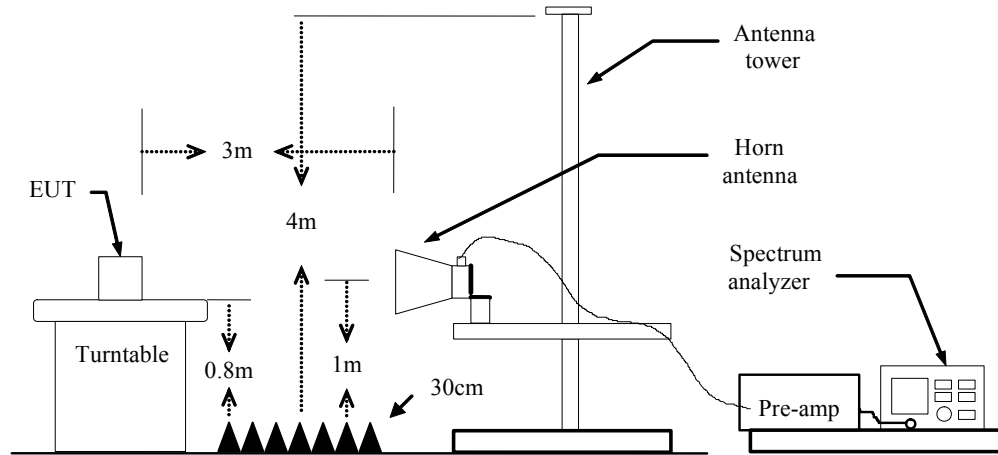




Above 1 GHz



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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
249.8667	54.06	-17.77	36.29	46.00	-9.71	V	QP
400.2167	53.74	-16.19	37.55	46.00	-8.45	V	QP
574.8167	50.21	-13.48	36.73	46.00	-9.27	V	QP
600.6833	48.75	-12.92	35.83	46.00	-10.17	V	QP
799.5333	44.61	-10.50	34.11	46.00	-11.89	V	QP
875.5167	43.59	-9.81	33.78	46.00	-12.22	V	QP
199.7500	57.00	-18.72	38.28	43.50	-5.22	H	QP
374.3500	51.58	-16.77	34.81	46.00	-11.19	H	QP
500.4500	50.71	-14.06	36.65	46.00	-9.35	H	QP
574.8167	52.07	-13.48	38.59	46.00	-7.41	H	QP
799.5333	47.60	-10.50	37.10	46.00	-8.90	H	QP
875.5167	49.11	-9.81	39.30	46.00	-6.70	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 (dBuV/m) = Receiver reading
 Correction Factor (dB) = Antenna factor + Cable loss – Amplifier gain
 Limit (dBuV/m) = Limit stated in standard
 Margin (dB) = Measured (dBuV/m) – Limits (dBuV/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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
2898.3333	47.02	-4.65	42.37	74.00	-31.63	V	peak
3833.3333	46.24	-2.50	43.74	74.00	-30.26	V	peak
4825.0000	46.02	0.52	46.54	74.00	-27.46	V	peak
5845.0000	45.57	2.85	48.42	74.00	-25.58	V	peak
6468.3333	44.45	4.45	48.90	74.00	-25.10	V	peak
7176.6667	44.57	7.25	51.82	74.00	-22.18	V	peak
1600.0000	52.71	-8.68	44.03	74.00	-29.97	H	Peak
3535.0000	46.26	-3.33	42.93	74.00	-31.07	H	Peak
4420.0000	45.56	-0.78	44.78	74.00	-29.22	H	Peak
4900.0000	45.29	0.86	46.15	74.00	-27.85	H	Peak
5815.0000	44.31	2.80	47.11	74.00	-26.89	H	Peak
6520.0000	43.92	4.60	48.52	74.00	-25.48	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.87	-8.68	44.19	74.00	-29.81	V	Peak
3400.0000	46.36	-4.00	42.36	74.00	-31.64	V	Peak
4165.0000	46.26	-1.75	44.51	74.00	-29.49	V	Peak
4870.0000	51.39	0.73	52.12	74.00	-21.88	V	Peak
4870.0000	46.38	0.73	47.11	54.00	-6.89	V	AVG
5740.0000	44.28	2.52	46.80	74.00	-27.20	V	Peak
6190.0000	44.20	3.65	47.85	74.00	-26.15	V	Peak
1600.0000	52.64	-8.68	43.96	74.00	-30.04	H	Peak
3715.0000	46.34	-2.71	43.63	74.00	-30.37	H	Peak
4330.0000	45.48	-1.09	44.39	74.00	-29.61	H	Peak
4870.0000	46.69	0.73	47.42	74.00	-26.58	H	Peak
5725.0000	45.37	2.46	47.83	74.00	-26.17	H	Peak
6685.0000	44.79	5.11	49.90	74.00	-24.10	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.44	-8.68	43.76	74.00	-30.24	V	Peak
3475.0000	46.45	-3.63	42.82	74.00	-31.18	V	Peak
4255.0000	45.89	-1.37	44.52	74.00	-29.48	V	Peak
4930.0000	51.80	1.00	52.80	74.00	-21.20	V	Peak
4930.0000	47.55	1.00	48.55	54.00	-5.45	V	AVG
5725.0000	44.89	2.46	47.35	74.00	-26.65	V	Peak
6550.0000	45.01	4.68	49.69	74.00	-24.31	V	Peak
1600.0000	53.23	-8.68	44.55	74.00	-29.45	H	Peak
3445.0000	46.23	-3.78	42.45	74.00	-31.55	H	Peak
3880.0000	47.09	-2.51	44.58	74.00	-29.42	H	Peak
4930.0000	48.49	1.00	49.49	74.00	-24.51	H	Peak
5710.0000	45.15	2.40	47.55	74.00	-26.45	H	Peak
6145.0000	45.55	3.52	49.07	74.00	-24.93	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 802.11b/ CH Low**Test Date:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.71	-8.68	44.03	74.00	-29.97	V	peak
2860.0000	47.72	-4.80	42.92	74.00	-31.08	V	peak
4180.0000	45.51	-1.67	43.84	74.00	-30.16	V	peak
4630.0000	45.35	-0.33	45.02	74.00	-28.98	V	peak
4945.0000	46.35	1.07	47.42	74.00	-26.58	V	peak
5890.0000	45.45	2.92	48.37	74.00	-25.63	V	peak
1600.0000	51.54	-8.68	42.86	74.00	-31.14	H	Peak
2605.0000	48.40	-5.82	42.58	74.00	-31.42	H	Peak
3790.0000	45.99	-2.52	43.47	74.00	-30.53	H	Peak
4030.0000	46.09	-2.39	43.70	74.00	-30.30	H	Peak
4270.0000	46.20	-1.31	44.89	74.00	-29.11	H	Peak
4975.0000	45.22	1.21	46.43	74.00	-27.57	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	53.75	-8.68	45.07	74.00	-28.93	V	Peak
2980.0000	47.33	-4.32	43.01	74.00	-30.99	V	Peak
3865.0000	45.27	-2.50	42.77	74.00	-31.23	V	Peak
4150.0000	45.65	-1.82	43.83	74.00	-30.17	V	Peak
4870.0000	47.41	0.73	48.14	74.00	-25.86	V	Peak
5590.0000	45.21	1.91	47.12	74.00	-26.88	V	Peak
1600.0000	52.67	-8.68	43.99	74.00	-30.01	H	Peak
3235.0000	46.72	-4.07	42.65	74.00	-31.35	H	Peak
3760.0000	45.85	-2.59	43.26	74.00	-30.74	H	Peak
4765.0000	44.79	0.26	45.05	74.00	-28.95	H	Peak
4870.0000	45.87	0.73	46.60	74.00	-27.40	H	Peak
5755.0000	44.96	2.59	47.55	74.00	-26.45	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	53.62	-8.68	44.94	74.00	-29.06	V	Peak
3805.0000	46.11	-2.49	43.62	74.00	-30.38	V	Peak
4420.0000	45.18	-0.78	44.40	74.00	-29.60	V	Peak
4930.0000	52.00	1.00	53.00	74.00	-21.00	V	Peak
4930.0000	48.19	1.00	49.19	54.00	-4.81	V	AVG
5770.0000	44.35	2.65	47.00	74.00	-27.00	V	Peak
6115.0000	44.77	3.43	48.20	74.00	-25.80	V	Peak
1600.0000	53.04	-8.68	44.36	74.00	-29.64	H	Peak
2815.0000	47.68	-4.98	42.70	74.00	-31.30	H	Peak
4240.0000	45.86	-1.43	44.43	74.00	-29.57	H	Peak
4930.0000	50.85	1.00	51.85	74.00	-22.15	H	Peak
4930.0000	44.44	1.00	45.44	54.00	-8.56	H	AVG
6145.0000	45.11	3.52	48.63	74.00	-25.37	H	Peak
6940.0000	45.70	6.04	51.74	74.00	-22.26	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: May 4, 2013

Temperature: 24°C

Tested by: Leevin Li

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
1600.0000	53.45	-8.68	44.77	74.00	-29.23	V	Peak
3700.0000	45.83	-2.75	43.08	74.00	-30.92	V	Peak
4165.0000	45.21	-1.75	43.46	74.00	-30.54	V	Peak
4975.0000	44.53	1.21	45.74	74.00	-28.26	V	Peak
5845.0000	44.48	2.85	47.33	74.00	-26.67	V	Peak
6820.0000	44.21	5.57	49.78	74.00	-24.22	V	Peak
1000.0000	52.29	-10.33	41.96	74.00	-32.04	H	Peak
1600.0000	53.74	-8.68	45.06	74.00	-28.94	H	Peak
3220.0000	48.31	-4.08	44.23	74.00	-29.77	H	Peak
4435.0000	44.60	-0.76	43.84	74.00	-30.16	H	Peak
5050.0000	45.51	1.38	46.89	74.00	-27.11	H	Peak
5395.0000	45.87	1.52	47.39	74.00	-26.61	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	51.84	-8.68	43.16	74.00	-30.84	V	Peak
3715.0000	45.75	-2.71	43.04	74.00	-30.96	V	Peak
4330.0000	45.14	-1.09	44.05	74.00	-29.95	V	Peak
4885.0000	55.21	0.80	56.01	74.00	-17.99	V	Peak
4885.0000	40.40	0.80	41.20	54.00	-12.80	V	AVG
5575.0000	45.01	1.88	46.89	74.00	-27.11	V	Peak
6190.0000	45.15	3.65	48.80	74.00	-25.20	V	Peak
1600.0000	52.30	-8.68	43.62	74.00	-30.38	H	Peak
3250.0000	46.89	-4.07	42.82	74.00	-31.18	H	Peak
4150.0000	45.56	-1.82	43.74	74.00	-30.26	H	Peak
4885.0000	49.25	0.80	50.05	74.00	-23.95	H	Peak
5755.0000	44.26	2.59	46.85	74.00	-27.15	H	Peak
6745.0000	44.35	5.31	49.66	74.00	-24.34	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.34	-8.68	43.66	74.00	-30.34	V	Peak
3730.0000	46.09	-2.67	43.42	74.00	-30.58	V	Peak
4360.0000	44.70	-0.97	43.73	74.00	-30.27	V	Peak
4930.0000	45.78	1.00	46.78	74.00	-27.22	V	Peak
5575.0000	44.45	1.88	46.33	74.00	-27.67	V	Peak
6490.0000	44.70	4.51	49.21	74.00	-24.79	V	Peak
1600.0000	52.26	-8.68	43.58	74.00	-30.42	H	Peak
3730.0000	45.82	-2.67	43.15	74.00	-30.85	H	Peak
4405.0000	45.33	-0.81	44.52	74.00	-29.48	H	Peak
5230.0000	44.69	1.55	46.24	74.00	-27.76	H	Peak
5590.0000	44.70	1.91	46.61	74.00	-27.39	H	Peak
6295.0000	44.80	3.97	48.77	74.00	-25.23	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1195.0000	51.62	-8.77	42.85	74.00	-31.15	V	Peak
1600.0000	51.79	-8.68	43.11	74.00	-30.89	V	Peak
3490.0000	46.92	-3.55	43.37	74.00	-30.63	V	Peak
4135.0000	45.87	-1.89	43.98	74.00	-30.02	V	Peak
5080.0000	44.53	1.41	45.94	74.00	-28.06	V	Peak
5440.0000	45.28	1.60	46.88	74.00	-27.12	V	Peak
1600.0000	52.01	-8.68	43.33	74.00	-30.67	H	Peak
3040.0000	47.34	-4.21	43.13	74.00	-30.87	H	Peak
3760.0000	45.75	-2.59	43.16	74.00	-30.84	H	Peak
4210.0000	45.23	-1.54	43.69	74.00	-30.31	H	Peak
4990.0000	44.68	1.27	45.95	74.00	-28.05	H	Peak
5665.0000	44.95	2.21	47.16	74.00	-26.84	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	53.43	-8.68	44.75	74.00	-29.25	V	Peak
3730.0000	45.73	-2.67	43.06	74.00	-30.94	V	Peak
4450.0000	44.68	-0.73	43.95	74.00	-30.05	V	Peak
4870.0000	48.96	0.73	49.69	74.00	-24.31	V	Peak
5740.0000	44.58	2.52	47.10	74.00	-26.90	V	Peak
6115.0000	45.72	3.43	49.15	74.00	-24.85	V	Peak
1600.0000	52.90	-8.68	44.22	74.00	-29.78	H	Peak
3445.0000	46.48	-3.78	42.70	74.00	-31.30	H	Peak
4180.0000	45.28	-1.67	43.61	74.00	-30.39	H	Peak
4885.0000	48.45	0.80	49.25	74.00	-24.75	H	Peak
5620.0000	44.50	2.02	46.52	74.00	-27.48	H	Peak
6340.0000	44.46	4.09	48.55	74.00	-25.45	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	53.16	-8.68	44.48	74.00	-29.52	V	Peak
3805.0000	46.16	-2.49	43.67	74.00	-30.33	V	Peak
4495.0000	45.67	-0.65	45.02	74.00	-28.98	V	Peak
4915.0000	46.81	0.93	47.74	74.00	-26.26	V	Peak
6040.0000	45.07	3.21	48.28	74.00	-25.72	V	Peak
6745.0000	44.73	5.31	50.04	74.00	-23.96	V	Peak
1600.0000	52.56	-8.68	43.88	74.00	-30.12	H	Peak
3205.0000	46.43	-4.09	42.34	74.00	-31.66	H	Peak
3940.0000	46.58	-2.52	44.06	74.00	-29.94	H	Peak
4735.0000	45.00	0.13	45.13	74.00	-28.87	H	Peak
5170.0000	44.85	1.52	46.37	74.00	-27.63	H	Peak
6490.0000	46.09	4.51	50.60	74.00	-23.40	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	53.52	-8.68	44.84	74.00	-29.16	V	Peak
3625.0000	45.75	-2.94	42.81	74.00	-31.19	V	Peak
3910.0000	46.48	-2.51	43.97	74.00	-30.03	V	Peak
4825.0000	44.24	0.52	44.76	74.00	-29.24	V	Peak
5095.0000	44.49	1.43	45.92	74.00	-28.08	V	Peak
5800.0000	44.77	2.78	47.55	74.00	-26.45	V	Peak
1600.0000	51.56	-8.68	42.88	74.00	-31.12	H	Peak
3220.0000	47.93	-4.08	43.85	74.00	-30.15	H	Peak
3760.0000	46.36	-2.59	43.77	74.00	-30.23	H	Peak
4525.0000	45.59	-0.59	45.00	74.00	-29.00	H	Peak
5035.0000	45.36	1.36	46.72	74.00	-27.28	H	Peak
6385.0000	45.25	4.22	49.47	74.00	-24.53	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.35	-8.68	43.67	74.00	-30.33	V	Peak
3190.0000	47.00	-4.10	42.90	74.00	-31.10	V	Peak
3715.0000	46.13	-2.71	43.42	74.00	-30.58	V	Peak
4885.0000	60.40	0.80	61.20	74.00	-12.80	V	Peak
4885.0000	43.91	0.80	44.71	54.00	-9.29	V	AVG
5695.0000	44.55	2.33	46.88	74.00	-27.12	V	Peak
6475.0000	45.60	4.47	50.07	74.00	-23.93	V	Peak
1600.0000	51.51	-8.68	42.83	74.00	-31.17	H	Peak
3235.0000	46.87	-4.07	42.80	74.00	-31.20	H	Peak
4420.0000	46.01	-0.78	45.23	74.00	-28.77	H	Peak
4885.0000	54.46	0.80	55.26	74.00	-18.74	H	Peak
4885.0000	37.79	0.80	38.59	54.00	-15.41	H	AVG
5050.0000	45.87	1.38	47.25	74.00	-26.75	H	Peak
5800.0000	44.33	2.78	47.11	74.00	-26.89	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.27	-8.68	43.59	74.00	-30.41	V	Peak
3175.0000	46.89	-4.11	42.78	74.00	-31.22	V	Peak
4240.0000	45.11	-1.43	43.68	74.00	-30.32	V	Peak
4930.0000	46.95	1.00	47.95	74.00	-26.05	V	Peak
6145.0000	44.84	3.52	48.36	74.00	-25.64	V	Peak
6865.0000	45.75	5.72	51.47	74.00	-22.53	V	Peak
1600.0000	51.51	-8.68	42.83	74.00	-31.17	H	Peak
3760.0000	46.61	-2.59	44.02	74.00	-29.98	H	Peak
4480.0000	45.23	-0.68	44.55	74.00	-29.45	H	Peak
4930.0000	47.39	1.00	48.39	74.00	-25.61	H	Peak
5200.0000	45.59	1.55	47.14	74.00	-26.86	H	Peak
5860.0000	44.57	2.87	47.44	74.00	-26.56	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.43	-8.68	43.75	74.00	-30.25	V	Peak
3235.0000	47.20	-4.07	43.13	74.00	-30.87	V	Peak
4195.0000	44.95	-1.60	43.35	74.00	-30.65	V	Peak
4810.0000	44.77	0.46	45.23	74.00	-28.77	V	Peak
5365.0000	44.88	1.53	46.41	74.00	-27.59	V	Peak
6415.0000	43.96	4.30	48.26	74.00	-25.74	V	Peak
1195.0000	50.31	-8.77	41.54	74.00	-32.46	H	Peak
1600.0000	52.59	-8.68	43.91	74.00	-30.09	H	Peak
3445.0000	47.18	-3.78	43.40	74.00	-30.60	H	Peak
4255.0000	46.82	-1.37	45.45	74.00	-28.55	H	Peak
5035.0000	45.18	1.36	46.54	74.00	-27.46	H	Peak
6550.0000	44.37	4.68	49.05	74.00	-24.95	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1195.0000	52.81	-8.77	44.04	74.00	-29.96	V	Peak
1600.0000	52.02	-8.68	43.34	74.00	-30.66	V	Peak
3790.0000	46.05	-2.52	43.53	74.00	-30.47	V	Peak
4765.0000	45.87	0.26	46.13	74.00	-27.87	V	Peak
5350.0000	44.84	1.53	46.37	74.00	-27.63	V	Peak
6070.0000	44.57	3.30	47.87	74.00	-26.13	V	Peak
1600.0000	51.75	-8.68	43.07	74.00	-30.93	H	Peak
3235.0000	46.33	-4.07	42.26	74.00	-31.74	H	Peak
3895.0000	45.03	-2.51	42.52	74.00	-31.48	H	Peak
4930.0000	45.30	1.00	46.30	74.00	-27.70	H	Peak
6175.0000	44.34	3.61	47.95	74.00	-26.05	H	Peak
7090.0000	44.72	6.81	51.53	74.00	-22.47	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:** May 4, 2013**Temperature:** 24°C**Tested by:** Leevin Li**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
1600.0000	52.53	-8.68	43.85	74.00	-30.15	V	Peak
3505.0000	46.62	-3.48	43.14	74.00	-30.86	V	Peak
4525.0000	45.55	-0.59	44.96	74.00	-29.04	V	Peak
4930.0000	45.56	1.00	46.56	74.00	-27.44	V	Peak
5740.0000	44.65	2.52	47.17	74.00	-26.83	V	Peak
6970.0000	44.14	6.20	50.34	74.00	-23.66	V	Peak
1600.0000	51.61	-8.68	42.93	74.00	-31.07	H	Peak
3610.0000	45.78	-2.98	42.80	74.00	-31.20	H	Peak
4090.0000	45.98	-2.10	43.88	74.00	-30.12	H	Peak
4930.0000	44.60	1.00	45.60	74.00	-28.40	H	Peak
5605.0000	44.11	1.95	46.06	74.00	-27.94	H	Peak
6790.0000	44.45	5.47	49.92	74.00	-24.08	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.

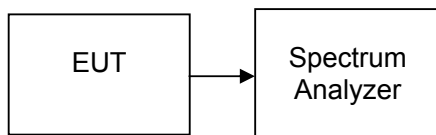
7.3.2. TEST INSTRUMENTS

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 = $\geq 3 \times$ 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	10127	>500	PASS
Mid	2437	10105		PASS
High	2462	10116		PASS

Antenna 1**Test mode: IEEE 802.11b**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	10127	>500	PASS
Mid	2437	10109		PASS
High	2462	10123		PASS

Antenna 0**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	16372	>500	PASS
Mid	2437	16372		PASS
High	2462	16367		PASS

Antenna 1**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	16370	>500	PASS
Mid	2437	16368		PASS
High	2462	16381		PASS

**Antenna 0****Test mode: IEEE 802.11n HT20 MHz**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	17338	>500	PASS
Mid	2437	17333		PASS
High	2462	17606		PASS

Antenna 1**Test mode: IEEE 802.11n HT20 MHz**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	17592	>500	PASS
Mid	2437	17289		PASS
High	2462	17550		PASS

Antenna 0**Test mode: IEEE 802.11n HT40 MHz**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2422	36170	>500	PASS
Mid	2437	36171		PASS
High	2452	36044		PASS

Antenna 1**Test mode: IEEE 802.11n HT40 MHz**

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2422	36146	>500	PASS
Mid	2437	36391		PASS
High	2452	36425		PASS

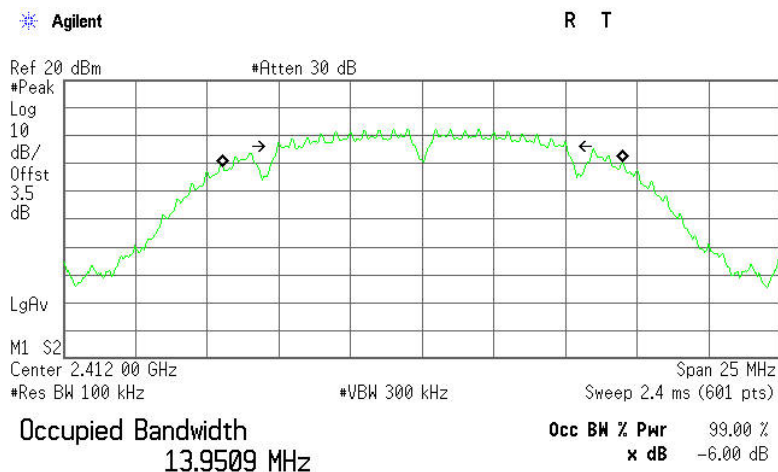


Test Plot

Antenna 0

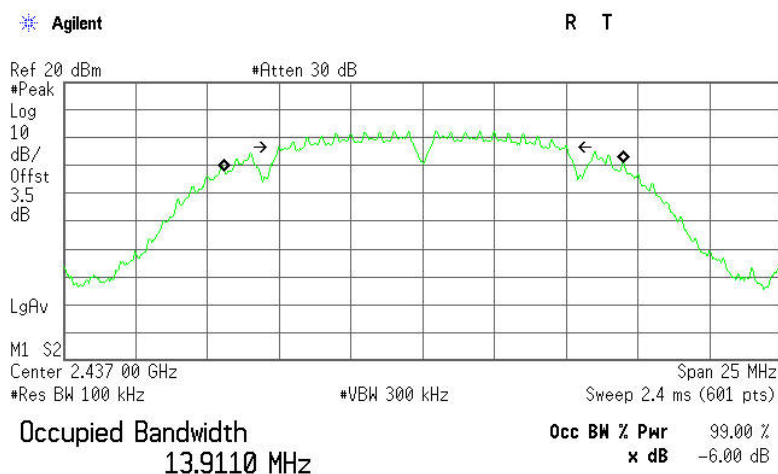
IEEE 802.11b mode

6dB Bandwidth (CH Low)



Transmit Freq Error 26.376 kHz
x dB Bandwidth 10.127 MHz

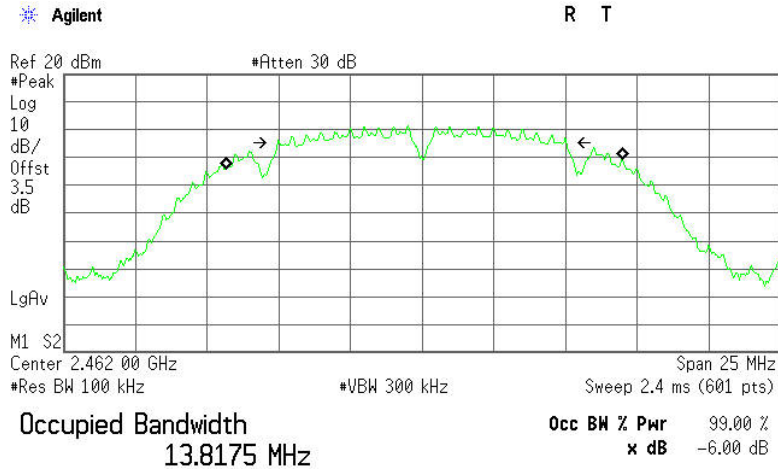
6dB Bandwidth (CH Mid)



Transmit Freq Error 34.554 kHz
x dB Bandwidth 10.105 MHz



6dB Bandwidth (CH High)

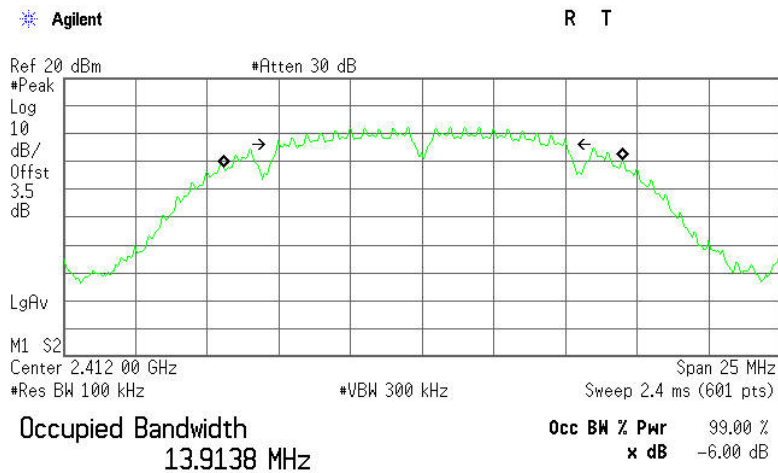


Transmit Freq Error 70.752 kHz
x dB Bandwidth 10.116 MHz

Antenna 1

IEEE 802.11b mode

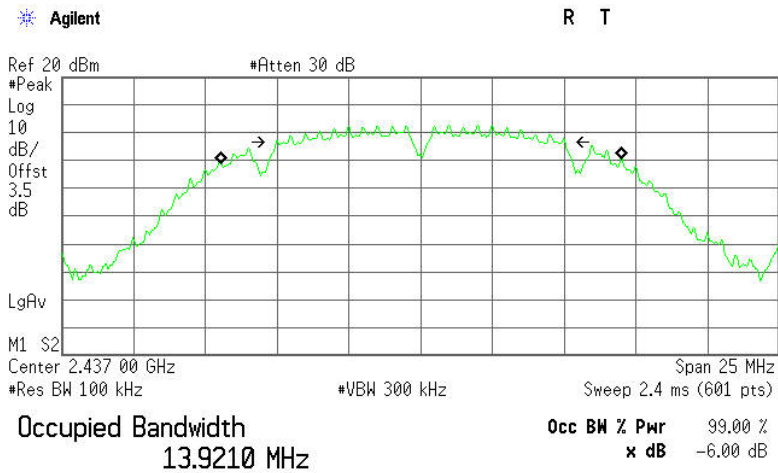
6dB Bandwidth (CH Low)



Transmit Freq Error 32.320 kHz
x dB Bandwidth 10.127 MHz

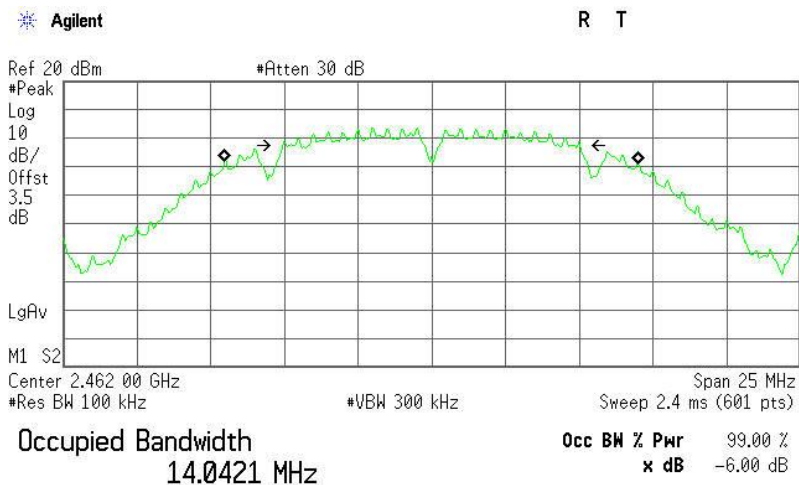


6dB Bandwidth (CH Mid)



Transmit Freq Error 22.361 kHz
x dB Bandwidth 10.109 MHz

6dB Bandwidth (CH High)



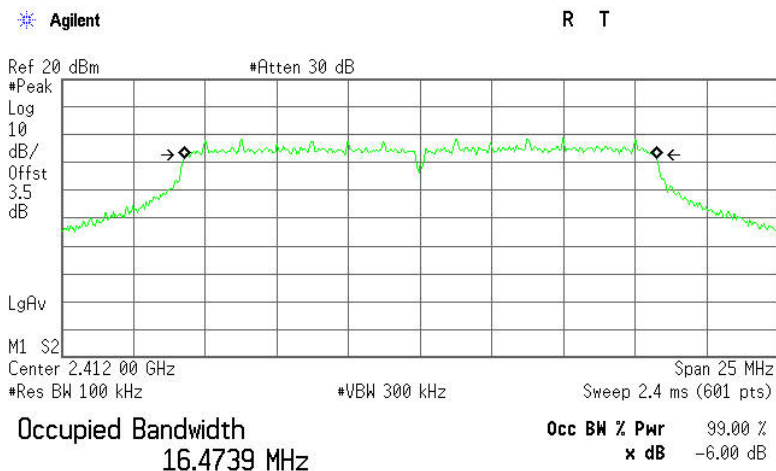
Transmit Freq Error -8.754 kHz
x dB Bandwidth 10.123 MHz



Antenna 0

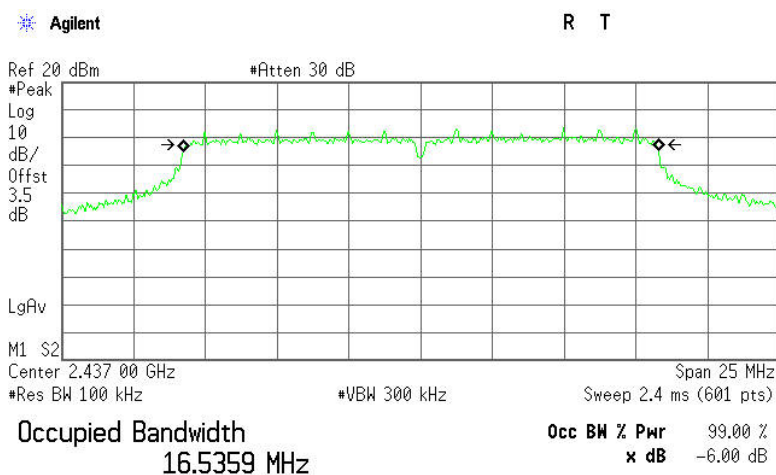
IEEE 802.11g mode

6dB Bandwidth (CH Low)



Transmit Freq Error 9.640 kHz
x dB Bandwidth 16.372 MHz

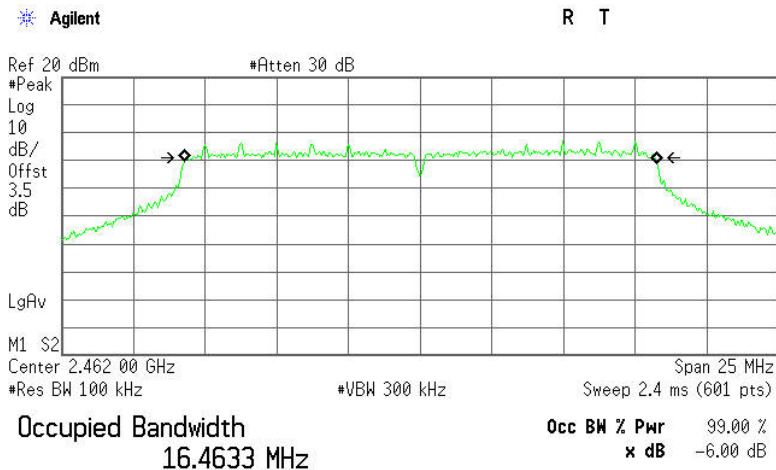
6dB Bandwidth (CH Mid)



Transmit Freq Error 20.225 kHz
x dB Bandwidth 16.372 MHz



6dB Bandwidth (CH High)

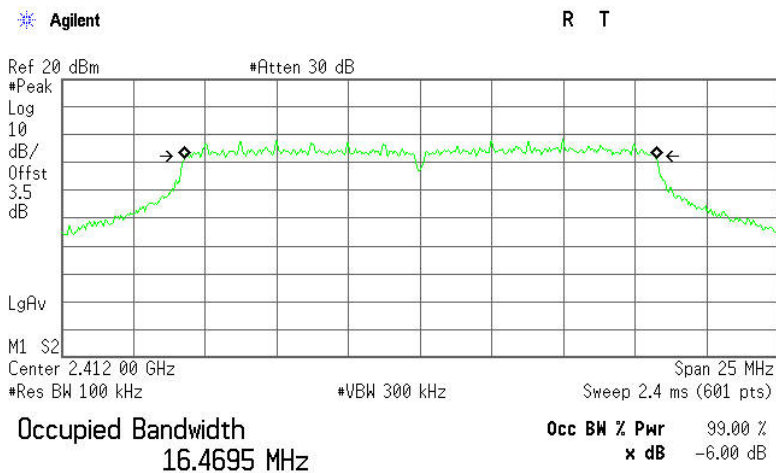


Transmit Freq Error 18.038 kHz
x dB Bandwidth 16.367 MHz

Antenna 1

IEEE 802.11g mode

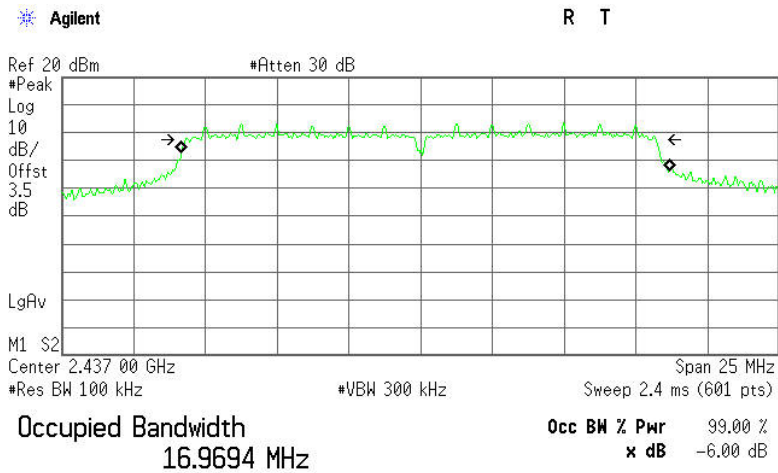
6dB Bandwidth (CH Low)



Transmit Freq Error 15.785 kHz
x dB Bandwidth 16.370 MHz



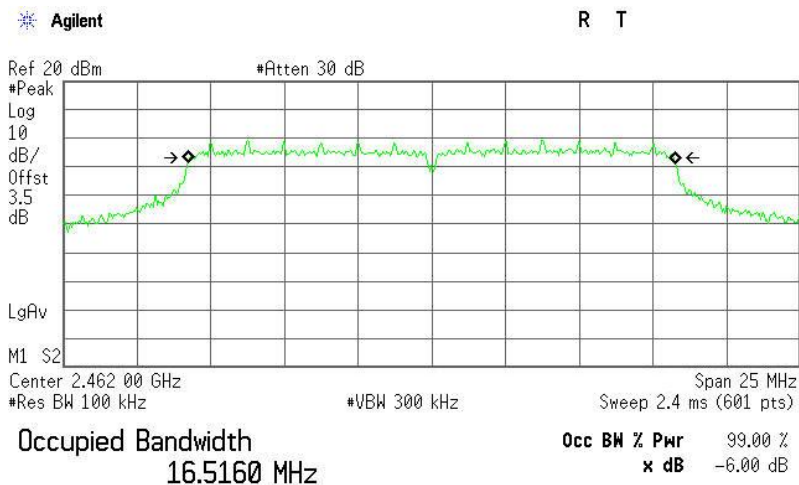
6dB Bandwidth (CH Mid)



Transmit Freq Error 167.924 kHz

x dB Bandwidth 16.368 MHz

6dB Bandwidth (CH High)



Transmit Freq Error 2.677 kHz

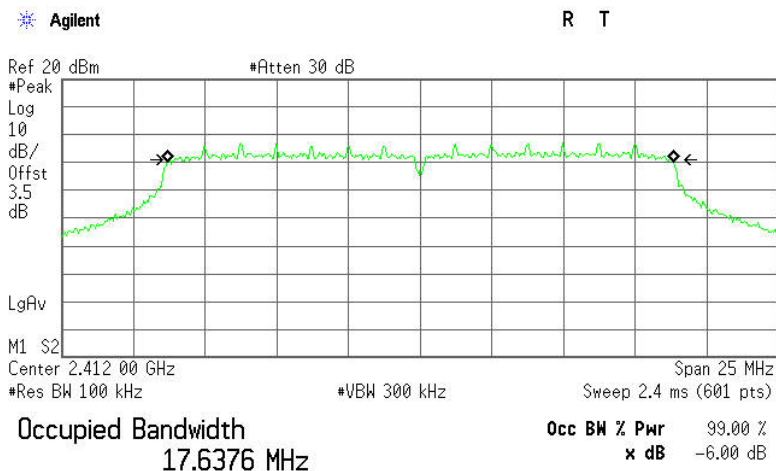
x dB Bandwidth 16.381 MHz



Antenna 0

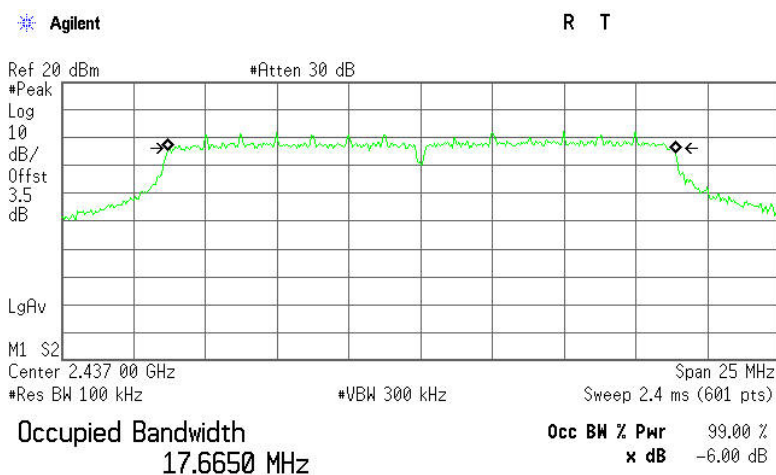
IEEE 802.11n HT20 MHz mode

6dB Bandwidth (CH Low)



Transmit Freq Error 10.837 kHz
x dB Bandwidth 17.338 MHz

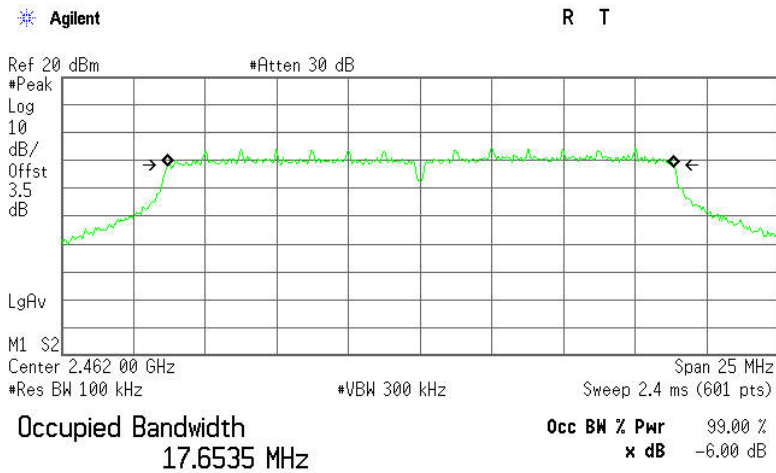
6dB Bandwidth (CH Mid)



Transmit Freq Error 29.833 kHz
x dB Bandwidth 17.333 MHz



6dB Bandwidth (CH High)

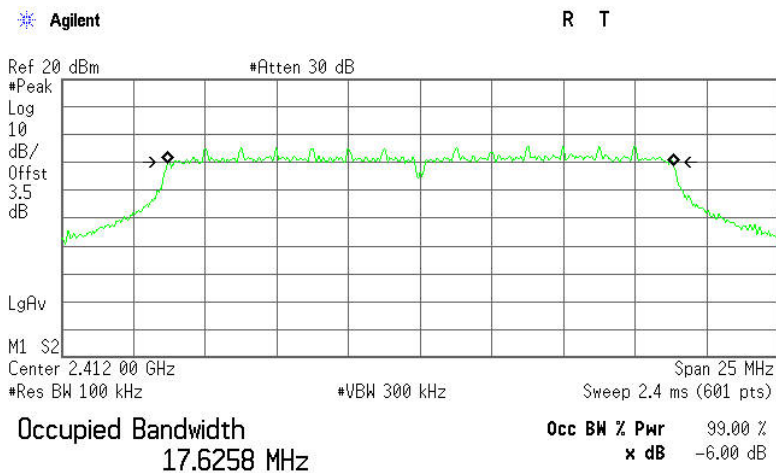


Transmit Freq Error 26.134 kHz
x dB Bandwidth 17.606 MHz

Antenna 1

IEEE 802.11n HT20 MHz mode

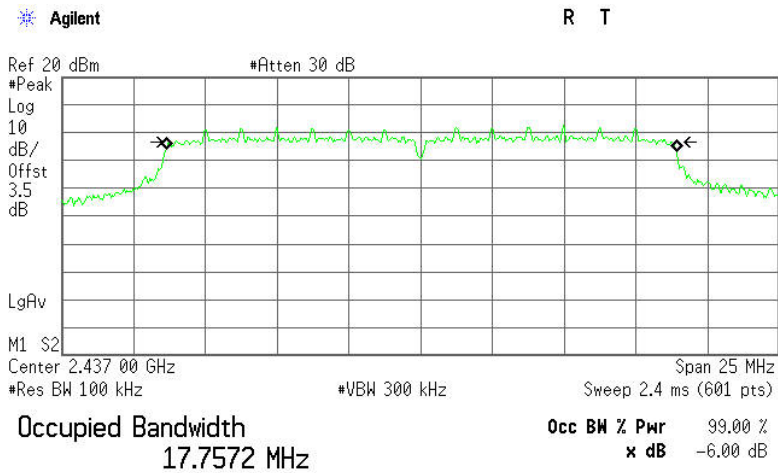
6dB Bandwidth (CH Low)



Transmit Freq Error 17.123 kHz
x dB Bandwidth 17.592 MHz

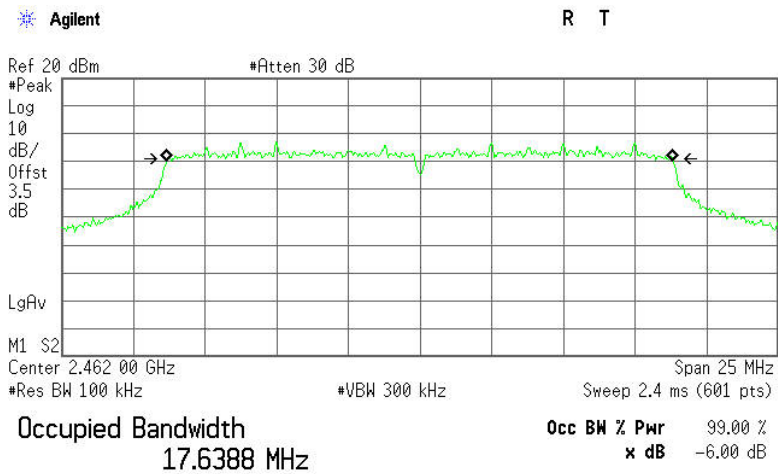


6dB Bandwidth (CH Mid)



Transmit Freq Error 31.224 kHz
x dB Bandwidth 17.289 MHz

6dB Bandwidth (CH High)



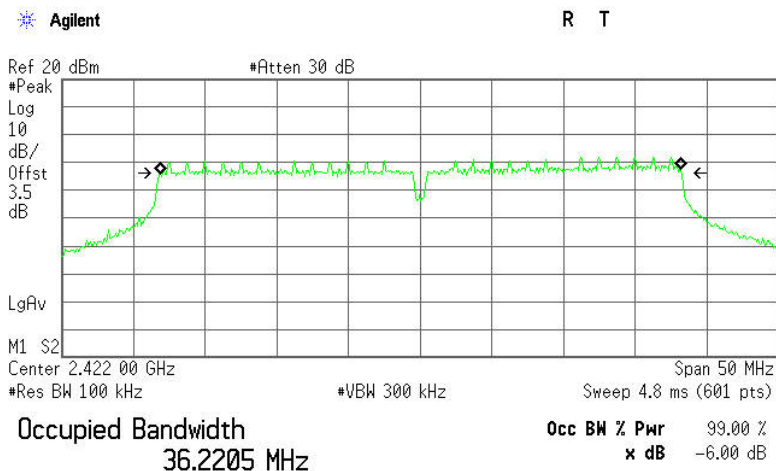
Transmit Freq Error -8.106 kHz
x dB Bandwidth 17.550 MHz



Antenna 0

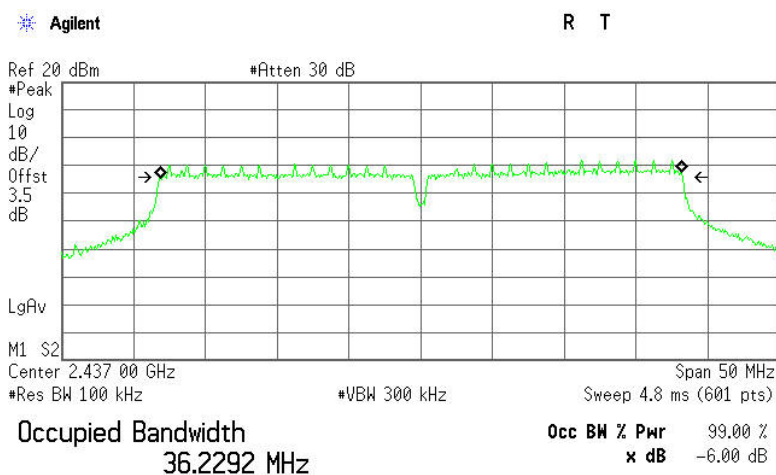
IEEE 802.11n HT40 MHz mode

6dB Bandwidth (CH Low)



Transmit Freq Error 39.936 kHz
x dB Bandwidth 36.170 MHz

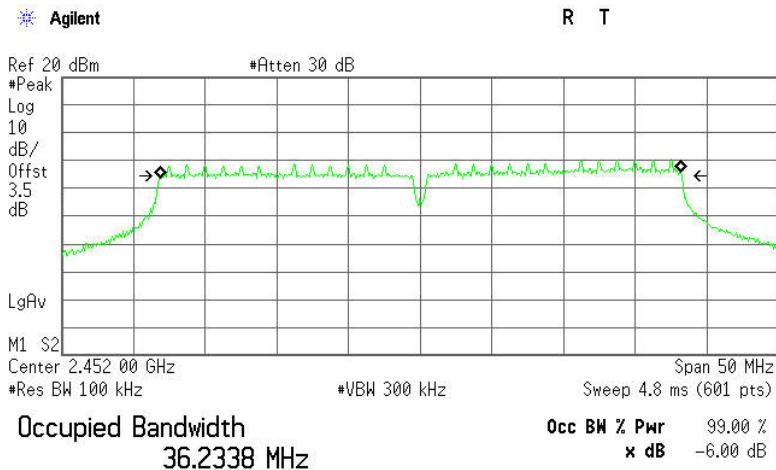
6dB Bandwidth (CH Mid)



Transmit Freq Error 49.540 kHz
x dB Bandwidth 36.171 MHz



6dB Bandwidth (CH High)



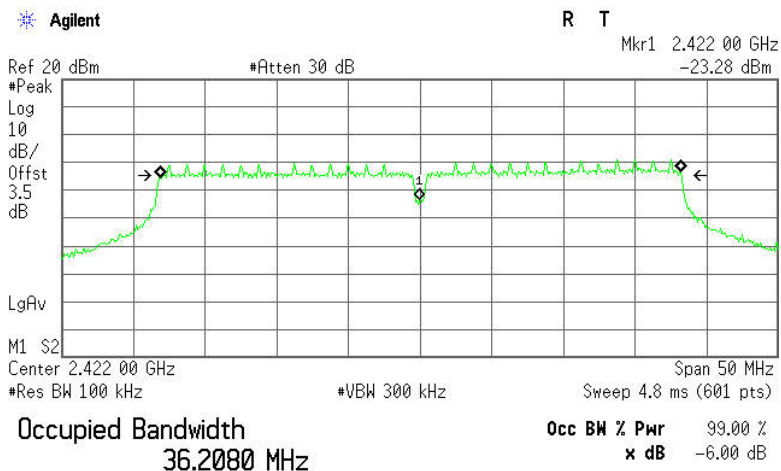
Transmit Freq Error 54.107 kHz

x dB Bandwidth 36.044 MHz

Antenna 1

IEEE 802.11n HT40 MHz mode

6dB Bandwidth (CH Low)

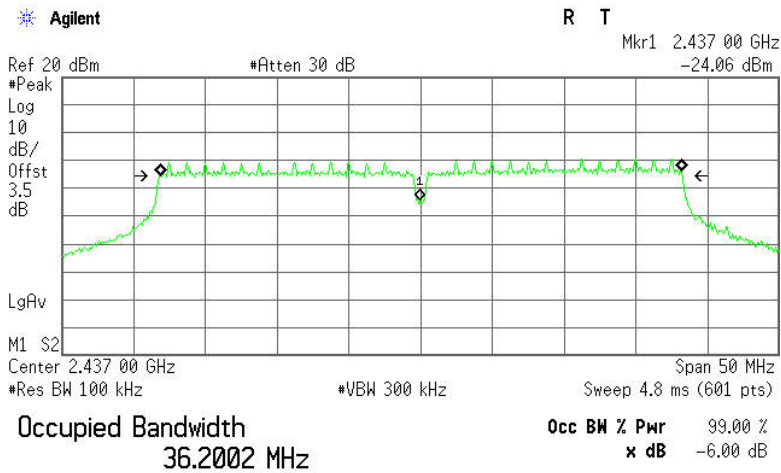


Transmit Freq Error 44.114 kHz

x dB Bandwidth 36.146 MHz

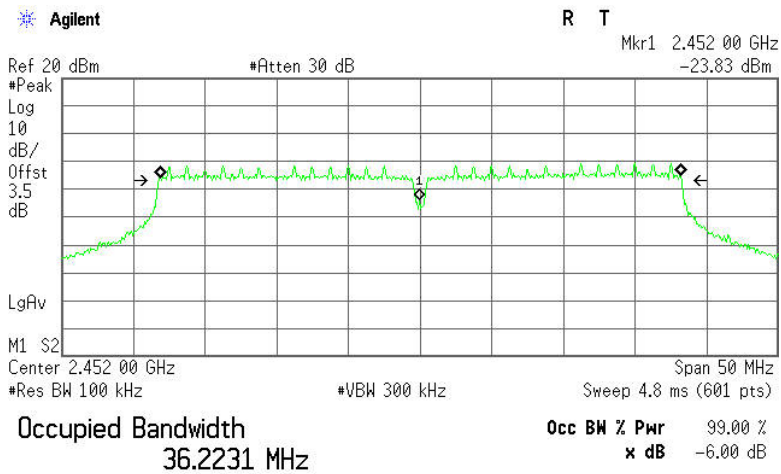


6dB Bandwidth (CH Mid)



Transmit Freq Error 33.940 kHz
x dB Bandwidth 36.391 MHz

6dB Bandwidth (CH High)



Transmit Freq Error 15.015 kHz
x dB Bandwidth 36.425 MHz



7.4. PEAK OUTPUT POWER

7.4.1. LIMITS

The maximum peak output power of the intentional radiator shall not exceed the following:

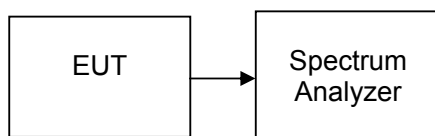
1. According to §15.247(b)(3), for systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 Watt.
2. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

7.4.2. TEST INSTRUMENTS

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

7.4.3. TEST PROCEDURES (please refer to measurement standard)

1. This procedure provides an integrated measurement alternative when the maximum available RBW < EBW.
2. Set the RBW = 1 MHz.
3. Set the VBW = 3 MHz.
4. Set the span to a value that is 5-30 % greater than the EBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges (for some analyzers, this may require a manual override to ensure use of peak detector). If the spectrum analyzer does not have a band power function, sum the spectrum levels (in linear power units) at 1 MHz intervals extending across the EBW of the spectrum.

**7.4.4. TEST SETUP****7.4.5. TEST RESULTS***No non-compliance noted***Test Data****Antenna 0****Test mode: IEEE 802.11b**

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.39	0.02183	1	PASS
Mid	2437	12.46	0.01762		PASS
High	2462	12.06	0.01607		PASS

Antenna 1**Test mode: IEEE 802.11b**

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	12.26	0.01683	1	PASS
Mid	2437	13.24	0.02109		PASS
High	2462	14.38	0.02742		PASS

Antenna 0**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	12.77	0.01892	1	PASS
Mid	2437	16.96	0.04966		PASS
High	2462	9.34	0.00859		PASS

Antenna 1**Test mode: IEEE 802.11g**

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	11.48	0.01406	1	PASS
Mid	2437	16.20	0.04169		PASS
High	2462	12.67	0.01849		PASS

**Antenna 0 + Antenna 1****Test mode: IEEE 802.11n HT20 MHz**

Channel	Frequency (MHz)	Output Power (dBm)			Output Power (W)	Limit (W)	Result
		Chain 0	Chain 1	Total			
Low	2422	10.73	9.46	13.15	0.02066	1	PASS
Mid	2437	15.99	15.42	18.72	0.07455		PASS
High	2452	7.54	9.36	11.55	0.01431		PASS

Antenna 0 + Antenna 1**Test mode: IEEE 802.11n HT40 MHz**

Channel	Frequency (MHz)	Output Power (dBm)			Output Power	Limit (W)	Result
		Chain 0	Chain 1	Total			
Low	2422	8.09	8.21	11.16	0.01307	1	PASS
Mid	2437	8.06	6.84	10.50	0.01123		PASS
High	2452	6.23	6.41	9.33	0.00857		PASS

Note : Combine Power Calculation :

$$\text{Total Power(dBm)} = \log(10^{(\text{chain 0 power}/10)} + 10^{(\text{chain 1 power}/10)}) * 10$$

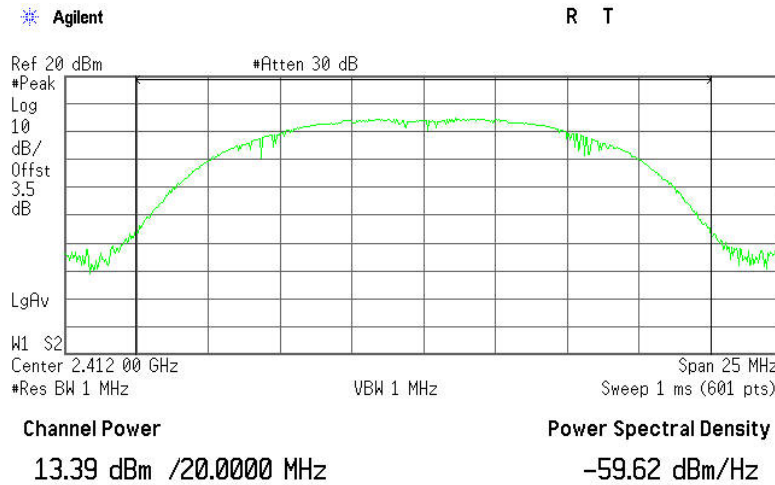


Test Plot

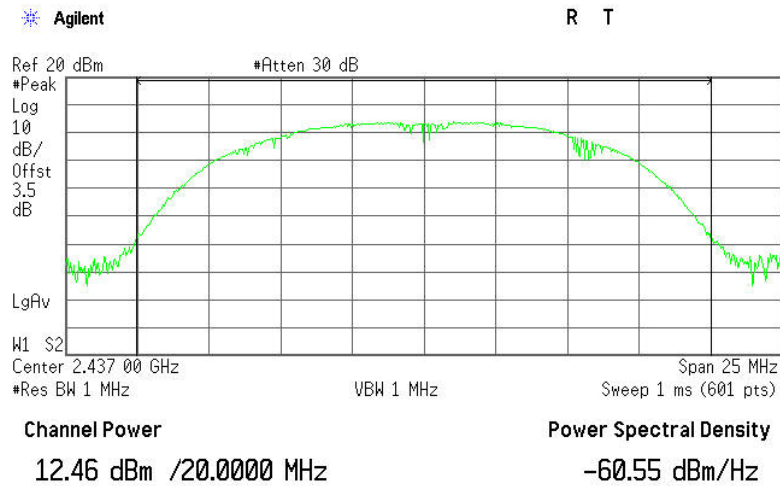
Antenna 0

IEEE 802.11b mode

Peak power (CH Low)

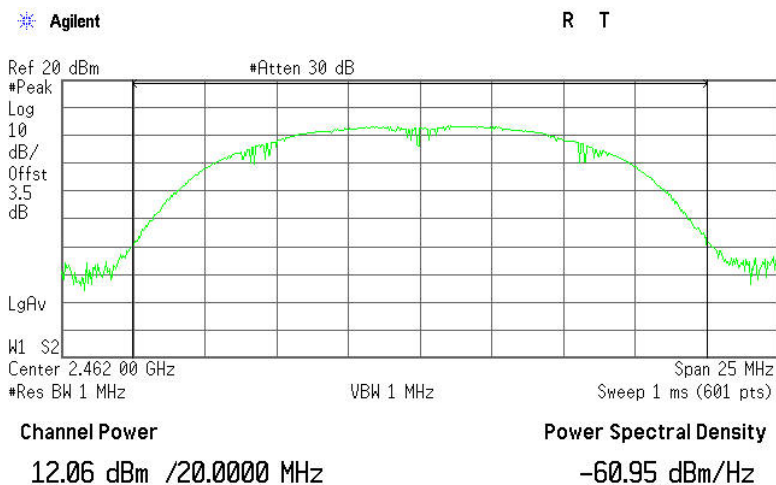


Peak power (CH Mid)





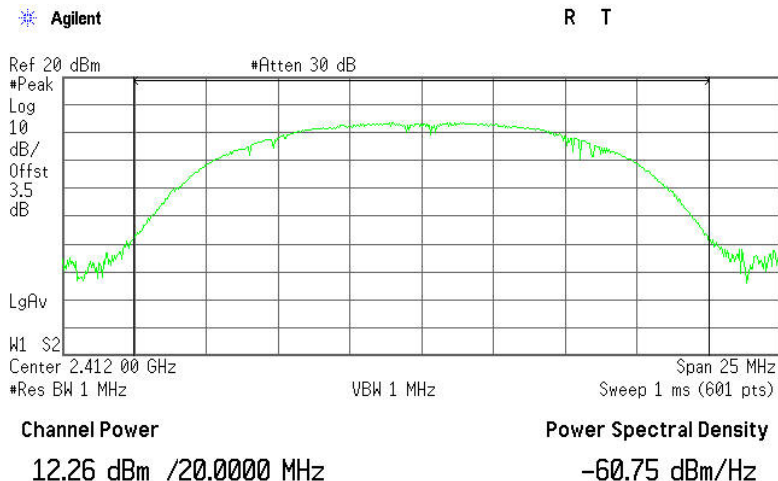
Peak power (CH High)



Antenna 1

IEEE 802.11b mode

Peak power (CH Low)

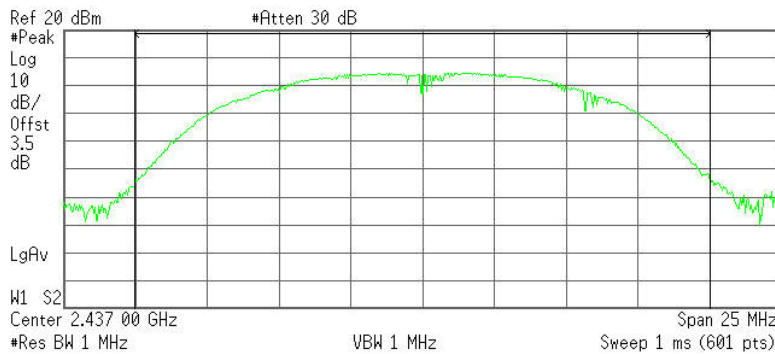




Peak power (CH Mid)

Agilent

R T



Channel Power

13.24 dBm /20.0000 MHz

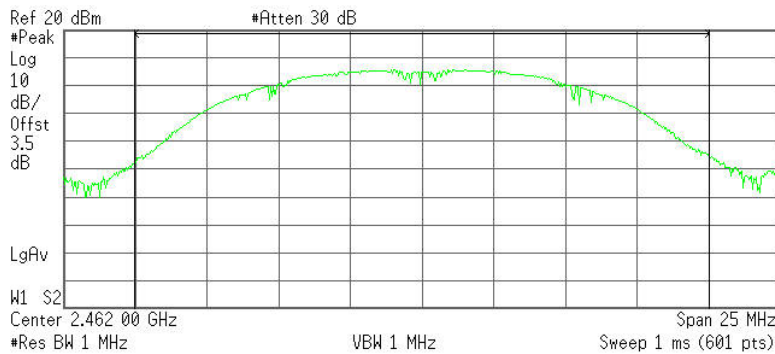
Power Spectral Density

-59.78 dBm/Hz

Peak power (CH High)

Agilent

R T



Channel Power

14.38 dBm /20.0000 MHz

Power Spectral Density

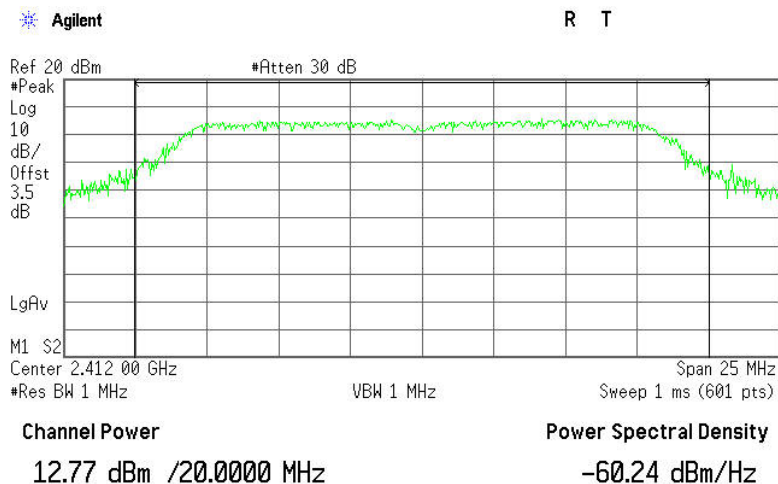
-58.63 dBm/Hz



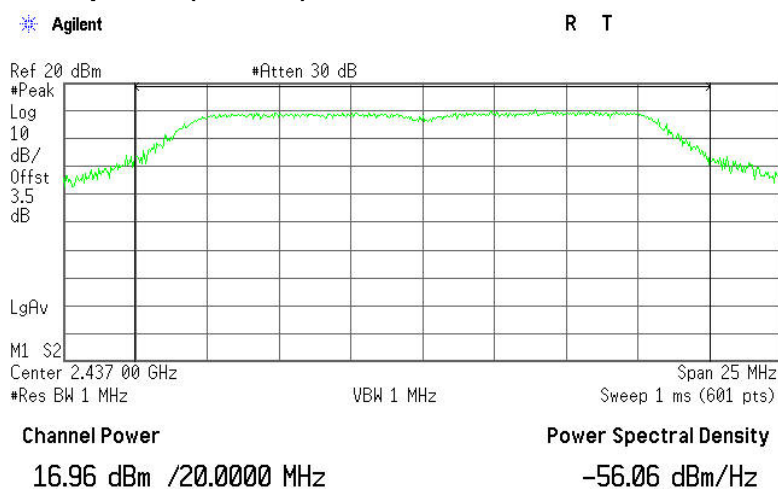
Antenna 0

IEEE 802.11g mode

Peak power (CH Low)

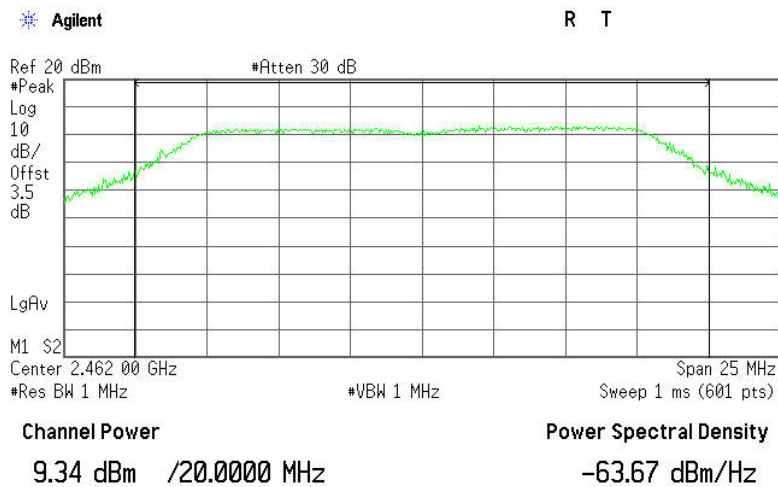


Peak power (CH Mid)





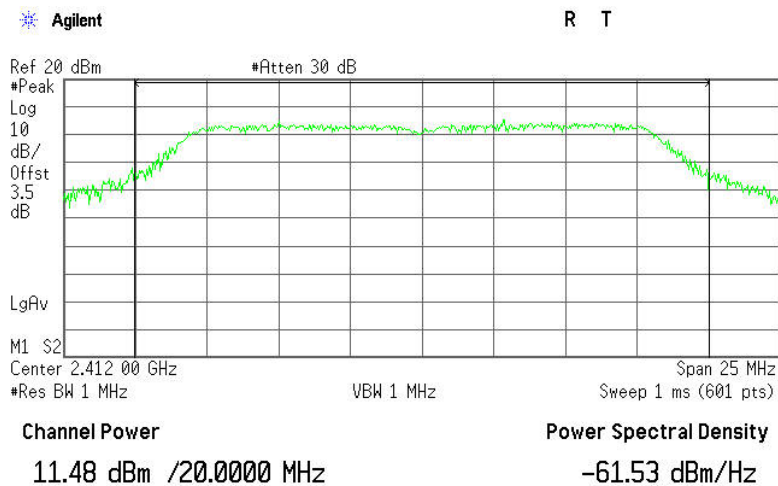
Peak power (CH High)



Antenna 1

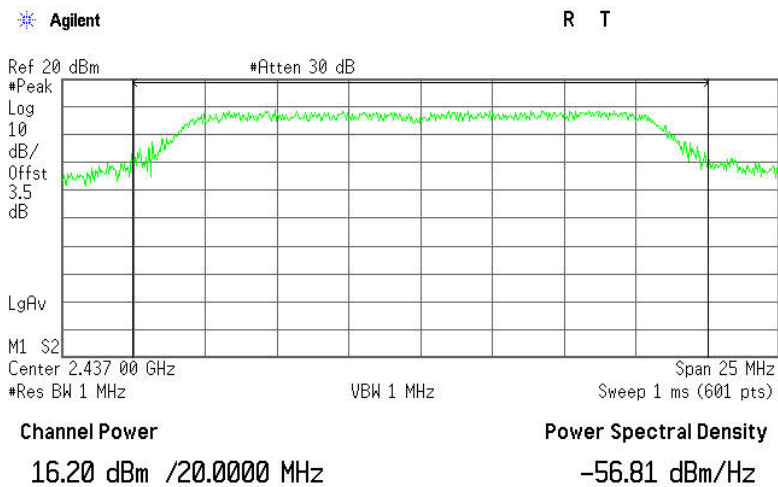
IEEE 802.11g mode

Peak power (CH Low)

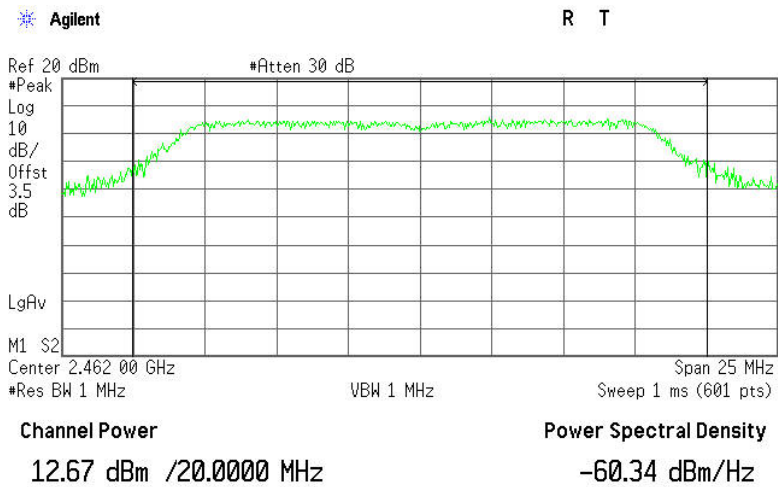




Peak power (CH Mid)



Peak power (CH High)

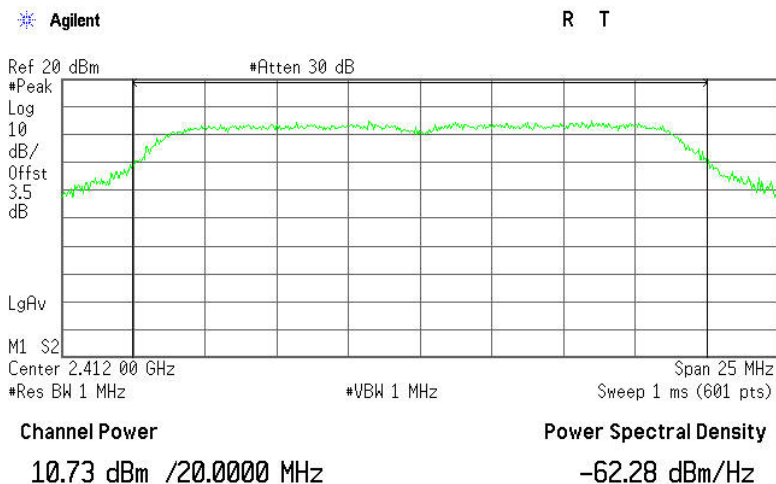




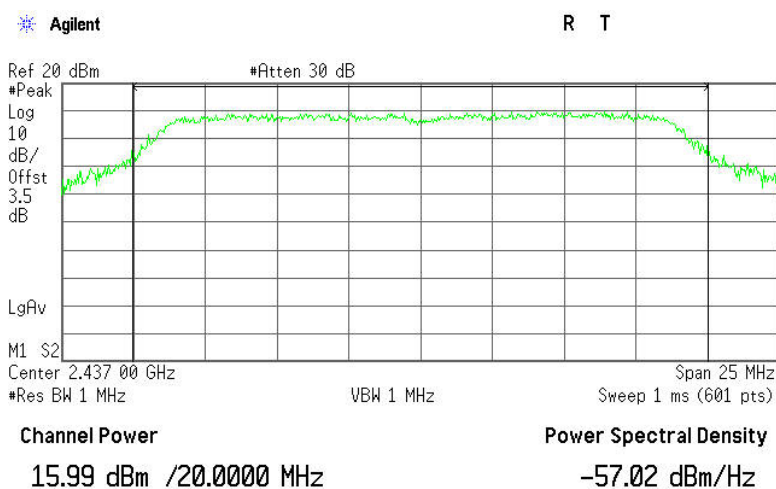
Antenna 0

IEEE 802.11n HT20 MHz mode

Peak power (CH Low)

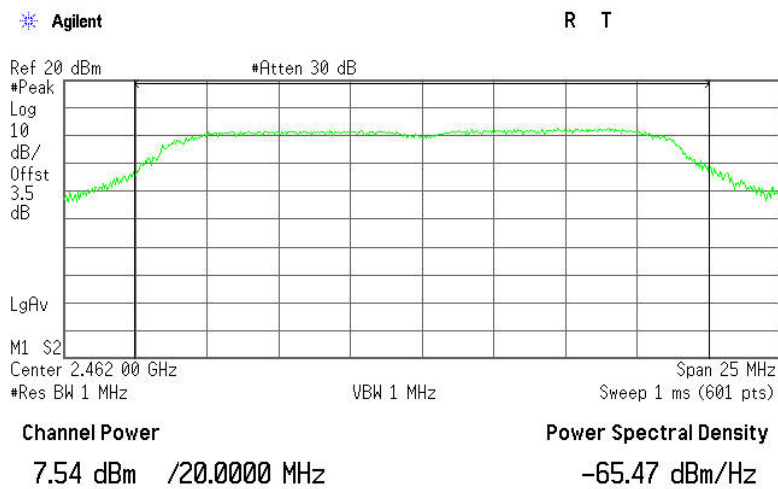


Peak power (CH Mid)





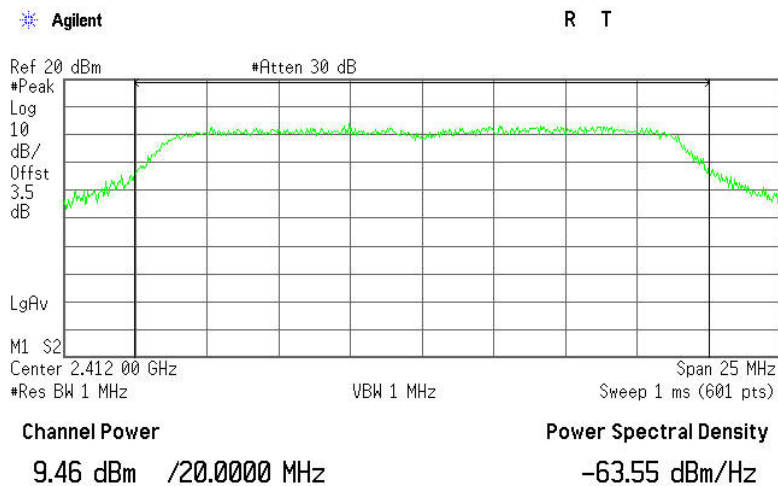
Peak power (CH High)



Antenna 1

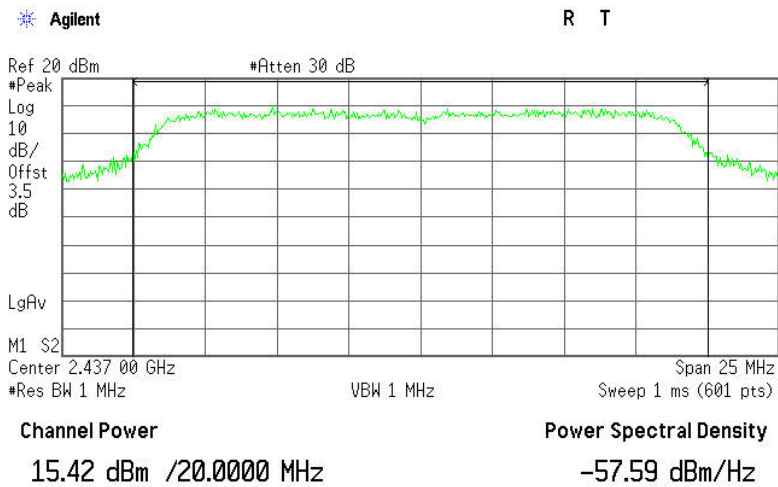
IEEE 802.11n HT20 MHz mode

Peak power (CH Low)

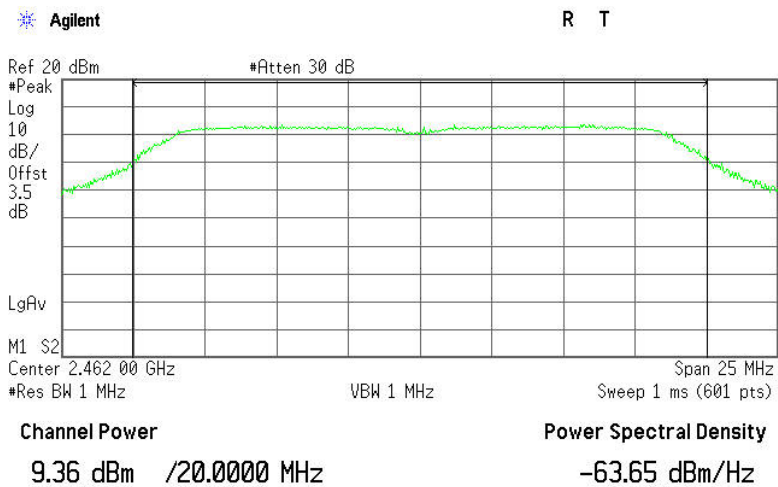




Peak power (CH Mid)



Peak power (CH High)

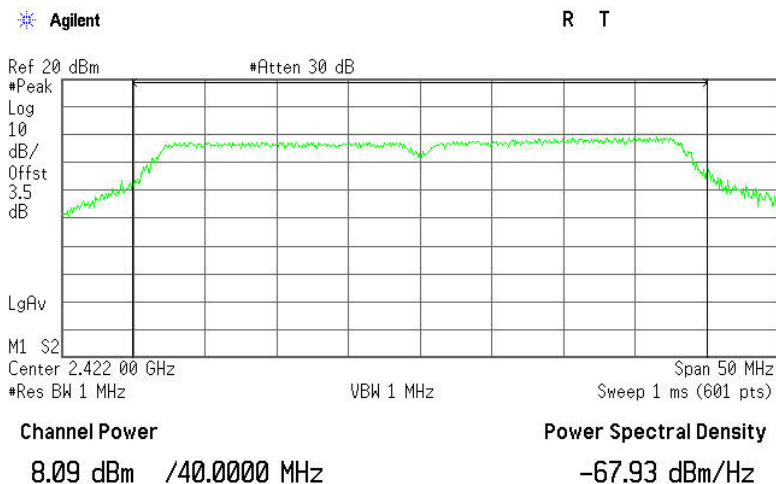




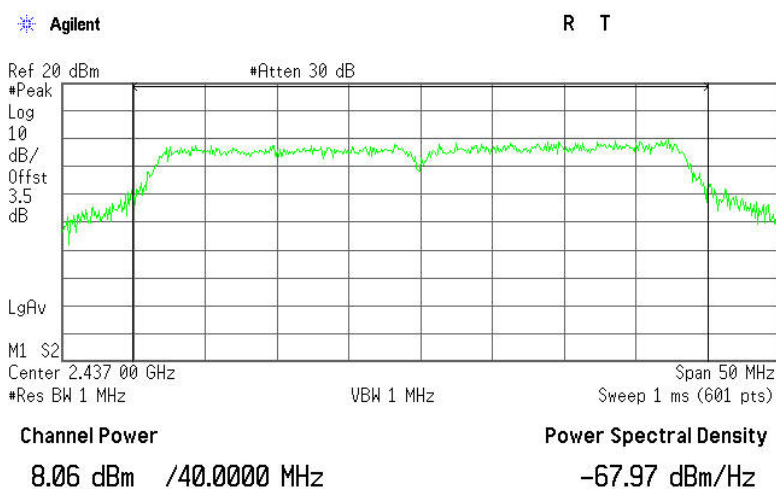
Antenna 0

IEEE 802.11n HT40 MHz mode

Peak power (CH Low)

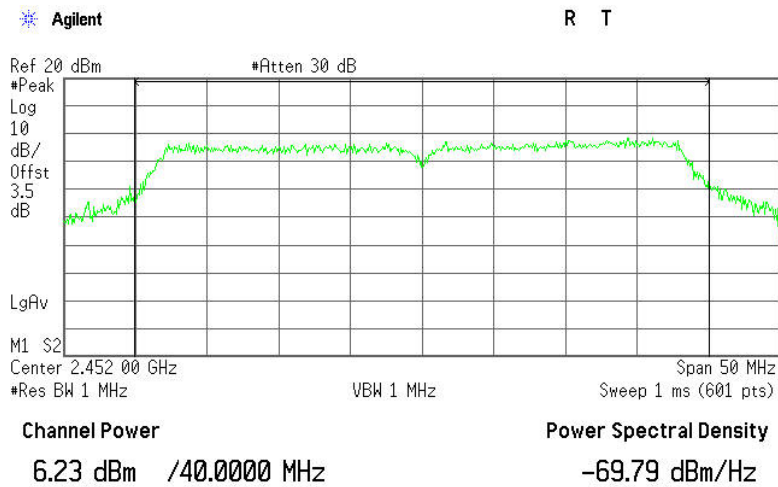


Peak power (CH Mid)





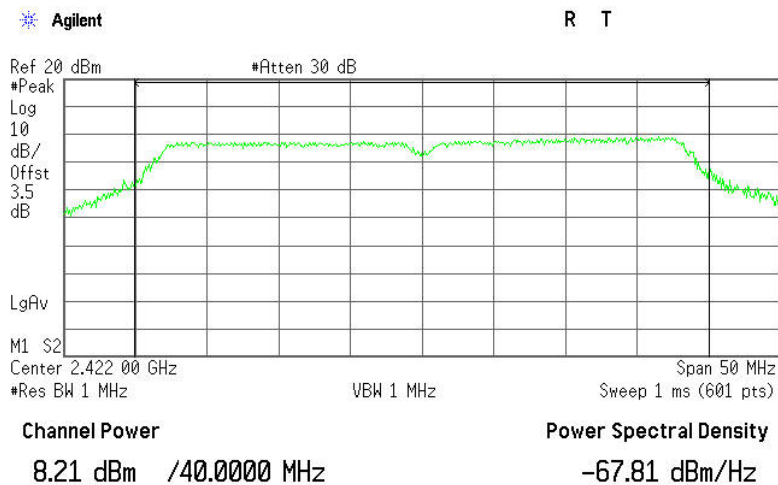
Peak power (CH High)



Antenna 1

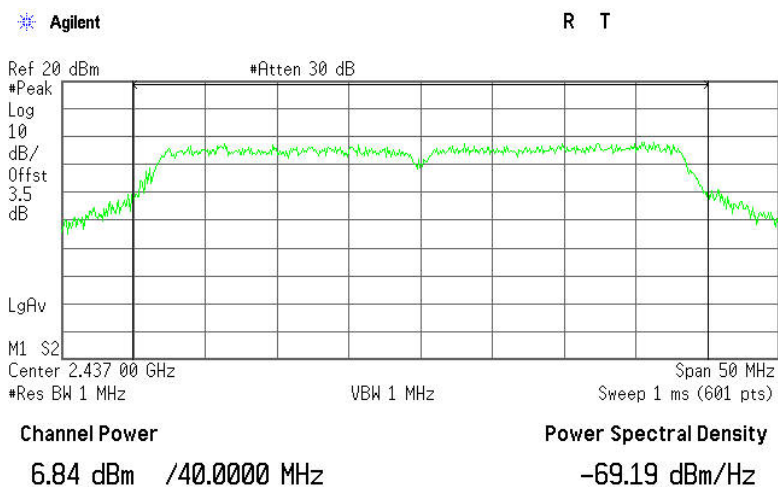
IEEE 802.11n HT40 MHz mode

Peak power (CH Low)

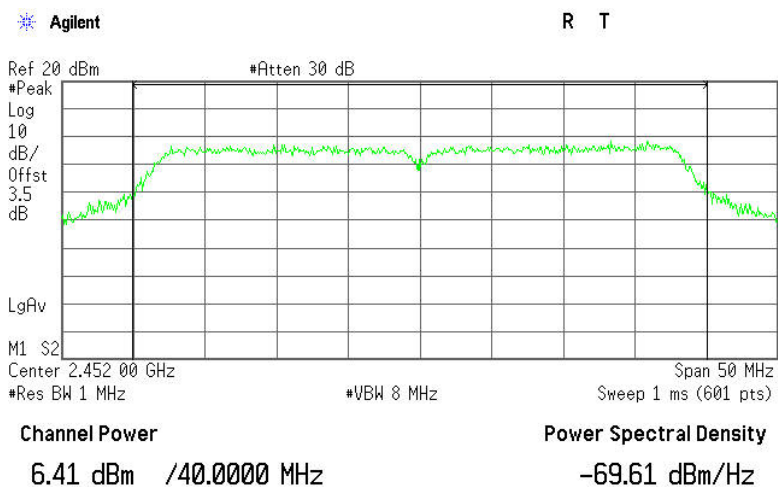




Peak power (CH Mid)



Peak power (CH High)





7.5. BAND EDGES MEASUREMENT

7.5.1. LIMITS

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)).

7.5.2. 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	03/09/2013	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	06/21/2012	06/21/2013
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			

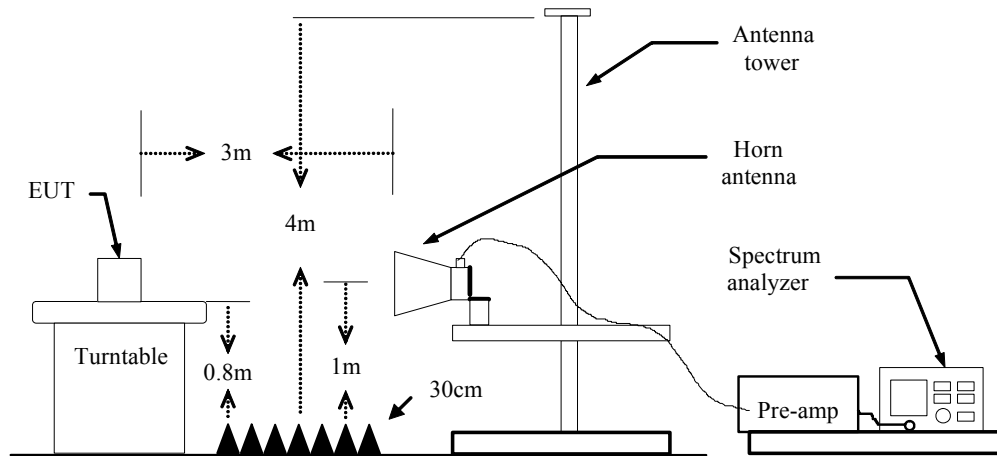
- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The FCC Site Registration number is 101879.
 3. N.C.R = No Calibration Required.



7.5.3. TEST PROCEDURES (please refer to measurement standard)

1. The EUT is placed on a turntable, which is 0.8m above the 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 emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are

7.5.4. TEST SETUP





7.5.5. TEST RESULTS

Test Plot

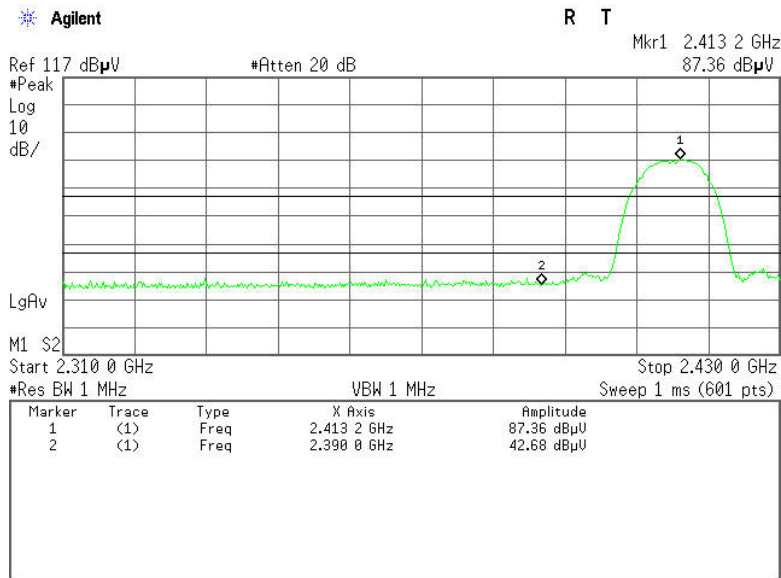
Antenna 0

IEEE 802.11b mode

Band Edges (CH Low)

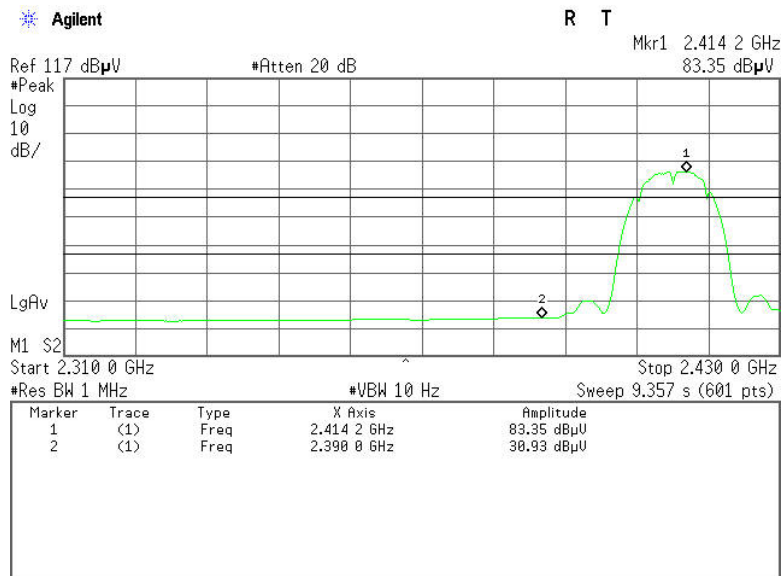
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

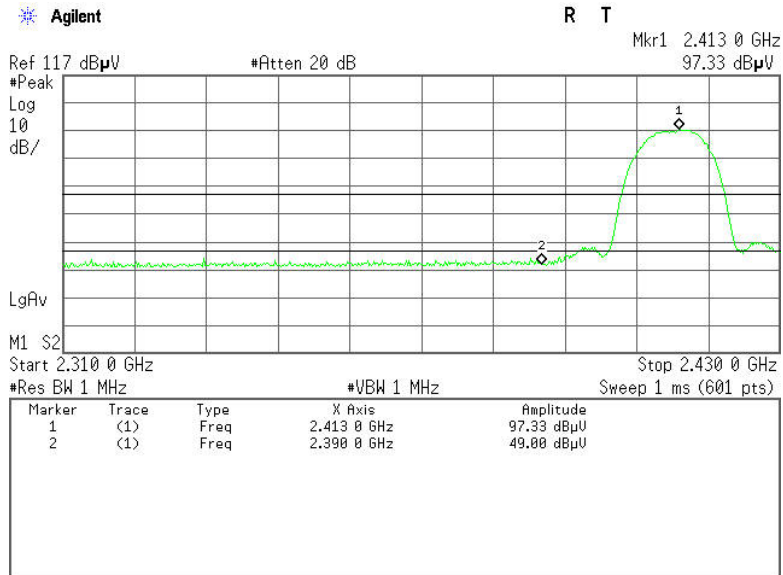


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	36.08	-6.60	42.68	74.00	-31.32	Peak	Vertical
2	2390.0000	24.33	-6.60	30.93	54.00	-23.07	Average	Vertical



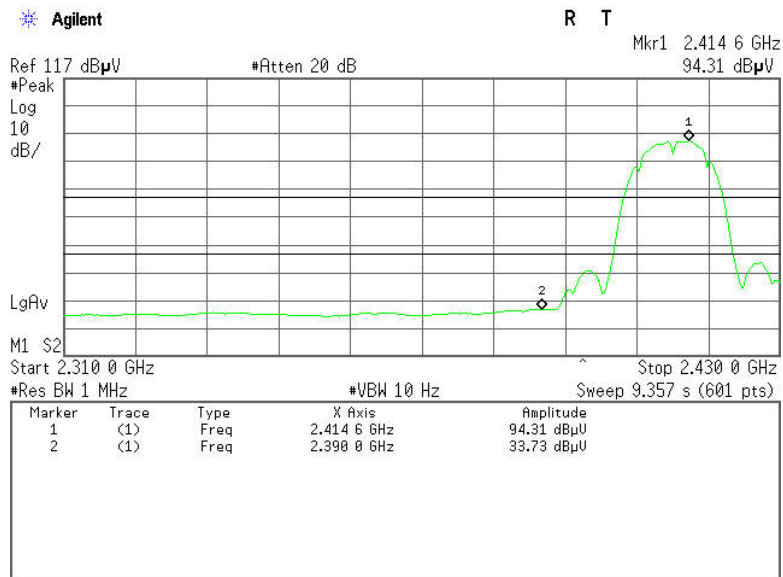
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



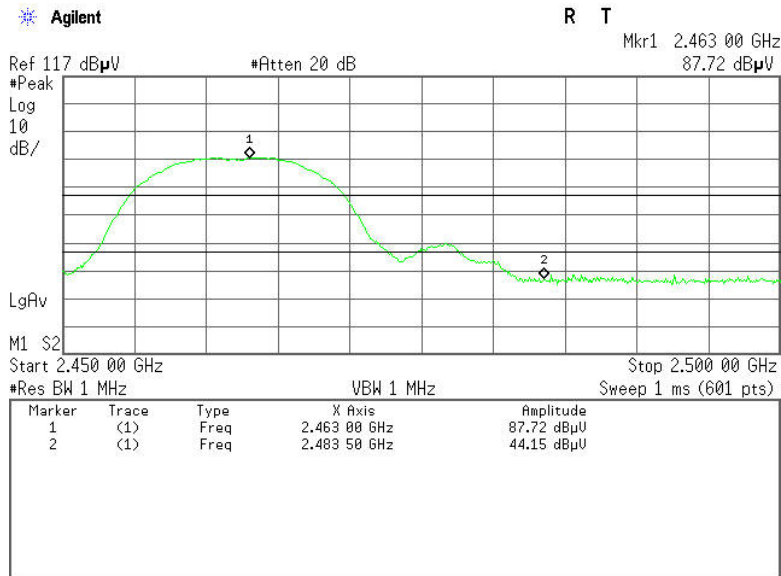
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	42.40	-6.60	49.00	74.00	-25.00	Peak	Horizontal
2	2390.0000	27.13	-6.60	33.73	54.00	-20.27	Average	Horizontal



Band Edges (CH High)

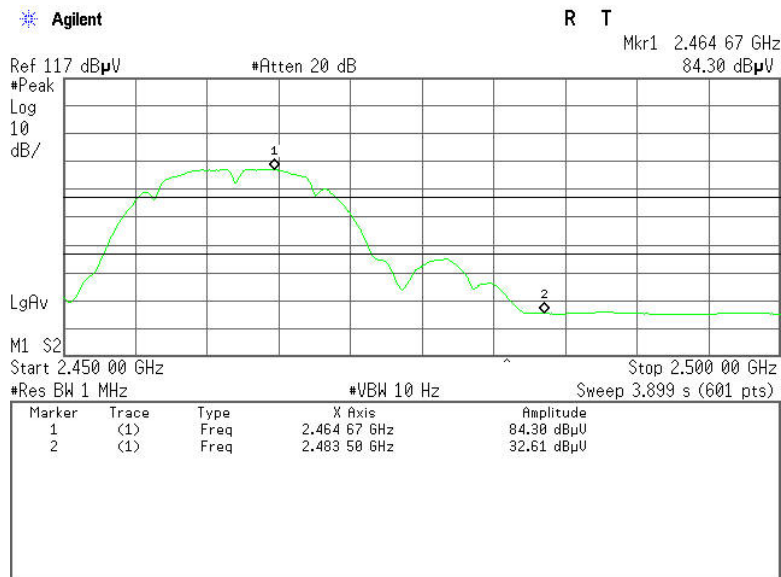
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

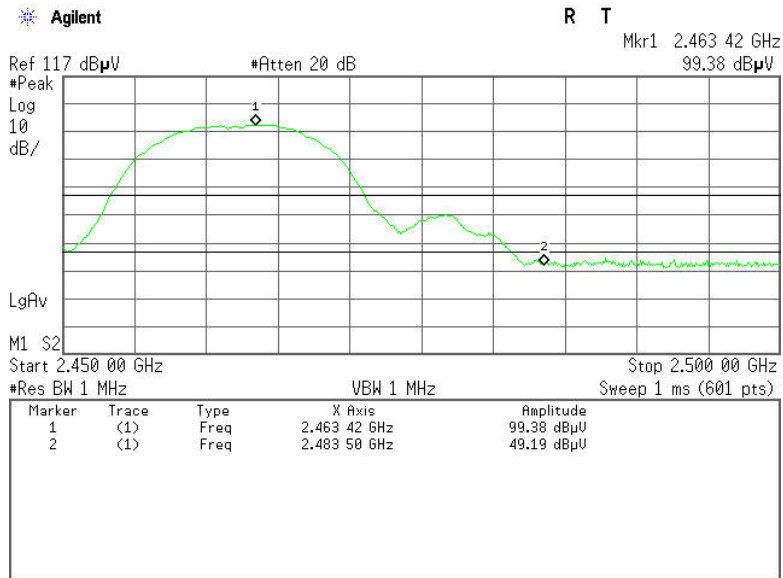


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	37.91	-6.24	44.15	74.00	-29.85	Peak	Vertical
2	2483.5000	26.37	-6.24	32.61	54.00	-21.39	AVG	Vertical



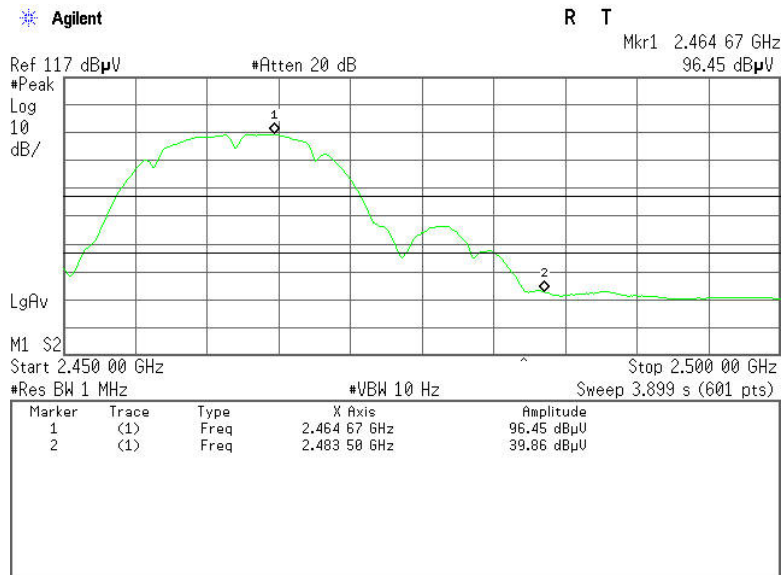
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	42.95	-6.24	49.19	74.00	-24.81	Peak	Horizontal
2	2483.5000	33.62	-6.24	39.86	54.00	-14.14	AVG	Horizontal



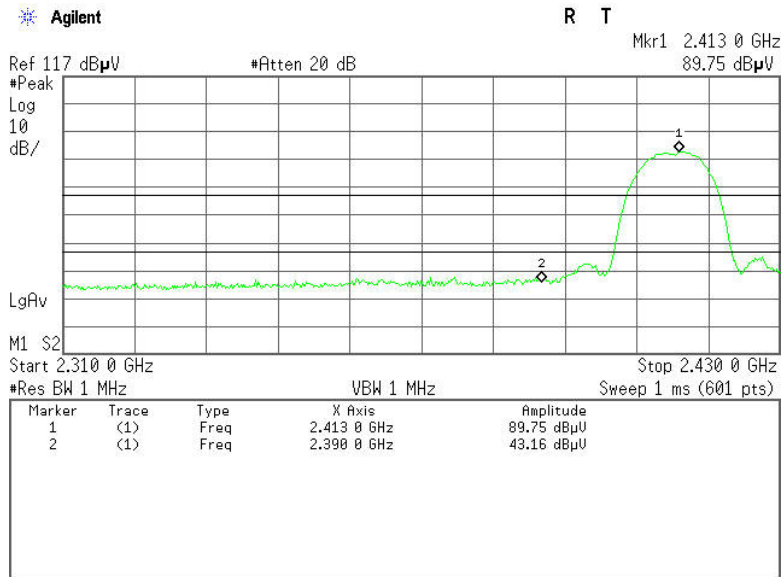
Antenna 1

IEEE 802.11b mode

Band Edges (CH Low)

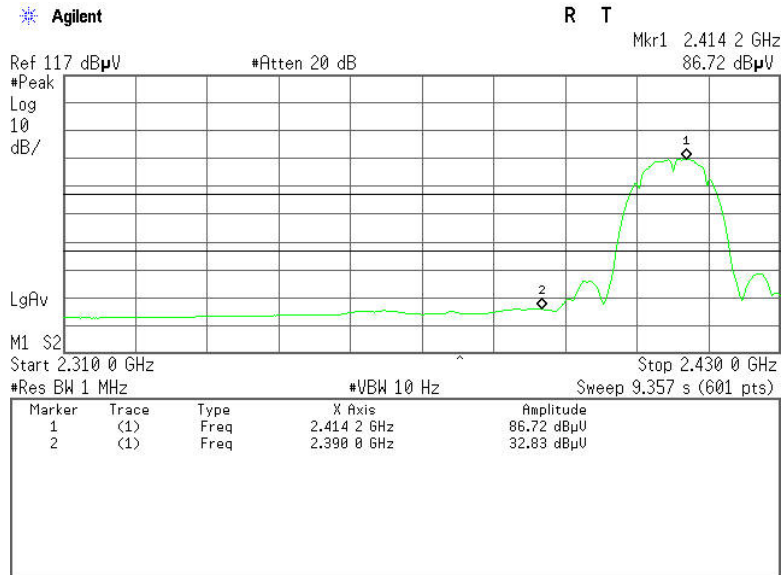
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical

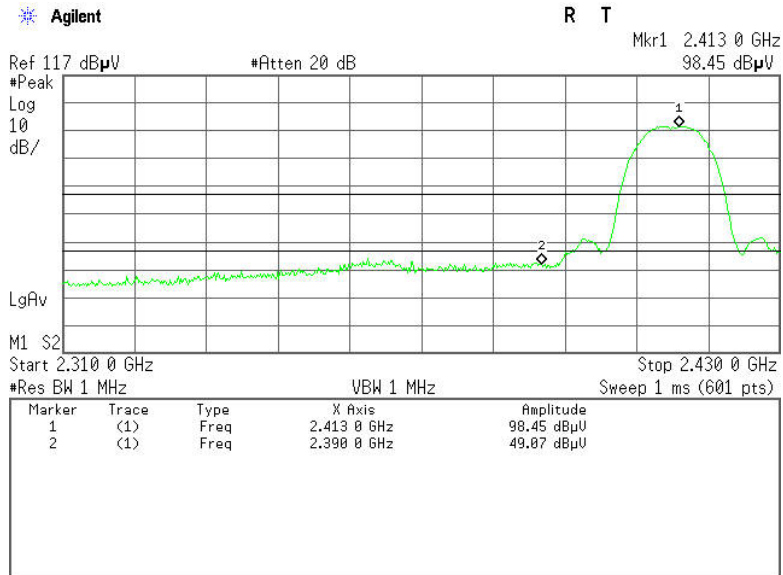


No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	36.56	-6.60	43.16	74.00	-30.84	Peak	Vertical
2	2390.0000	26.23	-6.60	32.83	54.00	-21.17	Average	Vertical



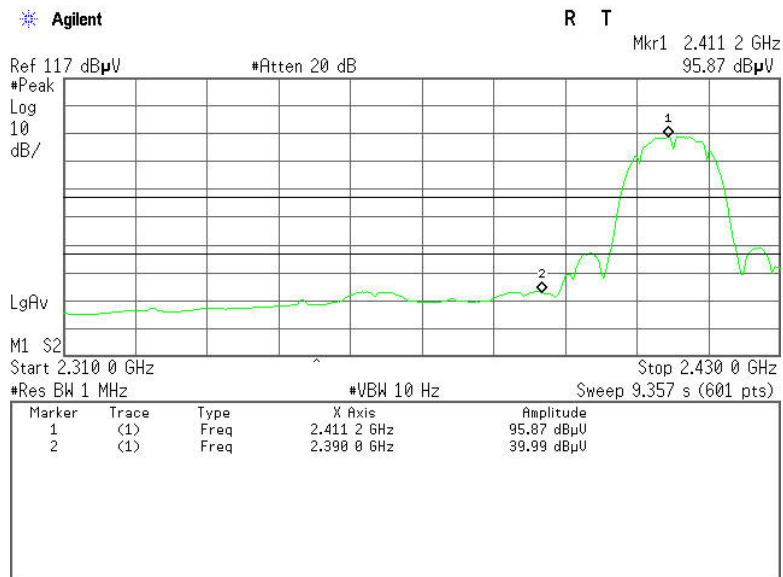
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal



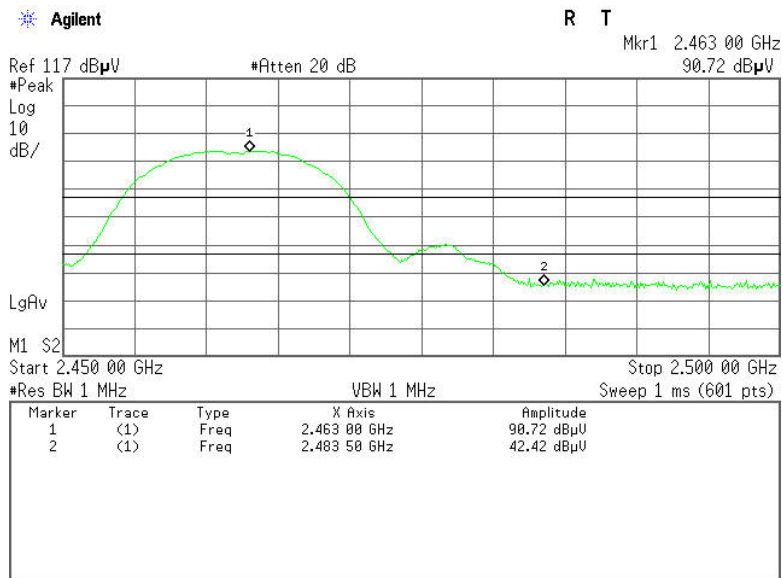
No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2390.0000	42.47	-6.60	49.07	74.00	-24.93	Peak	Horizontal
2	2390.0000	33.39	-6.60	39.99	54.00	-14.01	Average	Horizontal



Band Edges (CH High)

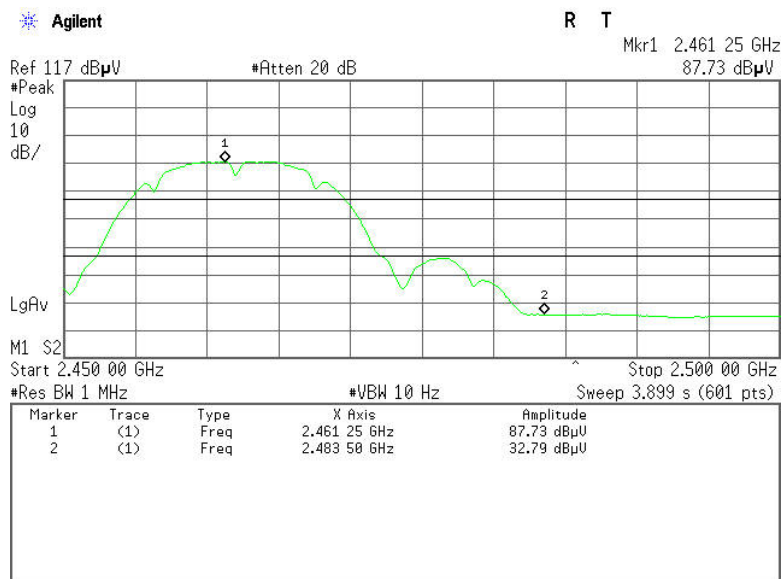
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Corrected (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Antenna Pole
1	2483.5000	36.18	-6.24	42.42	74.00	-31.58	Peak	Vertical
2	2483.5000	26.55	-6.24	32.79	54.00	-21.21	AVG	Vertical