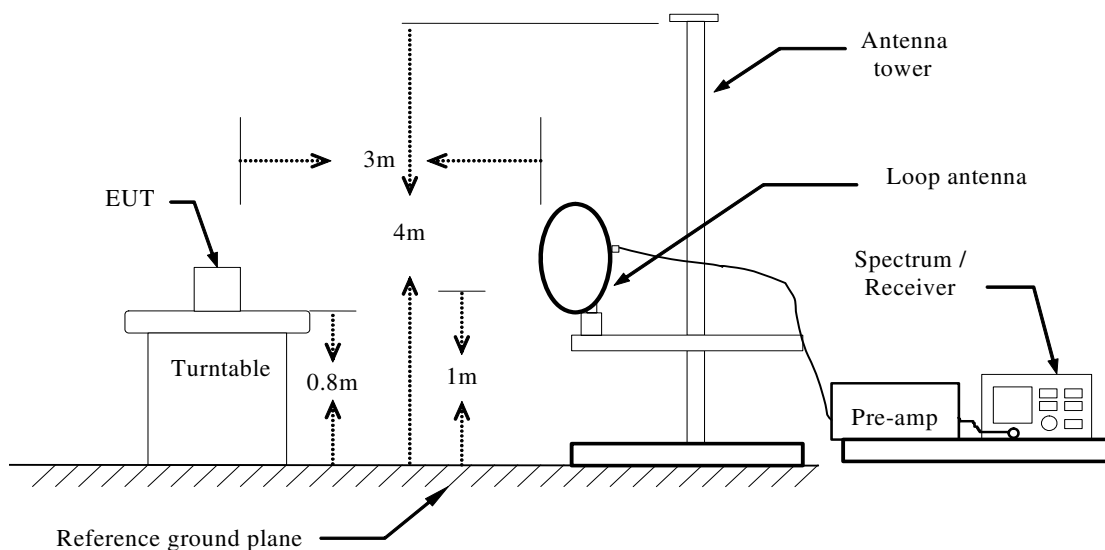


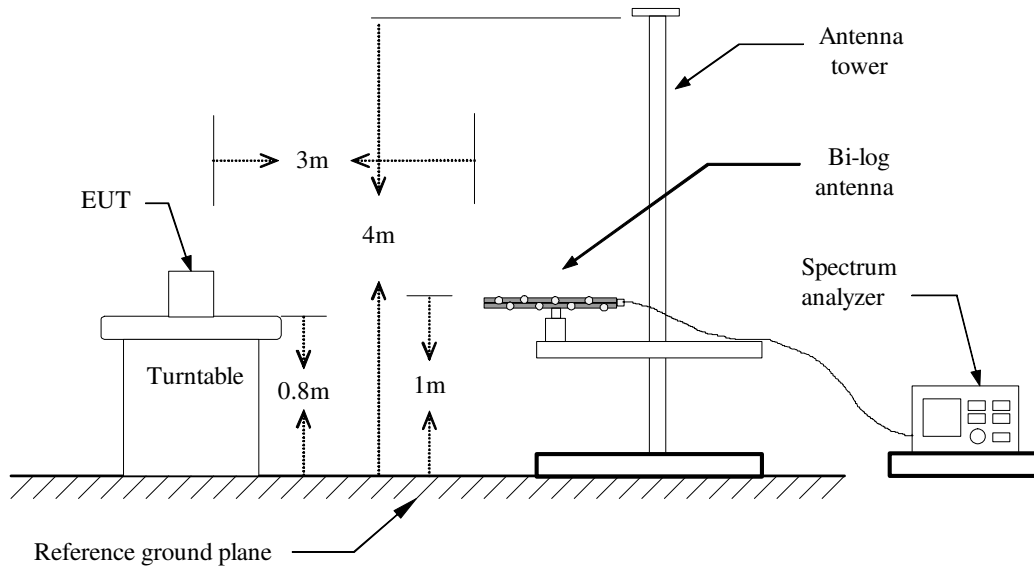
**6.5.2 TEST INSTRUMENTS**

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	03/01/2014	03/01/2015
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	03/09/2014	03/08/2015
Amplifier	MITEQ	AM-1604-3000	1123808	03/18/2015	03/18/2015
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2015	03/18/2015
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	07/10/2014	07/09/2015
Bilog Antenna	SCHAFFNER	CBL6143	5082	03/01/2014	03/01/2015
Horn Antenna	SCHWARZBECK	BBHA9120	D286	03/01/2014	03/01/2015
Loop Antenna	COM-POWER	AL-130	121044	09/27/2013	09/26/2014
Turn Table	N/A	N/A	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	02/28/2014	02/28/2015
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

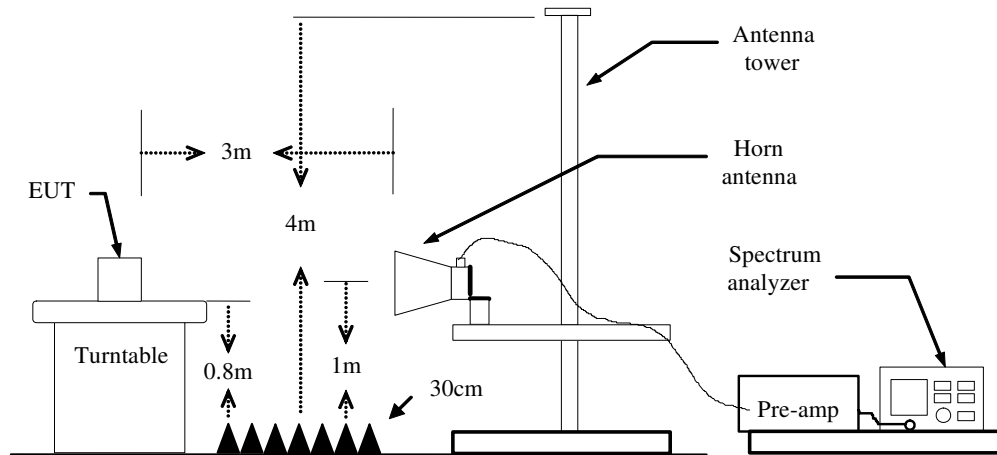
**6.5.3 TEST CONFIGURATION****Below 30MHz**



**Below 1 GHz**



**Above 1 GHz**



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



#### **6.5.4 TEST PROCEDURE**

1. The EUT is placed on a turntable, which is 0.8m 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

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



## 6.5.5 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

**6.5.6 TEST RESULTS****Below 1 GHz****Test Mode:** TX**Tested by:** Sunday Hu**Ambient temperature:** 24 °C**Relative humidity:** 52% RH**Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
75.5900	57.07	-26.25	30.82	40.00	-9.18	V	QP
250.1900	55.01	-21.06	33.95	46.00	-12.05	V	QP
320.0300	50.47	-18.93	31.54	46.00	-14.46	V	QP
368.5300	47.52	-17.25	30.27	46.00	-15.73	V	QP
640.1300	48.28	-12.47	35.81	46.00	-10.19	V	QP
739.0700	49.81	-11.37	38.44	46.00	-7.56	V	QP
33.8800	47.49	-14.06	33.43	40.00	-6.57	H	QP
280.2600	53.56	-20.39	33.17	46.00	-12.83	H	QP
321.9700	53.93	-18.83	35.10	46.00	-10.90	H	QP
357.8600	51.69	-17.46	34.23	46.00	-11.77	H	QP
680.8700	49.96	-12.42	37.54	46.00	-8.46	H	QP
754.5900	51.25	-11.12	40.13	46.00	-5.87	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****Combine with Antenna 1 and Antenna 2 and Antenna 3 and Antenna 4****Test Mode:** TX / IEEE 802.11n HT 20 MHz / 5180MHz /(CH Low) **Tested by:** Sunday Hu**Ambient temperature:** 24 °C **Relative humidity:** 52% RH **Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7764.0000	31.52	9.19	40.71	74.00	-33.29	V	peak
8172.0000	31.56	9.56	41.12	74.00	-32.88	V	peak
10128.0000	32.62	12.38	45.00	74.00	-29.00	V	peak
11424.0000	30.89	14.89	45.78	74.00	-28.22	V	peak
12552.0000	30.56	16.47	47.03	74.00	-26.97	V	peak
13956.0000	29.38	20.46	49.84	74.00	-24.16	V	peak
8040.0000	31.82	9.63	41.45	74.00	-32.55	H	Peak
9672.0000	31.45	11.04	42.49	74.00	-31.51	H	Peak
10896.0000	30.84	14.76	45.60	74.00	-28.40	H	Peak
12588.0000	30.35	16.59	46.94	74.00	-27.06	H	peak
14076.0000	29.07	20.62	49.69	74.00	-24.31	H	peak
14880.0000	29.88	21.09	50.97	74.00	-23.03	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 / 5220MHz /(CH Mid) **Tested by:** Sunday Hu**Ambient temperature:** 24 °C **Relative humidity:** 52% RH **Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7720.0000	34.83	9.10	43.93	74.00	-30.07	V	peak
8340.0000	35.34	9.46	44.80	74.00	-29.20	V	peak
10440.0000	35.68	13.34	49.02	74.00	-24.98	V	peak
11000.0000	34.04	15.08	49.12	74.00	-24.88	V	peak
11840.0000	35.12	14.71	49.83	74.00	-24.17	V	peak
12980.0000	33.25	17.88	51.13	74.00	-22.87	V	peak
8440.0000	35.16	9.41	44.57	74.00	-29.43	H	Peak
9620.0000	34.50	10.89	45.39	74.00	-28.61	H	Peak
10420.0000	34.43	13.28	47.71	74.00	-26.29	H	Peak
11220.0000	34.05	14.98	49.03	74.00	-24.97	H	peak
11840.0000	35.18	14.71	49.89	74.00	-24.11	H	peak
12960.0000	33.17	17.82	50.99	74.00	-23.01	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:** Sunday Hu**Ambient temperature:** 24 °C**Relative humidity:** 52% RH**Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7464.0000	31.76	8.60	40.36	74.00	-33.64	V	peak
8124.0000	32.12	9.58	41.70	74.00	-32.30	V	peak
10440.0000	31.00	13.34	44.34	74.00	-29.66	V	peak
10956.0000	31.42	14.94	46.36	74.00	-27.64	V	peak
13140.0000	28.68	18.32	47.00	74.00	-27.00	V	peak
15084.0000	30.06	20.78	50.84	74.00	-23.16	V	peak
8160.0000	31.83	9.56	41.39	74.00	-32.61	H	Peak
10260.0000	31.69	12.79	44.48	74.00	-29.52	H	Peak
10896.0000	30.32	14.76	45.08	74.00	-28.92	H	Peak
12408.0000	30.65	15.99	46.64	74.00	-27.36	H	peak
13716.0000	28.68	19.83	48.51	74.00	-25.49	H	peak
14892.0000	29.44	21.10	50.54	74.00	-23.46	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:** Sunday Hu**Ambient temperature:** 24 °C **Relative humidity:** 52% RH **Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7760.0000	35.04	9.18	44.22	74.00	-29.78	V	peak
8340.0000	35.62	9.46	45.08	74.00	-28.92	V	peak
10280.0000	34.86	12.85	47.71	74.00	-26.29	V	peak
10960.0000	34.21	14.96	49.17	74.00	-24.83	V	peak
11840.0000	35.01	14.71	49.72	74.00	-24.28	V	peak
12780.0000	33.91	17.22	51.13	74.00	-22.87	V	peak
7740.0000	35.10	9.14	44.24	74.00	-29.76	H	Peak
8340.0000	35.47	9.46	44.93	74.00	-29.07	H	Peak
9360.0000	35.06	10.14	45.20	74.00	-28.80	H	Peak
10100.0000	35.58	12.29	47.87	74.00	-26.13	H	peak
10940.0000	34.48	14.89	49.37	74.00	-24.63	H	peak
12420.0000	34.72	16.03	50.75	74.00	-23.25	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.  $\text{Margin (dB)} = \text{Remark result (dBuV/m)} - \text{Average limit (dBuV/m)}$ .



Test Mode: TX / IEEE 802.11n HT 20 MHz / 5785MHz /(CH Mid) Tested by: Sunday Hu

Ambient temperature: 24 °C Relative humidity: 52% RH Date: July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
8380.0000	35.50	9.44	44.94	74.00	-29.06	V	peak
9360.0000	34.81	10.14	44.95	74.00	-29.05	V	peak
10260.0000	34.87	12.79	47.66	74.00	-26.34	V	peak
10980.0000	34.13	15.02	49.15	74.00	-24.85	V	peak
11860.0000	34.98	14.70	49.68	74.00	-24.32	V	peak
12960.0000	33.71	17.82	51.53	74.00	-22.47	V	peak
7740.0000	35.26	9.14	44.40	74.00	-29.60	H	Peak
8540.0000	35.51	9.35	44.86	74.00	-29.14	H	Peak
10420.0000	34.23	13.28	47.51	74.00	-26.49	H	Peak
11040.0000	34.18	15.06	49.24	74.00	-24.76	H	peak
12460.0000	34.64	16.16	50.80	74.00	-23.20	H	peak
12960.0000	33.52	17.82	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.  $\text{Margin (dB)} = \text{Remark result (dBuV/m)} - \text{Average limit (dBuV/m)}$ .

**Test Mode:** TX / IEEE 802.11n HT 20 MHz / 5825MHz /(CH High) **Tested by:** Sunday Hu**Ambient temperature:** 24 °C**Relative humidity:** 52% RH**Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7740.0000	34.97	9.14	44.11	74.00	-29.89	V	peak
8360.0000	35.33	9.45	44.78	74.00	-29.22	V	peak
10100.0000	35.08	12.29	47.37	74.00	-26.63	V	peak
10960.0000	34.06	14.96	49.02	74.00	-24.98	V	peak
11840.0000	35.03	14.71	49.74	74.00	-24.26	V	peak
12980.0000	33.09	17.88	50.97	74.00	-23.03	V	peak
7760.0000	35.10	9.18	44.28	74.00	-29.72	H	Peak
8360.0000	35.62	9.45	45.07	74.00	-28.93	H	Peak
10260.0000	34.80	12.79	47.59	74.00	-26.41	H	Peak
10860.0000	34.39	14.65	49.04	74.00	-24.96	H	peak
11840.0000	35.11	14.71	49.82	74.00	-24.18	H	peak
12780.0000	33.91	17.22	51.13	74.00	-22.87	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.  $\text{Margin (dB)} = \text{Remark result (dBuV/m)} - \text{Average limit (dBuV/m)}$ .

**Combine with Antenna 1 and Antenna 2 and Antenna 3 and Antenna 4****Test Mode:** TX / IEEE 802.11n HT 40 MHz / 5190MHz /(CH Low) **Tested by:** Sunday Hu**Ambient temperature:** 24 °C **Relative humidity:** 52% RH **Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7740.0000	39.19	9.14	48.33	74.00	-25.67	V	peak
8340.0000	38.77	9.46	48.23	74.00	-25.77	V	peak
10380.0000	37.05	13.16	50.21	74.00	-23.79	V	peak
10940.0000	35.48	14.89	50.37	74.00	-23.63	V	peak
11840.0000	35.68	14.71	50.39	74.00	-23.61	V	peak
12980.0000	34.07	17.88	51.95	74.00	-22.05	V	peak
7740.0000	37.91	9.14	47.05	74.00	-26.95	H	Peak
8360.0000	37.52	9.45	46.97	74.00	-27.03	H	Peak
9980.0000	36.24	11.92	48.16	74.00	-25.84	H	Peak
11320.0000	34.80	14.94	49.74	74.00	-24.26	H	peak
12460.0000	34.12	16.16	50.28	74.00	-23.72	H	peak
12940.0000	33.61	17.75	51.36	74.00	-22.64	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 Mid) Tested by: Sunday Hu

Ambient temperature: 24 °C Relative humidity: 52% RH Date: July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7740.0000	37.14	9.14	46.28	74.00	-27.72	V	peak
8360.0000	37.03	9.45	46.48	74.00	-27.52	V	peak
9240.0000	36.52	9.79	46.31	74.00	-27.69	V	peak
10380.0000	36.17	13.16	49.33	74.00	-24.67	V	peak
10980.0000	34.65	15.02	49.67	74.00	-24.33	V	peak
12980.0000	34.11	17.88	51.99	74.00	-22.01	V	peak
7740.0000	37.73	9.14	46.87	74.00	-27.13	H	Peak
8400.0000	37.50	9.43	46.93	74.00	-27.07	H	Peak
9980.0000	35.73	11.92	47.65	74.00	-26.35	H	Peak
11300.0000	34.35	14.95	49.30	74.00	-24.70	H	peak
12460.0000	33.54	16.16	49.70	74.00	-24.30	H	peak
13560.0000	32.13	19.42	51.55	74.00	-22.45	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.  $\text{Margin (dB)} = \text{Remark result (dBuV/m)} - \text{Average limit (dBuV/m)}$ .

**Test Mode:** TX / IEEE 802.11n HT 20 MHz / 5755MHz /(CH Low) **Tested by:** Sunday Hu**Ambient temperature:** 24 °C **Relative humidity:** 52% RH **Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7760.0000	35.03	9.18	44.21	74.00	-29.79	V	peak
8380.0000	35.35	9.44	44.79	74.00	-29.21	V	peak
10160.0000	34.69	12.48	47.17	74.00	-26.83	V	peak
10980.0000	34.05	15.02	49.07	74.00	-24.93	V	peak
11860.0000	35.21	14.70	49.91	74.00	-24.09	V	peak
12920.0000	33.65	17.69	51.34	74.00	-22.66	V	peak
7740.0000	34.99	9.14	44.13	74.00	-29.87	H	Peak
8420.0000	35.46	9.42	44.88	74.00	-29.12	H	Peak
10160.0000	34.65	12.48	47.13	74.00	-26.87	H	Peak
11040.0000	33.88	15.06	48.94	74.00	-25.06	H	peak
11840.0000	35.31	14.71	50.02	74.00	-23.98	H	peak
12980.0000	33.21	17.88	51.09	74.00	-22.91	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.  $\text{Margin (dB)} = \text{Remark result (dBuV/m)} - \text{Average limit (dBuV/m)}$ .

**Test Mode:** TX / IEEE 802.11n HT 20 MHz / 5795MHz /(CH High) **Tested by:** Sunday Hu**Ambient temperature:** 24 °C **Relative humidity:** 52% RH **Date:** July 13, 2014

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
7740.0000	35.31	9.14	44.45	74.00	-29.55	V	peak
8360.0000	35.69	9.45	45.14	74.00	-28.86	V	peak
10040.0000	34.95	12.10	47.05	74.00	-26.95	V	peak
10980.0000	34.31	15.02	49.33	74.00	-24.67	V	peak
11820.0000	34.87	14.72	49.59	74.00	-24.41	V	peak
13140.0000	32.66	18.32	50.98	74.00	-23.02	V	peak
7720.0000	35.20	9.10	44.30	74.00	-29.70	H	Peak
8380.0000	35.54	9.44	44.98	74.00	-29.02	H	Peak
10520.0000	34.10	13.59	47.69	74.00	-26.31	H	Peak
10980.0000	34.12	15.02	49.14	74.00	-24.86	H	peak
11840.0000	34.85	14.71	49.56	74.00	-24.44	H	peak
12780.0000	33.67	17.22	50.89	74.00	-23.11	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).



## 6.6 CONDUCTED UNDESIRABLE EMISSION

### 6.6.1 LIMIT

According to 15.407(b) ,

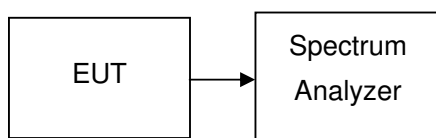
- (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.
- (2) For transmitters operating in the 5.725–5.850 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band 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.

### 6.6.2 MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2014	03/01/2015

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

### 6.6.3 TEST CONFIGURATION



### 6.6.4 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.

### 6.6.5 TEST RESULTS

*No non-compliance noted*

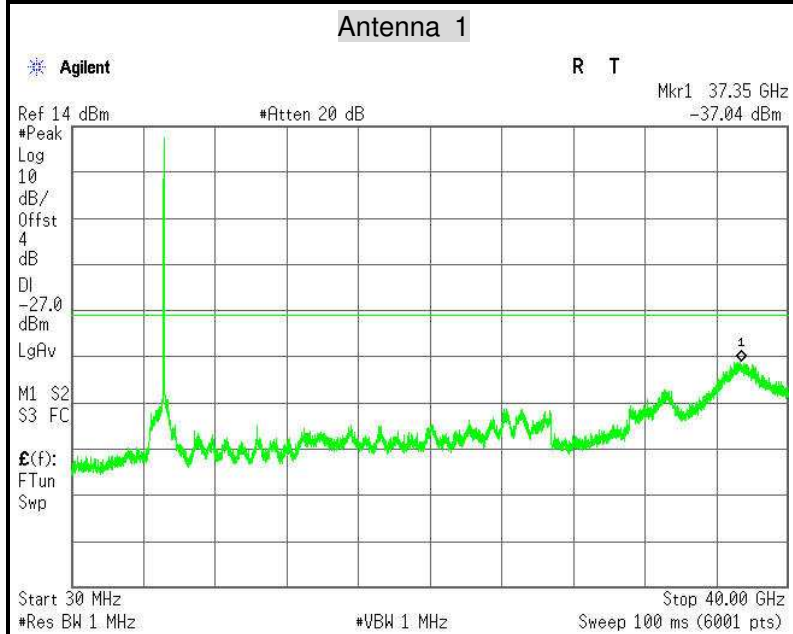




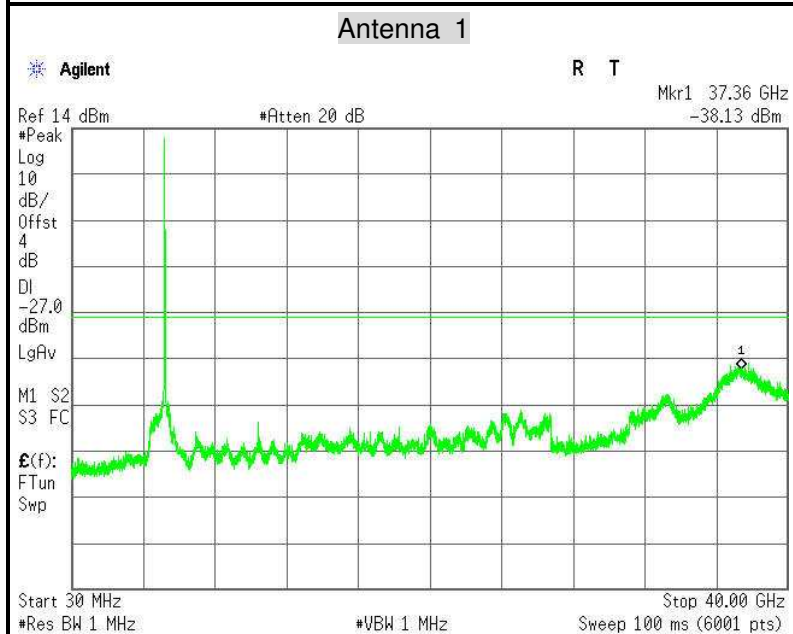
### Test Plot

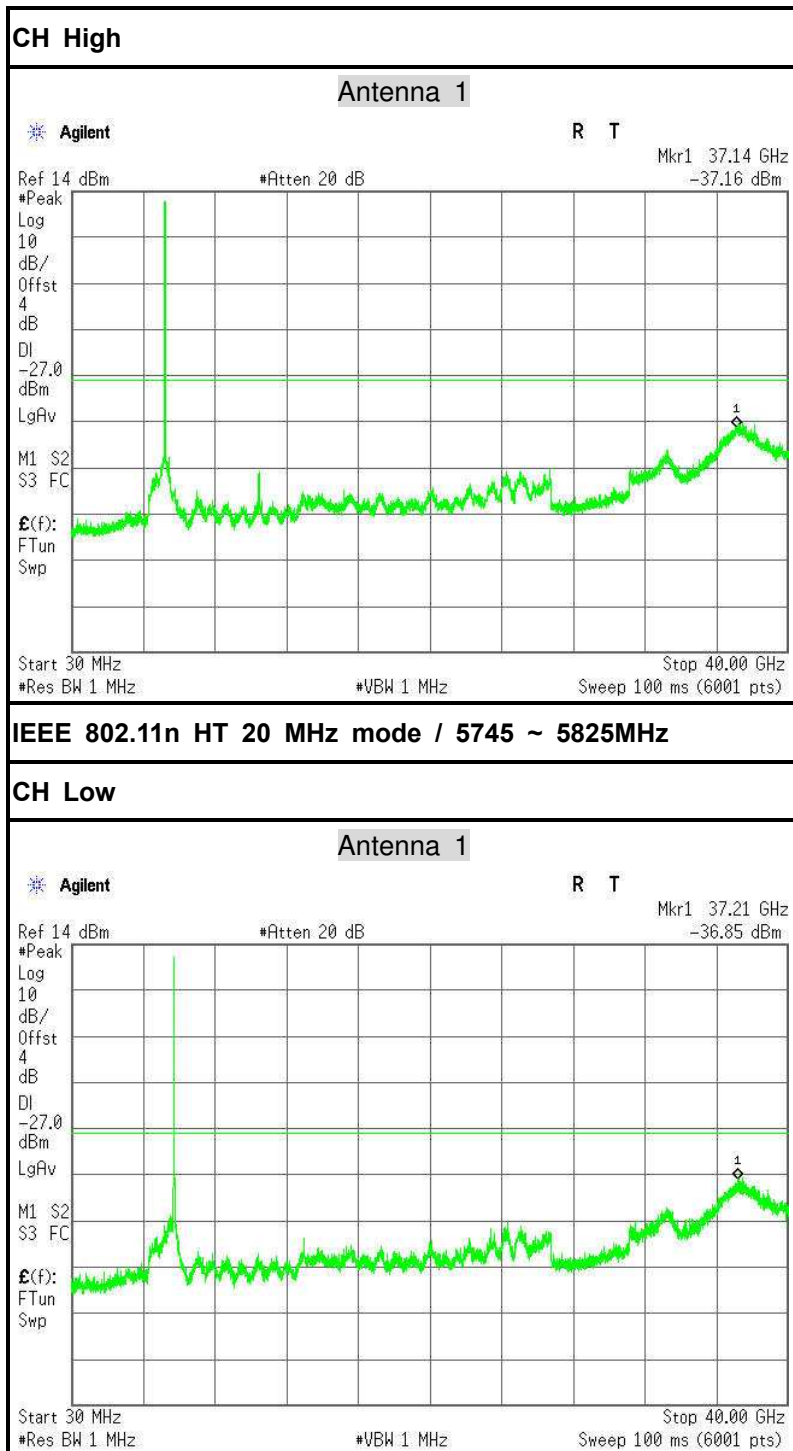
IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

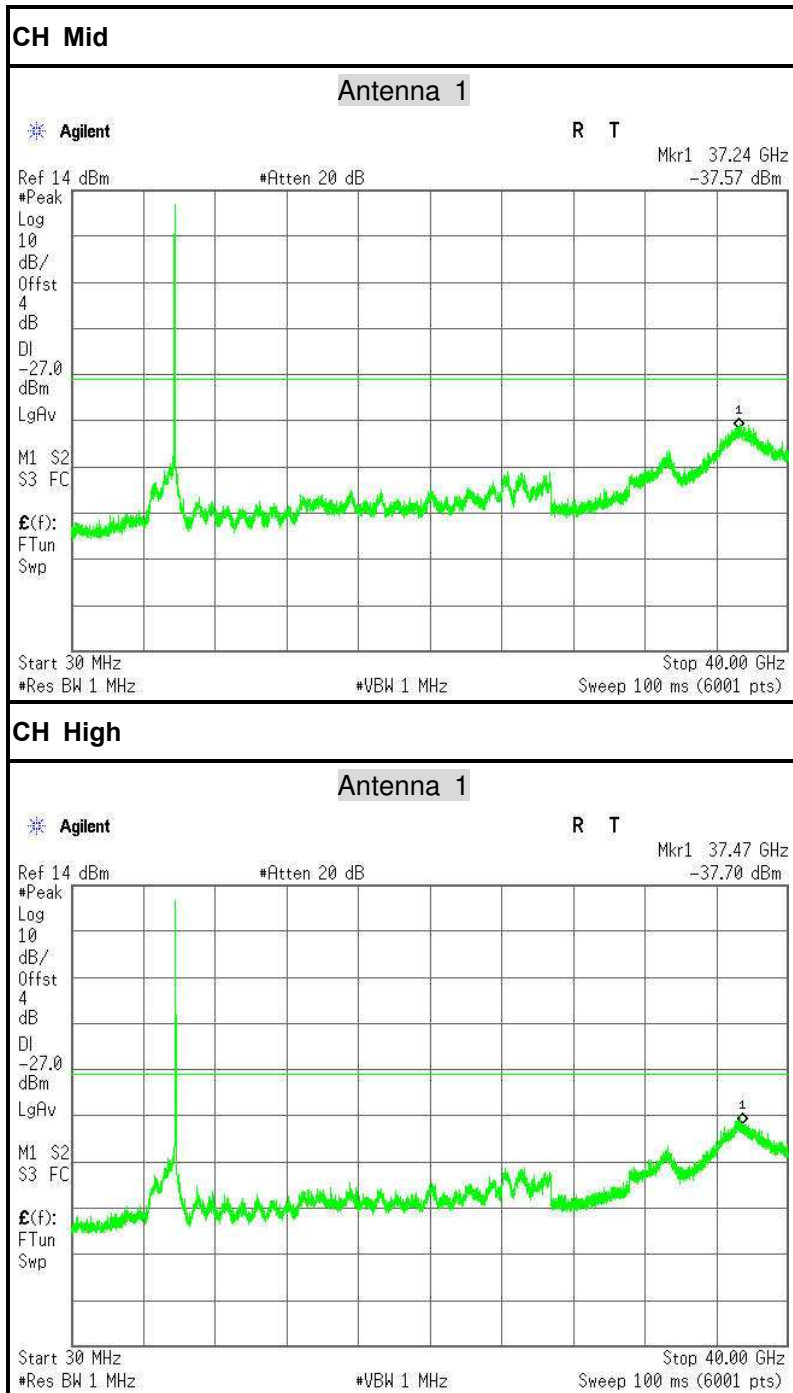
CH Low



CH Mid



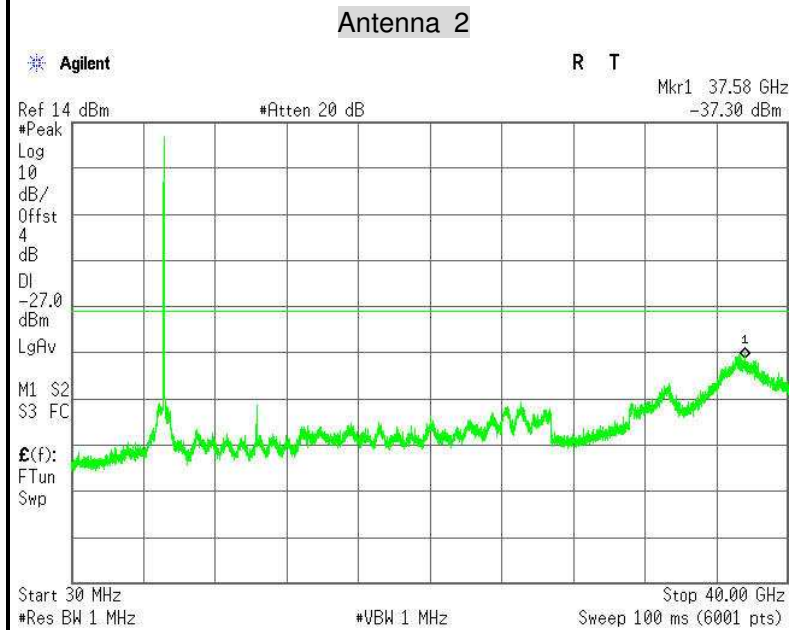




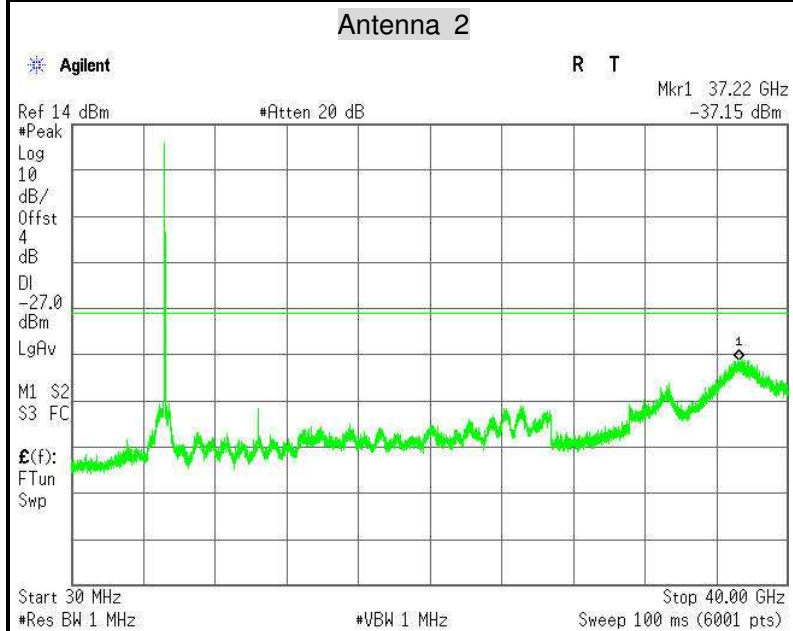


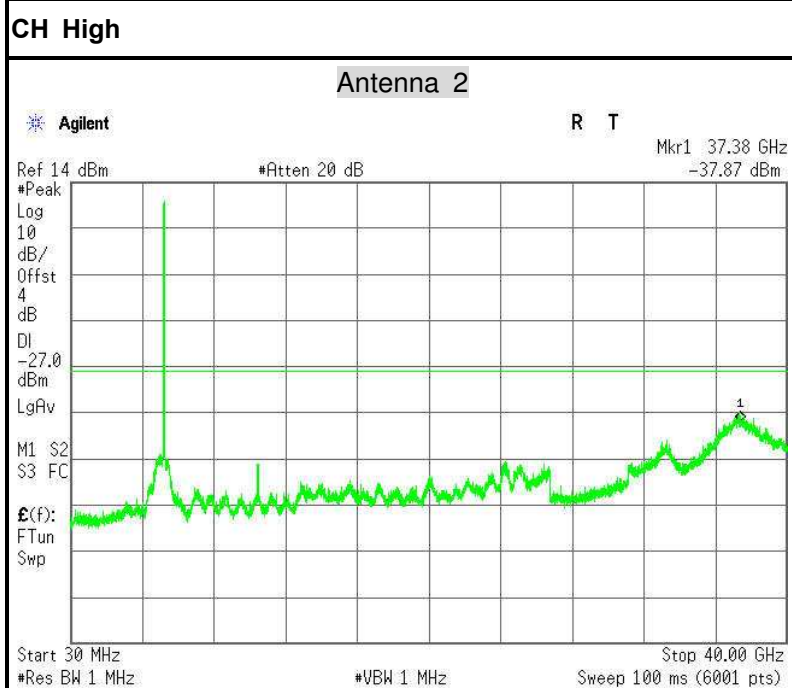
IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

CH Low

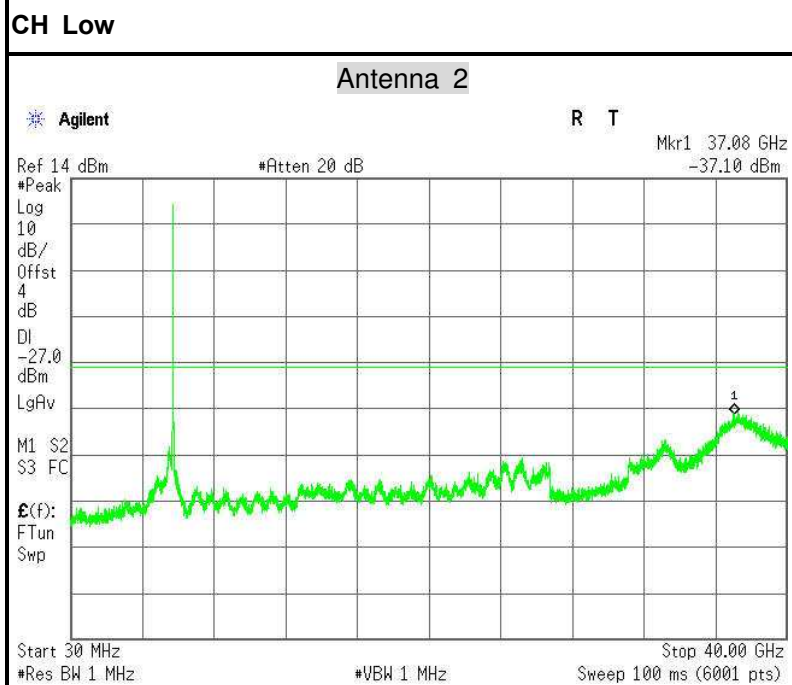


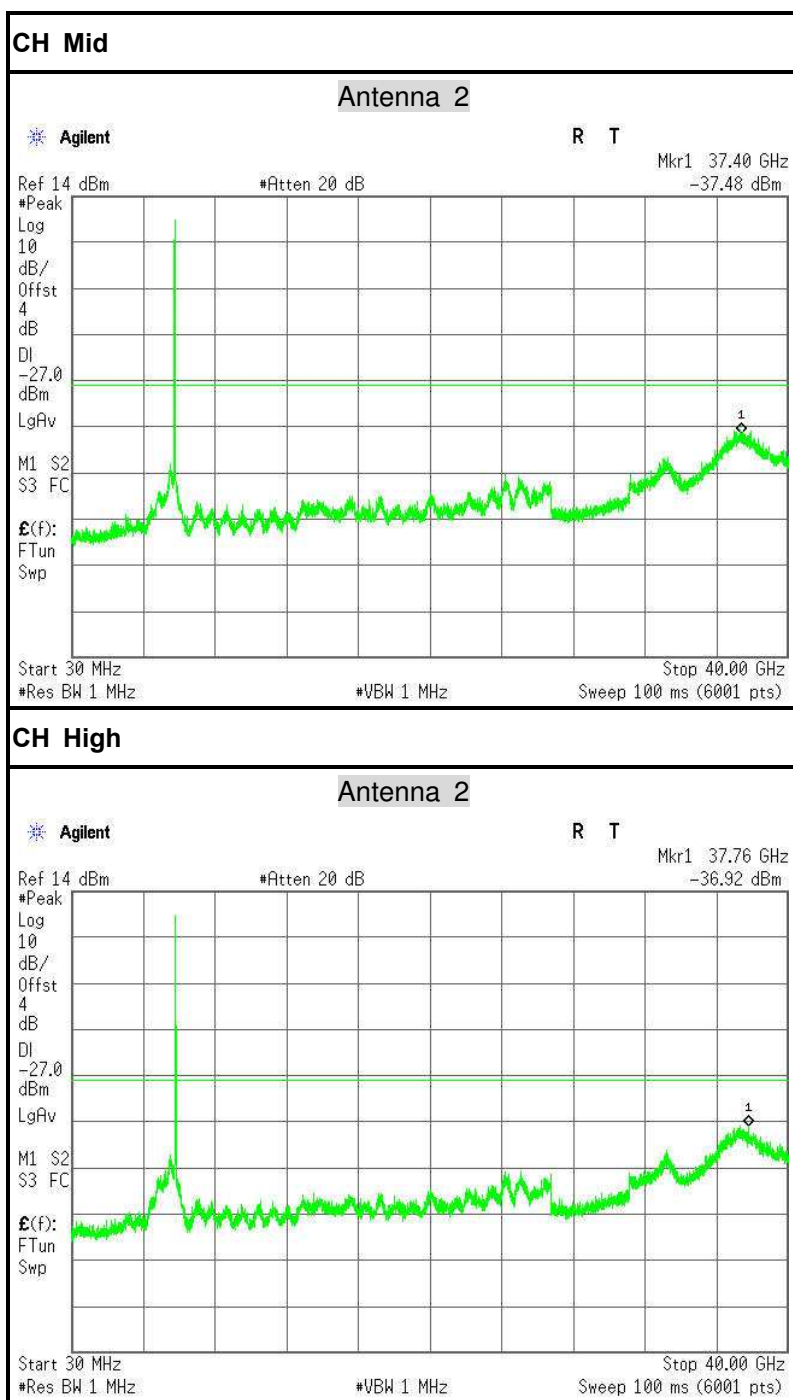
CH Mid





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

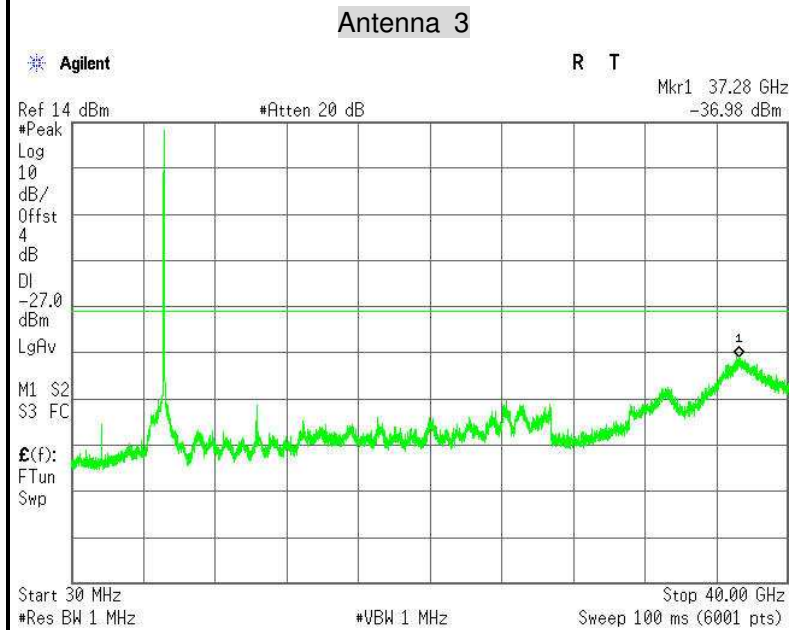




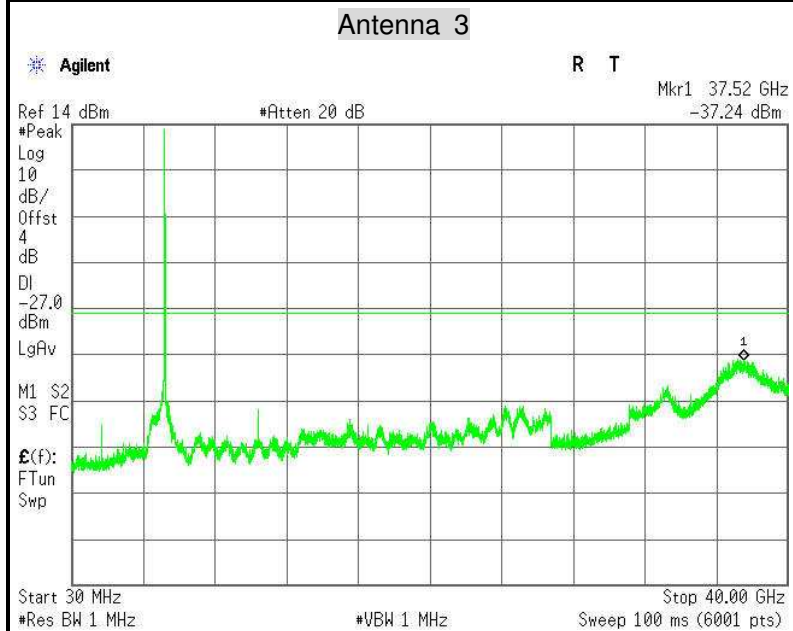


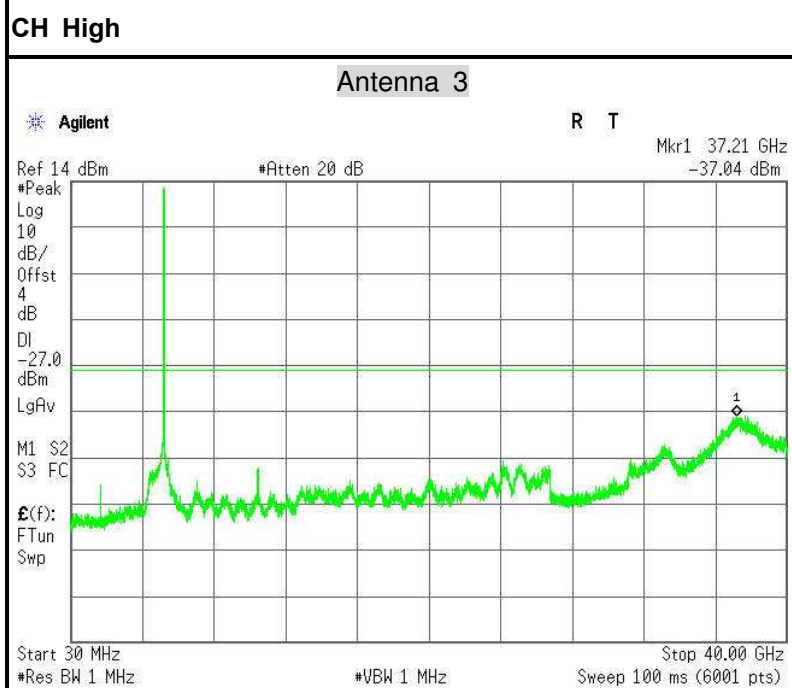
IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz

CH Low

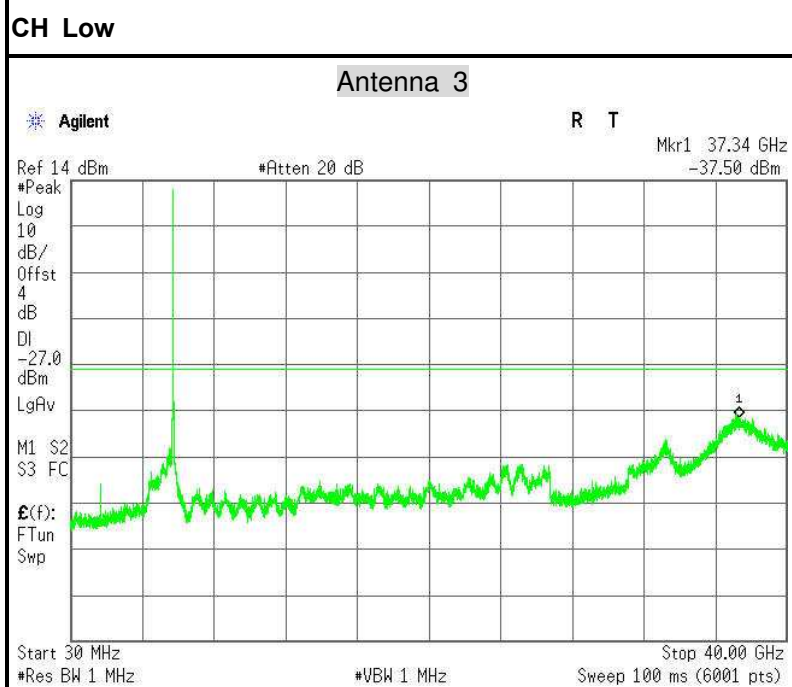


CH Mid

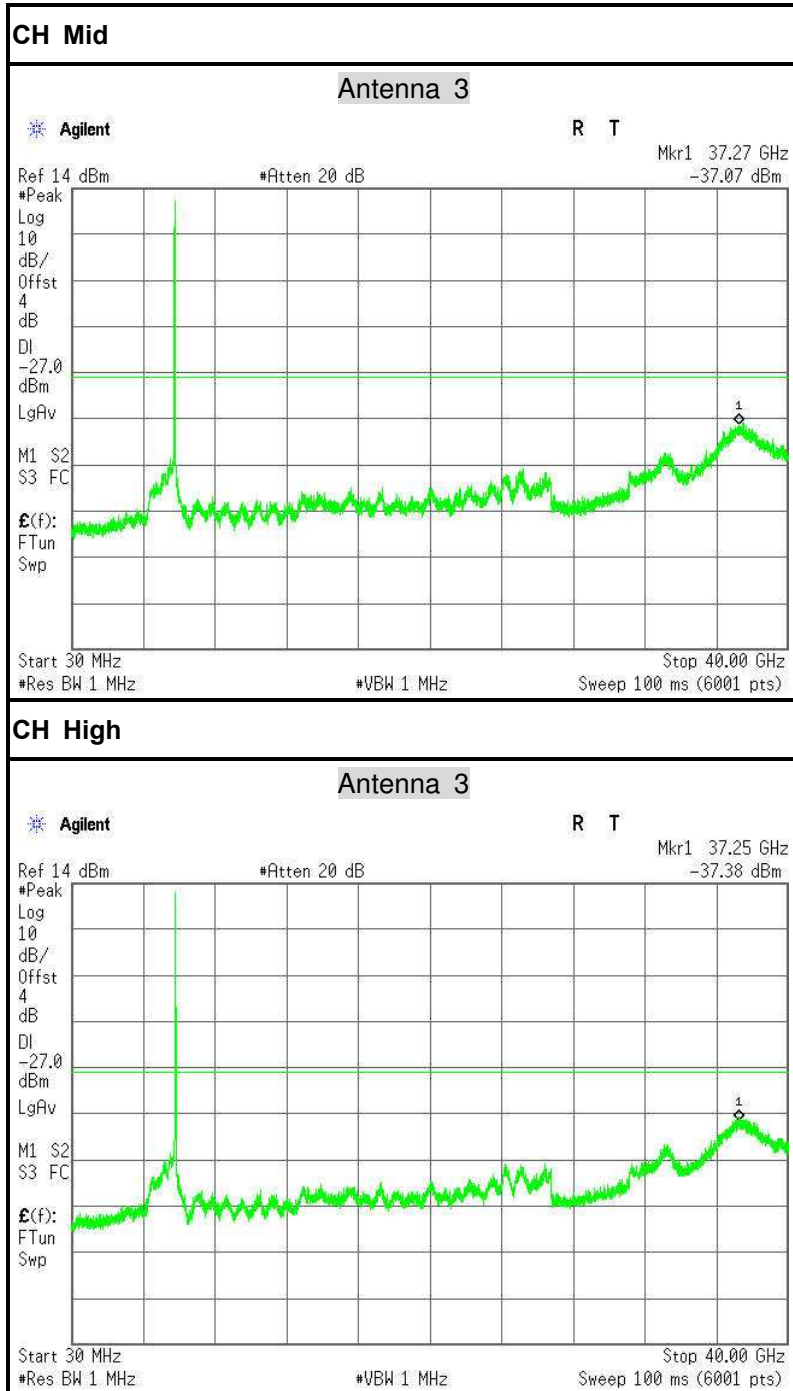


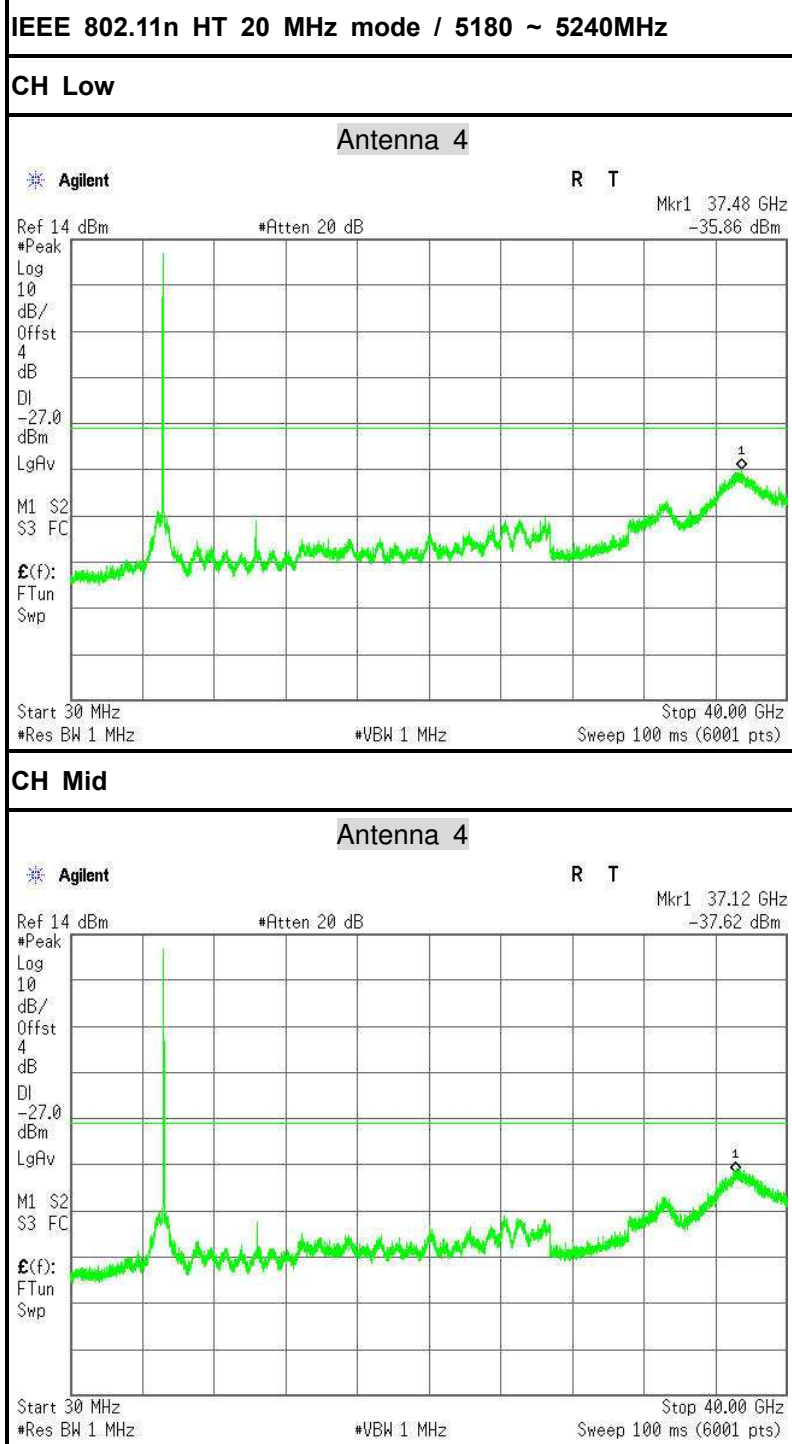


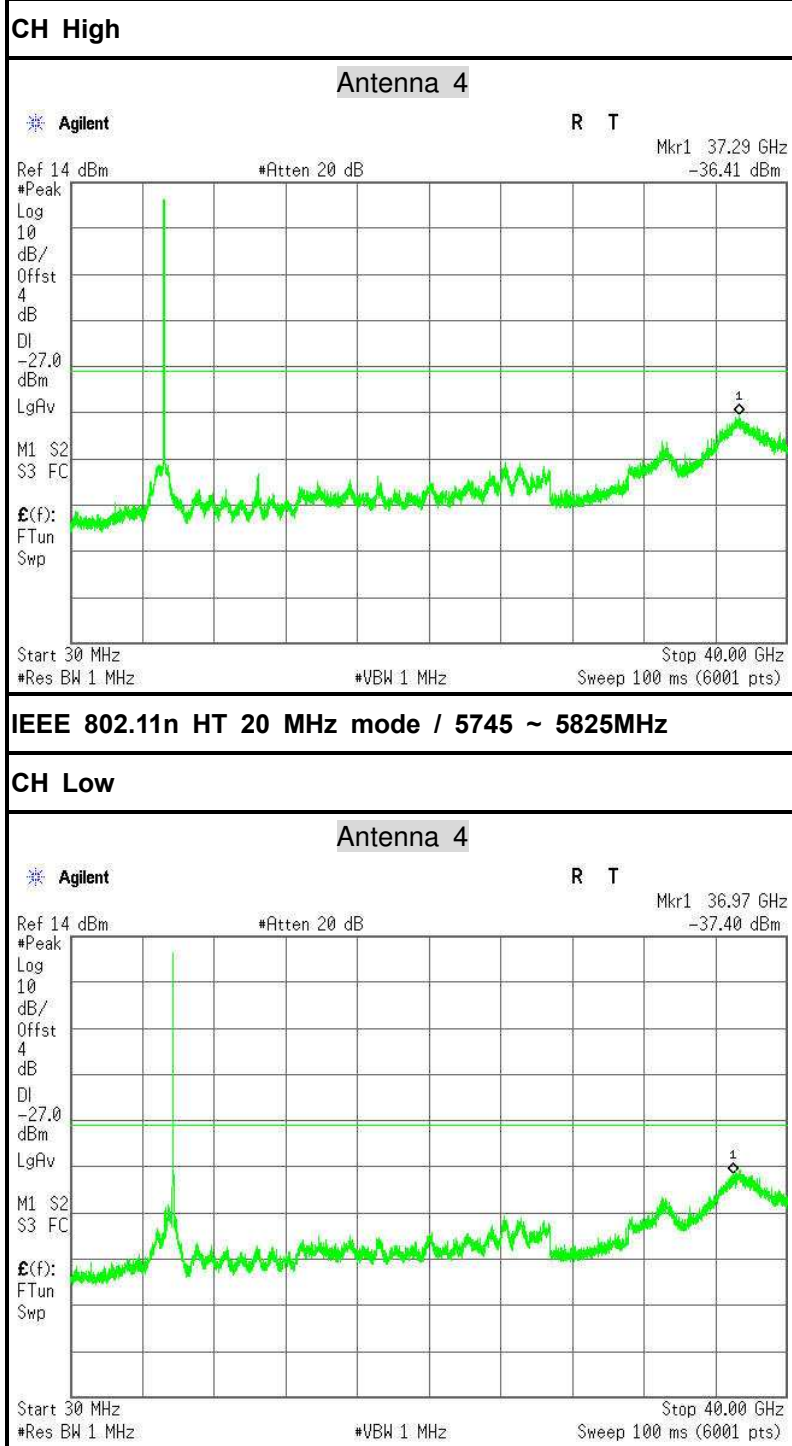
IEEE 802.11n HT 20 MHz mode / 5745 ~ 5825MHz

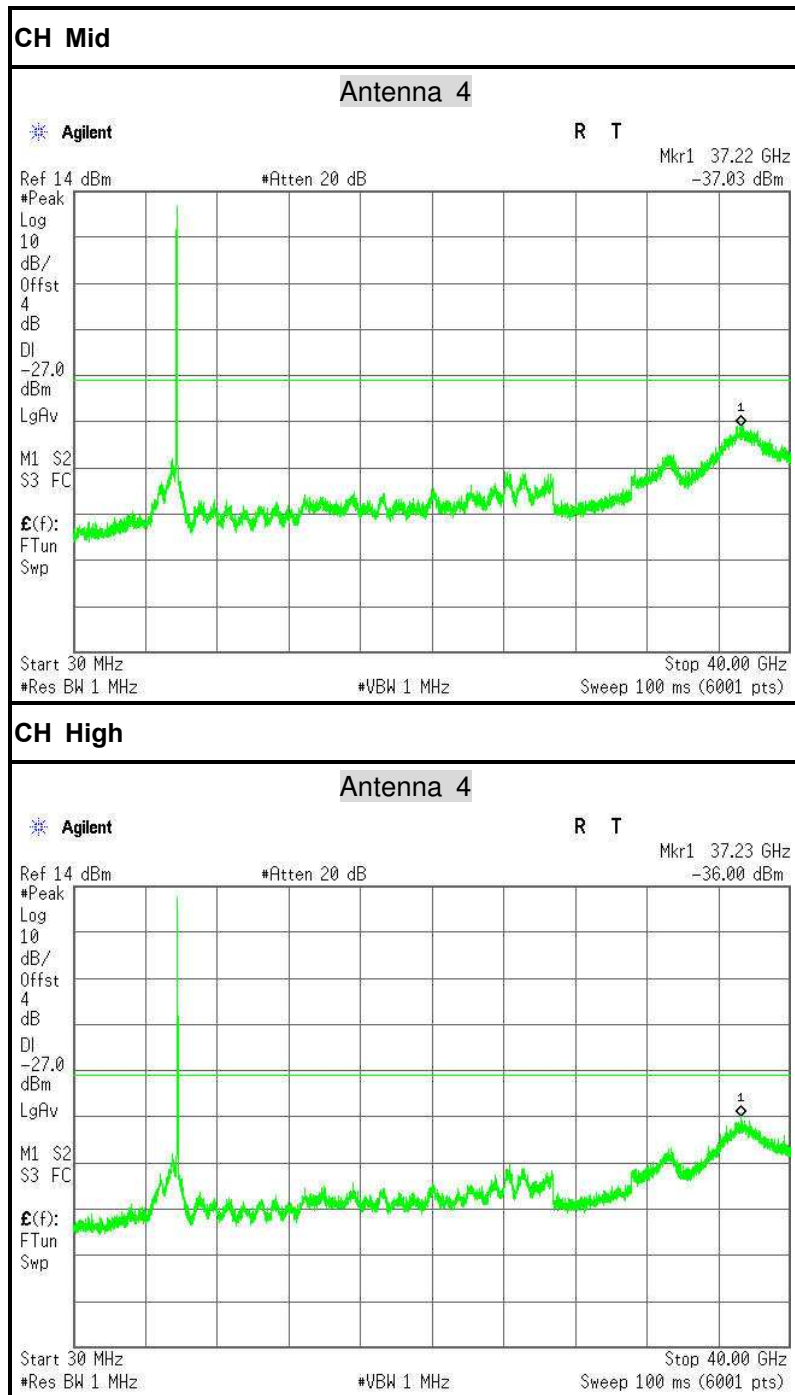








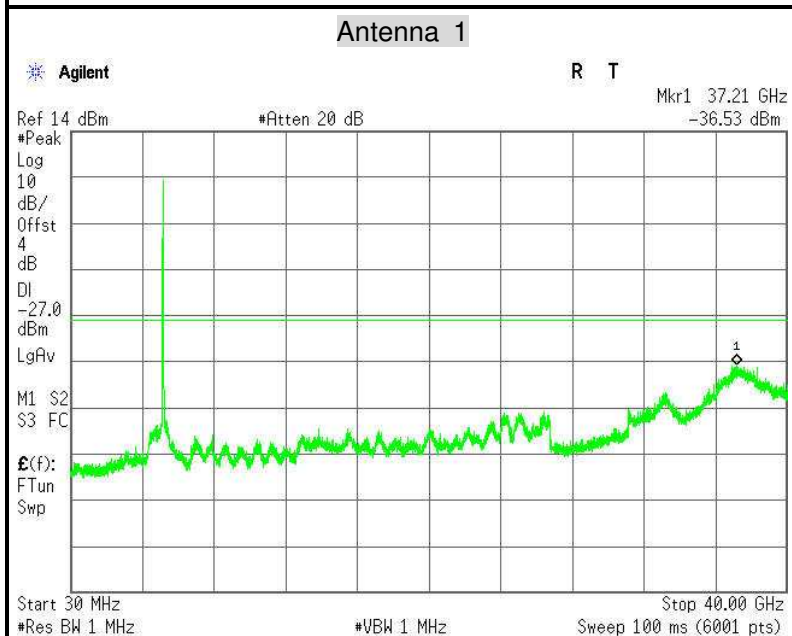




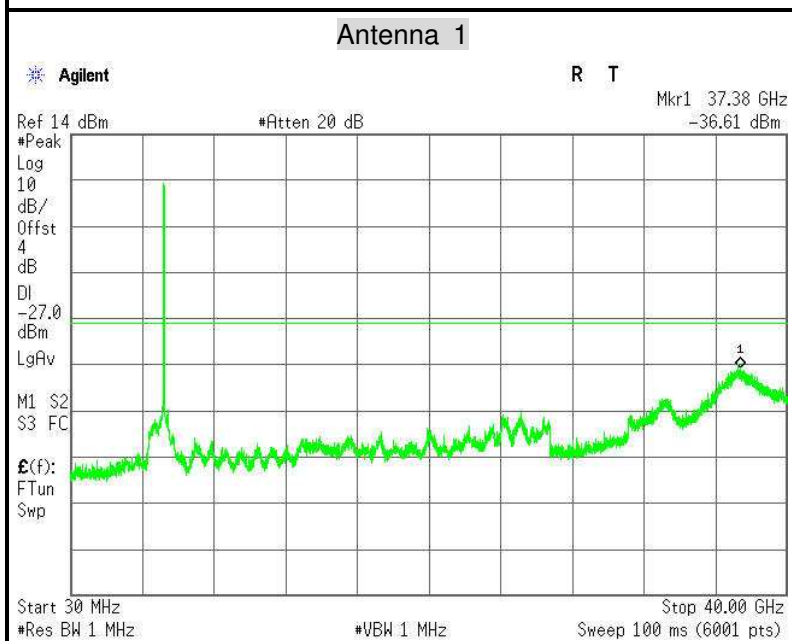


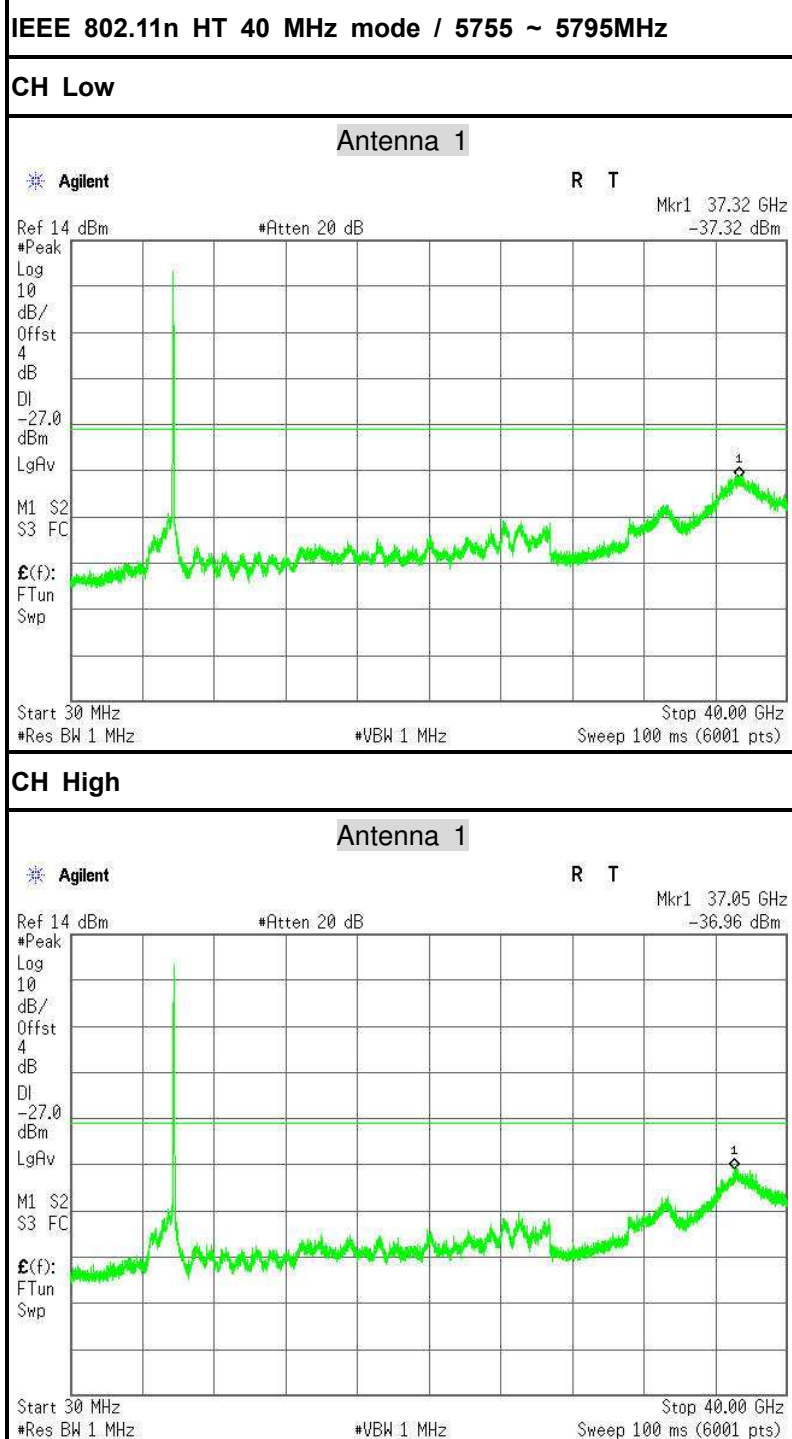
IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

CH Low



CH High

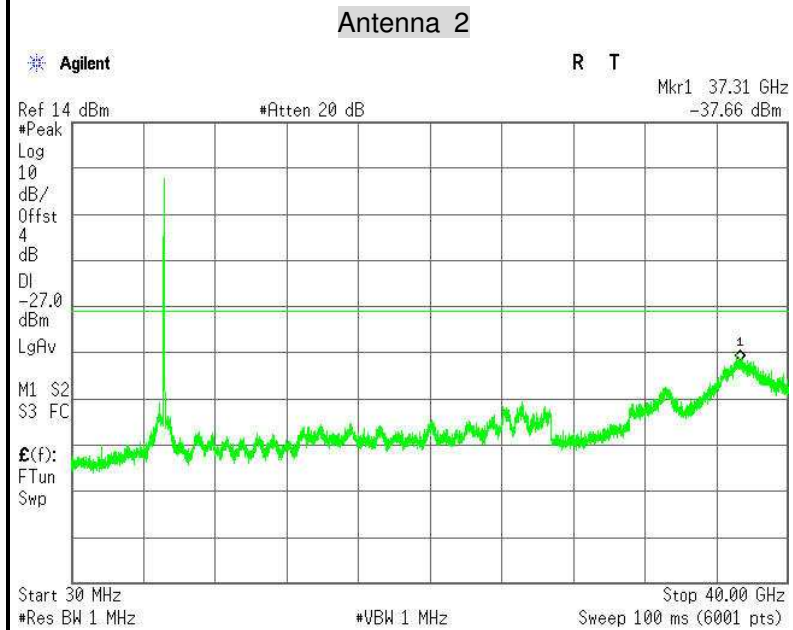




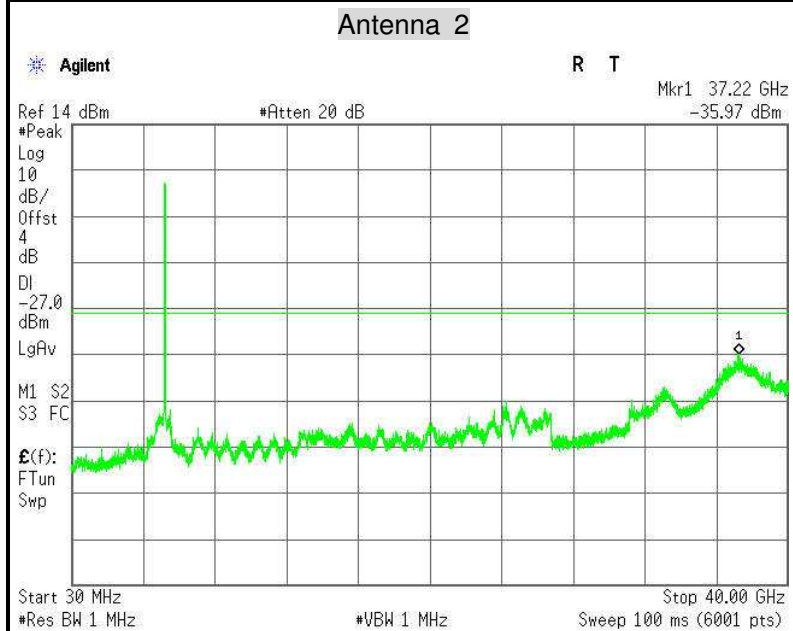


IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

CH Low



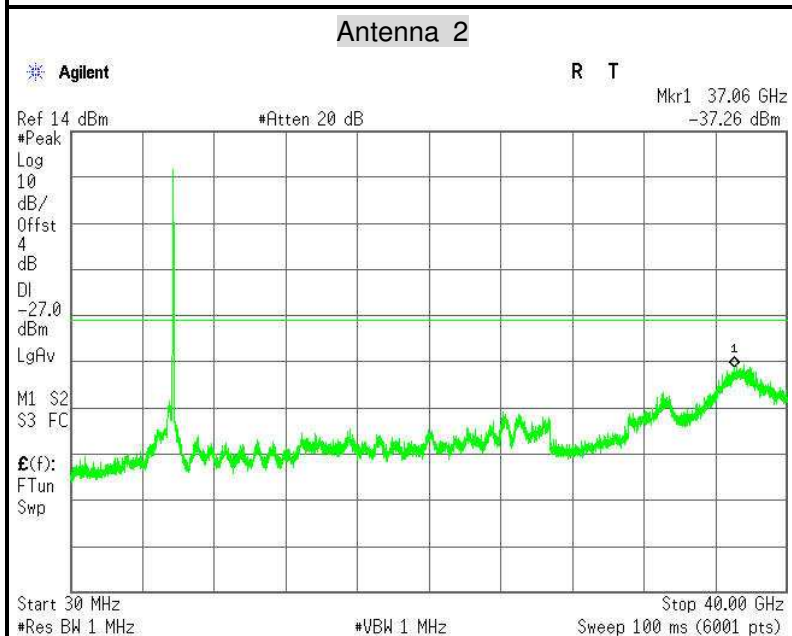
CH High



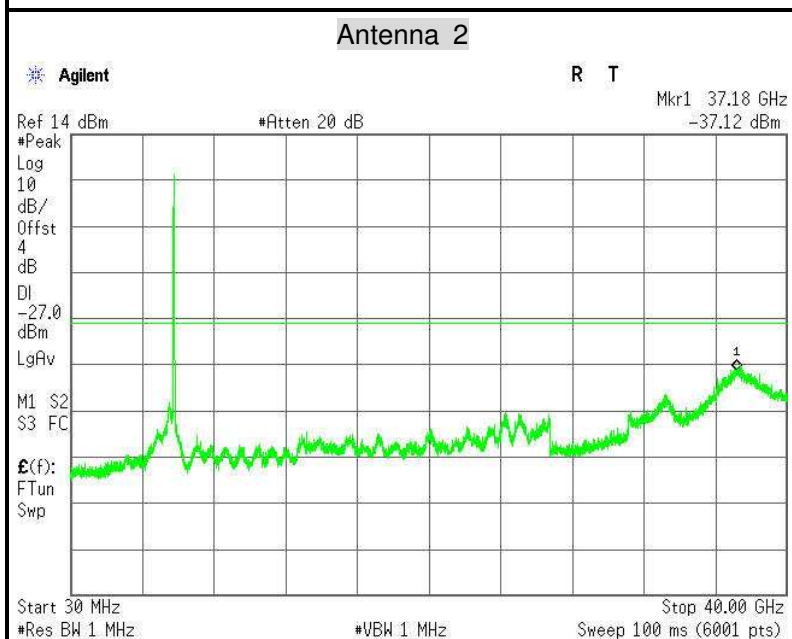


IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

CH Low



CH High

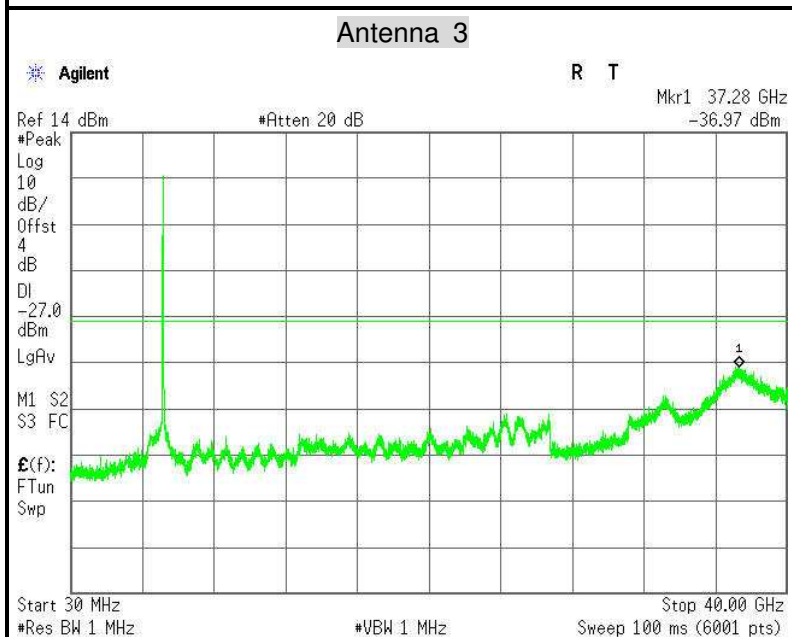




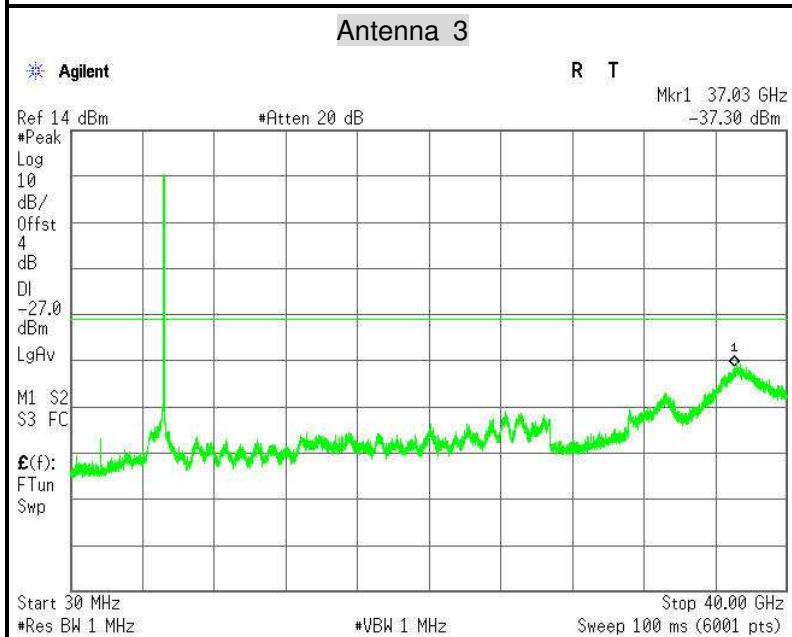


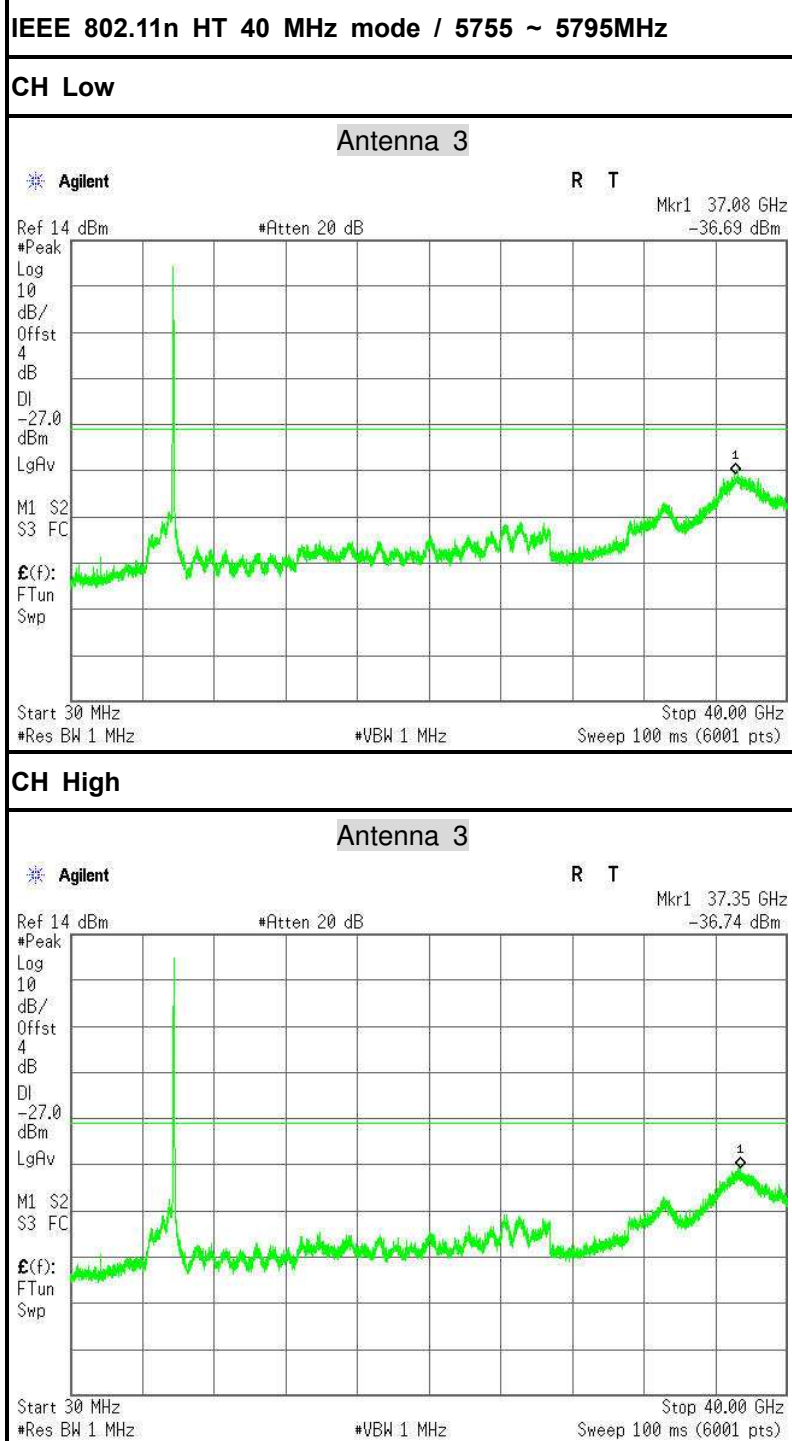
IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

CH Low



CH High

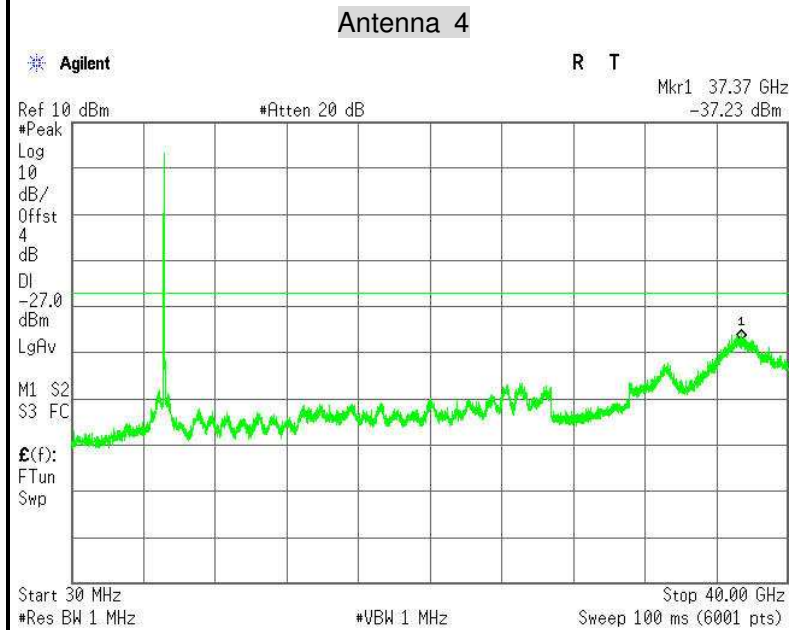




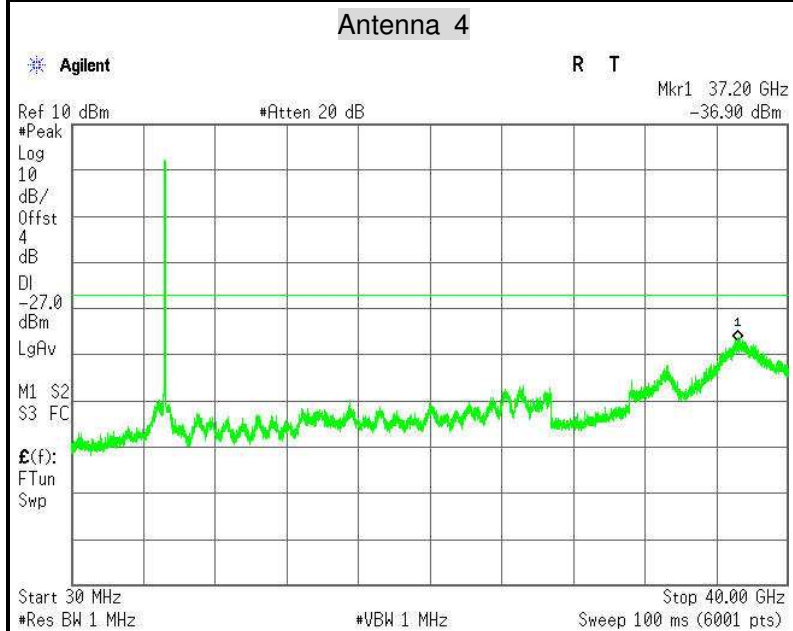


IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz

CH Low



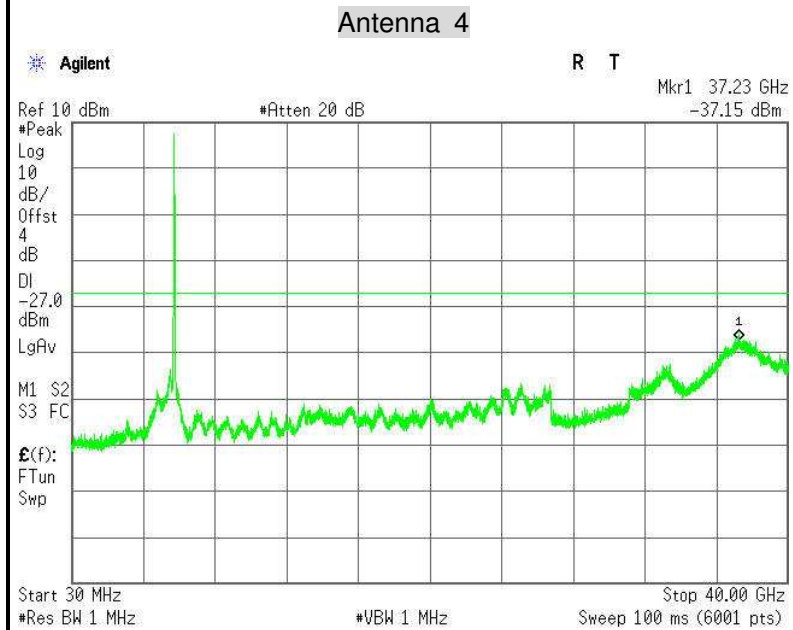
CH Mid



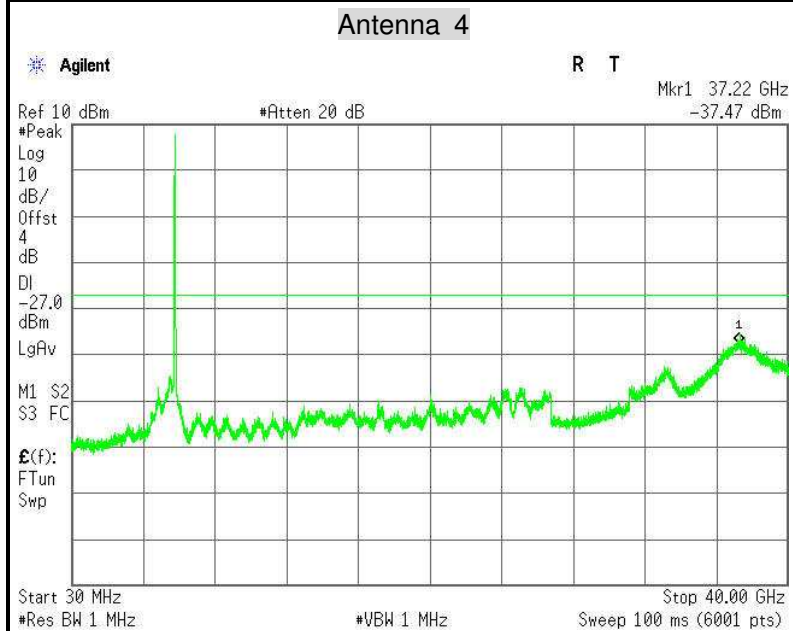


IEEE 802.11n HT 40 MHz mode / 5755 ~ 5795MHz

CH Low



CH High





## 6.7 POWERLINE CONDUCTED EMISSIONS S

### 6.7.1 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  $\mu$ 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 $\mu$ 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.

### 6.7.2 TEST INSTRUMENTS

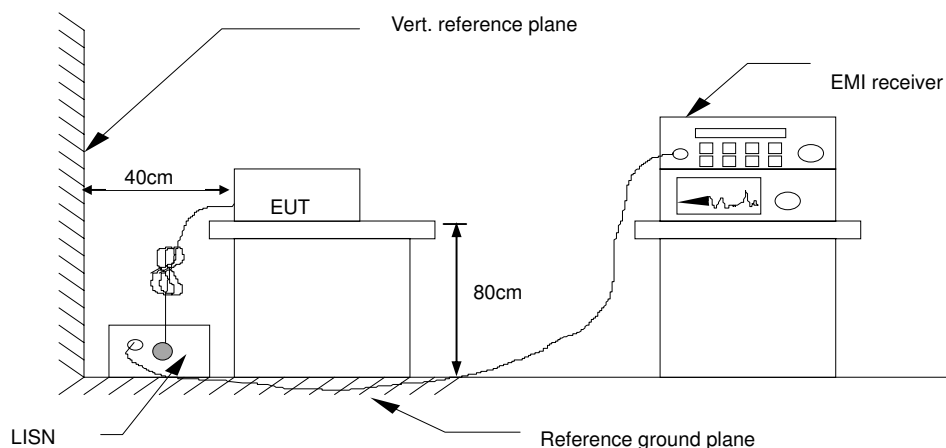
Conducted Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	03/09/2014	03/08/2015
LISN(EUT)	ROHDE&SCHWARZ	ENV216	101543-WX	04/20/2014	04/19/2015
LISN	EMCO	3825/2	8901-1459	03/09/2014	03/08/2015
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	03/17/2014	03/17/2015
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.



### 6.7.3 TEST CONFIGURATION



### 6.7.4 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.

### 6.7.5 DATA SAMPLE

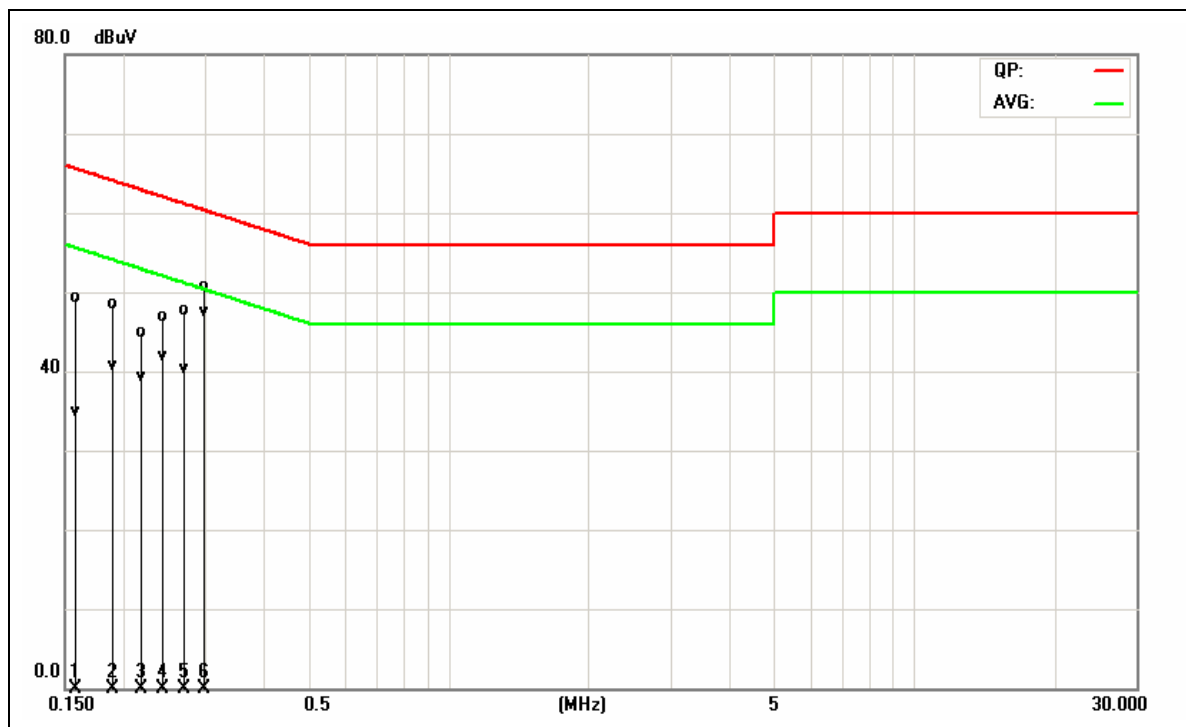
Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62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



## 6.7.6 TEST RESULTS

Model No.	WAP5805	RBW,VBW	9 kHz
Environmental Conditions	22°C, 45% RH	Test Mode	Mode 1
Tested by	Sunday Hu	Line	L1
Test Date	July 19, 2014		



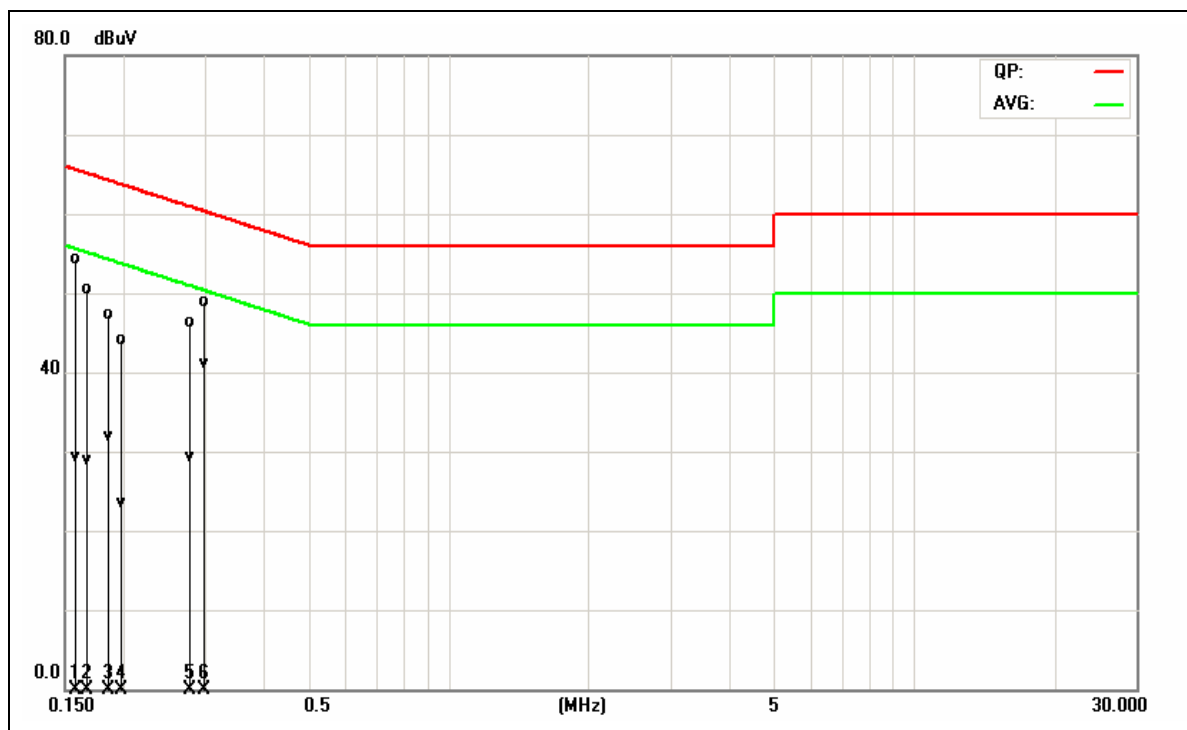
Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
0.1580	39.62	25.23	9.60	49.22	34.83	65.56	55.57	-16.34	-20.74	Pass
0.1900	38.89	31.06	9.67	48.56	40.73	64.03	54.04	-15.47	-13.31	Pass
0.2180	35.18	29.52	9.69	44.87	39.21	62.89	52.89	-18.02	-13.68	Pass
0.2420	37.25	32.18	9.69	46.94	41.87	62.02	52.03	-15.08	-10.16	Pass
0.2700	37.92	30.65	9.69	47.61	40.34	61.12	51.12	-13.51	-10.78	Pass
0.2980	41.07	37.87	9.69	50.76	47.56	60.30	50.30	-9.54	-2.74	Pass

### Remark:

1. Measuring frequencies from 0.15 MHz to 30MHz.
2. The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
3. The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
4. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)



Model No.	WAP5805	RBW,VBW	9 kHz
Environmental Conditions	22°C, 45% RH	Test Mode	Mode 1
Tested by	Sunday Hu	Line	L2
Test Date	July 19, 2014		



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)
0.1580	44.43	19.57	9.78	54.21	29.35	65.56	55.57	-11.35	-26.22	Pass
0.1660	40.65	19.15	9.78	50.43	28.93	65.15	55.16	-14.72	-26.23	Pass
0.1860	37.61	22.08	9.79	47.40	31.87	64.21	54.21	-16.81	-22.34	Pass
0.1980	34.31	13.80	9.79	44.10	23.59	63.69	53.69	-19.59	-30.10	Pass
0.2779	36.58	19.64	9.76	46.34	29.40	60.88	50.88	-14.54	-21.48	Pass
0.2980	39.07	31.29	9.76	48.83	41.05	60.30	50.30	-11.47	-9.25	Pass

**Remark:**

- Measuring frequencies from 0.15 MHz to 30MHz.
- The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
- The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
- L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)





## 6.8 FREQUENCY STABILITY

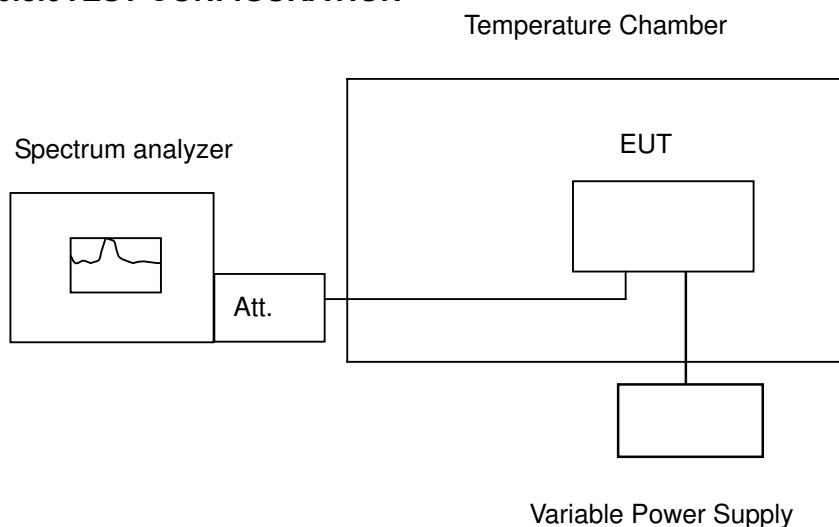
### 6.8.1 LIMIT

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.

### 6.8.2 TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2014	03/01/2015
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	03/01/2014	03/01/2015
Power Sensor	Anritsu	MA2411B	1126150	03/01/2014	03/01/2015
Temperature Chamber	TERCHY	MHG-800N	E21104	11/18/2013	11/18/2014
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/28/2014	02/28/2015

### 6.8.3 TEST CONFIGURATION



**Remark:** Measurement setup for testing on Antenna connector



#### **6.8.4 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.

#### **6.8.5 TEST RESULTS**

*No non-compliance noted.*

**Test Data  
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	5179.997919	5150~5250	PASS
40	120	5179.970730	5150~5250	PASS
30	120	5179.972147	5150~5250	PASS
20	120	5179.997556	5150~5250	PASS
10	120	5179.949954	5150~5250	PASS
0	120	5179.987609	5150~5250	PASS
-10	120	5179.981938	5150~5250	PASS
-20	120	5179.999732	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5179.995731	5150~5250	PASS
	120	5179.989979	5150~5250	PASS
	138	5179.987555	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	5239.981255	5150~5250	PASS
40	120	5239.980920	5150~5250	PASS
30	120	5239.992636	5150~5250	PASS
20	120	5239.949612	5150~5250	PASS
10	120	5239.953976	5150~5250	PASS
0	120	5239.983787	5150~5250	PASS
-10	120	5239.997358	5150~5250	PASS
-20	120	5239.965170	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5239.989096	5150~5250	PASS
	120	5239.970192	5150~5250	PASS
	138	5239.967479	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	5744.993636	5725-5850	PASS
40	120	5744.971717	5725-5850	PASS
30	120	5744.998355	5725-5850	PASS
20	120	5744.951735	5725-5850	PASS
10	120	5744.967513	5725-5850	PASS
0	120	5744.982806	5725-5850	PASS
-10	120	5744.964912	5725-5850	PASS
-20	120	5744.989504	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5744.999756	5725-5850	PASS
	120	5744.999572	5725-5850	PASS
	138	5744.951243	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	5824.963875	5725-5850	PASS
40	120	5824.958379	5725-5850	PASS
30	120	5824.987813	5725-5850	PASS
20	120	5824.976437	5725-5850	PASS
10	120	5824.998485	5725-5850	PASS
0	120	5824.956656	5725-5850	PASS
-10	120	5824.956536	5725-5850	PASS
-20	120	5824.957133	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5824.950299	5725-5850	PASS
	120	5824.950583	5725-5850	PASS
	138	5824.955598	5725-5850	PASS

**Antenna 2****IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.973356	5150~5250	PASS
40	120	5179.958778	5150~5250	PASS
30	120	5179.967882	5150~5250	PASS
20	120	5179.967589	5150~5250	PASS
10	120	5179.960445	5150~5250	PASS
0	120	5179.990821	5150~5250	PASS
-10	120	5179.991392	5150~5250	PASS
-20	120	5179.976007	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5179.956741	5475-5725	PASS
	120	5179.982655	5475-5725	PASS
	138	5179.987538	5475-5725	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	5239.984111	5150~5250	PASS
40	120	5239.963199	5150~5250	PASS
30	120	5239.987106	5150~5250	PASS
20	120	5239.996399	5150~5250	PASS
10	120	5239.990414	5150~5250	PASS
0	120	5239.966765	5150~5250	PASS
-10	120	5239.954602	5150~5250	PASS
-20	120	5239.957303	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5239.985842	5150~5250	PASS
	120	5239.954628	5150~5250	PASS
	138	5239.991523	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	5744.963658	5725-5850	PASS
40	120	5744.994171	5725-5850	PASS
30	120	5744.957548	5725-5850	PASS
20	120	5744.965400	5725-5850	PASS
10	120	5744.954109	5725-5850	PASS
0	120	5744.996733	5725-5850	PASS
-10	120	5744.994906	5725-5850	PASS
-20	120	5744.970482	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5744.956974	5725-5850	PASS
	120	5744.953737	5725-5850	PASS
	138	5744.953366	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	5824.973875	5725-5850	PASS
40	120	5824.972274	5725-5850	PASS
30	120	5824.970826	5725-5850	PASS
20	120	5824.990893	5725-5850	PASS
10	120	5824.996102	5725-5850	PASS
0	120	5824.950497	5725-5850	PASS
-10	120	5824.988474	5725-5850	PASS
-20	120	5824.972156	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5824.964734	5725-5850	PASS
	120	5824.950136	5725-5850	PASS
	138	5824.969153	5725-5850	PASS

**Antenna 3****IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.974149	5150~5250	PASS
40	120	5179.992477	5150~5250	PASS
30	120	5179.968558	5150~5250	PASS
20	120	5179.964842	5150~5250	PASS
10	120	5179.952628	5150~5250	PASS
0	120	5179.975316	5150~5250	PASS
-10	120	5179.973657	5150~5250	PASS
-20	120	5179.950955	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5179.960221	5150~5250	PASS
	120	5179.964701	5150~5250	PASS
	138	5179.952980	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	5239.975411	5150~5250	PASS
40	120	5239.990279	5150~5250	PASS
30	120	5239.957347	5150~5250	PASS
20	120	5239.958492	5150~5250	PASS
10	120	5239.968806	5150~5250	PASS
0	120	5239.989926	5150~5250	PASS
-10	120	5239.995081	5150~5250	PASS
-20	120	5239.961345	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5239.998241	5150~5250	PASS
	120	5239.957909	5150~5250	PASS
	138	5239.954005	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	5744.966353	5725-5850	PASS
40	120	5744.997929	5725-5850	PASS
30	120	5744.955163	5725-5850	PASS
20	120	5744.974985	5725-5850	PASS
10	120	5744.983876	5725-5850	PASS
0	120	5744.968149	5725-5850	PASS
-10	120	5744.966510	5725-5850	PASS
-20	120	5744.998395	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5744.981046	5725-5850	PASS
	120	5744.993501	5725-5850	PASS
	138	5744.984404	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	5824.950510	5725-5850	PASS
40	120	5824.964046	5725-5850	PASS
30	120	5824.997165	5725-5850	PASS
20	120	5824.954463	5725-5850	PASS
10	120	5824.996678	5725-5850	PASS
0	120	5824.955381	5725-5850	PASS
-10	120	5824.996805	5725-5850	PASS
-20	120	5824.983384	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5824.987581	5725-5850	PASS
	120	5824.976124	5725-5850	PASS
	138	5824.955263	5725-5850	PASS



**Antenna 4****IEEE 802.11n HT 20 MHz mode / 5180 ~ 5240MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5179.971503	5150~5250	PASS
40	120	5179.959600	5150~5250	PASS
30	120	5179.969665	5150~5250	PASS
20	120	5179.994840	5150~5250	PASS
10	120	5179.984063	5150~5250	PASS
0	120	5179.962024	5150~5250	PASS
-10	120	5179.984732	5150~5250	PASS
-20	120	5179.950728	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5179.954400	5150~5250	PASS
	120	5179.969758	5150~5250	PASS
	138	5179.957392	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	5239.967625	5150~5250	PASS
40	120	5239.967142	5150~5250	PASS
30	120	5239.970795	5150~5250	PASS
20	120	5239.971918	5150~5250	PASS
10	120	5239.998110	5150~5250	PASS
0	120	5239.990138	5150~5250	PASS
-10	120	5239.986572	5150~5250	PASS
-20	120	5239.975873	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5239.975541	5150~5250	PASS
	120	5239.983097	5150~5250	PASS
	138	5239.986337	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	5744.959388	5725-5850	PASS
40	120	5744.980088	5725-5850	PASS
30	120	5744.996413	5725-5850	PASS
20	120	5744.989512	5725-5850	PASS
10	120	5744.954810	5725-5850	PASS
0	120	5744.952361	5725-5850	PASS
-10	120	5744.997965	5725-5850	PASS
-20	120	5744.998865	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5744.977112	5725-5850	PASS
	120	5744.952551	5725-5850	PASS
	138	5744.983833	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	5824.953249	5725-5850	PASS
40	120	5824.985603	5725-5850	PASS
30	120	5824.995247	5725-5850	PASS
20	120	5824.954226	5725-5850	PASS
10	120	5824.975507	5725-5850	PASS
0	120	5824.982643	5725-5850	PASS
-10	120	5824.973342	5725-5850	PASS
-20	120	5824.983646	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5824.972096	5725-5850	PASS
	120	5824.981440	5725-5850	PASS
	138	5824.983910	5725-5850	PASS

**Antenna 1****IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5189.997628	5150~5250	PASS
40	120	5189.981541	5150~5250	PASS
30	120	5189.976736	5150~5250	PASS
20	120	5189.963390	5150~5250	PASS
10	120	5189.960626	5150~5250	PASS
0	120	5189.976829	5150~5250	PASS
-10	120	5189.974299	5150~5250	PASS
-20	120	5189.958862	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5189.996285	5150~5250	PASS
	120	5189.957175	5150~5250	PASS
	138	5189.949884	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	5229.997260	5150~5250	PASS
40	120	5229.950879	5150~5250	PASS
30	120	5229.952867	5150~5250	PASS
20	120	5229.952712	5150~5250	PASS
10	120	5229.971050	5150~5250	PASS
0	120	5229.979963	5150~5250	PASS
-10	120	5229.978901	5150~5250	PASS
-20	120	5229.974899	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5229.966596	5150~5250	PASS
	120	5229.980188	5150~5250	PASS
	138	5229.964303	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	5754.999047	5725-5850	PASS
40	120	5754.979071	5725-5850	PASS
30	120	5754.982409	5725-5850	PASS
20	120	5754.963717	5725-5850	PASS
10	120	5754.988685	5725-5850	PASS
0	120	5754.992025	5725-5850	PASS
-10	120	5754.986186	5725-5850	PASS
-20	120	5754.976691	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5754.984635	5725-5850	PASS
	120	5754.964248	5725-5850	PASS
	138	5179.984792	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	5794.955588	5725-5850	PASS
40	120	5794.966647	5725-5850	PASS
30	120	5794.964525	5725-5850	PASS
20	120	5794.971485	5725-5850	PASS
10	120	5794.995741	5725-5850	PASS
0	120	5794.967148	5725-5850	PASS
-10	120	5794.994376	5725-5850	PASS
-20	120	5794.995991	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5794.953011	5725-5850	PASS
	120	5794.951933	5725-5850	PASS
	138	5794.960923	5725-5850	PASS

**Antenna 2****IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5189.963034	5150~5250	PASS
40	120	5189.961488	5150~5250	PASS
30	120	5189.952572	5150~5250	PASS
20	120	5189.981039	5150~5250	PASS
10	120	5189.957292	5150~5250	PASS
0	120	5189.997723	5150~5250	PASS
-10	120	5189.994553	5150~5250	PASS
-20	120	5189.985884	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5189.984255	5150~5250	PASS
	120	5189.968137	5150~5250	PASS
	138	5189.979796	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	5229.966113	5150~5250	PASS
40	120	5229.983840	5150~5250	PASS
30	120	5229.980900	5150~5250	PASS
20	120	5229.971289	5150~5250	PASS
10	120	5229.993362	5150~5250	PASS
0	120	5229.986568	5150~5250	PASS
-10	120	5229.959994	5150~5250	PASS
-20	120	5229.968812	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5229.987099	5150~5250	PASS
	120	5229.954688	5150~5250	PASS
	138	5229.975940	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	5754.981560	5725-5850	PASS
40	120	5754.991586	5725-5850	PASS
30	120	5754.979080	5725-5850	PASS
20	120	5754.983935	5725-5850	PASS
10	120	5754.990502	5725-5850	PASS
0	120	5754.976342	5725-5850	PASS
-10	120	5754.949398	5725-5850	PASS
-20	120	5754.965279	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5754.976483	5725-5850	PASS
	120	5754.949360	5725-5850	PASS
	138	5179.984792	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	5794.956300	5725-5850	PASS
40	120	5794.953451	5725-5850	PASS
30	120	5794.990087	5725-5850	PASS
20	120	5794.993696	5725-5850	PASS
10	120	5794.960205	5725-5850	PASS
0	120	5794.967520	5725-5850	PASS
-10	120	5794.949968	5725-5850	PASS
-20	120	5794.962708	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5794.963625	5725-5850	PASS
	120	5794.960027	5725-5850	PASS
	138	5794.954982	5725-5850	PASS

**Antenna 3****IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5189.983350	5150~5250	PASS
40	120	5189.982460	5150~5250	PASS
30	120	5189.977204	5150~5250	PASS
20	120	5189.989598	5150~5250	PASS
10	120	5189.969375	5150~5250	PASS
0	120	5189.955784	5150~5250	PASS
-10	120	5189.978039	5150~5250	PASS
-20	120	5189.984585	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5189.982788	5150~5250	PASS
	120	5189.995867	5150~5250	PASS
	138	5189.975130	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	5229.984546	5150~5250	PASS
40	120	5229.991957	5150~5250	PASS
30	120	5229.982508	5150~5250	PASS
20	120	5229.973165	5150~5250	PASS
10	120	5229.973099	5150~5250	PASS
0	120	5229.981942	5150~5250	PASS
-10	120	5229.976007	5150~5250	PASS
-20	120	5229.969598	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5229.993377	5150~5250	PASS
	120	5229.981718	5150~5250	PASS
	138	5229.966968	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	5754.986481	5725-5850	PASS
40	120	5754.953238	5725-5850	PASS
30	120	5754.997613	5725-5850	PASS
20	120	5754.962731	5725-5850	PASS
10	120	5754.951328	5725-5850	PASS
0	120	5754.984878	5725-5850	PASS
-10	120	5754.967148	5725-5850	PASS
-20	120	5754.984285	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5754.962483	5725-5850	PASS
	120	5754.980914	5725-5850	PASS
	138	5179.984792	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	5794.972090	5725-5850	PASS
40	120	5794.962068	5725-5850	PASS
30	120	5794.995182	5725-5850	PASS
20	120	5794.994425	5725-5850	PASS
10	120	5794.991714	5725-5850	PASS
0	120	5794.990744	5725-5850	PASS
-10	120	5794.988949	5725-5850	PASS
-20	120	5794.994619	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5794.954082	5725-5850	PASS
	120	5794.987329	5725-5850	PASS
	138	5794.976557	5725-5850	PASS



**Antenna 4****IEEE 802.11n HT 40 MHz mode / 5190 ~ 5230MHz (Low)**

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
50	120	5189.977797	5150~5250	PASS
40	120	5189.960526	5150~5250	PASS
30	120	5189.981041	5150~5250	PASS
20	120	5189.982613	5150~5250	PASS
10	120	5189.976927	5150~5250	PASS
0	120	5189.967241	5150~5250	PASS
-10	120	5189.985854	5150~5250	PASS
-20	120	5189.987912	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5189.993689	5150~5250	PASS
	120	5189.982659	5150~5250	PASS
	138	5189.982546	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	5229.984005	5150~5250	PASS
40	120	5229.954732	5150~5250	PASS
30	120	5229.995200	5150~5250	PASS
20	120	5229.958818	5150~5250	PASS
10	120	5229.953947	5150~5250	PASS
0	120	5229.993869	5150~5250	PASS
-10	120	5229.996862	5150~5250	PASS
-20	120	5229.969636	5150~5250	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5229.984039	5150~5250	PASS
	120	5229.974129	5150~5250	PASS
	138	5229.987295	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	5754.990435	5725-5850	PASS
40	120	5754.953895	5725-5850	PASS
30	120	5754.950318	5725-5850	PASS
20	120	5754.950557	5725-5850	PASS
10	120	5754.964990	5725-5850	PASS
0	120	5754.963063	5725-5850	PASS
-10	120	5754.977889	5725-5850	PASS
-20	120	5754.981214	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5754.980274	5725-5850	PASS
	120	5754.955227	5725-5850	PASS
	138	5179.984792	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	5794.976444	5725-5850	PASS
40	120	5794.956760	5725-5850	PASS
30	120	5794.961136	5725-5850	PASS
20	120	5794.954700	5725-5850	PASS
10	120	5794.960240	5725-5850	PASS
0	120	5794.995058	5725-5850	PASS
-10	120	5794.952173	5725-5850	PASS
-20	120	5794.975210	5725-5850	PASS

Environment Temperature ( °C )	Volage (V)	Measured Frequency (MHz)	limit Range	Test Result
20	102	5794.987535	5725-5850	PASS
	120	5794.988606	5725-5850	PASS
	138	5794.972949	5725-5850	PASS