APPLICATION FOR CERTIFICATION
On Behalf of

TP-LINK Technologies Co., Ltd.

High-Gain Wireless USB Adapter

Model Number: TL-WN422G

FCC ID: TE7WN422G

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

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496

Report Number	:	ACS-F08438
Date of Test	:	Oct.10, 2008~Jan.15, 2009
Date of Report	:	Jan.16, 2009

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Description Page

TEST REPORT CERTIFICATION

Applicant	:	TP-LINK Technologies Co., Ltd.
Manufacturer	:	TP-LINK Technologies Co., Ltd.
EUT Description	:	High-Gain Wireless USB Adapter
FCC ID	:	TE7WN422G

(A) MODEL NO. : TL-WN422G

(B) SERIAL NO. : N/A

(C) POWER SUPPLY : DC 5V From USB

(D) TEST VOLTAGE : DC 5V From PC AC 120V/60Hz

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C 2007

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 : Oct.10, 2008~ Jan.15, 2009

Prepared by : Edie Huang
Edie Huang / Assistant

Reviewer : Jamy Yu
Jamy Yu / Senior Engineer

AUDIX® 信華科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC部門報告專用章
Stamp only for EMC Dept. Report
Signature: Ken Lu 2/10 09'

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
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Description	:	High-Gain Wireless USB Adapter
		This product is a wireless USB adapter, use IEEE 802.11b/g technology.
Model Number	:	TL-WN422G
FCC ID	:	TE7WN422G
Operation frequency	:	IEEE 802.11b:2412MHz—2462MHz IEEE 802.11g:2412MHz----2462MHz
Channel Number	:	IEEE 802.11b/g: 11 Channels
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.
Output power	:	20.79dBm(Maximum PK measured)
Power	:	DC 5V from USB
Antenna Assembly Gain	:	4dBi (maximum)
Applicant	:	TP-LINK Technologies Co., Ltd.
		Building 7, Second Part, Honghualing Industrial Zone, Xili town, Nanshan District, Shenzhen, China
Manufacturer	:	TP-LINK Technologies Co., Ltd.
		Building 7, Second Part, Honghualing Industrial Zone, Xili town, Nanshan District, Shenzhen, China
USB Cable	:	Shielded, Detachabled, 1m
Date of Test	:	Oct.10, 2008~Jan.15, 2009
Date of Receipt	:	Oct.09, 2008
Sample Type	:	Prototype production

2.2.Test information

The test software " WN422G TX_RX Tool" 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 (Mpbs)(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
Note: According exploratory test, EUT will have maximum output power in those data rate. so those data rate were used for all test.			

This EUT could direct plug into USB host of computer or by a extend USB Cable (1m long). According exploratory test, when connected to USB host by extend Cable will have worse emissions, so all the radiated emissions were tested with extend cable and reported. in this report.

2.3.Date rate VS power

Mode	Data rate (Mbps)	CH	Output power (dBm)	Limit (dBm)
11b	1	CH6	14.25	**30**
	2	CH6	14.02	**30**
	5.5	CH6	14.13	**30**
	11	CH6	13.89	**30**
11g	6	CH6	20.79	**30**
	9	CH6	20.54	**30**
	12	CH6	20.31	**30**
	18	CH6	19.49	**30**
	24	CH6	20.53	**30**
	36	CH6	20.12	**30**
	48	CH6	20.03	**30**
	54	CH6	19.89	**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, Detachabled, 4.0m (Bond one ferrite core)

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	:	Jun. 13, 2006 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 DATech, German Registration Number: DAT-P-091/99-01 Feb. 02, 2004 Accredited by NVLAP, USA NVLAP Code: 200372-0 Apr. 01, 2008

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

No.	Item	MU	Remark
1	Uncertainty for Conducted Emission Test	2.02dB	
2	Uncertainty for Radiation Emission test in 3m chamber	3.44 dB	Polarize: V
		3.96 dB	Polarize: H
3	Uncertainty for radio frequency	1×10^{-9}	
4	Uncertainty for conducted RF Power	0.34dB	
5	Uncertainty for conducted RF Power density	1.45dB	
6	Uncertainty for conducted spurious emissions	2.0dB	

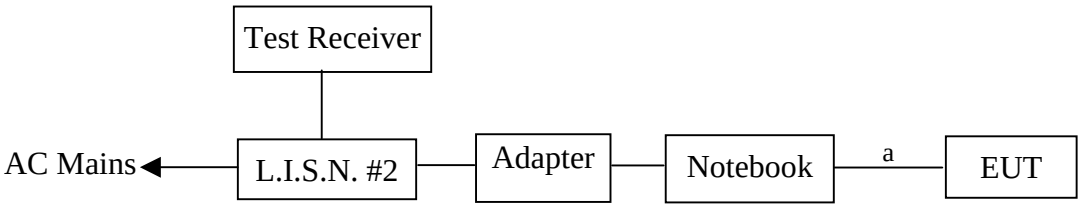
3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Dec.19, 07	1 Year
2.	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	May 10,08	1 Year
3.	Terminator	Hubersuhner	50Ω	No. 1	May 10,08	1 Year
4.	RF Cable	Fujikura	3D-2W	LISN Cable 1#	Jul.08, 08	1/2 Year
5.	Coaxial Switch	Anritsu	MP59B	M55367	Jul.08, 08	1/2 Year
6.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100340	Jul.08, 08	1/2 Year

3.2.Block Diagram of Test Setup

3.2.1.Block diagram of connection between the EUT and simulators



a: USB Cable

(EUT: High-Gain Wireless USB Adapter)

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.High-Gain Wireless USB Adapter (EUT)

Model Number : TL-WN422G
Serial Number : N/A
Manufacturer : TP-LINK Technologies Co., Ltd.

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.Turn on the power of all equipment.

3.5.3.PC ran the Control program to control EUT Work in Tx Mode

3.6.Test Procedure

The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.#2). Power on the PC and let it work normally, we use a keyboard test soft ware, let EUT working in test mode, then test it. Both sides of 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 ESHS10) is set at 10kHz.

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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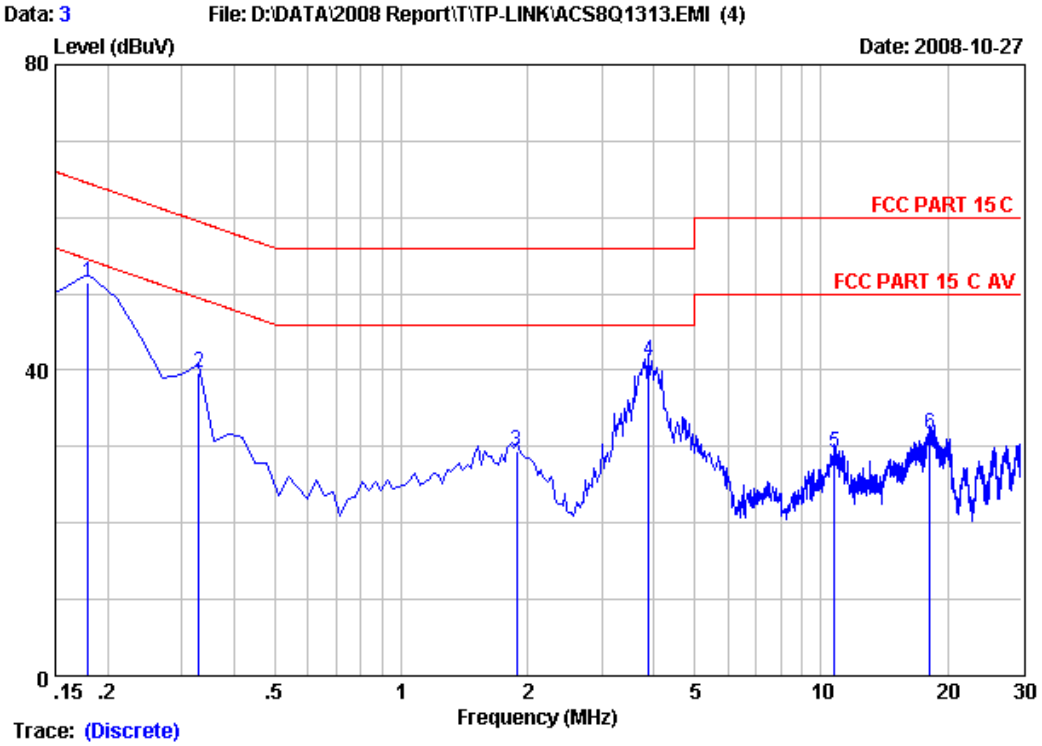

Site no :Audix No.1 Conduction Data no :3
Dis./Ant. :-- KNW407 1# VA LISN phase:
Limit :FCC PART 15C
Env./Ins. :29.5*C/55% ESHS 10 Engineer :Sunny
EUT :High-Gain Wireless USB Adapter
Power Rating :DC 5V From PC input AC 120V/60Hz
Test Mode :Tx Mode
M/N :TL-WN422G

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.18	0.29	10.15	41.09	51.53	64.49	12.96	QP
2	0.33	0.25	10.14	29.36	39.75	59.47	19.72	QP
3	1.88	0.10	10.15	19.19	29.44	56.00	26.56	QP
4	3.88	0.10	10.18	30.93	41.21	56.00	14.79	QP
5	10.78	0.22	10.26	18.72	29.20	60.00	30.80	QP
6	18.15	0.38	10.35	20.96	31.69	60.00	28.31	QP

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

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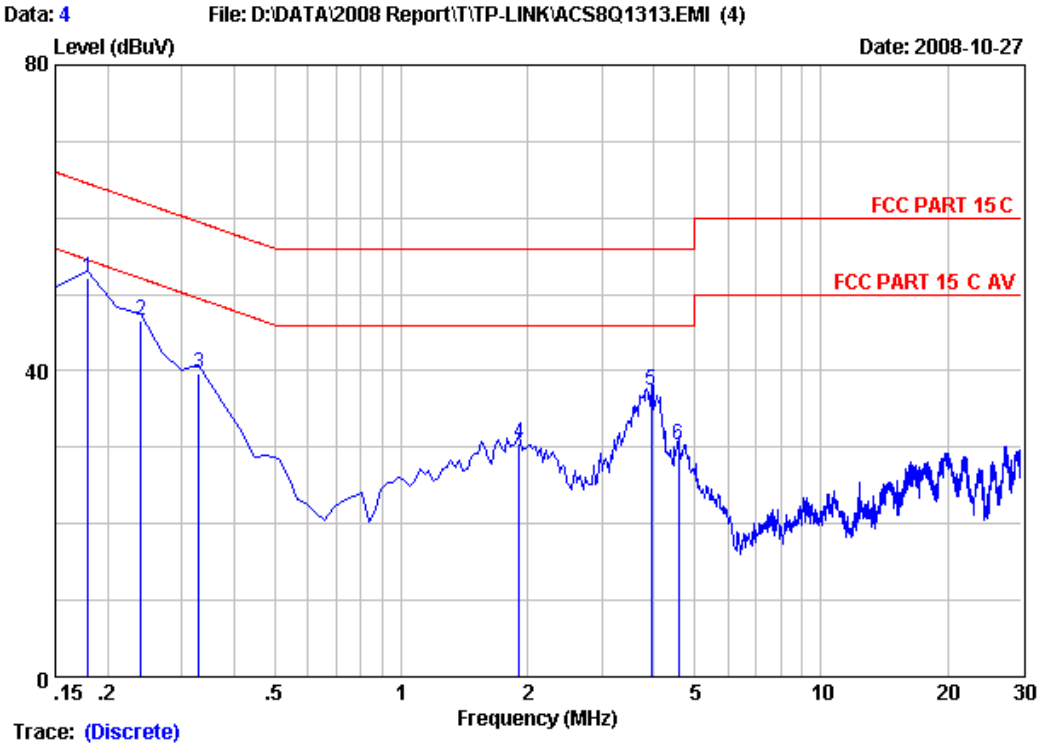


Site no :Audix No.1 Conduction Data no :4
Dis./Ant. :-- KNW407 1# VB LISN phase:
Limit :FCC PART 15 C
Env./Ins. :29.5*C/55% ESHS 10 Engineer :Sunny
EUT :High-Gain Wireless USB Adapter
Power Rating :DC 5V From PC input AC 120V/60Hz
Test Mode :Tx Mode
M/N :TL-WN422G

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.18	0.15	10.15	41.76	52.06	64.49	12.43	QP
2	0.24	0.12	10.15	36.29	46.56	62.11	15.55	QP
3	0.33	0.15	10.14	29.47	39.76	59.47	19.71	QP
4	1.91	0.03	10.15	20.42	30.60	56.00	25.40	QP
5	3.94	0.04	10.18	27.17	37.39	56.00	18.61	QP
6	4.57	0.05	10.19	20.07	30.31	56.00	25.69	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.
2.If the average limit is met when useing 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

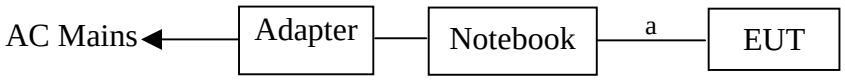
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Jun.09,08	1/2 Year
2.	EMI Spectrum	Agilent	E7403A	MY42000106	May 10, 08	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS20	830350/005	May 10, 08	1 Year
4.	Amplifier	HP	8447D	2648A04738	Jul.08.08	1/2 Year
5.	Bilog Antenna	Schaffner	CBL6112D	25237	Feb.21, 08	1 Year
6.	RF Cable	JINGCHENG	KLMR400	3# Chamber No.1	Jul.08.08	1/2 Year
7.	RF Cable	JINGCHENG	JBY400	3# Chamber No.2	Jul.08.08	1/2 Year
8.	RF Cable	JINGCHENG	JBY400	3# Chamber No.3	Jul.08.08	1/2 Year
9.	RF Cable	JINGCHENG	JBY400	3# Chamber No.4	Jul.08.08	1/2 Year
10.	Coaxial Switch	Anritsu	MP59B	M73989	Jul.08.08	1/2 Year

Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	MY41440292	May 10, 08	1 Year
2.	Amp	HP	8449B	3008A00863	May 10, 08	1 Year
3.	Antenna	EMCO	3115	9607-4877	May 27, 08	1.5 Year
4.	Antenna	EMCO	3116	00060088	May 28, 07	1.5Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	271473/4	May,28, 08	1Year
6.	RF Cable	Hubersuhner	SUCOFLEX 102	29091/2	May,28, 08	1Year
7.	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May,28, 08	1Year

4.2.Block Diagram of Test Setup

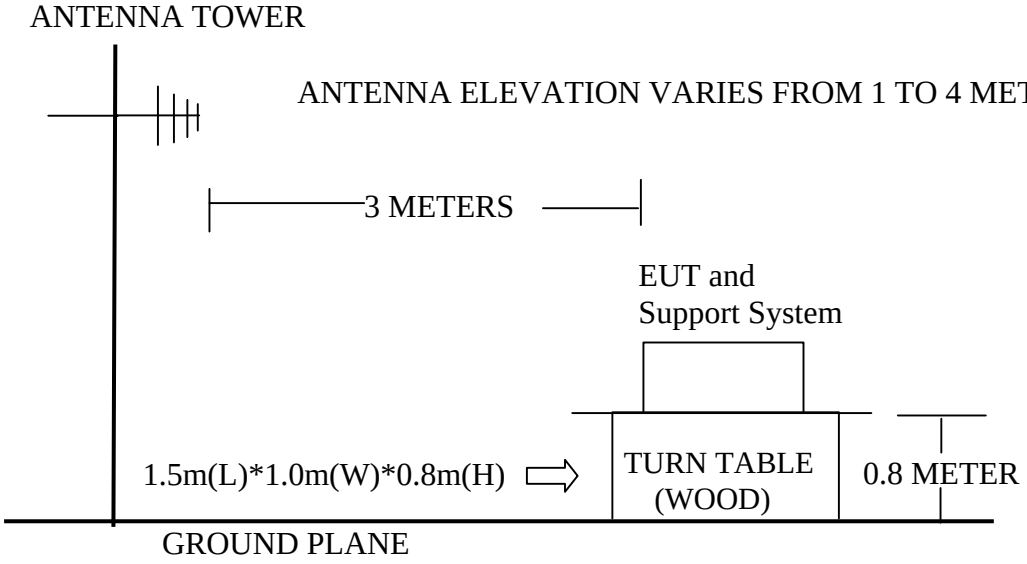
4.2.1.Block diagram of connection between the EUT and simulators



a: USB Cable

(EUT: High-Gain Wireless USB Adapter)

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 dBμV = 20 log Emission level μV/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.High-Gain Wireless USB Adapter (EUT)

Model Number	:	TL-WN422G
Serial Number	:	N/A
Manufacturer	:	TP-LINK Technologies Co., Ltd.

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.Turn on the power of all equipment.

4.5.3.PC ran the Control program to control EUT Work in Tx Mode

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 work normally, we use a keyboard test soft ware, let EUT 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.

Vary the EUT's antenna's position to check the maximum emission level and when the EUT's antenna is vertical to groundplan as indicated in the test photo, maximum emissions were detected.

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 ranges from 30MHz to 10^{th}harmonic (25GHz) are checked.

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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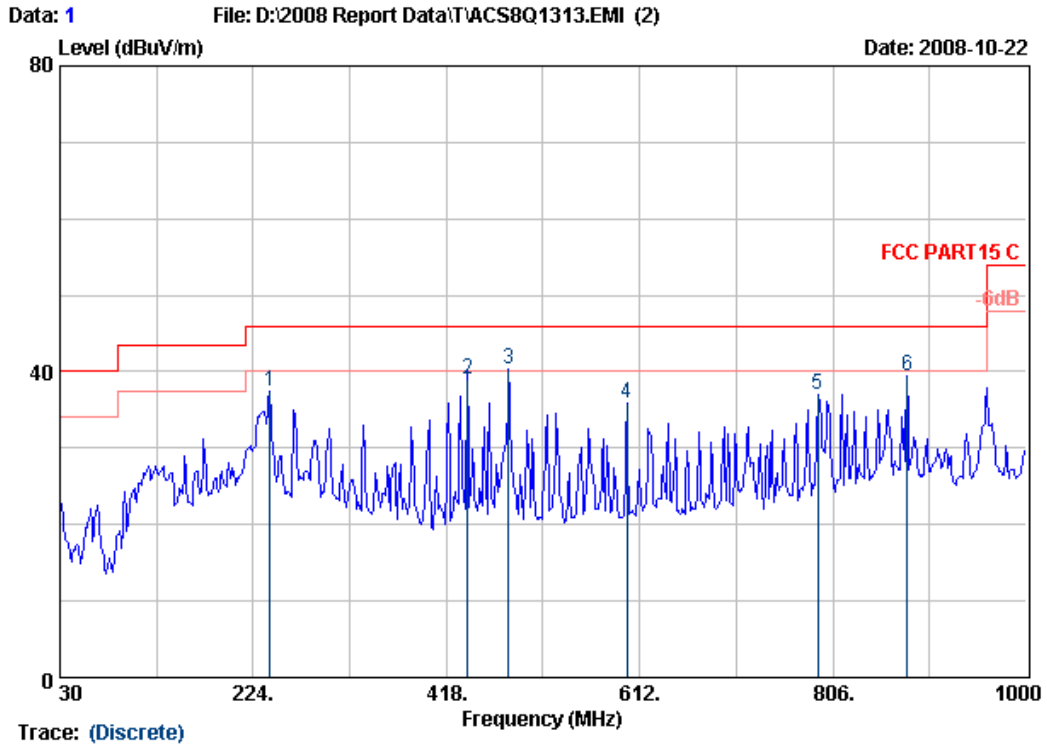

Site no. : 3# chamber Radiation Data no. : 1
Dis. / Ant. : 3m CBL6112D Ant. pol. : HORIZONTAL
Limit : FCC PART15 C
Env. / Ins. : 24*C/56% ESVS20 Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test Mode : Tx Mode
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Magin (dB)	Remark
1	240.49	11.22	1.46	24.78	37.46	46.00	8.54	QP
2	439.34	16.79	2.04	20.19	39.02	46.00	6.98	QP
3	480.08	17.60	1.93	20.73	40.26	46.00	5.74	QP
4	599.39	18.49	2.07	15.42	35.98	46.00	10.02	QP
5	790.48	19.58	2.42	14.95	36.95	46.00	9.05	QP
6	880.69	19.95	2.59	16.98	39.52	46.00	6.48	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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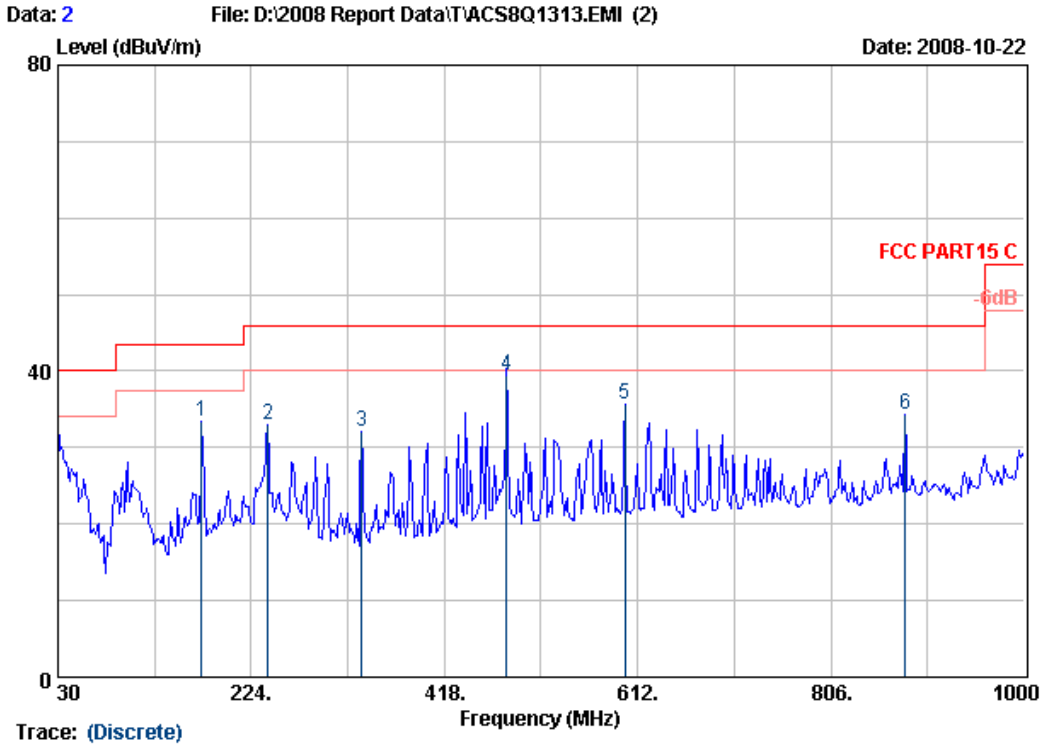

Site no. : 3# chamber Radiation Data no. : 2
Dis. / Ant. : 3m CBL6112D Ant. pol. : VERTICAL
Limit : FCC PART15 C
Env. / Ins. : 24*C/56% ESVS20 Engineer : Sunny
EUT : High-Gain Wireless USB Adapter r
Power Rating : DC 5V From PC input AC 120V/60Hz
Test Mode : Tx Mode
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Magin (dB)	Remark
1	174.53	9.53	1.27	22.68	33.48	43.50	10.02	QP
2	240.49	11.22	1.46	20.39	33.07	46.00	12.93	QP
3	334.58	13.95	1.74	16.37	32.06	46.00	13.94	QP
4	480.08	17.60	1.93	19.89	39.42	46.00	6.58	QP
5	599.39	18.49	2.07	15.01	35.57	46.00	10.43	QP
6	880.69	19.95	2.59	11.81	34.35	46.00	11.65	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~18GHz
Test Mode: IEEE802.11b Tx

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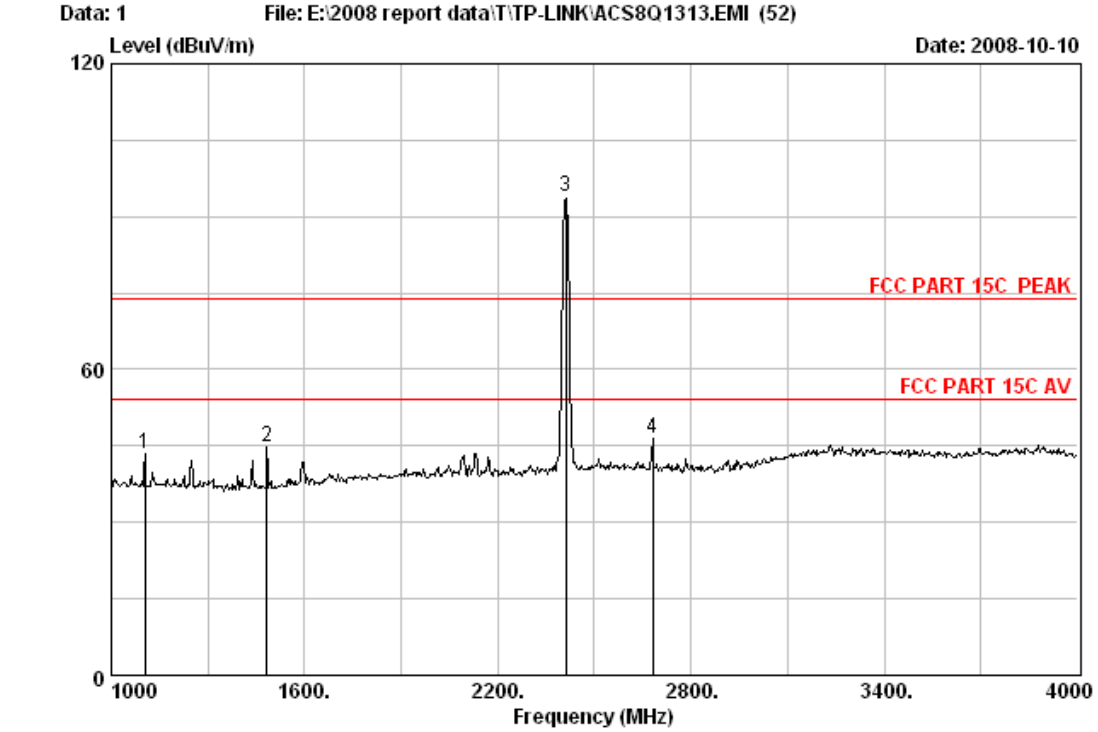

Site no. : RF Chamber Data no. : 1
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1105.00	25.34	1.65	36.11	52.64	43.52	74.00	30.48	Peak
2	1483.00	25.88	1.78	35.77	52.80	44.69	74.00	29.31	Peak
3	2412.00	28.48	2.49	35.18	98.16	93.95	74.00	-19.95	Peak
4	2680.00	29.19	2.64	35.10	49.79	46.52	74.00	27.48	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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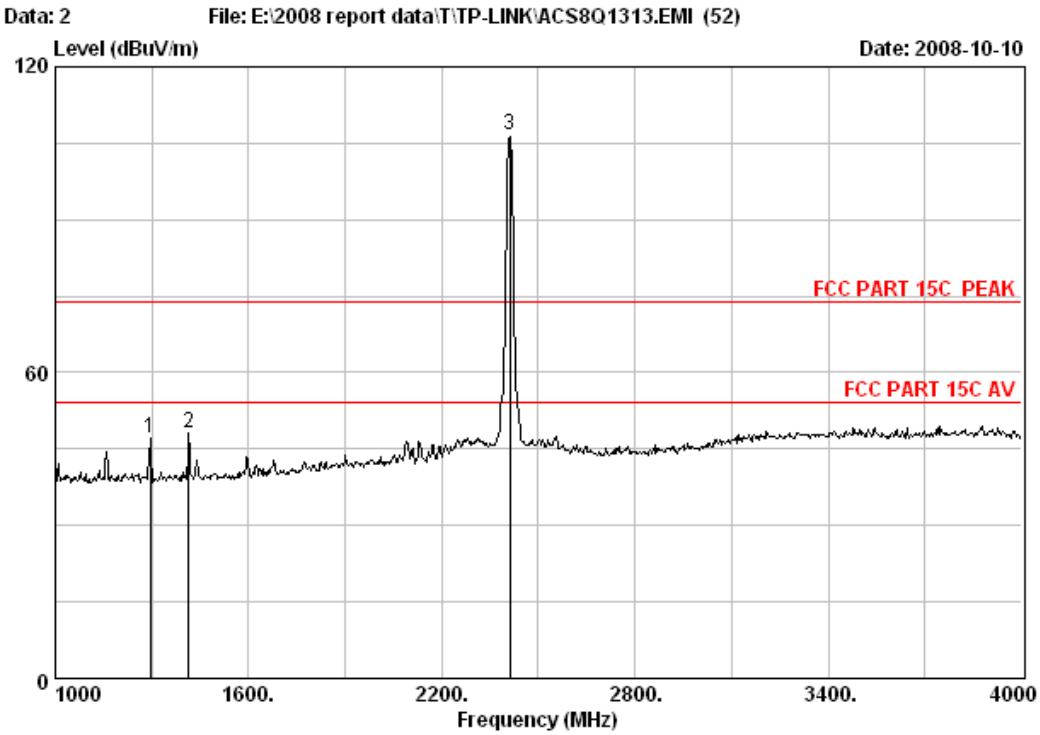

Site no. : RF Chamber Data no. : 2
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1294.00	25.61	1.71	35.93	55.59	46.98	74.00	27.02	Peak
2	1414.00	25.78	1.76	35.82	56.44	48.16	74.00	25.84	Peak
3	2412.00	28.48	2.49	35.18	110.89	106.68	74.00	-32.68	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.

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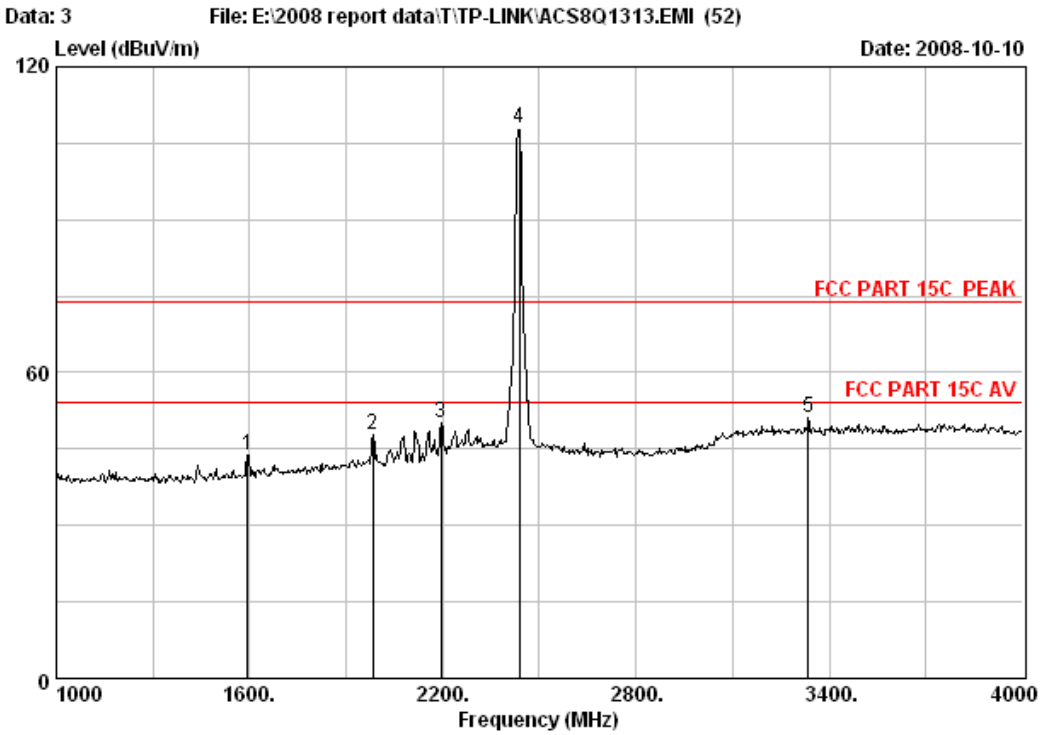

Site no. : RF Chamber Data no. : 3
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH6 2437MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1594.00	26.30	1.87	35.66	51.33	43.84	74.00	30.16	Peak
2	1984.00	27.83	2.22	35.32	53.20	47.93	74.00	26.07	Peak
3	2194.00	28.17	2.35	35.24	54.91	50.19	74.00	23.81	Peak
4	2437.00	28.53	2.50	35.17	111.97	107.83	74.00	-33.83	Peak
5	3334.00	31.12	3.33	34.90	51.53	51.08	74.00	22.92	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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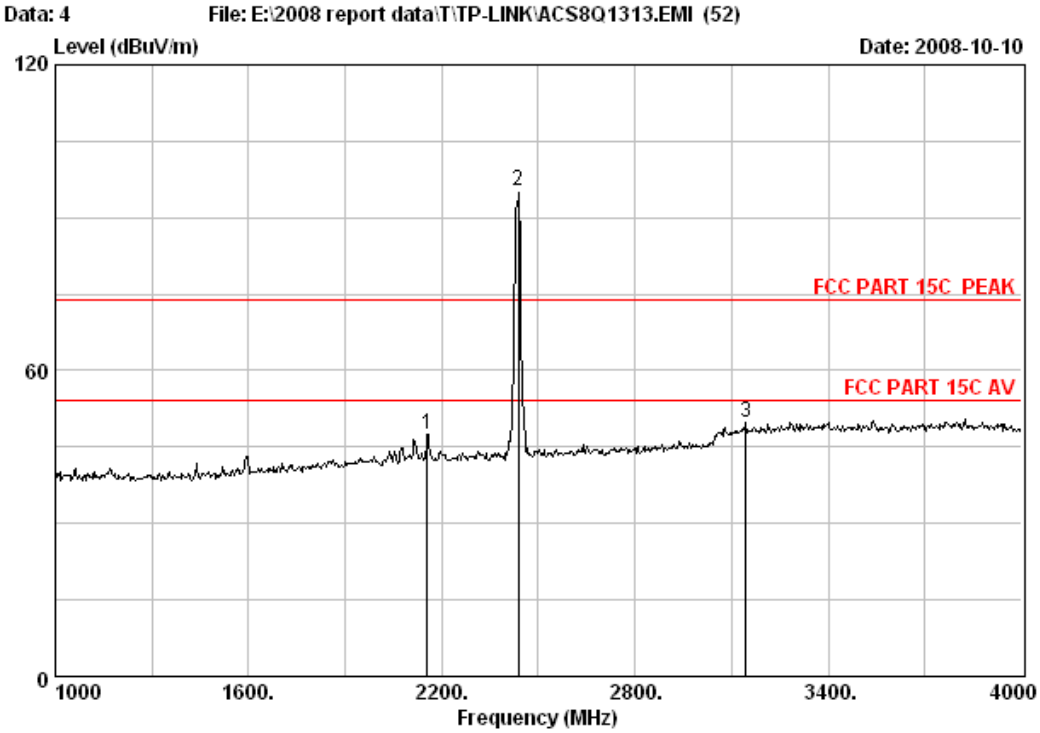

Site no. : RF Chamber Data no. : 4
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH6 2437MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2155.00	28.12	2.33	35.26	52.38	47.57	74.00	26.43	Peak
2	2437.00	28.53	2.50	35.17	99.55	95.41	74.00	-21.41	Peak
3	3145.00	30.59	3.05	34.96	51.06	49.74	74.00	24.26	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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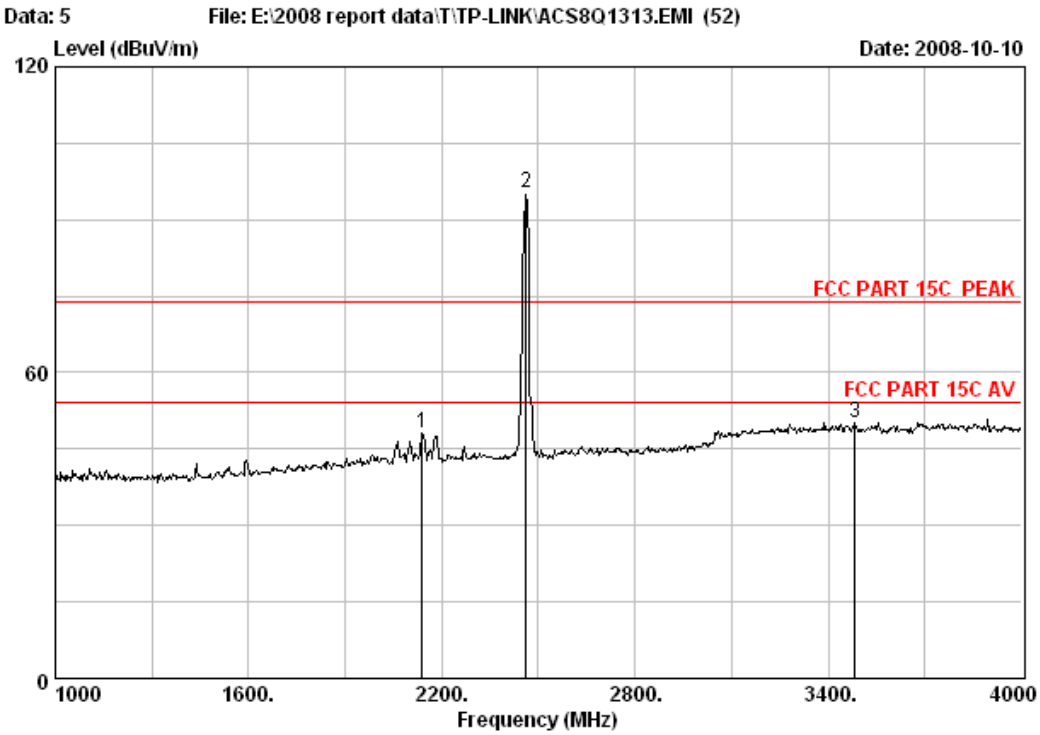

Site no. : RF Chamber Data no. : 5
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2140.00	28.09	2.32	35.26	52.96	48.11	74.00	25.89	Peak
2	2462.00	28.55	2.51	35.17	99.24	95.13	74.00	-21.13	Peak
3	3484.00	31.55	3.53	34.86	49.92	50.14	74.00	23.86	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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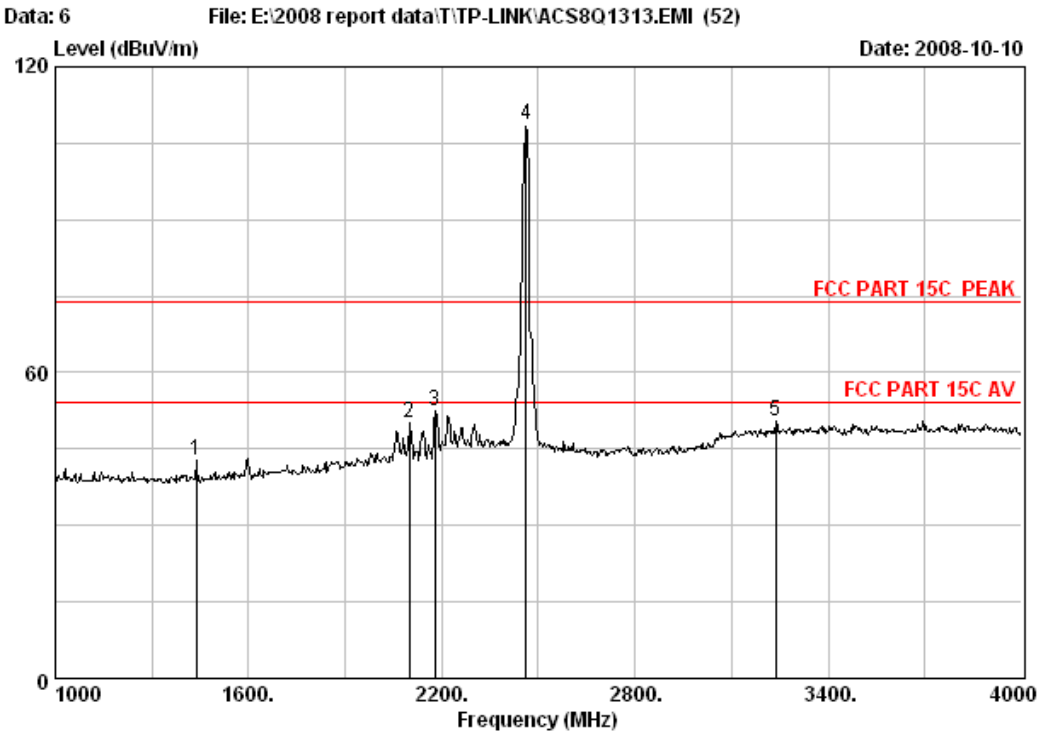

Site no. : RF Chamber Data no. : 6
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1438.00	25.83	1.76	35.79	51.09	42.89	74.00	31.11	Peak
2	2098.00	28.04	2.29	35.27	55.13	50.19	74.00	23.81	Peak
3	2179.00	28.14	2.35	35.25	57.30	52.54	74.00	21.46	Peak
4	2462.00	28.55	2.51	35.17	112.64	108.53	74.00	-34.53	Peak
5	3238.00	30.88	3.17	34.92	51.25	50.38	74.00	23.62	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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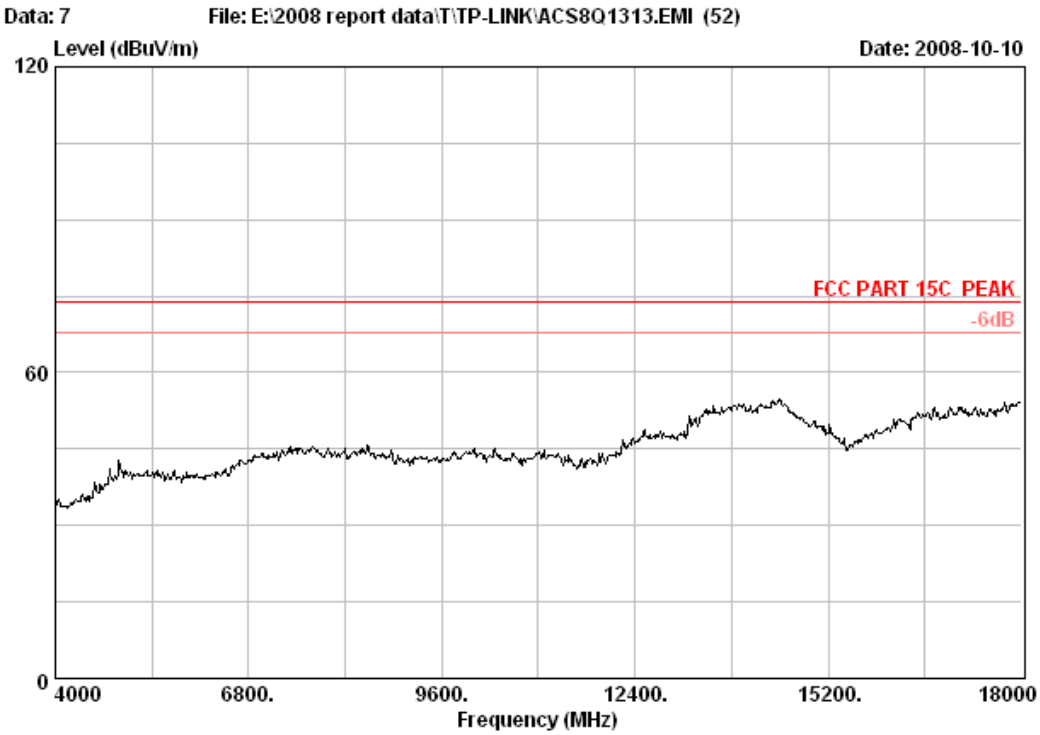

Site no. : RF Chamber Data no. : 7
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
M/N : TL-WN422G

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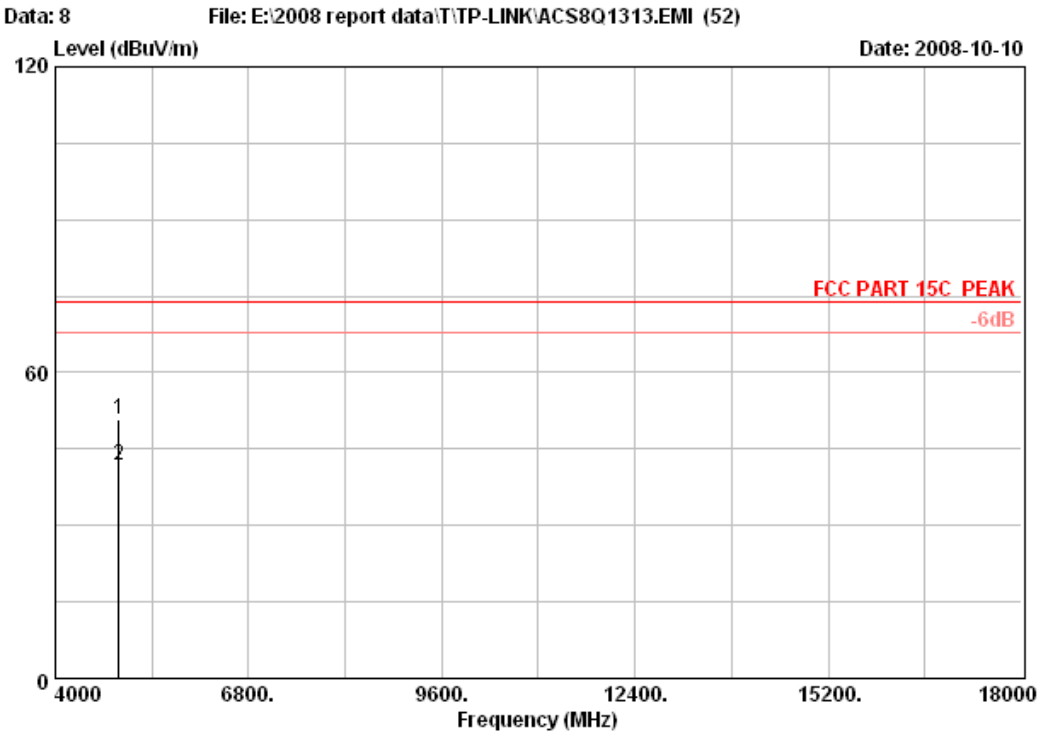

Site no. : RF Chamber Data no. : 8
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
M/N : TL-WN422G

	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	4924.00	35.09	4.69	34.47	45.39	50.70	74.00	23.30	Peak
2	4924.00	35.09	4.69	34.47	36.46	41.77	54.00	12.23	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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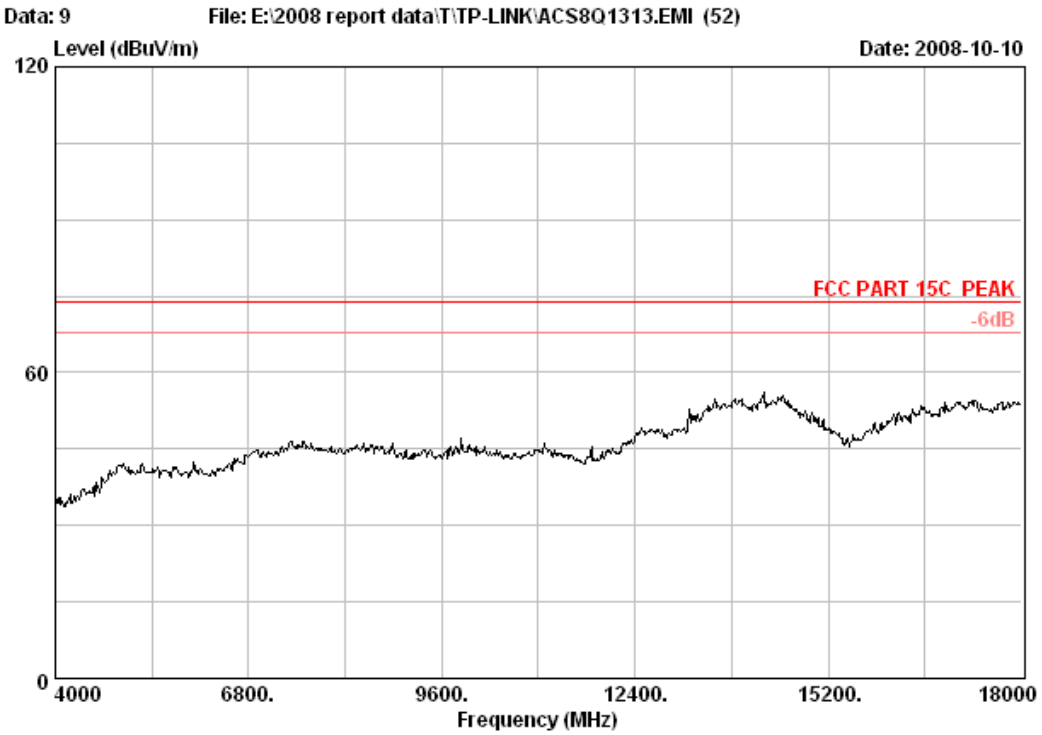

Site no. : RF Chamber Data no. : 9
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
M/N : TL-WN422G

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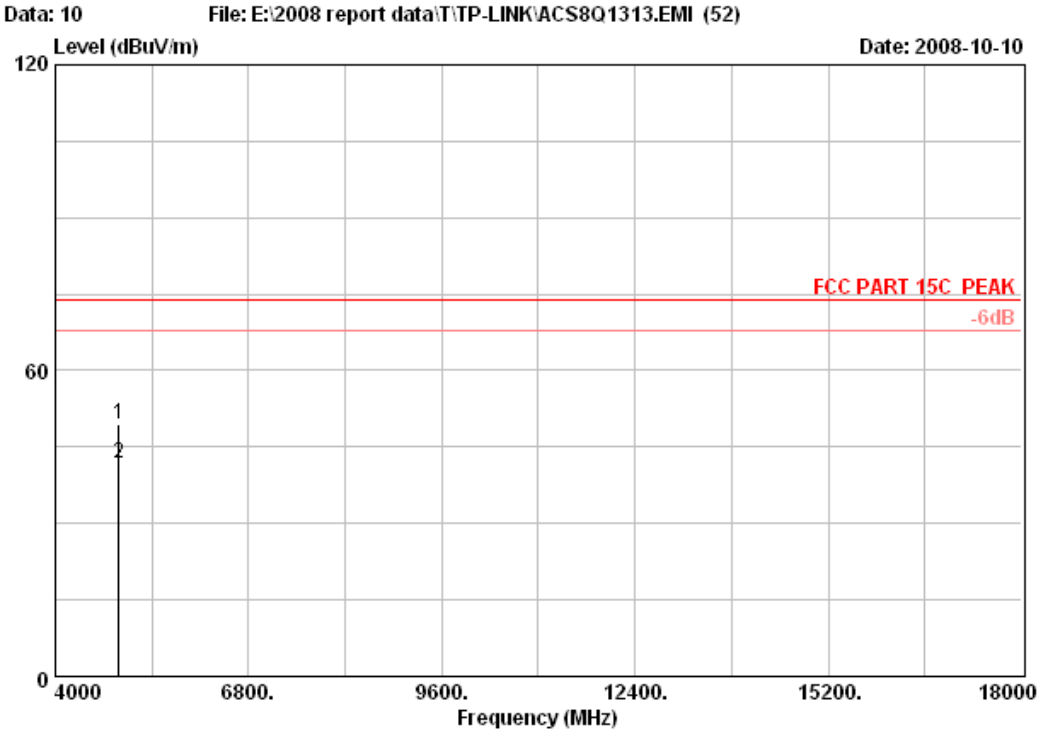

Site no. : RF Chamber Data no. : 10
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	35.09	4.69	34.47	44.07	49.38	74.00	24.62	Peak
2	4924.00	35.09	4.69	34.47	36.52	41.83	54.00	12.17	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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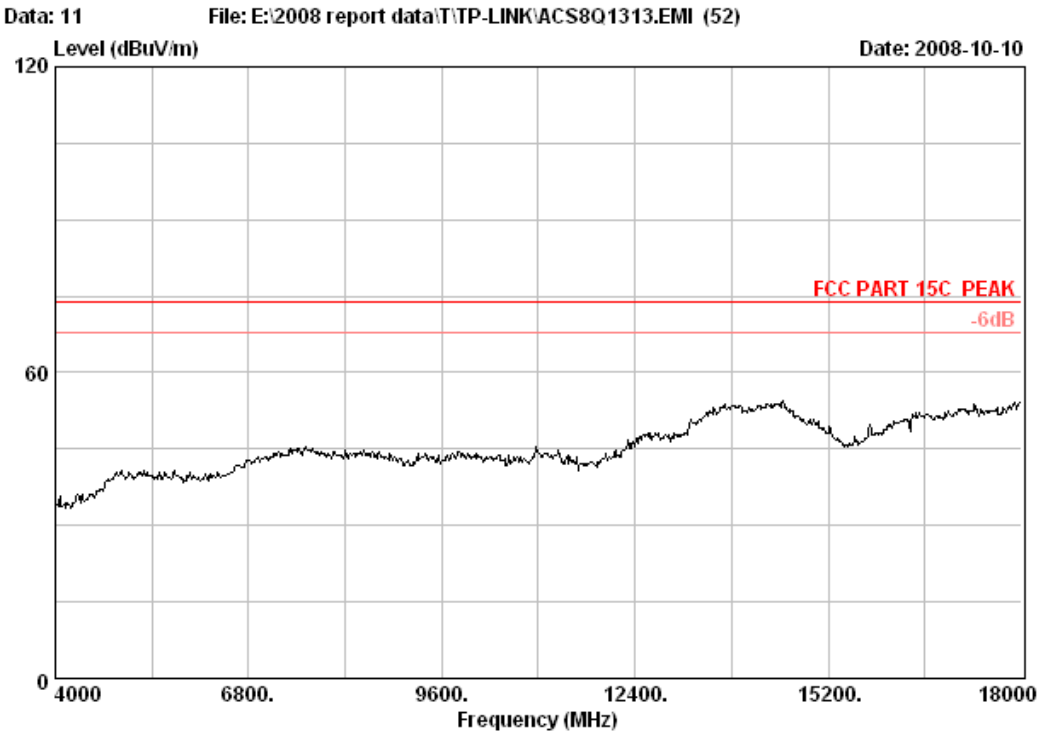

Site no. : RF Chamber Data no. : 11
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH6 2437MHz
M/N : TL-WN422G

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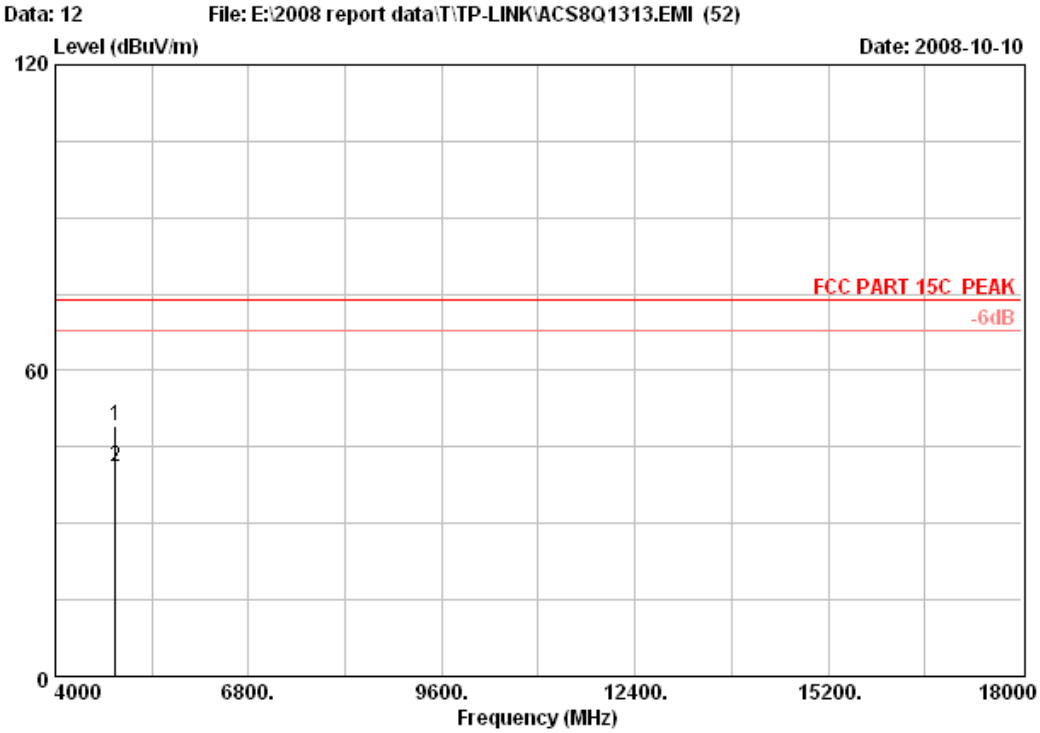

Site no. : RF Chamber Data no. : 12
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH6 2437MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	34.78	4.59	34.48	44.20	49.09	74.00	24.91	Peak
2	4874.00	34.78	4.59	34.48	36.12	41.01	54.00	12.99	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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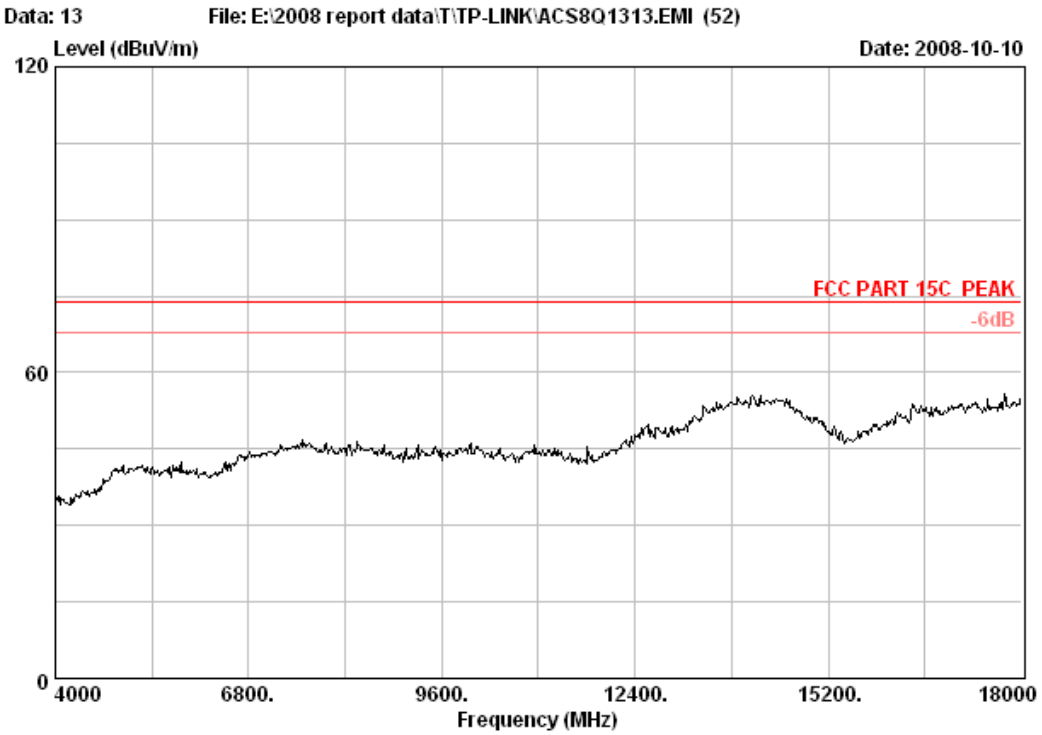

Site no. : RF Chamber Data no. : 13
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH6 2437MHz
M/N : TL-WN422G

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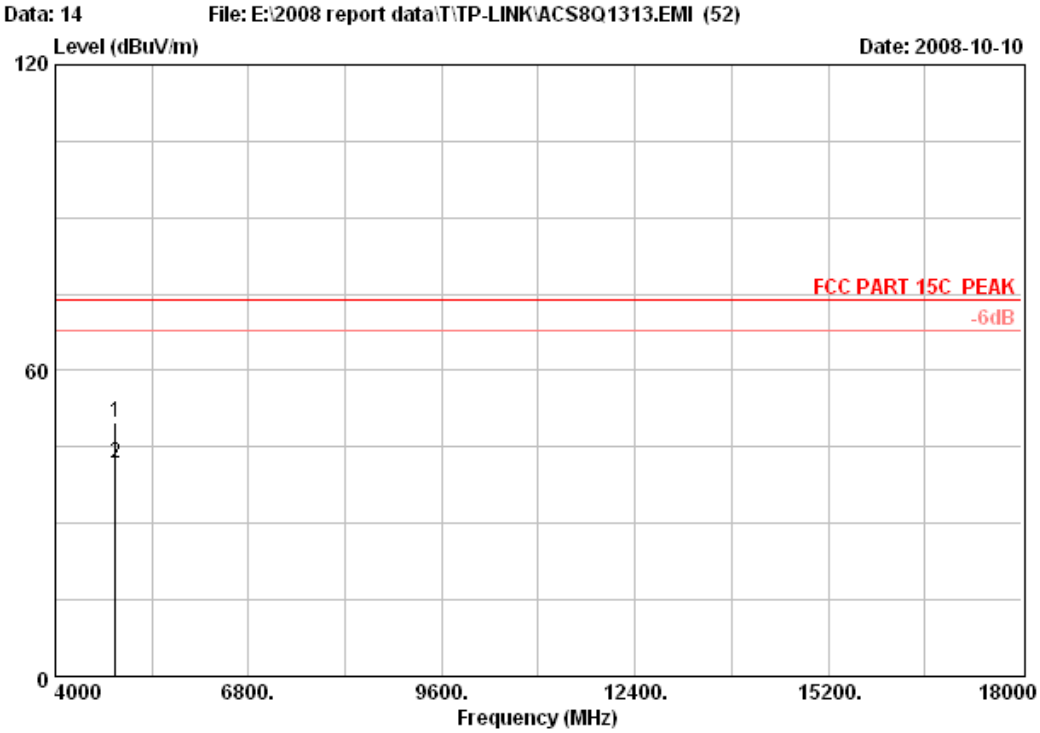

Site no. : RF Chamber Data no. : 14
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH6 2437MHz
M/N : TL-WN422G

	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	4874.00	34.78	4.59	34.48	45.08	49.97	74.00	24.03	Peak
2	4874.00	34.78	4.59	34.48	37.05	41.94	54.00	12.06	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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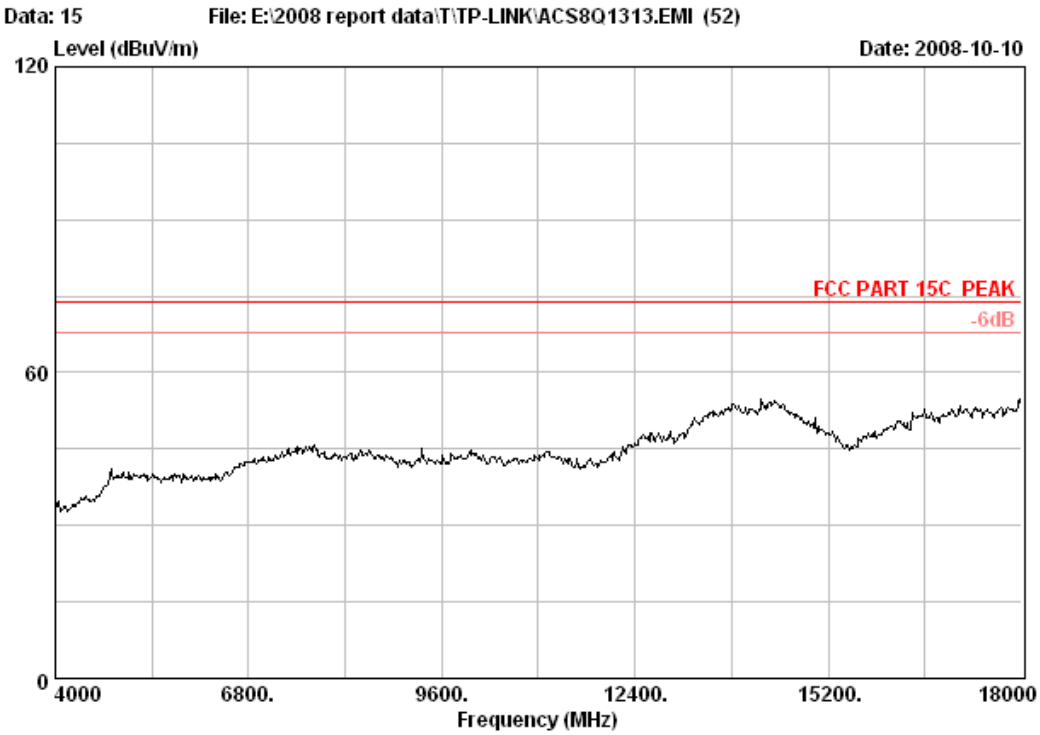

Site no. : RF Chamber Data no. : 15
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
M/N : TL-WN422G

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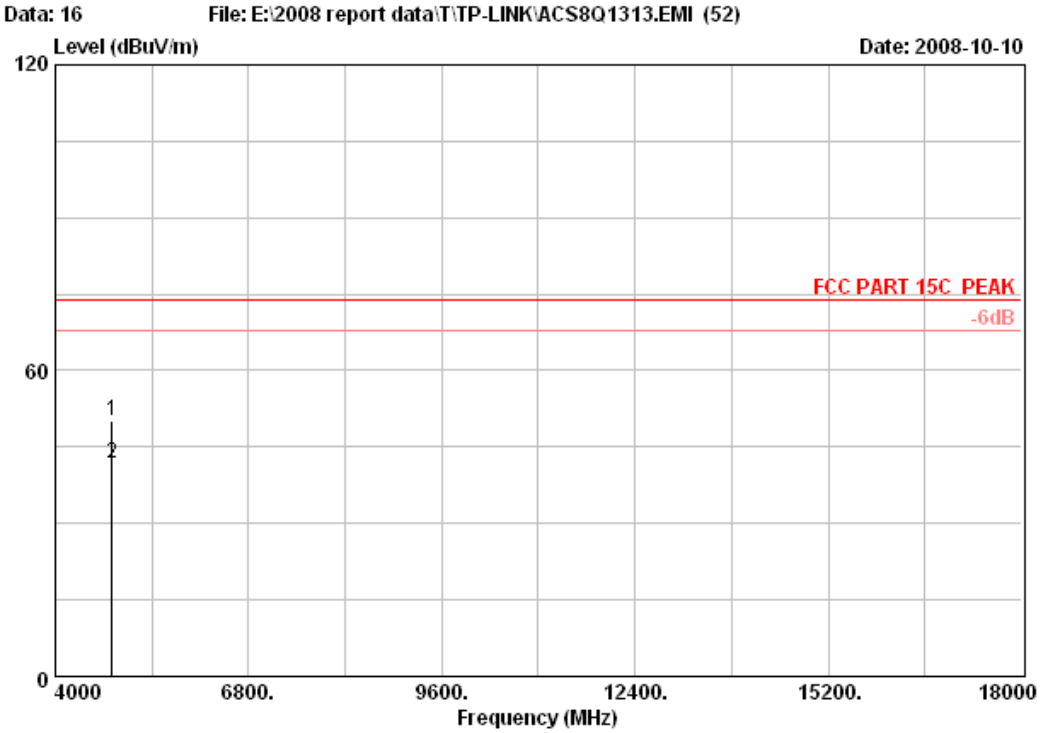

Site no. : RF Chamber Data no. : 16
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
M/N : TL-WN422G

	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	4824.00	34.47	4.53	34.49	45.64	50.15	74.00	23.85	Peak
2	4824.00	34.47	4.53	34.49	37.42	41.93	54.00	12.07	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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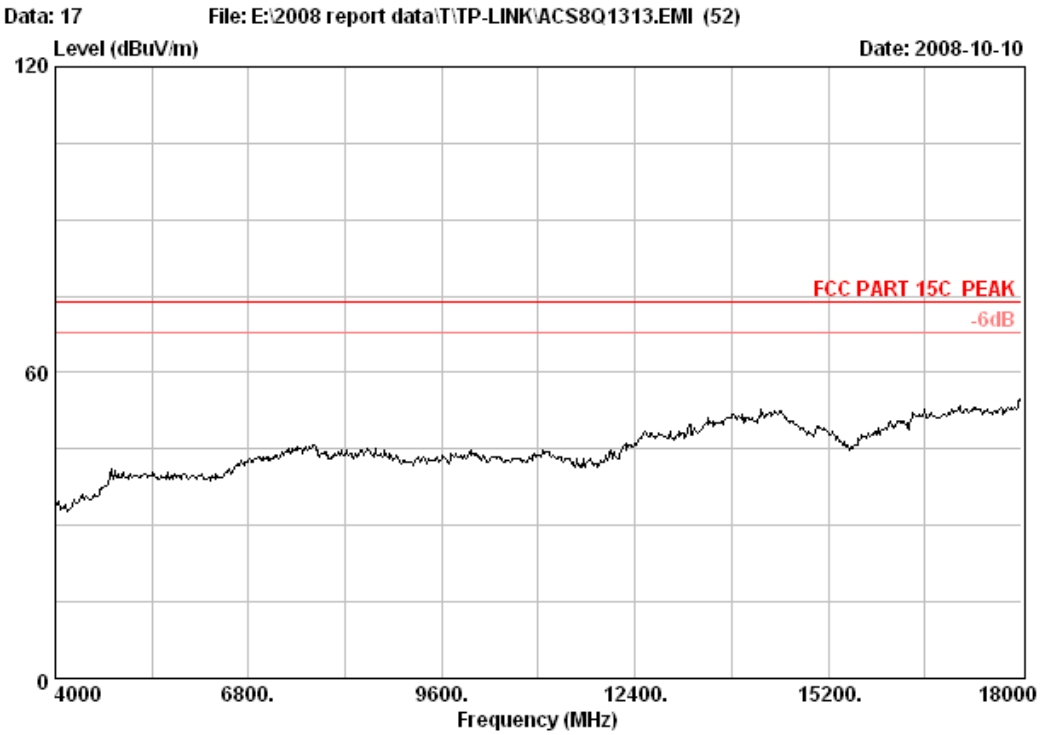

Site no. : RF Chamber Data no. : 17
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
M/N : TL-WN422G

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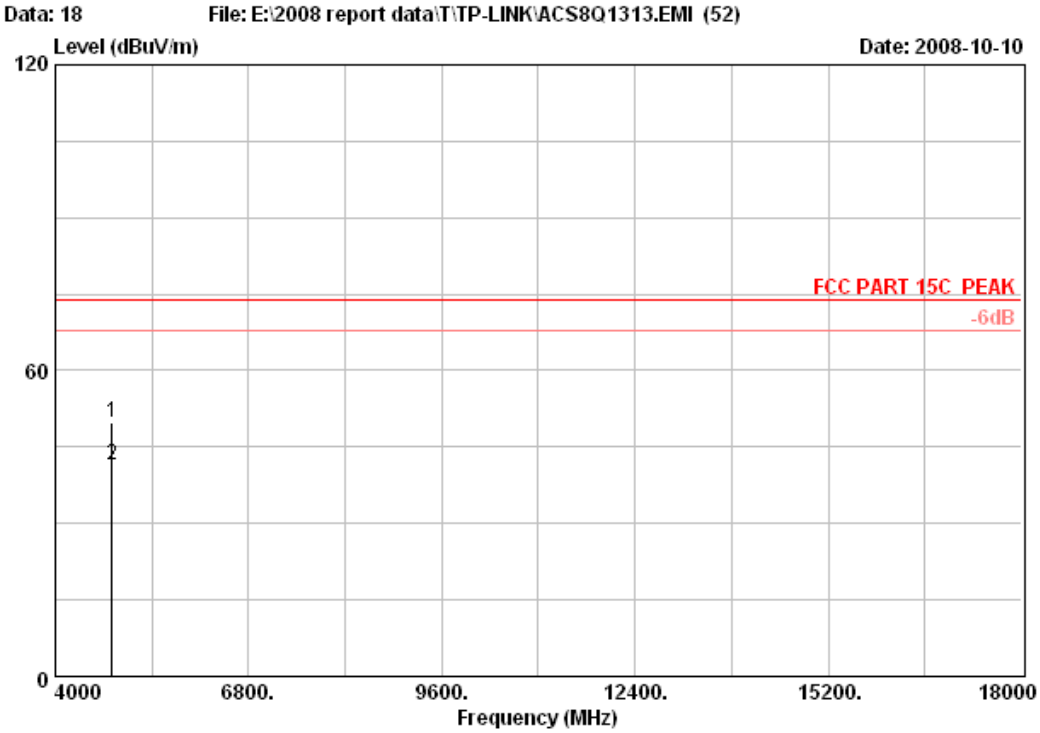

Site no. : RF Chamber Data no. : 18
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	34.47	4.53	34.49	45.21	49.72	74.00	24.28	Peak
2	4824.00	34.47	4.53	34.49	36.98	41.49	54.00	12.51	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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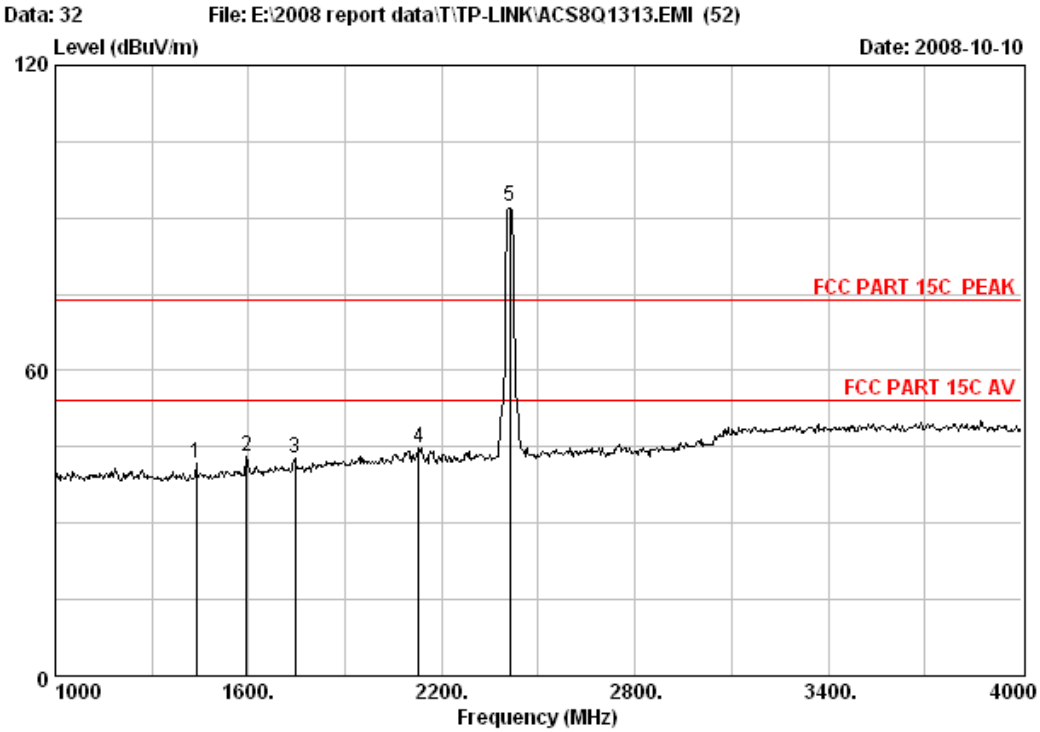

Site no. : RF Chamber Data no. : 32
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1438.00	25.83	1.76	35.79	49.98	41.78	74.00	32.22	Peak
2	1594.00	26.30	1.87	35.66	50.60	43.11	74.00	30.89	Peak
3	1744.00	26.90	2.00	35.53	49.34	42.71	74.00	31.29	Peak
4	2128.00	28.07	2.32	35.26	49.77	44.90	74.00	29.10	Peak
5	2412.00	28.48	2.49	35.18	96.54	92.33	74.00	-18.33	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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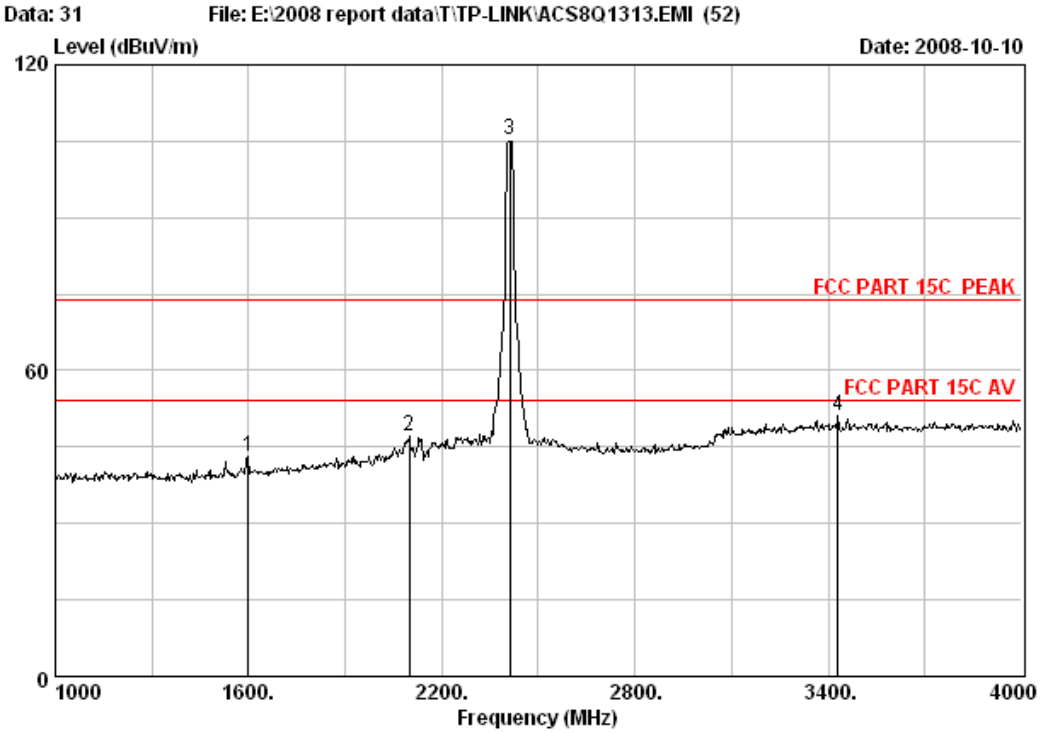

Site no. : RF Chamber Data no. : 31
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1600.00	26.30	1.87	35.66	50.57	43.08	74.00	30.92	Peak
2	2098.00	28.04	2.29	35.27	51.96	47.02	74.00	26.98	Peak
3	2412.00	28.48	2.49	35.18	109.36	105.15	74.00	-31.15	Peak
4	3430.00	31.41	3.45	34.87	51.05	51.04	74.00	22.96	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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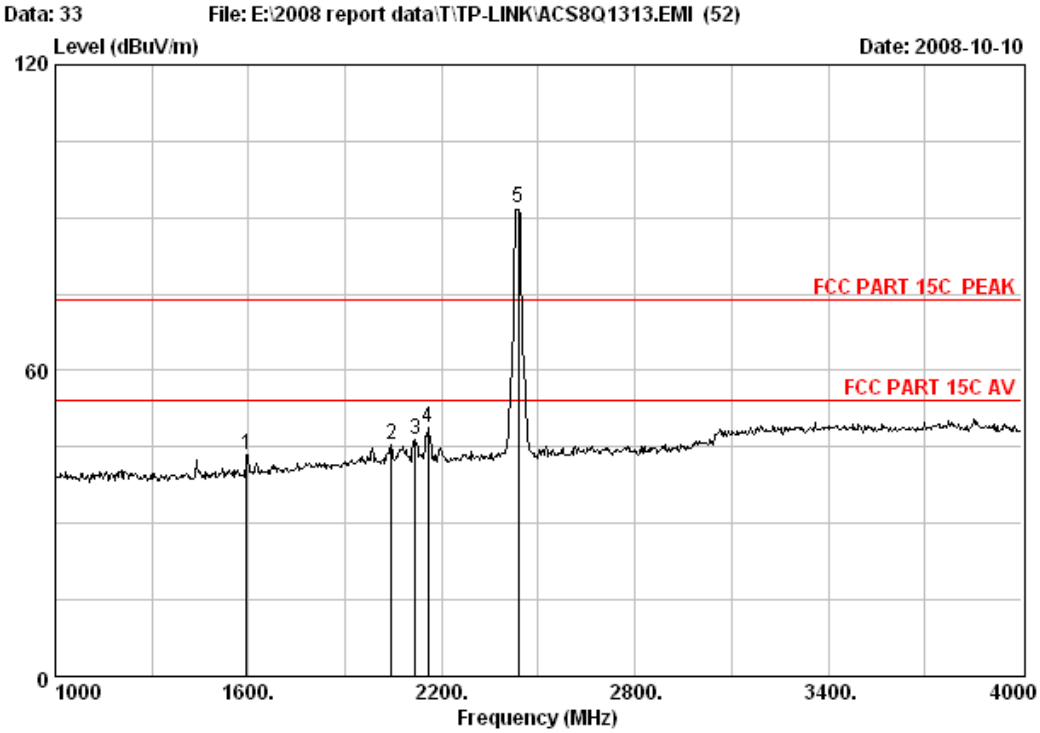

Site no. : RF Chamber Data no. : 33
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH6 2437MHz
M/N : TL-WN422G

	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	1594.00	26.30	1.87	35.66	51.08	43.59	74.00	30.41	Peak
2	2044.00	27.95	2.26	35.28	50.40	45.33	74.00	28.67	Peak
3	2119.00	28.07	2.30	35.26	51.50	46.61	74.00	27.39	Peak
4	2158.00	28.12	2.33	35.26	53.55	48.74	74.00	25.26	Peak
5	2437.00	28.53	2.50	35.17	96.02	91.88	74.00	-17.88	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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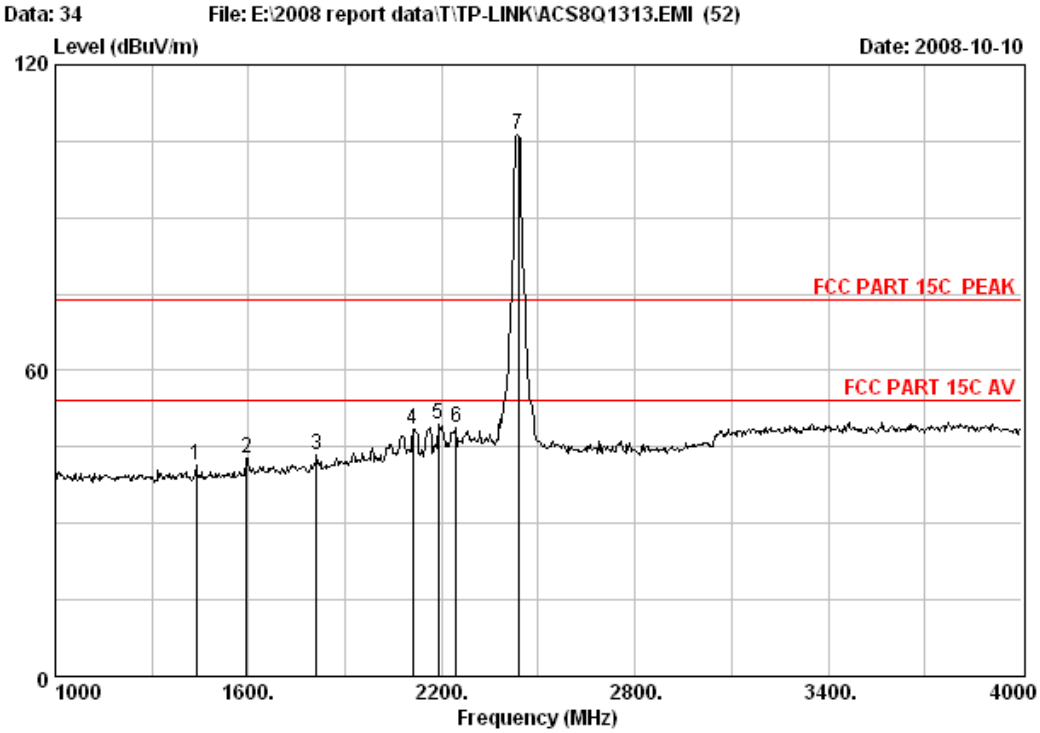

Site no. : RF Chamber Data no. : 34
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH6 2437MHz
M/N : TL-WN422G

	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	1438.00	25.83	1.76	35.79	49.64	41.44	74.00	32.56	Peak
2	1594.00	26.30	1.87	35.66	50.35	42.86	74.00	31.14	Peak
3	1810.00	27.17	2.06	35.48	49.75	43.50	74.00	30.50	Peak
4	2110.00	28.04	2.30	35.27	53.51	48.58	74.00	25.42	Peak
5	2188.00	28.17	2.35	35.24	54.13	49.41	74.00	24.59	Peak
6	2245.00	28.24	2.38	35.22	53.38	48.78	74.00	25.22	Peak
7	2437.00	28.53	2.50	35.17	110.30	106.16	74.00	-32.16	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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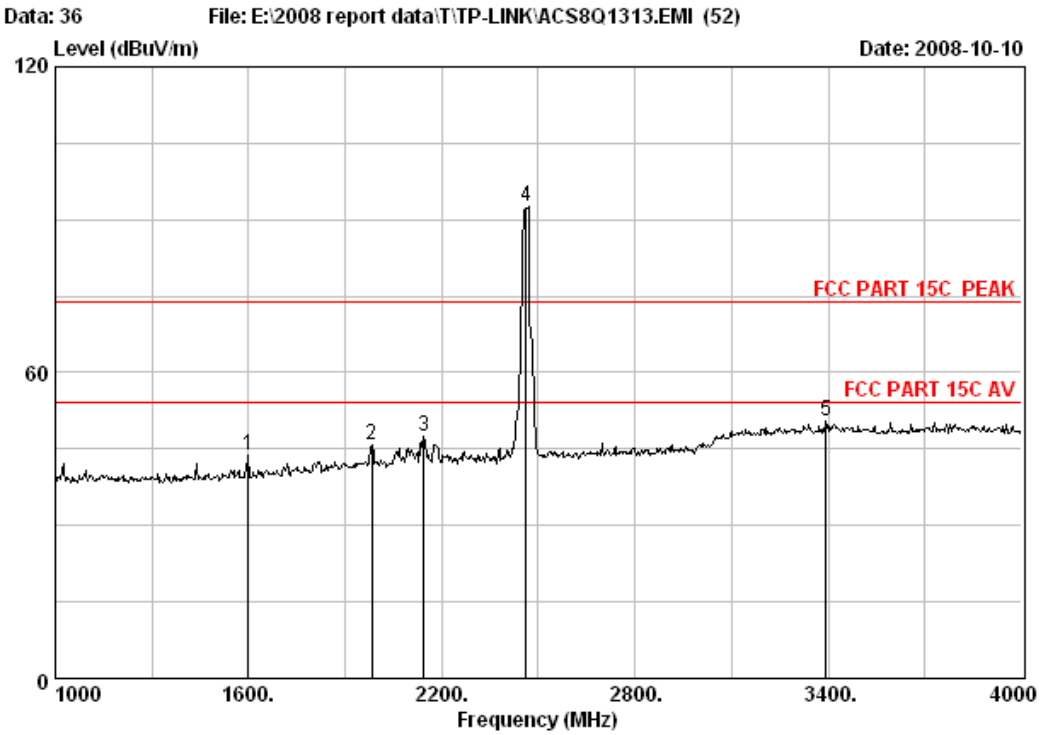

Site no. : RF Chamber Data no. : 36
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
M/N : TL-WN422G

	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	1600.00	26.30	1.87	35.66	51.36	43.87	74.00	30.13	Peak
2	1984.00	27.83	2.22	35.32	51.16	45.89	74.00	28.11	Peak
3	2143.00	28.09	2.33	35.26	52.23	47.39	74.00	26.61	Peak
4	2462.00	28.55	2.51	35.17	96.73	92.62	74.00	-18.62	Peak
5	3394.00	31.31	3.40	34.88	50.61	50.44	74.00	23.56	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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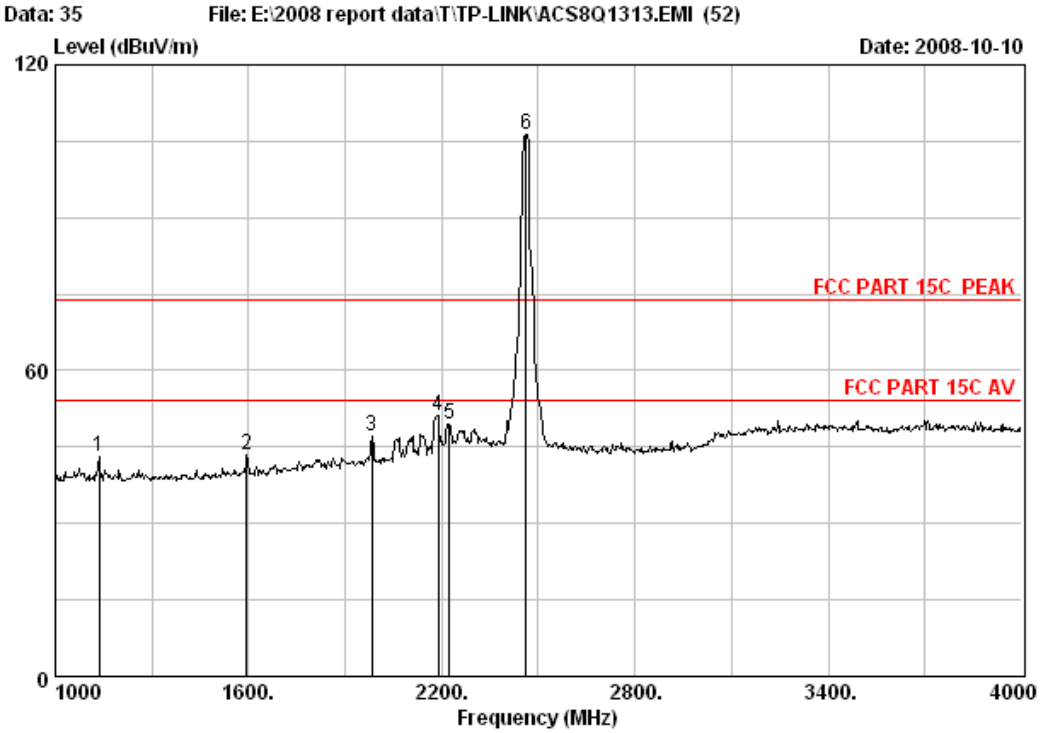

Site no. : RF Chamber Data no. : 35
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
M/N : TL-WN422G

	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	1135.00	25.39	1.66	36.09	52.12	43.08	74.00	30.92	Peak
2	1594.00	26.30	1.87	35.66	50.84	43.35	74.00	30.65	Peak
3	1984.00	27.83	2.22	35.32	52.48	47.21	74.00	26.79	Peak
4	2188.00	28.17	2.35	35.24	56.00	51.28	74.00	22.72	Peak
5	2224.00	28.21	2.37	35.23	54.15	49.50	74.00	24.50	Peak
6	2462.00	28.55	2.51	35.17	110.35	106.24	74.00	-32.24	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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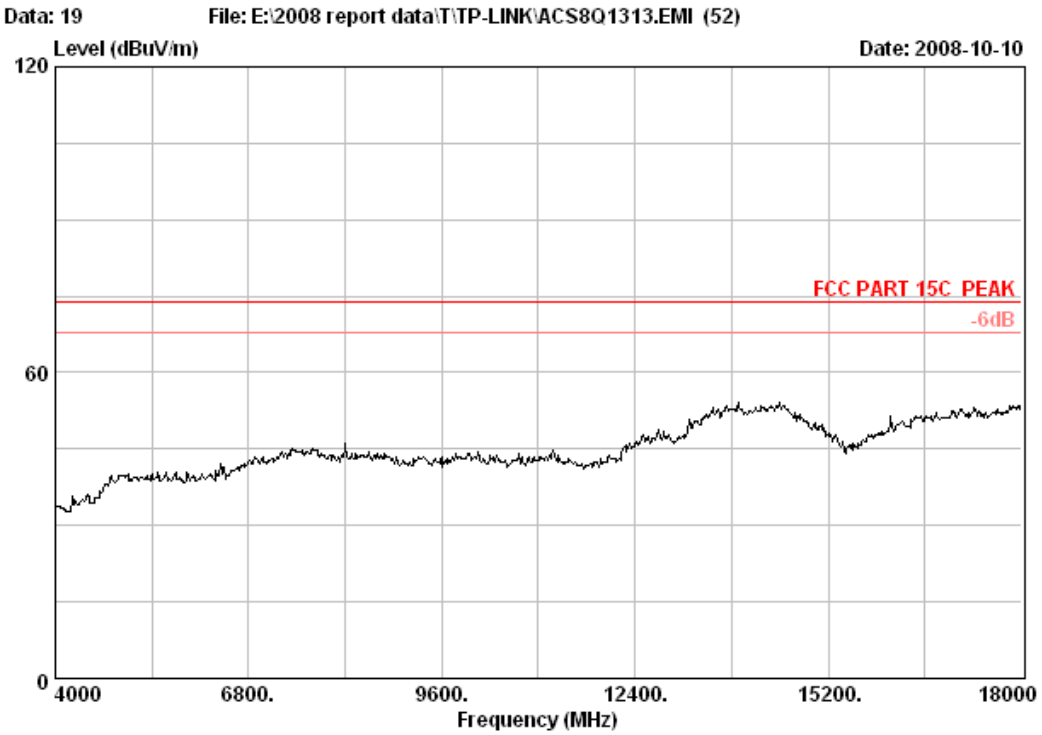

Site no. : RF Chamber Data no. : 19
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
M/N : TL-WN422G

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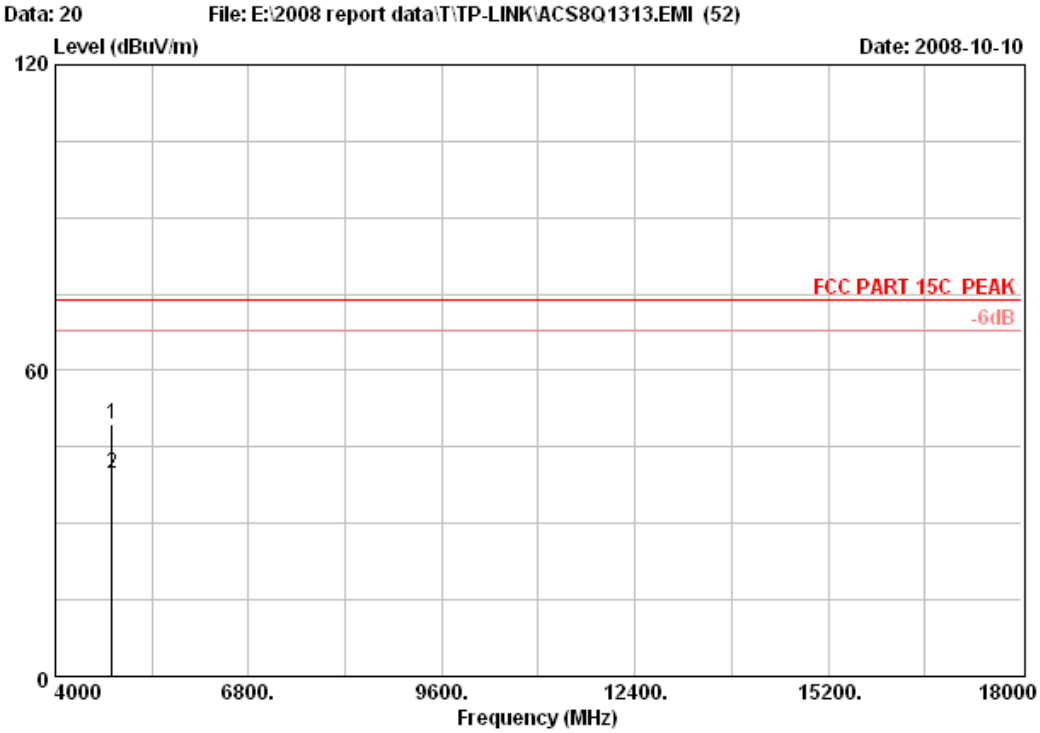

Site no. : RF Chamber Data no. : 20
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	34.47	4.53	34.49	44.88	49.39	74.00	24.61	Peak
2	4824.00	34.47	4.53	34.49	35.24	39.75	54.00	14.25	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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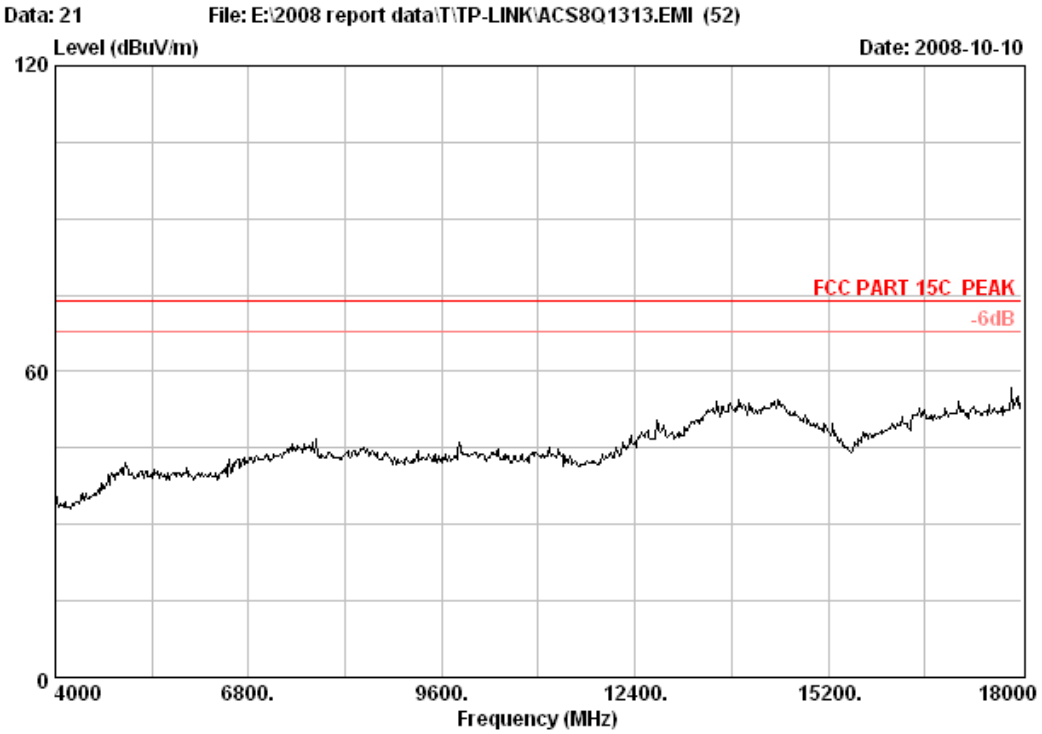

Site no. : RF Chamber Data no. : 21
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
M/N : TL-WN422G

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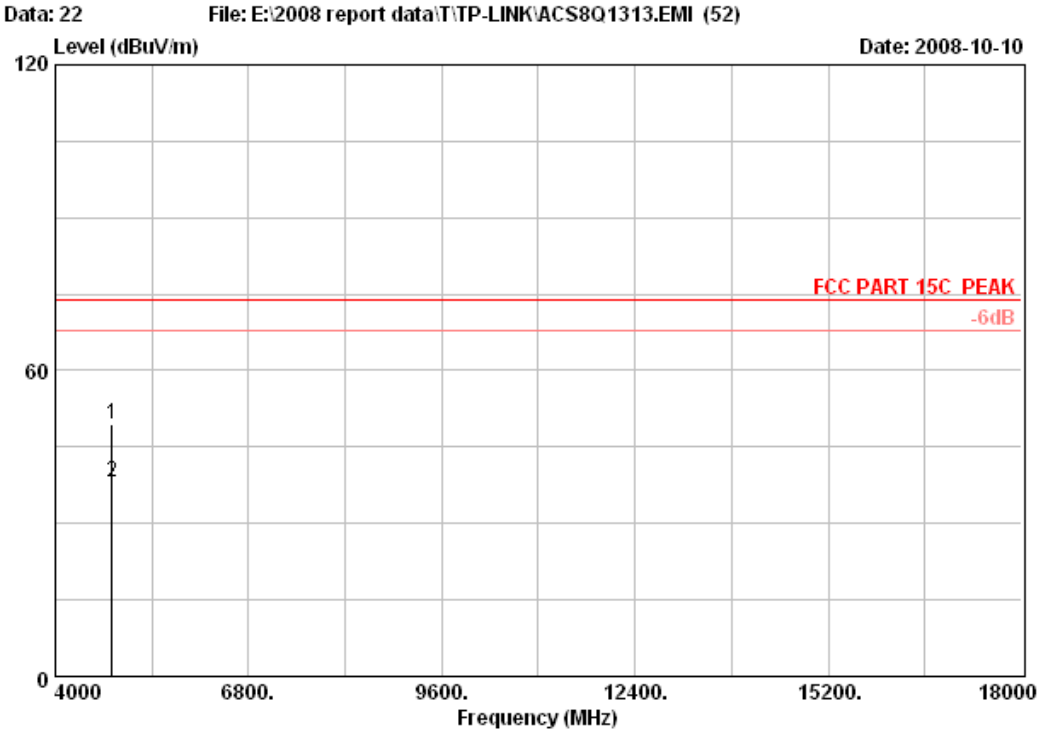

Site no. : RF Chamber Data no. : 22
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.00	34.47	4.53	34.49	44.81	49.32	74.00	24.68	Peak
2	4824.00	34.47	4.53	34.49	33.75	38.26	54.00	15.74	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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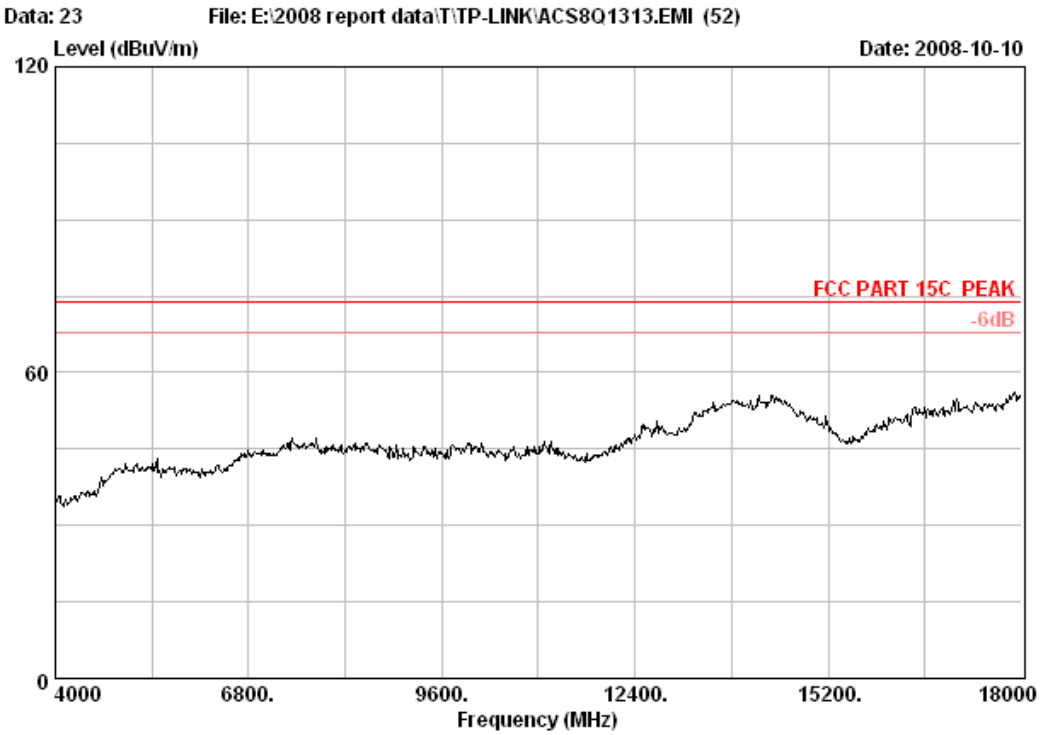

Site no. : RF Chamber Data no. : 23
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH6 2437MHz
M/N : TL-WN422G

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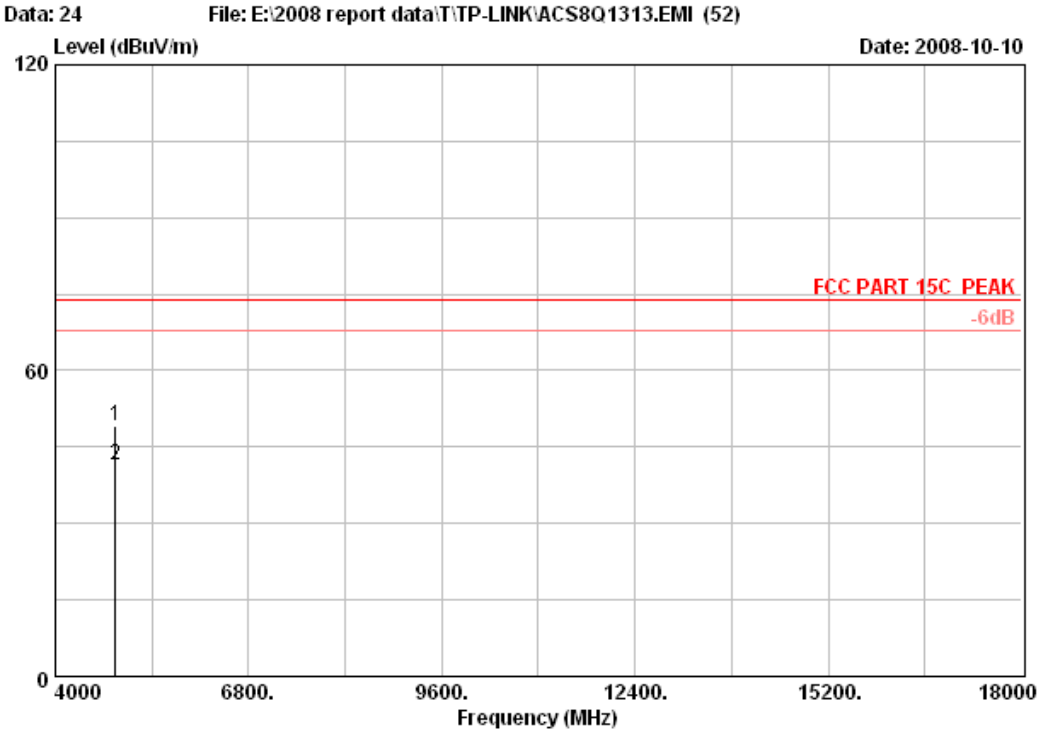

Site no. : RF Chamber Data no. : 24
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH6 2437MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	34.78	4.59	34.48	44.11	49.00	74.00	25.00	Peak
2	4874.00	34.78	4.59	34.48	36.43	41.32	54.00	12.68	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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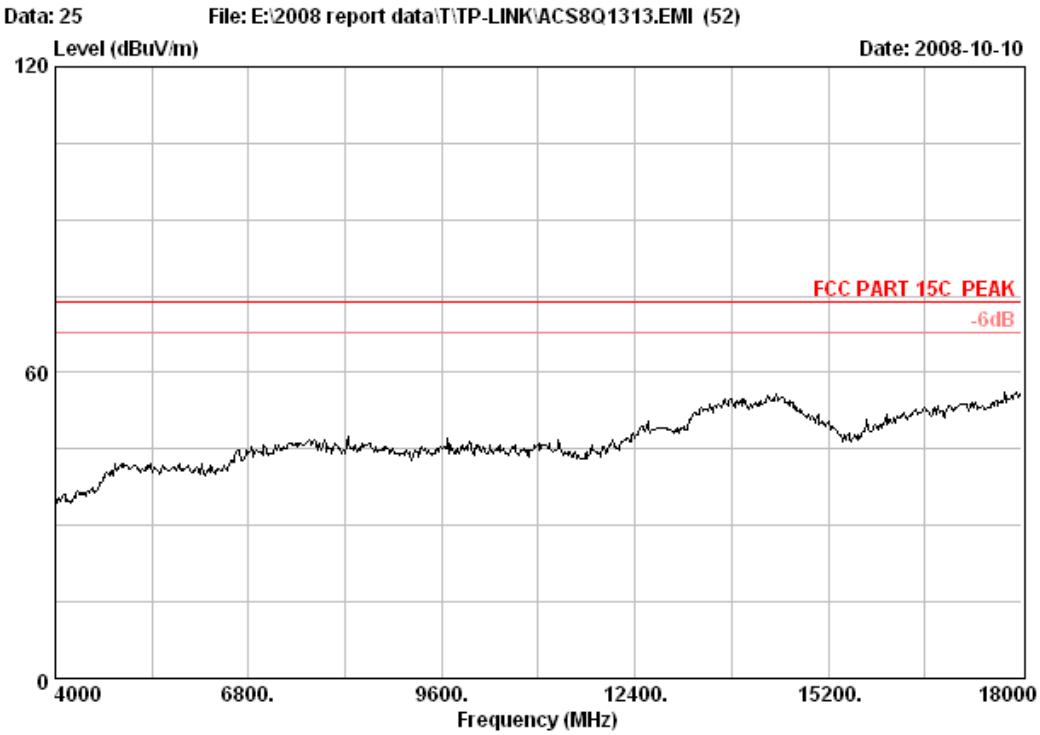

Site no. : RF Chamber Data no. : 25
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH6 2437MHz
M/N : TL-WN422G

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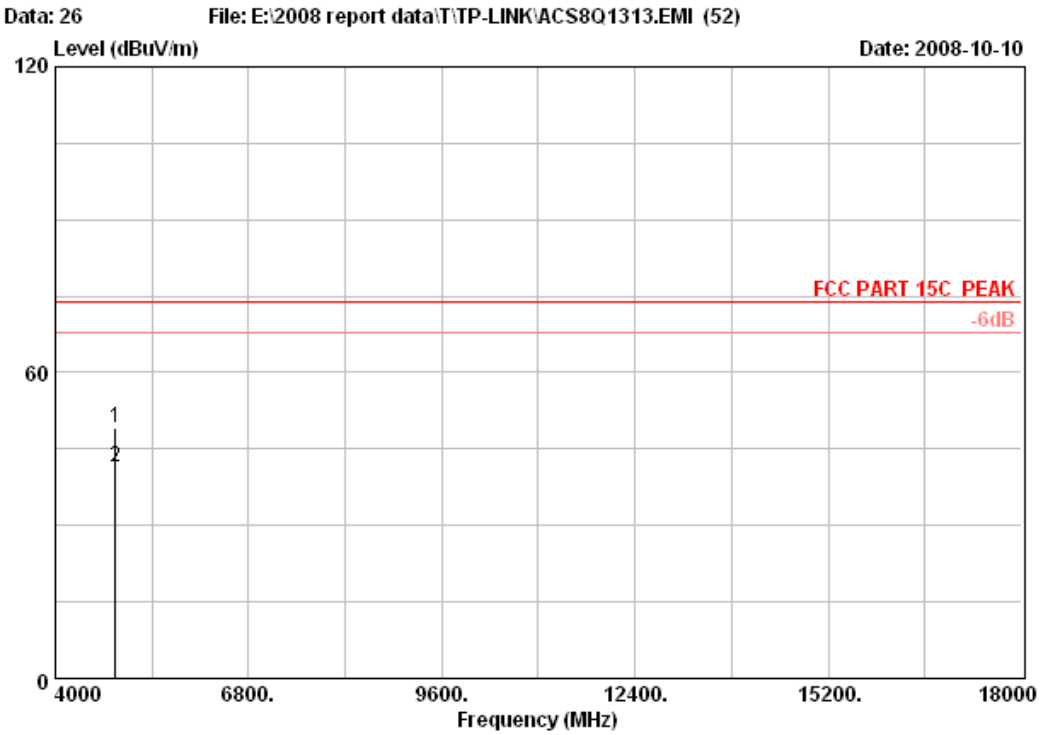

Site no. : RF Chamber Data no. : 26
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH6 2437MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.00	34.78	4.59	34.48	44.25	49.14	74.00	24.86	Peak
2	4874.00	34.78	4.59	34.48	36.54	41.43	54.00	12.57	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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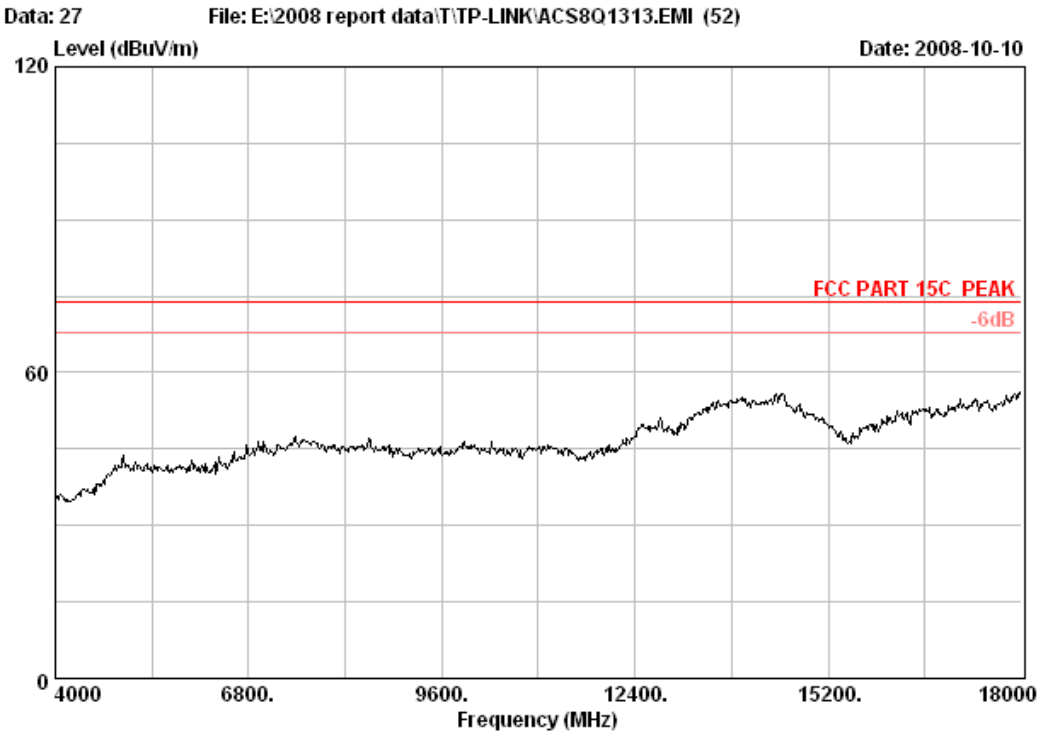

Site no. : RF Chamber Data no. : 27
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
M/N : TL-WN422G

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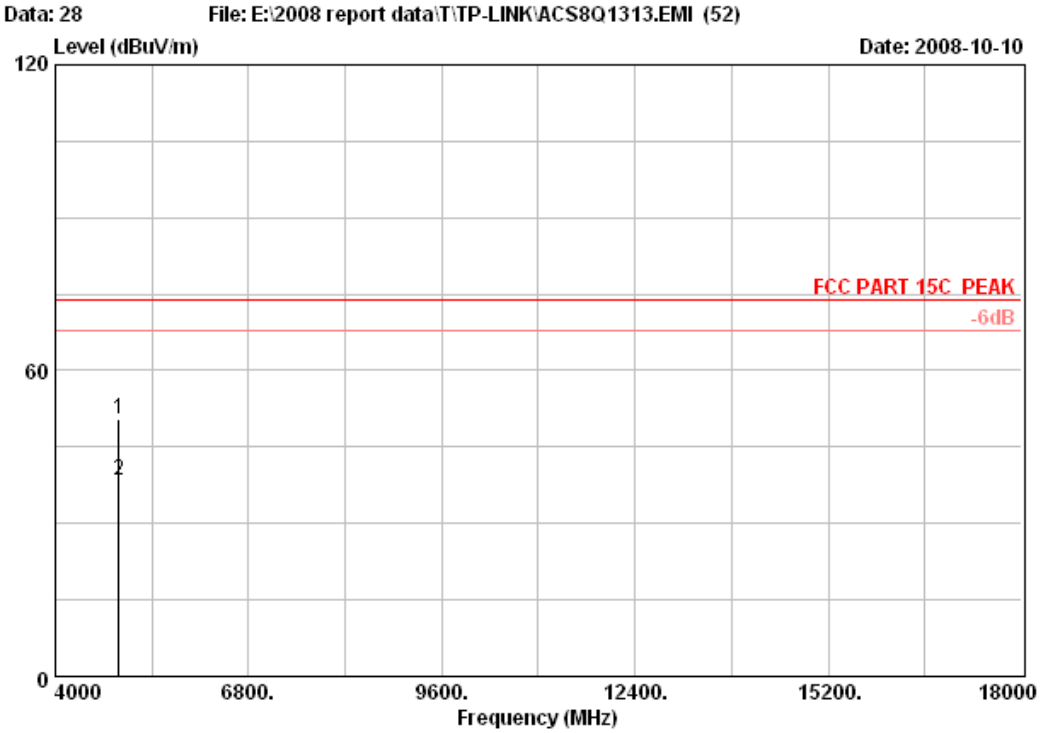

Site no. : RF Chamber Data no. : 28
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	35.09	4.69	34.47	45.09	50.40	74.00	23.60	Peak
2	4924.00	35.09	4.69	34.47	33.20	38.51	54.00	15.49	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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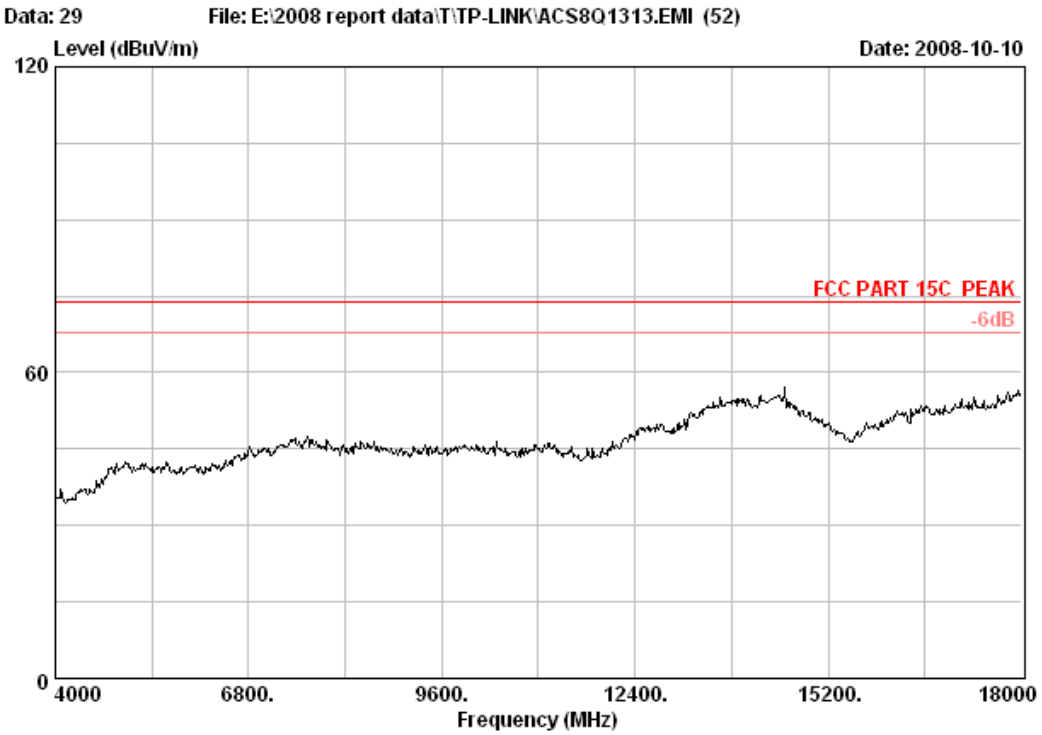
Postcode:518057



Site no. : RF Chamber Data no. : 29
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
M/N : TL-WN422G

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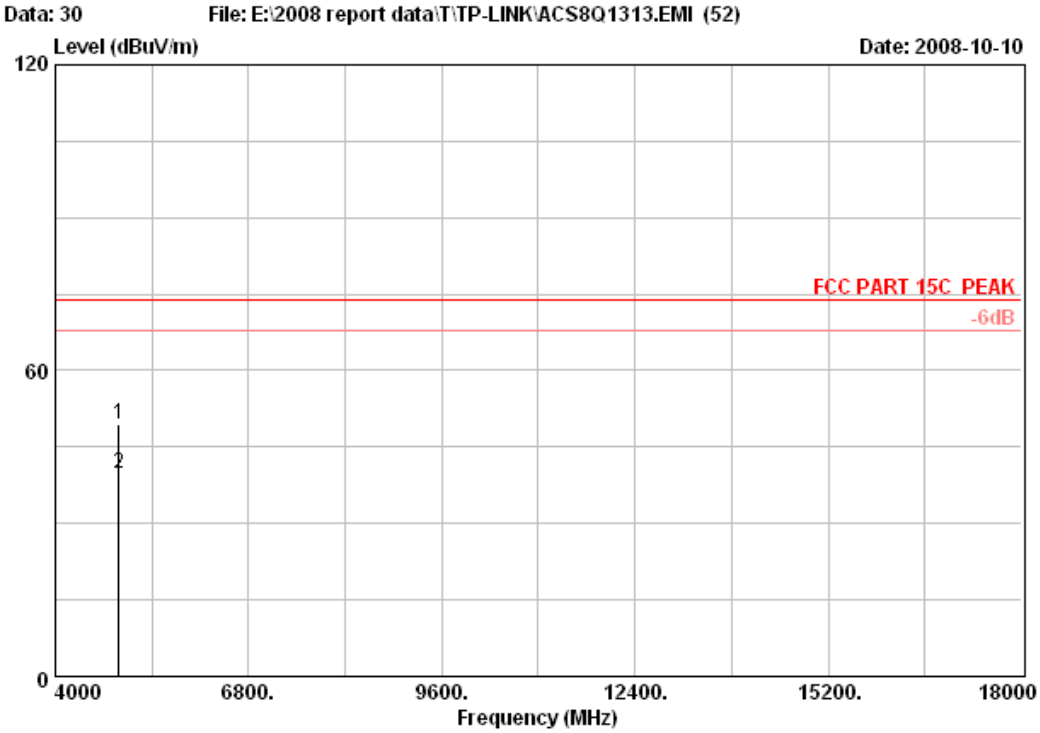

Site no. : RF Chamber Data no. : 30
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating: DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
M/N : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.00	35.09	4.69	34.47	44.27	49.58	74.00	24.42	Peak
2	4924.00	35.09	4.69	34.47	34.57	39.88	54.00	14.12	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 Frequency: 18GHz-25GHz
IEEE 802.11b Tx

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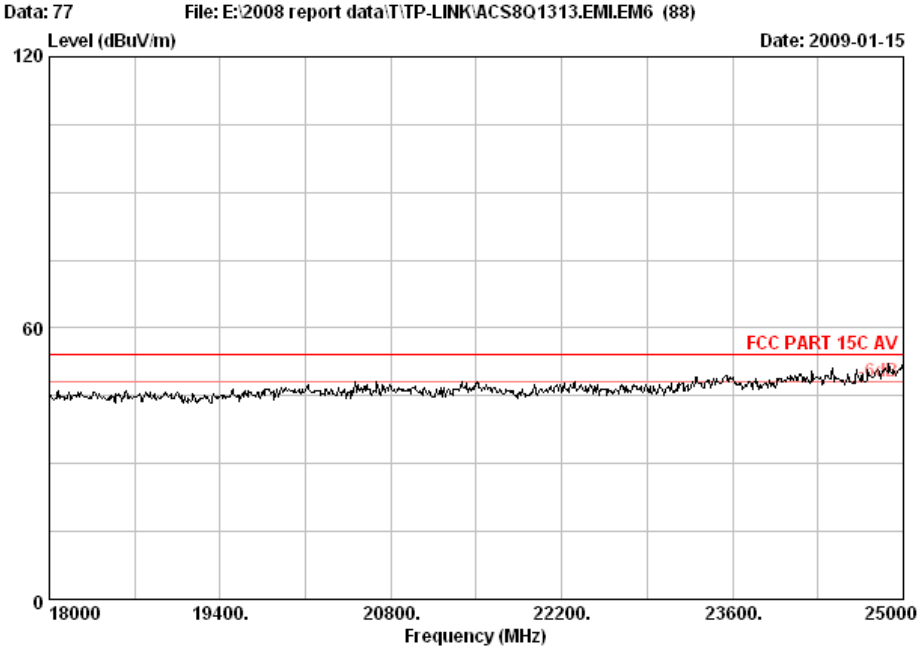
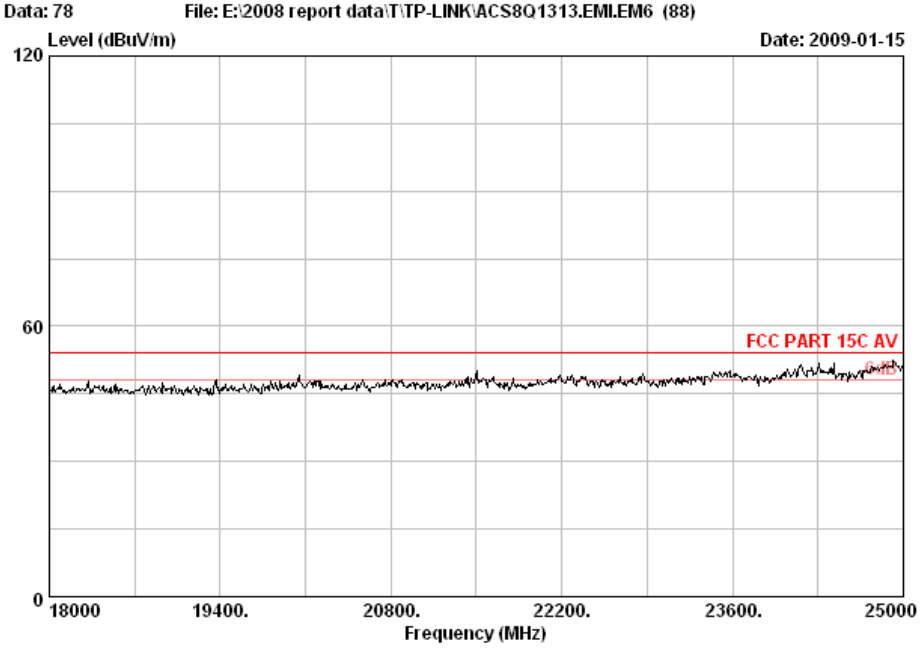
Postcode:518057



Site no. : 3# Chamber Data no. : 77
Dis. / Ant. : 3m Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
Memo : TL-WN422G



Site no. : 3# Chamber Data no. : 78
Dis. / Ant. : 3m Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
Memo : TL-WN422G

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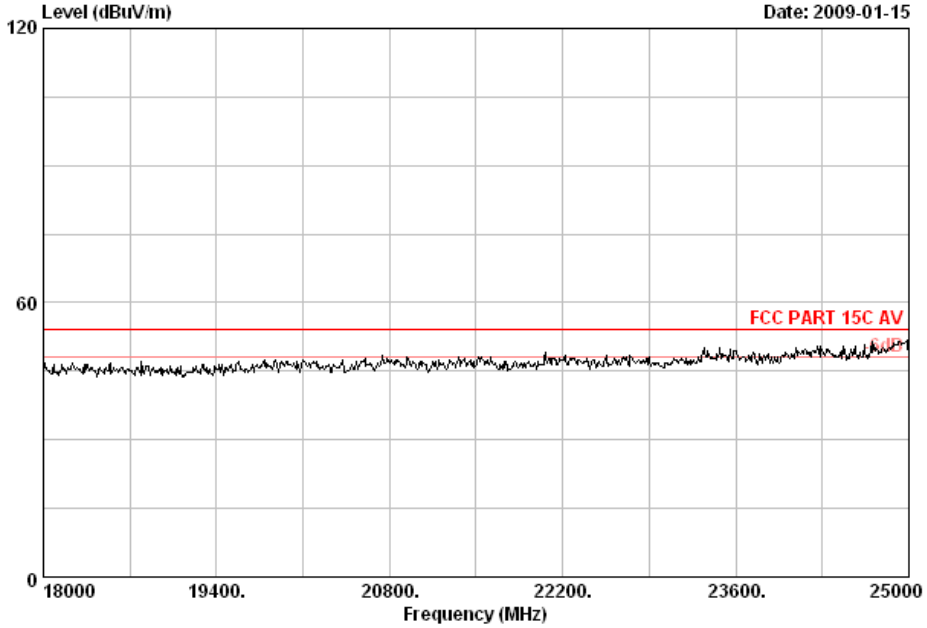
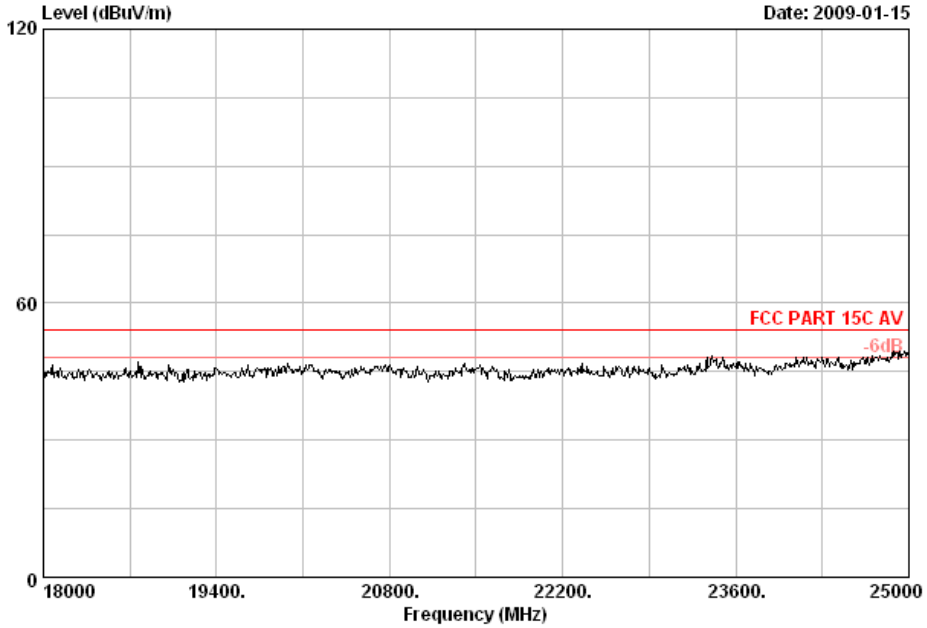
Postcode:518057

Data: 79 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber                Data no.   : 79
Dis. / Ant.   : 3m                        Ant. pol.  : VERTICAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11b CH6  2437MHz
Memo          : TL-WN422G
```

Data: 80 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber                Data no.   : 80
Dis. / Ant.   : 3m                        Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11b CH6  2437MHz
Memo          : TL-WN422G
```

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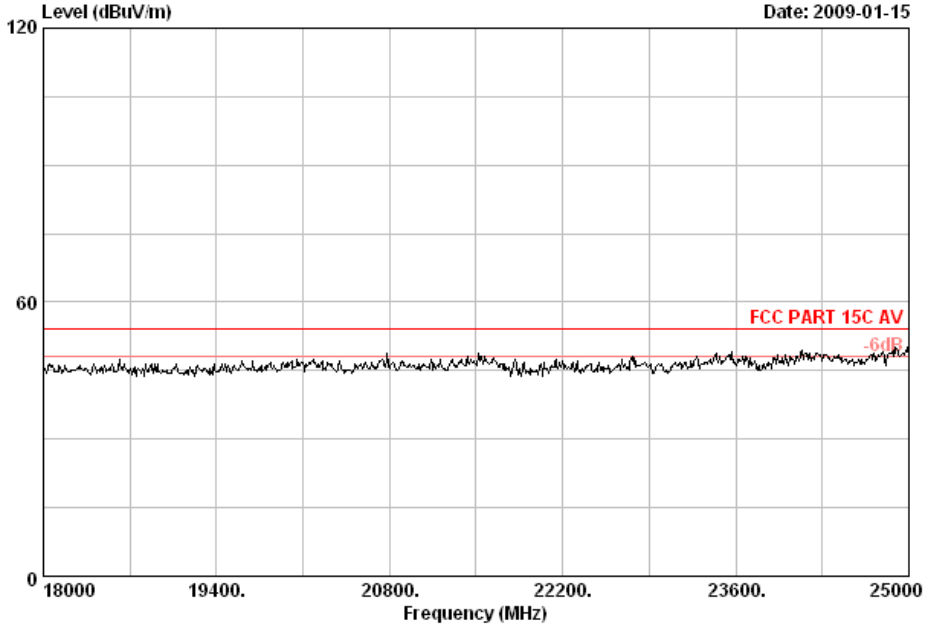
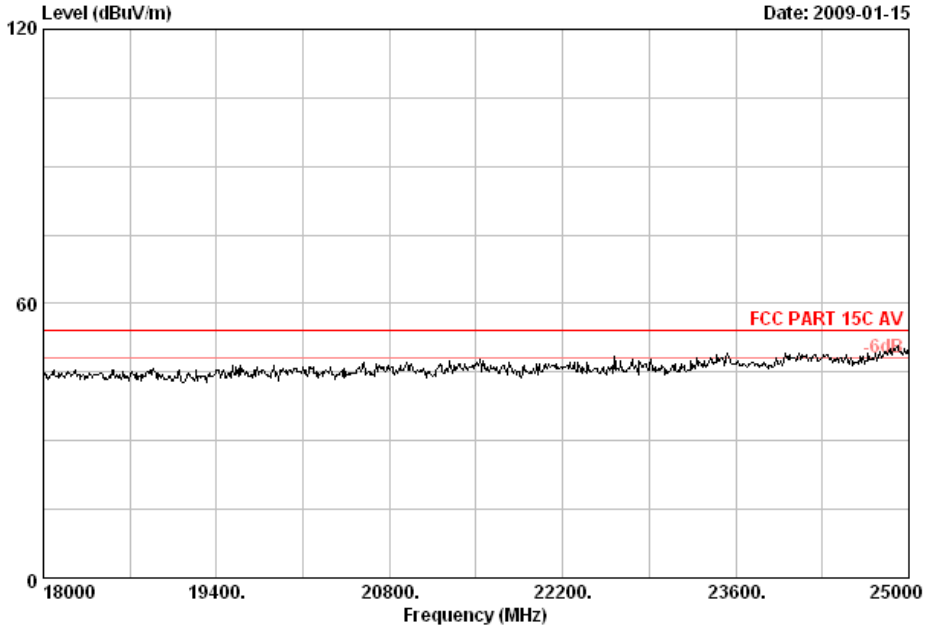
Data: 81 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber                Data no.   : 81
Dis. / Ant.   : 3m                        Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11b CH11  2462MHz
Memo          : TL-WN422G
```

Data: 82 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber                Data no.   : 82
Dis. / Ant.   : 3m                        Ant. pol.  : VERTICAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11b CH11  2462MHz
Memo          : TL-WN422G
```

IEEE 802.11g Tx

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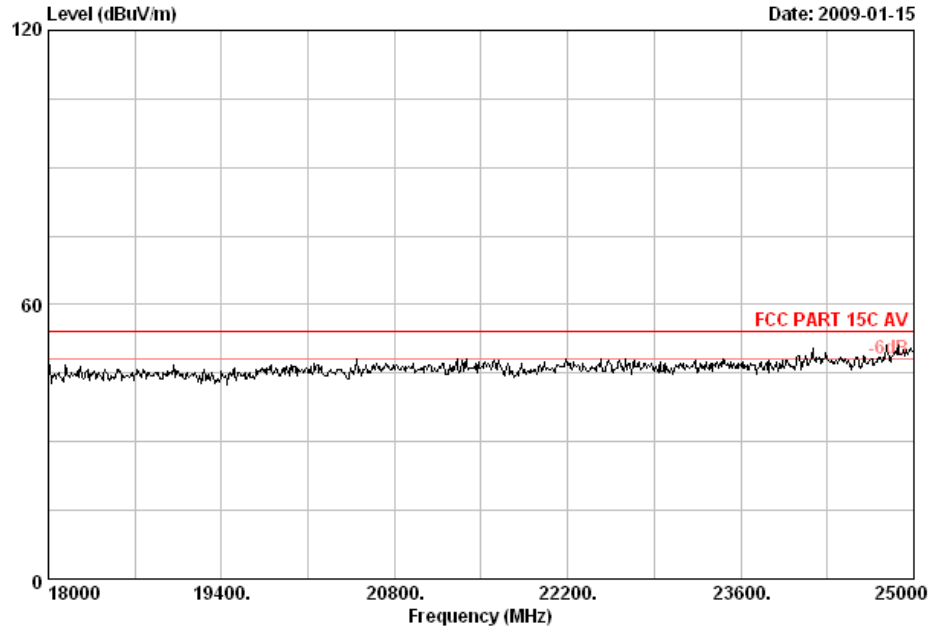
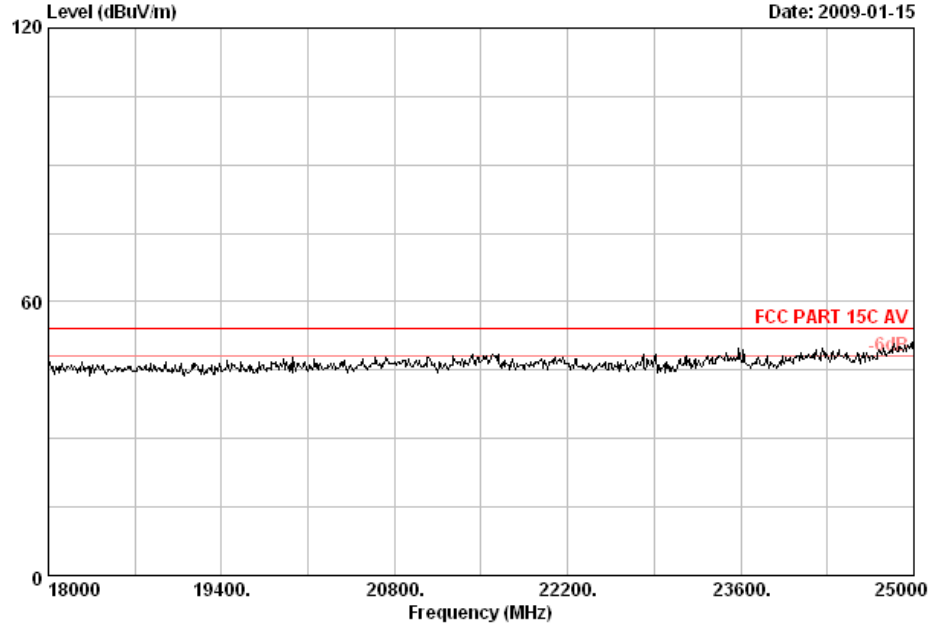
Data: 83 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber              Data no.   : 83
Dis. / Ant.   : 3m                      Ant. pol.  : VERTICAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11g  CH1  2412MHz
Memo          : TL-WN422G
```

Data: 84 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber              Data no.   : 84
Dis. / Ant.   : 3m                      Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11g  CH1  2412MHz
Memo          : TL-WN422G
```

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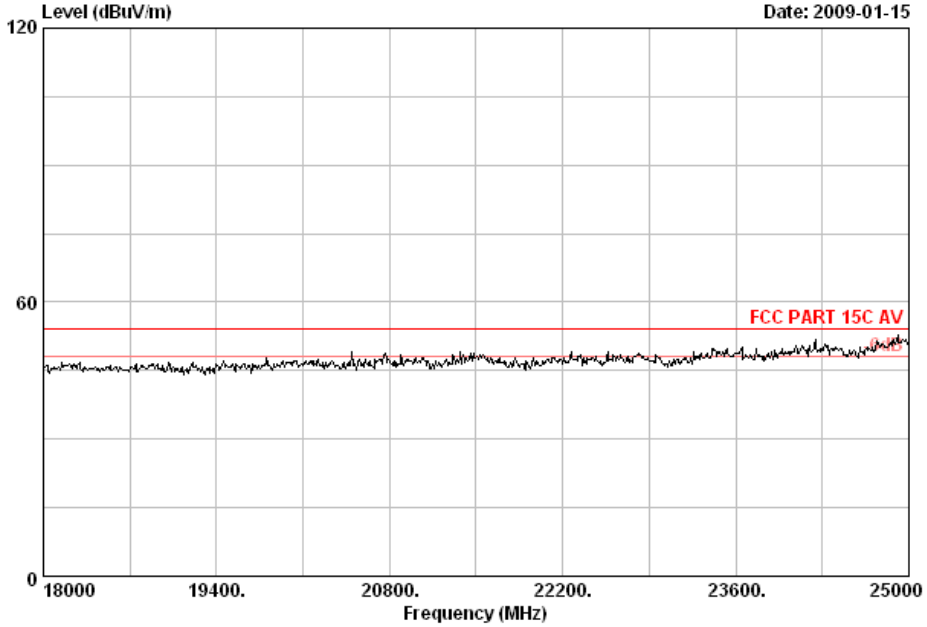
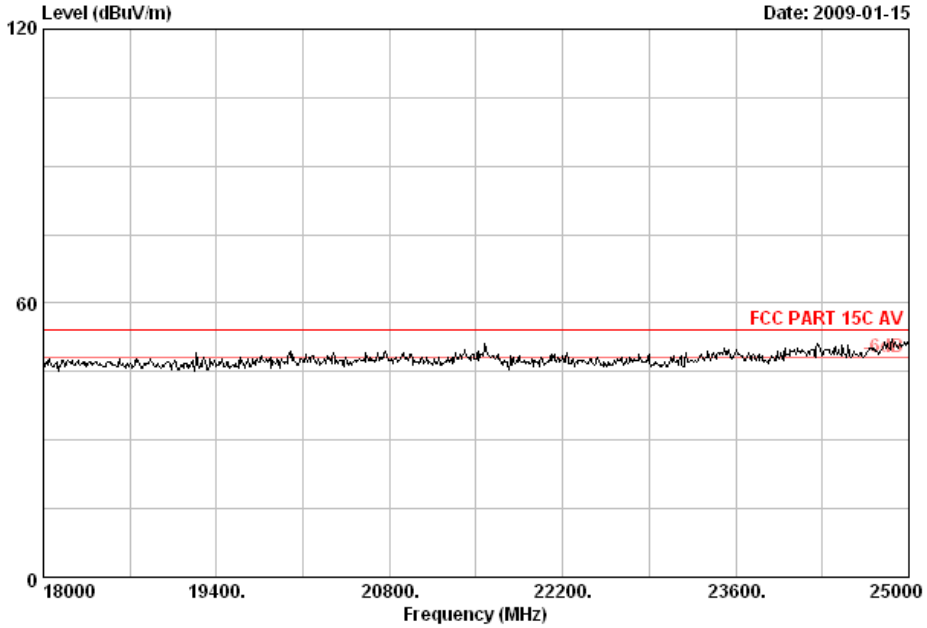
Data: 85 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber              Data no.   : 85
Dis. / Ant.   : 3m                      Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11g  CH6  2437MHz
Memo          : TL-WN422G
```

Data: 86 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber              Data no.   : 86
Dis. / Ant.   : 3m                      Ant. pol.  : VERTICAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11g  CH6  2437MHz
Memo          : TL-WN422G
```

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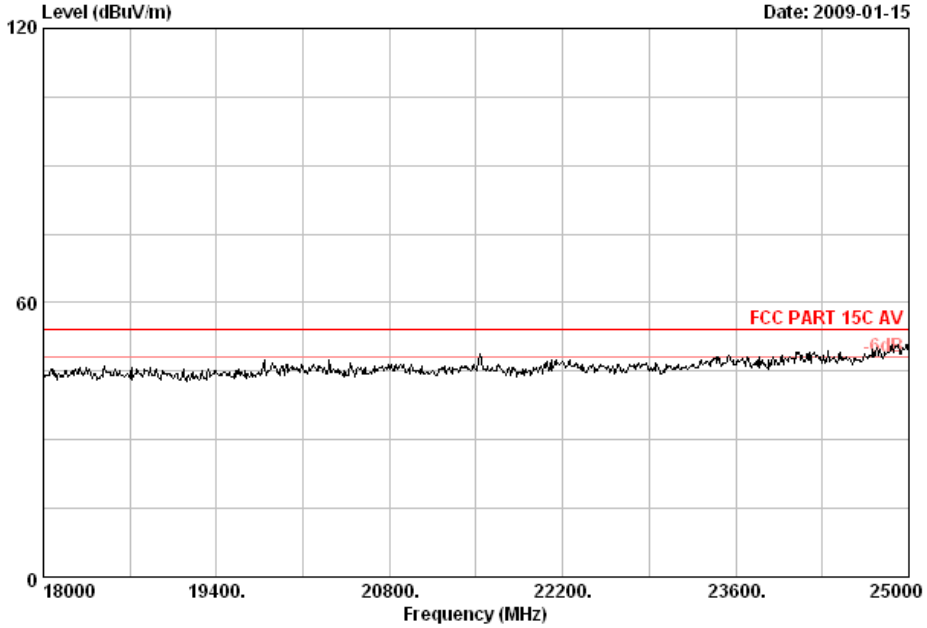
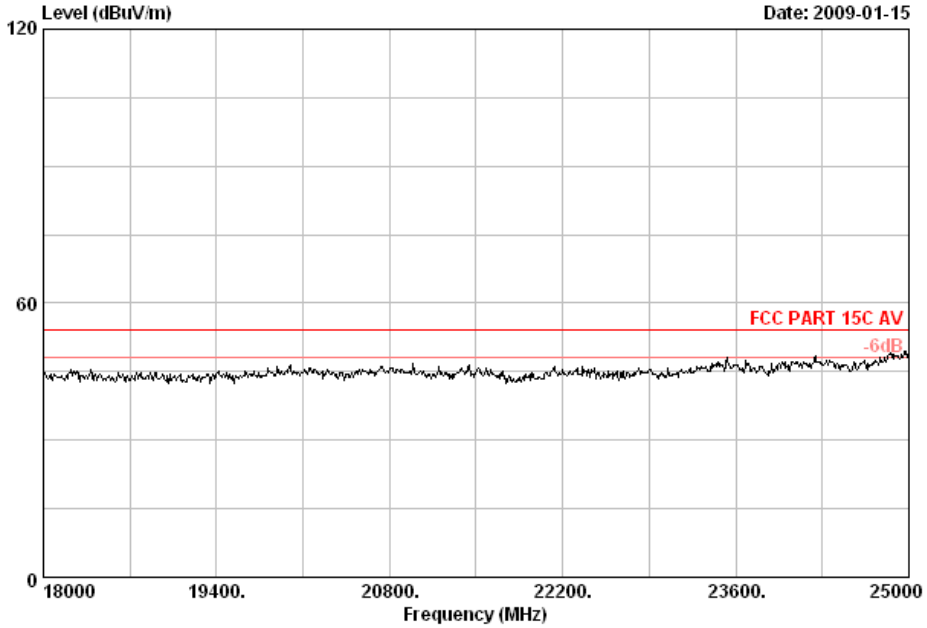
Data: 87 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber                Data no.   : 87
Dis. / Ant.   : 3m                        Ant. pol.  : VERTICAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11g  CH11  2462MHz
Memo          : TL-WN422G
```

Data: 88 File: E:\2008 report data\T\TP-LINK\ACS8Q1313.EMI.EM6 (88)




```
Site no.      : 3# Chamber                Data no.   : 88
Dis. / Ant.   : 3m                        Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C AV
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny
EUT           : High-Gain Wireless USB Adapter
Power Rating  : DC 5V From PC input AC 120V/60Hz
Test mode     : Tx 11g  CH11  2462MHz
Memo          : TL-WN422G
```

5. BAND EDGE COMPLIANCE

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	May,27, 08	1.5 Year
3	Amplifier	HP	8449B	3008A00863	May,10, 08	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX102	271473/4	May,28, 08	1Year
5	RF Cable	Hubersuhner	SUCOFLEX 102	29091/2	May,28, 08	1Year
6	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May,28, 08	1Year

5.2.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.

5.3.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.

5.4.Test Results

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

Test Mode: IEEE 802.11b Tx

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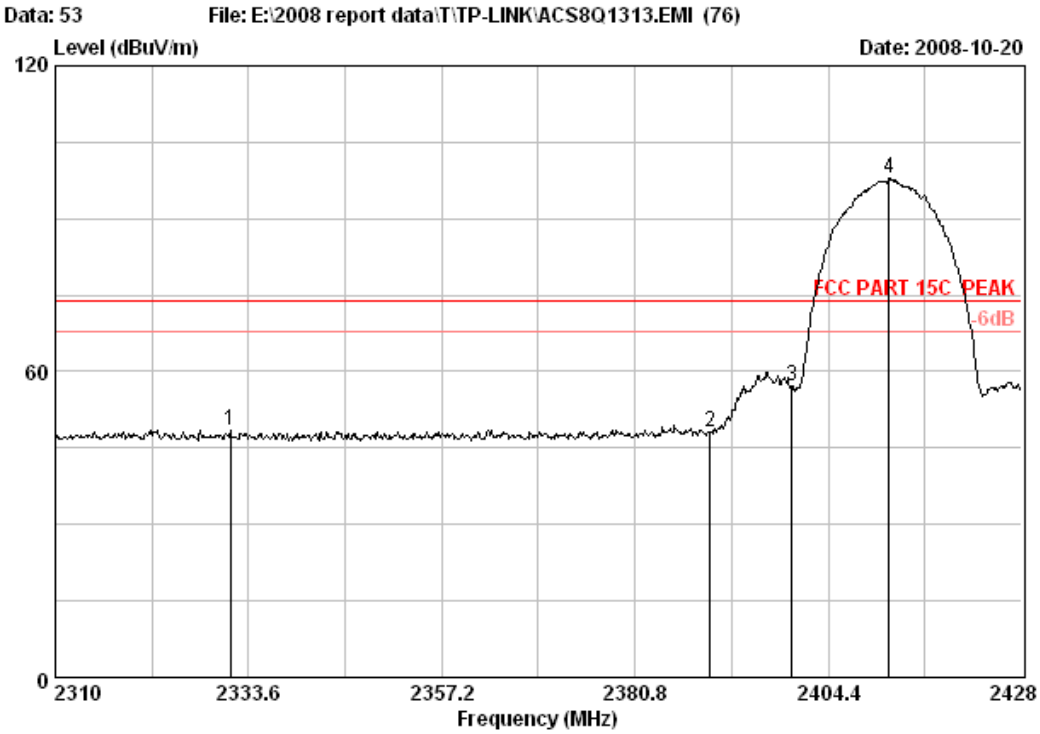

Site no. : 3# Chamber Data no. : 53
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
Memo : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2331.36	28.36	6.65	36.00	49.47	48.48	74.00	25.52	Peak
2	2390.00	28.46	6.71	35.95	48.93	48.15	74.00	25.85	Peak
3	2400.00	28.46	6.73	35.95	57.88	57.12	74.00	16.88	Peak
4	2411.83	28.48	6.73	35.95	98.54	97.80	74.00	-23.80	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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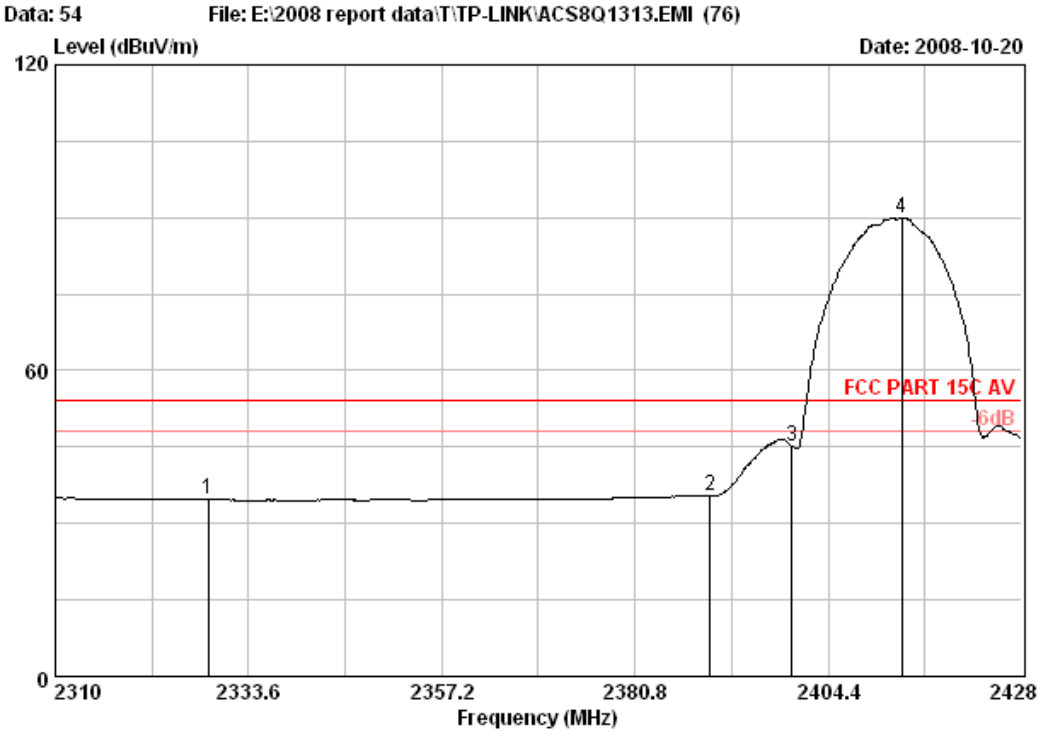
Postcode:518057



Site no. : 3# Chamber Data no. : 54
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
Memo : TL-WN422G

	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	2328.64	28.36	6.65	36.00	35.70	34.71	54.00	19.29	Average
2	2390.00	28.46	6.71	35.95	36.13	35.35	54.00	18.65	Average
3	2400.00	28.46	6.73	35.95	45.83	45.07	54.00	8.93	Average
4	2413.37	28.48	6.77	35.95	90.69	89.99	54.00	-35.99	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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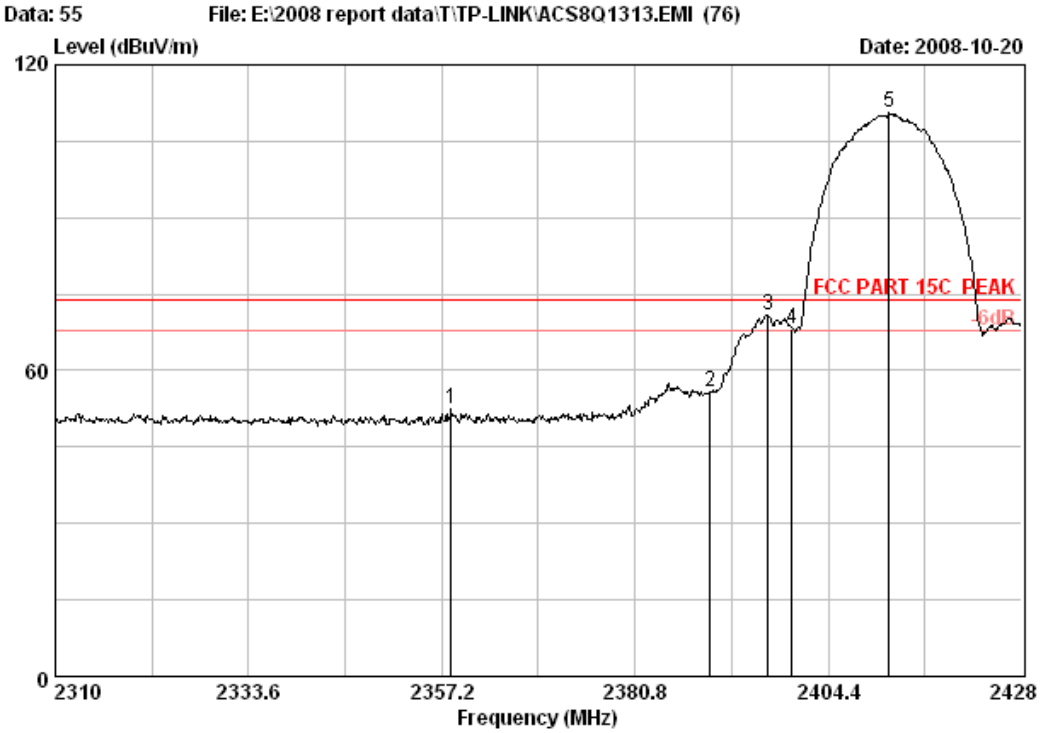

Site no. : 3# Chamber Data no. : 55
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
Memo : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2358.38	28.41	6.69	35.99	53.49	52.60	74.00	21.40	Peak
2	2390.00	28.46	6.71	35.95	56.61	55.83	74.00	18.17	Peak
3	2397.08	28.46	6.73	35.95	71.71	70.95	74.00	3.05	Peak
4	2400.00	28.46	6.73	35.95	69.01	68.25	74.00	5.75	Peak
5	2411.83	28.48	6.73	35.95	111.29	110.55	74.00	-36.55	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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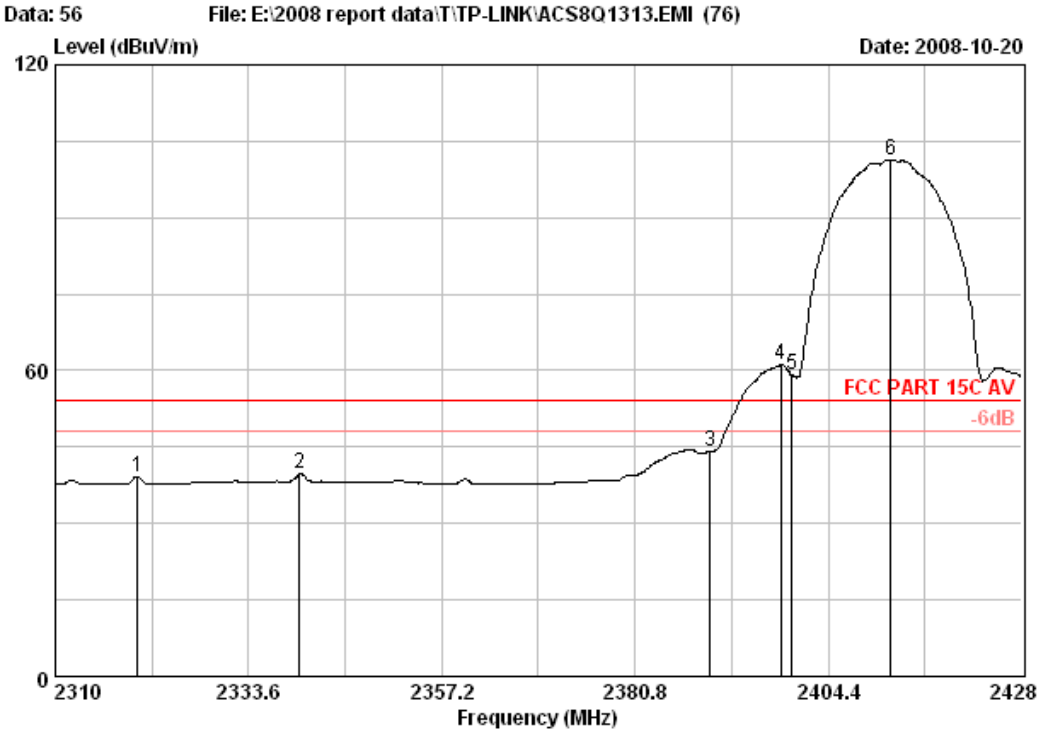
Postcode:518057



Site no. : 3# Chamber Data no. : 56
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH1 2412MHz
Memo : TL-WN422G

	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	2320.03	28.36	6.65	36.00	40.15	39.16	54.00	14.84	Average
2	2339.85	28.38	6.67	35.99	40.65	39.71	54.00	14.29	Average
3	2390.00	28.46	6.71	35.95	44.93	44.15	54.00	9.85	Average
4	2398.62	28.46	6.73	35.95	61.82	61.06	54.00	-7.06	Average
5	2400.00	28.46	6.73	35.95	59.80	59.04	54.00	-5.04	Average
6	2412.07	28.48	6.73	35.95	102.05	101.31	54.00	-47.31	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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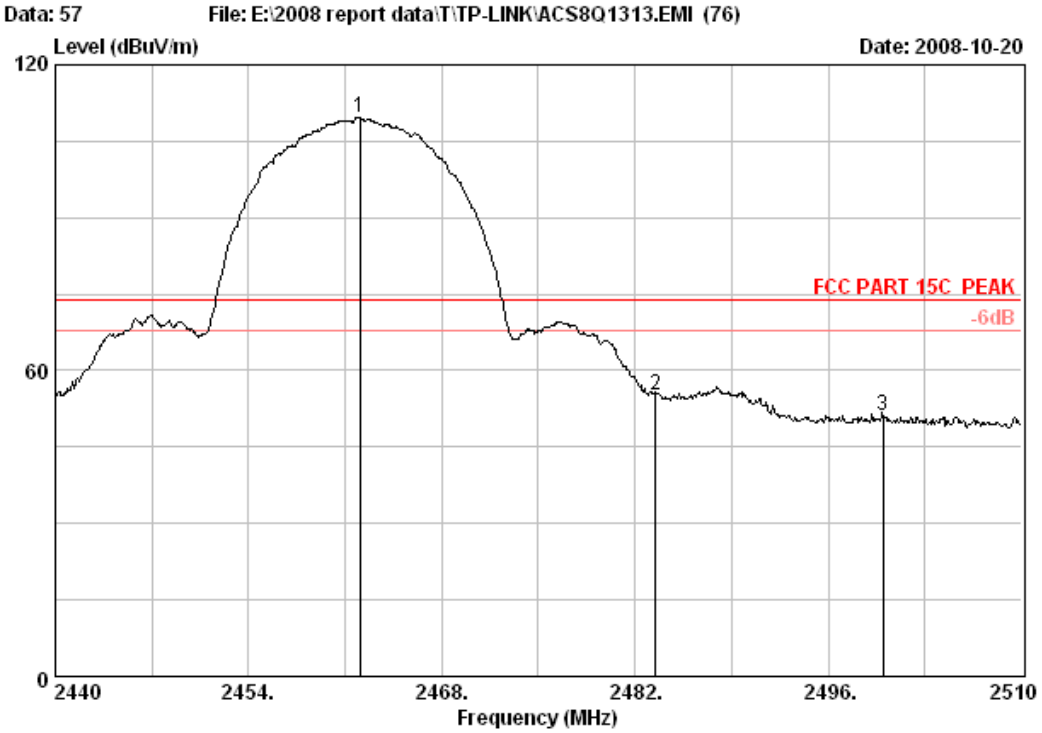
Postcode:518057



Site no. : 3# Chamber Data no. : 57
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
Memo : TL-WN422G

	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	2462.05	28.55	6.84	35.96	110.28	109.71	74.00	-35.71	Peak
2	2483.50	28.58	6.87	35.96	55.68	55.17	74.00	18.83	Peak
3	2500.00	28.60	6.91	35.96	51.60	51.15	74.00	22.85	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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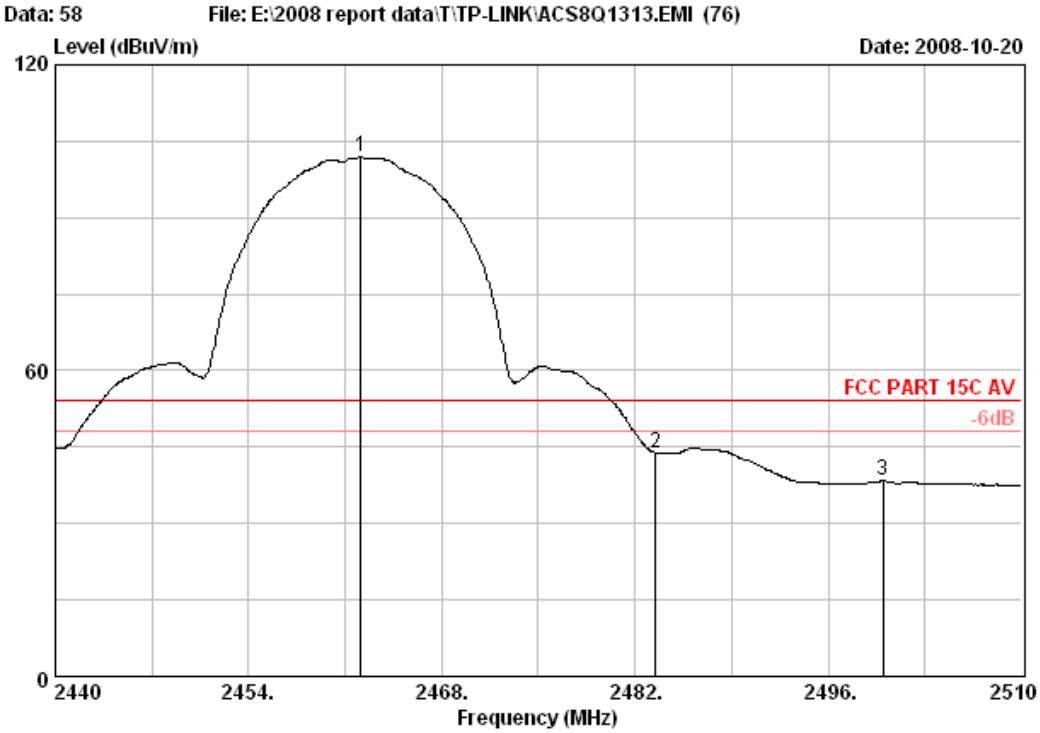

Site no. : 3# Chamber Data no. : 58
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
Memo : TL-WN422G

	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	2462.12	28.55	6.84	35.96	102.38	101.81	54.00	-47.81	Average
2	2483.50	28.58	6.87	35.96	44.39	43.88	54.00	10.12	Average
3	2500.00	28.60	6.91	35.96	38.75	38.30	54.00	15.70	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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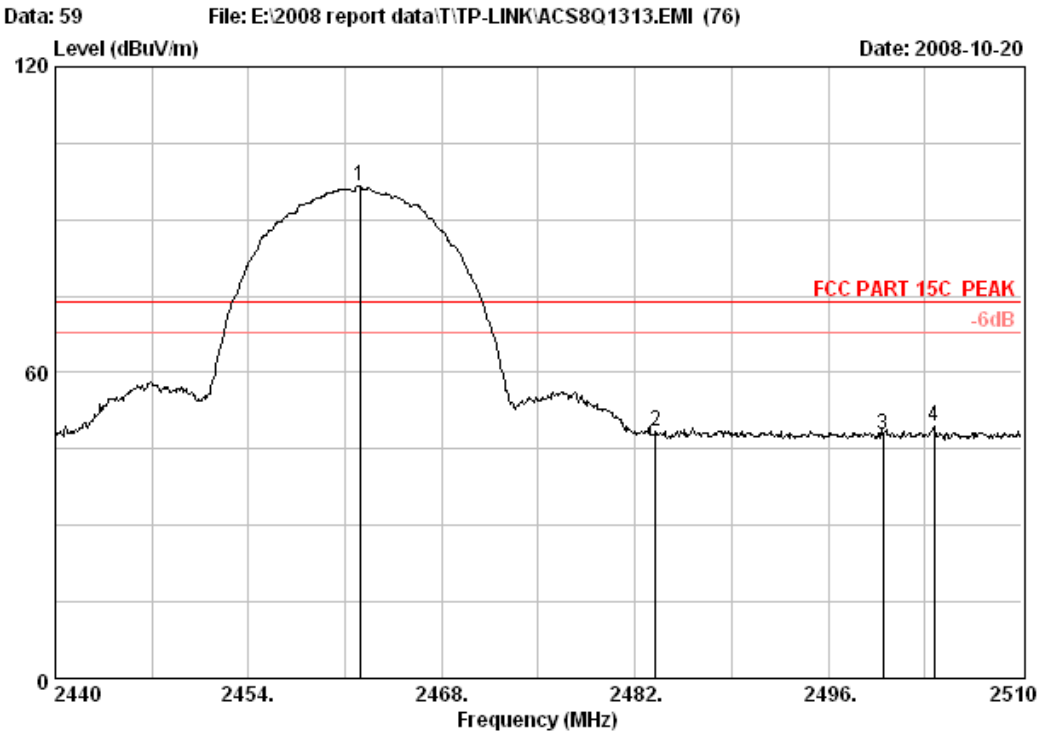

Site no. : 3# Chamber Data no. : 59
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
Memo : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2462.05	28.55	6.84	35.96	97.17	96.60	74.00	-22.60	Peak
2	2483.50	28.58	6.87	35.96	48.97	48.46	74.00	25.54	Peak
3	2500.00	28.60	6.91	35.96	48.37	47.92	74.00	26.08	Peak
4	2503.70	28.60	6.91	35.96	49.90	49.45	74.00	24.55	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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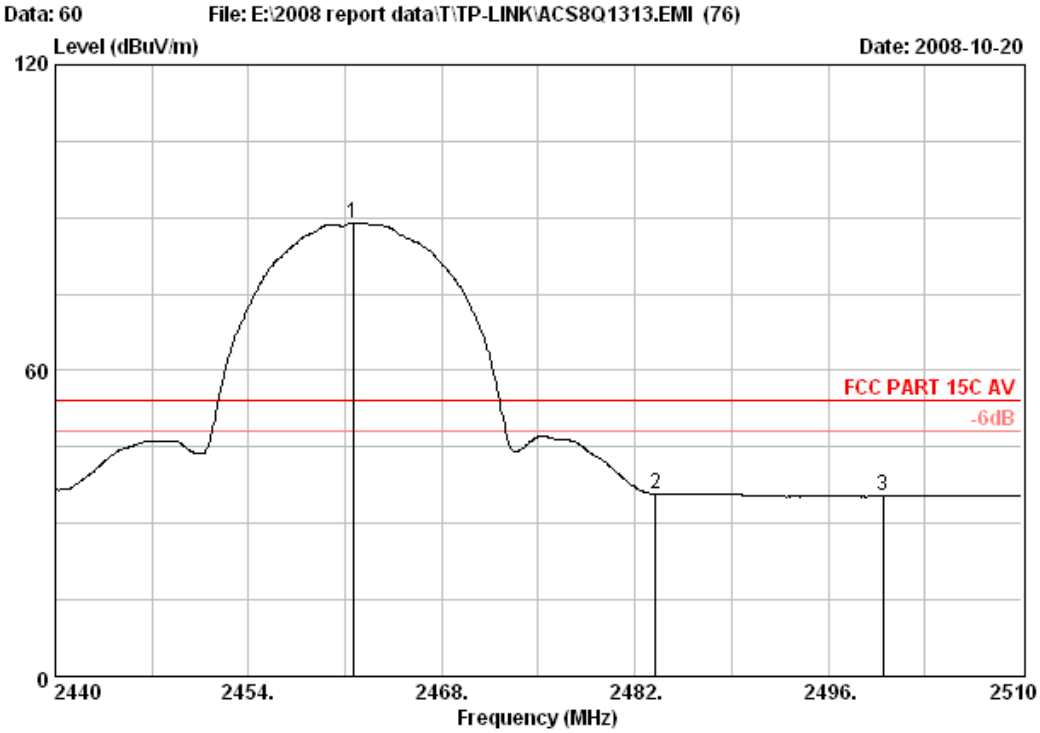

Site no. : 3# Chamber Data no. : 60
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11b CH11 2462MHz
Memo : TL-WN422G

	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	2461.56	28.55	6.84	35.96	89.65	89.08	54.00	-35.08	Average
2	2483.50	28.58	6.87	35.96	36.29	35.78	54.00	18.22	Average
3	2500.00	28.60	6.91	35.96	35.79	35.34	54.00	18.66	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.

Test Mode: IEEE 802.11g Tx

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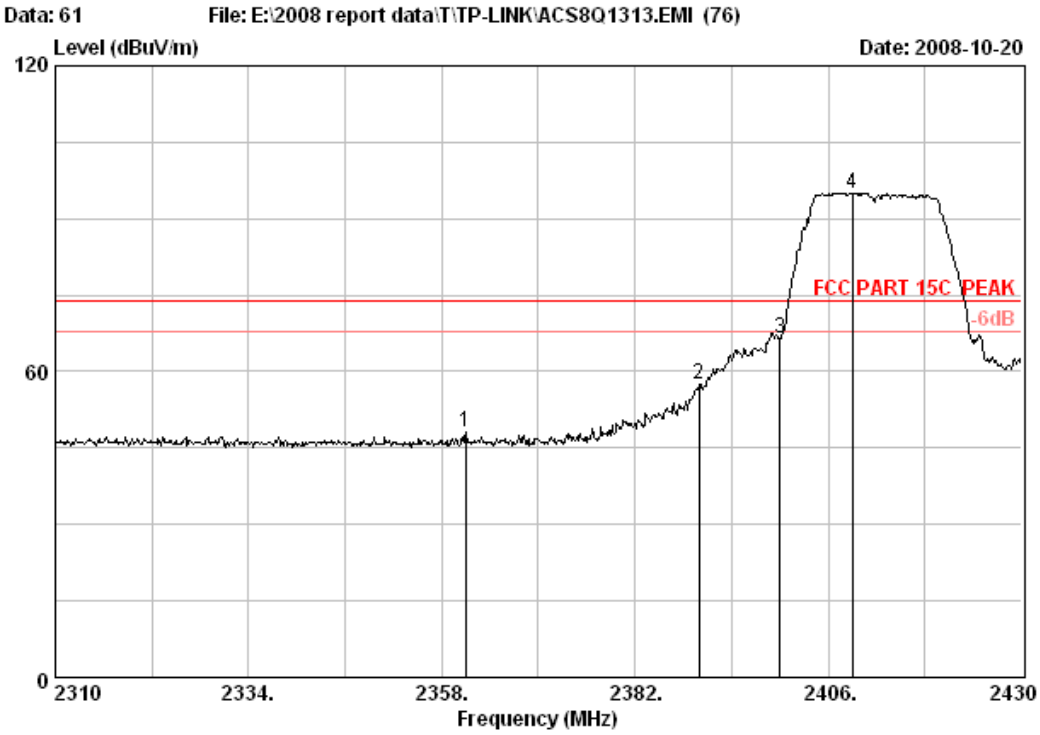
Postcode:518057



Site no. : 3# Chamber Data no. : 61
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
Memo : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2361.00	28.41	6.69	35.99	49.00	48.11	74.00	25.89	Peak
2	2390.00	28.46	6.71	35.95	58.24	57.46	74.00	16.54	Peak
3	2400.00	28.46	6.73	35.95	67.38	66.62	74.00	7.38	Peak
4	2409.00	28.48	6.73	35.95	95.82	95.08	74.00	-21.08	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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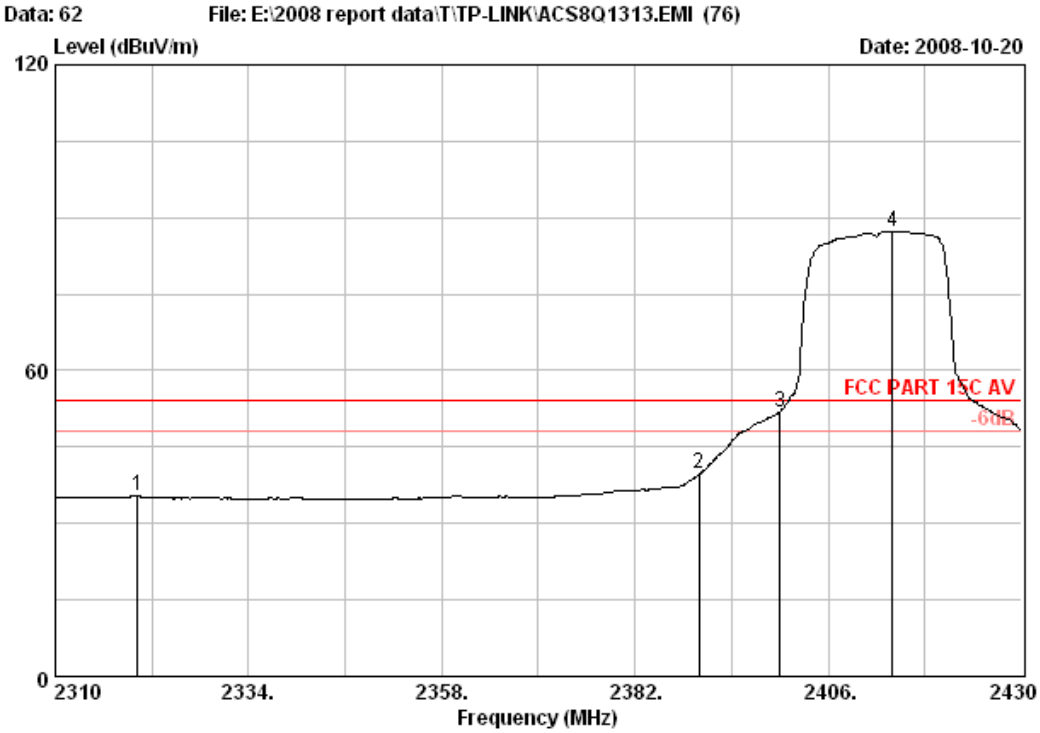

Site no. : 3# Chamber Data no. : 62
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
Memo : TL-WN422G

	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	2320.20	28.36	6.65	36.00	36.50	35.51	54.00	18.49	Average
2	2390.00	28.46	6.71	35.95	40.51	39.73	54.00	14.27	Average
3	2400.00	28.46	6.73	35.95	52.66	51.90	54.00	2.10	Average
4	2413.92	28.48	6.77	35.95	88.10	87.40	54.00	-33.40	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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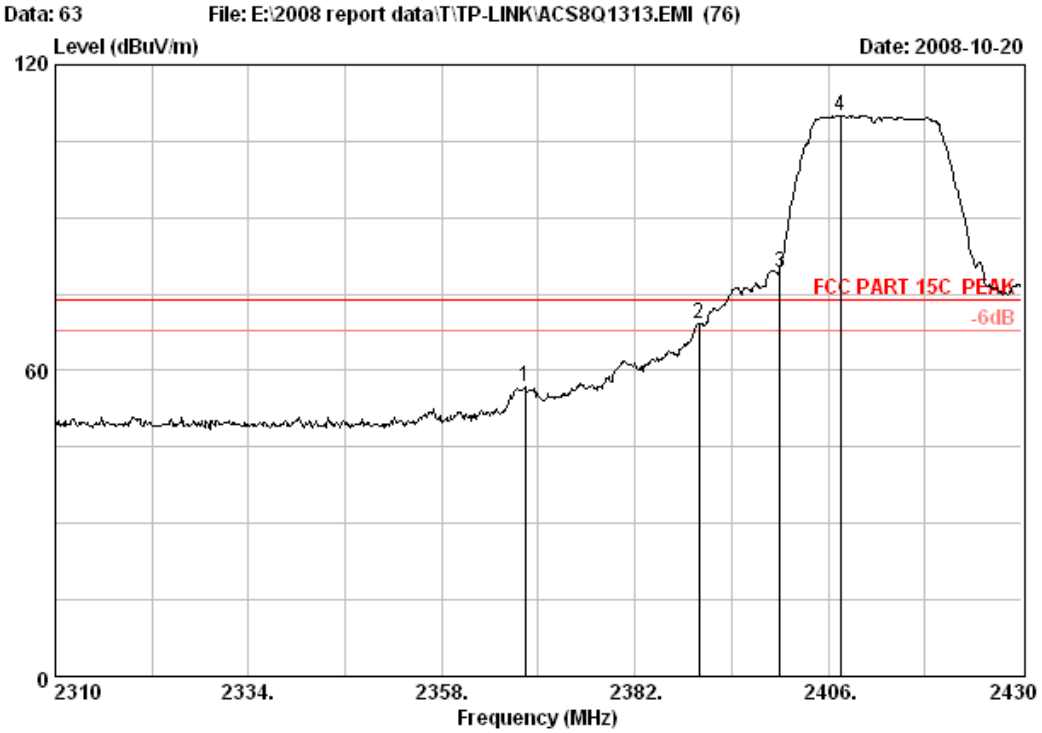

Site no. : 3# Chamber Data no. : 63
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
Memo : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2368.32	28.41	6.69	35.97	57.56	56.69	74.00	17.31	Peak
2	2390.00	28.46	6.71	35.95	70.03	69.25	74.00	4.75	Peak
3	2400.00	28.46	6.73	35.95	79.83	79.07	74.00	-5.07	Peak
4	2407.56	28.48	6.73	35.95	110.87	110.13	74.00	-36.13	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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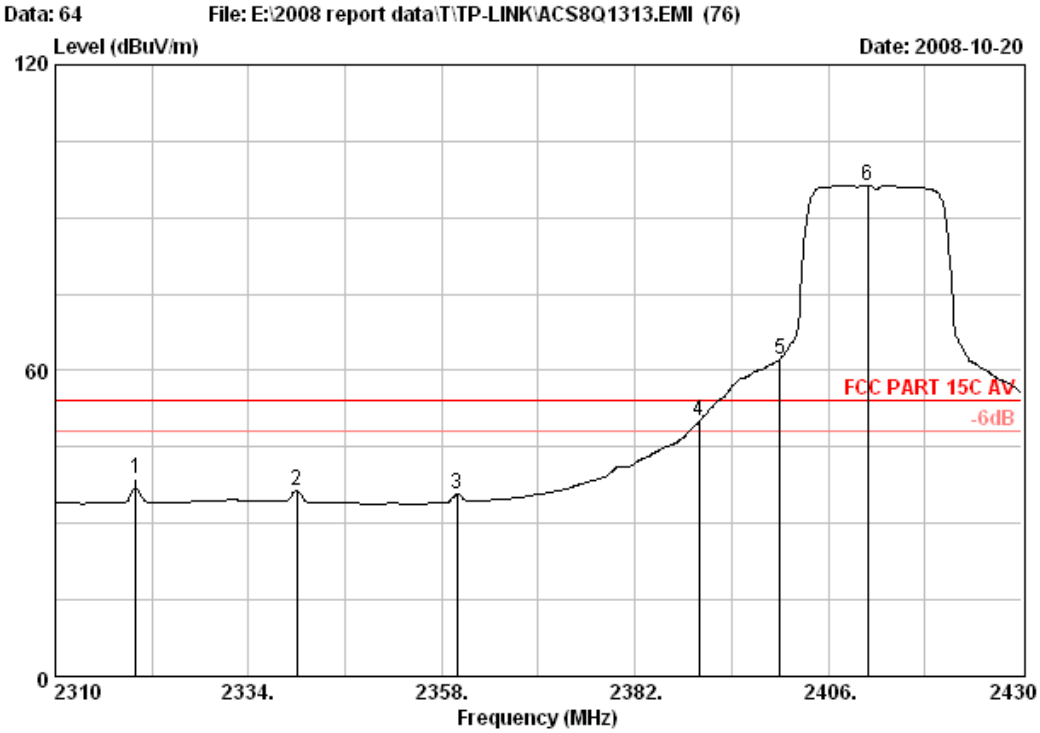

Site no. : 3# Chamber Data no. : 64
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH1 2412MHz
Memo : TL-WN422G

	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	2319.96	28.36	6.65	36.00	39.87	38.88	54.00	15.12	Average
2	2340.00	28.38	6.67	35.99	37.32	36.38	54.00	17.62	Average
3	2359.92	28.41	6.69	35.99	36.64	35.75	54.00	18.25	Average
4	2390.00	28.46	6.71	35.95	50.97	50.19	54.00	3.81	Average
5	2400.00	28.46	6.73	35.95	63.02	62.26	54.00	-8.26	Average
6	2410.92	28.48	6.73	35.95	97.02	96.28	54.00	-42.28	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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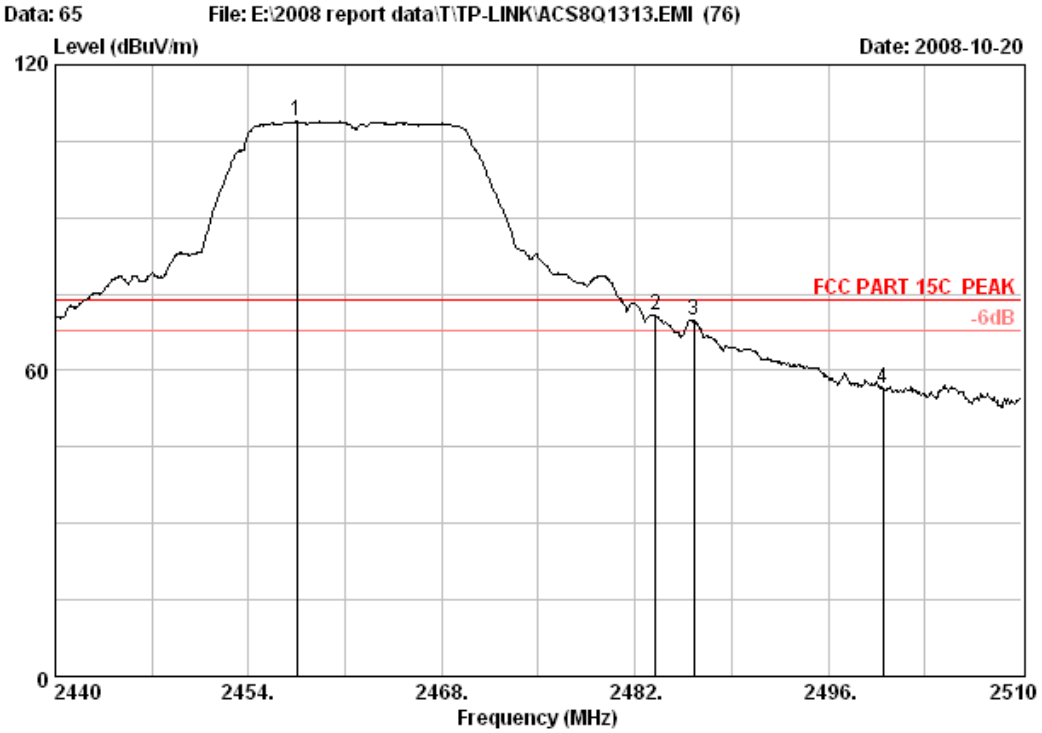

Site no. : 3# Chamber Data no. : 65
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
Memo : TL-WN422G

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Emission Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2457.50	28.55	6.84	35.96	109.49	108.92	74.00	-34.92	Peak
2	2483.50	28.58	6.87	35.96	71.22	70.71	74.00	3.29	Peak
3	2486.27	28.58	6.87	35.96	70.48	69.97	74.00	4.03	Peak
4	2500.00	28.60	6.91	35.96	56.79	56.34	74.00	17.66	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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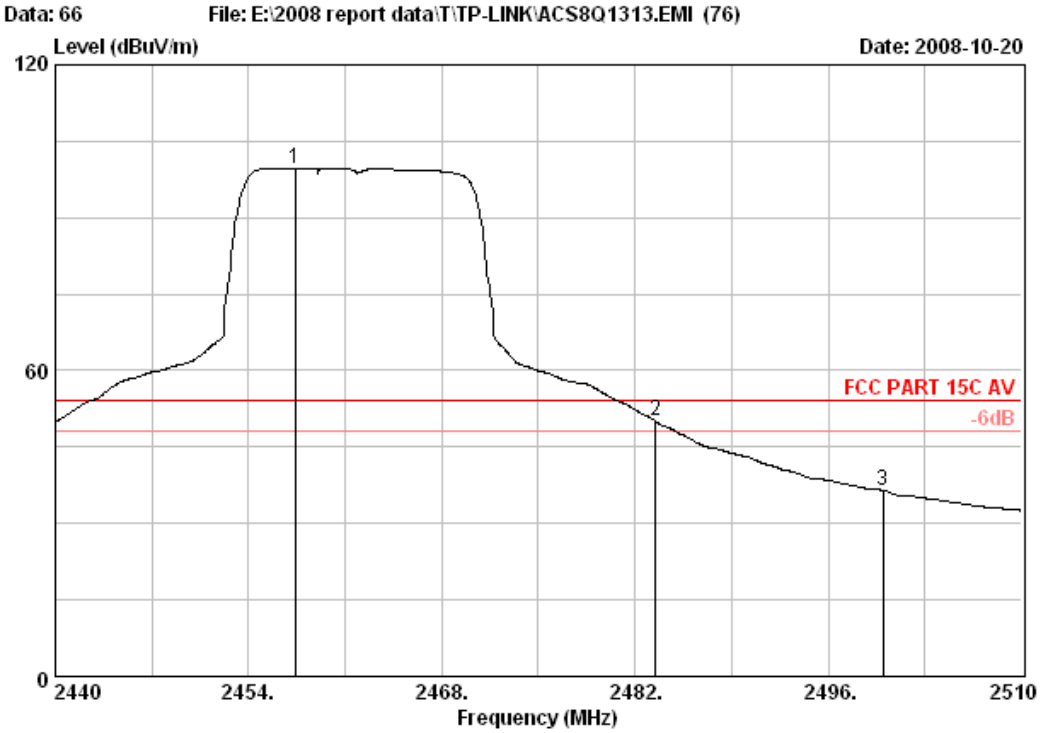

Site no. : 3# Chamber Data no. : 66
Dis. / Ant. : 3m 3115 Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
Memo : TL-WN422G

	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	2457.36	28.55	6.84	35.96	100.31	99.74	54.00	-45.74	Average
2	2483.50	28.58	6.87	35.96	50.53	50.02	54.00	3.98	Average
3	2500.00	28.60	6.91	35.96	36.95	36.50	54.00	17.50	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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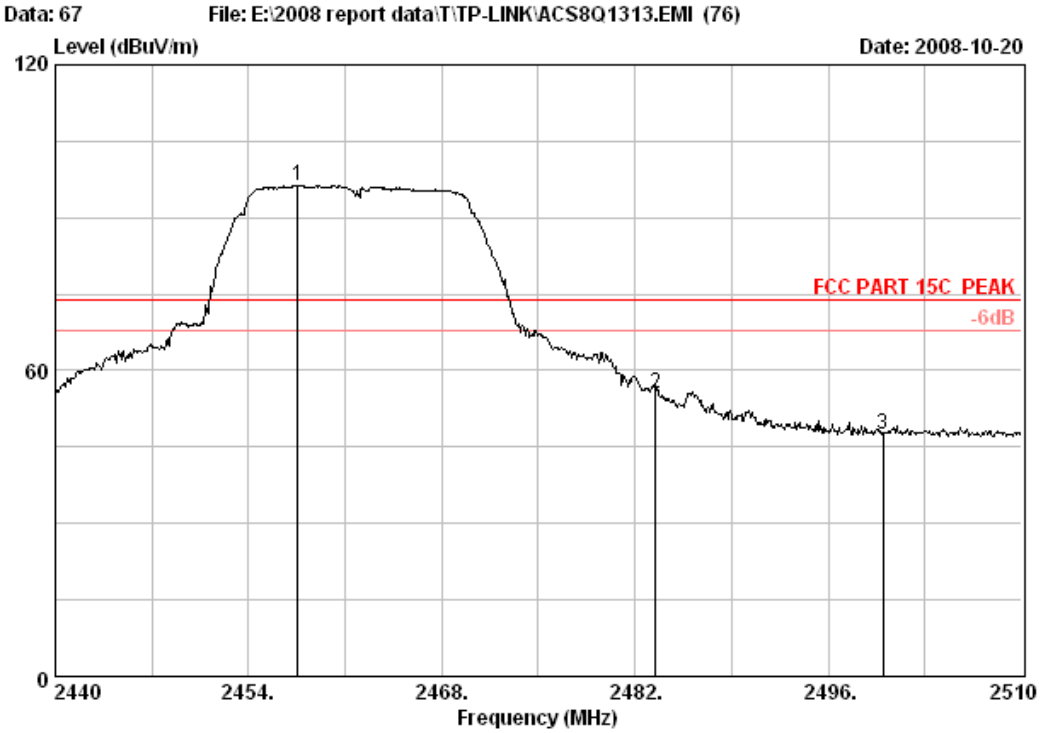

Site no. : 3# Chamber Data no. : 67
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
Memo : TL-WN422G

	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	2457.57	28.55	6.84	35.96	96.93	96.36	74.00	-22.36	Peak
2	2483.50	28.58	6.87	35.96	56.05	55.54	74.00	18.46	Peak
3	2500.00	28.60	6.91	35.96	48.04	47.59	74.00	26.41	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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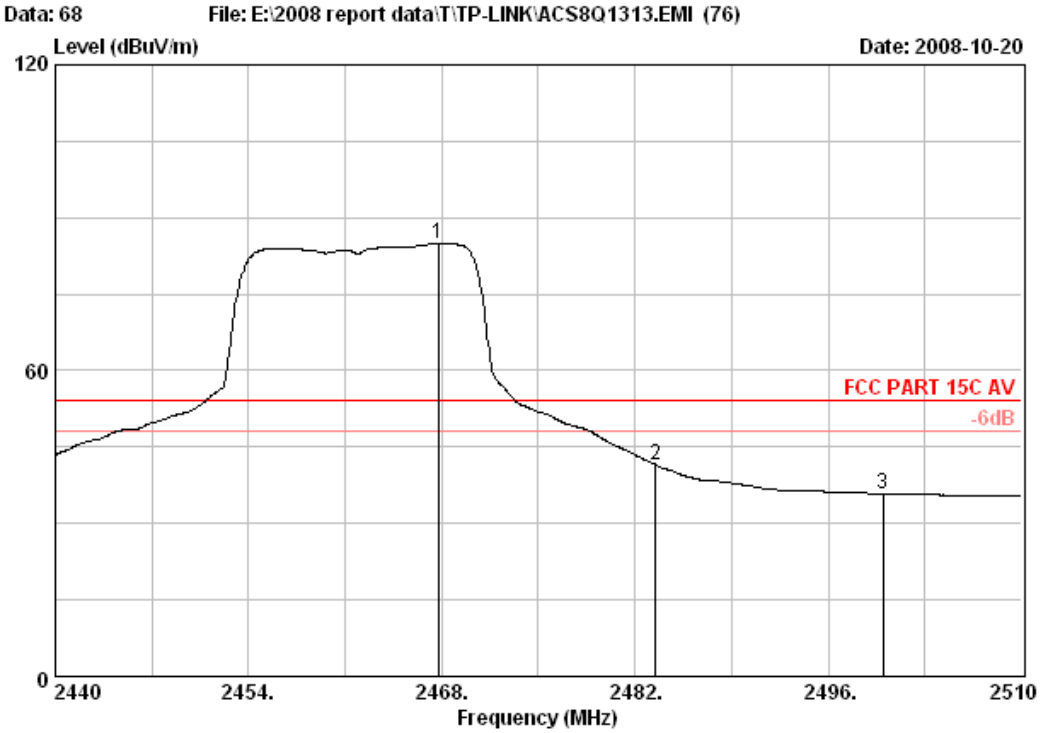


Site no. : 3# Chamber Data no. : 68
Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny
EUT : High-Gain Wireless USB Adapter
Power Rating : DC 5V From PC input AC 120V/60Hz
Test mode : Tx 11g CH11 2462MHz
Memo : TL-WN422G

	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	2467.72	28.55	6.84	35.96	85.48	84.91	54.00	-30.91	Average
2	2483.50	28.58	6.87	35.96	42.02	41.51	54.00	12.49	Average
3	2500.00	28.60	6.91	35.96	36.34	35.89	54.00	18.11	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.

6. CONDUCTED SPURIOUS EMISSIONS

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
2	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year

6.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in 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).

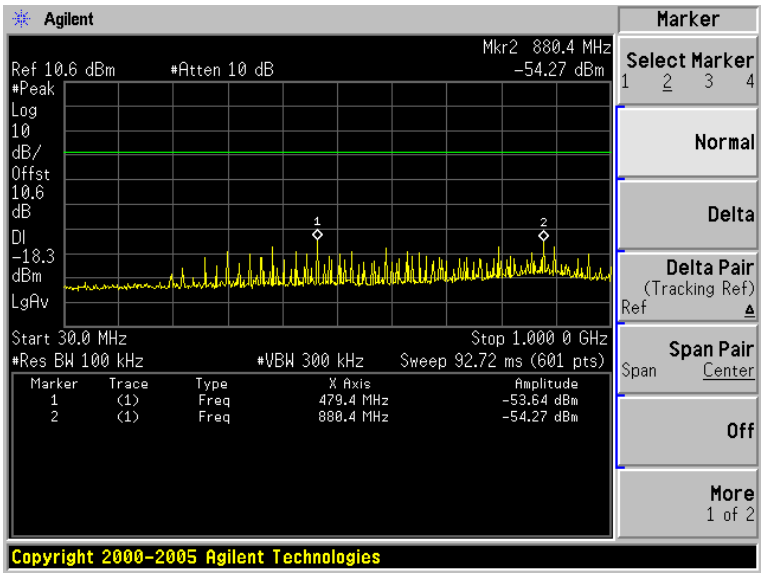
6.3.Test Procedure

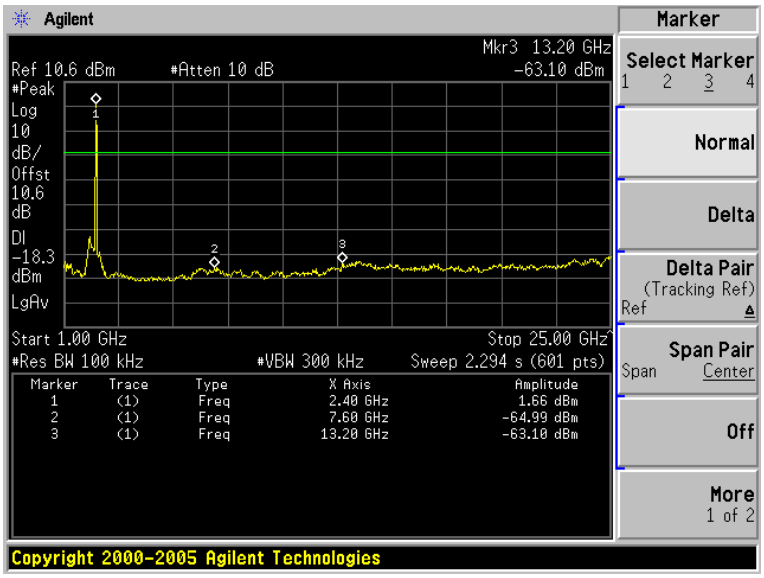
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz.

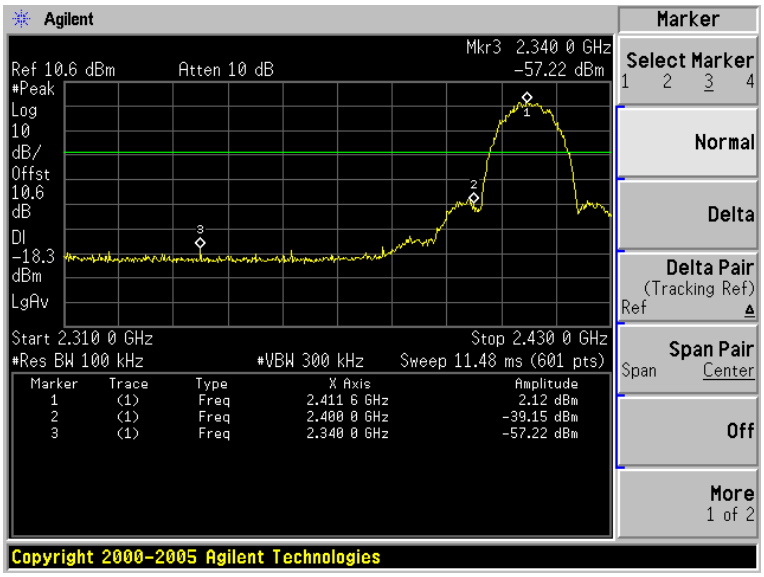
6.4.Test result

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

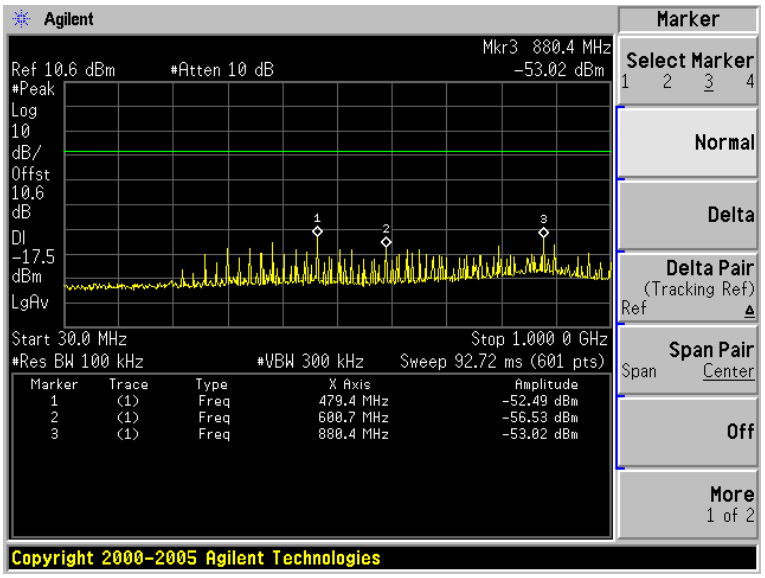
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz

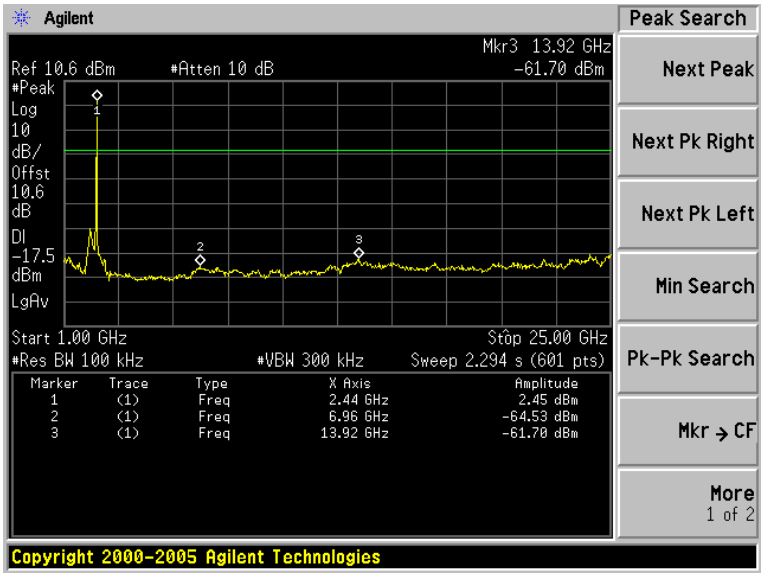




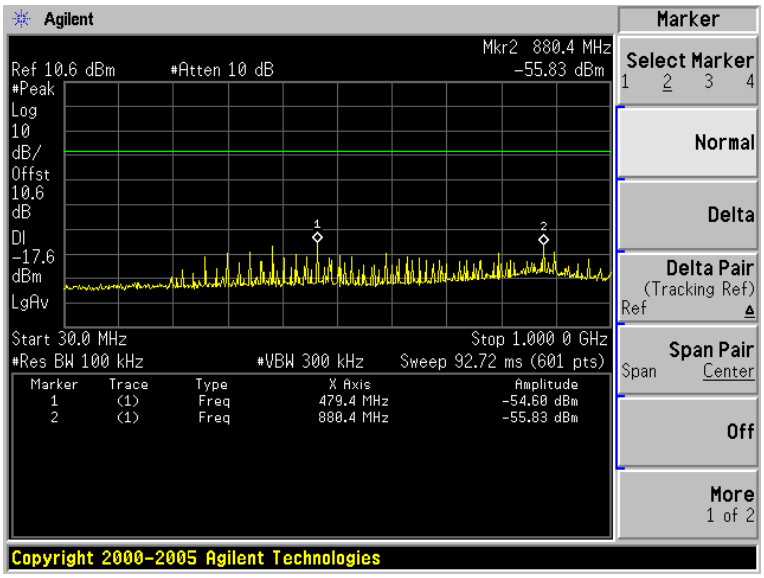


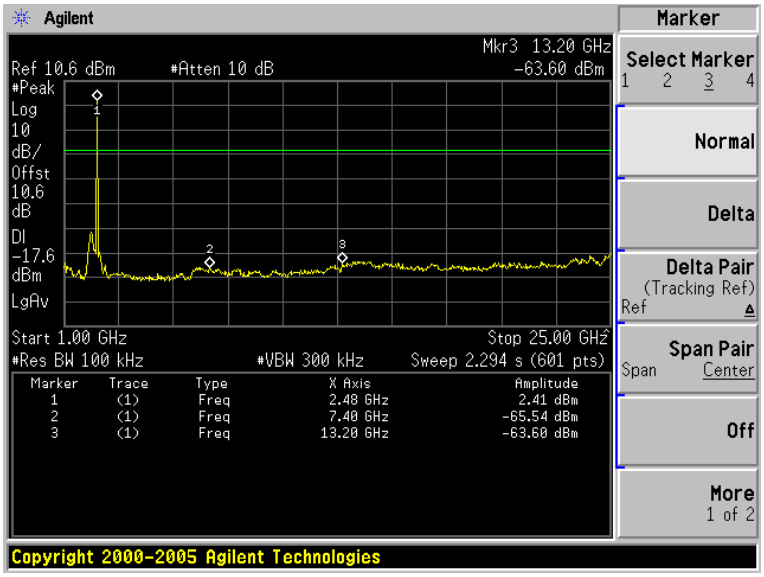
Test Mode: IEEE 802.11b TX
Test CH6: 2437MHz

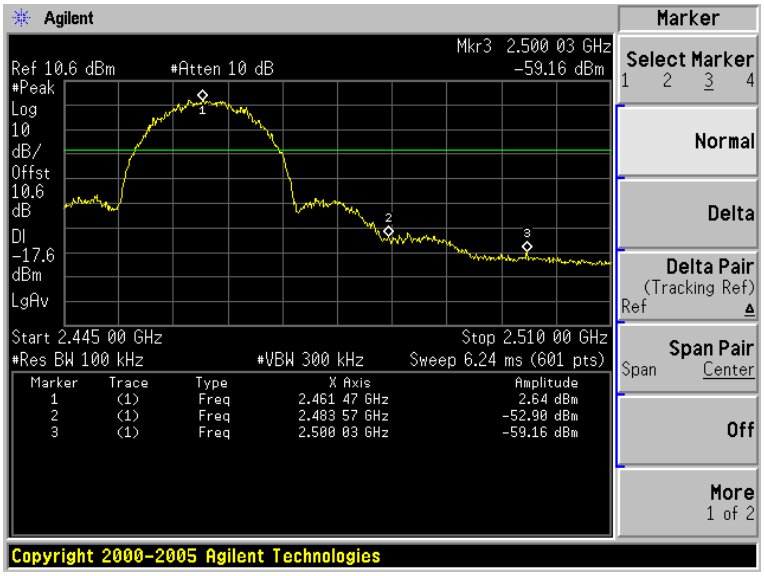




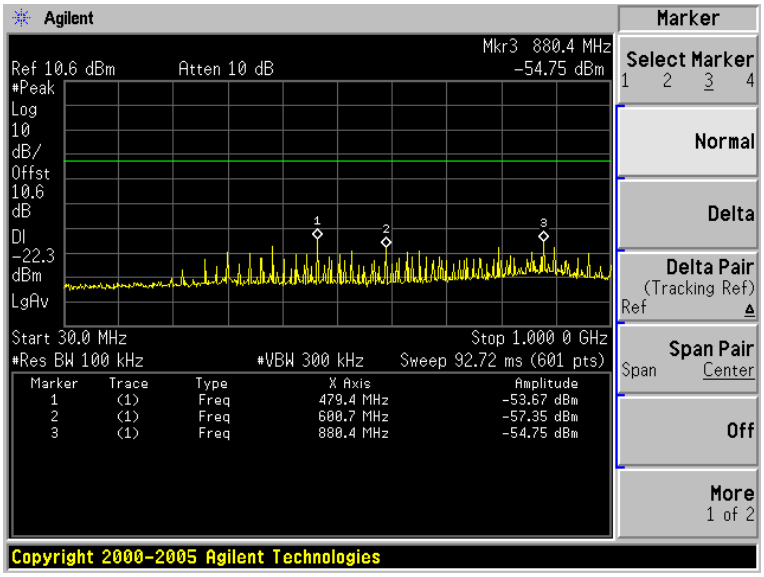
Test Mode: IEEE 802.11b TX
Test CH11: 2462MHz

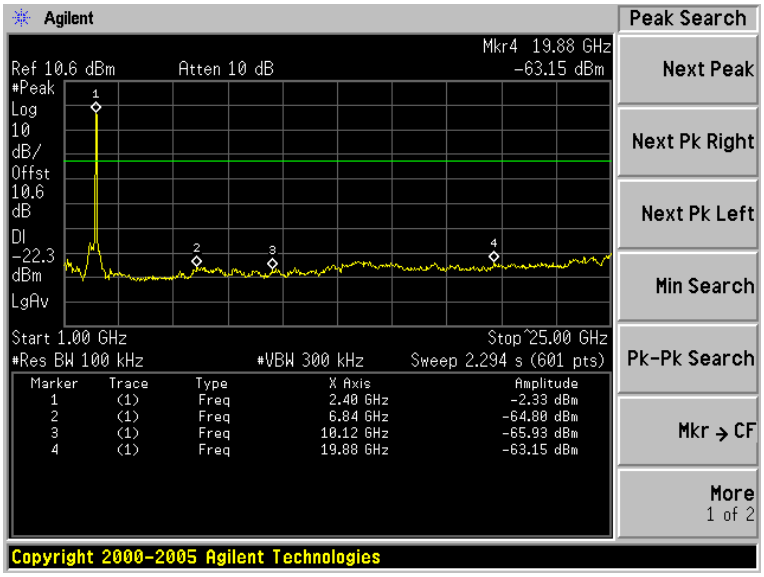


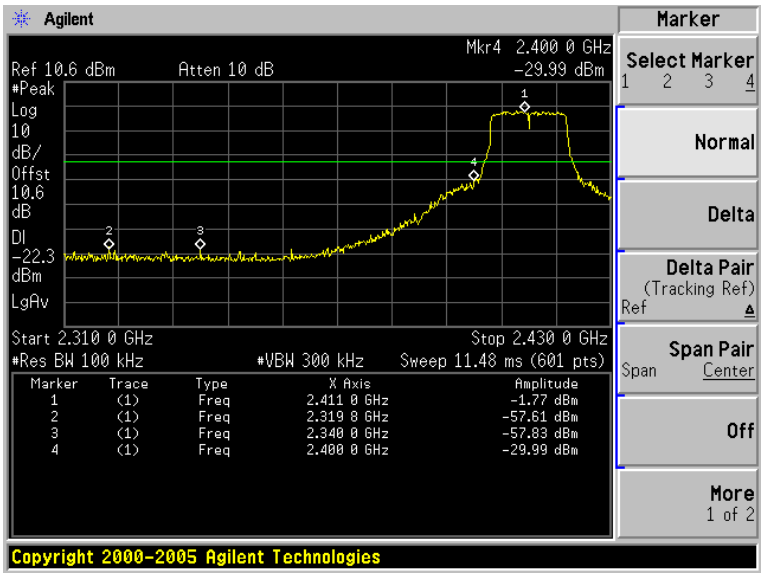




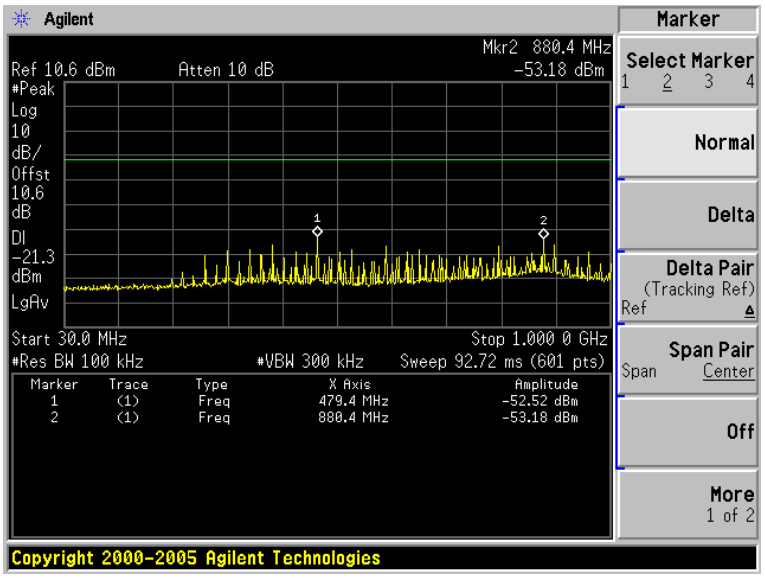
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz

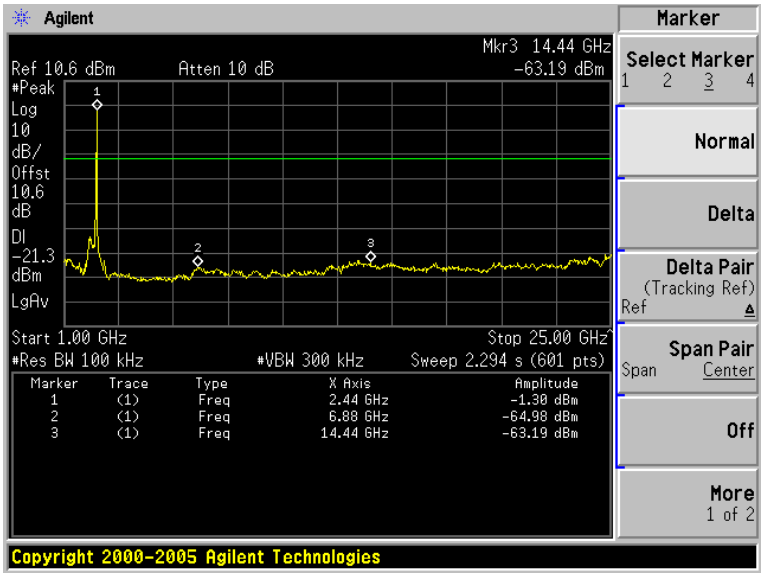




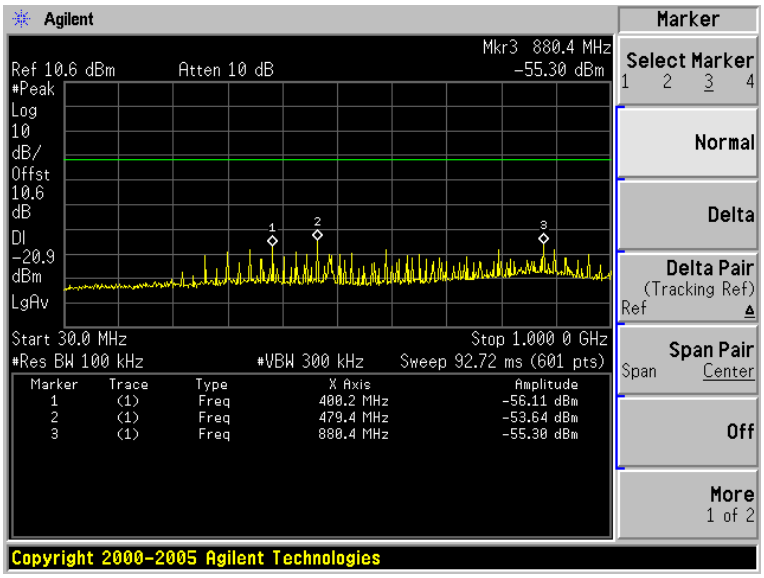


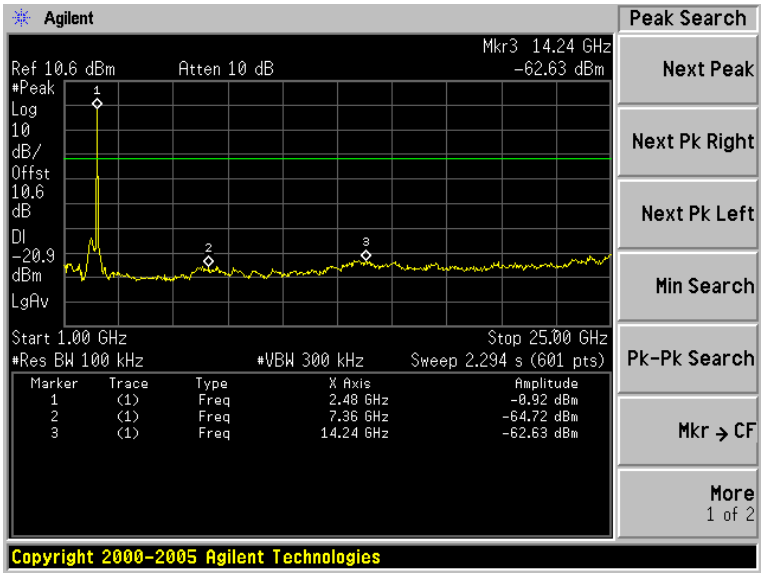
Test Mode: IEEE 802.11g TX
Test CH6: 2437MHz

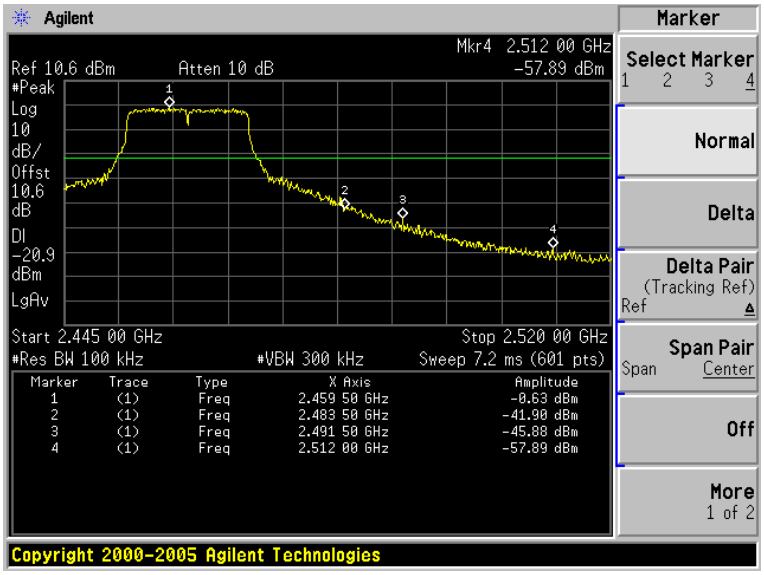




Test Mode: IEEE 802.11g TX
Test CH11: 2462MHz







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,10, 08	1 Year
2.	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 100 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

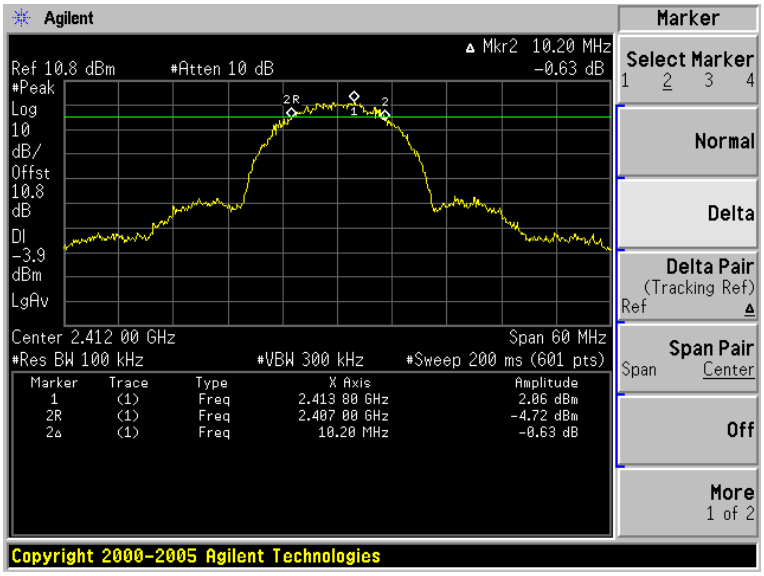
CH	6dB Bandwidth (MHz)	Limit	Conclusion
1	10.20	>500	PASS
6	10.00	>500	PASS
11	10.30	>500	PASS

Test Mode: IEEE 802.11g TX

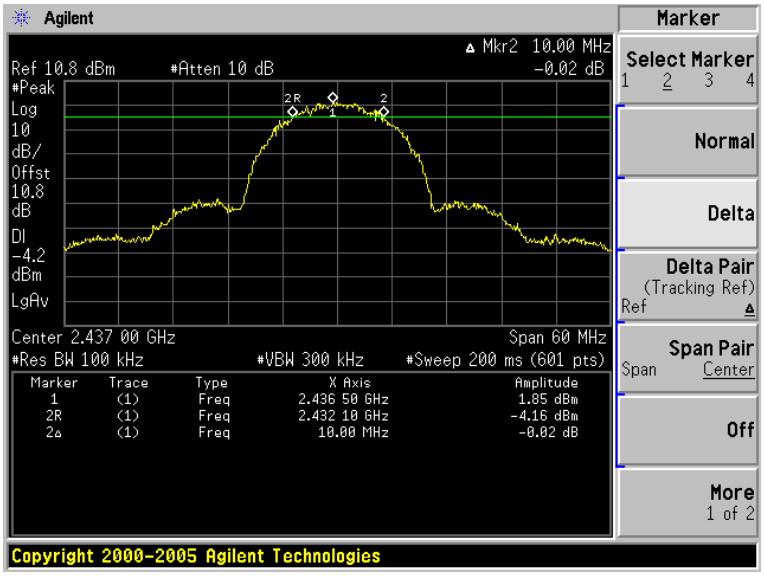
CH	6dB Bandwidth (MHz)	Limit	Conclusion
1	16.50	>500	PASS
6	16.30	>500	PASS
11	16.50	>500	PASS

Test Mode: IEEE 802.11b TX

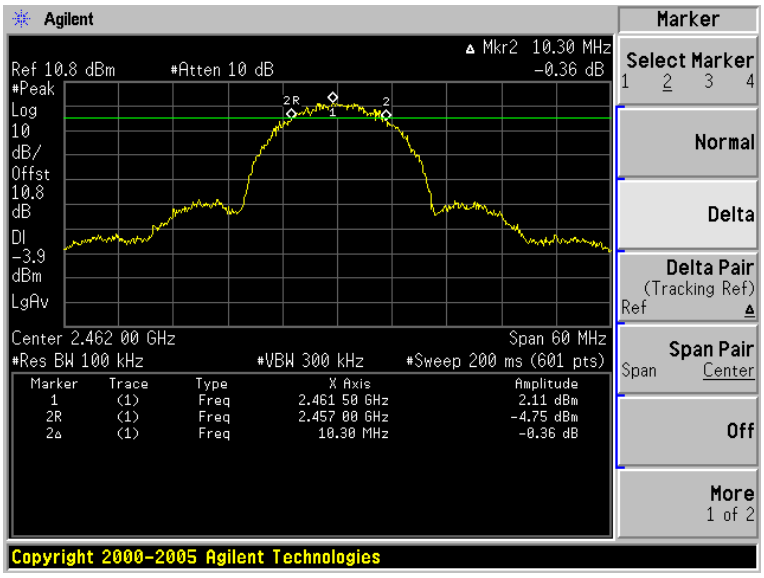
Test CH1: 2412MHz



Test CH6: 2437MHz

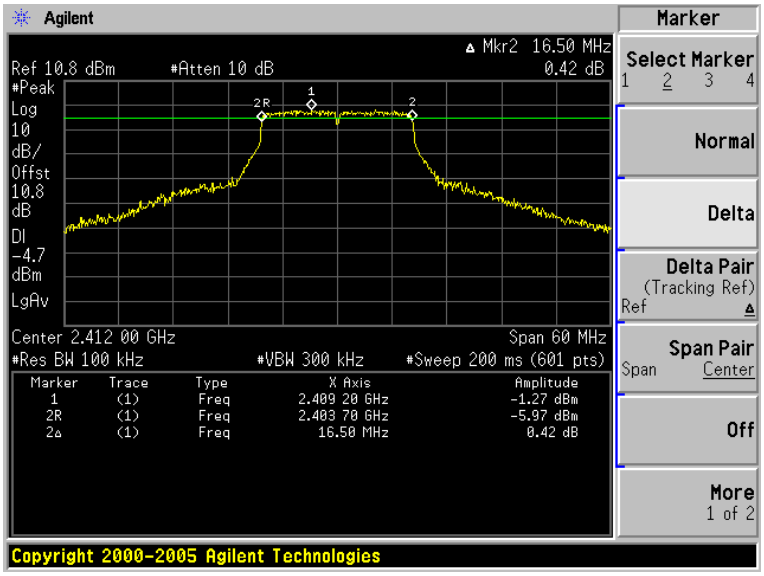


Test CH11: 2462MHz

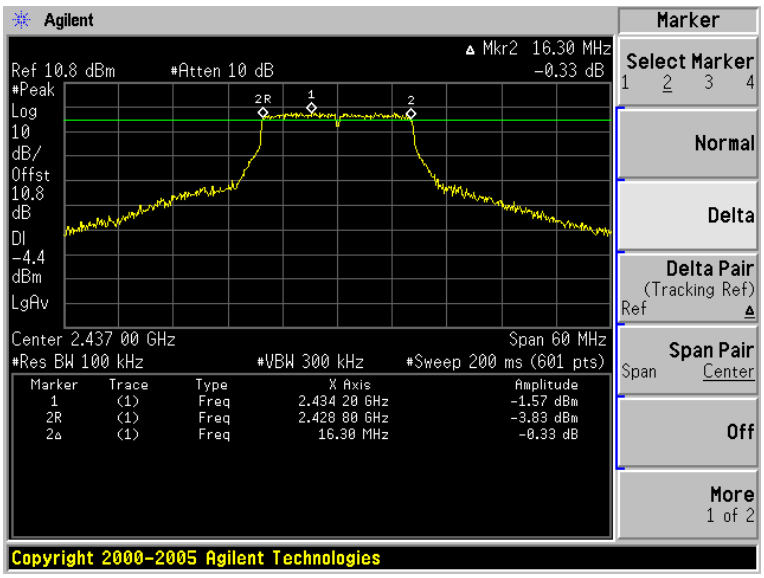


Test Mode: IEEE 802.11g TX

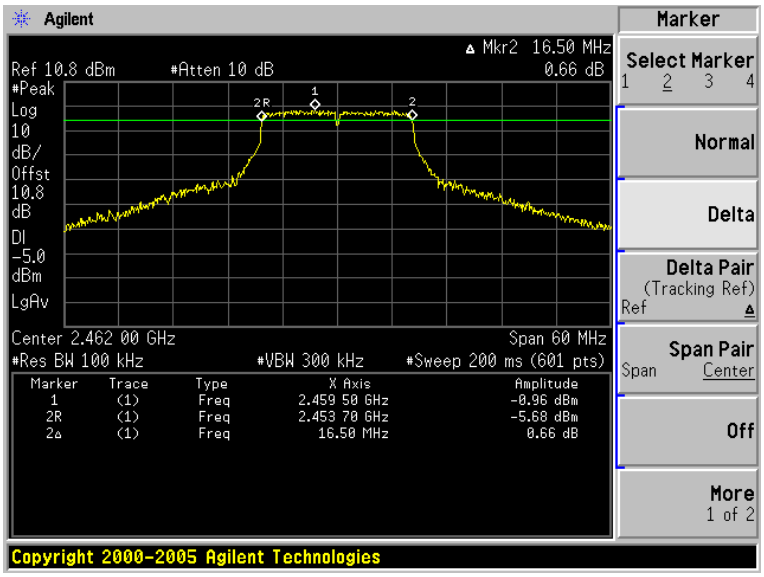
Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Attenuator	Agilent	8491B	MY39262165	May,28, 08	1 Year
2.	Spectrum Analyzer	Agilent	E4446A	US44300459	May,10, 08	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May,28, 08	1Year
4.	RF Cable	Hubersuhner	SUCOFLEX 102	28622/2	May,28, 08	1 Year

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

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 or EUT

8.4.Test Results

EUT: High-Gain Wireless USB Adapter				MN: TL-WN422G			
Power: DC 5V From PC input AC 120V/60Hz							
Data Rate:11b 1Mbps；11g：6Mbps；(Note 1)							
Ambient Temperature:23℃			Relative Humidity: 60%				
Test date: 2008/10/27			Test site: RF site		Tested by: Sunny		
Test CH: CH1:2412MHz CH6:2437MHz CH11:2462MHz							
Mode	CH	PK Read (dBm)	Cable Loss (dBm)	Attenuator (dB)	Result (dBm)	Limit (dBm)	Conclusion
11b	CH1	-6.53	0.60	20.0	14.07	30.00	PASS
	CH6	-6.35	0.60	20.0	14.25	30.00	PASS
	CH11	-6.68	0.60	20.0	13.92	30.00	PASS
11g	CH1	0.03	0.60	20.0	20.63	30.00	PASS
	CH6	0.19	0.60	20.0	20.79	30.00	PASS
	CH11	-0.18	0.60	20.0	20.42	30.00	PASS
Note1: According Exploratory test,These data rate have the maximum output power							
Result= 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,10, 08	1 Year
2.	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.

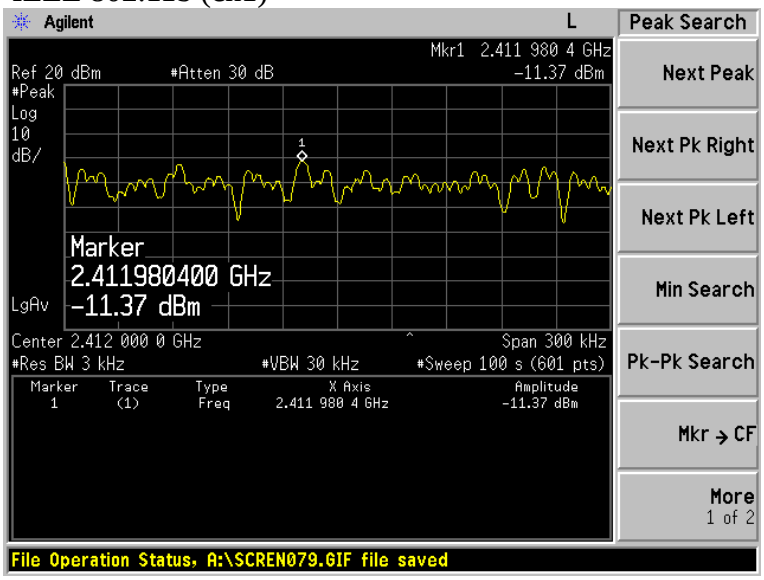
9.3.Test Procedure

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.

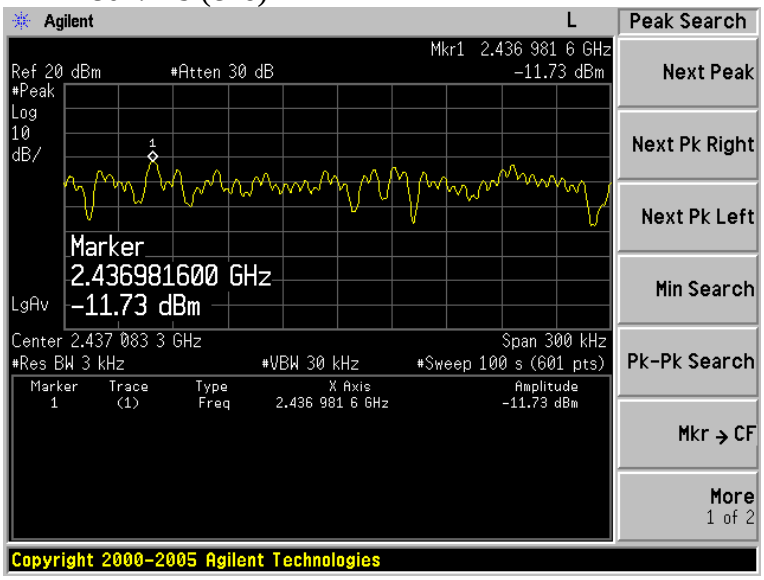
9.4.Test Results

EUT: High-Gain Wireless USB Adapter M/N:TL-WN422G						
Power: DC 5V From PC input AC 120V/60Hz						
Data Rate:11b: 1Mbps；11g：6Mbps (Note 1)						
Ambient Temperature:23℃		Relative Humidity: 60%				
Test date: 2008/10/27		Test site: RF site		Tested By: Sunny		
Test CH	CH1:2412MHz CH6:2437MHz CH11:2462MHz					
Mode	CH	Read (dBm)	Cable Loss (dB)	Result (dBm)	Limit (dBm)	Conclusion
11b	CH1	-11.37	0.6	-10.77	8.00	Pass
	CH6	-11.73	0.6	-11.13	8.00	Pass
	CH11	-12.33	0.6	-11.73	8.00	Pass
11g	CH1	-16.82	0.6	-16.22	8.00	Pass
	CH6	-17.11	0.6	-16.51	8.00	Pass
	CH11	-16.41	0.6	-15.81	8.00	Pass
Note1:According Exploratory test, These data rate have the maximum output power						
Note2:Result=Read+ cable loss						

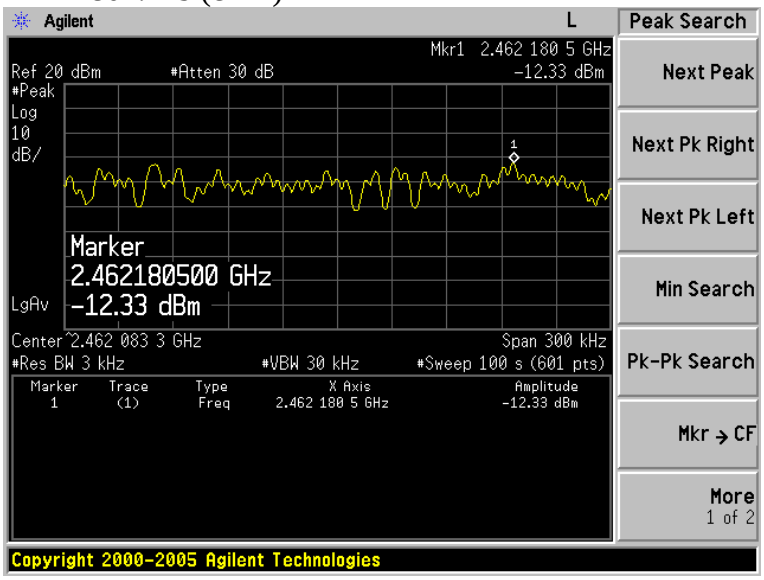
IEEE 802.11b (ch1)



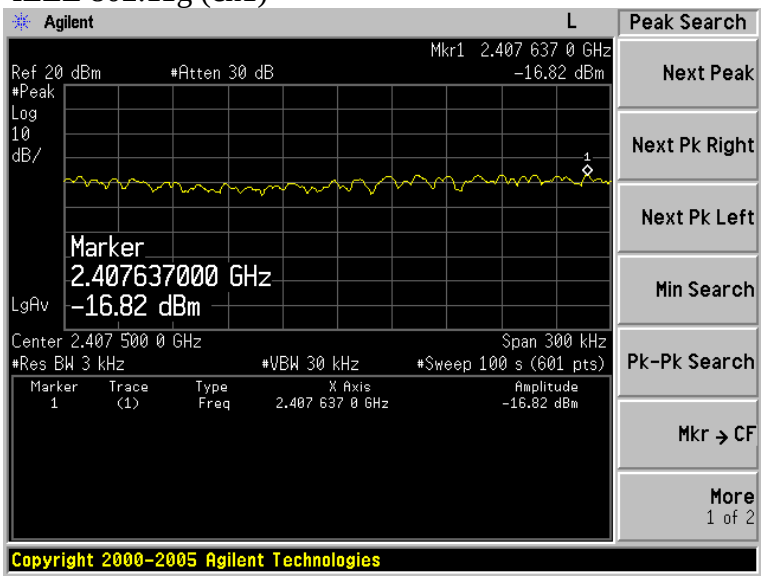
IEEE 802.11b (ch6)



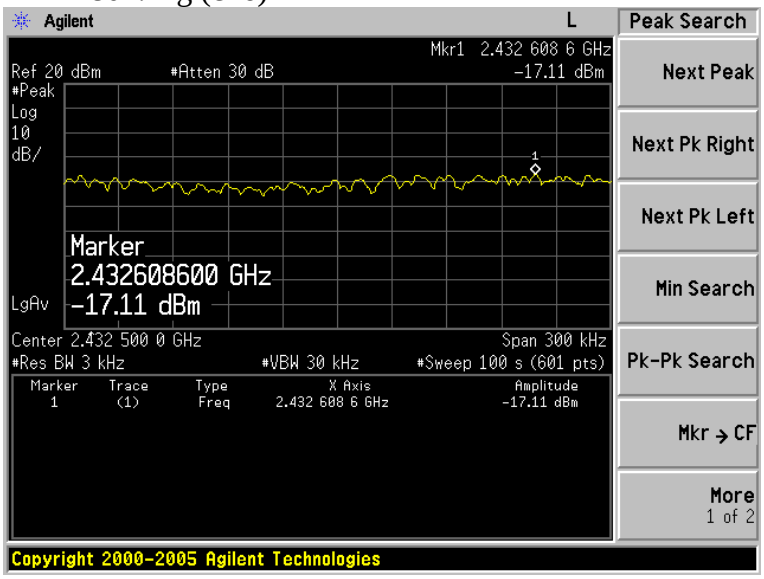
IEEE 802.11b (ch11)



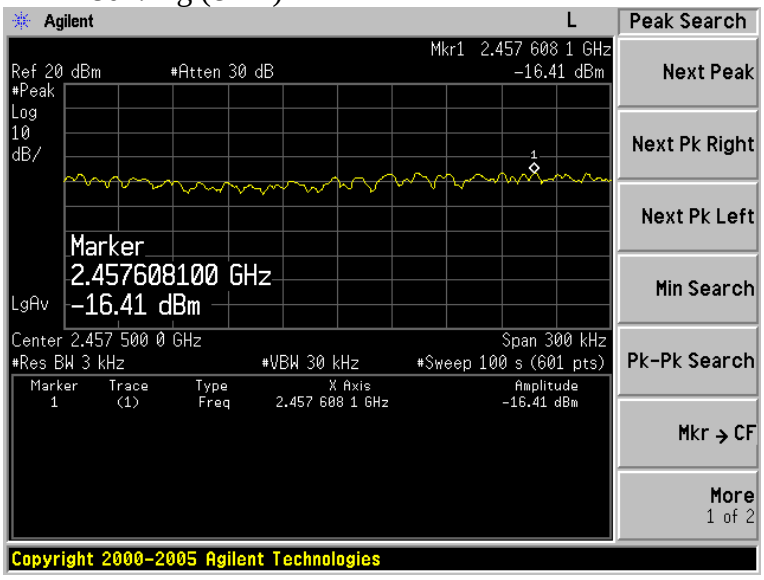
IEEE 802.11g (ch1)



IEEE 802.11g (ch6)



IEEE 802.11g (ch11)



10. ANTENNA REQUIREMENT

10.1 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.

10.2 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 4dBi.

11.DEVIATION TO TEST SPECIFICATIONS

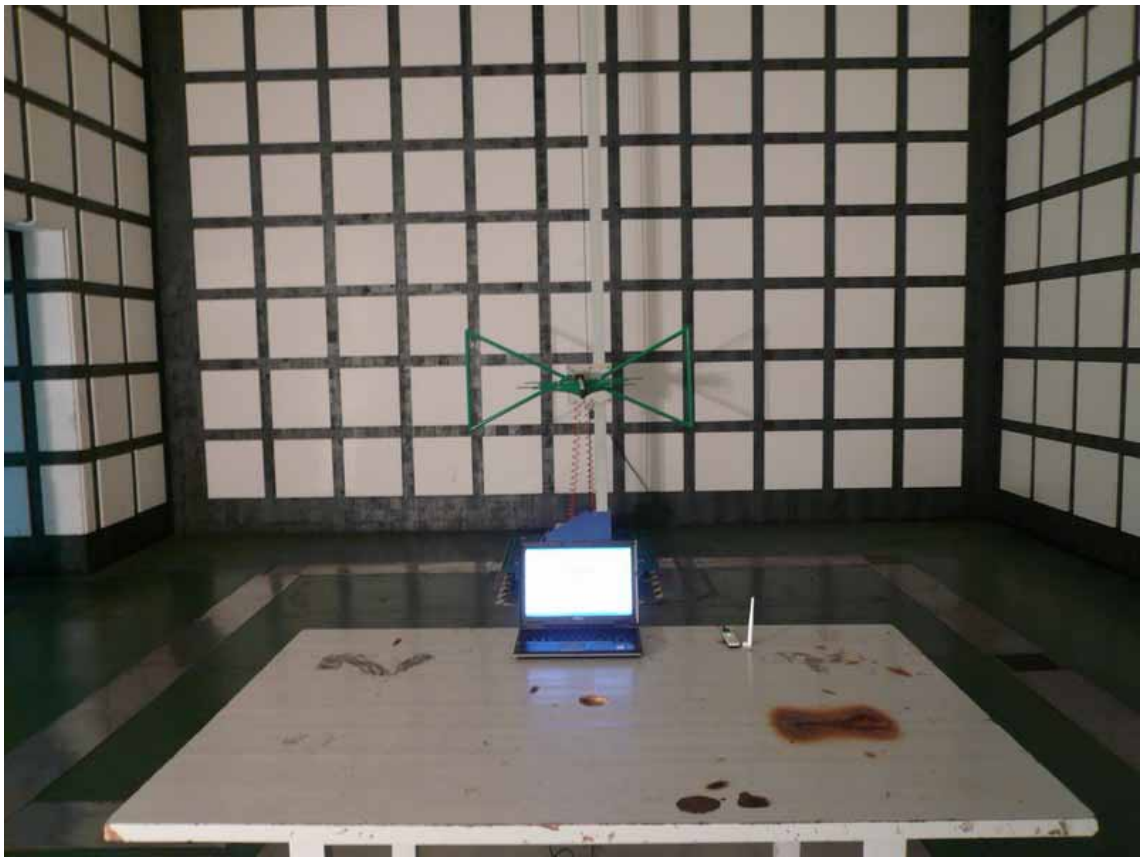
[NONE]

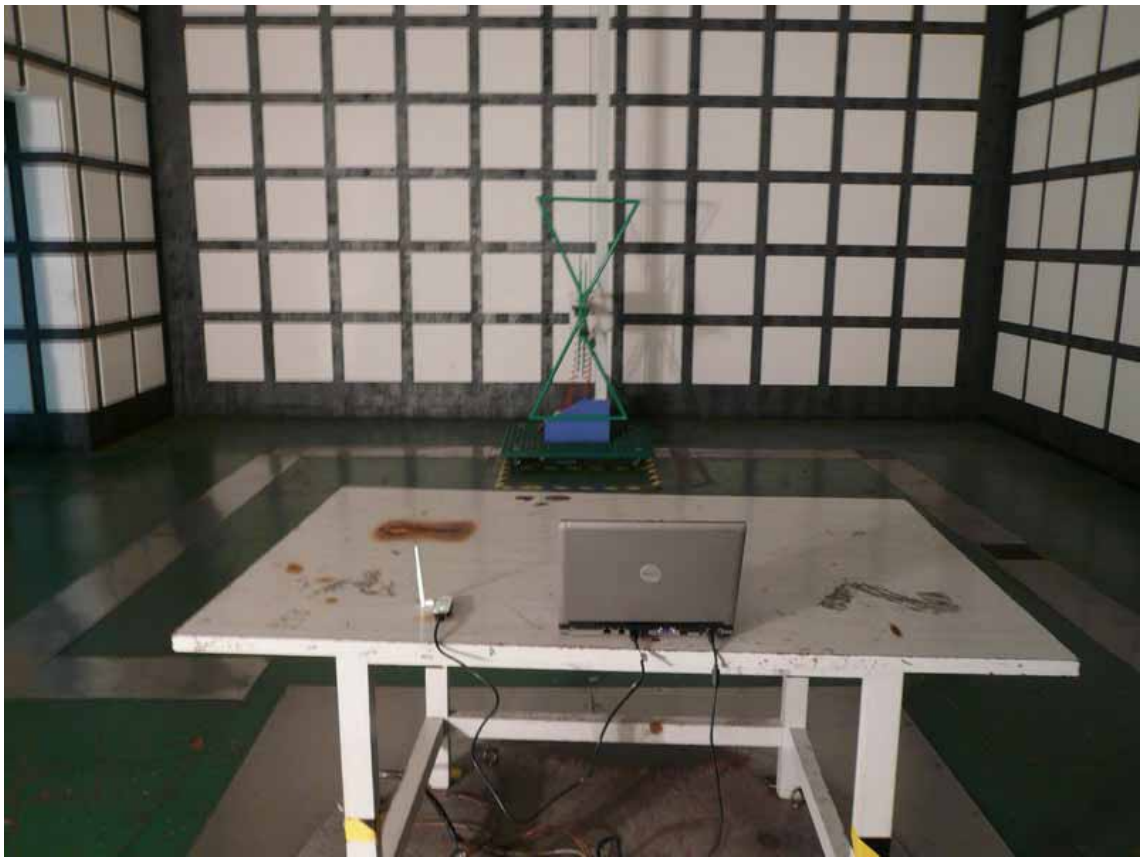
12.PHOTOGRAPH OF TEST

12.1.Photos of Power Line Conducted Emission Test

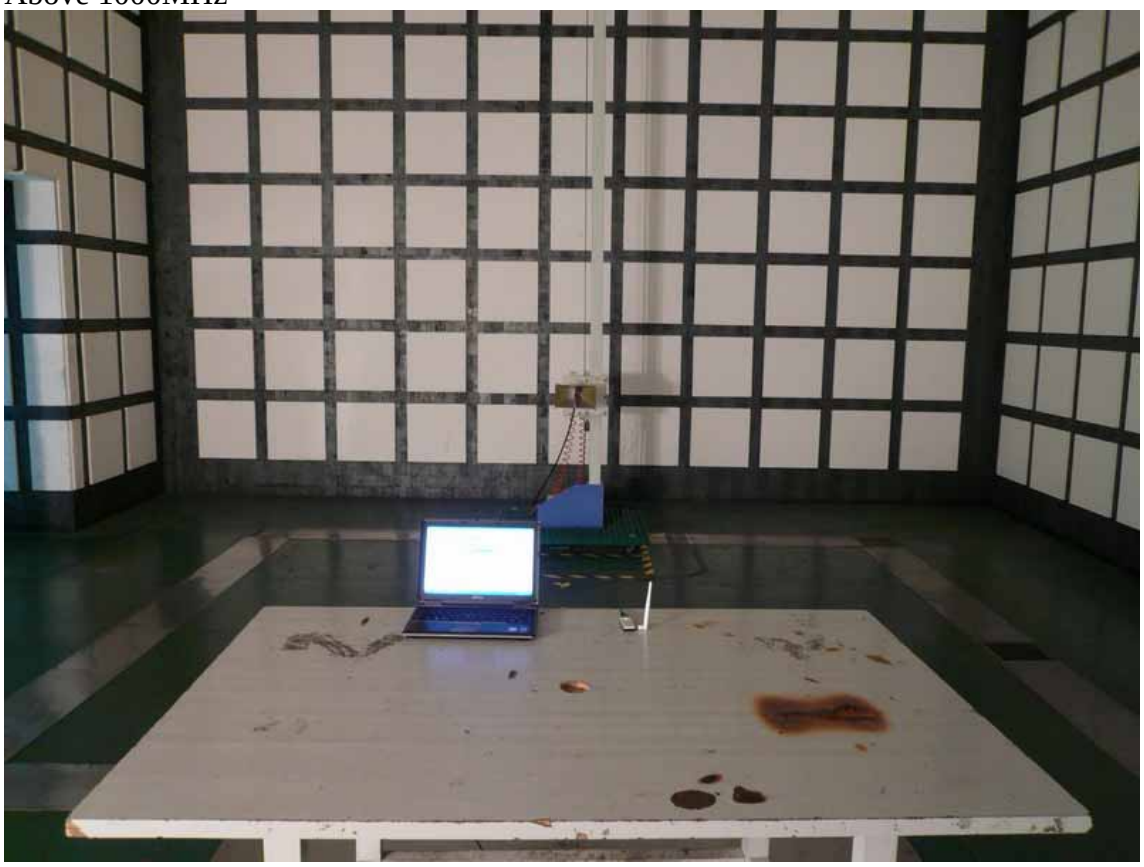
12.2.Photos of Radiated Emission Test

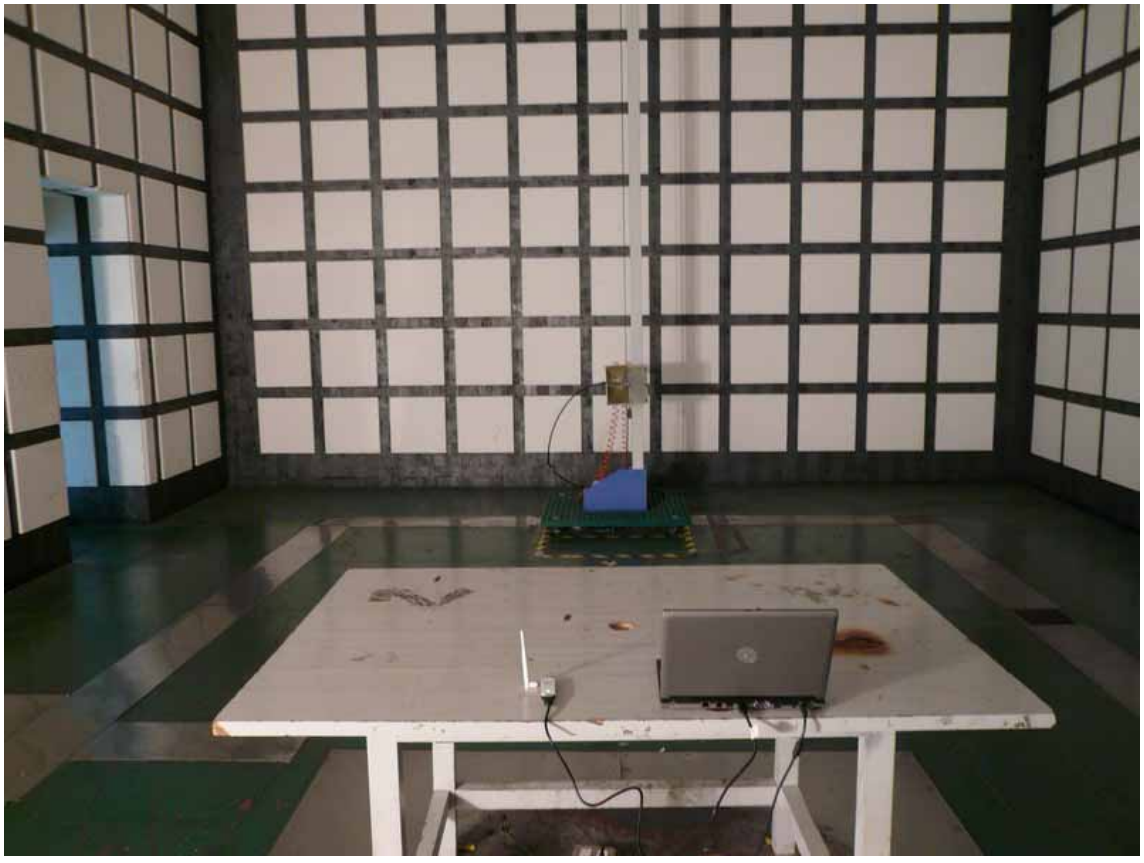
30-1000MHz





Above 1000MHz





13. PHOTOGRAPH OF EUT

Figure 1
General Appearance of the EUT

Figure 2
General Appearance of the EUT

Figure 3
General Appearance of the EUT

Figure 4
General Appearance of the EUT

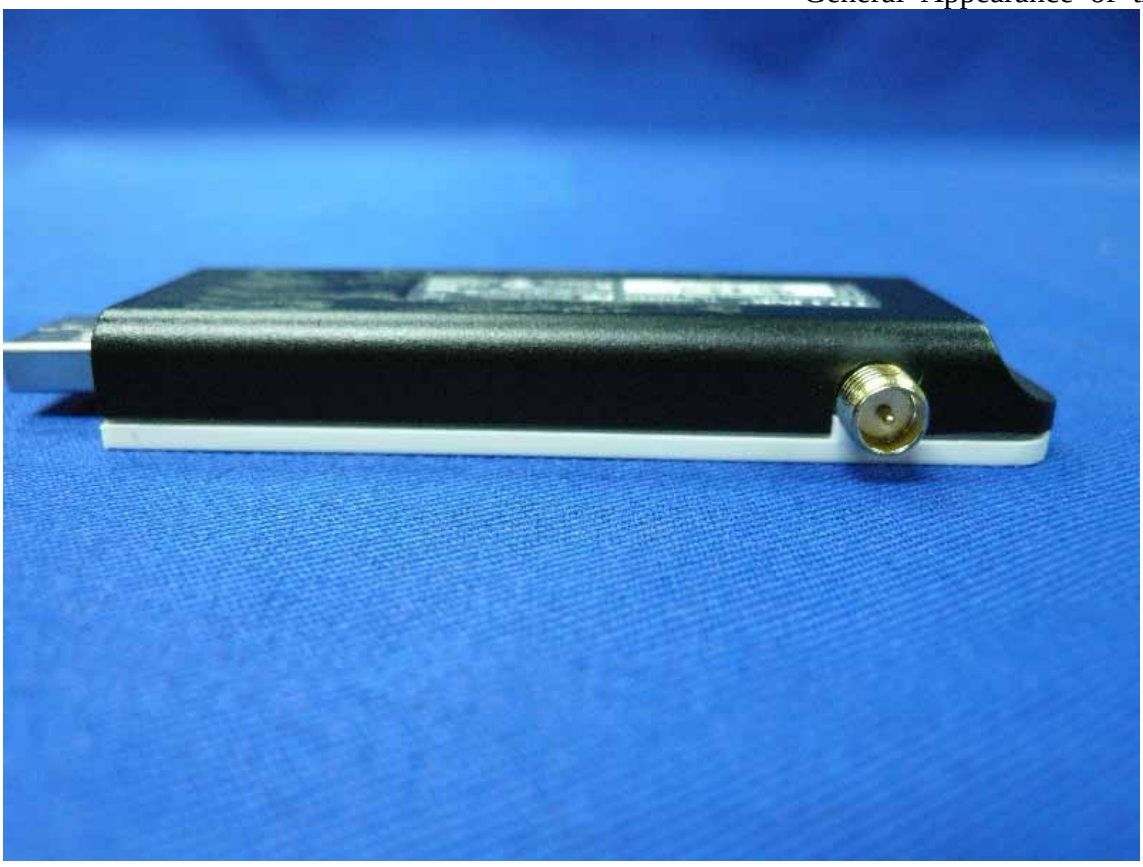


Figure 5
General Appearance of the EUT

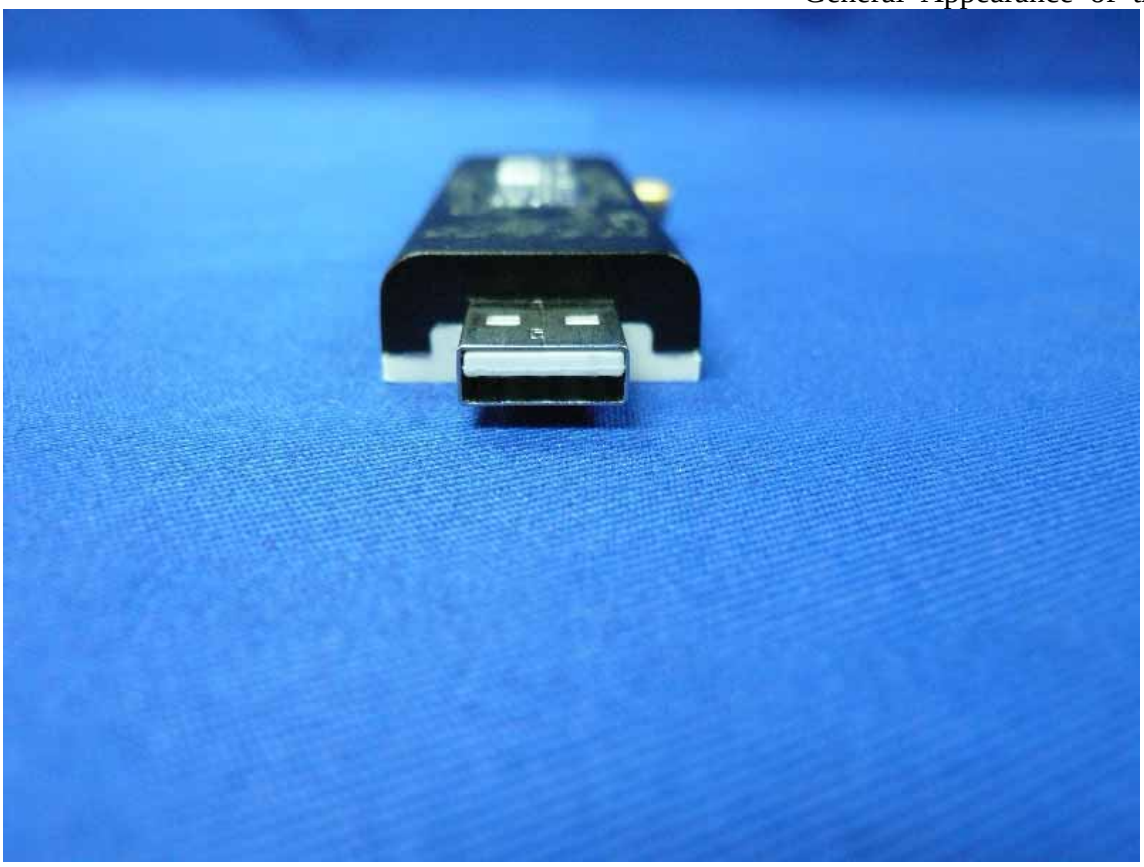


Figure 6
Inside of the EUT

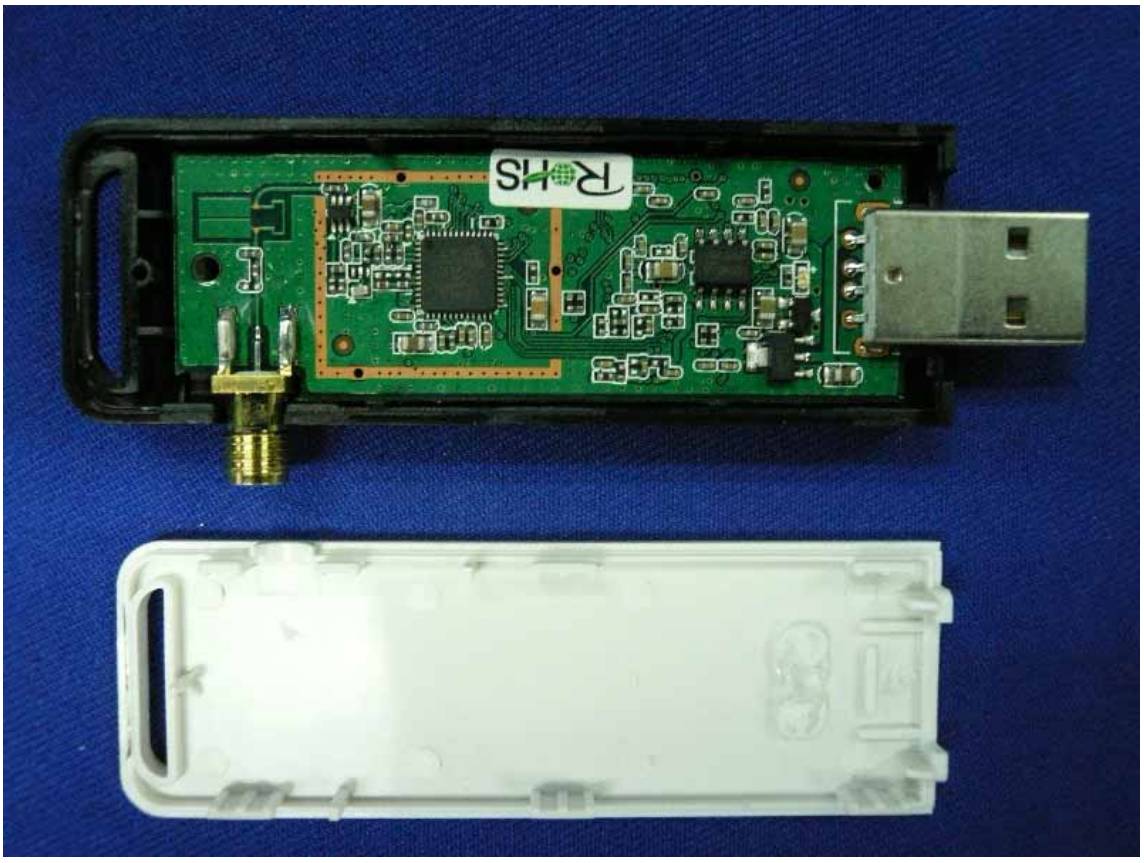


Figure 7
Components Side of the PCB

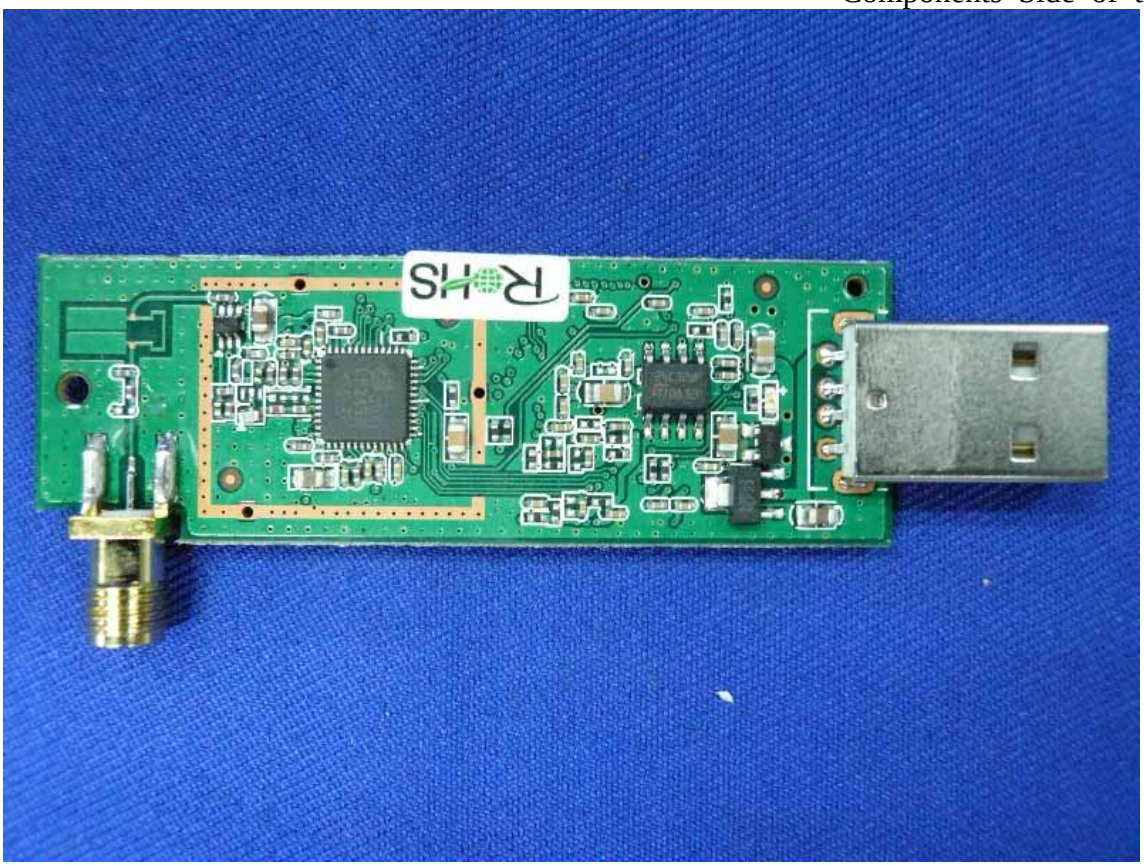


Figure 8
Components Side of the PCB