APPLICATION FOR CERTIFICATION
On Behalf of

TP-LINK Technologies Co., Ltd.

Wireless N PCI Adapter

Model Number: TL-WN851N

FCC ID: TE7WN851NV2

Prepared for : TP-LINK Technologies Co., Ltd.
1-6F, Building 2, Pingshandayuan Industrial, South Zone,
Taoyuan Street, Nanshan District, Shenzhen, P.R.C.

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

Tel: (0755) 26639496

Report Number : ACS-F10131
Date of Test : Apr.16~Jun.16, 2010
Date of Report : Jun.18, 2010

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Description Page

TEST REPORT CERTIFICATION

Applicant	:	TP-LINK Technologies Co., Ltd.
Manufacturer	:	TP-LINK Technologies Co., Ltd.
EUT Description	:	Wireless N PCI Adapter
FCC ID	:	TE7WN851NV2

(A)MODEL NO. : TL-WN851N

(B)SERIAL NO. : N/A

(C)POWER SUPPLY : DC 3.3V From Adapter

(D)TEST VOLTAGE : DC 3.3V From Adapter Input AC 120V/60Hz

Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart C 2008

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions.
The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

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

Date of Test : Apr.16~Jun.16, 2010

Prepared by : Edie Huang
Edie Huang / Assistant

Reviewer : Jamy Yu
Jamy Yu / Supervisor

AUDIX 信華科技(深圳)有限公司 Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: Ken Lu 6/18 10

Approved & Authorized Signer :
Ken Lu / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

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

EMISSION		
Description of Test Item	**Standard**	**Results**
Power Line Conducted Emission Test	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Radiated Emission Test	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS
Band Edge Compliance Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Output Power Test	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density Test	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	:	Wireless N PCI Adapter
Model Number	:	TL-WN851N
FCC ID	:	TE7WN851NV2
Operation Frequency	:	IEEE 802.11b/g, 802.11n HT20: 2412MHz---2462MHz IEEE802.11n HT40: 2422MHz---2452MHz
Channel Number	:	IEEE 802.11b/g, 802.11n HT20: 11 Channels IEEE 802.11n HT40: 7 Channels
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)
Output Power	:	IEEE 802.11b: 20.45dBm IEEE 802.11g: 22.45dBm IEEE 802.11n HT20: 22.85dBm IEEE 802.11n HT40: 24.05dBm
Antenna and Gain	:	MIMO 2X2 dipole antenna, 2dBi gain (maximum)
Applicant	:	TP-LINK Technologies Co., Ltd. 1-6F, Building 2, Pingshandayuan Industrial, South Zone, Taoyuan Street, Nanshan District, Shenzhen, P.R.C.
Manufacturer	:	TP-LINK Technologies Co., Ltd. 1-6F, Building 2, Pingshandayuan Industrial, South Zone, Taoyuan Street, Nanshan District, Shenzhen, P.R.C.
Date of Test	:	Apr.16~Jun.16, 2010
Date of Receipt	:	Apr.15, 2010
Sample Type	:	Prototype production

2.2.Test information

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

Tested mode, channel, and data rate information			
Mode	data rate (Mpbs)(see Note)	Channel	Frequency (MHz)
IEEE 802.11b	1	Low :CH1	2412
	1	Middle: CH6	2437
	1	High: CH11	2462
IEEE 802.11g	6	Low :CH1	2412
	6	Middle: CH6	2437
	6	High: CH11	2462
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 output power in those data rate, so those data rate were used for all test. Note2: This device use MIMO 2X2 antennas, for 802.11b/g mode, based exploratory test, when transmit with Chain 0 have worse emissions, so the final radiated emissions test for 802.11b/g mode were tested with chain 0 transmit mode.			

2.3. Tested Supporting System Details

2.3.1. PC

EMC CODE	:	Test PC J
M/N	:	DCTA
S/N	:	3Q5932X
Manufacturer	:	Dell
Power cord	:	Unshielded, Detachabled, 1.8m
FCC ID	:	By DoC
BSMI ID	:	R 33002

2.3.2. MONITOR

EMC CODE	:	ACS-EMC-LM02R
M/N	:	1907FPt
S/N	:	CN-009759-71618-6AP-ACPP
Manufacturer	:	DELL
Data Cable (VGA)	:	Shielded, Detachabled, 2.0m
Power Cord	:	Unshielded, Detachabled, 1.8m
FCC ID	:	By DoC
BSMI ID	:	R3A002

2.3.3. USB KEYBOARD

EMC CODE	:	ACS-EMC-K01R
M/N	:	SK-8115
S/N	:	CN-ODJ313-71616-711-0J73
Manufacturer	:	DELL
Data Cable	:	Shielded, Undetachabled, 2.0m
FCC ID	:	By DoC
BSMI ID	:	T3A002

2.3.4. USB MOUSE

EMC CODE	:	ACS-EMC-M01R
M/N	:	M056UO
S/N	:	512022645
Manufacturer	:	Dell
Data Cable	:	Shielded, Undetachabled, 1.8m
FCC ID	:	By DoC
BSMI ID	:	R41108

2.4.Test Facility

Site Description

Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park,Nantou, Shenzhen, Guangdong, China
3m Anechoic Chamber	:	Mar.31, 2009 File on Federal Communication Commission Registration Number: 90454
3m & 10m Anechoic Chamber	:	Dec. 30, 2009 File on Federal Communication Commission Registration Number: 794232
EMC Lab.	:	Accredited by DATech, German Registration Number: DAT-P-091/99-01 Feb. 02, 2009 Accredited by NVLAP, USA NVLAP Code: 200372-0 Apr. 01, 2010

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

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	2.40dB
Uncertainty for Radiation Emission test in 3m chamber	3.82 dB (Polarize: V)
	4.32 dB (Polarize: H)
Uncertainty for Radiated Spurious Emission test in RF chamber	2.70 dB(Bilog antenna 30M~1000MHz)
	2.27 dB(Horn antenna 1000M~25000MHz)
Uncertainty for Conduction Spurious emission test	2.12 dB
Uncertainty for Output power test	0.97 dB
Uncertainty for Power density test	2.21 dB
Uncertainty for Temperature and humidity test	2%
	1℃
Uncertainty for Frequency range test	$1x10^{-9}$
Uncertainty for Bandwidth test	$1x10^{-9}$
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6℃
	3%

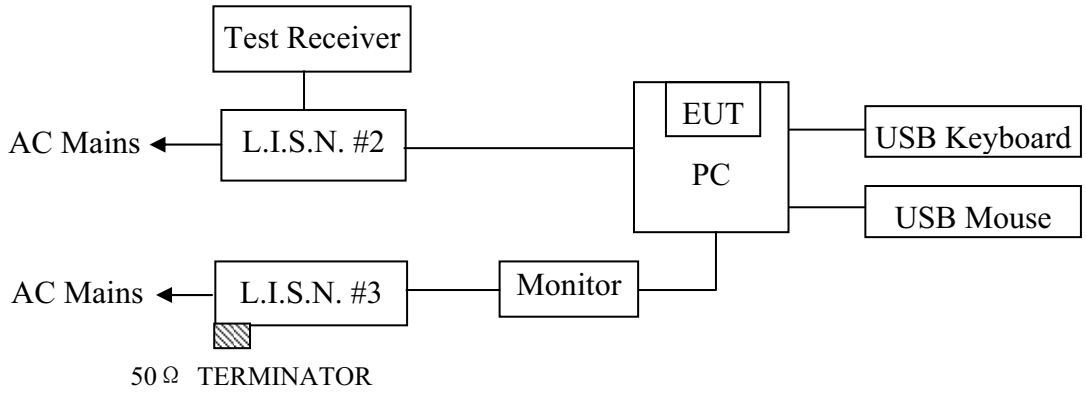
3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Dec.18, 09	1 Year
2	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Mar.30, 10	1 Year
3	Terminator	Hubersuhner	50Ω	No. 1	May.08, 09	1 Year
4	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 09	1Year
5	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 09	1 Year
6	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 09	1 Year

3.2.Block Diagram of Test Setup

3.2.1. Block diagram of connection between the EUT and simulators



(EUT: Wireless N PCI Adapter)

3.3.Power Line Conducted Emission Test Limits

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

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.4. Configuration of EUT on Test

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

3.4.1. Wireless N PCI Adapter (EUT)

Model Number : TL-WN851N
Serial Number : N/A

3.4.2. Support Equipment : As Tested Supporting System Detail, in Section 2.3.

3.5. Operating Condition of EUT

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

3.5.2. Turned on the power of all equipment.

3.5.3. Notebook run test software to control 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 Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 2#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

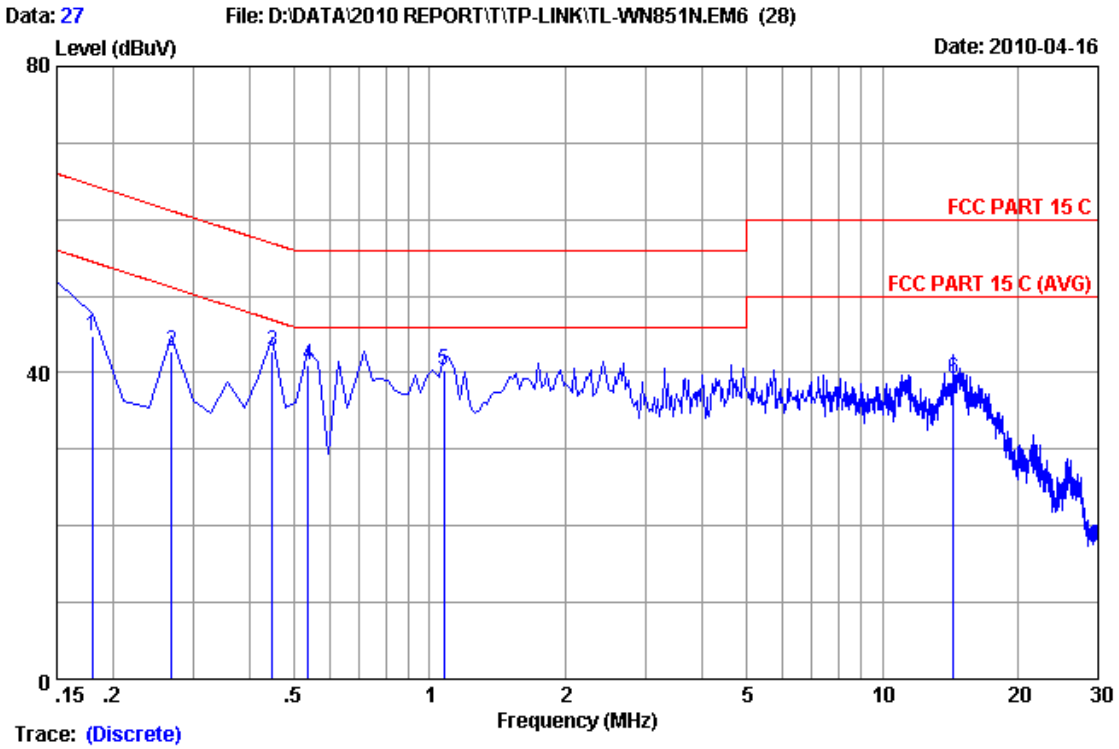
The frequency range from 150kHz to 30MHz is checked.

The test result are reported on Section 3.7.,

3.7. Power Line Conducted Emission Test Results

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

NO.6 Ke Feng Road,Block 52,
Shenzhen Science&Industry Park
Nantou, Shenzhen,Guang dong, China.
Tel:+86-755-26639495
Fax:+86-755-26632877
Postcode:518057



Site no :Audix No.1 Conduction Data no :27
Dis./Ant. :** 2009 KNW407 VA
Limit :FCC PART 15 C
Env./Ins. :Temp:23'C Humi:54% Engineer :Paul Tian
EUT :Wireless N PCI Adapter
Power Rating :DC 3.3V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode
M/N:TL-WN851N

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.17985	0.43	9.88	34.46	44.77	64.49	19.72	QP
2	0.26940	0.40	9.88	32.57	42.85	61.14	18.29	QP
3	0.44850	0.34	9.89	32.45	42.68	56.90	14.22	QP
4	0.53805	0.34	9.89	30.79	41.02	56.00	14.98	QP
5	1.075	0.33	9.89	30.11	40.33	56.00	15.67	QP
6	14.388	0.48	9.97	28.81	39.26	60.00	20.74	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.

NO.6 Ke Feng Road,Block 52,
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Nantou, Shenzhen,Guang dong, China.
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Fax:+86-755-26632877
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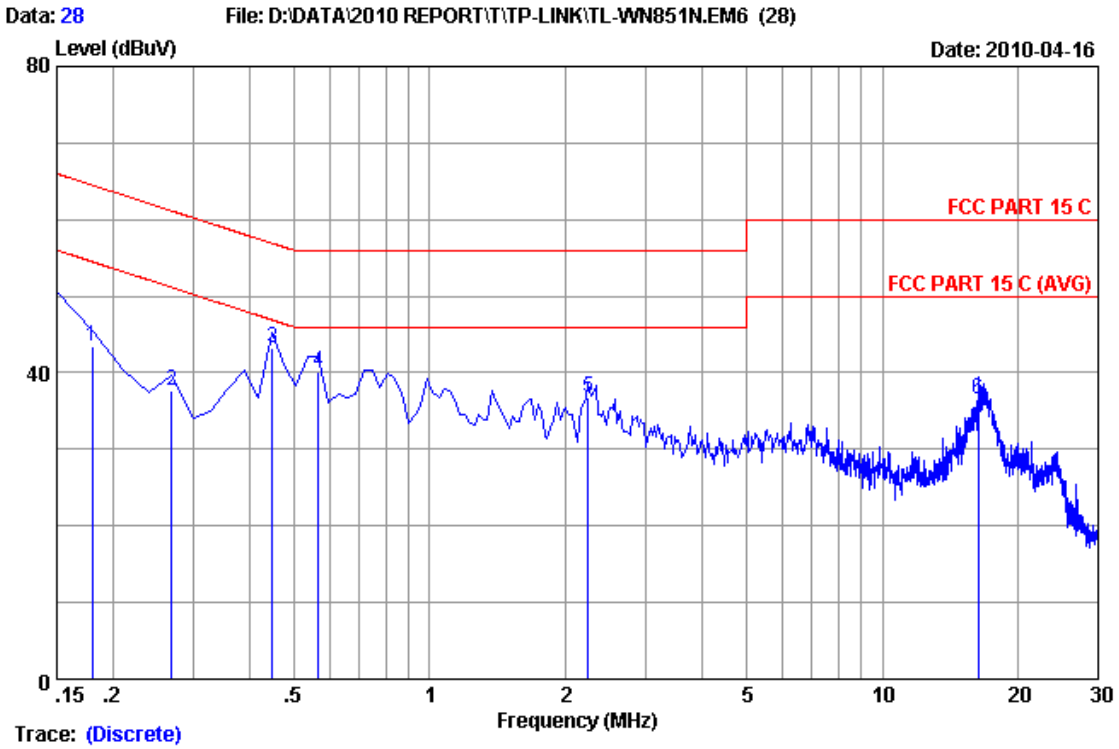


Site no :Audix No.1 Conduction Data no :28
Dis./Ant. :** 2009 KNW407 VB
Limit :FCC PART 15 C
Env./Ins. :Temp:23'C Humi:54% Engineer :Paul Tian
EUT :Wireless N PCI Adapter
Power Rating :DC 3.3V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode
M/N:TL-WN851N

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.17985	0.45	9.88	33.19	43.52	64.49	20.97	QP
2	0.26940	0.42	9.88	27.31	37.61	61.14	23.53	QP
3	0.44850	0.35	9.89	33.01	43.25	56.90	13.65	QP
4	0.56790	0.35	9.89	29.86	40.10	56.00	15.90	QP
5	2.240	0.36	9.90	26.40	36.66	56.00	19.34	QP
6	16.269	0.50	9.98	26.06	36.54	60.00	23.46	QP

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

4. RADIATED EMISSION TEST

4.1.Test Equipment

Frequency rang: 30~1000MHz

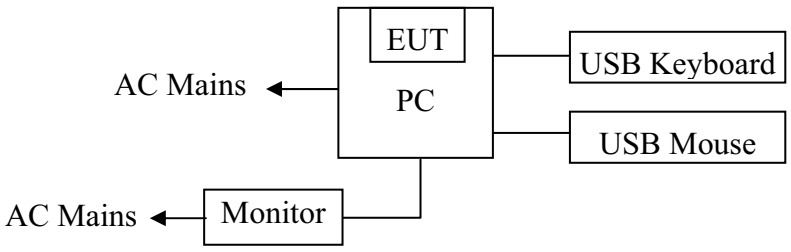
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.05,09	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 09	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 09	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 09	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 09	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 09	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 09	1 Year

Frequency rang: above 1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3	Horn Antenna	EMCO	3116	00060089	Dec.03, 09	1.5 Year
4	Amplifier	Agilent	8449B	3008A00863	May.08, 09	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Nov.28, 09	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	Nov.28, 09	1 Year
7	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08, 09	1Year

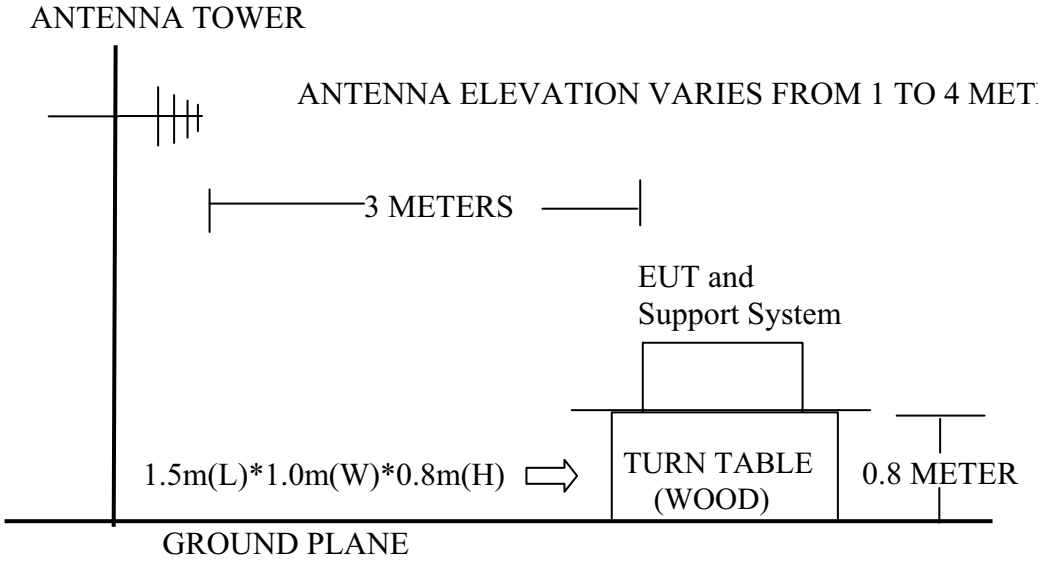
4.2.Block Diagram of Test Setup

4.2.1. Block diagram of connection between the EUT and simulators



(EUT: Wireless N PCI Adapter)

4.2.2. In Anechoic Chamber



4.3.Radiated Emission Limit

4.3.1. 15.209 limits

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

Remark： (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

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

4.4.1. Wireless N PCI Adapter (EUT)

Model Number : TL-WN851N
Serial Number : N/A

4.4.2. Support Equipment : As Tested Supporting System Detail, in Section 2.3.

4.5. Operating Condition of EUT

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

4.5.2. Turned on the power of all equipment.

4.5.3. Notebook run test software to control EUT work in test mode.

4.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it 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.

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 10^{th} harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

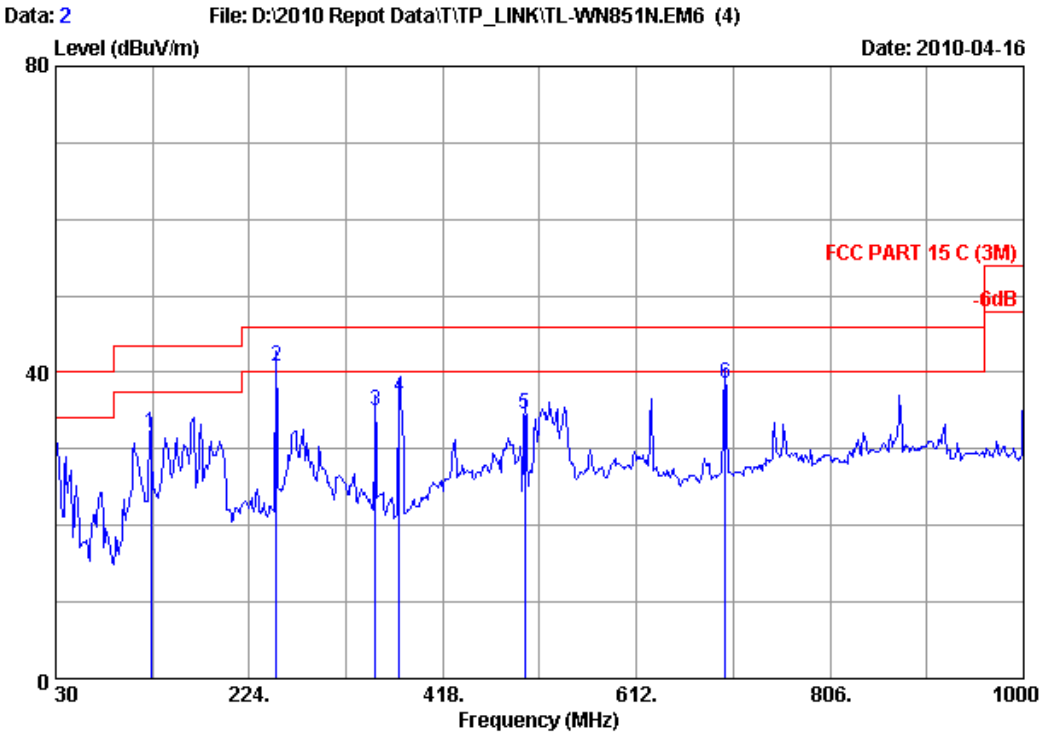
4.7. Radiated Emission Test Results

PASS.

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

Frequency: 30MHz~1GHz

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057

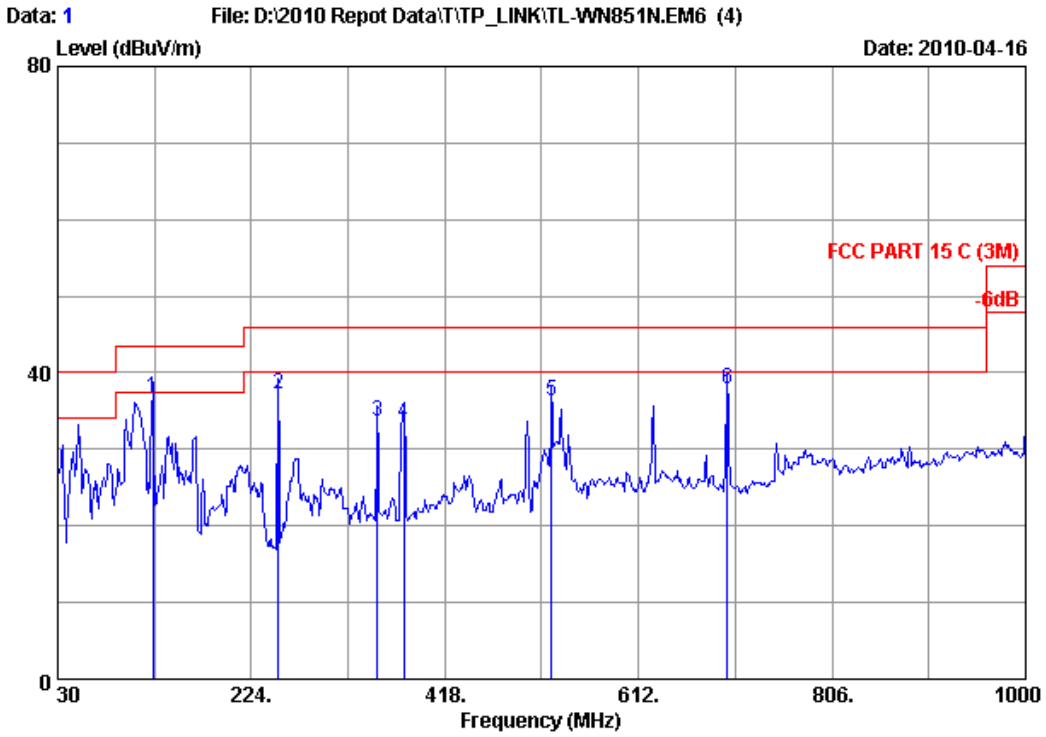


Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m CBL6111C Ant. pol. : HORIZONTAL
Limit : RSS-210
Env. / Ins. : FCC PART 15 C (3M) Engineer : Paul Tian
EUT : 300Mbps Wireless N PCI Adapter
Power Rating : DC 3.3V From Adapter input AC 120V/60Hz
Test Mode : Tx Mode
M/N:TL-WN851N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	125.060	11.97	1.00	19.14	32.11	43.50	11.39	QP
2	251.160	12.75	1.64	26.29	40.68	46.00	5.32	QP
3	350.100	15.08	1.83	17.97	34.88	46.00	11.12	QP
4	374.350	15.52	1.88	19.47	36.87	46.00	9.13	QP
5	500.450	18.04	2.25	14.34	34.63	46.00	11.37	QP
6	701.240	20.58	2.80	15.21	38.59	46.00	7.41	QP

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m CBL6111C Ant. pol. : VERTICAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 24*C/56% Engineer : Paul Tian
EUT : 300Mbps Wireless N PCI Adapter
Power Rating : DC 3.3V From Adapter input AC 120V/60Hz
Test Mode : Tx Mode
M/N:TL-WN851N

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	125.060	11.97	1.00	23.79	36.76	43.50	6.74	QP
2	251.160	12.75	1.64	22.79	37.18	46.00	8.82	QP
3	350.100	15.08	1.83	16.69	33.60	46.00	12.40	QP
4	377.260	15.57	1.88	16.03	33.48	46.00	12.52	QP
5	524.700	18.26	2.31	15.64	36.21	46.00	9.79	QP
6	701.240	20.58	2.80	14.46	37.84	46.00	8.16	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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
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Tel:+86-755-26639495-7
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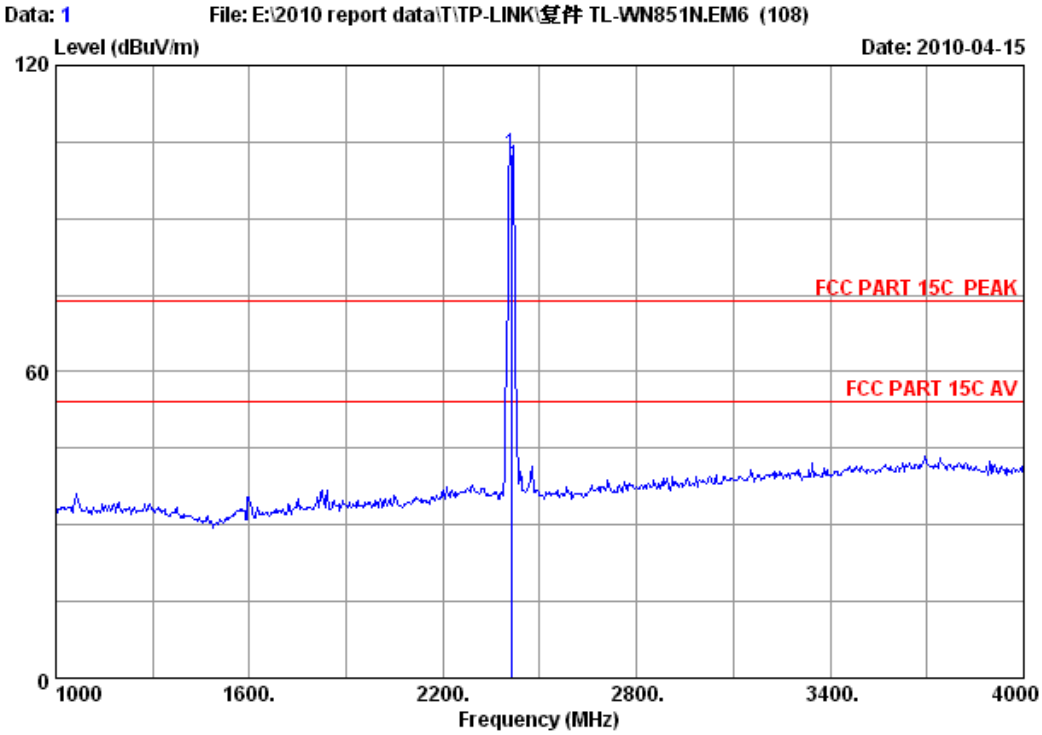

Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	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	29.45	8.72	35.95	100.38	102.60	74.00	-28.60	Peak

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

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ShenZhen Science & Industry Park
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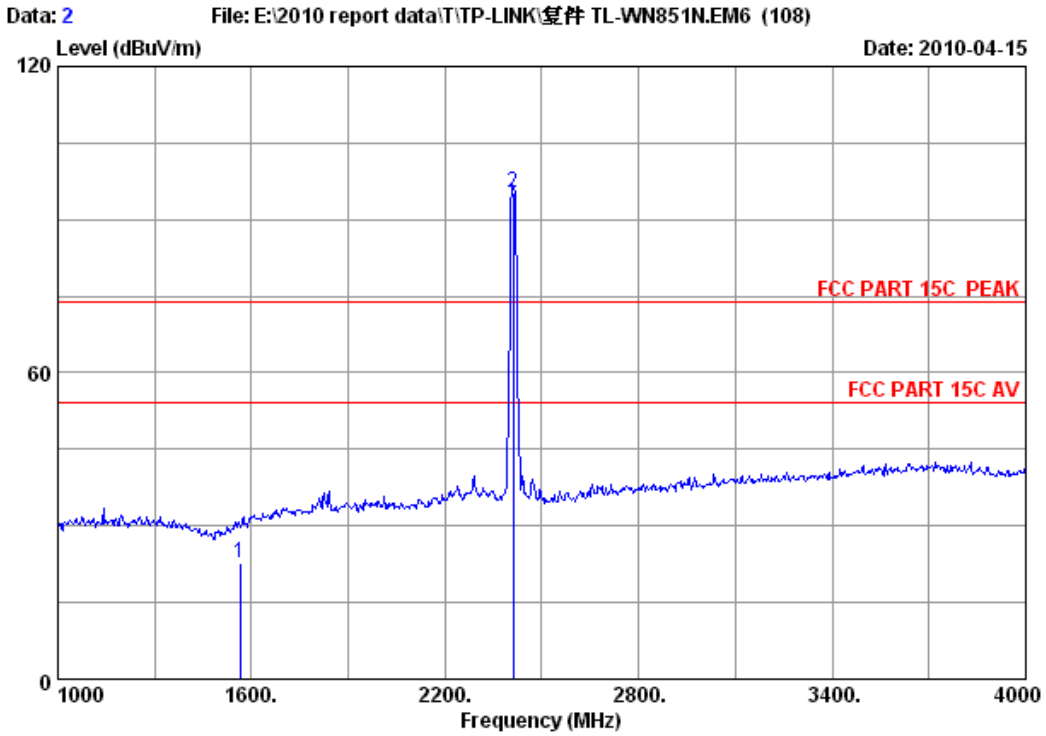

Site no. : 3m Chamber Data no. : 2
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	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	1564.000	26.77	6.86	36.42	25.52	22.73	74.00	51.27	Peak
2	2412.000	29.45	8.72	35.95	93.18	95.40	74.00	-21.40	Peak

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

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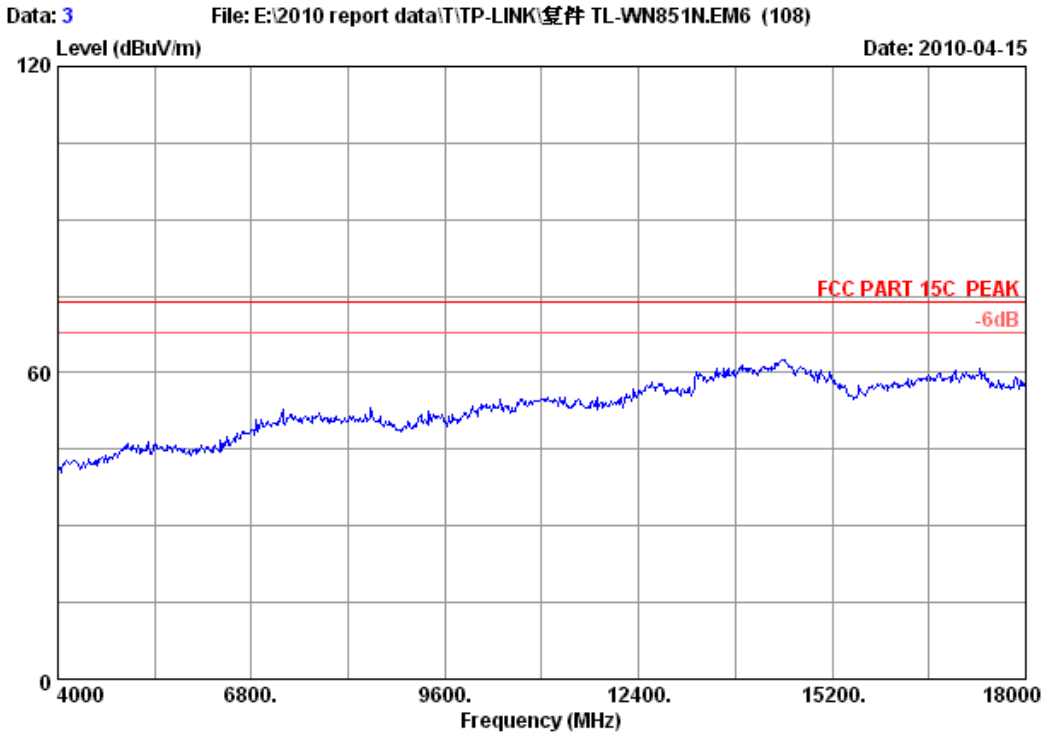

Site no.	: 3m Chamber	Data no.	: 3
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11b CH1 2412MHz		
M/N	: TL-WN851N		

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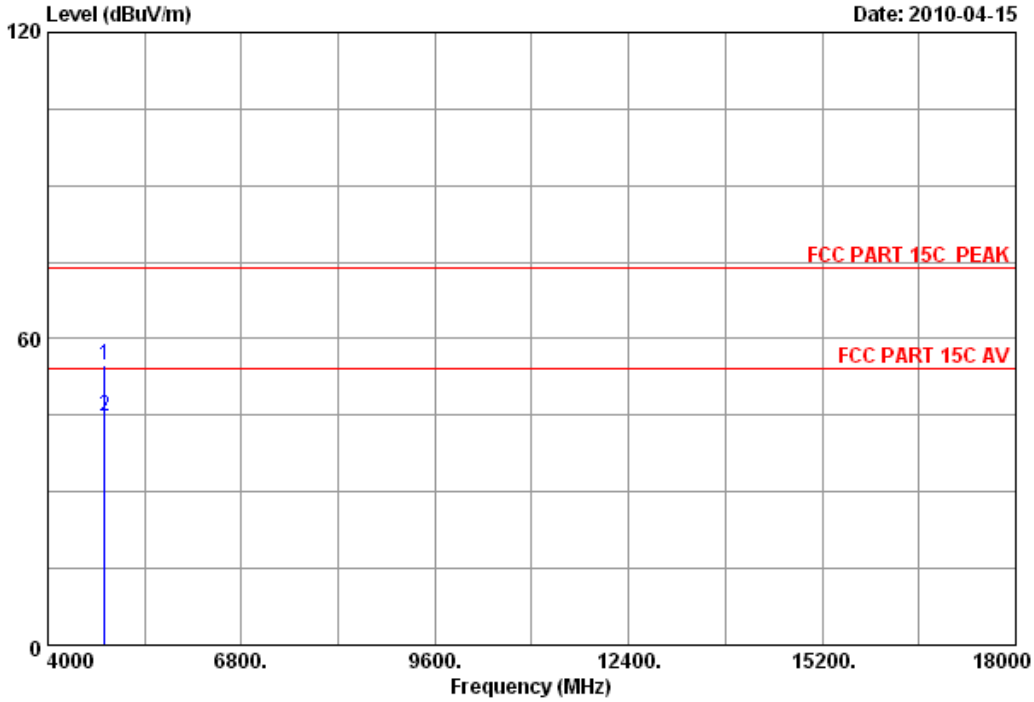
Data: 4 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 4
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	12.38	35.25	43.28	54.73	74.00	19.27	Peak
2	4824.000	34.32	12.38	35.25	33.28	44.73	54.00	9.27	Average

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

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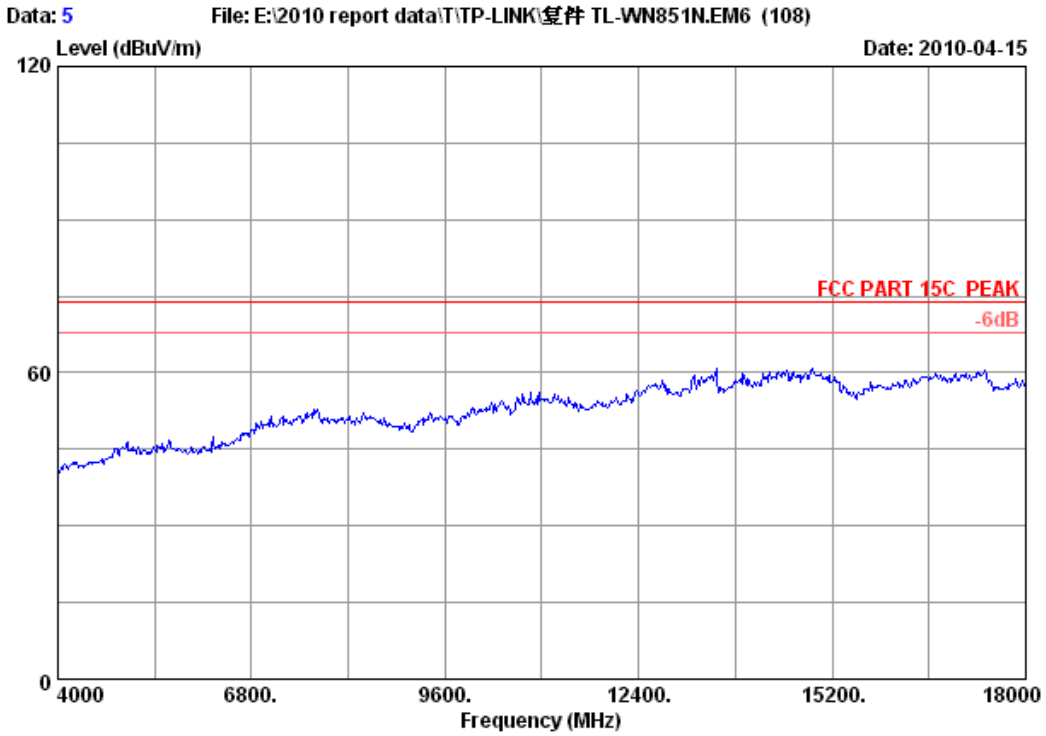

Site no.	: 3m Chamber	Data no.	: 5
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11b CH1 2412MHz		
M/N	: TL-WN851N		

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Noutou,ShenZhen,GuangDong,China
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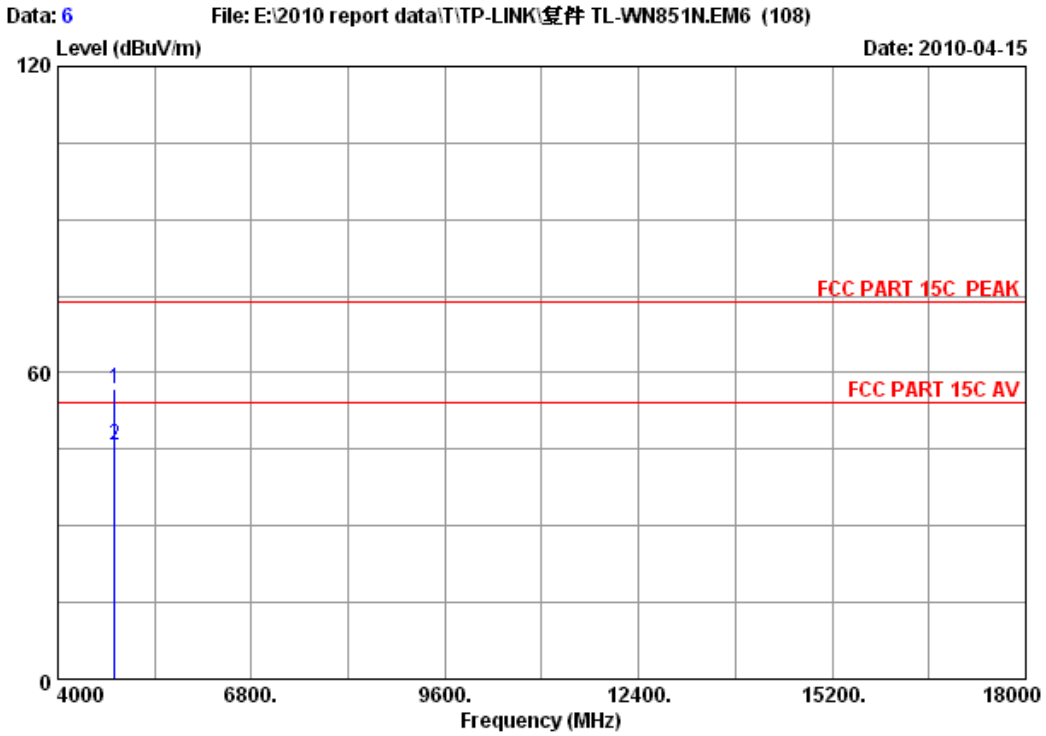

Site no. : 3m Chamber Data no. : 6
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	12.38	35.25	45.38	56.83	74.00	17.17	Peak
2	4824.000	34.32	12.38	35.25	34.34	45.79	54.00	8.21	Average

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

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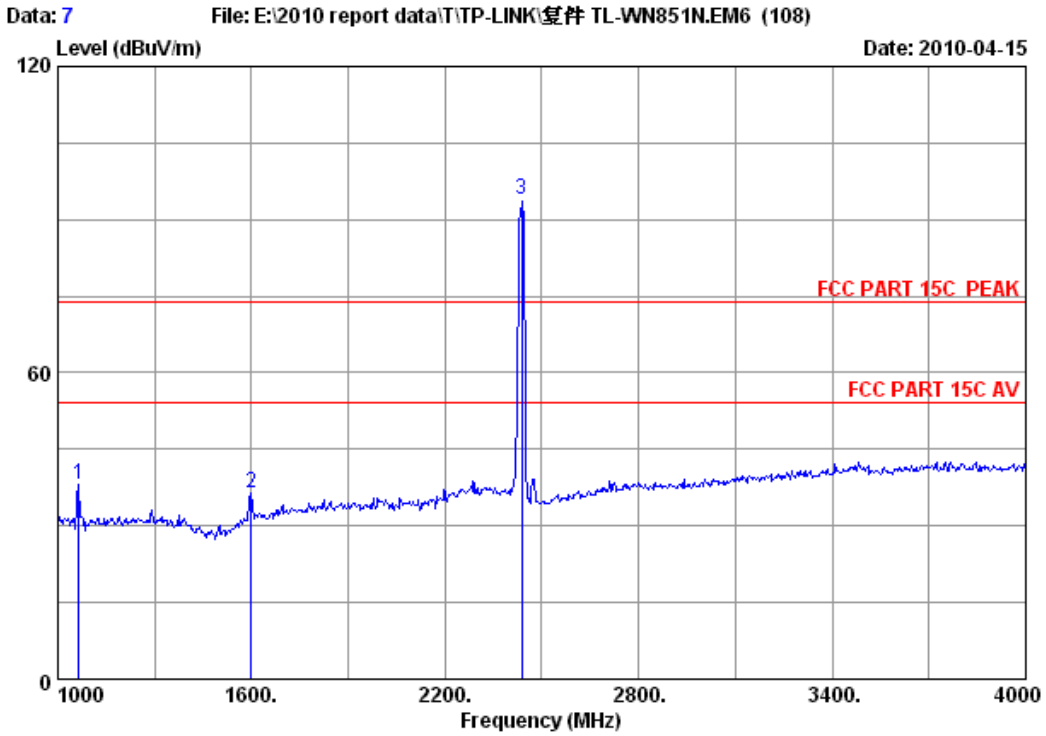

Site no. : 3m Chamber Data no. : 7
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	44.31	38.19	74.00	35.81	Peak
2	1600.000	26.96	6.98	36.43	39.03	36.54	74.00	37.46	Peak
3	2437.000	29.47	8.77	36.06	91.63	93.81	74.00	-19.81	Peak

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

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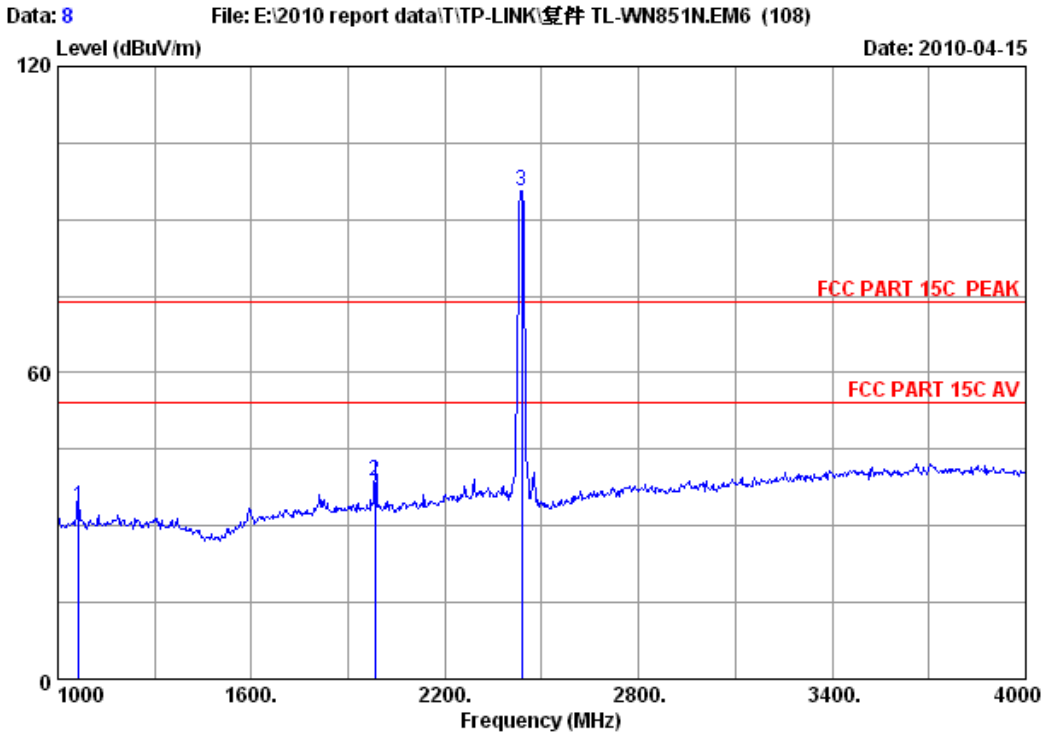

Site no. : 3m Chamber Data no. : 8
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	39.86	33.74	74.00	40.26	Peak
2	1984.000	29.11	7.87	36.06	37.86	38.78	74.00	35.22	Peak
3	2437.000	29.47	8.77	36.06	93.40	95.58	74.00	-21.58	Peak

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

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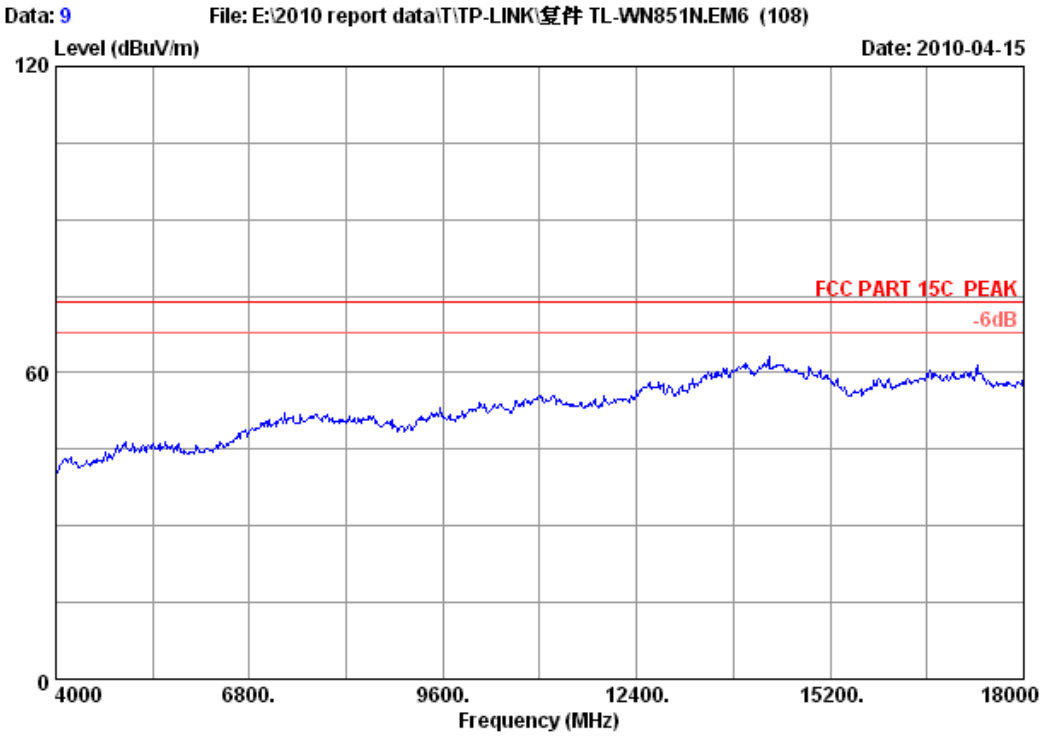

Site no.	: 3m Chamber	Data no.	: 9
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11b CH6 2437MHz		
M/N	: TL-WN851N		

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Noutou,ShenZhen,GuangDong,China
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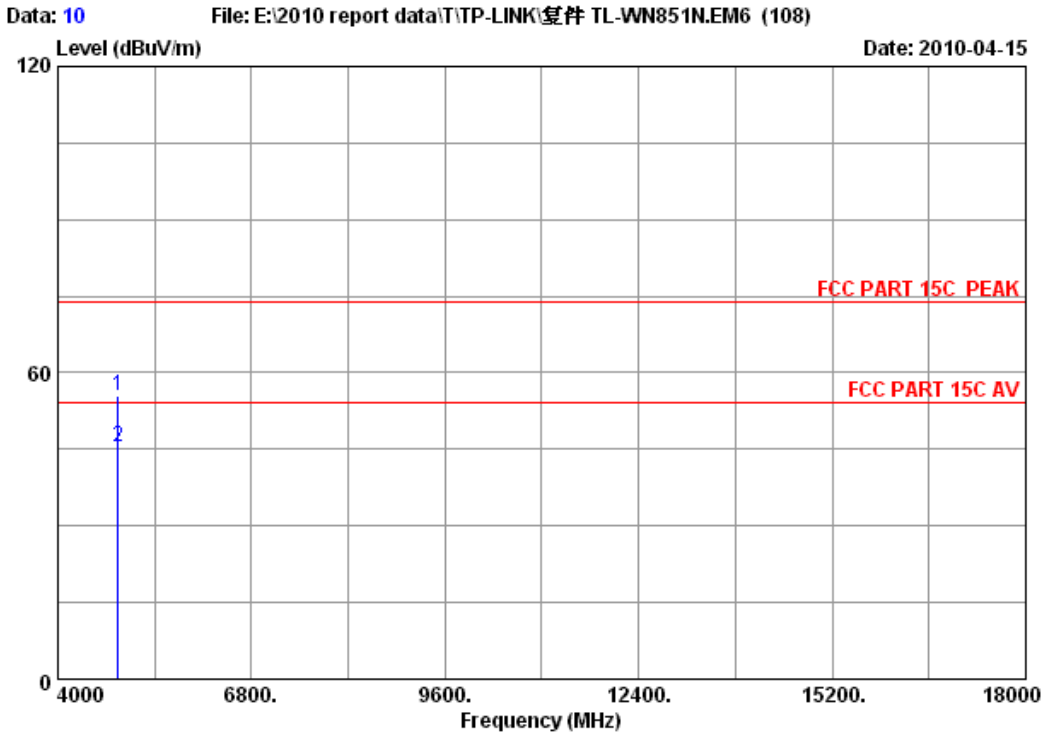

Site no. : 3m Chamber Data no. : 10
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	44.16	55.65	74.00	18.35	Peak
2	4874.000	34.41	12.44	35.36	34.07	45.56	54.00	8.44	Average

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

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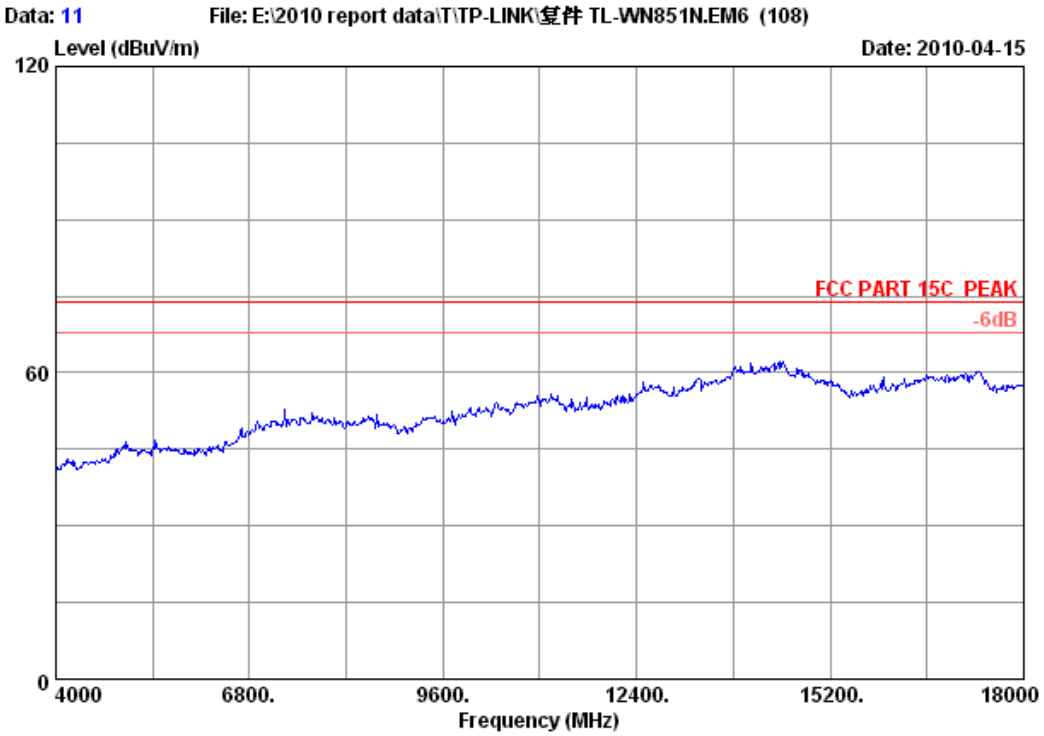

Site no.	: 3m Chamber	Data no.	: 11
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11b CH6 2437MHz		
M/N	: TL-WN851N		

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Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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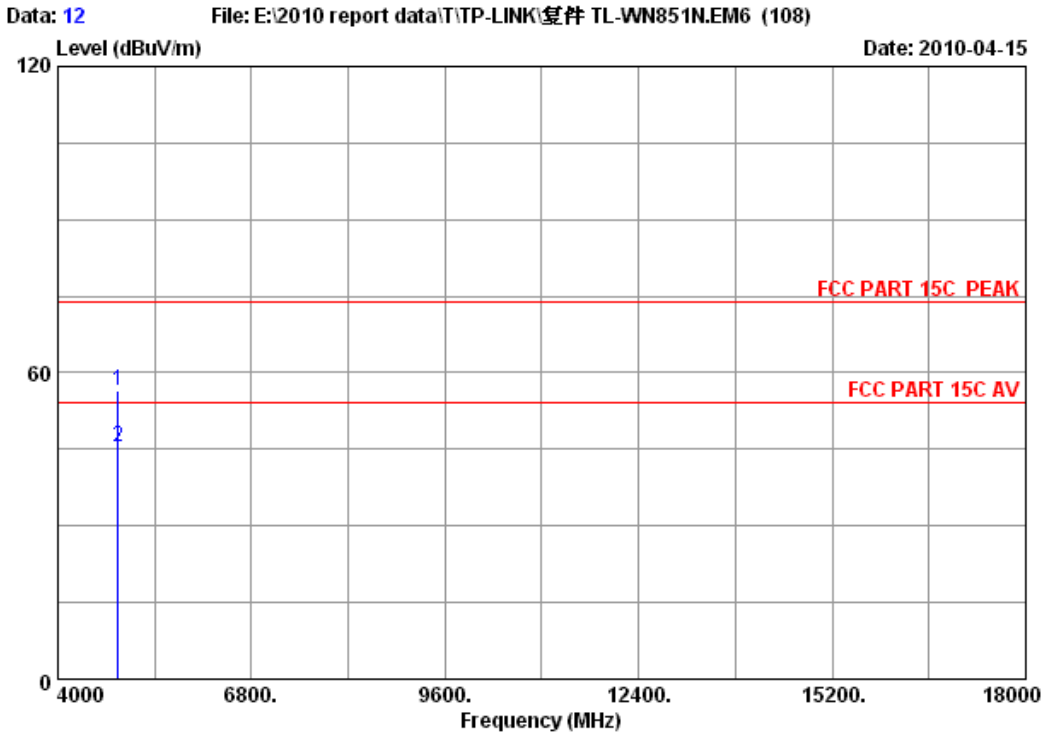

Site no. : 3m Chamber Data no. : 12
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	44.92	56.41	74.00	17.59	Peak
2	4874.000	34.41	12.44	35.36	33.86	45.35	54.00	8.65	Average

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

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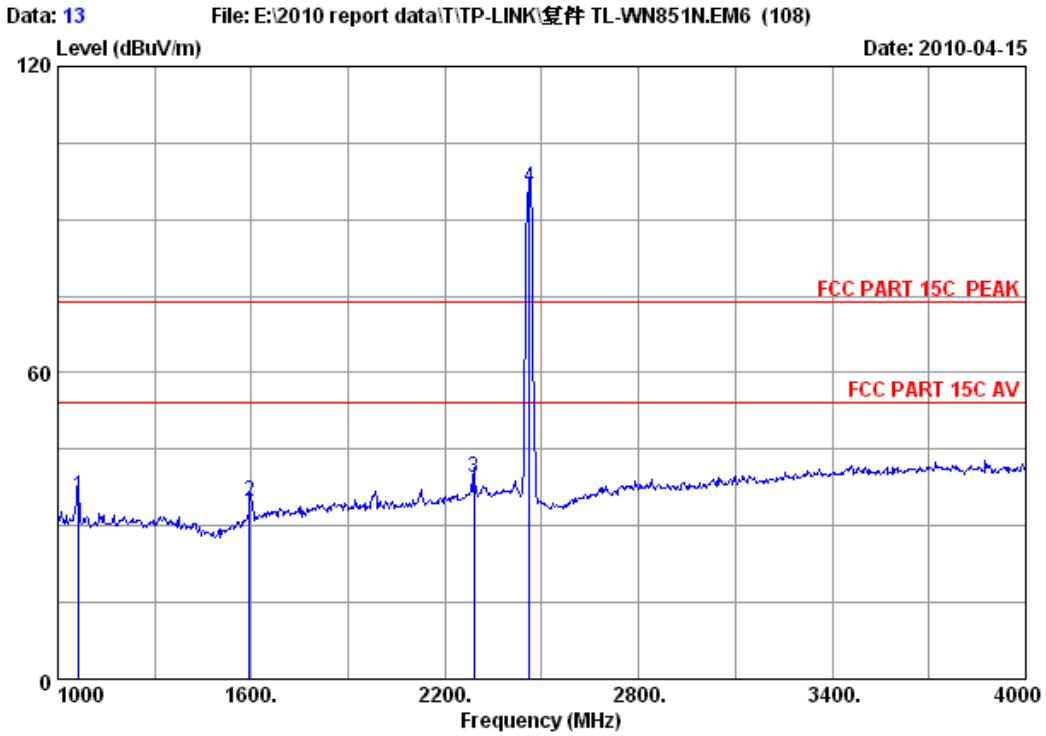

Site no. : 3m Chamber Data no. : 13
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	42.05	35.93	74.00	38.07	Peak
2	1594.000	26.96	6.92	36.43	37.39	34.84	74.00	39.16	Peak
3	2290.000	29.38	8.47	35.92	37.46	39.39	74.00	34.61	Peak
4	2462.000	29.48	8.82	36.02	93.86	96.14	74.00	-22.14	Peak

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

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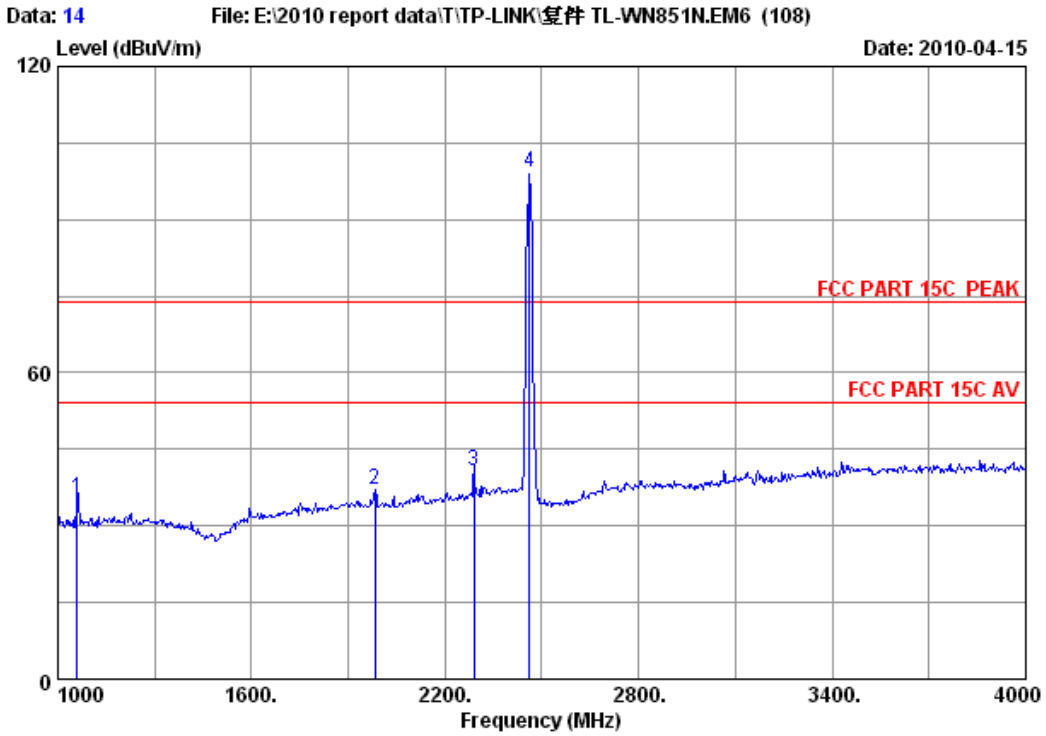

Site no. : 3m Chamber Data no. : 14
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	1060.000	25.54	5.60	37.26	41.71	35.59	74.00	38.41	Peak
2	1984.000	29.11	7.87	36.06	36.03	36.95	74.00	37.05	Peak
3	2290.000	29.38	8.47	35.92	38.93	40.86	74.00	33.14	Peak
4	2462.000	29.48	8.82	36.02	97.06	99.34	74.00	-25.34	Peak

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

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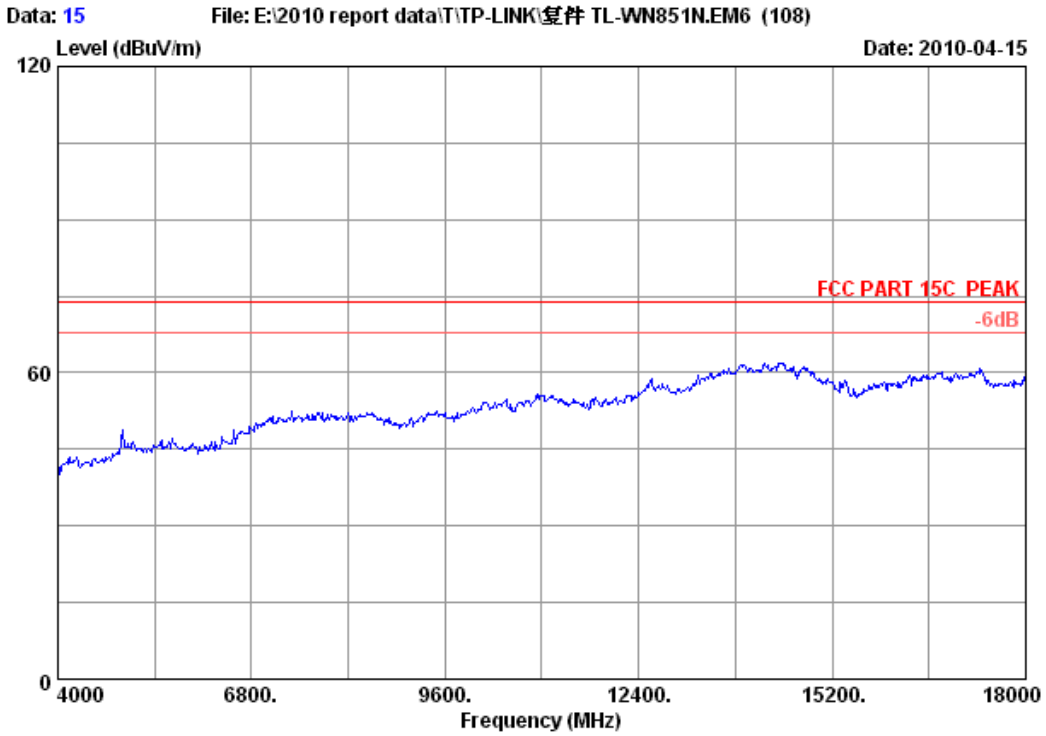

Site no.	: 3m Chamber	Data no.	: 15
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11b CH11 2462MHz		
M/N	: TL-WN851N		

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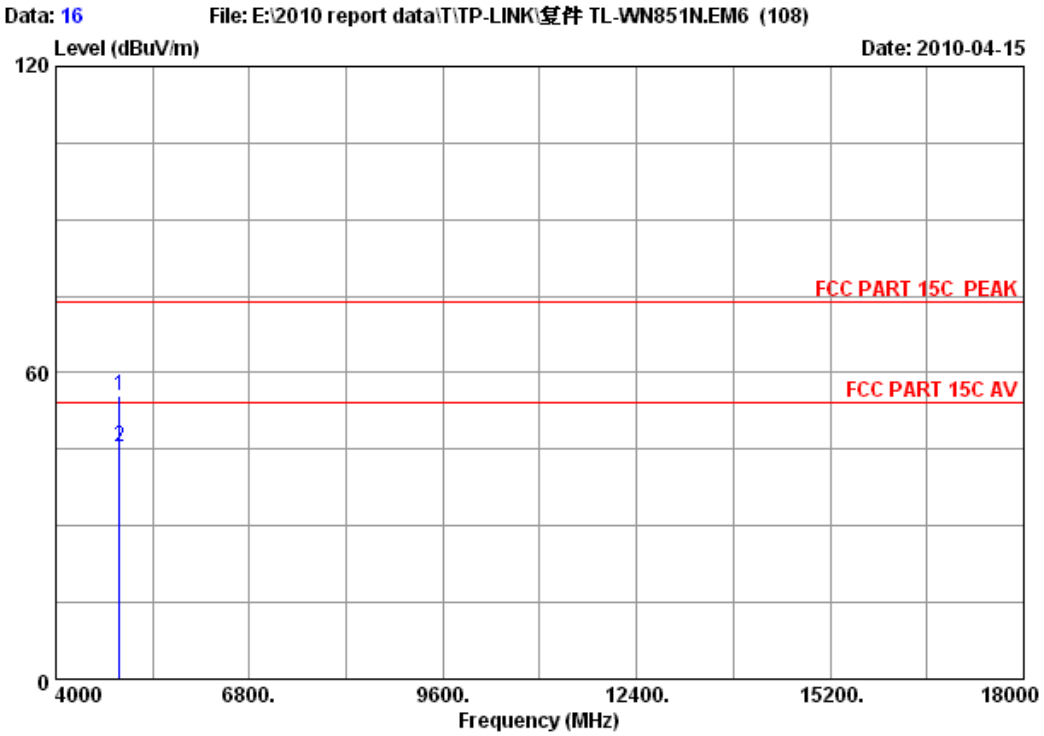

Site no. : 3m Chamber Data no. : 16
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	34.49	12.50	35.34	43.69	55.34	74.00	18.66	Peak
2	4924.000	34.49	12.50	35.34	33.83	45.48	54.00	8.52	Average

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

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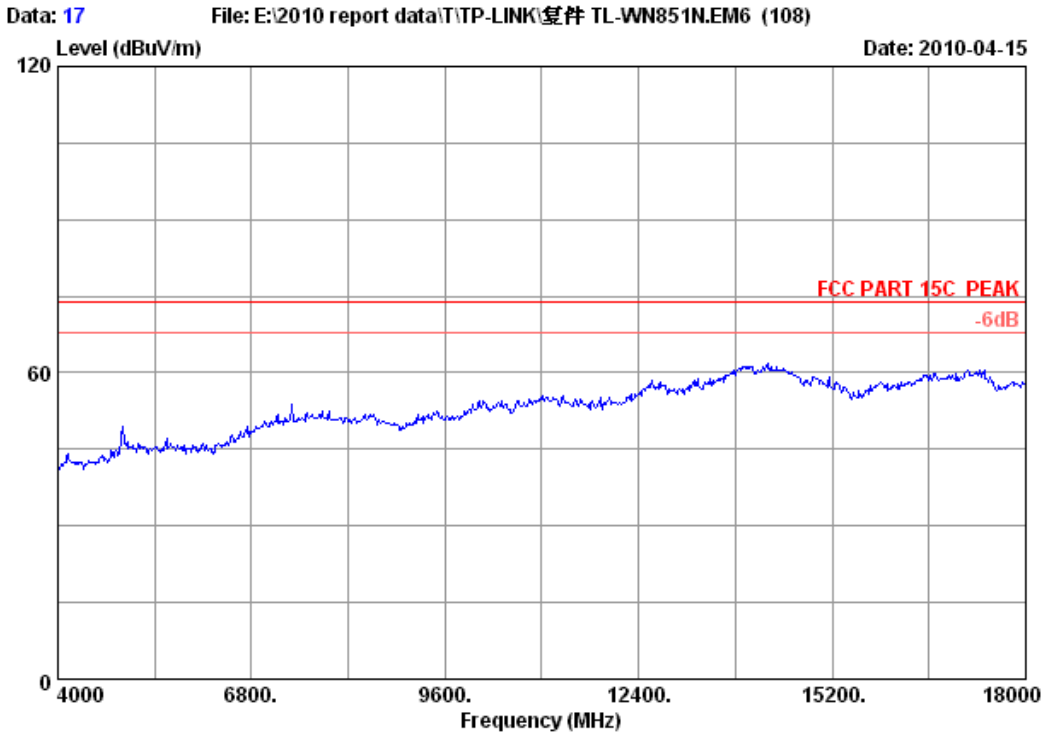

Site no.	: 3m Chamber	Data no.	: 17
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11b CH11 2462MHz		
M/N	: TL-WN851N		

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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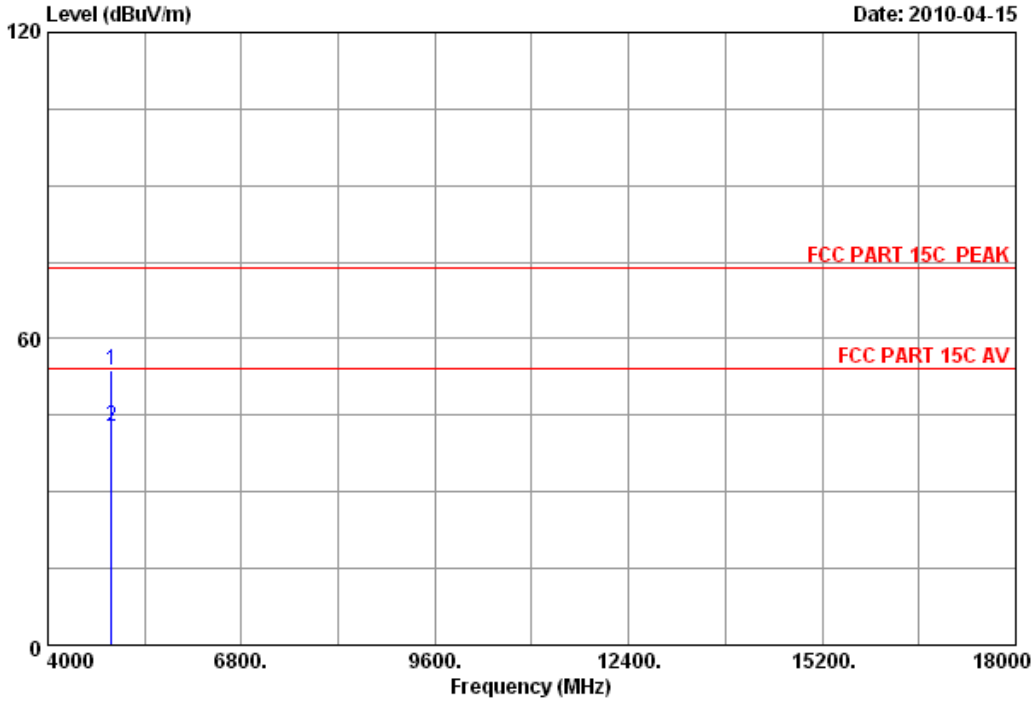
Data: 18 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 18
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	34.49	12.50	35.34	42.17	53.82	74.00	20.18	Peak
2	4924.000	34.49	12.50	35.34	31.02	42.67	54.00	11.33	Average

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

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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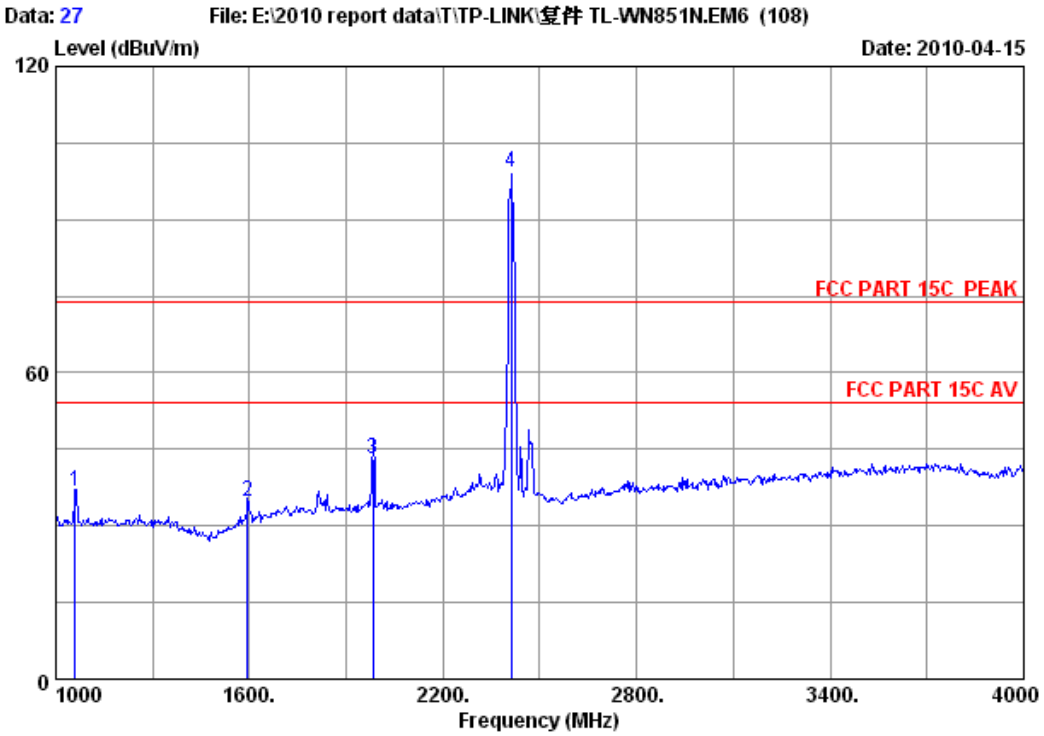

Site no. : 3m Chamber Data no. : 27
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	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	1060.000	25.54	5.60	37.26	42.76	36.64	74.00	37.36	Peak
2	1594.000	26.96	6.92	36.43	37.41	34.86	74.00	39.14	Peak
3	1984.000	29.11	7.87	36.06	42.17	43.09	74.00	30.91	Peak
4	2412.000	29.45	8.72	35.95	97.06	99.28	74.00	-25.28	Peak

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

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ShenZhen Science & Industry Park
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Fax:+86-755-26632877
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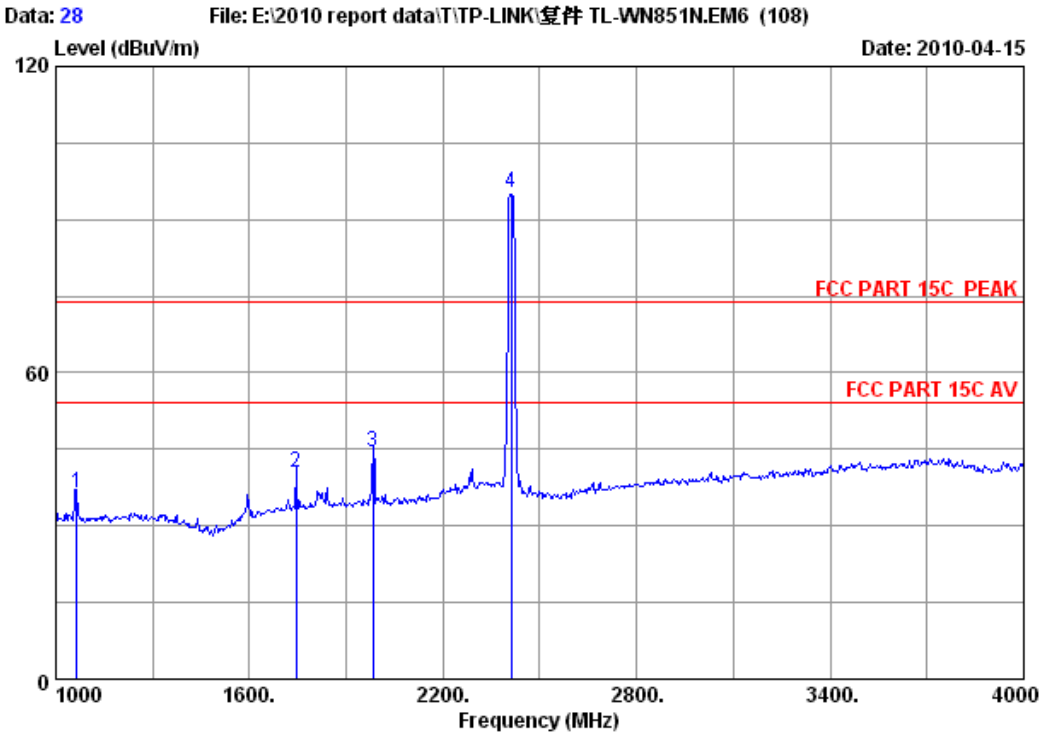

Site no. : 3m Chamber
Dis. / Ant. : 3m 3115(0911)
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54%
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

Data no. : 28
Ant. pol. : VERTICAL
Engineer : Paul Tian

	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	1066.000	25.54	5.60	37.26	42.71	36.59	74.00	37.41	Peak
2	1744.000	27.80	7.27	36.29	41.55	40.33	74.00	33.67	Peak
3	1984.000	29.11	7.87	36.06	43.48	44.40	74.00	29.60	Peak
4	2412.000	29.45	8.72	35.95	93.09	95.31	74.00	-21.31	Peak

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

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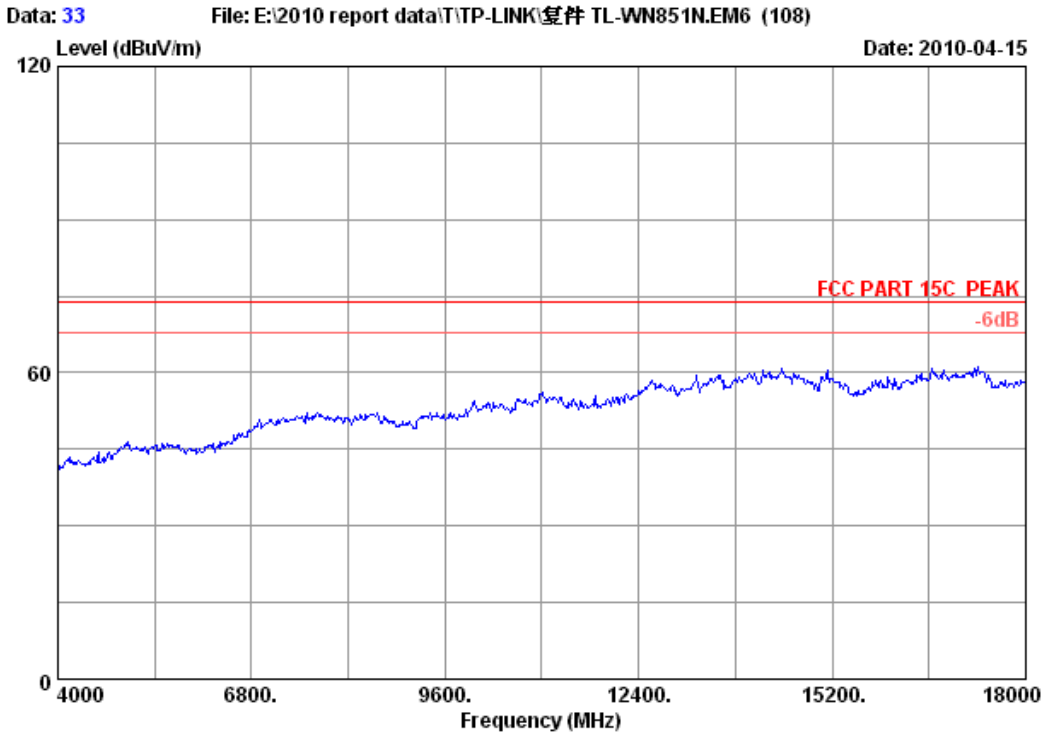

Site no.	: 3m Chamber	Data no.	: 33
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11g CH1 2412MHz		
M/N	: TL-WN851N		

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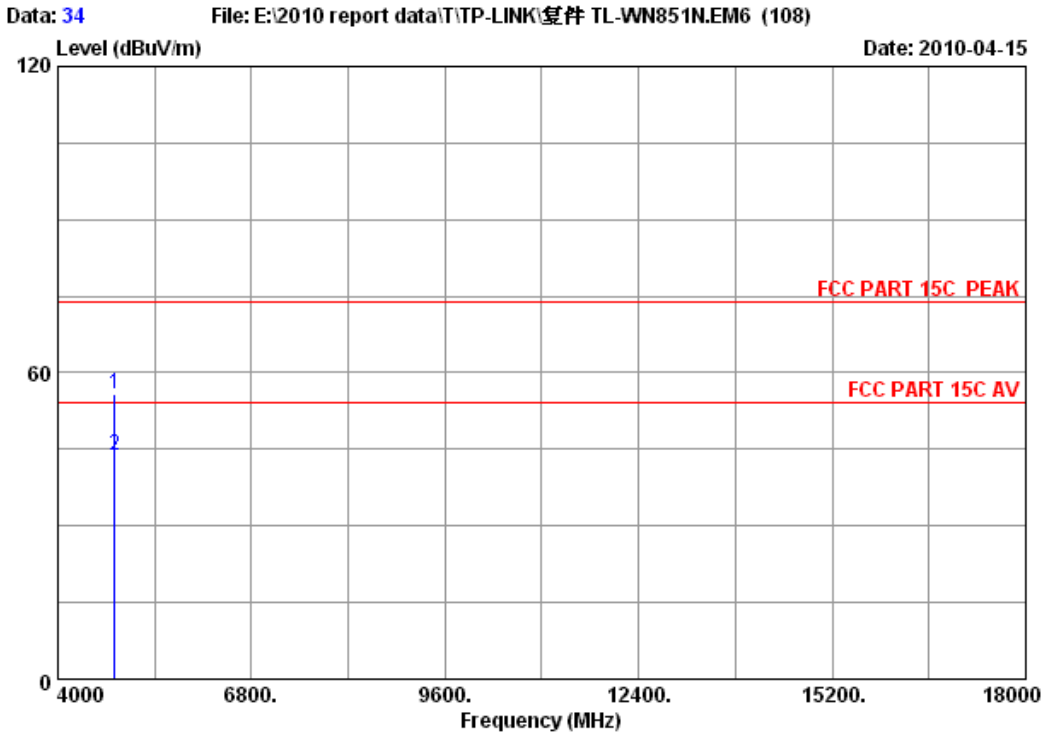

Site no. : 3m Chamber Data no. : 34
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	12.38	35.25	44.29	55.74	74.00	18.26	Peak
2	4824.000	34.32	12.38	35.25	32.46	43.91	54.00	10.09	Average

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

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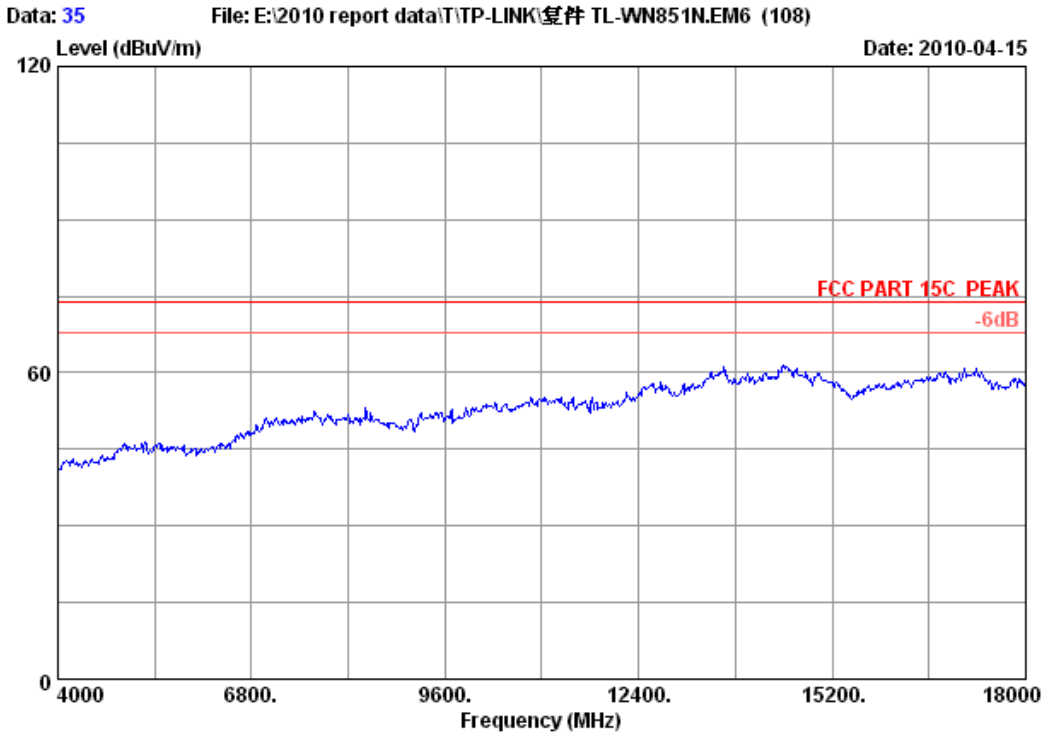

Site no.	: 3m Chamber	Data no.	: 35
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11g CH1 2412MHz		
M/N	: TL-WN851N		

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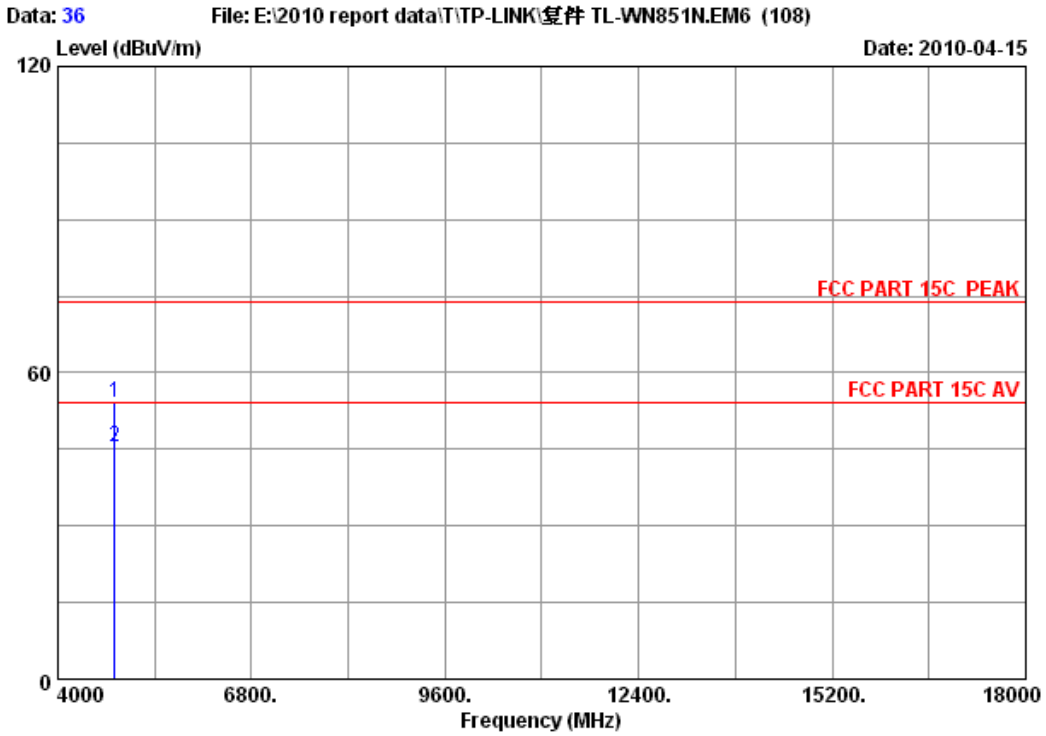

Site no. : 3m Chamber Data no. : 36
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	12.38	35.25	42.81	54.26	74.00	19.74	Peak
2	4824.000	34.32	12.38	35.25	34.05	45.50	54.00	8.50	Average

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

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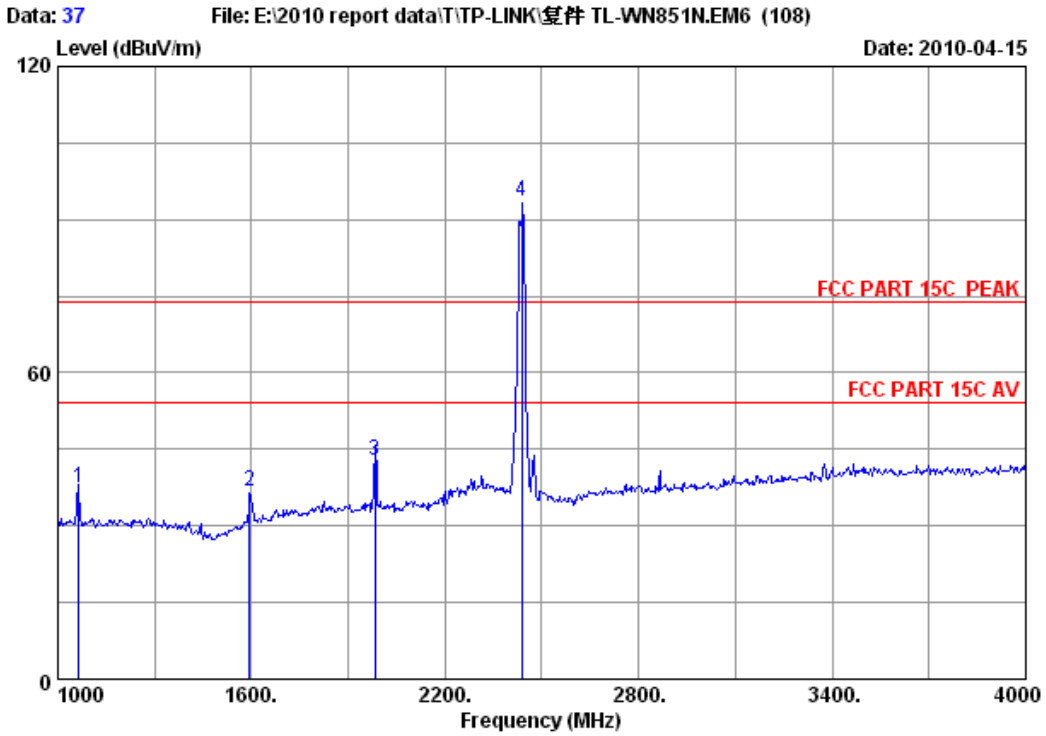

Site no. : 3m Chamber Data no. : 37
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	43.43	37.31	74.00	36.69	Peak
2	1594.000	26.96	6.92	36.43	39.28	36.73	74.00	37.27	Peak
3	1984.000	29.11	7.87	36.06	41.94	42.86	74.00	31.14	Peak
4	2437.000	29.47	8.77	36.06	91.44	93.62	74.00	-19.62	Peak

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

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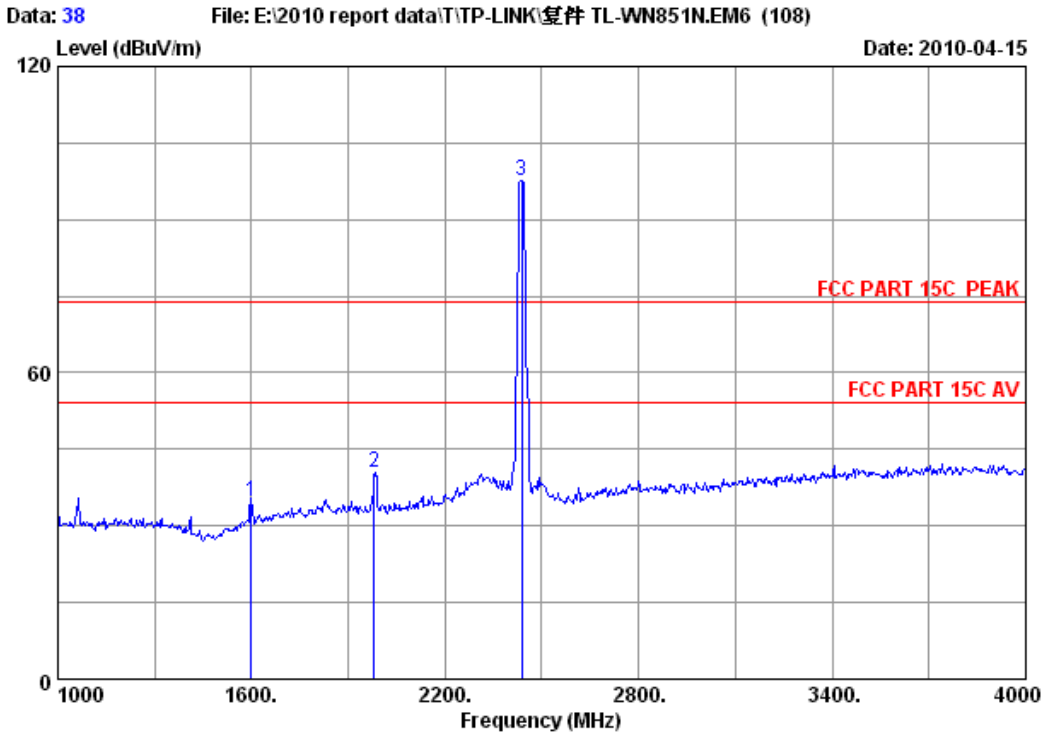

Site no. : 3m Chamber Data no. : 38
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1600.000	26.96	6.98	36.43	37.13	34.64	74.00	39.36	Peak
2	1981.000	29.11	7.87	36.06	39.49	40.41	74.00	33.59	Peak
3	2437.000	29.47	8.77	36.06	95.30	97.48	74.00	-23.48	Peak

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

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Tel:+86-755-26639495-7
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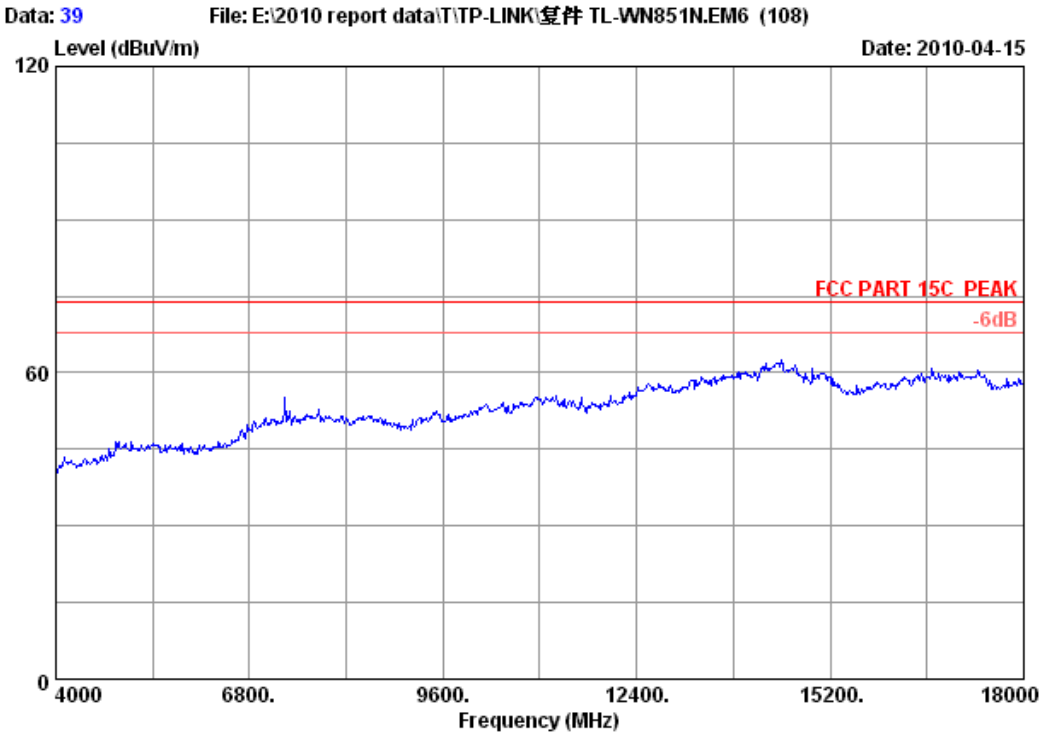

Site no.	: 3m Chamber	Data no.	: 39
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz		
M/N	: TL-WN851N		

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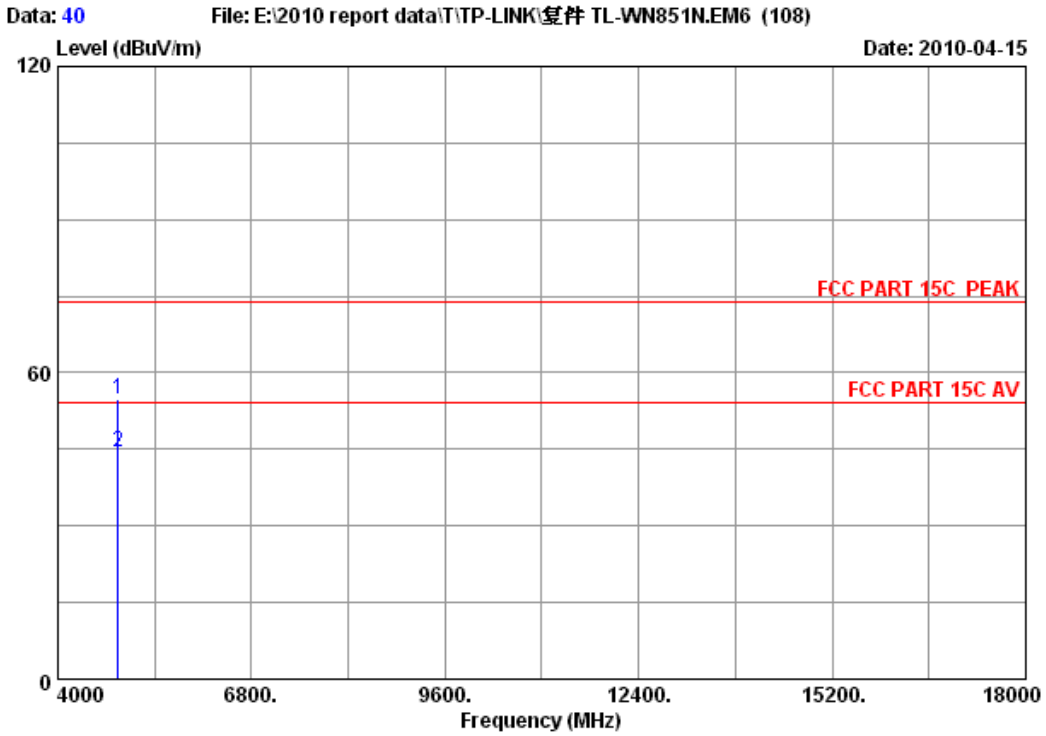

Site no. : 3m Chamber
Data no. : 40
Dis. / Ant. : 3m 3115(0911)
Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54%
Engineer : Sunny
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	43.35	54.84	74.00	19.16	Peak
2	4874.000	34.41	12.44	35.36	32.80	44.29	54.00	9.71	Average

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

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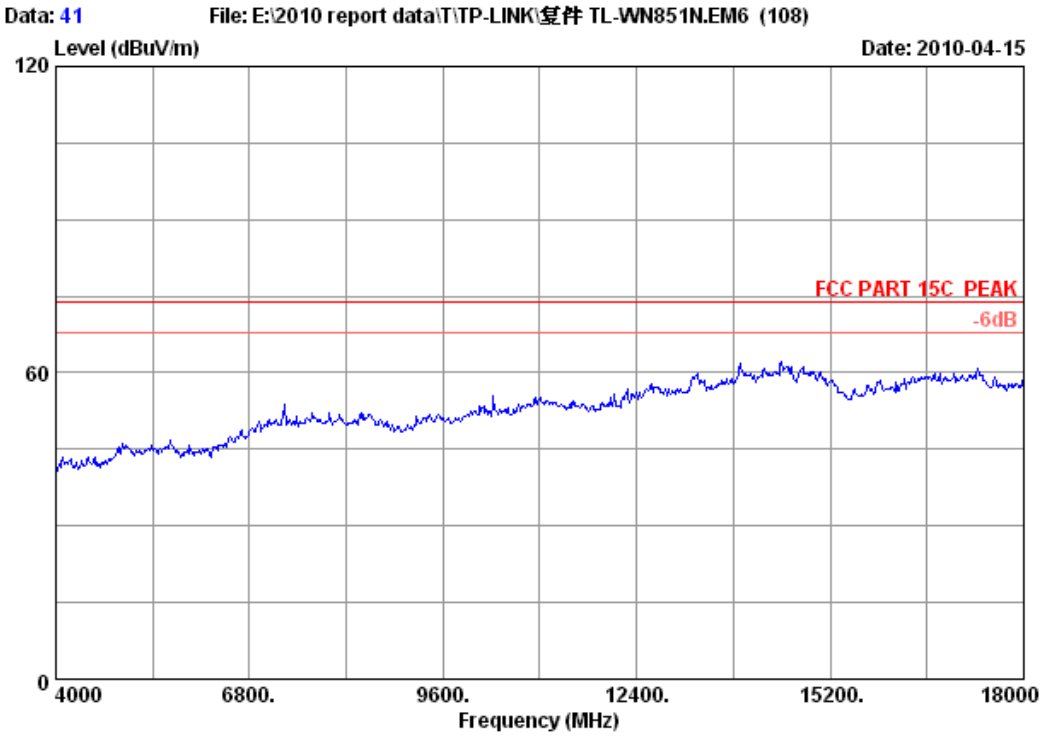

Site no.	: 3m Chamber	Data no.	: 41
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11g CH6 2437MHz		
M/N	: TL-WN851N		

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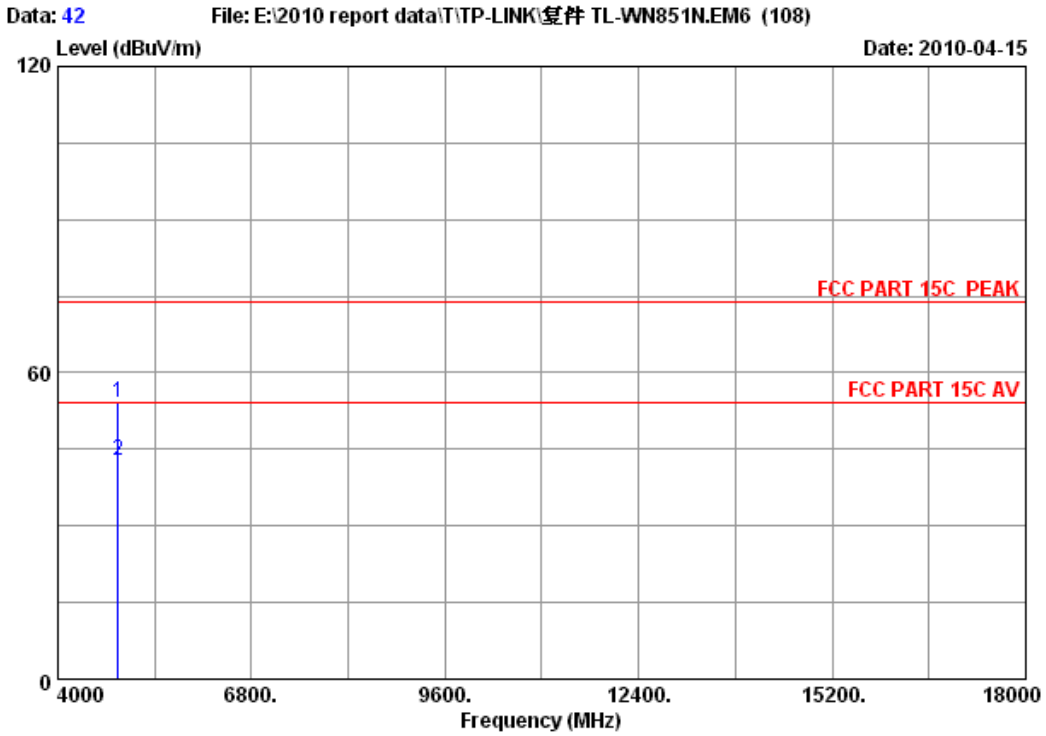

Site no. : 3m Chamber Data no. : 42
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	42.81	54.30	74.00	19.70	Peak
2	4874.000	34.41	12.44	35.36	31.24	42.73	54.00	11.27	Average

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

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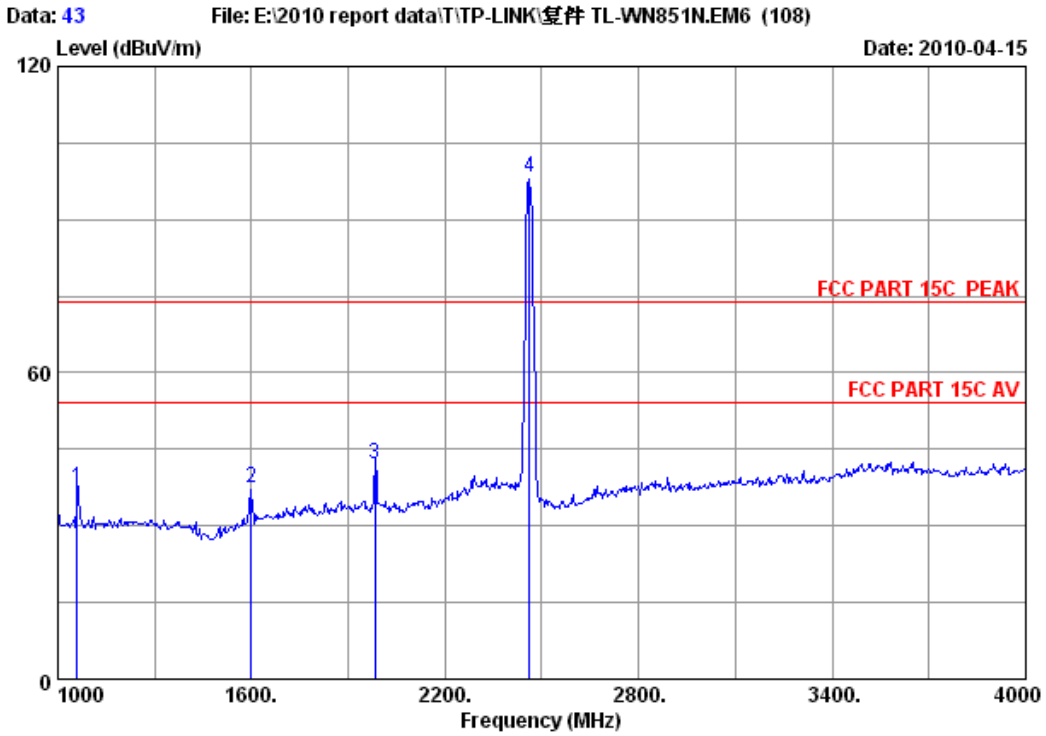

Site no. : 3m Chamber Data no. : 43
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	1060.000	25.54	5.60	37.26	43.40	37.28	74.00	36.72	Peak
2	1600.000	26.96	6.98	36.43	39.77	37.28	74.00	36.72	Peak
3	1984.000	29.11	7.87	36.06	41.18	42.10	74.00	31.90	Peak
4	2462.000	29.48	8.82	36.02	95.85	98.13	74.00	-24.13	Peak

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

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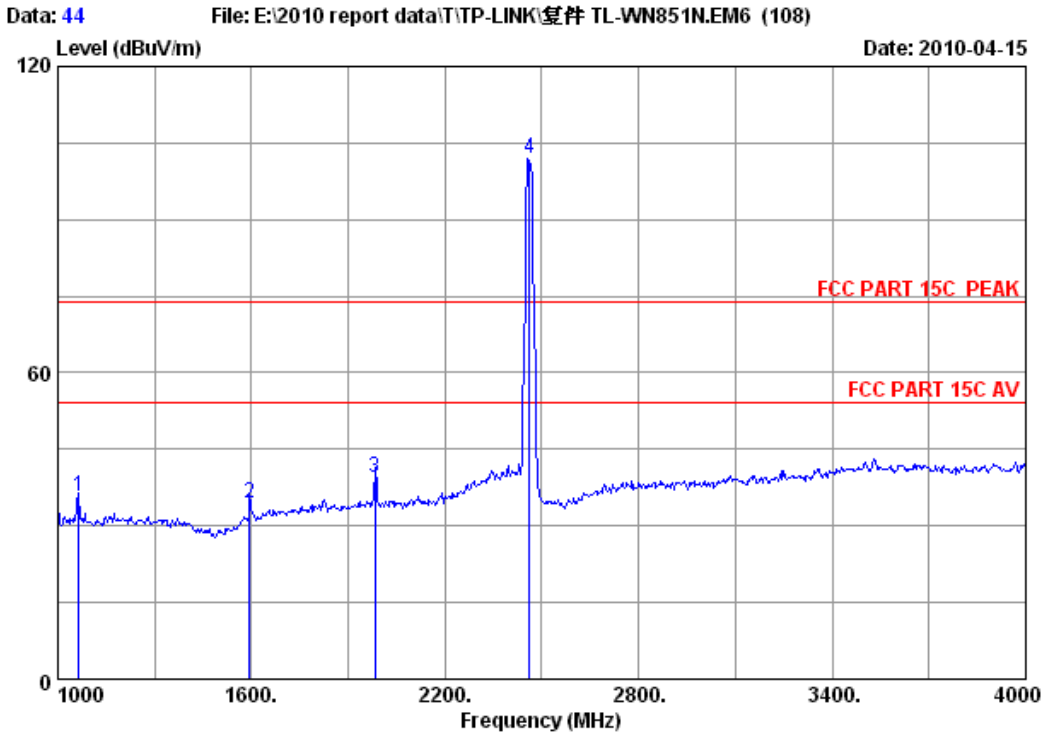

Site no. : 3m Chamber Data no. : 44
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	41.77	35.65	74.00	38.35	Peak
2	1594.000	26.96	6.92	36.43	37.09	34.54	74.00	39.46	Peak
3	1984.000	29.11	7.87	36.06	38.60	39.52	74.00	34.48	Peak
4	2462.000	29.48	8.82	36.02	99.66	101.94	74.00	-27.94	Peak

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

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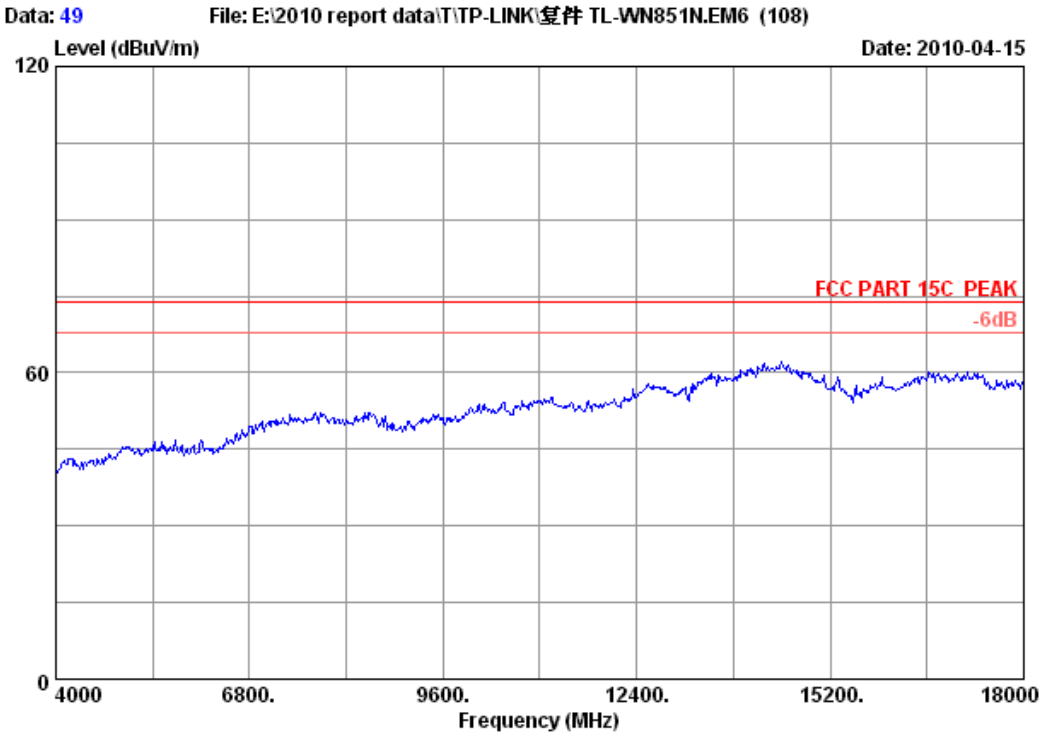

Site no.	: 3m Chamber	Data no.	: 49
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz		
M/N	: TL-WN851N		

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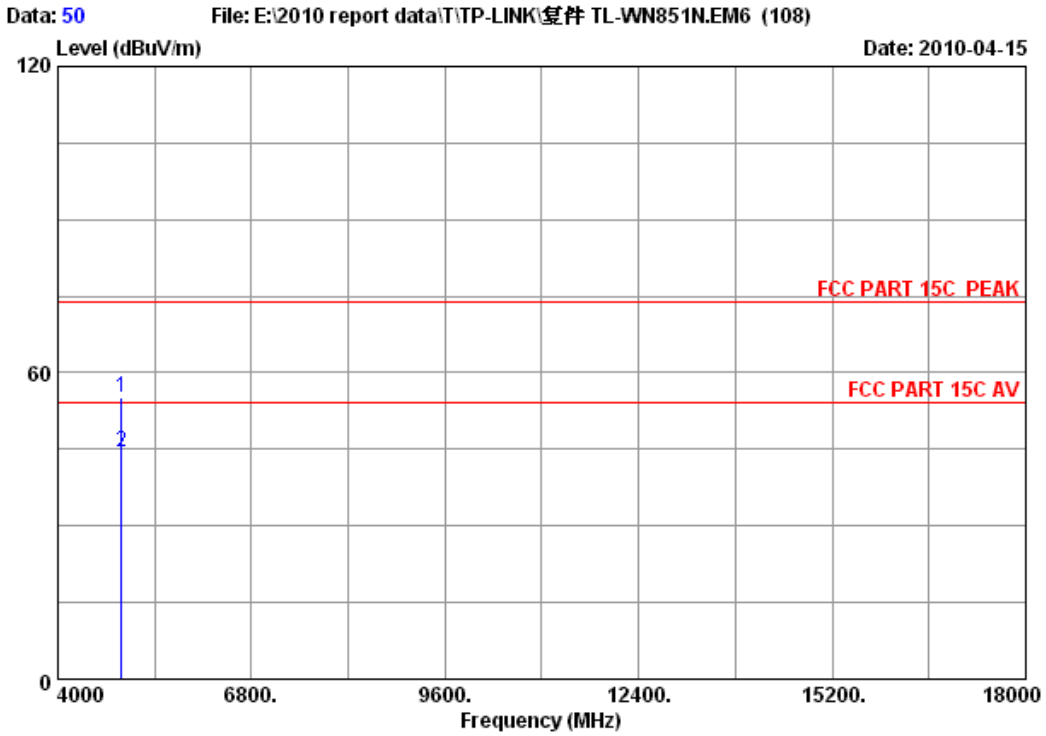
Postcode:518057



Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	34.49	12.50	35.34	43.48	55.13	74.00	18.87	Peak
2	4924.000	34.49	12.50	35.34	32.91	44.56	54.00	9.44	Average

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

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
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Fax:+86-755-26632877
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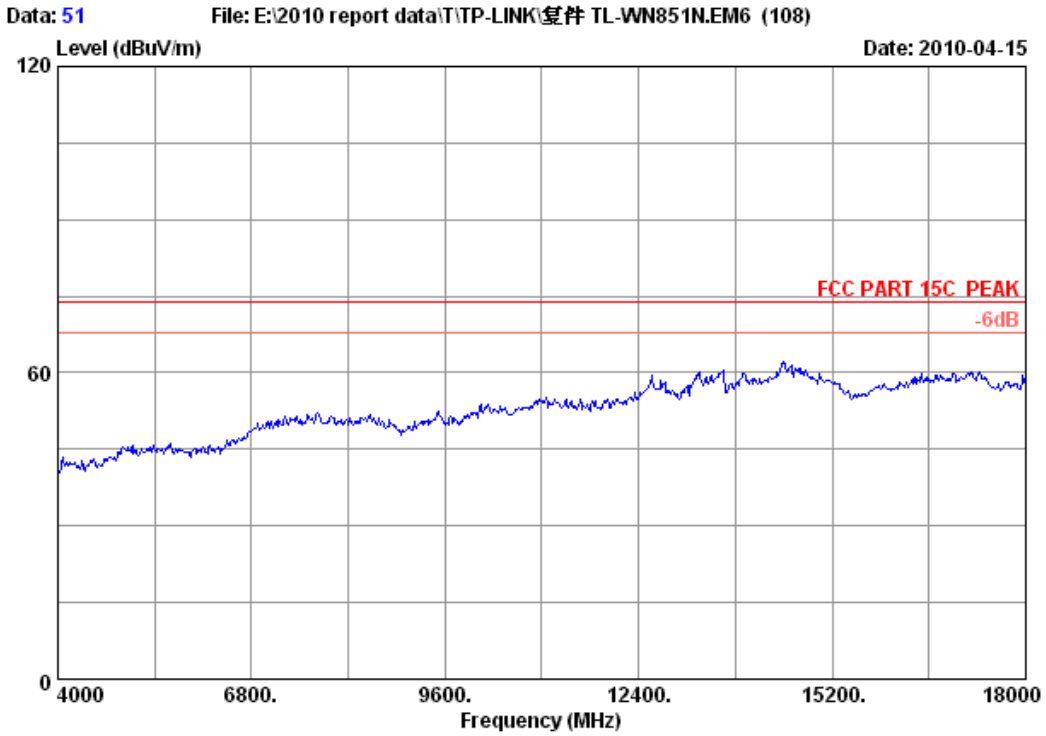

Site no.	: 3m Chamber	Data no.	: 51
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11g CH11 2462MHz		
M/N	: TL-WN851N		

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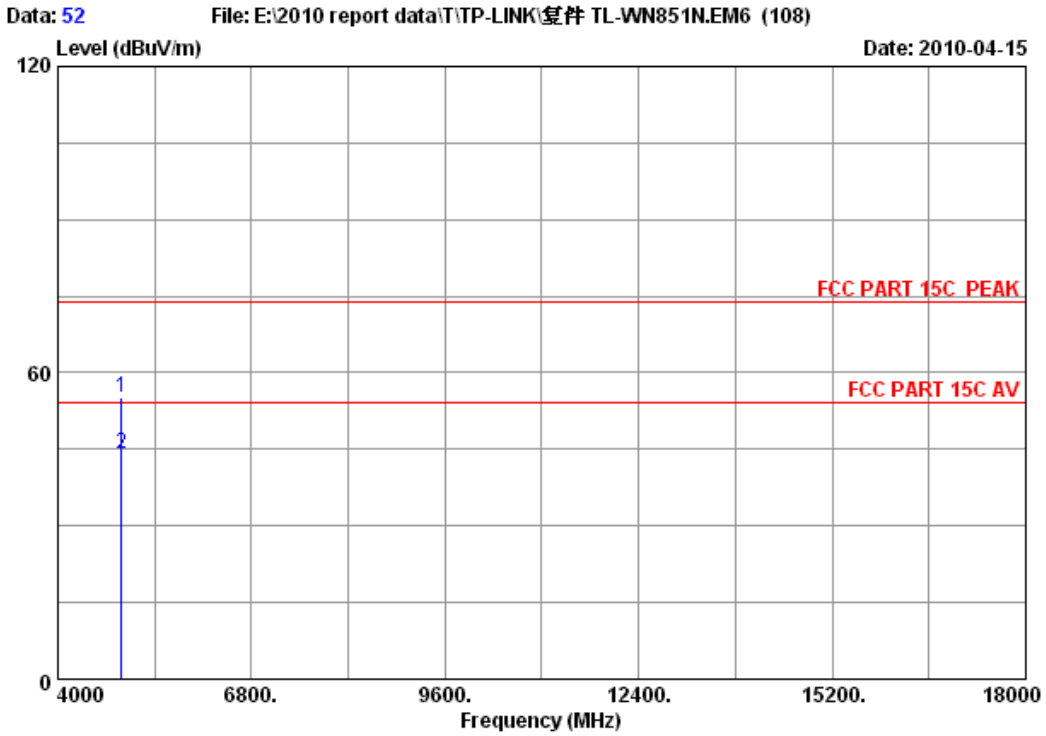

Site no. : 3m Chamber Data no. : 52
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	34.49	12.50	35.34	43.45	55.10	74.00	18.90	Peak
2	4924.000	34.49	12.50	35.34	32.38	44.03	54.00	9.97	Average

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

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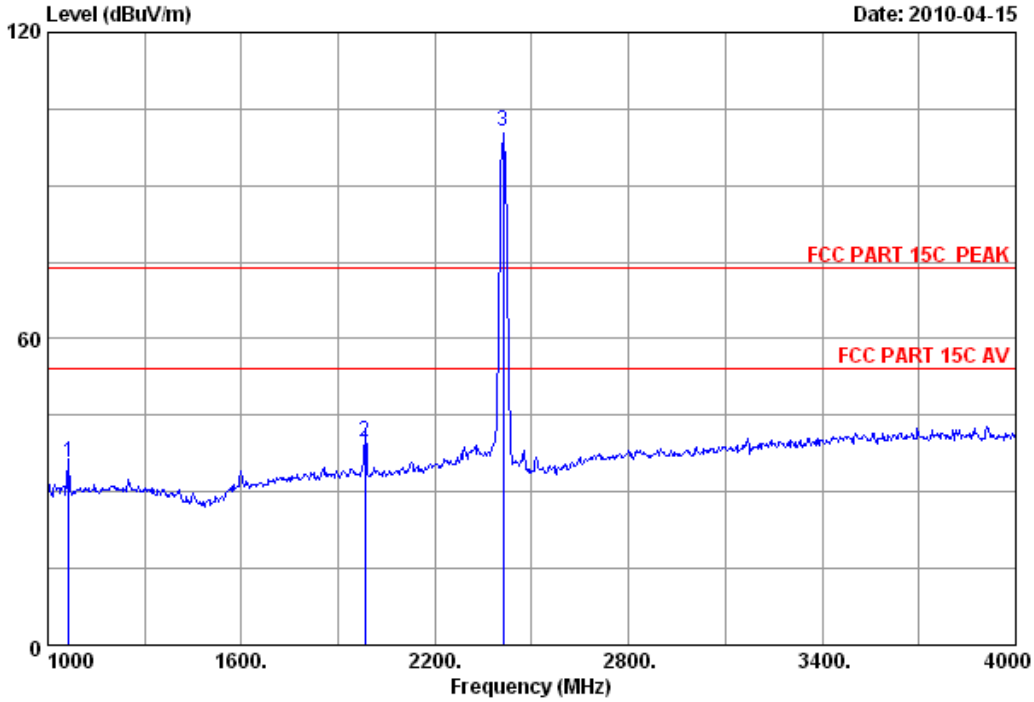
Data: 53 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 53
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	41.91	35.79	74.00	38.21	Peak
2	1984.000	29.11	7.87	36.06	38.97	39.89	74.00	34.11	Peak
3	2412.000	29.45	8.72	35.95	98.23	100.45	74.00	-26.45	Peak

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

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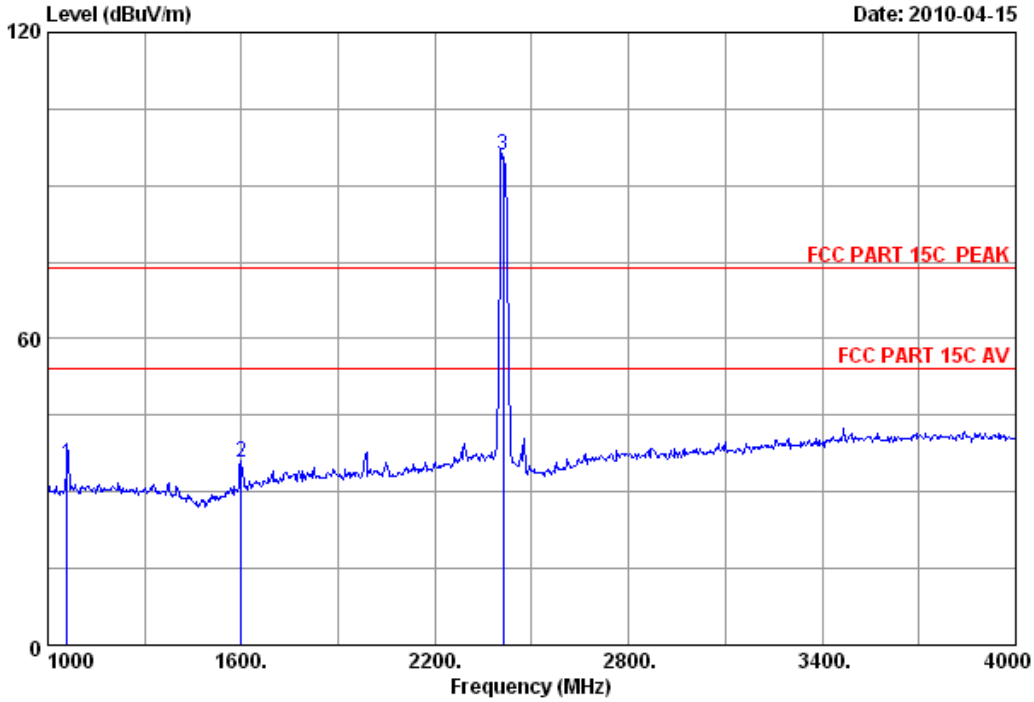
Data: 54 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	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	1060.000	25.54	5.60	37.26	41.41	35.29	74.00	38.71	Peak
2	1600.000	26.96	6.98	36.43	38.09	35.60	74.00	38.40	Peak
3	2412.000	29.45	8.72	35.95	93.69	95.91	74.00	-21.91	Peak

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

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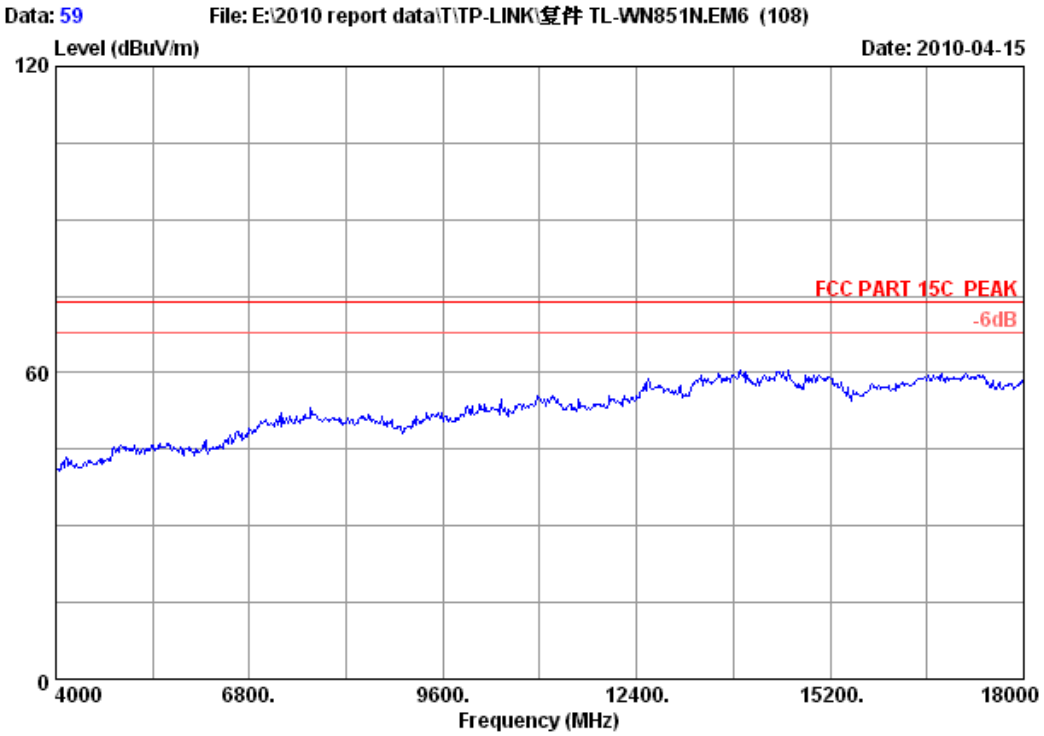
Postcode:518057



Site no.	: 3m Chamber	Data no.	: 59
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT20 CH1 2412MHz		
M/N	: TL-WN851N		

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Noutou,ShenZhen,GuangDong,China
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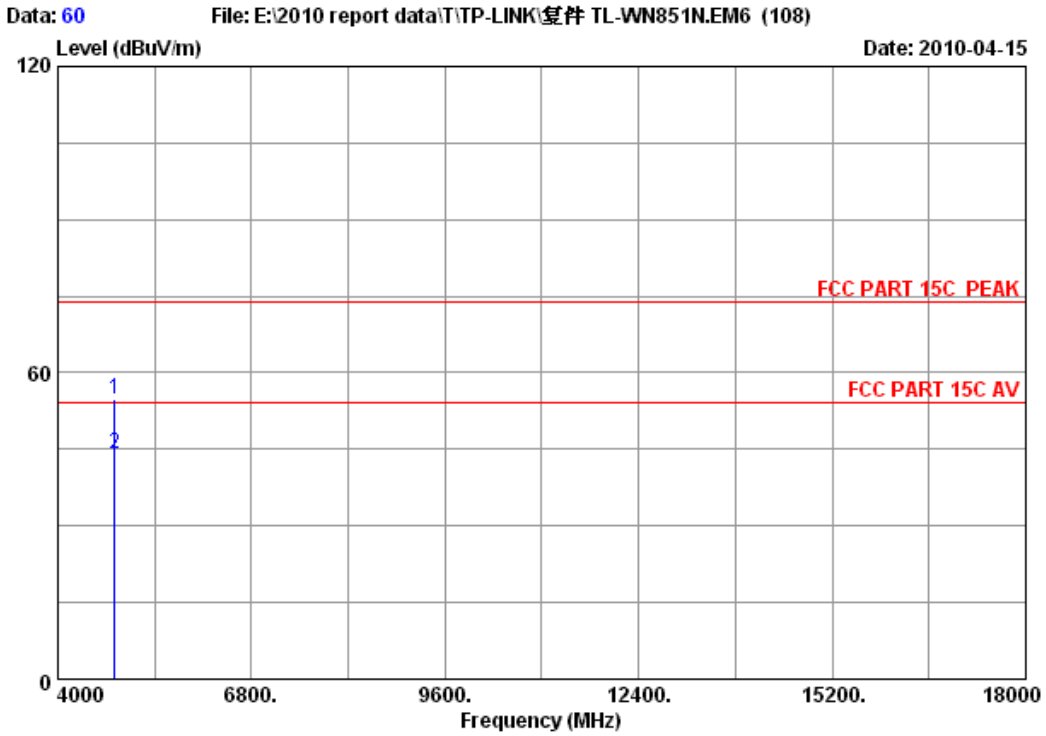

Site no. : 3m Chamber Data no. : 60
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	12.38	35.25	43.21	54.66	74.00	19.34	Peak
2	4824.000	34.32	12.38	35.25	32.52	43.97	54.00	10.03	Average

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

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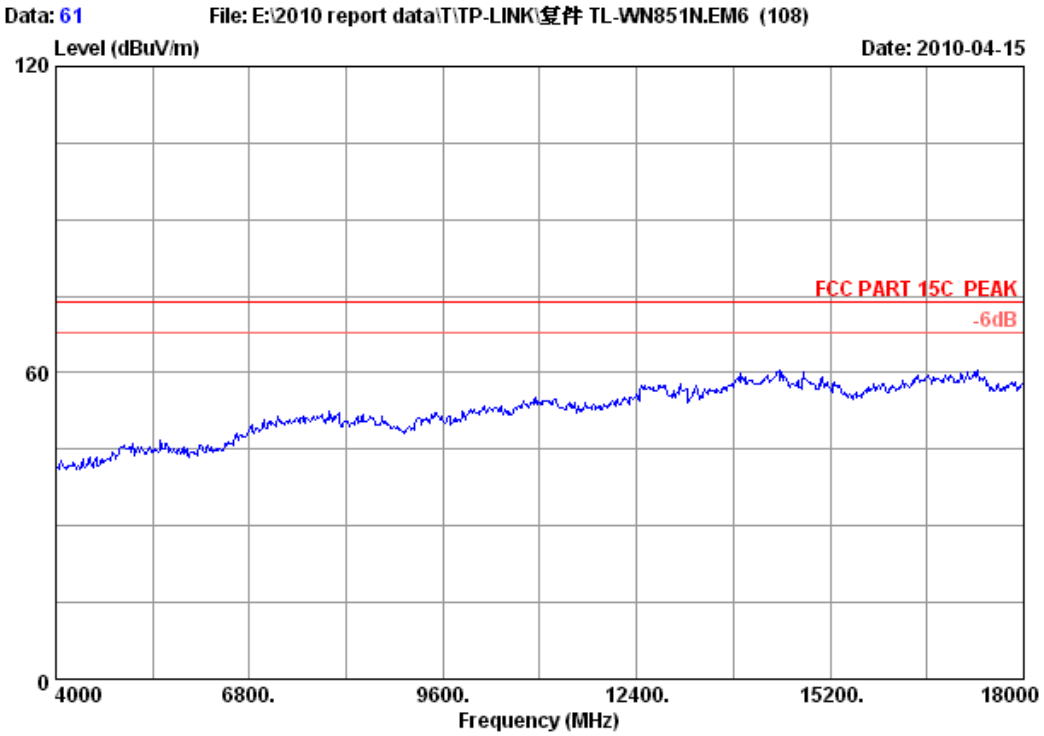

Site no.	: 3m Chamber	Data no.	: 61
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT20 CH1 2412MHz		
M/N	: TL-WN851N		

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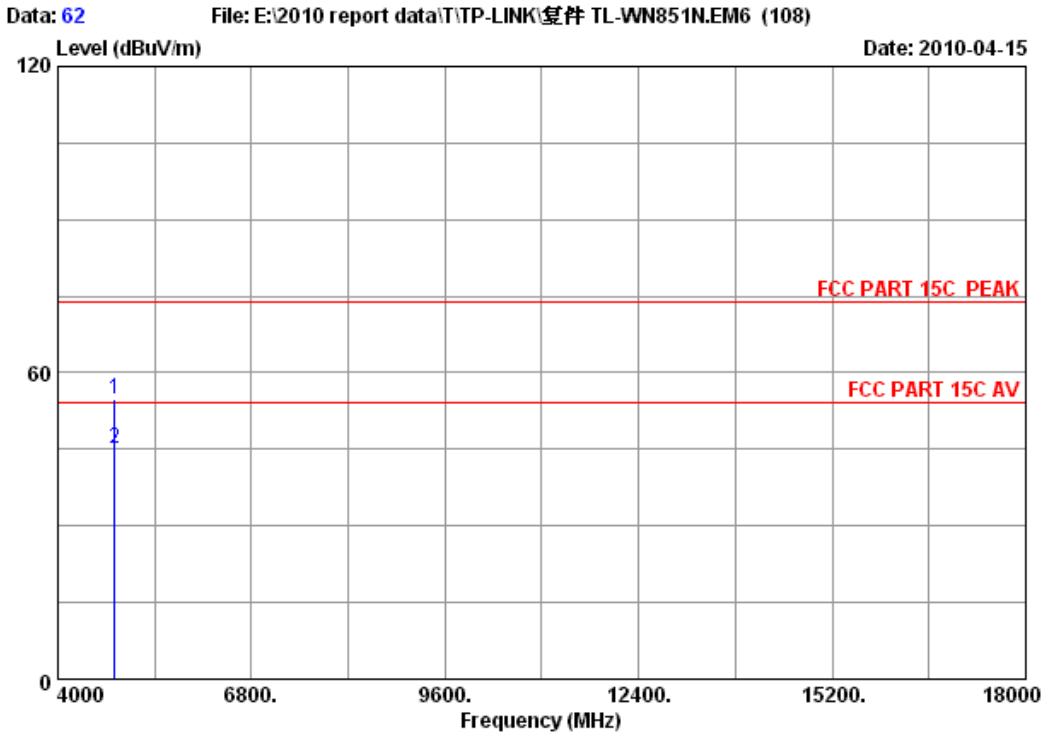
Postcode:518057



Site no. : 3m Chamber Data no. : 62
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4824.000	34.32	12.38	35.25	43.49	54.94	74.00	19.06	Peak
2	4824.000	34.32	12.38	35.25	33.84	45.29	54.00	8.71	Average

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

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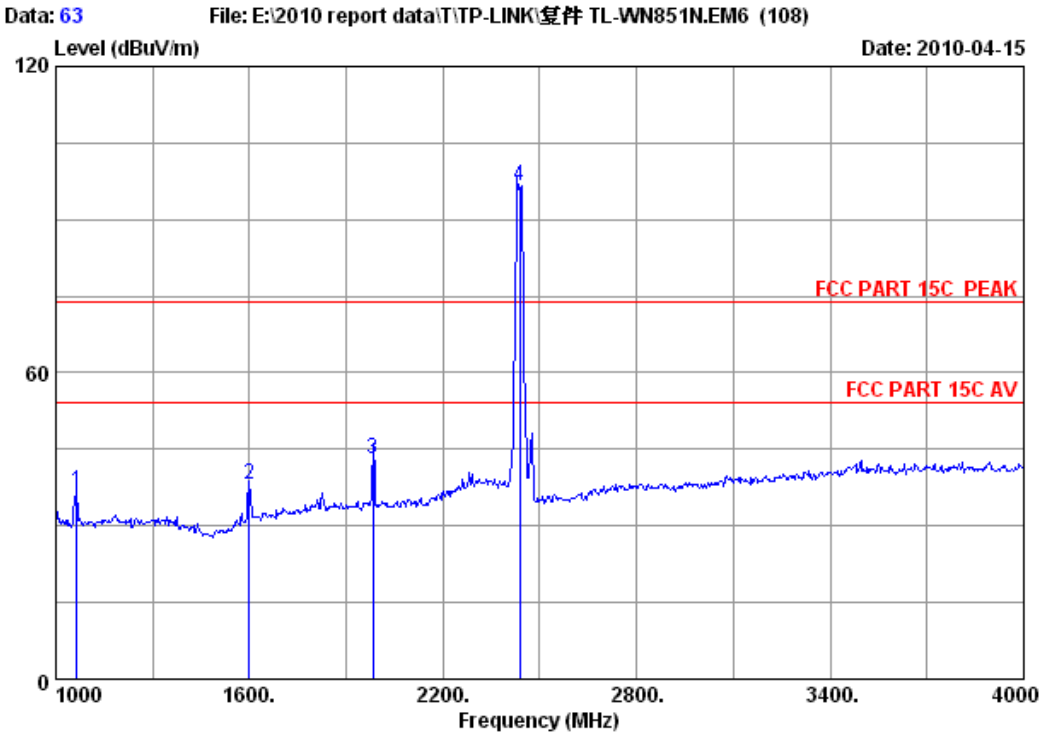

Site no. : 3m Chamber Data no. : 63
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH6 2437MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	43.03	36.91	74.00	37.09	Peak
2	1600.000	26.96	6.98	36.43	40.58	38.09	74.00	35.91	Peak
3	1984.000	29.11	7.87	36.06	42.26	43.18	74.00	30.82	Peak
4	2437.000	29.47	8.77	36.06	94.44	96.62	74.00	-22.62	Peak

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

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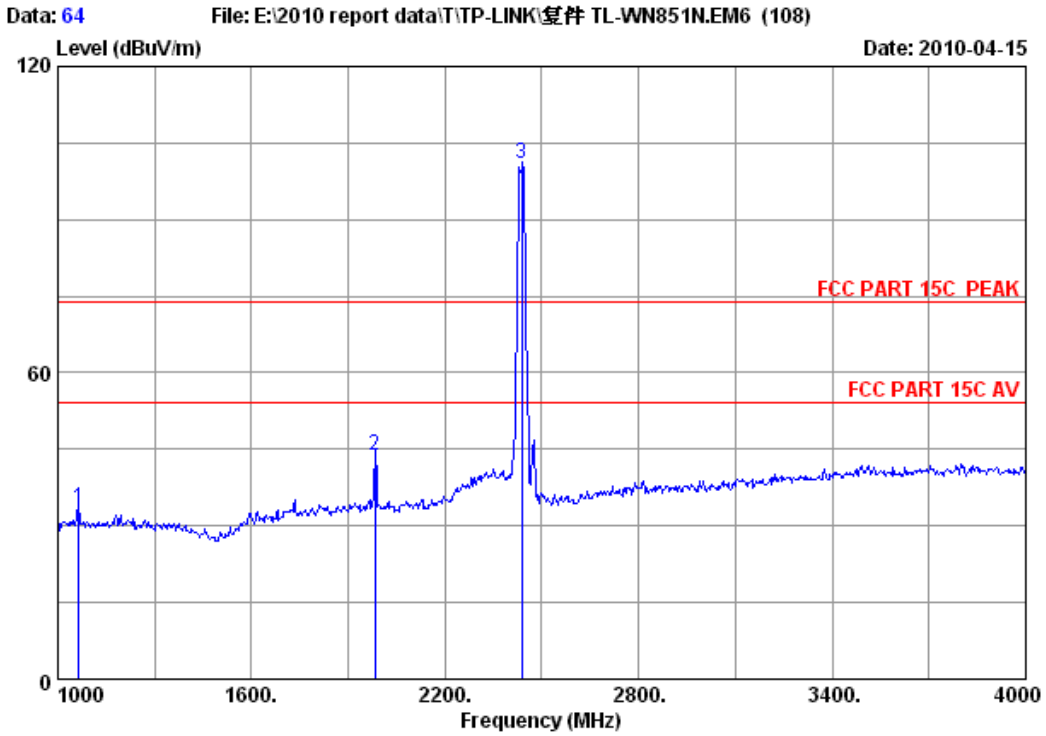

Site no. : 3m Chamber Data no. : 64
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH6 2437MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	39.43	33.31	74.00	40.69	Peak
2	1984.000	29.11	7.87	36.06	42.91	43.83	74.00	30.17	Peak
3	2437.000	29.47	8.77	36.06	98.72	100.90	74.00	-26.90	Peak

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

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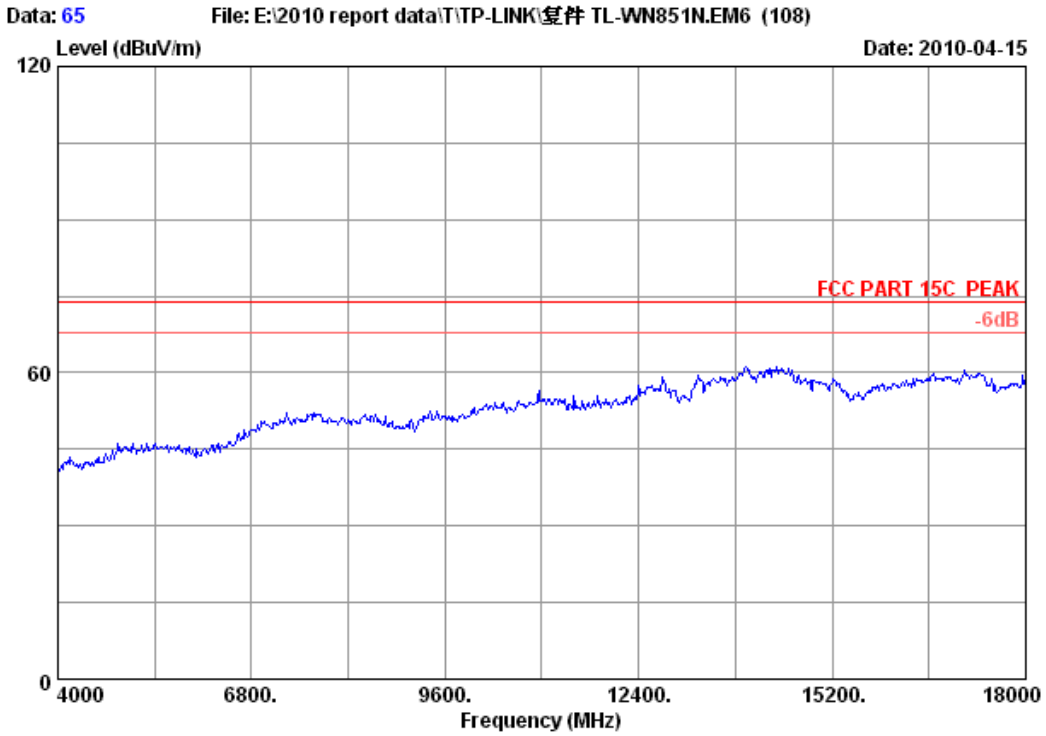

Site no.	: 3m Chamber	Data no.	: 65
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT20 CH6 2437MHz		
M/N	: TL-WN851N		

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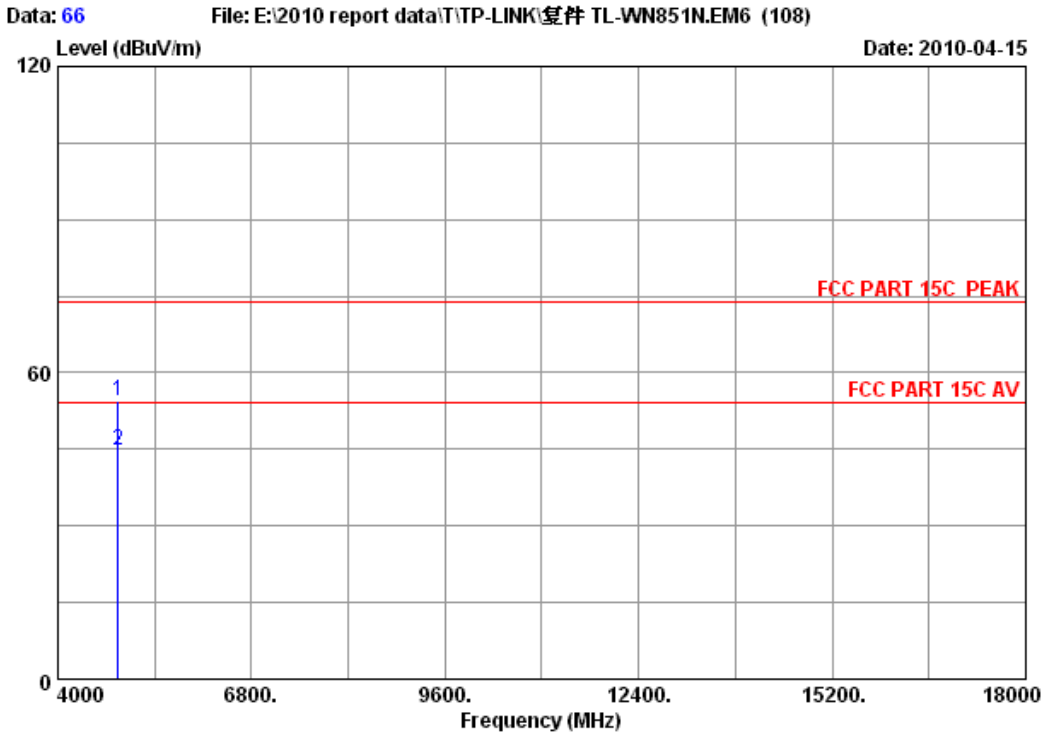

Site no. : 3m Chamber Data no. : 66
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	42.90	54.39	74.00	19.61	Peak
2	4874.000	34.41	12.44	35.36	33.14	44.63	54.00	9.37	Average

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

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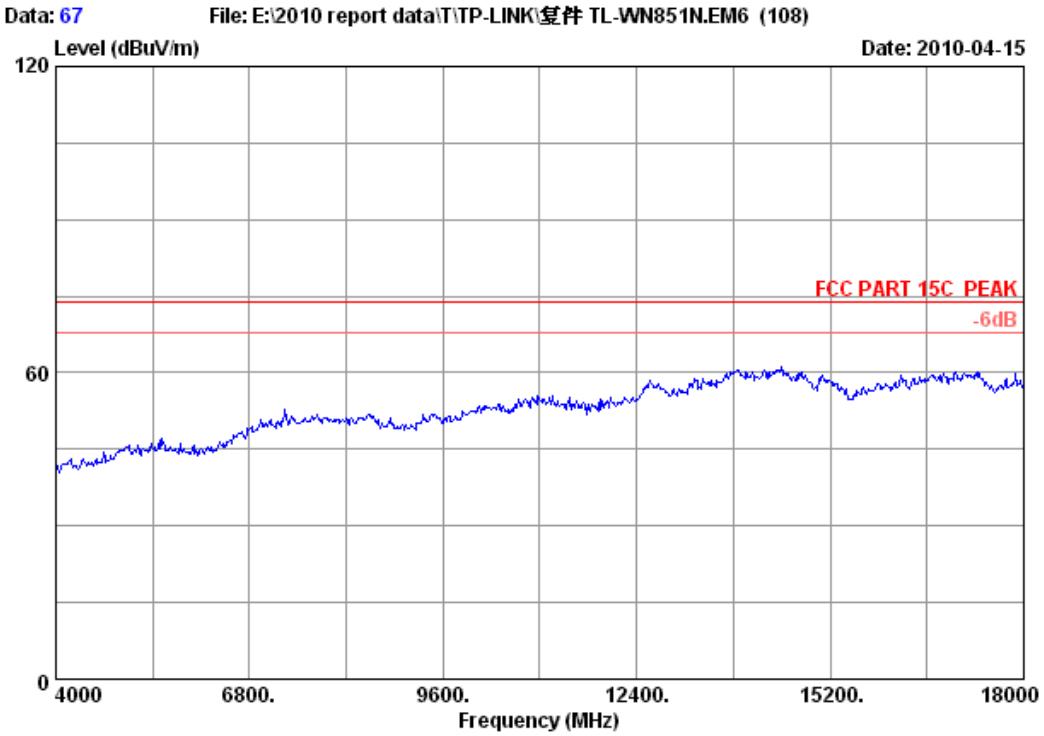

Site no.	: 3m Chamber	Data no.	: 67
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT20 CH6 2437MHz		
M/N	: TL-WN851N		

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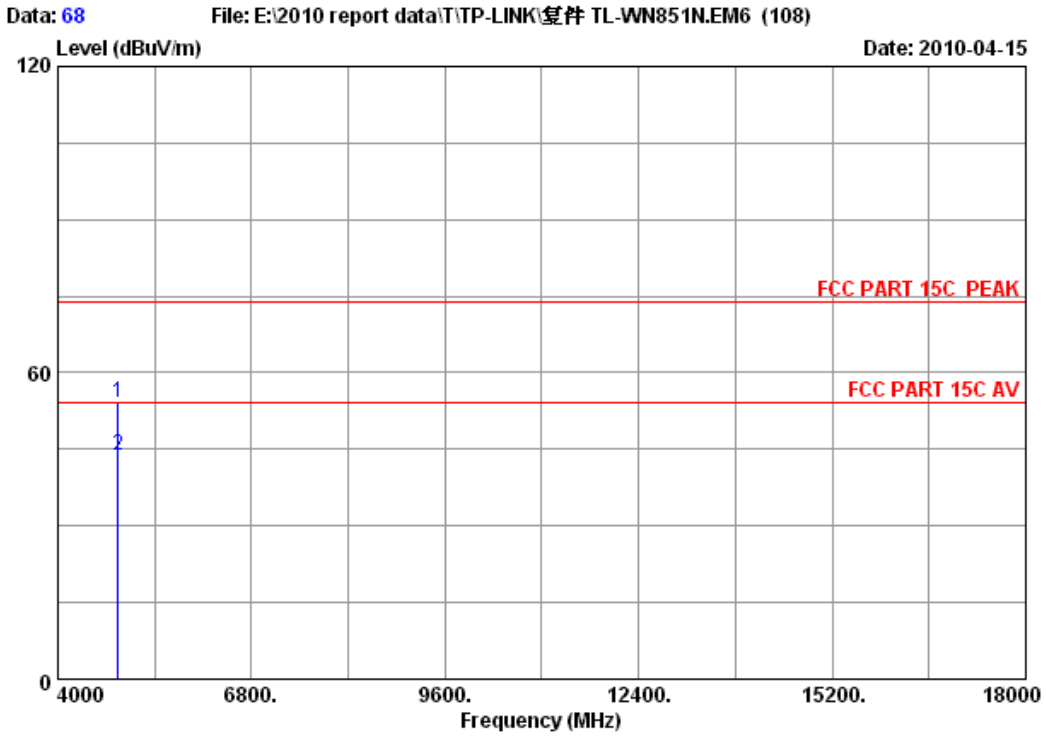

Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH6 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	42.57	54.06	74.00	19.94	Peak
2	4874.000	34.41	12.44	35.36	32.43	43.92	54.00	10.08	Average

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

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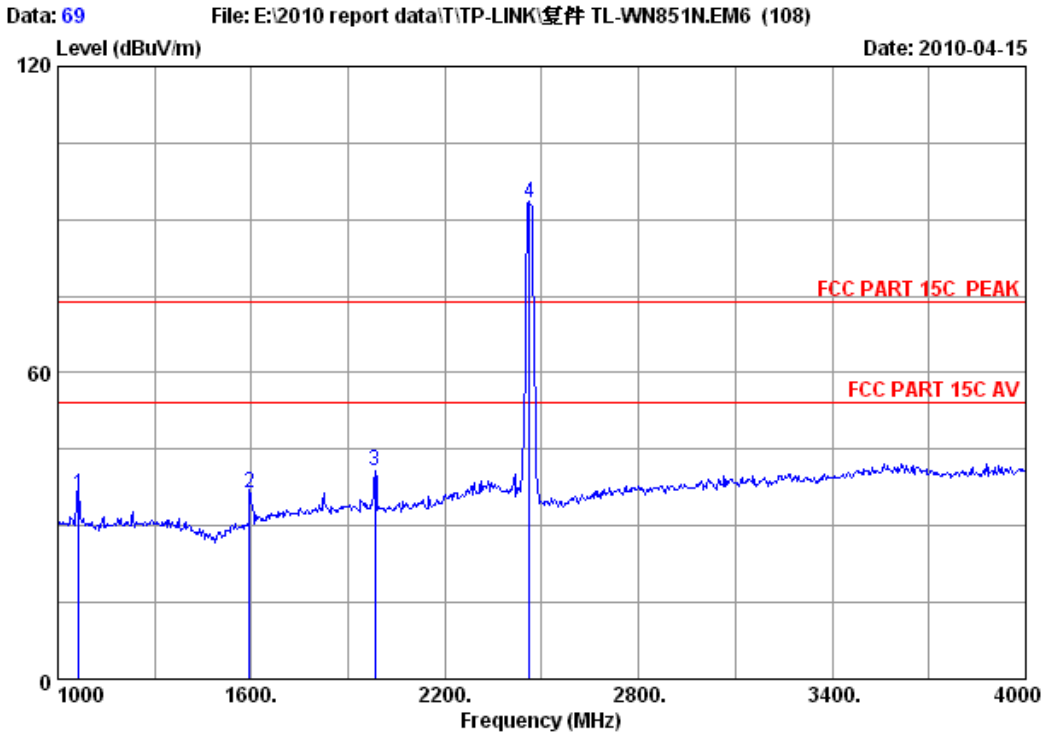
Postcode:518057



Site no. : 3m Chamber Data no. : 69
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	42.28	36.16	74.00	37.84	Peak
2	1594.000	26.96	6.92	36.43	38.93	36.38	74.00	37.62	Peak
3	1984.000	29.11	7.87	36.06	39.97	40.89	74.00	33.11	Peak
4	2462.000	29.48	8.82	36.02	91.01	93.29	74.00	-19.29	Peak

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

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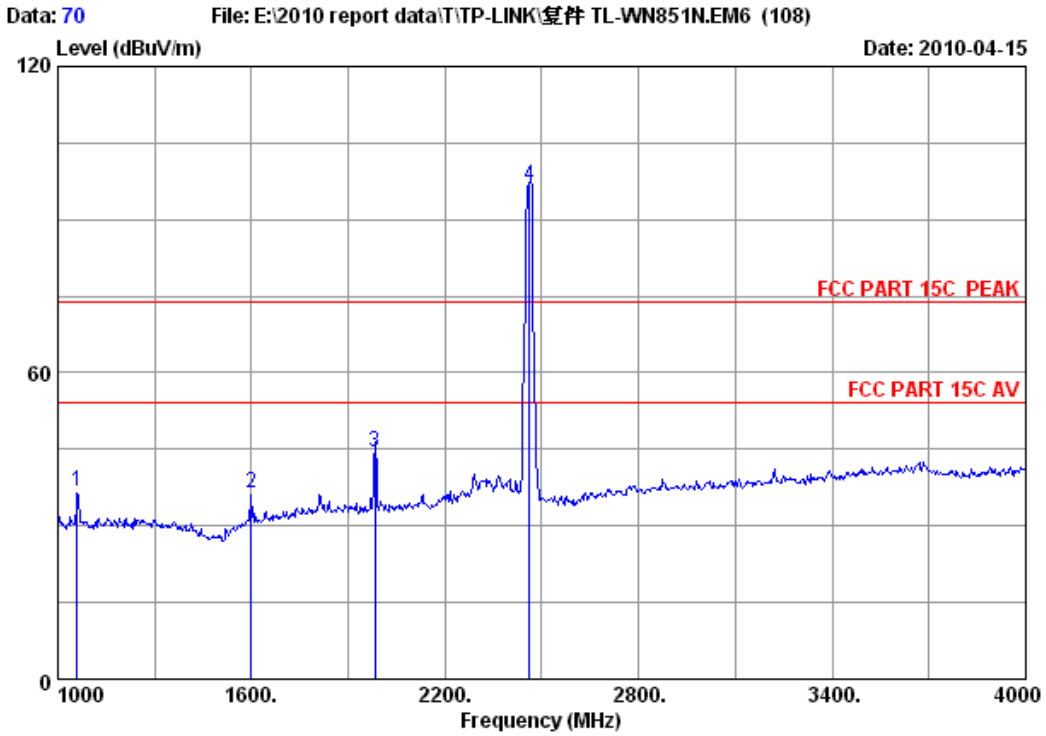

Site no. : 3m Chamber Data no. : 70
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	1060.000	25.54	5.60	37.26	42.82	36.70	74.00	37.30	Peak
2	1600.000	26.96	6.98	36.43	38.88	36.39	74.00	37.61	Peak
3	1984.000	29.11	7.87	36.06	43.56	44.48	74.00	29.52	Peak
4	2462.000	29.48	8.82	36.02	94.19	96.47	74.00	-22.47	Peak

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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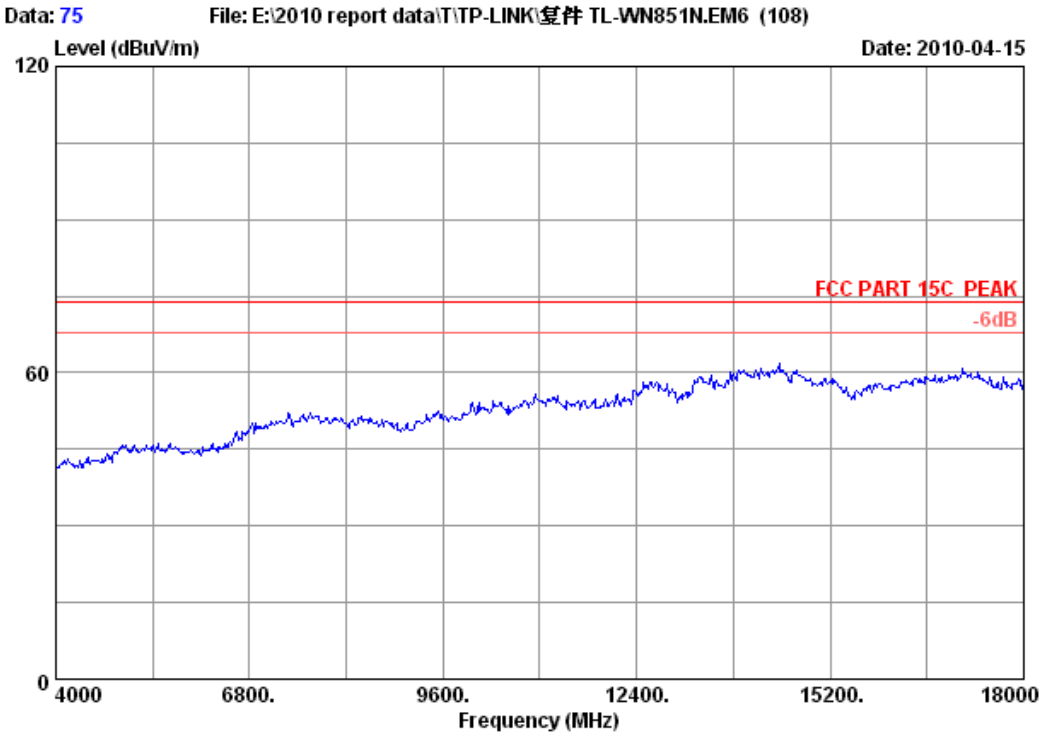

Site no.	: 3m Chamber	Data no.	: 75
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT20 CH11 2462MHz		
M/N	: TL-WN851N		

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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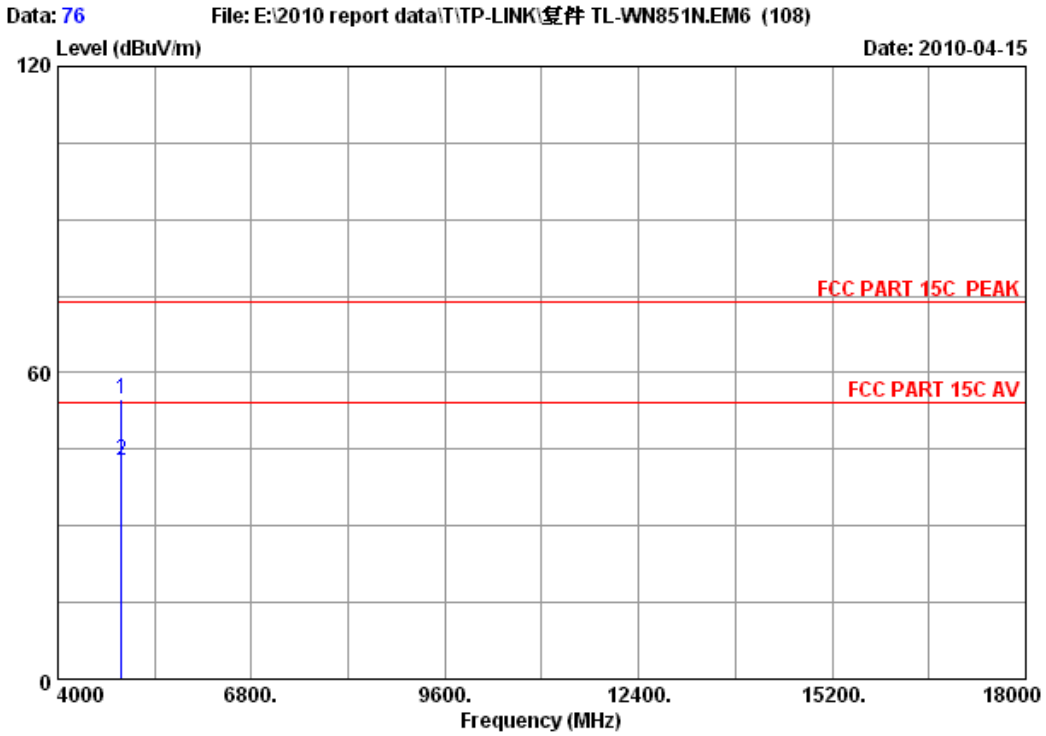

Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	34.49	12.50	35.34	43.28	54.93	74.00	19.07	Peak
2	4924.000	34.49	12.50	35.34	31.24	42.89	54.00	11.11	Average

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

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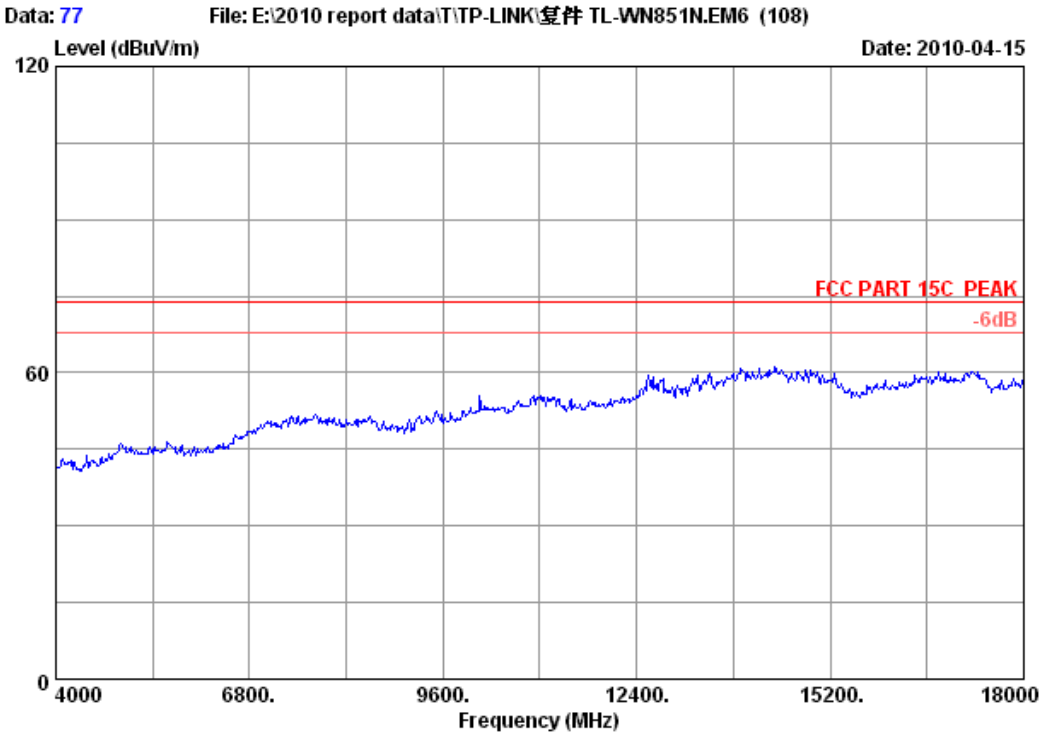

Site no.	: 3m Chamber	Data no.	: 77
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT20 CH11 2462MHz		
M/N	: TL-WN851N		

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Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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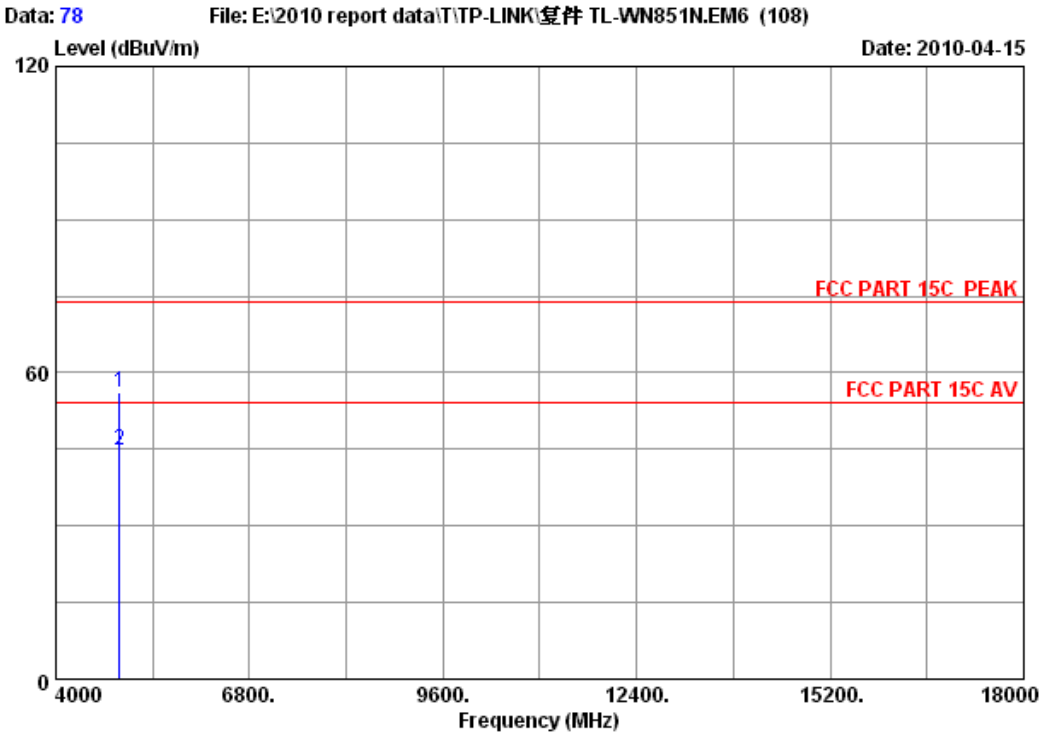

Site no. : 3m Chamber Data no. : 78
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	34.49	12.50	35.34	44.52	56.17	74.00	17.83	Peak
2	4924.000	34.49	12.50	35.34	33.26	44.91	54.00	9.09	Average

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

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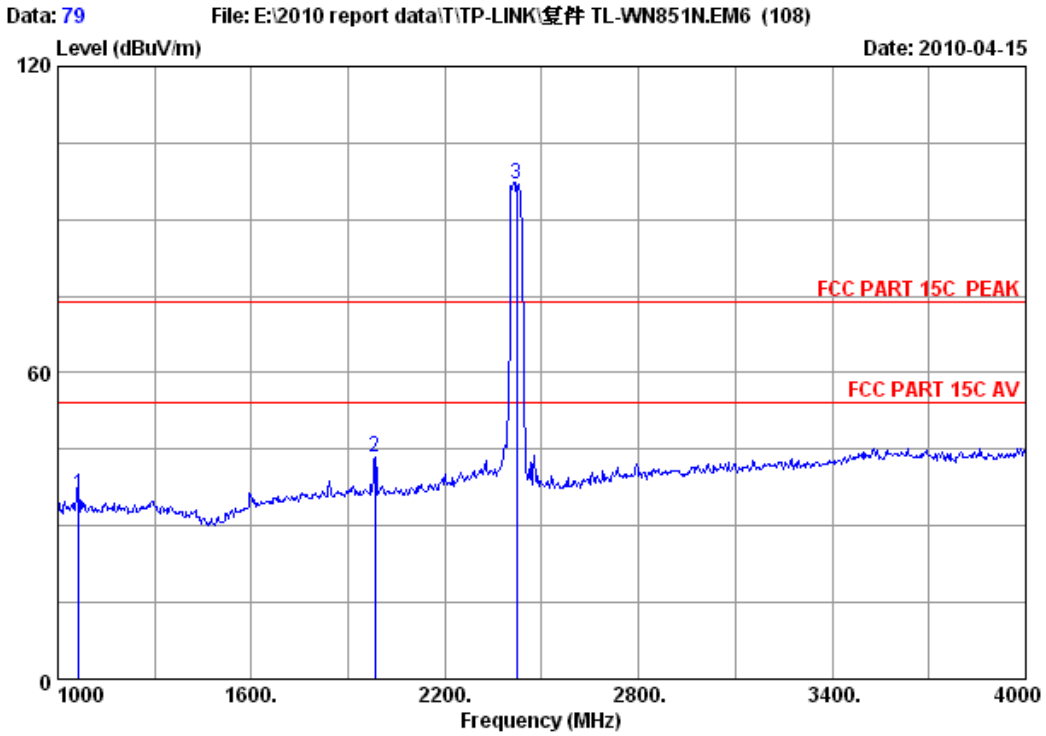

Site no. : 3m Chamber Data no. : 79
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	42.28	36.16	74.00	37.84	Peak
2	1984.000	29.11	7.87	36.06	42.63	43.55	74.00	30.45	Peak
3	2422.000	29.46	8.77	36.01	94.86	97.08	74.00	-23.08	Peak

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

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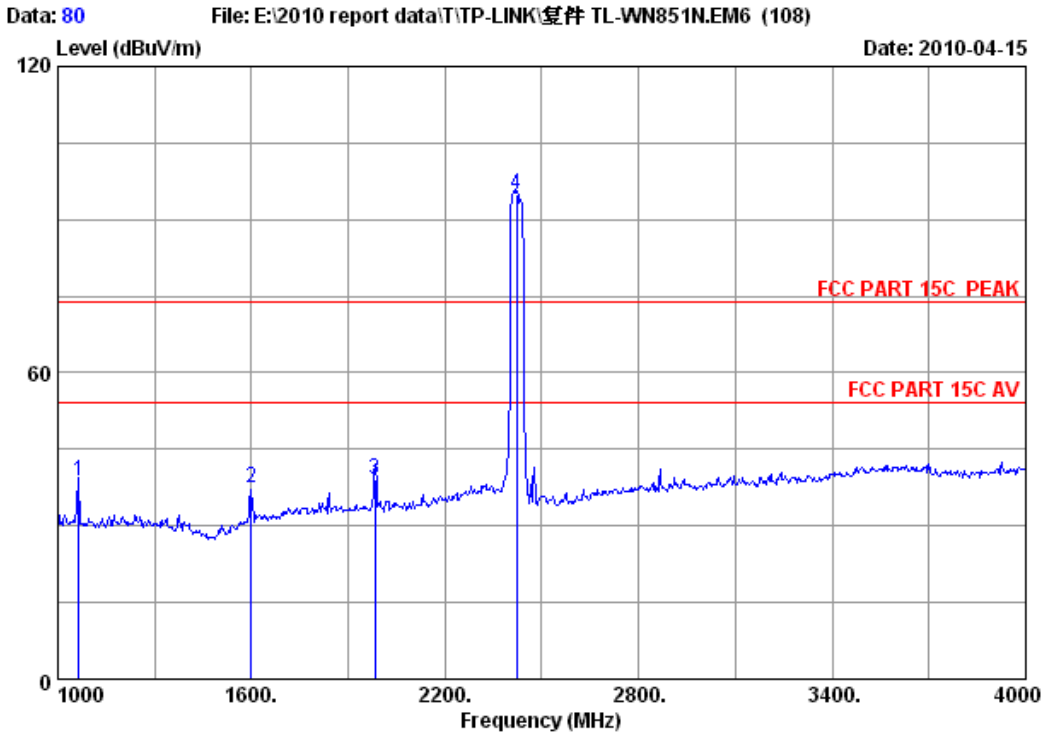

Site no. : 3m Chamber Data no. : 80
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	45.00	38.88	74.00	35.12	Peak
2	1600.000	26.96	6.98	36.43	39.98	37.49	74.00	36.51	Peak
3	1984.000	29.11	7.87	36.06	38.32	39.24	74.00	34.76	Peak
4	2422.000	29.46	8.77	36.01	92.54	94.76	74.00	-20.76	Peak

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

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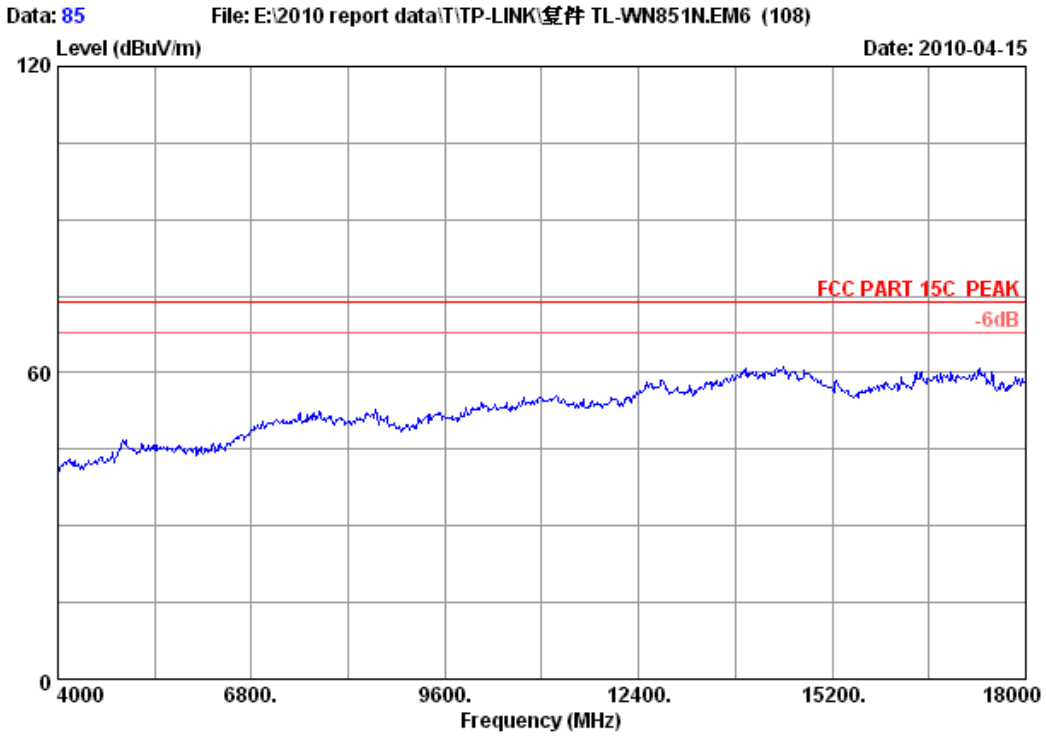

Site no.	: 3m Chamber	Data no.	: 85
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT40 CH1 2422MHz		
M/N	: TL-WN851N		

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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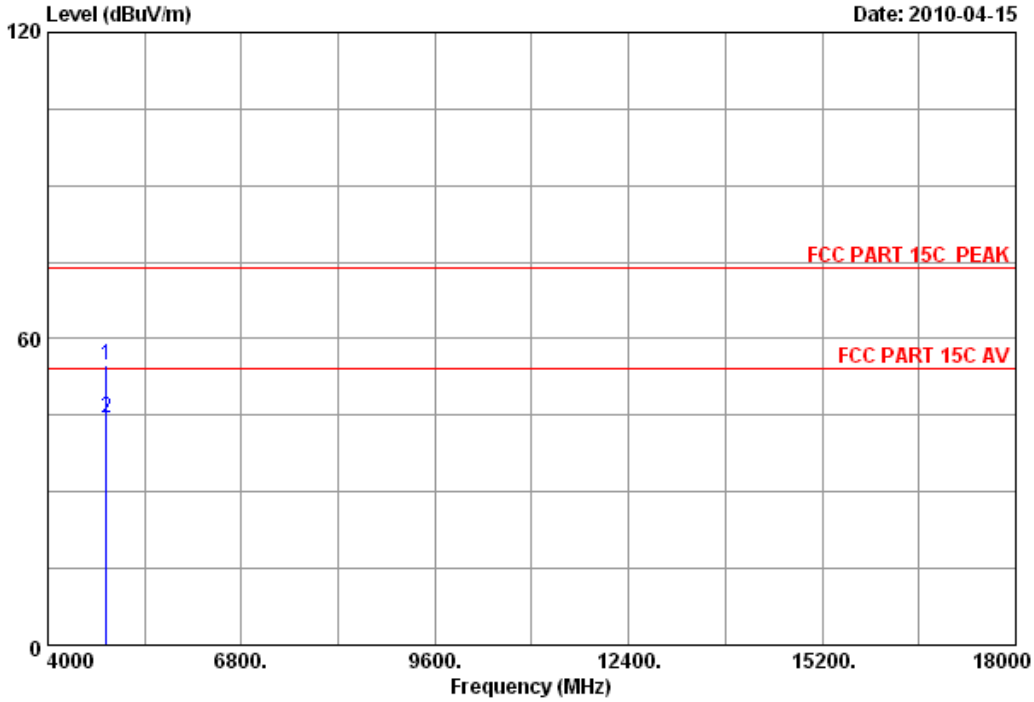
Data: 86 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 86
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	34.35	12.38	35.25	43.21	54.69	74.00	19.31	Peak
2	4844.000	34.35	12.38	35.25	33.00	44.48	54.00	9.52	Average

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

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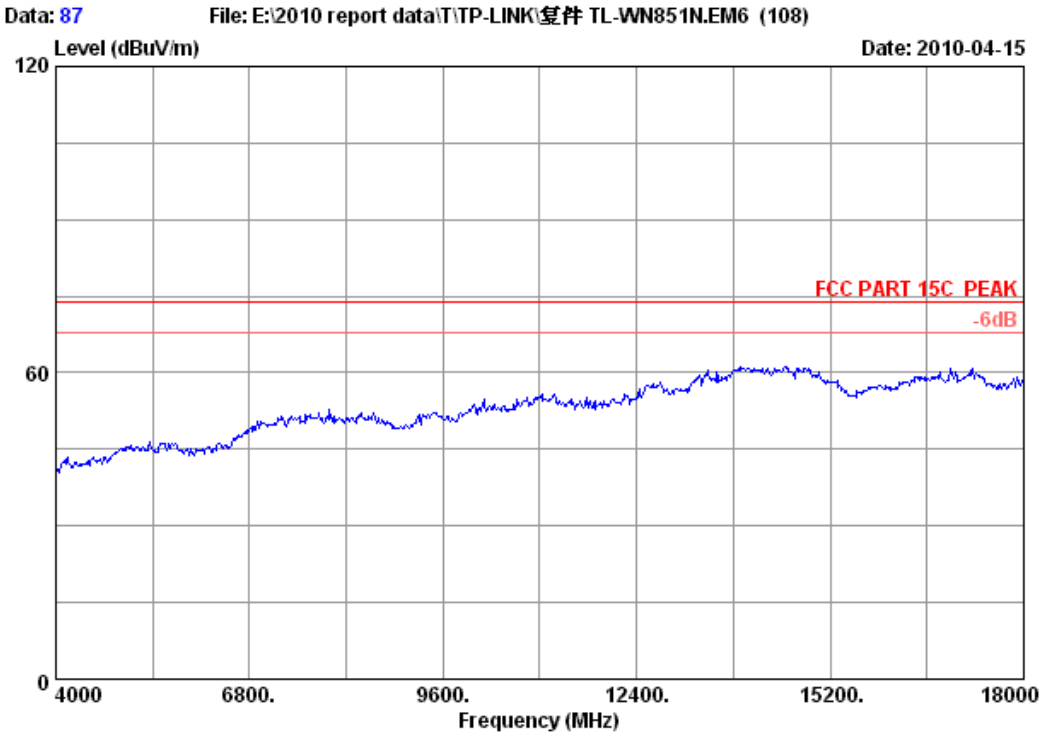

Site no.	: 3m Chamber	Data no.	: 87
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT40 CH1 2422MHz		
M/N	: TL-WN851N		

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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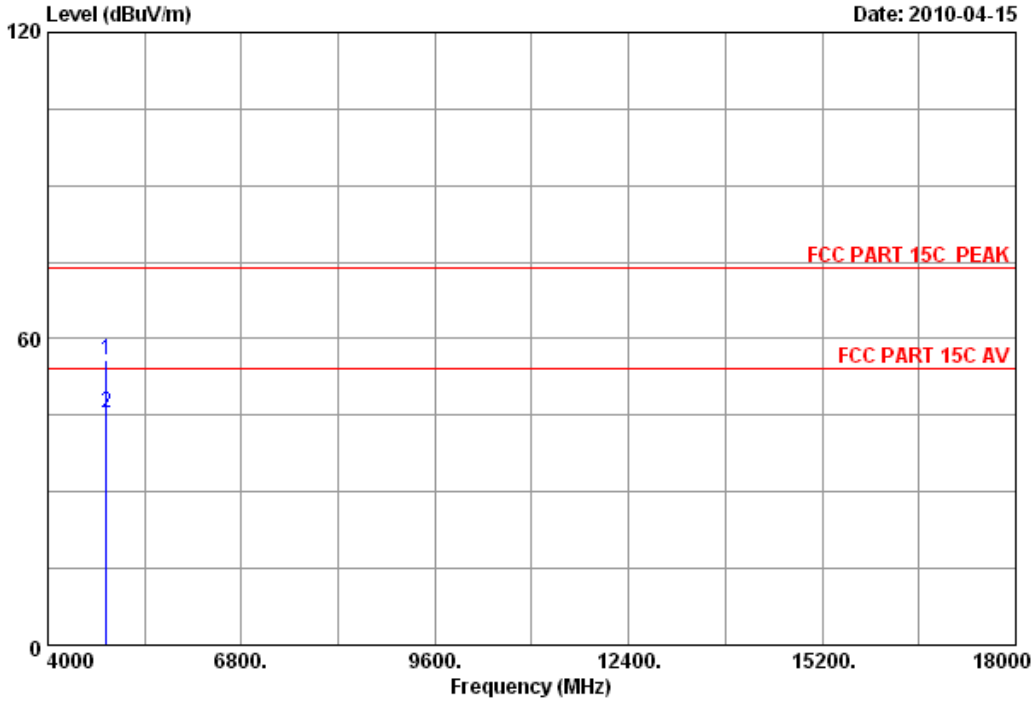
Data: 88 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 88
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	34.35	12.38	35.25	44.44	55.92	74.00	18.08	Peak
2	4844.000	34.35	12.38	35.25	34.06	45.54	54.00	8.46	Average

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

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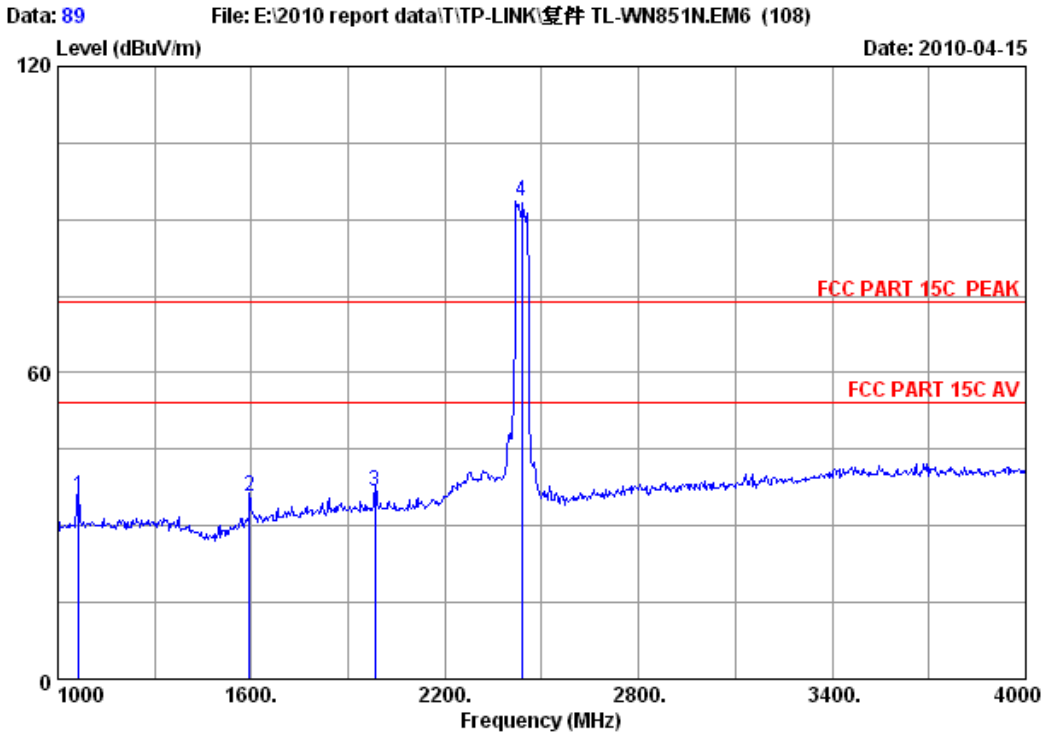

Site no. : 3m Chamber Data no. : 89
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	41.90	35.78	74.00	38.22	Peak
2	1594.000	26.96	6.92	36.43	38.23	35.68	74.00	38.32	Peak
3	1984.000	29.11	7.87	36.06	35.79	36.71	74.00	37.29	Peak
4	2437.000	29.47	8.77	36.06	91.37	93.55	74.00	-19.55	Peak

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

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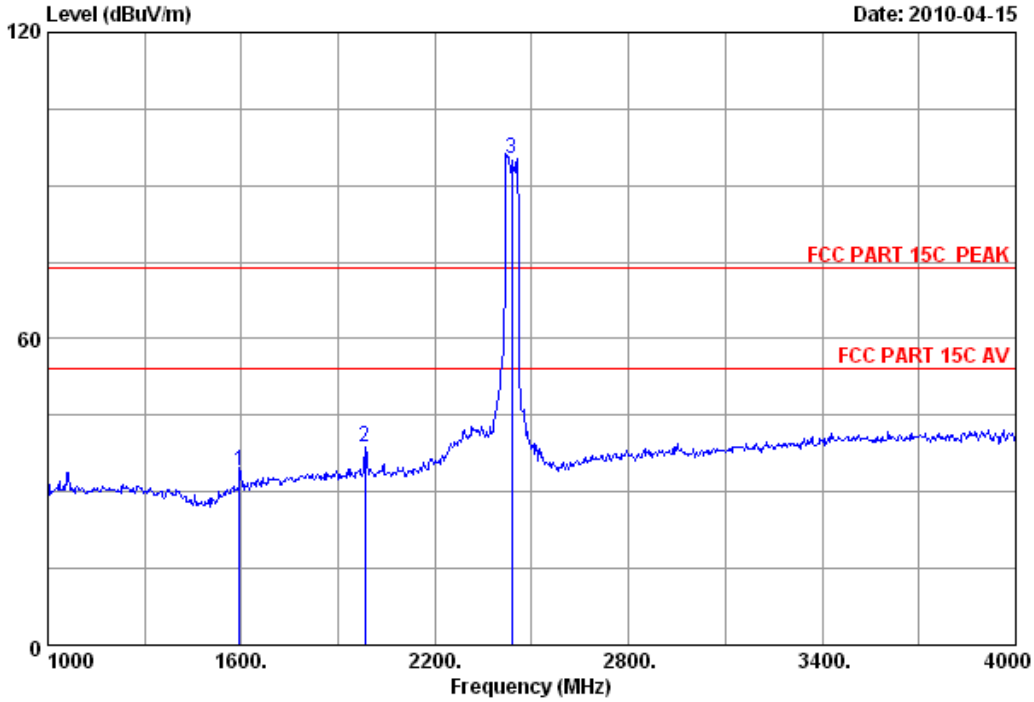
Data: 90 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 90
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1594.000	26.96	6.92	36.43	36.49	33.94	74.00	40.06	Peak
2	1984.000	29.11	7.87	36.06	37.70	38.62	74.00	35.38	Peak
3	2437.000	29.47	8.77	36.06	92.93	95.11	74.00	-21.11	Peak

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

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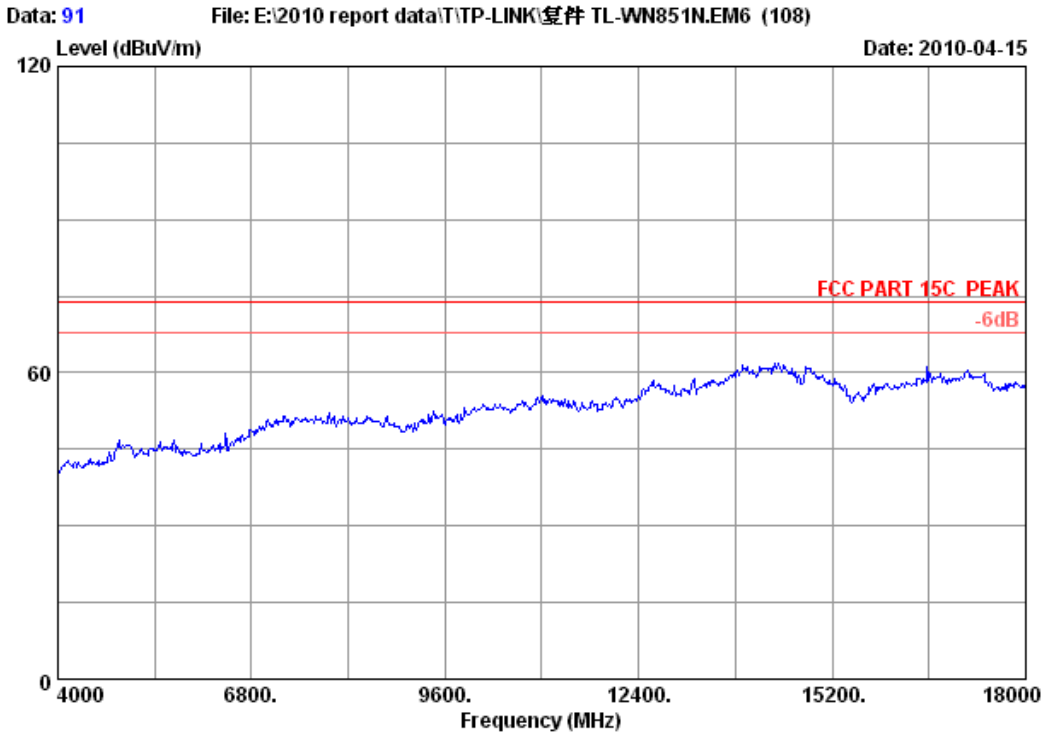

Site no.	: 3m Chamber	Data no.	: 91
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT40 CH4 2437MHz		
M/N	: TL-WN851N		

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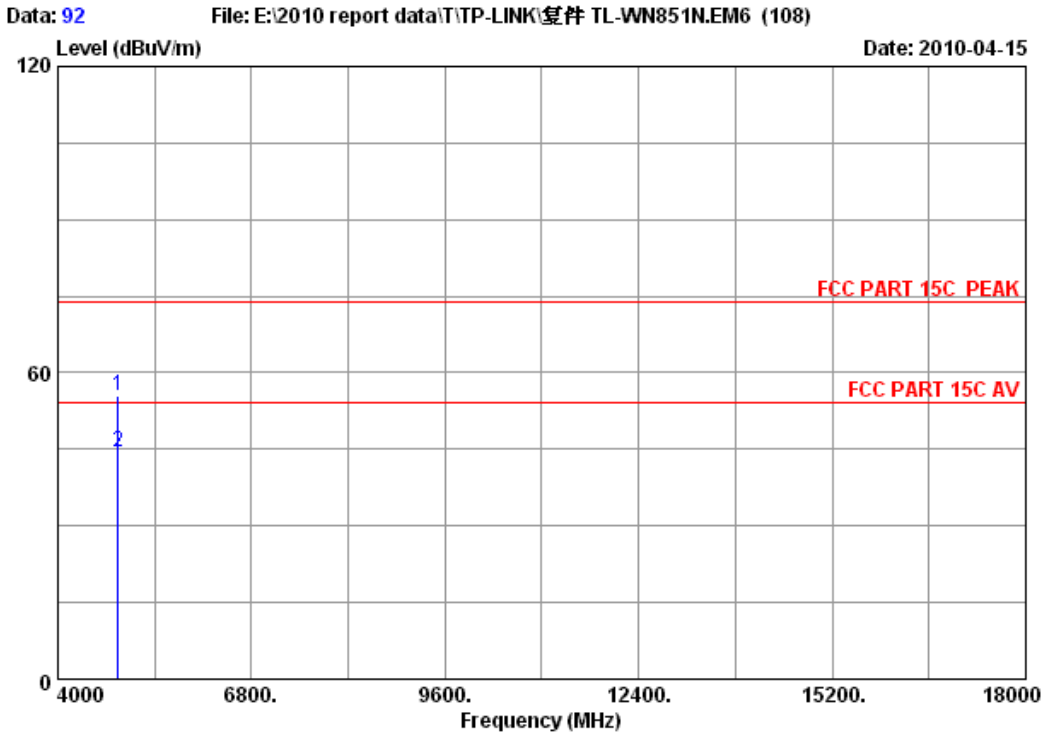

Site no. : 3m Chamber Data no. : 92
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	44.02	55.51	74.00	18.49	Peak
2	4874.000	34.41	12.44	35.36	32.90	44.39	54.00	9.61	Average

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

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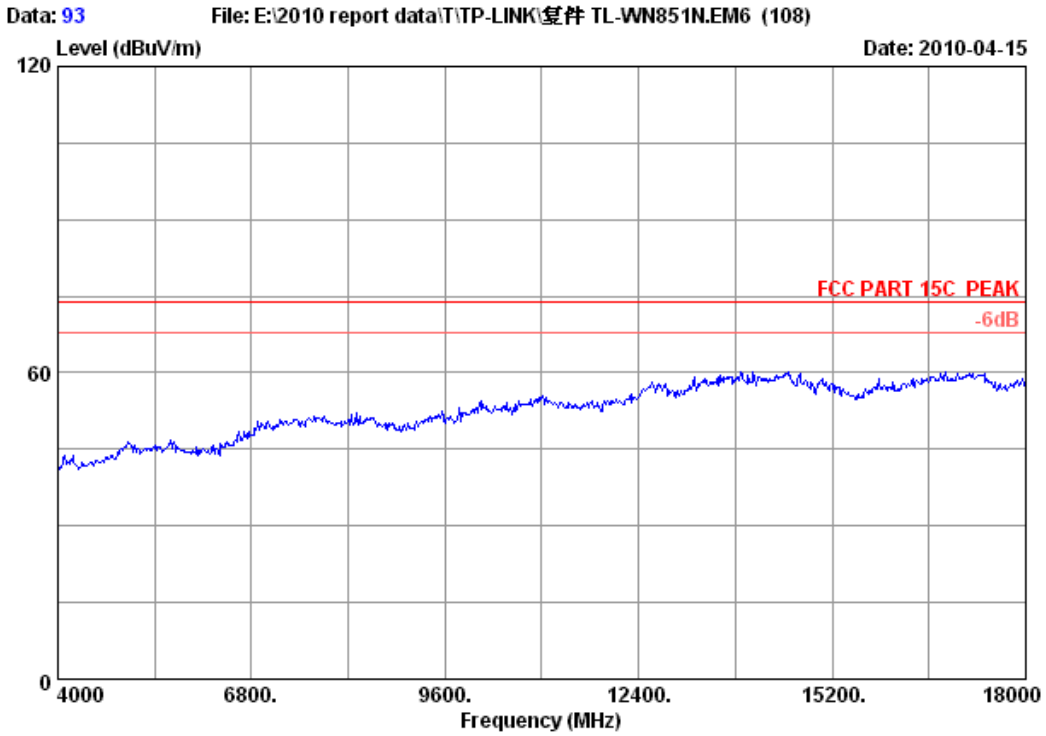
Postcode:518057



Site no.	: 3m Chamber	Data no.	: 93
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT40 CH4 2437MHz		
M/N	: TL-WN851N		

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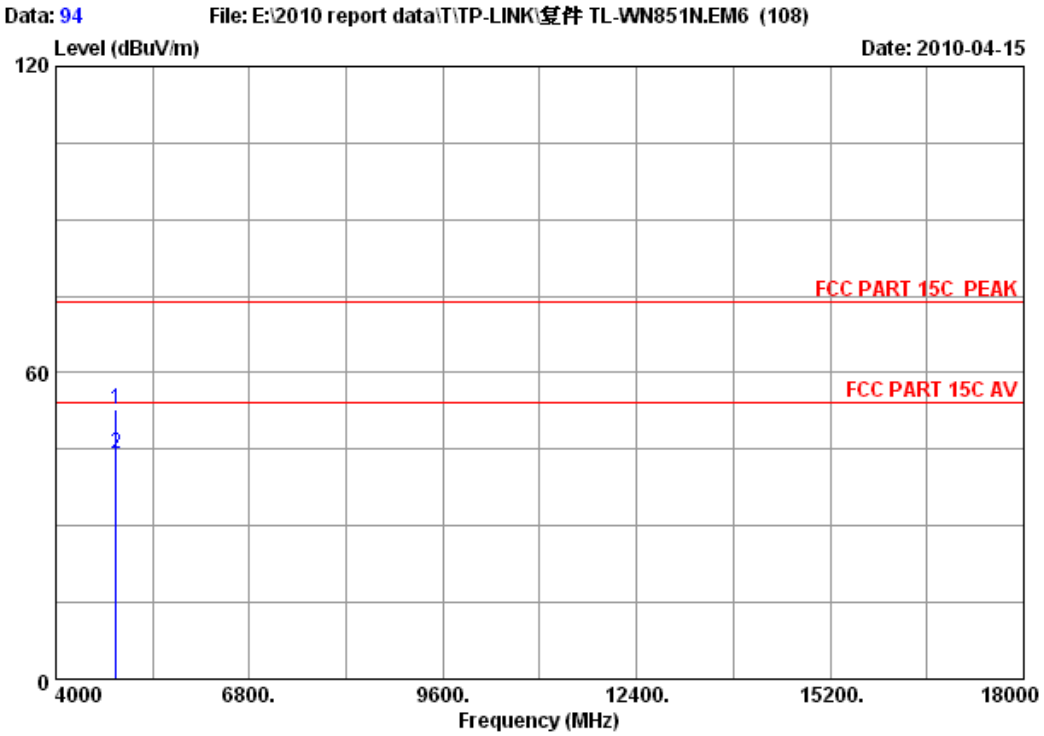
Postcode:518057



Site no. : 3m Chamber Data no. : 94
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	34.41	12.44	35.36	41.40	52.89	74.00	21.11	Peak
2	4874.000	34.41	12.44	35.36	32.51	44.00	54.00	10.00	Average

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

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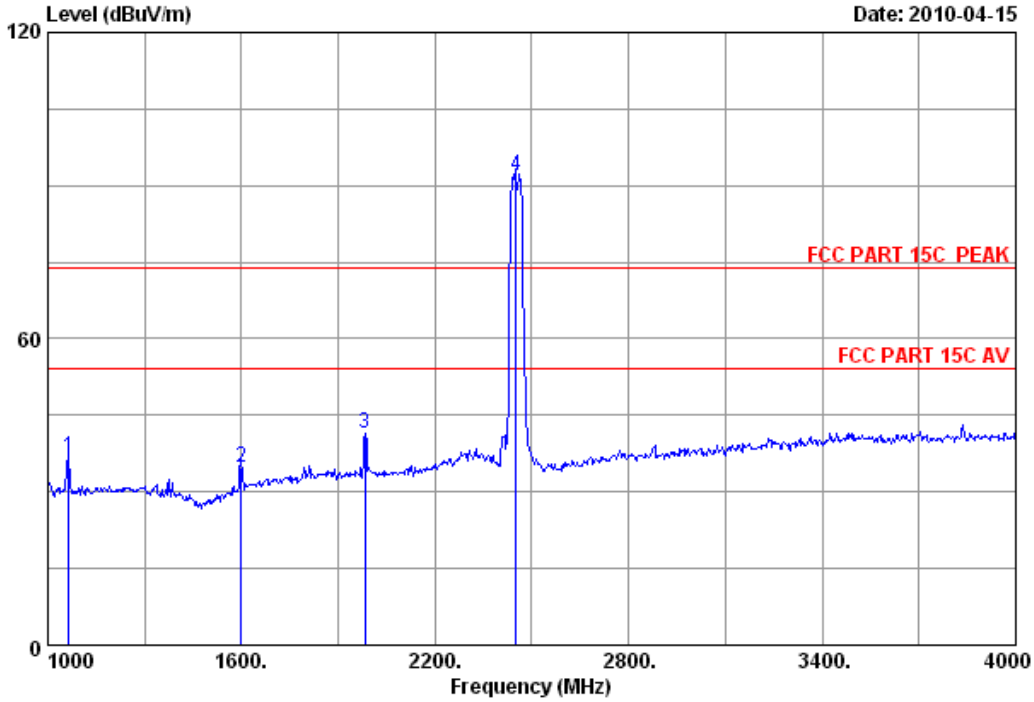
Data: 95 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



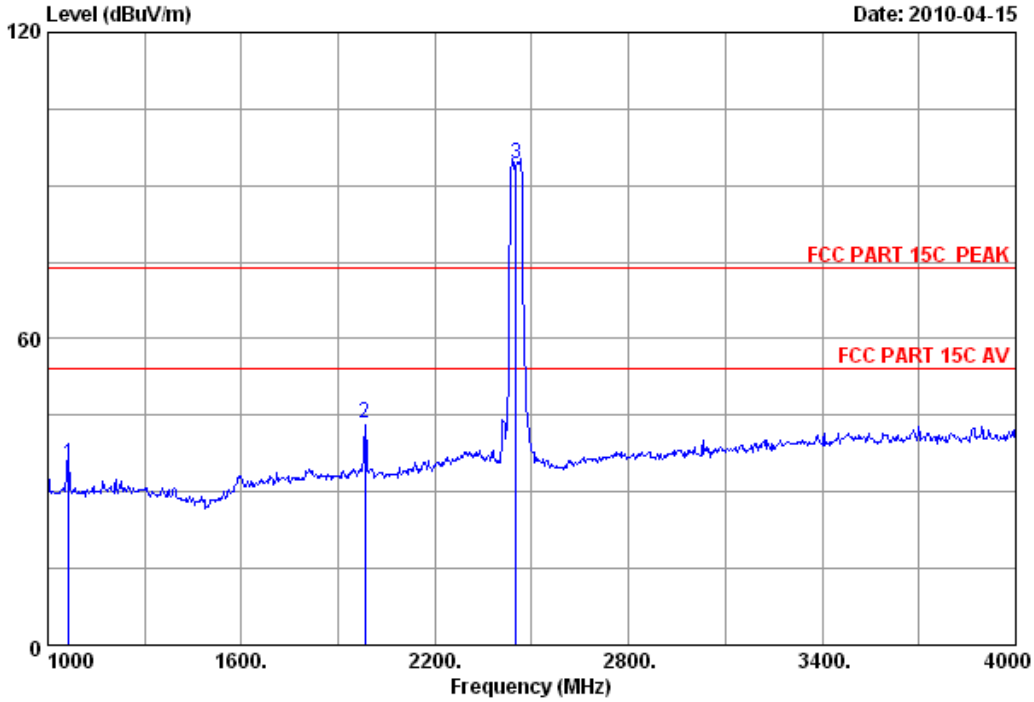
Site no. : 3m Chamber Data no. : 95
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	42.76	36.64	74.00	37.36	Peak
2	1600.000	26.96	6.98	36.43	37.24	34.75	74.00	39.25	Peak
3	1984.000	29.11	7.87	36.06	40.57	41.49	74.00	32.51	Peak
4	2452.000	29.47	8.82	36.06	89.82	92.05	74.00	-18.05	Peak

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057

Data: 96 File: E:\2010 report data\T\TP-LINK\复件 TL-WN851N.EM6 (108)



Site no. : 3m Chamber Data no. : 96
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	1066.000	25.54	5.60	37.26	41.43	35.31	74.00	38.69	Peak
2	1984.000	29.11	7.87	36.06	42.66	43.58	74.00	30.42	Peak
3	2452.000	29.47	8.82	36.06	91.96	94.19	74.00	-20.19	Peak

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

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ShenZhen Science & Industry Park
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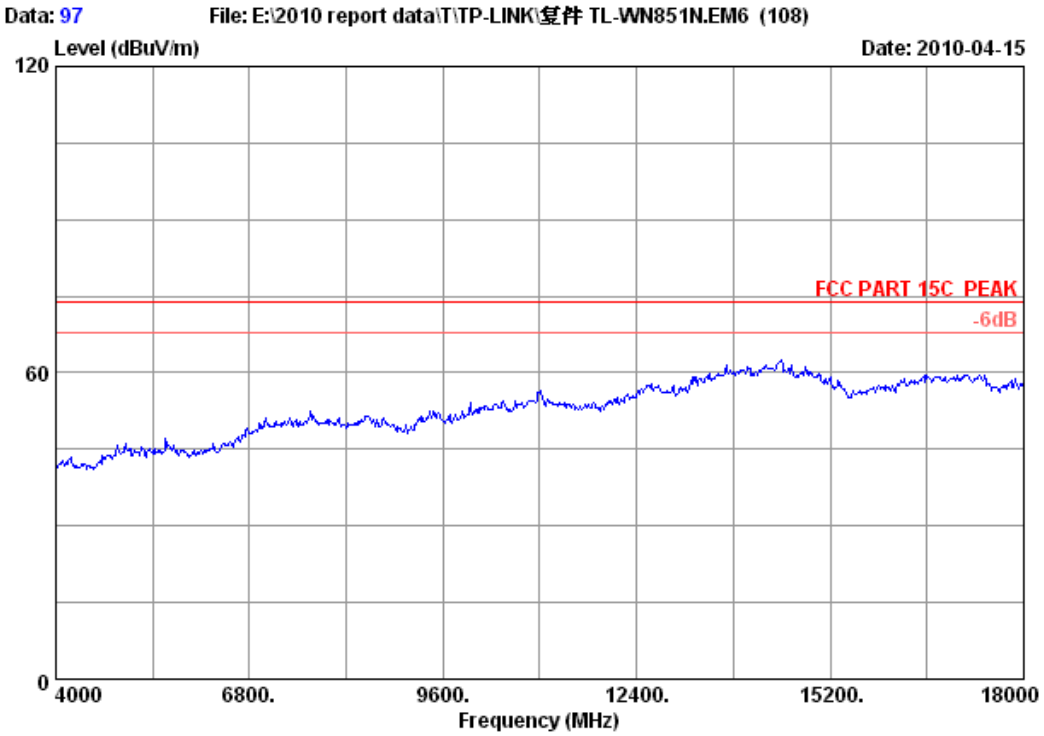
Postcode:518057



Site no.	: 3m Chamber	Data no.	: 97
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT40 CH7 2452MHz		
M/N	: TL-WN851N		

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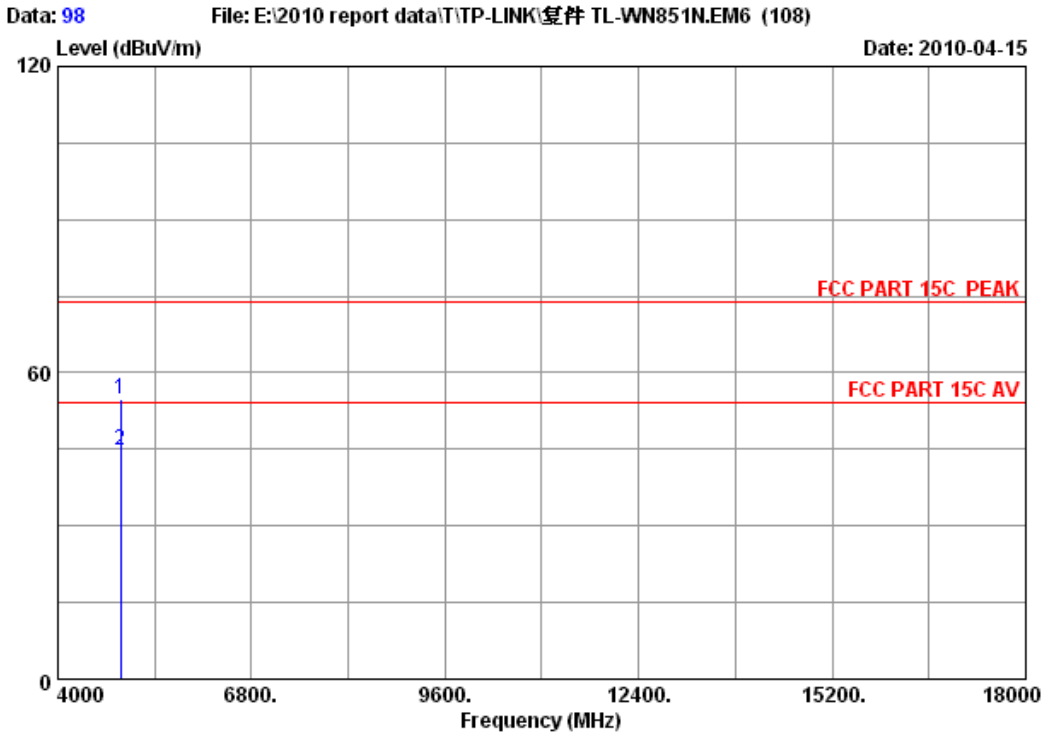
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 98
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	34.46	12.47	35.27	43.10	54.76	74.00	19.24	Peak
2	4904.000	34.46	12.47	35.27	32.99	44.65	54.00	9.35	Average

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

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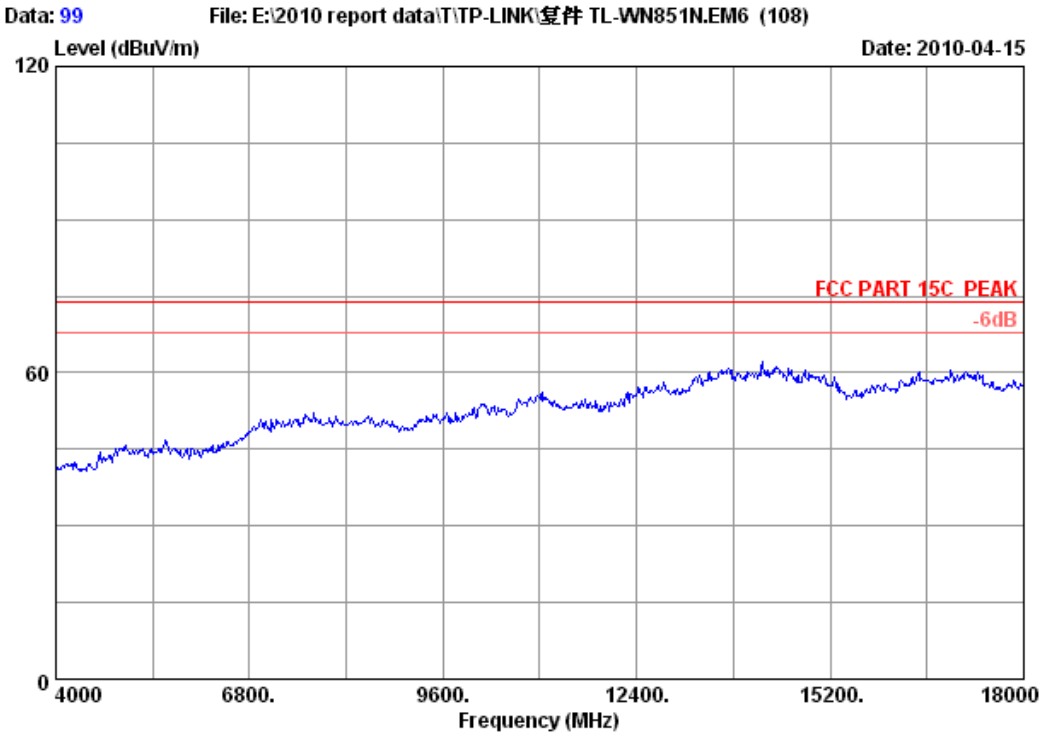
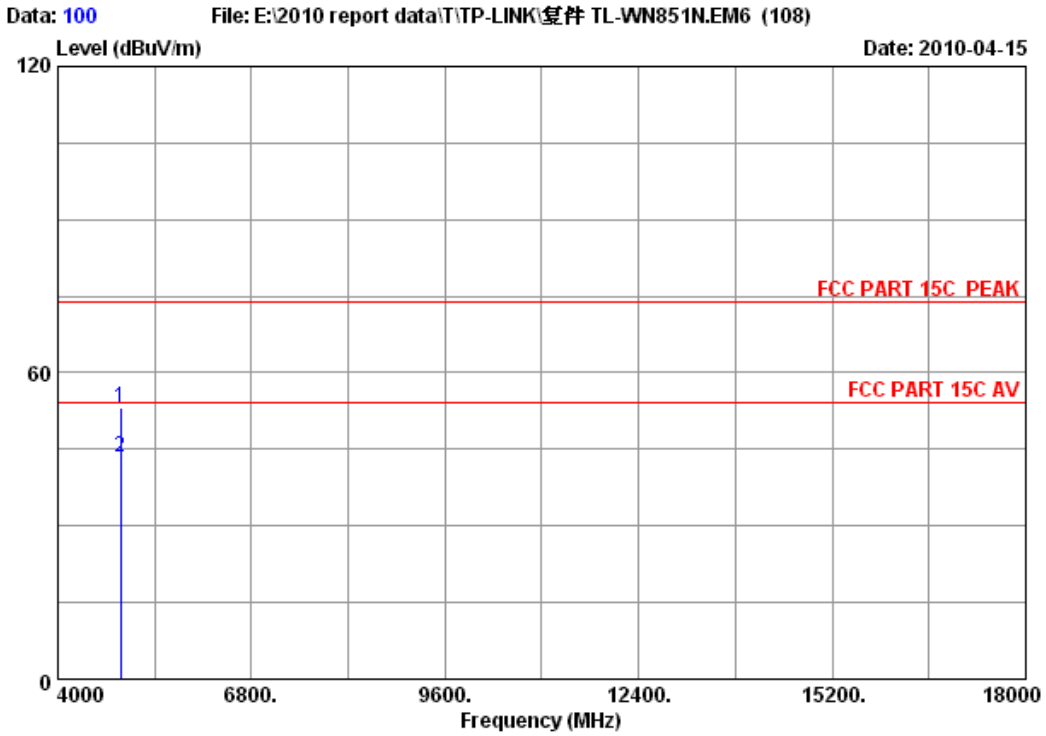
Fax:+86-755-26632877
Postcode:518057



Site no.	: 3m Chamber	Data no.	: 99
Dis. / Ant.	: 3m 3115(0911)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 23*C/54%	Engineer	: Paul Tian
EUT	: Wireless N PCI Adapter		
Power	: DC 3.3V From PC input AC 120V/60Hz		
Test mode	: IEEE802.11n HT40 CH7 2452MHz		
M/N	: TL-WN851N		

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 100
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	34.46	12.47	35.27	41.49	53.15	74.00	20.85	Peak
2	4904.000	34.46	12.47	35.27	31.89	43.55	54.00	10.45	Average

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

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

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

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, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

5.3.Test Procedure

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

2, Measure all the conducted emissions form antenna port by spectrum analyzer as below set:
RBW=100KHz; VBW=300KHz; Detector: Peak; Sweep time: Auto

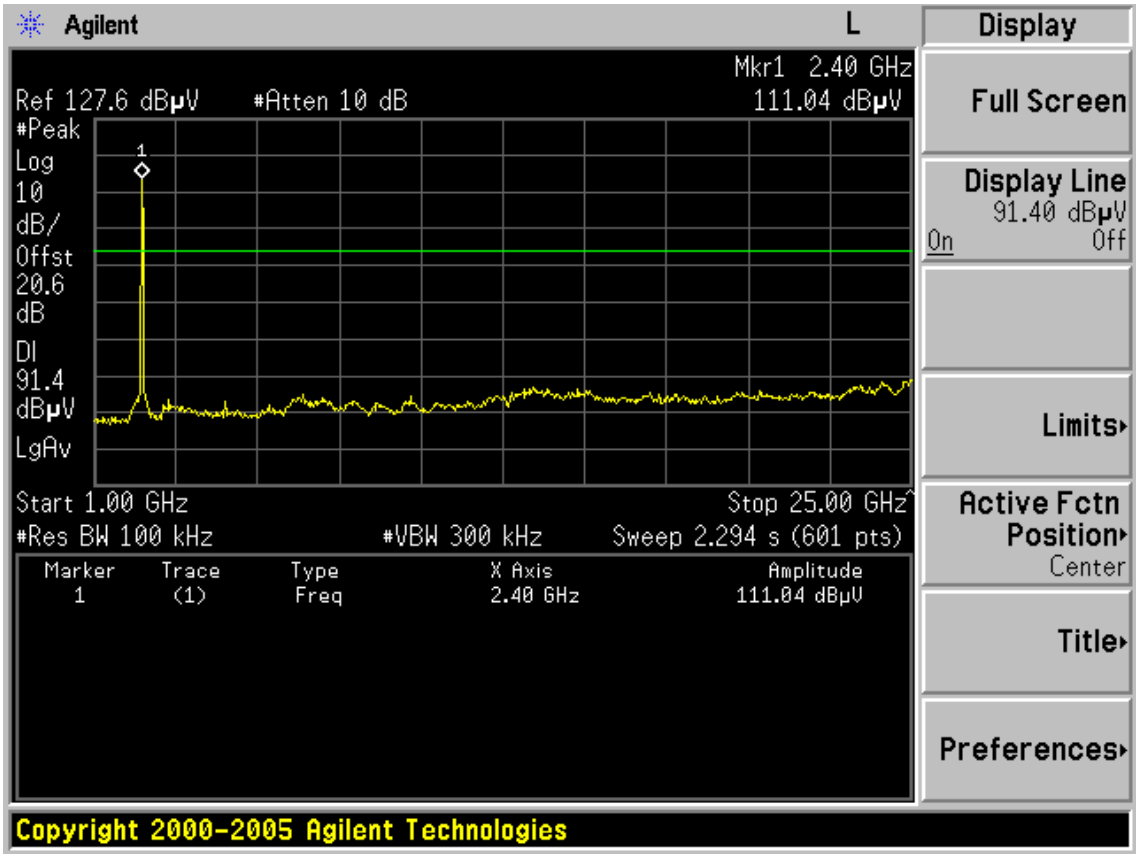
Note: The cable loss and attenuator loss were offset into spectrum analyzer as an amplitude offset.

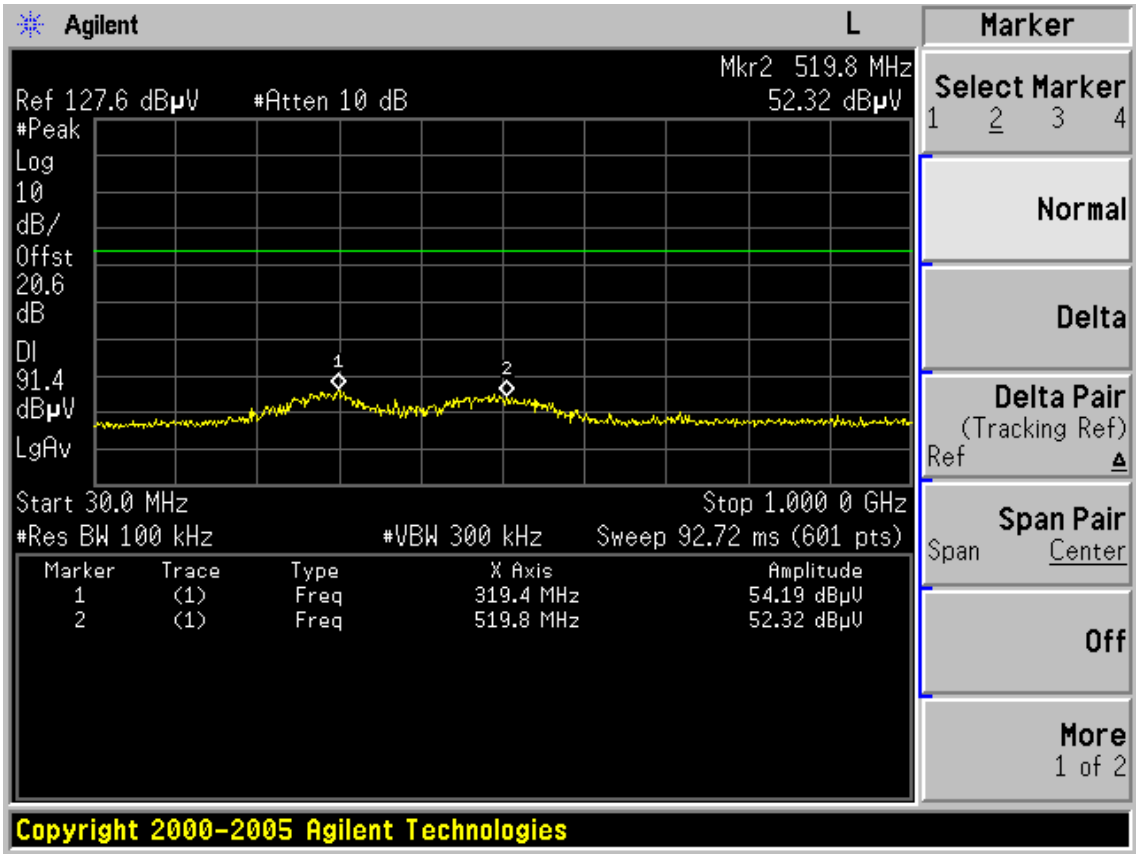
5.4.Test result

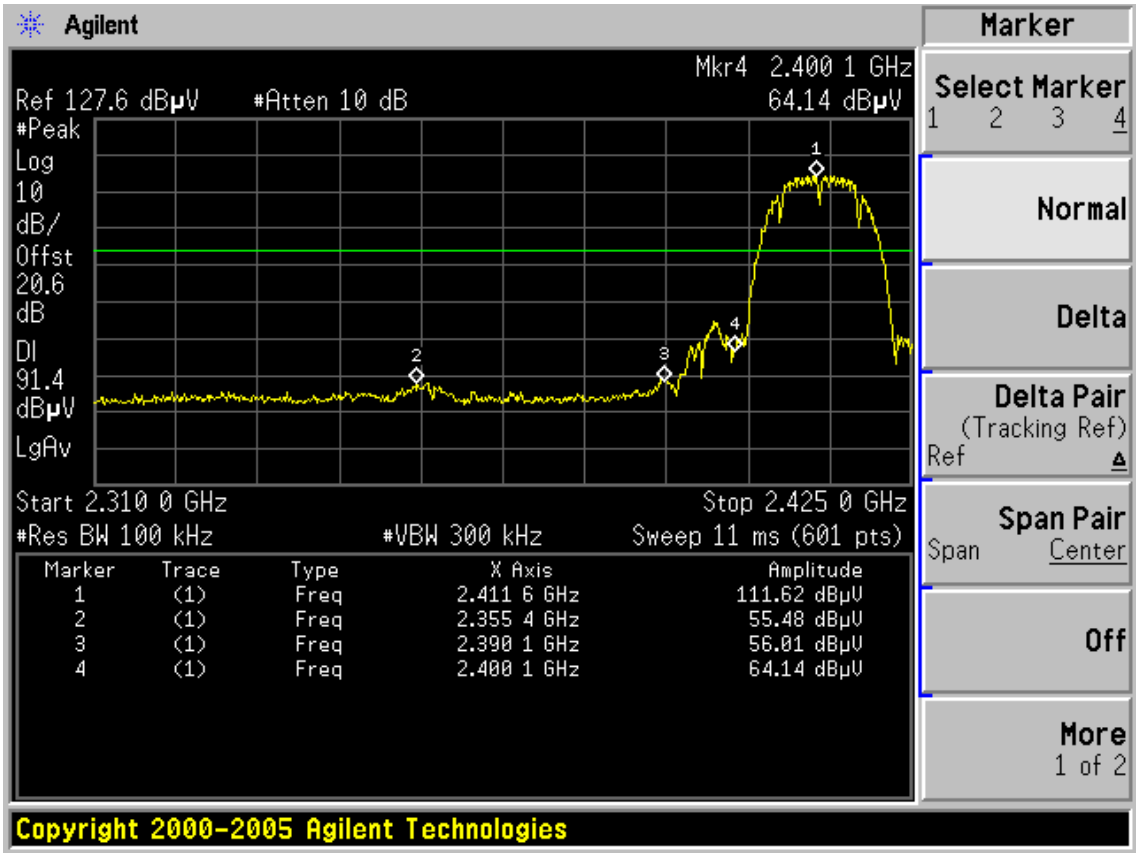
EUT: Wireless N PCI Adapter		
M/N: TL-WN851N		
Test date: 2010-4-15	Pressure: 101.3kpa	Humidity: 61 %
Tested by: Paul Tian	Test site: RF site	Temperature: 25℃

Cable loss: 0.6dB		Attenuator loss: 20dB	Antenna Gain: 2.0dBi
Test Mode	CH	Result	
		Chain 1	Chain 2
11b	CH1	PASS	PASS
	CH6	PASS	PASS
	CH11	PASS	PASS
11g	CH1	PASS	PASS
	CH6	PASS	PASS
	CH11	PASS	PASS
11n HT20	CH1	PASS	PASS
	CH6	PASS	PASS
	CH11	PASS	PASS
11n HT40	CH1	PASS	PASS
	CH4	PASS	PASS
	CH7	PASS	PASS
Note: See below original test data.			

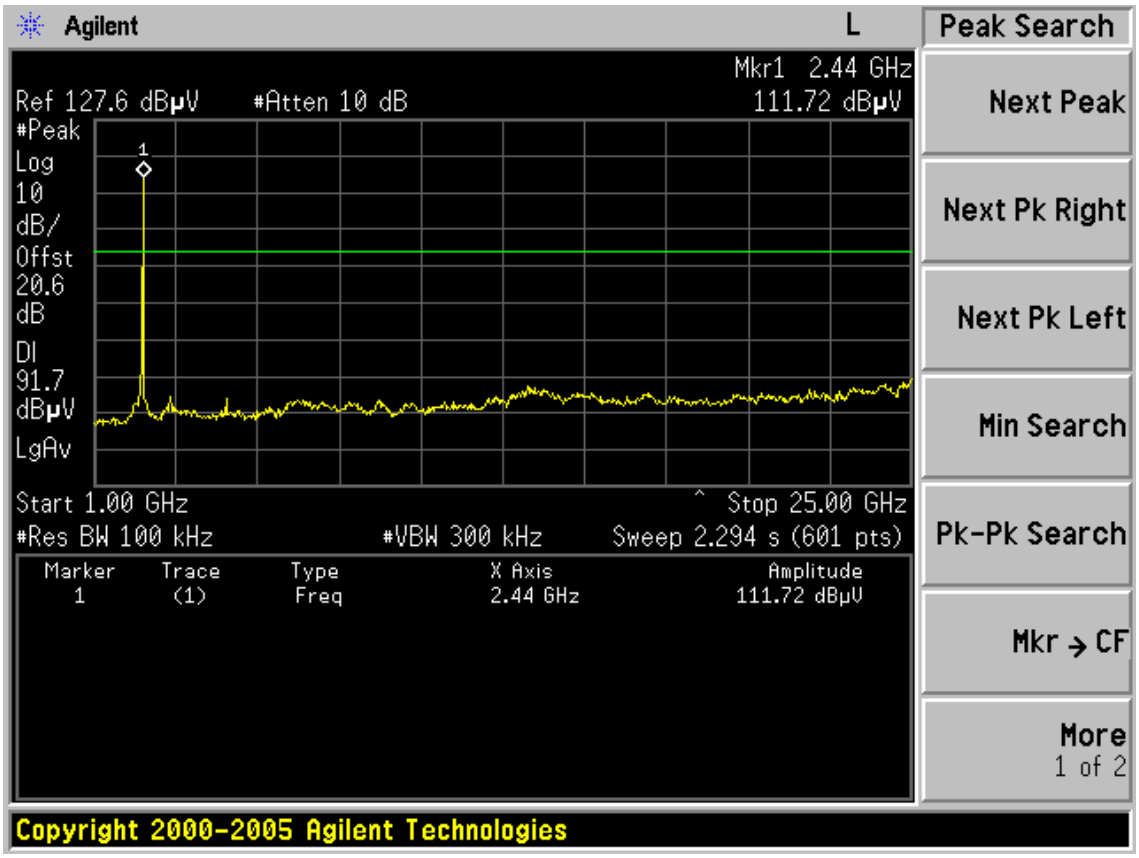
Conducted emission test data:
Chain 1:
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz

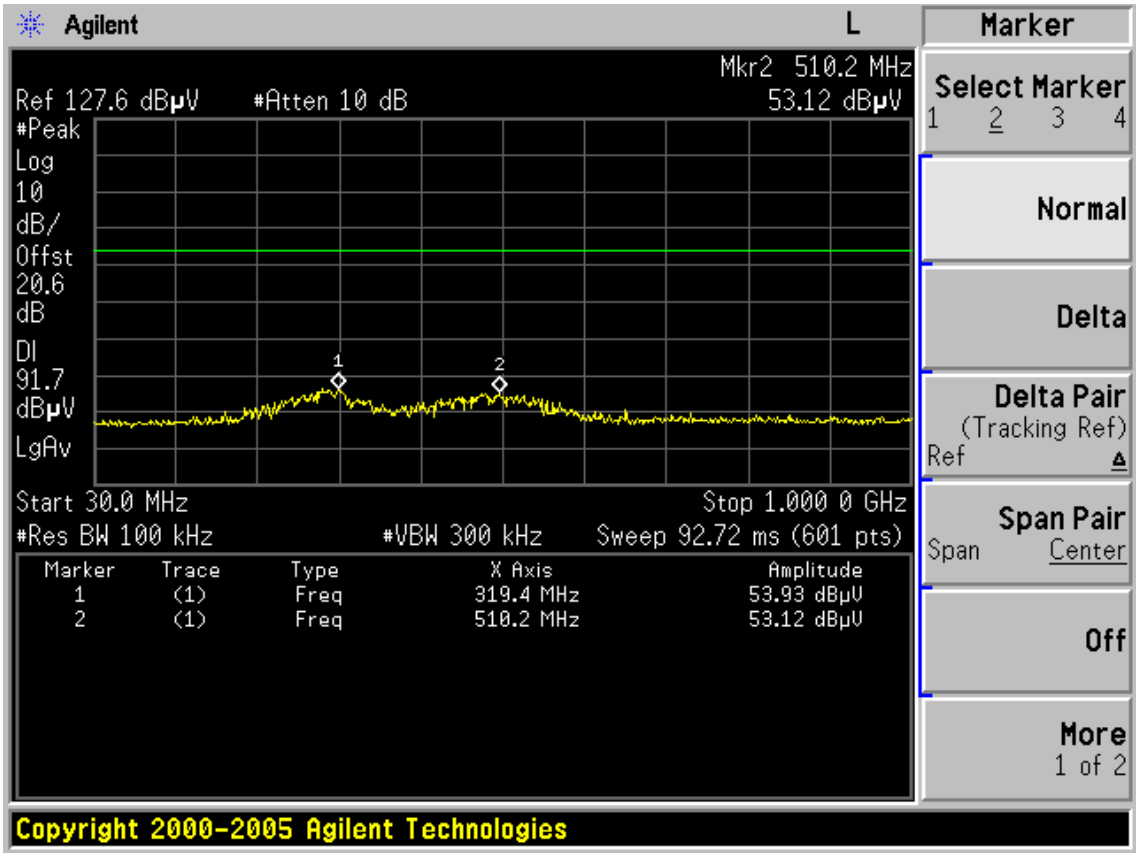




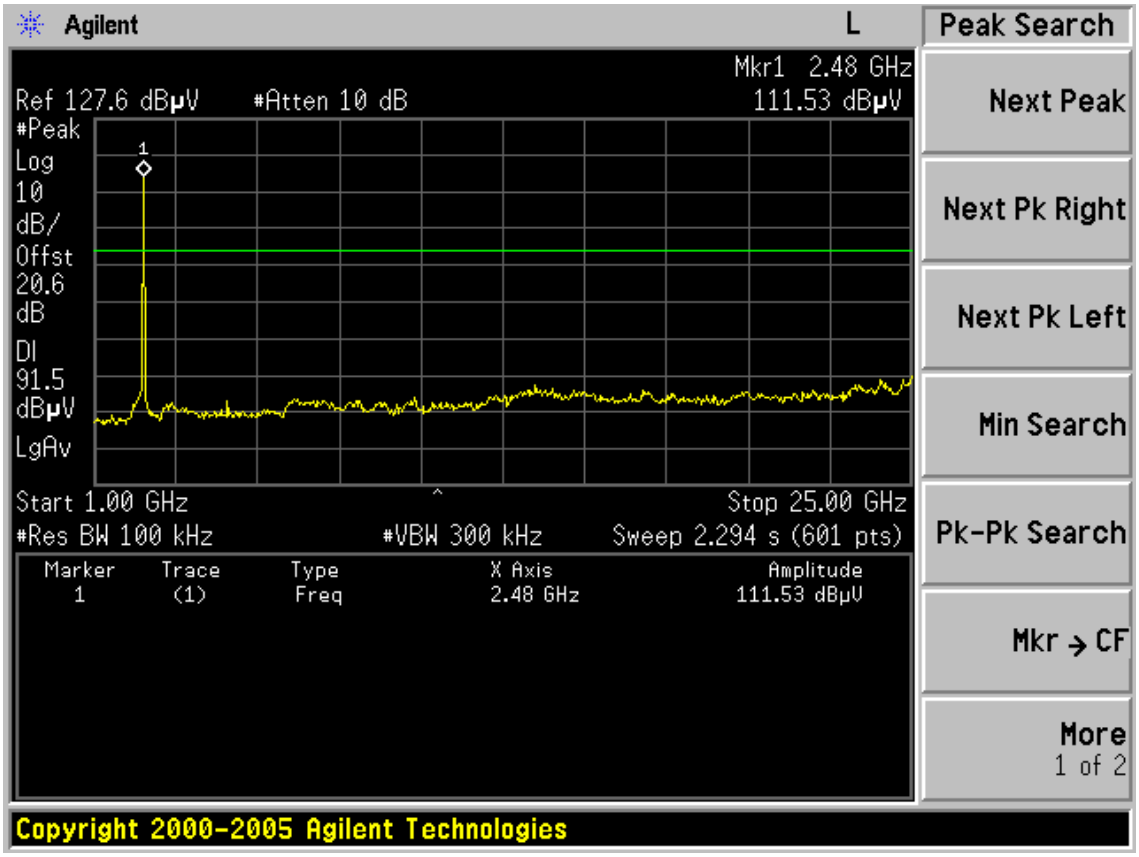


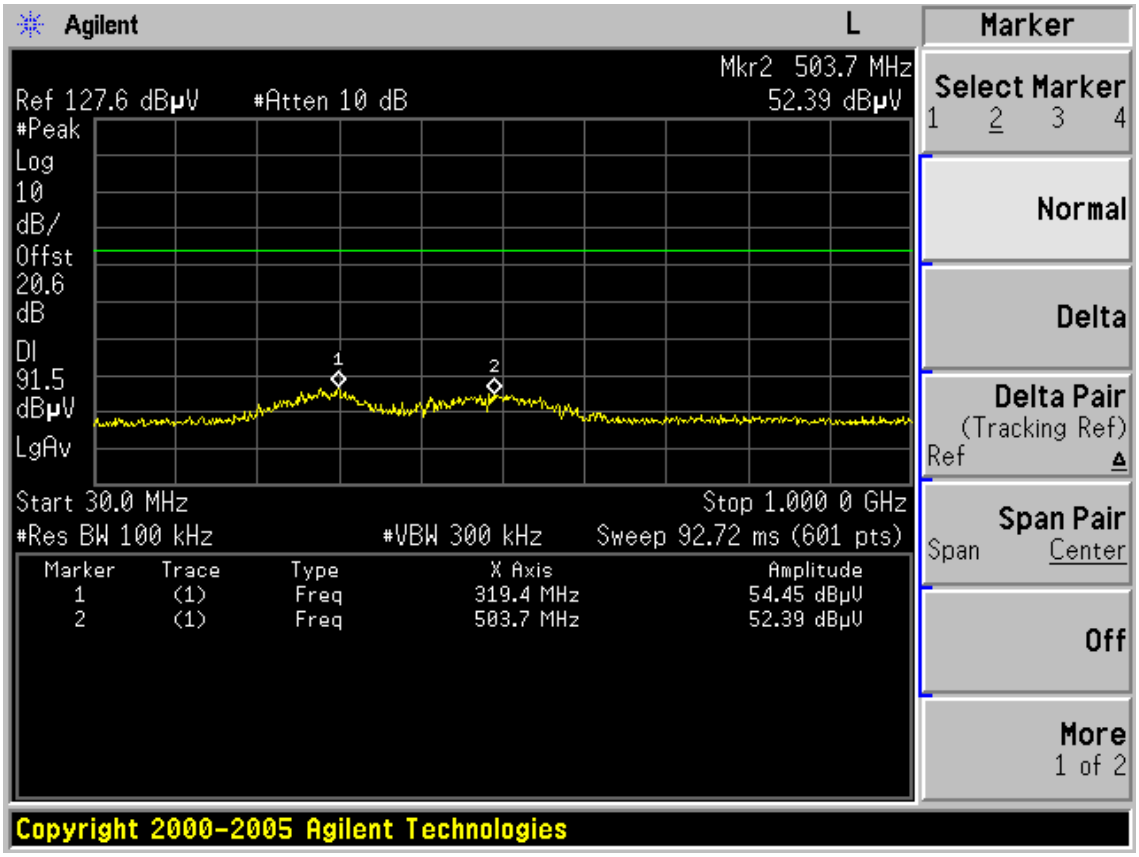
Test CH6: 2437MHz





Test CH11: 2462MHz




Agilent
L
Marker
Mkr2 503.7 MHz
Ref 127.6 dBµV
#Atten 10 dB
52.39 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
91.5
dBµV
LgAv
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 319.4 MHz 54.45 dBµV
2 (1) Freq 503.7 MHz 52.39 dBµV
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
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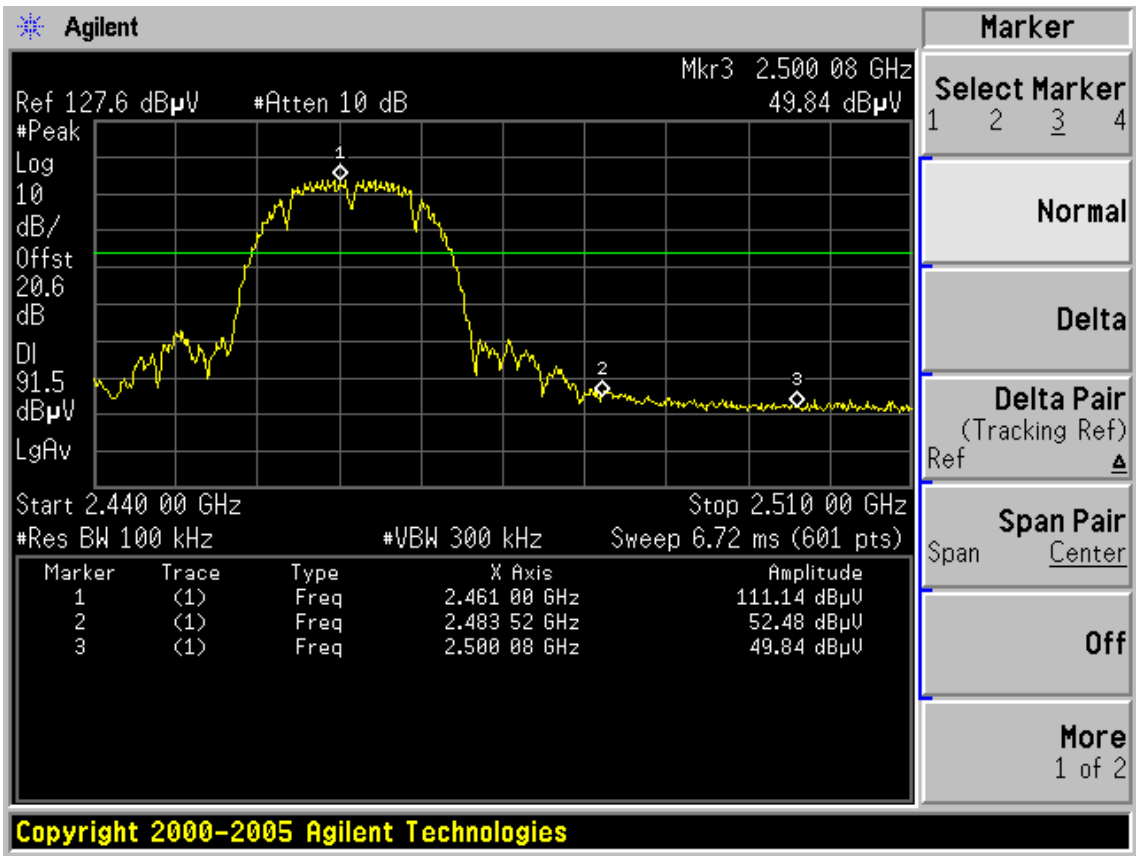
Agilent
Marker
Mkr3 2.500 08 GHz
Ref 127.6 dBµV
#Atten 10 dB
49.84 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
91.5
dBµV
LgAv
Start 2.440 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 6.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.461 00 GHz 111.14 dBµV
2 (1) Freq 2.483 52 GHz 52.48 dBµV
3 (1) Freq 2.500 08 GHz 49.84 dBµV
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
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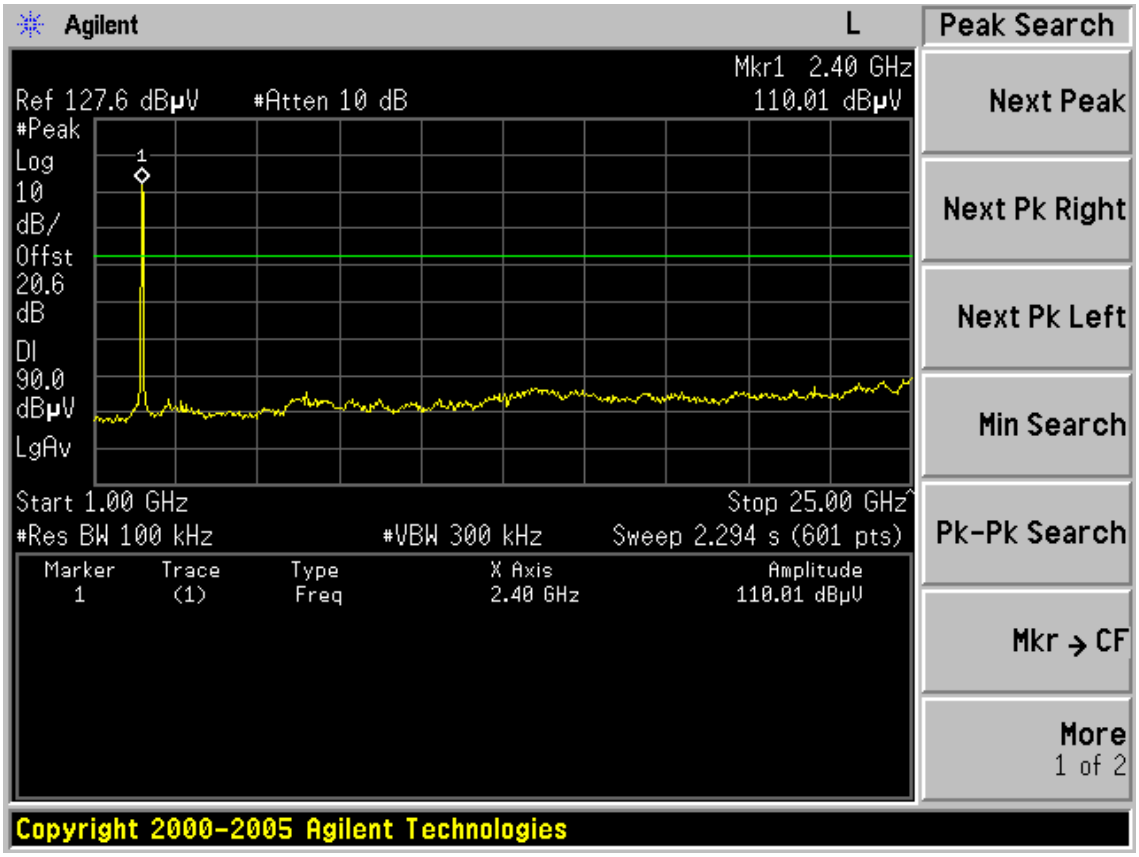
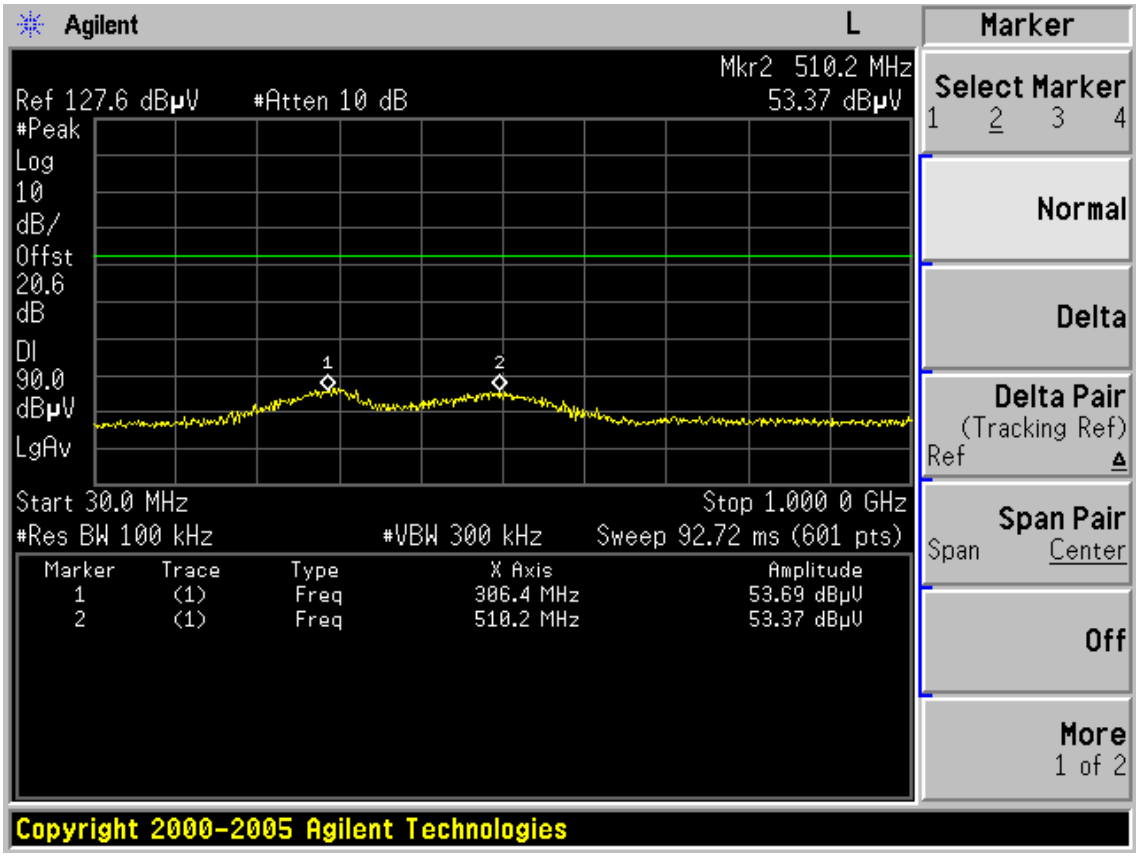
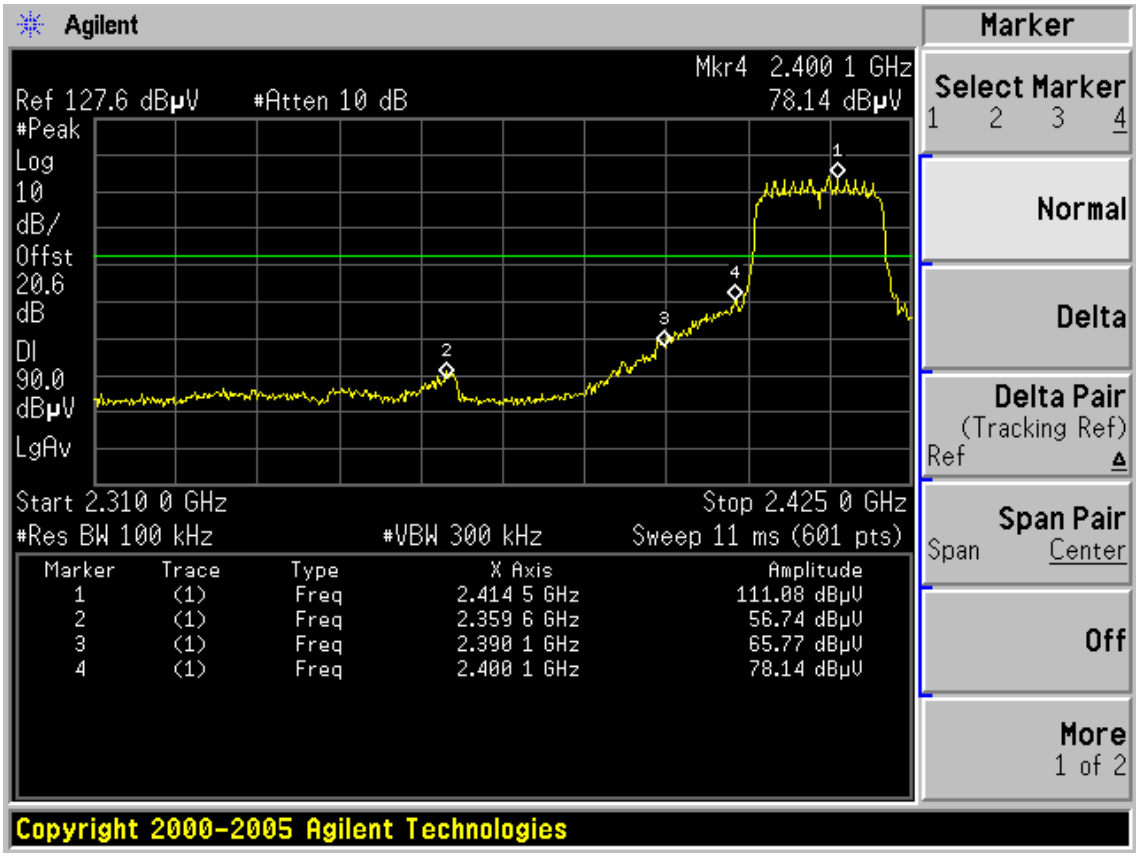
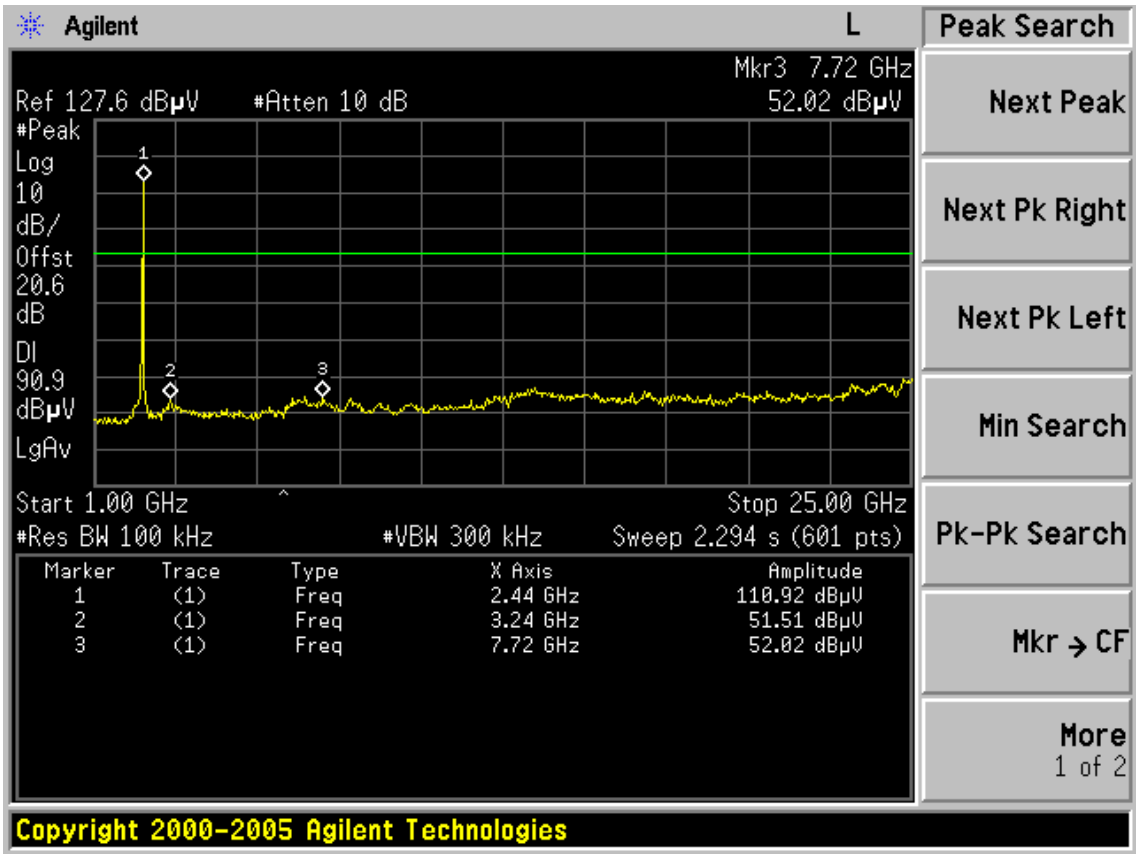
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz

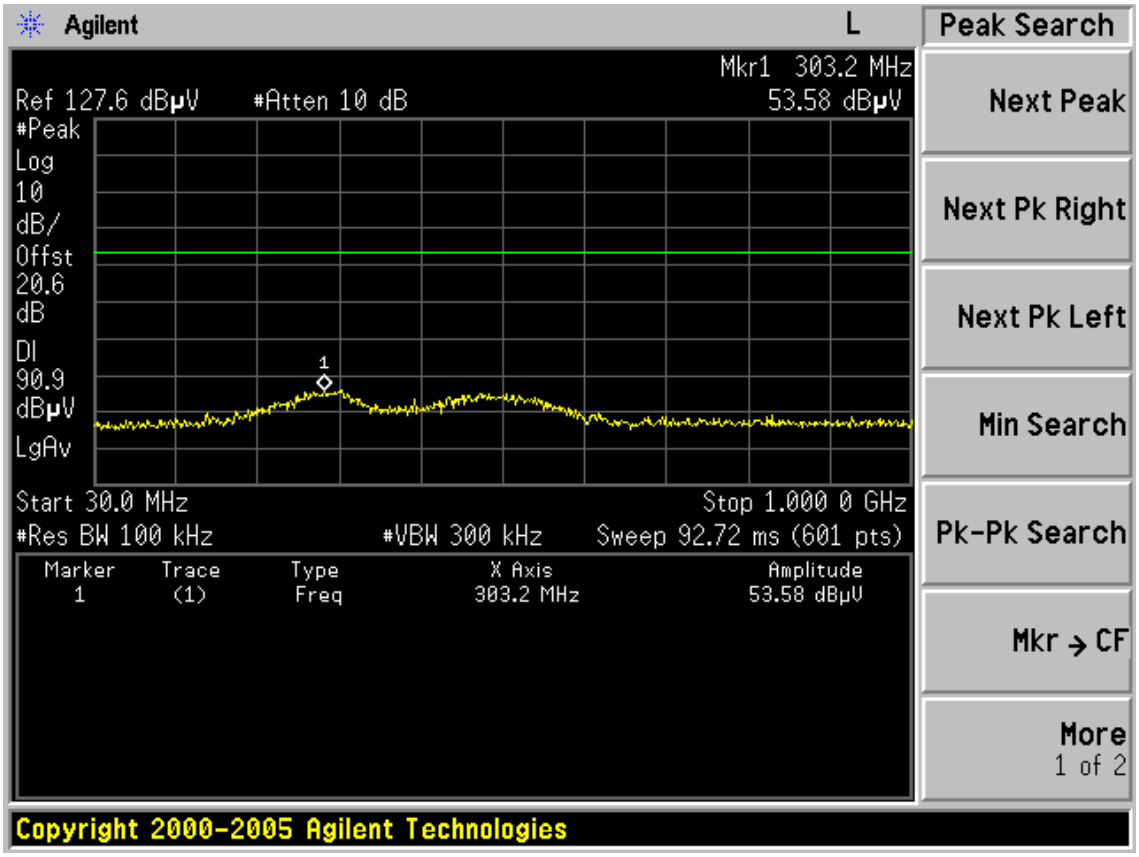




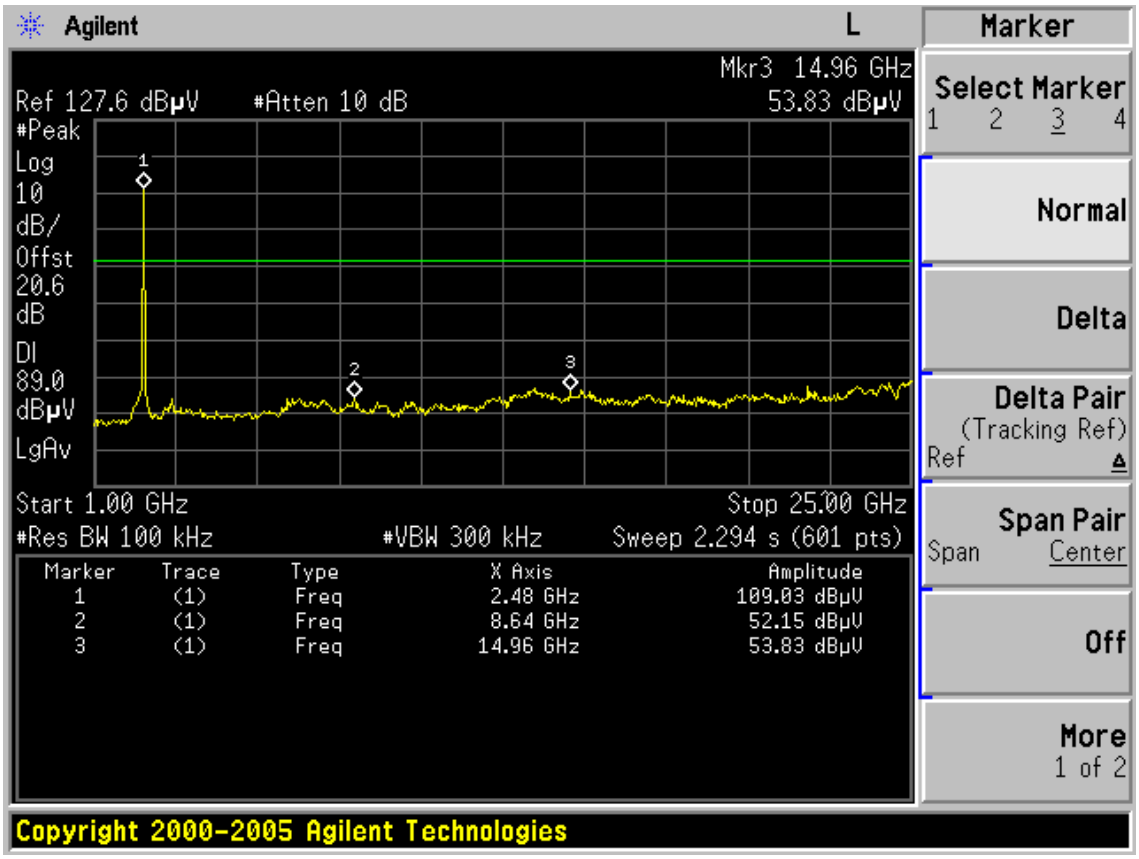


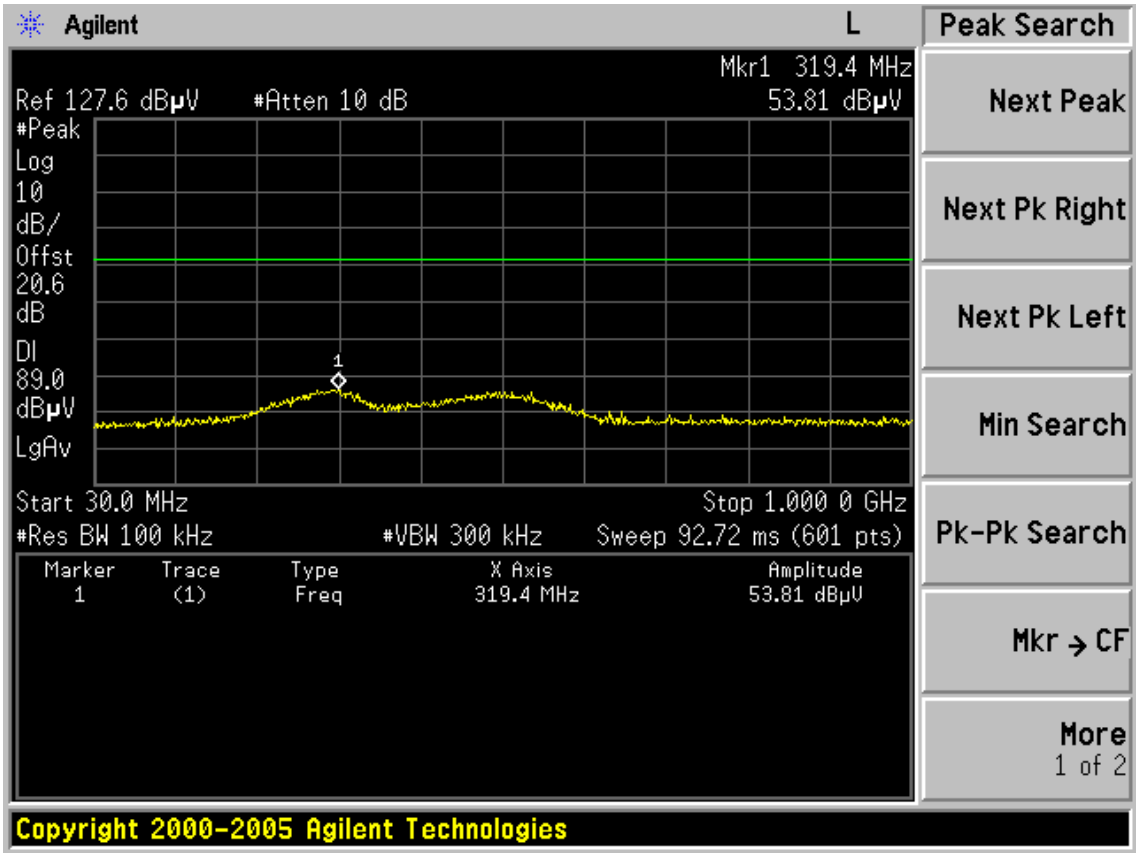
Test CH6: 2437MHz





Test CH11: 2462MHz




Agilent
L
Peak Search
Mkr1 319.4 MHz
Ref 127.6 dBµV
#Atten 10 dB
53.81 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
89.0
dBµV
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 319.4 MHz 53.81 dBµV
Mkr → CF
More
1 of 2
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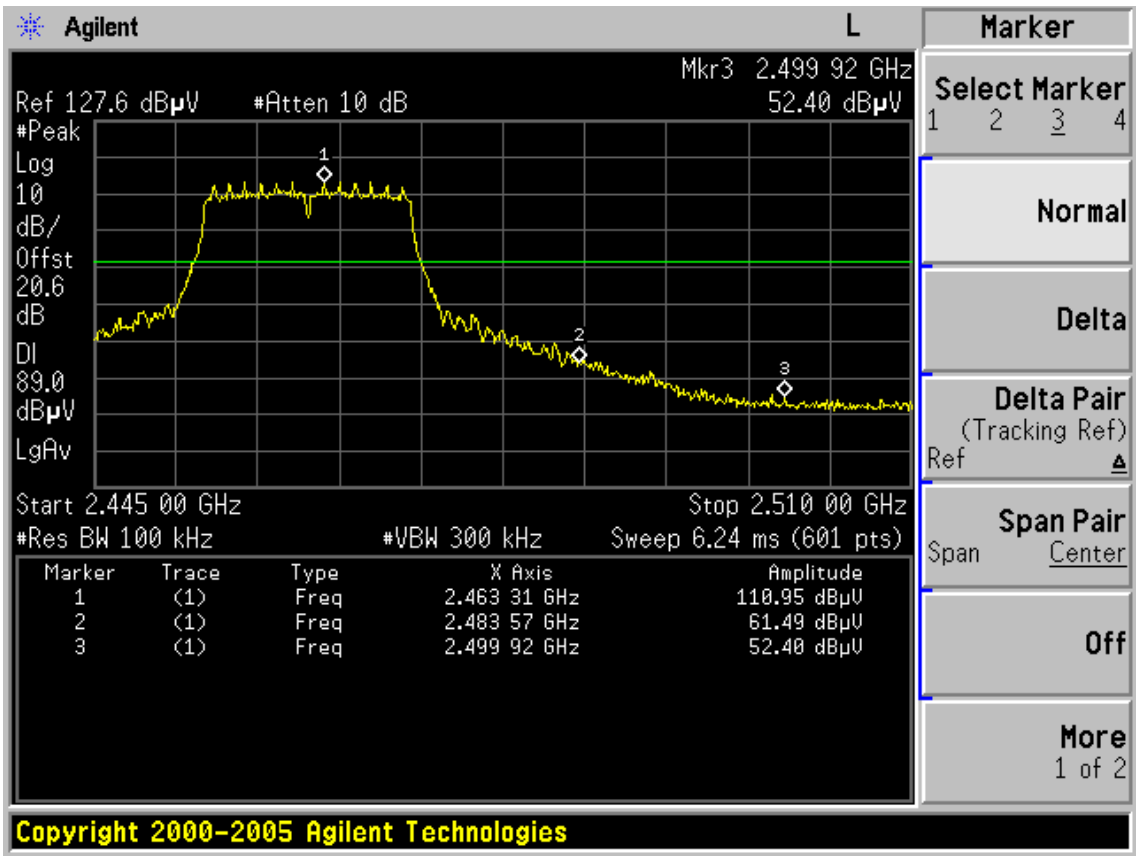
Agilent
L
Marker
Mkr3 2.499 92 GHz
Ref 127.6 dBµV
#Atten 10 dB
52.40 dBµV
Select Marker
1 2 3 4
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
89.0
dBµV
LgAv
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Start 2.445 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 6.24 ms (601 pts)
Span Pair
Span Center
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.463 31 GHz 110.95 dBµV
2 (1) Freq 2.483 57 GHz 61.49 dBµV
3 (1) Freq 2.499 92 GHz 52.40 dBµV
Off
More
1 of 2
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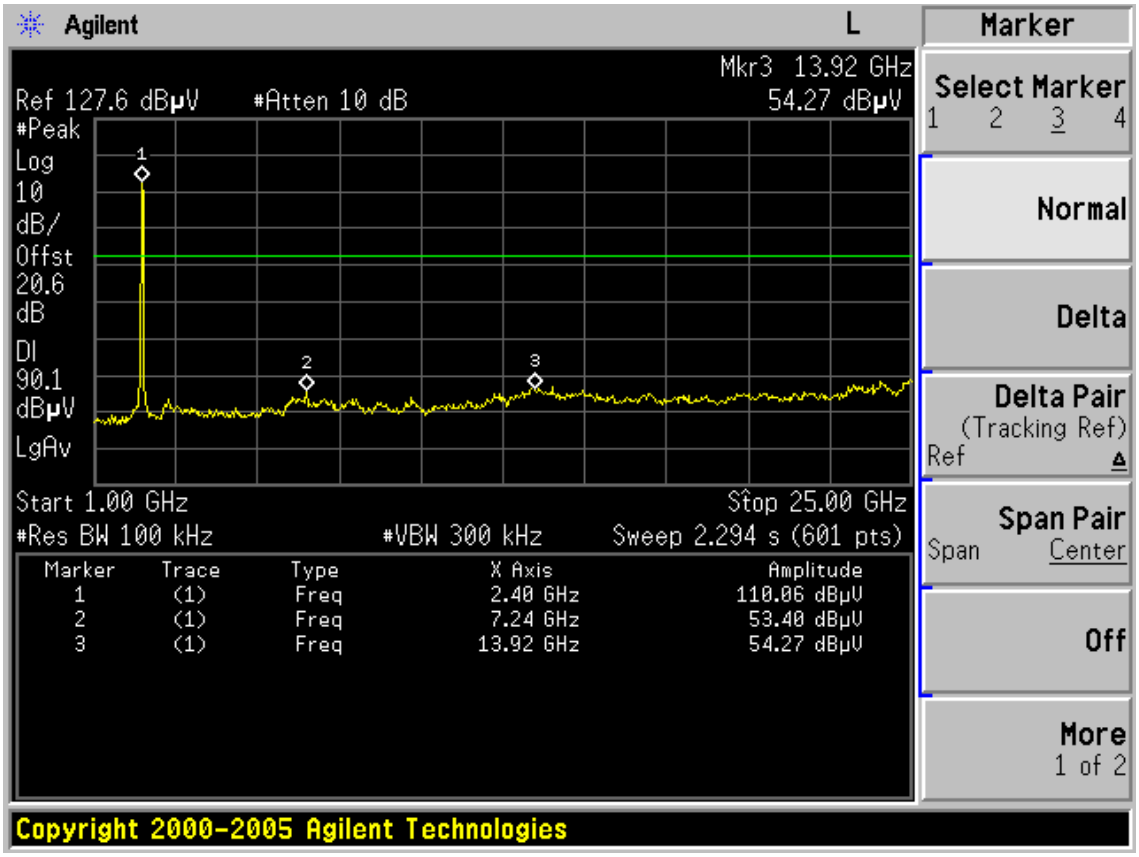
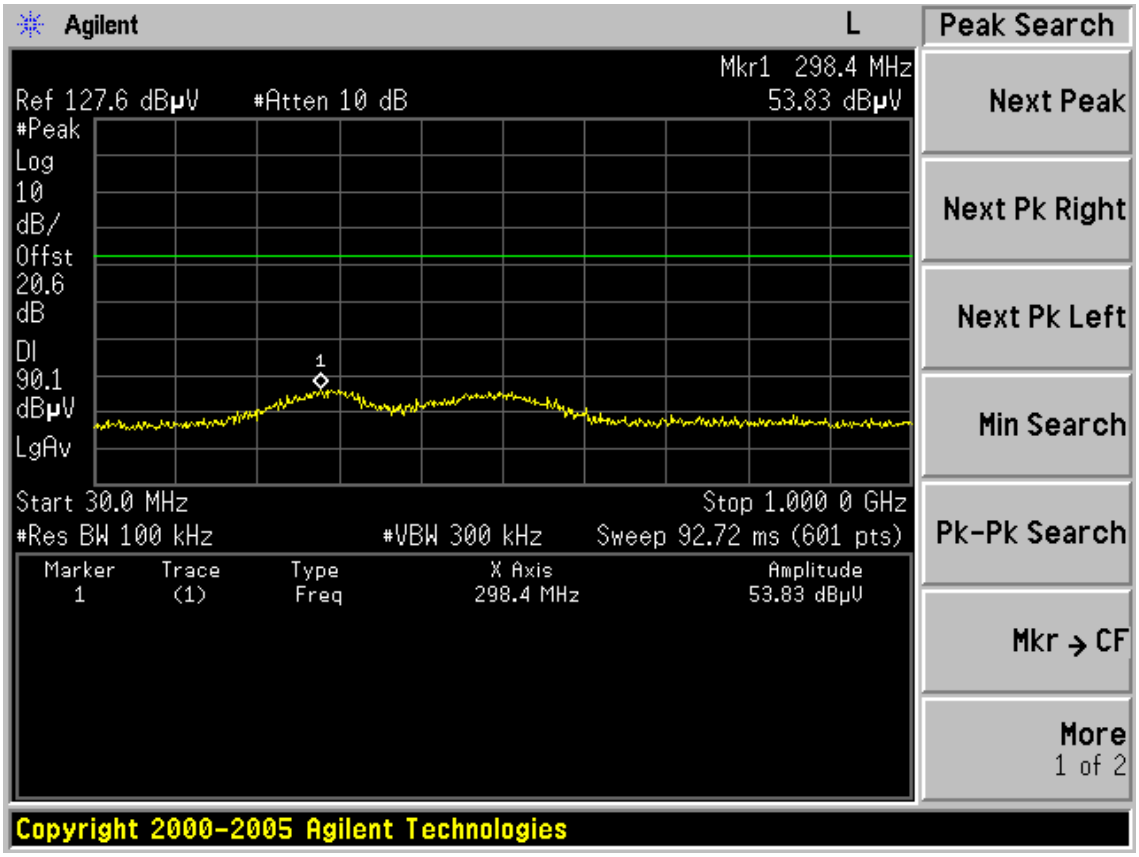
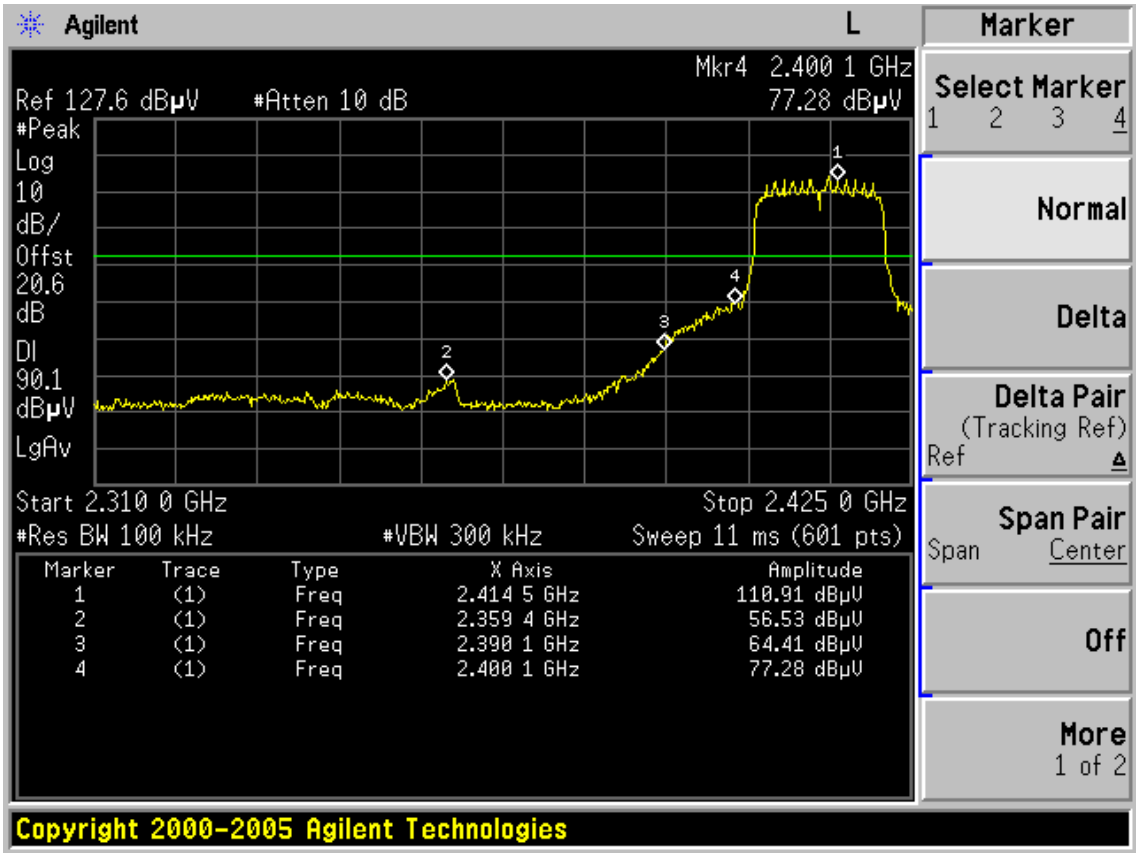
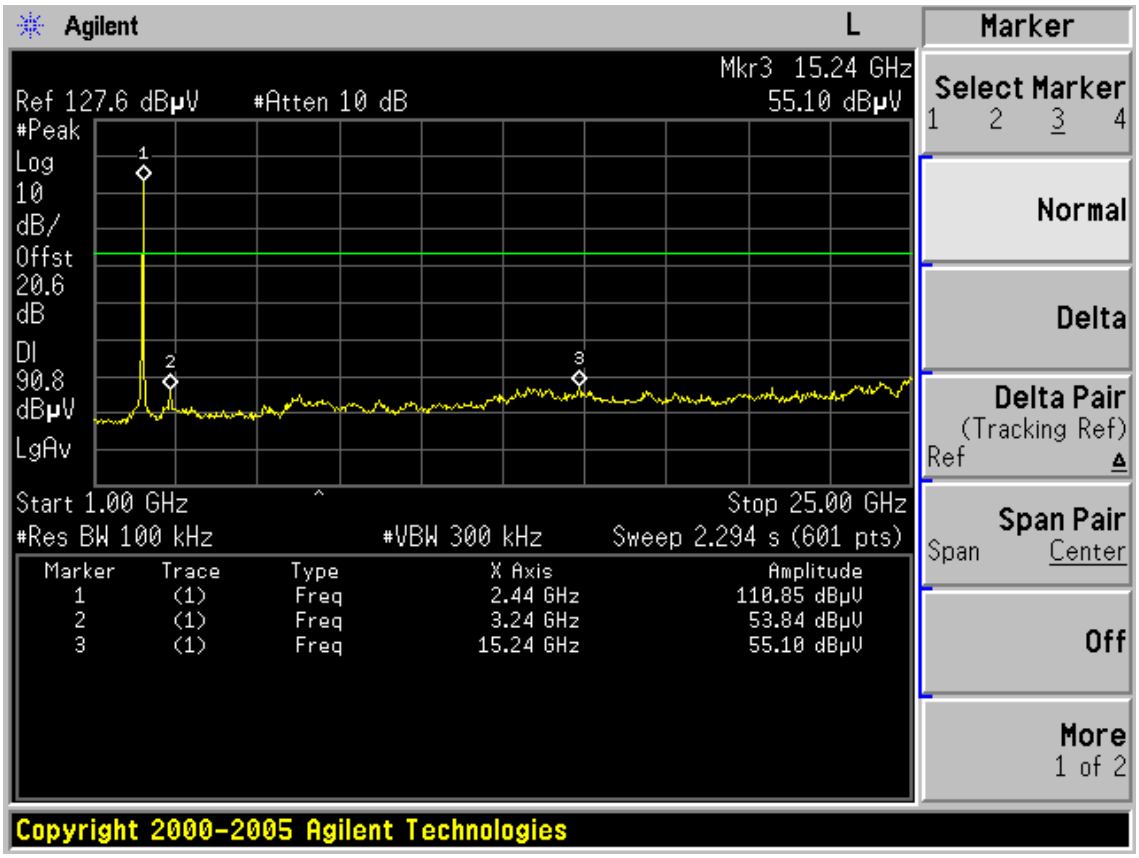
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz

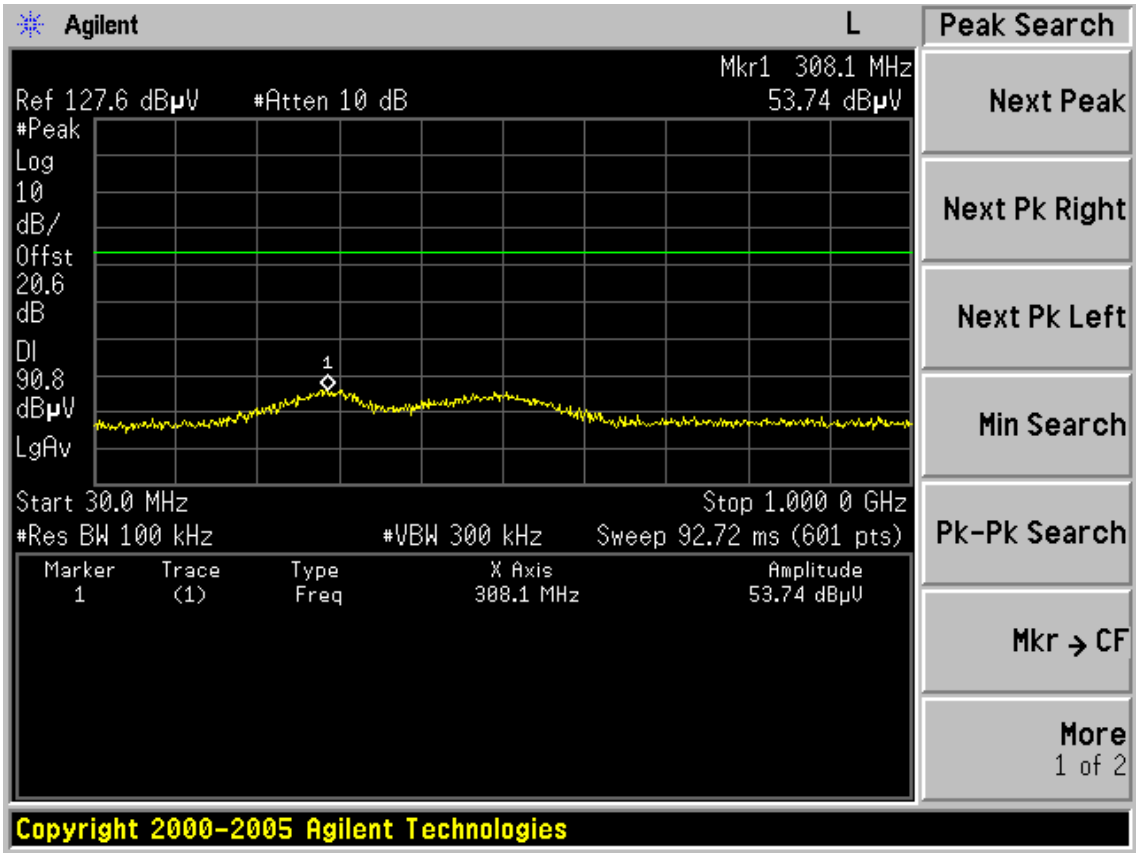




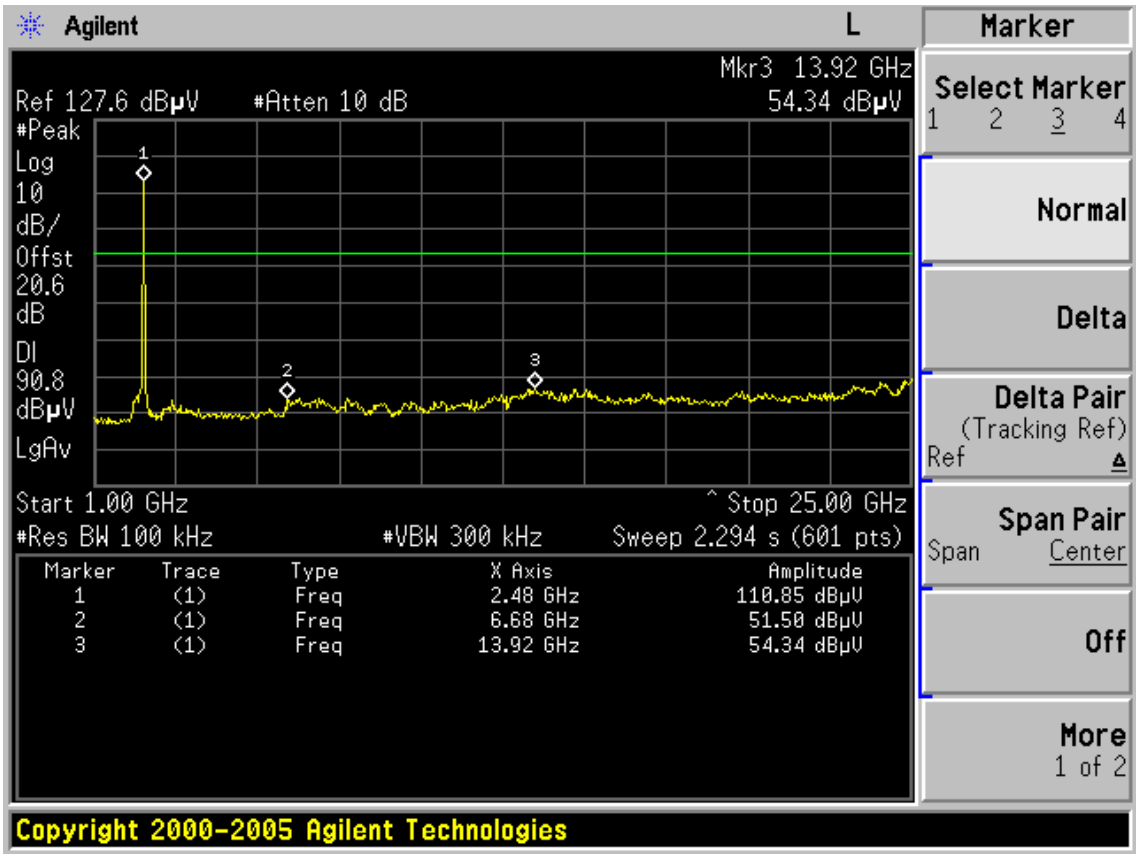


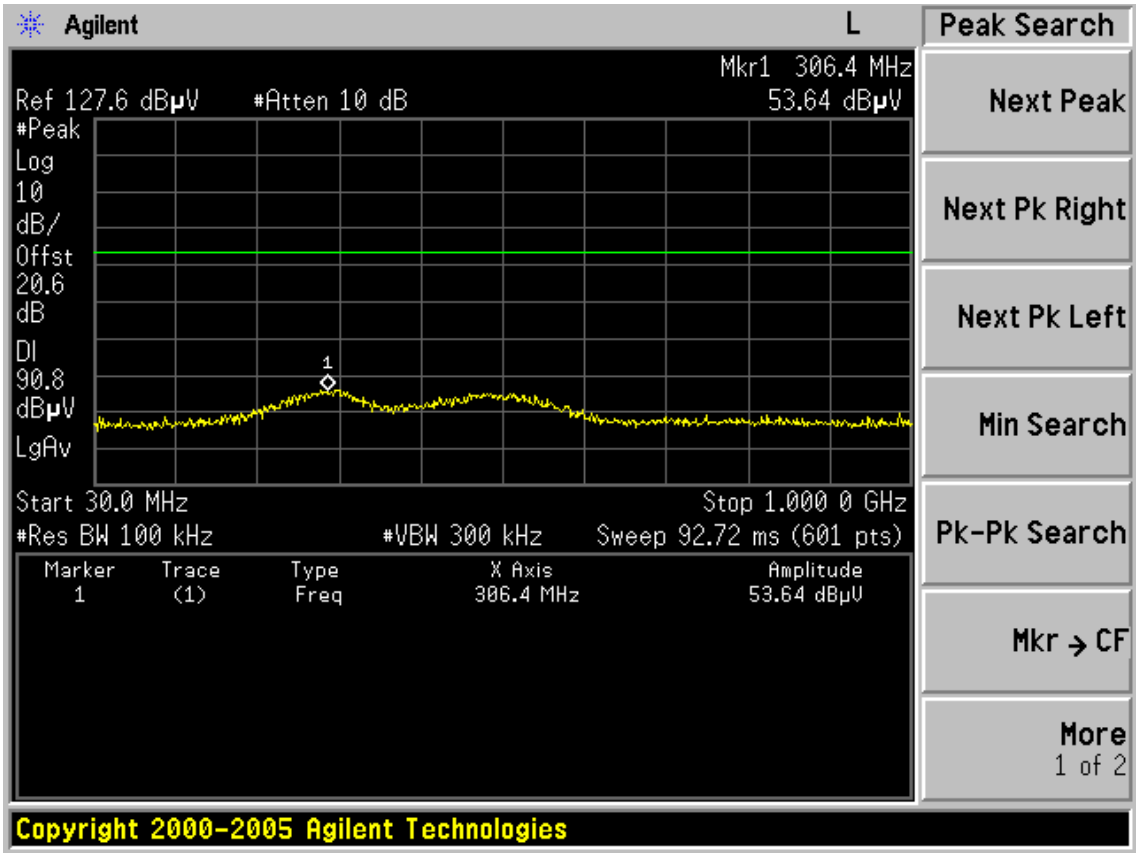
Test CH6: 2437MHz





Test CH11: 2462MHz




Agilent
L
Peak Search
Mkr1 306.4 MHz
Ref 127.6 dBµV
#Atten 10 dB
53.64 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
90.8
dBµV
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 306.4 MHz 53.64 dBµV
Mkr → CF
More
1 of 2
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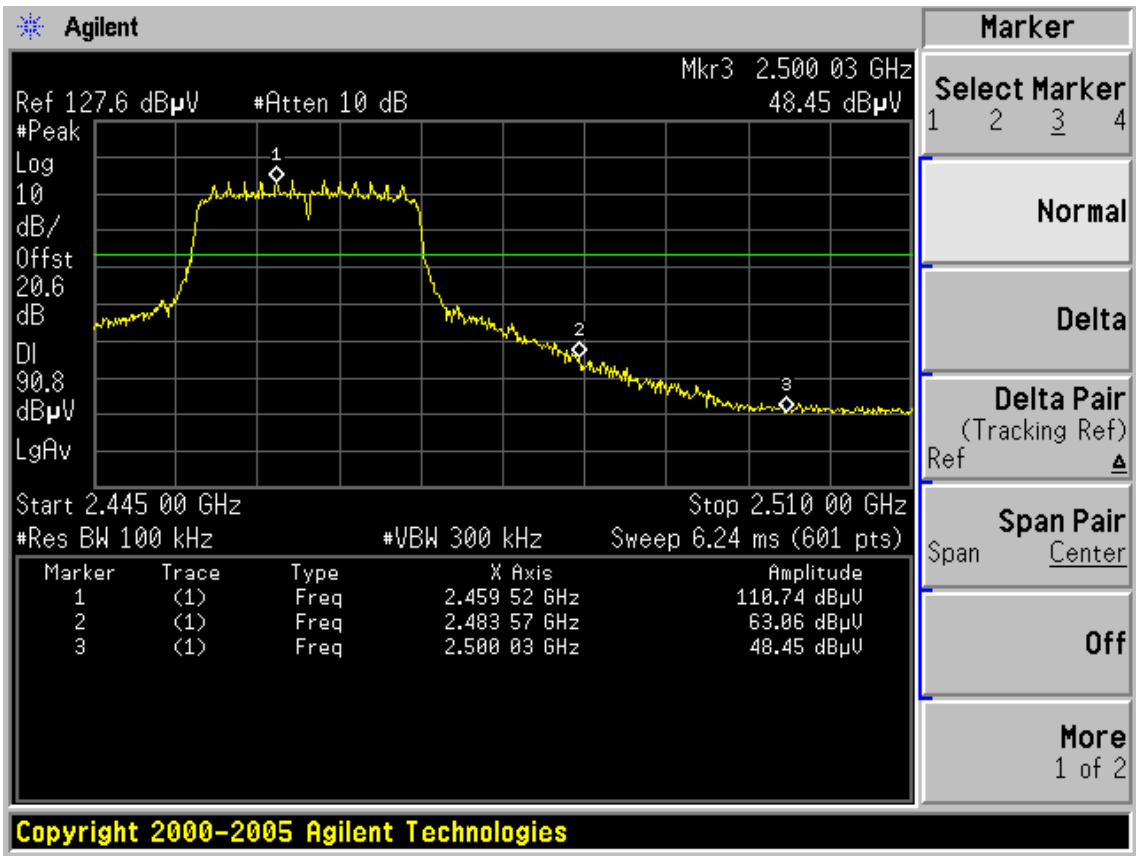
Agilent
Marker
Mkr3 2.500 03 GHz
Ref 127.6 dBµV
#Atten 10 dB
48.45 dBµV
Select Marker
1 2 3 4
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
90.8
dBµV
LgAv
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Start 2.445 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 6.24 ms (601 pts)
Span Pair
Span Center
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.459 52 GHz 110.74 dBµV
2 (1) Freq 2.483 57 GHz 63.06 dBµV
3 (1) Freq 2.500 03 GHz 48.45 dBµV
Off
More
1 of 2
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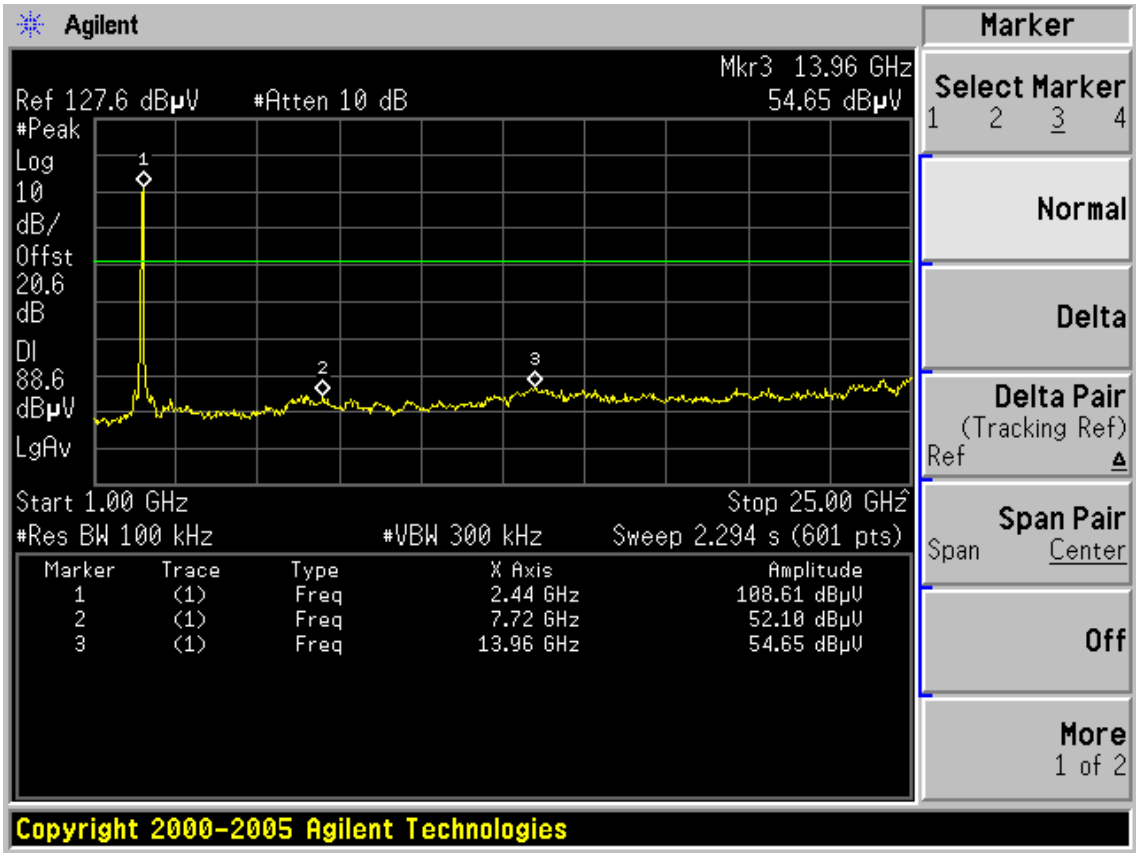
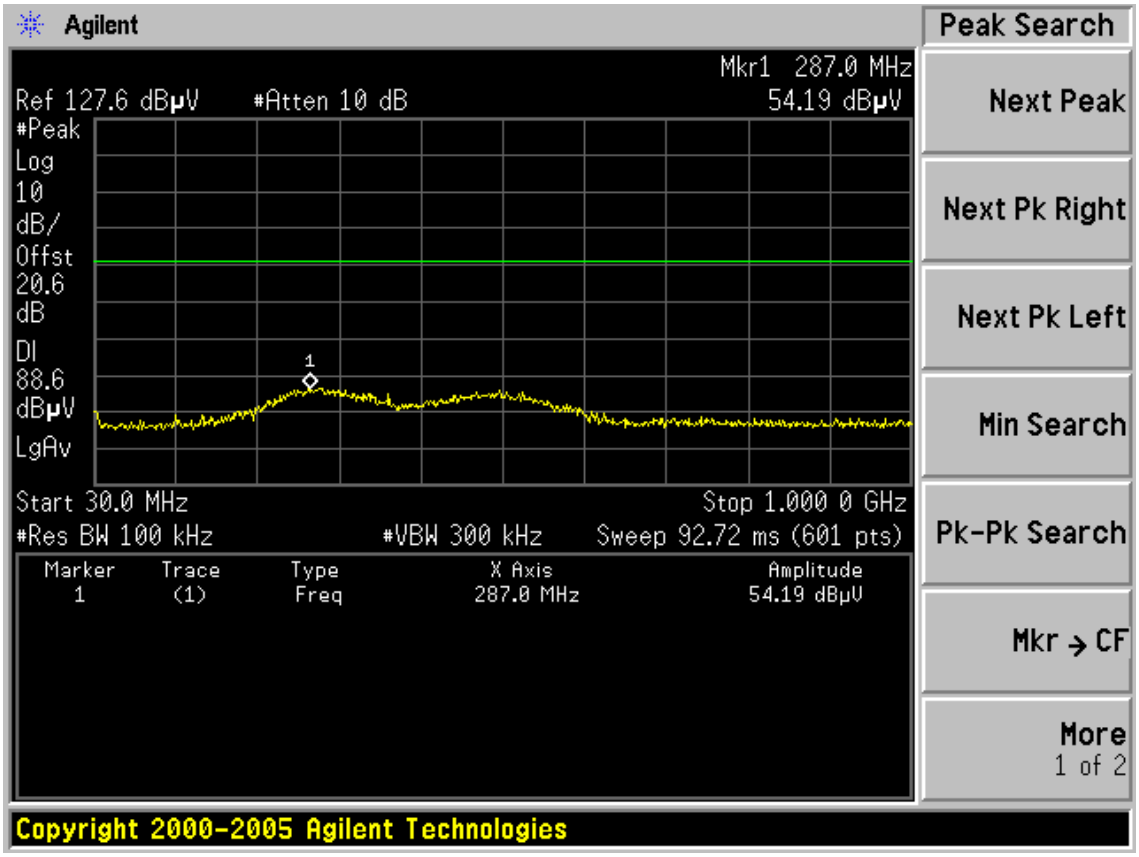
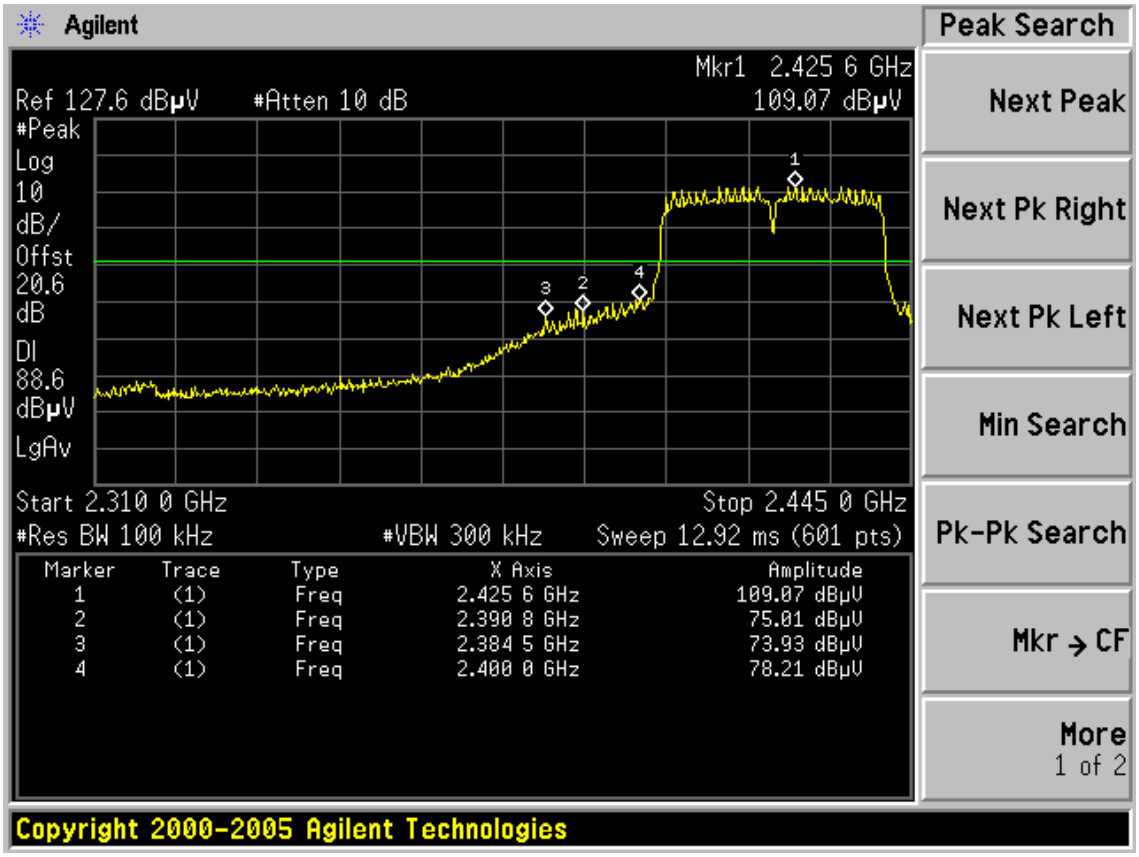
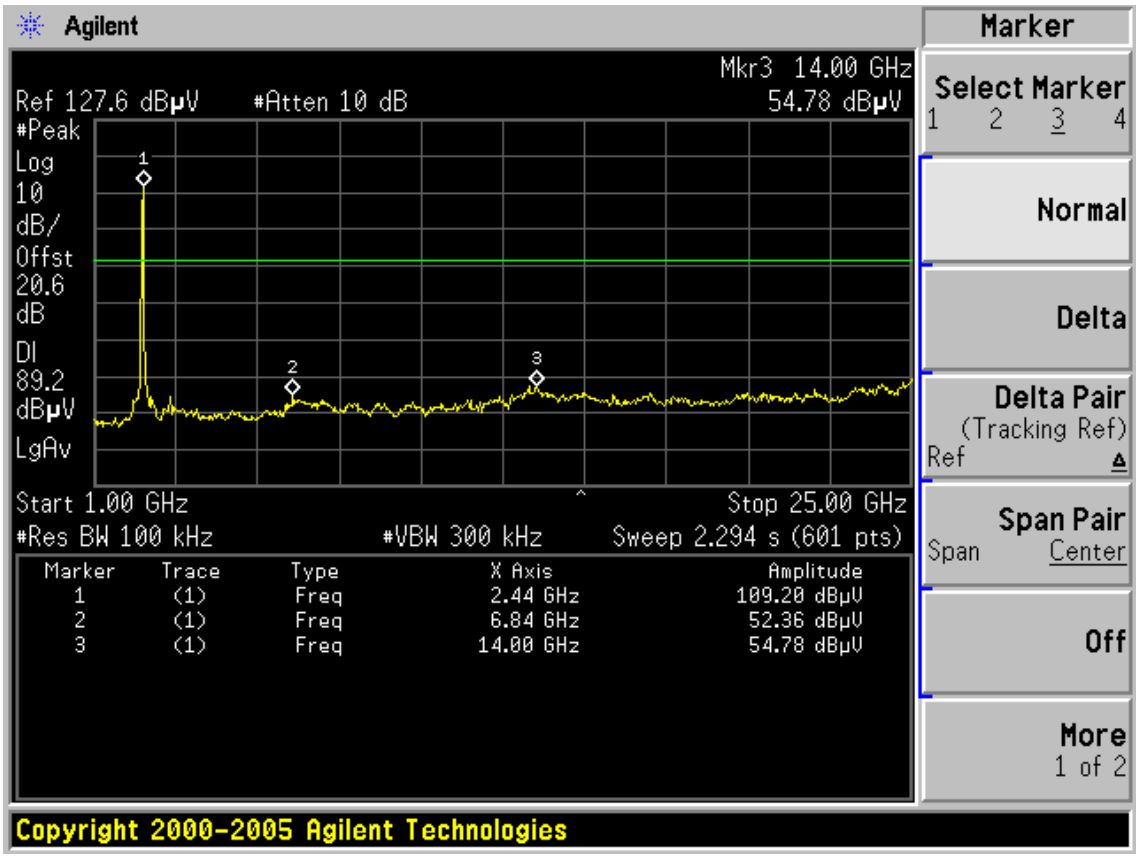
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

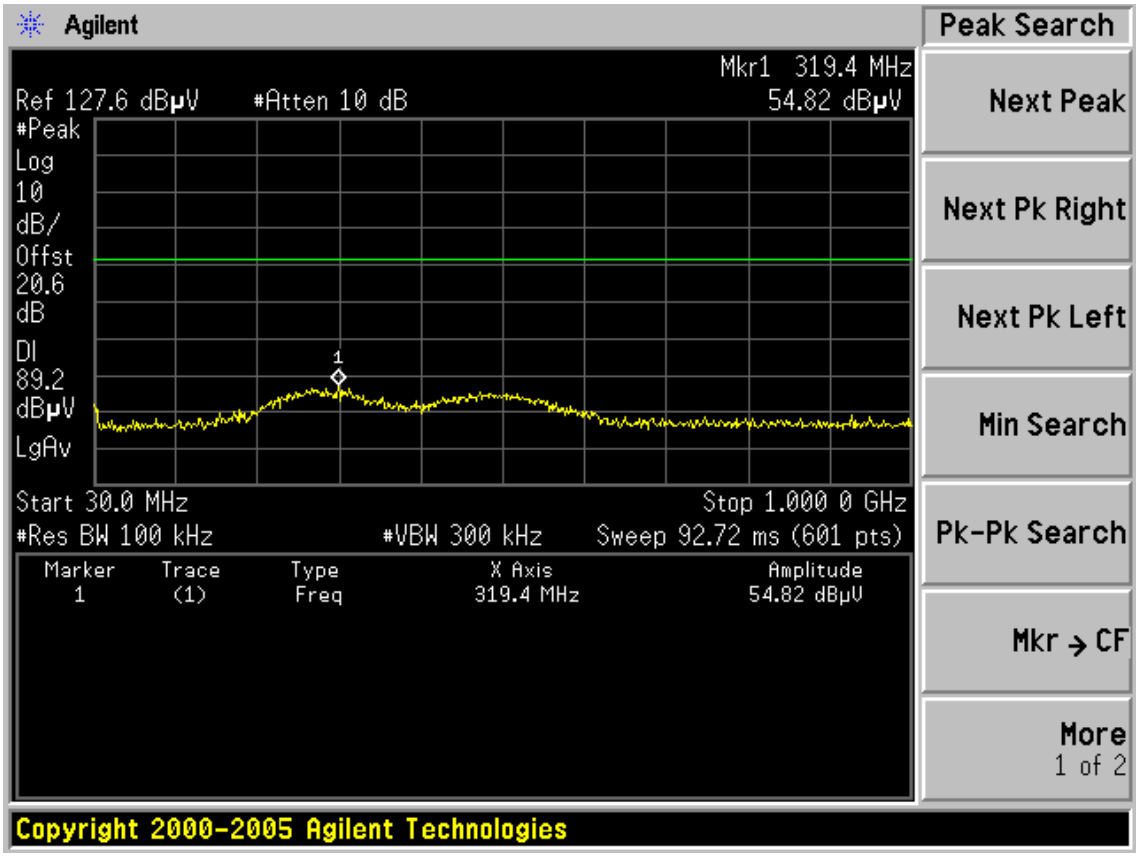




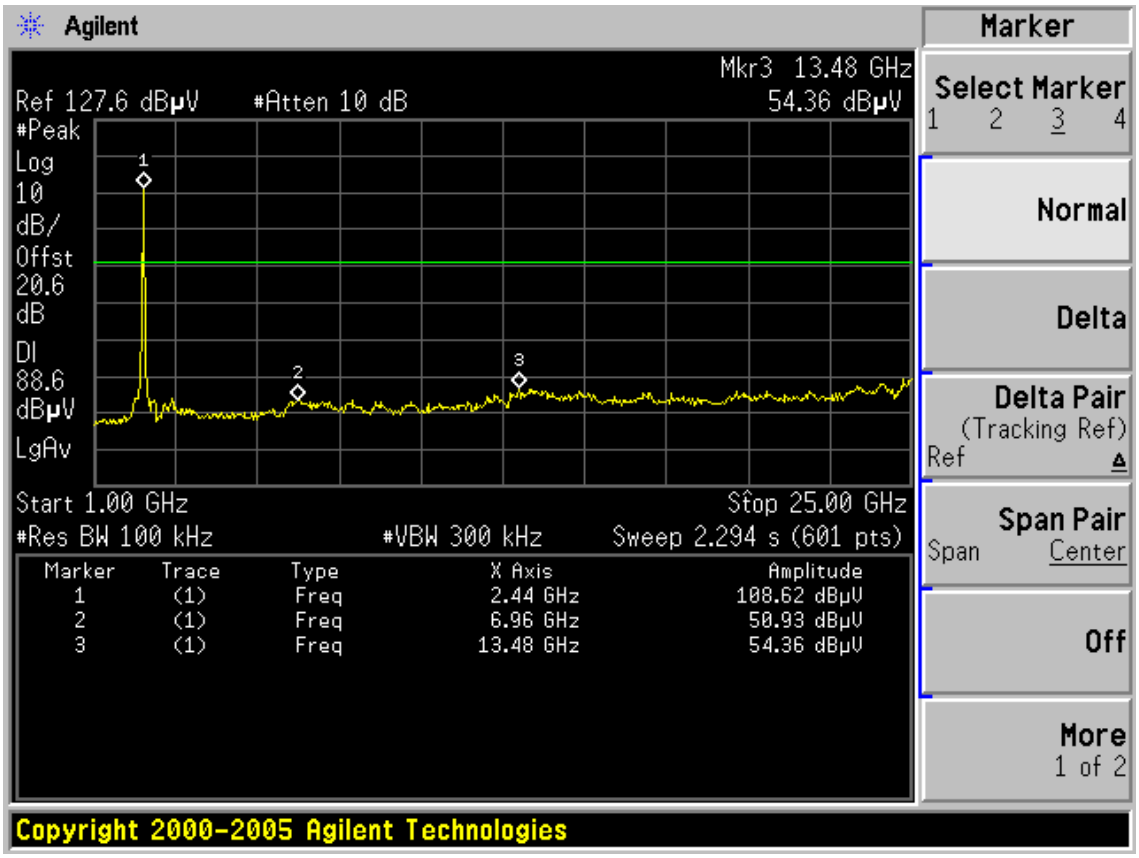


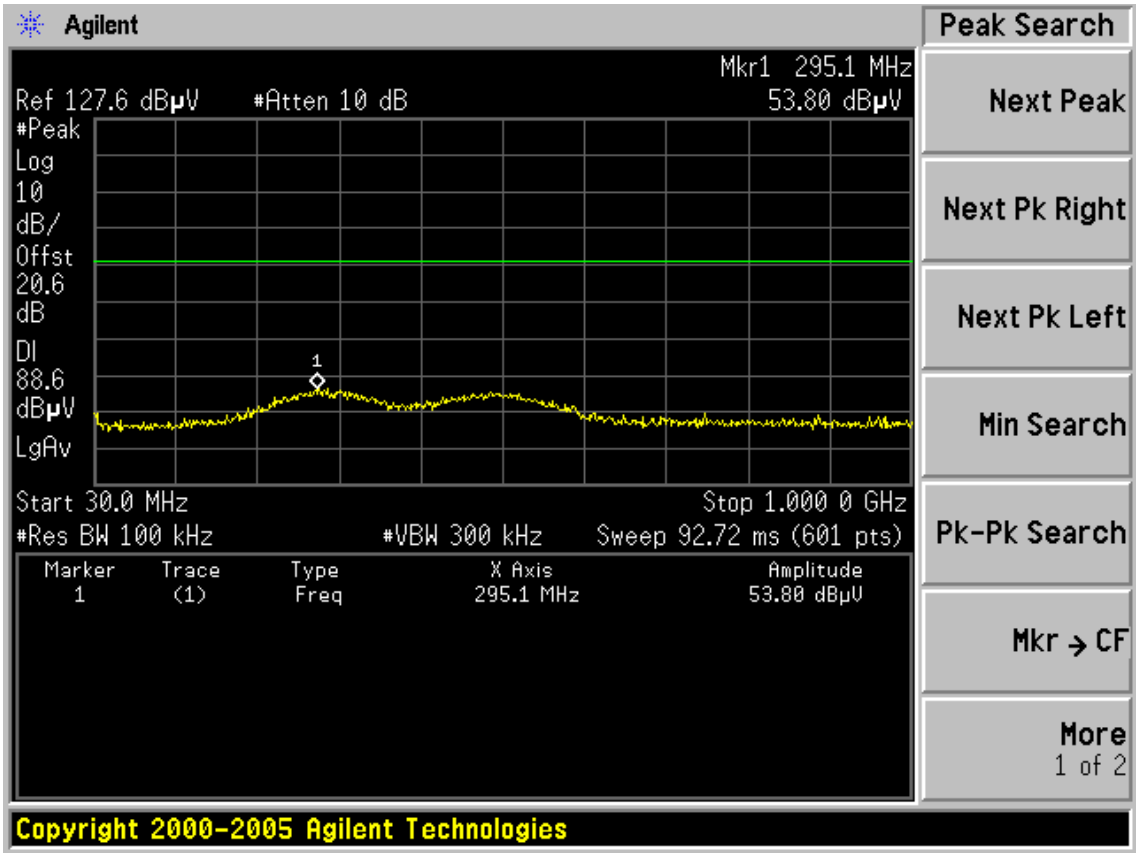
Test CH4: 2437MHz

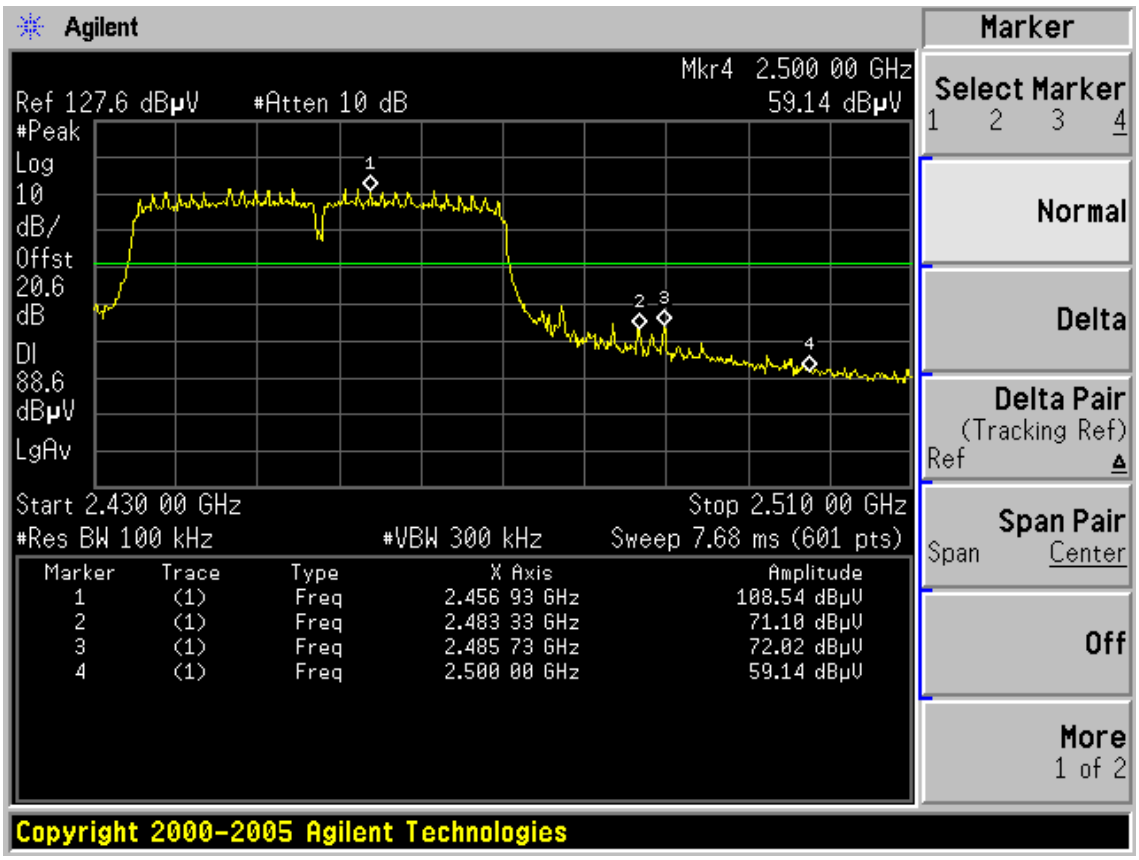




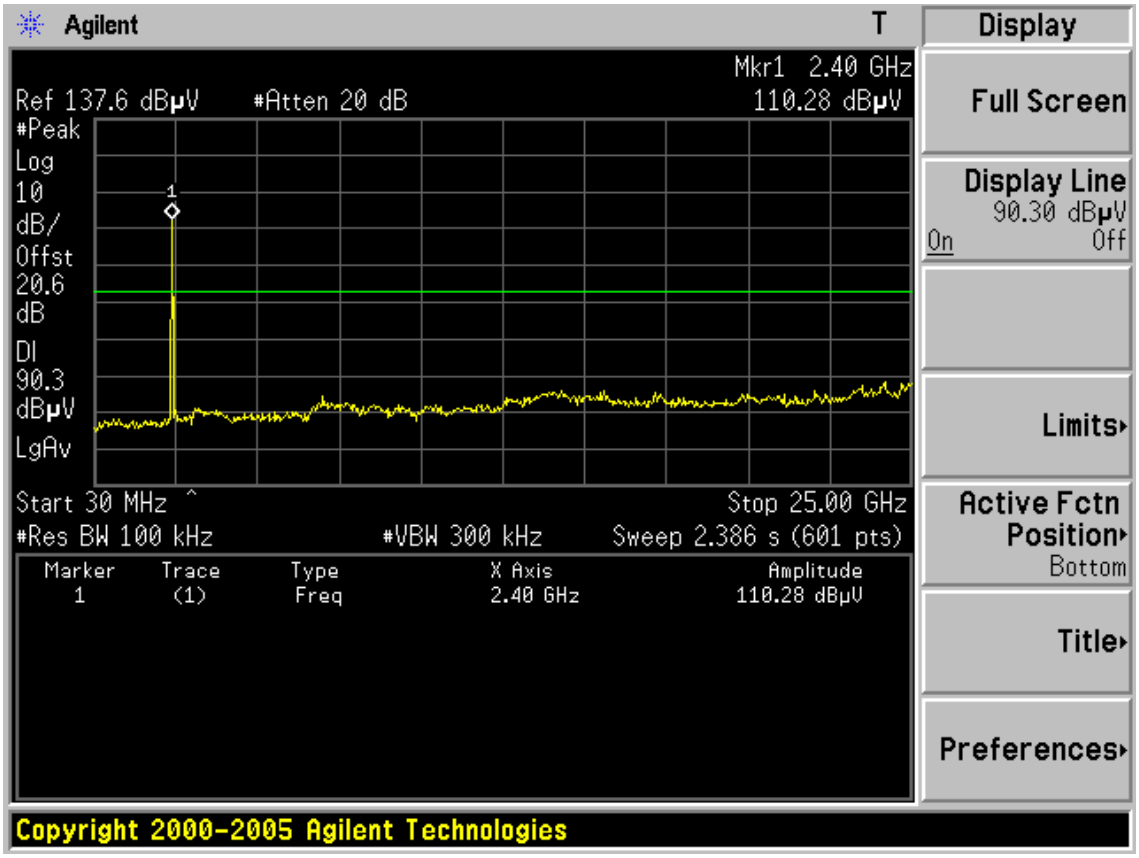
Test CH7: 2452MHz

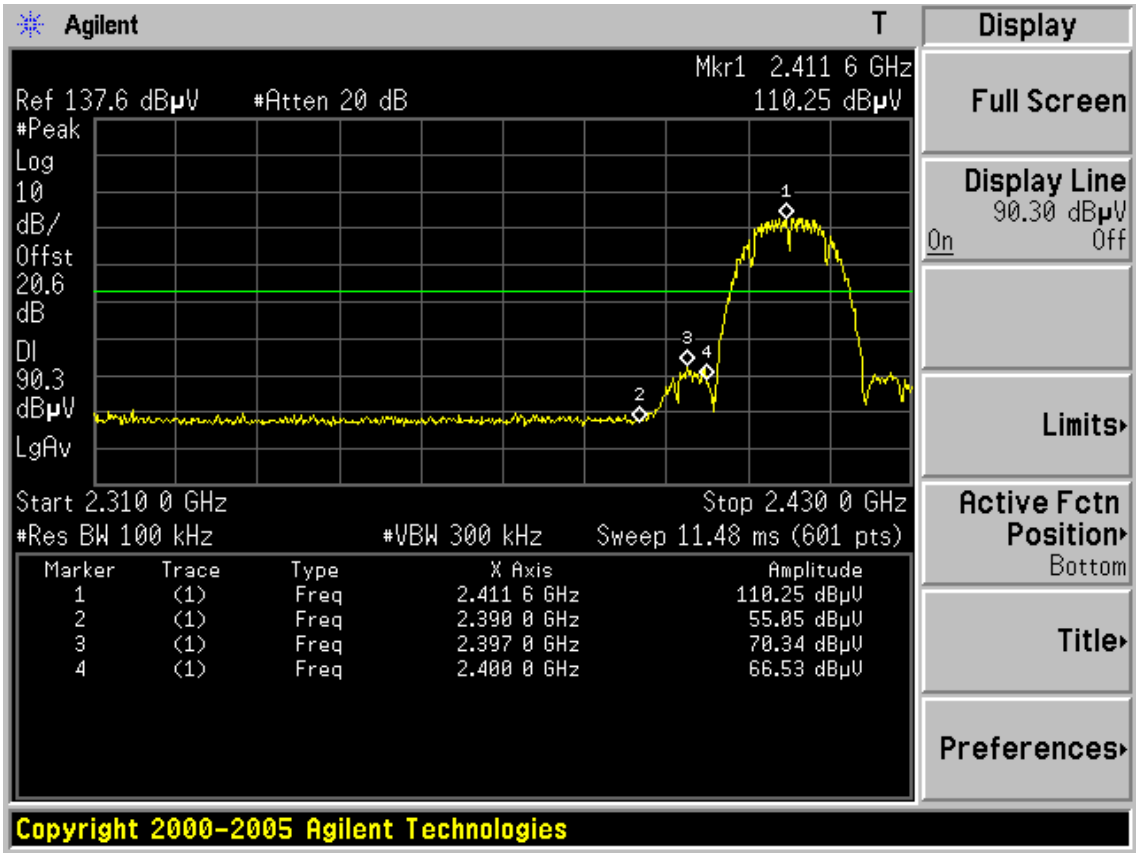



Agilent
Peak Search
Mkr1 295.1 MHz
Ref 127.6 dBµV
#Atten 10 dB
53.80 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
88.6
dBµV
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 30.0 MHz
Stop 1.000 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 92.72 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 295.1 MHz 53.80 dBµV
Copyright 2000-2005 Agilent Technologies

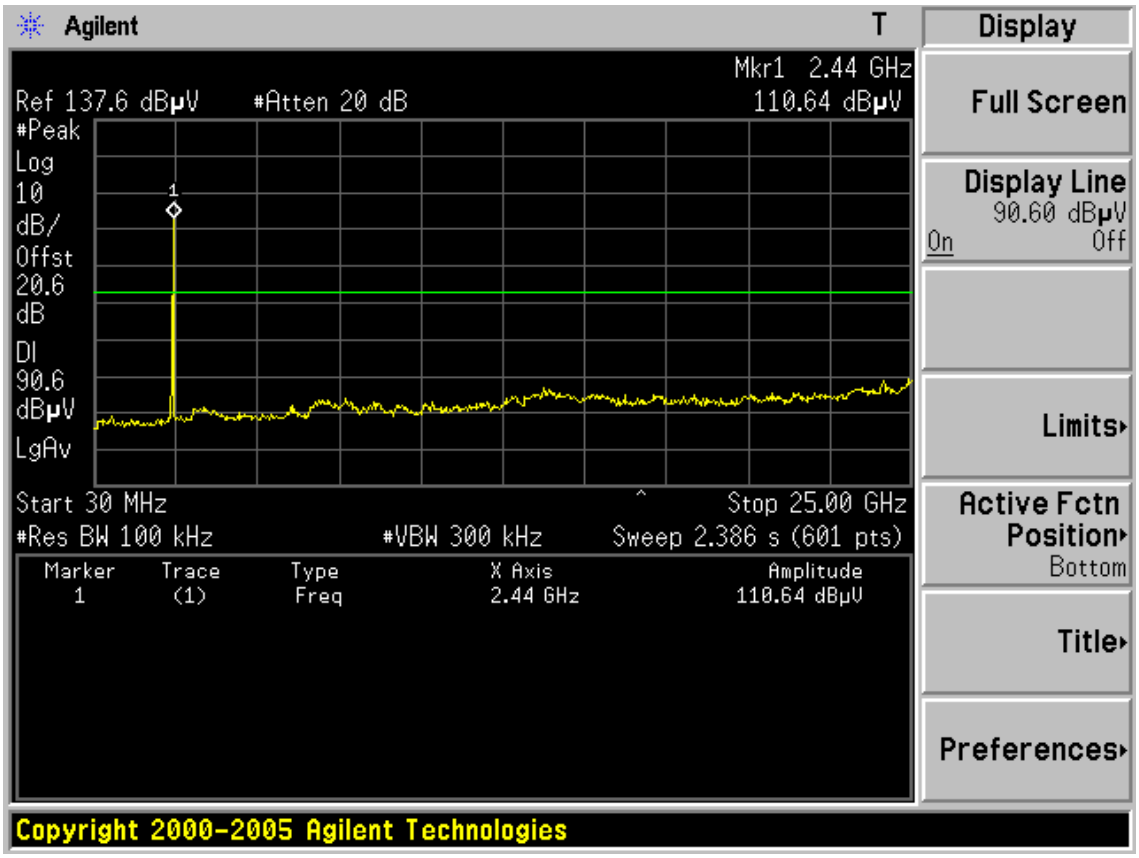

Agilent
Marker
Mkr4 2.500 00 GHz
Ref 127.6 dBµV
#Atten 10 dB
59.14 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
88.6
dBµV
LgAv
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Start 2.430 00 GHz
Stop 2.510 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 7.68 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.456 93 GHz 108.54 dBµV
2 (1) Freq 2.483 33 GHz 71.10 dBµV
3 (1) Freq 2.485 73 GHz 72.02 dBµV
4 (1) Freq 2.500 00 GHz 59.14 dBµV
Copyright 2000-2005 Agilent Technologies

Chain 2:
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz

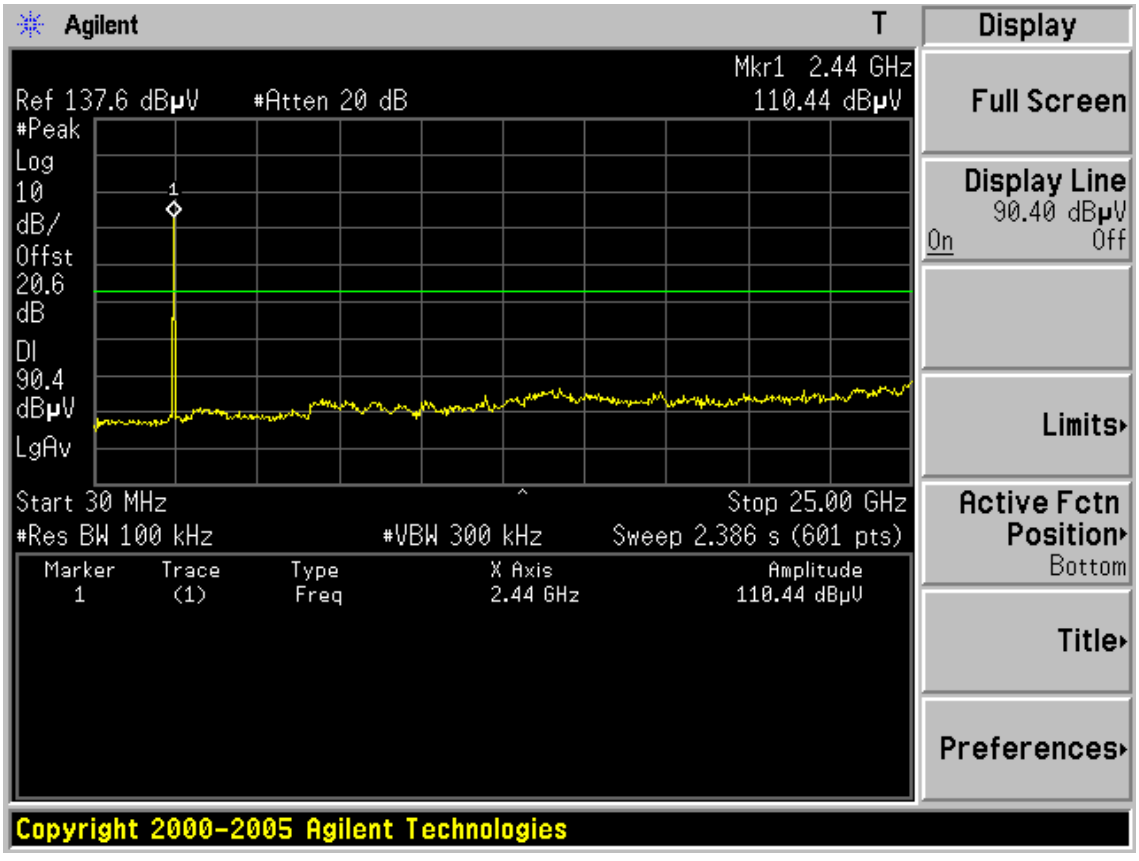


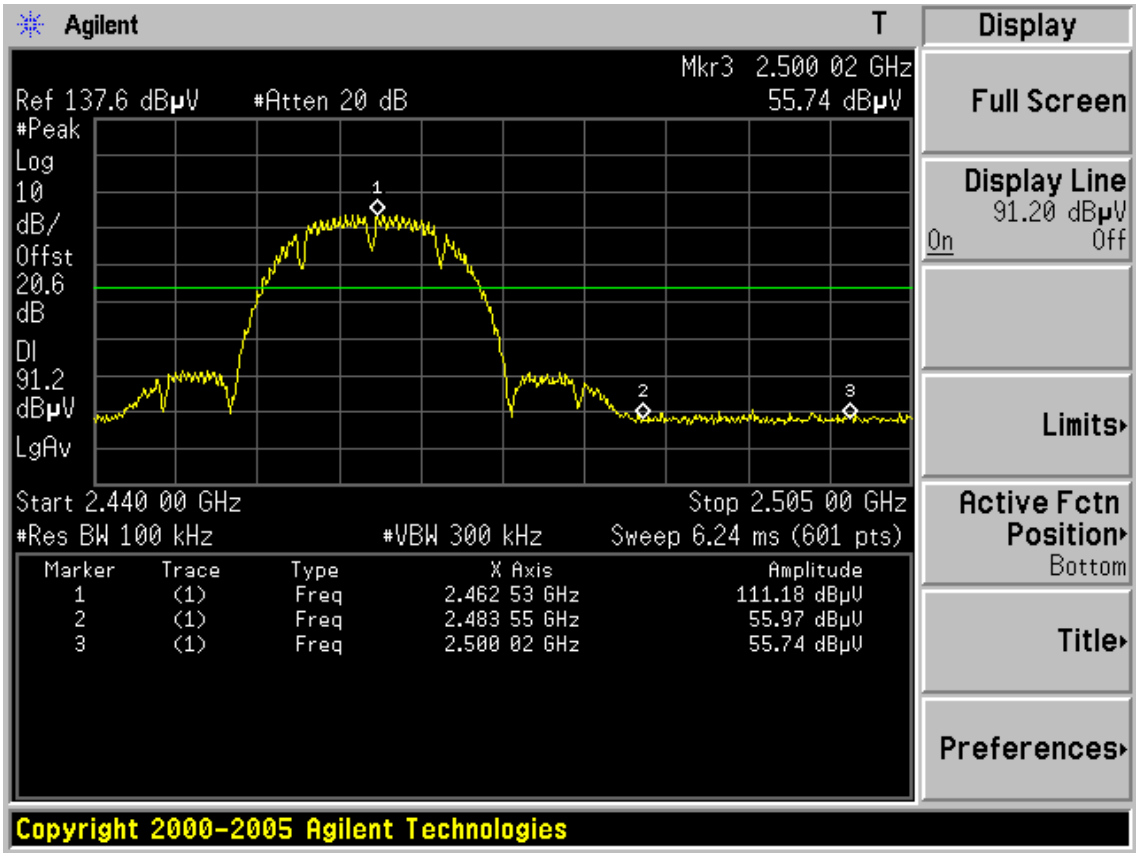


Test CH6: 2437MHz

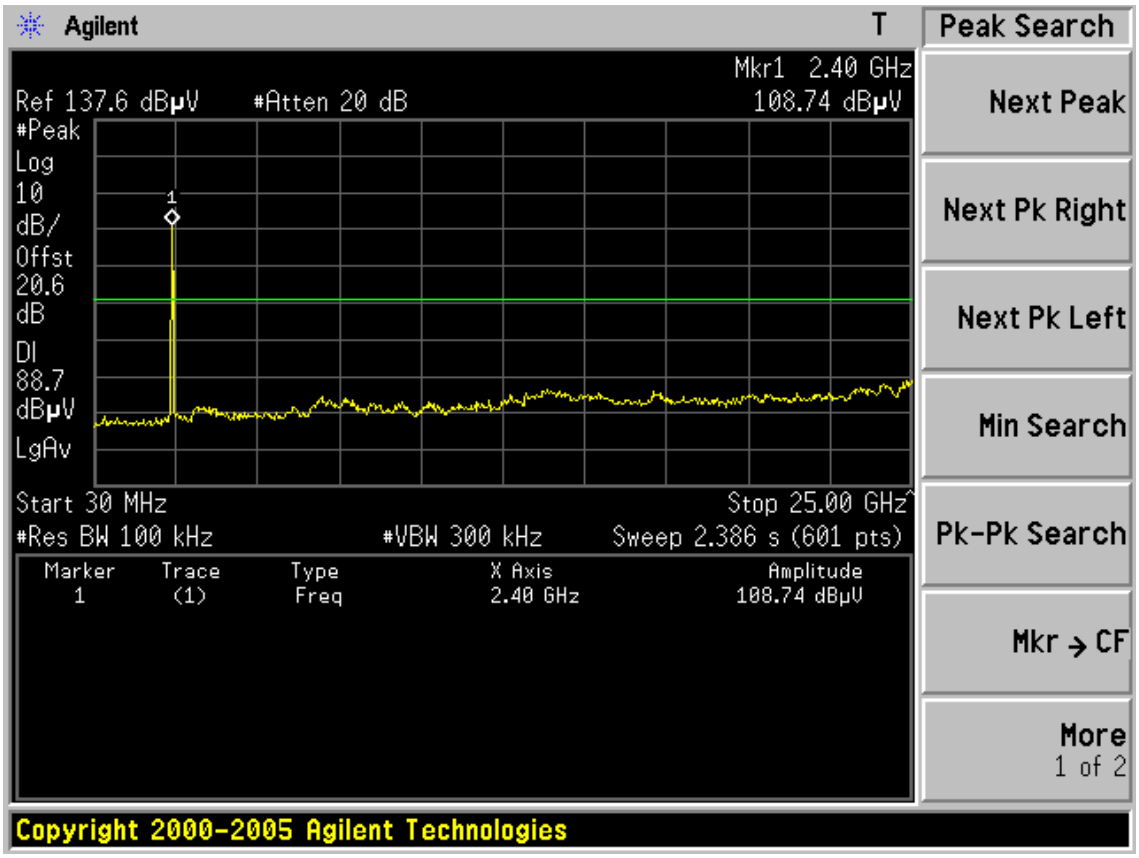


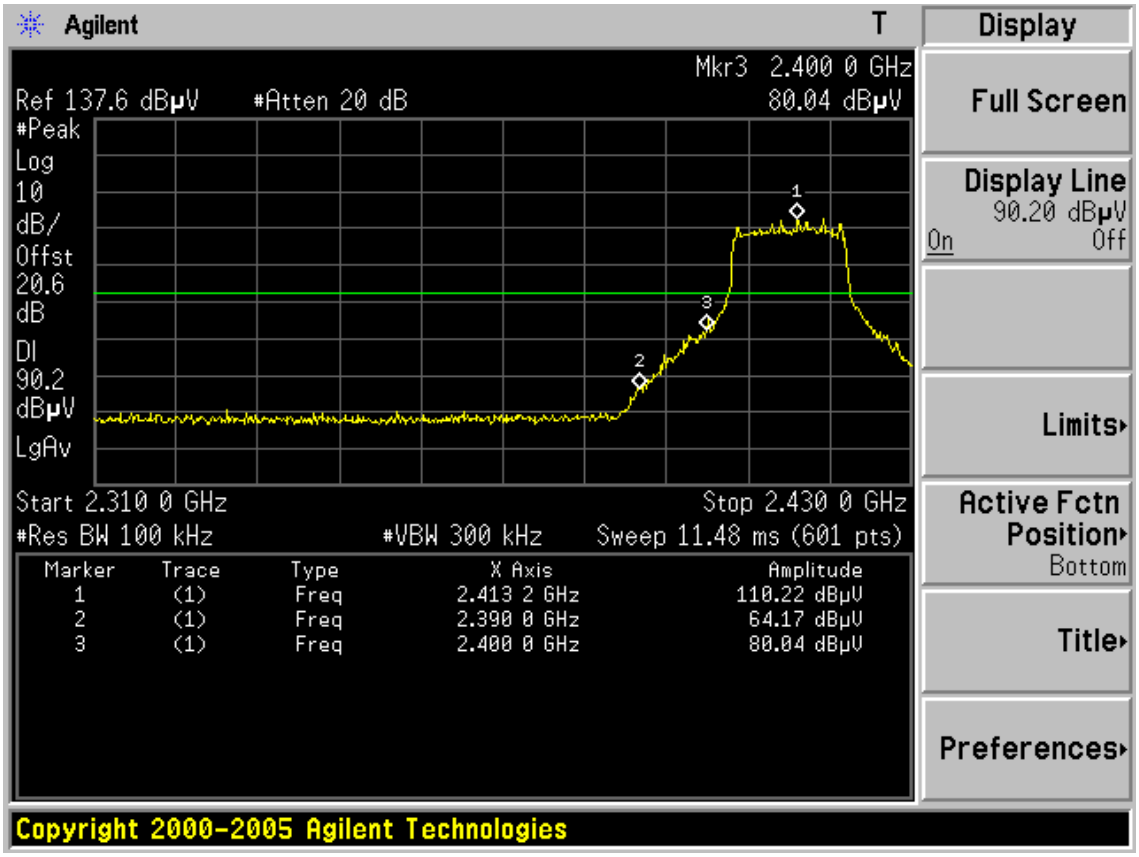
Test CH11: 2462MHz



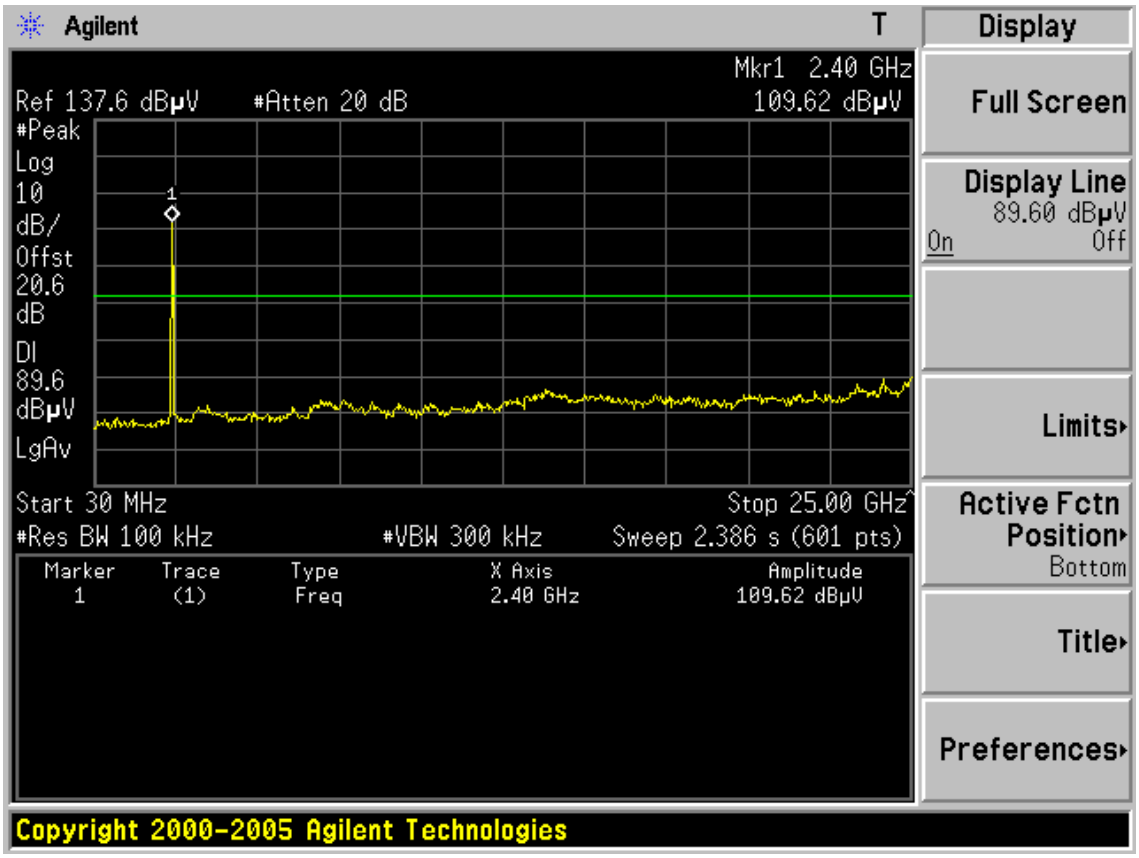


Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz

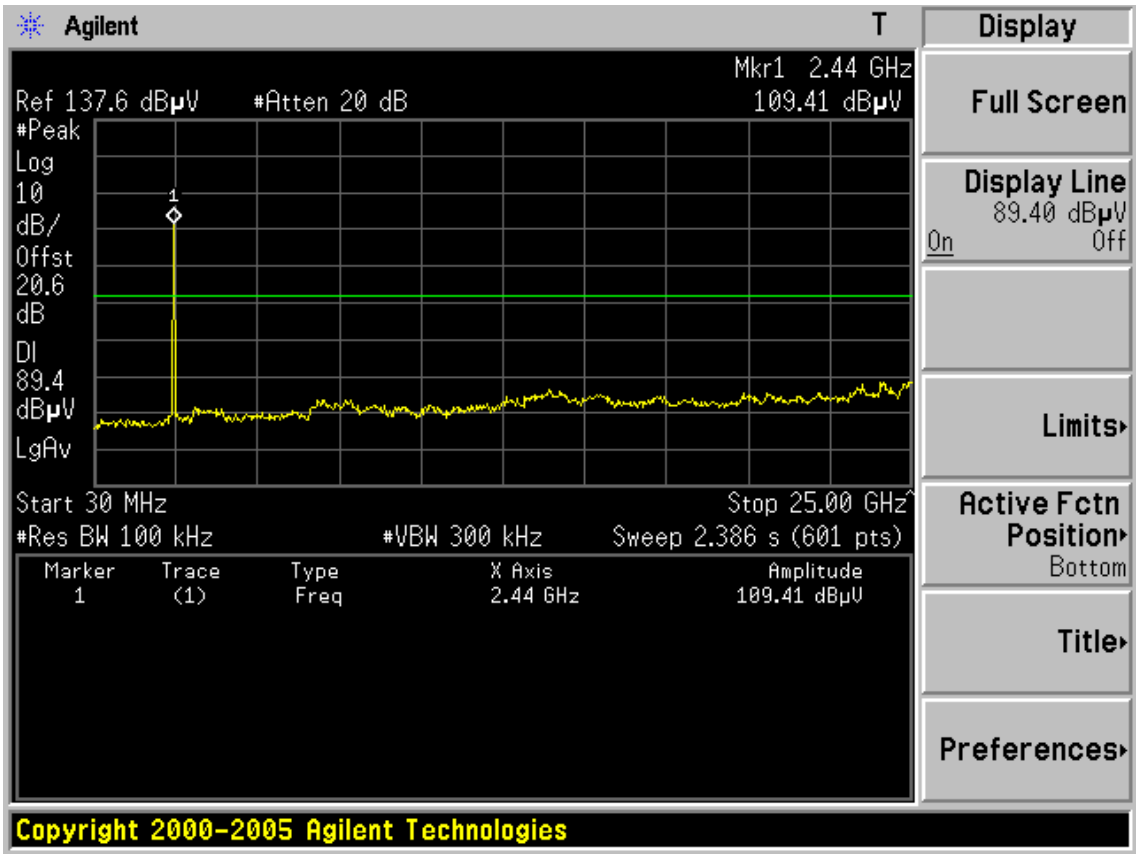


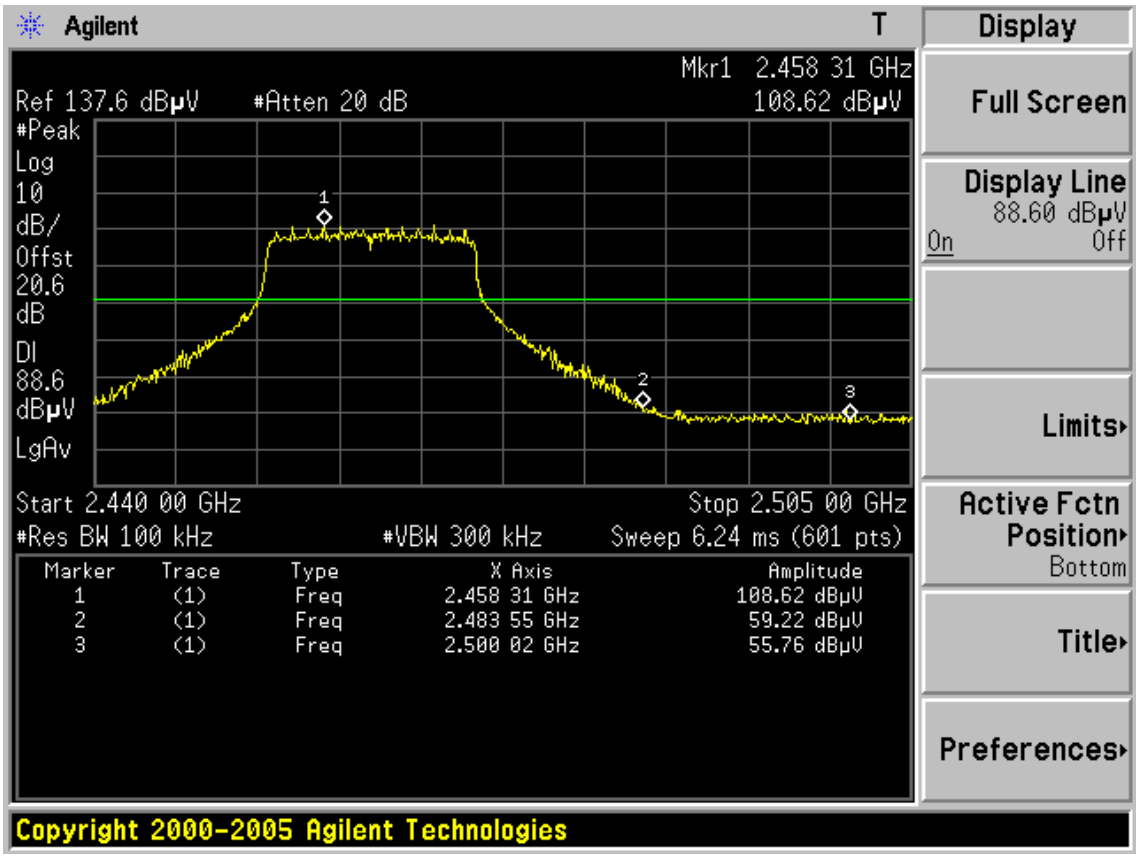


Test CH6: 2437MHz

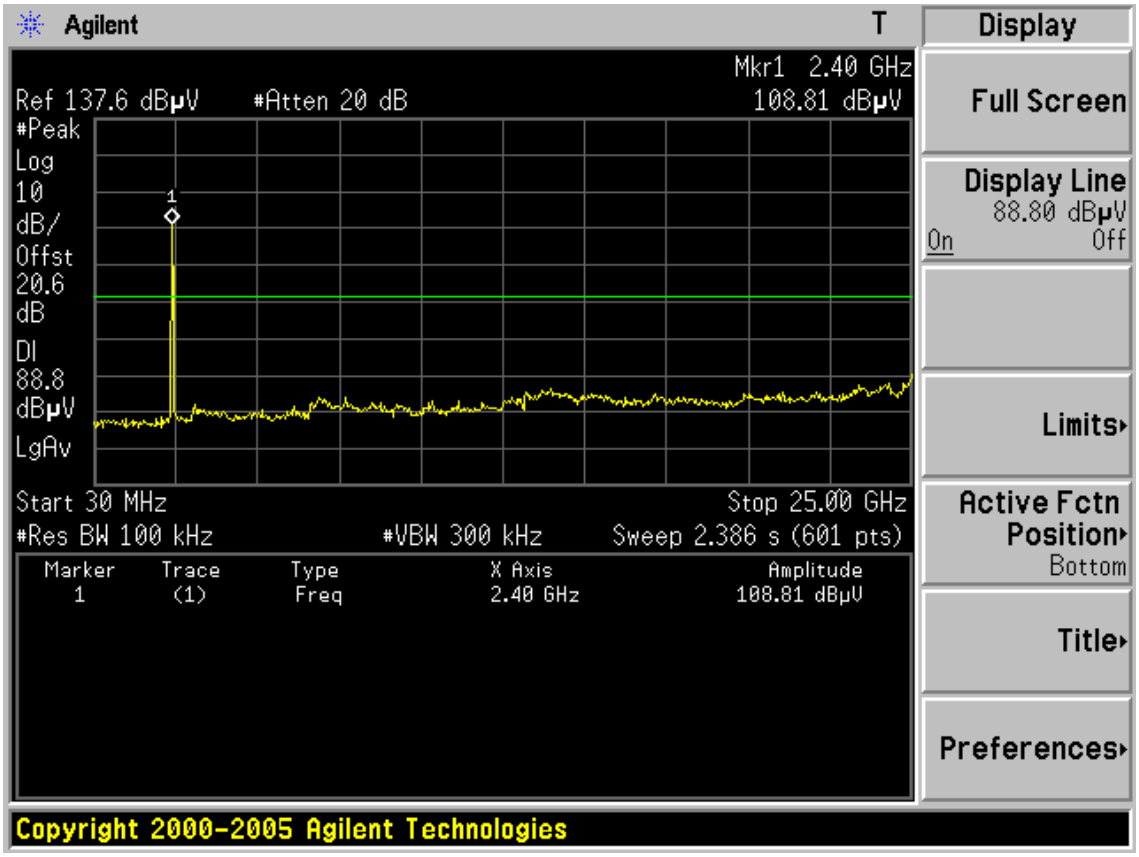


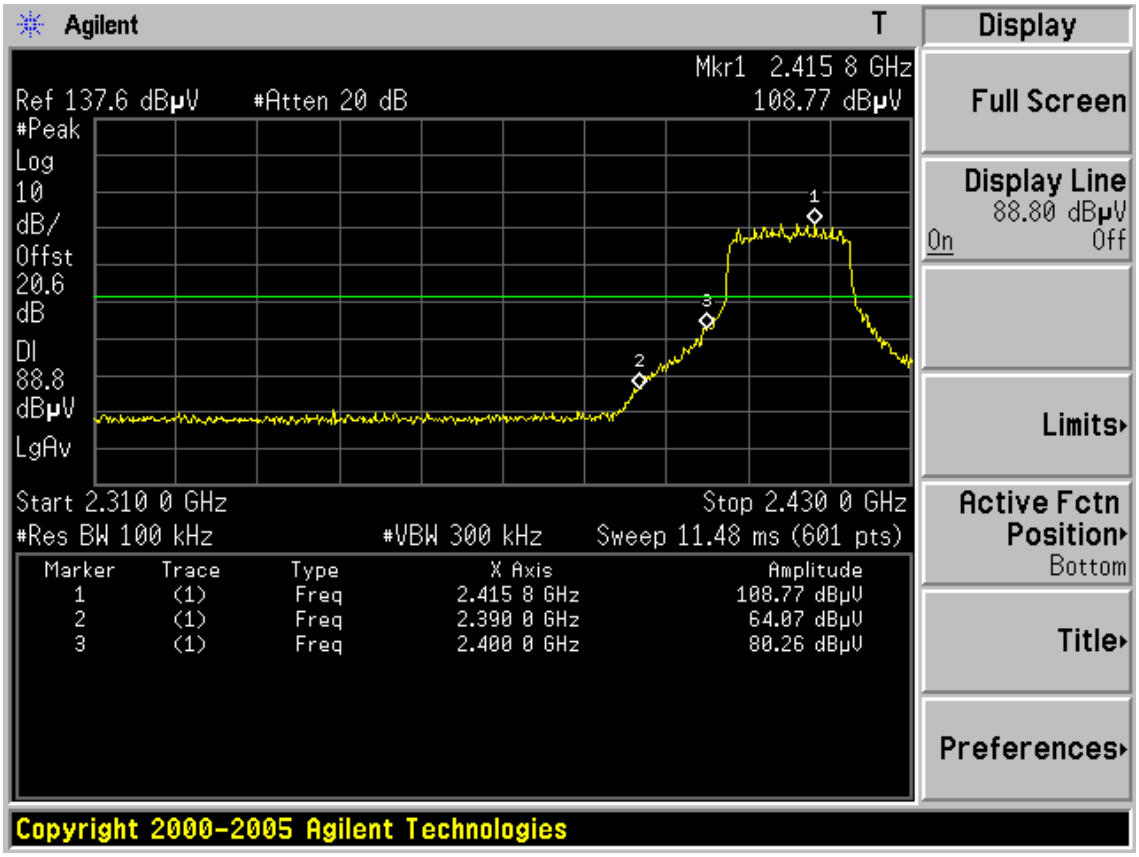
Test CH11: 2462MHz



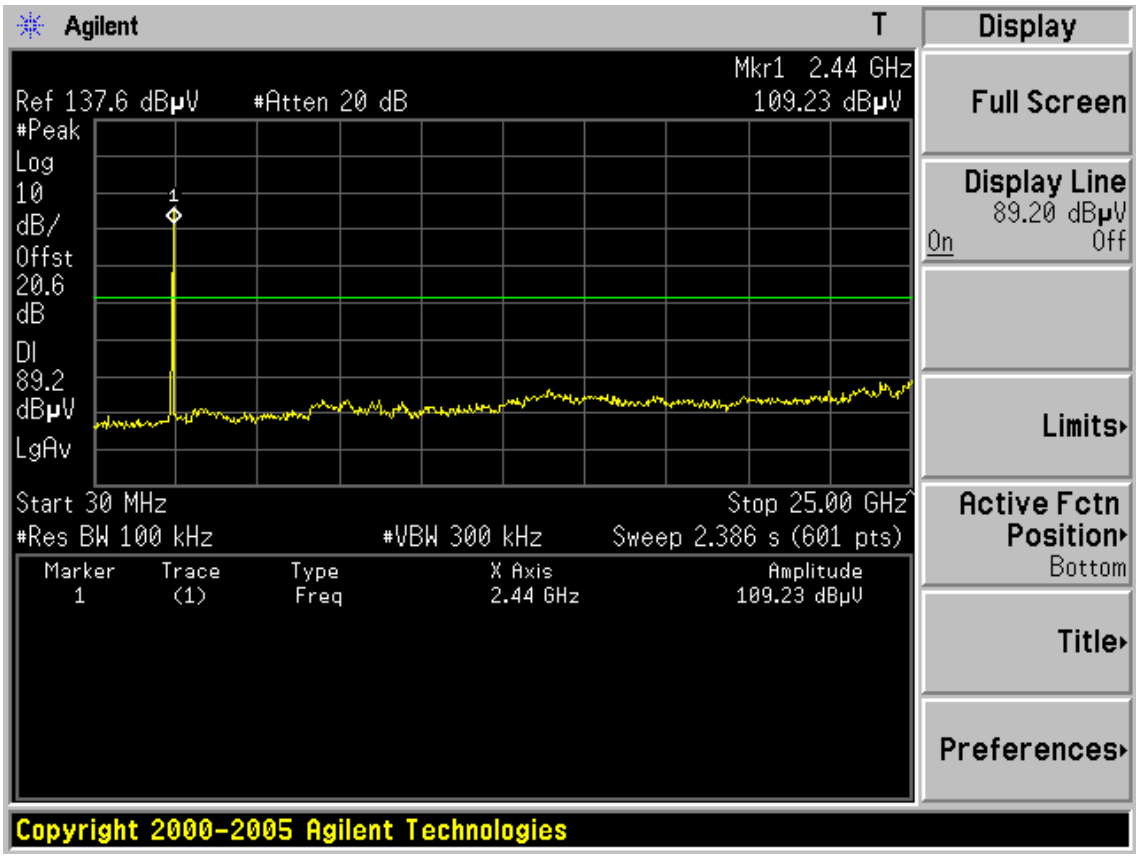


Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz

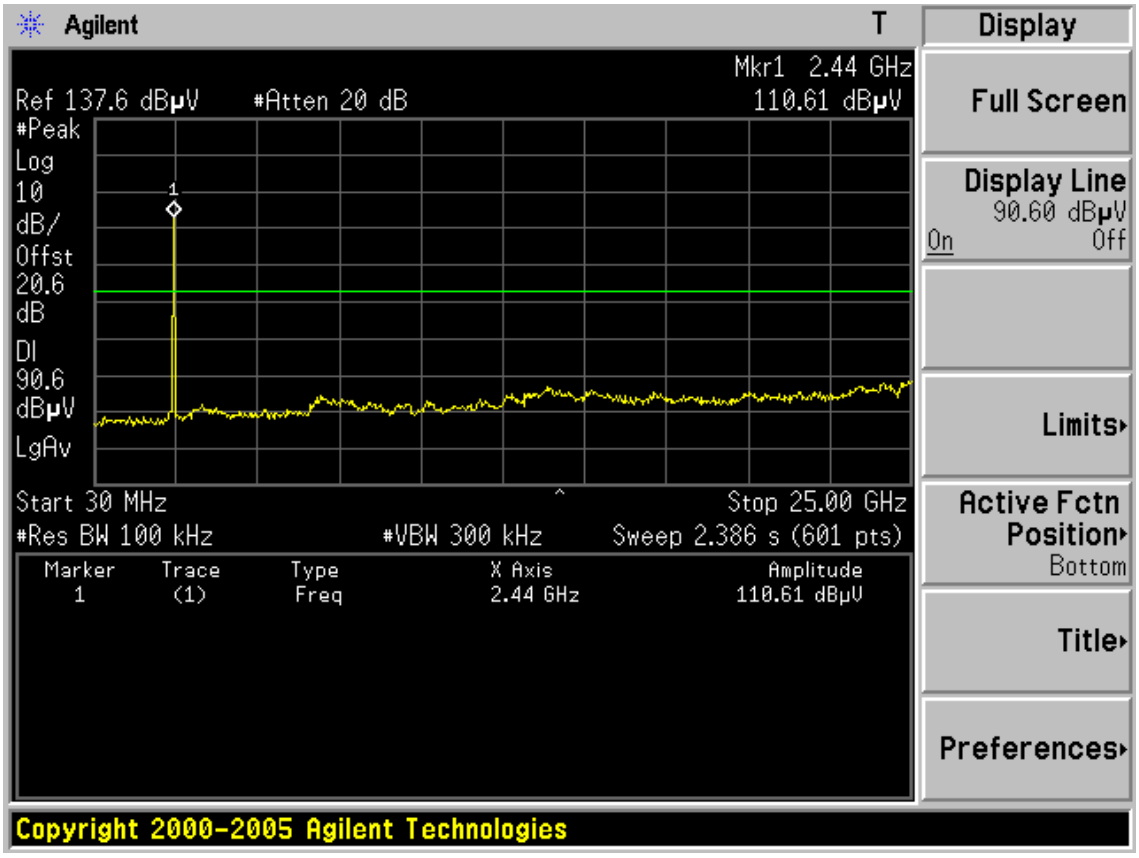


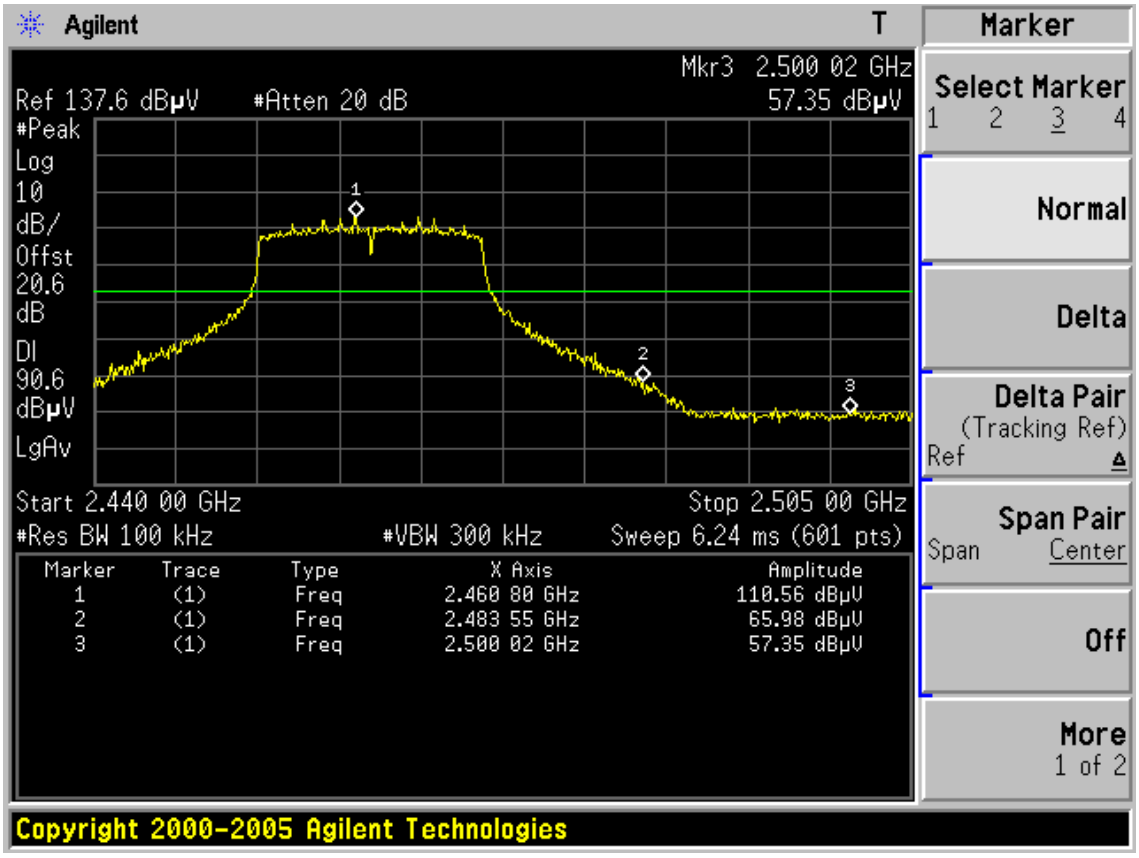


Test CH6: 2437MHz

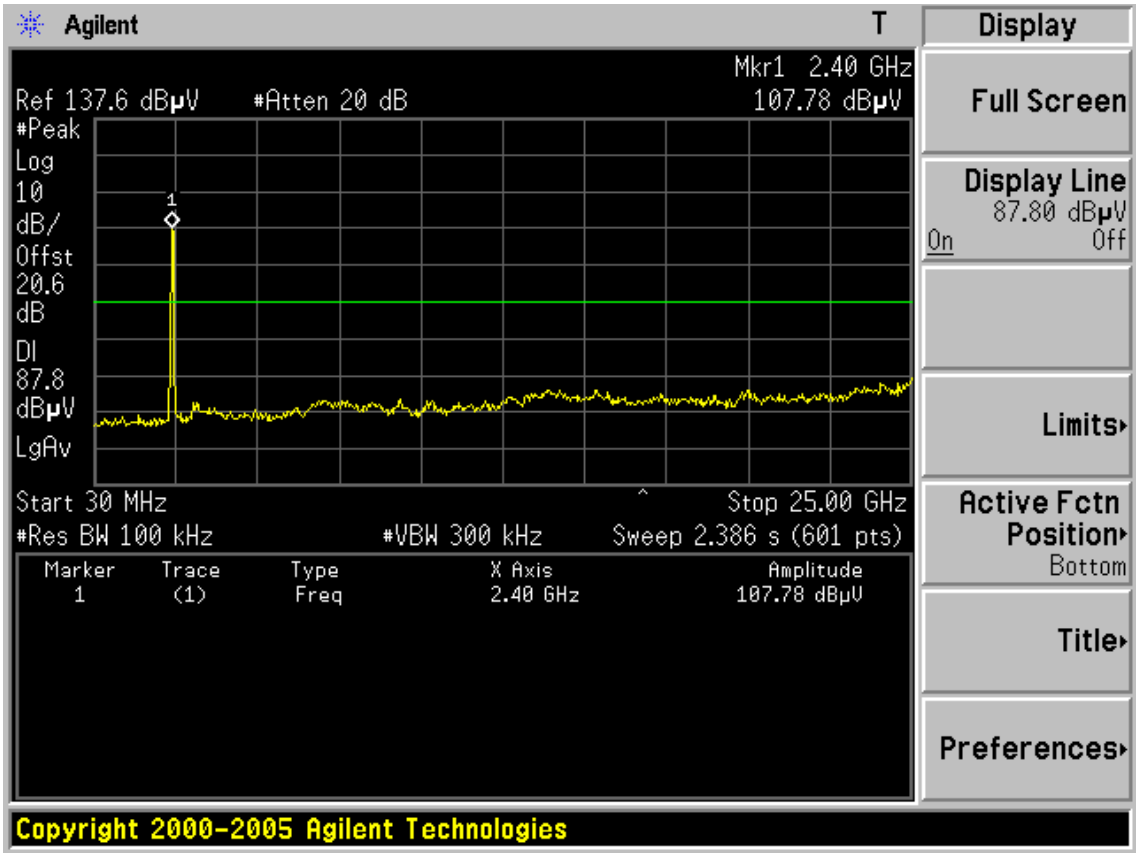


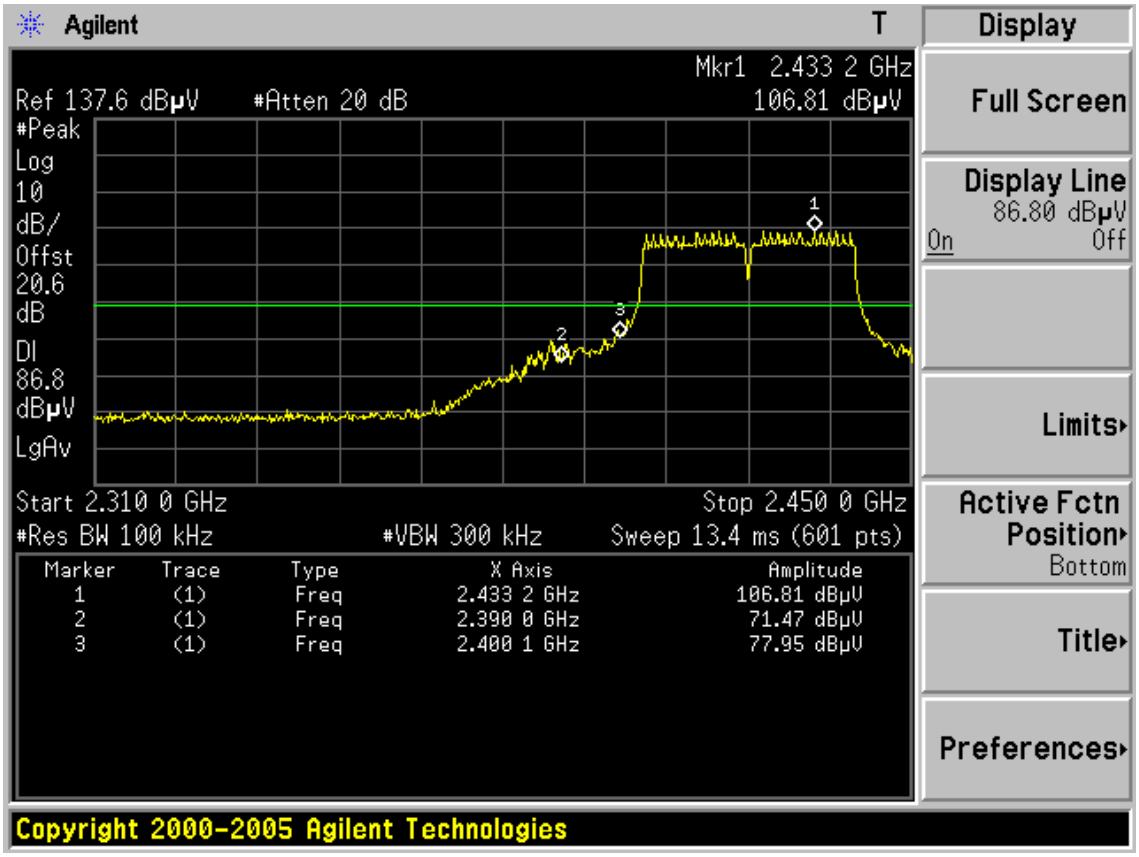
Test CH11: 2462MHz



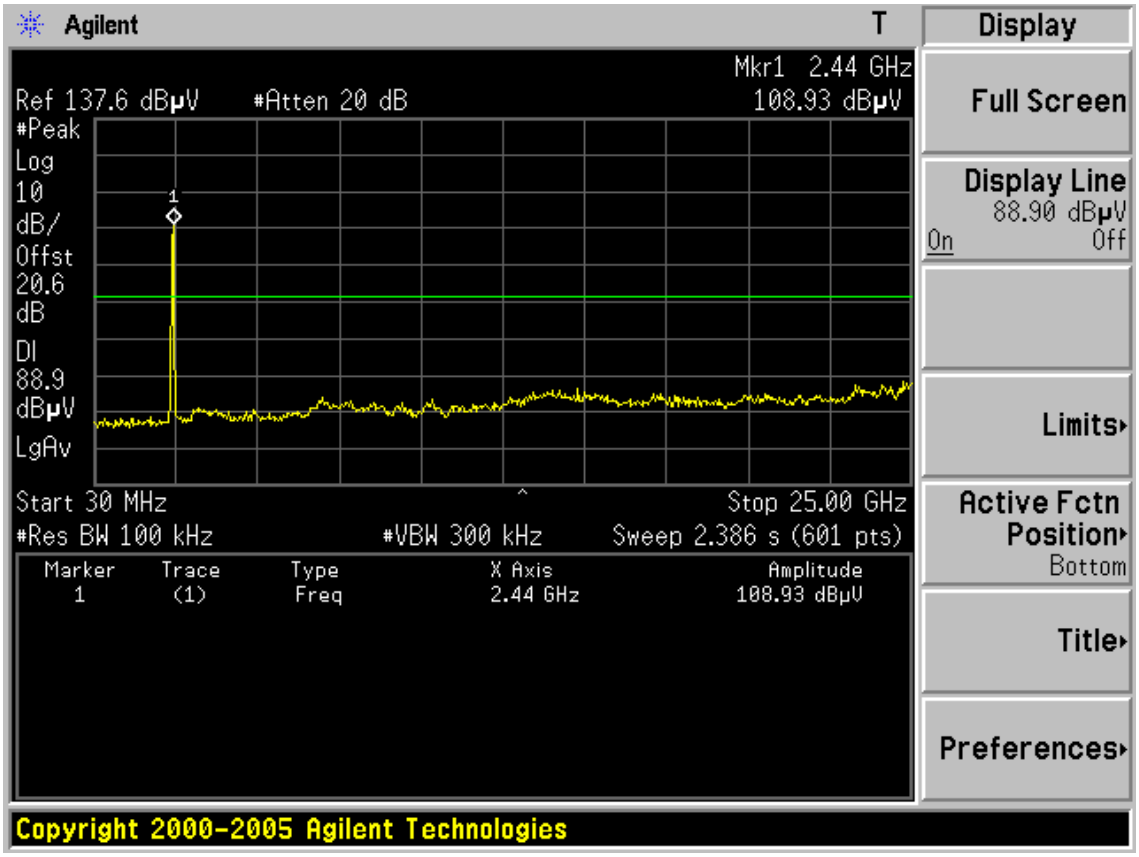


Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz

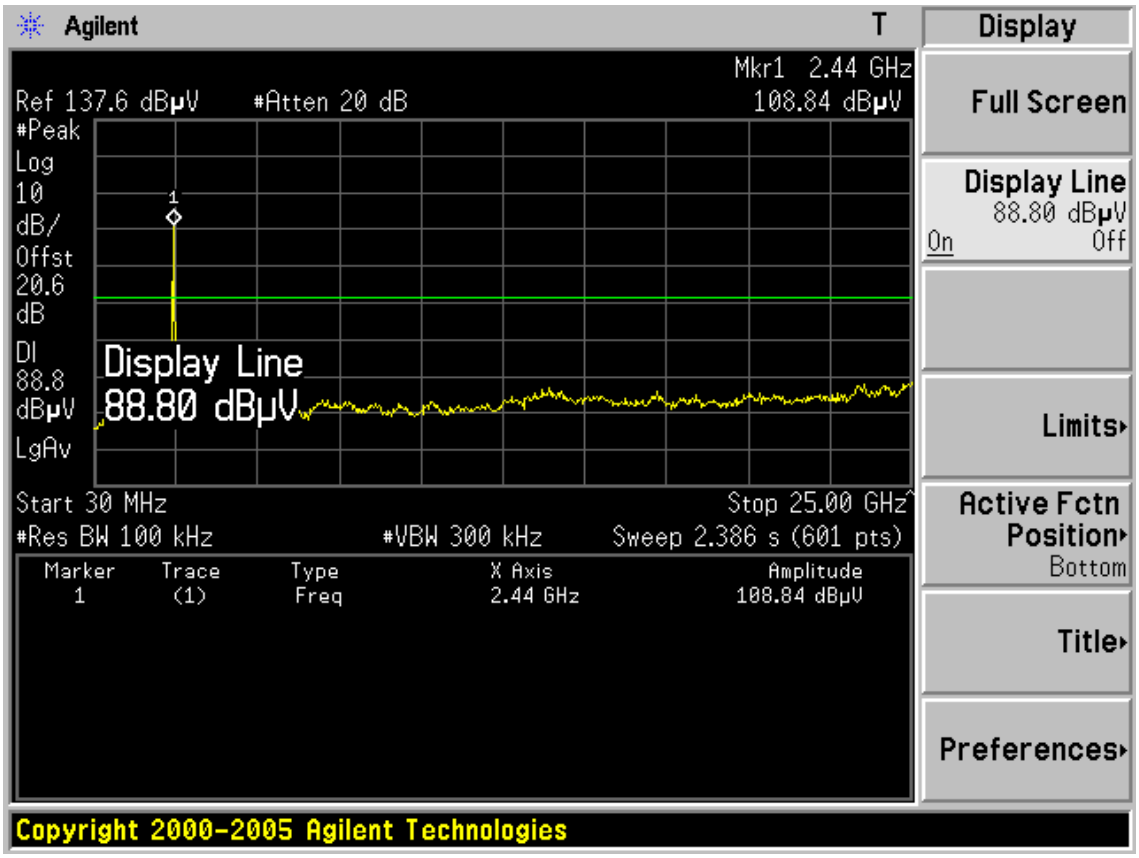


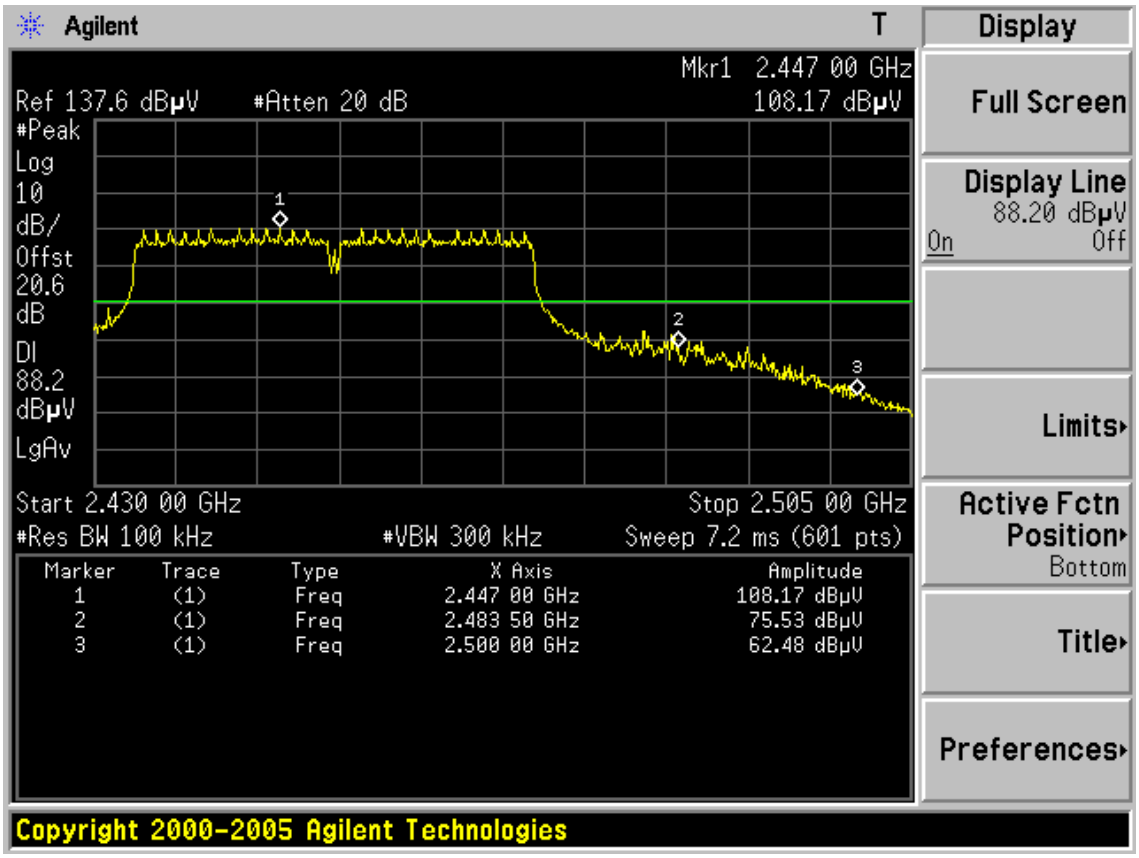


Test CH4: 2437MHz



Test CH7: 2452MHz





6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 09	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 09	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May.08, 09	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX 102	271471/4	May.08, 09	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX 102	29086/2	May.08, 09	1 Year

6.2.Limit

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

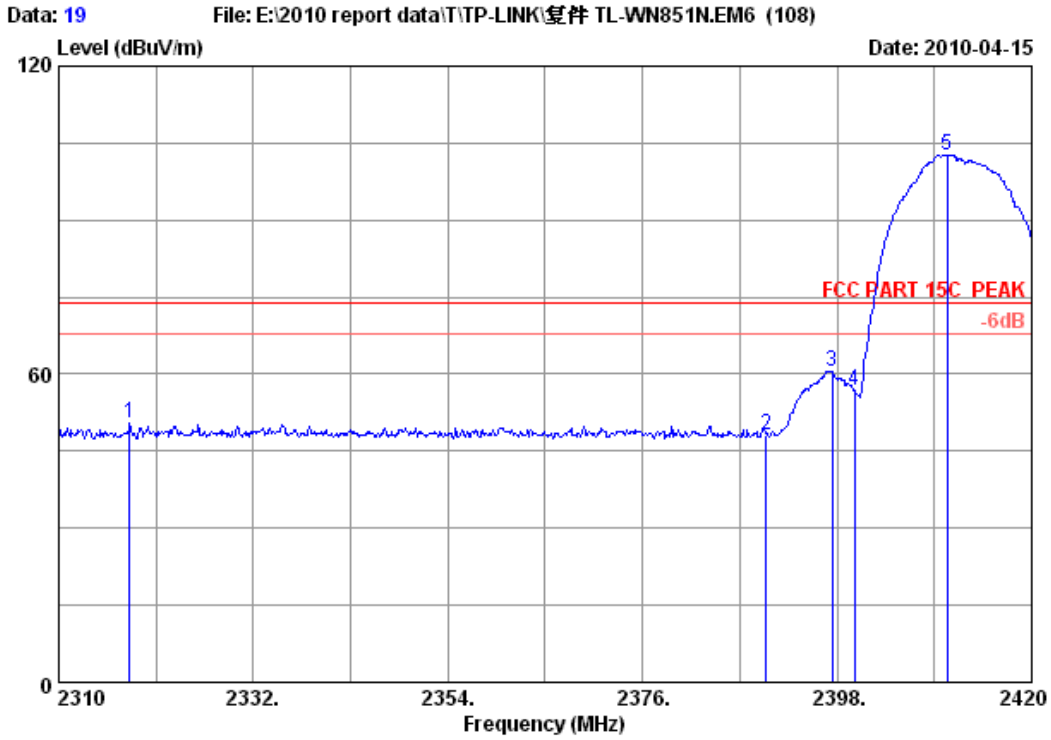
6.3.Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
   (a) PEAK: 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.)
All the emissions outside operation frequency band were comply with 15.209 limit

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	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	2318.030	29.40	8.52	36.06	48.56	50.42	74.00	23.58	Peak
2	2390.000	29.44	8.67	36.09	46.28	48.30	74.00	25.70	Peak
3	2397.450	29.44	8.72	36.09	58.40	60.47	74.00	13.53	Peak
4	2400.000	29.44	8.72	36.09	54.61	56.68	74.00	17.32	Peak
5	2410.430	29.45	8.72	35.95	100.41	102.63	74.00	-28.63	Peak

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

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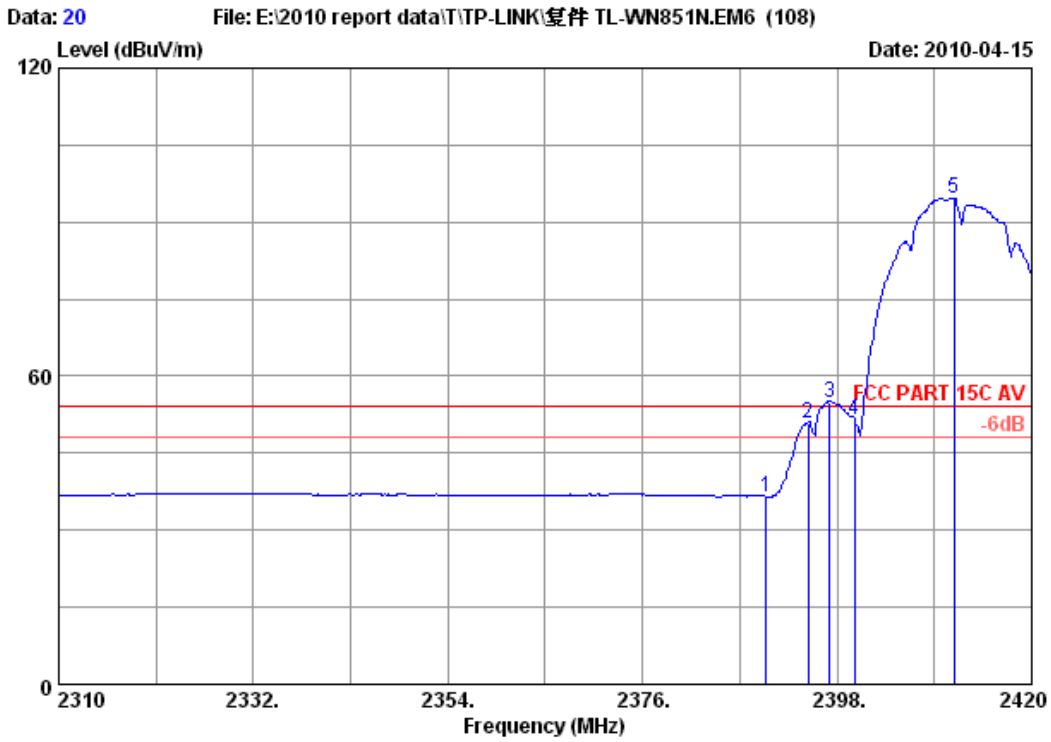
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 20
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	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	29.44	8.67	36.09	34.36	36.38	54.00	17.62	Average
2	2394.700	29.44	8.67	36.09	48.78	50.80	54.00	3.20	Average
3	2397.120	29.44	8.72	36.09	52.90	54.97	54.00	-0.97	Average
4	2400.000	29.44	8.72	36.09	49.41	51.48	54.00	2.52	Average
5	2411.200	29.45	8.72	35.95	92.42	94.64	54.00	-40.64	Average

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

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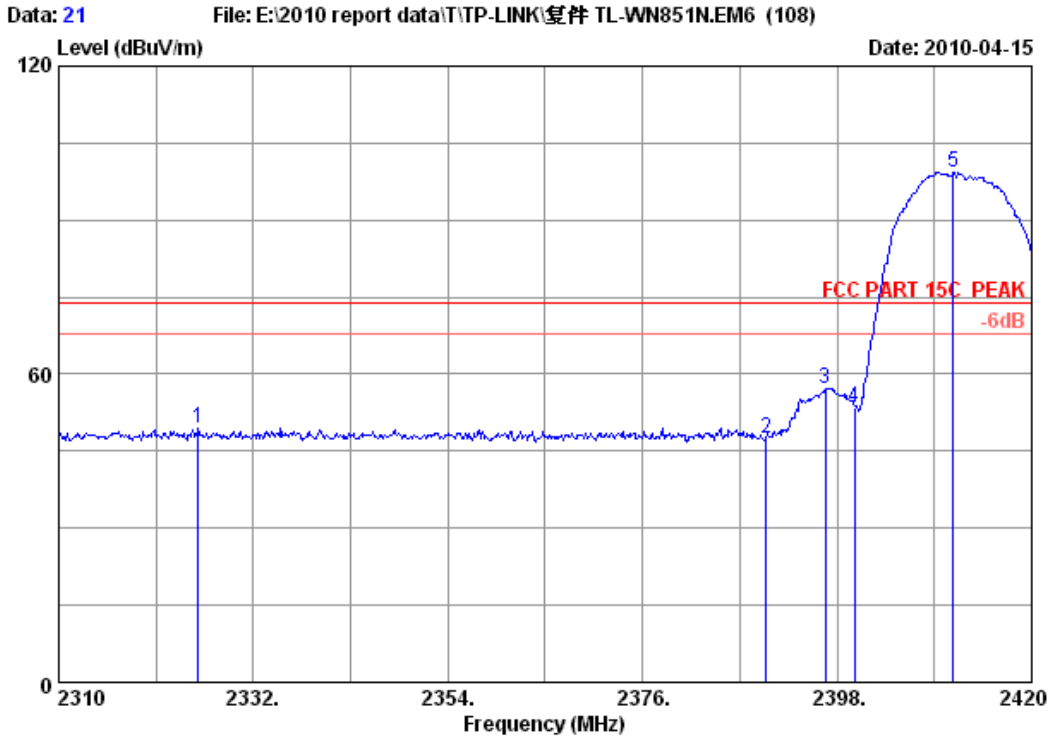
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 21
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	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	2325.730	29.40	8.57	36.06	47.61	49.52	74.00	24.48	Peak
2	2390.000	29.44	8.67	36.09	45.40	47.42	74.00	26.58	Peak
3	2396.680	29.44	8.72	36.09	55.08	57.15	74.00	16.85	Peak
4	2400.000	29.44	8.72	36.09	51.56	53.63	74.00	20.37	Peak
5	2411.090	29.45	8.72	35.95	97.11	99.33	74.00	-25.33	Peak

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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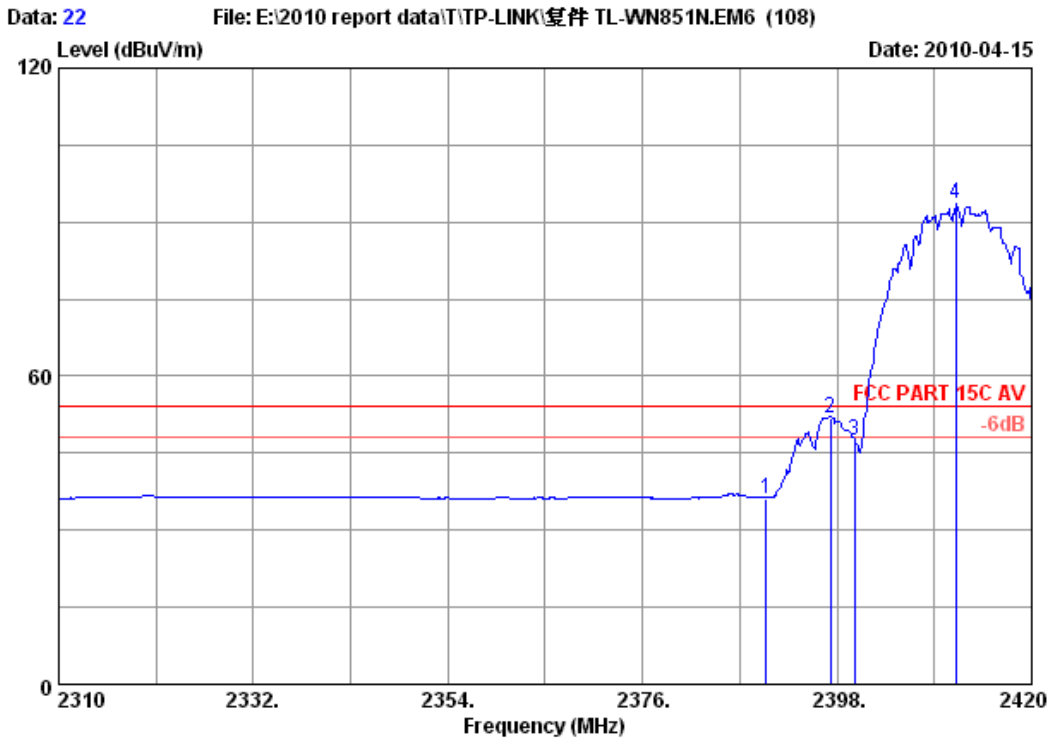
Postcode:518057



Site no. : 3m Chamber Data no. : 22
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz
M/N : TL-WN851N

	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	29.44	8.67	36.09	34.14	36.16	54.00	17.84	Average
2	2397.230	29.44	8.72	36.09	49.79	51.86	54.00	2.14	Average
3	2400.000	29.44	8.72	36.09	45.54	47.61	54.00	6.39	Average
4	2411.420	29.45	8.72	35.95	91.25	93.47	54.00	-39.47	Average

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

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Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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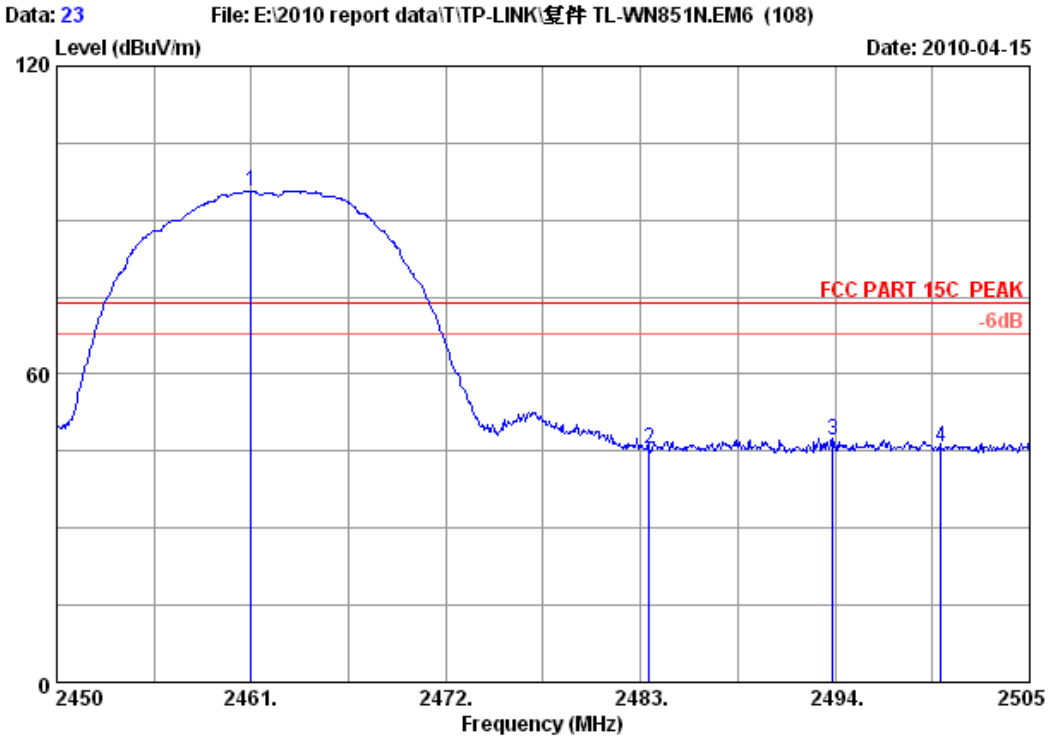
Postcode:518057



Site no. : 3m Chamber Data no. : 23
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	2461.000	29.48	8.82	36.02	93.32	95.60	74.00	-21.60	Peak
2	2483.500	29.49	8.87	35.97	43.22	45.61	74.00	28.39	Peak
3	2493.890	29.50	8.87	36.00	44.84	47.21	74.00	26.79	Peak
4	2500.000	29.50	8.92	36.00	43.31	45.73	74.00	28.27	Peak

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

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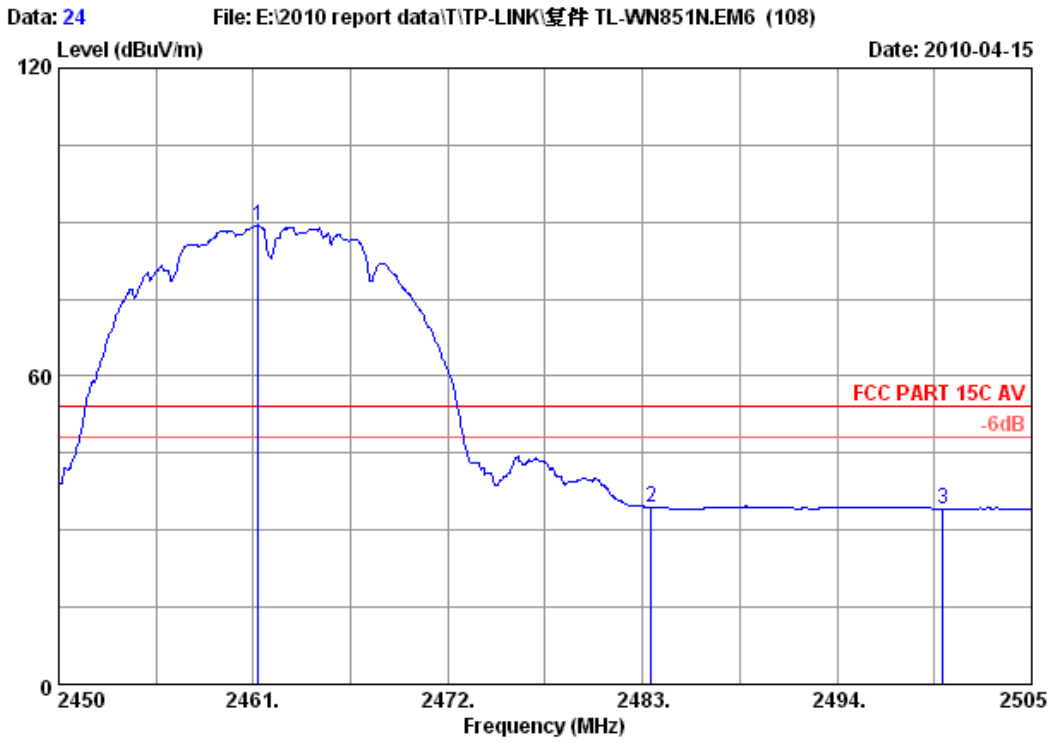
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057

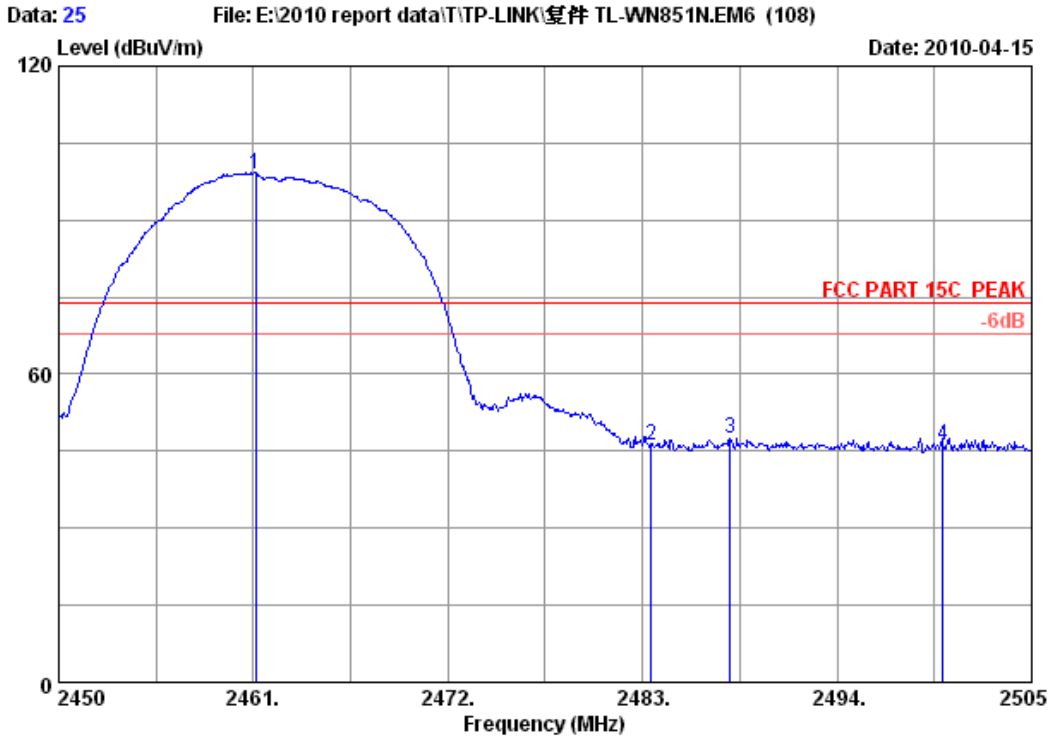


Site no. : 3m Chamber Data no. : 24
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	2461.275	29.48	8.82	36.02	86.98	89.26	54.00	-35.26	Average
2	2483.500	29.49	8.87	35.97	32.05	34.44	54.00	19.56	Average
3	2500.000	29.50	8.92	36.00	31.69	34.11	54.00	19.89	Average

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 25
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	2461.110	29.48	8.82	36.02	96.74	99.02	74.00	-25.02	Peak
2	2483.500	29.49	8.87	35.97	43.84	46.23	74.00	27.77	Peak
3	2487.950	29.50	8.87	36.00	44.95	47.32	74.00	26.68	Peak
4	2500.000	29.50	8.92	36.00	43.87	46.29	74.00	27.71	Peak

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

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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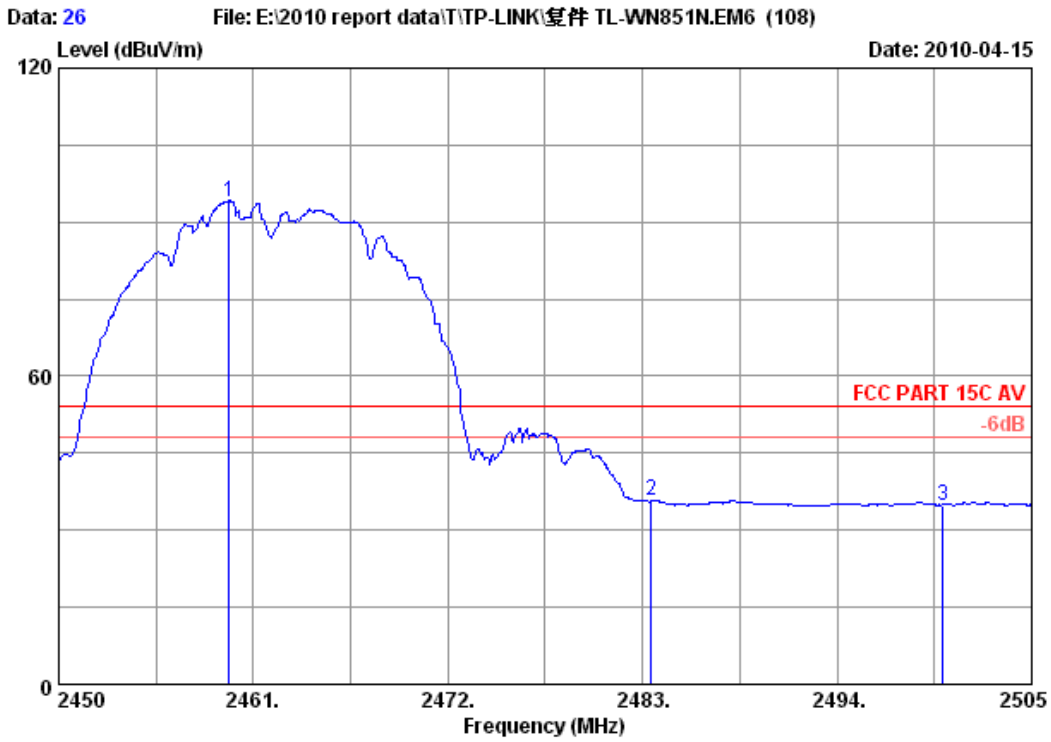

Site no. : 3m Chamber Data no. : 26
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz
M/N : TL-WN851N

	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	2459.625	29.48	8.82	36.02	91.68	93.96	54.00	-39.96	Average
2	2483.500	29.49	8.87	35.97	33.29	35.68	54.00	18.32	Average
3	2500.000	29.50	8.92	36.00	32.48	34.90	54.00	19.10	Average

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

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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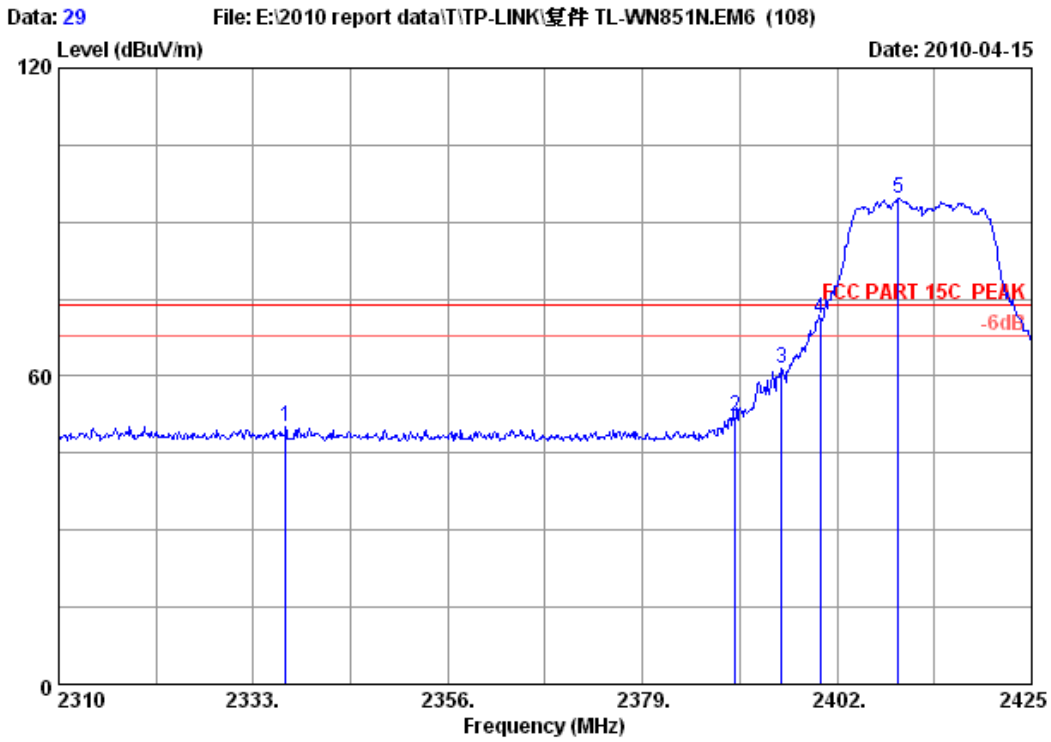

Site no. : 3m Chamber Data no. : 29
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	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	2336.795	29.41	8.57	35.99	48.15	50.14	74.00	23.86	Peak
2	2390.000	29.44	8.67	36.09	50.11	52.13	74.00	21.87	Peak
3	2395.445	29.44	8.67	36.09	59.37	61.39	74.00	12.61	Peak
4	2400.000	29.44	8.72	36.09	69.12	71.19	74.00	2.81	Peak
5	2409.245	29.45	8.72	35.95	92.32	94.54	74.00	-20.54	Peak

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

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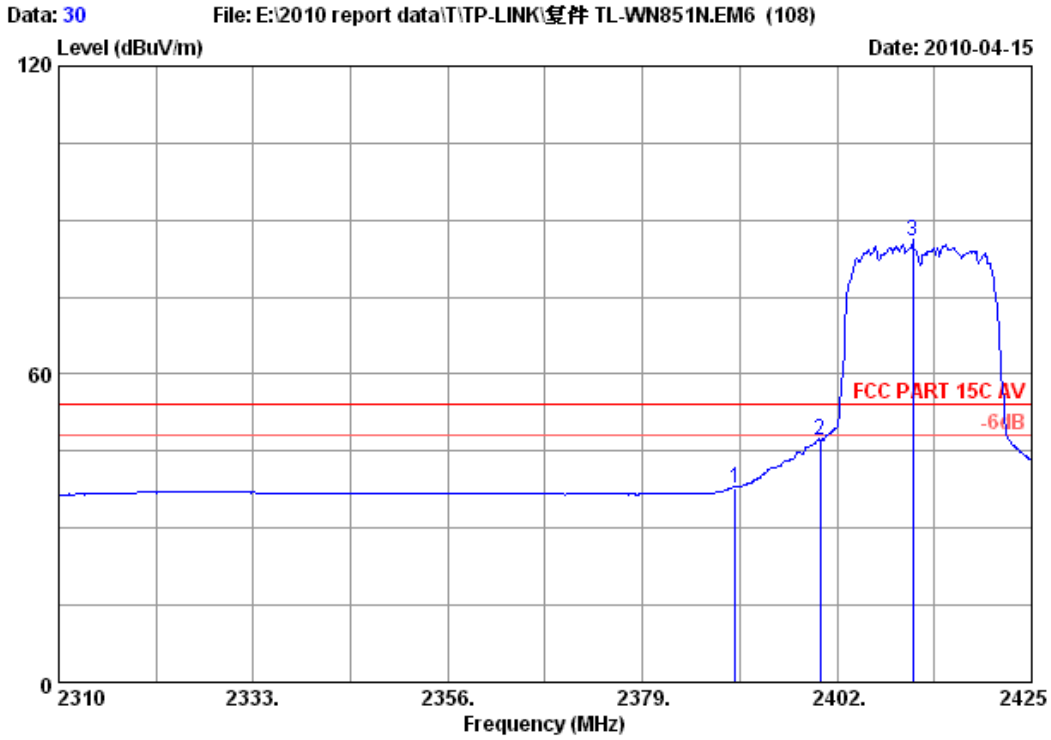
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 30
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	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	29.44	8.67	36.09	35.83	37.85	54.00	16.15	Average
2	2400.000	29.44	8.72	36.09	44.93	47.00	54.00	7.00	Average
3	2410.970	29.45	8.72	35.95	83.83	86.05	54.00	-32.05	Average

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
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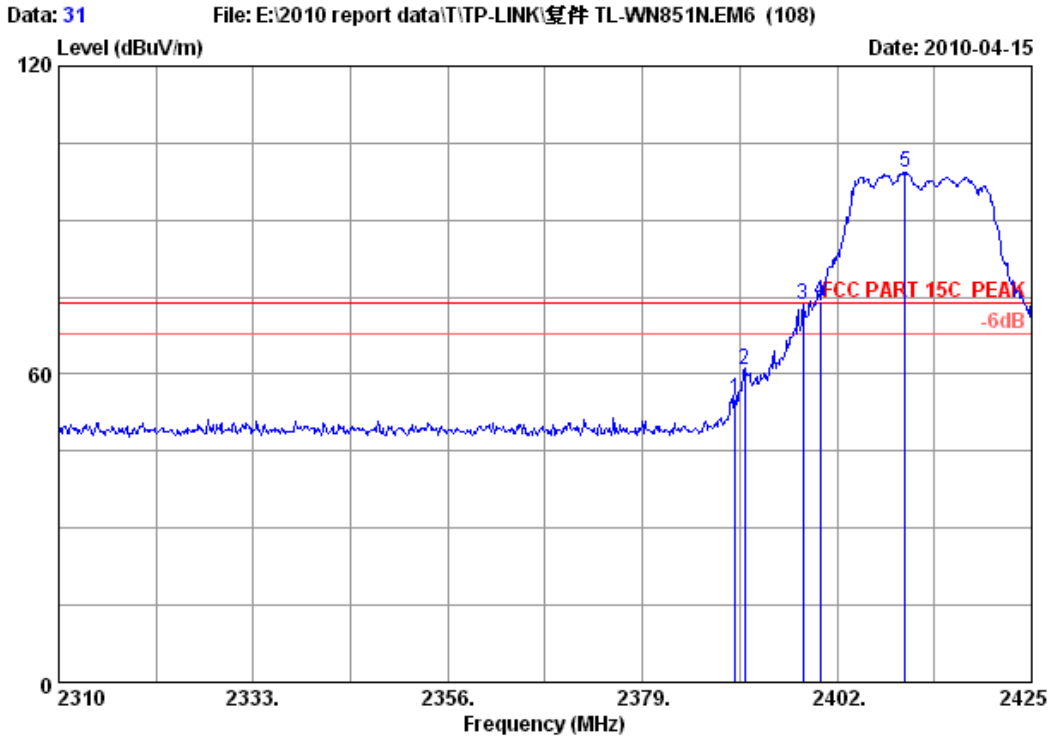

Site no. : 3m Chamber Data no. : 31
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	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	29.44	8.67	36.09	53.23	55.25	74.00	18.75	Peak
2	2391.075	29.44	8.67	36.09	58.88	60.90	74.00	13.10	Peak
3	2397.975	29.44	8.72	36.09	71.31	73.38	74.00	0.62	Peak
4	2400.000	29.44	8.72	36.09	72.27	74.34	74.00	-0.34	Peak
5	2410.050	29.45	8.72	35.95	96.95	99.17	74.00	-25.17	Peak

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

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Tel:+86-755-26639495-7
Fax:+86-755-26632877
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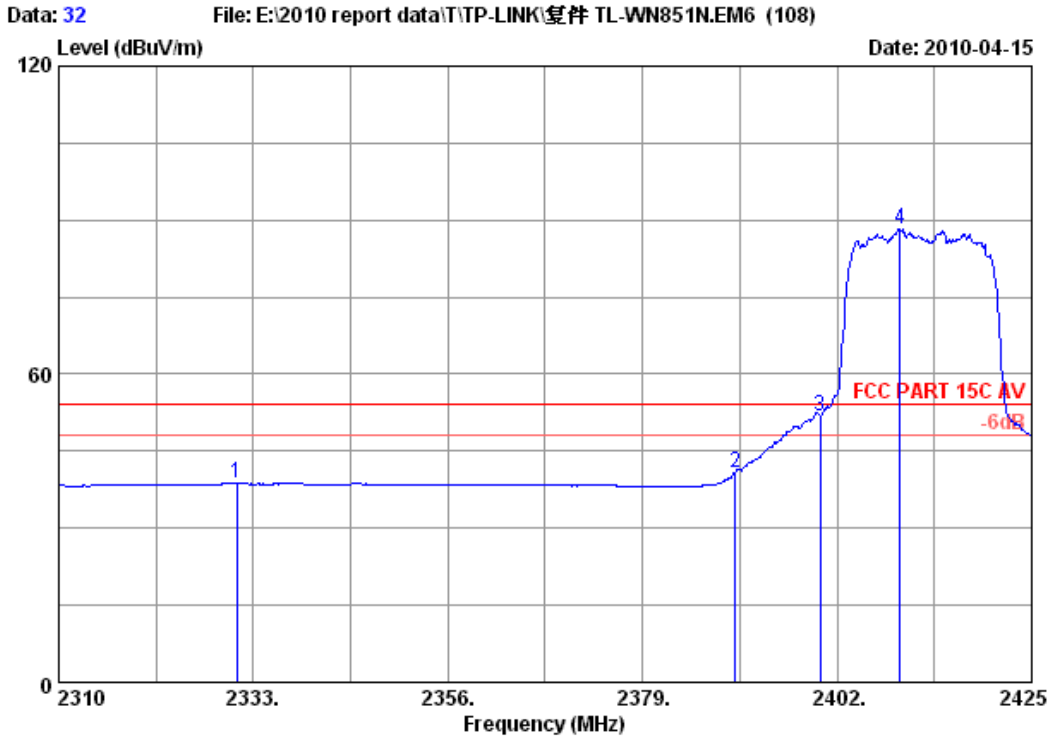

Site no. : 3m Chamber Data no. : 32
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz
M/N : TL-WN851N

	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	2331.045	29.40	8.57	36.06	36.73	38.64	54.00	15.36	Average
2	2390.000	29.44	8.67	36.09	38.87	40.89	54.00	13.11	Average
3	2400.000	29.44	8.72	36.09	49.58	51.65	54.00	2.35	Average
4	2409.475	29.45	8.72	35.95	86.12	88.34	54.00	-34.34	Average

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

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Tel:+86-755-26639495-7
Fax:+86-755-26632877
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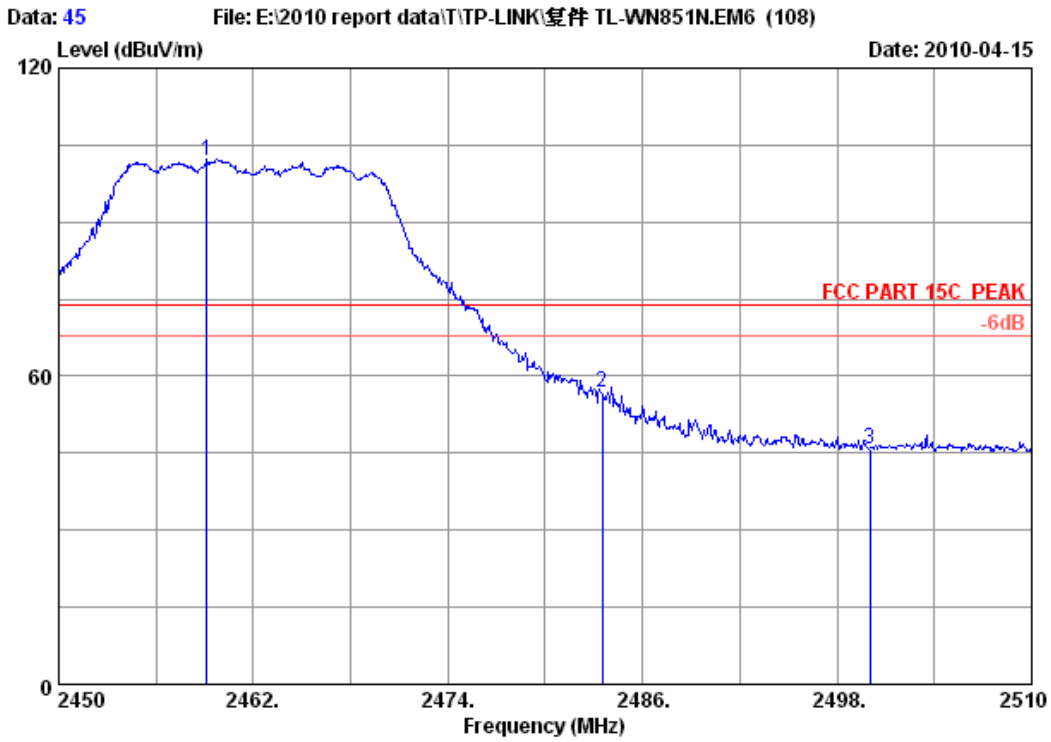

Site no. : 3m Chamber Data no. : 45
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	2459.120	29.48	8.82	36.02	99.83	102.11	74.00	-28.11	Peak
2	2483.500	29.49	8.87	35.97	54.48	56.87	74.00	17.13	Peak
3	2500.000	29.50	8.92	36.00	43.35	45.77	74.00	28.23	Peak

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

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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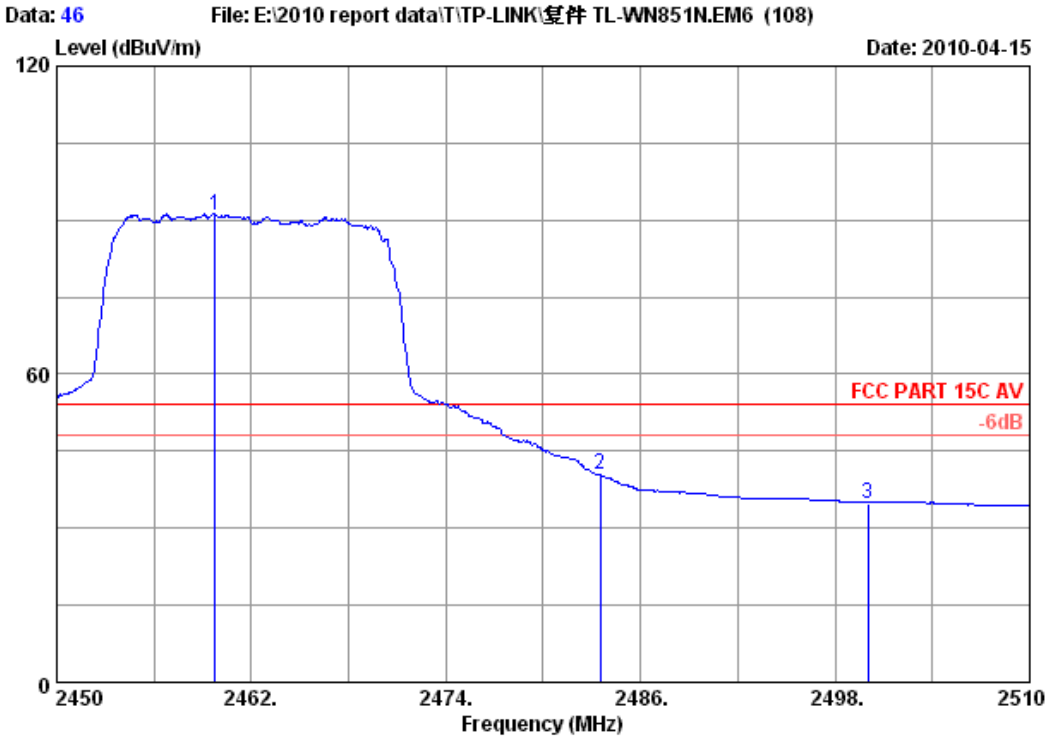
Postcode:518057



Site no. : 3m Chamber Data no. : 46
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	2459.780	29.48	8.82	36.02	88.79	91.07	54.00	-37.07	Average
2	2483.500	29.49	8.87	35.97	37.91	40.30	54.00	13.70	Average
3	2500.000	29.50	8.92	36.00	32.49	34.91	54.00	19.09	Average

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

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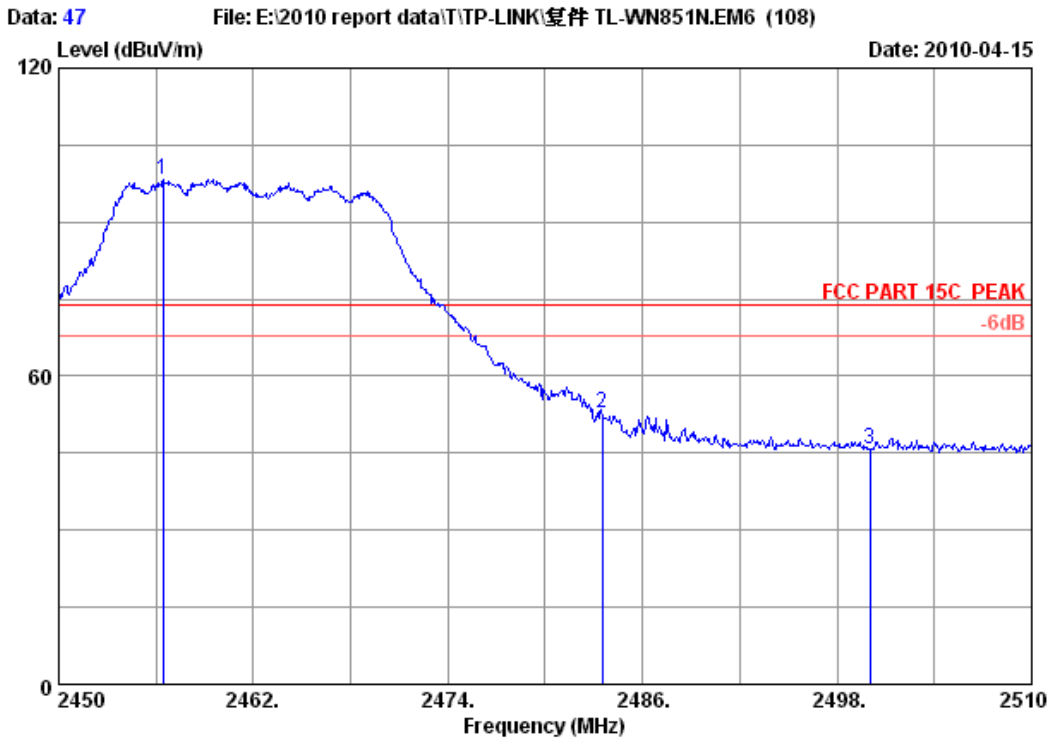
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 47
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	2456.420	29.48	8.82	36.02	95.91	98.19	74.00	-24.19	Peak
2	2483.500	29.49	8.87	35.97	50.51	52.90	74.00	21.10	Peak
3	2500.000	29.50	8.92	36.00	43.22	45.64	74.00	28.36	Peak

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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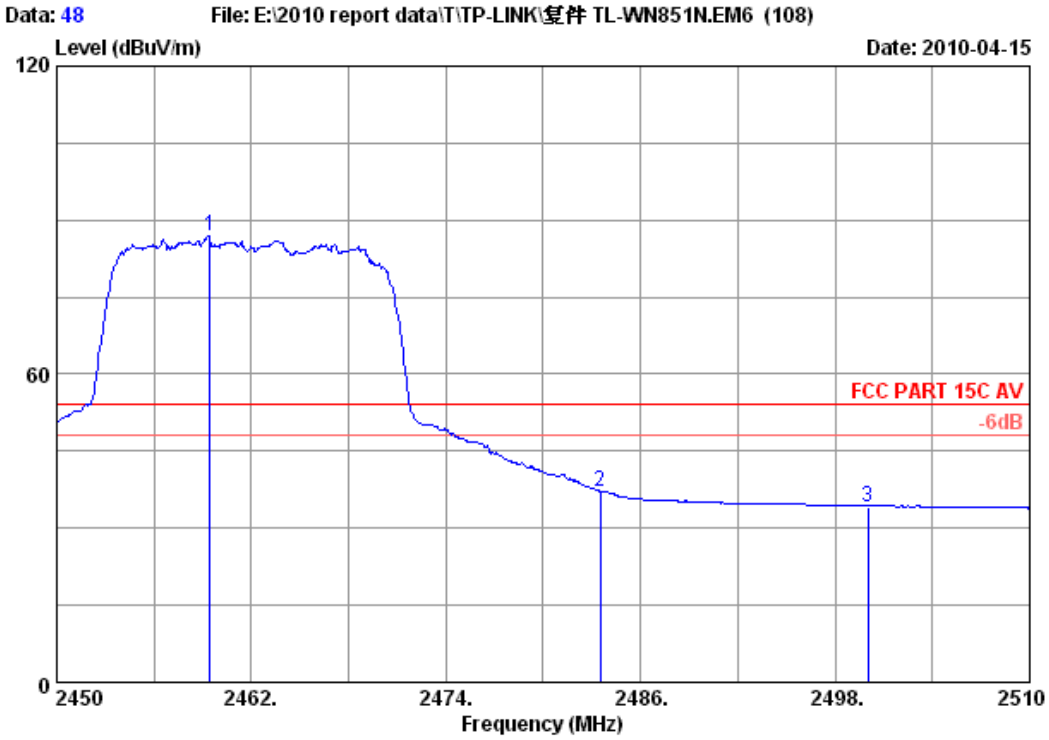

Site no. : 3m Chamber Data no. : 48
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz
M/N : TL-WN851N

	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	29.48	8.82	36.02	84.63	86.91	54.00	-32.91	Average
2	2483.500	29.49	8.87	35.97	34.77	37.16	54.00	16.84	Average
3	2500.000	29.50	8.92	36.00	31.77	34.19	54.00	19.81	Average

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

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Fax:+86-755-26632877
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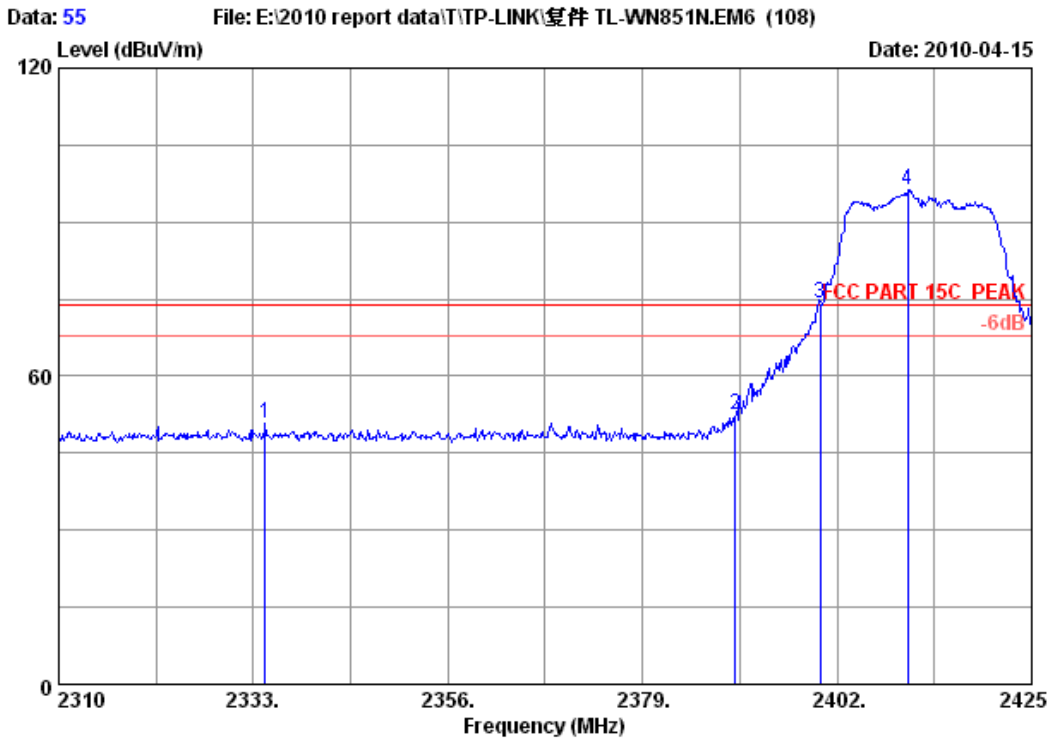

Site no. : 3m Chamber Data no. : 55
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	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	2334.380	29.40	8.57	36.06	48.76	50.67	74.00	23.33	Peak
2	2390.000	29.44	8.67	36.09	50.43	52.45	74.00	21.55	Peak
3	2400.000	29.44	8.72	36.09	72.18	74.25	74.00	-0.25	Peak
4	2410.395	29.45	8.72	35.95	94.00	96.22	74.00	-22.22	Peak

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

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Fax:+86-755-26632877
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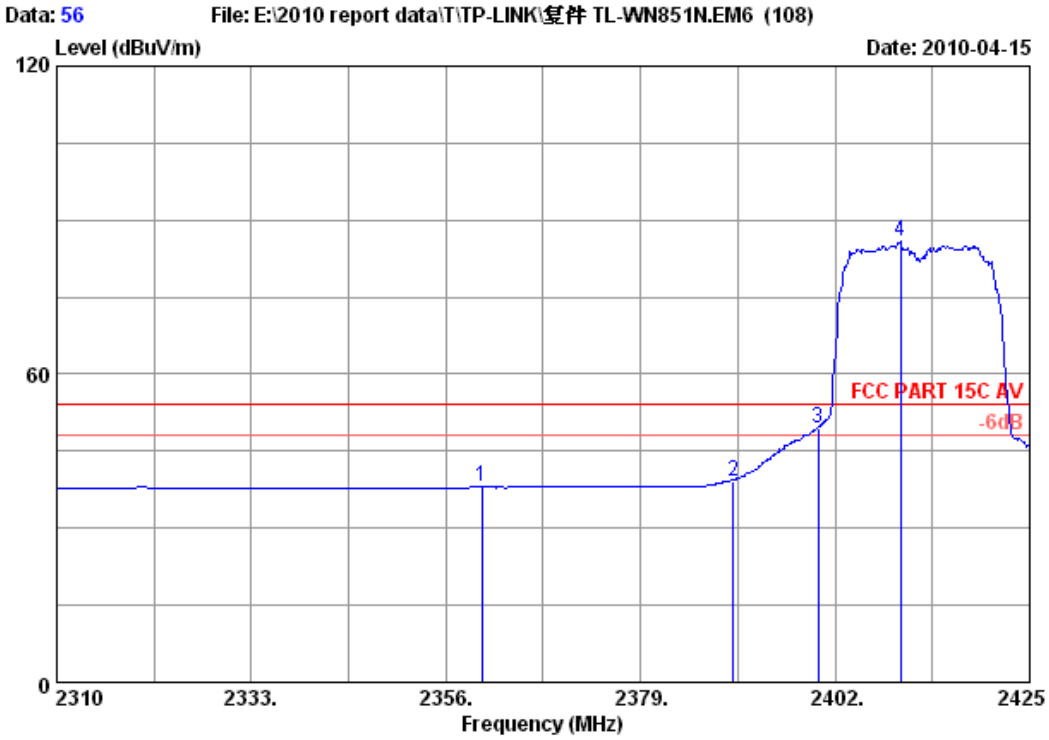

Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	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	2360.255	29.42	8.62	35.91	36.12	38.25	54.00	15.75	Average
2	2390.000	29.44	8.67	36.09	37.21	39.23	54.00	14.77	Average
3	2400.000	29.44	8.72	36.09	47.45	49.52	54.00	4.48	Average
4	2409.705	29.45	8.72	35.95	83.53	85.75	54.00	-31.75	Average

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

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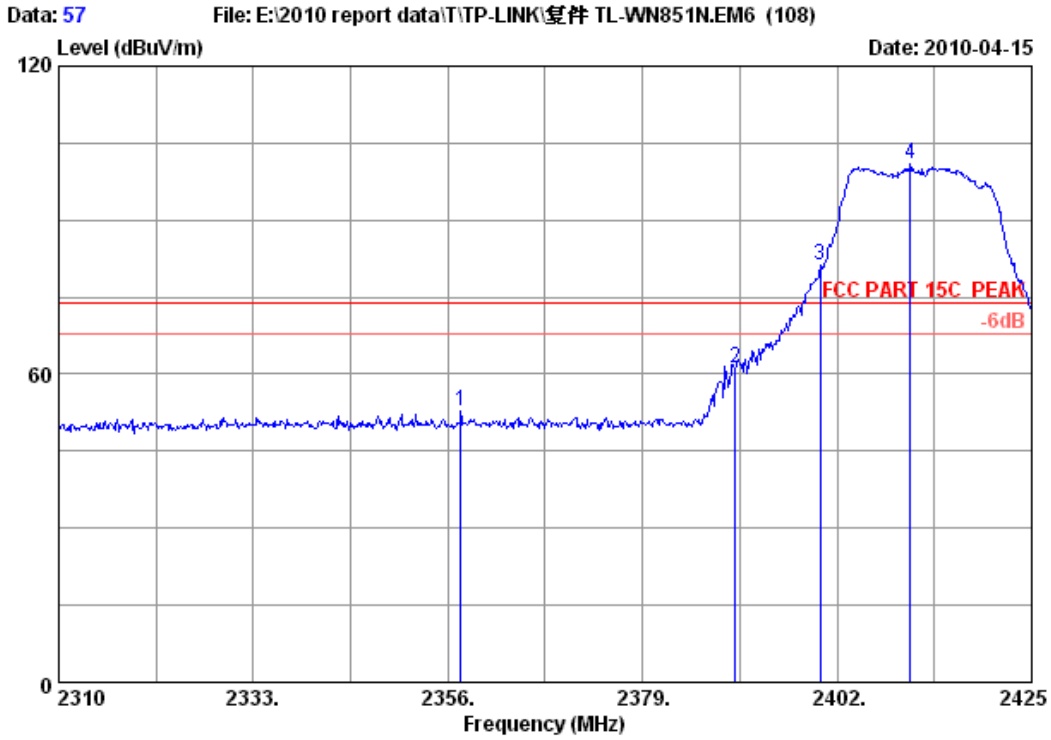

Site no. : 3m Chamber Data no. : 57
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	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	2357.495	29.42	8.62	35.91	50.70	52.83	74.00	21.17	Peak
2	2390.000	29.44	8.67	36.09	59.22	61.24	74.00	12.76	Peak
3	2400.000	29.44	8.72	36.09	79.02	81.09	74.00	-7.09	Peak
4	2410.625	29.45	8.72	35.95	98.60	100.82	74.00	-26.82	Peak

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

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Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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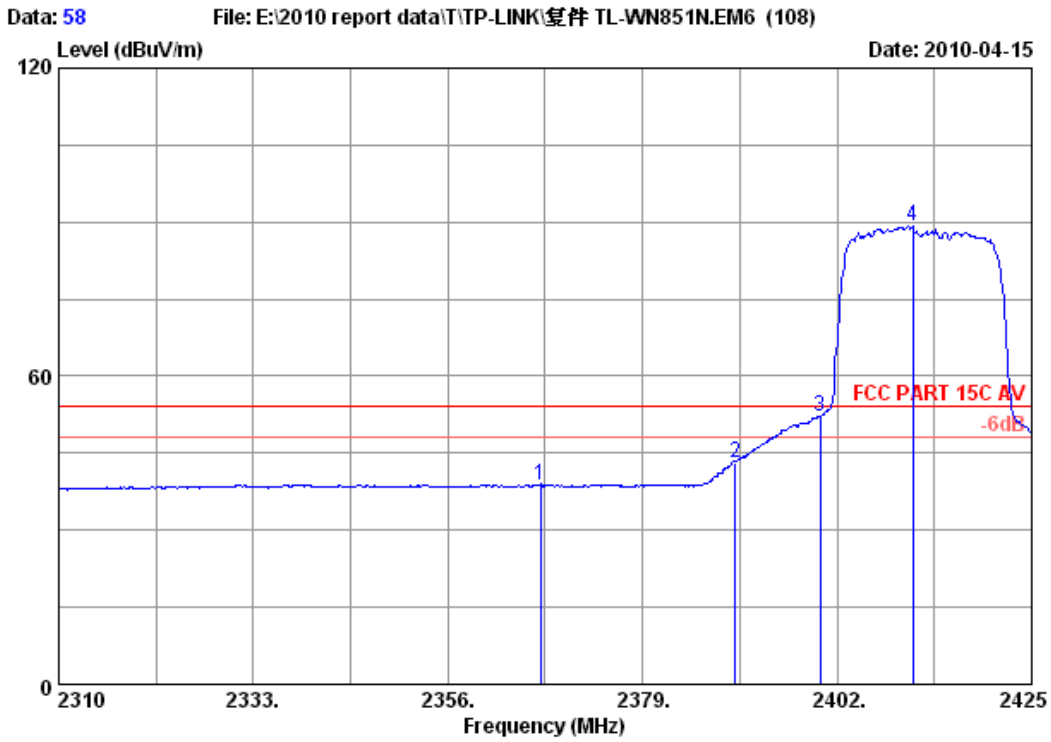
Postcode:518057

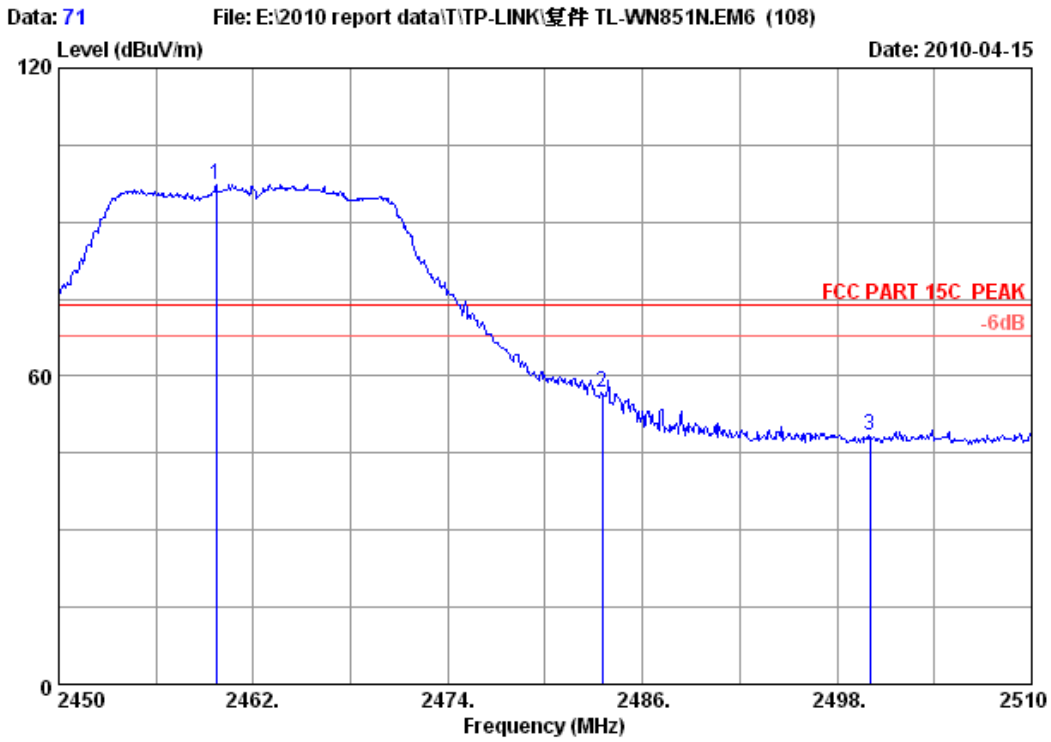


Site no. : 3m Chamber Data no. : 58
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz
M/N : TL-WN851N

	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	2366.925	29.42	8.62	35.91	36.81	38.94	54.00	15.06	Average
2	2390.000	29.44	8.67	36.09	41.19	43.21	54.00	10.79	Average
3	2400.000	29.44	8.72	36.09	50.06	52.13	54.00	1.87	Average
4	2410.970	29.45	8.72	35.95	87.02	89.24	54.00	-35.24	Average

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

No.6 Ke Feng Road,Block 52,
ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
Fax:+86-755-26632877
Postcode:518057



Site no. : 3m Chamber Data no. : 71
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	2459.720	29.48	8.82	36.02	94.90	97.18	74.00	-23.18	Peak
2	2483.500	29.49	8.87	35.97	54.42	56.81	74.00	17.19	Peak
3	2500.000	29.50	8.92	36.00	46.00	48.42	74.00	25.58	Peak

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

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ShenZhen Science & Industry Park
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Tel:+86-755-26639495-7
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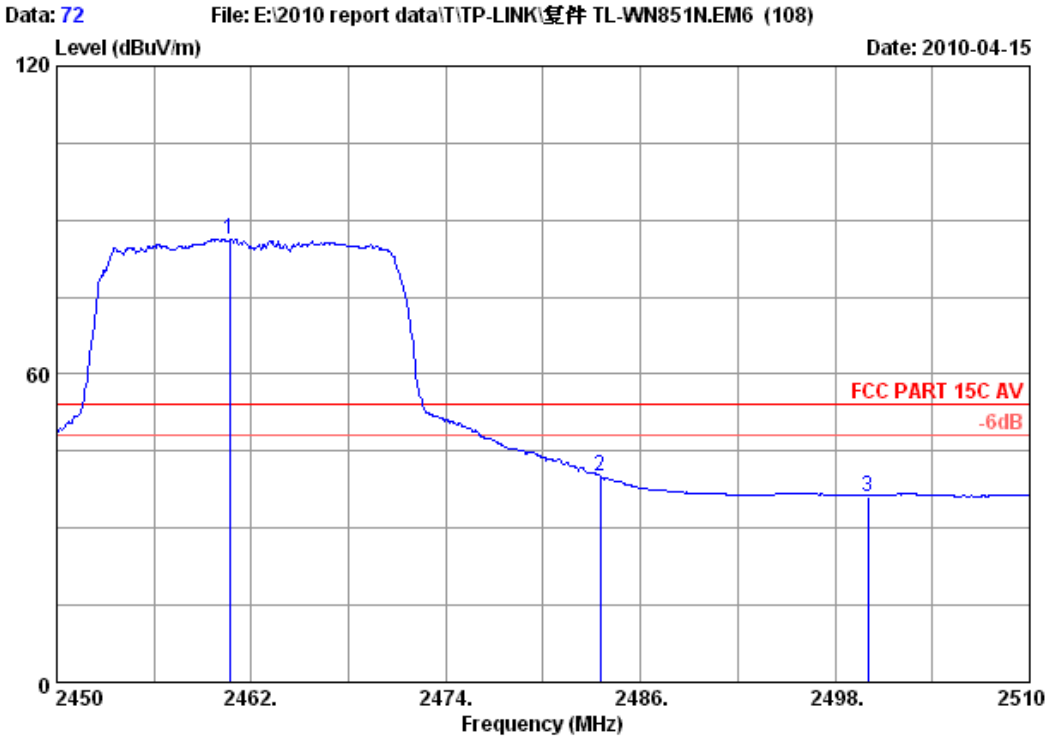

Site no. : 3m Chamber Data no. : 72
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	2460.680	29.48	8.82	36.02	83.86	86.14	54.00	-32.14	Average
2	2483.500	29.49	8.87	35.97	37.80	40.19	54.00	13.81	Average
3	2500.000	29.50	8.92	36.00	33.75	36.17	54.00	17.83	Average

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

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ShenZhen Science & Industry Park
Noutou,ShenZhen,GuangDong,China
Tel:+86-755-26639495-7
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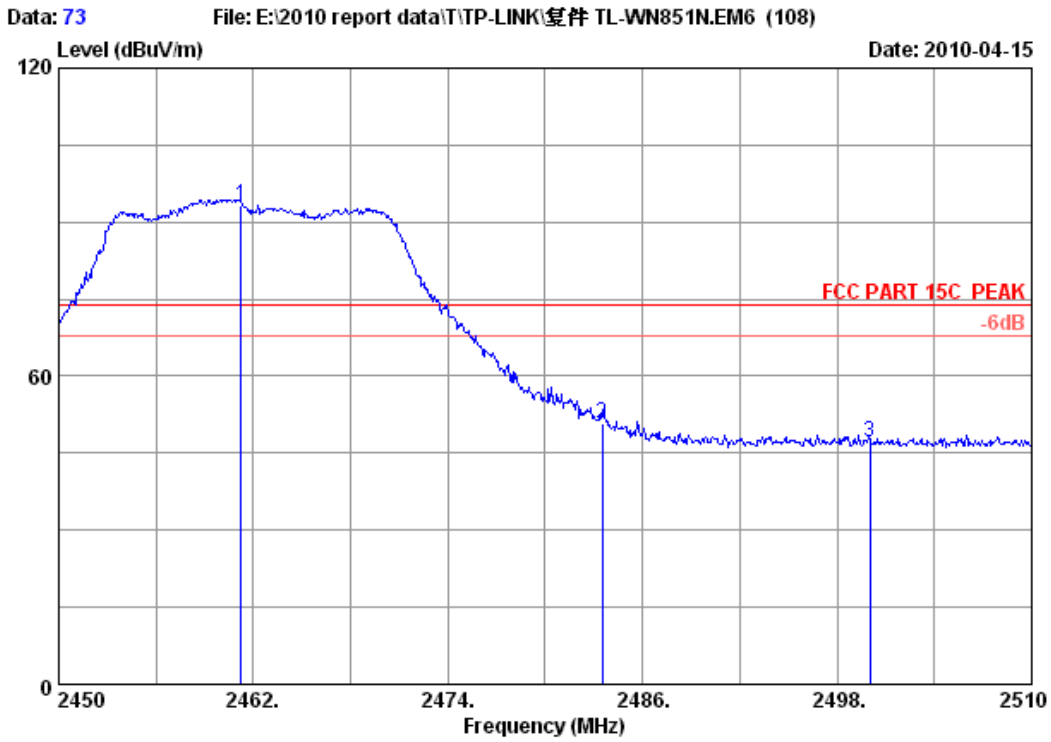

Site no. : 3m Chamber Data no. : 73
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	29.48	8.82	36.02	91.13	93.41	74.00	-19.41	Peak
2	2483.500	29.49	8.87	35.97	48.29	50.68	74.00	23.32	Peak
3	2500.000	29.50	8.92	36.00	44.74	47.16	74.00	26.84	Peak

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

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ShenZhen Science & Industry Park
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Tel:+86-755-26639495-7
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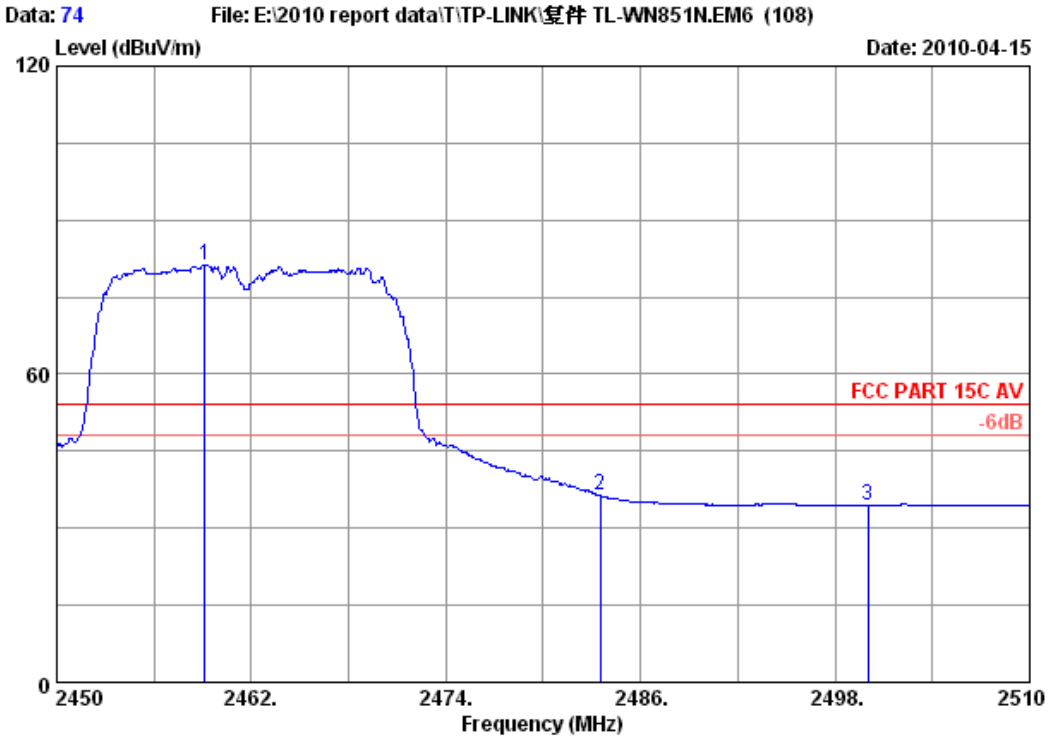

Site no. : 3m Chamber Data no. : 74
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz
M/N : TL-WN851N

	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	2459.120	29.48	8.82	36.02	78.89	81.17	54.00	-27.17	Average
2	2483.500	29.49	8.87	35.97	33.97	36.36	54.00	17.64	Average
3	2500.000	29.50	8.92	36.00	32.01	34.43	54.00	19.57	Average

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

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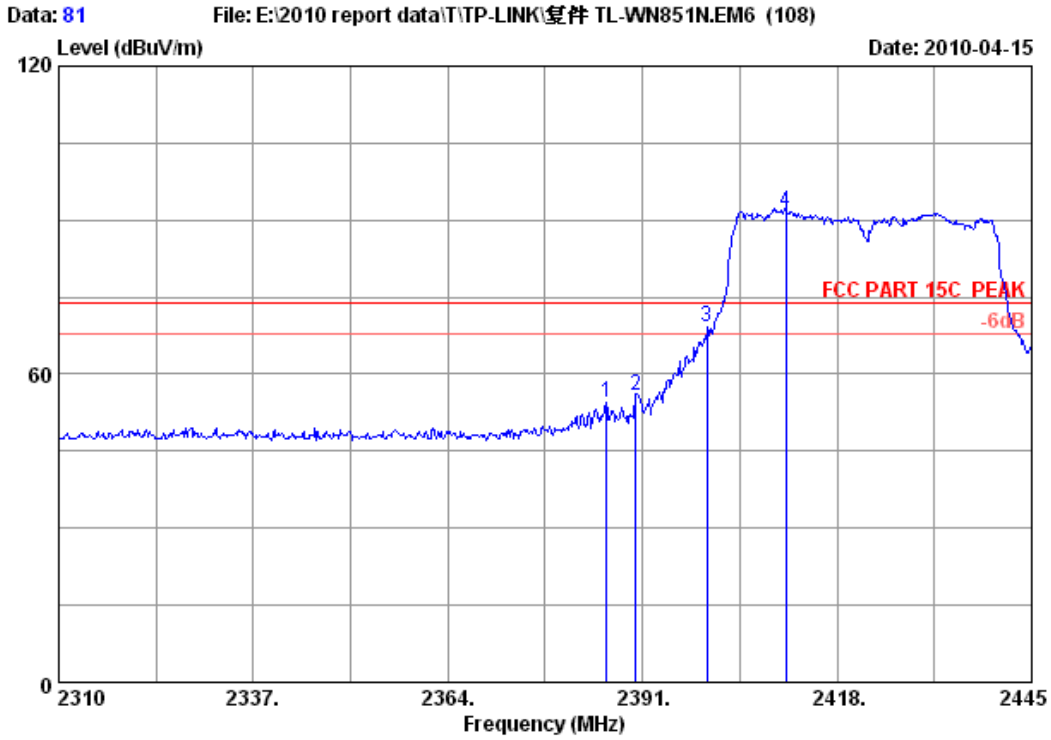

Site no. : 3m Chamber Data no. : 81
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	2386.005	29.44	8.67	36.09	52.37	54.39	74.00	19.61	Peak
2	2390.000	29.44	8.67	36.09	53.94	55.96	74.00	18.04	Peak
3	2400.000	29.44	8.72	36.09	67.00	69.07	74.00	4.93	Peak
4	2410.845	29.45	8.72	35.95	89.22	91.44	74.00	-17.44	Peak

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

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Tel:+86-755-26639495-7
Fax:+86-755-26632877
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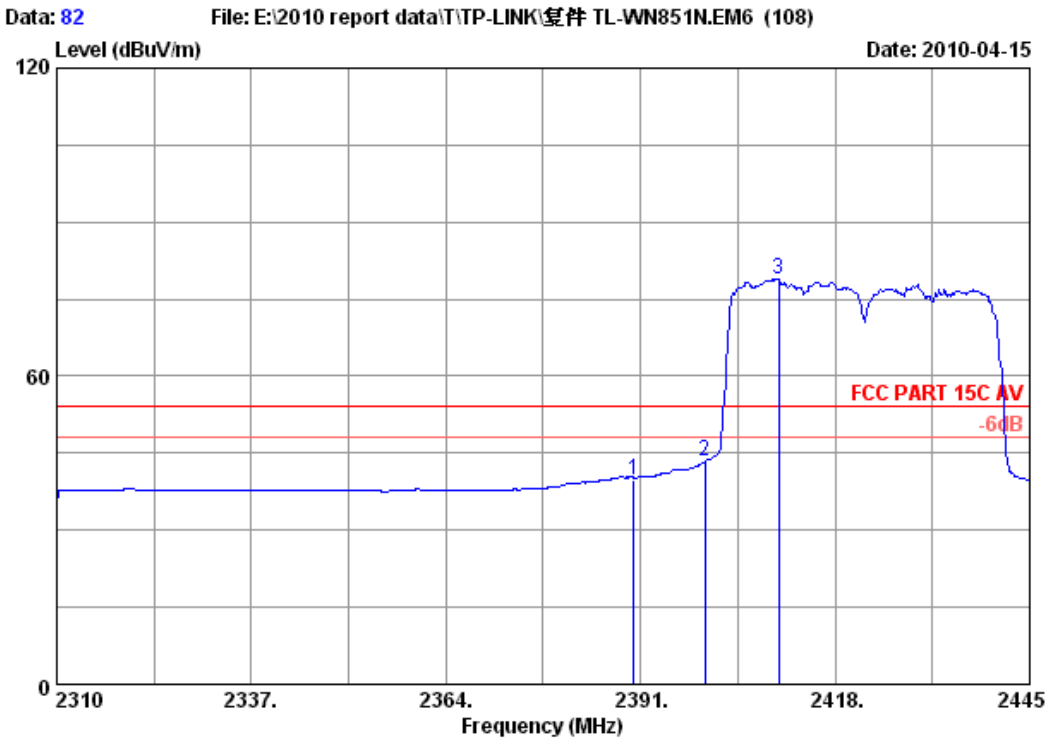

Site no. : 3m Chamber Data no. : 82
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	29.44	8.67	36.09	37.92	39.94	54.00	14.06	Average
2	2400.000	29.44	8.72	36.09	41.25	43.32	54.00	10.68	Average
3	2410.170	29.45	8.72	35.95	76.63	78.85	54.00	-24.85	Average

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

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Noutou,ShenZhen,GuangDong,China
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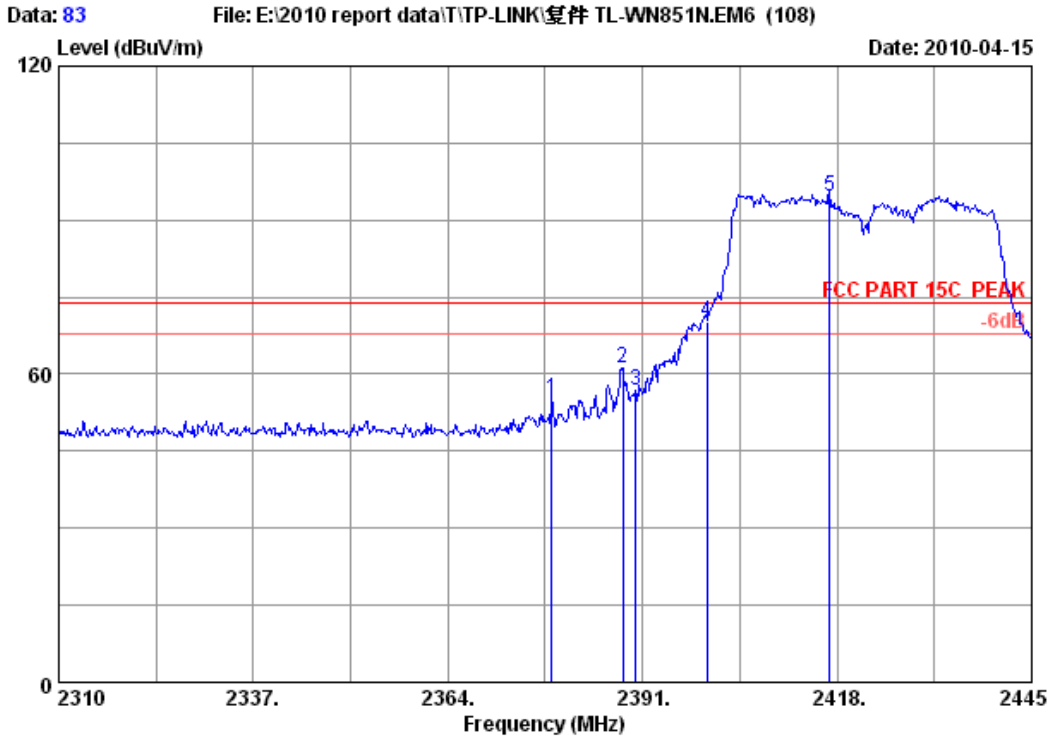

Site no. : 3m Chamber Data no. : 83
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	2378.445	29.43	8.67	36.00	53.14	55.24	74.00	18.76	Peak
2	2388.300	29.44	8.67	36.09	58.99	61.01	74.00	12.99	Peak
3	2390.000	29.44	8.67	36.09	54.76	56.78	74.00	17.22	Peak
4	2400.000	29.44	8.72	36.09	68.21	70.28	74.00	3.72	Peak
5	2416.920	29.45	8.72	35.95	92.35	94.57	74.00	-20.57	Peak

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

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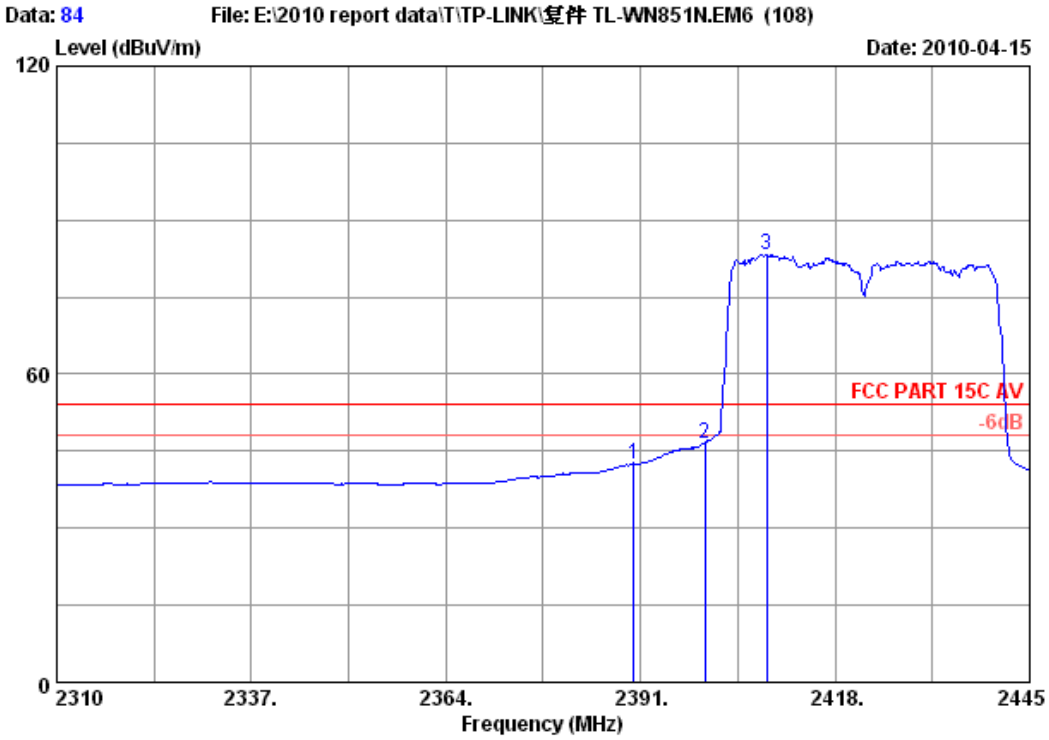

Site no. : 3m Chamber Data no. : 84
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz
M/N : TL-WN851N

	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	29.44	8.67	36.09	40.40	42.42	54.00	11.58	Average
2	2400.000	29.44	8.72	36.09	44.42	46.49	54.00	7.51	Average
3	2408.550	29.45	8.72	35.95	80.97	83.19	54.00	-29.19	Average

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

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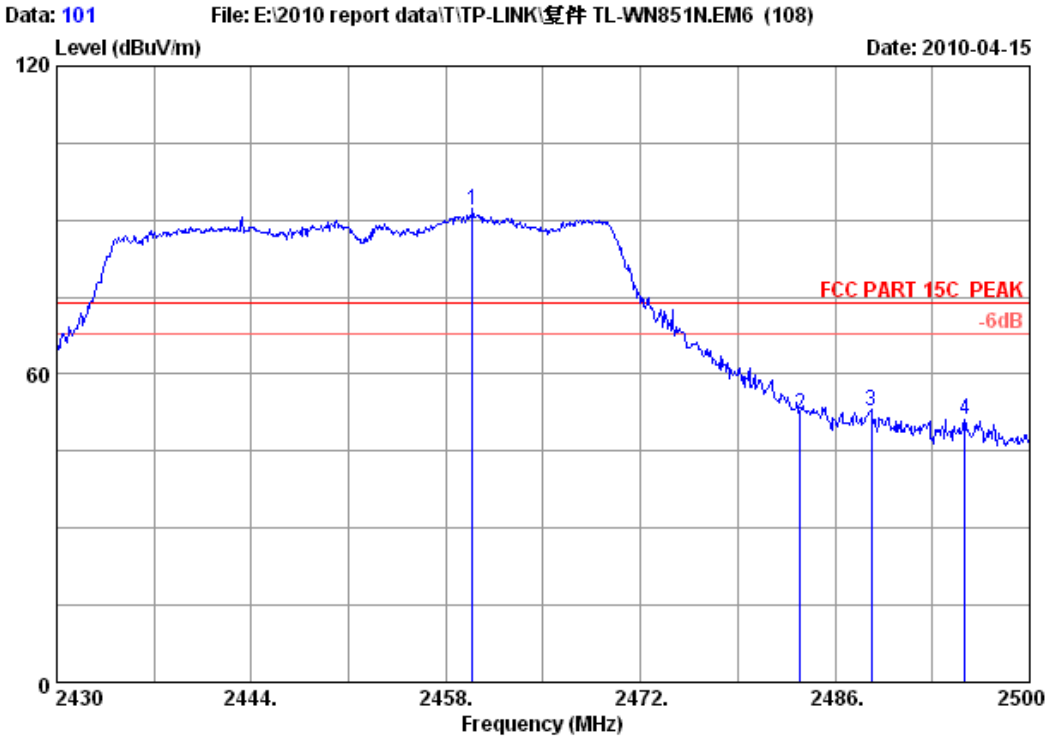

Site no. : 3m Chamber Data no. : 101
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	2459.890	29.48	8.82	36.02	89.73	92.01	74.00	-18.01	Peak
2	2483.500	29.49	8.87	35.97	49.87	52.26	74.00	21.74	Peak
3	2488.590	29.50	8.87	36.00	50.60	52.97	74.00	21.03	Peak
4	2495.310	29.50	8.87	36.00	48.62	50.99	74.00	23.01	Peak

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

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ShenZhen Science & Industry Park
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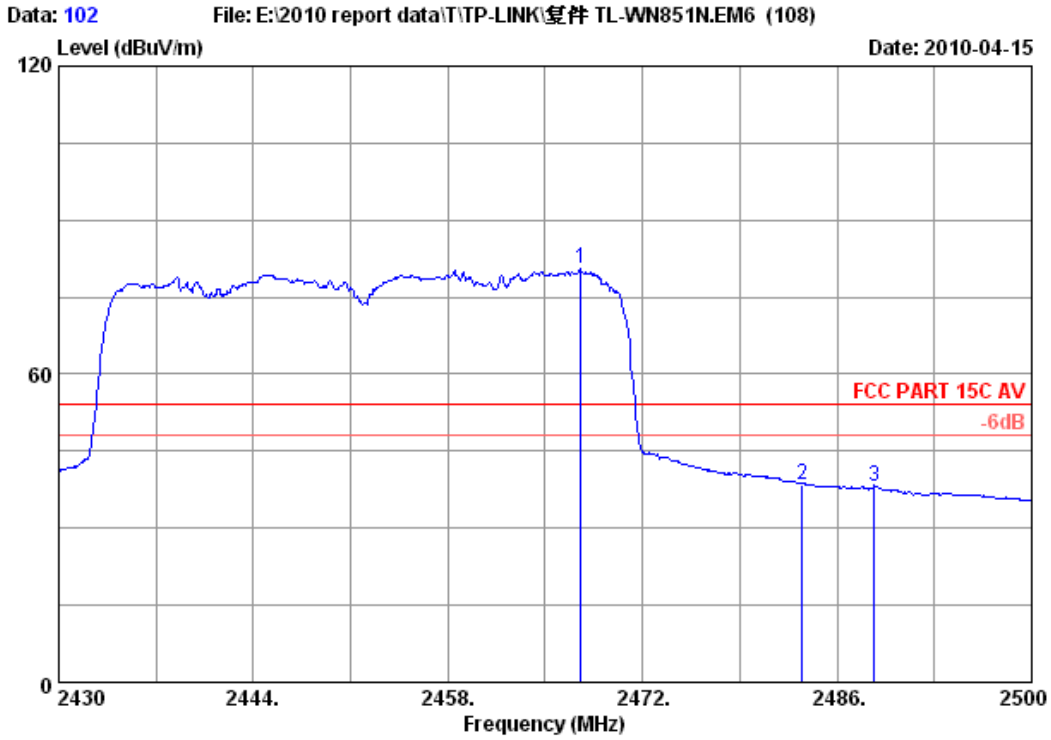

Site no. : 3m Chamber Data no. : 102
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2467.590	29.48	8.82	36.02	78.13	80.41	54.00	-26.41	Average
2	2483.500	29.49	8.87	35.97	36.20	38.59	54.00	15.41	Average
3	2488.660	29.50	8.87	36.00	35.72	38.09	54.00	15.91	Average

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

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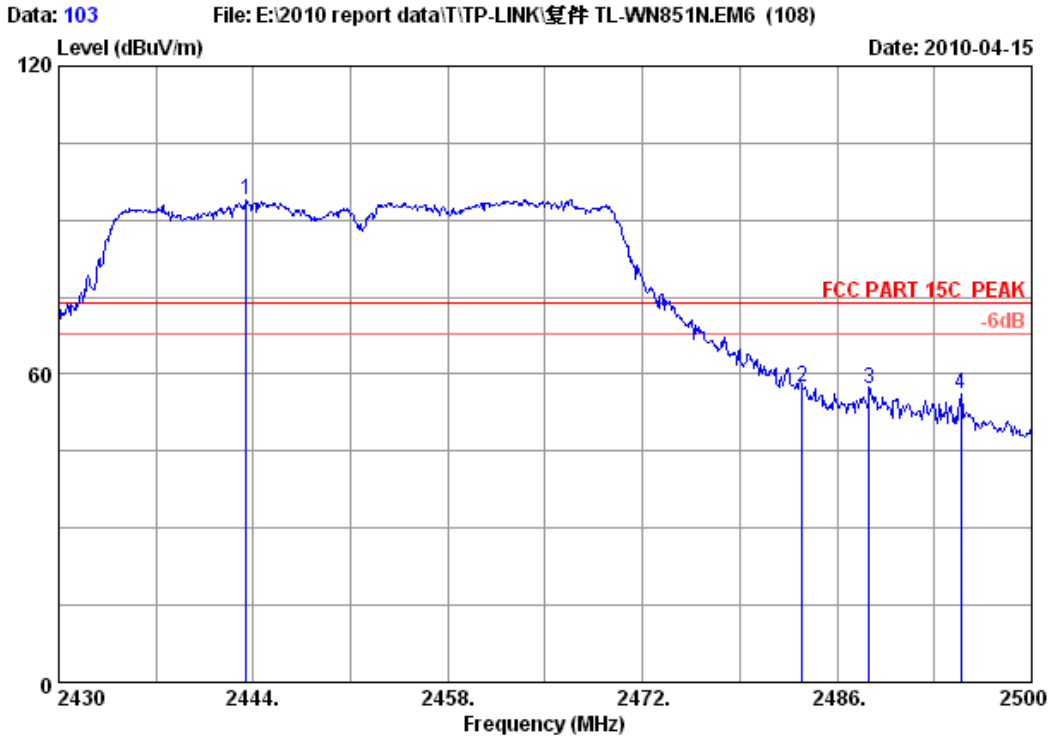

Site no. : 3m Chamber Data no. : 103
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	2443.510	29.47	8.77	36.06	91.69	93.87	74.00	-19.87	Peak
2	2483.500	29.49	8.87	35.97	55.18	57.57	74.00	16.43	Peak
3	2488.310	29.50	8.87	36.00	54.81	57.18	74.00	16.82	Peak
4	2494.890	29.50	8.87	36.00	53.66	56.03	74.00	17.97	Peak

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

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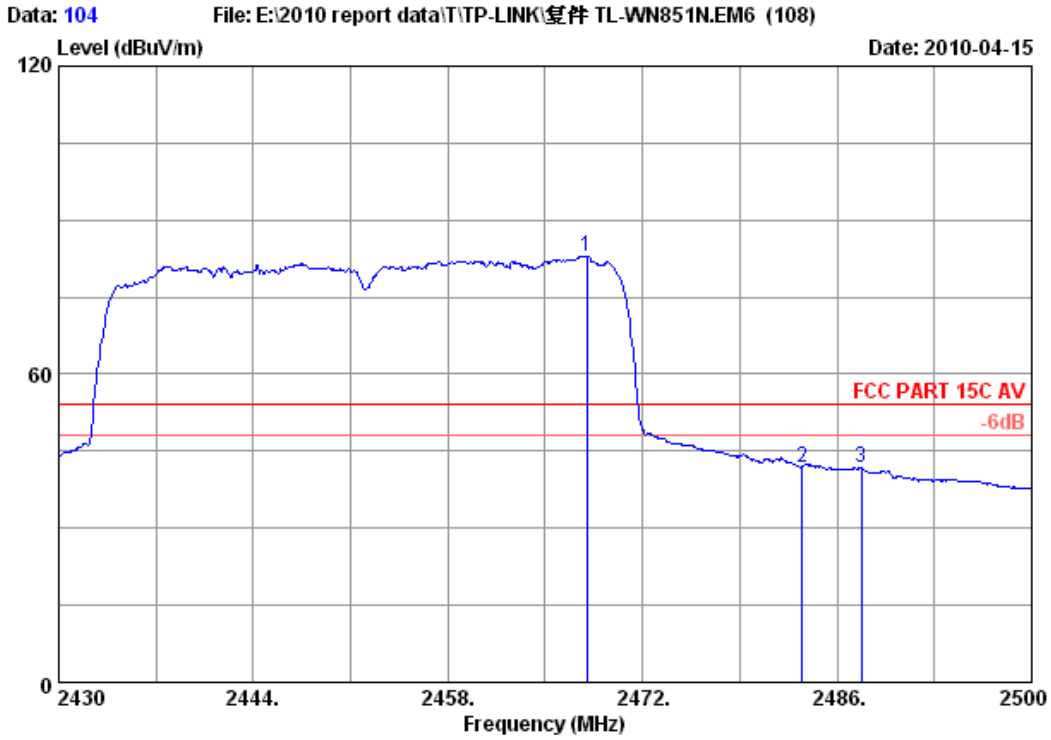


Site no. : 3m Chamber Data no. : 104
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Paul Tian
EUT : Wireless N PCI Adapter
Power : DC 3.3V From PC input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz
M/N : TL-WN851N

	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	2468.010	29.48	8.82	36.02	80.48	82.76	54.00	-28.76	Average
2	2483.500	29.49	8.87	35.97	39.53	41.92	54.00	12.08	Average
3	2487.750	29.50	8.87	36.00	39.43	41.80	54.00	12.20	Average

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

7. 6dB Bandwidth Test

7.1. Test Equipment

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

7.2. Limit

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

7.3. Test Procedure

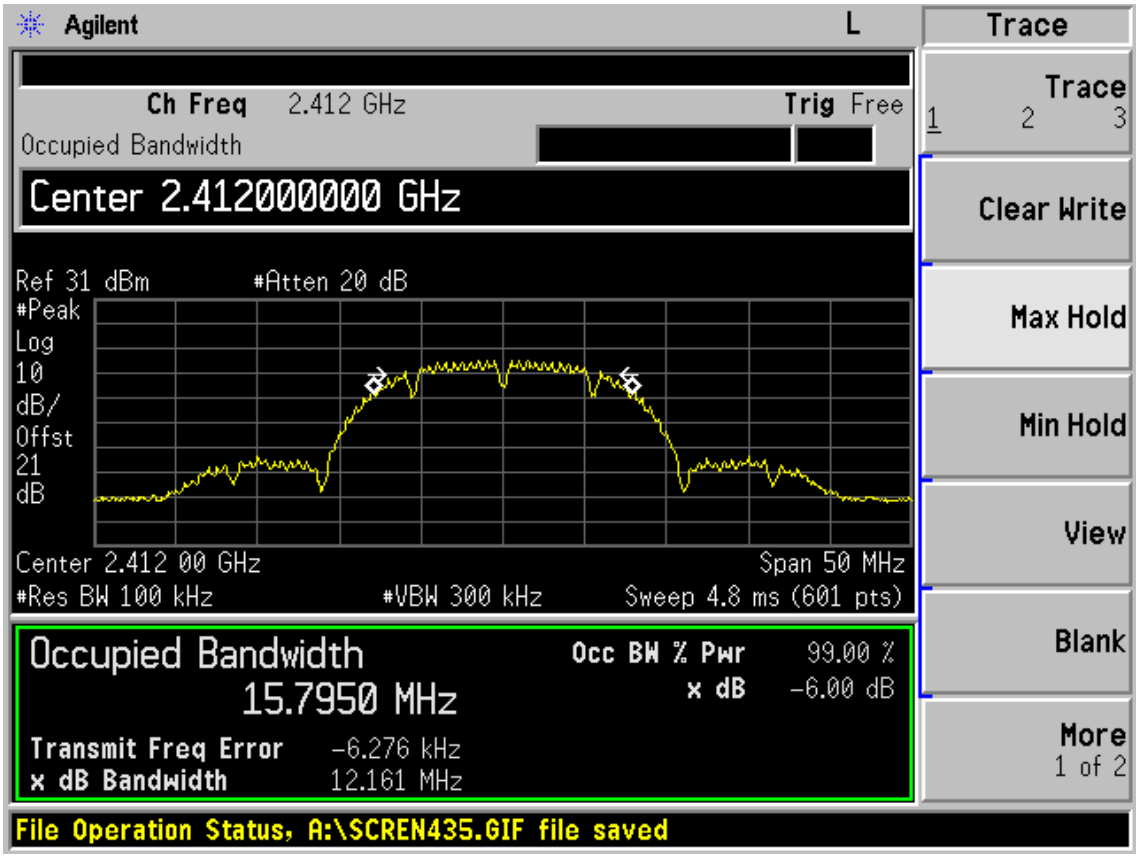
The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

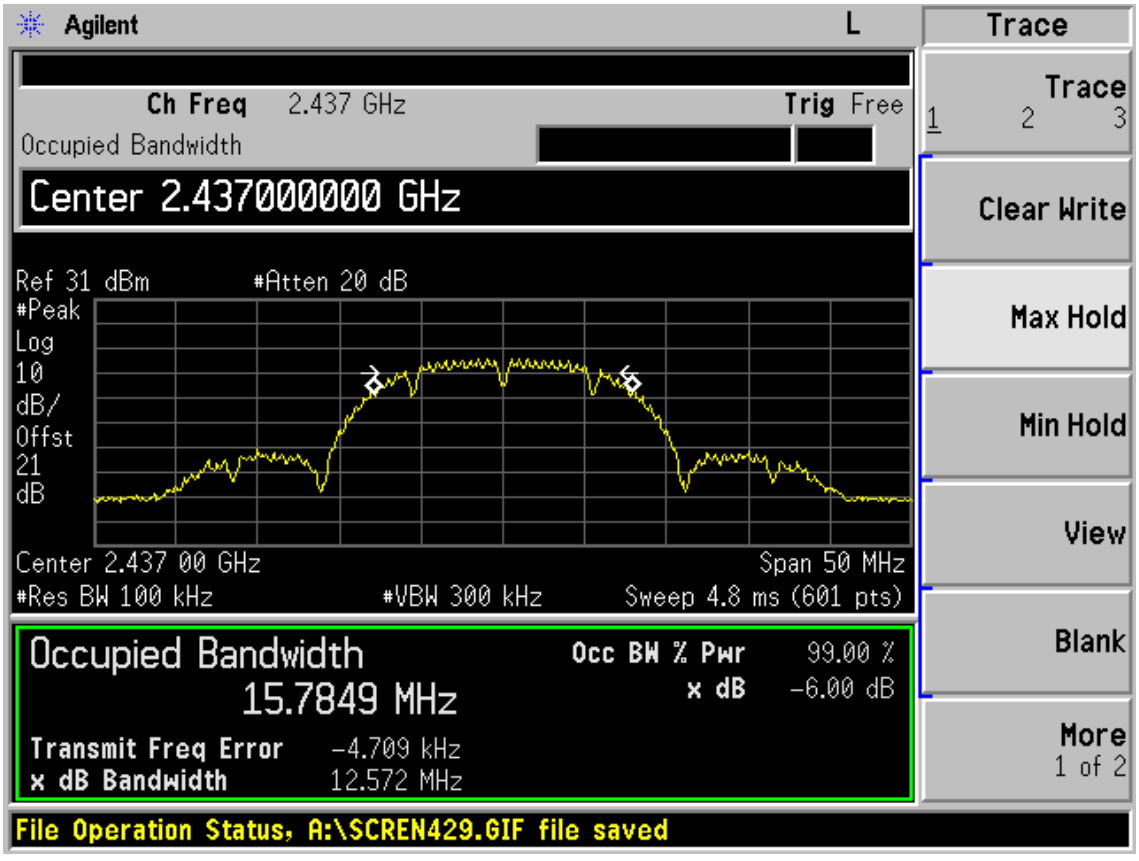
EUT:Wireless N PCI Adapter		
M/N:TL-WN851N		
Test date:2010-06-13	Pressure:100.6 kpa	Humidity:59 %
Tested by: Paul Tian	Test site: RF site	Temperature:25 ℃

Cable loss: 1.0 dB		Attenuator loss: 20.0 dB		Antenna Gain: 2 dBi
Test Mode	CH	Result		Limit (KHz)
		Chain1 6dB bandwidth （KHz）	Chain2 6dB bandwidth （KHz）	
11b	CH1	12161	10163	>500
	CH6	12572	10151	>500
	CH11	12148	10152	>500
11g	CH1	16491	16471	>500
	CH6	16495	16428	>500
	CH11	16504	16459	>500
11n HT20	CH1	17725	17593	>500
	CH6	17720	17645	>500
	CH11	17725	17636	>500
11n HT40	CH1	36419	36355	>500
	CH4	36414	36394	>500
	CH7	36396	36408	>500
Conclusion：PASS				

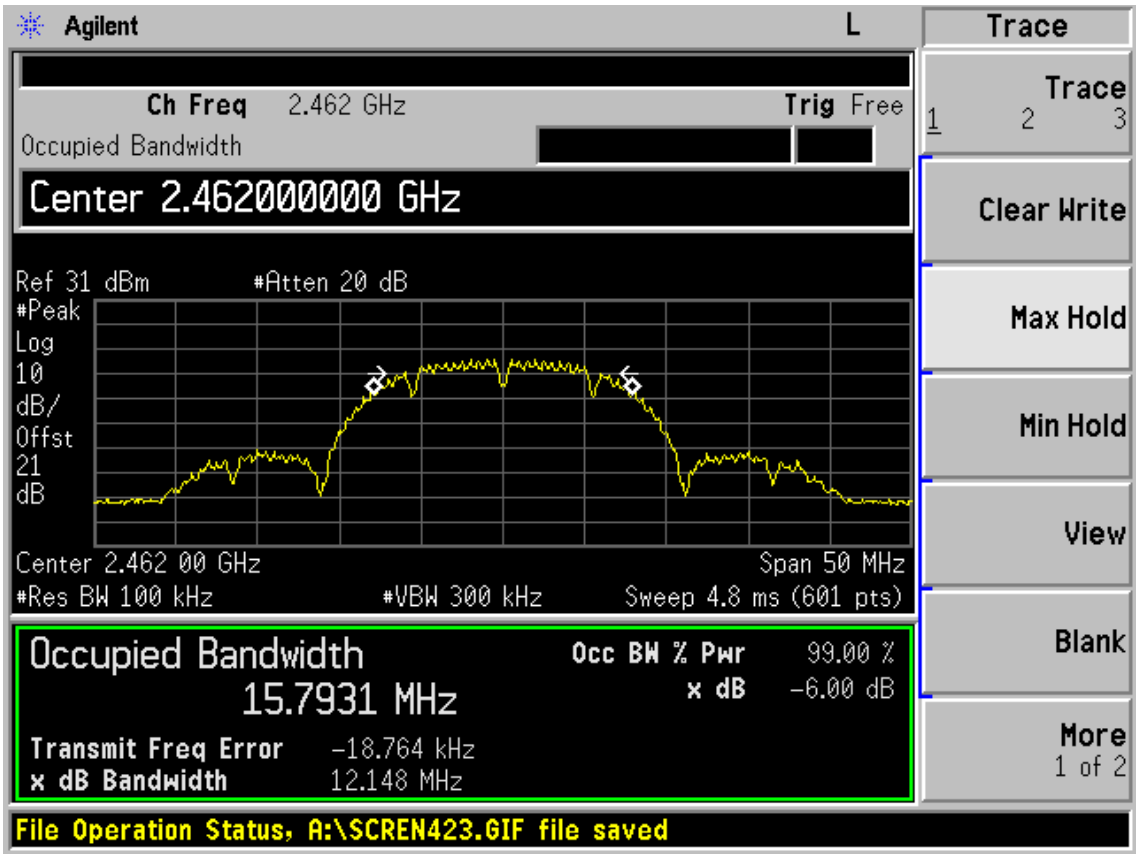
Chain 1:
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



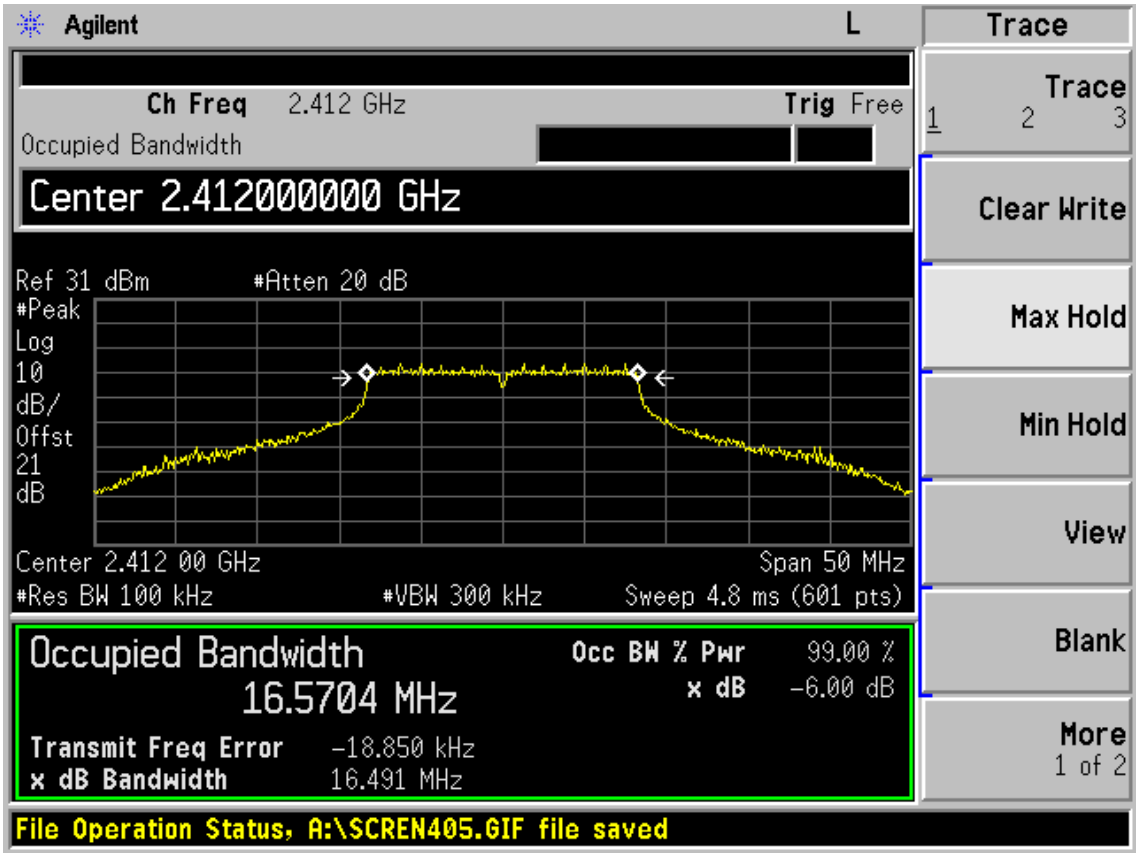
Test CH6: 2437MHz



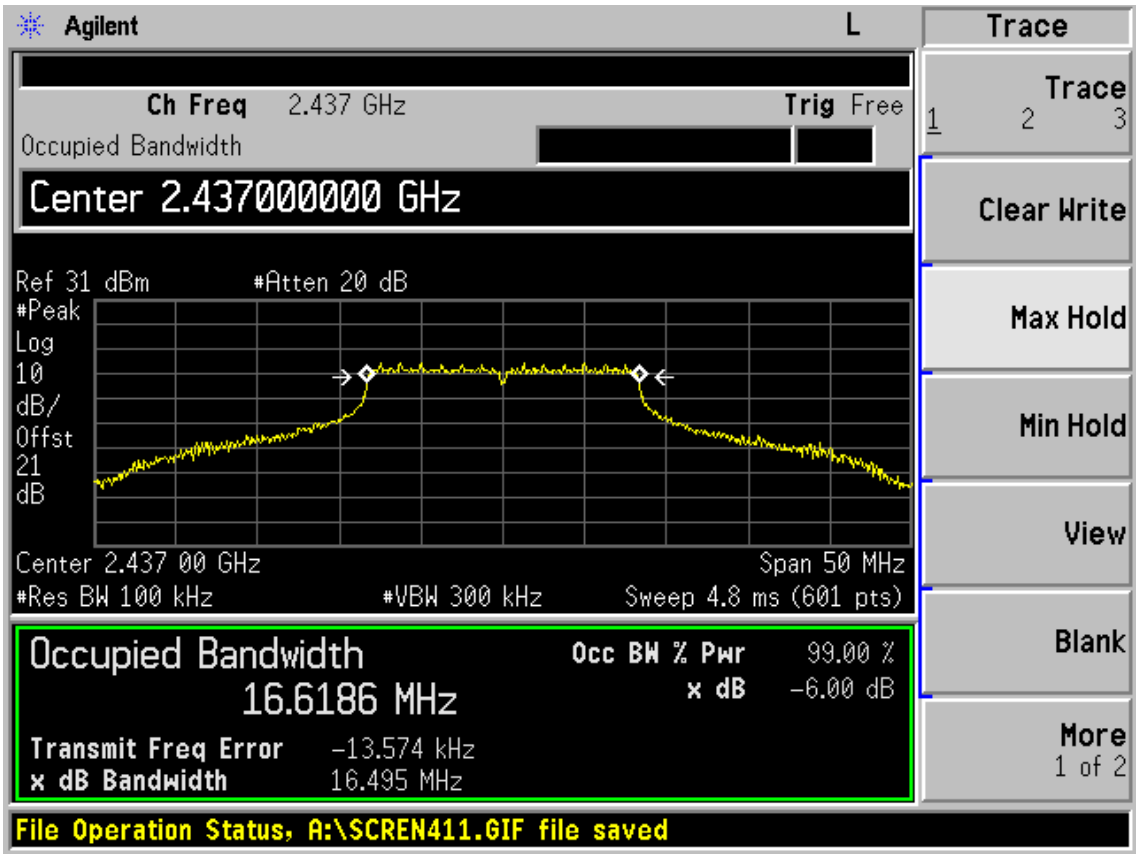
Test CH11: 2462MHz



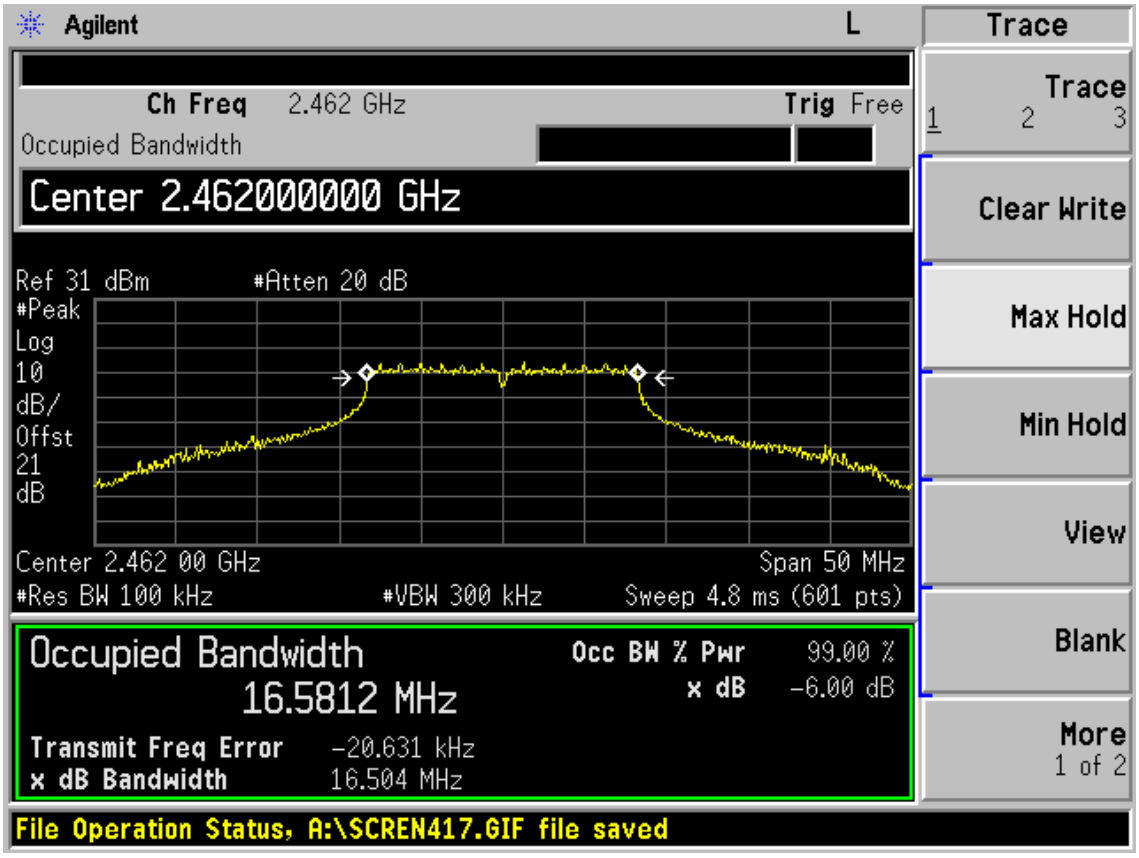
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



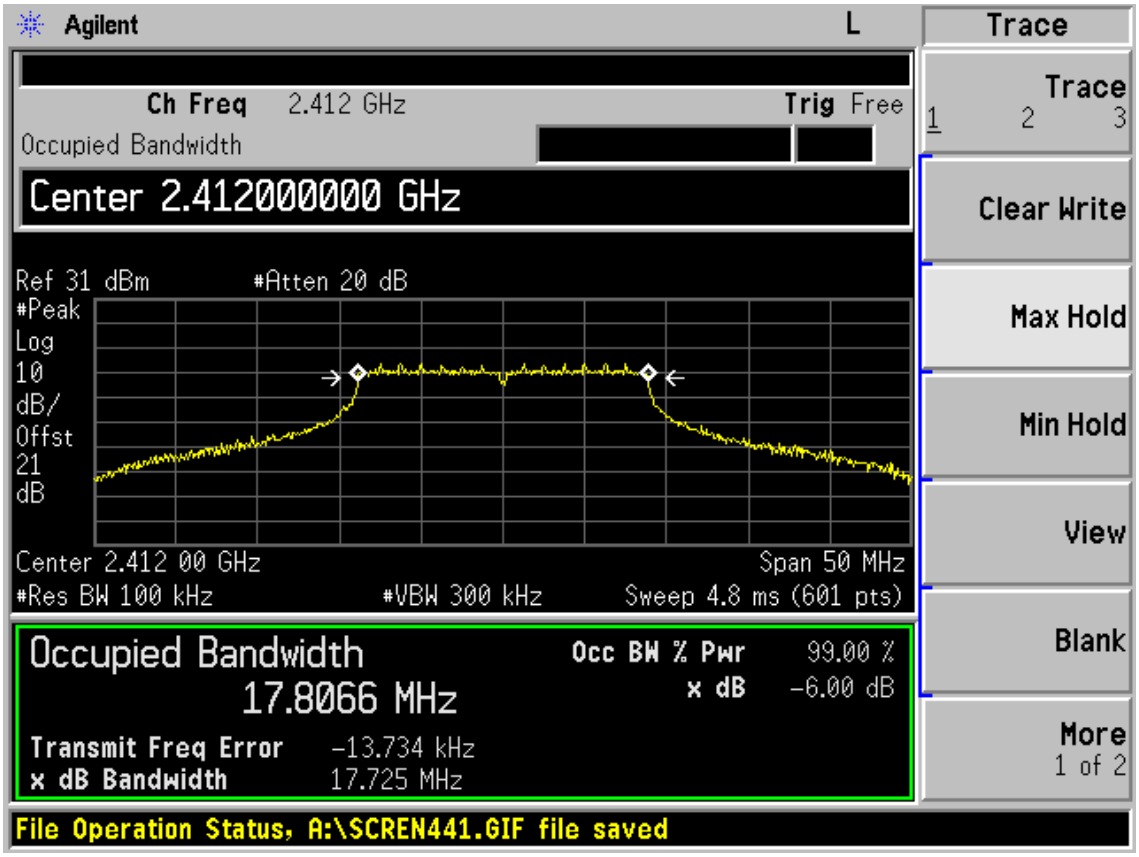
Test CH6: 2437MHz



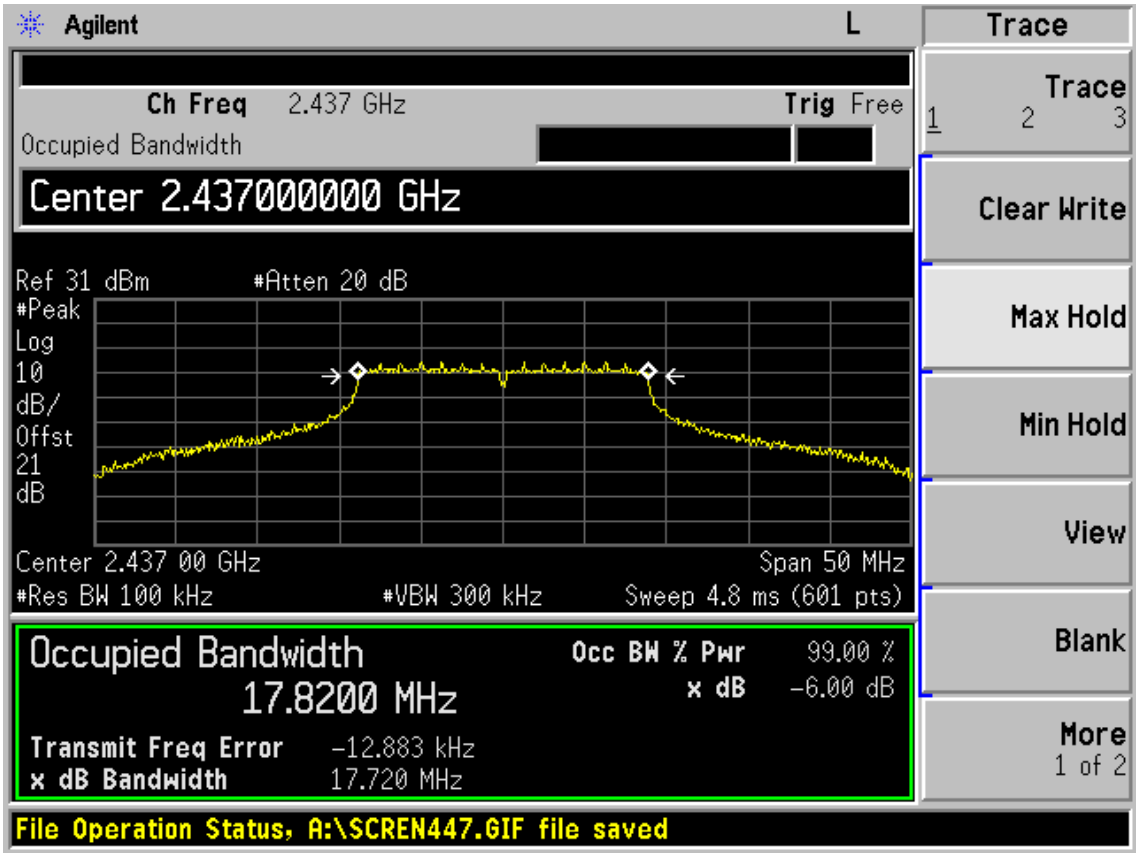
Test CH11: 2462MHz



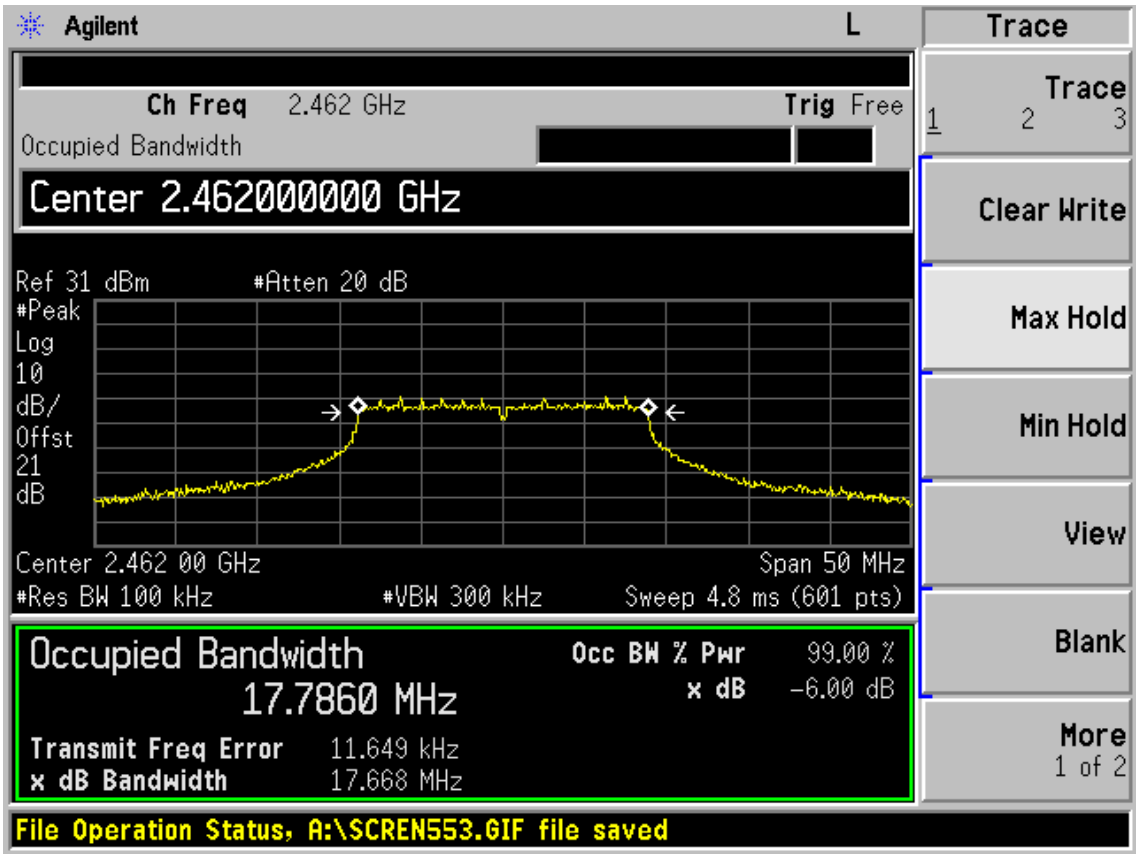
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



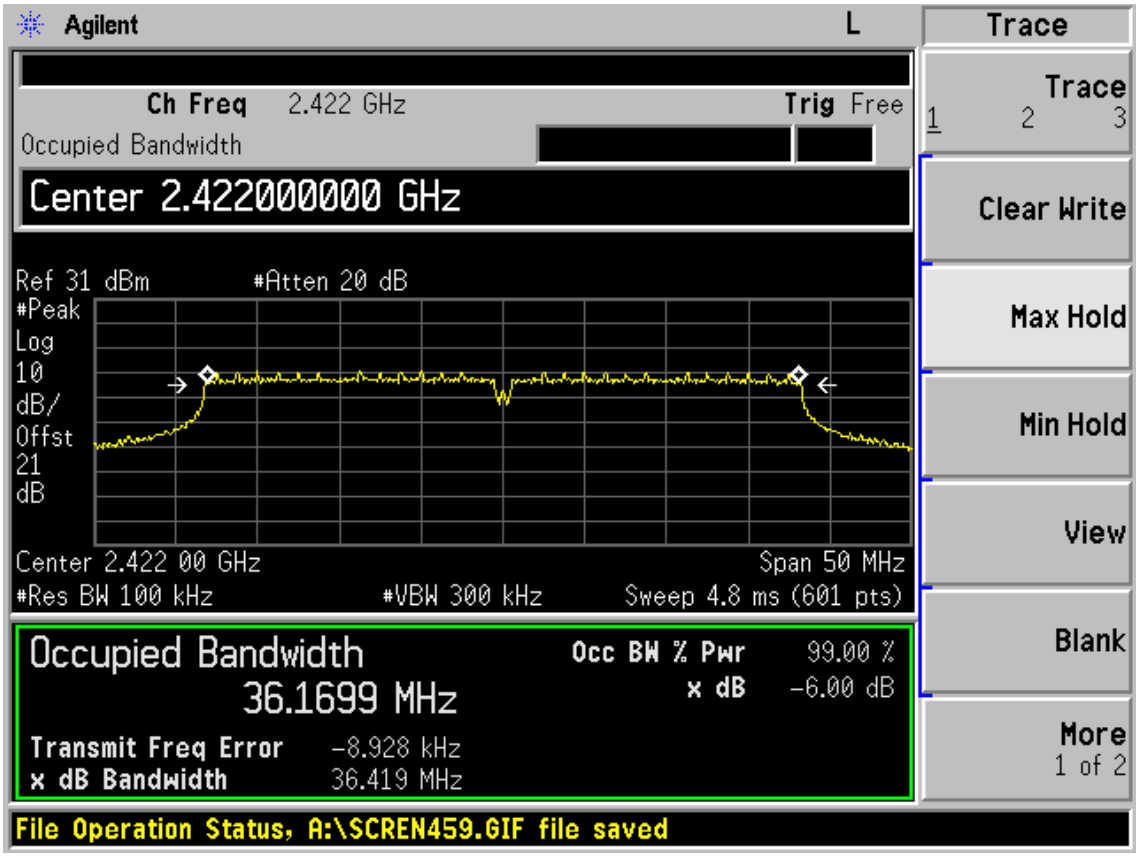
Test CH6: 2437MHz



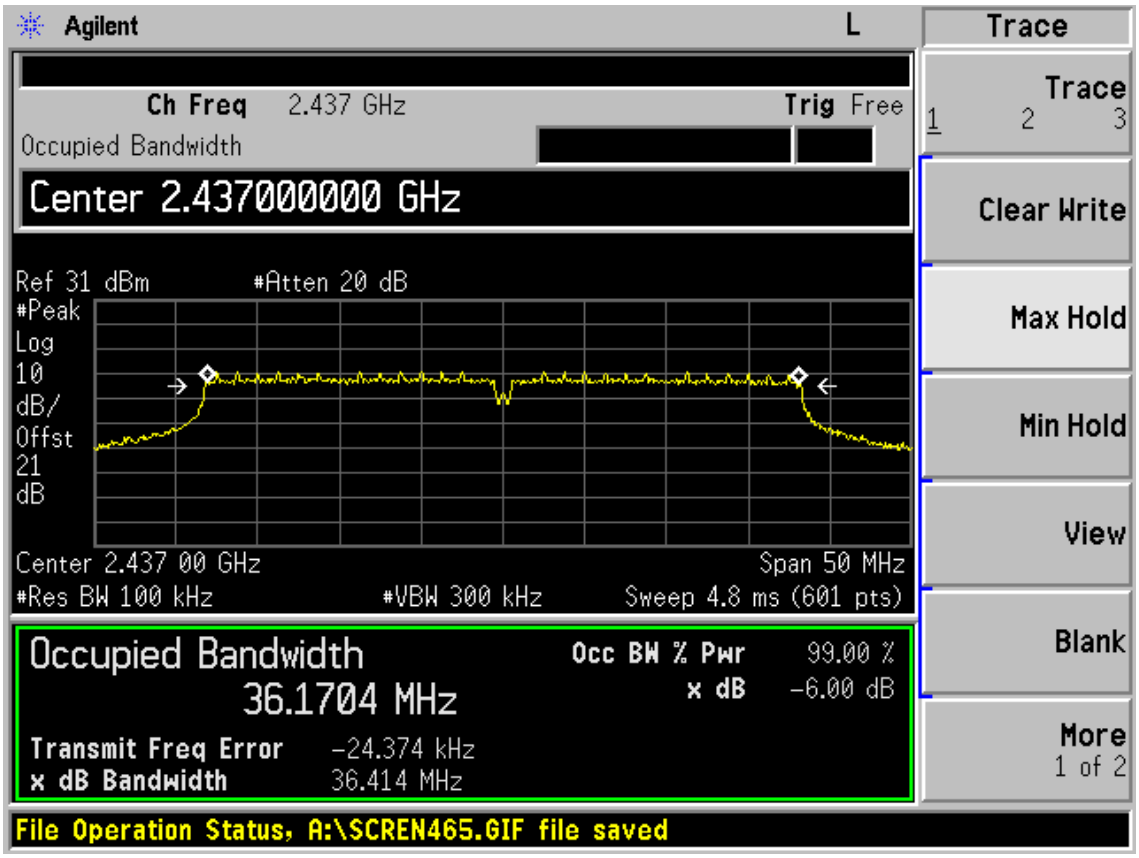
Test CH11: 2462MHz



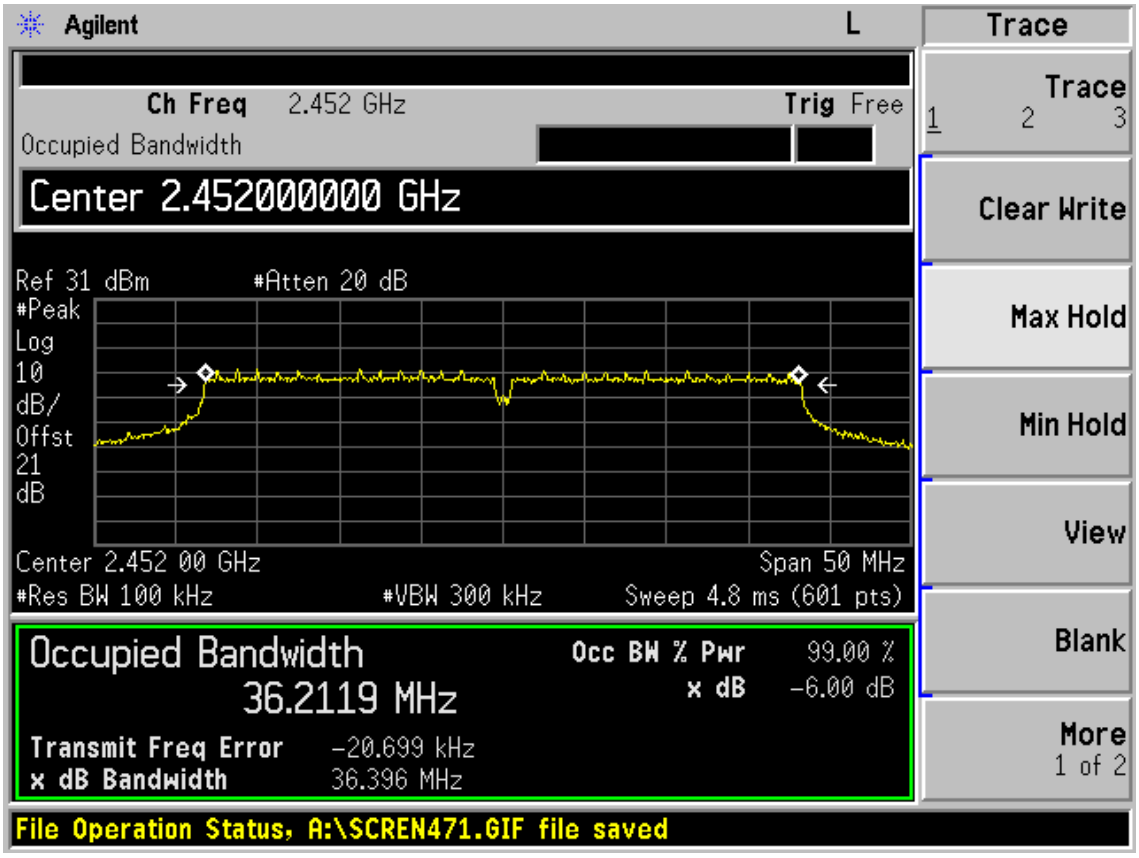
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



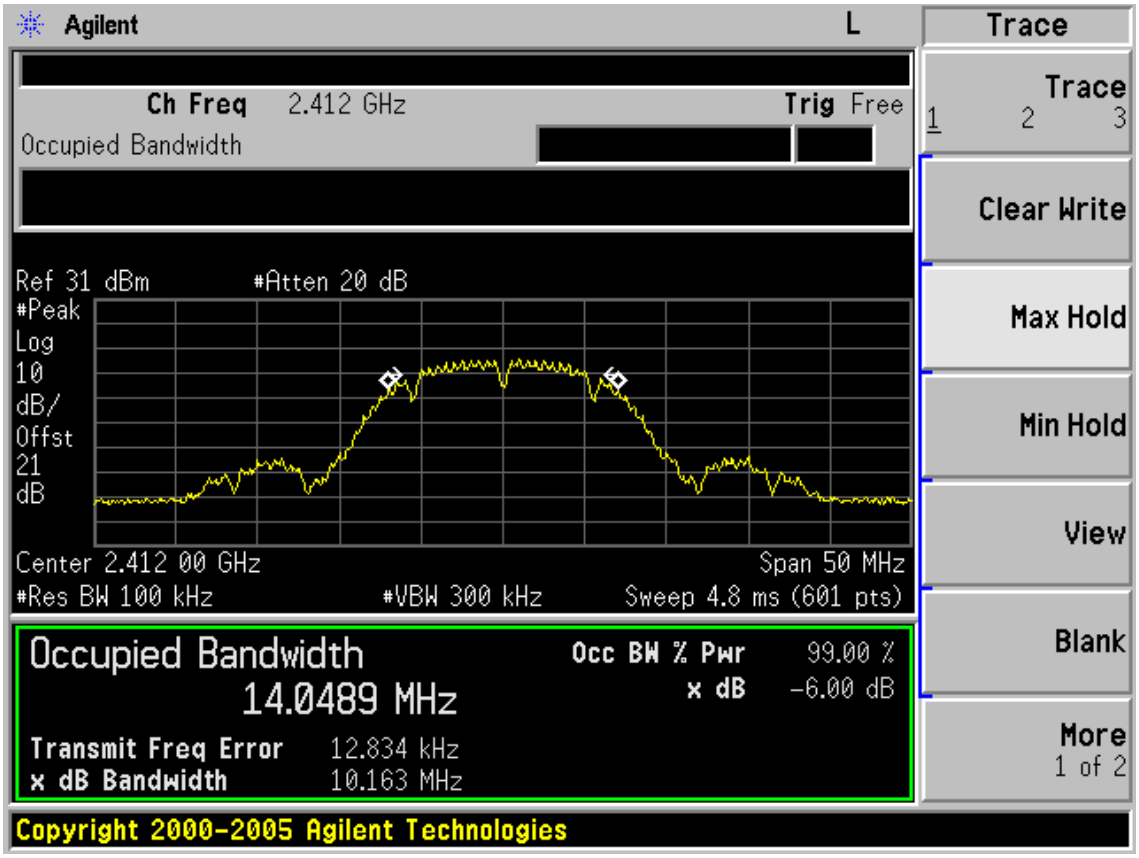
Test CH4: 2437MHz



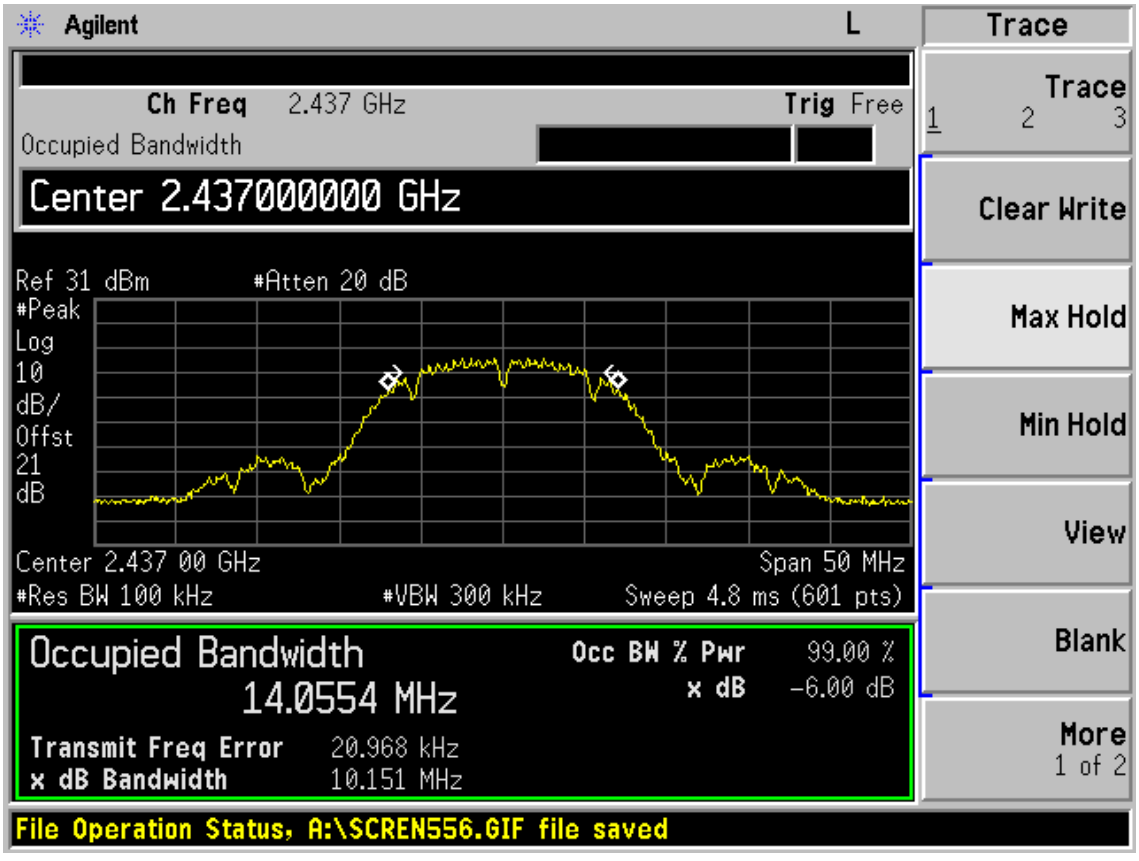
Test CH7: 2452MHz



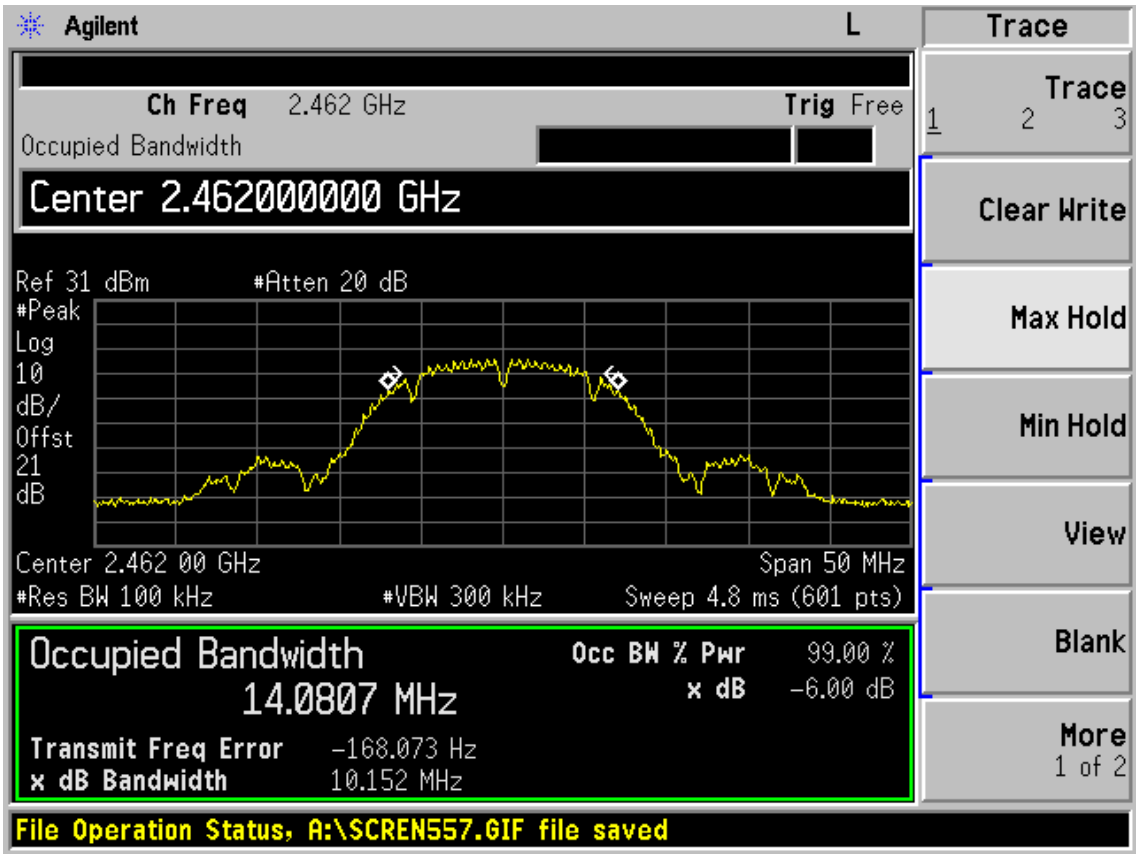
Chain 2:
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



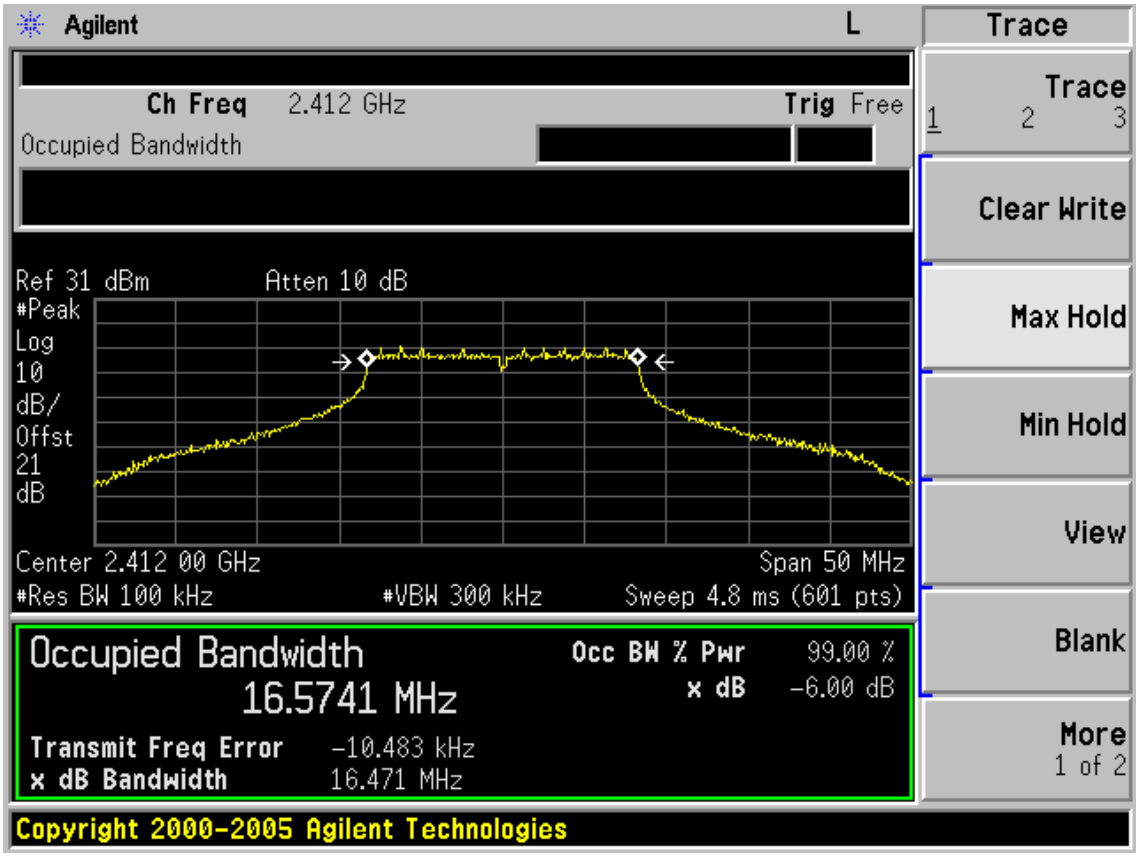
Test CH6: 2437MHz



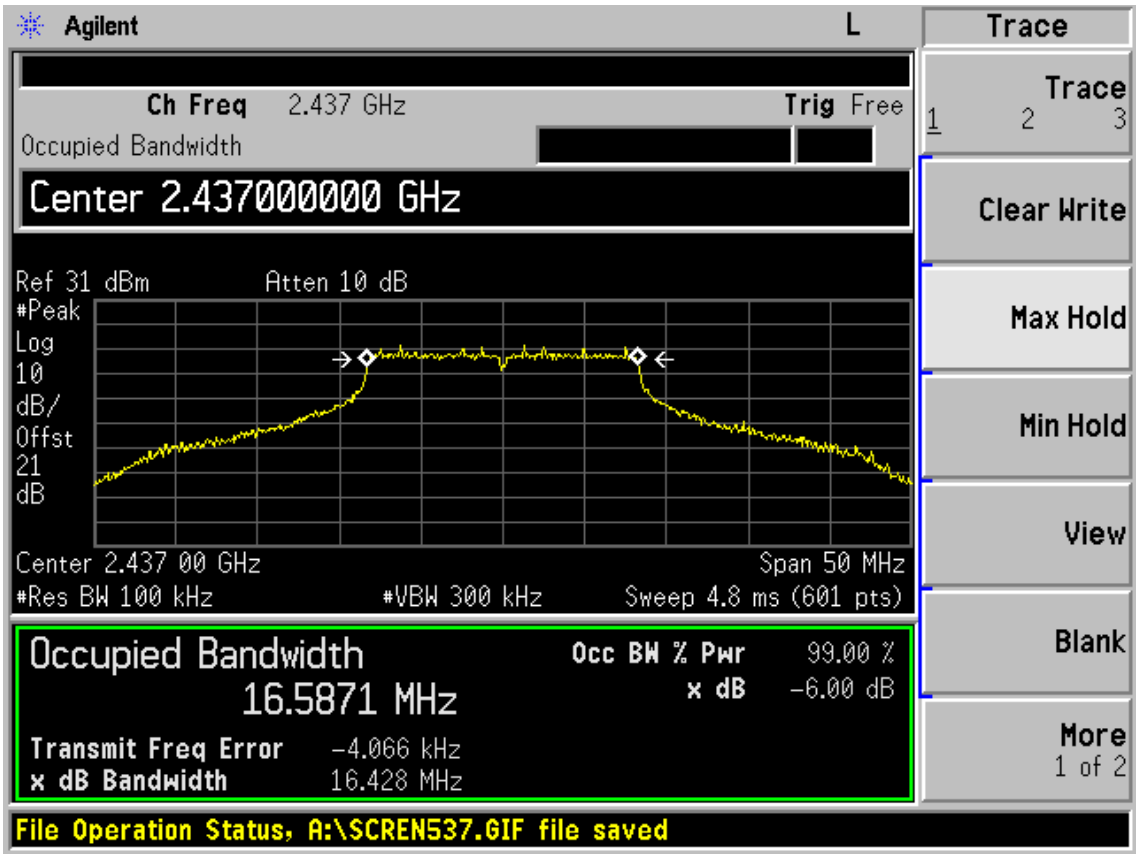
Test CH11: 2462MHz



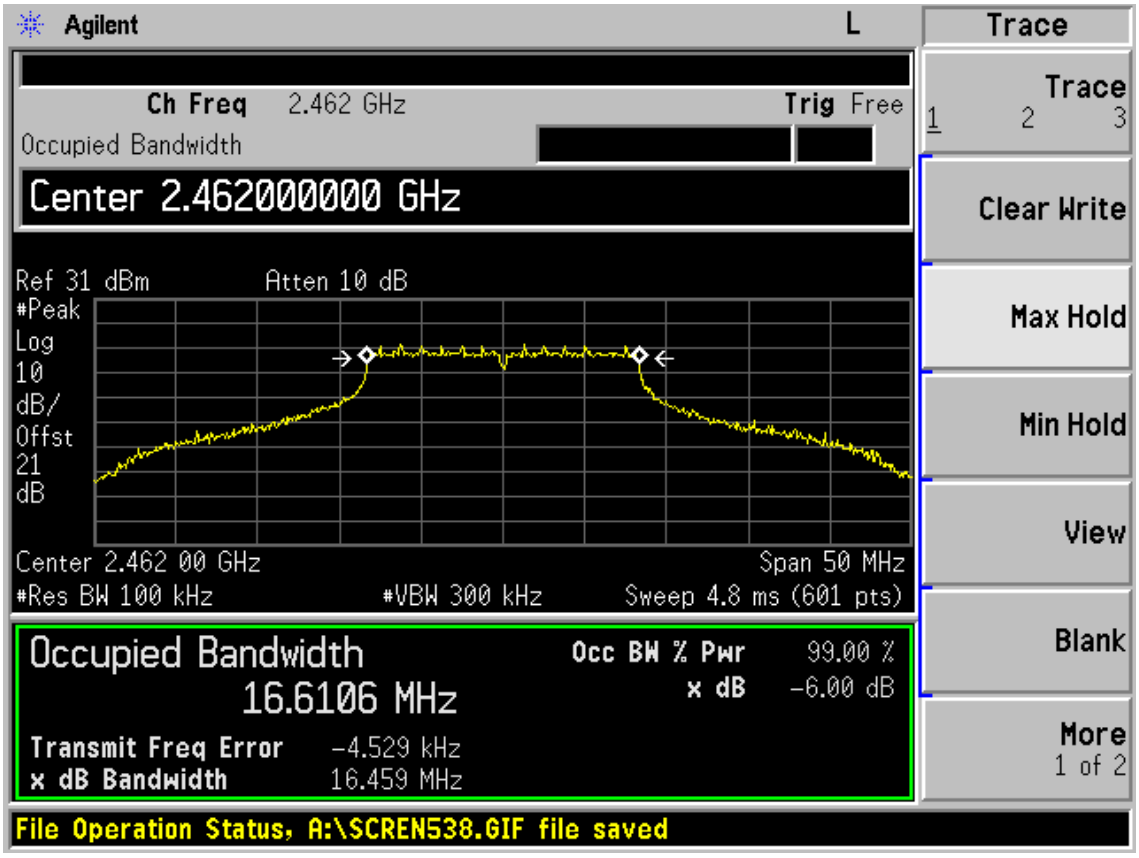
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



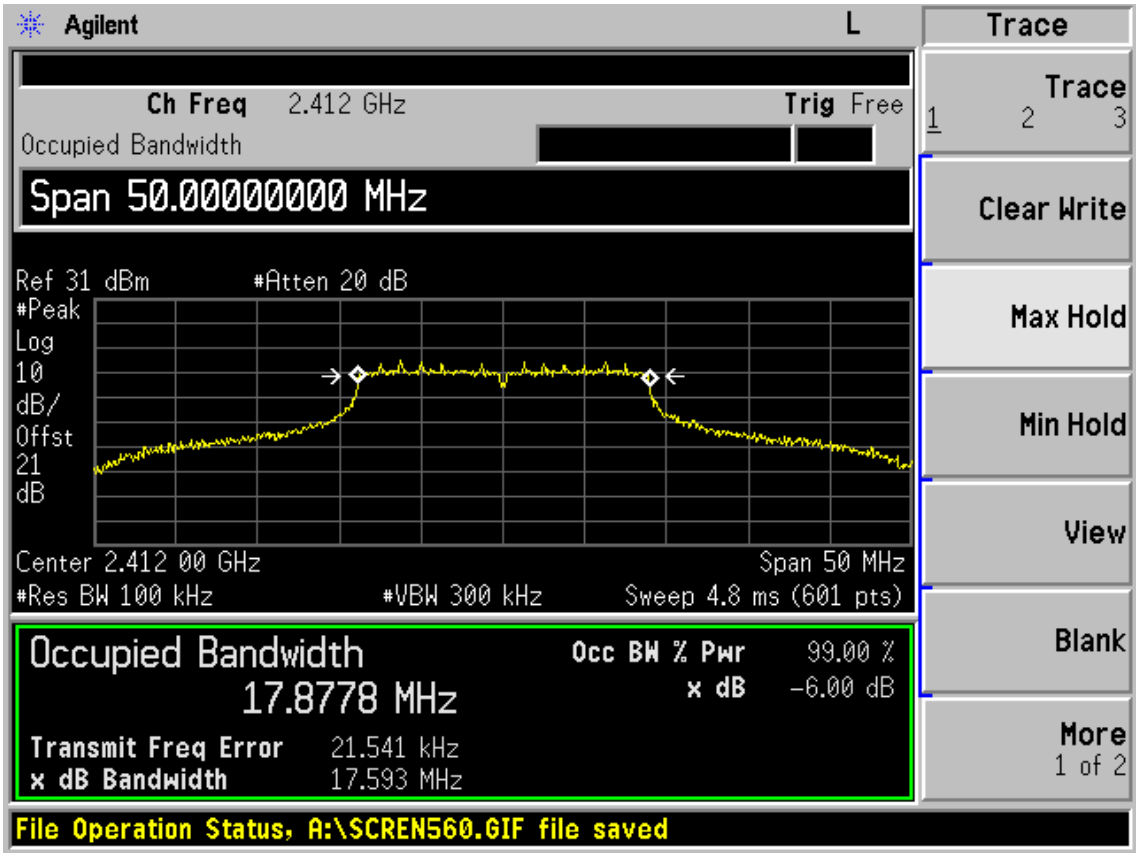
Test CH6: 2437MHz



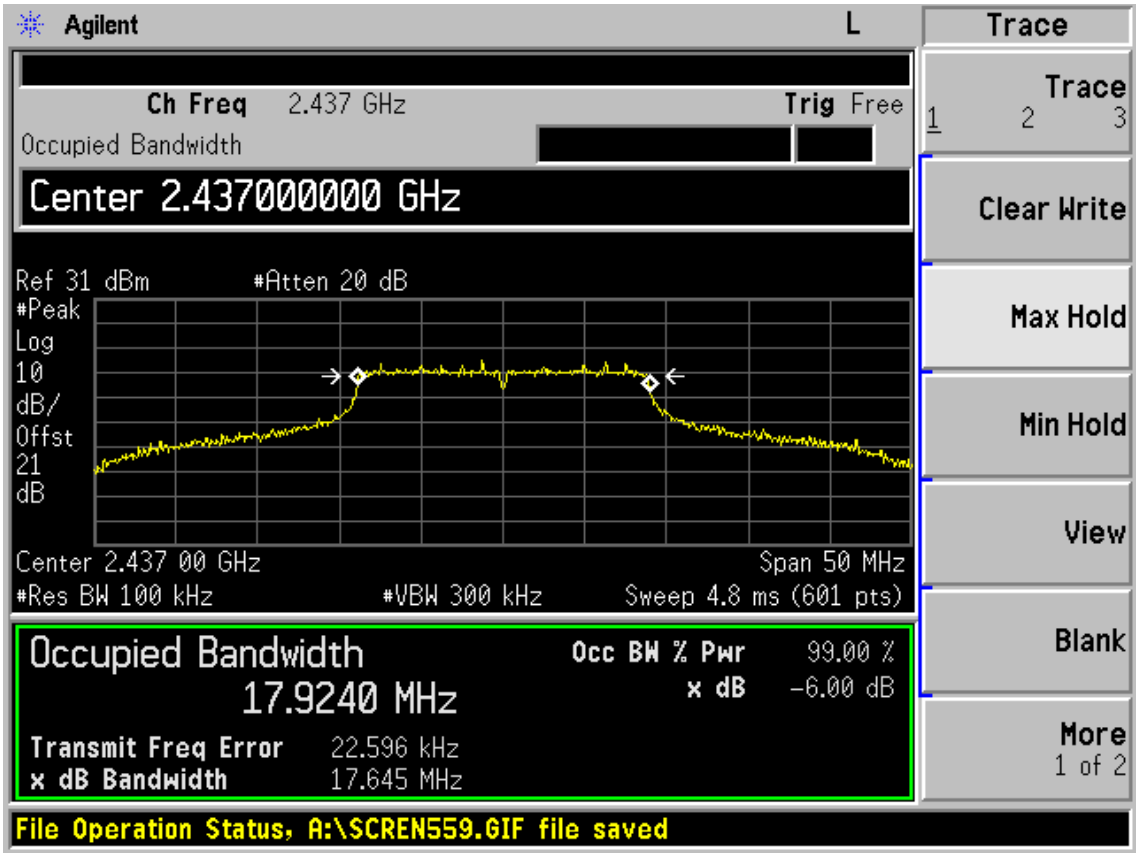
Test CH11: 2462MHz



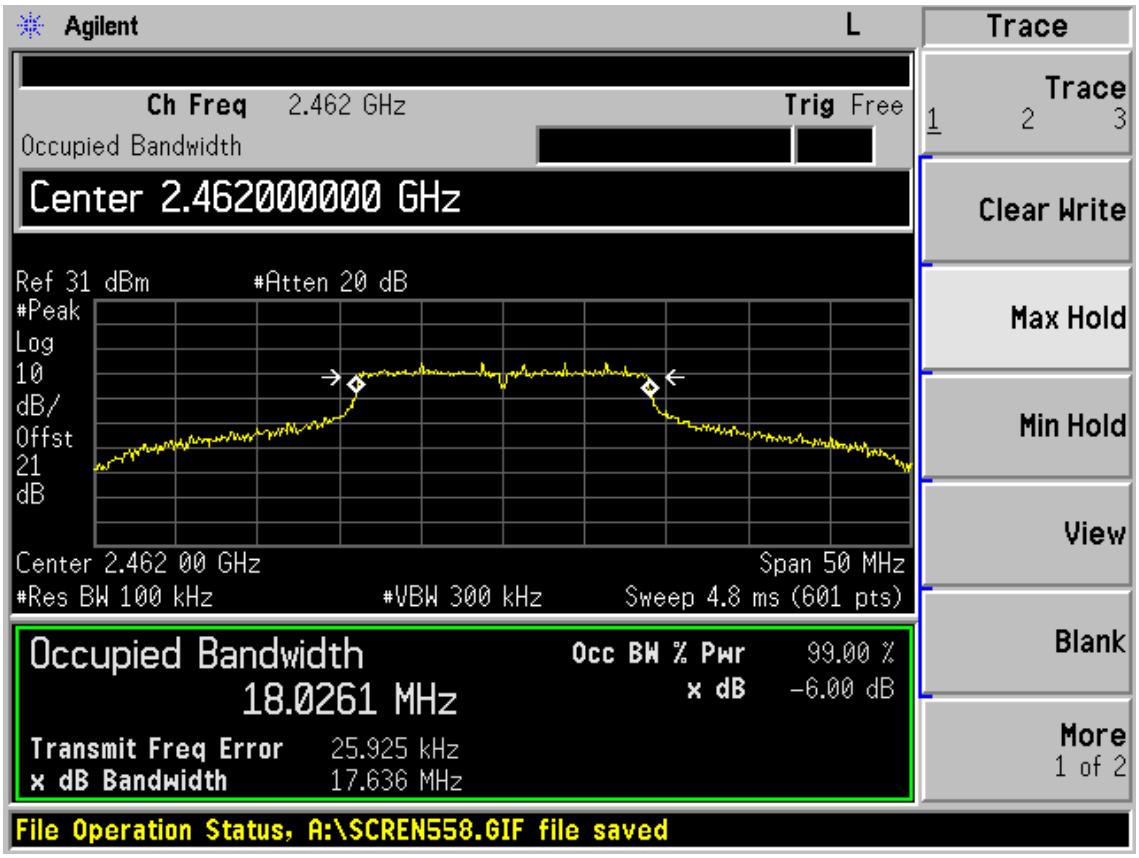
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



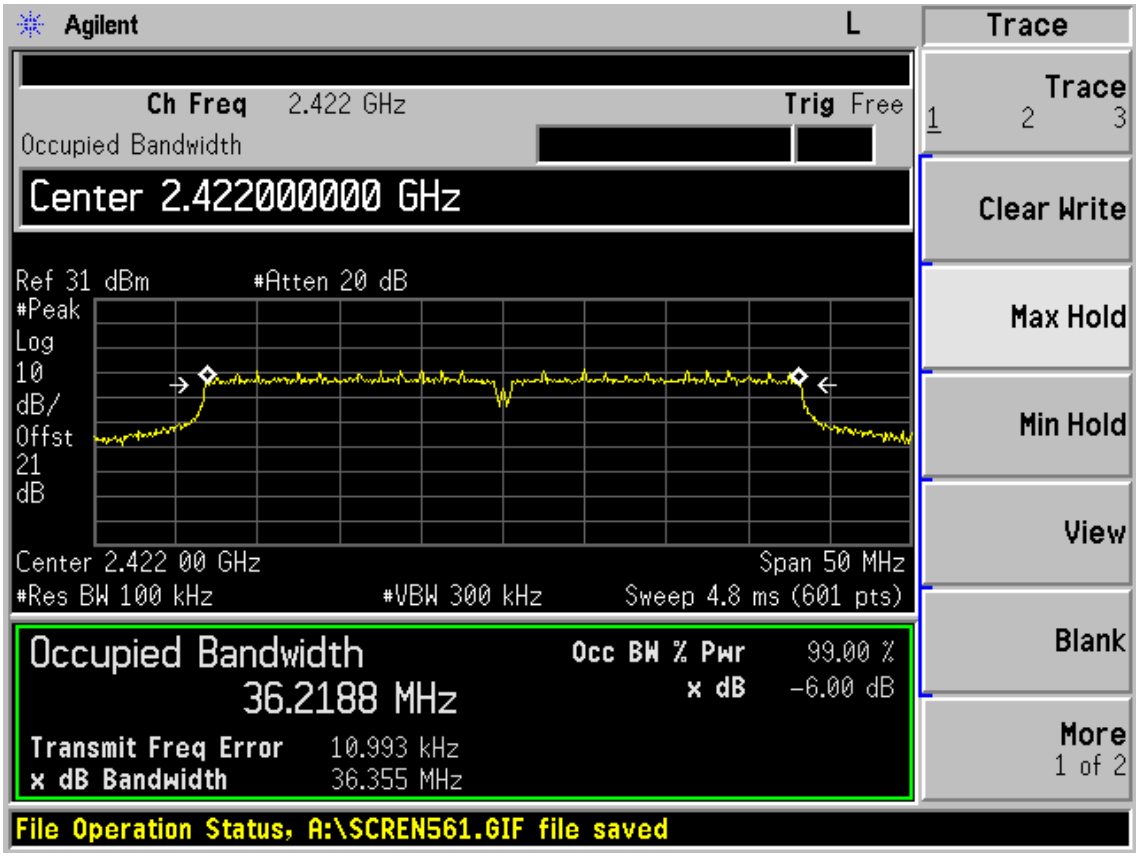
Test CH6: 2437MHz



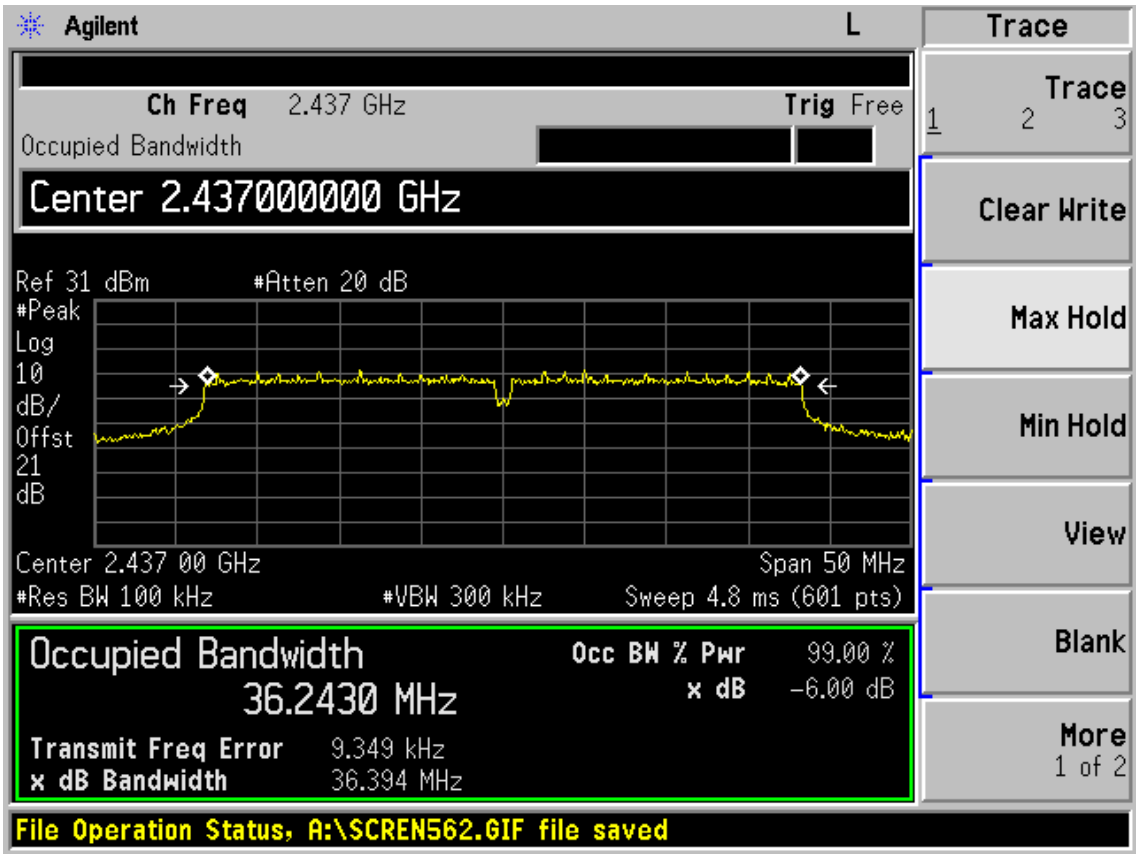
Test CH11: 2462MHz



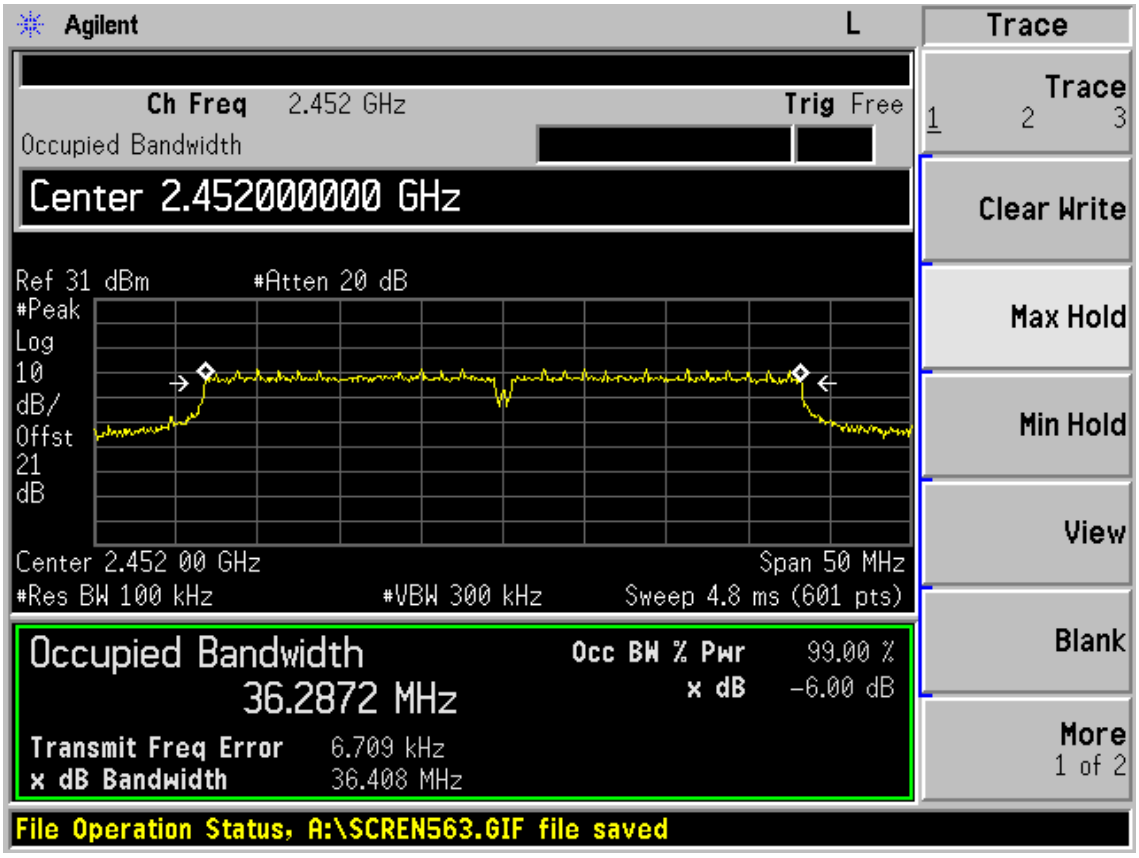
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power meter	Anritsu	ML2487A	6K00002472	Oct.20.09	1Year
2	Power sensor	Anritsu	MA2491A	0033005	Oct.20.09	1Year
3.	Attenuator	Agilent	8491B	MY39262165	May.08, 10	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08, 10	1Year
5.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year

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

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

8.3.Test Procedure

1, Connected the EUT's antenna port to measure device by 20dB attenuator.

2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is above 6dB bandwidth of signal to measure out each each test modes and chain's 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 the channel power measure function of Spectrum Analyzer was used to measure out the PK output power of each test modes and chain's.

4, For IEEE802.11n mode, it's MIMO technology, so account total PK output power by add each chain's PK output power.

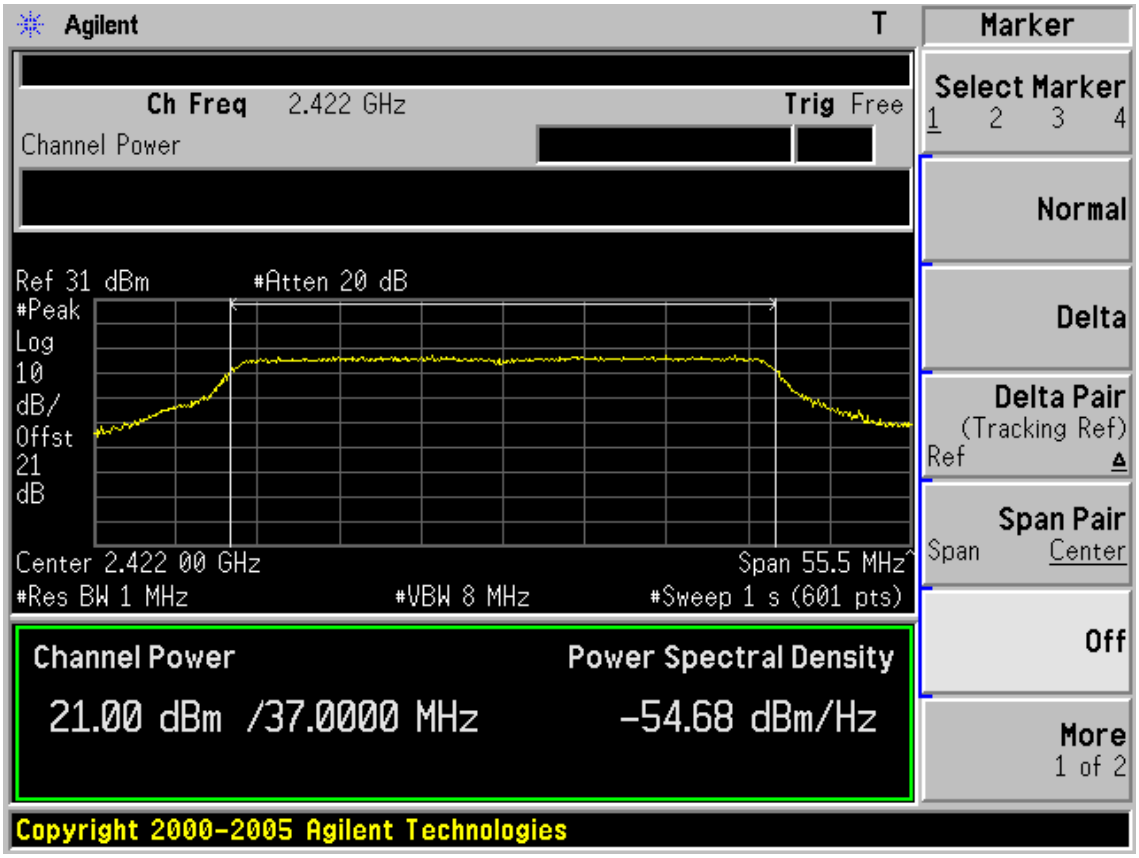
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4.Test Results

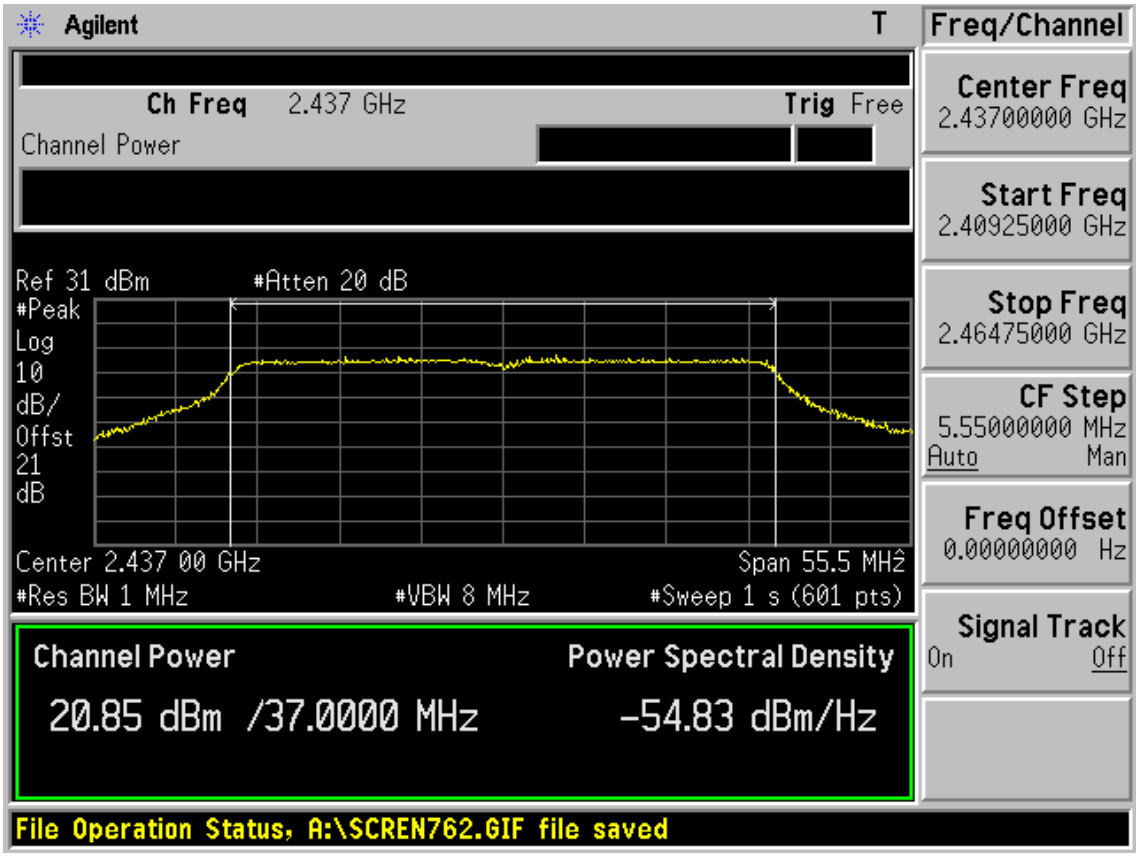
EUT: Wireless N PCI Adapter		
M/N: TL-WN851N		
Test date: 2010-06-16	Pressure: 100.6 kpa	Humidity:58 %
Tested by: Paul Tian	Test site: RF site	Temperature:25 ℃

Cable loss: 1.0 dB		Attenuator loss:20.0 dB		Antenna Gain:2 dBi	
Mode	CH	Result			Limit
		Chain 1 PK Output power(dBm)	Chain 2 PK Output power(dBm)	Total PK Output power(dBm)	(dBm)
11b	CH1	19.56	19.67	N/A	30
	CH6	20.10	20.14	N/A	30
	CH11	19.43	20.45	N/A	30
11g	CH1	20.43	20.78	N/A	30
	CH6	22.12	22.45	N/A	30
	CH11	21.43	21.45	N/A	30
11n HT20	CH1	17.68	18.22	20.97	30
	CH6	19.83	19.84	22.85	30
	CH11	18.02	18.34	21.19	30
11n HT40	CH1	21.00	21.05	24.04	30
	CH4	20.85	20.87	23.87	30
	CH7	20.90	20.77	23.85	30
Conclusion: PASS					

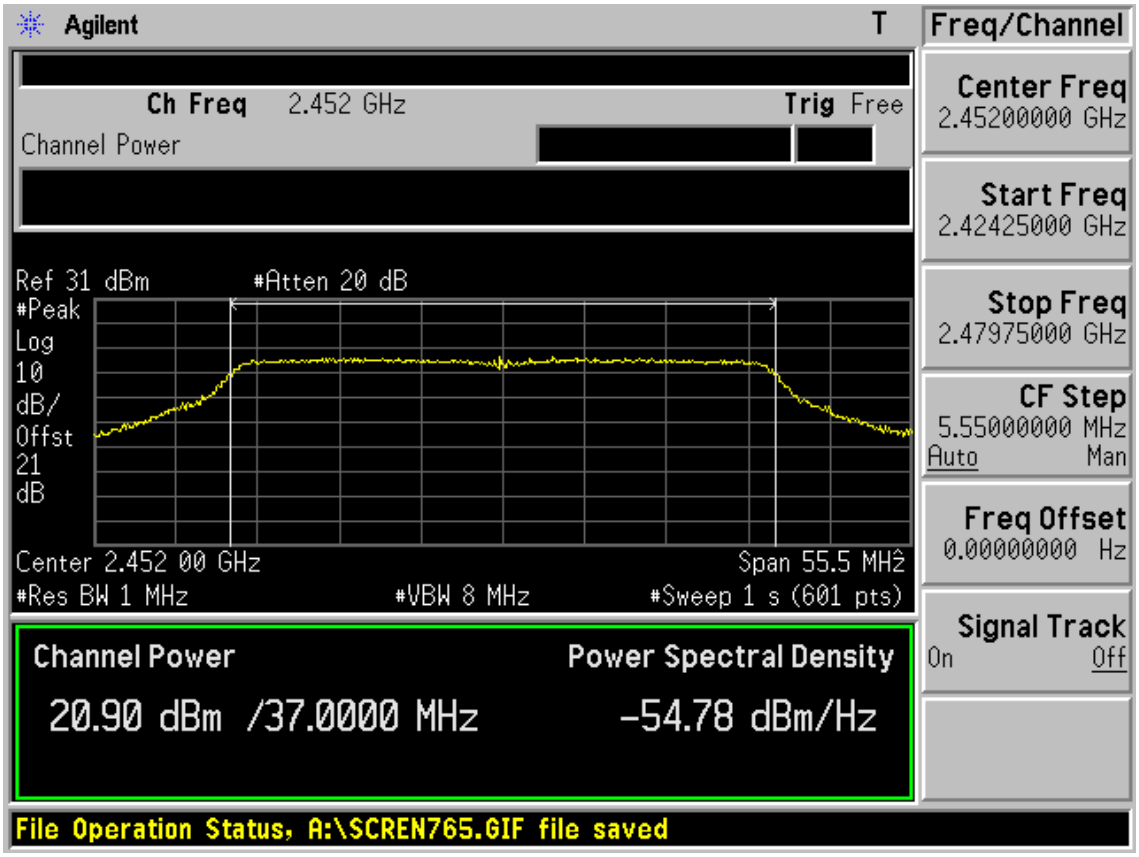
Chain 1:
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



Test CH4: 2437MHz



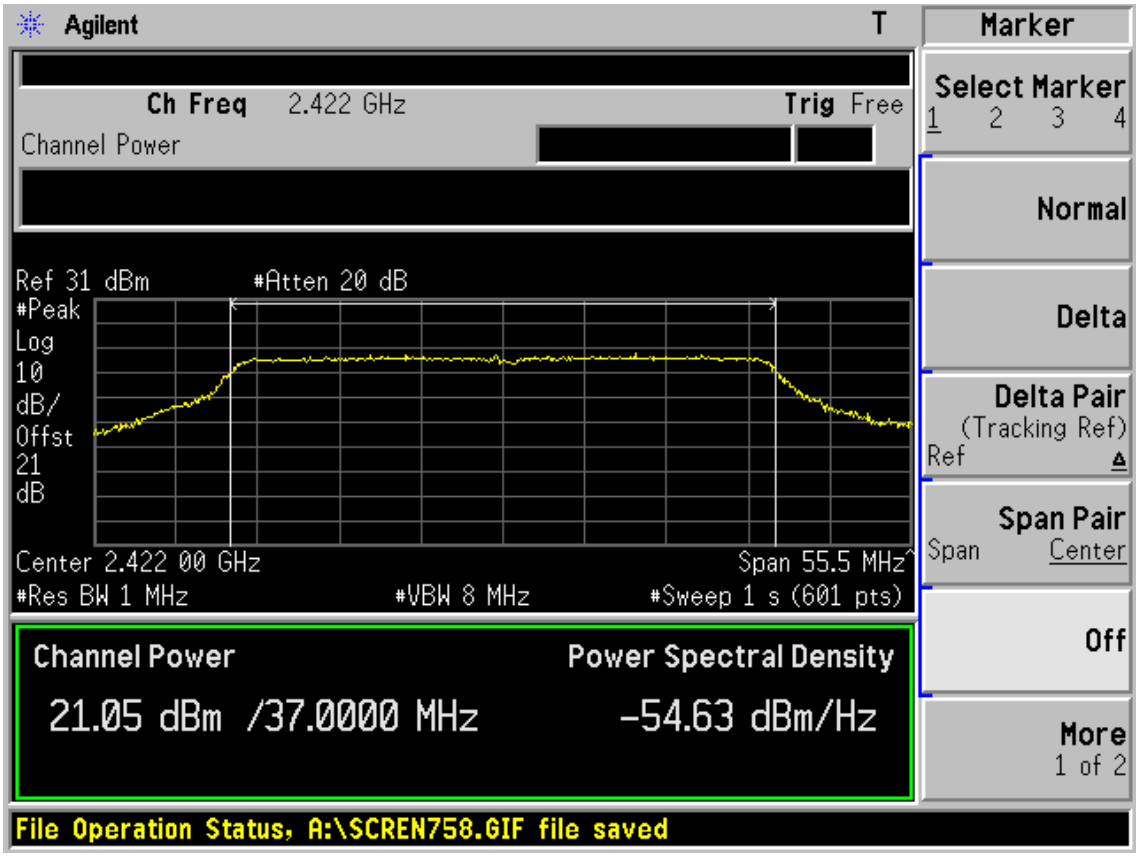
Test CH7: 2452MHz



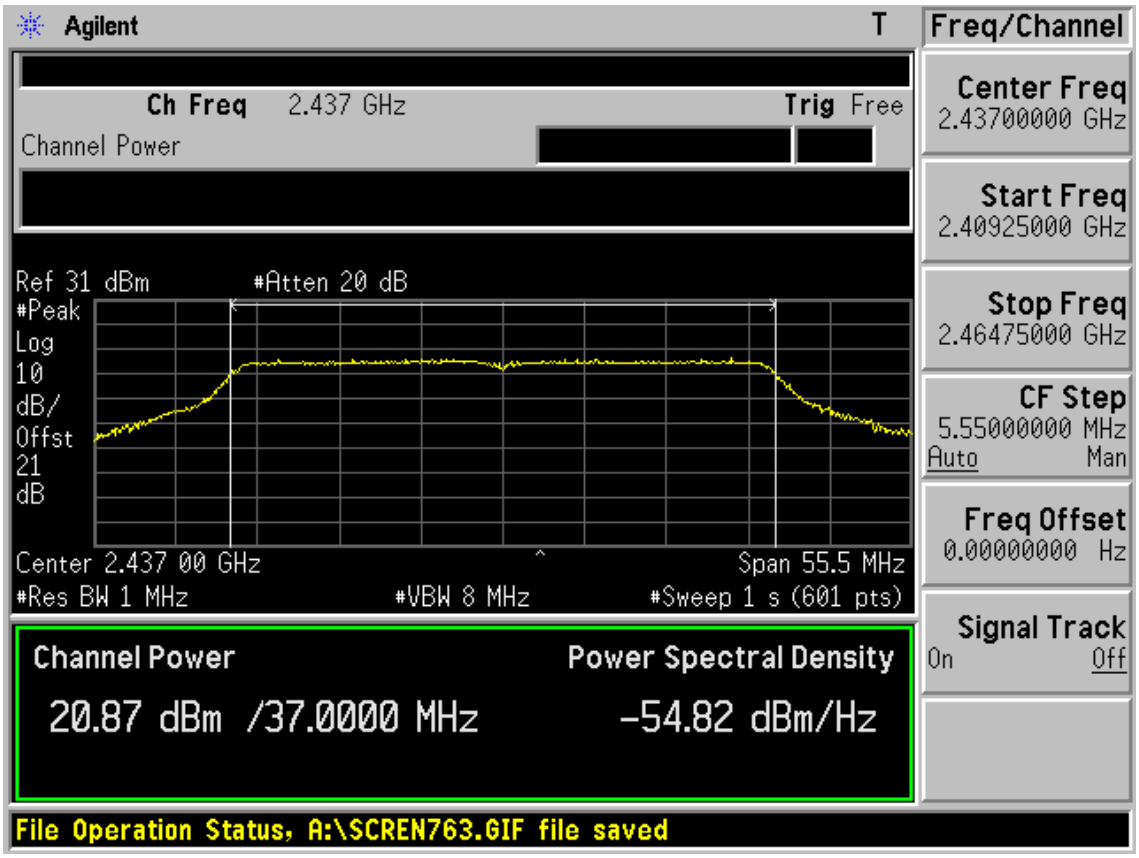
Chain 2:

Test Mode: IEEE 802.11n HT40 TX

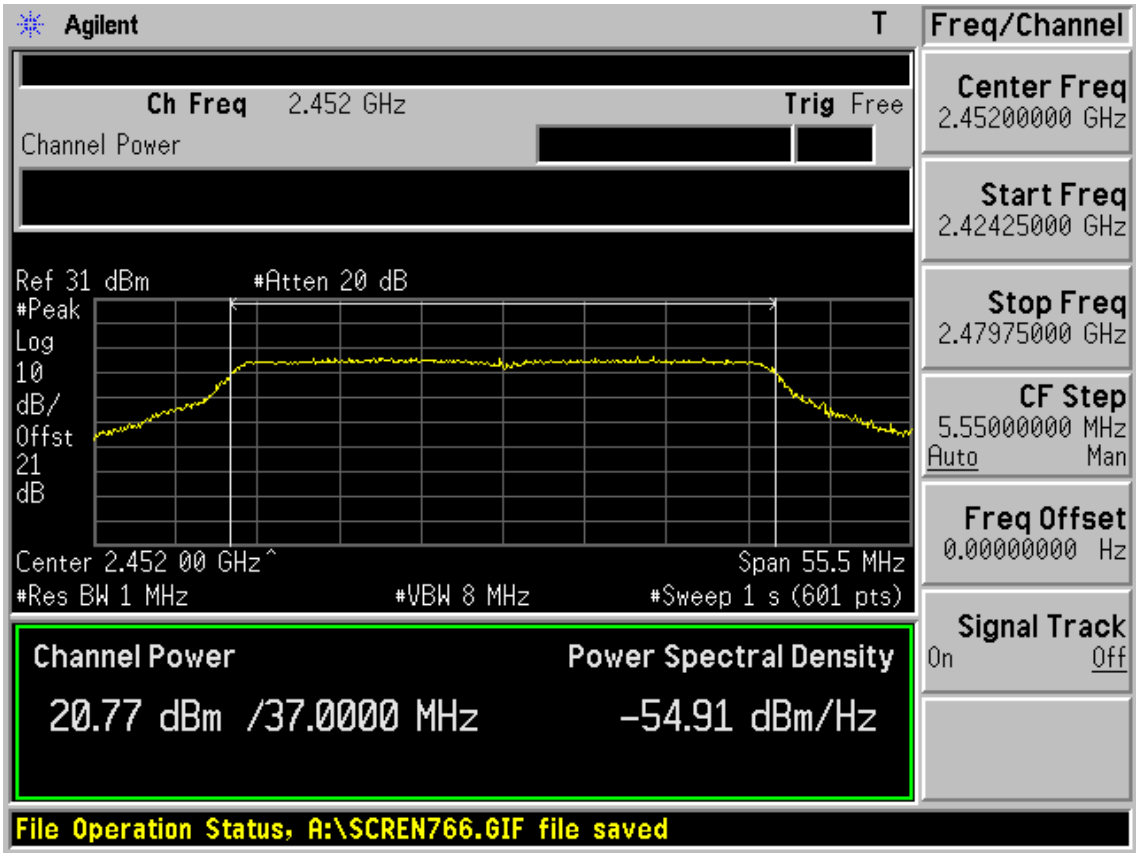
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

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

9.2.Limit

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

9.3.Test Procedure

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

2，Follow the test procedure as described in ANSI C.10: 2009 Clause 6.11.2.3 to measure out each test modes and chain's power density with 3KHz.

3, For IEEE802.11n mode, it's MIMO technology, so account total power density by add each chain's power density.

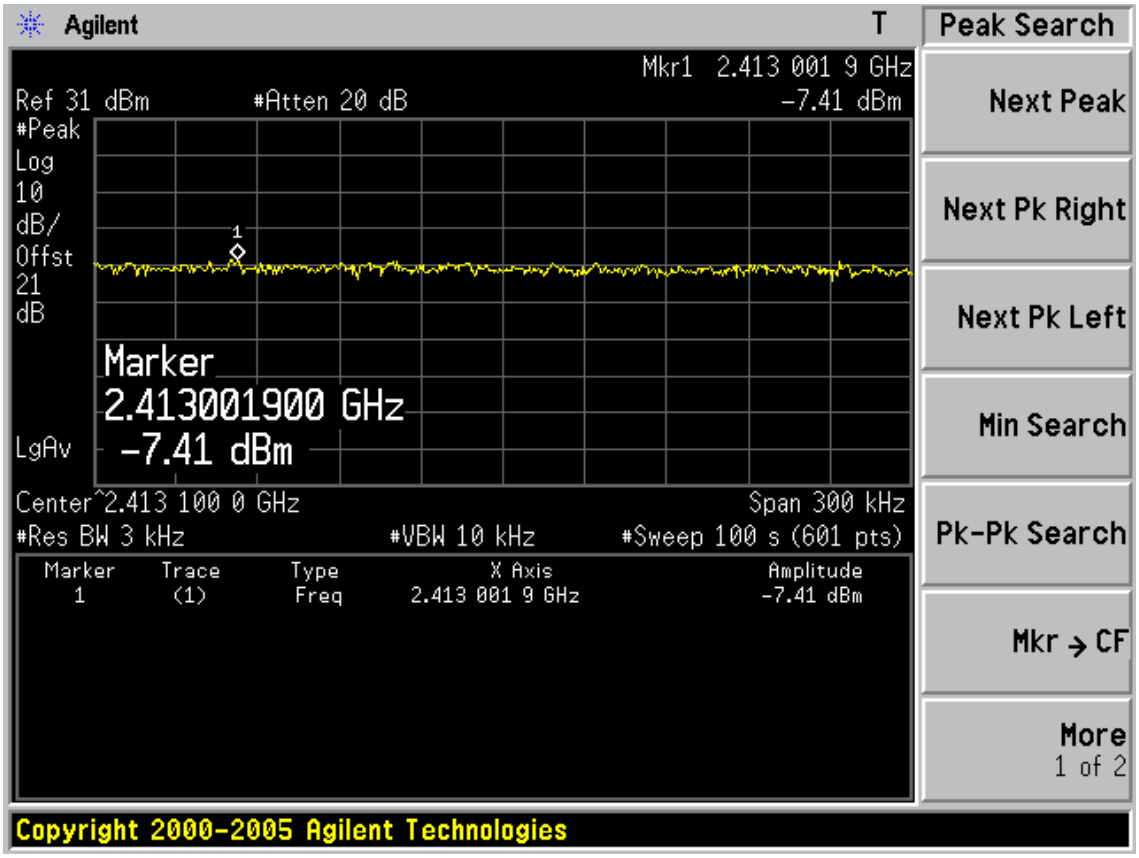
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

9.4.Test Results

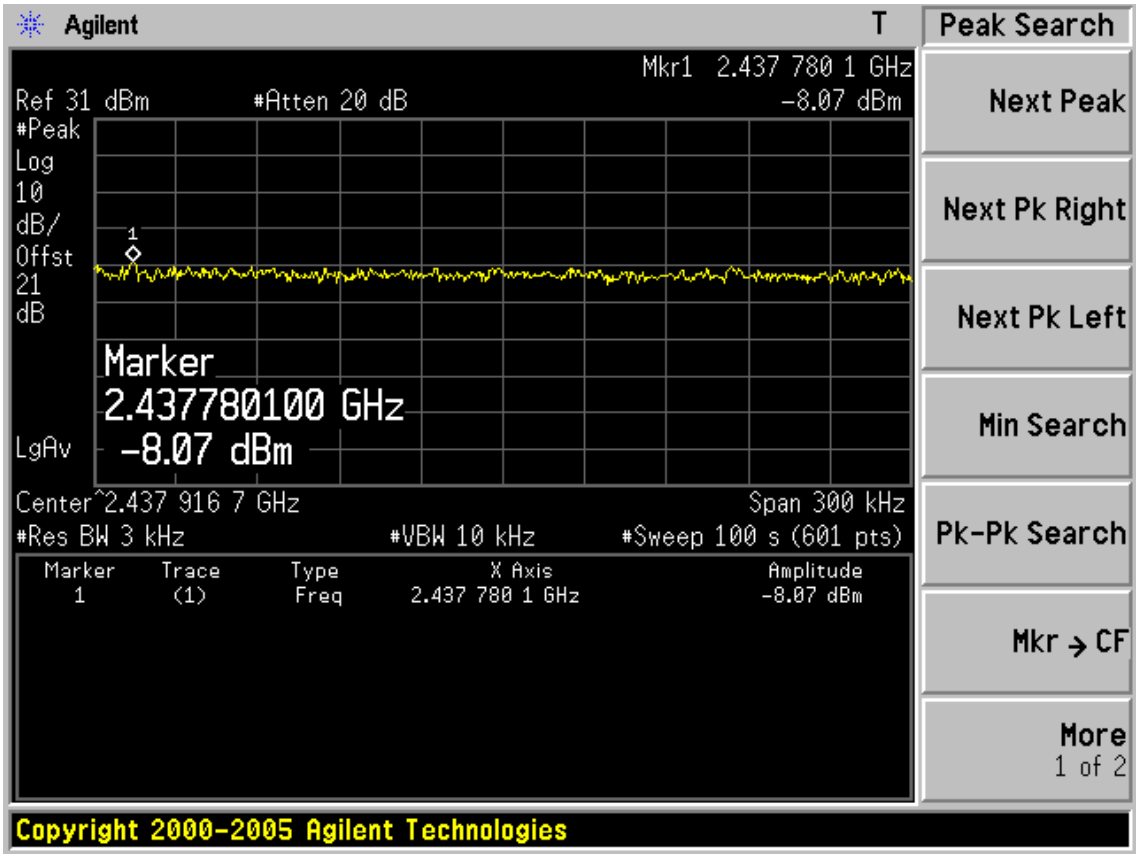
EUT:Wireless N PCI Adapter		
M/N:TL-WN851N		
Test date:2010-06-15	Pressure:100.6 kpa	Humidity:59%
Tested by:Paul Tian	Test site: RF site	Temperature：24℃

Cable loss:1.0 dB		Attenuator loss: 20 dB		Antenna Gain: 2 dBi	
Mode	CH	Result			Limit
		Chain1 Power density (dBm/3KHz)	Chain2 Power density (dBm/3KHz)	Total Power density (dBm/3KHz)	(dBm/3KHz)
11b	CH1	-7.41	-7.30	N/A	8
	CH6	-8.07	-7.74	N/A	8
	CH11	-8.27	-7.96	N/A	8
11g	CH1	-19.48	-17.23	N/A	8
	CH6	-19.23	-18.56	N/A	8
	CH11	-17.87	-17.43	N/A	8
11n HT20	CH1	-18.40	-19.08	-15.72	8
	CH6	-19.03	-18.53	-15.76	8
	CH11	-17.83	-19.15	-15.43	8
11n HT40	CH1	-23.23	-24.19	-20.67	8
	CH4	-23.59	-22.16	-19.81	8
	CH7	-22.68	-21.87	-19.25	8
Conclusion: PASS					

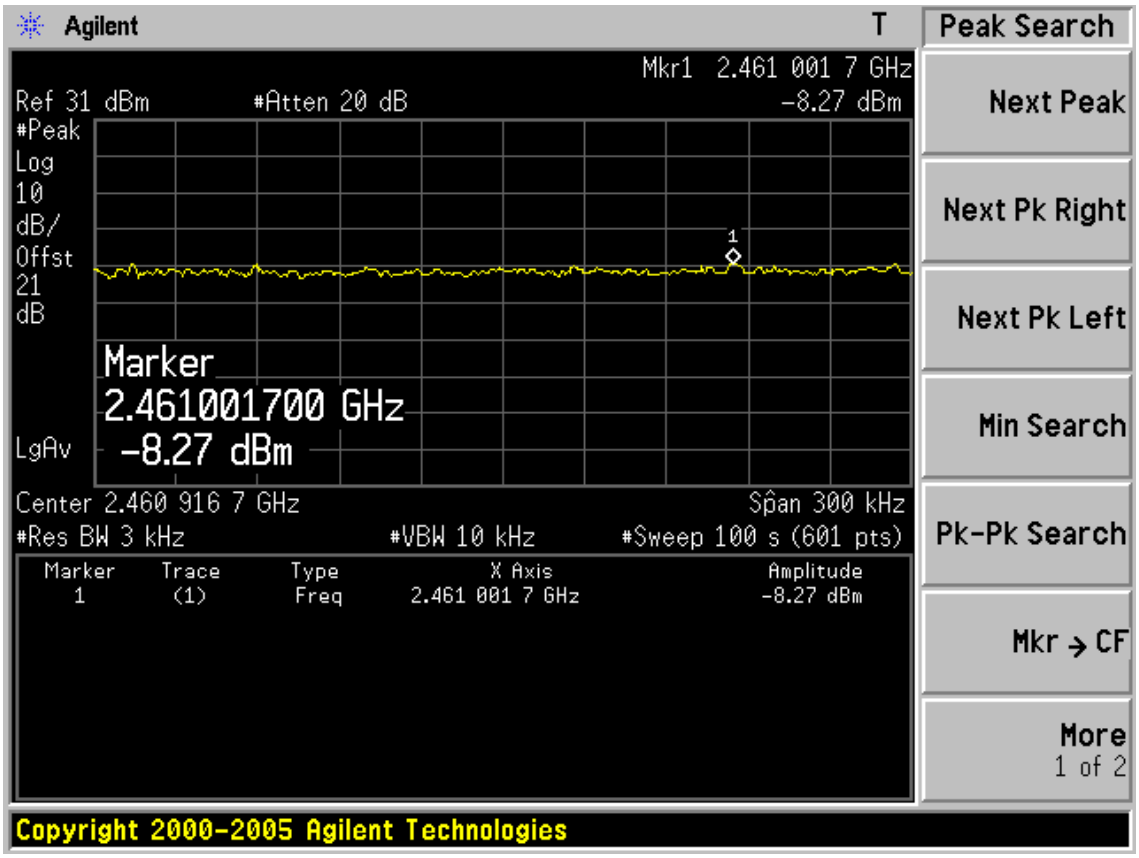
Chain 1:
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



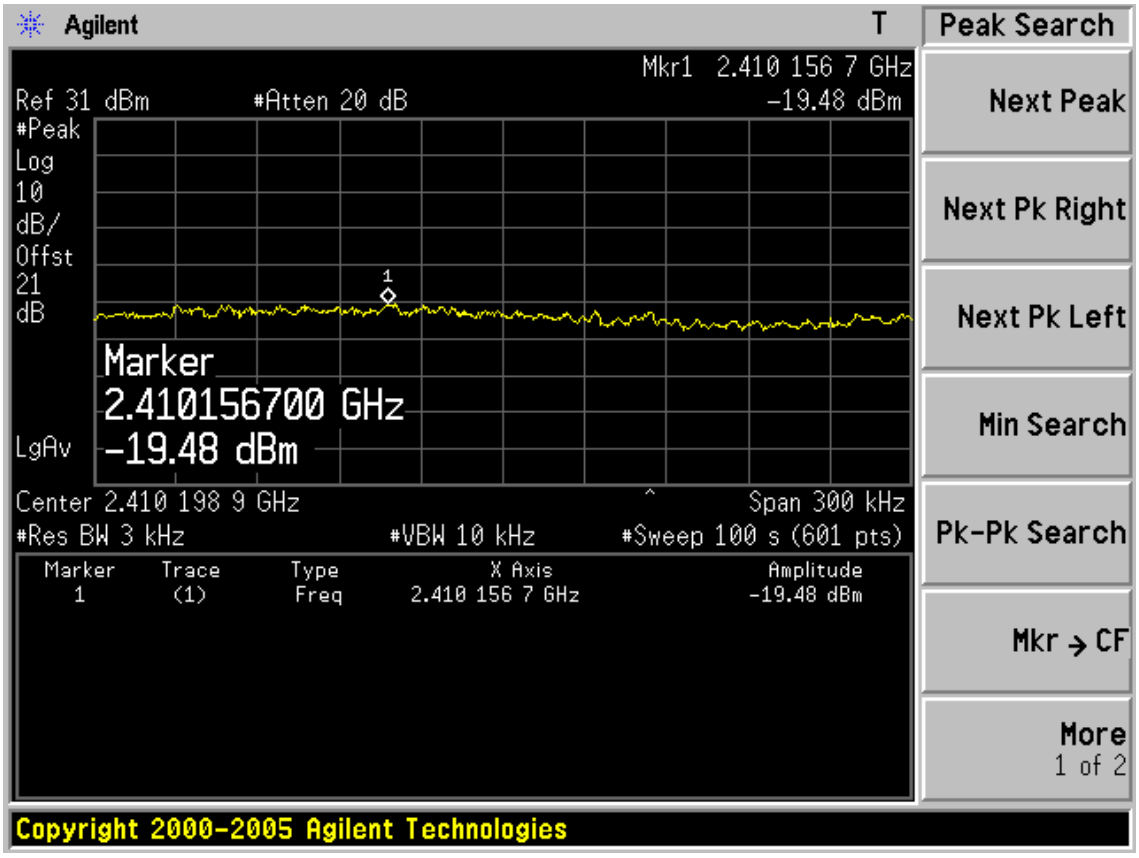
Test CH6: 2437MHz



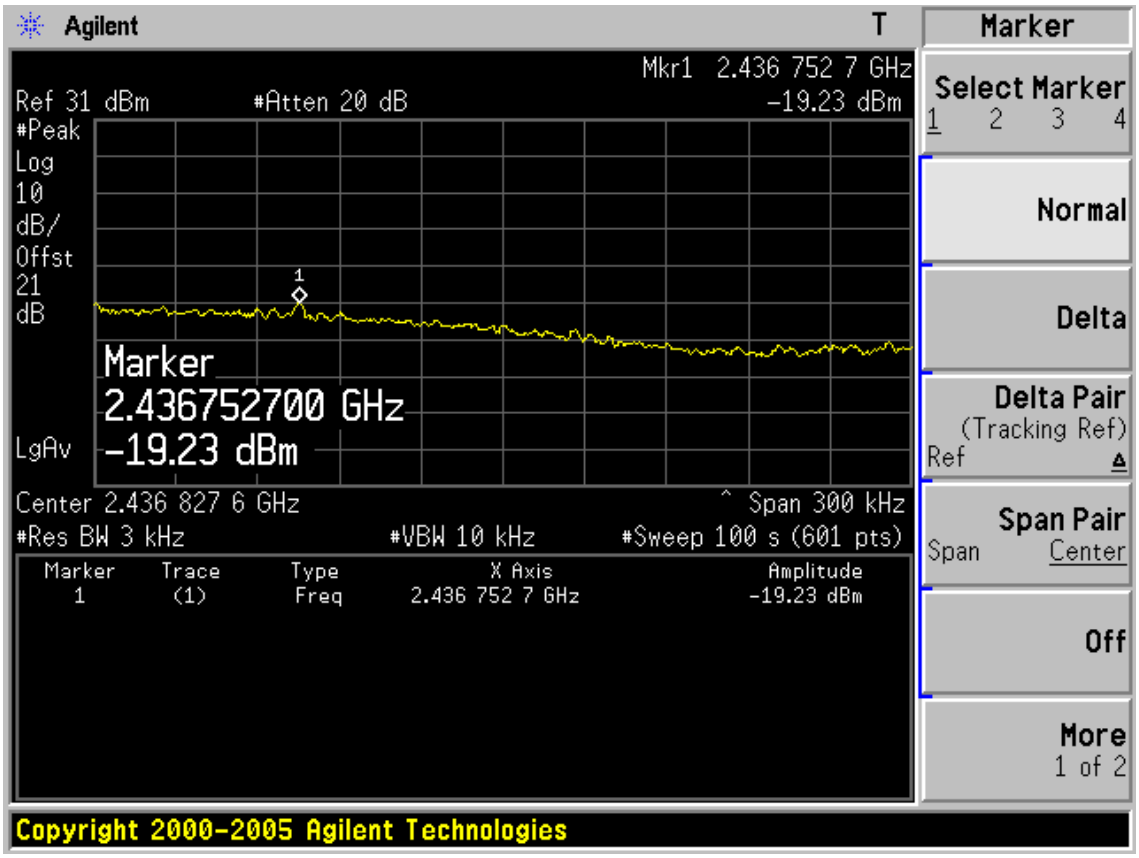
Test CH11: 2462MHz



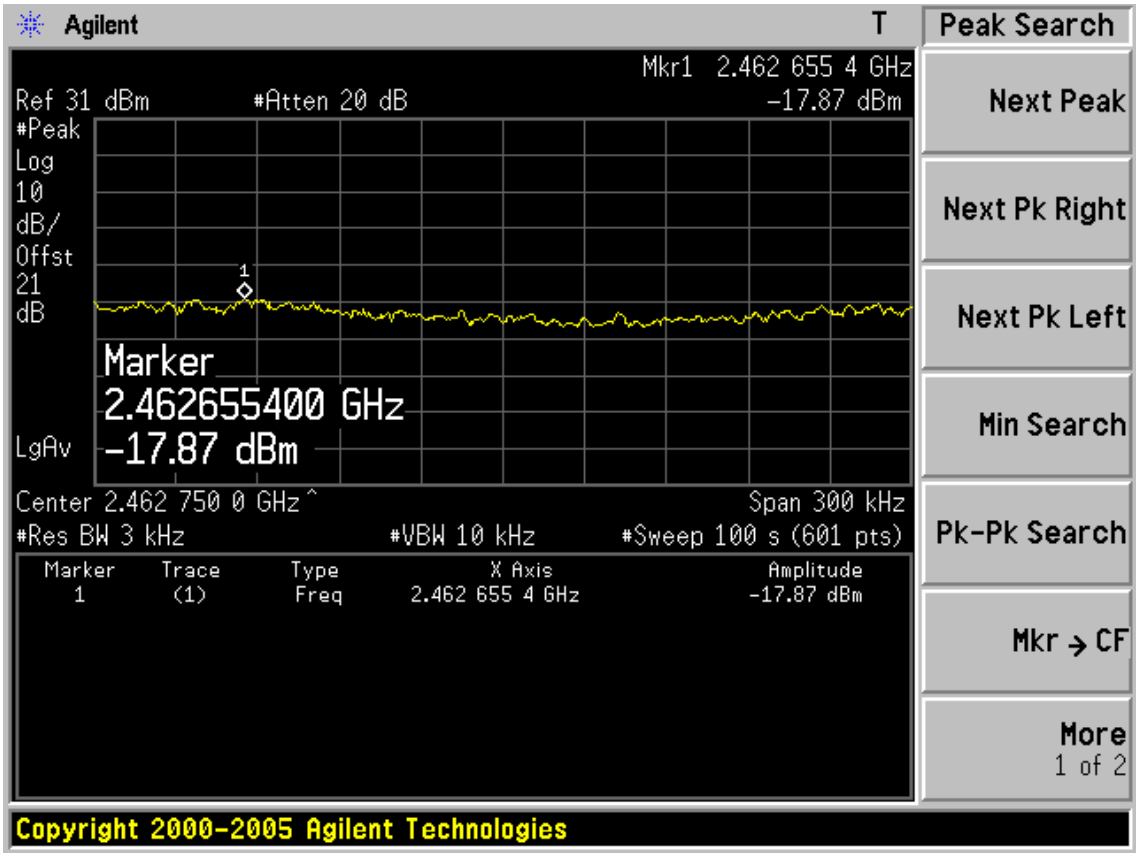
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



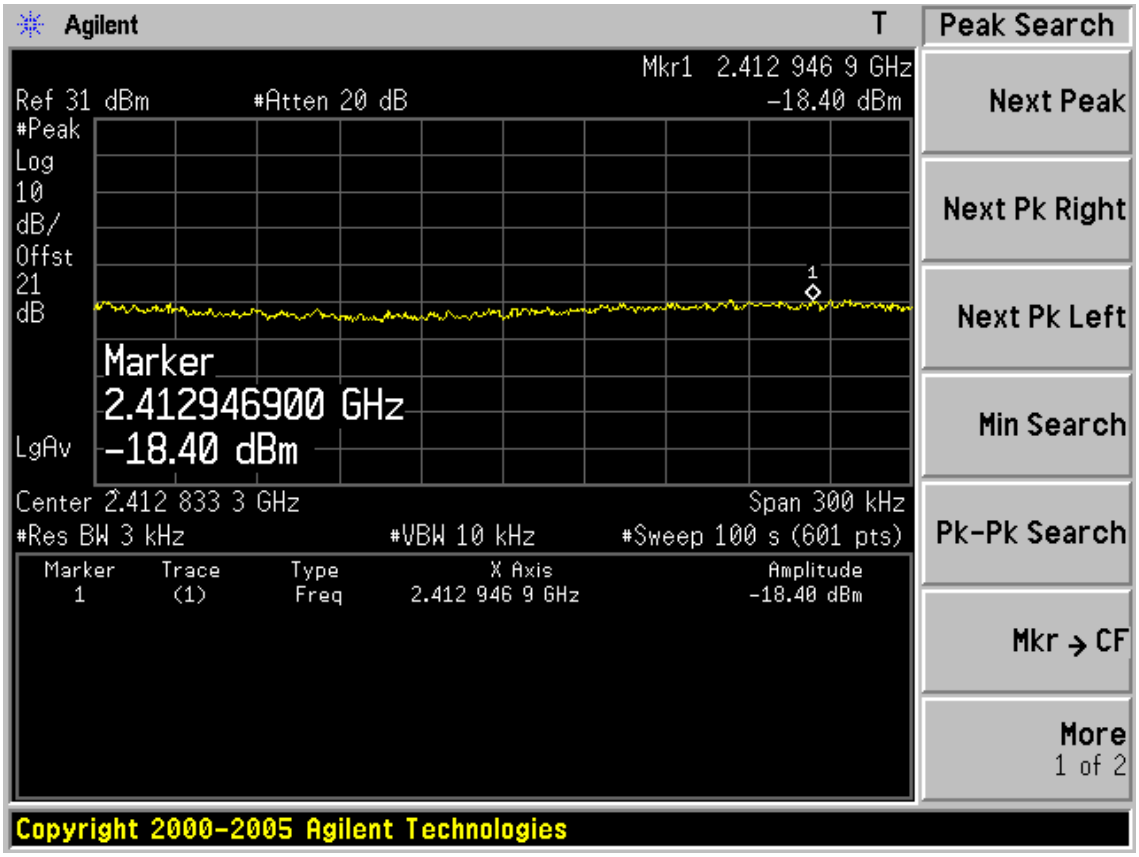
Test CH6: 2437MHz



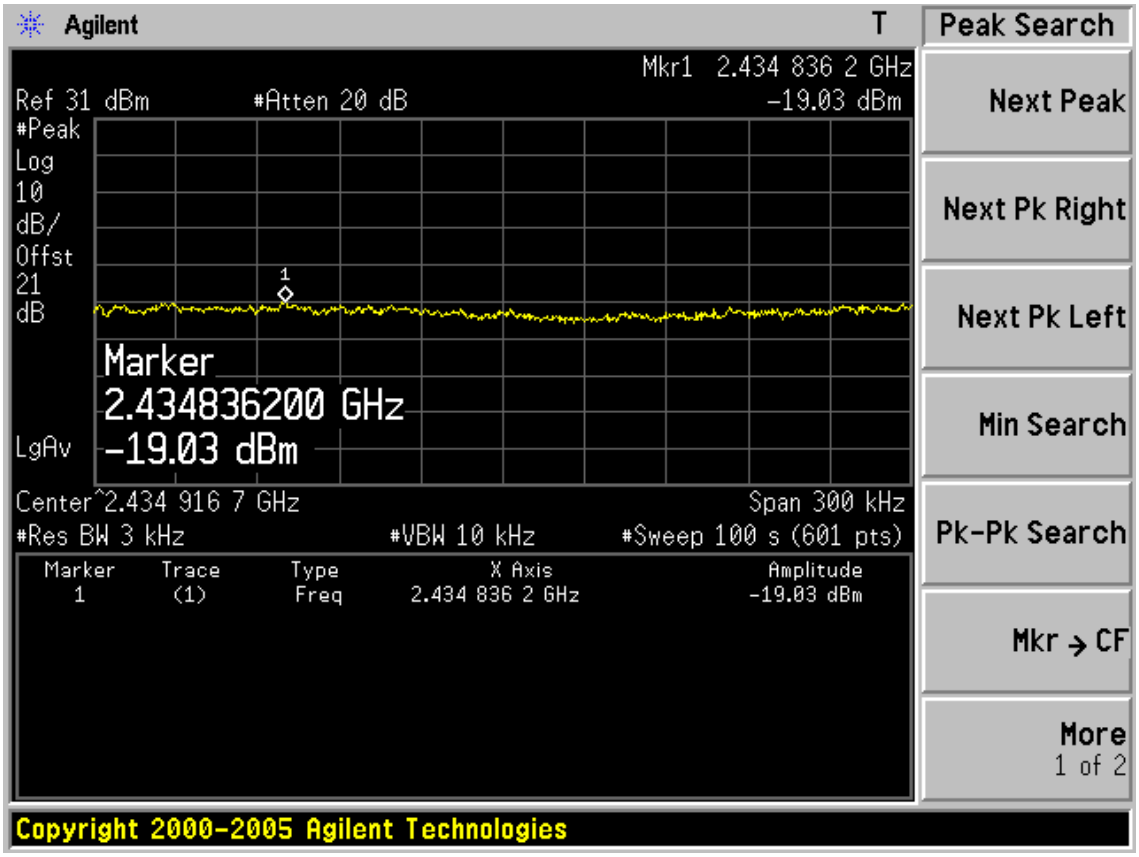
Test CH11: 2462MHz



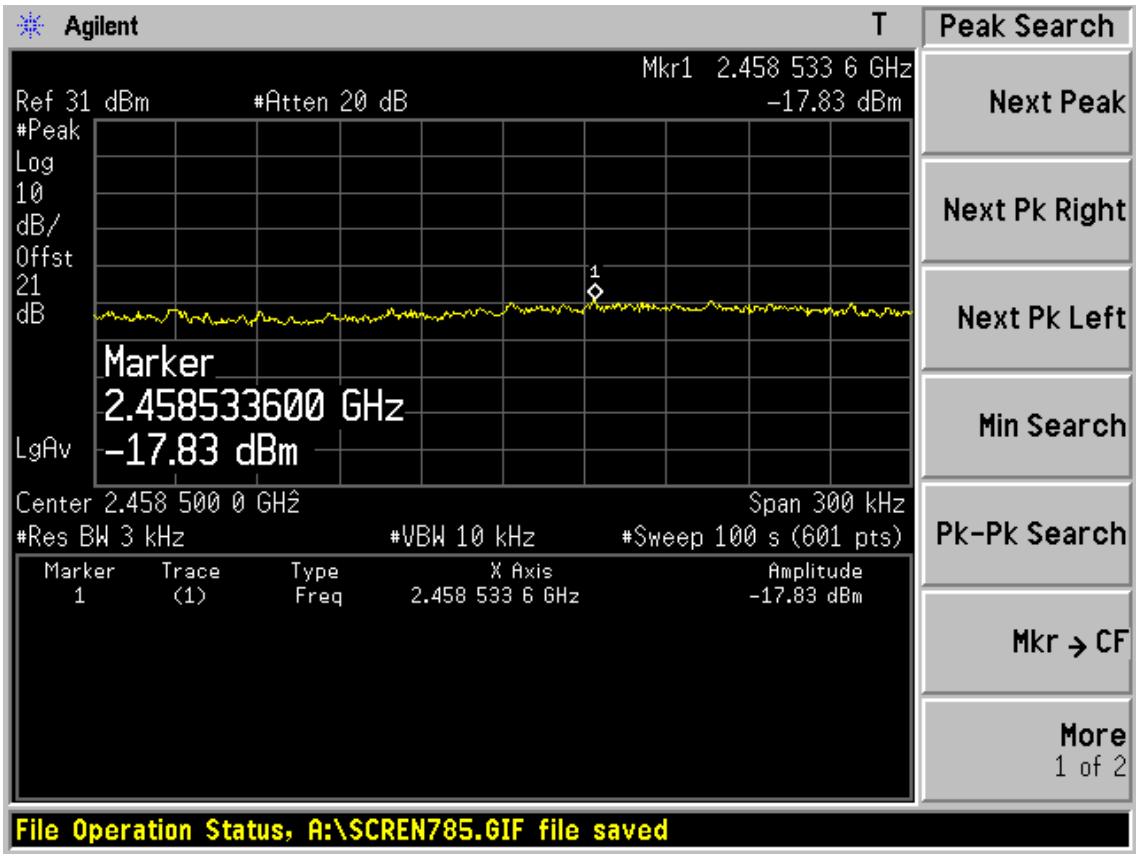
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



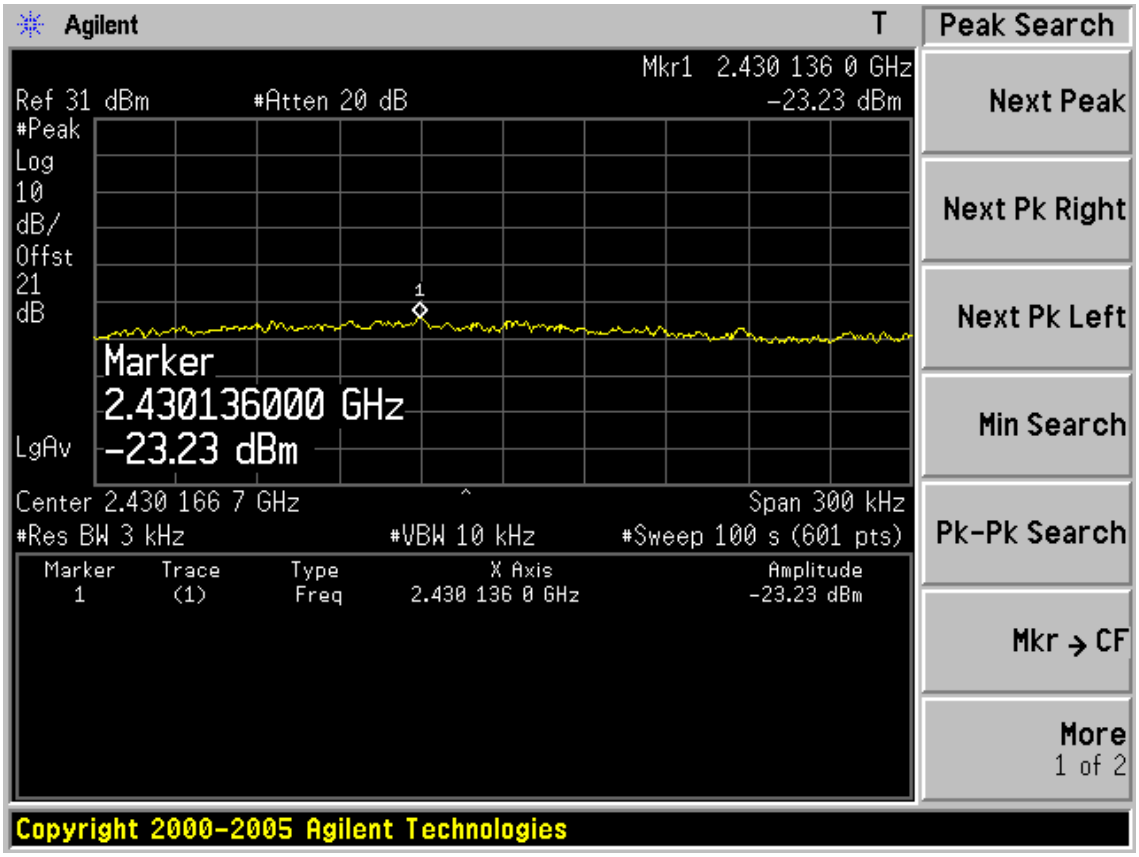
Test CH6: 2437MHz



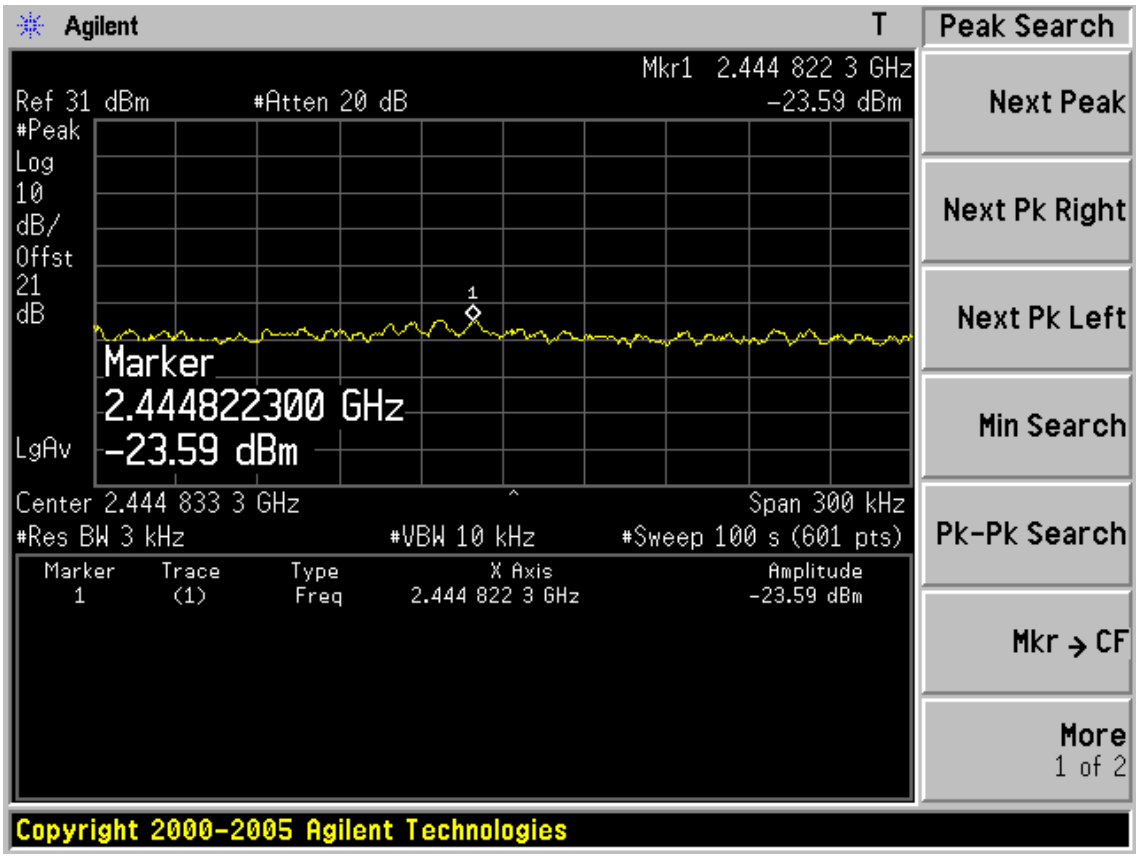
Test CH11: 2462MHz



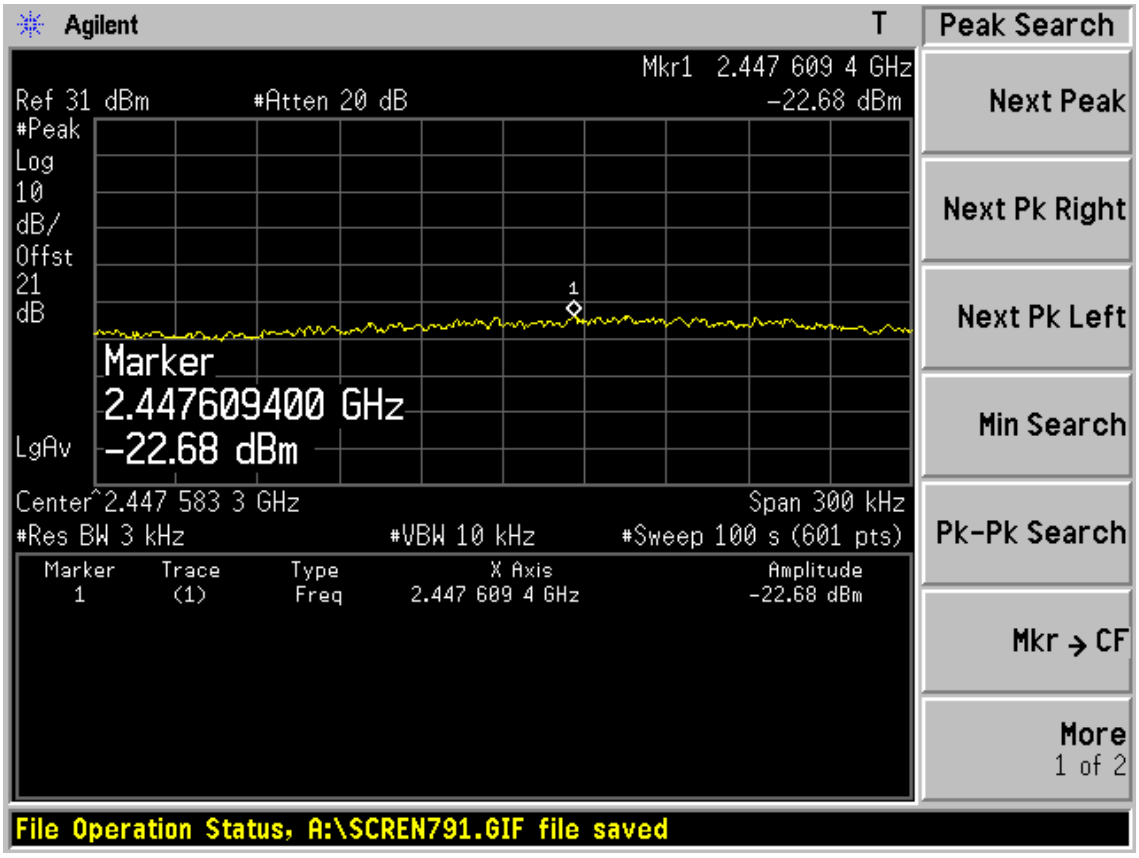
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



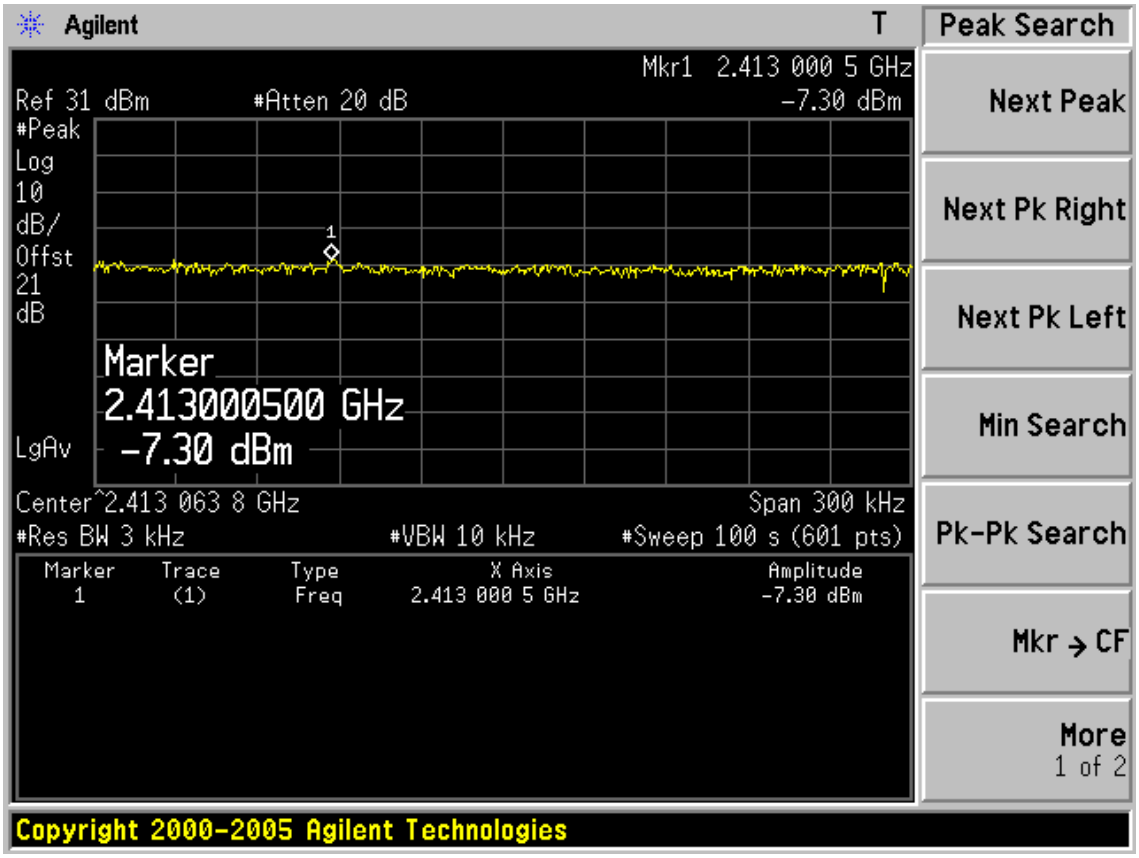
Test CH4: 2437MHz



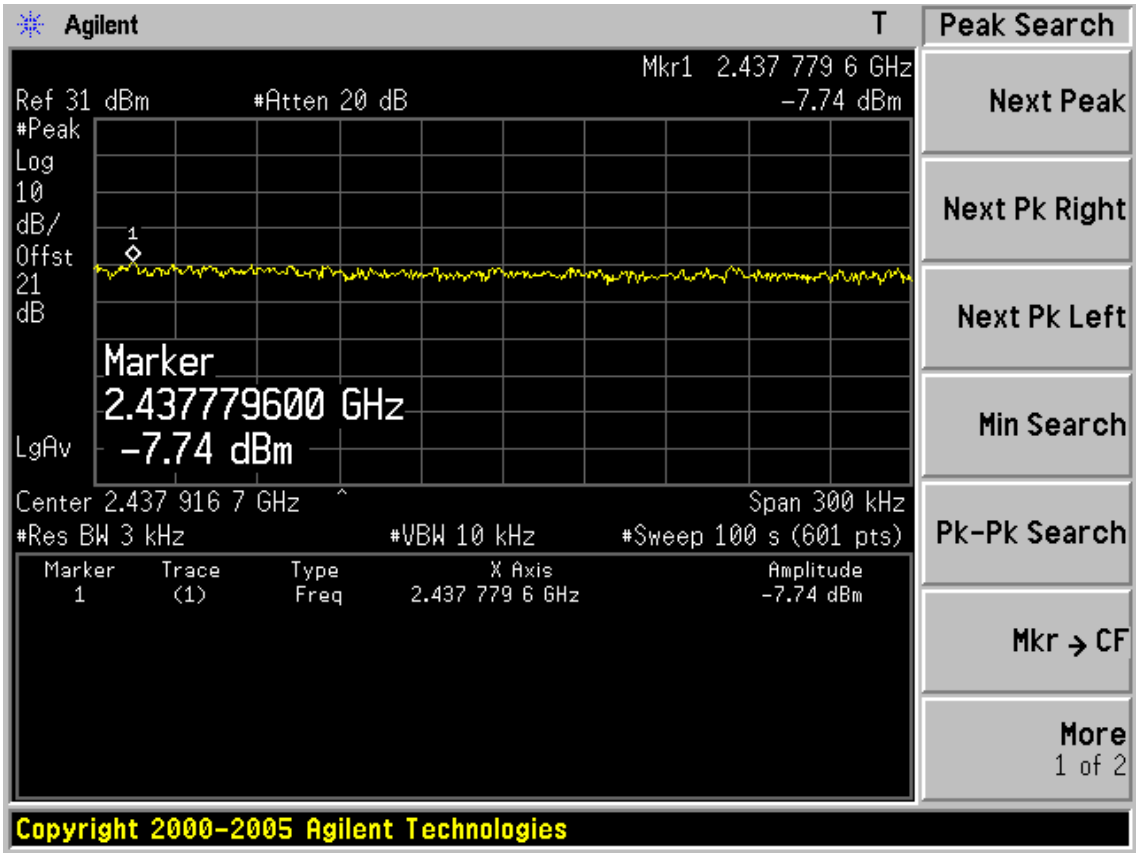
Test CH7: 2452MHz



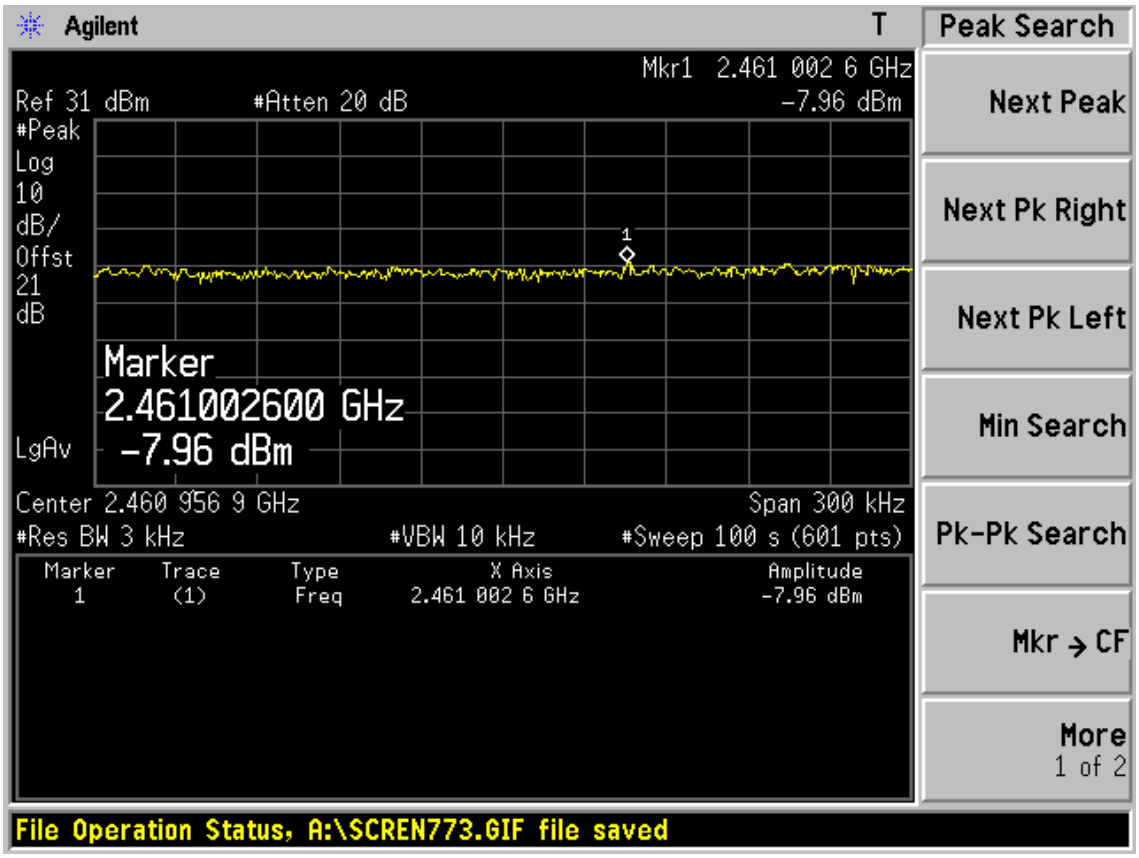
Chain 2:
Test Mode: IEEE 802.11b TX
Test CH1: 2412MHz



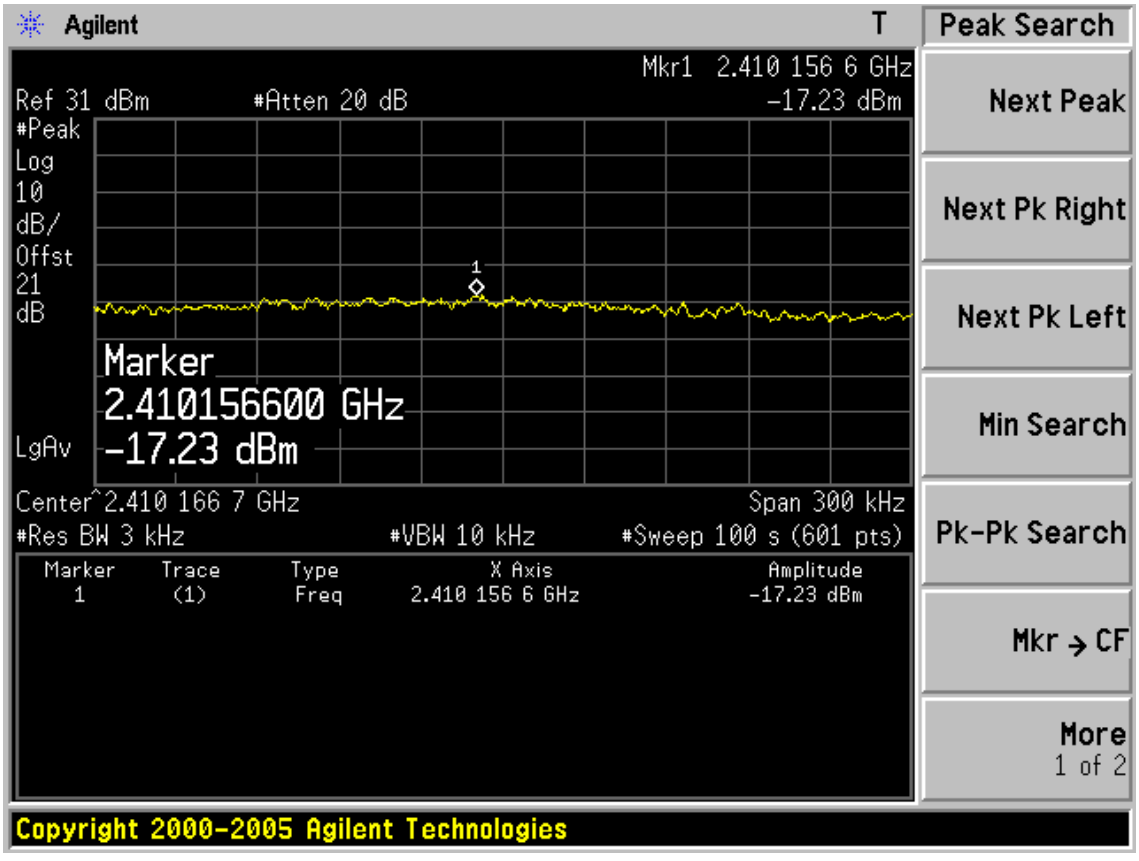
Test CH6: 2437MHz



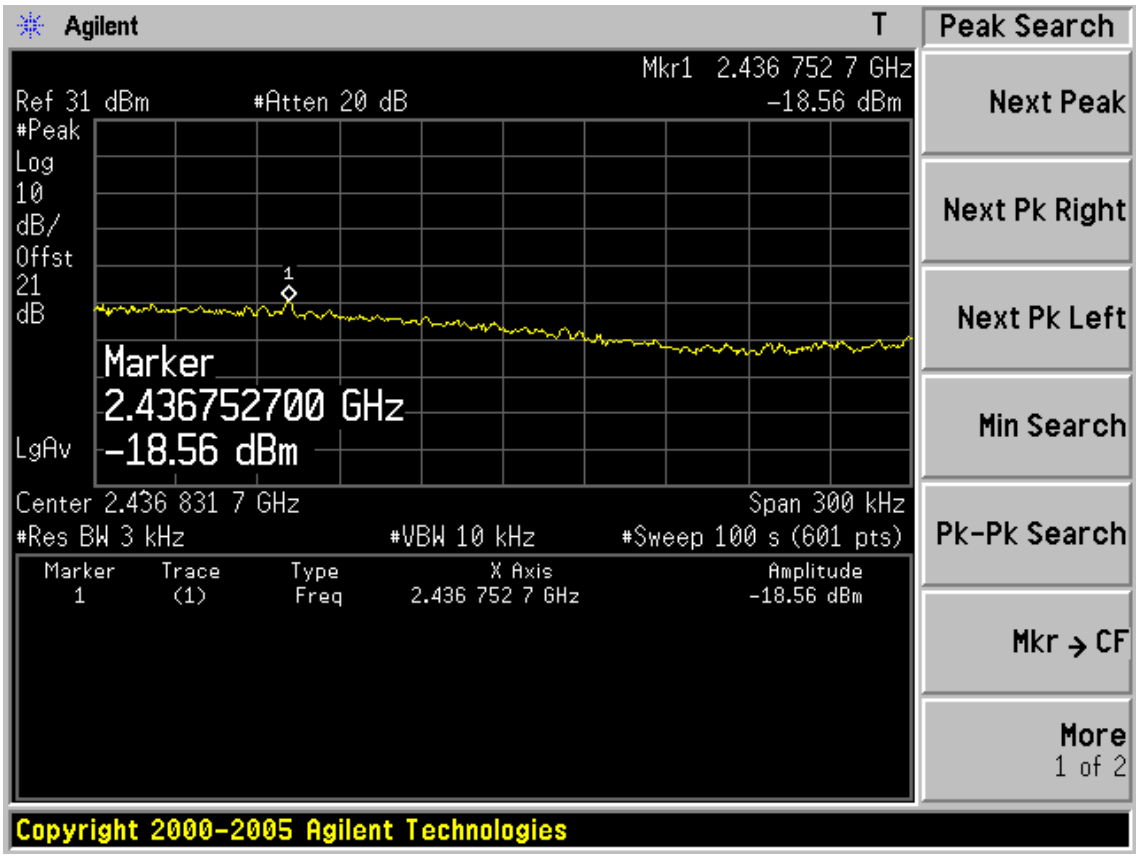
Test CH11: 2462MHz



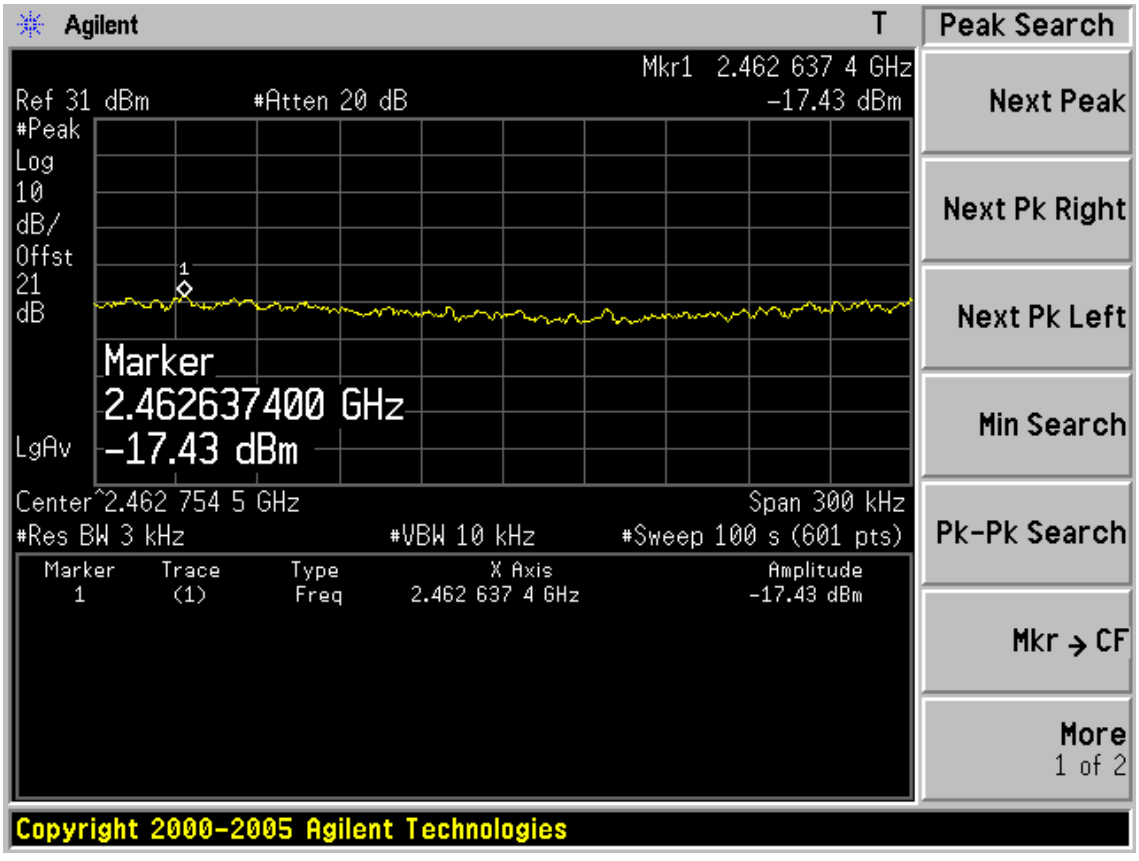
Test Mode: IEEE 802.11g TX
Test CH1: 2412MHz



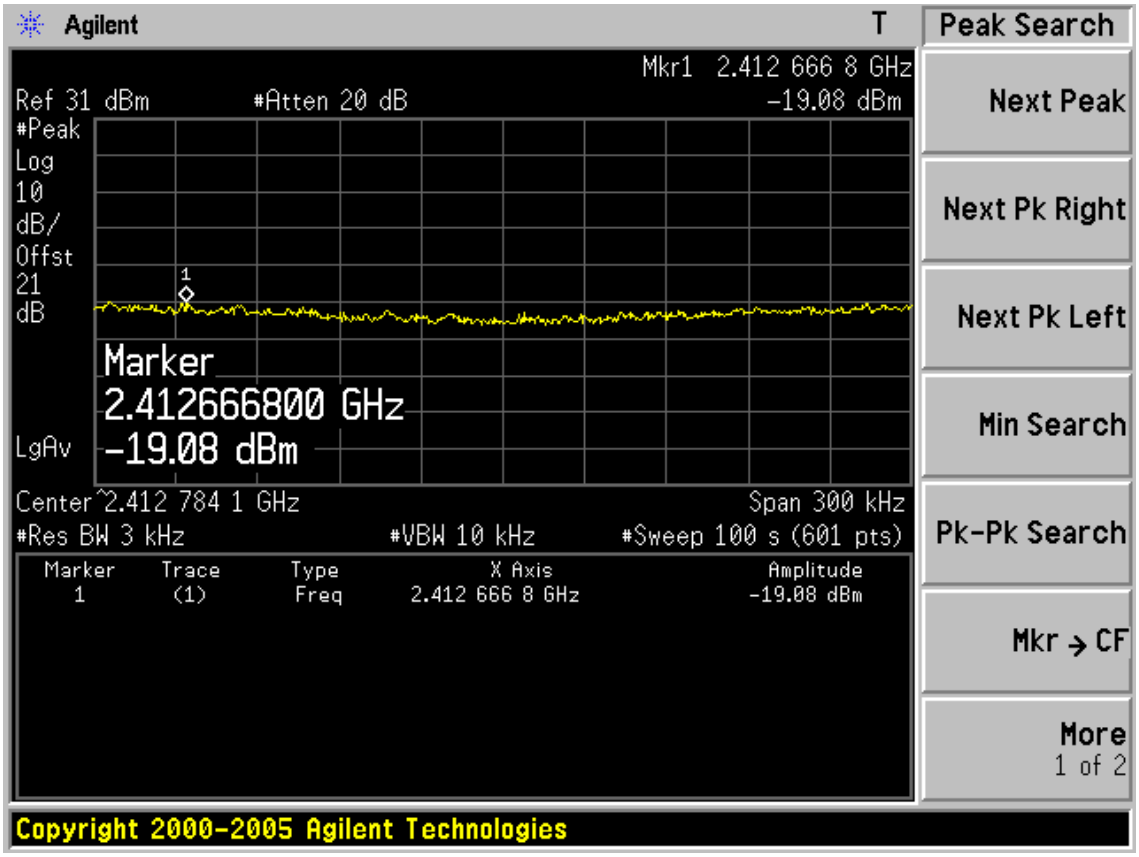
Test CH6: 2437MHz



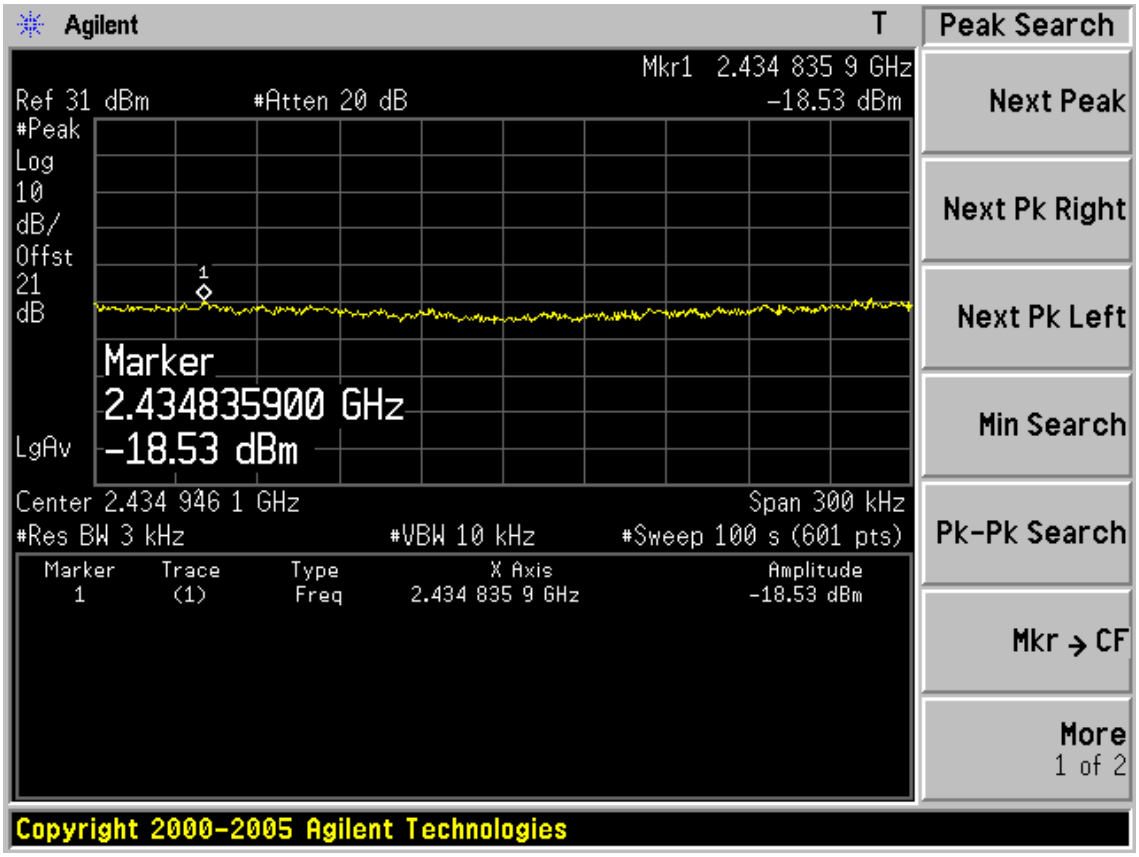
Test CH11: 2462MHz



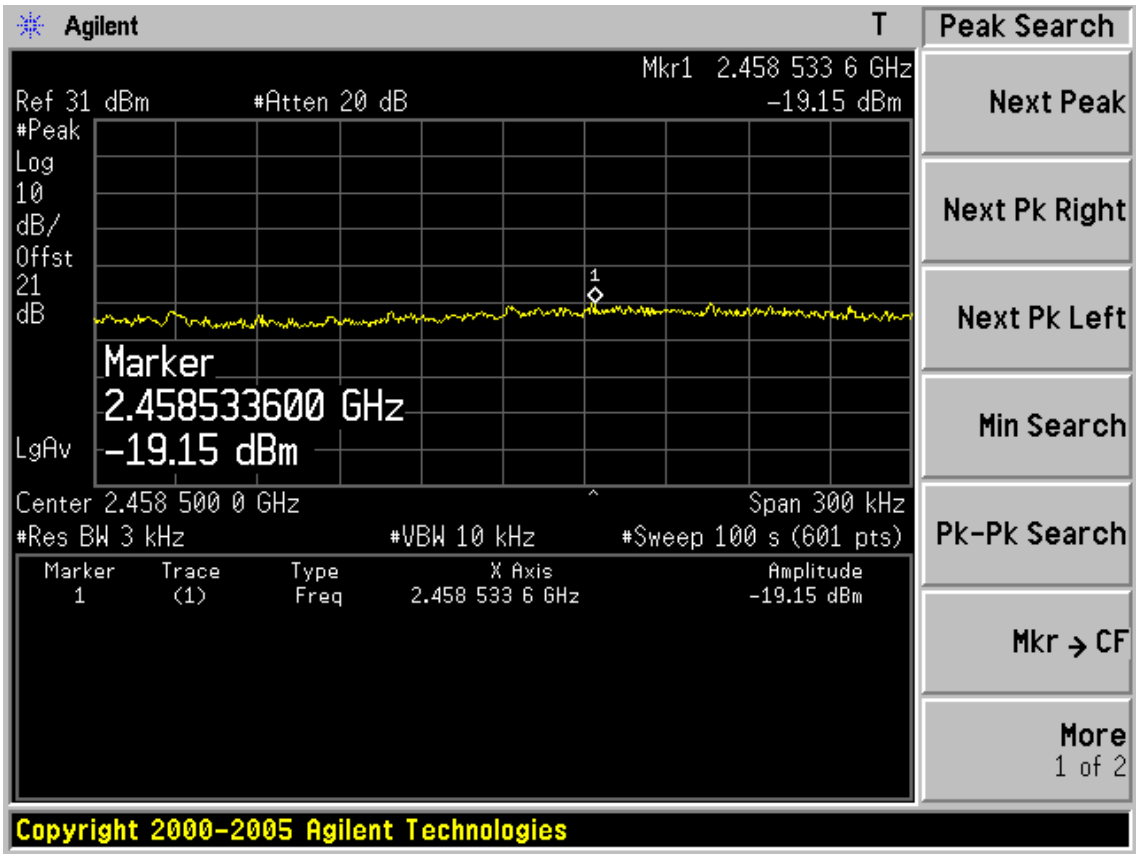
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



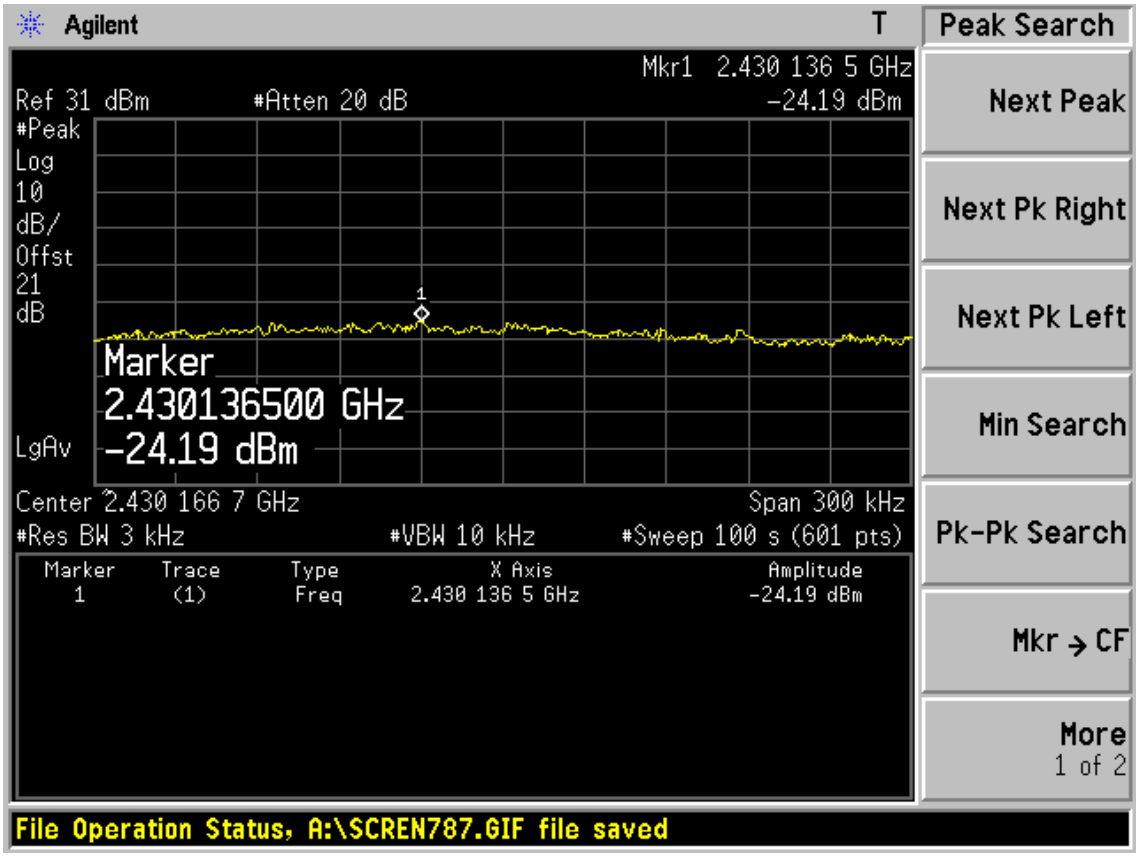
Test CH6: 2437MHz



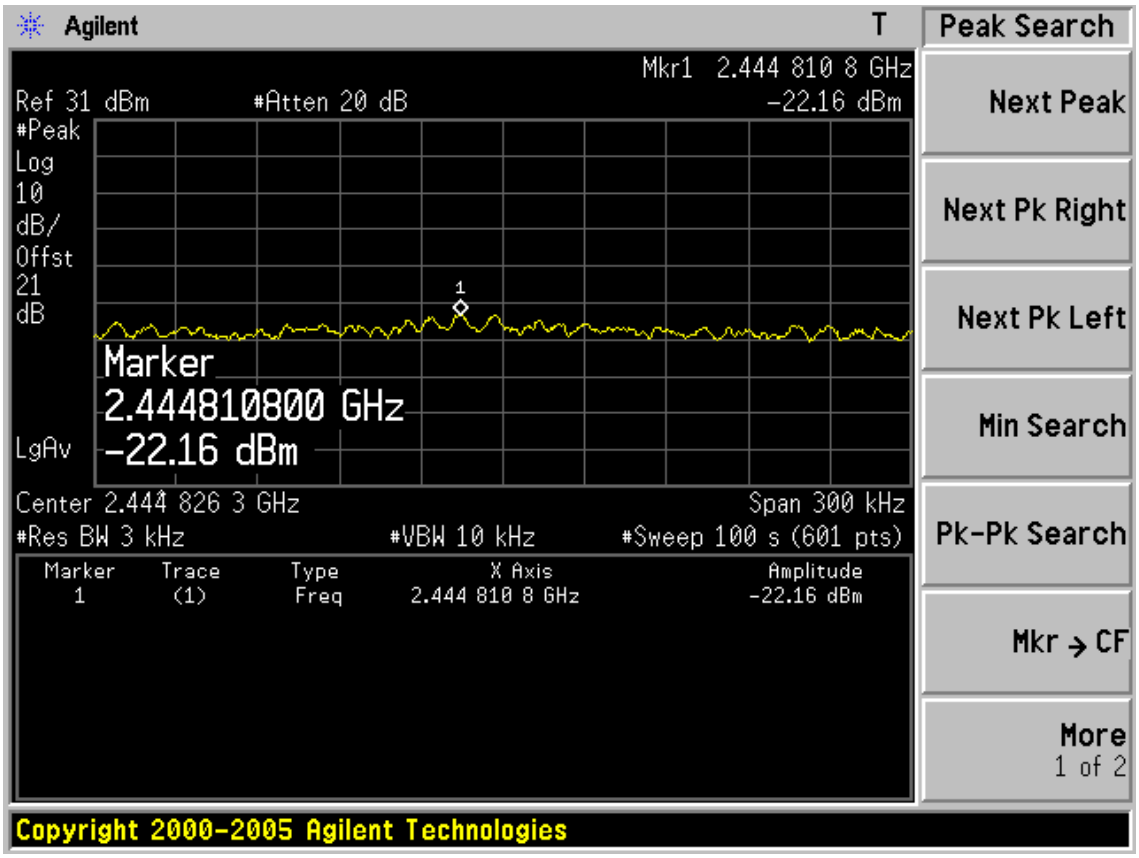
Test CH11: 2462MHz



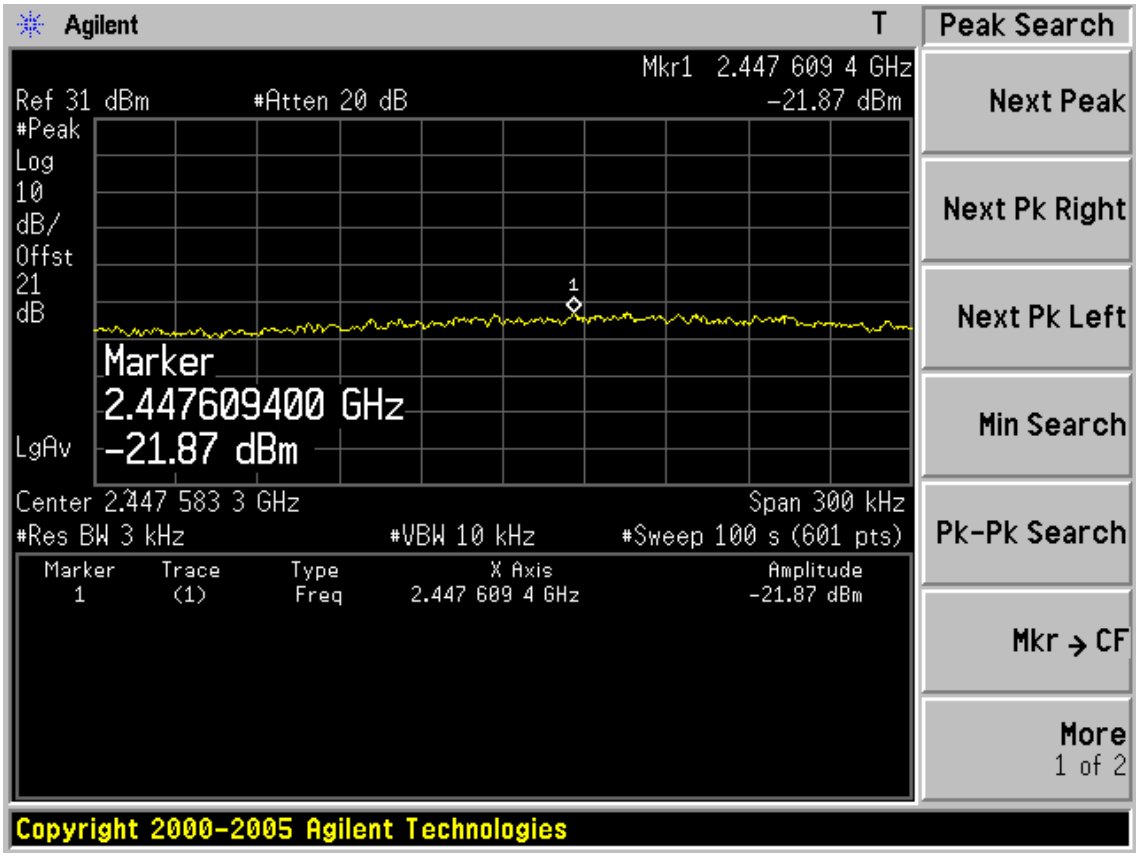
Test Mode: IEEE 802.11n HT40 TX
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



10. ANTENNA REQUIREMENT

10.1 STANDARD APPLICABLE

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

10.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are MIMO 2x2 dipole antennas with SMA-B connector and 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 only 2dBi.

11. DEVIATION TO TEST SPECIFICATIONS

[NONE]