



6.7 RADIATED UNDESIRABLE 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 ($\mu\text{V}/\text{m}$)	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 ($\mu\text{V}/\text{m}$ at 3-meter)	Field Strength ($\text{dB}\mu\text{V}/\text{m}$ at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

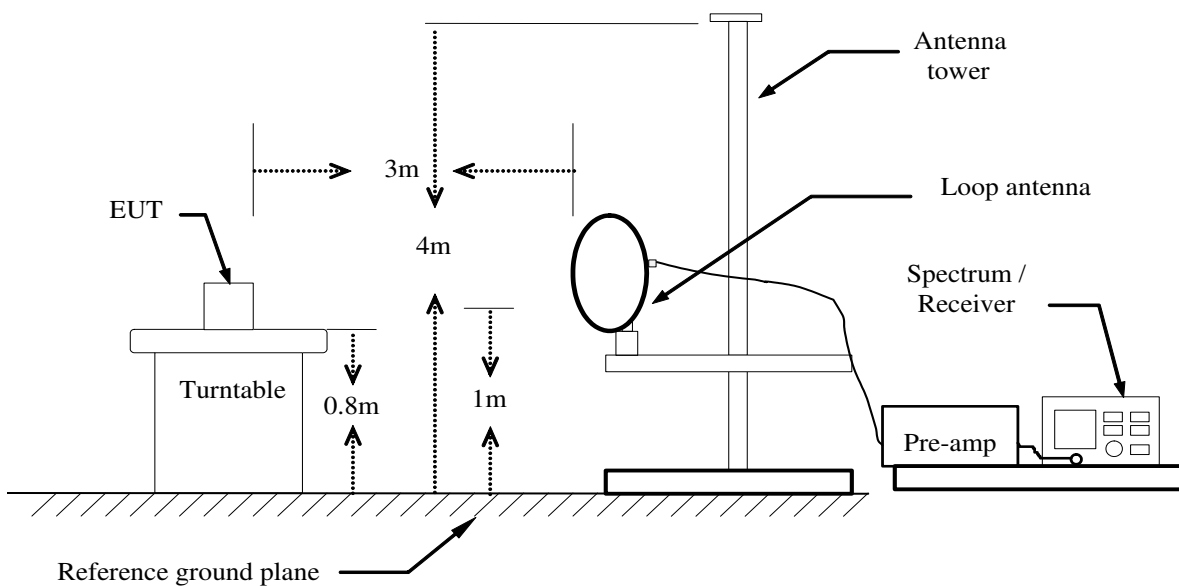


6.7.2 TEST INSTRUMENTS

Radiated Emission Test Site 966 (2)					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	02/21/2016	02/20/2017
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	02/21/2016	02/20/2017
Amplifier	EMEC	EM330	060661	03/18/2016	03/17/2017
High Noise Amplifier	Agilent	8449B	3008A01838	02/21/2016	02/20/2017
Loop Antenna	COM-POWER	AL-130	121044	09/25/2015	09/24/2016
Bilog Antenna	SCHAFFNER	CBL6143	5082	02/21/2016	02/20/2017
Horn Antenna	SCHWARZBECK	BBHA9120	D286	02/28/2016	02/27/2017
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	02/28/2016	02/27/2017
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	02/21/2016	02/20/2017
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

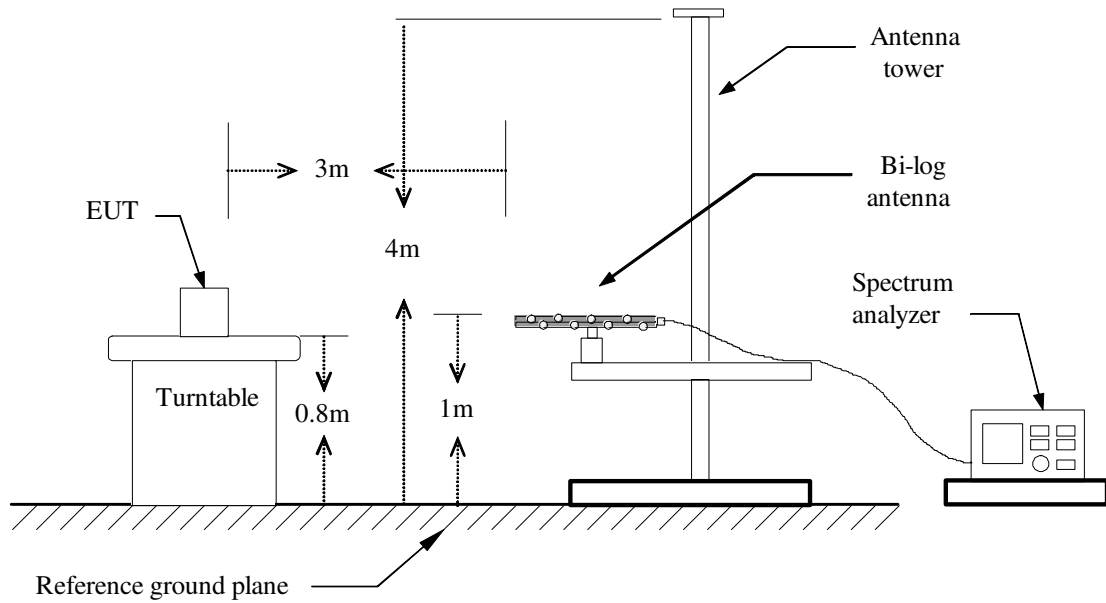
6.7.3 TEST CONFIGURATION

Below 30MHz

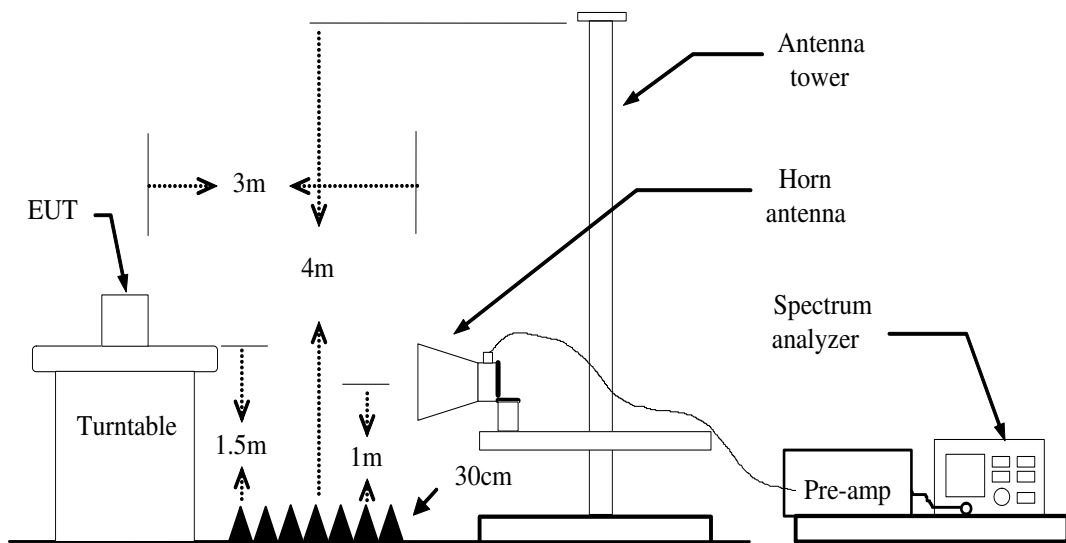




Below 1 GHz



Above 1 GHz



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



6.7.4 TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m or 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

Below 1GHz:

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Above 1GHz:

(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO

(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO / Detector=Peak

7. Repeat above procedures until the measurements for all frequencies are complete.



6.7.5 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



6.7.6 TEST RESULTS

Below 1 GHz

Test Mode: TX

Tested by: Eve Wang

Ambient temperature: 24°C

Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
47.4600	55.33	-19.99	35.34	40.00	-4.66	V	QP
123.1200	52.06	-21.02	31.04	43.50	-12.46	V	QP
375.3200	47.89	-16.82	31.07	46.00	-14.93	V	QP
624.6100	48.93	-12.73	36.20	46.00	-9.80	V	QP
874.8700	45.47	-10.14	35.33	46.00	-10.67	V	QP
1000.0000	42.18	-9.36	32.82	54.00	-21.18	V	QP
37.7600	49.18	-15.48	33.70	40.00	-14.89	H	QP
99.8400	52.75	-23.70	29.05	43.50	-10.48	H	QP
247.2800	54.05	-21.19	32.86	46.00	-12.54	H	QP
624.6100	47.68	-12.73	34.95	46.00	-16.18	H	QP
874.8700	43.71	-10.14	33.57	46.00	-18.30	H	QP
1000.0000	41.09	-9.36	31.73	54.00	-13.88	H	QP

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).



Above 1 GHz

1GHz~6GHz

Test Mode: TX / IEEE 802.11a / 5180MHz / (CH Low)

Tested by: Eve Wang

Ambient temperature: 24°C **Relative humidity:** 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
2415.000	48.18	-2.73	45.45	74.00	-28.55	V	peak
3290.000	42.75	-0.87	41.88	74.00	-32.12	V	peak
3425.000	42.95	-0.65	42.30	74.00	-31.70	V	peak
4075.000	41.64	1.85	43.49	74.00	-30.51	V	peak
4750.000	41.48	4.17	45.65	74.00	-28.35	V	peak
5600.000	40.71	5.91	46.62	74.00	-27.38	V	peak
1105.000	47.99	-8.15	39.84	74.00	-34.16	H	Peak
2485.000	44.11	-2.34	41.77	74.00	-32.23	H	Peak
3065.000	42.61	-1.25	41.36	74.00	-32.64	H	Peak
3425.000	43.41	-0.65	42.76	74.00	-31.24	H	peak
3860.000	42.58	1.00	43.58	74.00	-30.42	H	peak
4945.000	40.34	4.80	45.14	74.00	-28.86	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).*



6GHz~18GHz

Antenna 1

Test Mode: TX / IEEE 802.11a / 5180MHz /(CH Low)

Tested by: Eve Wang

Ambient temperature: 24°C **Relative humidity:** 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6960.000	31.41	7.64	39.05	74.00	-34.95	V	peak
7752.000	31.35	9.17	40.52	74.00	-33.48	V	peak
10356.000	34.63	13.08	47.71	74.00	-26.29	V	peak
11316.000	30.47	14.94	45.41	74.00	-28.59	V	peak
12960.000	29.81	17.82	47.63	74.00	-26.37	V	peak
13944.000	28.44	20.43	48.87	74.00	-25.13	V	peak
6996.000	31.77	7.69	39.46	74.00	-34.54	H	Peak
7728.000	31.14	9.12	40.26	74.00	-33.74	H	Peak
8340.000	31.87	9.46	41.33	74.00	-32.67	H	Peak
10488.000	39.09	13.49	52.58	74.00	-21.42	H	peak
10488.000	38.99	13.49	52.48	54.00	-1.52	H	AVG
11316.000	30.38	14.94	45.32	74.00	-28.68	H	peak
11820.000	30.39	14.72	45.11	74.00	-28.89	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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6948.000	31.99	7.62	39.61	74.00	-34.39	V	peak
7464.000	31.20	8.60	39.80	74.00	-34.20	V	peak
7752.000	31.62	9.17	40.79	74.00	-33.21	V	peak
9996.000	30.78	11.97	42.75	74.00	-31.25	V	peak
10404.000	39.45	13.23	52.68	74.00	-21.32	V	peak
11052.000	29.89	15.06	44.95	74.00	-29.05	V	peak
7752.000	31.34	9.17	40.51	74.00	-33.49	H	Peak
8448.000	31.59	9.40	40.99	74.00	-33.01	H	Peak
10392.000	39.78	13.20	52.98	54.00	-1.02	H	AVG
11016.000	29.90	15.07	44.97	74.00	-29.03	H	peak
11484.000	30.25	14.87	45.12	74.00	-28.88	H	peak
12912.000	29.56	17.66	47.22	74.00	-26.78	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 802.11a / 5240MHz / (CH High)

Tested by: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7644.000	31.37	8.96	40.33	74.00	-33.67	V	peak
7932.000	30.69	9.52	40.21	74.00	-33.79	V	peak
8364.000	31.86	9.45	41.31	74.00	-32.69	V	peak
9732.000	30.89	11.21	42.10	74.00	-31.90	V	peak
10476.000	37.28	13.46	50.74	74.00	-23.26	V	peak
11844.000	30.44	14.71	45.15	74.00	-28.85	V	peak
6996.000	31.77	7.69	39.46	74.00	-34.54	H	Peak
7728.000	31.14	9.12	40.26	74.00	-33.74	H	Peak
8340.000	31.87	9.46	41.33	74.00	-32.67	H	Peak
10488.000	39.09	13.49	52.58	74.00	-21.42	H	peak
10488.000	38.99	13.49	52.48	54.00	-1.52	H	AVG
11316.000	30.38	14.94	45.32	74.00	-28.68	H	peak
11820.000	30.39	14.72	45.11	74.00	-28.89	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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6228.000	34.37	6.45	40.82	74.00	-33.18	V	peak
10068.000	30.68	12.19	42.87	74.00	-31.13	V	peak
11496.000	38.07	14.86	52.93	74.00	-21.07	V	peak
11496.000	37.01	14.86	51.87	54.00	-2.13	V	AVG
11844.000	30.44	14.71	45.15	74.00	-28.85	V	peak
12492.000	29.47	16.27	45.74	74.00	-28.26	V	peak
12960.000	28.66	17.82	46.48	74.00	-27.52	V	peak
6228.000	33.83	6.45	40.28	74.00	-33.72	H	Peak
6960.000	31.74	7.64	39.38	74.00	-34.62	H	Peak
10392.000	29.93	13.20	43.13	74.00	-30.87	H	Peak
11052.000	29.57	15.06	44.63	74.00	-29.37	H	peak
11496.000	40.12	14.86	54.98	74.00	-19.02	H	peak
11496.000	37.92	14.86	52.78	54.00	-1.22	H	AVG
12228.000	29.49	15.39	44.88	74.00	-29.12	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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6264.000	43.31	6.51	49.82	74.00	-24.18	V	peak
8340.000	31.46	9.46	40.92	74.00	-33.08	V	peak
10308.000	30.02	12.93	42.95	74.00	-31.05	V	peak
11568.000	38.74	14.83	53.57	74.00	-20.43	V	peak
11568.000	36.84	14.83	51.67	54.00	-2.33	V	AVG
11844.000	30.54	14.71	45.25	74.00	-28.75	V	peak
17352.000	31.45	23.32	54.77	74.00	-19.23	V	peak
17352.000	29.46	23.32	52.78	54.00	-1.22	V	AVG
6264.000	43.44	6.51	49.95	74.00	-24.05	H	Peak
9492.000	30.54	10.52	41.06	74.00	-32.94	H	Peak
10176.000	30.63	12.53	43.16	74.00	-30.84	H	Peak
11580.000	39.38	14.82	54.20	74.00	-19.80	H	peak
11580.000	37.07	14.82	51.89	54.00	-2.11	H	AVG
14016.000	27.84	20.59	48.43	74.00	-25.57	H	peak
17364.000	31.83	23.32	55.15	74.00	-18.85	H	peak
17364.000	29.55	23.32	52.87	54.00	-1.13	H	AVG

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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8412.000	31.36	9.42	40.78	74.00	-33.22	V	peak
10512.000	29.77	13.57	43.34	74.00	-30.66	V	peak
11052.000	29.71	15.06	44.77	74.00	-29.23	V	peak
11652.000	35.41	14.79	50.20	74.00	-23.80	V	peak
12912.000	28.89	17.66	46.55	74.00	-27.45	V	peak
14436.000	27.98	20.83	48.81	74.00	-25.19	V	peak
6312.000	34.36	6.59	40.95	74.00	-33.05	H	Peak
7752.000	31.31	9.17	40.48	74.00	-33.52	H	Peak
8448.000	31.17	9.40	40.57	74.00	-33.43	H	Peak
11052.000	29.96	15.06	45.02	74.00	-28.98	H	peak
11652.000	38.75	14.79	53.54	74.00	-20.46	H	peak
11652.000	36.88	14.79	51.67	54.00	-2.33	H	AVG
13548.000	27.07	19.39	46.46	74.00	-27.54	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, Antenna 1 and Antenna 2

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

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7728.000	31.66	9.12	40.78	74.00	-33.22	V	peak
9588.000	30.65	10.79	41.44	74.00	-32.56	V	peak
10488.000	32.95	13.49	46.44	74.00	-27.56	V	peak
11280.000	29.81	14.96	44.77	74.00	-29.23	V	peak
11820.000	30.13	14.72	44.85	74.00	-29.15	V	peak
12348.000	29.09	15.79	44.88	74.00	-29.12	V	peak
6912.000	31.70	7.56	39.26	74.00	-34.74	H	Peak
8004.000	30.80	9.65	40.45	74.00	-33.55	H	Peak
10356.000	39.09	13.08	52.17	74.00	-21.83	H	Peak
11208.000	29.81	14.99	44.80	74.00	-29.20	H	peak
13008.000	28.49	17.97	46.46	74.00	-27.54	H	peak
15528.000	32.59	18.76	51.35	74.00	-22.65	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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6936.000	32.52	7.60	40.12	74.00	-33.88	V	peak
7740.000	31.31	9.14	40.45	74.00	-33.55	V	peak
10404.000	34.39	13.23	47.62	74.00	-26.38	V	peak
11088.000	29.78	15.04	44.82	74.00	-29.18	V	peak
11832.000	30.87	14.71	45.58	74.00	-28.42	V	peak
15600.000	35.54	18.43	53.97	74.00	-20.03	V	peak
15600.000	33.44	18.43	51.87	54.00	-2.13	V	AVG
7752.000	31.47	9.17	40.64	74.00	-33.36	H	Peak
8364.000	31.45	9.45	40.90	74.00	-33.10	H	Peak
10404.000	41.58	13.23	54.81	74.00	-19.19	H	Peak
10404.000	38.95	13.23	52.18	54.00	-1.82	H	AVG
10956.000	30.16	14.94	45.10	74.00	-28.90	H	peak
11844.000	30.28	14.71	44.99	74.00	-29.01	H	peak
15600.000	38.21	18.43	56.64	74.00	-17.36	H	peak
15600.000	34.35	18.43	52.78	54.00	-1.22	H	AVG

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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6960.000	32.49	7.64	40.13	74.00	-33.87	V	peak
7764.000	31.52	9.19	40.71	74.00	-33.29	V	peak
8328.000	31.72	9.47	41.19	74.00	-32.81	V	peak
10440.000	34.62	13.34	47.96	74.00	-26.04	V	peak
12888.000	29.25	17.58	46.83	74.00	-27.17	V	peak
15660.000	36.44	18.16	54.60	74.00	-19.40	V	peak
15660.000	33.31	18.16	51.47	54.00	-2.53	V	AVG
7752.000	31.13	9.17	40.30	74.00	-33.70	H	Peak
9612.000	30.83	10.86	41.69	74.00	-32.31	H	Peak
10440.000	40.91	13.34	54.25	74.00	-19.75	H	Peak
10440.000	38.23	13.34	51.57	54.00	-2.43	H	AVG
11052.000	29.75	15.06	44.81	74.00	-29.19	H	peak
13548.000	28.23	19.39	47.62	74.00	-26.38	H	peak
15660.000	37.24	18.16	55.40	74.00	-18.60	H	peak
15660.000	34.73	18.16	52.89	54.00	-1.11	H	AVG

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:** Eve Wang
Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6228.000	39.36	6.45	45.81	74.00	-28.19	V	peak
10056.000	30.70	12.15	42.85	74.00	-31.15	V	peak
11484.000	31.74	14.87	46.61	74.00	-27.39	V	peak
13140.000	28.23	18.32	46.55	74.00	-27.45	V	peak
13668.000	26.99	19.71	46.70	74.00	-27.30	V	peak
17232.000	31.63	23.35	54.98	74.00	-19.02	V	peak
17232.000	29.14	23.35	52.49	54.00	-1.51	V	AVG
6228.000	40.14	6.45	46.59	74.00	-27.41	H	Peak
8340.000	31.40	9.46	40.86	74.00	-33.14	H	Peak
10272.000	30.42	12.82	43.24	74.00	-30.76	H	Peak
11484.000	39.15	14.87	54.02	74.00	-19.98	H	peak
11484.000	37.80	14.87	52.67	54.00	-1.33	H	AVG
12468.000	29.52	16.19	45.71	74.00	-28.29	H	peak
17232.000	30.37	23.35	53.72	74.00	-20.28	H	peak
17232.000	28.13	23.35	51.48	54.00	-2.52	H	AVG

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:** Eve Wang
Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6264.000	41.81	6.51	48.32	74.00	-25.68	V	peak
7752.000	31.83	9.17	41.00	74.00	-33.00	V	peak
10512.000	29.98	13.57	43.55	74.00	-30.45	V	peak
11568.000	32.13	14.83	46.96	74.00	-27.04	V	peak
14100.000	27.92	20.64	48.56	74.00	-25.44	V	peak
17352.000	31.77	23.32	55.09	74.00	-18.91	V	peak
17352.000	29.61	23.32	52.93	54.00	-1.07	V	AVG
6264.000	41.64	6.51	48.15	74.00	-25.85	H	Peak
8340.000	31.39	9.46	40.85	74.00	-33.15	H	Peak
10056.000	30.82	12.15	42.97	74.00	-31.03	H	Peak
11568.000	40.19	14.83	55.02	74.00	-18.98	H	peak
11568.000	38.06	14.83	52.89	54.00	-1.11	H	AVG
12492.000	29.39	16.27	45.66	74.00	-28.34	H	peak
17352.000	31.85	23.32	55.17	74.00	-18.83	H	peak
17352.000	29.20	23.32	52.52	54.00	-1.48	H	AVG

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: Eve Wang
Ambient temperature: 24°C Relative humidity: 52% RH Date: May 27, 2016

Table with 8 columns: Frequency (MHz), Reading (dBuV), Correction Factor (dB/m), Result (dBuV/m), Limit (dBuV/m), Margin (dB), Antenna Pole (V/H), Remark. It contains two sets of data rows.

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, Antenna 1 and Antenna 2

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

Ambient temperature: 24°C **Relative humidity:** 52% RH **Date:** May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6924.000	33.09	7.58	40.67	74.00	-33.33	V	peak
7752.000	31.44	9.17	40.61	74.00	-33.39	V	peak
8376.000	31.69	9.44	41.13	74.00	-32.87	V	peak
10380.000	33.83	13.16	46.99	74.00	-27.01	V	peak
14172.000	28.36	20.68	49.04	74.00	-24.96	V	peak
15576.000	32.44	18.54	50.98	74.00	-23.02	V	peak
6924.000	32.53	7.58	40.11	74.00	-33.89	H	Peak
8412.000	31.73	9.42	41.15	74.00	-32.85	H	Peak
10380.000	41.36	13.16	54.52	74.00	-19.48	H	Peak
10380.000	38.71	13.16	51.87	54.00	-2.13	H	AVG
11844.000	30.41	14.71	45.12	74.00	-28.88	H	peak
12648.000	29.40	16.78	46.18	74.00	-27.82	H	peak
15576.000	34.84	18.54	53.38	74.00	-20.62	H	peak
15576.000	31.94	18.54	50.48	54.00	-3.52	H	AVG

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: Eve Wang
Ambient temperature: 24°C Relative humidity: 52% RH Date: May 27, 2016

Table with 8 columns: Frequency (MHz), Reading (dBuV), Correction Factor (dB/m), Result (dBuV/m), Limit (dBuV/m), Margin (dB), Antenna Pole (V/H), Remark. It contains two sets of data rows, with the second set ending in an 'AVG' remark.

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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6996.000	31.71	7.69	39.40	74.00	-34.60	V	peak
7752.000	31.50	9.17	40.67	74.00	-33.33	V	peak
9516.000	30.48	10.59	41.07	74.00	-32.93	V	peak
11508.000	30.96	14.86	45.82	74.00	-28.18	V	peak
12612.000	29.29	16.67	45.96	74.00	-28.04	V	peak
14472.000	28.05	20.85	48.90	74.00	-25.10	V	peak
7764.000	31.51	9.19	40.70	74.00	-33.30	H	Peak
8400.000	31.60	9.43	41.03	74.00	-32.97	H	Peak
10104.000	30.75	12.30	43.05	74.00	-30.95	H	Peak
11508.000	39.14	14.86	54.00	74.00	-20.00	H	peak
11508.000	37.26	14.86	52.12	54.00	-1.88	H	AVG
12912.000	28.62	17.66	46.28	74.00	-27.72	H	peak
14244.000	27.98	20.72	48.70	74.00	-25.30	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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6252.000	40.95	6.49	47.44	74.00	-26.56	V	peak
10524.000	30.43	13.60	44.03	74.00	-29.97	V	peak
10884.000	29.43	14.72	44.15	74.00	-29.85	V	peak
11568.000	40.50	14.83	55.33	74.00	-18.67	V	peak
11568.000	38.41	14.83	53.24	54.00	-0.76	V	AVG
12348.000	29.90	15.79	45.69	74.00	-28.31	V	peak
14904.000	28.48	21.10	49.58	74.00	-24.42	V	peak
6252.000	32.42	6.49	38.91	74.00	-35.09	H	Peak
6924.000	31.64	7.58	39.22	74.00	-34.78	H	Peak
7740.000	31.35	9.14	40.49	74.00	-33.51	H	Peak
10296.000	30.48	12.90	43.38	74.00	-30.62	H	peak
11580.000	34.89	14.82	49.71	74.00	-24.29	H	peak
14244.000	28.12	20.72	48.84	74.00	-25.16	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).



Combine with Antenna 0, Antenna 1 and Antenna 2

Test Mode: TX / IEEE 802.11ac 80 / 5210MHz

Tested by: Eve Wang

Ambient temperature: 24°C **Relative humidity:** 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
6948.000	32.44	7.62	40.06	74.00	-33.94	V	peak
8376.000	31.30	9.44	40.74	74.00	-33.26	V	peak
9612.000	30.39	10.86	41.25	74.00	-32.75	V	peak
10380.000	35.04	13.16	48.20	74.00	-25.80	V	peak
11856.000	30.52	14.70	45.22	74.00	-28.78	V	peak
15576.000	35.13	18.54	53.67	74.00	-20.33	V	peak
15576.000	33.42	18.54	51.96	54.00	-2.04	V	AVG
6948.000	32.02	7.62	39.64	74.00	-34.36	H	Peak
8364.000	31.24	9.45	40.69	74.00	-33.31	H	Peak
10380.000	41.29	13.16	54.45	74.00	-19.55	H	Peak
10380.000	38.38	13.16	51.54	54.00	-2.46	H	AVG
12492.000	29.54	16.27	45.81	74.00	-28.19	H	peak
12768.000	29.15	17.18	46.33	74.00	-27.67	H	peak
15576.000	34.33	18.54	52.87	74.00	-21.13	H	peak
15576.000	31.69	18.54	50.23	54.00	-3.77	H	AVG

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: Eve Wang

Ambient temperature: 24°C Relative humidity: 52% RH

Date: May 27, 2016

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7752.000	31.57	9.17	40.74	74.00	-33.26	V	peak
8328.000	31.27	9.47	40.74	74.00	-33.26	V	peak
10296.000	30.23	12.90	43.13	74.00	-30.87	V	peak
10872.000	29.85	14.68	44.53	74.00	-29.47	V	peak
11520.000	31.66	14.85	46.51	74.00	-27.49	V	peak
13056.000	28.45	18.10	46.55	74.00	-27.45	V	peak
6084.000	36.14	6.22	42.36	74.00	-31.64	H	Peak
6924.000	31.71	7.58	39.29	74.00	-34.71	H	Peak
9612.000	30.83	10.86	41.69	74.00	-32.31	H	Peak
10500.000	29.75	13.53	43.28	74.00	-30.72	H	peak
11520.000	40.85	14.85	55.70	74.00	-18.30	H	peak
11520.000	37.69	14.85	52.54	54.00	-1.46	H	AVG
17292.000	31.89	23.33	55.22	74.00	-18.78	H	peak
17292.000	29.64	23.33	52.97	54.00	-1.03	H	AVG

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) ,

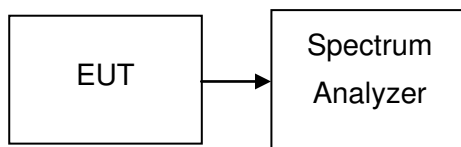
- (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (2) For transmitters operating in the 5.725–5.850 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of –17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of –27 dBm/MHz.
- (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	MY55370330	02/21/2016	02/20/2017

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

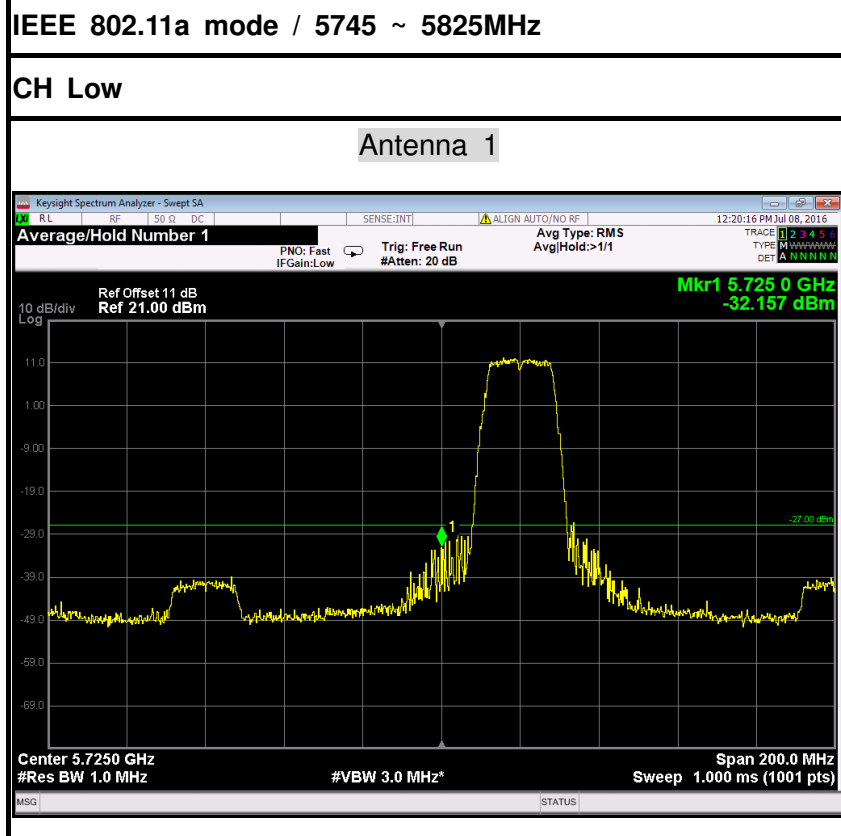
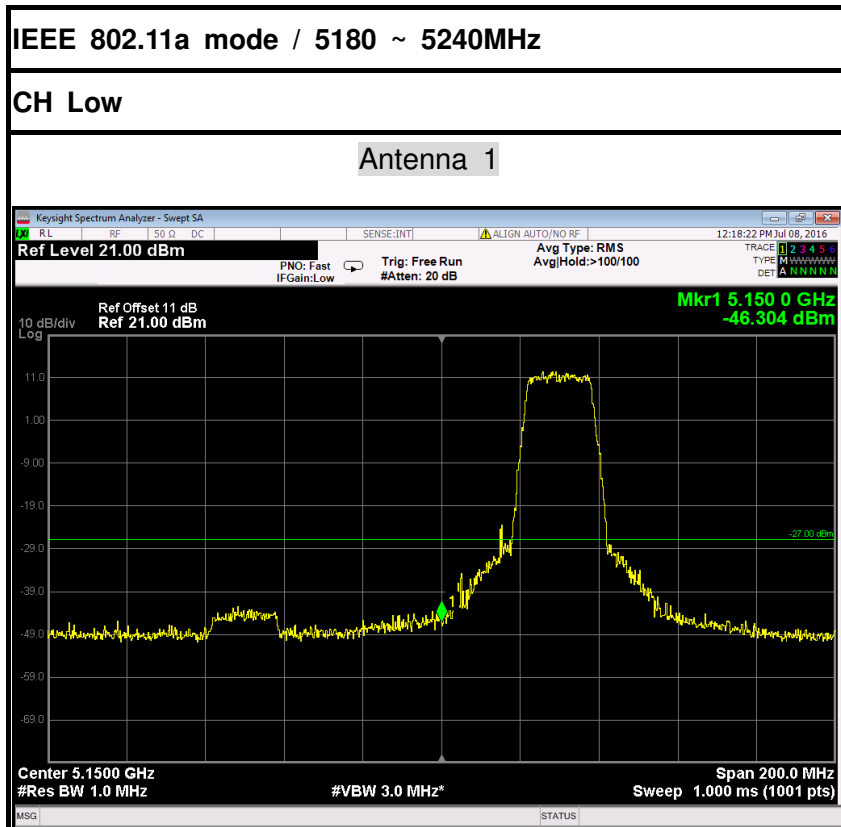
Measurements are made over the 30 MHz to 40 GHz range with the transmitter set to the lowest, middle, and highest channels.

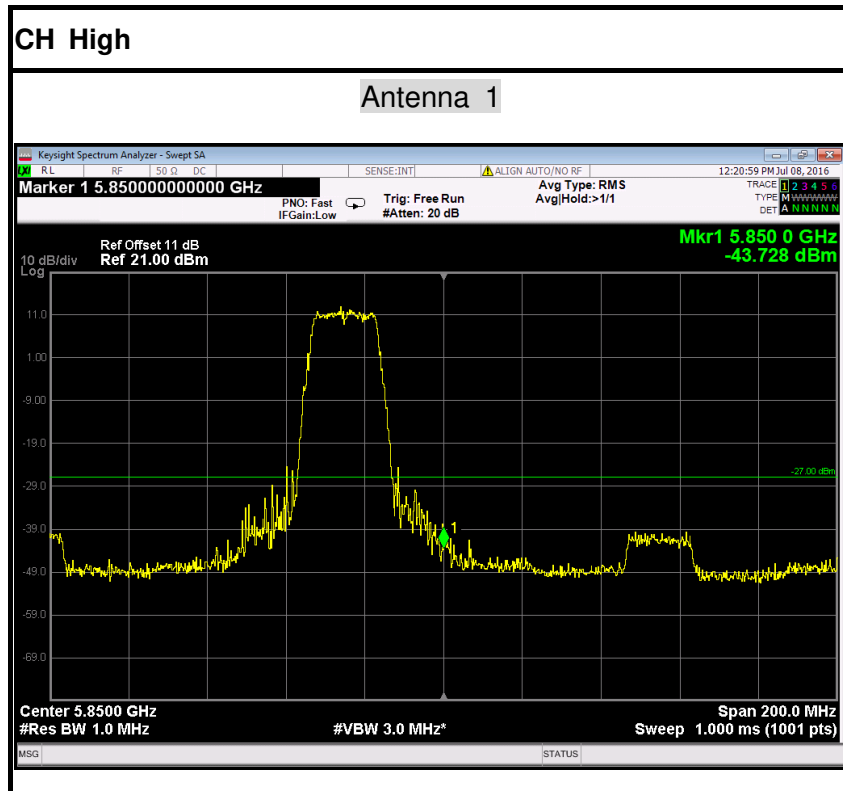


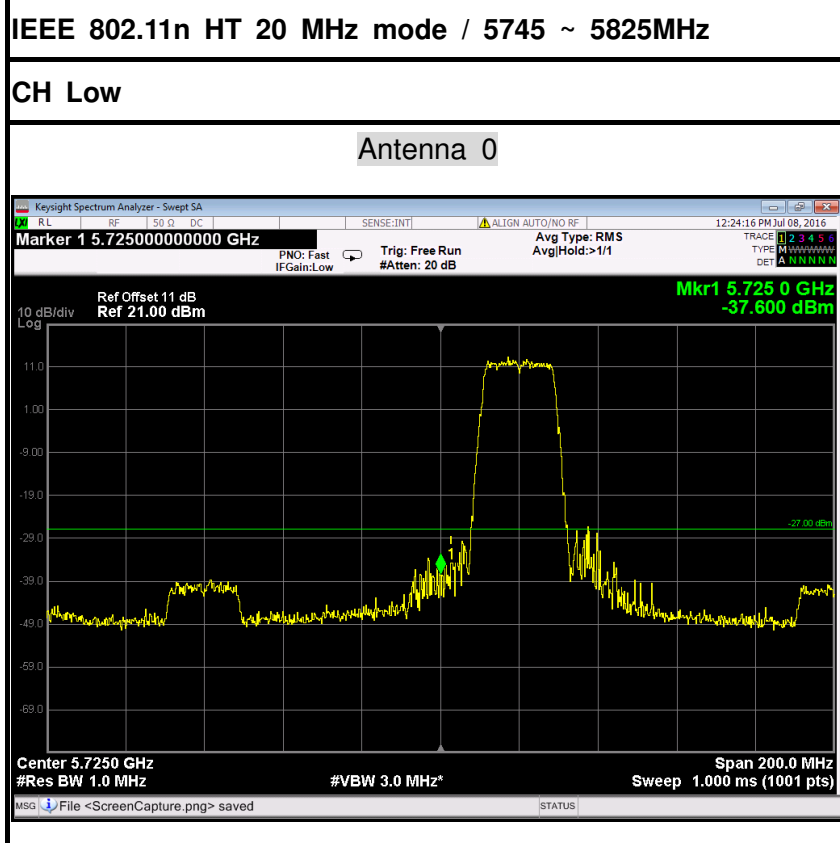
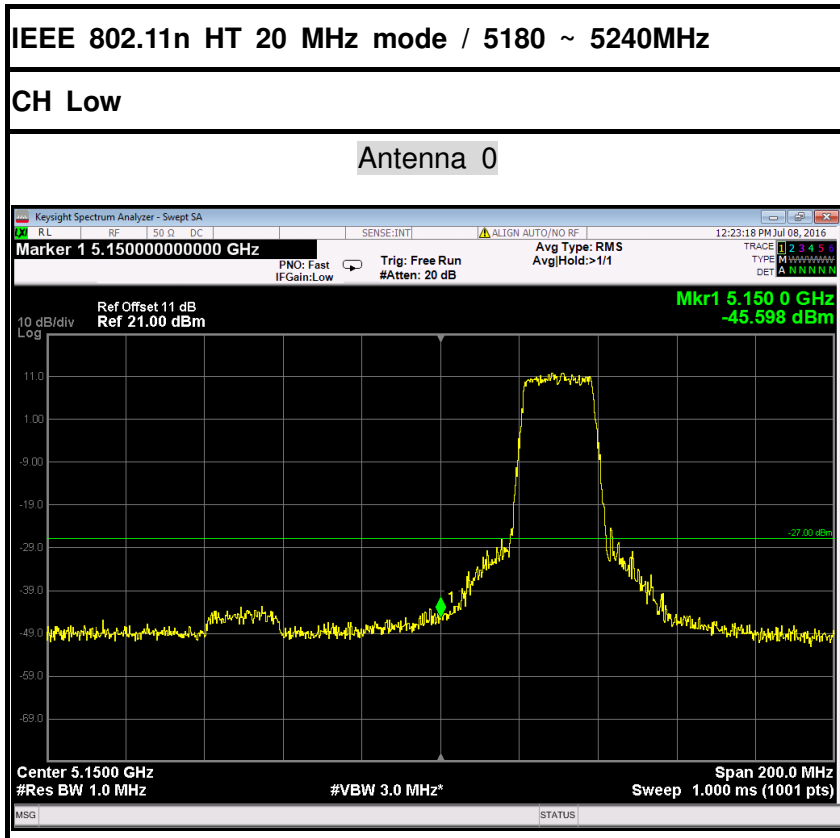
6.8.5 TEST RESULTS

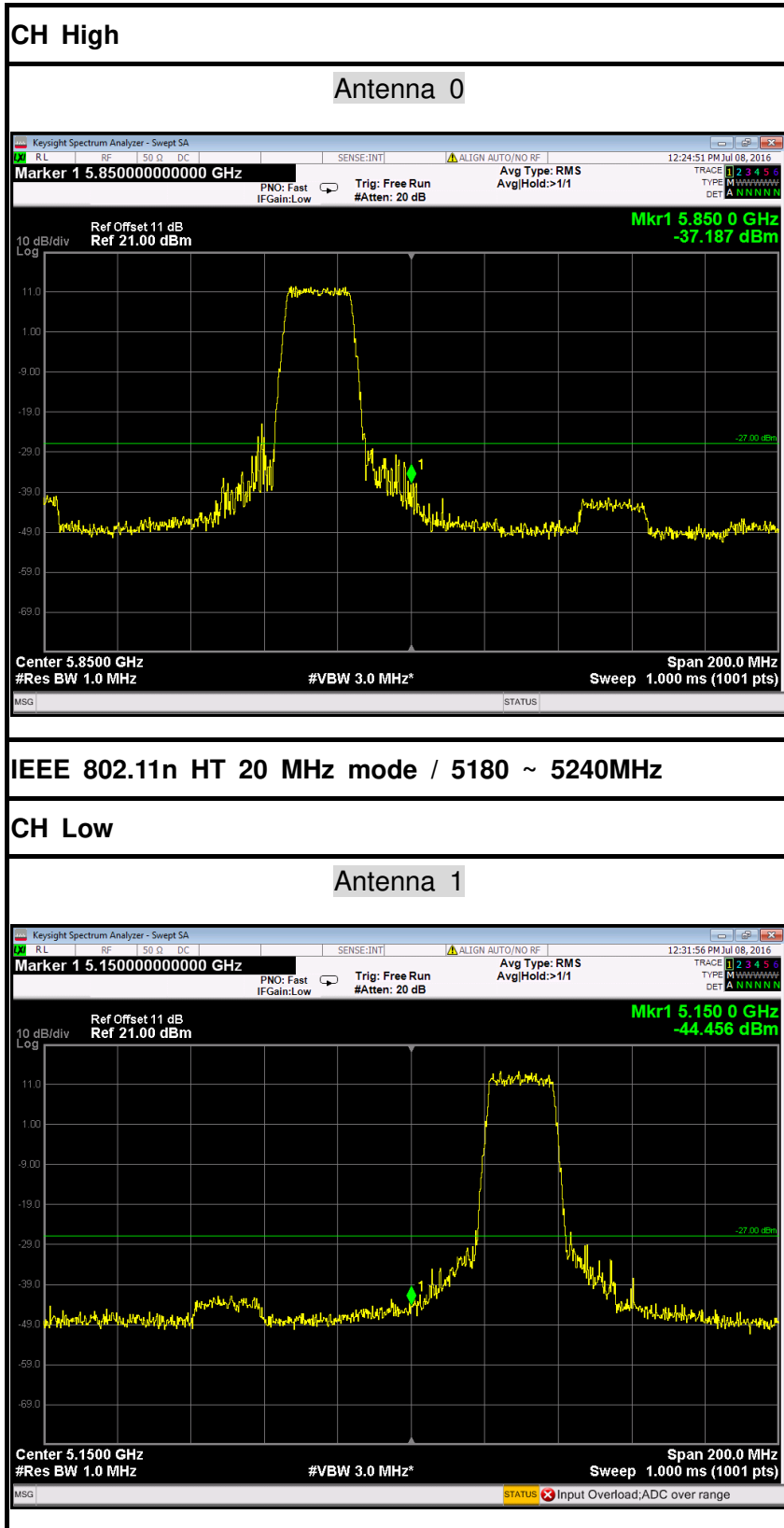
No non-compliance noted

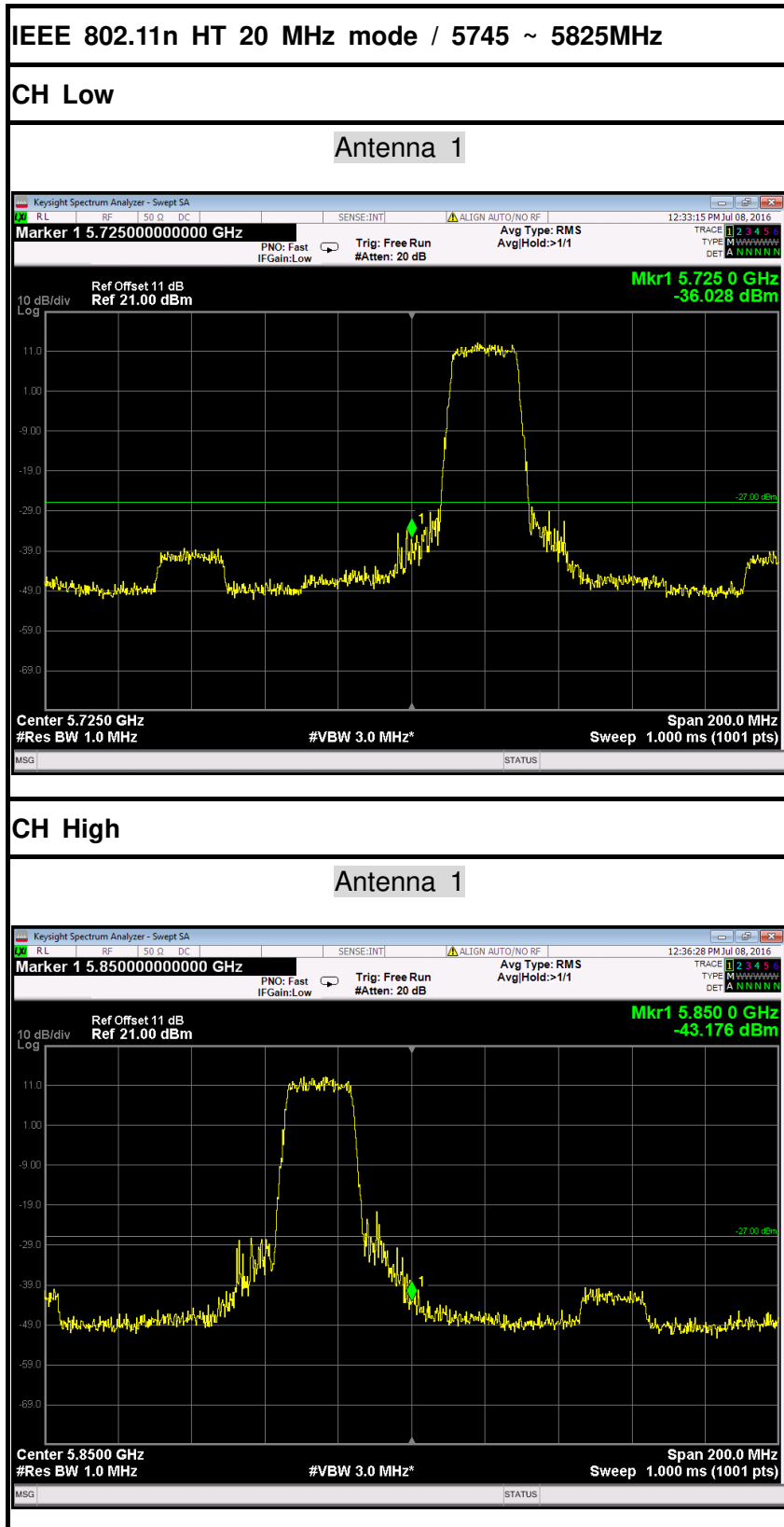
Test Plot

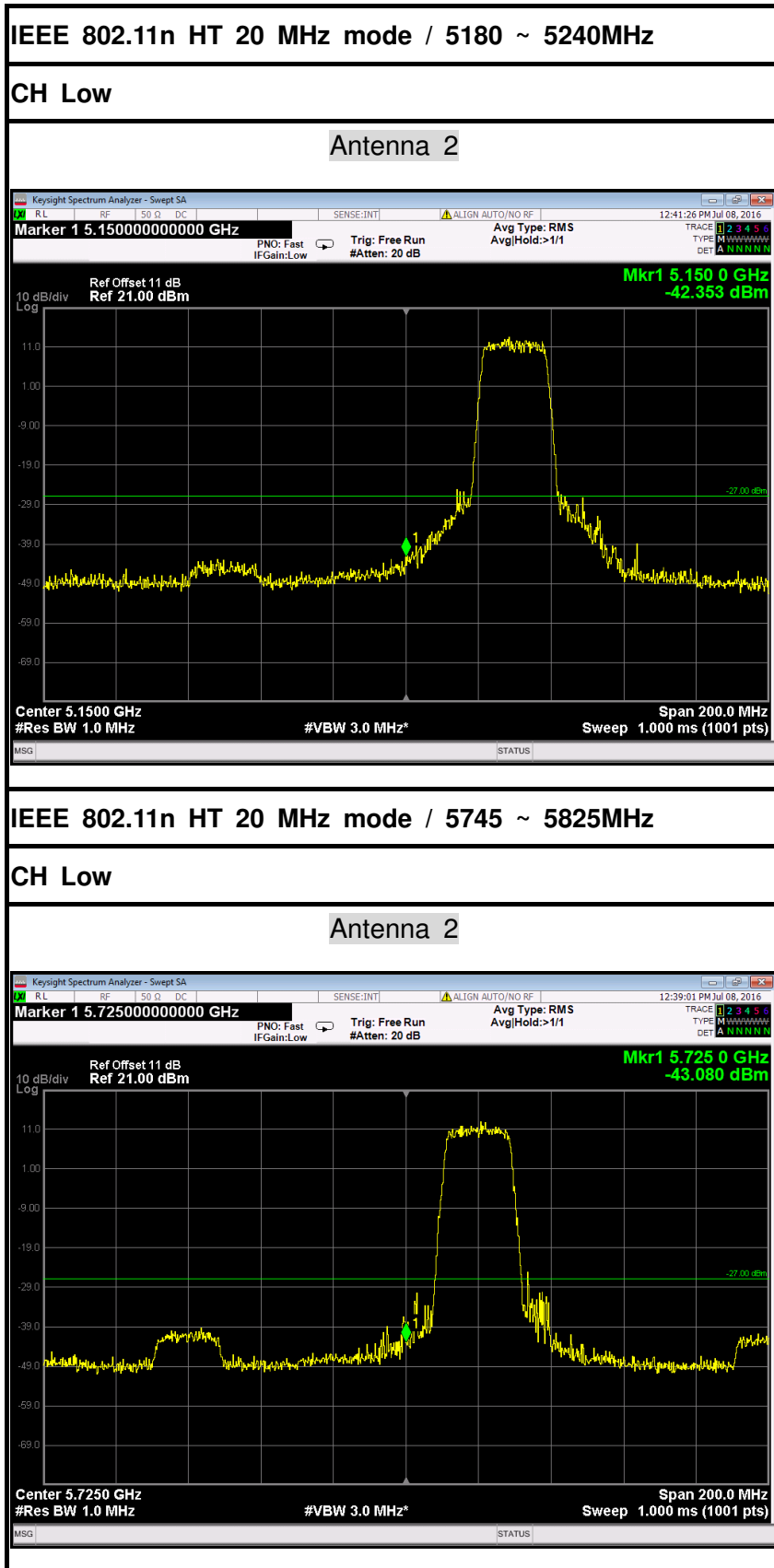


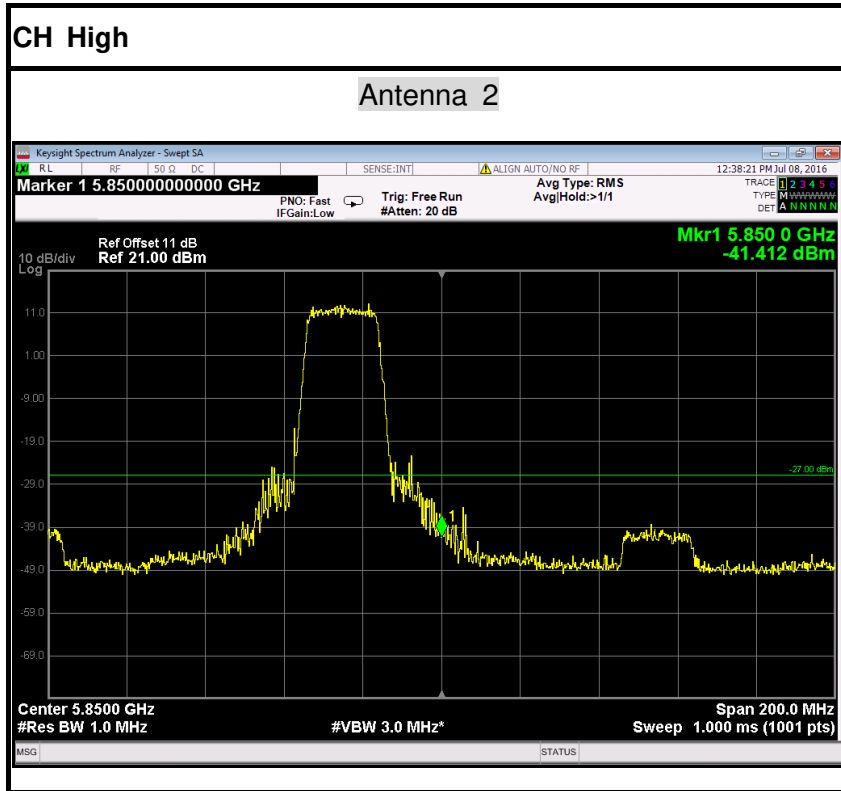


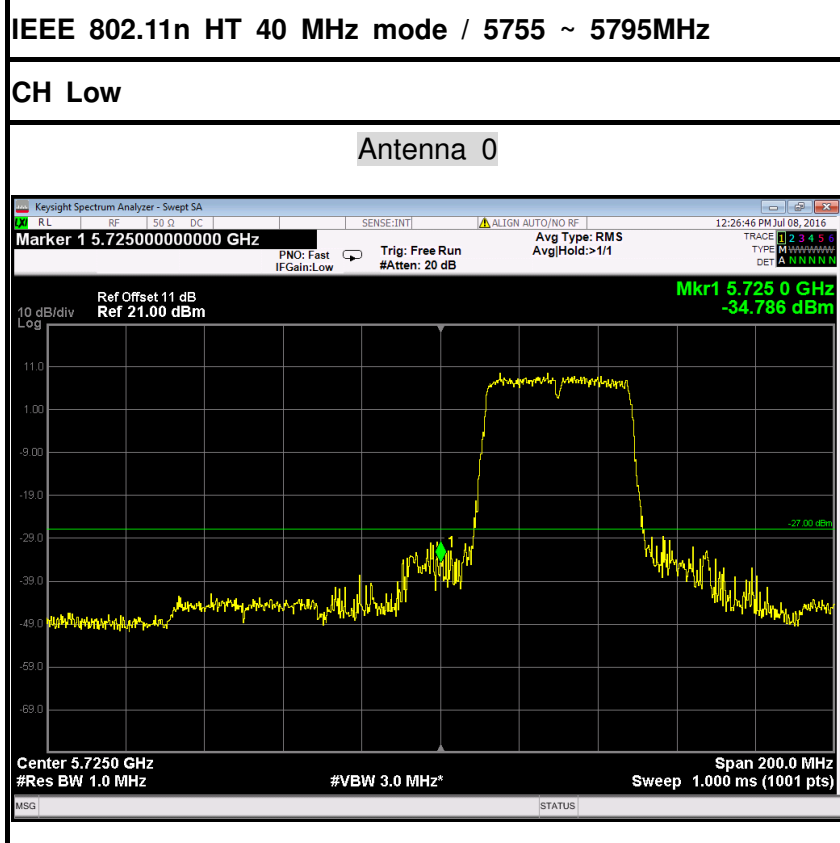
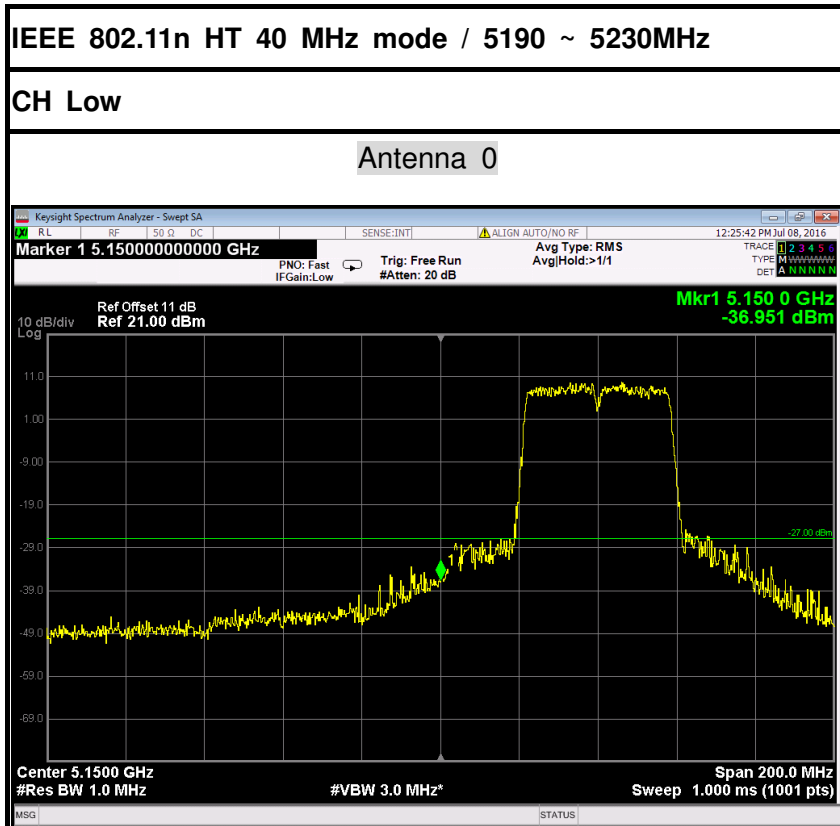


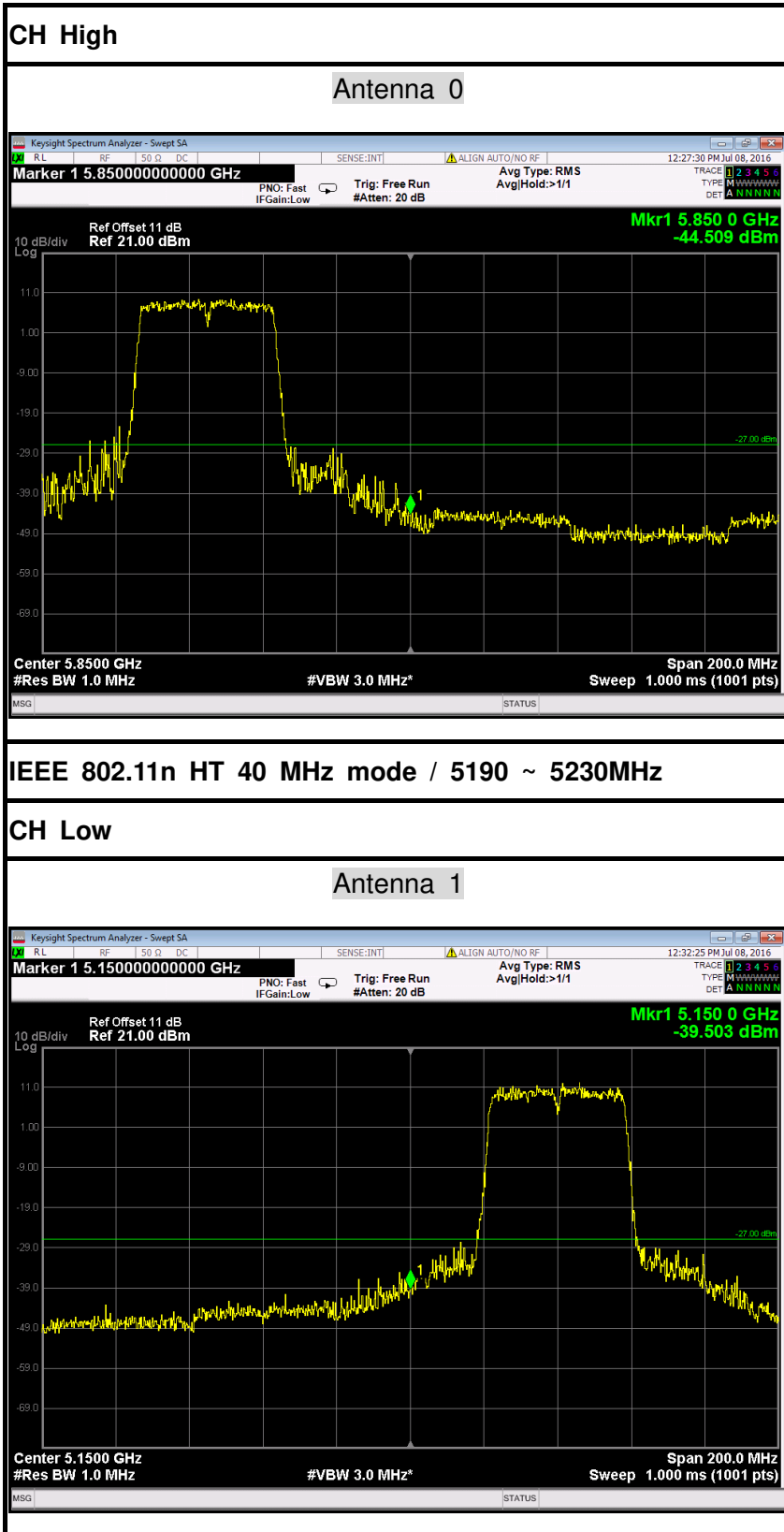


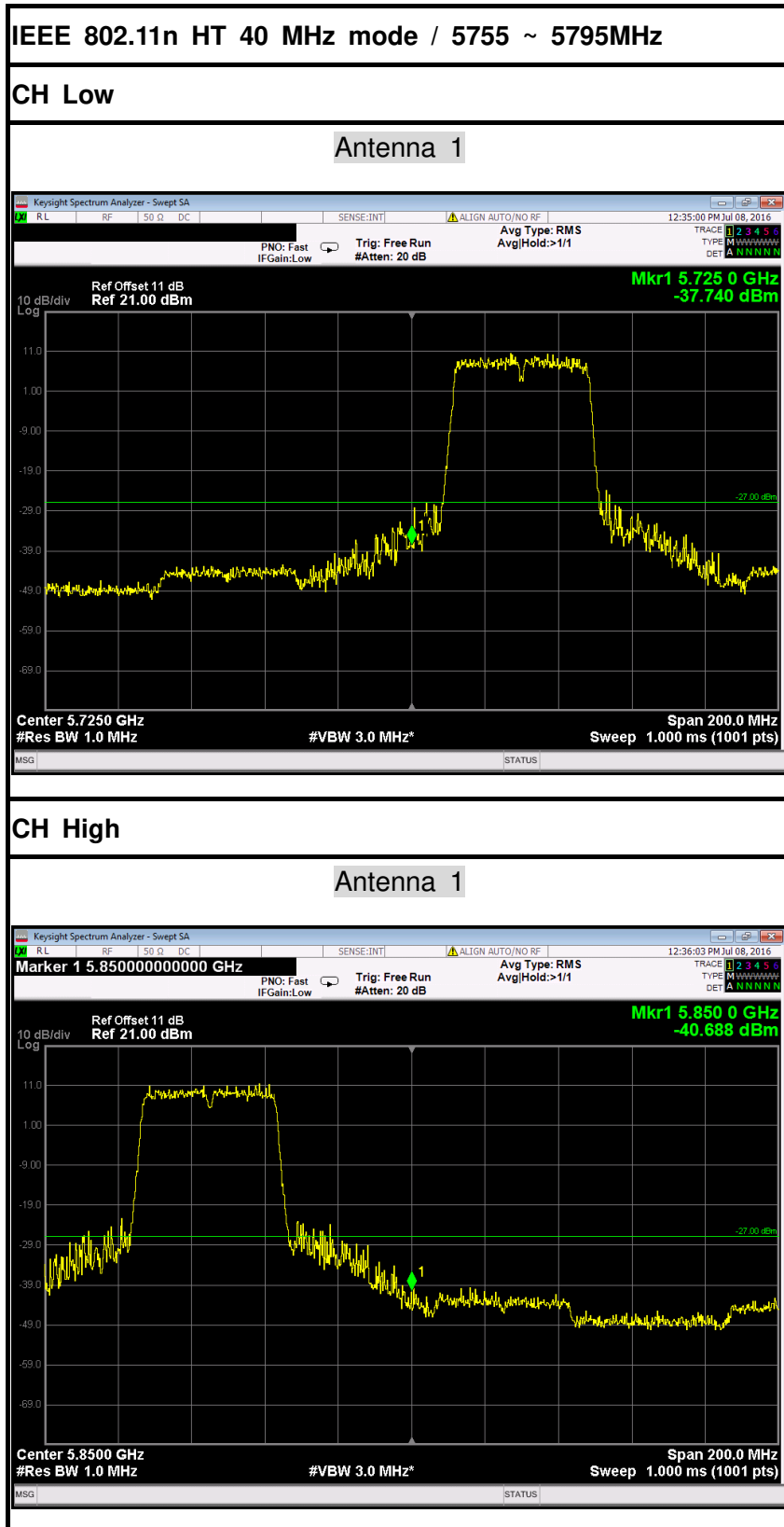


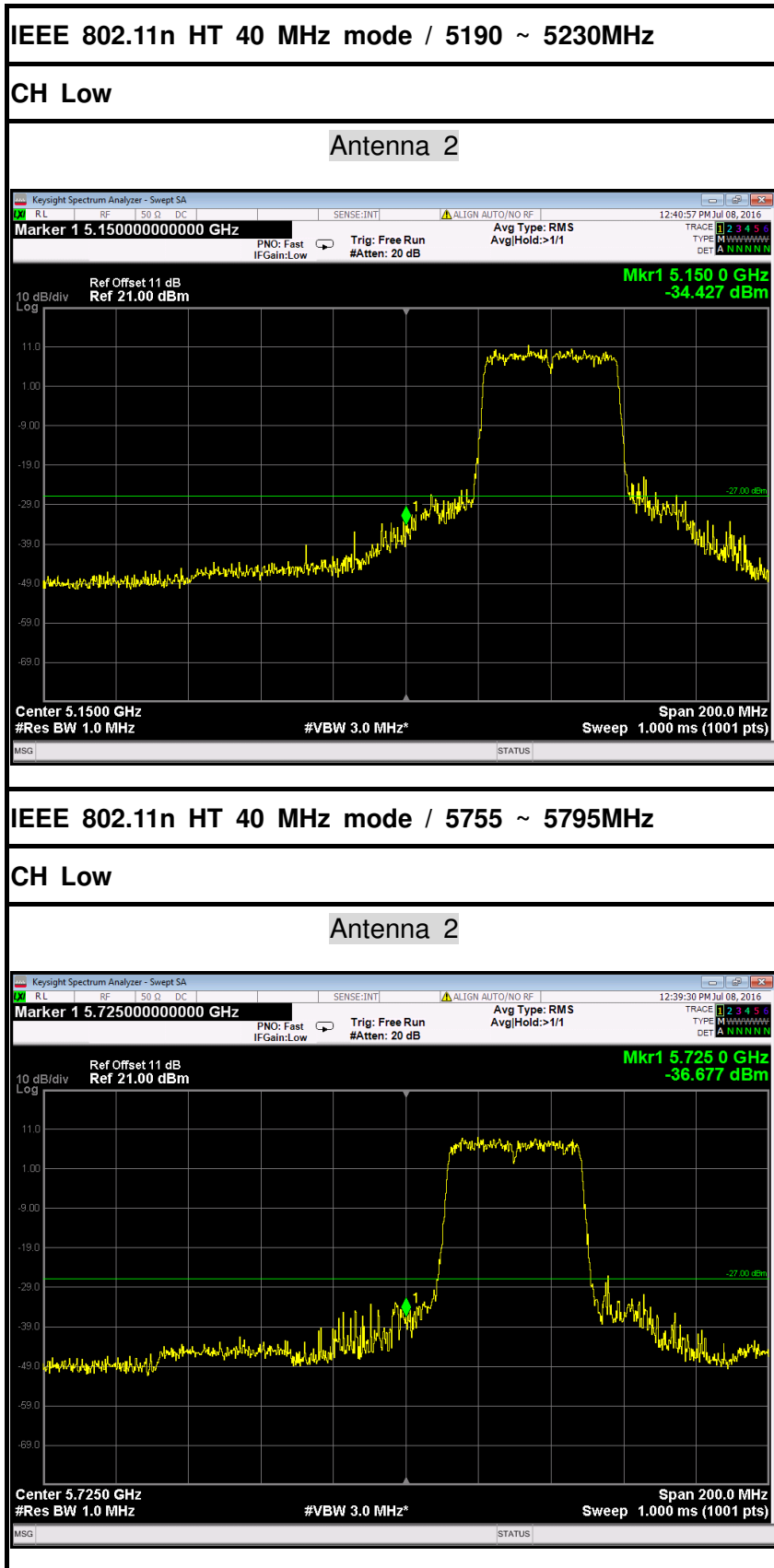


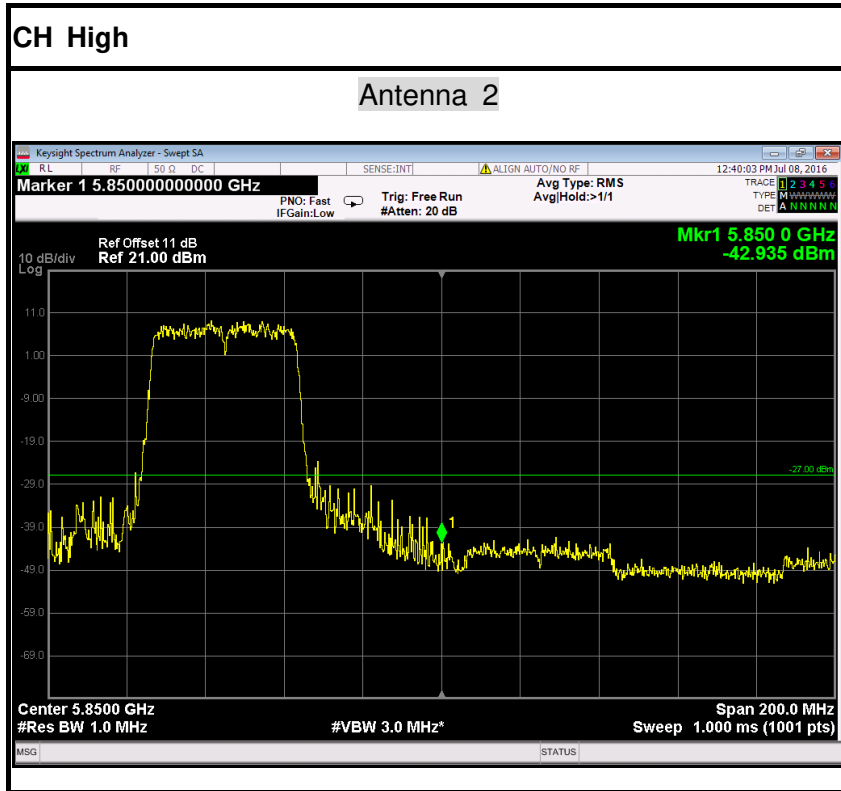


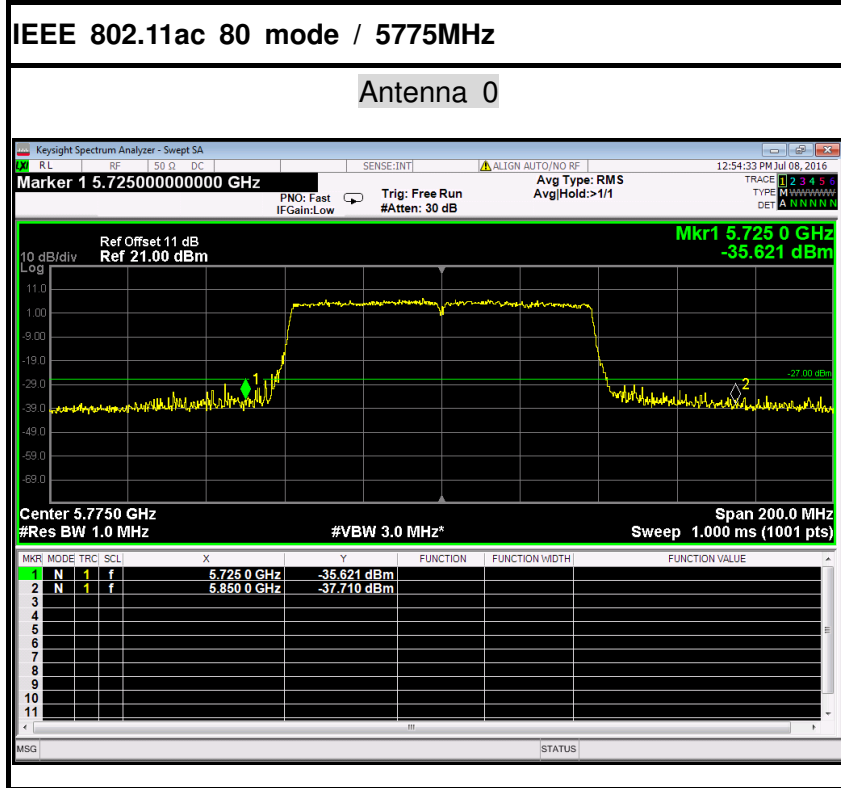
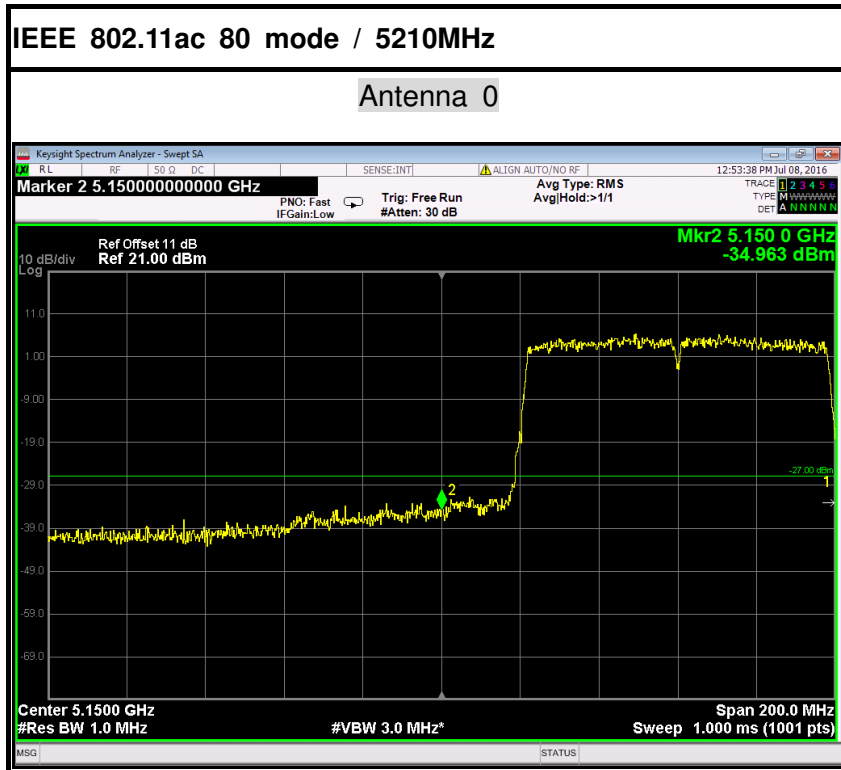


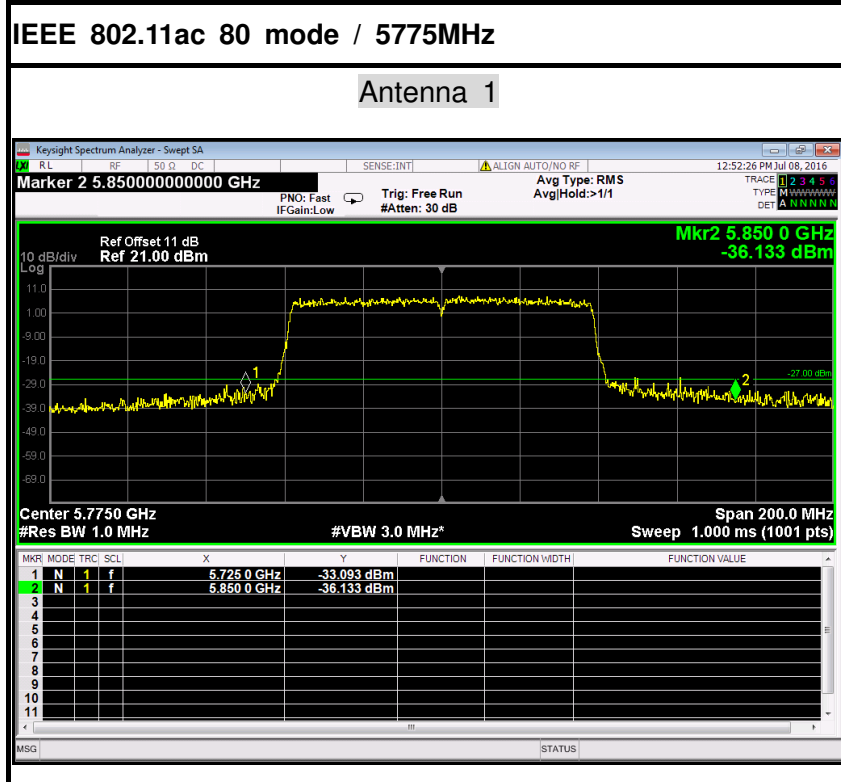
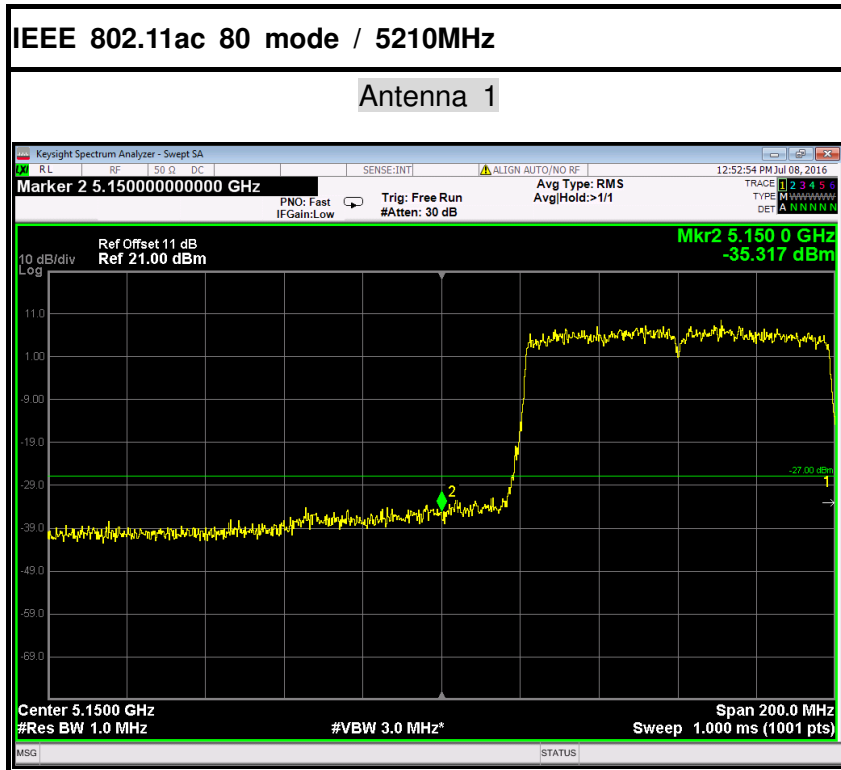


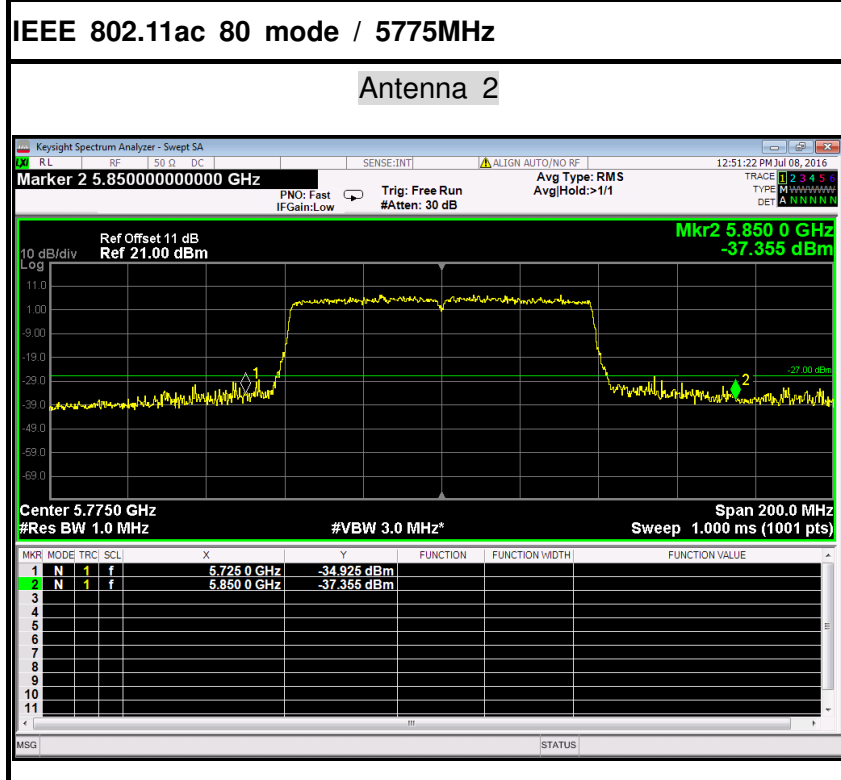
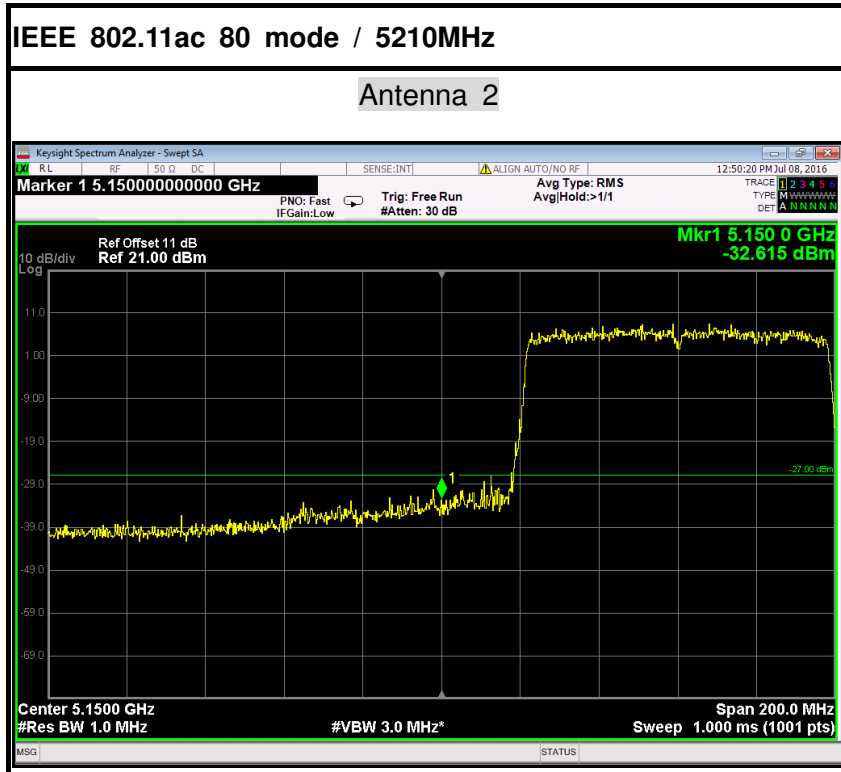














6.9 POWERLINE CONDUCTED EMISSIONS

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 μ H/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 (dB μ V)	
	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.

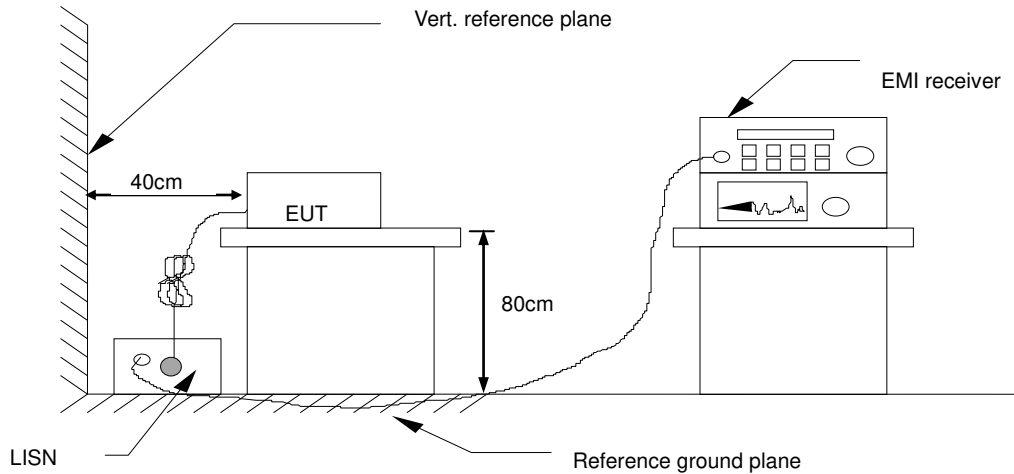
6.9.2 TEST INSTRUMENTS

Conducted Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	02/21/2016	02/20/2017
LISN(EUT)	ROHDE&SCHWARZ	ENV216	101543-WX	02/21/2016	02/20/2017
LISN	EMCO	3825/2	8901-1459	02/21/2016	02/20/2017
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	02/21/2016	02/20/2017
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

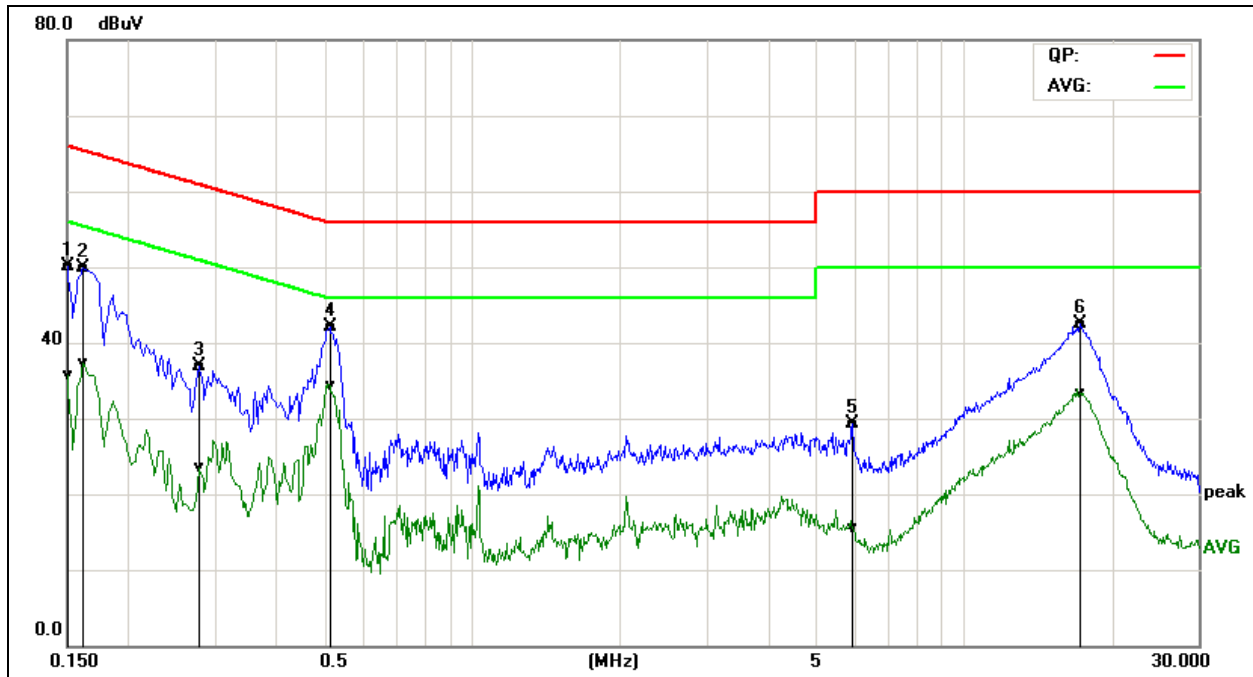
Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62	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.	SR515ac	RBW,VBW	9 kHz
Environmental Conditions	26°C, 60% RH	Test Mode	Mode 1
Tested by	Eve Wang	Line	L1
Test Date	2016/07/07		

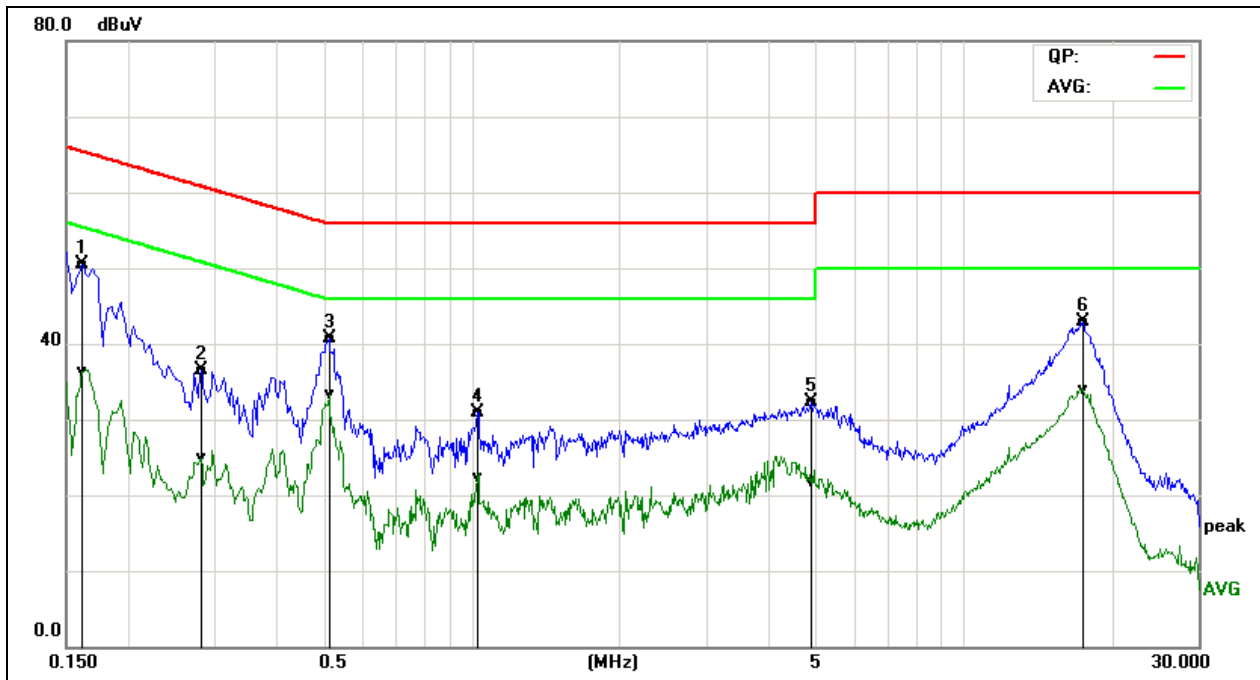


Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
0.1500	40.55	26.03	9.58	50.13	35.61	65.99	56.00	-15.86	-20.39	Pass
0.1620	40.28	27.68	9.60	49.88	37.28	65.36	55.36	-15.48	-18.08	Pass
0.2779	27.28	13.90	9.69	36.97	23.59	60.88	50.88	-23.91	-27.29	Pass
0.5140	32.42	24.52	9.69	42.11	34.21	56.00	46.00	-13.89	-11.79	Pass
5.9420	19.52	5.74	9.73	29.25	15.47	60.00	50.00	-30.75	-34.53	Pass
17.2700	32.63	23.46	9.87	42.50	33.33	60.00	50.00	-17.50	-16.67	Pass

Remark: L1 = Line One (Live Line)



Model No.	SR515ac	RBW,VBW	9 kHz
Environmental Conditions	26°C, 60% RH	Test Mode	Mode 1
Tested by	Eve Wang	Line	L2
Test Date	2016/07/07		



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)
0.1620	40.79	26.59	9.78	50.57	36.37	65.36	55.36	-14.79	-18.99	Pass
0.2819	26.66	15.15	9.76	36.42	24.91	60.76	50.76	-24.34	-25.85	Pass
0.5140	31.00	23.67	9.68	40.68	33.35	56.00	46.00	-15.32	-12.65	Pass
1.0300	21.13	12.58	9.81	30.94	22.39	56.00	46.00	-25.06	-23.61	Pass
4.9180	22.51	11.93	9.78	32.29	21.71	56.00	46.00	-23.71	-24.29	Pass
17.5180	33.10	24.26	9.72	42.82	33.98	60.00	50.00	-17.18	-16.02	Pass

Remark: L2 = Line Two (Neutral Line)



6.10 FREQUENCY STABILITY

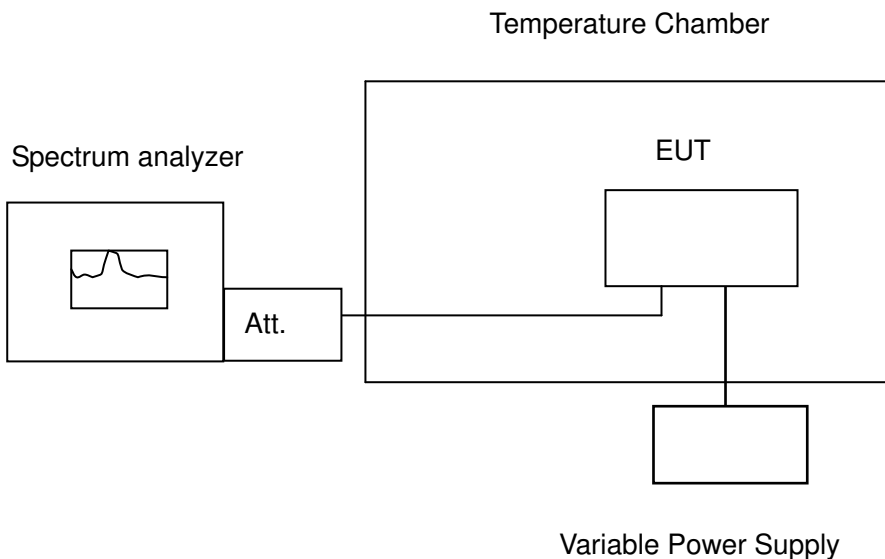
6.10.1 LIMIT

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	E4446A	US44300399	02/21/2016	02/20/2017
DC Power Supply	DAZHENG	PS-605D	20018978	N.C.R	N.C.R
AC POWER SOURCE	UMART	HPA1010	N/A	N.C.R	N.C.R
Power Meter	Anritsu	ML2495A	1204003	02/21/2016	02/20/2017
Power Sensor	Anritsu	MA2411B	1126150	02/21/2016	02/20/2017
Temperature Chamber	TERCHY	MHG-800N	E21104	11/18/2015	11/17/2016
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/21/2016	02/20/2017

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°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

6.10.5 TEST RESULTS

No non-compliance noted.



Test Data
Antenna 1

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

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.997752	5150-5250	PASS
40	120	5179.999350	5150-5250	PASS
30	120	5179.986063	5150-5250	PASS
20	120	5179.983000	5150-5250	PASS
10	120	5179.977819	5150-5250	PASS
0	120	5179.956854	5150-5250	PASS
-10	120	5179.951051	5150-5250	PASS
-20	120	5179.989274	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.987648	5150-5250	PASS
	120	5179.983000	5150-5250	PASS
	132	5179.957947	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	5239.995356	5150-5250	PASS
40	120	5239.959373	5150-5250	PASS
30	120	5239.958571	5150-5250	PASS
20	120	5240.012000	5150-5250	PASS
10	120	5239.966919	5150-5250	PASS
0	120	5239.955166	5150-5250	PASS
-10	120	5239.953793	5150-5250	PASS
-20	120	5239.985511	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.990594	5150-5250	PASS
	120	5240.012000	5150-5250	PASS
	132	5239.961239	5150-5250	PASS



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

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5744.959195	5725-5850	PASS
40	120	5744.950510	5725-5850	PASS
30	120	5744.998129	5725-5850	PASS
20	120	5744.998268	5725-5850	PASS
10	120	5744.974810	5725-5850	PASS
0	120	5744.976787	5725-5850	PASS
-10	120	5744.994349	5725-5850	PASS
-20	120	5744.987914	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.968885	5725-5850	PASS
	120	5744.998268	5725-5850	PASS
	132	5744.954630	5725-5850	PASS

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

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5824.981520	5725-5850	PASS
40	120	5824.991087	5725-5850	PASS
30	120	5824.962148	5725-5850	PASS
20	120	5824.996540	5725-5850	PASS
10	120	5824.977968	5725-5850	PASS
0	120	5824.974719	5725-5850	PASS
-10	120	5824.980290	5725-5850	PASS
-20	120	5824.977274	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.956571	5725-5850	PASS
	120	5824.996540	5725-5850	PASS
	132	5824.975708	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	5179.961414	5150-5250	PASS
40	120	5179.972637	5150-5250	PASS
30	120	5179.958043	5150-5250	PASS
20	120	5179.999400	5150-5250	PASS
10	120	5179.987203	5150-5250	PASS
0	120	5179.986347	5150-5250	PASS
-10	120	5179.971363	5150-5250	PASS
-20	120	5179.993066	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.998011	5150-5250	PASS
	120	5179.999400	5150-5250	PASS
	132	5179.988455	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	5239.983716	5150-5250	PASS
40	120	5239.997328	5150-5250	PASS
30	120	5239.967481	5150-5250	PASS
20	120	5239.999000	5150-5250	PASS
10	120	5239.949163	5150-5250	PASS
0	120	5239.991835	5150-5250	PASS
-10	120	5239.972671	5150-5250	PASS
-20	120	5239.984242	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.950404	5150-5250	PASS
	120	5239.999000	5150-5250	PASS
	132	5239.985876	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	5744.962682	5725-5850	PASS
40	120	5744.982213	5725-5850	PASS
30	120	5744.996122	5725-5850	PASS
20	120	5744.998210	5725-5850	PASS
10	120	5744.951552	5725-5850	PASS
0	120	5744.981873	5725-5850	PASS
-10	120	5744.972667	5725-5850	PASS
-20	120	5744.984025	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.986968	5725-5850	PASS
	120	5744.998210	5725-5850	PASS
	132	5744.976967	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	5824.972642	5725-5850	PASS
40	120	5824.965108	5725-5850	PASS
30	120	5824.991436	5725-5850	PASS
20	120	5824.997480	5725-5850	PASS
10	120	5824.982880	5725-5850	PASS
0	120	5824.968963	5725-5850	PASS
-10	120	5824.970881	5725-5850	PASS
-20	120	5824.965270	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.980812	5725-5850	PASS
	120	5824.997480	5725-5850	PASS
	132	5824.973165	5725-5850	PASS



Antenna 1

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

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.969777	5150-5250	PASS
40	120	5179.970353	5150-5250	PASS
30	120	5179.955799	5150-5250	PASS
20	120	5179.998900	5150-5250	PASS
10	120	5179.966476	5150-5250	PASS
0	120	5179.953188	5150-5250	PASS
-10	120	5179.996890	5150-5250	PASS
-20	120	5179.968281	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.977530	5150-5250	PASS
	120	5179.998900	5150-5250	PASS
	132	5179.988843	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	5239.954069	5150-5250	PASS
40	120	5239.986661	5150-5250	PASS
30	120	5239.953625	5150-5250	PASS
20	120	5240.006000	5150-5250	PASS
10	120	5239.994454	5150-5250	PASS
0	120	5239.988773	5150-5250	PASS
-10	120	5239.996210	5150-5250	PASS
-20	120	5239.952723	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.965565	5150-5250	PASS
	120	5240.006000	5150-5250	PASS
	132	5239.963003	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	5744.962937	5725-5850	PASS
40	120	5744.979468	5725-5850	PASS
30	120	5744.983258	5725-5850	PASS
20	120	5744.998700	5725-5850	PASS
10	120	5744.954574	5725-5850	PASS
0	120	5744.994697	5725-5850	PASS
-10	120	5744.978041	5725-5850	PASS
-20	120	5744.964560	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.954799	5725-5850	PASS
	120	5744.998700	5725-5850	PASS
	132	5744.992537	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	5824.992803	5725-5850	PASS
40	120	5824.951599	5725-5850	PASS
30	120	5824.990893	5725-5850	PASS
20	120	5824.998500	5725-5850	PASS
10	120	5824.955260	5725-5850	PASS
0	120	5824.980415	5725-5850	PASS
-10	120	5824.978574	5725-5850	PASS
-20	120	5824.949446	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.998685	5725-5850	PASS
	120	5824.998500	5725-5850	PASS
	132	5824.992154	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	5179.987425	5150-5250	PASS
40	120	5179.998287	5150-5250	PASS
30	120	5179.956323	5150-5250	PASS
20	120	5179.999000	5150-5250	PASS
10	120	5179.997391	5150-5250	PASS
0	120	5179.977186	5150-5250	PASS
-10	120	5179.972372	5150-5250	PASS
-20	120	5179.977063	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5179.969132	5150-5250	PASS
	120	5179.999000	5150-5250	PASS
	132	5179.957504	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	5239.956751	5150-5250	PASS
40	120	5239.971389	5150-5250	PASS
30	120	5239.991483	5150-5250	PASS
20	120	5240.001000	5150-5250	PASS
10	120	5239.976194	5150-5250	PASS
0	120	5239.992298	5150-5250	PASS
-10	120	5239.990756	5150-5250	PASS
-20	120	5239.996005	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5239.972598	5150-5250	PASS
	120	5240.001000	5150-5250	PASS
	132	5239.993898	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	5744.995122	5725-5850	PASS
40	120	5744.994444	5725-5850	PASS
30	120	5744.986456	5725-5850	PASS
20	120	5744.998700	5725-5850	PASS
10	120	5744.950591	5725-5850	PASS
0	120	5744.988986	5725-5850	PASS
-10	120	5744.962505	5725-5850	PASS
-20	120	5744.980767	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5744.989688	5725-5850	PASS
	120	5744.998700	5725-5850	PASS
	132	5744.956757	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	5824.997573	5725-5850	PASS
40	120	5824.949561	5725-5850	PASS
30	120	5824.986270	5725-5850	PASS
20	120	5824.997800	5725-5850	PASS
10	120	5824.986284	5725-5850	PASS
0	120	5824.956602	5725-5850	PASS
-10	120	5824.988457	5725-5850	PASS
-20	120	5824.977652	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5824.966959	5725-5850	PASS
	120	5824.997800	5725-5850	PASS
	132	5824.967744	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	5189.949117	5150-5250	PASS
40	120	5189.965777	5150-5250	PASS
30	120	5189.972534	5150-5250	PASS
20	120	5189.999700	5150-5250	PASS
10	120	5189.977161	5150-5250	PASS
0	120	5189.992390	5150-5250	PASS
-10	120	5189.990218	5150-5250	PASS
-20	120	5189.951711	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5189.974450	5150-5250	PASS
	120	5189.999700	5150-5250	PASS
	132	5189.969242	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	5229.975411	5150-5250	PASS
40	120	5229.952864	5150-5250	PASS
30	120	5229.949541	5150-5250	PASS
20	120	5230.001500	5150-5250	PASS
10	120	5229.992356	5150-5250	PASS
0	120	5229.989232	5150-5250	PASS
-10	120	5229.970147	5150-5250	PASS
-20	120	5229.957273	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5229.959186	5150-5250	PASS
	120	5230.001500	5150-5250	PASS
	132	5229.971646	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	5754.963264	5725-5850	PASS
40	120	5754.991525	5725-5850	PASS
30	120	5754.959908	5725-5850	PASS
20	120	5754.997910	5725-5850	PASS
10	120	5754.990151	5725-5850	PASS
0	120	5754.968575	5725-5850	PASS
-10	120	5754.976743	5725-5850	PASS
-20	120	5754.972156	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5754.994930	5725-5850	PASS
	120	5754.997910	5725-5850	PASS
	132	5754.952999	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	5794.985576	5725-5850	PASS
40	120	5794.975266	5725-5850	PASS
30	120	5794.978307	5725-5850	PASS
20	120	5794.998300	5725-5850	PASS
10	120	5794.954496	5725-5850	PASS
0	120	5794.969234	5725-5850	PASS
-10	120	5794.965505	5725-5850	PASS
-20	120	5794.951690	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5794.983032	5725-5850	PASS
	120	5794.998300	5725-5850	PASS
	132	5794.974362	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	5189.976501	5150-5250	PASS
40	120	5189.991268	5150-5250	PASS
30	120	5189.981067	5150-5250	PASS
20	120	5190.002500	5150-5250	PASS
10	120	5189.980914	5150-5250	PASS
0	120	5189.978189	5150-5250	PASS
-10	120	5189.982835	5150-5250	PASS
-20	120	5189.974066	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5189.974812	5150-5250	PASS
	120	5190.002500	5150-5250	PASS
	132	5189.995381	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	5229.964624	5150-5250	PASS
40	120	5229.950609	5150-5250	PASS
30	120	5229.975629	5150-5250	PASS
20	120	5230.004300	5150-5250	PASS
10	120	5229.964778	5150-5250	PASS
0	120	5229.975793	5150-5250	PASS
-10	120	5229.962222	5150-5250	PASS
-20	120	5229.987885	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5229.982663	5150-5250	PASS
	120	5230.004300	5150-5250	PASS
	132	5229.968114	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	5754.977857	5725-5850	PASS
40	120	5754.987269	5725-5850	PASS
30	120	5754.998200	5725-5850	PASS
20	120	5754.996000	5725-5850	PASS
10	120	5754.954208	5725-5850	PASS
0	120	5754.977572	5725-5850	PASS
-10	120	5754.950300	5725-5850	PASS
-20	120	5754.980256	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5754.987817	5725-5850	PASS
	120	5754.996000	5725-5850	PASS
	132	5754.958174	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	5794.961730	5725-5850	PASS
40	120	5794.977177	5725-5850	PASS
30	120	5794.951713	5725-5850	PASS
20	120	5794.998000	5725-5850	PASS
10	120	5794.987132	5725-5850	PASS
0	120	5794.994759	5725-5850	PASS
-10	120	5794.988658	5725-5850	PASS
-20	120	5794.971640	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5794.953009	5725-5850	PASS
	120	5794.998000	5725-5850	PASS
	132	5794.999195	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	5189.986151	5150-5250	PASS
40	120	5189.999374	5150-5250	PASS
30	120	5189.951601	5150-5250	PASS
20	120	5190.004500	5150-5250	PASS
10	120	5189.961617	5150-5250	PASS
0	120	5189.977144	5150-5250	PASS
-10	120	5189.996304	5150-5250	PASS
-20	120	5189.998650	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5189.995051	5150-5250	PASS
	120	5190.004500	5150-5250	PASS
	132	5189.996089	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	5229.949380	5150-5250	PASS
40	120	5229.965805	5150-5250	PASS
30	120	5229.964792	5150-5250	PASS
20	120	5230.003000	5150-5250	PASS
10	120	5229.993195	5150-5250	PASS
0	120	5229.981802	5150-5250	PASS
-10	120	5229.989671	5150-5250	PASS
-20	120	5229.963967	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5229.986968	5150-5250	PASS
	120	5230.003000	5150-5250	PASS
	132	5229.999765	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	5754.996359	5725-5850	PASS
40	120	5754.961655	5725-5850	PASS
30	120	5754.990956	5725-5850	PASS
20	120	5754.995000	5725-5850	PASS
10	120	5754.949231	5725-5850	PASS
0	120	5754.955718	5725-5850	PASS
-10	120	5754.977681	5725-5850	PASS
-20	120	5754.999388	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5754.968502	5725-5850	PASS
	120	5754.995000	5725-5850	PASS
	132	5754.997967	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	5794.973259	5725-5850	PASS
40	120	5794.988937	5725-5850	PASS
30	120	5794.955028	5725-5850	PASS
20	120	5794.999700	5725-5850	PASS
10	120	5794.976460	5725-5850	PASS
0	120	5794.991682	5725-5850	PASS
-10	120	5794.960886	5725-5850	PASS
-20	120	5794.958120	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5794.982223	5725-5850	PASS
	120	5794.999700	5725-5850	PASS
	132	5794.956334	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	5209.992079	5150-5250	PASS
40	120	5209.998185	5150-5250	PASS
30	120	5209.967391	5150-5250	PASS
20	120	5209.998500	5150-5250	PASS
10	120	5209.962924	5150-5250	PASS
0	120	5209.977426	5150-5250	PASS
-10	120	5209.961023	5150-5250	PASS
-20	120	5209.999302	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5209.965518	5150-5250	PASS
	120	5209.998500	5150-5250	PASS
	132	5209.963727	5150-5250	PASS

IEEE 802.11ac 80 mode / 5775MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5774.976694	5725-5850	PASS
40	120	5774.974929	5725-5850	PASS
30	120	5774.956312	5725-5850	PASS
20	120	5774.997700	5725-5850	PASS
10	120	5774.985745	5725-5850	PASS
0	120	5774.992075	5725-5850	PASS
-10	120	5774.972391	5725-5850	PASS
-20	120	5774.956635	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5774.992232	5725-5850	PASS
	120	5774.997700	5725-5850	PASS
	132	5774.998253	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	5209.979408	5150-5250	PASS
40	120	5209.949585	5150-5250	PASS
30	120	5209.984614	5150-5250	PASS
20	120	5209.989000	5150-5250	PASS
10	120	5209.973485	5150-5250	PASS
0	120	5209.959914	5150-5250	PASS
-10	120	5209.965156	5150-5250	PASS
-20	120	5209.986656	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5209.963864	5150-5250	PASS
	120	5209.989000	5150-5250	PASS
	132	5209.951227	5150-5250	PASS

IEEE 802.11ac 80 mode / 5775MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5774.990243	5725-5850	PASS
40	120	5774.990424	5725-5850	PASS
30	120	5774.952434	5725-5850	PASS
20	120	5774.999000	5725-5850	PASS
10	120	5774.955747	5725-5850	PASS
0	120	5774.950073	5725-5850	PASS
-10	120	5774.970653	5725-5850	PASS
-20	120	5774.999379	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5774.950569	5725-5850	PASS
	120	5774.999000	5725-5850	PASS
	132	5774.965208	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	5209.950290	5150-5250	PASS
40	120	5209.994149	5150-5250	PASS
30	120	5209.967012	5150-5250	PASS
20	120	5209.997600	5150-5250	PASS
10	120	5209.995746	5150-5250	PASS
0	120	5209.958264	5150-5250	PASS
-10	120	5209.977980	5150-5250	PASS
-20	120	5209.962340	5150-5250	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5209.968822	5150-5250	PASS
	120	5209.997600	5150-5250	PASS
	132	5209.981729	5150-5250	PASS

IEEE 802.11ac 80 mode / 5775MHz

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5774.949454	5725-5850	PASS
40	120	5774.968558	5725-5850	PASS
30	120	5774.958478	5725-5850	PASS
20	120	5774.999000	5725-5850	PASS
10	120	5774.991600	5725-5850	PASS
0	120	5774.996457	5725-5850	PASS
-10	120	5774.955553	5725-5850	PASS
-20	120	5774.989700	5725-5850	PASS

Environment Temperature (°C)	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	108	5774.950609	5725-5850	PASS
	120	5774.999000	5725-5850	PASS
	132	5774.983211	5725-5850	PASS