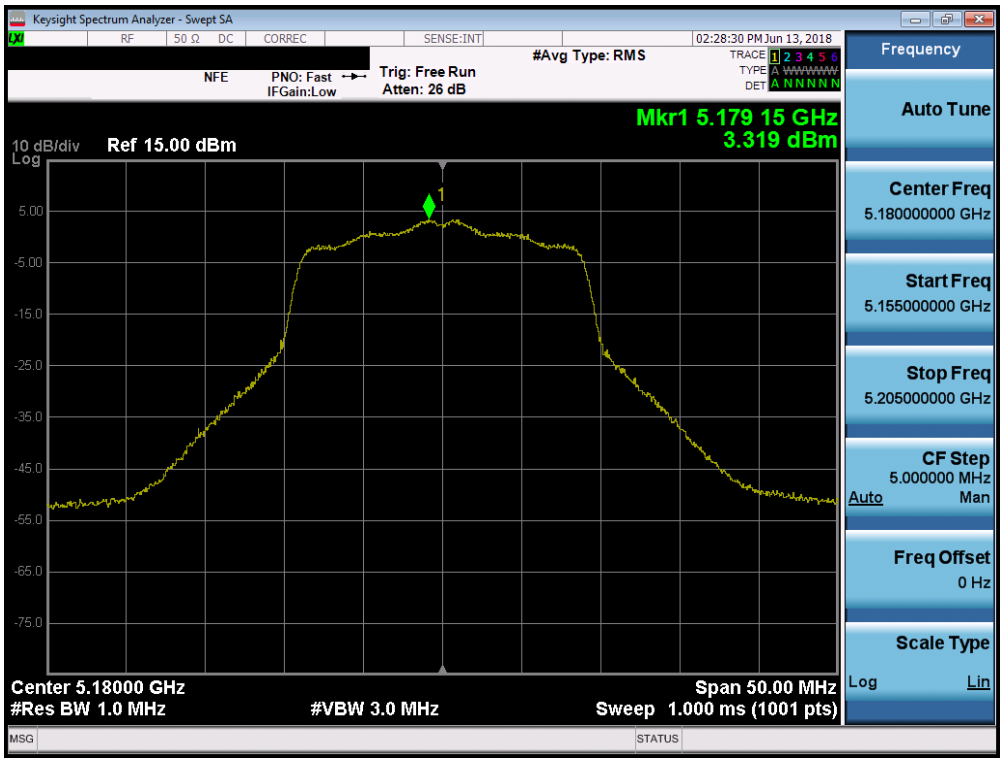


Plot 7-120. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 48)



Plot 7-121. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 36)

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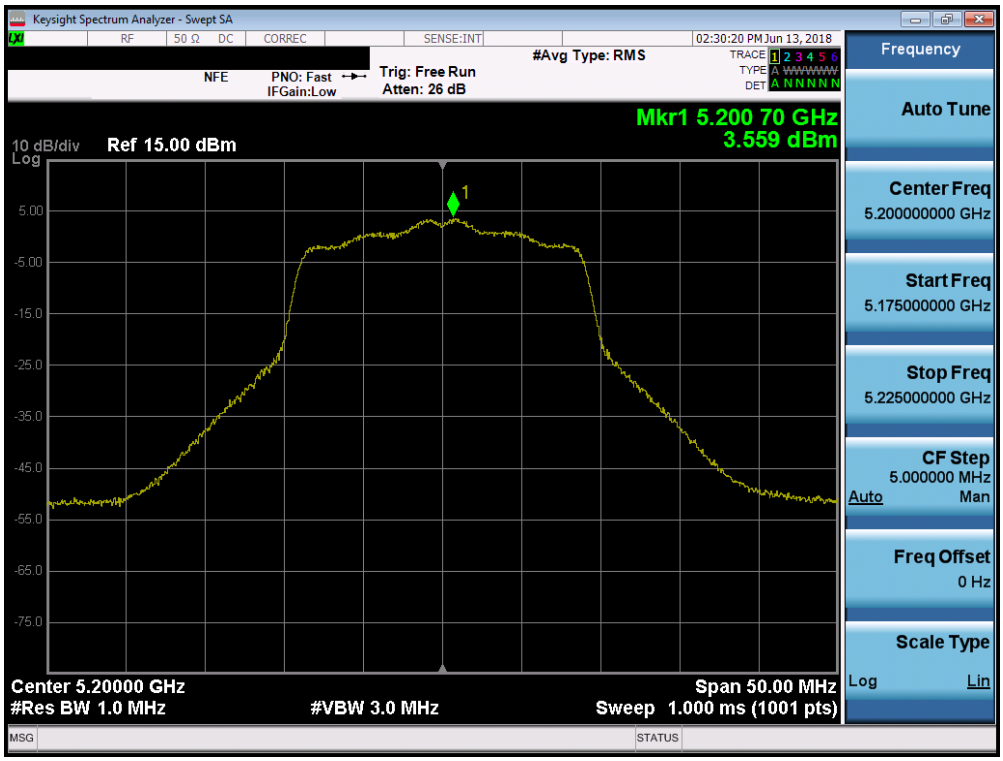
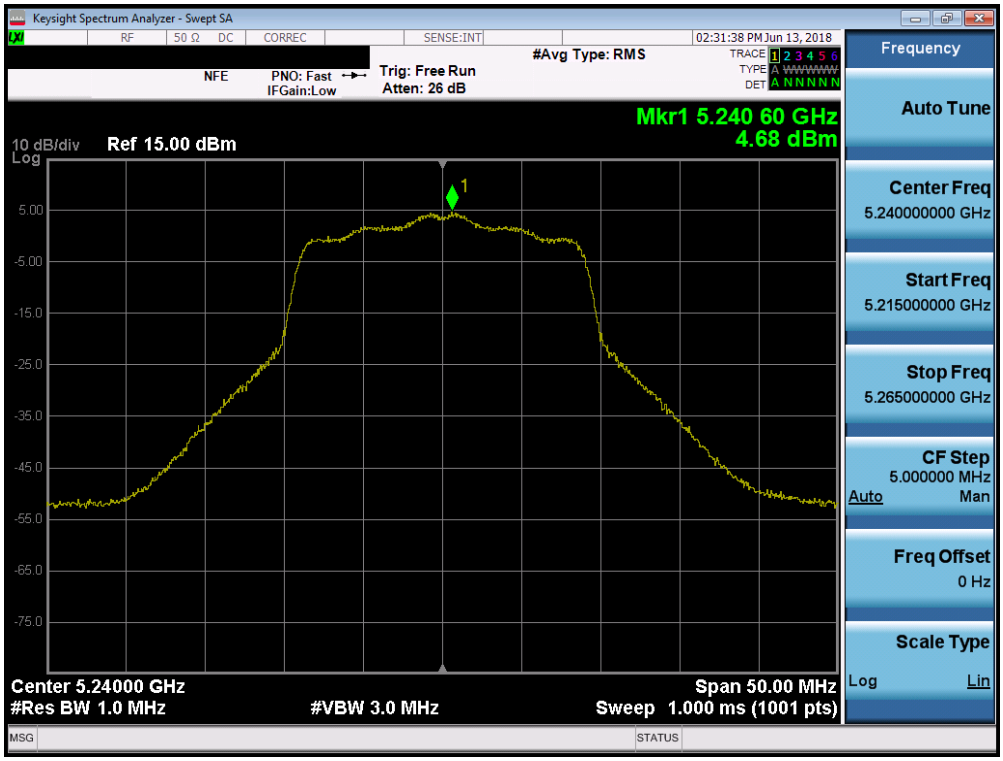


Plot 7-122. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 40)



Plot 7-123. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 48)

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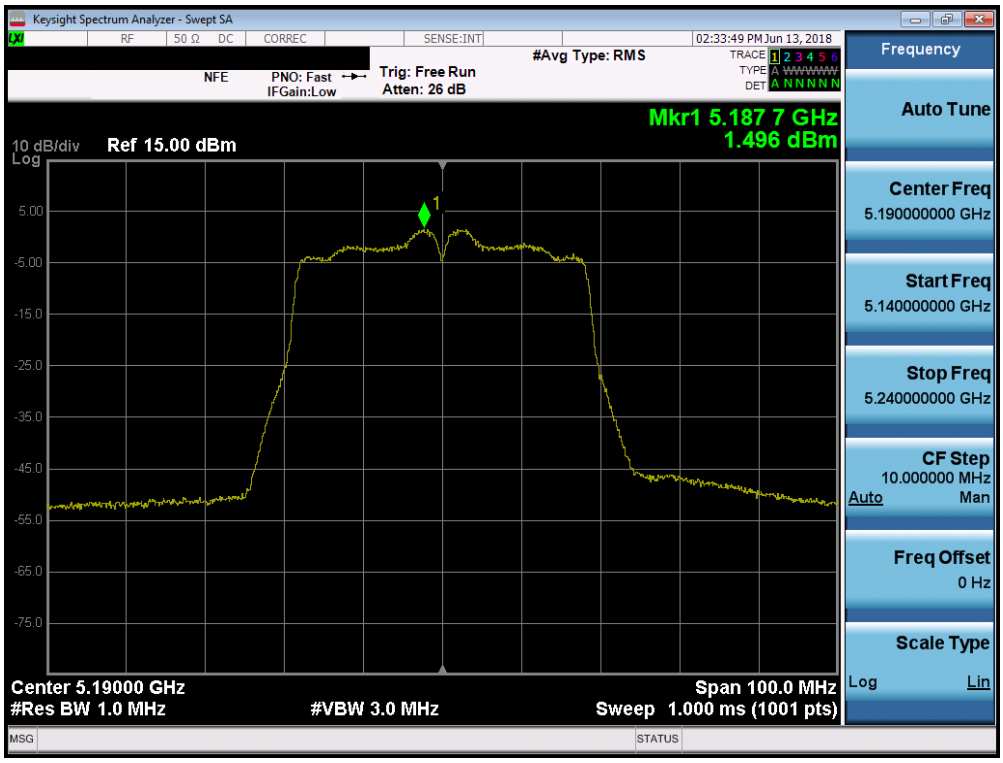
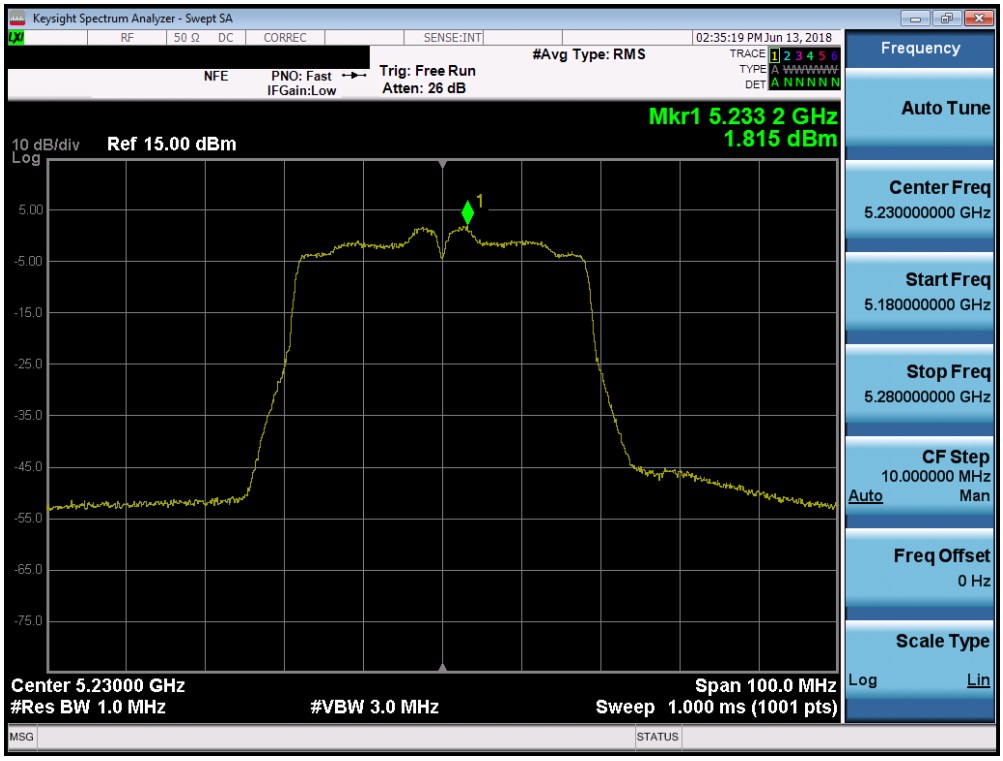


Plot 7-124. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 1) – Ch. 38)



Plot 7-125. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

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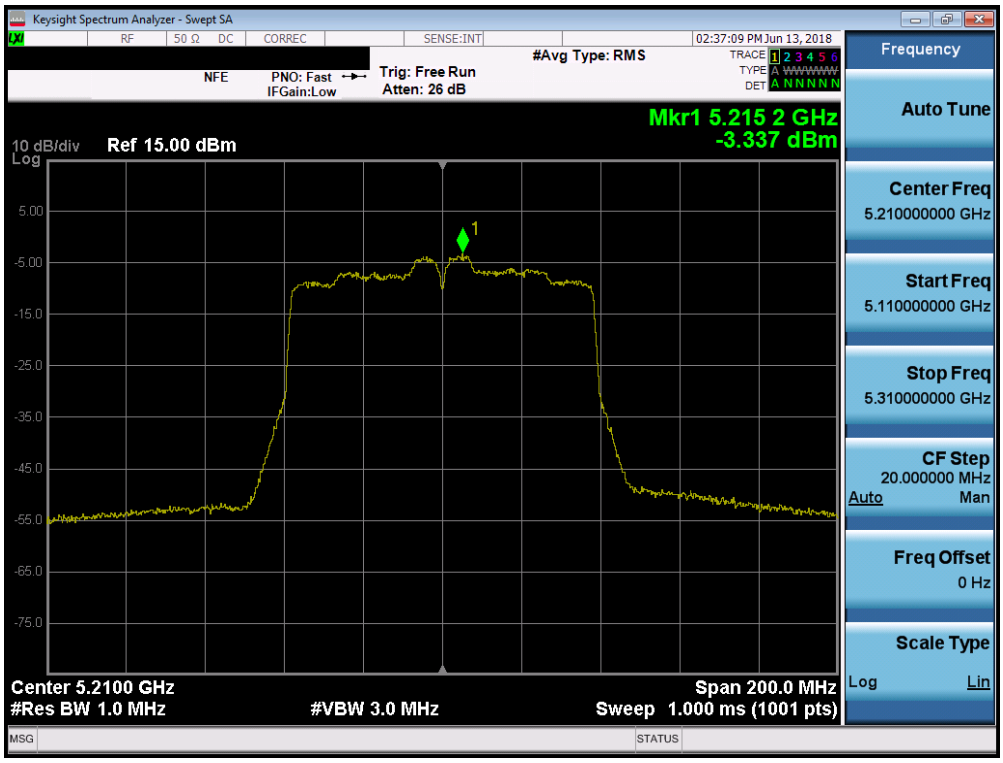
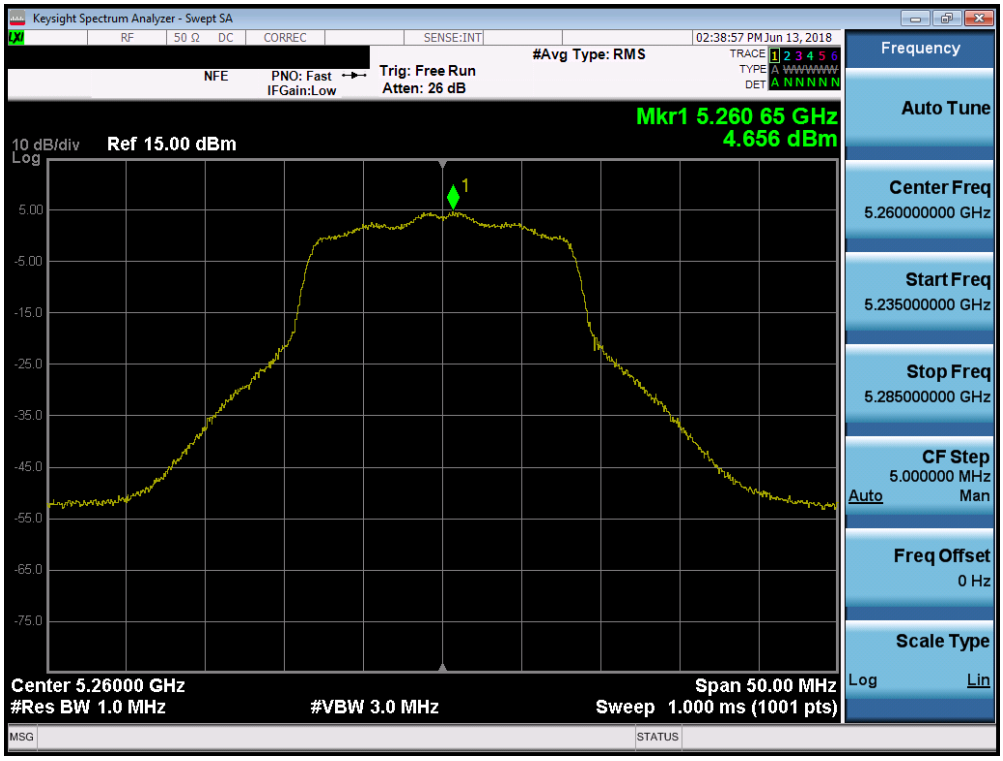


Plot 7-126. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 1) – Ch. 42)



Plot 7-127. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 52)

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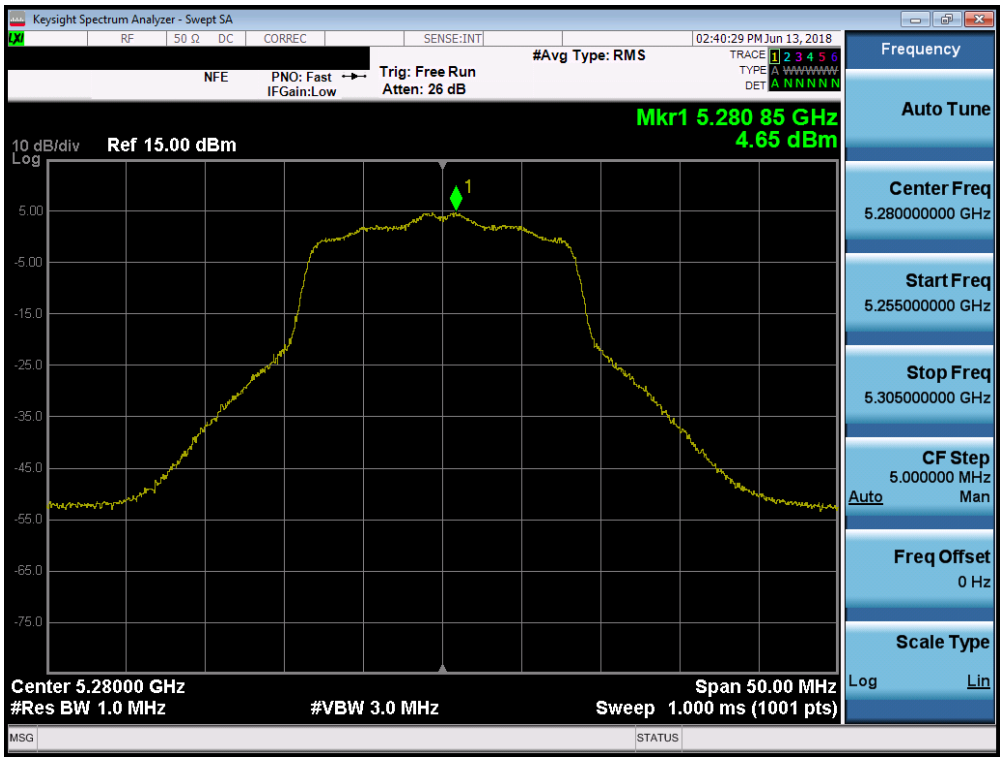
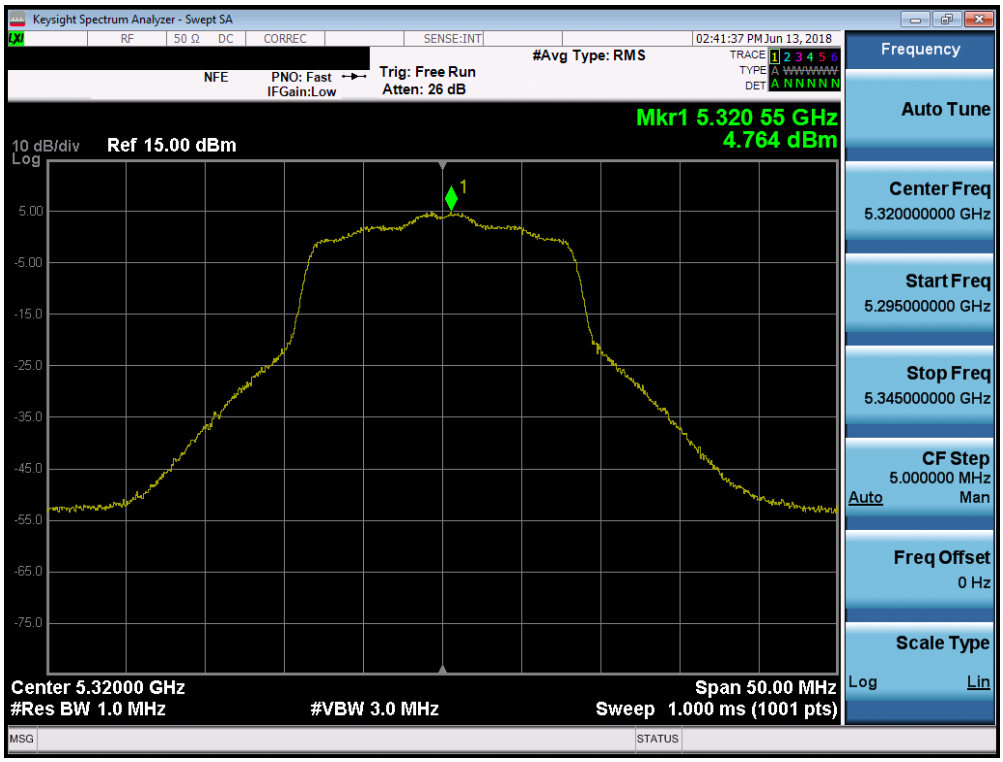


Plot 7-128. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 56)



Plot 7-129. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 64)

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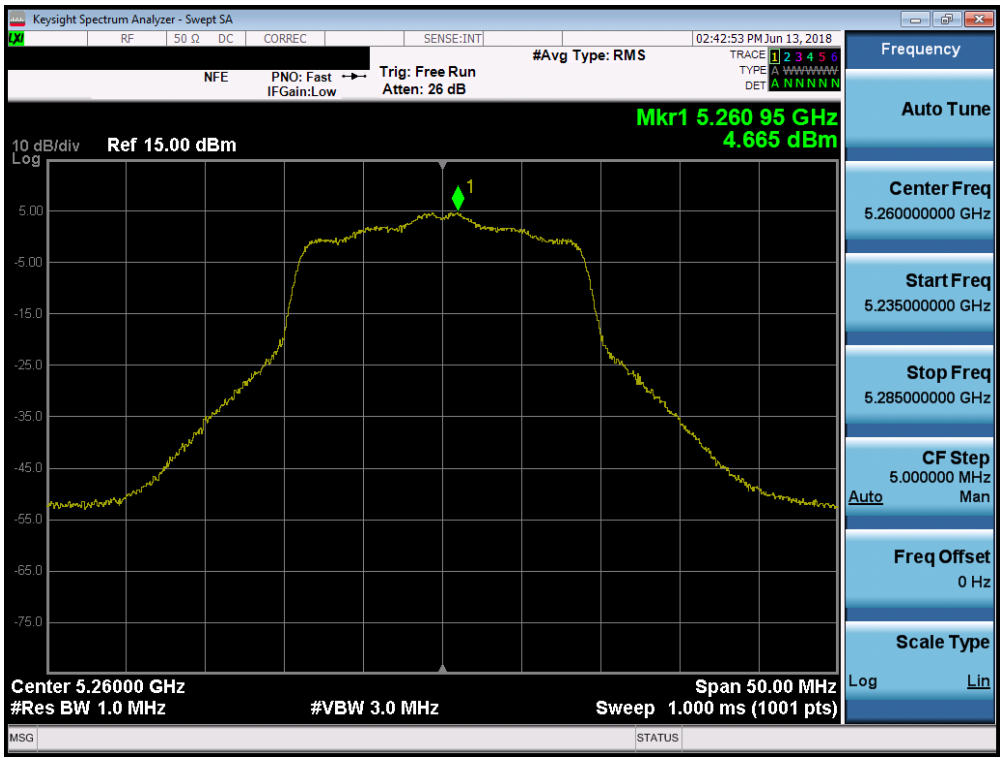
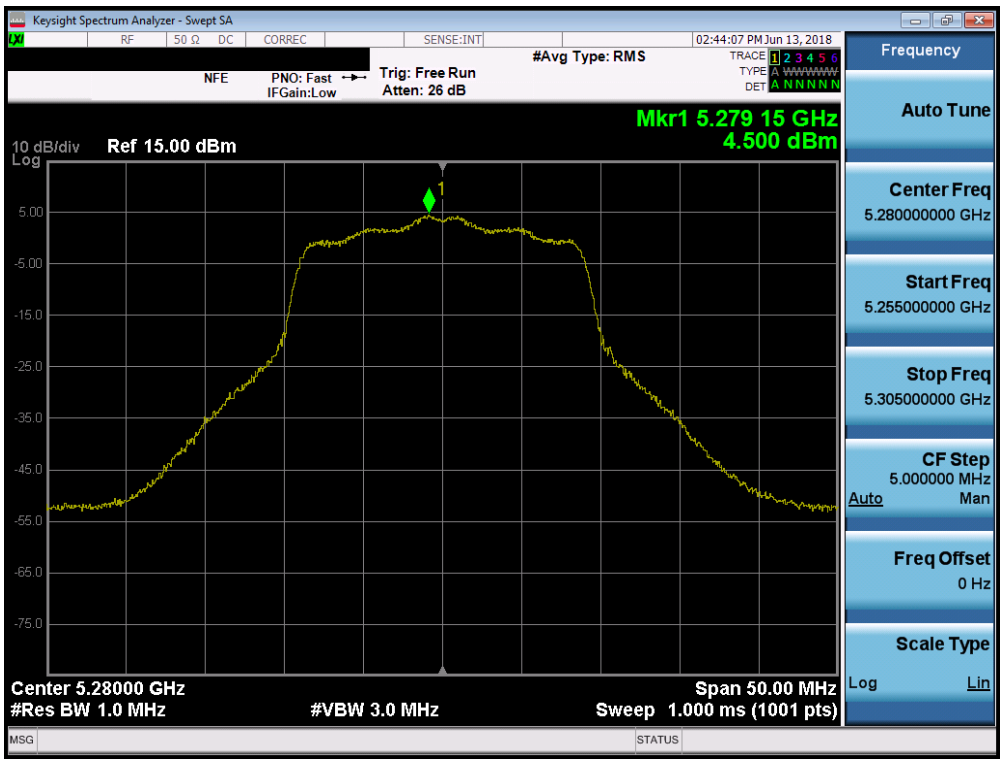


Plot 7-130. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)



Plot 7-131. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 56)

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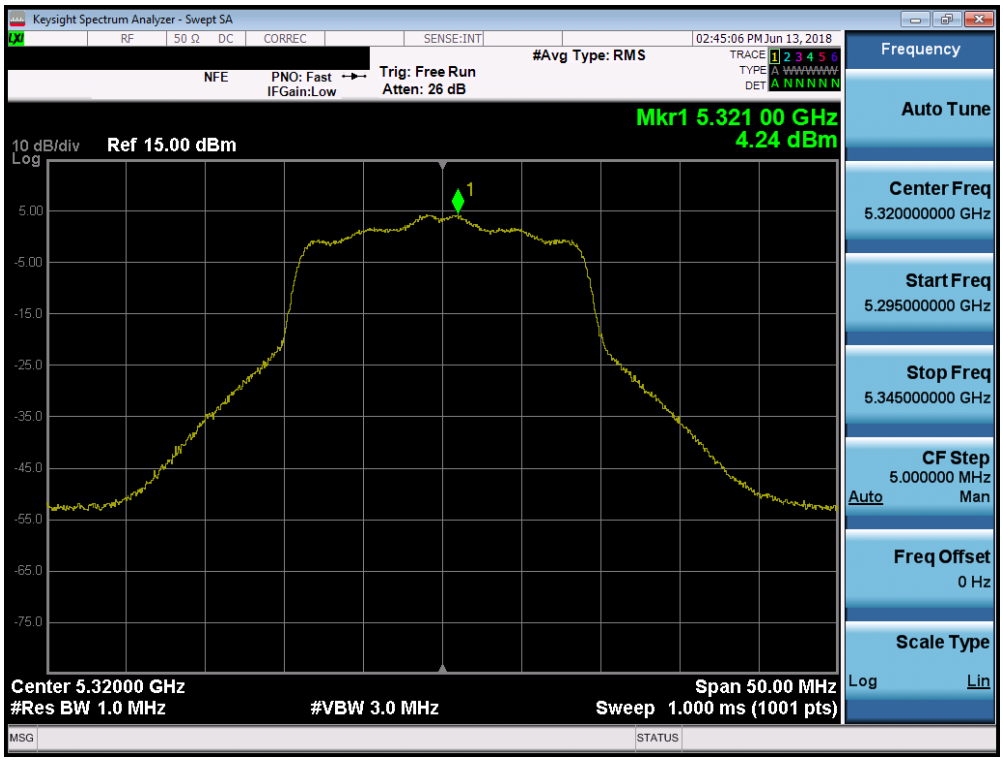
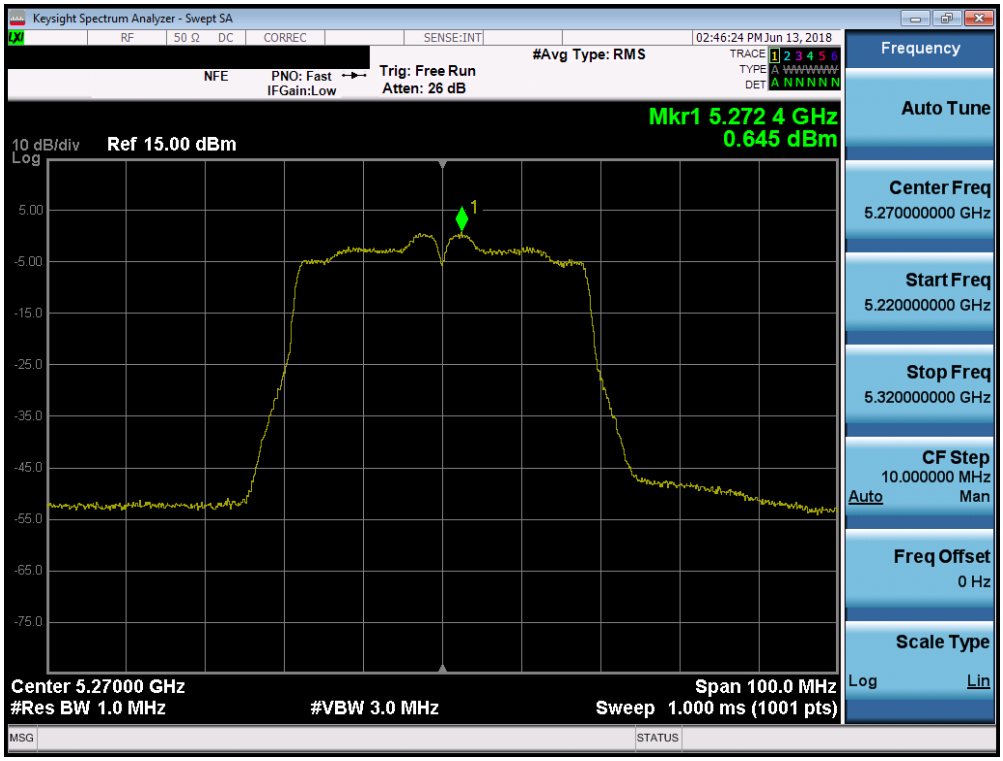


Plot 7-132. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)



Plot 7-133. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) – Ch. 54)

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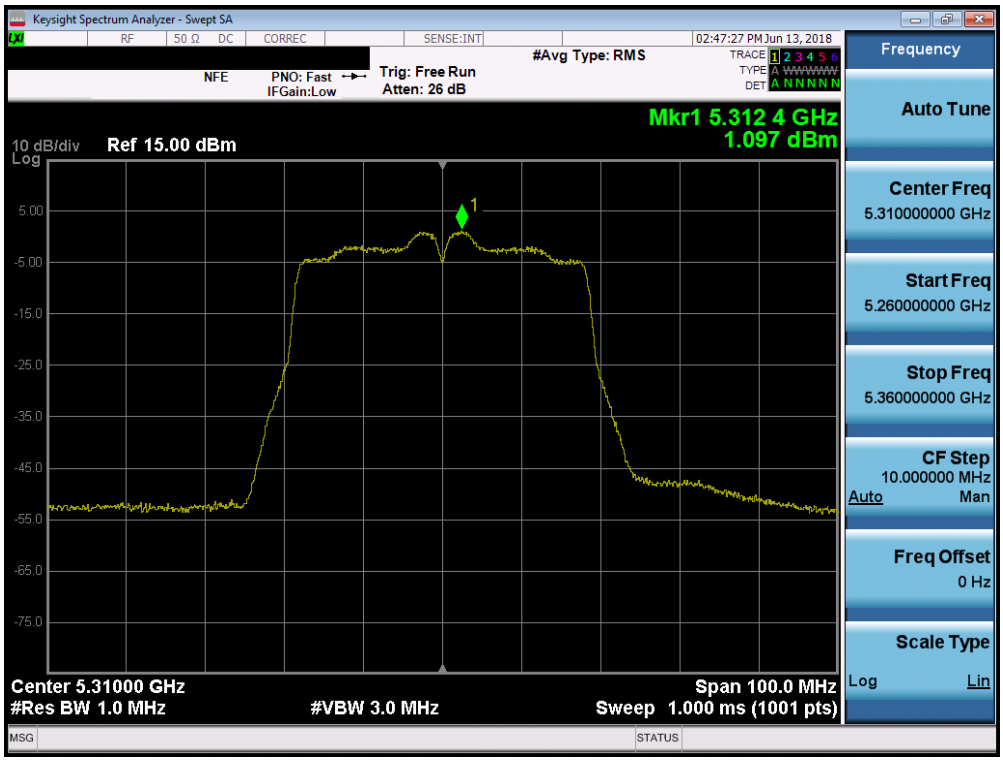
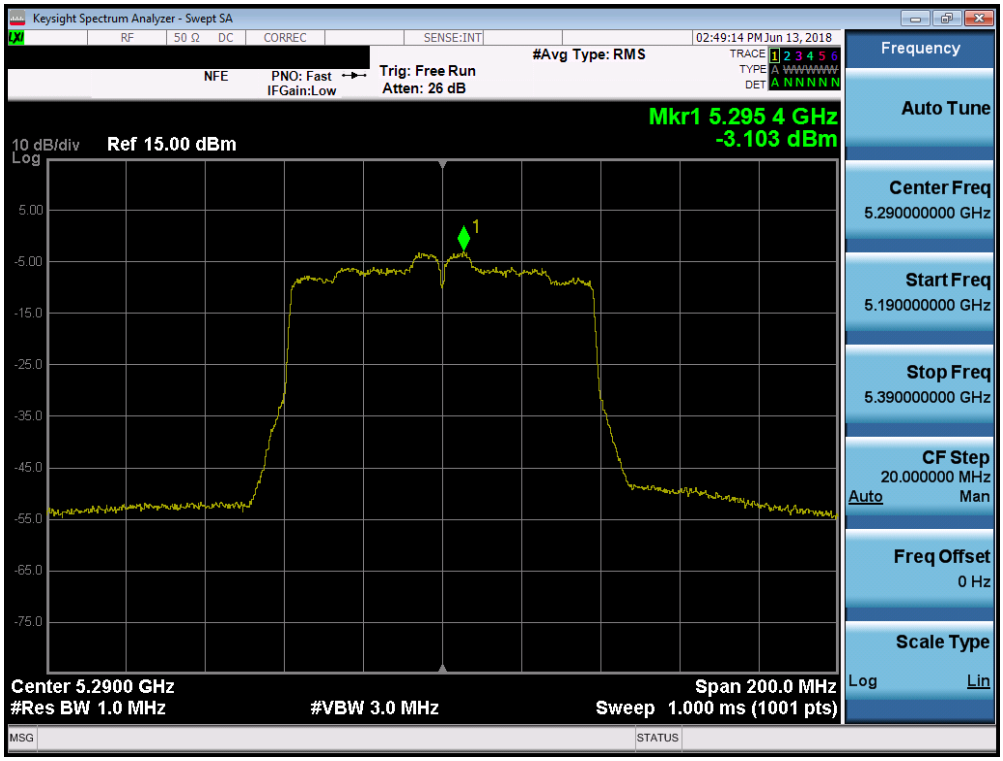


Plot 7-134. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)



Plot 7-135. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2A) – Ch. 58)

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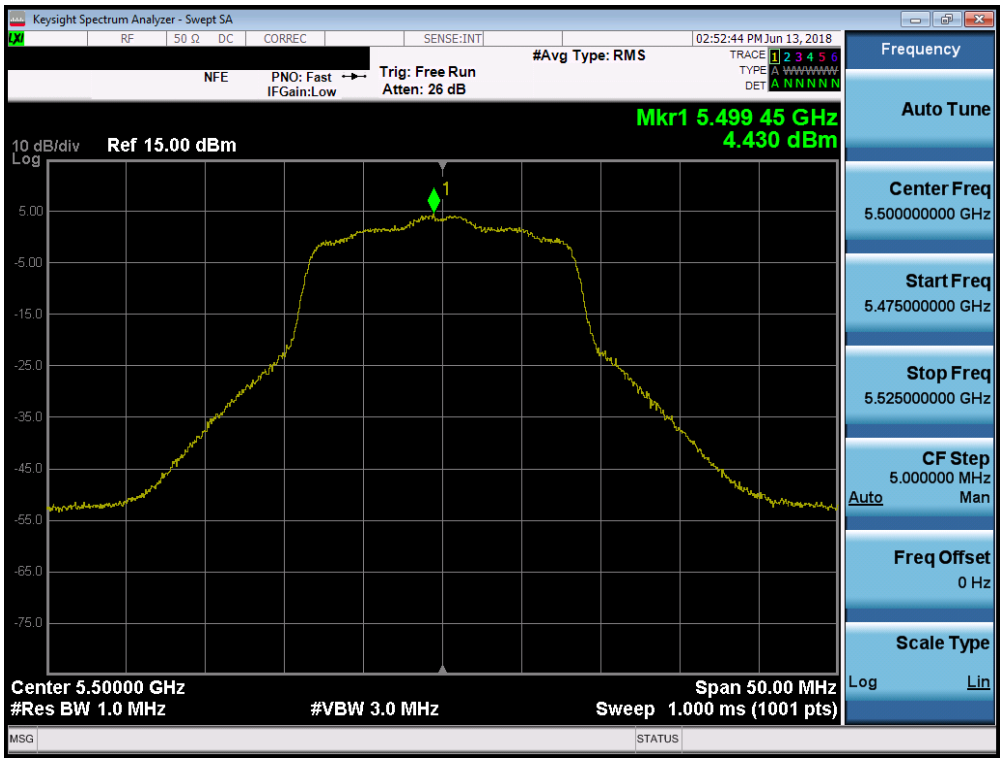
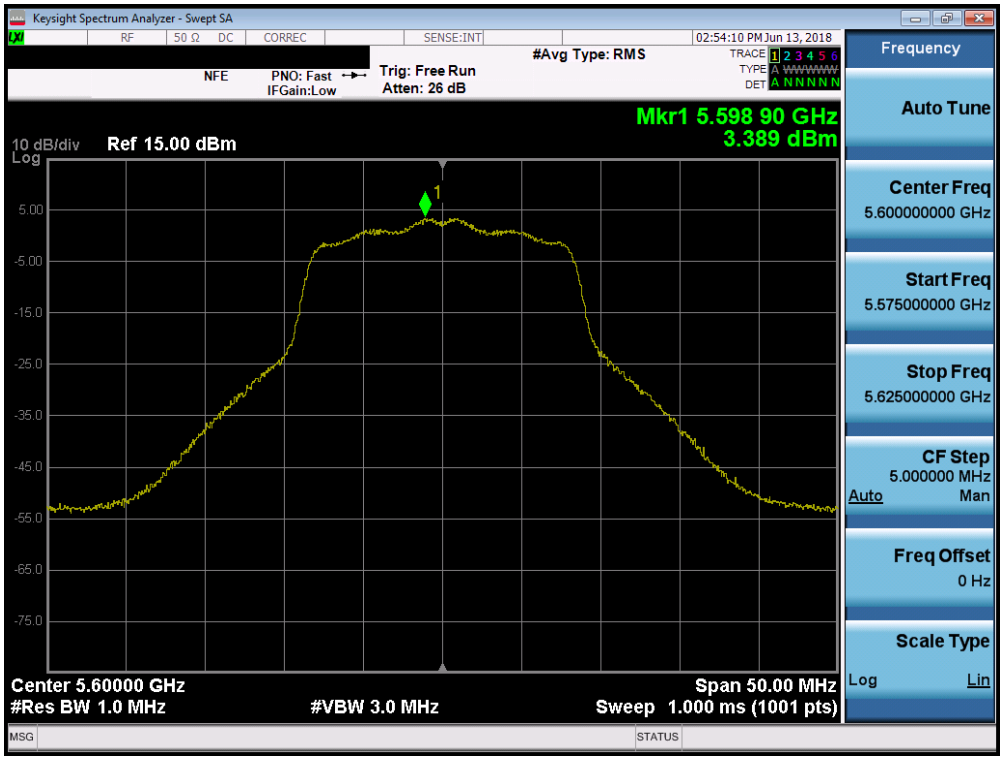


Plot 7-136. Power Spectral Density Plot (802.11a (UNII Band 2C) – Ch. 100)



Plot 7-137. Power Spectral Density Plot (802.11a (UNII Band 2C) – Ch. 120)

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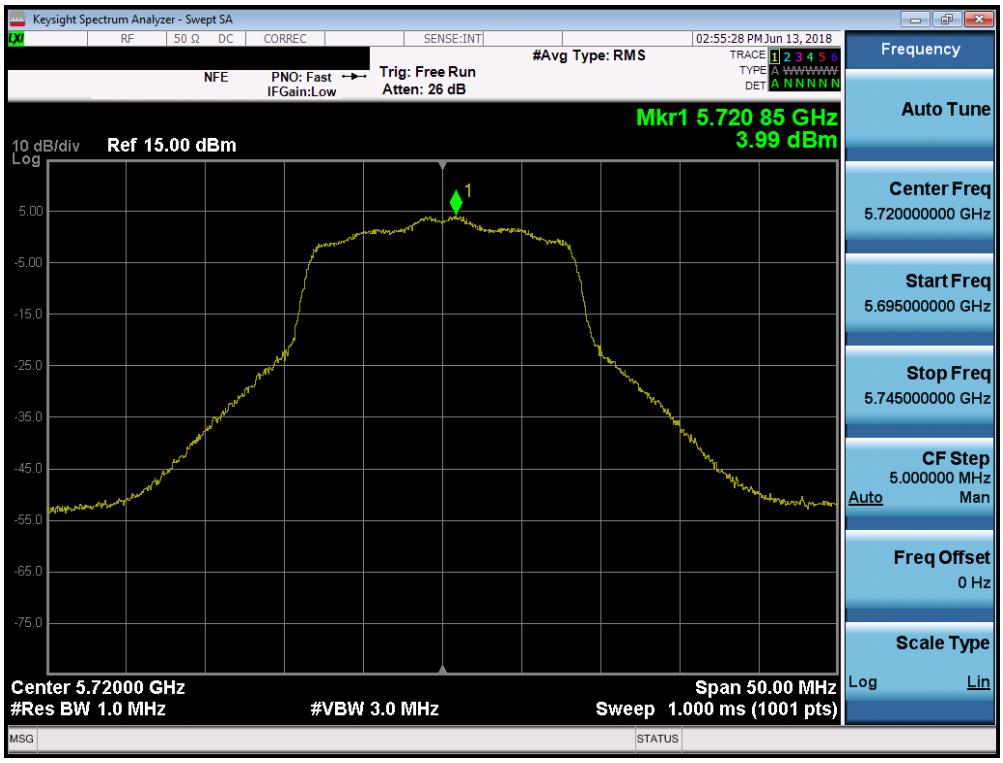
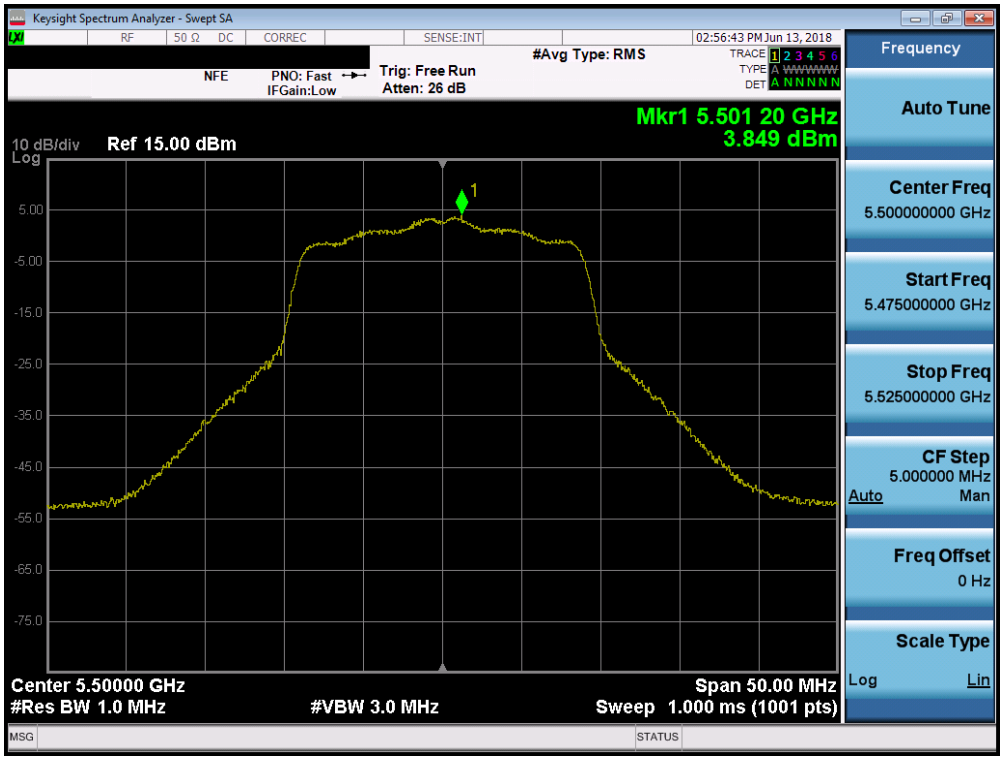


Plot 7-138. Power Spectral Density Plot (802.11a (UNII Band 2C) – Ch. 144)



Plot 7-139. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) – Ch. 100)

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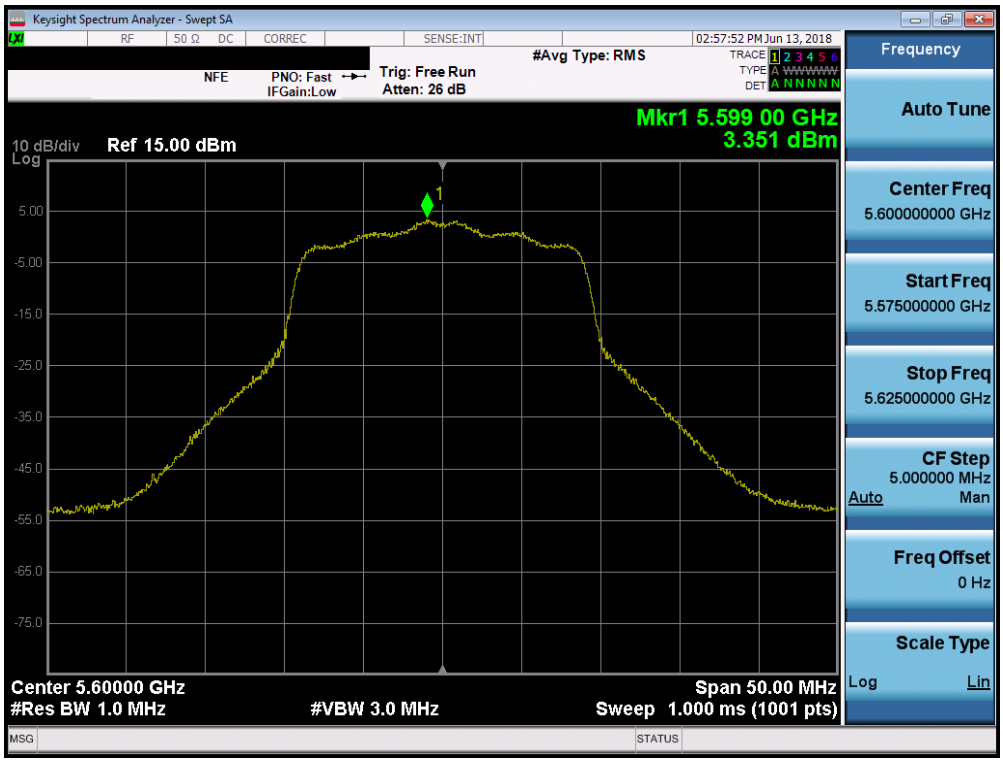
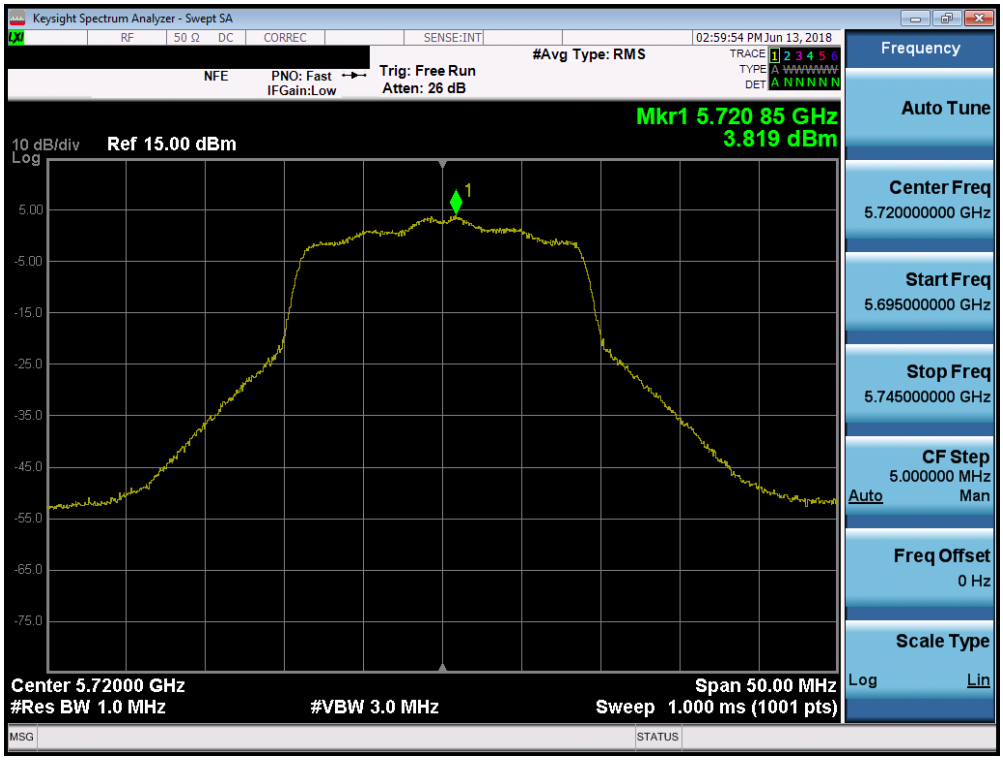


Plot 7-140. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) – Ch. 120)



Plot 7-141. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) – Ch. 144)

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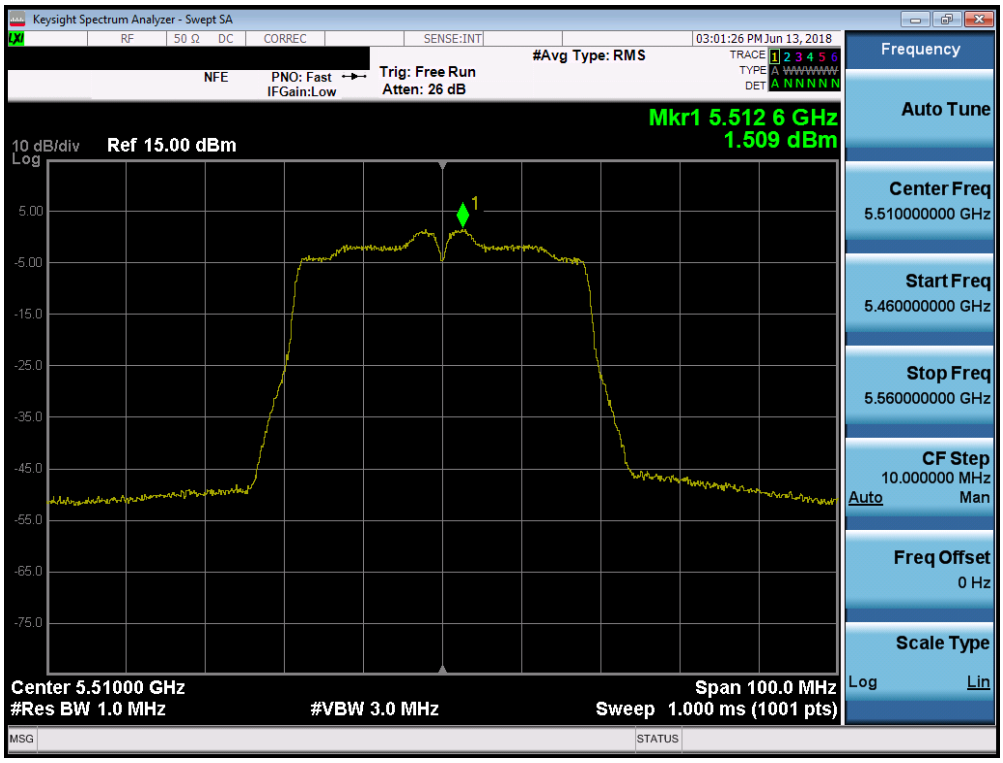
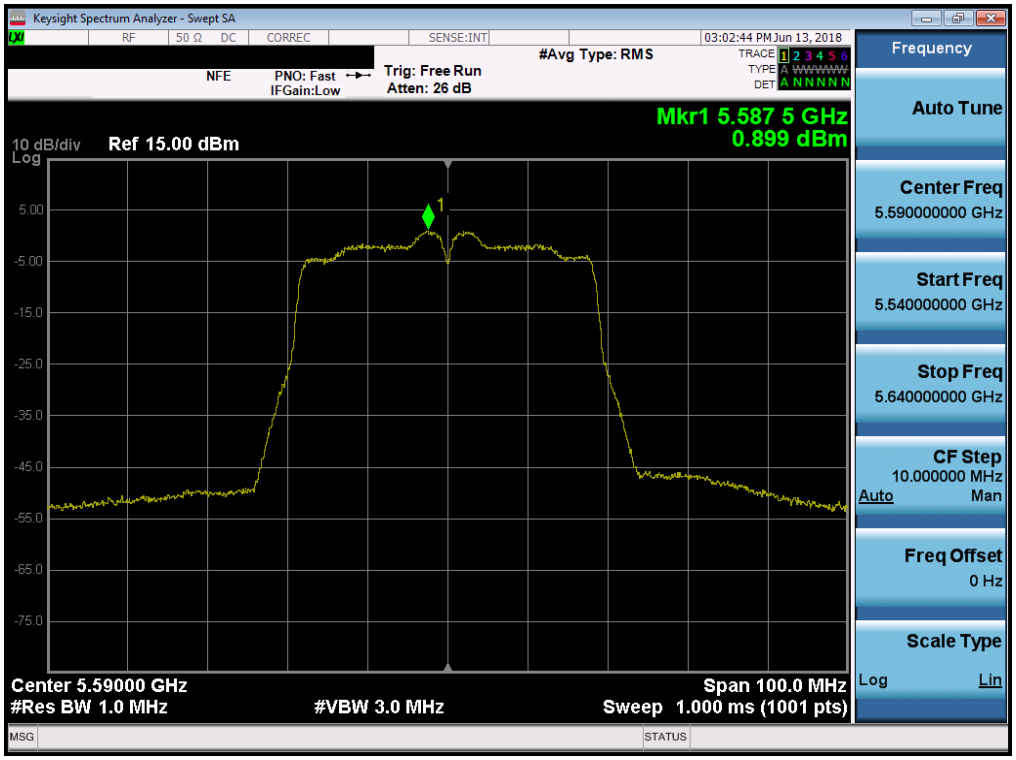


Plot 7-142. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 102)



Plot 7-143. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 118)

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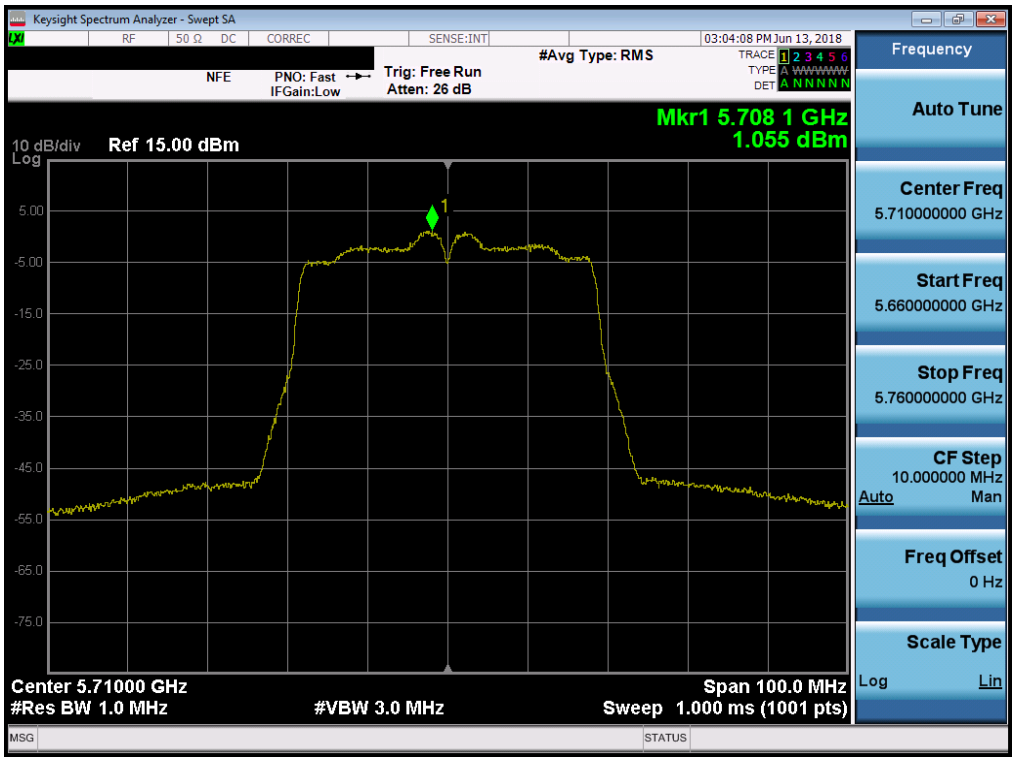
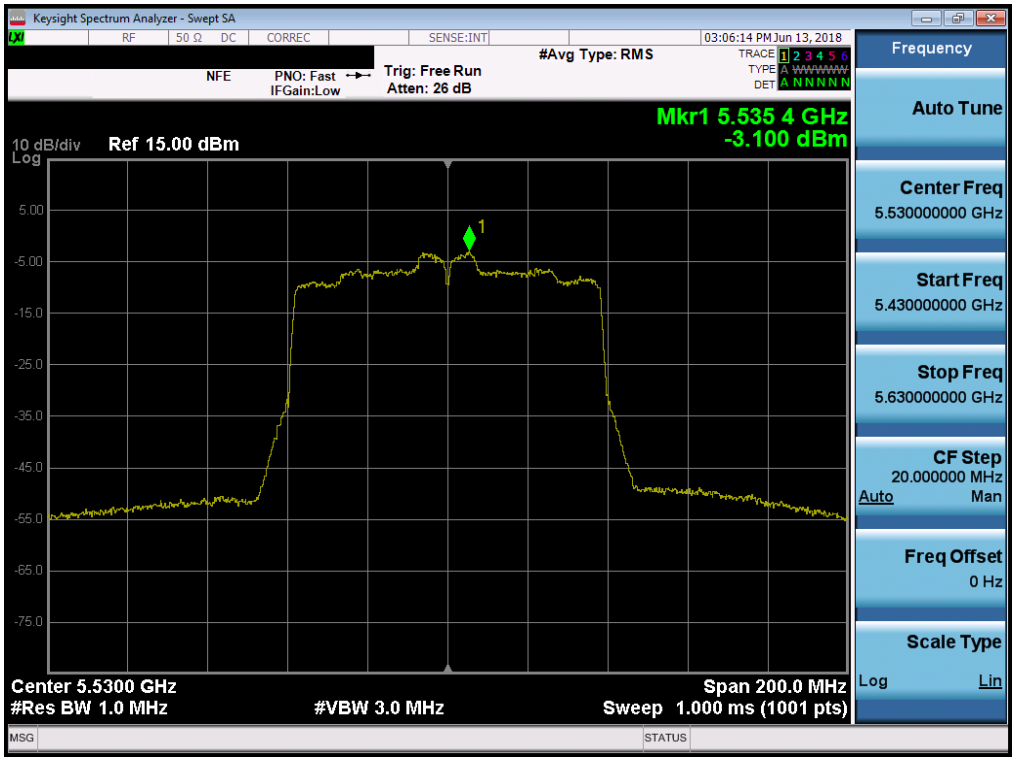


Plot 7-144. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)



Plot 7-145. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 106)

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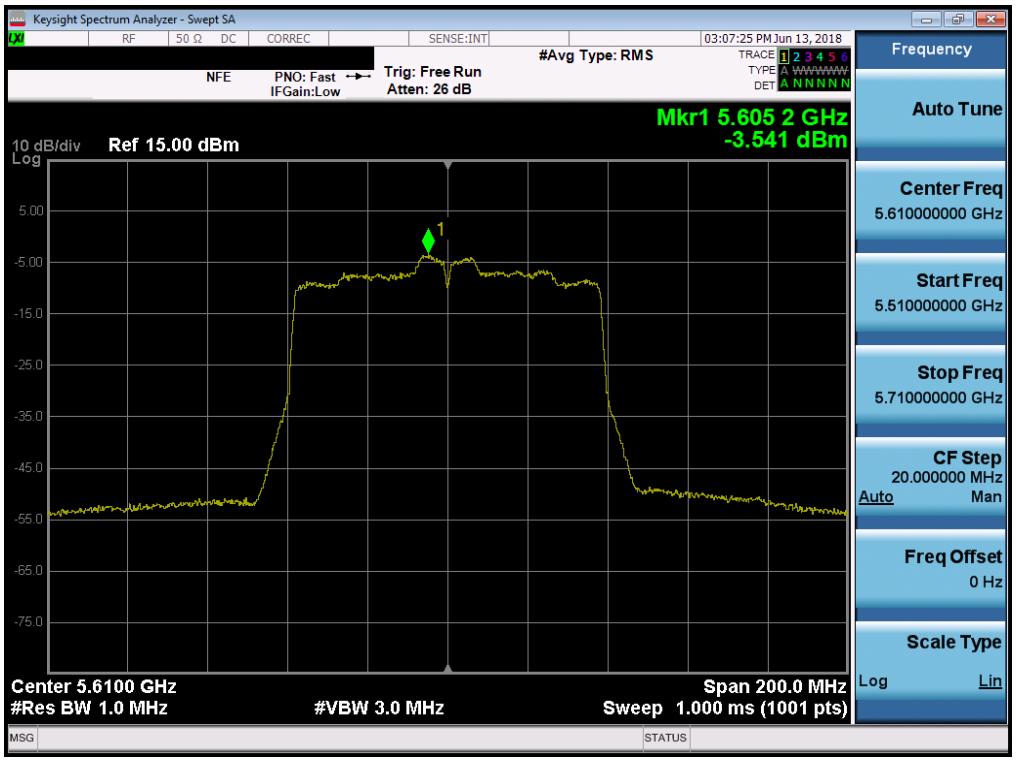
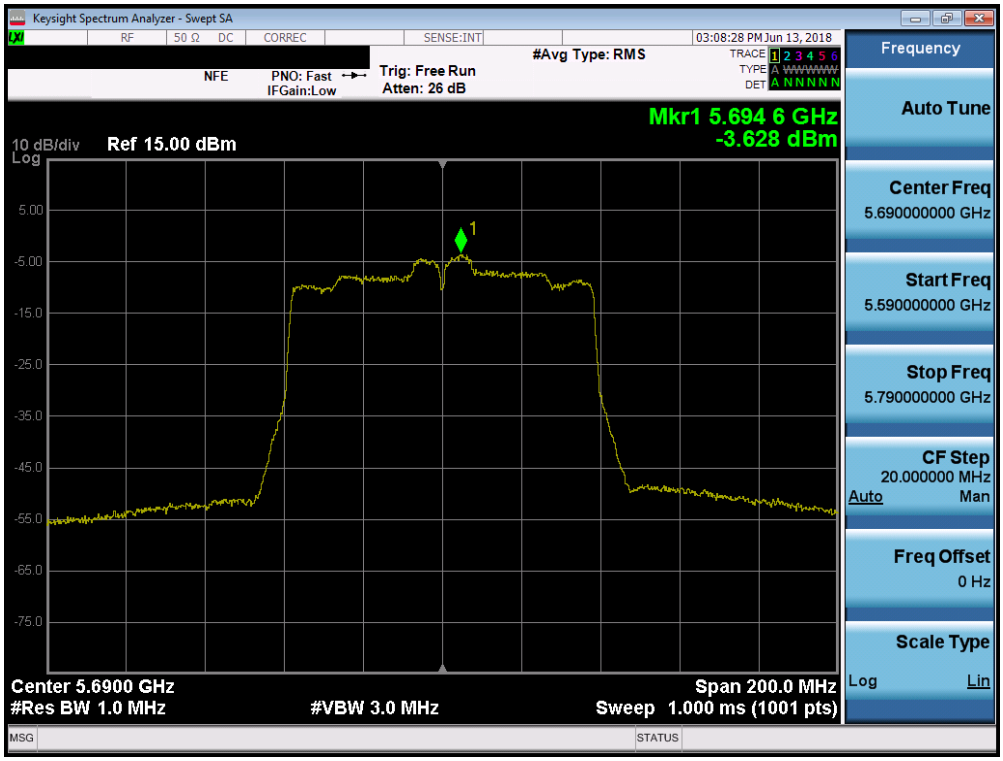


Plot 7-146. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 122)



Plot 7-147. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) – Ch. 138)

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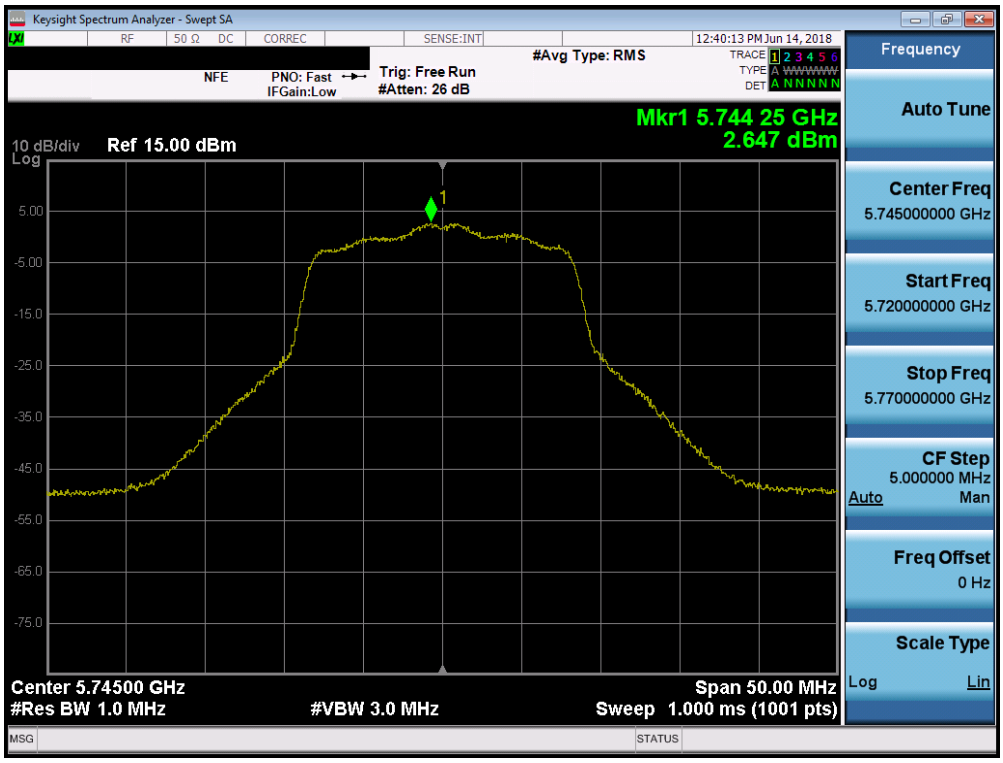
	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Measured Power Density [dBm]	Max Permissible Power Density [dBm/500kHz]	Margin [dB]
Band 3	5745	149	a	6	2.65	30.0	-27.35
	5785	157	a	6	3.45	30.0	-26.55
	5825	165	a	6	3.36	30.0	-26.64
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	2.41	30.0	-27.59
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	3.04	30.0	-26.96
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	2.96	30.0	-27.04
	5755	151	n (40MHz)	13.5/15 (MCS0)	0.14	30.0	-29.86
	5795	159	n (40MHz)	13.5/15 (MCS0)	0.38	30.0	-29.62
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-4.04	30.0	-34.04

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



Plot 7-148. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 149)

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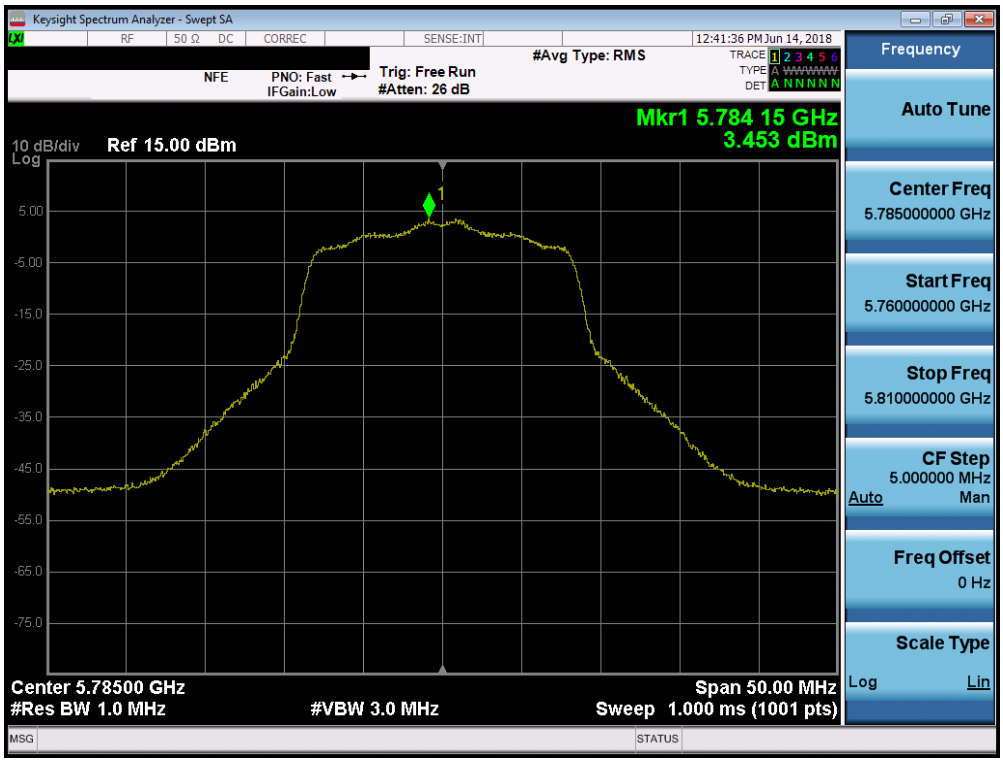
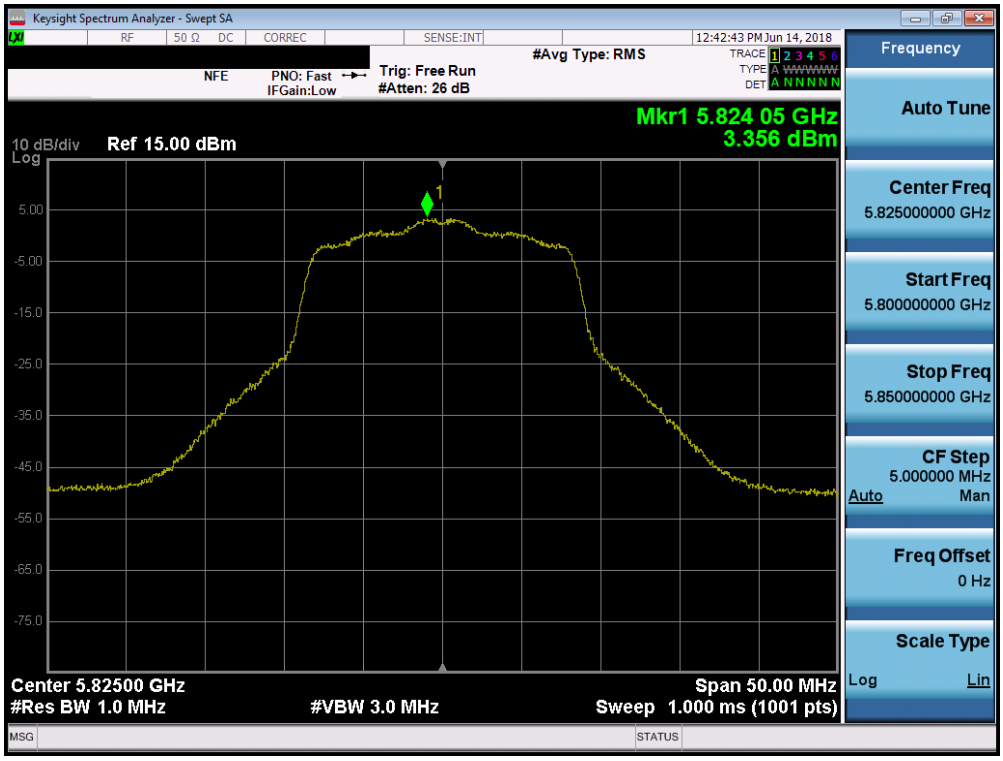


Plot 7-149. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 157)



Plot 7-150. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 165)

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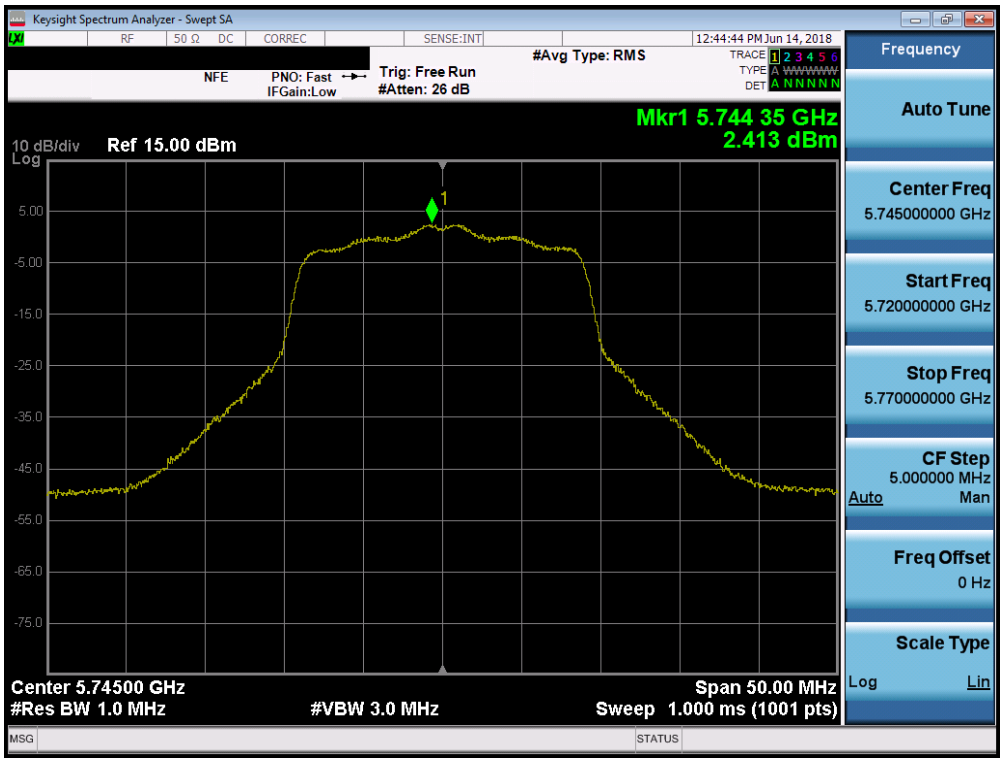
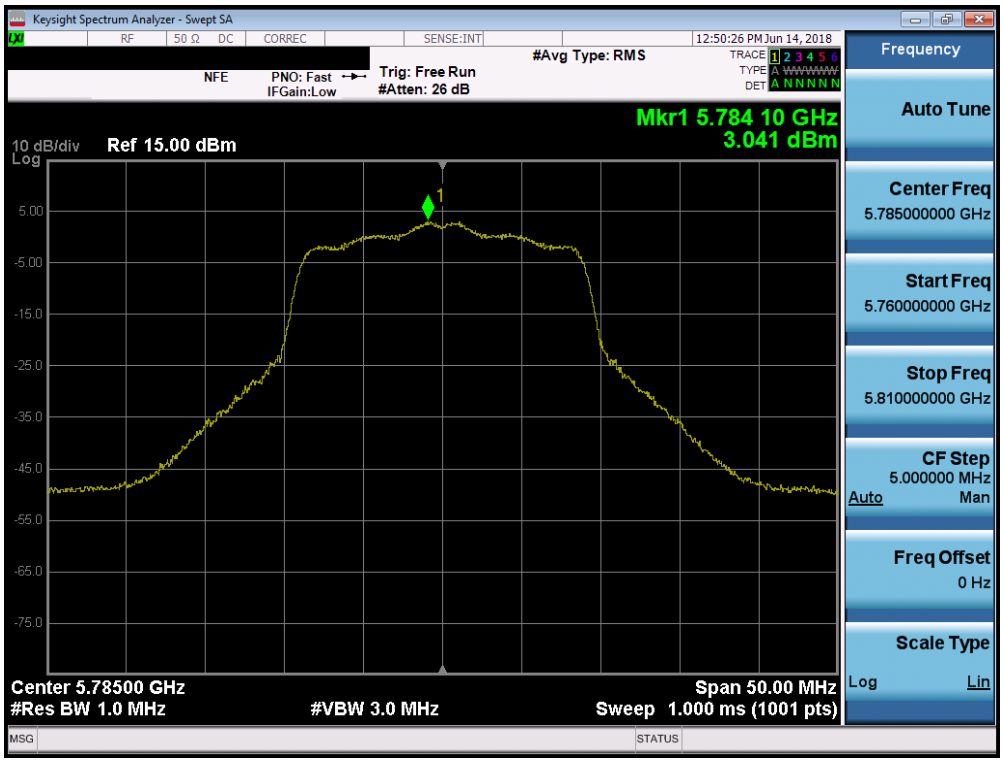


Plot 7-151. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 149)



Plot 7-152. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 157)

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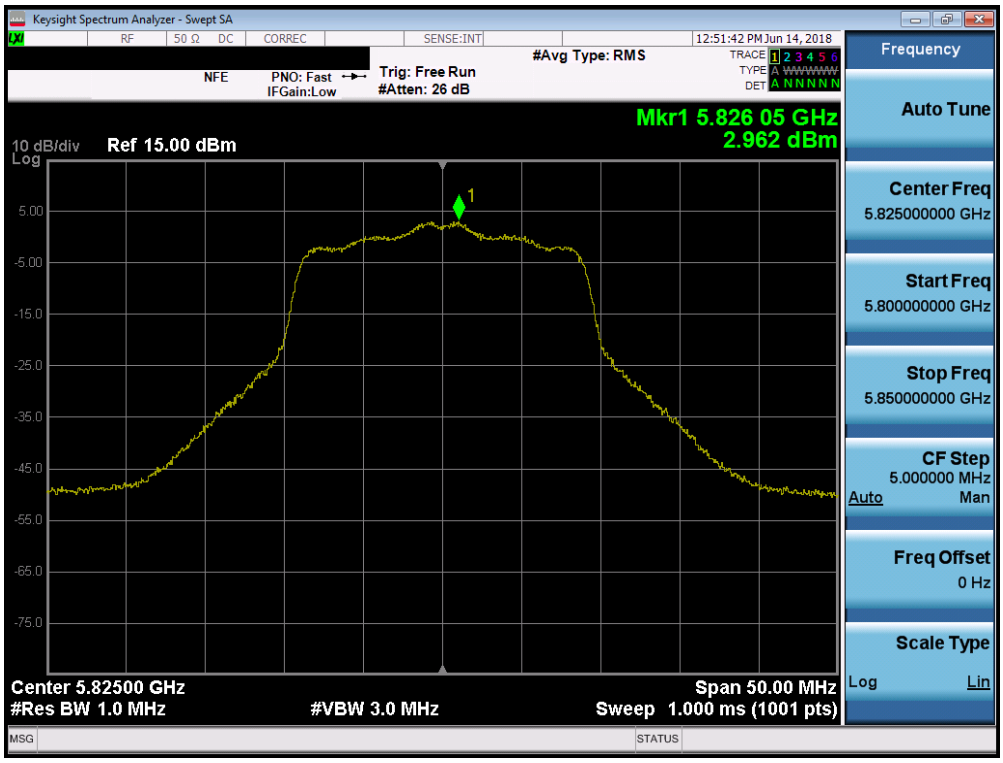
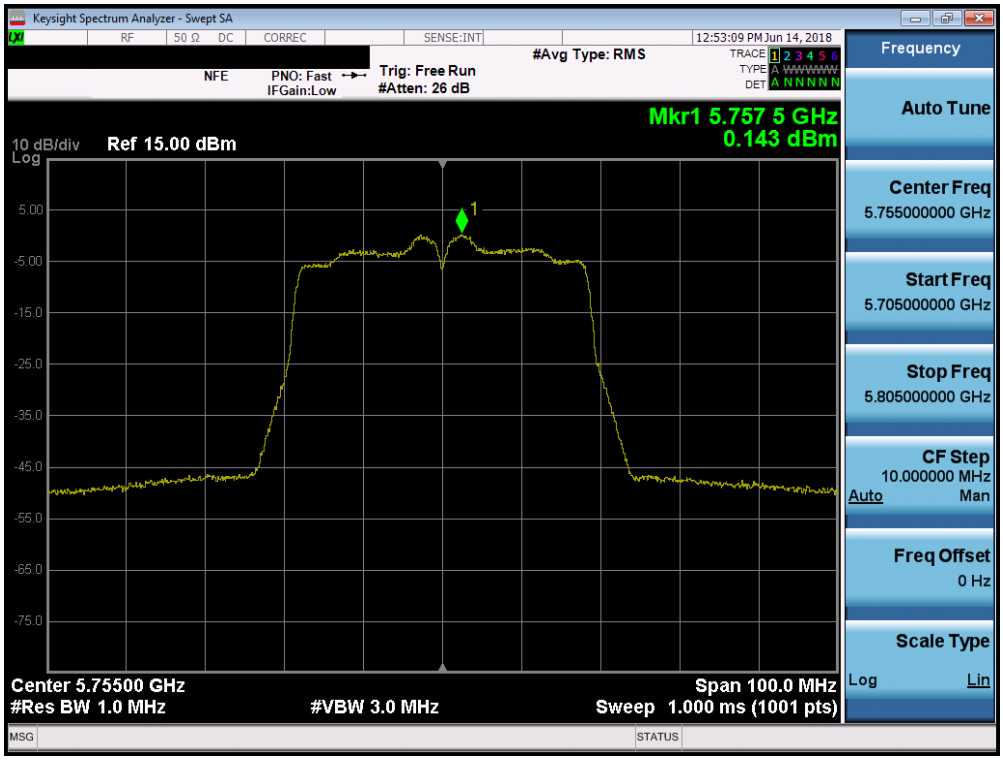


Plot 7-153. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) – Ch. 165)



Plot 7-154. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 151)

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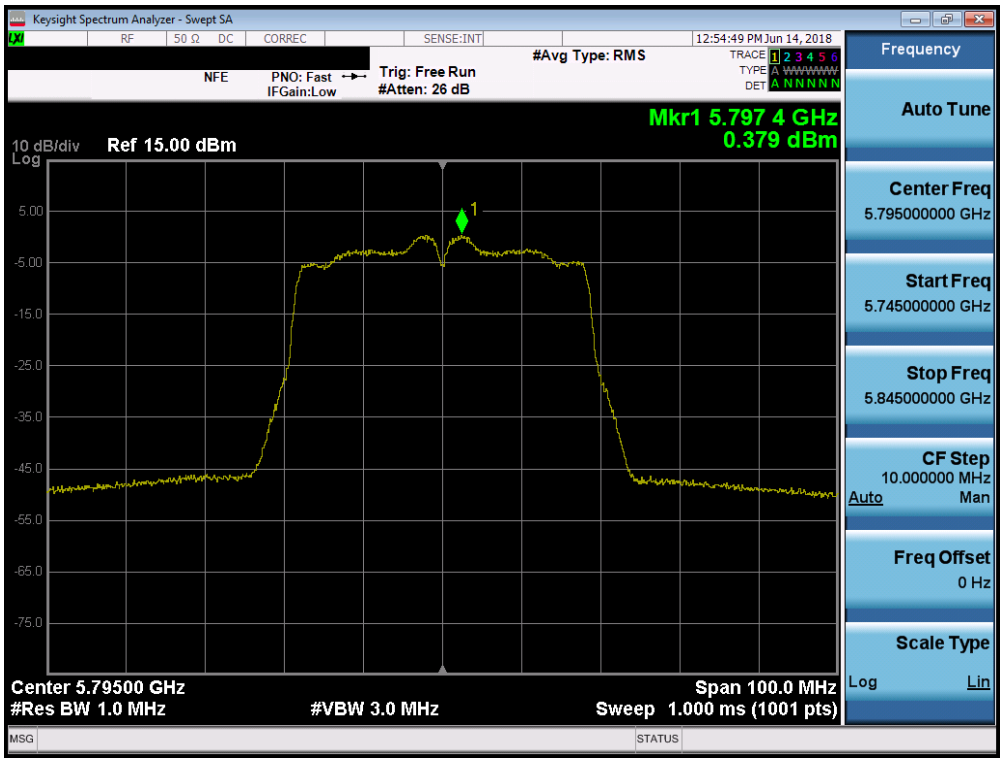
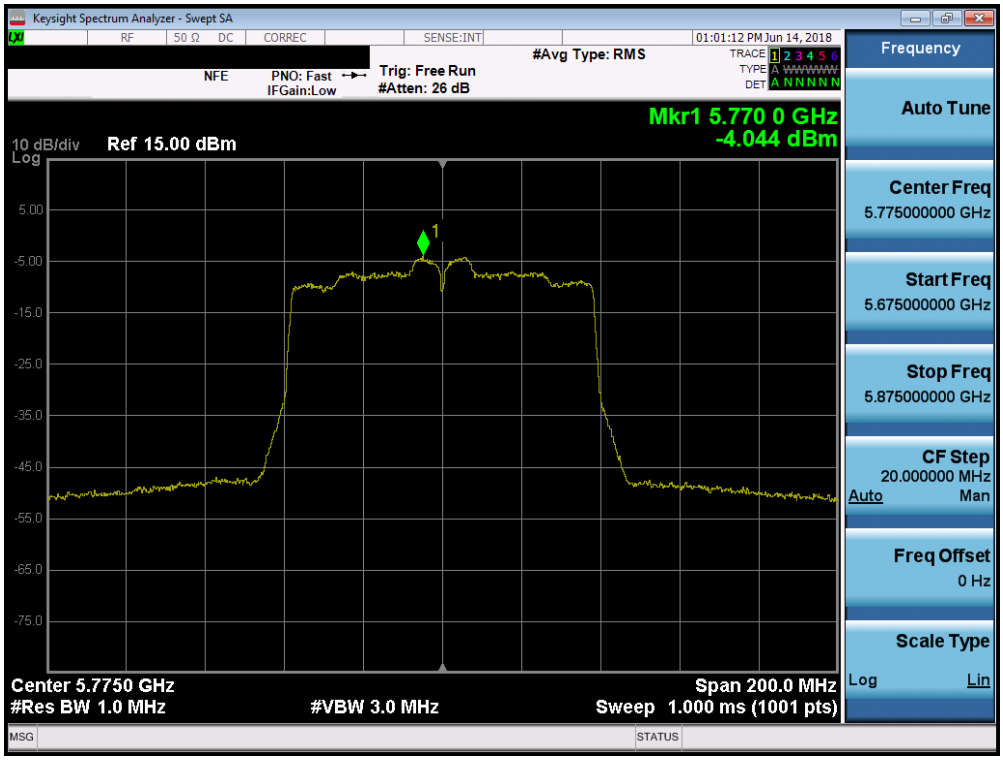


Plot 7-155. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) – Ch. 159)



Plot 7-156. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) – Ch. 155)

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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)	3.56	4.04	6.82	11.0	-4.18
	5200	40	a	6.5/7.2 (MCS0)	3.19	3.72	6.47	11.0	-4.53
	5240	48	a	6.5/7.2 (MCS0)	3.24	4.49	6.92	11.0	-4.08
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	2.65	3.32	6.01	11.0	-4.99
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	2.73	3.56	6.17	11.0	-4.83
	5240	48	n (20MHz)	6.5/7.2 (MCS0)	2.99	4.68	6.93	11.0	-4.07
	5190	38	n (40MHz)	13.5/15 (MCS0)	0.92	1.50	4.23	11.0	-6.77
	5230	46	n (40MHz)	13.5/15 (MCS0)	0.44	1.82	4.19	11.0	-6.81
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-2.52	-3.34	0.10	11.0	-10.90
Band 2A	5260	52	a	6.5/7.2 (MCS0)	2.81	4.66	6.84	11.0	-4.16
	5280	56	a	6.5/7.2 (MCS0)	3.62	4.65	7.18	11.0	-3.82
	5320	64	a	6.5/7.2 (MCS0)	3.87	4.76	7.35	11.0	-3.65
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	4.05	4.67	7.38	11.0	-3.62
	5280	56	n (20MHz)	6.5/7.2 (MCS0)	4.17	4.50	7.35	11.0	-3.65
	5320	64	n (20MHz)	6.5/7.2 (MCS0)	4.44	4.24	7.35	11.0	-3.65
	5270	54	n (40MHz)	13.5/15 (MCS0)	0.42	0.65	3.54	11.0	-7.46
	5310	62	n (40MHz)	13.5/15 (MCS0)	0.97	1.10	4.04	11.0	-6.96
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-4.00	-3.10	-0.52	11.0	-11.52
Band 2C	5500	100	a	6.5/7.2 (MCS0)	4.32	4.43	7.39	11.0	-3.61
	5600	120	a	6.5/7.2 (MCS0)	2.60	3.39	6.02	11.0	-4.98
	5720	144	a	6.5/7.2 (MCS0)	3.22	3.99	6.63	11.0	-4.37
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	4.27	3.85	7.07	11.0	-3.93
	5600	120	n (20MHz)	6.5/7.2 (MCS0)	3.37	3.35	6.37	11.0	-4.63
	5720	144	n (20MHz)	6.5/7.2 (MCS0)	3.00	3.82	6.44	11.0	-4.56
	5510	102	n (40MHz)	13.5/15 (MCS0)	0.77	1.51	4.17	11.0	-6.83
	5590	118	n (40MHz)	13.5/15 (MCS0)	0.00	0.90	3.48	11.0	-7.52
	5710	142	n (40MHz)	13.5/15 (MCS0)	-0.13	1.06	3.51	11.0	-7.49
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-4.50	-3.10	-0.73	11.0	-11.73
	5610	122	ac (80MHz)	29.3/32.5 (MCS0)	-4.16	-3.54	-0.83	11.0	-11.83
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-4.40	-3.63	-0.99	11.0	-11.99

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)	3.82	2.65	6.28	30.0	-23.72
	5785	157	a	6.5/7.2 (MCS0)	3.17	3.45	6.32	30.0	-23.68
	5825	165	a	6.5/7.2 (MCS0)	3.21	3.36	6.29	30.0	-23.71
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.37	2.41	5.93	30.0	-24.07
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	2.74	3.04	5.90	30.0	-24.10
	5825	165	n (20MHz)	6.5/7.2 (MCS0)	2.56	2.96	5.77	30.0	-24.23
	5755	151	n (40MHz)	13.5/15 (MCS0)	0.58	0.14	3.38	30.0	-26.62
	5795	159	n (40MHz)	13.5/15 (MCS0)	-0.69	0.38	2.89	30.0	-27.11
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-4.79	-4.04	-1.39	30.0	-31.39

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

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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 802.11a (20MHz BW) mode, the average conducted power spectral density was measured to be 3.56 dBm for Antenna-1 and 4.04 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(3.56 dBm + 4.04 dBm) = (2.27 mW + 2.54 mW) = 4.81 mW = 6.82 dBm

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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

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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.

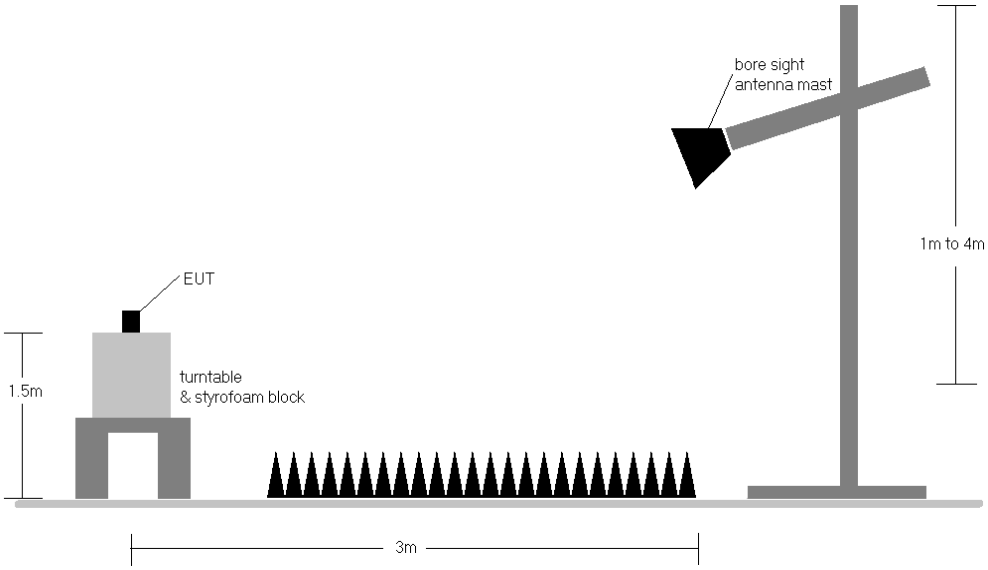

Figure 7-5. Test Instrument & Measurement Setup

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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 [dBμV/m] = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dBμV/m] – Limit [dBμV/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

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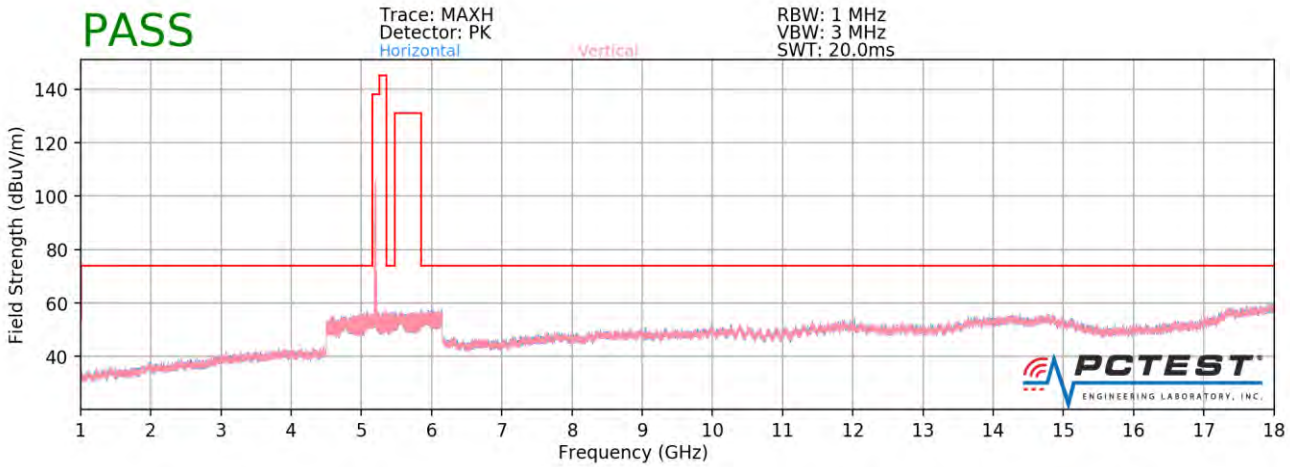
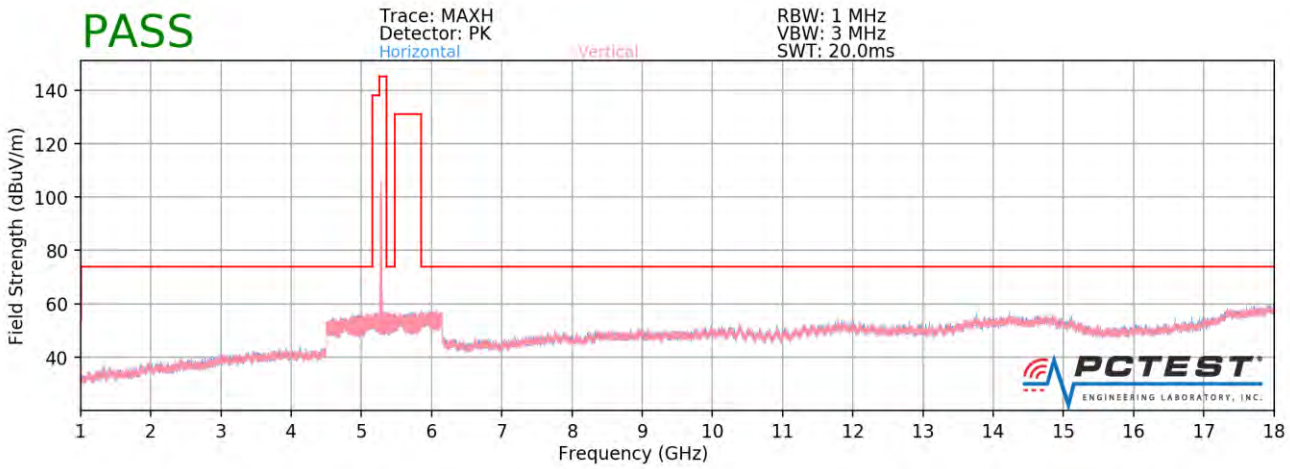
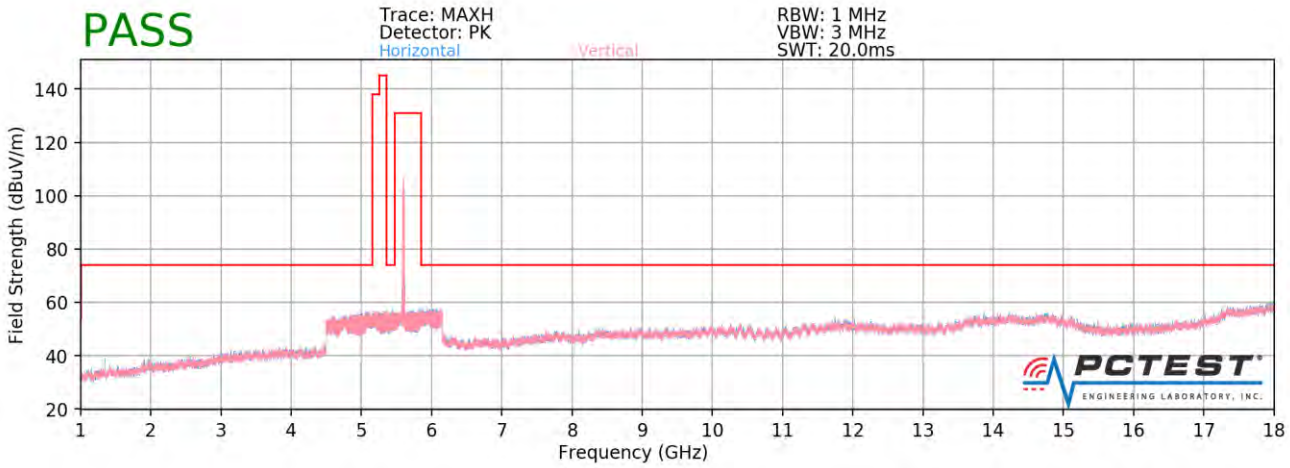
6.7.1 Antenna-1 Radiated Spurious Emission Measurements



Plot 7-157. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40)



Plot 7-158. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56)



Plot 7-159. Radiated Spurious Plot above 1GHz (802.11a – U2C Ch. 120)

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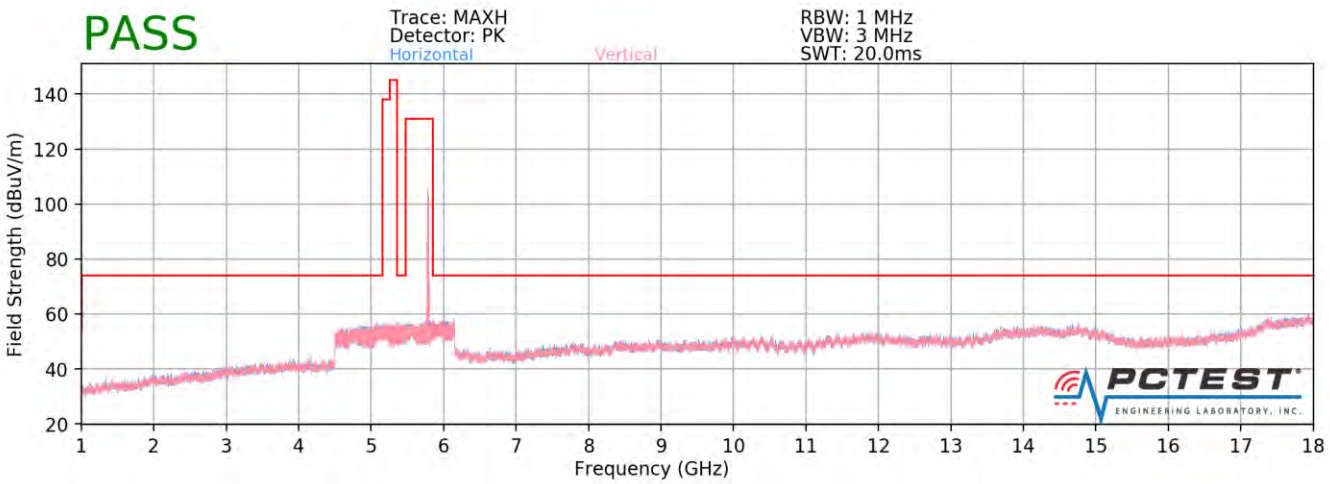

Plot 7-160. Radiated Spurious Plot above 1GHz (802.11a – U3 Ch. 157)

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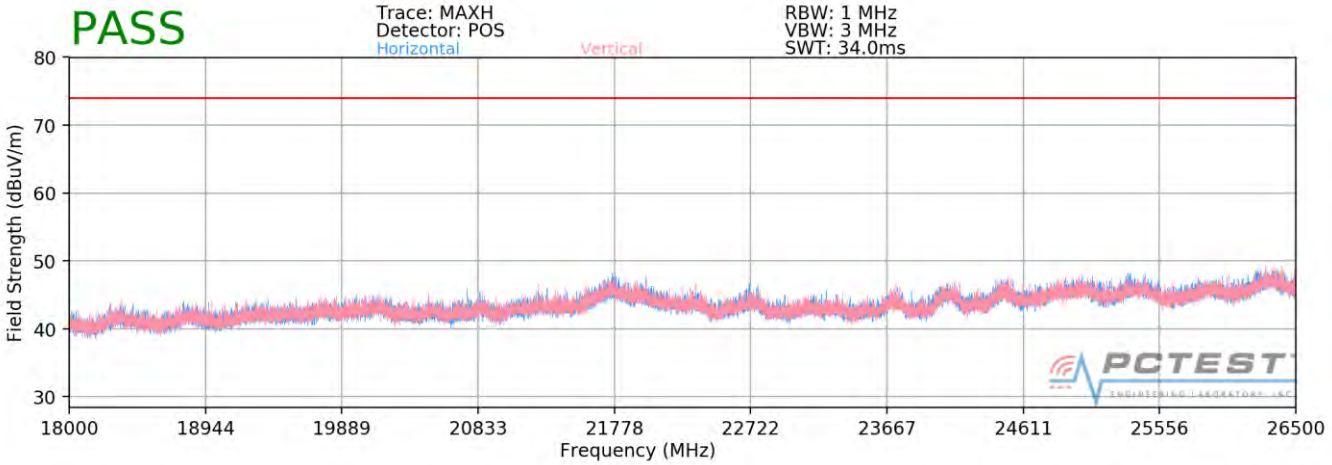
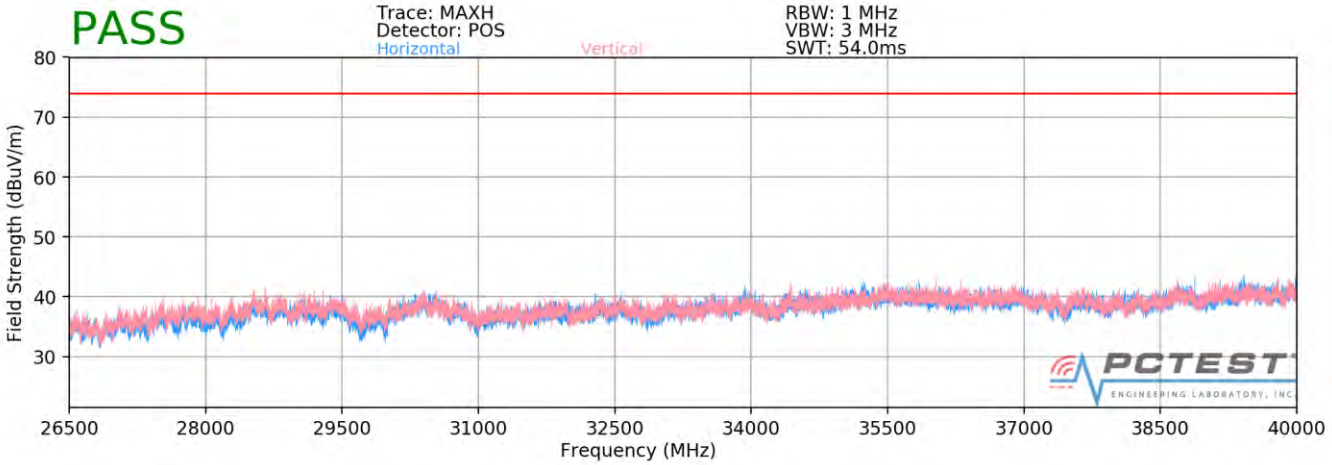
Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-161. Radiated Spurious Plot 18GHz - 26.5GHz (802.11a)



Plot 7-162. Radiated Spurious Plot 26.5GHz - 40GHz (802.11a)

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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	V	-	-	-65.29	11.48	0.00	53.19	68.20	-15.01
*	15540.00	Average	V	-	-	-78.55	13.68	0.00	42.13	53.98	-11.85
*	15540.00	Peak	V	-	-	-65.78	13.68	0.00	54.90	73.98	-19.08
*	20720.00	Average	V	-	-	-70.87	7.94	-9.54	34.53	53.98	-19.45
*	20720.00	Peak	V	-	-	-59.43	7.94	-9.54	45.97	73.98	-28.01
	25900.00	Peak	V	-	-	-56.67	8.46	-9.54	49.25	68.20	-18.95

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	V	-	-	-65.92	11.67	0.00	52.75	68.20	-15.45
*	15600.00	Average	V	-	-	-78.31	13.27	0.00	41.96	53.98	-12.02
*	15600.00	Peak	V	-	-	-65.22	13.27	0.00	55.05	73.98	-18.93
*	20800.00	Average	V	-	-	-71.01	7.95	-9.54	34.40	53.98	-19.58
*	20800.00	Peak	V	-	-	-59.03	7.95	-9.54	46.38	73.98	-27.60
	26000.00	Peak	V	-	-	-57.42	8.60	-9.54	48.64	68.20	-19.56

Table 7-26. Radiated Measurements

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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	V	-	-	-65.31	11.70	0.00	53.39	68.20	-14.81
*	15720.00	Average	V	-	-	-78.26	12.83	0.00	41.57	53.98	-12.41
*	15720.00	Peak	V	-	-	-64.69	12.83	0.00	55.14	73.98	-18.84
*	20960.00	Average	V	-	-	-71.46	7.91	-9.54	33.91	53.98	-20.07
*	20960.00	Peak	V	-	-	-59.71	7.91	-9.54	45.66	73.98	-28.32
	26200.00	Peak	V	-	-	-56.12	8.62	-9.54	49.96	68.20	-18.24

Table 7-27. Radiated Measurements

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	V	-	-	-65.93	11.68	0.00	52.75	68.20	-15.45
*	15780.00	Average	V	-	-	-78.40	12.91	0.00	41.51	53.98	-12.47
*	15780.00	Peak	V	-	-	-65.77	12.91	0.00	54.14	73.98	-19.84
*	21040.00	Average	V	-	-	-71.07	7.92	-9.54	34.31	53.98	-19.67
*	21040.00	Peak	V	-	-	-59.06	7.92	-9.54	46.32	73.98	-27.66
	26300.00	Peak	V	-	-	-55.12	8.73	-9.54	51.07	68.20	-17.13

Table 7-28. Radiated Measurements

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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	V	-	-	-65.90	11.56	0.00	52.66	68.20	-15.54
*	15840.00	Average	V	-	-	-78.11	12.86	0.00	41.75	53.98	-12.23
*	15840.00	Peak	V	-	-	-65.29	12.86	0.00	54.57	73.98	-19.41
*	21120.00	Average	V	-	-	-70.65	7.96	-9.54	34.77	53.98	-19.21
*	21120.00	Peak	V	-	-	-59.42	7.96	-9.54	46.00	73.98	-27.98
	26400.00	Peak	V	-	-	-55.88	8.94	-9.54	50.52	68.20	-17.68

Table 7-29. 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	V	-	-	-78.81	11.80	0.00	39.99	53.98	-13.99
*	10640.00	Peak	V	-	-	-65.84	11.80	0.00	52.96	73.98	-21.02
*	15960.00	Average	V	-	-	-77.86	13.23	0.00	42.37	53.98	-11.60
*	15960.00	Peak	V	-	-	-64.62	13.23	0.00	55.61	73.98	-18.36
*	21280.00	Average	V	-	-	-70.11	8.04	-9.54	35.39	53.98	-18.59
*	21280.00	Peak	V	-	-	-58.90	8.04	-9.54	46.60	73.98	-27.38
	26600.00	Peak	V	-	-	-49.84	-8.30	-9.54	39.31	68.20	-28.89

Table 7-30. Radiated Measurements

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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	V	-	-	-78.48	12.04	0.00	40.56	53.98	-13.42
*	11000.00	Peak	V	-	-	-65.99	12.04	0.00	53.05	73.98	-20.93
	16500.00	Peak	V	-	-	-65.37	12.28	0.00	53.91	68.20	-14.29
	22000.00	Peak	V	-	-	-57.84	8.43	-9.54	48.04	68.20	-20.16
	27500.00	Peak	V	-	-	-47.55	-8.80	-9.54	41.11	68.20	-27.09

Table 7-31. 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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11200.00	Average	V	-	-	-78.45	11.39	39.94	53.98	-14.04
*	11200.00	Peak	V	-	-	-65.79	11.39	52.60	73.98	-21.38
	16800.00	Peak	V	-	-	-65.17	14.00	55.83	68.20	-12.37
*	22400.00	Average	V	-	-	-69.89	8.08	35.65	53.98	-18.33
*	22400.00	Peak	V	-	-	-57.95	8.08	47.59	73.98	-26.39
	28000.00	Peak	V	-	-	-48.10	-9.08	40.28	68.20	-27.92

Table 7-32. Radiated Measurements

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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]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
11440.00	Average	V	-	-	-78.24	11.68	40.44	53.98	-13.54
11440.00	Peak	V	-	-	-65.33	11.68	53.35	73.98	-20.63
17160.00	Peak	V	-	-	-64.80	15.62	57.82	68.20	-10.38
22880.00	Average	V	-	-	-70.69	8.37	35.14	53.98	-18.84
22880.00	Peak	V	-	-	-58.59	8.37	47.24	73.98	-26.74
28600.00	Peak	V	-	-	-46.81	-8.95	41.70	68.20	-26.50

Table 7-33. Radiated Measurements

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	V	-	-	-78.22	11.70	0.00	40.48	53.98	-13.50
*	11490.00	Peak	V	-	-	-64.79	11.70	0.00	53.91	73.98	-20.07
	17235.00	Peak	V	-	-	-65.63	17.09	0.00	58.46	68.20	-9.74
*	22980.00	Average	V	-	-	-71.39	8.16	-9.54	34.23	53.98	-19.75
*	22980.00	Peak	V	-	-	-59.41	8.16	-9.54	46.21	73.98	-27.77
	28725.00	Peak	V	-	-	-47.46	-9.24	-9.54	40.76	68.20	-27.44

Table 7-34. Radiated Measurements

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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	V	-	-	-78.11	11.91	0.00	40.80	53.98	-13.18
*	11570.00	Peak	V	-	-	-65.24	11.91	0.00	53.67	73.98	-20.31
	17355.00	Peak	V	-	-	-65.52	18.72	0.00	60.20	68.20	-8.00
	23140.00	Peak	V	-	-	-59.21	8.37	-9.54	46.62	68.20	-21.58
	28925.00	Peak	V	-	-	-48.52	-9.65	-9.54	39.29	68.20	-28.91

Table 7-35. 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	V	-	-	-78.24	12.16	0.00	40.92	53.98	-13.06
*	11650.00	Peak	V	-	-	-65.49	12.16	0.00	53.67	73.98	-20.31
	17475.00	Peak	V	-	-	-65.30	18.73	0.00	60.43	68.20	-7.77
	23300.00	Peak	V	-	-	-59.32	8.50	-9.54	46.64	68.20	-21.56
	29125.00	Peak	V	-	-	-46.77	-9.87	-9.54	40.82	68.20	-27.38

Table 7-36. Radiated Measurements

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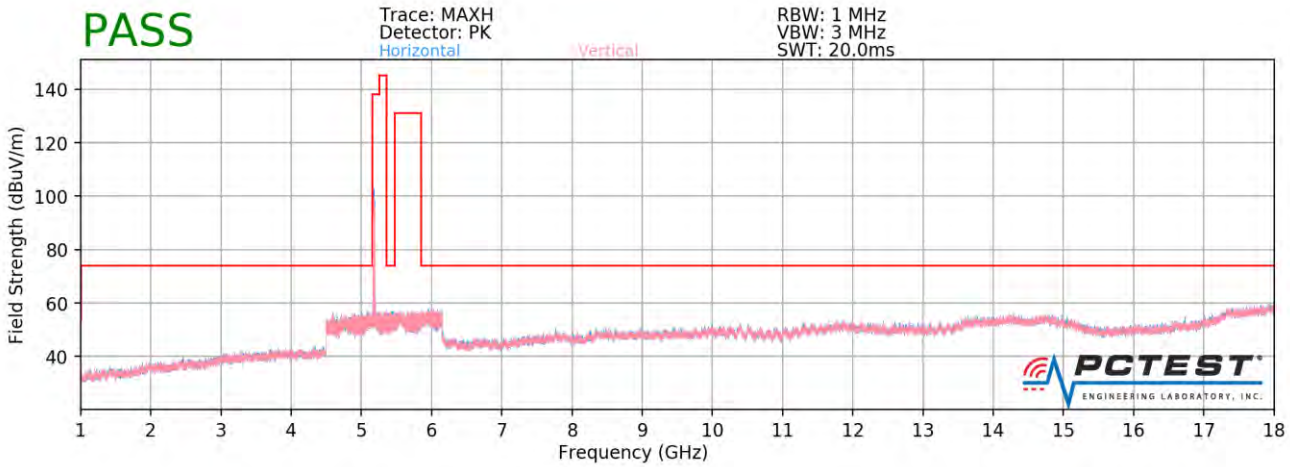
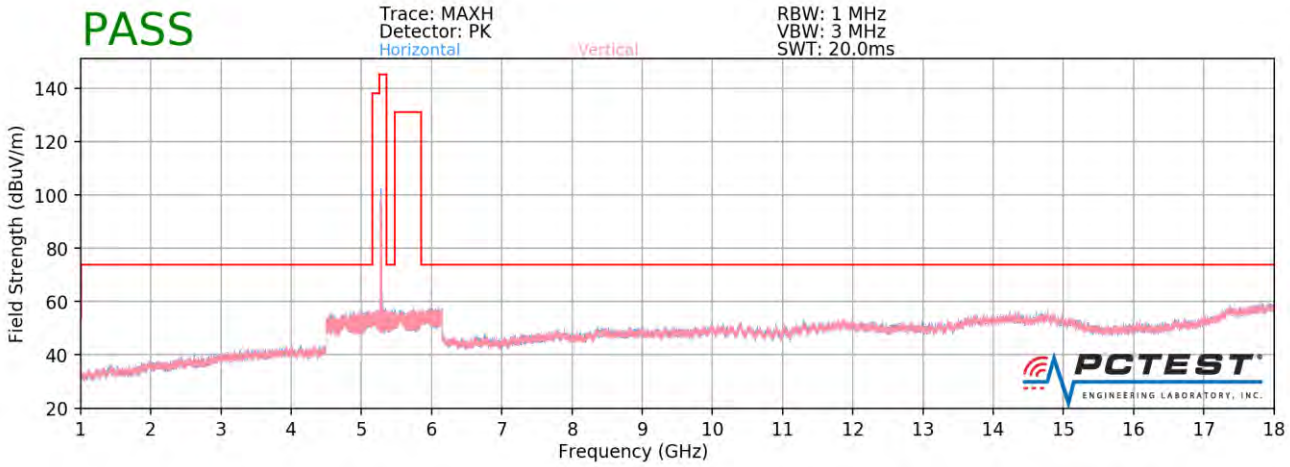
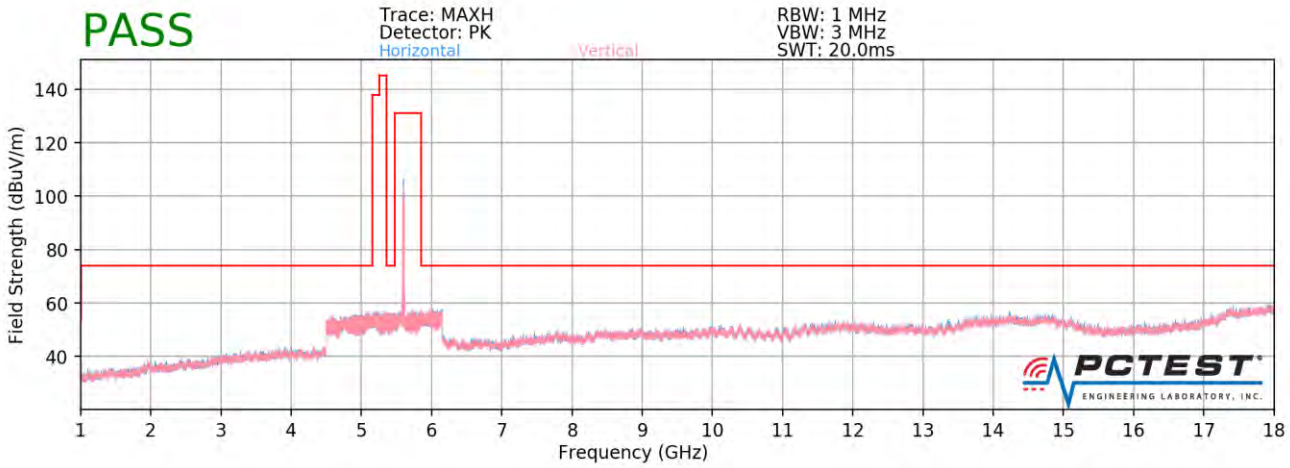
6.7.2 Antenna-2 Radiated Spurious Emission Measurements



Plot 7-163. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40)



Plot 7-164. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56)



Plot 7-165. Radiated Spurious Plot above 1GHz (802.11a – U2C Ch. 120)

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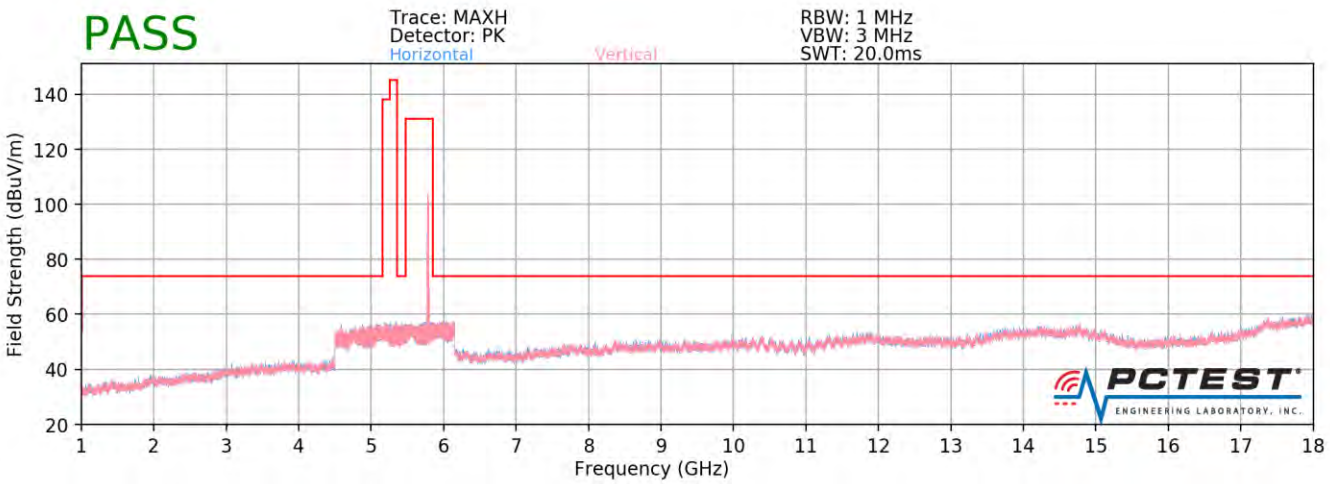

Plot 7-166. Radiated Spurious Plot above 1GHz (802.11a – U3 Ch. 157)

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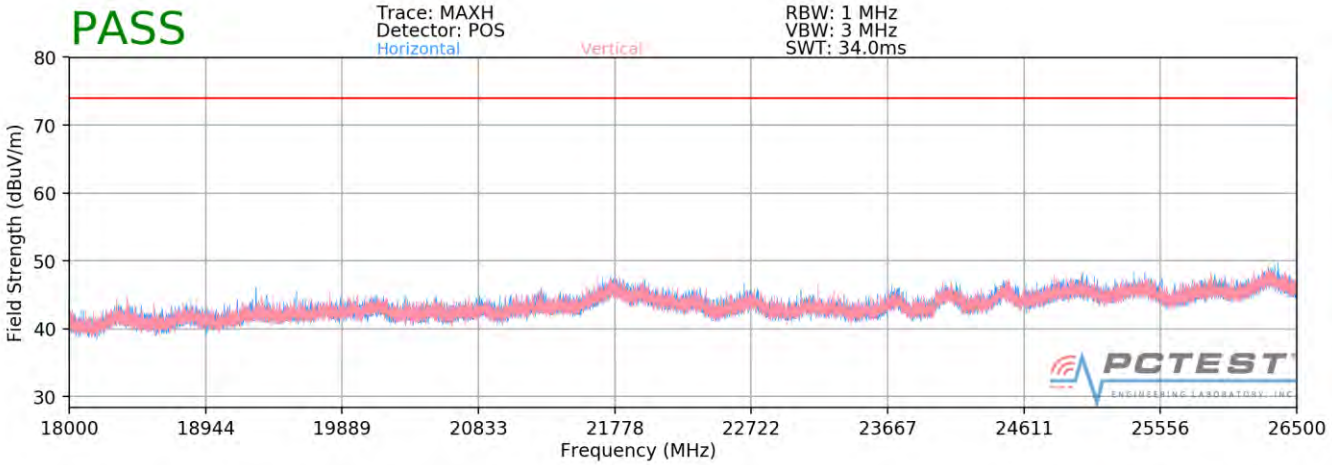
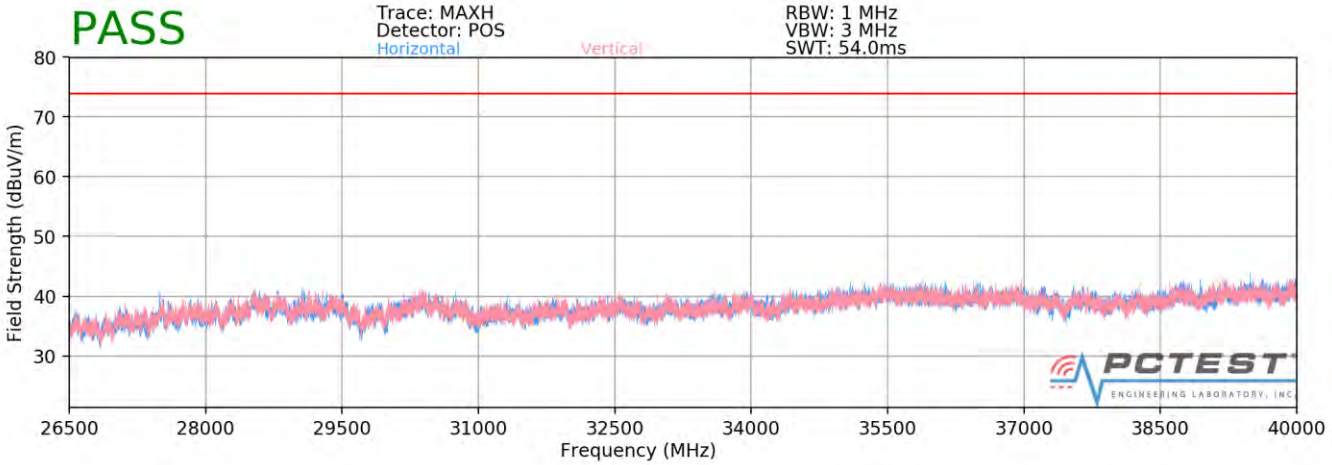
Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



Plot 7-167. Radiated Spurious Plot above 18GHz - 26.5GHz (802.11a)



Plot 7-168. Radiated Spurious Plot 26.5GHz - 40GHz (802.11a)

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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	-	-	-65.73	11.48	0.00	52.75	68.20	-15.45
*	15540.00	Average	H	-	-	-78.53	13.68	0.00	42.15	53.98	-11.83
*	15540.00	Peak	H	-	-	-65.14	13.68	0.00	55.54	73.98	-18.44
*	20720.00	Average	H	-	-	-71.15	7.94	-9.54	34.25	53.98	-19.73
*	20720.00	Peak	H	-	-	-59.65	7.94	-9.54	45.75	73.98	-28.23
	25900.00	Peak	H	-	-	-57.12	8.46	-9.54	48.80	68.20	-19.40

Table 7-37. 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	-	-	-65.95	11.67	0.00	52.72	68.20	-15.48
*	15600.00	Average	H	-	-	-78.32	13.27	0.00	41.95	53.98	-12.03
*	15600.00	Peak	H	-	-	-65.21	13.27	0.00	55.06	73.98	-18.92
*	20800.00	Average	H	-	-	-71.15	7.95	-9.54	34.26	53.98	-19.72
*	20800.00	Peak	H	-	-	-59.02	7.95	-9.54	46.39	73.98	-27.59
	26000.00	Peak	H	-	-	-57.05	8.60	-9.54	49.01	68.20	-19.19

Table 7-38. Radiated Measurements

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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	-	-	-65.83	11.70	0.00	52.87	68.20	-15.33
*	15720.00	Average	H	-	-	-78.73	12.83	0.00	41.10	53.98	-12.88
*	15720.00	Peak	H	-	-	-65.31	12.83	0.00	54.52	73.98	-19.46
*	20960.00	Average	H	-	-	-71.54	7.91	-9.54	33.83	53.98	-20.15
*	20960.00	Peak	H	-	-	-60.23	7.91	-9.54	45.14	73.98	-28.84
	26200.00	Peak	H	-	-	-56.68	8.62	-9.54	49.40	68.20	-18.80

Table 7-39. Radiated Measurements

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	-	-	-65.51	11.68	0.00	53.17	68.20	-15.03
*	15780.00	Average	H	-	-	-78.35	12.91	0.00	41.56	53.98	-12.42
*	15780.00	Peak	H	-	-	-65.63	12.91	0.00	54.28	73.98	-19.70
*	21040.00	Average	H	-	-	-71.15	7.92	-9.54	34.23	53.98	-19.75
*	21040.00	Peak	H	-	-	-59.94	7.92	-9.54	45.44	73.98	-28.54
	26300.00	Peak	H	-	-	-56.02	8.73	-9.54	50.17	68.20	-18.03

Table 7-40. Radiated Measurements

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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	-	-	-66.03	11.56	0.00	52.53	68.20	-15.67
*	15840.00	Average	H	-	-	-78.09	12.86	0.00	41.77	53.98	-12.21
*	15840.00	Peak	H	-	-	-65.41	12.86	0.00	54.45	73.98	-19.53
*	21120.00	Average	H	-	-	-70.68	7.96	-9.54	34.74	53.98	-19.24
*	21120.00	Peak	H	-	-	-59.22	7.96	-9.54	46.20	73.98	-27.78
	26400.00	Peak	H	-	-	-56.07	8.94	-9.54	50.33	68.20	-17.87

Table 7-41. 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	-	-	-78.81	11.80	0.00	39.99	53.98	-13.99
*	10640.00	Peak	H	-	-	-65.82	11.80	0.00	52.98	73.98	-21.00
*	15960.00	Average	H	-	-	-77.81	13.23	0.00	42.42	53.98	-11.55
*	15960.00	Peak	H	-	-	-64.54	13.23	0.00	55.69	73.98	-18.28
*	21280.00	Average	H	-	-	-70.17	8.04	-9.54	35.33	53.98	-18.65
*	21280.00	Peak	H	-	-	-58.50	8.04	-9.54	47.00	73.98	-26.98
	26600.00	Peak	H	-	-	-51.07	-8.30	-9.54	38.08	68.20	-30.12

Table 7-42. Radiated Measurements

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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	-	-	-78.43	12.04	0.00	40.61	53.98	-13.37
*	11000.00	Peak	H	-	-	-65.55	12.04	0.00	53.49	73.98	-20.49
	16500.00	Peak	H	-	-	-65.09	12.28	0.00	54.19	68.20	-14.01
	22000.00	Peak	H	-	-	-58.17	8.43	-9.54	47.71	68.20	-20.49
	27500.00	Peak	H	-	-	-47.40	-8.80	-9.54	41.26	68.20	-26.94

Table 7-43. 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	-	-	-78.42	11.39	0.00	39.97	53.98	-14.01
*	11200.00	Peak	H	-	-	-65.00	11.39	0.00	53.39	73.98	-20.59
	16800.00	Peak	H	-	-	-64.98	14.00	0.00	56.02	68.20	-12.18
*	22400.00	Average	H	-	-	-69.86	8.08	-9.54	35.68	53.98	-18.30
*	22400.00	Peak	H	-	-	-57.95	8.08	-9.54	47.59	73.98	-26.39
	28000.00	Peak	H	-	-	-48.08	-9.08	-9.54	40.30	68.20	-27.90

Table 7-44. Radiated Measurements

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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	-	-	-78.14	11.68	0.00	40.54	53.98	-13.44
*	11440.00	Peak	H	-	-	-65.13	11.68	0.00	53.55	73.98	-20.43
	17160.00	Peak	H	-	-	-65.23	15.62	0.00	57.39	68.20	-10.81
*	22880.00	Average	H	-	-	-70.77	8.37	-9.54	35.06	53.98	-18.92
*	22880.00	Peak	H	-	-	-58.43	8.37	-9.54	47.40	73.98	-26.58
	28600.00	Peak	H	-	-	-47.25	-8.95	-9.54	41.26	68.20	-26.94

Table 7-45. Radiated Measurements

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	-	-	-78.23	11.70	0.00	40.47	53.98	-13.51
*	11490.00	Peak	H	-	-	-65.28	11.70	0.00	53.42	73.98	-20.56
	17235.00	Peak	H	-	-	-65.80	17.09	0.00	58.29	68.20	-9.91
*	22980.00	Average	H	-	-	-71.50	8.16	-9.54	34.12	53.98	-19.86
*	22980.00	Peak	H	-	-	-59.36	8.16	-9.54	46.26	73.98	-27.72
	28725.00	Peak	H	-	-	-46.95	-9.24	-9.54	41.27	68.20	-26.93

Table 7-46. Radiated Measurements

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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	-	-	-78.14	11.91	0.00	40.77	53.98	-13.21
*	11570.00	Peak	H	-	-	-65.06	11.91	0.00	53.85	73.98	-20.13
	17355.00	Peak	H	-	-	-65.03	18.72	0.00	60.69	68.20	-7.51
	23140.00	Peak	H	-	-	-59.68	8.37	-9.54	46.15	68.20	-22.05
	28925.00	Peak	H	-	-	-47.34	-9.65	-9.54	40.47	68.20	-27.73

Table 7-47. 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	-	-	-78.33	12.16	0.00	40.83	53.98	-13.15
*	11650.00	Peak	H	-	-	-65.33	12.16	0.00	53.83	73.98	-20.15
	17475.00	Peak	H	-	-	-64.72	18.73	0.00	61.01	68.20	-7.19
	23300.00	Peak	H	-	-	-60.05	8.50	-9.54	45.91	68.20	-22.29
	29125.00	Peak	H	-	-	-45.63	-9.87	-9.54	41.96	68.20	-26.24

Table 7-48. Radiated Measurements

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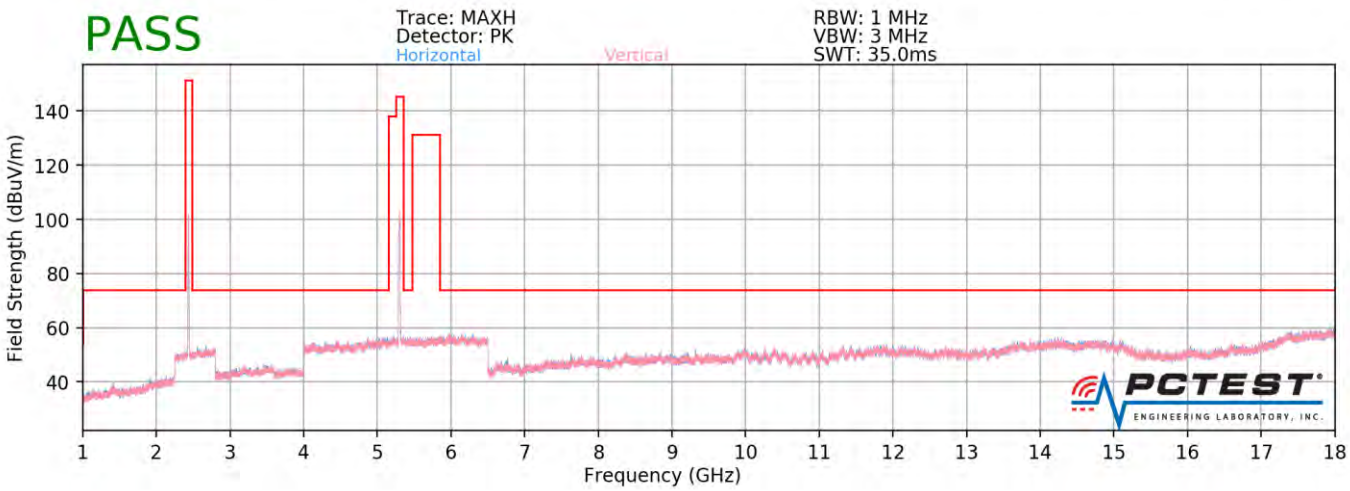
6.7.3 Simultaneous Tx Radiated Spurious Emissions Measurements

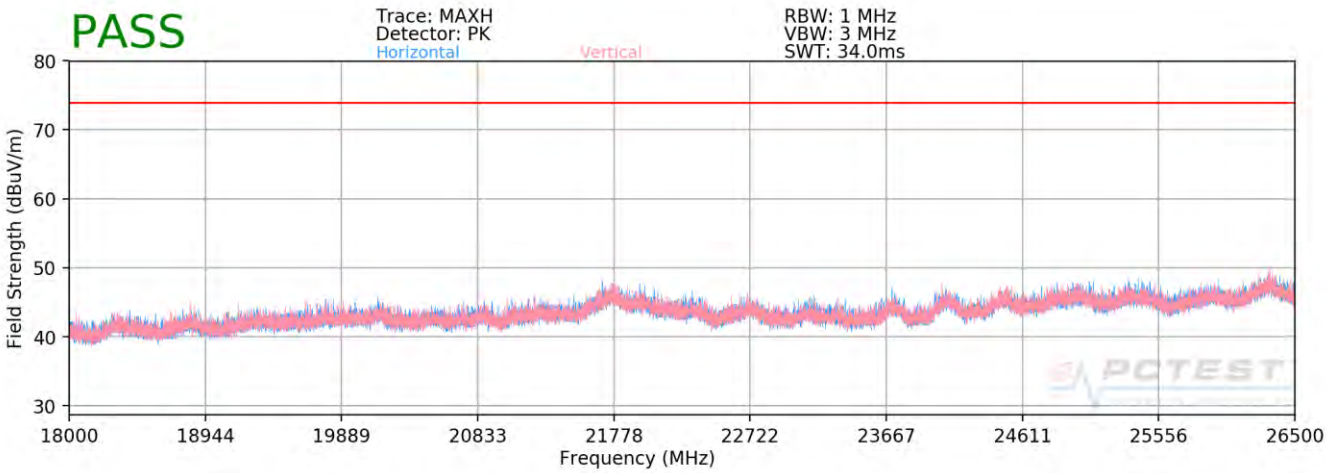
§15.407(b) §15.205 & §15.209; RSS-Gen [8.9]

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	6	60
Operating Frequency (MHz)	2437	5300
Data Rate (Mbps)	1	6
Mode	b	a

Table 7-49. Simultaneous Transmission Config-1



Plot 7-169. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz)



Plot 7-170. Radiated Spurious Plot 18GHz – 26.5GHz (2.4GHz – 5GHz)

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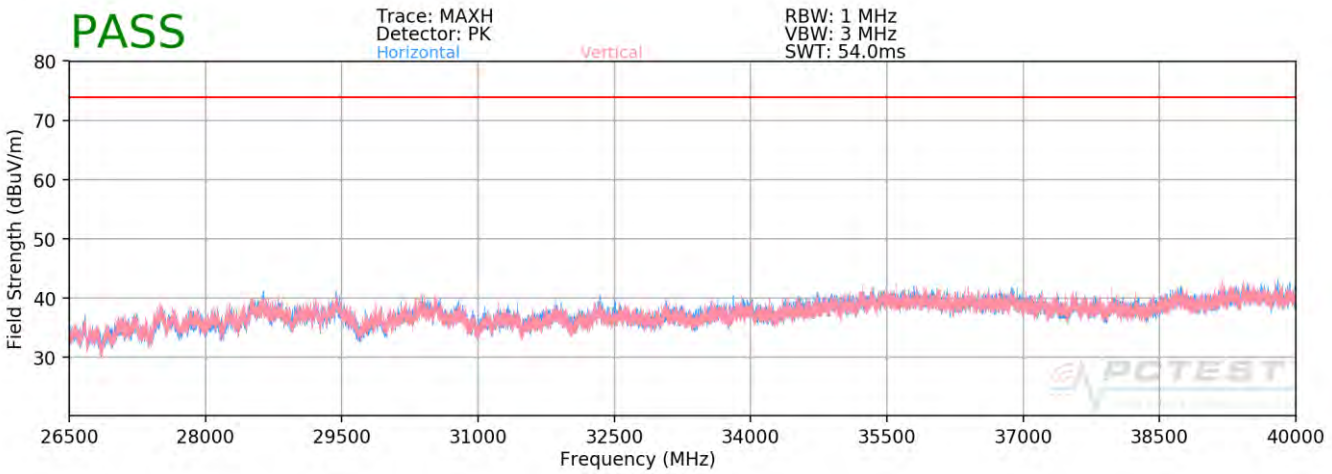

Plot 7-171. Radiated Spurious Plot above 26.5GHz (2.4GHz – 5GHz)

	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]
	3289.00	Peak	H	-	-	-63.15	0.31	44.16	68.20	-24.04
*	6152.00	Peak	H	-	-	-66.49	7.06	47.57	53.98	-6.40
*	8163.00	Peak	H	-	-	-67.60	9.91	49.31	53.98	-4.67

Table 7-50. Radiated Measurements (ANT1 2.4GHz – ANT2 5GHz)

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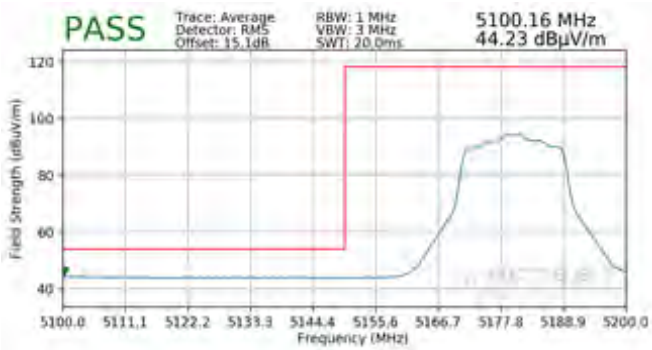
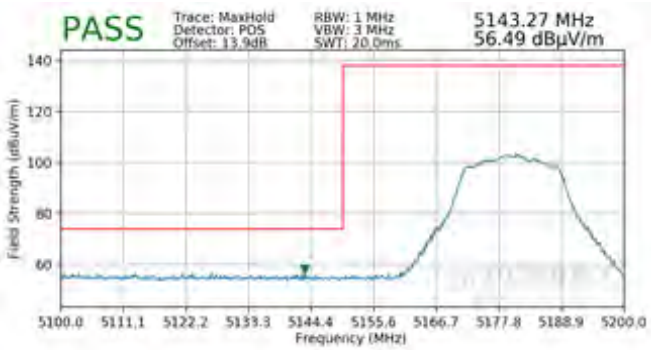
6.7.4 Antenna-1 Radiated Band Edge Measurements (20MHz BW)

§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



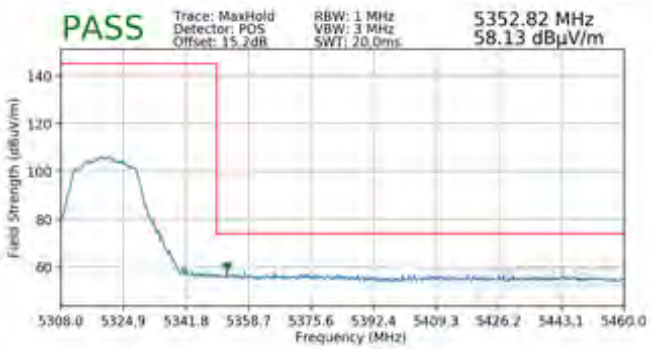
Plot 7-172. Radiated Lower Band Edge Plot (Average – UNII Band 1)



Plot 7-173. 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 7-174. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-175. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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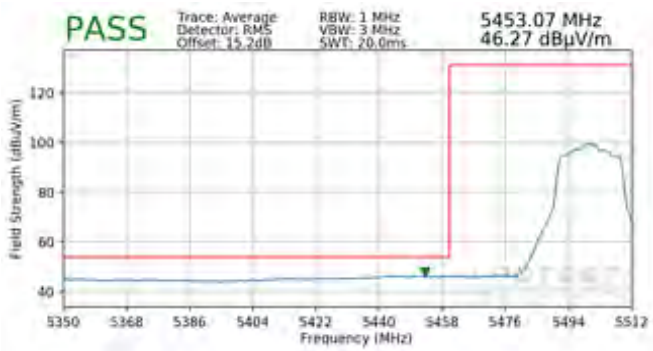
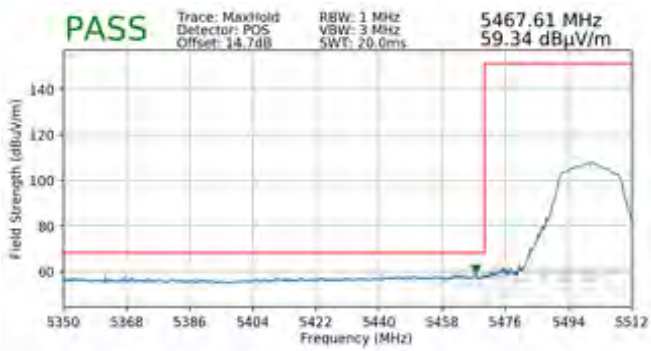
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

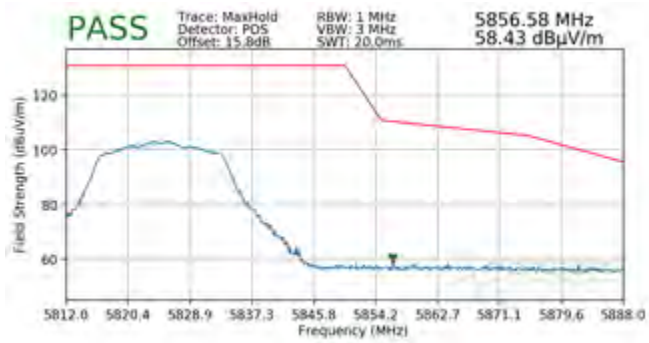


Plot 7-176. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-177. 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 7-178. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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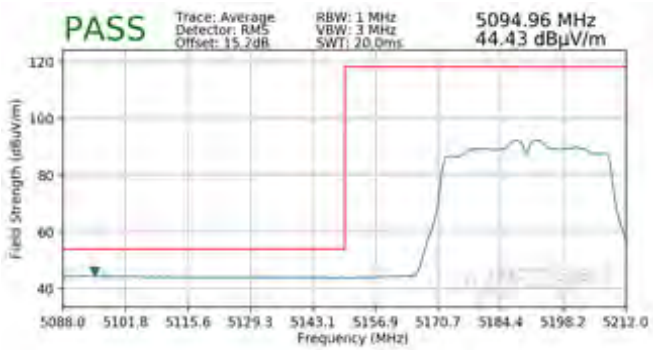
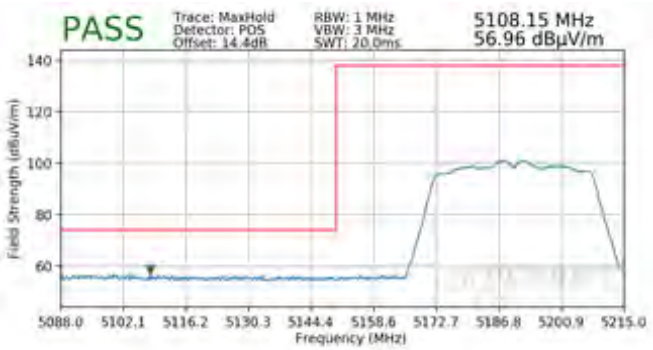
6.7.5 Antenna-1 Radiated Band Edge Measurements (40MHz BW)

§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

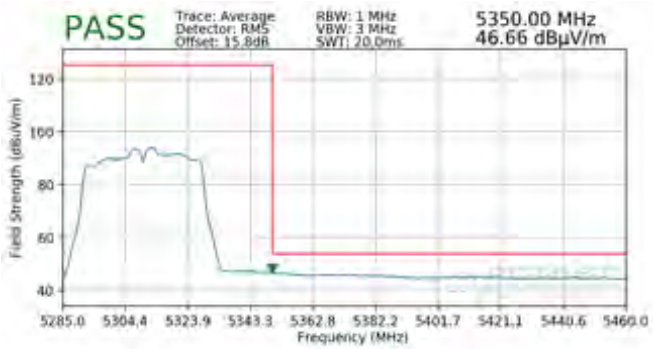


Plot 7-179. Radiated Lower Band Edge Plot (Average – UNII Band 1)

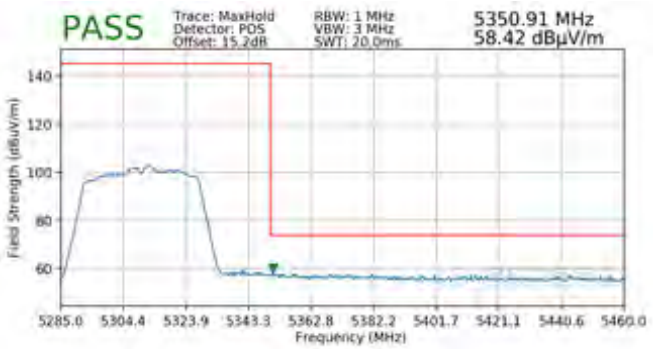


Plot 7-180. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



Plot 7-181. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-182. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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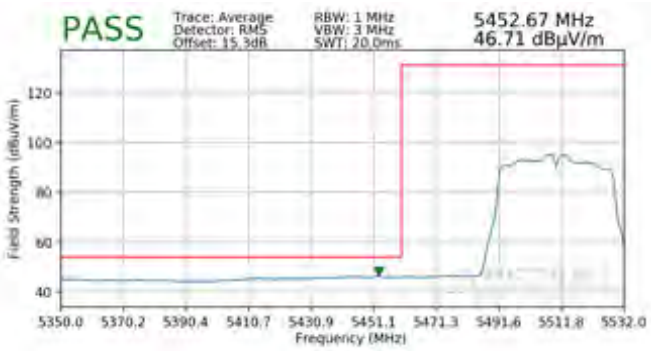
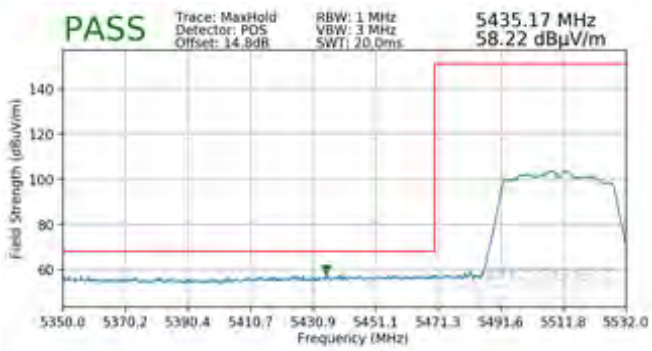
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

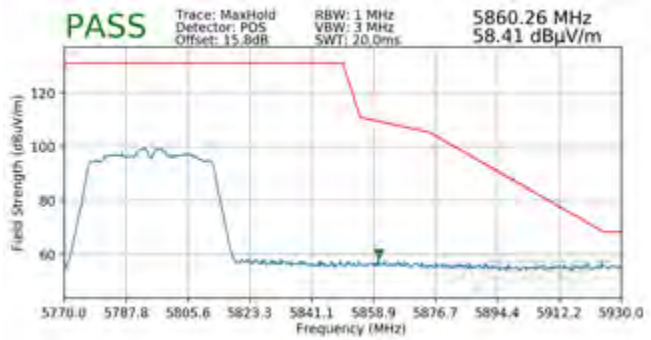


Plot 7-183. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-184. 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 7-185. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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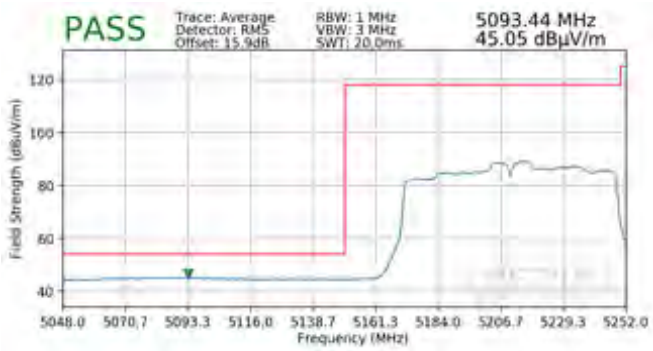
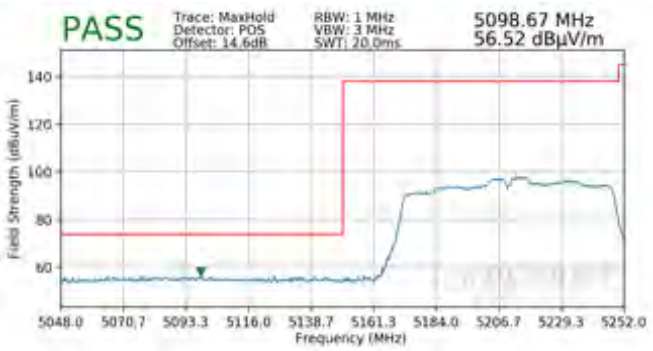
6.7.6 Antenna-1 Radiated Band Edge Measurements (80MHz BW)

§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

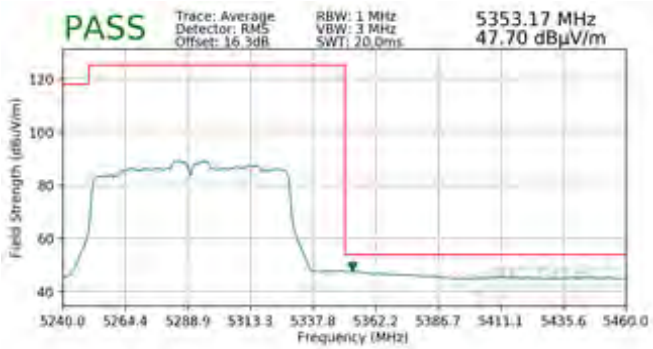


Plot 7-186. Radiated Lower Band Edge Plot (Average – UNII Band 1)

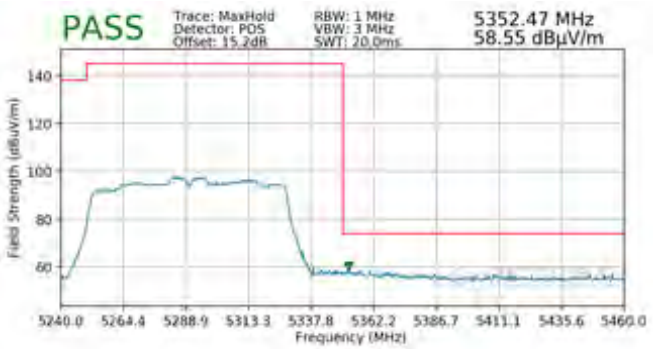


Plot 7-187. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



Plot 7-188. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-189. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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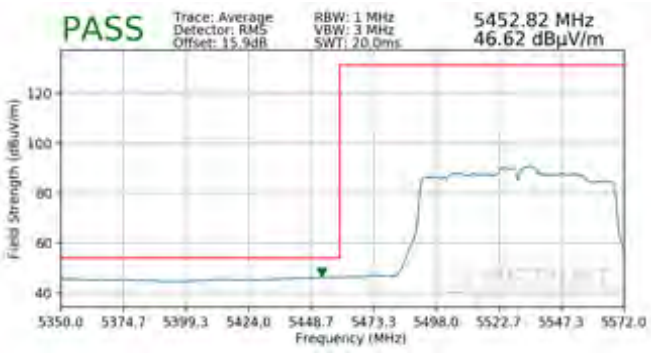
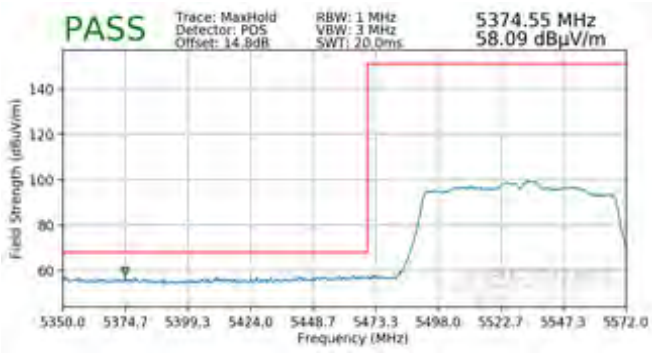
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5530MHz
Channel:	106

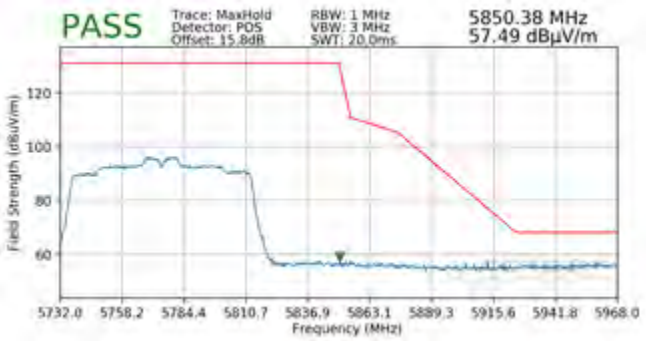


Plot 7-190. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-191. 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 7-192. Radiated Upper Band Edge Plot (Peak – UNII Band 3) (Peak – UNII Band 3)

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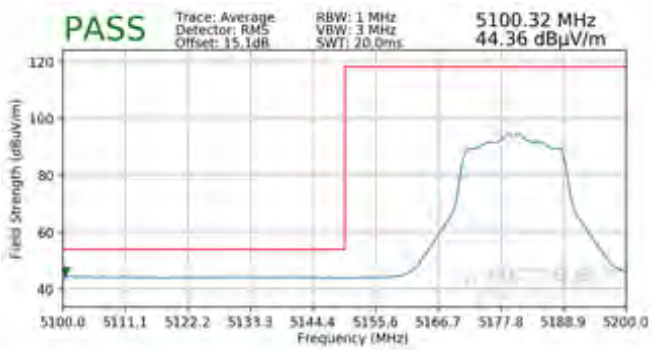
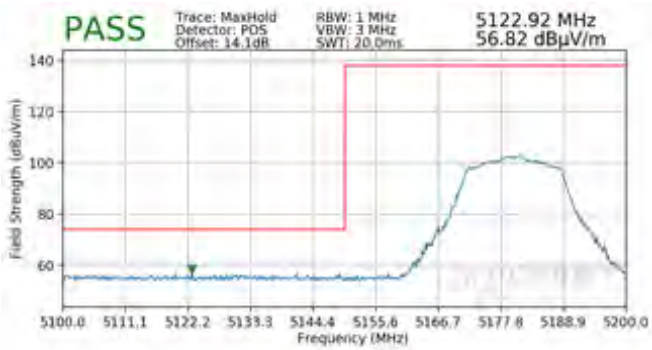
6.7.7 Antenna-2 Radiated Band Edge Measurements (20MHz BW)

§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



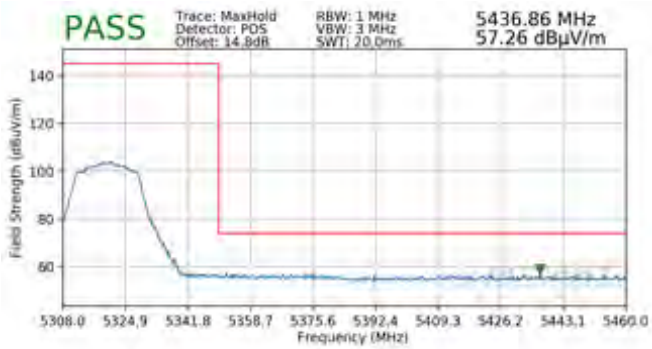
Plot 7-193. Radiated Lower Band Edge Plot (Average – UNII Band 1)



Plot 7-194. 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 7-195. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-196. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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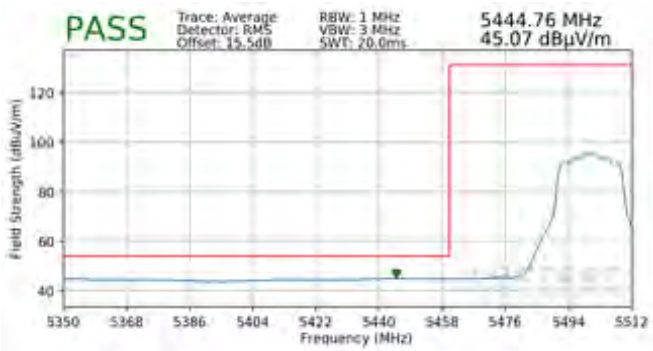
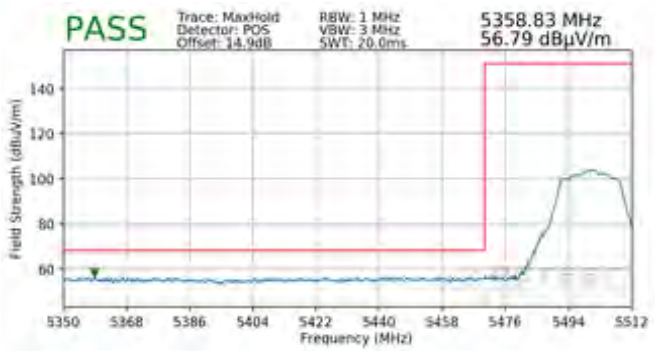
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

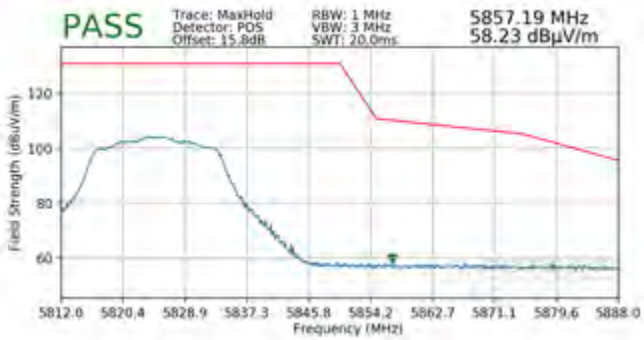


Plot 7-197. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-198. 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 7-199. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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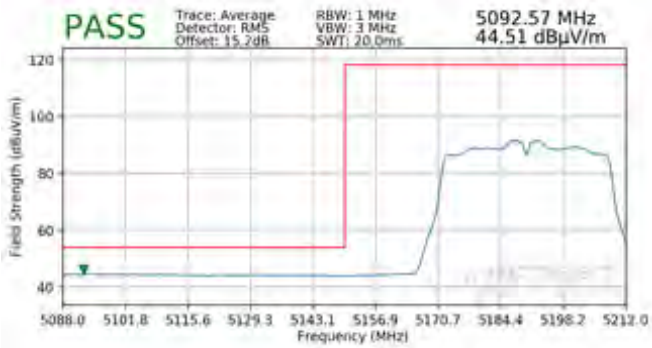
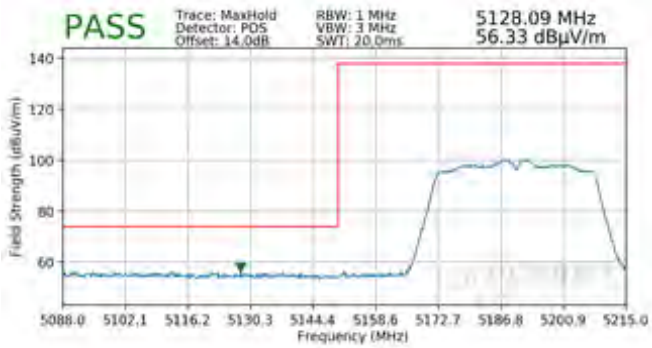
6.7.8 Antenna-2 Radiated Band Edge Measurements (40MHz BW)

§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

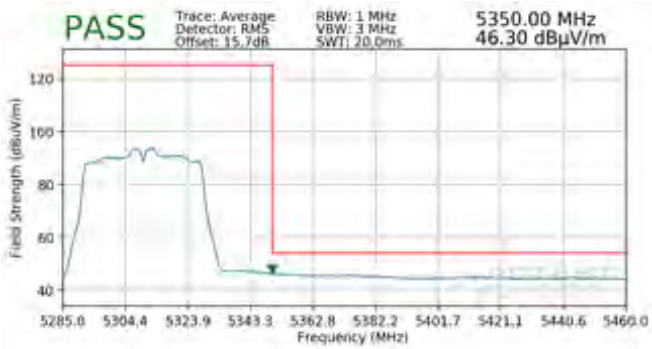


Plot 7-200. Radiated Lower Band Edge Plot (Average – UNII Band 1)



Plot 7-201. 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 7-202. Radiated Upper Band Edge Plot (Average – UNII Band 2A)

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

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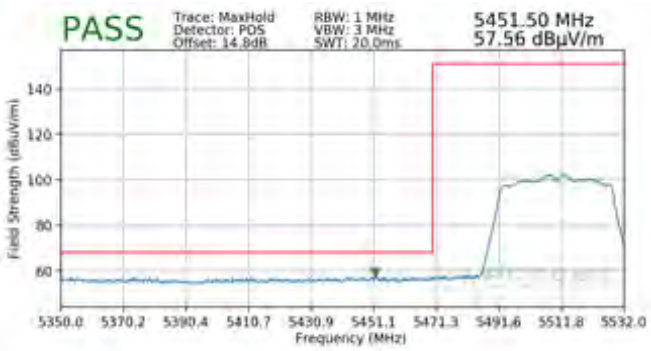
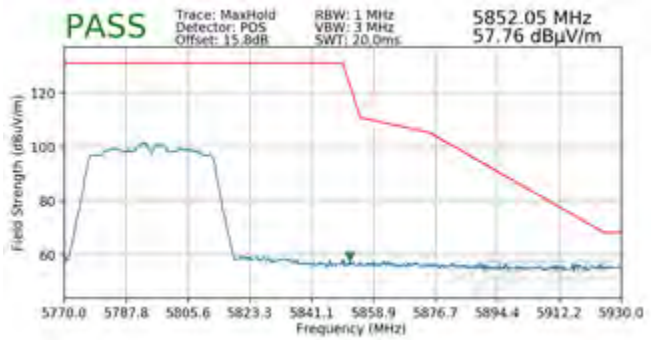
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

Plot 7-204. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-205. 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 7-206. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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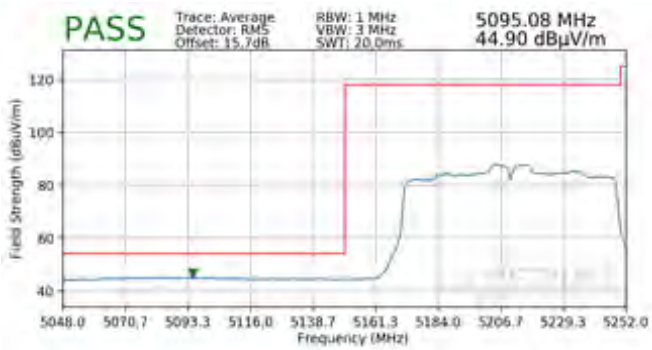
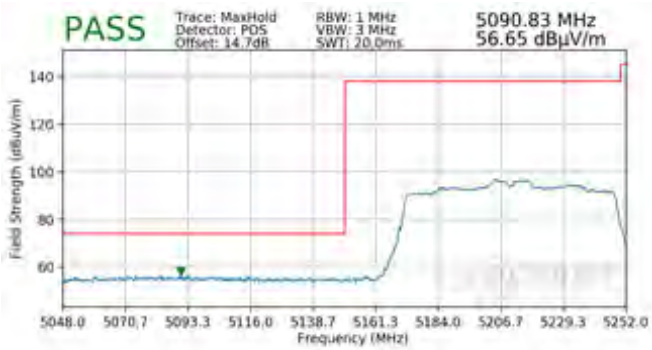
6.7.9 Antenna-2 Radiated Band Edge Measurements (80MHz BW)

§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

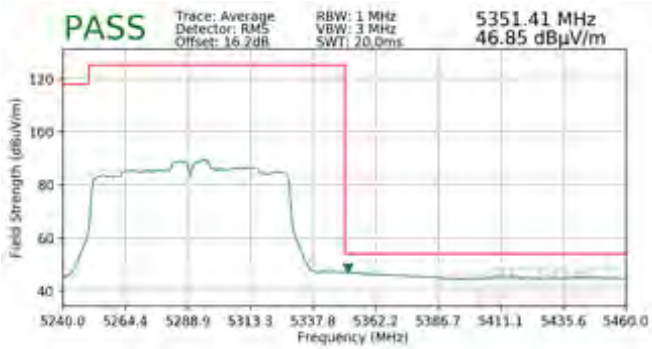


Plot 7-207. Radiated Lower Band Edge Plot (Average – UNII Band 1)

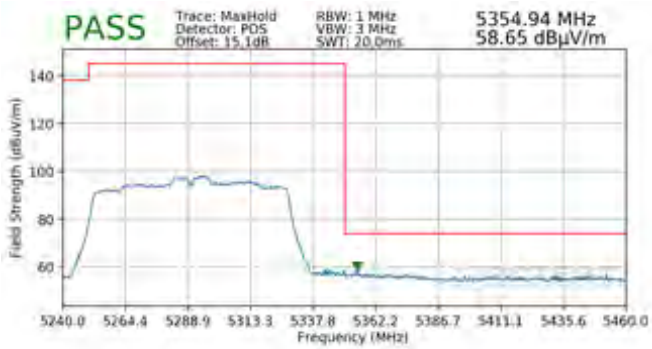


Plot 7-208. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



Plot 7-209. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-210. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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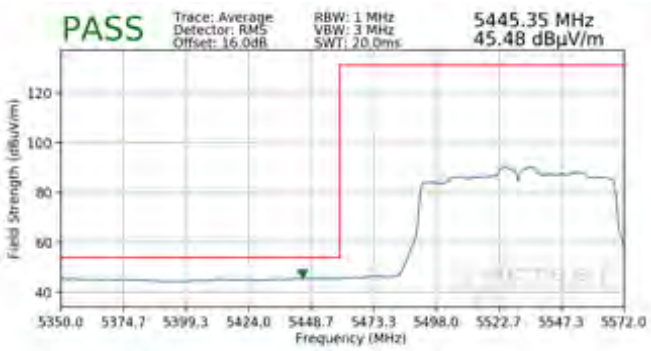
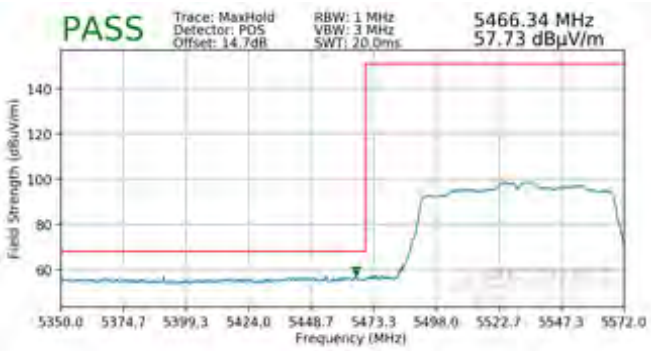
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5530MHz
Channel:	106

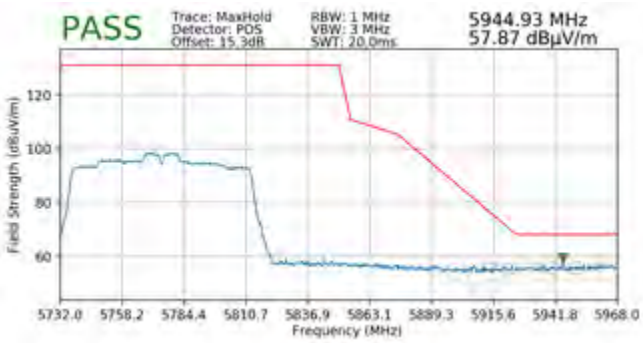


Plot 7-211. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-212. 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 7-213. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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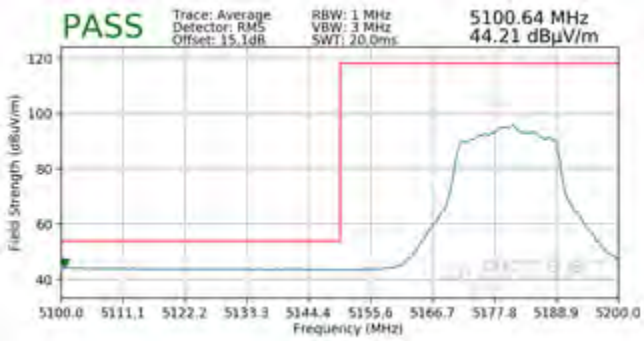
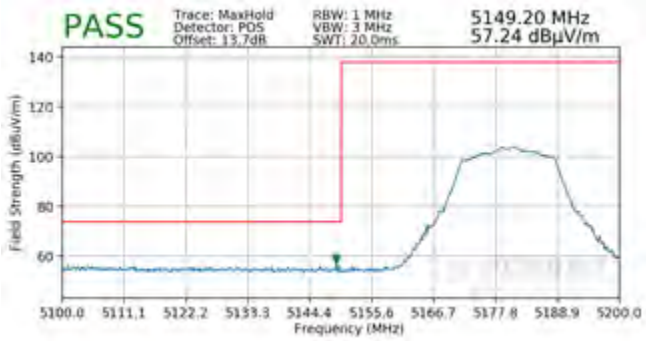
6.7.10 MIMO Radiated Band Edge Measurements (20MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5180MHz
Channel:	36



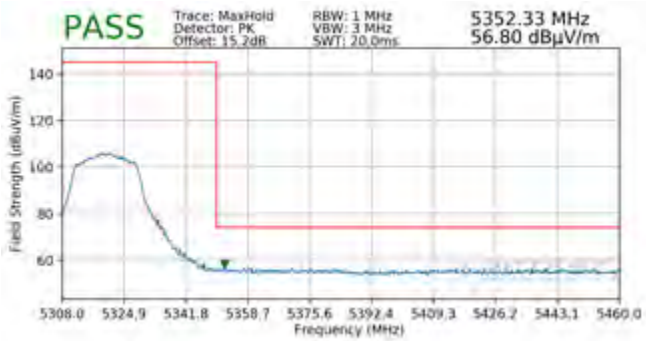
Plot 7-214. Radiated Lower Band Edge Plot (Average – UNII Band 1)



Plot 7-215. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5320MHz
Channel:	64

Plot 7-216. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-217. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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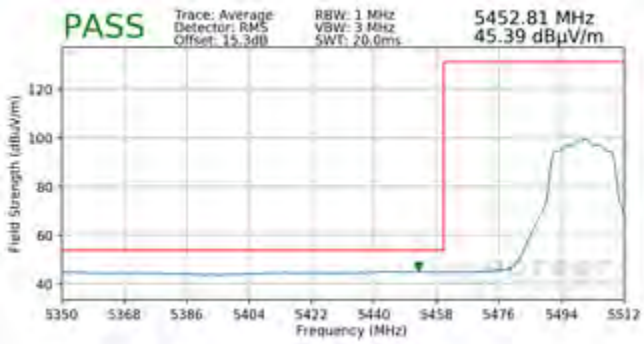
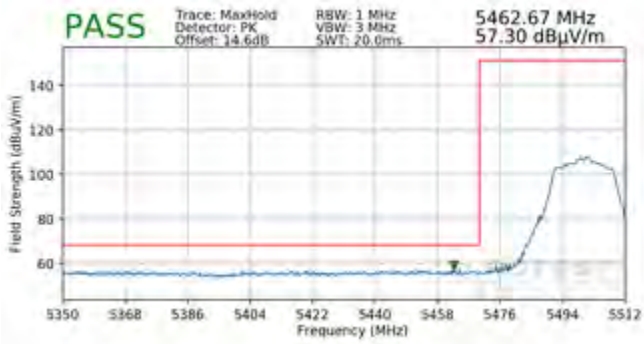
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

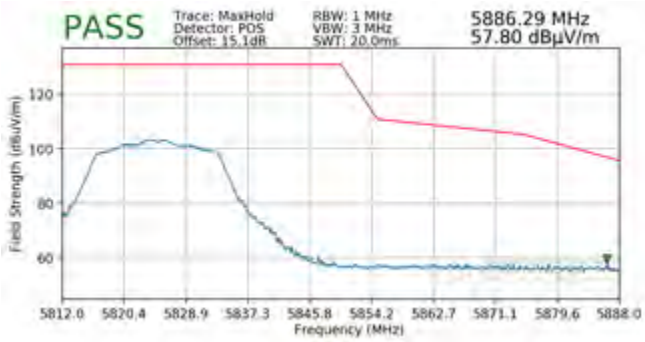


Plot 7-218. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-219. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5825MHz
Channel:	165



Plot 7-220. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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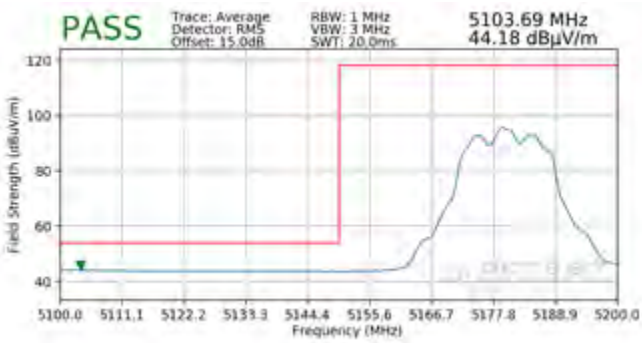
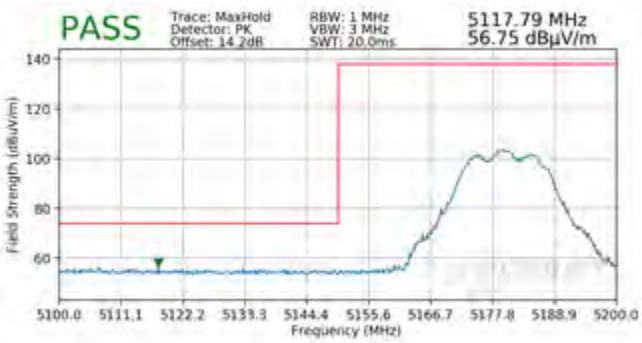
6.7.11 CDD Radiated Band Edge Measurements (20MHz BW)

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

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



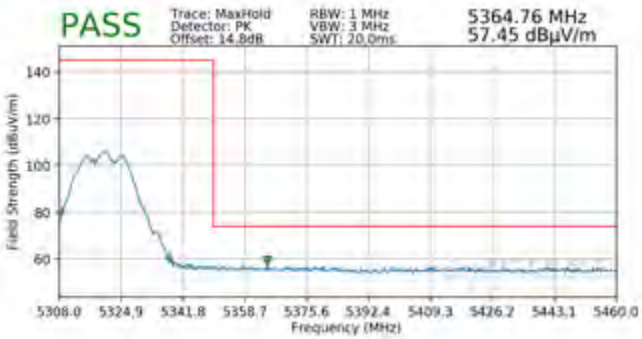
Plot 7-221. Radiated Lower Band Edge Plot (Average – UNII Band 1)



Plot 7-222. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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

Plot 7-223. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-224. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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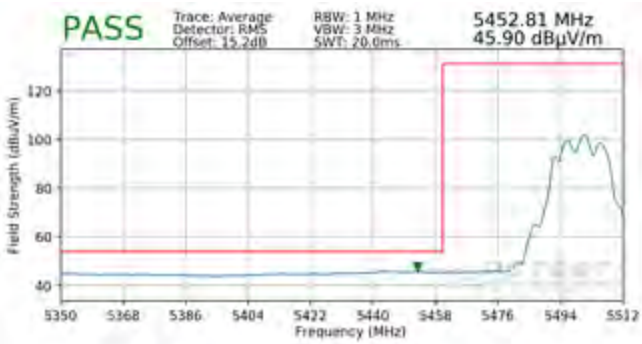
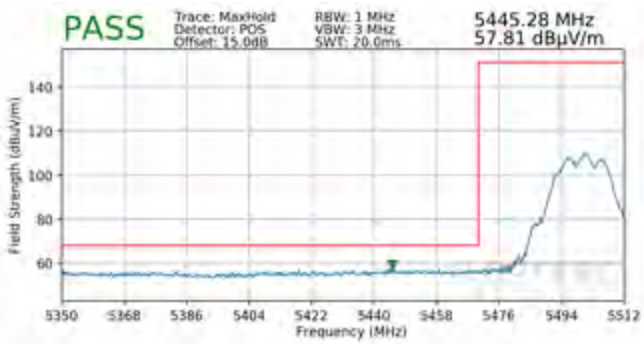
Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6Mbps
Distance of Measurements:	3 Meters
Operating Frequency:	5500MHz
Channel:	100

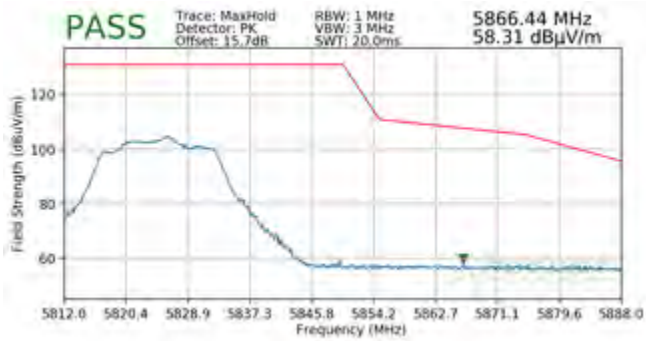


Plot 7-225. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-226. Radiated Lower Band Edge Plot (Peak – UNII Band 2C)

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



Plot 7-227. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

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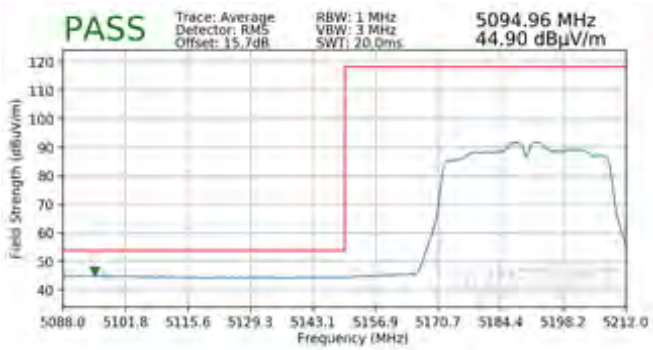
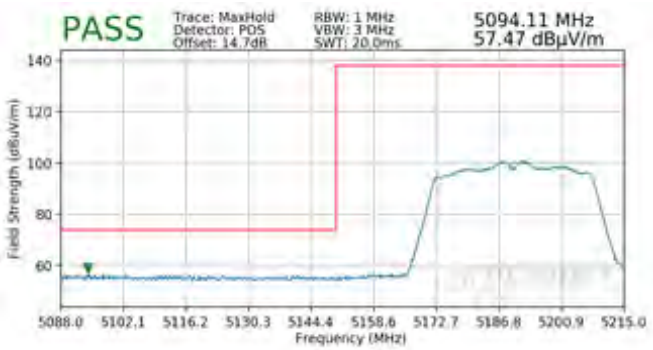
6.7.12 MIMO Radiated Band Edge Measurements (40MHz BW)

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5190MHz
Channel:	38



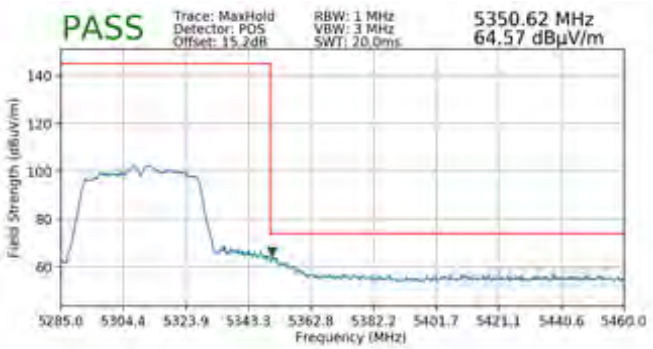
Plot 7-228. Radiated Lower Band Edge Plot (Average – UNII Band 1)



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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5310MHz
Channel:	62

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



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

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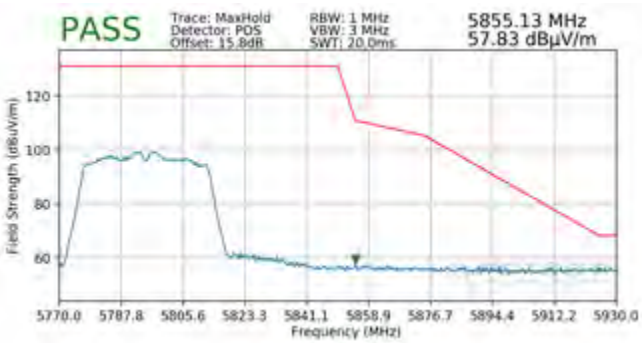
Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5510MHz
Channel:	102

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

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

Worst Case Mode:	802.11n
Worst Case Transfer Rate:	MCS8
Distance of Measurements:	3 Meters
Operating Frequency:	5795MHz
Channel:	159



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

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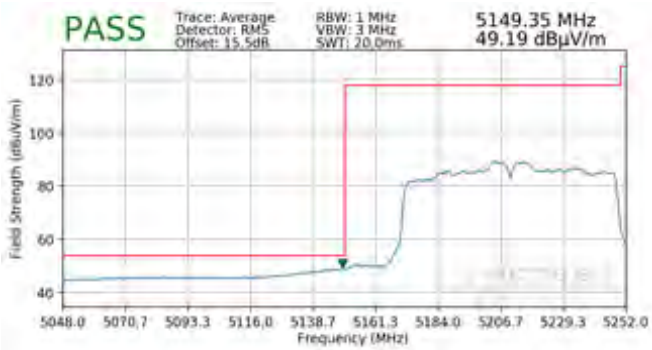
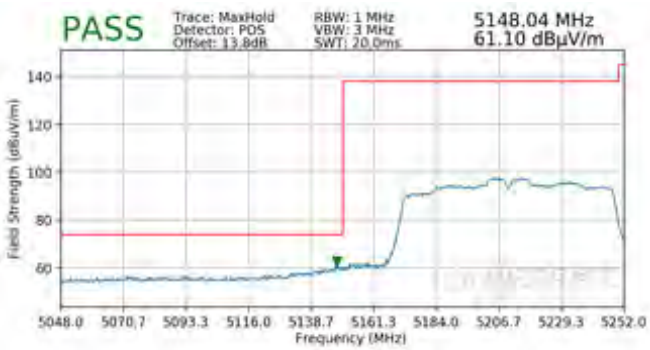
6.7.13 MIMO Radiated Band Edge Measurements (80MHz BW)

§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

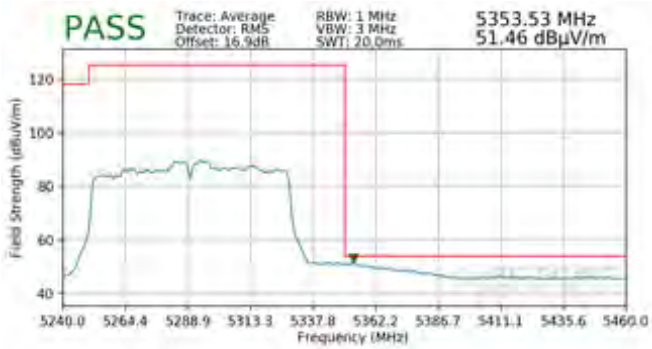


Plot 7-235. Radiated Lower Band Edge Plot (Average – UNII Band 1)

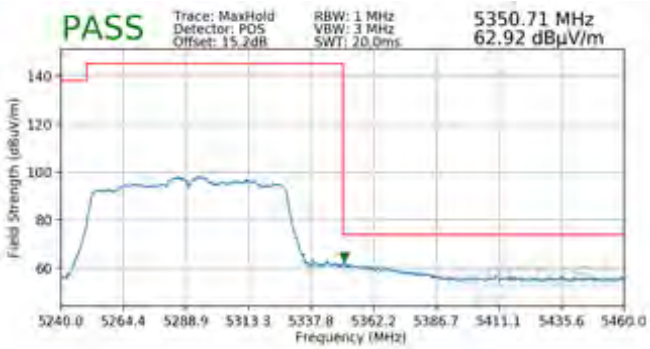


Plot 7-236. Radiated Lower Band Edge Plot (Peak – UNII Band 1)

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



Plot 7-237. Radiated Upper Band Edge Plot (Average – UNII Band 2A)



Plot 7-238. Radiated Upper Band Edge Plot (Peak – UNII Band 2A)

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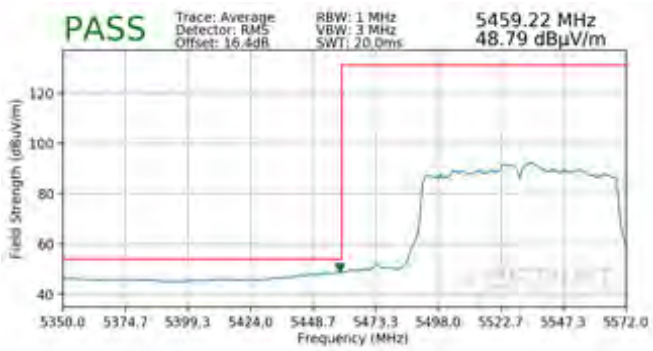
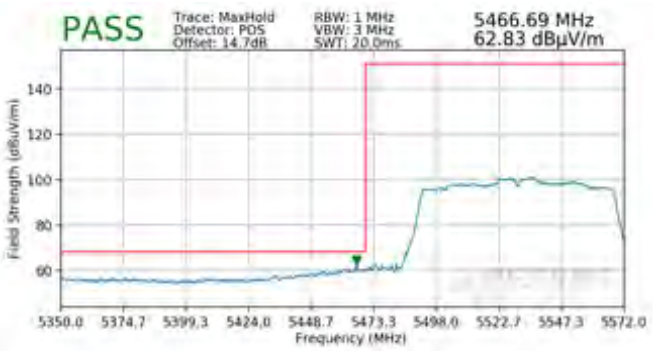
Worst Case Mode:	802.11ac
Worst Case Transfer Rate:	MCS0
Distance of Measurements:	3 Meters
Operating Frequency:	5530MHz
Channel:	106

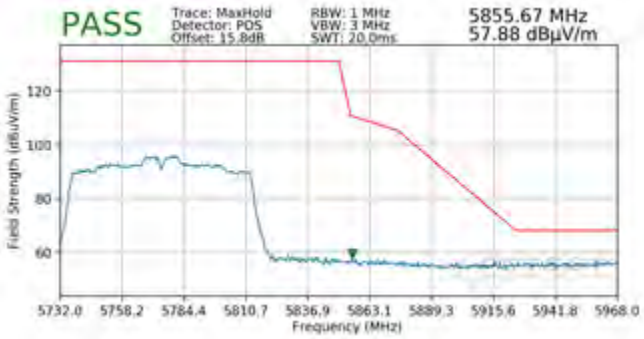


Plot 7-239. Radiated Lower Band Edge Plot (Average – UNII Band 2C)



Plot 7-240. 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 7-241. Radiated Upper Band Edge Plot

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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 7-51 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 7-51. 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

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Test Setup

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

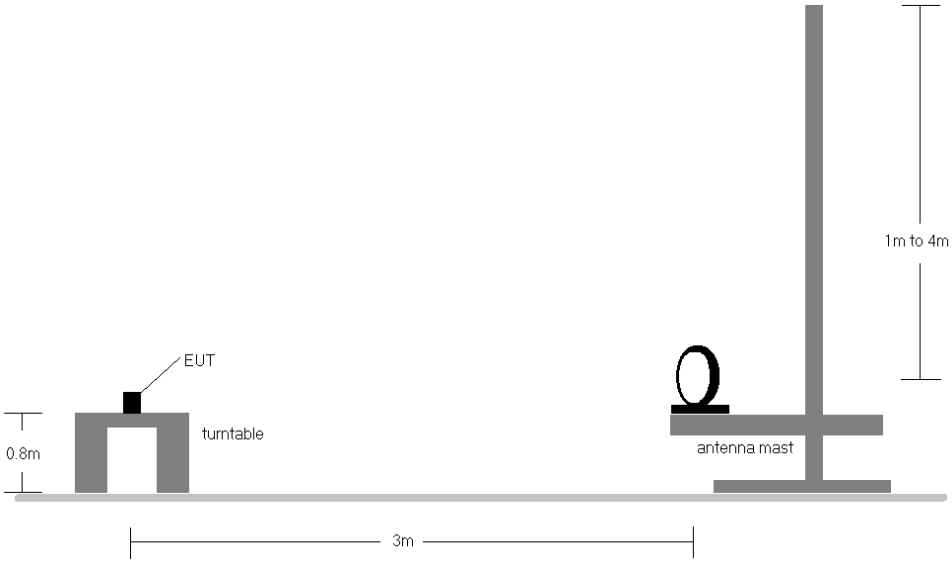

Figure 7-6. Radiated Test Setup < 30MHz

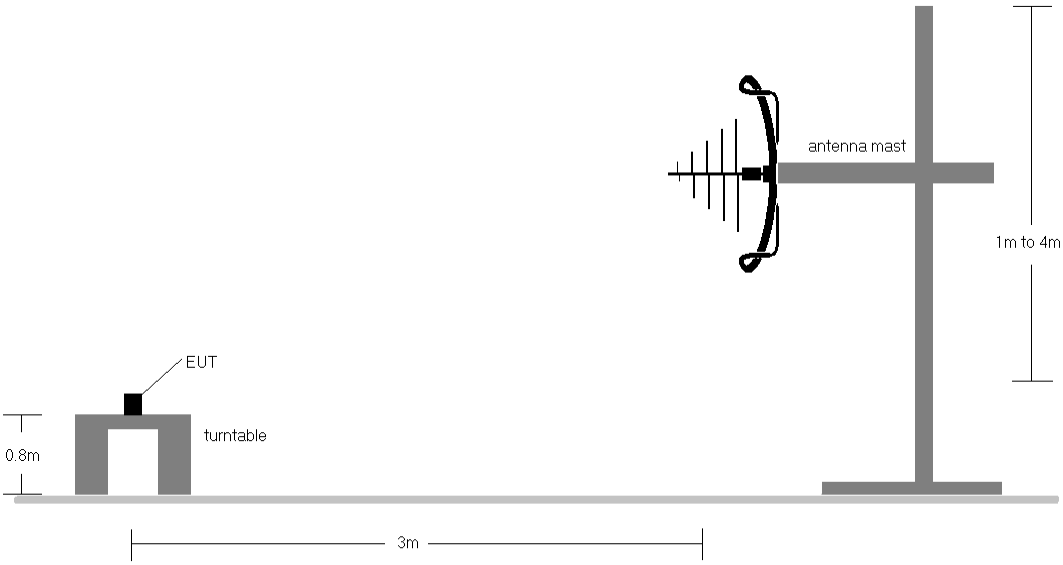

Figure 7-7. Radiated Test Setup < 1GHz

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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 7-51.
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.

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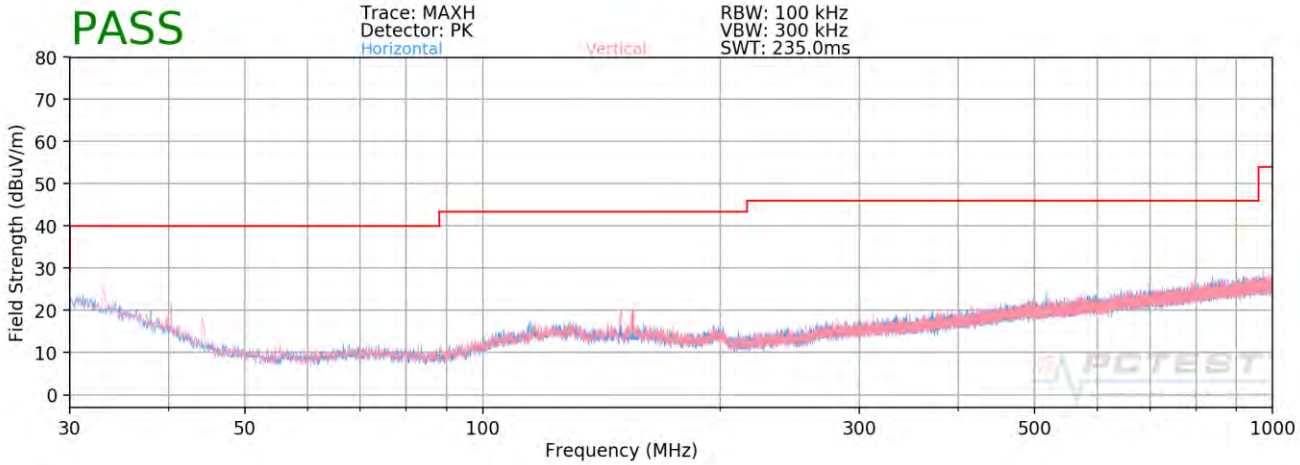
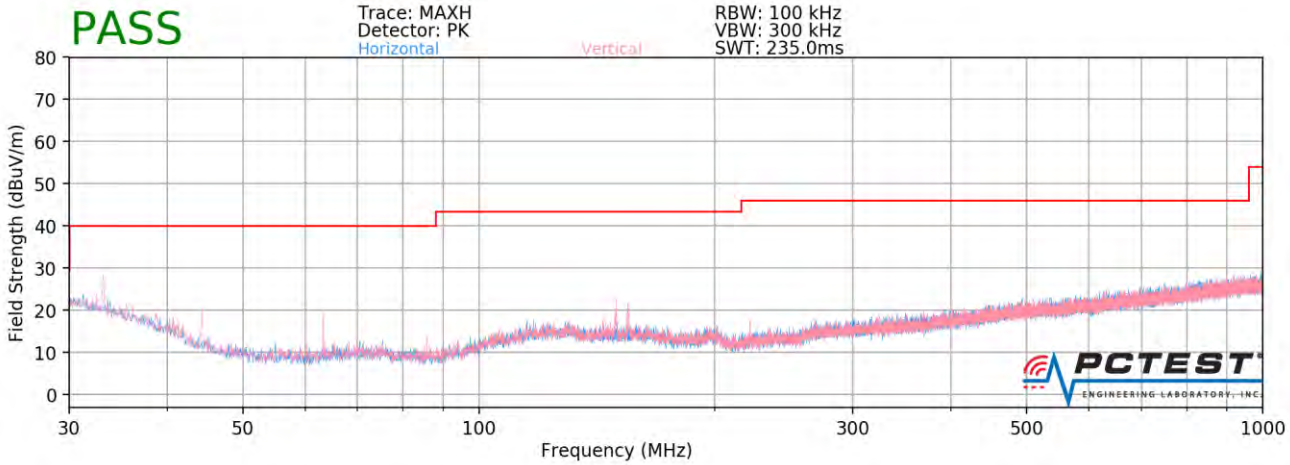
Radiated Spurious Emissions Measurements (Below 1GHz)

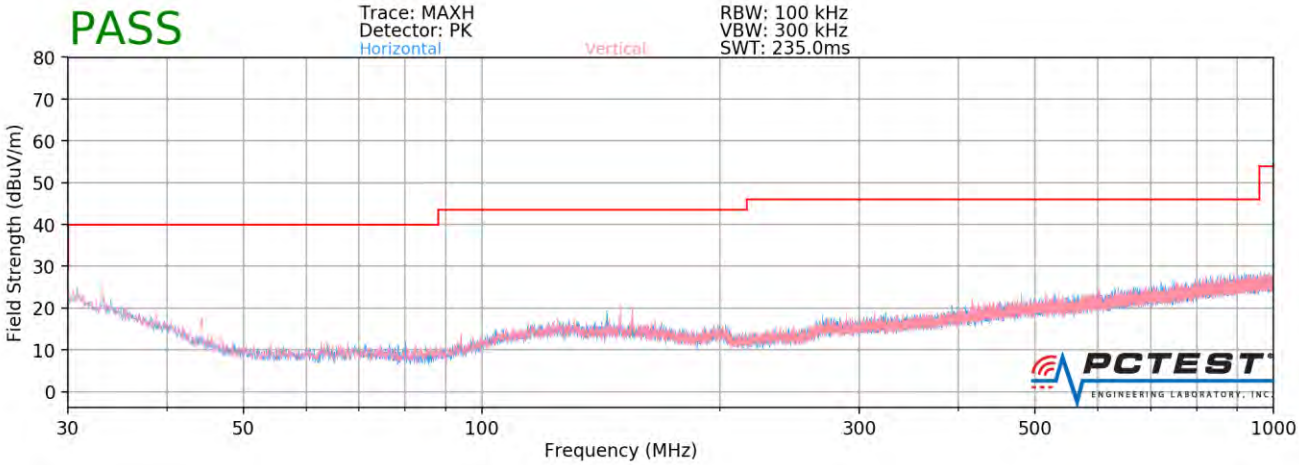
§15.209; RSS-Gen [8.9]



Plot 7-242. Radiated Spurious Plot below 1GHz (802.11a – U3 Ch. 157) – Ant1



Plot 7-243. Radiated Spurious Plot below 1GHz (802.11a – U3 Ch. 157) – Ant2



Plot 7-244. Radiated Spurious Plot below 1GHz (2.4GHz – 5GHz) – Simultaneous Tx

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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 7-52. 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

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Test Setup

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

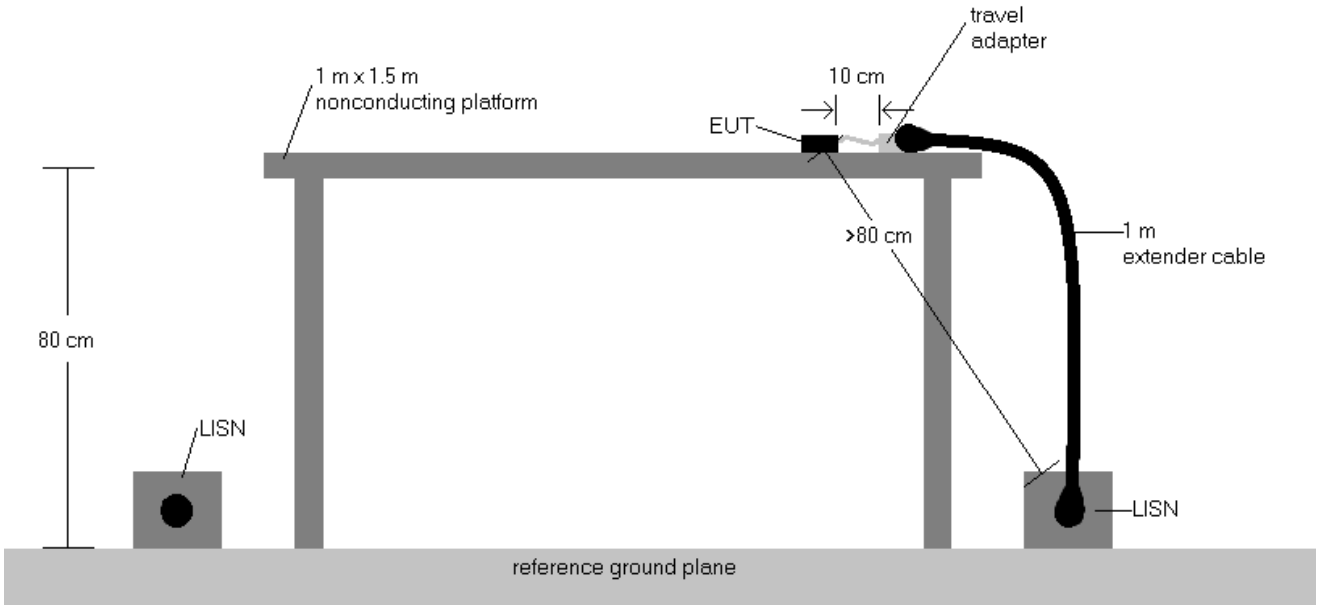

Figure 7-8. Test Instrument & Measurement Setup

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.

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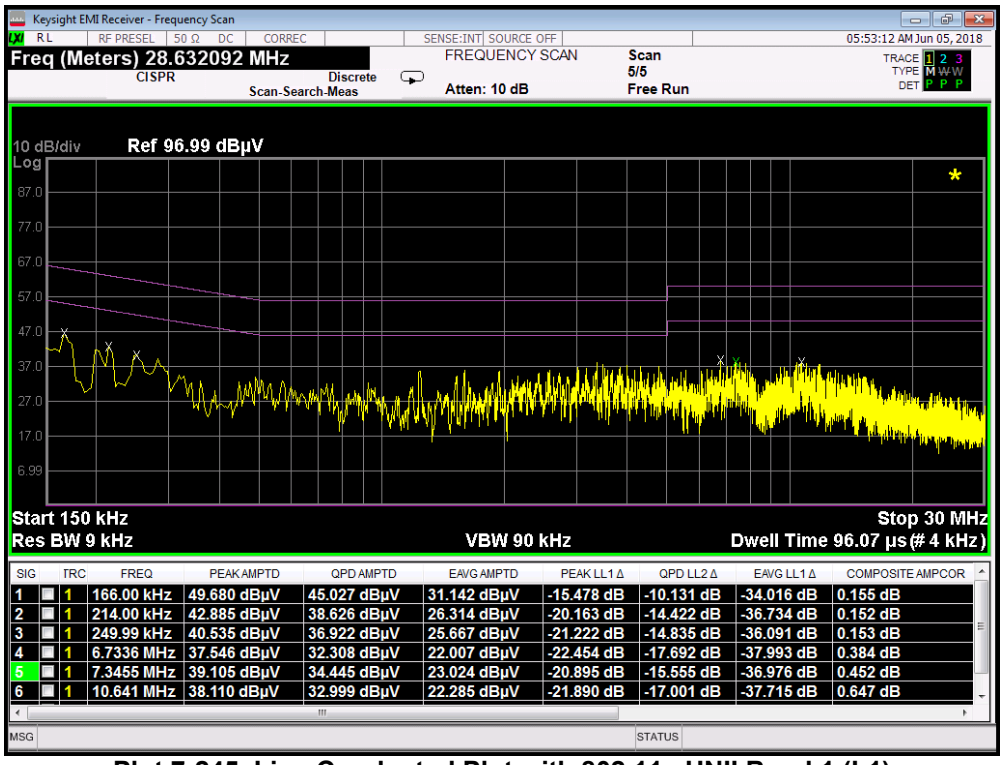
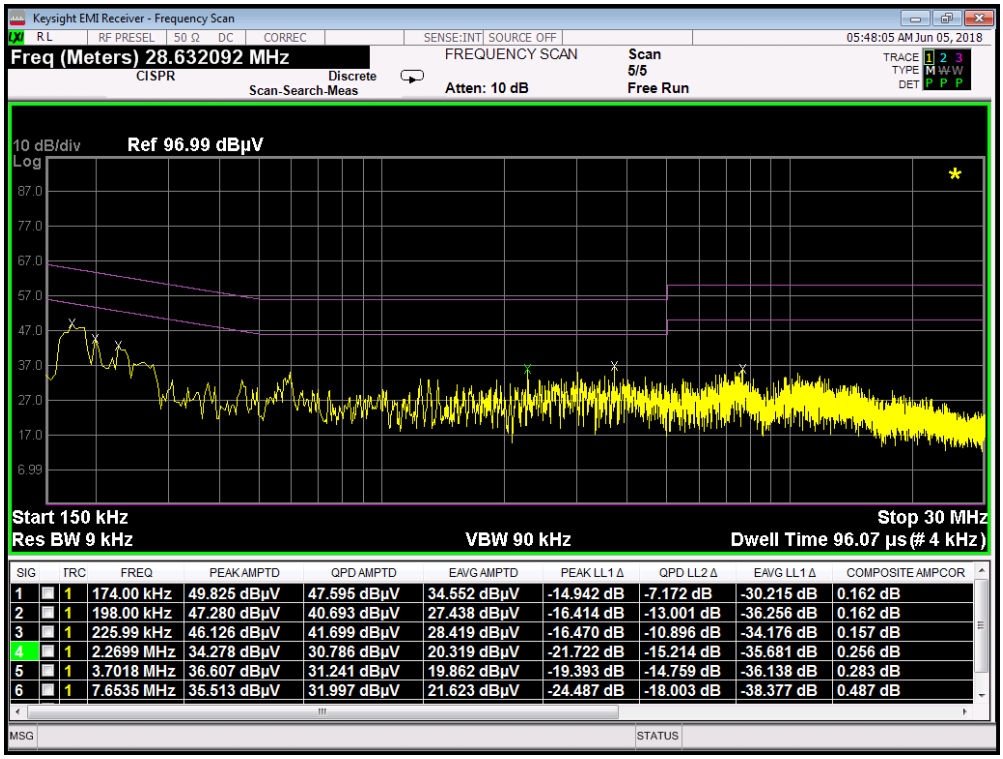


SIG	TRC	FREQ	PEAK AMPTD	QPD AMPTD	EAVG AMPTD	PEAK LL1 Δ	QPD LL2 Δ	EAVG LL1 Δ	COMPOSITE AMPCOR
1	1	166.00 kHz	49.680 dBµV	45.027 dBµV	31.142 dBµV	-15.478 dB	-10.131 dB	-34.016 dB	0.155 dB
2	1	214.00 kHz	42.885 dBµV	38.626 dBµV	26.314 dBµV	-20.163 dB	-14.422 dB	-36.734 dB	0.152 dB
3	1	249.99 kHz	40.535 dBµV	36.922 dBµV	25.667 dBµV	-21.222 dB	-14.835 dB	-36.091 dB	0.153 dB
4	1	6.7336 MHz	37.546 dBµV	32.308 dBµV	22.007 dBµV	-22.454 dB	-17.692 dB	-37.993 dB	0.384 dB
5	1	7.3455 MHz	39.105 dBµV	34.445 dBµV	23.024 dBµV	-20.895 dB	-15.555 dB	-36.976 dB	0.452 dB
6	1	10.641 MHz	38.110 dBµV	32.999 dBµV	22.285 dBµV	-21.890 dB	-17.001 dB	-37.715 dB	0.647 dB

Plot 7-245. Line Conducted Plot with 802.11a UNII Band 1 (L1)



SIG	TRC	FREQ	PEAK AMPTD	QPD AMPTD	EAVG AMPTD	PEAK LL1 Δ	QPD LL2 Δ	EAVG LL1 Δ	COMPOSITE AMPCOR
1	1	174.00 kHz	49.825 dBµV	47.595 dBµV	34.552 dBµV	-14.942 dB	-7.172 dB	-30.215 dB	0.162 dB
2	1	198.00 kHz	47.280 dBµV	40.693 dBµV	27.438 dBµV	-16.414 dB	-13.001 dB	-36.256 dB	0.162 dB
3	1	225.99 kHz	46.126 dBµV	41.699 dBµV	28.419 dBµV	-16.470 dB	-10.896 dB	-34.176 dB	0.157 dB
4	1	2.2699 MHz	34.278 dBµV	30.786 dBµV	20.319 dBµV	-21.722 dB	-15.214 dB	-35.681 dB	0.256 dB
5	1	3.7018 MHz	36.607 dBµV	31.241 dBµV	19.862 dBµV	-19.393 dB	-14.759 dB	-36.138 dB	0.283 dB
6	1	7.6535 MHz	35.513 dBµV	31.997 dBµV	21.623 dBµV	-24.487 dB	-18.003 dB	-38.377 dB	0.487 dB

Plot 7-246. Line Conducted Plot with 802.11a UNII Band 1 (N)

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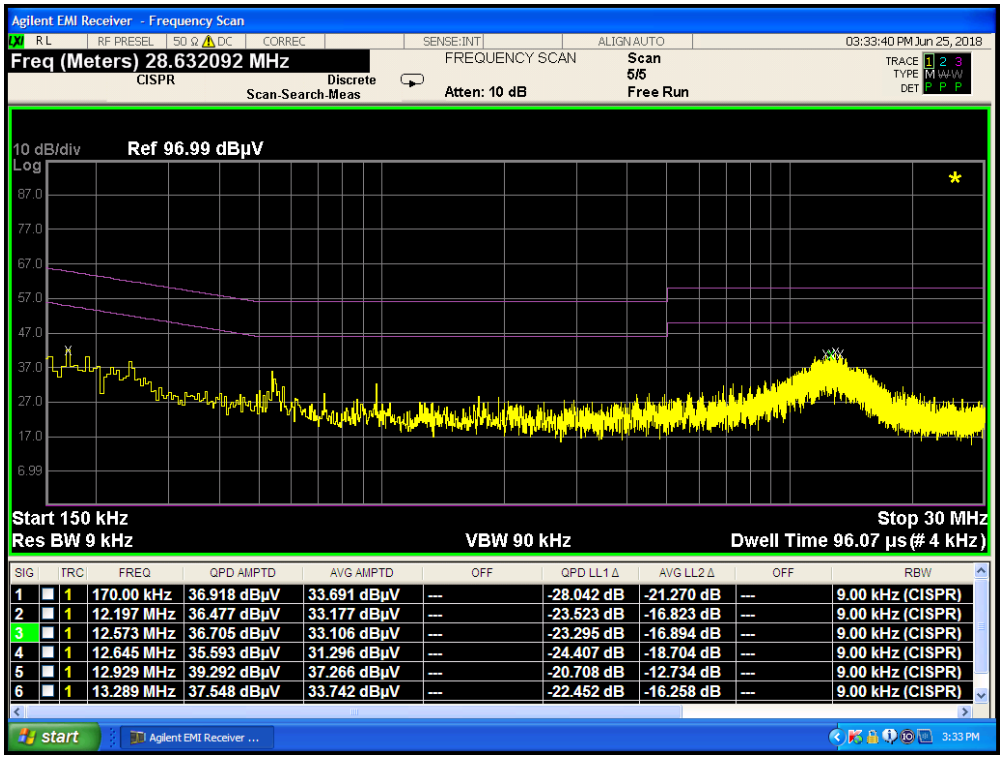
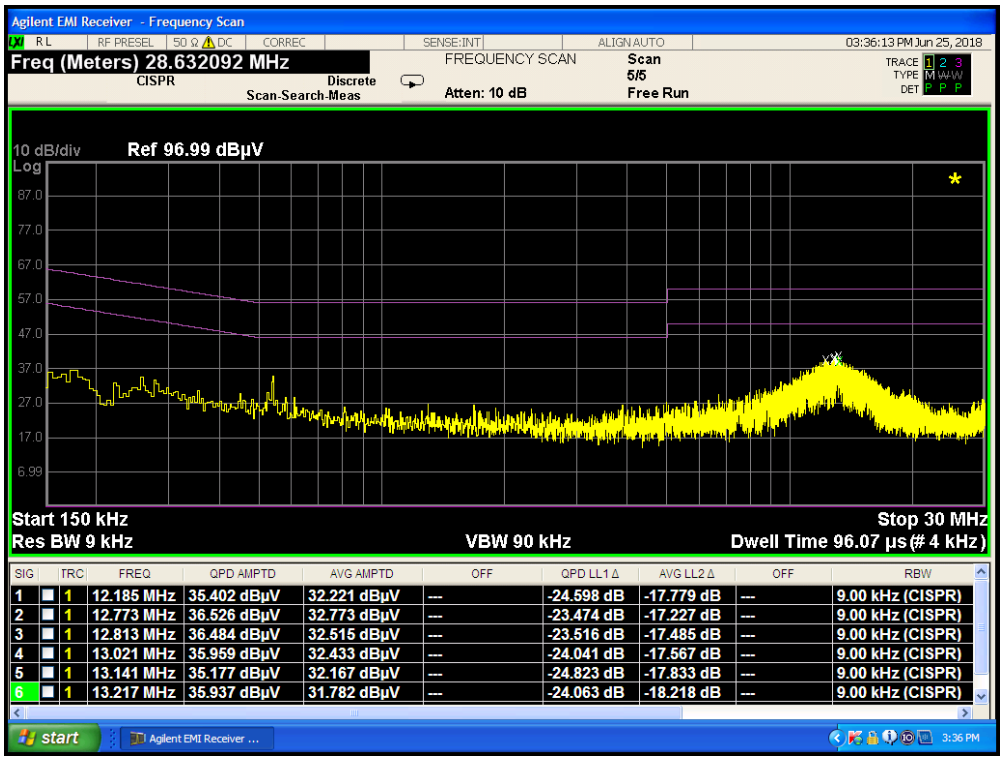


SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	170.00 kHz	36.918 dBµV	33.691 dBµV	---	-28.042 dB	-21.270 dB	---	9.00 kHz (CISPR)
2	1	12.197 MHz	36.477 dBµV	33.177 dBµV	---	-23.523 dB	-16.823 dB	---	9.00 kHz (CISPR)
3	1	12.573 MHz	36.705 dBµV	33.106 dBµV	---	-23.295 dB	-16.894 dB	---	9.00 kHz (CISPR)
4	1	12.645 MHz	35.593 dBµV	31.296 dBµV	---	-24.407 dB	-18.704 dB	---	9.00 kHz (CISPR)
5	1	12.929 MHz	39.292 dBµV	37.266 dBµV	---	-20.708 dB	-12.734 dB	---	9.00 kHz (CISPR)
6	1	13.289 MHz	37.548 dBµV	33.742 dBµV	---	-22.452 dB	-16.258 dB	---	9.00 kHz (CISPR)

Plot 7-247. Line Conducted Plot with 802.11a UNII Band 2A (L1)



SIG	TRC	FREQ	QPD AMPTD	AVG AMPTD	OFF	QPD LL1 Δ	AVG LL2 Δ	OFF	RBW
1	1	12.185 MHz	35.402 dBµV	32.221 dBµV	---	-24.598 dB	-17.779 dB	---	9.00 kHz (CISPR)
2	1	12.773 MHz	36.526 dBµV	32.773 dBµV	---	-23.474 dB	-17.227 dB	---	9.00 kHz (CISPR)
3	1	12.813 MHz	36.484 dBµV	32.515 dBµV	---	-23.516 dB	-17.485 dB	---	9.00 kHz (CISPR)
4	1	13.021 MHz	35.959 dBµV	32.433 dBµV	---	-24.041 dB	-17.567 dB	---	9.00 kHz (CISPR)
5	1	13.141 MHz	35.177 dBµV	32.167 dBµV	---	-24.823 dB	-17.833 dB	---	9.00 kHz (CISPR)
6	1	13.217 MHz	35.937 dBµV	31.782 dBµV	---	-24.063 dB	-18.218 dB	---	9.00 kHz (CISPR)

Plot 7-248. Line Conducted Plot with 802.11a UNII Band 2A (N)

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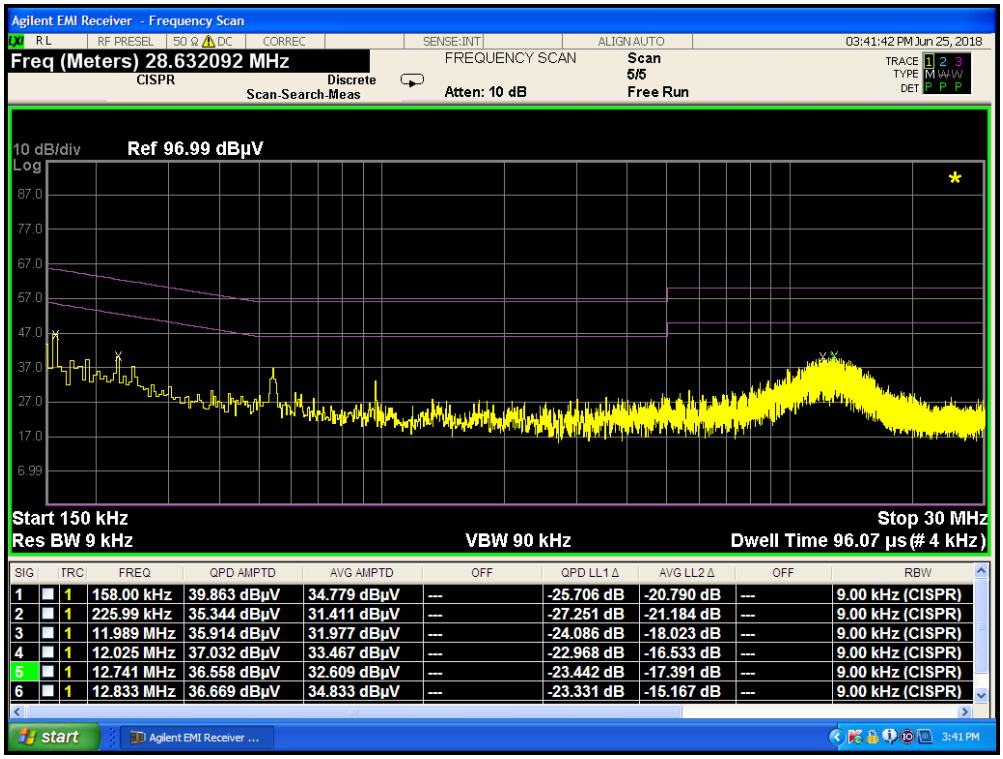
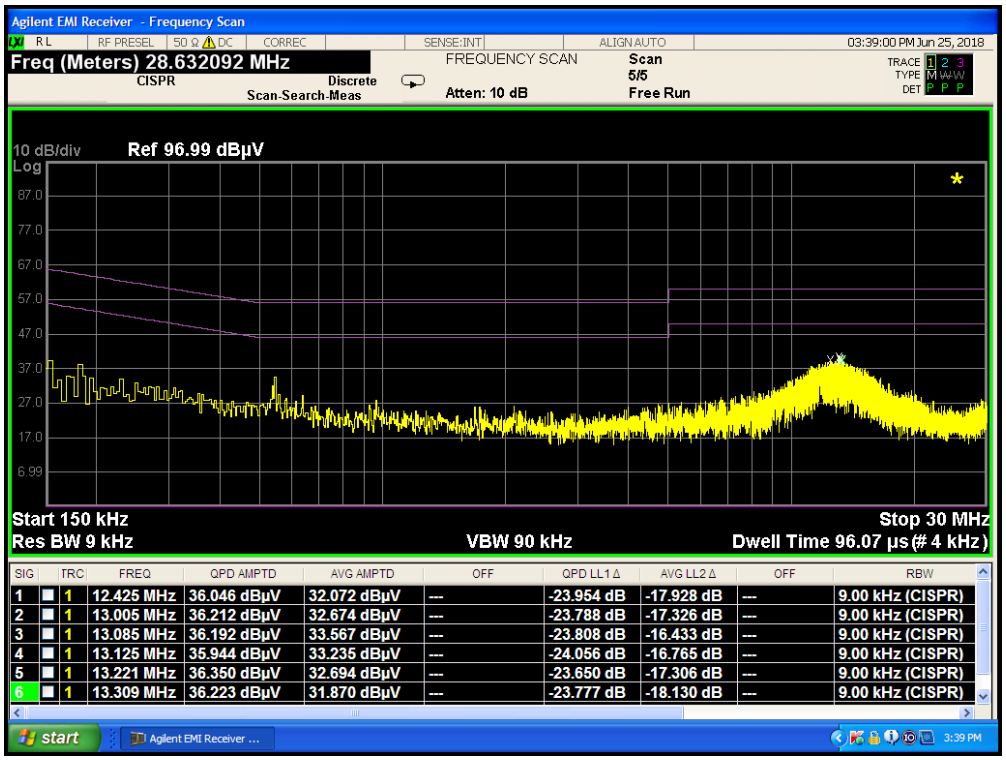


Plot 7-249. Line Conducted Plot with 802.11a UNII Band 2C (L1)



Plot 7-250. Line Conducted Plot with 802.11a UNII Band 2C (N)

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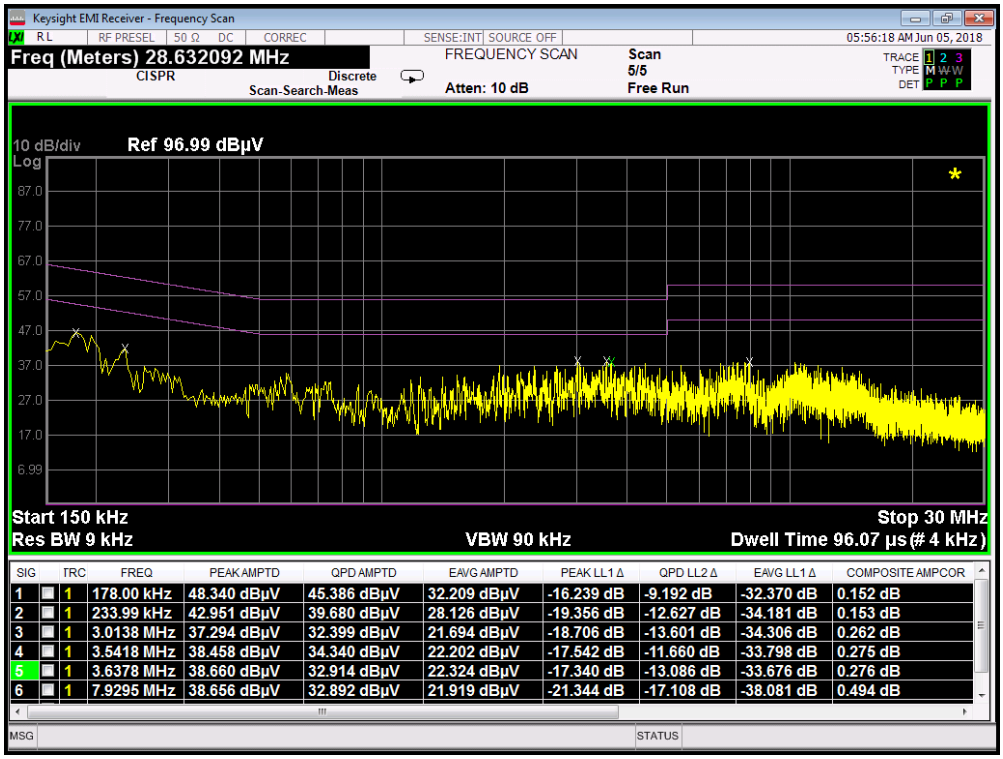
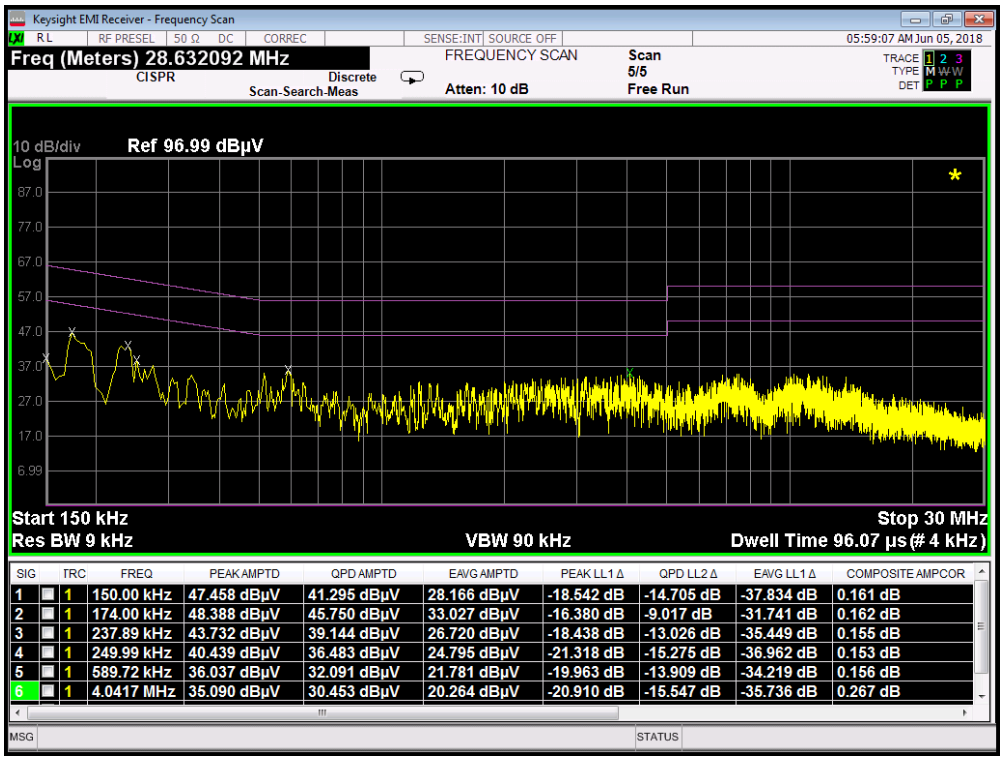


SIG	TRC	FREQ	PEAK AMPTD	QPD AMPTD	EAVG AMPTD	PEAK LL1 Δ	QPD LL2 Δ	EAVG LL1 Δ	COMPOSITE AMPCOR
1	1	178.00 kHz	48.340 dBµV	45.386 dBµV	32.209 dBµV	-16.239 dB	-9.192 dB	-32.370 dB	0.152 dB
2	1	233.99 kHz	42.951 dBµV	39.680 dBµV	28.126 dBµV	-19.356 dB	-12.627 dB	-34.181 dB	0.153 dB
3	1	3.0138 MHz	37.294 dBµV	32.399 dBµV	21.694 dBµV	-18.706 dB	-13.601 dB	-34.306 dB	0.262 dB
4	1	3.5418 MHz	38.458 dBµV	34.340 dBµV	22.202 dBµV	-17.542 dB	-11.660 dB	-33.798 dB	0.275 dB
5	1	3.6378 MHz	38.660 dBµV	32.914 dBµV	22.324 dBµV	-17.340 dB	-13.086 dB	-33.676 dB	0.276 dB
6	1	7.9295 MHz	38.656 dBµV	32.892 dBµV	21.919 dBµV	-21.344 dB	-17.108 dB	-38.081 dB	0.494 dB

Plot 7-251. Line Conducted Plot with 802.11a UNII Band 3 (L1)



SIG	TRC	FREQ	PEAK AMPTD	QPD AMPTD	EAVG AMPTD	PEAK LL1 Δ	QPD LL2 Δ	EAVG LL1 Δ	COMPOSITE AMPCOR
1	1	150.00 kHz	47.458 dBµV	41.295 dBµV	28.166 dBµV	-18.542 dB	-14.705 dB	-37.834 dB	0.161 dB
2	1	174.00 kHz	48.388 dBµV	45.750 dBµV	33.027 dBµV	-16.380 dB	-9.017 dB	-31.741 dB	0.162 dB
3	1	237.89 kHz	43.732 dBµV	39.144 dBµV	26.720 dBµV	-18.438 dB	-13.026 dB	-35.449 dB	0.155 dB
4	1	249.99 kHz	40.439 dBµV	36.483 dBµV	24.795 dBµV	-21.318 dB	-15.275 dB	-36.962 dB	0.153 dB
5	1	589.72 kHz	36.037 dBµV	32.091 dBµV	21.781 dBµV	-19.963 dB	-13.909 dB	-34.219 dB	0.156 dB
6	1	4.0417 MHz	35.090 dBµV	30.453 dBµV	20.264 dBµV	-20.910 dB	-15.547 dB	-35.736 dB	0.267 dB

Plot 7-252. Line Conducted Plot with 802.11a UNII Band 3 (N)

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8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the **Samsung Portable Tablet FCC ID: A3LSMT837A** is in compliance with Part 15E of the FCC Rules.

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