

Operation Mode: TX / IEEE 802.11b (Antenna 2)/ CH LowTest Date: April 23, 2013

24°C Tested by: Leevin Li Temperature: **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
1270.0000	49.20	-8.42	40.78	74.00	-33.22	V	peak
3250.0000	52.35	-4.07	48.28	74.00	-25.72	V	peak
3760.0000	46.26	-2.59	43.67	74.00	-30.33	V	peak
4435.0000	45.67	-0.76	44.91	74.00	-29.09	V	peak
5050.0000	45.08	1.38	46.46	74.00	-27.54	V	peak
5605.0000	45.14	1.95	47.09	74.00	-26.91	V	peak
1285.0000	49.96	-8.35	41.61	74.00	-32.39	Н	Peak
3460.0000	47.06	-3.70	43.36	74.00	-30.64	Н	Peak
3910.0000	46.17	-2.51	43.66	74.00	-30.34	Н	Peak
5035.0000	44.76	1.36	46.12	74.00	-27.88	Н	Peak
5695.0000	44.93	2.33	47.26	74.00	-26.74	Н	Peak
6265.0000	45.36	3.88	49.24	74.00	-24.76	Н	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.
- 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).

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Operation Mode: TX / IEEE 802.11b (Antenna 2)/ CH HighTest Date: April 23, 2013

24°C Temperature: Tested by: Leevin Li 52% RH **Humidity:** 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	49.45	-8.28	41.17	74.00	-32.83	V	peak
3280.0000	55.89	-4.05	51.84	74.00	-22.16	V	peak
4420.0000	46.14	-0.78	45.36	74.00	-28.64	V	peak
4795.0000	45.07	0.39	45.46	74.00	-28.54	V	peak
5455.0000	45.86	1.63	47.49	74.00	-26.51	V	peak
6025.0000	45.11	3.16	48.27	74.00	-25.73	V	peak
1465.0000	48.38	-8.11	40.27	74.00	-33.73	Н	Peak
3655.0000	46.53	-2.87	43.66	74.00	-30.34	Н	Peak
4165.0000	45.69	-1.75	43.94	74.00	-30.06	Н	Peak
4915.0000	45.07	0.93	46.00	74.00	-28.00	Н	Peak
5650.0000	45.02	2.14	47.16	74.00	-26.84	Н	Peak
6925.0000	44.50	5.97	50.47	74.00	-23.53	Н	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).

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Operation Mode: TX / IEEE 802.11g (Antenna 1)/ CH Low Test Date: April 23, 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
3220.0000	53.96	-4.08	49.88	74.00	-24.12	V	Peak
3790.0000	45.82	-2.52	43.30	74.00	-30.70	V	Peak
4135.0000	46.35	-1.89	44.46	74.00	-29.54	V	Peak
5005.0000	44.98	1.33	46.31	74.00	-27.69	V	Peak
5650.0000	44.51	2.14	46.65	74.00	-27.35	V	Peak
6340.0000	44.87	4.09	48.96	74.00	-25.04	V	Peak
1225.0000	48.80	-8.62	40.18	74.00	-33.82	Н	Peak
3310.0000	46.75	-4.04	42.71	74.00	-31.29	Н	Peak
3850.0000	46.59	-2.50	44.09	74.00	-29.91	Н	Peak
4705.0000	44.82	0.00	44.82	74.00	-29.18	Н	Peak
5755.0000	44.79	2.59	47.38	74.00	-26.62	Н	Peak
6295.0000	46.01	3.97	49.98	74.00	-24.02	Н	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).

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Operation Mode: TX / IEEE 802.11g(Antenna 1) / CH Mid Test Date: April 23, 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
3250.0000	55.23	-4.07	51.16	74.00	-22.84	V	Peak
3805.0000	45.40	-2.49	42.91	74.00	-31.09	V	Peak
4255.0000	45.58	-1.37	44.21	74.00	-29.79	V	Peak
4975.0000	45.03	1.21	46.24	74.00	-27.76	V	Peak
5860.0000	44.55	2.87	47.42	74.00	-26.58	V	Peak
6325.0000	45.62	4.05	49.67	74.00	-24.33	V	Peak
3040.0000	47.54	-4.21	43.33	74.00	-30.67	Н	Peak
3850.0000	45.58	-2.50	43.08	74.00	-30.92	Н	Peak
4600.0000	44.82	-0.46	44.36	74.00	-29.64	Н	Peak
4900.0000	45.54	0.86	46.40	74.00	-27.60	Н	Peak
5590.0000	44.79	1.91	46.70	74.00	-27.30	Н	Peak
6250.0000	44.55	3.83	48.38	74.00	-25.62	Н	Peak

REMARKS:

- 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).

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Operation Mode: TX / IEEE 802.11g(Antenna 1) / CH High Test Date: April 23, 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
3280.0000	53.53	-4.05	49.48	74.00	-24.52	V	Peak
3850.0000	46.32	-2.50	43.82	74.00	-30.18	V	Peak
4420.0000	46.72	-0.78	45.94	74.00	-28.06	V	Peak
5005.0000	45.25	1.33	46.58	74.00	-27.42	V	Peak
6100.0000	44.69	3.39	48.08	74.00	-25.92	V	Peak
6325.0000	45.51	4.05	49.56	74.00	-24.44	V	Peak
1585.0000	48.77	-8.62	40.15	74.00	-33.85	Н	Peak
3265.0000	46.84	-4.06	42.78	74.00	-31.22	Н	Peak
3670.0000	46.01	-2.83	43.18	74.00	-30.82	Н	Peak
4375.0000	46.10	-0.91	45.19	74.00	-28.81	Н	Peak
5050.0000	45.52	1.38	46.90	74.00	-27.10	Н	Peak
6490.0000	44.14	4.51	48.65	74.00	-25.35	Н	Peak

- 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(Antenna 2) / CH Low Test Date: April 23, 2013

24°C Tested by: Leevin Li Temperature: 52% RH **Humidity: 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	53.96	-4.08	49.88	74.00	-24.12	V	Peak
3790.0000	45.82	-2.52	43.30	74.00	-30.70	V	Peak
4135.0000	46.35	-1.89	44.46	74.00	-29.54	V	Peak
5005.0000	44.98	1.33	46.31	74.00	-27.69	V	Peak
5650.0000	44.51	2.14	46.65	74.00	-27.35	V	Peak
6340.0000	44.87	4.09	48.96	74.00	-25.04	V	Peak
1225.0000	48.80	-8.62	40.18	74.00	-33.82	Н	Peak
3310.0000	46.75	-4.04	42.71	74.00	-31.29	Н	Peak
3850.0000	46.59	-2.50	44.09	74.00	-29.91	Н	Peak
4705.0000	44.82	0.00	44.82	74.00	-29.18	Н	Peak
5755.0000	44.79	2.59	47.38	74.00	-26.62	Н	Peak
6295.0000	46.01	3.97	49.98	74.00	-24.02	Н	Peak

- 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(Antenna 2) / CH Mid Test Date: April 23, 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
3250.0000	49.80	-4.07	45.73	74.00	-28.27	V	Peak
4480.0000	44.56	-0.68	43.88	74.00	-30.12	V	Peak
5290.0000	45.30	1.54	46.84	74.00	-27.16	V	Peak
5905.0000	44.34	2.94	47.28	74.00	-26.72	V	Peak
6325.0000	44.96	4.05	49.01	74.00	-24.99	V	Peak
7315.0000	54.81	7.49	62.30	74.00	-11.70	V	Peak
7315.0000	40.12	7.49	47.61	54.00	-6.39	V	AVG
	•					•	
3250.0000	47.91	-4.07	43.84	74.00	-30.16	Н	Peak
4180.0000	45.35	-1.67	43.68	74.00	-30.32	Н	Peak
4915.0000	45.57	0.93	46.50	74.00	-27.50	Н	Peak
5560.0000	44.44	1.85	46.29	74.00	-27.71	Н	Peak
6205.0000	44.08	3.70	47.78	74.00	-26.22	Н	Peak
6475.0000	44.87	4.47	49.34	74.00	-24.66	Н	Peak

- 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(Antenna 2) / CH High Test Date: April 23, 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
3340.0000	47.58	-4.03	43.55	74.00	-30.45	V	Peak
4420.0000	45.38	-0.78	44.60	74.00	-29.40	V	Peak
5050.0000	45.04	1.38	46.42	74.00	-27.58	V	Peak
5500.0000	44.86	1.73	46.59	74.00	-27.41	V	Peak
6100.0000	45.74	3.39	49.13	74.00	-24.87	V	Peak
6820.0000	44.43	5.57	50.00	74.00	-24.00	V	Peak
3280.0000	48.39	-4.05	44.34	74.00	-29.66	Н	Peak
4195.0000	46.30	-1.60	44.70	74.00	-29.30	Н	Peak
4930.0000	46.12	1.00	47.12	74.00	-26.88	Н	Peak
5725.0000	45.49	2.46	47.95	74.00	-26.05	Н	Peak
6025.0000	45.06	3.16	48.22	74.00	-25.78	Н	Peak
7015.0000	44.66	6.43	51.09	74.00	-22.91	Н	Peak

- 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).



Reference No.: C130221Z01-RP1 Report No.: C130314Z02-RP1

Operation TX / IEEE 802.11n HT20 MHz

Mode: (Antenna 1) / CH Low

Test Date: April 23, 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
3175.0000	47.01	-4.11	42.90	74.00	-31.10	V	Peak
4150.0000	45.48	-1.82	43.66	74.00	-30.34	V	Peak
4720.0000	45.34	0.06	45.40	74.00	-28.60	V	Peak
5335.0000	44.96	1.53	46.49	74.00	-27.51	V	Peak
5995.0000	44.07	3.08	47.15	74.00	-26.85	V	Peak
6490.0000	44.52	4.51	49.03	74.00	-24.97	V	Peak
1405.0000	48.01	-7.85	40.16	74.00	-33.84	Н	Peak
3745.0000	45.67	-2.63	43.04	74.00	-30.96	Н	Peak
4300.0000	46.07	-1.20	44.87	74.00	-29.13	Н	Peak
5125.0000	45.87	1.46	47.33	74.00	-26.67	Н	Peak
5815.0000	44.16	2.80	46.96	74.00	-27.04	Н	Peak
6415.0000	44.84	4.30	49.14	74.00	-24.86	Н	Peak

- 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).



Reference No.: C130221Z01-RP1 Report No.: C130314Z02-RP1

Operation Mode: TX / IEEE 802.11n HT20 MHz

(Antenna 1) / CH Mid

Test Date: April 23, 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
1330.0000	48.43	-8.14	40.29	74.00	-33.71	V	Peak
3745.0000	45.94	-2.63	43.31	74.00	-30.69	V	Peak
4150.0000	45.27	-1.82	43.45	74.00	-30.55	V	Peak
4825.0000	45.23	0.52	45.75	74.00	-28.25	V	Peak
6010.0000	44.06	3.12	47.18	74.00	-26.82	V	Peak
6550.0000	44.44	4.68	49.12	74.00	-24.88	V	Peak
1300.0000	48.48	-8.28	40.20	74.00	-33.80	Н	Peak
3760.0000	45.57	-2.59	42.98	74.00	-31.02	Н	Peak
4210.0000	45.86	-1.54	44.32	74.00	-29.68	Н	Peak
4570.0000	45.45	-0.51	44.94	74.00	-29.06	Н	Peak
5680.0000	44.95	2.27	47.22	74.00	-26.78	Н	Peak
6265.0000	45.56	3.88	49.44	74.00	-24.56	Н	Peak

- 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).



Reference No.: C130221Z01-RP1 Report No.: C130314Z02-RP1

Test Date: April 23, 2013

Operation Mode: TX / IEEE 802.11n HT20 MHz

(Antenna 1)/ CH High

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
1345.0000	49.66	-8.08	41.58	74.00	-32.42	V	Peak
3250.0000	46.34	-4.07	42.27	74.00	-31.73	V	Peak
4105.0000	46.17	-2.03	44.14	74.00	-29.86	V	Peak
4345.0000	45.55	-1.03	44.52	74.00	-29.48	V	Peak
4990.0000	45.89	1.27	47.16	74.00	-26.84	V	Peak
5740.0000	44.97	2.52	47.49	74.00	-26.51	V	Peak
1435.0000	48.37	-7.98	40.39	74.00	-33.61	Н	Peak
3730.0000	45.73	-2.67	43.06	74.00	-30.94	Н	Peak
4270.0000	45.10	-1.31	43.79	74.00	-30.21	Н	Peak
4930.0000	45.27	1.00	46.27	74.00	-27.73	Н	Peak
5890.0000	44.51	2.92	47.43	74.00	-26.57	Н	Peak
7045.0000	44.20	6.58	50.78	74.00	-23.22	Н	Peak

- 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.
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- 6. Margin (dB) = Remark result (dBuV/m) Average limit (dBuV/m).



Reference No.: C130221Z01-RP1
Report No.: C130314Z02-RP1

TX / IEEE 802.11n HT20 MHz

: (Antenna 2)/ CH Low

Test Date: April 23, 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
1255.0000	53.49	-8.48	45.01	74.00	-28.99	V	Peak
1375.0000	56.58	-7.94	48.64	74.00	-25.36	V	Peak
1630.0000	52.98	-8.79	44.19	74.00	-29.81	V	Peak
3220.0000	54.91	-4.08	50.83	74.00	-23.17	V	Peak
4735.0000	45.42	0.13	45.55	74.00	-28.45	V	Peak
6175.0000	44.83	3.61	48.44	74.00	-25.56	V	Peak
1375.0000	52.87	-7.94	44.93	74.00	-29.07	Н	Peak
3220.0000	48.66	-4.08	44.58	74.00	-29.42	Н	Peak
4135.0000	46.20	-1.89	44.31	74.00	-29.69	Н	Peak
4660.0000	44.72	-0.20	44.52	74.00	-29.48	Н	Peak
5650.0000	44.56	2.14	46.70	74.00	-27.30	Н	Peak
6775.0000	44.88	5.42	50.30	74.00	-23.70	Н	Peak

- 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).



TX / IEEE 802.11n HT20 MHz

Operation Mode: Test Date: April 23, 2013 (Antenna 2)/ CH Mid

24°C Temperature: 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
1375.0000	56.94	-7.94	49.00	74.00	-25.00	V	Peak
1630.0000	53.42	-8.79	44.63	74.00	-29.37	V	Peak
3250.0000	55.32	-4.07	51.25	74.00	-22.75	V	Peak
4795.0000	44.95	0.39	45.34	74.00	-28.66	V	Peak
5050.0000	45.26	1.38	46.64	74.00	-27.36	V	Peak
6910.0000	44.86	5.89	50.75	74.00	-23.25	V	Peak
1375.0000	57.61	-7.94	49.67	74.00	-24.33	Н	Peak
3805.0000	45.77	-2.49	43.28	74.00	-30.72	Н	Peak
4945.0000	44.80	1.07	45.87	74.00	-28.13	Н	Peak
5620.0000	45.37	2.02	47.39	74.00	-26.61	Н	Peak
5980.0000	44.93	3.06	47.99	74.00	-26.01	Н	Peak
6520.0000	44.63	4.60	49.23	74.00	-24.77	Н	Peak

- 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).



Reference No.: C130221Z01-RP1 Report No.: C130314Z02-RP1

Test Date: April 23, 2013

Operation Mode: TX / IEEE 802.11n HT20 MHz

(Antenna 2)/ CH High

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
1375.0000	55.63	-7.94	47.69	74.00	-26.31	V	Peak
3640.0000	45.77	-2.91	42.86	74.00	-31.14	V	Peak
4210.0000	45.43	-1.54	43.89	74.00	-30.11	V	Peak
5095.0000	45.02	1.43	46.45	74.00	-27.55	V	Peak
6010.0000	45.29	3.12	48.41	74.00	-25.59	V	Peak
6265.0000	44.57	3.88	48.45	74.00	-25.55	V	Peak
1375.0000	57.46	-7.94	49.52	74.00	-24.48	Н	Peak
3805.0000	46.62	-2.49	44.13	74.00	-29.87	Н	Peak
4330.0000	45.47	-1.09	44.38	74.00	-29.62	Н	Peak
4915.0000	45.93	0.93	46.86	74.00	-27.14	Н	Peak
5665.0000	44.81	2.21	47.02	74.00	-26.98	Н	Peak
5890.0000	45.34	2.92	48.26	74.00	-25.74	Н	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).

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TX / IEEE 802.11n HT40 MHz **Operation Mode:**

Test Date: April 23, 2013 (Antenna 1) / CH Low

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
1375.0000	55.49	-7.94	47.55	74.00	-26.45	V	Peak
2995.0000	46.98	-4.26	42.72	74.00	-31.28	V	Peak
4165.0000	46.19	-1.75	44.44	74.00	-29.56	V	Peak
4840.0000	44.73	0.59	45.32	74.00	-28.68	V	Peak
5680.0000	45.47	2.27	47.74	74.00	-26.26	V	Peak
6520.0000	44.49	4.60	49.09	74.00	-24.91	V	Peak
1375.0000	56.13	-7.94	48.19	74.00	-25.81	Н	Peak
1720.0000	55.51	-9.14	46.37	74.00	-27.63	Н	Peak
3760.0000	46.10	-2.59	43.51	74.00	-30.49	Н	Peak
4285.0000	45.05	-1.26	43.79	74.00	-30.21	Н	Peak
5320.0000	44.76	1.53	46.29	74.00	-27.71	Н	Peak
6745.0000	44.39	5.31	49.70	74.00	-24.30	Н	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).

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TX / IEEE 802.11n HT40 MHz **Operation Mode:**

Test Date: April 23, 2013 (Antenna 1)/ CH Mid

24°C Temperature: 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
1375.0000	55.63	-7.94	47.69	74.00	-26.31	V	Peak
3640.0000	45.77	-2.91	42.86	74.00	-31.14	V	Peak
4210.0000	45.43	-1.54	43.89	74.00	-30.11	V	Peak
5095.0000	45.02	1.43	46.45	74.00	-27.55	V	Peak
6010.0000	45.29	3.12	48.41	74.00	-25.59	V	Peak
6265.0000	44.57	3.88	48.45	74.00	-25.55	V	Peak
1375.0000	57.46	-7.94	49.52	74.00	-24.48	Н	Peak
3805.0000	46.62	-2.49	44.13	74.00	-29.87	Н	Peak
4330.0000	45.47	-1.09	44.38	74.00	-29.62	Н	Peak
4915.0000	45.93	0.93	46.86	74.00	-27.14	Н	Peak
5665.0000	44.81	2.21	47.02	74.00	-26.98	Н	Peak
5890.0000	45.34	2.92	48.26	74.00	-25.74	Н	Peak

REMARKS:

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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.
- 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).

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TX / IEEE 802.11n HT40 MHz Operation

Test Date: April 23, 2013 Mode: (Antenna 1) / CH High

24°C Temperature: 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
1375.0000	55.49	-7.94	47.55	74.00	-26.45	V	Peak
2995.0000	46.98	-4.26	42.72	74.00	-31.28	V	Peak
4165.0000	46.19	-1.75	44.44	74.00	-29.56	V	Peak
4840.0000	44.73	0.59	45.32	74.00	-28.68	V	Peak
5680.0000	45.47	2.27	47.74	74.00	-26.26	V	Peak
6520.0000	44.49	4.60	49.09	74.00	-24.91	V	Peak
1375.0000	56.13	-7.94	48.19	74.00	-25.81	Н	Peak
1720.0000	55.51	-9.14	46.37	74.00	-27.63	Н	Peak
3760.0000	46.10	-2.59	43.51	74.00	-30.49	Н	Peak
4285.0000	45.05	-1.26	43.79	74.00	-30.21	Н	Peak
5320.0000	44.76	1.53	46.29	74.00	-27.71	Н	Peak
6745.0000	44.39	5.31	49.70	74.00	-24.30	Н	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).

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TX / IEEE 802.11n HT40 MHz

Operation Mode: Test Date: April 23, 2013 (Antenna 2)/ CH Low

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
1375.0000	56.52	-7.94	48.58	74.00	-25.42	V	Peak
1495.0000	54.66	-8.23	46.43	74.00	-27.57	V	Peak
3235.0000	55.82	-4.07	51.75	74.00	-22.25	V	Peak
3880.0000	46.62	-2.51	44.11	74.00	-29.89	V	Peak
4975.0000	45.45	1.21	46.66	74.00	-27.34	V	Peak
5695.0000	46.05	2.33	48.38	74.00	-25.62	V	Peak
1375.0000	58.02	-7.94	50.08	74.00	-23.92	Н	Peak
3235.0000	49.15	-4.07	45.08	74.00	-28.92	Н	Peak
3760.0000	45.55	-2.59	42.96	74.00	-31.04	Н	Peak
4945.0000	45.35	1.07	46.42	74.00	-27.58	Н	Peak
5200.0000	44.87	1.55	46.42	74.00	-27.58	Н	Peak
6475.0000	44.22	4.47	48.69	74.00	-25.31	Н	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).

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TX / IEEE 802.11n HT40 MHz

Operation Mode: Test Date: April 23, 2013

(Antenna 2)/ CH Mid

24°C Temperature: 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
1375.0000	56.23	-7.94	48.29	74.00	-25.71	V	Peak
2995.0000	46.97	-4.26	42.71	74.00	-31.29	V	Peak
3745.0000	46.28	-2.63	43.65	74.00	-30.35	V	Peak
4690.0000	45.48	-0.07	45.41	74.00	-28.59	V	Peak
5500.0000	44.65	1.73	46.38	74.00	-27.62	V	Peak
5755.0000	44.92	2.59	47.51	74.00	-26.49	V	Peak
1375.0000	56.90	-7.94	48.96	74.00	-25.04	Н	Peak
2815.0000	48.45	-4.98	43.47	74.00	-30.53	Н	Peak
3910.0000	46.07	-2.51	43.56	74.00	-30.44	Н	Peak
4435.0000	45.34	-0.76	44.58	74.00	-29.42	Н	Peak
5320.0000	45.04	1.53	46.57	74.00	-27.43	Н	Peak
6130.0000	44.47	3.48	47.95	74.00	-26.05	Н	Peak

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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.
- 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).



TX / IEEE 802.11n HT40 MHz Operation

Test Date: April 23, 2013 Mode: (Antenna 2)/ CH High

24°C Temperature: 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
1375.0000	54.80	-7.94	46.86	74.00	-27.14	V	Peak
3265.0000	54.31	-4.06	50.25	74.00	-23.75	V	Peak
4420.0000	44.86	-0.78	44.08	74.00	-29.92	V	Peak
4990.0000	45.32	1.27	46.59	74.00	-27.41	V	Peak
5995.0000	44.70	3.08	47.78	74.00	-26.22	V	Peak
6790.0000	44.63	5.47	50.10	74.00	-23.90	V	Peak
1375.0000	57.40	-7.94	49.46	74.00	-24.54	Н	Peak
3265.0000	47.50	-4.06	43.44	74.00	-30.56	Н	Peak
3760.0000	47.04	-2.59	44.45	74.00	-29.55	Н	Peak
4930.0000	45.72	1.00	46.72	74.00	-27.28	Н	Peak
5620.0000	44.80	2.02	46.82	74.00	-27.18	Н	Peak
6880.0000	44.19	5.77	49.96	74.00	-24.04	Н	Peak

- 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.

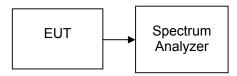
7.3.2. TEST INSTRUMENTS

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), $VBW = \ge 3 \times RBW$, 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



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7.3.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b (Antenna 2)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	8086		PASS
Mid	2437	8131	>500	PASS
High	2462	8075		PASS

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	15141		PASS
Mid	2437	15131	>500	PASS
High	2462	15162		PASS

Test mode: IEEE 802.11g (Antenna 2)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	15096		PASS
Mid	2437	15141	>500	PASS
High	2462	15145		PASS

Test mode: IEEE 802.11n HT20 MHz (Antenna 1)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	15136		PASS
Mid	2437	15136	>500	PASS
High	2462	15136		PASS

Test mode: IEEE 802.11n HT20 MHz (Antenna 2)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	15144		PASS
Mid	2437	15130	>500	PASS
High	2462	15126		PASS

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Test mode: IEEE 802.11n HT40 MHz (Antenna 1)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2422	35478		PASS
Mid	2437	35754	>500	PASS
High	2452	35734		PASS

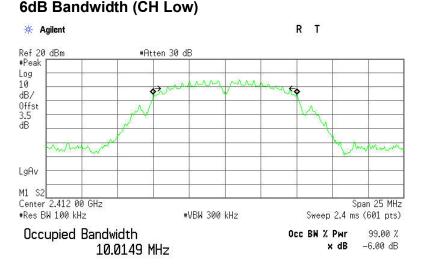
Test mode: IEEE 802.11n HT40 MHz (Antenna 2)

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2422	35189		PASS
Mid	2437	35718	>500	PASS
High	2452	35712		PASS

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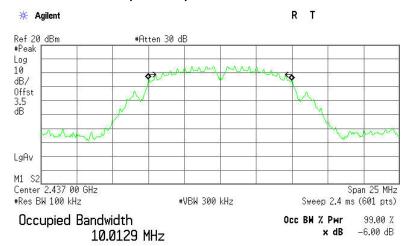
Test Plot

IEEE 802.11b (Antenna 2)mode



Transmit Freq Error 20.572 kHz x dB Bandwidth 8.086 MHz

6dB Bandwidth (CH Mid)

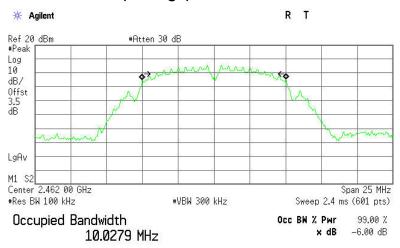


Transmit Freq Error 12.495 kHz x dB Bandwidth 8.131 MHz

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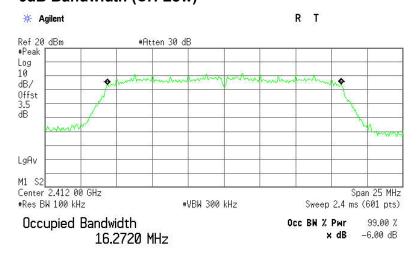


6dB Bandwidth (CH High)



Transmit Freq Error 21.396 kHz x dB Bandwidth 8.075 MHz

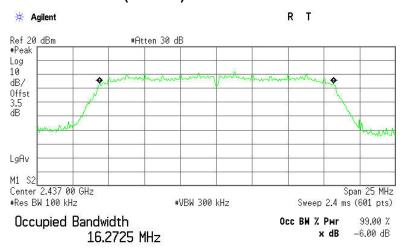
IEEE 802.11g (Antenna 1) mode 6dB Bandwidth (CH Low)



Transmit Freq Error 22.067 kHz x dB Bandwidth 15.141 MHz

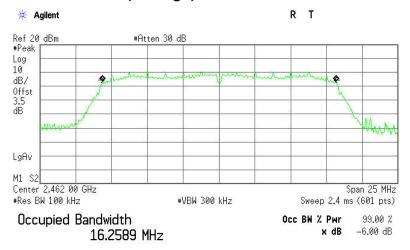
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6dB Bandwidth (CH Mid)



20.755 kHz Transmit Freq Error x dB Bandwidth 15.131 MHz

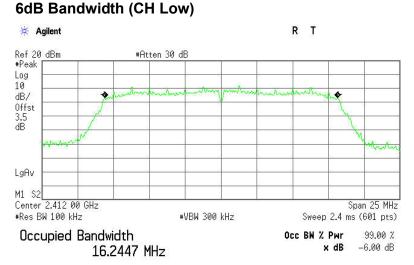
6dB Bandwidth (CH High)



20.225 kHz Transmit Freq Error x dB Bandwidth 15.162 MHz

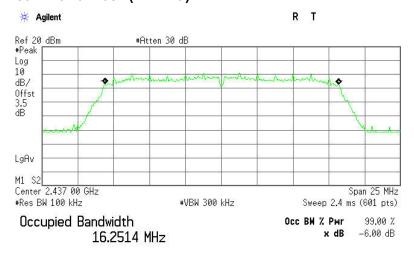
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IEEE 802.11g (Antenna 2) mode



22.256 kHz Transmit Freq Error x dB Bandwidth 15.096 MHz

6dB Bandwidth (CH Mid)

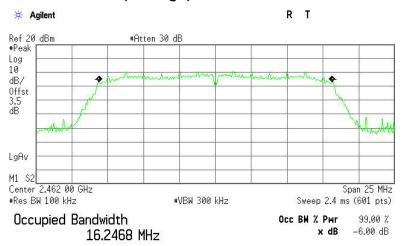


Transmit Freq Error 21.912 kHz x dB Bandwidth 15.141 MHz

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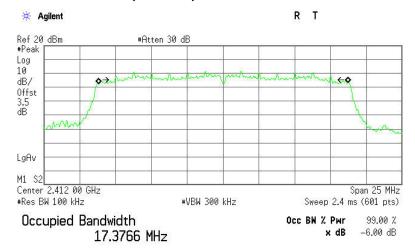


6dB Bandwidth (CH High)



Transmit Freq Error 21.761 kHz x dB Bandwidth 15.145 MHz

IEEE 802.11n HT20 MHz (Antenna 1)mode 6dB Bandwidth (CH Low)

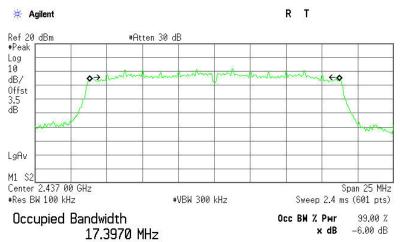


Transmit Freq Error 21.606 kHz x dB Bandwidth 15.136 MHz

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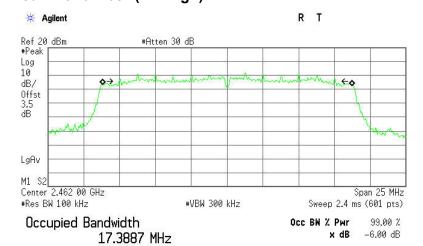
6dB Bandwidth (CH Mid)



Transmit Freg Error

x dB Bandwidth 15.136 MHz 6dB Bandwidth (CH High)

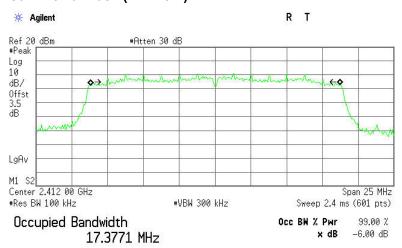
19.959 kHz



Transmit Freq Error 15.048 kHz x dB Bandwidth 15.136 MHz

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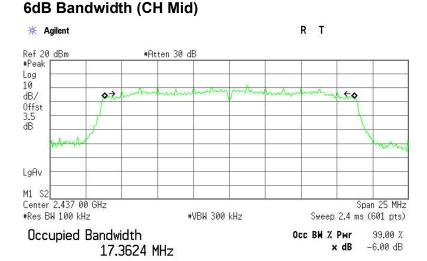
IEEE 802.11n HT20 MHz (Antenna 2)mode 6dB Bandwidth (CH Low)



x dB Bandwidth 15.144 MHz

12.164 kHz

Transmit Freq Error

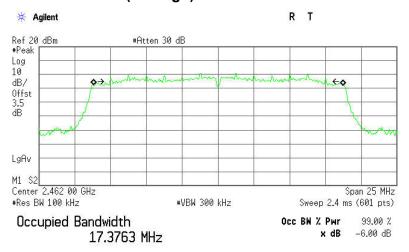


Transmit Freq Error 10.307 kHz x dB Bandwidth 15.130 MHz

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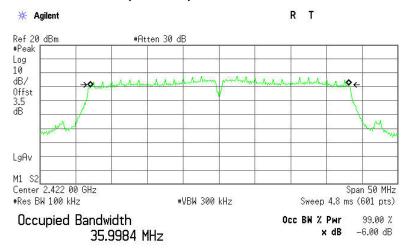


6dB Bandwidth (CH High)



Transmit Freq Error 18.822 kHz x dB Bandwidth 15.126 MHz

IEEE 802.11n HT40 MHz (Antenna 1) mode 6dB Bandwidth (CH Low)

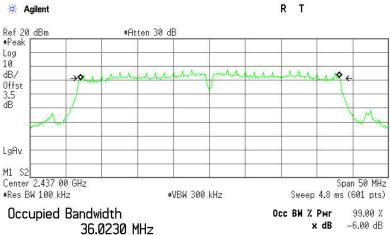


Transmit Freq Error 80.573 kHz x dB Bandwidth 35.478 MHz

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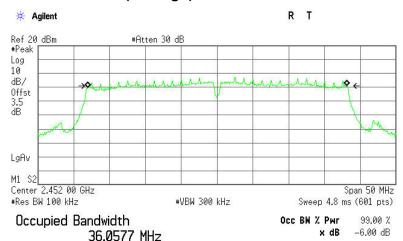


6dB Bandwidth (CH Mid)



Transmit Freg Error 79,208 kHz x dB Bandwidth 35.754 MHz

6dB Bandwidth (CH High)



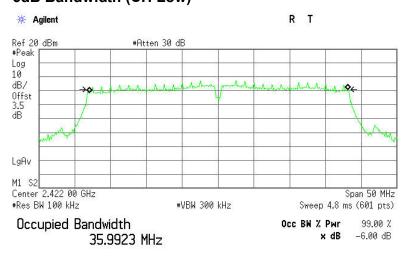
Transmit Freq Error

x dB Bandwidth

67.876 kHz 35.734 MHz

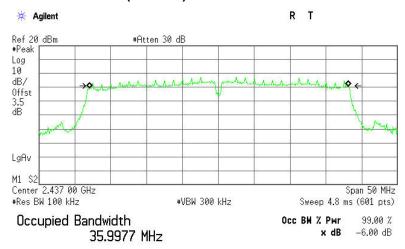
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IEEE 802.11n HT40 MHz (Antenna 2) mode 6dB Bandwidth (CH Low)



Transmit Freq Error 85.945 kHz x dB Bandwidth 35.189 MHz

6dB Bandwidth (CH Mid)

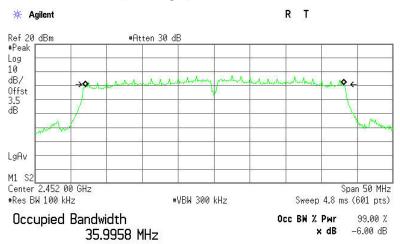


Transmit Freq Error 84.595 kHz x dB Bandwidth 35.718 MHz

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6dB Bandwidth (CH High)



Transmit Freq Error 87.897 kHz x dB Bandwidth 35.712 MHz



Compliance Certification Services Inc. Reference No.: C130221Z01-RP1

Report No.: C130314Z02-RP1

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)

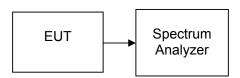
- 1. This procedure provides an integrated measurement alternative when the maximum available RBW < EBW.
- 2. Set the RBW = 1 MHz.
- 3. Set the VBW = 3 MHz.
- 4. Set the span to a value that is 5-30 % greater than the EBW.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 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 overrideto 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.

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Report No.: C130314Z02-RP1

7.4.4. TEST SETUP



7.4.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b (Antenna 2)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	16.62	0.04592		PASS
Mid	2437	16.61	0.04581	1	PASS
High	2462	16.80	0.04786		PASS

Test mode: IEEE 802.11g (Antenna 1)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.47	0.02223		PASS
Mid	2437	13.69	0.02339	1	PASS
High	2462	13.29	0.02133		PASS

Test mode: IEEE 802.11g (Antenna 2)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.30	0.02138		PASS
Mid	2437	12.92	0.01959	1	PASS
High	2462	13.31	0.02143		PASS

Test mode: IEEE 802.11n HT20 MHz (Antenna 1)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.47	0.02223		PASS
Mid	2437	13.56	0.02270	1	PASS
High	2462	13.30	0.02138		PASS

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Test mode: IEEE 802.11n HT20 MHz (Antenna 2)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	13.10	0.02042		PASS
Mid	2437	12.90	0.01950	1	PASS
High	2462	13.28	0.02128		PASS

Test mode: IEEE 802.11n HT40 MHz (Antenna 1)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2422	12.08	0.01614		PASS
Mid	2437	12.24	0.01675	1	PASS
High	2452	12.36	0.01722		PASS

Test mode: IEEE 802.11n HT40 MHz (Antenna 2)

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2422	12.21	0.01663		PASS
Mid	2437	12.17	0.01648	1	PASS
High	2452	12.59	0.01816		PASS

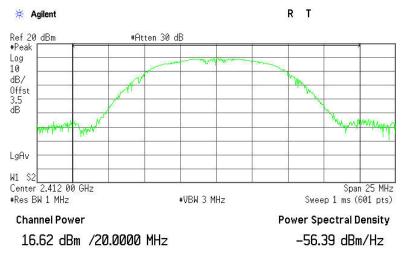
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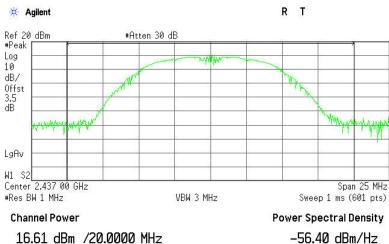
Test Plot

IEEE 802.11b(Antenna 2) mode

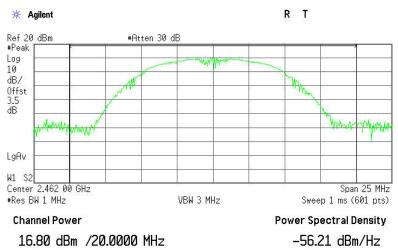
Peak power (CH Low)



Peak power (CH Mid)

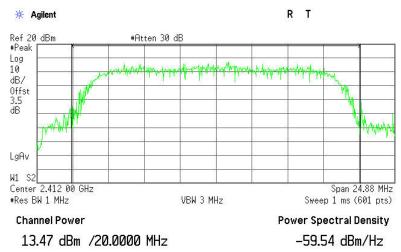


Peak power (CH High)



IEEE 802.11g (Antenna 1)mode

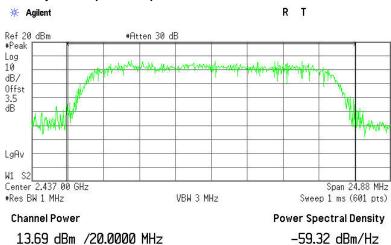
Peak power (CH Low)



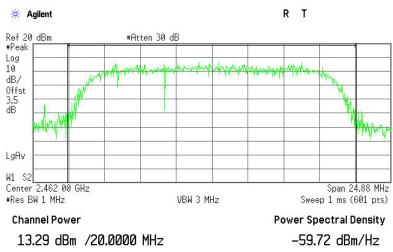
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Peak power (CH Mid)

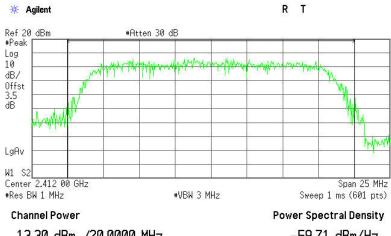


Peak power (CH High)



IEEE 802.11g (Antenna 2)mode

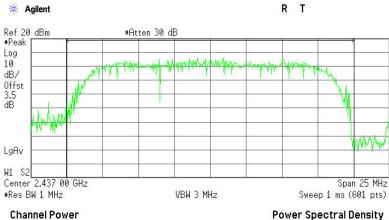
Peak power (CH Low)



13.30 dBm /20.0000 MHz

-59.71 dBm/Hz

Peak power (CH Mid)

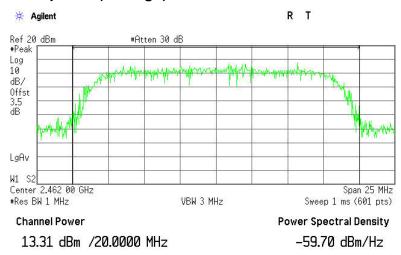


12.92 dBm /20.0000 MHz

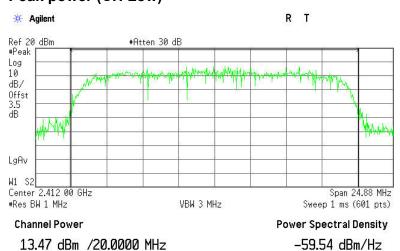
-60.09 dBm/Hz

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Peak power (CH High)



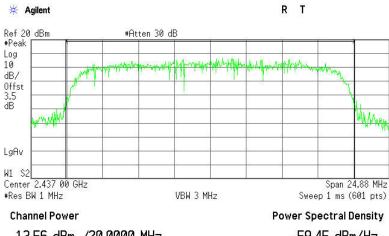
IEEE 802.11n HT20 MHz (Antenna 1)mode Peak power (CH Low)



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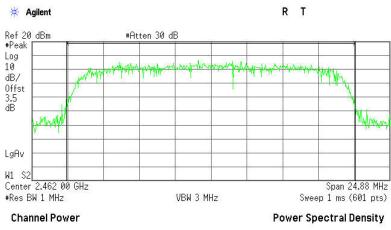
Peak power (CH Mid)



13.56 dBm /20.0000 MHz

-59.45 dBm/Hz

Peak power (CH High)

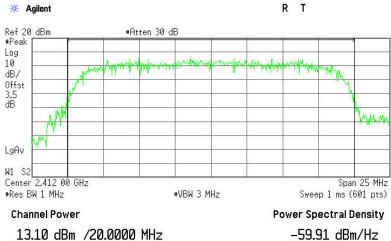


13.30 dBm /20.0000 MHz

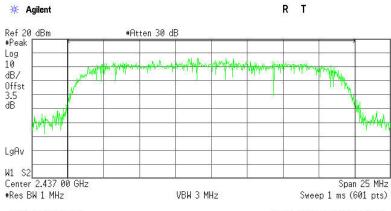
-59.71 dBm/Hz

IEEE 802.11n HT20 MHz (Antenna 2)mode

Peak power (CH Low)



Peak power (CH Mid)



Channel Power

Power Spectral Density

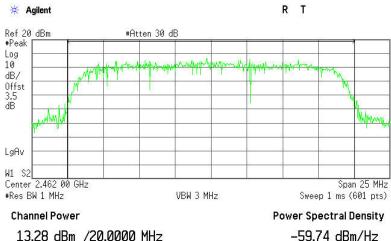
12.90 dBm /20.0000 MHz

-60.11 dBm/Hz

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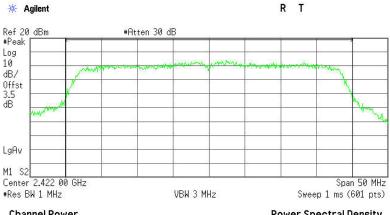
Peak power (CH High)



13.28 dBm /20.0000 MHz

-59.74 dBm/Hz

IEEE 802.11n HT40 MHz (Antenna 1)mode Peak power (CH Low)



Channel Power

Power Spectral Density

12.08 dBm /40.0000 MHz

-63.94 dBm/Hz

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