

APPLICATION FOR CERTIFICATION
On Behalf of

TP-LINK Technologies Co., Ltd.

108M Wireless Router

Model Number: MR4-WR642G; ARP-4P Super G

FCC ID: TE7WR64XGV0

Prepared for : TP-LINK Technologies Co., Ltd.
Building 7, Second Part, Honghualing Industrial Zone,
Xili town, Nanshan, Shenzhen, P.R. China

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
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Date of Test : May.08~21, 2009
Date of Report : May.22, 2009

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TEST REPORT FOR CERTIFICATION

Applicant : TP-LINK Technologies Co., Ltd.
 Manufacturer : TP-LINK Technologies Co., Ltd.
 EUT Description : 108M Wireless Router
 FCC ID : TE7WR64XGV0
 (A)MODEL NO. : MR4-WR642G; ARP-4P Super G
 (B)SERIAL NO. : N/A
 (C)POWER SUPPLY : DC 12V From Adapter
 (D)TEST VOLTAGE : DC 12V From Adapter Input
 AC 120V/60Hz

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C 2008

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions.

The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Date of Test : May.08~ 21, 2009

Prepared by : *Eddie Huang*
Eddie Huang / Assistant

Reviewer : *Jamy Yu*
Jamy Yu / Senior Engineer



Approved & Authorized Signer : Ken Lu / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.4: 2003 KDB558074	PASS
Radiated Emission Test	FCC Part 15: 15.209 ANSI C63.4: 2003 KDB558074	PASS
Band Edge Compliance Test	FCC Part 15: 15.247 KDB558074	PASS
Conducted spurious emissions test	FCC Part 15: 15.247 KDB558074	PASS
6dB Bandwidth Test	FCC Part 15: 15.247 KDB558074	PASS
Output Power Test	FCC Part 15: 15.247 KDB558074	PASS
Power Spectral Density Test	FCC Part 15: 15.247 KDB558074	PASS
MPE ESTIMATION	FCC Part 2: 2.1093	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product name	: 108M Wireless Router
Model Number	: MR4-WR642G; ARP-4P Super G Note: This device will use two model numbers and the fact device is the same.
Test Model	: MR4-WR642G
FCC ID	: TE7WR64XGV0
Operation frequency	: IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11g Turbo: 2437MHz
Channel Number	: IEEE 802.11b/g: 11 Channels IEEE 802.11g Turbo: 1Channel
Modulation type	: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)
Data Rate	: IEEE 802.11b: 11/5.5/2/1Mbps. IEEE 802.11g: 54/48/36/24/18/12/9/6Mbps. IEEE 802.11g Turbo:108Mbps
Output power (PK Conducted measured)	: IEEE 802.11b: 18.30dBm IEEE 802.11g: 24.84dBm IEEE 802.11g Turbo: 24.53dBm
Antenna and Gain	: Dipole antenna Gain: 5dBi
Applicant	: TP-LINK Technologies Co., Ltd. Building 7, Second Part, Honghualing Industrial Zone, Xili town, Nanshan, Shenzhen, P.R. China
Manufacturer	: TP-LINK Technologies Co., Ltd. Building 7, Second Part, Honghualing Industrial Zone, Xili town, Nanshan, Shenzhen, P.R. China
Power Adapter	: Manufacturer: LEADER ELACTRONICS INC. M/N: MU12-2120100-A1 Cable: Unshielded, Undetachable, 1.5m
Date of Test	: May.08~21, 2009
Date of Receipt	: May.06, 2009
Sample Type	: Prototype production

2.2. Test information

The test software “WR642G art test. bat” was used to control EUT work in Continuous TX mode, and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
IEEE 802.11g Turbo	108	Only one channel	2437
Note: According exploratory test, EUT will have maximum output power in those data rate. so those data rate were used for all test.			

2.3.Date rate VS power

Mode	Data rate (Mbps)	CH	Total Output power (dBm)	Limit (dBm)
11b	1	CH6	18.30	30
	2	CH6	18.12	30
	5.5	CH6	18.20	30
	11	CH6	18.09	30
11g	6	CH6	24.84	30
	9	CH6	24.45	30
	12	CH6	24.33	30
	18	CH6	24.67	30
	24	CH6	24.66	30
	36	CH6	24.56	30
	48	CH6	24.37	30
	54	CH6	24.08	30
Turbo mode	108	NA	24.53	30
When IEEE 802.11b's data rate was 1Mbps ; IEEE 802.11g's data rate was 6Mbps the EUT have maximum output power and all the test was performed in this data rate set.				

2.4. Tested Supporting System Details

2.4.1. NOTEBOOK

M/N : PP09S
S/N : N/A
Manufacturer : DELL
Power Adaptor : Manufacturer: DELL,
M/N: LA65NS1-00
Cable: Unshielded, Detachable, 4.0m
(Bond one ferrite core)

2.4.2. CABLE

LAN Line : Unshielded, Detachable, 10m

2.5. Test Facility

Site Description Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China
3m Anechoic Chamber	:	Mar. 31, 2009 File on Federal Communication Commission Registration Number: 90454
3m & 10m Anechoic Chamber	:	Jan. 31, 2007 File on Federal Communication Commission Registration Number: 794232
EMC Lab.	:	Accredited by DA Tech, German Registration Number: DAT-P-091/99-01 Feb. 02, 2009 Accredited by NVLAP, USA NVLAP Code: 200372-0 Apr. 01, 2009

2.6. Measurement Uncertainty (95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.88dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.86dB	Polarize: V
	4.3dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	2.78dB	Polarize: H
	2.82dB	Polarize: V
Uncertainty for radio frequency	1×10^{-9}	
Uncertainty for conducted RF Power	0.34dB	
Uncertainty for temperature	0.2°C	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

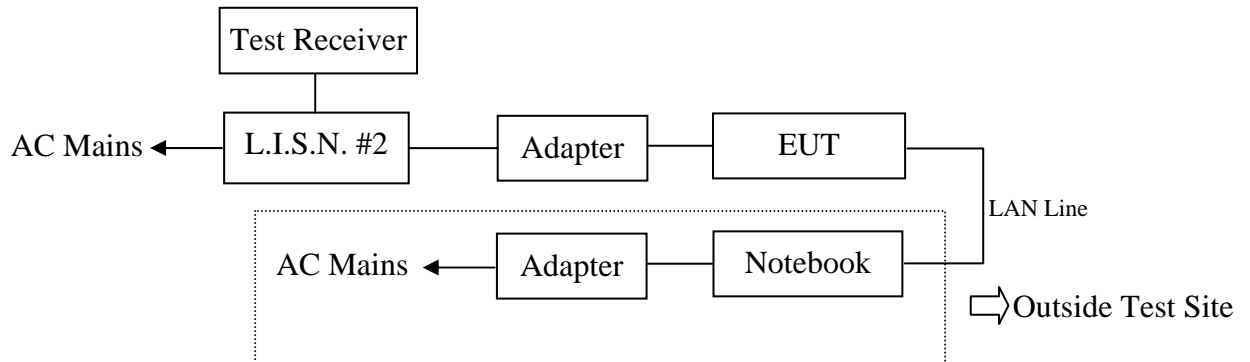
3. POWER LINE CONDUCTED EMISSION TEST

3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde & Schwarz	ESCI	100843	Oct.24, 08	1 Year
2	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	May.08, 09	1 Year
3	Terminator	Hubersuhner	50Ω	No. 2	May.08, 09	1 Year
4	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 09	1 Year
5	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 09	1 Year
6	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 09	1 Year

3.2. Block Diagram of Test Setup

3.2.1. Block diagram of connection between the EUT and simulators



(EUT: 108M Wireless Router)

3.3. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4.Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1.108M Wireless Router (EUT)

Model Number : MR4-WR642G; ARP-4P Super G
Serial Number : N/A

3.4.2.Support Equipment : As Tested Supporting System Detail, in Section 2.4..

3.5.Operating Condition of EUT

3.5.1.Setup the EUT and simulator as shown as Section 3.2.

3.5.2.Turned on the power of all equipment.

3.5.3.Notebook run test software to control the EUT worked in test mode (Tx Mode) and measured it.

3.6.Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via Adapter connected to the power mains through a line impedance stabilization network (L.I.S.N. 2#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2003 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESCI) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

The test result are reported on Section 3.7.,

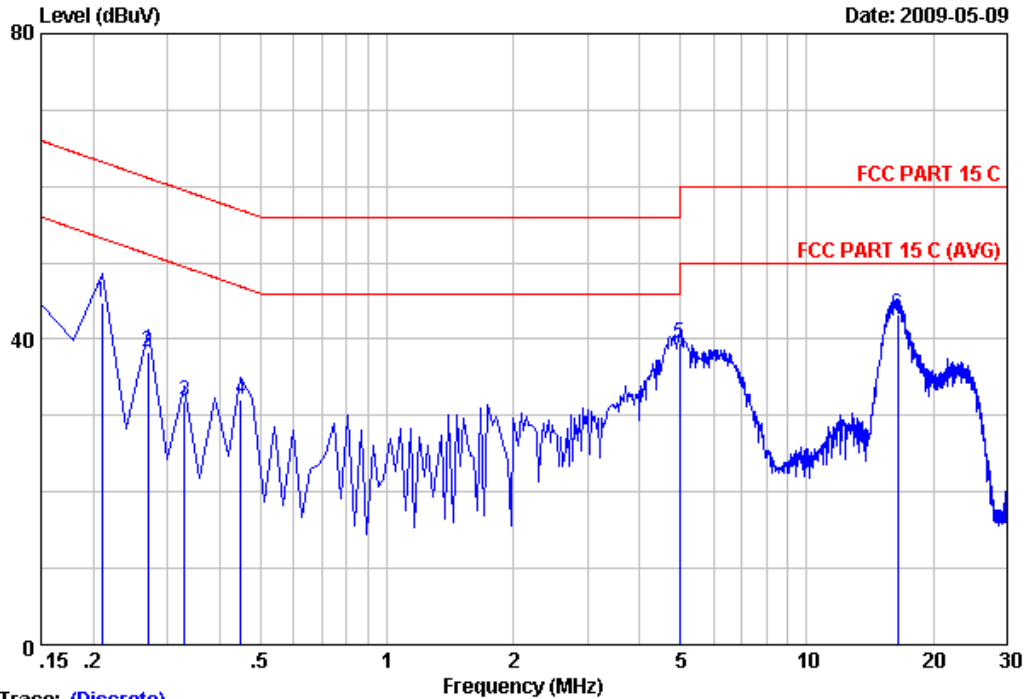
3.7.Power Line Conducted Emission Test Results

PASS.



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Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :1
 Dis./Ant. **: KNW407 1# VA
 Limit :FCC PART 15 C
 Env./Ins. :Temp:23°C Humi:54% Engineer :Sunny-Lu
 EUT :108M Wireless Router M/N:MR4-WR642G
 Power Rating :DC12V From Adapter input AC 120V/60Hz
 Test Mode :Tx Mode

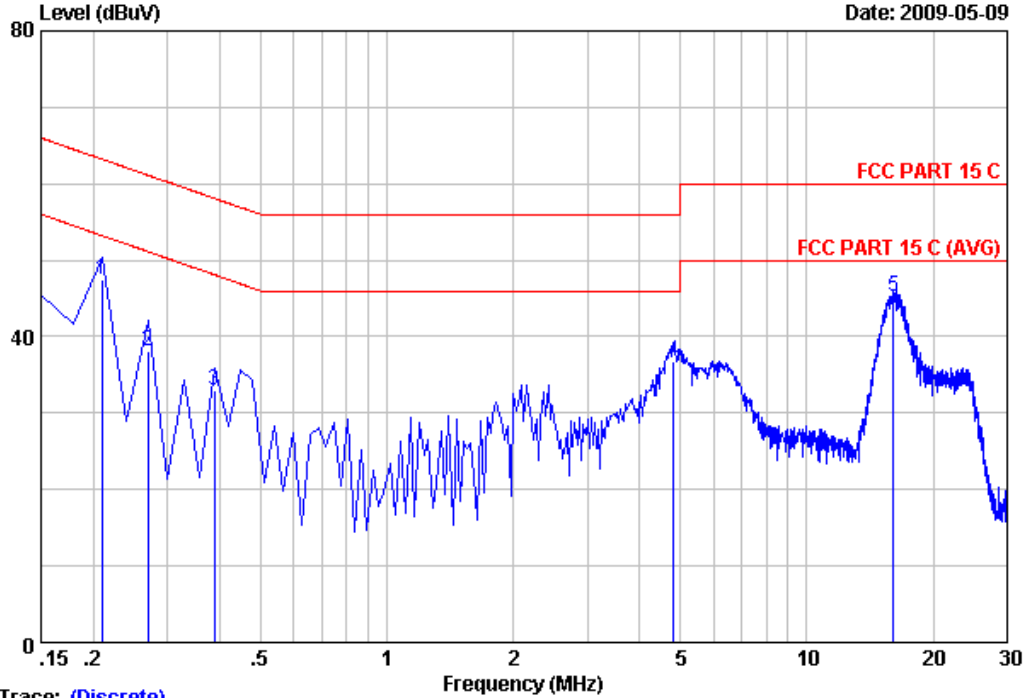
No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.20970	0.29	9.91	34.48	44.68	63.22	18.54	QP
2	0.26940	0.27	9.89	28.09	38.25	61.14	22.89	QP
3	0.32910	0.25	9.88	21.65	31.78	59.47	27.69	QP
4	0.44850	0.21	9.87	21.96	32.04	56.90	24.86	QP
5	4.986	0.10	9.92	29.32	39.34	56.00	16.66	QP
6	16.448	0.34	10.05	32.78	43.17	60.00	16.83	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading
 2.If the average limit is met when using a quasi-peak detector,
 the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.



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Data: 2 File: D:\DATA\2009 Report\T\TP-LINK\ACS9Q602.EM6 (2)



Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :2
 Dis./Ant. **: KNW407 1# VB
 Limit :FCC PART 15 C
 Env./Ins. :Temp:23'C Humi:54% Engineer :Sunny-Lu
 EUT :108M Wireless Router M/N:MR4-WR642G
 Power Rating :DC12V From Adapter input AC 120V/60Hz
 Test Mode :Tx Mode

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.20970	0.11	9.91	37.41	47.43	63.22	15.79	QP
2	0.26940	0.13	9.89	28.17	38.19	61.14	22.95	QP
3	0.38880	0.17	9.88	22.86	32.91	58.09	25.18	QP
4	4.807	0.05	9.92	26.89	36.86	56.00	19.14	QP
5	16.060	0.30	10.04	34.82	45.16	60.00	14.84	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading
 2.If the average limit is met when using a quasi-peak detector,
 the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1. Test Equipment

Frequency rang: 30~1000MHz

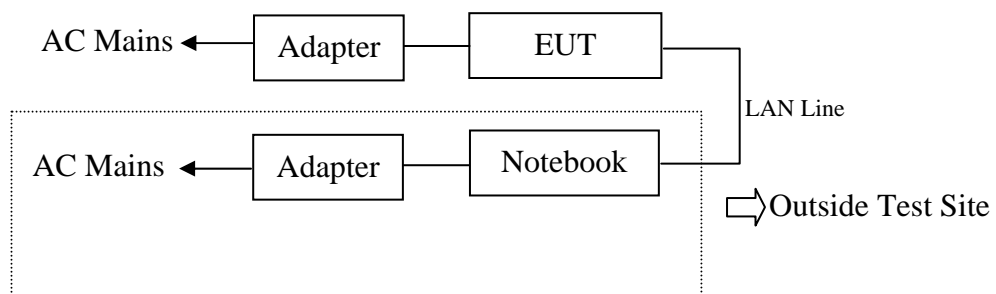
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Dec.05,08	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 09	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 09	1 Year
4.	Amplifier	HP	8447D	2648A04738	May.08, 09	1 Year
5.	Bilog Antenna	Schaffner	CBL6111C	2598	Nov.10, 08	1 Year
6.	RF Cable	JINGCHENG	JBV400	3# Chamber No.1	May.08, 09	1 Year
7.	RF Cable	JINGCHENG	JBV400	3# Chamber No.2	May.08, 09	1 Year
8.	RF Cable	JINGCHENG	JBV400	3# Chamber No.3	May.08, 09	1 Year
9.	RF Cable	JINGCHENG	JBV400	3# Chamber No.4	May.08, 09	1 Year
10.	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 09	1 Year

Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	May.27, 08	1.5 Year
3.	Horn Antenna	EMCO	3116	00060088	May.27, 08	1.5Year
4.	Amplifier	Agilent	8449B	3008A02495	Nov.24,08	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08, 09	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	271471/4	May.08, 09	1 Year
7.	RF Cable	Hubersuhner	SUCOFLEX102	29086/2	May.08, 09	1 Year

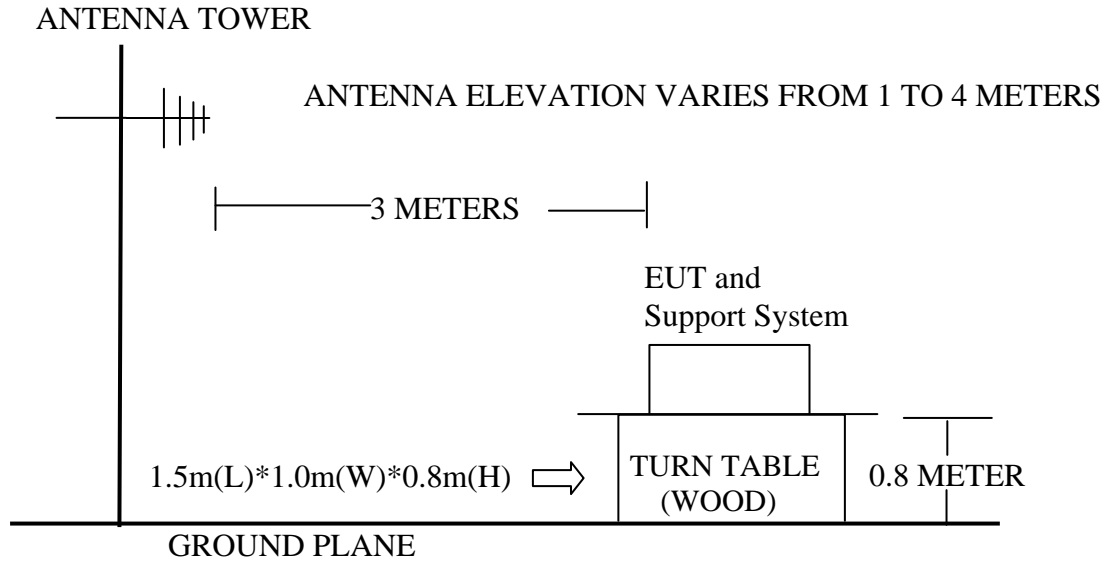
4.2. Block Diagram of Test Setup

4.2.1. Block diagram of connection between the EUT and simulators



(EUT: 108M Wireless Router)

4.2.2. In Anechoic Chamber



4.3. Radiated Emission Limit

4.3.1. 15.209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

- Remark :
- (1) Emission level $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V}/\text{m}$
 - (2) The smaller limit shall apply at the cross point between two frequency bands.
 - (3) The emissions above 1GHz should comply with average limit and peak limit.

4.3.2. 15.205 Restricted bands of operation

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	2690 - 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 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4.EUT Configuration on Test

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.4.1.108M Wireless Router (EUT)

Model Number : MR4-WR642G; ARP-4P Super G
Serial Number : N/A

4.4.2.Support Equipment : As Tested Supporting System Detail, in Section 2.4.

4.5.Operating Condition of EUT

4.5.1.Setup the EUT and simulator as shown as Section 4.2.

4.5.2.Turned on the power of all equipment.

4.5.3.Notebook run test software to control the EUT worked in test mode (Tx Mode) and measured it.

4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

This EUT have three antennas, and change the position to find the worse case.

The worst case is both antenna in vertical position, as the test setup photos indicated and this position was chosen for final test and reported in this report.

The bandwidth of the test receiver (R&S ESVS20) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

4.7. Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

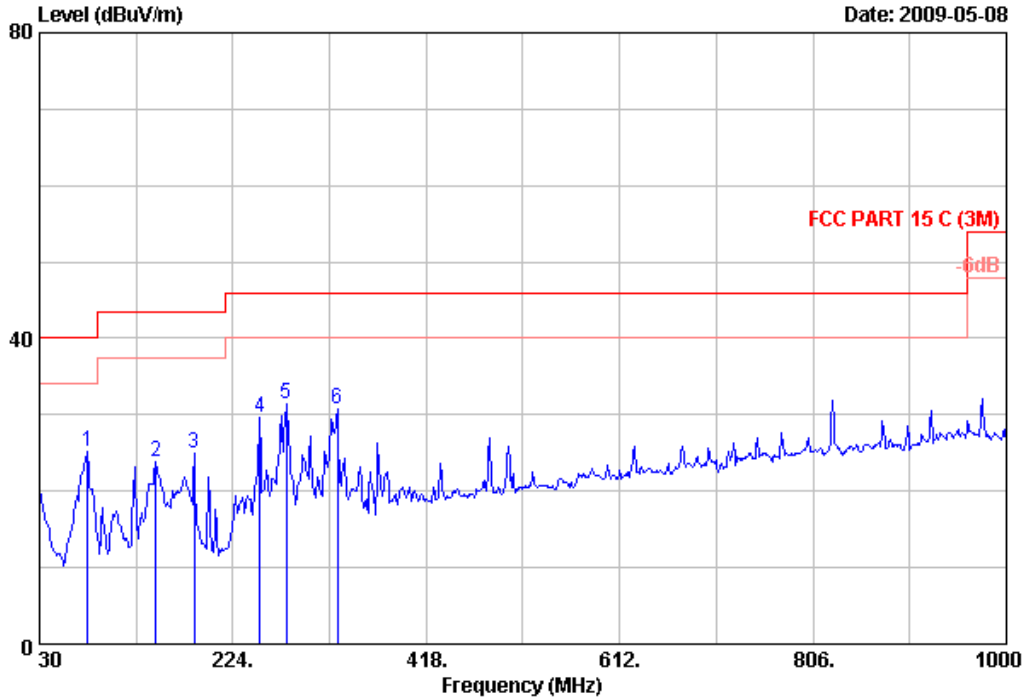
Frequency: 30MHz~1GHz



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Data: 4 File: D:\2009 Report Data\T\TP-LINK\ACS9Q602.EM6 (4)

Date: 2009-05-08



Site no. : 3m Chamber Data no. : 4
 Dis. / Ant. : 3m CBL6111C Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 24°C/56% Engineer : Sunny-Lu
 EUT : 108M Wireless Router M/N:MR4-WR642G
 Power Rating : DC12V From Adapter input AC 120V/60Hz
 Test Mode : Tx Mode

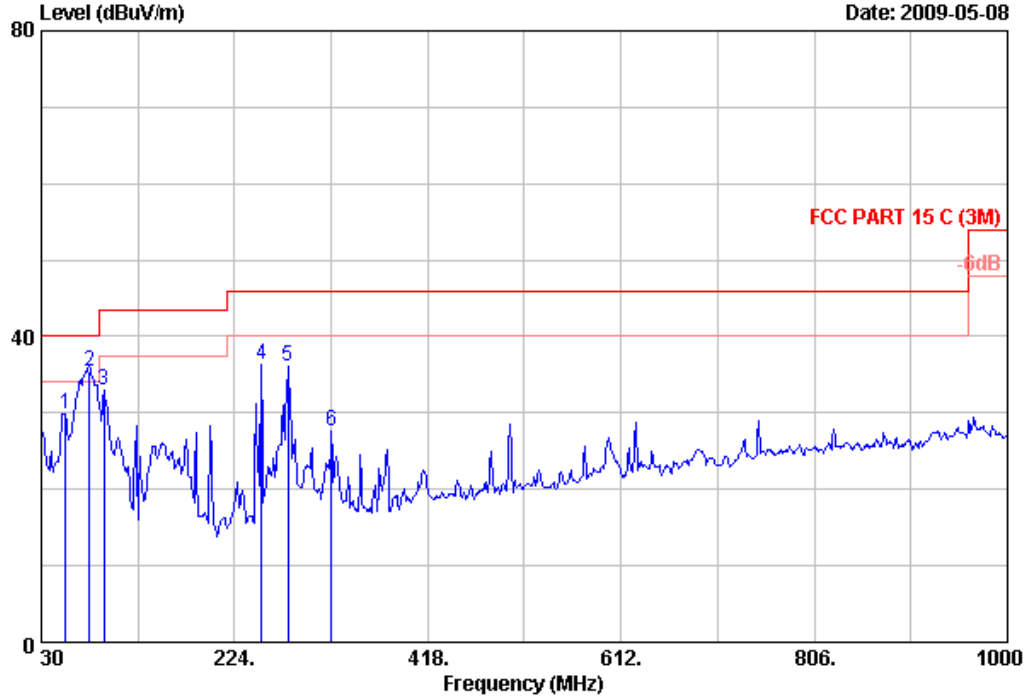
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	78.500	7.56	0.61	44.80	25.19	40.00	14.81	QP
2	146.400	11.70	0.94	38.64	23.81	43.50	19.69	QP
3	185.200	9.34	1.07	41.91	25.03	43.50	18.47	QP
4	251.160	12.75	1.60	42.24	29.56	46.00	16.44	QP
5	277.350	13.13	1.48	43.81	31.48	46.00	14.52	QP
6	328.760	14.28	1.76	41.82	30.78	46.00	15.22	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 3 File: D:\2009 Report Data\T\TP-LINK\ACS9Q602.EM6 (4)



Site no. : 3m Chamber Data no. : 3
 Dis. / Ant. : 3m CBL6111C Ant. pol. : VERTICAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 24°C/56% Engineer : Sunny-Lu
 EUT : 108M Wireless Router M/N:MR4-WR642G
 Power Rating : DC12V From Adapter input AC 120V/60Hz
 Test Mode : Tx Mode

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	54.250	7.40	0.48	49.91	29.93	40.00	10.07	QP
2	78.500	7.56	0.61	55.04	35.43	40.00	4.57	QP
3	93.050	9.34	0.69	50.70	33.05	43.50	10.45	QP
4	251.160	12.75	1.60	49.11	36.43	46.00	9.57	QP
5	277.350	13.13	1.48	48.36	36.03	46.00	9.97	QP
6	321.000	13.99	1.61	39.06	27.64	46.00	18.36	QP

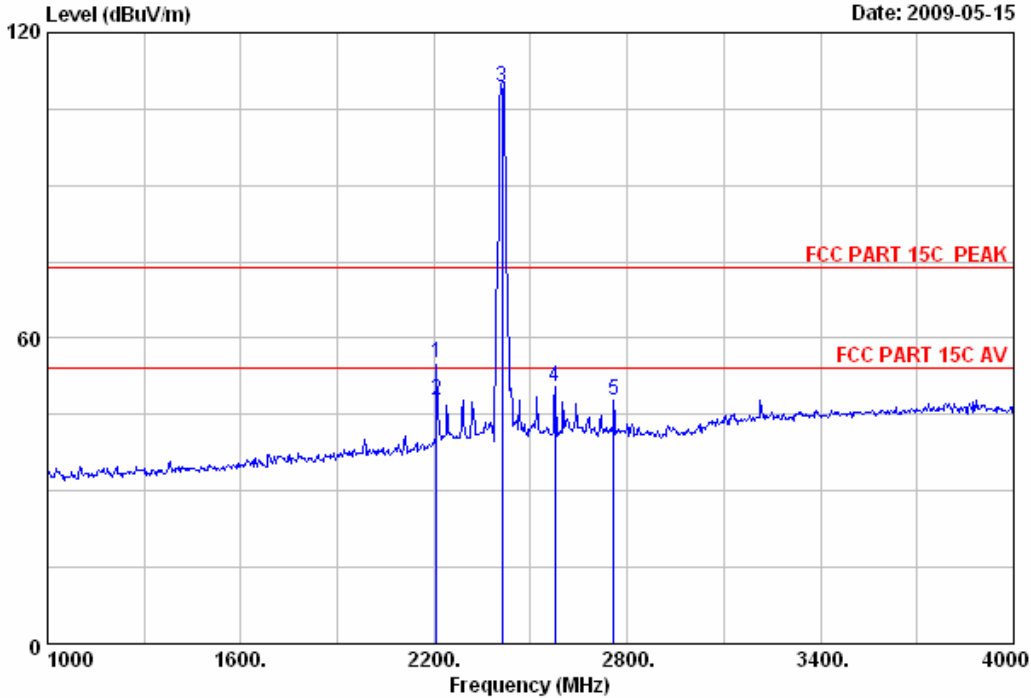
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~4GHz
 Test Mode: IEEE802.11b Tx



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Data: 43 File: E:\2009 report data\TTP-LINK\ACS9Q602.EM6 (100) Date: 2009-05-15



Site no. : 3m Chamber Data no. : 43
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N : MR4-WR642G

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2208.000	28.19	6.51	35.16	55.54	55.08	74.00	18.92	Peak
2	2208.000	28.19	6.51	35.16	48.17	47.71	54.00	6.29	Average
3	2412.000	28.48	6.73	35.12	109.19	109.28	74.00	-35.28	Peak
4	2575.000	28.87	7.01	35.08	49.74	50.54	74.00	23.46	Peak
5	2758.000	29.40	7.31	35.05	46.16	47.82	74.00	26.18	Peak

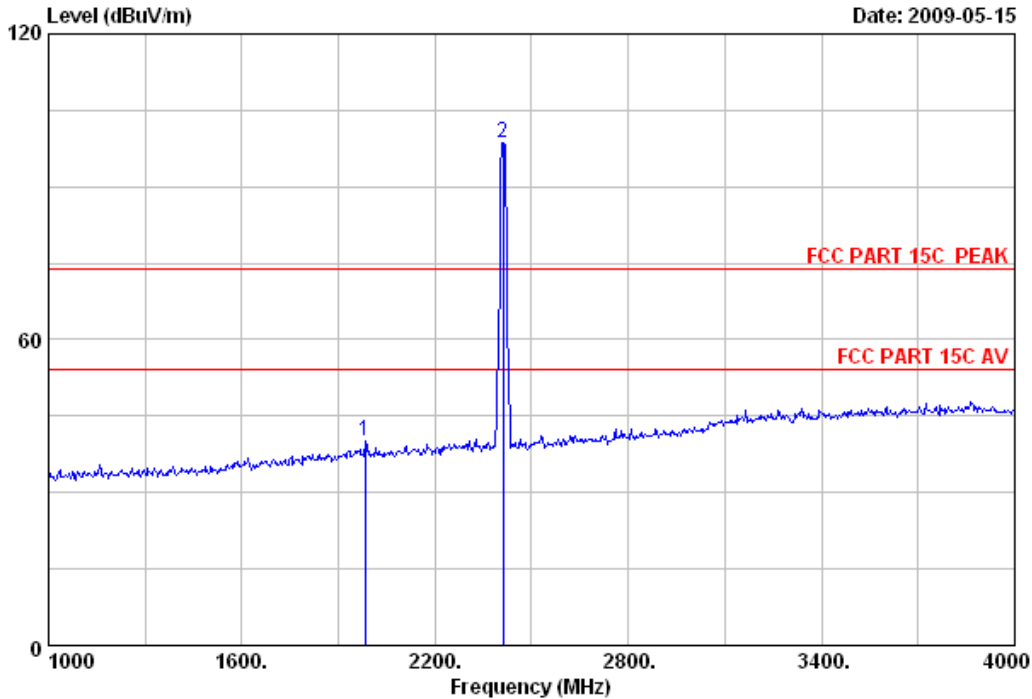
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 44 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no.	: 3m Chamber	Data no.	: 44
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH1 2412MHz		
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1984.000	27.83	6.16	35.20	41.42	40.21	74.00	33.79	Peak
2	2412.000	28.48	6.73	35.12	98.58	98.67	74.00	-24.67	Peak

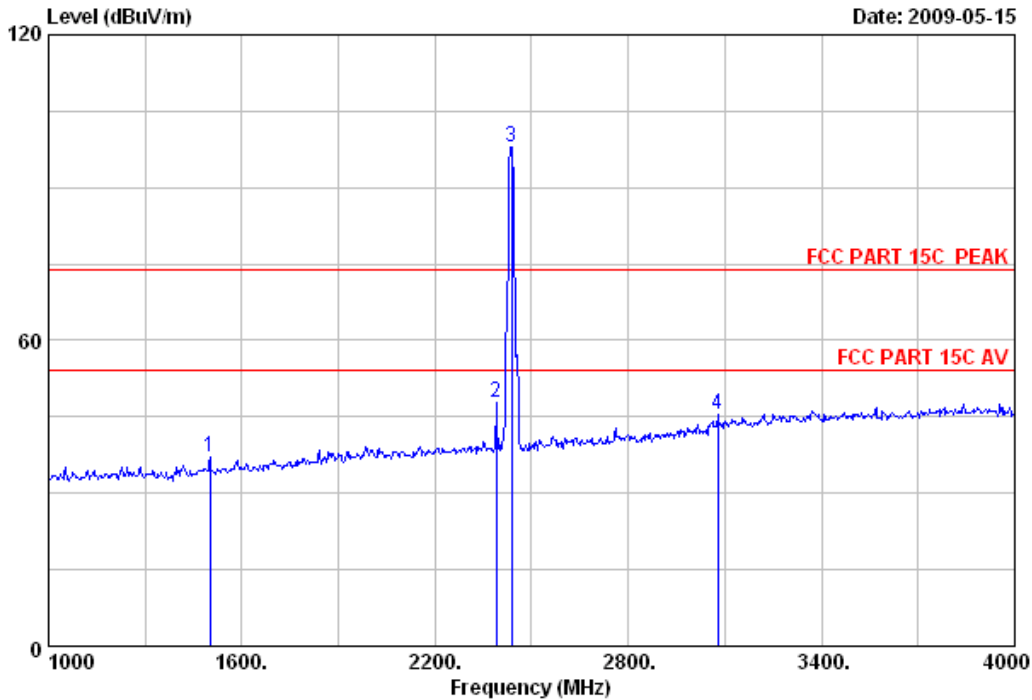
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 45 File: E:\2009 report data\T\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 45
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH6 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Cable Amp.			Emission				
		Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dbuv)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1501.000	25.90	5.32	35.74	41.58	37.06	74.00	36.94	Peak
2	2389.000	28.46	6.71	35.12	47.64	47.69	74.00	26.31	Peak
3	2437.000	28.53	6.80	35.11	97.83	98.05	74.00	-24.05	Peak
4	3079.000	30.39	7.83	34.98	42.06	45.30	74.00	28.70	Peak

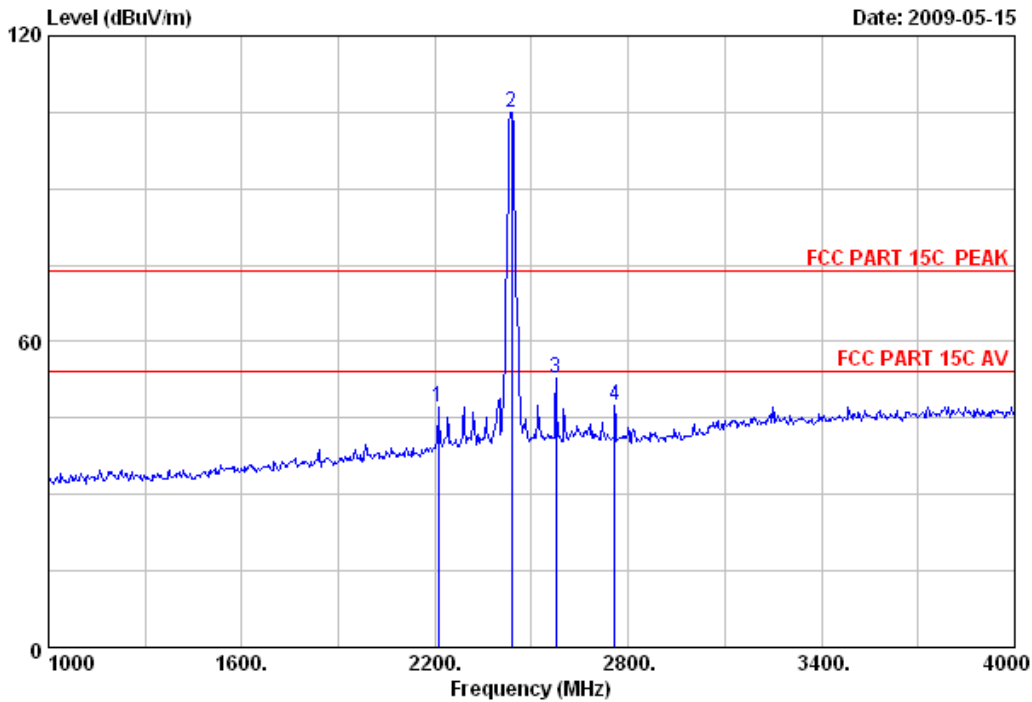
Remarks:

- Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- The emission levels that are 20dB below the official limit are not reported.



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Data: 46 File: E:\2009 report data\T\TP-LINK\ACS90602.EM6 (100)



Site no. : 3m Chamber Data no. : 46
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH6 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2209.000	28.19	6.51	35.16	47.61	47.15	74.00	26.85	Peak
2	2437.000	28.53	6.80	35.11	104.66	104.88	74.00	-30.88	Peak
3	2575.000	28.87	7.01	35.08	51.98	52.78	74.00	21.22	Peak
4	2758.000	29.40	7.31	35.05	45.86	47.52	74.00	26.48	Peak

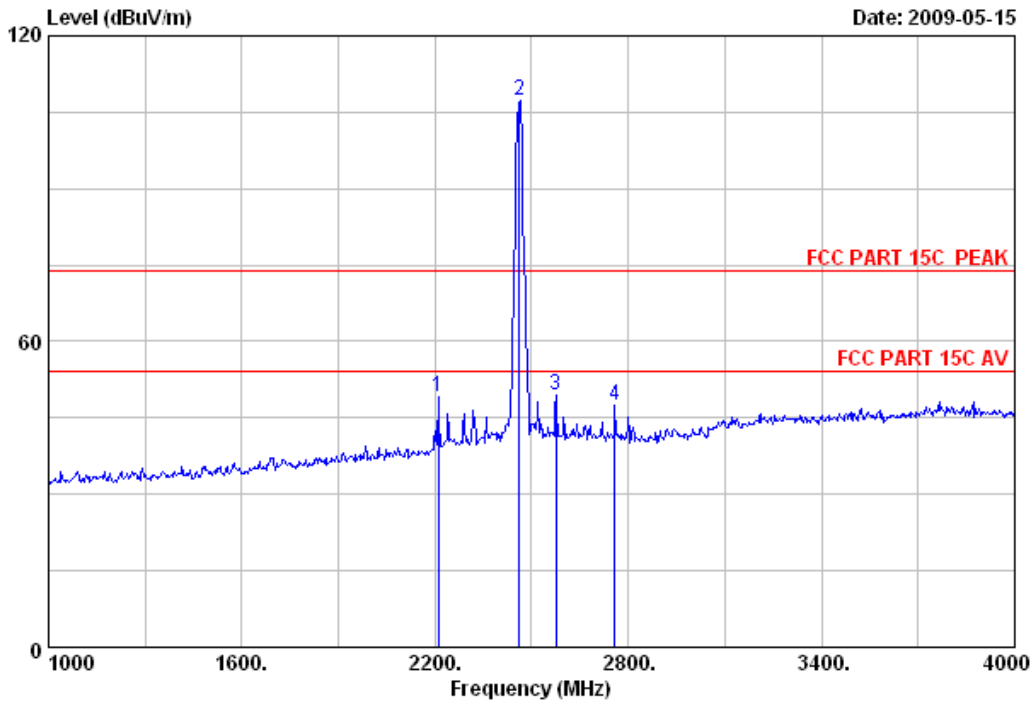
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 47
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N : MR4-WR642G

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2209.000	28.19	6.51	35.16	49.55	49.09	74.00	24.91	Peak
2	2462.000	28.55	6.84	35.11	107.15	107.43	74.00	-33.43	Peak
3	2575.000	28.87	7.01	35.08	48.71	49.51	74.00	24.49	Peak
4	2758.000	29.40	7.31	35.05	45.81	47.47	74.00	26.53	Peak

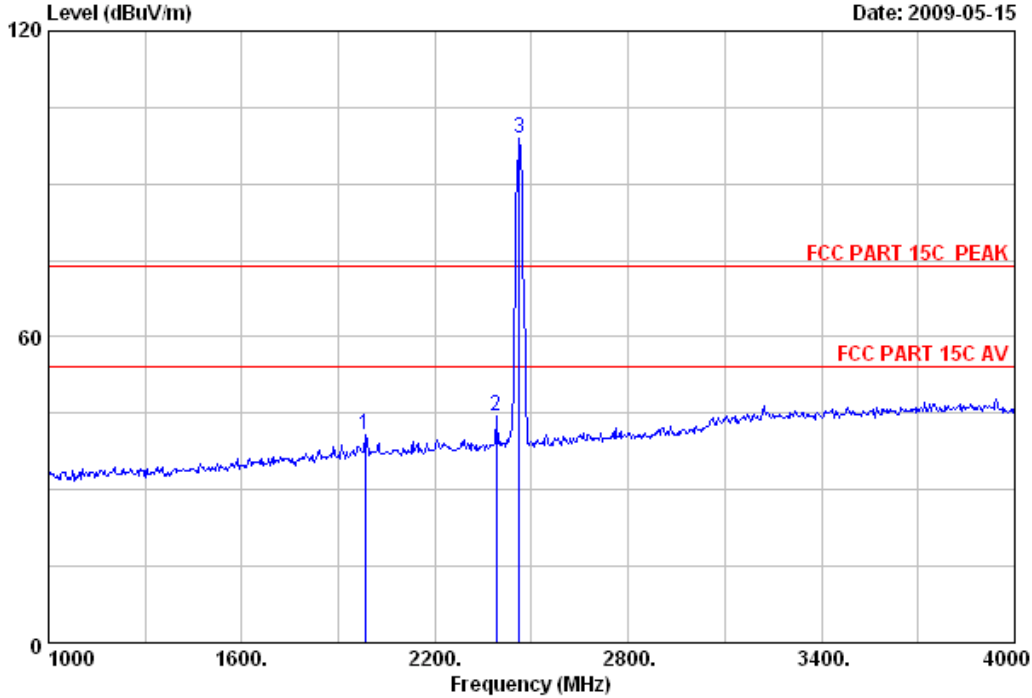
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no.	: 3m Chamber	Data no.	: 48
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH11 2462MHz		
M/N	: MR4-WR642G		

	Ant. Factor	Cable loss	Amp. Factor	Reading	Emission Level	Limits	Margin	Remark
Freq. (MHz)	(dB/m)	(dB)	(dB)	(dbuv)	(dBuV/m)	(dBuV/m)	(dB)	
1 1984.000	27.83	6.16	35.20	41.99	40.78	74.00	33.22	Peak
2 2389.000	28.46	6.71	35.12	44.53	44.58	74.00	29.42	Peak
3 2462.000	28.55	6.84	35.11	98.63	98.91	74.00	-24.91	Peak

Remarks:

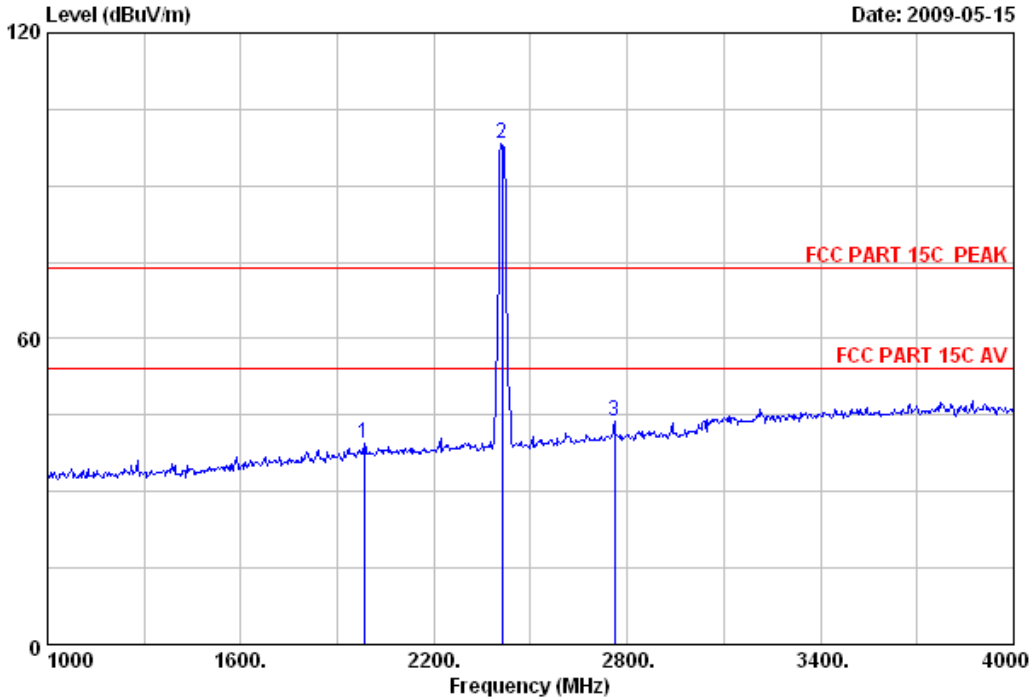
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Test Mode: IEEE802.11g Tx



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Site no. : 3m Chamber Data no. : 49
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N : MR4-WR642G

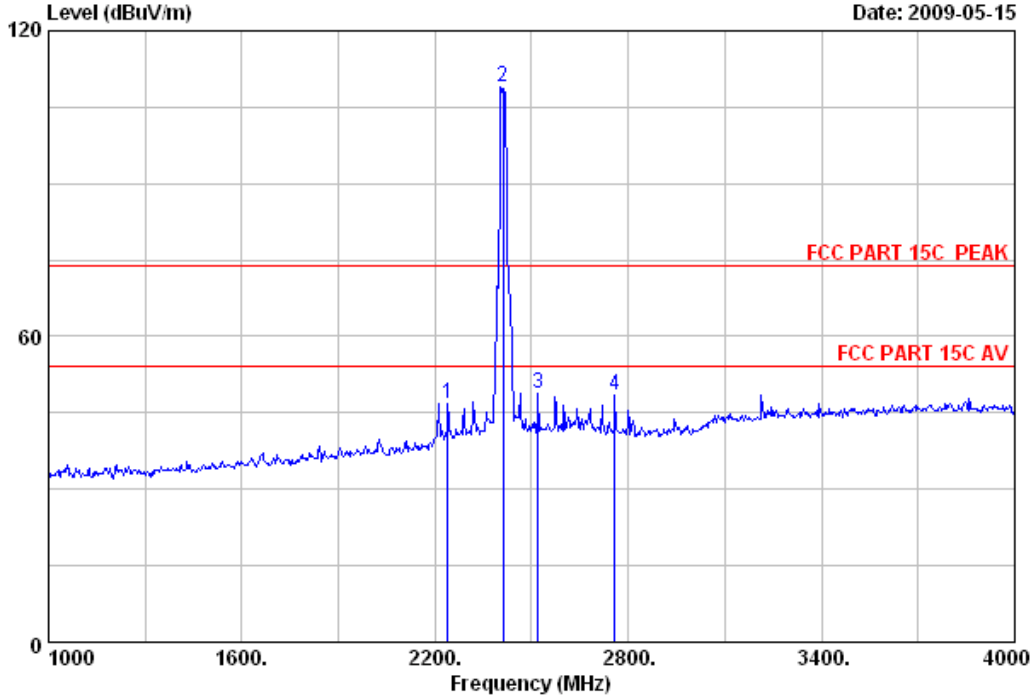
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	1984.000	27.83	6.16	35.20	40.61	39.40	74.00	34.60	Peak
2	2412.000	28.48	6.73	35.12	98.08	98.17	74.00	-24.17	Peak
3	2761.000	29.45	7.31	35.05	42.12	43.83	74.00	30.17	Peak

Remarks:
 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 50 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 50
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2239.000	28.24	6.53	35.15	47.13	46.75	74.00	27.25	Peak
2	2412.000	28.48	6.73	35.12	108.89	108.98	74.00	-34.98	Peak
3	2521.000	28.65	6.93	35.09	48.36	48.85	74.00	25.15	Peak
4	2758.000	29.40	7.31	35.05	46.77	48.43	74.00	25.57	Peak

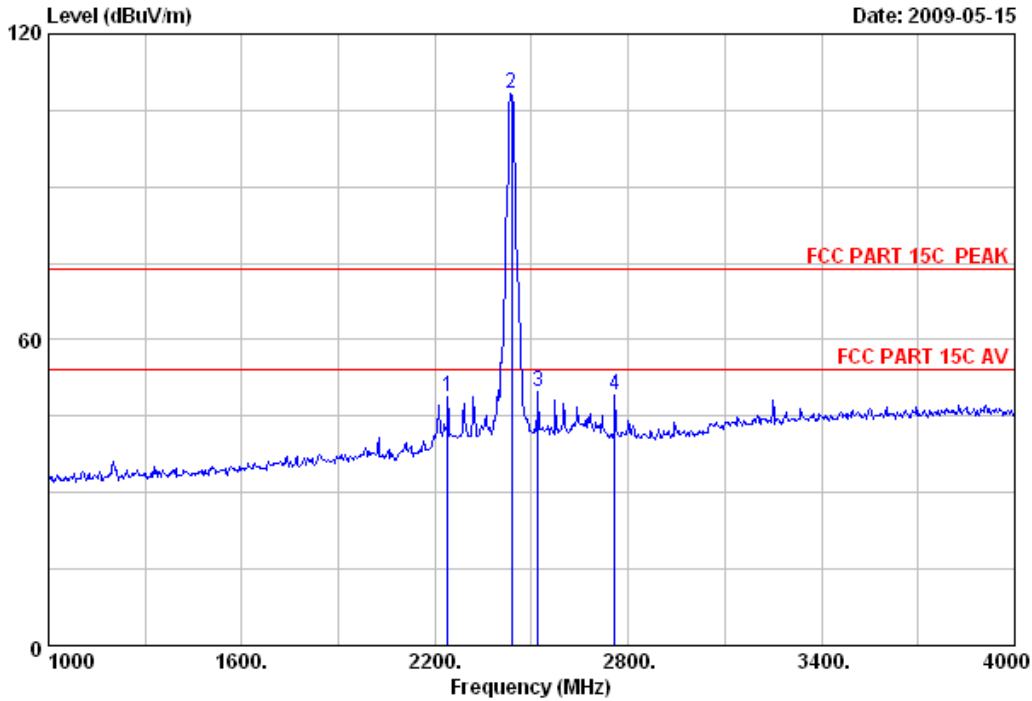
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no.	: 3m Chamber	Data no.	: 51
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz		
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2239.000	28.24	6.53	35.15	49.09	48.71	74.00	25.29	Peak
2	2437.000	28.53	6.80	35.11	108.13	108.35	74.00	-34.35	Peak
3	2521.000	28.65	6.93	35.09	49.48	49.97	74.00	24.03	Peak
4	2758.000	29.40	7.31	35.05	47.43	49.09	74.00	24.91	Peak

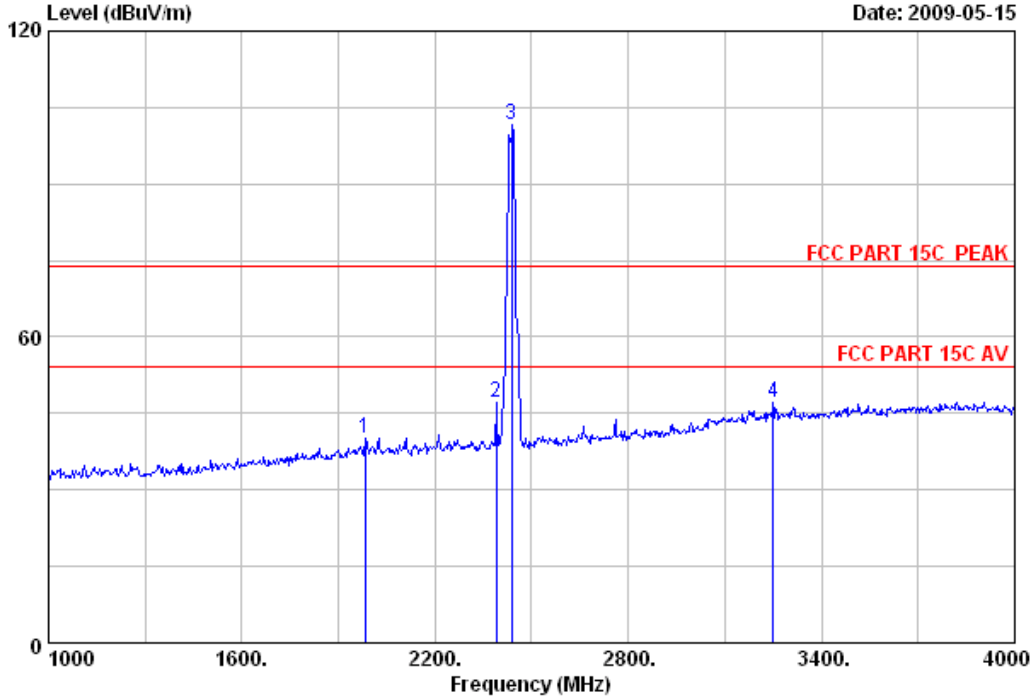
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no.	: 3m Chamber	Data no.	: 52
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz		
M/N	: MR4-WR642G		

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1984.000	27.83	6.16	35.20	41.17	39.96	74.00	34.04	Peak
2	2389.000	28.46	6.71	35.12	47.24	47.29	74.00	26.71	Peak
3	2437.000	28.53	6.80	35.11	101.32	101.54	74.00	-27.54	Peak
4	3250.000	30.88	8.23	34.95	42.82	46.98	74.00	27.02	Peak

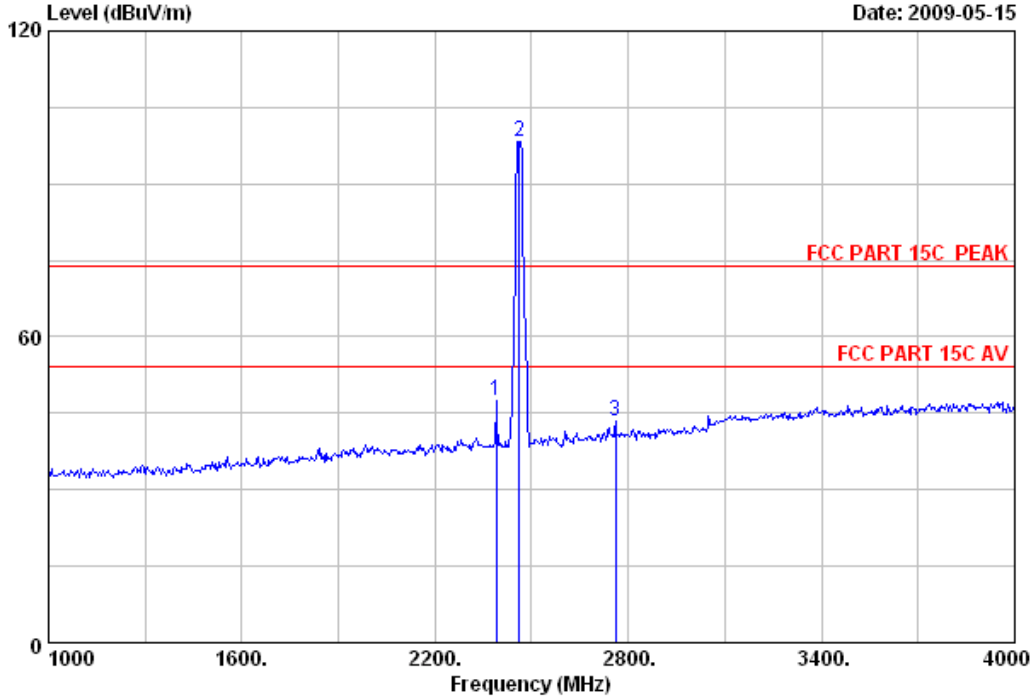
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 53 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no.	: 3m Chamber	Data no.	: 53
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz		
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2389.000	28.46	6.71	35.12	47.57	47.62	74.00	26.38	Peak
2	2462.000	28.55	6.84	35.11	98.01	98.29	74.00	-24.29	Peak
3	2761.000	29.45	7.31	35.05	41.62	43.33	74.00	30.67	Peak

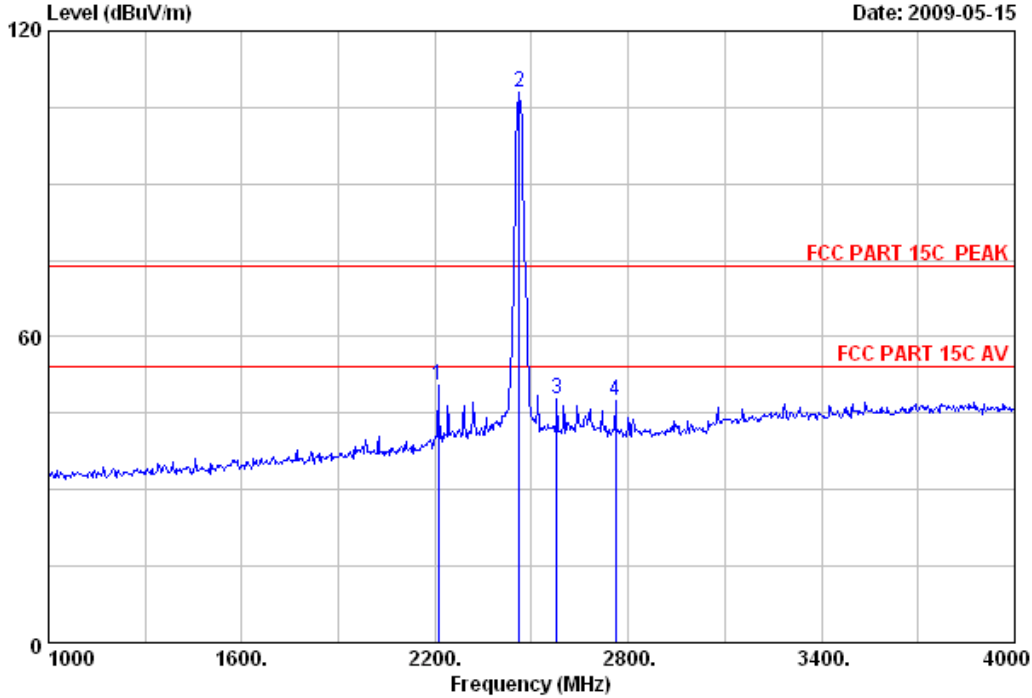
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 54
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2209.000	28.19	6.51	35.16	50.94	50.48	74.00	23.52	Peak
2	2462.000	28.55	6.84	35.11	107.68	107.96	74.00	-33.96	Peak
3	2578.000	28.87	7.01	35.08	46.96	47.76	74.00	26.24	Peak
4	2761.000	29.45	7.31	35.05	45.61	47.32	74.00	26.68	Peak

Remarks:

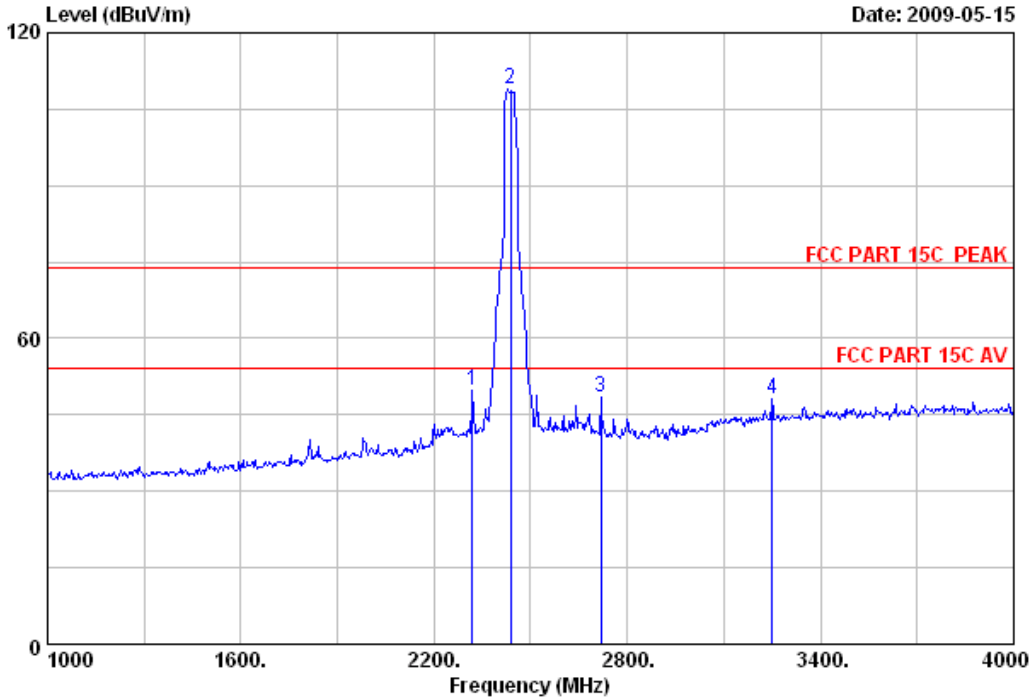
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Test Mode: IEEE802.11g Turbo Tx



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Site no. : 3m Chamber Data no. : 55
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g TURBO 2437MHz
 M/N : MR4-WR642G

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	2320.000	28.36	6.65	35.13	49.79	49.67	74.00	24.33	Peak
2	2437.000	28.53	6.80	35.11	108.91	109.13	74.00	-35.13	Peak
3	2719.000	29.29	7.24	35.06	46.93	48.40	74.00	25.60	Peak
4	3250.000	30.88	8.23	34.95	43.98	48.14	74.00	25.86	Peak

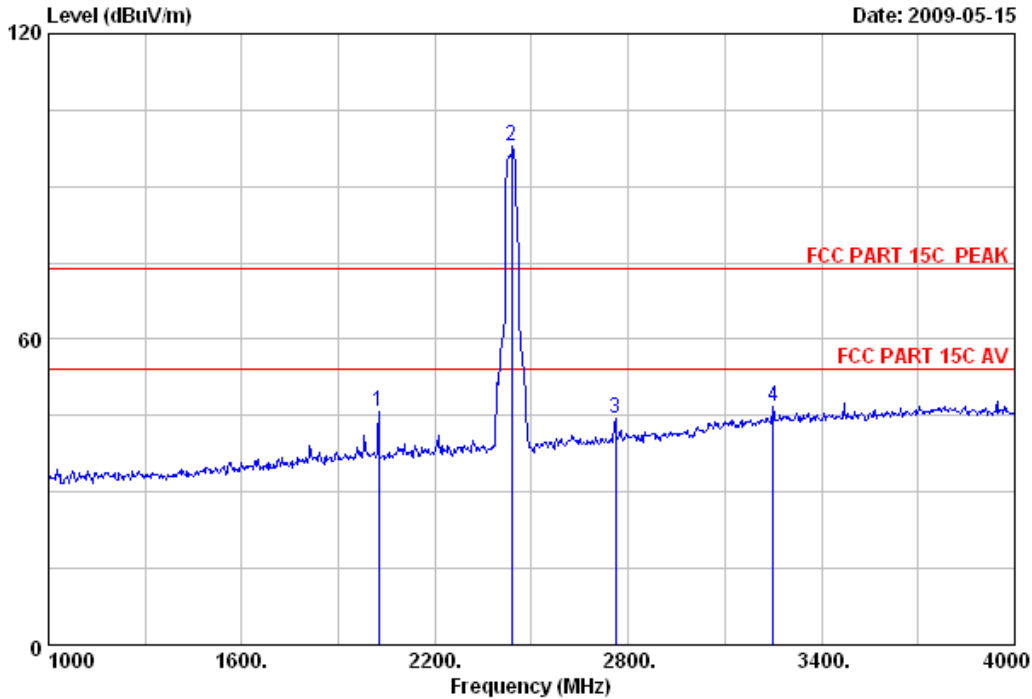
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 56 File: E:\2009 report data\T\TP-LINK\ACS9Q602.EM6 (100)



Site no.	: 3m Chamber	Data no.	: 56
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g TURBO 2437MHz		
M/N	: MR4-WR642G		

	Ant. Freq. (MHz)	Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2026.000	27.92	6.23	35.19	46.76	45.72	74.00	28.28	Peak
2	2437.000	28.53	6.80	35.11	97.82	98.04	74.00	-24.04	Peak
3	2761.000	29.45	7.31	35.05	42.65	44.36	74.00	29.64	Peak
4	3250.000	30.88	8.23	34.95	42.75	46.91	74.00	27.09	Peak

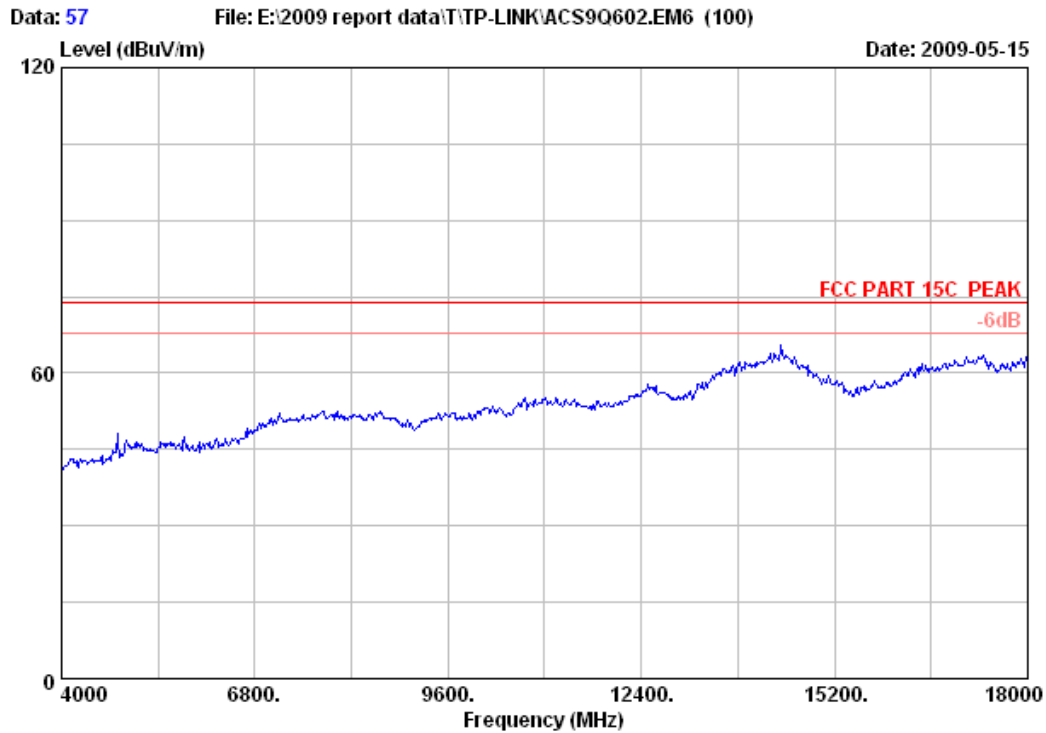
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 4GHz~18GHz
 Test Mode: IEEE802.11b Tx



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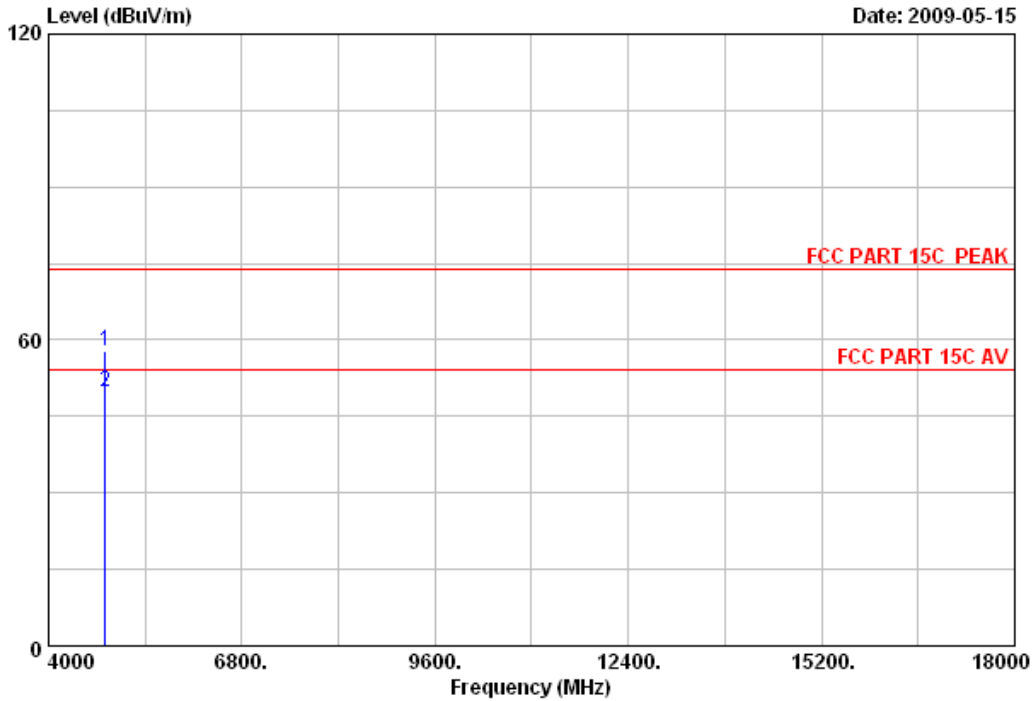


Site no.	: 3m Chamber	Data no.	: 57
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH1 2412MHz		
M/N	: MR4-WR642G		



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Data: 58 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 58
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.47	10.55	34.59	47.37	57.80	74.00	16.20	Peak
2	4824.000	34.47	10.55	34.59	39.24	49.67	54.00	4.33	Average

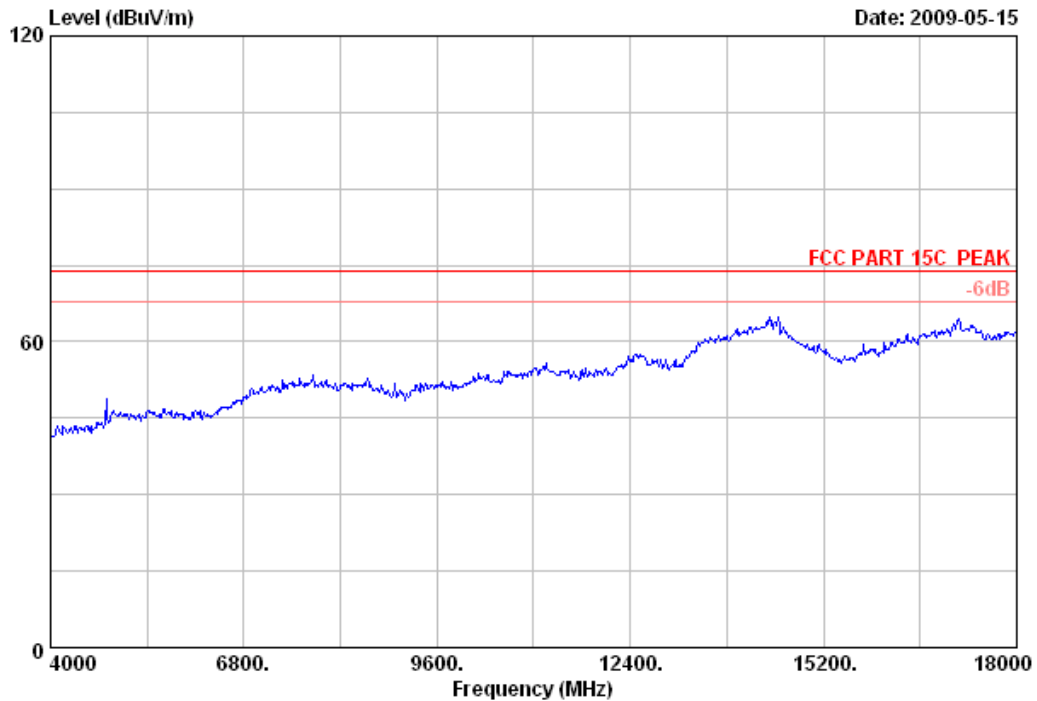
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 59 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

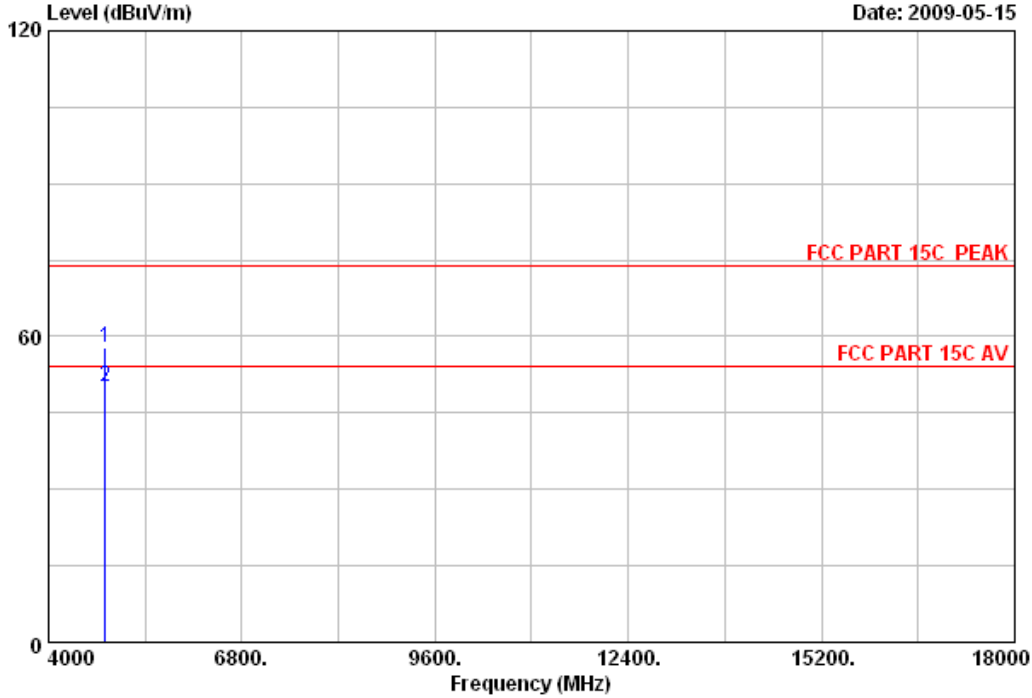


Site no.	: 3m Chamber	Data no.	: 59
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11b CH1 2412MHz		
M/N	: MR4-WR642G		



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Data: 60 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 60
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.47	10.55	34.59	47.50	57.93	74.00	16.07	Peak
2	4824.000	34.47	10.55	34.59	39.55	49.98	54.00	4.02	Average

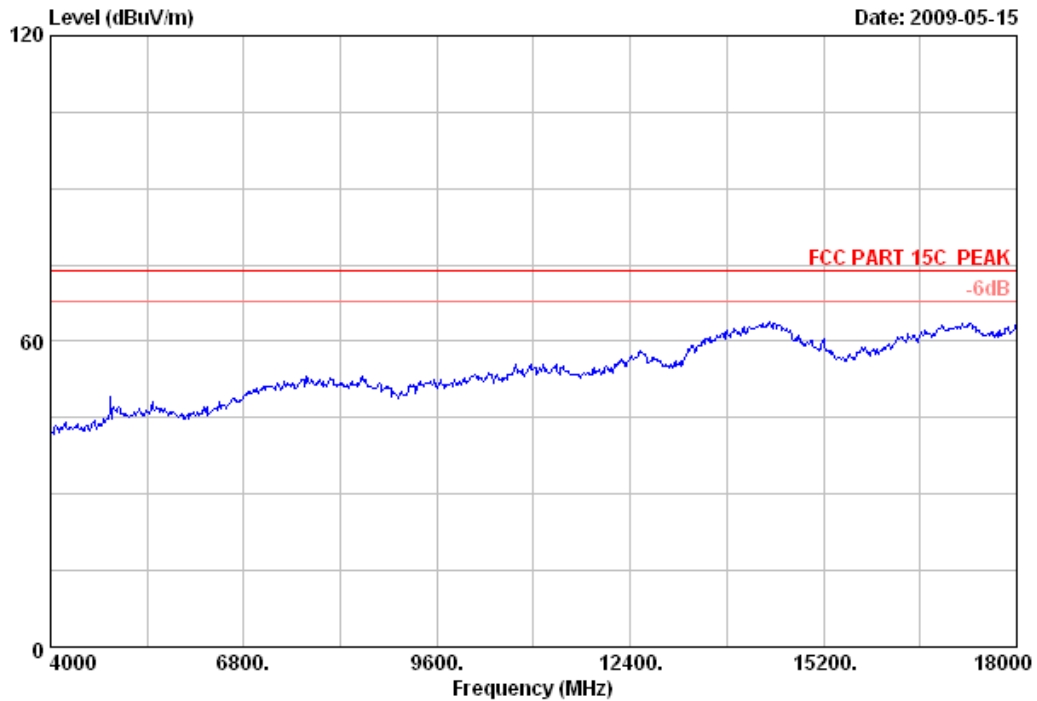
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 61 File: E:\2009 report data\T\TP-LINK\ACS9Q602.EM6 (100)

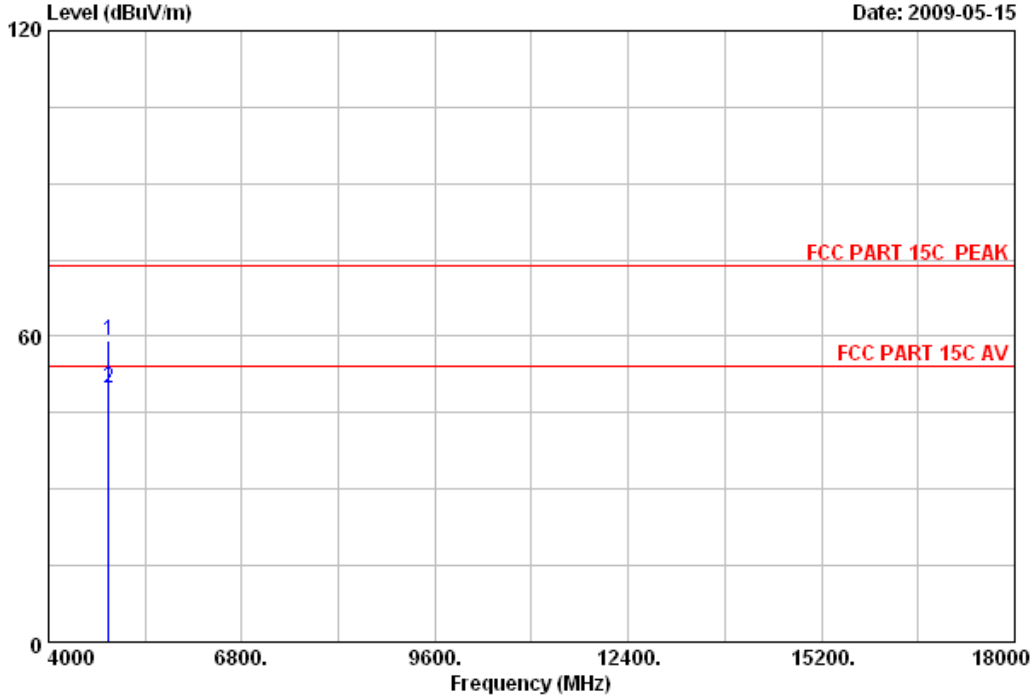


Site no.	: 3m Chamber	Data no.	: 61
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11b CH6 2437MHz		
M/N	: MR4-WR642G		



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Data: 62 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 62
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH6 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.78	10.56	34.58	48.43	59.19	74.00	14.81	Peak
2	4874.000	34.78	10.56	34.58	39.11	49.87	54.00	4.13	Average

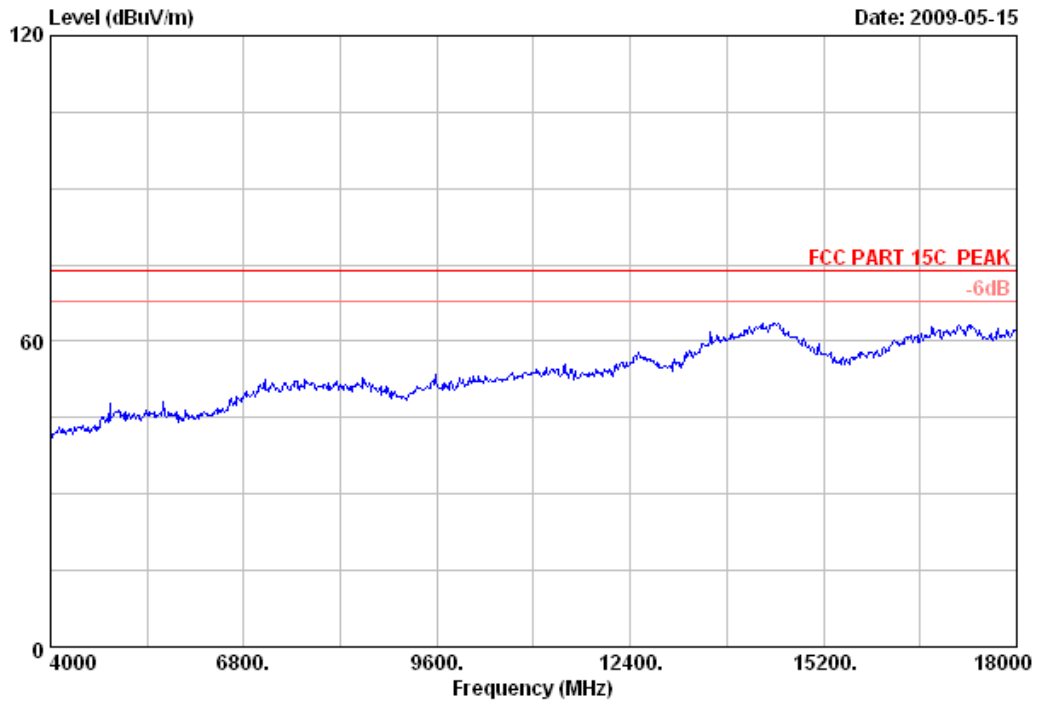
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 63 File: E:\2009 report data\T\TP-LINK\ACS9Q602.EM6 (100)

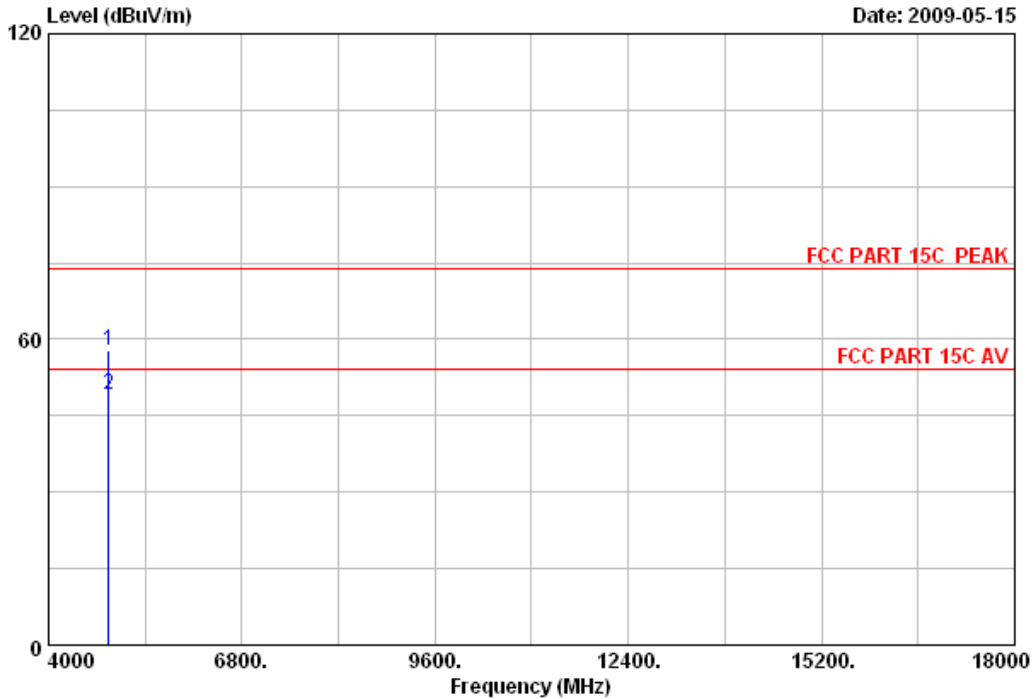


Site no.	: 3m Chamber	Data no.	: 63
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input	AC	120V/60Hz
Test mode	: IEEE802.11b CH6 2437MHz		
M/N	: MR4-WR642G		



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Data: 64 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 64
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH6 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.78	10.56	34.58	47.18	57.94	74.00	16.06	Peak
2	4874.000	34.78	10.56	34.58	38.42	49.18	54.00	4.82	Average

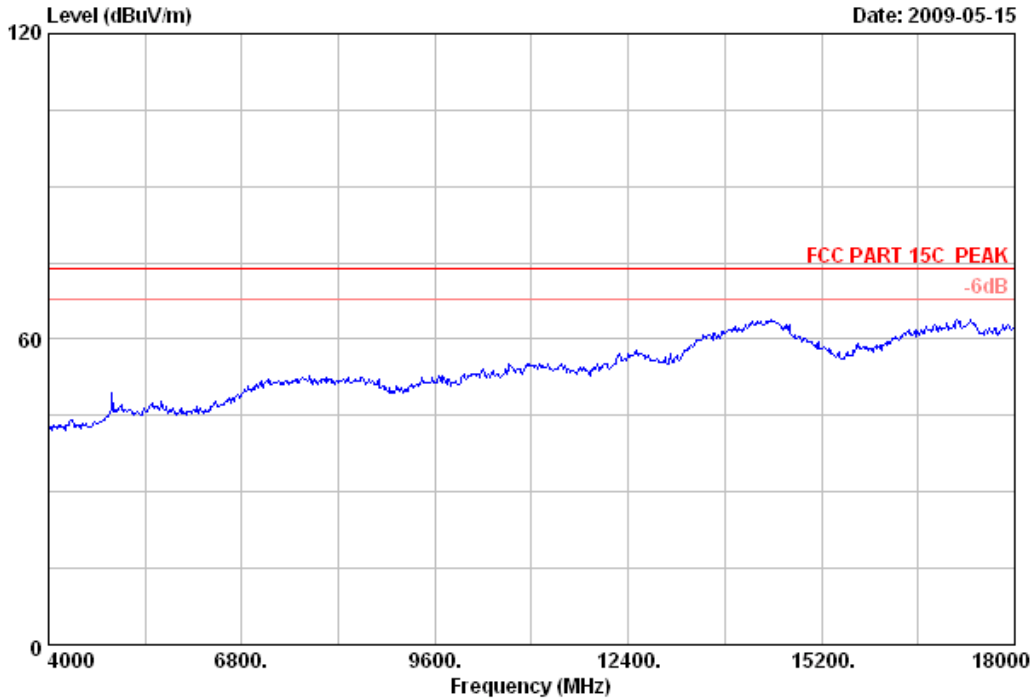
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 65 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

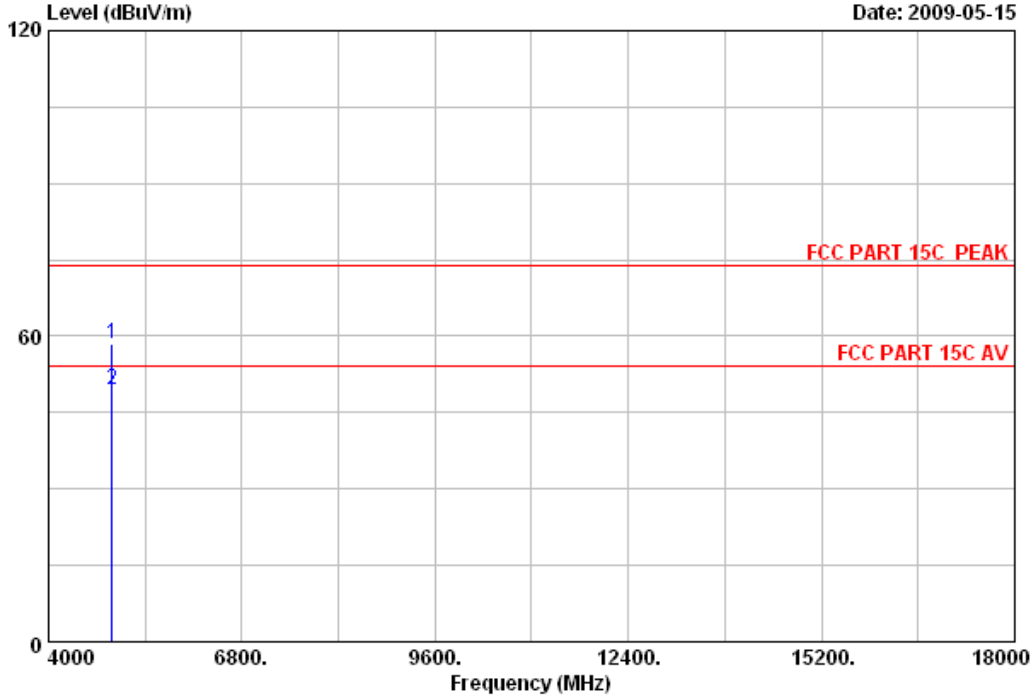


Site no.	: 3m Chamber	Data no.	: 65
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH11 2462MHz		
M/N	: MR4-WR642G		



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Data: 66 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 66
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	35.09	10.58	34.57	47.45	58.55	74.00	15.45	Peak
2	4924.000	35.09	10.58	34.57	38.24	49.34	54.00	4.66	Average

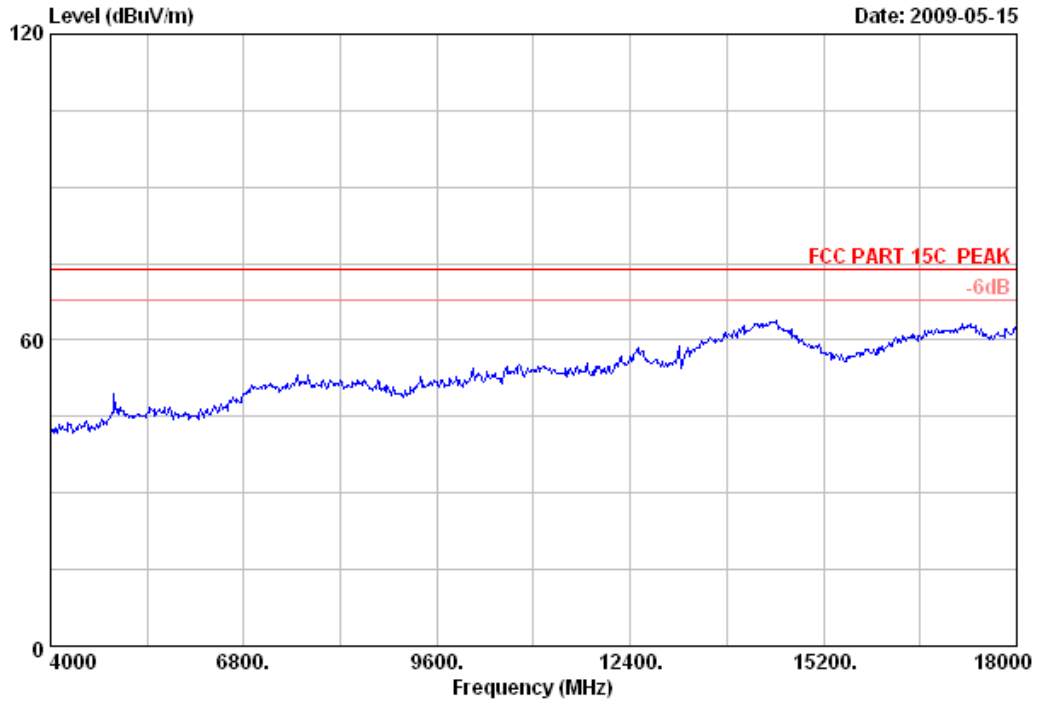
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 67 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

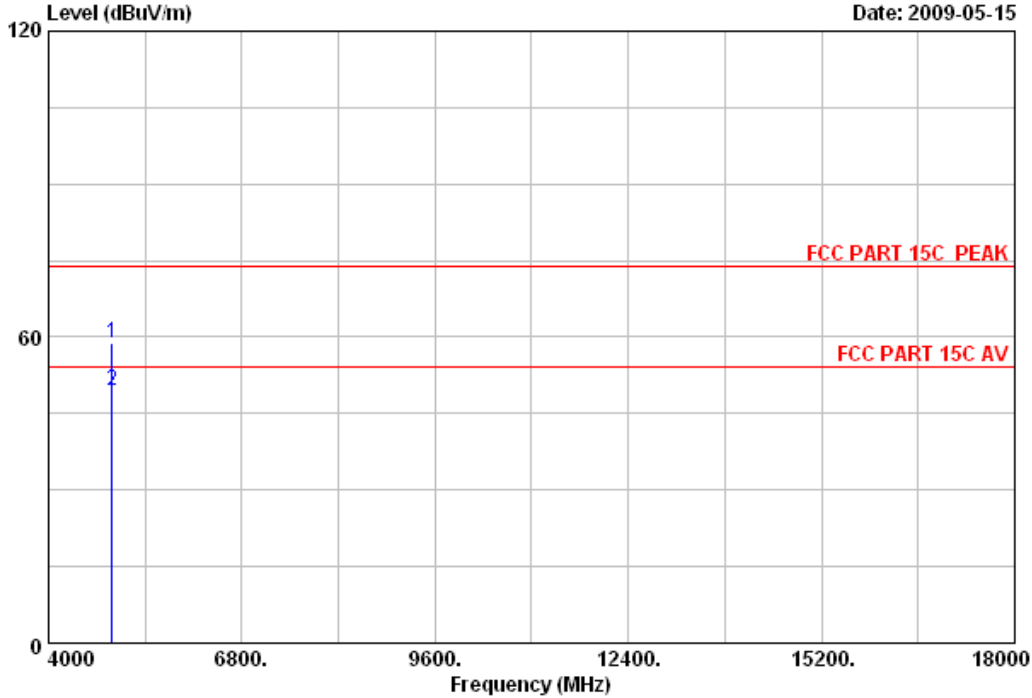


Site no.	: 3m Chamber	Data no.	: 67
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH11 2462MHz		
M/N	: MR4-WR642G		



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Data: 68 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 68
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	35.09	10.58	34.57	47.69	58.79	74.00	15.21	Peak
2	4924.000	35.09	10.58	34.57	38.28	49.38	54.00	4.62	Average

Remarks:

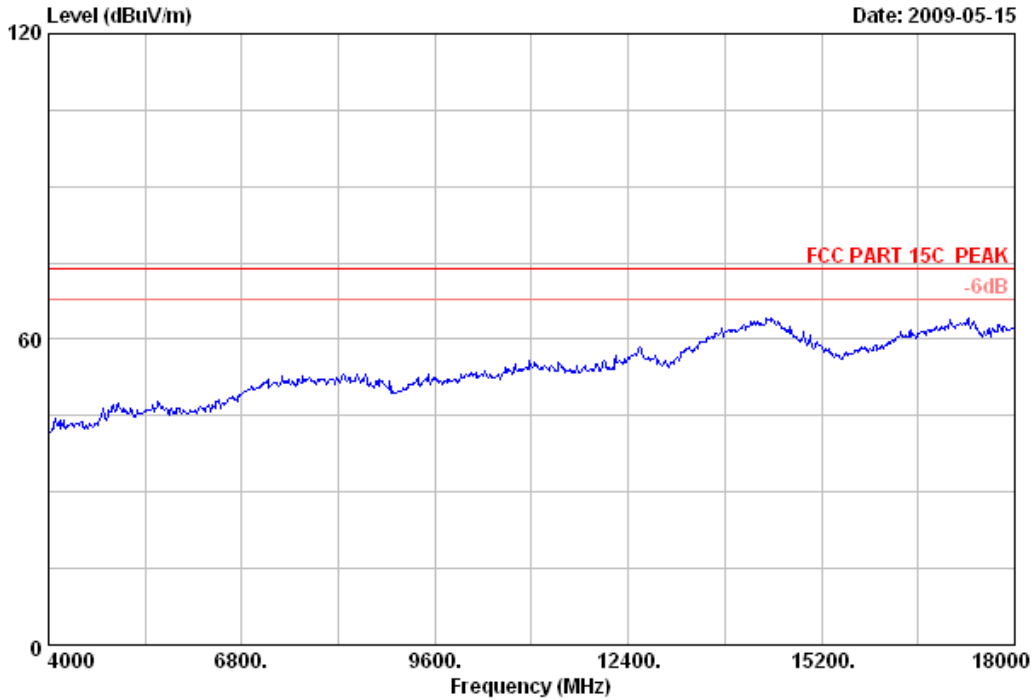
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Test Mode: IEEE802.11g Tx



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Data: 69 File: E:\2009 report data\T\TP-LINK\ACS90602.EM6 (100)

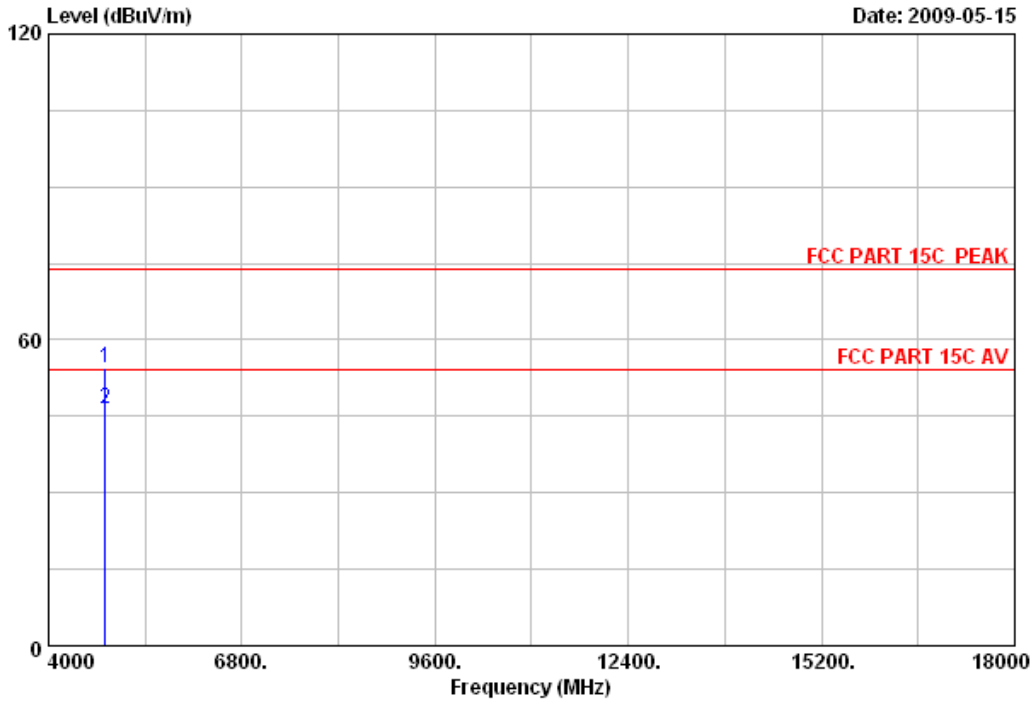


Site no.	: 3m Chamber	Data no.	: 69
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH1 2412MHz		
M/N	: MR4-WR642G		



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Data: 70 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 70
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.47	10.55	34.59	44.04	54.47	74.00	19.53	Peak
2	4824.000	34.47	10.55	34.59	35.92	46.35	54.00	7.65	Average

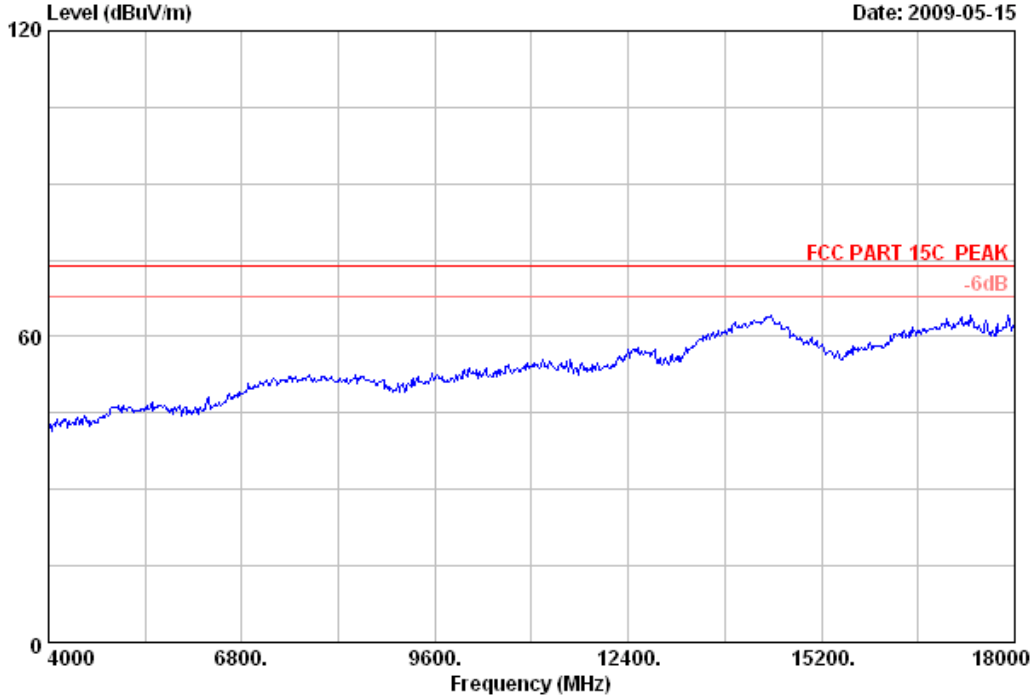
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 71 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

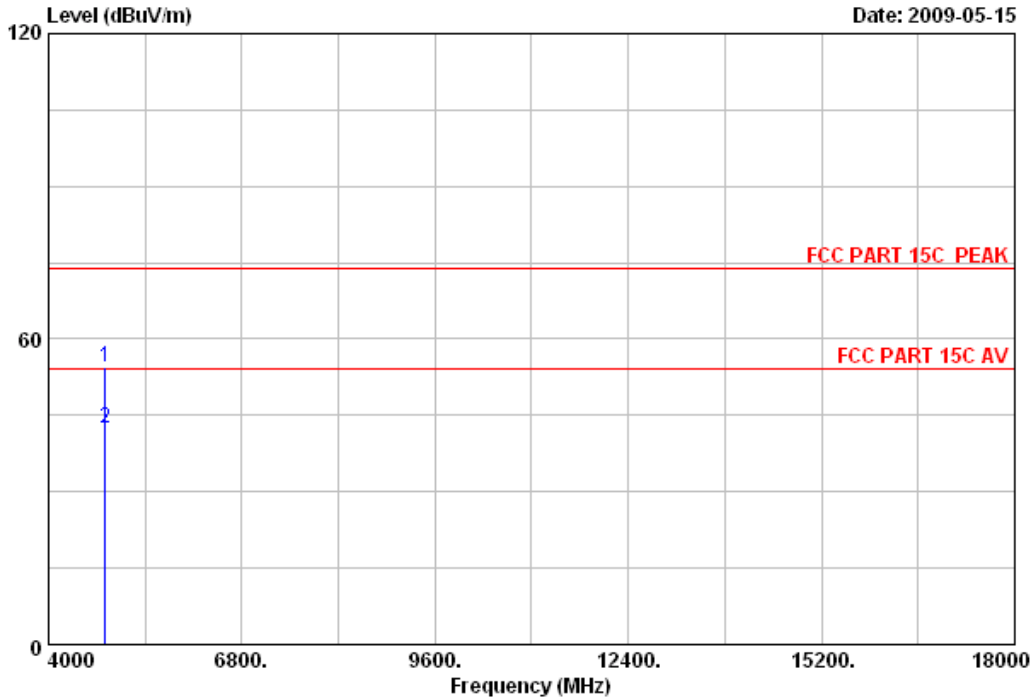


Site no.	: 3m Chamber	Data no.	: 71
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH1 2412MHz		
M/N	: MR4-WR642G		



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Data: 72 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 72
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.47	10.55	34.59	44.21	54.64	74.00	19.36	Peak
2	4824.000	34.47	10.55	34.59	32.18	42.61	54.00	11.39	Average

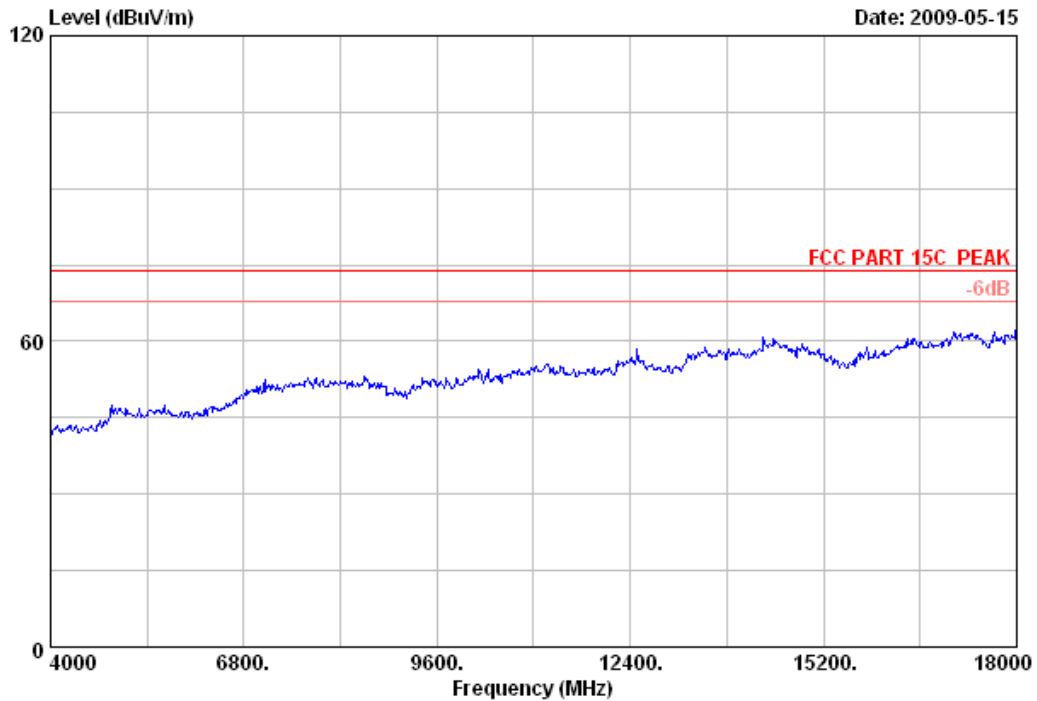
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 73 File: E:\2009 report data\T\TP-LINK\ACS9Q602.EM6 (100)

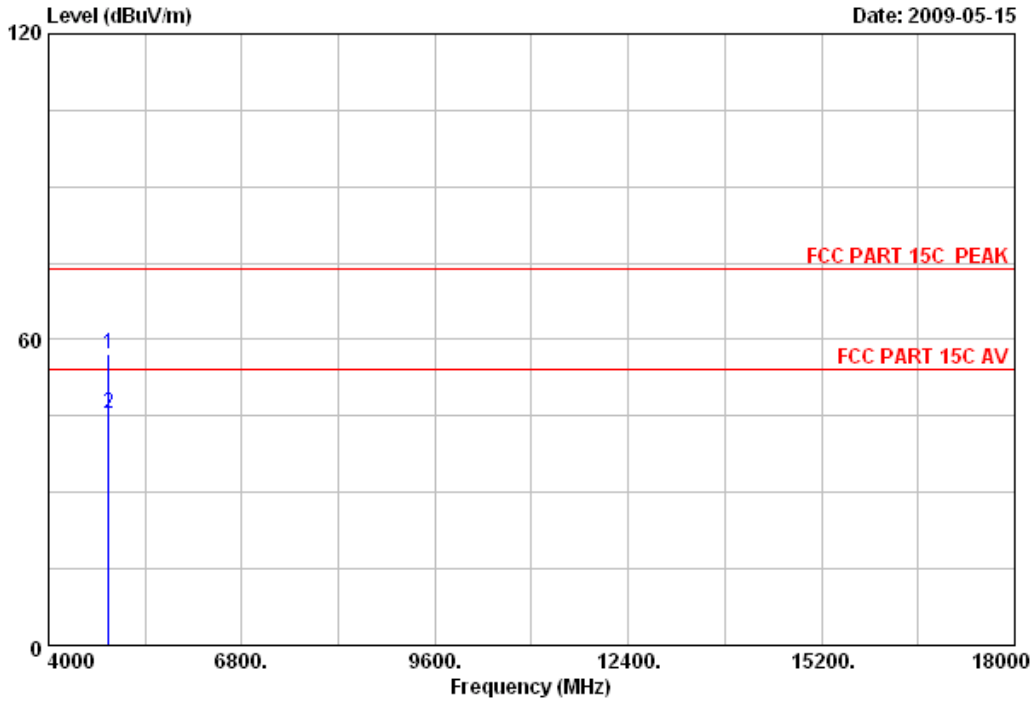


Site no.	: 3m Chamber	Data no.	: 73
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz		
M/N	: MR4-WR642G		



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Data: 74 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 74
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH6 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.78	10.56	34.58	46.52	57.28	74.00	16.72	Peak
2	4874.000	34.78	10.56	34.58	34.58	45.34	54.00	8.66	Average

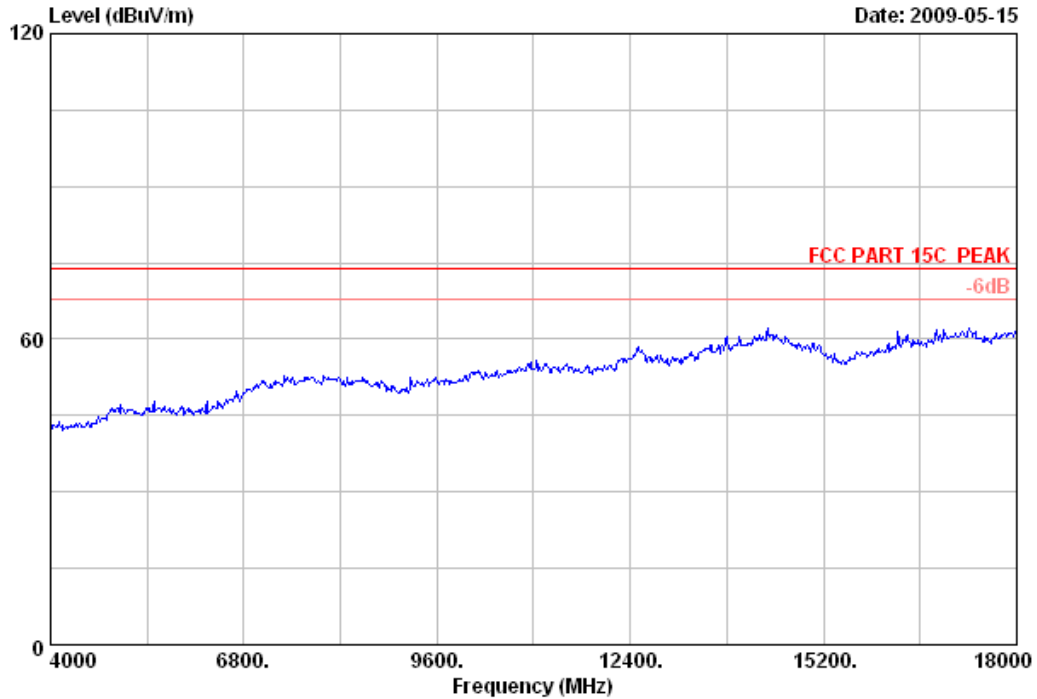
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Postcode:518057

Data: 75 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

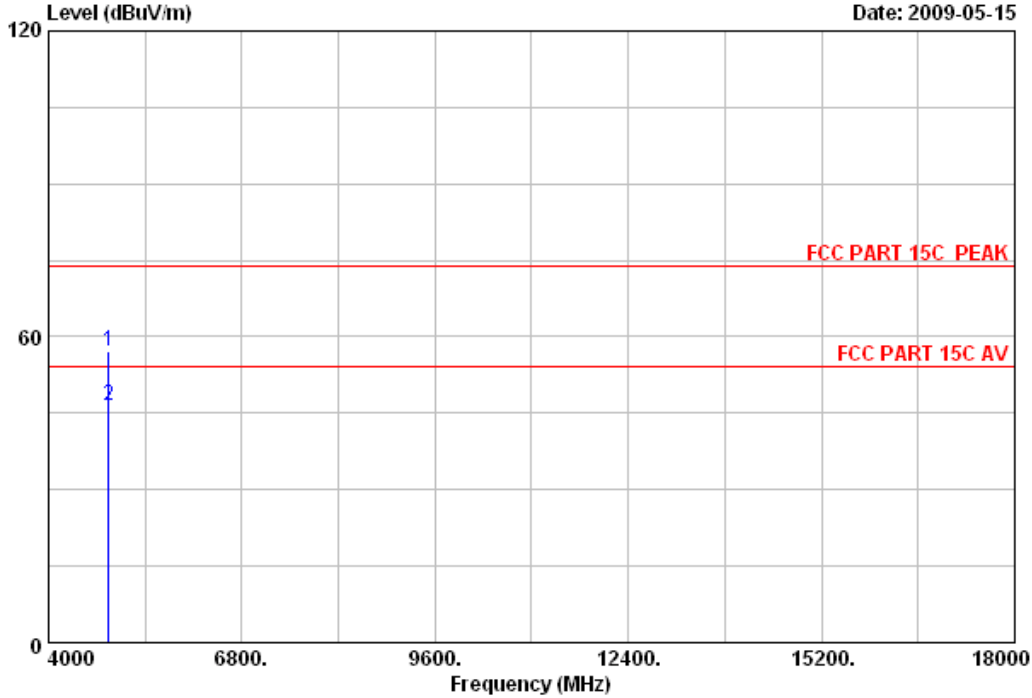


Site no.	: 3m Chamber	Data no.	: 75
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz		
M/N	: MR4-WR642G		



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Data: 76 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 76
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH6 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.78	10.56	34.58	46.36	57.12	74.00	16.88	Peak
2	4874.000	34.78	10.56	34.58	35.81	46.57	54.00	7.43	Average

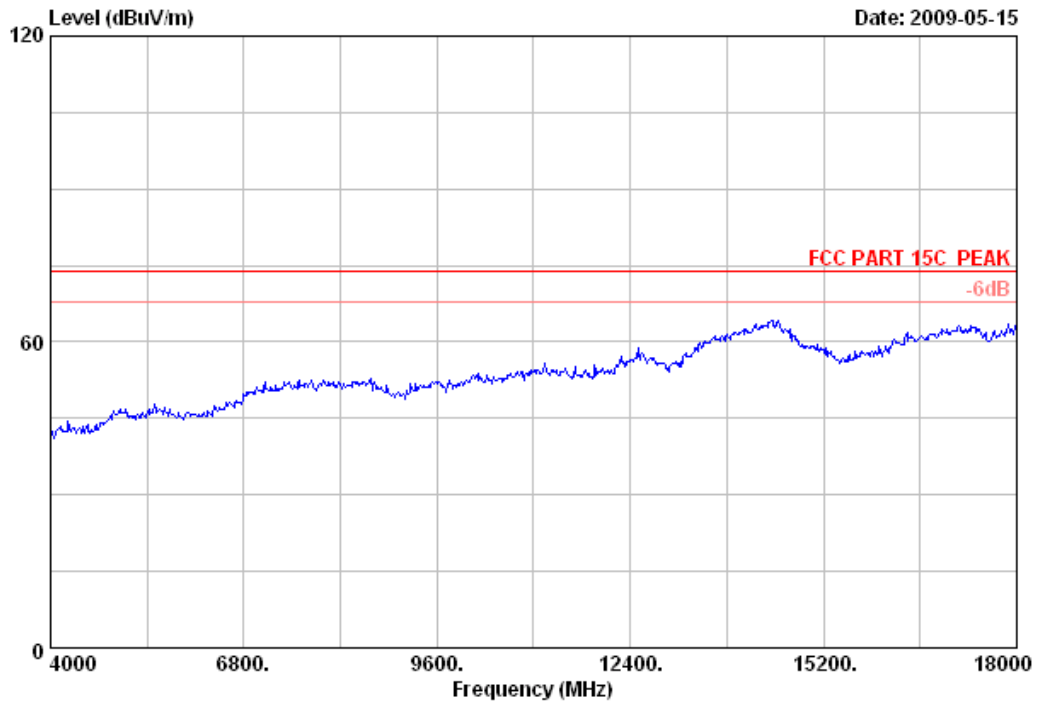
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 77 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

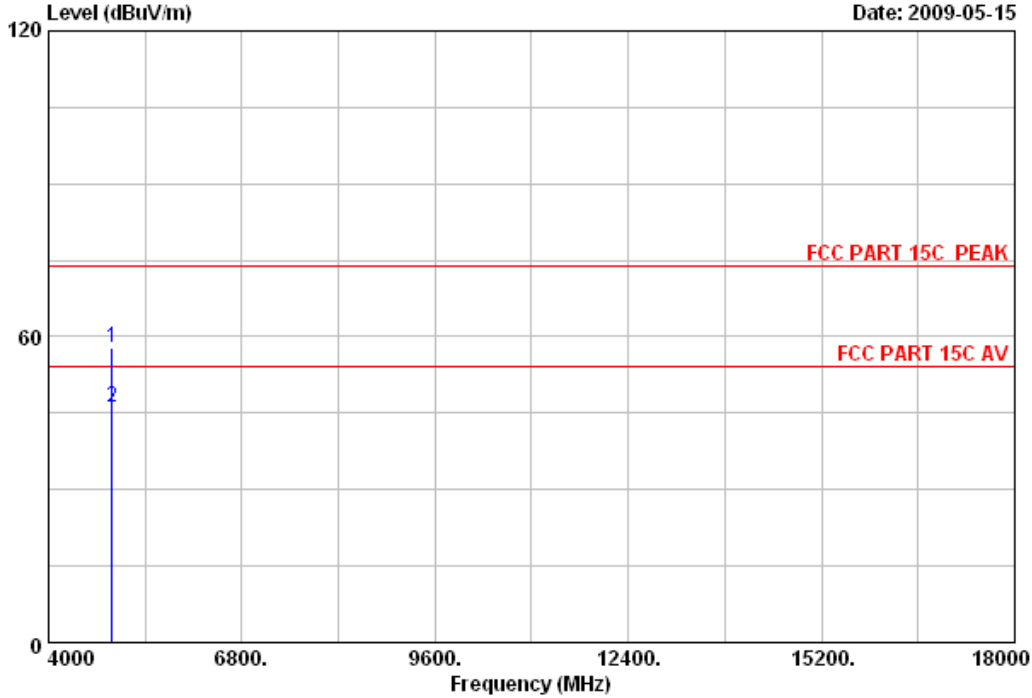


Site no.	: 3m Chamber	Data no.	: 77
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz		
M/N	: MR4-WR642G		



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Data: 78 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 78
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	35.09	10.58	34.57	46.58	57.68	74.00	16.32	Peak
2	4924.000	35.09	10.58	34.57	34.97	46.07	54.00	7.93	Average

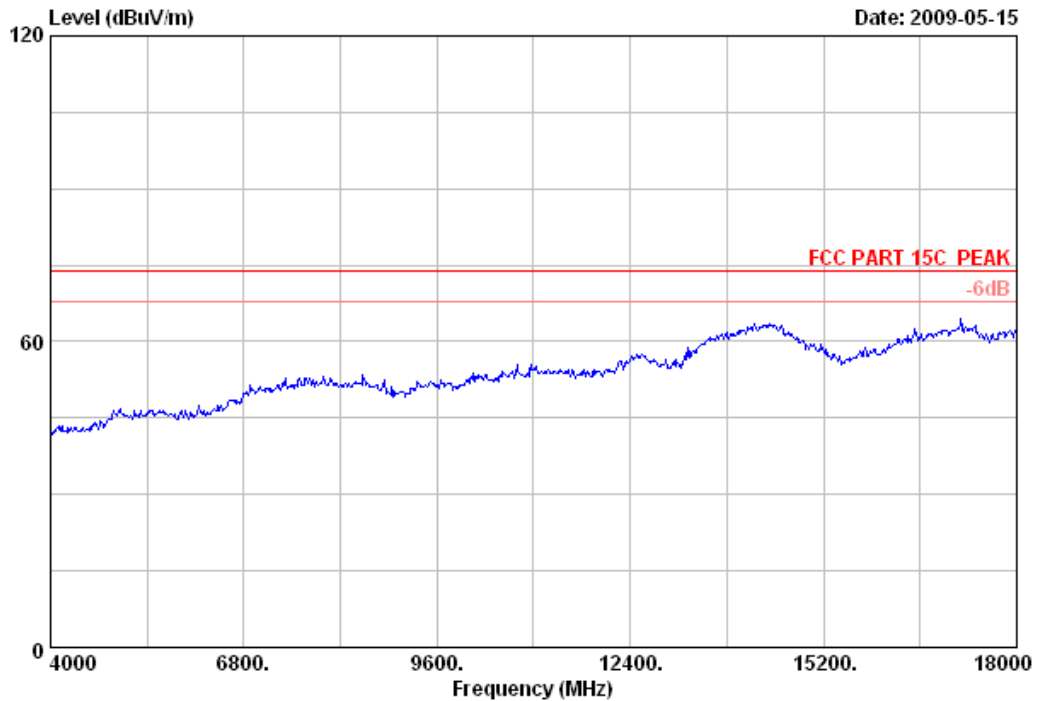
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 79 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

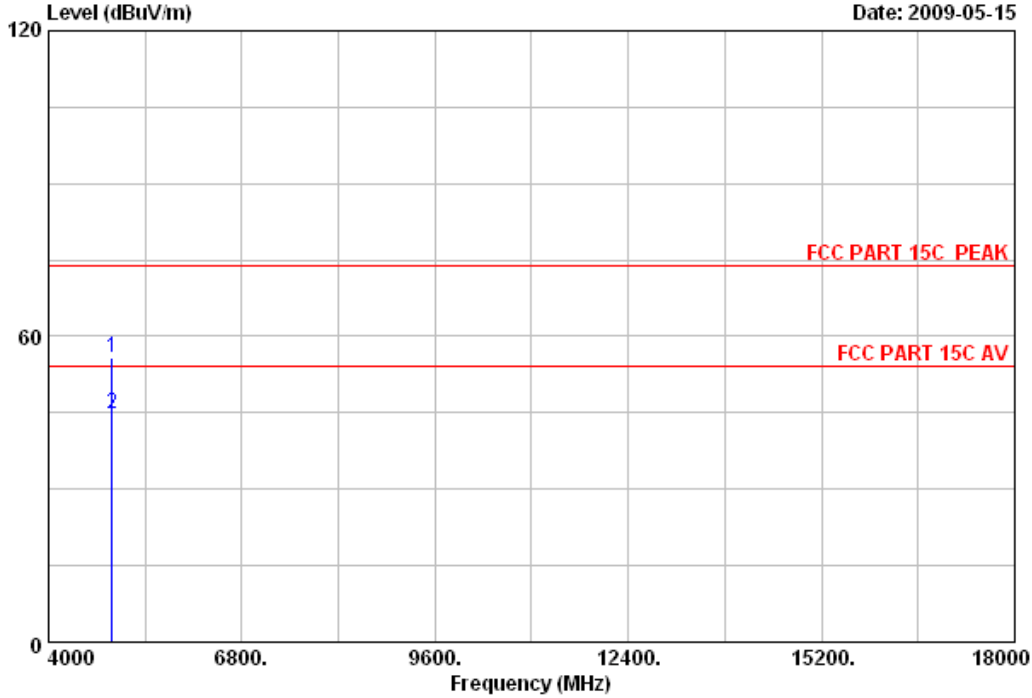


Site no.	: 3m Chamber	Data no.	: 79
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz		
M/N	: MR4-WR642G		



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Data: 80 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 80
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	35.09	10.58	34.57	44.83	55.93	74.00	18.07	Peak
2	4924.000	35.09	10.58	34.57	33.58	44.68	54.00	9.32	Average

Remarks:

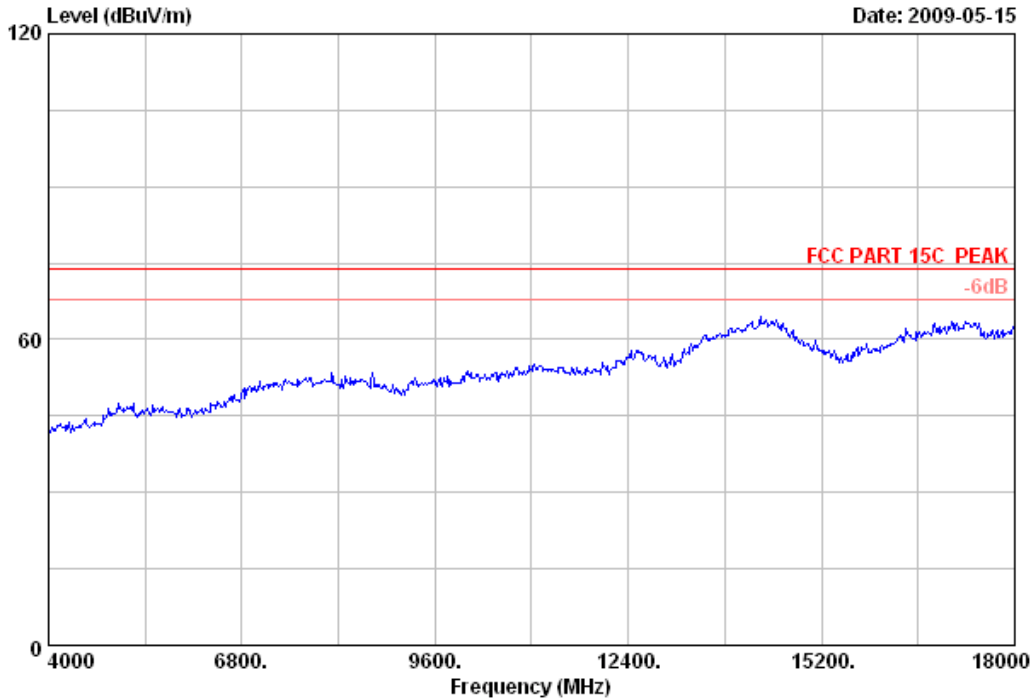
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Test Mode: IEEE802.11g Turbo Tx



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Data: 81 File: E:\2009 report data\T\TP-LINK\ACS90602.EM6 (100)

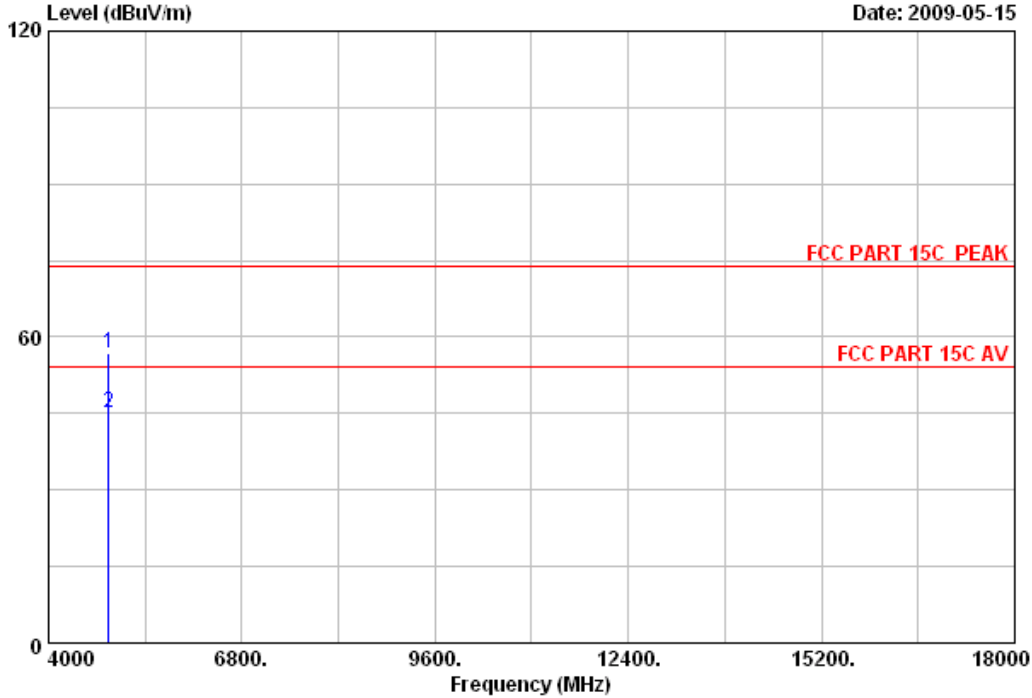


Site no.	: 3m Chamber	Data no.	: 81
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g Turbo Mode 2437MHz		
M/N	: MR4-WR642G		



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Data: 82 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)



Site no. : 3m Chamber Data no. : 82
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g Turbo Mode 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.78	10.56	34.58	46.19	56.95	74.00	17.05	Peak
2	4874.000	34.78	10.56	34.58	34.47	45.23	54.00	8.77	Average

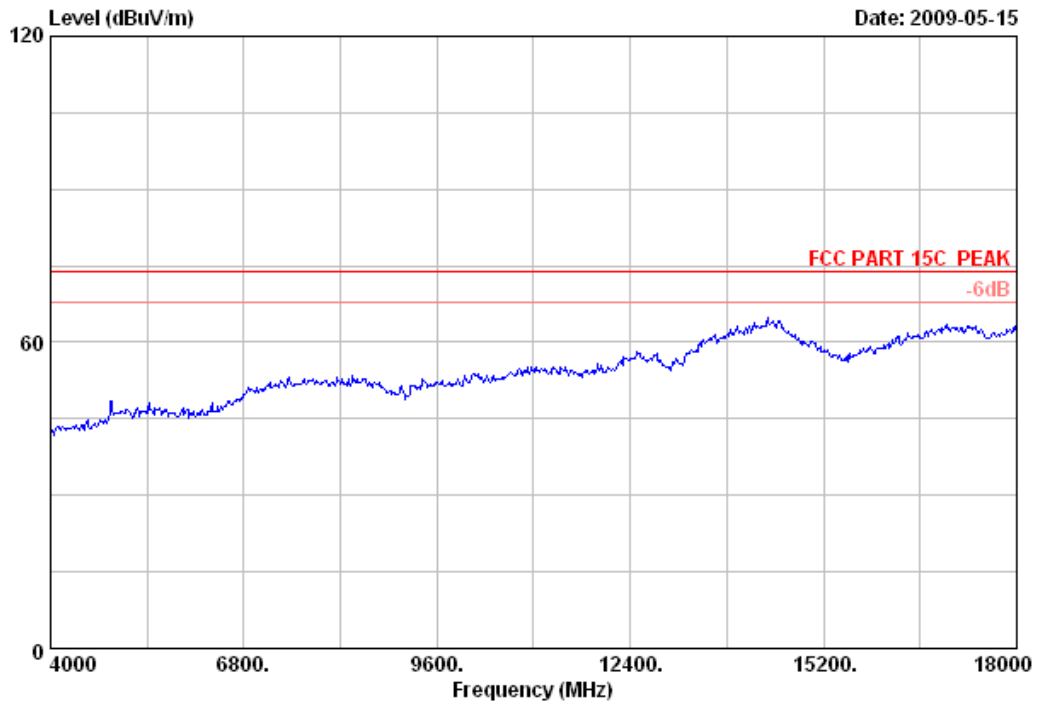
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 83 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (100)

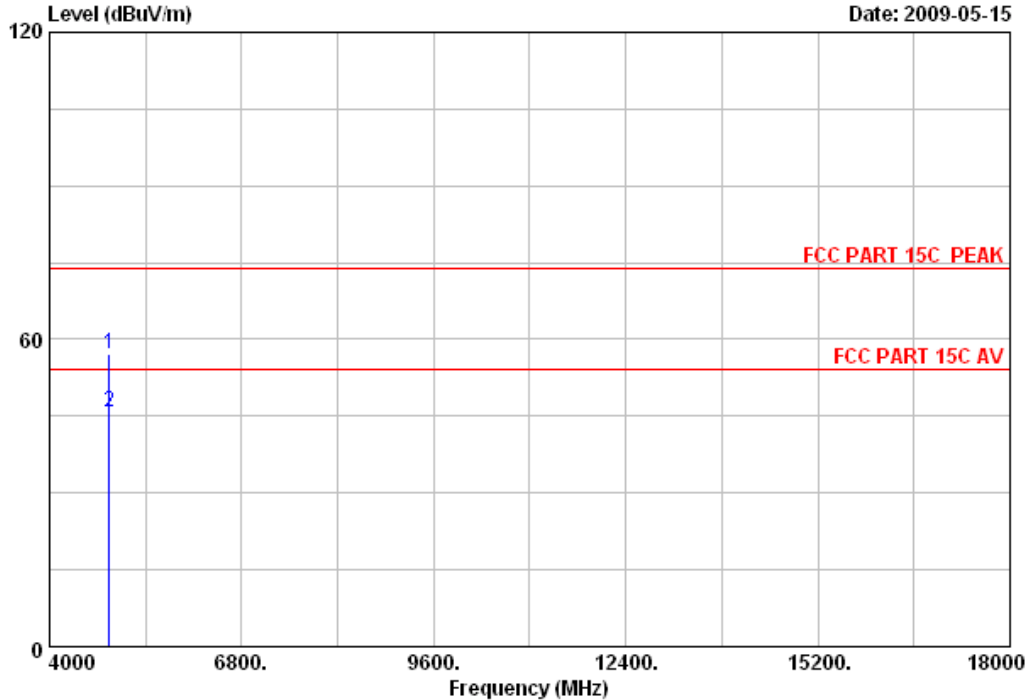


Site no.	: 3m Chamber	Data no.	: 83
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g Turbo Mode 2437MHz		
M/N	: MR4-WR642G		



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Data: 84 File: E:\2009 report data\T\TP-LINK\ACS90602.EM6 (100)



Site no. : 3m Chamber Data no. : 84
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g Turbo Mode 2437MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.78	10.56	34.58	46.25	57.01	74.00	16.99	Peak
2	4874.000	34.78	10.56	34.58	34.98	45.74	54.00	8.26	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1 Year

5.2. Limit

In any 100kHz 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 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, 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).

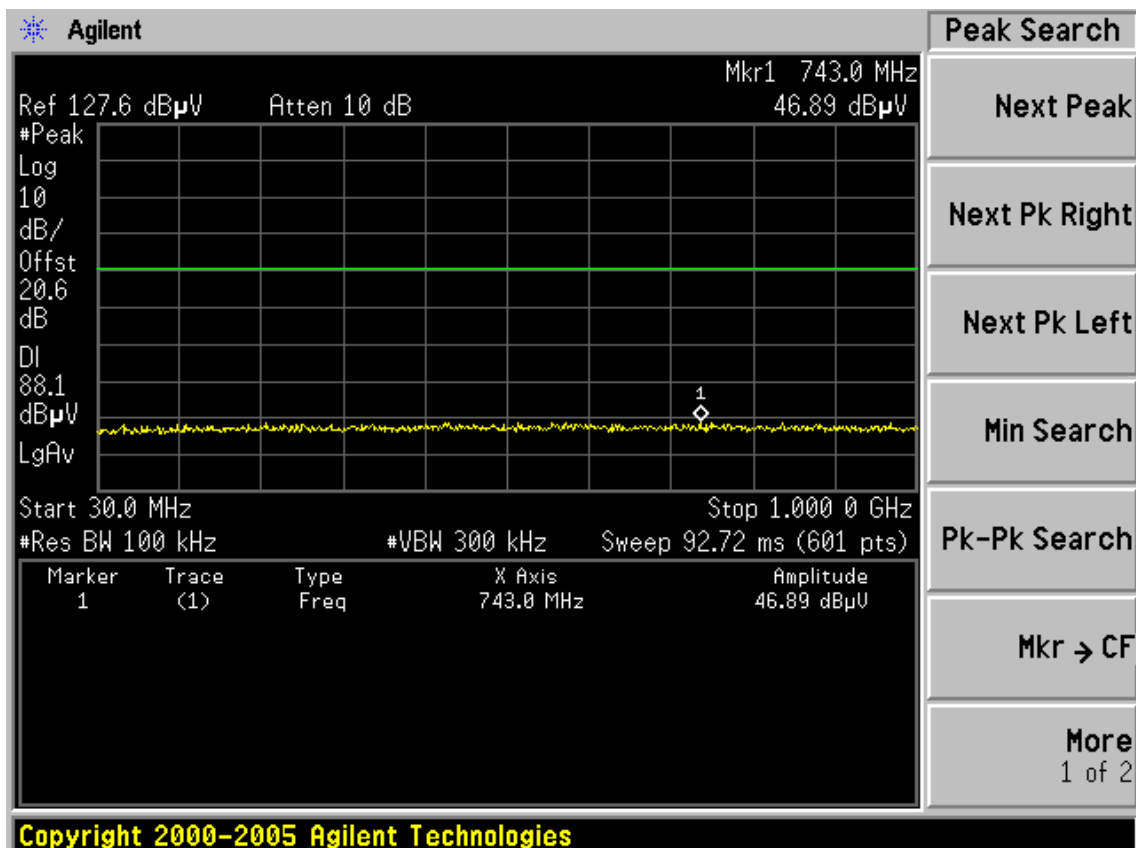
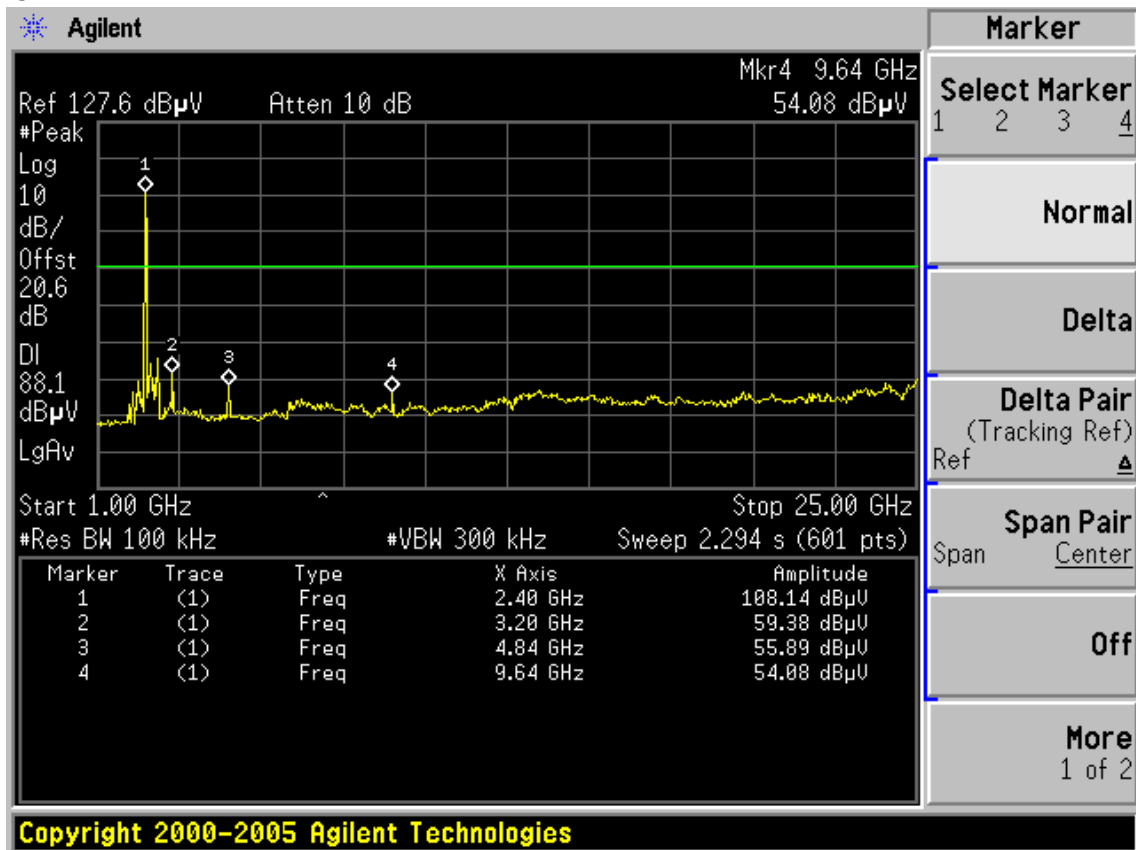
5.3. Test Procedure

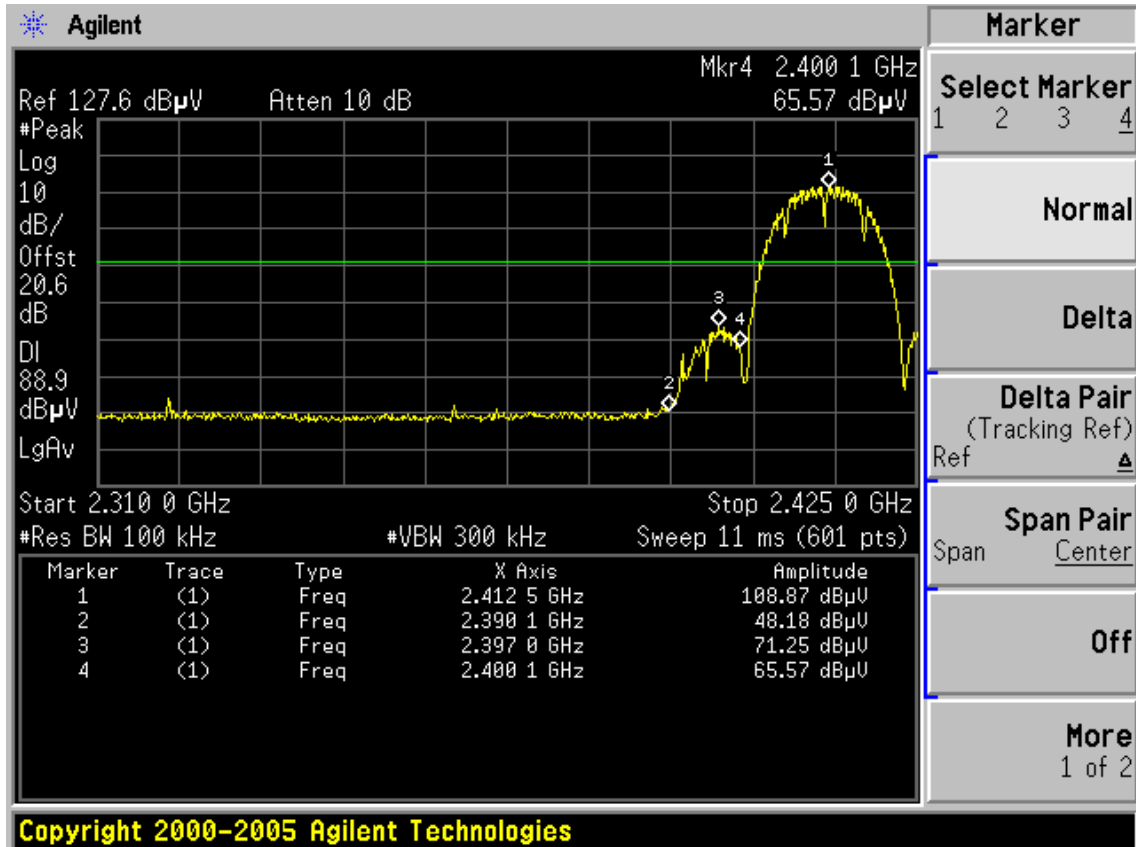
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz.

5.4. Test result

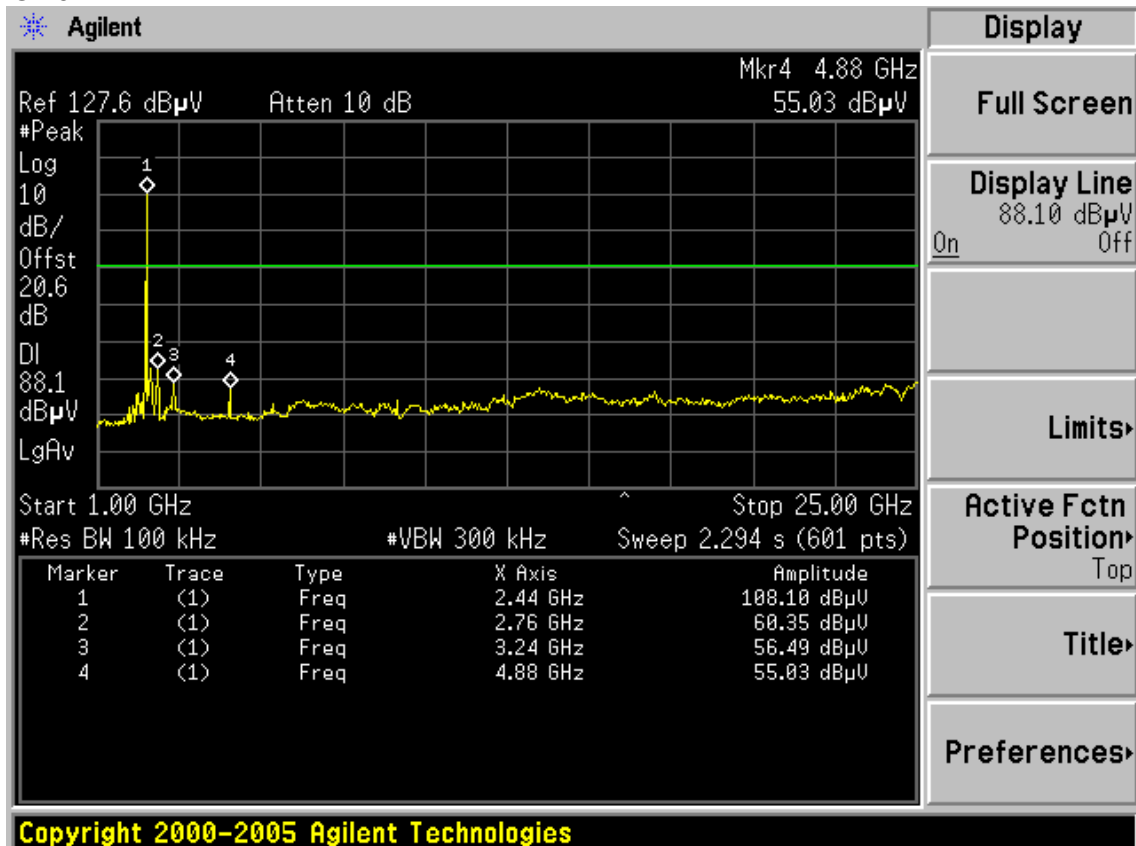
PASS (The testing data was attached in the next pages.)

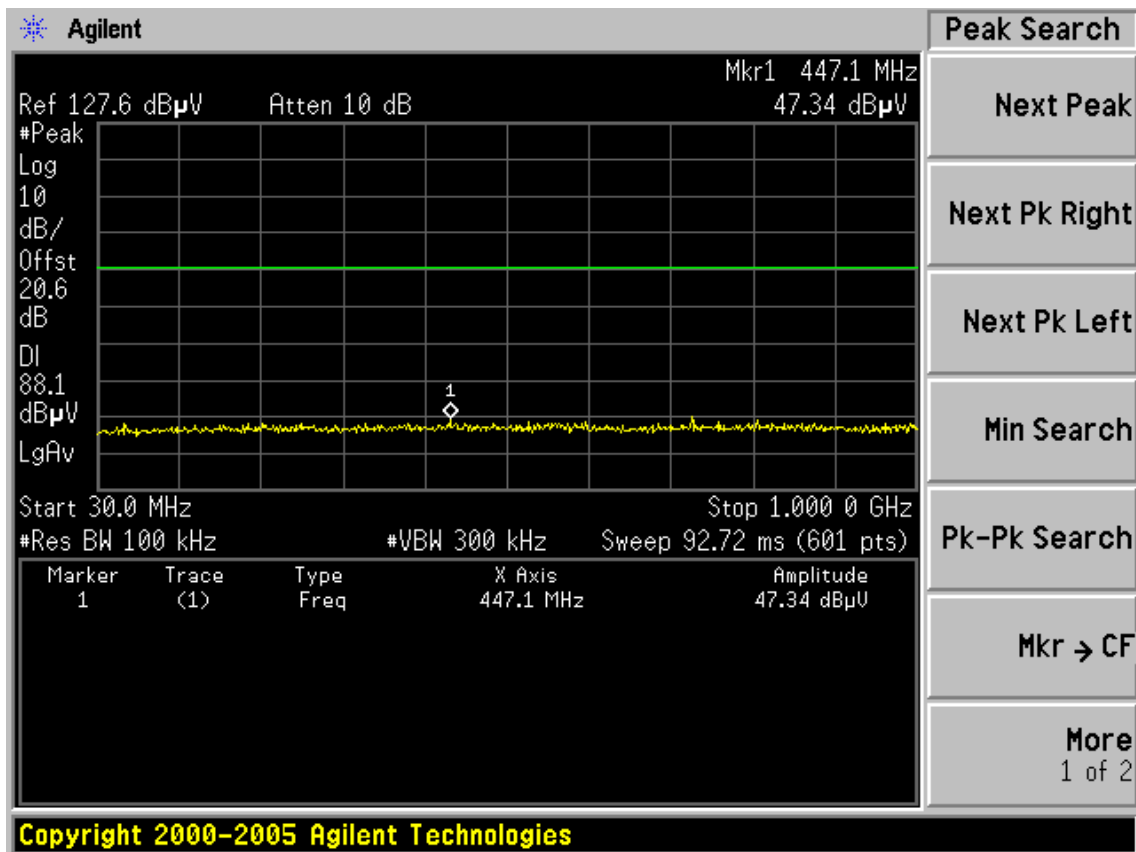
Test Mode: IEEE 802.11b TX
CH1



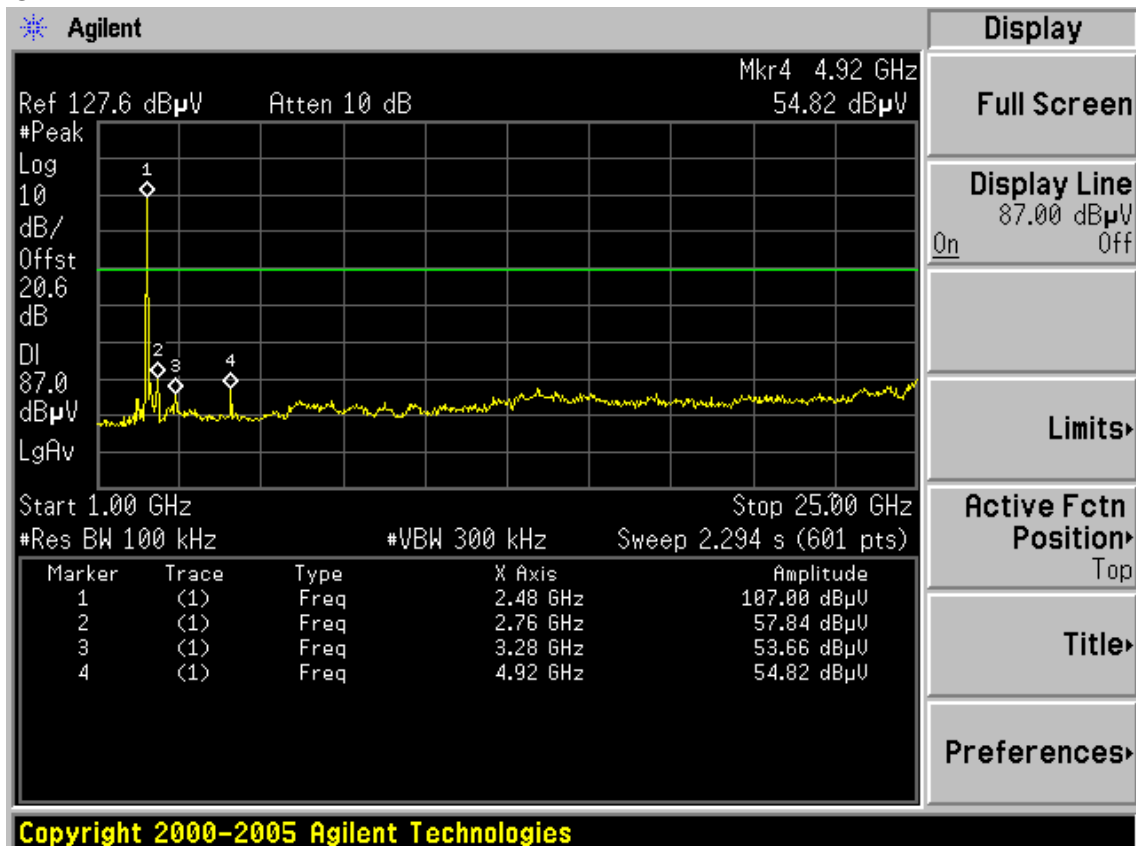


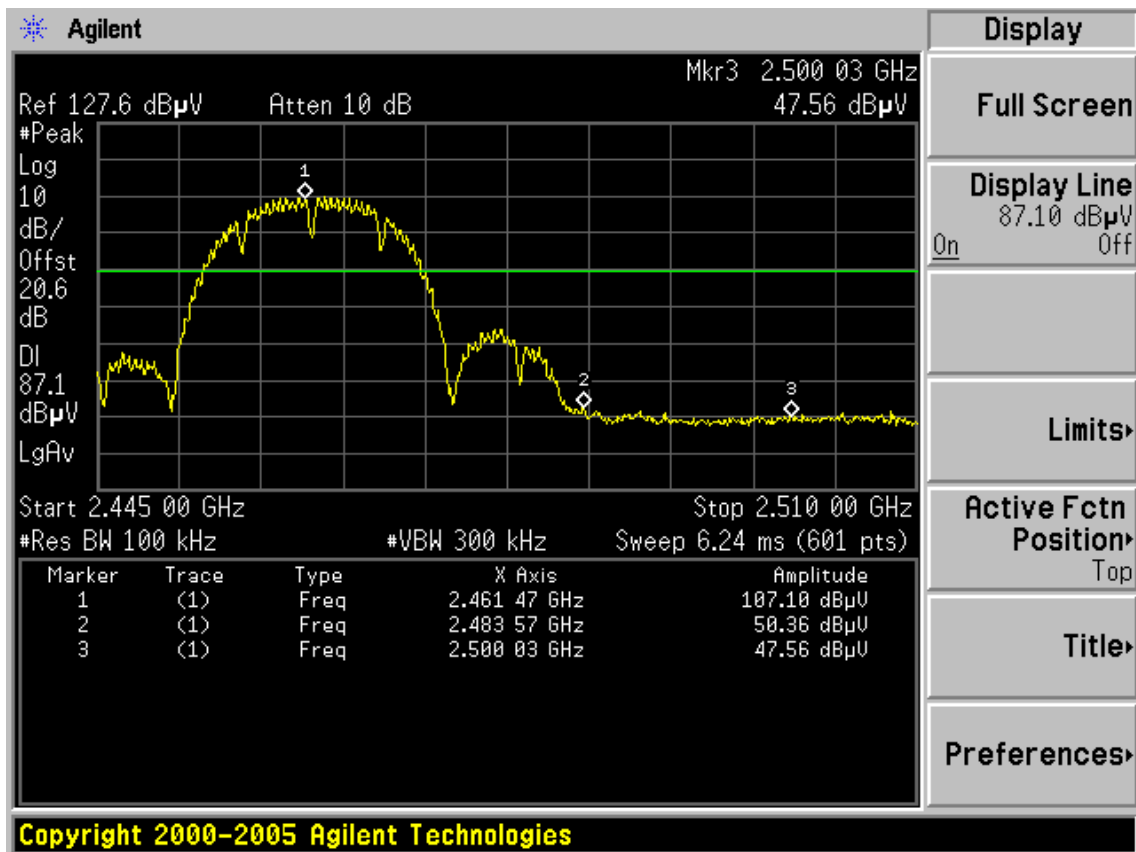
CH6



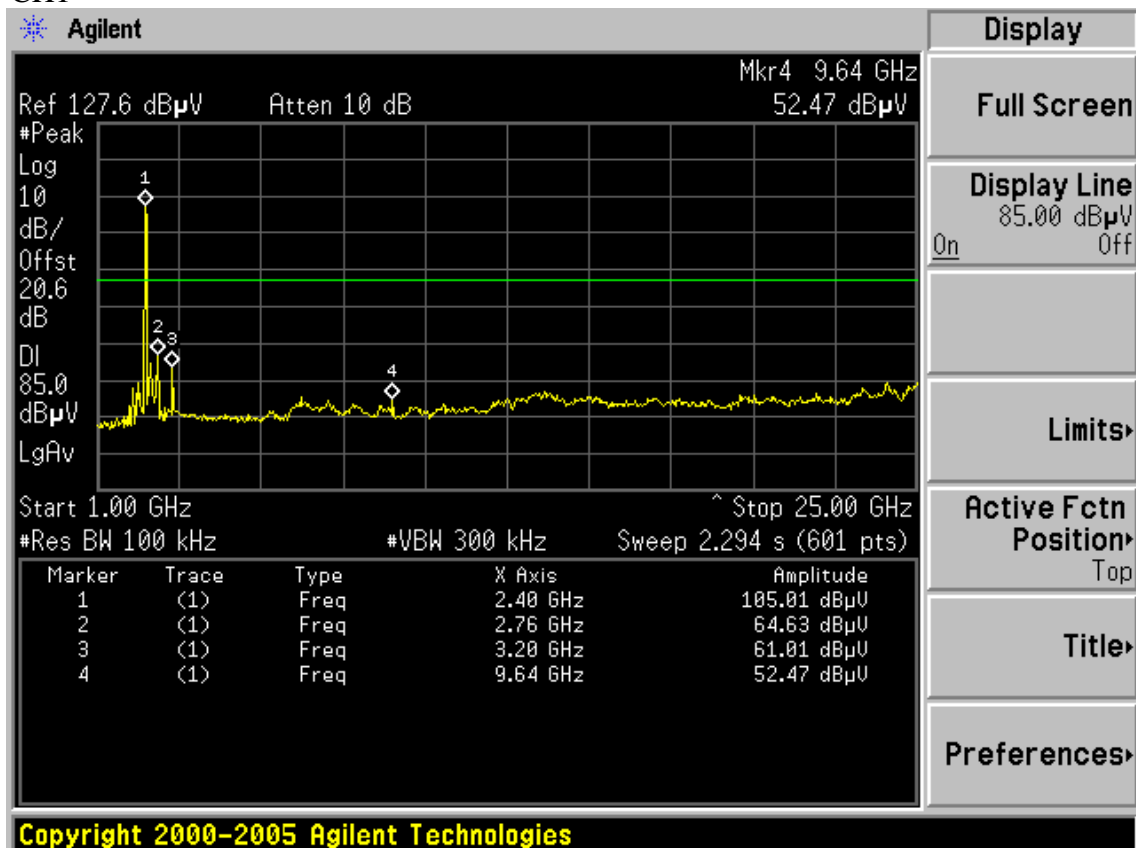


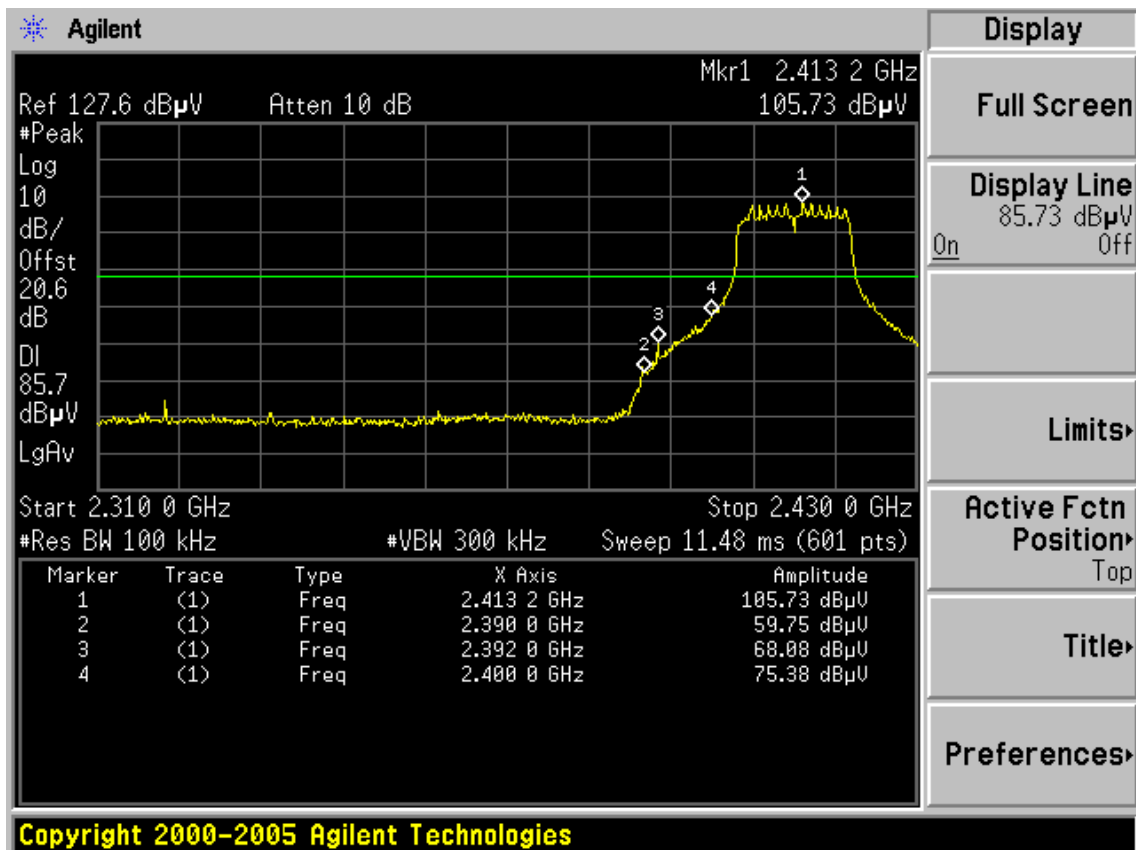
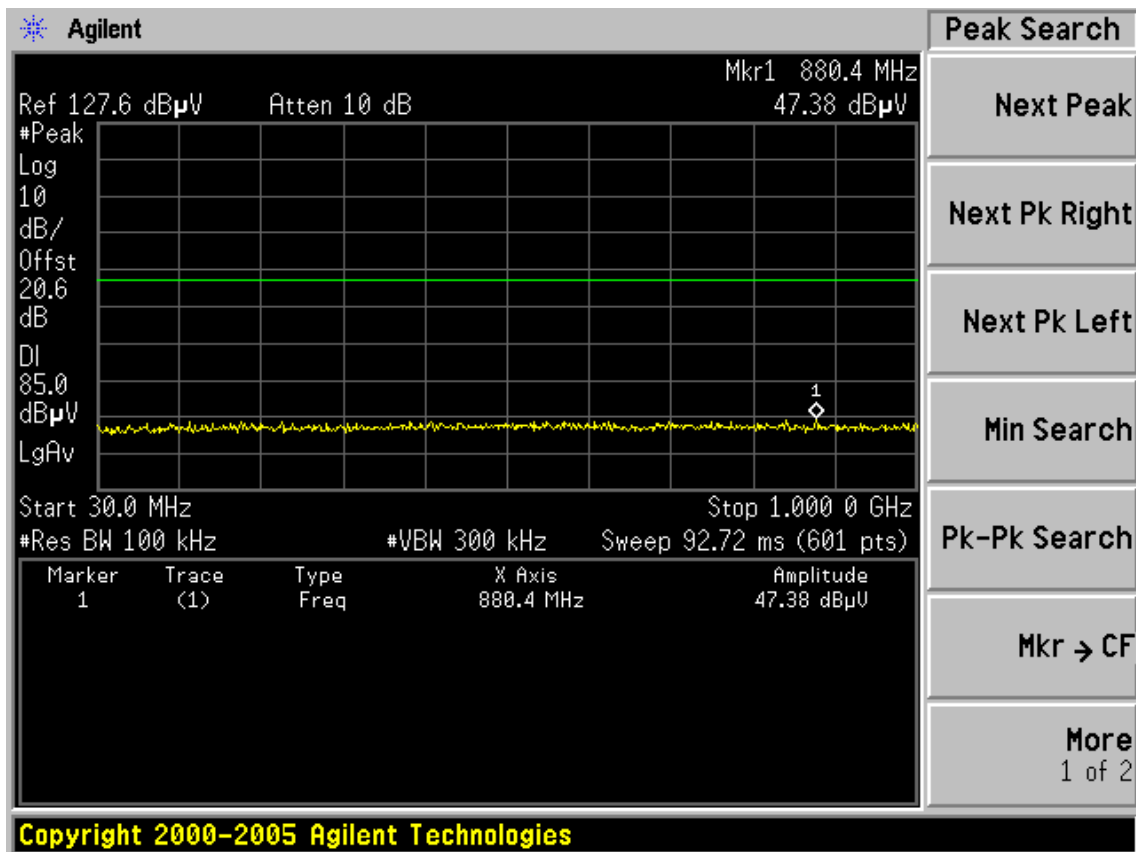
CH11



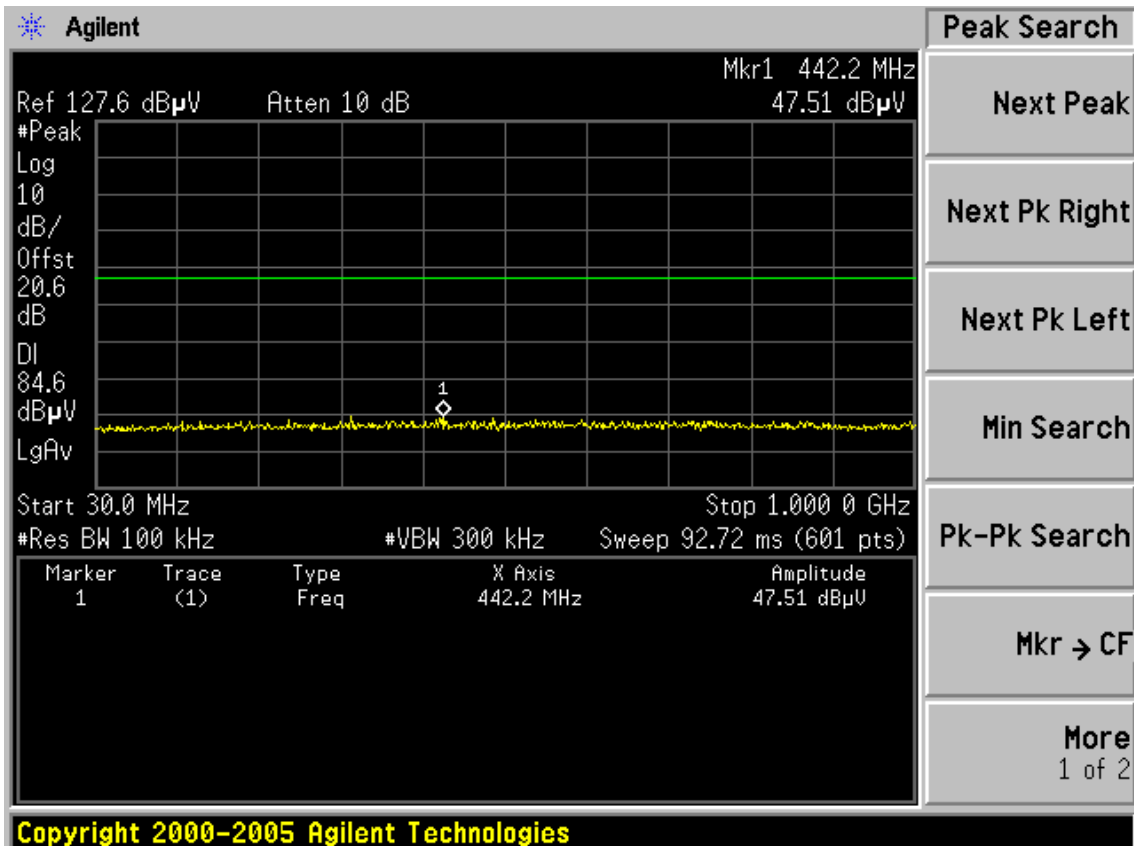
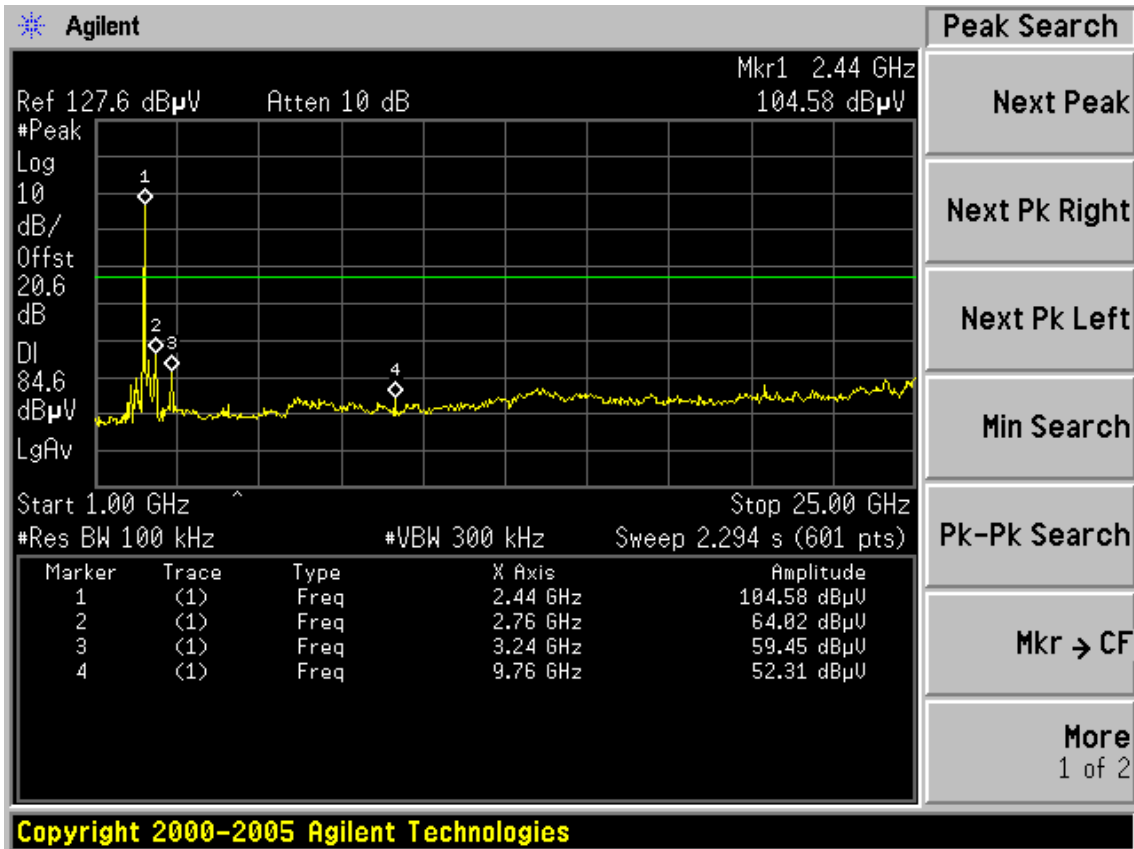


Test Mode: IEEE 802.11g TX
CH1

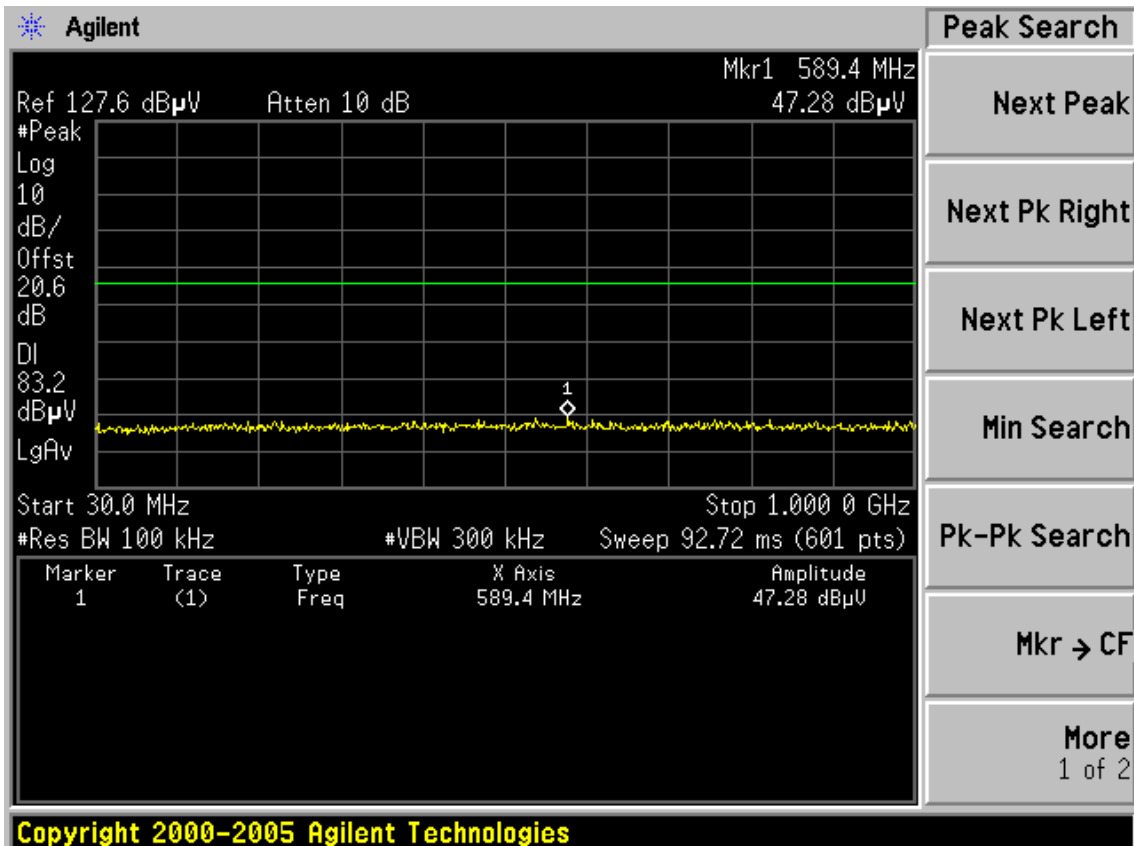
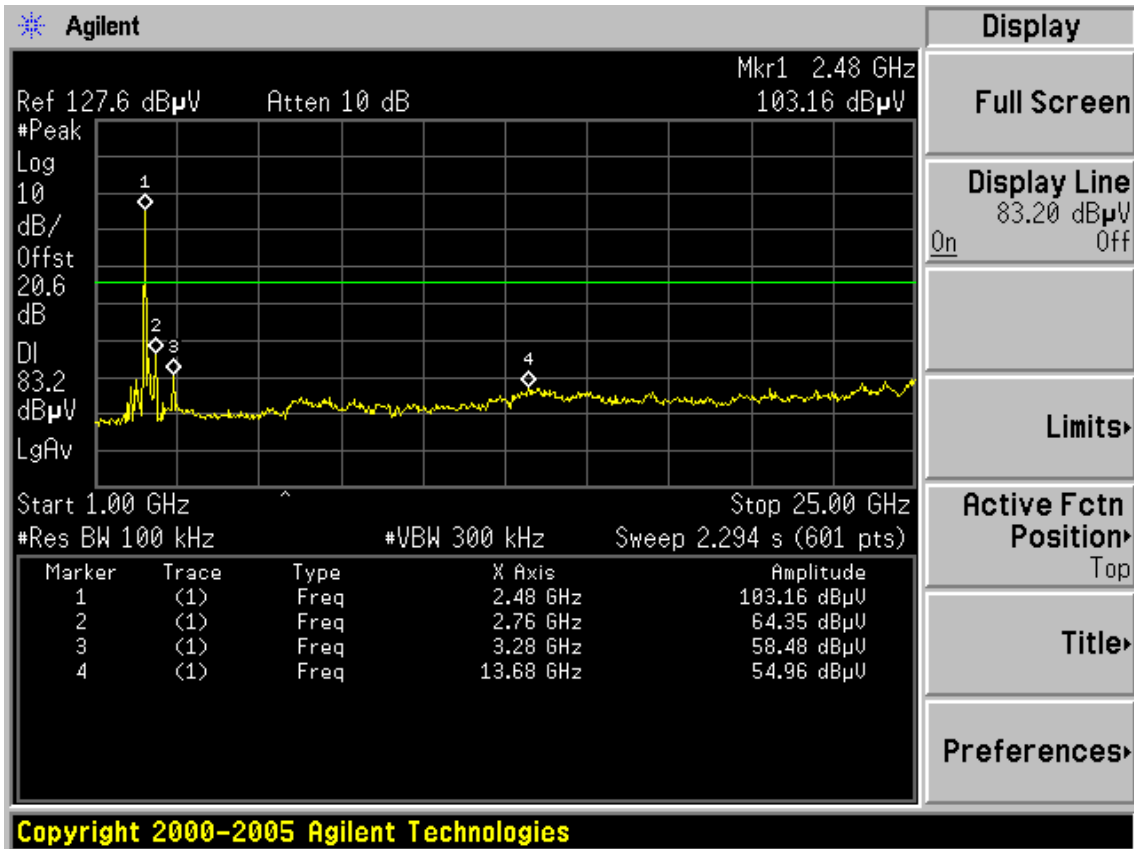


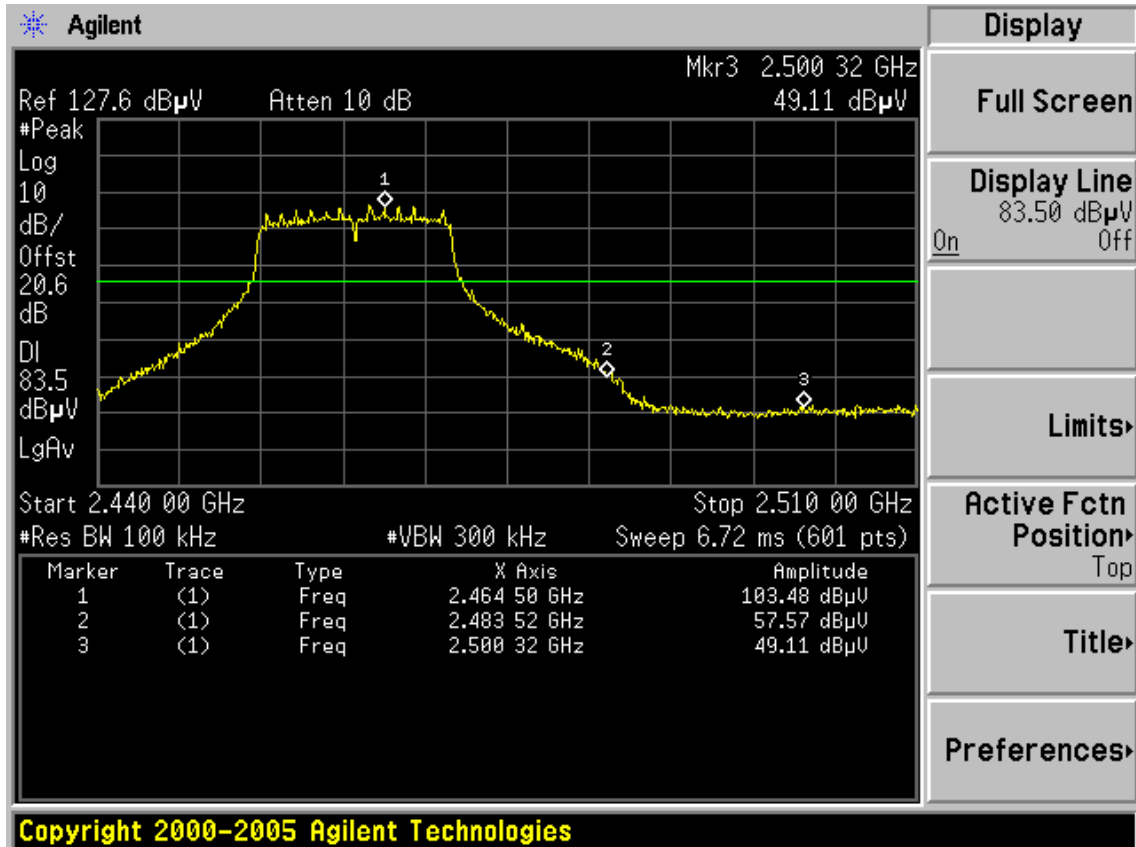


CH6

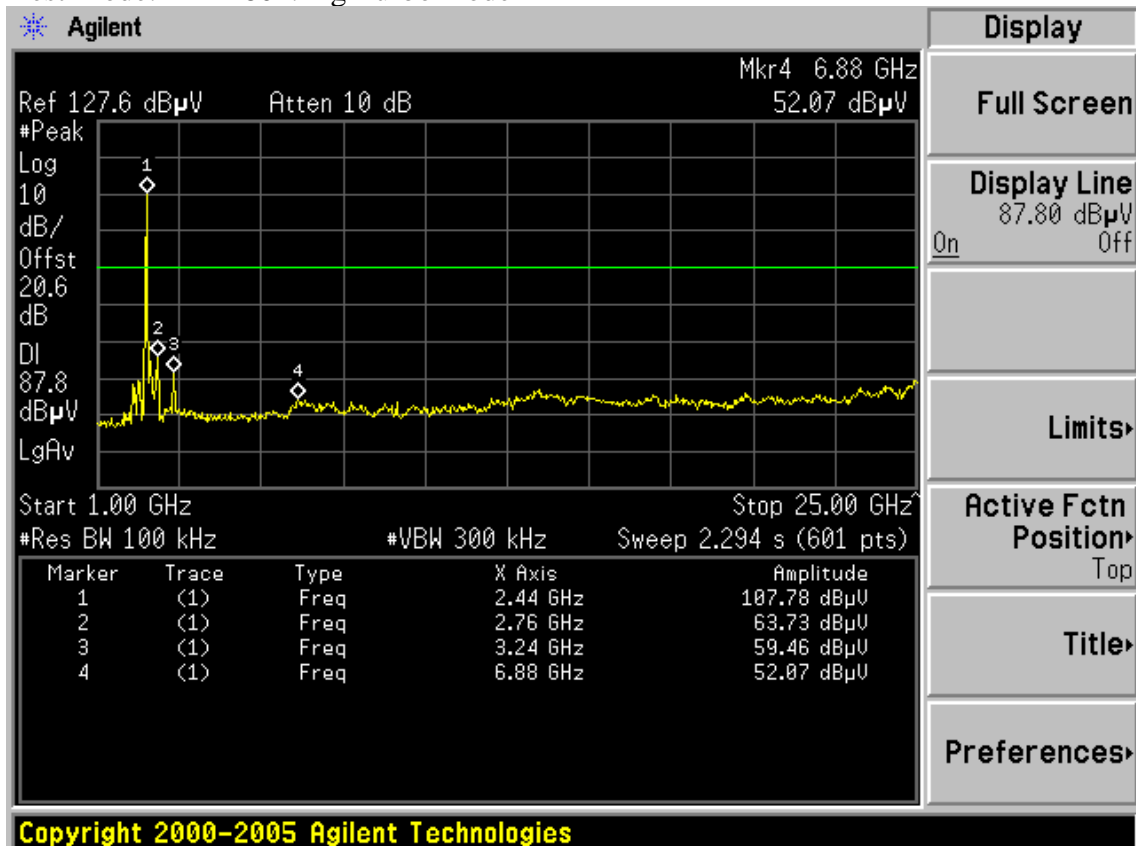


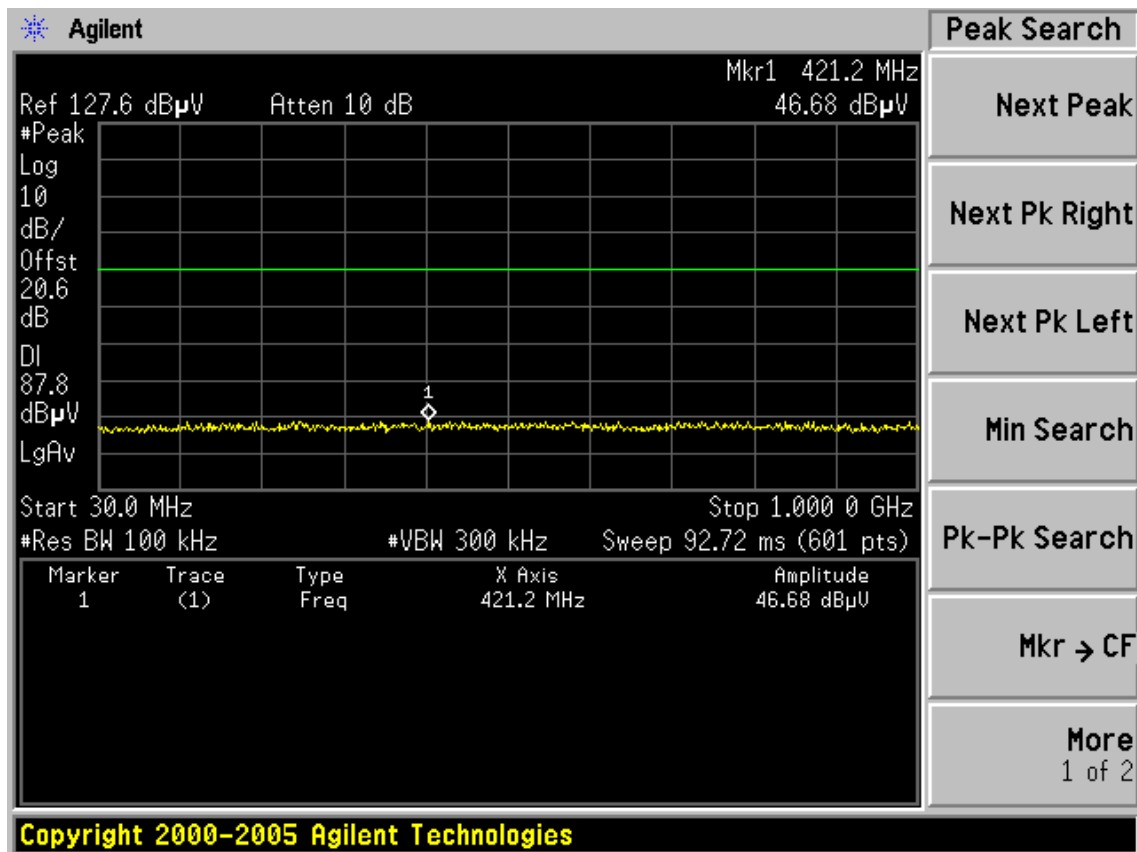
CH11





Test Mode: IEEE 802.11g Turbo mode





6. BAND EDGE COMPLIANCE

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	May, 27, 08	1.5 Year
3	Amplifier	Agilent	8449B	3008A02495	Nov 6.08	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May,28, 08	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX 102	271471/4	May,28, 08	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX 102	29086/2	May,28, 08	1 Year

6.2. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was 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 upperband-edges of the emission:
 - (a) PEAK Level measure: RBW=VBW=1MHz / Sweep=AUTO/PK Detector
 - (b) AVERAGE Level measure: RBW=1MHz/VBW=10Hz/Sweep=AUTO/PK Detector.

6.4. Test Results

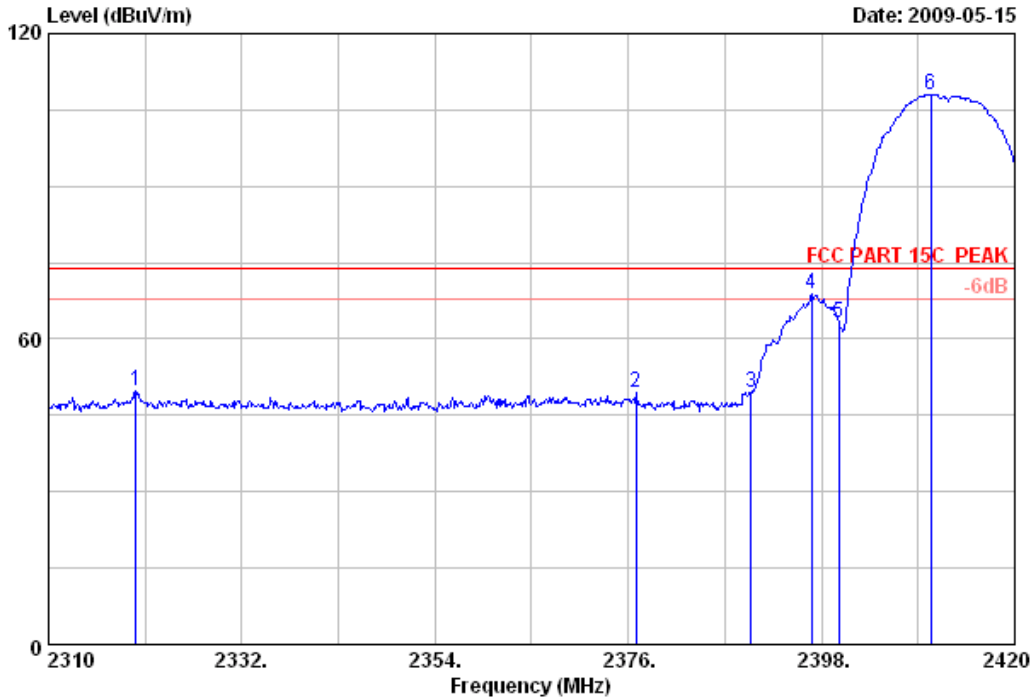
Pass (The testing data was attached in the next pages.)

Test Mode: IEEE 802.11b Tx



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Data: 85 File: E:\2009 report data\T\TP-LINK\ACS90602.EM6 (108)



Site no. : 3m Chamber Data no. : 85
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2319.900	28.36	6.65	35.13	49.78	49.66	74.00	24.34	Peak
2	2376.880	28.43	6.71	35.12	49.37	49.39	74.00	24.61	Peak
3	2390.000	28.46	6.71	35.12	49.40	49.45	74.00	24.55	Peak
4	2396.900	28.46	6.73	35.12	68.78	68.85	74.00	5.15	Peak
5	2400.000	28.46	6.73	35.12	62.99	63.06	74.00	10.94	Peak
6	2410.430	28.48	6.73	35.12	107.98	108.07	74.00	-34.07	Peak

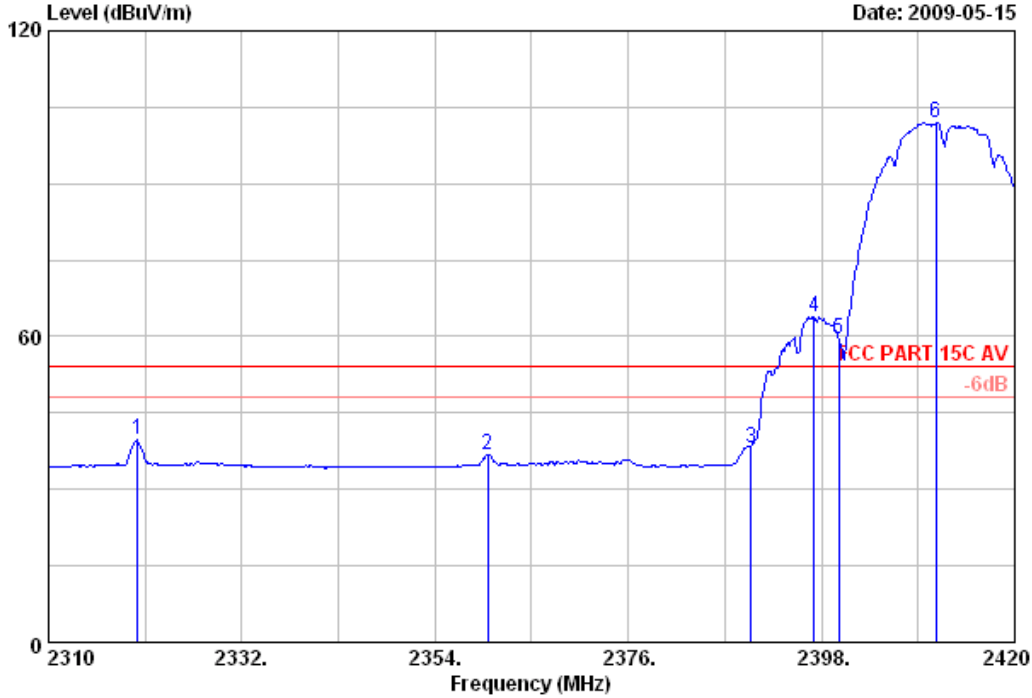
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 86 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no. : 3m Chamber Data no. : 86
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N : MR4-WR642G

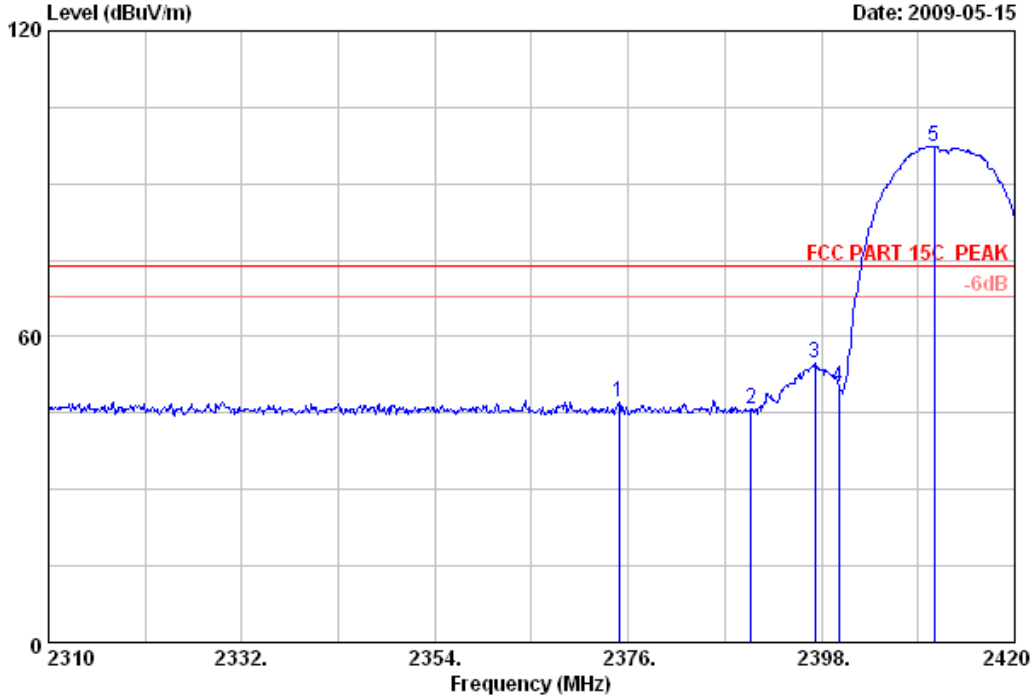
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2320.120	28.36	6.65	35.13	39.77	39.65	54.00	14.35	Average
2	2360.050	28.41	6.69	35.13	36.84	36.81	54.00	17.19	Average
3	2390.000	28.46	6.71	35.12	38.14	38.19	54.00	15.81	Average
4	2397.120	28.46	6.73	35.12	63.70	63.77	54.00	-9.77	Average
5	2400.000	28.46	6.73	35.12	59.53	59.60	54.00	-5.60	Average
6	2410.980	28.48	6.73	35.12	101.85	101.94	54.00	-47.94	Average

Remarks:
 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 87 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no.	: 3m Chamber	Data no.	: 87
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11b CH1 2412MHz		
M/N	: MR4-WR642G		

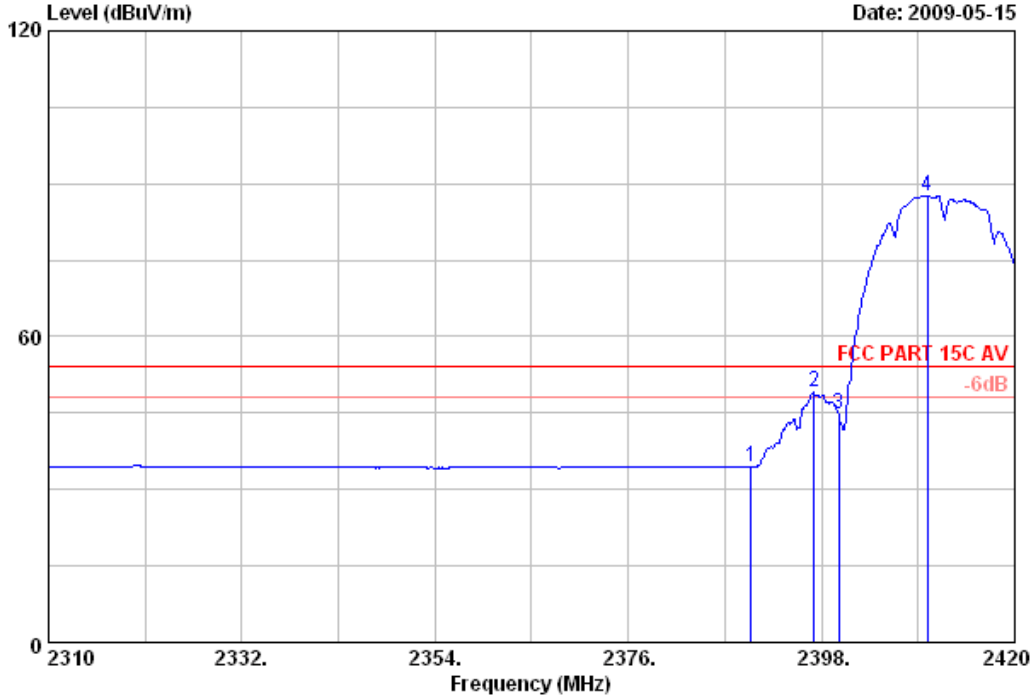
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2374.900	28.43	6.71	35.12	47.05	47.07	74.00	26.93	Peak
2	2390.000	28.46	6.71	35.12	45.63	45.68	74.00	28.32	Peak
3	2397.230	28.46	6.73	35.12	54.78	54.85	74.00	19.15	Peak
4	2400.000	28.46	6.73	35.12	50.04	50.11	74.00	23.89	Peak
5	2410.870	28.48	6.73	35.12	97.22	97.31	74.00	-23.31	Peak

Remarks:
 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 88 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no. : 3m Chamber Data no. : 88
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH1 2412MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.46	6.71	35.12	34.36	34.41	54.00	19.59	Average
2	2397.120	28.46	6.73	35.12	48.91	48.98	54.00	5.02	Average
3	2400.000	28.46	6.73	35.12	44.56	44.63	54.00	9.37	Average
4	2410.100	28.48	6.73	35.12	87.46	87.55	54.00	-33.55	Average

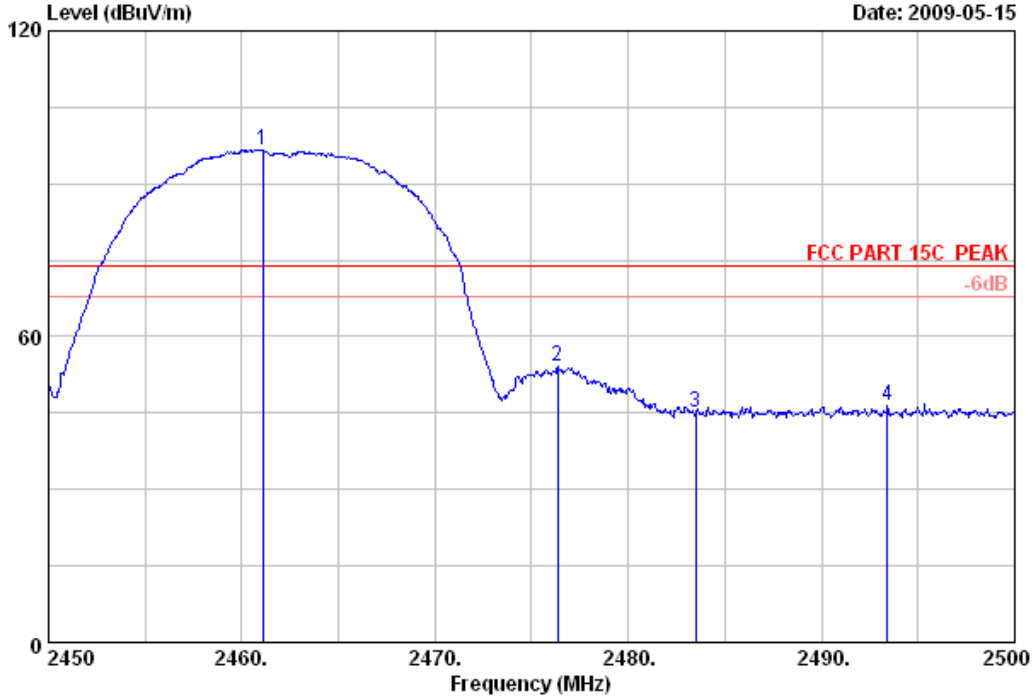
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 89 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no.	: 3m Chamber	Data no.	: 89
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK	Engineer	: Sunny-lu
Env. / Ins.	: 23*C/54%	EUT	: 108M Wireless Router
Power	: DC12V From Adapter input AC 120V/60Hz	Test mode	: IEEE802.11b CH11 2462MHz
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.100	28.55	6.84	35.11	96.39	96.67	74.00	-22.67	Peak
2	2476.350	28.58	6.87	35.10	53.66	54.01	74.00	19.99	Peak
3	2483.500	28.58	6.87	35.10	44.63	44.98	74.00	29.02	Peak
4	2493.400	28.60	6.91	35.10	46.18	46.59	74.00	27.41	Peak

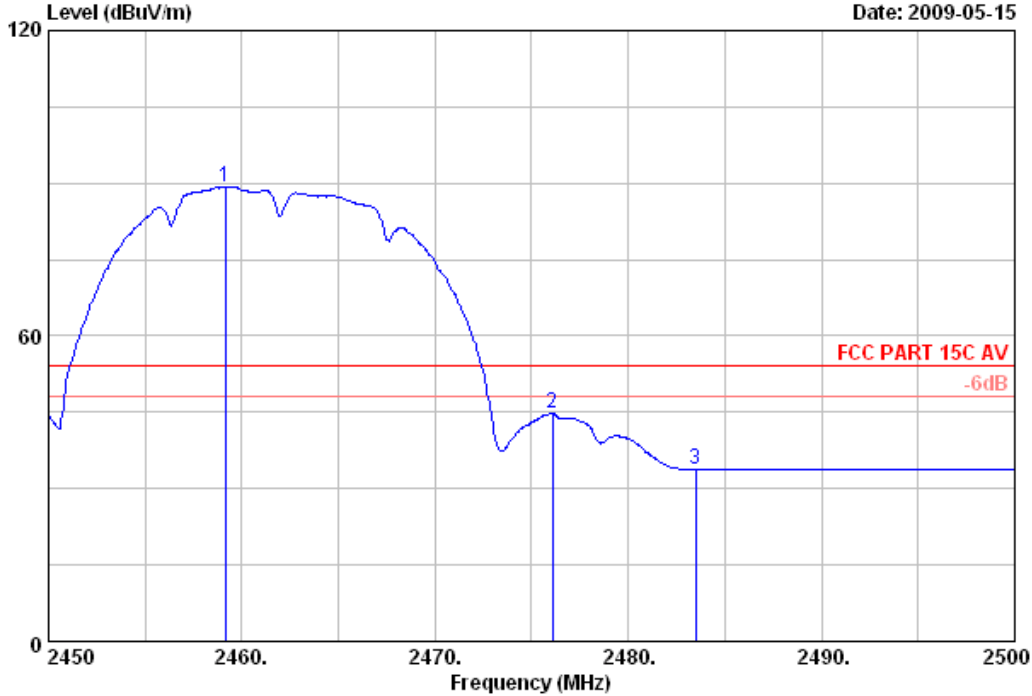
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 90 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no. : 3m Chamber Data no. : 90
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.150	28.55	6.84	35.11	89.11	89.39	54.00	-35.39	Average
2	2476.100	28.58	6.87	35.10	44.48	44.83	54.00	9.17	Average
3	2483.500	28.58	6.87	35.10	33.32	33.67	54.00	20.33	Average

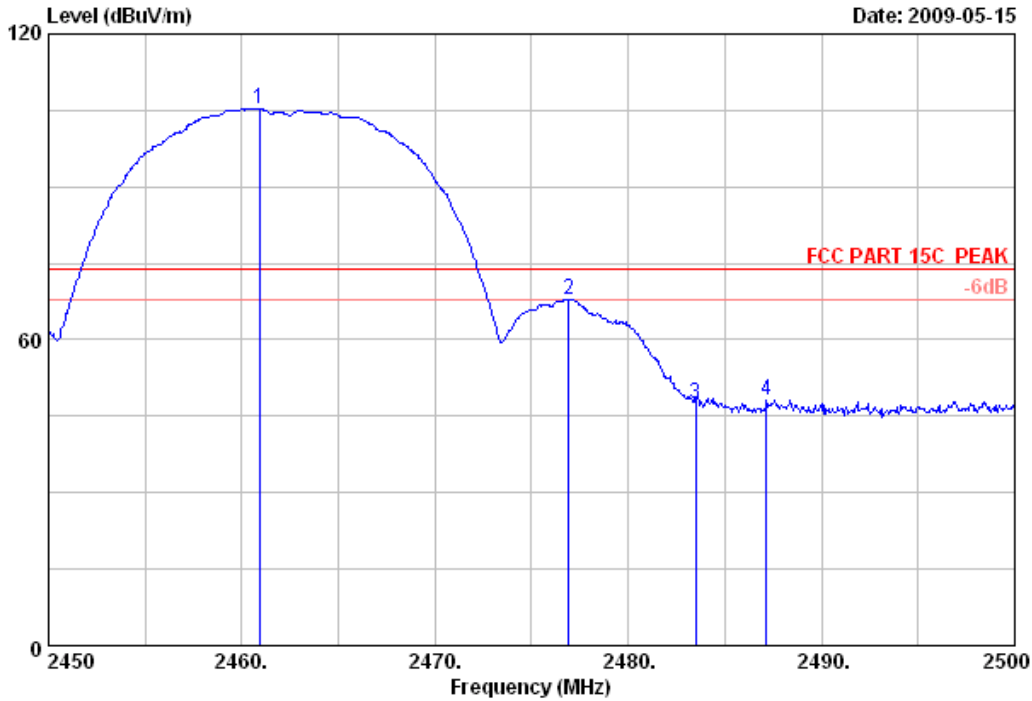
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 91
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.900	28.55	6.84	35.11	105.13	105.41	74.00	-31.41	Peak
2	2476.900	28.58	6.87	35.10	67.52	67.87	74.00	6.13	Peak
3	2483.500	28.58	6.87	35.10	47.23	47.58	74.00	26.42	Peak
4	2487.150	28.58	6.87	35.10	47.86	48.21	74.00	25.79	Peak

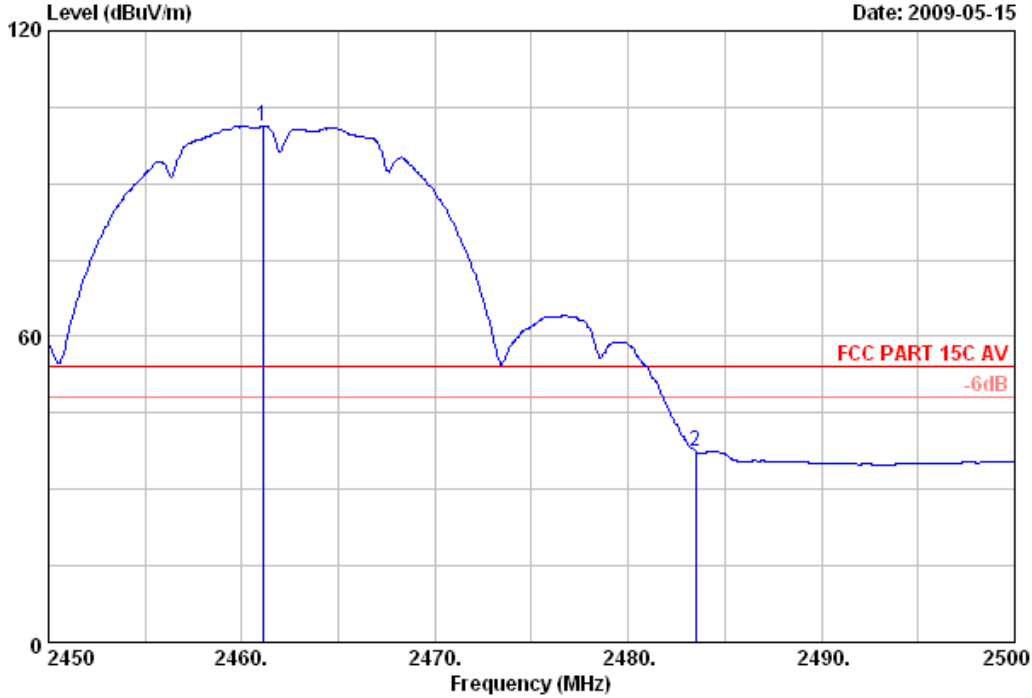
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Data: 92 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no. : 3m Chamber Data no. : 92
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2461.100	28.55	6.84	35.11	101.08	101.36	54.00	-47.36	Average
2	2483.500	28.58	6.87	35.10	37.16	37.51	54.00	16.49	Average

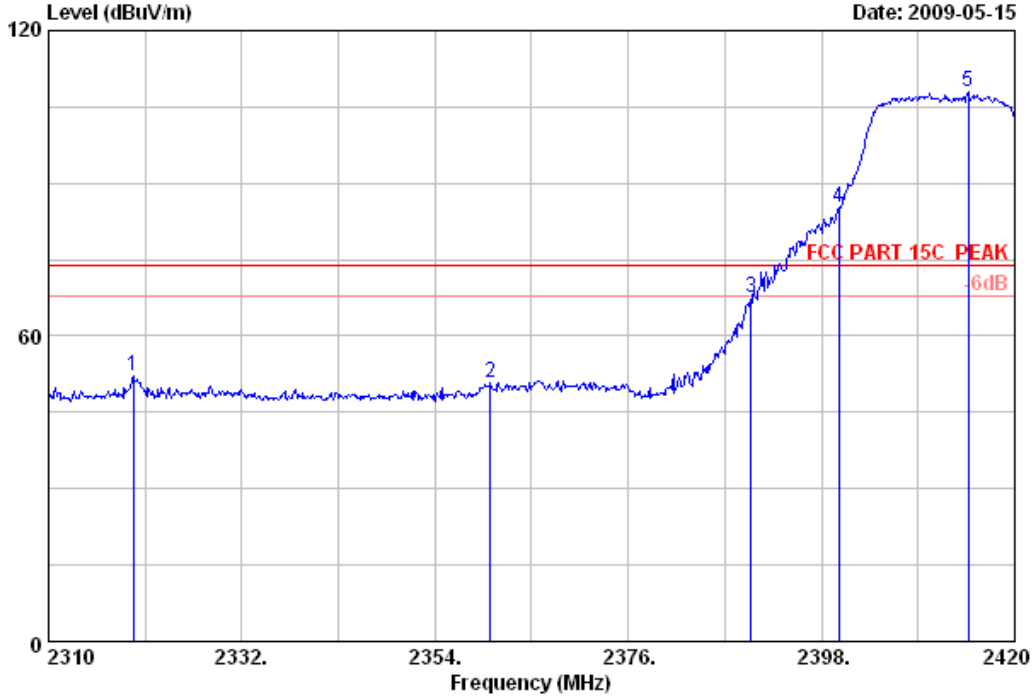
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Postcode:518057

Data: 93 File: E:\2009 report data\TP-LINK\ACS9Q602.EM6 (108)



Site no. : 3m Chamber Data no. : 93
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N : MR4-WR642G

	Ant. Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2319.680	28.36	6.65	35.13	52.27	52.15	74.00	21.85	Peak
2	2360.270	28.41	6.69	35.13	50.99	50.96	74.00	23.04	Peak
3	2390.000	28.46	6.71	35.12	67.55	67.60	74.00	6.40	Peak
4	2400.000	28.46	6.73	35.12	85.15	85.22	74.00	-11.22	Peak
5	2414.720	28.48	6.77	35.12	107.67	107.80	74.00	-33.80	Peak

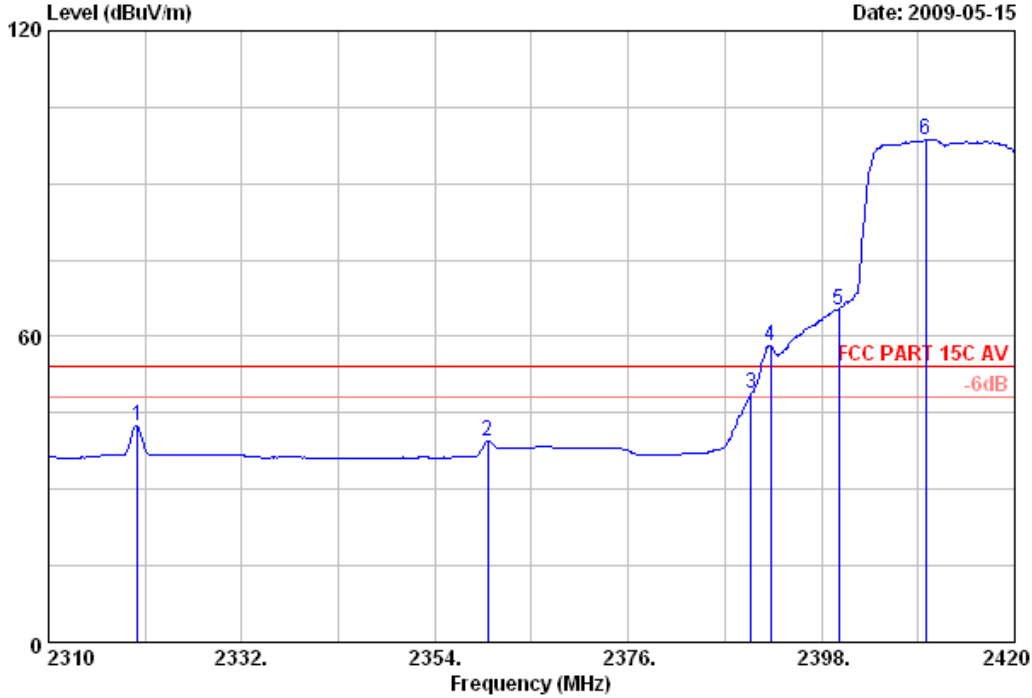
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 94
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH1 2412MHz
 M/N : MR4-WR642G

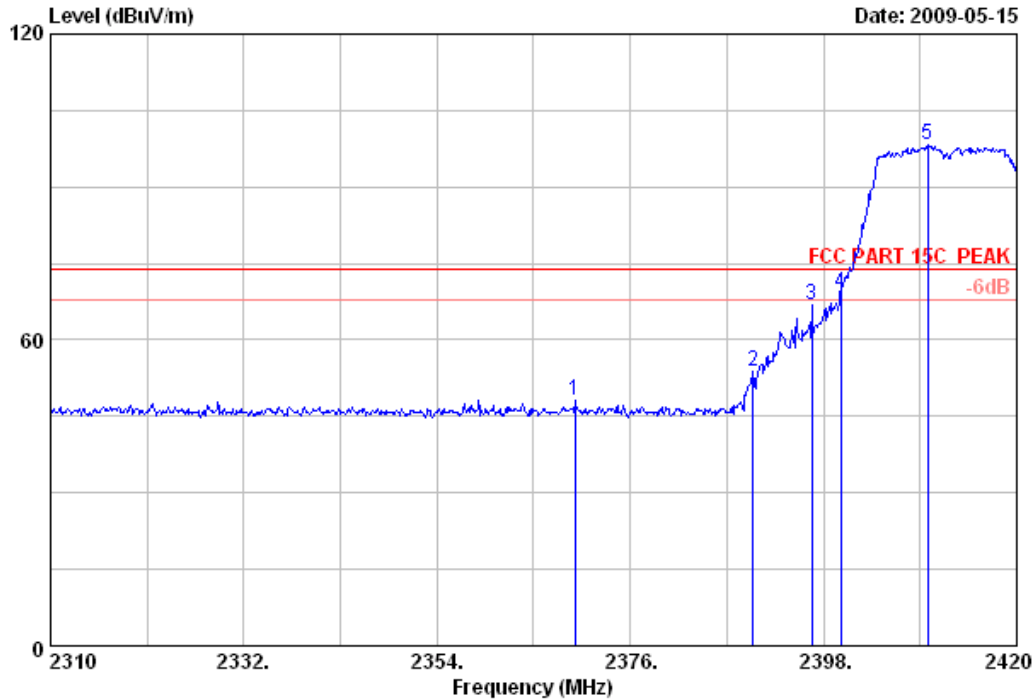
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2320.120	28.36	6.65	35.13	42.51	42.39	54.00	11.61	Average
2	2360.050	28.41	6.69	35.13	39.44	39.41	54.00	14.59	Average
3	2390.000	28.46	6.71	35.12	48.82	48.87	54.00	5.13	Average
4	2392.170	28.46	6.71	35.12	58.13	58.18	54.00	-4.18	Average
5	2400.000	28.46	6.73	35.12	65.25	65.32	54.00	-11.32	Average
6	2409.880	28.48	6.73	35.12	98.64	98.73	54.00	-44.73	Average

Remarks:
 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.



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Site no.	: 3m Chamber	Data no.	: 95
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH1 2412MHz		
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2369.730	28.43	6.69	35.12	48.30	48.30	74.00	25.70	Peak
2	2390.000	28.46	6.71	35.12	53.73	53.78	74.00	20.22	Peak
3	2396.680	28.46	6.73	35.12	66.72	66.79	74.00	7.21	Peak
4	2400.000	28.46	6.73	35.12	69.10	69.17	74.00	4.83	Peak
5	2409.880	28.48	6.73	35.12	98.07	98.16	74.00	-24.16	Peak

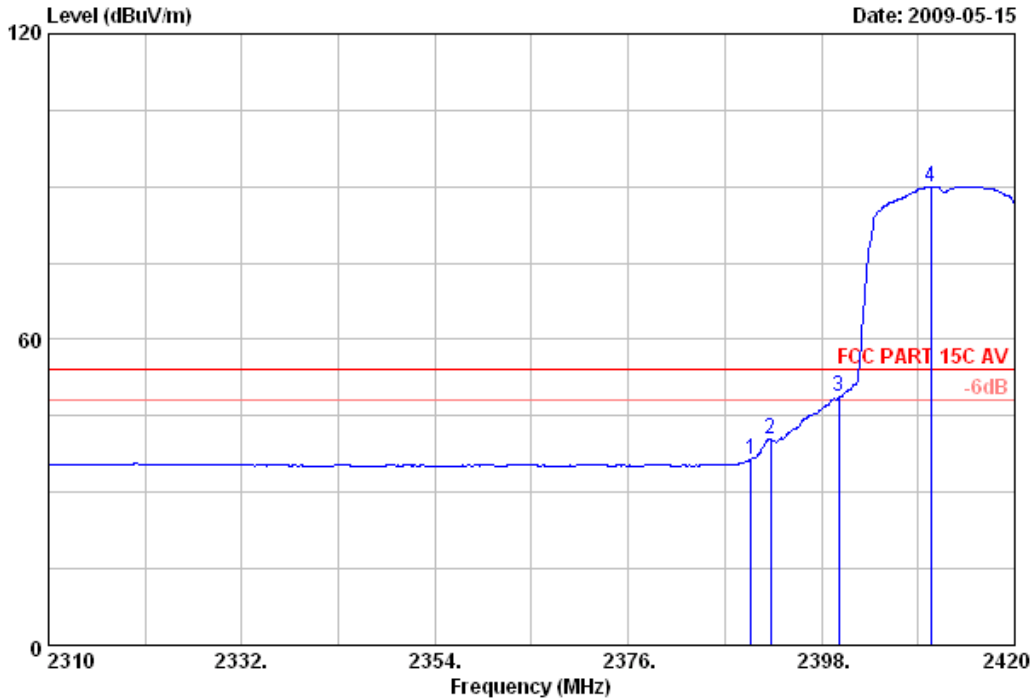
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no.	: 3m Chamber	Data no.	: 96
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C AV		
Env. / Ins.	: 23°C/54%	Engineer	: Sunny-lu
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH1 2412MHz		
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.46	6.71	35.12	36.46	36.51	54.00	17.49	Average
2	2392.170	28.46	6.71	35.12	40.43	40.48	54.00	13.52	Average
3	2400.000	28.46	6.73	35.12	48.63	48.70	54.00	5.30	Average
4	2410.430	28.48	6.73	35.12	89.94	90.03	54.00	-36.03	Average

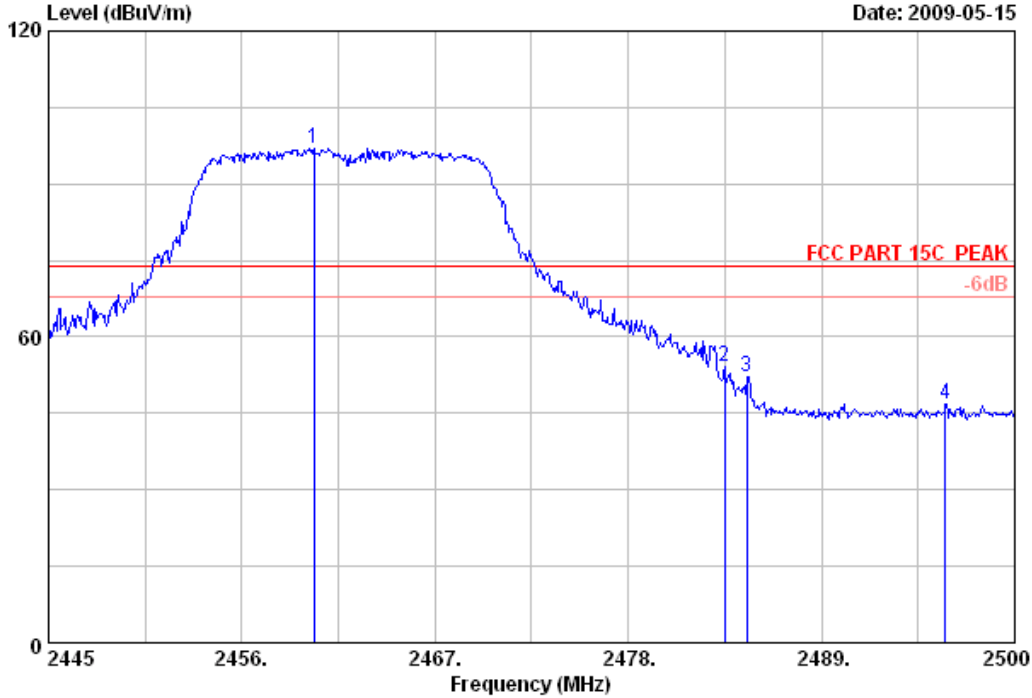
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no.	: 3m Chamber	Data no.	: 97
Dis. / Ant.	: 3m 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK	Engineer	: Sunny-lu
Env. / Ins.	: 23*C/54%		
EUT	: 108M Wireless Router		
Power	: DC12V From Adapter input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz		
M/N	: MR4-WR642G		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.125	28.55	6.84	35.11	96.80	97.08	74.00	-23.08	Peak
2	2483.500	28.58	6.87	35.10	53.77	54.12	74.00	19.88	Peak
3	2484.765	28.58	6.87	35.10	51.90	52.25	74.00	21.75	Peak
4	2496.040	28.60	6.91	35.10	46.49	46.90	74.00	27.10	Peak

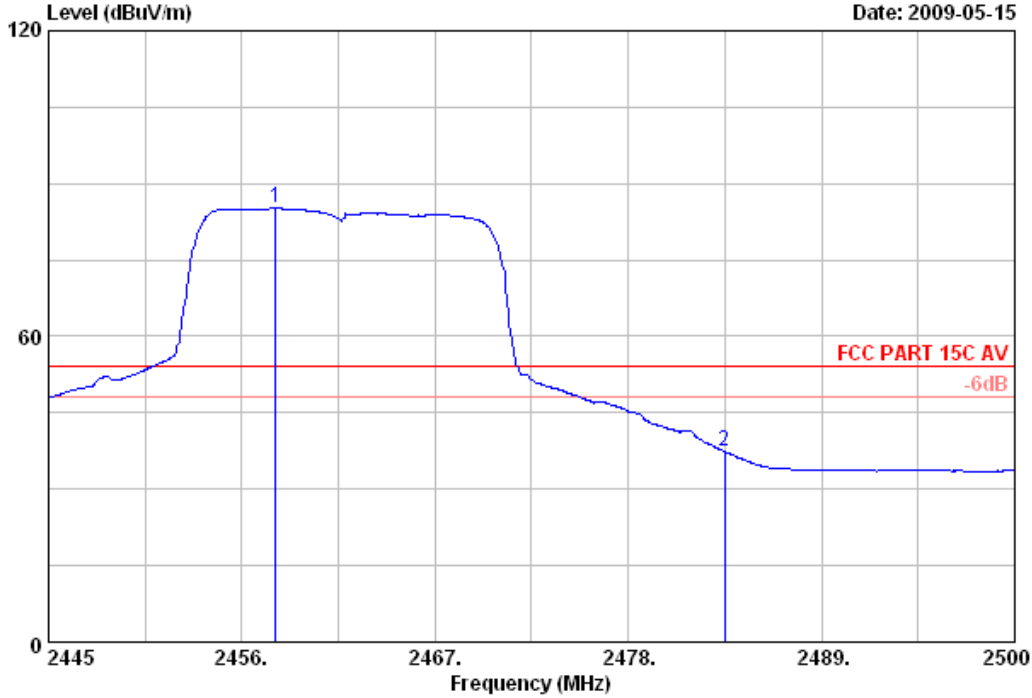
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 98
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.925	28.55	6.84	35.11	85.11	85.39	54.00	-31.39	Average
2	2483.500	28.58	6.87	35.10	37.05	37.40	54.00	16.60	Average

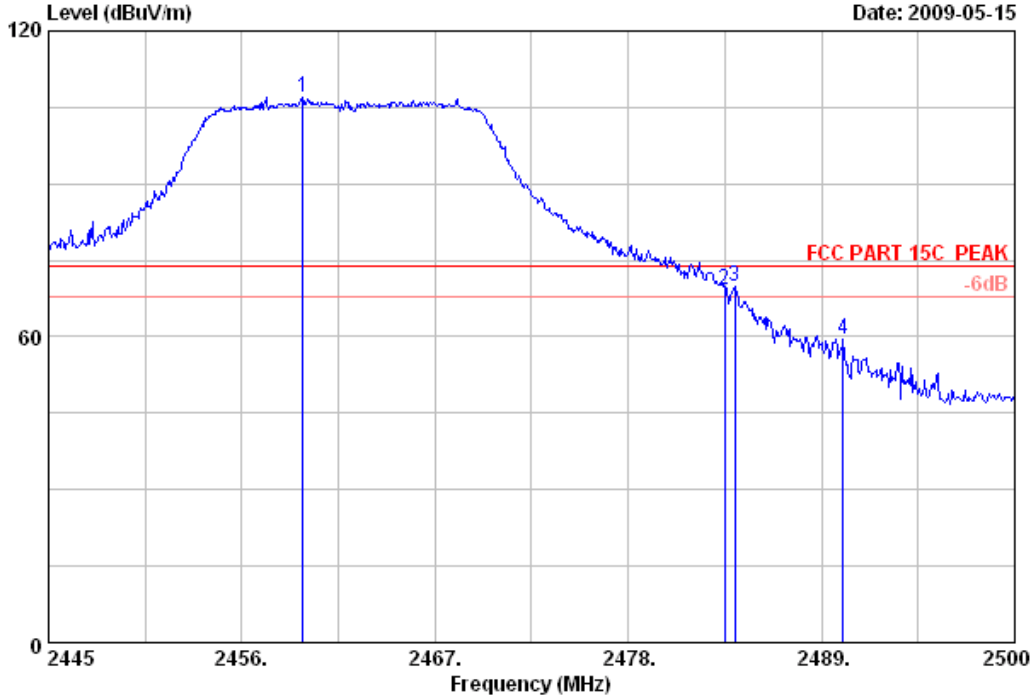
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 99
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23*C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.465	28.55	6.84	35.11	106.58	106.86	74.00	-32.86	Peak
2	2483.500	28.58	6.87	35.10	68.97	69.32	74.00	4.68	Peak
3	2484.050	28.58	6.87	35.10	69.36	69.71	74.00	4.29	Peak
4	2490.210	28.60	6.91	35.10	59.19	59.60	74.00	14.40	Peak

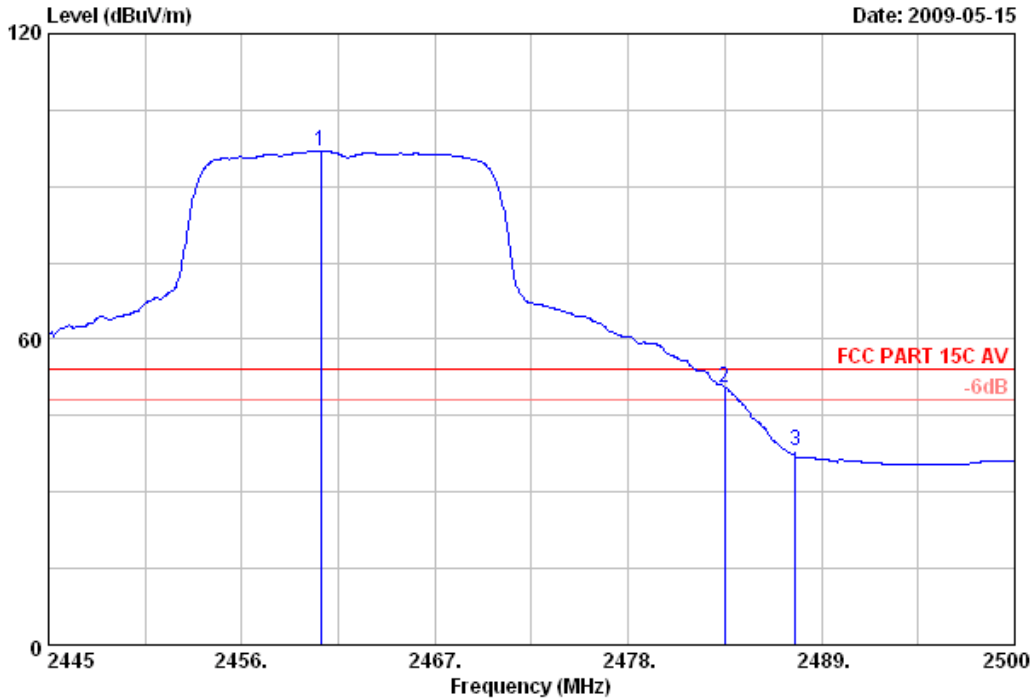
Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 100
 Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Sunny-lu
 EUT : 108M Wireless Router
 Power : DC12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH11 2462MHz
 M/N : MR4-WR642G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dbuv)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.510	28.55	6.84	35.11	96.63	96.91	54.00	-42.91	Average
2	2483.500	28.58	6.87	35.10	50.25	50.60	54.00	3.40	Average
3	2487.515	28.60	6.87	35.10	37.65	38.02	54.00	15.98	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

Test Mode: IEEE 802.11b TX

CH	6dB Bandwidth (MHz)	Limit	Conclusion
1	12.00	>500	PASS
6	12.00	>500	PASS
11	12.00	>500	PASS

Test Mode: IEEE 802.11g TX

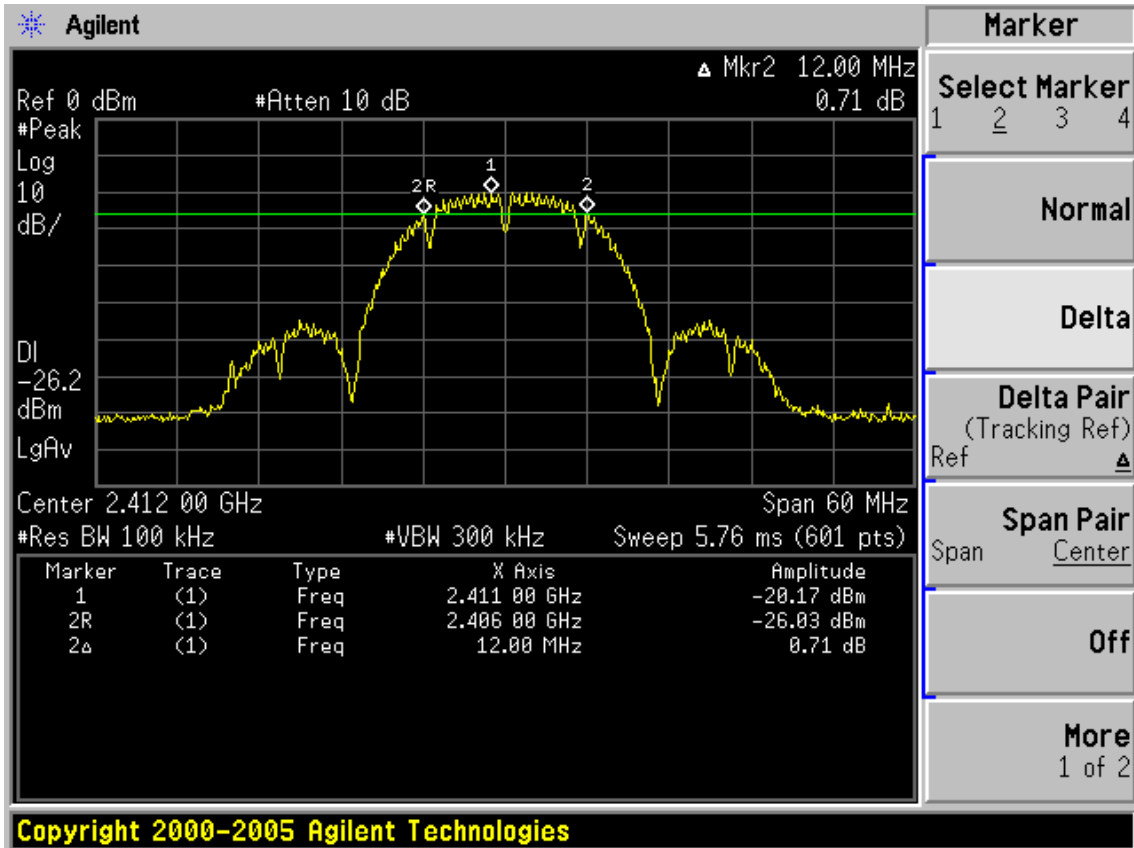
CH	6dB Bandwidth (MHz)	Limit	Conclusion
1	16.40	>500	PASS
6	16.40	>500	PASS
11	16.40	>500	PASS

Test Mode: IEEE802.11g Turbo Tx

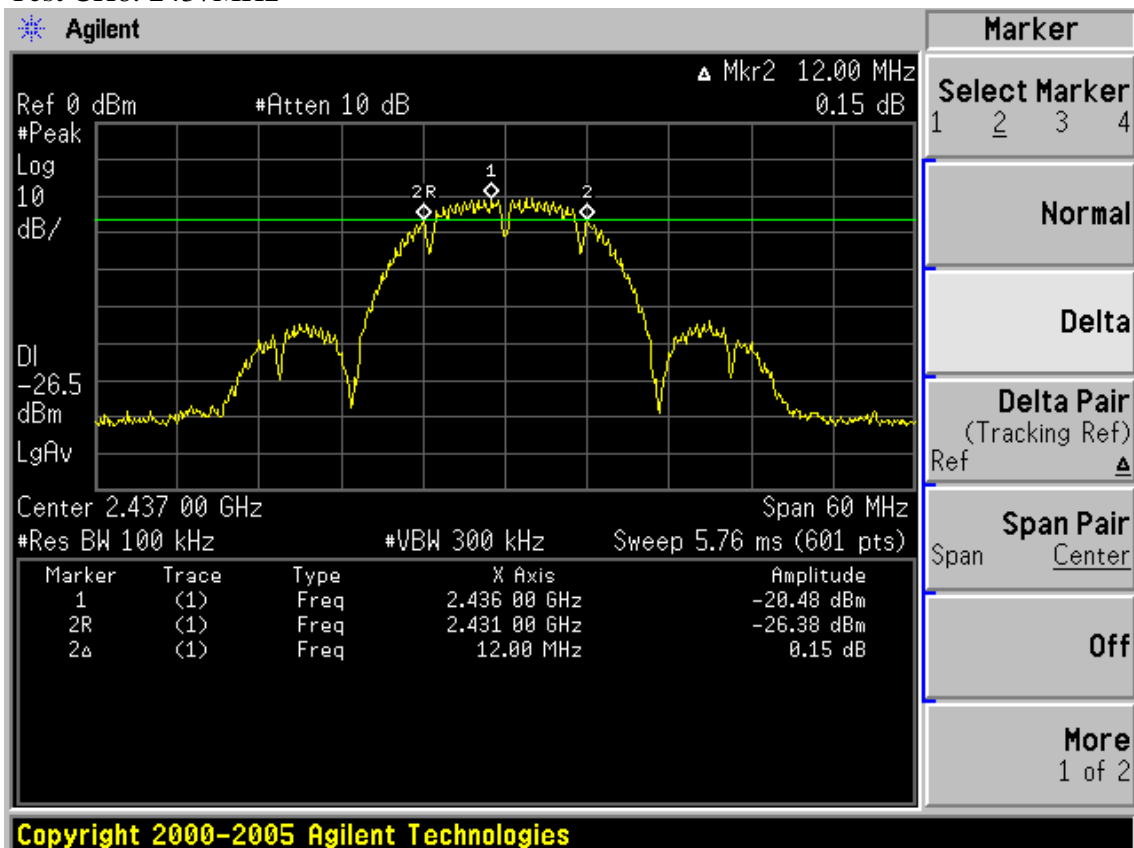
CH	6dB Bandwidth (MHz)	Limit	Conclusion
2437MHz	32.60	>500	PASS

Test Mode: IEEE 802.11b TX

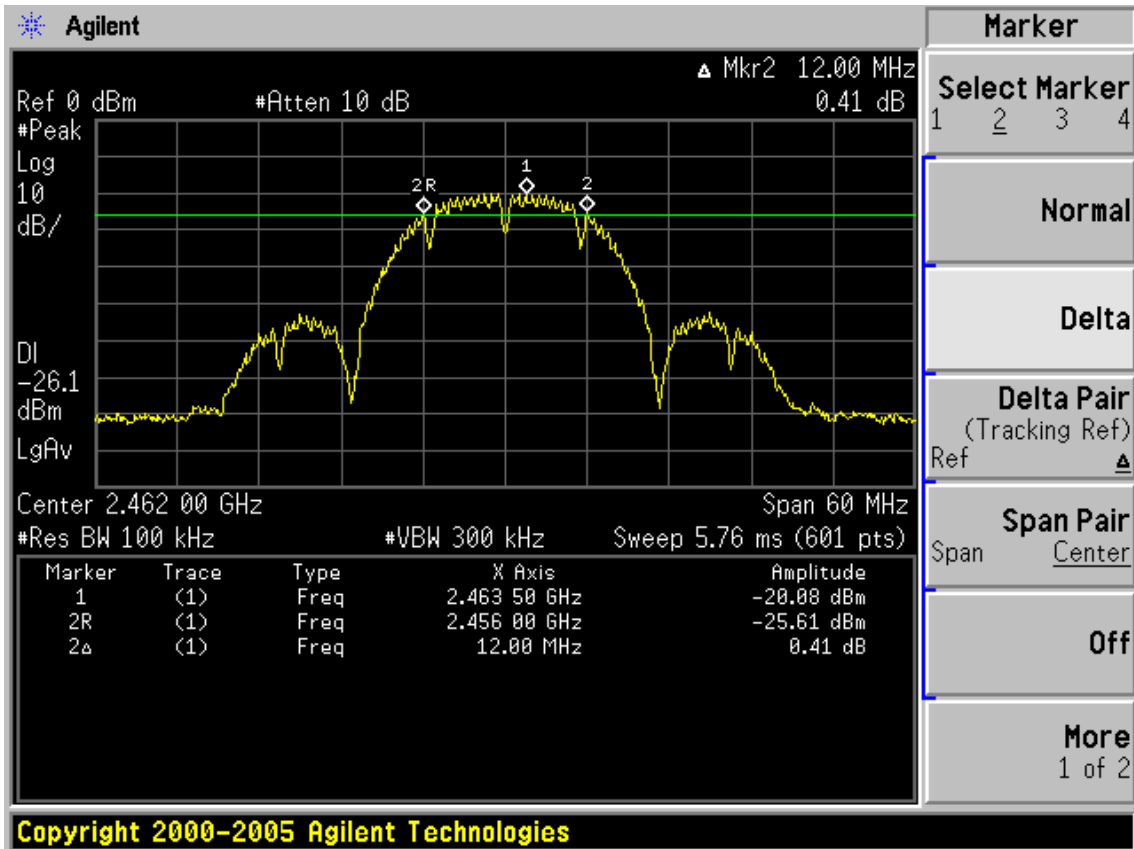
Test CH1: 2412MHz



Test CH6: 2437MHz

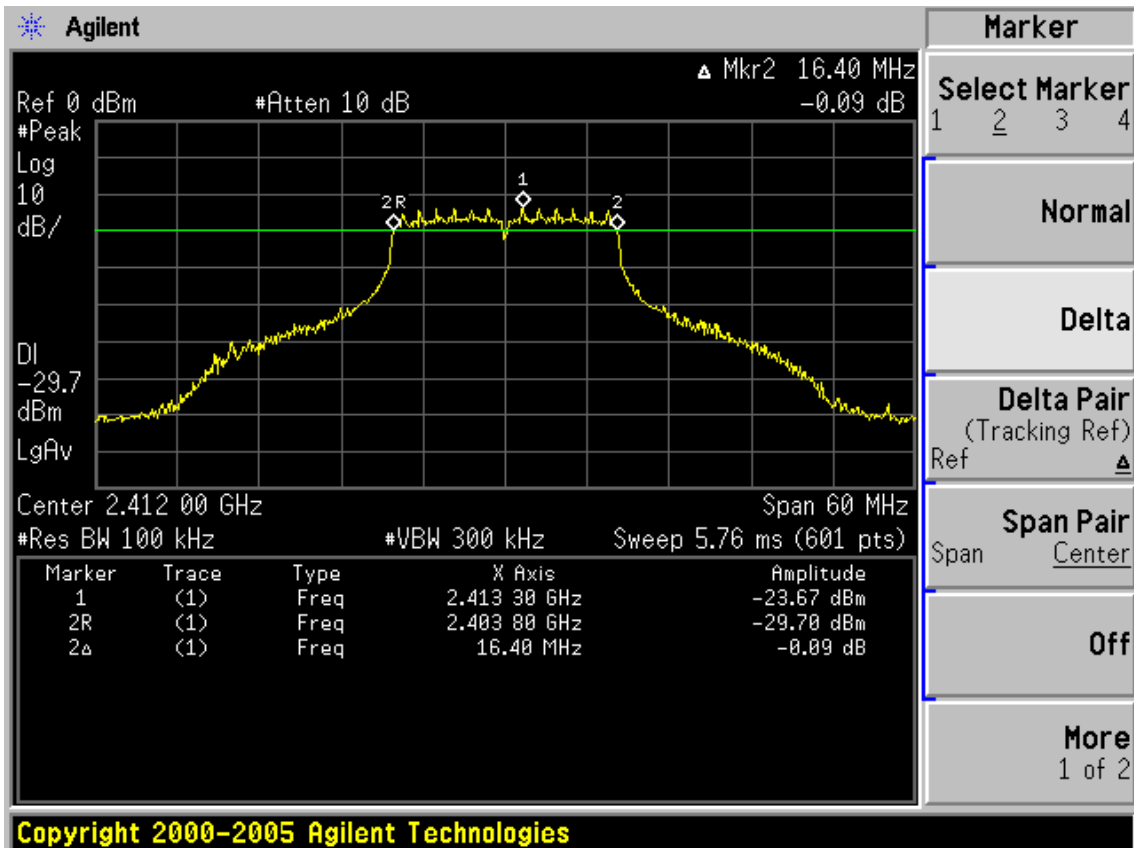


Test CH1: 2462MHz

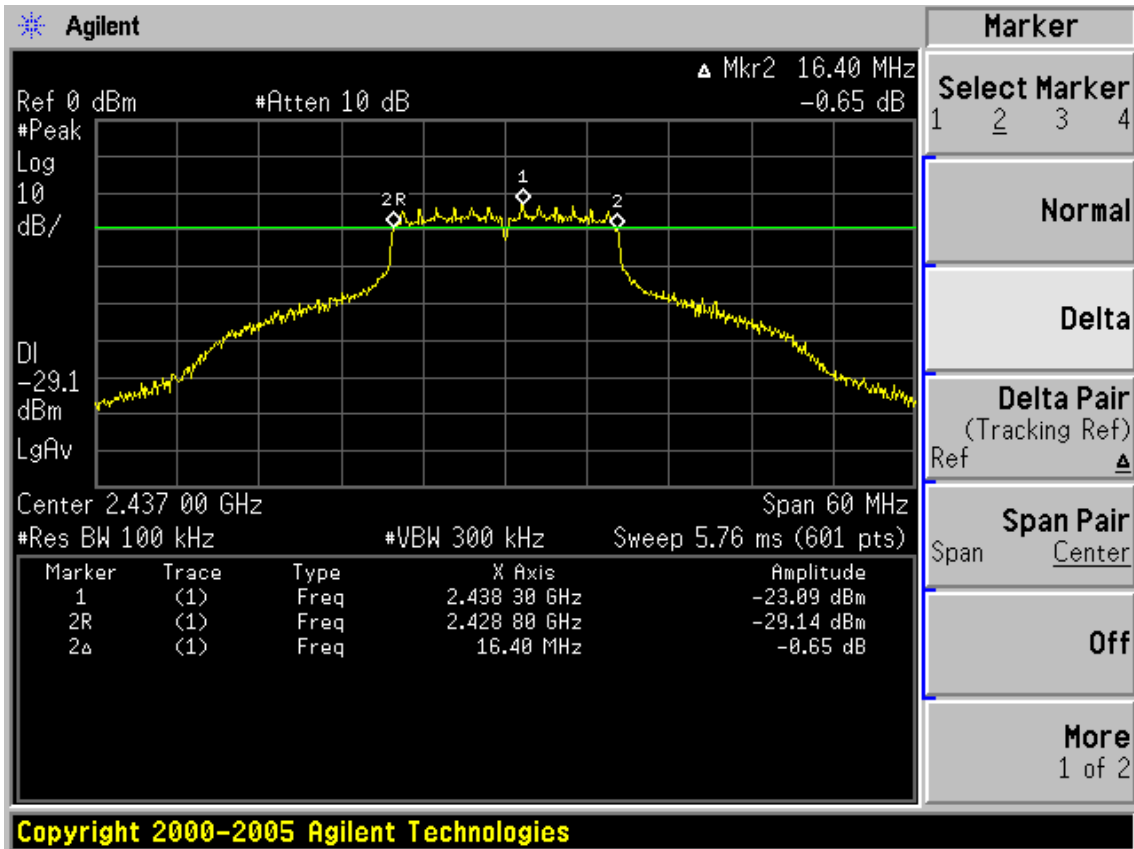


Test Mode: IEEE 802.11g TX

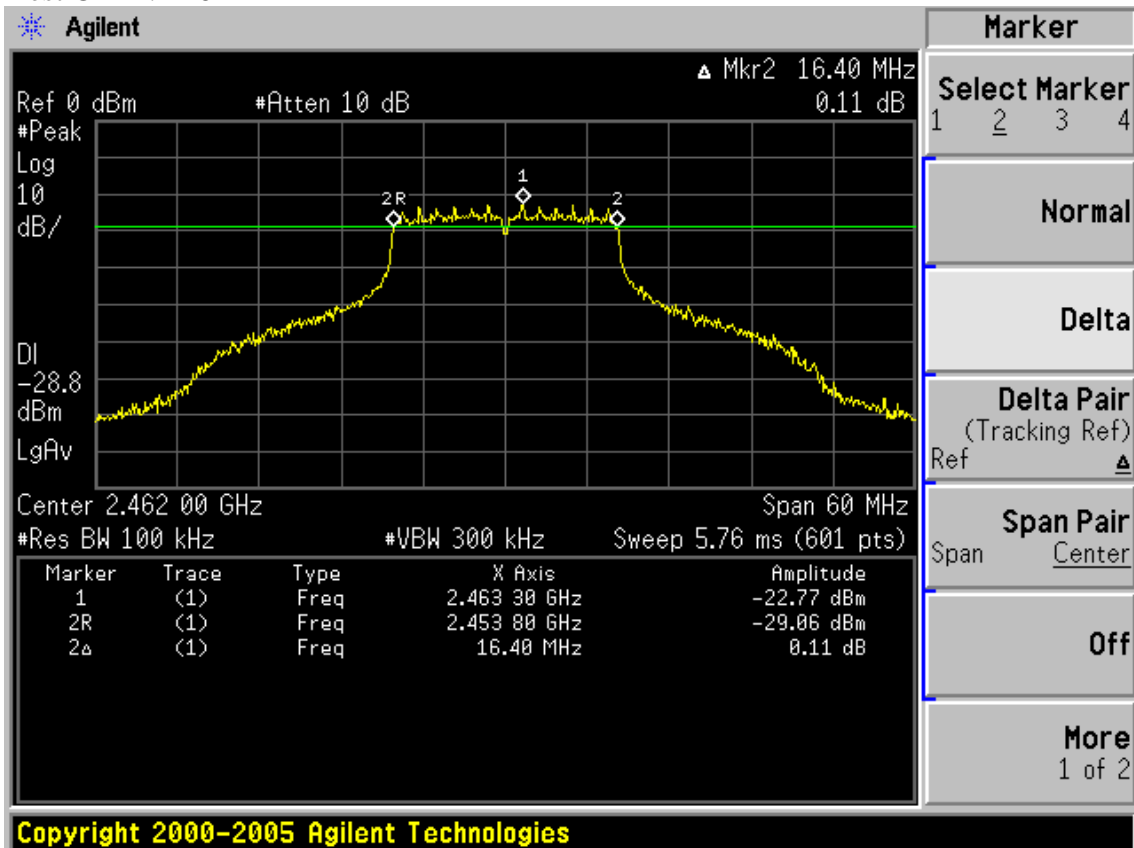
Test CH1: 2412MHz



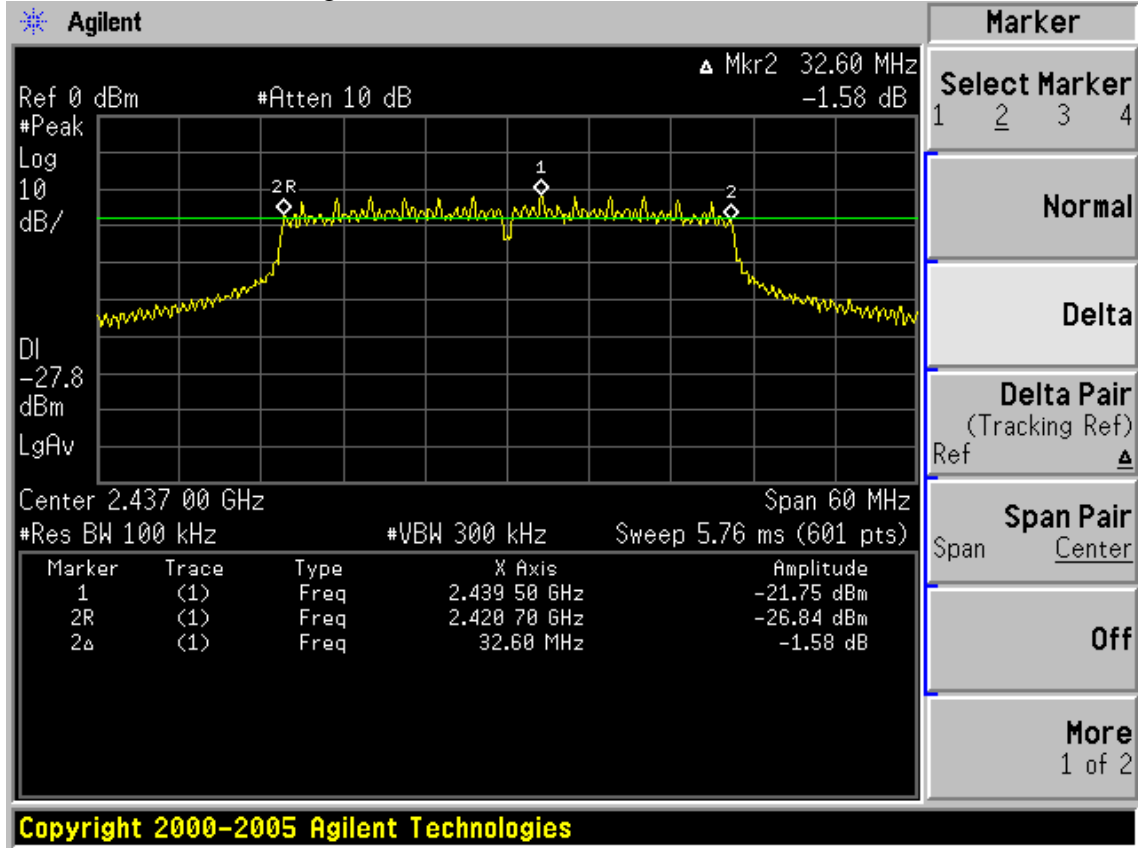
Test CH6: 2437MHz



Test CH11: 2462MHz



Test Mode: IEEE 802.11g Turbo TX



8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3.	Power meter	Anritsu	ML2487A	6K00002472	May,08, 09	1 Year
4.	Power sensor	Anritsu	ML2491A	032516	May,08, 09	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

8.2. Limit(FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.3. Test Procedure

For IEEE802.11b/g mode, the transmitter's output was connected to a powermeter, and measure the PK output power by power meter.

For IEEE802.11b turbo mode, because it's 6dB bandwidth is 32MHz, and above the power sensor's bandwidth(20MHz).So the transmitter output was connected to a spectrum analyzer via a 20dB attenuator. Use the channel power function of spectrum analyzer to read out the PK output power.

8.4.Test Results

EUT: 108M Wireless Router MN:MR4-WR642G							
Power: DC 12V From Adapter input AC 120V/60Hz							
Data Rate:11b 1Mbps ; 11g 6Mbps ; 11g Turbo 108Mbps (Note 1)							
Ambient Temperature:23℃				Relative Humidity: 60%			
Test date:2009/05/15				Test site: RF site		Tested by: Sunny-lu	
Test CH	11b 11g	CH1 2412MHz CH6 2437MHz CH11 2462MHz					
Test CH	11g Turbo	2437MHz					
Mode	CH	PK Read (dBm)	Cable Loss (dBm)	Attenuator (dB)	Result (dBm)	Limit (dBm)	Conclusion
11b	CH1	-2.30	0.60	20.0	18.30	30.00	PASS
	CH6	-2.92	0.60	20.0	17.68	30.00	PASS
	CH11	-3.32	0.60	20.0	17.28	30.00	PASS
11g	CH1	3.16	0.60	20.0	23.76	30.00	PASS
	CH6	4.24	0.60	20.0	24.84	30.00	PASS
	CH11	3.29	0.60	20.0	23.89	30.00	PASS
11g Turbo	2437MHz	3.93	0.60	20.0	24.53	30.00	PASS
Note1: According Exploratory test,These data rate have the maximum output power							
Result= PK read +cable loss+Attenuator							

9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,08, 09	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

9.2. Limit

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

9.3. Test Procedure

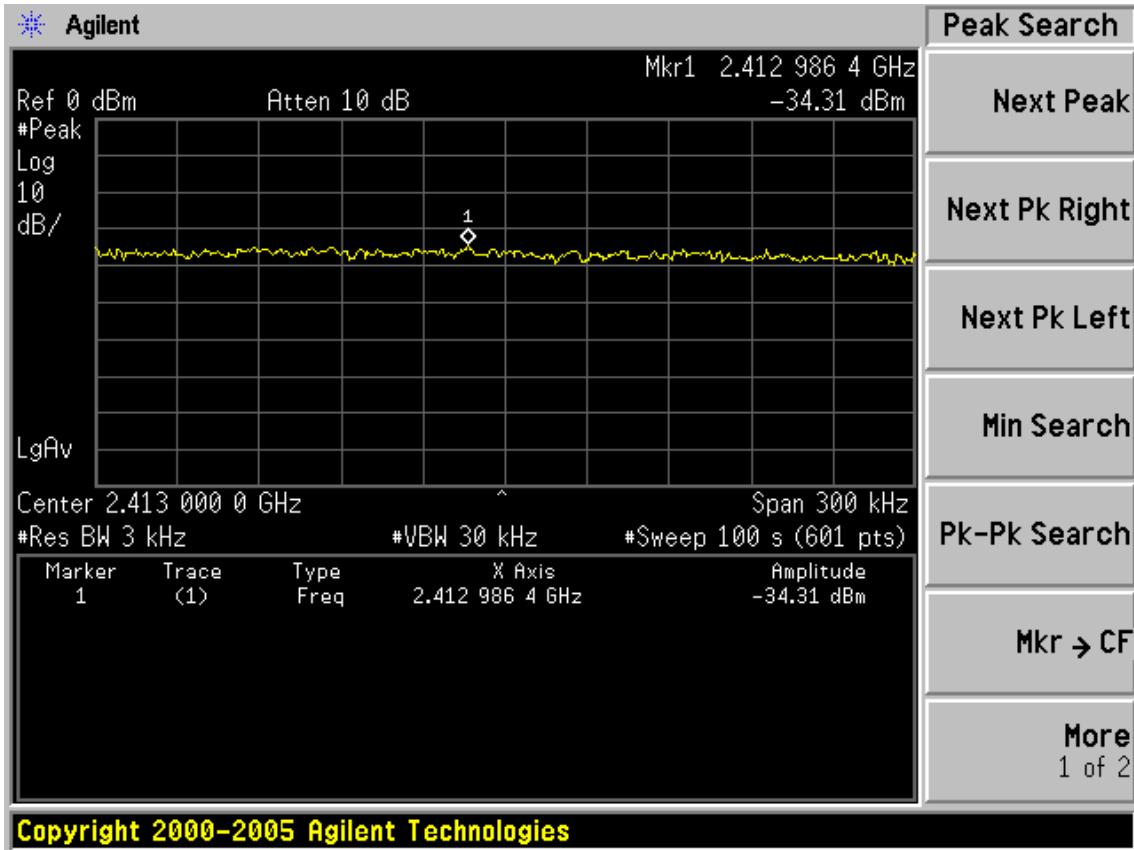
The transmitter output was connected to a spectrum analyzer. The maximum power density level was measured by spectrum analyzer with 3kHz RBW and 30kHz VBW, sweep time=span/3kHz.

9.4.Test Results

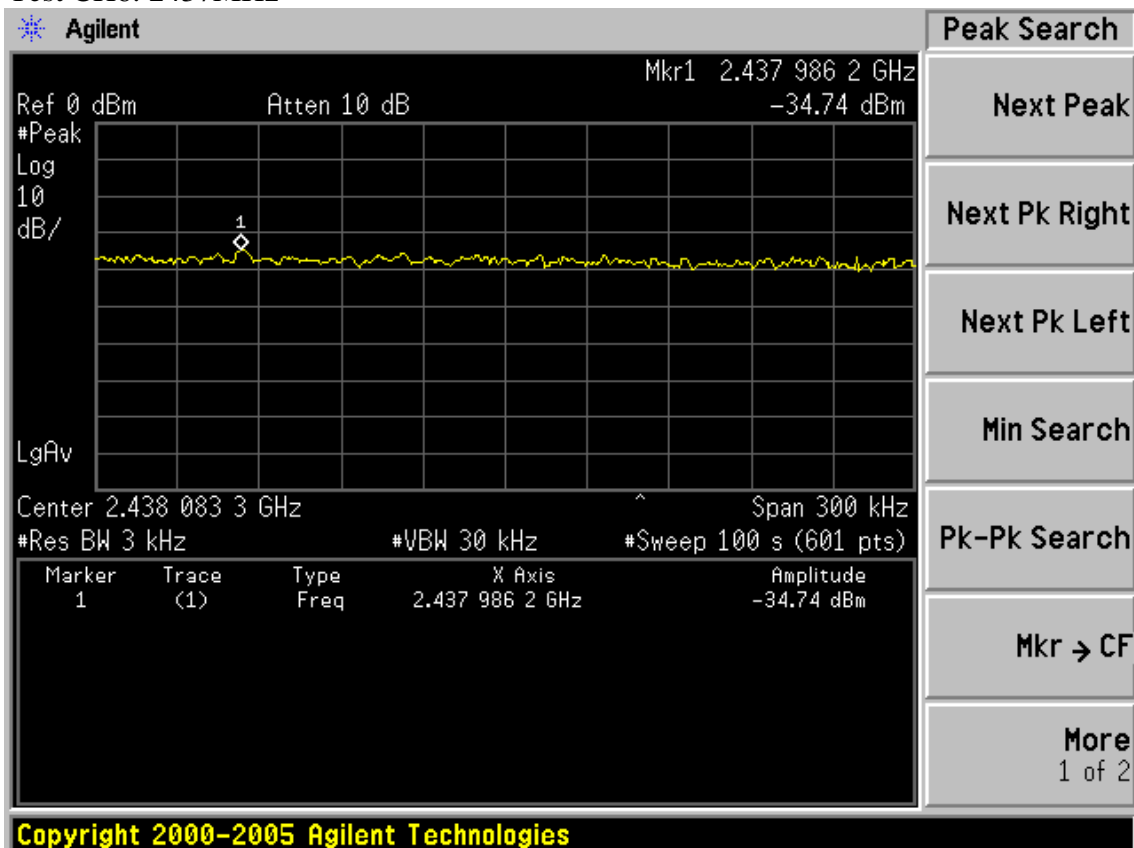
EUT: 108M Wireless Router M/N: MR4-WR642G							
Power: DC 12V From Adapter input AC 120V/60Hz							
Data Rate:11b: 1Mbps ; 11g : 6Mbps 11g Turbo Mode : 108Mbps (Note 1)							
Ambient Temperature:23°C			Relative Humidity: 60%				
Test date:2009/05/15			Test site: RF site		Tested By: Sunny-lu		
Test CH	11b 11g		CH1:2412MHz CH6:2437MHz CH11:2462MHz				
Test CH	11g Turbo		2437MHz				
Mode	CH	Read(dBm)	Cable loss (dBm)	Attenuator (dB)	Result (dBm)	Limit(dBm)	Conclusion
11b	CH1	-34.31	0.6	20.0	-13.71	8.00	Pass
	CH6	-34.74	0.6	20.0	-14.14	8.00	Pass
	CH11	-33.87	0.6	20.0	-13.27	8.00	Pass
11g	CH1	-36.42	0.6	20.0	-15.82	8.00	Pass
	CH6	-35.05	0.6	20.0	-14.45	8.00	Pass
	CH11	-36.47	0.6	20.0	-15.87	8.00	Pass
11g Turbo	2437MHz	-36.61	0.6	20.0	-16.01	8.00	Pass
Note1:According Exploratory test, These data rate have the maximum output power							
Note2:Result=Read+ Cable loss+ Attenuator							

Test Mode: IEEE 802.11b TX

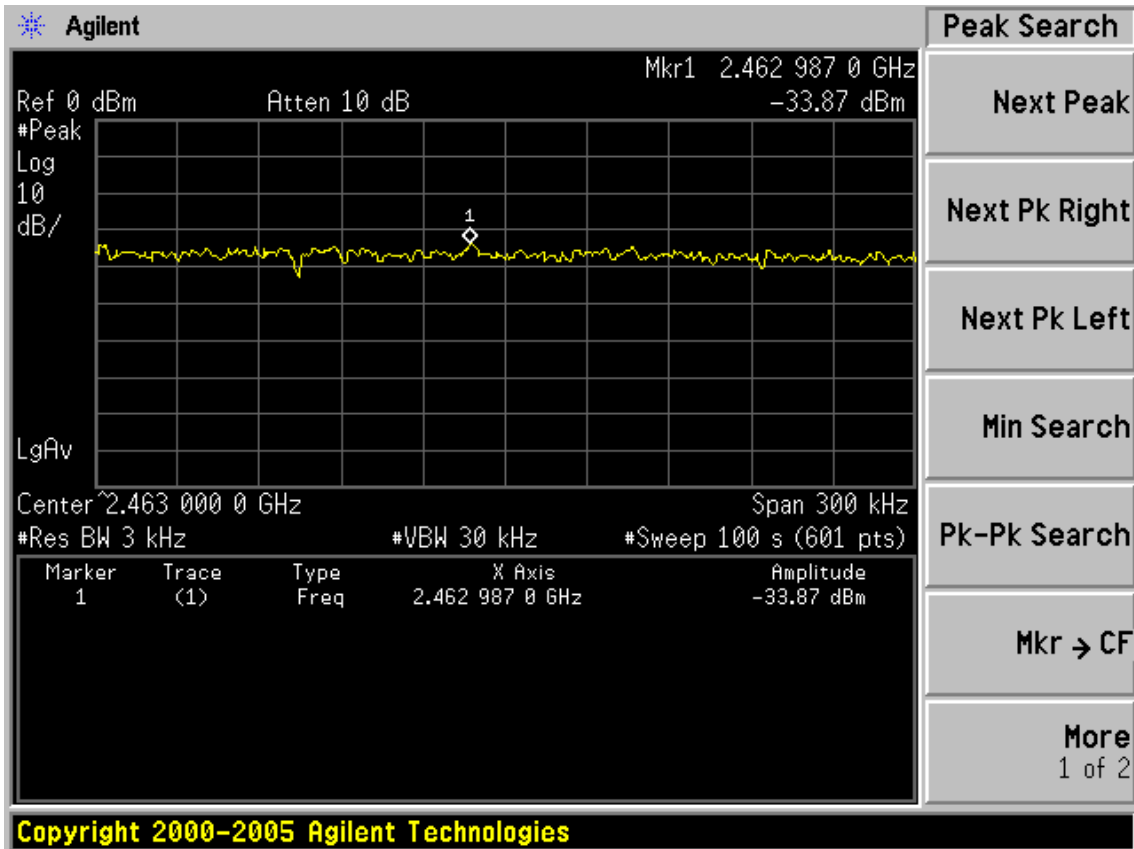
Test CH1: 2412MHz



Test CH6: 2437MHz

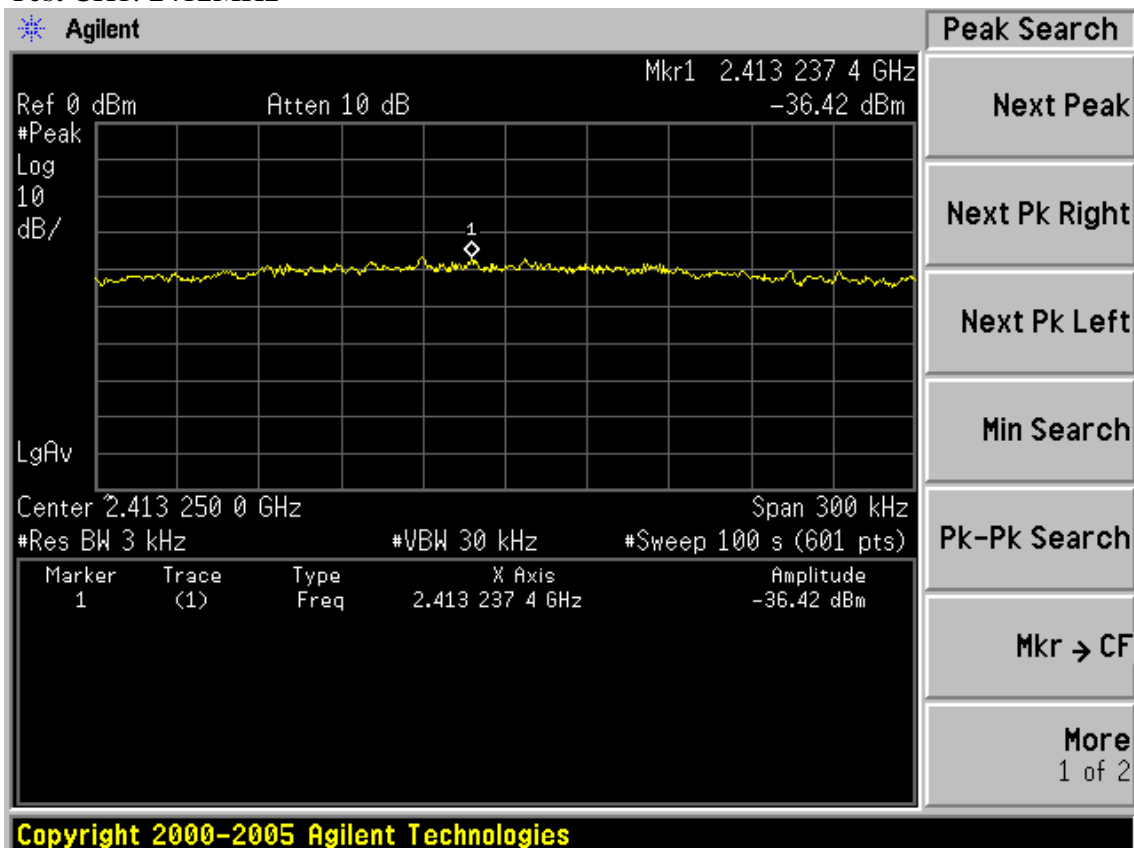


Test CH1: 2462MHz

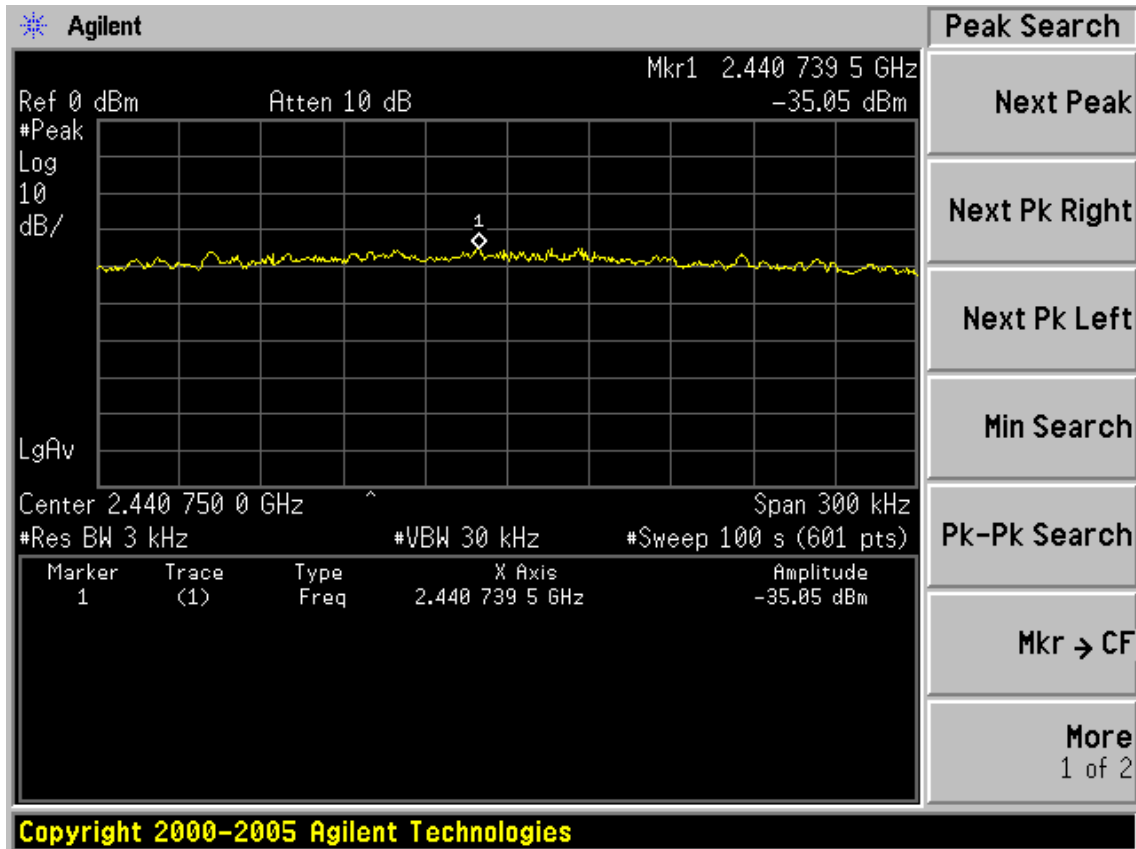


Test Mode: IEEE 802.11g TX

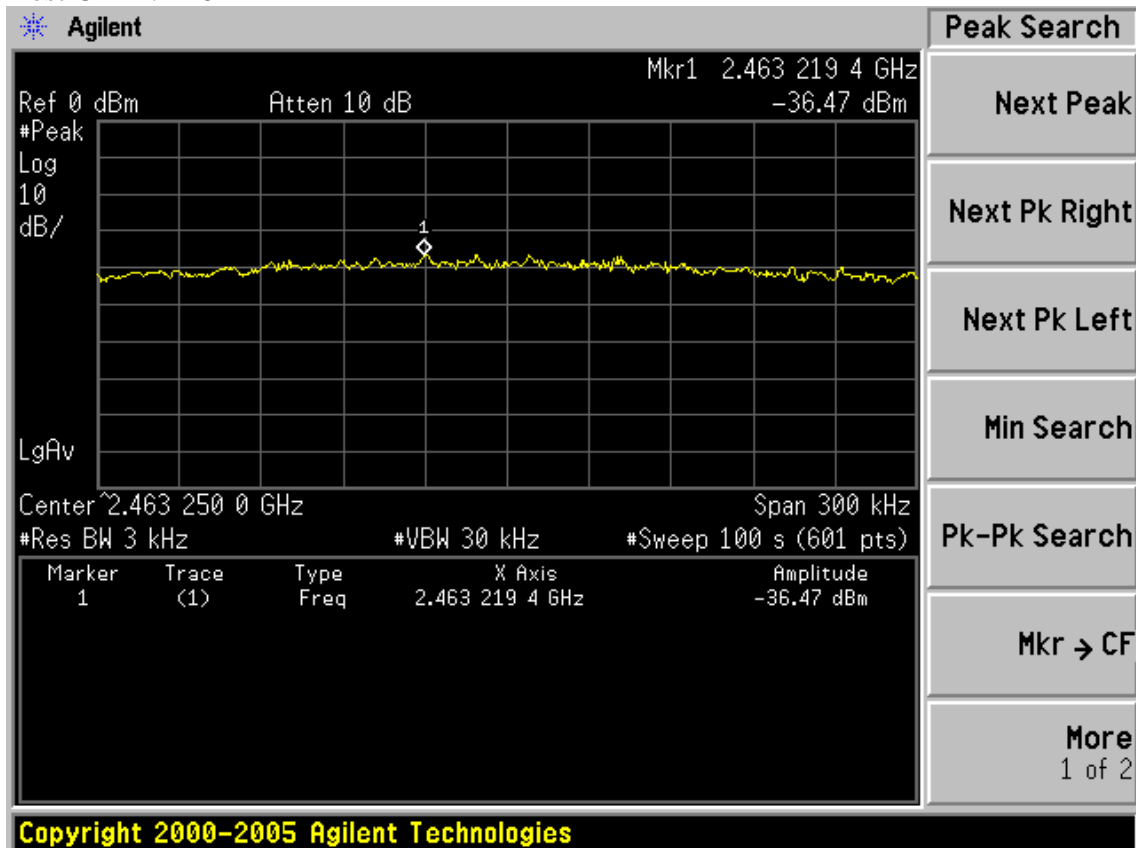
Test CH1: 2412MHz



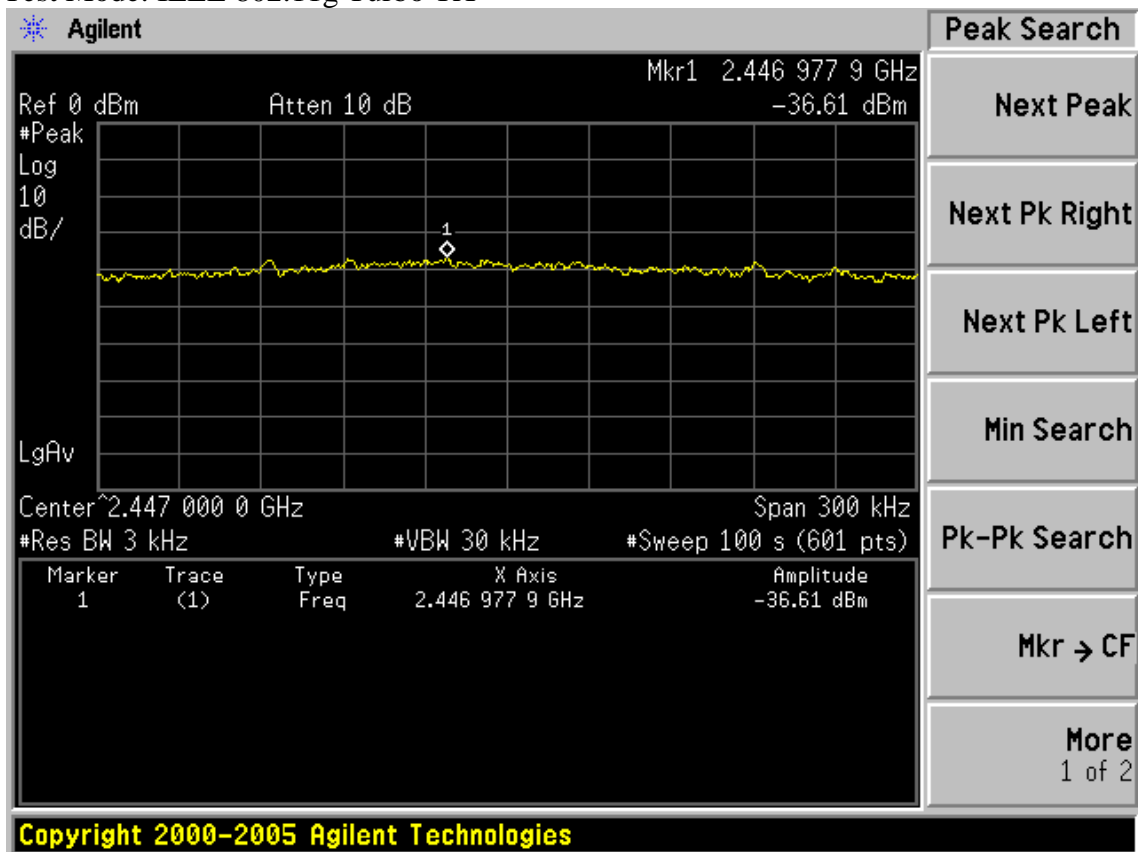
Test CH6: 2437MHz



Test CH11: 2462MHz



Test Mode: IEEE 802.11g Turbo TX



10.MPE ESTIMATION

10.1.Limit for General Population / Uncontrolled Exposures

Frequency	Power density (mW/cm ²)	Averaging time (minutes)
300MHz~1.5GHz	F/1500	30
1.5GHz~100GHz	1.0	30

Frequency (MHz)	Power density (mW/cm ²)	Averaging time (minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F = Frequency in MHz

10.2.Estimation Result

Mode	CH	Frequency (MHz)	PK Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (linear)	MPE
11b	1	2412	18.3	67.61	5	3.16	0.0426
	6	2437	17.68	58.61	5	3.16	0.0369
	11	2462	17.28	53.46	5	3.16	0.0336
11g	1	2412	23.76	237.68	5	3.16	0.1496
	6	2437	24.84	304.79	5	3.16	0.1918
	11	2462	23.89	244.91	5	3.16	0.1542
11g Tuebo	NA	2437	24.53	283.79	5	3.16	0.1786

11. ANTENNA REQUIREMENT

11.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used for this product is a dipole antenna with SMA-B connector (see EUT photo) that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of this antenna is only 5dBi.

12.DEVIATION TO TEST SPECIFICATIONS

[NONE]