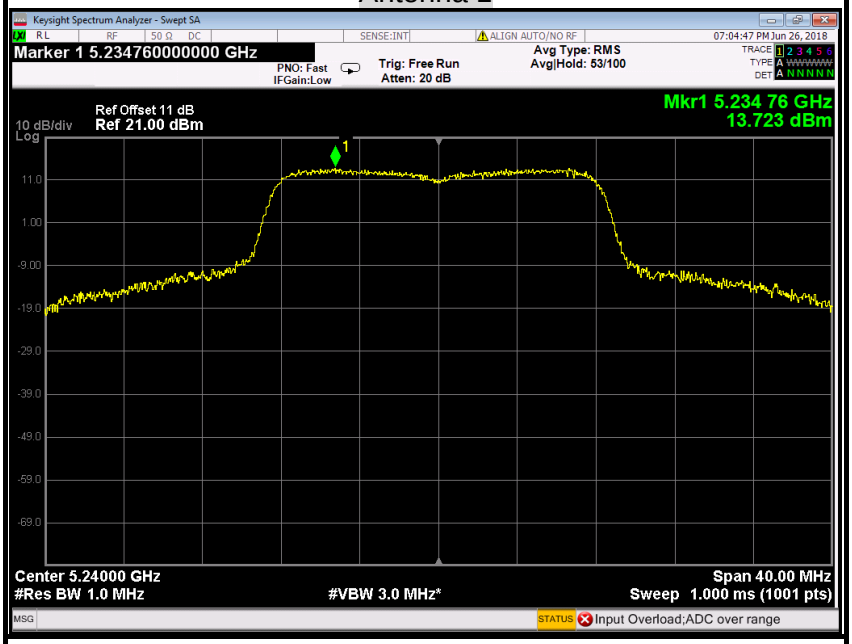
PPSD (CH High)

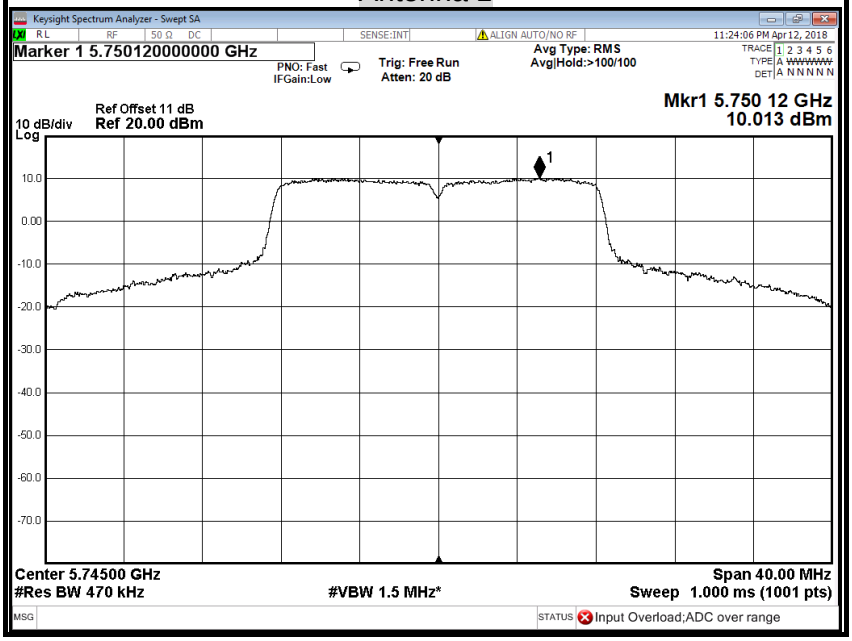
Antenna 1



IEEE 802.11a mode / 5745 ~ 5825MHz

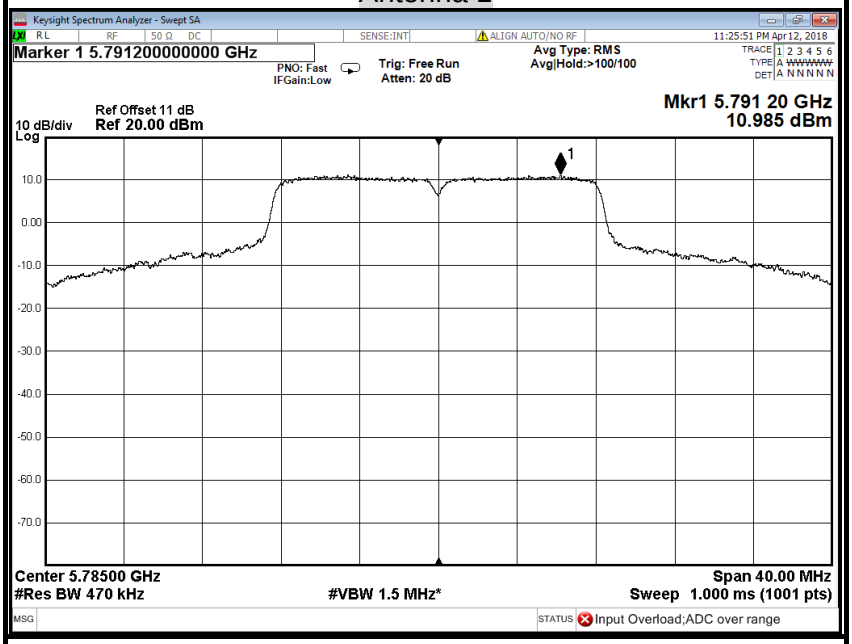
PPSD (CH Low)

Antenna 1



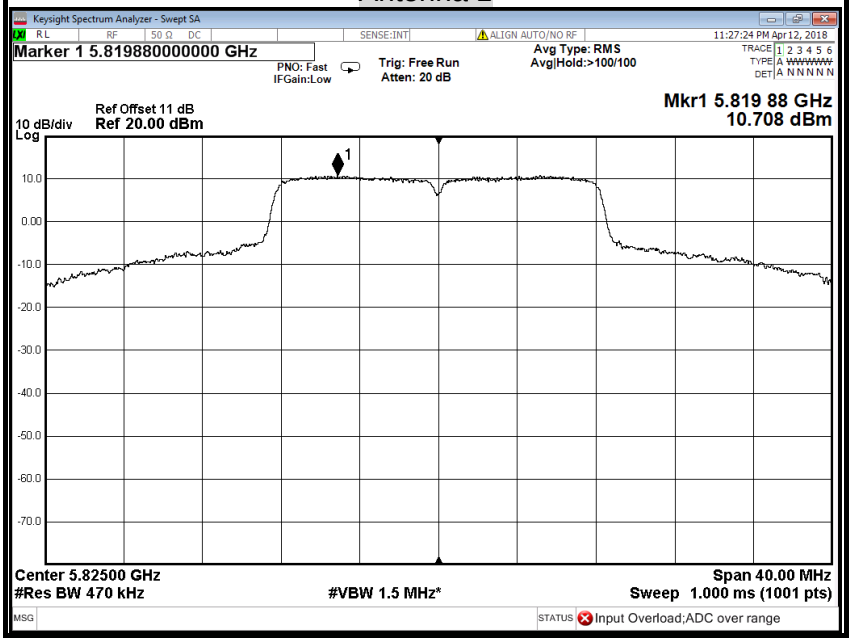
PPSD (CH Mid)

Antenna 1



PPSD (CH High)

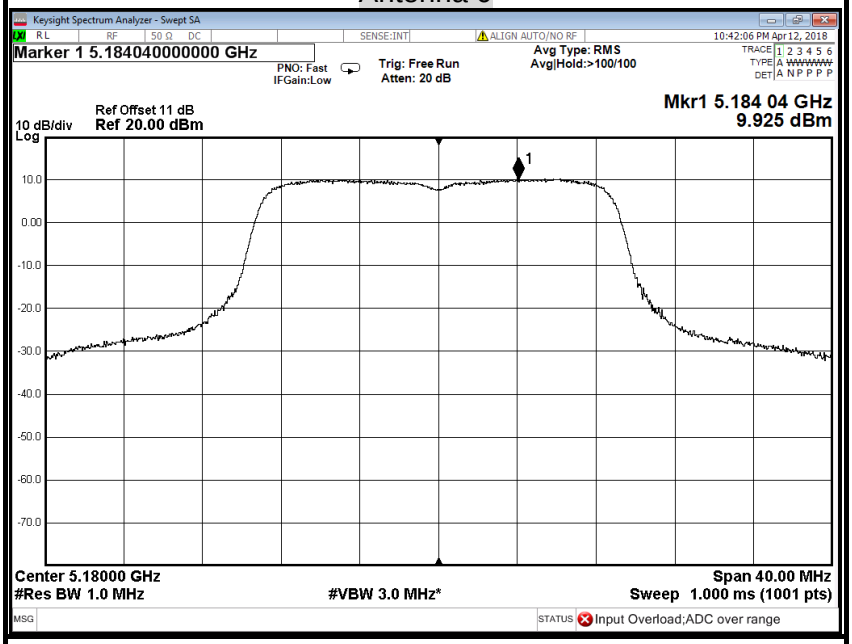
Antenna 1



IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

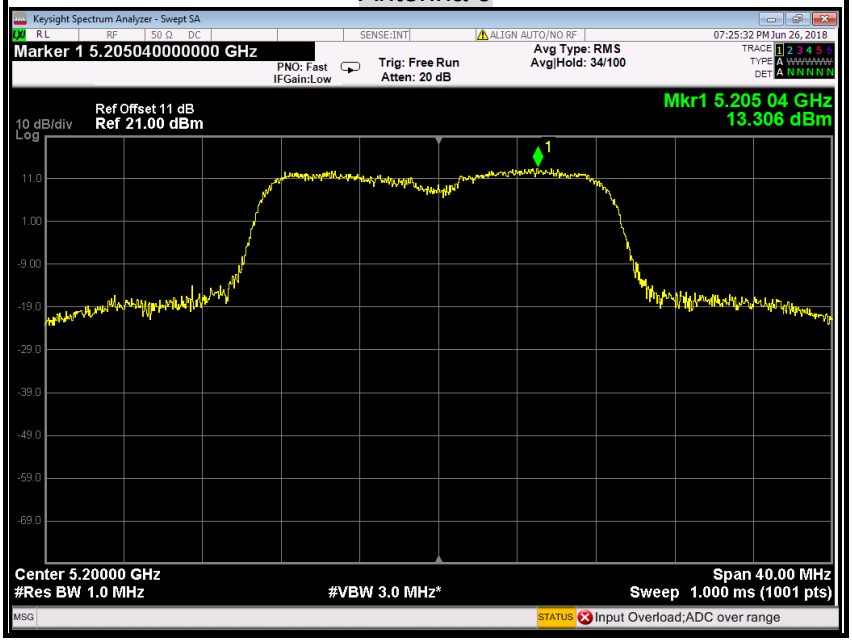
PPSD (CH Low)

Antenna 0



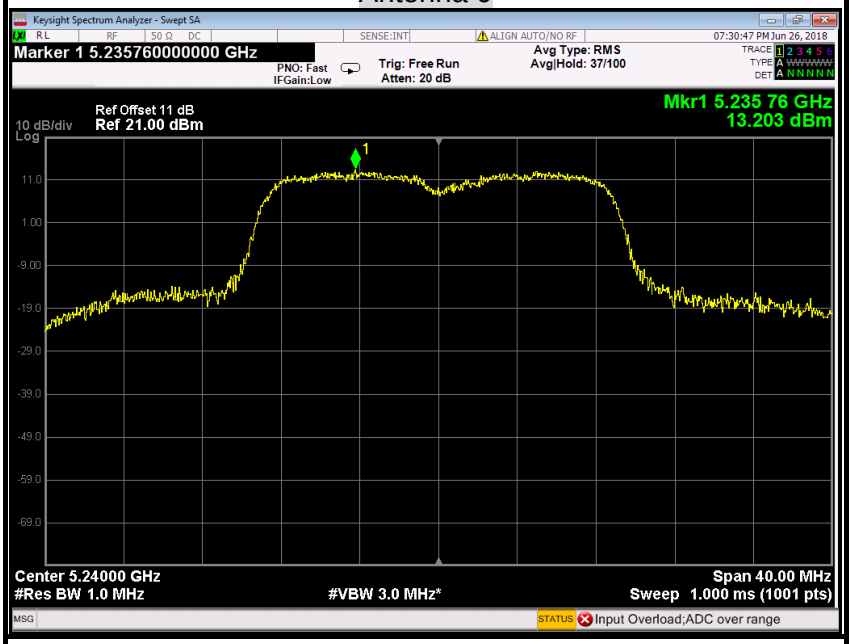
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

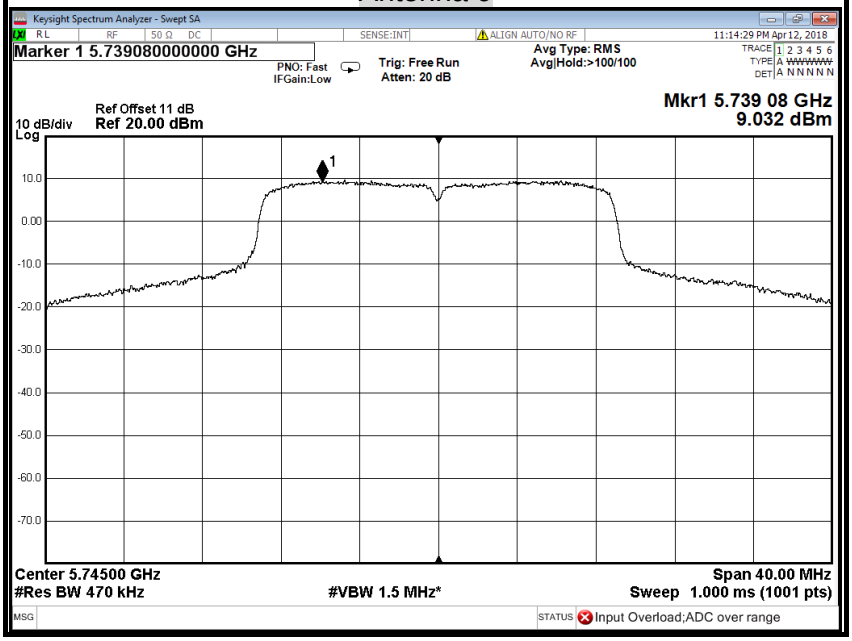
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

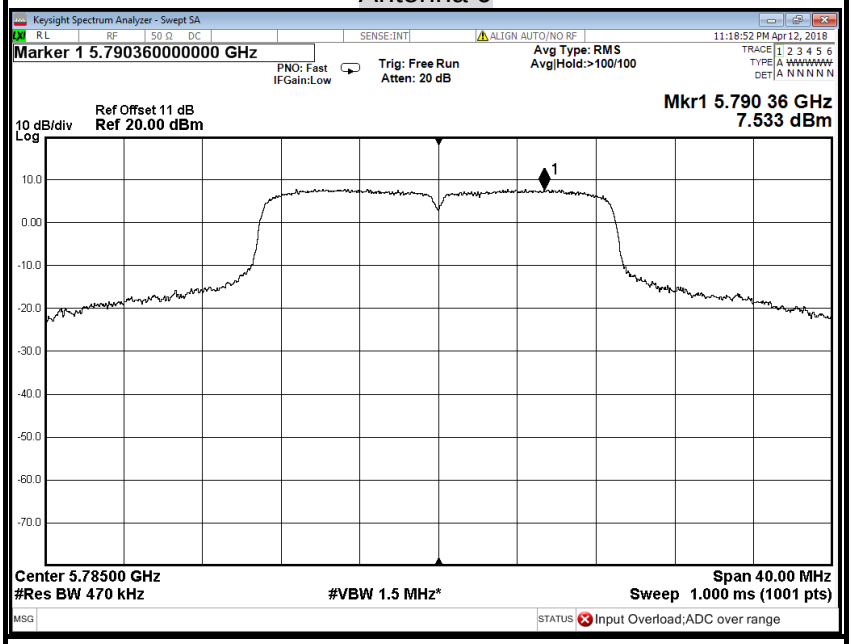
PPSD (CH Low)

Antenna 0



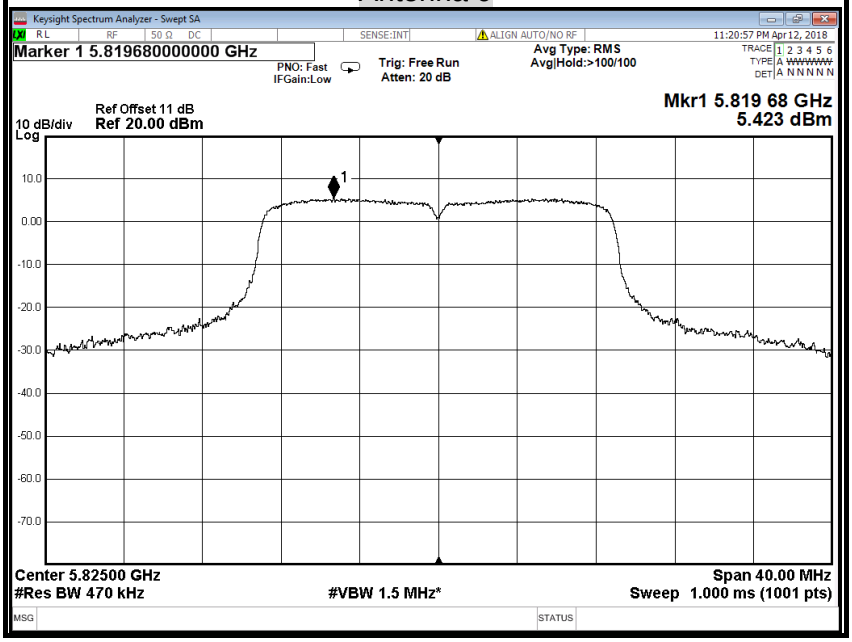
PPSD (CH Mid)

Antenna 0



PPSD (CH High)

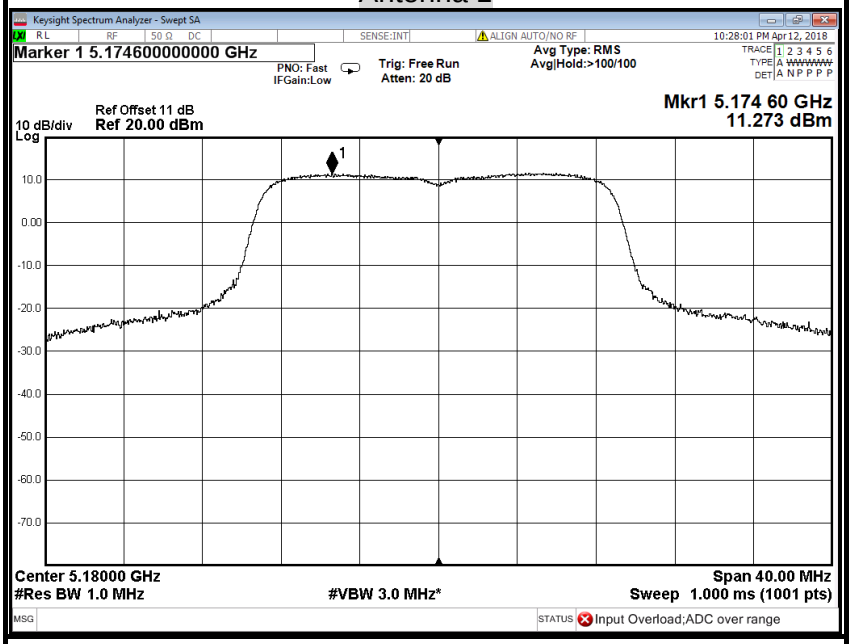
Antenna 0



IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

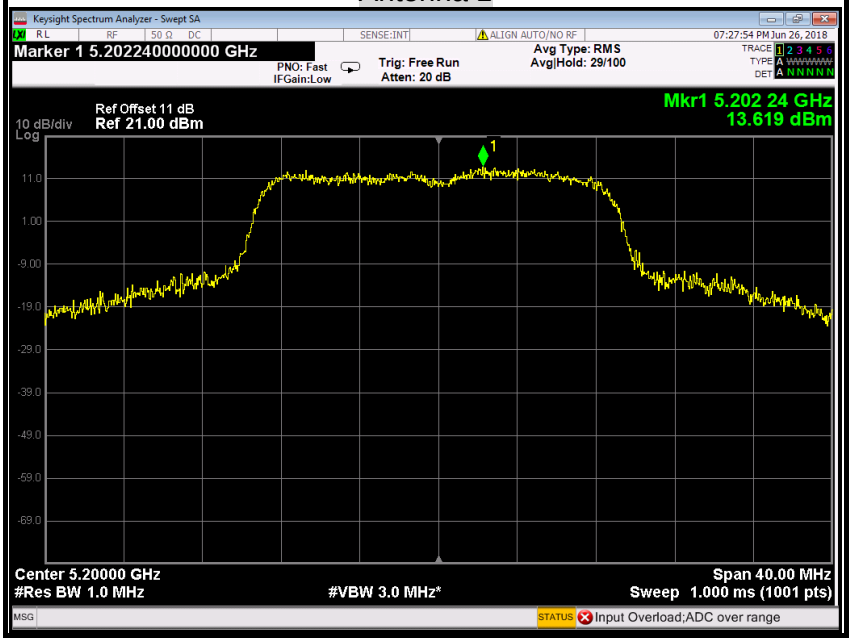
PPSD (CH Low)

Antenna 1



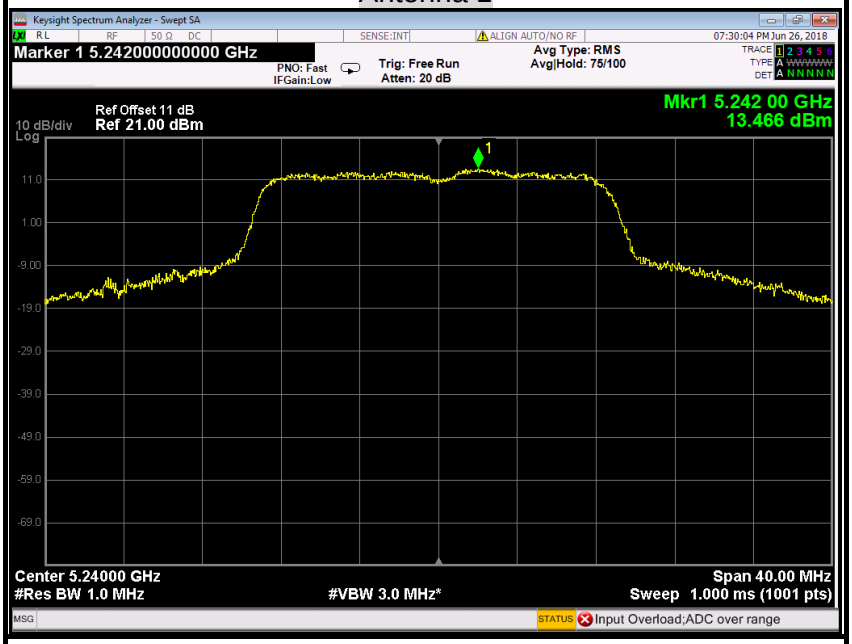
PPSD (CH Mid)

Antenna 1



PPSD (CH High)

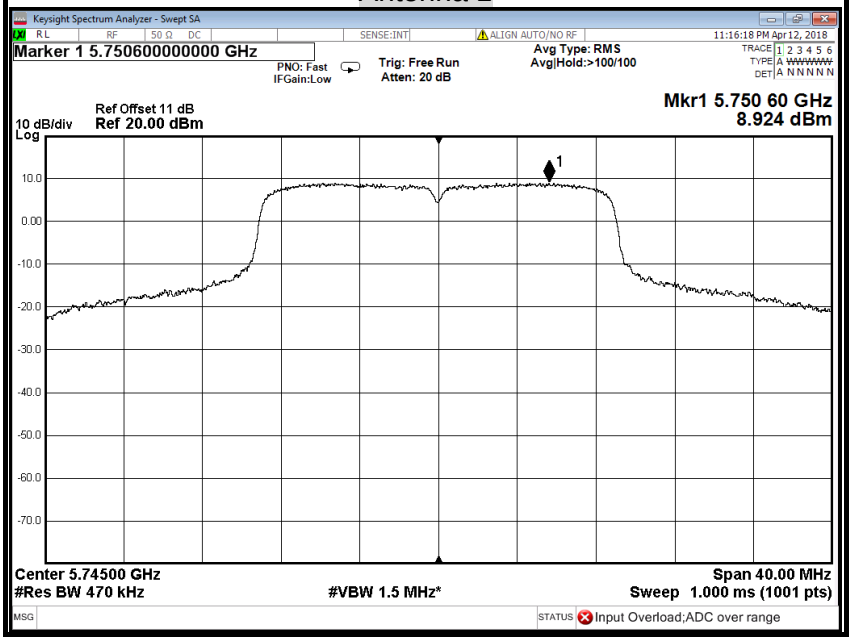
Antenna 1



IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

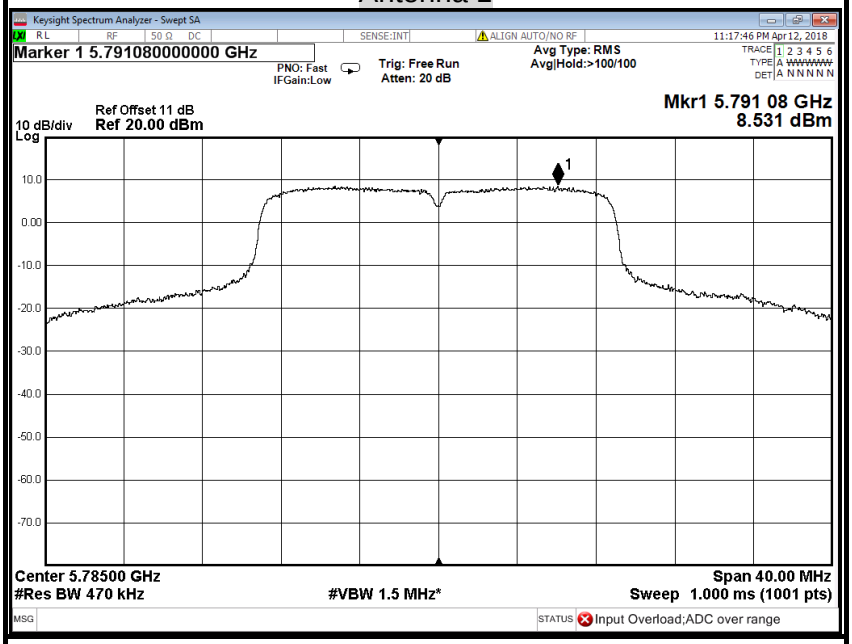
PPSD (CH Low)

Antenna 1



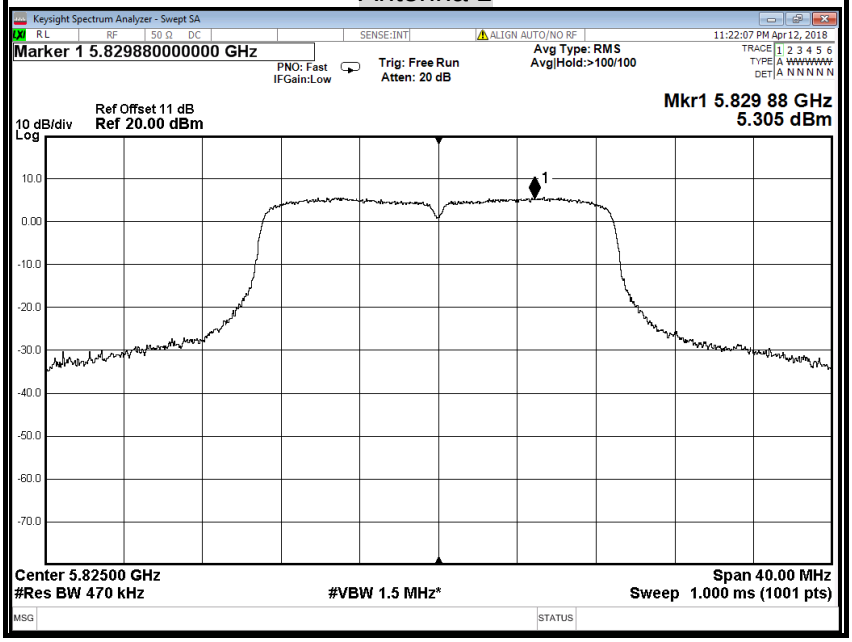
PPSD (CH Mid)

Antenna 1



PPSD (CH High)

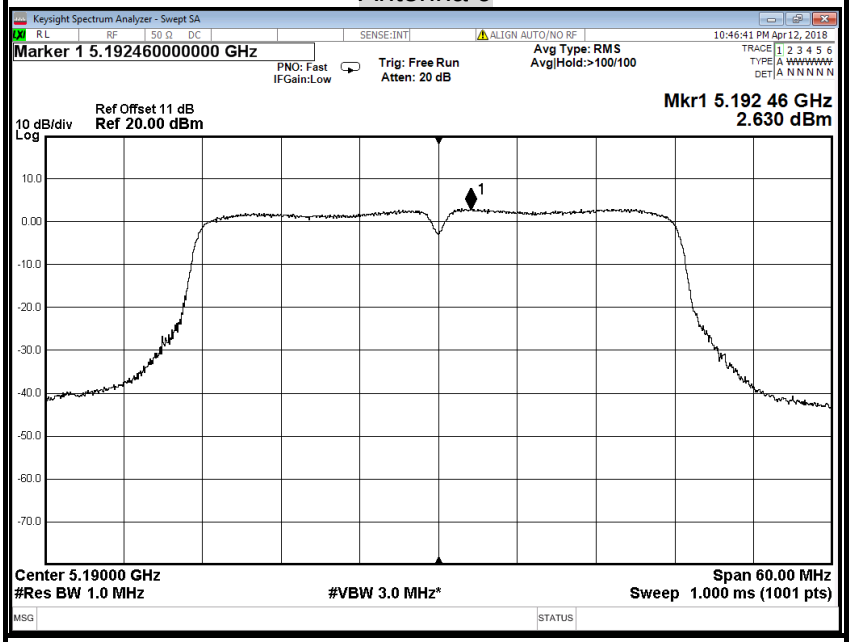
Antenna 1



IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

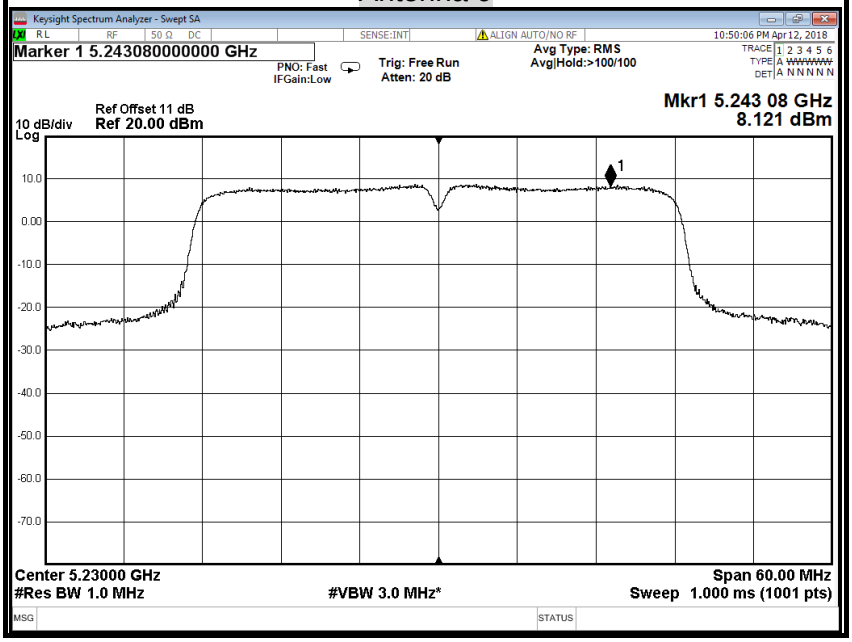
PPSD (CH Low)

Antenna 0



PPSD (CH High)

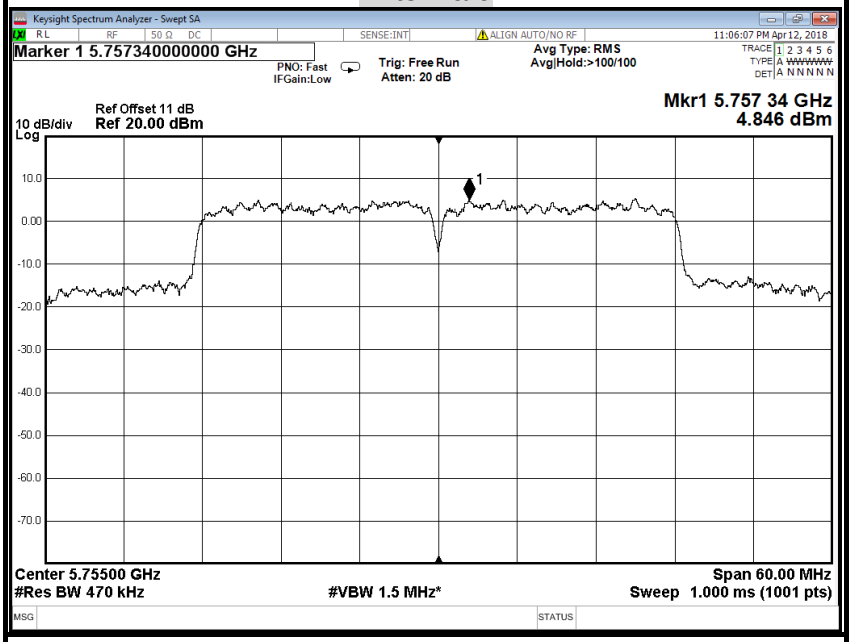
Antenna 0



IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

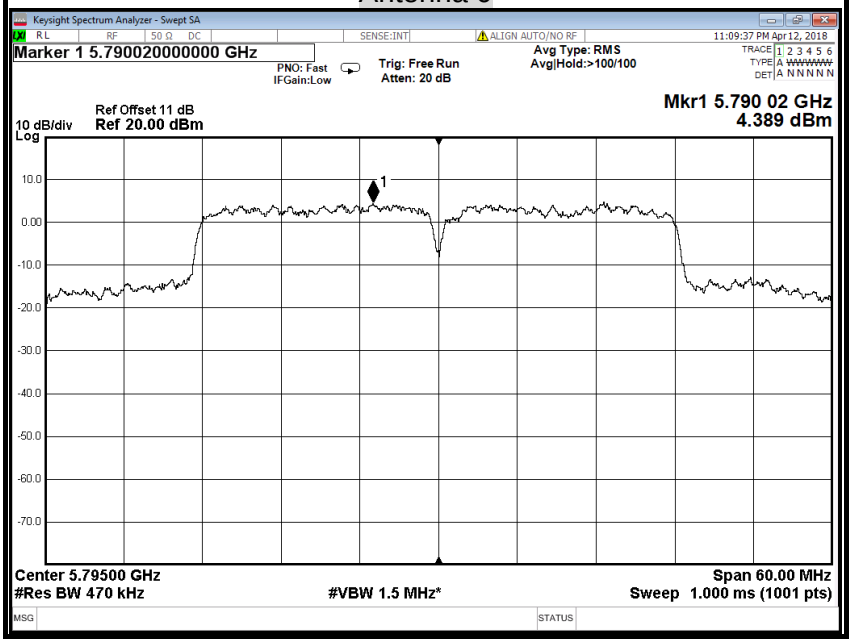
PPSD (CH Low)

Antenna 0



PPSD (CH High)

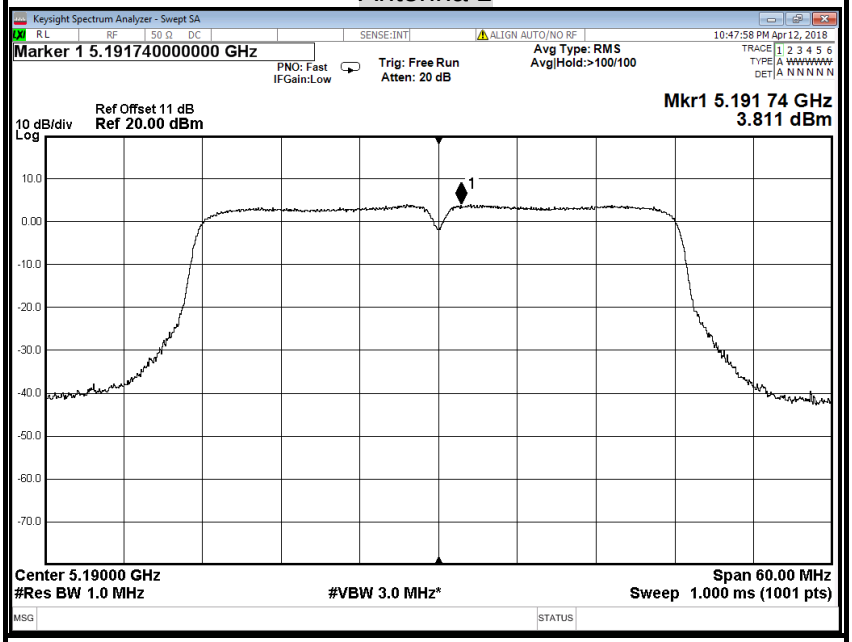
Antenna 0



IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

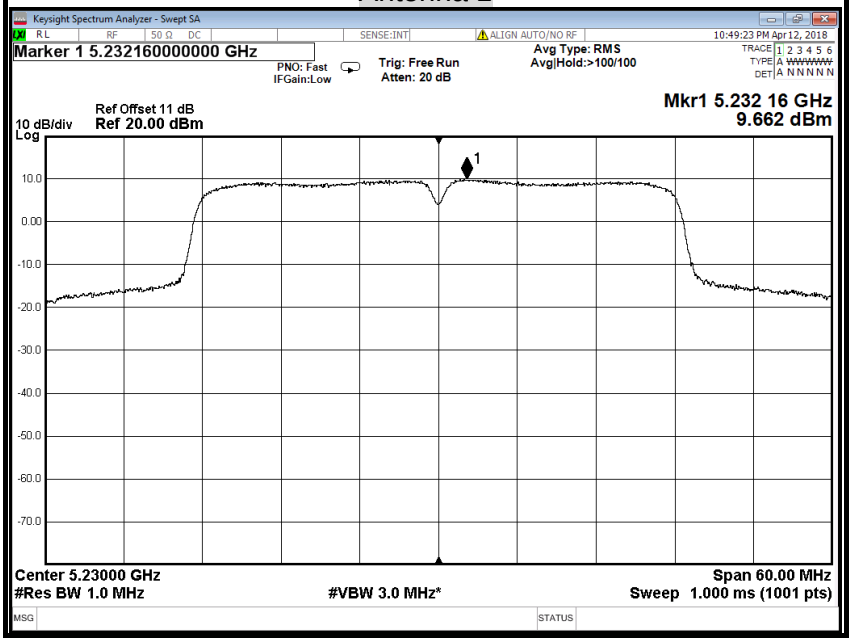
PPSD (CH Low)

Antenna 1



PPSD (CH High)

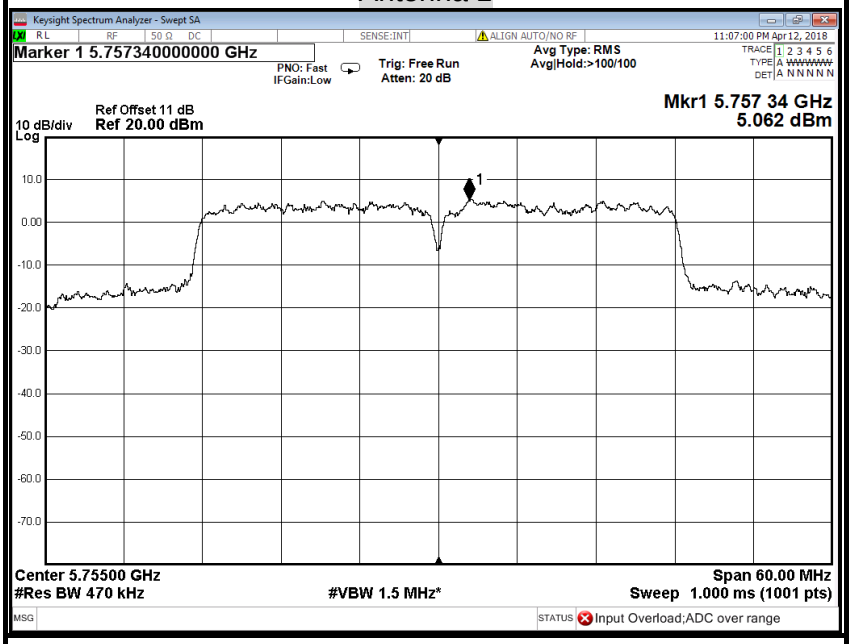
Antenna 1



IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

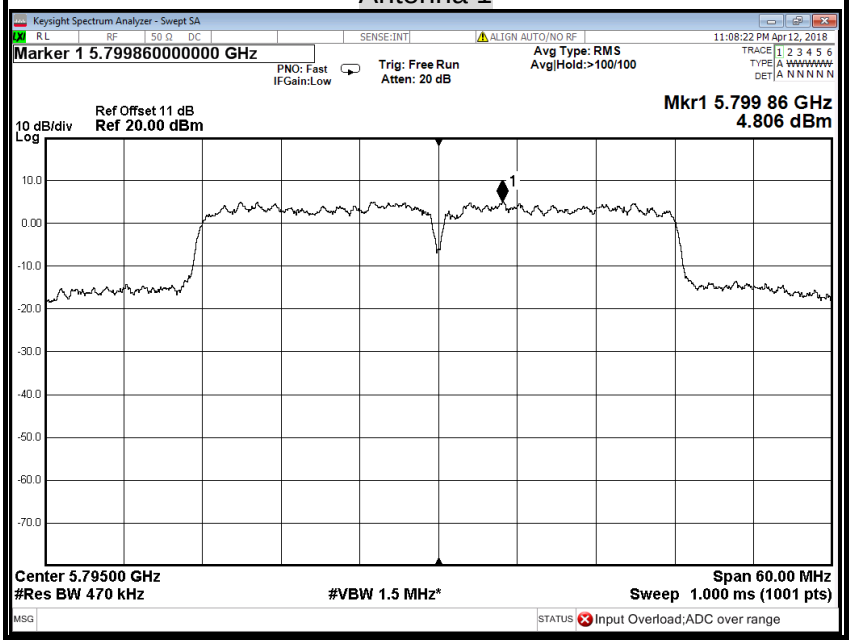
PPSD (CH Low)

Antenna 1



PPSD (CH High)

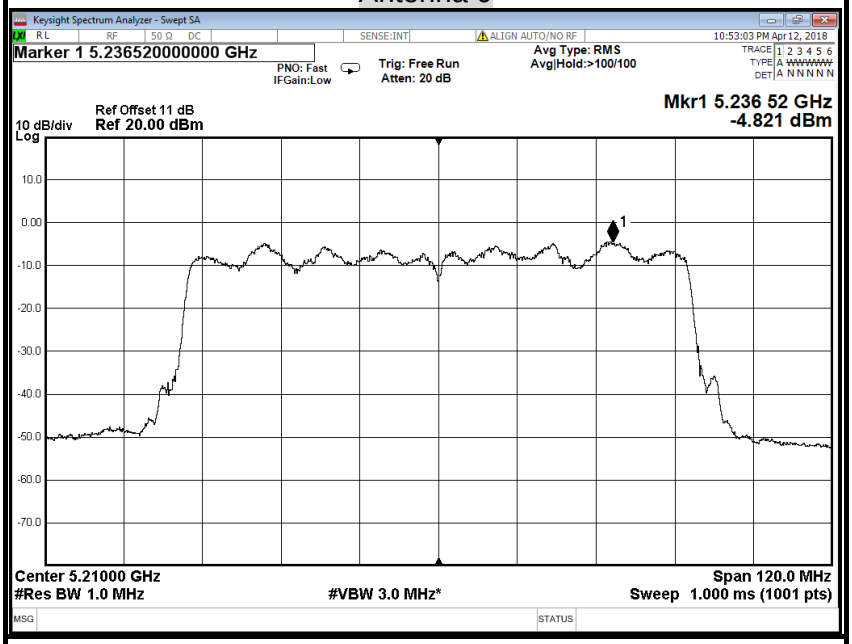
Antenna 1



IEEE 802.11ac 80 mode / 5210MHz

PPSD

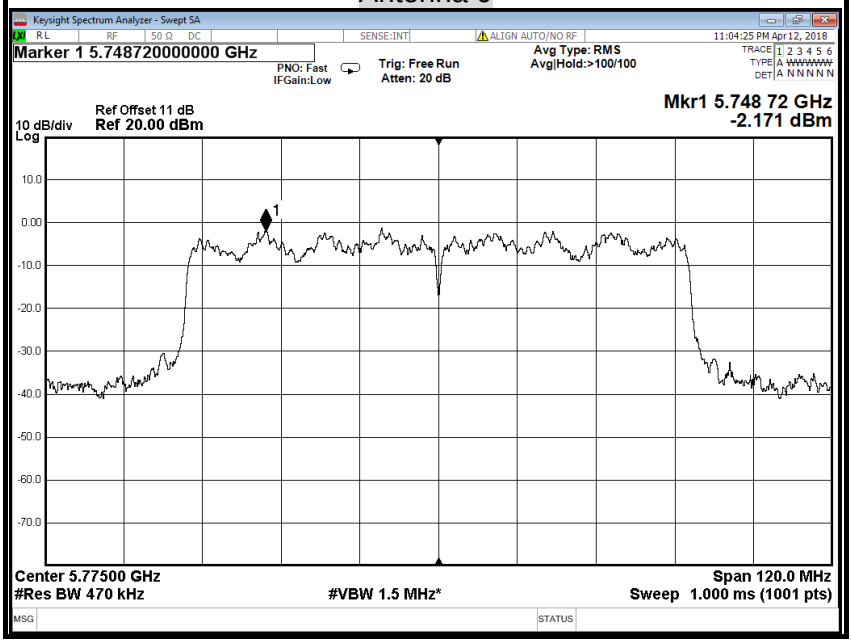
Antenna 0



IEEE 802.11ac 80 mode / 5775MHz

PPSD

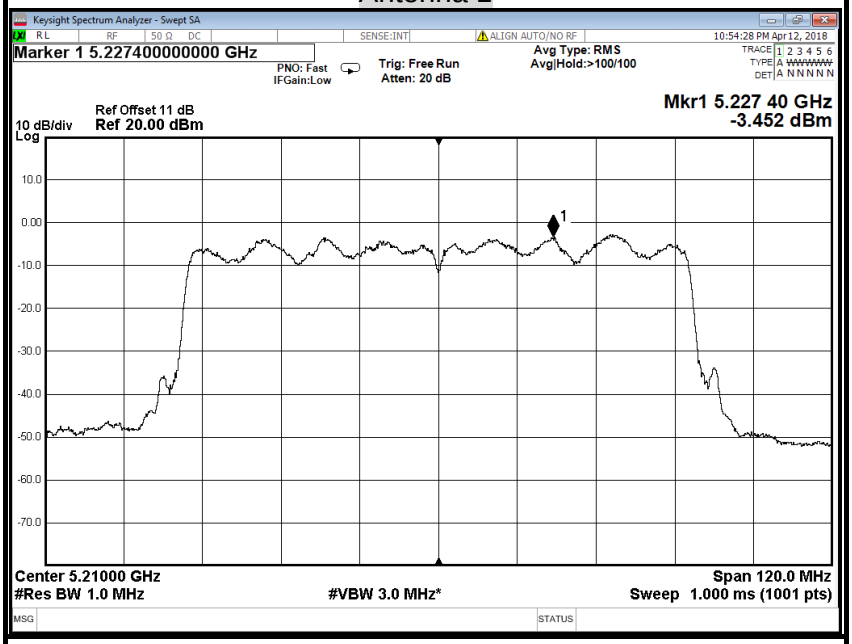
Antenna 0



IEEE 802.11ac 80 mode / 5210MHz

PPSD

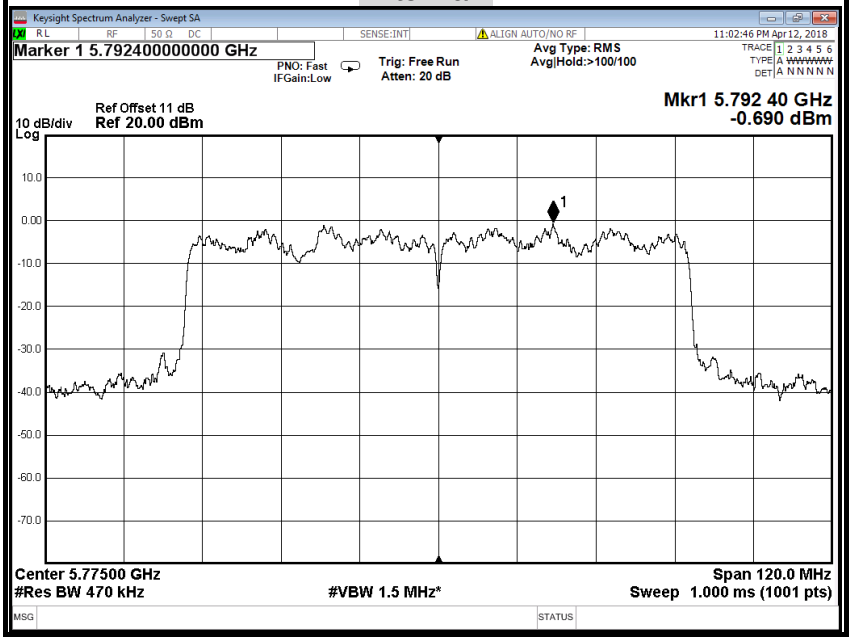
Antenna 1



IEEE 802.11ac 80 mode / 5775MHz

PPSD

Antenna 1



6.7 RADIATED UNDESIABLE EMISSION

6.7.1 LIMIT

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

Remark: *Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

2. In the emission table above, the tighter limit applies at the band edges.

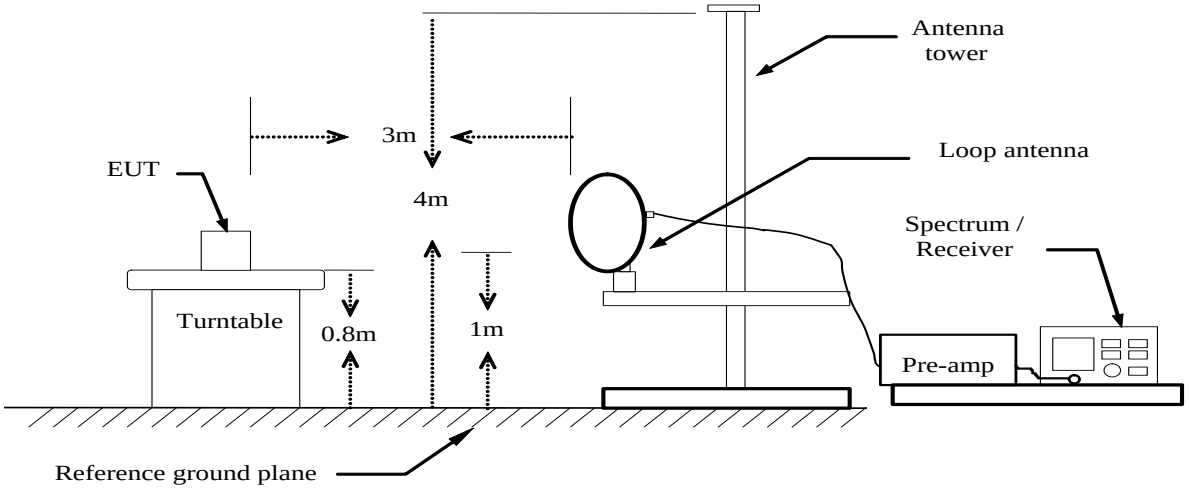
Frequency (MHz)	Field Strength (μV/m at 3-meter)	Field Strength (dBμV/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

6.7.2 TEST INSTRUMENTS

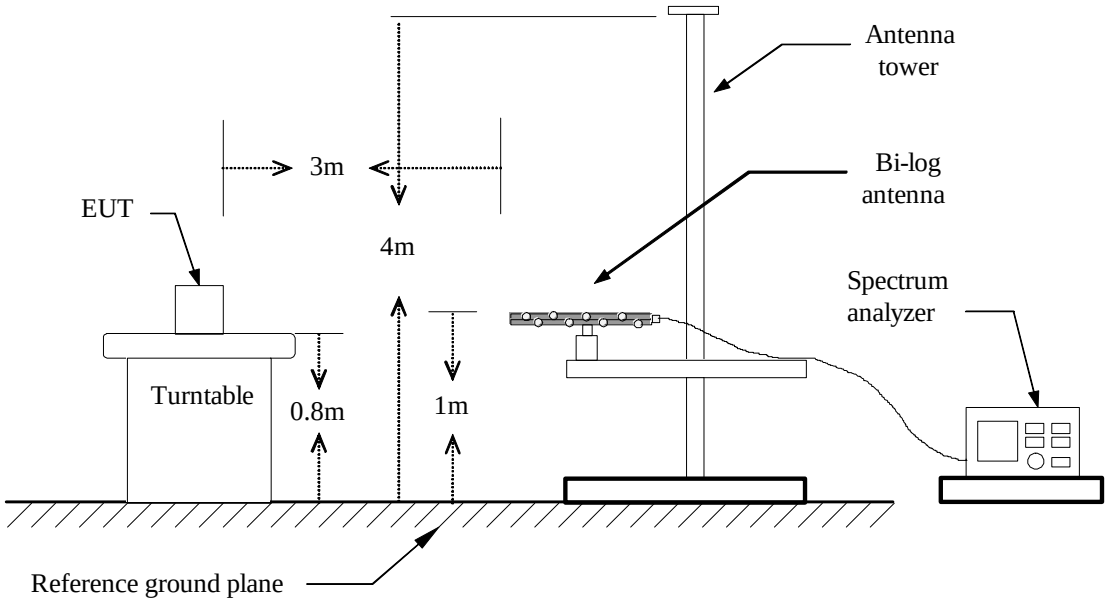
Radiated Emission Test Site 966（2）					
Name of Equipment	**Manufacturer**	**Model Number**	**Serial Number**	**Last Calibration**	**Due Calibration**
PSA Series Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	01/27/2018	01/26/2019
Amplifier	EMEC	EM330	060661	01/27/2018	01/26/2019
High Noise Amplifier	Agilent	8449B	3008A01838	01/27/2018	01/26/2019
Loop Antenna	COM-POWER	AL-130	121044	01/30/2018	01/29/2019
Bilog Antenna	SCHAFFNER	CBL6143	5082	02/21/2018	02/20/2019
Horn Antenna	SCHWARZBECK	BBHA9120	D286	01/27/2018	01/26/2019
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	01/24/2018	01/23/2019
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
Controller	CT	N/A	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	Anymetre	JR913	N/A	01/29/2018	01/28/2019
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

6.7.3 TEST CONFIGURATION

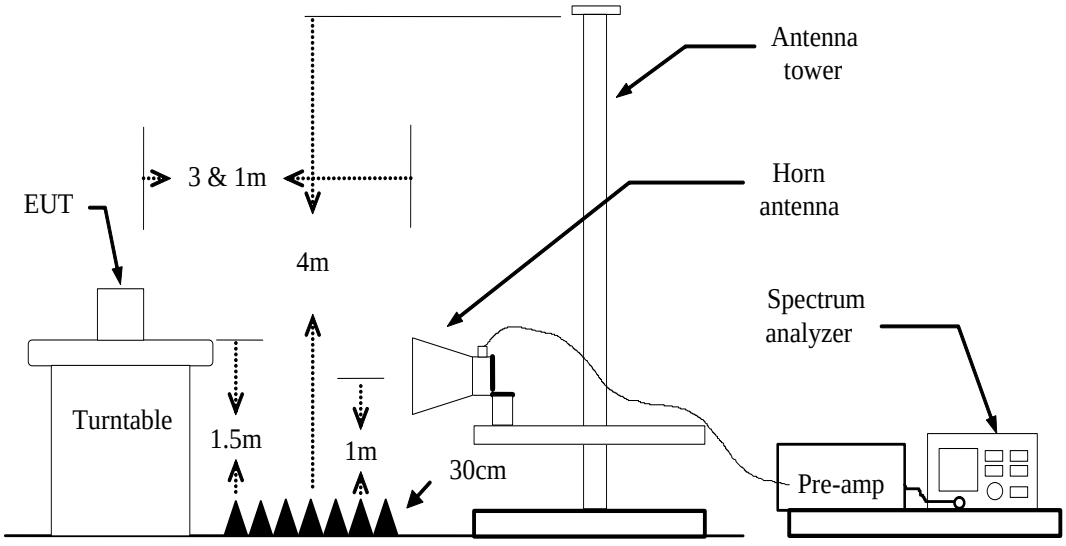
Below 30MHz



Below 1 GHz



Above 1 GHz



For the actual test configuration, please refer to the related item – Photographs of the TEST CONFIGURATION.

6.7.4 MEASURING SETTING

The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 3MHz for Peak, 1 MHz / 1/T for Average
RB / VB (Emission in non-restricted band)	1MHz / 3MHz for Peak, 1 MHz / 1/T for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP/AVG
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP/AVG
Start ~ Stop Frequency	30MHz~1000MHz / RB 100kHz for QP

6.7.5TEST PROCEDURE

1) Sequence of testing 9 kHz to 30 MHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions.

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna height is 0.8 meter.

--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 3 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position (± 45°) and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1 GHz to 18 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height scan range is 1 meter to 2.5 meter.

--- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position (± 45°) and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.

--- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
--- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18 GHz
Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 1 meter.

--- The EUT was set into operation.

Pre measurement:

--- The antenna is moved spherical over the EUT in different polarisations of the antenna.

Final measurement:

--- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.
--- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

6.7.6 DATA SAPLE

Below 1GHz

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
XXX.XXXX	36.37	-12.20	24.17	40.00	-15.83	V	QP

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer / Receiver reading
Correct Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)
Q.P. = Quasi-peak Reading

Above 1GHz

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
XXXX.XXXX	62.09	-11.42	50.67	74.00	-23.33	V	Peak
XXXX.XXXX	49.78	-11.42	38.36	54.00	-15.64	V	AVG

Frequency (MHz) = Emission frequency in MHz
Reading (dBuV) = Uncorrected Analyzer / Receiver reading
Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
Result (dBuV/m) = Reading (dBuV) + Corr. Factor (dB/m)
Limit (dBuV/m) = Limit stated in standard
Margin (dB) = Result (dBuV/m) – Limit (dBuV/m)
Peak = Peak Reading
AVG = Average Reading

Calculation Formula

Margin (dB) = Result (dBuV/m) – Limits (dBuV/m)
Result (dBuV/m) = Reading (dBuV) + Correction Factor

6.7.7 TEST RESULTS

Below 1 GHz

Test Mode: TX / IEEE 802.11a / 5180MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

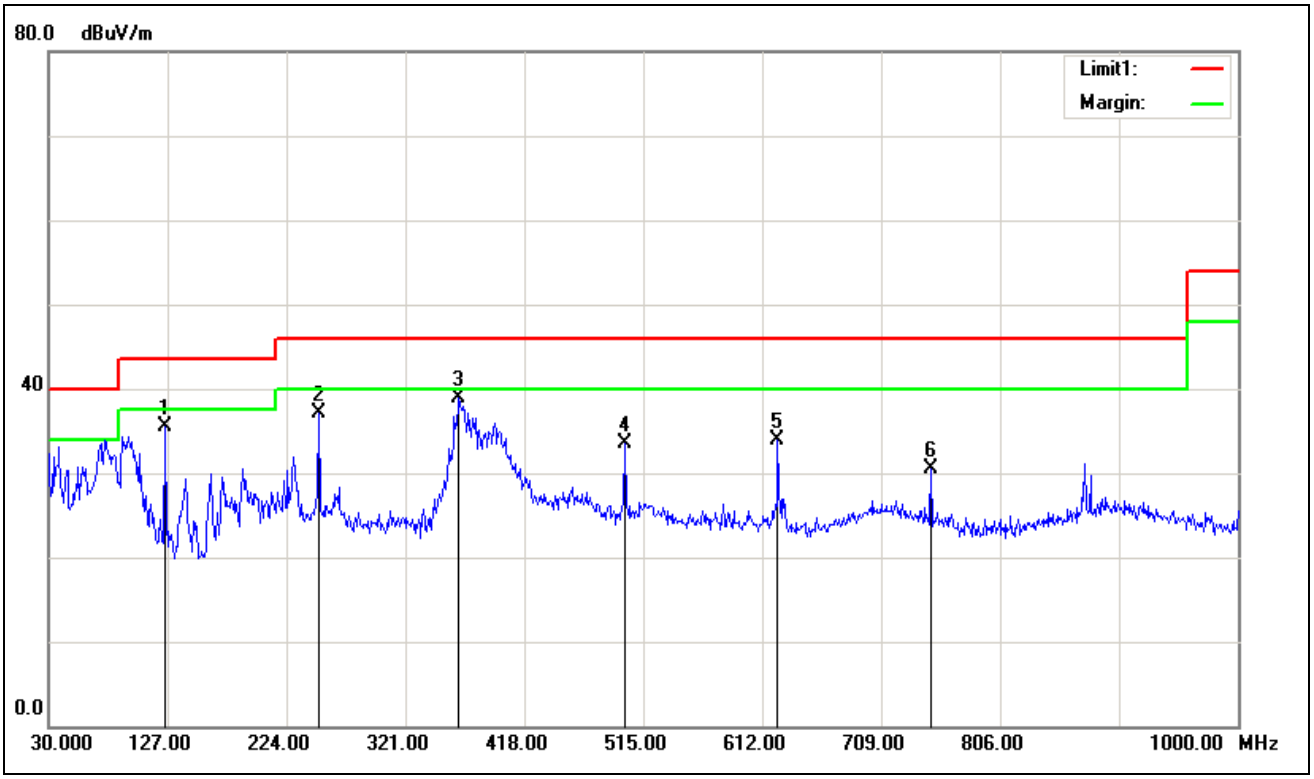
Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
125.0600	49.25	-13.65	35.60	43.50	-7.90	V	QP
250.1900	46.10	-9.09	37.01	46.00	-8.99	V	QP
364.6500	46.60	-7.63	38.97	46.00	-7.03	V	QP
500.4500	39.65	-6.10	33.55	46.00	-12.45	V	QP
624.6100	37.55	-3.71	33.84	46.00	-12.16	V	QP
749.7400	33.62	-3.11	30.51	46.00	-15.49	V	QP
179.3800	50.63	-11.10	39.53	43.50	-3.97	H	QP
212.3600	46.81	-9.94	36.87	43.50	-6.63	H	QP
250.1900	47.38	-9.09	38.29	46.00	-7.71	H	QP
364.6500	49.81	-7.63	42.18	46.00	-3.82	H	QP
500.4500	40.85	-6.10	34.75	46.00	-11.25	H	QP
624.6100	36.44	-3.71	32.73	46.00	-13.27	H	QP

Pre-scan all mode and recorded the worst case results in this report (802.11a (Low Mid)).

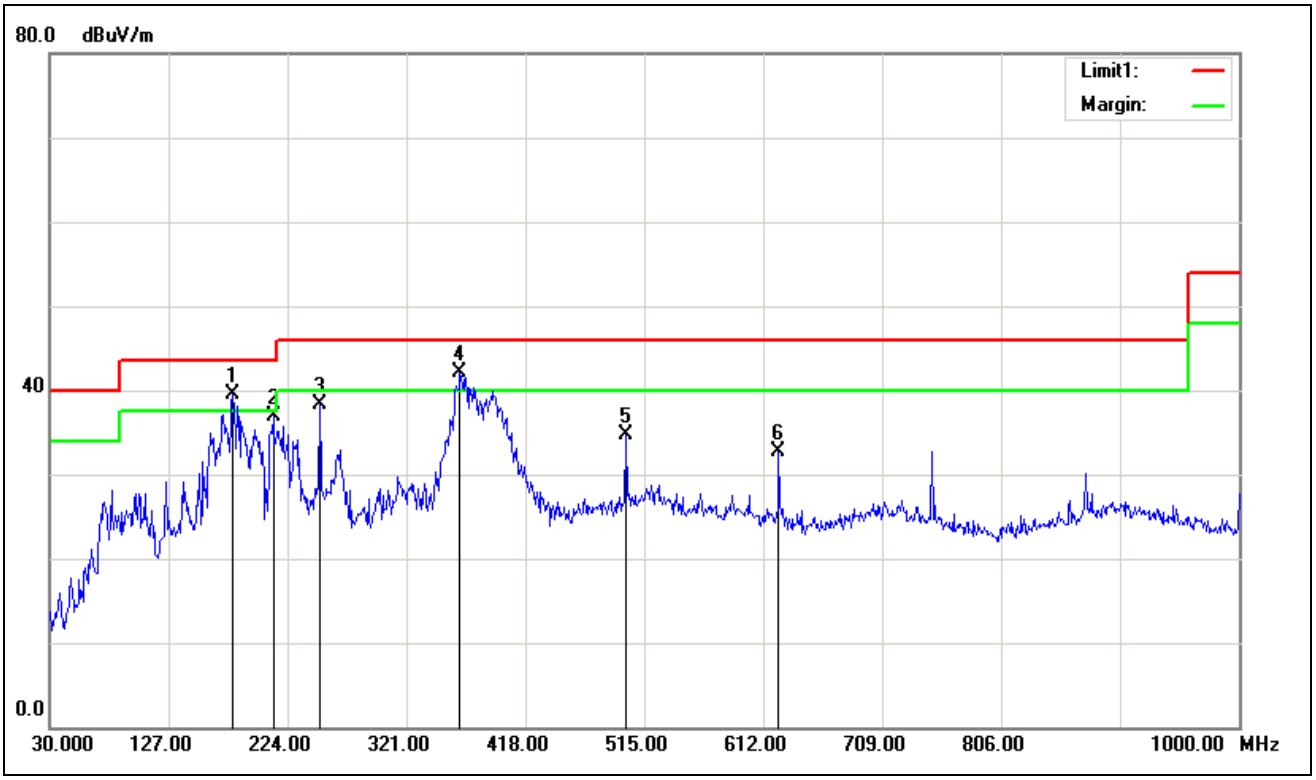
Remark:

1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz)
2. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using peak/quasi-peak detector mode.
3. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Quasi-peak limit (dBuV/m).

Vertical



Horizontal



Above 1-6GHz

Test Mode: TX / IEEE 802.11a / 5180MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1410.000	45.56	-7.04	38.52	74.00	-35.48	V	peak
1915.000	52.49	-5.54	46.95	74.00	-27.05	V	peak
2475.000	53.72	-2.40	51.32	74.00	-22.68	V	peak
3225.000	43.89	-0.98	42.91	74.00	-31.09	V	peak
5175.000	44.94	5.29	50.23	74.00	-23.77	V	peak
5650.000	48.20	5.93	54.13	74.00	-19.87	V	peak
5650.000	32.07	5.93	38.00	54.00	-16.00	V	AVG
1715.000	52.78	-6.45	46.33	74.00	-27.67	H	Peak
1915.000	50.17	-5.54	44.63	74.00	-29.37	H	Peak
2190.000	45.23	-3.96	41.27	74.00	-32.73	H	Peak
2635.000	45.15	-2.02	43.13	74.00	-30.87	H	peak
3645.000	42.60	0.09	42.69	74.00	-31.31	H	peak
4400.000	41.89	3.00	44.89	74.00	-29.11	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Combine with Antenna 0 and Antenna 1

Above 6GHz

Test Mode: TX / IEEE 802.11a / 5180MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6336.000	32.40	6.62	39.02	74.00	-34.98	V	peak
6744.000	32.33	7.29	39.62	74.00	-34.38	V	peak
8160.000	32.32	9.56	41.88	74.00	-32.12	V	peak
10680.000	31.17	14.09	45.26	74.00	-28.74	V	peak
11136.000	31.71	15.02	46.73	74.00	-27.27	V	peak
12612.000	29.69	16.67	46.36	74.00	-27.64	V	peak
8148.000	32.35	9.57	41.92	74.00	-32.08	H	Peak
9900.000	30.72	11.69	42.41	74.00	-31.59	H	Peak
10704.000	30.88	14.16	45.04	74.00	-28.96	H	Peak
11268.000	32.35	14.96	47.31	74.00	-26.69	H	peak
12600.000	30.41	16.63	47.04	74.00	-26.96	H	peak
14040.000	30.97	20.60	51.57	74.00	-22.43	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11a / 5200MHz /(CH Mid) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8040.000	31.68	9.63	41.31	74.00	-32.69	V	peak
10260.000	30.44	12.79	43.23	74.00	-30.77	V	peak
11136.000	32.39	15.02	47.41	74.00	-26.59	V	peak
12552.000	30.11	16.47	46.58	74.00	-27.42	V	peak
13104.000	29.27	18.22	47.49	74.00	-26.51	V	peak
14124.000	30.65	20.65	51.30	74.00	-22.70	V	peak
8136.000	31.96	9.58	41.54	74.00	-32.46	H	Peak
10104.000	30.93	12.30	43.23	74.00	-30.77	H	Peak
10740.000	30.80	14.27	45.07	74.00	-28.93	H	Peak
11148.000	32.00	15.01	47.01	74.00	-26.99	H	peak
12672.000	29.86	16.86	46.72	74.00	-27.28	H	peak
14064.000	30.79	20.62	51.41	74.00	-22.59	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11a / 5240MHz /(CH High) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
9576.000	30.48	10.76	41.24	74.00	-32.76	V	peak
11148.000	31.49	15.01	46.50	74.00	-27.50	V	peak
11748.000	30.85	14.75	45.60	74.00	-28.40	V	peak
12624.000	30.55	16.71	47.26	74.00	-26.74	V	peak
13080.000	29.14	18.16	47.30	74.00	-26.70	V	peak
14040.000	31.16	20.60	51.76	74.00	-22.24	V	peak
10068.000	30.75	12.19	42.94	74.00	-31.06	H	Peak
11148.000	31.63	15.01	46.64	74.00	-27.36	H	Peak
11784.000	30.86	14.74	45.60	74.00	-28.40	H	Peak
12696.000	29.81	16.94	46.75	74.00	-27.25	H	peak
13392.000	29.03	18.98	48.01	74.00	-25.99	H	peak
13884.000	31.00	20.27	51.27	74.00	-22.73	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11a / 5745MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8124.000	32.61	9.58	42.19	74.00	-31.81	V	peak
10032.000	31.17	12.08	43.25	74.00	-30.75	V	peak
11256.000	31.86	14.97	46.83	74.00	-27.17	V	peak
11496.000	34.59	14.86	49.45	74.00	-24.55	V	peak
13356.000	28.97	18.89	47.86	74.00	-26.14	V	peak
14004.000	31.26	20.58	51.84	74.00	-22.16	V	peak
8100.000	31.69	9.60	41.29	74.00	-32.71	H	Peak
10356.000	30.39	13.08	43.47	74.00	-30.53	H	Peak
11148.000	31.55	15.01	46.56	74.00	-27.44	H	Peak
11484.000	31.73	14.87	46.60	74.00	-27.40	H	peak
12672.000	30.03	16.86	46.89	74.00	-27.11	H	peak
13836.000	31.15	20.15	51.30	74.00	-22.70	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11a / 5785MHz /(CH Mid) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8004.000	31.58	9.65	41.23	74.00	-32.77	V	peak
10128.000	31.27	12.38	43.65	74.00	-30.35	V	peak
11088.000	30.49	15.04	45.53	74.00	-28.47	V	peak
11568.000	34.98	14.83	49.81	74.00	-24.19	V	peak
13236.000	29.14	18.57	47.71	74.00	-26.29	V	peak
13992.000	30.86	20.56	51.42	74.00	-22.58	V	peak
7956.000	31.92	9.56	41.48	74.00	-32.52	H	Peak
9948.000	30.82	11.83	42.65	74.00	-31.35	H	Peak
11160.000	31.88	15.01	46.89	74.00	-27.11	H	Peak
11568.000	33.25	14.83	48.08	74.00	-25.92	H	peak
13200.000	29.50	18.48	47.98	74.00	-26.02	H	peak
13728.000	31.94	19.86	51.80	74.00	-22.20	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11a / 5825MHz /(CH High) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7296.000	32.42	8.28	40.70	74.00	-33.30	V	peak
7704.000	32.55	9.07	41.62	74.00	-32.38	V	peak
11652.000	44.47	14.79	59.26	74.00	-14.74	V	peak
11652.000	38.22	14.79	53.01	54.00	-0.99	V	AVG
12636.000	30.23	16.75	46.98	74.00	-27.02	V	peak
13116.000	29.36	18.26	47.62	74.00	-26.38	V	peak
17472.000	31.42	23.30	54.72	74.00	-19.28	V	peak
17472.000	28.75	23.30	52.05	54.00	-1.95	V	AVG
6108.000	33.05	6.25	39.30	74.00	-34.70	H	Peak
7908.000	32.25	9.47	41.72	74.00	-32.28	H	Peak
10284.000	30.97	12.86	43.83	74.00	-30.17	H	Peak
11148.000	31.34	15.01	46.35	74.00	-27.65	H	peak
11640.000	35.19	14.80	49.99	74.00	-24.01	H	peak
13188.000	29.32	18.44	47.76	74.00	-26.24	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 20 MHz / 5180MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7632.000	31.73	8.93	40.66	74.00	-33.34	V	peak
8364.000	32.34	9.45	41.79	74.00	-32.21	V	peak
9948.000	30.88	11.83	42.71	74.00	-31.29	V	peak
11148.000	31.61	15.01	46.62	74.00	-27.38	V	peak
11400.000	31.35	14.90	46.25	74.00	-27.75	V	peak
12624.000	30.09	16.71	46.80	74.00	-27.20	V	peak
8136.000	32.01	9.58	41.59	74.00	-32.41	H	Peak
9372.000	31.68	10.17	41.85	74.00	-32.15	H	Peak
9912.000	31.85	11.73	43.58	74.00	-30.42	H	Peak
11160.000	31.59	15.01	46.60	74.00	-27.40	H	peak
12588.000	30.69	16.59	47.28	74.00	-26.72	H	peak
13320.000	29.15	18.79	47.94	74.00	-26.06	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 20 MHz / 5200MHz /(CH Mid) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8124.000	32.09	9.58	41.67	74.00	-32.33	V	peak
11160.000	31.37	15.01	46.38	74.00	-27.62	V	peak
12636.000	29.72	16.75	46.47	74.00	-27.53	V	peak
13908.000	30.91	20.34	51.25	74.00	-22.75	V	peak
14688.000	31.41	20.98	52.39	74.00	-21.61	V	peak
15600.000	33.08	18.43	51.51	74.00	-22.49	V	peak
8124.000	31.89	9.58	41.47	74.00	-32.53	H	Peak
10332.000	30.37	13.01	43.38	74.00	-30.62	H	Peak
11136.000	31.86	15.02	46.88	74.00	-27.12	H	Peak
13068.000	29.51	18.13	47.64	74.00	-26.36	H	peak
14004.000	30.73	20.58	51.31	74.00	-22.69	H	peak
15084.000	31.44	20.78	52.22	74.00	-21.78	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 20 MHz / 5240MHz /(CH High) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8112.000	32.05	9.59	41.64	74.00	-32.36	V	peak
9996.000	31.38	11.97	43.35	74.00	-30.65	V	peak
11136.000	31.40	15.02	46.42	74.00	-27.58	V	peak
13200.000	29.33	18.48	47.81	74.00	-26.19	V	peak
14016.000	30.81	20.59	51.40	74.00	-22.60	V	peak
14940.000	30.94	21.13	52.07	74.00	-21.93	V	peak
7992.000	31.83	9.63	41.46	74.00	-32.54	H	Peak
9588.000	30.88	10.79	41.67	74.00	-32.33	H	Peak
10404.000	30.91	13.23	44.14	74.00	-29.86	H	Peak
11316.000	31.36	14.94	46.30	74.00	-27.70	H	peak
12996.000	29.23	17.94	47.17	74.00	-26.83	H	peak
14040.000	30.69	20.60	51.29	74.00	-22.71	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 20 MHz / 5745MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
10056.000	31.57	12.15	43.72	74.00	-30.28	V	peak
10524.000	30.14	13.60	43.74	74.00	-30.26	V	peak
11484.000	38.35	14.87	53.22	74.00	-20.78	V	peak
11484.000	37.36	14.87	52.23	54.00	-1.77	V	AVG
12648.000	30.13	16.78	46.91	74.00	-27.09	V	peak
13068.000	28.91	18.13	47.04	74.00	-26.96	V	peak
14508.000	31.32	20.87	52.19	74.00	-21.81	V	peak
7956.000	31.81	9.56	41.37	74.00	-32.63	H	Peak
10728.000	31.39	14.24	45.63	74.00	-28.37	H	Peak
11496.000	33.22	14.86	48.08	74.00	-25.92	H	Peak
13788.000	30.64	20.02	50.66	74.00	-23.34	H	peak
13992.000	31.16	20.56	51.72	74.00	-22.28	H	peak
14988.000	30.98	21.15	52.13	74.00	-21.87	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 20 MHz / 5785MHz /(CH Mid) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8100.000	31.71	9.60	41.31	74.00	-32.69	V	peak
10812.000	30.39	14.50	44.89	74.00	-29.11	V	peak
11568.000	37.18	14.83	52.01	74.00	-21.99	V	peak
11568.000	37.18	14.83	52.01	54.00	-1.99	V	AVG
12660.000	29.90	16.82	46.72	74.00	-27.28	V	peak
13980.000	30.42	20.53	50.95	74.00	-23.05	V	peak
14988.000	31.26	21.15	52.41	74.00	-21.59	V	peak
8160.000	31.92	9.56	41.48	74.00	-32.52	H	Peak
11136.000	31.43	15.02	46.45	74.00	-27.55	H	Peak
11568.000	34.35	14.83	49.18	74.00	-24.82	H	Peak
12864.000	29.58	17.50	47.08	74.00	-26.92	H	peak
14064.000	30.64	20.62	51.26	74.00	-22.74	H	peak
14544.000	31.29	20.90	52.19	74.00	-21.81	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 20 MHz / 5825MHz /(CH High) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6156.000	35.62	6.33	41.95	74.00	-32.05	V	peak
8100.000	32.22	9.60	41.82	74.00	-32.18	V	peak
10128.000	31.03	12.38	43.41	74.00	-30.59	V	peak
11136.000	31.32	15.02	46.34	74.00	-27.66	V	peak
11652.000	39.52	14.79	54.31	74.00	-19.69	V	peak
11652.000	38.90	14.79	53.69	54.00	-0.31	V	AVG
12744.000	29.65	17.10	46.75	74.00	-27.25	V	peak
8088.000	31.99	9.60	41.59	74.00	-32.41	H	Peak
10236.000	31.18	12.71	43.89	74.00	-30.11	H	Peak
11148.000	31.14	15.01	46.15	74.00	-27.85	H	Peak
12672.000	30.05	16.86	46.91	74.00	-27.09	H	peak
14064.000	30.90	20.62	51.52	74.00	-22.48	H	peak
14328.000	31.51	20.77	52.28	54.00	-1.72	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 40 MHz / 5190MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7140.000	31.72	7.97	39.69	74.00	-34.31	V	peak
7716.000	31.94	9.10	41.04	74.00	-32.96	V	peak
9816.000	31.58	11.45	43.03	74.00	-30.97	V	peak
10236.000	31.19	12.71	43.90	74.00	-30.10	V	peak
11136.000	31.11	15.02	46.13	74.00	-27.87	V	peak
13308.000	28.94	18.76	47.70	74.00	-26.30	V	peak
7980.000	31.87	9.61	41.48	74.00	-32.52	H	Peak
9744.000	30.97	11.24	42.21	74.00	-31.79	H	Peak
11196.000	31.77	14.99	46.76	74.00	-27.24	H	Peak
12648.000	30.19	16.78	46.97	74.00	-27.03	H	peak
13236.000	29.49	18.57	48.06	74.00	-25.94	H	peak
14028.000	30.74	20.60	51.34	74.00	-22.66	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 40 MHz / 5230MHz /(CH High) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8184.000	31.82	9.55	41.37	74.00	-32.63	V	peak
9636.000	30.98	10.93	41.91	74.00	-32.09	V	peak
10464.000	32.59	13.42	46.01	74.00	-27.99	V	peak
11256.000	31.86	14.97	46.83	74.00	-27.17	V	peak
13104.000	29.18	18.22	47.40	74.00	-26.60	V	peak
14112.000	30.74	20.64	51.38	74.00	-22.62	V	peak
9792.000	30.39	11.38	41.77	74.00	-32.23	H	Peak
10680.000	31.06	14.09	45.15	74.00	-28.85	H	Peak
11184.000	31.42	15.00	46.42	74.00	-27.58	H	Peak
12636.000	30.31	16.75	47.06	74.00	-26.94	H	peak
13104.000	29.23	18.22	47.45	74.00	-26.55	H	peak
14040.000	30.83	20.60	51.43	74.00	-22.57	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 40 MHz / 5755MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8100.000	31.85	9.60	41.45	74.00	-32.55	V	peak
9780.000	30.96	11.35	42.31	74.00	-31.69	V	peak
10716.000	31.40	14.20	45.60	74.00	-28.40	V	peak
11508.000	38.68	14.86	53.54	74.00	-20.46	V	peak
11508.000	37.26	14.86	52.12	54.00	-1.88	V	AVG
12648.000	30.29	16.78	47.07	74.00	-26.93	V	peak
13788.000	30.98	20.02	51.00	74.00	-23.00	V	peak
8112.000	32.31	9.59	41.90	74.00	-32.10	H	Peak
10044.000	31.78	12.12	43.90	74.00	-30.10	H	Peak
10716.000	30.72	14.20	44.92	74.00	-29.08	H	Peak
11508.000	34.99	14.86	49.85	74.00	-24.15	H	peak
13080.000	29.37	18.16	47.53	74.00	-26.47	H	peak
14004.000	31.26	20.58	51.84	74.00	-22.16	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11n HT 40 MHz / 5795MHz /(CH High) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6156.000	35.71	6.33	42.04	74.00	-31.96	V	peak
7212.000	32.50	8.11	40.61	74.00	-33.39	V	peak
9312.000	31.90	10.00	41.90	74.00	-32.10	V	peak
11592.000	41.84	14.82	56.66	74.00	-17.34	V	peak
11592.000	38.54	14.82	53.36	54.00	-0.64	V	AVG
13020.000	29.52	18.00	47.52	74.00	-26.48	V	peak
17376.000	33.23	23.32	56.55	74.00	-17.45	V	peak
17376.000	28.29	23.32	51.61	54.00	-2.39	V	AVG
8400.000	31.50	9.43	40.93	74.00	-33.07	H	Peak
10572.000	31.10	13.75	44.85	74.00	-29.15	H	Peak
11160.000	31.76	15.01	46.77	74.00	-27.23	H	Peak
11592.000	35.77	14.82	50.59	74.00	-23.41	H	peak
12696.000	30.12	16.94	47.06	74.00	-26.94	H	peak
13248.000	29.74	18.60	48.34	74.00	-25.66	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802. 11ac 80 / 5210MHz /(CH Low) **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7056.000	32.01	7.81	39.82	74.00	-34.18	V	peak
8136.000	32.46	9.58	42.04	74.00	-31.96	V	peak
10020.000	31.35	12.04	43.39	74.00	-30.61	V	peak
11148.000	31.42	15.01	46.43	74.00	-27.57	V	peak
11868.000	30.72	14.70	45.42	74.00	-28.58	V	peak
12984.000	28.79	17.90	46.69	74.00	-27.31	V	peak
8136.000	31.72	9.58	41.30	74.00	-32.70	H	Peak
9468.000	31.19	10.45	41.64	74.00	-32.36	H	Peak
10140.000	31.12	12.41	43.53	74.00	-30.47	H	Peak
11136.000	31.70	15.02	46.72	74.00	-27.28	H	peak
12588.000	30.56	16.59	47.15	74.00	-26.85	H	peak
14028.000	31.31	20.60	51.91	74.00	-22.09	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

Test Mode: TX / IEEE 802.11ac 80 / 5775MHz **Tested by:** Fade Zhong

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** April 9, 2018

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6156.000	34.03	6.33	40.36	74.00	-33.64	V	peak
7740.000	31.89	9.14	41.03	74.00	-32.97	V	peak
10188.000	31.14	12.56	43.70	74.00	-30.30	V	peak
10800.000	30.89	14.46	45.35	74.00	-28.65	V	peak
11160.000	31.80	15.01	46.81	74.00	-27.19	V	peak
13104.000	29.65	18.22	47.87	74.00	-26.13	V	peak
6192.000	37.99	6.39	44.38	74.00	-29.62	H	Peak
8172.000	31.86	9.56	41.42	74.00	-32.58	H	Peak
9924.000	31.62	11.76	43.38	74.00	-30.62	H	Peak
11148.000	32.27	15.01	47.28	74.00	-26.72	H	peak
11556.000	35.12	14.84	49.96	74.00	-24.04	H	peak
13812.000	31.41	20.09	51.50	74.00	-22.50	H	peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
6. Margin (dB) = Remark result (dBuV/m) – Average limit (dBuV/m).

6.8 CONDUCTED UNDESIRABLE EMISSION

6.8.1 LIMIT

According to 15.407(b),

(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 EIRP of -27 dBm/MHz.

(2) 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.

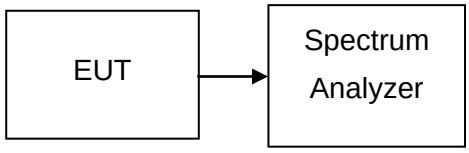
(3) The provisions of §15.205 apply to intentional radiators operating under this section.

6.8.2 MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019

Remark: *Each piece of equipment is scheduled for calibration once a year.*

6.8.3 TEST CONFIGURATION



6.8.4 TEST PROCEDURE

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 1MHz. The video bandwidth is set to 3MHz. Peak detection measurements are compared to the average EIRP limit, adjusted for the maximum antenna gain. If necessary, additional average detection measurements are made.

Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

6.8.5 TEST RESULTS

No non-compliance noted

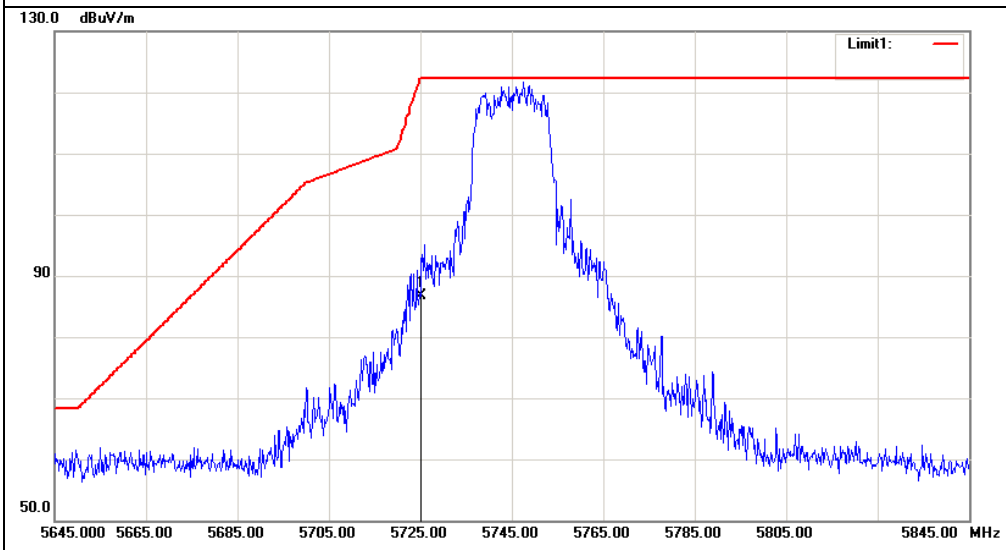
Test Plot

Combine with Antenna 0 and Antenna 1

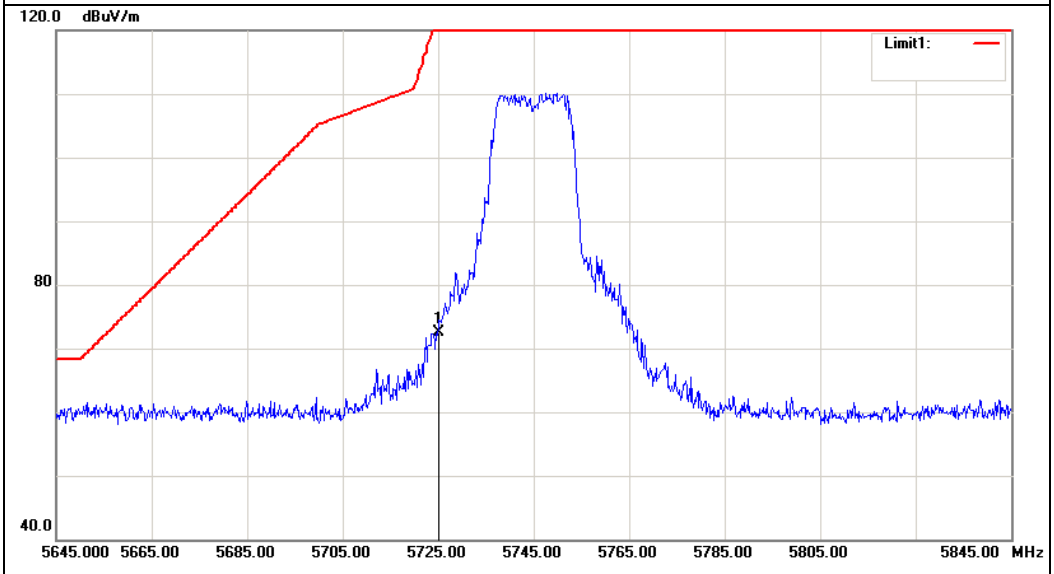
IEEE 802.11a mode / 5745 ~ 5825MHz

CH Low

Detector mode: Peak **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

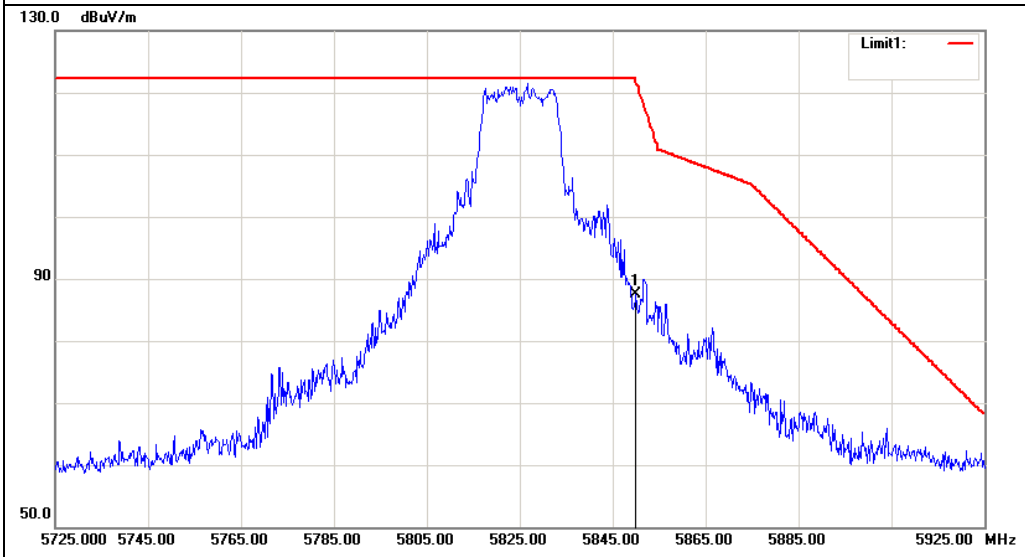


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5725.000	80.67	5.96	86.63	122.20	-35.57	Peak	Vertical
2	5725.000	66.46	5.96	72.42	122.20	-49.78	Peak	Horizontal

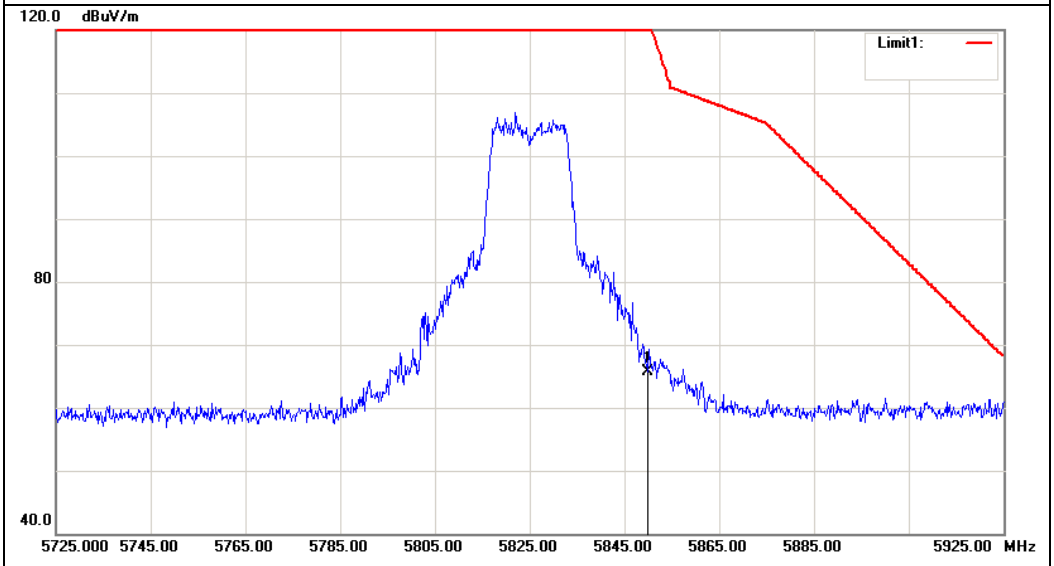
IEEE 802.11a mode / 5745 ~ 5825MHz

CH High

Detector mode: Peak **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

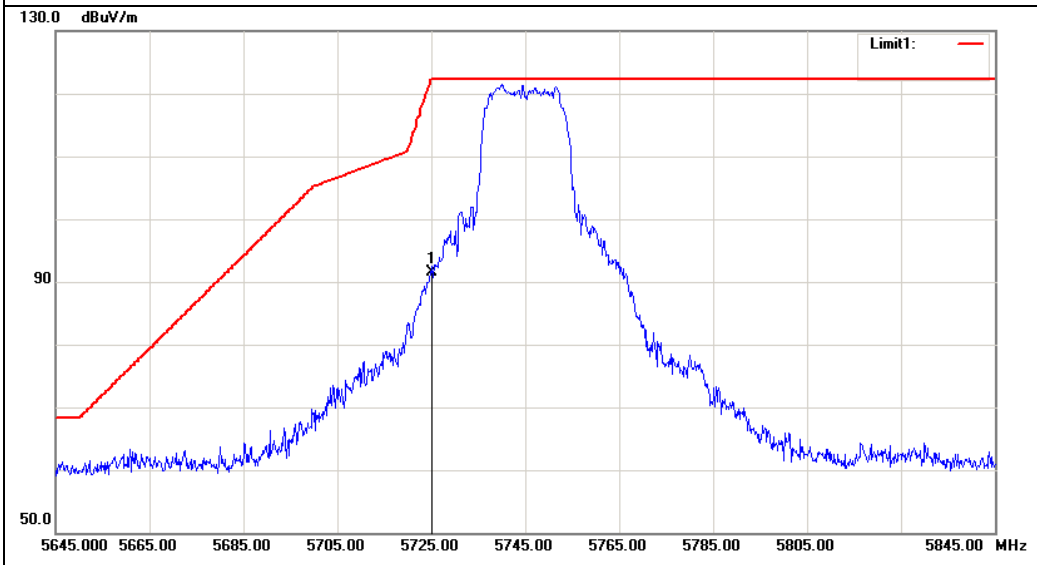


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5850.000	81.51	6.02	87.53	122.20	-34.67	Peak	Vertical
2	5850.000	59.62	6.02	65.64	122.20	-56.56	Peak	Horizontal

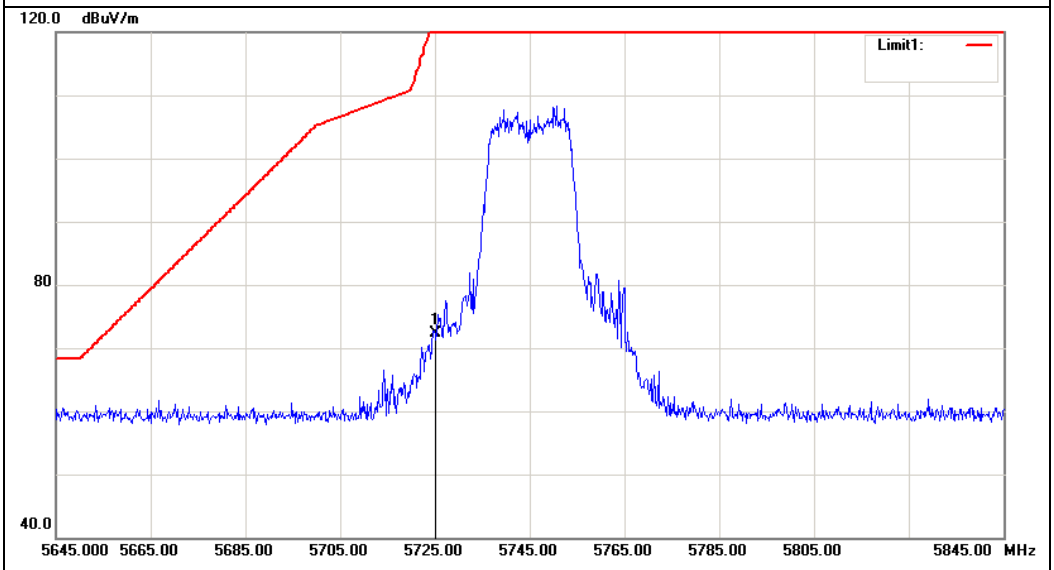
IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

CH Low

Detector mode: Peak **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

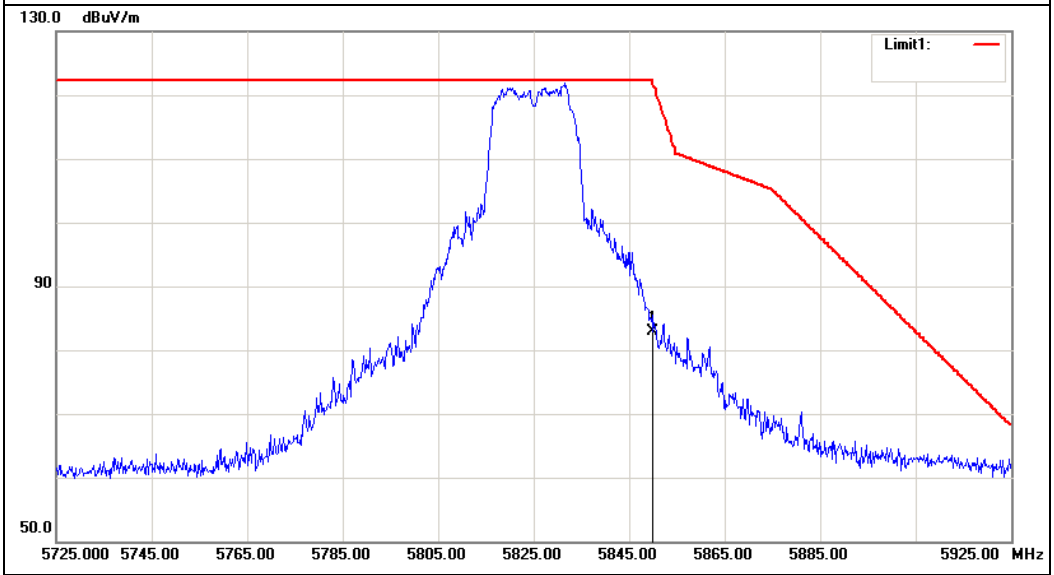


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5725.000	85.49	5.96	91.45	122.20	-30.75	Peak	Vertical
2	5725.000	66.36	5.96	72.32	122.20	-49.88	Peak	Horizontal

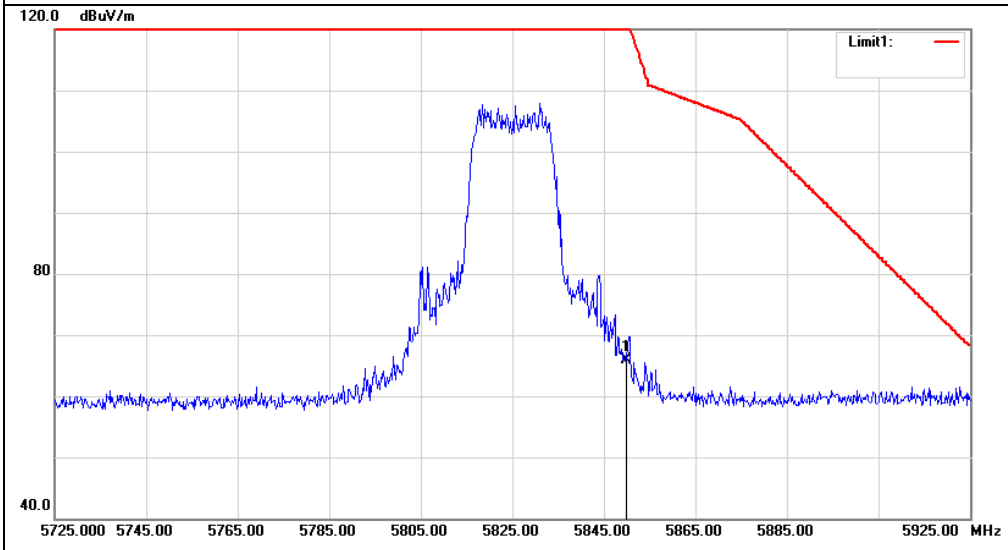
IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

CH High

Detector mode: Peak **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

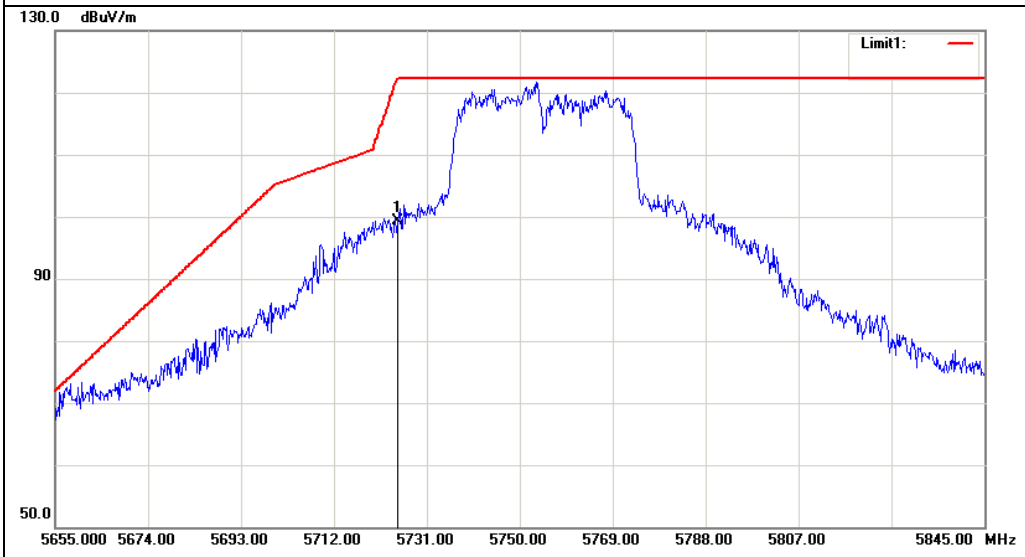


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5850.000	76.79	6.02	82.81	122.20	-39.39	Peak	Vertical
2	5850.000	59.96	6.02	65.98	122.20	-56.22	Peak	Horizontal

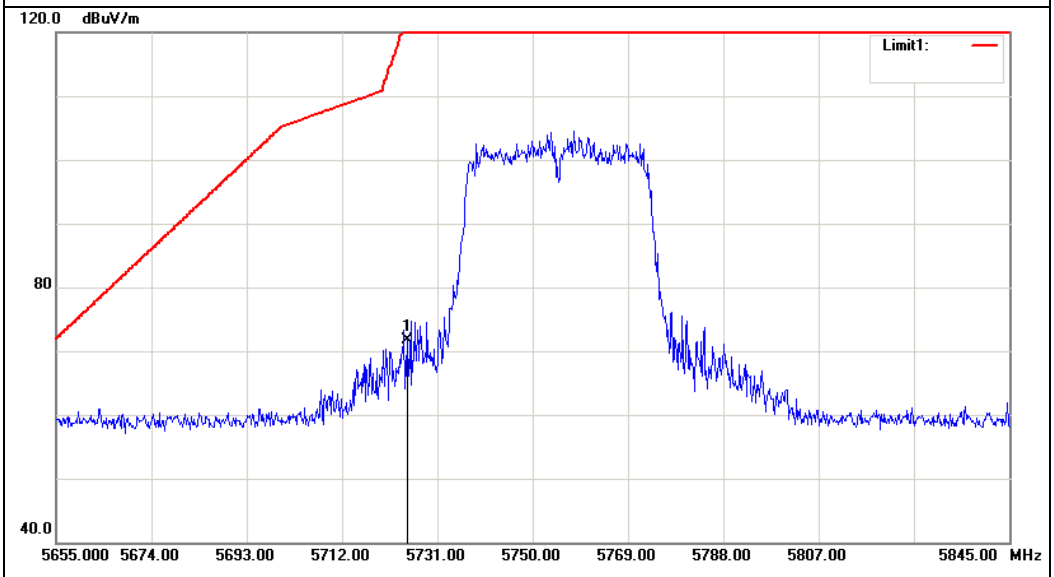
IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

CH Low

Detector mode: Peak **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**

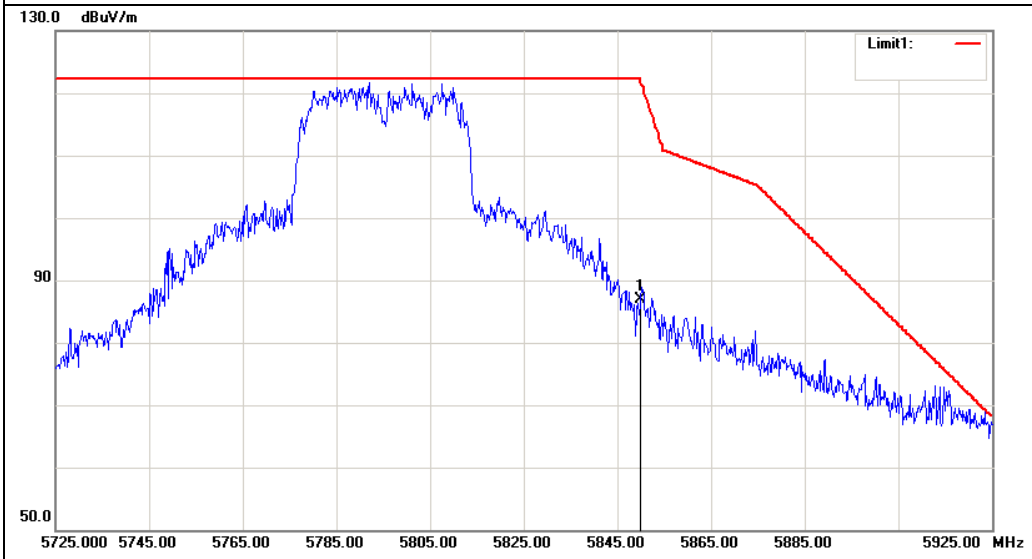


No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5725.000	93.36	5.96	99.32	122.20	-22.88	Peak	Vertical
2	5725.000	65.82	5.96	71.78	122.20	-50.42	Peak	Horizontal

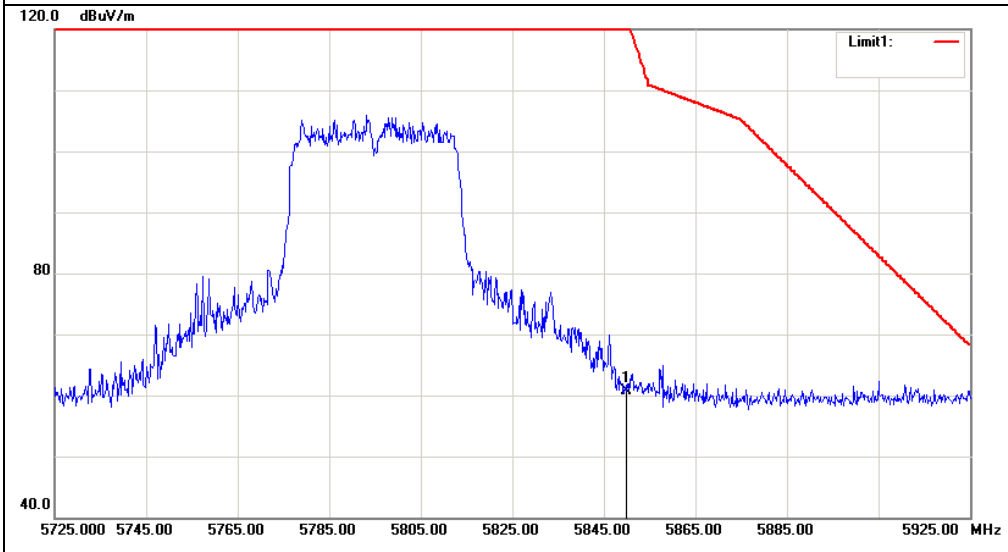
IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

CH High

Detector mode: Peak **Polarity: Vertical**



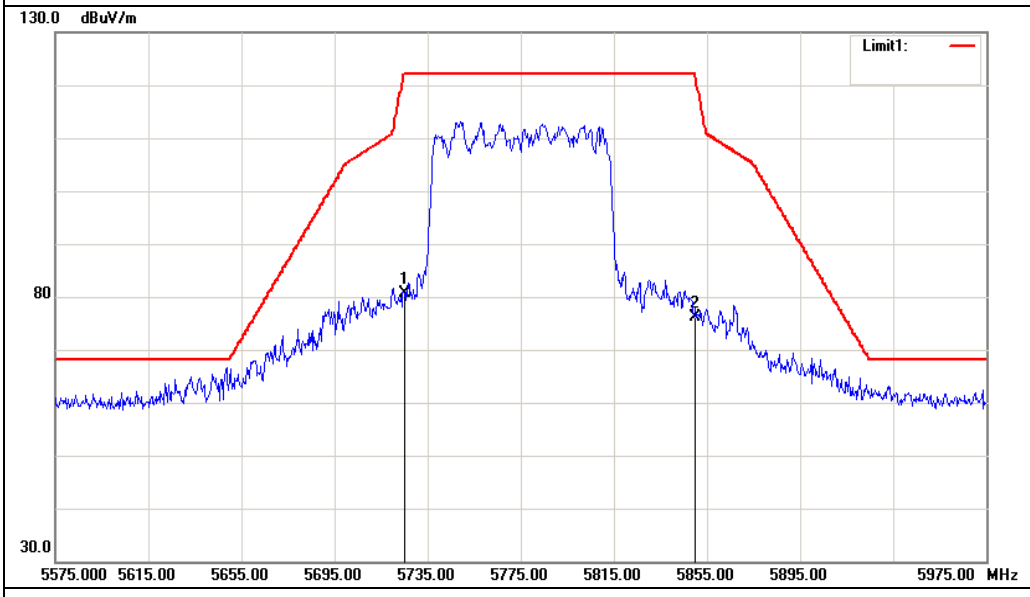
Detector mode: Peak **Polarity: Horizontal**



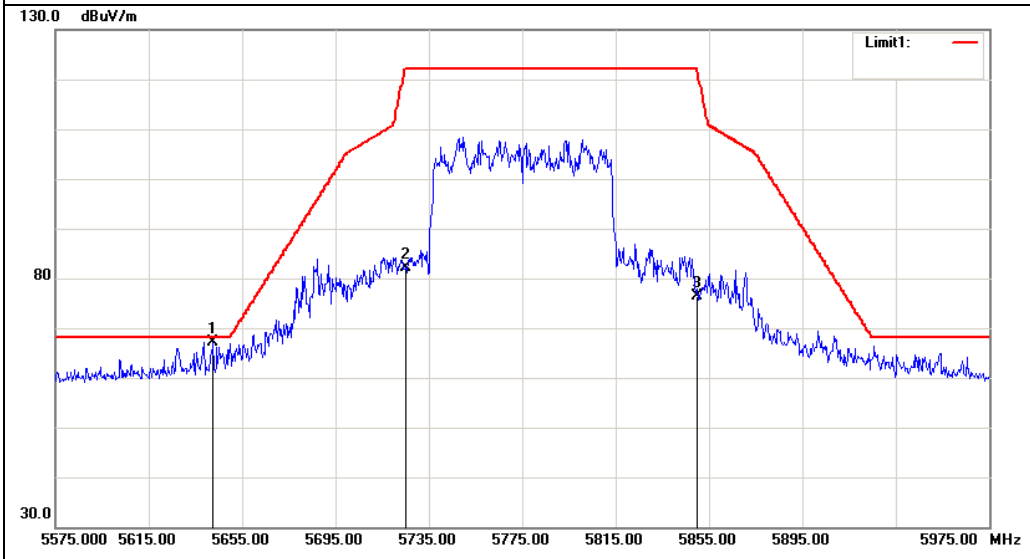
No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5850.000	80.96	6.02	86.98	122.20	-35.22	Peak	Vertical
2	5850.000	54.67	6.02	60.69	122.20	-61.51	Peak	Horizontal

IEEE 802.11ac 80 mode / 5775MHz

Detector mode: Peak **Polarity: Vertical**



Detector mode: Peak **Polarity: Horizontal**



No.	Frequency (MHz)	Reading (dB)	Factor (dB/m)	Result (dB/m)	Limit (dB/m)	Margin (dB)	Remark	Antenna Polar
1	5725.000	75.92	5.96	81.88	122.20	-40.32	Peak	Vertical
2	5850.000	72.07	6.02	78.09	122.20	-44.11	Peak	Vertical
1	5642.600	61.19	5.93	67.12	68.20	-1.08	Peak	Horizontal
2	5725.000	76.25	5.96	82.21	122.20	-39.99	Peak	Horizontal
3	5850.000	70.34	6.02	76.36	122.20	-45.84	Peak	Horizontal

6.9 POWERLINE CONDUCTED EMISSIONS

6.9.1 LIMIT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

** Decreases with the logarithm of the frequency.*

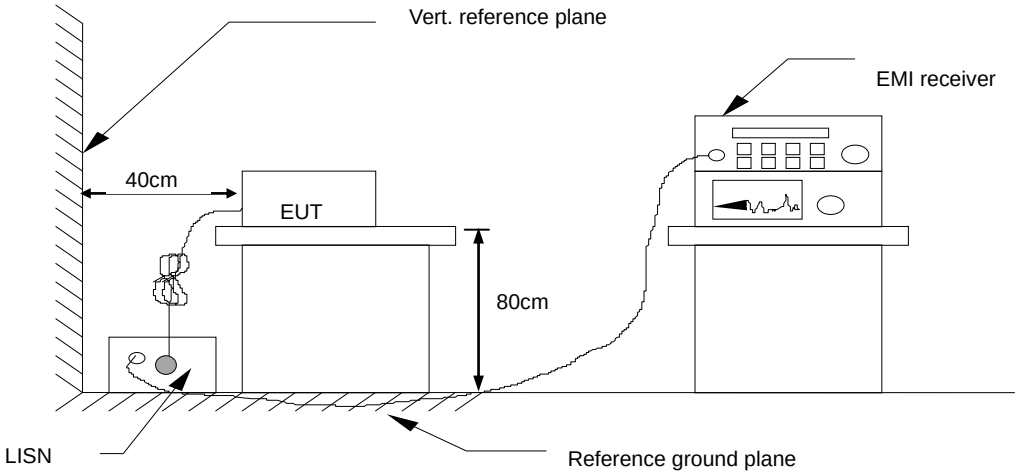
6.9.2 TEST INSTRUMENTS

Conducted Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	01/27/2018	01/26/2019
LISN(EUT)	ROHDE&SCHWARZ	ENV216	101543-WX	01/27/2018	01/26/2019
LISN	EMCO	3825/2	8901-1459	01/27/2018	01/26/2019
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	01/29/2018	01/28/2019
Test S/W	FARAD	EZ-EMC/ CCS-3A1-CE			

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Request.

6.9.3 TEST CONFIGURATION



6.9.4 TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

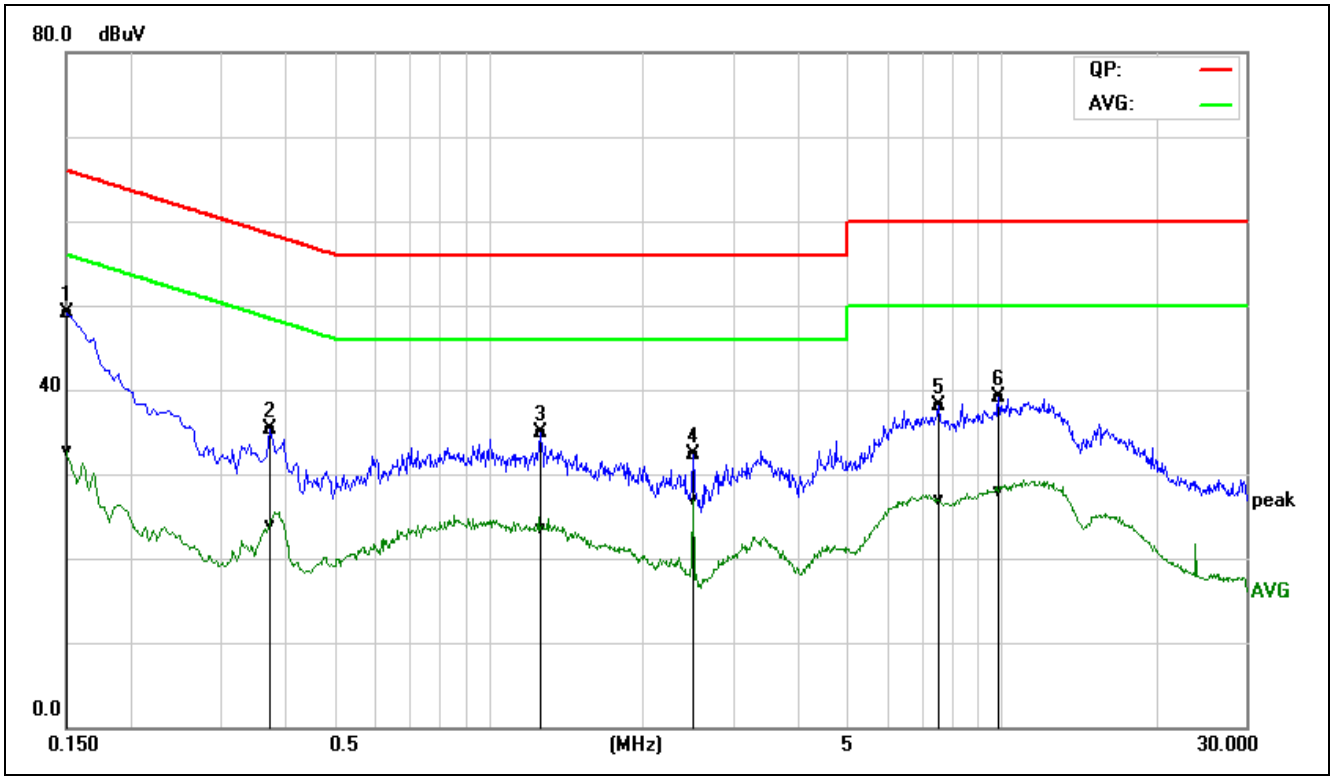
6.9.5 DATA SAMPLE

Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62	Pass

Factor = Insertion loss of LISN + Cable Loss
Result = Quasi-peak Reading/ Average Reading + Factor
Limit = Limit stated in standard
Margin = Result (dBuV) – Limit (dBuV)

6.9.6 TEST RESULTS

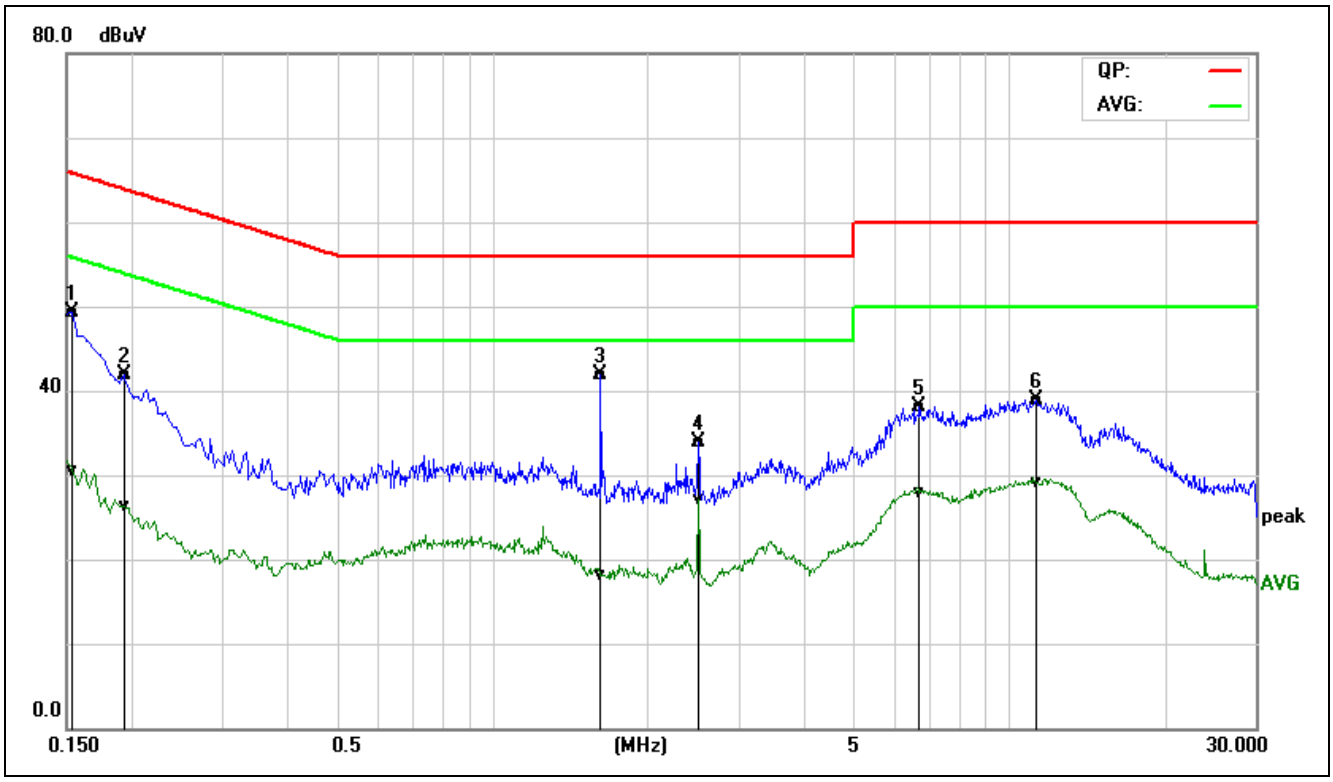
Model No.	NBG6615	RBW,VBW	9 kHz
Environmental Conditions	22°C, 45% RH	Test Mode	Mode 1
Tested by	Fade Zhong	Line	L
Test Date	May 16, 2018	Test Voltage	AC120V/60Hz



Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	Line (L1/L2)
0.1500	29.48	13.03	19.62	49.10	32.65	65.99	56.00	-16.89	-23.35	Pass	L1
0.3740	15.66	4.42	19.57	35.23	23.99	58.41	48.41	-23.18	-24.42	Pass	L1
1.2660	15.38	3.94	19.60	34.98	23.54	56.00	46.00	-21.02	-22.46	Pass	L1
2.5059	12.63	7.26	19.72	32.35	26.98	56.00	46.00	-23.65	-19.02	Pass	L1
7.5540	18.15	7.05	19.89	38.04	26.94	60.00	50.00	-21.96	-23.06	Pass	L1
9.8700	18.90	7.84	20.14	39.04	27.98	60.00	50.00	-20.96	-22.02	Pass	L1

REMARKS: *L = Line One (Live Line)*

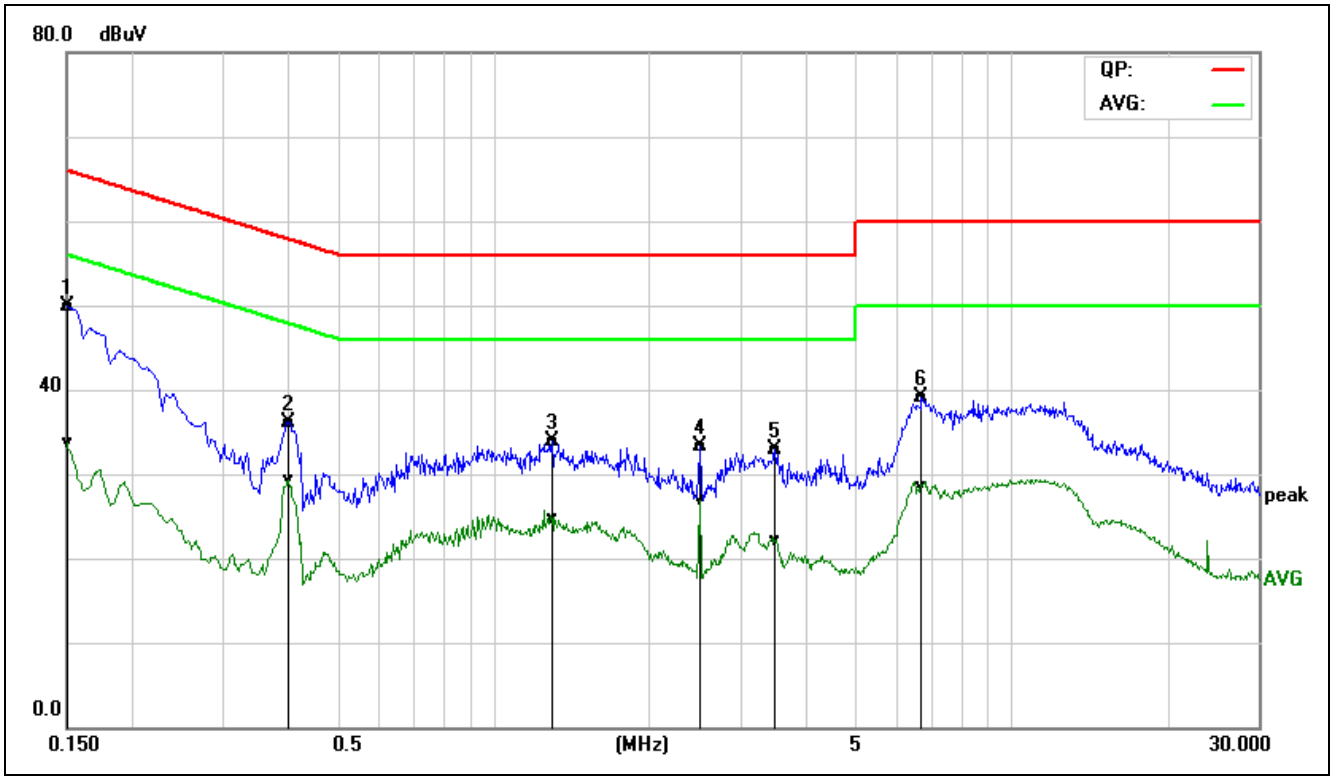
Model No.	NBG6615	**RBW,VBW**	9 kHz
Environmental Conditions	22°C, 45% RH	**Test Mode**	Mode 1
Tested by	Fade Zhong	**Line**	N
Test Date	May 16, 2018	**Test Voltage**	AC120V/60Hz



Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	**Line (L1/L2)**
0.1539	29.75	11.07	19.52	49.27	30.59	65.78	55.79	-16.51	-25.20	Pass	L2
0.1940	22.29	6.71	19.54	41.83	26.25	63.86	53.86	-22.03	-27.61	Pass	L2
1.6260	22.33	-1.46	19.65	41.98	18.19	56.00	46.00	-14.02	-27.81	Pass	L2
2.5059	14.14	7.45	19.74	33.88	27.19	56.00	46.00	-22.12	-18.81	Pass	L2
6.7140	18.27	8.16	19.83	38.10	27.99	60.00	50.00	-21.90	-22.01	Pass	L2
11.2739	18.69	9.00	20.12	38.81	29.12	60.00	50.00	-21.19	-20.88	Pass	L2

REMARKS: *N = Line Two (Neutral Line)*

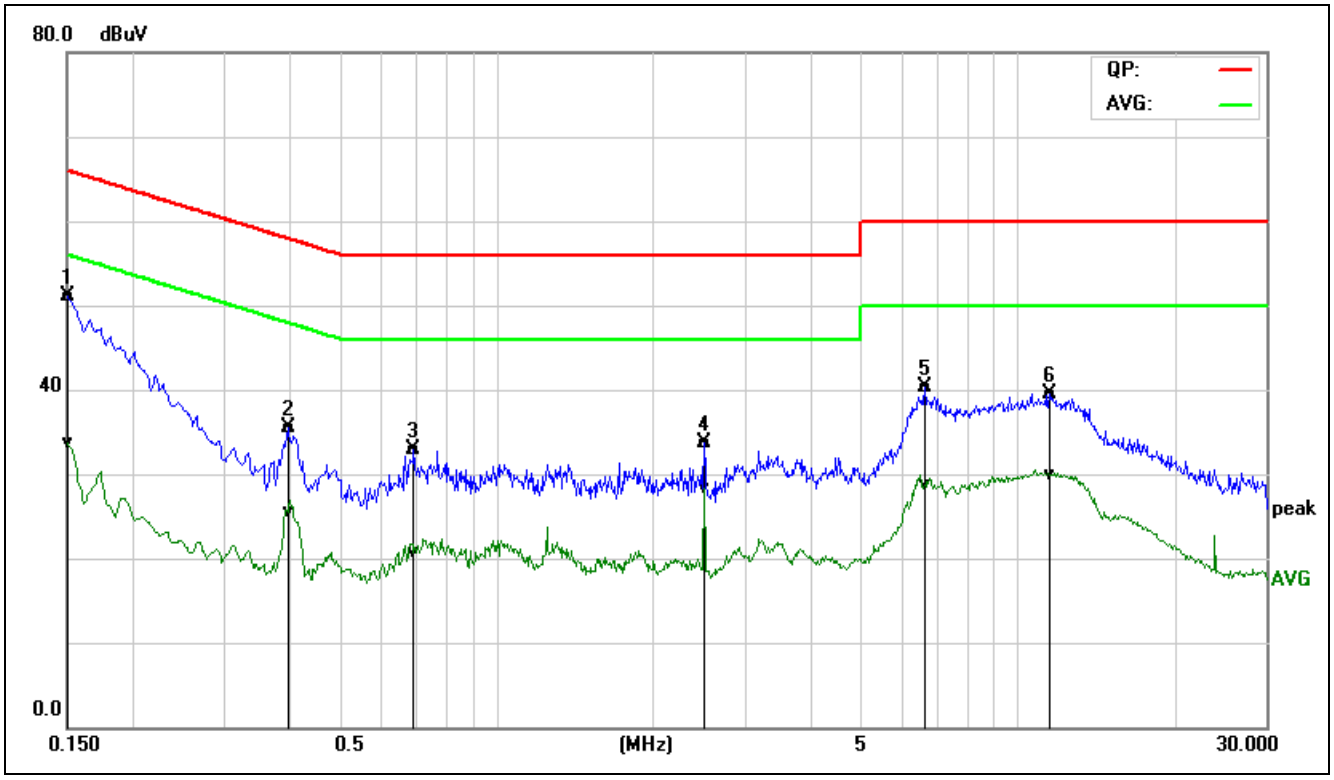
Model No.	NBG6615	**RBW,VBW**	9 kHz
Environmental Conditions	22°C, 45% RH	**Test Mode**	Mode 1
Tested by	Fade Zhong	**Line**	L
Test Date	May 16, 2018	**Test Voltage**	AC240V/50Hz



Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	**Line (L1/L2)**
0.1500	30.28	14.01	19.62	49.90	33.63	65.99	56.00	-16.09	-22.37	Pass	L1
0.4020	16.62	9.67	19.56	36.18	29.23	57.81	47.81	-21.63	-18.58	Pass	L1
1.3020	14.29	5.13	19.60	33.89	24.73	56.00	46.00	-22.11	-21.27	Pass	L1
2.5059	13.56	7.21	19.72	33.28	26.93	56.00	46.00	-22.72	-19.07	Pass	L1
3.5060	13.24	2.34	19.72	32.96	22.06	56.00	46.00	-23.04	-23.94	Pass	L1
6.7260	19.35	8.75	19.82	39.17	28.57	60.00	50.00	-20.83	-21.43	Pass	L1

REMARKS: *L = Line One (Live Line)*

Model No.	NBG6615	**RBW,VBW**	9 kHz
Environmental Conditions	22°C, 45% RH	**Test Mode**	Mode 1
Tested by	Fade Zhong	**Line**	N
Test Date	May 16, 2018	**Test Voltage**	AC240V/50Hz



Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)	**Line (L1/L2)**
0.1500	31.53	14.12	19.52	51.05	33.64	65.99	56.00	-14.94	-22.36	Pass	L2
0.3980	16.00	5.95	19.53	35.53	25.48	57.89	47.90	-22.36	-22.42	Pass	L2
0.6940	13.32	1.16	19.61	32.93	20.77	56.00	46.00	-23.07	-25.23	Pass	L2
2.5059	13.87	8.57	19.74	33.61	28.31	56.00	46.00	-22.39	-17.69	Pass	L2
6.6340	20.38	8.94	19.83	40.21	28.77	60.00	50.00	-19.79	-21.23	Pass	L2
11.5260	19.39	9.88	20.11	39.50	29.99	60.00	50.00	-20.50	-20.01	Pass	L2

REMARKS: *N = Line Two (Neutral Line)*

6.10 FREQUENCY STABILITY

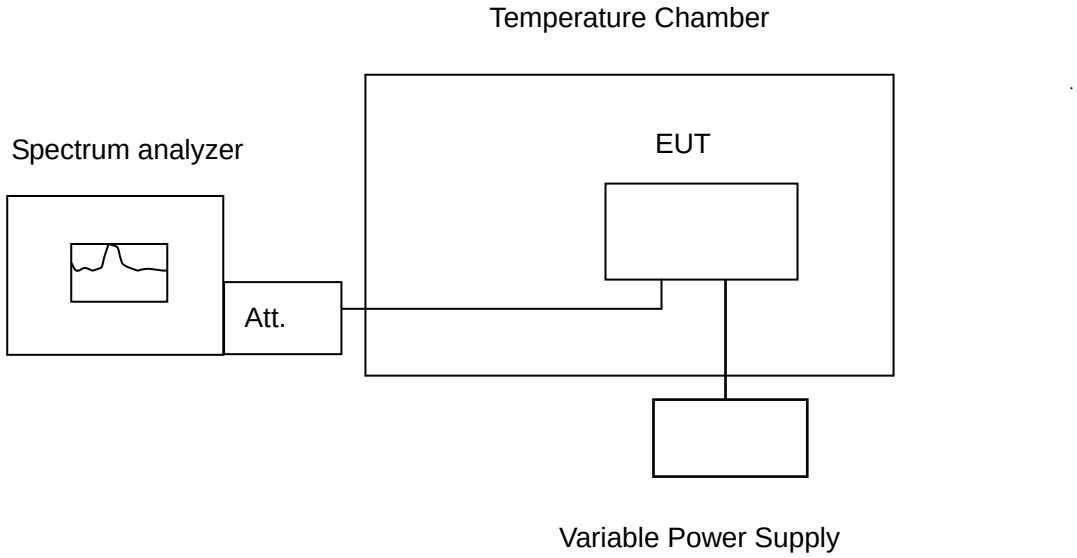
6.10.1 LIMIT

According to §15.407(g), 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 operational description.

6.10.2 TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	N9010A	MY52221469	01/27/2018	01/26/2019
DC Power Supply	DAZHENG	PS-605D	20018978	N.C.R	N.C.R
AC POWER SOUCE	UMART	HPA1010	N/A	N.C.R	N.C.R
Power Meter	Anritsu	ML2495A	1204003	01/27/2018	01/26/2019
Power Sensor	Anritsu	MA2411B	1126150	01/27/2018	01/26/2019
Temperature Chamber	TERCHY	MHG-800N	E21104	11/18/2017	11/17/2018
Temp. / Humidity Meter	Anymetre	JR913	N/A	01/29/2018	01/28/2019

6.10.3 TEST CONFIGURATION



Remark: *Measurement setup for testing on Antenna connector*

6.10.4 TEST PROCEDURE

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20^{o}C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to –20^{o}C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10^{o}C increased per stage until the highest temperature of +50^{o}C reached.

6.10.5 TEST RESULTS

No non-compliance noted.

Test Data
Antenna 0

IEEE 802.11a MHz mode / 5180 ~ 5240MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.960766	5150-5250	PASS
40	120	5179.952414	5150-5250	PASS
30	120	5179.996103	5150-5250	PASS
20	120	5179.967650	5150-5250	PASS
10	120	5179.958881	5150-5250	PASS
0	120	5179.980858	5150-5250	PASS
-10	120	5179.979586	5150-5250	PASS
-20	120	5179.966639	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.964505	5150-5250	PASS
	120	5179.967820	5150-5250	PASS
	132	5179.991165	5150-5250	PASS

IEEE 802.11a MHz mode / 5180 ~ 5240MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5239.976380	5150-5250	PASS
40	120	5239.979962	5150-5250	PASS
30	120	5239.989150	5150-5250	PASS
20	120	5239.966240	5150-5250	PASS
10	120	5239.968249	5150-5250	PASS
0	120	5239.972926	5150-5250	PASS
-10	120	5239.949413	5150-5250	PASS
-20	120	5239.986153	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.989338	5150-5250	PASS
	120	5239.966680	5150-5250	PASS
	132	5239.964395	5150-5250	PASS

IEEE 802.11a mode / 5745 ~ 5825MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5744.991591	5725-5850	PASS
40	120	5744.961655	5725-5850	PASS
30	120	5744.966744	5725-5850	PASS
20	120	5744.965719	5725-5850	PASS
10	120	5744.963535	5725-5850	PASS
0	120	5744.994615	5725-5850	PASS
-10	120	5744.968801	5725-5850	PASS
-20	120	5744.977190	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.959531	5725-5850	PASS
	120	5744.965734	5725-5850	PASS
	132	5744.986791	5725-5850	PASS

IEEE 802.11a mode / 5745 ~ 5825MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5824.949653	5725-5850	PASS
40	120	5824.992583	5725-5850	PASS
30	120	5824.984645	5725-5850	PASS
20	120	5824.965776	5725-5850	PASS
10	120	5824.981572	5725-5850	PASS
0	120	5824.958444	5725-5850	PASS
-10	120	5824.961593	5725-5850	PASS
-20	120	5824.970666	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.961792	5725-5850	PASS
	120	5824.965775	5725-5850	PASS
	132	5824.990889	5725-5850	PASS

Antenna 1

IEEE 802.11a MHz mode / 5180 ~ 5240MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.982615	5150-5250	PASS
40	120	5179.962829	5150-5250	PASS
30	120	5179.995804	5150-5250	PASS
20	120	5179.966620	5150-5250	PASS
10	120	5179.979498	5150-5250	PASS
0	120	5179.954744	5150-5250	PASS
-10	120	5179.967516	5150-5250	PASS
-20	120	5179.995107	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.954849	5150-5250	PASS
	120	5179.966620	5150-5250	PASS
	132	5179.991428	5150-5250	PASS

IEEE 802.11a MHz mode / 5180 ~ 5240MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5239.953351	5150-5250	PASS
40	120	5239.973217	5150-5250	PASS
30	120	5239.998062	5150-5250	PASS
20	120	5239.966335	5150-5250	PASS
10	120	5239.950433	5150-5250	PASS
0	120	5239.976739	5150-5250	PASS
-10	120	5239.997428	5150-5250	PASS
-20	120	5239.998209	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.961176	5150-5250	PASS
	120	5239.966375	5150-5250	PASS
	132	5239.959937	5150-5250	PASS

IEEE 802.11a mode / 5745 ~ 5825MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5744.983259	5725-5850	PASS
40	120	5744.952881	5725-5850	PASS
30	120	5744.949109	5725-5850	PASS
20	120	5744.966647	5725-5850	PASS
10	120	5744.964277	5725-5850	PASS
0	120	5744.994191	5725-5850	PASS
-10	120	5744.974442	5725-5850	PASS
-20	120	5744.969804	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.995665	5725-5850	PASS
	120	5744.966647	5725-5850	PASS
	132	5744.969406	5725-5850	PASS

IEEE 802.11a mode / 5745 ~ 5825MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5824.998706	5725-5850	PASS
40	120	5824.951353	5725-5850	PASS
30	120	5824.960041	5725-5850	PASS
20	120	5824.964254	5725-5850	PASS
10	120	5824.949280	5725-5850	PASS
0	120	5824.993470	5725-5850	PASS
-10	120	5824.959962	5725-5850	PASS
-20	120	5824.982690	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.961792	5725-5850	PASS
	120	5824.965775	5725-5850	PASS
	132	5824.990889	5725-5850	PASS

Antenna 0

IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.984949	5150-5250	PASS
40	120	5179.969139	5150-5250	PASS
30	120	5179.997669	5150-5250	PASS
20	120	5179.966810	5150-5250	PASS
10	120	5179.981367	5150-5250	PASS
0	120	5179.981020	5150-5250	PASS
-10	120	5179.960898	5150-5250	PASS
-20	120	5179.952918	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.964636	5150-5250	PASS
	120	5179.966840	5150-5250	PASS
	132	5179.986939	5150-5250	PASS

IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5239.979957	5150-5250	PASS
40	120	5239.950341	5150-5250	PASS
30	120	5239.986382	5150-5250	PASS
20	120	5239.966752	5150-5250	PASS
10	120	5239.969230	5150-5250	PASS
0	120	5239.985649	5150-5250	PASS
-10	120	5239.984944	5150-5250	PASS
-20	120	5239.990723	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.966381	5150-5250	PASS
	120	5239.966775	5150-5250	PASS
	132	5239.966053	5150-5250	PASS

IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5744.974310	5725-5850	PASS
40	120	5744.987131	5725-5850	PASS
30	120	5744.982893	5725-5850	PASS
20	120	5744.966614	5725-5850	PASS
10	120	5744.958771	5725-5850	PASS
0	120	5744.962147	5725-5850	PASS
-10	120	5744.970953	5725-5850	PASS
-20	120	5744.957642	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.994875	5725-5850	PASS
	120	5744.966652	5725-5850	PASS
	132	5744.995637	5725-5850	PASS

IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5824.954225	5725-5850	PASS
40	120	5824.963119	5725-5850	PASS
30	120	5824.983543	5725-5850	PASS
20	120	5824.966860	5725-5850	PASS
10	120	5824.954360	5725-5850	PASS
0	120	5824.987264	5725-5850	PASS
-10	120	5824.981159	5725-5850	PASS
-20	120	5824.999207	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.967322	5725-5850	PASS
	120	5824.966820	5725-5850	PASS
	132	5824.956571	5725-5850	PASS

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IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.989762	5150-5250	PASS
40	120	5179.954630	5150-5250	PASS
30	120	5179.970655	5150-5250	PASS
20	120	5179.965824	5150-5250	PASS
10	120	5179.961311	5150-5250	PASS
0	120	5179.962725	5150-5250	PASS
-10	120	5179.962155	5150-5250	PASS
-20	120	5179.984229	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.965295	5150-5250	PASS
	120	5179.965824	5150-5250	PASS
	132	5179.993012	5150-5250	PASS

IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5239.993913	5150-5250	PASS
40	120	5239.981039	5150-5250	PASS
30	120	5239.960499	5150-5250	PASS
20	120	5239.965635	5150-5250	PASS
10	120	5239.998644	5150-5250	PASS
0	120	5239.976145	5150-5250	PASS
-10	120	5239.973039	5150-5250	PASS
-20	120	5239.976242	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.969149	5150-5250	PASS
	120	5239.965635	5150-5250	PASS
	132	5239.965139	5150-5250	PASS

IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5744.986727	5725-5850	PASS
40	120	5744.992075	5725-5850	PASS
30	120	5744.983020	5725-5850	PASS
20	120	5744.965635	5725-5850	PASS
10	120	5744.964987	5725-5850	PASS
0	120	5744.980738	5725-5850	PASS
-10	120	5744.961898	5725-5850	PASS
-20	120	5744.986595	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.963648	5725-5850	PASS
	120	5744.965635	5725-5850	PASS
	132	5744.966318	5725-5850	PASS

IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5824.990118	5725-5850	PASS
40	120	5824.954431	5725-5850	PASS
30	120	5824.993325	5725-5850	PASS
20	120	5824.965860	5725-5850	PASS
10	120	5824.956496	5725-5850	PASS
0	120	5824.988652	5725-5850	PASS
-10	120	5824.982426	5725-5850	PASS
-20	120	5824.982336	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.972568	5725-5850	PASS
	120	5824.965860	5725-5850	PASS
	132	5824.962226	5725-5850	PASS

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IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5189.972100	5150-5250	PASS
40	120	5189.976464	5150-5250	PASS
30	120	5189.981011	5150-5250	PASS
20	120	5189.965544	5150-5250	PASS
10	120	5189.958985	5150-5250	PASS
0	120	5189.990119	5150-5250	PASS
-10	120	5189.977736	5150-5250	PASS
-20	120	5189.970228	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5189.985542	5150-5250	PASS
	120	5189.965544	5150-5250	PASS
	132	5189.955553	5150-5250	PASS

IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5229.962362	5150-5250	PASS
40	120	5229.953275	5150-5250	PASS
30	120	5229.955551	5150-5250	PASS
20	120	5229.966750	5150-5250	PASS
10	120	5229.965455	5150-5250	PASS
0	120	5229.990518	5150-5250	PASS
-10	120	5229.988990	5150-5250	PASS
-20	120	5229.994742	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5229.957657	5150-5250	PASS
	120	5229.966750	5150-5250	PASS
	132	5229.992069	5150-5250	PASS

IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5754.995871	5725-5850	PASS
40	120	5754.962335	5725-5850	PASS
30	120	5754.975166	5725-5850	PASS
20	120	5754.966636	5725-5850	PASS
10	120	5754.999053	5725-5850	PASS
0	120	5754.975622	5725-5850	PASS
-10	120	5754.976302	5725-5850	PASS
-20	120	5754.999780	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5754.997908	5725-5850	PASS
	120	5754.966678	5725-5850	PASS
	132	5754.958106	5725-5850	PASS

IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5794.957798	5725-5850	PASS
40	120	5794.983095	5725-5850	PASS
30	120	5794.972330	5725-5850	PASS
20	120	5794.966868	5725-5850	PASS
10	120	5794.961125	5725-5850	PASS
0	120	5794.972743	5725-5850	PASS
-10	120	5794.960810	5725-5850	PASS
-20	120	5794.964487	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5794.990076	5725-5850	PASS
	120	5794.966885	5725-5850	PASS
	132	5794.959377	5725-5850	PASS

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IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5189.975384	5150-5250	PASS
40	120	5189.980292	5150-5250	PASS
30	120	5189.959613	5150-5250	PASS
20	120	5189.965657	5150-5250	PASS
10	120	5189.953228	5150-5250	PASS
0	120	5189.979345	5150-5250	PASS
-10	120	5189.991030	5150-5250	PASS
-20	120	5189.950331	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5189.956297	5150-5250	PASS
	120	5189.965657	5150-5250	PASS
	132	5189.974269	5150-5250	PASS

IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5229.972129	5150-5250	PASS
40	120	5229.967465	5150-5250	PASS
30	120	5229.985020	5150-5250	PASS
20	120	5229.966820	5150-5250	PASS
10	120	5229.970242	5150-5250	PASS
0	120	5229.988072	5150-5250	PASS
-10	120	5229.994742	5150-5250	PASS
-20	120	5229.963058	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5229.972129	5150-5250	PASS
	120	5229.967465	5150-5250	PASS
	132	5229.985020	5150-5250	PASS

IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz (Low)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5754.956736	5725-5850	PASS
40	120	5754.954498	5725-5850	PASS
30	120	5754.976890	5725-5850	PASS
20	120	5754.965682	5725-5850	PASS
10	120	5754.972993	5725-5850	PASS
0	120	5754.973815	5725-5850	PASS
-10	120	5754.989472	5725-5850	PASS
-20	120	5754.980044	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5754.969819	5725-5850	PASS
	120	5754.965682	5725-5850	PASS
	132	5754.956857	5725-5850	PASS

IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz (High)

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5794.978784	5725-5850	PASS
40	120	5794.954696	5725-5850	PASS
30	120	5794.978093	5725-5850	PASS
20	120	5794.966847	5725-5850	PASS
10	120	5794.994418	5725-5850	PASS
0	120	5794.983428	5725-5850	PASS
-10	120	5794.985069	5725-5850	PASS
-20	120	5794.965831	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5794.989100	5725-5850	PASS
	120	5794.966847	5725-5850	PASS
	132	5794.991660	5725-5850	PASS

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IEEE 802.11ac 80 mode / 5210MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5209.964917	5150-5250	PASS
40	120	5209.960862	5150-5250	PASS
30	120	5209.989412	5150-5250	PASS
20	120	5209.966558	5150-5250	PASS
10	120	5209.959873	5150-5250	PASS
0	120	5209.986436	5150-5250	PASS
-10	120	5209.957296	5150-5250	PASS
-20	120	5209.963257	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5209.959450	5150-5250	PASS
	120	5209.966570	5150-5250	PASS
	132	5209.952244	5150-5250	PASS

IEEE 802.11ac 80 mode / 5775MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5774.959980	5725-5850	PASS
40	120	5774.975705	5725-5850	PASS
30	120	5774.951770	5725-5850	PASS
20	120	5774.965570	5725-5850	PASS
10	120	5774.987315	5725-5850	PASS
0	120	5774.964508	5725-5850	PASS
-10	120	5774.996131	5725-5850	PASS
-20	120	5774.981242	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5774.993398	5725-5850	PASS
	120	5774.965770	5725-5850	PASS
	132	5774.975033	5725-5850	PASS

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IEEE 802.11ac 80 mode / 5210MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5209.984732	5150-5250	PASS
40	120	5209.969545	5150-5250	PASS
30	120	5209.962877	5150-5250	PASS
20	120	5209.965875	5150-5250	PASS
10	120	5209.990516	5150-5250	PASS
0	120	5209.990733	5150-5250	PASS
-10	120	5209.971708	5150-5250	PASS
-20	120	5209.956704	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5209.995937	5150-5250	PASS
	120	5209.965884	5150-5250	PASS
	132	5209.971109	5150-5250	PASS

IEEE 802.11ac 80 mode / 5775MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5774.959778	5725-5850	PASS
40	120	5774.973838	5725-5850	PASS
30	120	5774.984491	5725-5850	PASS
20	120	5774.967875	5725-5850	PASS
10	120	5774.957328	5725-5850	PASS
0	120	5774.988170	5725-5850	PASS
-10	120	5774.964182	5725-5850	PASS
-20	120	5774.976025	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5774.994317	5725-5850	PASS
	120	5774.967875	5725-5850	PASS
	132	5774.970900	5725-5850	PASS