

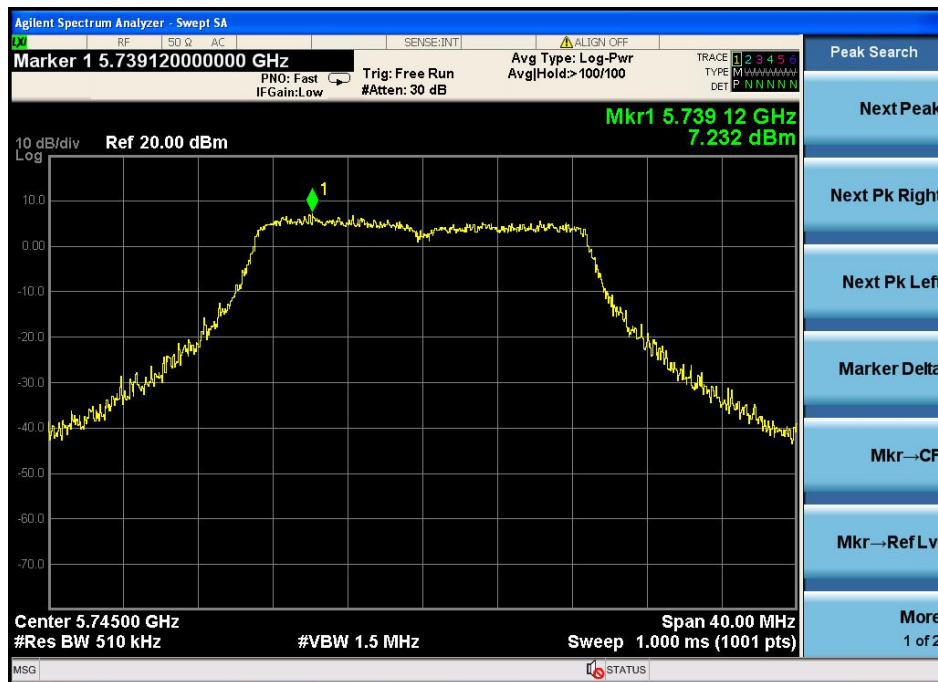


CH Hig:



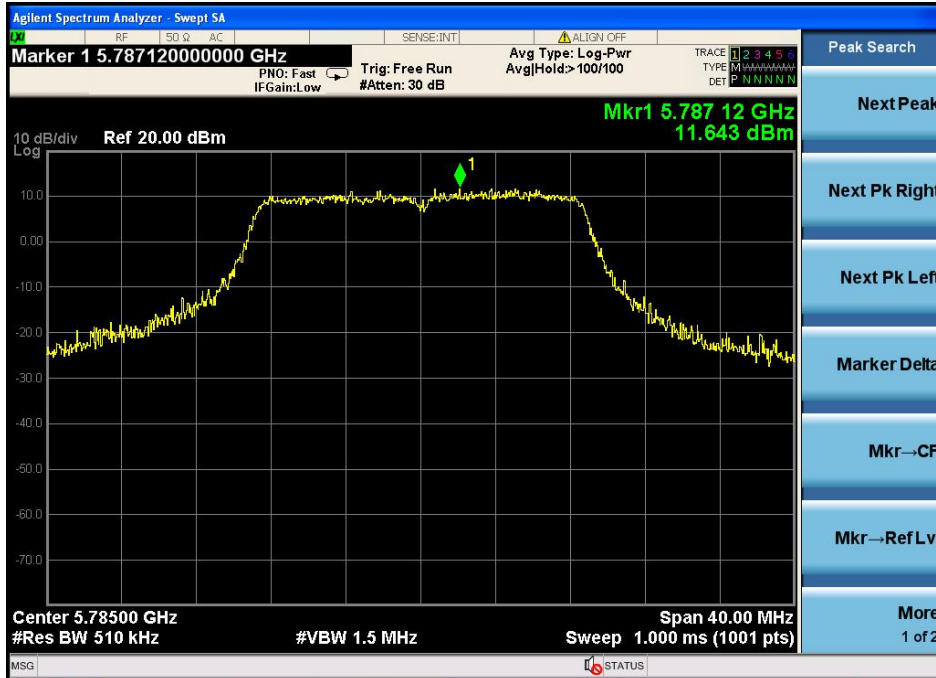
IEEE 802.11n HT20 with 5.8G:

CH Low :

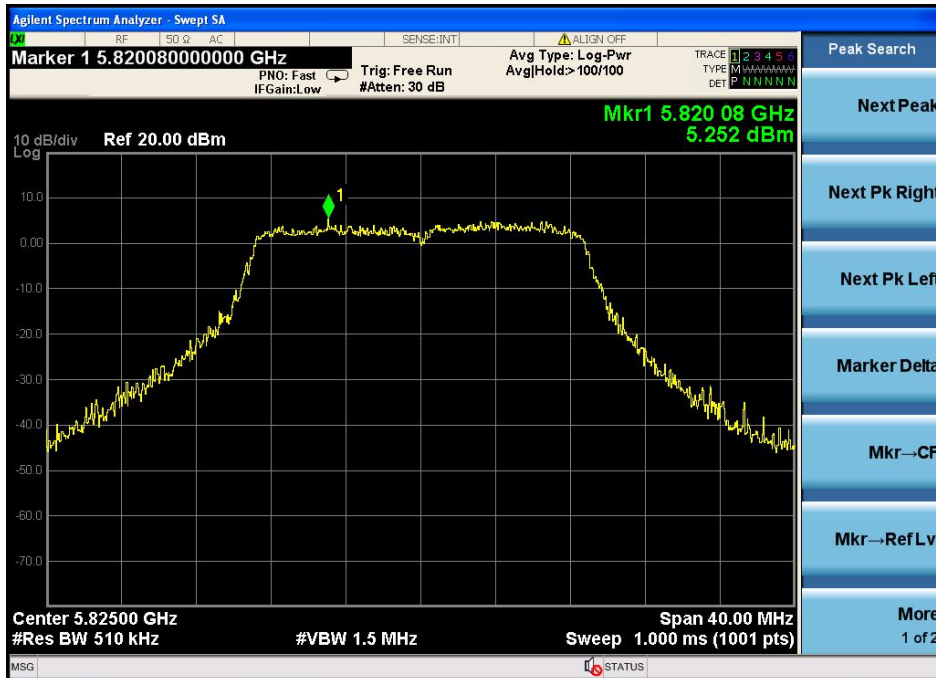




CH Mid:



CH Hig:





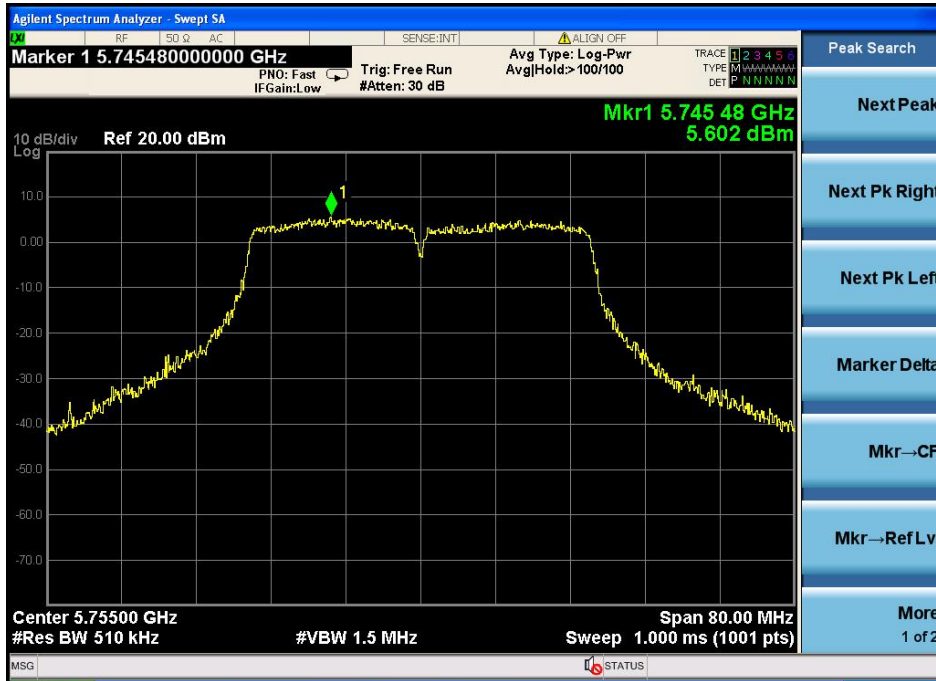
ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 48 of 94

IEEE 802.11n HT40 with 5.8G:

CH Low :



CH Hig:





IEEE 802.11ac with 5.8G:





8. Band Edge Requirement (Radiated Emission Method)

8.1 Test Standard and Limit

8.1.1 Test Standard

FCC Part15 C Section 15.407

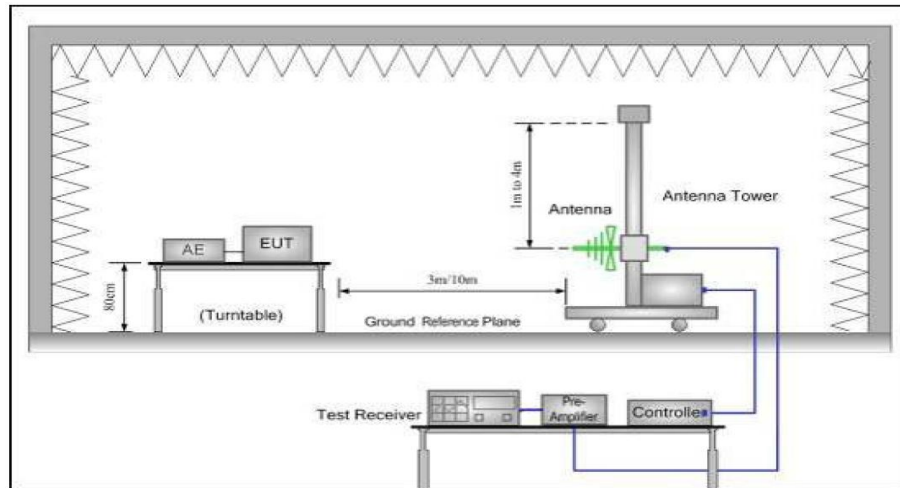
8.1.2 Test Limit

Except as shown in paragraph (7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

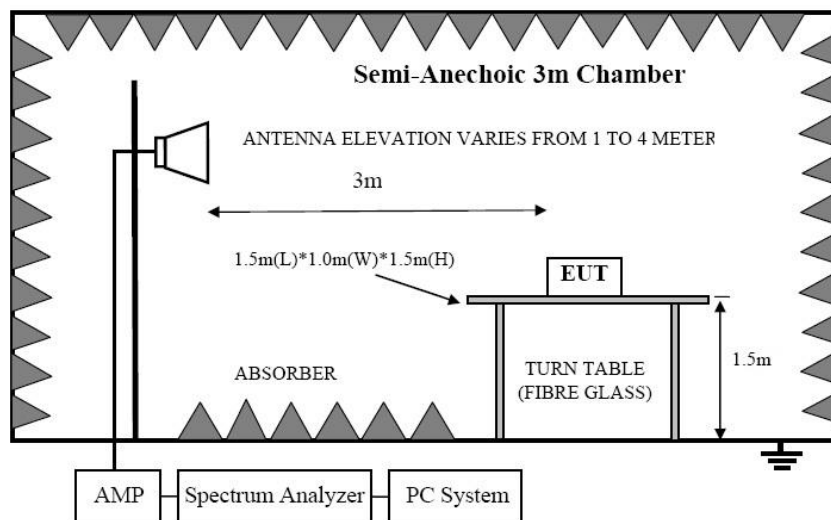
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) 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.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits

8.2 Test Setup

Below 1GHz



Above 1GHz



8.3 Test Procedure

8.3.1 Put the EUT on a 0.8m high table for below 1GHz, and 1.5m high table for above 1GHz, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission

8.3.2 Check the spurious emissions out of band.

8.3.3 RBW 1MHz ,VBW 3MHz ,peak detector for peak value , RBW 1MHz ,VBW 3MHz , RMS detector for AV value.



8.4 Test Data

5.2G Band

Radiated Method:

IEEE 802.11a CH LOW

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150	43.89	31.65	5.92	33.9	47.56	68.2	20.64	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5150	42.98	31.65	5.92	33.9	46.65	68.2	21.55	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBuV/m 】 -95.2, thus, limit for 5150MHz band is -27+95.2=68.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 53 of 94

IEEE 802.11a CH High

Band Edge Test result								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5350	44.29	31.73	6.05	33.73	48.34	68.2	19.86	PK
--	--	--	--	--	--	--	--	--
Antenna Polarity: Horizontal								
5350	42.37	31.73	6.05	33.73	46.42	68.2	21.78	PK
--	--	--	--	--	--	--	--	--
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Result = Read level + Antenna factor + cable loss-Amp factor								
3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBuV/m 】 -95.2, thus, limit for 5350MHz band is -27+95.2=68.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 54 of 94

IEEE 802.11n HT20 CH Low

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150	43.57	31.65	5.92	33.9	47.24	68.2	20.96	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5150	42.26	31.65	5.92	33.9	45.93	68.2	22.27	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBuV/m 】 -95.2, thus, limit for 5150MHz band is -27+95.2=68.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 55 of 94

IEEE 802.11n HT20 CH High

Band Edge Test result								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5350	43.29	31.73	6.05	33.73	47.34	68.2	20.86	PK
--	--	--	--	--	--	--	--	--
Antenna Polarity: Horizontal								
5350	41.75	31.73	6.05	33.73	45.8	68.2	22.4	PK
--	--	--	--	--	--	--	--	--
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Result = Read level + Antenna factor + cable loss-Amp factor								
3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBuV/m 】 -95.2, thus, limit for 5350MHz band is -27+95.2=68.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 56 of 94

IEEE 802.11n HT40 CH Low

Band Edge Test result								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150	42.93	31.65	5.92	33.9	46.6	68.2	21.6	PK
--	--	--	--	--	--	--	--	--
Antenna Polarity: Horizontal								
5150	43.06	31.65	5.92	33.9	46.73	68.2	21.47	PK
--	--	--	--	--	--	--	--	--
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Result = Read level + Antenna factor + cable loss-Amp factor								
3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBuV/m 】 -95.2, thus, limit for 5150MHz band is -27+95.2=68.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 57 of 94

IEEE 802.11n HT40 CH High

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBUV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
5350	45.79	31.73	6.05	33.73	49.84	68.2	18.36	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5350	43.22	31.73	6.05	33.73	47.27	68.2	20.93	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBUV/m 】 -95.2, thus, limit for 5350MHz band is -27+95.2=68.2 dBUV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 58 of 94

IEEE 802.11ac

Band Edge Test result								
Antenna polarity: Vertical								
Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150	43.42	31.65	5.92	33.9	47.09	68.2	21.11	PK
5350	42.79	31.73	6.05	33.73	46.84	68.2	21.36	PK
--	--	--	--	--	--	--	--	--
Antenna Polarity: Horizontal								
5150	42.76	31.65	5.92	33.9	46.43	68.2	21.77	PK
5350	43.22	31.73	6.05	33.73	47.27	68.2	20.93	PK
--	--	--	--	--	--	--	--	--
Note:								
1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK								
2, Result = Read level + Antenna factor + cable loss-Amp factor								
3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.								

Note: According to KDB 789033, EIRP 【 dBm 】 =E 【 dBuV/m 】 -95.2, thus, limit for 5150MHz band is -27+95.2=68.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 59 of 94

5.8G Band

Radiated Method:

IEEE 802.11a CH LOW

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5460	41.93	31.81	6.11	33.68	46.17	68.2	22.03	PK
5725	43.24	32.17	6.26	33.58	48.09	78.2	30.11	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5460	41.84	31.81	6.11	33.68	46.08	68.2	22.12	PK
5725	43.79	32.17	6.26	33.58	48.64	78.2	29.56	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5725MHz is -17+95.2=78.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 60 of 94

IEEE 802.11a CH High

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5850	42.29	32.5	6.33	33.64	47.48	78.2	30.72	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5850	42.16	32.5	6.33	33.64	47.35	78.2	30.85	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5850MHz is -17+95.2=78.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 61 of 94

IEEE 802.11n HT20 CH Low

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5460	41.59	31.81	6.11	33.68	45.83	68.2	22.37	PK
5725	43.35	32.17	6.26	33.58	48.2	78.2	30	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5460	41.78	31.81	6.11	33.68	46.02	68.2	22.18	PK
5725	43.29	32.17	6.26	33.58	48.14	78.2	30.06	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5725MHz is -17+95.2=78.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 62 of 94

IEEE 802.11n HT20 CH High

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5850	43.26	32.5	6.33	33.64	48.45	78.2	29.75	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5850	42.58	32.5	6.33	33.64	47.77	78.2	30.43	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5850MHz is -17+95.2=78.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 63 of 94

IEEE 802.11n HT40 CH Low

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5460	41.71	31.81	6.11	33.68	45.95	68.2	22.25	PK
5725	43.65	32.17	6.26	33.58	48.5	78.2	29.7	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5460	41.93	31.81	6.11	33.68	46.17	68.2	22.03	PK
5725	43.29	32.17	6.26	33.58	48.14	78.2	30.06	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5725MHz is -17+95.2=78.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 64 of 94

IEEE 802.11n HT40 CH High

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5850	42.95	32.5	6.33	33.64	48.14	78.2	30.06	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5850	42.43	32.5	6.33	33.64	47.62	78.2	30.58	PK
--	--	--	--	--	--	--	--	--

Note:

- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5850MHz is -17+95.2=78.2 dBuV/m.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 65 of 94

IEEE 802.11ac

Band Edge Test result

Antenna polarity: Vertical

Freq (MHz)	Read Level (dBuV/m)	Antenna Factor (dB/m)	Cable loss(dB)	Amp Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5460	42.52	31.81	6.11	33.68	46.76	68.2	21.44	PK
5725	43.78	32.17	6.26	33.58	48.63	78.2	29.57	PK
5850	43.24	32.5	6.33	33.64	48.43	78.2	29.77	PK
--	--	--	--	--	--	--	--	--

Antenna Polarity: Horizontal

5460	41.39	31.81	6.11	33.68	45.63	68.2	22.57	PK
5725	43.51	32.17	6.26	33.58	48.36	78.2	29.84	PK
5850	43.05	32.5	6.33	33.64	48.24	78.2	29.96	PK
--	--	--	--	--	--	--	--	--

Note:

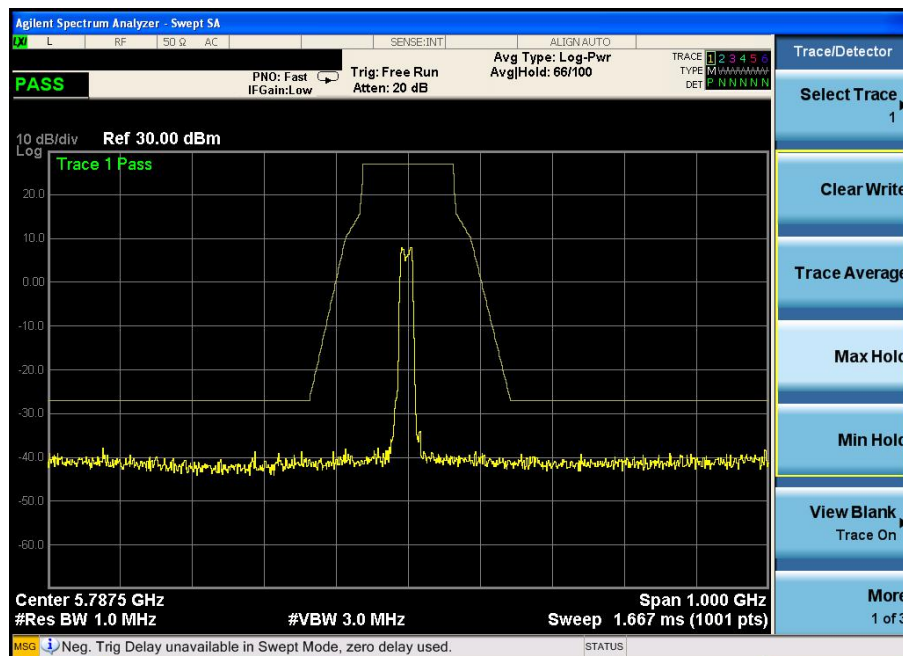
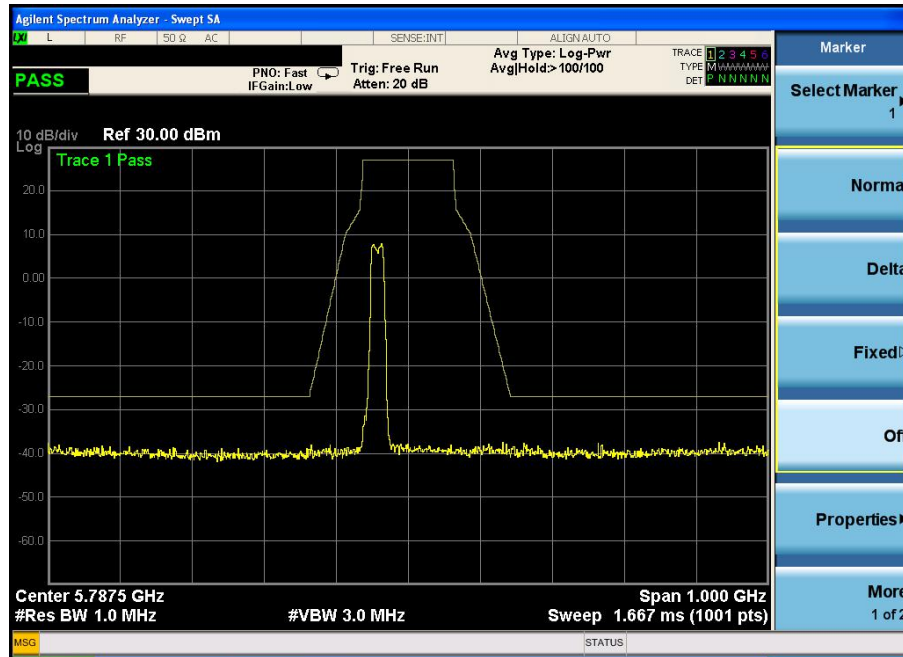
- 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK
- 2, Result = Read level + Antenna factor + cable loss-Amp factor
- 3, All the other emissions not reported were too low to read and deemed to comply with FCC limit.

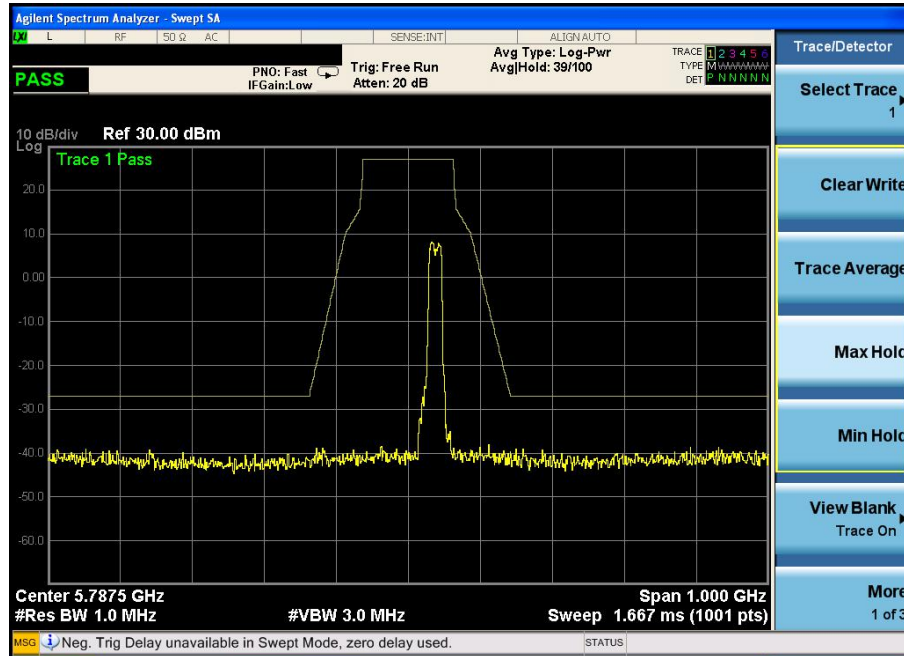
Note: According to KDB 789033, EIRP 【dBm】 =E 【dBuV/m】 -95.2, thus, limit for 5460MHz is -27+95.2=68.2 dBuV/m. Limit for 5725MHz is -17+95.2=78.2 dBuV/m.



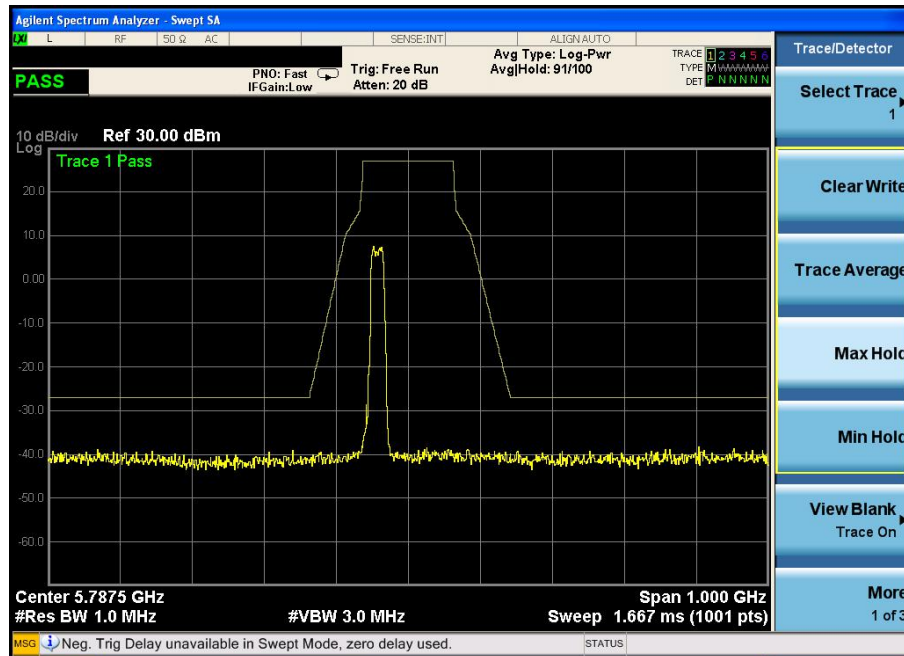
Emission Mask of 5.8GHz

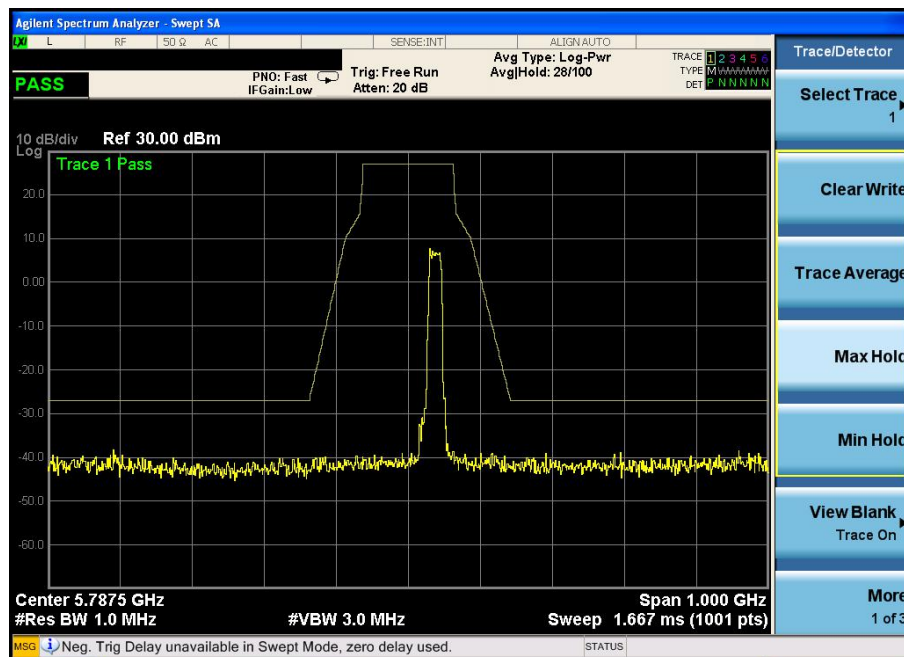
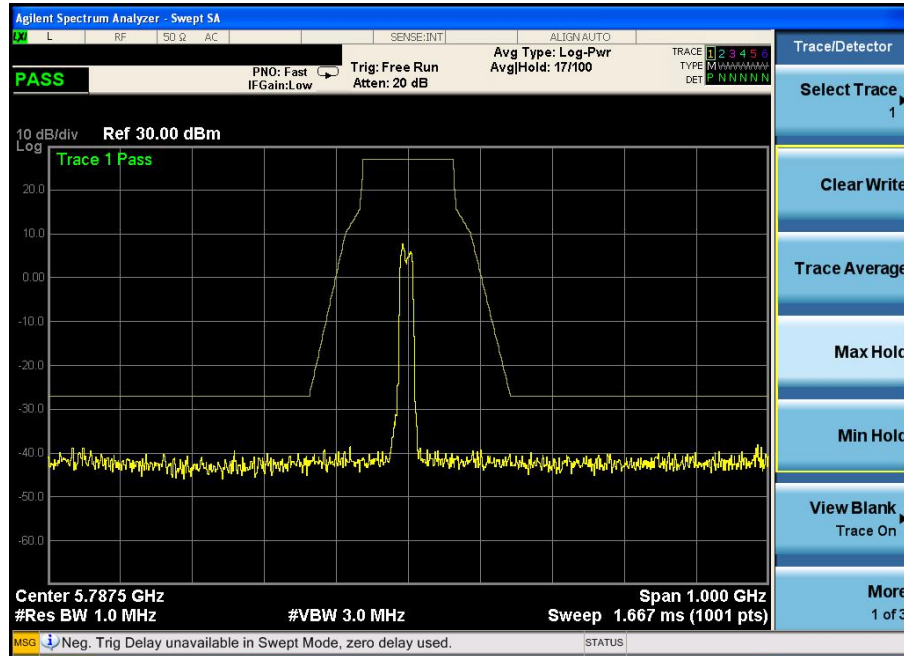
802.11a





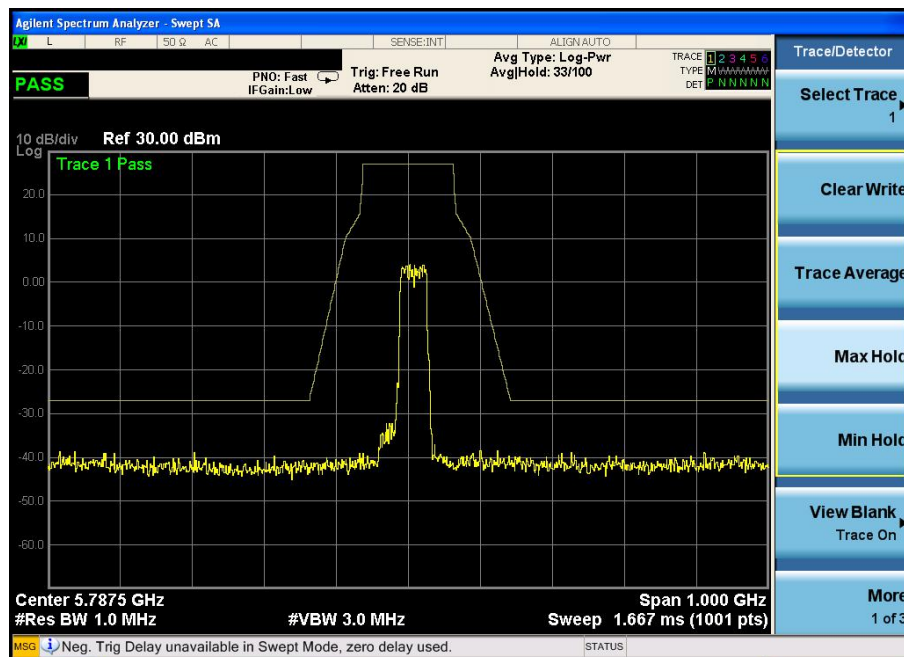
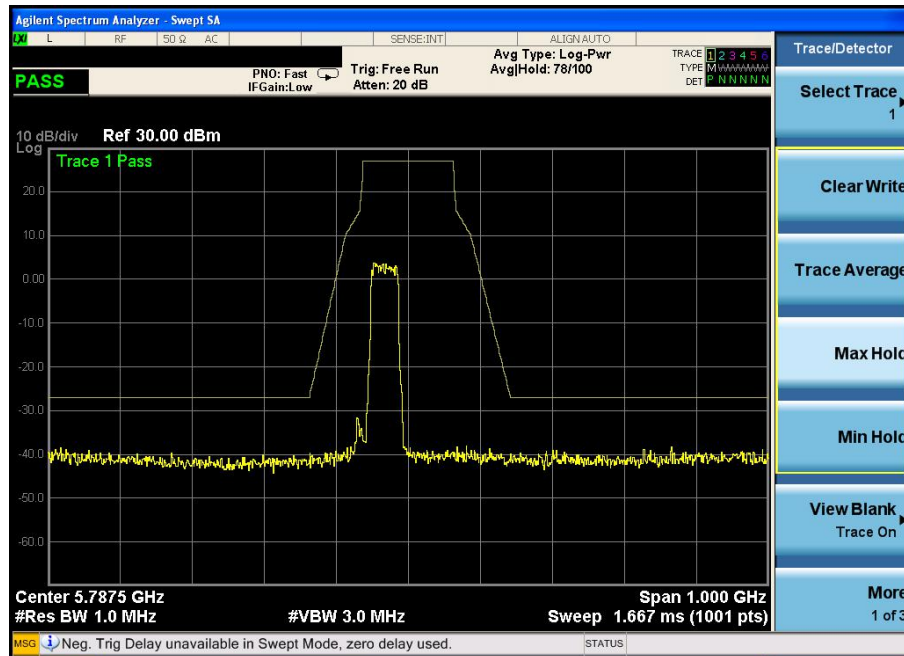
802.11n20





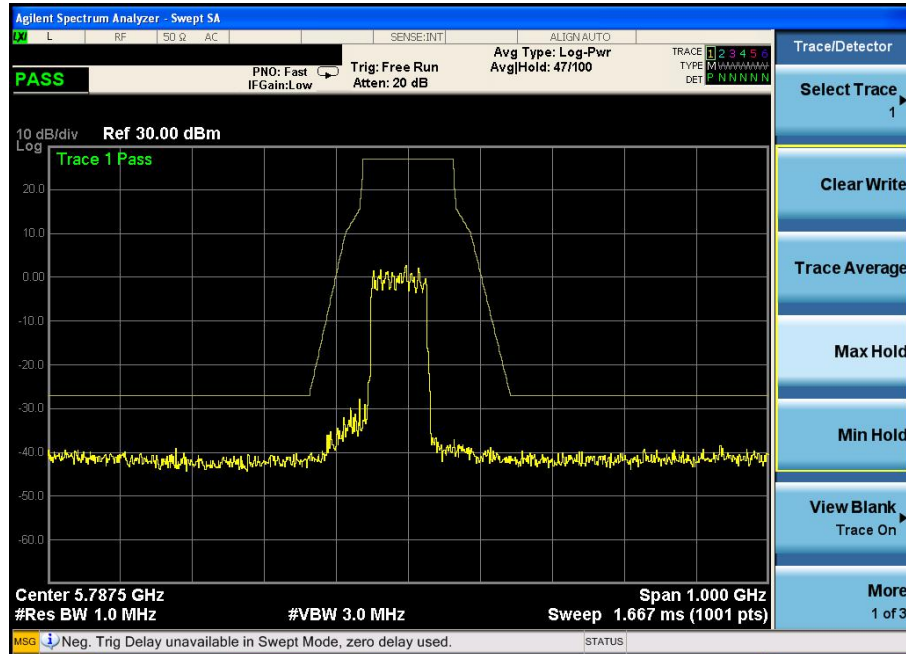


802.11n40





802.11ac



9. Spurious Emission (Radiated Emission Method)

9.1 Test Standard and Limit

9.1.1 Test Standard

FCC Part15 C Section 15.209 and 15.205

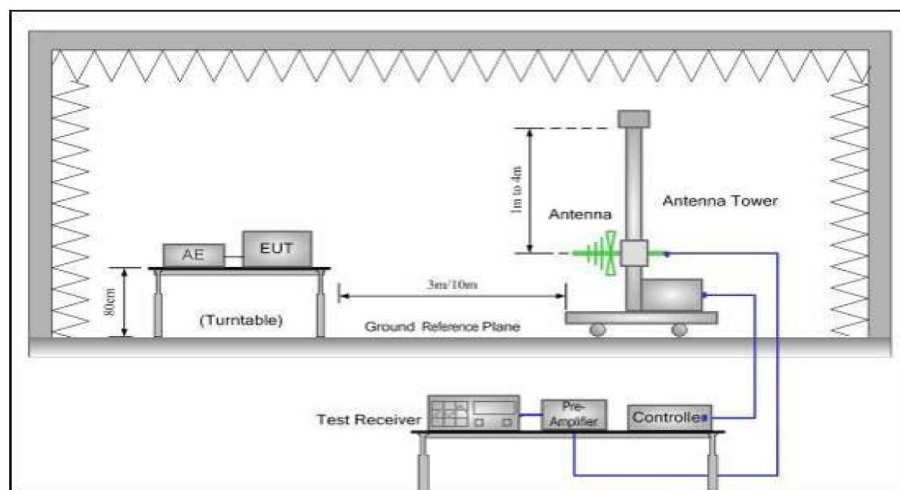
9.1.2 Test Limit

Frequency (MHz)	Limit (dB μ V/m)	
	At 3m Distance	
30MHz~88MHz	40	Quasi-peak
88MHz~216MHz	43.5	Quasi-peak
216MHz~960MHz	46	Quasi-peak
960MHz~1000MHz	54	Quasi-peak
Above 1000MHz	54	Average
	74	Peak

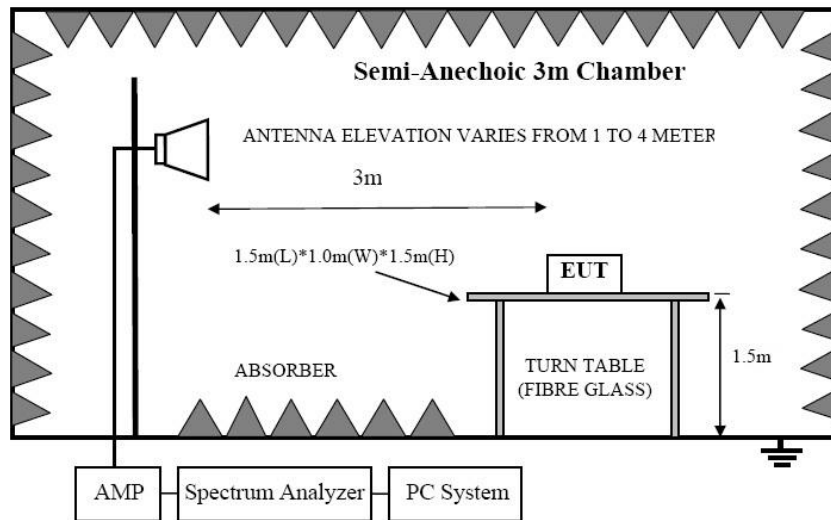
Remark: 1. The lower limit shall apply at the transition frequency.

9.2 Test Setup

Below 1GHz



Above 1GHz



9.3 Test Procedure

- 1) The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz and 1.5 meters above the ground for above 1GHz at a 3 meter semi-anechoic chamber. 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 rotatable 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, quasi-peak or average method as specified and then reported in a data sheet.

9.4 Test Data

Remark:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case.
2. 9 kHz to 30MHz is noise floor, so only shows the data of above 30MHz in this report.



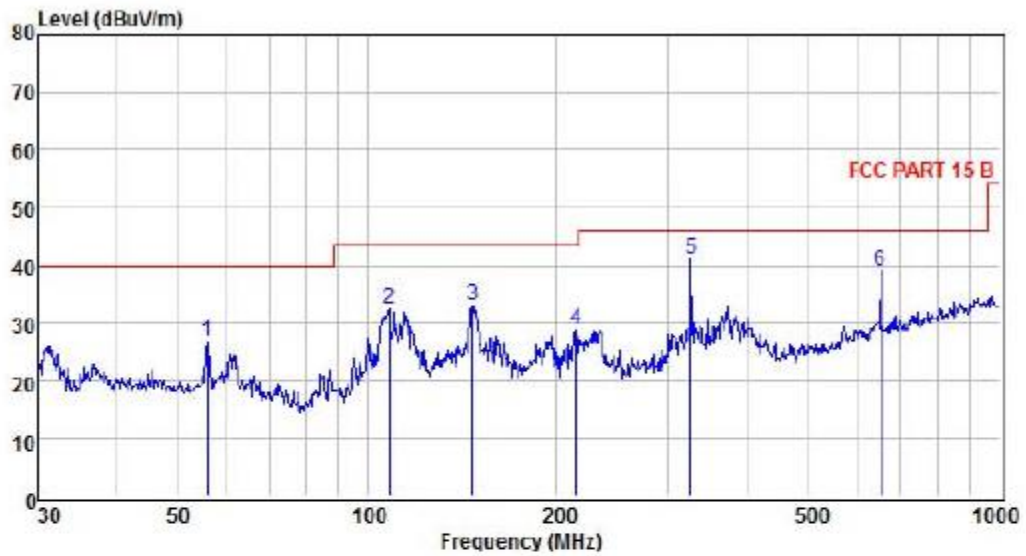
ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 73 of 94

Radiated Emission Test Data (Below 1GHz)

EUT: Smart TV BOX M/N: X92
 Operating Condition: WIFI mode
 Test Site: 3m chamber
 Operator: Tom
 Test Specification: AC 120V/60Hz
 Polarization: Horizontal
 Note Tem:25°C Hum:50%



Condition		: FCC PART 15 B				POL: HORIZONTAL			
Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	55.80	44.41	13.07	30.88	0.16	26.76	40.00	-13.24	Peak
2	108.27	50.90	11.13	29.96	0.41	32.48	43.50	-11.02	Peak
3	146.69	46.21	13.90	29.43	0.37	33.05	43.50	-10.45	Peak
4	213.76	46.37	10.30	28.48	0.55	28.74	43.50	-14.76	Peak
5	325.60	54.82	13.43	27.86	0.78	41.17	46.00	-4.83	Peak
6	651.94	44.26	19.11	25.47	1.15	39.05	46.00	-6.95	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss



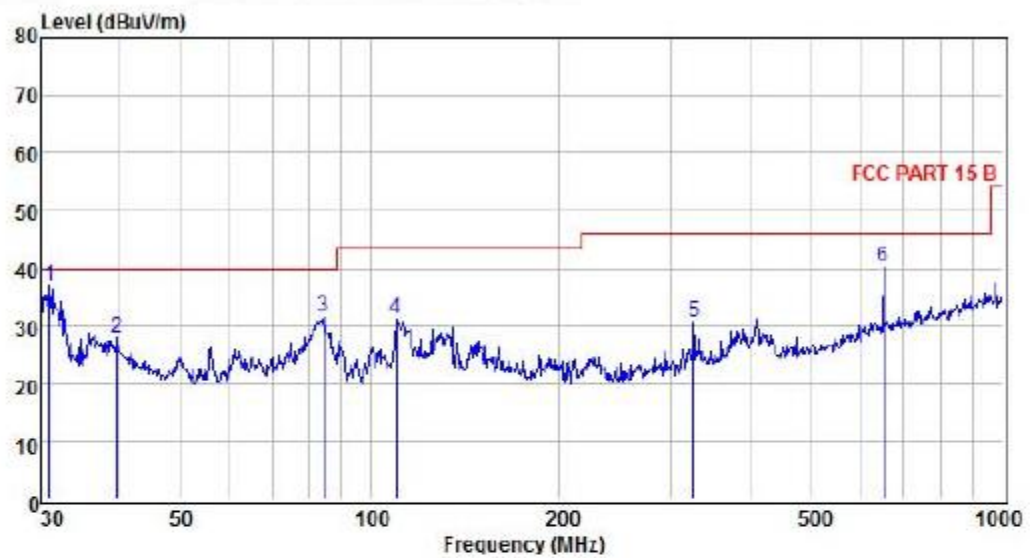
ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 74 of 94

Radiated Emission Test Data (Below 1GHz)

EUT: Smart TV BOX M/N: X92
 Operating Condition: WIFI mode
 Test Site: 3m chamber
 Operator: Tom
 Test Specification: AC 120V/60Hz
 Polarization: Vertical
 Note Tem:25°C Hum:50%



Condition		: FCC PART 15 B				POL: VERTICAL			
Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	30.96	54.50	13.28	30.98	0.07	36.87	40.00	-3.13	Peak
2	39.58	44.52	14.07	30.84	0.17	27.92	40.00	-12.08	Peak
3	84.41	51.96	9.38	30.09	0.26	31.51	40.00	-8.49	Peak
4	109.80	49.50	11.13	29.93	0.38	31.08	43.50	-12.42	Peak
5	325.60	44.19	13.43	27.86	0.78	30.54	46.00	-15.46	Peak
6	651.94	45.31	19.11	25.47	1.15	40.10	46.00	-5.90	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 75 of 94

Radiated Emission Test Data (Above 1GHz)

IEEE 802.11a with 5.2G Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	V	48.39	---	2.36	50.75	---	74	/	23.25	Peak
15540	V	35.91	---	4.52	40.43	---	74	/	33.57	Peak
1407	V	45.24	---	-7.02	38.22	---	74	/	35.78	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	H	48.85	---	2.36	51.21	---	74	/	22.79	Peak
15540	H	37.79	---	4.52	42.31	---	74	/	31.69	Peak
1407	V	44.90	---	-7.02	37.88	---	74	/	36.12	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 76 of 94

IEEE 802.11a with 5.2G Middle

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	V	48.89	---	2.36	51.25	---	74	/	22.75	Peak
15600	V	37.13	---	4.52	41.65	---	74	/	32.35	Peak
1407	V	45.86	---	-7.02	38.84	---	74	/	35.16	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	H	48.50	---	2.36	50.86	---	74	/	23.14	Peak
15600	H	37.55	---	4.52	42.07	---	74	/	31.93	Peak
1407	V	45.48	---	-7.02	38.46	---	74	/	35.54	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 Db below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 77 of 94

IEEE 802.11a with 5.2G High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (Db)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (Db)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	V	50.85	---	2.36	53.21	---	74	/	20.79	Peak
15720	V	34.91	---	4.52	39.43	---	74	/	34.57	Peak
1407	V	45.79	---	-7.02	38.77	---	74	/	35.23	Peak
'N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	H	47.52	---	2.36	49.88	---	74	/	24.12	Peak
15720	H	36.43	---	4.52	40.95	---	74	/	33.05	Peak
1407	V	45.43	---	-7.02	38.41	---	74	/	35.59	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 78 of 94

IEEE 802.11n/HT20 with 5.2G Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	V	48.44	---	2.36	50.8	---	74	/	23.20	Peak
15540	V	36.99	---	4.52	41.51	---	74	/	32.49	Peak
1407	V	45.87	---	-7.02	38.85	---	74	/	35.15	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10360	H	50.12	---	2.36	52.48	---	74	/	21.52	Peak
15540	H	35.67	---	4.52	40.19	---	74	/	33.81	Peak
1407	V	45.37	---	-7.02	38.35	---	74	/	35.65	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 79 of 94

IEEE 802.11n/HT20 with 5.2G Middle

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	V	49.07	---	2.36	51.43	---	74	/	22.57	Peak
15600	V	38.07	---	4.52	42.59	---	74	/	31.41	Peak
1407	V	45.75	---	-7.02	38.732	---	74	/	35.2	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10400	H	49.25	---	2.36	51.61	---	74	/	22.39	Peak
15600	H	35.87	---	4.52	40.39	---	74	/	33.61	Peak
1407	V	45.20	---	-7.02	38.18	---	74	/	35.82	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 80 of 94

IEEE 802.11n/HT20 with 5.2G High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	V	50.07	---	2.36	52.43	---	74	/	21.57	Peak
15720	V	37.02	---	4.52	41.54	---	74	/	32.46	Peak
1407	V	45.90	---	-7.02	38.88	---	74	/	35.12	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10480	H	49.65	---	2.36	52.01	---	74	/	21.99	Peak
15720	H	35.13	---	4.52	39.65	---	74	/	34.35	Peak
1407	V	45.56	---	-7.02	38.54	---	74	/	35.46	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 81 of 94

IEEE 802.11n/HT40 with 5.2G Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10380	V	49.29	---	2.36	51.65	---	74	/	22.35	Peak
15570	V	37.43	---	4.52	41.95	---	74	/	32.05	Peak
1407	V	45.93	---	-7.02	38.91	---	74	/	35.09	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10380	H	49.88	---	2.36	52.24	---	74	/	21.76	Peak
15570	H	36.06	---	4.52	40.58	---	74	/	33.42	Peak
1407	V	45.26	---	-7.02	38.24	---	74	/	35.76	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 82 of 94

IEEE 802.11n/HT40 with 5.2G High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10460	V	49.87	---	2.36	52.23	---	74	/	21.77	Peak
15690	V	36.23	---	4.52	40.75	---	74	/	33.25	Peak
1407	V	45.75	---	-7.02	38.73	---	74	/	35.27	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10460	H	50.29	---	2.36	52.65	---	74	/	21.35	Peak
15690	H	36.91	---	4.52	41.43	---	74	/	32.57	Peak
1407	V	45.35	---	-7.02	38.33	---	74	/	35.67	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 83 of 94

IEEE 802.11ac with 5.2G

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10460	V	48.26	---	2.42	50.68	---	74	/	23.32	Peak
15570	V	37.01	---	4.52	41.53	---	74	/	32.47	Peak
1407	V	45.24	---	-7.02	38.22	---	74	/	35.78	Peak
N/A										

EUT	Broadband Digital Transmission System	Model Name	NFT 2ac
Temperature	26°C	Relative Humidity	56%
Pressure	960hPa	Test voltage	DC 48V From adapter
Test Mode	MIMO TX		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
10460	H	48.90	---	2.42	51.32	---	74	/	22.68	Peak
15570	H	36.33	---	4.52	40.85	---	74	/	33.15	Peak
1407	V	45.43	---	-7.02	38.41	---	74	/	35.59	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 84 of 94

IEEE 802.11a with 5.8G Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	V	50.27	---	2.36	52.63	---	74	/	21.37	Peak
17235	V	37.69	---	4.52	42.21	---	74	/	31.79	Peak
1407	V	45.93	---	-7.02	38.91	---	74	/	35.09	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	H	49.66	---	2.36	52.02	---	74	/	21.98	Peak
17235	H	36.94	---	4.52	41.46	---	74	/	32.54	Peak
1407	V	45.76	---	-7.02	38.74	---	74	/	35.26	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 85 of 94

IEEE 802.11a with 5.8G Middle

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	V	49.88	---	2.36	52.24	---	74	/	21.76	Peak
17355	V	37.36	---	4.52	41.88	---	74	/	32.12	Peak
1407	V	45.79	---	-7.02	38.77	---	74	/	35.23	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	H	49.00	---	2.36	51.36	---	74	/	22.64	Peak
17355	H	37.09	---	4.52	41.61	---	74	/	32.39	Peak
1407	V	45.74	---	-7.02	38.72	---	74	/	35.28	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 86 of 94

IEEE 802.11a with 5.8G High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	V	49.97	---	2.36	52.33	---	74	/	21.67	Peak
17475	V	36.94	---	4.52	41.46	---	74	/	32.54	Peak
1407	V	45.85	---	-7.02	38.832	---	74	/	35.16	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	H	48.29	---	2.36	50.65	---	74	/	23.35	Peak
17475	H	36.91	---	4.52	41.43	---	74	/	32.57	Peak
1407	V	45.41	---	-7.02	38.39	---	74	/	35.61	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 87 of 94

IEEE 802.11n/HT20 with 5.8G Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	V	50.35	---	2.36	52.71	---	74	/	21.29	Peak
17235	V	37.21	---	4.52	41.73	---	74	/	32.27	Peak
1407	V	45.78	---	-7.02	38.76	---	74	/	35.24	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11490	H	48.82	---	2.36	51.18	---	74	/	22.82	Peak
17235	H	36.72	---	4.52	41.24	---	74	/	32.76	Peak
1407	V	45.36	---	-7.02	38.34	---	74	/	35.66	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 88 of 94

IEEE 802.11n/HT20 with 5.8G Middle

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	V	49.3	---	2.36	51.66	---	74	/	22.34	Peak
17355	V	37.72	---	4.52	42.24	---	74	/	31.76	Peak
1407	V	45.58	---	-7.02	38.56	---	74	/	35.44	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11570	H	48.33	---	2.36	50.69	---	74	/	23.31	Peak
17355	H	36.91	---	4.52	41.43	---	74	/	32.57	Peak
1407	V	45.41	---	-7.02	38.39	---	74	/	35.61	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 89 of 94

IEEE 802.11n/HT20 with 5.8G High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	V	49.90	---	2.36	52.26	---	74	/	21.74	Peak
17475	V	37.09	---	4.52	41.61	---	74	/	32.39	Peak
1407	V	45.71	---	-7.02	38.69	---	74	/	35.31	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11650	H	50.29	---	2.36	52.65	---	74	/	21.35	Peak
17475	H	36.91	---	4.52	41.43	---	74	/	32.57	Peak
1407	V	45.53	---	-7.02	38.51	---	74	/	35.49	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 90 of 94

IEEE 802.11n/HT40 with 5.8G Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11510	V	50.29	---	2.36	52.65	---	74	/	21.35	Peak
17265	V	37.10	---	4.52	41.62	---	74	/	32.38	Peak
1407	V	45.91	---	-7.02	38.89	---	74	/	35.11	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11510	H	49.40	---	2.36	51.76	---	74	/	22.24	Peak
17265	H	37.12	---	4.52	41.64	---	74	/	32.36	Peak
1407	V	45.46	---	-7.02	38.44	---	74	/	35.56	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 91 of 94

IEEE 802.11n/HT40 with 5.8G High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11590	V	49.66	---	2.36	52.02	---	74	/	21.98	Peak
17385	V	37.27	---	4.52	41.79	---	74	/	32.21	Peak
1407	V	45.97	---	-7.02	38.95	---	74	/	35.05	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11590	H	49.51	---	2.36	51.87	---	74	/	22.13	Peak
17385	H	37.13	---	4.52	41.65	---	74	/	32.35	Peak
1407	V	45.34	---	-7.02	38.32	---	74	/	35.68	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.
Emissions attenuated more than 20 dB below the permissible value are not reported.



ATA Testing Technology Service Co., Ltd.

Report No.: ATA161027013F

Page: 92 of 94

IEEE 802.11ac with 5.8G

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11550	V	50.23	---	2.38	52.61	---	74	/	21.39	Peak
17265	V	36.42	---	4.52	40.94	---	74	/	33.06	Peak
1407	V	45.85	---	-7.02	38.83	---	74	/	35.17	Peak
N/A										

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV/m)	AV Reading (dBuV/m)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
11550	H	48.60	---	2.38	50.98	---	74	/	23.02	Peak
17265	H	36.21	---	4.52	40.73	---	74	/	33.27	Peak
1407	V	45.28	---	-7.02	38.26	---	74	/	35.74	Peak
N/A										

Notes: AV Means AV detector test data, Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



10. Test Frequency stability

10.1 Test Standard and Limit

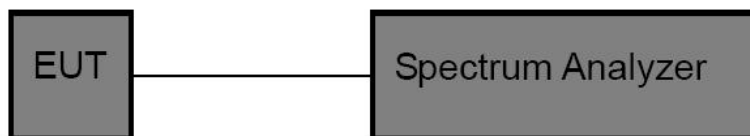
10.1.1 Test Standard

FCC Part15 C Section 15.407

10.1.2 Test Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

10.2 Test Setup





10.3 Test Data

Frequency VS Voltage

Mode	Voltage (V)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
5.2G Band	132 V	5179.973	27	5239.976	24
	120 V	5179.973	27	5239.976	24
	108 V	5179.973	27	5239.976	24
5.8G Band	Voltage (V)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
	132 V	5744.935	25	5824.970	30
	120 V	5744.935	25	5824.970	30
	108 V	5744.935	25	5824.970	30

Frequency VS Temperature

Mode	Temperature (°C)	FHL (5180MHz)	Deviation (KHz)	FHH (5240MHz)	Deviation (KHz)
5.2G Band	-30	5179.937	63	5239.946	44
	-20	5179.955	45	5239.955	45
	-10	5179.963	37	5239.951	49
	0	5179.955	45	5239.964	36
	10	5179.973	27	5239.968	32
	20	5179.971	29	5239.962	38
	30	5179.965	35	5239.973	27
	40	5179.972	28	5239.970	30
	50	5179.983	17	5239.971	29
5.8G Band	Temperature (°C)	FHL (5745MHz)	Deviation (KHz)	FHH (5825MHz)	Deviation (KHz)
	-30	5744.925	75	5824.939	61
	-20	5744.931	69	5824.928	72
	-10	5744.934	66	5824.951	49
	0	5744.947	53	5824.925	75
	10	5744.951	49	5824.953	47
	20	5744.953	47	5824.979	21
	30	5744.956	44	5824.965	35
	40	5744.968	32	5824.957	43
	50	5744.979	21	5824.983	17