FCC 47 CFR PART 15 SUBPART C AND ANSI C63.4 : 2003

TEST REPORT(Class II Permissive Change Report)

For

Wireless Mini-PCI

Model : WMP-N07

Trade Name : DrayTek

Issued for

Alpha Networks Inc.

No. 8, Li-shing Road VII, Science-based Industrial Park,

Hsinchu, Taiwan R.O.C.

Issued by

Compliance Certification Services Inc.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	03/26/2009	Initial Issue	All Page 49	Jeter Wu

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1. TEST REPORT CERTIFICATION

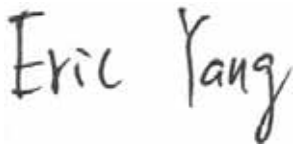
Applicant	：Alpha Networks Inc.
Address	：No.8, Li-shing Road VII, Science-based Industrial Park, Hsinchu, Taiwan R.O.C.
Equipment Under Test	：Wireless Mini-PCI
Model	：WMP-N07
Trade Name	：DrayTek
Tested Date	：February 27 ~ March 26, 2009

APPLICABLE STANDARD	
STANDARD	**TEST RESULT**
FCC Part 15 Subpart C:2006 AND ANSI C63.4:2003	No non-compliance noted

Approved by:

Jeter Wu
Section Manager

Reviewed by:



Eric Yang
Senior Engineer

WE HEREBY CERTIFY THAT: The measurements shown in the attachment were made in accordance with the procedures indicated, and the energy emitted by the equipment was found to be within the limits applicable. We assume full responsibility for the accuracy and completeness of these measurements and vouch for the qualifications of all persons taking them.

2. EUT DESCRIPTION

2.1 DESCRIPTION OF EUT & POWER

Product Name	Wireless Mini-PCI
Model Number	WMP-N07
Frequency Range	IEEE 802.11b/g, 802.11n HT20 : 2412MHz～2462MHz IEEE 802.11n HT40 : 2422MHz～2452MHz
Transmit Power (mean EIRP)	IEEE 802.11b : 22.71dBm IEEE 802.11g : 20.82dBm IEEE 802.11n HT20 : 20.61dBm IEEE 802.11n HT40 : 20.47dBm
Channel Spacing	IEEE 802.11b/g, 802.11n HT20/HT40 : 5MHz
Channel Number	IEEE 802.11b/g,802.11n HT20 : 11 Channels IEEE 802.11n HT40 : 7 Channels
Transmit Data Rate	IEEE 802.11b: 11, 5.5, 2, 1Mbps IEEE 802.11g : 54, 48 ,36, 24, 18, 12, 11, 9, 6Mbps IEEE 802.11n HT20: 130, 117 ,104, 78, 65, 58.5, 52, 39, 26, 19.5, 13, 6.5 Mbps IEEE 802.11n HT40: 270, 243 ,216, 162, 135, 121.5, 108, 81, 54, 40.5, 27, 13.5Mbps
Type of Modulation	IEEE 802.11b : DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g : OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20/40 : OFDM (64QAM, 16QAM, QPSK, BPSK)
Frequency Selection	by software / firmware
Antenna Type	(1) Dipole Antenna, Antenna Gain 2.1 dBi at 2.4GHz (× 2), Model:DCS-3430 (THW0551A/Gray), Connector Type: RP-SMA(M) (2) Dipole Antenna, Antenna Gain 2.0 dBi at 2.4GHz (× 2), Model:DCS-3430 (THW1428A/Black), Connector Type: RP-SMA(M) (3) Dipole Antenna, Antenna Gain 1.8 dBi at 2.4GHz (× 2), Model: DCS-1100/1130 (C037-510695-A/Black), Connector Type: SMA Plug Reverse (4) Dipole Antenna, Antenna Gain 1.8 dBi at 2.4GHz (× 2), Model: DCS-1100/1130 (037-510825-A/White), Connector Type: SMA Plug Reverse

Antenna Type	(5) Dipole Antenna, Antenna Gain 2.24 dBi at 2.4GHz (× 2), Model:CS-637N (THW0157A/Black), Connector Type: RP-SMA(M) (6) Dipole Antenna, Antenna Gain 1.8 dBi at 2.4GHz (× 2), Model:CS-637N (C037-510960-A/White), Connector Type: I-PEX MHF (7) PIFA Antenna, Antenna Gain 2 dBi at 2.4GHz (× 2), Model:DCS-5230 (IFF-L005MPAX-508)
Power Source	3.3 VDC (From Notebook PC, Powered From Host Device)
Note	Ralink RF Module Model : RT2820 + RT2860

Remark :

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: RRK2007030071 filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.
3. For more details, please refer to the User's manual of the EUT.
4. This report is modified from 70629001-RP1.

2.2 DESCRIPTION OF CLASS II CHABNGE

The major change filed under this application are :

Add seven antennas, detail please refer to antenna spec.

3. DESCRIPTION OF TEST MODES

The EUT is an 802.11n MIMO transceiver in Mini-PCI Module form factor. It has two transmitter chains and two receive chains (2 × 2 configurations). The 2 × 2 configuration is implemented with two outside chains (Chain 0 and 1).
11b/g mode, only examines Chain 0, because only Chain 0 is functional according to the user diver of Ralink. The power is transmitted from TX0 only at 11b/g normal mode in Ralink solution.

The RF chipset is manufactured by Ralink Technology, Corp.

The antenna peak gain 2.0dBi (PIFA Antenna) were chosen for full testing.

IEEE 802.11b, 802.11g, 802.11n HT20 mode

The EUT had been tested under operating condition.
There are three channels have been tested as following :

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode : 11Mbps data rate (worst case) were chosen for full testing.
IEEE 802.11g mode : 6Mbps data rate (worst case) were chosen for full testing.
IEEE 802.11n HT20 mode : 6.5Mbps data rate (worst case) were chosen for full testing.

IEEE 802.11n HT40 mode

The EUT had been tested under operating condition.
There are three channels have been tested as following :

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n HT40 mode : 6.5Mbps data rate (worst case) were chosen for full testing.

4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4:2003 and FCC CRF 47 15.207, 15.209 and 15.247.

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

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

No. 8, Jiu Cheng Ling, Jiaokeng Village,Sinhua Township, Tainan Hsien 712, Taiwan R.O.C.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4:2003 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.
Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.
Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.
All receiving equipment conforms to CISPR Publication 16-1, “Radio Interference Measuring Apparatus and Measurement Methods.”

5.3 LABORATORY ACCREDITATIONS LISTINGS

The test facilities used to perform radiated and conducted emissions tests are accredited by Taiwan Accreditation Foundation for the specific scope of accreditation under Lab Code: 1109 to perform Electromagnetic Interference tests according to FCC PART 15 AND CISPR 22 requirements. In addition, the test facilities are listed with Industry Canada, Certification and Engineering Bureau, IC 2324H-I for OATS -6.

5.4 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3/10 meter Open Area Test Sites to perform FCC Part 15/18 measurements	455173 TW-1037
Japan	VCCI	3/10 meter Open Area Test Sites to perform conducted/radiated measurements	C-2882 R-2635
Taiwan	TAF	CISPR 11, FCC METHOD-47 CFR Part 18, EN 55011, EN 60601-1-2, CISPR 22, CNS 13438, EN 55022, EN 55024, AS/NZS CISPR 22 CISPR 14, EN 55014-1, EN 55014-2, CNS 13783-1, CISPR 22, CNS 13439, EN 55013, FCC Method-47 CFR Part 15 Subpart B, IC ICES-003, VCCI V-3 & V-4 FCC Method-47 CFR Part 15 Subpart C and ANSI C63.4, LP 0002 EN / IEC 61000-4-2 / -3 / -4 / -5 / -6 / -8 / -11 EN 61000-3-2, EN 61000-3-3 EN 61000-6-3, EN 61000-6-1, AS/NZS 4251.1, EN 61000-6-4, EN 61000-6-2, AS/NZS 4251.2, EN 61204-3, EN 50130-4, EN 62040-2, EN 50371, EN 50385, AS/NZS 4268, ETSI EN 300 386 ETSI EN 300 328, ETSI EN 301 489-1/-3/-9/-17 ETSI EN 301 893, ETSI EN 300 220-2/-1 ETSI EN 300 440-2/-1 ETSI EN 301 357-2/-1 RSS-310, RSS-210 Issue 7, RSS-Gen Issue 2	Testing Laboratory 1109
Taiwan	BSMI	CNS 13438, CNS 13783-1, CNS13439	SL2-IN-E-0039 SL2-R1/R2-0039 SL2-A1-E-0039
Canada	Industry Canada	RSS210, Issue 7	IC 2324H-I

** No part of this report may be used to claim or imply product endorsement by TAF or any agency of the US Government.*

6. CALIBRATION AND UNCERTAINTY

6.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

6.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 1000 MHz	+/- 3.2 dB
Radiated Emission, 1 to 26.5 GHz	+/- 3.2 dB
Power Line Conducted Emission	+/- 2.1 dB

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

7. SETUP OF EQUIPMENT UNDER TEST

SUPPORT EQUIPMENT

No.	Product	Manufacturer	Model No.	Serial No.	FCC ID
1	Notebook PC	DELL	Latitude D610	CN-0C4708-48643-625-5565	E2K24BNHM
2	Notebook PC	HP	Compaq nx6130	CNU543274R	CNTWM3B2200BGA
3	Wireless Access Point	D-Link	DWL-7100AP	DQ6114B00002	KA22003040018-1
4	Modem	ZyXEL	Omni 56K	S1Z4107727	1880MN156K
5	Printer	HP	hp desk jet 948c	CN19S6S1XS	DoC

SETUP DIAGRAM FOR TESTS

EUT & peripherals setup diagram is shown in appendix setup photos.

EUT OPERATING CONDITION

For RF :

1. Set up all computers like the setup diagram.
2. The “Ralink QA Test Program for RT 2860 ver1.0.0.2” software was used for testing.
   The EUT driver software installed in the host support equipment during testing was RT2860 QATEST PCI WDM Driver.
   TX Mode:
   - ⇨ **Tx Data Rate:** MCS=3; LP 11Mbps Bandwidth 20 (IEEE 802.11b mode)
     MCS=0; 6Mbps Bandwidth 20 (IEEE 802.11g mode)
     MCS=0; 6.5Mbps Bandwidth 20 (IEEE 802.11n HT20 mode)
     MCS=0; 6.5Mbps Bandwidth 40 (IEEE 802.11n HT40 mode)
   - ⇨ **Power control**
     IEEE 802.11b Channel Low (2412MHz) TX Power0 08 (only chain0 TX)
     IEEE 802.11b Channel Mid (2437MHz) TX Power0 0F (only chain0 TX)
     IEEE 802.11b Channel High (2462MHz) TX Power0 11 (only chain0 TX)
     IEEE 802.11g Channel Low (2412MHz) TX Power0 0C (only chain0 TX)
     IEEE 802.11g Channel Mid (2437MHz) TX Power0 10 (only chain0 TX)
     IEEE 802.11g Channel High (2462MHz) TX Power0 11 (only chain0 TX)
     IEEE 802.11n HT20 Channel Low (2412MHz) TX Power0 08 / TX Power1 13
     IEEE 802.11n HT20 Channel Mid (2437MHz) TX Power0 0B / TX Power1 13
     IEEE 802.11n HT20 Channel High (2462MHz) TX Power0 0D / TX Power1 13
     IEEE 802.11n HT40 Channel Low (2422MHz) TX Power0 03 / TX Power1 0E
     IEEE 802.11n HT40 Channel Mid (2437MHz) TX Power0 0A / TX Power1 11
     IEEE 802.11n HT40 Channel High (2452MHz) TX Power0 07 / TX Power1 0E
3. All of the function are under run.
4. Start test.

For Normal operating :

1. Set up all computers like the setup diagram.
2. All of the function are under run.
3. Notebook PC (2) ping 192.168.0.10 –t to Notebook PC (1).
4. Notebook PC (1) ping 192.168.0.20 –t to Notebook PC (2).
5. Notebook PC (1) ping 192.168.0.50 –t to Wireless Access Point (3).
6. Start test.

8. APPLICABLE LIMITS AND TEST RESULTS

8.1 RADIATED EMISSIONS

8.1.1 TRANSMITTER RADIATED SUPURIOUS EMSSIONS

LIMITS

§ 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 -1710	10.6 -12.7
6.26775 - 6.26825	108 -121.94	1718.8 - 1722.2	13.25 -13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 – 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 -16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 -335.4	3600 - 4400	([2])
13.36 - 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

§ 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown is Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§ 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 (microvolts/meter)	Measurement Distance (meters)
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

** 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.

§ 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

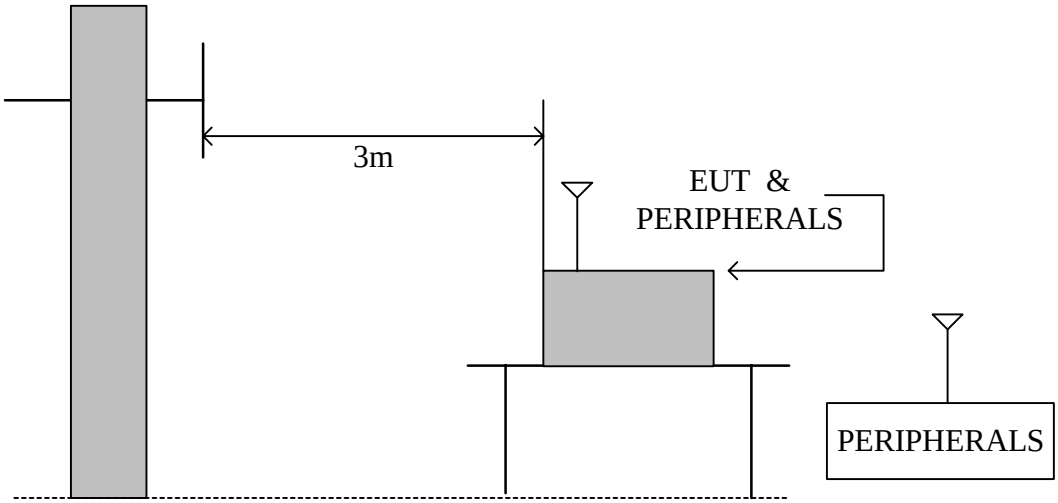
TEST EQUIPMENTS

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
SPECTRUM ANALYZER	AGILENT	E4446A	MY43360132	06/05/2009
EMI TEST RECEIVER	R & S	ESCI	100221	05/20/2009
BILOG ANTENNA	SCHWARZBECK	VULB	9168_249	09/17/2009
HORN ANTENNA	ETS LINDGREN	3117	00078732	05/19/2009
PRE-AMPLIFIER	EM	EM30265	07032612	05/22/2009
Band Reject FILTER	Micro-Tronics	BRM50702-01	021	N.C.R.
RF COAXIAL CABLE	HUBERSUHNER	SUCOFLEX 104PEA	SN31350	07/21/2009

Remark: *1. Each piece of equipment is scheduled for calibration once a year.*
2. N.C.R = No Calibration Request.

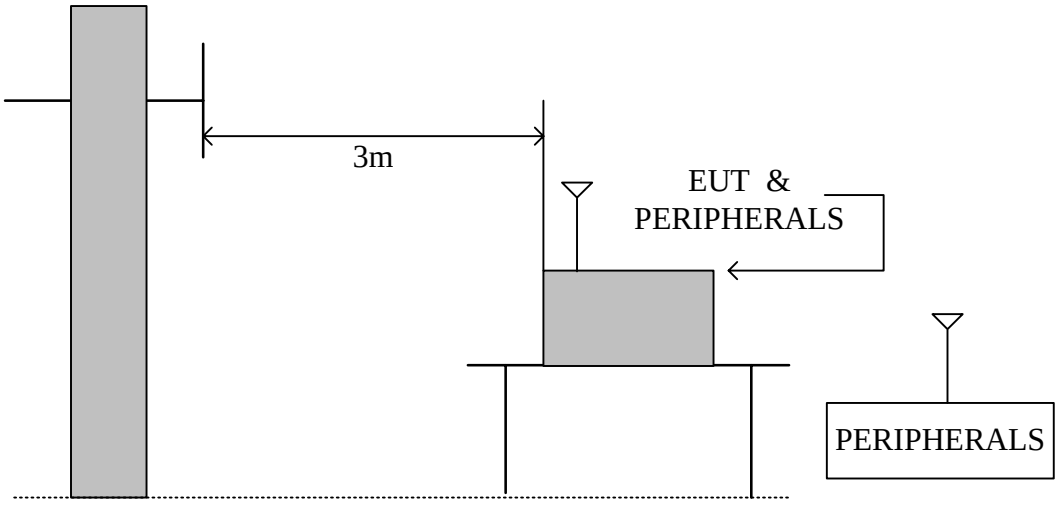
TEST SETUP

The diagram below shows the test setup that is utilized to make the measurements for emission from 30 to 1GHz.



Antenna Elevation Variable

The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.



Antenna Elevation Variable

TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. White measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. White measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Note：

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

TEST RESULTS

No non-compliance noted

8.1.2 WORST-CASE RADIATED EMISSION BELOW 1 GHz

Product Name	Wireless Mini-PCI	Test Date	2009/03/10
Model Name	WMP-N07	Test By	Rueyyan Lin
Test Mode	Normal Linking	TEMP & Humidity	22.3°C, 52%

Horizontal						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
99.84	76.25	-36.22	40.03	43.50	-3.47	Peak
199.75	73.69	-33.19	40.49	43.50	-3.01	Peak
266.68	73.30	-29.32	43.98	46.00	-2.02	QP
366.59	70.90	-27.47	43.43	46.00	-2.57	QP
433.52	59.92	-26.29	33.63	46.00	-12.37	Peak
499.48	57.23	-25.17	32.06	46.00	-13.94	Peak
599.39	62.55	-23.33	39.23	46.00	-6.77	Peak
630.43	57.19	-22.89	34.30	46.00	-11.70	Peak
666.32	55.41	-22.40	33.01	46.00	-12.99	Peak
801.15	53.66	-20.31	33.35	46.00	-12.65	Peak
901.06	51.68	-18.99	32.69	46.00	-13.31	Peak

Vertical						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
99.84	68.10	-36.22	31.88	43.50	-11.62	Peak
165.80	68.90	-31.00	37.90	43.50	-5.60	QP
232.73	70.60	-31.68	38.92	46.00	-7.08	QP
265.71	64.71	-29.38	35.33	46.00	-10.67	Peak
299.66	72.60	-27.97	44.63	46.00	-1.37	QP
364.65	63.60	-27.50	36.10	46.00	-9.90	QP
433.52	56.20	-26.29	29.91	46.00	-16.09	Peak
497.54	59.18	-25.21	33.97	46.00	-12.03	Peak
599.39	64.02	-23.33	40.69	46.00	-5.31	Peak

Remark:

1. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
2. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
3. Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).

8.1.3 TRANSMITTER RADIATED EMISSION ABOVE 1 GHz

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/10
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11b TX (CH Low)	**TEMP & Humidity**	23.9°C, 59%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	56.42	---	-13.95	42.48	---	74.00	54.00	-11.52	Peak
1595.00	58.77	---	-12.76	46.01	---	74.00	54.00	-7.99	Peak
3422.50	52.95	---	-7.49	45.46	---	74.00	54.00	-8.54	Peak
4961.00	51.13	---	-4.20	46.93	---	74.00	54.00	-7.07	Peak
5454.00	50.98	---	-3.36	47.62	---	74.00	54.00	-6.38	Peak
7230.50	50.02	---	-0.89	49.13	---	74.00	54.00	-4.87	Peak
9304.50	48.47	---	2.18	50.66	---	74.00	54.00	-3.34	Peak

Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	55.23	---	-13.95	41.29	---	74.00	54.00	-12.71	Peak
1595.00	57.33	---	-12.76	44.58	---	74.00	54.00	-9.42	Peak
6431.50	51.36	---	-2.26	49.10	---	74.00	54.00	-4.90	Peak
7239.00	59.67	39.78	-0.89	58.78	38.89	74.00	54.00	-15.11	AVG
10112.00	48.53	---	3.10	51.63	---	74.00	54.00	-2.37	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/10
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11b TX (CH Middle)	**TEMP & Humidity**	23.9°C, 59%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1595.00	55.27	---	-12.76	42.51	---	74.00	54.00	-11.49	Peak
4876.00	55.55	---	-4.42	51.13	---	74.00	54.00	-2.87	Peak
7315.50	57.35	46.06	-0.83	56.52	45.23	74.00	54.00	-8.77	AVG
9398.00	47.89	---	2.24	50.12	---	74.00	54.00	-3.88	Peak

Vertical polarity									
Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1595.00	58.10	---	-12.76	45.34	---	74.00	54.00	-8.66	Peak
4876.00	64.29	52.22	-4.42	59.87	47.80	74.00	54.00	-6.20	AVG
6499.50	52.98	---	-2.19	50.79	---	74.00	54.00	-3.21	Peak
7315.50	62.26	51.12	-0.83	61.43	50.29	74.00	54.00	-3.71	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/10
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11b TX (CH High)	**TEMP & Humidity**	23.9°C, 59%

Horizontal polarity

Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1595.00	60.05	---	-12.76	47.29	---	74.00	54.00	-6.71	Peak
4927.00	59.27	47.81	-4.29	54.98	43.52	74.00	54.00	-10.48	AVG
5411.50	51.50	---	-3.43	48.07	---	74.00	54.00	-5.93	Peak
7392.00	50.71	---	-0.78	49.93	---	74.00	54.00	-4.07	Peak
8216.50	49.15	---	0.67	49.82	---	74.00	54.00	-4.18	Peak

Vertical polarity

Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1595.00	59.66	---	-12.76	46.90	---	74.00	54.00	-7.10	Peak
1858.50	53.68	---	-10.58	43.10	---	74.00	54.00	-10.90	Peak
3286.50	53.23	---	-7.69	45.54	---	74.00	54.00	-8.46	Peak
4927.00	62.88	51.35	-4.29	58.59	47.06	74.00	54.00	-6.94	AVG
6567.50	51.00	---	-2.03	48.97	---	74.00	54.00	-5.03	Peak
7392.00	59.75	50.69	-0.78	58.97	49.91	74.00	54.00	-4.09	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/10
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11g TX (CH Low)	**TEMP & Humidity**	23.9°C, 59%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	54.39	---	-13.95	40.44	---	74.00	54.00	-13.56	Peak
1595.00	55.84	---	-12.76	43.08	---	74.00	54.00	-10.92	Peak
2895.50	53.63	---	-8.27	45.37	---	74.00	54.00	-8.63	Peak
4986.50	50.95	---	-4.14	46.81	---	74.00	54.00	-7.19	Peak
7230.50	58.77	38.65	-0.89	57.88	37.76	74.00	54.00	-16.24	AVG

Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1595.00	60.61	---	-12.76	47.85	---	74.00	54.00	-6.15	Peak
4833.50	55.27	---	-4.53	50.74	---	74.00	54.00	-3.26	Peak
6431.50	51.20	---	-2.26	48.94	---	74.00	54.00	-5.06	Peak
7230.50	64.38	41.83	-0.89	63.49	40.94	74.00	54.00	-13.06	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/10
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11g TX (CH Middle)	**TEMP & Humidity**	23.9°C, 59%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1331.50	54.91	---	-13.95	40.97	---	74.00	54.00	-13.03	Peak
1595.00	56.73	---	-12.76	43.97	---	74.00	54.00	-10.03	Peak
4876.00	54.24	---	-4.42	49.82	---	74.00	54.00	-4.18	Peak
6542.00	50.38	---	-2.09	48.29	---	74.00	54.00	-5.71	Peak
7307.00	63.96	43.96	-0.84	63.12	43.12	74.00	54.00	-10.88	AVG

Vertical polarity									
Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1068.00	55.96	---	-14.57	41.39	---	74.00	54.00	-12.61	Peak
1595.00	58.57	---	-12.76	45.81	---	74.00	54.00	-8.19	Peak
4867.50	62.72	48.55	-4.44	58.28	44.11	74.00	54.00	-9.89	AVG
6499.50	51.36	---	-2.19	49.17	---	74.00	54.00	-4.83	Peak
7307.00	73.68	49.10	-0.84	72.84	48.26	74.00	54.00	-5.74	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/10
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11g TX (CH High)	**TEMP & Humidity**	23.9°C, 59%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1595.00	57.48	---	-12.76	44.72	---	74.00	54.00	-9.28	Peak
1858.50	53.41	---	-10.58	42.83	---	74.00	54.00	-11.17	Peak
4425.50	51.57	---	-5.57	46.00	---	74.00	54.00	-8.00	Peak
4927.00	55.11	---	-4.29	50.82	---	74.00	54.00	-3.18	Peak
7383.50	64.45	42.91	-0.78	63.67	42.13	74.00	54.00	-11.87	AVG

Vertical polarity									
Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1331.50	55.27	---	-13.95	41.32	---	74.00	54.00	-12.68	Peak
1603.50	57.89	---	-12.69	45.20	---	74.00	54.00	-8.80	Peak
3660.50	52.08	---	-7.14	44.94	---	74.00	54.00	-9.06	Peak
4927.00	55.49	---	-4.29	51.20	---	74.00	54.00	-2.80	Peak
6567.50	53.04	---	-2.03	51.01	---	74.00	54.00	-2.99	Peak
7383.50	73.86	46.90	-0.78	73.08	46.12	74.00	54.00	-7.88	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/11
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11n HT20 TX (CH Low)	**TEMP & Humidity**	21.6°C, 68%

Horizontal polarity

Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1595.00	59.14	---	-12.76	46.38	---	74.00	54.00	-7.62	Peak
5556.00	51.48	---	-3.22	48.26	---	74.00	54.00	-5.74	Peak
8097.50	49.10	---	0.52	49.62	---	74.00	54.00	-4.38	Peak
10129.00	48.50	---	3.11	51.61	---	74.00	54.00	-2.39	Peak

Vertical polarity

Frequency (MHz)	Reading-PK (dBµV)	Reading-AV (dBµV)	Correction Factor (dB/m)	Result-PK (dBµV/m)	Result-AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-AV (dBµV/m)	Margin (dB)	Remark
1331.50	58.24	---	-13.95	44.30	---	74.00	54.00	-9.70	Peak
1595.00	58.68	---	-12.76	45.92	---	74.00	54.00	-8.08	Peak
1858.50	55.27	---	-10.58	44.69	---	74.00	54.00	-9.31	Peak
4825.00	52.88	---	-4.55	48.32	---	74.00	54.00	-5.68	Peak
7230.50	61.06	42.53	-0.89	60.17	41.64	74.00	54.00	-12.36	AVG
8811.50	49.16	---	1.63	50.78	---	74.00	54.00	-3.22	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/11
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11n HT20 TX (CH Middle)	**TEMP & Humidity**	21.6°C, 68%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1595.00	56.51	---	-12.76	43.75	---	74.00	54.00	-10.25	Peak
2742.50	55.39	---	-8.49	46.90	---	74.00	54.00	-7.10	Peak
4884.50	52.62	---	-4.40	48.22	---	74.00	54.00	-5.78	Peak
7307.00	52.69	---	-0.84	51.85	---	74.00	54.00	-2.15	Peak
7468.50	50.74	---	-0.72	50.02	---	74.00	54.00	-3.98	Peak

Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	56.43	---	-13.95	42.48	---	74.00	54.00	-11.52	Peak
1595.00	59.30	---	-12.76	46.54	---	74.00	54.00	-7.46	Peak
4876.00	55.78	---	-4.42	51.36	---	74.00	54.00	-2.64	Peak
4986.50	52.85	---	-4.14	48.71	---	74.00	54.00	-5.29	Peak
6499.50	52.55	---	-2.19	50.36	---	74.00	54.00	-3.64	Peak
7307.00	66.60	45.15	-0.84	65.76	44.31	74.00	54.00	-9.69	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/11
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11n HT20 TX (CH High)	**TEMP & Humidity**	21.6°C, 68%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1365.50	55.37	---	-13.86	41.50	---	74.00	54.00	-12.50	Peak
1603.50	57.84	---	-12.69	45.16	---	74.00	54.00	-8.84	Peak
2717.00	54.62	---	-8.53	46.09	---	74.00	54.00	-7.91	Peak
4927.00	61.33	46.19	-4.29	57.04	41.90	74.00	54.00	-12.10	AVG
6805.50	50.15	---	-1.50	48.65	---	74.00	54.00	-5.35	Peak
7375.00	52.20	---	-0.79	51.41	---	74.00	54.00	-2.59	Peak

Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	57.68	---	-13.95	43.74	---	74.00	54.00	-10.26	Peak
1595.00	58.17	---	-12.76	45.41	---	74.00	54.00	-8.59	Peak
1858.50	55.53	---	-10.58	44.95	---	74.00	54.00	-9.05	Peak
2759.50	54.69	---	-8.47	46.22	---	74.00	54.00	-7.78	Peak
3456.50	53.52	---	-7.44	46.09	---	74.00	54.00	-7.91	Peak
4927.00	63.81	48.66	-4.29	59.52	44.37	74.00	54.00	-9.63	AVG
6567.50	52.05	---	-2.03	50.02	---	74.00	54.00	-3.98	Peak
7383.50	67.35	45.17	-0.78	66.57	44.39	74.00	54.00	-9.61	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/11
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11n HT40 TX (CH Low)	**TEMP & Humidity**	21.6°C, 68%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1357.00	56.17	---	-13.88	42.29	---	74.00	54.00	-11.71	Peak
1595.00	58.60	---	-12.76	45.84	---	74.00	54.00	-8.16	Peak
5029.00	51.11	---	-4.06	47.05	---	74.00	54.00	-6.95	Peak
8854.00	48.91	---	1.71	50.62	---	74.00	54.00	-3.38	Peak
10112.00	48.16	---	3.10	51.25	---	74.00	54.00	-2.75	Peak

Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	58.60	---	-13.95	44.66	---	74.00	54.00	-9.34	Peak
1595.00	58.69	---	-12.76	45.93	---	74.00	54.00	-8.07	Peak
1858.50	55.06	---	-10.58	44.48	---	74.00	54.00	-9.52	Peak
5020.50	51.04	---	-4.07	46.97	---	74.00	54.00	-7.03	Peak
6457.00	52.05	---	-2.23	49.82	---	74.00	54.00	-4.18	Peak
9364.00	48.61	---	2.22	50.83	---	74.00	54.00	-3.17	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/11
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11n HT40 TX (CH Middle)	**TEMP & Humidity**	21.6°C, 68%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1595.00	57.87	---	-12.76	45.11	---	74.00	54.00	-8.89	Peak
2742.50	54.23	---	-8.49	45.74	---	74.00	54.00	-8.26	Peak
5989.50	50.44	---	-2.73	47.70	---	74.00	54.00	-6.30	Peak
8803.00	48.91	---	1.61	50.53	---	74.00	54.00	-3.47	Peak
9491.50	48.63	---	2.29	50.92	---	74.00	54.00	-3.08	Peak

Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	59.24	---	-13.95	45.29	---	74.00	54.00	-8.71	Peak
1595.00	59.56	---	-12.76	46.80	---	74.00	54.00	-7.20	Peak
2742.50	54.62	---	-8.49	46.13	---	74.00	54.00	-7.87	Peak
6499.50	53.46	---	-2.19	51.27	---	74.00	54.00	-2.73	Peak
7298.50	50.01	---	-0.84	49.17	---	74.00	54.00	-4.83	Peak
9449.00	48.70	---	2.27	50.97	---	74.00	54.00	-3.03	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	Wireless Mini-PCI	**Test Date**	2009/03/11
Model	WMP-N07	**Test By**	Gundam Lin
Test Mode	IEEE 802.11n HT40 TX (CH High)	**TEMP & Humidity**	21.6°C, 68%

Horizontal polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1595.00	60.40	---	-12.76	47.64	---	74.00	54.00	-6.36	Peak
3388.50	52.93	---	-7.54	45.39	---	74.00	54.00	-8.61	Peak
4995.00	51.61	---	-4.12	47.49	---	74.00	54.00	-6.51	Peak
6542.00	51.14	---	-2.09	49.04	---	74.00	54.00	-4.96	Peak
9372.50	48.61	---	2.22	50.83	---	74.00	54.00	-3.17	Peak

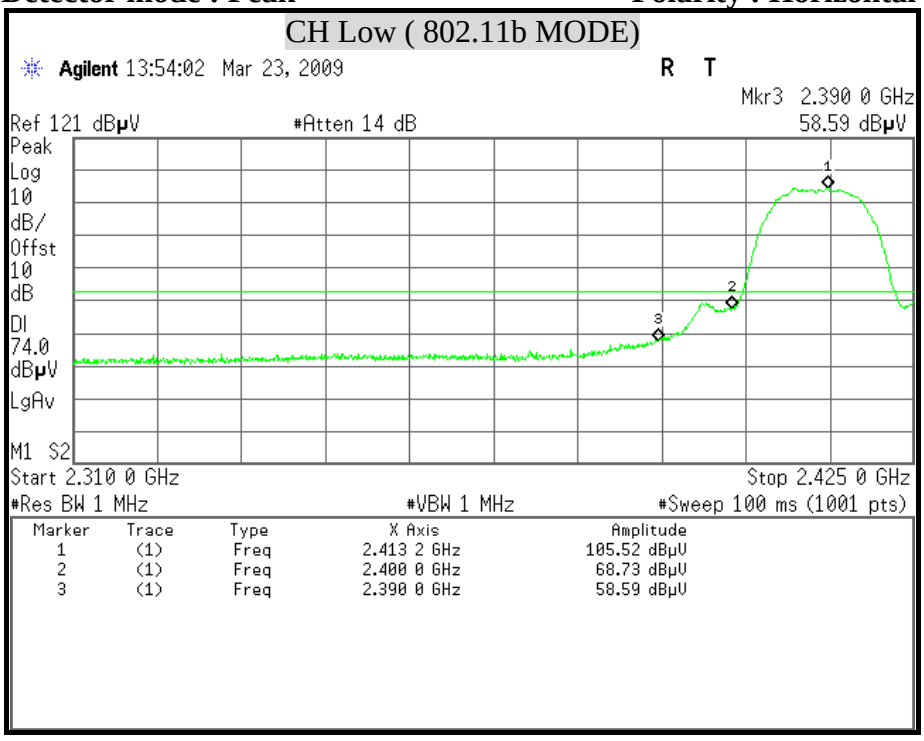
Vertical polarity									
Frequency (MHz)	Reading-PK (dBμV)	Reading-AV (dBμV)	Correction Factor (dB/m)	Result-PK (dBμV/m)	Result-AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-AV (dBμV/m)	Margin (dB)	Remark
1331.50	58.35	---	-13.95	44.40	---	74.00	54.00	-9.60	Peak
1595.00	58.88	---	-12.76	46.12	---	74.00	54.00	-7.88	Peak
1858.50	54.69	---	-10.58	44.11	---	74.00	54.00	-9.89	Peak
5598.50	51.39	---	-3.18	48.21	---	74.00	54.00	-5.79	Peak
6542.00	53.22	---	-2.09	51.13	---	74.00	54.00	-2.87	Peak
9372.50	49.16	---	2.22	51.38	---	74.00	54.00	-2.62	Peak

Remark:

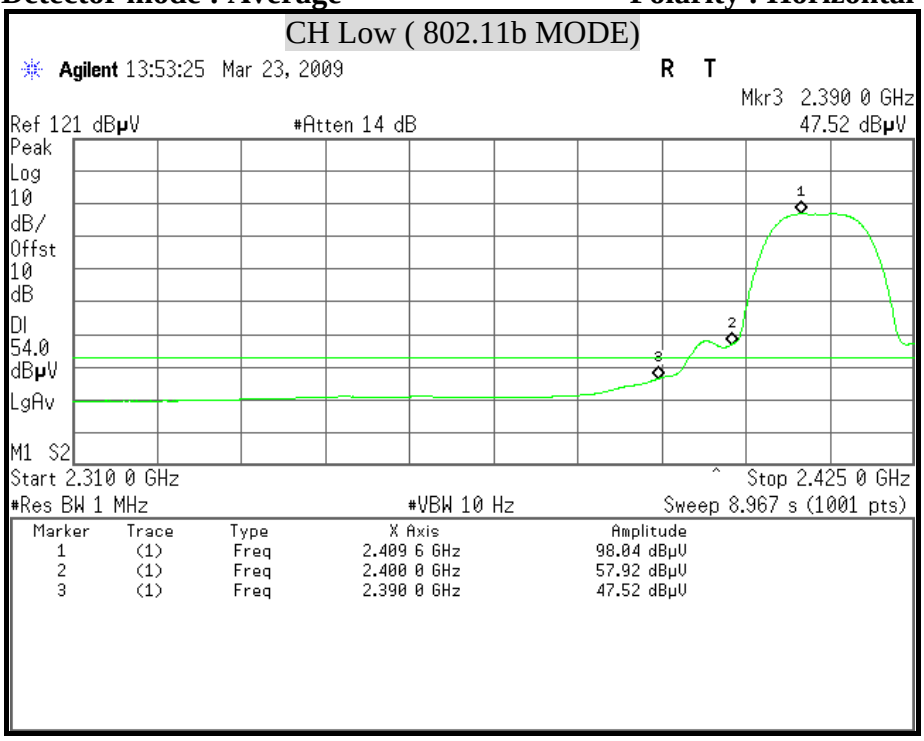
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *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.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

8.1.4 RESTRICTED BAND EDGES

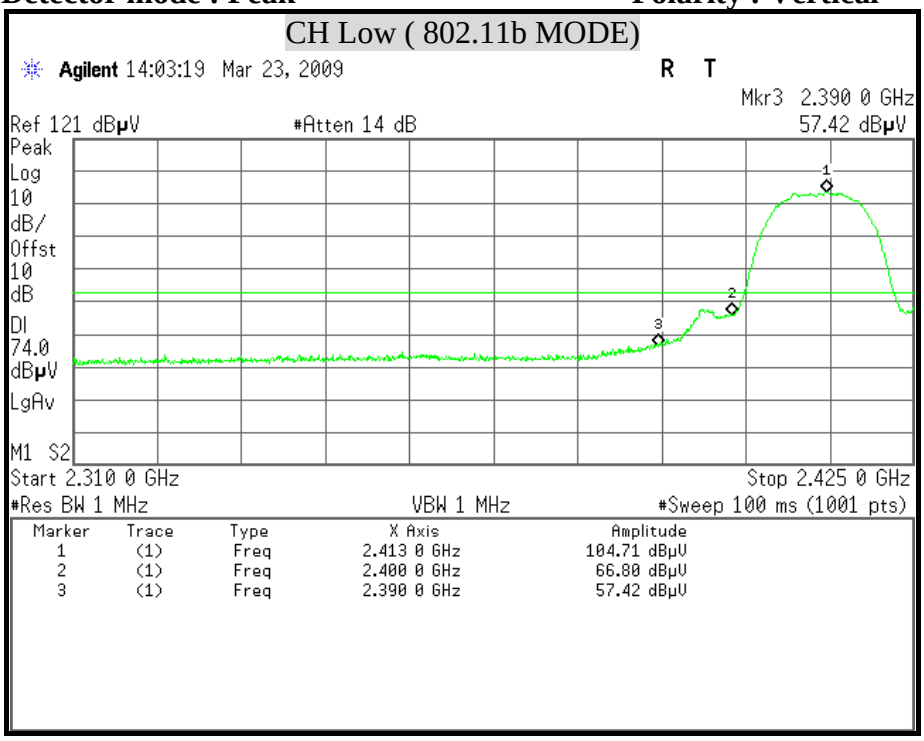
Detector mode : Peak **Polarity : Horizontal**



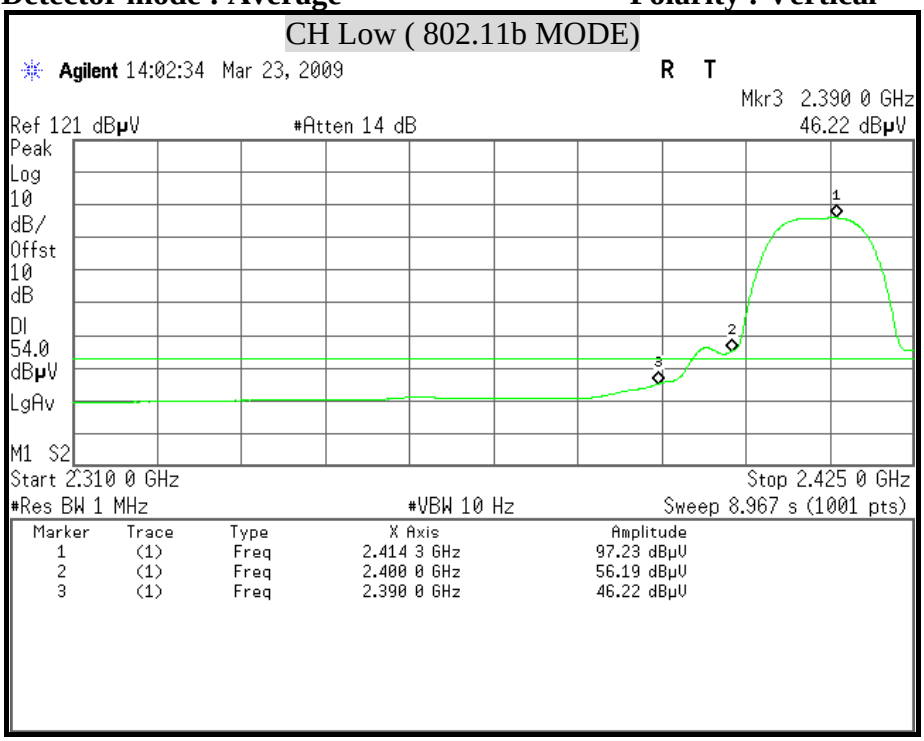
Detector mode : Average **Polarity : Horizontal**



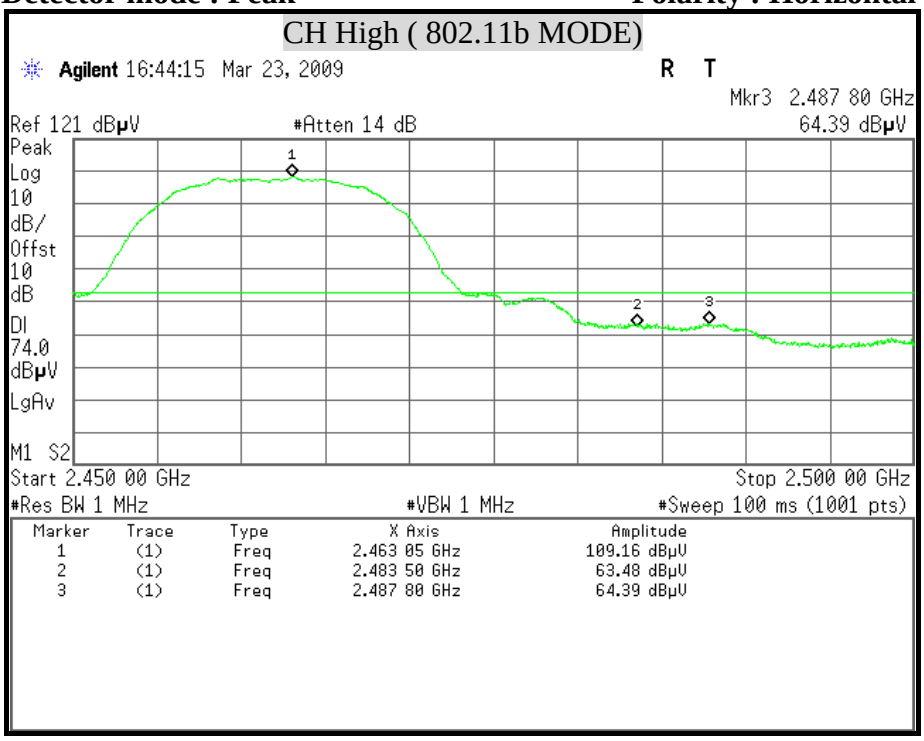
Detector mode : Peak **Polarity : Vertical**



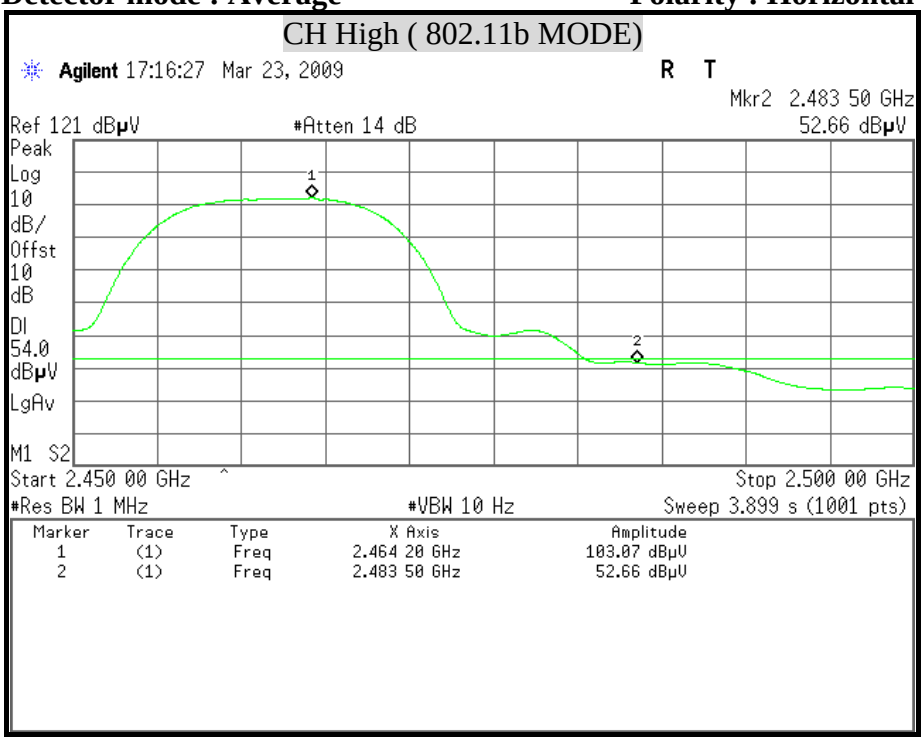
Detector mode : Average **Polarity : Vertical**



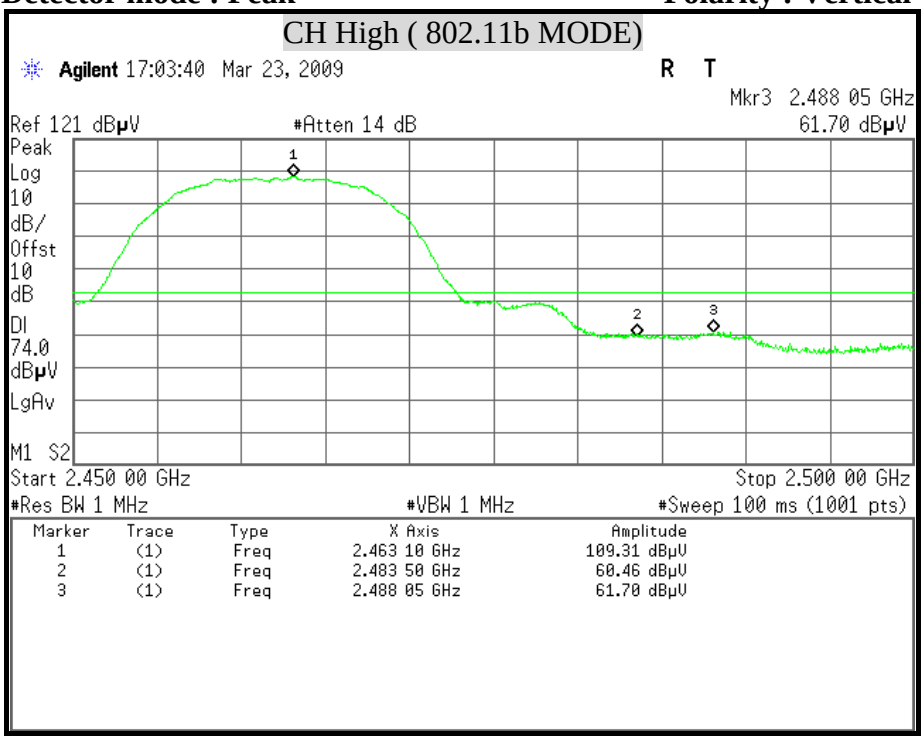
Detector mode : Peak **Polarity : Horizontal**



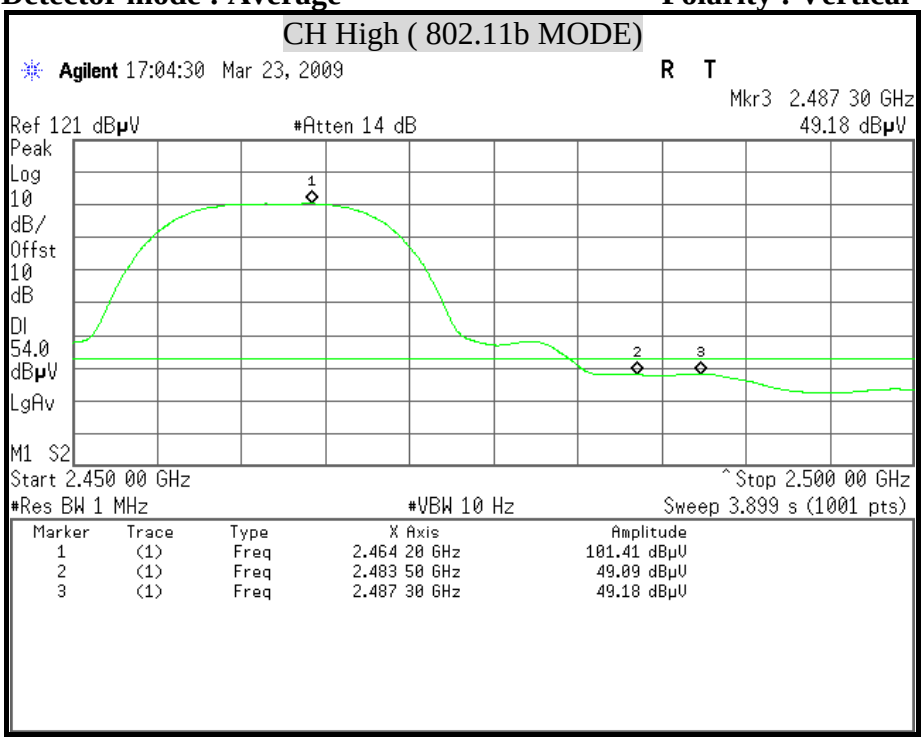
Detector mode : Average **Polarity : Horizontal**



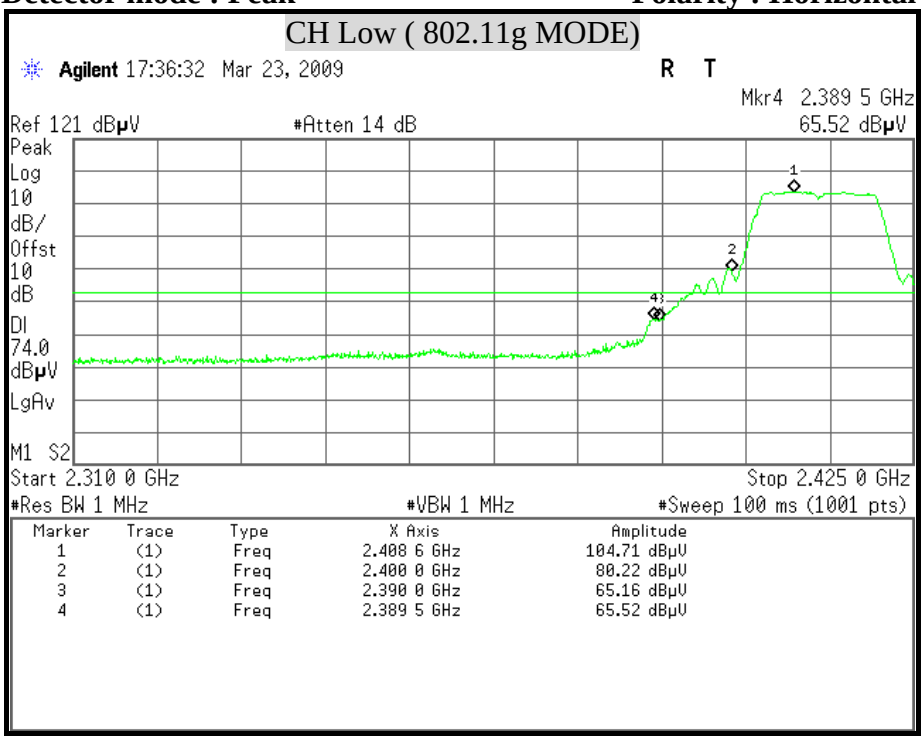
Detector mode : Peak **Polarity : Vertical**



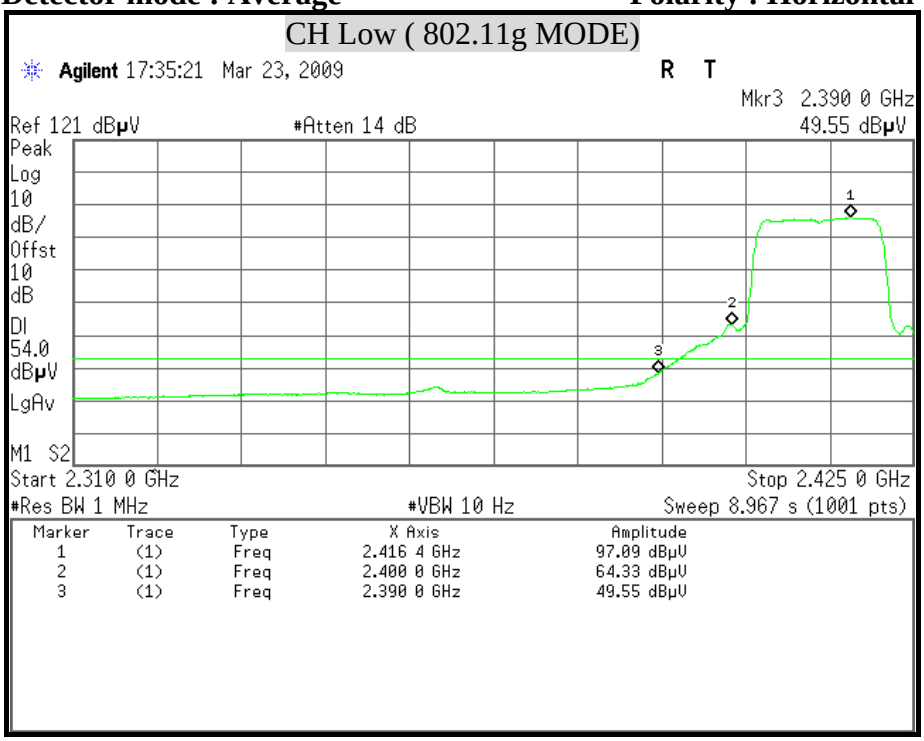
Detector mode : Average **Polarity : Vertical**



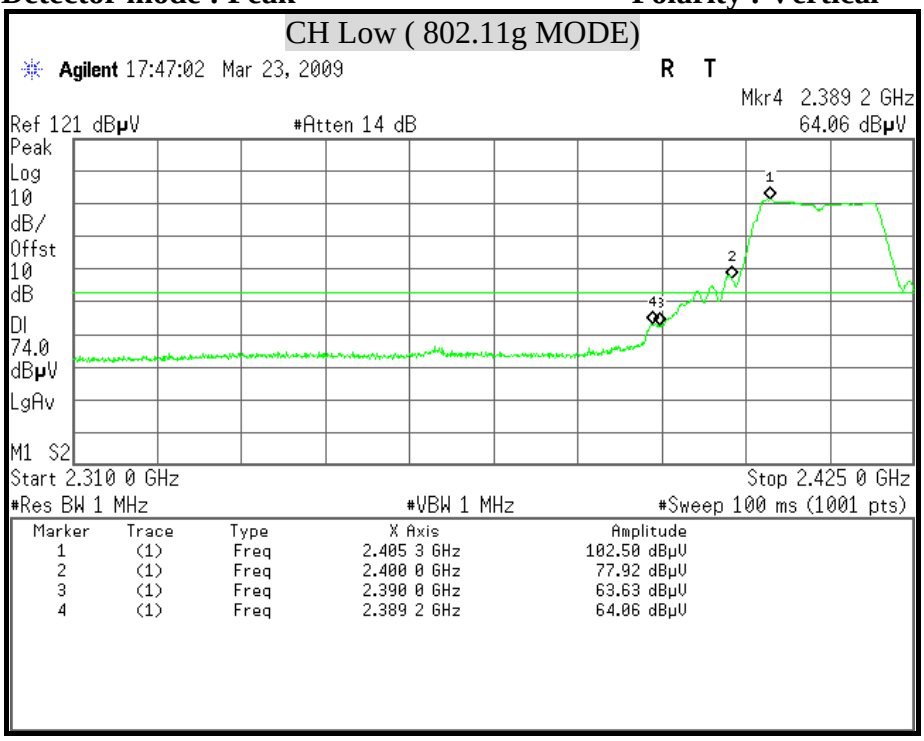
Detector mode : Peak **Polarity : Horizontal**



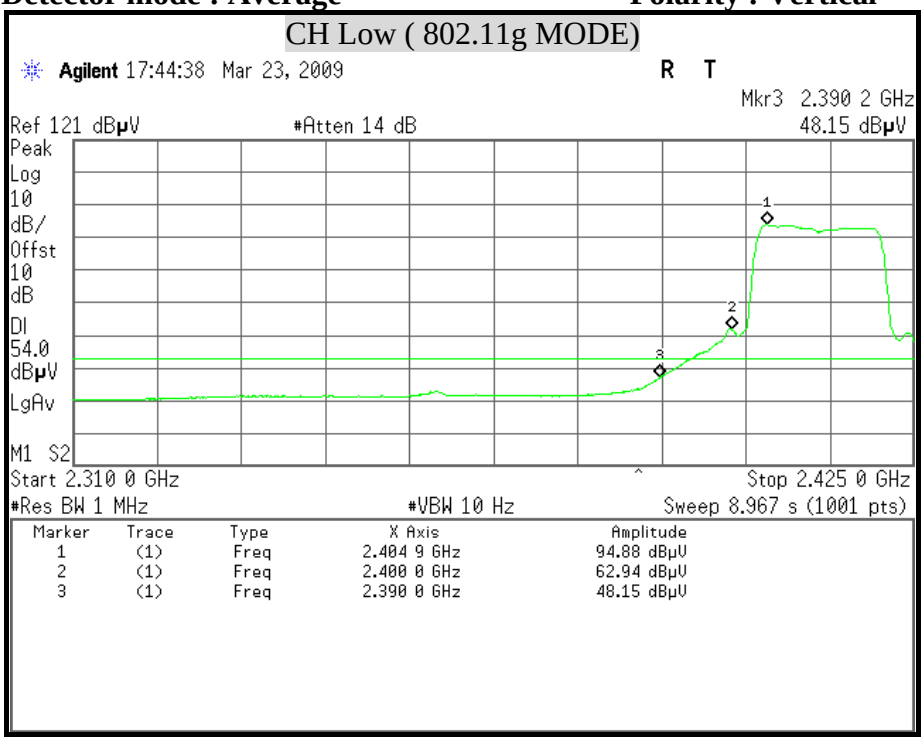
Detector mode : Average **Polarity : Horizontal**



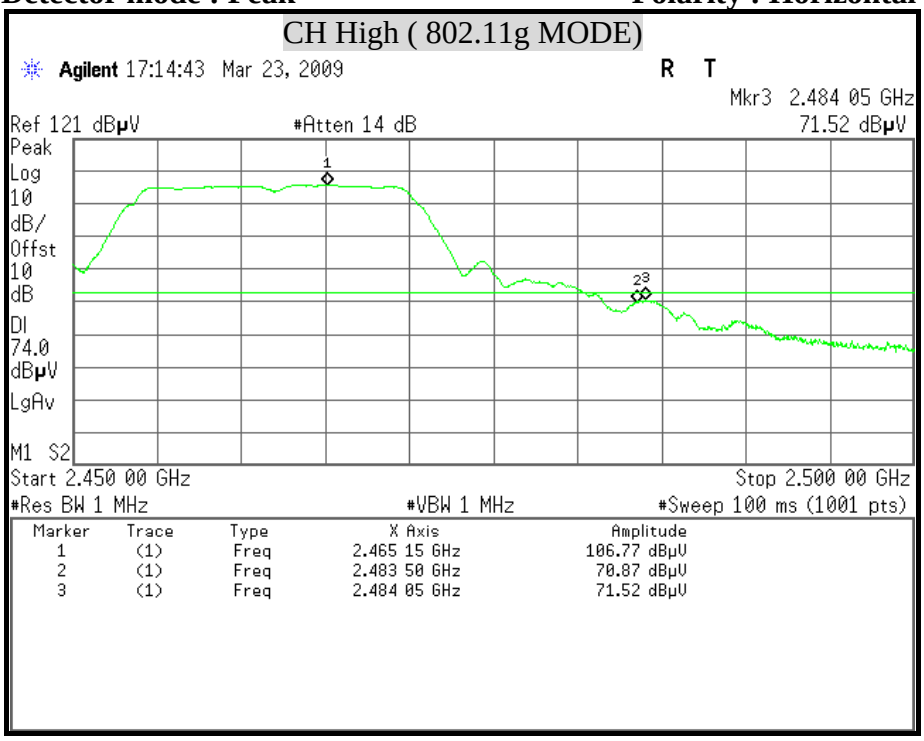
Detector mode : Peak **Polarity : Vertical**



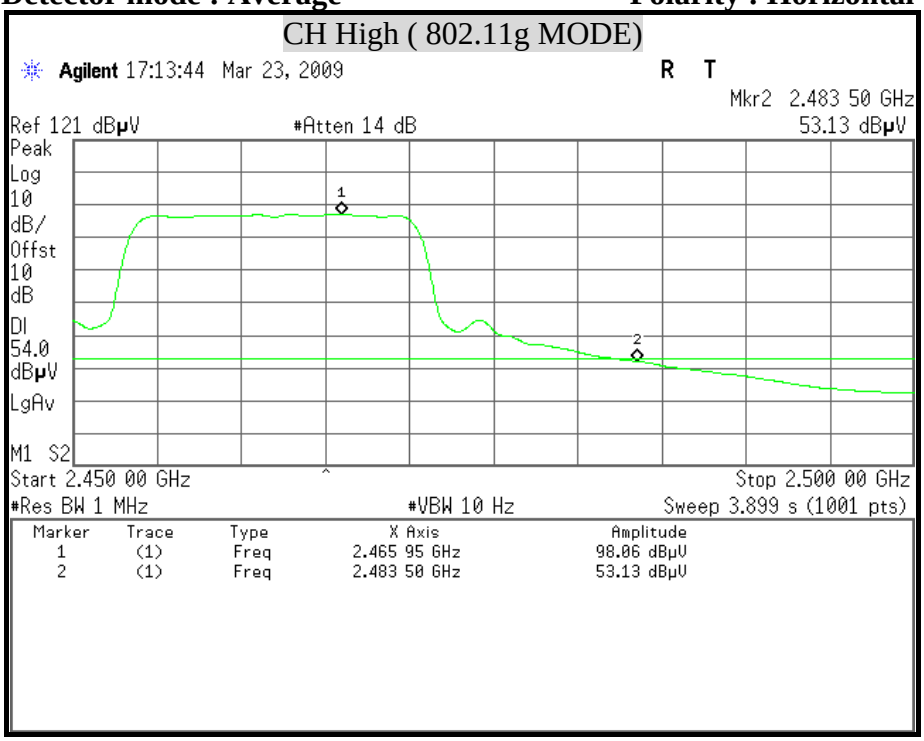
Detector mode : Average **Polarity : Vertical**



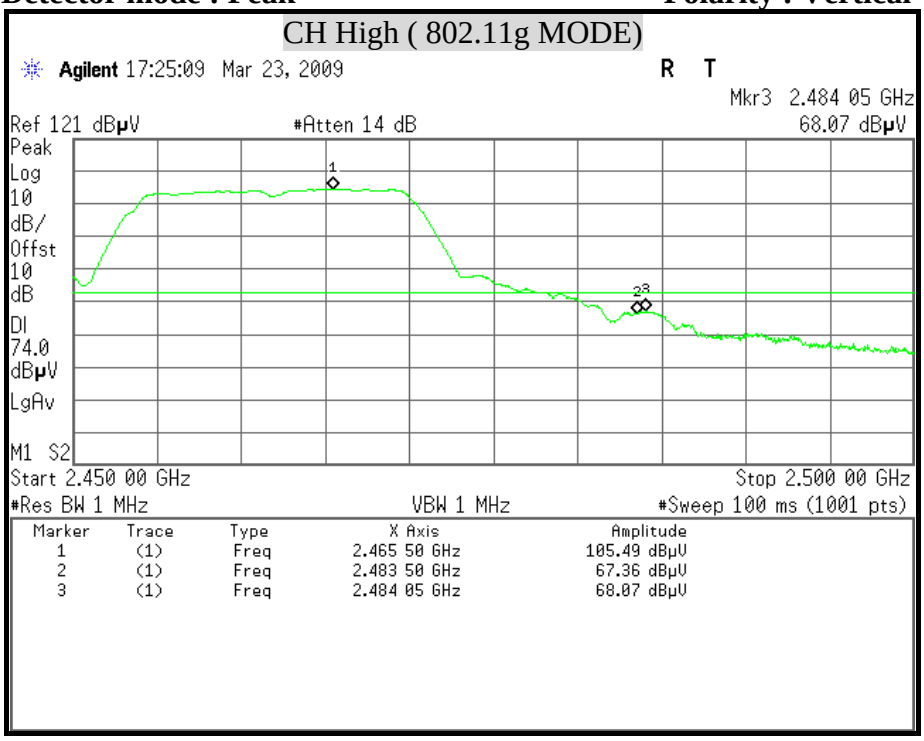
Detector mode : Peak **Polarity : Horizontal**



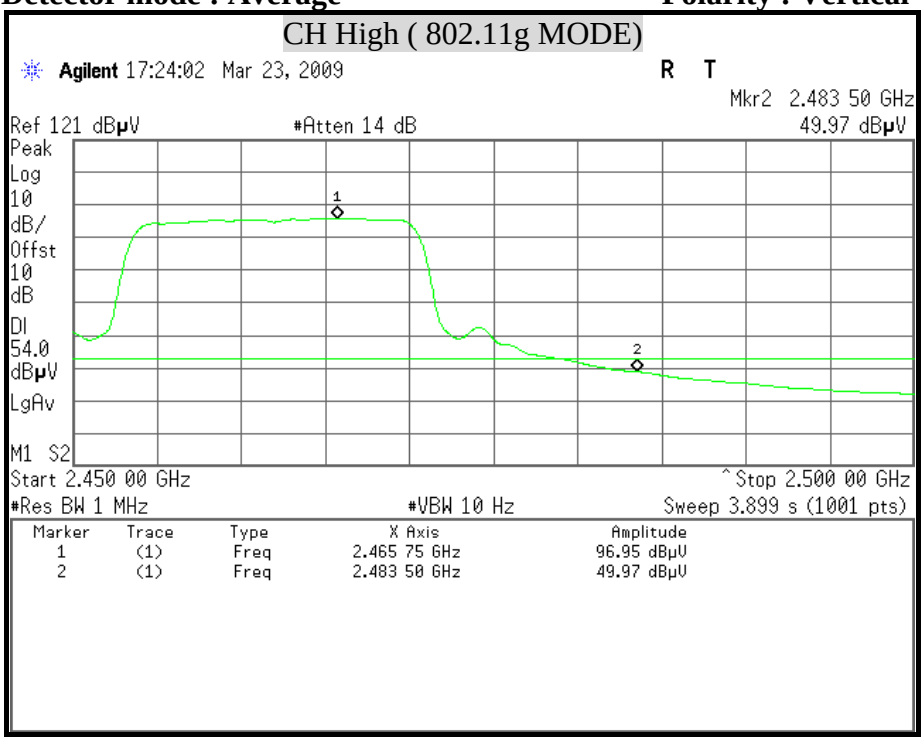
Detector mode : Average **Polarity : Horizontal**



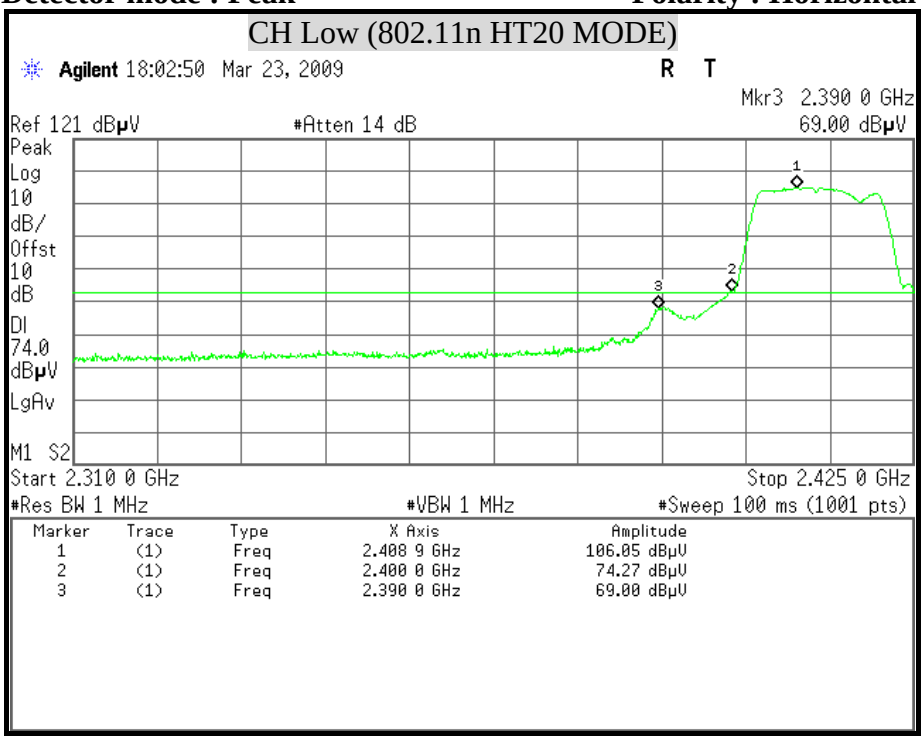
Detector mode : Peak **Polarity : Vertical**



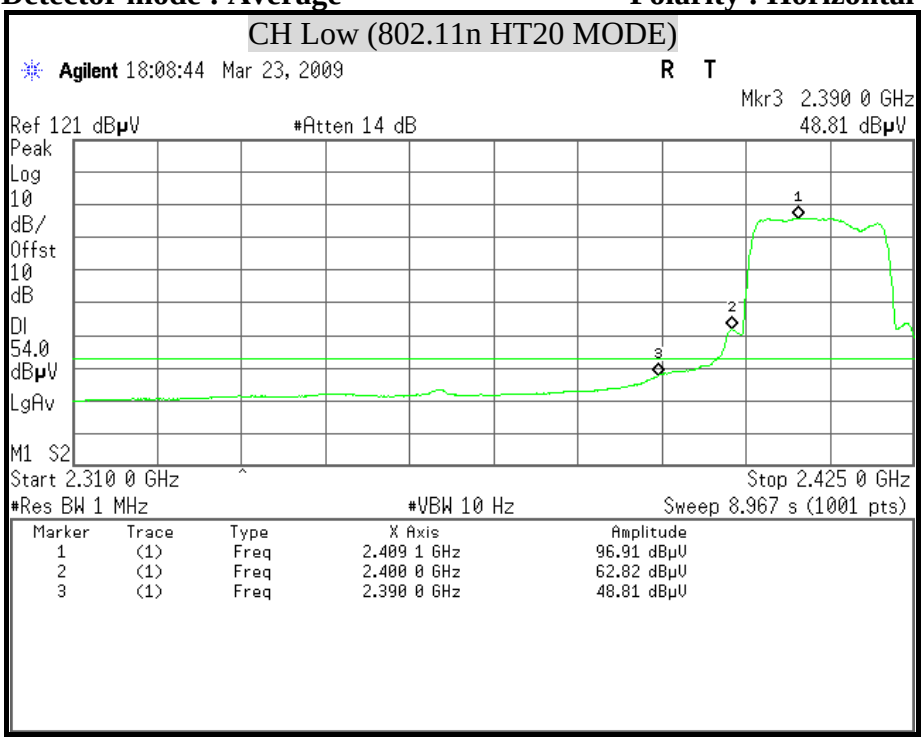
Detector mode : Average **Polarity : Vertical**



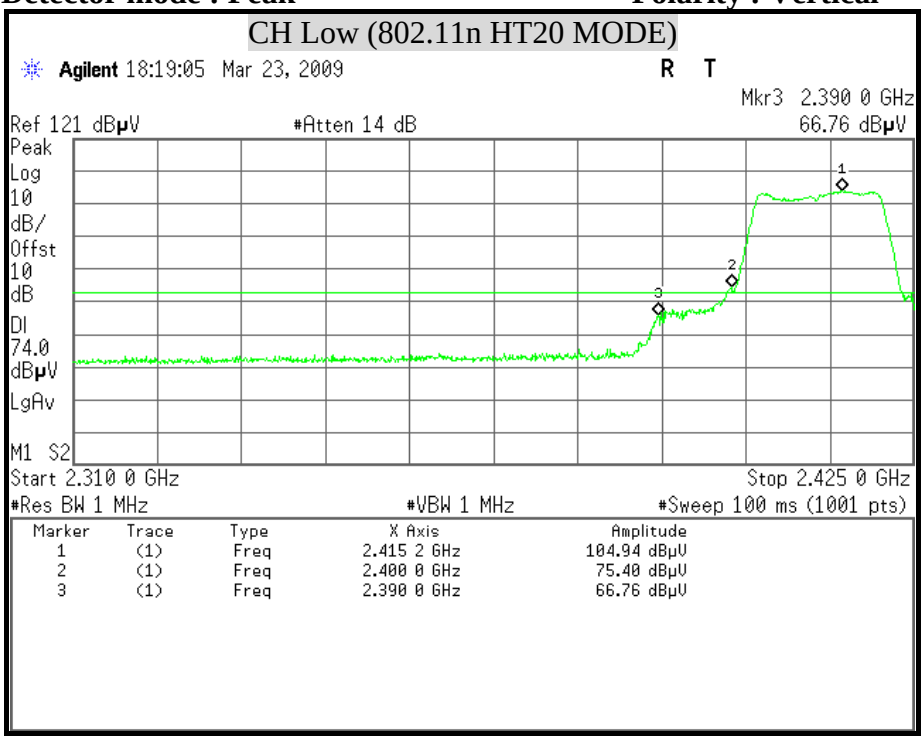
Detector mode : Peak **Polarity : Horizontal**



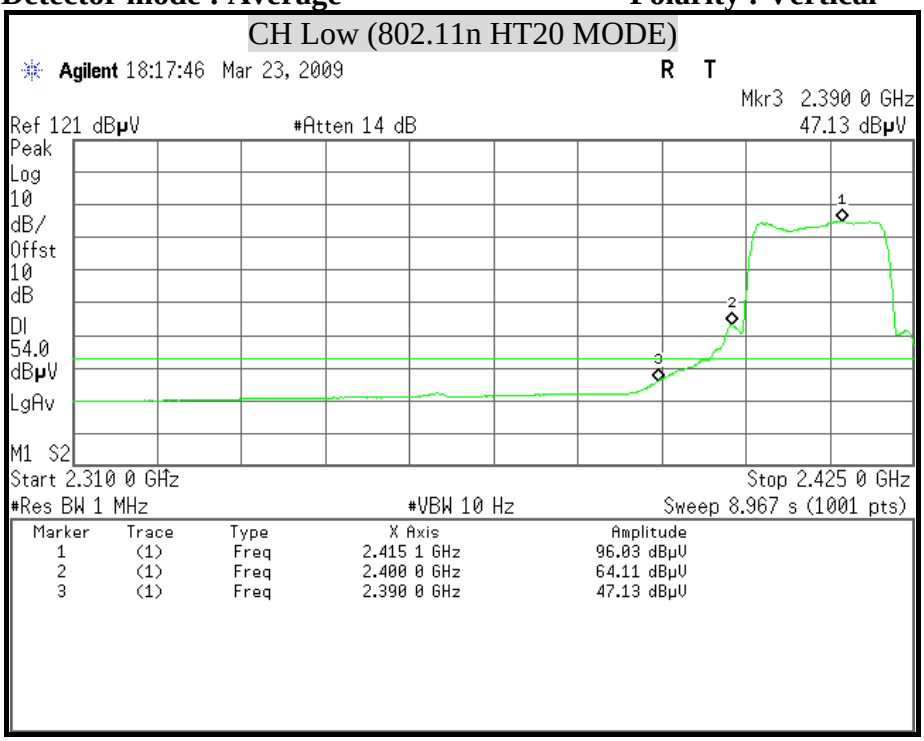
Detector mode : Average **Polarity : Horizontal**



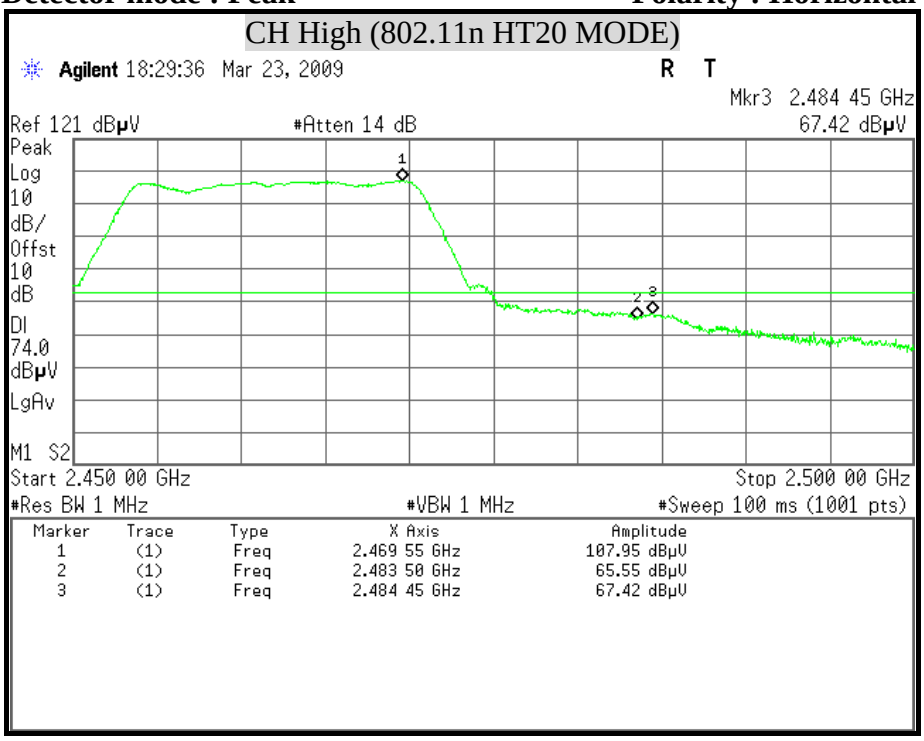
Detector mode : Peak **Polarity : Vertical**



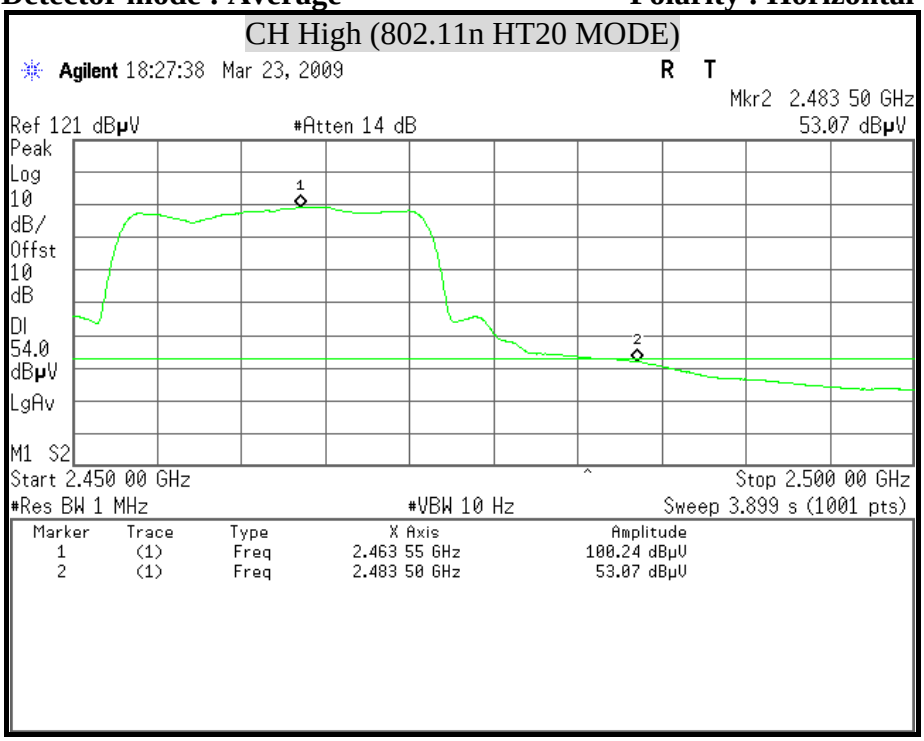
Detector mode : Average **Polarity : Vertical**



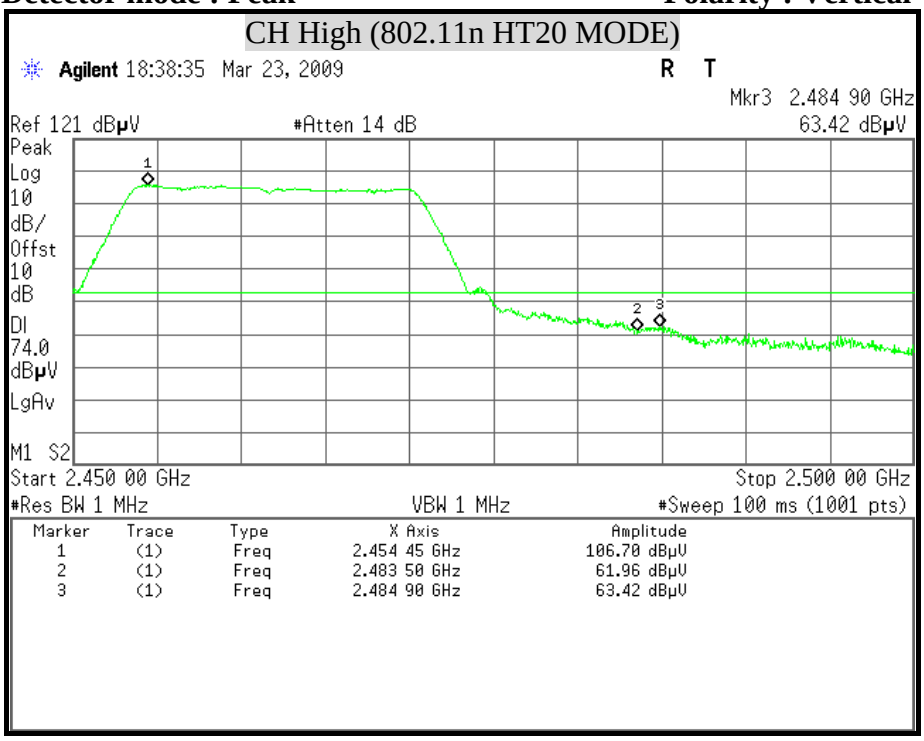
Detector mode : Peak **Polarity : Horizontal**



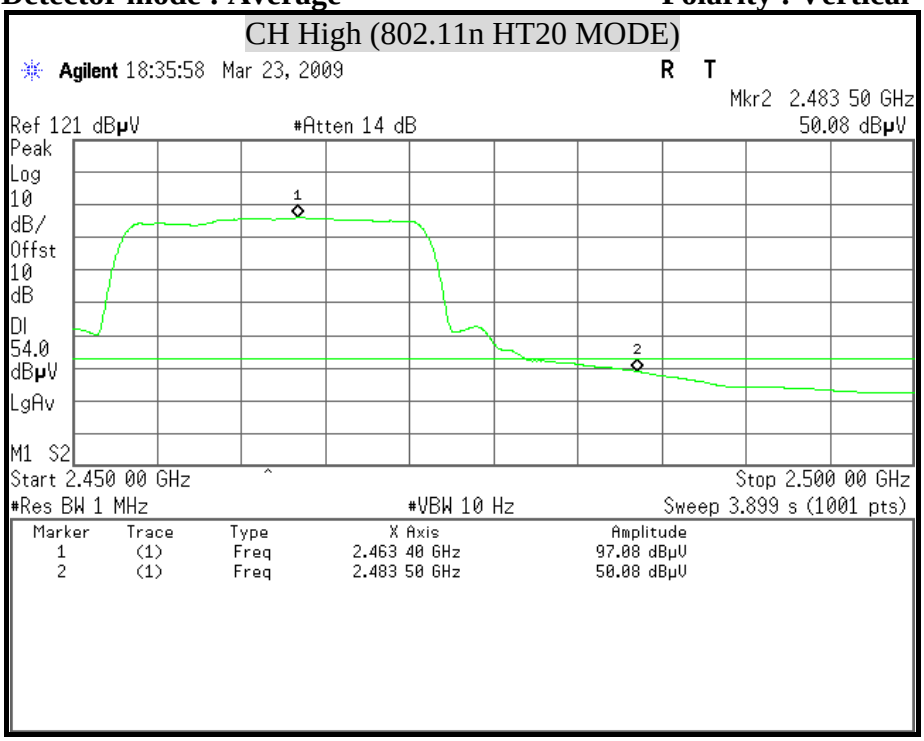
Detector mode : Average **Polarity : Horizontal**



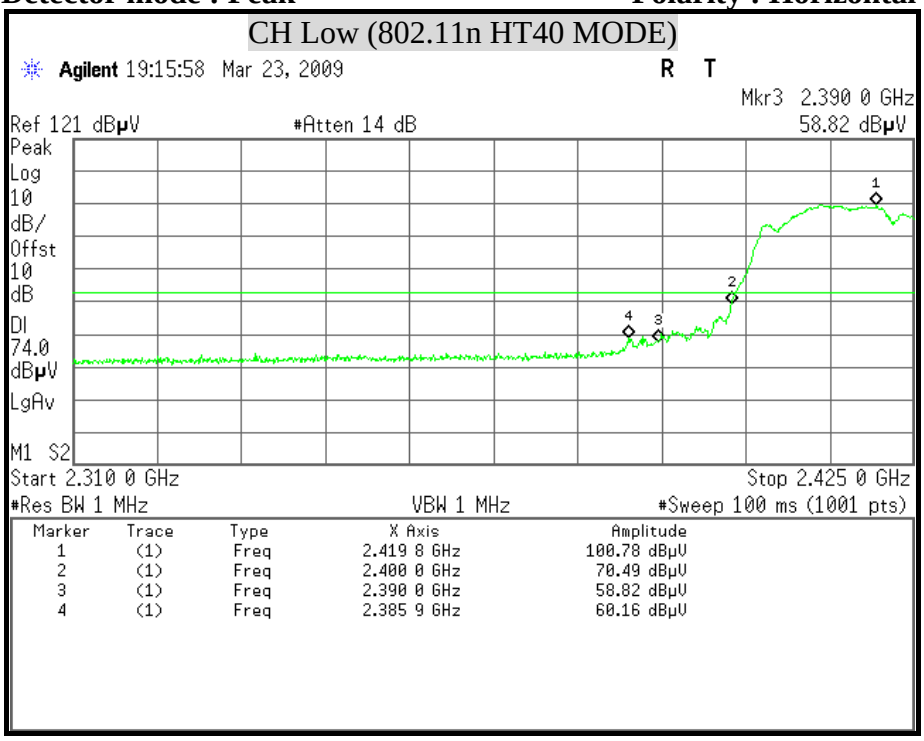
Detector mode : Peak **Polarity : Vertical**



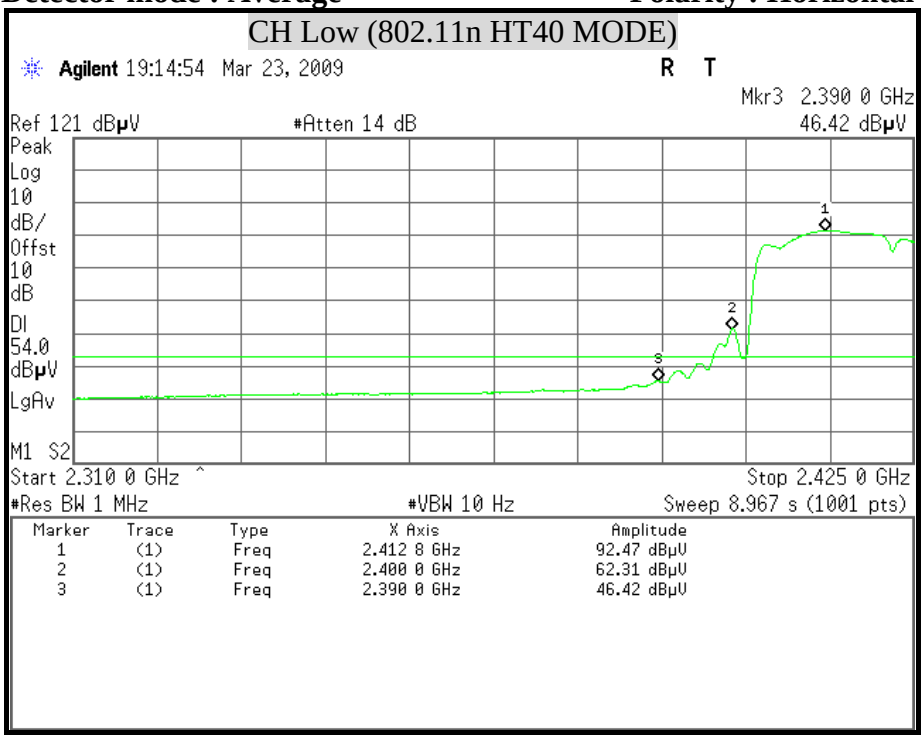
Detector mode : Average **Polarity : Vertical**



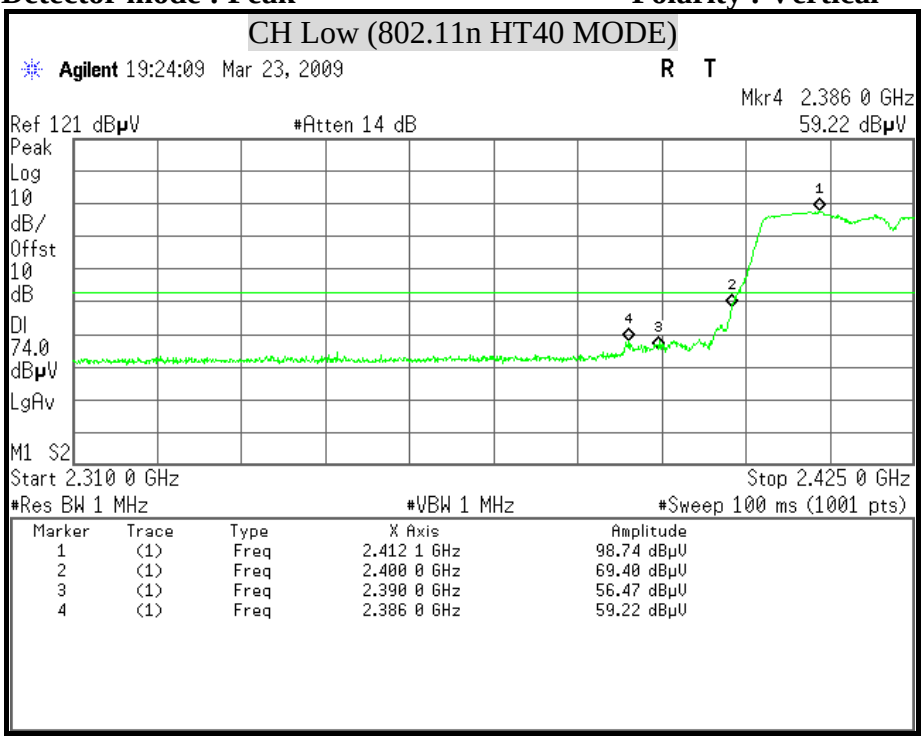
Detector mode : Peak **Polarity : Horizontal**



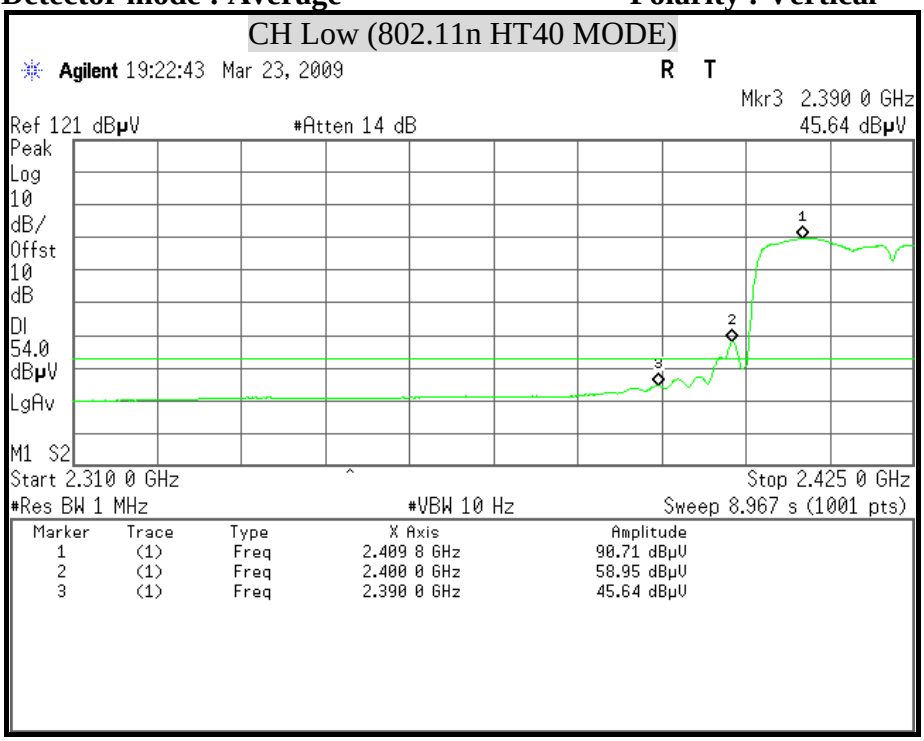
Detector mode : Average **Polarity : Horizontal**



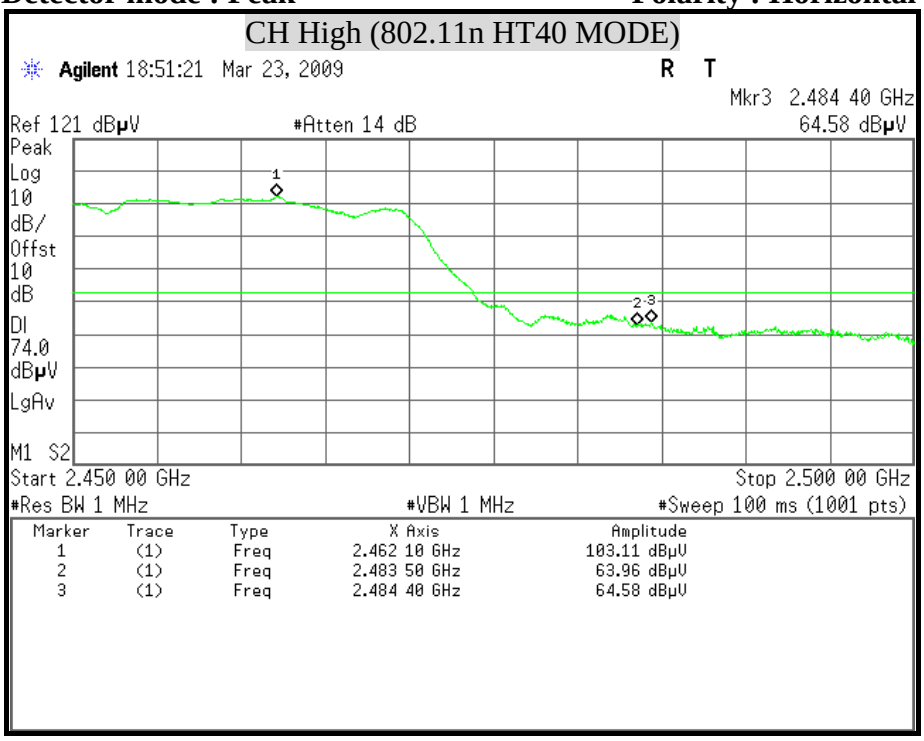
Detector mode : Peak **Polarity : Vertical**



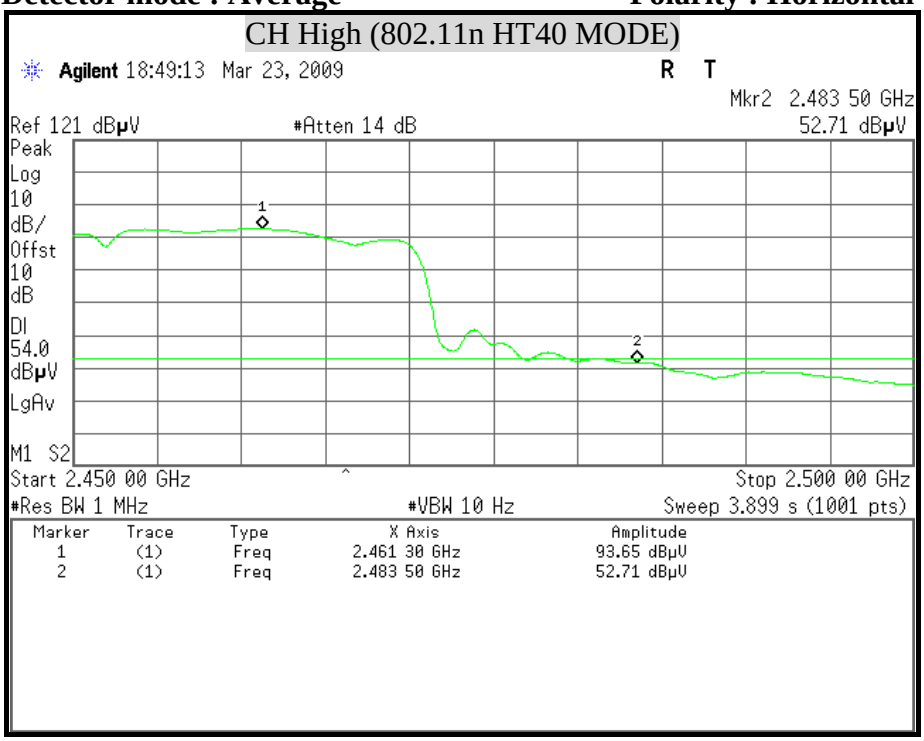
Detector mode : Average **Polarity : Vertical**



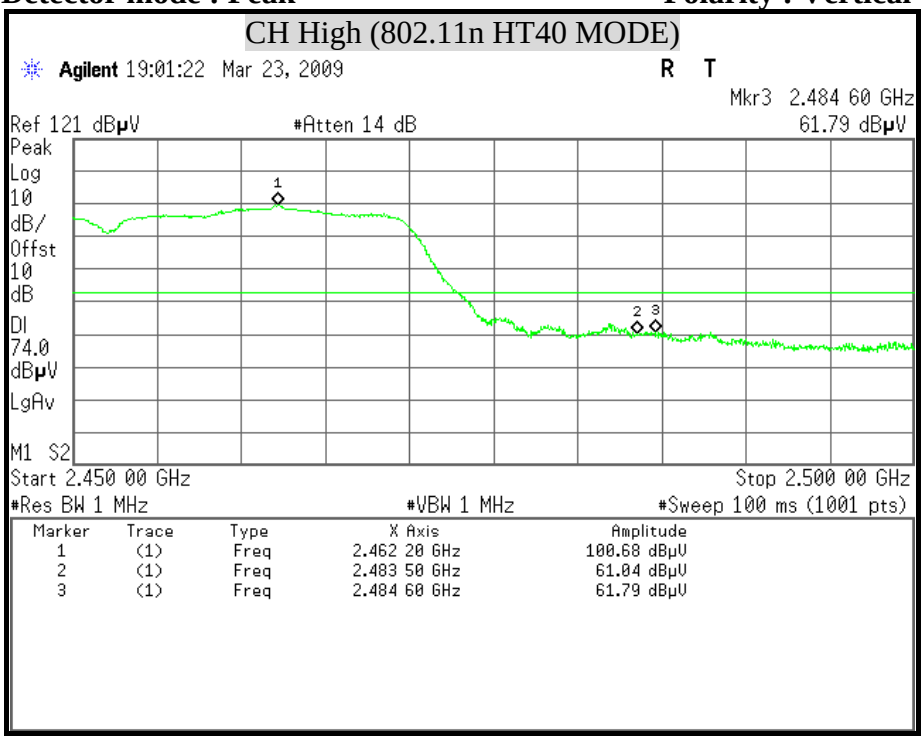
Detector mode : Peak **Polarity : Horizontal**



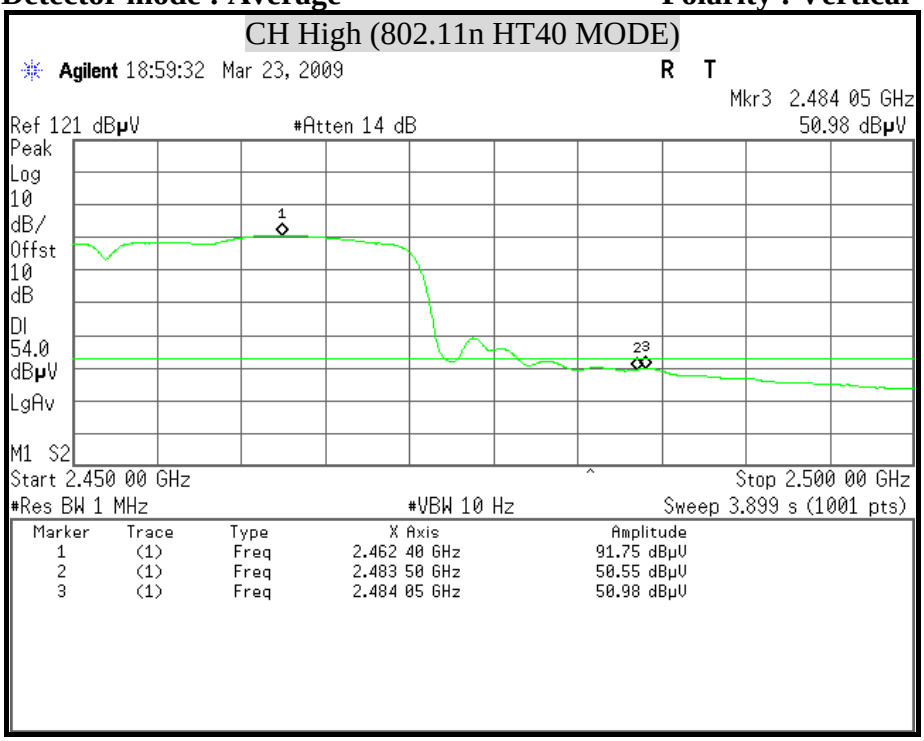
Detector mode : Average **Polarity : Horizontal**



Detector mode : Peak **Polarity : Vertical**

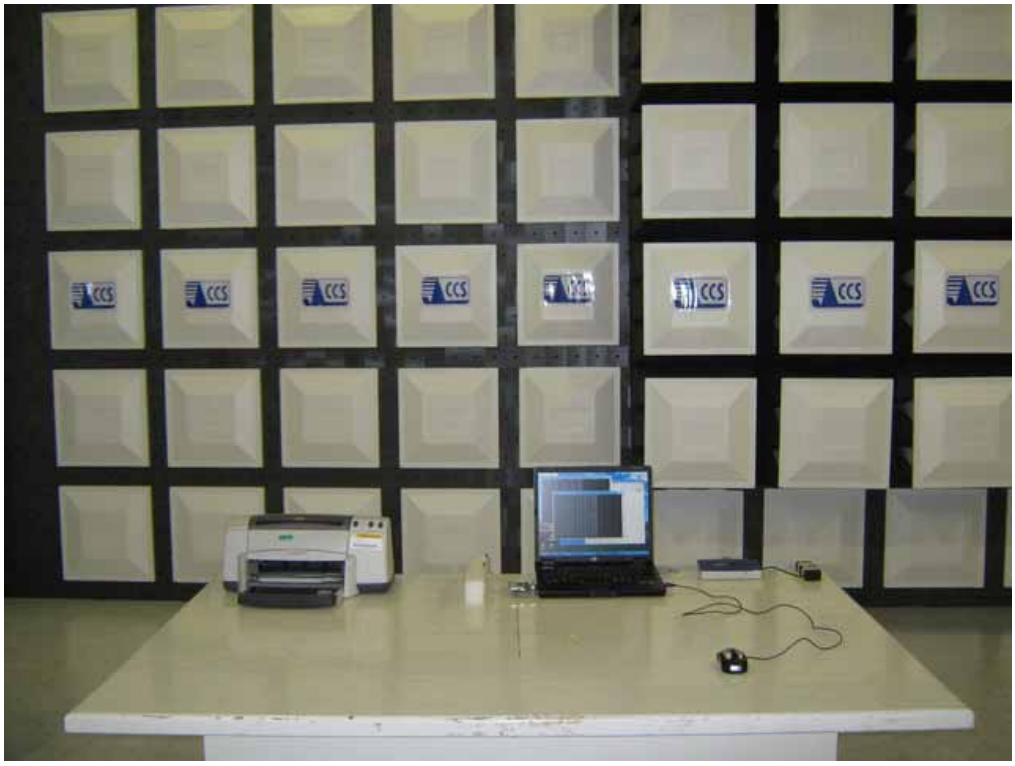


Detector mode : Average **Polarity : Vertical**

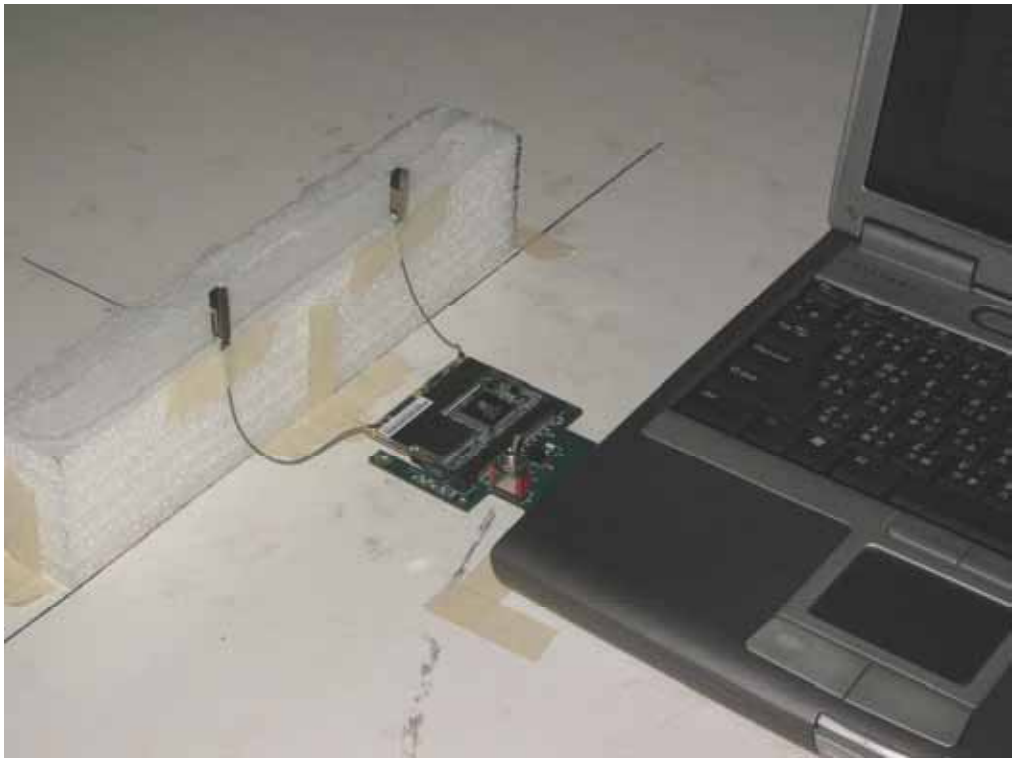


APPENDIX SETUP PHOTOS

RADIATED MEASUREMENT SETUP



RADIATED RF MEASUREMENT SETUP



RF PORT COUNTED MEASURE SETUP