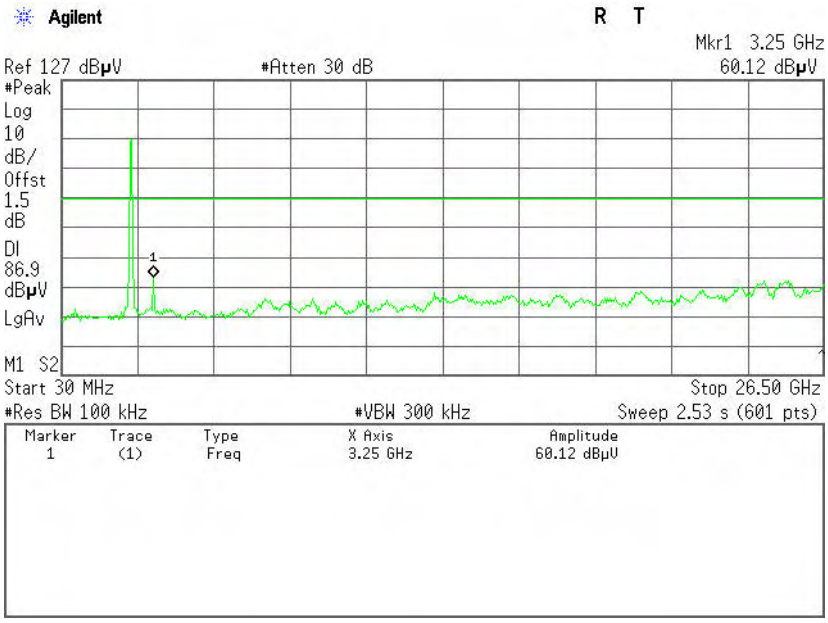
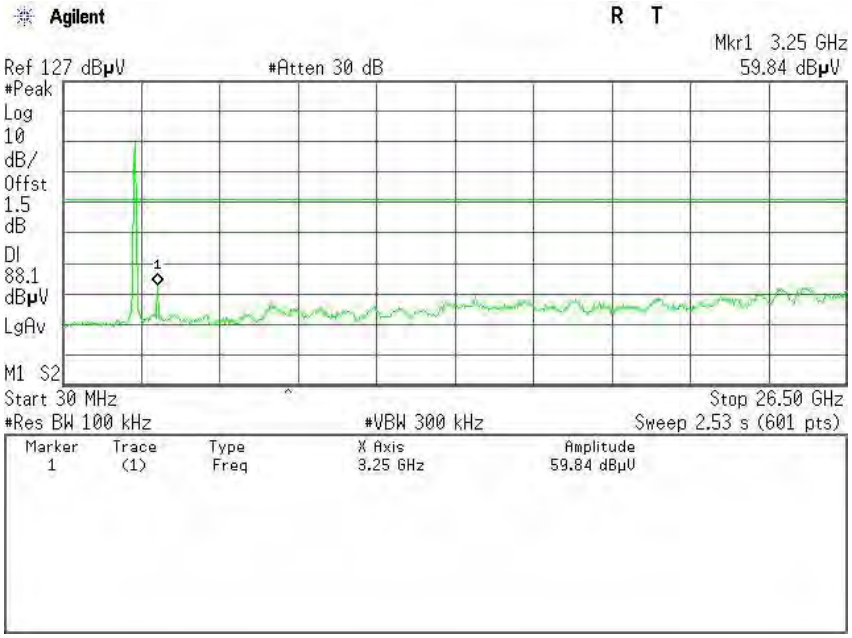
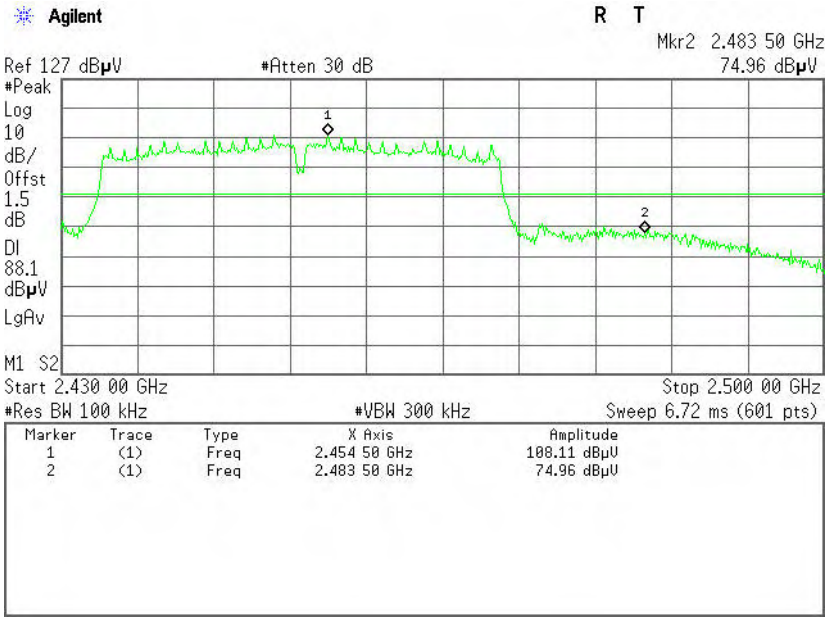
CH Mid (30MHz ~26.5GHz)



CH High (30MHz ~26.5GHz)



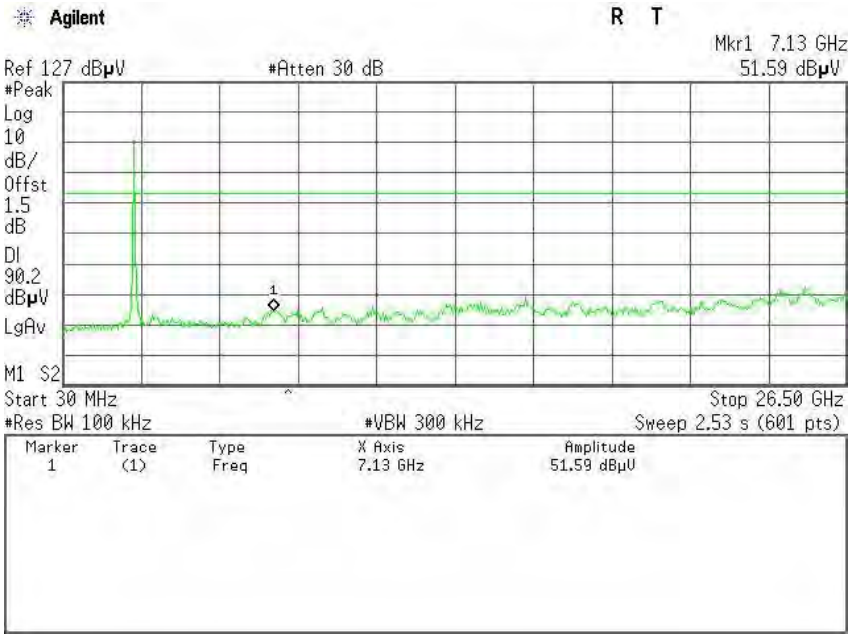
CH High(2.43GHz ~2.5GHz)



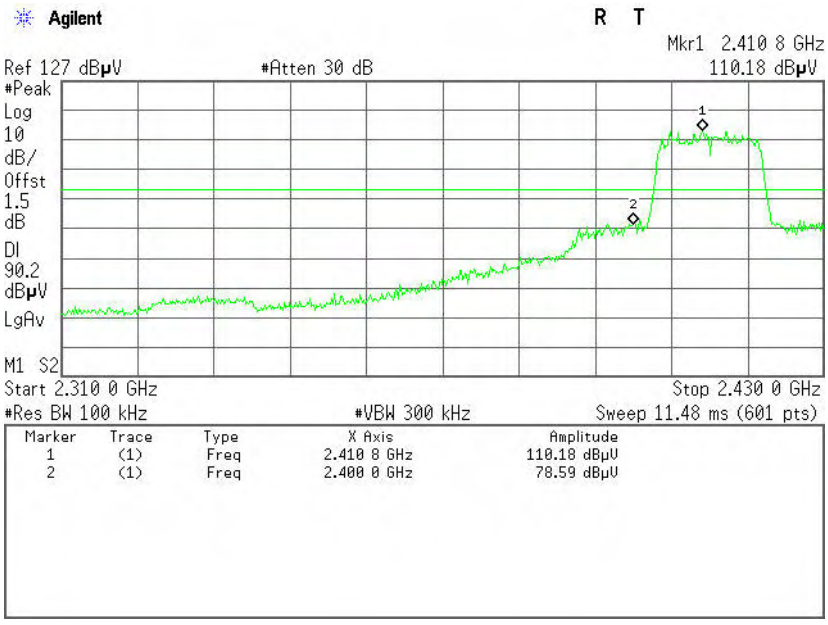
Antenna 1

IEEE 802.11g mode

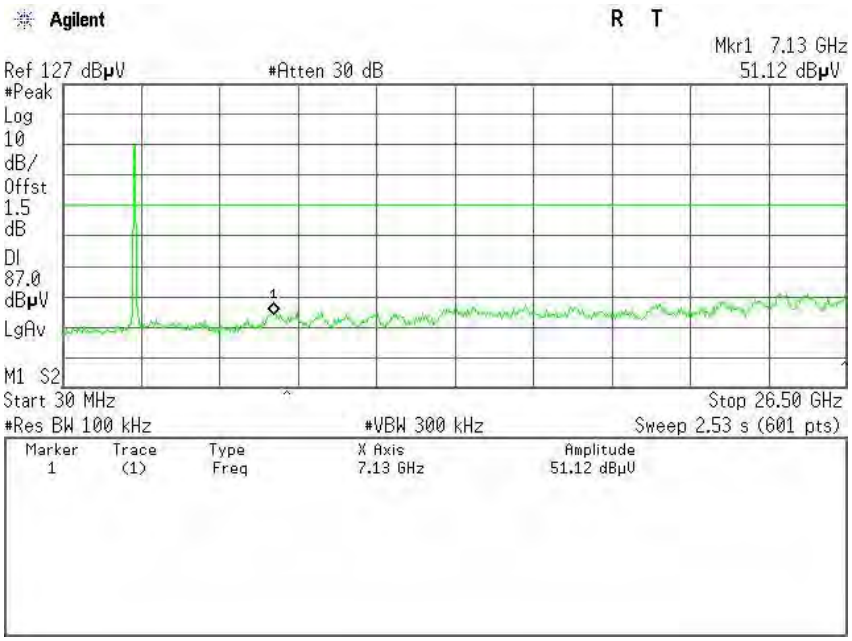
CH Low (30MHz ~26.5GHz)



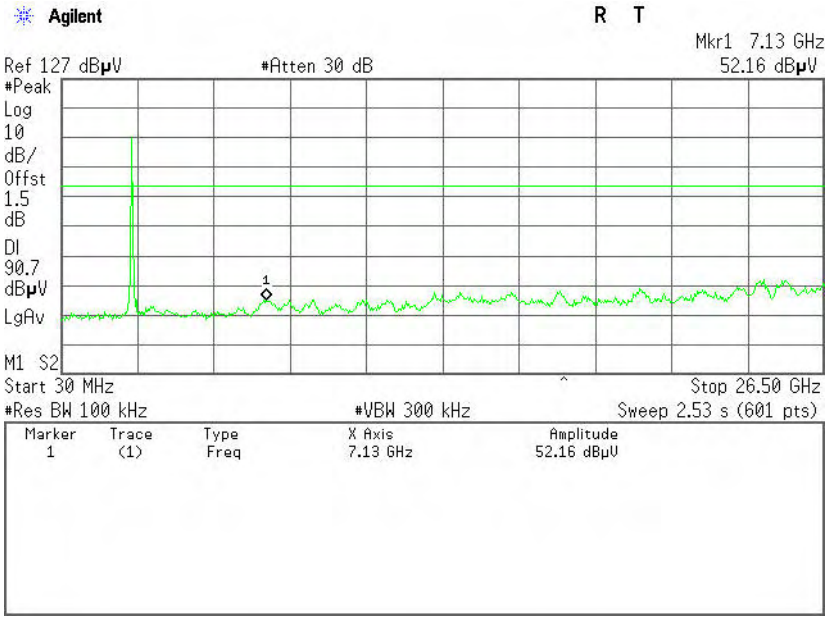
CH Low (2.31GHz ~2.43GHz)



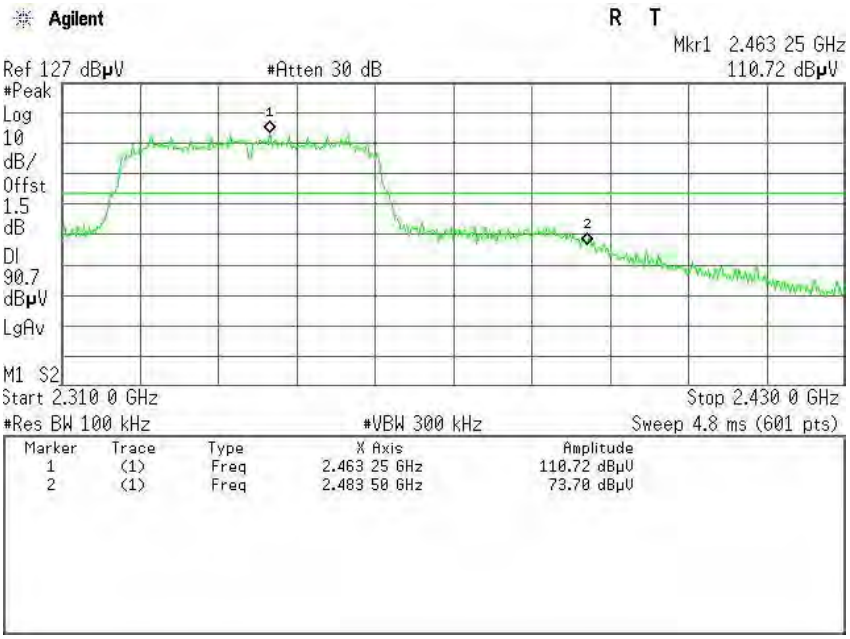
CH Mid (30MHz ~26.5GHz)



CH High (30MHz ~26.5GHz)



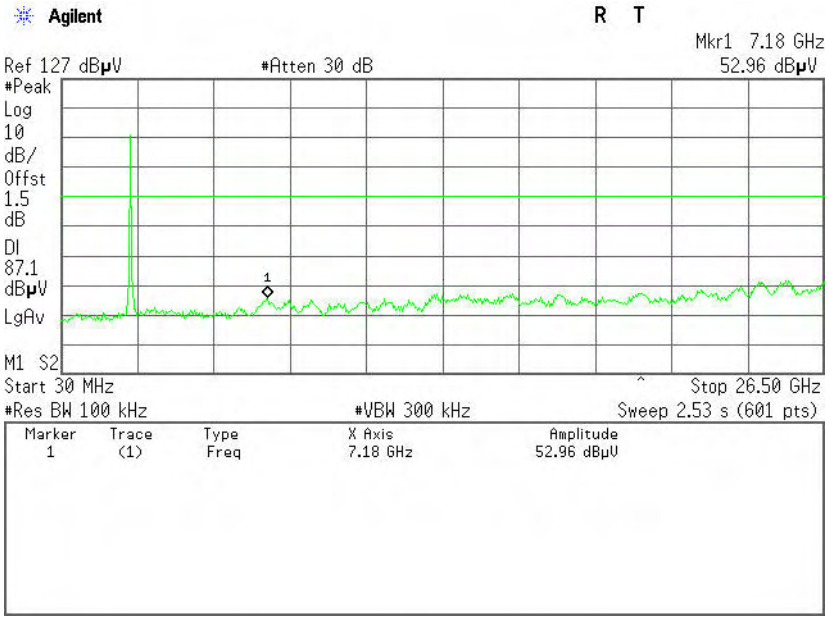
CH High(2.31GHz ~2.43GHz)



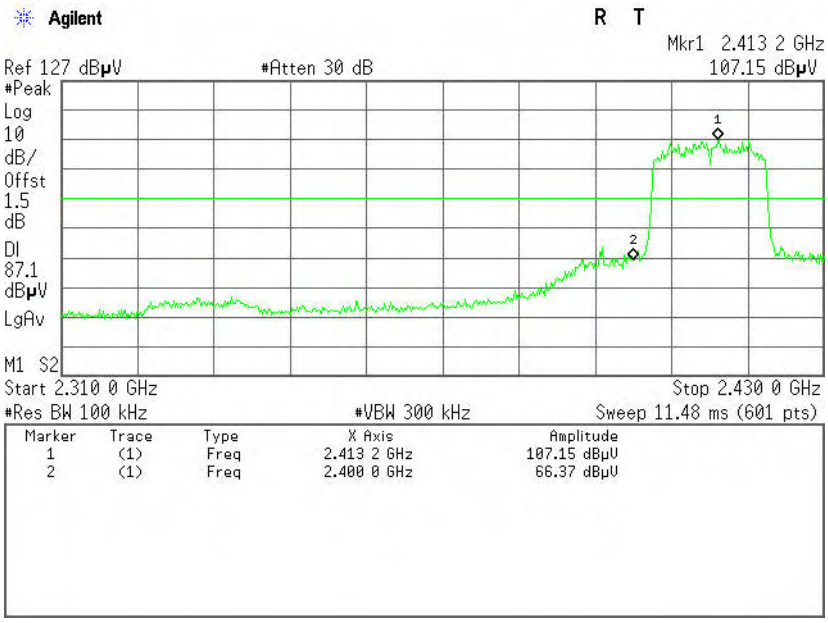
Antenna 1

IEEE 802.11n HT20 MHz mode

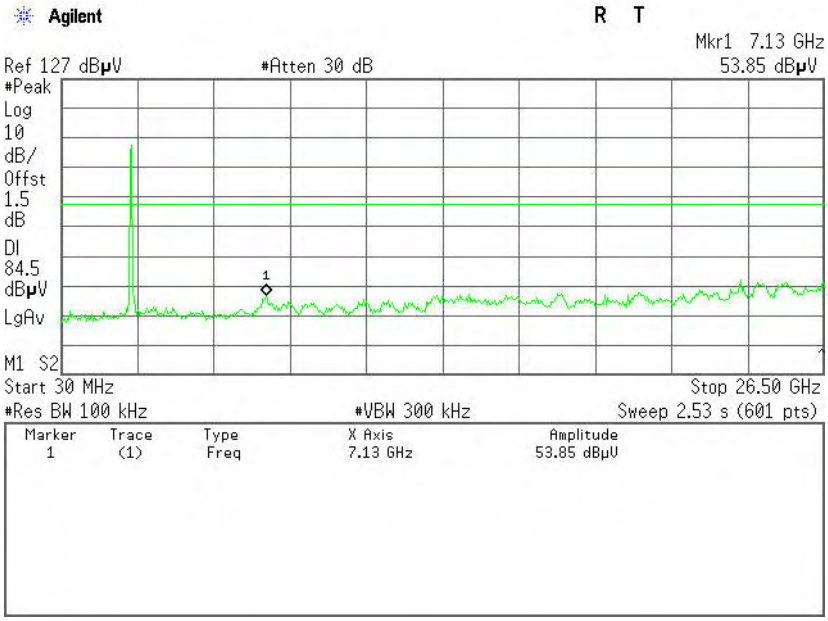
CH Low (30MHz ~26.5GHz)



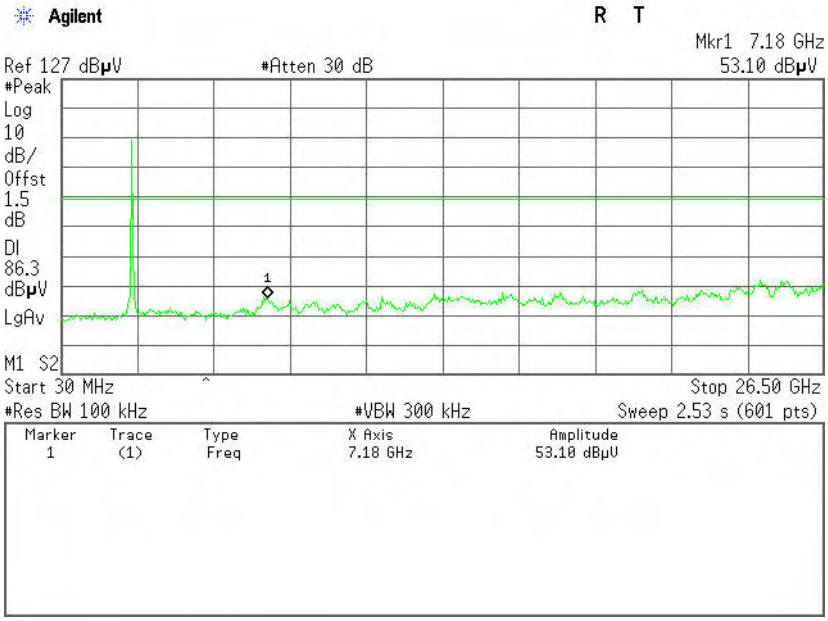
CH Low (2.31GHz ~2.43GHz)



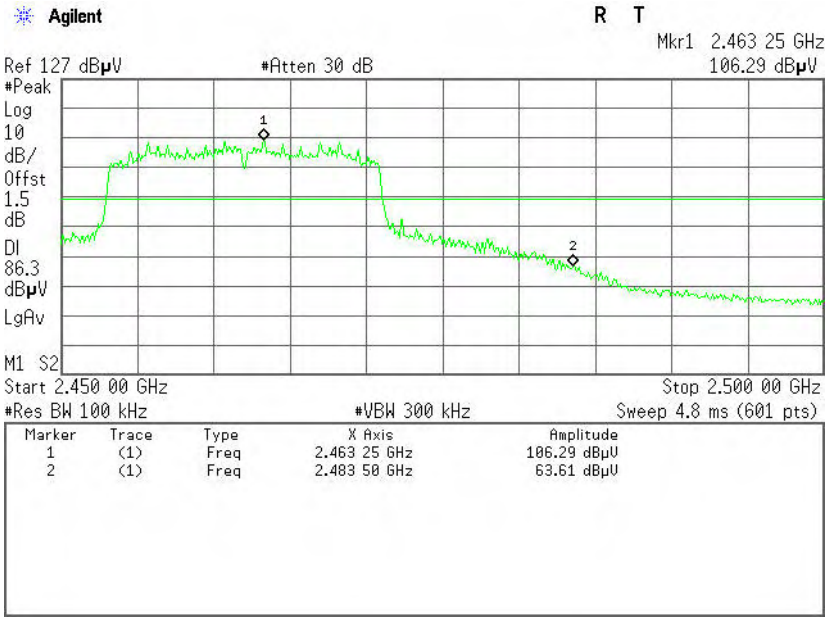
CH Mid (30MHz ~26.5GHz)



CH High (30MHz ~26.5GHz)



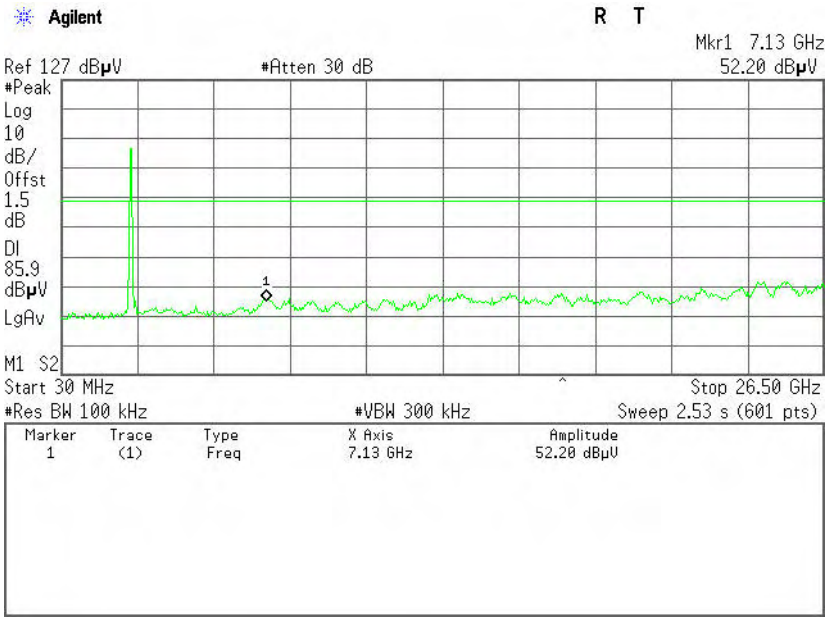
CH High (2.45GHz ~2.5GHz)



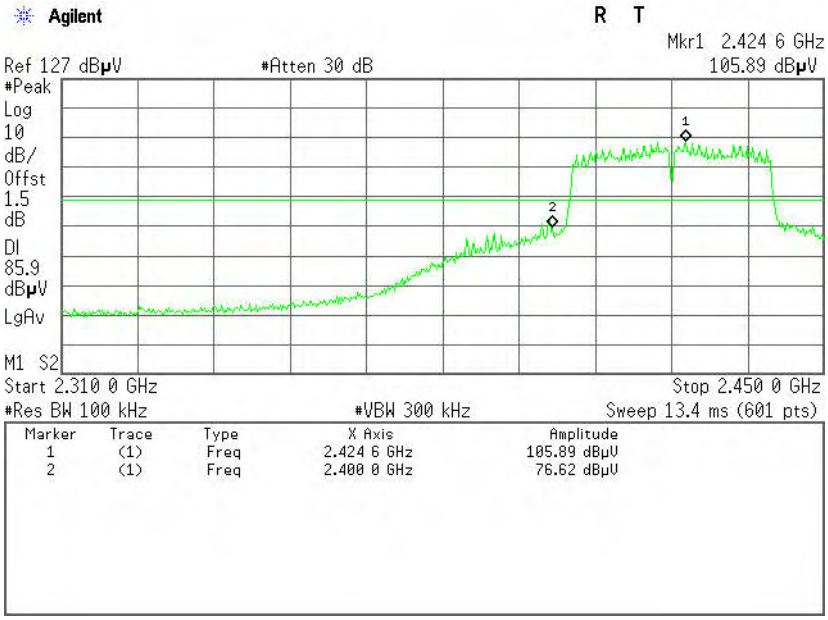
Antenna 1

IEEE 802.11n HT40 MHz mode

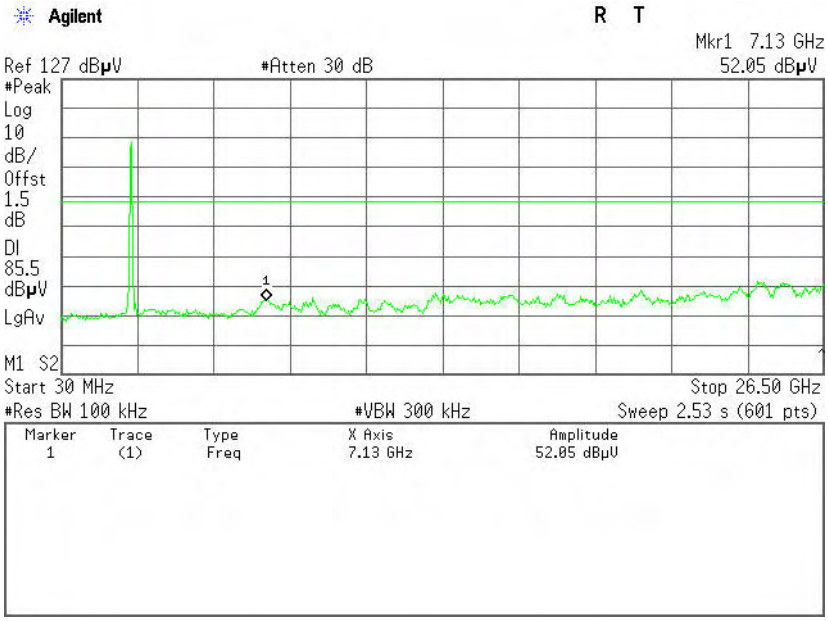
CH Low (30MHz ~26.5GHz)



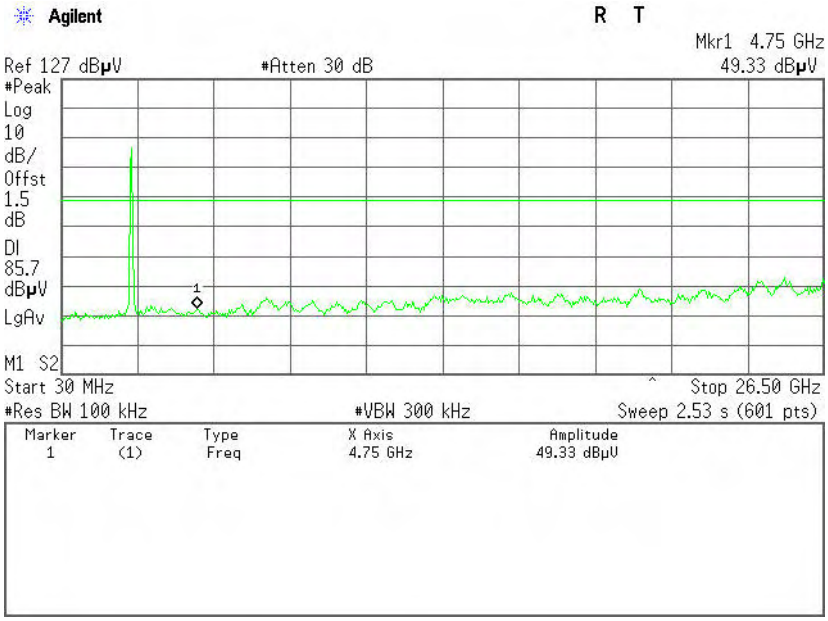
CH Low (2.31GHz ~2.45GHz)



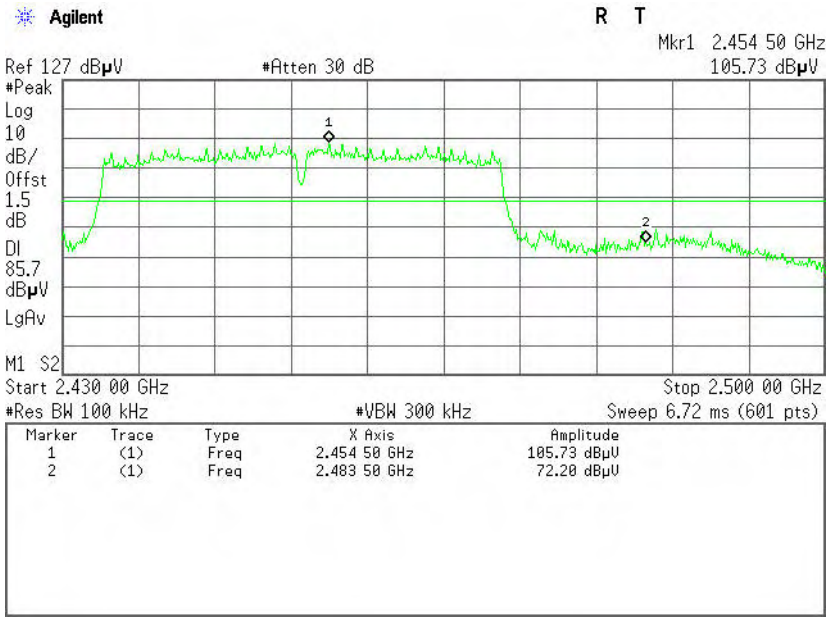
CH Mid (30MHz ~26.5GHz)



CH High (30MHz ~26.5GHz)



CH High (2.43GHz ~2.5GHz)



7.2.4.1. LIMITS OF RADIATED EMISSIONS MEASUREMENT

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 (mV/m)	Measurement Distance (m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
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.

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

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

NOTE:(1) The lower limit shall apply at the transition frequencies.

(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

7.2.4.2. 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	03/09/2013	03/08/2014
ESCI EMI TEST RECEIVER.ESCI	ROHDE&SCHWARZ	ESCI	100783	03/09/2013	03/08/2014
Amplifier	MITEQ	AM-1604-3000	1123808	03/18/2013	03/18/2014
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2013	03/18/2014
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	06/21/2013	06/21/2014
Bilog Antenna	SCHAFFNER	CBL6143	5082	03/02/2013	03/01/2014
Horn Antenna	SCHWARZBECK	BBHA9120	D286	03/02/2013	03/01/2014
Loop Antenna	A、R、A	PLA-1030/B	1029	03/23/2013	03/23/2014
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	03/04/2013	03/03/2014
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2			

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. The FCC Site Registration number is 101879.

3. N.C.R = No Calibration Required.

7.2.4.3. TEST PROCEDURE (please refer to measurement standard)

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:

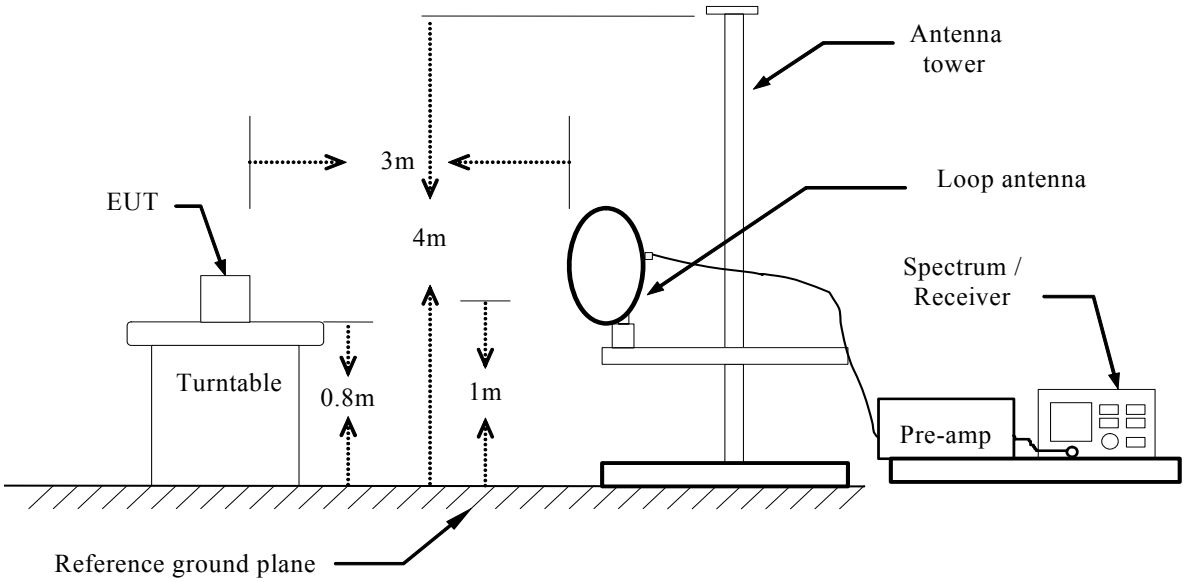
   (a) PEAK: RBW=1MHz,VBW=3MHz / Sweep=AUTO

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

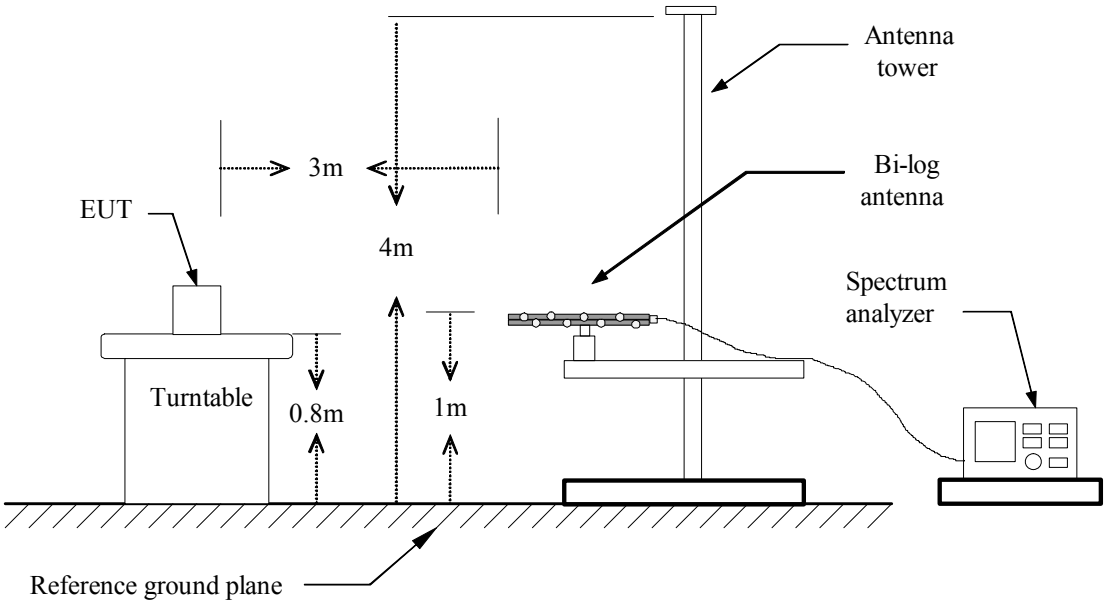
7. Repeat above procedures until the measurements for all frequencies are complete.

7.2.4.4. TEST SETUP

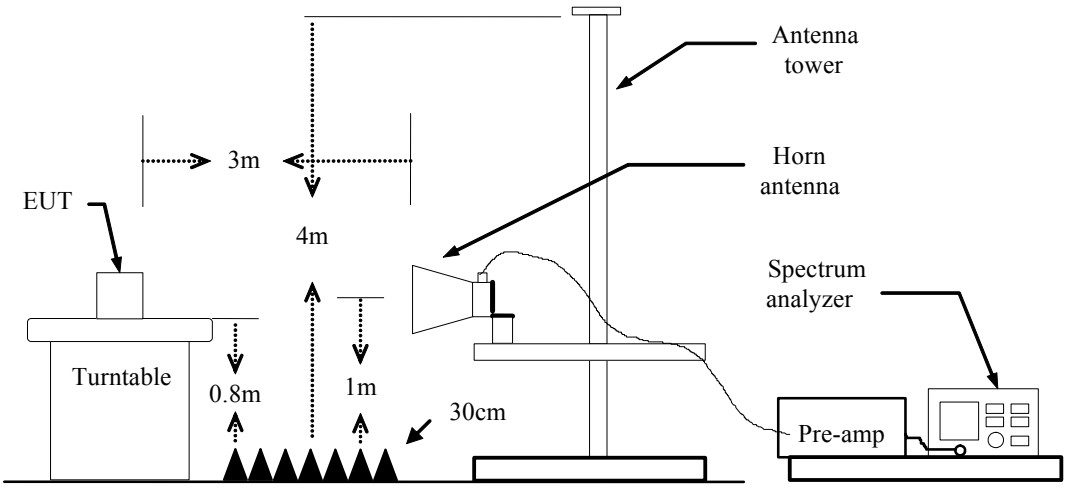
Below 30MHz



Below 1 GHz



Above 1 GHz



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

7.2.4.5. DATA SAMPLE

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

7.2.4.6. TEST RESULTS

Below 1 GHz

Test Mode: TX **Test Date:** December 19, 2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
44.5500	47.50	-15.19	32.31	40.00	-7.69	V	QP
249.8667	60.22	-17.77	42.45	46.00	-3.55	V	QP
418.0000	47.63	-15.23	32.40	46.00	-13.60	V	QP
500.4500	50.45	-14.06	36.39	46.00	-9.61	V	QP
511.7667	51.83	-14.66	37.17	46.00	-8.83	V	QP
639.4833	43.59	-12.81	30.78	46.00	-15.22	V	QP
249.8667	59.95	-17.77	42.18	46.00	-3.82	H	QP
414.7667	50.53	-15.23	35.30	46.00	-10.70	H	QP
500.4500	51.45	-14.06	37.39	46.00	-8.61	H	QP
639.4833	41.95	-12.81	29.14	46.00	-16.86	H	QP
666.9667	37.63	-11.37	26.26	46.00	-19.74	H	QP
833.4833	39.65	-10.29	29.36	46.00	-16.64	H	QP

***Remark:** No emission found between lowest internal used/generated frequency to 30MHz.*

Notes:

1. *Radiated emissions measured in frequency range from 9kHz to 1GHz were made with an instrument using Quasi-peak detector mode.*
2. *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.*
3. *The IF bandwidth of Receiver between 30MHz to 1GHz was 120kHz.*
4. *Frequency (MHz). = Emission frequency in MHz*
   Reading (dBµV/m) = Receiver reading
   Correction Factor (dB) = Antenna factor + Cable loss – Amplifier gain
   Limit (dBµV/m) = Limit stated in standard
   Margin (dB) = Measured (dBµV/m) – Limits (dBµV/m)
   Antenna Pol e(H/V) = Current carrying line of reading

Above 1 GHz

Antenna 0

Operation Mode: TX / IEEE 802.11b/ CH Low
Test Date: December 19, 2013
Temperature: 24°C
Tested by: Sun Guo
Humidity: 52% RH
Polarity: Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
3220.0000	53.52	-4.08	49.44	74.00	-24.56	V	peak
3730.0000	45.41	-2.67	42.74	74.00	-31.26	V	peak
3895.0000	45.39	-2.51	42.88	74.00	-31.12	V	peak
4825.0000	48.25	0.52	48.77	74.00	-25.23	V	peak
5380.0000	44.93	1.52	46.45	74.00	-27.55	V	peak
6355.0000	43.63	4.13	47.76	74.00	-26.24	V	peak
1285.0000	48.65	-8.35	40.30	74.00	-33.70	H	Peak
3220.0000	49.63	-4.08	45.55	74.00	-28.45	H	Peak
4495.0000	45.49	-0.65	44.84	74.00	-29.16	H	Peak
4825.0000	46.77	0.52	47.29	74.00	-26.71	H	Peak
5800.0000	44.04	2.78	46.82	74.00	-27.18	H	Peak
6160.0000	44.62	3.56	48.18	74.00	-25.82	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11b/ CH Mid **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1315.0000	48.34	-8.21	40.13	74.00	-33.87	V	Peak
2515.0000	48.95	-6.13	42.82	74.00	-31.18	V	Peak
3250.0000	49.65	-4.07	45.58	74.00	-28.42	V	Peak
3655.0000	45.38	-2.87	42.51	74.00	-31.49	V	Peak
4390.0000	44.98	-0.86	44.12	74.00	-29.88	V	Peak
4870.0000	45.31	0.73	46.04	74.00	-27.96	V	Peak
1390.0000	47.83	-7.88	39.95	74.00	-34.05	H	Peak
3250.0000	46.32	-4.07	42.25	74.00	-31.75	H	Peak
3805.0000	45.71	-2.49	43.22	74.00	-30.78	H	Peak
4465.0000	45.93	-0.70	45.23	74.00	-28.77	H	Peak
5065.0000	44.81	1.39	46.20	74.00	-27.80	H	Peak
6250.0000	44.52	3.83	48.35	74.00	-25.65	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11b / CH High **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1240.0000	49.78	-8.55	41.23	74.00	-32.77	V	Peak
3295.0000	51.60	-4.05	47.55	74.00	-26.45	V	Peak
4375.0000	44.95	-0.91	44.04	74.00	-29.96	V	Peak
4750.0000	45.60	0.19	45.79	74.00	-28.21	V	Peak
4945.0000	46.24	1.07	47.31	74.00	-26.69	V	Peak
5815.0000	44.47	2.80	47.27	74.00	-26.73	V	Peak
1345.0000	48.70	-8.08	40.62	74.00	-33.38	H	Peak
2860.0000	47.67	-4.80	42.87	74.00	-31.13	H	Peak
3295.0000	48.31	-4.05	44.26	74.00	-29.74	H	Peak
4300.0000	45.34	-1.20	44.14	74.00	-29.86	H	Peak
4945.0000	48.78	1.07	49.85	74.00	-24.15	H	Peak
6190.0000	44.62	3.65	48.27	74.00	-25.73	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Antenna 0

Operation Mode: TX / IEEE 802.11g / CH Low **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
3220.0000	54.89	-4.08	50.81	74.00	-23.19	V	Peak
4060.0000	45.17	-2.24	42.93	74.00	-31.07	V	Peak
4825.0000	46.41	0.52	46.93	74.00	-27.07	V	Peak
5185.0000	44.41	1.53	45.94	74.00	-28.06	V	Peak
5560.0000	44.08	1.85	45.93	74.00	-28.07	V	Peak
5755.0000	44.06	2.59	46.65	74.00	-27.35	V	Peak
1150.0000	49.50	-9.13	40.37	74.00	-33.63	H	Peak
2560.0000	48.37	-5.98	42.39	74.00	-31.61	H	Peak
3220.0000	49.51	-4.08	45.43	74.00	-28.57	H	Peak
4135.0000	45.95	-1.89	44.06	74.00	-29.94	H	Peak
4825.0000	45.56	0.52	46.08	74.00	-27.92	H	Peak
5230.0000	44.65	1.55	46.20	74.00	-27.80	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11g / CH Mid **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1285.0000	48.72	-8.35	40.37	74.00	-33.63	V	Peak
2815.0000	48.37	-4.98	43.39	74.00	-30.61	V	Peak
3250.0000	50.83	-4.07	46.76	74.00	-27.24	V	Peak
4135.0000	44.99	-1.89	43.10	74.00	-30.90	V	Peak
4870.0000	48.82	0.73	49.55	74.00	-24.45	V	Peak
5320.0000	44.46	1.53	45.99	74.00	-28.01	V	Peak
1330.0000	48.39	-8.14	40.25	74.00	-33.75	H	Peak
3250.0000	46.93	-4.07	42.86	74.00	-31.14	H	Peak
3745.0000	45.54	-2.63	42.91	74.00	-31.09	H	Peak
4360.0000	45.42	-0.97	44.45	74.00	-29.55	H	Peak
4705.0000	45.28	0.00	45.28	74.00	-28.72	H	Peak
5020.0000	44.27	1.34	45.61	74.00	-28.39	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11g / CH High **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
3295.0000	52.47	-4.05	48.42	74.00	-25.58	V	Peak
4195.0000	44.60	-1.60	43.00	74.00	-31.00	V	Peak
4405.0000	44.99	-0.81	44.18	74.00	-29.82	V	Peak
4930.0000	45.36	1.00	46.36	74.00	-27.64	V	Peak
5365.0000	44.60	1.53	46.13	74.00	-27.87	V	Peak
6130.0000	44.90	3.48	48.38	74.00	-25.62	V	Peak
3295.0000	47.84	-4.05	43.79	74.00	-30.21	H	Peak
3715.0000	46.06	-2.71	43.35	74.00	-30.65	H	Peak
4345.0000	44.57	-1.03	43.54	74.00	-30.46	H	Peak
4930.0000	44.35	1.00	45.35	74.00	-28.65	H	Peak
5305.0000	44.84	1.53	46.37	74.00	-27.63	H	Peak
5920.0000	43.61	2.97	46.58	74.00	-27.42	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Antenna 1

Operation Mode: TX / IEEE 802.11g / CH Low **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1165.0000	50.86	-9.01	41.85	74.00	-32.15	V	Peak
3220.0000	49.89	-4.08	45.81	74.00	-28.19	V	Peak
3760.0000	45.09	-2.59	42.50	74.00	-31.50	V	Peak
4195.0000	47.16	-1.60	45.56	74.00	-28.44	V	Peak
4825.0000	53.23	0.52	53.75	74.00	-20.25	V	Peak
4825.0000	42.37	0.52	42.89	74.00	-11.11	V	AVG
5380.0000	44.65	1.52	46.17	74.00	-27.83	V	Peak
1435.0000	47.86	-7.98	39.88	74.00	-34.12	H	Peak
3265.0000	47.06	-4.06	43.00	74.00	-31.00	H	Peak
3775.0000	45.56	-2.55	43.01	74.00	-30.99	H	Peak
4390.0000	44.63	-0.86	43.77	74.00	-30.23	H	Peak
4825.0000	46.13	0.52	46.65	74.00	-27.35	H	Peak
5500.0000	44.29	1.73	46.02	74.00	-27.98	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11g / CH Mid **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1435.0000	48.51	-7.98	40.53	74.00	-33.47	V	Peak
2440.0000	49.29	-6.39	42.90	74.00	-31.10	V	Peak
3250.0000	47.98	-4.07	43.91	74.00	-30.09	V	Peak
3865.0000	45.86	-2.50	43.36	74.00	-30.64	V	Peak
4870.0000	51.51	0.73	52.24	74.00	-21.76	V	Peak
4870.0000	39.90	0.73	40.63	74.00	-13.37	V	AVG
5350.0000	44.19	1.53	45.72	74.00	-28.28	V	Peak
1150.0000	50.67	-9.13	41.54	74.00	-32.46	H	Peak
3325.0000	46.47	-4.03	42.44	74.00	-31.56	H	Peak
3550.0000	46.11	-3.26	42.85	74.00	-31.15	H	Peak
4060.0000	45.73	-2.24	43.49	74.00	-30.51	H	Peak
4870.0000	48.82	0.73	49.55	74.00	-24.45	H	Peak
5350.0000	44.62	1.53	46.15	74.00	-27.85	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11g / CH High **Test Date:** December 19,2013
Temperature: 24°C **Tested by:** Sun Guo
Humidity: 52 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1300.0000	48.51	-8.28	40.23	74.00	-33.77	V	Peak
3295.0000	47.67	-4.05	43.62	74.00	-30.38	V	Peak
3745.0000	44.82	-2.63	42.19	74.00	-31.81	V	Peak
4330.0000	44.19	-1.09	43.10	74.00	-30.90	V	Peak
4945.0000	49.24	1.07	50.31	74.00	-23.69	V	Peak
6145.0000	44.19	3.52	47.71	74.00	-26.29	V	Peak
1330.0000	48.70	-8.14	40.56	74.00	-33.44	H	Peak
3340.0000	46.67	-4.03	42.64	74.00	-31.36	H	Peak
3820.0000	45.97	-2.49	43.48	74.00	-30.52	H	Peak
4540.0000	44.62	-0.57	44.05	74.00	-29.95	H	Peak
4945.0000	45.24	1.07	46.31	74.00	-27.69	H	Peak
5215.0000	45.69	1.55	47.24	74.00	-26.76	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Antenna 0+ Antenna 1

Operation Mode: TX / IEEE 802.11n HT20 MHz/ CH Low **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
3220.0000	52.71	-4.08	48.63	74.00	-25.37	V	Peak
3850.0000	45.04	-2.50	42.54	74.00	-31.46	V	Peak
4240.0000	45.14	-1.43	43.71	74.00	-30.29	V	Peak
4825.0000	52.83	0.52	53.35	74.00	-20.65	V	Peak
4825.0000	40.87	0.52	41.39	54.00	-12.61	V	AVG
5560.0000	44.12	1.85	45.97	74.00	-28.03	V	Peak
6565.0000	44.62	4.72	49.34	74.00	-24.66	V	Peak
3220.0000	48.14	-4.08	44.06	74.00	-29.94	H	Peak
4480.0000	44.99	-0.68	44.31	74.00	-29.69	H	Peak
4825.0000	46.96	0.52	47.48	74.00	-26.52	H	Peak
5335.0000	44.53	1.53	46.06	74.00	-27.94	H	Peak
5875.0000	44.24	2.90	47.14	74.00	-26.86	H	Peak
6295.0000	43.33	3.97	47.30	74.00	-26.70	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11n HT20 MHz/ CH Mid **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1210.0000	48.95	-8.69	40.26	74.00	-33.74	V	Peak
3250.0000	50.89	-4.07	46.82	74.00	-27.18	V	Peak
3730.0000	44.98	-2.67	42.31	74.00	-31.69	V	Peak
4675.0000	45.72	-0.13	45.59	74.00	-28.41	V	Peak
4870.0000	45.66	0.73	46.39	74.00	-27.61	V	Peak
5275.0000	45.07	1.54	46.61	74.00	-27.39	V	Peak
1240.0000	48.62	-8.55	40.07	74.00	-33.93	H	Peak
2815.0000	47.27	-4.98	42.29	74.00	-31.71	H	Peak
3250.0000	47.10	-4.07	43.03	74.00	-30.97	H	Peak
3715.0000	45.38	-2.71	42.67	74.00	-31.33	H	Peak
4345.0000	45.19	-1.03	44.16	74.00	-29.84	H	Peak
5005.0000	44.84	1.33	46.17	74.00	-27.83	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11n HT20 MHz/ CH High **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
3295.0000	51.08	-4.05	47.03	74.00	-26.97	V	Peak
4270.0000	45.40	-1.31	44.09	74.00	-29.91	V	Peak
4930.0000	46.26	1.00	47.26	74.00	-26.74	V	Peak
5170.0000	44.49	1.52	46.01	74.00	-27.99	V	Peak
5755.0000	43.83	2.59	46.42	74.00	-27.58	V	Peak
6340.0000	44.46	4.09	48.55	74.00	-25.45	V	Peak
1315.0000	48.27	-8.21	40.06	74.00	-33.94	H	Peak
2530.0000	48.97	-6.08	42.89	74.00	-31.11	H	Peak
3295.0000	49.06	-4.05	45.01	74.00	-28.99	H	Peak
4180.0000	45.77	-1.67	44.10	74.00	-29.90	H	Peak
4945.0000	44.01	1.07	45.08	74.00	-28.92	H	Peak
5515.0000	44.30	1.76	46.06	74.00	-27.94	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Antenna 0+Antenna 1

Operation Mode: TX / IEEE 802.11n HT40 MHz/ CH Low **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1360.0000	48.78	-8.01	40.77	74.00	-33.23	V	Peak
3235.0000	52.60	-4.07	48.53	74.00	-25.47	V	Peak
3610.0000	45.65	-2.98	42.67	74.00	-31.33	V	Peak
4240.0000	44.87	-1.43	43.44	74.00	-30.56	V	Peak
4930.0000	45.20	1.00	46.20	74.00	-27.80	V	Peak
5905.0000	44.78	2.94	47.72	74.00	-26.28	V	Peak
1315.0000	48.41	-8.21	40.20	74.00	-33.80	H	Peak
3235.0000	47.83	-4.07	43.76	74.00	-30.24	H	Peak
3730.0000	45.60	-2.67	42.93	74.00	-31.07	H	Peak
4300.0000	45.33	-1.20	44.13	74.00	-29.87	H	Peak
4840.0000	45.46	0.59	46.05	74.00	-27.95	H	Peak
5185.0000	44.65	1.53	46.18	74.00	-27.82	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11n HT40 MHz/ CH Mid **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
1315.0000	49.39	-8.21	41.18	74.00	-32.82	V	Peak
2815.0000	47.63	-4.98	42.65	74.00	-31.35	V	Peak
3250.0000	49.90	-4.07	45.83	74.00	-28.17	V	Peak
3880.0000	45.68	-2.51	43.17	74.00	-30.83	V	Peak
4840.0000	44.56	0.59	45.15	74.00	-28.85	V	Peak
5095.0000	44.95	1.43	46.38	74.00	-27.62	V	Peak
3250.0000	46.57	-4.07	42.50	74.00	-31.50	H	Peak
3760.0000	45.64	-2.59	43.05	74.00	-30.95	H	Peak
4435.0000	45.01	-0.76	44.25	74.00	-29.75	H	Peak
5005.0000	44.58	1.33	45.91	74.00	-28.09	H	Peak
5605.0000	44.32	1.95	46.27	74.00	-27.73	H	Peak
5830.0000	43.47	2.83	46.30	74.00	-27.70	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

Operation Mode: TX / IEEE 802.11n HT40 MHz/ CH High **Test Date:** December 19,2013

Temperature: 24°C **Tested by:** Sun Guo

Humidity: 52% RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Pole (V/H)	Remark
3265.0000	50.25	-4.06	46.19	74.00	-27.81	V	Peak
4000.0000	45.99	-2.53	43.46	74.00	-30.54	V	Peak
4285.0000	44.73	-1.26	43.47	74.00	-30.53	V	Peak
4915.0000	44.61	0.93	45.54	74.00	-28.46	V	Peak
5350.0000	44.42	1.53	45.95	74.00	-28.05	V	Peak
6310.0000	43.79	4.01	47.80	74.00	-26.20	V	Peak
3265.0000	47.35	-4.06	43.29	74.00	-30.71	H	Peak
3805.0000	45.02	-2.49	42.53	74.00	-31.47	H	Peak
4285.0000	45.37	-1.26	44.11	74.00	-29.89	H	Peak
5005.0000	44.69	1.33	46.02	74.00	-27.98	H	Peak
5770.0000	43.75	2.65	46.40	74.00	-27.60	H	Peak
6235.0000	44.09	3.79	47.88	74.00	-26.12	H	Peak

REMARKS:

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 or as required by the applicant.*
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).*

7.3. 6dB BANDWIDTH MEASUREMENT

7.3.1. LIMITS

According to §15.247(a)(2), systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

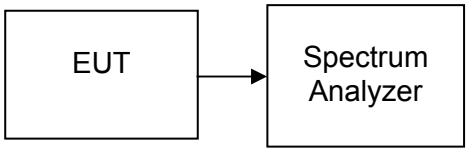
7.3.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/09/2013	03/08/2014

7.3.3. TEST PROCEDURES (please refer to measurement standard)

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW = 1-5 % of the emission bandwidth (EBW), VBW = ≥ 3 x RBW, Sweep = auto.
4. Mark the peak frequency and –6dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

7.3.4. TEST SETUP



7.3.5. TEST RESULTS

No non-compliance noted

Test Data

Antenna 0

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	8560	>500	PASS
Mid	2437	8125		PASS
High	2462	8124		PASS

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	15084	>500	PASS
Mid	2437	15103		PASS
High	2462	15117		PASS

Antenna 0

Test mode: IEEE 802.11n HT20 MHz

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	15149	>500	PASS
Mid	2437	15132		PASS
High	2462	14504		PASS

Antenna 0

Test mode: IEEE 802.11n HT40 MHz

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2422	35349	>500	PASS
Mid	2437	35244		PASS
High	2452	35200		PASS