



FCC TEST REPORT

for

Home Gateway

MODEL: HG523

Test Report Number:

SZ100827B02-RP

Issued for

Huawei Technologies Co., Ltd.

Administration Building, Huawei Base, Bantian, Longgang

District, Shenzhen 518129 P.R.C.

Issued by:

COMPLIANCE CERTIFICATION SERVICES (SHENZHEN) INC.

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Revision History

Rev.	Issue No.	Revisions	Effect Page	Revised By
00	SZ100827B02-RP	Initial Issue	ALL	Vincent Yao



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1 TEST CERTIFICATION

Product:	Home Gateway
Model:	HG523
Brand:	HUAWEI
Tested:	August 27-September 20, 2010
Applicant:	Huawei Technologies Co., Ltd. Administration Building, Huawei Base, Bantian, Longgang District, Shenzhen 518129 P.R.C.
Manufacturer:	Huawei Technologies Co., Ltd. Administration Building, Huawei Base, Bantian, Longgang District, Shenzhen 518129 P.R.C.

APPLICABLE STANDARDS			
Standard	Test Type	Standard	Test Type
15.207(a)	Power Line Conducted Emissions	15.247(d) 15.209(a)	<ul style="list-style-type: none"> ● Spurious Emissions ● Conducted Measurement ● Radiated Emissions
15.247(a)(2)	6dB Bandwidth Measurement	15.247(b)(3) 15.247(b)(4)	Peak Power Measurement
15.247(d)	Band Edges Measurement	15.247(e)	Peak Power Spectral Density

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in **ANSI C63.4: 2003** and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Vincent Yao
Manager
Compliance Certification Service Inc.

Reviewed by:

Aven Zhou
Supervisor of Report Dept.
Compliance Certification Service Inc.



2 TEST RESULT SUMMARY

APPLICABLE STANDARDS			
Standard	Test Type	Result	Remark
15.247(a)(2)	6dB Bandwidth Measurement	Pass	Meet the requirement of limit.
15.247(b)(3) 15.247(b)(4)	Peak Power Measurement	Pass	Meet the requirement of limit.
15.247(d)	Band Edges Measurement	Pass	Meet the requirement of limit.
15.247(e)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.247(d) 15.209(a)	<ul style="list-style-type: none">● Spurious Emissions● Conducted Measurement● Radiated Emissions	Pass	Meet the requirement of limit.
15.207(a)	Power line Conducted Emissions	Pass	Meet the requirement of limit.

Note: 1. The statements of test result on the above are decided by the request of test standard only; the measurement uncertainties are not factored into this compliance determination.
2. The information of measurement uncertainty is available upon the customer's request.



3 EUT DESCRIPTION

Product	Home Gateway
Trade Name	HUAWEI
Model Number	HG523
Model Discrepancy	N/A
Serial Number	SZ100827B02-RP
Power Supply	12VDC supplied by the adapter
Adapter Manufacturer / Model No.	(1) Adapter 1: MOSO/XKD-C0500IC12.0-6B AC input: AC100-240V, 50/60Hz,0.2 A Max DC output: DC12V, .0.5A DC output cable: Un-shielded, 1.25m(2 Pin US Plug) (2) Adapter 2: MOSO/XKD-C0500IC12.0-6B AC input: AC100-240V, 50/60Hz,0.2 A Max DC output: DC12V, .0.5A DC output cable: Un-shielded, 1.25m(2Pin US Plug With a core) (3) Adapter 3: UE/UE06L4-120050SPAU AC input: AC100-240V, 50/60Hz,0.2 A Max DC output: DC12V, .0.5A DC output cable: Un-shielded, 1.25m(2 Pin US Plug) (4) Adapter 4: UE/UE06L4-120050SPAU AC input: AC100-240V, 50/60Hz,0.2 A Max DC output: DC12V, .0.5A DC output cable: Un-shielded, 1.25m(2 Pin US Plug With a core) (5) Adapter 5: FRECOM/FPS005USA-120050 AC input: AC100-240V, 50/60Hz,300mA DC output: DC12V, .0.5A DC output cable: Un-shielded, 1.25m(2 Pin US Plug) (6) Adapter 6: FRECOM/FPS005USA-120050 AC input: AC100-240V, 50/60Hz,300mA DC output: DC12V, .0.5A DC output cable: Un-shielded, 1.25m(2 Pin US Plug With a core)
Frequency Range	IEEE 802.11b/g: 2412 ~ 2462 MHz IEEE 802.11n HT20 : 2412 ~ 2462 MHz IEEE 802.11n HT40 : 2422MHz~ 2452MHz
Transmit Power	IEEE 802.11b mode: 17.12dBm IEEE 802.11g mode: 17.69 dBm IEEE 802.11n HT20 MHz mode: 16.09 dBm IEEE 802.11n HT40 MHz mode: 15.69 dBm
Modulation Technique	IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK) IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT20 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT40 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM)
Transmit Data Rate	802.11b: 11Mbps(CCK) with fall back rates of 5.5/2/1Mbps 802.11g: 54Mbps with fall back rates of 48/36/24/18/12/9 /6Mbps IEEE 802.11n HT20: 65.0Mbps with fall back rates of 65.0/58.5/52.0/ 39.0/26.0/19.5/13.0/6.5 Mbps IEEE 802.11n HT40: 135.0Mbps with fall back rates of 121.5/ 108.0/ 81.0/54.0/40.5/27.0/13.5 Mbps
Number of Channels	IEEE 802.11b mode: 11 Channels IEEE 802.11g mode: 11 Channels IEEE 802.11n HT20 MHz mode: 11 Channels IEEE 802.11n HT40 MHz mode: 7 Channels
Antenna Specification	Printed Antenna with 2.0dBi gain (Max)

Note: 1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.

2. This submittal(s) (test report) is intended for FCC ID: **QIS-HG523** filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.



4 TEST METHODOLOGY

4.1. DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only, and power line conducted emission below 30MHz, which worst case was in normal link mode.

IEEE802.11b mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 1Mbps data rate were chosen for full testing.

IEEE802.11g mode: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 6Mbps data rate were chosen for full testing.

IEEE 802.11n HT20 MHz mode: Channel Low (2412MHz), Channel Mid(2437MHz) and Channel High (2462MHz) with 6.5Mbps data rate were chosen for full testing.

IEEE 802.11n HT40 MHz mode: Channel Low (2422MHz), Channel Mid (2437MHz) and Channel High (2452MHz) with 13.5Mbps data rate were chosen for full testing.



5 SETUP OF EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Equipment	Model No.	Serial No.	FCC ID	Trade Name	Data Cable	Power Cord
1	PC	A4680N	N/A	N/A	LENOVO	Shielded 1.8m	Unshielded 1.80m
2	MONITOR	TLM19V68	N/A	N/A	HISENSE	Shielded 1.8m	Unshielded 1.80m
3	KEYBOARD	SK-8115	N/A	N/A	DELL	Shielded 2.0m	N/A
4	MOUSE	M028U0L	23-154374	N/A	LENOVO	Shielded 1.8m	N/A
5	Printer	P310B	DLRE217030	N/A	EPSON	Shielded 1.2m	Unshielded 2.0m
6	Modem	MODEM-1414	9013592	IFDXM1414	ACEEX	Shielded 1.2m	Unshielded 2.0m
7	Notebook	Studio 1435	5315448686549	N/A	DELL	N/A	Unshielded 1.75m

Note:

- 1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

5.2. CONFIGURATION OF SYSTEM UNDER TEST

See test photographs attached in Appendix II for the actual connections between EUT and support equipment.



6 FACILITIES AND ACCREDITATIONS

6.1. FACILITIES

All measurement facilities used to collect the measurement data are located at

No10-1, Mingkeda Logistics Park, No.18 Huanguan South RD. Guan lan Town, Baoan District, Shenzhen China

The sites are constructed in conformance with the requirements of ANSI C63.4, ANSI C63.7 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

6.2. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

USA	A2LA
Taiwan	TAF

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

USA	FCC
Japan	VCCI
Canada	INDUSTRY CANADA
Taiwan	BSMI
Norway	Nemko

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccsrf.com>

6.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	+/- 3.18dB
Radiated emissions	30MHz ~ 200MHz	+/- 3.79dB
	200MHz ~1000MHz	+/- 3.62dB
	Above 1000MHz	+/- 5.04dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

The measured result is above (below) the specification limit by a margin less than the measurement uncertainty; it is therefore not possible to state compliance based on the 95% level of confidence. However, the result indicates that compliance (non-compliance) is more probable than non-compliance) with the specification limit.



7 FCC PART 15.247 REQUIREMENTS

7.1. POWER LINE CONDUCTED EMISSIONS MEASUREMENT

7.1.1. LIMITS OF CONDUCTED EMISSIONS MEASUREMENT

According to §15.207(a), except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Limits (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

NOTE:

- (1) The lower limit shall apply at the transition frequencies.
- (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
- (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

7.1.2. TEST INSTRUMENTS

Conducted Emission Test Site					
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration
ESCI EMI TEST RECEIVE.ESCI	ROHDE&SCHWARZ	ESCI	100783	03/21/2010	03/21/2011
Attenuator	SCHAFFNER	CFL9206	1711	07/14/2010	07/14/2011
LISN	SCHAFFNER	NNB42	2001/001	05/26/2010	05/26/2011
LISN	EMCO	3825/2	8901-1459	03/21/2010	03/21/2011
ISN	FCC	FCC-TILISN-T4	20182	03/21/2010	03/21/2011
ISN	FCC	FCC-TLISN-T8-02	20183	03/21/2010	03/21/2011
ISN	FCC	FCC-TLISN-T4-02	20382	03/21/2010	03/21/2011
ISN	FCC	FCC-TLISN-T4-02	20383	03/21/2010	03/21/2011
ISN	FCC	FCC-801-T8-RJ45	04030	03/21/2010	03/21/2011
Current Probe	STODDART AIRCRAFT	91550-1	345-73	03/21/2010	03/21/2011
Temp. / Humidity Meter	VICTOR	VC230	N/A	03/30/2010	03/30/2011

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. N.C.R = No Calibration Request.

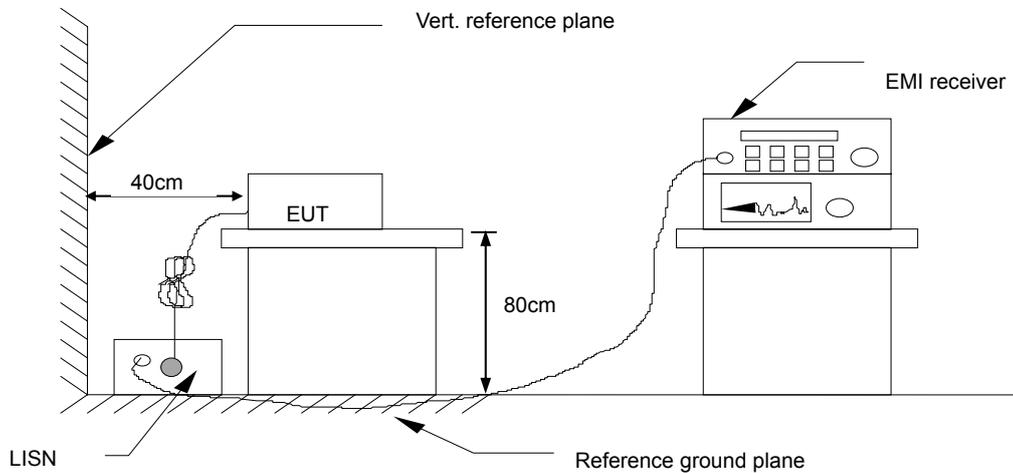


7.1.3. TEST PROCEDURES (please refer to measurement standard)

- The EUT and Support equipment, if needed, was placed on a non-conducted table, which is 0.8m above the ground plane and 0.4m away from the conducted wall.
- The test equipment EUT installed received AC main power, through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane. All support equipment power received from a second LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The frequency range from 150 kHz to 30 MHz was searched. The test data of the worst-case condition(s) was recorded. Emission levels under limit 20dB were not recorded.



7.1.4. TEST SETUP



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

7.1.5. Data Sample:

Freq. (MHz)	Q.P. Level (dBuV)	AVG Level (dBuV)	Cor. Factor (dB)	Q.P. Result (dBuV)	AVG Result (dBuV)	Q.P. Limit (dBuV)	AVG Limit (dBuV)	Q.P. Margin (dB)	AVG Margin (dB)	Line (L1/L2)
xx.xx	37.86	32.92	11.52	49.38	44.44	60.41	50.41	-11.03	-5.97	L1

- Freq. = Emission frequency in MHz
- Level = Uncorrected Analyzer/Receiver reading
- Factor = Insertion loss of LISN + Cable Loss
- Result = Level+ Factor
- Limit = Limit stated in standard
- Margin = Reading in reference to limit
- P = Peak Reading
- Q.P = Quasi-peak Reading
- AVG = Average Reading
- L1 = Hot side
- L2 = Neutral side

Calculation Formula

Margin (dB) = Result (dBuV) – Limit (dBuV)



7.1.6. TEST RESULTS

Model No.	HG523	Test Mode	Normal Link(Adapter 1: MOSO/XKD-C0500IC12.0-6B)
Environmental Conditions	22deg.C,40% RH	RBW,VBW	9 kHz
Tested by	Tom Gan		

Frequency Range Investigated (150 kHz to 30 MHz)										
Freq. (MHz)	Q.P. Level (dBuV)	AVG Level (dBuV)	Cor. Factor (dB)	Q.P. Result (dBuV)	AVG Result (dBuV)	Q.P. Limit (dBuV)	AVG Limit (dBuV)	Q.P. Margin (dB)	AVG Margin (dB)	Line (L1/L2)
0.190	44.04	23.13	11.52	55.56	34.65	64.03	54.03	-8.47	-19.38	L1
0.266	39.73	14.68	11.52	51.25	26.20	61.24	51.24	-9.99	-25.04	L1
0.378	39.54	20.34	11.51	51.05	31.85	58.32	48.32	-7.27	-16.47	L1
0.730	36.18	12.53	11.51	47.69	24.04	56.00	46.00	-8.31	-21.96	L1
0.930	36.58	13.97	11.52	48.10	25.49	56.00	46.00	-7.90	-20.51	L1
2.254	38.03	16.02	11.57	49.60	27.59	56.00	46.00	-6.40	-18.41	L1
0.303	42.98	25.75	11.53	54.51	37.28	60.15	50.15	-5.64	-12.87	L2
0.386	44.41	29.43	11.53	55.94	40.96	58.14	48.14	-2.20	-7.18	L2
0.660	41.30	21.25	11.53	52.83	32.78	56.00	46.00	-3.17	-13.22	L2
0.924	41.50	23.40	11.51	53.01	34.91	56.00	46.00	-2.99	-11.09	L2
1.953	37.39	21.25	11.56	48.95	32.81	56.00	46.00	-7.05	-13.19	L2
2.241	41.75	26.58	11.57	53.32	38.15	56.00	46.00	-2.68	-7.85	L2

NOTE: 1. The measuring frequencies range between 0.15 MHz and 30 MHz.

2. The emissions measured in the frequency range between 0.15 MHz and 30MHz were made with an instrument using Quasi-peak detector and Average detector.

3. “---” denotes the emission level was or more than 2dB below the Average limit, and no re-check was made.

4. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10KHz. The IF bandwidth of test Receiver between 0.15MHz and 30MHz was 9kHz.

5. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).



Model No.	HG523	Test Mode	Normal Link(Adapter 3: UE/UE06L4-120050SPAU)
Environmental Conditions	22deg.C,40% RH	RBW,VBW	9 kHz
Tested by	Tom Gan		

Frequency Range Investigated (150 kHz to 30 MHz)										
Freq. (MHz)	Q.P. Level (dBuV)	AVG Level (dBuV)	Cor. Factor (dB)	Q.P. Result (dBuV)	AVG Result (dBuV)	Q.P. Limit (dBuV)	AVG Limit (dBuV)	Q.P. Margin (dB)	AVG Margin (dB)	Line (L1/L2)
0.362	32.79	16.13	11.51	44.30	27.64	58.68	48.68	-14.38	-21.04	L1
0.430	32.89	16.27	11.51	44.40	27.78	57.25	47.25	-12.85	-19.47	L1
0.542	29.49	9.36	11.51	41.00	20.87	56.00	46.00	-15.00	-25.13	L1
2.074	26.93	8.11	11.56	38.49	19.67	56.00	46.00	-17.51	-26.33	L1
4.930	27.49	11.88	11.67	39.16	23.55	56.00	46.00	-16.84	-22.45	L1
8.105	29.30	10.57	11.86	41.16	22.43	60.00	50.00	-18.84	-27.57	L1
0.366	35.42	10.3	11.53	46.95	21.83	58.59	48.59	-11.64	-26.76	L2
0.438	31.94	12.59	11.54	43.48	24.13	57.10	47.10	-13.62	-22.97	L2
0.610	31.54	8.66	11.53	43.07	20.19	56.00	46.00	-12.93	-25.81	L2
0.710	32.54	6.80	11.53	44.07	18.33	56.00	46.00	-11.93	-27.67	L2
0.978	31.40	6.38	11.51	42.91	17.89	56.00	46.00	-13.09	-28.11	L2
4.898	29.24	7.33	11.67	40.91	19.00	56.00	46.00	-15.09	-27.00	L2

- NOTE:** 1. The measuring frequencies range between 0.15 MHz and 30 MHz.
2. The emissions measured in the frequency range between 0.15 MHz and 30MHz were made with an instrument using Quasi-peak detector and Average detector.
3. “---” denotes the emission level was or more than 2dB below the Average limit, and no re-check was made.
4. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10KHz. The IF bandwidth of test Receiver between 0.15MHz and 30MHz was 9kHz.
5. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).



Model No.	HG523	Test Mode	Normal Link(Adapter 5: FRECOM/FPS005USA-120050)
Environmental Conditions	22deg.C,40% RH	RBW,VBW	9 kHz
Tested by	Tom Gan		

Frequency Range Investigated (150 kHz to 30 MHz)										
Freq. (MHz)	Q.P. Level (dBuV)	AVG Level (dBuV)	Cor. Factor (dB)	Q.P. Result (dBuV)	AVG Result (dBuV)	Q.P. Limit (dBuV)	AVG Limit (dBuV)	Q.P. Margin (dB)	AVG Margin (dB)	Line (L1/L2)
0.418	37.98	20.90	11.51	49.49	32.41	57.49	47.49	-8.00	-15.08	L1
0.594	35.32	24.80	11.51	46.83	36.31	56.00	46.00	-9.17	-9.69	L1
0.930	37.04	23.5	11.52	48.56	35.02	56.00	46.00	-7.44	-10.98	L1
1.326	36.48	23.83	11.53	48.01	35.36	56.00	46.00	-7.99	-10.64	L1
1.734	38.37	24.73	11.55	49.92	36.28	56.00	46.00	-6.08	-9.72	L1
2.518	37.45	24.45	11.58	49.03	36.03	56.00	46.00	-6.97	-9.97	L1
0.626	35.70	20.57	11.53	47.23	32.10	56.00	46.00	-8.77	-13.90	L2
0.805	36.64	21.00	11.52	48.16	32.52	56.00	46.00	-7.84	-13.48	L2
1.585	35.04	19.59	11.54	46.58	31.13	56.00	46.00	-9.42	-14.87	L2
2.082	33.99	16.36	11.56	45.55	27.92	56.00	46.00	-10.45	-18.08	L2
2.690	33.65	18.77	11.59	45.24	30.36	56.00	46.00	-10.76	-15.64	L2
10.822	36.50	28.41	12.03	48.53	40.44	60.00	50.00	-11.47	-9.56	L2

NOTE: 1. The measuring frequencies range between 0.15 MHz and 30 MHz.

2. The emissions measured in the frequency range between 0.15 MHz and 30MHz were made with an instrument using Quasi-peak detector and Average detector.
3. "---" denotes the emission level was or more than 2dB below the Average limit, and no re-check was made.
4. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10KHz. The IF bandwidth of test Receiver between 0.15MHz and 30MHz was 9kHz.
5. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line).



7.2. SPURIOUS EMISSIONS MEASUREMENT

7.2.1. LIMITS OF CONDUCTED EMISSIONS MEASUREMENT

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)).

7.2.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/21/2010	03/21/2011

7.2.3. TEST PROCEDURE (please refer to measurement standard)

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site. The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 100 kHz.

Measurements are made over the 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.



7.2.4. TEST RESULTS

Test Plot

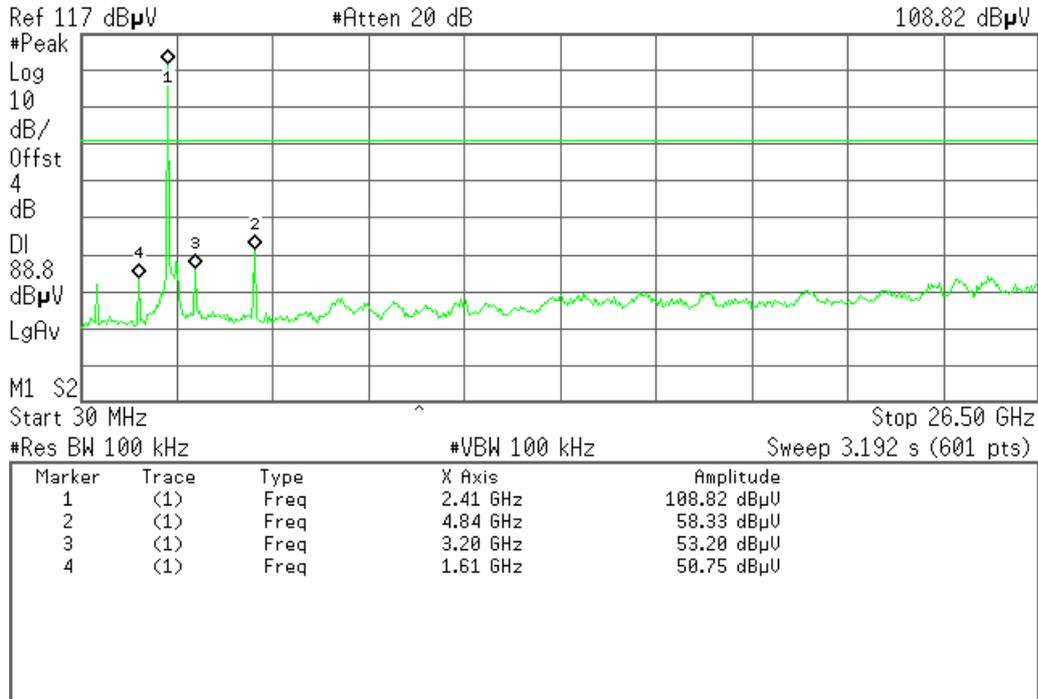
(IEEE 802.11b mode)

CH Low (30MHz ~26.5GHz)

Agilent 17:06:02 Sep 17, 2010

R T

Mkr1 2.41 GHz
108.82 dBμV

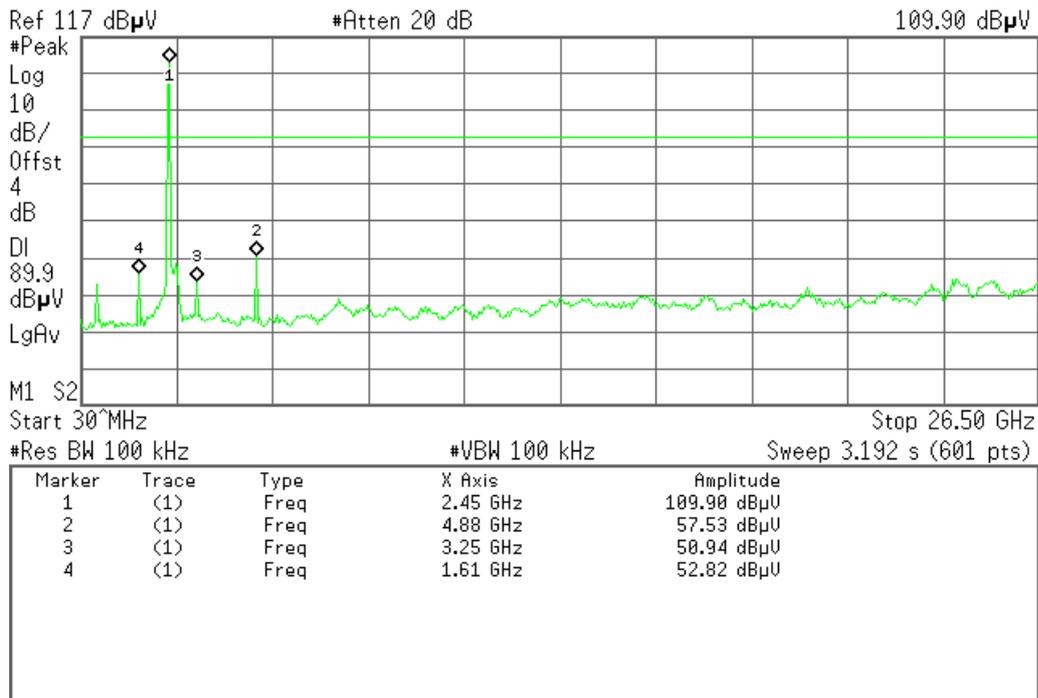


CH Mid(30MHz ~26.5GHz)

Agilent 17:17:05 Sep 17, 2010

R T

Mkr1 2.45 GHz
109.90 dBμV



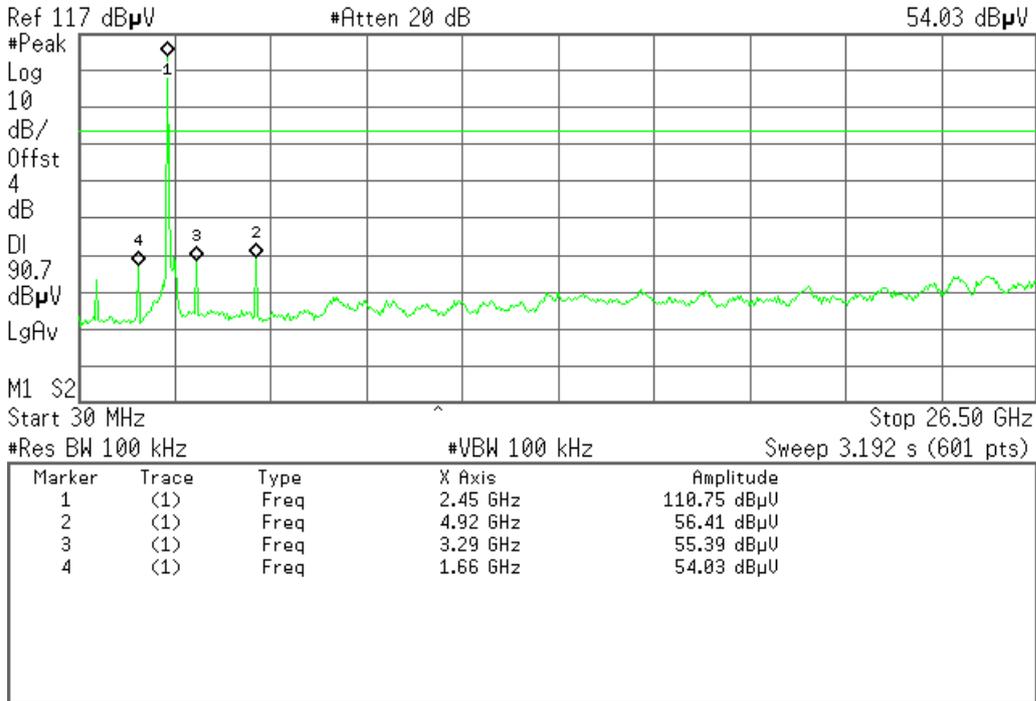


CH High (30MHz ~26.5GHz)

Agilent 17:03:53 Sep 17, 2010

R T

Mkr4 1.66 GHz
54.03 dBμV





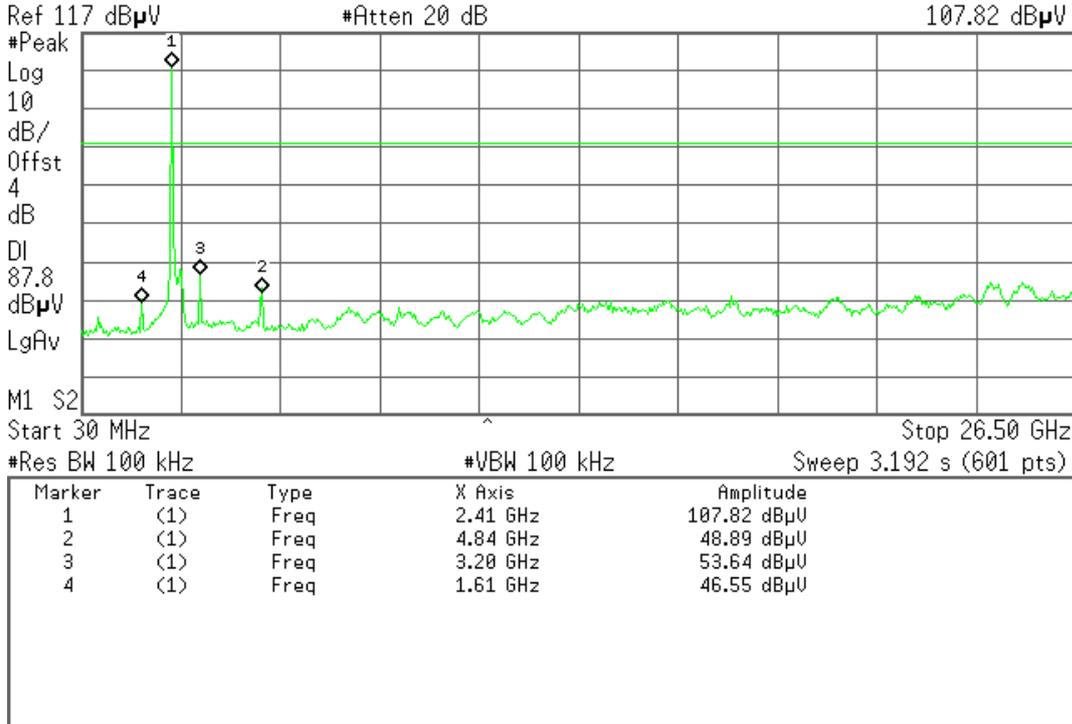
(IEEE 802.11g mode)

CH Low (30MHz ~26.5GHz)

Agilent 17:08:05 Sep 17, 2010

R T

Mkr1 2.41 GHz
107.82 dBμV

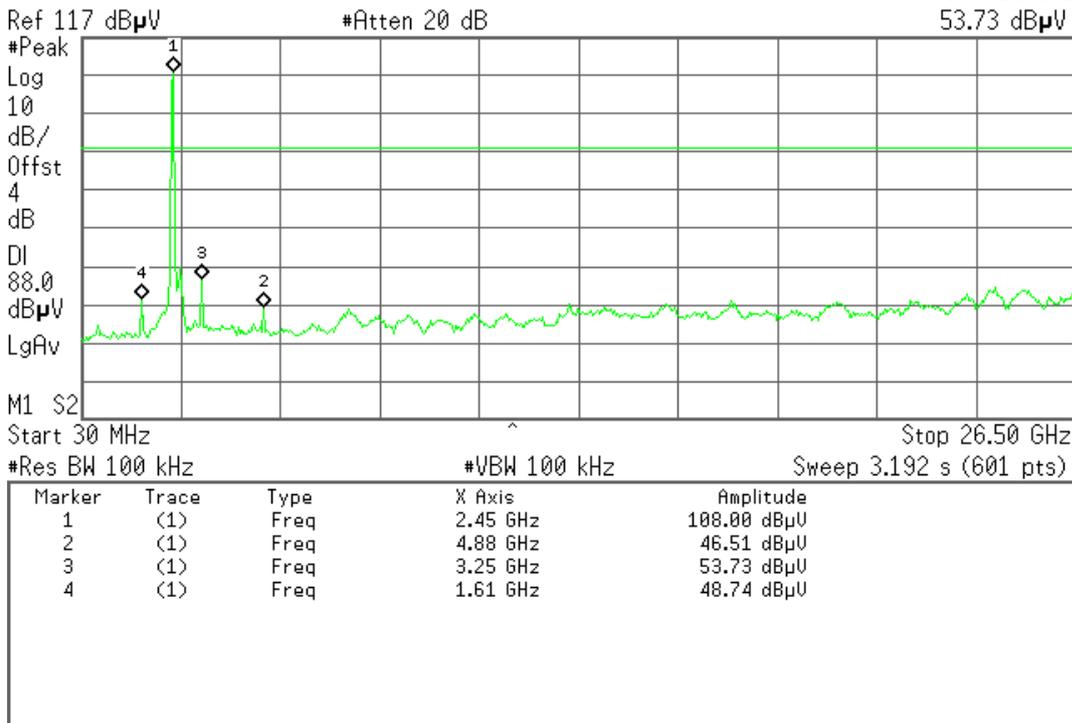


CH Mid(30MHz ~26.5GHz)

Agilent 17:12:53 Sep 17, 2010

R T

Mkr3 3.25 GHz
53.73 dBμV





CH High (30MHz ~26.5GHz)

Agilent 17:21:38 Sep 17, 2010

R T

Mkr1 2.45 GHz
110.08 dBμV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.45 GHz	110.08 dBμV
2	(1)	Freq	4.92 GHz	48.49 dBμV
3	(1)	Freq	3.29 GHz	55.73 dBμV
4	(1)	Freq	1.66 GHz	50.68 dBμV



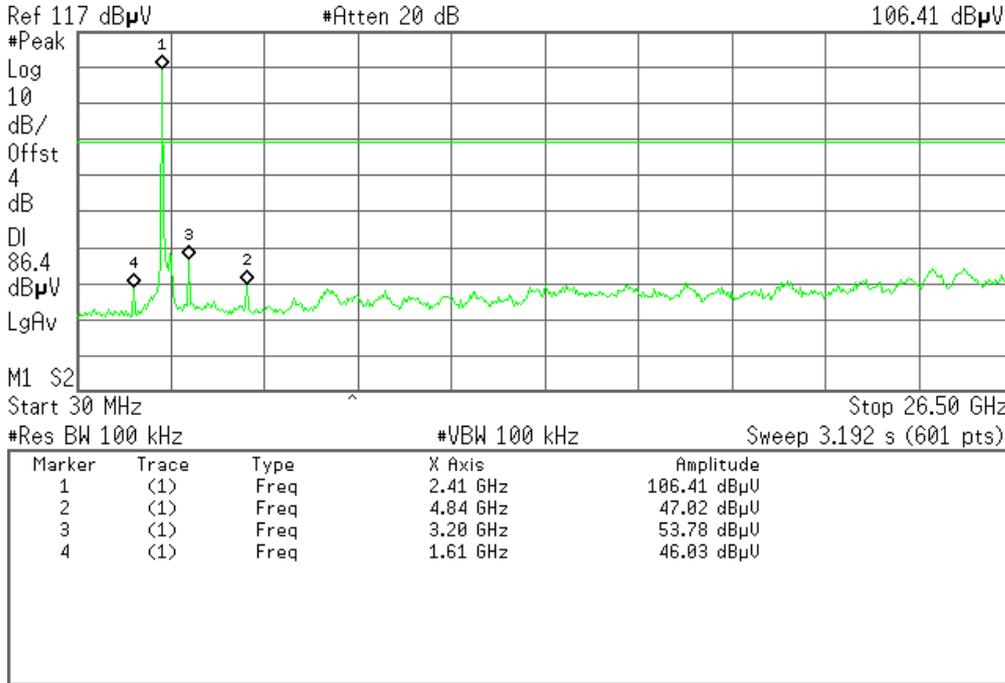
(IEEE 802.11n HT20 MHz mode)

CH Low (30MHz ~26.5GHz)

Agilent 17:09:39 Sep 17, 2010

R T

Mkr1 2.41 GHz
106.41 dBμV

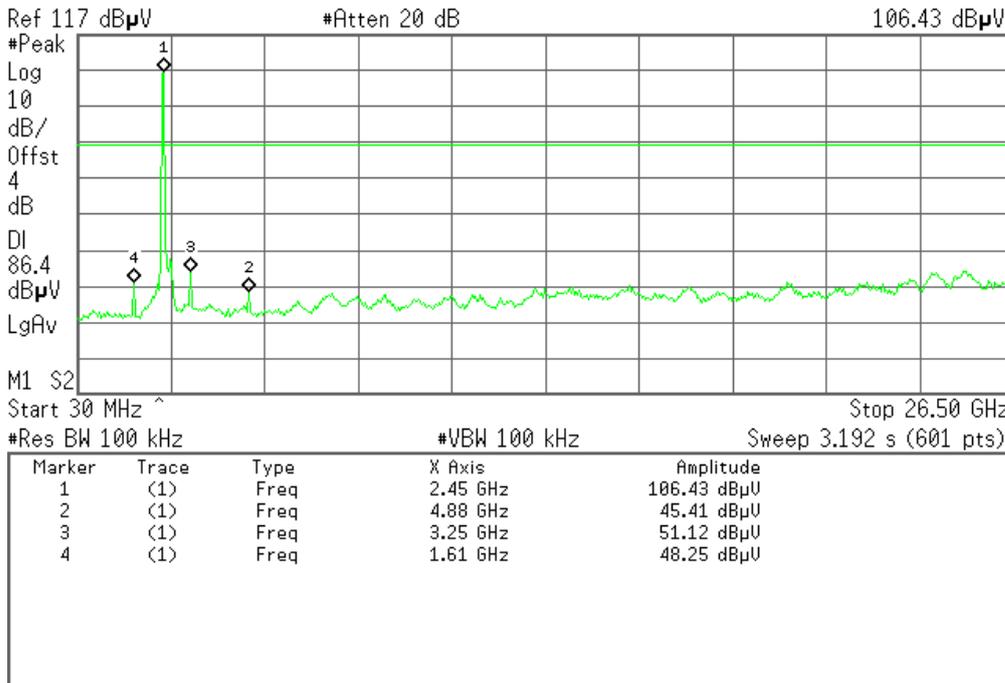


CH Mid(30MHz ~26.5GHz)

Agilent 17:14:27 Sep 17, 2010

R T

Mkr1 2.45 GHz
106.43 dBμV



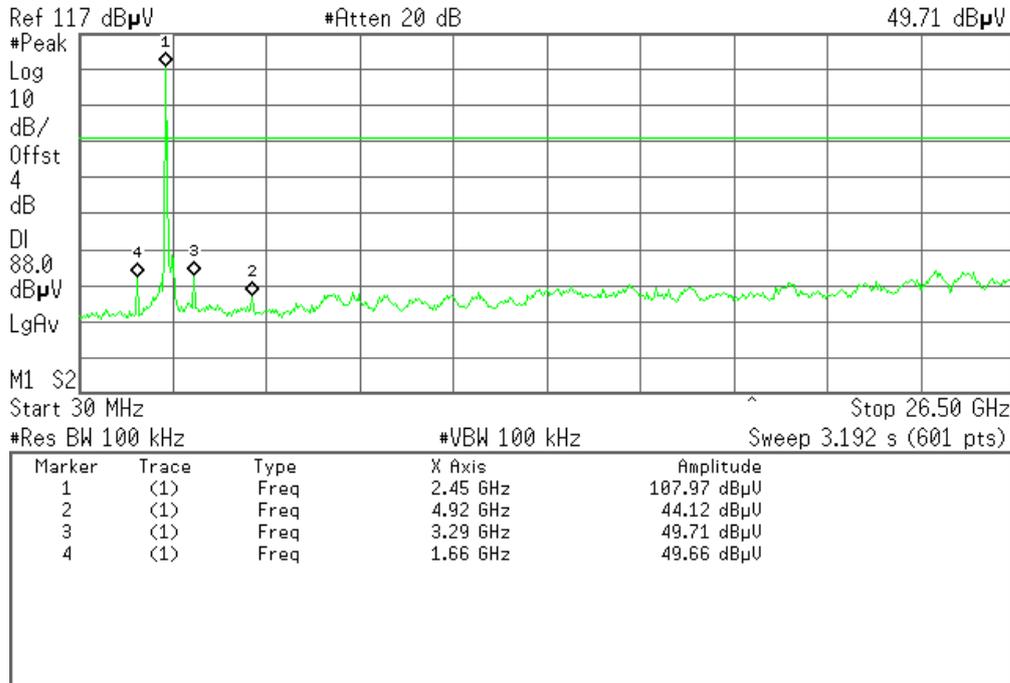


CH High (30MHz ~26.5GHz)

Agilent 17:23:28 Sep 17, 2010

R T

Mkr3 3.29 GHz
49.71 dBμV



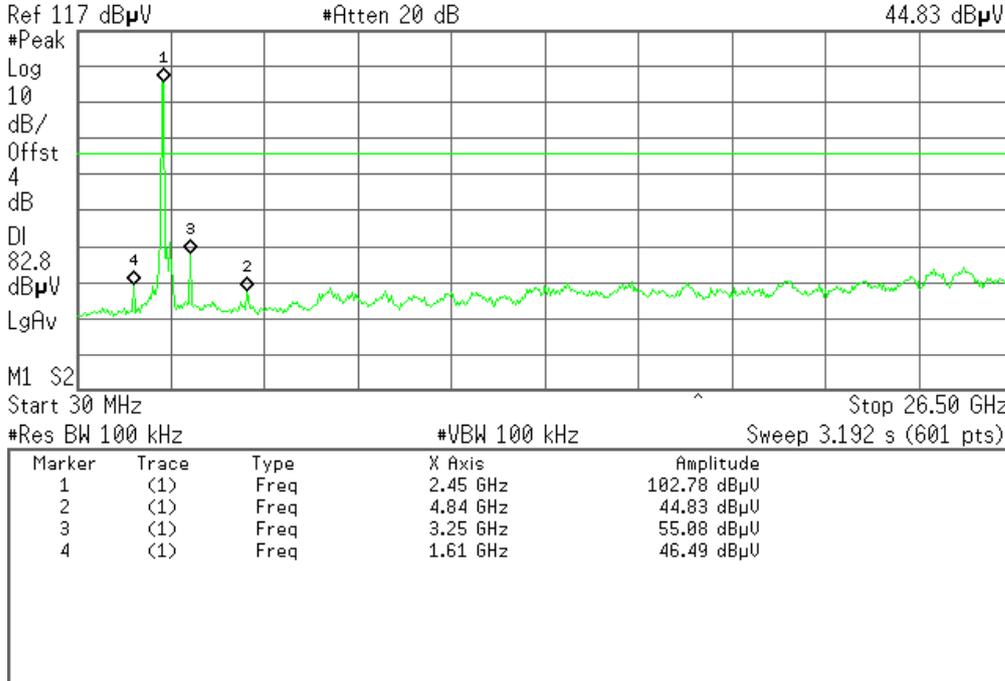


(IEEE 802.11n HT40 MHz mode)
CH Low (30MHz ~26.5GHz)

Agilent 17:27:26 Sep 17, 2010

R T

Mkr2 4.84 GHz
44.83 dBμV

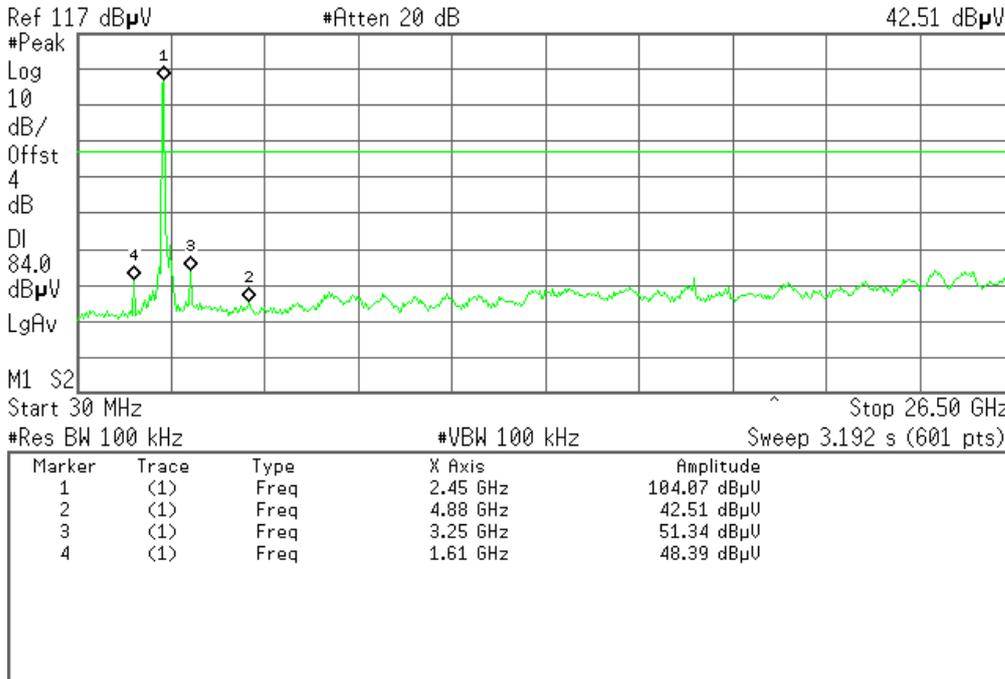


CH Mid(30MHz ~26.5GHz)

Agilent 17:24:46 Sep 17, 2010

R T

Mkr2 4.88 GHz
42.51 dBμV





CH High (30MHz ~26.5GHz)

Agilent 17:23:04 Sep 17, 2010

R T

Mkr2 4.92 GHz
43.22 dBμV



Start 30 MHz Stop 26.50 GHz
#Res BW 100 kHz #VBW 100 kHz Sweep 3.192 s (601 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.45 GHz	104.90 dBμV
2	(1)	Freq	4.92 GHz	43.22 dBμV
3	(1)	Freq	3.25 GHz	55.53 dBμV
4	(1)	Freq	1.61 GHz	49.71 dBμV



7.2.5. RADIATED EMISSIONS

7.2.5.1. LIMITS OF RADIATED EMISSIONS MEASUREMENT

1. According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (µV/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

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

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

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

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



7.2.5.2. 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	03/21/2010	03/21/2011	
Amplifier	MITEQ	AM-1604-3000	1411843	03/21/2010	03/21/2011	
Turn Table	EMCO	2081-1.21	N/A	N.C.R	N.C.R	
Controller	CT	N/A	N/A	N.C.R	N.C.R	
High Noise Amplifier	Agilent	8449B	3008A01838	06/18/2010	06/18/2011	
Site NSA	C&C	N/A	N/A	N.C.R	N.C.R	
Bilog Antenna	SCHAFFNER	CBL6143	5082	06/18/2010	06/18/2011	
Horn Antenna	SCHWARZBECK	BBHA9120D	D286	03/19/2010	03/19/2011	
Signal Generator	Anritsu	MG3694A	#050125	03/21/2010	03/21/2011	
Horn Antenna	TRC	HA0301	N/A	03/19/2010	03/19/2011	
Loop Antenna	A.R.A	PLA-1030/B	1029	03/19/2010	03/19/2011	
Power Sensor	Anritsu	MA2491A	030619	06/18/2010	06/18/2011	
Power Meter	Anritsu	ML2487A	6K00001491	06/18/2010	06/18/2011	
Temp. / Humidity Meter	VICTOR	VC230	N/A	03/30/2010	03/30/2011	
SHF-EHF Horn Antenna	Schwarzbeck	BBHA9170	BBHA9170171	02/24/2010	02/24/2011	

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

7.2.5.3. TEST PROCEDURE (please refer to measurement standard)

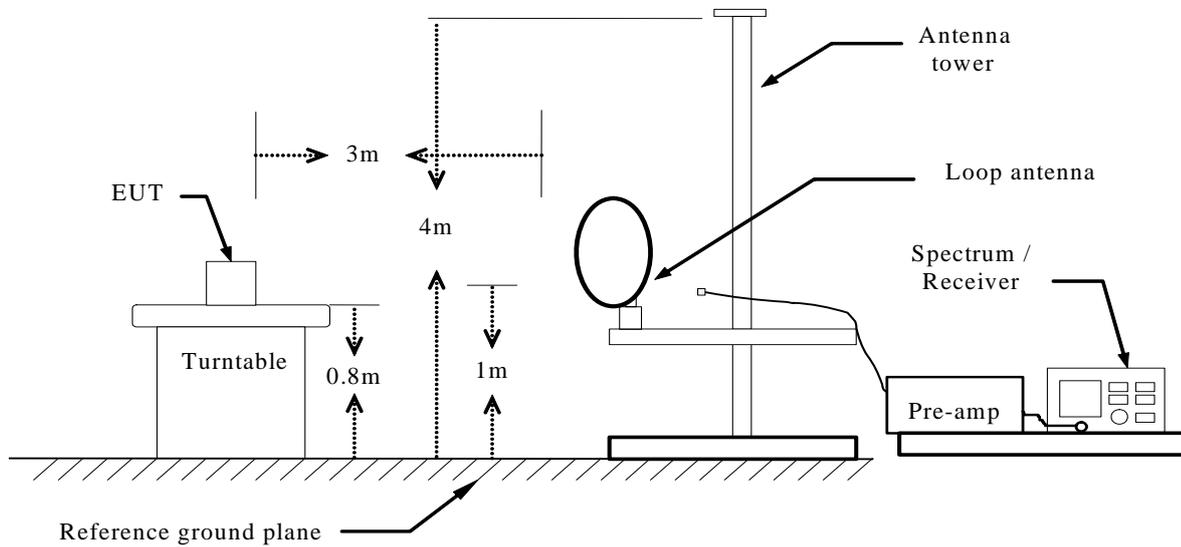
- The EUT is placed on a turntable, which is 0.8m above ground plane.
- The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Set the spectrum analyzer in the following setting as:
 - Below 1GHz:
 - RBW=100kHz / VBW=300kHz / Sweep=AUTO
 - Above 1GHz:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO



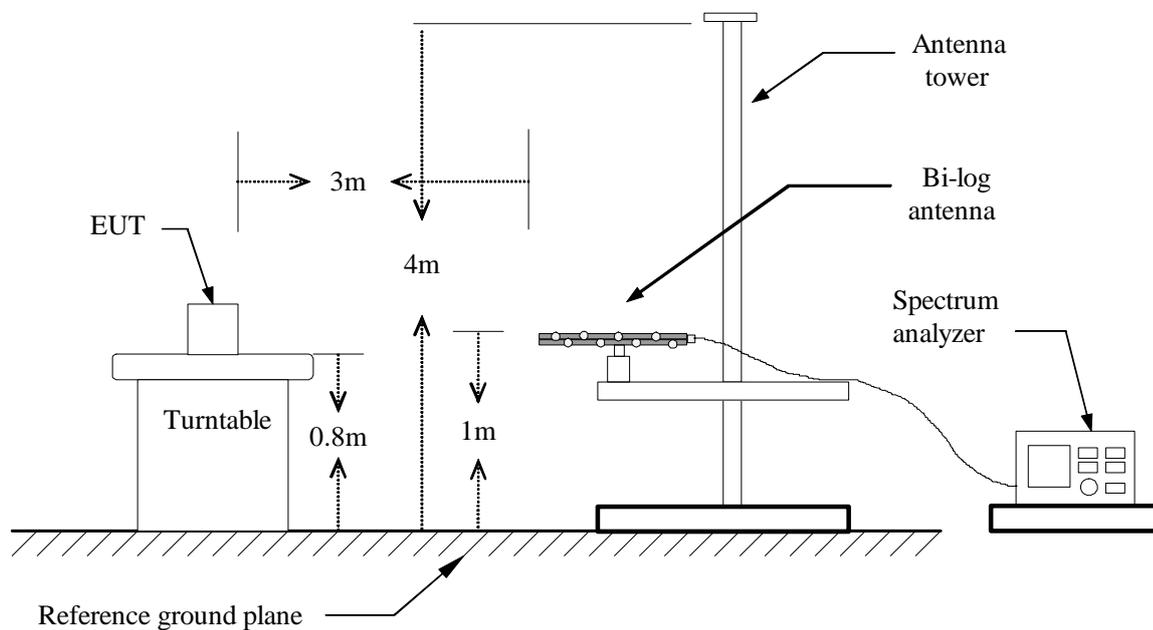
7. Repeat above procedures until the measurements for all frequencies are complete.

7.2.5.4. TEST SETUP

Below 30MHz

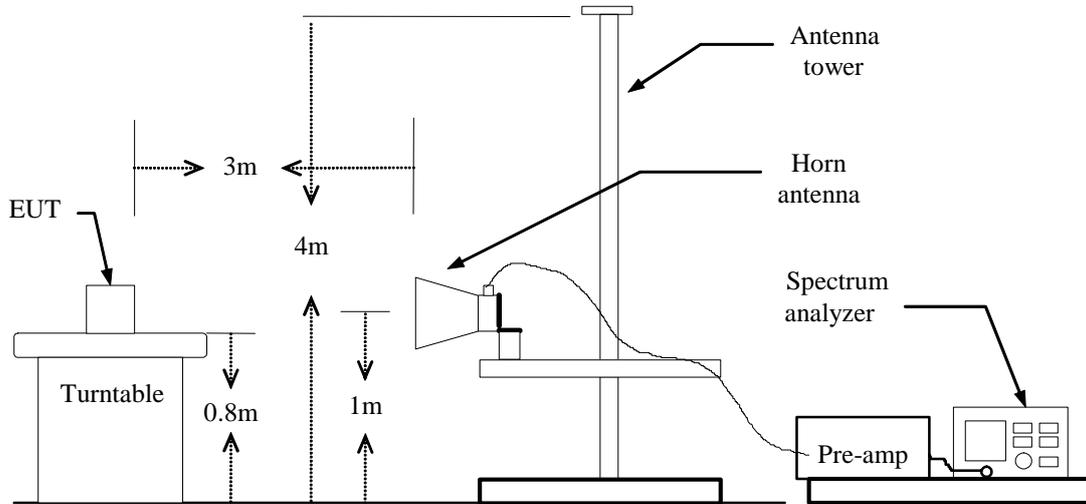


Below 1 GHz





Above 1 GHz



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

7.2.5.5. Data Sample:

Below 1 GHz

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Remark) (dBuV)	Correction Factor (dB/m)	Result (Remark) (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (dB)	Remark
xxx	V	12.12	10.21	22.33	40.00	-17.67	Peak

Above 1 GHz

Frequency (MHz)	Ant.Pol. (H/V)	Reading (Peak) (dBuV)	Reading (Average) (dBuV)	Correction Factor (dB/m)	Result (Peak) (dBuV/m)	Result (Average) (dBuV/m)	Limit (Peak) (dBuV/m)	Limit (Average) (dBuV/m)	Margin (dB)	Remark
xxx	V	65.45	63.00	-11.12	54.33	51.88	74.00	54.00	-2.12	AVG

- Frequency (MHz) = Emission frequency in MHz
- Ant.Pol. (H/V) = Antenna polarization
- Reading (dBuV) = Uncorrected Analyzer / Receiver reading
- Correction Factor (dB/m) = Antenna factor + Cable loss – Amplifier gain
- Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)
- Limit (dBuV/m) = Limit stated in standard
- Margin (dB) = Remark Result (dBuV/m) – Limit (dBuV/m)
- Peak = Peak Reading
- QP = Quasi-peak Reading
- AVG = Average Reading



7.2.5.6. TEST RESULTS

Below 1 GHz

Operation Mode: Normal Link(Adapter 1: MOSO/XKD-C0500IC12.0-6B)

Test Date: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40 % RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
105.750	V	Peak	52.85	-17.91	34.94	43.50	-8.56
139.125	V	Peak	54.93	-18.50	36.43	43.50	-7.07
168.225	V	Peak	54.77	-16.77	38.00	43.50	-5.50
335.550	V	Peak	47.53	-10.60	36.93	46.00	-9.07
432.550	V	Peak	45.70	-8.91	36.79	46.00	-9.21
500.450	V	Peak	46.52	-8.12	38.40	46.00	-7.60
168.225	H	Peak	49.23	-16.77	32.46	43.50	-11.04
211.875	H	Peak	49.64	-15.24	34.40	43.50	-9.10
401.025	H	Peak	44.23	-9.22	35.01	46.00	-10.99
500.450	H	Peak	44.68	-8.12	36.56	46.00	-9.44
599.875	H	Peak	38.47	-6.41	32.06	46.00	-13.94
750.225	H	Peak	36.42	-4.26	32.16	46.00	-13.84

Operation Mode: Normal Link (Adapter 2: MOSO/XKD-C0500IC12.0-6B- with a core)

Test Date: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40 % RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
80.925	V	Peak	53.70	-19.10	34.60	40.00	-5.40
105.175	V	Peak	52.85	-17.91	34.94	43.50	-8.56
139.125	V	Peak	54.93	-18.50	36.43	43.50	-7.07
168.225	V	Peak	54.77	-16.77	38.00	43.50	-5.50
335.550	V	Peak	47.53	-10.60	36.93	46.00	-9.07
432.550	V	Peak	45.70	-8.91	36.79	46.00	-9.21
105.175	H	Peak	48.10	-17.91	30.19	43.50	-13.31
141.550	H	Peak	50.27	-18.38	31.89	43.50	-11.61
168.225	H	Peak	49.23	-16.77	32.46	43.50	-11.04
211.875	H	Peak	49.64	-15.24	34.40	46.00	-11.60
401.025	H	Peak	44.23	-9.22	35.01	46.00	-10.99
500.450	H	Peak	44.68	-8.12	36.56	46.00	-9.44



Operation Mode: Normal Link (Adapter 3:
UE/UE06L4-120050SPAU)
Temperature: 22°C
Humidity: 40 % RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
54.250	V	Peak	45.48	-18.84	26.64	40.00	-13.36
143.975	V	Peak	47.22	-18.20	29.02	43.50	-14.48
168.225	V	Peak	48.33	-16.77	31.56	43.50	-11.94
187.625	V	Peak	44.52	-16.25	28.27	43.50	-15.23
401.025	V	Peak	42.65	-9.22	33.43	46.00	-12.57
500.450	V	Peak	44.32	-8.12	36.20	46.00	-9.80
168.225	H	Peak	40.91	-16.77	24.14	43.50	-19.36
333.125	H	Peak	41.06	-10.68	30.38	46.00	-15.62
350.100	H	Peak	36.99	-10.11	26.88	46.00	-19.12
401.025	H	Peak	39.91	-9.22	30.69	46.00	-15.31
500.450	H	Peak	36.62	-8.12	28.50	46.00	-17.50
750.225	H	Peak	29.44	-4.26	25.18	46.00	-20.82

Operation Mode: Normal Link (Adapter 4:
UE/UE06L4-120050SPAU-with a core)
Temperature: 22°C
Humidity: 40 % RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
46.975	V	Peak	45.99	-16.92	29.07	40.00	-10.93
112.450	V	Peak	49.80	-18.35	31.45	43.50	-12.05
168.225	V	Peak	48.33	-16.77	31.56	43.50	-11.94
187.625	V	Peak	44.52	-16.25	28.27	43.50	-15.23
401.025	V	Peak	41.15	-9.22	31.93	46.00	-14.07
500.450	V	Peak	42.82	-8.12	34.70	46.00	-11.30
168.225	H	Peak	44.91	-16.77	28.14	40.00	-11.86
209.450	H	Peak	42.78	-15.39	27.39	43.50	-16.11
333.125	H	Peak	41.06	-10.68	30.38	46.00	-15.62
401.025	H	Peak	39.91	-9.22	30.69	46.00	-15.31
500.450	H	Peak	36.62	-8.12	28.50	46.00	-17.50
750.225	H	Peak	29.44	-4.26	25.18	46.00	-20.82



Operation Mode: Normal Link(Adapter 5:
FRECOM/FPS005USA-120050)
Temperature: 22°C
Humidity: 40 % RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
211.875	V	Peak	49.74	-18.84	30.90	43.50	-12.60
401.025	V	Peak	44.36	-9.22	35.14	46.00	-10.86
432.550	V	Peak	43.84	-8.91	34.93	46.00	-11.07
500.450	V	Peak	44.32	-8.12	36.20	46.00	-9.80
599.875	V	Peak	40.03	-6.41	33.62	46.00	-12.38
750.225	V	Peak	36.68	-4.26	32.42	46.00	-13.58
114.875	H	Peak	53.76	-18.50	35.26	43.50	-8.24
190.050	H	Peak	53.48	-16.19	37.29	43.50	-6.21
335.550	H	Peak	46.80	-10.60	36.20	46.00	-9.80
401.025	H	Peak	42.80	-9.22	33.58	46.00	-12.42
432.550	H	Peak	46.16	-8.91	37.25	46.00	-8.75
500.450	H	Peak	48.34	-8.12	40.22	46.00	-5.78

Operation Mode: Normal Link (Adapter 6: FRECOM/
FPS005USA -120050-with a core)
Temperature: 22°C
Humidity: 40 % RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
114.875	V	Peak	53.76	-18.50	35.26	40.00	-4.74
139.125	V	Peak	55.80	-18.50	37.30	40.00	-2.70
168.225	V	Peak	54.55	-16.77	37.78	43.50	-5.72
190.050	V	Peak	53.48	-16.19	37.29	46.00	-8.71
335.550	V	Peak	46.80	-10.60	36.20	46.00	-9.80
500.450	V	Peak	48.34	-8.12	40.22	46.00	-5.78
107.600	H	Peak	51.39	-18.06	33.33	43.50	-10.17
190.050	H	Peak	51.53	-16.19	35.34	43.50	-8.16
211.875	H	Peak	49.74	-15.24	34.50	43.50	-9.00
401.025	H	Peak	44.36	-9.22	35.14	46.00	-10.86
432.550	H	Peak	43.84	-8.91	34.93	46.00	-11.07
500.450	H	Peak	44.32	-8.12	36.20	46.00	-9.80



Above 1 GHz

Operation Mode: TX / IEEE 802.11b / CH Low

Test Date: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40% RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3310.000	V	48.14	---	-5.26	42.88	---	74.00	54.00	-11.12	Peak
4955.000	V	45.76	---	-0.15	45.61	---	74.00	54.00	-8.39	Peak
6156.666	V	46.78	---	3.63	50.41	---	74.00	54.00	-3.59	Peak
6856.666	V	47.30	---	4.33	51.63	---	74.00	54.00	-2.37	Peak
N/A										
3660.000	H	47.48	---	-3.82	43.66	---	74.00	54.00	-10.34	Peak
4943.333	H	46.11	---	-0.19	45.92	---	74.00	54.00	-8.08	Peak
6320.000	H	46.45	---	3.74	50.19	---	74.00	54.00	-3.81	Peak
6973.333	H	47.27	---	4.39	51.66	---	74.00	54.00	-2.34	Peak
N/A										

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
Temperature: 22°C
Humidity: 40% RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3193.333	V	48.13	---	-5.51	42.62	---	74.00	54.00	-11.38	Peak
4978.333	V	46.01	---	-0.08	45.93	---	74.00	54.00	-8.07	Peak
6238.333	V	46.65	---	3.79	50.44	---	74.00	54.00	-3.56	Peak
6938.333	V	46.53	---	4.37	50.90	---	74.00	54.00	-3.10	Peak
N/A										
2831.666	H	49.20	---	-7.10	42.10	---	74.00	54.00	-11.90	Peak
4161.666	H	47.36	---	-3.05	44.31	---	74.00	54.00	-9.69	Peak
4780.000	H	46.41	---	-0.76	45.65	---	74.00	54.00	-8.35	Peak
6191.666	H	46.18	---	3.78	49.96	---	74.00	54.00	-4.04	Peak
N/A										

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
Temperature: 22°C
Humidity: 40% RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4791.666	V	46.38	---	-0.70	45.68	---	74.00	54.00	-8.32	Peak
5585.000	V	46.12	---	1.46	47.58	---	74.00	54.00	-6.42	Peak
6331.666	V	45.98	---	3.73	49.71	---	74.00	54.00	-4.29	Peak
7031.666	V	46.46	---	4.49	50.95	---	74.00	54.00	-3.05	Peak
N/A										
2820.000	H	49.35	---	-7.18	42.17	---	74.00	54.00	-11.83	Peak
3205.000	H	48.29	---	-5.48	42.81	---	74.00	54.00	-11.19	Peak
4838.333	H	46.76	---	-0.53	46.23	---	74.00	54.00	-7.77	Peak
6226.666	H	46.29	---	3.80	50.09	---	74.00	54.00	-3.91	Peak
N/A										

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 Low

Test Date: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40% RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
2843.333	V	48.16	---	-7.03	41.13	---	74.00	54.00	-12.87	Peak
3753.333	V	47.42	---	-3.86	43.56	---	74.00	54.00	-10.44	Peak
4780.000	V	46.37	---	-0.76	45.61	---	74.00	54.00	-8.39	Peak
6215.000	V	46.86	---	3.81	50.67	---	74.00	54.00	-3.33	Peak
N/A										
3590.000	H	46.99	---	-3.86	43.13	---	74.00	54.00	-10.87	Peak
4838.333	H	46.41	---	-0.53	45.88	---	74.00	54.00	-8.12	Peak
6215.000	H	46.29	---	3.81	50.10	---	74.00	54.00	-3.90	Peak
6961.666	H	47.70	---	4.01	51.71	---	74.00	54.00	-2.29	Peak
N/A										

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: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40 % RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3531.333	V	47.29	---	-4.23	43.06	---	74.00	54.00	-10.94	Peak
4815.000	V	45.85	---	-0.60	45.25	---	74.00	54.00	-8.75	Peak
6168.333	V	46.82	---	3.68	50.50	---	74.00	54.00	-3.50	Peak
7008.333	V	46.77	---	4.42	51.19	---	74.00	54.00	-2.81	Peak
N/A										
3846.666	H	47.49	---	-3.81	43.68	---	74.00	54.00	-10.32	Peak
4966.666	H	45.41	---	-0.12	45.29	---	74.00	54.00	-8.71	Peak
6063.333	H	46.16	---	3.21	49.37	---	74.00	54.00	-4.63	Peak
6506.333	H	46.33	---	3.95	50.28	---	74.00	54.00	-3.72	Peak
N/A										

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
Temperature: 22°C
Humidity: 40 % RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4068.333	V	47.37	---	-3.35	44.02	---	74.00	54.00	-9.98	Peak
4955.000	V	45.99	---	-0.15	45.84	---	74.00	54.00	-8.16	Peak
6121.666	V	46.62	---	3.47	50.09	---	74.00	54.00	-3.91	Peak
7020.000	V	47.58	---	3.82	51.40	---	74.00	54.00	-2.60	Peak
N/A										
3146.666	H	48.36	---	-5.62	42.74	---	74.00	54.00	-11.26	Peak
4395.000	H	47.01	---	-2.28	44.73	---	74.00	54.00	-9.27	Peak
5095.000	H	46.40	---	0.27	46.67	---	74.00	54.00	-7.33	Peak
6331.666	H	45.85	---	3.73	49.58	---	74.00	54.00	-4.42	Peak
N/A										

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 Low Test Date: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40% RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3916.666	V	47.47	---	-3.70	43.77	---	74.00	54.00	-10.23	Peak
4908.333	V	45.52	---	-0.30	45.22	---	74.00	54.00	-8.78	Peak
6238.333	V	46.34	---	3.79	50.13	---	74.00	54.00	-3.87	Peak
7160.000	V	47.50	---	2.77	50.27	---	74.00	54.00	-3.73	Peak
N/A										
4266.666	H	46.40	---	-2.71	43.69	---	74.00	54.00	-10.31	Peak
4908.333	H	45.67	---	-0.30	45.37	---	74.00	54.00	-8.63	Peak
6296.666	H	46.19	---	3.75	49.94	---	74.00	54.00	-4.06	Peak
7148.333	H	47.06	---	4.82	51.88	---	74.00	54.00	-2.12	Peak
N/A										

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:** September 20, 2010
Temperature: 22°C **Tested by:** Tom Gan
Humidity: 40% RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4920.000	V	45.84	---	-0.27	45.57	---	74.00	54.00	-8.43	Peak
6226.666	V	45.96	---	3.80	49.76	---	74.00	54.00	-4.24	Peak
7113.333	V	47.35	---	4.72	52.07	---	74.00	54.00	-1.93	Peak
7393.333	V	46.88	---	4.23	51.11	---	74.00	54.00	-2.89	Peak
N/A										
4931.666	H	45.93	---	-0.23	45.70	---	74.00	54.00	-8.30	Peak
6238.333	H	46.27	---	3.79	50.06	---	74.00	54.00	-3.94	Peak
6996.666	H	48.14	---	3.22	51.36	---	74.00	54.00	-2.64	Peak
7323.333	H	46.38	---	5.28	51.66	---	74.00	54.00	-2.34	Peak
N/A										

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: September 20, 2010

Temperature: 22°C

Tested by: Tom Gan

Humidity: 40% RH

Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3951.666	V	47.33	---	-3.64	43.69	---	74.00	54.00	-10.31	Peak
5375.000	V	46.15	---	0.96	47.11	---	74.00	54.00	-6.89	Peak
6180.000	V	46.38	---	3.73	50.11	---	74.00	54.00	-3.89	Peak
7300.000	V	46.61	---	5.22	51.83	---	74.00	54.00	-2.17	Peak
N/A										
3718.333	H	47.22	---	-3.85	43.37	---	74.00	54.00	-10.63	Peak
4943.333	H	46.03	---	-0.19	45.84	---	74.00	54.00	-8.16	Peak
6250.000	H	46.12	---	3.79	49.91	---	74.00	54.00	-4.09	Peak
7230.000	H	46.94	---	5.04	51.98	---	74.00	54.00	-2.02	Peak
N/A										

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 Low Test Date: September 20, 2010
Temperature: 22°C Tested by: Tom Gan
Humidity: 40 % RH Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3380.000	V	47.06	---	-5.11	41.95	---	74.00	54.00	-12.05	Peak
4406.666	V	46.08	---	-2.24	43.84	---	74.00	54.00	-10.16	Peak
5340.000	V	45.40	---	0.88	46.28	---	74.00	54.00	-7.72	Peak
5771.666	V	45.56	---	2.44	48.00	---	74.00	54.00	-6.00	Peak
N/A										
3601.666	H	47.20	---	-3.80	43.40	---	74.00	54.00	-10.60	Peak
4523.333	H	46.86	---	-1.95	44.91	---	74.00	54.00	-9.09	Peak
6168.333	H	47.16	---	3.68	50.84	---	74.00	54.00	-3.16	Peak
7183.333	H	47.35	---	3.06	50.41	---	74.00	54.00	-3.59	Peak
N/A										

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:** September 20, 2010
Temperature: 22°C **Tested by:** Tom Gan
Humidity: 40 % RH **Polarity:** Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
3030.000	V	47.01	---	-5.89	41.12	---	74.00	54.00	-12.88	Peak
5048.363	V	45.51	---	0.13	45.64	---	74.00	54.00	-8.36	Peak
6180.000	V	46.38	---	3.73	50.11	---	74.00	54.00	-3.89	Peak
7195.000	V	46.56	---	4.96	51.52	---	74.00	54.00	-2.48	Peak
N/A										
4056.666	H	46.57	---	-3.39	43.18	---	74.00	54.00	-10.82	Peak
5363.333	H	45.55	---	0.93	46.48	---	74.00	54.00	-7.52	Peak
6250.000	H	46.44	---	3.79	50.23	---	74.00	54.00	-3.77	Peak
7183.333	H	47.35	---	2.76	50.11	---	74.00	54.00	-3.89	Peak
N/A										

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
Temperature: 22°C
Humidity: 40 % RH

Test Date: September 20, 2010
Tested by: Tom Gan
Polarity: Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4511.666	V	46.21	---	-1.98	44.23	---	74.00	54.00	-9.77	Peak
5678.333	V	46.02	---	1.93	47.95	---	74.00	54.00	-6.05	Peak
6238.333	V	46.34	---	3.79	50.13	---	74.00	54.00	-3.87	Peak
7160.000	V	47.50	---	2.38	49.88	---	74.00	54.00	-4.12	Peak
N/A										
3053.333	H	47.56	---	-5.83	41.73	---	74.00	54.00	-12.27	Peak
4838.333	H	45.95	---	-0.53	45.42	---	74.00	54.00	-8.58	Peak
5433.333	H	45.85	---	1.09	46.94	---	74.00	54.00	-7.06	Peak
6961.666	H	47.05	---	4.38	51.43	---	74.00	54.00	-2.57	Peak
N/A										

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.

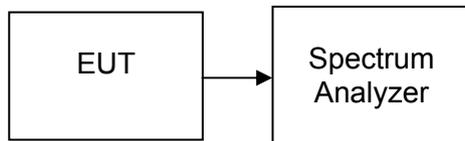
7.3.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/21/2010	03/21/2011

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 = 100kHz, VBW = 300kHz, Span = 25MHz, 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

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	11138	>500	PASS
Mid	2437	12097		PASS
High	2462	12091		PASS

Test Data

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	16347	>500	PASS
Mid	2437	16332		PASS
High	2462	16367		PASS

Test mode: IEEE 802.11n HT20 MHz

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	17164	>500	PASS
Mid	2437	17171		PASS
High	2462	17144		PASS

Test Data

Test mode: IEEE 802.11n HT40 MHz

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2422	35489	>500	PASS
Mid	2437	35284		PASS
High	2452	35295		PASS



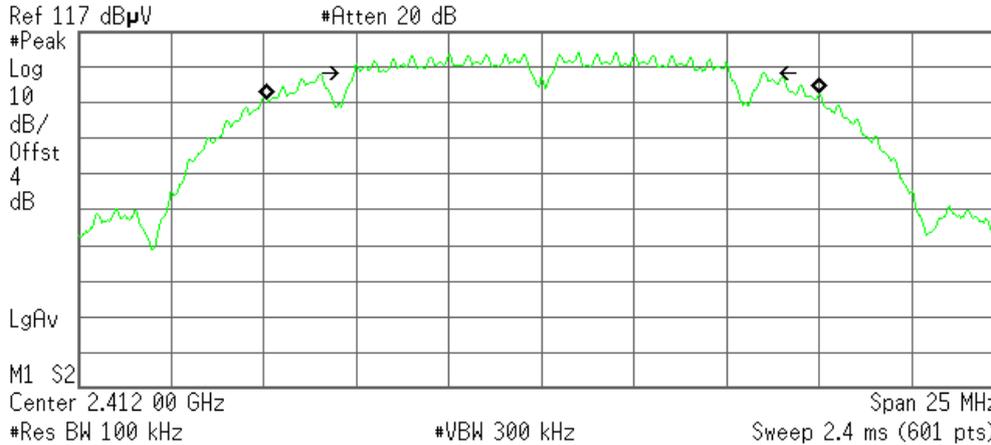
Test Plot

(IEEE 802.11b mode)

6dB Bandwidth (CH Low)

Agilent 14:54:09 Sep 17, 2010

R T



Occupied Bandwidth
14.9232 MHz

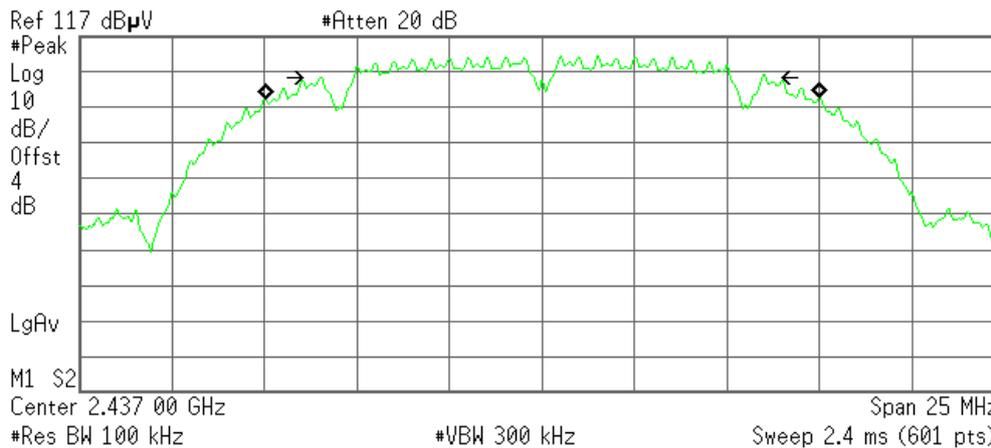
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 38.911 kHz
x dB Bandwidth 11.138 MHz

6dB Bandwidth (CH Mid)

Agilent 15:02:19 Sep 17, 2010

R T



Occupied Bandwidth
14.9397 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

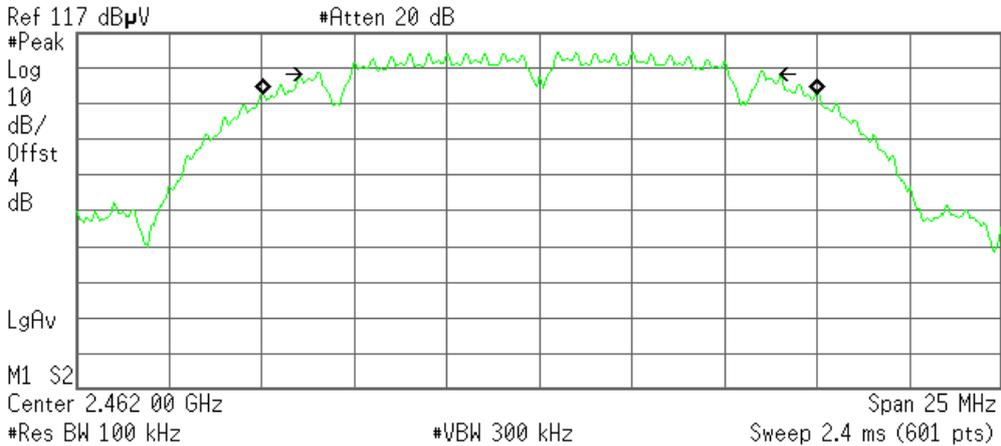
Transmit Freq Error 23.632 kHz
x dB Bandwidth 12.097 MHz



6dB Bandwidth (CH High)

Agilent 15:03:02 Sep 17, 2010

R T



Occupied Bandwidth 14.9429 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

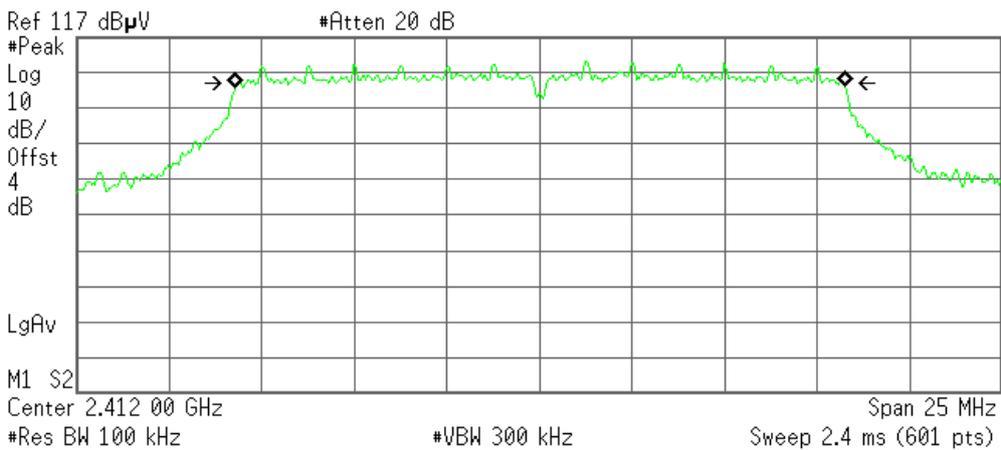
Transmit Freq Error 15.236 kHz
x dB Bandwidth 12.091 MHz

(IEEE 802.11g mode)

6dB Bandwidth (CH Low)

Agilent 14:55:35 Sep 17, 2010

R T



Occupied Bandwidth 16.4271 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 23.151 kHz
x dB Bandwidth 16.347 MHz



6dB Bandwidth (CH Mid)

Agilent 15:01:13 Sep 17, 2010

R T



Ref 117 dBμV #Atten 20 dB
 Center 2.437 00 GHz Span 25 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 2.4 ms (601 pts)

Occupied Bandwidth
 16.4309 MHz

Occ BW % Pwr 99.00 %
 x dB -6.00 dB

Transmit Freq Error 18.034 kHz
 x dB Bandwidth 16.332 MHz

6dB Bandwidth (CH High)

Agilent 15:03:51 Sep 17, 2010

R T



Ref 117 dBμV #Atten 20 dB
 Center 2.462 00 GHz Span 25 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 2.4 ms (601 pts)

Occupied Bandwidth
 16.4424 MHz

Occ BW % Pwr 99.00 %
 x dB -6.00 dB

Transmit Freq Error 14.274 kHz
 x dB Bandwidth 16.367 MHz

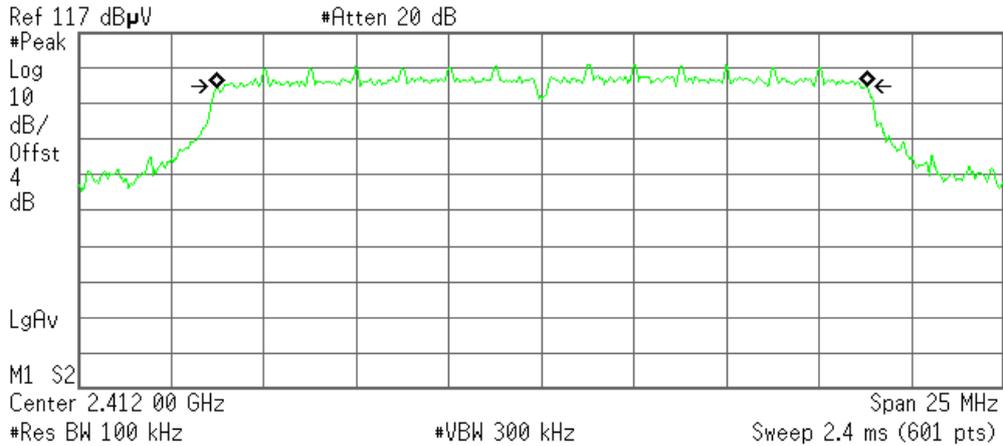


(IEEE 802.11n HT20 MHz mode)

6dB Bandwidth (CH Low)

Agilent 15:48:40 Sep 17, 2010

R T



Occupied Bandwidth
17.5475 MHz

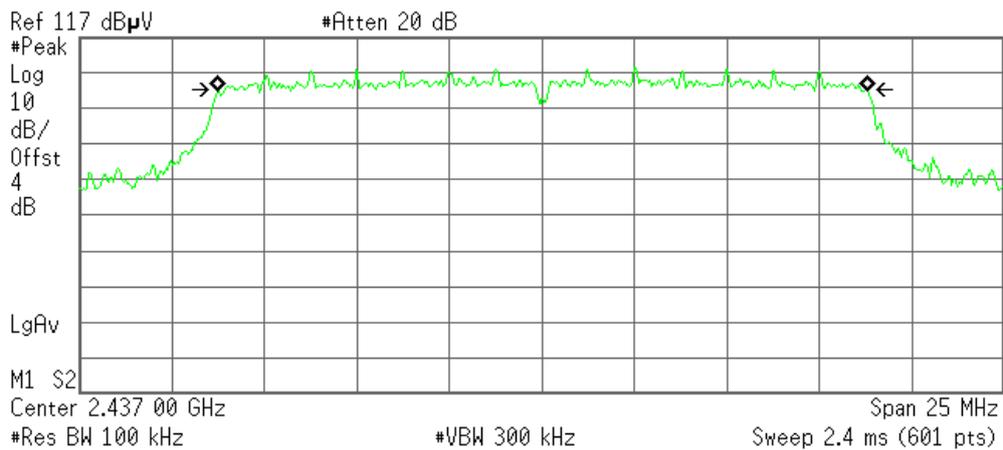
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 19.934 kHz
x dB Bandwidth 17.164 MHz

6dB Bandwidth (CH Mid)

Agilent 15:49:20 Sep 17, 2010

R T



Occupied Bandwidth
17.5443 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

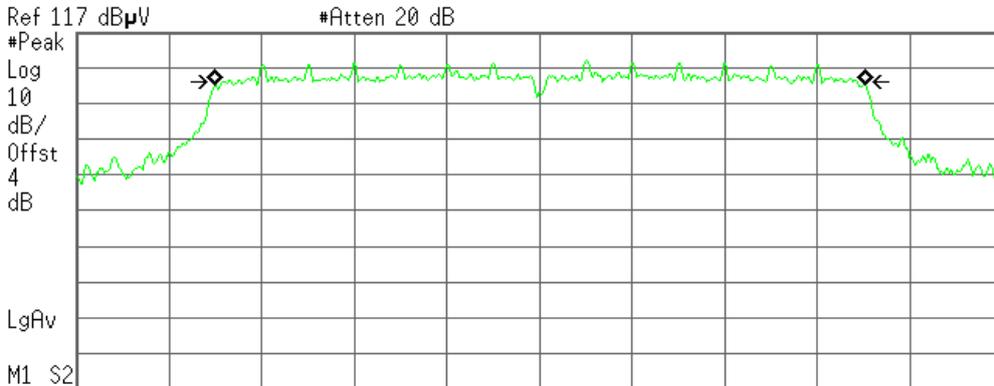
Transmit Freq Error 25.158 kHz
x dB Bandwidth 17.171 MHz



6dB Bandwidth (CH High)

Agilent 15:48:03 Sep 17, 2010

R T



Ref 117 dBμV #Atten 20 dB
 Center 2.462 00 GHz Span 25 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 2.4 ms (601 pts)

Occupied Bandwidth
 17.5432 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 19.670 kHz
x dB Bandwidth 17.144 MHz

(IEEE 802.11n HT40 MHz mode)

6dB Bandwidth (CH Low)

Agilent 15:08:05 Sep 17, 2010

R T



Ref 117 dBμV #Atten 20 dB
 Center 2.422 00 GHz Span 50 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 4.8 ms (601 pts)

Occupied Bandwidth
 35.8631 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

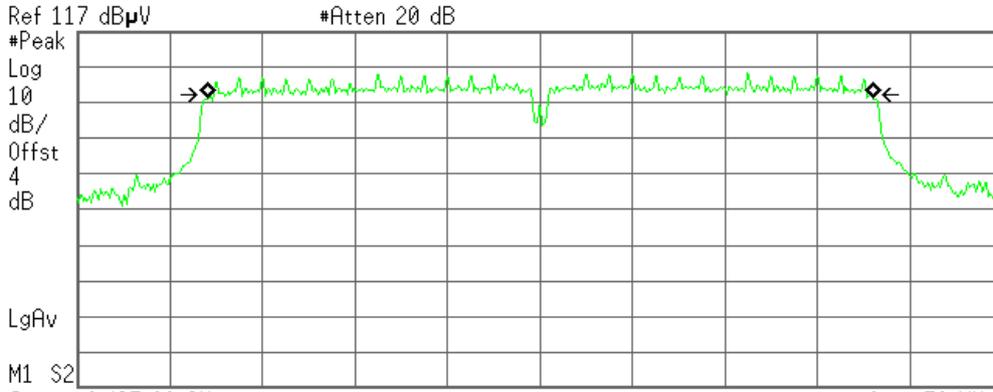
Transmit Freq Error 49.077 kHz
x dB Bandwidth 35.489 MHz



6dB Bandwidth (CH Mid)

Agilent 15:08:53 Sep 17, 2010

R T



Center 2.437 00 GHz Span 50 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 4.8 ms (601 pts)

Occupied Bandwidth
 35.8618 MHz

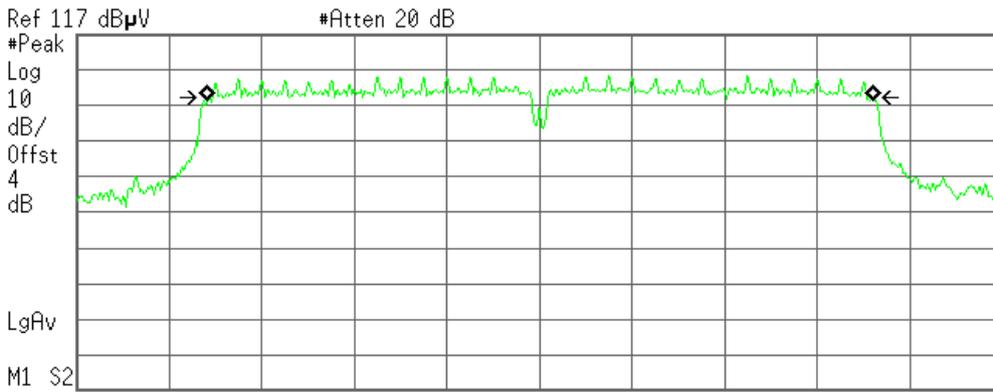
Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 38.642 kHz
x dB Bandwidth 35.284 MHz

6dB Bandwidth (CH High)

Agilent 15:09:31 Sep 17, 2010

R T



Center 2.452 00 GHz Span 50 MHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 4.8 ms (601 pts)

Occupied Bandwidth
 35.8437 MHz

Occ BW % Pwr 99.00 %
x dB -6.00 dB

Transmit Freq Error 43.739 kHz
x dB Bandwidth 35.295 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.

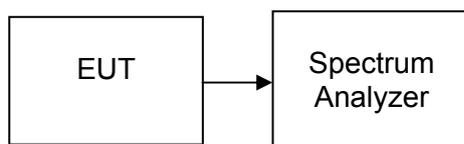
7.4.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/21/2010	03/21/2011

7.4.3. TEST PROCEDURES (please refer to measurement standard)

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz.
3. Set VBW \geq 3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) $<$ 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to "free run".
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer's band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

7.4.4. TEST SETUP





7.4.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	16.44	0.04406	1	PASS
Mid	2437	17.01	0.05023		PASS
High	2462	17.12	0.05152		PASS

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	16.91	0.04909	1	PASS
Mid	2437	17.61	0.05768		PASS
High	2462	17.69	0.05875		PASS

Test mode: IEEE 802.11n HT20 MHz

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	15.25	0.03350	1	PASS
Mid	2437	15.97	0.03954		PASS
High	2462	16.09	0.04064		PASS

Test mode: IEEE 802.11n HT40 MHz

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2422	15.25	0.03350	1	PASS
Mid	2437	15.34	0.03420		PASS
High	2452	15.69	0.03707		PASS



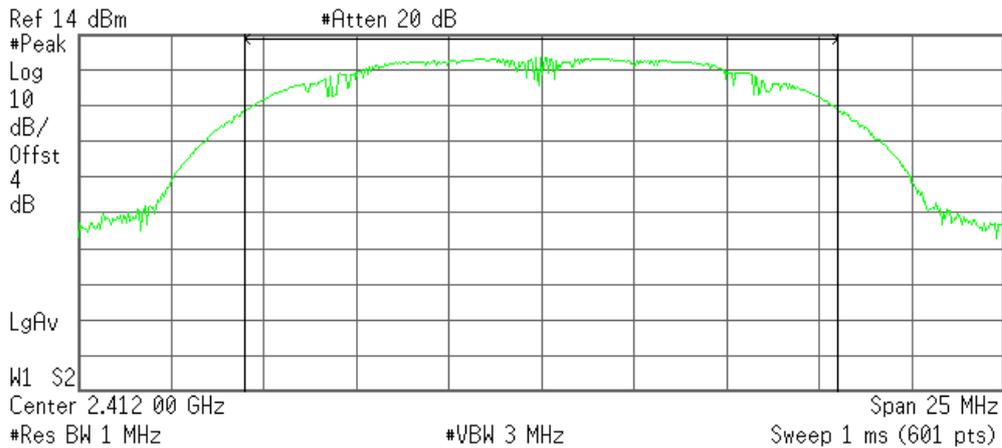
Test Plot

(IEEE 802.11b mode)

Peak power (CH Low)

Agilent 15:44:51 Sep 17, 2010

R T



Channel Power

16.44 dBm /16.0000 MHz

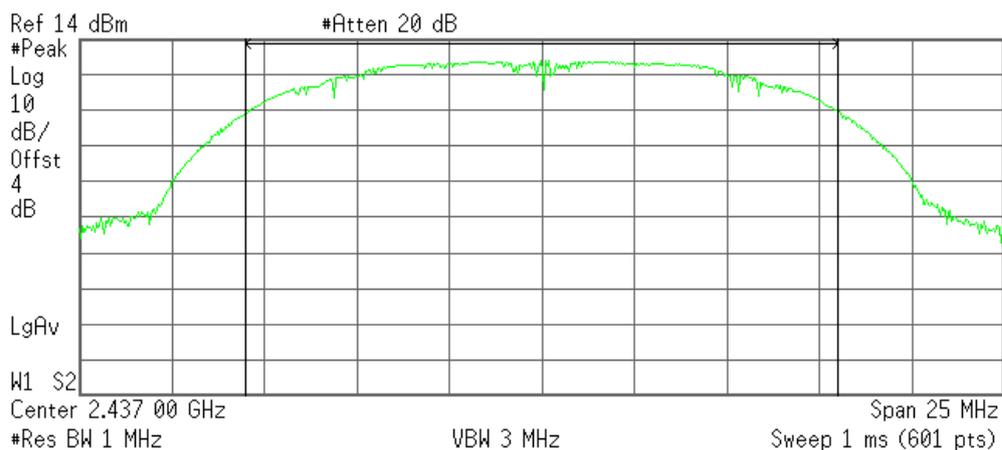
Power Spectral Density

-55.60 dBm/Hz

Peak power (CH Mid)

Agilent 15:38:05 Sep 17, 2010

R T



Channel Power

17.01 dBm /16.0000 MHz

Power Spectral Density

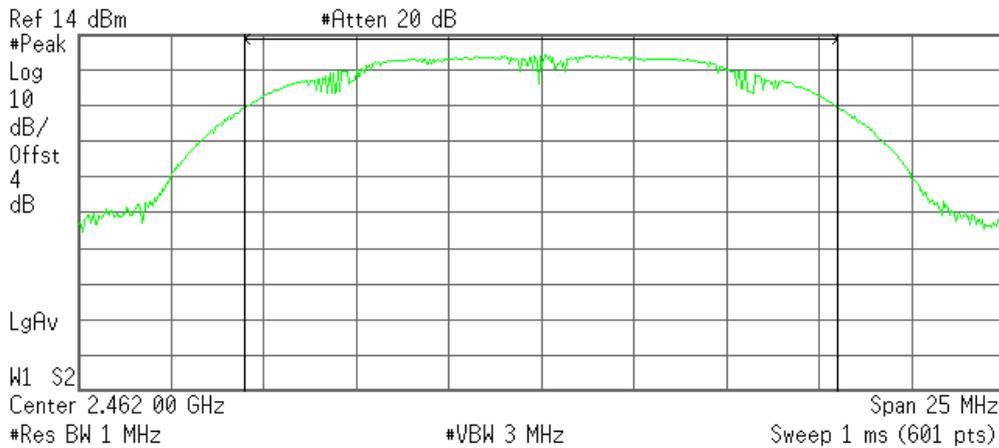
-55.03 dBm/Hz



Peak power (CH High)

Agilent 15:39:17 Sep 17, 2010

R T



Channel Power

17.12 dBm /16.0000 MHz

Power Spectral Density

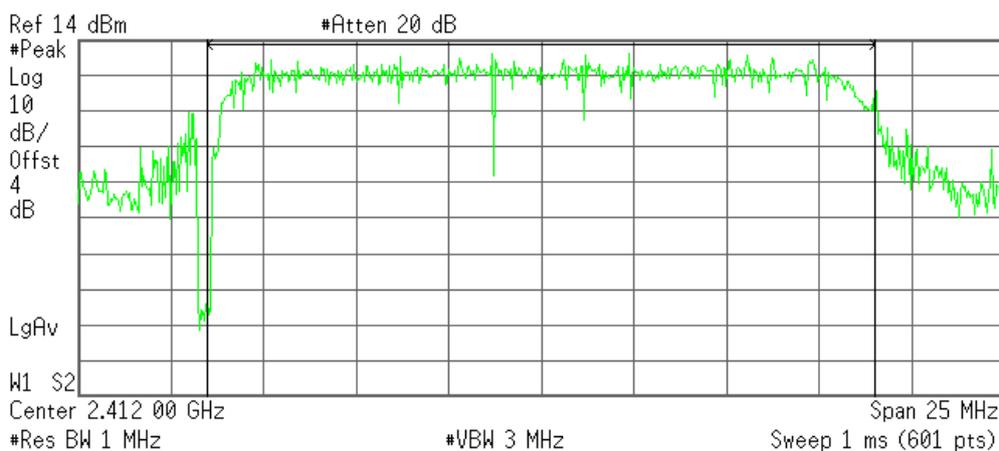
-54.92 dBm/Hz

(IEEE 802.11g mode)

Peak power (CH Low)

Agilent 15:20:32 Sep 17, 2010

R T



Channel Power

16.91 dBm /18.0000 MHz

Power Spectral Density

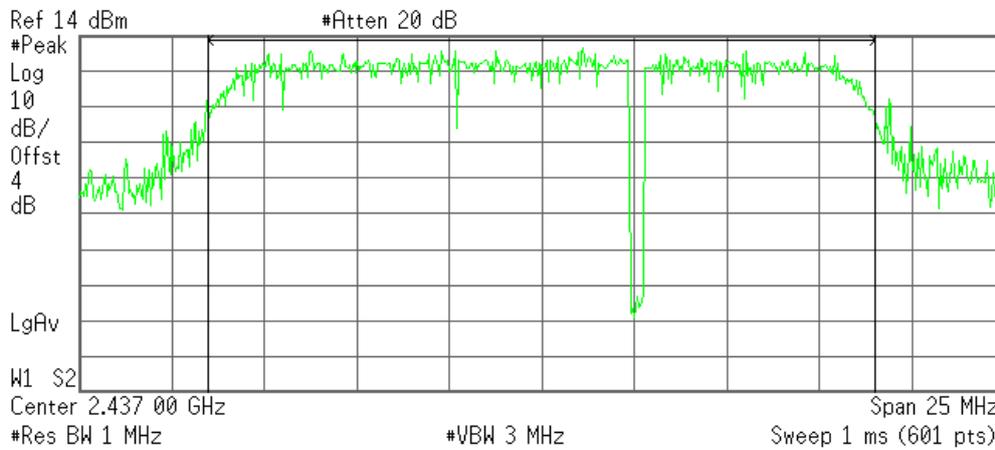
-55.64 dBm/Hz



Peak power (CH Mid)

Agilent 15:36:25 Sep 17, 2010

R T



Channel Power

17.61 dBm /18.0000 MHz

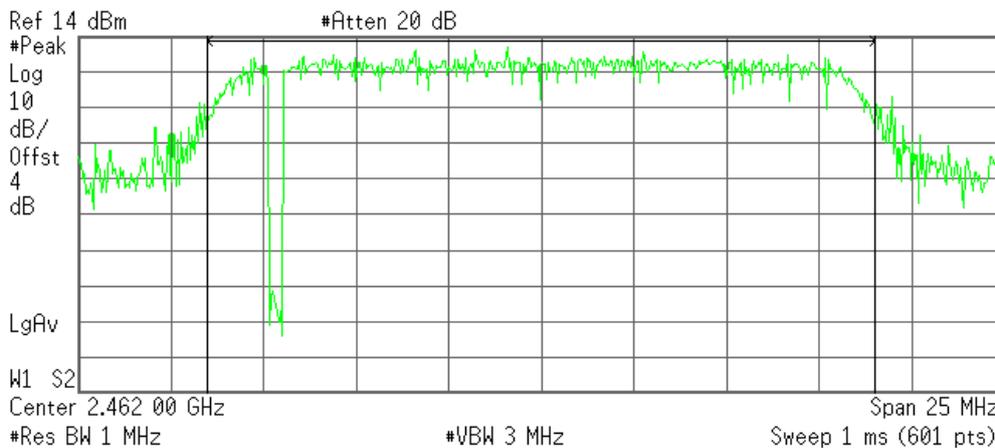
Power Spectral Density

-54.94 dBm/Hz

Peak power (CH High)

Agilent 15:35:03 Sep 17, 2010

R T



Channel Power

17.69 dBm /18.0000 MHz

Power Spectral Density

-54.86 dBm/Hz

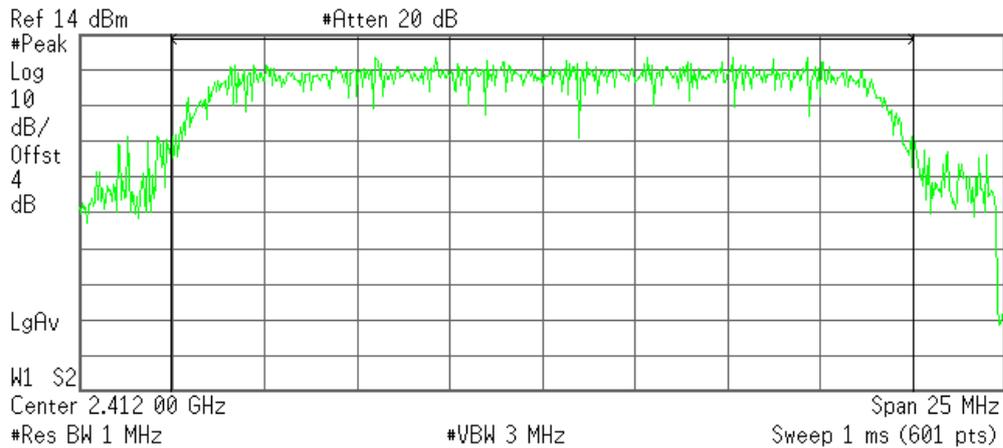


(IEEE 802.11n HT20 MHz mode)

Peak power (CH Low)

Agilent 15:22:49 Sep 17, 2010

R T



Channel Power

15.25 dBm /20.0000 MHz

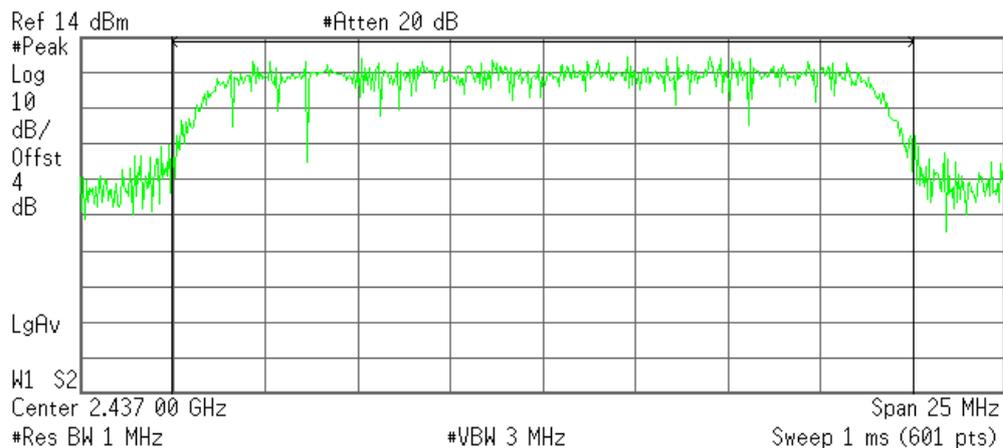
Power Spectral Density

-57.76 dBm/Hz

Peak power (CH Mid)

Agilent 15:24:30 Sep 17, 2010

R T



Channel Power

15.97 dBm /20.0000 MHz

Power Spectral Density

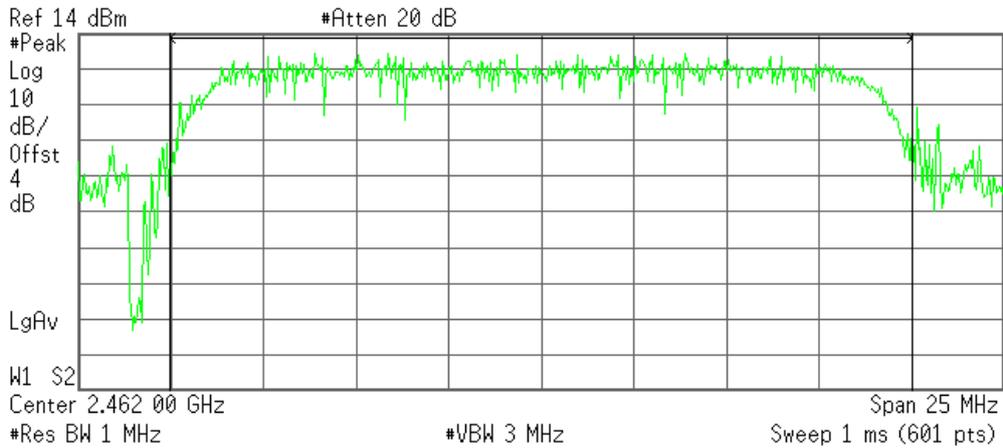
-57.04 dBm/Hz



Peak power (CH High)

Agilent 15:26:42 Sep 17, 2010

R T



Channel Power

16.09 dBm /20.0000 MHz

Power Spectral Density

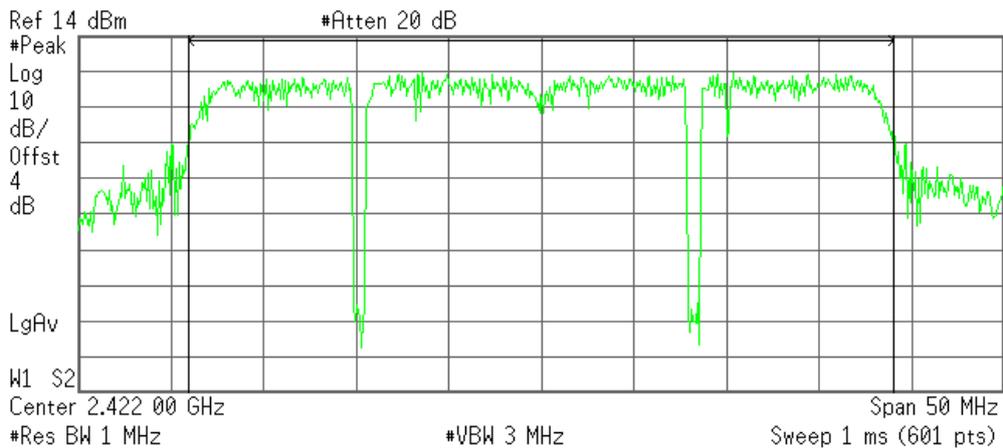
-56.92 dBm/Hz

(IEEE 802.11n HT40 MHz mode)

Peak power (CH Low)

Agilent 15:42:26 Sep 17, 2010

R T



Channel Power

15.25 dBm /38.0000 MHz

Power Spectral Density

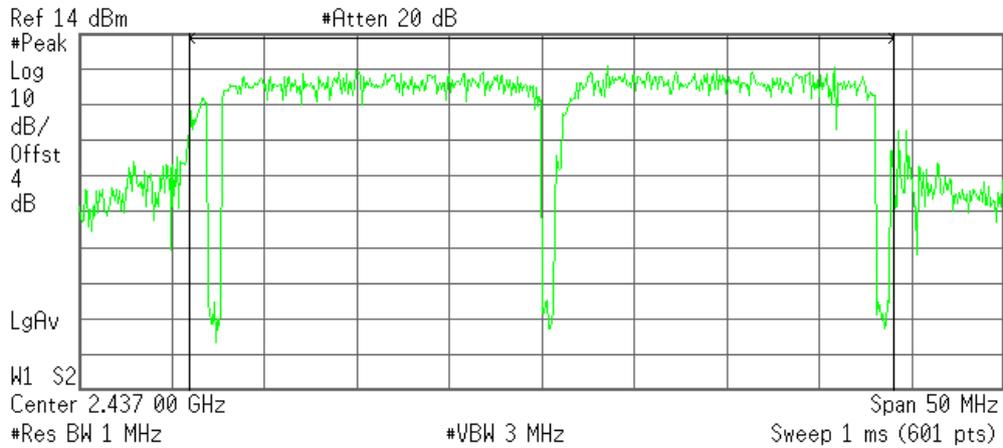
-60.55 dBm/Hz



Peak power (CH Mid)

Agilent 15:41:26 Sep 17, 2010

R T



Channel Power

15.34 dBm /38.0000 MHz

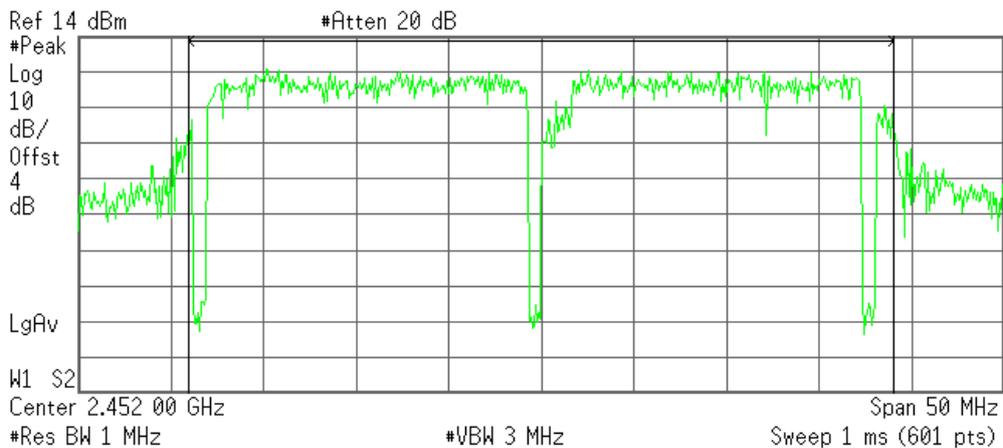
Power Spectral Density

-60.46 dBm/Hz

Peak power (CH High)

Agilent 15:40:44 Sep 17, 2010

R T



Channel Power

15.69 dBm /38.0000 MHz

Power Spectral Density

-60.11 dBm/Hz



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	03/21/2010	03/21/2011	
Amplifier	MITEQ	AM-1604-3000	1411843	03/21/2010	03/21/2011	
Turn Table	EMCO	2081-1.21	N/A	N.C.R	N.C.R	
Controller	CT	N/A	N/A	N.C.R	N.C.R	
High Noise Amplifier	Agilent	8449B	3008A01838	06/18/2010	06/18/2011	
Site NSA	C&C	N/A	N/A	N.C.R	N.C.R	
Bilog Antenna	SCHAFFNER	CBL6143	5082	06/18/2010	06/18/2011	
Horn Antenna	SCHWARZBECK	BBHA9120D	D286	03/19/2010	03/19/2011	
Signal Generator	Anritsu	MG3694A	#050125	03/21/2010	03/21/2011	
Horn Antenna	TRC	HA0301	N/A	03/19/2010	03/19/2011	
Loop Antenna	A.R.A	PLA-1030/B	1029	03/19/2010	03/19/2011	
Power Sensor	Anritsu	MA2491A	030619	06/18/2010	06/18/2011	
Power Meter	Anritsu	ML2487A	6K00001491	06/18/2010	06/18/2011	
Temp. / Humidity Meter	VICTOR	VC230	N/A	03/30/2010	03/30/2011	

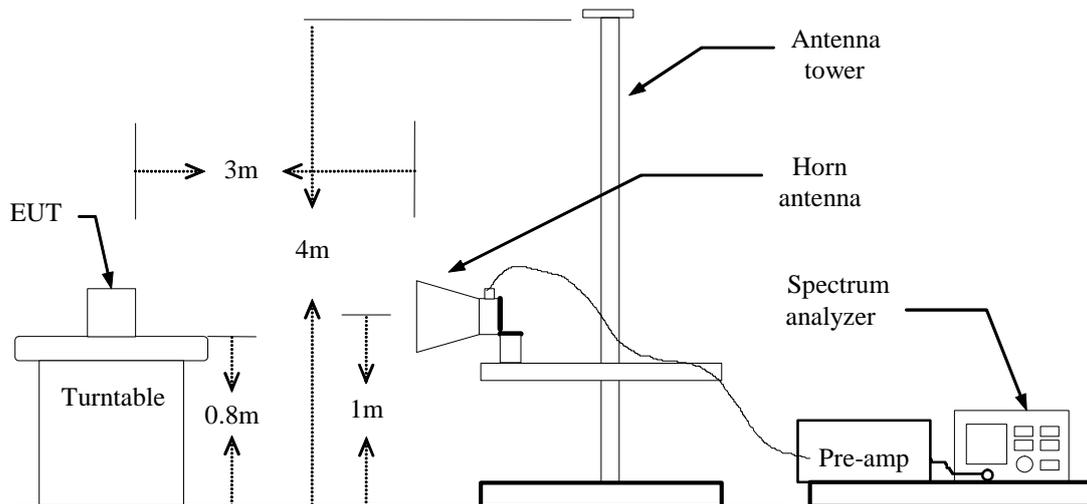
- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The FCC Site Registration number is 101879.
 4. N.C.R = No Calibration Required.



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

IEEE 802.11b mode / CH Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2390.00	V	54.83	44.79	-9.75	45.08	35.04	74	54	-28.92	-18.96
N/A										
2390.00	H	56.95	47.28	-9.75	47.20	37.53	74	54	-26.80	-16.47
N/A										

IEEE 802.11b mode / CH High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2483.50	V	57.56	48.25	-9.78	47.78	38.47	74	54	-26.22	-15.53
N/A										
2483.50	H	62.41	55.07	-9.78	52.63	45.29	74	54	-21.37	-8.71
N/A										



IEEE 802.11g mode / CH Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2390.00	V	69.20	50.53	-9.75	59.45	40.78	74	54	-14.55	-13.22
N/A										
2390.00	H	70.98	52.30	-9.75	61.23	42.55	74	54	-12.77	-11.45
N/A										

IEEE 802.11g mode / CH High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2483.50	V	73.81	53.77	-9.78	64.03	43.99	74	54	-9.97	-10.01
N/A										
2483.50	H	81.35	59.10	-9.78	71.57	49.32	74	54	-2.43	-4.68
N/A										



IEEE 802.11n HT20 MHz mode / CH Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2390.00	V	71.25	49.14	-9.75	61.50	39.39	74	54	-12.50	-14.61
N/A										
2390.00	H	73.79	51.70	-9.75	64.04	41.95	74	54	-9.96	-12.05
N/A										

IEEE 802.11n HT20 MHz mode / CH High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2483.50	V	74.70	51.79	-9.78	64.92	42.01	74	54	-9.08	-11.99
N/A										
2483.50	H	70.54	59.10	-9.78	60.76	49.32	74	54	-13.24	-4.68
N/A										



IEEE 802.11n HT40 MHz mode / CH Low

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2390.00	V	71.23	54.04	-9.75	61.48	44.29	74	54	-12.52	-9.71
N/A										
2390.00	H	73.98	57.14	-9.75	64.23	47.39	74	54	-9.77	-6.61
N/A										

IEEE 802.11n HT40 MHz mode / CH High

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
2483.50	V	74.27	56.97	-9.78	64.49	47.19	74	54	-9.51	-6.81
N/A										
2483.50	H	78.96	61.79	-9.78	69.18	52.01	74	54	-4.82	-1.99
N/A										



Test Plot (IEEE 802.11b mode)

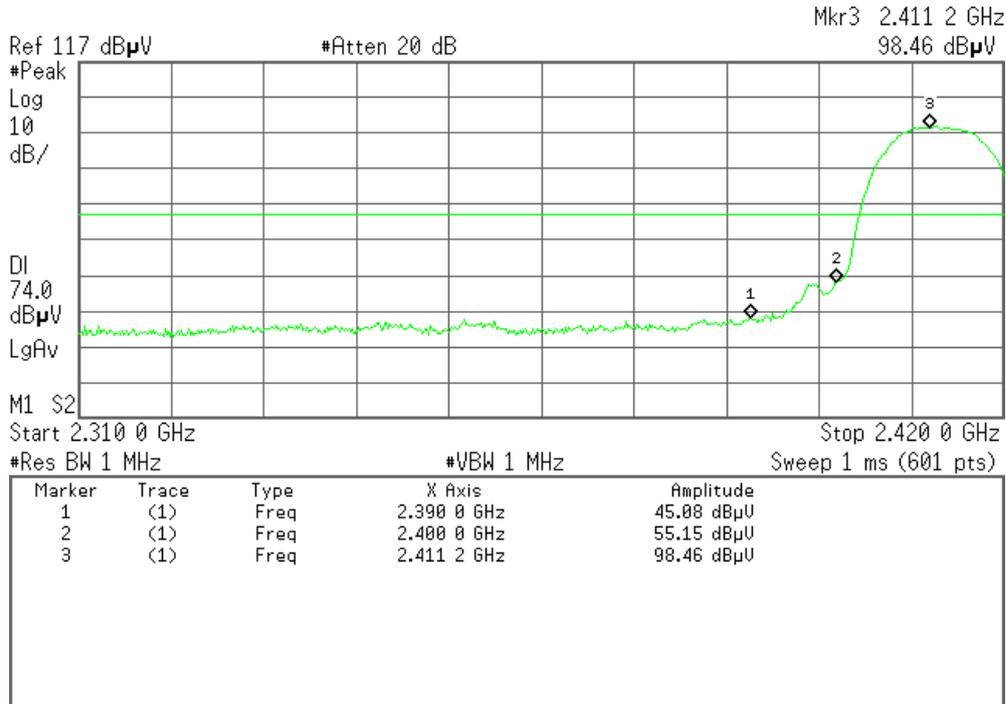
Band Edges (CH Low)

Detector mode: Peak

Polarity: Vertical

Agilent 14:04:37 Sep 16, 2010

R T

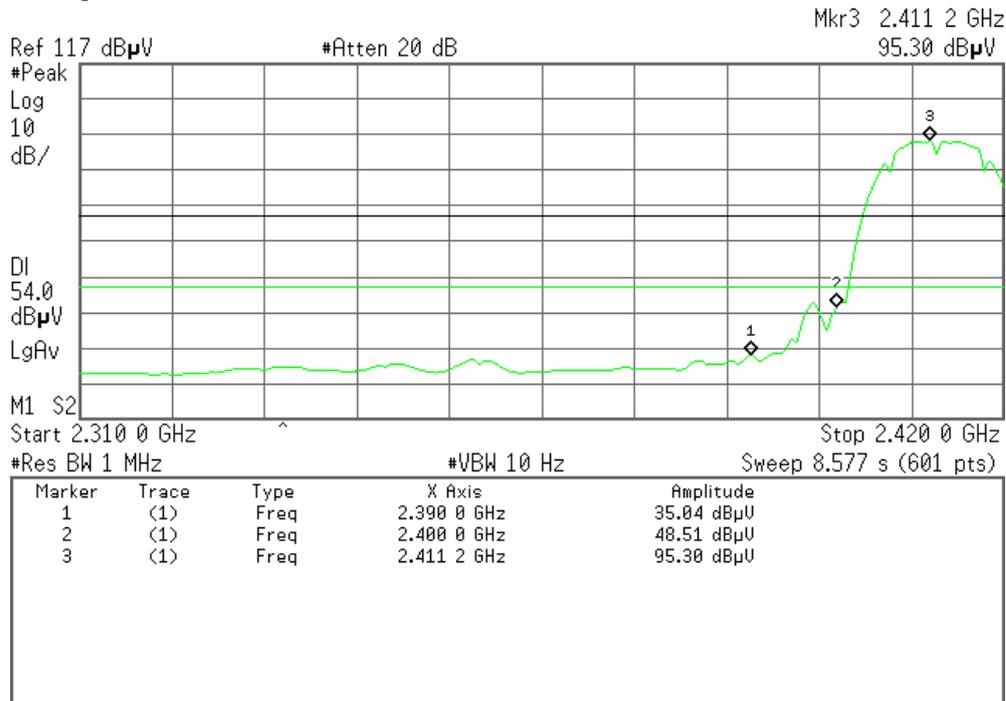


Detector mode: Average

Polarity: Vertical

Agilent 14:05:45 Sep 16, 2010

R T





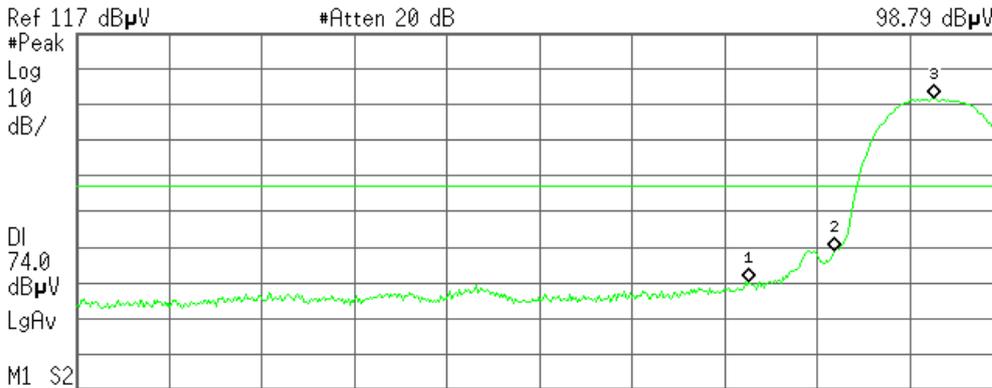
Detector mode: Peak

Polarity: Horizontal

Agilent 14:21:48 Sep 16, 2010

R T

Mkr3 2.411 9 GHz
98.79 dBμV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.390 0 GHz	47.20 dBμV
2	(1)	Freq	2.400 0 GHz	55.97 dBμV
3	(1)	Freq	2.411 9 GHz	98.79 dBμV

Detector mode: Average

Polarity: Horizontal

Agilent 14:22:55 Sep 16, 2010

R T

Mkr3 2.411 2 GHz
95.17 dBμV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.390 0 GHz	37.53 dBμV
2	(1)	Freq	2.400 0 GHz	49.30 dBμV
3	(1)	Freq	2.411 2 GHz	95.17 dBμV



Band Edges (CH High)

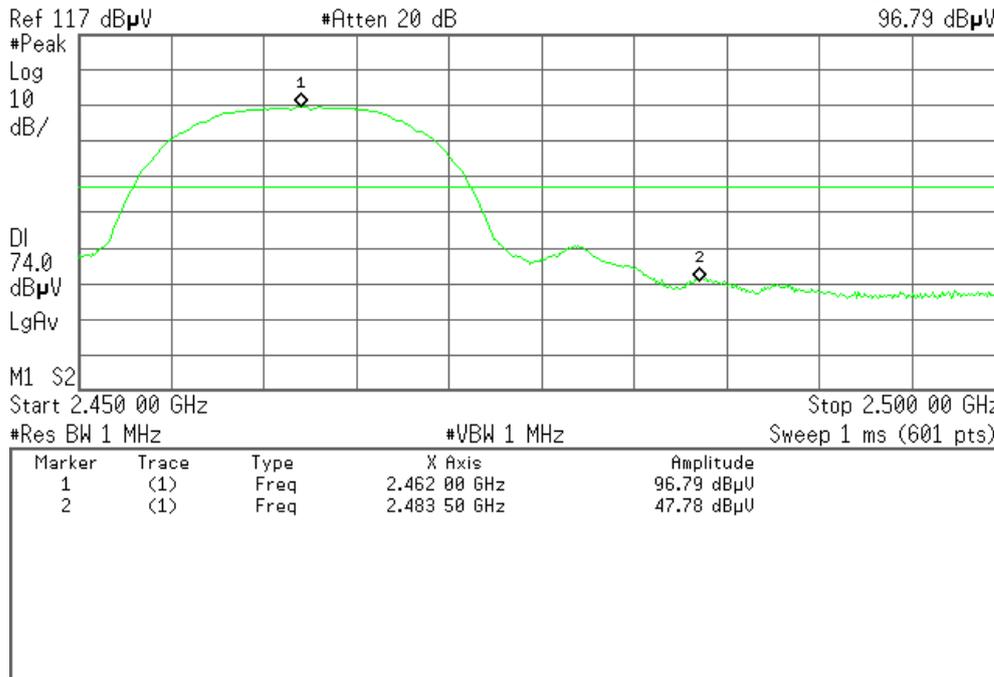
Detector mode: Peak

Polarity: Vertical

Agilent 16:26:28 Sep 16, 2010

R T

Mkr1 2.462 00 GHz
96.79 dBµV



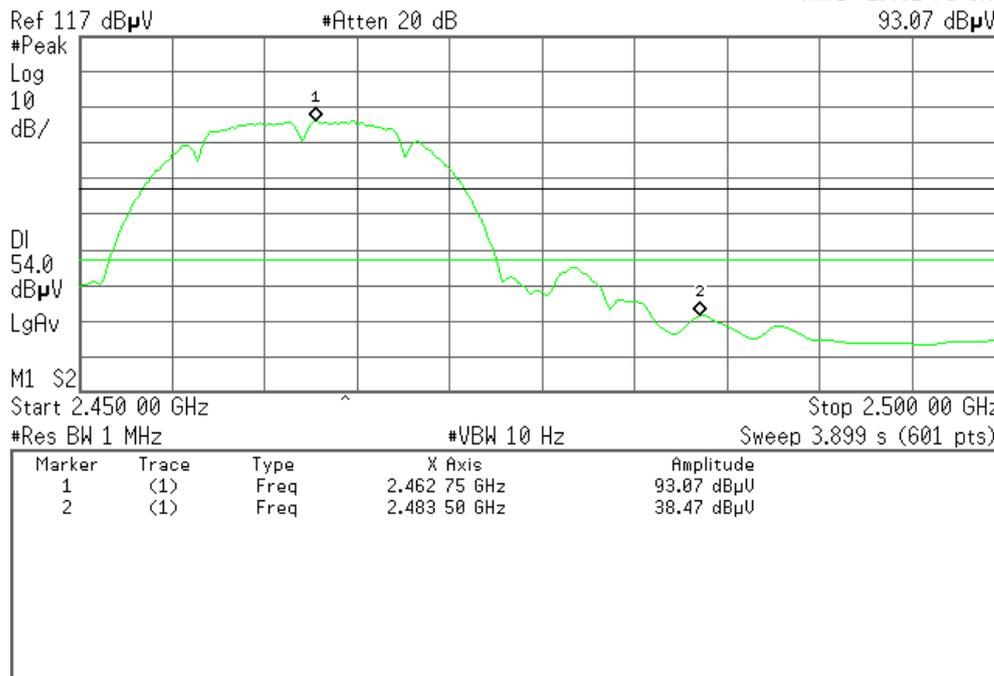
Detector mode: Average

Polarity: Vertical

Agilent 16:30:45 Sep 16, 2010

R T

Mkr1 2.462 75 GHz
93.07 dBµV





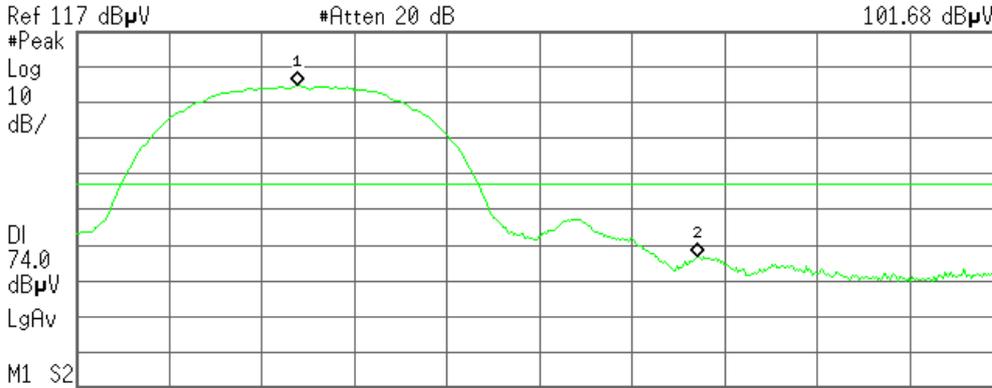
Detector mode: Peak

Polarity: Horizontal

Agilent 14:29:47 Sep 16, 2010

R T

Mkr1 2.461 92 GHz
101.68 dBµV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.461 92 GHz	101.68 dBµV
2	(1)	Freq	2.483 50 GHz	53.63 dBµV

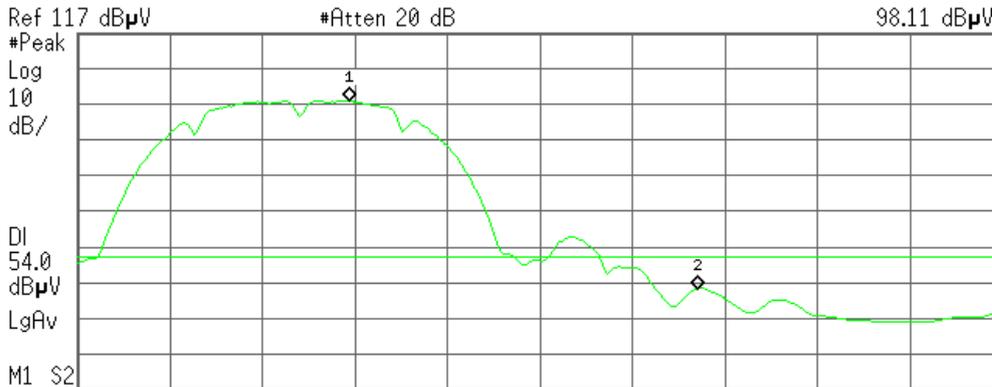
Detector mode: Average

Polarity: Horizontal

Agilent 14:30:54 Sep 16, 2010

R T

Mkr1 2.464 67 GHz
98.11 dBµV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.464 67 GHz	98.11 dBµV
2	(1)	Freq	2.483 50 GHz	45.29 dBµV



(IEEE 802.11g mode)

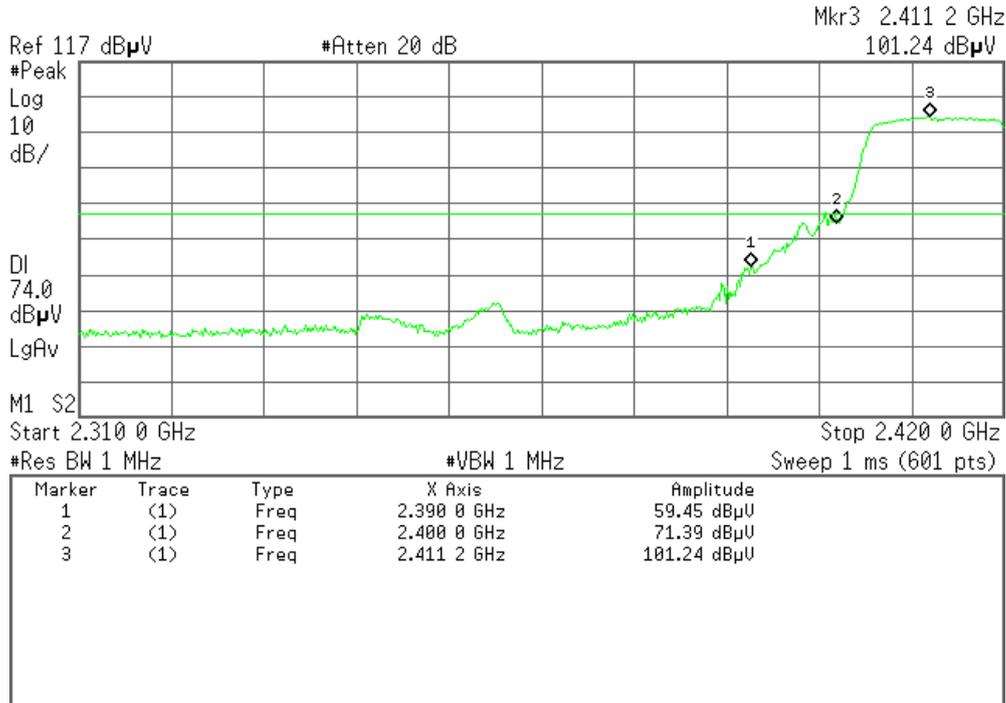
Band Edges (CH Low)

Detector mode: Peak

Polarity: Vertical

Agilent 14:01:48 Sep 16, 2010

R T

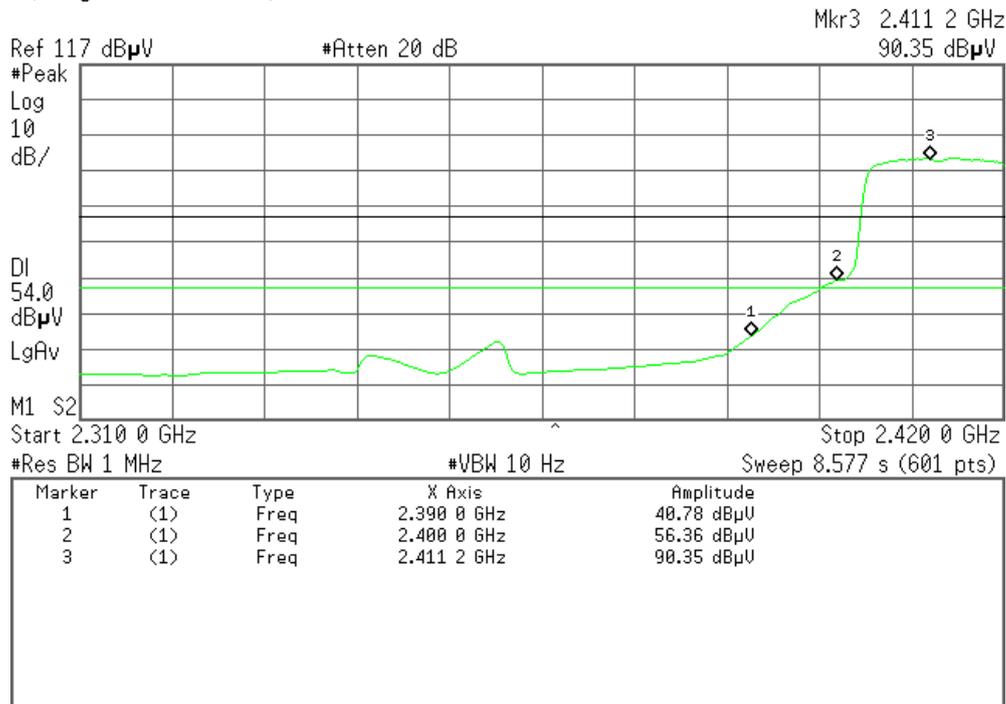


Detector mode: Average

Polarity: Vertical

Agilent 14:03:08 Sep 16, 2010

R T



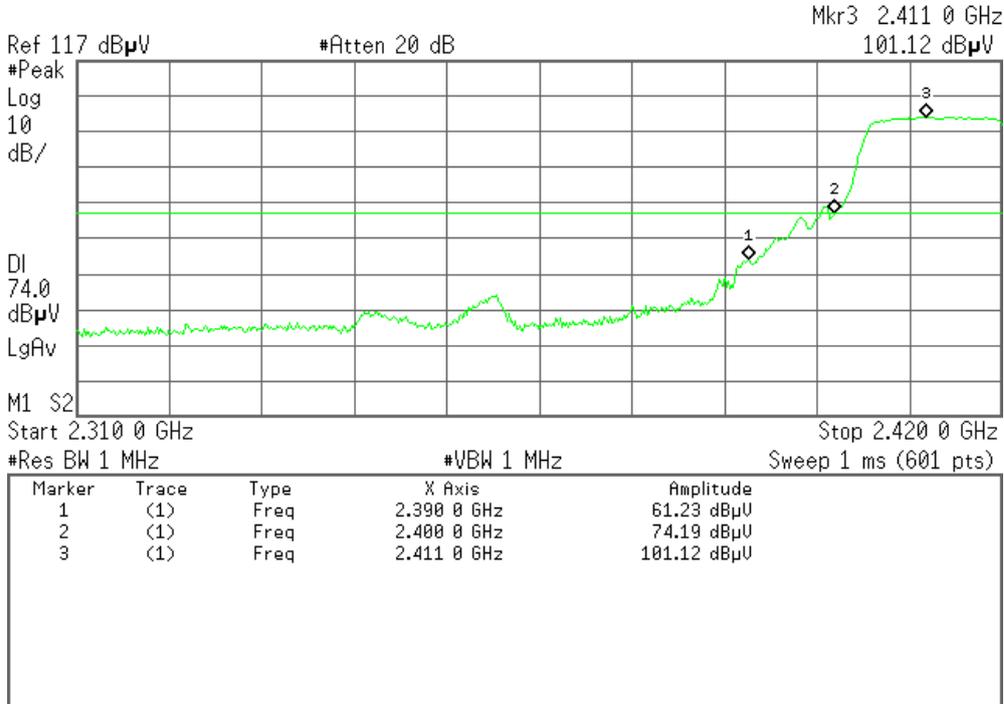


Detector mode: Peak

Polarity: Horizontal

Agilent 14:19:24 Sep 16, 2010

R T

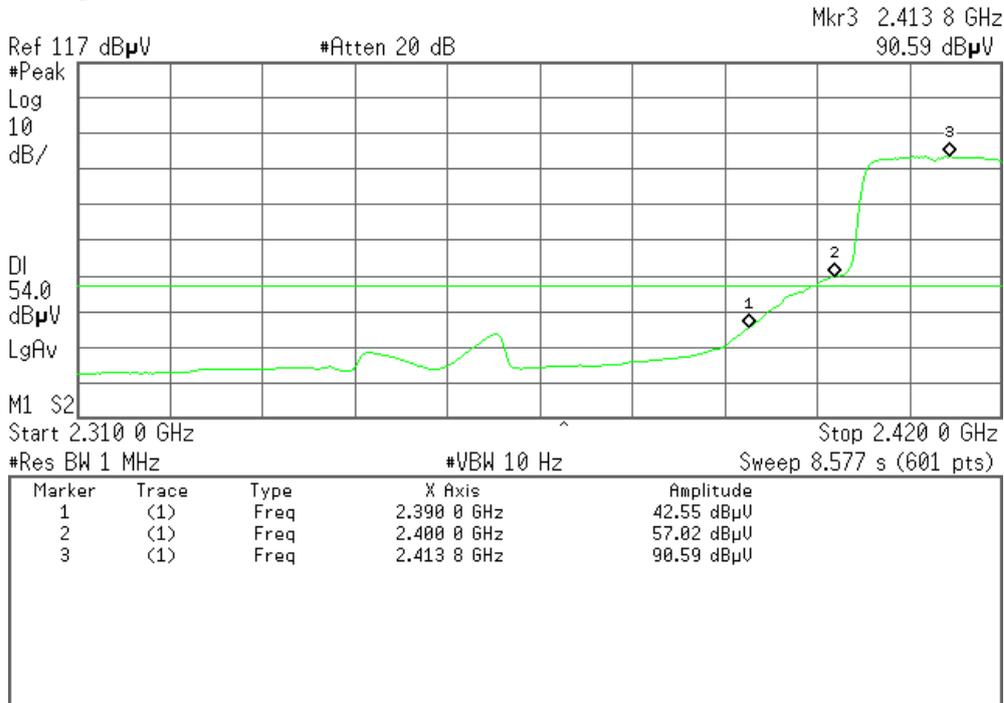


Detector mode: Average

Polarity: Horizontal

Agilent 14:20:32 Sep 16, 2010

R T





Band Edges (CH High)

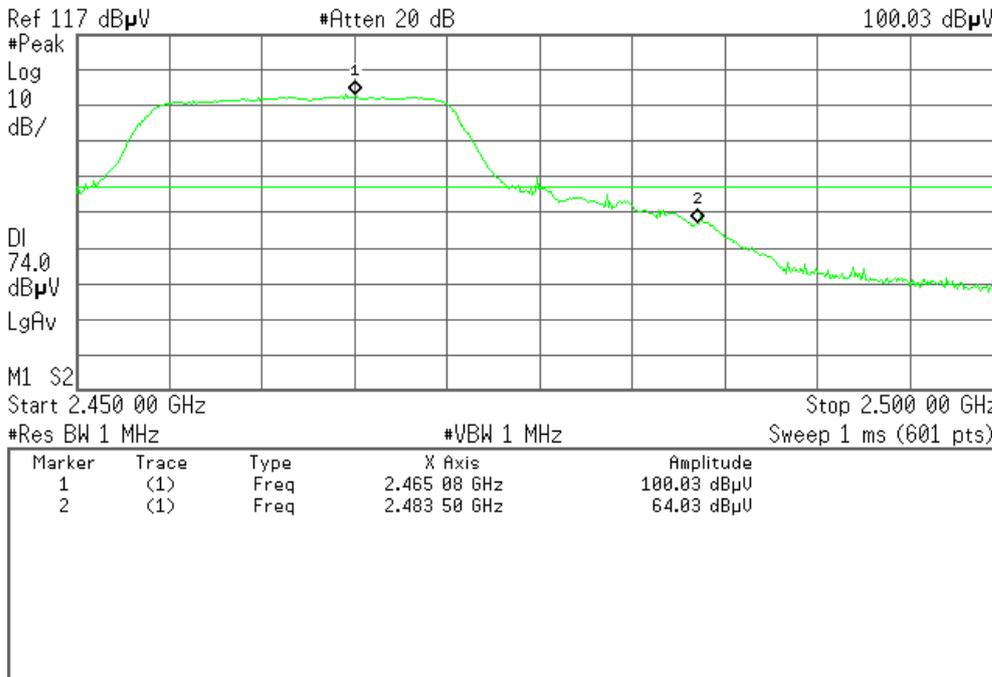
Detector mode: Peak

Polarity: Vertical

Agilent 16:32:32 Sep 16, 2010

R T

Mkr1 2.465 08 GHz
100.03 dBμV



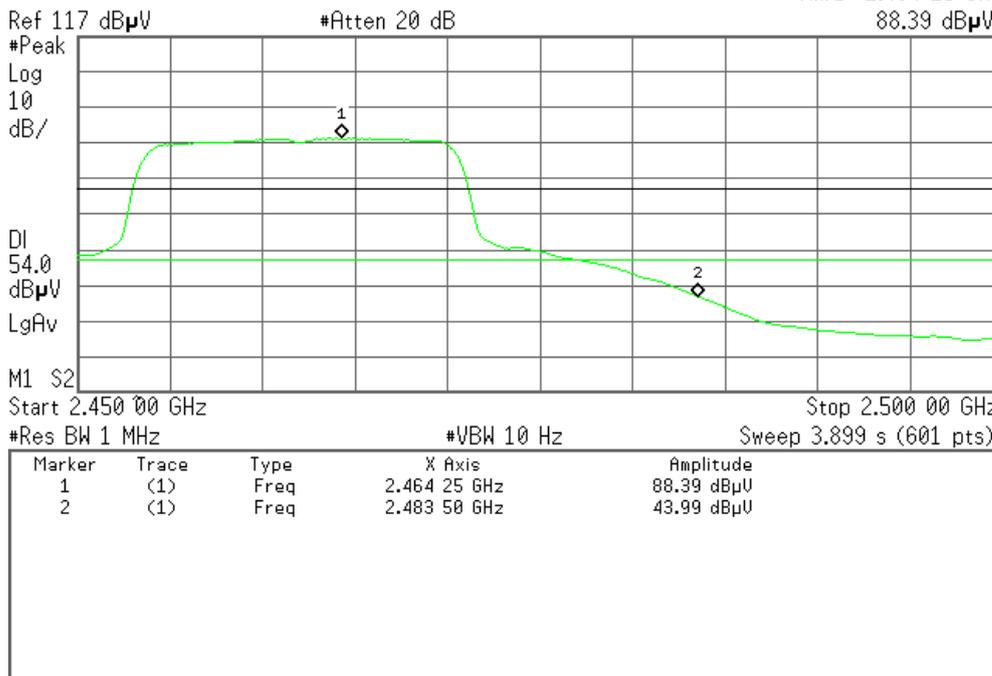
Detector mode: Average

Polarity: Vertical

Agilent 16:31:51 Sep 16, 2010

R T

Mkr1 2.464 25 GHz
88.39 dBμV





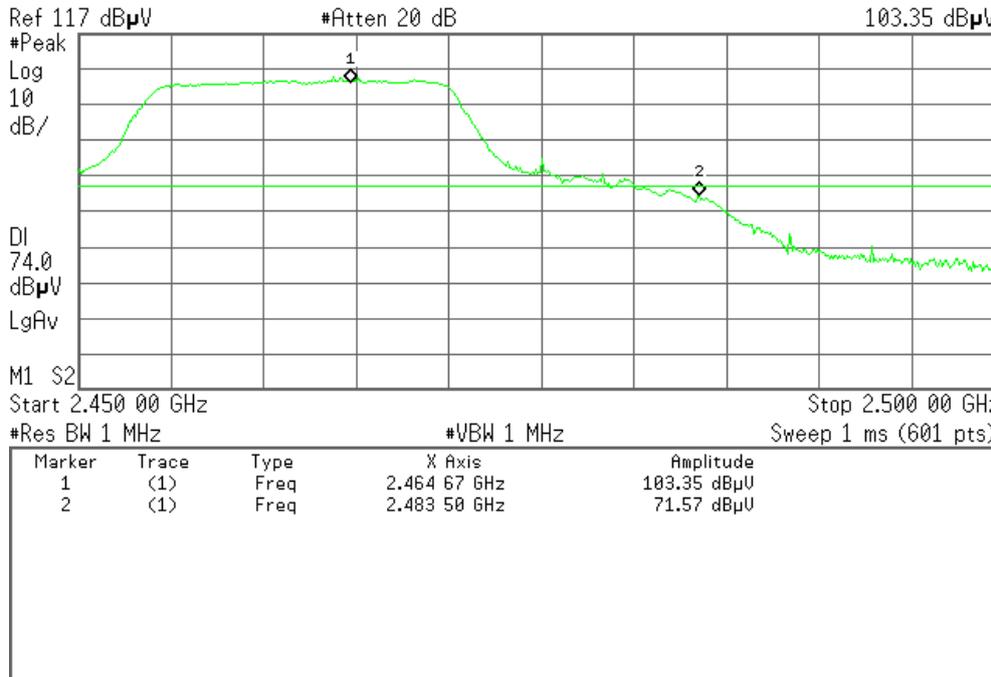
Detector mode: Peak

Polarity: Horizontal

Agilent 14:34:03 Sep 16, 2010

R T

Mkr1 2.464 67 GHz
103.35 dBμV



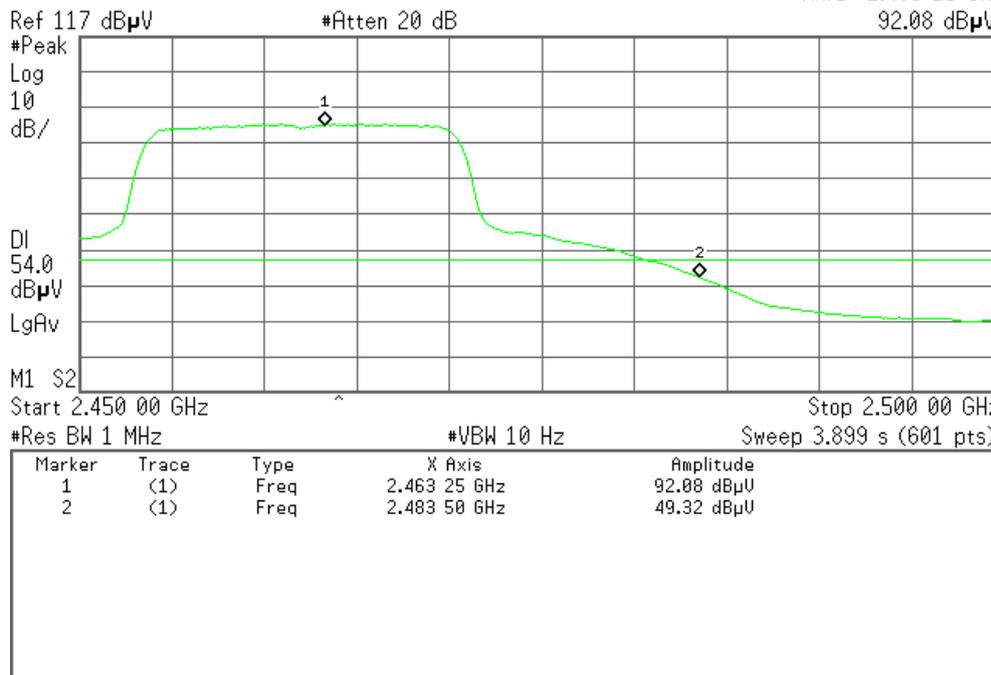
Detector mode: Average

Polarity: Horizontal

Agilent 14:36:05 Sep 16, 2010

R T

Mkr1 2.463 25 GHz
92.08 dBμV





(IEEE 802.11n HT20 MHz mode)

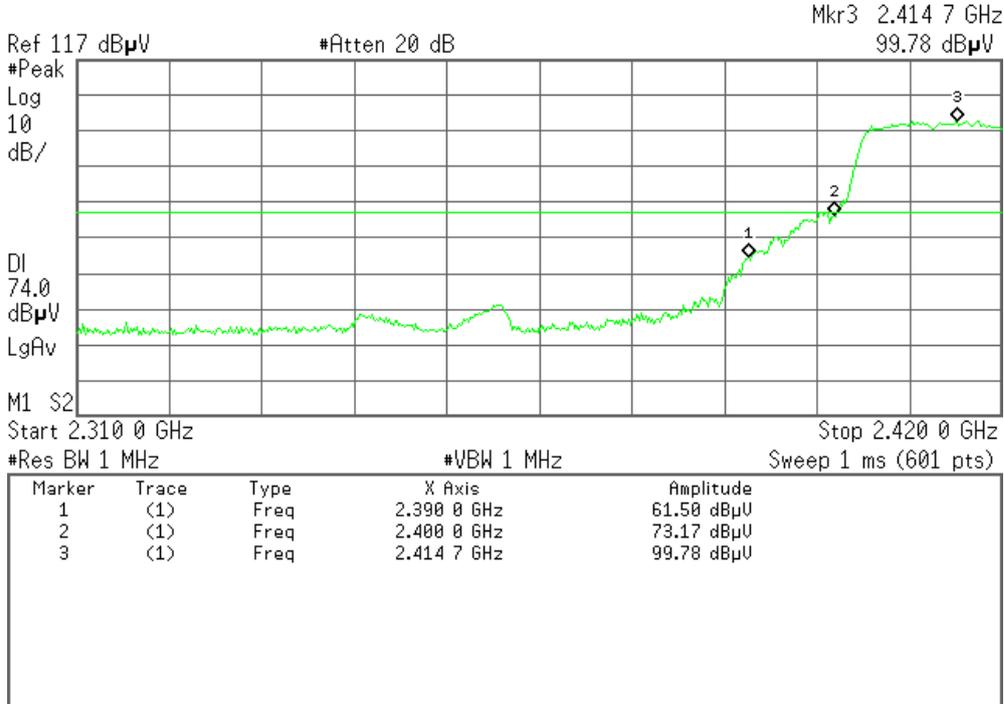
Band Edges (CH Low)

Detector mode: Peak

Polarity: Vertical

Agilent 14:08:56 Sep 16, 2010

R T

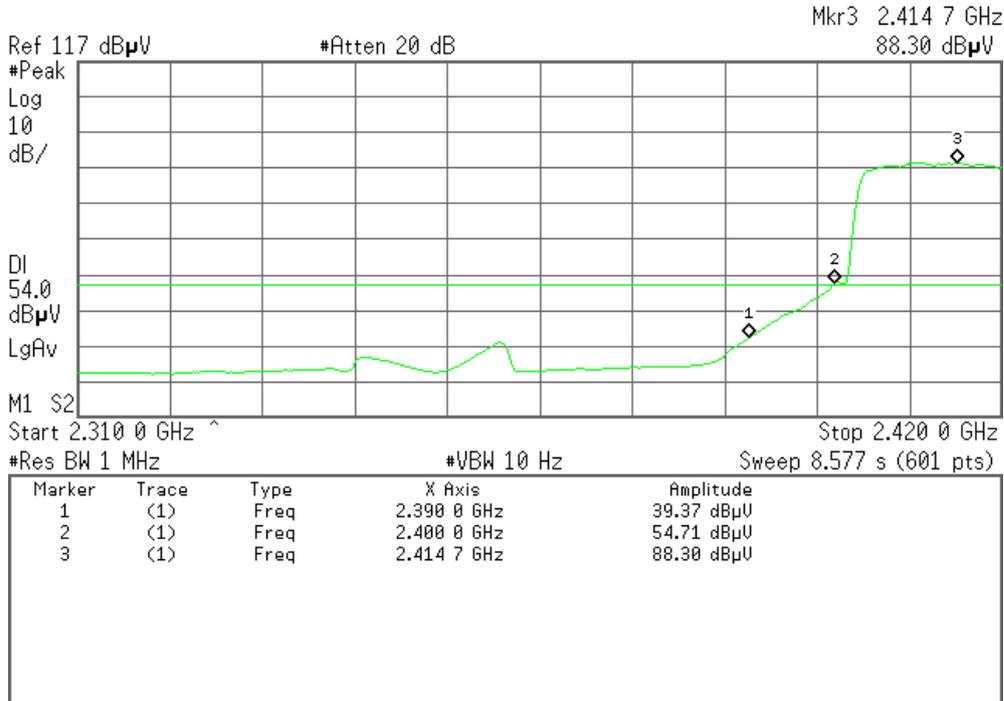


Detector mode: Average

Polarity: Vertical

Agilent 14:09:51 Sep 16, 2010

R T





Detector mode: Peak

Polarity: Horizontal

Agilent 14:15:20 Sep 16, 2010

R T

Mkr3 2.414 7 GHz
99.98 dBµV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.390 0 GHz	64.01 dBµV
2	(1)	Freq	2.400 0 GHz	74.97 dBµV
3	(1)	Freq	2.414 7 GHz	99.98 dBµV

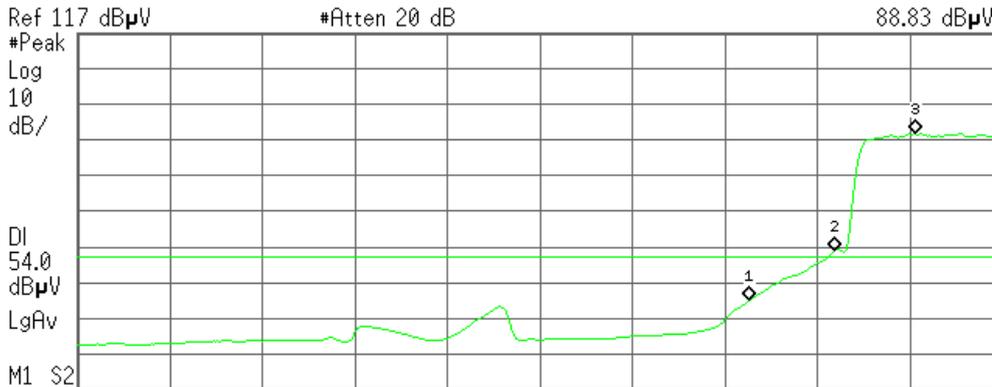
Detector mode: Average

Polarity: Horizontal

Agilent 14:17:43 Sep 16, 2010

R T

Mkr3 2.409 7 GHz
88.83 dBµV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.390 0 GHz	41.95 dBµV
2	(1)	Freq	2.400 0 GHz	56.03 dBµV
3	(1)	Freq	2.409 7 GHz	88.83 dBµV



Band Edges (CH High)

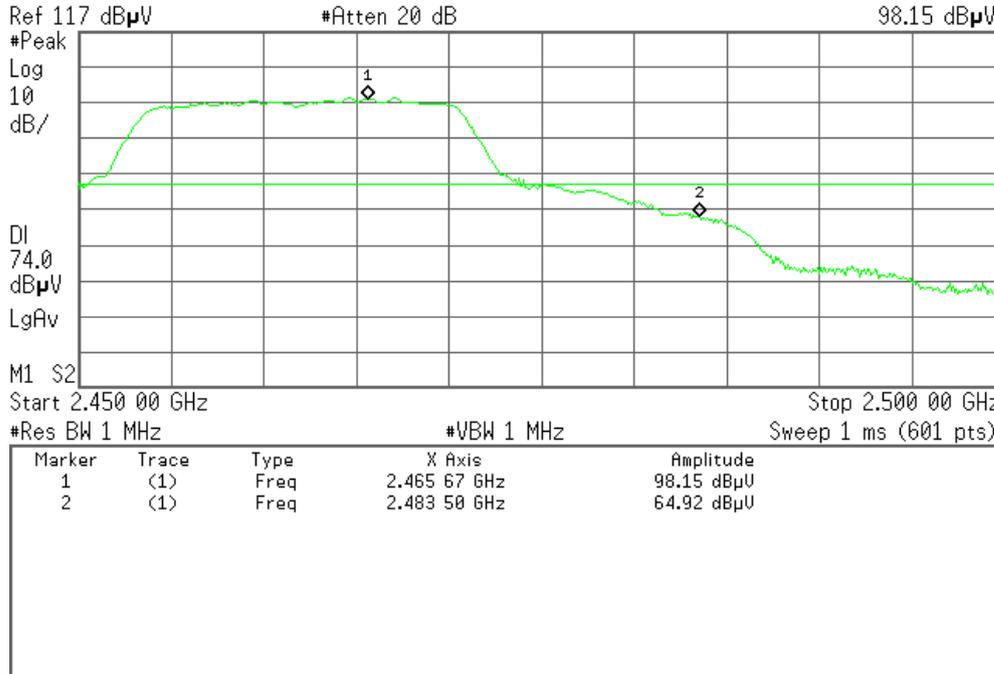
Detector mode: Peak

Polarity: Vertical

* Agilent 16:33:22 Sep 16, 2010

R T

Mkr1 2.465 67 GHz
98.15 dBμV



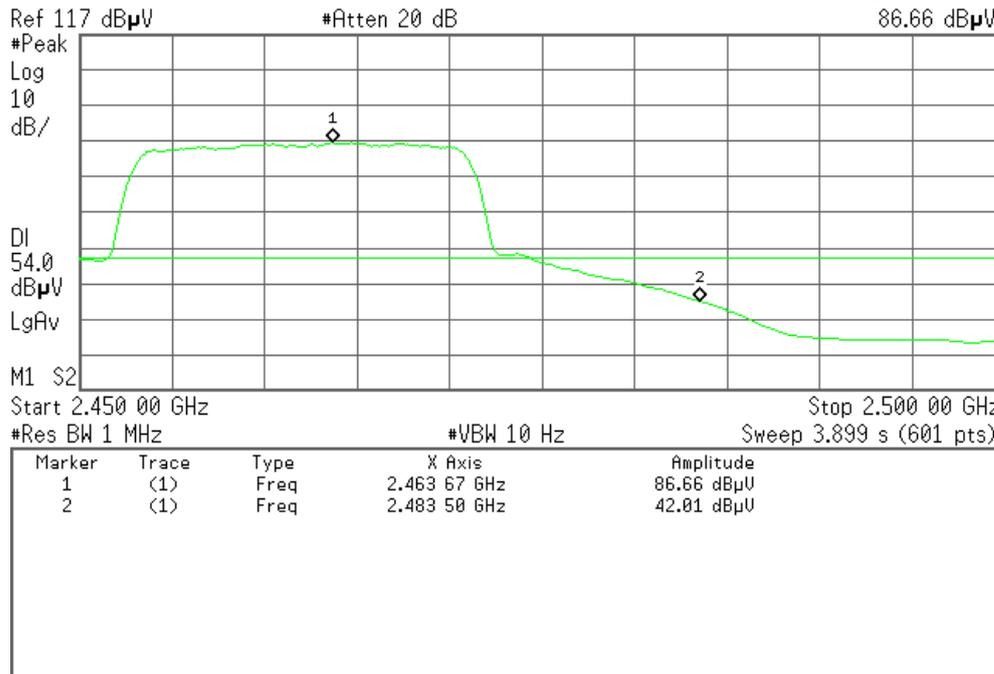
Detector mode: Average

Polarity: Vertical

* Agilent 16:34:24 Sep 16, 2010

R T

Mkr1 2.463 67 GHz
86.66 dBμV





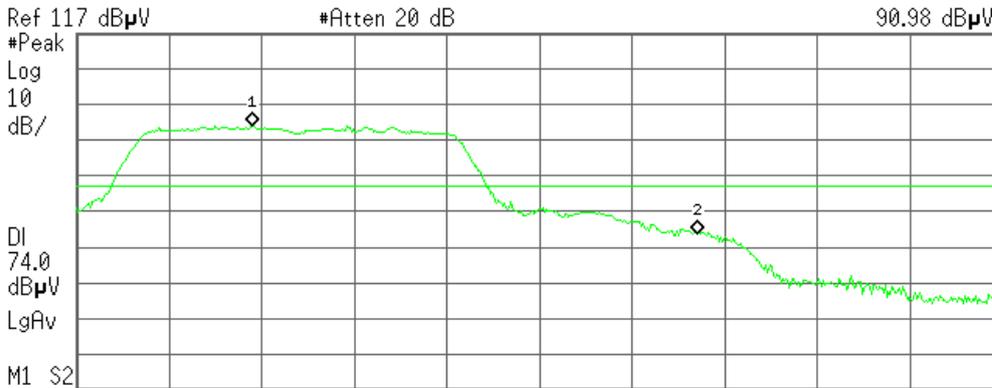
Detector mode: Peak

Polarity: Horizontal

Agilent 15:01:24 Sep 16, 2010

R T

Mkr1 2.459 50 GHz
90.98 dBµV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.459 50 GHz	90.98 dBµV
2	(1)	Freq	2.483 50 GHz	60.76 dBµV

Detector mode: Average

Polarity: Horizontal

Agilent 14:39:20 Sep 16, 2010

R T

Mkr1 2.463 25 GHz
92.08 dBµV



Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.463 25 GHz	92.08 dBµV
2	(1)	Freq	2.483 50 GHz	49.32 dBµV



(IEEE 802.11n HT40 MHz mode)

Band Edges (CH Low)

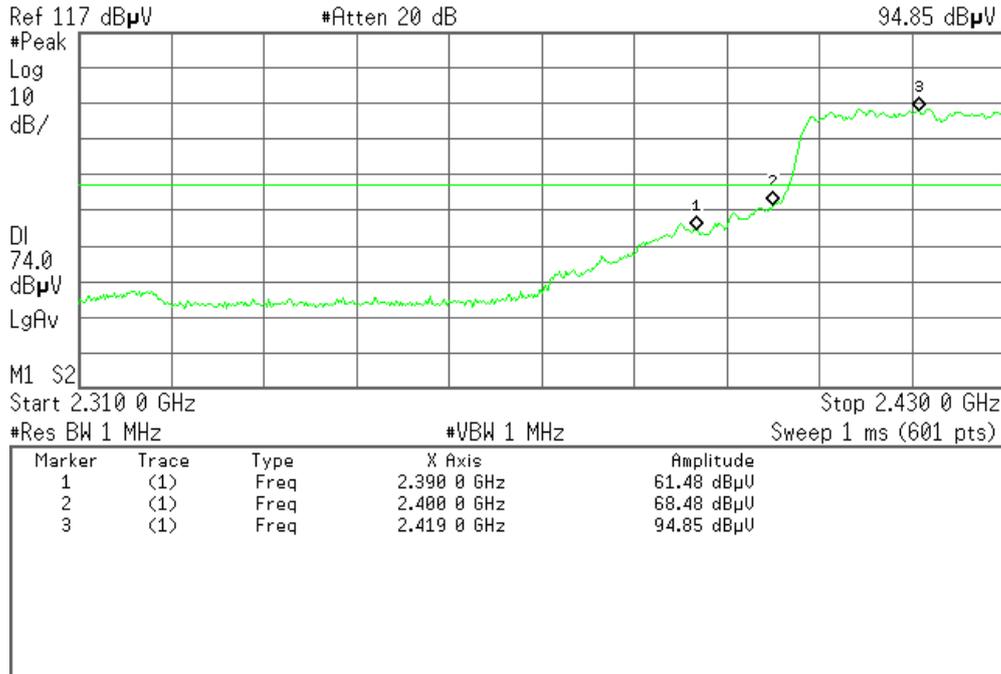
Detector mode: Peak

Polarity: Vertical

Agilent 16:47:06 Sep 16, 2010

R T

Mkr3 2.419 0 GHz
94.85 dBμV



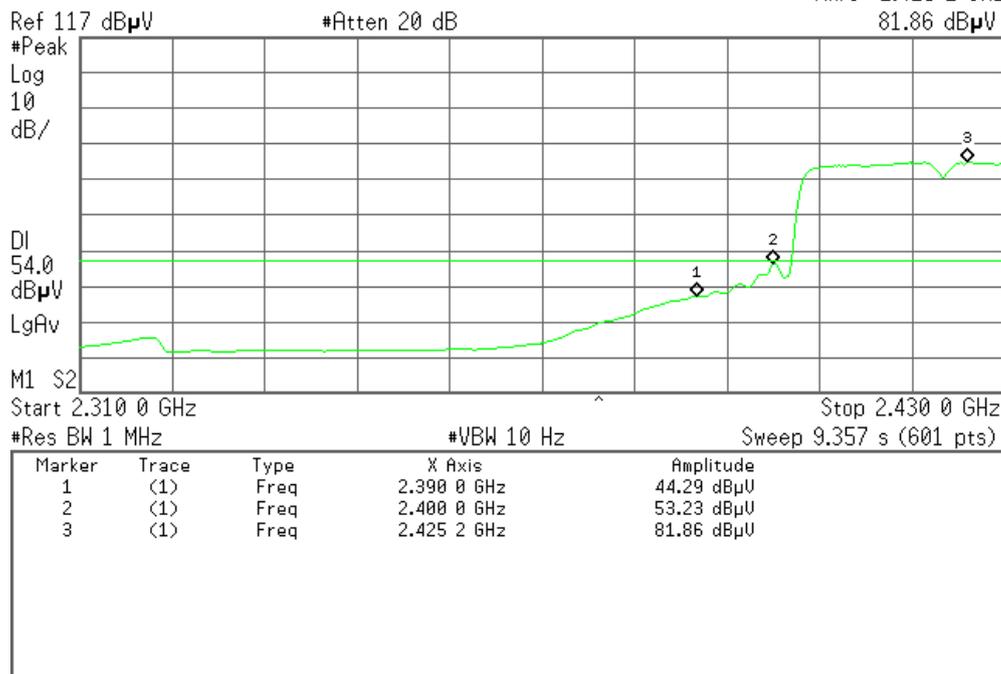
Detector mode: Average

Polarity: Vertical

Agilent 16:47:56 Sep 16, 2010

R T

Mkr3 2.425 2 GHz
81.86 dBμV





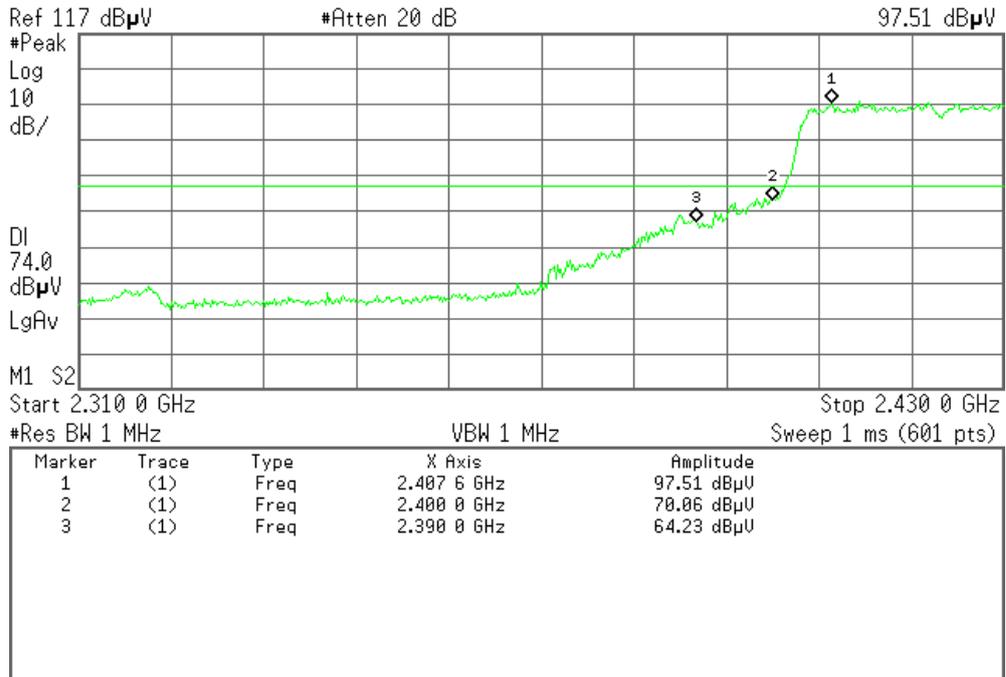
Detector mode: Peak

Polarity: Horizontal

Agilent 16:55:46 Sep 16, 2010

R T

Mkr1 2.407 6 GHz
97.51 dBµV



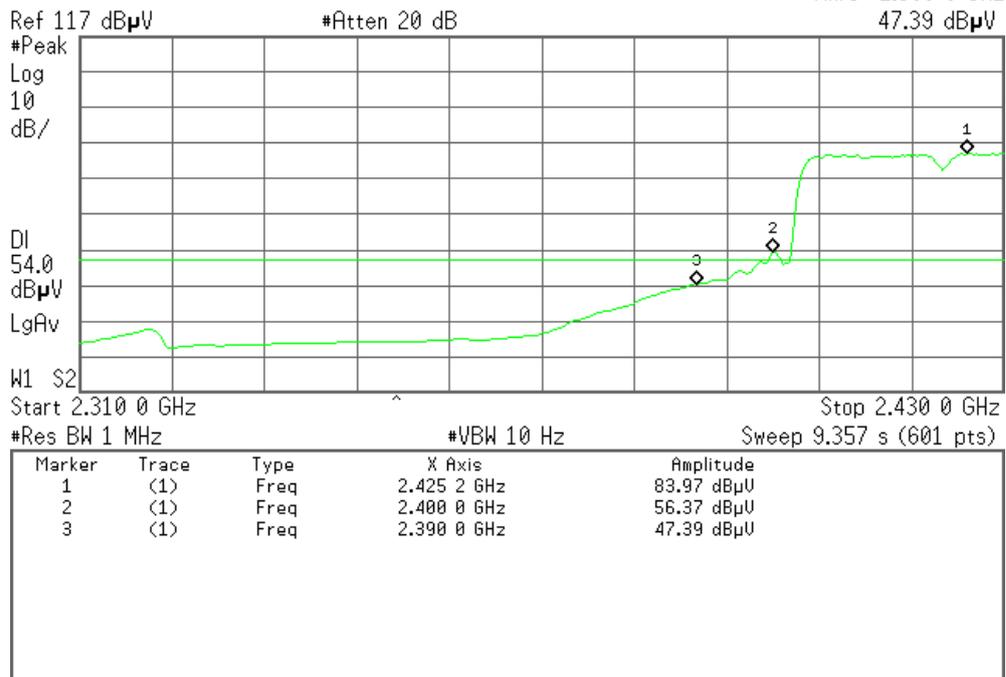
Detector mode: Average

Polarity: Horizontal

Agilent 16:55:21 Sep 16, 2010

R T

Mkr3 2.390 0 GHz
47.39 dBµV





Band Edges (CH High)

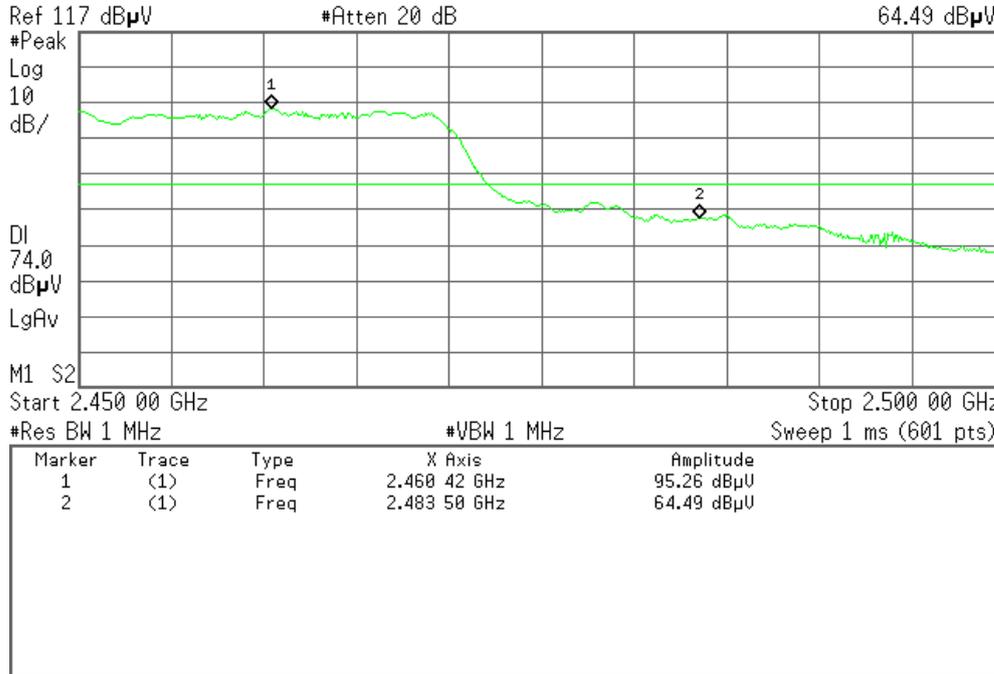
Detector mode: Peak

Polarity: Vertical

Agilent 16:49:37 Sep 16, 2010

R T

Mkr2 2.483 50 GHz
64.49 dBμV



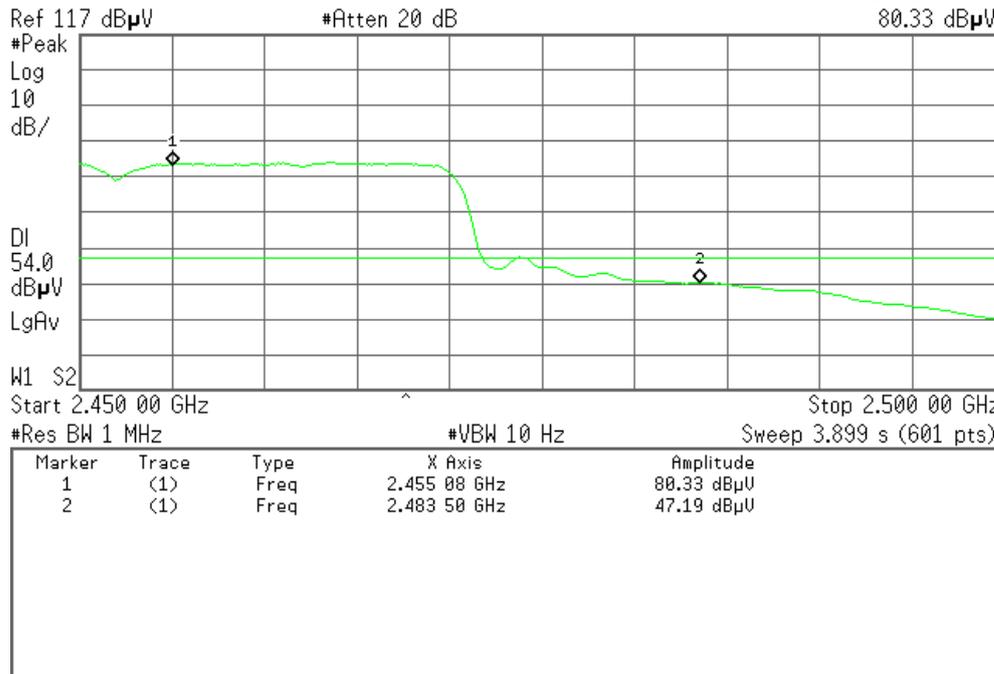
Detector mode: Average

Polarity: Vertical

Agilent 16:50:05 Sep 16, 2010

R T

Mkr1 2.455 08 GHz
80.33 dBμV





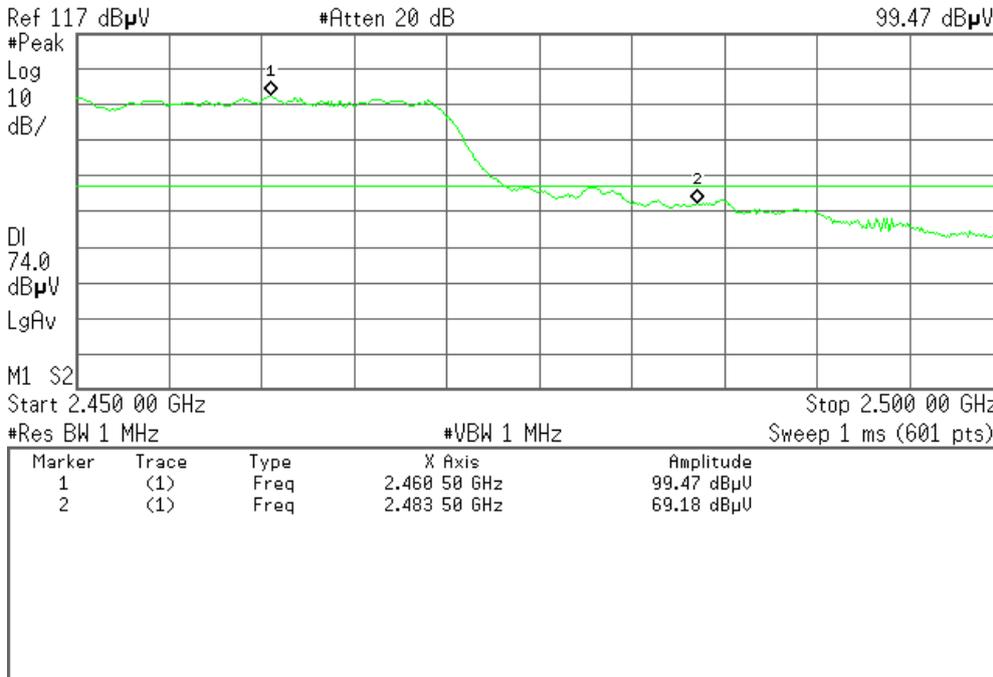
Detector mode: Peak

Polarity: Horizontal

Agilent 16:52:20 Sep 16, 2010

R T

Mkr1 2.460 50 GHz
99.47 dBμV



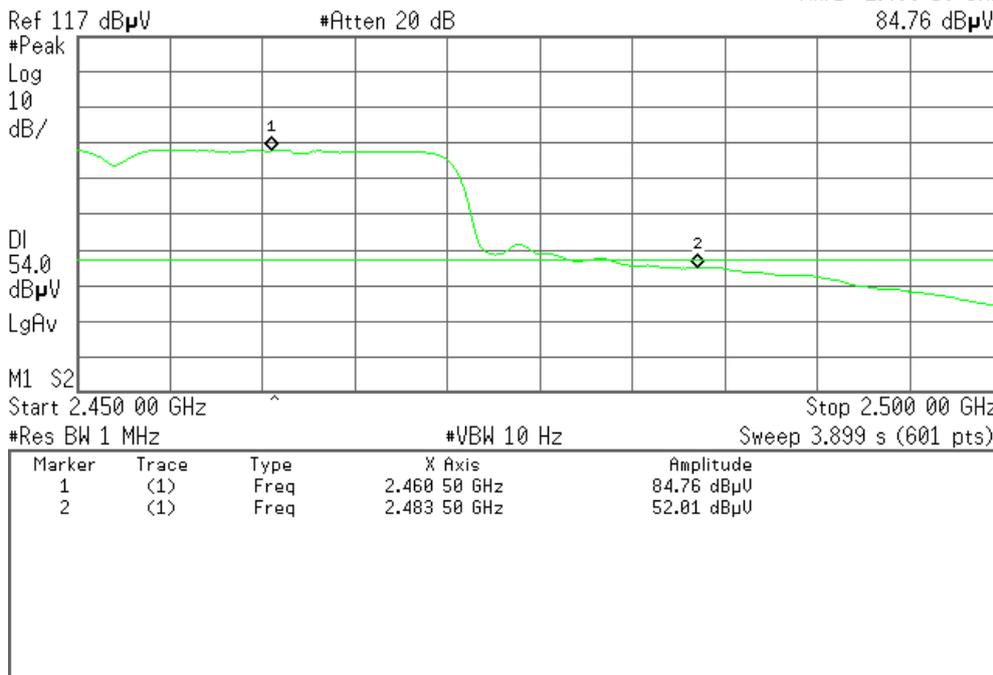
Detector mode: Average

Polarity: Horizontal

Agilent 16:53:45 Sep 16, 2010

R T

Mkr1 2.460 50 GHz
84.76 dBμV





7.6. PEAK POWER SPECTRAL DENSITY MEASUREMENT

7.6.1. LIMITS

According to §15.247(e), for digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

According to §15.247(f), the digital modulation operation of the hybrid system, with the frequency hopping turned off, shall comply with the power density requirements of paragraph (d) of this section.

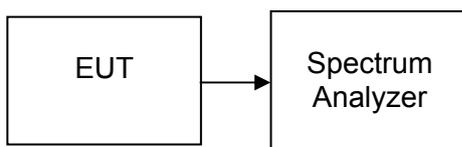
7.6.2. TEST INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Last Calibration	Calibration Due
Spectrum Analyzer	Agilent	E4446A	US44300399	03/21/2010	03/21/2011

7.6.3. TEST PROCEDURES (please refer to measurement standard)

1. Place the EUT on the table and set it in transmitting mode.
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 500kHz, Sweep=100s
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

7.6.4. TEST SETUP





7.6.5. TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-10.88	8.00	PASS
Mid	2437	-10.93		PASS
High	2462	-10.27		PASS

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-12.83	8.00	PASS
Mid	2437	-13.95		PASS
High	2462	-12.20		PASS

Test mode: IEEE 802.11n HT20 MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2412	-14.62	8.00	PASS
Mid	2437	-14.19		PASS
High	2462	-14.01		PASS

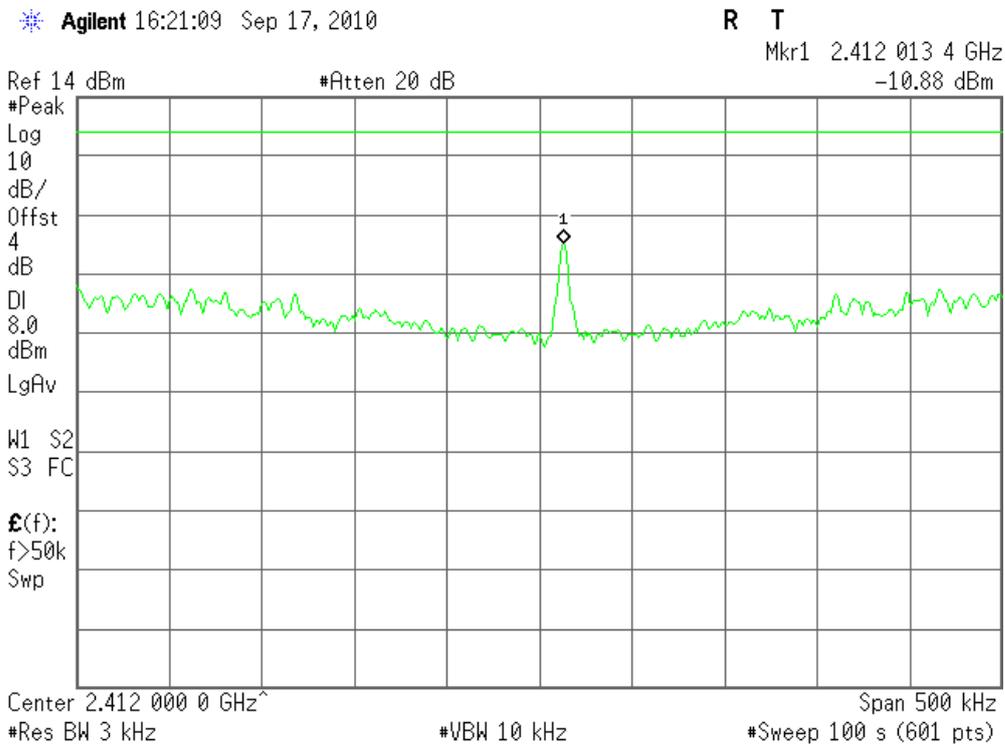
Test mode: IEEE 802.11n HT40 MHz

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Test Result
Low	2422	-15.16	8.00	PASS
Mid	2437	-15.55		PASS
High	2452	-15.25		PASS

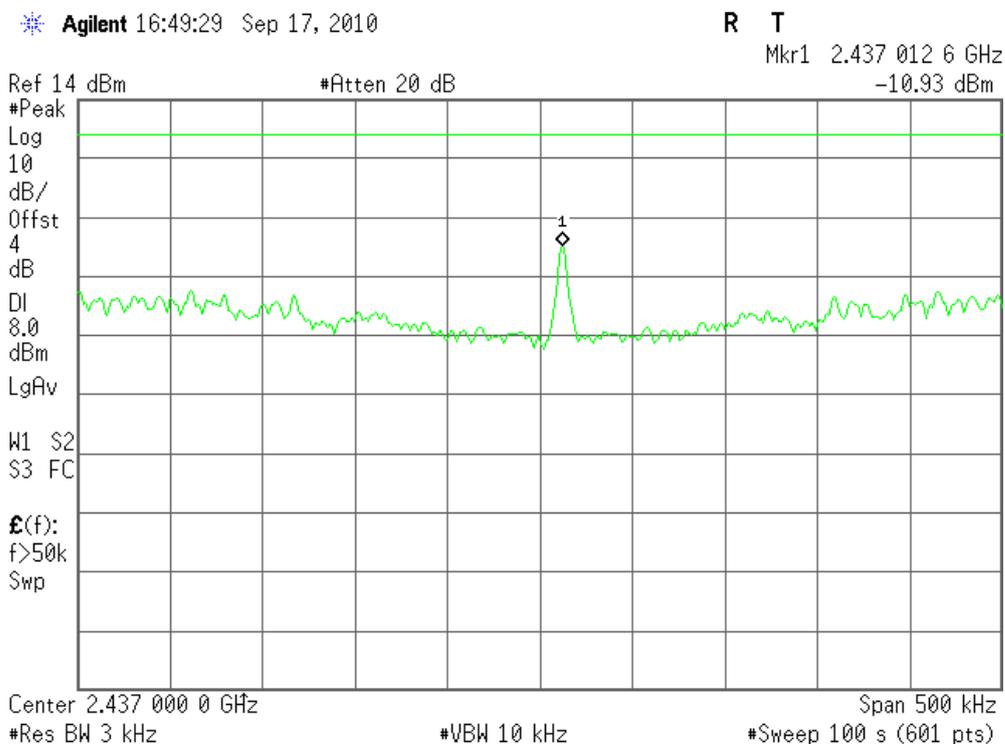


Test Plot (IEEE 802.11b mode)

PPSD (CH Low)

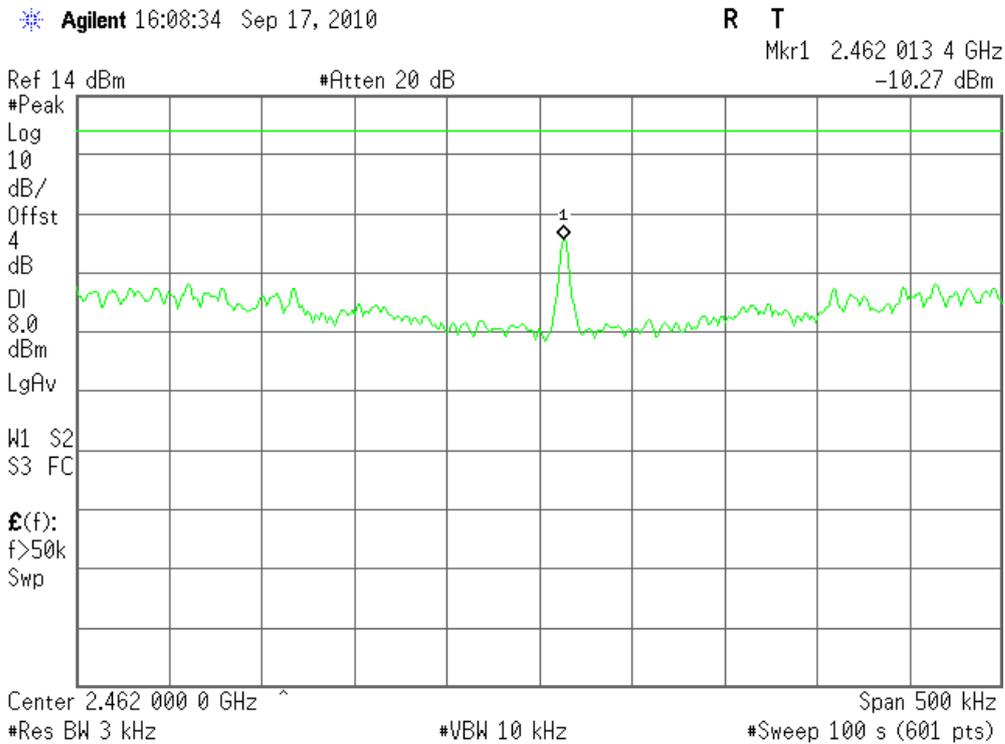


PPSD (CH Mid)



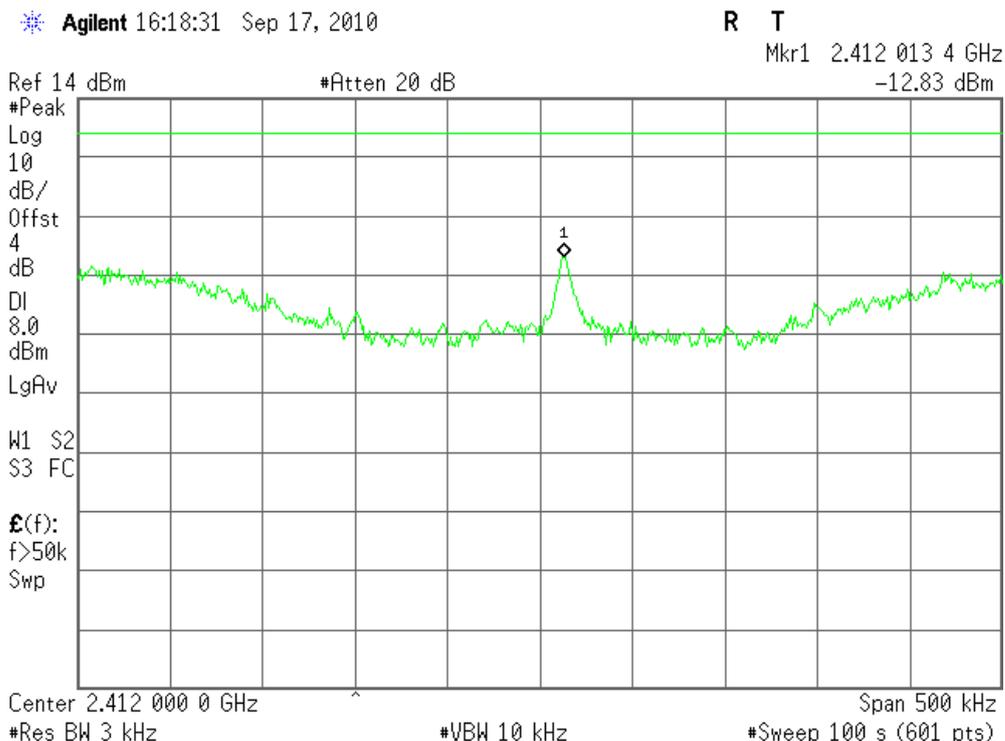


PPSD (CH High)



(IEEE 802.11g mode)

PPSD (CH Low)



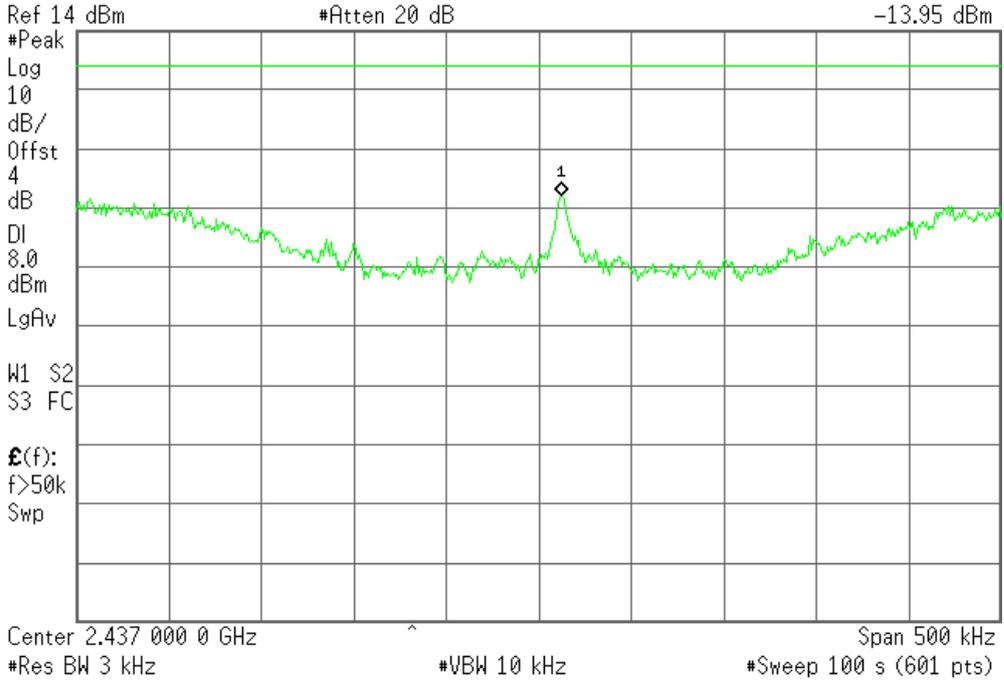


PPSD (CH Mid)

Agilent 16:47:03 Sep 17, 2010

R T

Mkr1 2.437 012 6 GHz
-13.95 dBm

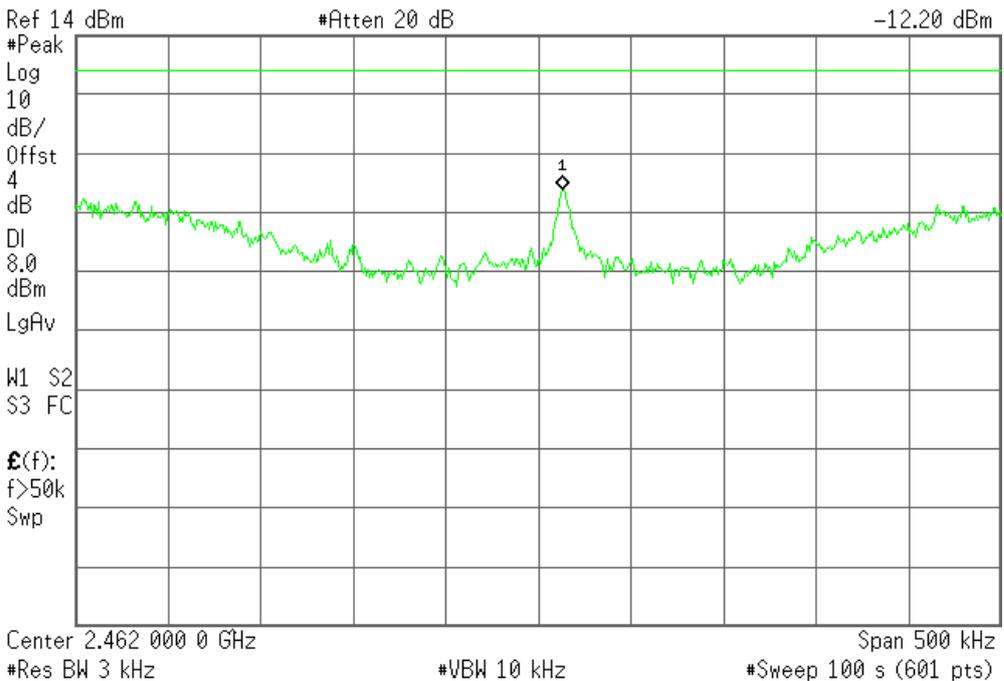


PPSD (CH High)

Agilent 16:06:03 Sep 17, 2010

R T

Mkr1 2.462 013 4 GHz
-12.20 dBm



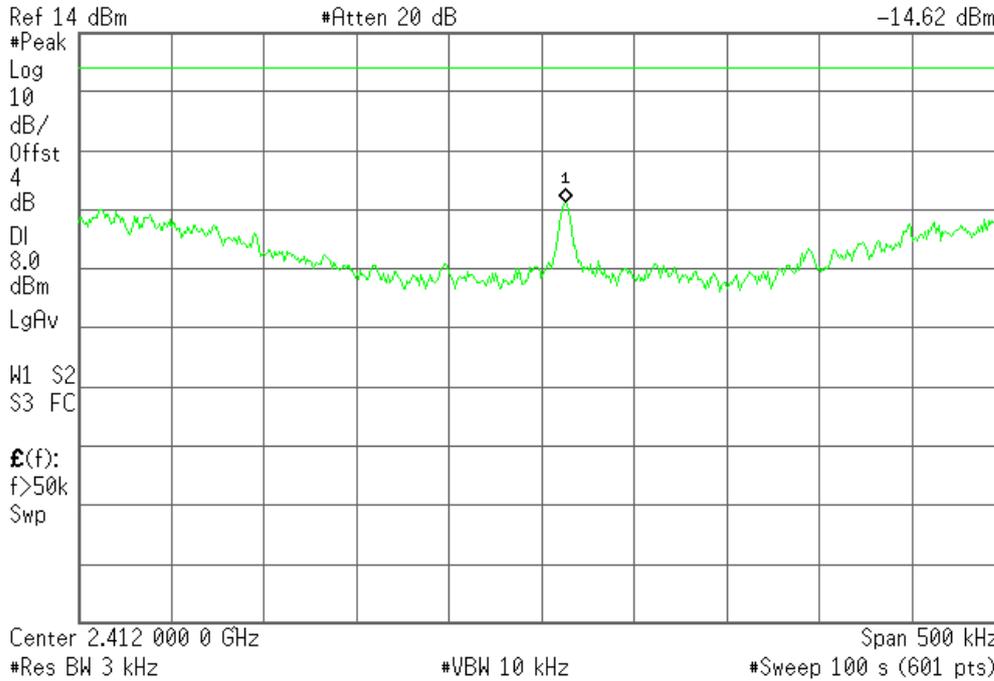


(IEEE 802.11n HT20 MHz mode)

PPSD (CH Low)

Agilent 16:00:42 Sep 17, 2010

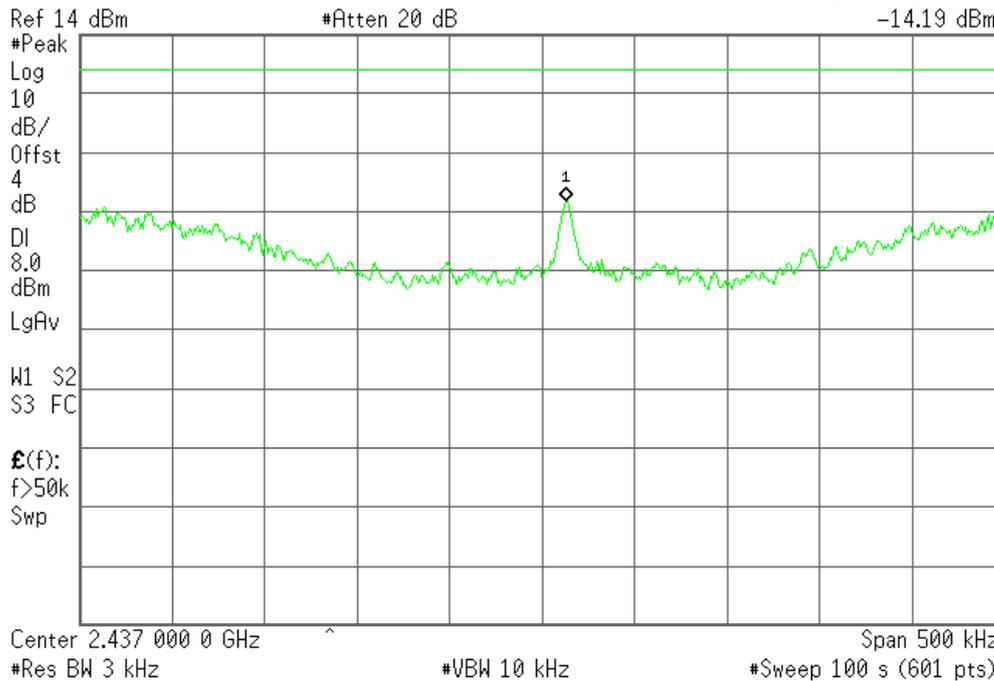
R T
Mkr1 2.412 013 4 GHz
-14.62 dBm



PPSD (CH Mid)

Agilent 15:57:22 Sep 17, 2010

R T
Mkr1 2.437 013 4 GHz
-14.19 dBm

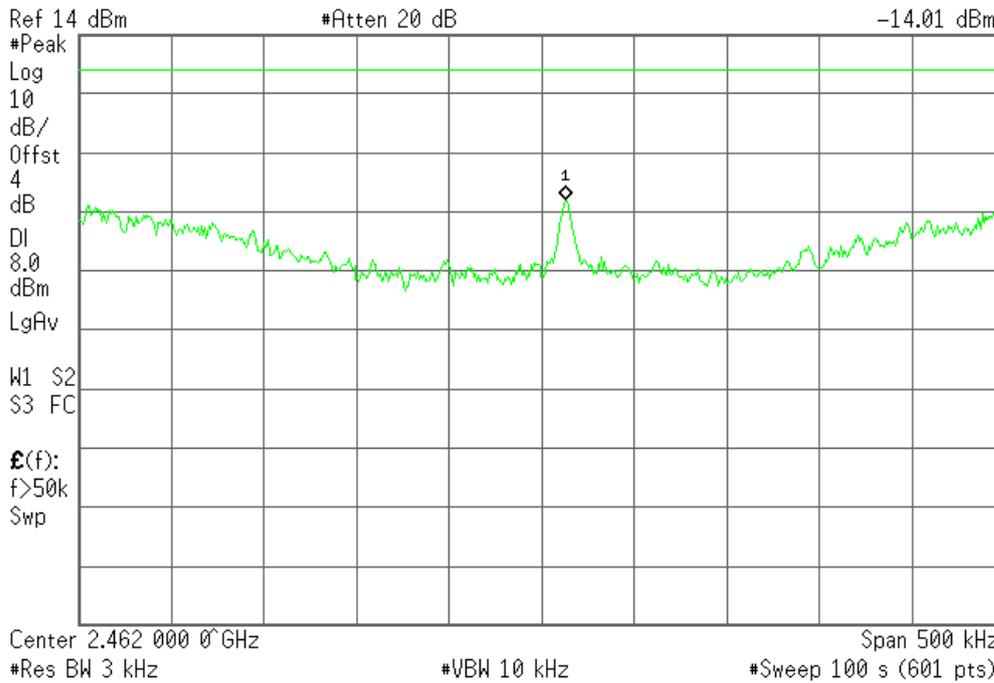




PPSD (CH High)

Agilent 16:03:16 Sep 17, 2010

R T
Mkr1 2.462 013 4 GHz
-14.01 dBm

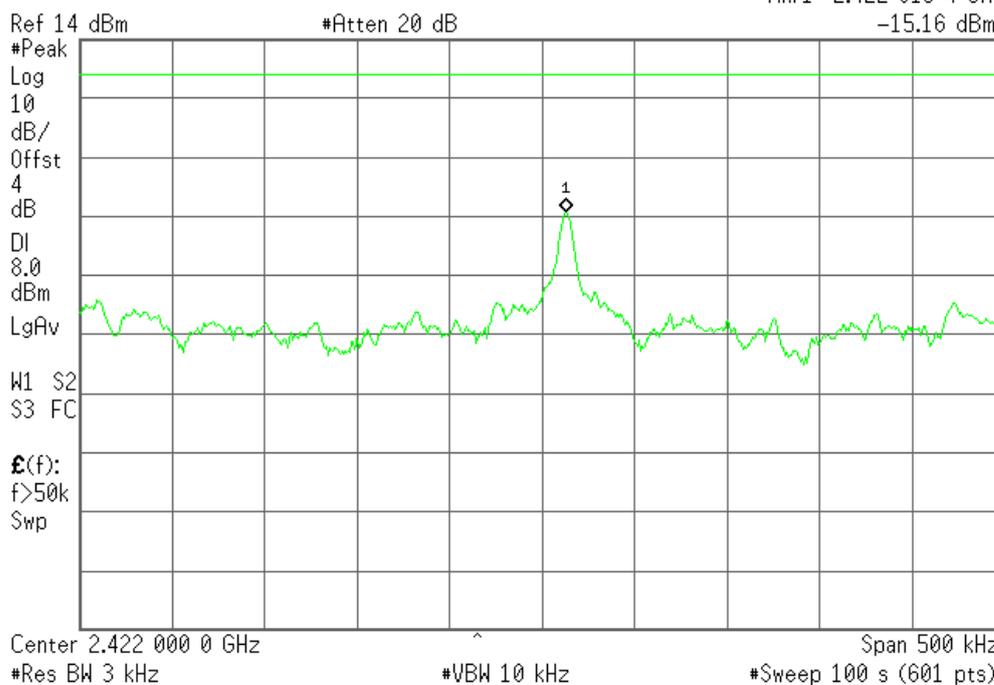


(IEEE 802.11n HT40 MHz mode)

PPSD (CH Low)

Agilent 16:25:49 Sep 17, 2010

R T
Mkr1 2.422 013 4 GHz
-15.16 dBm





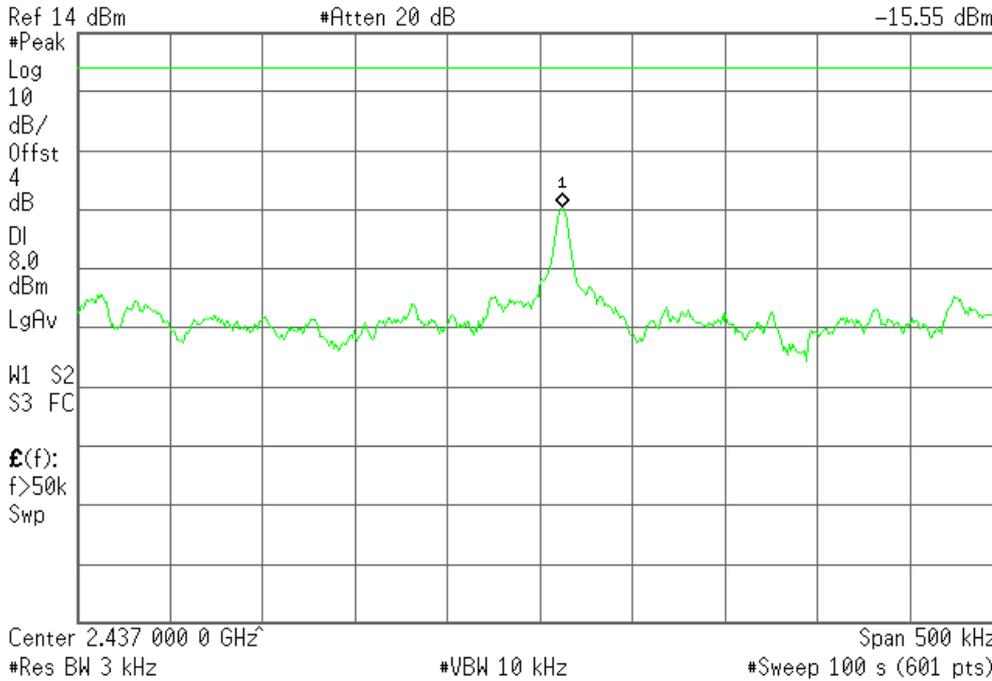
PPSD (CH Mid)

Agilent 16:43:44 Sep 17, 2010

R T

Mkr1 2.437 012 6 GHz

-15.55 dBm



PPSD (CH High)

Agilent 16:40:32 Sep 17, 2010

R T

Mkr1 2.452 012 6 GHz

-15.25 dBm

