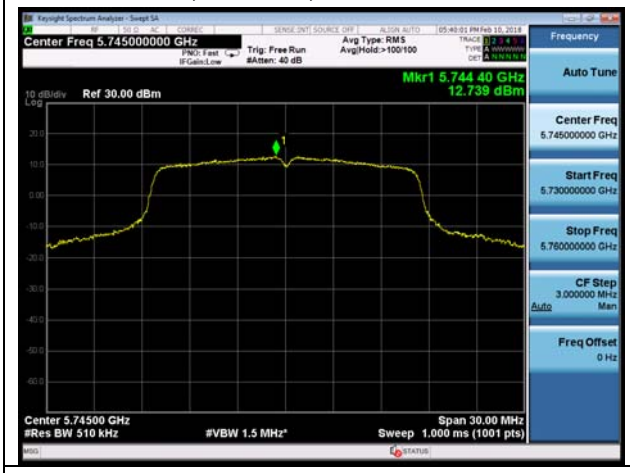
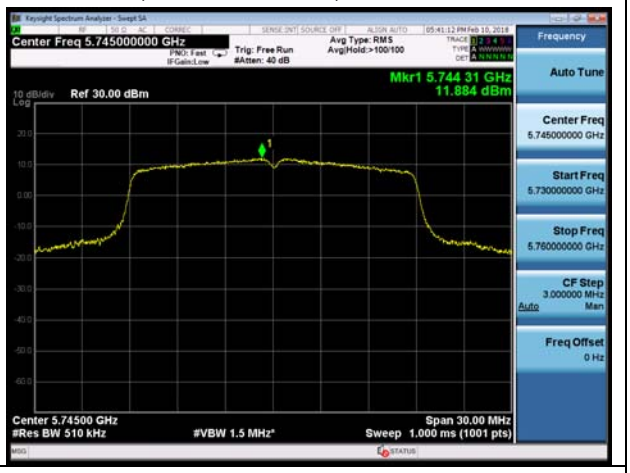
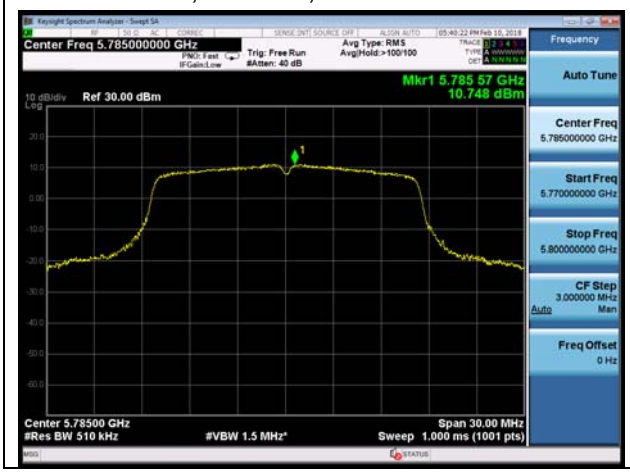
U-NII-3, 802.11a, Channel No.: 149



U-NII-3, 802.11n HT20, Channel No.: 149

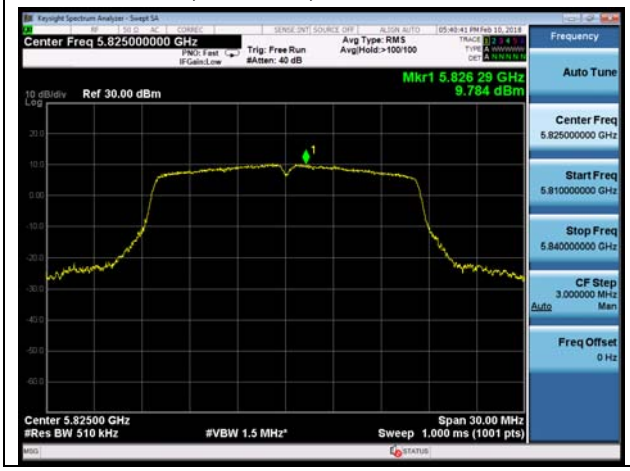


U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157

U-NII-3, 802.11a, Channel No.: 165

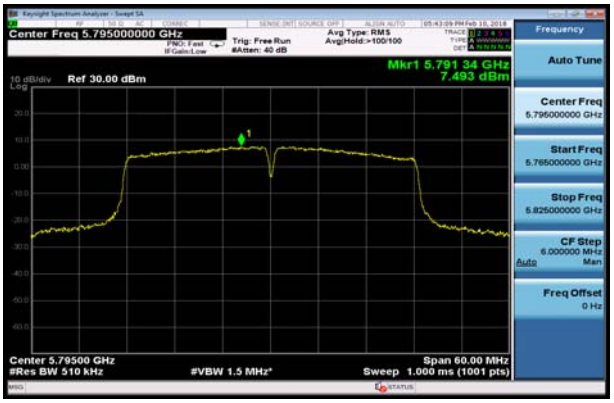


U-NII-3, 802.11n HT20, Channel No.: 165

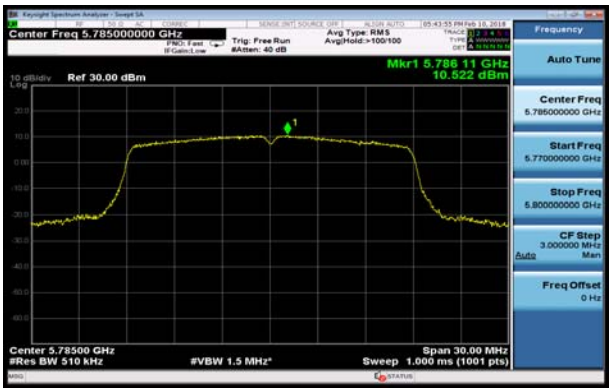
U-NII-3, 802.11n HT40, Channel No.: 151

U-NII-3, 802.11ac VHT20, Channel No.: 149

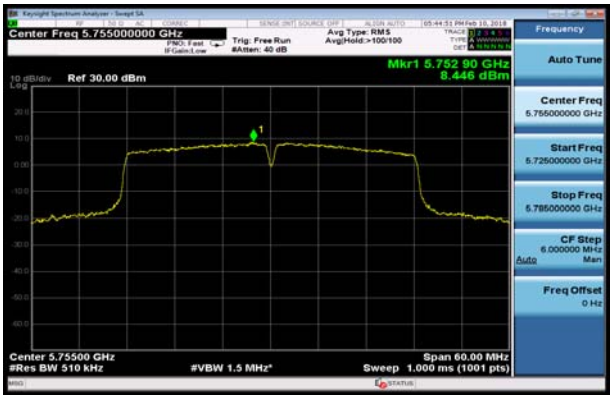
U-NII-3, 802.11n HT40, Channel No.: 159



U-NII-3, 802.11ac VHT20, Channel No.: 157



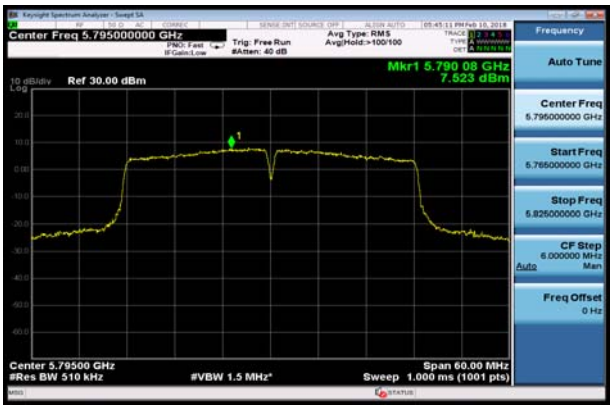
U-NII-3, 802.11ac VHT40, Channel No.: 151



U-NII-3, 802.11ac VHT20, Channel No.: 165

U-NII-3, 802.11ac VHT40, Channel No.: 159

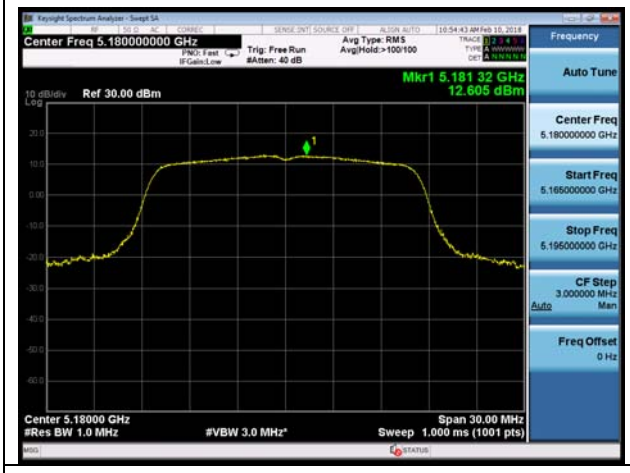
U-NII-3, 802.11ac VHT80, Channel No.: 155



With Beamforming

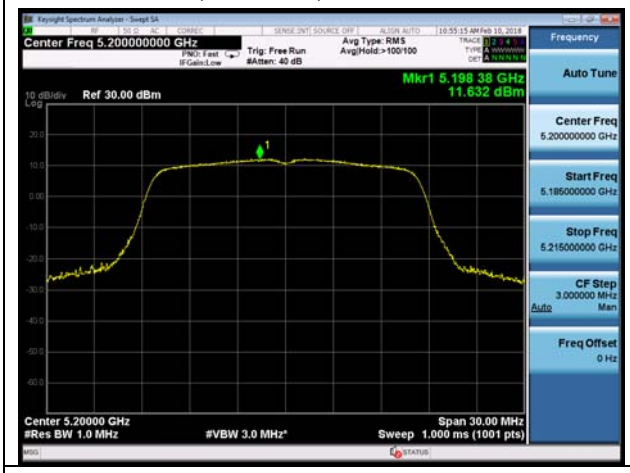
Antenna 2

U-NII-1, 802.11a, Channel No.: 36



U-NII-1, 802.11n HT20, Channel No.: 36

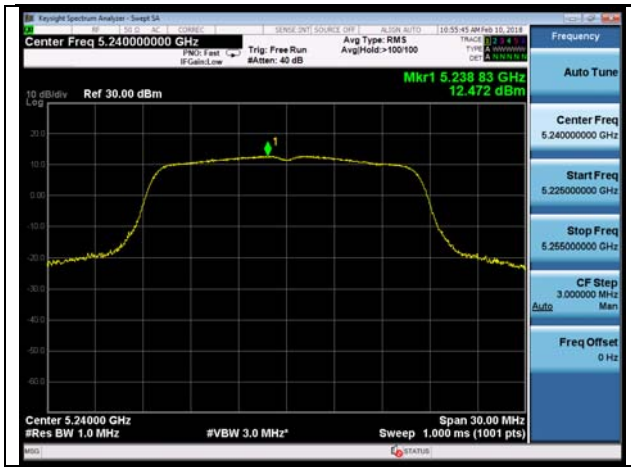
U-NII-1, 802.11a, Channel No.: 40



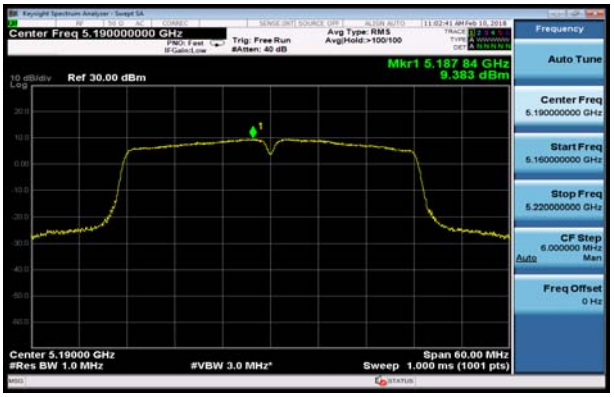
U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48

U-NII-1, 802.11n HT20, Channel No.: 48

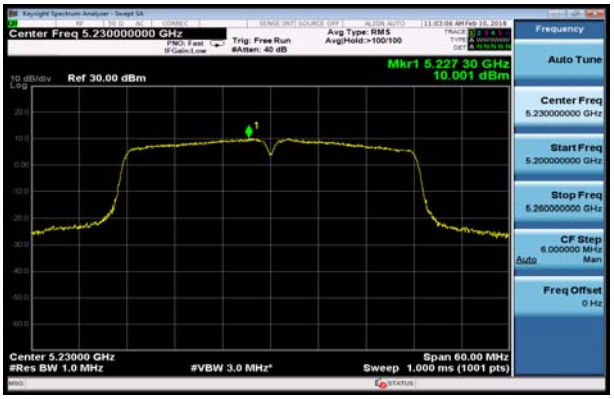


U-NII-1, 802.11n HT40, Channel No.: 38



U-NII-1, 802.11ac VHT20, Channel No.: 36

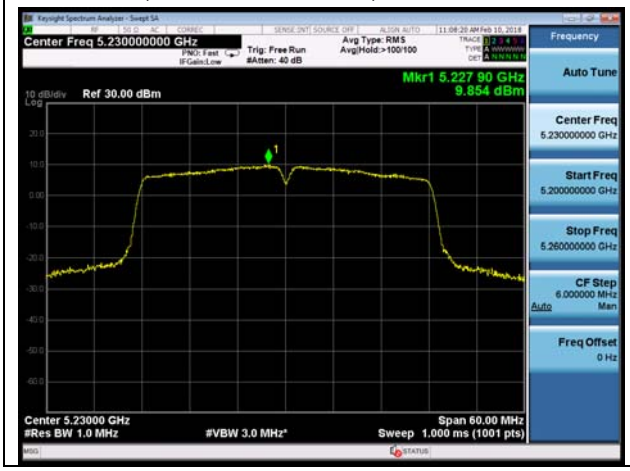
U-NII-1, 802.11n HT40, Channel No.: 46



U-NII-1, 802.11ac VHT20, Channel No.: 40

U-NII-1, 802.11ac VHT40, Channel No.: 38

U-NII-1, 802.11ac VHT20, Channel No.: 48

U-NII-1, 802.11ac VHT40, Channel No.: 46	U-NII-1, 802.11ac VHT80, Channel No.: 42
	

U-NII-2A, 802.11a, Channel No.: 52

U-NII-2A, 802.11n HT20, Channel No.: 52

U-NII-2A, 802.11a, Channel No.: 60

U-NII-2A, 802.11n HT20, Channel No.: 60

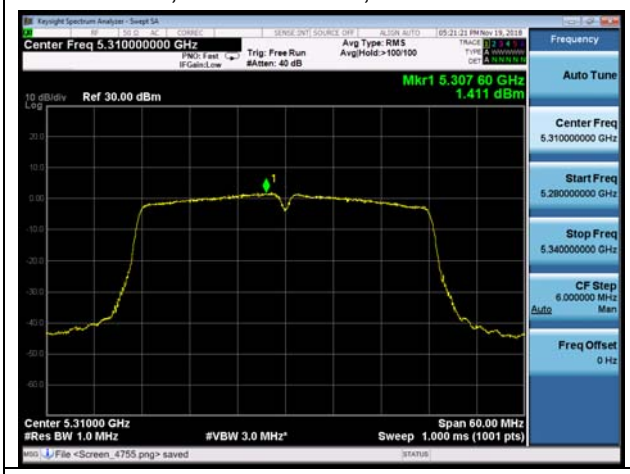
U-NII-2A, 802.11a, Channel No.: 64

U-NII-2A, 802.11n HT20, Channel No.: 64

U-NII-2A, 802.11n HT40, Channel No.: 54

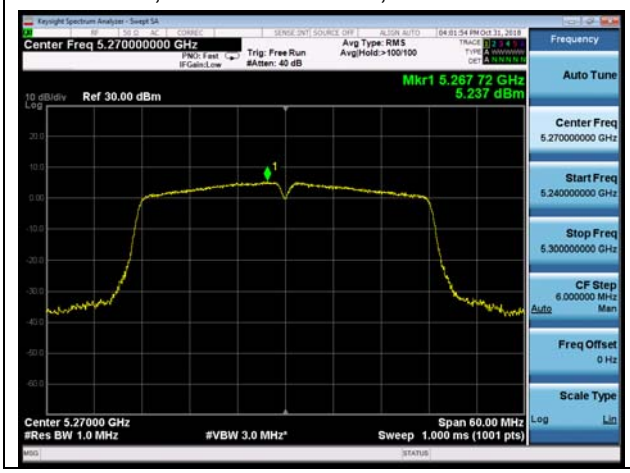
U-NII-2A, 802.11ac VHT20, Channel No.:52

U-NII-2A, 802.11n HT40, Channel No.: 62



U-NII-2A, 802.11ac VHT20, Channel No.: 60

U-NII-2A, 802.11ac VHT40, Channel No.: 54



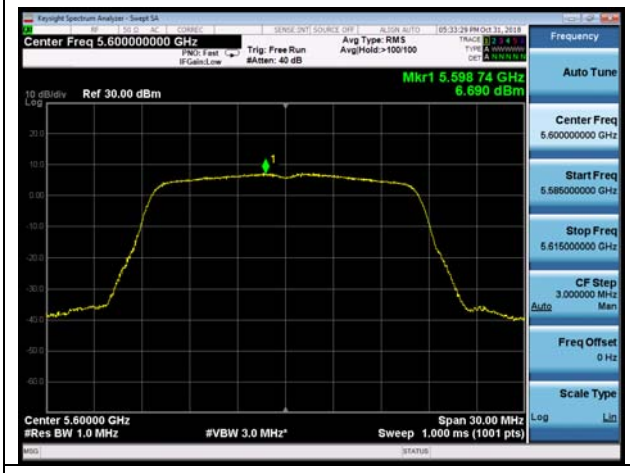
U-NII-2A, 802.11ac VHT20, Channel No.: 64

U-NII-2A, 802.11ac VHT40, Channel No.: 62	U-NII-2A, 802.11ac VHT80, Channel No.: 58
	

U-NII-2C, 802.11a, Channel No.: 100

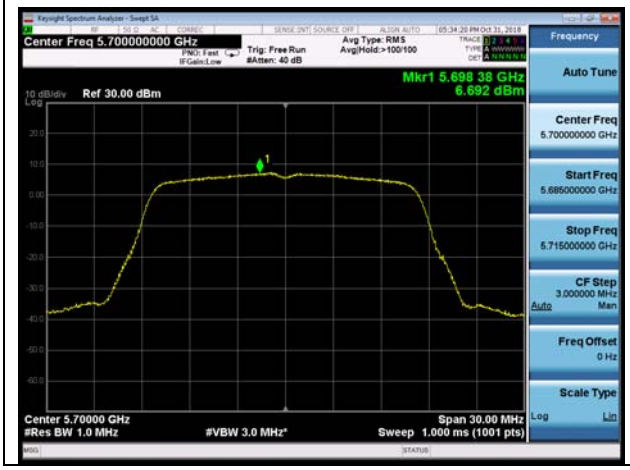
U-NII-2C, 802.11n HT20, Channel No.: 100

U-NII-2C, 802.11a, Channel No.: 120



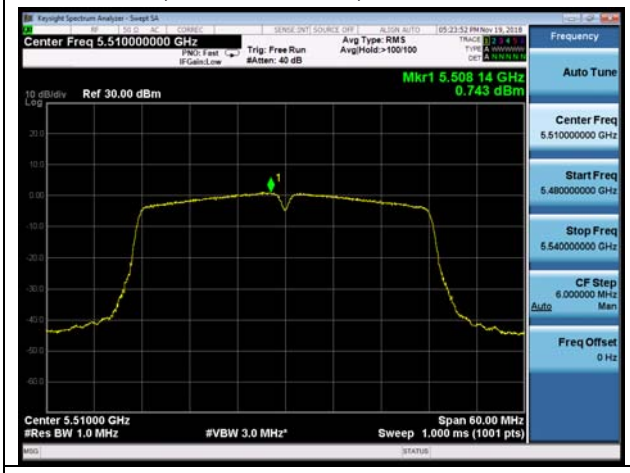
U-NII-2C, 802.11n HT20, Channel No.: 120

U-NII-2C, 802.11a, Channel No.: 140



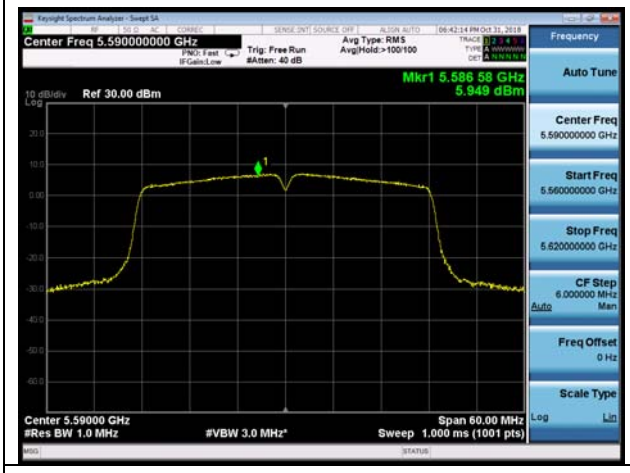
U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11n HT40, Channel No.: 102



U-NII-2C, 802.11ac VHT20, Channel No.: 100

U-NII-2C, 802.11n HT40, Channel No.: 110

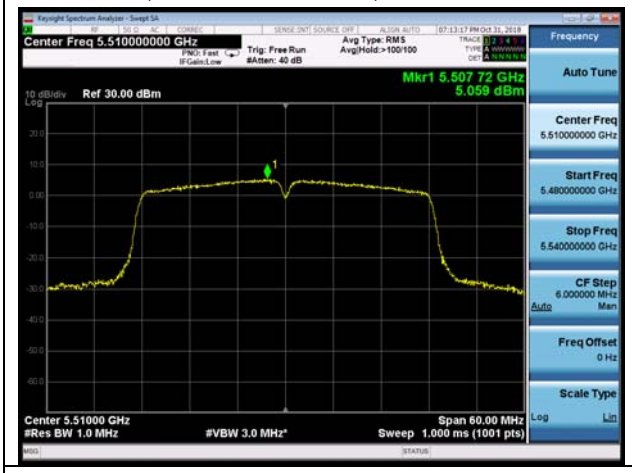


U-NII-2C, 802.11ac VHT20, Channel No.: 120

U-NII-2C, 802.11n HT40, Channel No.: 134

U-NII-2C, 802.11ac VHT20, Channel No.: 140

U-NII-2C, 802.11ac VHT40, Channel No.: 102

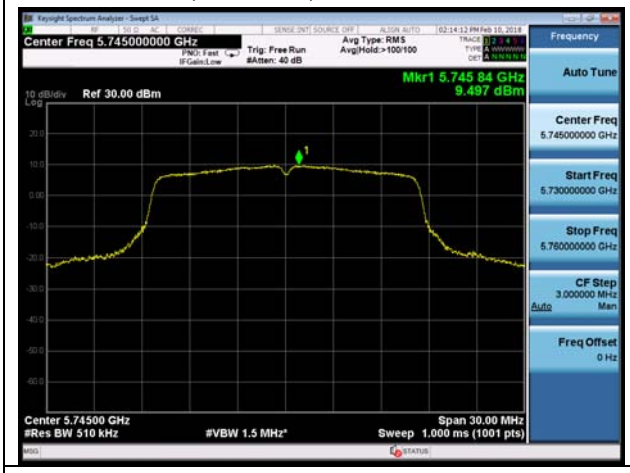


U-NII-2C, 802.11ac VHT80, Channel No.: 122

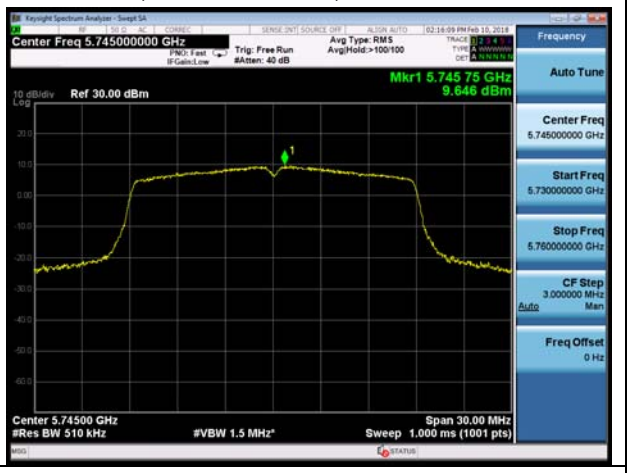
U-NII-2C, 802.11ac VHT40, Channel No.: 110

U-NII-2C, 802.11ac VHT40, Channel No.: 134

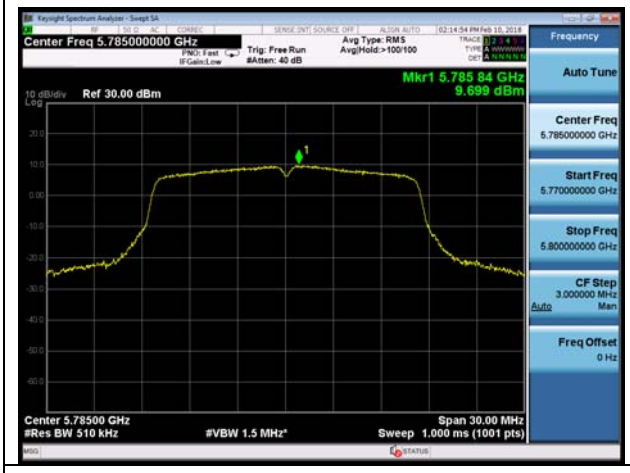
U-NII-3, 802.11a, Channel No.: 149



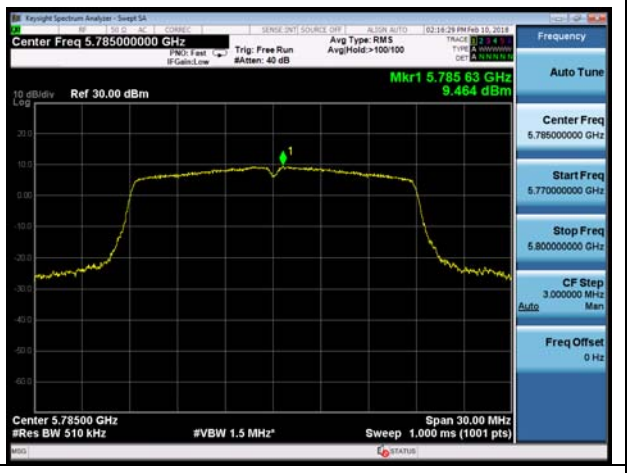
U-NII-3, 802.11n HT20, Channel No.: 149



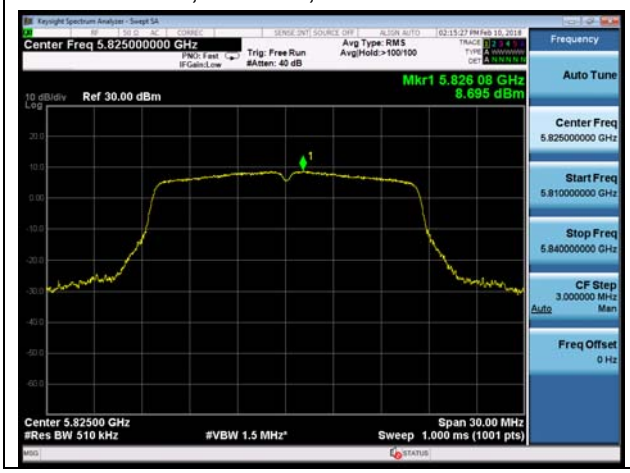
U-NII-3, 802.11a, Channel No.: 157



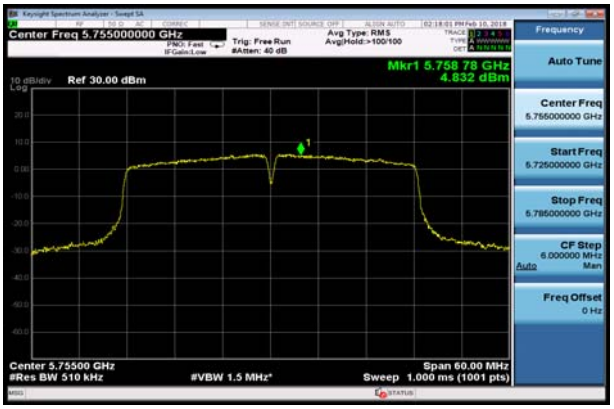
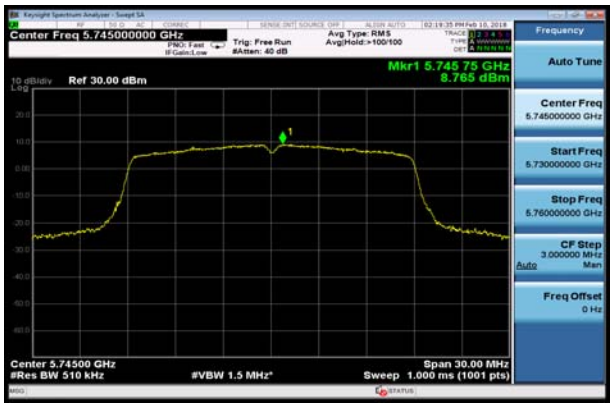
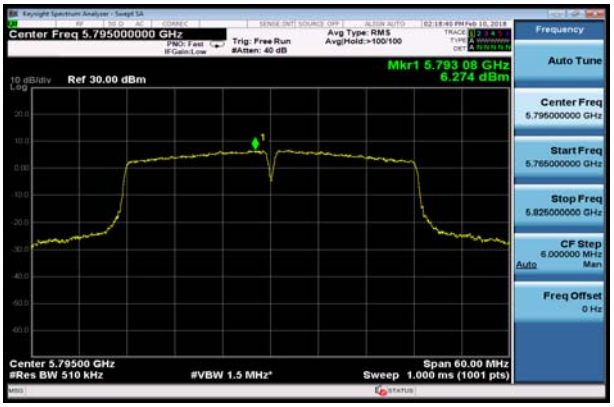
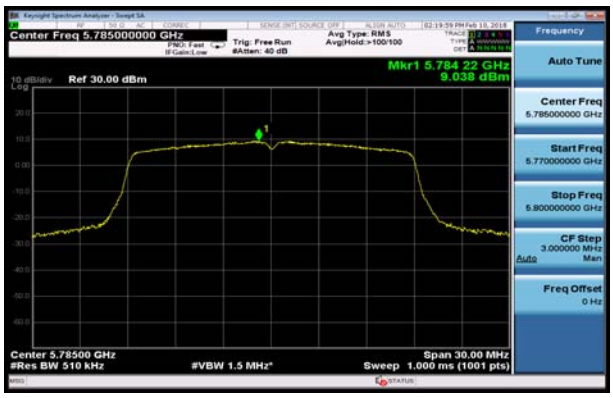
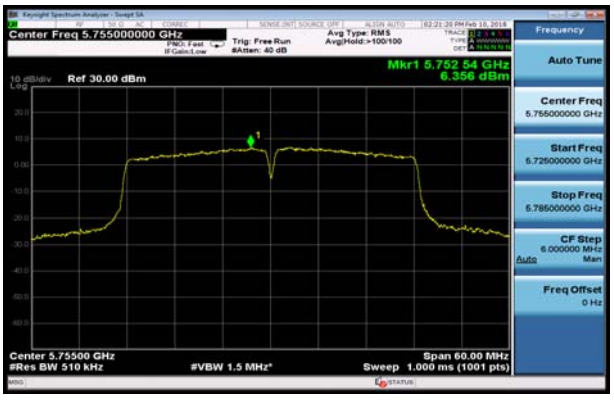
U-NII-3, 802.11n HT20, Channel No.: 157



U-NII-3, 802.11a, Channel No.: 165



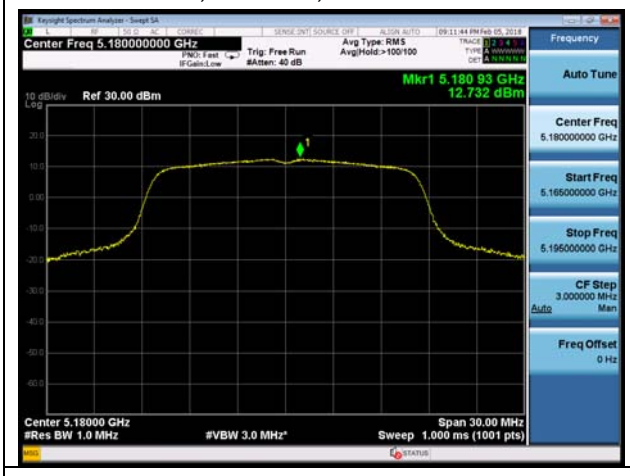
U-NII-3, 802.11n HT20, Channel No.: 165

U-NII-3, 802.11n HT40, Channel No.: 151	U-NII-3, 802.11ac VHT20, Channel No.: 149
	
U-NII-3, 802.11n HT40, Channel No.: 159	U-NII-3, 802.11ac VHT20, Channel No.: 157
	
U-NII-3, 802.11ac VHT40, Channel No.: 151	U-NII-3, 802.11ac VHT20, Channel No.: 165
	
U-NII-3, 802.11ac VHT40, Channel No.: 159	U-NII-3, 802.11ac VHT80, Channel No.: 155

Without Beamforming

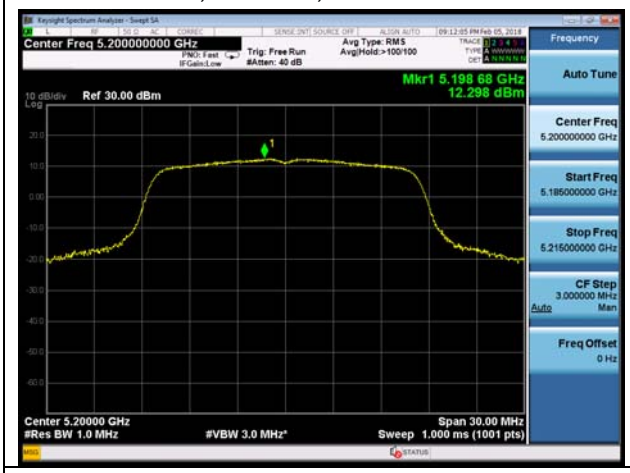
Antenna 1

U-NII-1, 802.11a, Channel No.: 36



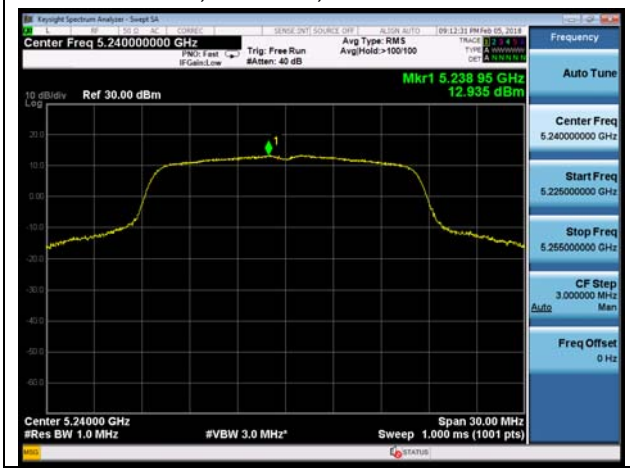
U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40



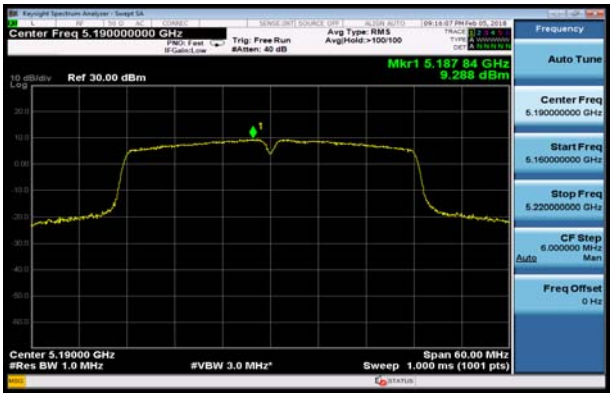
U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48



U-NII-1, 802.11n HT20, Channel No.: 48

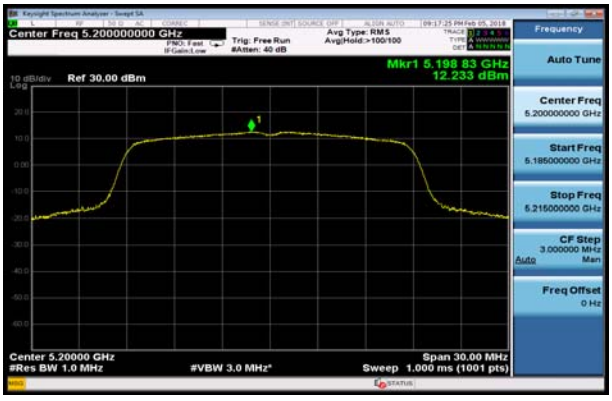
U-NII-1, 802.11n HT40, Channel No.: 38



U-NII-1, 802.11ac VHT20, Channel No.: 36

U-NII-1, 802.11n HT40, Channel No.: 46

U-NII-1, 802.11ac VHT20, Channel No.: 40

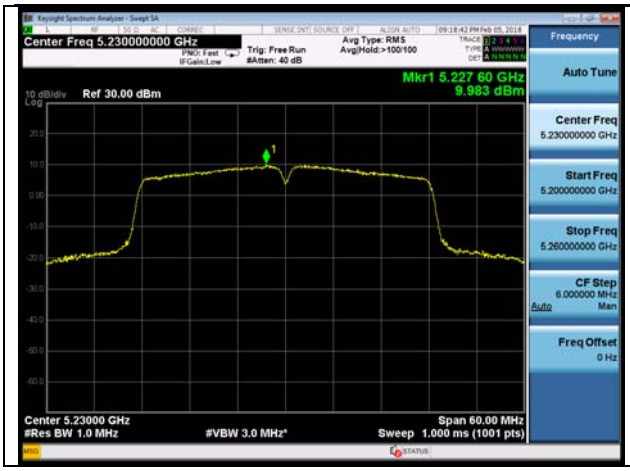


U-NII-1, 802.11ac VHT40, Channel No.: 38

U-NII-1, 802.11ac VHT20, Channel No.: 48

U-NII-1, 802.11ac VHT40, Channel No.: 46

U-NII-1, 802.11ac VHT80, Channel No.: 42



U-NII-2A, 802.11a, Channel No.: 52

U-NII-2A, 802.11n HT20, Channel No.: 52

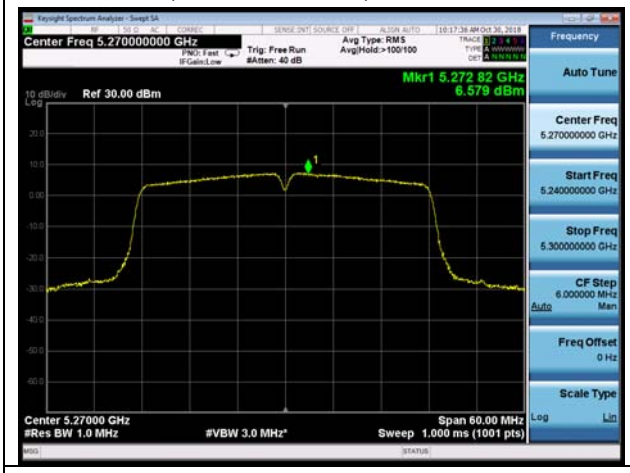
U-NII-2A, 802.11a, Channel No.: 60

U-NII-2A, 802.11n HT20, Channel No.: 60

U-NII-2A, 802.11a, Channel No.: 64

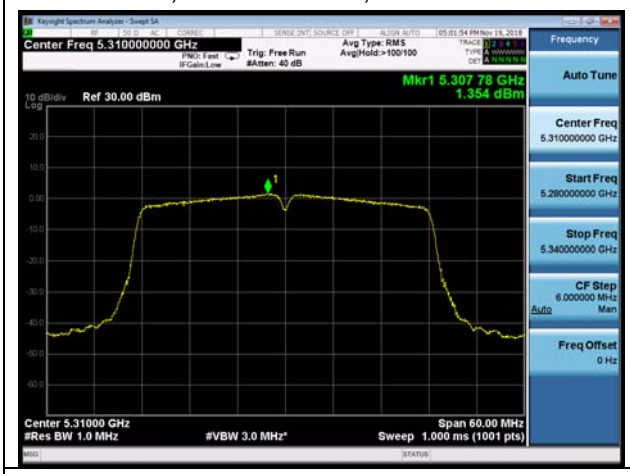
U-NII-2A, 802.11n HT20, Channel No.: 64

U-NII-2A, 802.11n HT40, Channel No.: 54



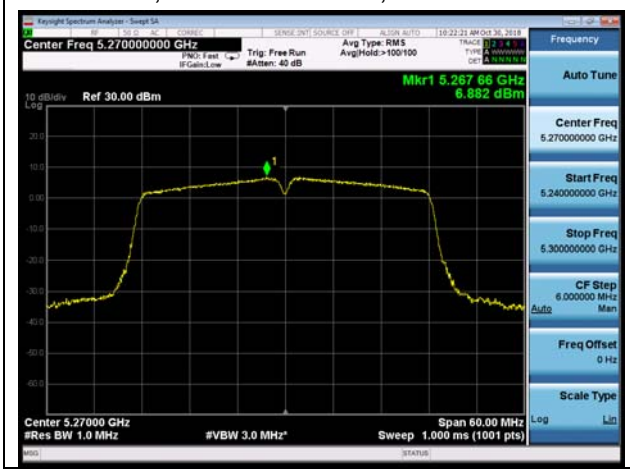
U-NII-2A, 802.11ac VHT20, Channel No.:52

U-NII-2A, 802.11n HT40, Channel No.: 62



U-NII-2A, 802.11ac VHT20, Channel No.: 60

U-NII-2A, 802.11ac VHT40, Channel No.: 54



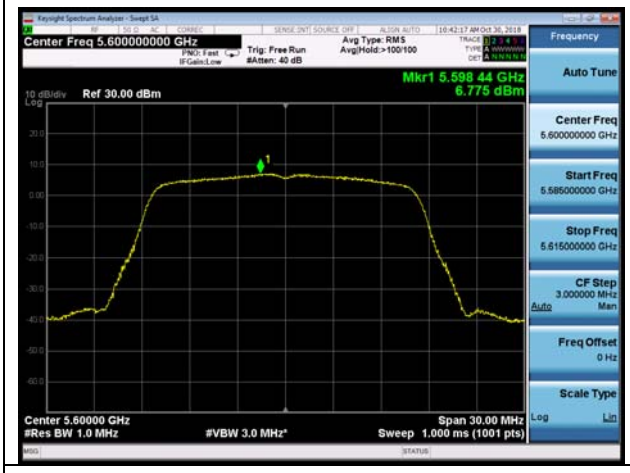
U-NII-2A, 802.11ac VHT20, Channel No.: 64

U-NII-2A, 802.11ac VHT40, Channel No.: 62	U-NII-2A, 802.11ac VHT80, Channel No.: 58
	

U-NII-2C, 802.11a, Channel No.: 100

U-NII-2C, 802.11n HT20, Channel No.: 100

U-NII-2C, 802.11a, Channel No.: 116

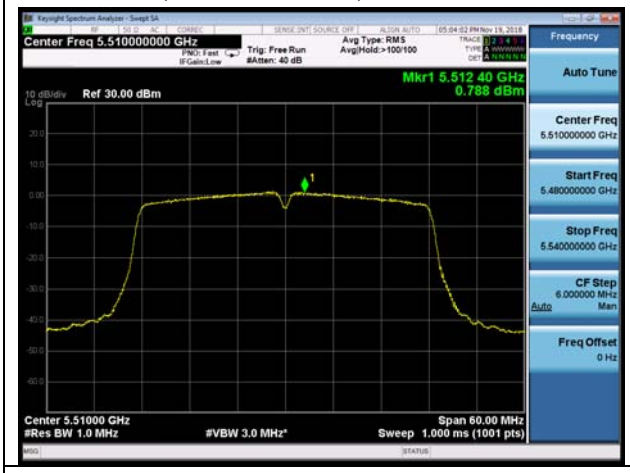


U-NII-2C, 802.11n HT20, Channel No.: 116

U-NII-2C, 802.11a, Channel No.: 140

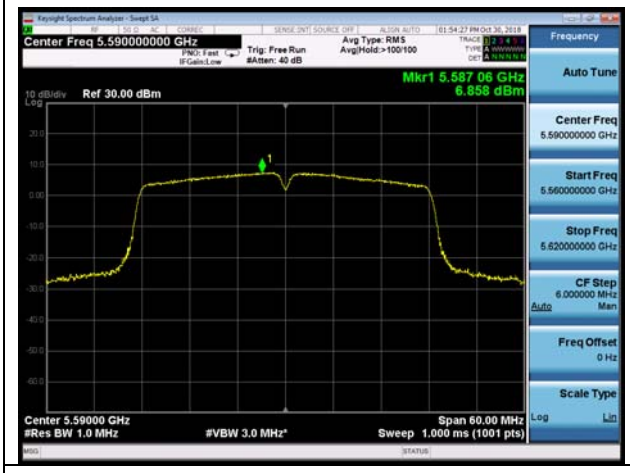
U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11n HT40, Channel No.: 102



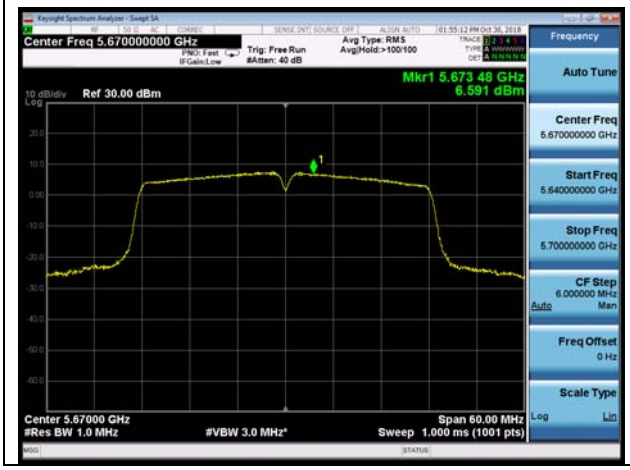
U-NII-2C, 802.11ac VHT20, Channel No.: 100

U-NII-2C, 802.11n HT40, Channel No.: 110



U-NII-2C, 802.11ac VHT20, Channel No.: 116

U-NII-2C, 802.11n HT40, Channel No.: 134



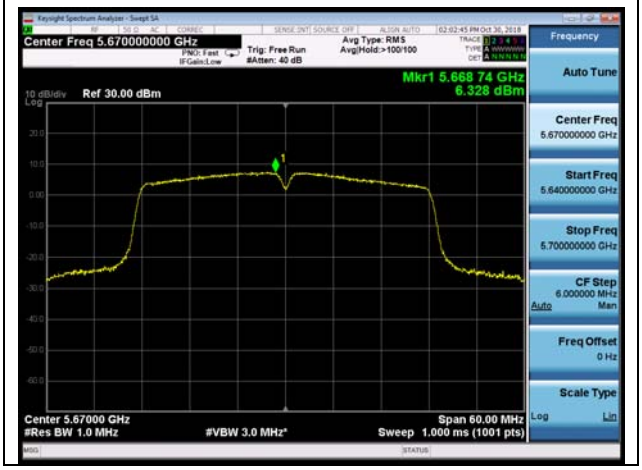
U-NII-2C, 802.11ac VHT20, Channel No.: 140

U-NII-2C, 802.11ac VHT40, Channel No.: 102

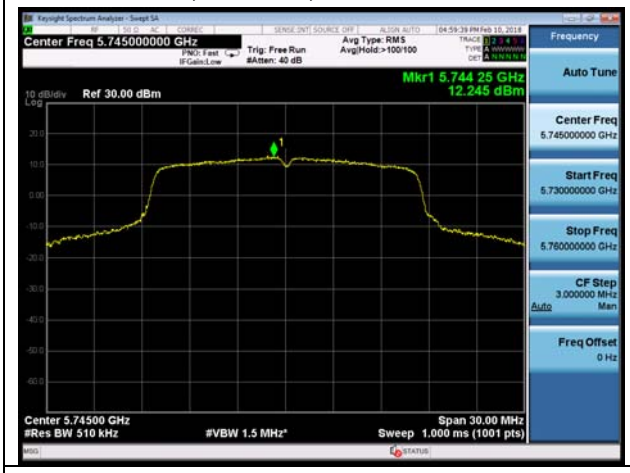
U-NII-2C, 802.11ac VHT80, Channel No.: 122

U-NII-2C, 802.11ac VHT40, Channel No.: 110

U-NII-2C, 802.11ac VHT40, Channel No.: 134

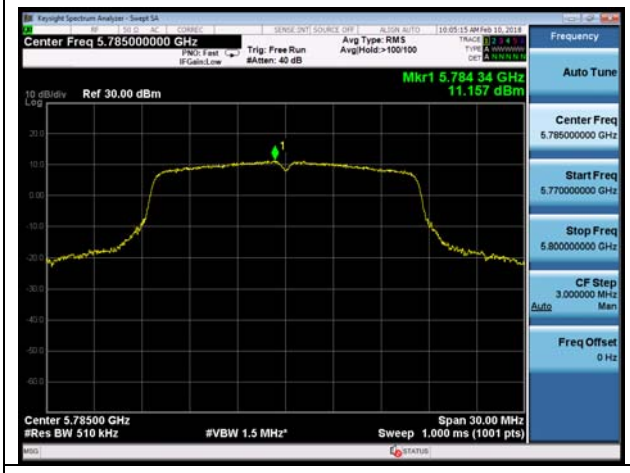


U-NII-3, 802.11a, Channel No.: 149



U-NII-3, 802.11n HT20, Channel No.: 149

U-NII-3, 802.11a, Channel No.: 157



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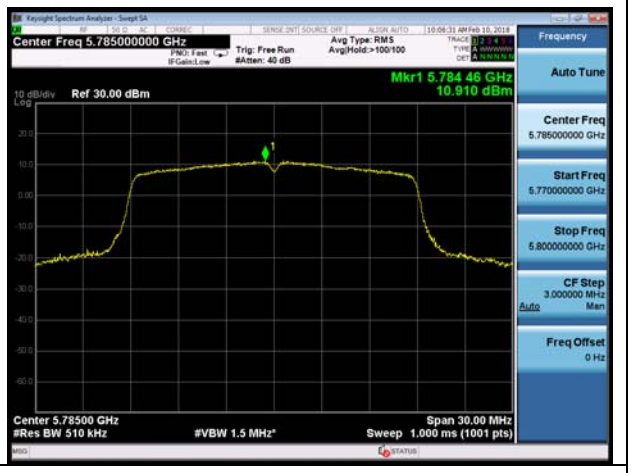
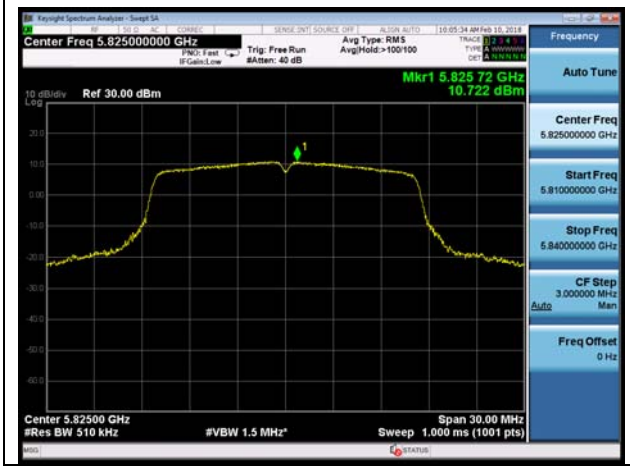
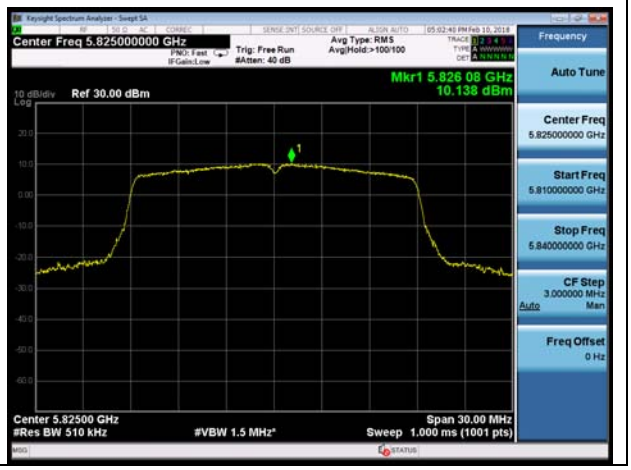


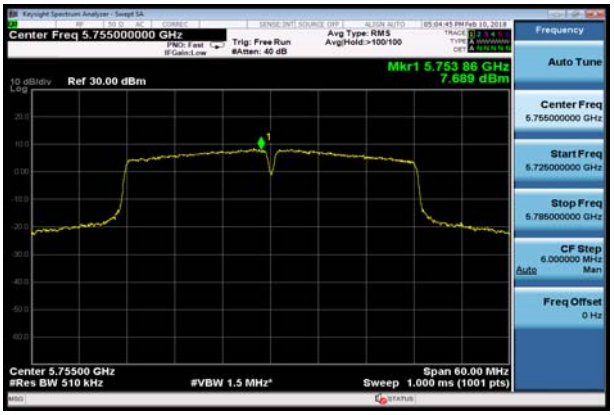
U-NII-3, 802.11a, Channel No.: 165



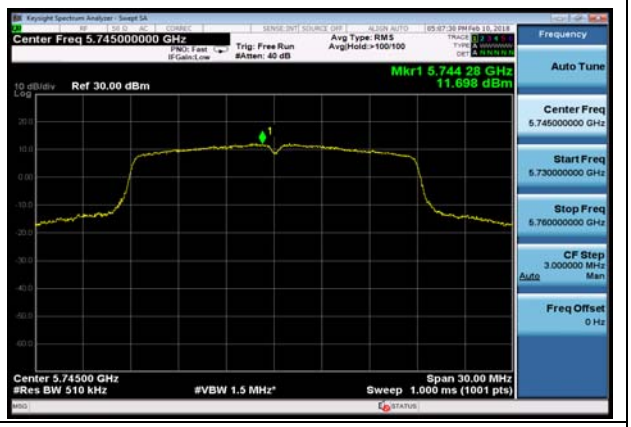
U-NII-3, 802.11n HT20, Channel No.: 165



U-NII-3, 802.11n HT40, Channel No.: 151



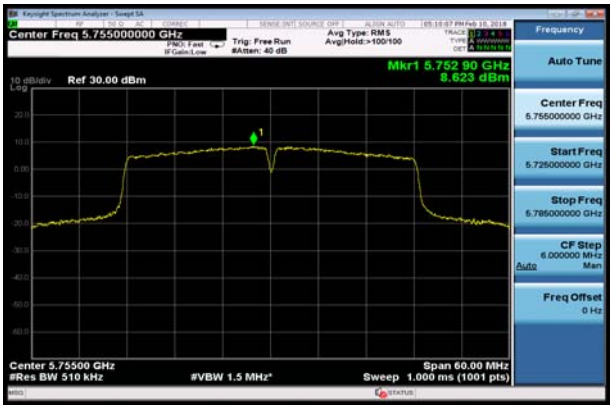
U-NII-3, 802.11ac VHT20, Channel No.: 149



U-NII-3, 802.11n HT40, Channel No.: 159

U-NII-3, 802.11ac VHT20, Channel No.: 157

U-NII-3, 802.11ac VHT40, Channel No.: 151



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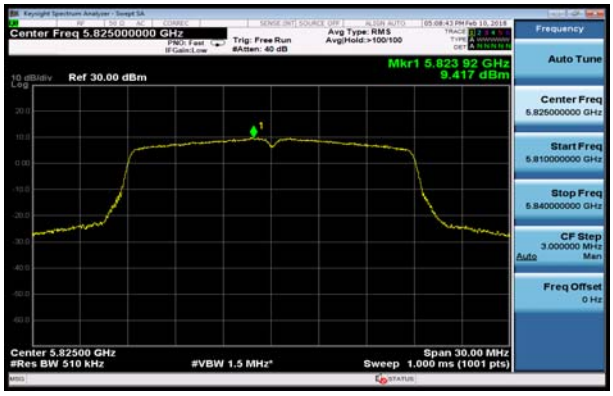
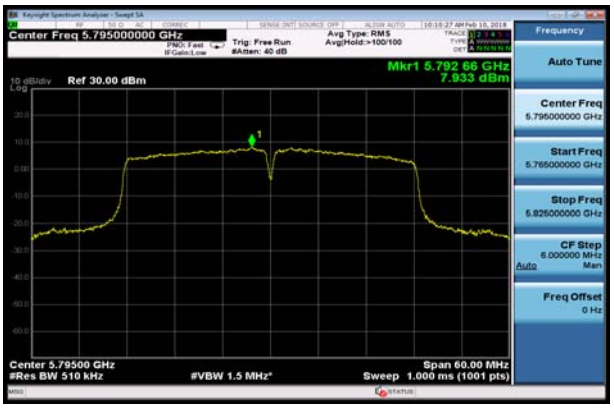


U-NII-3, 802.11ac VHT40, Channel No.: 159	U-NII-3, 802.11ac VHT80, Channel No.: 155
	

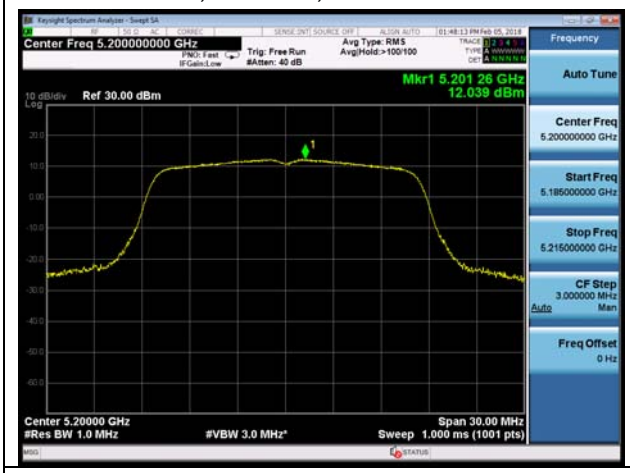
Without Beamforming

Antenna 2

U-NII-1, 802.11a, Channel No.: 36

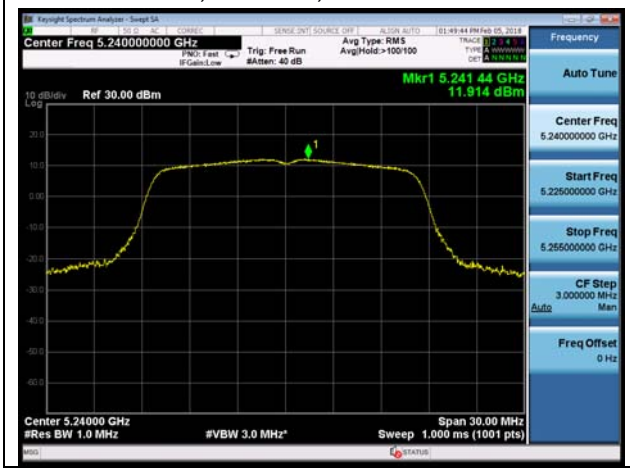
U-NII-1, 802.11n HT20, Channel No.: 36

U-NII-1, 802.11a, Channel No.: 40



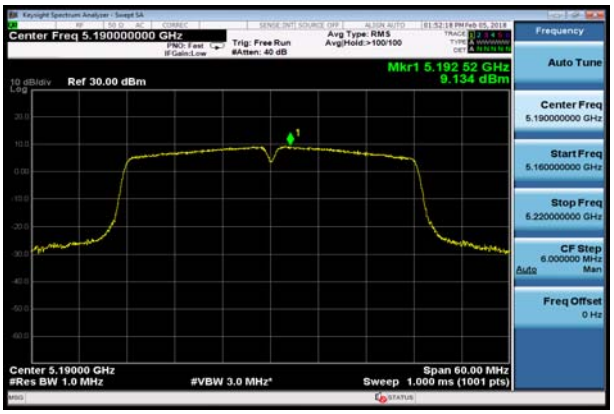
U-NII-1, 802.11n HT20, Channel No.: 40

U-NII-1, 802.11a, Channel No.: 48



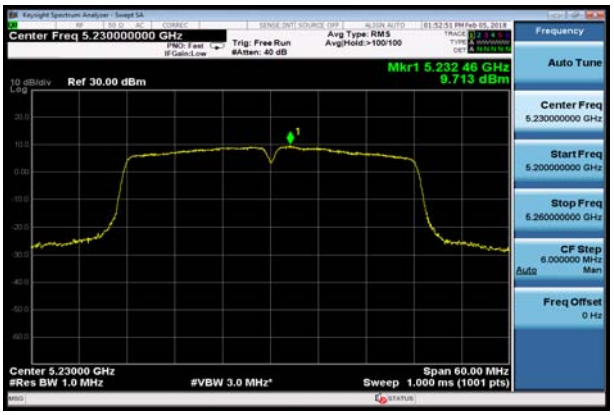
U-NII-1, 802.11n HT20, Channel No.: 48

U-NII-1, 802.11n HT40, Channel No.: 38



U-NII-1, 802.11ac VHT20, Channel No.: 36

U-NII-1, 802.11n HT40, Channel No.: 46



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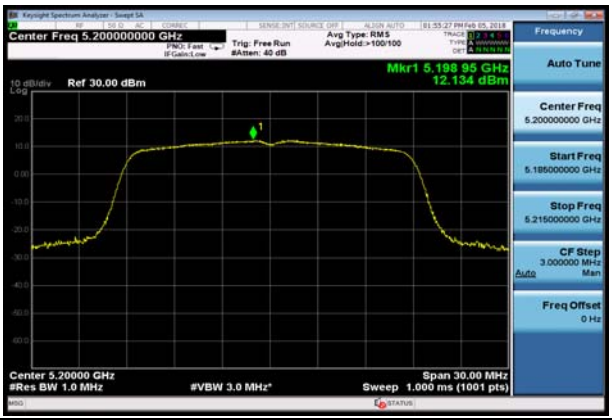
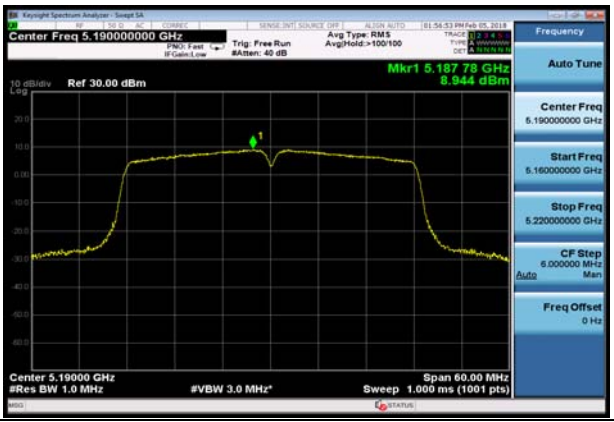


U-NII-1, 802.11ac VHT40, Channel No.: 38

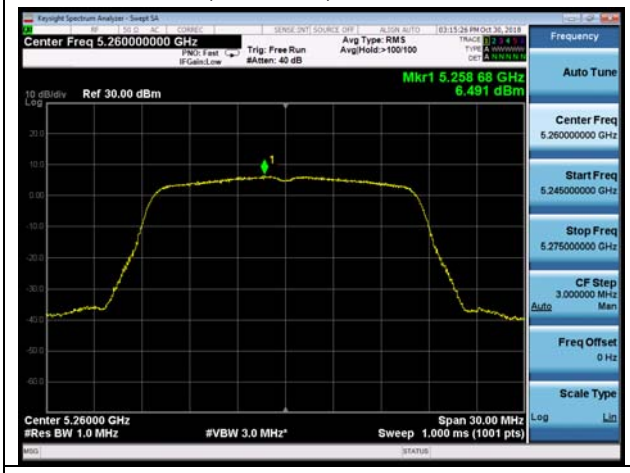


U-NII-1, 802.11ac VHT20, Channel No.: 48

U-NII-1, 802.11ac VHT40, Channel No.: 46

U-NII-1, 802.11ac VHT80, Channel No.: 42

U-NII-2A, 802.11a, Channel No.: 52



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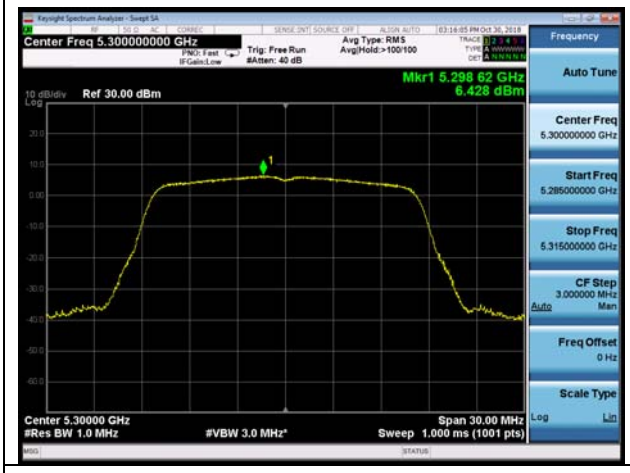
U-NII-2A, 802.11a, Channel No.: 60

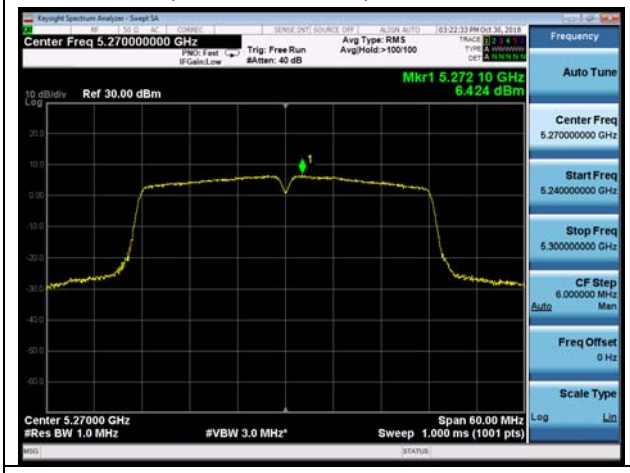


U-NII-2A, 802.11n HT20, Channel No.: 60

U-NII-2A, 802.11a, Channel No.: 64

U-NII-2A, 802.11n HT20, Channel No.: 64

U-NII-2A, 802.11n HT40, Channel No.: 54

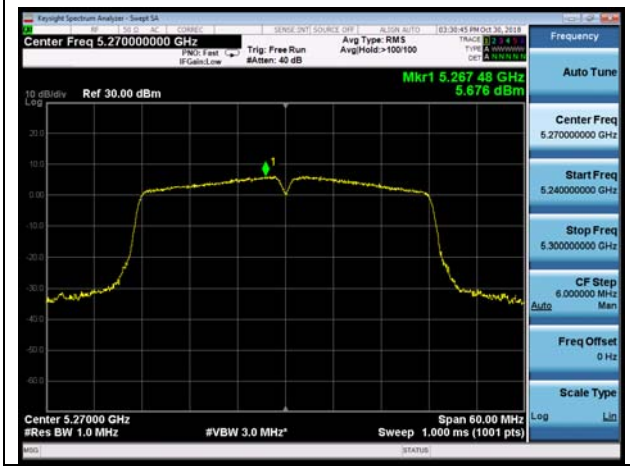


U-NII-2A, 802.11ac VHT20, Channel No.:52

U-NII-2A, 802.11n HT40, Channel No.: 62

U-NII-2A, 802.11ac VHT20, Channel No.: 60

U-NII-2A, 802.11ac VHT40, Channel No.: 54



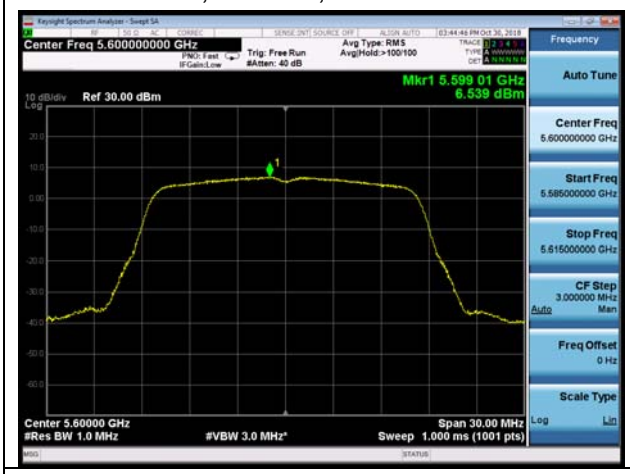
U-NII-2A, 802.11ac VHT20, Channel No.: 64

U-NII-2A, 802.11ac VHT40, Channel No.: 62	U-NII-2A, 802.11ac VHT80, Channel No.: 58
	

U-NII-2C, 802.11a, Channel No.: 100

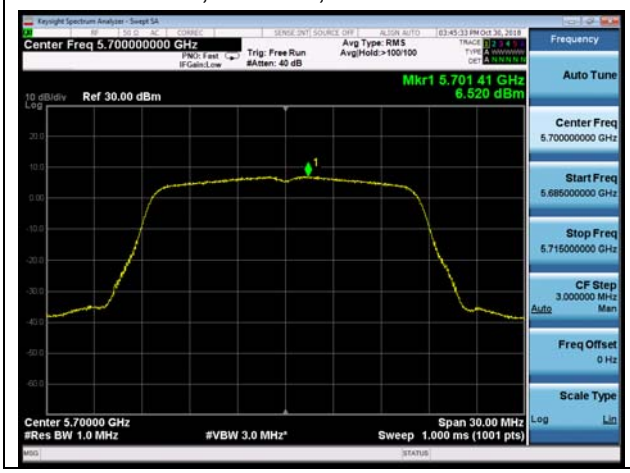
U-NII-2C, 802.11n HT20, Channel No.: 100

U-NII-2C, 802.11a, Channel No.: 116



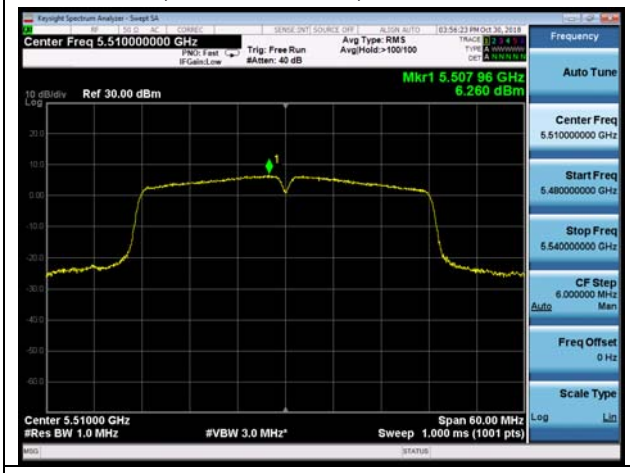
U-NII-2C, 802.11n HT20, Channel No.: 116

U-NII-2C, 802.11a, Channel No.: 140



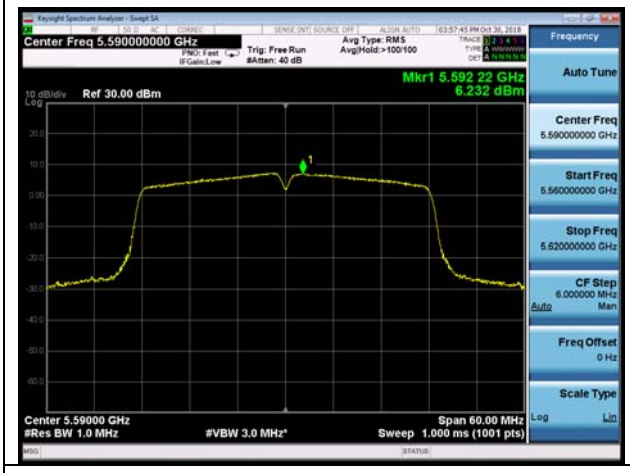
U-NII-2C, 802.11n HT20, Channel No.: 140

U-NII-2C, 802.11n HT40, Channel No.: 102



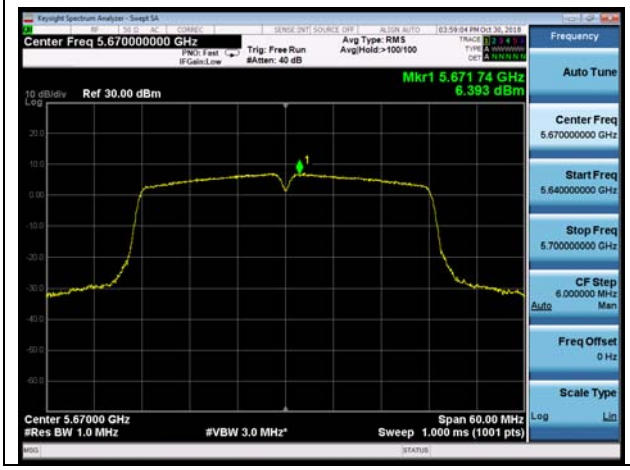
U-NII-2C, 802.11ac VHT20, Channel No.: 100

U-NII-2C, 802.11n HT40, Channel No.: 110



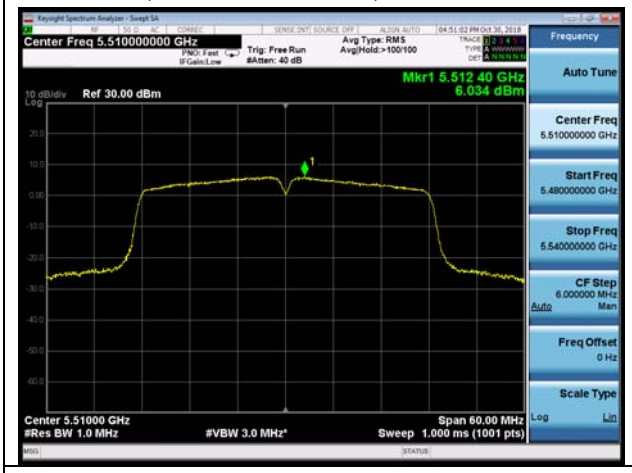
U-NII-2C, 802.11ac VHT20, Channel No.: 116

U-NII-2C, 802.11n HT40, Channel No.: 134



U-NII-2C, 802.11ac VHT20, Channel No.: 140

U-NII-2C, 802.11ac VHT40, Channel No.: 102

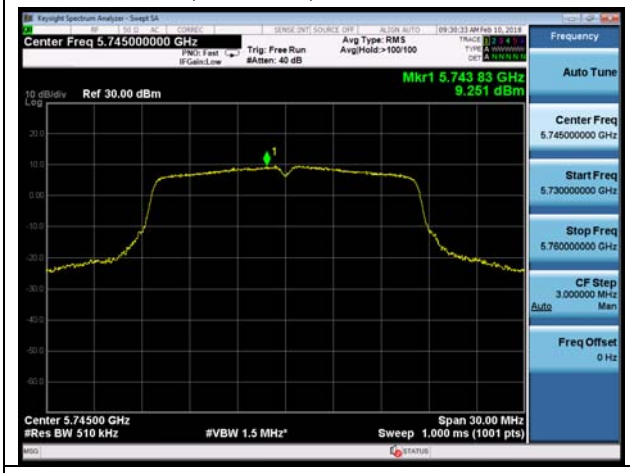


U-NII-2C, 802.11ac VHT80, Channel No.: 122

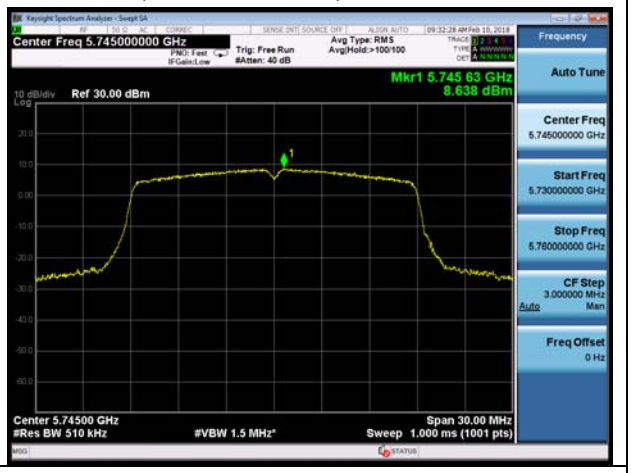
U-NII-2C, 802.11ac VHT40, Channel No.: 110

U-NII-2C, 802.11ac VHT40, Channel No.: 134

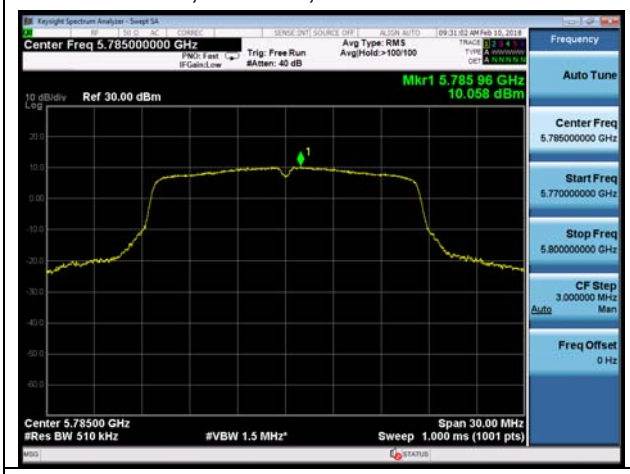
U-NII-3, 802.11a, Channel No.: 149



U-NII-3, 802.11n HT20, Channel No.: 149

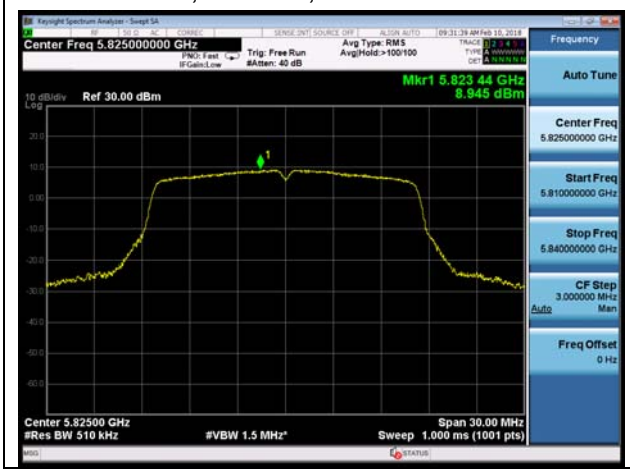


U-NII-3, 802.11a, Channel No.: 157



U-NII-3, 802.11n HT20, Channel No.: 157

U-NII-3, 802.11a, Channel No.: 165

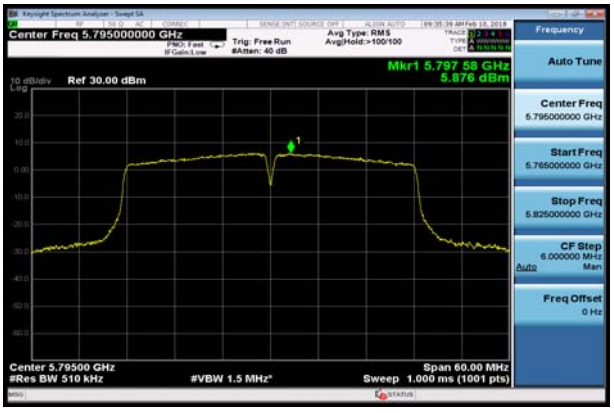


U-NII-3, 802.11n HT20, Channel No.: 165

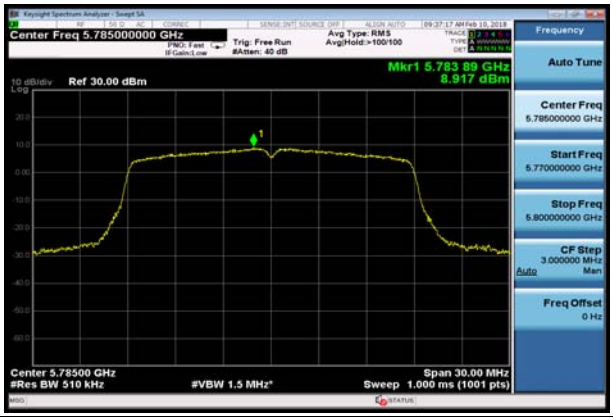
U-NII-3, 802.11n HT40, Channel No.: 151

U-NII-3, 802.11ac VHT20, Channel No.: 149

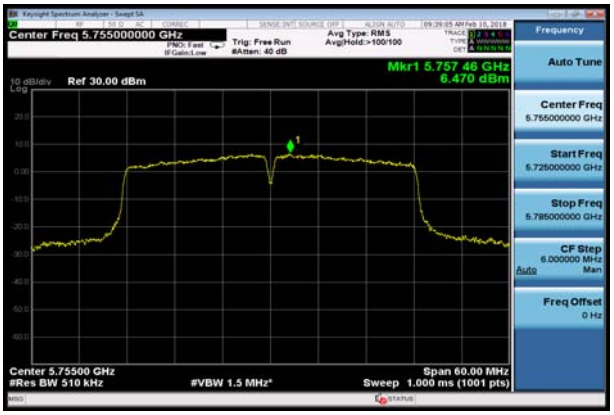
U-NII-3, 802.11n HT40, Channel No.: 159



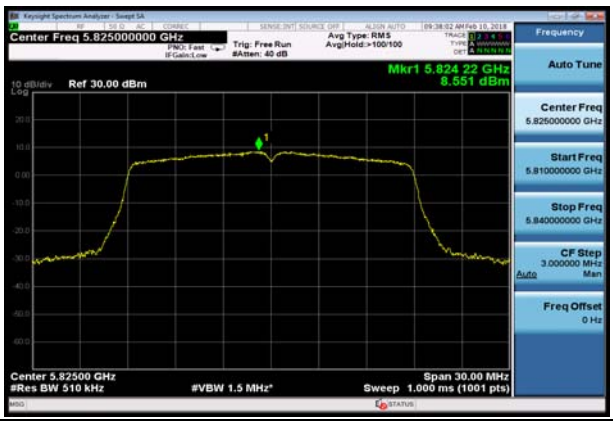
U-NII-3, 802.11ac VHT20, Channel No.: 157



U-NII-3, 802.11ac VHT40, Channel No.: 151

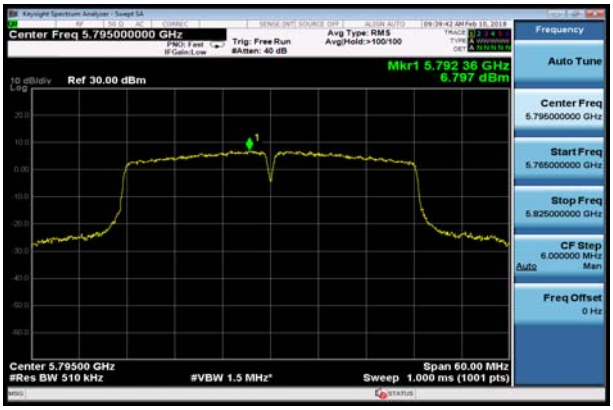


U-NII-3, 802.11ac VHT20, Channel No.: 165



U-NII-3, 802.11ac VHT40, Channel No.: 159

U-NII-3, 802.11ac VHT80, Channel No.: 155



5.5. Unwanted Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

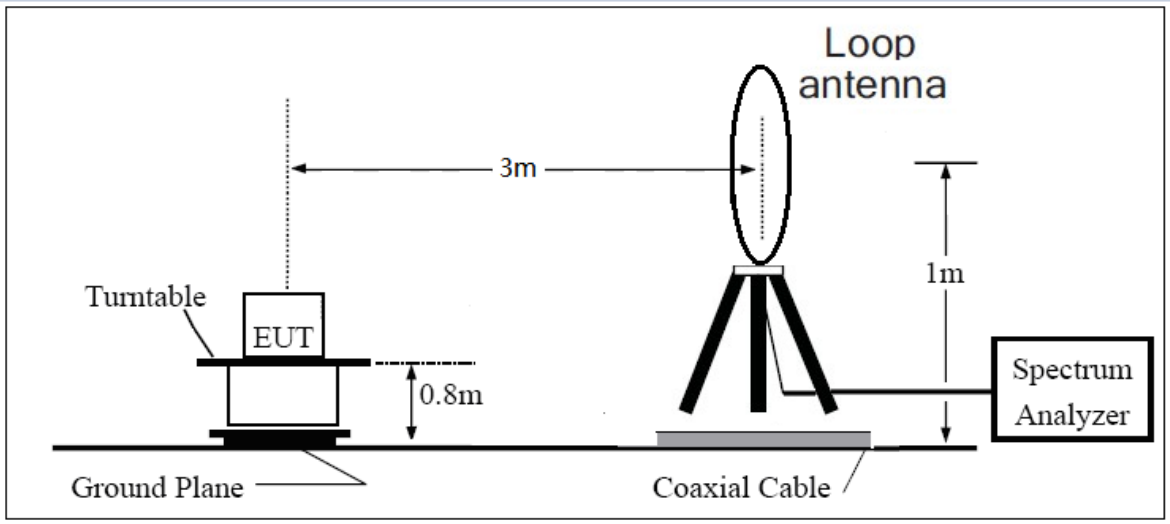
The test set-up was made in accordance to the general provisions of ANSI C63.10-2013. The Equipment Under Test (EUT) was set up on a non-conductive table in the semi-anechoic chamber. The test was performed at the distance of 3 m between the EUT and the receiving antenna. The radiated emissions measurements were made in a typical installation configuration.
Sweep the whole frequency band range from 9kHz to the 10th harmonic of the carrier, and the emissions less than 20 dB below the permissible value are reported.

During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turntable shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna. The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing.
Set the spectrum analyzer in the following:
Below 1GHz (detector: Peak and Quasi-Peak)
RBW=100kHz / VBW=300kHz / Sweep=AUTO
Above 1GHz (detector: Peak):
(a) PEAK: RBW=1MHz VBW=3MHz/ Sweep=AUTO
(b) AVERAGE: RBW=1MHz /VBW=10Hz, when duty cycle is no less than 98%
VBW≥1/T when duty cycle is less than 98%,where T is transmit on time
Sweep=AUTO

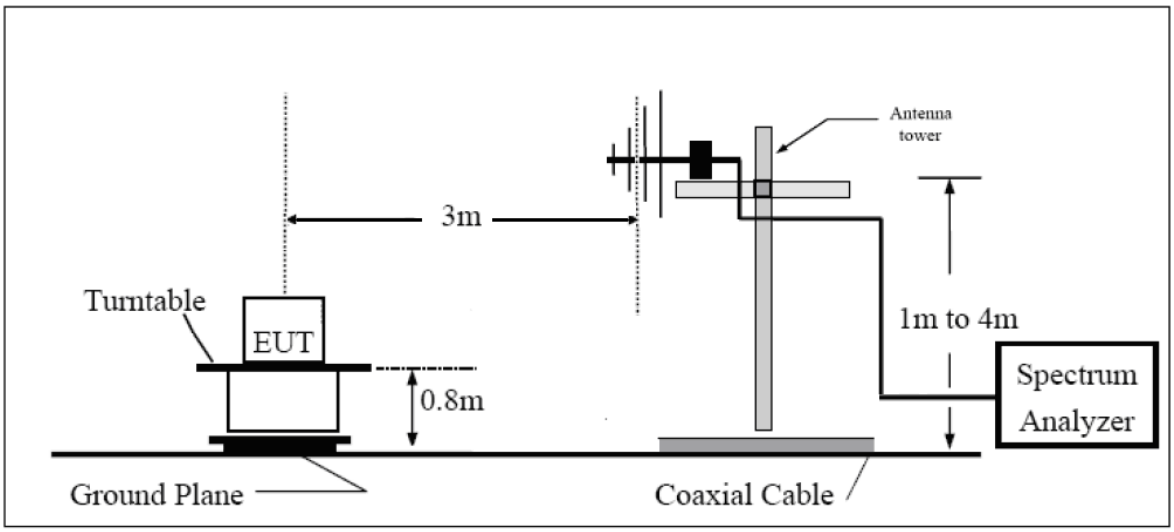
The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

The test is in transmitting mode.

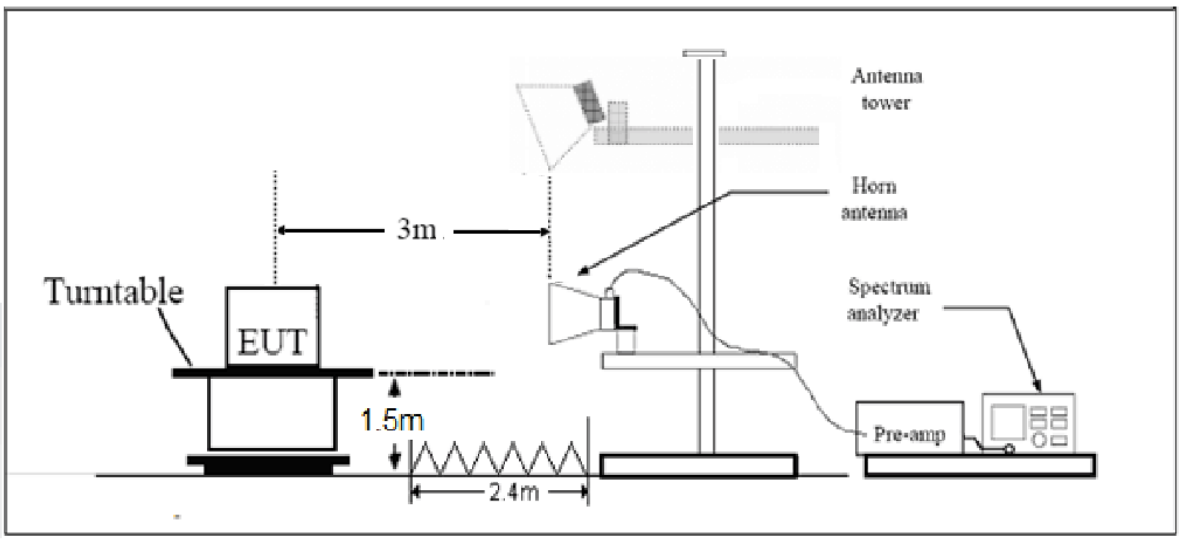
9KHz~~~30MHz



30MHz~~~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

(1) For transmitters operating in the 5725-5850 MHz 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.

(2) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

(3) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

(4) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz(68.2dBμV/m).

Note: the following formula is used to convert the EIRP to field strength

§1、E[dBμV/m] = EIRP[dBm] - 20 log(d[meters]) + 104.77, where E = field strength and

d = distance at which field strength limit is specified in the rules;

§2、E[dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters

(5) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table.

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
0.009–0.490	2400/F(kHz)	/
0.490–1.705	24000/F(kHz)	/
1.705–30.0	30	/
30-88	100	40
88-216	150	43.5
216-960	200	46
Above960	500	54

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	[2]
13.36 - 13.41			

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor *k* = 1.96.

Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.19 dB
200MHz-1GHz	3.63 dB
1GHz-26.5G	3.68 dB
26.5G-40GHz	4.76dB

Test Results:

The modulation and bandwidth are similar for 802.11n mode for 20MHz/40MHz and 802.11ac mode for V20MHz/V40MHz, therefore investigated worst case to representative mode in test report.

The signal beyond the limit is carrier.

Band	T_{on} (ms)	$T_{(on+off)}$ (ms)	Duty cycle	Duty cycle correction Factor(dB)
802.11a	1.39	1.45	0.96	0.17
802.11n HT20	1.28	1.35	0.95	0.24
802.11n HT40	0.63	0.69	0.91	0.40
802.11ac VHT20	0.68	0.73	0.93	0.29
802.11ac VHT40	0.35	0.40	0.87	0.60
802.11ac VHT80	0.19	0.52	0.36	4.40
Note: when Duty cycle>0.98, Duty cycle correction Factor not required.				

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802.11a-Channel 36

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5149	64.807	--	150	V	135	0.17	64.977	9.023	74
5149	--	49.260	150	V	135	0.17	49.43	4.57	54

802.11a-Channel 48

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5358	59.775	--	150	V	135	0.17	59.945	14.055	74
5358	--	47.989	150	V	135	0.17	48.159	5.841	54

802.11n HT20-Channel 36

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5148	65.941	--	200.0	V	135	0.24	66.181	7.819	74
5148	--	49.676	200.0	V	135	0.24	49.916	4.084	54

802.11n HT20-Channel 48

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5358	59.832	--	200.0	V	135	0.24	60.072	13.928	74
5354	--	47.998	200.0	V	135	0.24	48.238	5.762	54

802.11n HT40-Channel 38

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5149	71.252	--	150	V	135	0.40	71.652	2.348	74
5149	--	51.593	150	V	135	0.40	51.993	2.007	54

802.11n HT40-Channel 46

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5358	60.458	--	150	V	135	0.40	60.858	13.142	74
5355	--	47.878	150	V	135	0.40	48.278	5.722	54

802.11ac VHT80 –Channel 42

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5148	67.410	--	200.0	V	135	4.40	71.810	2.190	74
5149	--	47.444	200.0	V	135	4.40	51.844	2.156	54

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802.11a-Channel 52

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5149	56.218	--	150	V	135	0.17	56.388	17.612	74
5149	--	41.432	150	V	135	0.17	41.602	12.398	54

802.11a-Channel 64

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5350	64.228	--	150	V	135	0.17	64.398	9.602	74
5350	--	41.357	150	V	135	0.17	41.527	12.473	54

802.11n HT20-Channel 52

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5149	57.114	--	200.0	V	135	0.24	57.354	16.646	74
5149	--	39.359	200.0	V	135	0.24	39.599	14.401	54

802.11n HT20-Channel 64

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5350	64.528	--	200.0	V	135	0.24	64.768	9.232	74
5350	--	42.561	200.0	V	135	0.24	42.801	11.199	54

802.11n HT40-Channel 54

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5149	58.977	--	150	V	135	0.40	59.377	14.623	74
5149	--	41.124	150	V	135	0.40	41.524	12.476	54

802.11n HT40-Channel 62

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5350	65.171	--	150	V	135	0.40	65.571	8.429	74
5350	--	41.385	150	V	135	0.40	41.785	12.215	54

802.11ac VHT80 –Channel 58

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5350	69.348	--	200.0	V	135	4.40	73.748	0.252	74
5350	--	39.742	200.0	V	135	4.40	44.142	9.858	54

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802.11a-Channel 100

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5459	62.061	--	150	V	135	0.17	62.231	11.769	74
5459	--	40.207	150	V	135	0.17	40.377	13.623	54

802.11a-Channel 140

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5726	61.580	--	150	V	135	0.17	61.750	12.250	74

802.11n HT20-Channel 100

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5459	61.660	--	200.0	V	135	0.24	61.900	12.100	74
5459	--	40.882	200.0	V	135	0.24	41.122	12.878	54

802.11n HT20-Channel 140

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5725	67.075	--	200.0	V	135	0.24	67.315	6.685	74

802.11n HT40-Channel 102

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5459	67.452	--	150	V	135	0.40	67.852	6.148	74
5459	--	37.111	150	V	135	0.40	37.511	16.489	54

802.11n HT40-Channel 134

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5725	66.011	--	150	V	135	0.40	66.411	7.589	74

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802.11a-Channel 149

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5646	62.362	--	200.0	V	135	0.17	62.532	11.468	74

802.11a-Channel165

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5925	62.495	--	200.0	V	135	0.17	62.665	11.335	74

802.11n HT20-Channel 149

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5647	61.588	--	150	V	135	0.24	61.828	12.172	74

802.11n HT20-Channel 165

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5928	62.533	--	150	V	135	0.24	62.773	11.227	74

802.11n HT40-Channel 151

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5645	61.149	--	200.0	V	135	0.40	61.549	12.451	74

802.11n HT40-Channel 159

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5929	62.391	--	200.0	V	135	0.40	62.791	11.209	74

802.11ac VHT80- Channel 155

Frequency (MHz)	Peak (dBuV/m)	Average (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Duty cycle correction Factor(dB)	conclusion value (dBuV/m)	Margin (dB)	Limit (dBuV/m)
5649	60.253	--	200.0	V	135	4.40	64.653	9.347	74

Result of RE

Test result

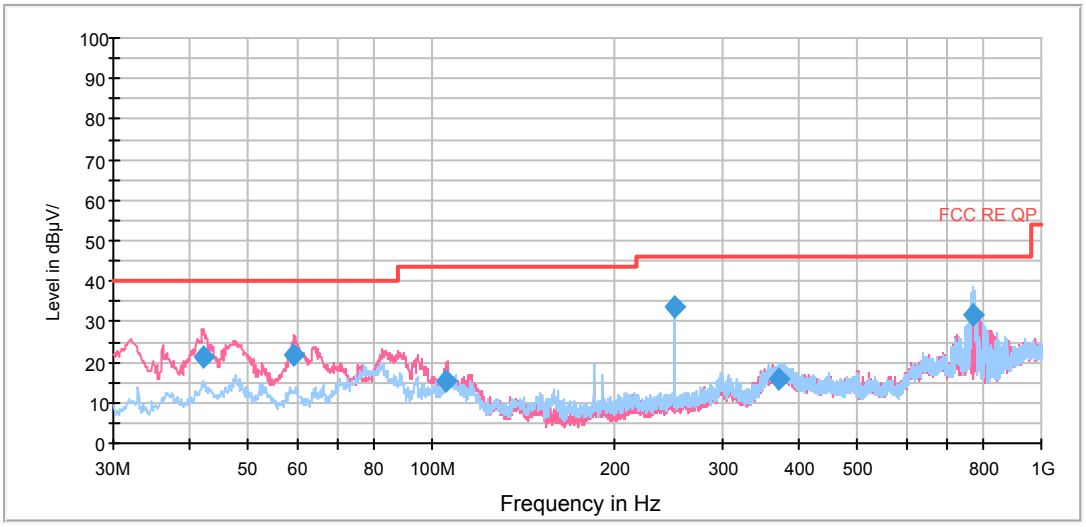
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the Emissions in the frequency band 9kHz-30MHz and 26.5GHz-40GHz are more than 20dB below the limit are not reported.

After the pre test, Antenna 1 was selected as the worst antenna.

During the test, the Radiates Emission from 30MHz to 1GHz was performed in all modes with all channels, 802.11ac(HT20), Channel 165 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Continuous TX mode:

RE 30M-1GHz QP



Radiates Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBuV/m)	Reading value (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Correct Factor (dB)	Margin (dB)	Limit (dBuV/m)
42.108760	21.5	39.6	100.0	V	306.0	-18.1	18.5	40.0
59.475090	21.6	43.2	100.0	V	220.0	-21.6	18.4	40.0
105.797744	15.1	39.8	121.0	V	7.0	-24.7	28.4	43.5
250.003750	33.5	58.5	119.0	H	82.0	-25.0	12.5	46.0
370.860750	15.7	34.9	100.0	H	263.0	-19.2	30.3	46.0
774.252250	31.5	47.5	100.0	H	107.0	-16.0	14.5	46.0

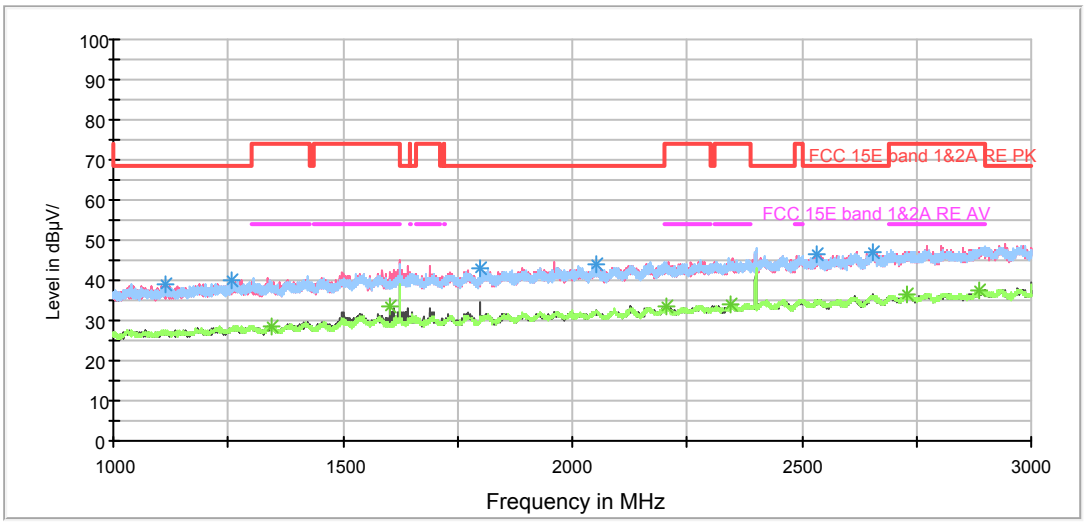
Remark: 1. Quasi-Peak = Reading value + Correction factor

2. Correction Factor = Antenna factor+ Insertion loss(cable loss+amplifier gain)

3. Margin = Limit – Quasi-Peak

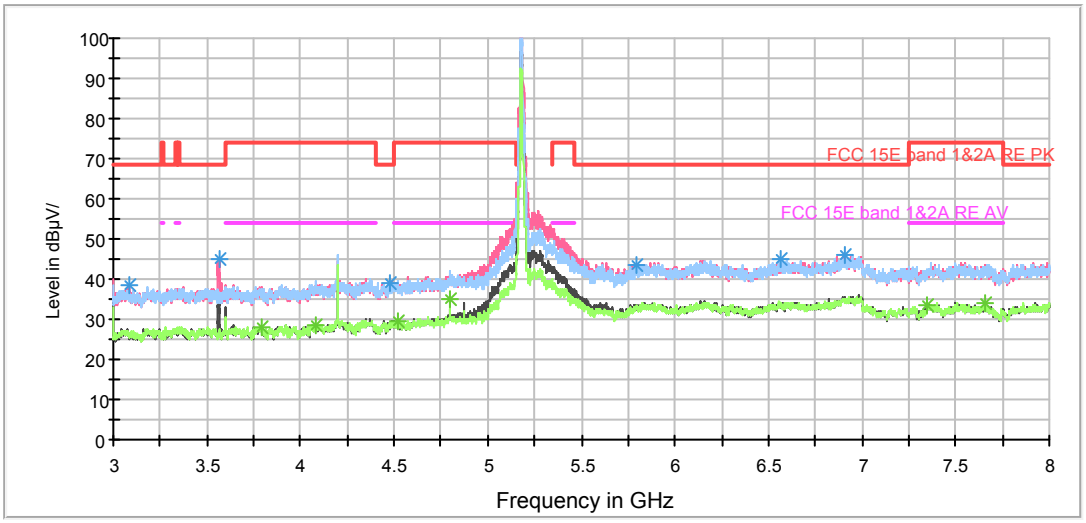
802.11a CH36

RE 1G-3GHz PK+AV



Radiates Emission from 1GHz to 3GHz

RE 3-18GHz PK+AV



Note: The signal beyond the limit is carrier.

Radiates Emission from 3GHz to 8GHz