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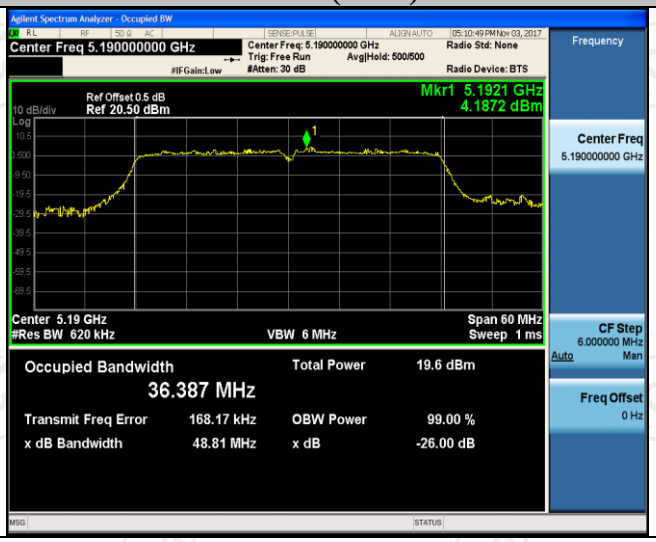
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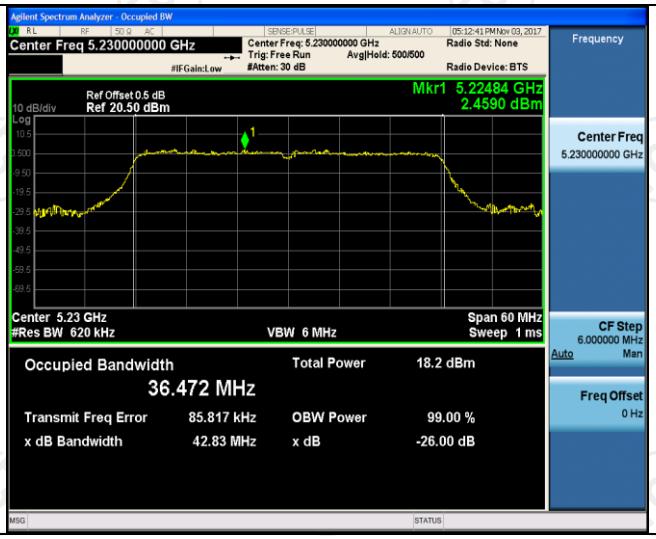
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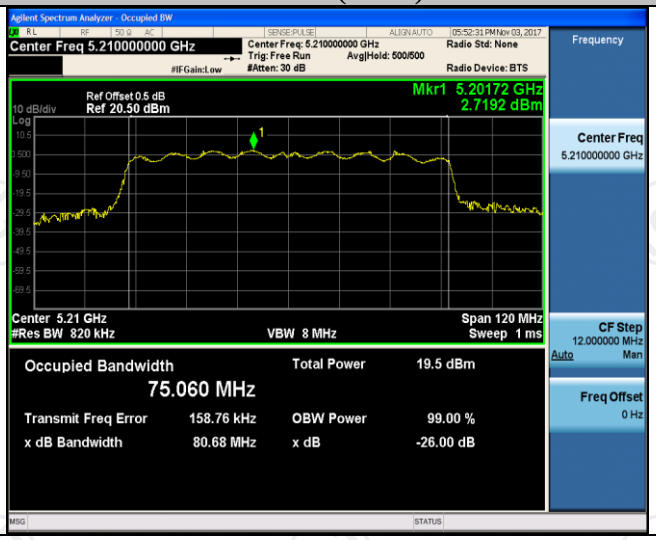
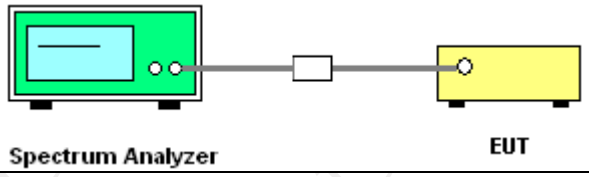
802.11ac(HT80)

Mid

6.6. Power Spectral Density

6.6.1. Test Specification

Test Requirement:	FCC Part15 E Section 15.407 (a)
Test Method:	KDB789033 D02 General UNII Test Procedures New Rules v01r04 Section F
Limit:	≤11.00dBm/MHz for Band I 5150MHz-5250MHz ≤30.00dBm/500KHz for Band IV 5725MHz-5850MHz The e.i,r,p spectral density for Band I 5150MHz – 5250 MHz should not exceed 10dBm/MHz
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth. 1. Set RBW = 510 kHz/1 MHz, VBW ≥ 3*RBW, Sweep time = Auto, Detector = RMS. 2. Allow the sweeps to continue until the trace stabilizes. 3. Use the peak marker function to determine the maximum amplitude level. 4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.
Test Result:	PASS

6.6.2. Test Instruments

RF Test Room				
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2018
RF Cable (9KHz-40GHz)	TCT	RE-03	N/A	Sep. 27, 2018
Antenna Connector	TCT	RFC-03	N/A	Sep. 27, 2018

Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

6.6.3. Test data

	Configuration Band I (5150 - 5250 MHz)					
Mode	Test channel	Power Spectral Density			Limit (dBm/MHz)	Result
		Antenna 0	Antenna 1	Total PSD		
11a	CH36	7.24	6.34	-	11	PASS
11a	CH44	1.47	6.47	-	11	PASS
11a	CH48	1.10	5.83	-	11	PASS
11n(HT 20)	CH36	7.30	6.56	9.96	11	PASS
11n(HT 20)	CH44	0.13	5.92	6.94	11	PASS
11n(HT 20)	CH48	0.24	6.20	7.18	11	PASS
11n(HT 40)	CH38	-1.81	5.57	6.30	11	PASS
11n(HT 40)	CH46	-1.99	2.58	3.88	11	PASS
11ac(HT80)	CH42	0.53	2.06	4.37	11	PASS

	Configuration Band IV (5725 - 5850 MHz)					
Mode	Test channel	Power Spectral Density			Limit (dBm/500kHz)	Result
		Antenna 0	Antenna 1			
11a	CH149	4.82	3.94	-	30	PASS
11a	CH157	3.84	2.78	-	30	PASS
11a	CH161	3.92	3.46	-	30	PASS
11n(HT 20)	CH149	3.95	0.69	5.63	30	PASS
11n(HT 20)	CH157	3.89	1.13	5.74	30	PASS
11n(HT 20)	CH161	3.42	3.07	6.26	30	PASS
11n(HT 40)	CH151	0.24	0.38	3.32	30	PASS
11n(HT 40)	CH159	0.92	-0.69	3.20	30	PASS
11ac(HT80)	CH155	-2.24	-2.50	0.64	30	PASS

Note：802.11a is SISO mode only, 802.11n/802.11ac is MIMO mode only.

Test plots as follows:

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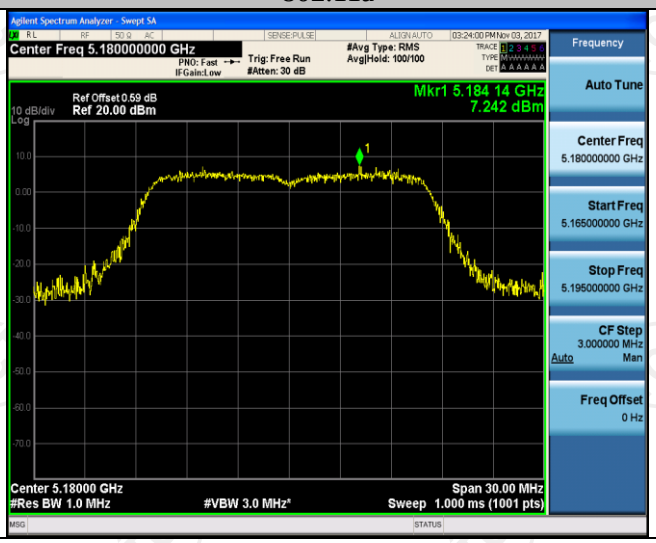
Band I （5150 – 5250 MHz）Antenna 0

802.11a

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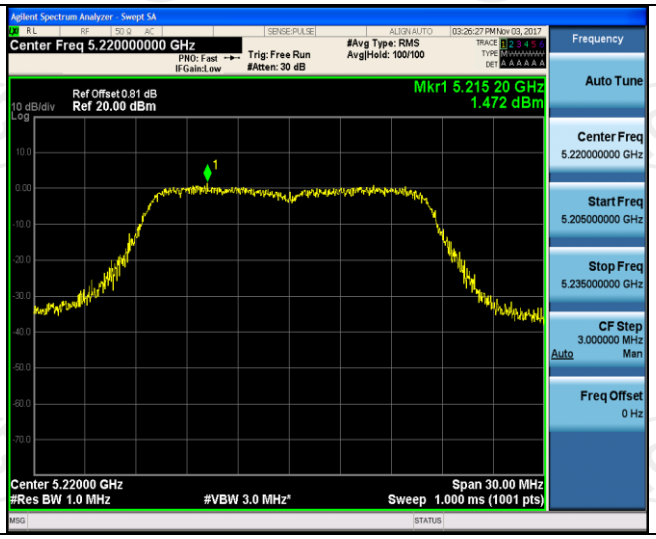
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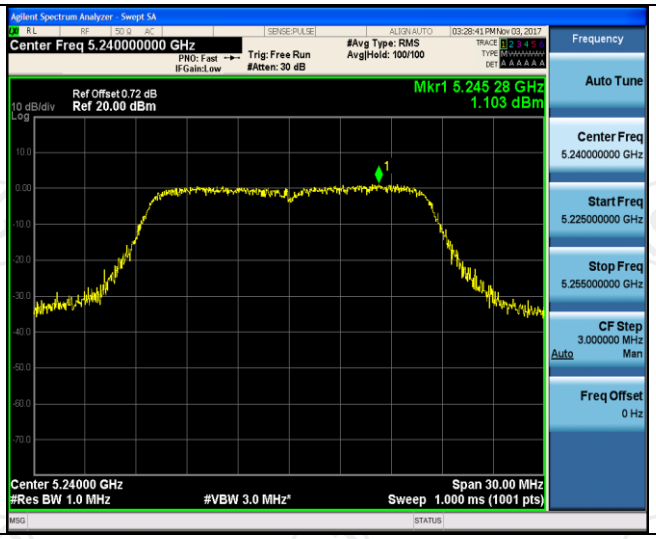
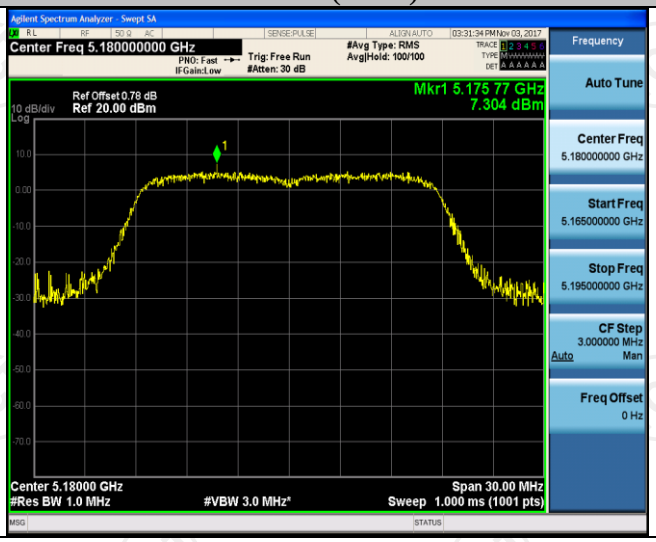

High

802.11n(HT20)

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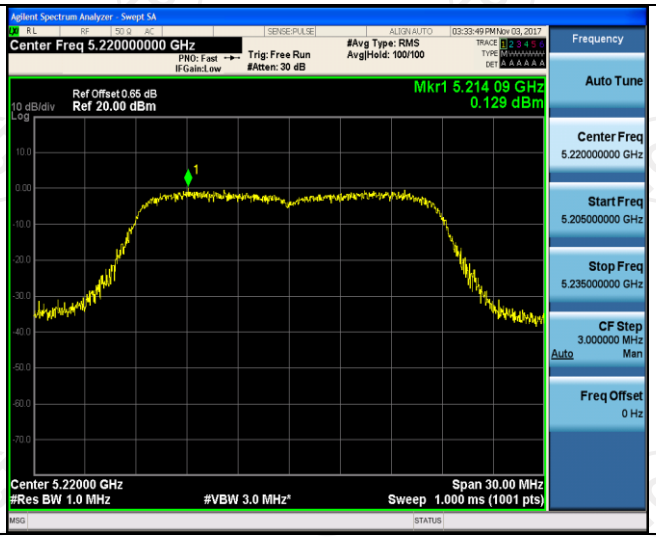
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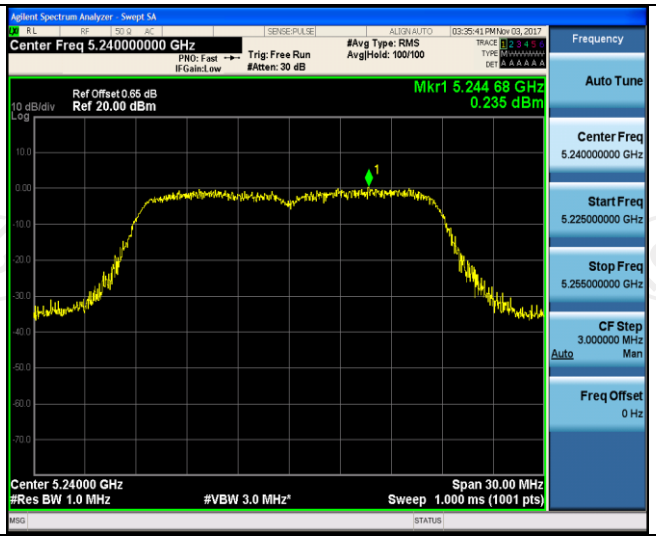
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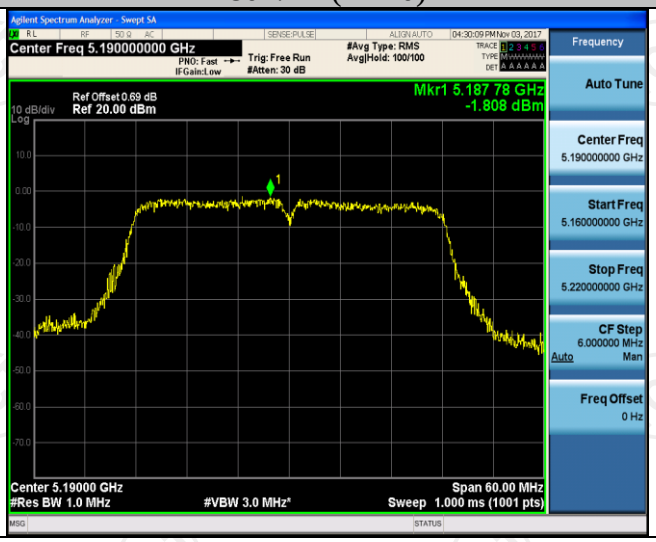
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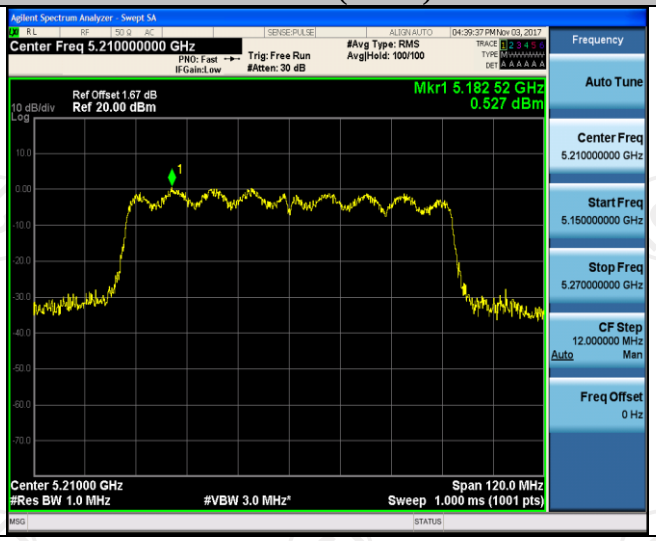
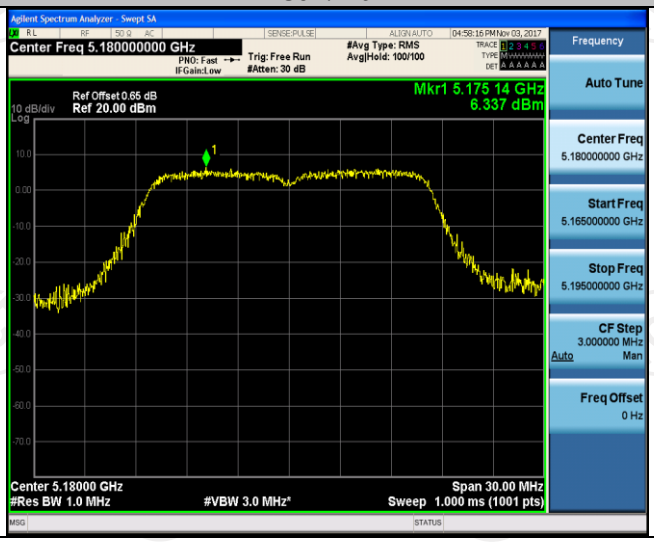
High
802.11ac(HT80)

Mid

Band I （5150 – 5250 MHz）Antenna 1

802.11a

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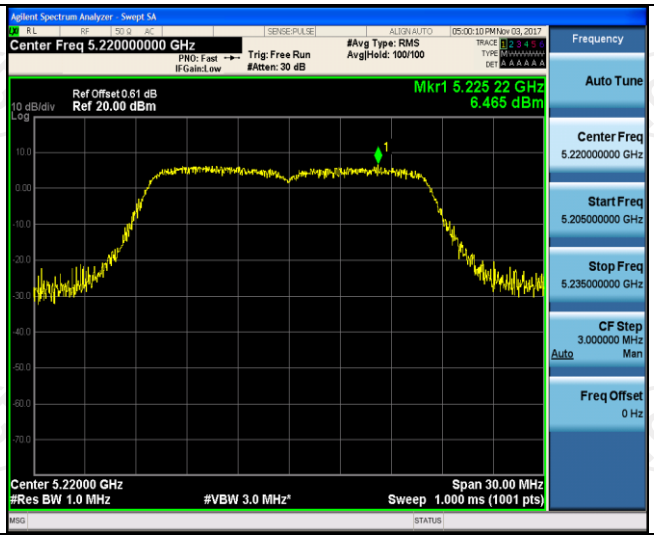
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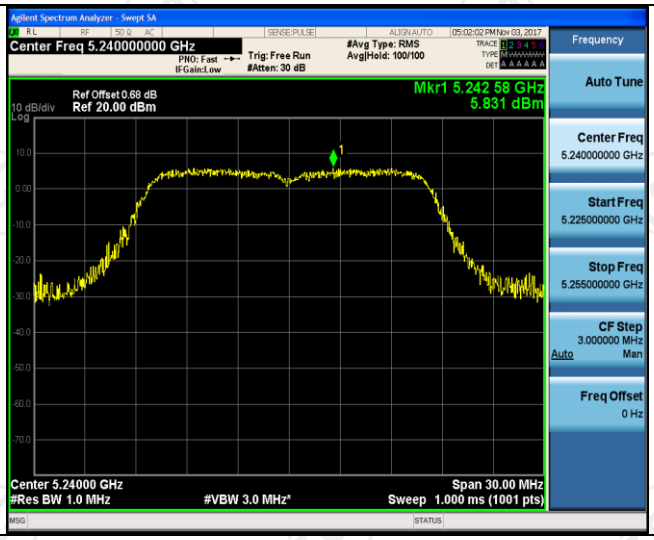
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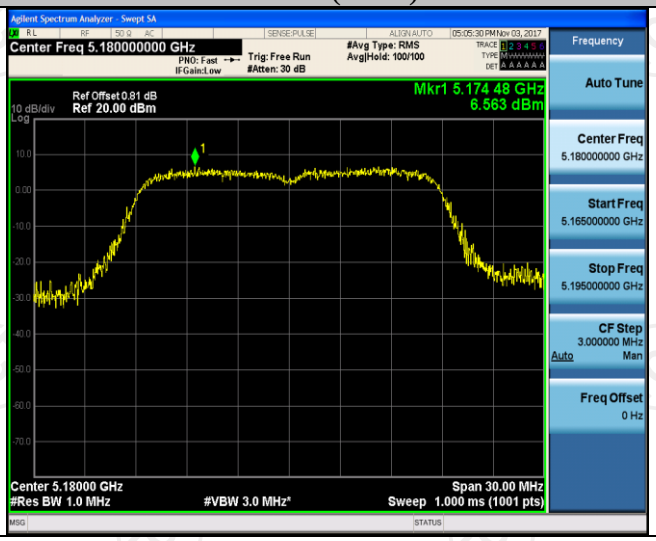
802.11n(HT20)

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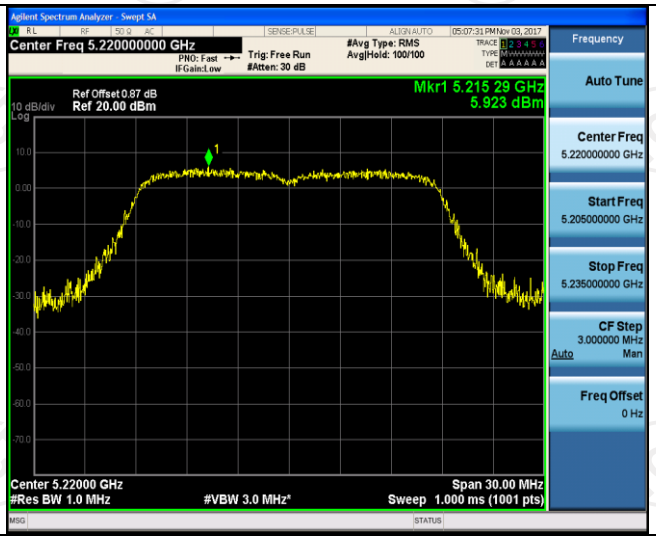
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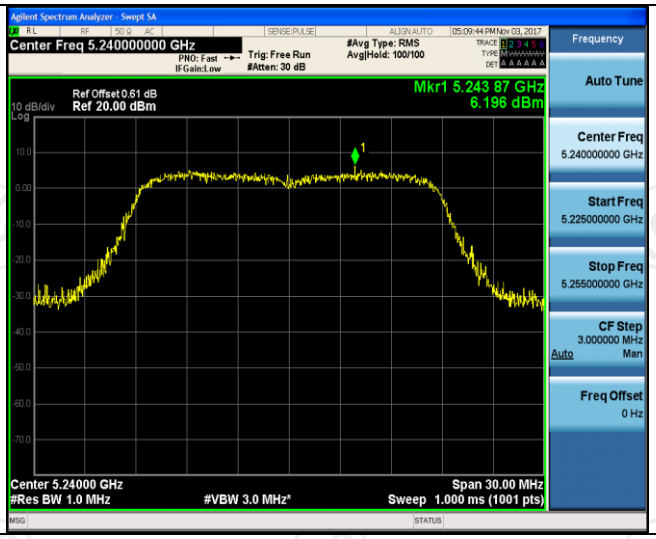
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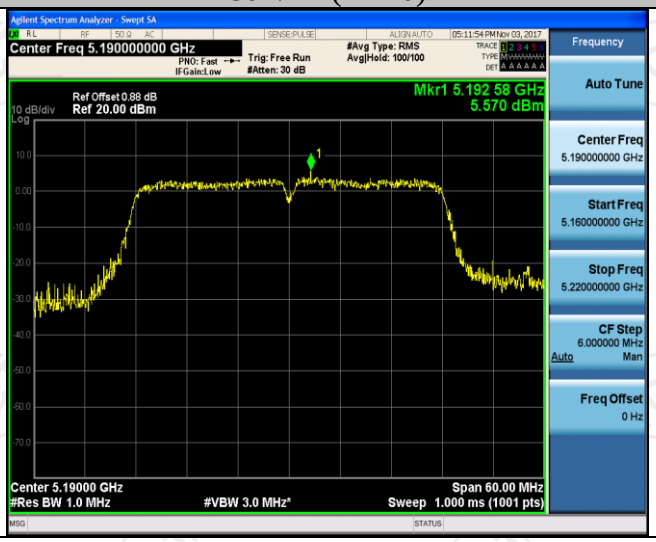
802.11n(HT40)

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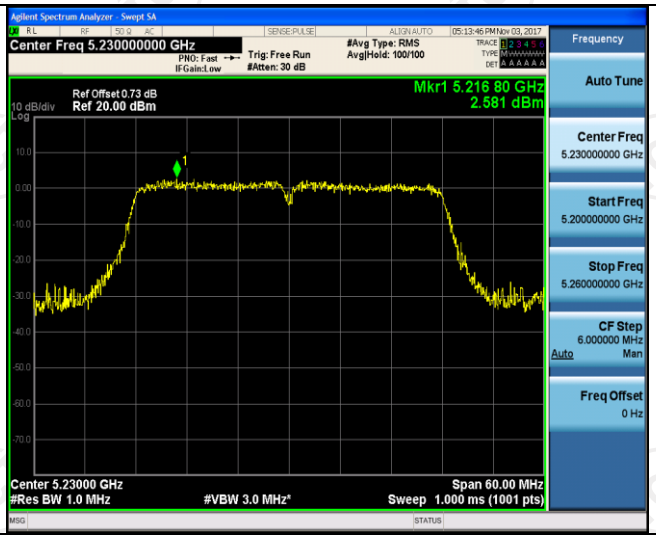
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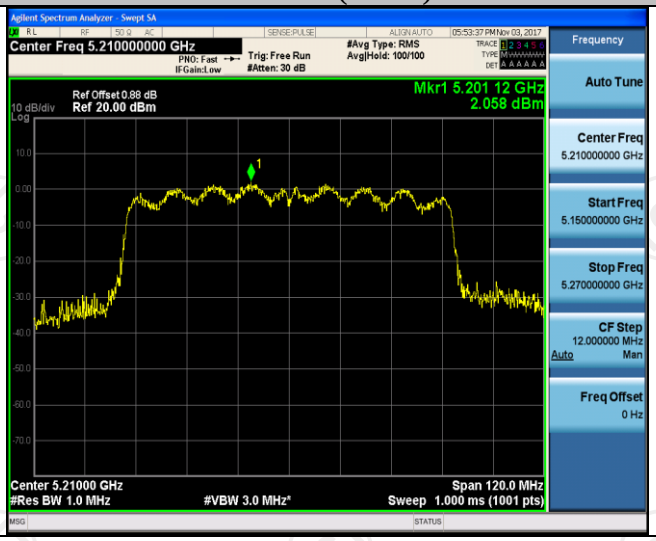
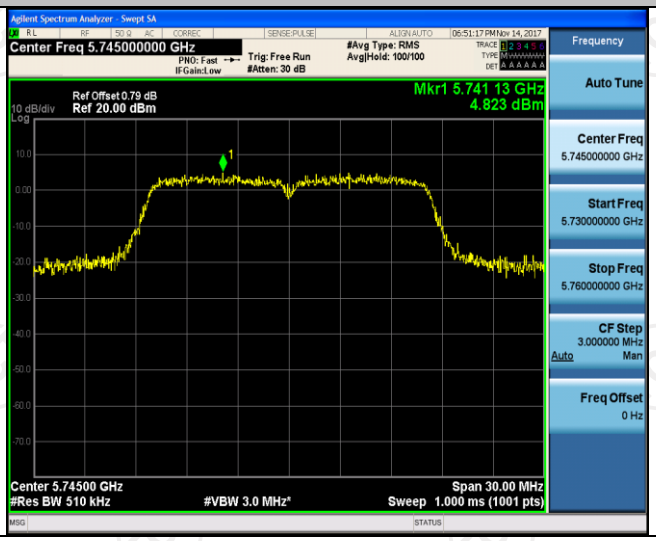
802.11ac(HT80)

Mid

Band IV (5725 – 5850 MHz) Antenna 0

802.11a

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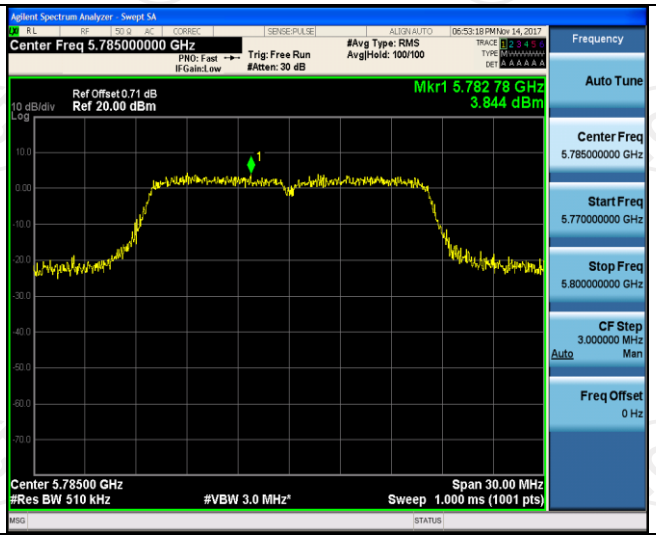
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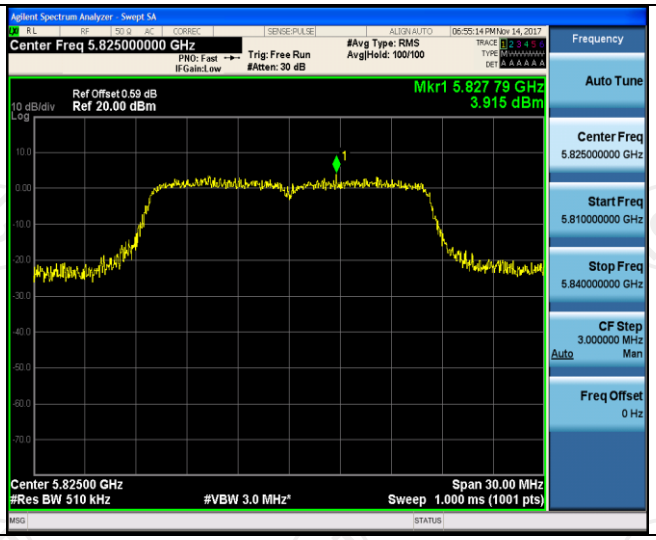
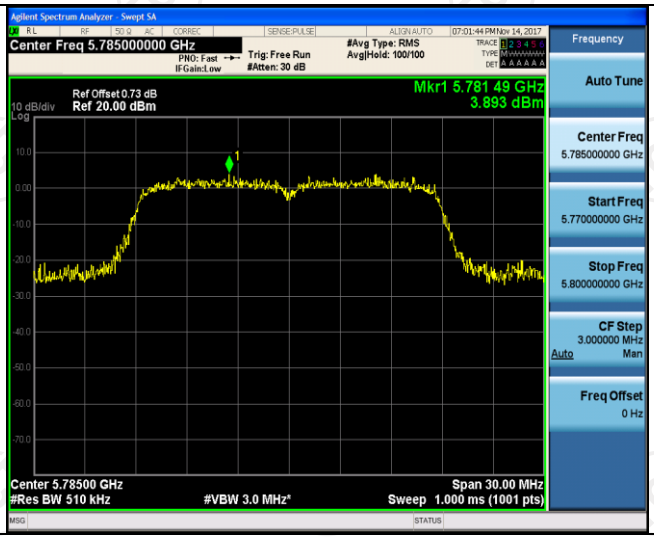

High

802.11n(HT20)

Low

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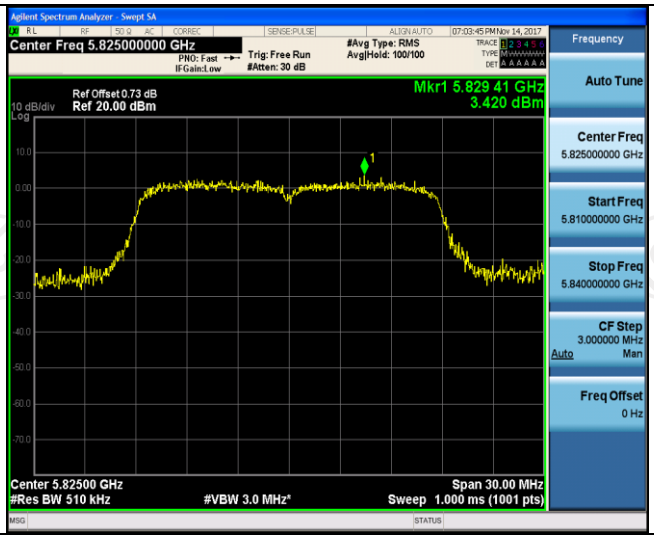
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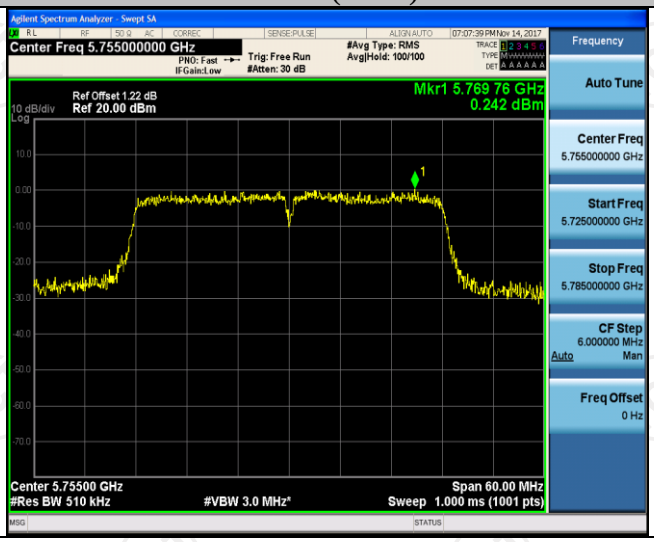
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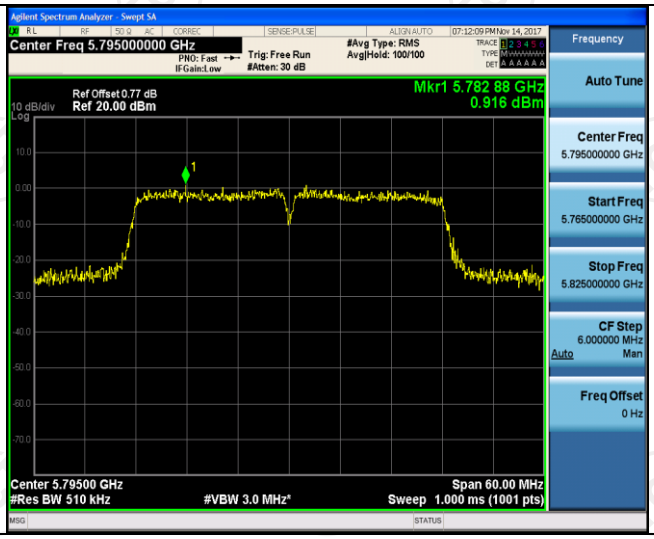
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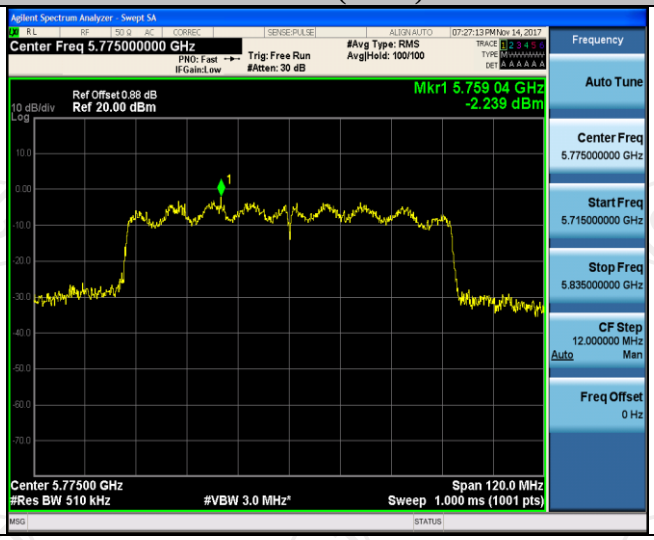
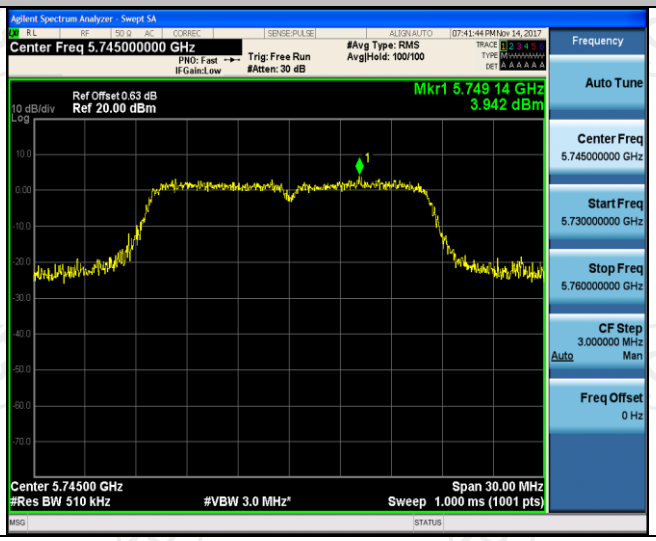
802.11ac(HT80)

Mid

Band IV (5725 – 5850 MHz) Antenna 1

802.11a

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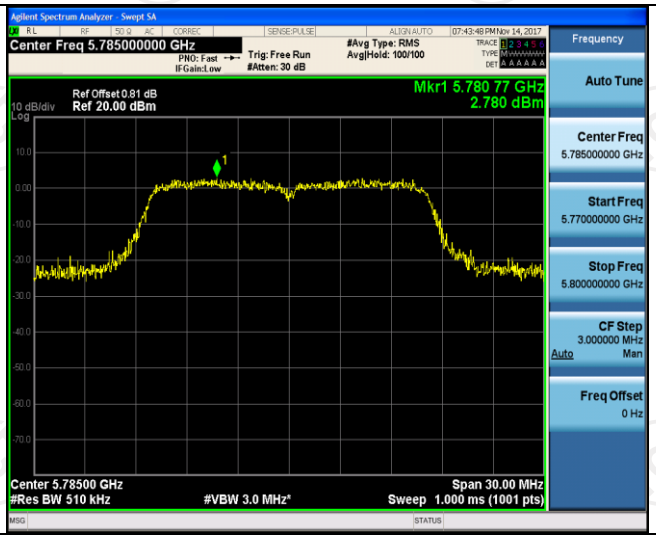
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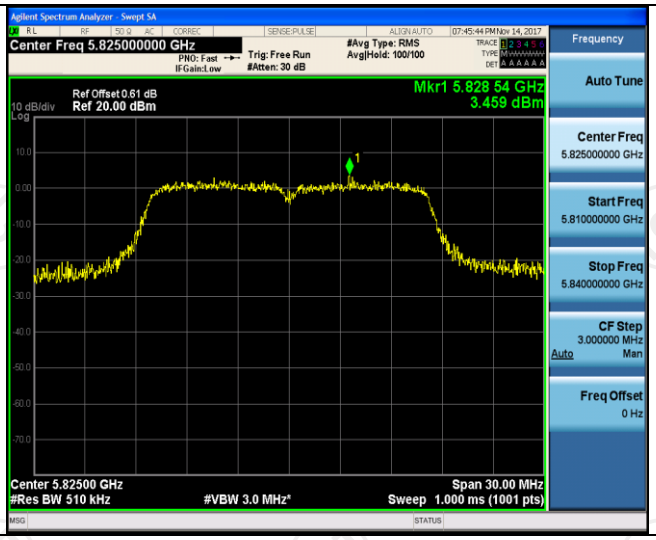
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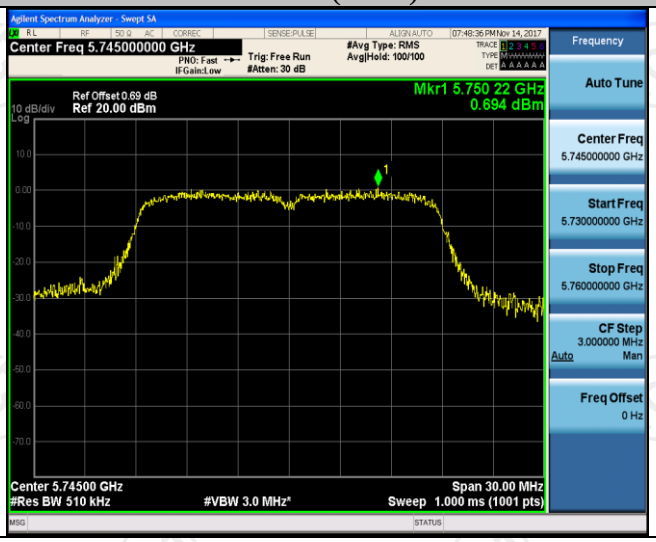
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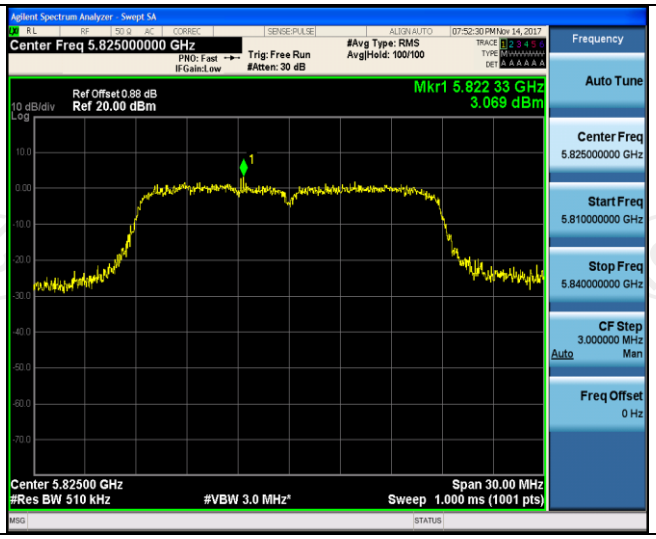
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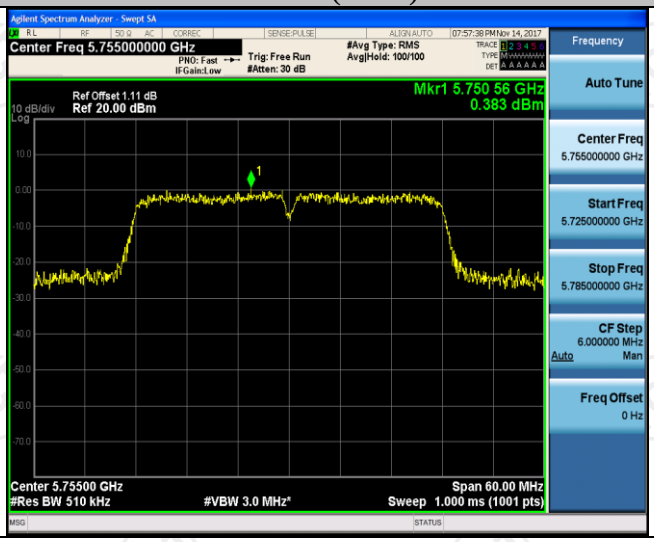
802.11n(HT40)

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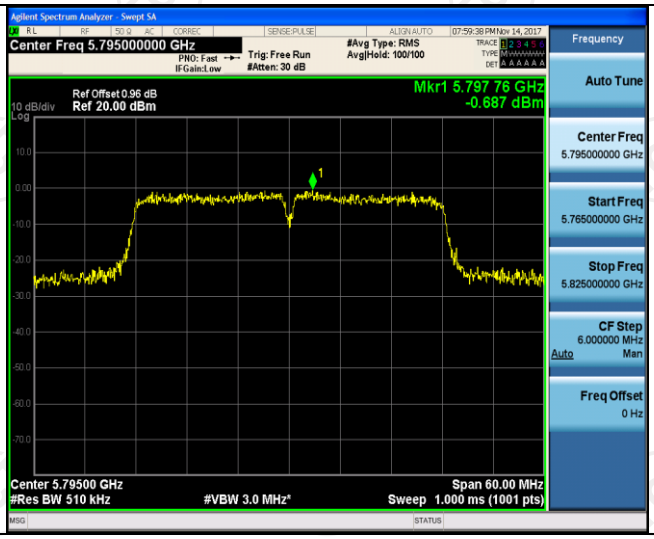
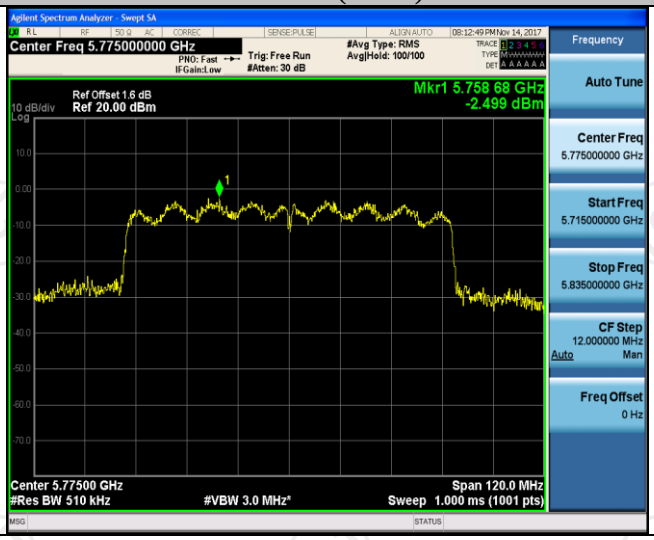
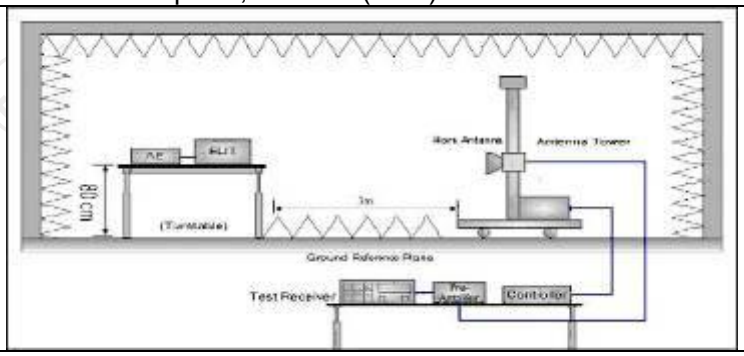

High
802.11ac(HT80)

Mid

6.7. Band edge

6.7.1. Test Specification

Test Requirement:	FCC CFR47 Part 15E Section 15.407
Test Method:	ANSI C63.10 2013
Limit:	For band I&II&III: E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBμV/m, for EIRP(dBm)= **-27dBm** For band IV(5715-5725MHz&5850-5860MHz): E[dBμV/m] = EIRP[dBm] + 95.2=78.2 dBμV/m, for EIRP(dBm)= **-17dBm；** For band IV(other un-restricted band):E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBμV/m, for EIRP(dBm)= **-27dBm**
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have

	10dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data sheet.
Test Result:	PASS

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6.7.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Test Receiver	ROHDE&SCHWARZ	ESVD	100008	Sep. 27, 2018
Spectrum Analyzer	ROHDE&SCHWARZ	FSQ	200061	Sep. 27, 2018
Spectrum Analyzer	ROHDE&SCHWARZ	FSP40	100056	Sep. 27, 2018
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2018
Pre-amplifier	EM Electronics Corporation CO.,LTD	EM30265	07032613	Sep. 27, 2018
Pre-amplifier	HP	8447D	2727A05017	Sep. 27, 2018
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 27, 2018
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 27, 2018
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 27, 2018
Horn Antenna	Schwarzbeck	BBH 9170	582	Jun. 07, 2018
Coax cable (9KHz-1GHz)	TCT	RE-low-01	N/A	Sep. 27, 2018
Coax cable (9KHz-40GHz)	TCT	RE-high-02	N/A	Sep. 27, 2018
Coax cable (9KHz-1GHz)	TCT	RE-low-03	N/A	Sep. 27, 2018
Coax cable (9KHz-40GHz)	TCT	RE-high-04	N/A	Sep. 27, 2018
Antenna Mast	Keleto	CC-A-4M	N/A	N/A
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

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6.7.3. Test Data

Band edge emission									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5150.00	16.77	31.56	9.79	0.00	58.12	68.20	-10.08	Horizontal	Peak
5150.00	16.48	31.56	9.79	0.00	57.83	68.20	-10.37	Vertical	Peak
5150.00	5.64	31.56	9.79	0.00	46.99	54.00	-7.01	Horizontal	Average
5150.00	5.34	31.56	9.79	0.00	46.69	54.00	-7.31	Vertical	Average
5350.00	16.35	32.04	10.06	0.00	58.45	68.20	-9.75	Horizontal	Peak
5350.00	16.42	32.04	10.06	0.00	58.52	68.20	-9.68	Vertical	Peak
5350.00	5.34	32.04	10.06	0.00	47.44	54.00	-6.56	Horizontal	Average
5350.00	5.24	32.04	10.06	0.00	47.34	54.00	-6.66	Vertical	Average

Band edge emission									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Detector
5725.00	16.01	32.29	10.17	0.00	58.47	68.20	-9.73	Horizontal	Peak
5725.00	15.98	32.29	10.17	0.00	58.44	68.20	-9.76	Vertical	Peak
5725.00	0.43	32.29	10.17	0.00	42.89	54.00	-11.11	Horizontal	Average
5725.00	0.34	32.29	10.17	0.00	42.80	54.00	-11.20	Vertical	Average
5850.00	15.87	36.00	11.91	0.00	63.78	68.20	-4.42	Horizontal	Peak
5850.00	15.98	36.00	11.91	0.00	63.89	68.20	-4.31	Vertical	Peak
5850.00	0.34	36.00	11.91	0.00	48.25	54.00	-5.75	Horizontal	Average
5850.00	0.26	36.00	11.91	0.00	48.17	54.00	-5.83	Vertical	Average

Note: The 802.11a SISO mode and 802.11n/802.11ac MIMO all have been tested, found that 802.11a SISO mode was the worst mode, and the report showed only the test results of the worst data.

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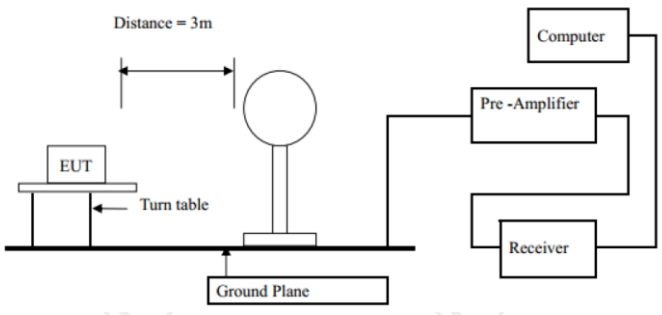
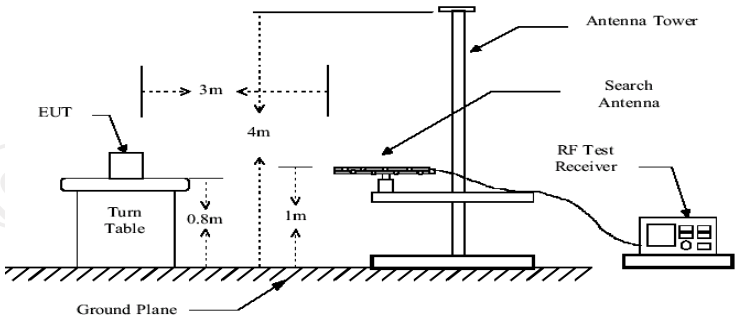
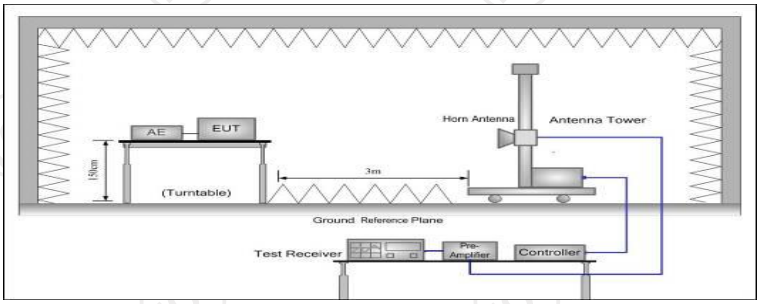
6.8. Spurious Emission

6.8.1.1. Test Specification

<table>
<tr><td>Test Requirement:</td><td>FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205</td></tr>
<tr><td>Test Method:</td><td>KDB 789033 D02 v01r04</td></tr>
<tr><td>Frequency Range:</td><td>9kHz to 40GHz</td></tr>
<tr><td>Measurement Distance:</td><td>3 m</td></tr>
<tr><td>Antenna Polarization:</td><td>Horizontal & Vertical</td></tr>
<tr><td>Operation mode:</td><td>Transmitting mode with modulation</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>9kHz- 150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>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,
<table>
<tr><td>Frequency</td><td>Field Strength (microvolts/meter)</td><td>Measurement Distance (meters)</td></tr>
<tr><td>0.009-0.490</td><td>2400/F(KHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(KHz)</td><td>30</td></tr>
<tr><td>1.705-30</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100</td><td>3</td></tr>
<tr><td>88-216</td><td>150</td><td>3</td></tr>
<tr><td>216-960</td><td>200</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Detector</td></tr>
<tr><td rowspan="2">Above 1G</td><td>74.0</td><td>Peak</td></tr>
<tr><td>54.0</td><td>Average</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions below 30MHz


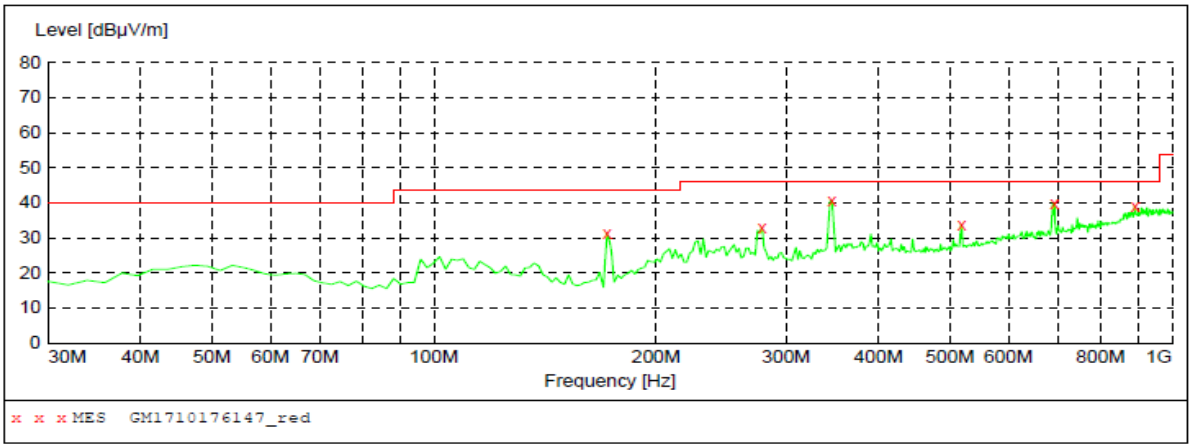
</td></tr>
</table>

	30MHz to 1GHz  Above 1GHz 
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.
Test results:	PASS

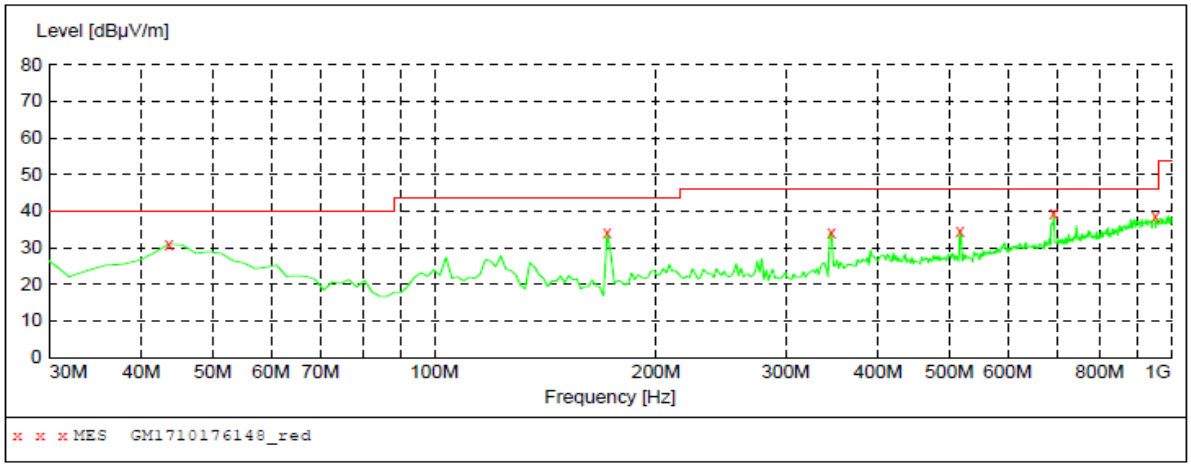
6.8.2. Test Data

Please refer to following diagram for individual

Below 1GHz



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
171.620000	31.40	-12.9	43.5	12.1	QP	100.0	162.00	HORIZONTAL
278.320000	32.80	-7.8	46.0	13.2	QP	100.0	84.00	HORIZONTAL
346.220000	40.70	-5.4	46.0	5.3	QP	100.0	110.00	HORIZONTAL
518.880000	33.70	-1.3	46.0	12.3	QP	100.0	309.00	HORIZONTAL
693.480000	39.70	2.4	46.0	6.3	QP	100.0	189.00	HORIZONTAL
891.360000	39.10	6.5	46.0	6.9	QP	100.0	174.00	HORIZONTAL



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
43.580000	31.00	-9.1	40.0	9.0	QP	100.0	146.00	VERTICAL
171.620000	34.10	-12.9	43.5	9.4	QP	100.0	336.00	VERTICAL
346.220000	34.10	-5.4	46.0	11.9	QP	100.0	324.00	VERTICAL
516.940000	34.50	-1.4	46.0	11.5	QP	100.0	312.00	VERTICAL
693.480000	39.40	2.4	46.0	6.6	QP	100.0	336.00	VERTICAL
951.500000	38.70	7.3	46.0	7.3	QP	100.0	3.00	VERTICAL

Remark:

1. Transd = Cable lose + Antenna factor - Pre-amplifier; Margin = Limit – Level

2. The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported

3. The 802.11a,802.11n,802.11ac Test mode, found that 802.11a and band 1 mode for low channel was the worst mode, and the report showed only the test results of the worst mode.

Above 1GHz

Band I for Low									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1200.16	37.80	24.33	4.56	37.68	29.01	74.00	-44.99	Vertical	Peak
1764.35	37.82	25.61	5.90	37.07	32.26	74.00	-41.74	Vertical	Peak
4332.85	34.48	30.44	9.07	37.59	36.40	74.00	-37.60	Vertical	Peak
8546.65	32.16	38.25	15.62	36.46	49.57	74.00	-24.43	Vertical	Peak
1814.22	34.36	25.62	5.98	37.15	28.81	74.00	-45.19	Horizontal	Peak
3534.54	34.96	28.77	8.17	38.36	33.54	74.00	-40.46	Horizontal	Peak
7981.72	32.56	36.70	12.39	34.58	47.07	74.00	-26.93	Horizontal	Peak
10374.42	32.00	38.61	13.59	35.53	48.67	74.00	-25.33	Horizontal	Peak

Band I for Mid									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1795.84	38.65	25.58	5.95	37.13	33.05	74.00	-40.95	Vertical	Peak
3096.33	35.15	28.54	7.60	38.22	33.07	74.00	-40.93	Vertical	Peak
4524.47	35.16	30.92	9.34	37.35	38.07	74.00	-35.93	Vertical	Peak
7900.86	32.54	36.61	12.78	34.80	47.13	74.00	-26.87	Vertical	Peak
1353.80	36.71	24.58	4.92	36.49	29.72	74.00	-44.28	Horizontal	Peak
2179.15	34.69	26.78	6.42	37.34	30.55	74.00	-43.45	Horizontal	Peak
6992.14	31.21	35.80	11.84	34.80	44.05	74.00	-29.95	Horizontal	Peak
11084.27	32.81	39.19	13.54	33.68	51.86	74.00	-22.14	Horizontal	Peak

Band I for High									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1795.84	38.16	25.58	5.95	37.13	32.56	74.00	-41.44	Vertical	Peak
3096.33	35.64	28.54	7.60	38.22	33.56	74.00	-40.44	Vertical	Peak
4524.47	34.65	30.92	9.34	37.35	37.56	74.00	-36.44	Vertical	Peak
7900.86	32.54	36.61	12.78	34.80	47.13	74.00	-26.87	Vertical	Peak
1353.80	36.71	24.58	4.92	36.49	29.72	74.00	-44.28	Horizontal	Peak
2179.15	34.69	26.78	6.42	37.34	30.55	74.00	-43.45	Horizontal	Peak
6992.14	32.16	35.80	11.84	34.80	45.00	74.00	-29.00	Horizontal	Peak
11084.27	32.81	39.19	13.54	33.68	51.86	74.00	-22.14	Horizontal	Peak

Remark:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11a SISO mode and 802.11n/802.11ac MIMO all have been tested, found that 802.11a SISO mode was the worst mode, and the report showed only the test results of the worst data.

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Band IV for Low									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1963.18	36.04	26.00	6.21	37.27	30.98	74.00	-43.02	Vertical	Peak
3883.62	35.07	29.31	8.62	38.18	34.82	74.00	-39.18	Vertical	Peak
8770.01	33.11	37.59	13.07	34.32	49.45	74.00	-24.55	Vertical	Peak
11084.27	32.94	39.19	13.54	33.68	51.99	74.00	-22.01	Vertical	Peak
1795.84	38.52	25.58	5.95	37.13	32.92	74.00	-41.08	Vertical	Peak
3184.25	36.86	28.58	7.70	38.20	34.94	74.00	-39.06	Horizontal	Peak
8002.06	32.66	36.72	12.30	34.53	47.15	74.00	-26.85	Horizontal	Peak
10062.31	32.78	38.44	13.55	33.71	51.06	74.00	-22.94	Horizontal	Peak

Band IV for Mid									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1605.55	36.22	25.04	5.58	36.73	30.11	74.00	-43.89	Vertical	Peak
3333.55	35.57	28.64	7.88	38.43	33.66	74.00	-40.34	Vertical	Peak
8355.94	32.45	37.06	12.83	34.32	48.02	74.00	-25.98	Vertical	Peak
12024.96	32.16	39.10	14.65	33.28	52.63	74.00	-21.37	Vertical	Peak
1431.78	36.40	24.64	5.09	36.50	29.63	74.00	-44.37	Horizontal	Peak
2487.56	34.87	27.85	6.83	37.87	31.68	74.00	-42.32	Horizontal	Peak
7840.75	32.32	36.54	13.06	34.96	46.96	74.00	-27.04	Horizontal	Peak
8703.29	33.49	37.51	13.00	34.40	49.60	74.00	-24.40	Horizontal	Peak

Band IV for High									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1276.82	36.31	24.50	4.79	36.53	29.07	74.00	-44.93	Vertical	Peak
2657.76	34.48	28.10	7.04	37.99	31.63	74.00	-42.37	Vertical	Peak
3913.39	34.95	29.36	8.66	38.16	34.81	74.00	-39.19	Vertical	Peak
8927.68	32.53	37.80	13.23	34.36	49.20	74.00	-24.80	Vertical	Peak
1800.42	37.64	25.58	5.96	37.14	32.04	74.00	-41.96	Horizontal	Peak
3200.50	35.97	28.58	7.72	38.20	34.07	74.00	-39.93	Horizontal	Peak
9111.35	33.44	37.94	13.42	35.21	49.59	74.00	-24.41	Horizontal	Peak
11140.85	31.68	39.17	13.51	33.52	50.84	74.00	-23.16	Horizontal	Peak

Remark:

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Measuring frequencies from 1 GHz to 40GHz of highest fundamental frequency.
4. The 802.11a SISO mode and 802.11n/802.11ac MIMO all have been tested, found that 802.11a SISO mode was the worst mode, and the report showed only the test results of the worst data.

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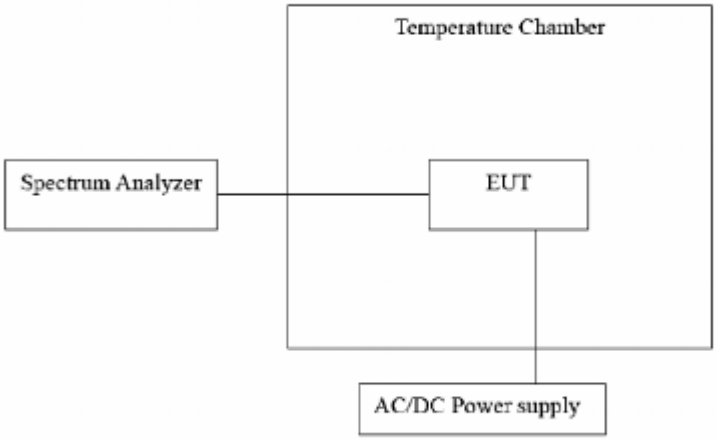
6.9. Frequency Stability Measurement

6.9.1. Test Specification

Test Requirement:	FCC Part15 Section 15.407(g) &Part2 J Section 2.1055
Test Method:	ANSI C63.10: 2013
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of 0 degrees to 35 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.
Test Setup:	
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS
Remark:	Pre-scan was performed at Antenna 0 and Antenna 1, the worst case was found. Only the test data of Antenna 0 was shown in this report.

Test plots as follows:

ANT 0: Band I for 802.11a Low					
Voltage(%)	Power(VDC)	TEMP(°C)	Test Fequnency (MHz)	Freq.Dev (MHz)	Deviation (ppm)
100%	120	-30	5180	0.0034	0.66
100%		-20	5180	0.0034	0.66
100%		-10	5180	0.0034	0.66
100%		0	5180	0.0034	0.66
100%		10	5180	0.0034	0.66
100%		20	5180	0.0034	0.66
100%		30	5180	0.0034	0.66
100%		40	5180	0.0034	0.66
100%		50	5180	0.0034	0.66
Low Battery power	108	20	5180	0.0034	0.66
High Battery power	132	20	5180	0.0034	0.66

ANT 0: Band IV for 802.11a Low					
Voltage(%)	Power(VDC)	TEMP(°C)	Test Fequnency (MHz)	Freq.Dev (MHz)	Deviation (ppm)
100%	120	-30	5745	0.0033	0.64
100%		-20	5745	0.0033	0.64
100%		-10	5745	0.0033	0.64
100%		0	5745	0.0033	0.64
100%		10	5745	0.0033	0.64
100%		20	5745	0.0033	0.64
100%		30	5745	0.0033	0.64
100%		40	5745	0.0033	0.64
100%		50	5745	0.0033	0.64
Low Battery power	108	20	5745	0.0033	0.64
High Battery power	132	20	5745	0.0033	0.64

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ANT 1: Band I for 802.11a Low					
Voltage(%)	Power(VDC)	TEMP(°C)	Test Fequnency (MHz)	Freq.Dev (MHz)	Deviation (ppm)
100%	120	-30	5180	0.0031	0.54
100%		-20	5180	0.0031	0.54
100%		-10	5180	0.0031	0.54
100%		0	5180	0.0031	0.54
100%		10	5180	0.0031	0.54
100%		20	5180	0.0031	0.54
100%		30	5180	0.0031	0.54
100%		40	5180	0.0031	0.54
100%		50	5180	0.0031	0.54
Low Battery power	108	20	5180	0.0031	0.54
High Battery power	132	20	5180	0.0031	0.54

ANT 1: Band IV for 802.11a Low					
Voltage(%)	Power(VDC)	TEMP(°C)	Test Fequnency (MHz)	Freq.Dev (MHz)	Deviation (ppm)
100%	120	-30	5745	0.0032	0.56
100%		-20	5745	0.0032	0.56
100%		-10	5745	0.0032	0.56
100%		0	5745	0.0032	0.56
100%		10	5745	0.0032	0.56
100%		20	5745	0.0032	0.56
100%		30	5745	0.0032	0.56
100%		40	5745	0.0032	0.56
100%		50	5745	0.0032	0.56
Low Battery power	108	20	5745	0.0032	0.56
High Battery power	132	20	5745	0.0032	0.56

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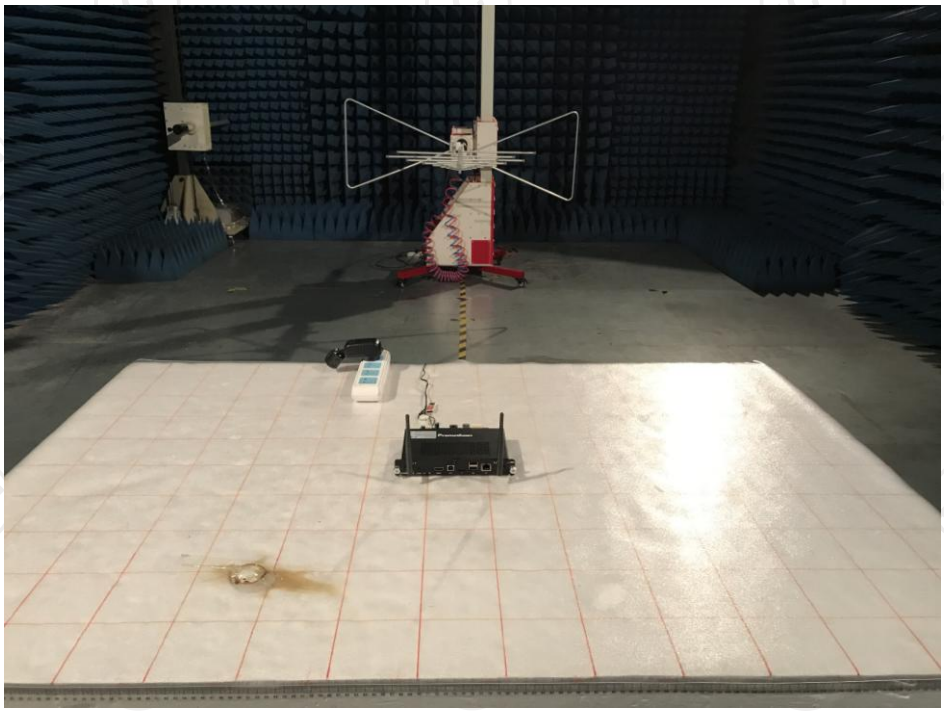
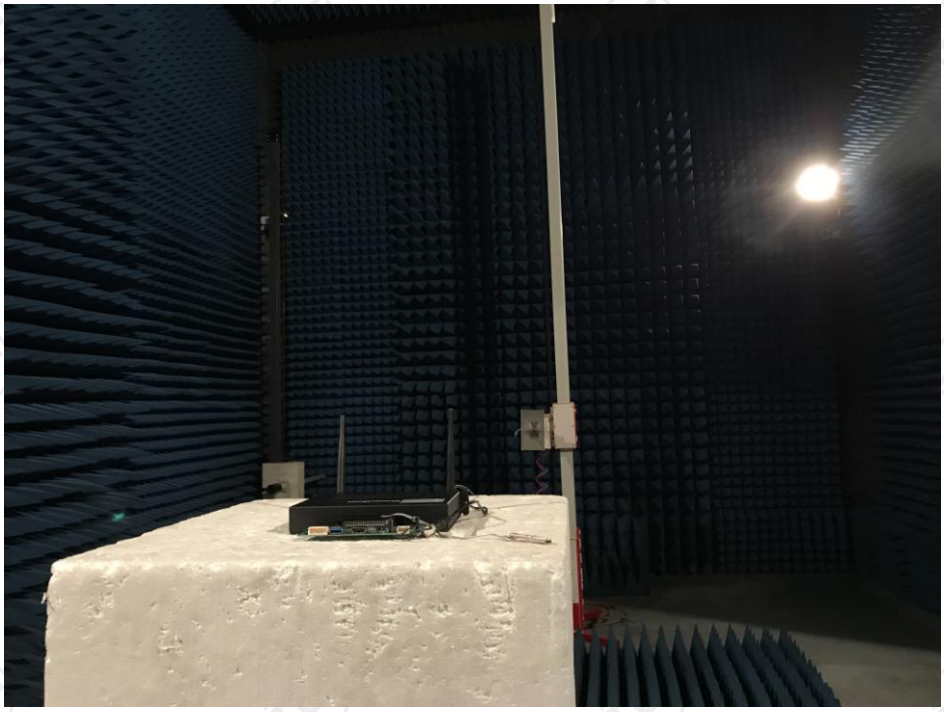
Appendix A: Photographs of Test Setup

Radiated Emission





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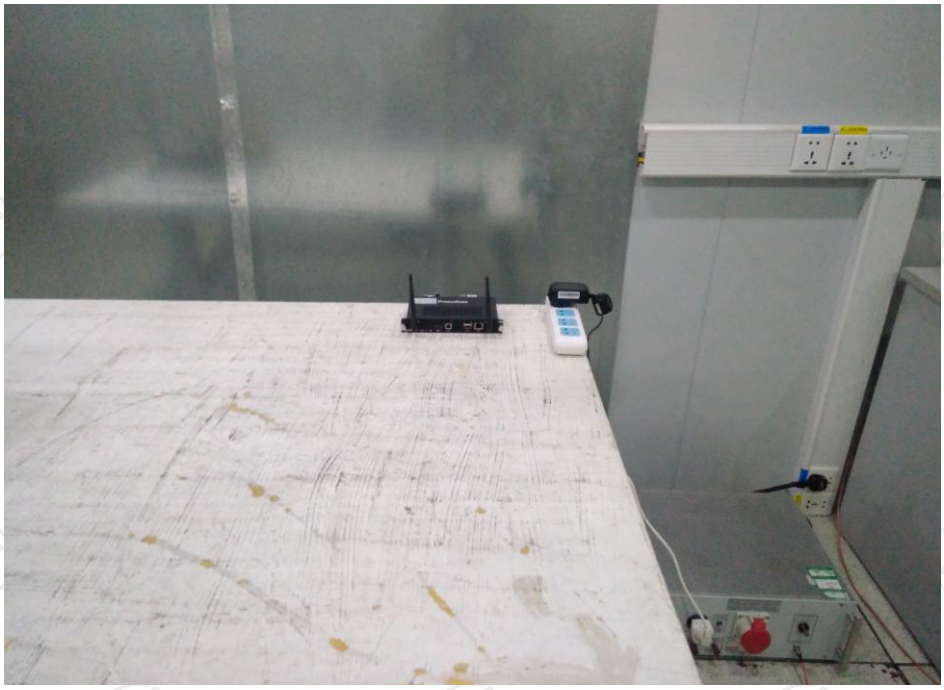

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Appendix B: Photographs of EUT

Refer to the test report No.: TRE1710003401.

*****END OF REPORT*****

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