FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

TP-LINK TECHNOLOGIES CO., LTD.

150Mbps Wireless N ADSL2+ Modem Router

Model No.: TD-W8901N

FCC ID: TE7TDW8901NV2

Prepared for : TP-LINK TECHNOLOGIES CO., LTD.
Building 24(floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

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Report Number	:	ACS-F14072
Date of Test	:	Feb.12~27, 2014
Date of Report	:	Mar.05, 2014

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TEST REPORT CERTIFICATION

Applicant	:	TP-LINK TECHNOLOGIES CO., LTD.
Manufacturer	:	TP-LINK TECHNOLOGIES CO., LTD.
EUT Description	:	150Mbps Wireless N ADSL2+ Modem Router
FCC ID	:	TE7TDW8901NV2

(A) MODEL NO. : TD-W8901N
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : AC 100-240V, 50/60Hz
(D) TEST VOLTAGE : DC 9V From Adapter Input AC 120V/60Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2012

Test procedure used:
ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. 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 and IC requirements. This report contains data that are not covered by the NVLAP accreditation.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

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..

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Feb.12~27, 2014 Report of date: Mar.05, 2014

Prepared by : Julia Zhu
Julia Zhu / Assistant

Reviewed by :
Sunny Lu / Assistant Manager

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: David Jin

Approved & Authorized Signer :
David Jin / 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	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Radiated Emission	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS
Band Edge Compliance	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name	:	150Mbps Wireless N ADSL2+ Modem Router
Model Number	:	TD-W8901N
FCC ID	:	TE7TDW8901NV2
Operation Frequency	:	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE802.11n HT20: 2412MHz—2462MHz IEEE802.11n HT40: 2422MHz—2452MHz
Channel Number	:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7Channels
Modulation Technology	:	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Assembly Gain	:	Dipole antenna, PK gain 5dBi
Applicant	:	TP-LINK TECHNOLOGIES CO., LTD. Building 24(floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Manufacturer	:	TP-LINK TECHNOLOGIES CO., LTD. Building 24(floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
Power Adapter	:	Manufacturer: TP-LINK; M/N: T090060-2B1 Cable: Unshielded, Detachable,1.5m
Date of Test	:	Feb.12~27, 2014
Date of Receipt	:	Feb.11, 2014
Sample Type	:	Prototype production

2.2.Test Information

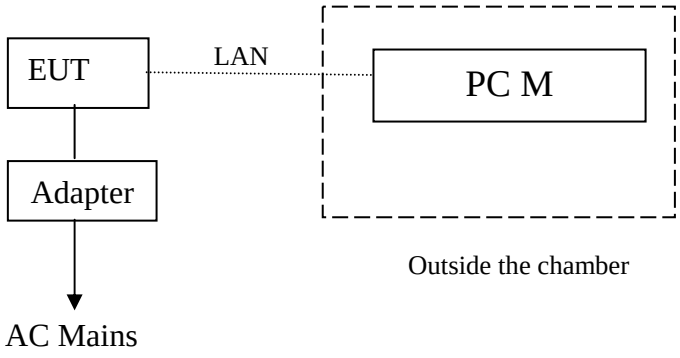
A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11	Low :CH1	2412
	11	Middle: CH6	2437
	11	High: CH11	2462
IEEE 802.11g	54	Low :CH1	2412
	54	Middle: CH6	2437
	54	High: CH11	2462
IEEE 802.11n HT20	6.5	Low :CH1	2412
	6.5	Middle: CH6	2437
	6.5	High: CH11	2462
IEEE 802.11n HT40	13.5	Low :CH1	2422
	13.5	Middle: CH4	2437
	13.5	High: CH7	2452
Note1: According exploratory test, EUT will have maximum PK output power in those data rate, so those data rate were used for all test.			

2.3.Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1	Personal Computer	Test PC M	DELL	Studio 540	224XK2X	☑FCC DoC ☑BSMI ID:R33002
		Power Cord: Unshielded, Detachable, 1.8m Display Card: HD3450 (DVI+VGA+HDMI)				

2.4.Block Diagram of Test Setup



(EUT: 150Mbps Wireless N ADSL2+ Modem Router)

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	:	Certificated by FCC, USA Registration Number: 90454 Valid Date: Feb.22, 2015
3m & 10m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 794232 Valid Date: Oct.31, 2015
EMC Lab.	:	Certificated by Industry Canada Registration Number: IC 5183A-1 Valid Date: Jun.13, 2014
	:	Certificated by DAkkS, Germany Registration No: D-PL-12151-01-00 Valid Date: Dec.15, 2016
	:	Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2014

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

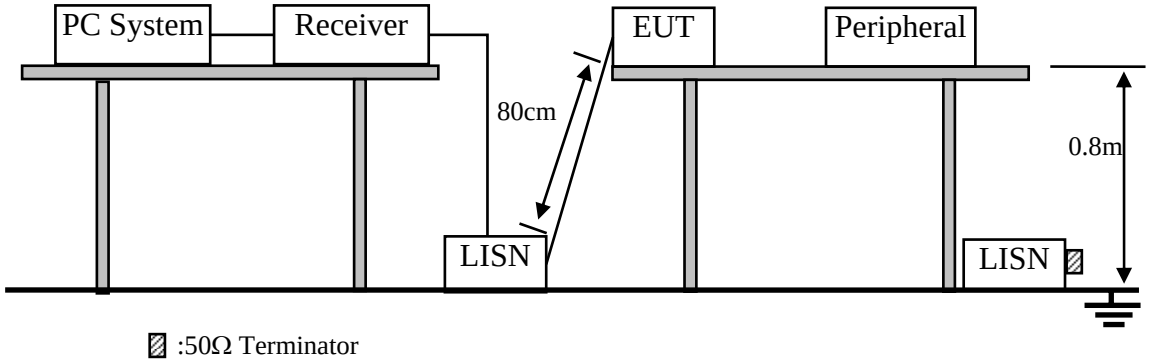
Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.08dB(9KHz to 150KHz)
	3.1dB(150kHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	3.22 dB(30~200MHz, Polarize: H)
	3.23 dB(30~200MHz, Polarize: V)
	3.49 dB(200M~1GHz, Polarize: H)
	3.39 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	4.97 dB(1~6Ghz, Distance: 3m)
	4.99 Db(6~18Ghz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57 dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Power density test	2.00 dB
Uncertainty for Frequency range test	$7x10^{-8}$
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	Apr.18,13	1 Year
2.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 13	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 13	1 Year
4.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 13	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 13	1 Year
6.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 13	1 Year
7.	RF Cable	Fujikura	3D-2W	No.1	May.08, 13	1 Year
8.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 13	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 13	1 Year
10.	MPEG2 Measurement Generator	ROHDE&SCHWARZ	DVG	100319	Dec.11, 13	1 Year
11.	TV Transmitter	ROHDE&SCHWARZ	SFQ	100521	May.08, 13	1 Year
12.	Signal Generator	HP	8648A	3625U00573	May.08, 13	1 Year
13.	Pattern Generator	Philiphs	PM5418	LO625020	May.08, 13	1 Year

3.2.Block Diagram of Test Setup



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. 150Mbps Wireless N ADSL2+ Modem Router (EUT)

Model Number : TD-W8901N
Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5. Operating Condition of EUT

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

3.5.2. Turned on the power of all equipment.

3.5.3. PC run test software to control EUT work in Tx mode.

3.6. Test Procedure

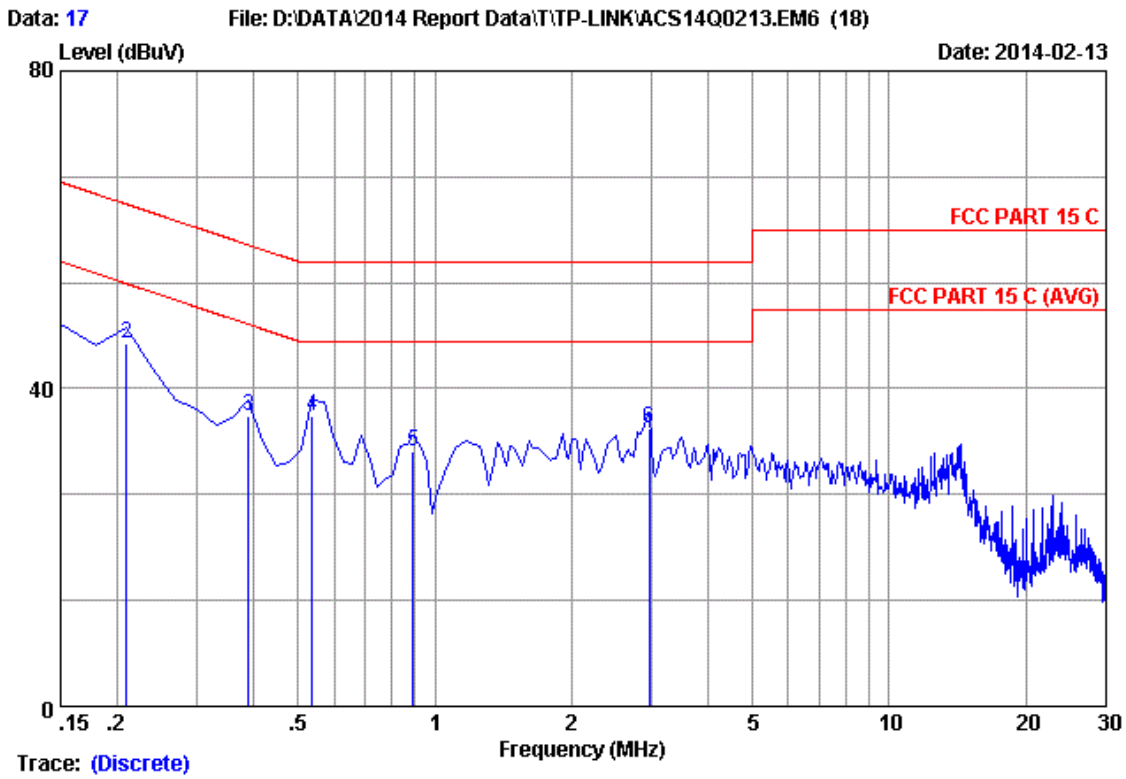
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 9kHz.

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

3.7. Power Line Conducted Emission Test Results

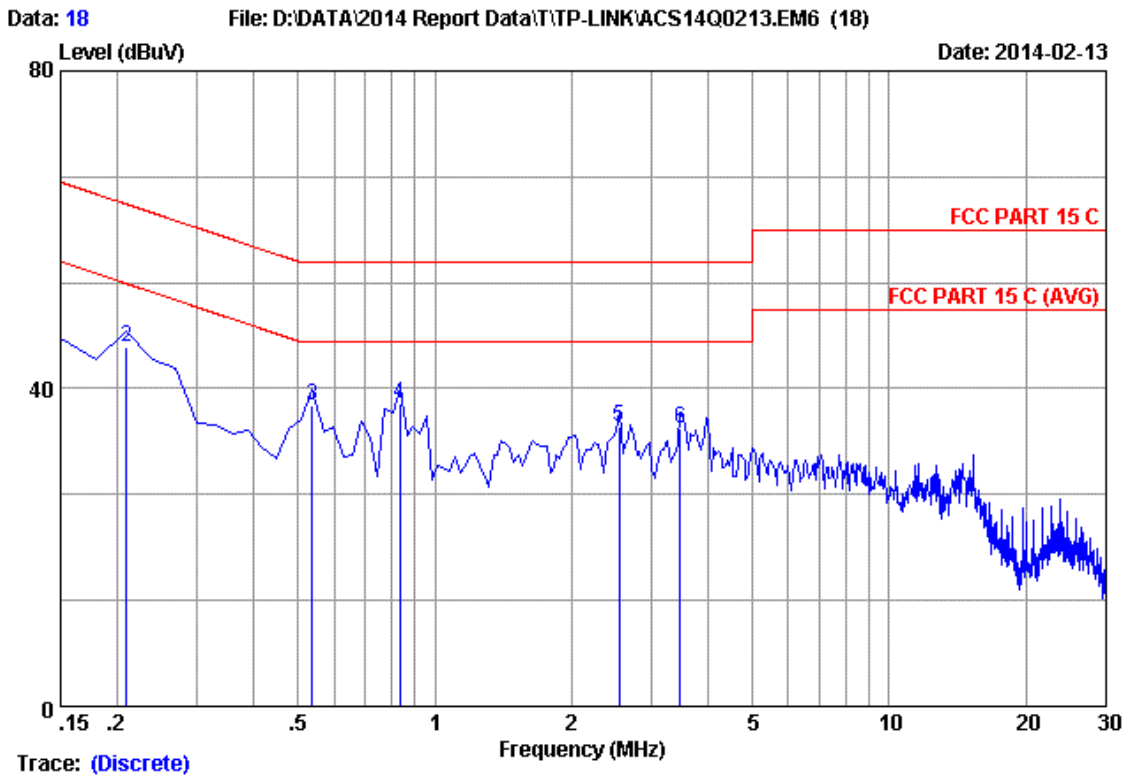
PASS. **(**All emissions not reported below are too low against the prescribed limits.)



Site no :1#conduction Data No :17
Dis./Ant. :2014 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :20.9*C/38% Engineer :Nick_Huang
EUT :150Mbps Wireless N ADSL2+ Modem Router
Power Rating :DC 9V From Adapter Input AC 120V/60Hz
Test Mode :TX Mode
M/N:TD-W8901N

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.12	0.01	45.95	46.08	66.00	19.92	QP
2	0.20970	0.13	0.01	45.53	45.67	63.22	17.55	QP
3	0.38880	0.14	0.02	36.42	36.58	58.09	21.51	QP
4	0.53805	0.15	0.02	36.28	36.45	56.00	19.55	QP
5	0.89625	0.17	0.03	31.92	32.12	56.00	23.88	QP
6	2.956	0.22	0.05	34.63	34.90	56.00	21.10	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.



Site no :1#conduction Data No :18
Dis./Ant. :2014 ESH2-Z5 NEUTRAL
Limit :FCC PART 15 C
Env./Ins. :20.9*C/38% Engineer :Nick_Huang
EUT :150Mbps Wireless N ADSL2+ Modem Router
Power Rating :DC 9V From Adapter Input AC 120V/60Hz
Test Mode :TX Mode
M/N:TD-W8901N

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.13	0.01	44.17	44.31	66.00	21.69	QP
2	0.20970	0.13	0.01	45.02	45.16	63.22	18.06	QP
3	0.53805	0.15	0.02	37.78	37.95	56.00	18.05	QP
4	0.83655	0.16	0.03	37.83	38.02	56.00	17.98	QP
5	2.538	0.22	0.05	34.85	35.12	56.00	20.88	QP
6	3.463	0.25	0.05	34.59	34.89	56.00	21.11	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

4.1.1. For frequency range 30MHz~1000MHz (At Anechoic Chamber)

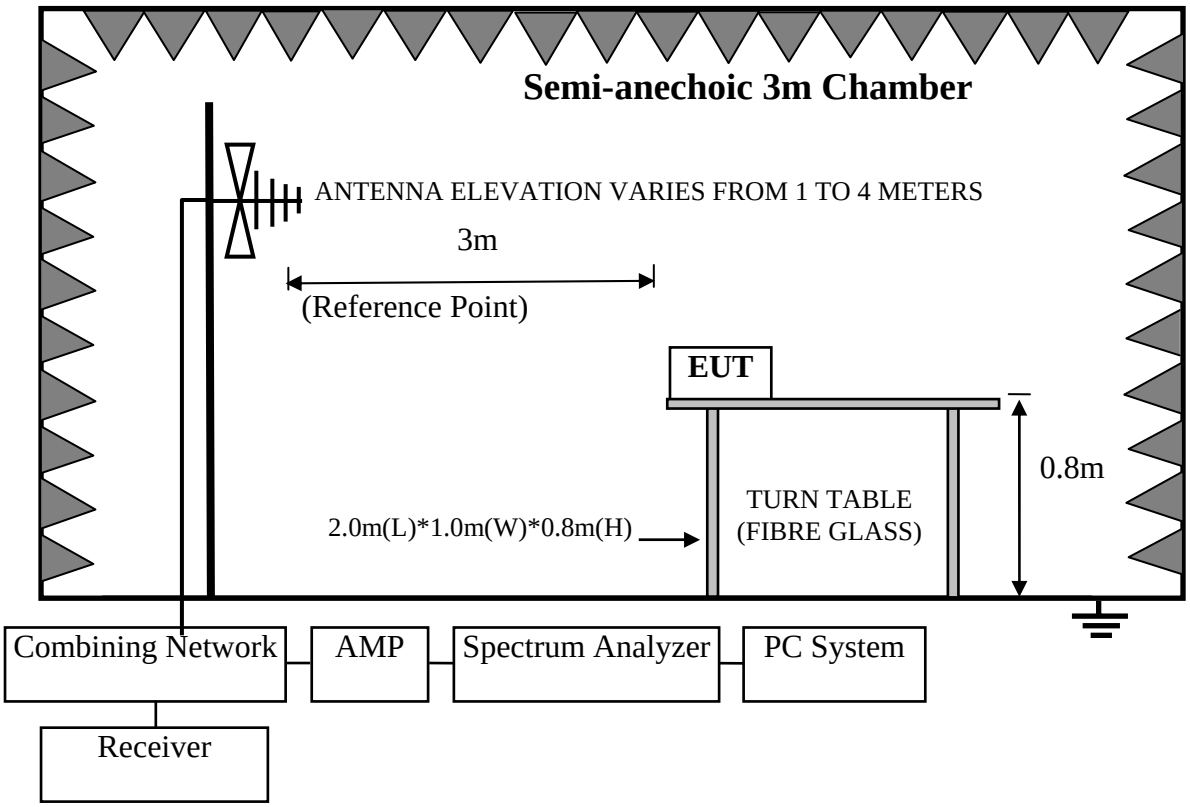
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Nov.24, 13	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 13	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 13	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 13	1 Year
5	Bilog Antenna	TESEQ	CBL6112D	35375	May.30, 13	1 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	May.08, 13	1 Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 13	1 Year

4.1.2. For frequency range 1GHz~25GHz (At Anechoic Chamber)

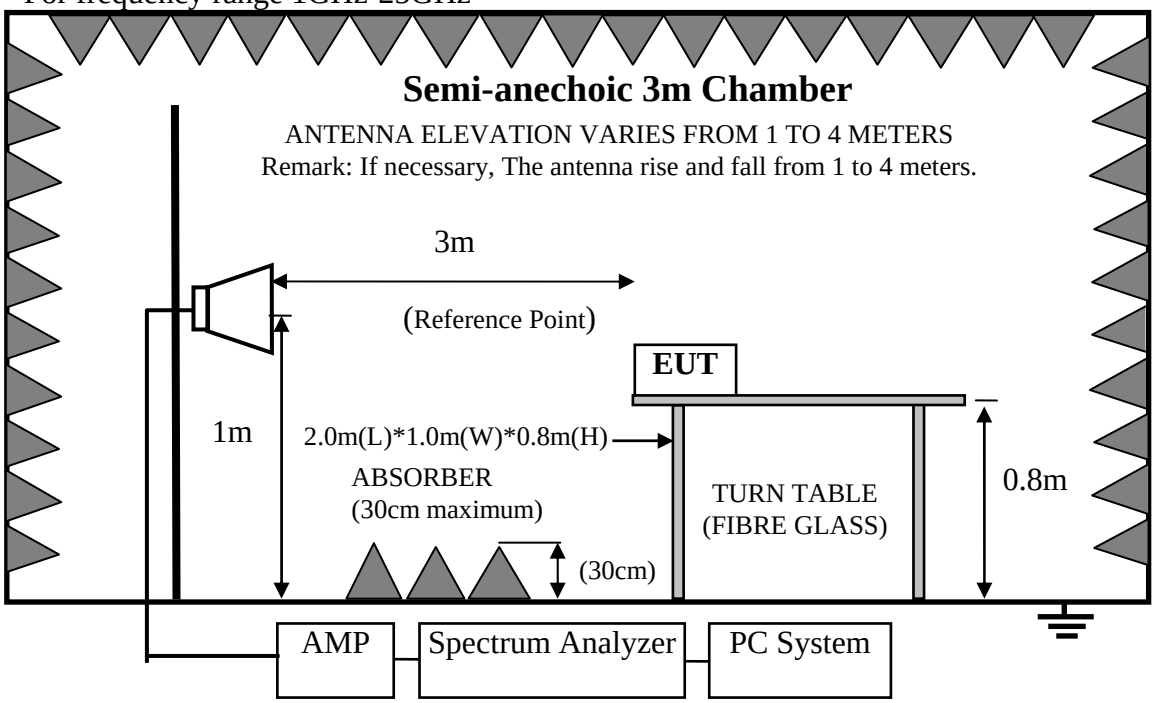
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 13	1 Year
2	Horn Antenna	EMCO	3115	9607-4580	Aug.28, 13	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 13	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77980/6	May.08, 13	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	May.08, 13	1 Year
6	Horn Antenna	EMCO	3116	00060089	Aug.28, 13	1 Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz



For frequency range 1GHz-25GHz



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) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

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 configurations of EUT are listed in Section 3.5.

4.5.Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6.Test Procedure

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

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

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

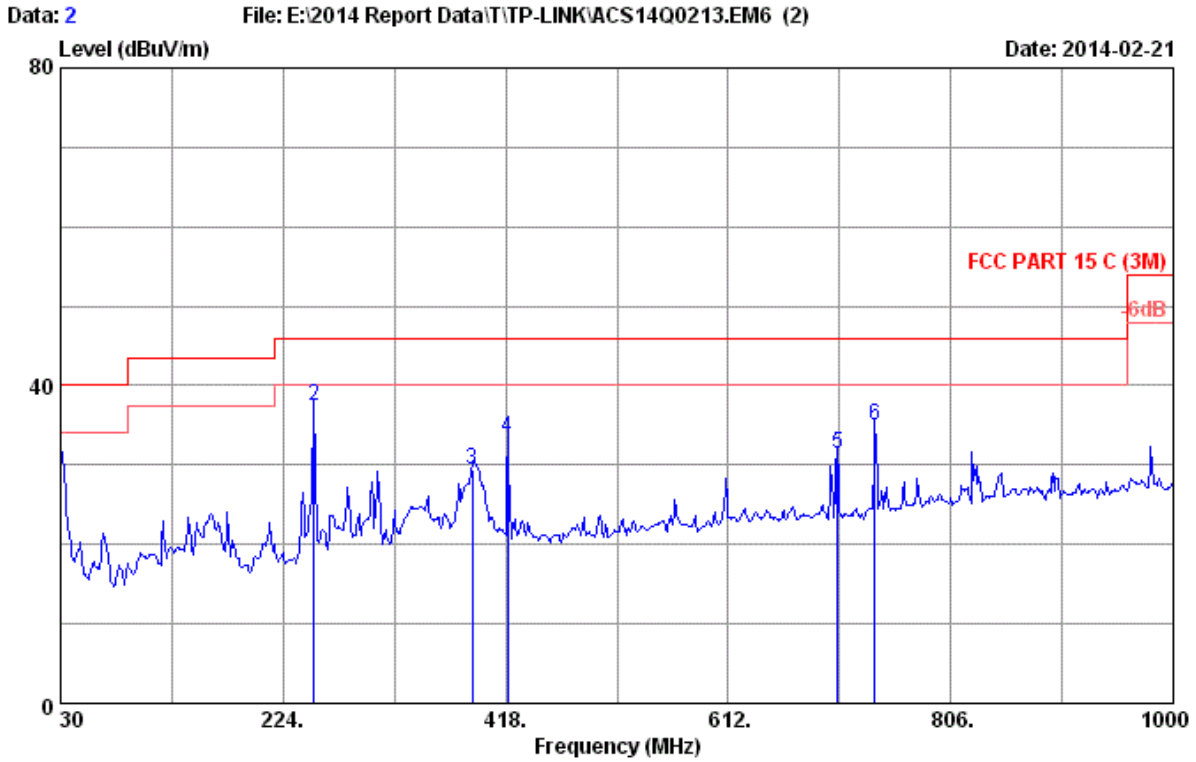
4.7.Radiated Emission Test Results

PASS.

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

Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

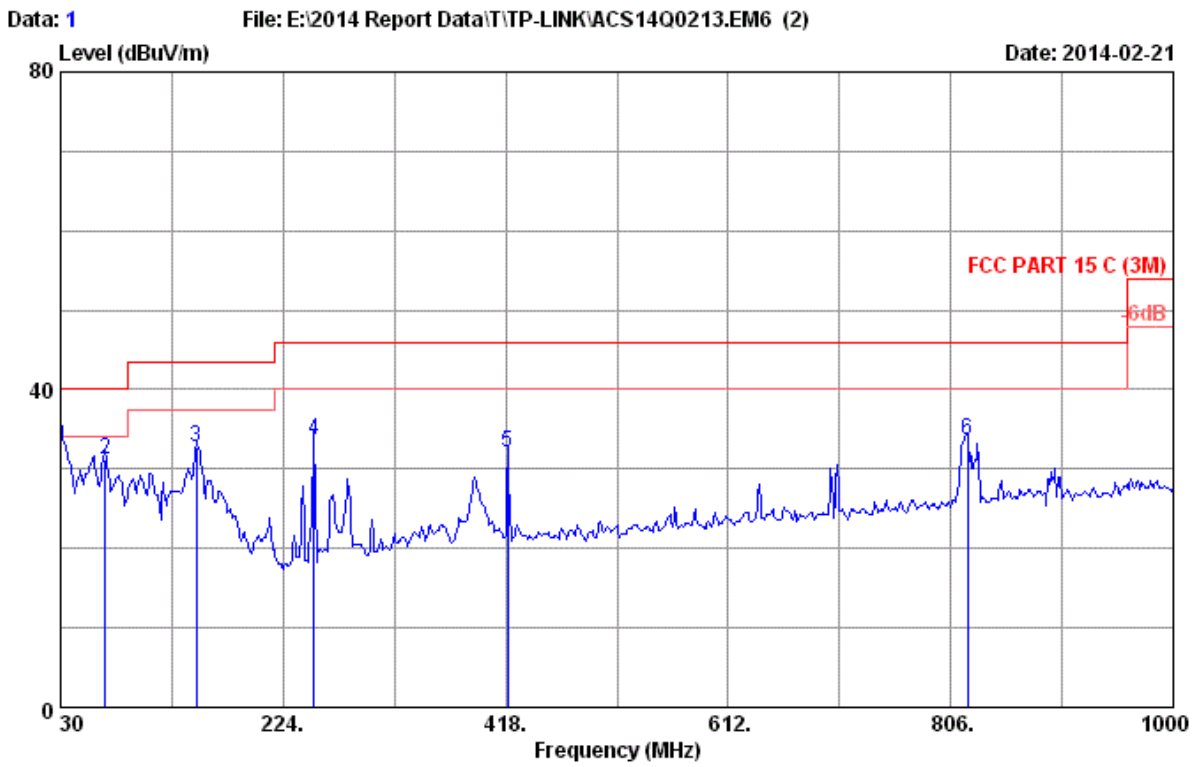
Frequency: 30MHz~1GHz




```
Site no.      : 3m Chamber                    Data no.   : 2
Dis. / Ant.   : 3m   2013 CBL6112D 35375      Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15 C (3M)
Env. / Ins.   : 22.5*C/47%                    Engineer   : Even_Deng
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power rating  : DC 9V From Adapter Input AC 120V/60Hz
Test Mode     : TX Mode
                M/N:TD-W8901N
```

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.10	0.83	9.75	30.68	40.00	9.32	QP
2	251.160	13.16	1.98	22.24	37.38	46.00	8.62	QP
3	388.900	16.16	2.43	10.86	29.45	46.00	16.55	QP
4	419.940	17.40	2.52	13.50	33.42	46.00	12.58	QP
5	707.060	19.90	3.34	8.12	31.36	46.00	14.64	QP
6	740.040	20.30	3.44	11.25	34.99	46.00	11.01	QP

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

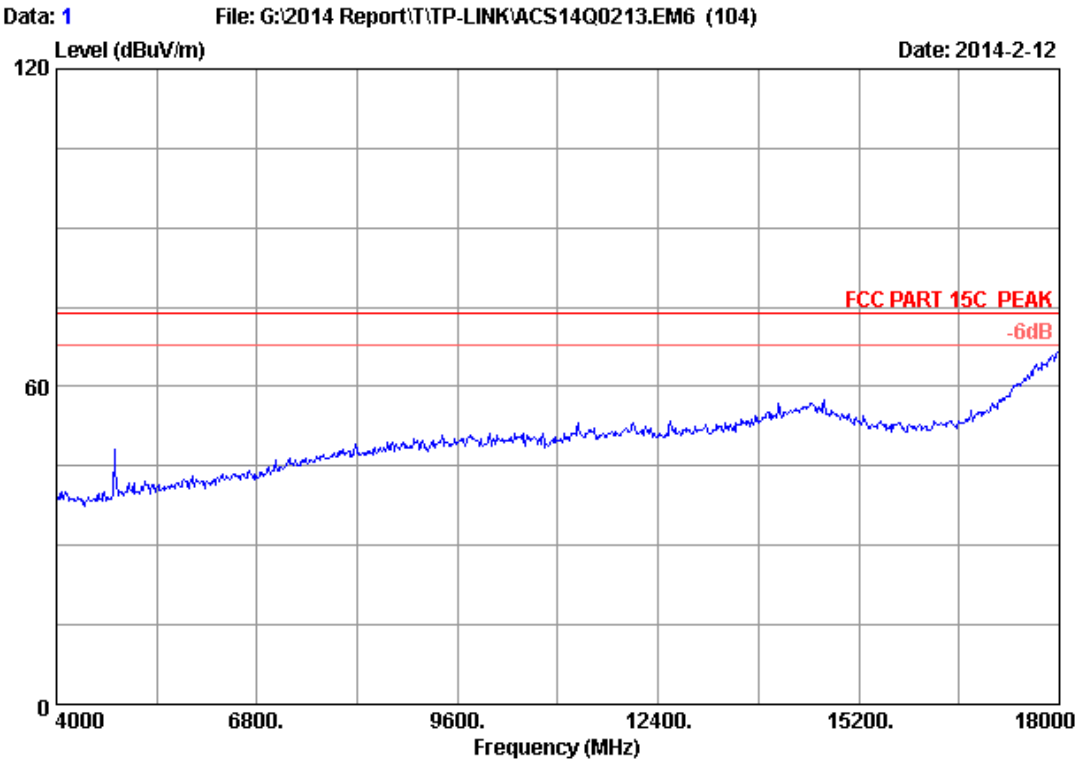


Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2013 CBL6112D 35375 Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 22.5*C/47% Engineer : Even_Deng
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power rating : DC 9V From Adapter Input AC 120V/60Hz
Test Mode : TX Mode
M/N:TD-W8901N

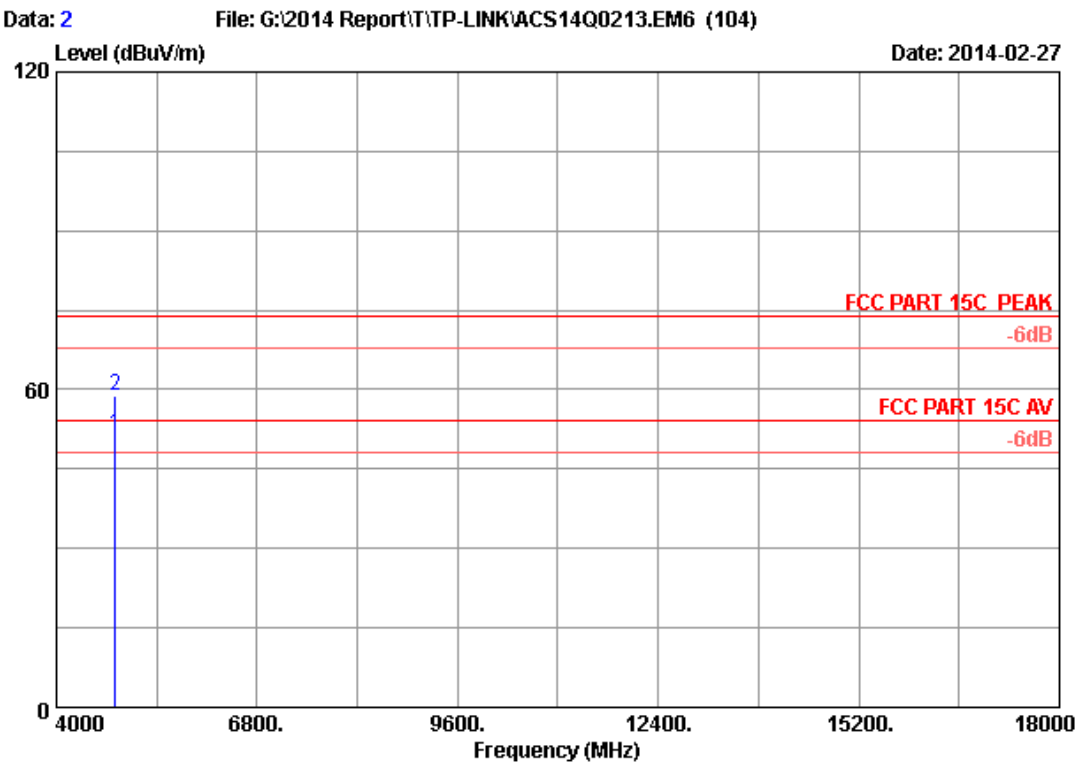
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	20.10	0.83	15.44	36.37	40.00	3.63	QP
2	68.800	6.74	1.27	23.23	31.24	40.00	8.76	QP
3	148.340	11.38	1.59	19.79	32.76	43.50	10.74	QP
4	251.160	13.16	1.98	18.53	33.67	46.00	12.33	QP
5	419.940	17.40	2.52	12.16	32.08	46.00	13.92	QP
6	820.550	20.91	3.67	9.01	33.59	46.00	12.41	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



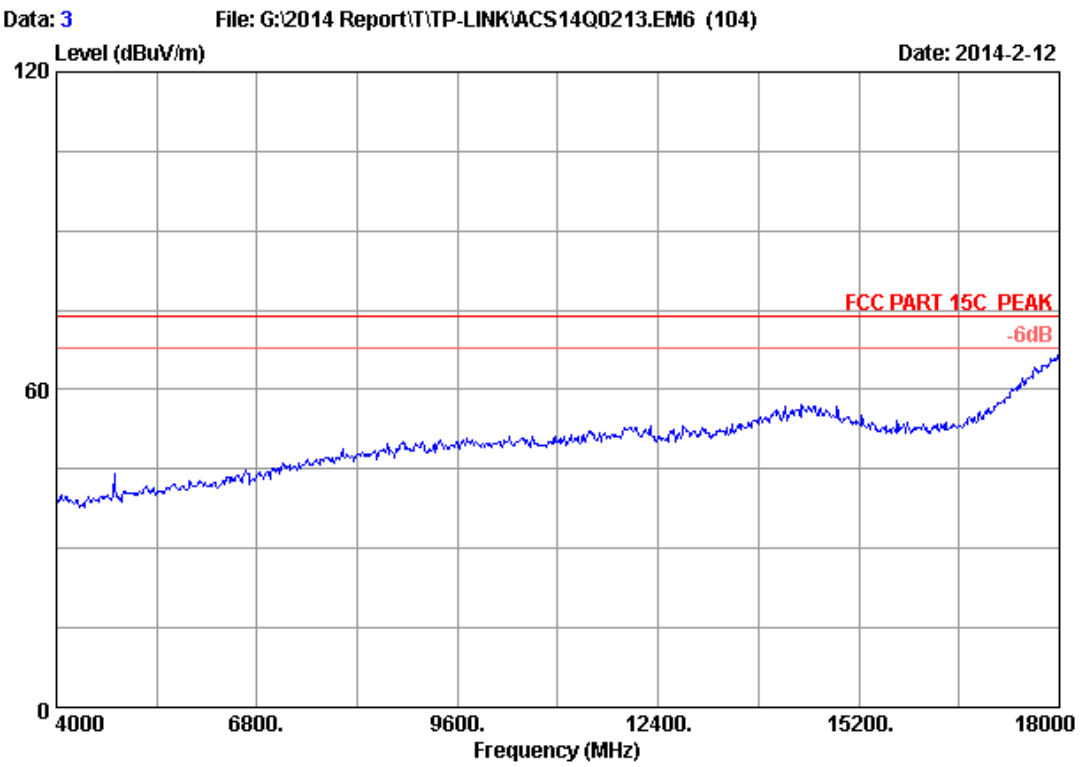

```
Site no.      : 3m Chamber                        Data no.   : 1
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11b 2412MHz Tx Mode
M/N           : TD-W8901N
```



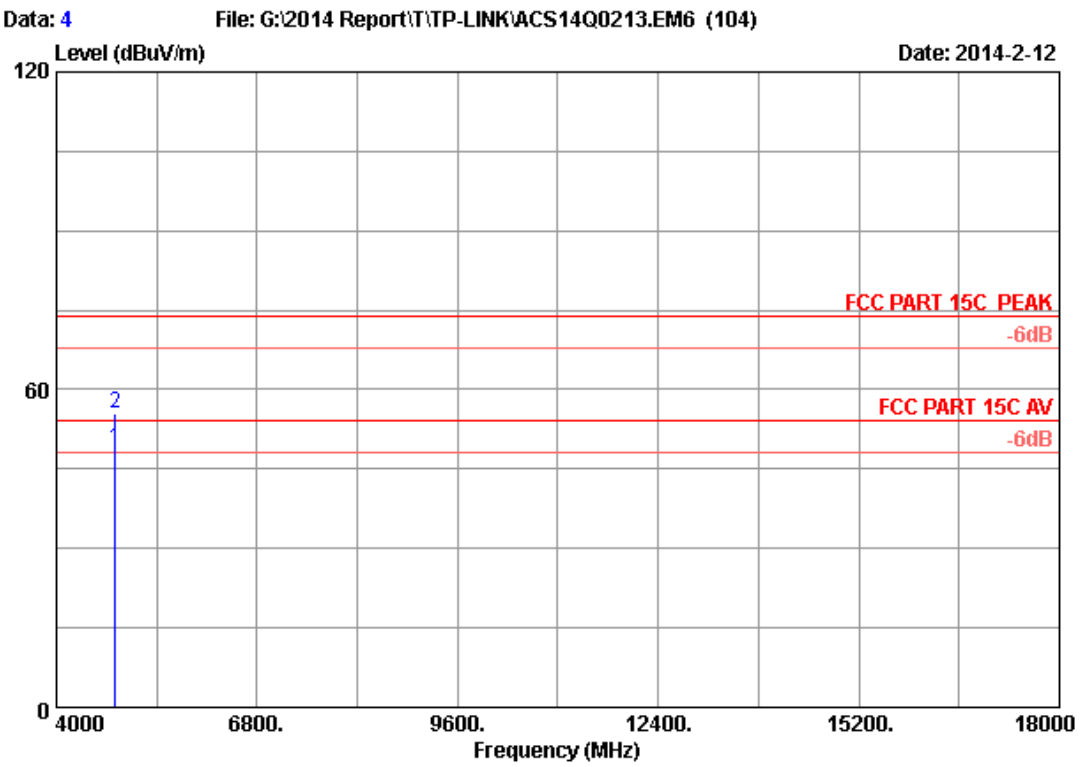
Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.88	8.58	35.70	45.67	51.43	54.00	2.57	Average
2	4824.000	32.88	8.58	35.70	53.11	58.87	74.00	15.13	Peak

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



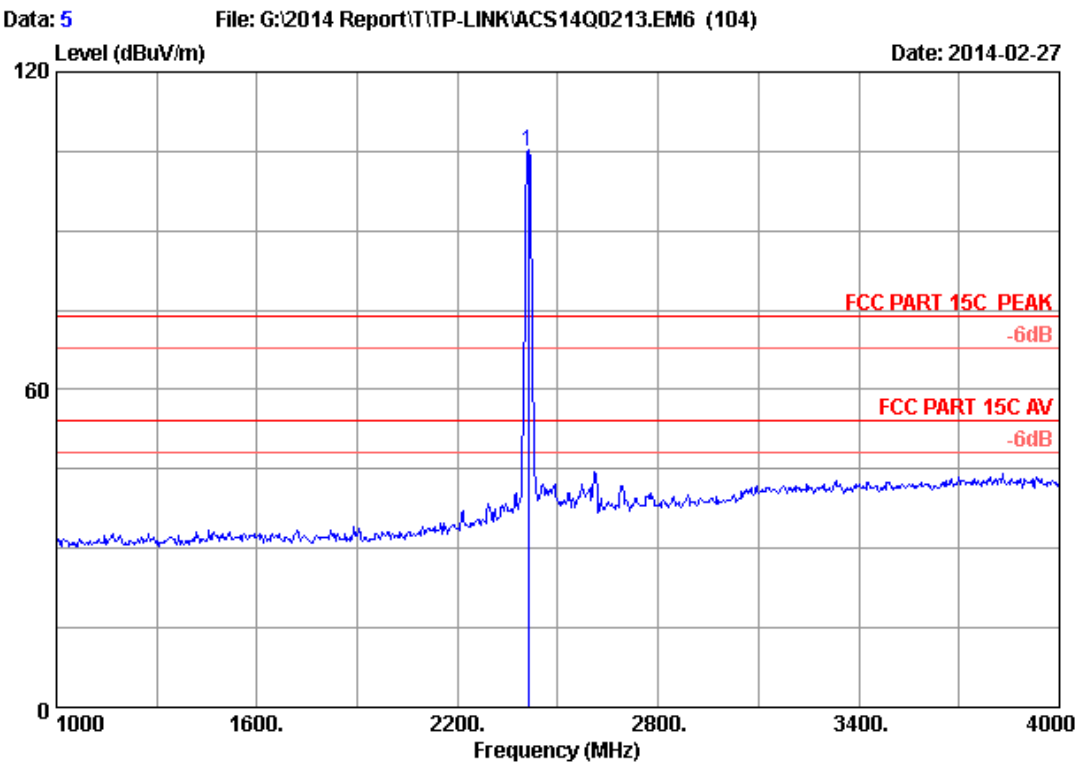

```
Site no.      : 3m Chamber                        Data no.   : 3
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11b 2412MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.88	8.58	35.70	43.05	48.81	54.00	5.19	Average
2	4824.000	32.88	8.58	35.70	49.68	55.44	74.00	18.56	Peak

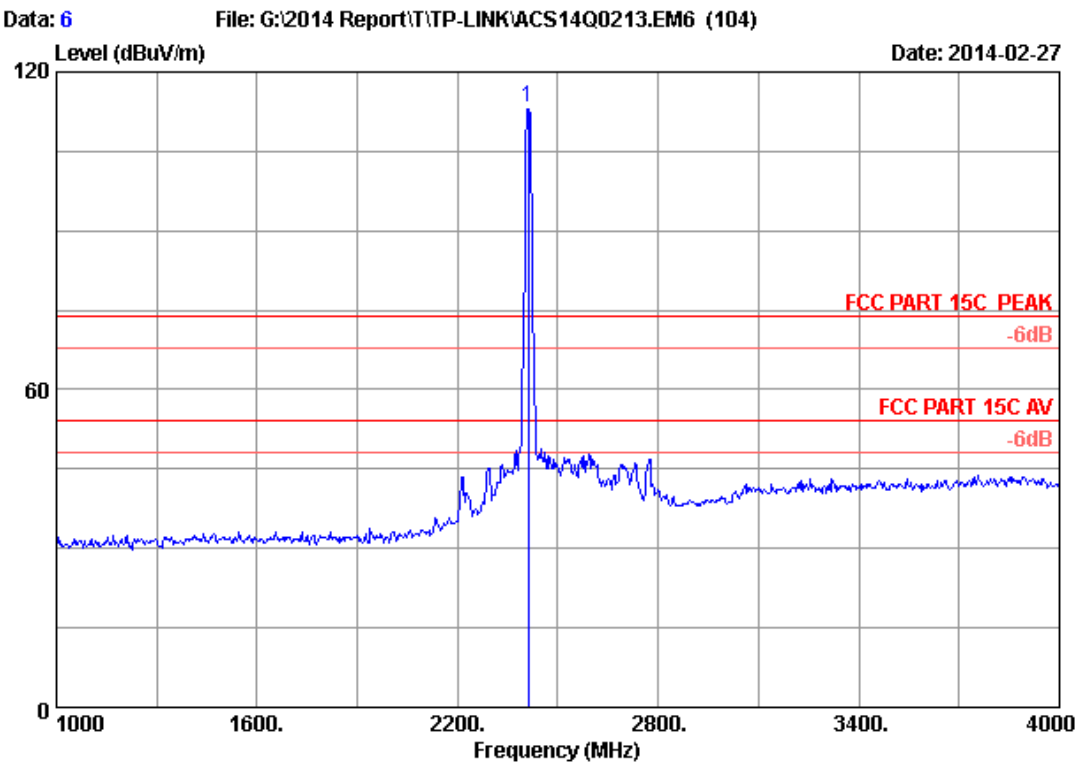
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 5
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2412.000	28.21	5.81	35.70	106.68	105.00	74.00	-31.00	Peak

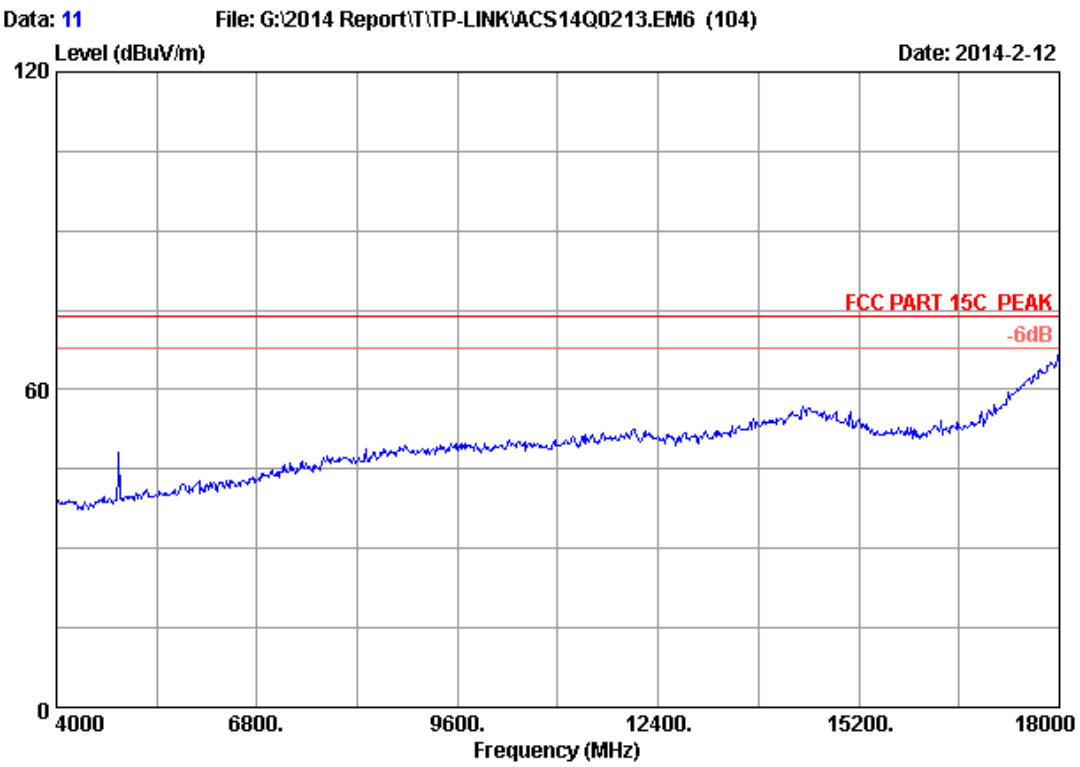
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



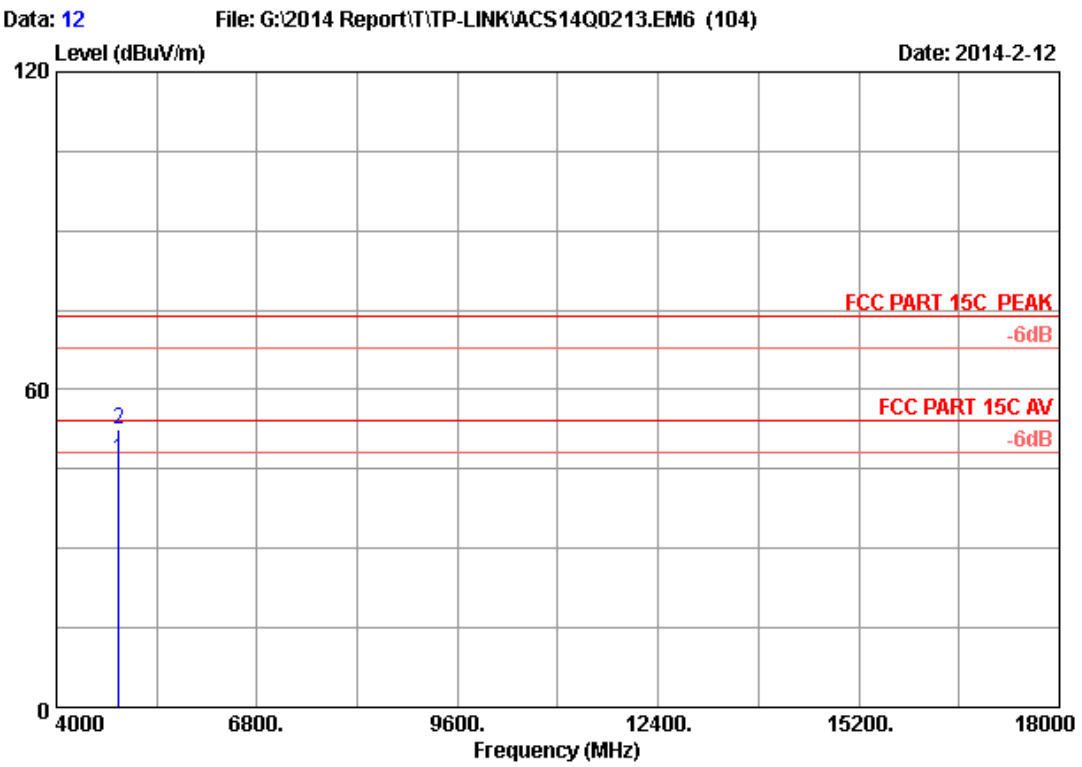
Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2412.000	28.21	5.81	35.70	114.92	113.24	74.00	-39.24	Peak

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



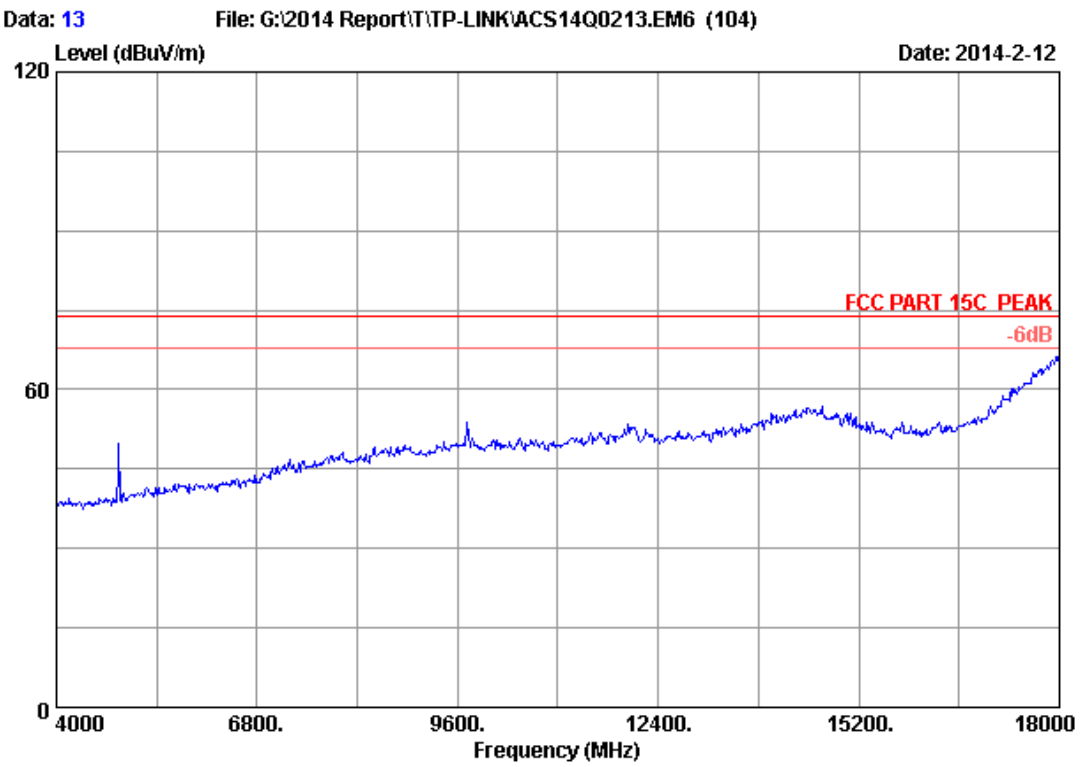

```
Site no.      : 3m Chamber                        Data no.   : 11
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11b 2437MHz Tx Mode
M/N           : TD-W8901N
```



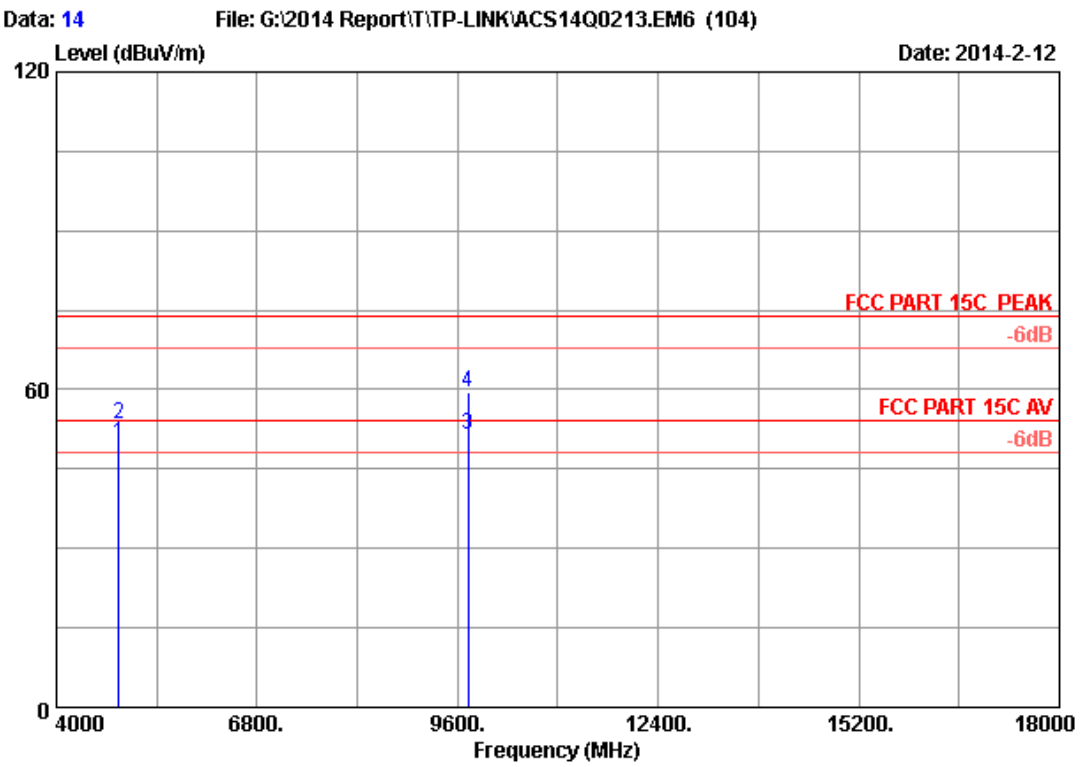
Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	40.75	46.65	54.00	7.35	Average
2	4874.000	32.97	8.63	35.70	46.68	52.58	74.00	21.42	Peak

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



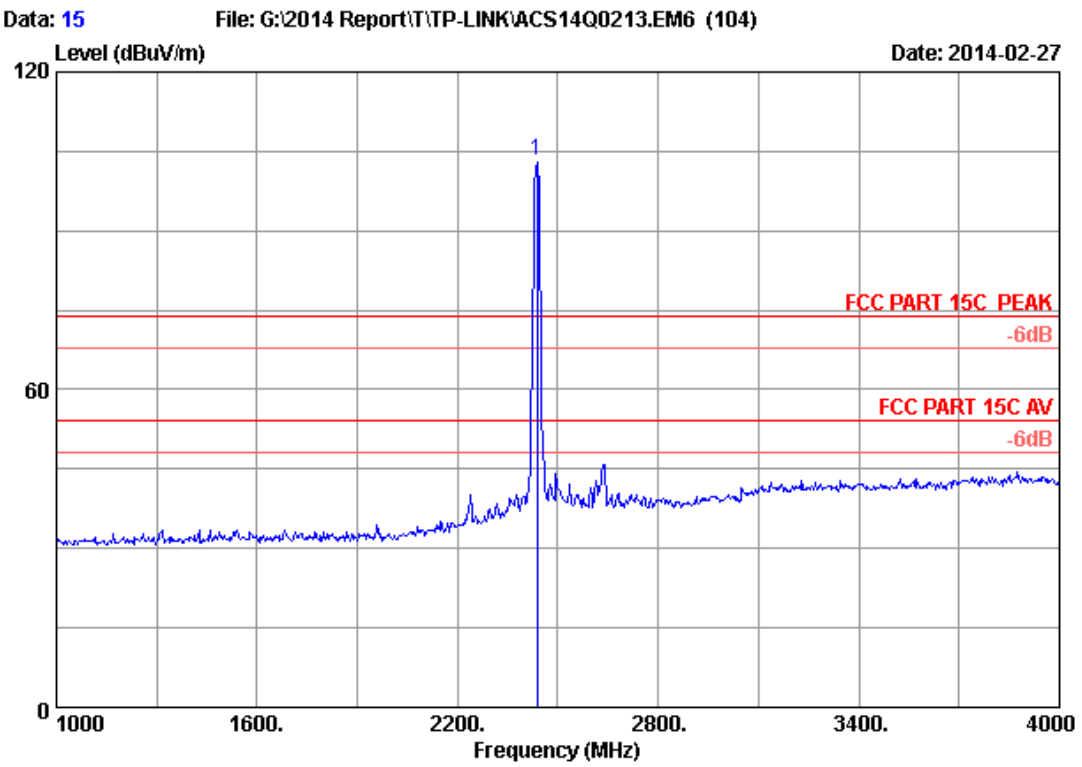

```
Site no.      : 3m Chamber                        Data no.   : 13
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11b 2437MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	43.90	49.80	54.00	4.20	Average
2	4874.000	32.97	8.63	35.70	47.61	53.51	74.00	20.49	Peak
3	9748.000	37.85	12.30	35.47	36.73	51.41	54.00	2.59	Average
4	9748.000	37.85	12.30	35.47	44.97	59.65	74.00	14.35	Peak

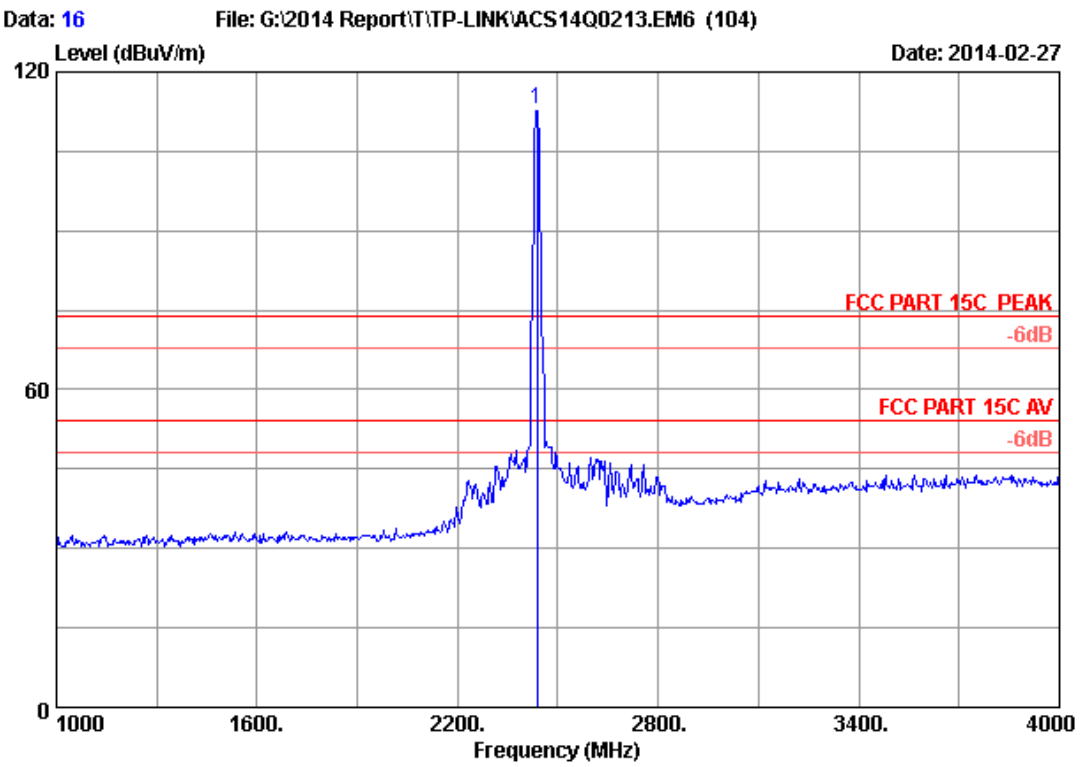
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 15
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	104.73	103.14	74.00	-29.14	Peak

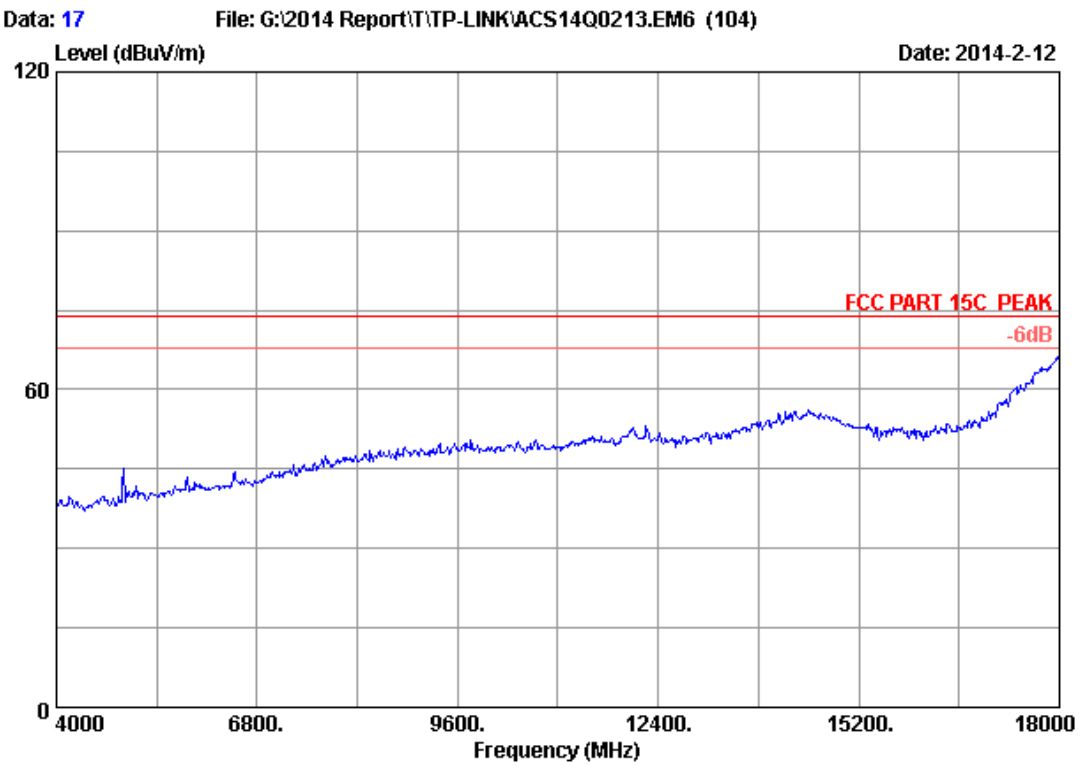
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



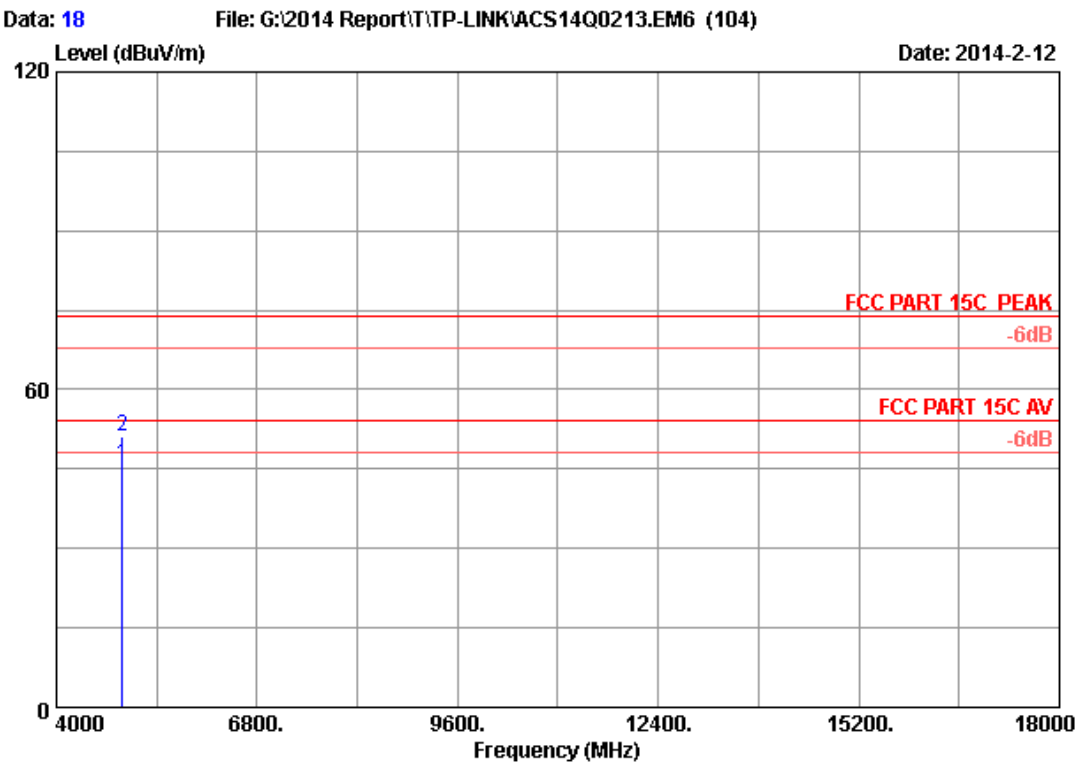
Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	114.44	112.85	74.00	-38.85	Peak

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



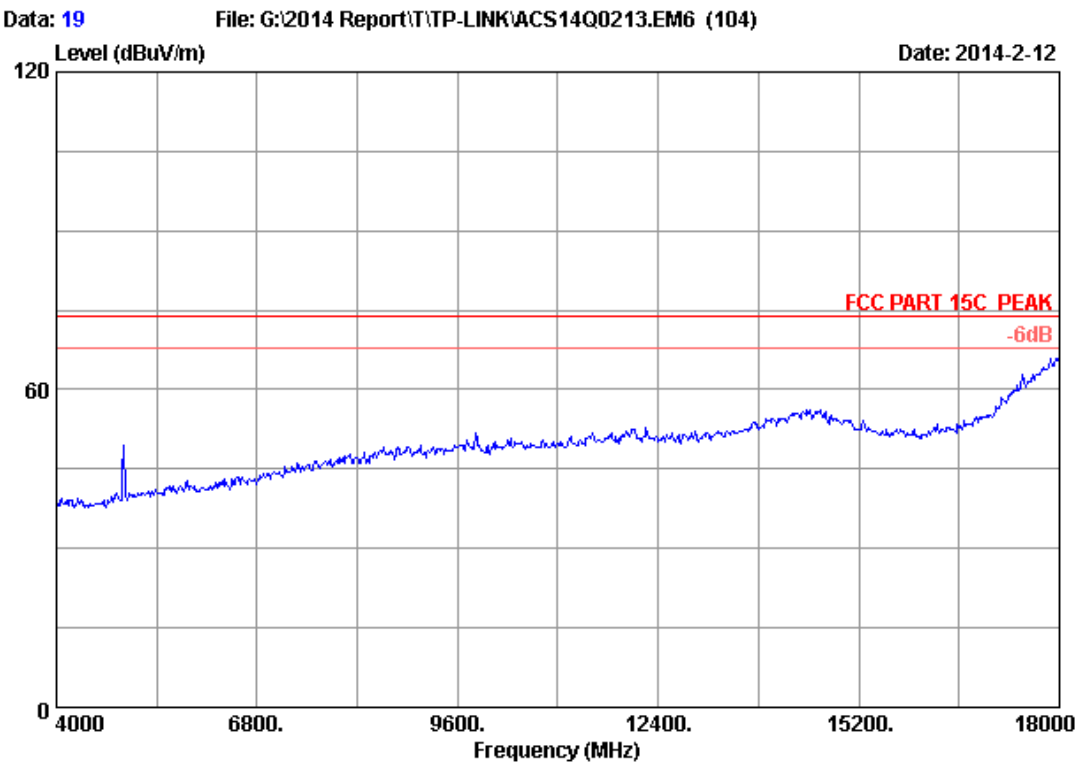

```
Site no.      : 3m Chamber                        Data no.   : 17
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11b 2462MHz Tx Mode
M/N           : TD-W8901N
```



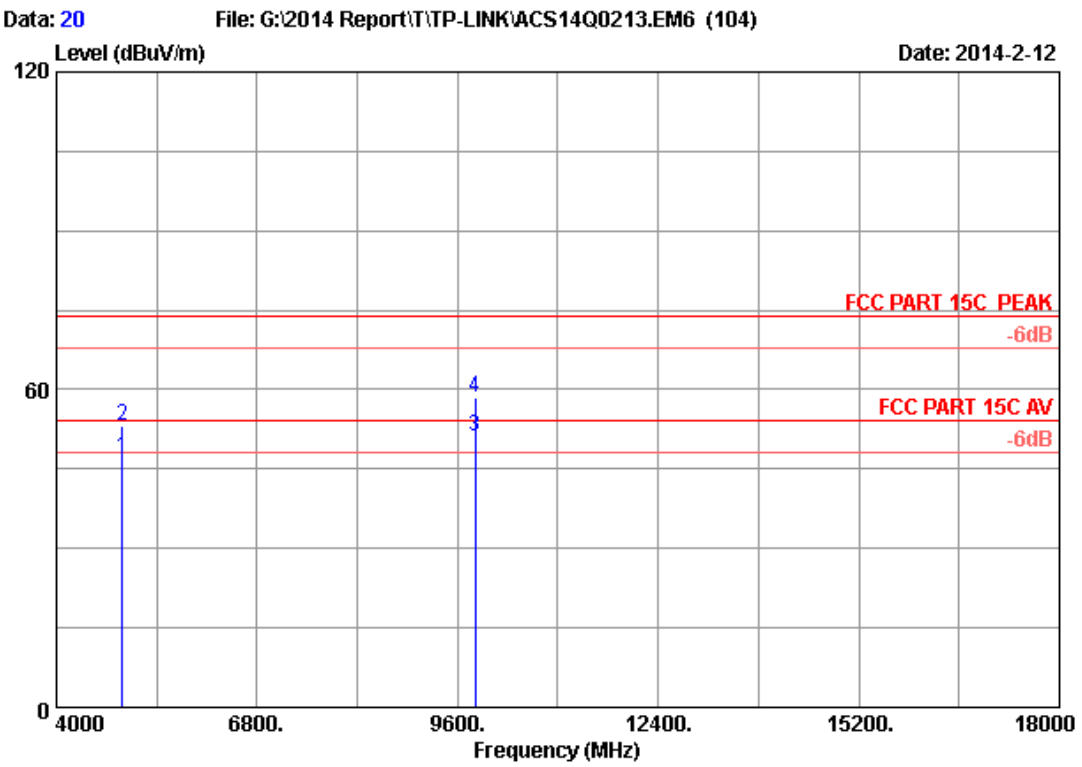
Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.06	8.69	35.70	39.78	45.83	54.00	8.17	Average
2	4924.000	33.06	8.69	35.70	44.98	51.03	74.00	22.97	Peak

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



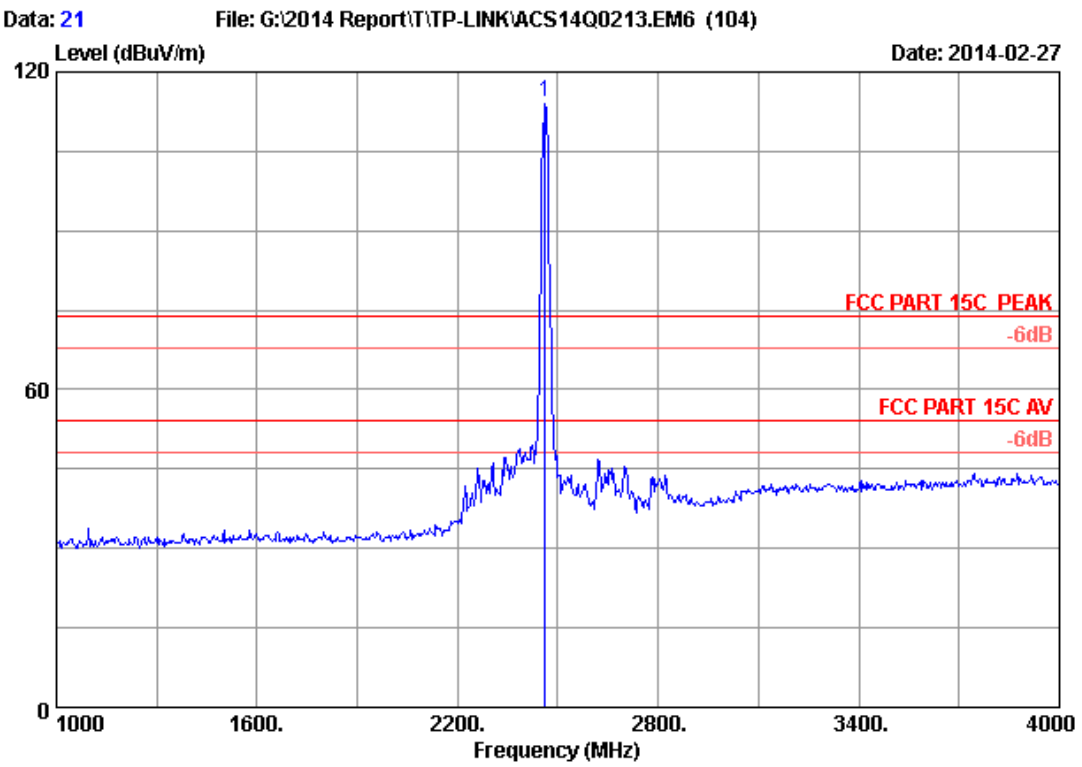

```
Site no.      : 3m Chamber                        Data no.   : 19
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11b 2462MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.06	8.69	35.70	41.19	47.24	54.00	6.76	Average
2	4924.000	33.06	8.69	35.70	46.98	53.03	74.00	20.97	Peak
3	9848.000	37.91	12.35	35.48	36.21	50.99	54.00	3.01	Average
4	9848.000	37.91	12.35	35.48	43.57	58.35	74.00	15.65	Peak

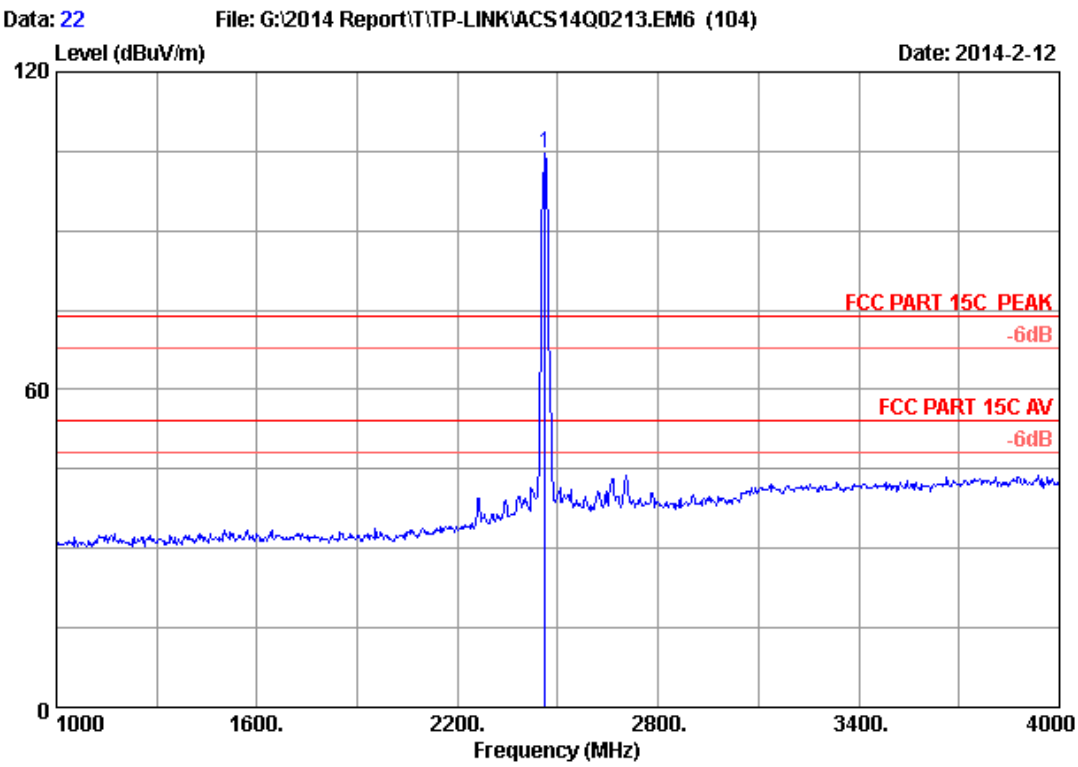
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	115.77	114.28	74.00	-40.28	Peak

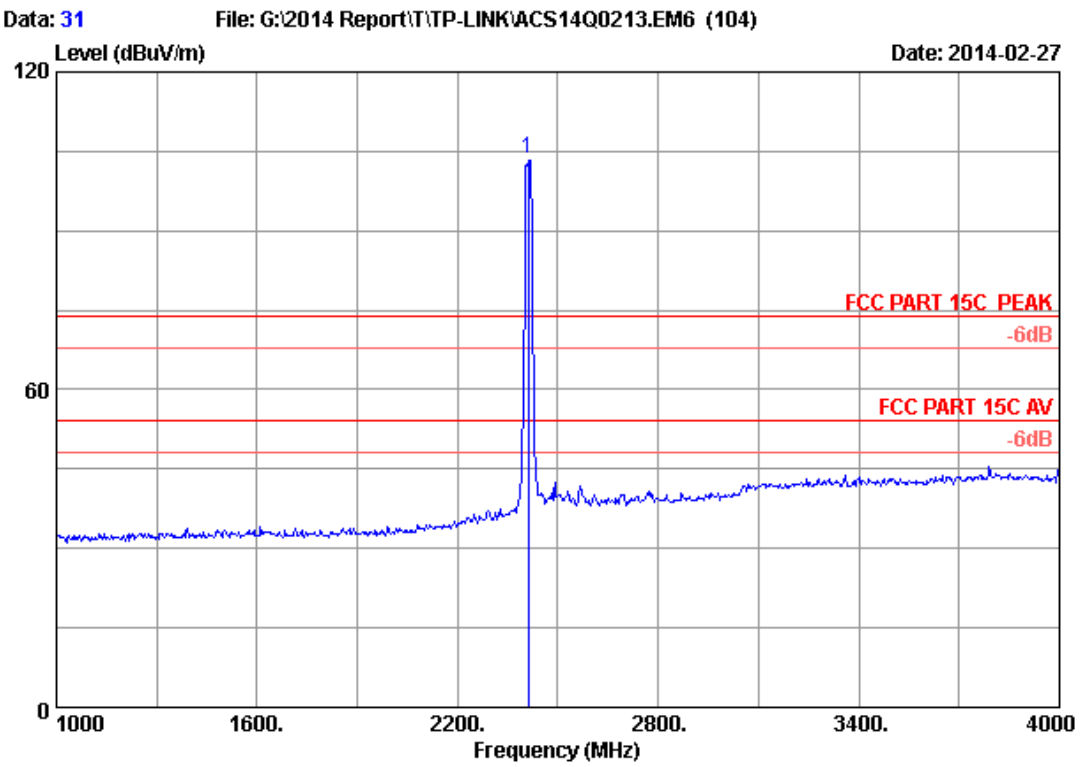
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	106.17	104.68	74.00	-30.68	Peak

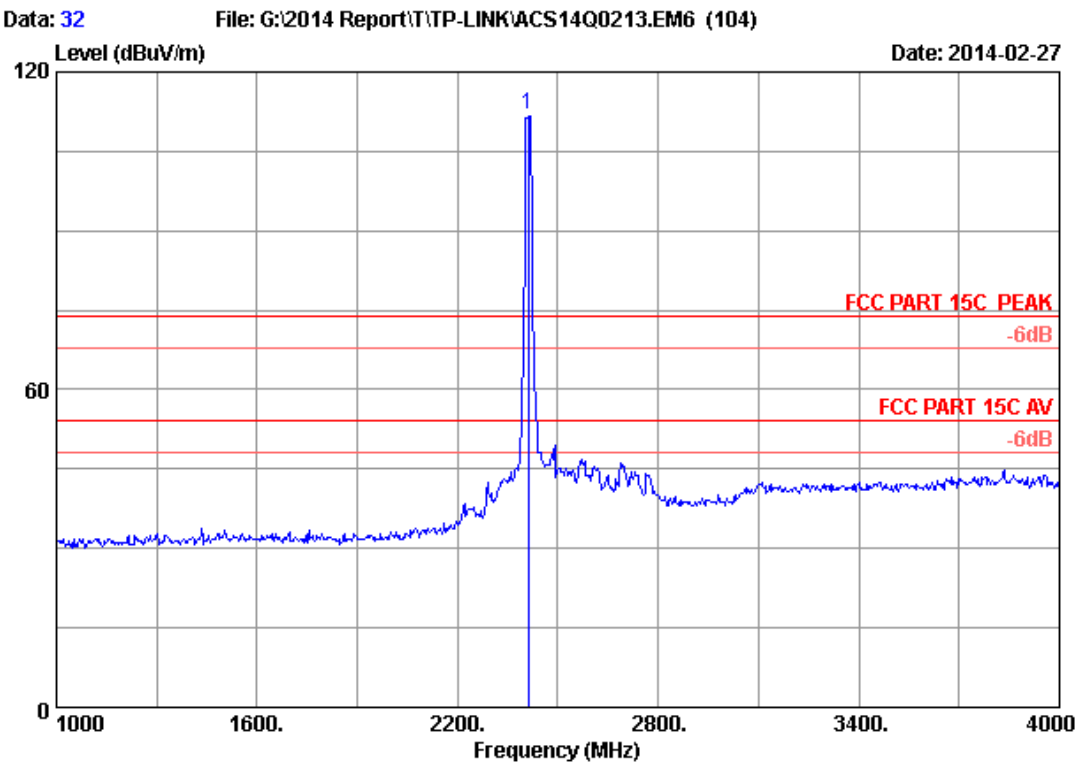
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2412.000	28.21	5.81	35.70	105.42	103.74	74.00	-29.74	Peak

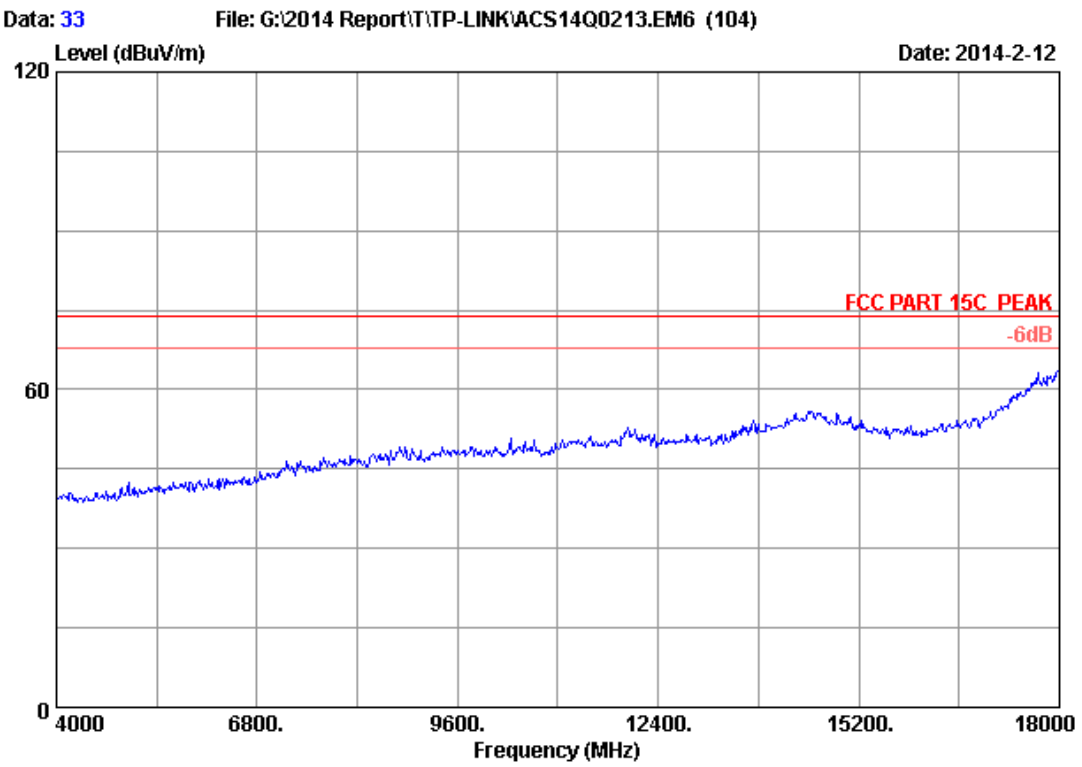
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



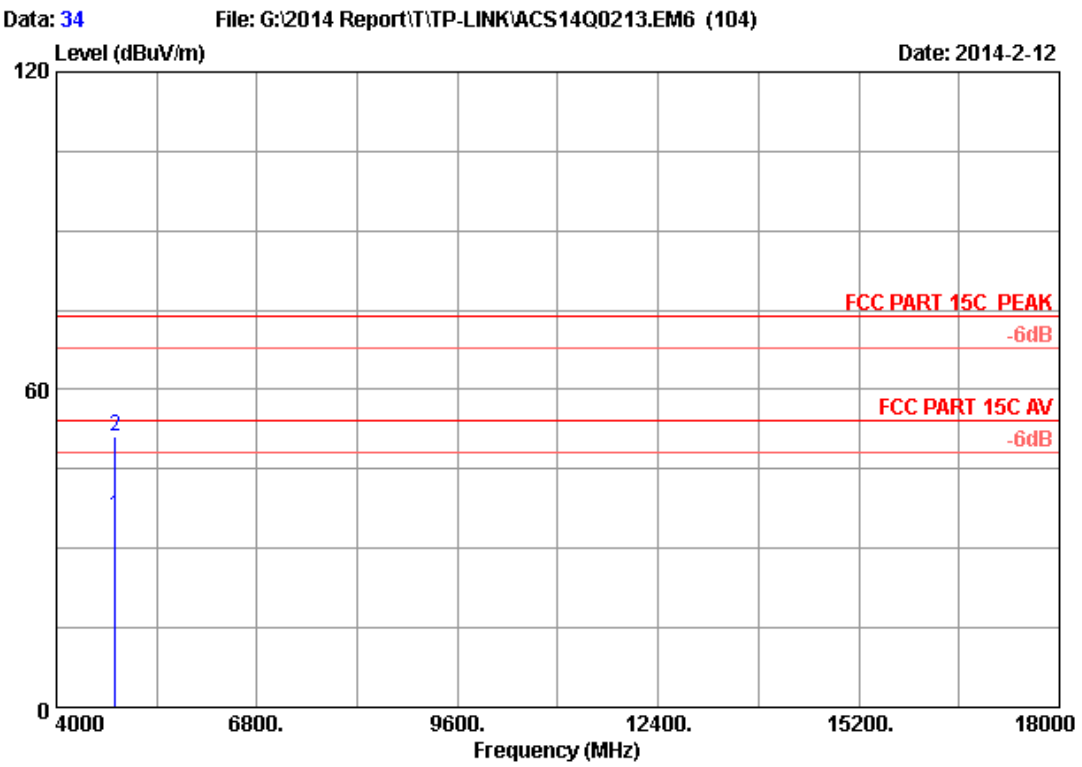
Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2412.000	28.21	5.81	35.70	113.76	112.08	74.00	-38.08	Peak

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



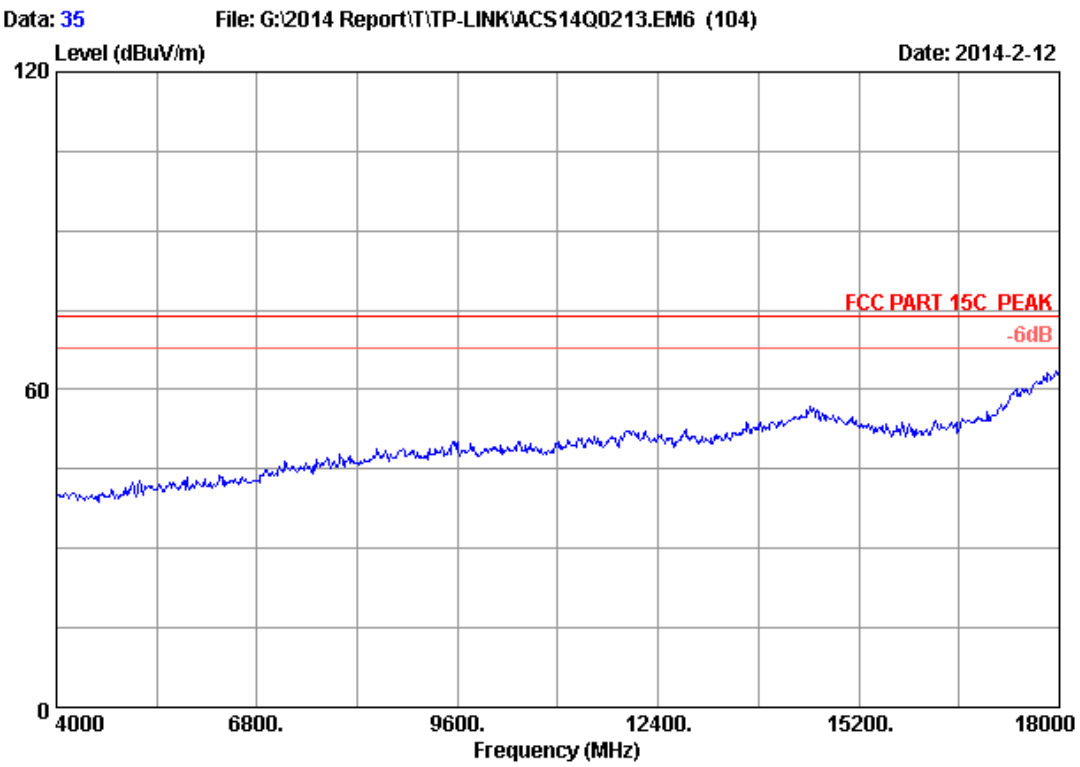

```
Site no.      : 3m Chamber                        Data no.   : 33
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11g 2412MHz Tx Mode
M/N           : TD-W8901N
```



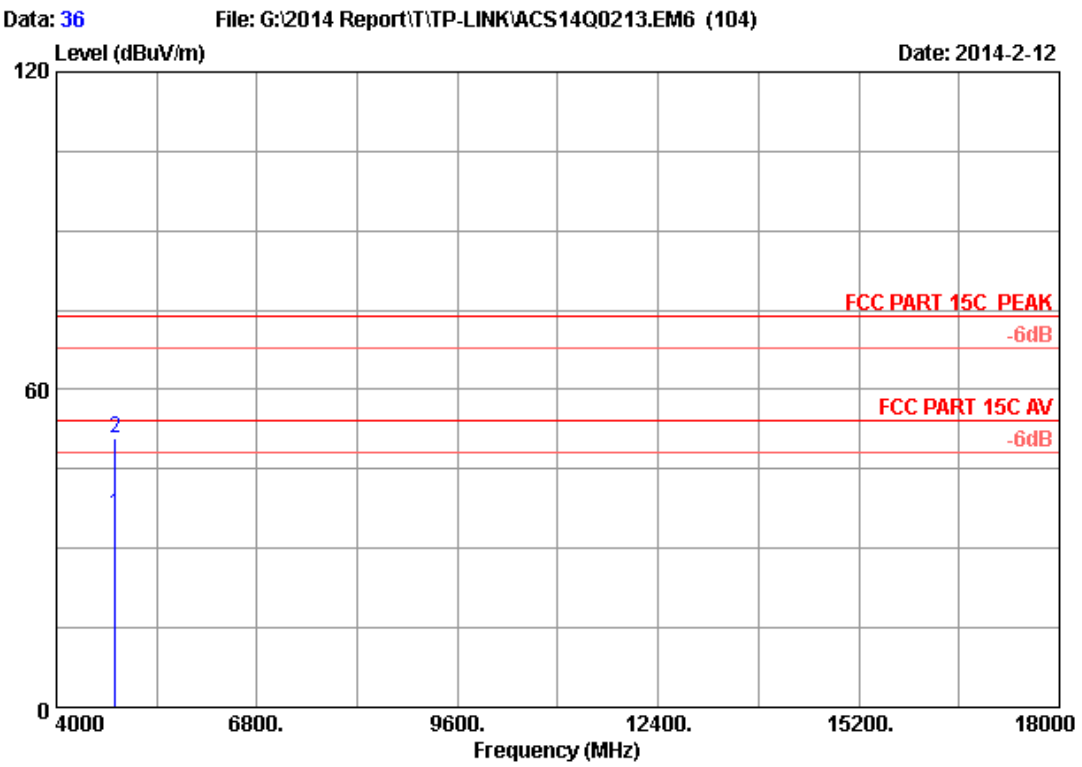
Site no. : 3m Chamber Data no. : 34
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.88	8.58	35.70	30.23	35.99	54.00	18.01	Average
2	4824.000	32.88	8.58	35.70	45.35	51.11	74.00	22.89	Peak

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



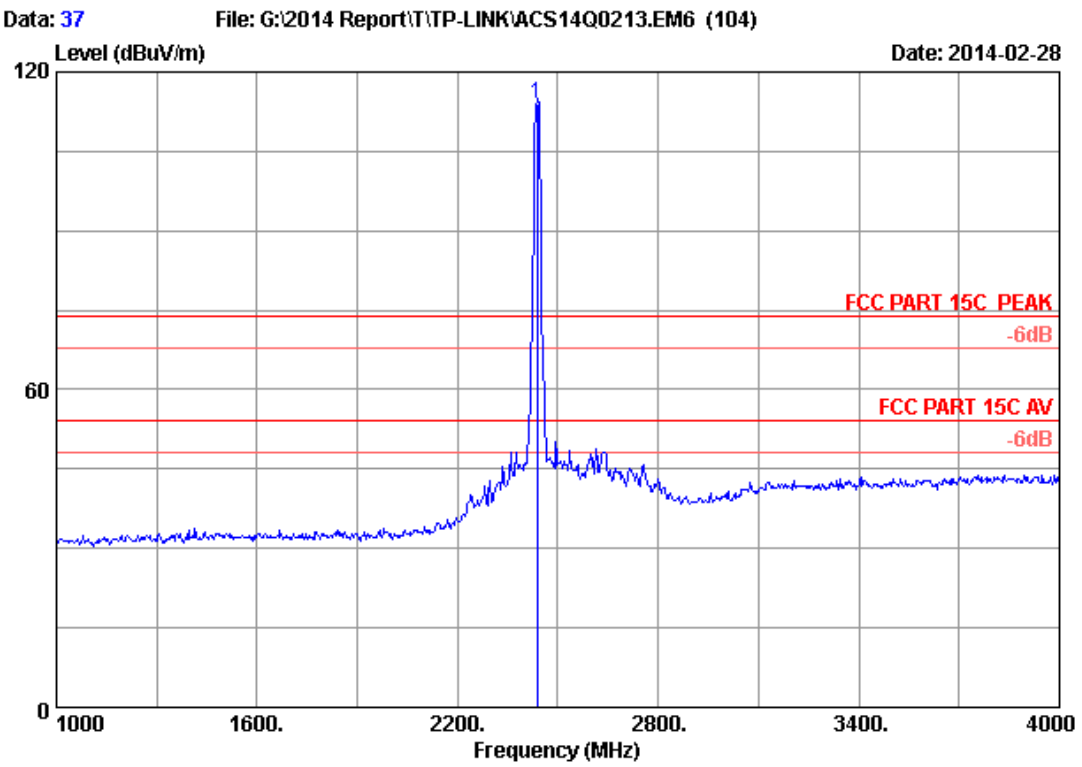

```
Site no.      : 3m Chamber                        Data no.   : 35
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11g 2412MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.88	8.58	35.70	30.65	36.41	54.00	17.59	Average
2	4824.000	32.88	8.58	35.70	45.04	50.80	74.00	23.20	Peak

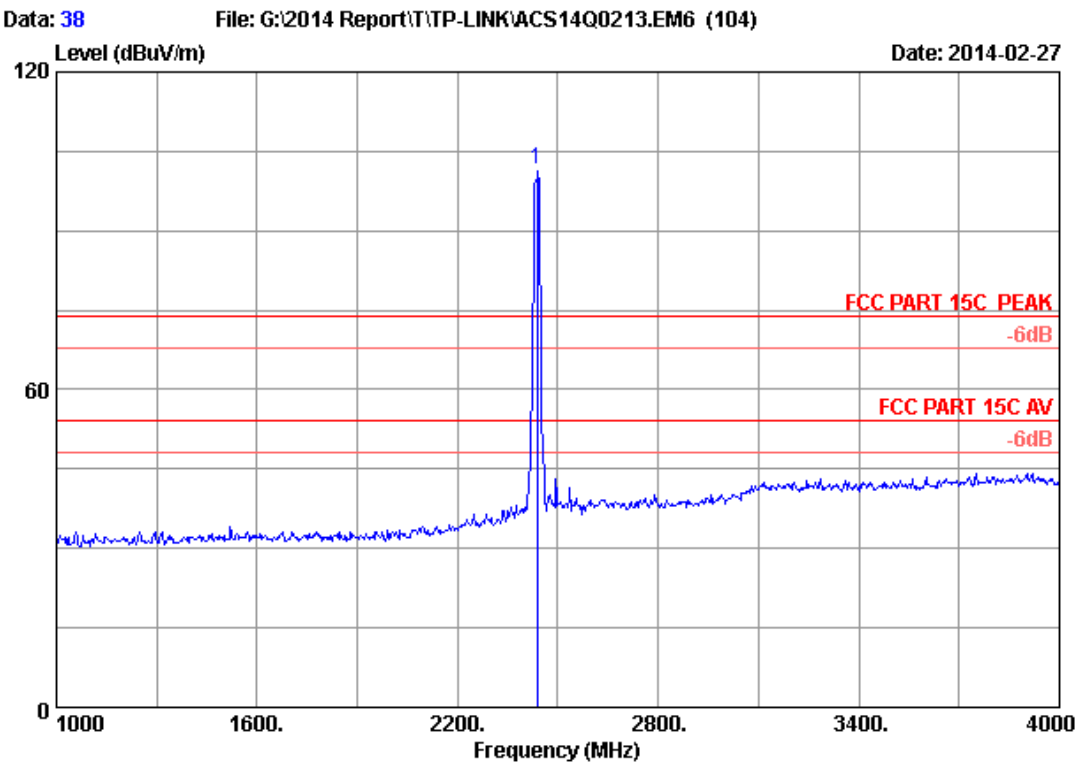
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	115.69	114.10	74.00	-40.10	Peak

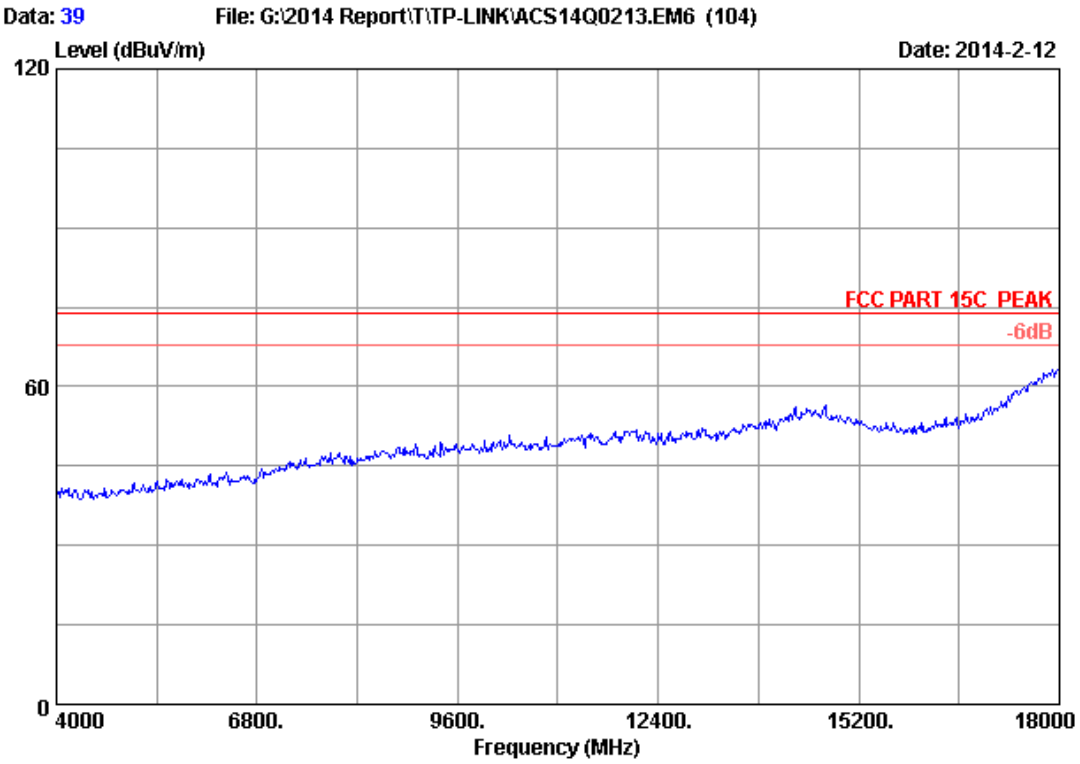
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



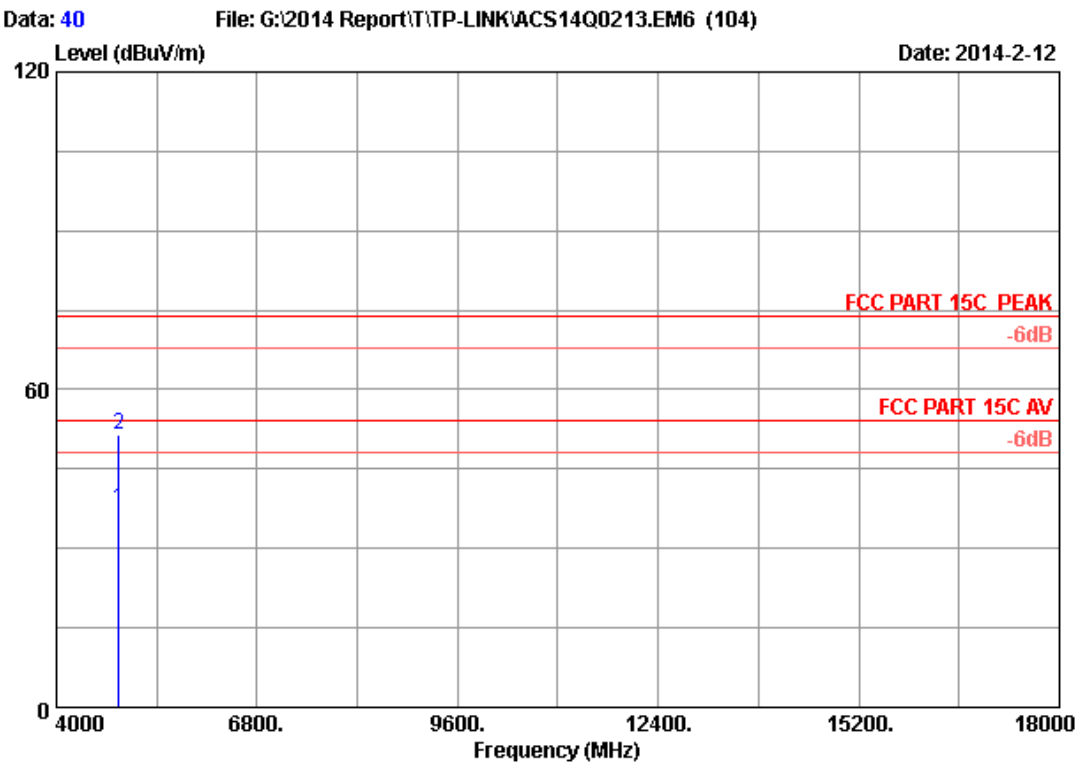
Site no. : 3m Chamber Data no. : 38
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	103.11	101.52	74.00	-27.52	Peak

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



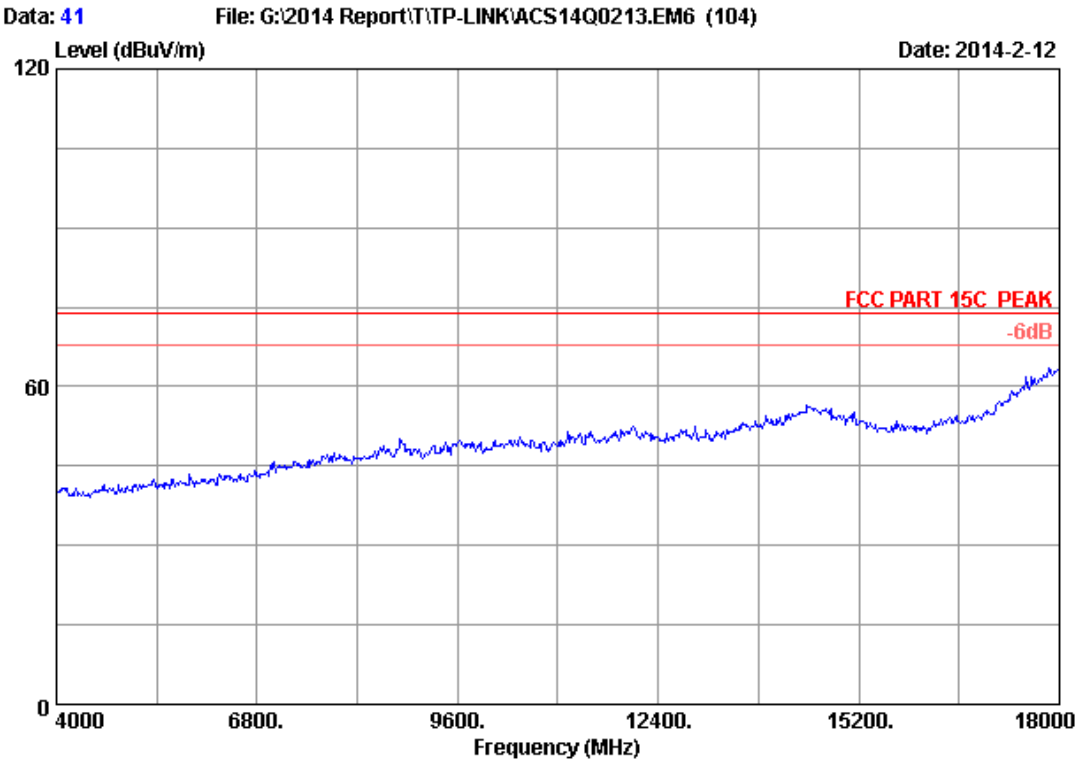

```
Site no.      : 3m Chamber                        Data no.   : 39
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11g 2437MHz Tx Mode
M/N           : TD-W8901N
```



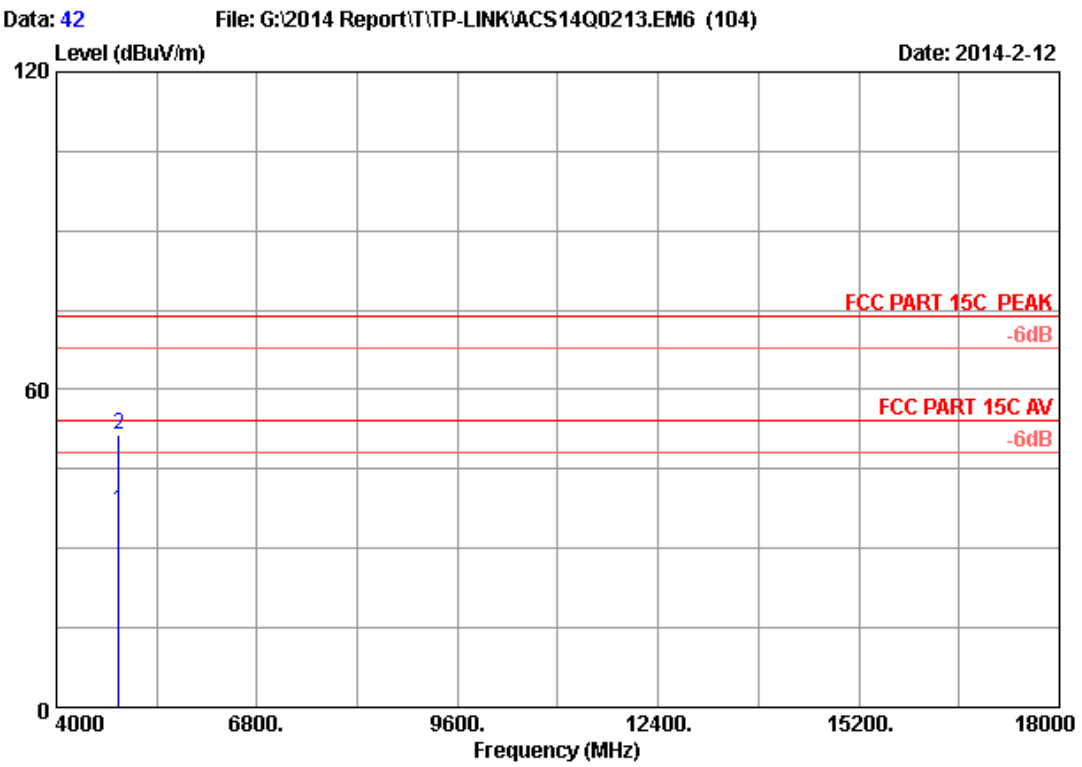
Site no. : 3m Chamber Data no. : 40
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	31.61	37.51	54.00	16.49	Average
2	4874.000	32.97	8.63	35.70	45.42	51.32	74.00	22.68	Peak

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



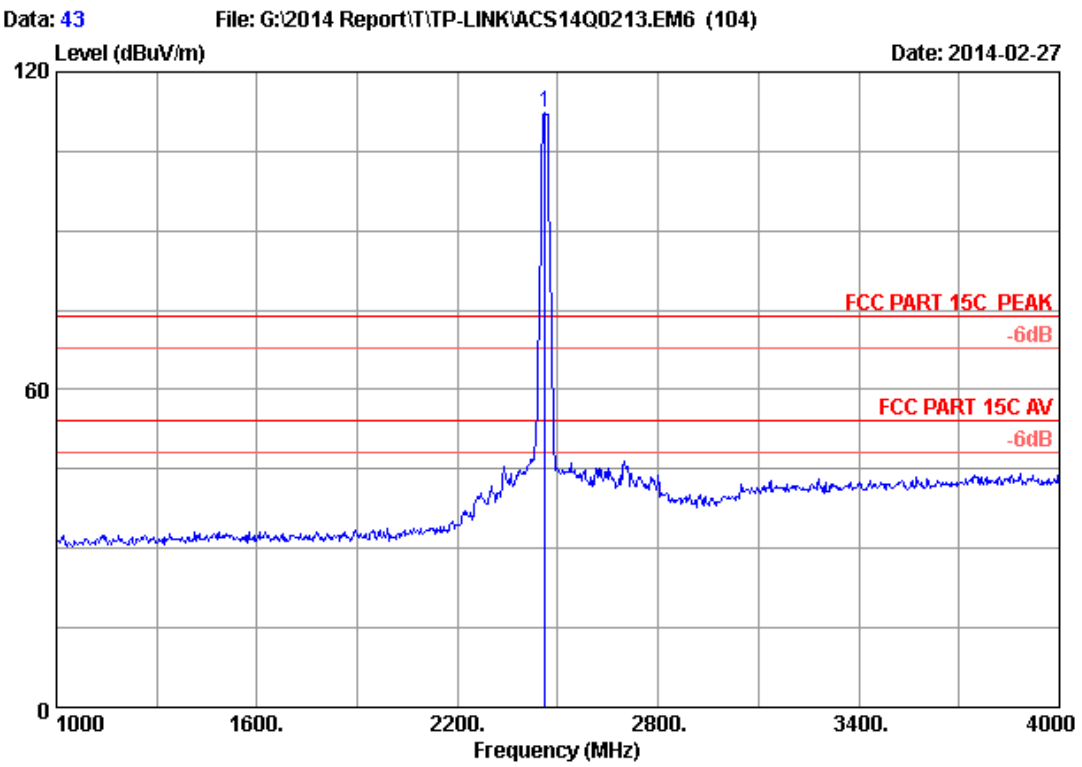

```
Site no.      : 3m Chamber                        Data no.   : 41
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11g 2437MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	31.05	36.95	54.00	17.05	Average
2	4874.000	32.97	8.63	35.70	45.66	51.56	74.00	22.44	Peak

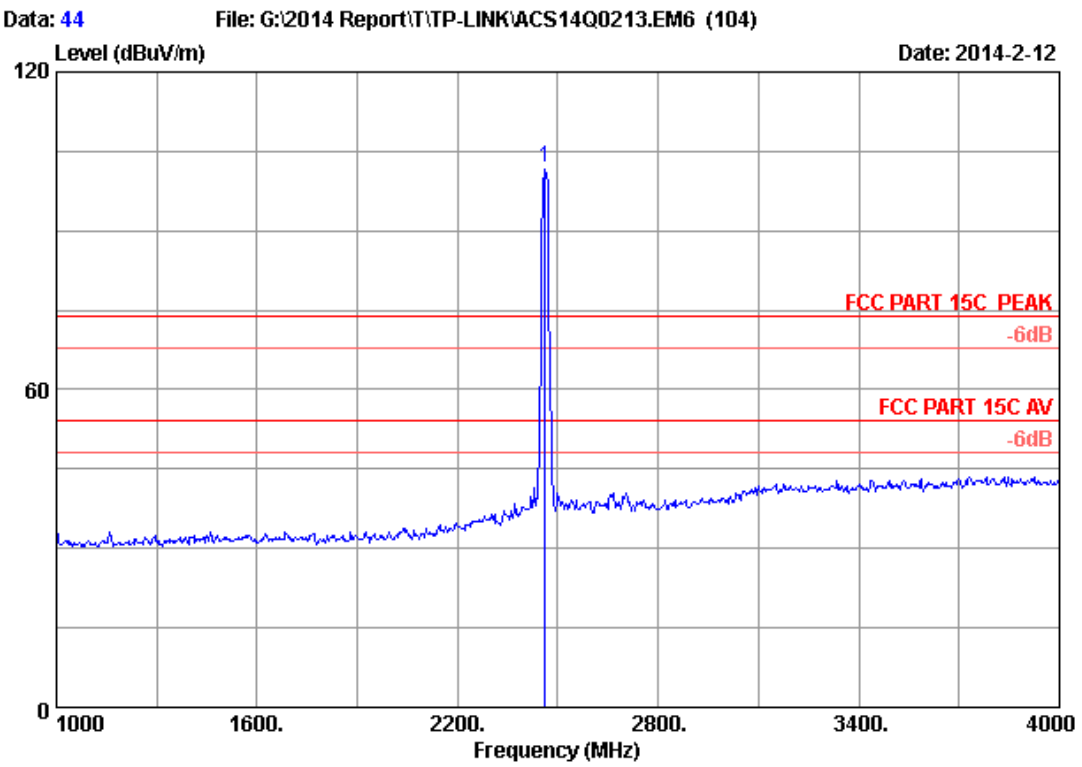
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 43
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	113.94	112.45	74.00	-38.45	Peak

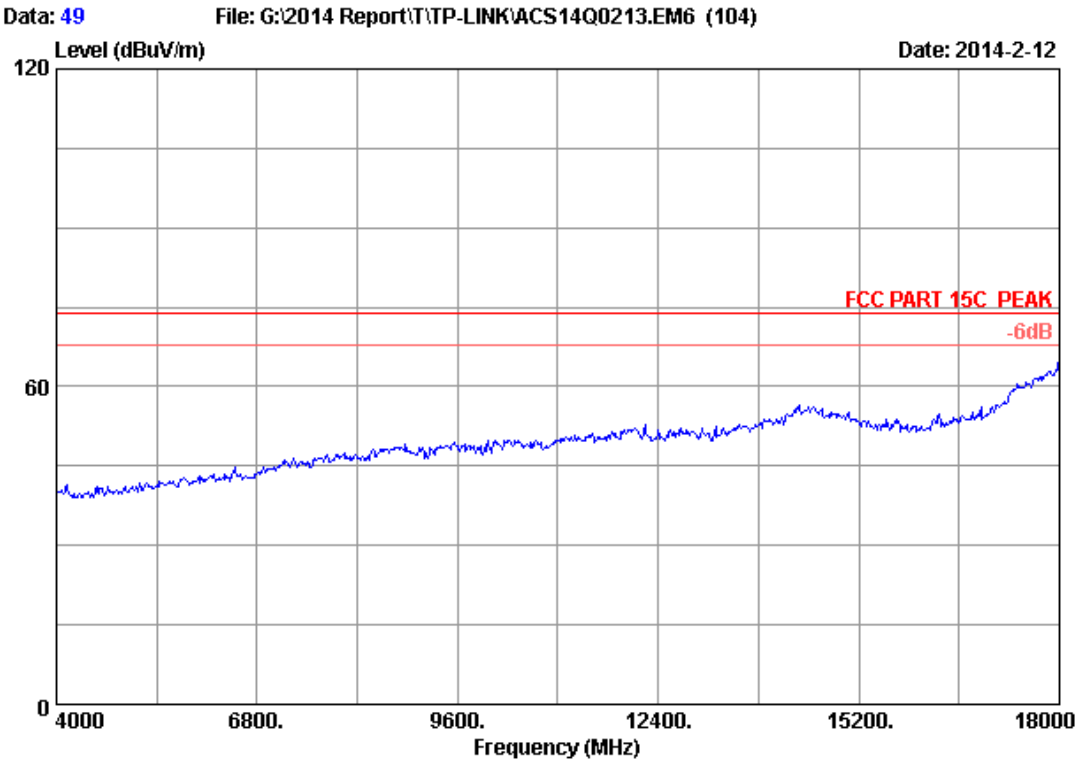
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	103.49	102.00	74.00	-28.00	Peak

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

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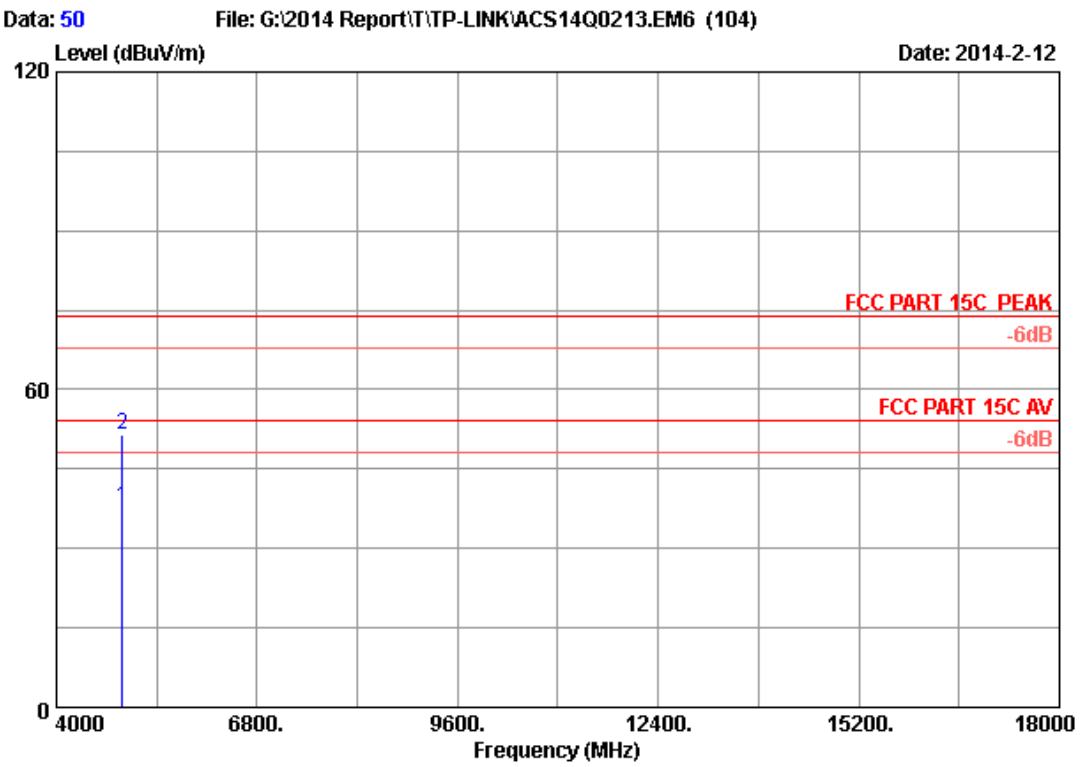
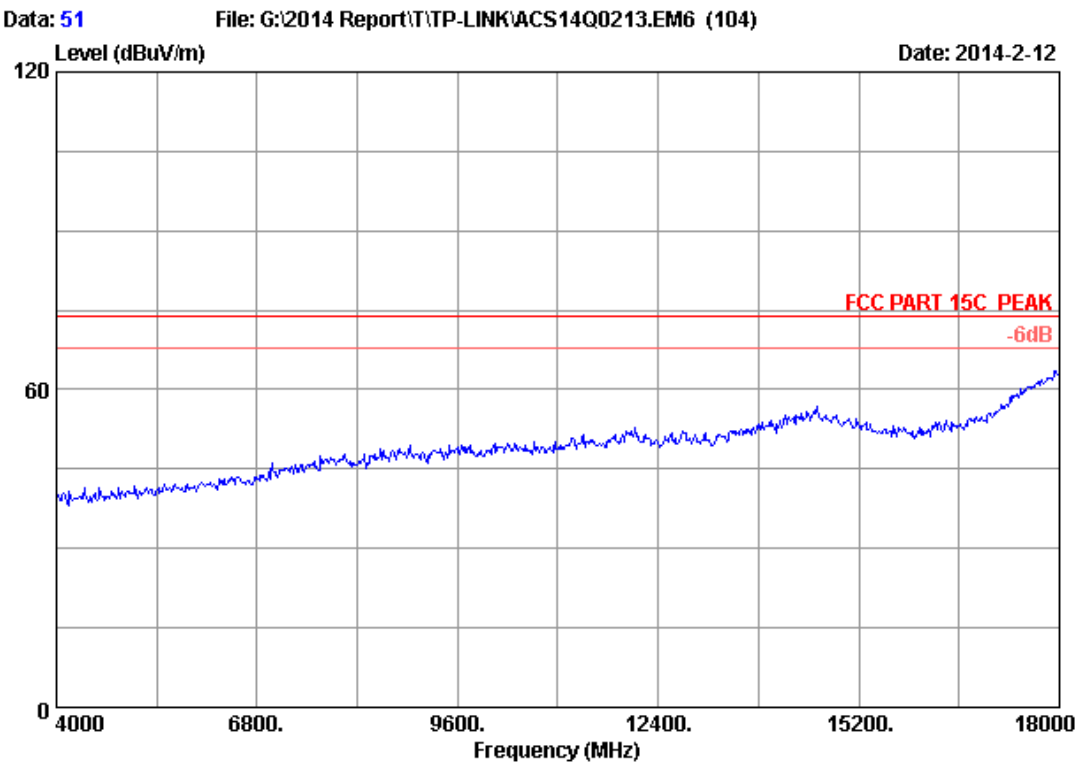
Site no.      : 3m Chamber                        Data no.   : 49
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11g 2462MHz Tx Mode
M/N           : TD-W8901N
```



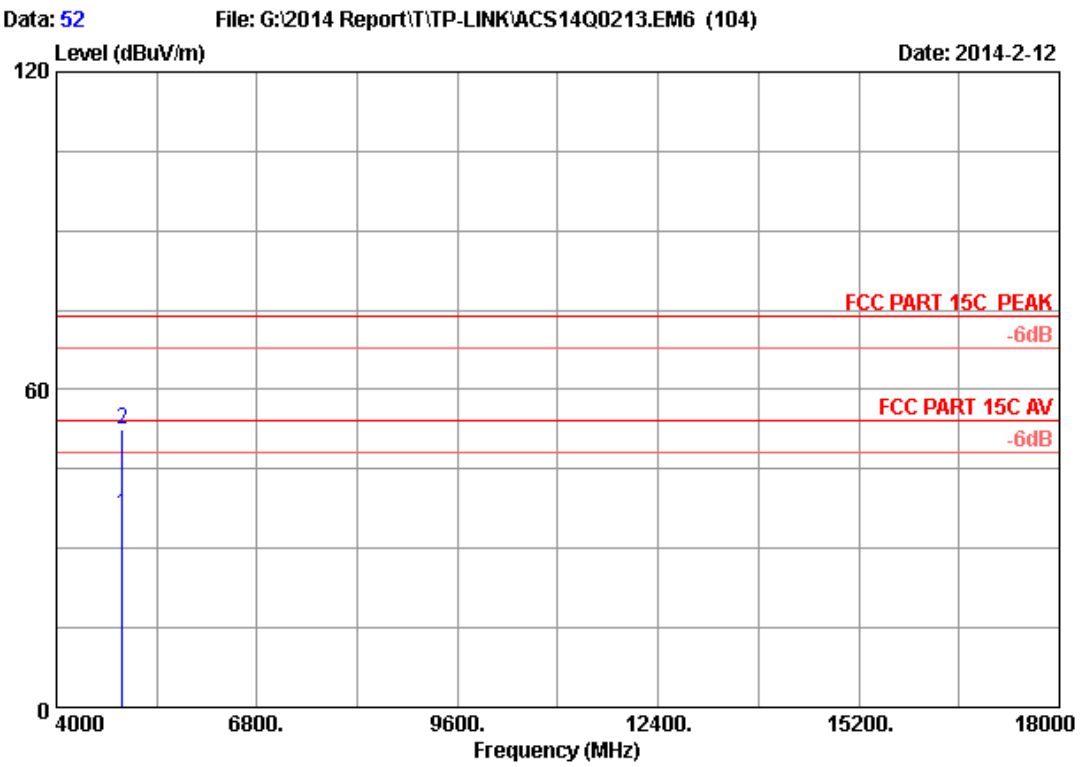
Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.06	8.69	35.70	31.61	37.66	54.00	16.34	Average
2	4924.000	33.06	8.69	35.70	45.54	51.59	74.00	22.41	Peak

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



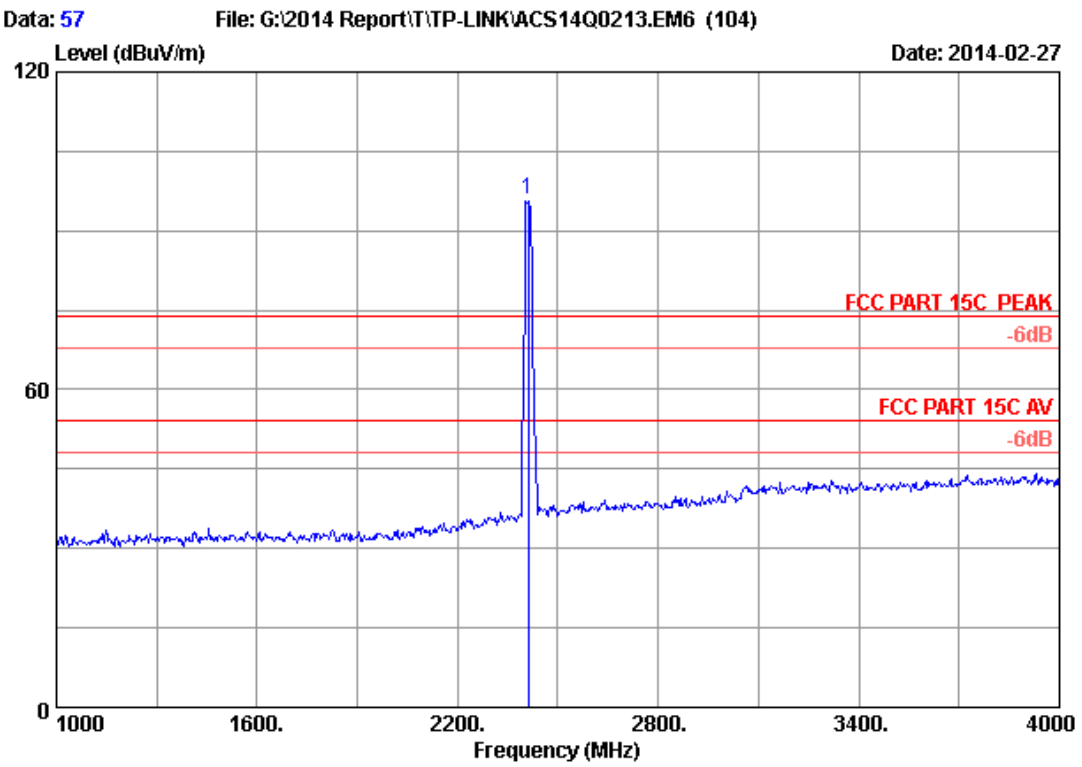

```
Site no.      : 3m Chamber                        Data no.   : 51
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11g 2462MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.06	8.69	35.70	30.35	36.40	54.00	17.60	Average
2	4924.000	33.06	8.69	35.70	46.41	52.46	74.00	21.54	Peak

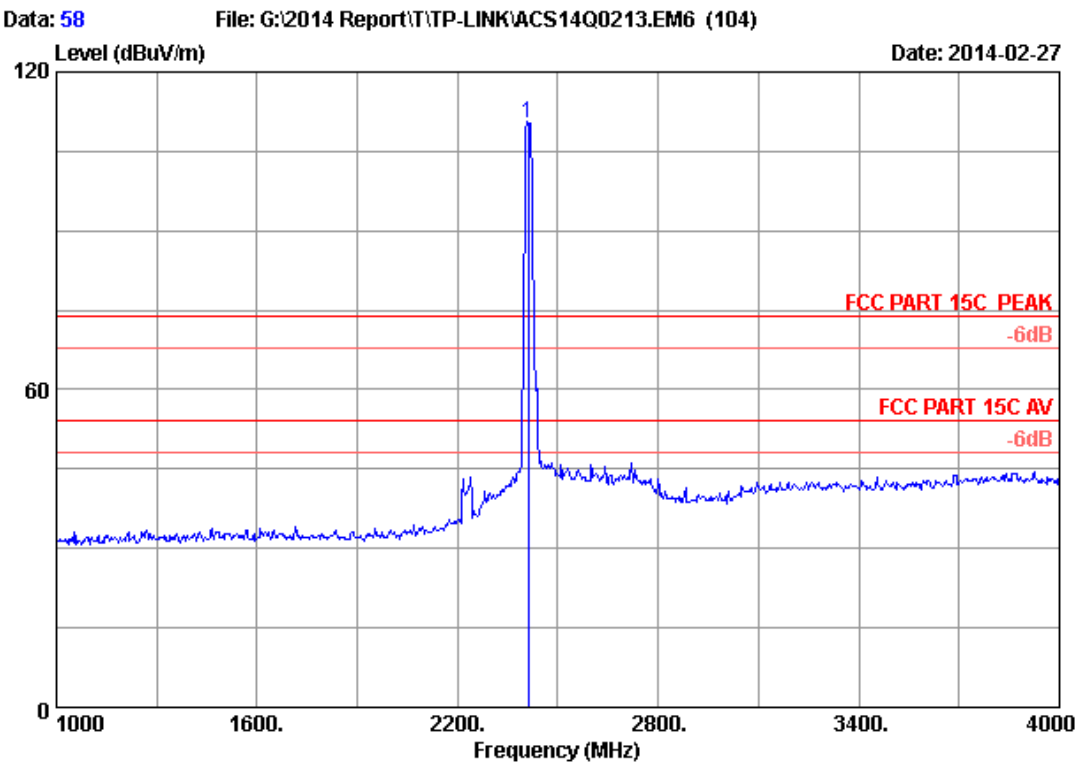
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 57
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2412.000	28.21	5.81	35.70	97.49	95.81	74.00	-21.81	Peak

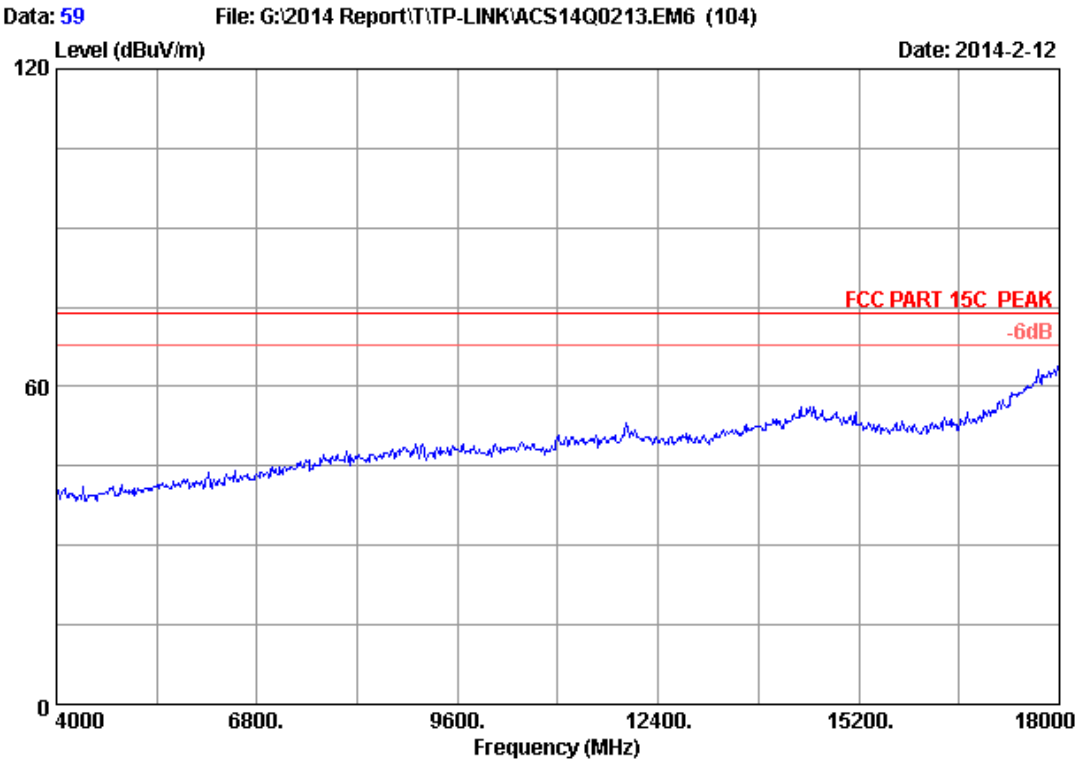
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



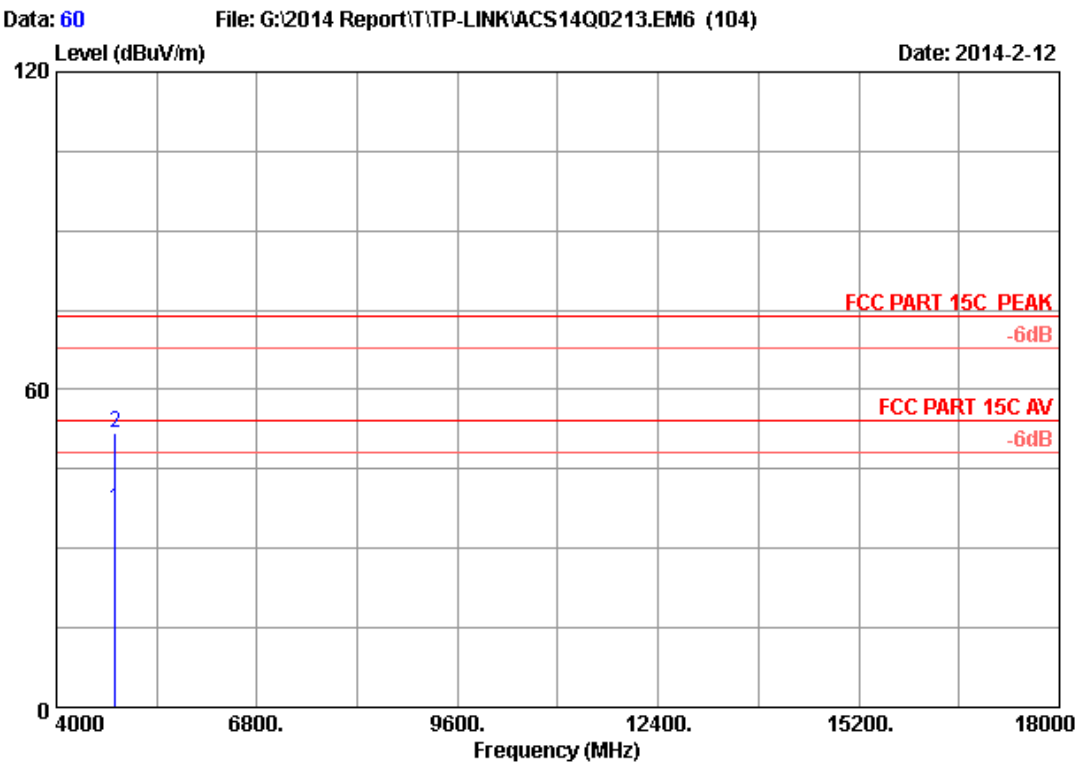
Site no. : 3m Chamber Data no. : 58
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2412.000	28.21	5.81	35.70	112.07	110.39	74.00	-36.39	Peak

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



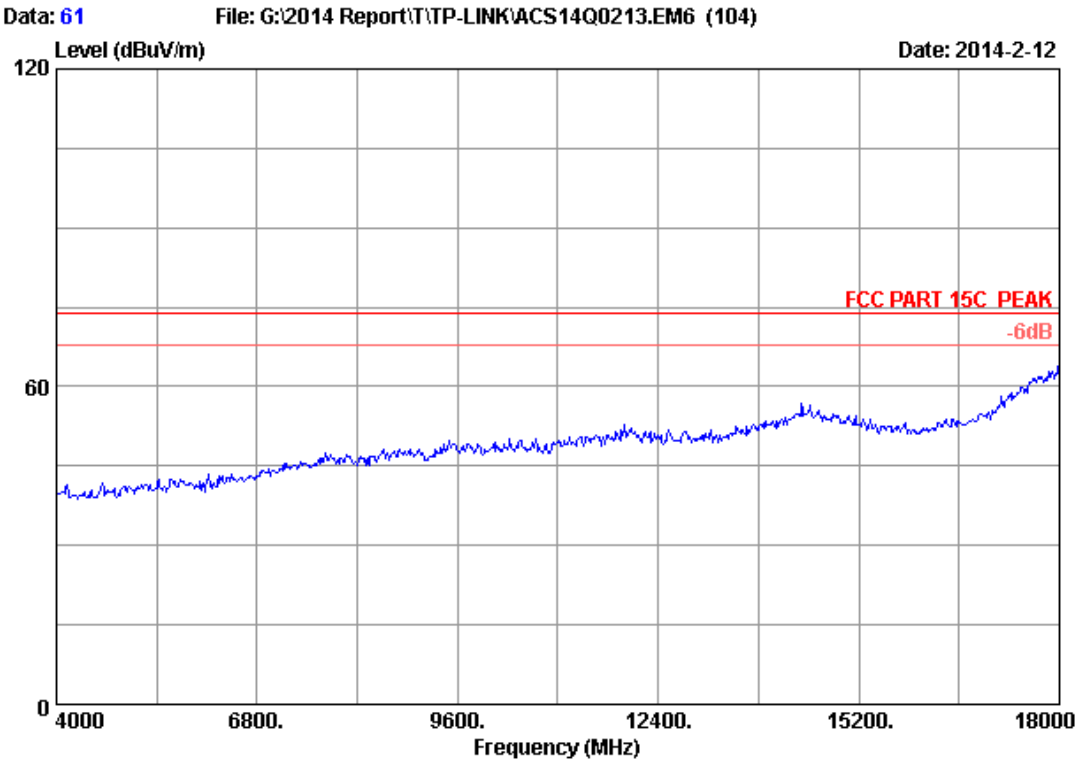

```
Site no.      : 3m Chamber                        Data no.   : 59
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT20 2412MHz Tx Mode
M/N           : TD-W8901N
```



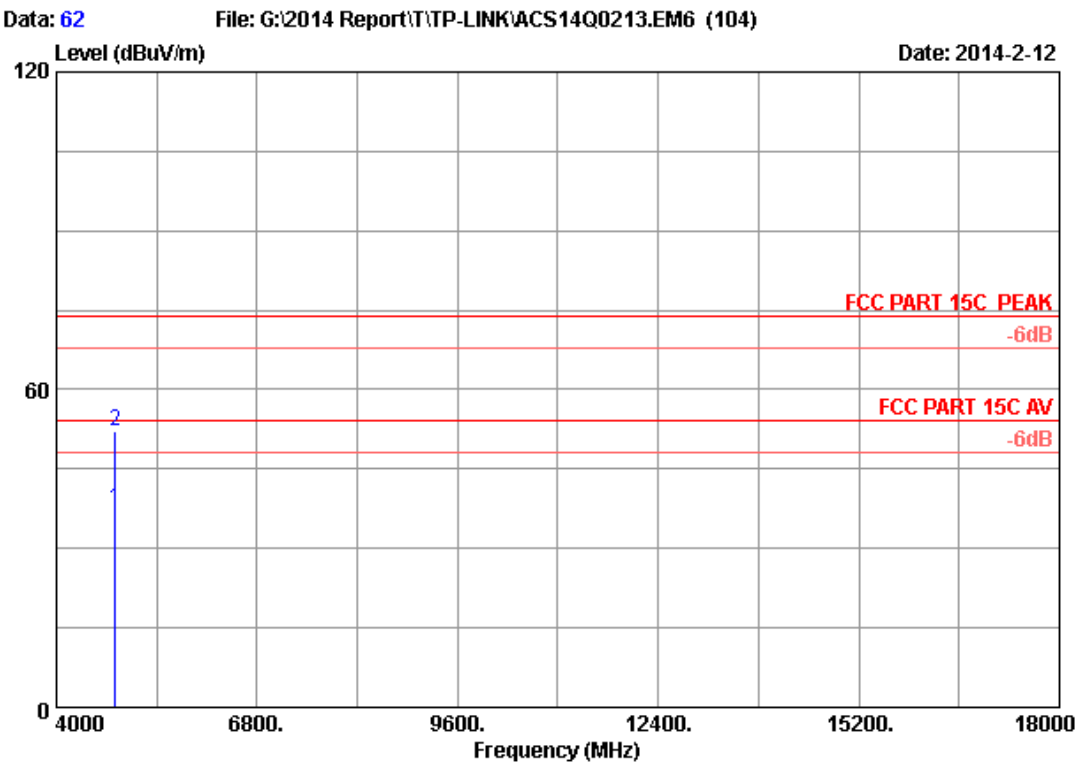
Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.88	8.58	35.70	31.54	37.30	54.00	16.70	Average
2	4824.000	32.88	8.58	35.70	45.94	51.70	74.00	22.30	Peak

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



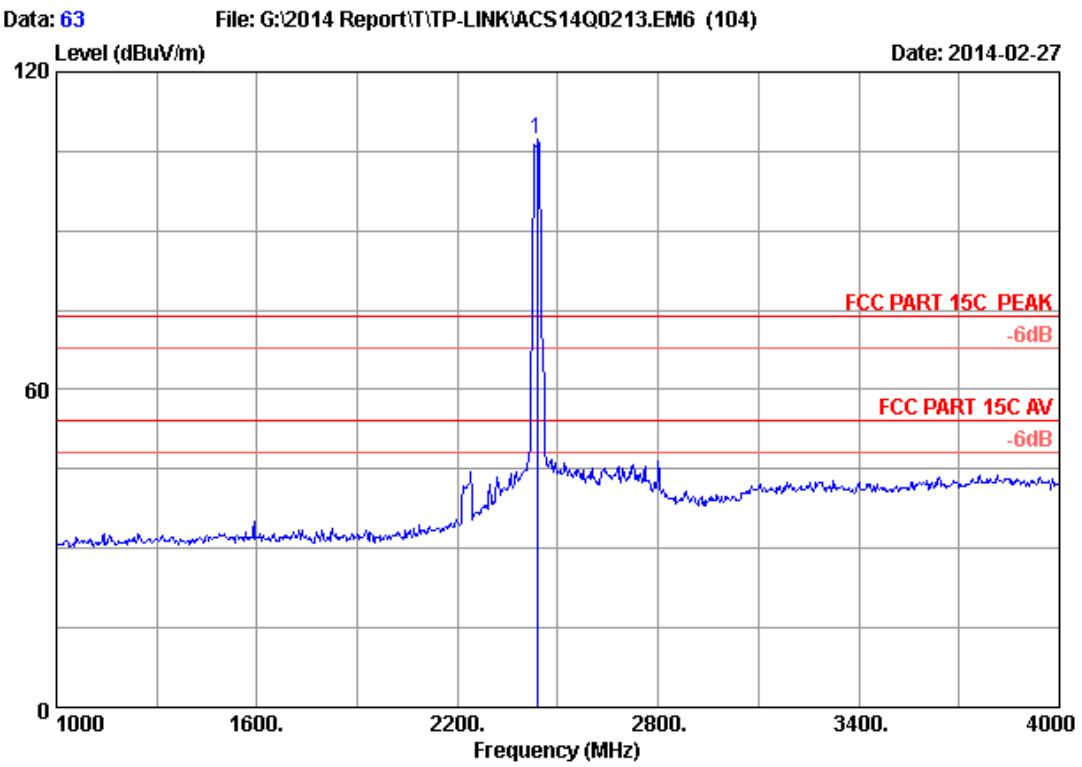

```
Site no.      : 3m Chamber                        Data no.   : 61
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT20 2412MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	32.88	8.58	35.70	31.56	37.32	54.00	16.68	Average
2	4824.000	32.88	8.58	35.70	46.40	52.16	74.00	21.84	Peak

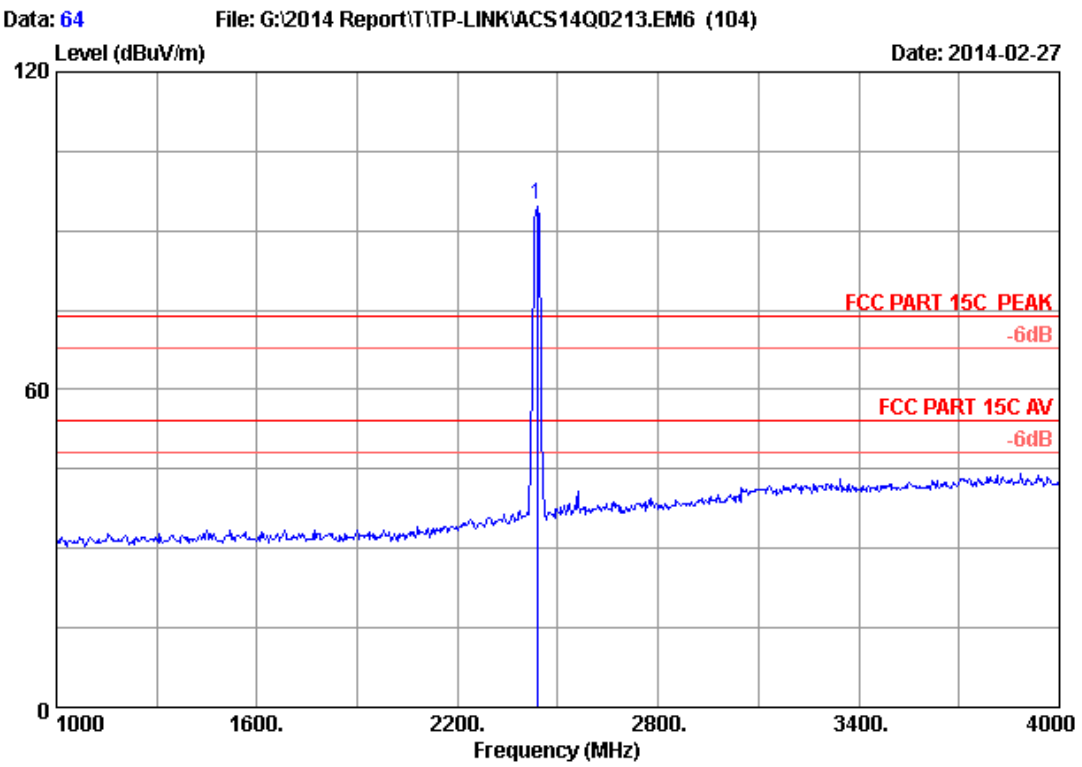
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 63
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	109.02	107.43	74.00	-33.43	Peak

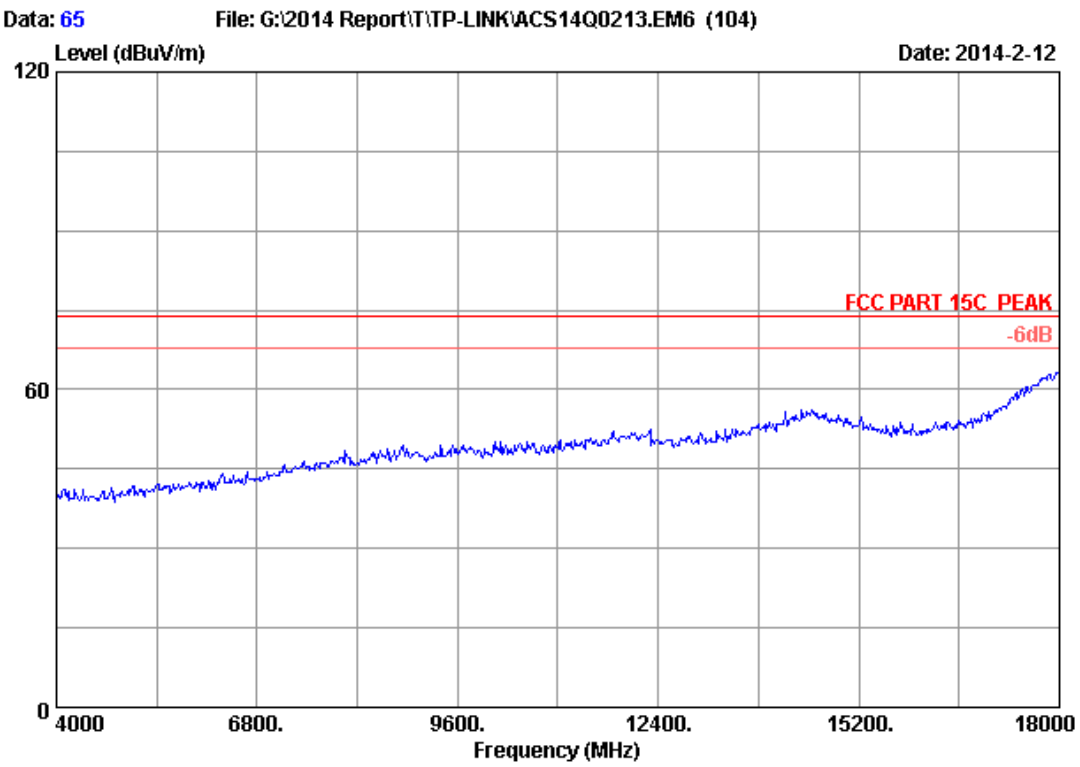
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



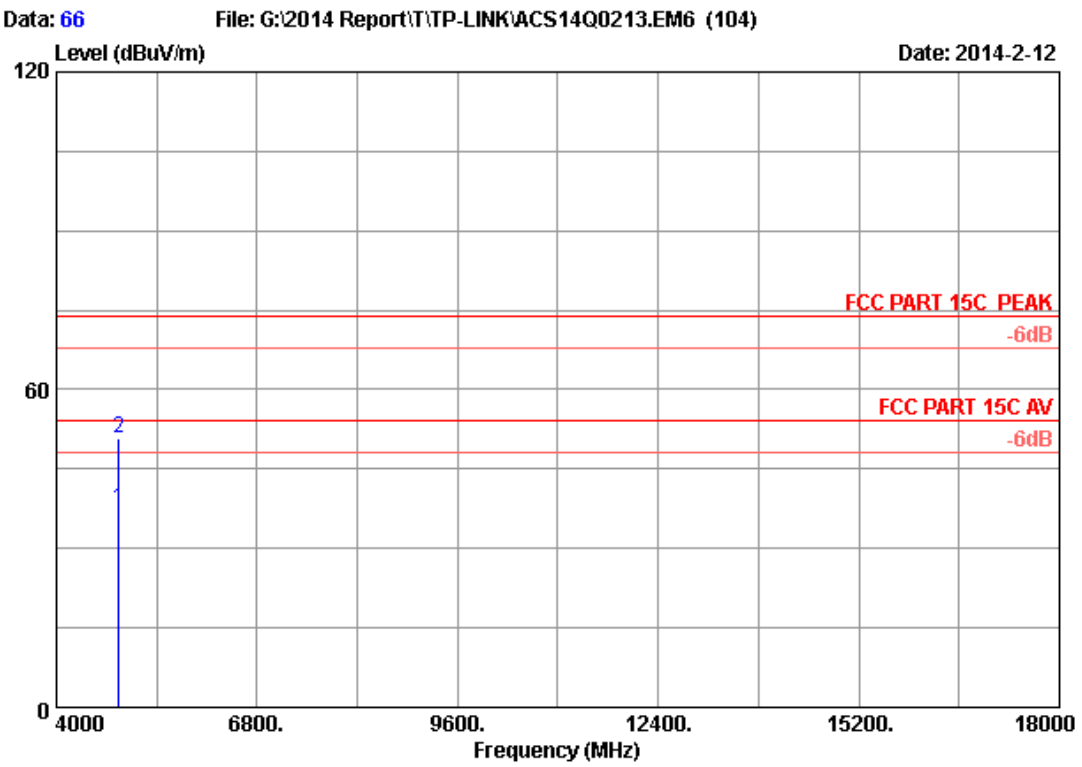
Site no. : 3m Chamber Data no. : 64
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	96.45	94.86	74.00	-20.86	Peak

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



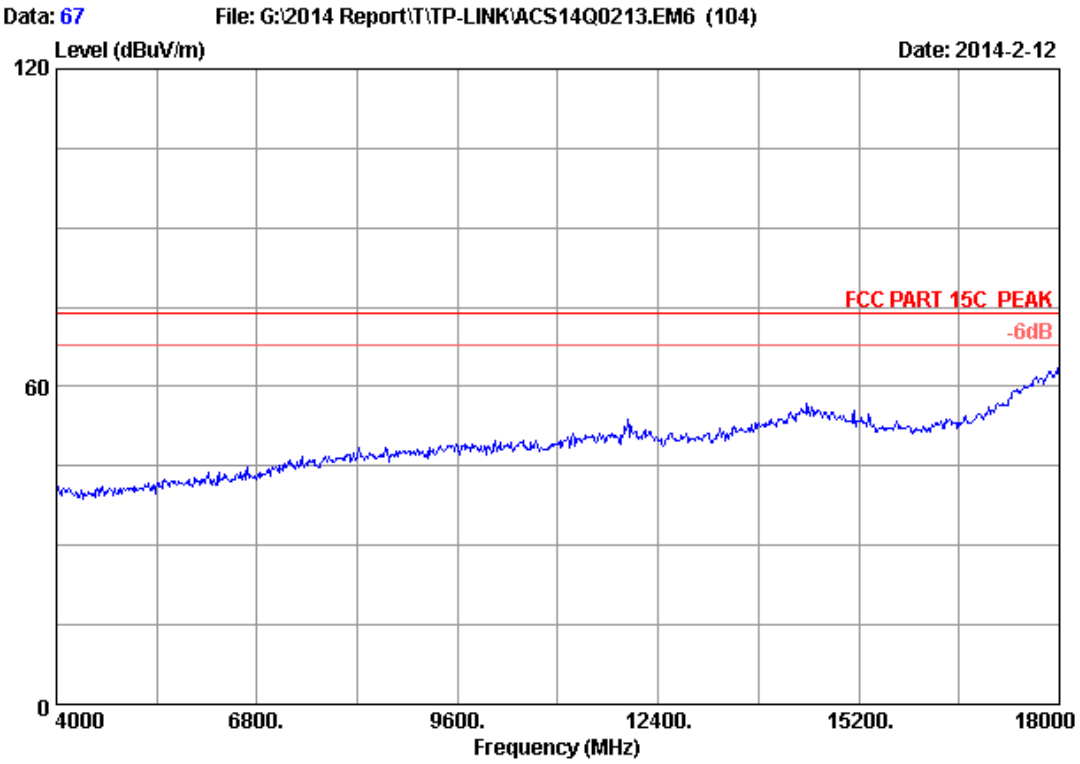

```
Site no.      : 3m Chamber                        Data no.   : 65
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT20 2437MHz Tx Mode
M/N           : TD-W8901N
```



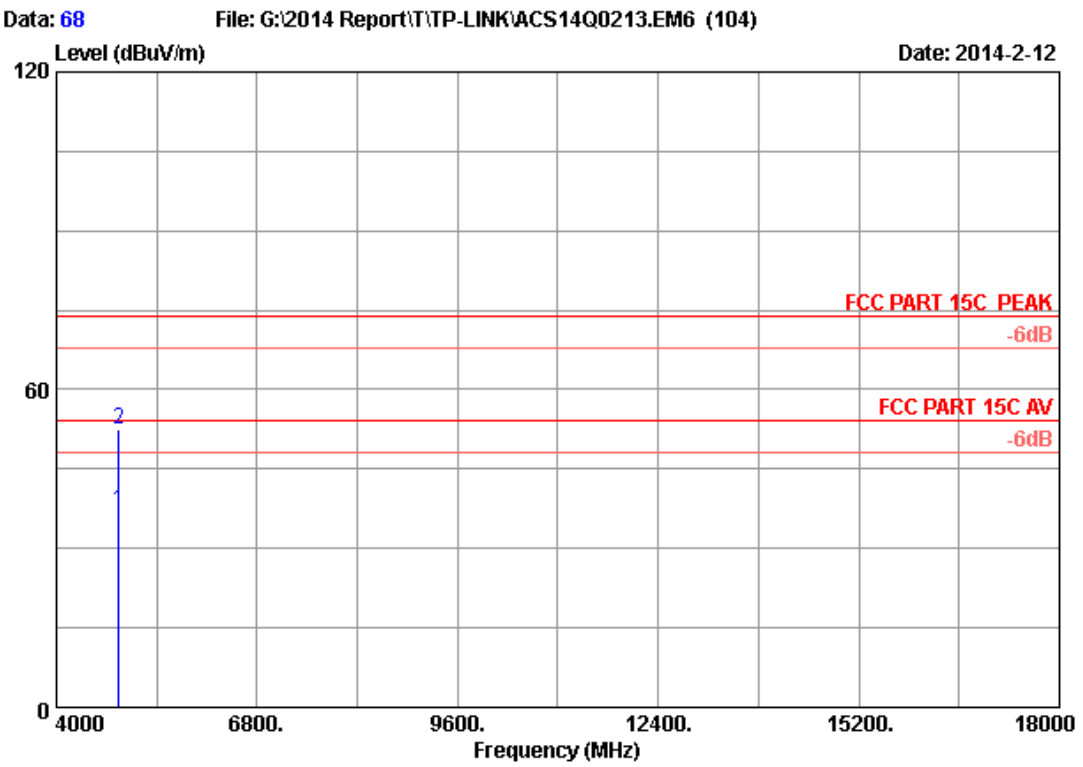
Site no. : 3m Chamber Data no. : 66
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	31.57	37.47	54.00	16.53	Average
2	4874.000	32.97	8.63	35.70	44.90	50.80	74.00	23.20	Peak

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



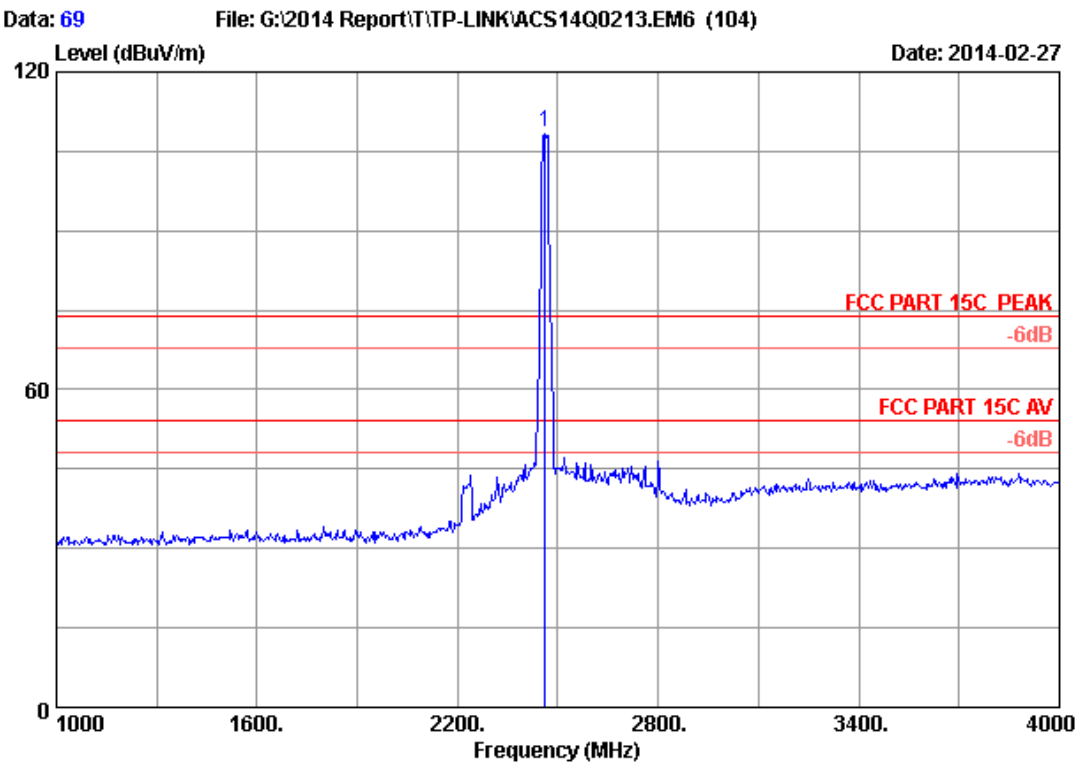

```
Site no.      : 3m Chamber                        Data no.   : 67
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT20 2437MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	31.33	37.23	54.00	16.77	Average
2	4874.000	32.97	8.63	35.70	46.42	52.32	74.00	21.68	Peak

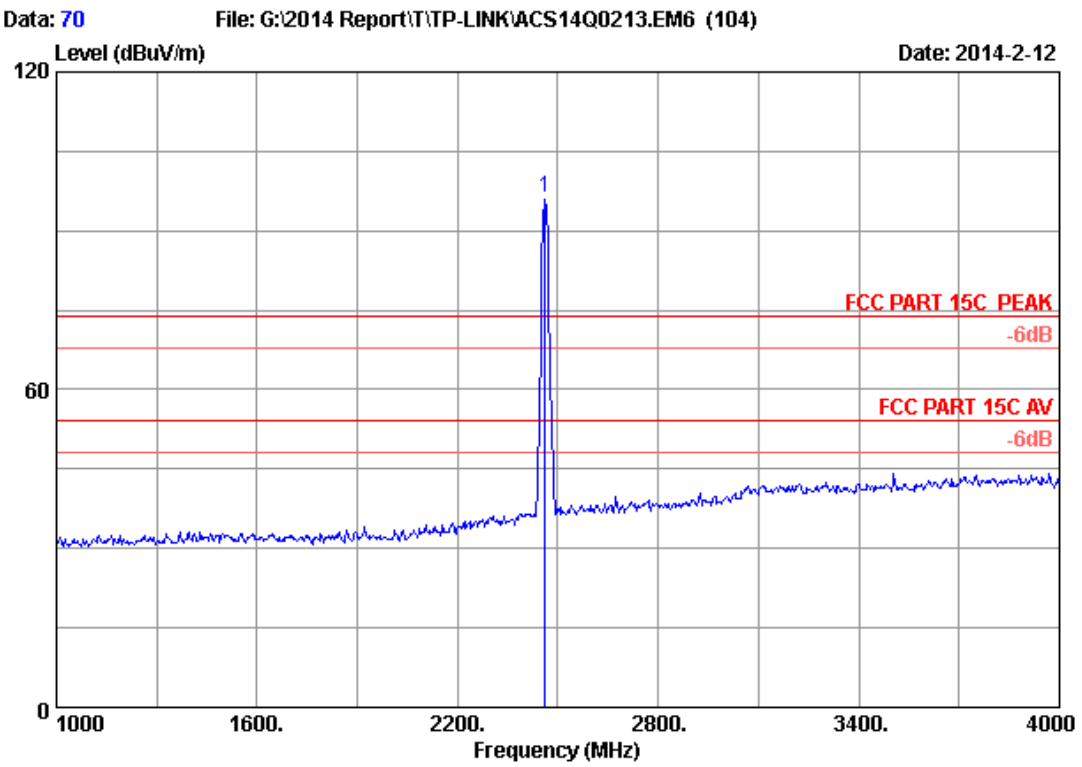
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 69
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	110.01	108.52	74.00	-34.52	Peak

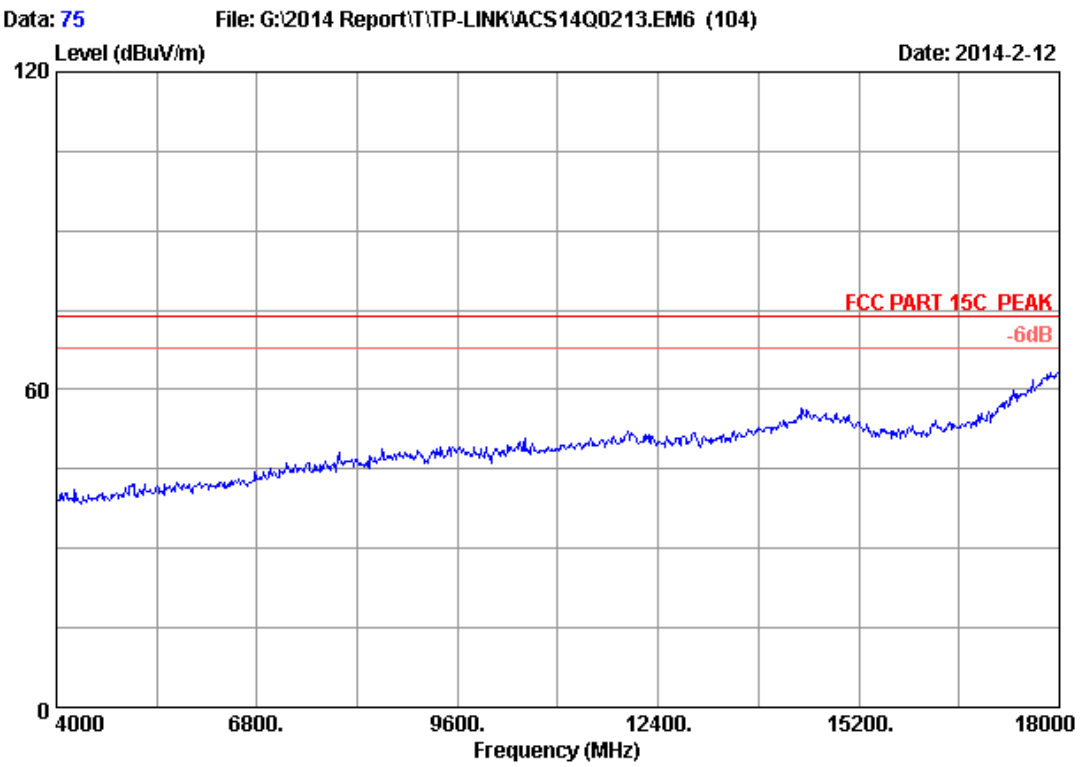
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	97.63	96.14	74.00	-22.14	Peak

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

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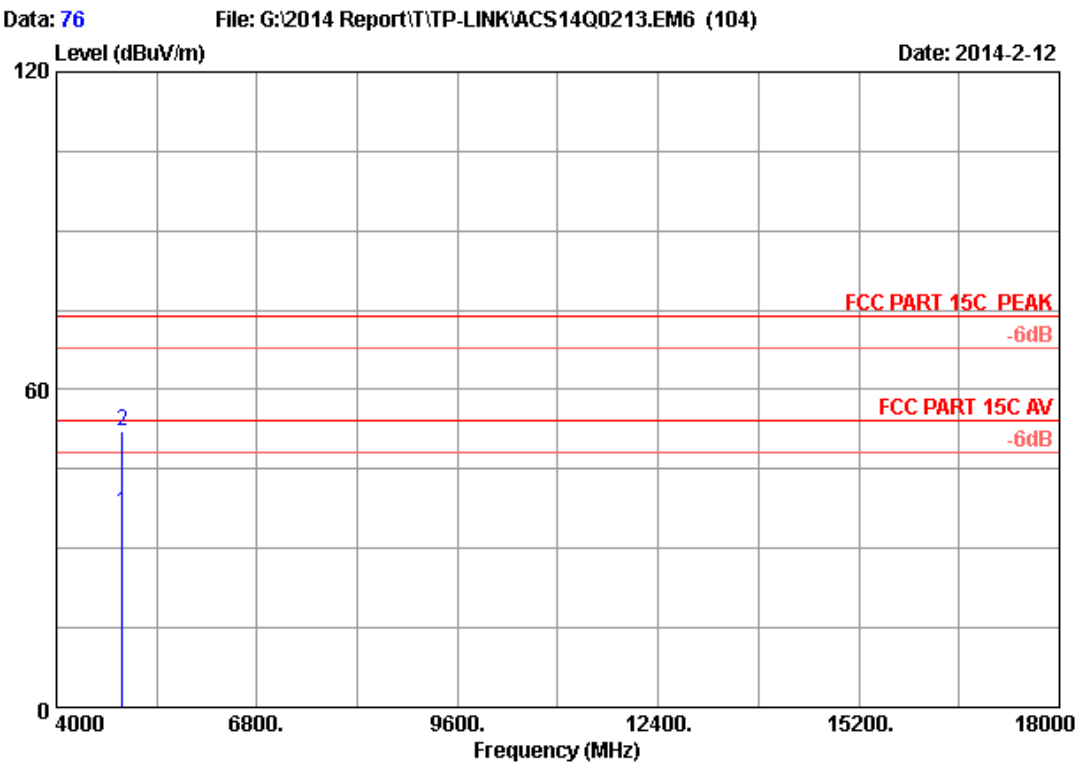
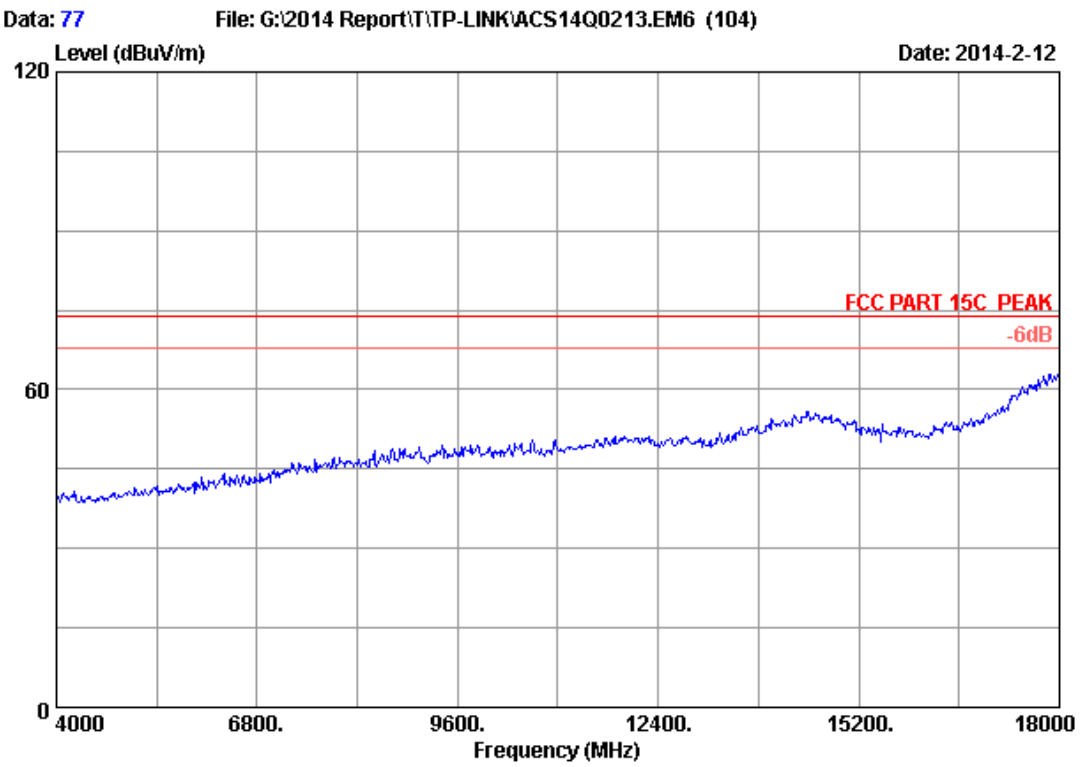
Site no.      : 3m Chamber                        Data no.   : 75
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT20 2462MHz Tx Mode
M/N           : TD-W8901N
```



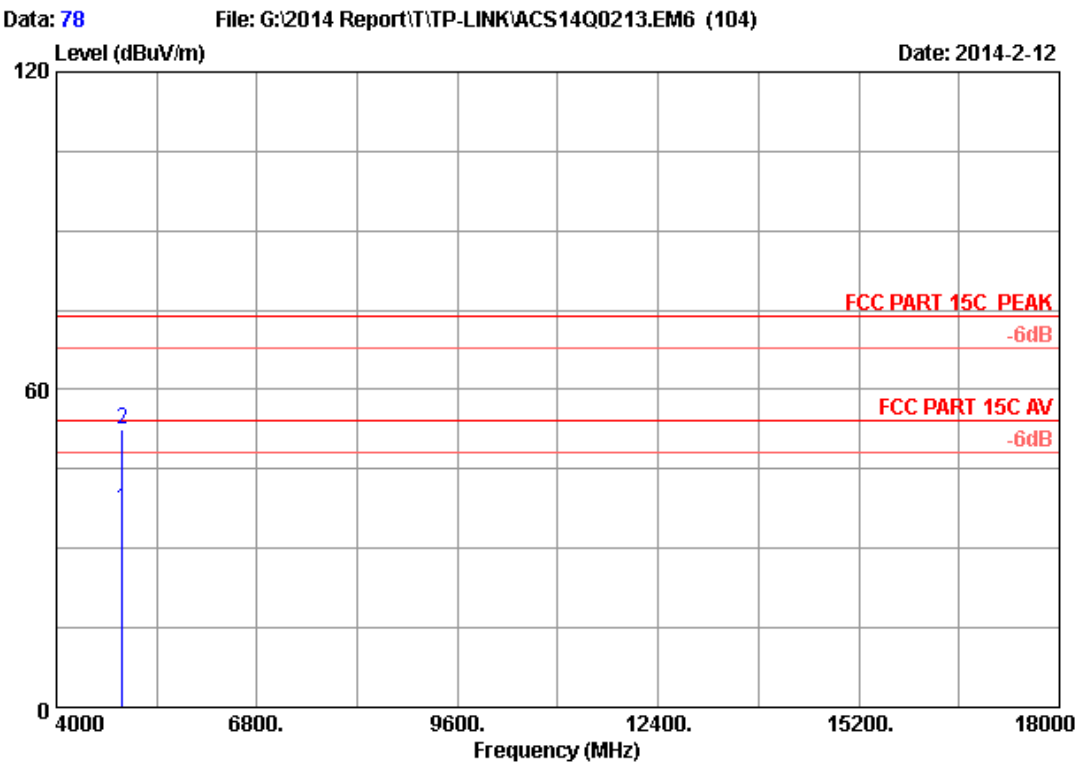
Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.06	8.69	35.70	30.61	36.66	54.00	17.34	Average
2	4924.000	33.06	8.69	35.70	45.95	52.00	74.00	22.00	Peak

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



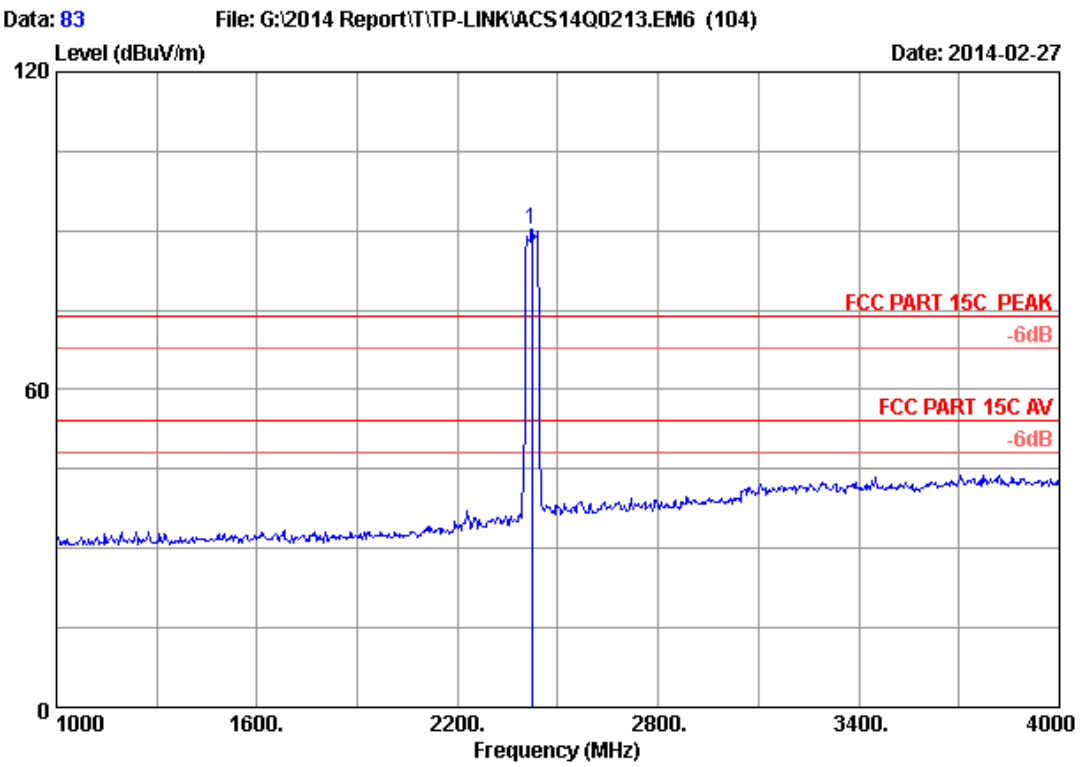

```
Site no.      : 3m Chamber                        Data no.   : 77
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT20 2462MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4924.000	33.06	8.69	35.70	31.25	37.30	54.00	16.70	Average
2	4924.000	33.06	8.69	35.70	46.40	52.45	74.00	21.55	Peak

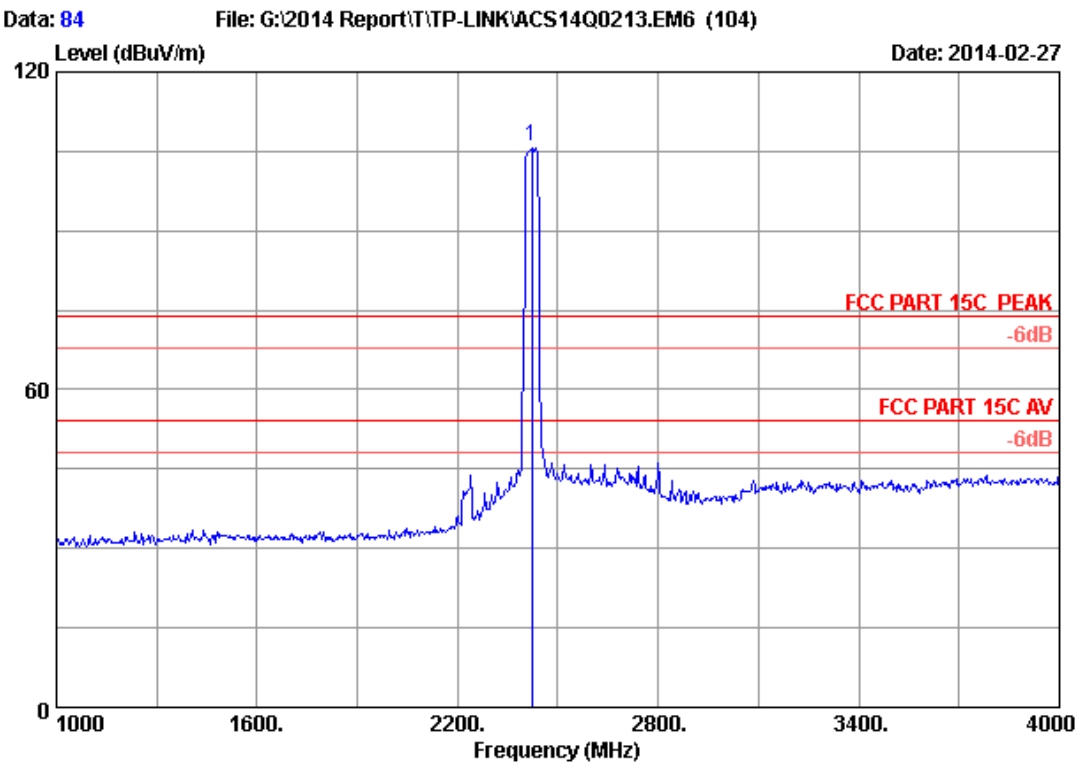
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 83
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	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	2422.000	28.23	5.83	35.70	92.00	90.36	74.00	-16.36	Peak

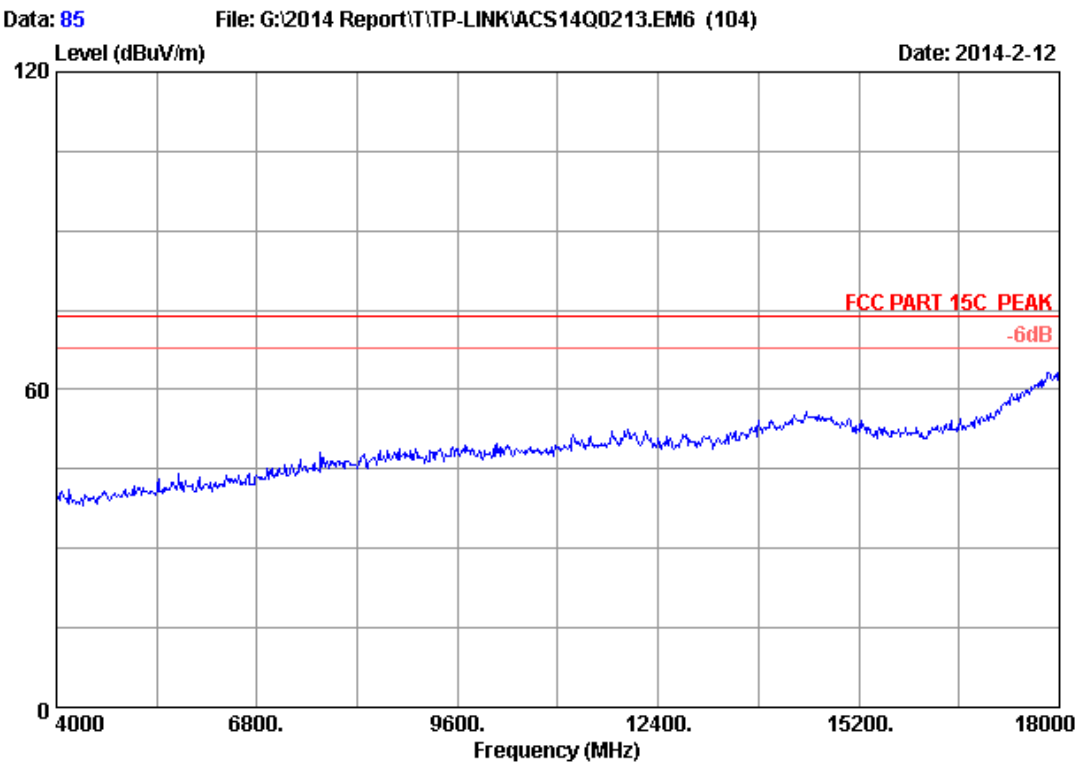
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 84
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	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	2422.000	28.23	5.83	35.70	107.57	105.93	74.00	-31.93	Peak

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

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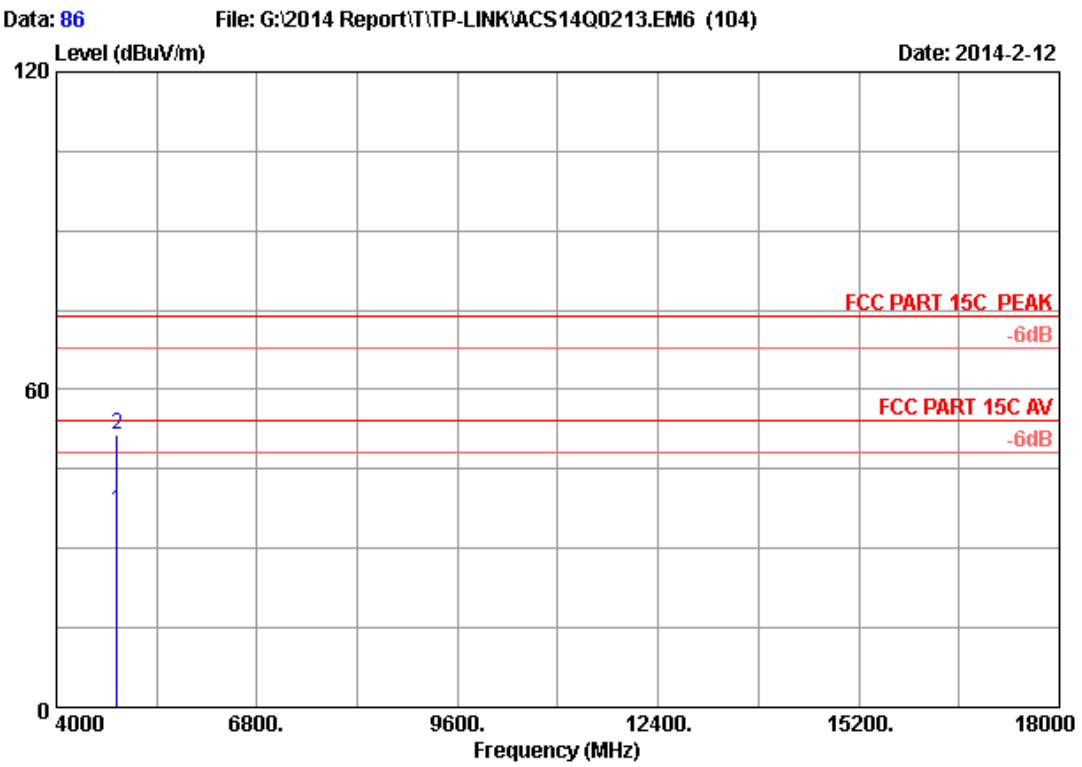
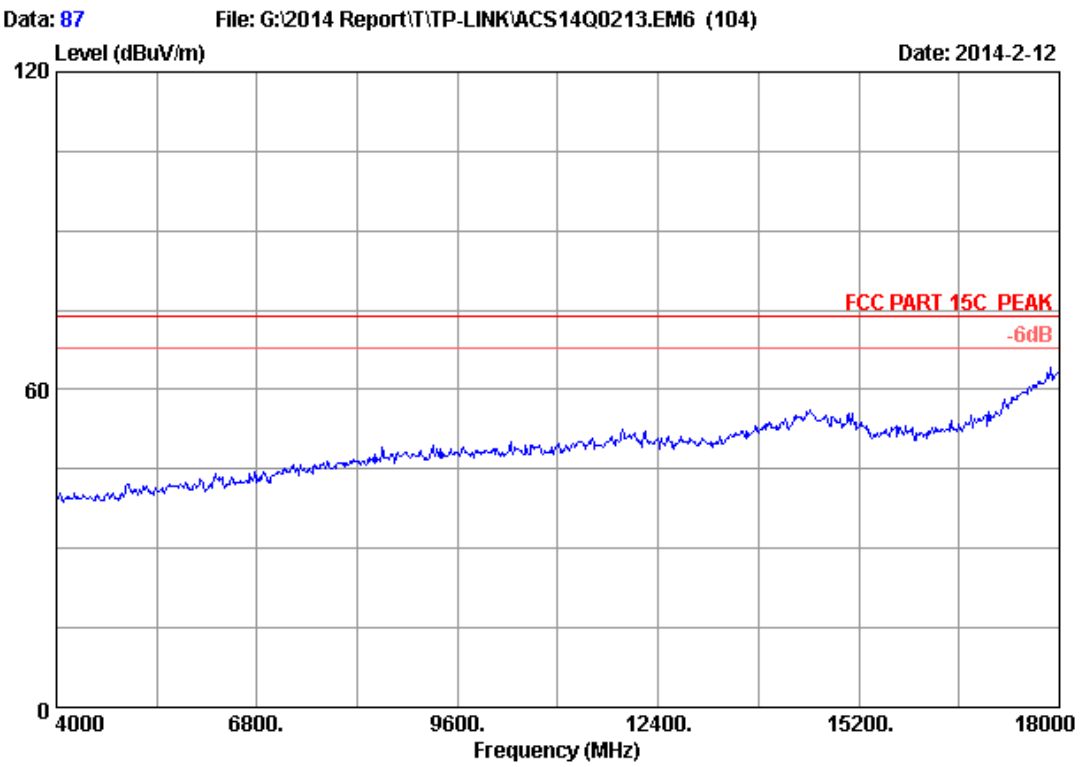
Site no.      : 3m Chamber                        Data no.   : 85
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT40 2422MHz Tx Mode
M/N           : TD-W8901N
```



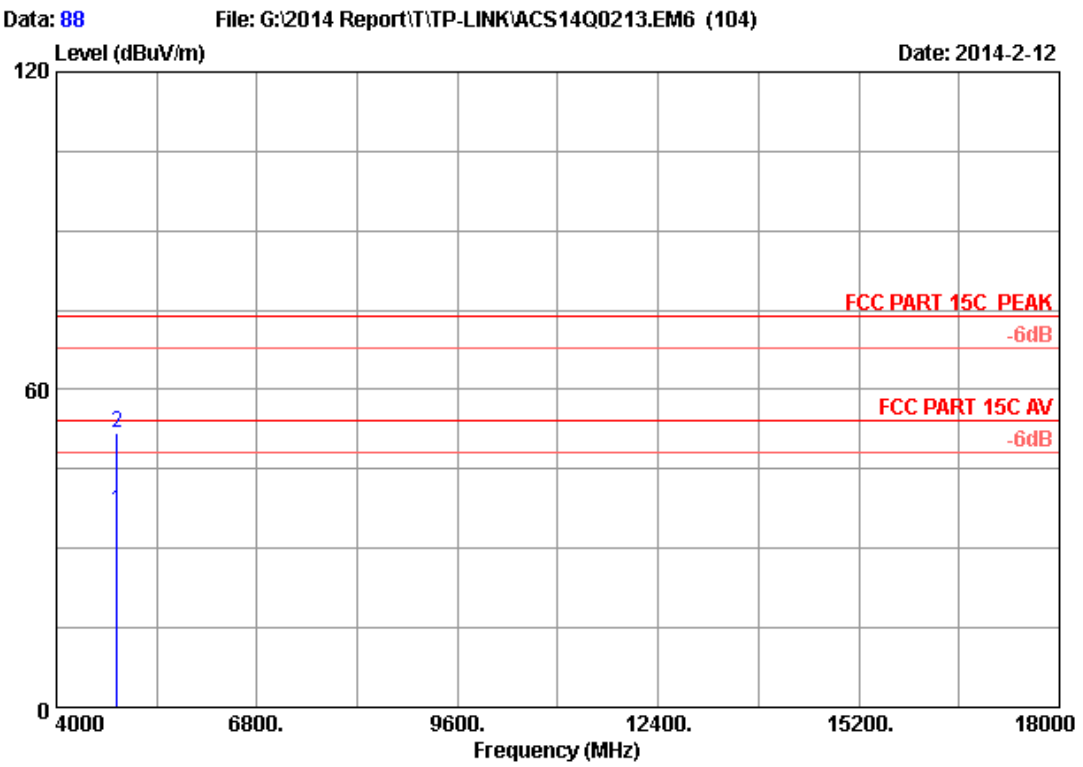
Site no. : 3m Chamber Data no. : 86
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	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	4844.000	32.92	8.60	35.70	31.25	37.07	54.00	16.93	Average
2	4844.000	32.92	8.60	35.70	45.62	51.44	74.00	22.56	Peak

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



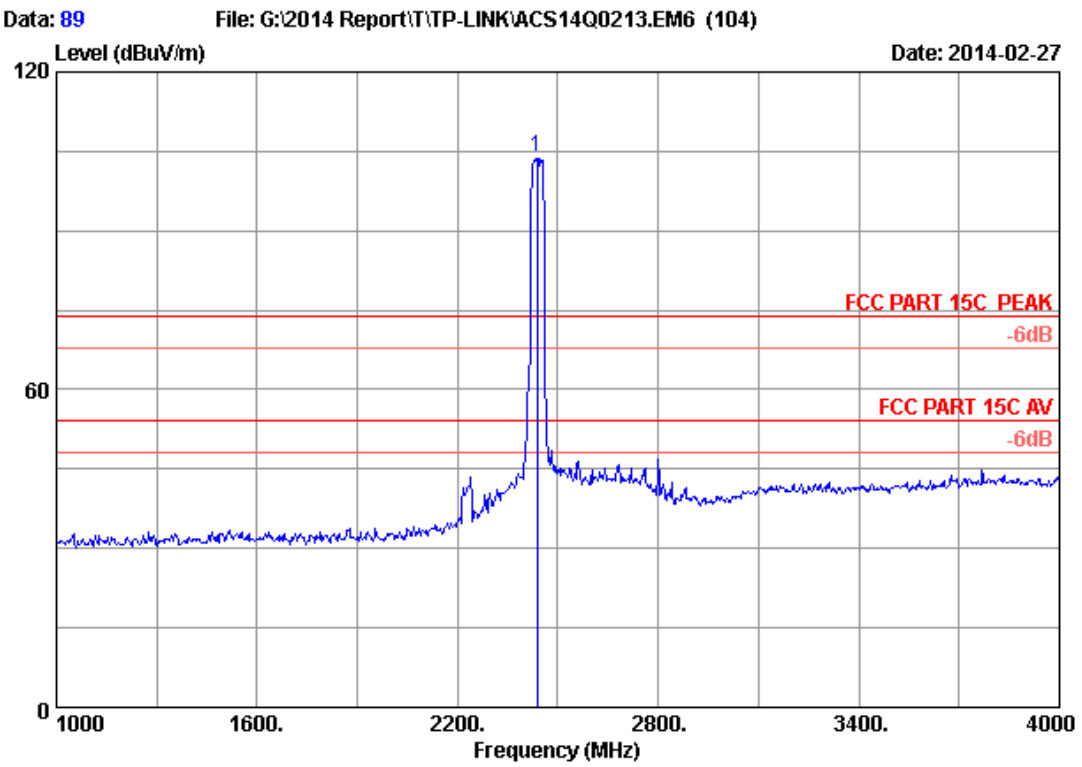

```
Site no.      : 3m Chamber                        Data no.   : 87
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT40 2422MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 88
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	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	4844.000	32.92	8.60	35.70	31.36	37.18	54.00	16.82	Average
2	4844.000	32.92	8.60	35.70	46.14	51.96	74.00	22.04	Peak

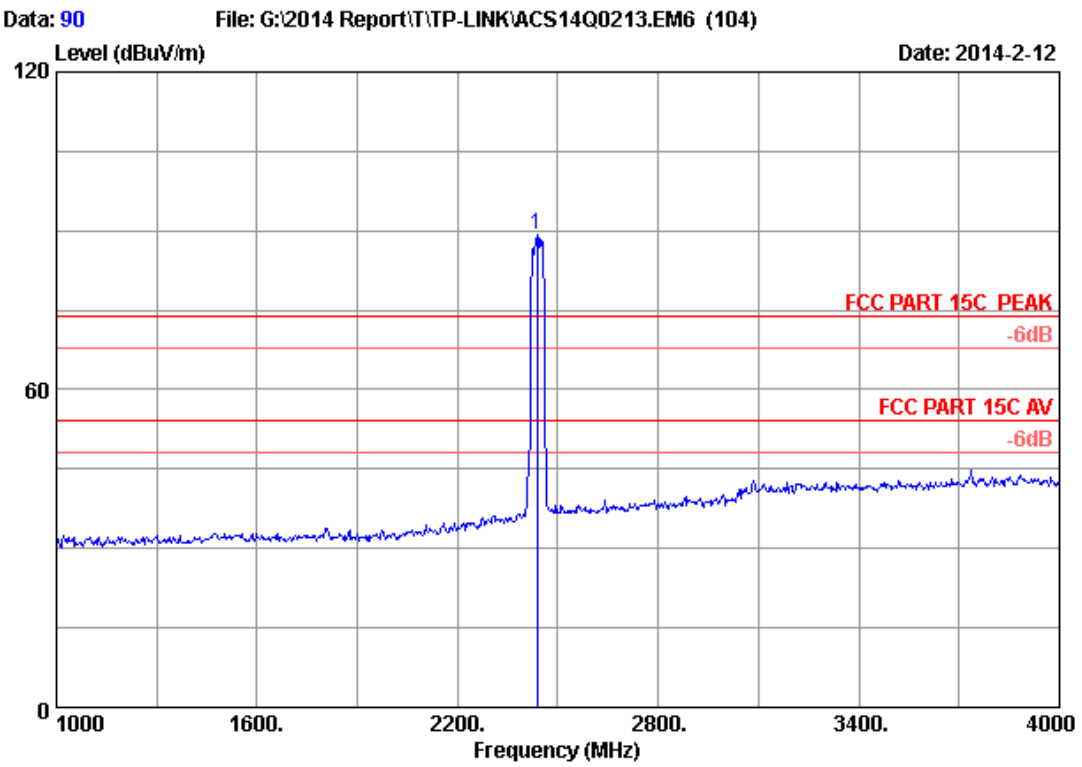
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 89
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	105.67	104.08	74.00	-30.08	Peak

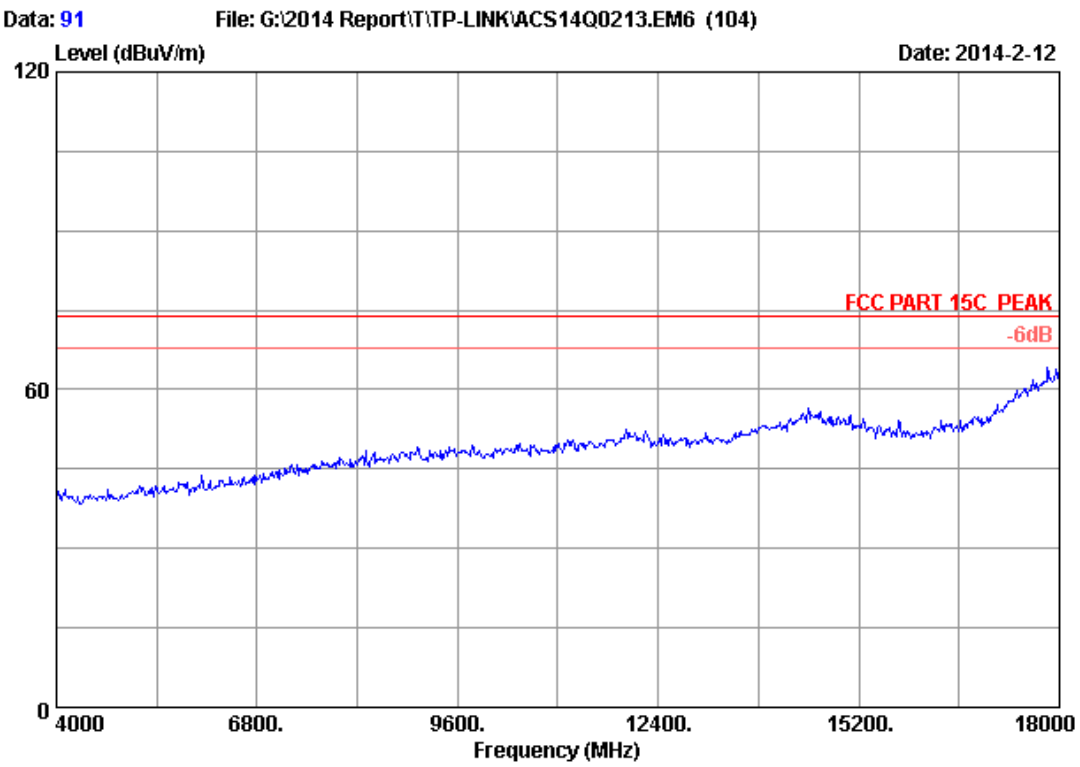
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



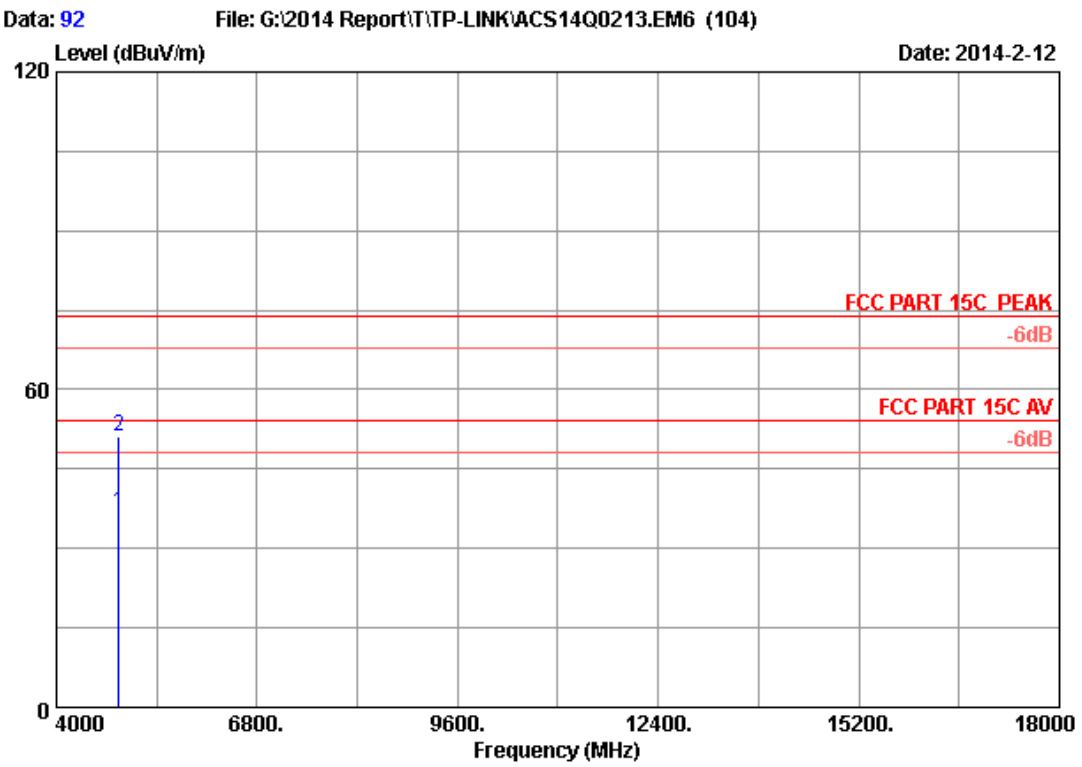
Site no. : 3m Chamber Data no. : 90
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx Mode
M/N : TD-W8901N

No.	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	2437.000	28.26	5.85	35.70	90.67	89.08	74.00	-15.08	Peak

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



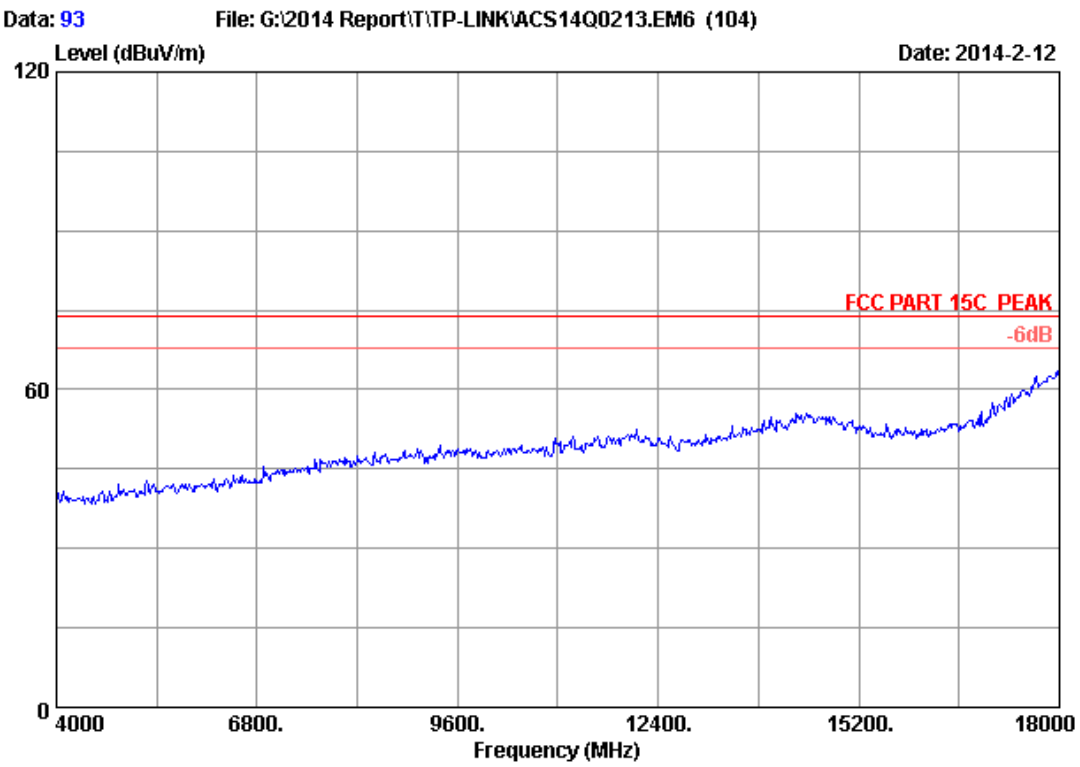

```
Site no.      : 3m Chamber                        Data no.   : 91
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT40 2437MHz Tx Mode
M/N           : TD-W8901N
```



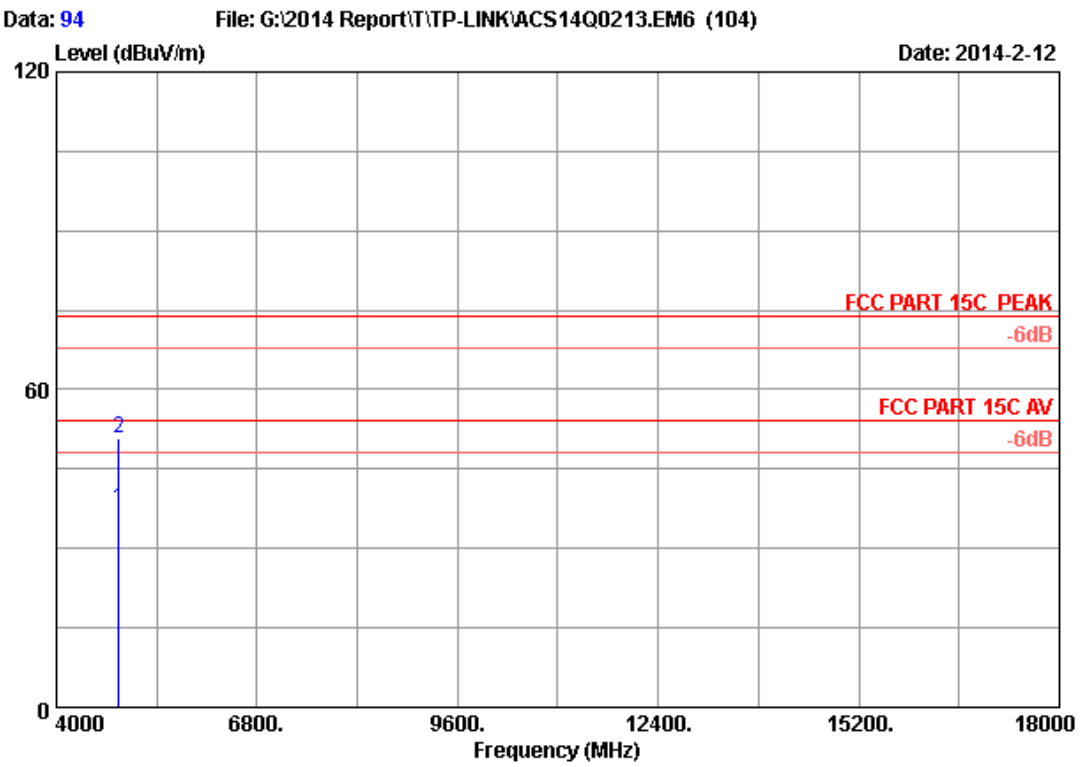
Site no. : 3m Chamber Data no. : 92
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	30.95	36.85	54.00	17.15	Average
2	4874.000	32.97	8.63	35.70	45.15	51.05	74.00	22.95	Peak

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



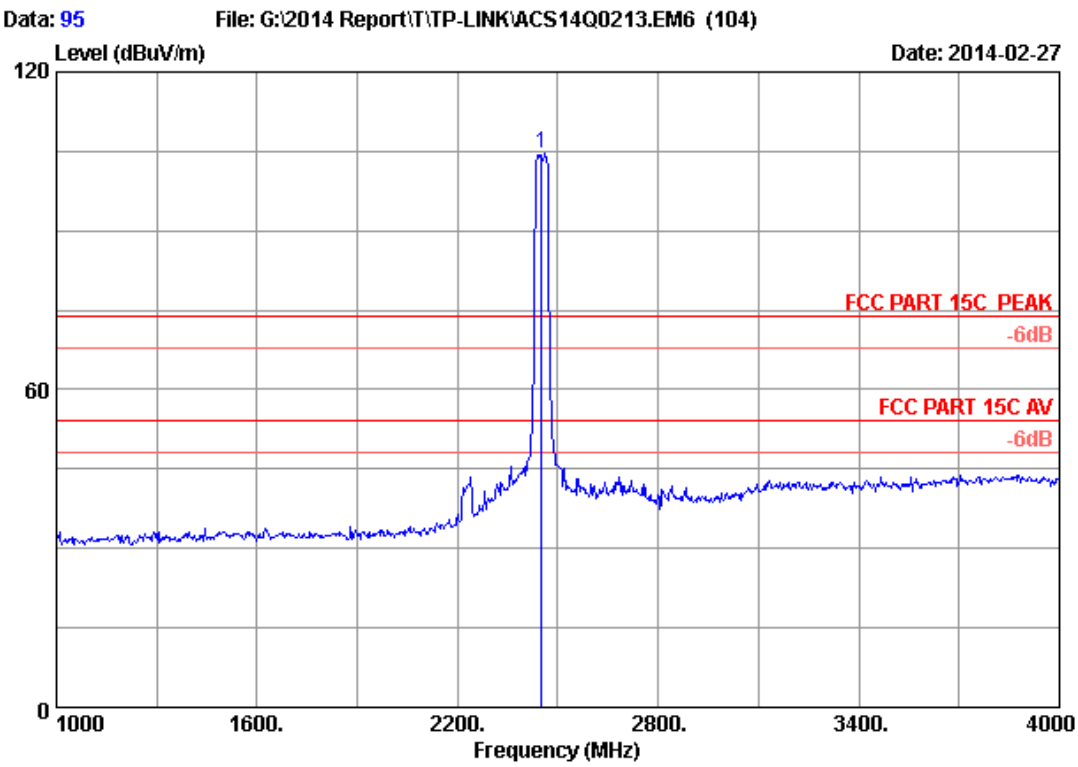

```
Site no.      : 3m Chamber                        Data no.   : 93
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT40 2437MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 94
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2437MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.97	8.63	35.70	31.41	37.31	54.00	16.69	Average
2	4874.000	32.97	8.63	35.70	44.83	50.73	74.00	23.27	Peak

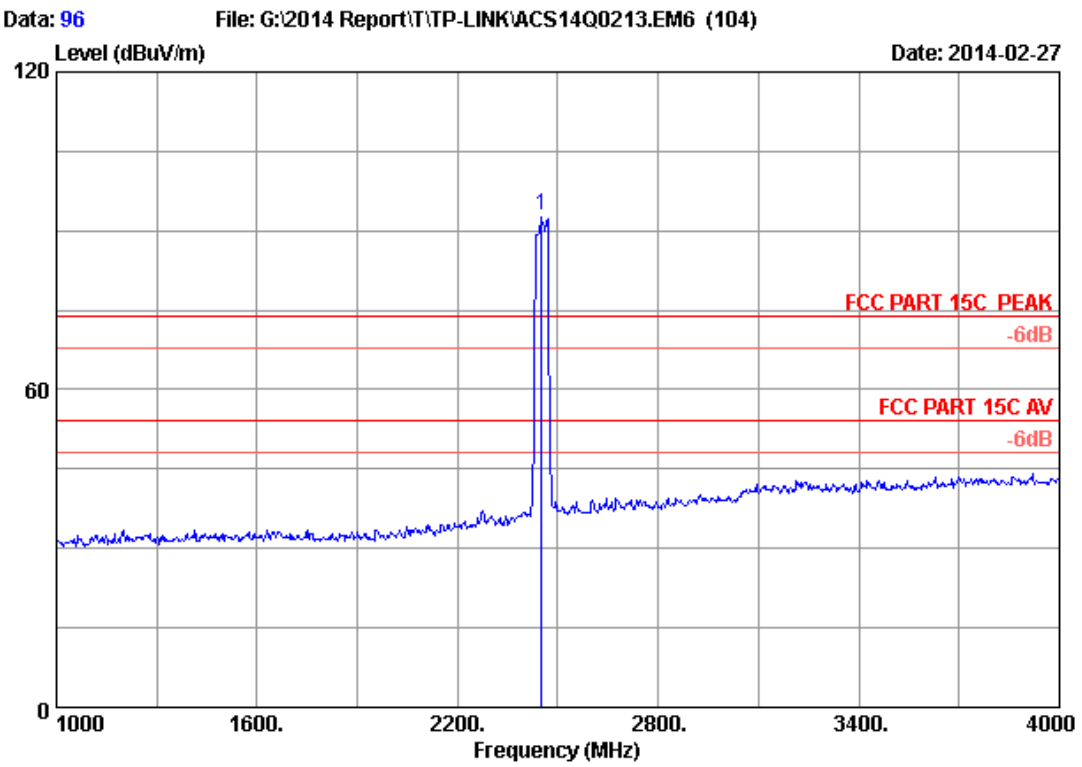
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 95
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	2452.000	28.29	5.87	35.70	106.32	104.78	74.00	-30.78	Peak

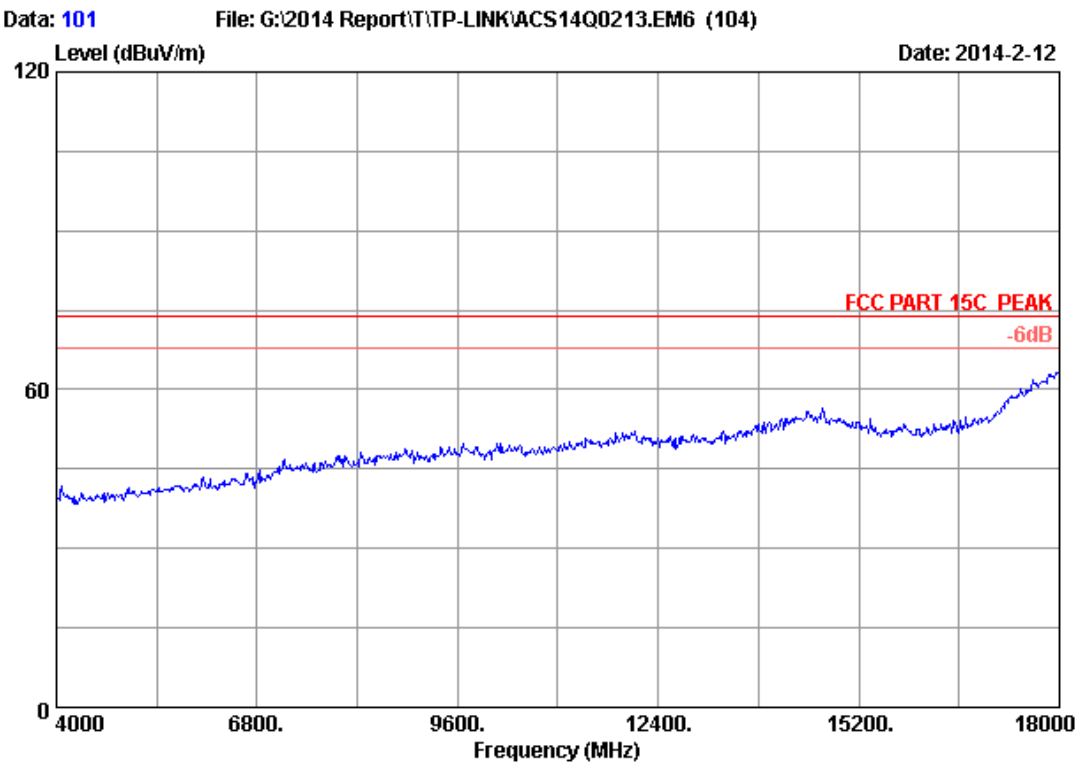
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



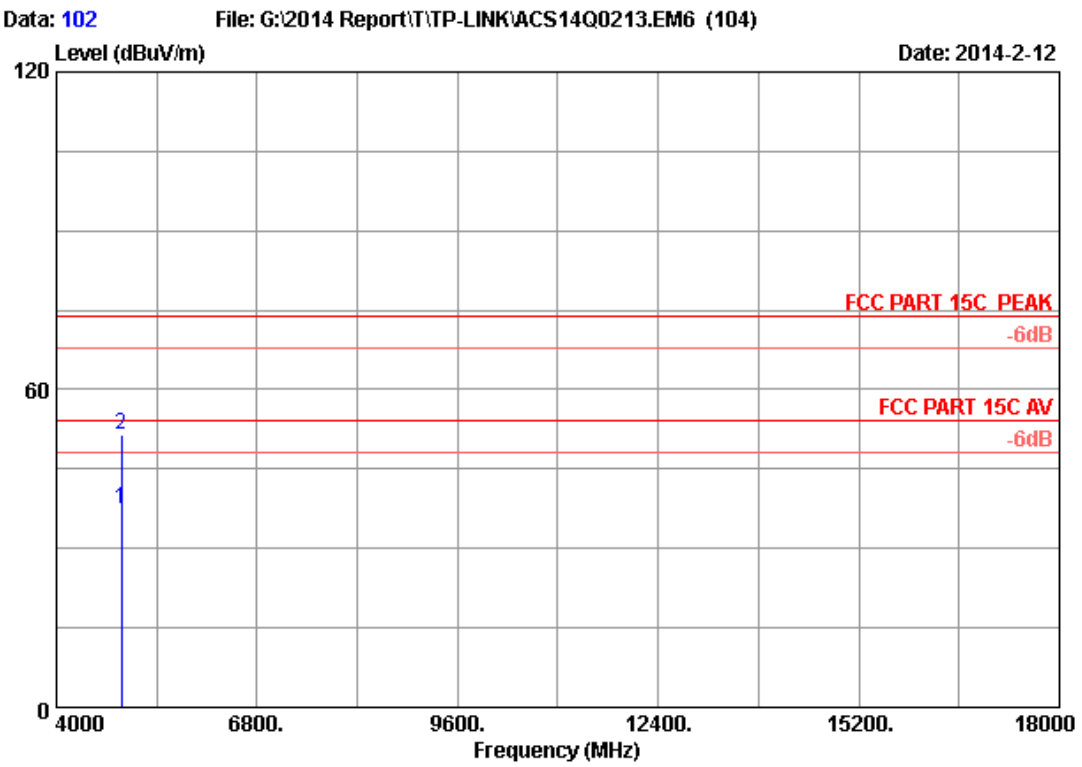
Site no. : 3m Chamber Data no. : 96
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	2452.000	28.29	5.87	35.70	94.34	92.80	74.00	-18.80	Peak

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



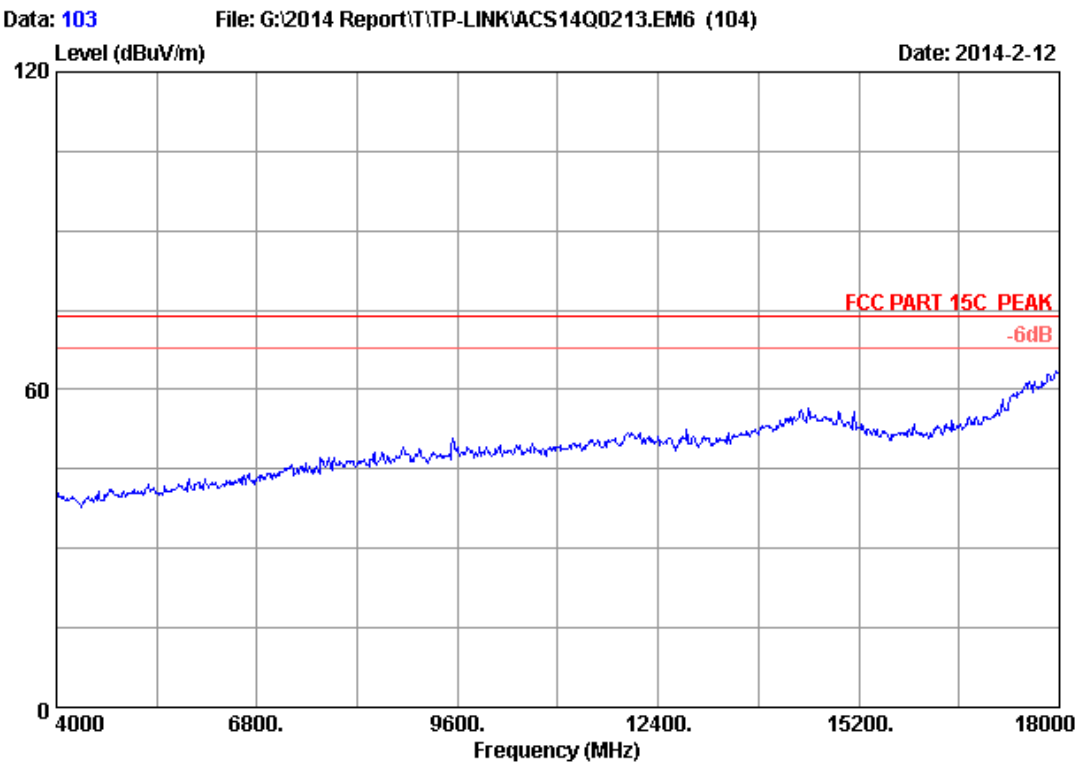

```
Site no.      : 3m Chamber                        Data no.   : 101
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT40 2452MHz Tx Mode
M/N           : TD-W8901N
```



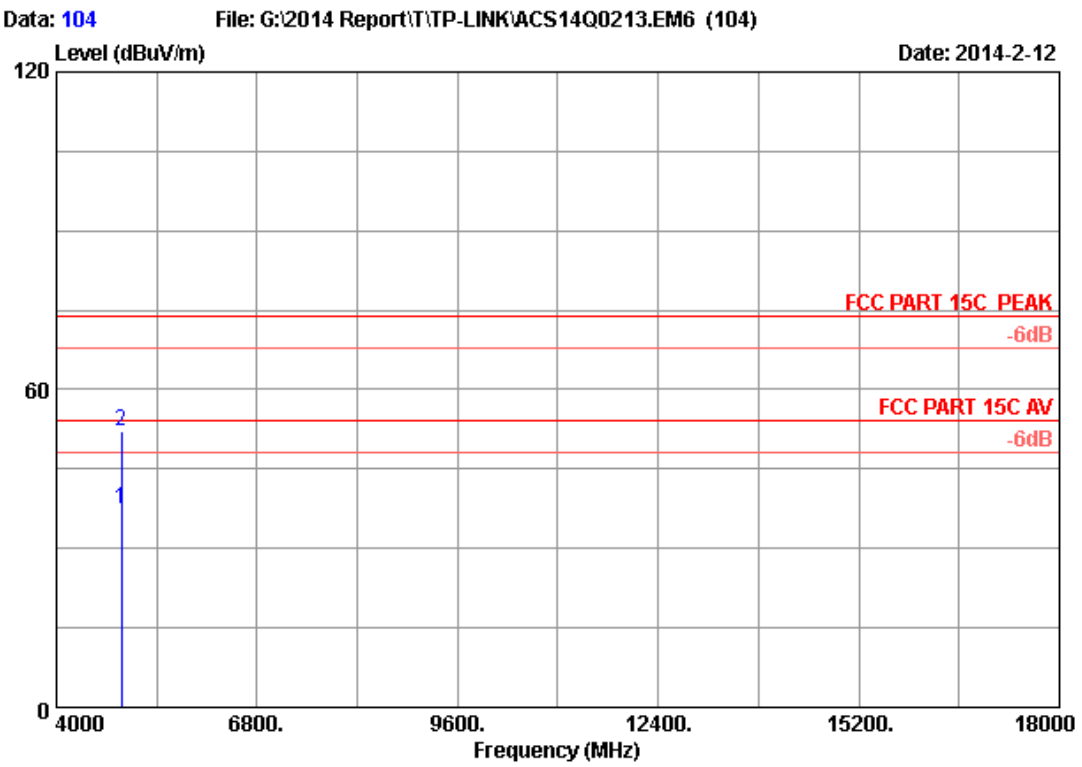
Site no. : 3m Chamber Data no. : 102
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	4904.000	33.03	8.66	35.70	31.52	37.51	54.00	16.49	Average
2	4904.000	33.03	8.66	35.70	45.62	51.61	74.00	22.39	Peak

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




```
Site no.      : 3m Chamber                        Data no.   : 103
Dis. / Ant.   : 3m   2013 3115 (4580)        Ant. pol. : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 24*C/56%                     Engineer   : Leo-Li
EUT           : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating  : DC 9V From Adapter input AC 120V/60Hz
Test Mode     : IEEE802.11nHT40 2452MHz Tx Mode
M/N           : TD-W8901N
```



Site no. : 3m Chamber Data no. : 104
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	4904.000	33.03	8.66	35.70	31.52	37.51	54.00	16.49	Average
2	4904.000	33.03	8.66	35.70	46.12	52.11	74.00	21.89	Peak

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

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.31, 13	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 13	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08, 13	1 Year

5.2.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.

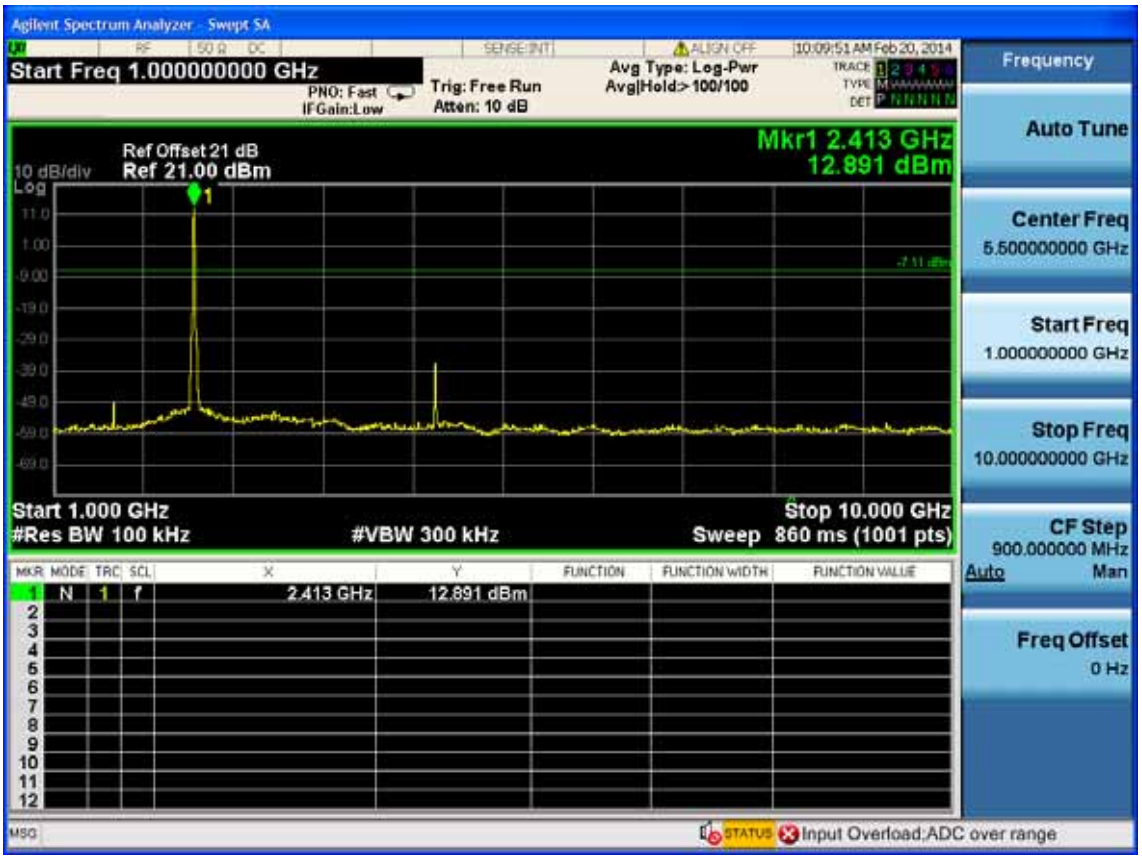
5.3.Test Procedure

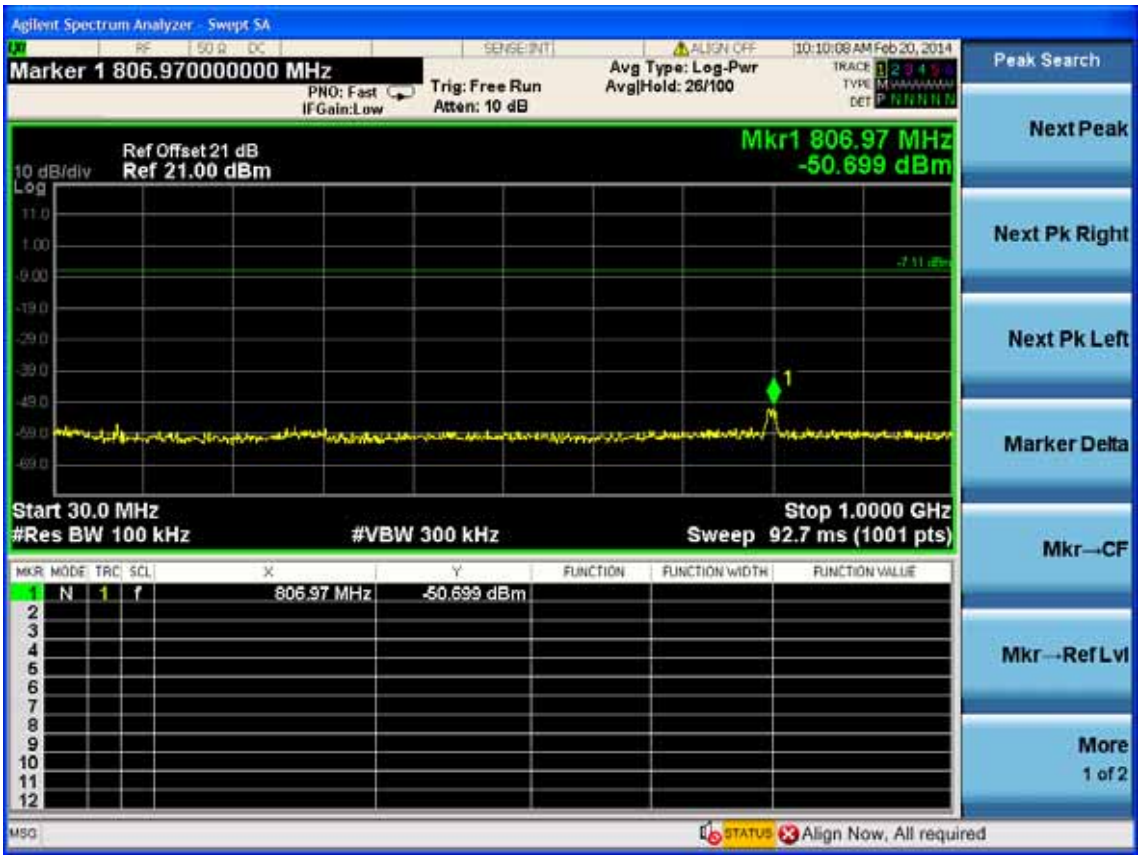
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

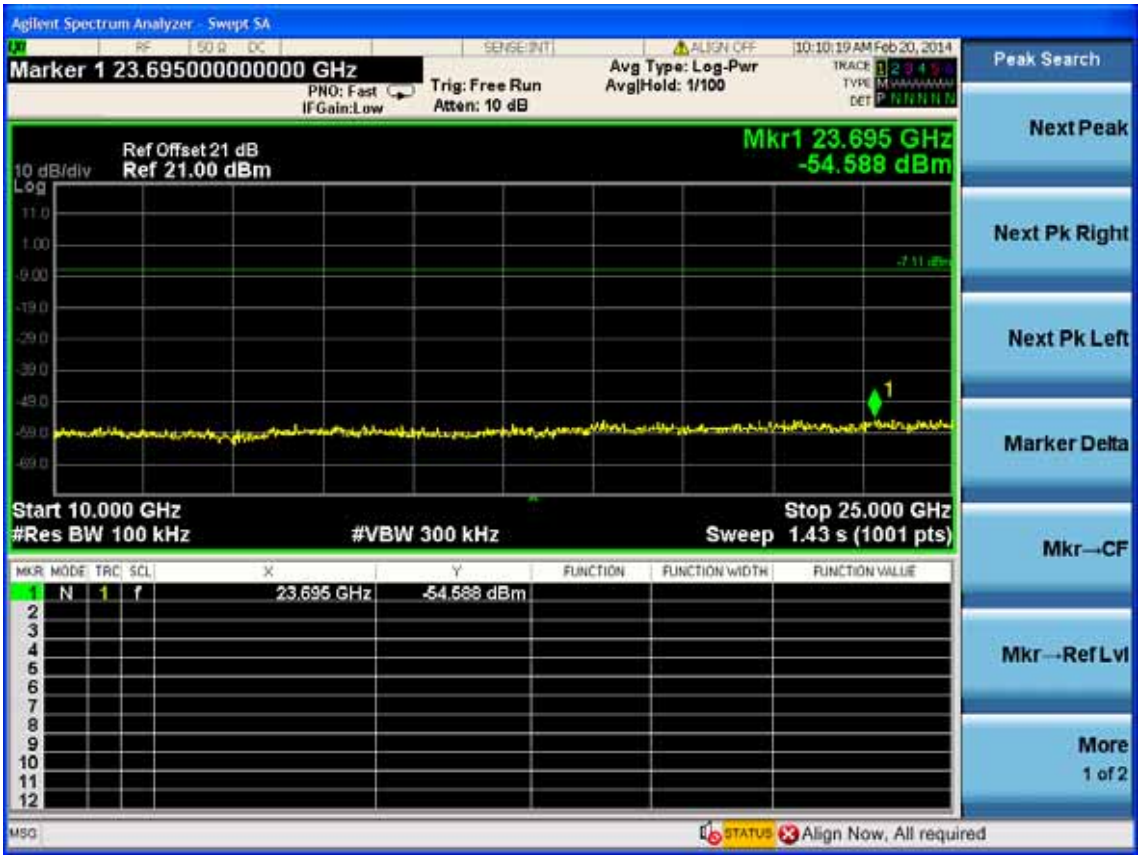
5.4.Test result

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

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

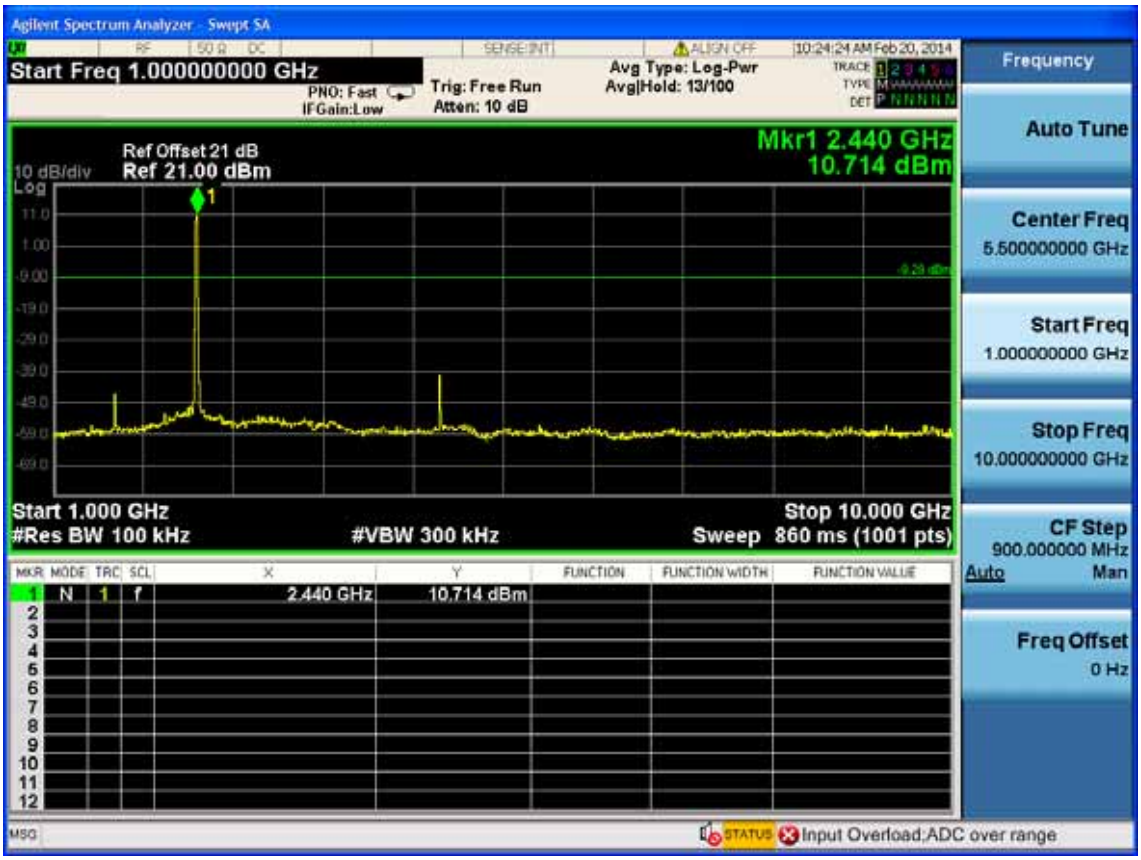


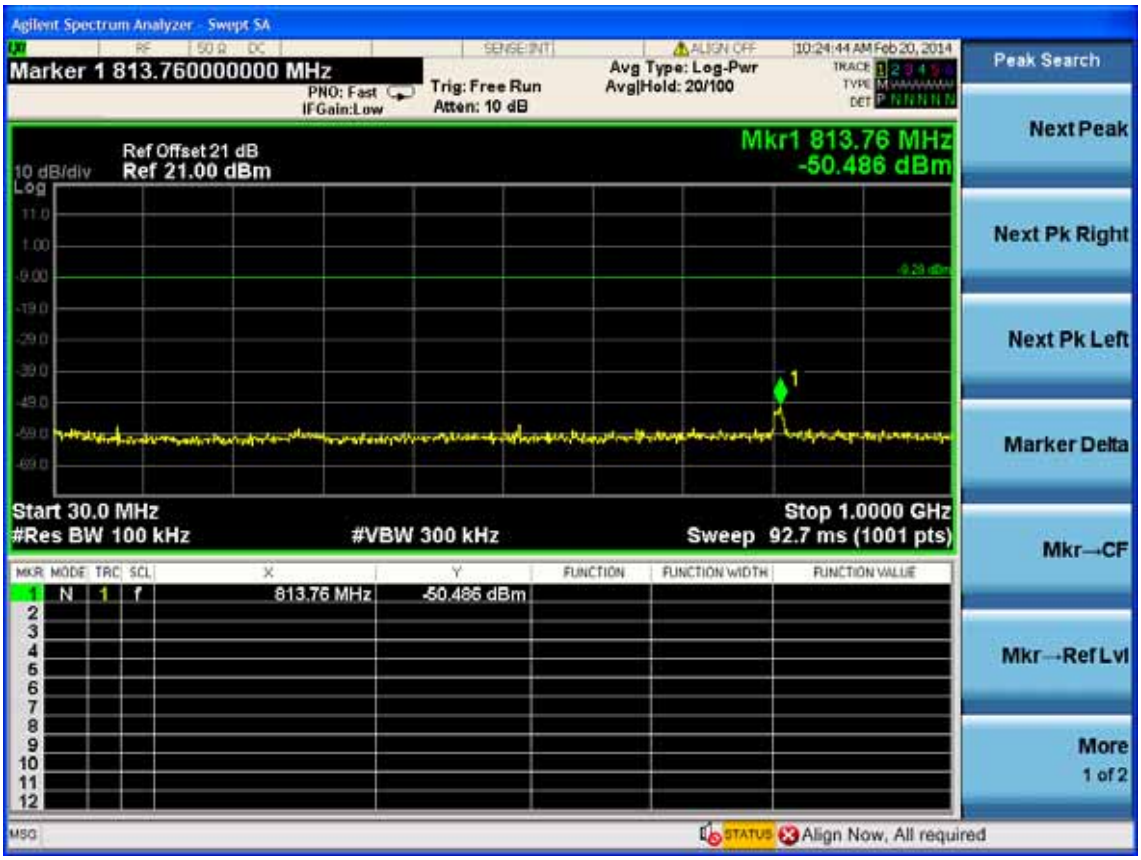


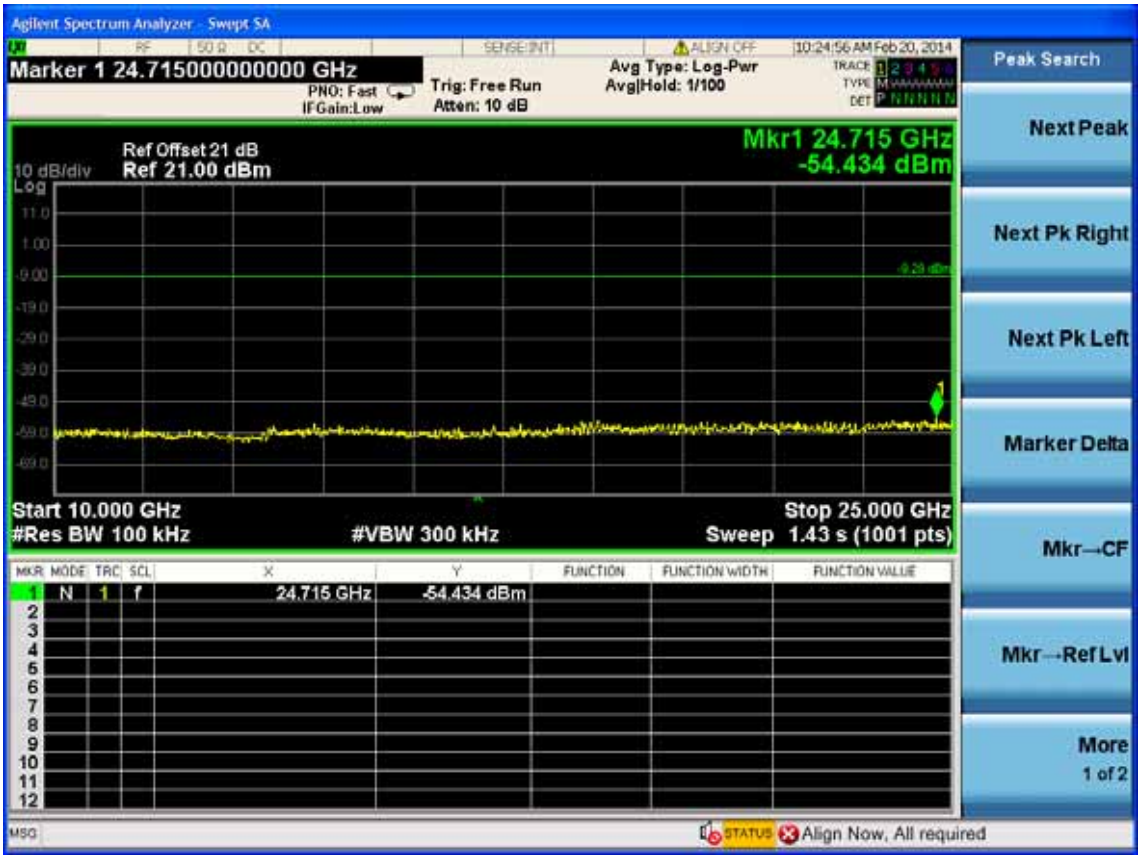

Agilent Spectrum Analyzer - Swept SA
Marker 1 23.695000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/100
10:10:19 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Mkr1 23.695 GHz
-54.588 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 1.43 s (1001 pts)
1 N 1 f 23.695 GHz -54.588 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

Agilent Spectrum Analyzer - Swept SA
Start Freq 2.310000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:11:47 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Mkr1 2.410 51 GHz
11.359 dBm
Start 2.31000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.42500 GHz
Sweep 11.0 ms (1001 pts)
1 N 1 f 2.410 51 GHz 11.359 dBm
2 N 1 f 2.390 00 GHz -43.637 dBm
3 N 1 f 2.400 00 GHz -32.825 dBm
4 N 1 f 2.398 55 GHz -29.202 dBm
Frequency
Auto Tune
Center Freq
2.367500000 GHz
Start Freq
2.310000000 GHz
Stop Freq
2.425000000 GHz
CF Step
11.500000 MHz
Auto
Man
Freq Offset
0 Hz
Align Now, All required

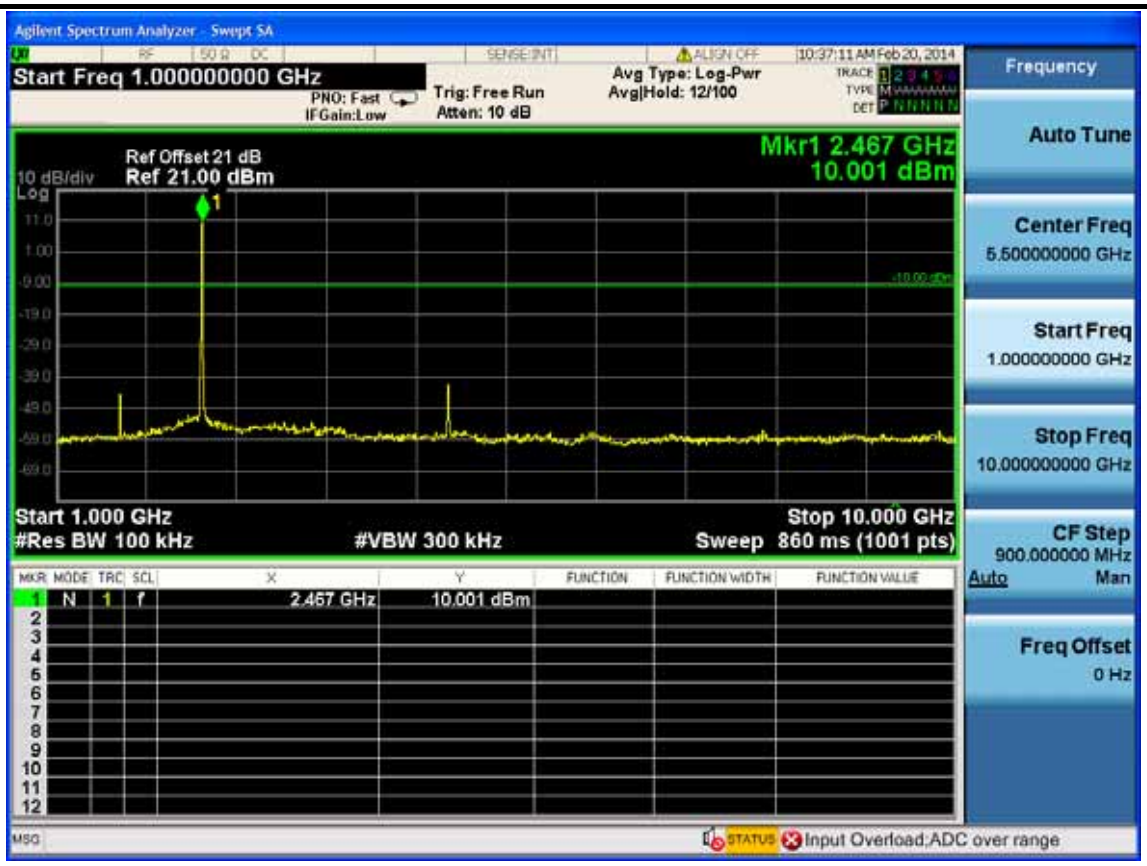
Test CH6: 2437MHz

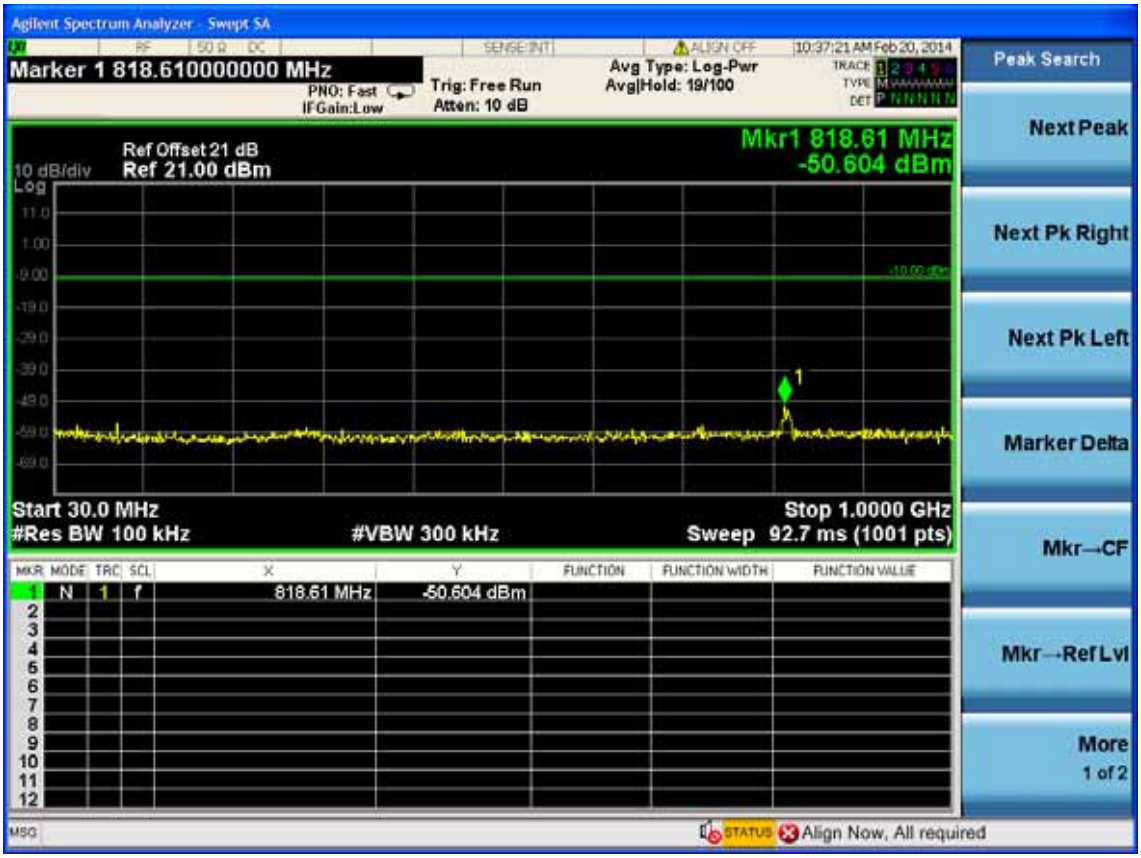


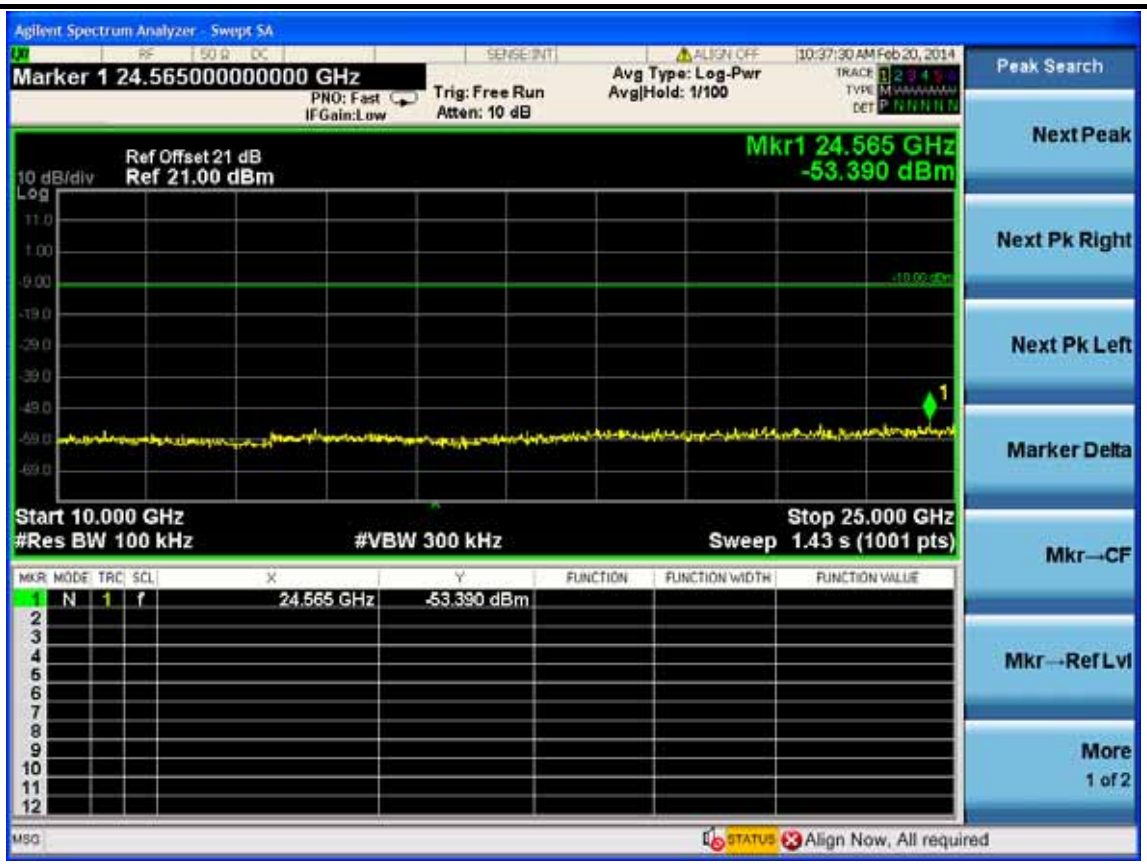




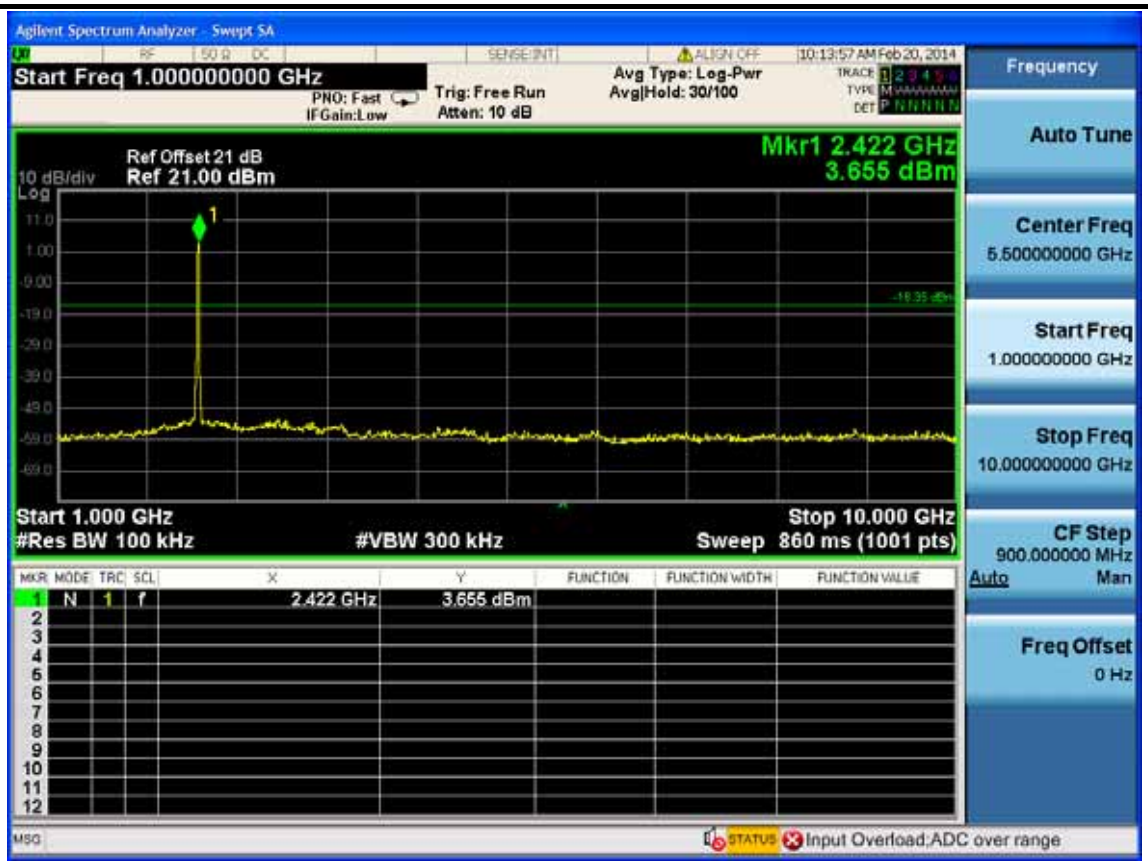
Test CH11: 2462MHz

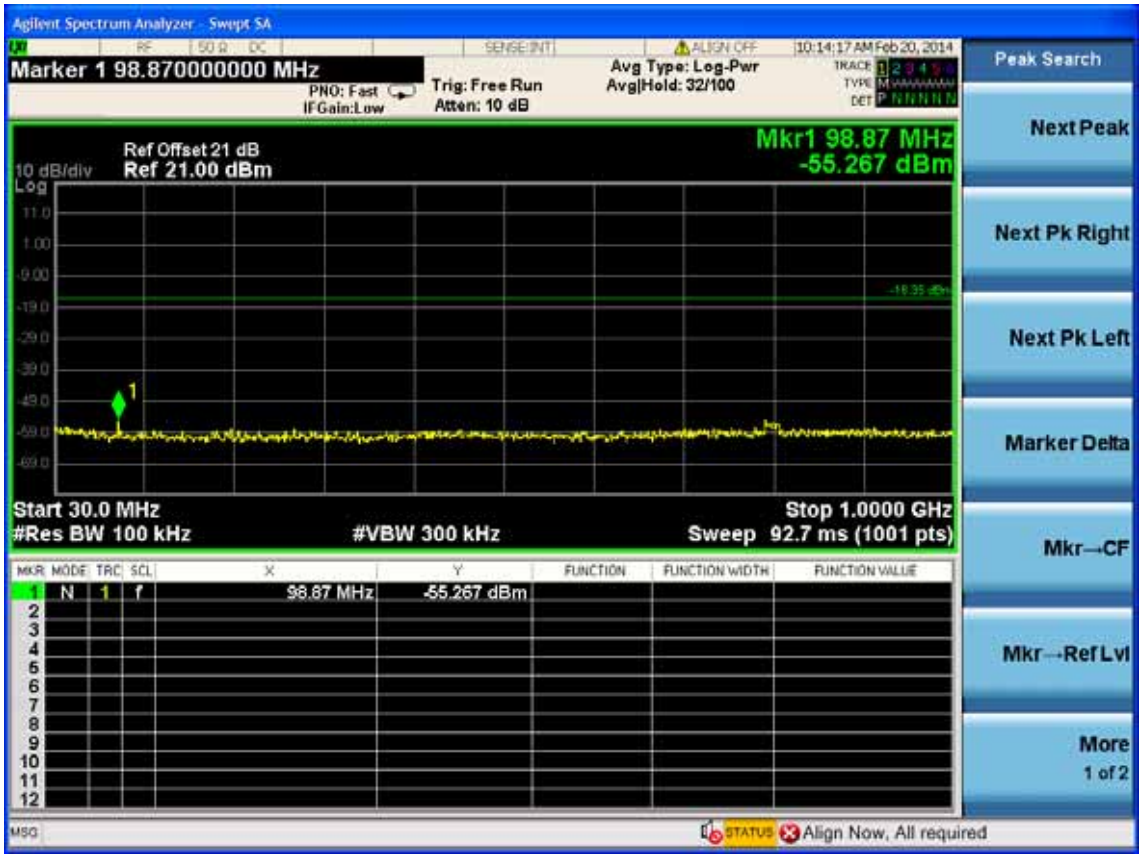

Agilent Spectrum Analyzer - Swept SA
Start Freq 1.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 12/100
10:37:11 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Mkr1 2.467 GHz
10.001 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 860 ms (1001 pts)
1 N 1 f 2.467 GHz 10.001 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
900.000000 MHz
Auto Man
Freq Offset
0 Hz
Input Overload;ADC over range

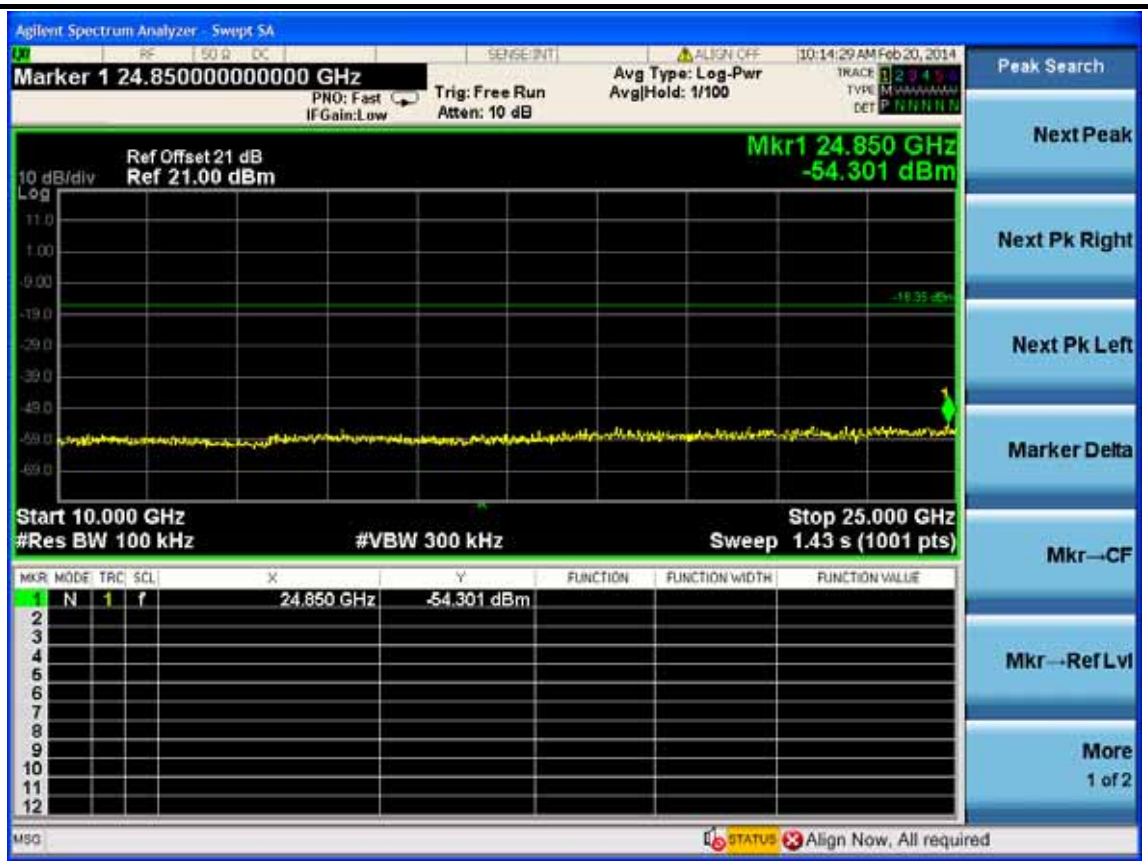

Agilent Spectrum Analyzer - Swept SA
Marker 1 818.610000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 19/100
10:37:21 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Mkr1 818.61 MHz
-50.604 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 92.7 ms (1001 pts)
1 N 1 f 818.61 MHz -50.604 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required



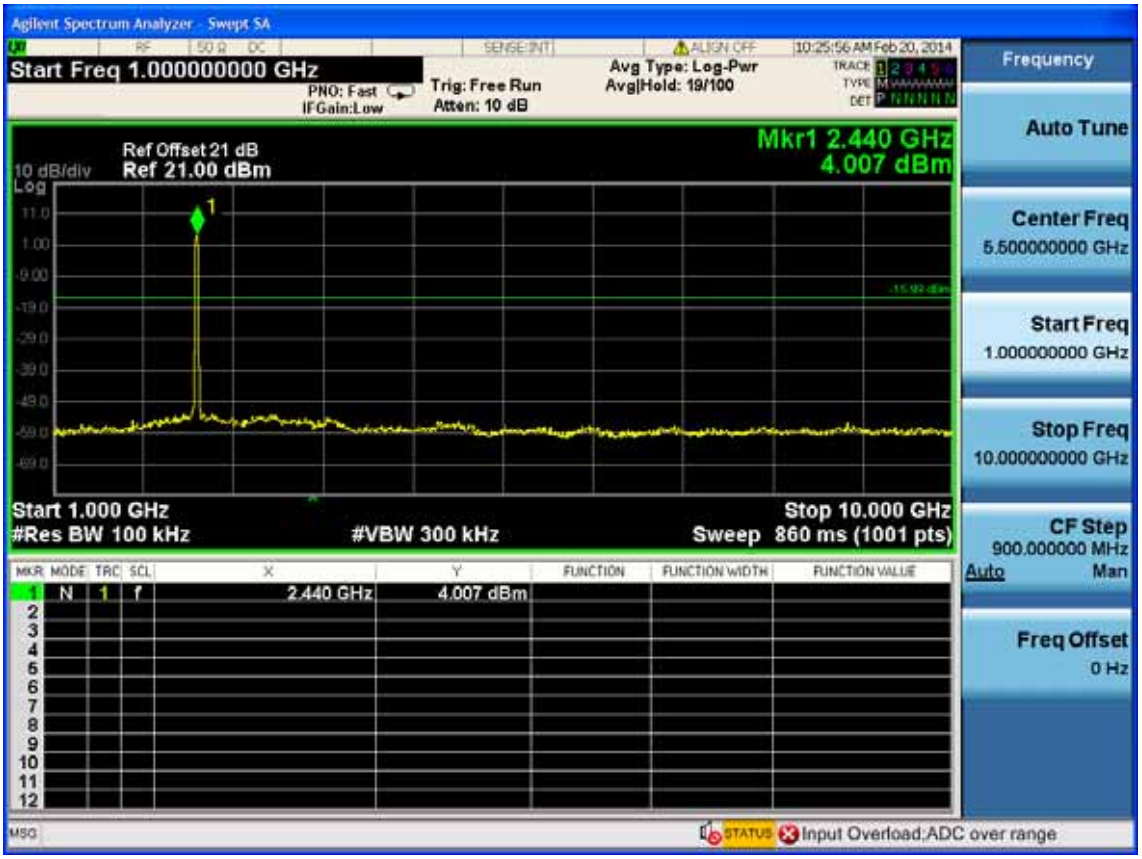
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz

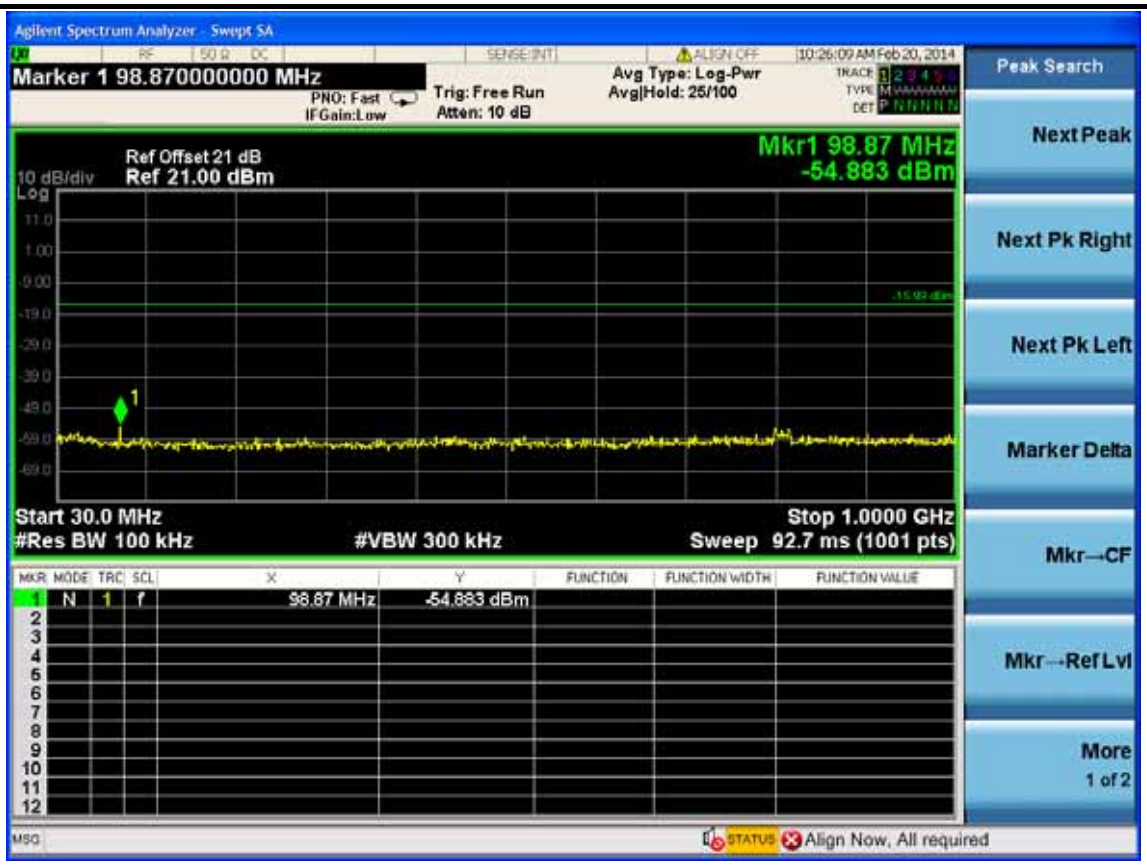

Agilent Spectrum Analyzer - Swept SA
Start Freq 1.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 30/100
10:13:57 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 2.422 GHz
3.655 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 860 ms (1001 pts)
1 N 1 f 2.422 GHz 3.655 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
900.000000 MHz
Auto Man
Freq Offset
0 Hz
Input Overload;ADC over range

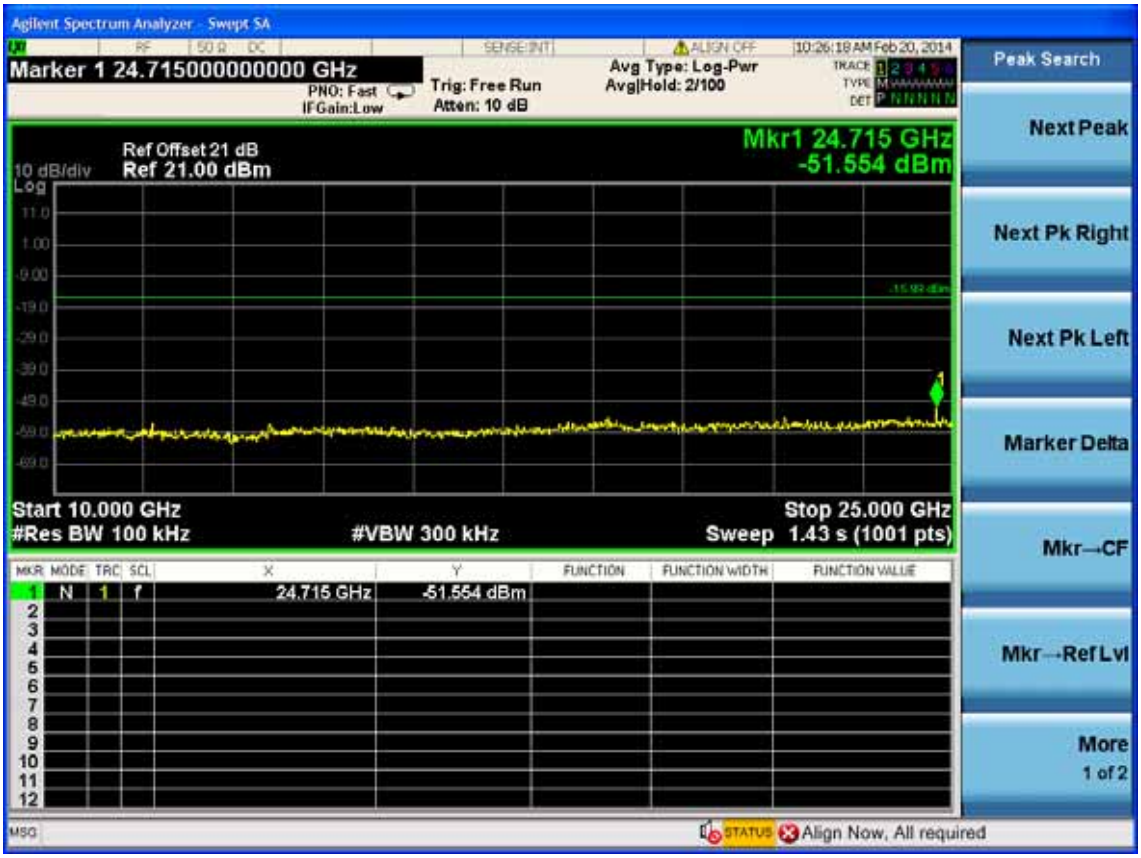

Agilent Spectrum Analyzer - Swept SA
Marker 1 98.870000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 32/100
10:14:17 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 98.87 MHz
-55.267 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 92.7 ms (1001 pts)
1 N 1 f 98.87 MHz -55.267 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required



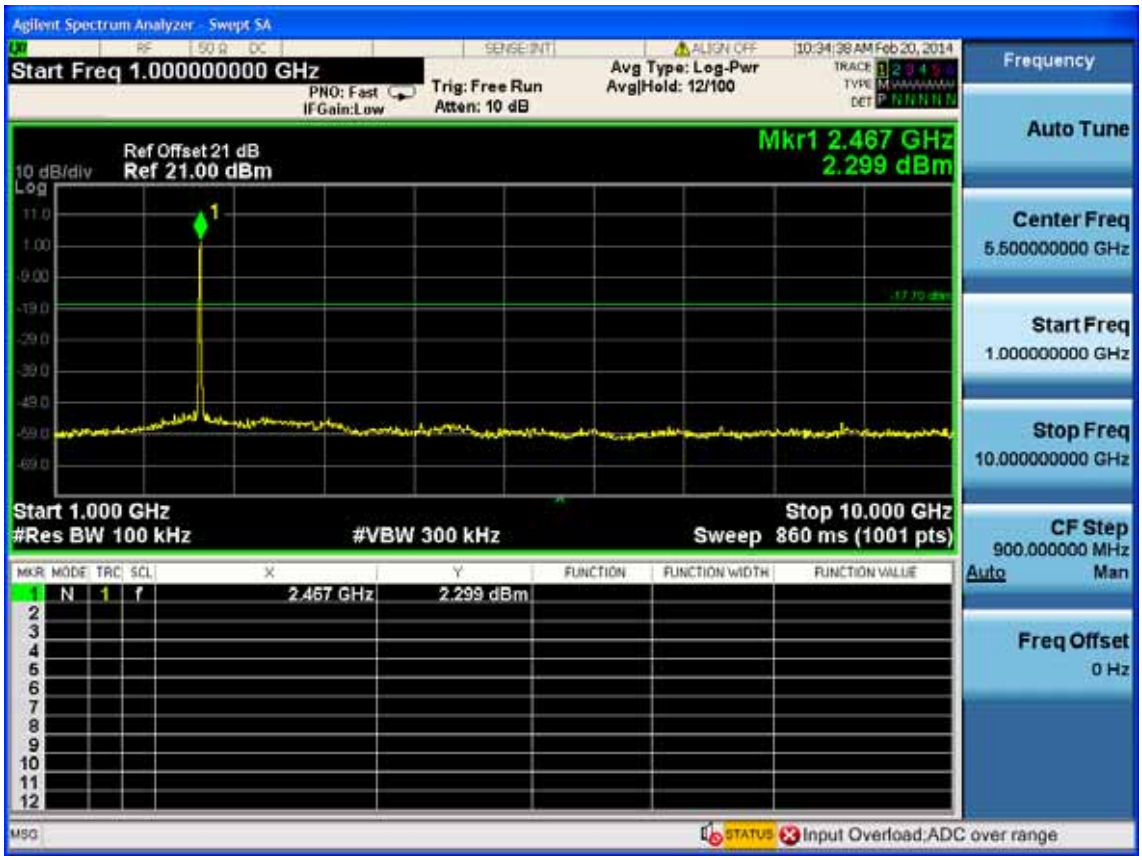
Test CH6: 2437MHz

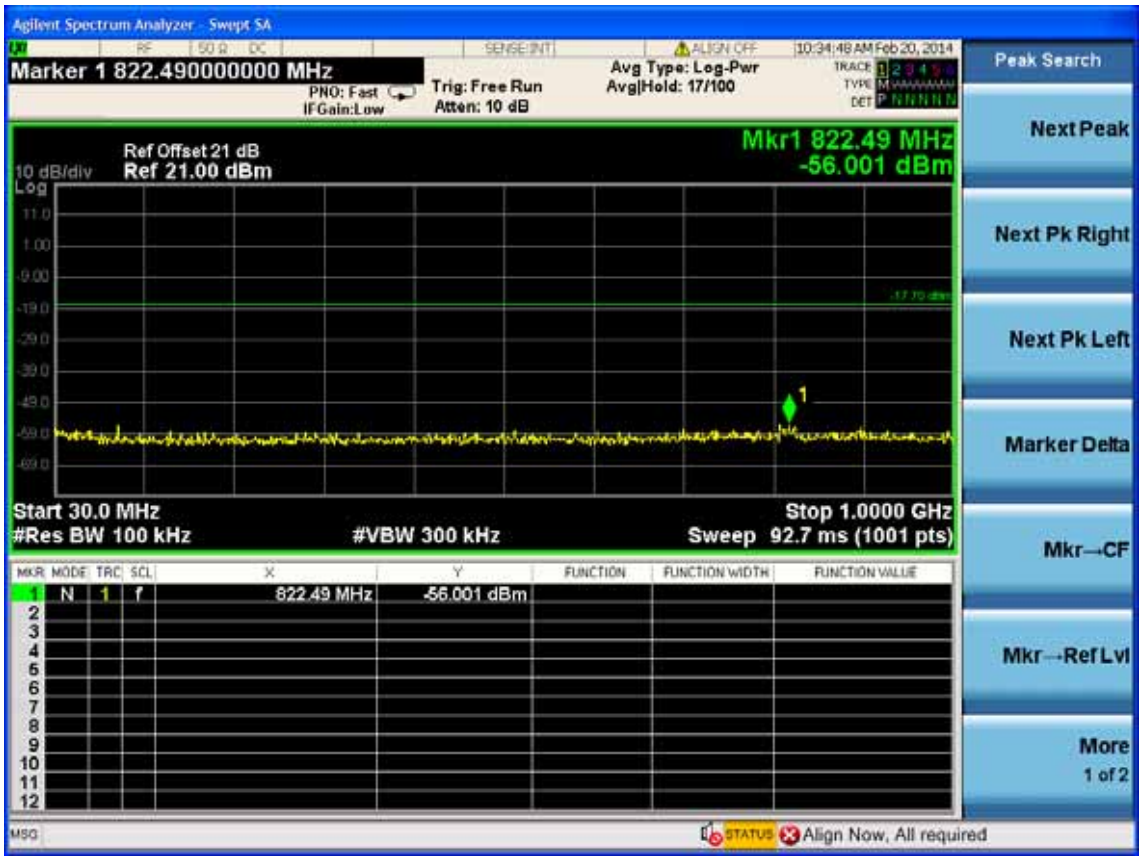


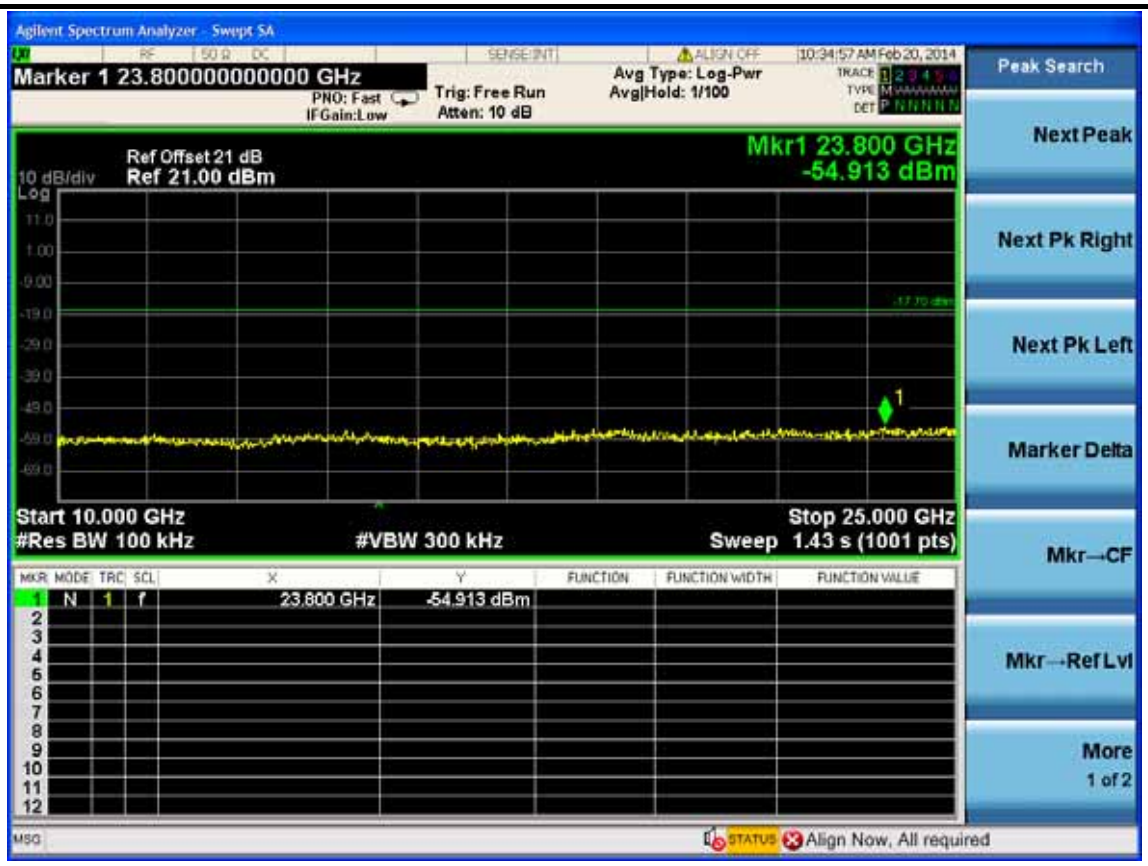

Agilent Spectrum Analyzer - Swept SA
Marker 1 98.870000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 25/100
10:26:09 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Mkr1 98.87 MHz
-54.883 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 92.7 ms (1001 pts)
1 N 1 f 98.87 MHz -54.883 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 1 24.715000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 2/100
10:26:18 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Mkr1 24.715 GHz
-51.554 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 1.43 s (1001 pts)
1 N 1 f 24.715 GHz -51.554 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

Test CH11: 2462MHz

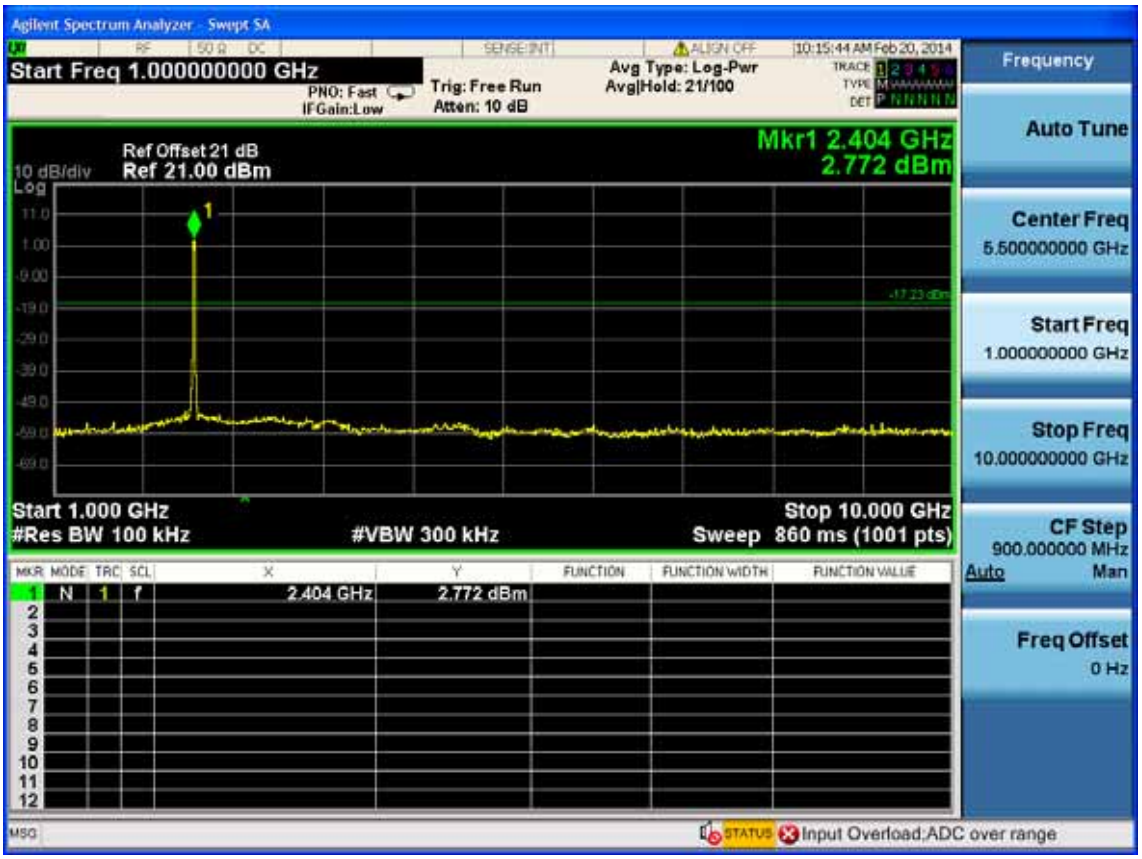


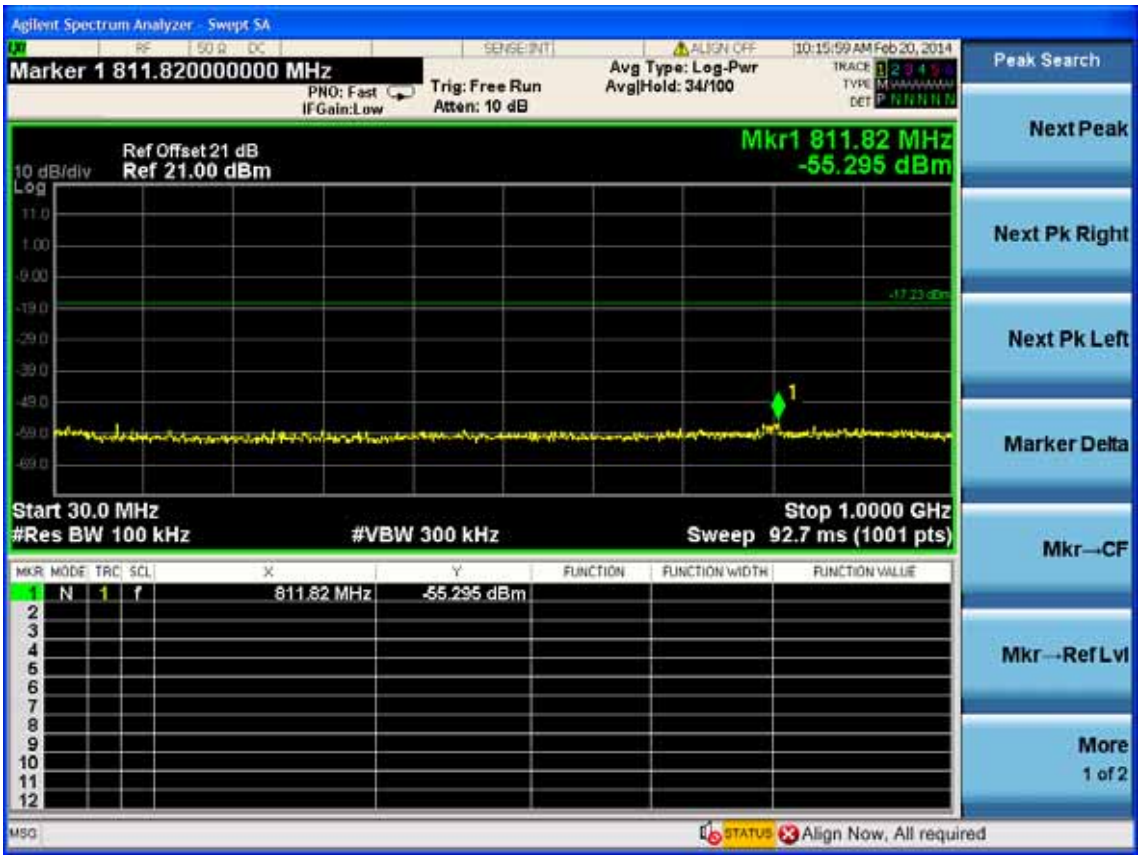


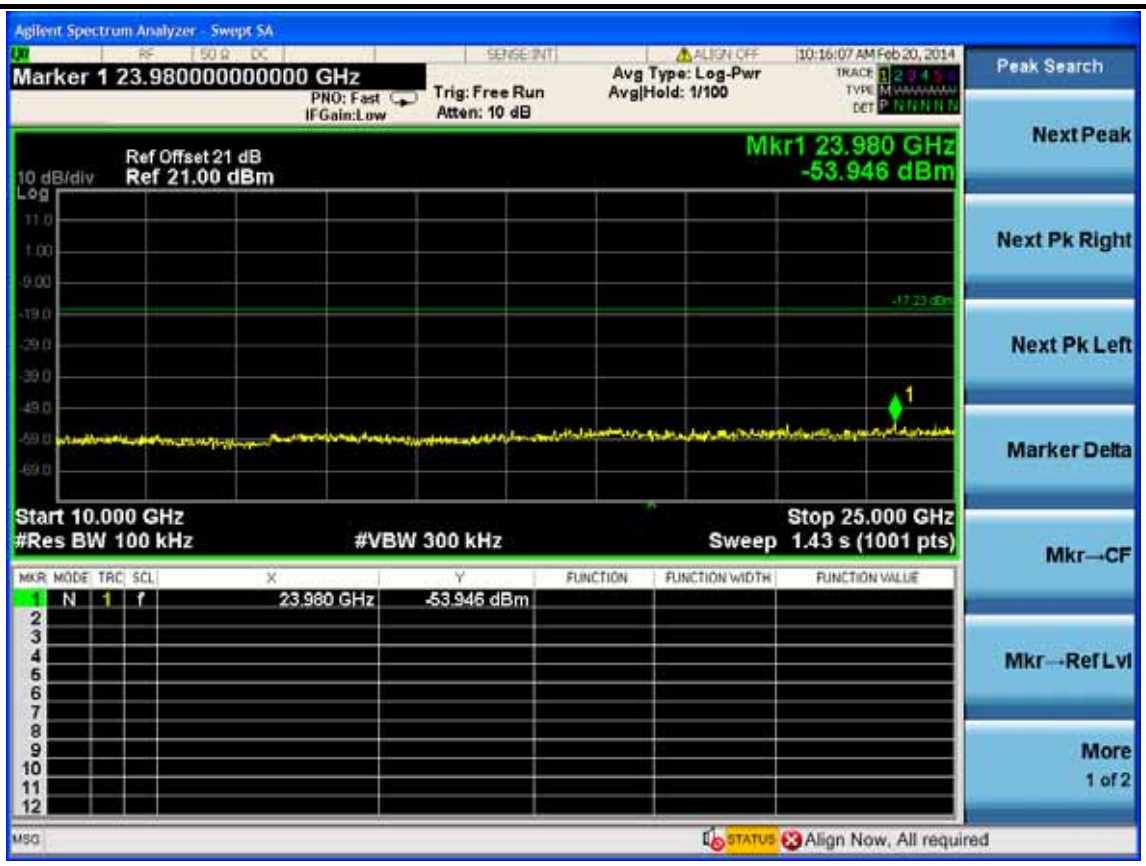

Agilent Spectrum Analyzer - Swept SA
Marker 1 23.800000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/100
10:34:57 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 23.800 GHz
-54.913 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 1.43 s (1001 pts)
1 N 1 f 23.800 GHz -54.913 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

Agilent Spectrum Analyzer - Swept SA
Start Freq 2.450000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:35:27 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 2.469 50 GHz
3.568 dBm
Start 2.45000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.51000 GHz
Sweep 5.80 ms (1001 pts)
1 N 1 f 2.469 50 GHz 3.568 dBm
2 N 1 f 2.483 50 GHz -48.643 dBm
3 N 1 f 2.500 00 GHz -55.386 dBm
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.450000000 GHz
Stop Freq
2.510000000 GHz
CF Step
6.000000 MHz
Auto Man
Freq Offset
0 Hz
Align Now, All required

Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz

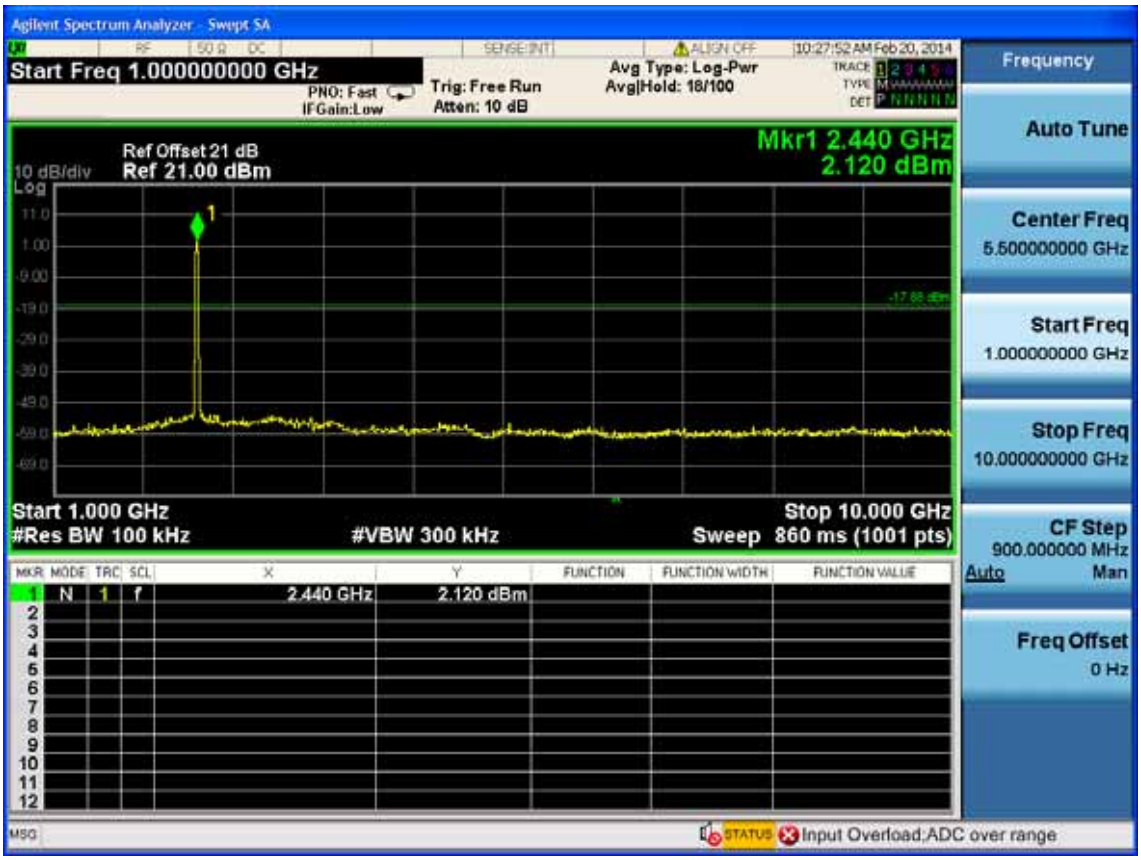


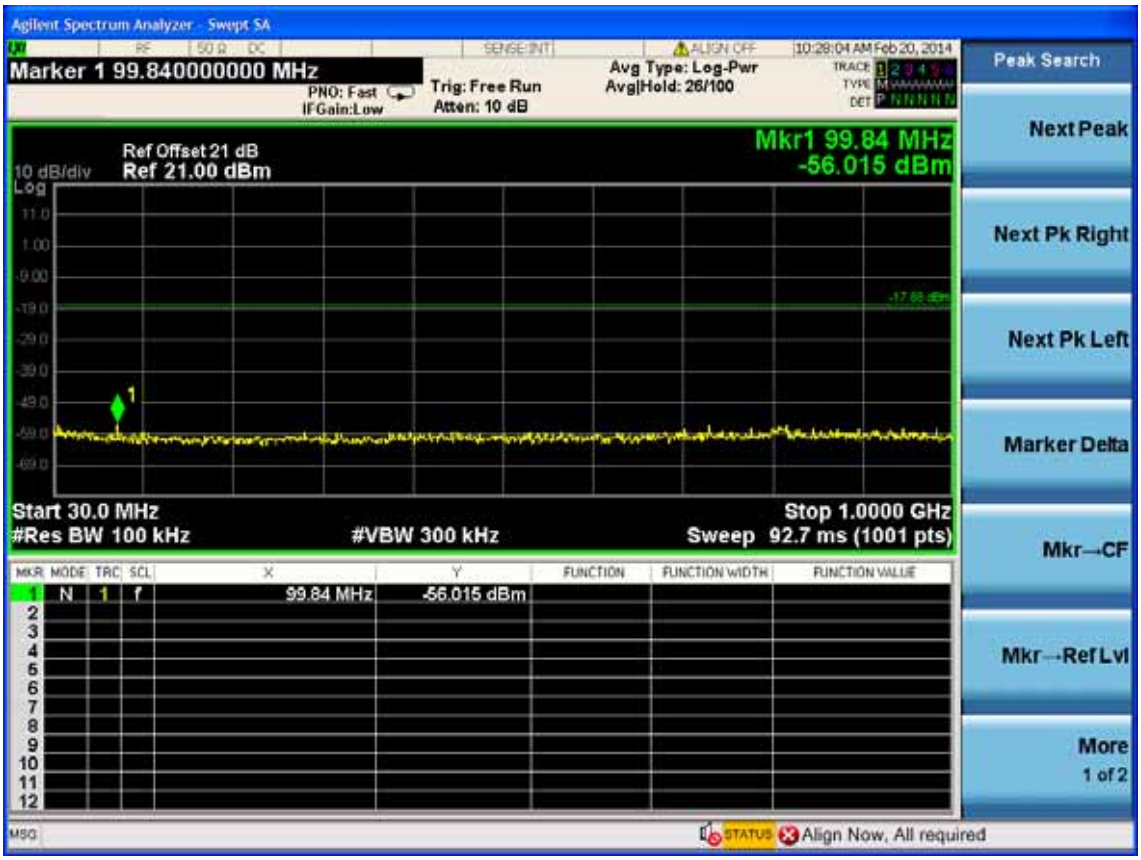


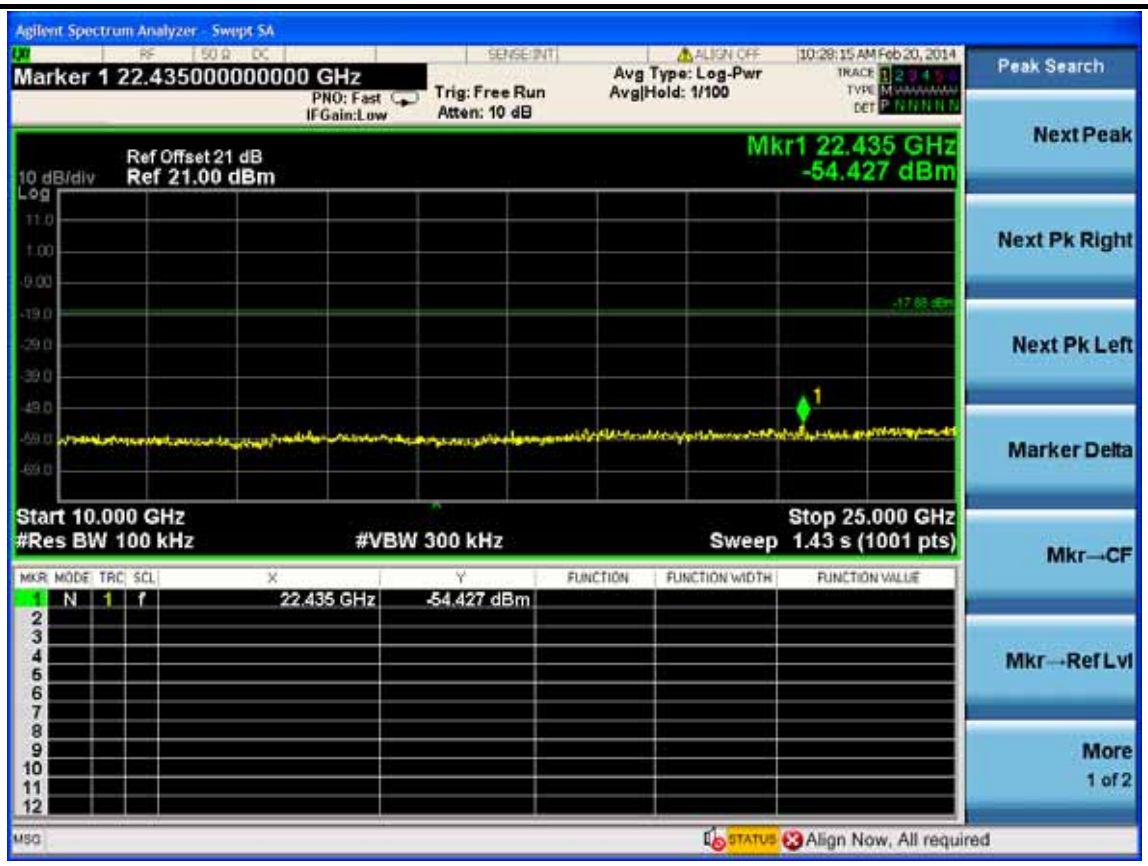

Agilent Spectrum Analyzer - Swept SA
Marker 1 23.980000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/100
10:16:07 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 23.980 GHz
-53.946 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 1.43 s (1001 pts)
1 N 1 f 23.980 GHz -53.946 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

Agilent Spectrum Analyzer - Swept SA
Start Freq 2.310000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:16:43 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 2.404 53 GHz
3.659 dBm
Start 2.31000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.42500 GHz
Sweep 11.0 ms (1001 pts)
1 N 1 f 2.404 53 GHz 3.659 dBm
2 N 1 f 2.390 00 GHz -42.735 dBm
3 N 1 f 2.400 00 GHz -35.862 dBm
Frequency
Auto Tune
Center Freq
2.367500000 GHz
Start Freq
2.310000000 GHz
Stop Freq
2.425000000 GHz
CF Step
11.500000 MHz
Auto
Man
Freq Offset
0 Hz
Align Now, All required

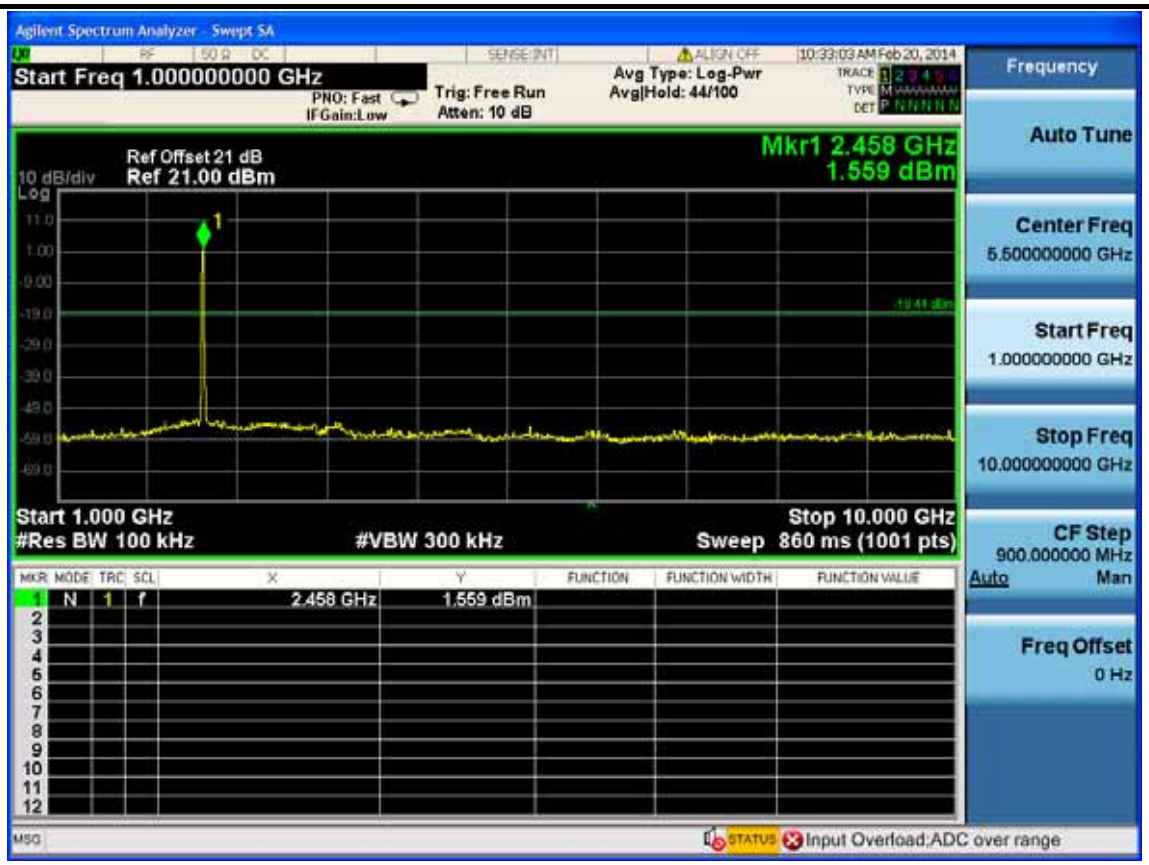
Test CH6: 2437MHz

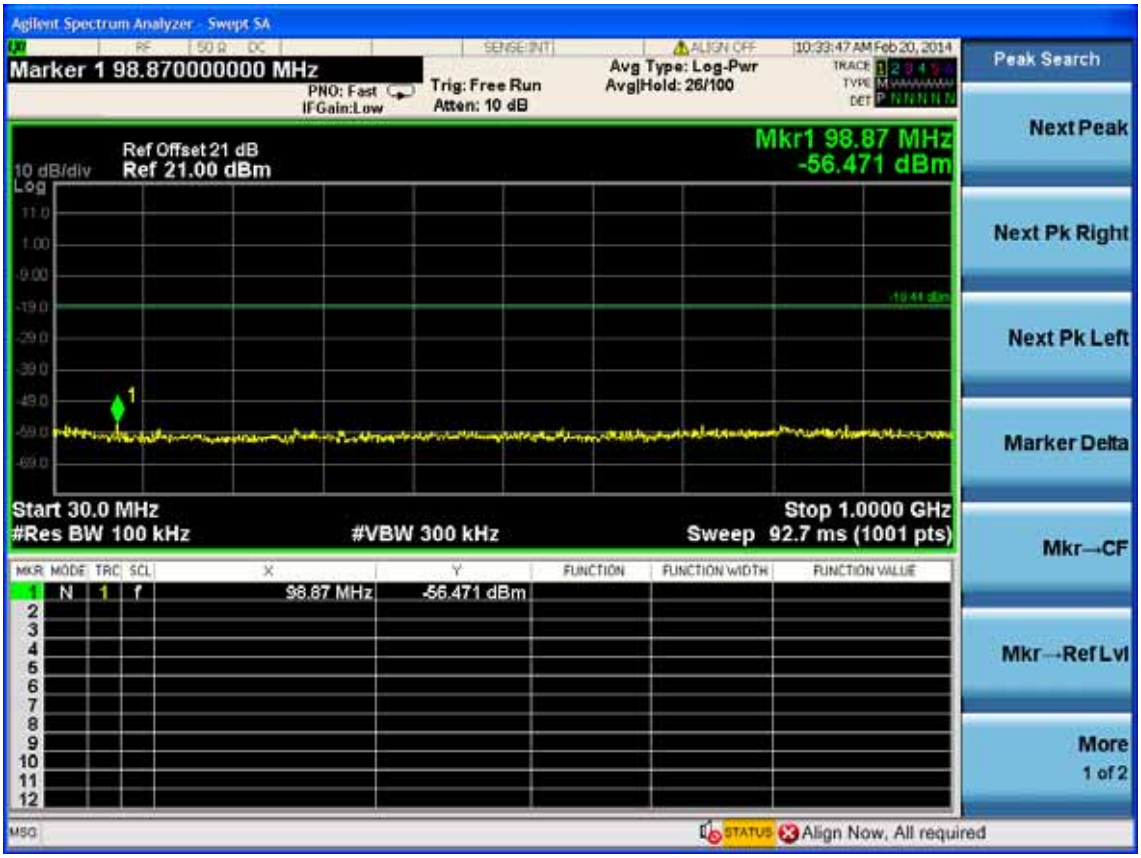


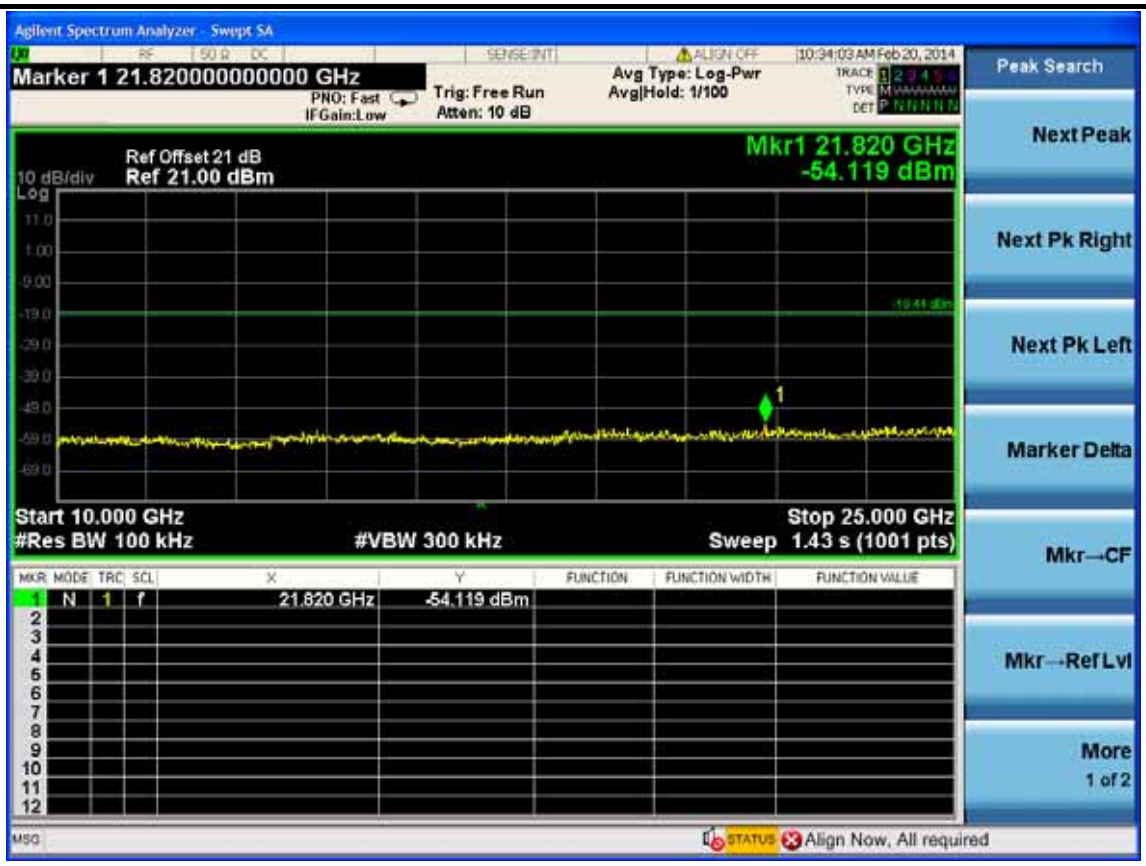




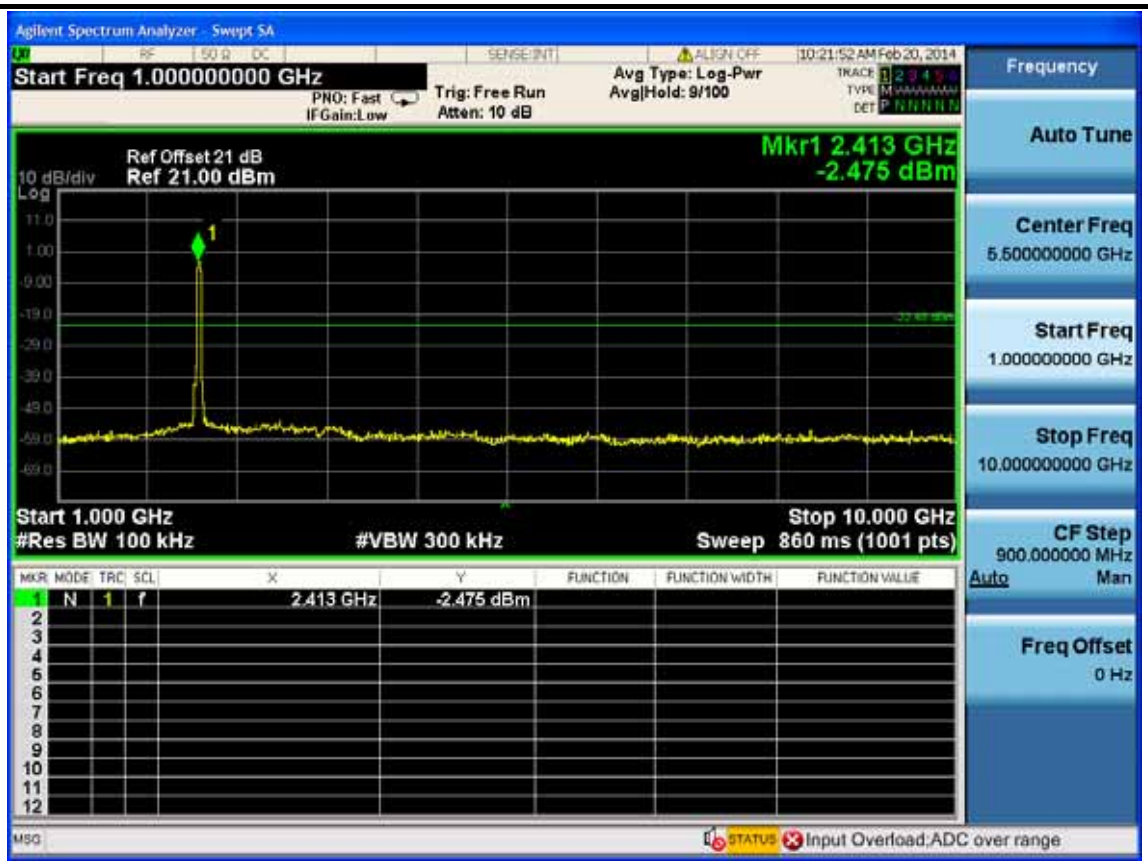
Test CH11: 2462MHz

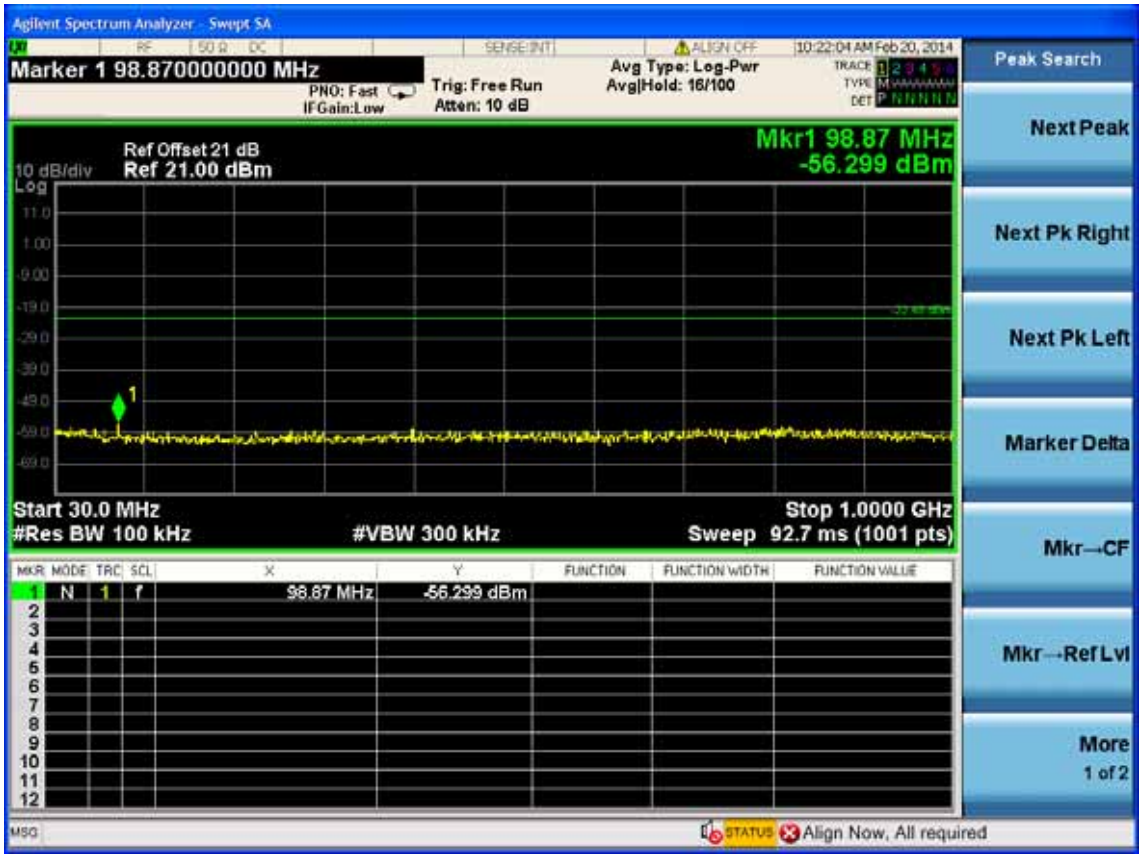

Agilent Spectrum Analyzer - Swept SA
Start Freq 1.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 44/100
10:33:03 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 2.458 GHz
1.559 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 860 ms (1001 pts)
1 N 1 f 2.458 GHz 1.559 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
900.000000 MHz
Auto Man
Freq Offset
0 Hz
Input Overload;ADC over range

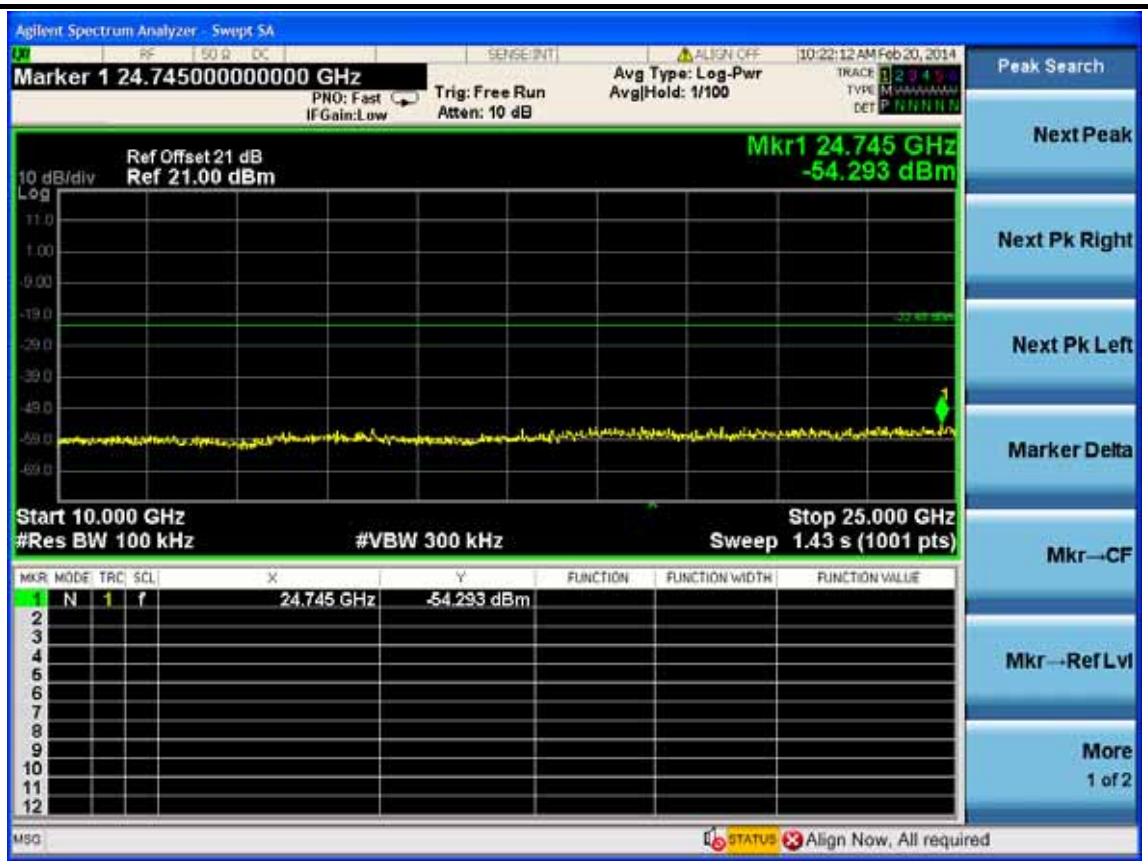

Agilent Spectrum Analyzer - Swept SA
Marker 1 98.870000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 26/100
10:33:47 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 98.87 MHz
-56.471 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 92.7 ms (1001 pts)
1 N 1 f 98.87 MHz -56.471 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required



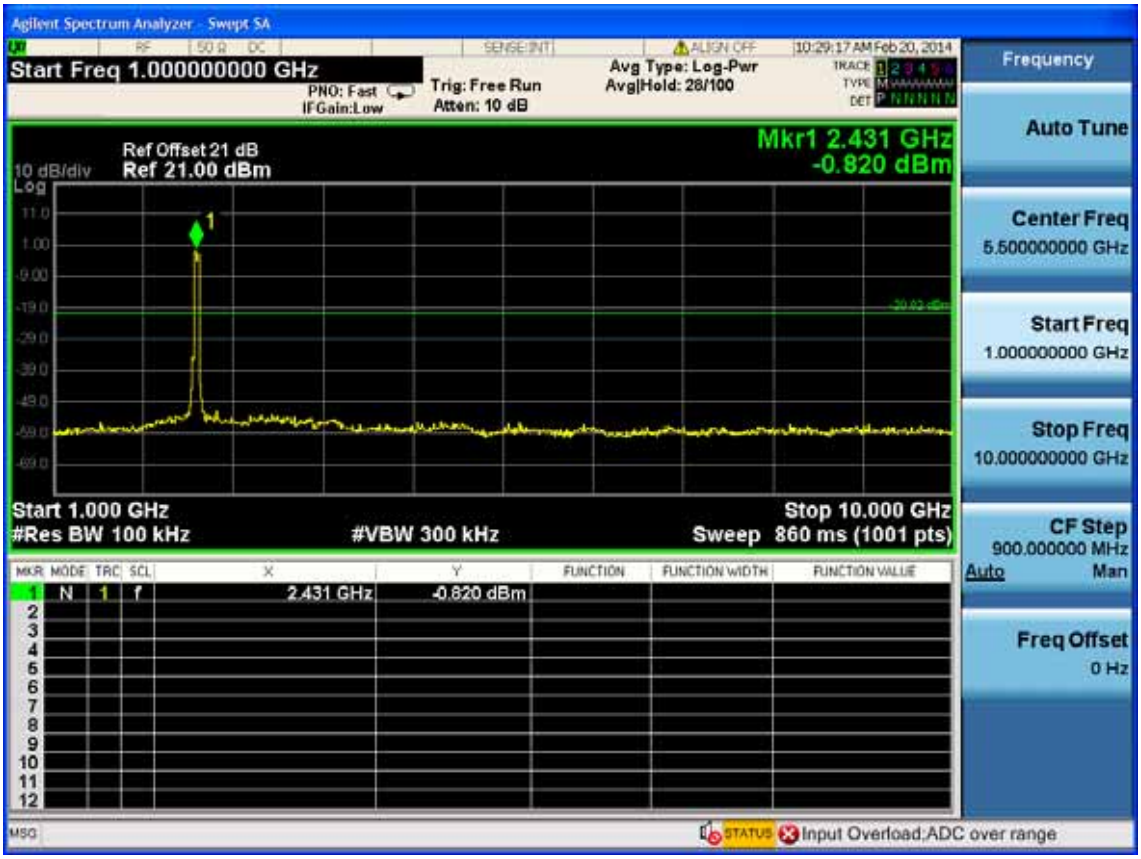
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

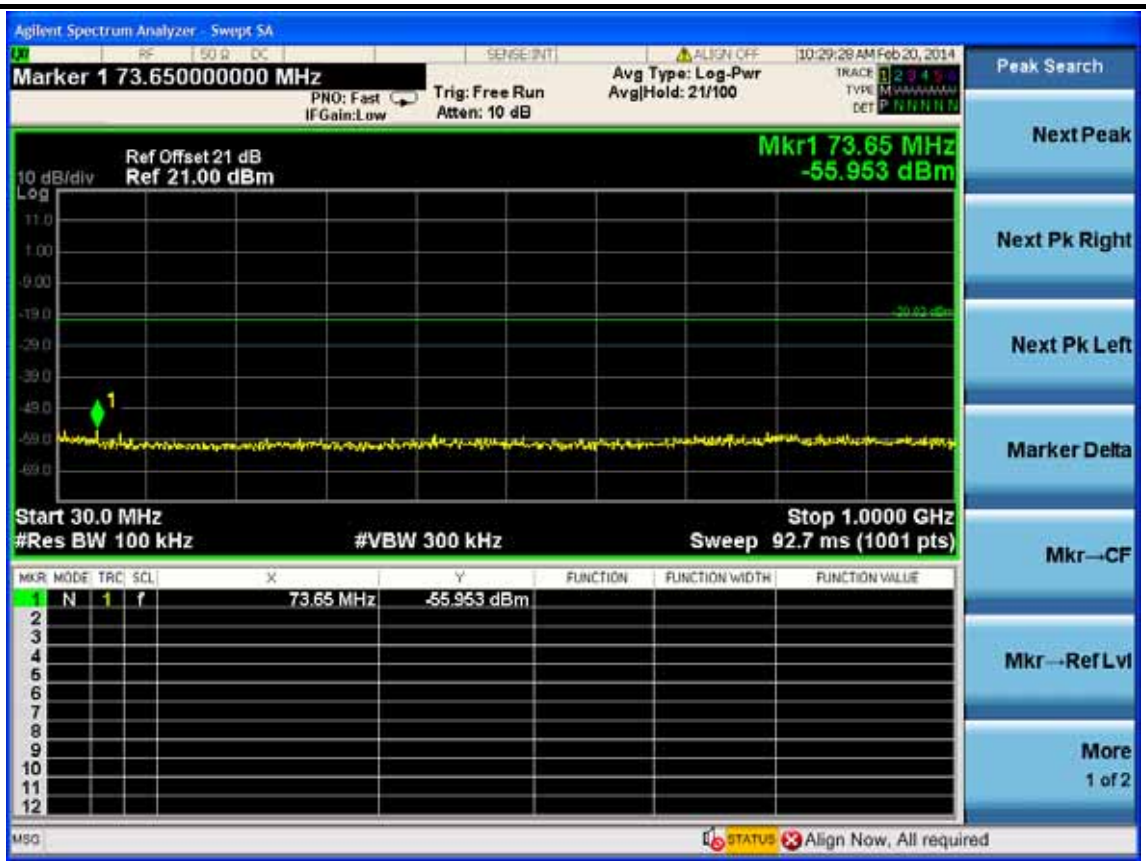

Agilent Spectrum Analyzer - Swept SA
Start Freq 1.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 9/100
10:21:52 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 2.413 GHz
-2.475 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 860 ms (1001 pts)
1 N 1 f 2.413 GHz -2.475 dBm
Frequency
Auto Tune
Center Freq
5.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
10.000000000 GHz
CF Step
900.000000 MHz
Auto Man
Freq Offset
0 Hz
Input Overload;ADC over range

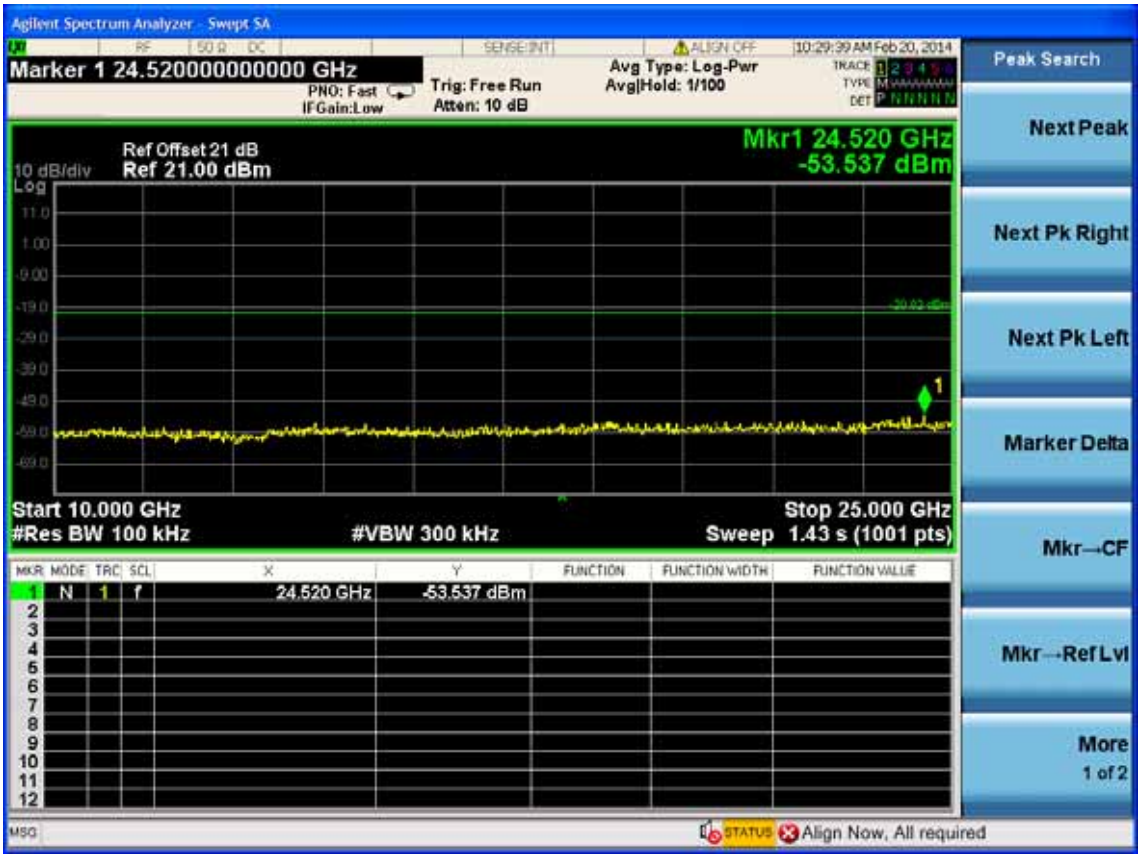

Agilent Spectrum Analyzer - Swept SA
Marker 1 98.870000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 16/100
10:22:04 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 98.87 MHz
-56.299 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 92.7 ms (1001 pts)
1 N 1 f 98.87 MHz -56.299 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required



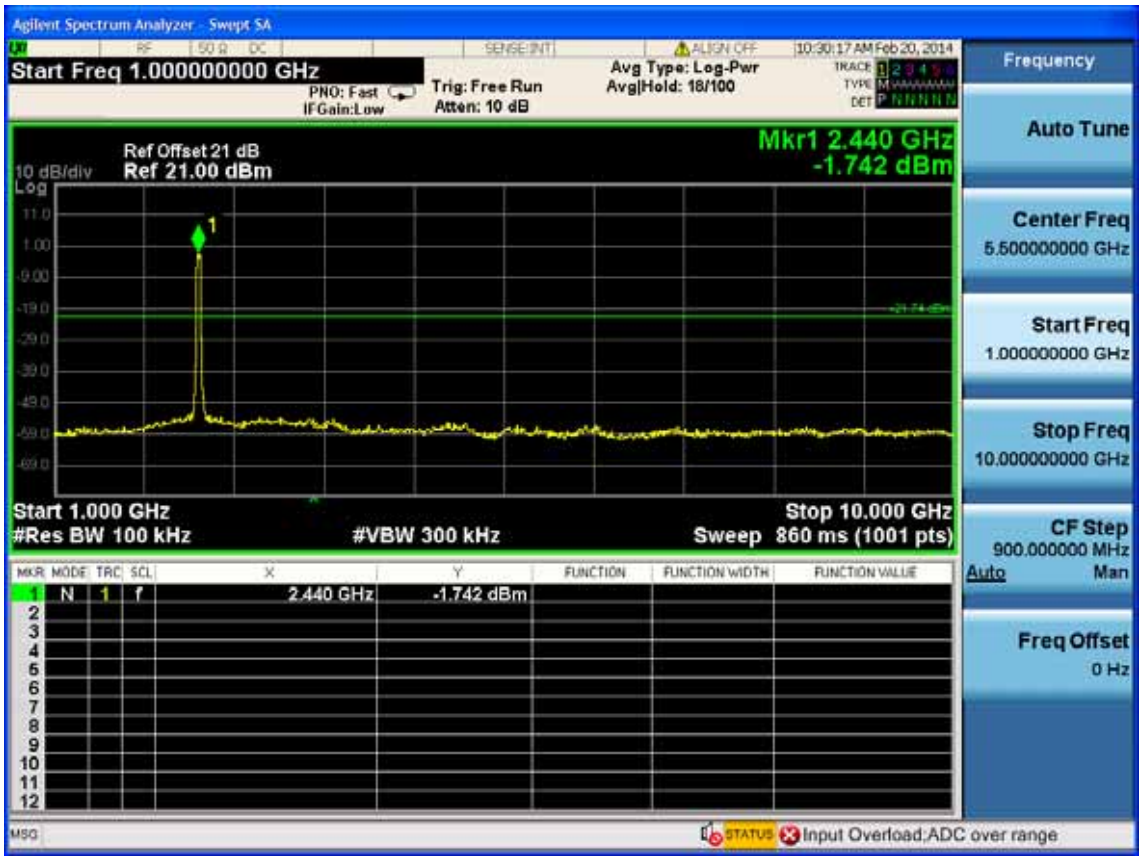
Test CH4: 2437MHz

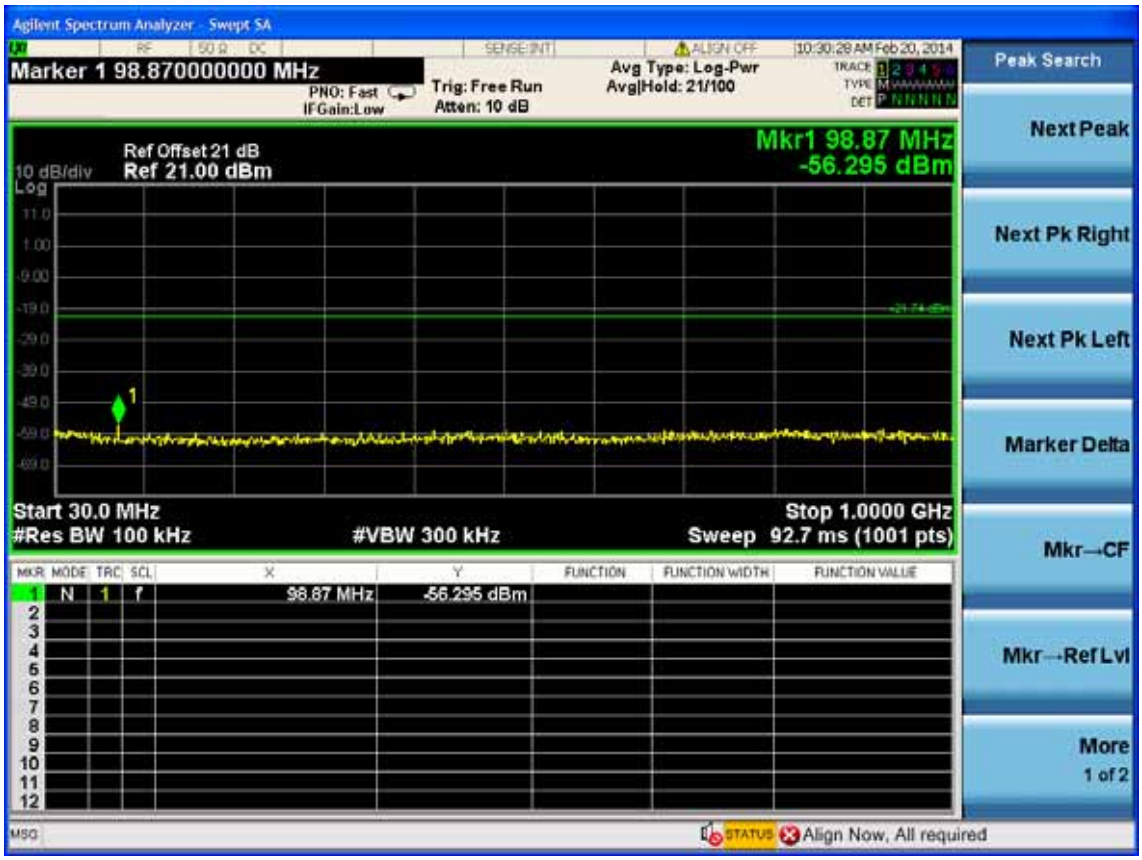


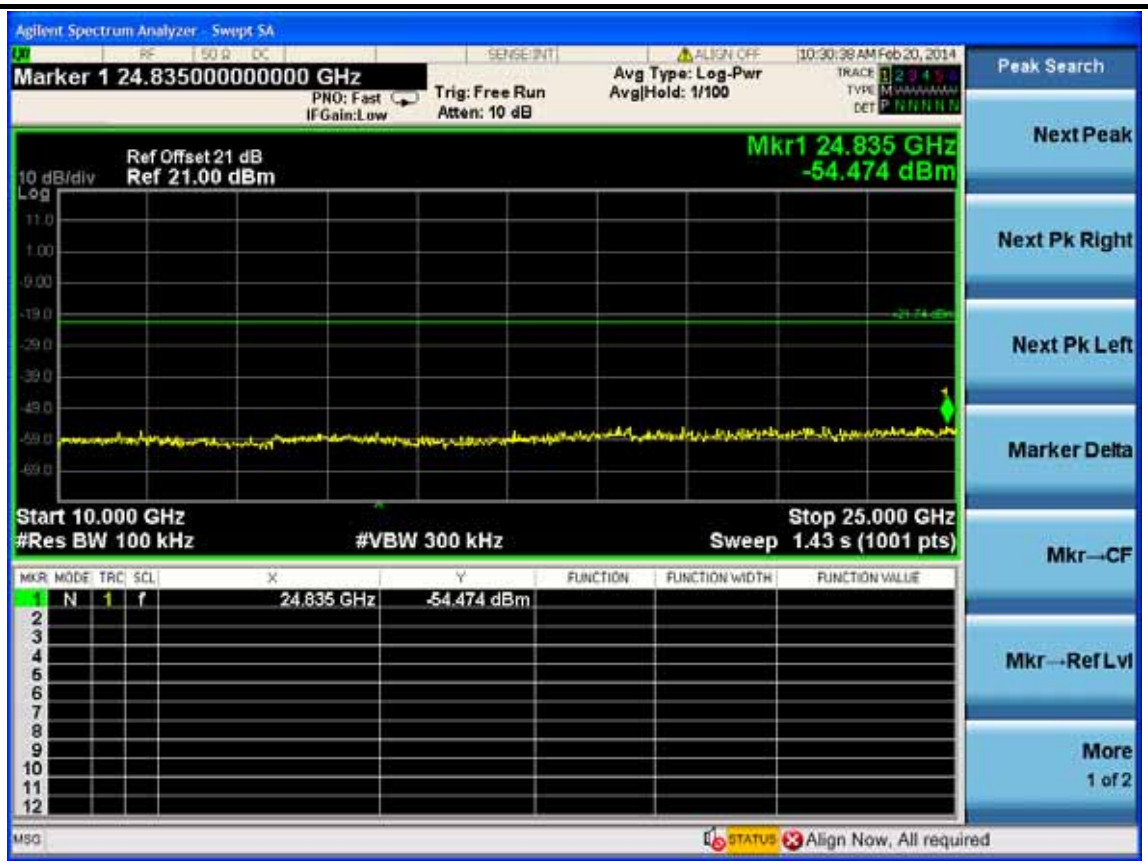

Agilent Spectrum Analyzer - Swept SA
Marker 1 73.650000000 MHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 21/100
10:29:28 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 73.65 MHz
-55.953 dBm
Start 30.0 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 1.0000 GHz
Sweep 92.7 ms (1001 pts)
1 N 1 f 73.65 MHz -55.953 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required


Agilent Spectrum Analyzer - Swept SA
Marker 1 24.520000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/100
10:29:39 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 24.520 GHz
-53.537 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 1.43 s (1001 pts)
1 N 1 f 24.520 GHz -53.537 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

Test CH7: 2452MHz






Agilent Spectrum Analyzer - Swept SA
Marker 1 24.835000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold: 1/100
10:30:38 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 24.835 GHz
-54.474 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 1.43 s (1001 pts)
1 N 1 f 24.835 GHz -54.474 dBm
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
Align Now, All required

Agilent Spectrum Analyzer - Swept SA
Start Freq 2.425000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
10:31:13 AM Feb 20, 2014
Ref Offset 21 dB
10 dB/div
Ref 21.00 dBm
Log
Mkr1 2.435 710 GHz
-0.777 dBm
Start 2.42500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.51000 GHz
Sweep 8.13 ms (1001 pts)
1 N 1 f 2.435 710 GHz -0.777 dBm
2 N 1 f 2.483 500 GHz -44.836 dBm
3 N 1 f 2.500 000 GHz -52.566 dBm
Frequency
Auto Tune
Center Freq
2.467500000 GHz
Start Freq
2.425000000 GHz
Stop Freq
2.510000000 GHz
CF Step
8.500000 MHz
Auto
Man
Freq Offset
0 Hz
Align Now, All required

6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
2.	Amp	HP	8449B	3008A08495	May.08, 13	1 Year
3.	Antenna	EMCO	3115	9607-4580	May.08, 13	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 13	1 Year

6.2.Limit

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

6.3.Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

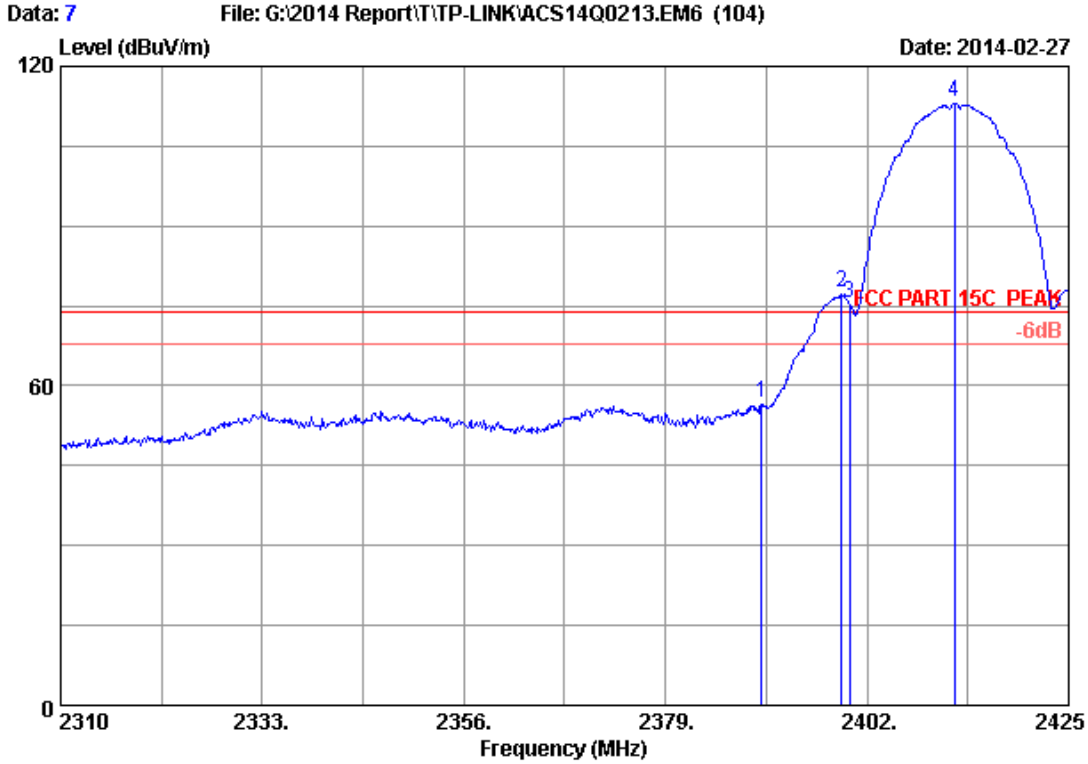
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

(a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
(b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4.Test Results

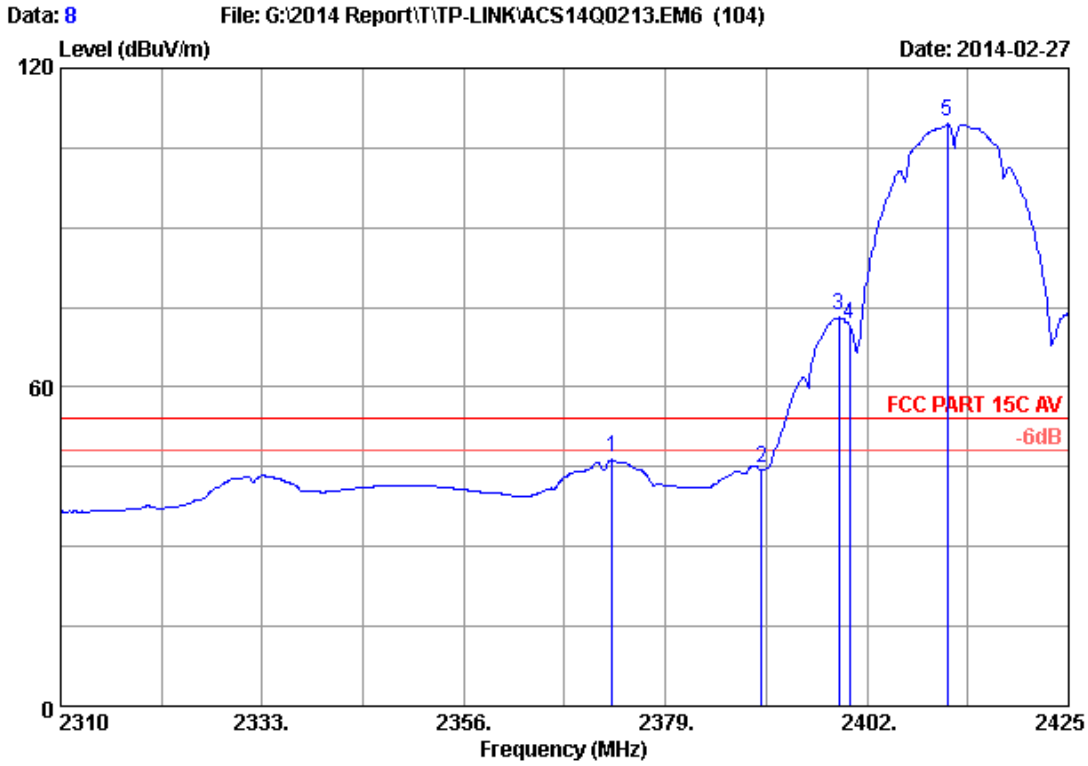
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	58.68	56.92	74.00	17.08	Peak
2	2399.125	28.18	5.80	35.70	79.12	77.40	74.00	-3.40	Peak
3	2400.000	28.18	5.80	35.70	77.27	75.55	74.00	-1.55	Peak
4	2412.005	28.21	5.81	35.70	115.13	113.45	74.00	-39.45	Peak

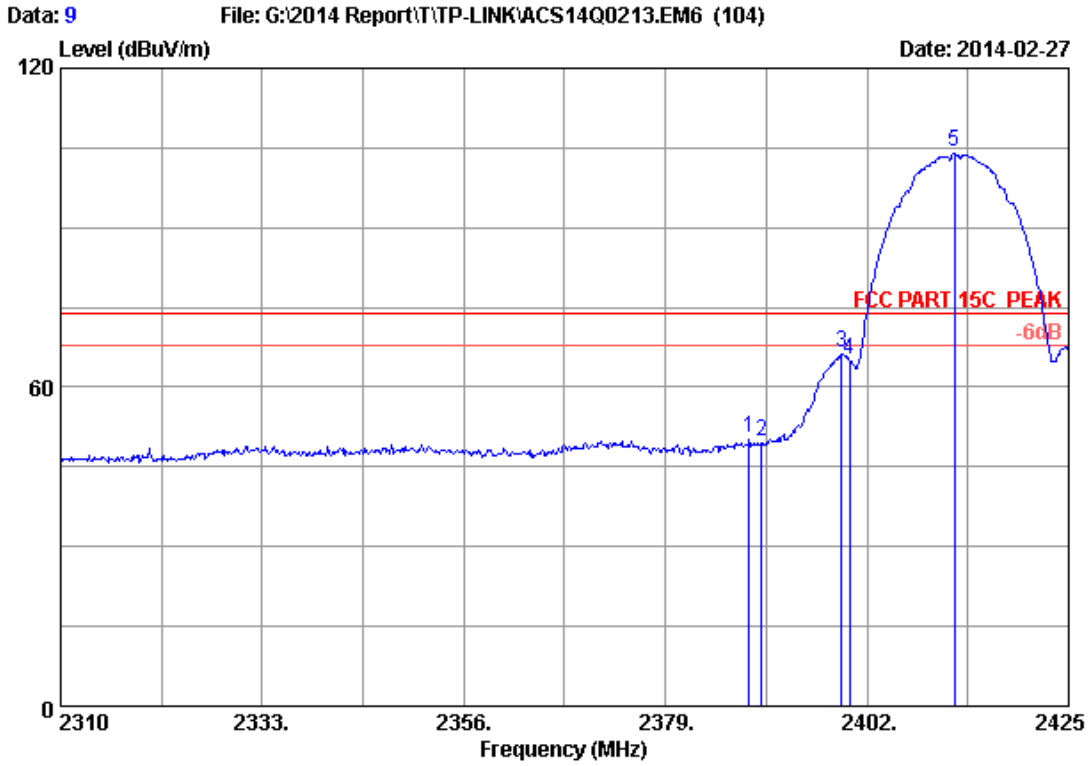
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2372.905	28.12	5.76	35.70	48.56	46.74	54.00	7.26	Average
2	2390.000	28.16	5.78	35.70	46.53	44.77	54.00	9.23	Average
3	2398.780	28.18	5.80	35.70	75.11	73.39	54.00	-19.39	Average
4	2400.000	28.18	5.80	35.70	73.42	71.70	54.00	-17.70	Average
5	2411.200	28.20	5.81	35.70	111.53	109.84	54.00	-55.84	Average

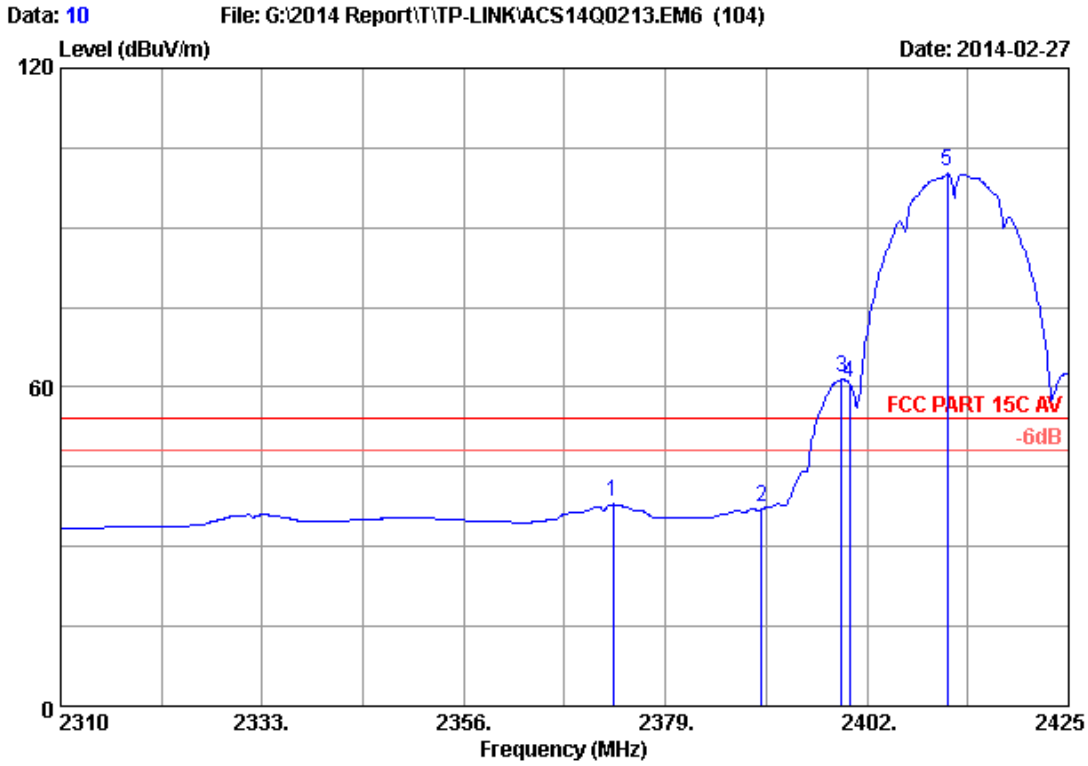
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 9
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2388.545	28.15	5.78	35.70	52.36	50.59	74.00	23.41	Peak
2	2390.000	28.16	5.78	35.70	51.53	49.77	74.00	24.23	Peak
3	2399.125	28.18	5.80	35.70	68.35	66.63	74.00	7.37	Peak
4	2400.000	28.18	5.80	35.70	67.03	65.31	74.00	8.69	Peak
5	2412.005	28.21	5.81	35.70	106.09	104.41	74.00	-30.41	Peak

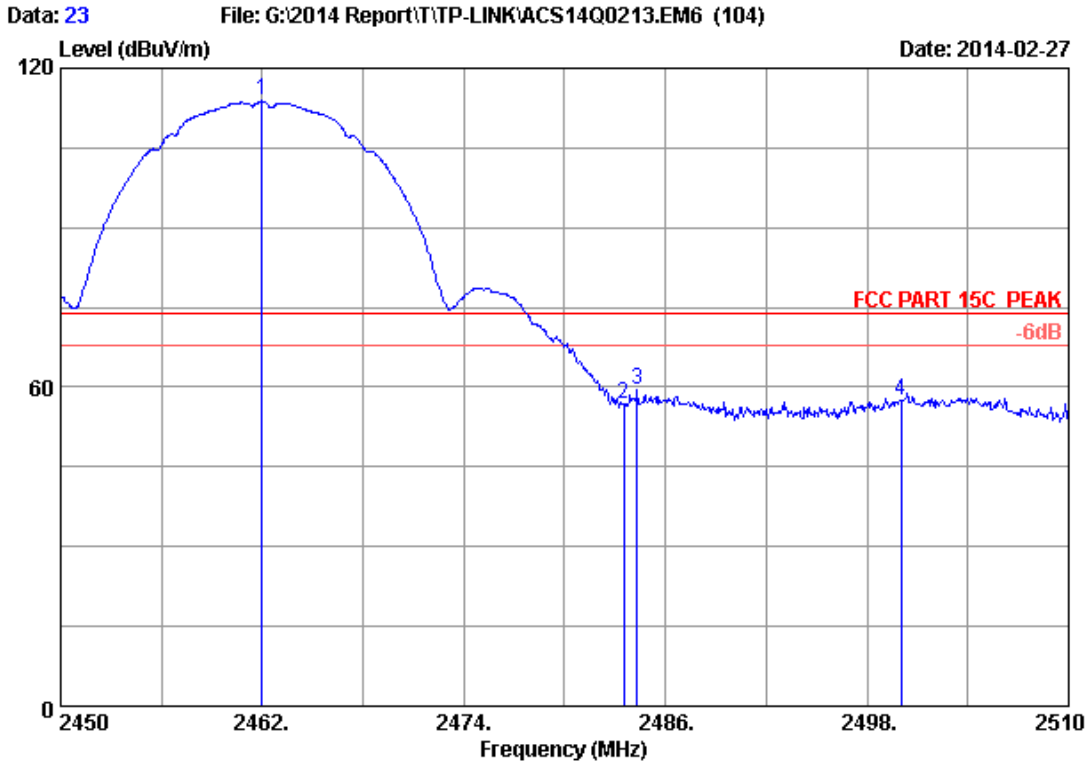
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2373.020	28.12	5.76	35.70	40.19	38.37	54.00	15.63	Average
2	2390.000	28.16	5.78	35.70	39.17	37.41	54.00	16.59	Average
3	2399.125	28.18	5.80	35.70	63.59	61.87	54.00	-7.87	Average
4	2400.000	28.18	5.80	35.70	62.51	60.79	54.00	-6.79	Average
5	2411.200	28.20	5.81	35.70	102.14	100.45	54.00	-46.45	Average

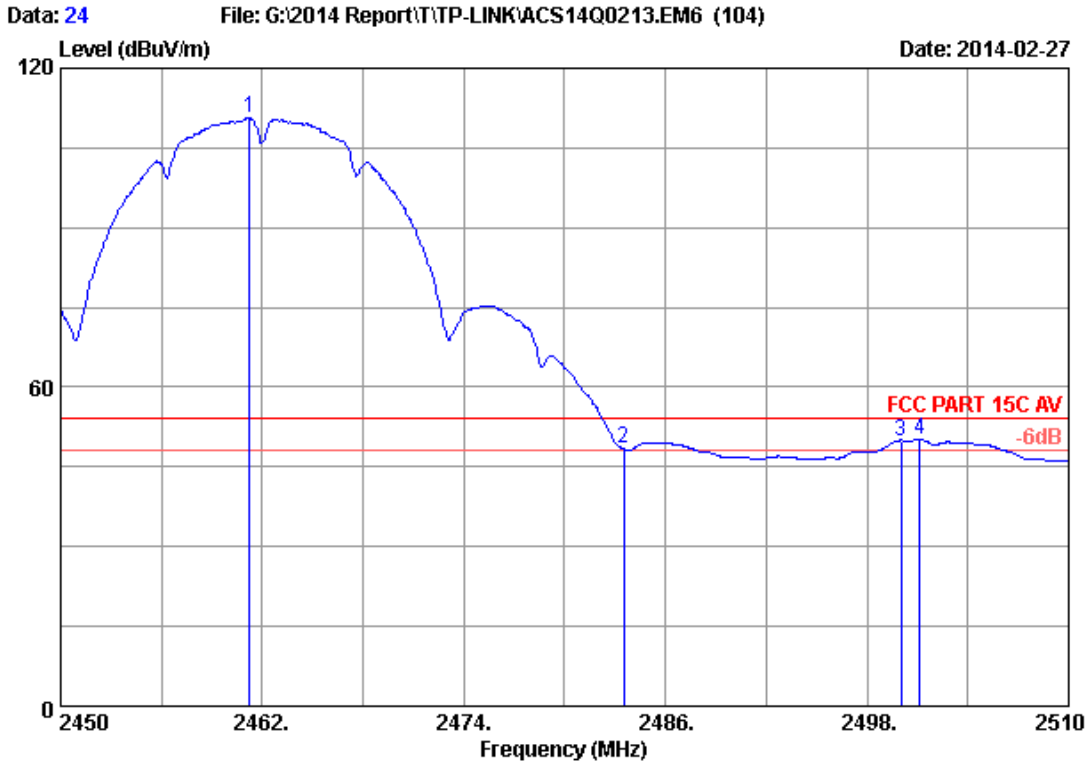
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	115.51	114.02	74.00	-40.02	Peak
2	2483.500	28.36	5.92	35.70	58.29	56.87	74.00	17.13	Peak
3	2484.320	28.37	5.92	35.70	60.90	59.49	74.00	14.51	Peak
4	2500.000	28.40	5.94	35.70	58.80	57.44	74.00	16.56	Peak

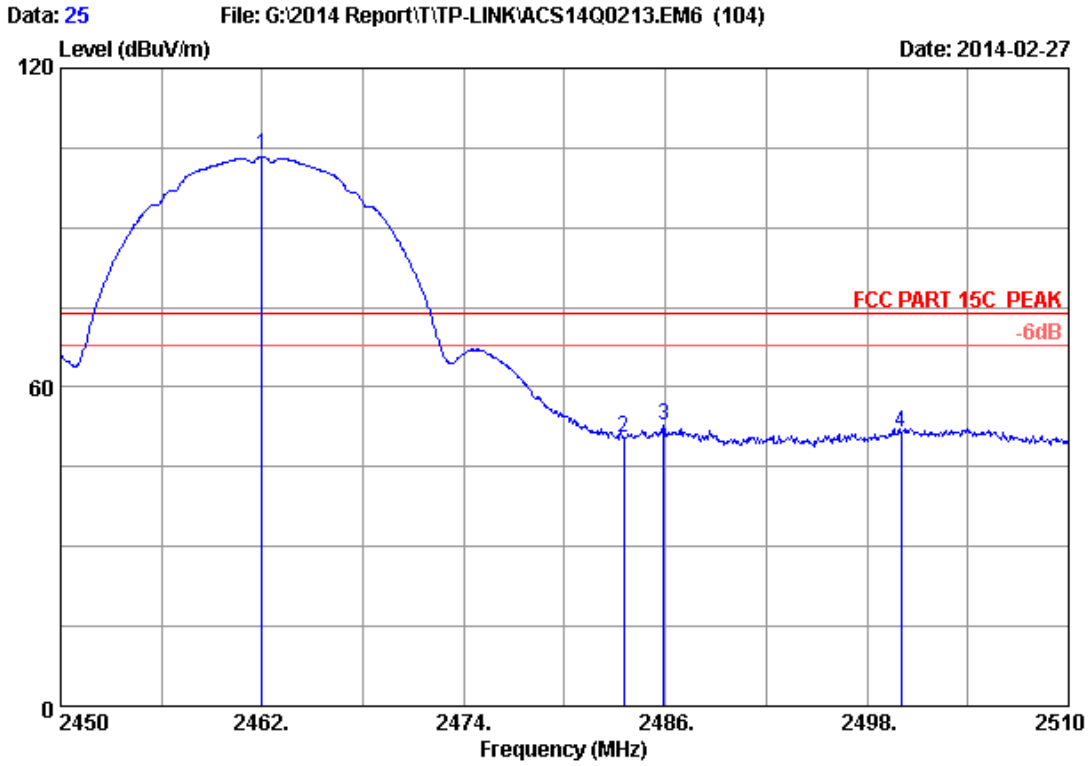
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2461.220	28.31	5.89	35.70	112.23	110.73	54.00	-56.73	Average
2	2483.500	28.36	5.92	35.70	49.87	48.45	54.00	5.55	Average
3	2500.000	28.40	5.94	35.70	51.32	49.96	54.00	4.04	Average
4	2501.120	28.40	5.94	35.70	51.46	50.10	54.00	3.90	Average

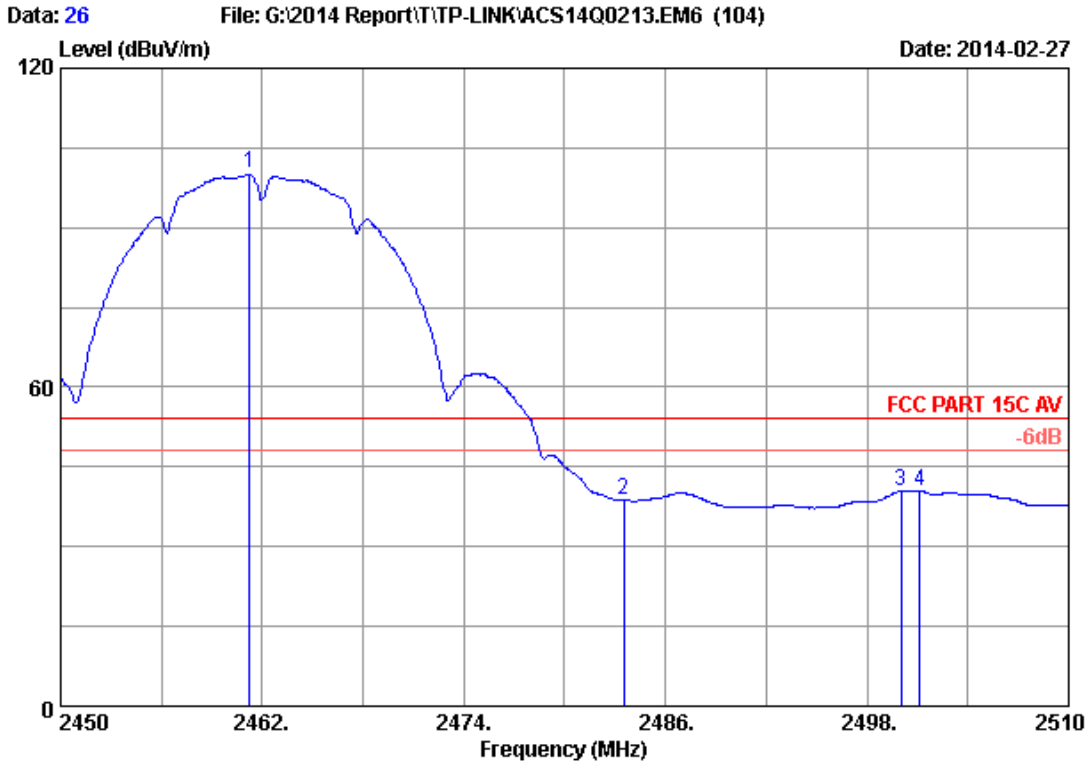
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 25
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2462.000	28.32	5.89	35.70	105.08	103.59	74.00	-29.59	Peak
2	2483.500	28.36	5.92	35.70	51.96	50.54	74.00	23.46	Peak
3	2485.880	28.37	5.92	35.70	54.32	52.91	74.00	21.09	Peak
4	2500.000	28.40	5.94	35.70	52.87	51.51	74.00	22.49	Peak

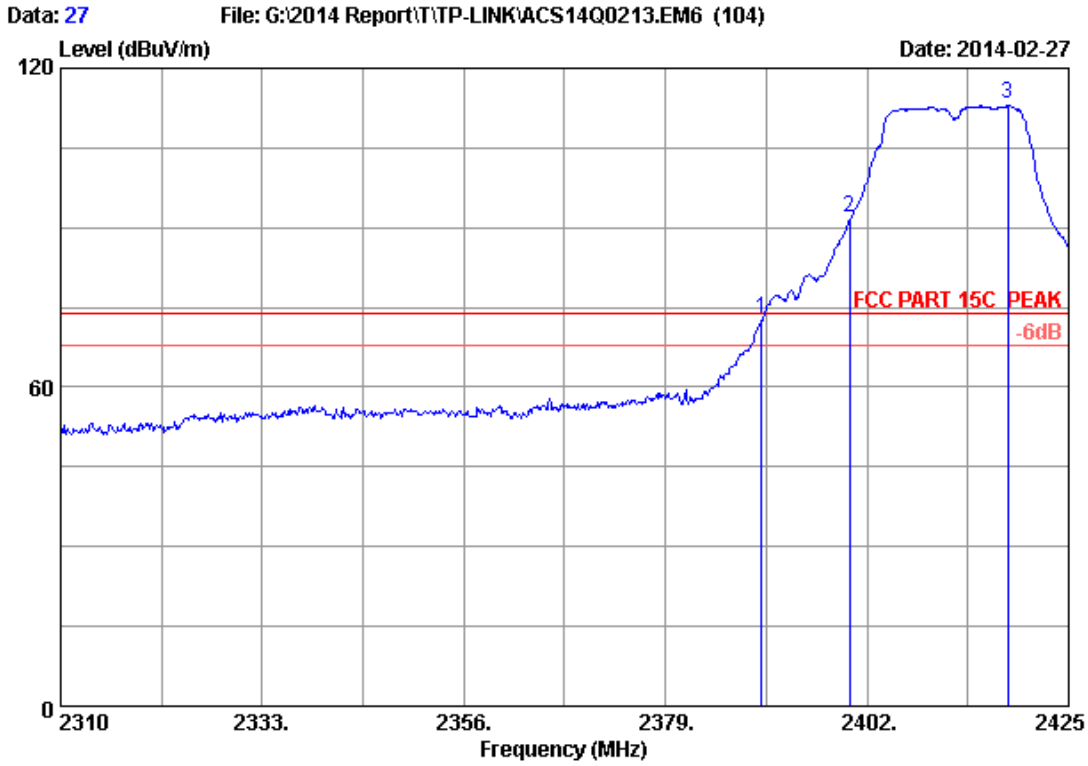
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11b 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2461.220	28.31	5.89	35.70	101.62	100.12	54.00	-46.12	Average
2	2483.500	28.36	5.92	35.70	40.23	38.81	54.00	15.19	Average
3	2500.000	28.40	5.94	35.70	41.76	40.40	54.00	13.60	Average
4	2501.120	28.40	5.94	35.70	41.81	40.45	54.00	13.55	Average

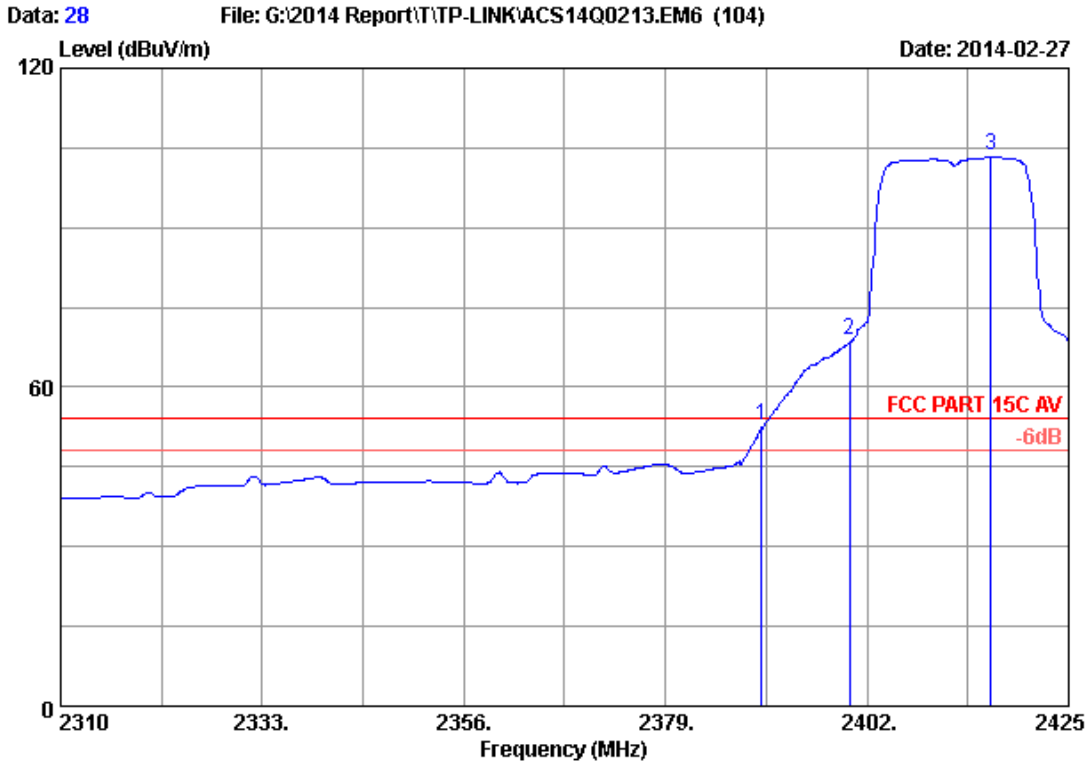
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 27
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	74.69	72.93	74.00	1.07	Peak
2	2400.000	28.18	5.80	35.70	93.59	91.87	74.00	-17.87	Peak
3	2418.100	28.22	5.82	35.70	114.89	113.23	74.00	-39.23	Peak

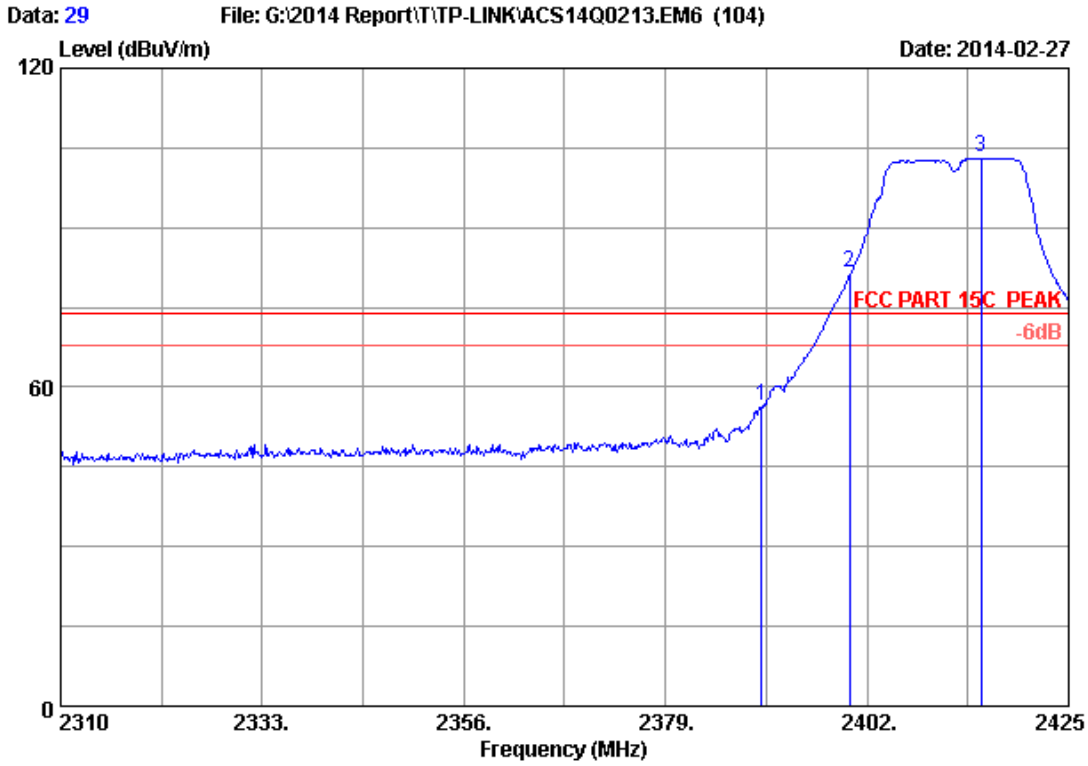
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 28
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	54.46	52.70	54.00	1.30	Average
2	2400.045	28.18	5.80	35.70	70.52	68.80	54.00	-14.80	Average
3	2416.145	28.22	5.82	35.70	105.21	103.55	54.00	-49.55	Average

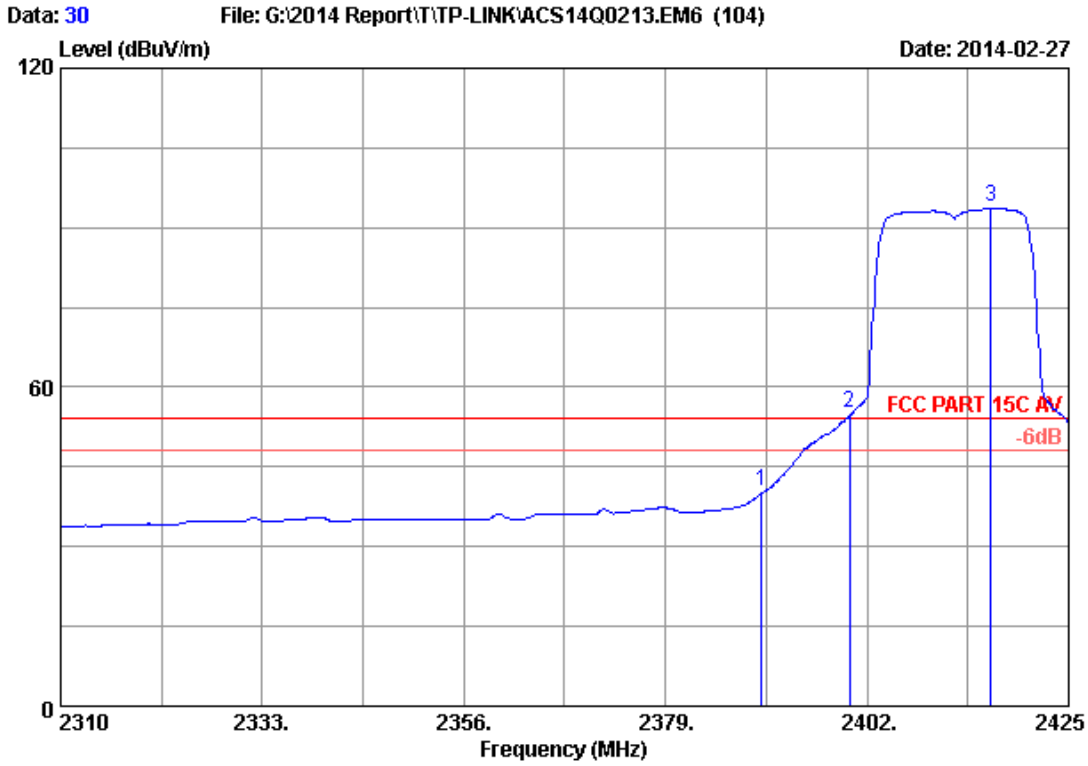
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 29
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	58.25	56.49	74.00	17.51	Peak
2	2400.000	28.18	5.80	35.70	83.28	81.56	74.00	-7.56	Peak
3	2414.995	28.21	5.82	35.70	105.11	103.44	74.00	-29.44	Peak

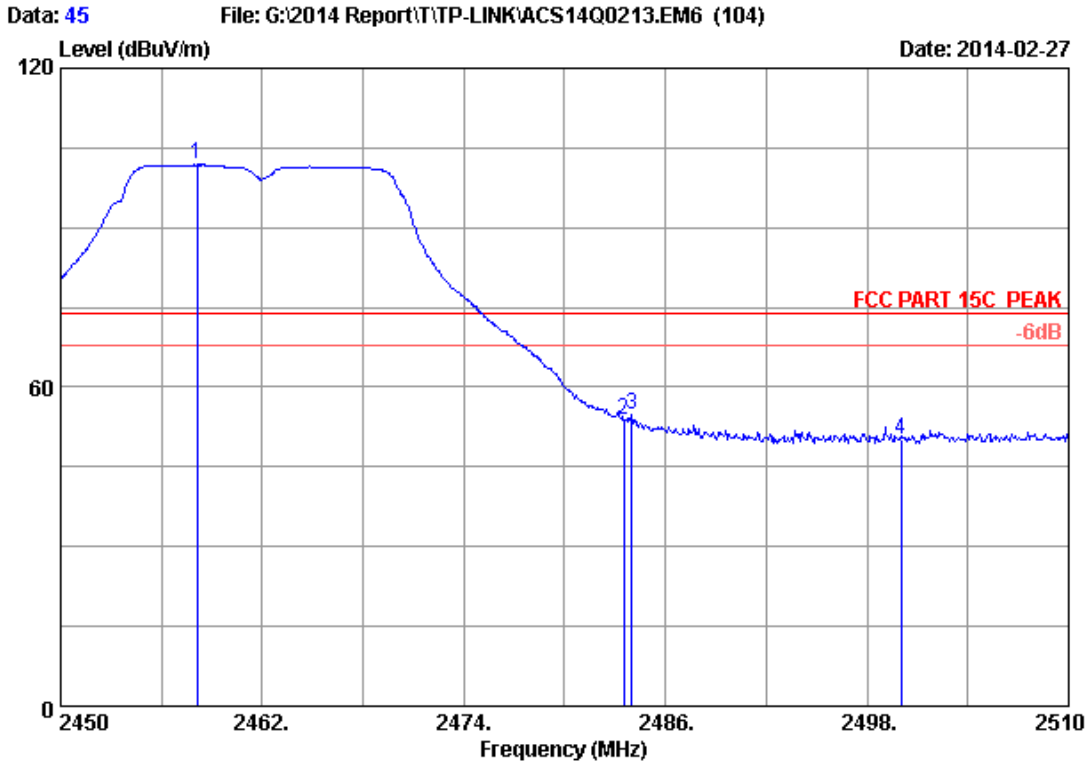
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	42.19	40.43	54.00	13.57	Average
2	2400.000	28.18	5.80	35.70	56.90	55.18	54.00	-1.18	Average
3	2416.145	28.22	5.82	35.70	95.63	93.97	54.00	-39.97	Average

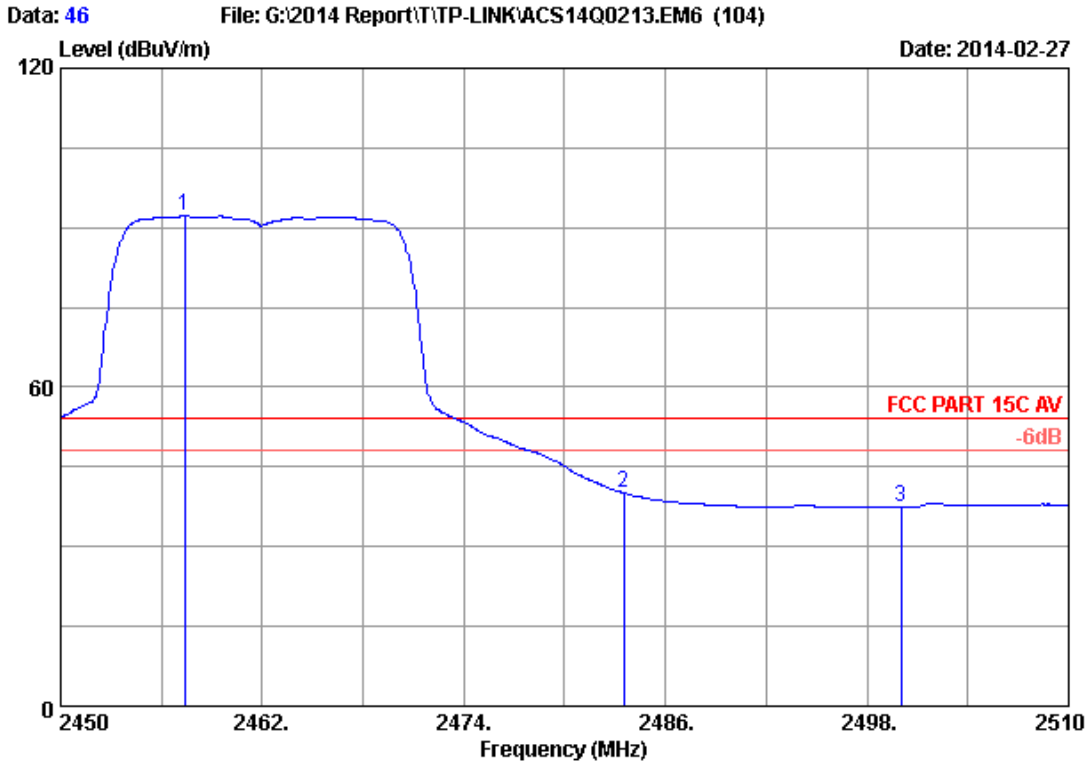
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 45
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2458.100	28.31	5.88	35.70	103.47	101.96	74.00	-27.96	Peak
2	2483.500	28.36	5.92	35.70	55.20	53.78	74.00	20.22	Peak
3	2484.020	28.36	5.92	35.70	56.36	54.94	74.00	19.06	Peak
4	2500.000	28.40	5.94	35.70	51.44	50.08	74.00	23.92	Peak

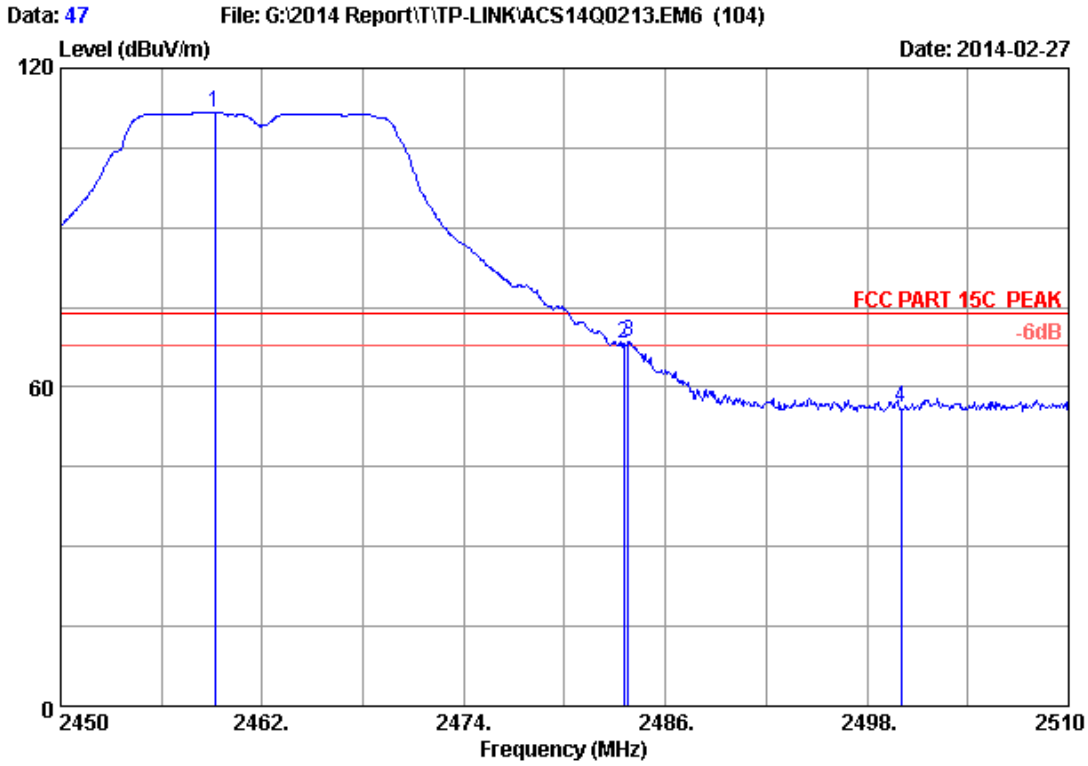
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 46
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2457.380	28.31	5.88	35.70	93.79	92.28	54.00	-38.28	Average
2	2483.500	28.36	5.92	35.70	41.59	40.17	54.00	13.83	Average
3	2500.000	28.40	5.94	35.70	38.79	37.43	54.00	16.57	Average

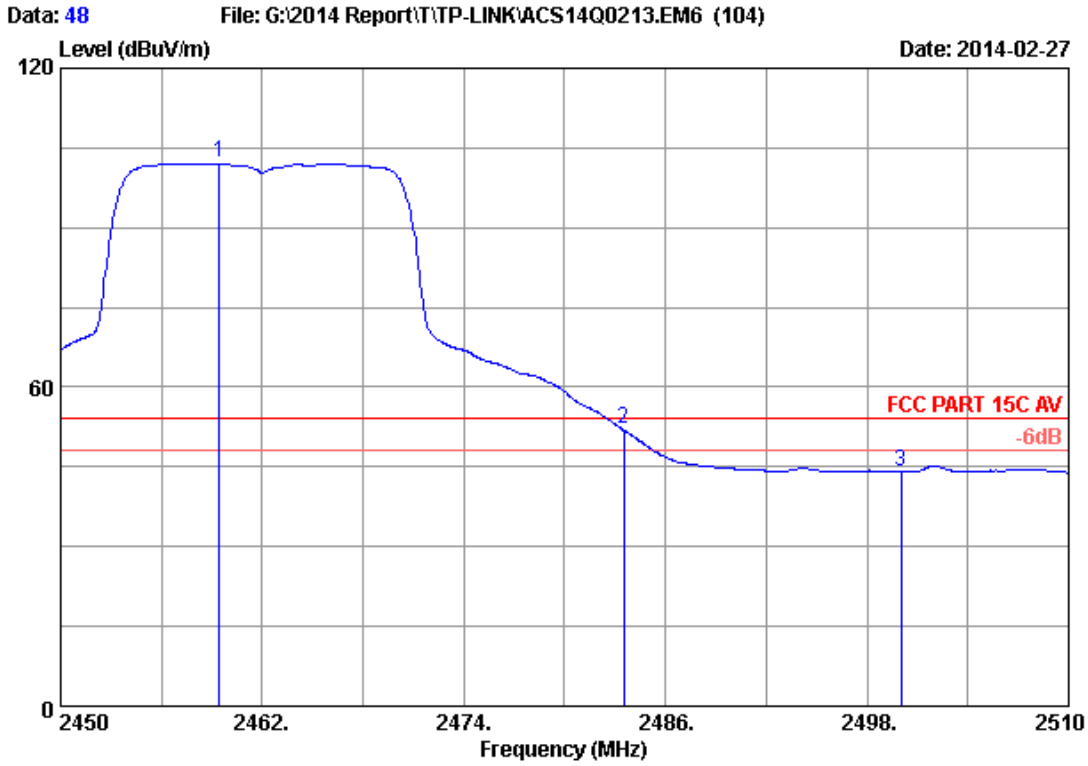
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 47
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.180	28.31	5.88	35.70	113.32	111.81	74.00	-37.81	Peak
2	2483.500	28.36	5.92	35.70	69.64	68.22	74.00	5.78	Peak
3	2483.780	28.36	5.92	35.70	70.09	68.67	74.00	5.33	Peak
4	2500.000	28.40	5.94	35.70	57.49	56.13	74.00	17.87	Peak

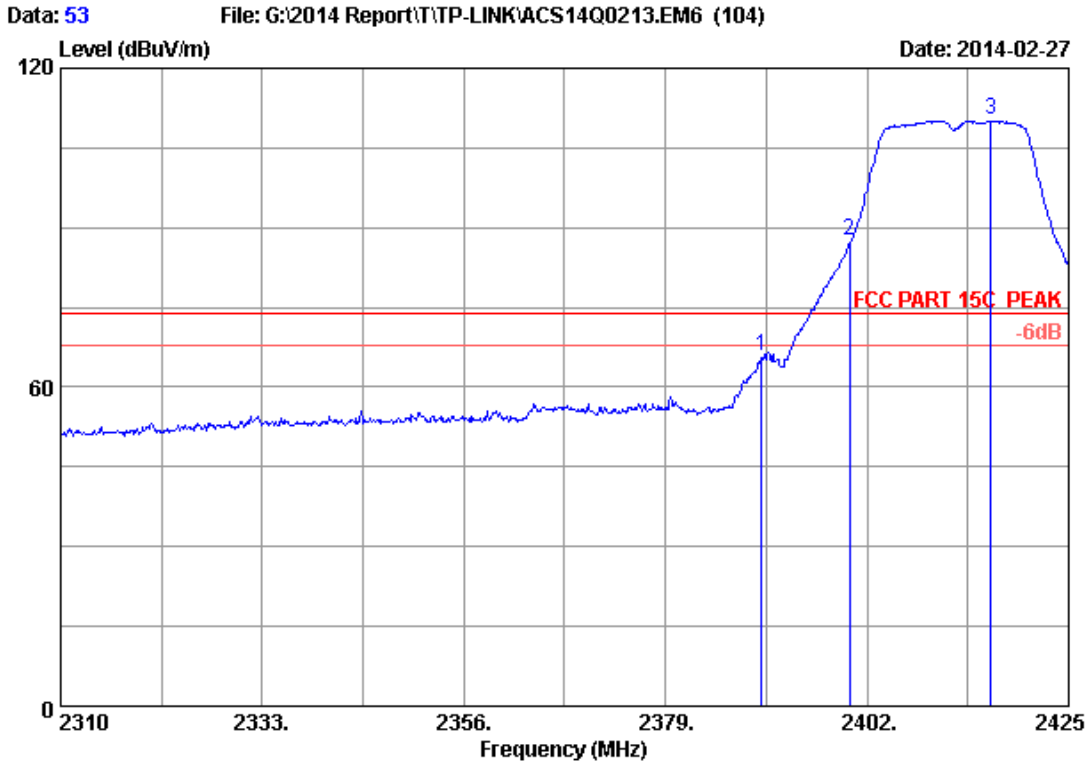
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 48
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11g 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2459.420	28.31	5.88	35.70	103.72	102.21	54.00	-48.21	Average
2	2483.500	28.36	5.92	35.70	53.40	51.98	54.00	2.02	Average
3	2500.000	28.40	5.94	35.70	45.38	44.02	54.00	9.98	Average

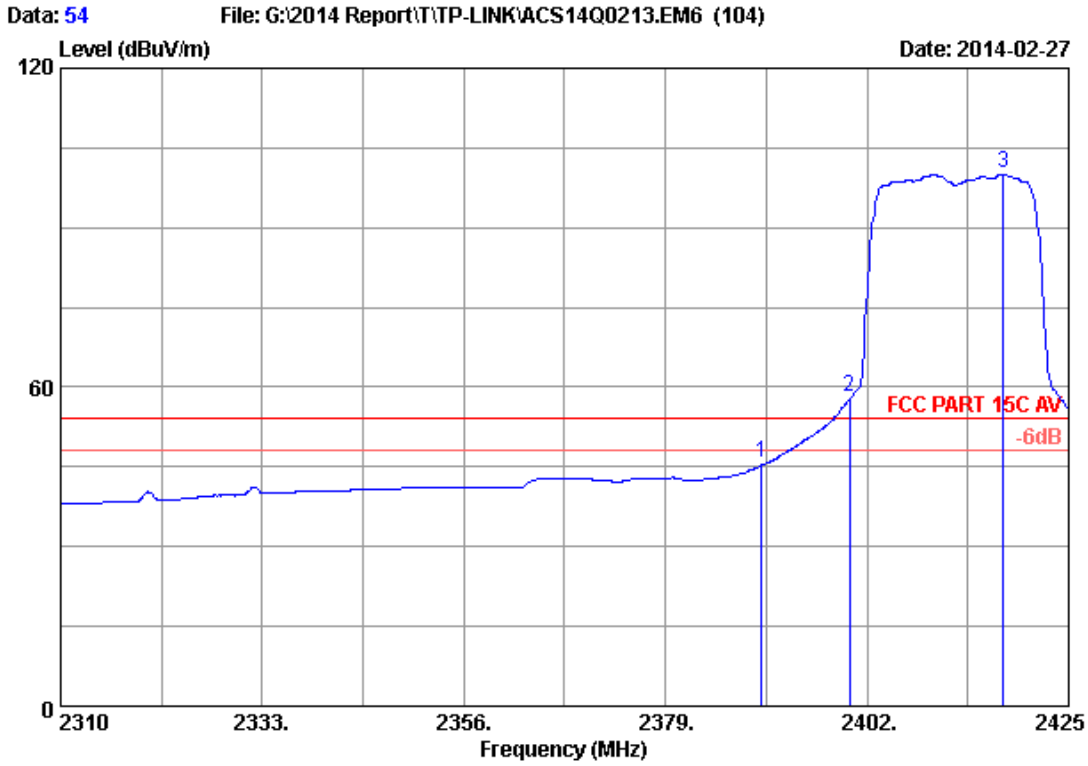
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 53
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	67.52	65.76	74.00	8.24	Peak
2	2400.000	28.18	5.80	35.70	89.32	87.60	74.00	-13.60	Peak
3	2416.145	28.22	5.82	35.70	112.06	110.40	74.00	-36.40	Peak

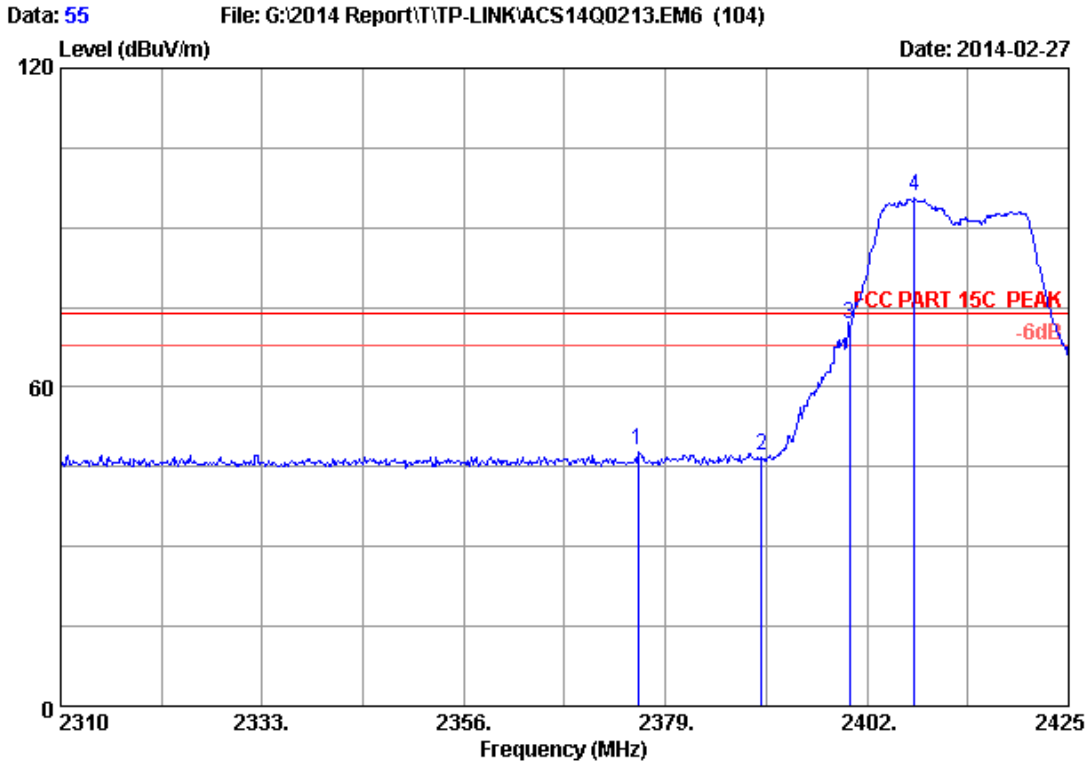
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	47.55	45.79	54.00	8.21	Average
2	2400.000	28.18	5.80	35.70	59.99	58.27	54.00	-4.27	Average
3	2417.525	28.22	5.82	35.70	101.94	100.28	54.00	-46.28	Average

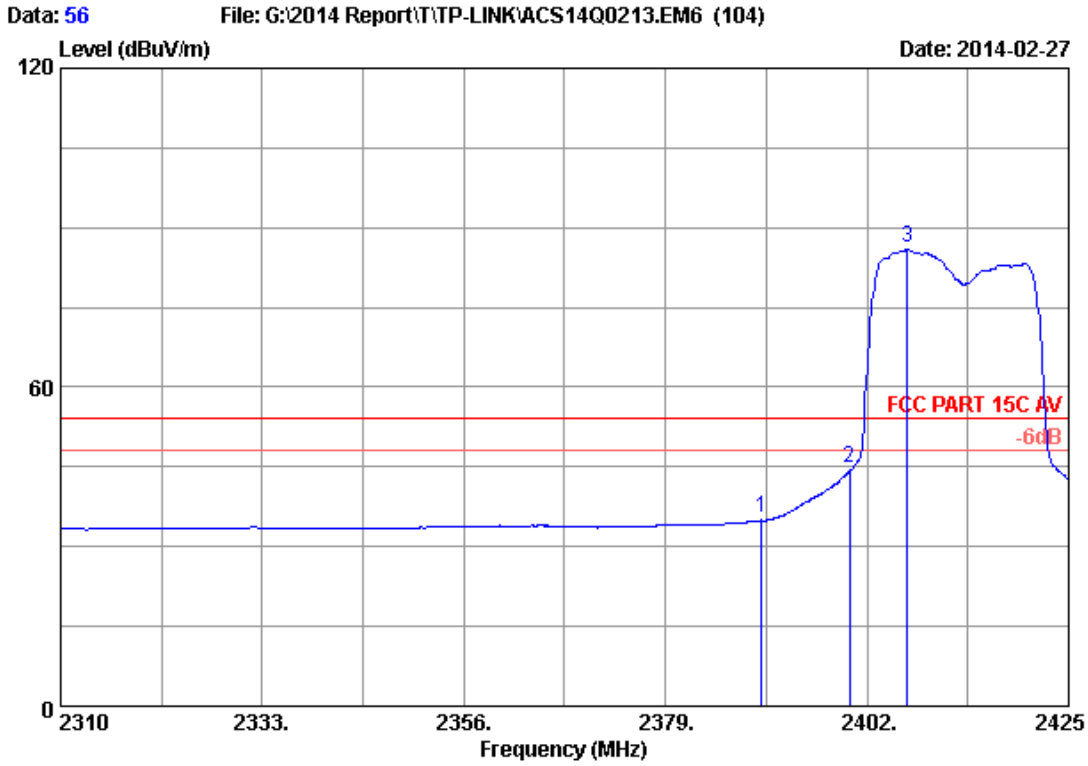
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 55
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	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	2375.895	28.13	5.76	35.70	49.97	48.16	74.00	25.84	Peak
2	2390.000	28.16	5.78	35.70	48.79	47.03	74.00	26.97	Peak
3	2400.000	28.18	5.80	35.70	73.50	71.78	74.00	2.22	Peak
4	2407.405	28.20	5.81	35.70	97.49	95.80	74.00	-21.80	Peak

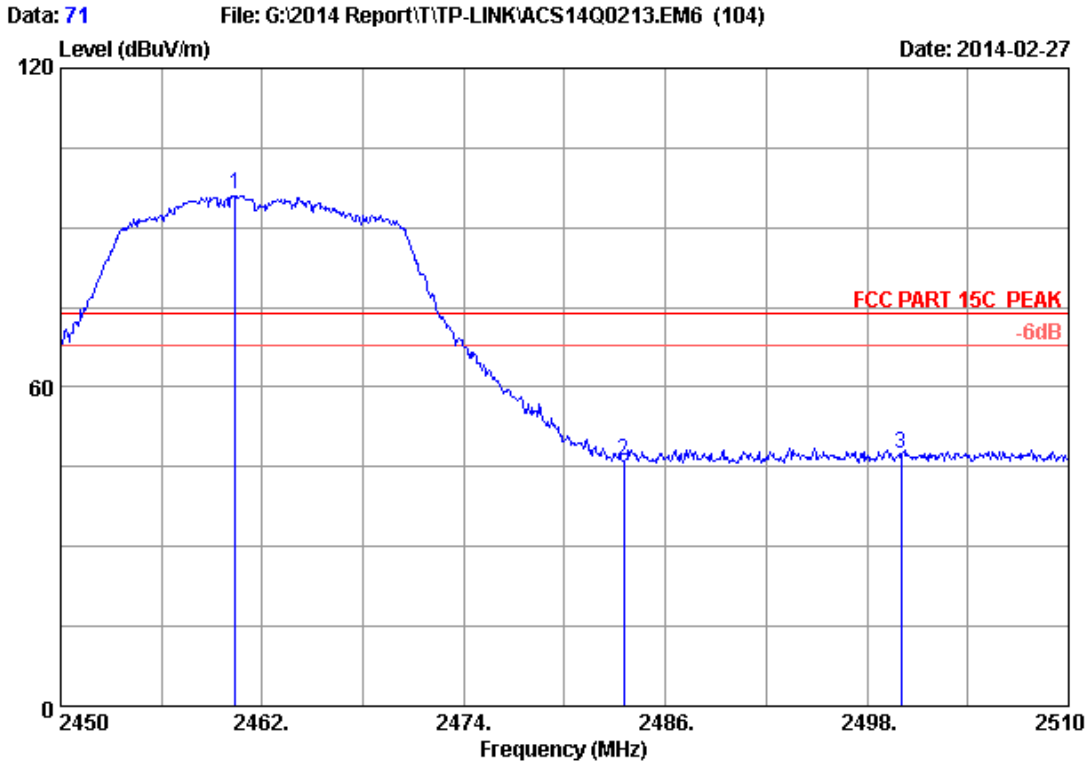
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2412MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	37.09	35.33	54.00	18.67	Average
2	2400.045	28.18	5.80	35.70	46.36	44.64	54.00	9.36	Average
3	2406.600	28.19	5.81	35.70	87.88	86.18	54.00	-32.18	Average

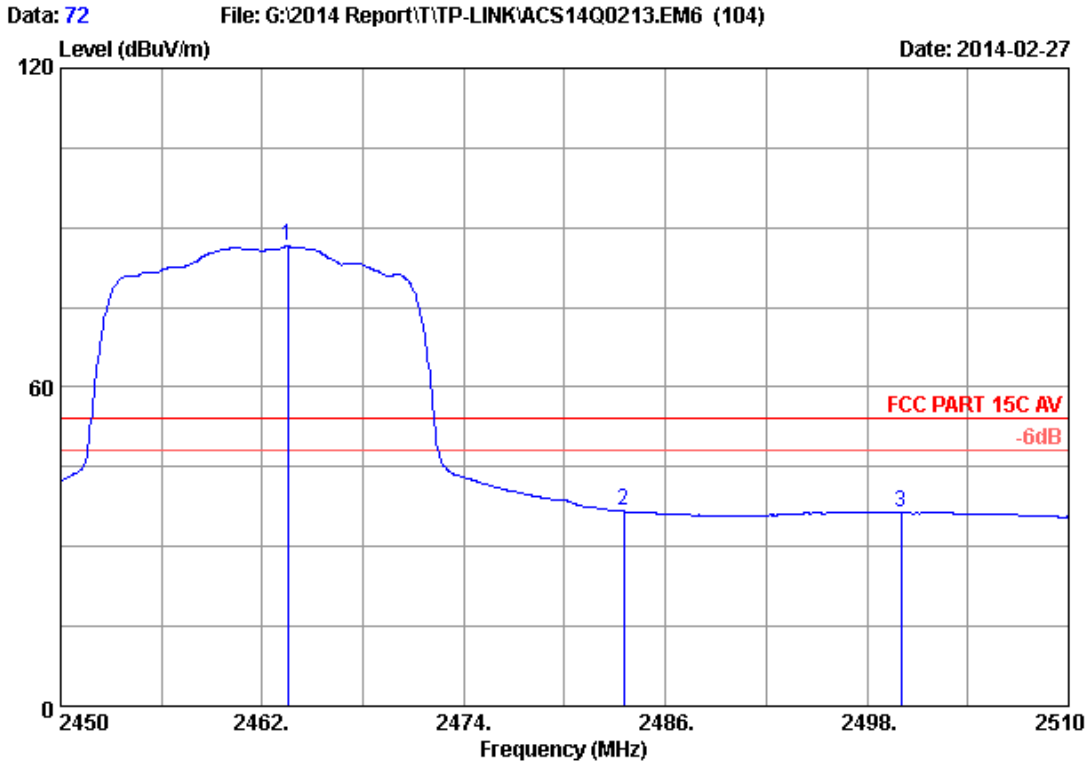
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 71
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.380	28.31	5.88	35.70	97.66	96.15	74.00	-22.15	Peak
2	2483.500	28.36	5.92	35.70	47.52	46.10	74.00	27.90	Peak
3	2500.000	28.40	5.94	35.70	48.85	47.49	74.00	26.51	Peak

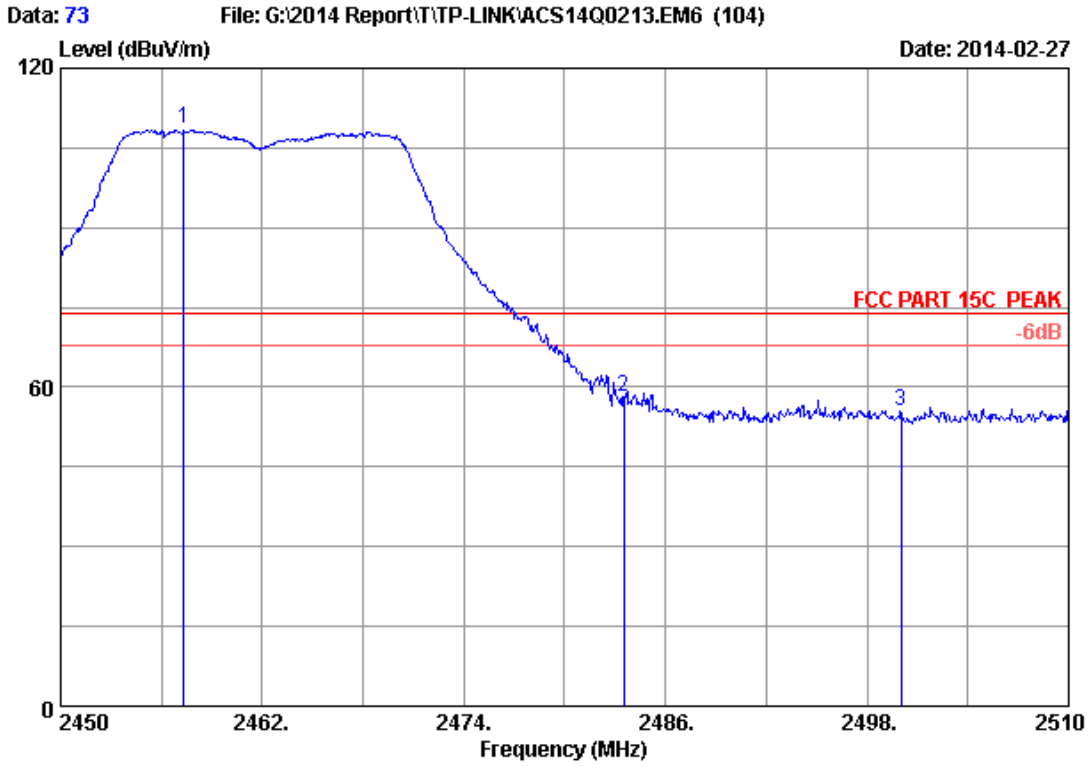
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2463.500	28.32	5.89	35.70	88.06	86.57	54.00	-32.57	Average
2	2483.500	28.36	5.92	35.70	38.11	36.69	54.00	17.31	Average
3	2500.000	28.40	5.94	35.70	37.68	36.32	54.00	17.68	Average

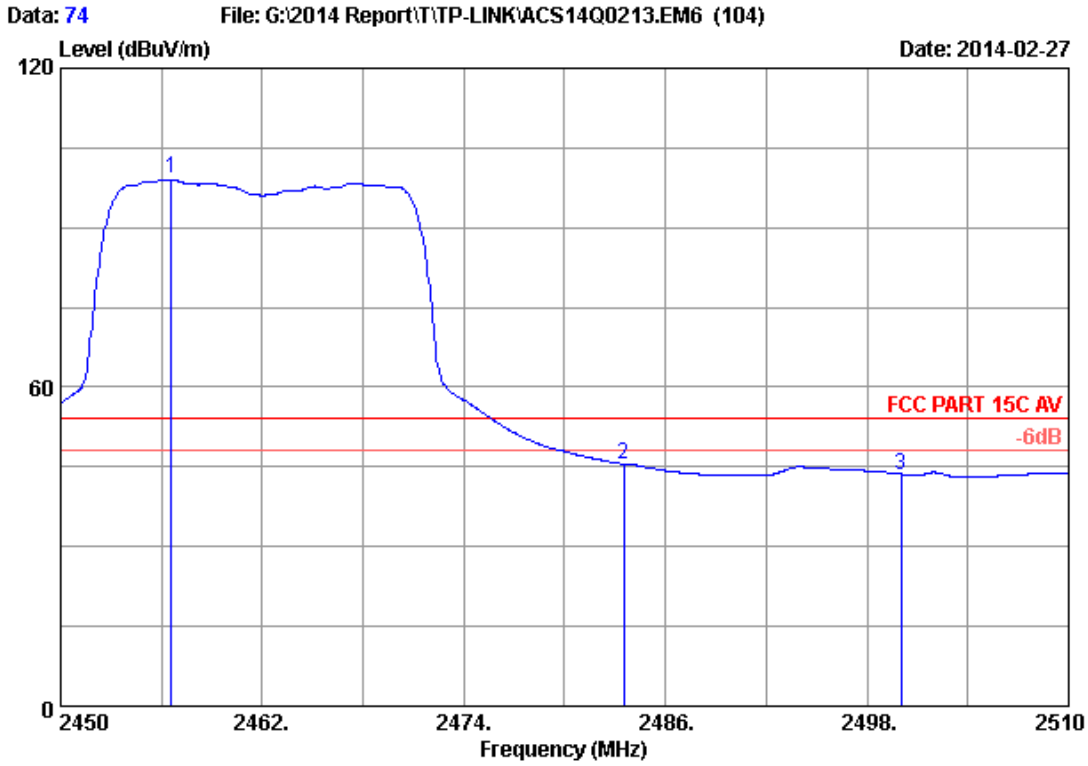
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 73
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2457.320	28.31	5.88	35.70	110.02	108.51	74.00	-34.51	Peak
2	2483.500	28.36	5.92	35.70	59.68	58.26	74.00	15.74	Peak
3	2500.000	28.40	5.94	35.70	56.95	55.59	74.00	18.41	Peak

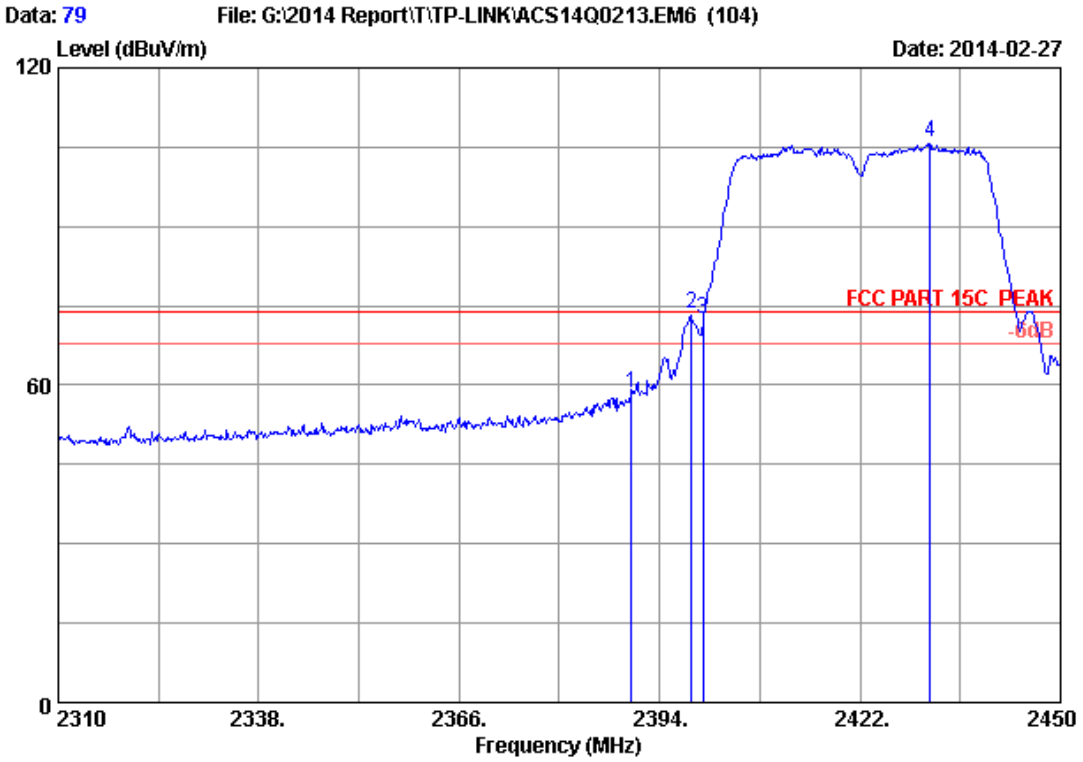
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 74
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT20 2462MHz Tx Mode
M/N : TD-W8901N

No.	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	2456.600	28.30	5.88	35.70	100.66	99.14	54.00	-45.14	Average
2	2483.500	28.36	5.92	35.70	47.02	45.60	54.00	8.40	Average
3	2500.000	28.40	5.94	35.70	44.98	43.62	54.00	10.38	Average

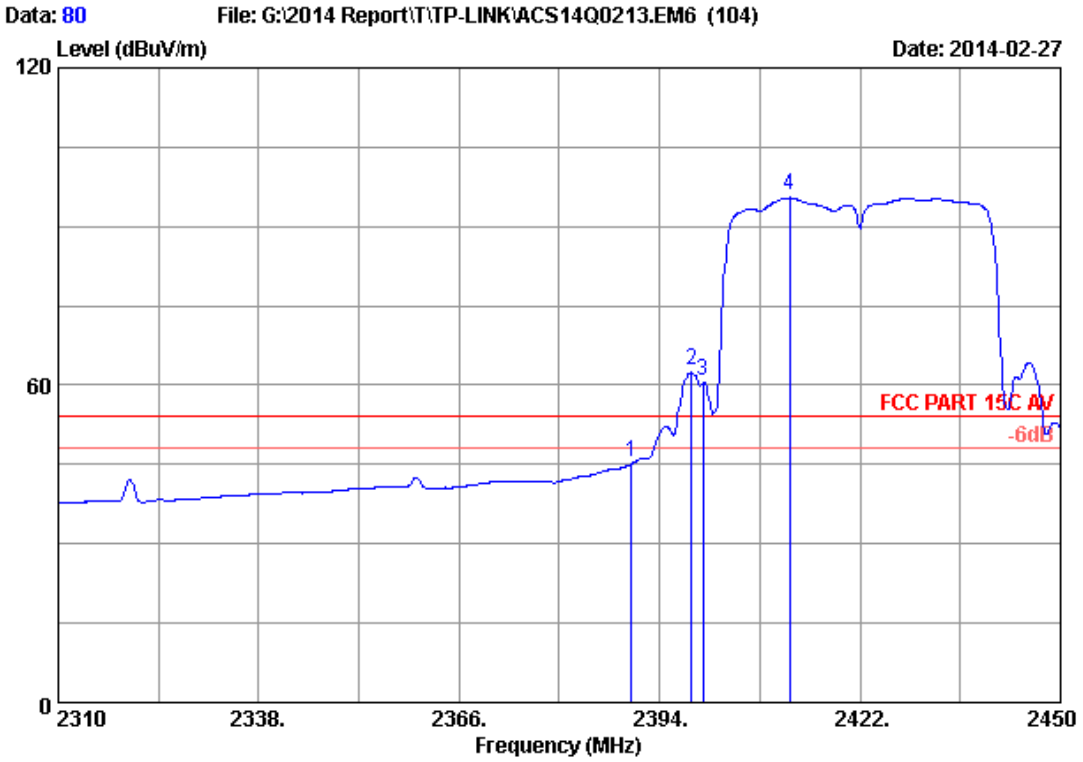
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 79
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	60.41	58.65	74.00	15.35	Peak
2	2398.480	28.18	5.79	35.70	75.15	73.42	74.00	0.58	Peak
3	2400.000	28.18	5.80	35.70	74.19	72.47	74.00	1.53	Peak
4	2431.800	28.25	5.84	35.70	107.57	105.96	74.00	-31.96	Peak

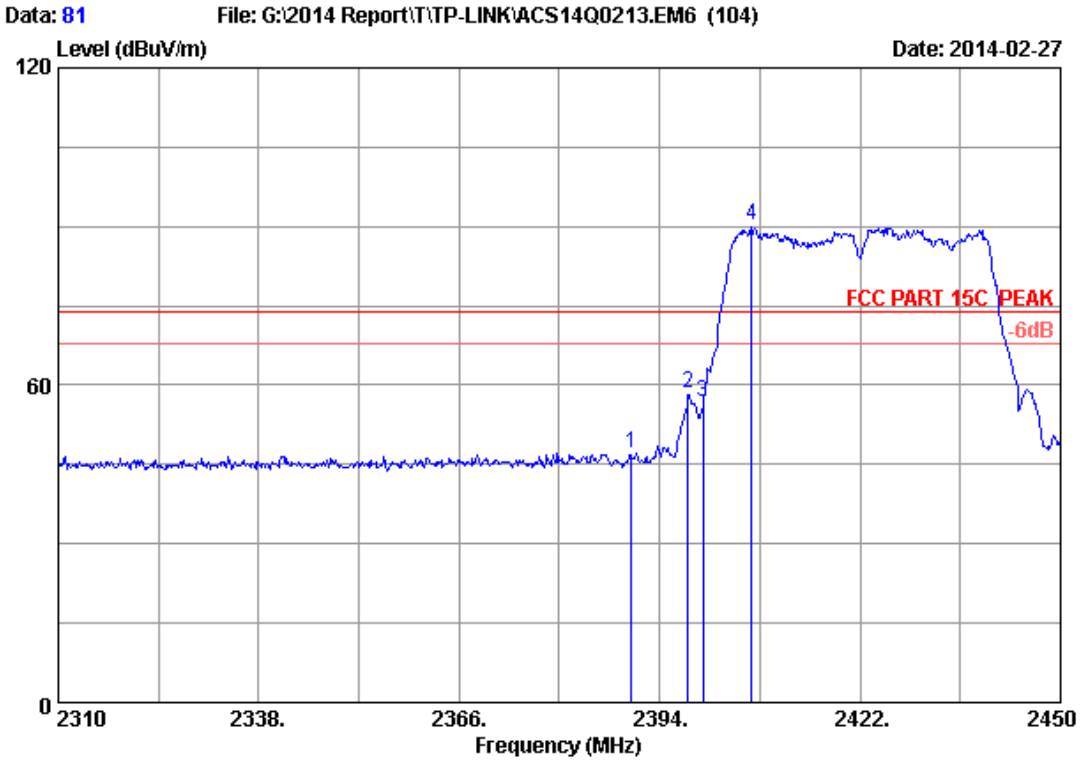
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 80
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	47.13	45.37	54.00	8.63	Average
2	2398.480	28.18	5.79	35.70	64.43	62.70	54.00	-8.70	Average
3	2400.000	28.18	5.80	35.70	62.60	60.88	54.00	-6.88	Average
4	2412.200	28.21	5.81	35.70	97.45	95.77	54.00	-41.77	Average

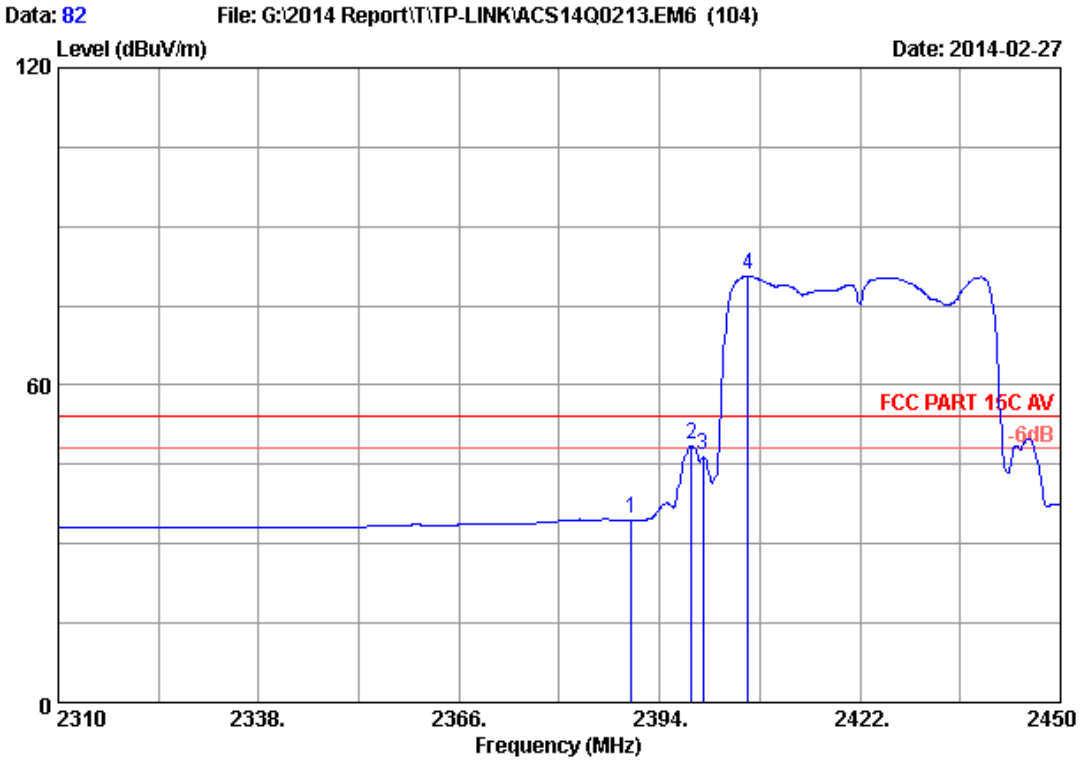
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 81
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	48.80	47.04	74.00	26.96	Peak
2	2397.920	28.18	5.79	35.70	60.38	58.65	74.00	15.35	Peak
3	2400.000	28.18	5.80	35.70	58.70	56.98	74.00	17.02	Peak
4	2406.880	28.20	5.81	35.70	91.98	90.29	74.00	-16.29	Peak

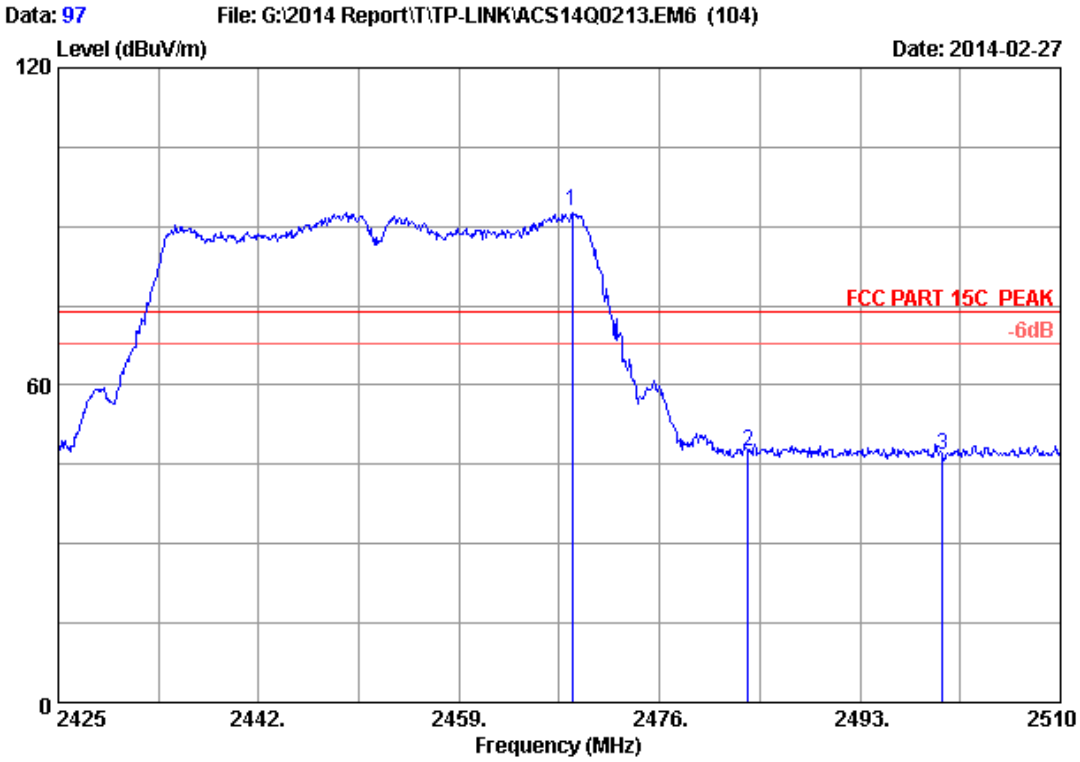
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 82
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2422MHz Tx Mode
M/N : TD-W8901N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	28.16	5.78	35.70	36.61	34.85	54.00	19.15	Average
2	2398.480	28.18	5.79	35.70	50.52	48.79	54.00	5.21	Average
3	2400.000	28.18	5.80	35.70	48.37	46.65	54.00	7.35	Average
4	2406.320	28.19	5.81	35.70	82.69	80.99	54.00	-26.99	Average

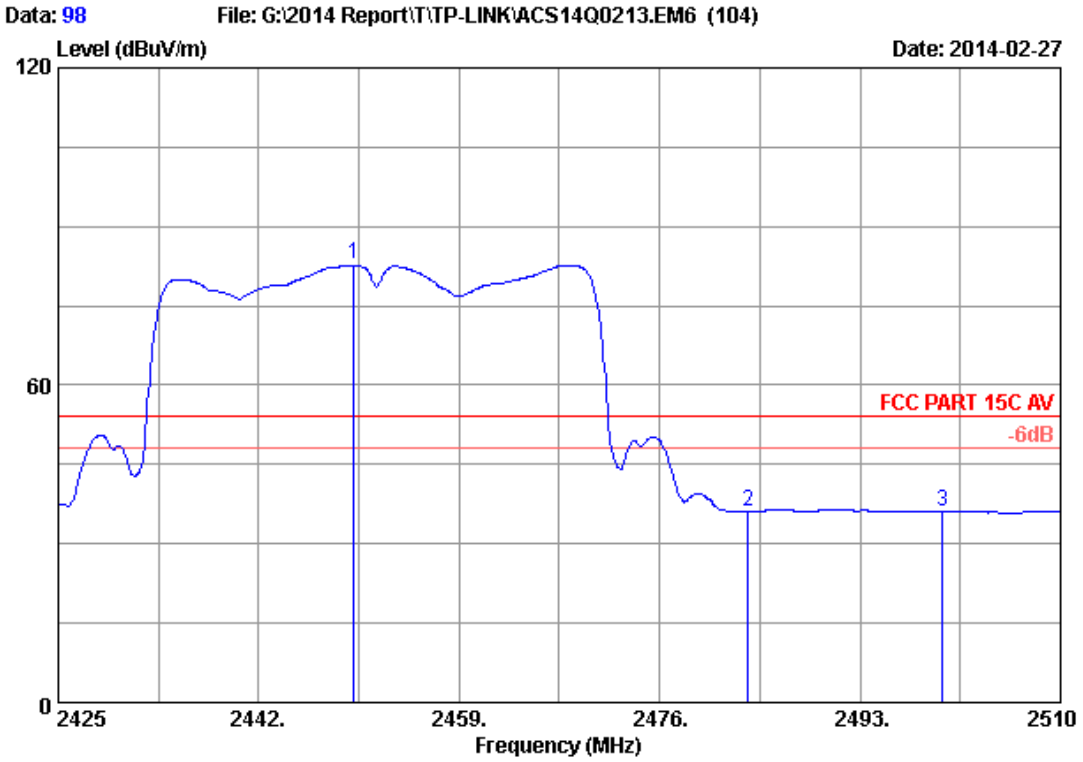
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 97
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	2468.605	28.33	5.90	35.70	94.32	92.85	74.00	-18.85	Peak
2	2483.500	28.36	5.92	35.70	48.77	47.35	74.00	26.65	Peak
3	2500.000	28.40	5.94	35.70	48.11	46.75	74.00	27.25	Peak

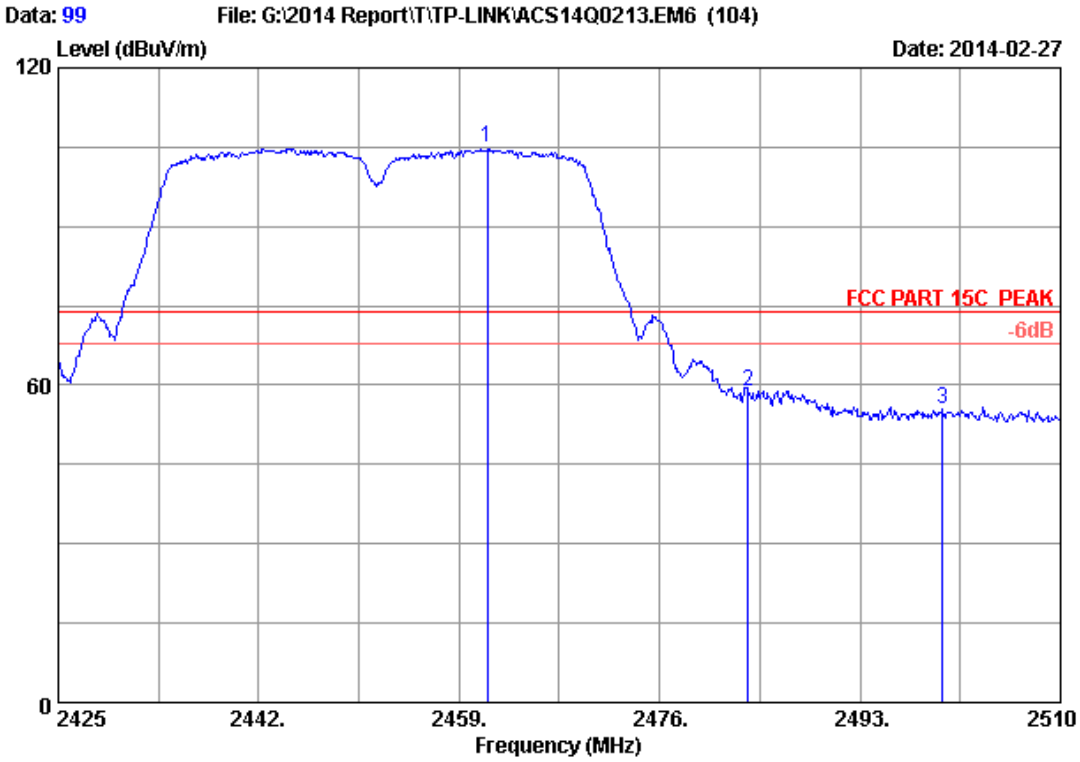
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 98
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	2450.075	28.29	5.87	35.70	84.39	82.85	54.00	-28.85	Average
2	2483.500	28.36	5.92	35.70	37.52	36.10	54.00	17.90	Average
3	2500.000	28.40	5.94	35.70	37.34	35.98	54.00	18.02	Average

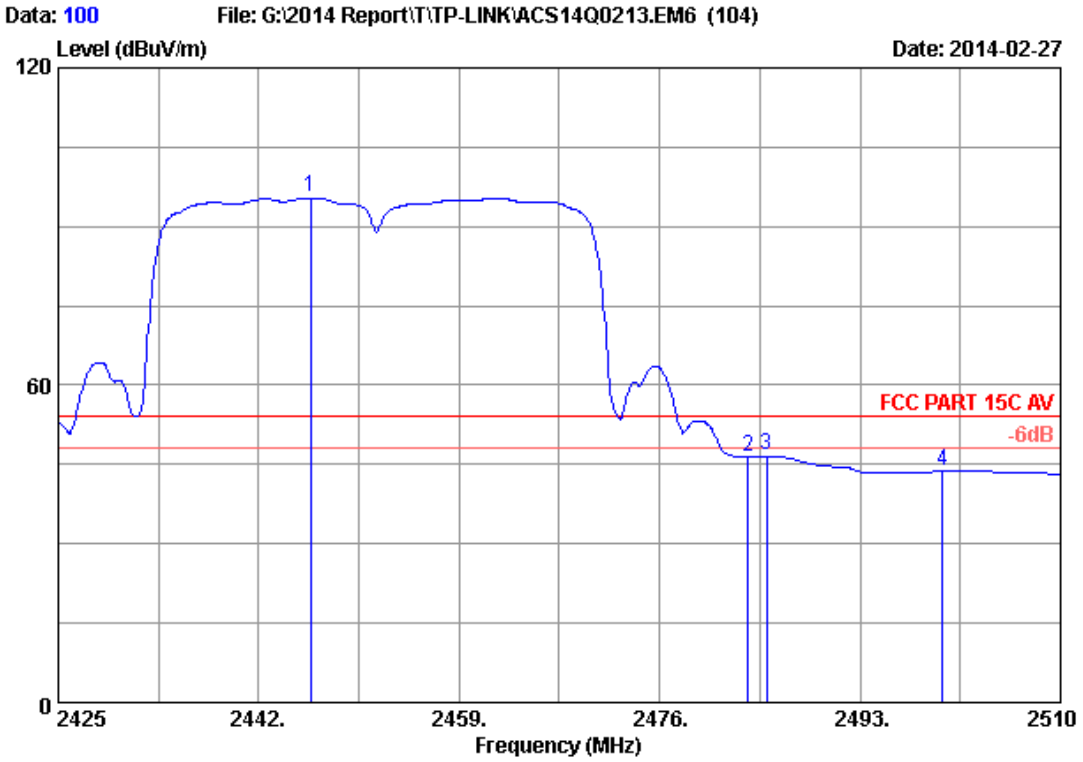
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 99
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	2461.380	28.32	5.89	35.70	106.30	104.81	74.00	-30.81	Peak
2	2483.500	28.36	5.92	35.70	60.20	58.78	74.00	15.22	Peak
3	2500.000	28.40	5.94	35.70	56.81	55.45	74.00	18.55	Peak

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



Site no. : 3m Chamber Data no. : 100
Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 24*C/56% Engineer : Leo-Li
EUT : 150Mbps Wireless N ADSL2+ Modem Router
Power Rating : DC 9V From Adapter input AC 120V/60Hz
Test Mode : IEEE802.11nHT40 2452MHz Tx Mode
M/N : TD-W8901N

No.	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	2446.420	28.28	5.86	35.70	97.14	95.58	54.00	-41.58	Average
2	2483.500	28.36	5.92	35.70	47.84	46.42	54.00	7.58	Average
3	2485.095	28.37	5.92	35.70	48.08	46.67	54.00	7.33	Average
4	2500.000	28.40	5.94	35.70	45.06	43.70	54.00	10.30	Average

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

7. 6dB Bandwidth Test

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
8.	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
1.	Amp	HP	8449B	3008A08495	May.08, 13	1 Year
2.	Antenna	EMCO	3115	9510-4580	May.08, 13	1Year
3.	HF Cable	Hubersuhner	Sucoflex104	-	May.08, 13	1 Year

8.1.Limit

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

8.2.Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300KHz RBW and 1MHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

8.3.Test Results

EUT: 150Mbps Wireless N ADSL2+ Modem Router		
M/N: TD-W8901N		
Test date: 2014-02-20	Pressure: 101.2±1.0 kpa	Humidity: 51.7±3.0%
Tested by: Leo-Li	Test site: RF Site	Temperature:21.6±0.6℃

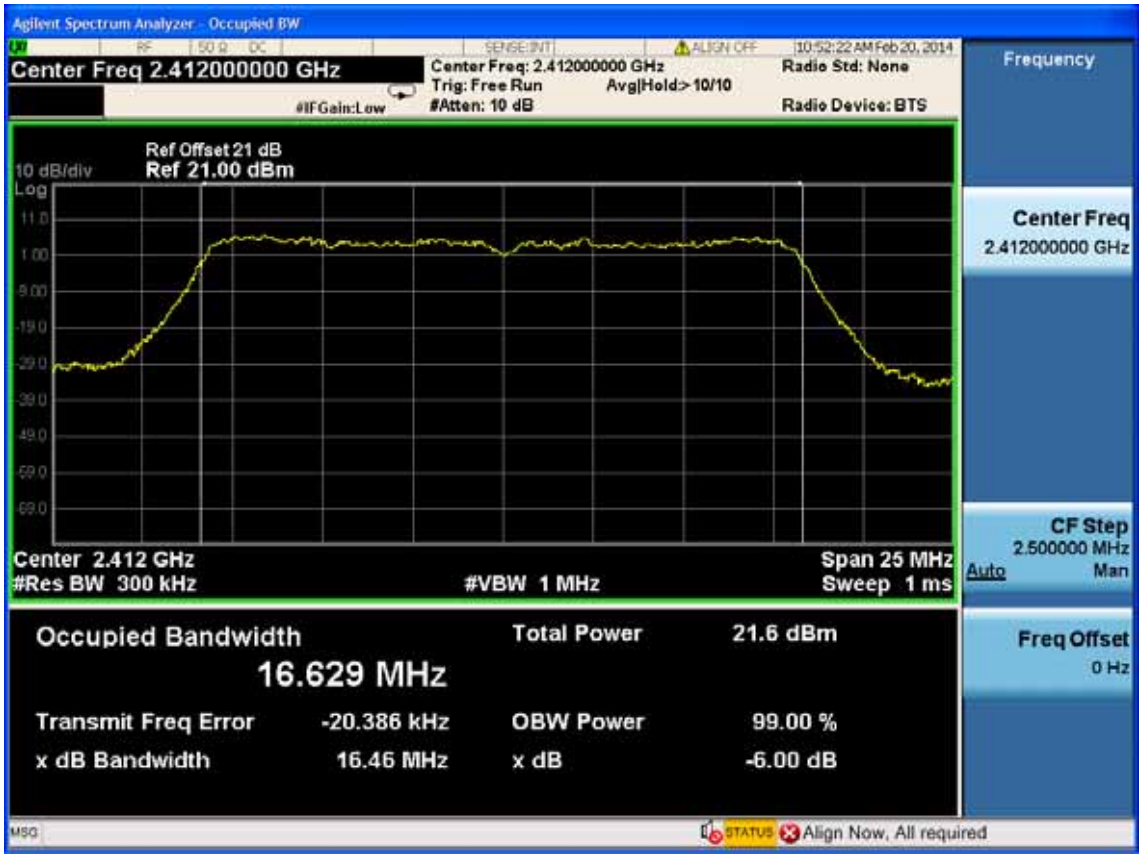
Cable loss: 1 dB		Attenuator loss: 20 dB	
Test Mode	CH	-6dB bandwidth (MHz)	Limit (KHz)
11b	CH1	10.19	≧500
	CH6	10.19	≧500
	CH11	10.20	≧500
11g	CH1	16.46	≧500
	CH6	16.44	≧500
	CH11	16.44	≧500
11n HT20	CH1	17.41	≧500
	CH6	17.42	≧500
	CH11	17.35	≧500
11n HT40	CH1	36.60	≧500
	CH4	36.61	≧500
	CH7	36.63	≧500
Conclusion：PASS			

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

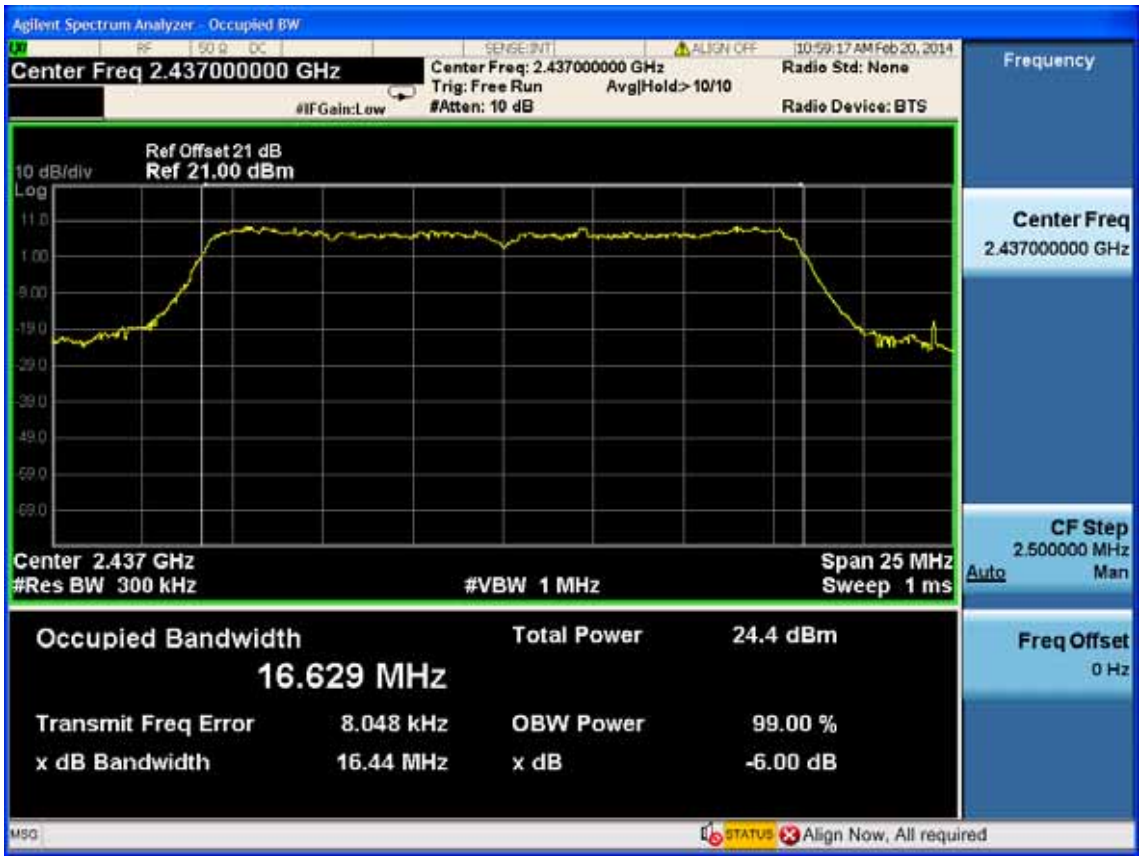
Test CH6: 2437MHz

Test CH11: 2462MHz

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

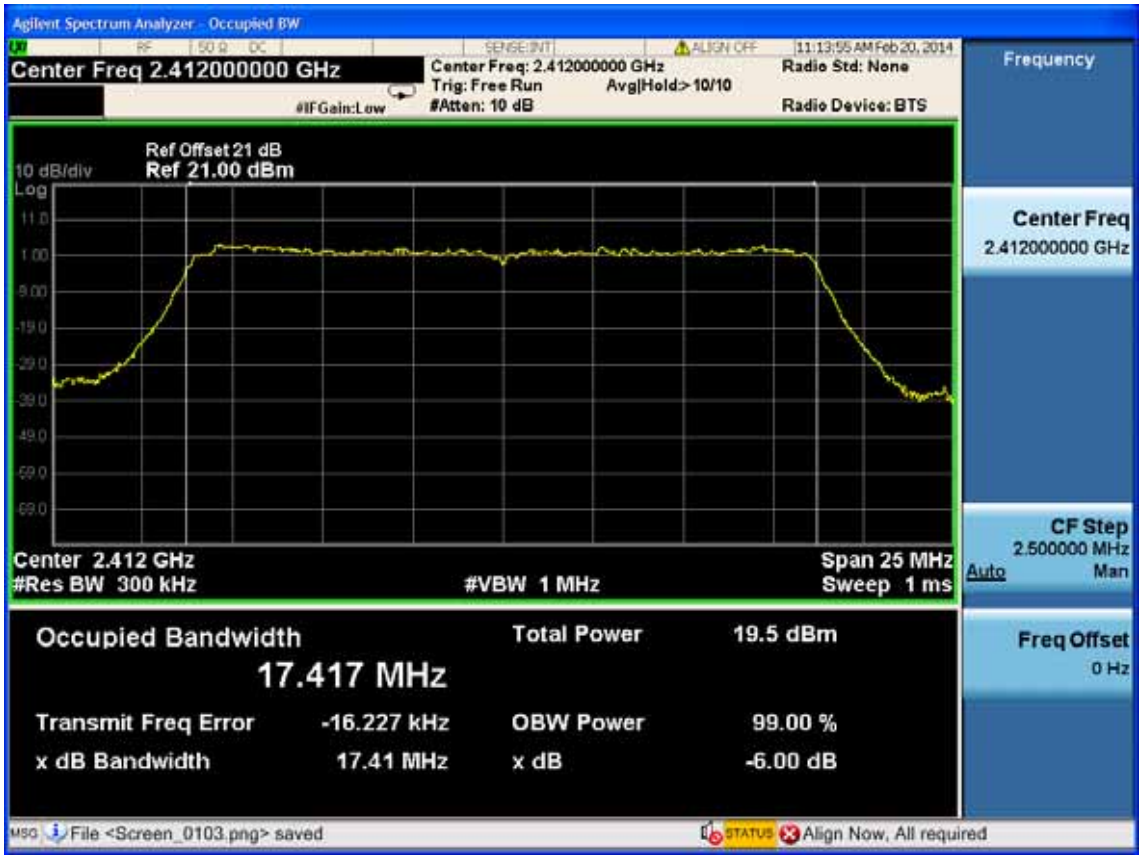


Test CH6: 2437MHz

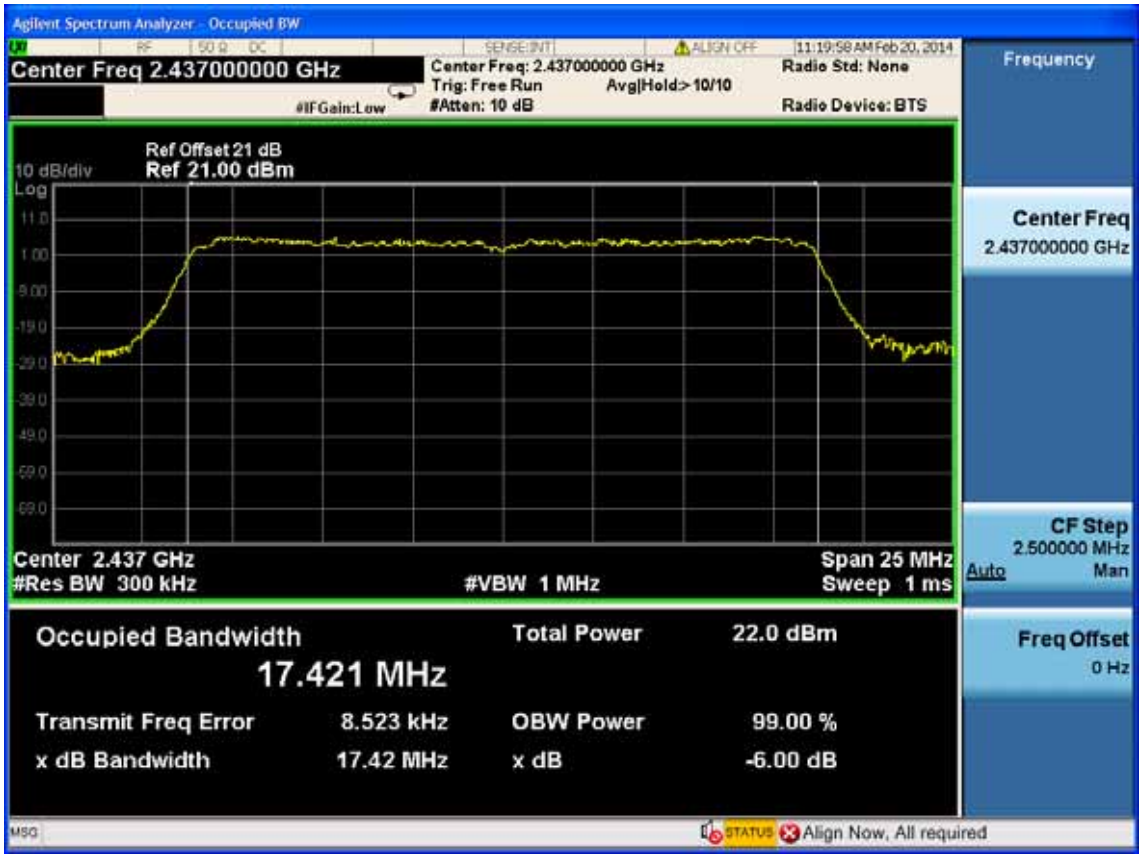


Test CH11: 2462MHz

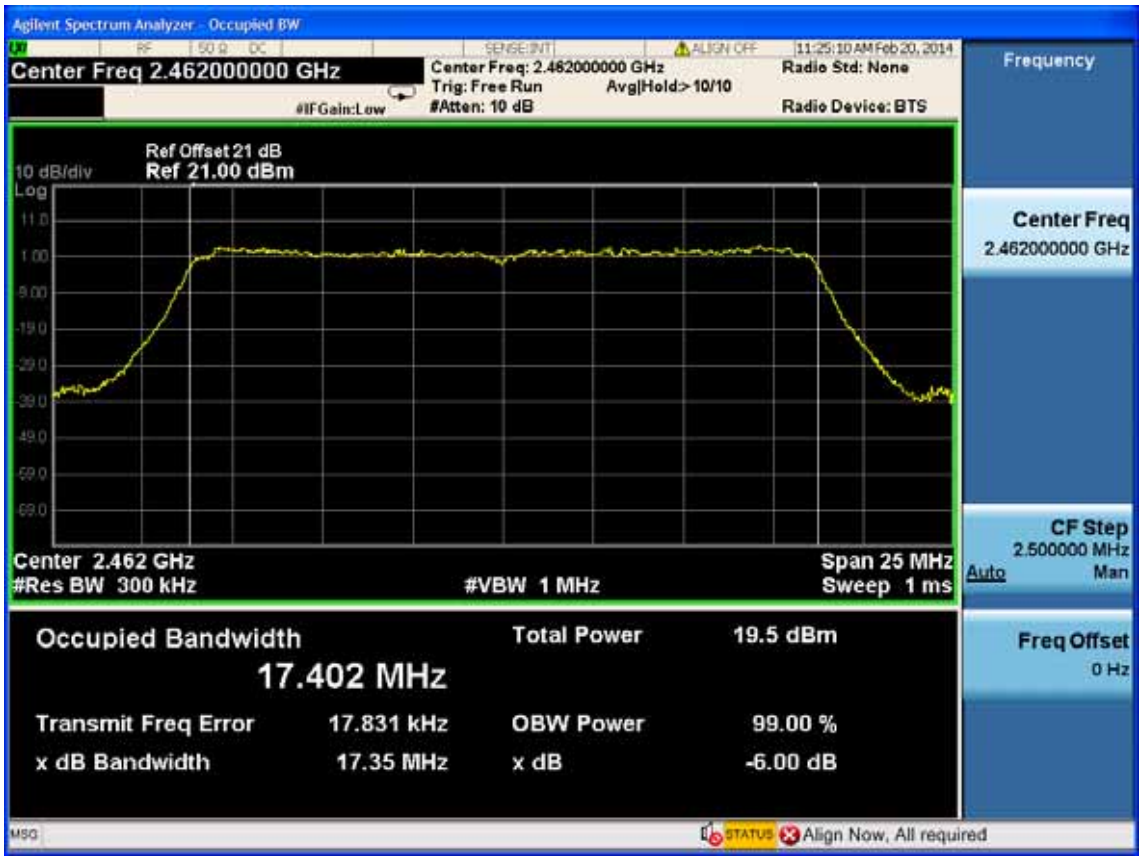
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



Test CH6: 2437MHz



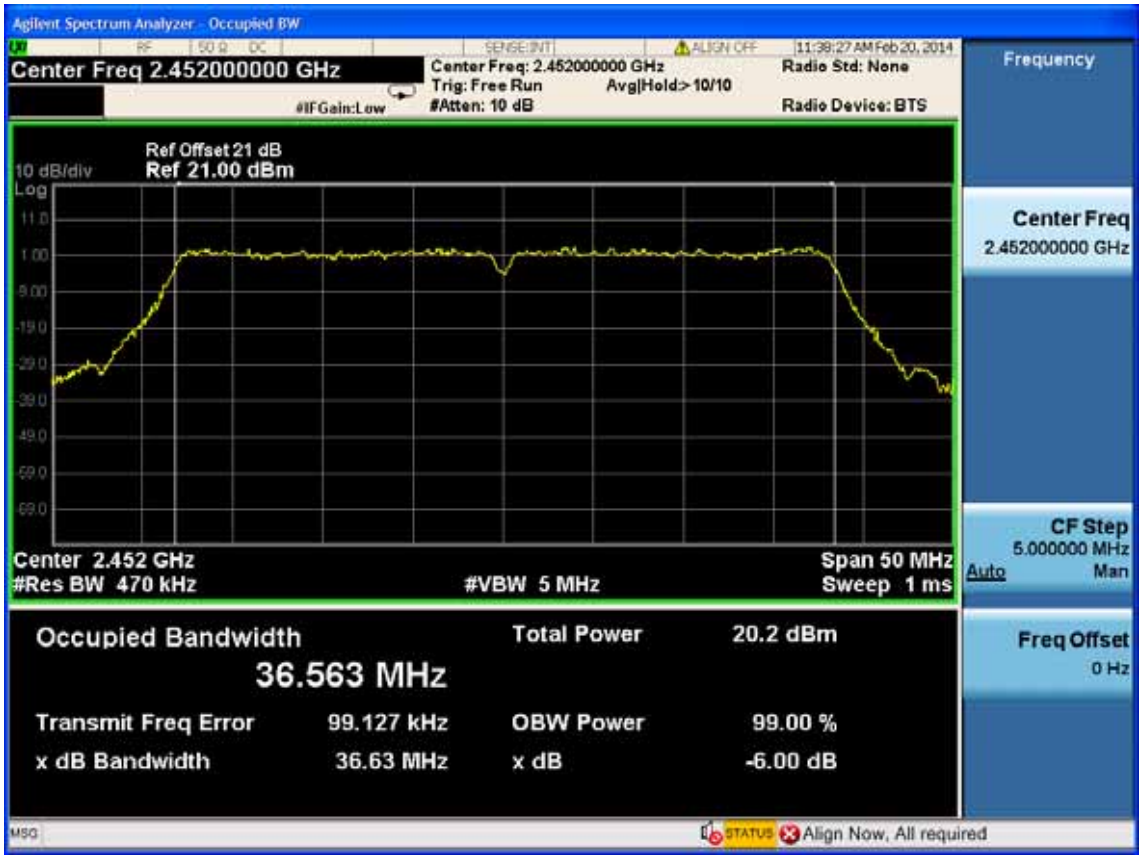
Test CH11: 2462MHz



Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

Test CH4: 2437MHz

Test CH7: 2452MHz



9. OUTPUT POWER TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
3.	Power meter	Anritsu	ML2487A	6K00002472	May.08, 13	1Year
4.	Power sensor	Anritsu	MA2491A	0033005	May.08, 13	1Year
5.	Attenuator(20dB)	Agilent	8491B	MY39262165	May.08, 13	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08, 13	1 Year

9.2.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)

9.3.Test Procedure

1, Connected the EUT's antenna port to measure device by 26dB attenuator.

2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 26dB bandwidth of signal to measure out each test modes' PK output power.

3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So used the test method per KDB558074.

1) Set the RBW=1MHz and VBW =3MHz
2) Set the span to a value that is 5-30% greater than EBW
3) Detector = peak
4) Sweep time = auto couple
5) Trace Mode = max hold
6) allow trace to fully stabilize
7) use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

9.4.Test Results

EUT: 150Mbps Wireless N ADSL2+ Modem Router			
M/N: TD-W8901N			
Test date: 2014-02-20	Pressure: 101.3±1.0 kpa	Humidity: 49.4±3.0%	
Tested by: Leo-Li	Test site: RF site	Temperature: 20.9±0.6 ℃	
Cable loss: 1 dB	Attenuator loss: 20 dB		
Test Mode	CH	Peak output Power （dBm）	Limit (dBm)
11b	CH1	23.96	30
	CH6	23.72	30
	CH11	23.09	30
11g	CH1	22.85	30
	CH6	25.72	30
	CH11	21.97	30
11n HT20	CH1	20.49	30
	CH6	23.03	30
	CH11	20.42	30
11n HT40	CH1	20.6	30
	CH4	23.86	30
	CH7	21.28	30
Conclusion: PASS			

Test Mode: IEEE 802.11n HT40
Test CH1: 2422MHz

Test CH6: 2437MHz

Test CH11: 2452MHz

10.POWER SPECTRAL DENSITY TEST

10.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
2.	Amp	HP	8449B	3008A08495	May.08, 13	1 Year
3.	Antenna	EMCO	3115	9607-4580	Aug.28, 13	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 13	1 Year

10.2.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.

10.3.Test Procedure

1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.

2. Set the test frequency as center frequency, Set RBW=3KHz,VBW=10KHz,Span large enough capture the entire frequency, Read out maximum peak level frequency

3. Set the frequency read from produce 2 as center frequency, then set the span= 300KHz, Sweep time=Span/RBW, Then Max hold, read out each mode and each chain's Power density.

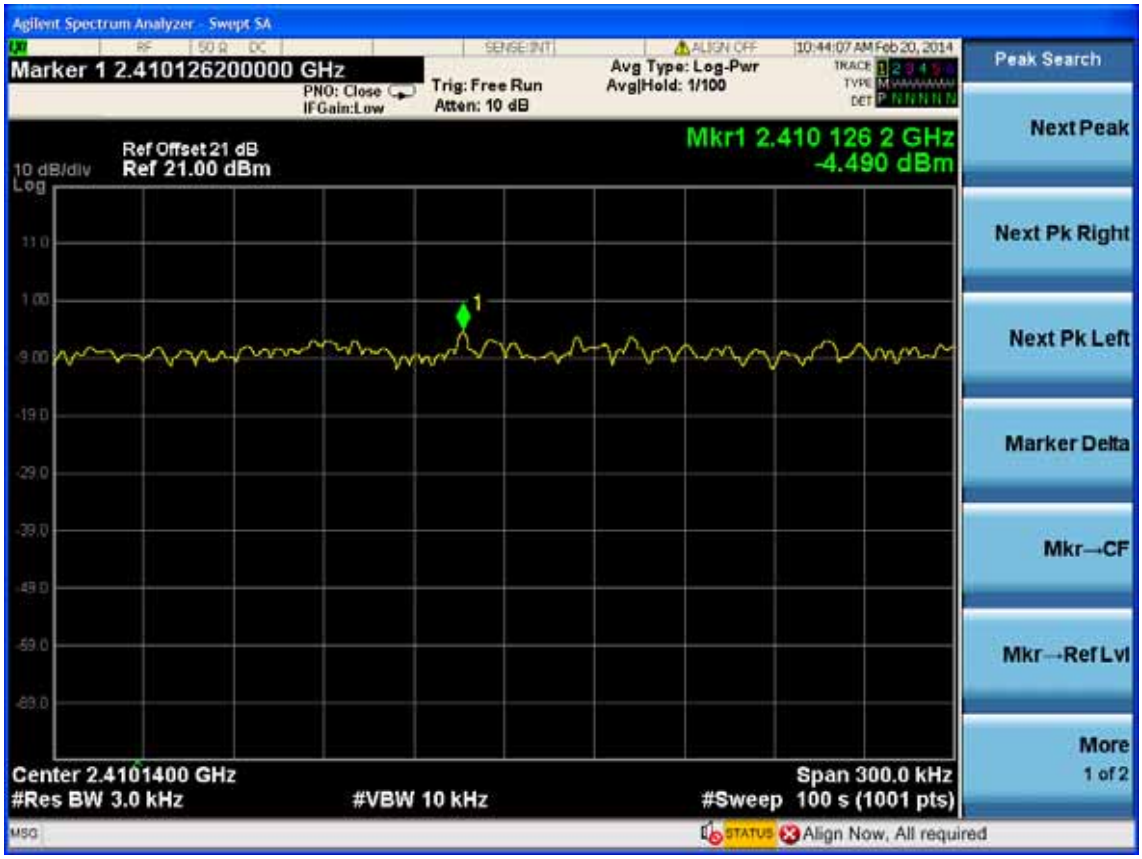
Note: The cable loss and attenuator loss were offset into measure device as an amplitude.

10.4.Test Results

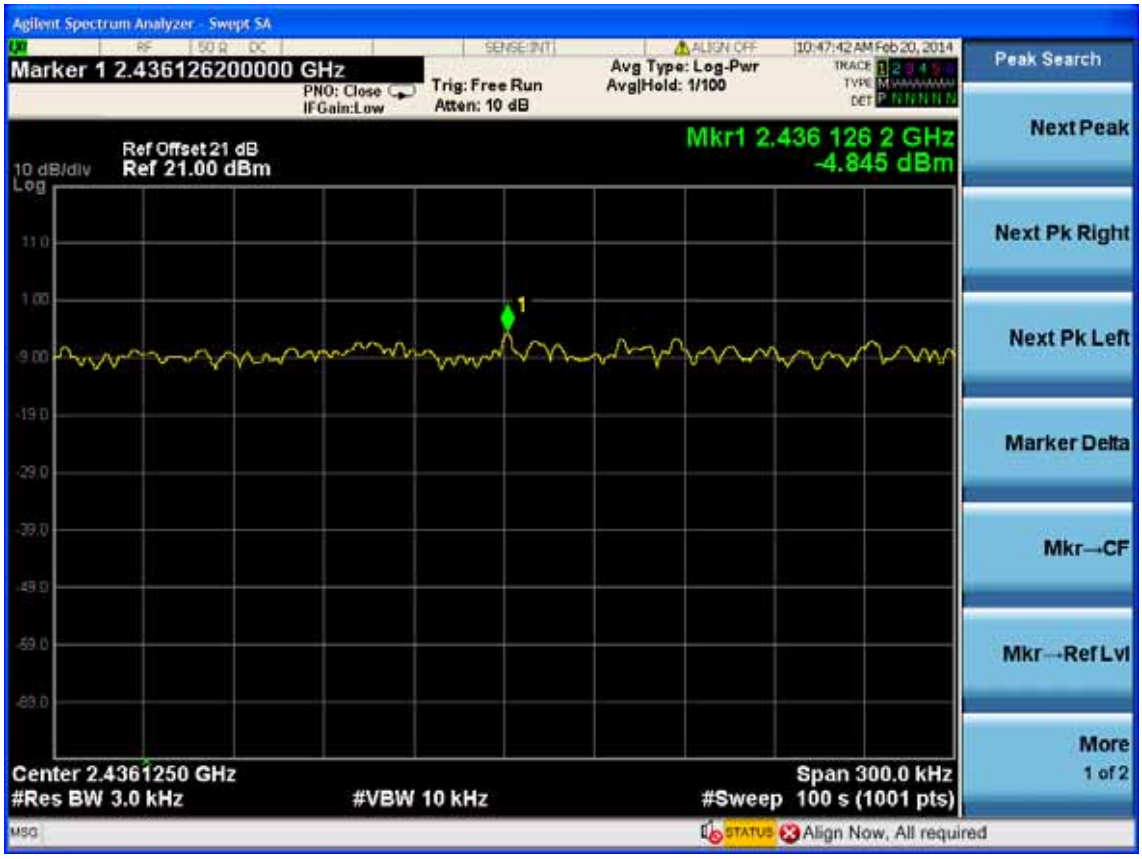
EUT: 150Mbps Wireless N ADSL2+ Modem Router		
M/N: TD-W8901N		
Test date: 2014-02-20	Pressure: 101.3±1.0 kpa	Humidity: 49.4±3.0%
Tested by: Leo-Li	Test site: RF site	Temperature:20.9±0.6 ℃

Cable loss: 1 dB		Attenuator loss: 20 dB	
Test Mode	CH	Power density（dBm/3KHz）	Limit（dBm/3KHz）
		ANT0	
11b	CH1	-4.490	8
	CH6	-4.845	8
	CH11	-5.478	8
11g	CH1	-10.265	8
	CH6	-7.210	8
	CH11	-12.738	8
11n HT20	CH1	-12.758	8
	CH6	-10.192	8
	CH11	-13.486	8
11n HT40	CH1	-16.521	8
	CH4	-13.217	8
	CH7	-13.870	8
Conclusion: PASS			

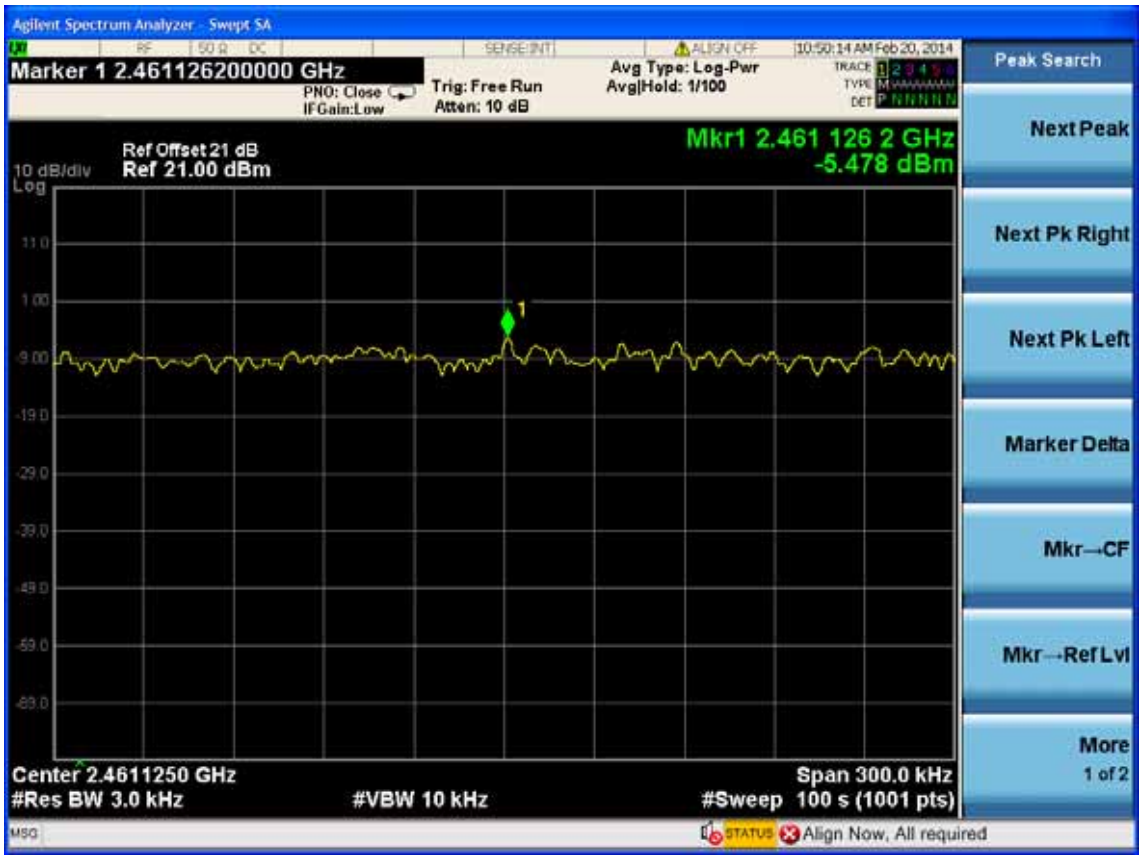
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



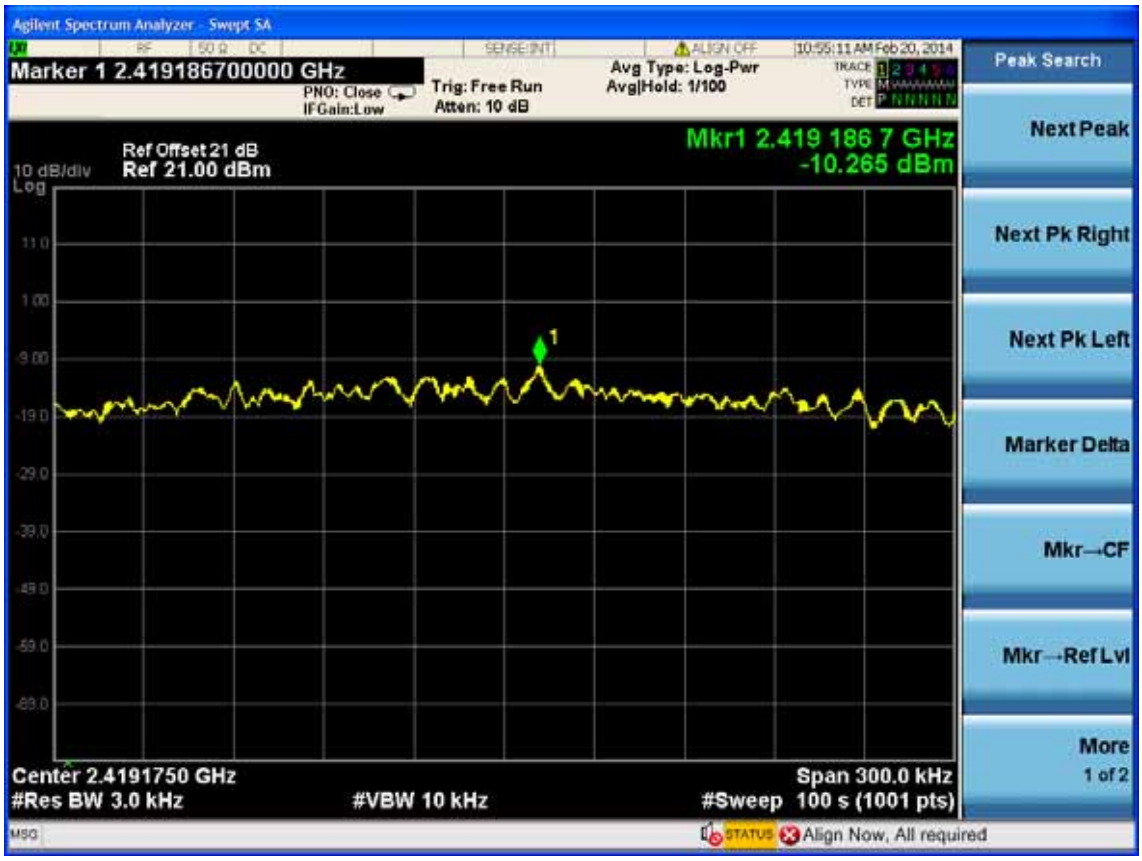
Test CH6: 2437MHz



Test CH11: 2462MHz



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



Test CH6: 2437MHz

Test CH11: 2462MHz

Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz

Test CH6: 2437MHz

Test CH11: 2462MHz

Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

Test CH4: 2437MHz

Test CH7: 2452MHz

11.MPE ESTIMATION

11.1.Limit for General Population/ Uncontrolled Exposures

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

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

Note: F= Frequency in MHz Estimation Result

EUT: 150Mbps Wireless N ADSL2+ Modem Router		
M/N: TD-W8901N		
Test date: 2014-02-20	Pressure: 101.2±1.0 kpa	Humidity: 48.4±3.0%
Tested by: Leo-Li	Test site: RF site	Temperature: 20.7±0.6 ℃

Cable loss: 1 dB		Attenuator loss: 20 dB				Antenna Gain: 5dBi	
Test Mode	CH	Frequency（MHz）	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
11b	CH1	2412	23.96	248.89	5.0	3.16	0.1567
	CH6	2437	23.72	235.50	5.0	3.16	0.1482
	CH11	2462	23.09	203.70	5.0	3.16	0.1282
11g	CH1	2412	22.85	192.75	5.0	3.16	0.1213
	CH6	2437	25.72	373.25	5.0	3.16	0.2349
	CH11	2462	21.97	157.40	5.0	3.16	0.0991
11n HT20	CH1	2412	20.49	111.94	5.0	3.16	0.0705
	CH6	2437	23.03	200.91	5.0	3.16	0.1265
	CH11	2462	20.42	110.15	5.0	3.16	0.0693
11n HT40	CH1	2422	20.6	114.82	5.0	3.16	0.0723
	CH4	2437	23.86	243.22	5.0	3.16	0.1531
	CH7	2452	21.28	134.28	5.0	3.16	0.0845

Note: MPE=PG/4 π R^2 (R:20cm)

12. ANTENNA REQUIREMENT

12.1. 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.

12.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are Dipole antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 5dBi.

13.DEVIATION TO TEST SPECIFICATIONS

[NONE]