FCC TEST REPORT

According to

FCC Rules and Regulations

Part 15 Subpart C

Applicant	:	Billion Electric Co., Ltd.
Address	:	8F., No. 192, Sec. 2, Chung Hsing Road, Hsin Tien City, Taipei Hsien, Taiwan, R.O.C.
Equipment	:	Wireless-N HomePlug AV200 Ethernet Adapter
Model No.	:	BiPAC 2073N, BEC 2073N, BiPAC 2171N, BEC 2171N, BiPAC 3100SN, BiPAC 2073W, BEC 2073W, BiPAC 3100SW, 220P-I1, 210P-I1, BEC 3100SN, BEC 3100SW
FCC ID	:	QI3BIL-2073N
Trade Name	:	Billion, BEC, Innoband

Laboratory Accreditation

TAF
Testing Laboratory
1332

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **Cerpass Technology Corp.,** the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

Contents

CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations

Part 15 Subpart C

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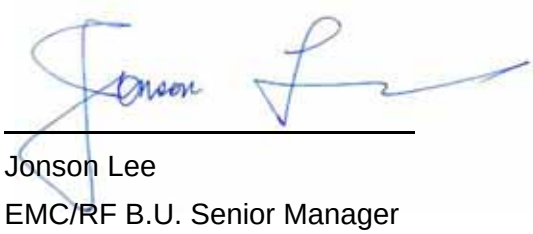
FCC ID	:	QI3BIL-2073N

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4** The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2005).**

The test was carried out on Dec. 17, 2009 at Cerpass Technology Corp.

Signature



Jonson Lee
EMC/RF B.U. Senior Manager

1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	. Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	Pass
15.209 15.247(d)	. Radiated Emission	Pass
15.247(a)(2)	. 6dB Bandwidth	Pass
15.247(b)	. Maximum Peak Output Power	Pass
15.247(d)	. 100kHz Bandwidth of Frequency Band Edges	Pass
15.247(e)	. Power Spectral Density	Pass
1.1307 1.1310 2.1091 2.1093	. RF Exposure Compliance	Pass

2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Protocol	TDMA, CSMA/CA
Standard	Ethernet specification: IEEE 802.3, IEEE 802.3x, IEEE 802.3u, Auto MDI/MDIX
Transmission Speed	200Mbps
Modulation	Supports OFDM – 1155 carriers, 1024 / 256 / 64 / 16 / 8 QAM, QPSK, BPSK and ROBO
Frequency Band	2MHz ~ 30MHz
Security	128-bit AES Link Encryption with key management for secure power line communications Encryption: NMK (Network Membership Key) used to authenticate/access Rotating NEK (Network Encryption Key)
Operating System	Windows 98 / 98SE / Me / 2000 / XP / Vista Other 10/100 Base-T Ethernet devices
Power Supplier	Input: 100 ~ 240V AC, 50 ~ 60Hz Protection: OCP, OVP, SCP
Physical Interface	AC power plug 2 fixed antennas WPS button Sync button Reset button RJ-45 compatible LED display: - WLAN - Power - PLC (Powerline Link/Act) - ETH (Ethernet Link/Act)
Physical Specifications	Dimensions (W, D, H): 4.42” x 3.05” x 2.12” (112.4mm x 77.4mm x 53mm)
Operating Environment	Operating temperature: 0℃ ~ 40℃ Storage temperature: -20℃ ~ 70℃ Humidity: 20 ~ 95% non-condensing

2.2 Wireless LAN

Spreading	802.11b: DSSS, CCK(QPSK, BPSK) 802.11g / n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Frequency Range	2.4 ~ 2.484GHz
Number of Channels	802.11b/g/n HT20: -USA, Canada and Taiwan: CH 1 ~ 11 (11channels) -Most European Countries: CH 1 ~ 13 (13channels) -France: CH 1 ~ 7 (7channels) 802.11n HT40: -USA, Canada and Taiwan: CH 3 ~ 9 (7channels) -Most European Countries: CH 1 ~ 13 (13channels) -France: CH 3 ~ 5 (3channels)
Data Rate	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n HT20: 130/15, 117/14, 104/13, 78/12, 52/11, 39/10, 26/9, 13/8, 65/7, 58.5/6, 52/5, 39/4, 26/3, 19.5/2, 13/1, 6.5/0Mbps 802.11 n HT40: 270/15, 243/14, 216/13, 162/12, 108/11, 81/10, 54/9, 27/8, 135/7, 121.5/6, 108/5, 81/4, 54/3, 40.5/2, 27/1, 13.5/0Mbps
Transmit Power	802.11b: 17~18 dBm (Average); 802.11g: 14~15 dBm (Average); 802.11n HT20: 17~18dBm(Tx1+Tx2 Average); 802.11n HT40: 17~18dBm (Tx1+Tx2 Average)
Antenna Type / Gain	Dipole antenna / Ant1: 2.24dBi; Ant2: 2.24dBi;

2.3 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n HT 20

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	---	---

802.11n HT40

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

2.4 Test Mode and Test Software

a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
b. The complete test system included remote workstation, PC, Monitor, Keyboard, Mouse, Modem, Printer and EUT for RF test. The remote workstation included Notebook and EUT.
c. An executive program, ping.exe under WIN XP, which transmits and receives data to the remote workstation through Wireless (270M).
d. The following test modes were performed for test:
   - 802.11b/g/n HT20: CH01: 2412MHz, CH06: 2437MHz, CH11: 2462MHz
   - 802.11n HT40: CH03: 2422MHz, CH06: 2437MHz, CH09: 2452MHz
e. For Radiated Emission test, the EUT was set by three orthogonal. The performed data was the worst case.
f. The following data rates were the worst cases of power output and be performed for test:
   - 802.11b: 11Mbps
   - 802.11g: 54Mbps
   - 802.11n HT20: 130Mbps
   - 802.11n HT40: 270Mbps

   * Power output of data rate:

802.11b		802.11g	
Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)
11	17.39	54	14.41
5.5	17.20	48	14.32
2	17.26	36	14.25
1	17.21	24	14.22
		18	14.26
		12	14.30
		9	14.28
		6	14.25

802.11n HT20		802.11n HT40	
Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)
130/15	14.81	270/15	14.69
117/14	14.75	243/14	14.61
104/13	14.68	216/13	14.59
78/12	14.54	162/12	14.45
52/11	14.56	108/11	14.56
39/10	14.55	81/10	14.53
26/9	14.53	54/9	14.48
13/8	14.71	27/8	14.55
65/7	14.65	135/7	14.52
58.5/6	14.50	121.5/6	14.61
52/5	14.49	108/5	14.46
39/4	14.52	81/4	14.51
26/3	14.61	54/3	14.46
19.5/2	14.55	40.5/2	14.42
13/1	14.63	27/1	14.52
6.5/0	14.72	13.5/0	14.54

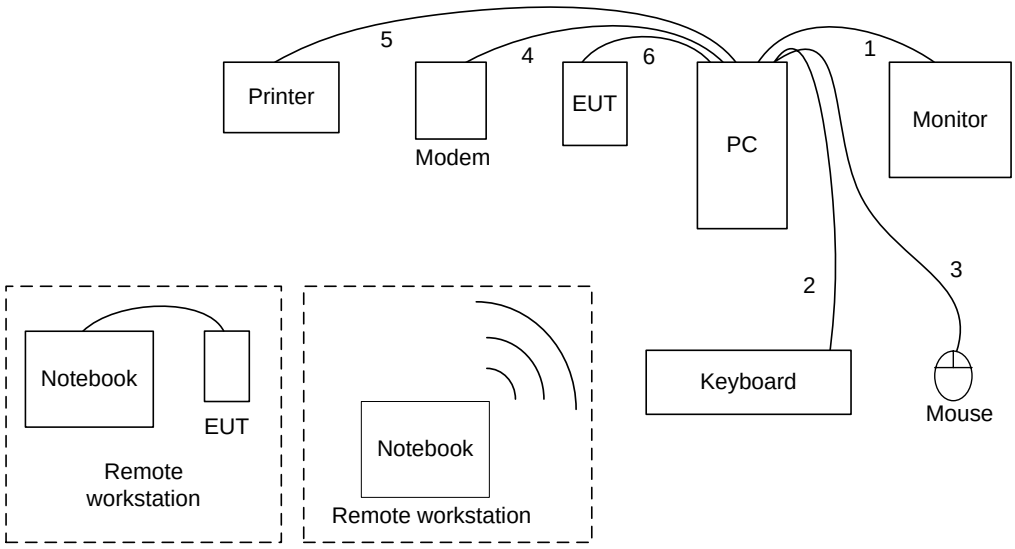
2.5 Description of Test System

Device	Manufacturer	Model No.	Description
PC	IBM	IGV	Power Cable, Unshielding 1.8 m
Monitor	ViewSonic	G90fB	Power Cable, Adapter Unshielding 1.8 m Data Cable, VGA Shielding 1.35 m
Keyboard	IBM	KB-0225	Data Cable, PS2 Shielding 1.85 m
Mouse	IBM	MU29J	PS/2 Cable, PS2 Shielding 1.85 m
Modem	ACEXX	DM-1414	Power Cable, Adapter Unshielding 1.8 m Data Cable, RS232 Shielding 1.35 m
Printer	HP	Desk Jet 400	Power Cable, Adapter Unshielding 1.8 m Data Cable, Print Shielding 1.6 m
Remote Workstation			
Notebook	DELL	PP10L	Power Cable, Adapter Unshielding 1.8 m
Notebook	TOSHIBA	PSA50T-05M00C	Power Cable, Adapter Unshielding 1.8 m

Use Cable:

Cable	Quantity	Description
RJ45	1	Unshielding, 1.5m
RJ45	1	Unshielding, 5.0m

2.6 Connection Diagram of Test System



1. The VGA cable is connected from PC to the Monitor.
2. The PS2 cable is connected from PC to the Keyboard.
3. The PS2 cable is connected from PC to the Mouse.
4. The RS232 cable is connected from PC to the Modem.
5. The Print cable is connected from PC to the Printer.
6. The RJ45 cable is connected from PC to the EUT.

＊ The EUT keeps to transmit and receive data to remote workstation by Wireless.

2.7 General Information of Test

Test Site :	Cerpass Technology Corp. 2F-11, No. 3, Yuan Qu St. (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS1-SD):	No. 7-2, Moshihkeng, Fongtian Village, Shihding Township, Taipei County, Taiwan, R.O.C.
FCC Registration Number :	TW1049, TW1056, 982971, 488071
IC Registration Number :	4934C-1, 4934D-1
VCCI Registration Number :	T-543 for Telecommunication Test C-3328 for Conducted emission test R-3013 for Radiated emission test
Test Voltage:	AC 120V / 60Hz
Test in Compliance with:	ANSI C63.4-2003 FCC Part 15 Subpart C
Frequency Range Investigated:	Conducted: Carrier current on: from 535kHz to 1.705MHz Carrier current off: from 150kHz to 30MHz Radiation: from 30MHz to 25,000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

2.8 Measurement Uncertainty

Measurement Item	Measurement Frequency	Polarization	Uncertainty
Conducted Emission	9 kHz ~ 30 MHz	LINE/NEUTRAL	2.71 dB
Radiated Emission	30 MHz ~ 25GHz	Vertical	4.11 dB
		Horizontal	4.10 dB
6 dB Bandwidth	---	---	7500 Hz
Maximum Peak Output Power	---	---	1.4 dB
100kHz Bandwidth of Frequency Band Edges	---	---	2.2 dB
Power Spectral Density	---	---	2.2 dB

2.9 History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description

3. Antenna Requirements

3.1 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.

3.2 Antenna Construction and Directional Gain

Ant1: Dipole antenna, 2.24 dBi
Ant2: Dipole antenna, 2.24 dBi

4. Test of Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 535 kHz to 1.705 MHz, 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Carrier current on:

Frequency (kHz)	Quasi Peak (dB μ V)	Quasi Peak (μ V)
535 – 1705	60	1000

Carrier current off:

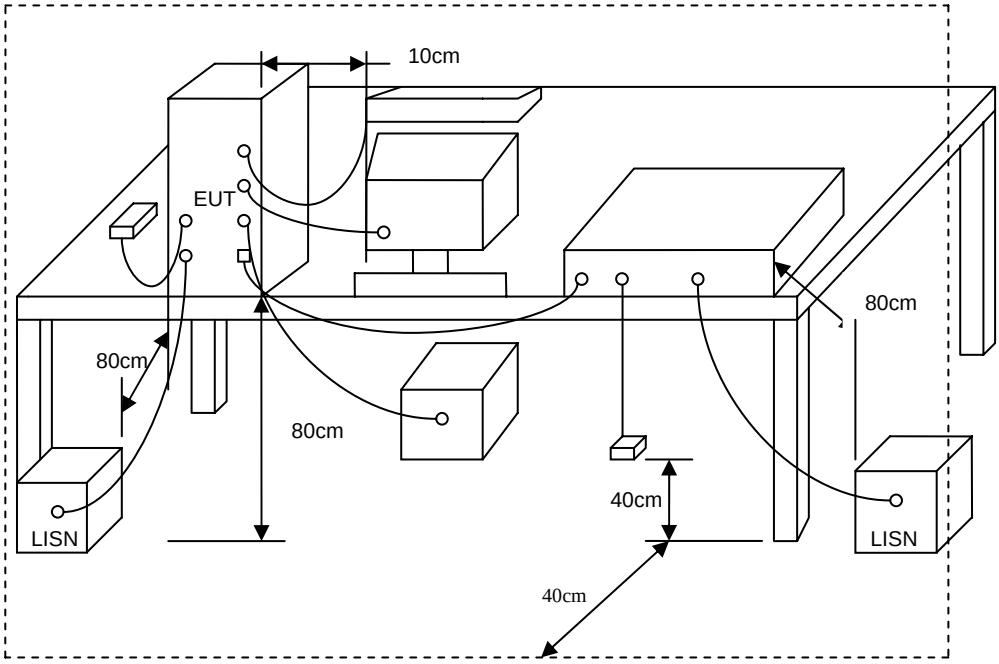
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

4.2 Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

4.3 Typical Test Setup

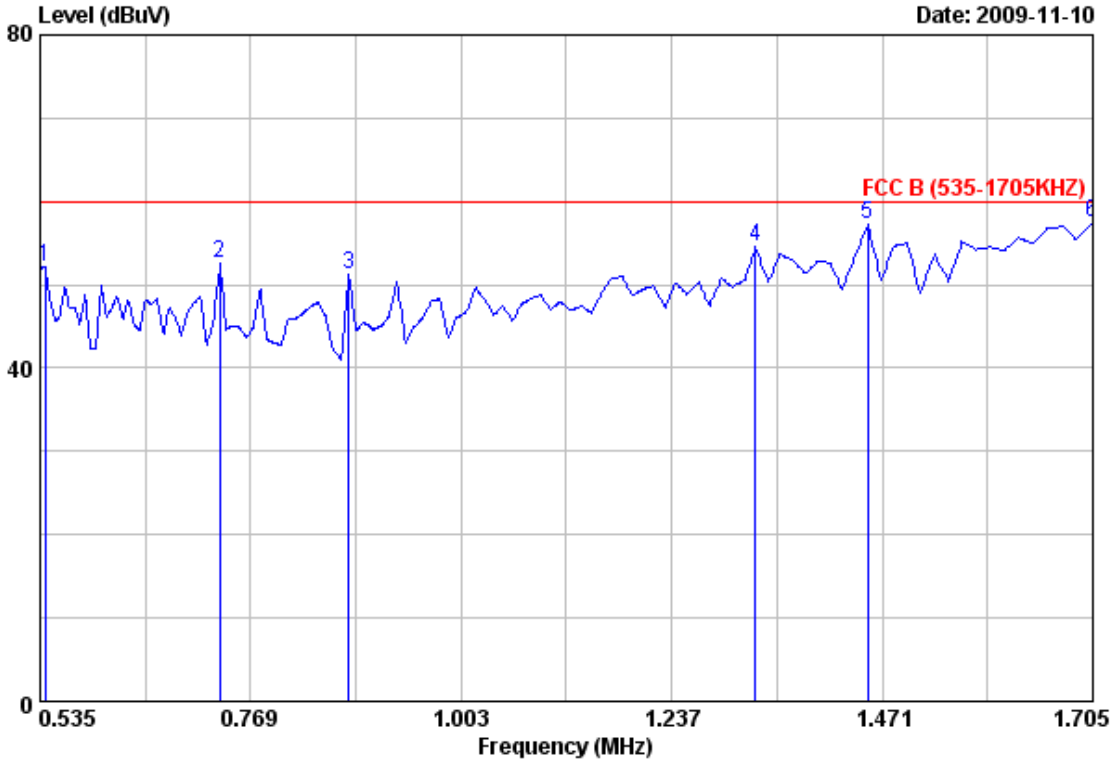


4.4 Measurement Equipment

Instrument/ Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100443	2008/12/19	2009/12/18
LISN	NSLK 8127	Schwarzbeck	8127-516	2009/05/15	2010/05/14
LISN	ROLF HEINE	NNB-2/16Z	03/10058	2009/04/18	2010/04/17

4.5 Test Result and Data of Carrier current on

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current on	Humidity	:	72 %

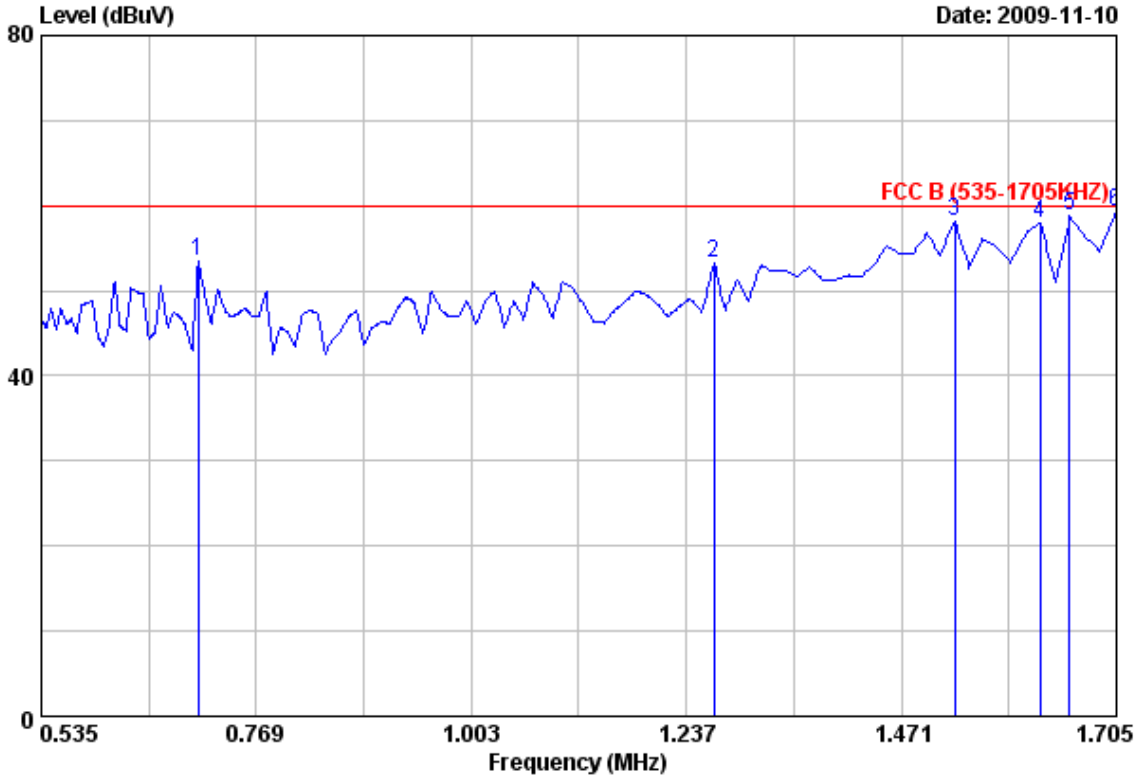


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.54	52.02	0.09	52.11	60.00	-7.89	Peak
2	0.73	52.46	0.09	52.55	60.00	-7.45	Peak
3	0.88	51.05	0.10	51.15	60.00	-8.85	Peak
4	1.33	54.46	0.12	54.58	60.00	-5.42	Peak
5	1.45	57.05	0.12	57.17	60.00	-2.83	Peak
6	1.71	57.47	0.13	57.60	60.00	-2.40	Peak

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current on	Humidity	:	72 %

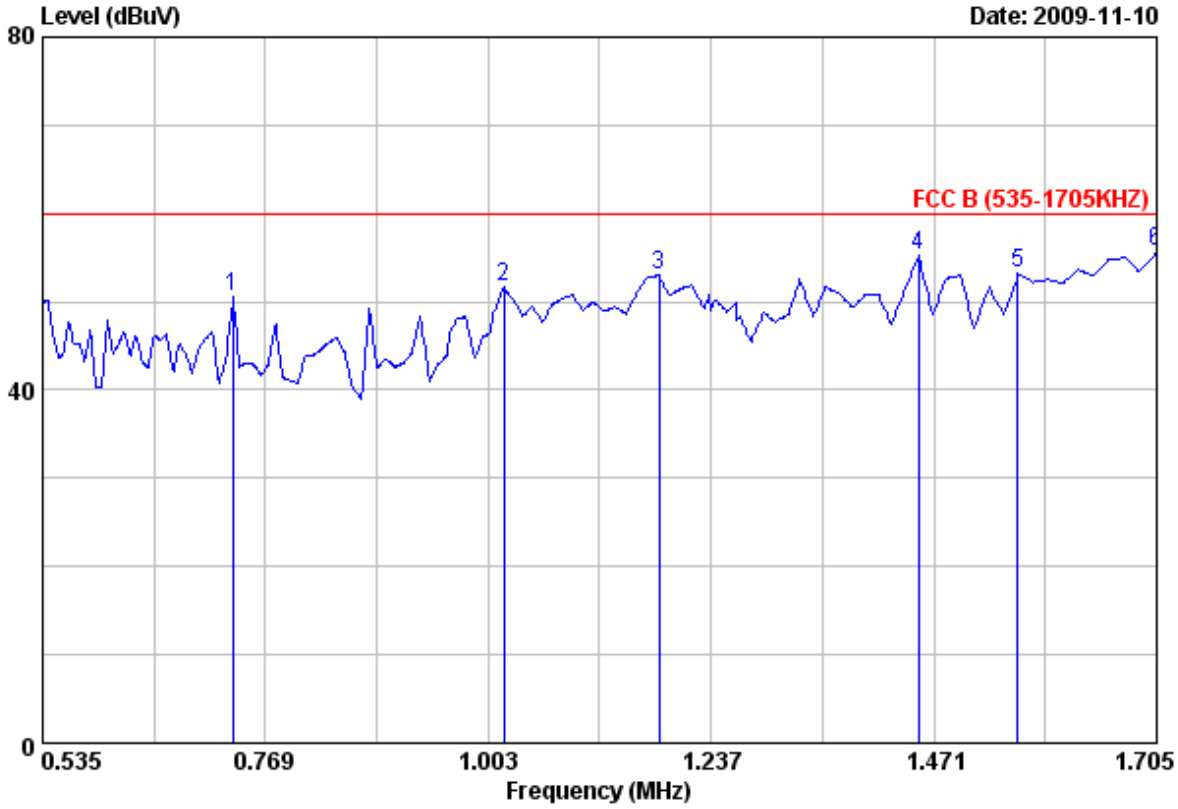


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.71	53.47	0.09	53.56	60.00	-6.44	Peak
2	1.27	53.10	0.11	53.21	60.00	-6.79	Peak
3	1.53	58.07	0.11	58.18	60.00	-1.82	Peak
4	1.62	57.91	0.11	58.02	60.00	-1.98	Peak
5	1.65	58.72	0.11	58.83	60.00	-1.17	Peak
6	1.71	59.22	0.12	59.34	60.00	-0.66	Peak

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current on	Humidity	:	72 %

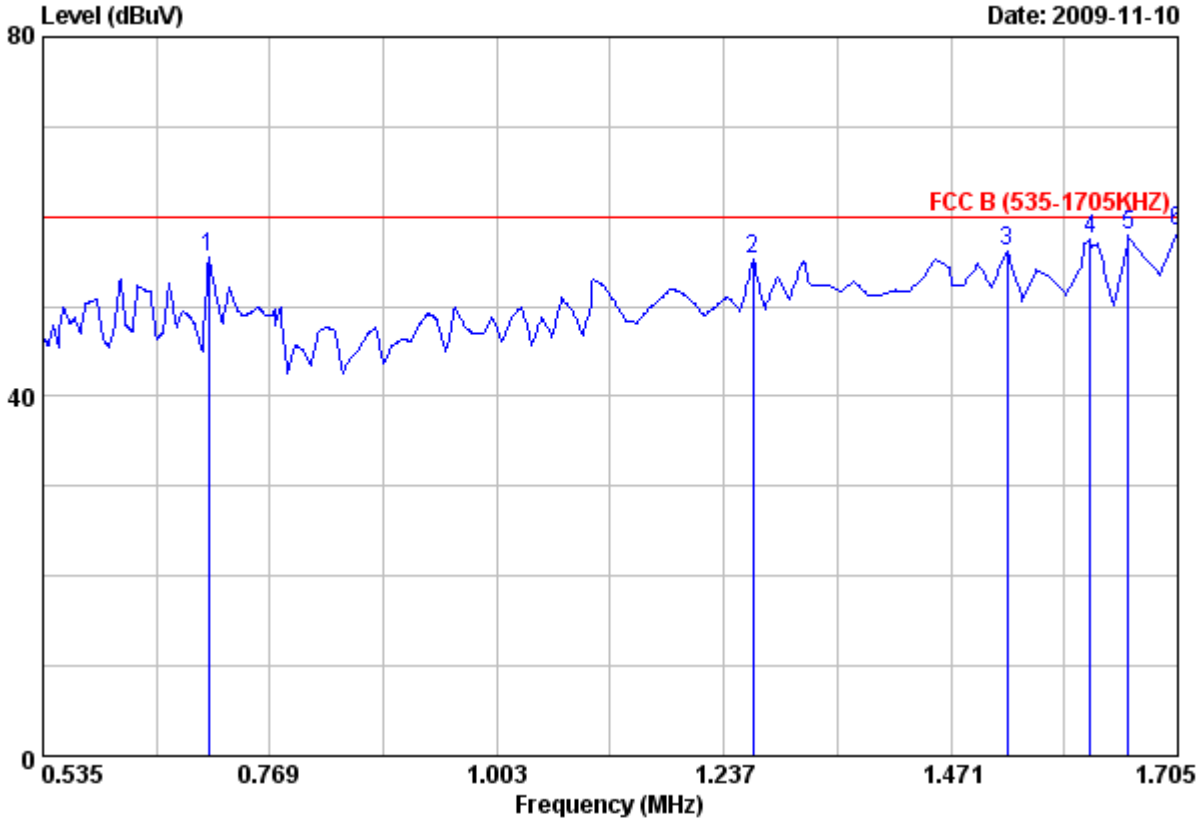


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.73	50.46	0.09	50.55	60.00	-9.45	Peak
2	1.02	51.54	0.10	51.64	60.00	-8.36	Peak
3	1.18	52.87	0.10	52.97	60.00	-7.03	Peak
4	1.45	55.05	0.12	55.17	60.00	-4.83	Peak
5	1.56	53.04	0.12	53.16	60.00	-6.84	Peak
6	1.71	55.47	0.13	55.60	60.00	-4.40	Peak

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
4. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current on	Humidity	:	72 %

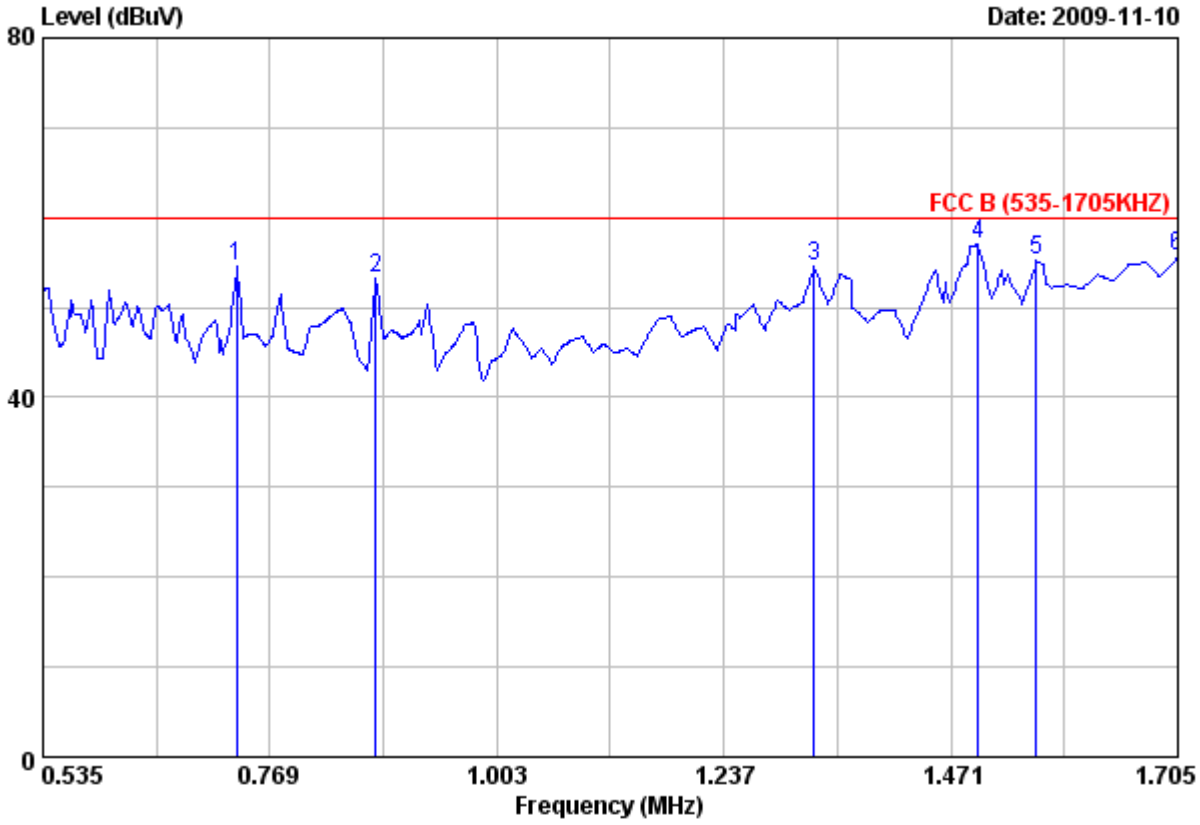


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.71	55.47	0.09	55.56	60.00	-4.44	Peak
2	1.27	55.10	0.11	55.21	60.00	-4.79	Peak
3	1.53	56.07	0.11	56.18	60.00	-3.82	Peak
4	1.61	57.32	0.11	57.43	60.00	-2.57	Peak
5	1.65	57.72	0.11	57.83	60.00	-2.17	Peak
6	1.71	58.22	0.12	58.34	60.00	-1.66	Peak

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
4. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:	Carrier current on	Humidity	:	72 %

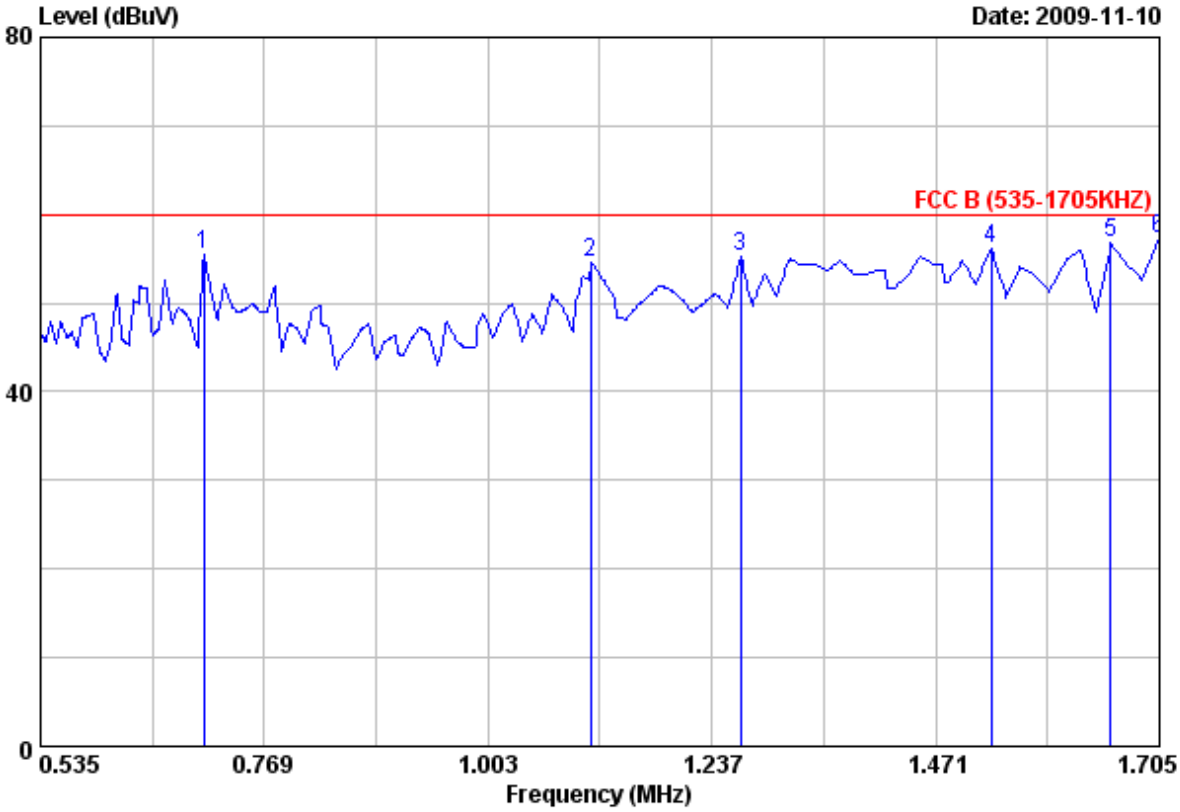


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.73	54.46	0.09	54.55	60.00	-5.45	Peak
2	0.88	53.05	0.10	53.15	60.00	-6.85	Peak
3	1.33	54.46	0.12	54.58	60.00	-5.42	Peak
4	1.50	56.89	0.12	57.01	60.00	-2.99	Peak
5	1.56	55.04	0.12	55.16	60.00	-4.84	Peak
6	1.71	55.47	0.13	55.60	60.00	-4.40	Peak

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
4. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:	Carrier current on	Humidity	:	72 %



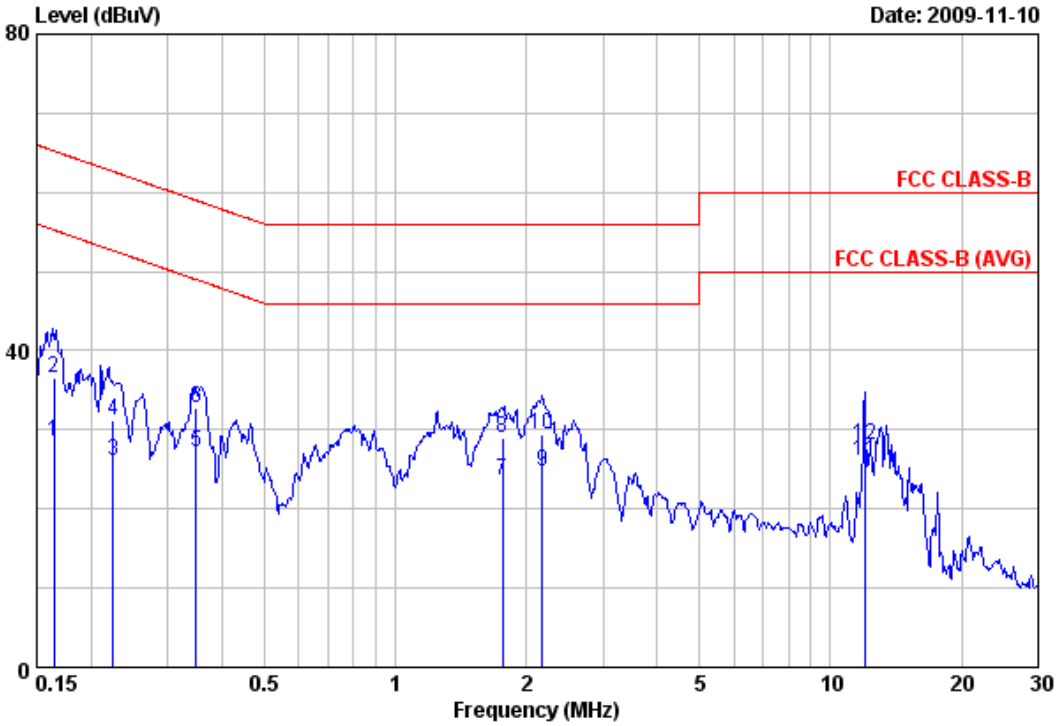
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.71	55.47	0.09	55.56	60.00	-4.44	Peak
2	1.11	54.44	0.10	54.54	60.00	-5.46	Peak
3	1.27	55.10	0.11	55.21	60.00	-4.79	Peak
4	1.53	56.07	0.11	56.18	60.00	-3.82	Peak
5	1.65	56.72	0.11	56.83	60.00	-3.17	Peak
6	1.71	57.22	0.12	57.34	60.00	-2.66	Peak

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
4. The data is worse case.

4.6 Test Result and Data of Carrier current off

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current off	Humidity	:	72 %

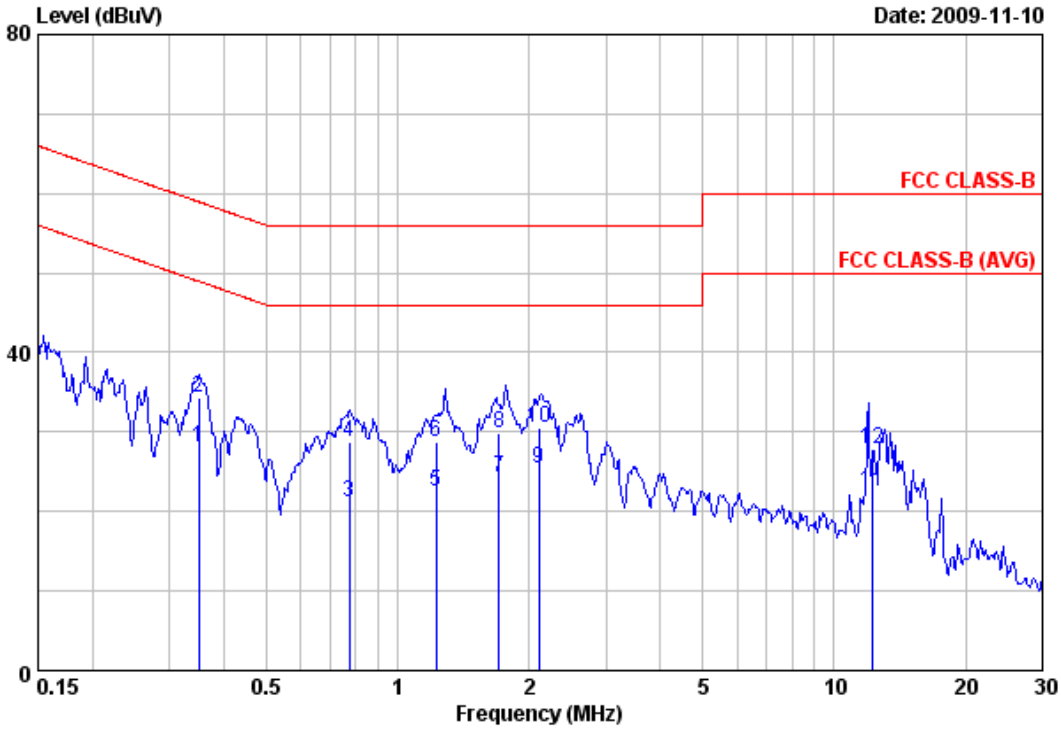


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.16	28.48	0.07	28.55	55.25	-26.70	Average
2	0.16	36.47	0.07	36.54	65.25	-28.71	QP
3	0.22	25.93	0.07	26.00	52.64	-26.64	Average
4	0.22	31.24	0.07	31.31	62.64	-31.33	QP
5	0.35	27.02	0.08	27.10	48.98	-21.88	Average
6	0.35	32.63	0.08	32.71	58.98	-26.27	QP
7	1.77	23.48	0.14	23.62	46.00	-22.38	Average
8	1.77	28.84	0.14	28.98	56.00	-27.02	QP
9	2.17	24.52	0.15	24.67	46.00	-21.33	Average
10	2.17	29.26	0.15	29.41	56.00	-26.59	QP
11	12.00	25.53	0.54	26.07	50.00	-23.93	Average
12	12.00	27.50	0.54	28.04	60.00	-31.96	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current off	Humidity	:	72 %

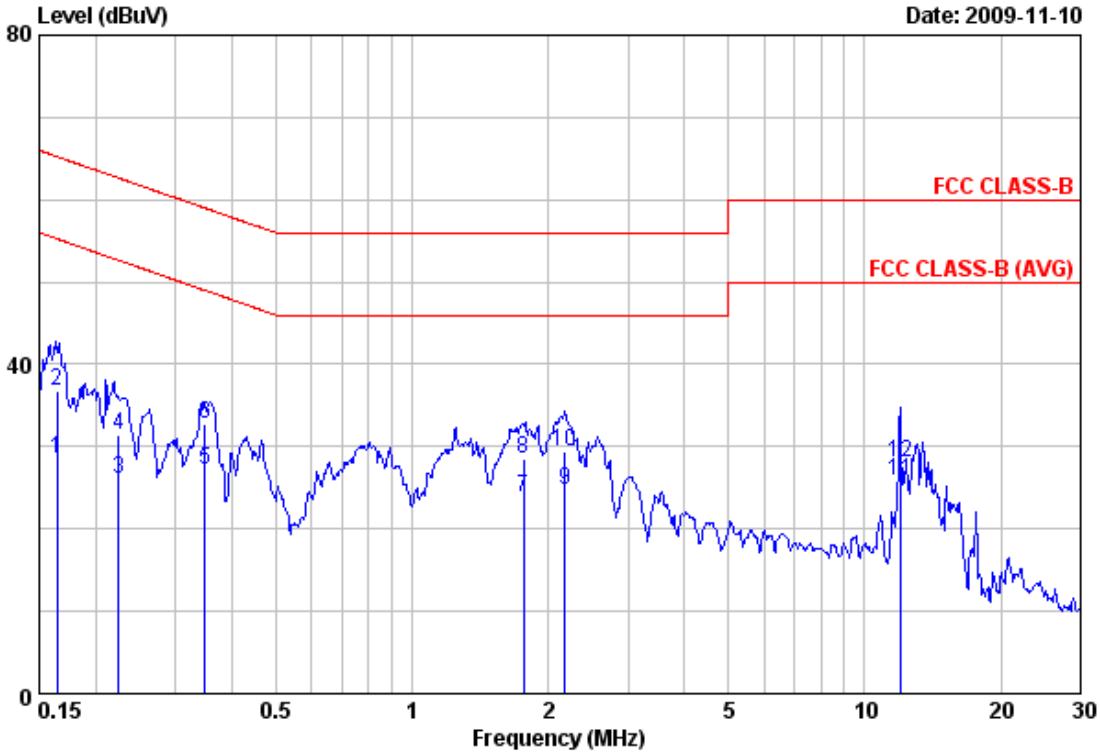


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.35	28.08	0.08	28.16	48.94	-20.78	Average
2	0.35	34.29	0.08	34.37	58.94	-24.57	QP
3	0.77	21.05	0.09	21.14	46.00	-24.86	Average
4	0.77	28.57	0.09	28.66	56.00	-27.34	QP
5	1.22	22.30	0.11	22.41	46.00	-23.59	Average
6	1.22	28.55	0.11	28.66	56.00	-27.34	QP
7	1.71	24.25	0.12	24.37	46.00	-21.63	Average
8	1.71	29.77	0.12	29.89	56.00	-26.11	QP
9	2.11	25.31	0.12	25.43	46.00	-20.57	Average
10	2.11	30.37	0.12	30.49	56.00	-25.51	QP
11	12.29	22.13	0.44	22.57	50.00	-27.43	Average
12	12.29	27.40	0.44	27.84	60.00	-32.16	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current off	Humidity	:	72 %

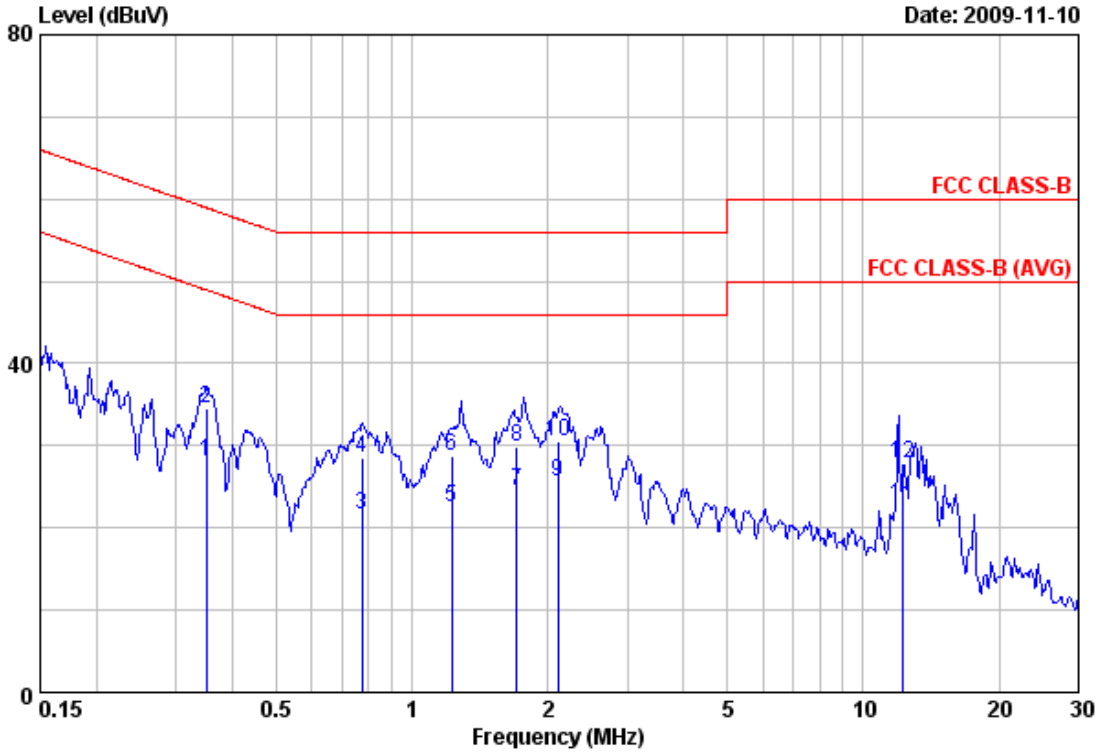


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.16	28.45	0.07	28.52	55.25	-26.73	Average
2	0.16	36.74	0.07	36.81	65.25	-28.44	QP
3	0.22	25.92	0.07	25.99	52.64	-26.65	Average
4	0.22	31.35	0.07	31.42	62.64	-31.22	QP
5	0.35	27.10	0.08	27.18	48.98	-21.80	Average
6	0.35	32.57	0.08	32.65	58.98	-26.33	QP
7	1.77	23.68	0.14	23.82	46.00	-22.18	Average
8	1.77	28.46	0.14	28.60	56.00	-27.40	QP
9	2.17	24.53	0.15	24.68	46.00	-21.32	Average
10	2.17	29.22	0.15	29.37	56.00	-26.63	QP
11	12.00	25.31	0.54	25.85	50.00	-24.15	Average
12	12.00	27.51	0.54	28.05	60.00	-31.95	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
4. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:	Carrier current off	Humidity	:	72 %

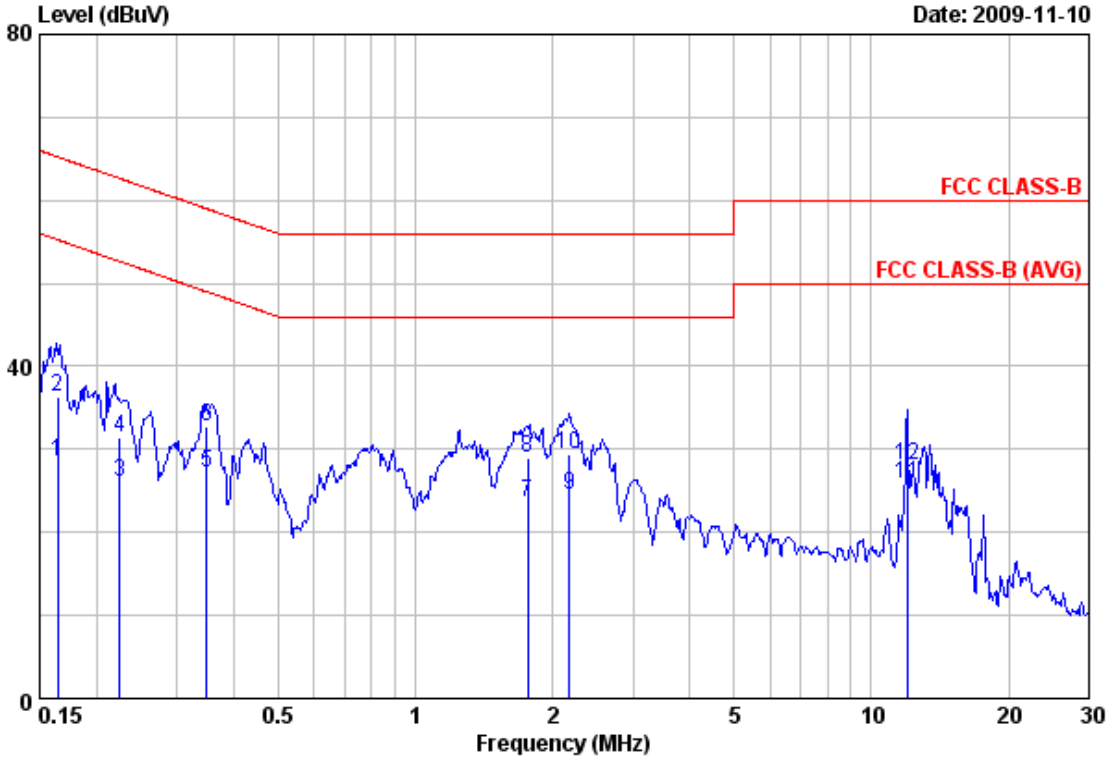


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.35	28.02	0.08	28.10	48.94	-20.84	Average
2	0.35	34.40	0.08	34.48	58.94	-24.46	QP
3	0.77	21.51	0.09	21.60	46.00	-24.40	Average
4	0.77	28.50	0.09	28.59	56.00	-27.41	QP
5	1.22	22.45	0.11	22.56	46.00	-23.44	Average
6	1.22	28.56	0.11	28.67	56.00	-27.33	QP
7	1.71	24.40	0.12	24.52	46.00	-21.48	Average
8	1.71	29.71	0.12	29.83	56.00	-26.17	QP
9	2.11	25.48	0.12	25.60	46.00	-20.40	Average
10	2.11	30.35	0.12	30.47	56.00	-25.53	QP
11	12.29	22.23	0.44	22.67	50.00	-27.33	Average
12	12.29	27.36	0.44	27.80	60.00	-32.20	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
4. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:	Carrier current off	Humidity	:	72 %

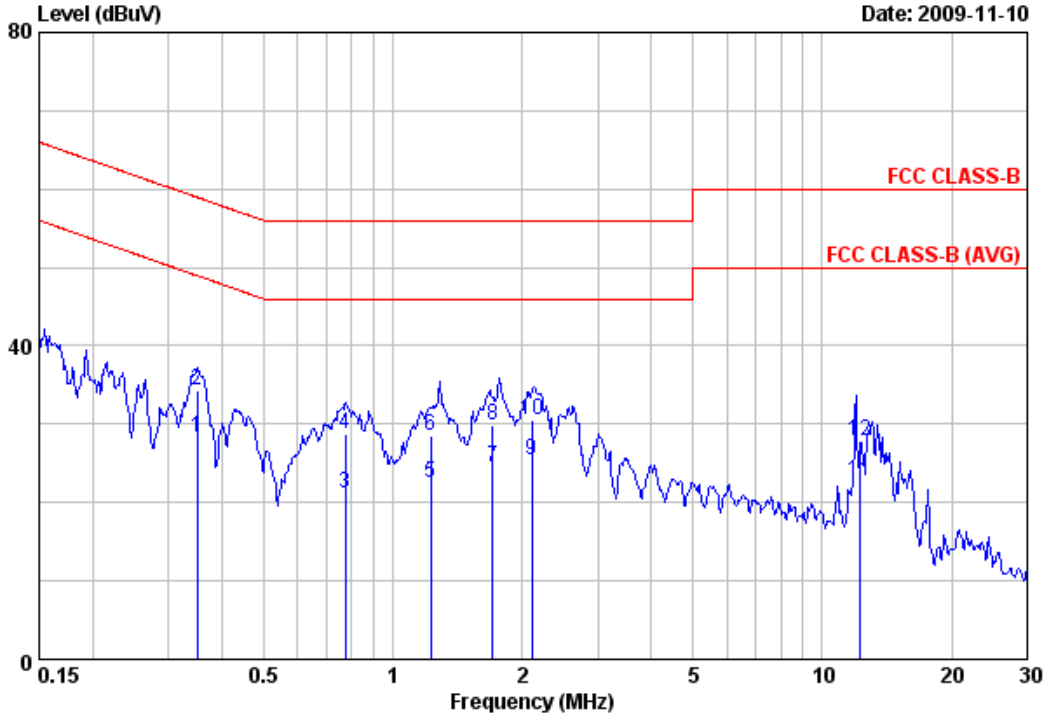


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.16	28.55	0.07	28.62	55.25	-26.63	Average
2	0.16	36.33	0.07	36.40	65.25	-28.85	QP
3	0.22	25.92	0.07	25.99	52.64	-26.65	Average
4	0.22	31.45	0.07	31.52	62.64	-31.12	QP
5	0.35	27.20	0.08	27.28	48.98	-21.70	Average
6	0.35	32.57	0.08	32.65	58.98	-26.33	QP
7	1.77	23.44	0.14	23.58	46.00	-22.42	Average
8	1.77	28.86	0.14	29.00	56.00	-27.00	QP
9	2.17	24.33	0.15	24.48	46.00	-21.52	Average
10	2.17	29.22	0.15	29.37	56.00	-26.63	QP
11	12.00	25.24	0.54	25.78	50.00	-24.22	Average
12	12.00	27.51	0.54	28.05	60.00	-31.95	QP

Notes:

1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
4. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:	Carrier current off	Humidity	:	72 %



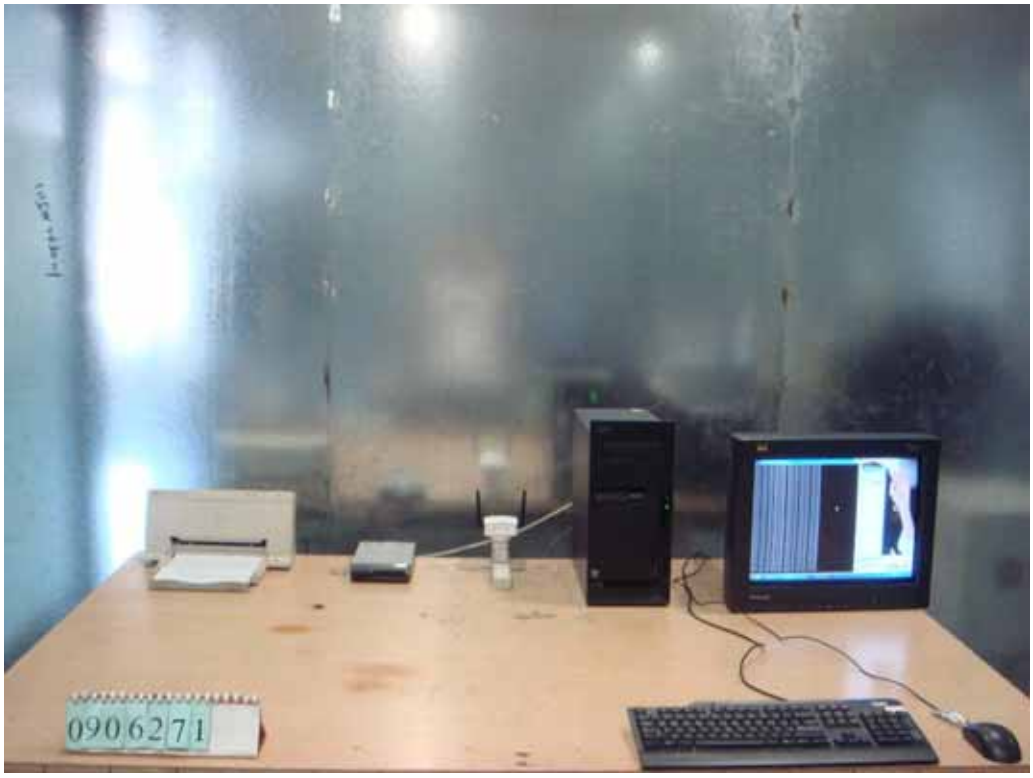
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.35	28.32	0.08	28.40	48.94	-20.54	Average
2	0.35	34.30	0.08	34.38	58.94	-24.56	QP
3	0.77	21.01	0.09	21.10	46.00	-24.90	Average
4	0.77	28.60	0.09	28.69	56.00	-27.31	QP
5	1.22	22.35	0.11	22.46	46.00	-23.54	Average
6	1.22	28.35	0.11	28.46	56.00	-27.54	QP
7	1.71	24.30	0.12	24.42	46.00	-21.58	Average
8	1.71	29.71	0.12	29.83	56.00	-26.17	QP
9	2.11	25.38	0.12	25.50	46.00	-20.50	Average
10	2.11	30.39	0.12	30.51	56.00	-25.49	QP
11	12.29	22.33	0.44	22.77	50.00	-27.23	Average
12	12.29	27.36	0.44	27.80	60.00	-32.20	QP

Notes:
1. Result = Read Value + Factor
2. Factor = LISN Factor + Cable Loss
3. According to technical experiences,all spurious emission of 802.11n mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
4. The data is worse case.

Test engineer: Ben

4.7 Test Photographs

Front View



Rear View

5. Test of Radiated Emission

5.1 Test Limit

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2003. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions for unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance Meters	Radiated (μ V / M)	Radiated (dB μ V/ M)
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the below table.

Frequency (MHz)	Distance Meters	Radiated (dB μ V/ M)
30-230	**10**	**30**
230-1000	**10**	**37**

5.2 Test Procedures

a. The EUT was placed on a rotatable table top 0.8 meter above ground.

b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

c. The table was rotated 360 degrees to determine the position of the highest radiation.

d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.

e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.

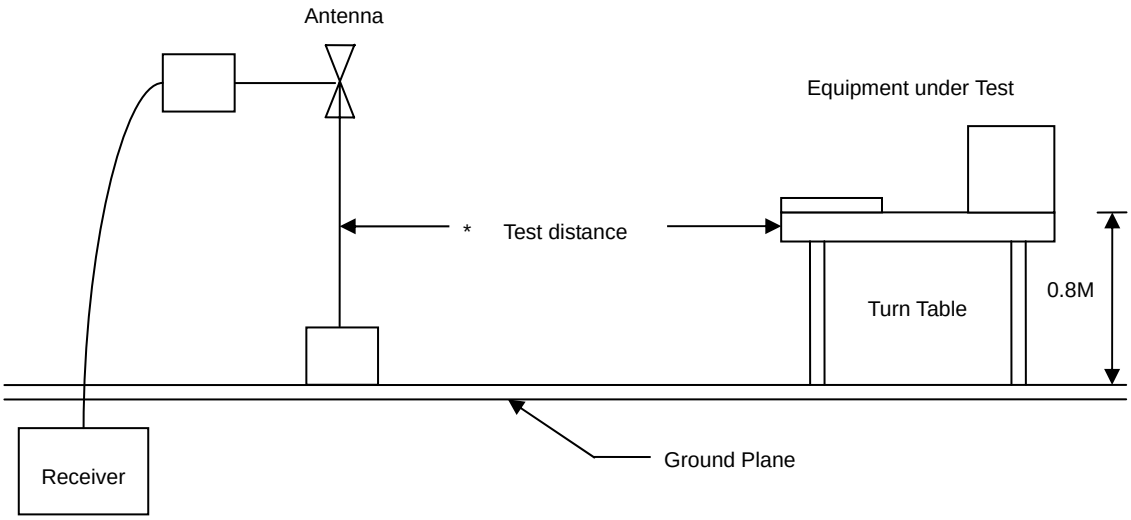
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.

h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

i. “Cone of radiation” has been considered to be 3dB bandwidth of the measurement antenna.

5.3 Typical Test Setup

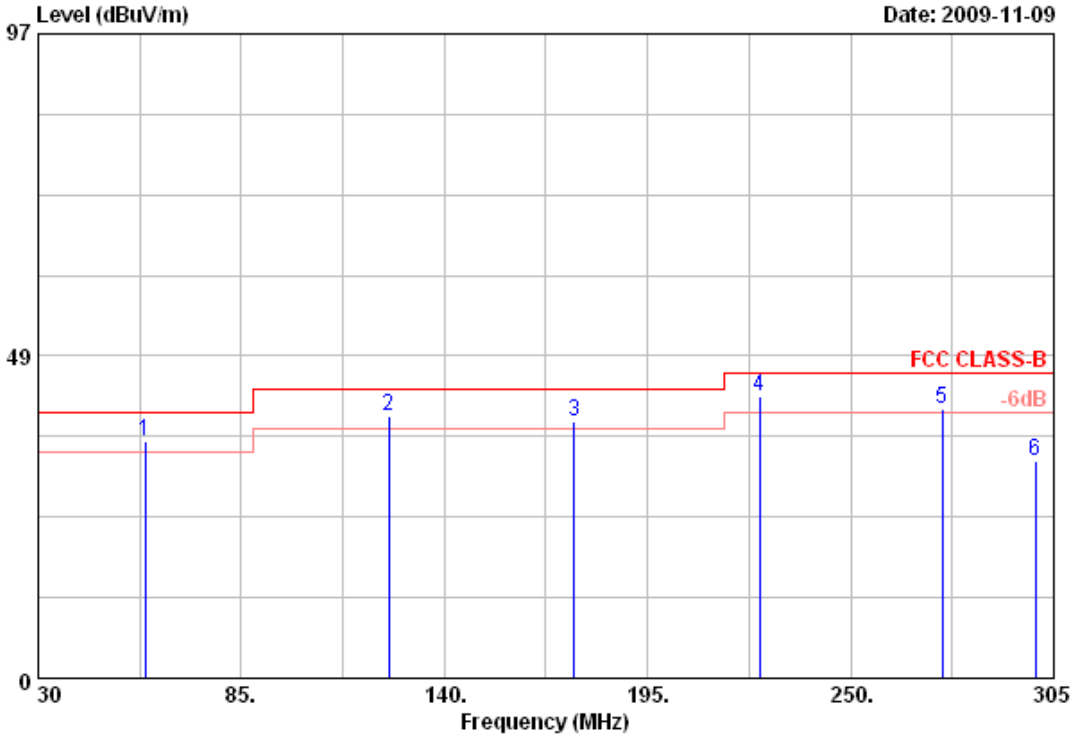


5.4 Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Bilog Antenna	Schaffner	CBL6112B	2840	2009/05/14	2010/05/13
EMI Receiver	R&S	ESCI	100443	2008/12/19	2009/12/18
Amplifier	Agilent	8447D	2944A10593	2009/05/21	2010/05/20
AC Power Converter	APC	AFC-11005	F103120008	N/A	N/A
Spectrum Analyzer	R&S	FSP40	100047	2009/03/26	2010/03/25
Horn Antenna	EMCO	3115	31589	2009/05/04	2010/05/03
Preamplifier	Agilent	8449B	3008A01954	2009/02/27	2010/02/26

5.5 Test Result and Data

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 1	Humidity	:	59 %

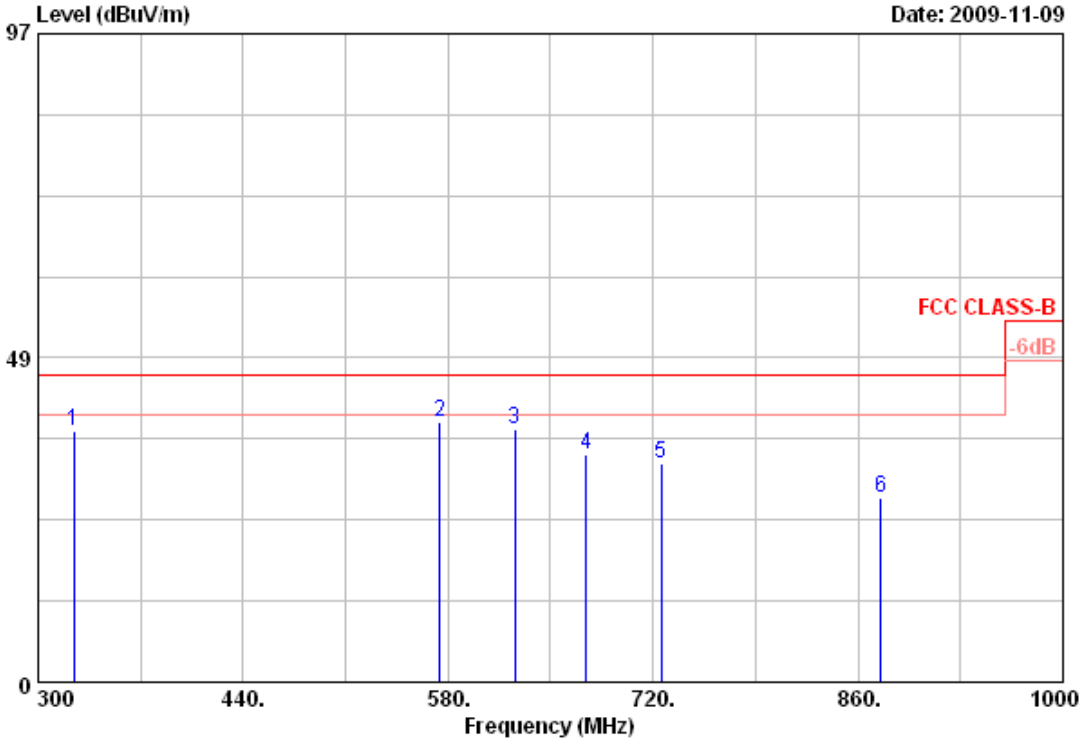


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	58.88	48.21	-12.68	35.53	40.00	-4.47	QP	100	0
2	124.88	48.84	-9.43	39.41	43.50	-4.09	QP	100	0
3	175.20	50.53	-11.89	38.64	43.50	-4.86	QP	100	0
4	225.25	52.94	-10.44	42.50	46.00	-3.50	QP	100	0
5	274.75	53.14	-12.69	40.45	46.00	-5.55	QP	100	0
6	300.05	44.57	-12.01	32.56	46.00	-13.44	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 1	Humidity	:	59 %

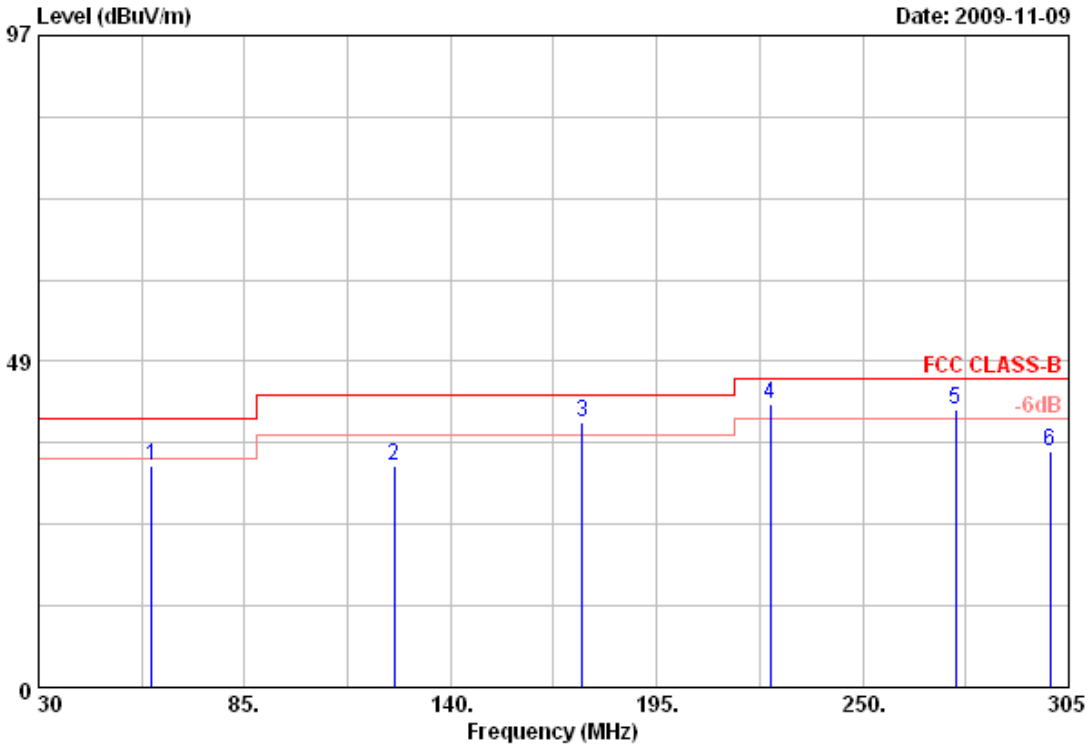


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	47.28	-9.78	37.50	46.00	-8.50	Peak	100	0
2	574.40	42.28	-3.43	38.85	46.00	-7.15	Peak	100	0
3	625.50	44.28	-6.52	37.76	46.00	-8.24	Peak	100	0
4	674.50	39.19	-5.15	34.04	46.00	-11.96	Peak	100	0
5	725.60	33.65	-1.09	32.56	46.00	-13.44	Peak	100	0
6	875.40	26.81	0.75	27.56	46.00	-18.44	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 1	Humidity	:	59 %

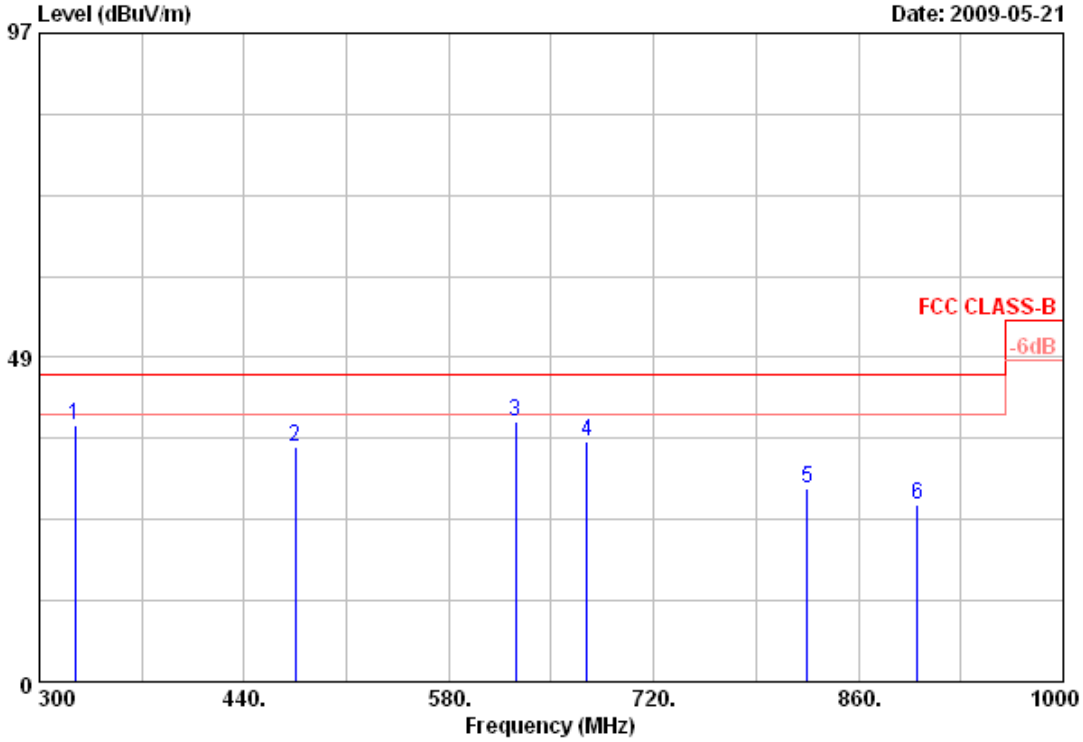


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	60.25	51.81	-18.87	32.94	40.00	-7.06	Peak	100	0
2	124.88	49.70	-16.67	33.03	43.50	-10.47	Peak	100	0
3	175.20	56.70	-17.16	39.54	43.50	-3.96	QP	100	0
4	225.25	57.49	-15.23	42.26	46.00	-3.74	QP	100	0
5	274.75	54.50	-13.18	41.32	46.00	-4.68	Peak	100	0
6	300.05	48.03	-13.01	35.02	46.00	-10.98	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 1	Humidity	:	59 %

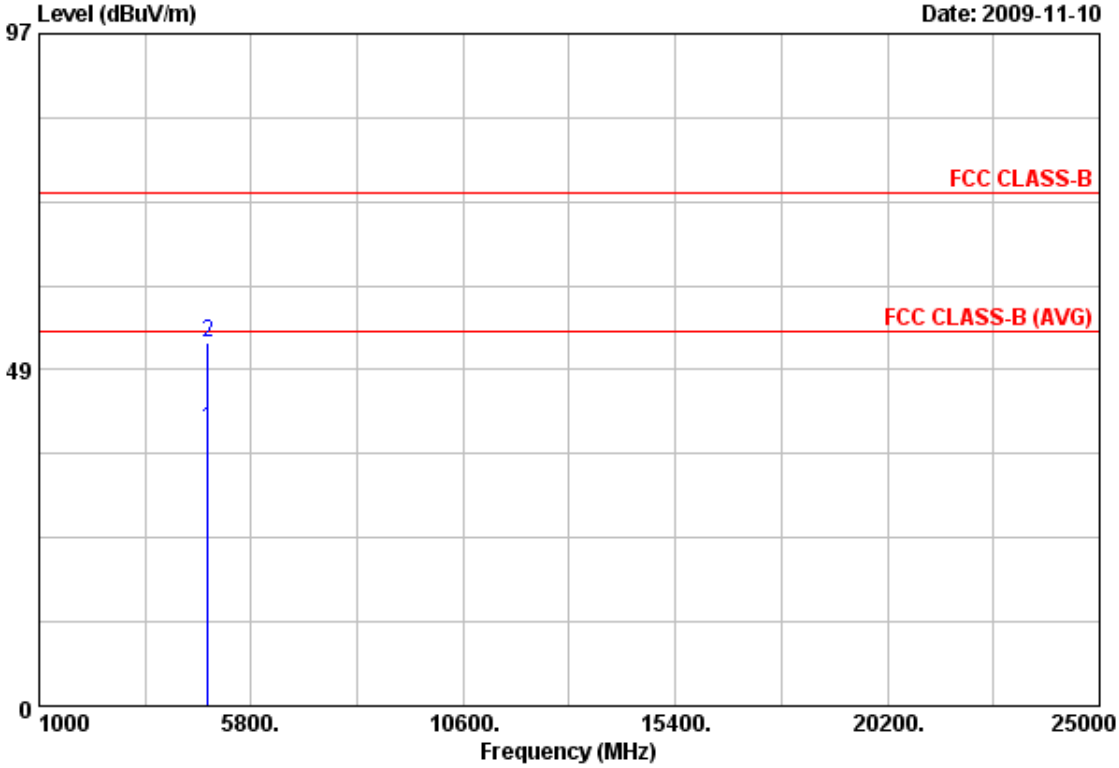


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	50.32	-11.95	38.37	46.00	-7.63	Peak	100	0
2	475.00	40.48	-5.42	35.06	46.00	-10.94	Peak	100	0
3	625.50	40.49	-1.45	39.04	46.00	-6.96	Peak	100	0
4	674.50	39.69	-3.71	35.98	46.00	-10.02	Peak	100	0
5	825.00	27.70	1.34	29.04	46.00	-16.96	Peak	100	0
6	900.60	25.02	1.54	26.56	46.00	-19.44	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b (11Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

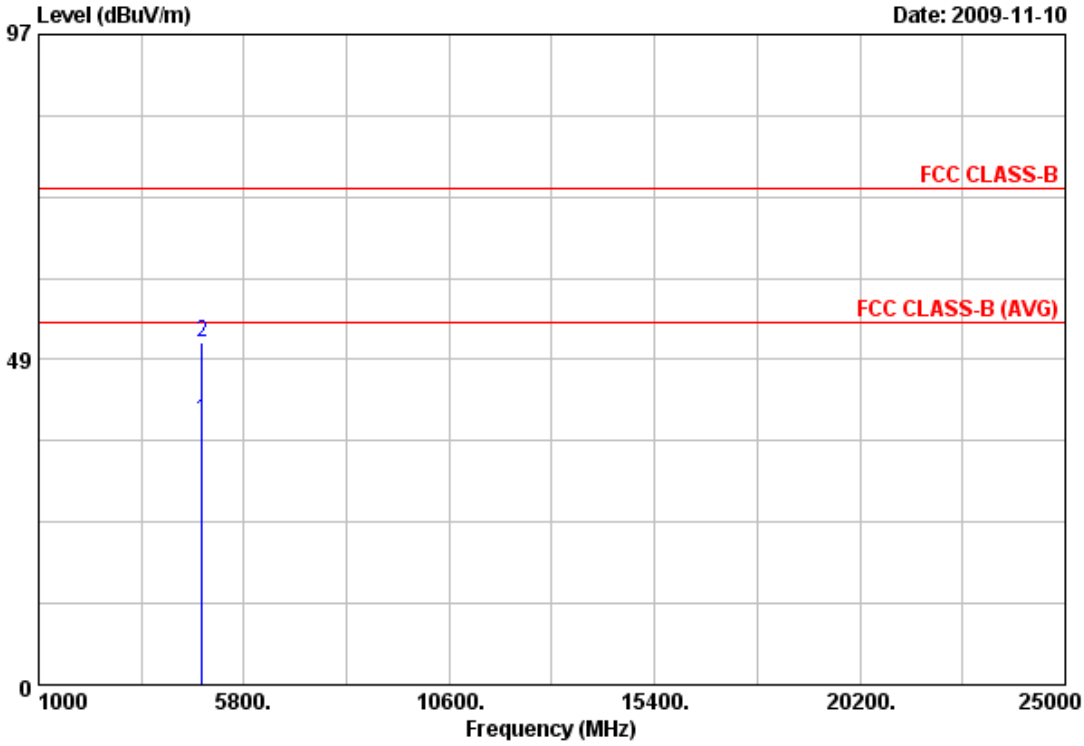


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	37.14	2.72	39.86	54.00	-14.14	Average	100	0
2	4824.00	49.74	2.72	52.46	74.00	-21.54	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11b (11Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

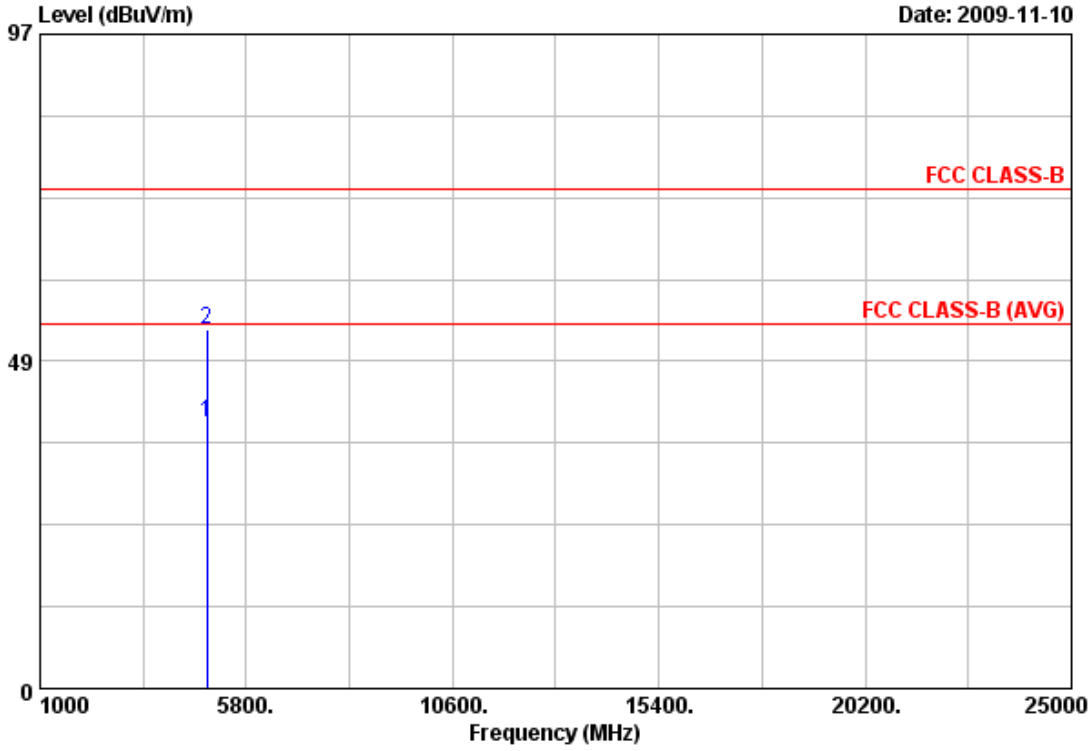


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.40	36.60	2.72	39.32	54.00	-14.68	Average	100	0
2	4824.40	48.30	2.72	51.02	74.00	-22.98	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b (11Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

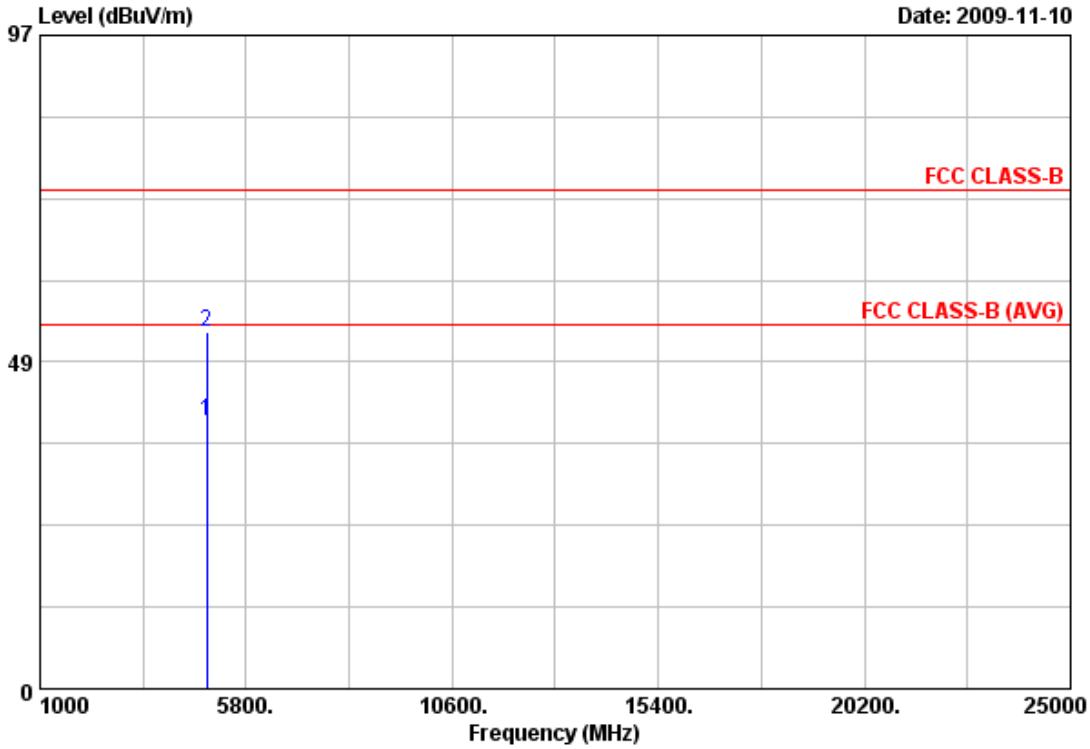


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	36.69	2.87	39.56	54.00	-14.44	Average	100	0
2	4874.00	50.43	2.87	53.30	74.00	-20.70	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11b (11Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

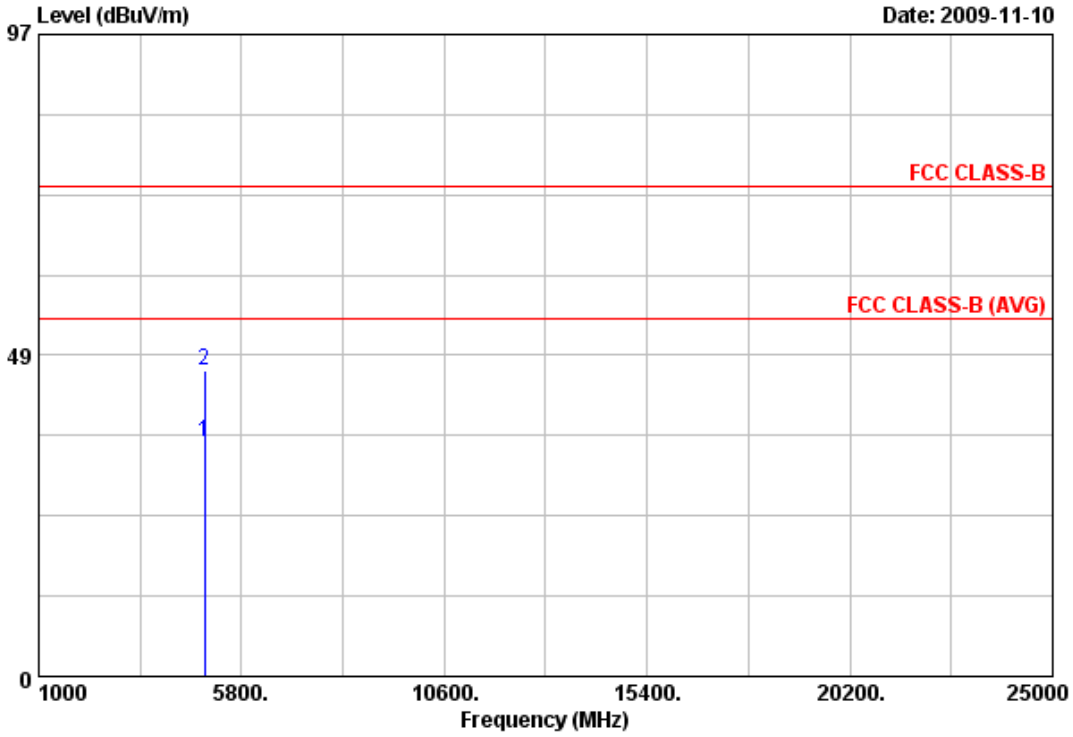


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	36.78	2.87	39.65	54.00	-14.35	Average	100	0
2	4874.00	49.98	2.87	52.85	74.00	-21.15	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b (11Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

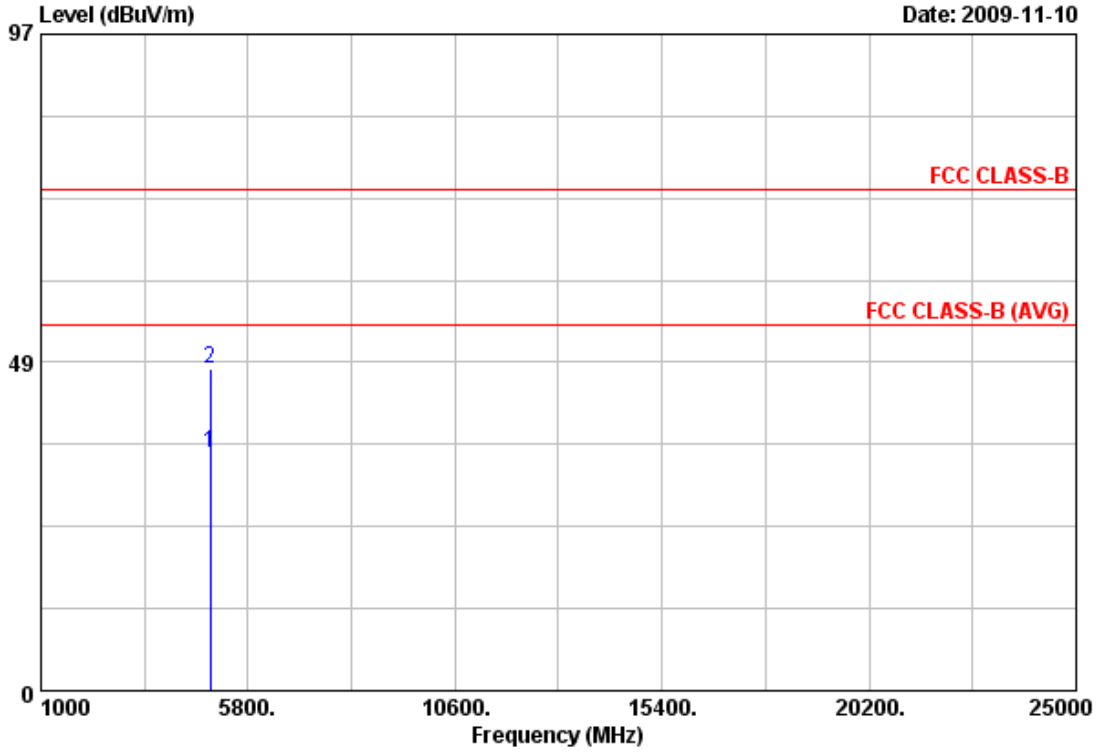


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.46	3.01	35.47	54.00	-18.53	Average	100	0
2	4924.00	43.22	3.01	46.23	74.00	-27.77	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11b (11Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

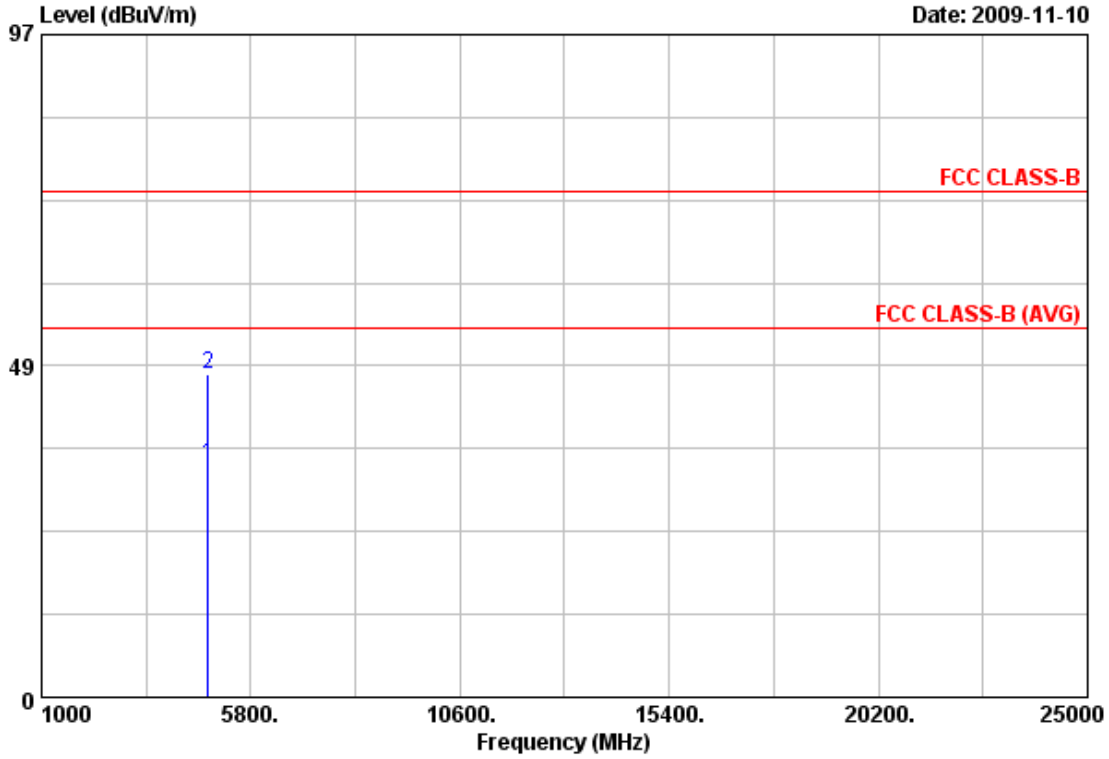


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.01	3.01	35.02	54.00	-18.98	Average	100	0
2	4924.00	44.49	3.01	47.50	74.00	-26.50	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

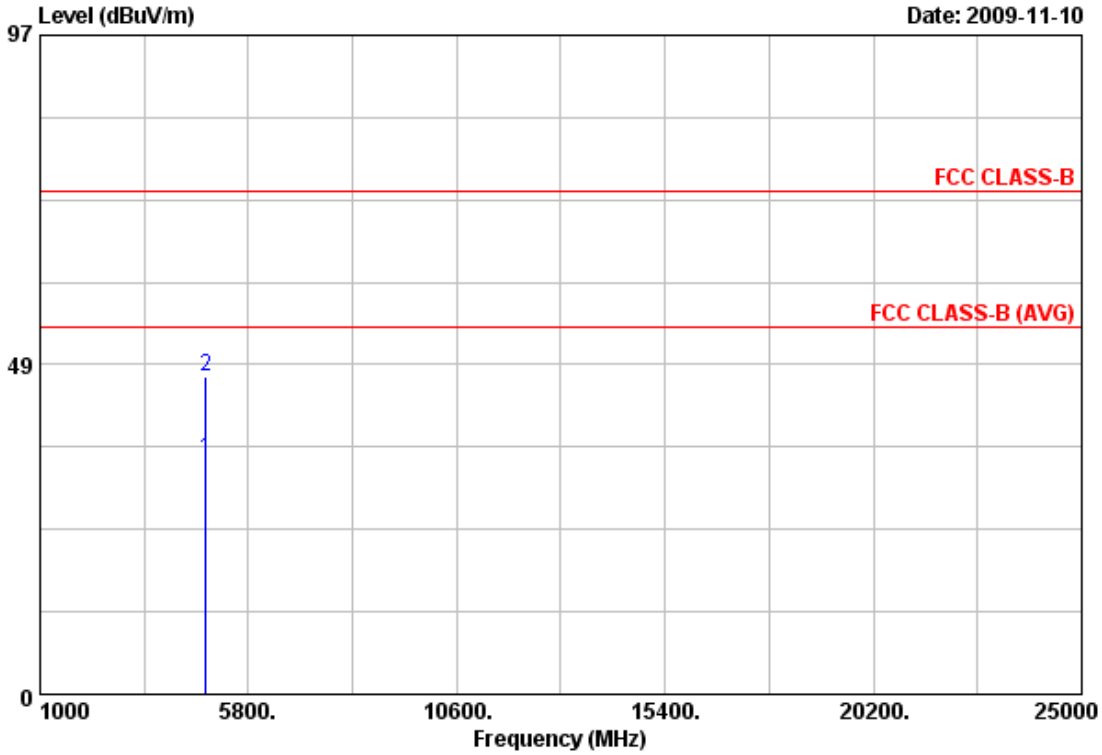


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	31.32	2.72	34.04	54.00	-19.96	Average	100	0
2	4824.00	44.44	2.72	47.16	74.00	-26.84	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

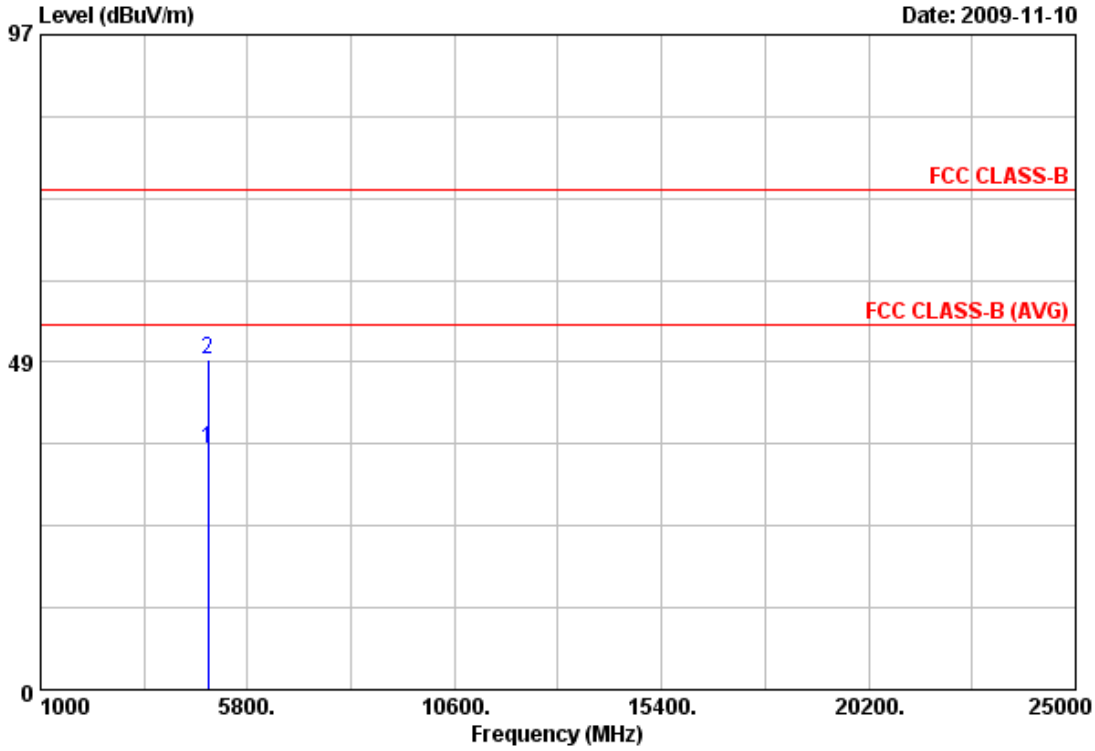


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	31.82	2.72	34.54	54.00	-19.46	Average	100	0
2	4824.00	44.06	2.72	46.78	74.00	-27.22	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

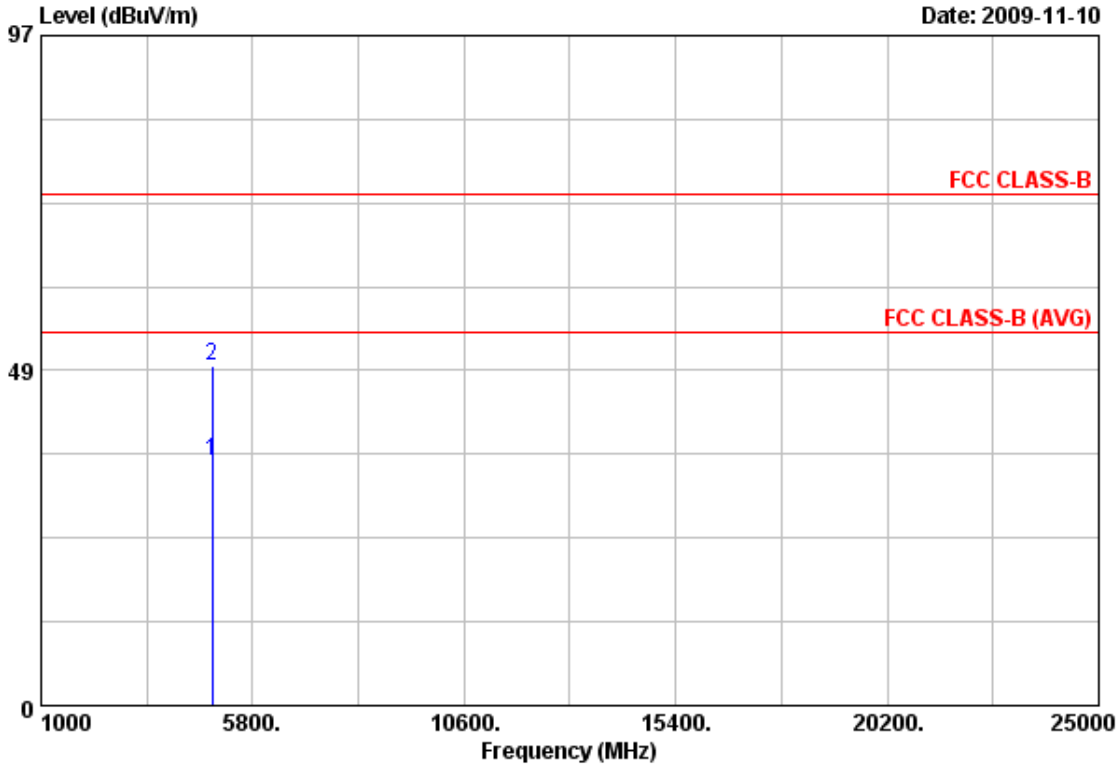


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.78	2.87	35.65	54.00	-18.35	Average	100	0
2	4874.00	45.98	2.87	48.85	74.00	-25.15	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

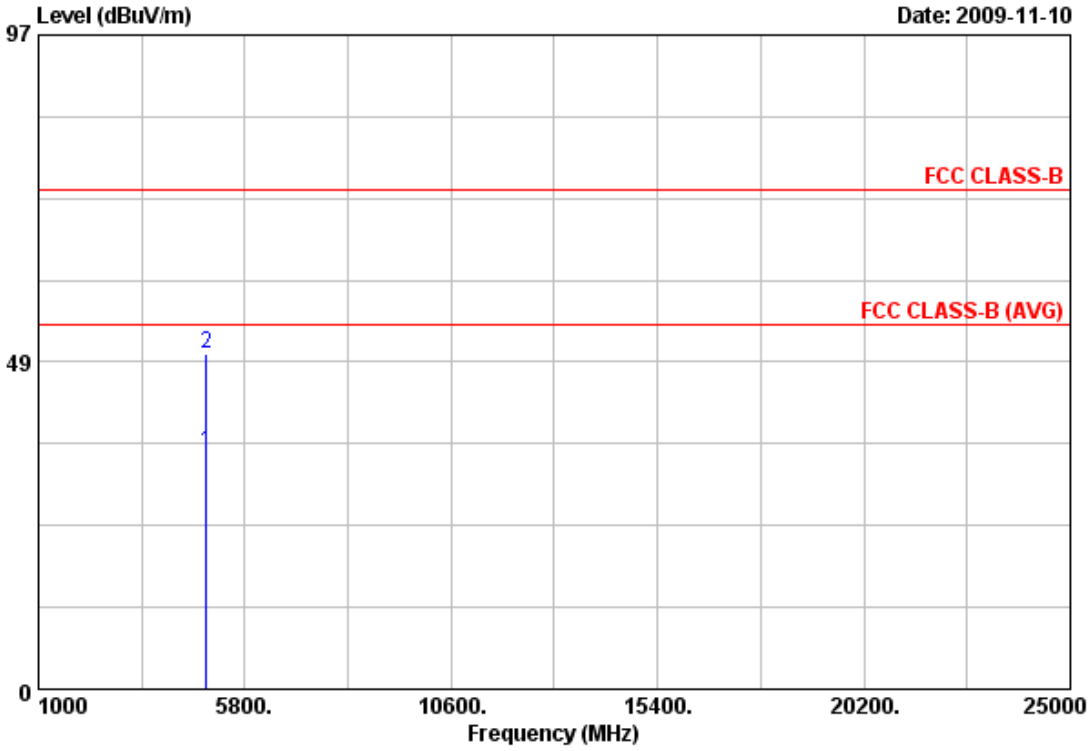


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.63	2.87	35.50	54.00	-18.50	Average	100	0
2	4874.00	46.19	2.87	49.06	74.00	-24.94	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

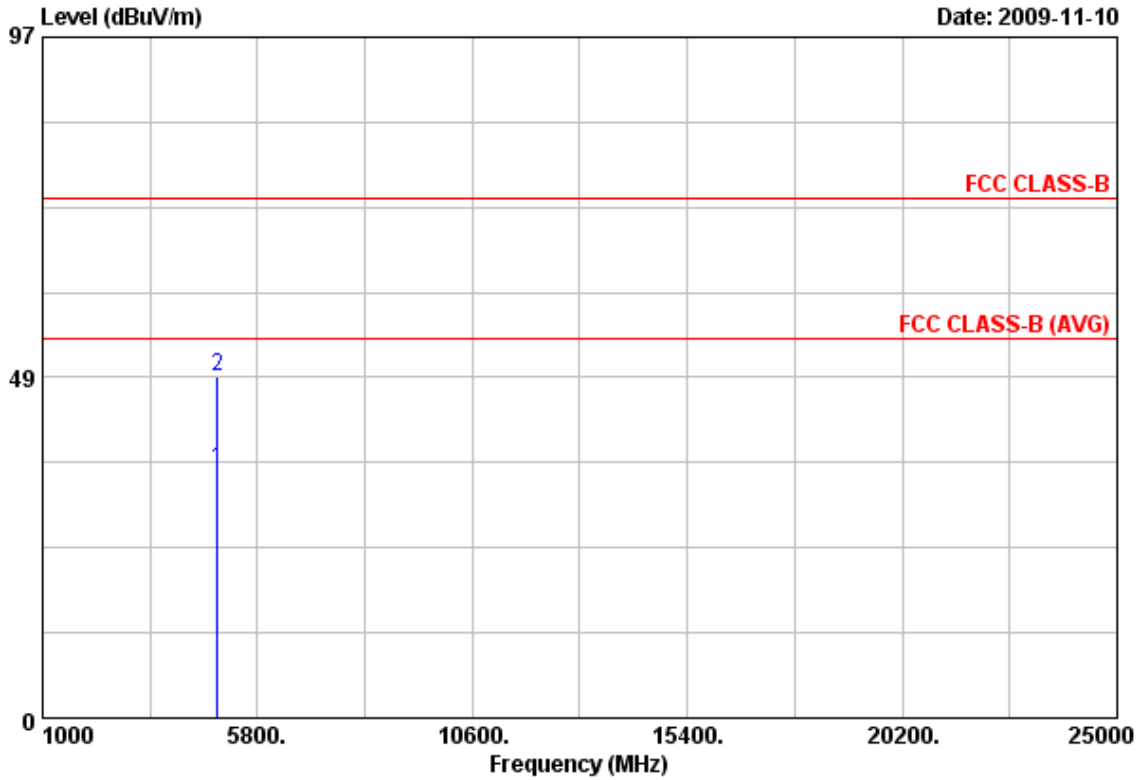


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4912.00	32.08	2.97	35.05	54.00	-18.95	Average	100	0
2	4912.00	46.68	2.97	49.65	74.00	-24.35	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

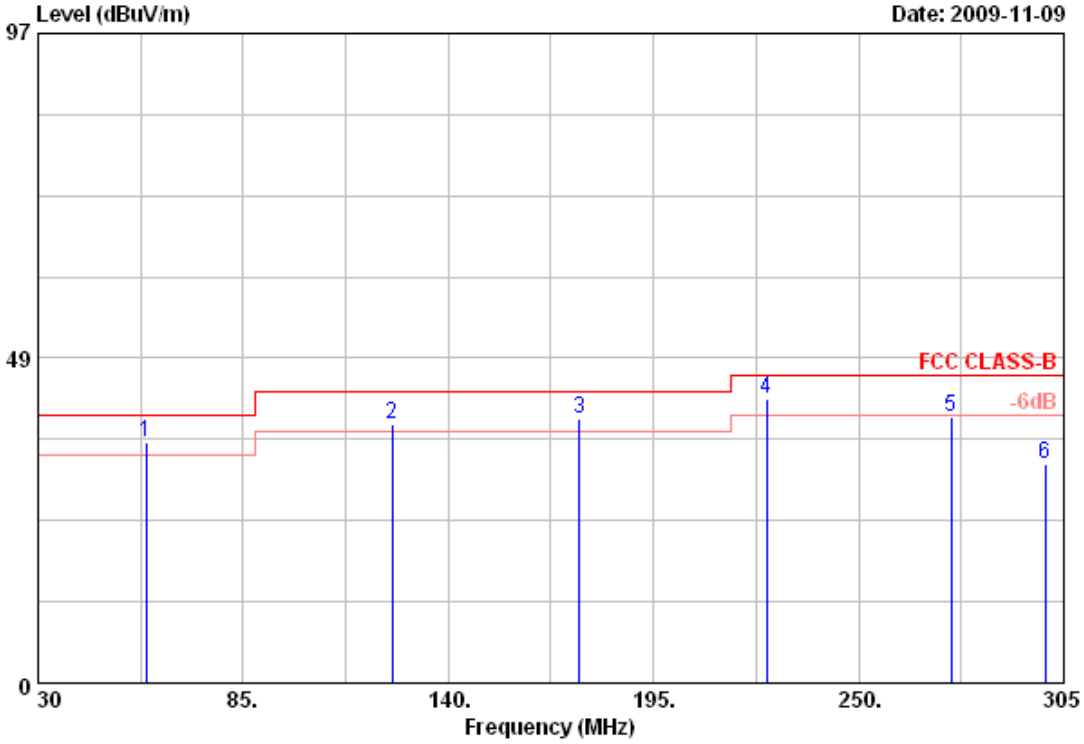


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4912.00	32.53	2.97	35.50	54.00	-18.50	Average	100	0
2	4912.00	45.59	2.97	48.56	74.00	-25.44	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 2	Humidity	:	59 %

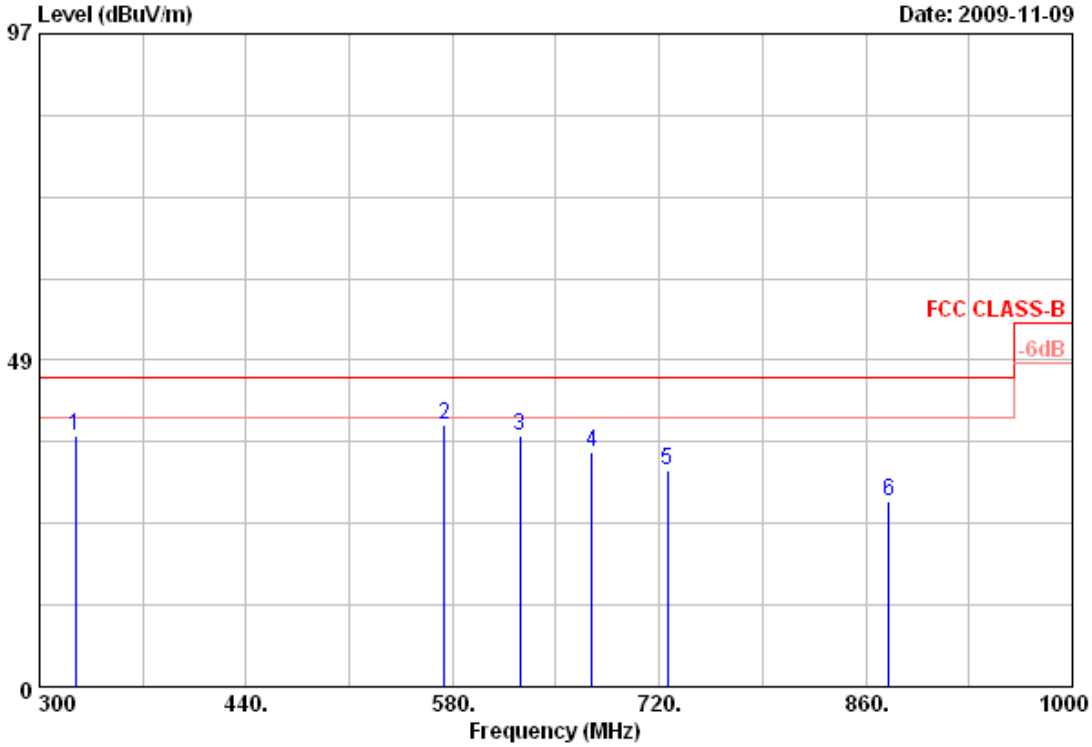


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	58.88	48.72	-12.68	36.04	40.00	-3.96	QP	100	179
2	124.88	48.18	-9.43	38.75	43.50	-4.75	QP	100	179
3	175.20	51.25	-11.89	39.36	43.50	-4.14	QP	100	179
4	225.25	52.91	-10.44	42.47	46.00	-3.53	QP	100	179
5	274.75	52.30	-12.69	39.61	46.00	-6.39	Peak	100	179
6	300.05	44.73	-12.01	32.72	46.00	-13.28	Peak	100	179

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 2	Humidity	:	59 %

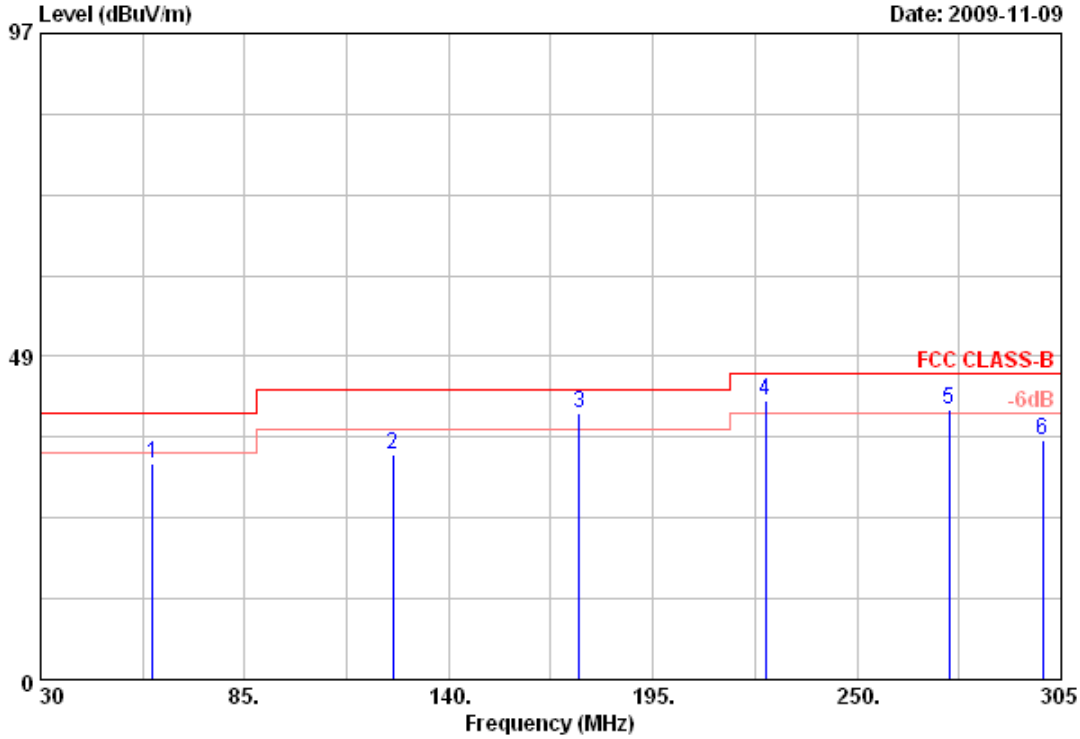


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	47.18	-9.78	37.40	46.00	-8.60	Peak	100	150
2	574.40	42.41	-3.43	38.98	46.00	-7.02	Peak	100	150
3	625.50	43.83	-6.52	37.31	46.00	-8.69	Peak	100	150
4	674.50	39.89	-5.15	34.74	46.00	-11.26	Peak	100	150
5	725.60	33.15	-1.09	32.06	46.00	-13.94	Peak	100	150
6	875.40	26.68	0.75	27.43	46.00	-18.57	Peak	100	150

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 2	Humidity	:	59 %

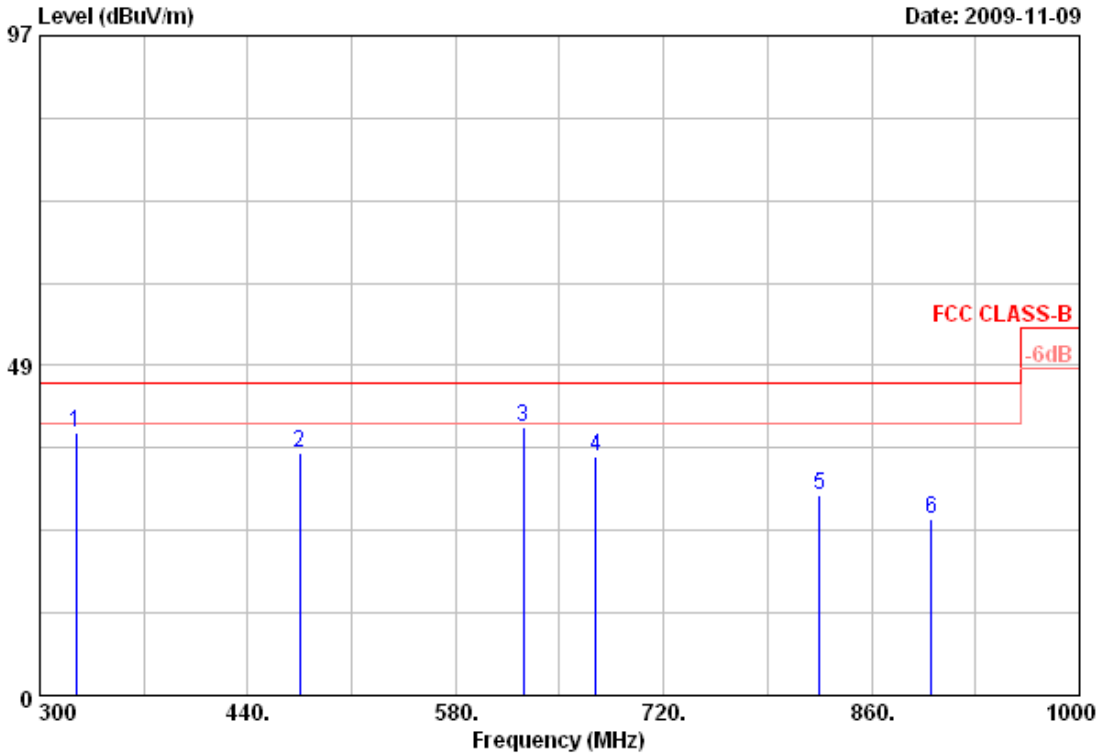


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	60.25	51.41	-18.87	32.54	40.00	-7.46	Peak	100	121
2	124.88	50.52	-16.67	33.85	43.50	-9.65	Peak	100	121
3	175.20	57.27	-17.16	40.11	43.50	-3.39	QP	100	121
4	225.25	57.04	-15.23	41.81	46.00	-4.19	QP	100	121
5	274.75	53.60	-13.18	40.42	46.00	-5.58	QP	100	121
6	300.05	48.96	-13.01	35.95	46.00	-10.05	Peak	100	121

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	25 °C
Memo	:	Antenna 2	Humidity	:	59 %

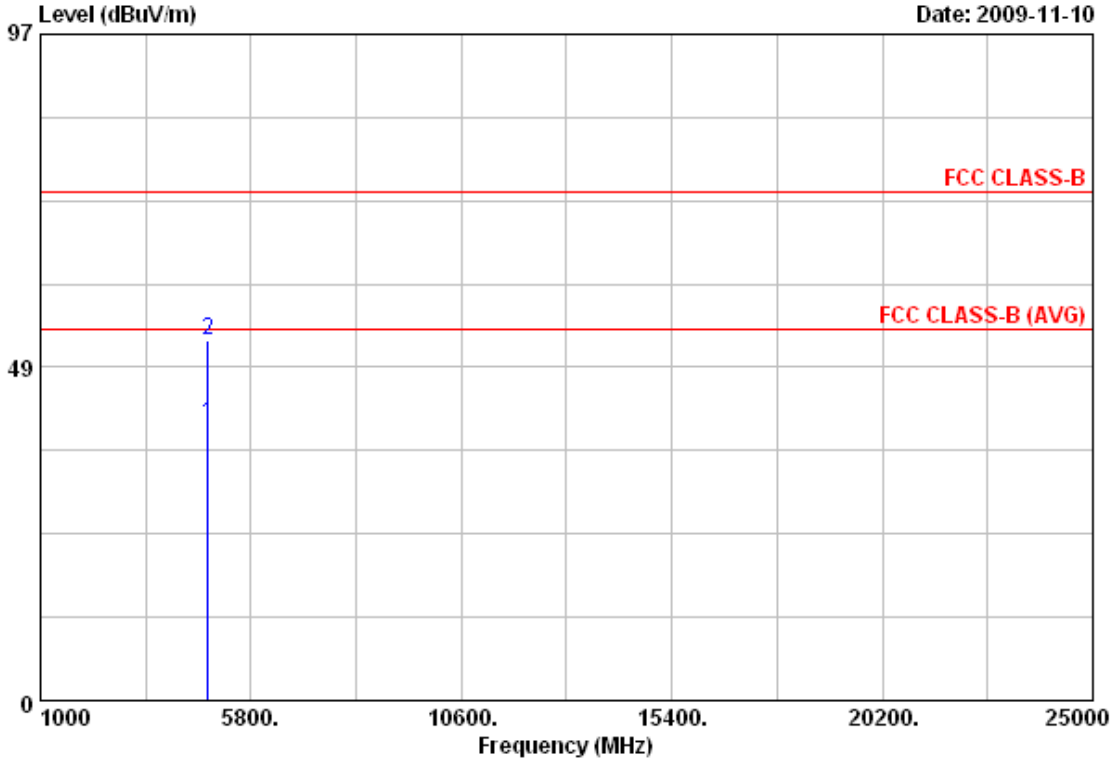


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	50.67	-11.95	38.72	46.00	-7.28	Peak	100	162
2	475.00	41.09	-5.42	35.67	46.00	-10.33	Peak	100	162
3	625.50	40.81	-1.45	39.36	46.00	-6.64	Peak	100	162
4	674.50	38.85	-3.71	35.14	46.00	-10.86	Peak	100	162
5	825.00	28.22	1.34	29.56	46.00	-16.44	Peak	100	162
6	900.60	24.52	1.54	26.06	46.00	-19.94	Peak	100	162

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b (11Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

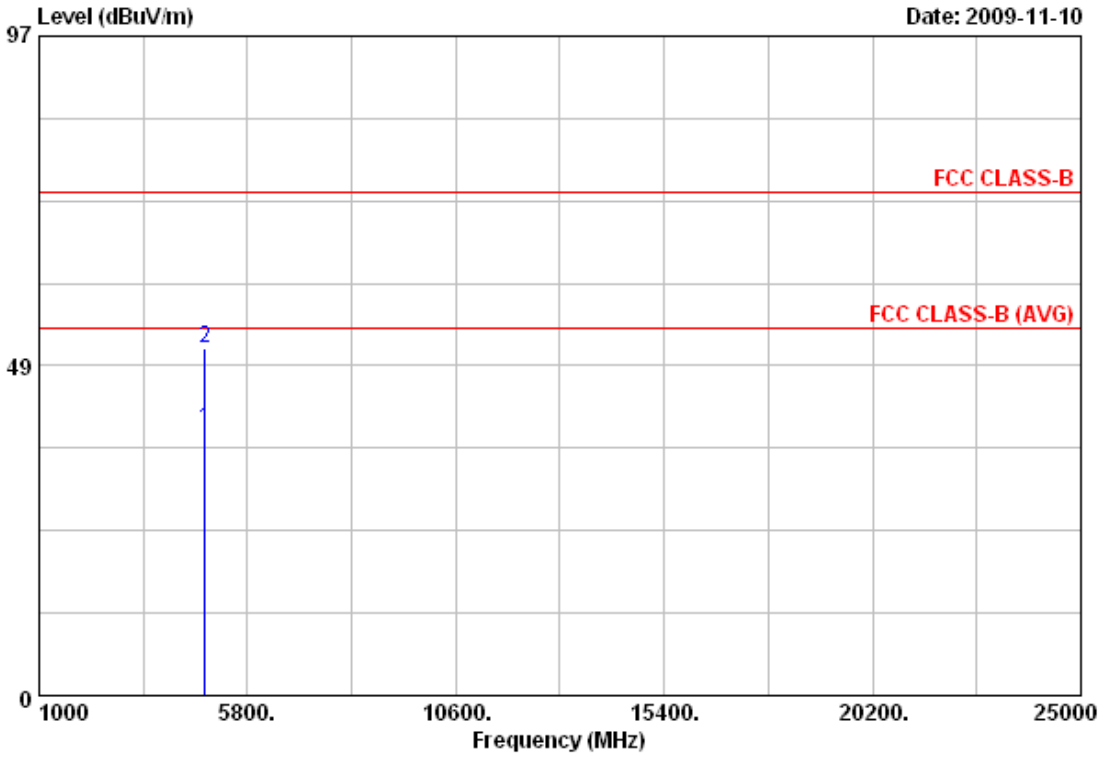


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	37.41	2.72	40.13	54.00	-13.87	Average	100	0
2	4824.00	49.73	2.72	52.45	74.00	-21.55	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11b (11Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

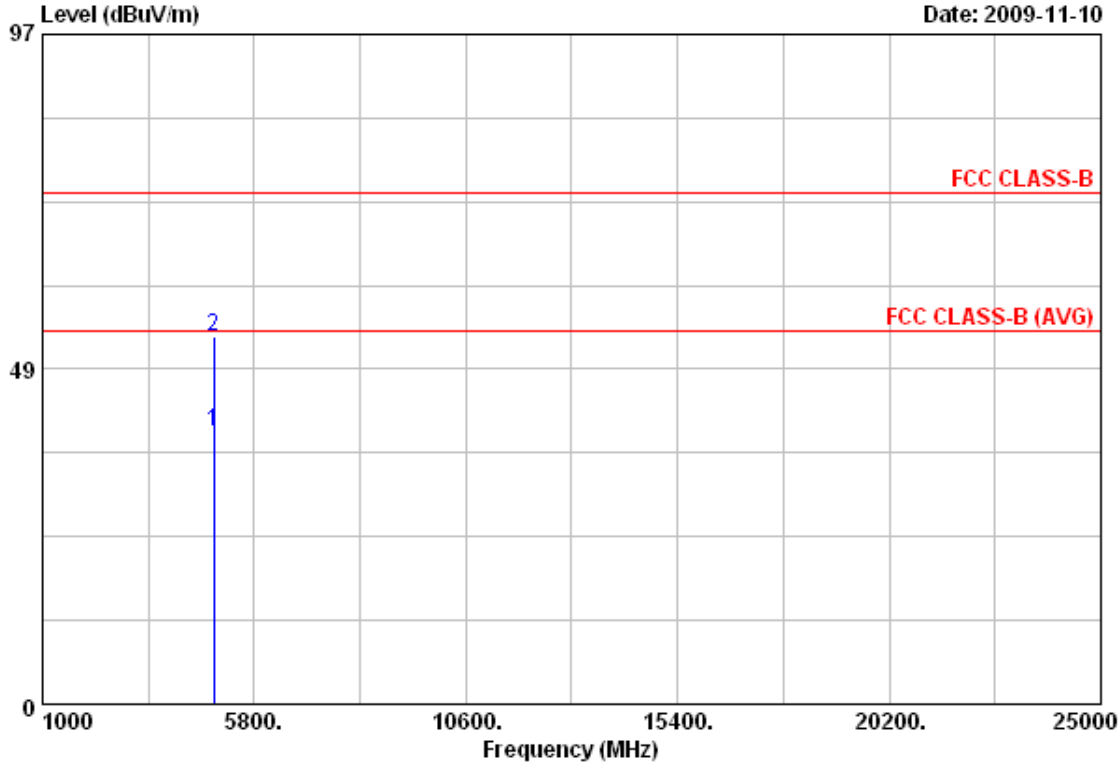


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.40	36.56	2.72	39.28	54.00	-14.72	Average	100	0
2	4824.40	48.30	2.72	51.02	74.00	-22.98	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b (11Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

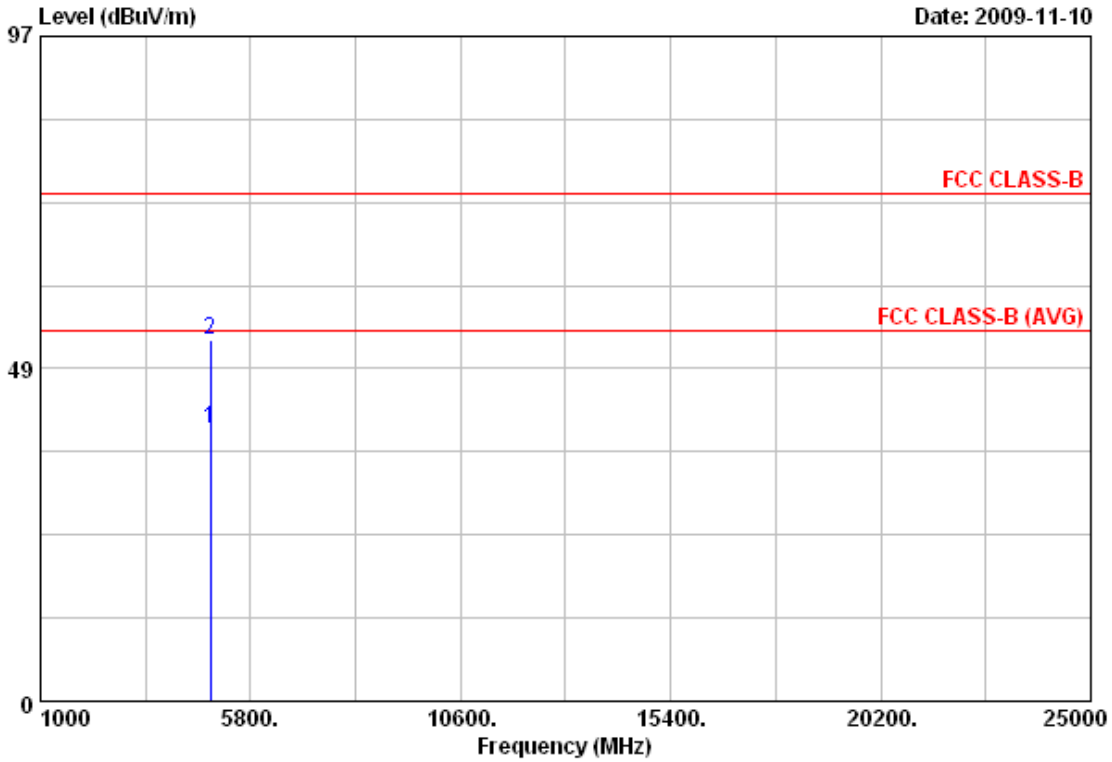


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	36.69	2.87	39.56	54.00	-14.44	Average	100	0
2	4874.00	50.42	2.87	53.29	74.00	-20.71	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11b (11Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

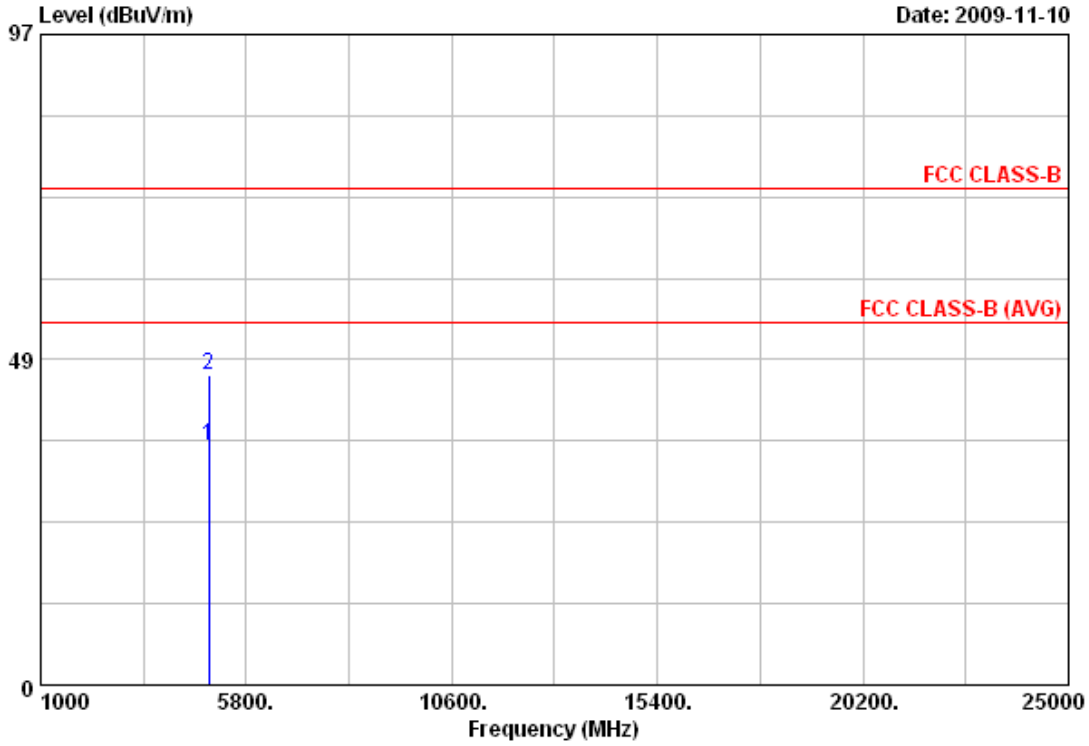


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	36.86	2.87	39.73	54.00	-14.27	Average	100	0
2	4874.00	49.85	2.87	52.72	74.00	-21.28	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11b (11Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

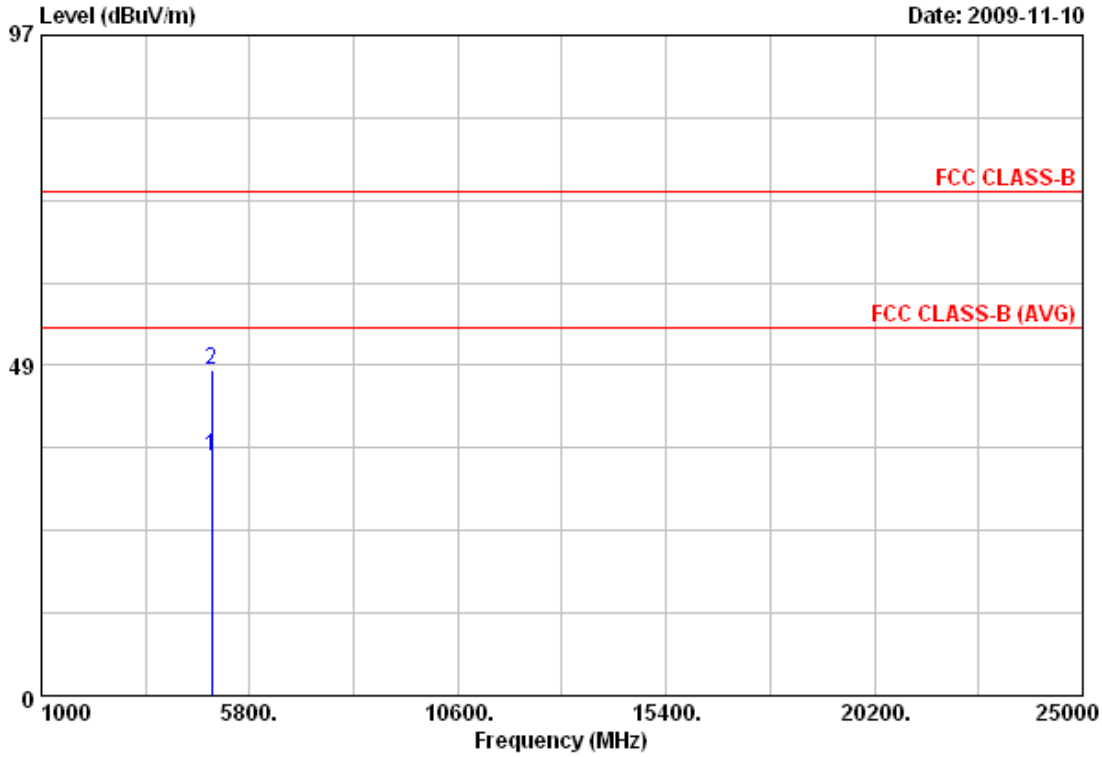


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.53	3.01	35.54	54.00	-18.46	Average	100	0
2	4924.00	43.29	3.01	46.30	74.00	-27.70	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11b (11Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

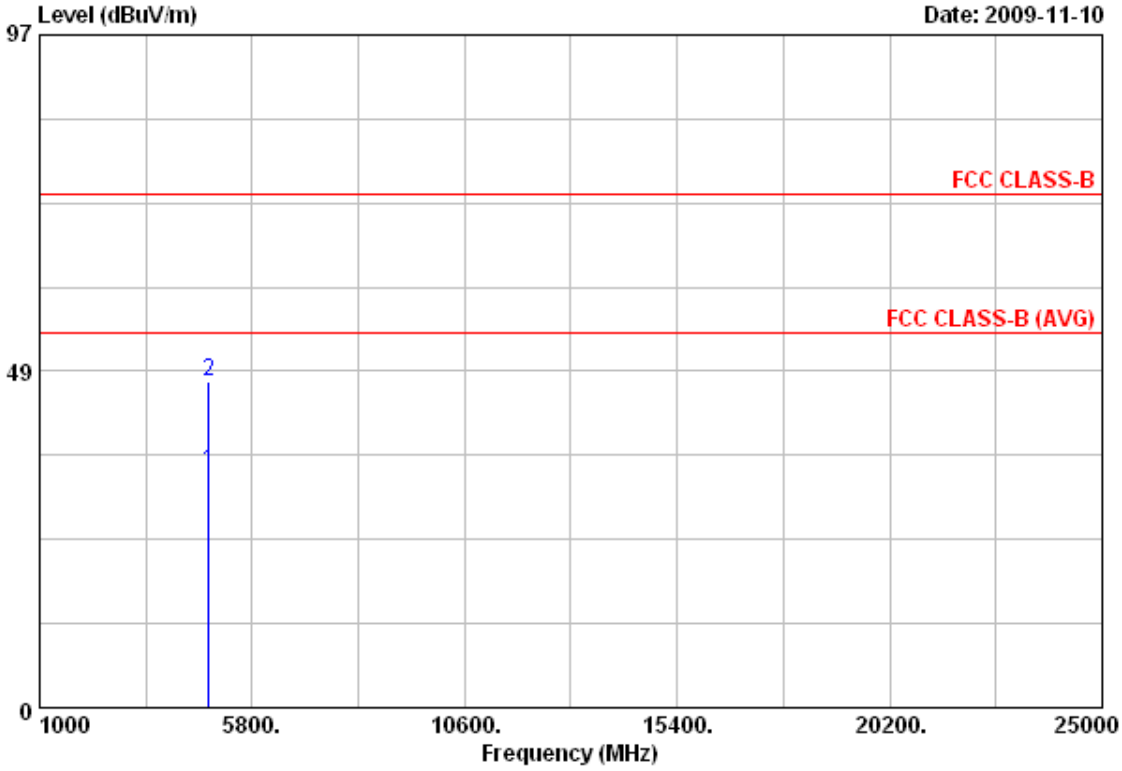


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.03	3.01	35.04	54.00	-18.96	Average	100	0
2	4924.00	44.92	3.01	47.93	74.00	-26.07	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

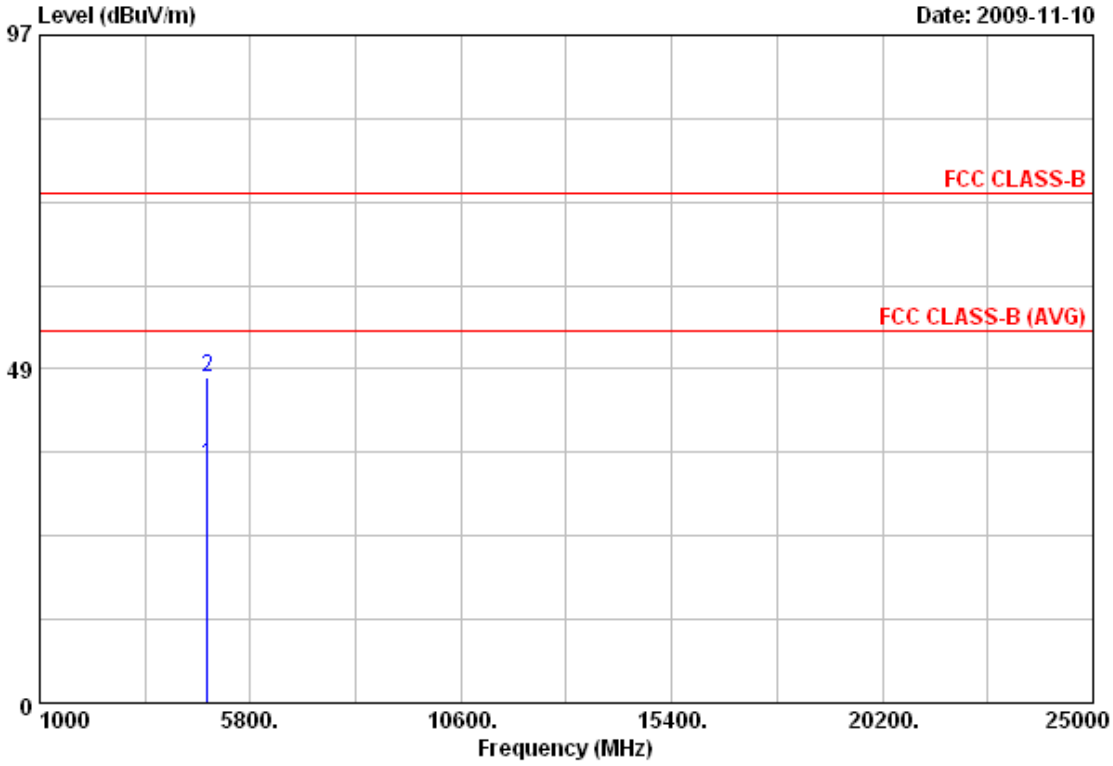


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	31.32	2.72	34.04	54.00	-19.96	Average	100	0
2	4824.00	44.43	2.72	47.15	74.00	-26.85	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH1	Temperature	:	26 °C
Memo	:	Antenna 2	Humidity	:	58 %

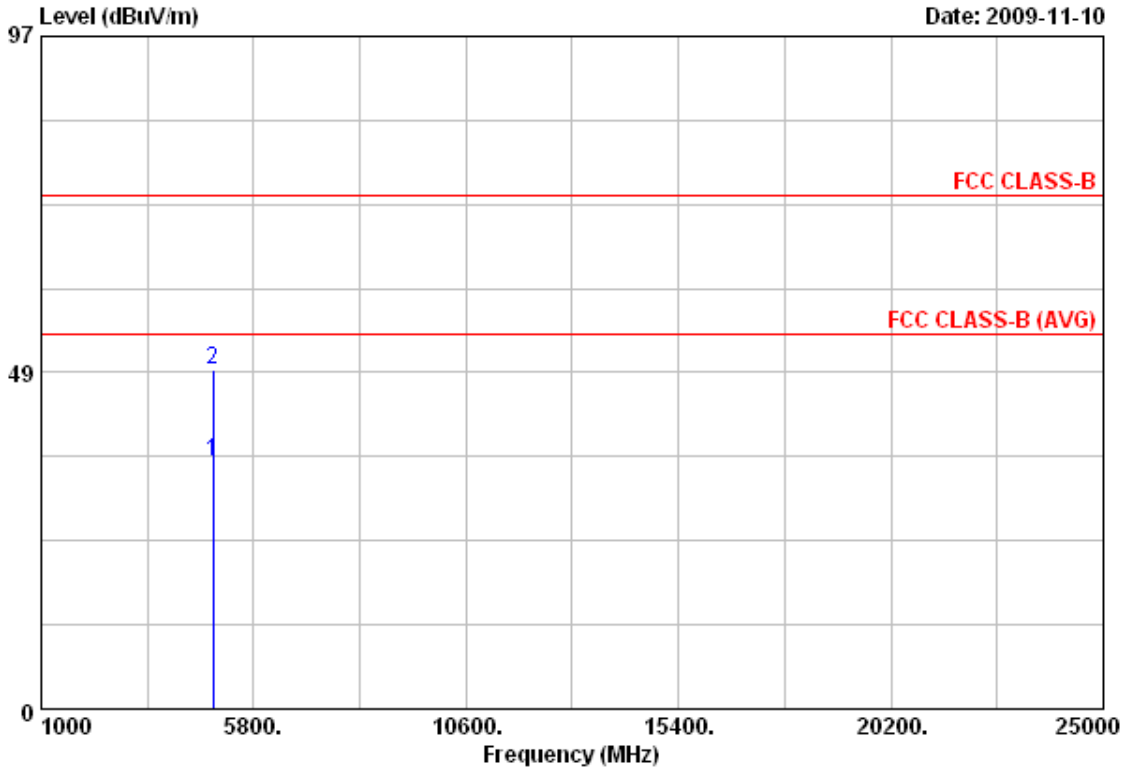


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	31.87	2.72	34.59	54.00	-19.41	Average	100	0
2	4824.00	44.57	2.72	47.29	74.00	-26.71	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

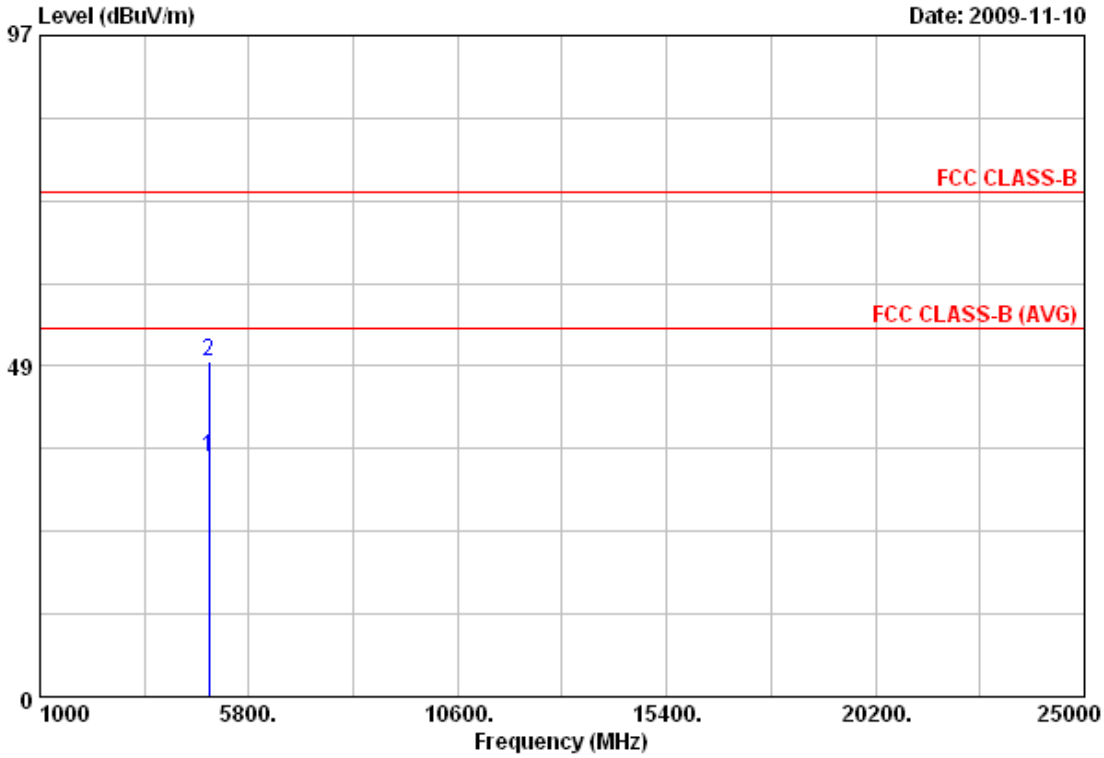


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.85	2.87	35.72	54.00	-18.28	Average	100	0
2	4874.00	45.93	2.87	48.80	74.00	-25.20	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH6	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

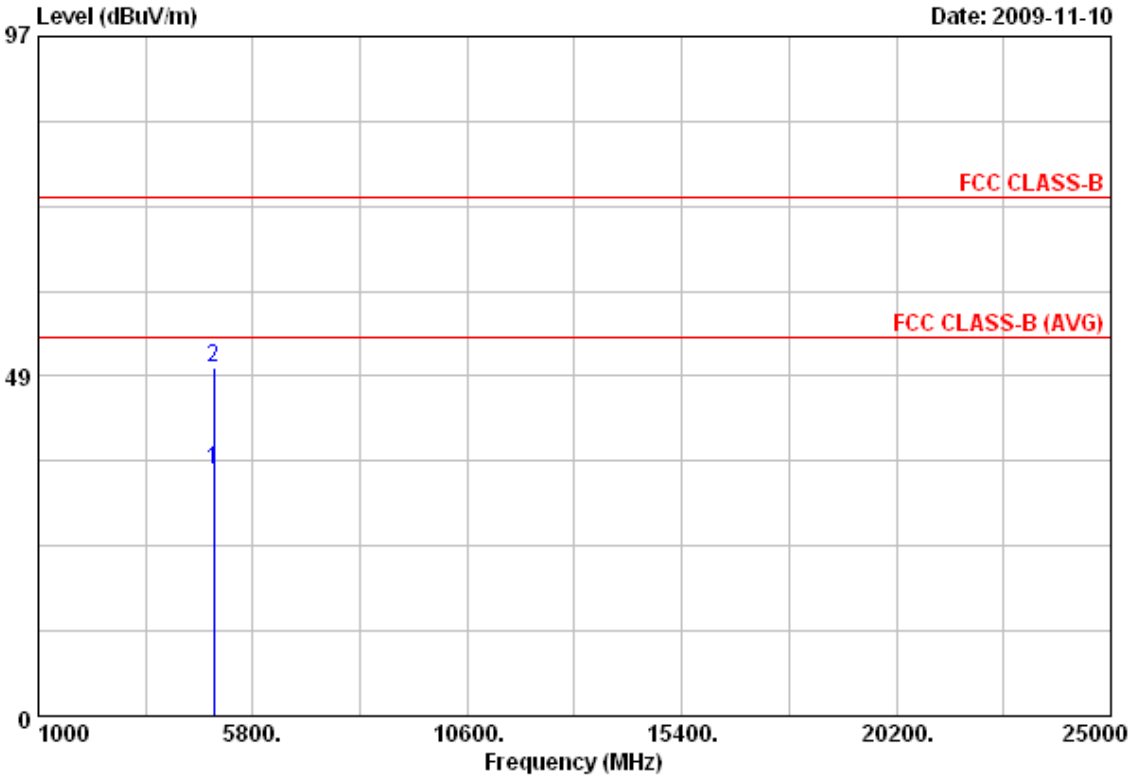


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.36	2.87	35.23	54.00	-18.77	Average	100	0
2	4874.00	46.17	2.87	49.04	74.00	-24.96	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 1	:	802.11g (54Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

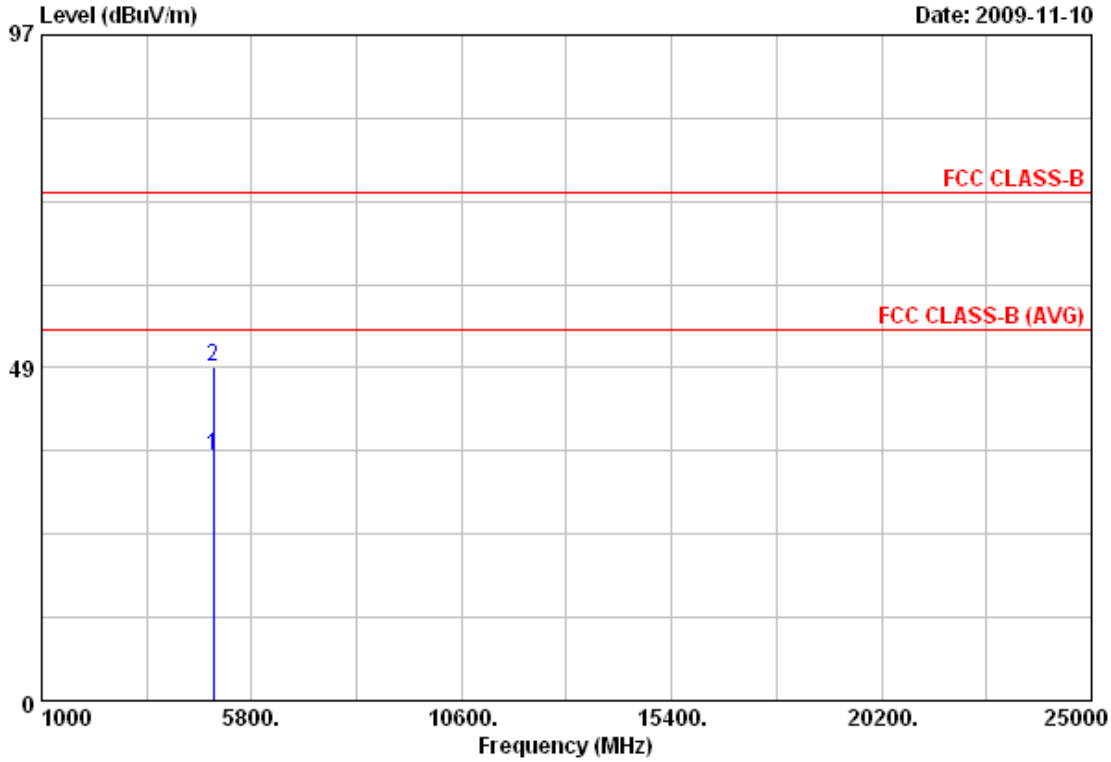


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.04	3.01	35.05	54.00	-18.95	Average	100	0
2	4924.00	46.63	3.01	49.64	74.00	-24.36	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 1	:	802.11g (54Mbps), CH11	Temperature	:	26 °C
Memo	:	Antenna 1	Humidity	:	58 %

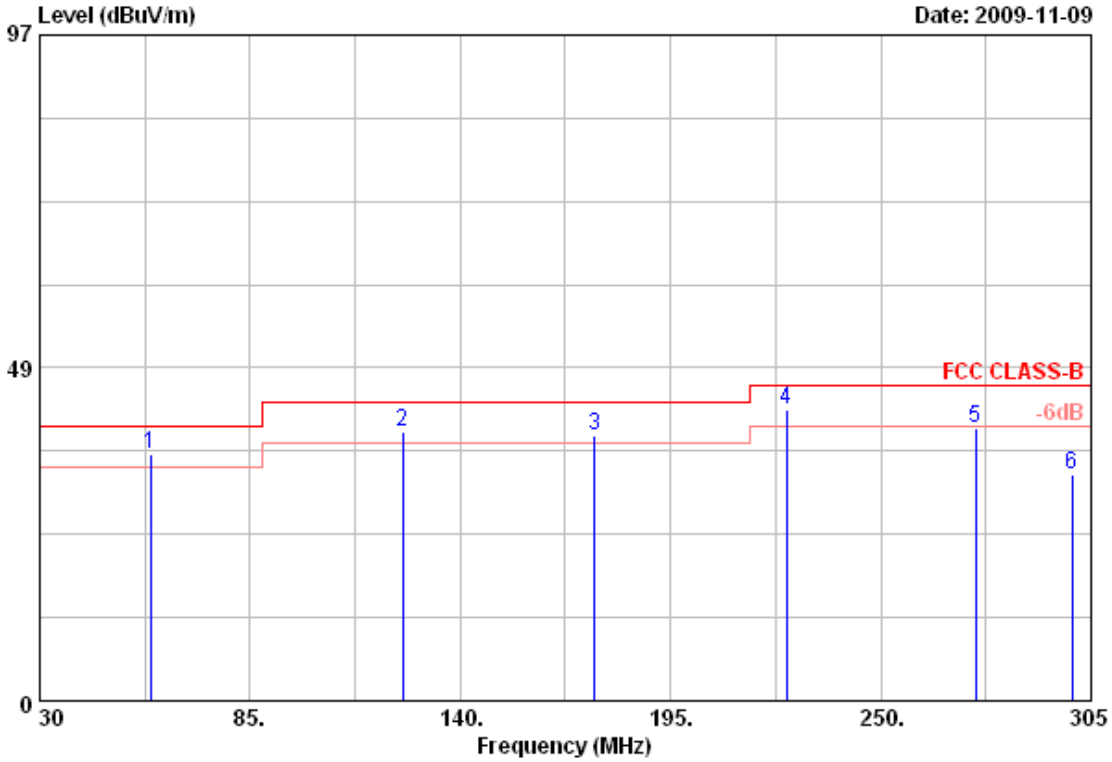


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.57	3.01	35.58	54.00	-18.42	Average	100	0
2	4924.00	45.52	3.01	48.53	74.00	-25.47	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

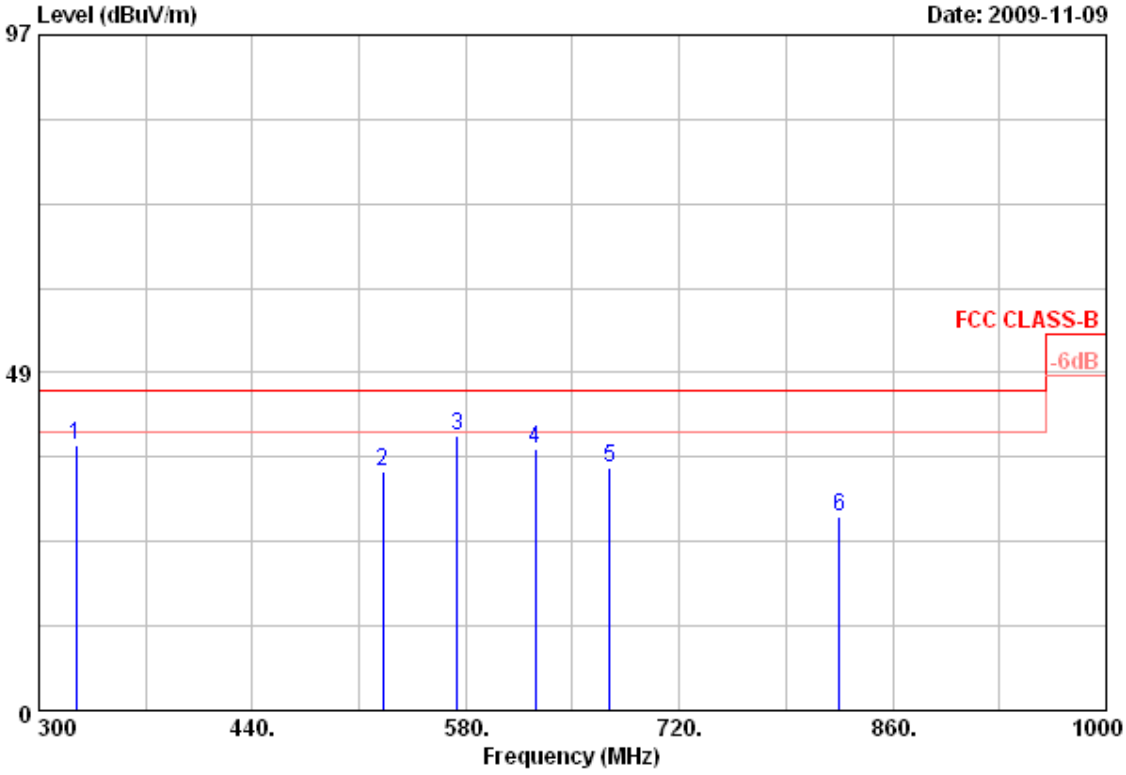


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	db/m	dBuV/m	dBuV/m	dB		cm	Deg
1	58.88	48.73	-12.68	36.05	40.00	-3.95	QP	100	0
2	124.88	48.73	-9.43	39.30	43.50	-4.20	QP	100	0
3	175.20	50.45	-11.89	38.56	43.50	-4.94	QP	100	0
4	225.25	52.98	-10.44	42.54	46.00	-3.46	QP	100	0
5	274.75	52.54	-12.69	39.85	46.00	-6.15	Peak	100	0
6	300.05	44.88	-12.01	32.87	46.00	-13.13	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

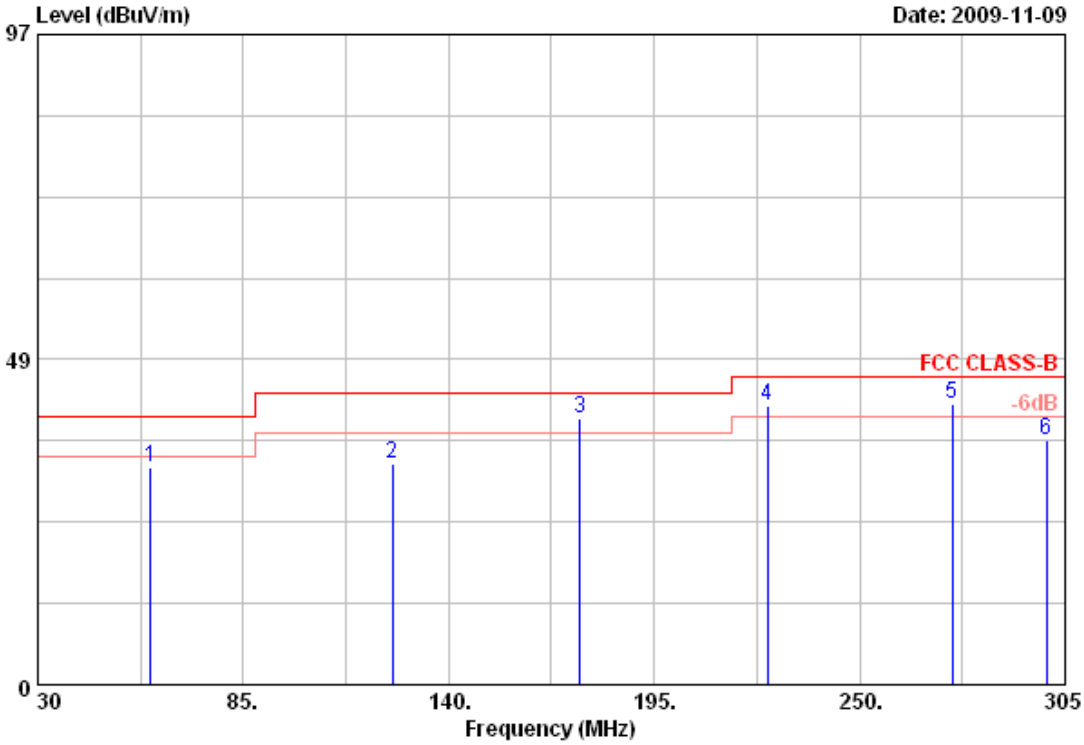


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	db/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	47.76	-9.78	37.98	46.00	-8.02	Peak	100	0
2	525.40	42.36	-7.95	34.41	46.00	-11.59	Peak	100	0
3	574.40	42.94	-3.43	39.51	46.00	-6.49	Peak	100	0
4	625.50	44.02	-6.52	37.50	46.00	-8.50	Peak	100	0
5	674.50	39.99	-5.15	34.84	46.00	-11.16	Peak	100	0
6	825.00	27.64	0.16	27.80	46.00	-18.20	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

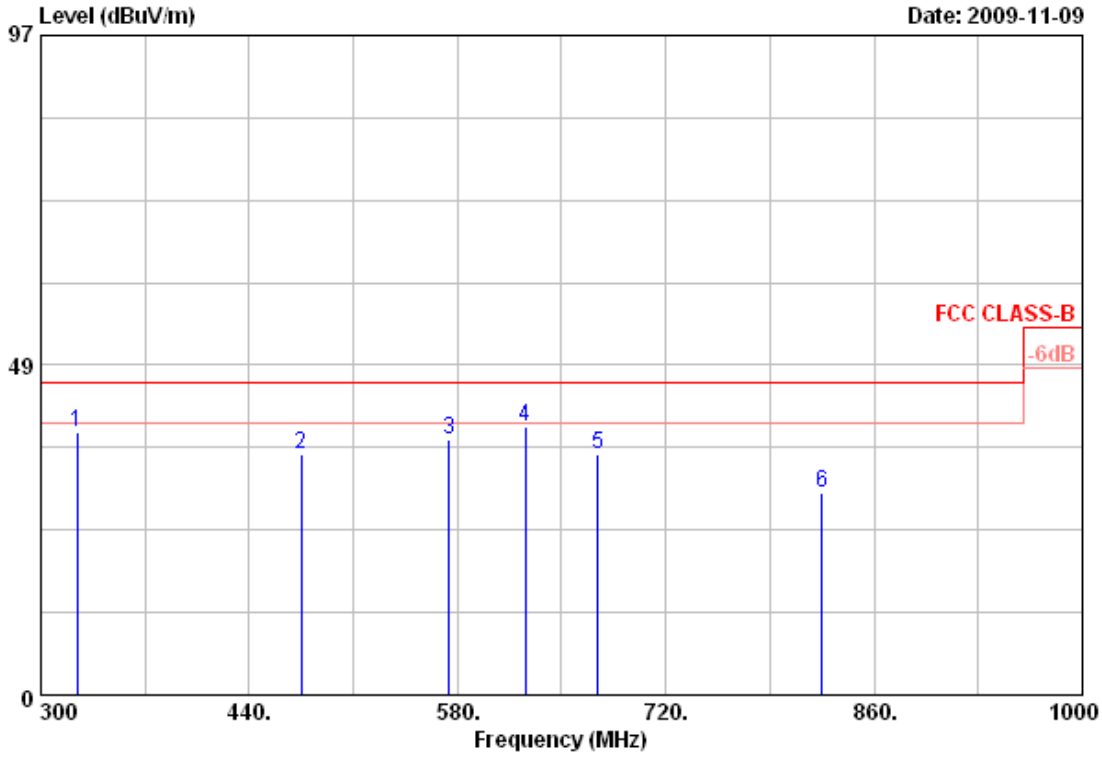


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	db/m	dBuV/m	dBuV/m	dB		cm	Deg
1	60.25	51.41	-18.87	32.54	40.00	-7.46	Peak	100	0
2	124.88	49.73	-16.67	33.06	43.50	-10.44	Peak	100	0
3	175.20	56.81	-17.16	39.65	43.50	-3.85	QP	100	0
4	225.25	56.79	-15.23	41.56	46.00	-4.44	QP	100	0
5	274.75	54.96	-13.18	41.78	46.00	-4.22	QP	100	0
6	300.05	49.55	-13.01	36.54	46.00	-9.46	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

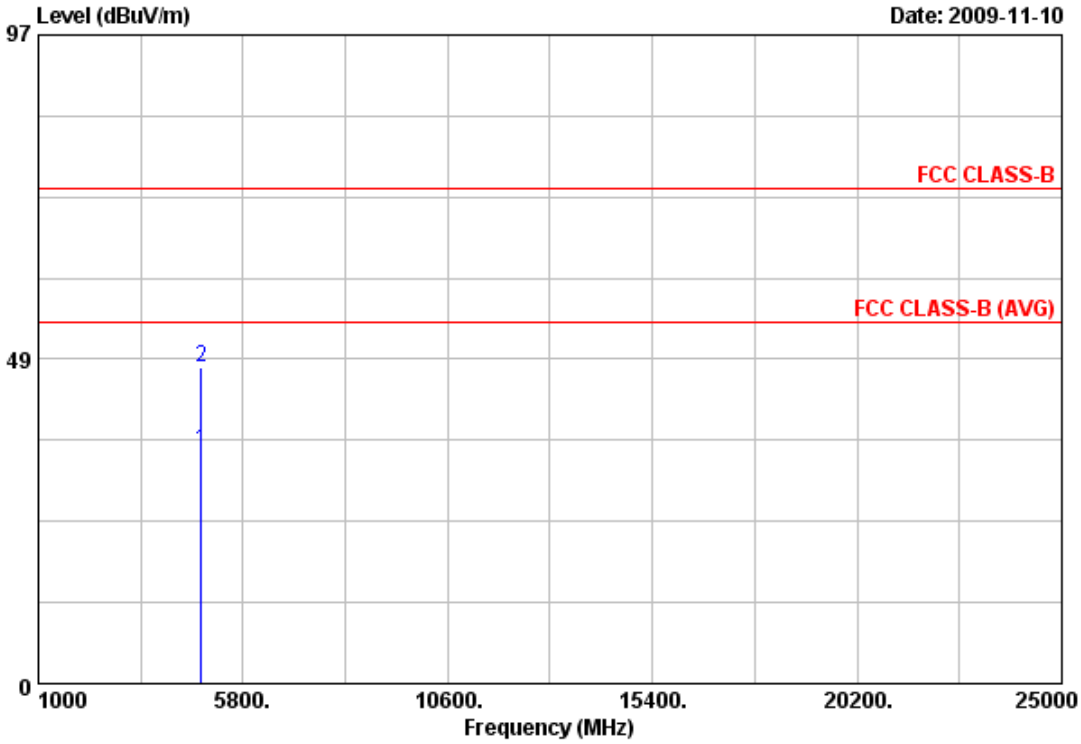


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	db/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	50.51	-11.95	38.56	46.00	-7.44	Peak	100	0
2	475.00	40.91	-5.42	35.49	46.00	-10.51	Peak	100	0
3	574.40	40.95	-3.39	37.56	46.00	-8.44	Peak	100	0
4	625.50	40.96	-1.45	39.51	46.00	-6.49	Peak	100	0
5	674.50	39.21	-3.71	35.50	46.00	-10.50	Peak	100	0
6	825.00	28.50	1.34	29.84	46.00	-16.16	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

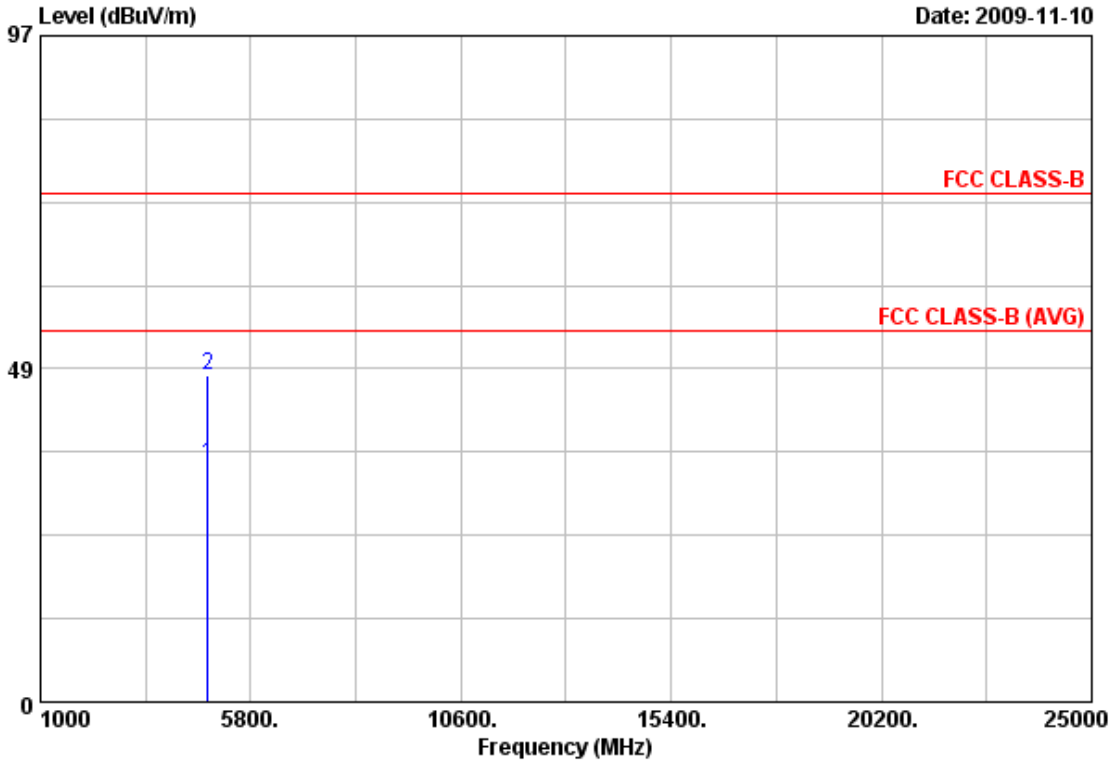


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	32.09	2.72	34.81	54.00	-19.19	Average	100	0
2	4824.00	44.63	2.72	47.35	74.00	-26.65	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH1	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

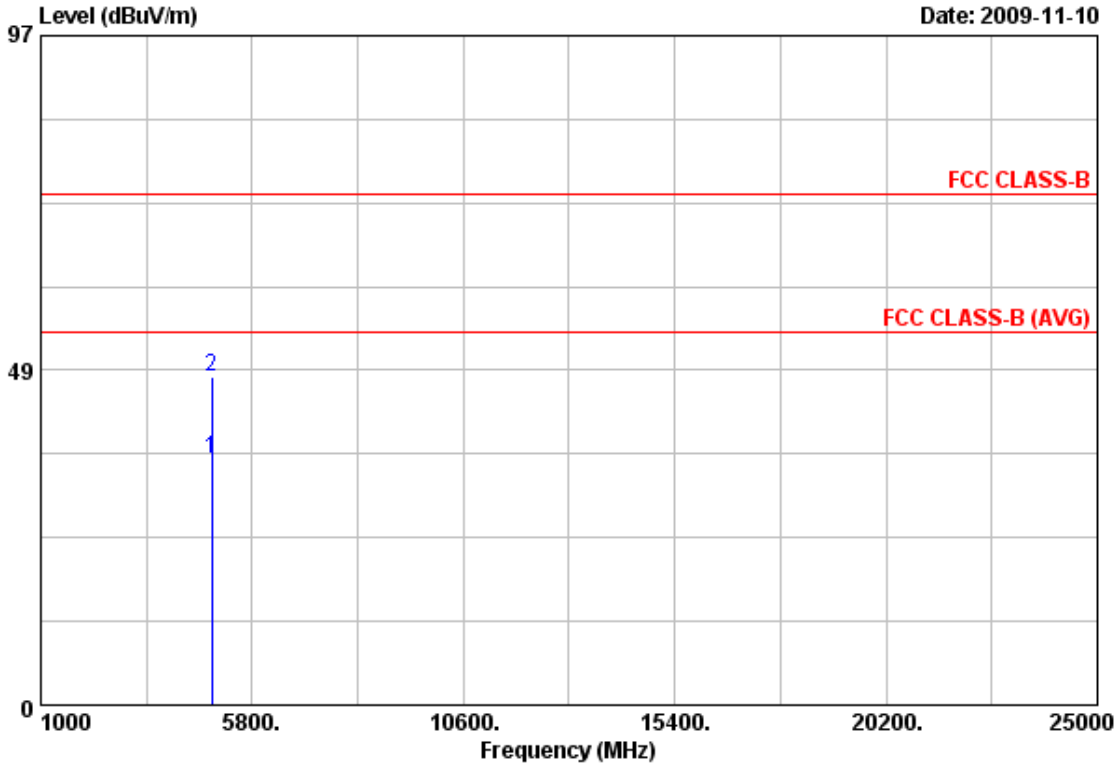


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4824.00	31.83	2.72	34.55	54.00	-19.45	Average	100	0
2	4824.00	44.81	2.72	47.53	74.00	-26.47	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH6	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

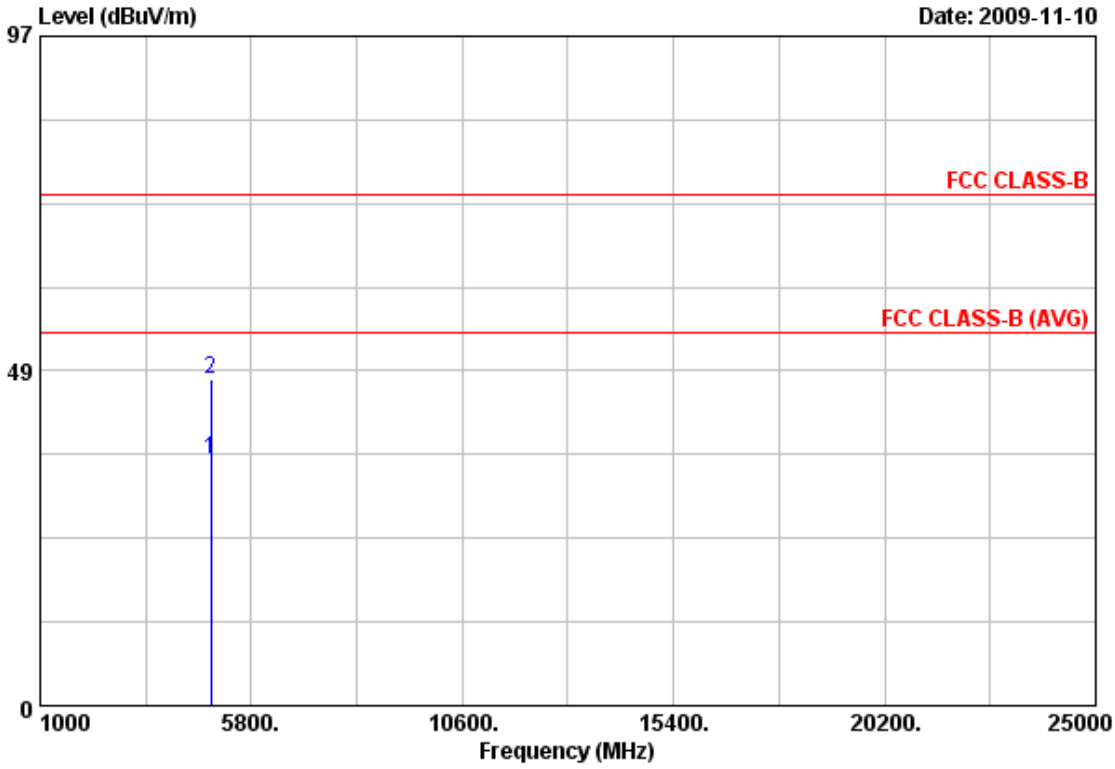


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.67	2.87	35.54	54.00	-18.46	Average	100	0
2	4874.00	44.64	2.87	47.51	74.00	-26.49	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH6	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

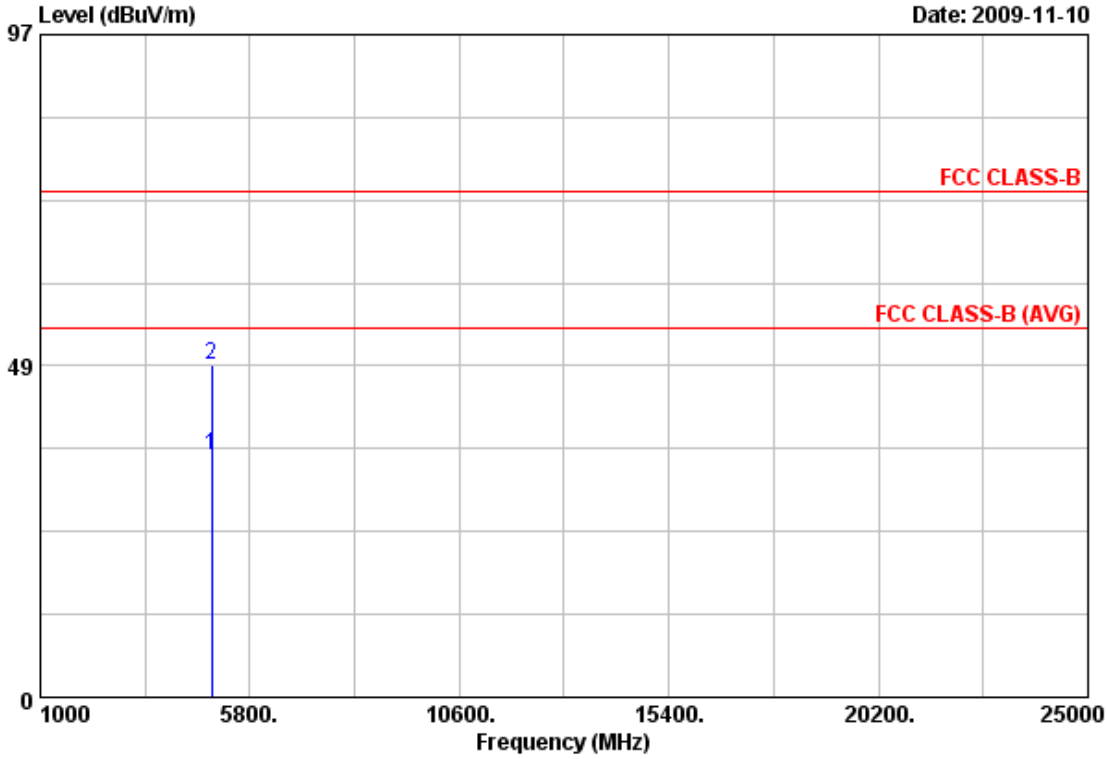


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.78	2.87	35.65	54.00	-18.35	Average	100	0
2	4874.00	44.48	2.87	47.35	74.00	-26.65	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH11	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

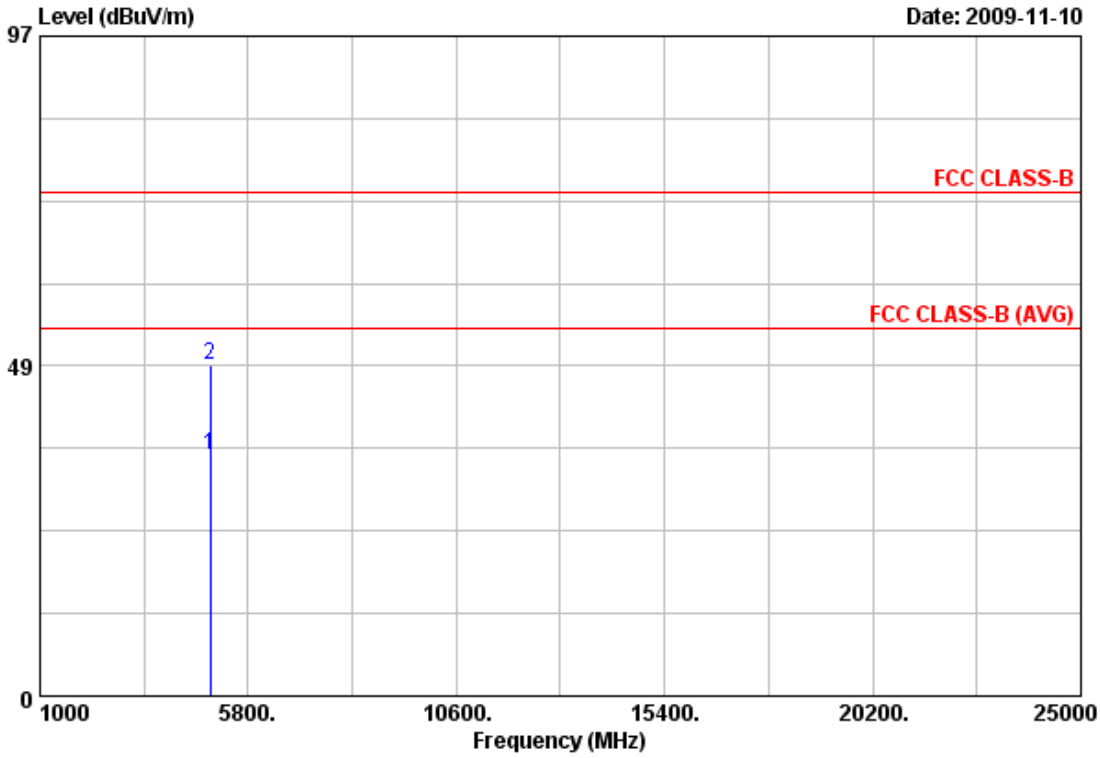


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.45	3.01	35.46	54.00	-18.54	Average	100	0
2	4924.00	45.49	3.01	48.50	74.00	-25.50	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 2	:	802.11n HT20 (130Mbps), CH11	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

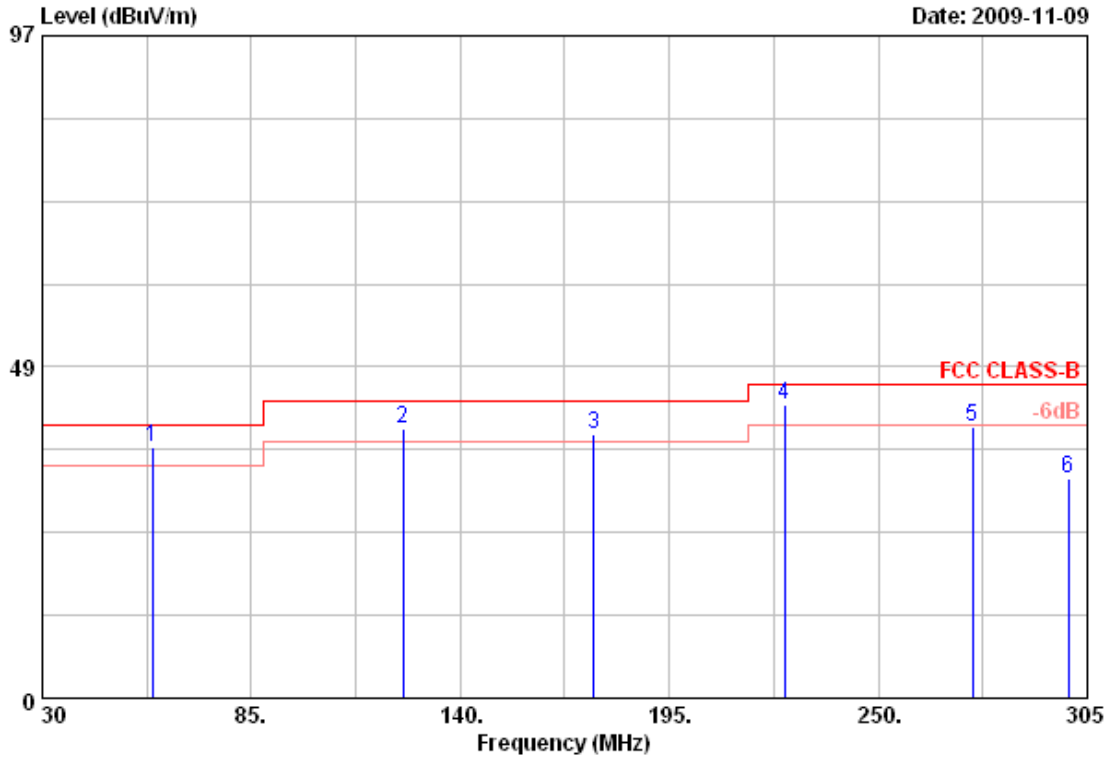


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.00	32.45	3.01	35.46	54.00	-18.54	Average	100	0
2	4924.00	45.49	3.01	48.50	74.00	-25.50	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

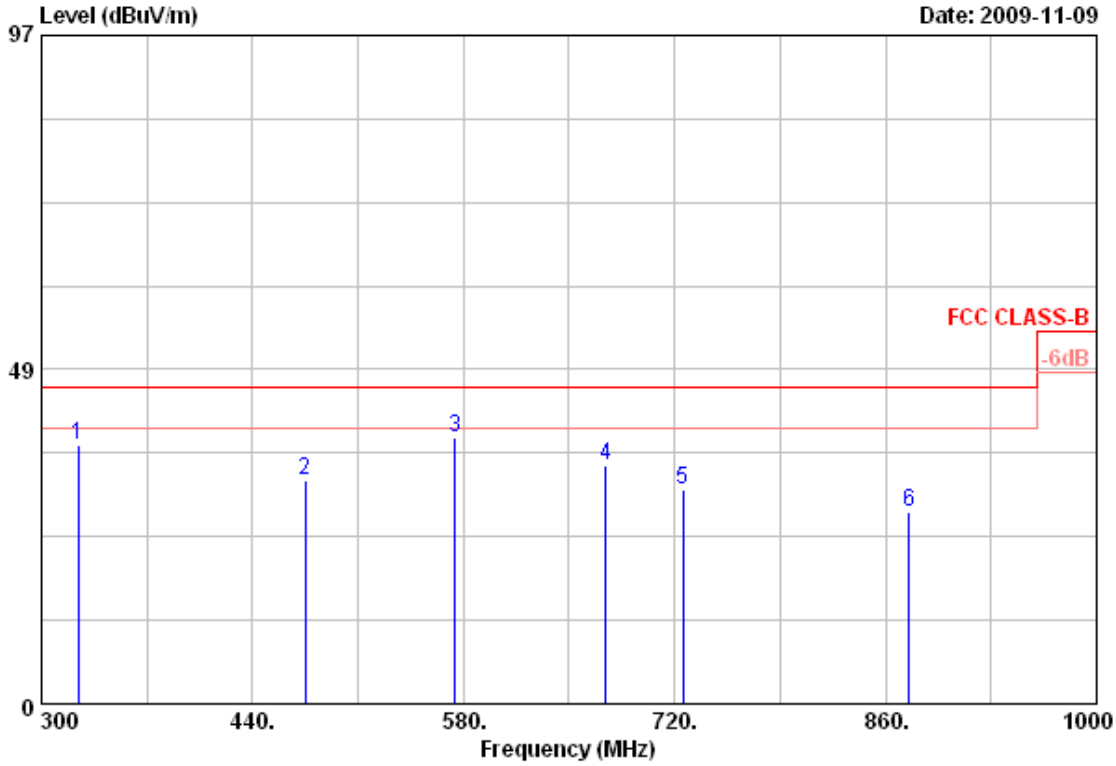


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	58.88	49.55	-12.68	36.87	40.00	-3.13	QP	100	0
2	124.88	48.99	-9.43	39.56	43.50	-3.94	QP	100	0
3	175.20	50.45	-11.89	38.56	43.50	-4.94	QP	100	0
4	225.25	53.31	-10.44	42.87	46.00	-3.13	QP	100	0
5	274.75	52.40	-12.69	39.71	46.00	-6.29	QP	100	0
6	300.05	44.07	-12.01	32.06	46.00	-13.94	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

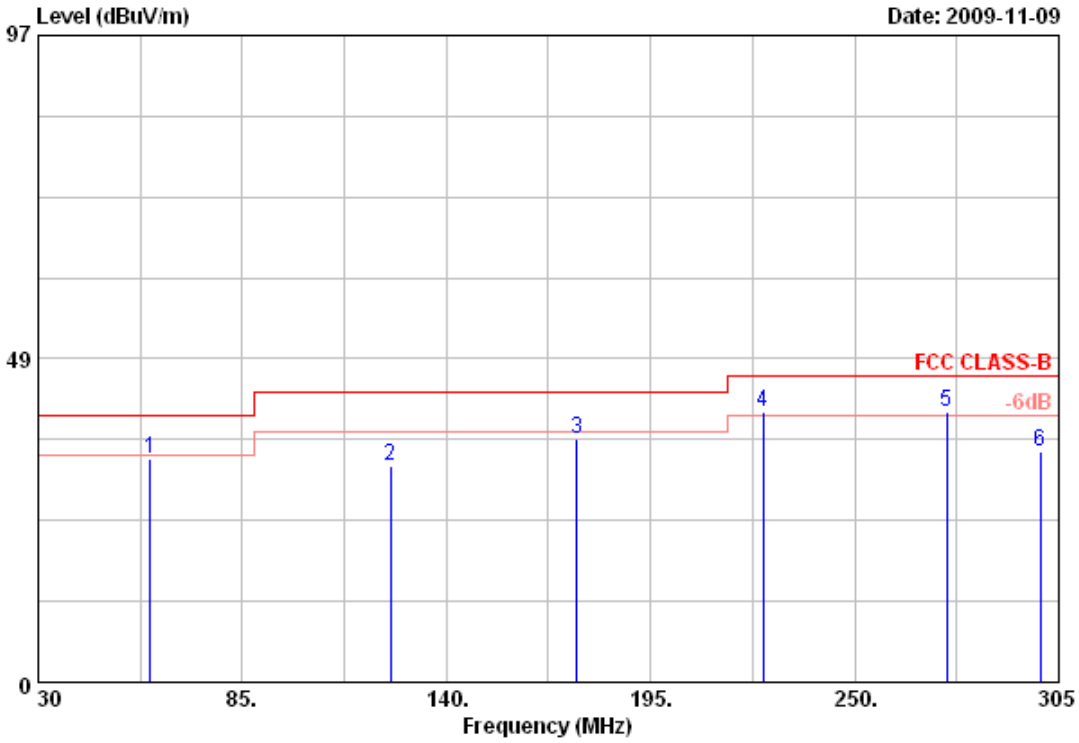


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	47.34	-9.78	37.56	46.00	-8.44	Peak	100	0
2	475.00	40.80	-8.25	32.55	46.00	-13.45	Peak	100	0
3	574.40	41.94	-3.43	38.51	46.00	-7.49	Peak	100	0
4	674.50	39.71	-5.15	34.56	46.00	-11.44	Peak	100	0
5	725.60	32.11	-1.09	31.02	46.00	-14.98	Peak	100	0
6	875.40	27.09	0.75	27.84	46.00	-18.16	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

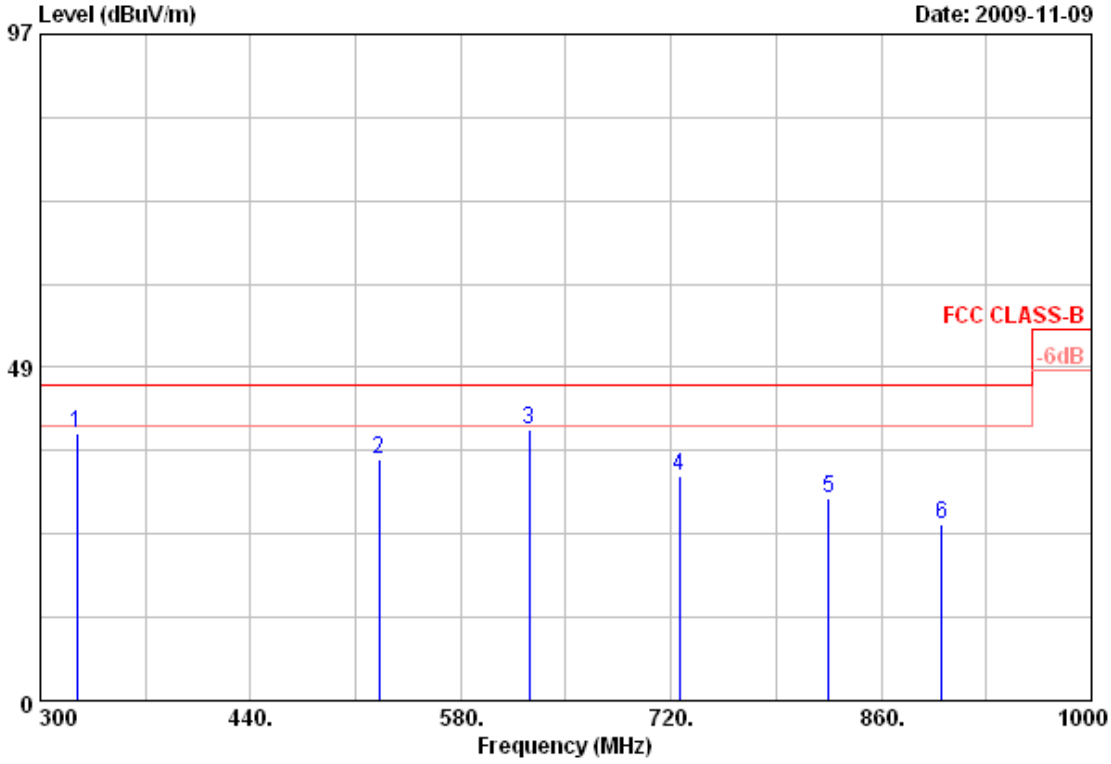


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	60.25	52.38	-18.87	33.51	40.00	-6.49	Peak	100	0
2	124.88	49.21	-16.67	32.54	43.50	-10.96	Peak	100	0
3	175.20	53.72	-17.16	36.56	43.50	-6.94	Peak	100	0
4	225.25	55.79	-15.23	40.56	46.00	-5.44	QP	100	0
5	274.75	53.72	-13.18	40.54	46.00	-5.46	QP	100	0
6	300.05	47.52	-13.01	34.51	46.00	-11.49	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	25 °C
Memo	:		Humidity	:	59 %

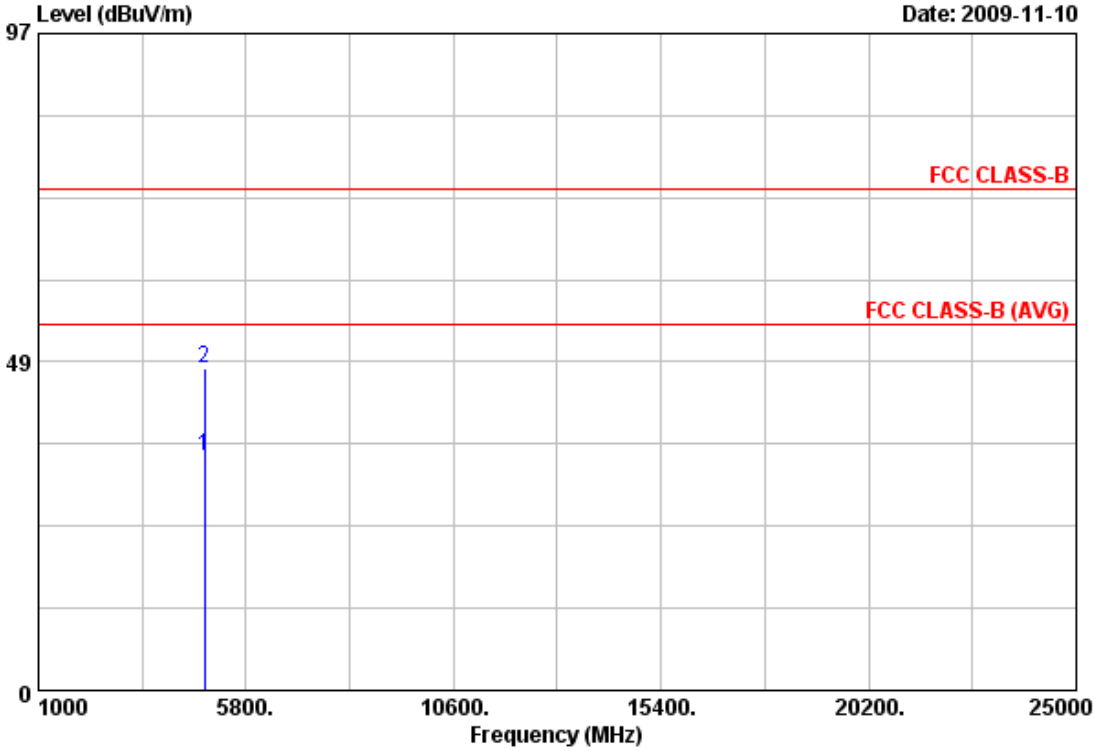


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	324.50	50.91	-11.95	38.96	46.00	-7.04	Peak	100	0
2	525.40	41.09	-5.86	35.23	46.00	-10.77	Peak	100	0
3	625.50	40.96	-1.45	39.51	46.00	-6.49	Peak	100	0
4	725.60	35.51	-2.76	32.75	46.00	-13.25	Peak	100	0
5	825.00	28.22	1.34	29.56	46.00	-16.44	Peak	100	0
6	900.60	24.00	1.54	25.54	46.00	-20.46	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. According to technical experiences,all spurious emission of 802.11MIMO mode at channel 3,6,9 are almost the same below 1GHz,so that the channel 3 was chosen as representative in final test.
5. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

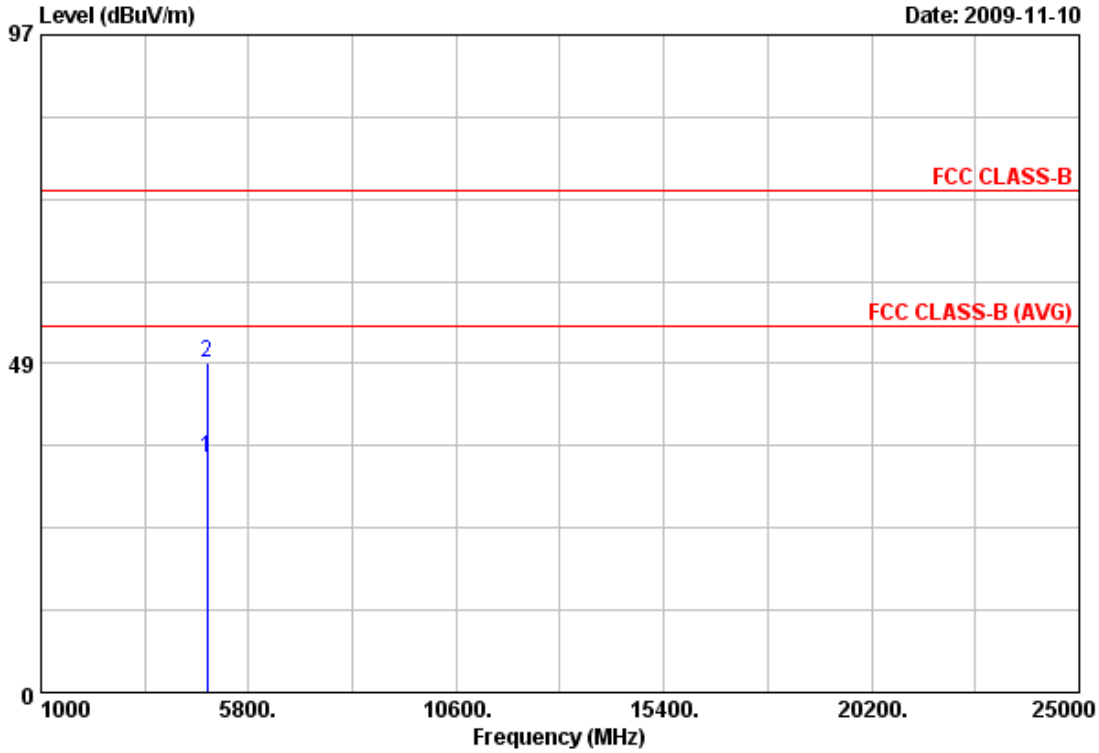


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4844.00	31.67	2.79	34.46	54.00	-19.54	Average	100	0
2	4844.00	44.77	2.79	47.56	74.00	-26.44	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH3	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

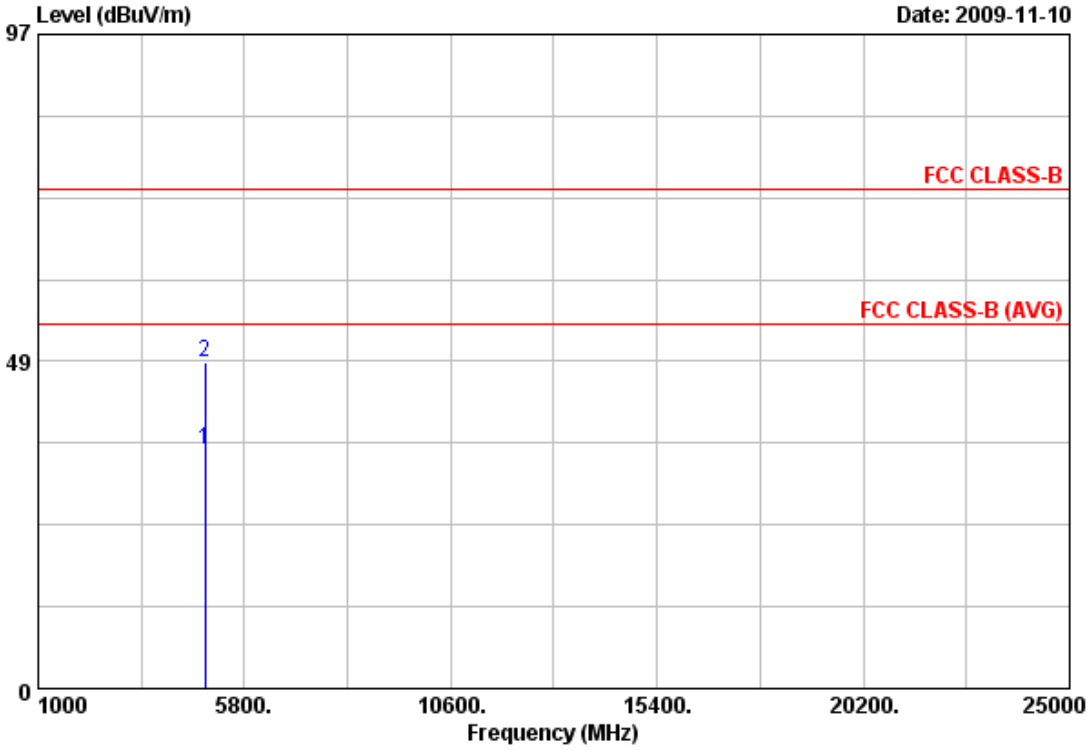


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4844.00	31.86	2.79	34.65	54.00	-19.35	Average	100	0
2	4844.00	45.77	2.79	48.56	74.00	-25.44	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH6	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

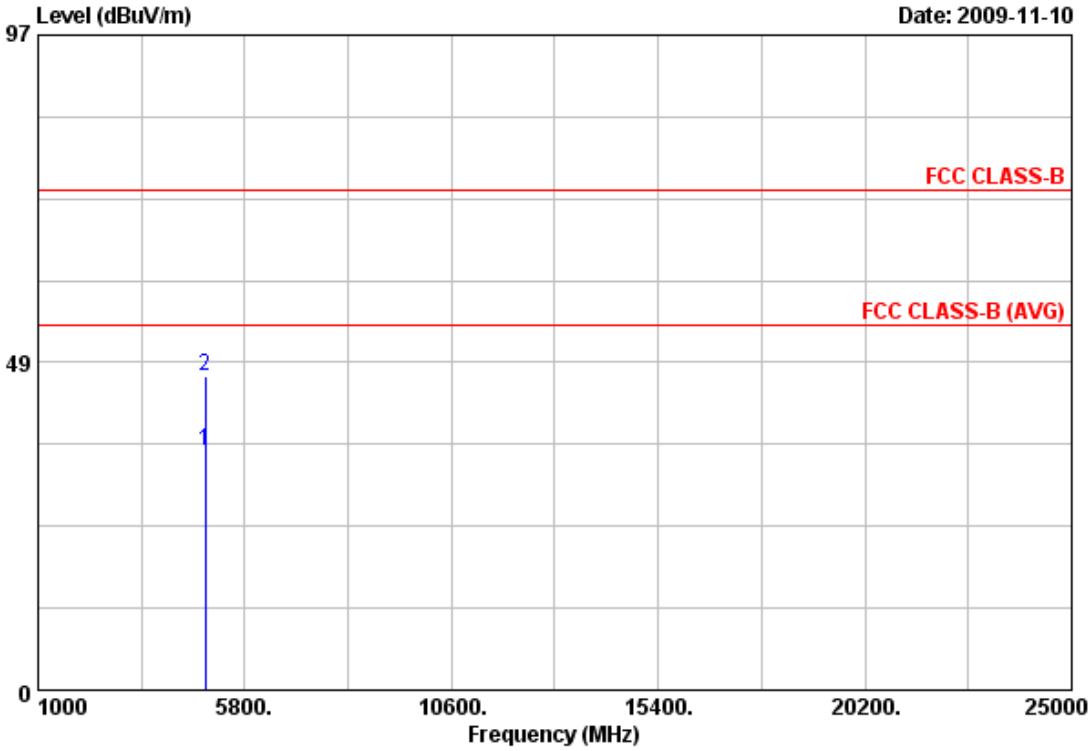


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.58	2.87	35.45	54.00	-18.55	Average	100	0
2	4874.00	45.48	2.87	48.35	74.00	-25.65	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH6	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

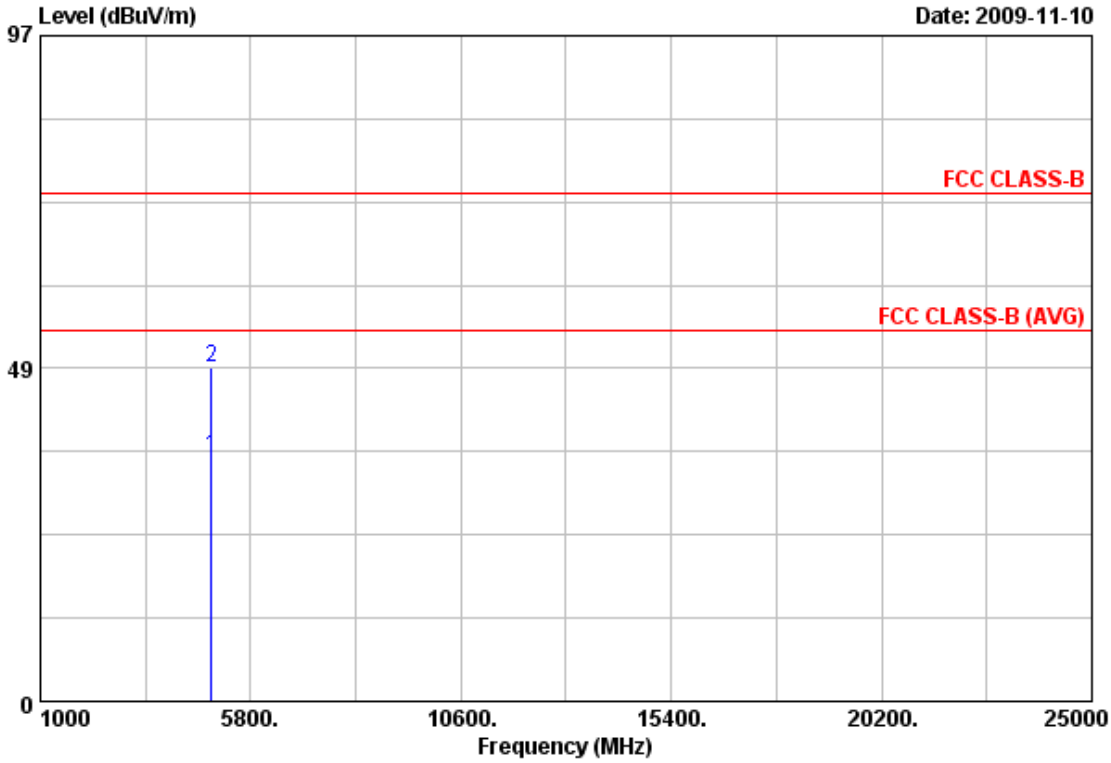


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.00	32.54	2.87	35.41	54.00	-18.59	Average	100	0
2	4874.00	43.74	2.87	46.61	74.00	-27.39	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH9	Temperature	:	26 °C
Memo	:		Humidity	:	58 %

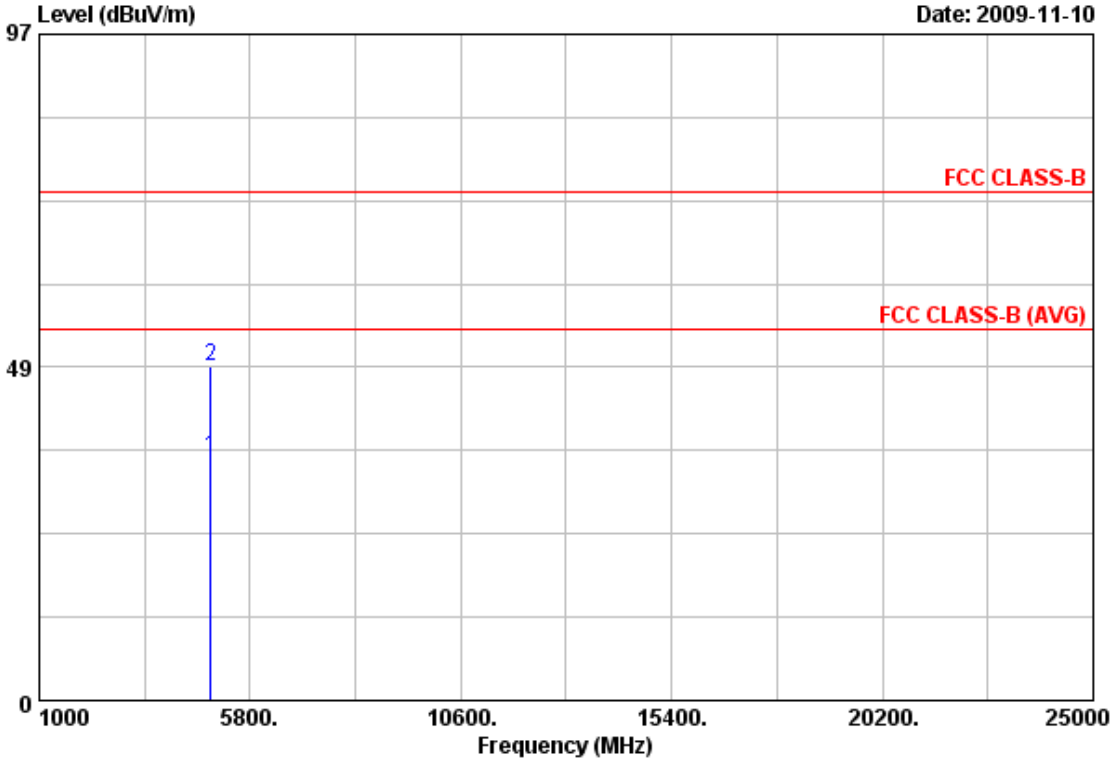


Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4904.00	32.71	2.96	35.67	54.00	-18.33	Average	100	0
2	4904.00	45.69	2.96	48.65	74.00	-25.35	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode 3	:	802.11n HT40 (270Mbps), CH9	Temperature	:	26 °C
Memo	:		Humidity	:	58 %



Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4904.00	32.55	2.96	35.51	54.00	-18.49	Average	100	0
2	4904.00	45.69	2.96	48.65	74.00	-25.35	Peak	100	0

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.
7. The data is worse case.

Test engineer: Ben

5.6 Test Photographs

Front View

Rear View

6. 6dB Bandwidth Measurement Data

6.1 Test Limit

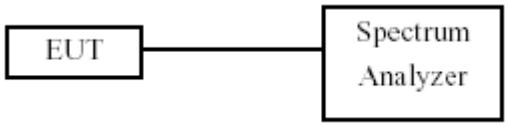
The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

6.2 Test Procedures

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

a. The transmitter output was connected to the spectrum analyzer.
b. Set RBW = 100 kHz, Span greater than RBW.
c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

6.3 Test Setup Layout



6.4 Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	FSP40	R&S	10047	2009/03/26	2010/03/25

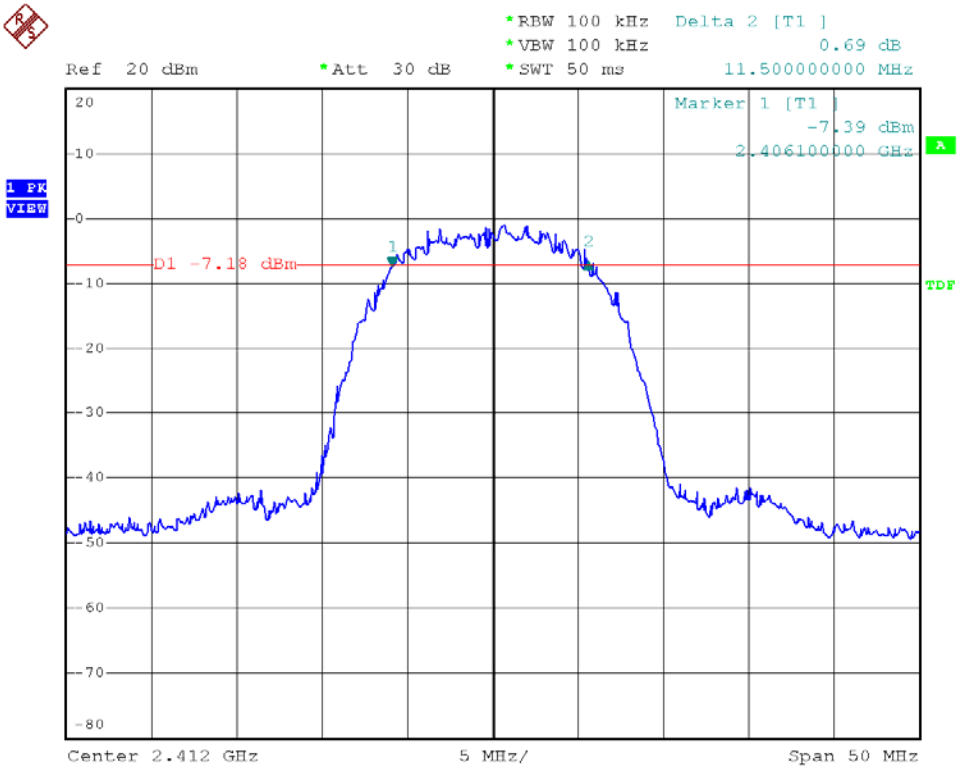
6.5 Test Result and Data

Test Date: Nov. 05, 2009 Temperature: 25℃

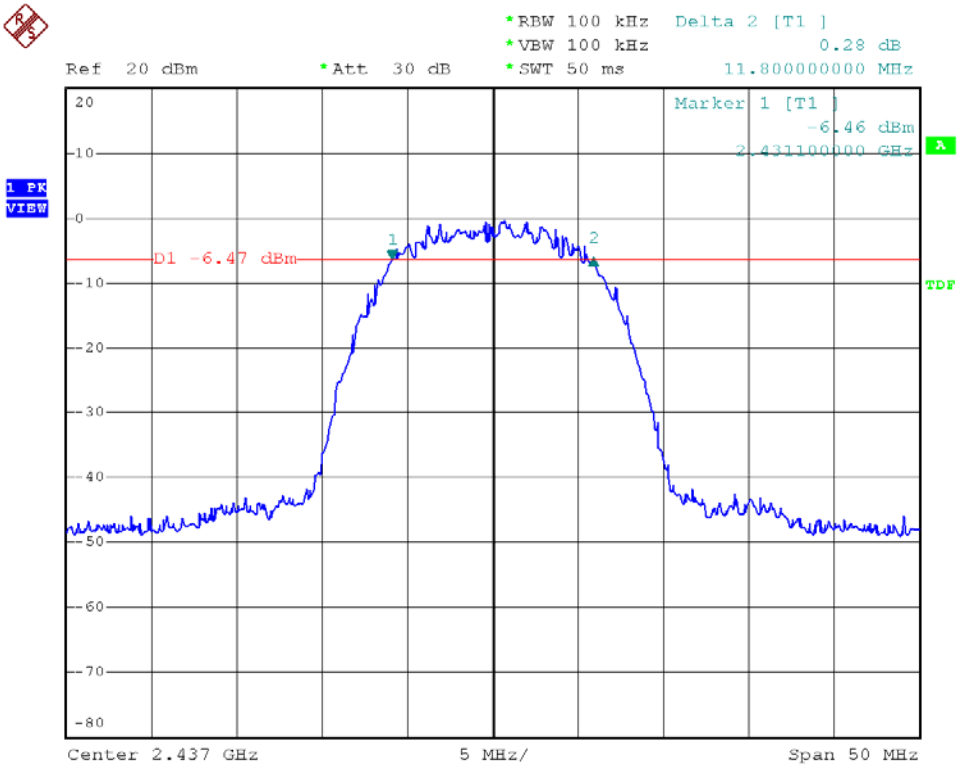
Atmospheric pressure: 1022 hPa Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	
			Ant1	Ant2
802.11b (11Mbps)	01	2412	11.50	11.40
	06	2437	11.50	11.40
	11	2462	11.90	11.90
802.11g (54Mbps)	01	2412	16.40	16.40
	06	2437	16.30	16.40
	11	2462	16.40	16.50
802.11n HT20 (130Mbps)	01	2412	16.80	16.90
	06	2437	17.00	16.70
	11	2462	16.50	16.50
802.11n HT40 (270Mbps)	03	2422	34.80	34.60
	06	2437	34.80	33.80
	09	2452	34.40	34.00

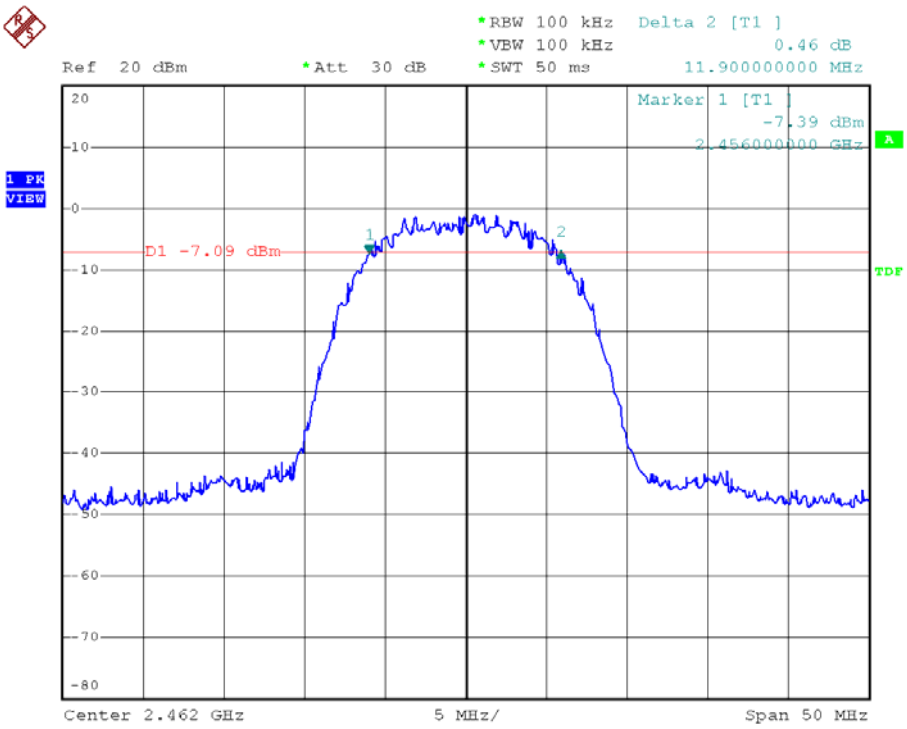
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 01



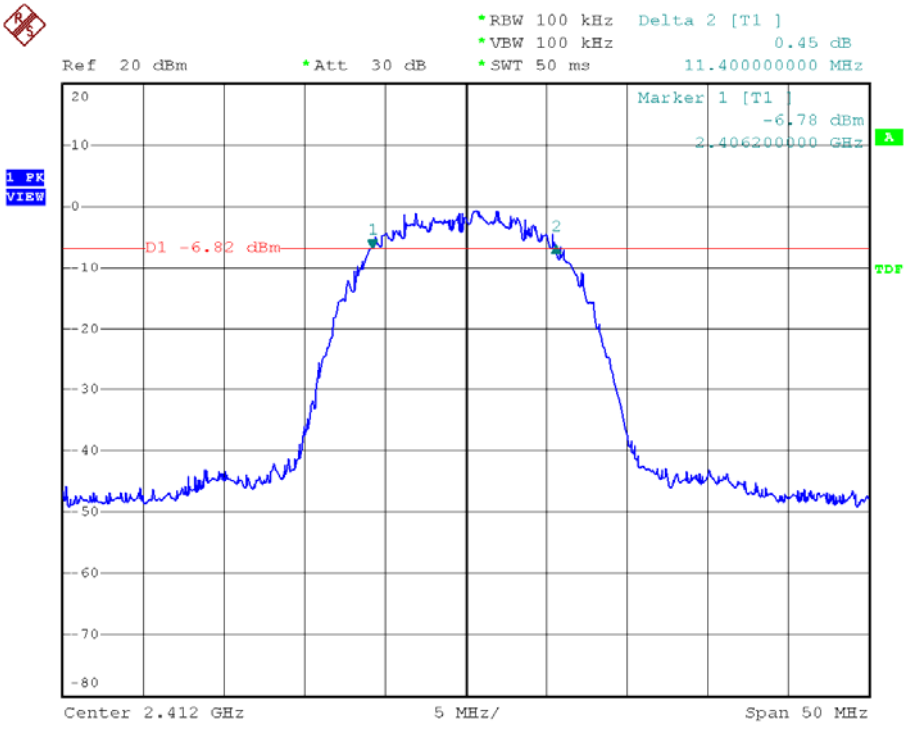
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 06



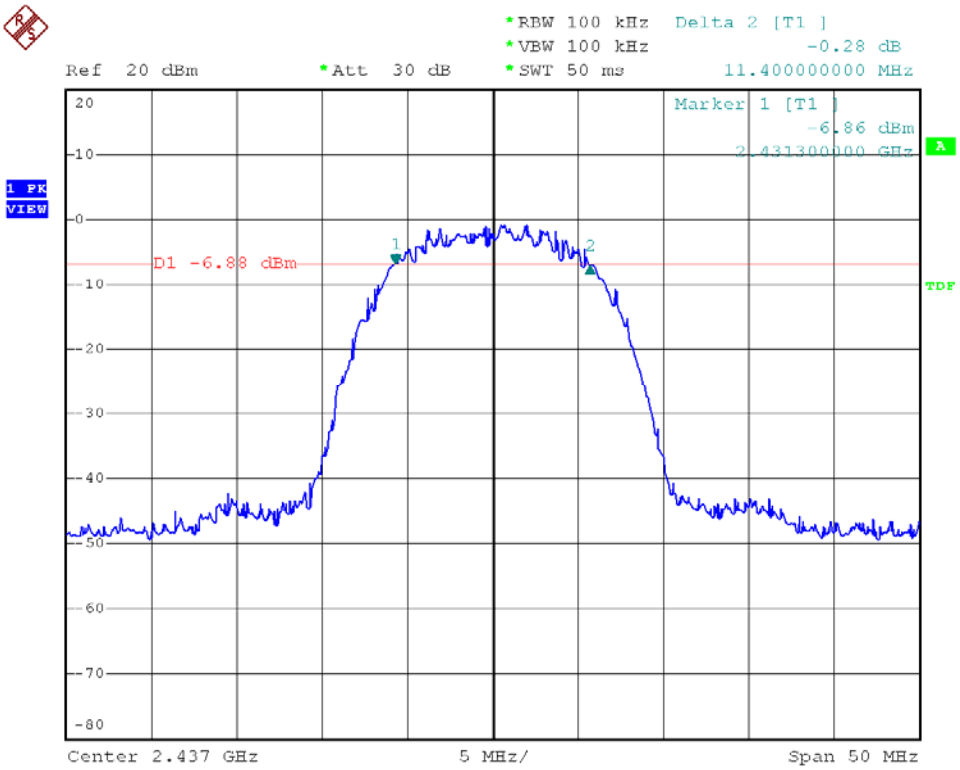
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 11



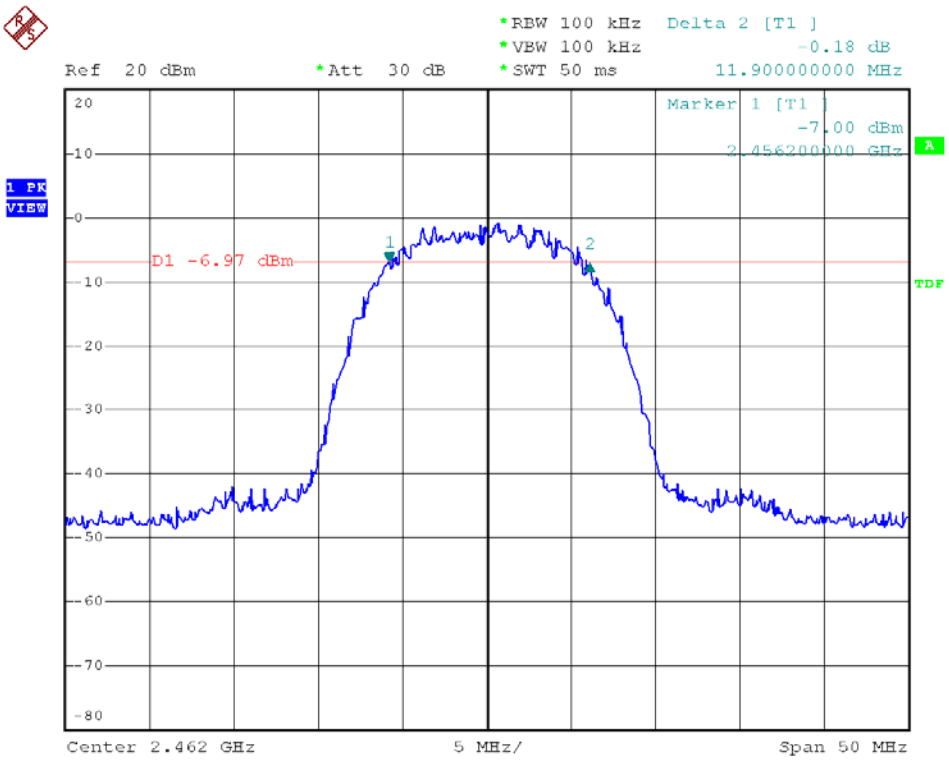
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 01



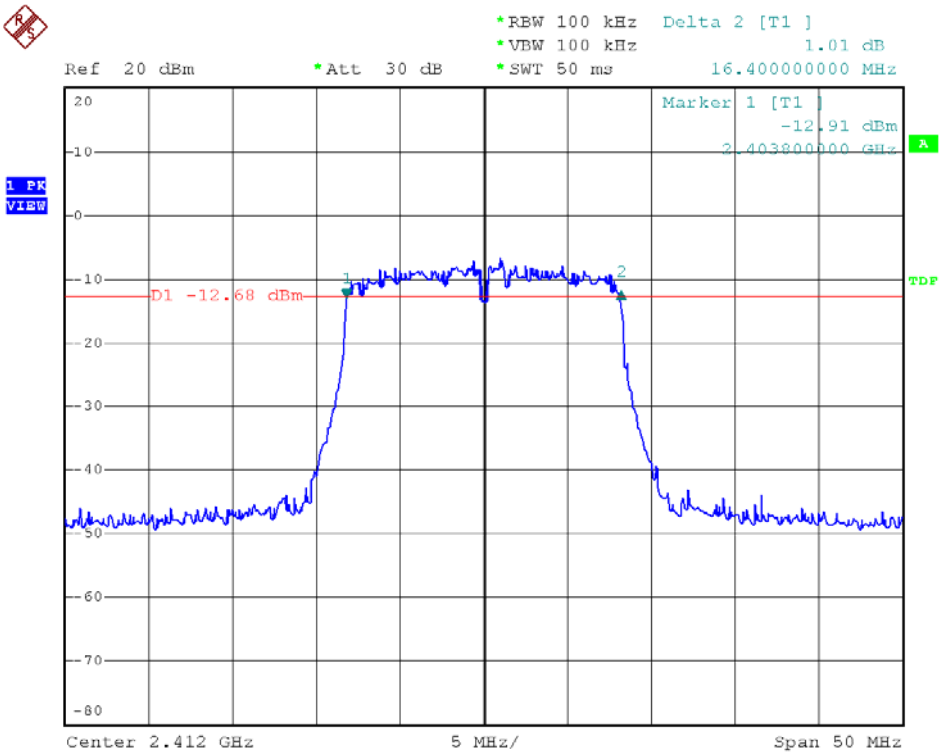
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 06



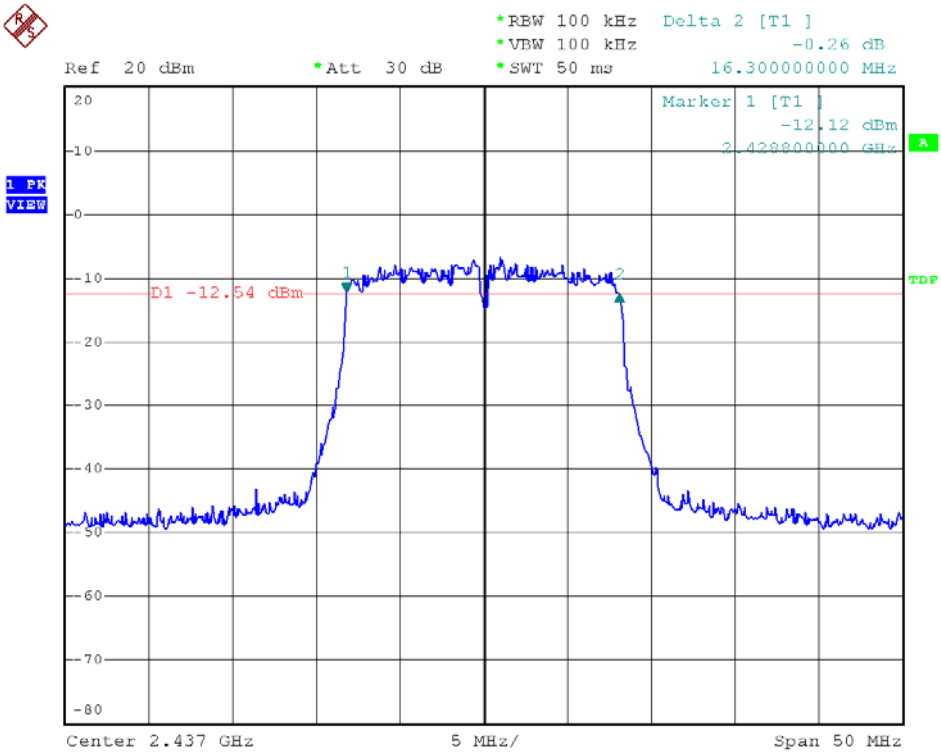
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 11



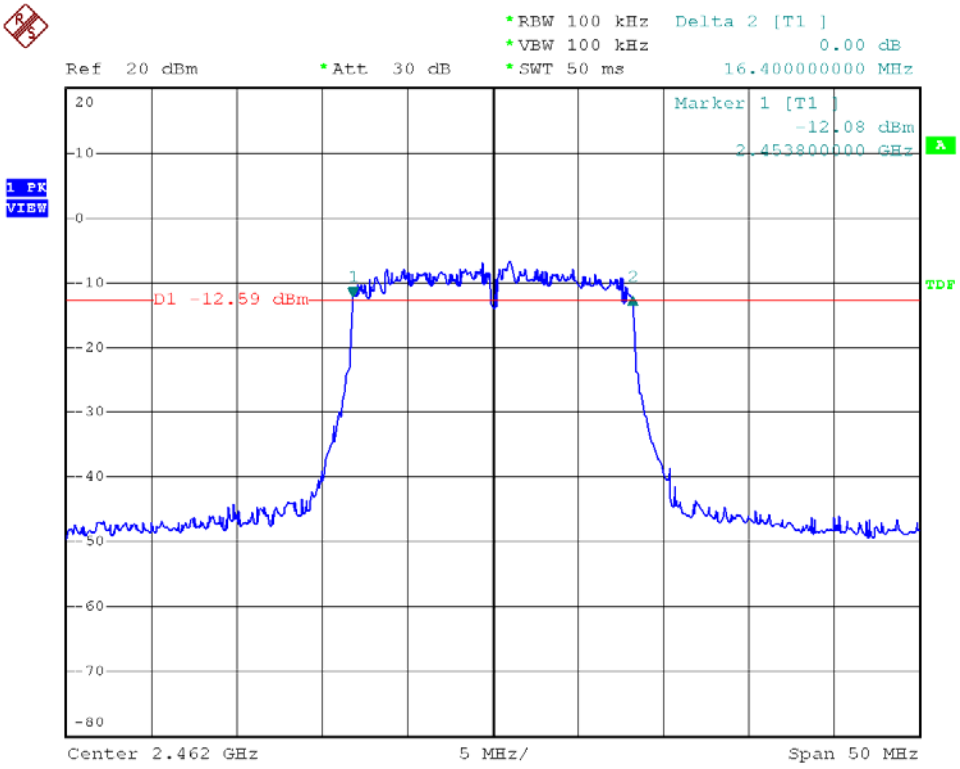
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 01



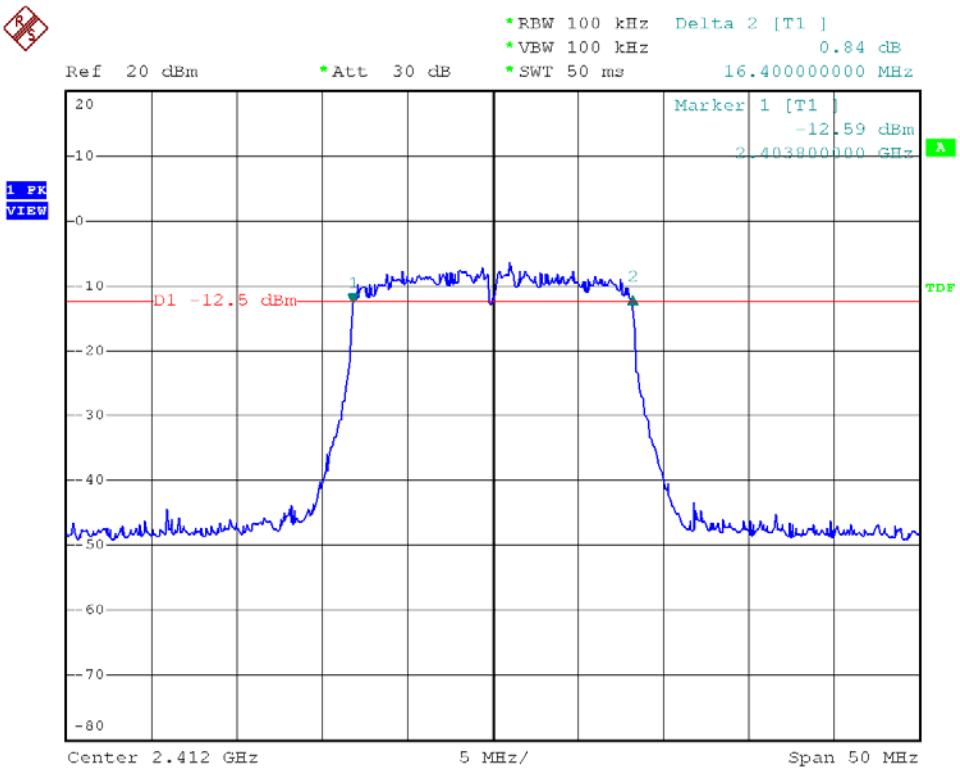
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 06



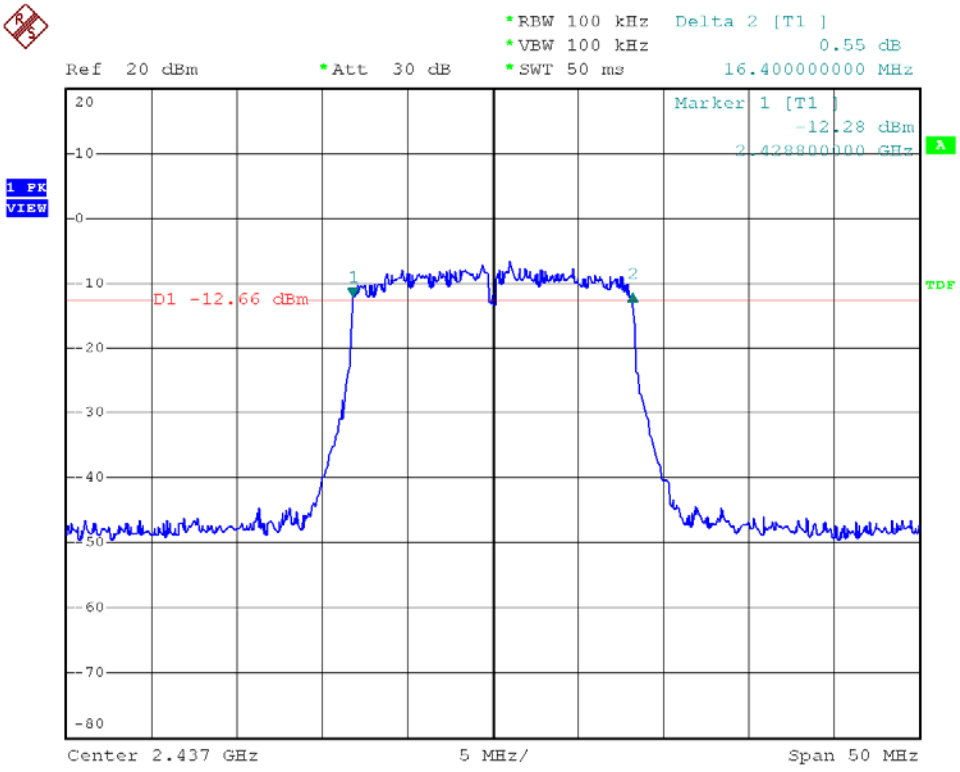
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 11



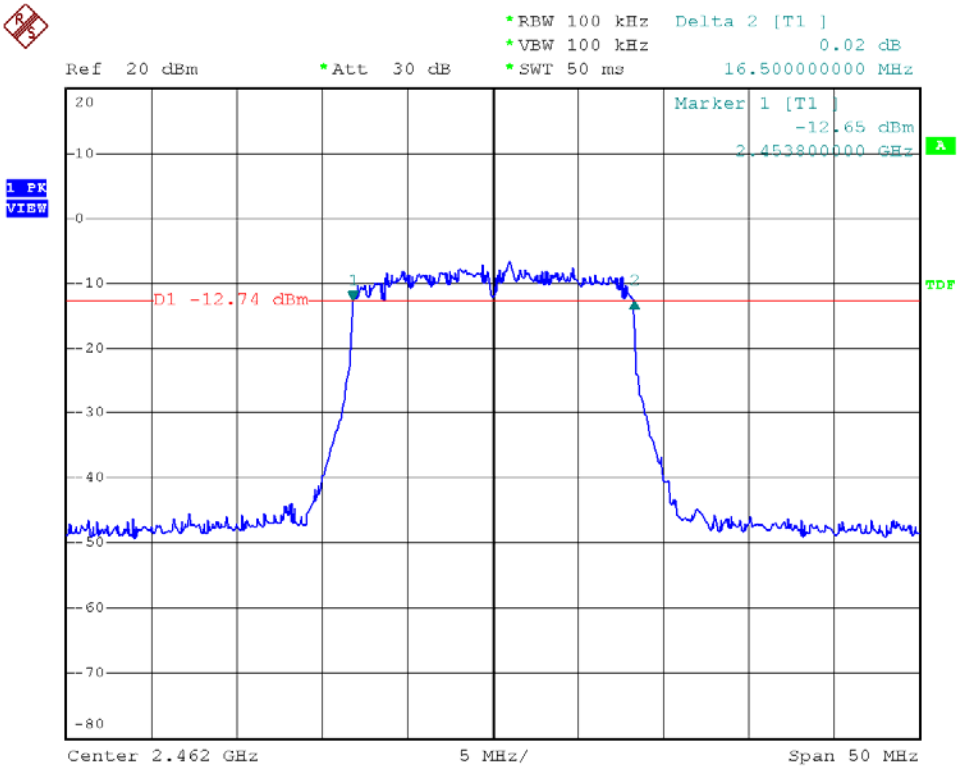
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 01



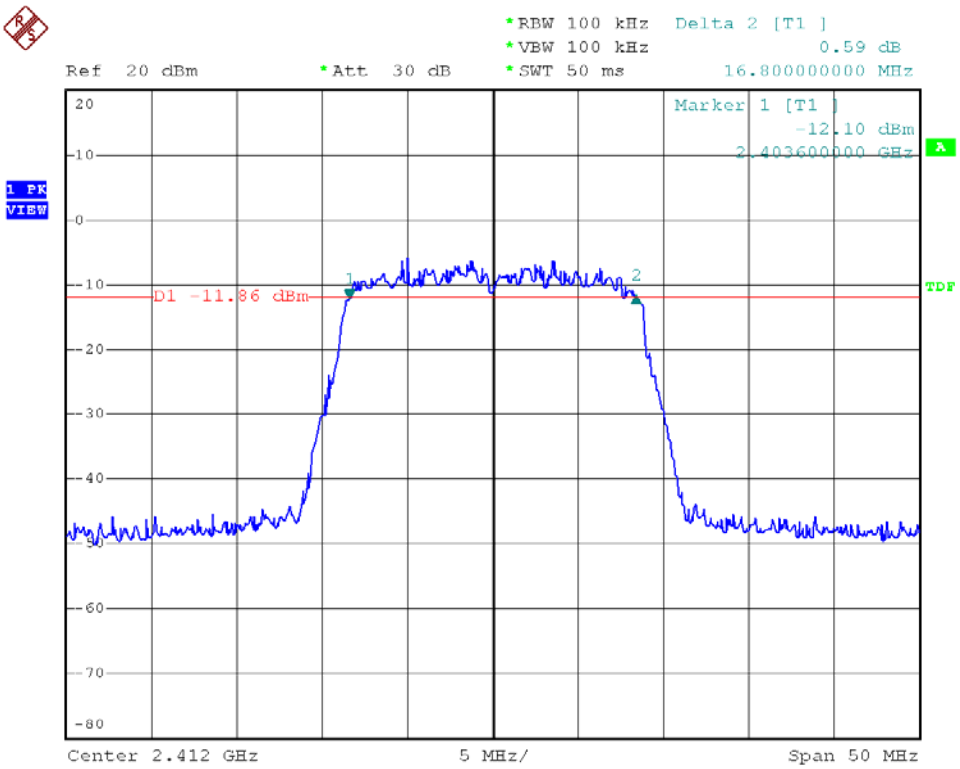
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 06



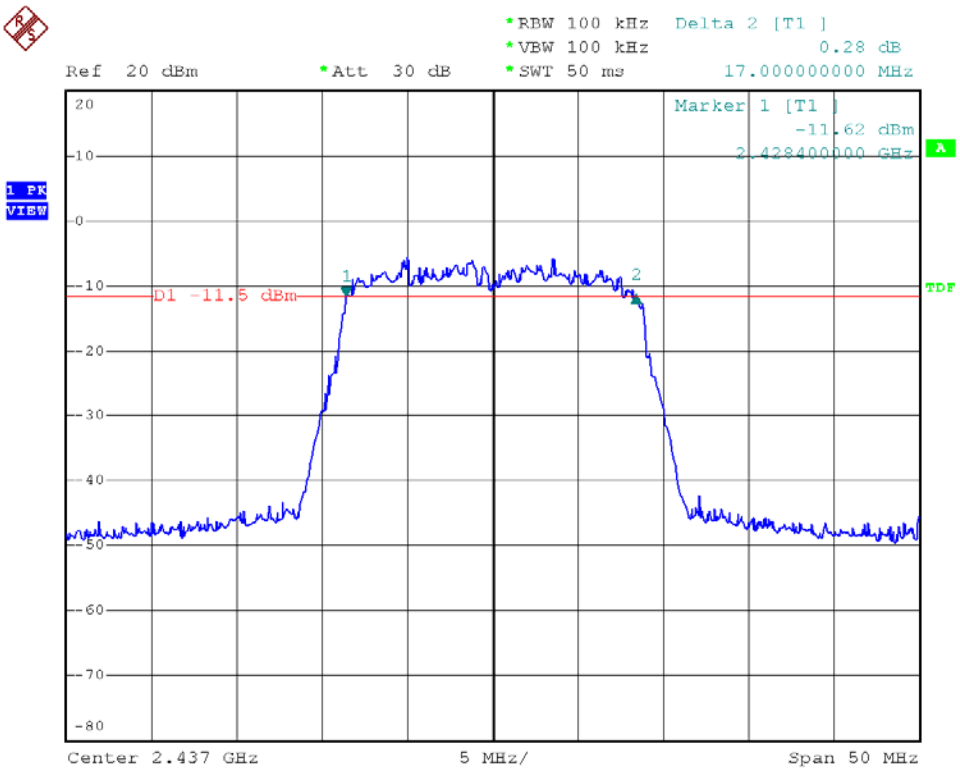
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 11



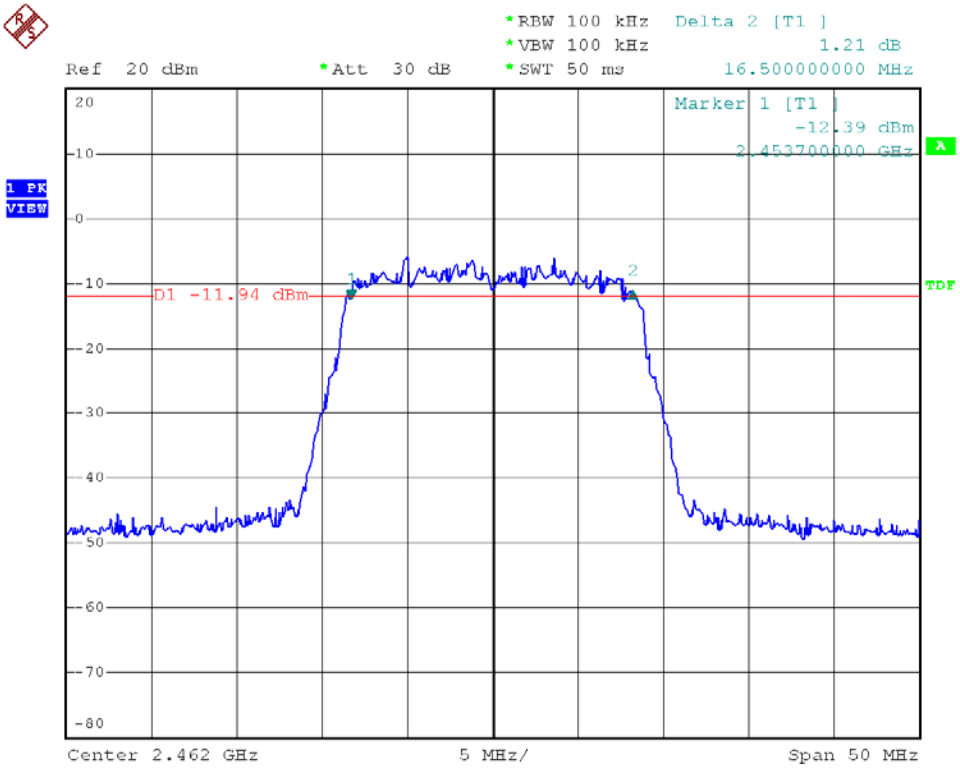
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 01



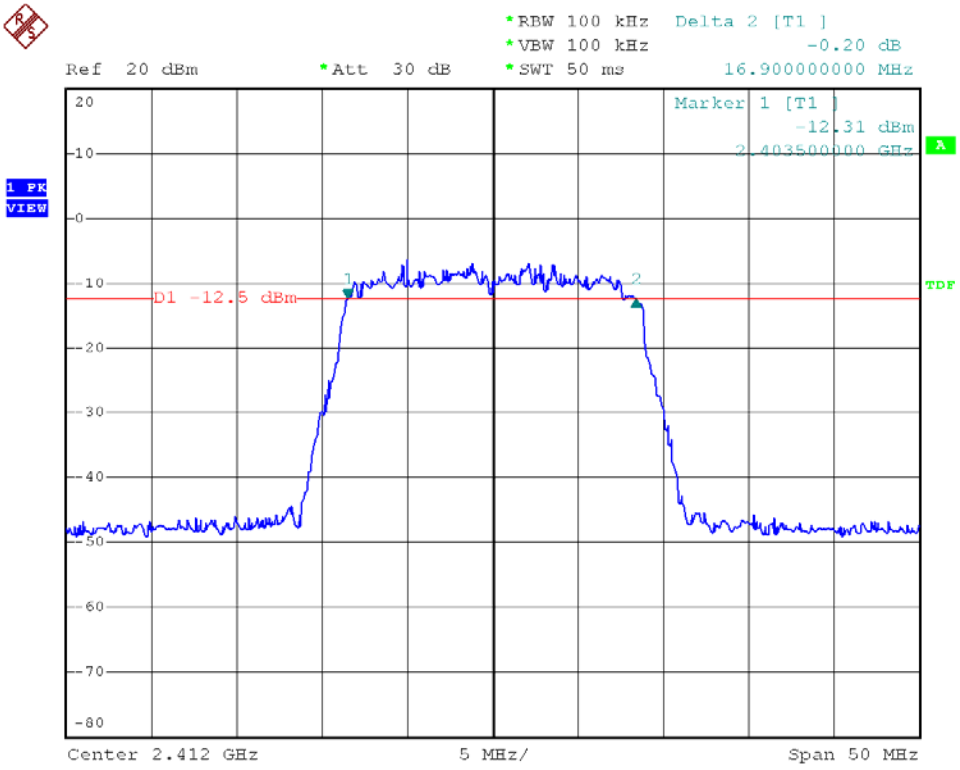
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 06



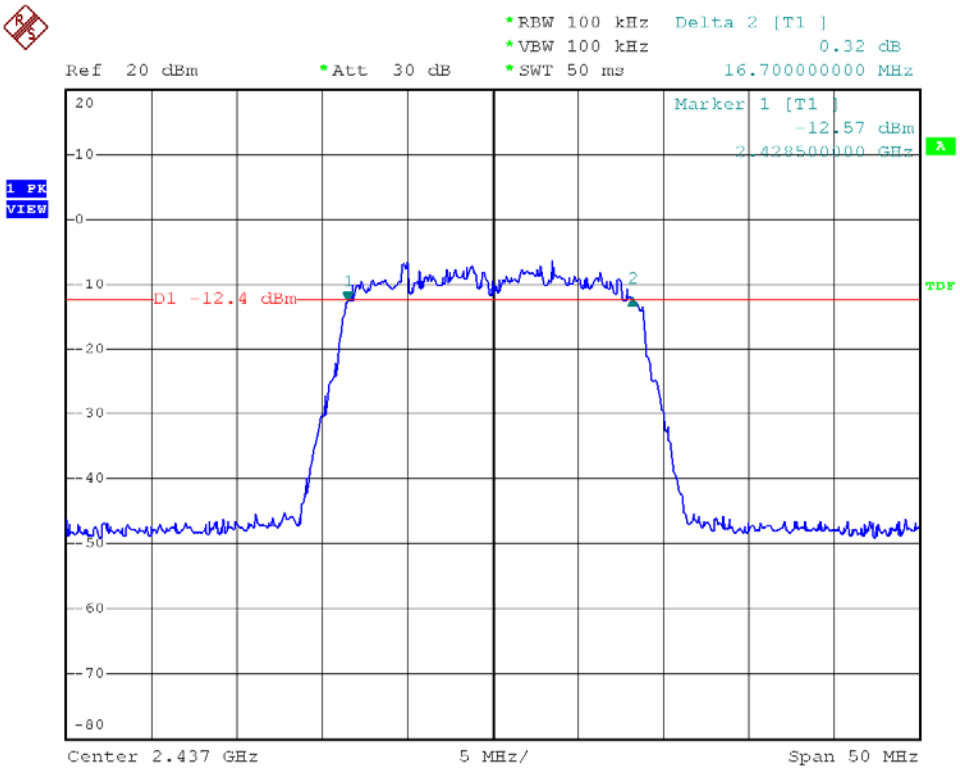
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 11



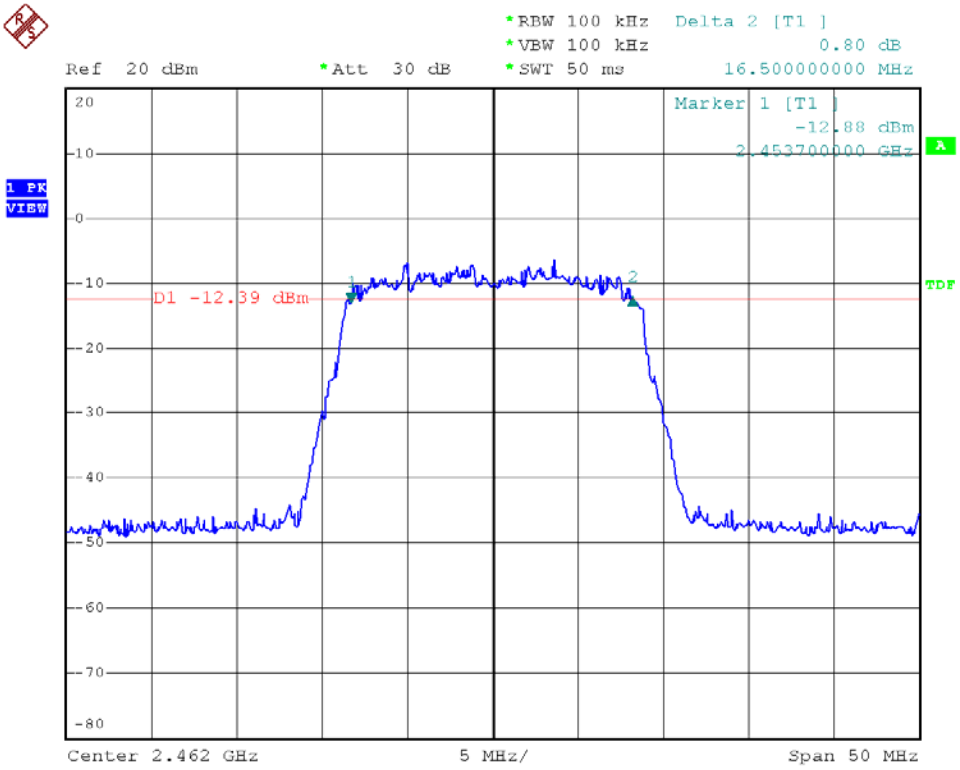
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 01



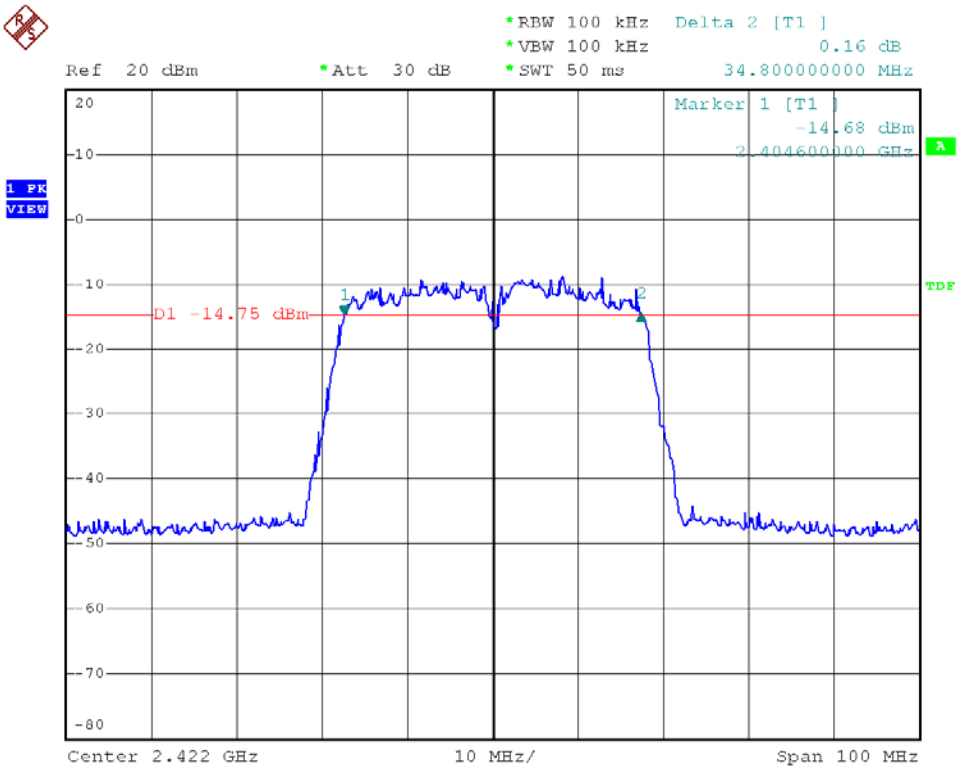
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 06



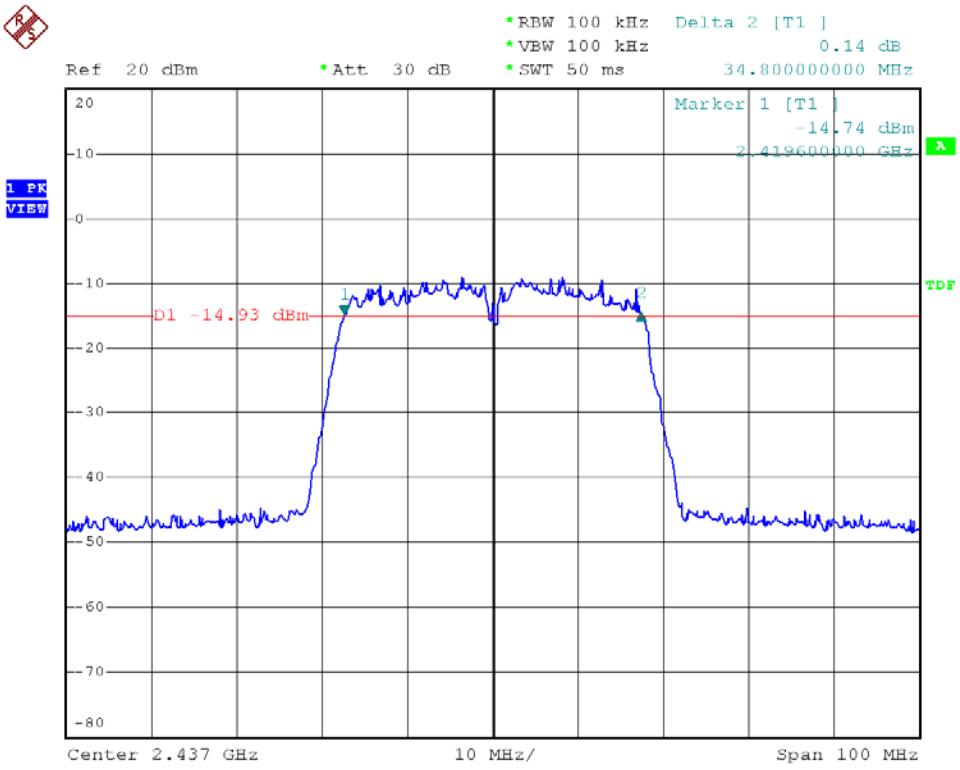
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 11



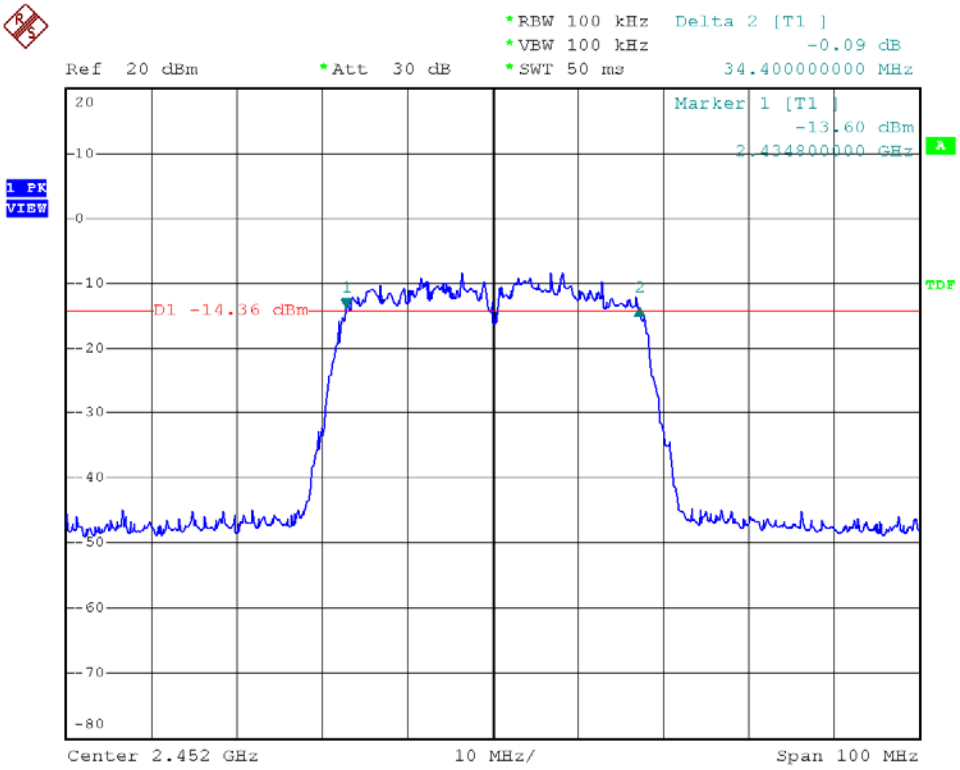
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 03



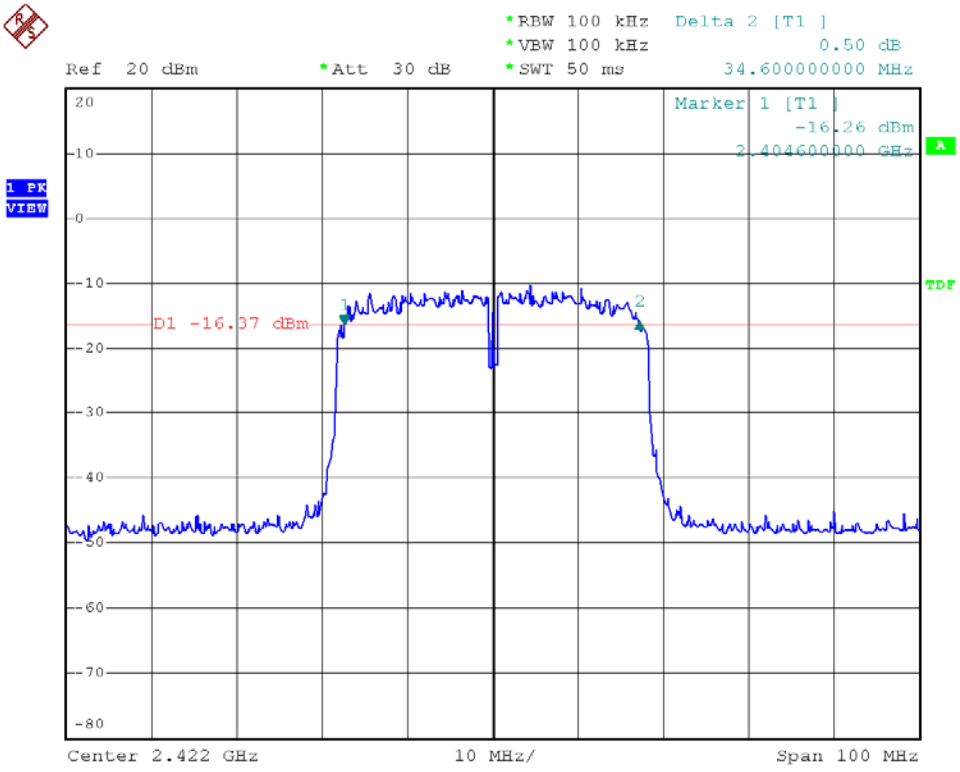
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 06



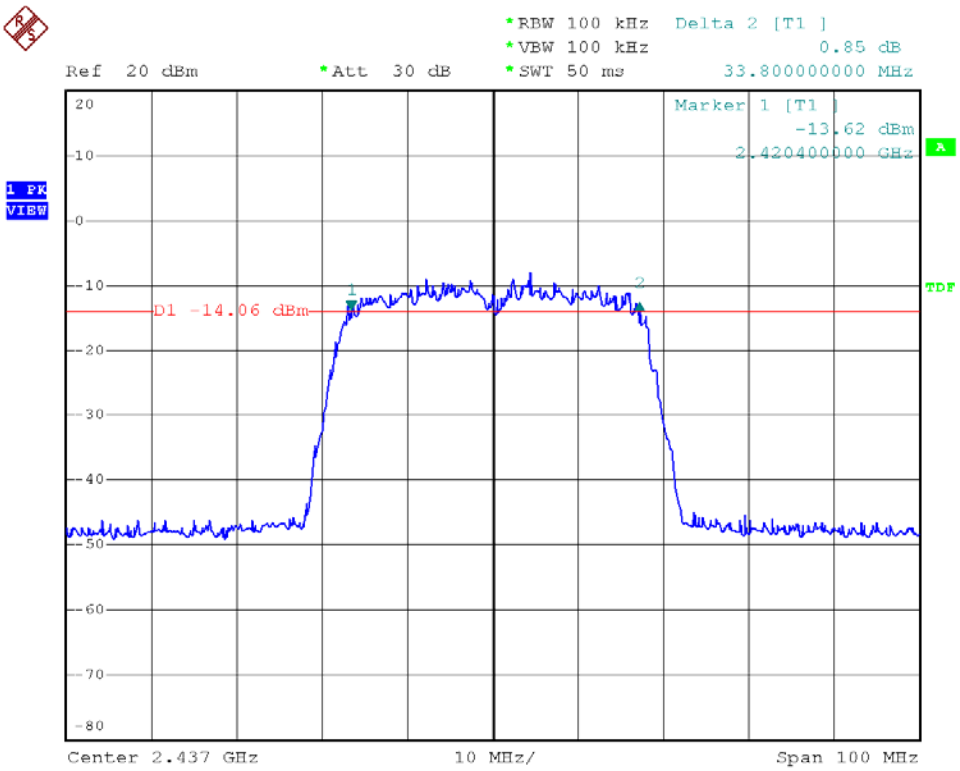
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 09



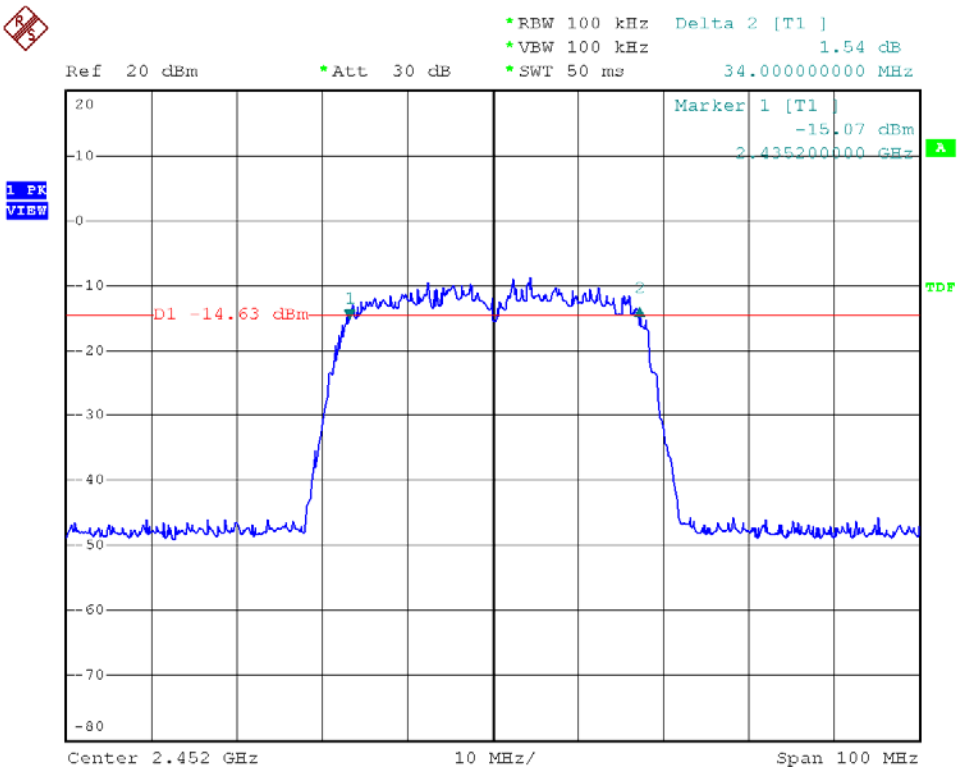
Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 03



Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 06



Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 09



7. Maximum Peak Output Power

7.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

7.2 Test Procedures

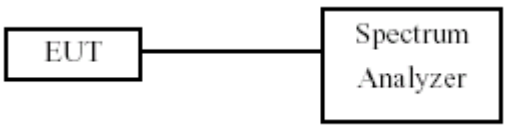
The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

In the following, “T” is the transmission pulse duration over which the transmitter is on and transmitting at its maximum power control level. Measurements are performed with a spectrum analyzer. Three methods are provided to accommodate measurement limitations of the spectrum analyzer depending on signal parameters. Set resolution bandwidth (RBW) = 1 MHz. Set span to encompass the entire emission bandwidth (EBW) of the signal. Use automatic setting for analyzer sweep time. Check the sweep time to determine which procedure to use.

As “T” ≧ sweep time, the test procedure will be used as following:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz.
3. Set VBW ≧ 3 MHz.
4. Use sample detector mode if bin width (i.e., span/number of points in spectrum display) < 0.5 RBW. Otherwise use peak detector mode.
5. Use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at full control power for entire sweep of every sweep. If the device transmits continuously, with no off intervals or reduced power intervals, the trigger may be set to “free run”.
6. Trace average 100 traces in power averaging mode.
7. Compute power by integrating the spectrum across the 26 dB EBW of the signal. The integration can be performed using the spectrum analyzer’s band power measurement function with band limits set equal to the EBW band edges or by summing power levels in each 1 MHz band in linear power terms. The 1 MHz band power levels to be summed can be obtained by averaging, in linear power terms, power levels in each frequency bin across the 1 MHz.

7.3 Test Setup Layout



7.4 Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	FSP40	R&S	10047	2009/03/26	2010/03/25

7.5 Test Result and Data

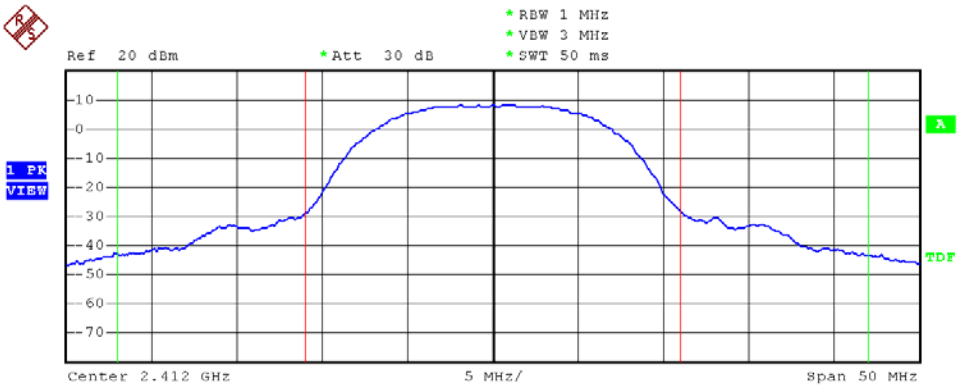
Test Date: Dec. 17, 2009 Temperature: 22℃

Atmospheric pressure: 1022 hPa Humidity: 68%

Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)		Peak Power Output (mW)	
			Ant1	Ant2	Ant1	Ant2
802.11b (11Mbps)	01	2412	17.39	16.93	54.8	49.3
	06	2437	17.39	17.06	54.8	50.8
	11	2462	17.20	17.27	52.5	53.3
802.11g (54Mbps)	01	2412	14.32	14.13	27.0	25.9
	06	2437	14.41	14.38	27.6	27.4
	11	2462	14.12	14.35	25.8	27.2

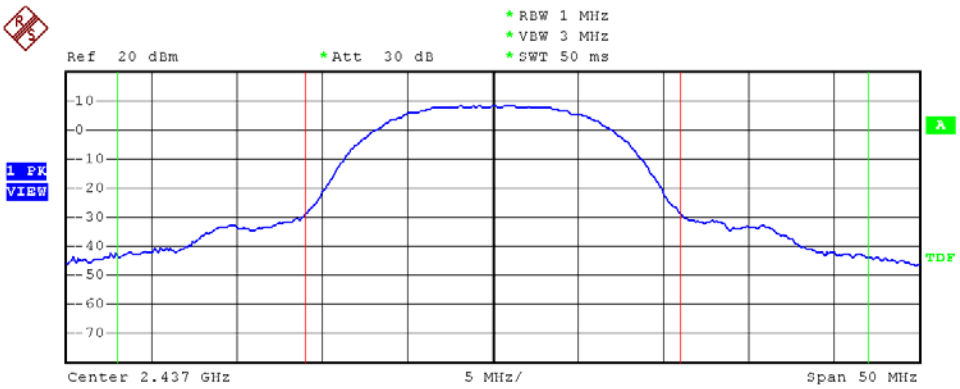
Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)			Peak Power Output (mW)
			Ant1	Ant2	Ant1+2	Ant1+2
802.11n HT20 (130Mbps)	01	2412	14.56	14.74	17.66	58.3
	06	2437	14.81	14.32	17.58	57.3
	11	2462	14.71	14.25	17.50	56.2
802.11n HT40 (270Mbps)	03	2422	14.61	14.69	17.66	58.3
	06	2437	14.60	14.68	17.65	58.2
	09	2452	14.68	14.63	17.67	58.5

Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 01



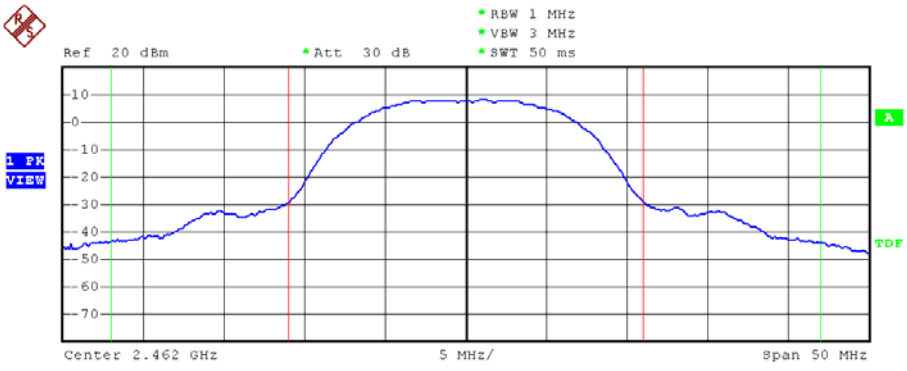
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	17.39 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-42.41 dB
Spacing	16.5 MHz	Upper	-41.93 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 06



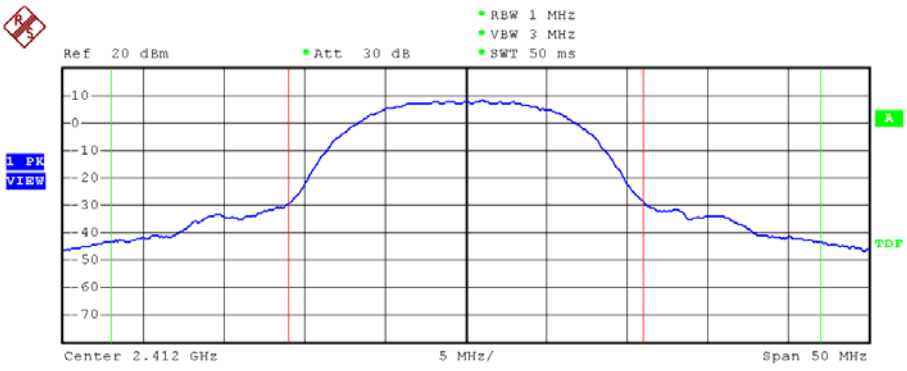
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	17.39 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-42.45 dB
Spacing	16.5 MHz	Upper	-42.09 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 11



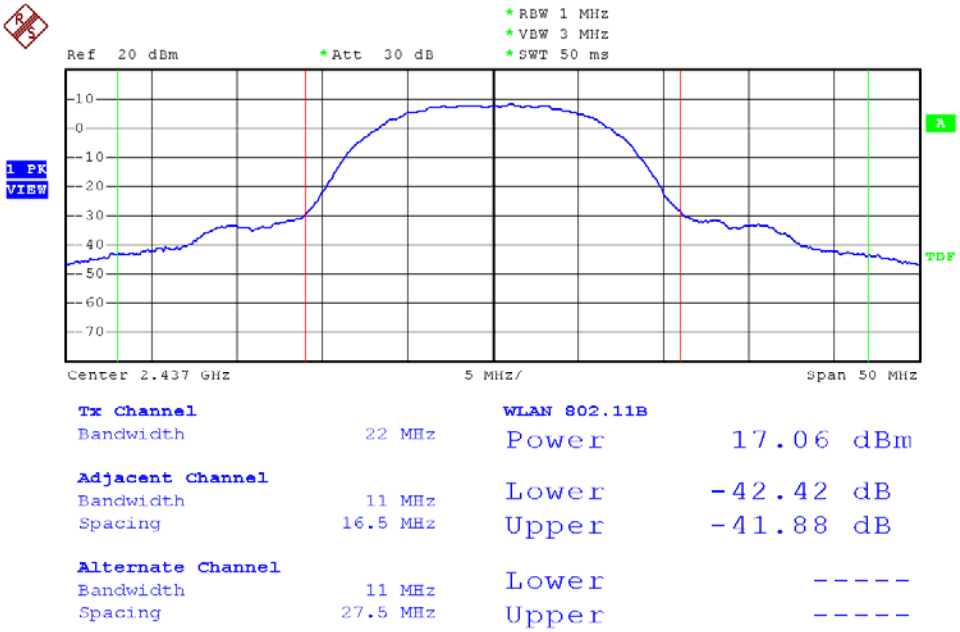
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	17.20 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-42.19 dB
Spacing	16.5 MHz	Upper	-41.80 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 01

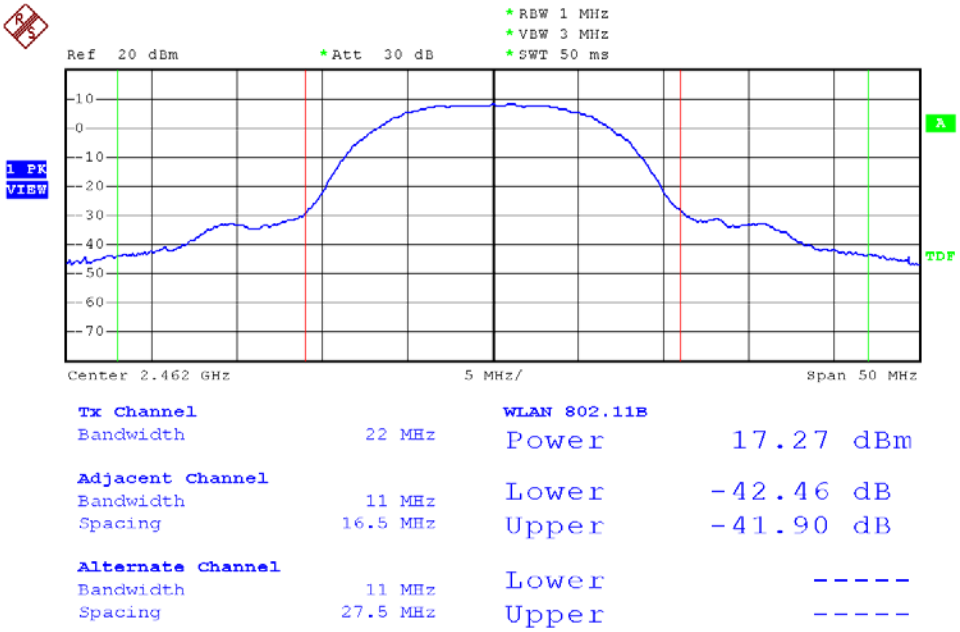


Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	16.93 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-42.35 dB
Spacing	16.5 MHz	Upper	-42.08 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

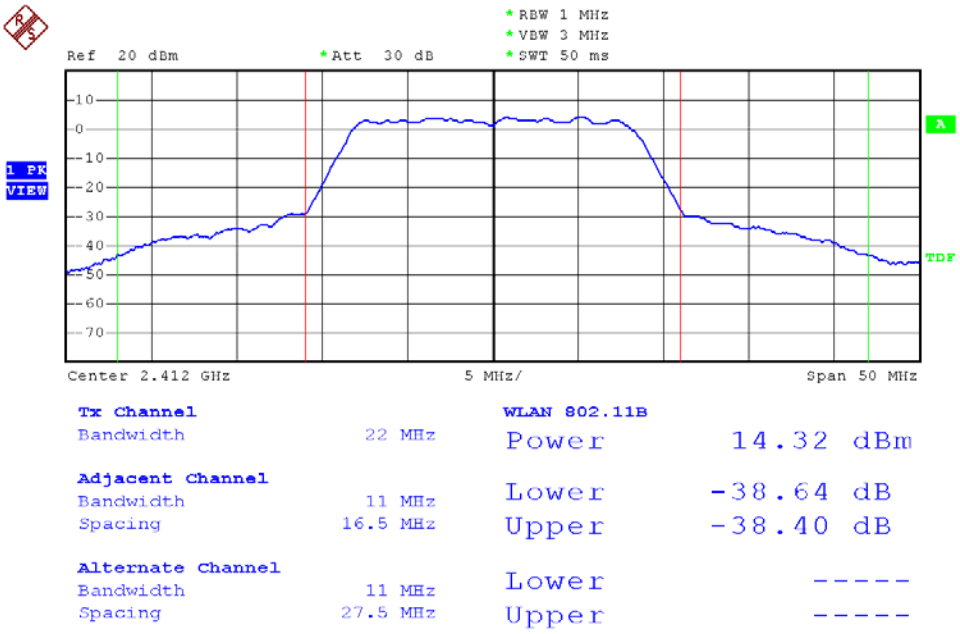
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 06



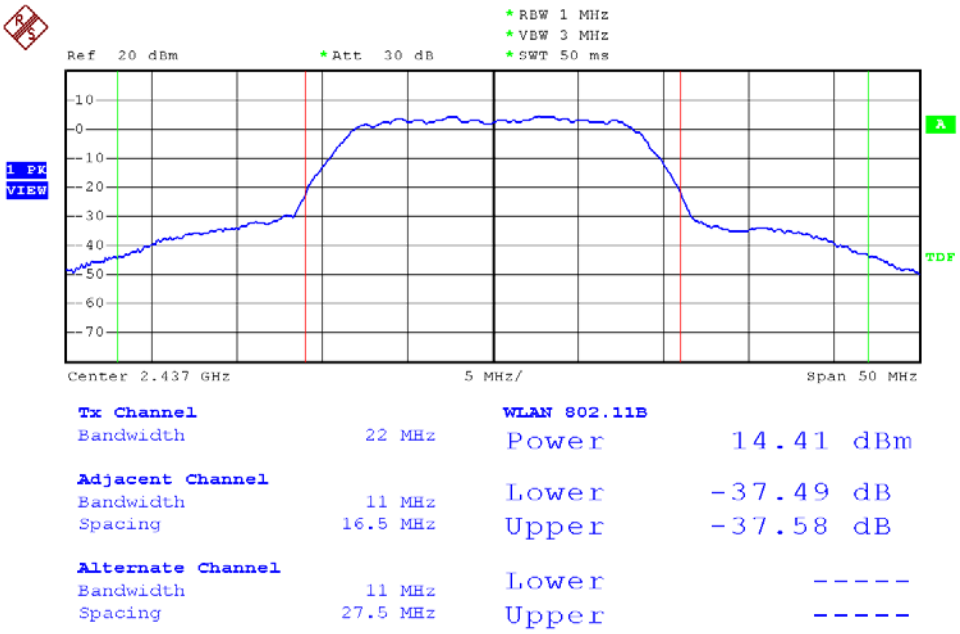
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 11



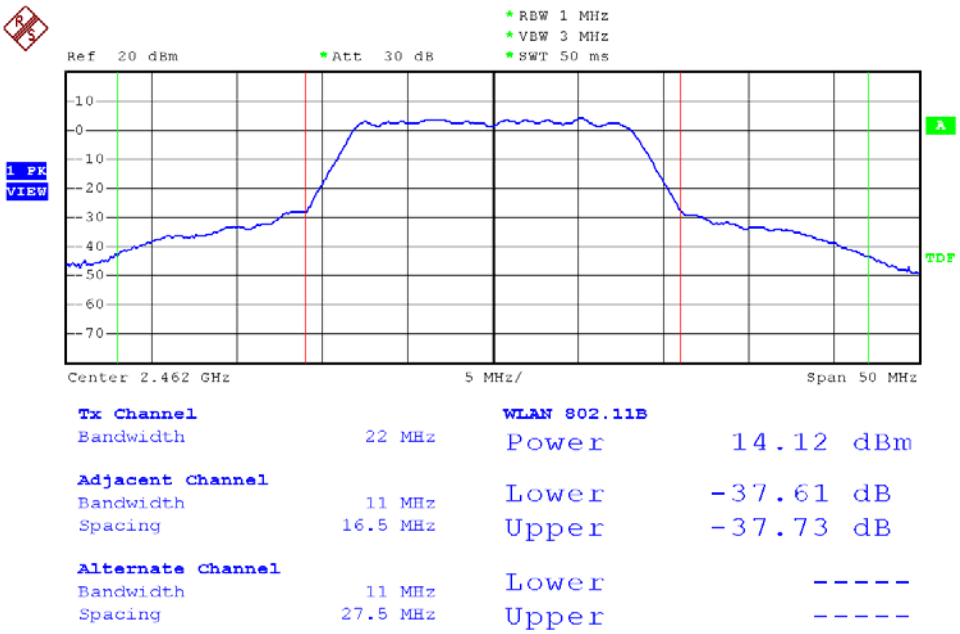
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 01



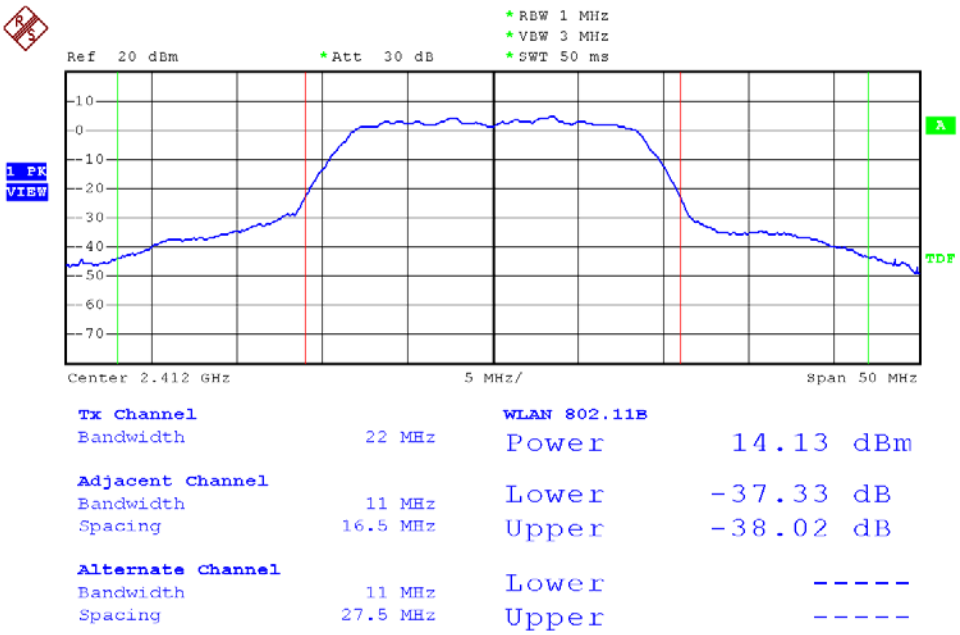
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 06



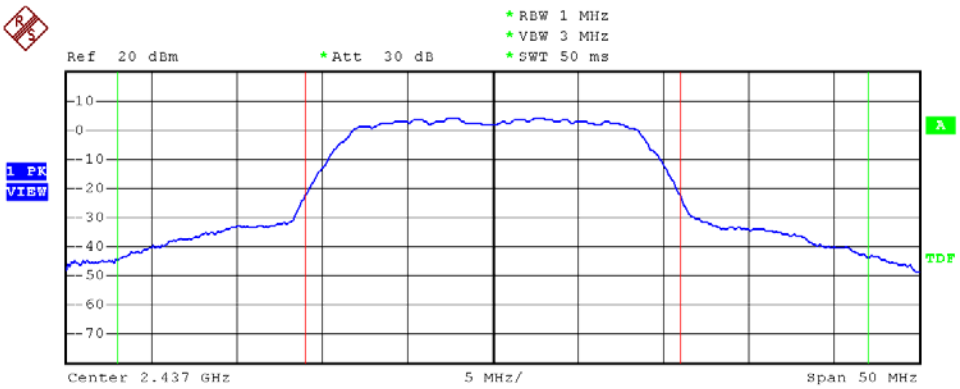
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 11



Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 01

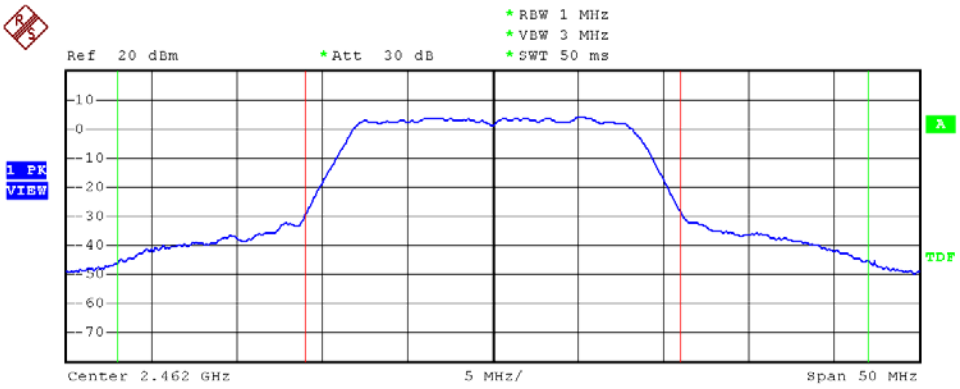


Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 06



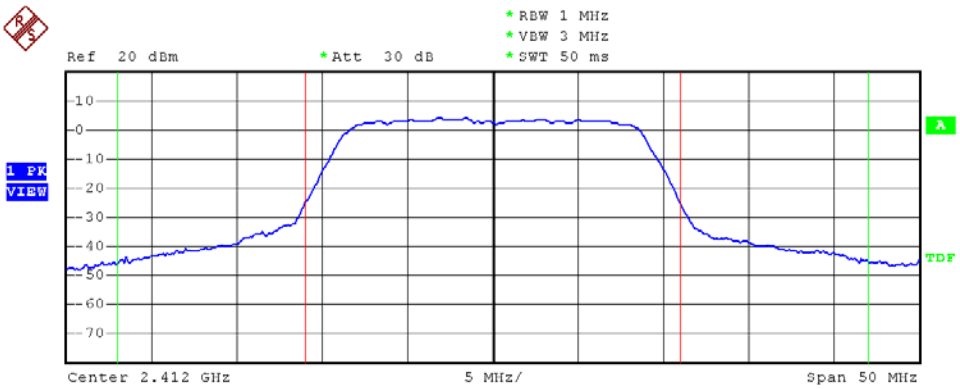
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.38 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-37.80 dB
Spacing	16.5 MHz	Upper	-37.66 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 11



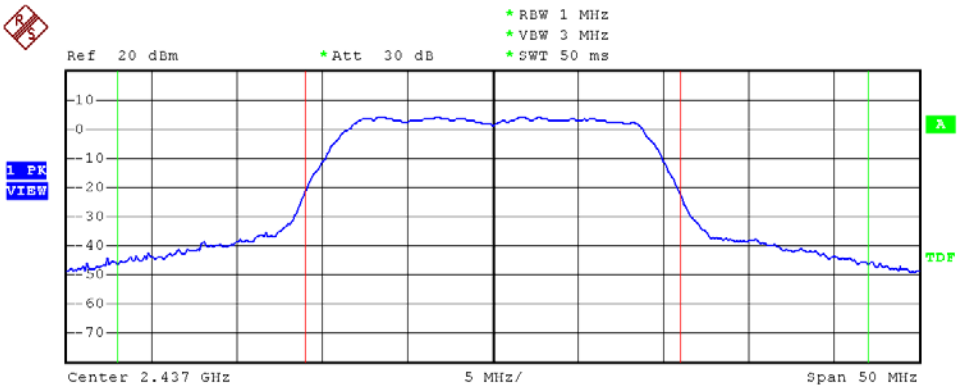
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.35 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-41.66 dB
Spacing	16.5 MHz	Upper	-40.70 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 01



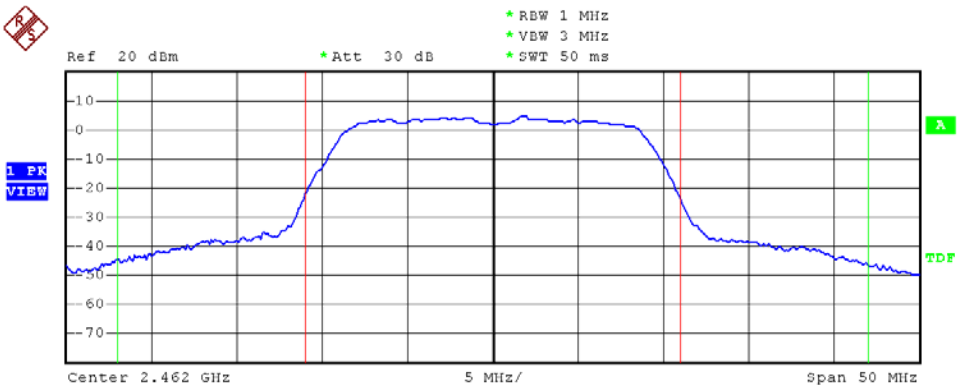
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.56 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-40.89 dB
Spacing	16.5 MHz	Upper	-41.11 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 06



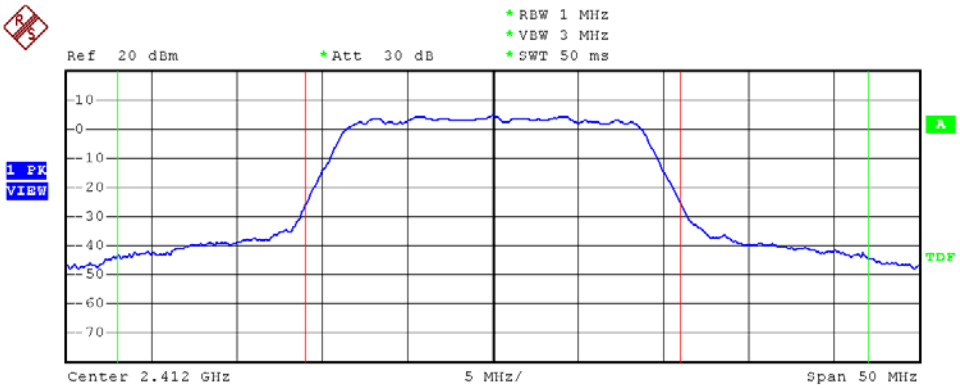
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.81 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-39.68 dB
Spacing	16.5 MHz	Upper	-39.78 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 11



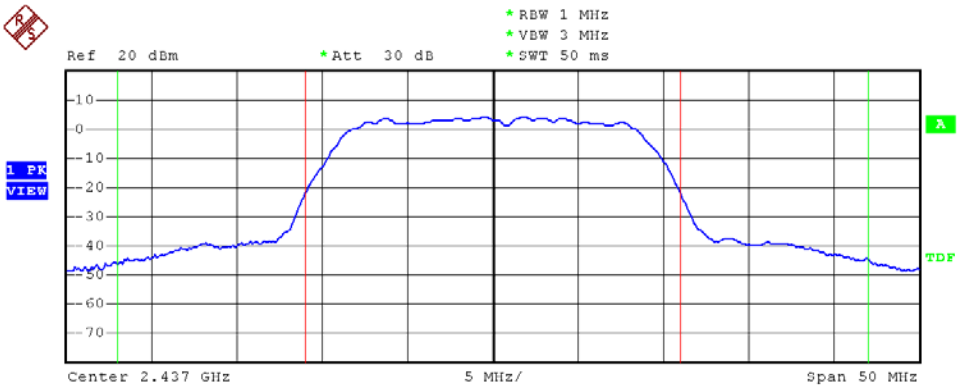
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.71 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-39.83 dB
Spacing	16.5 MHz	Upper	-40.55 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 01



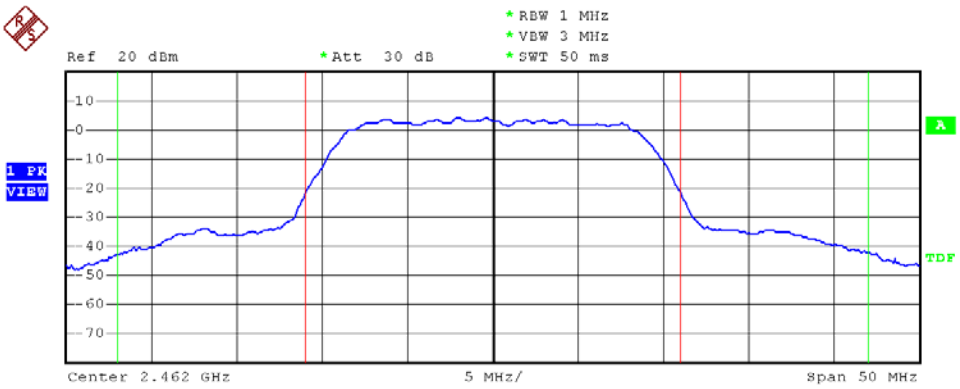
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.74 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-41.99 dB
Spacing	16.5 MHz	Upper	-41.31 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 06



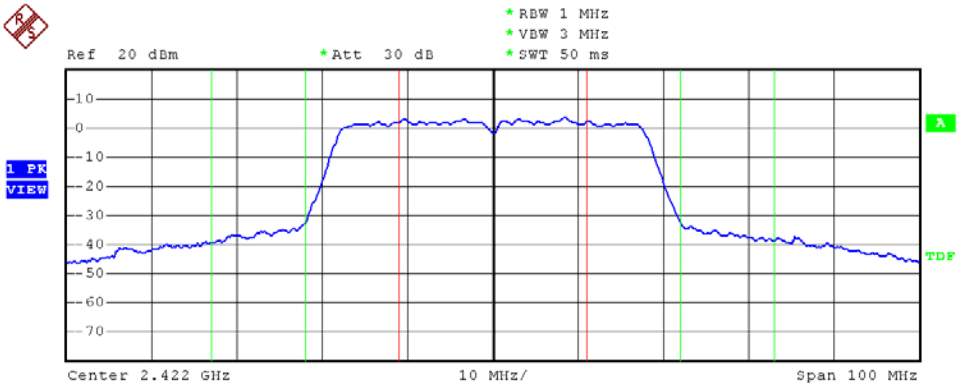
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.32 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-39.76 dB
Spacing	16.5 MHz	Upper	-38.98 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 11



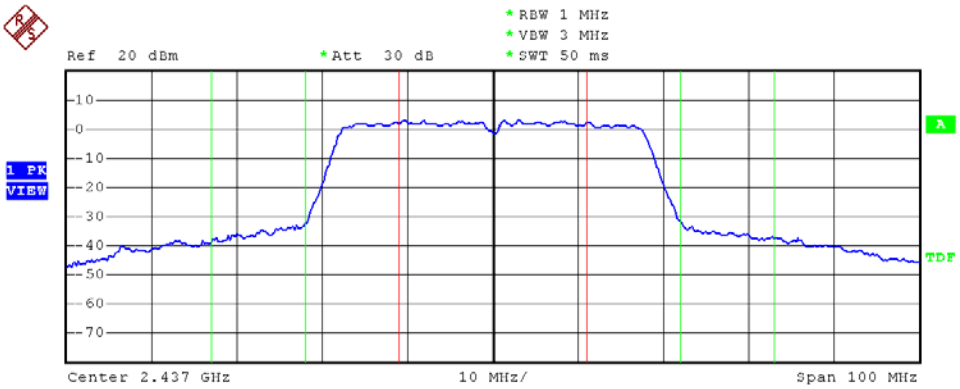
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.25 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-37.85 dB
Spacing	16.5 MHz	Upper	-37.36 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 03



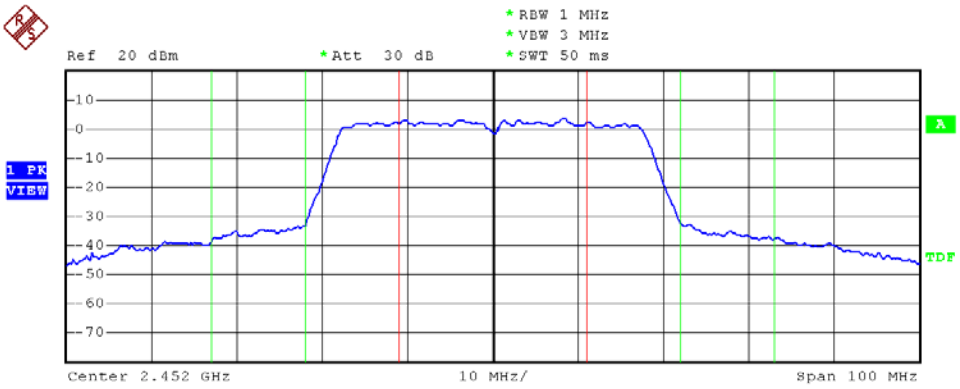
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.61 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-5.58 dB
Spacing	16.5 MHz	Upper	-5.63 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-40.92 dB
Spacing	27.5 MHz	Upper	-40.76 dB

Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 06



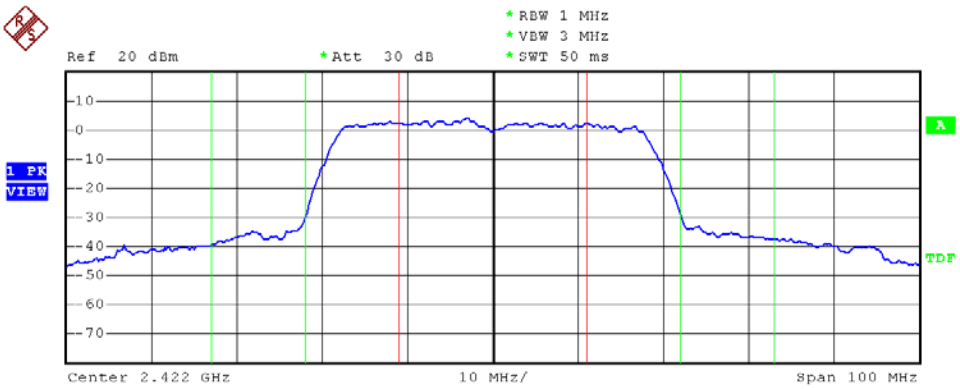
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.60 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-5.32 dB
Spacing	16.5 MHz	Upper	-5.68 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-40.29 dB
Spacing	27.5 MHz	Upper	-40.30 dB

Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 09



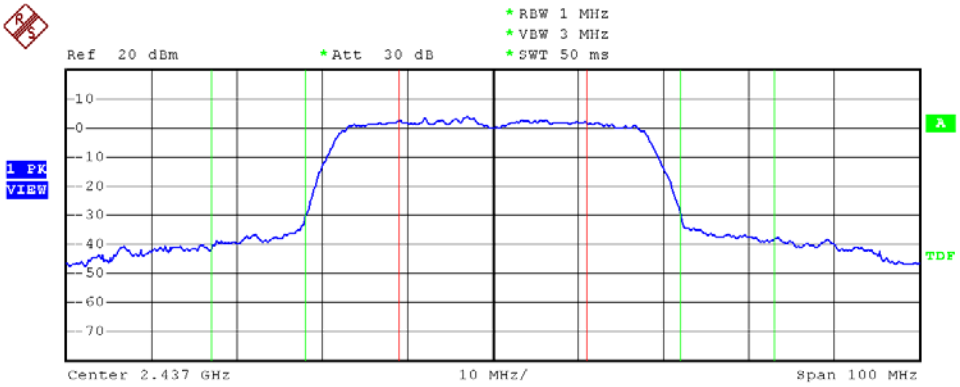
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.68 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-5.28 dB
Spacing	16.5 MHz	Upper	-5.71 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-40.22 dB
Spacing	27.5 MHz	Upper	-40.41 dB

Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 03



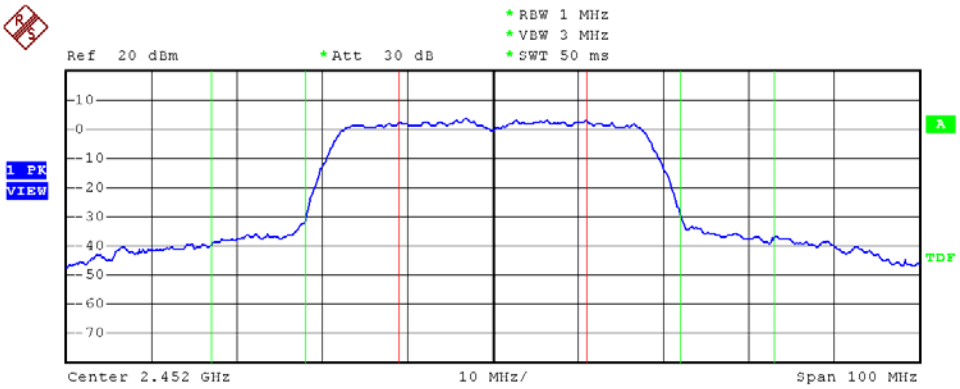
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.69 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-4.90 dB
Spacing	16.5 MHz	Upper	-5.85 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-40.67 dB
Spacing	27.5 MHz	Upper	-39.74 dB

Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 06



Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.68 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-5.67 dB
Spacing	16.5 MHz	Upper	-5.94 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-42.19 dB
Spacing	27.5 MHz	Upper	-40.77 dB

Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 09



Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	14.63 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-5.65 dB
Spacing	16.5 MHz	Upper	-5.39 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-41.25 dB
Spacing	27.5 MHz	Upper	-40.07 dB

8. Power Spectral Density

8.1 Test Limit

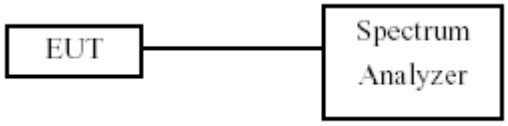
The Maximum of Power Spectral Density Measurement is 8dBm.

8.2 Test Procedures

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

a. The transmitter output was connected to spectrum analyzer.
b. The spectrum analyzer's resolution bandwidth were set at 3KHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=span/3KHz.
c. The power spectral density was measured and recorded.
d. The Sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

8.3 Test Setup Layout



8.4 Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	FSP40	R&S	10047	2009/03/26	2010/03/25

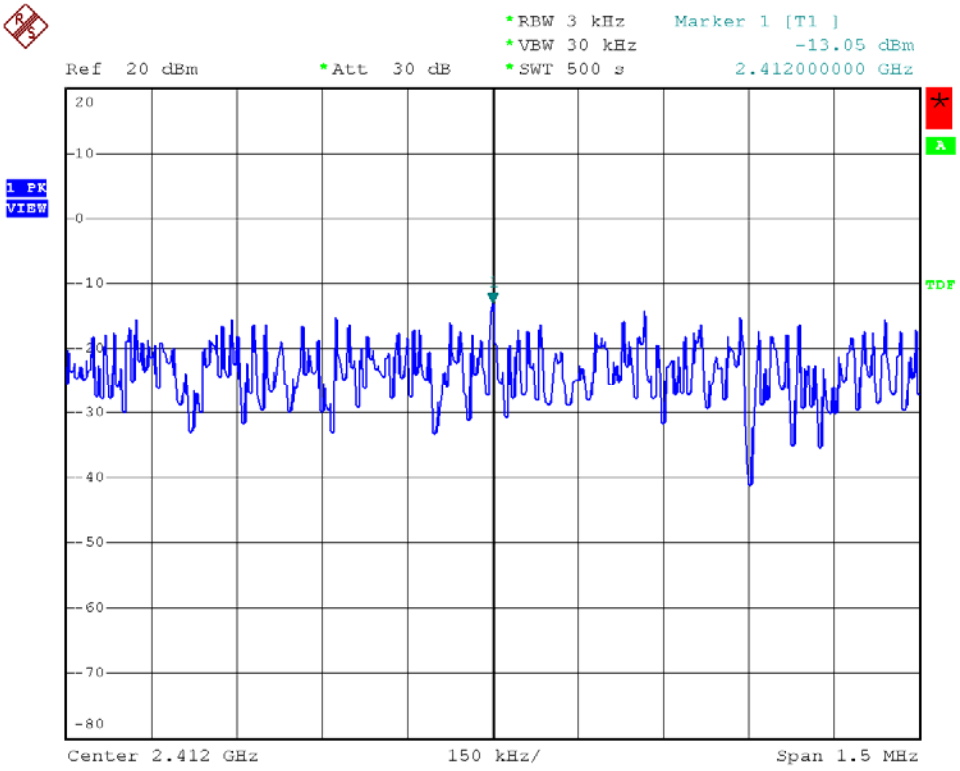
8.5 Test Result and Data

Test Date: Nov. 09, 2009 Temperature: 25℃

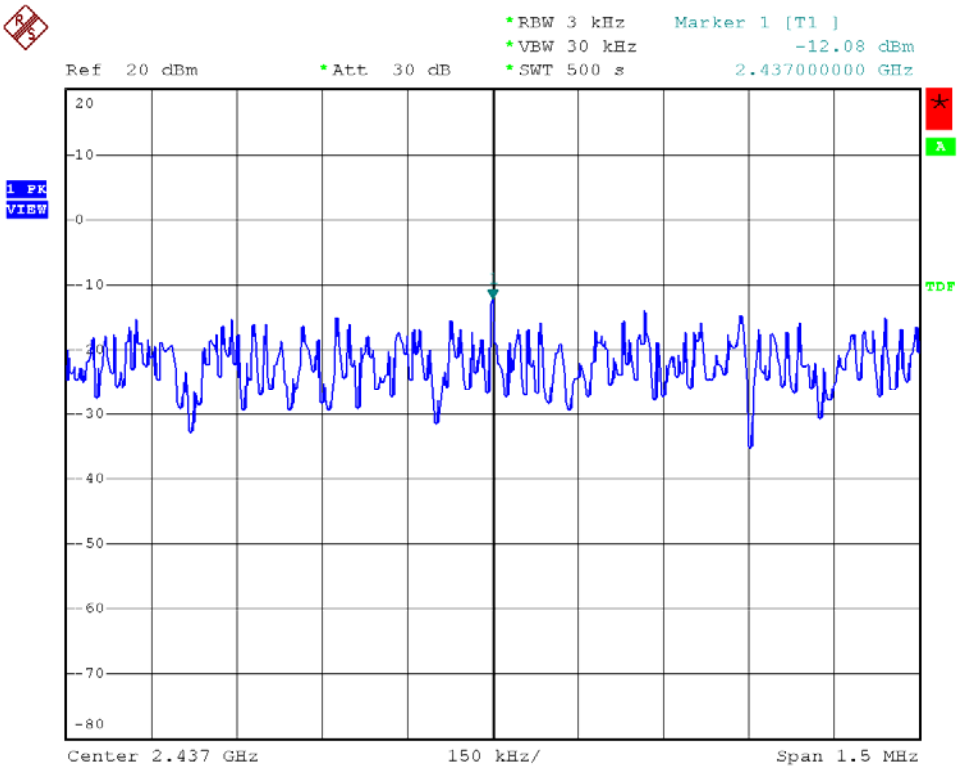
Atmospheric pressure: 1022 hPa Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	Maximum Power Density of 3 kHz Bandwidth (dBm)		
			Ant1	Ant2	
802.11b (11Mbps)	01	2412	-13.05	-12.83	
	06	2437	-12.08	-12.92	
	11	2462	-12.06	-12.92	
802.11g (54Mbps)	01	2412	-17.60	-15.87	
	06	2437	-17.59	-16.08	
	11	2462	-15.13	-16.14	
			Ant1	Ant2	Ant1+2
802.11n HT20 (130Mbps)	01	2412	-17.01	-15.87	-13.39
	06	2437	-17.00	-15.89	-13.40
	11	2462	-17.29	-15.97	-13.57
802.11n HT40 (270Mbps)	03	2422	-17.95	-16.64	-14.24
	06	2437	-18.26	-16.34	-14.18
	09	2452	-18.52	-16.71	-14.51

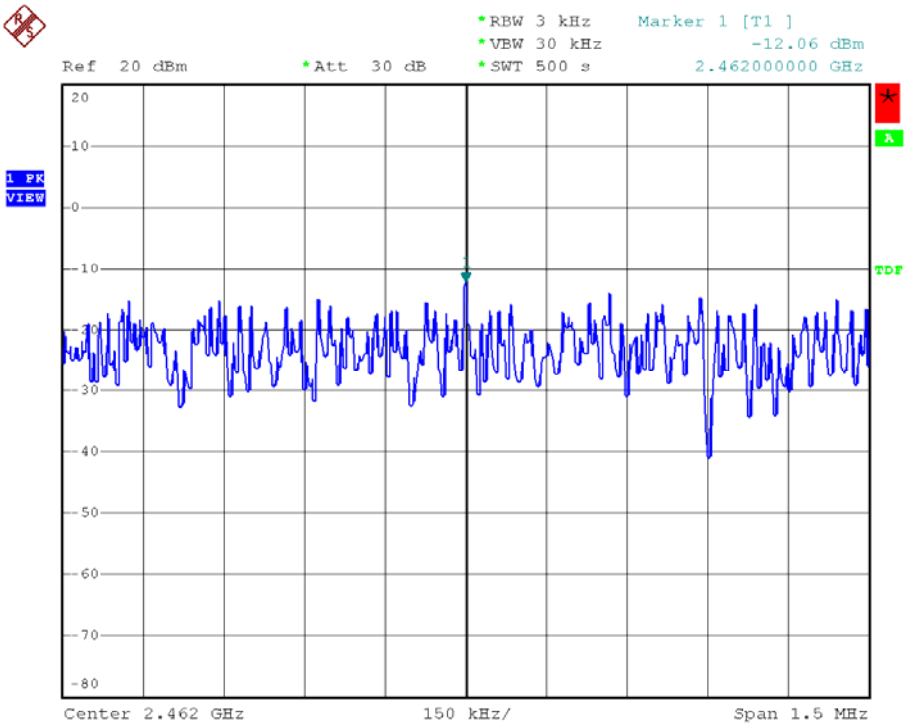
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 01



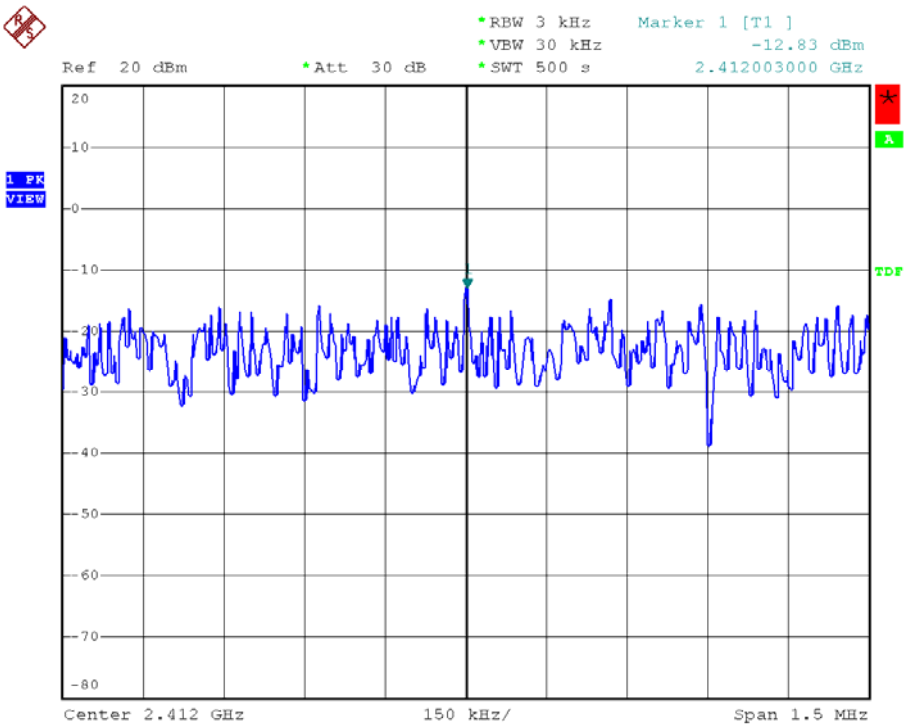
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 06



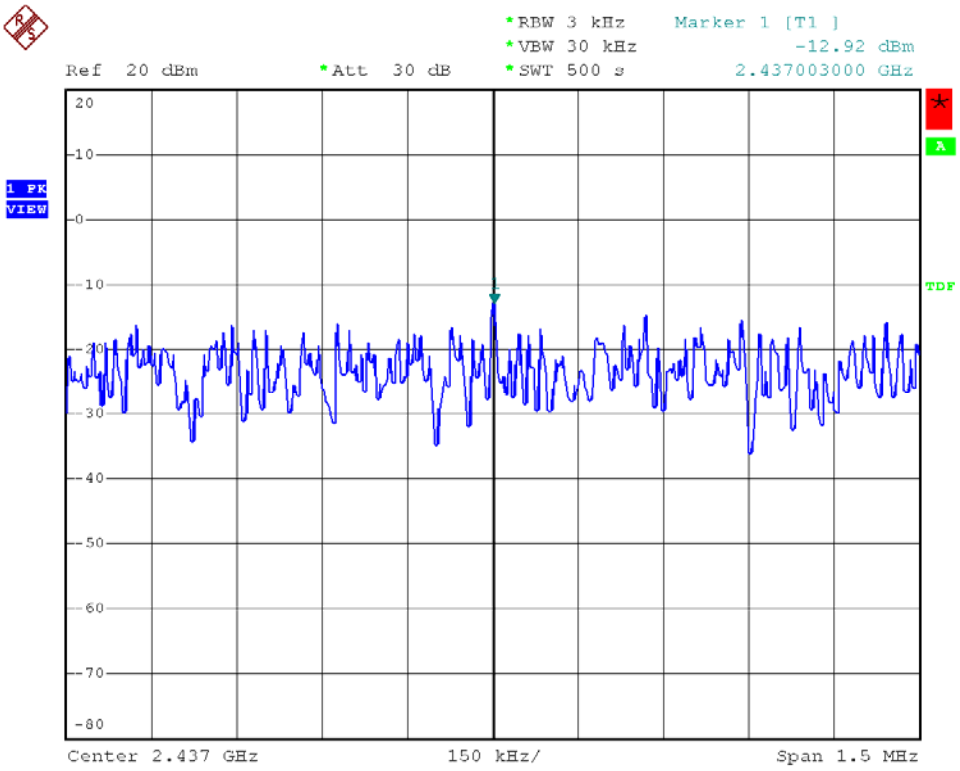
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 11



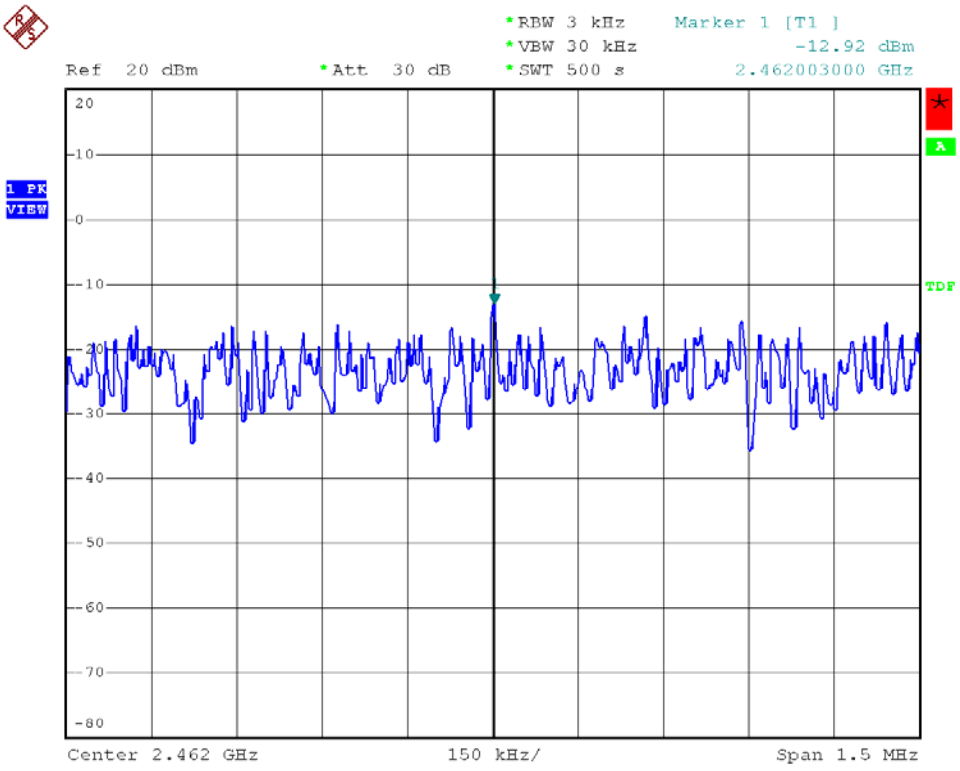
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 01



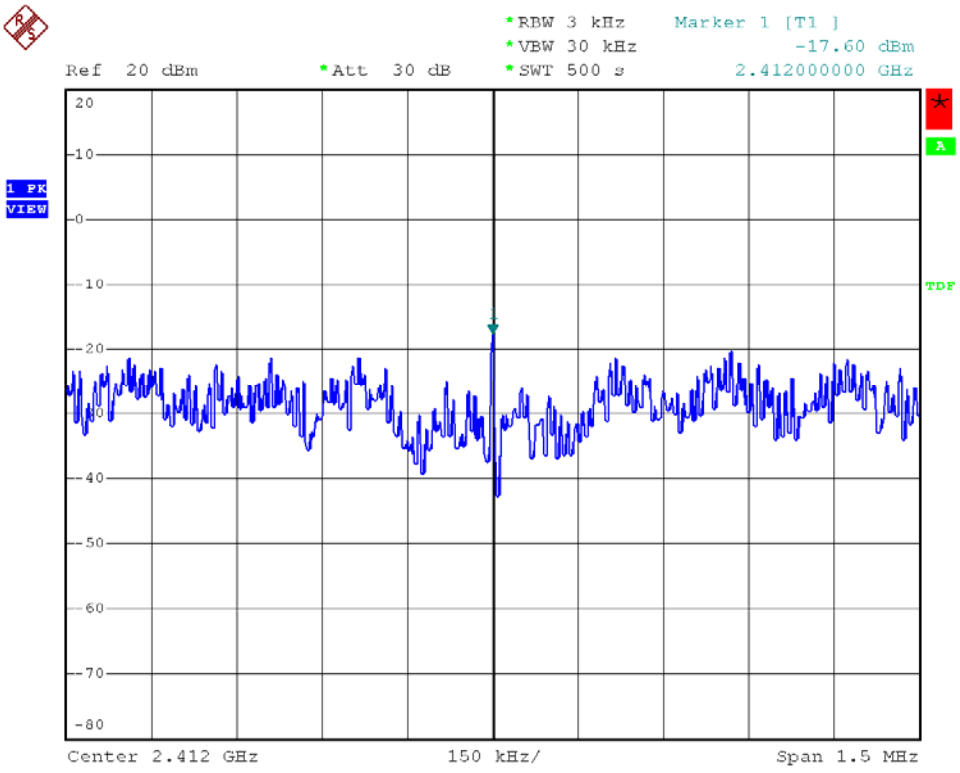
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 06



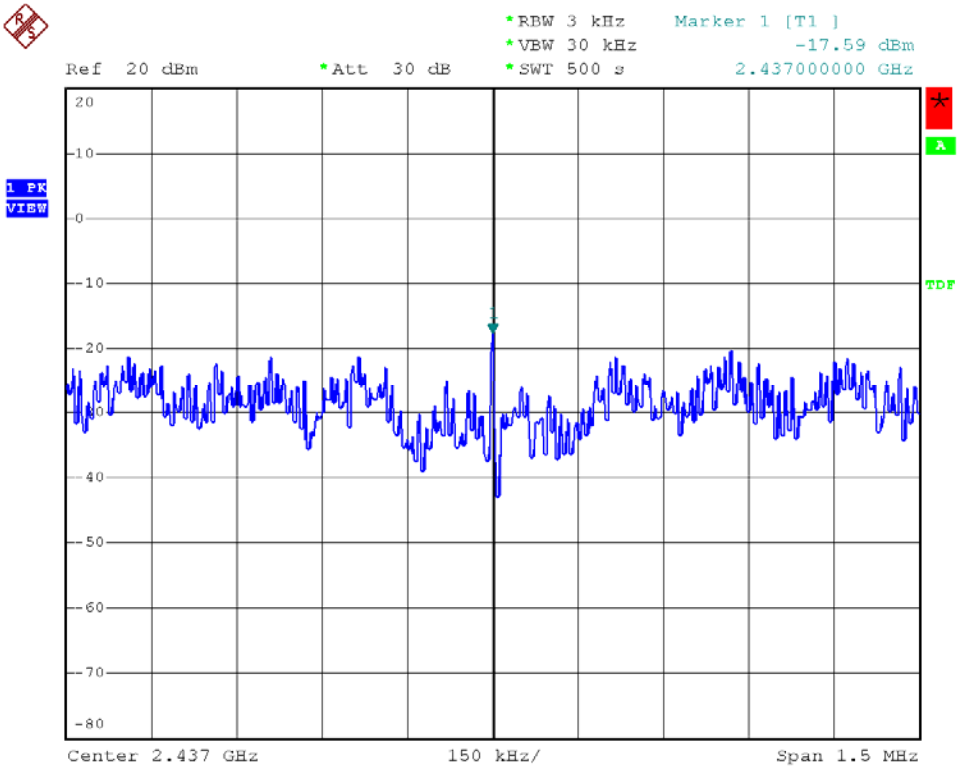
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 11



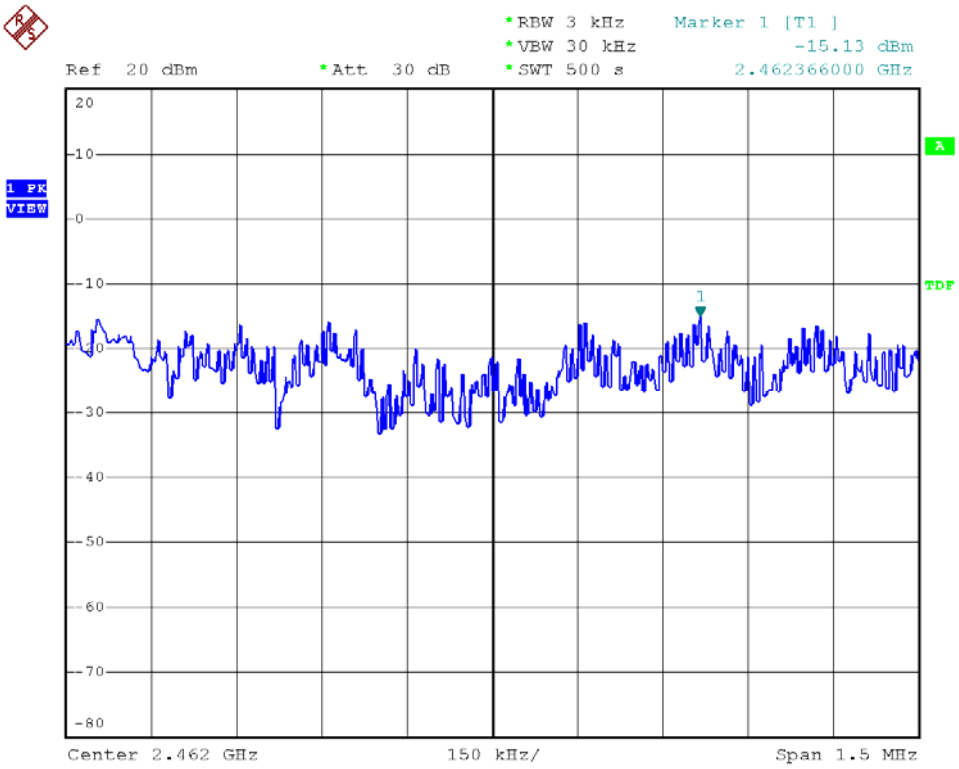
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 01



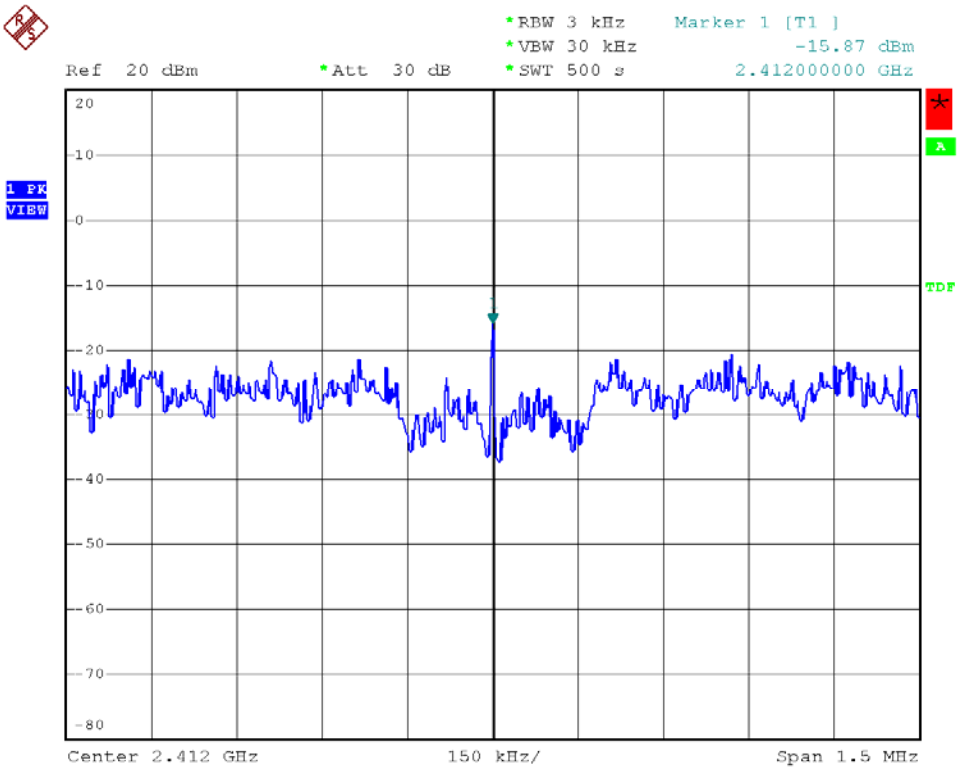
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 06



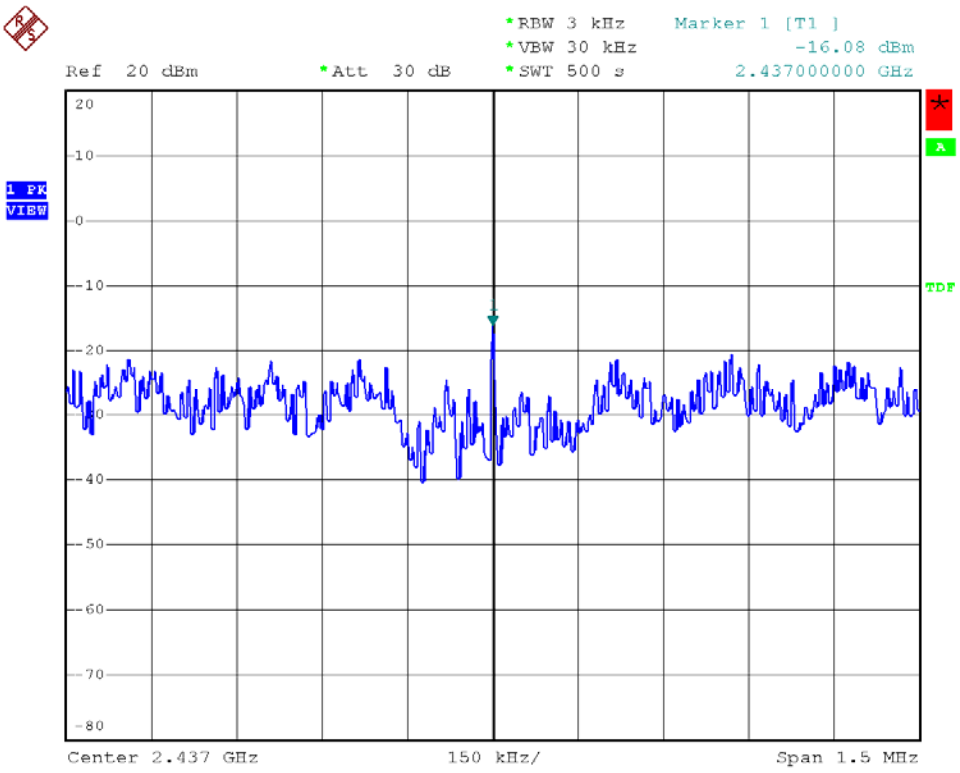
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 11



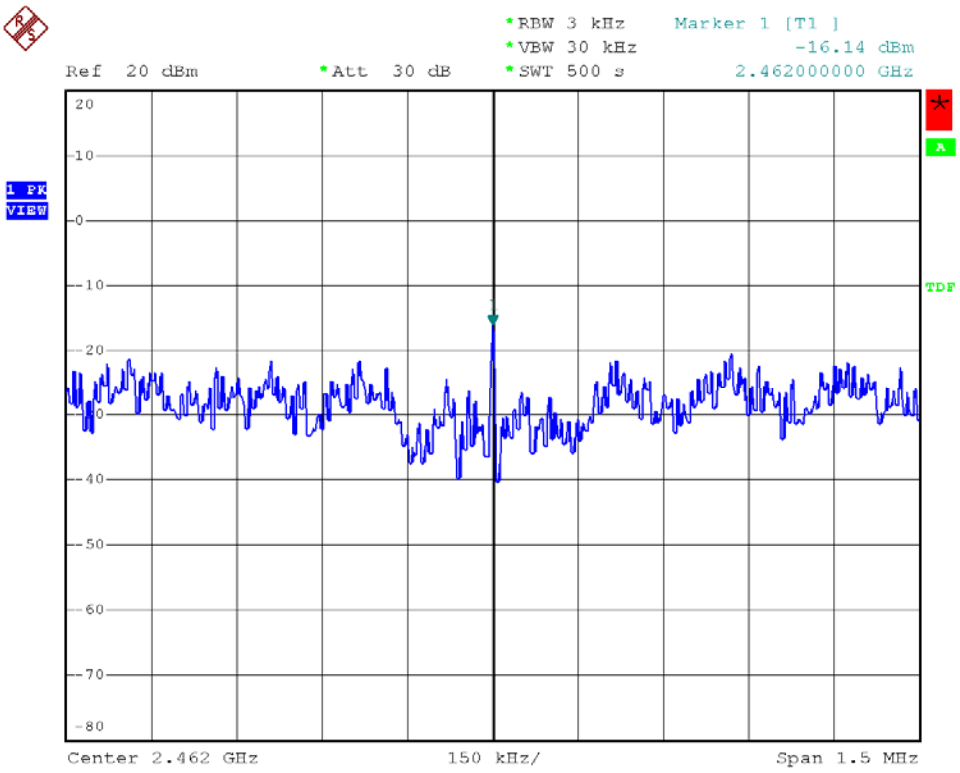
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 01



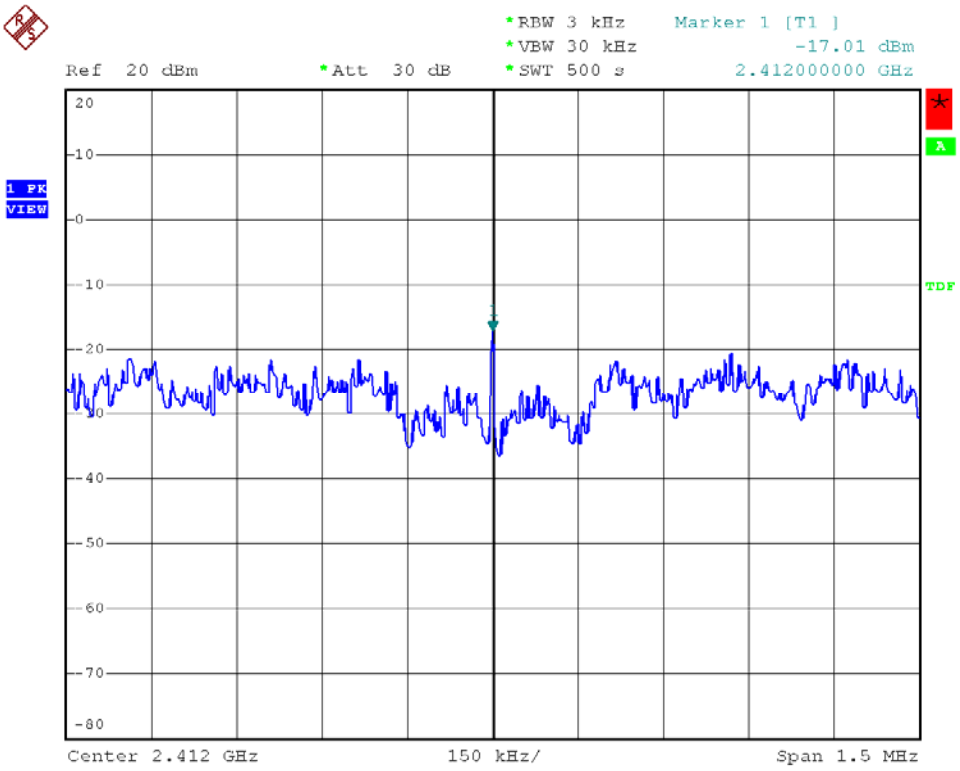
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 06



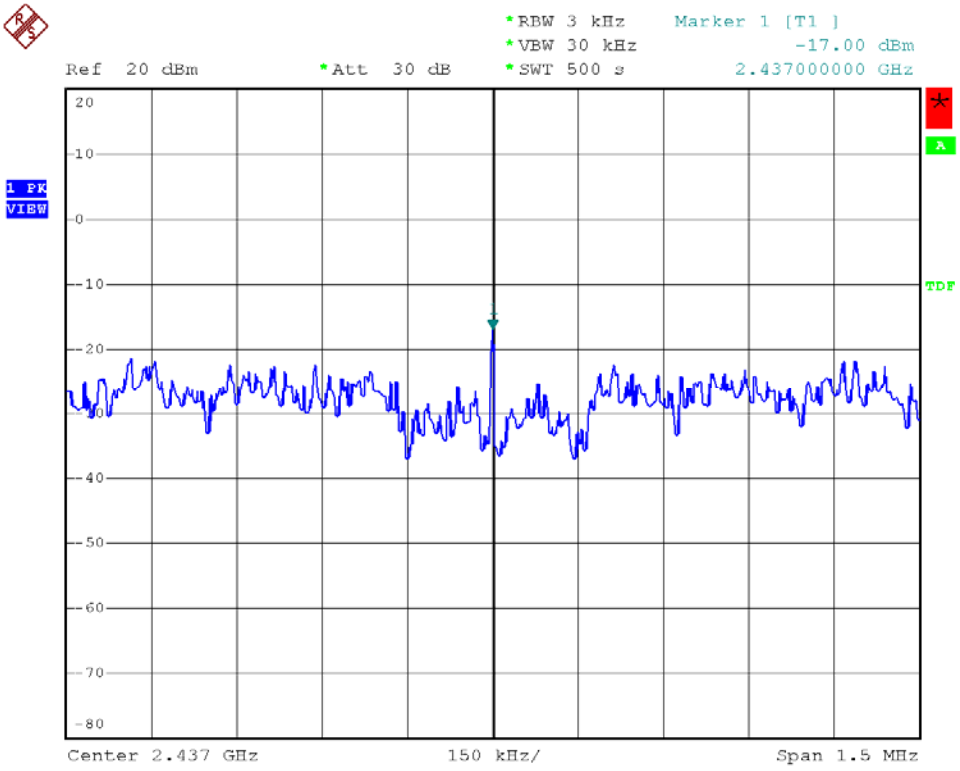
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 11



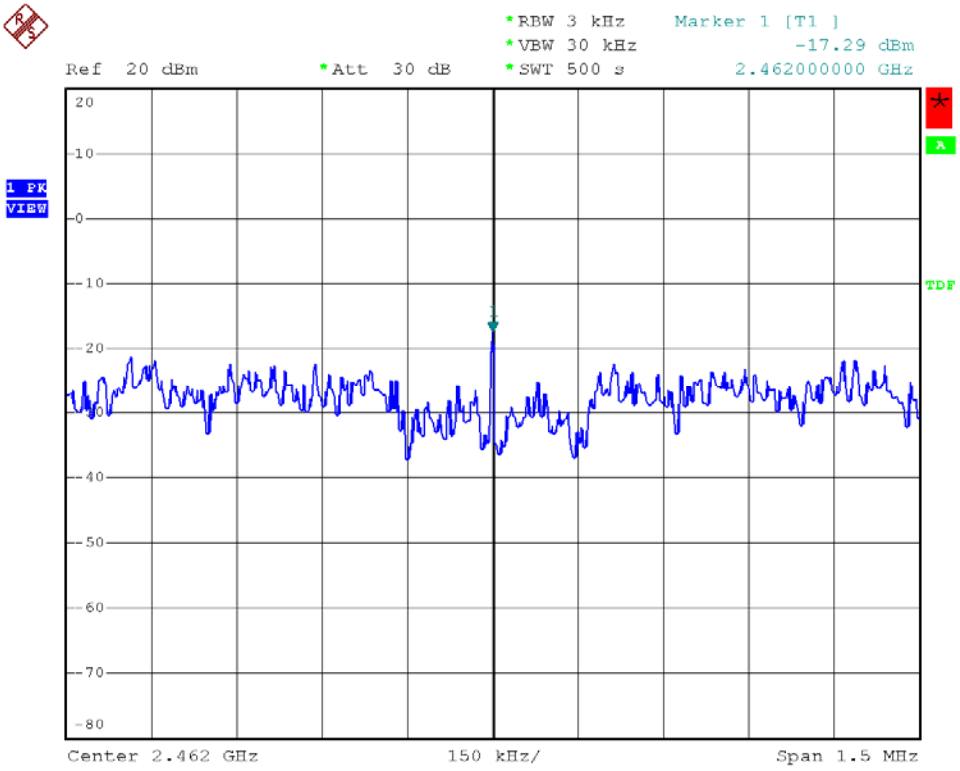
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 01



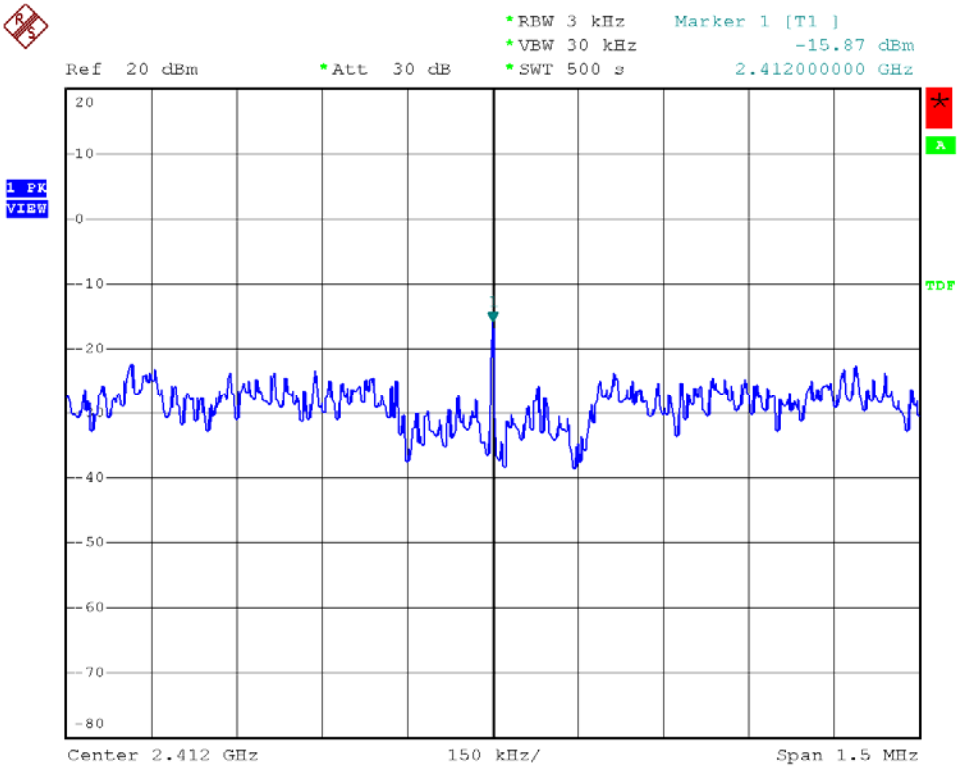
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 06



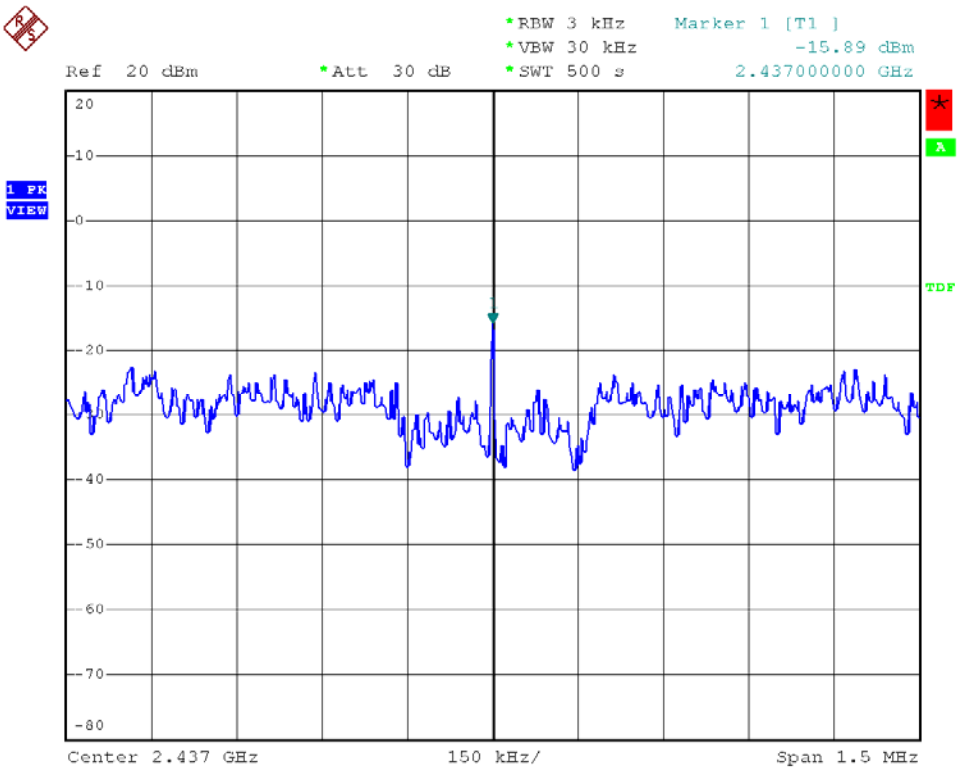
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 11



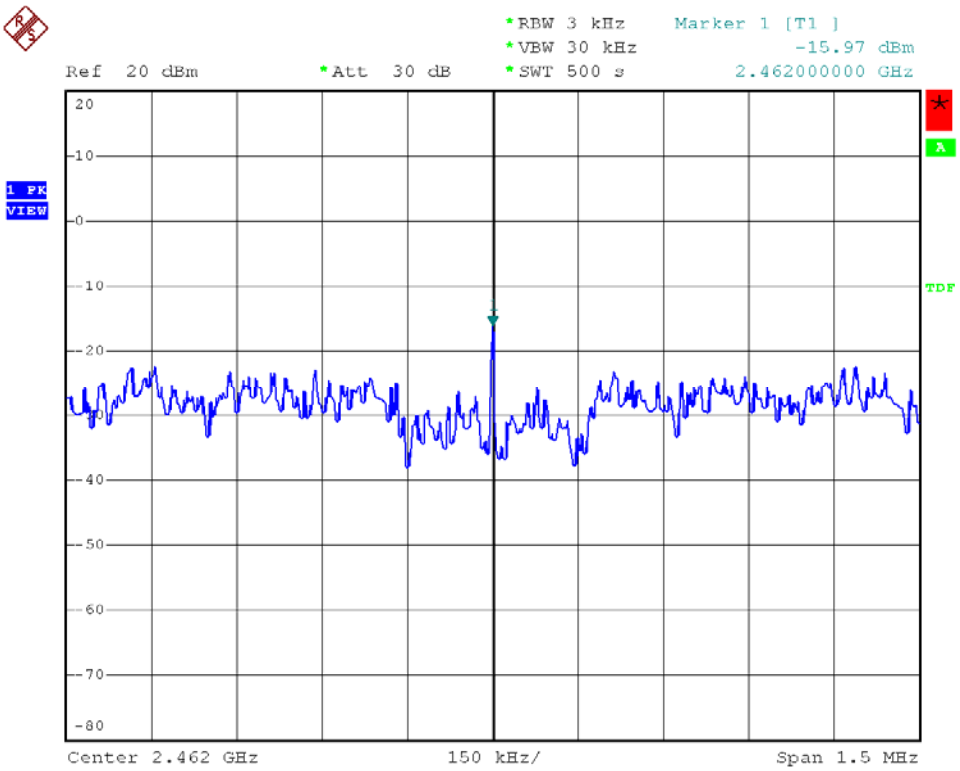
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 01



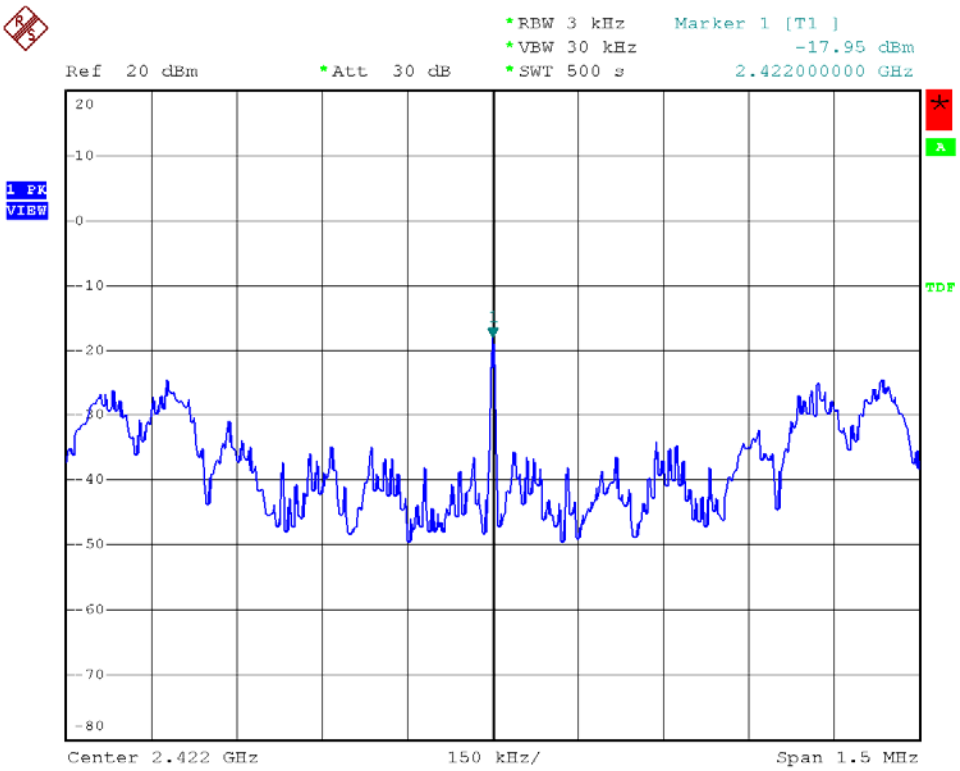
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 06



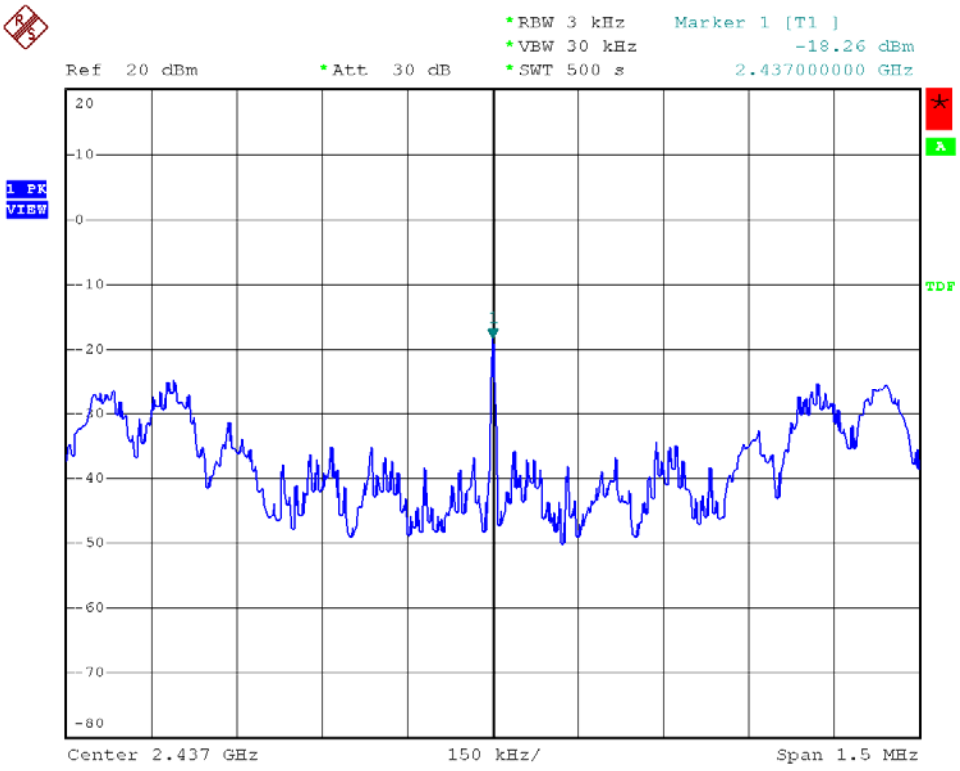
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 11



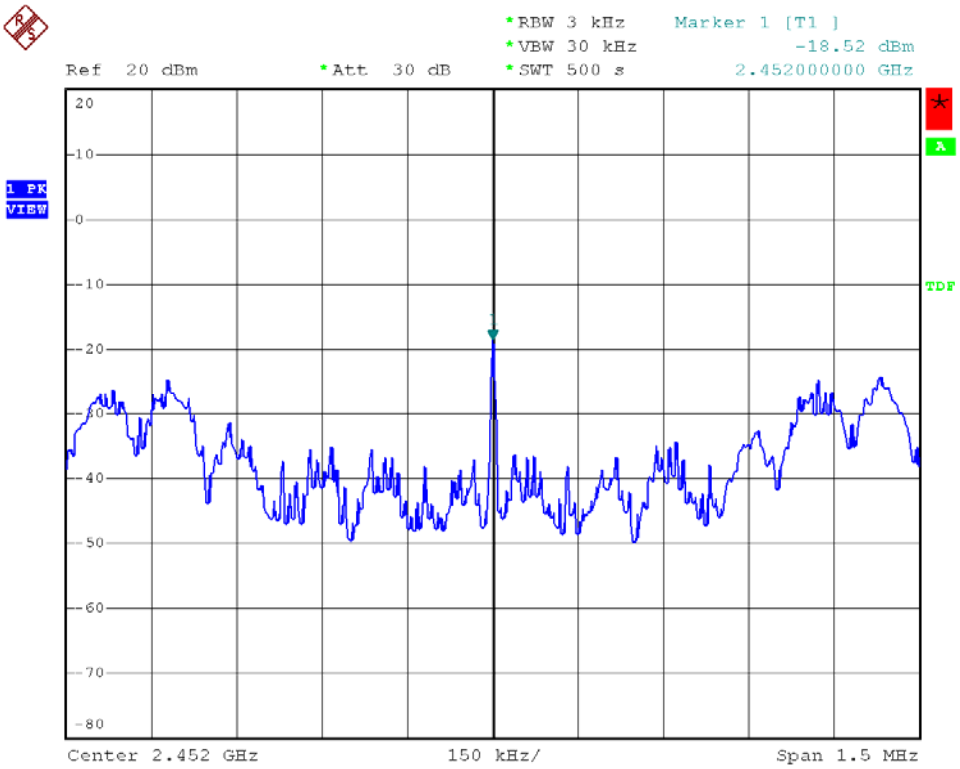
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 03



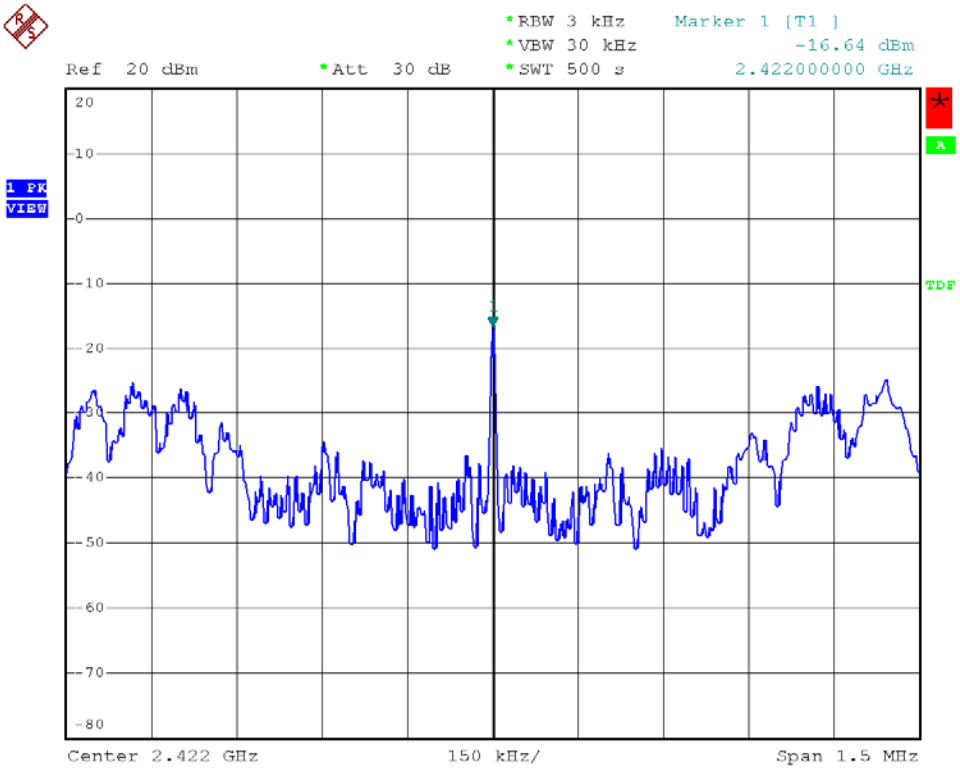
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 06



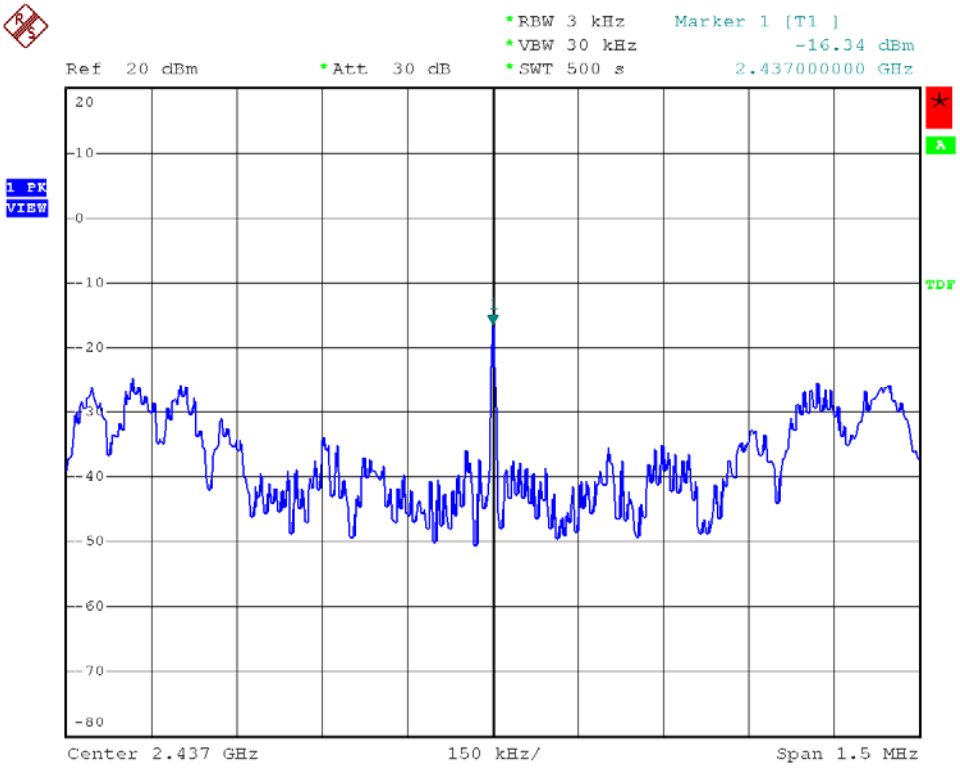
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 09



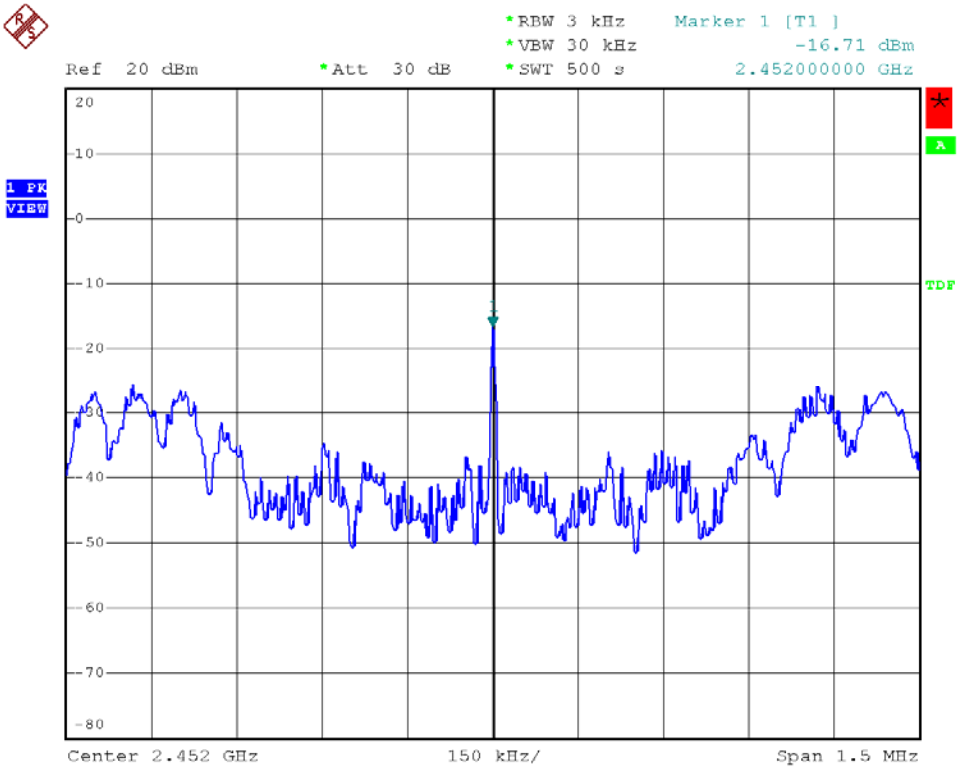
Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 03



Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 06



Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 09



9. Band Edges Measurement

9.1 Test Limit

Below –20dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

9.2 Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

For RF Conducted Measurement:

Set RBW = 100 kHz, Span greater than RBW.

For RF Radiated Measurement:

The EUT is placed on a turn table which is 0.8 meter above ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

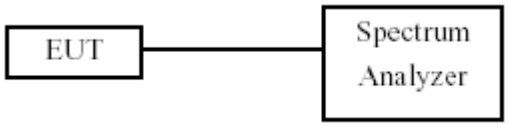
For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, then the video bandwidth is set to 1MHz for peak measurements and 10Hz for average measurements.

The spectrum from 30MHz to 26GHz is investigated with the transmitter set to the lowest, middle and highest channels in the 2.4GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are Made with the antenna polarized in both the vertical and the horizontal positions.

9.3 Test Setup Layout



9.4 Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	FSP40	R&S	10047	2009/03/26	2010/03/25

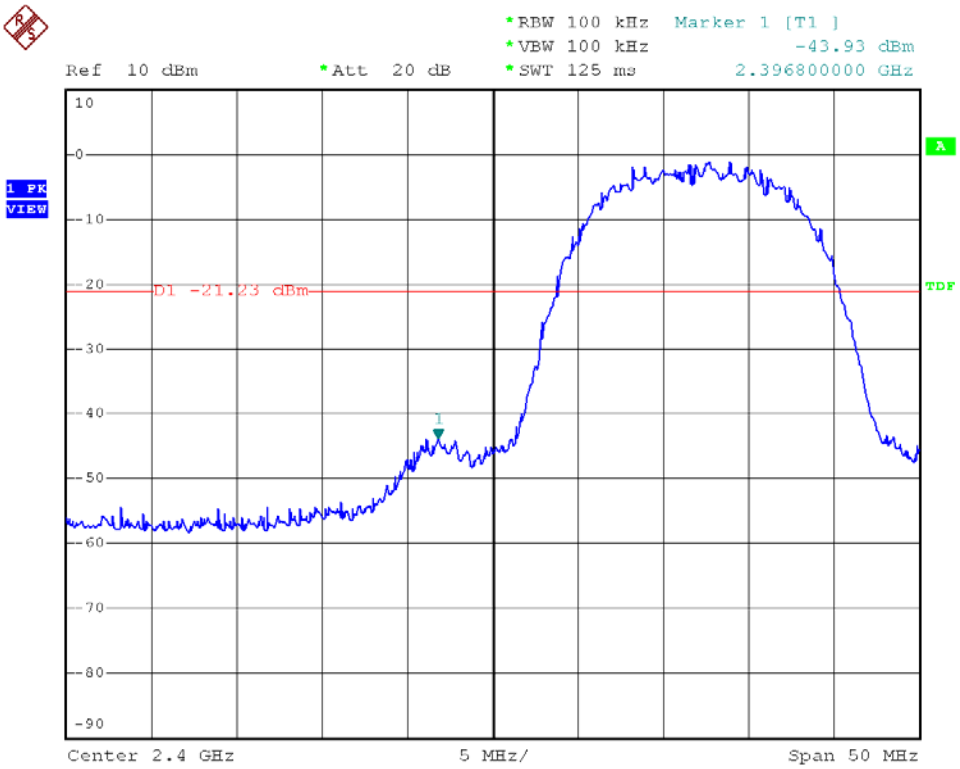
9.5 Test Result and Data

Test Date: Nov. 09, 2009 Temperature: 25℃

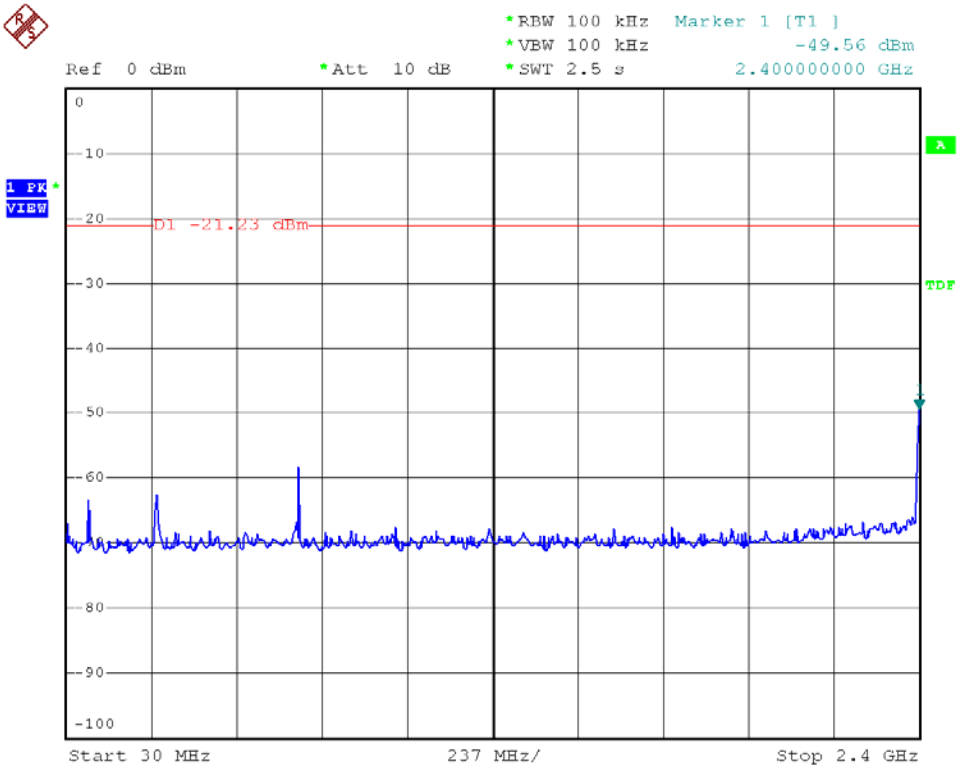
Atmospheric pressure: 1022 hPa Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	maximum value in frequency (MHz)		maximum value (dBm)	
			Ant1	Ant2	Ant1	Ant2
802.11b (11Mbps)	01	2412	2396.80	2399.70	-43.93	-45.16
	06	2437	698.34	698.34	-62.27	-56.57
	11	2462	2500.20	2484.20	-54.08	-54.67
802.11g (54Mbps)	01	2412	2399.90	2399.90	-44.36	-47.54
	06	2437	115.32	120.06	-60.45	-57.88
	11	2462	2501.00	2488.26	-54.50	-55.25
802.11n HT20 (130Mbps)	01	2412	2399.90	2399.80	-46.51	-48.20
	06	2437	3220.00	3220.00	-61.12	-60.62
	11	2462	2500.02	2483.64	-54.17	-55.31
802.11n HT40 (270Mbps)	03	2422	2399.80	2399.00	-48.07	-50.88
	06	2437	2400.00	2400.00	-58.16	-59.33
	09	2452	2483.70	2483.70	-51.37	-54.12

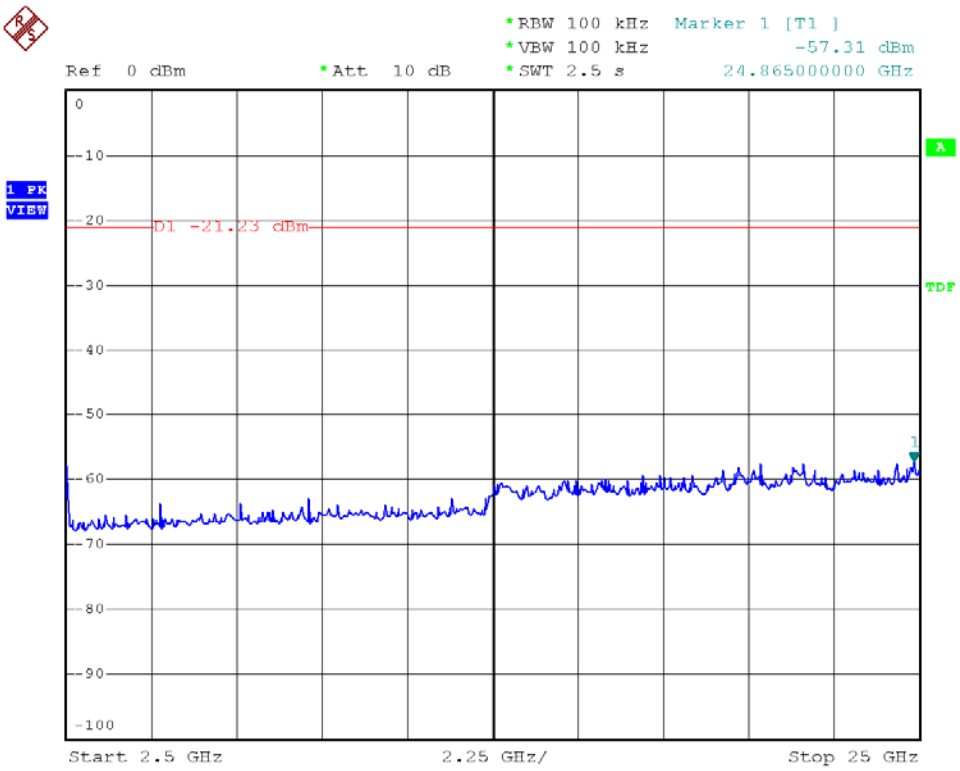
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 01



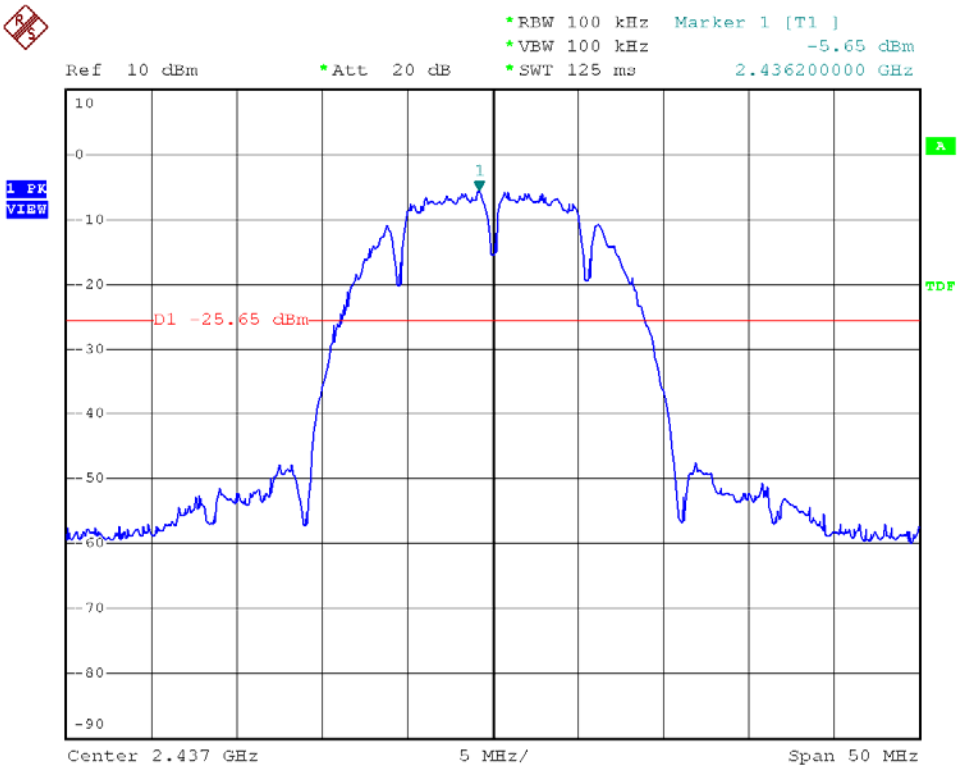
30MHz~2.4GHz:



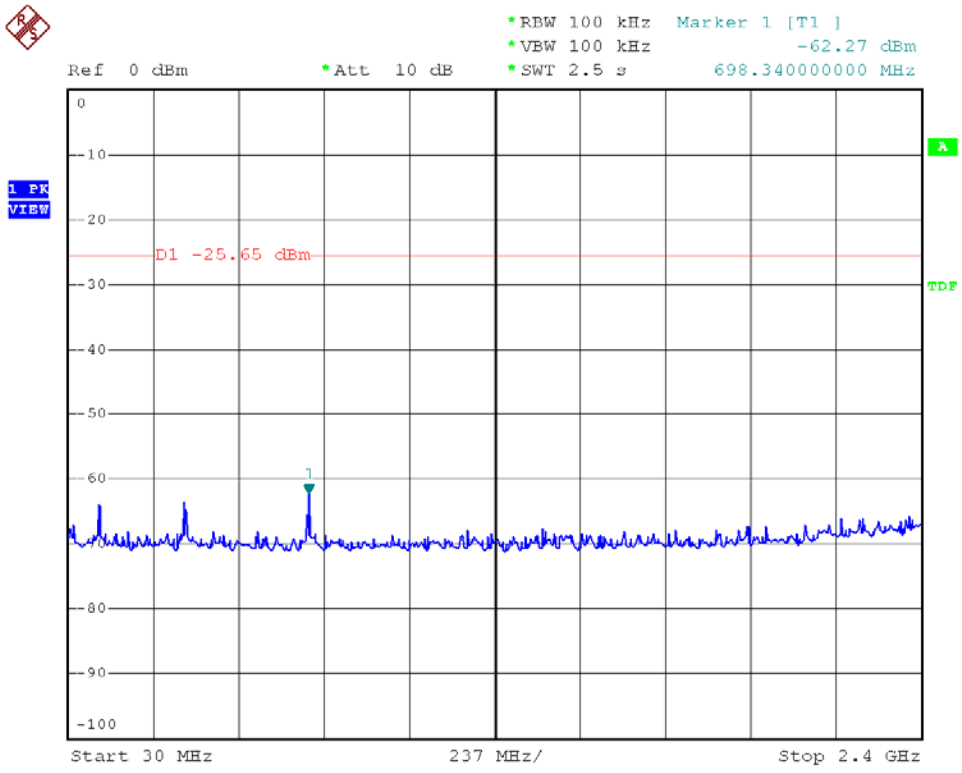
2.5GHz~25GHz:



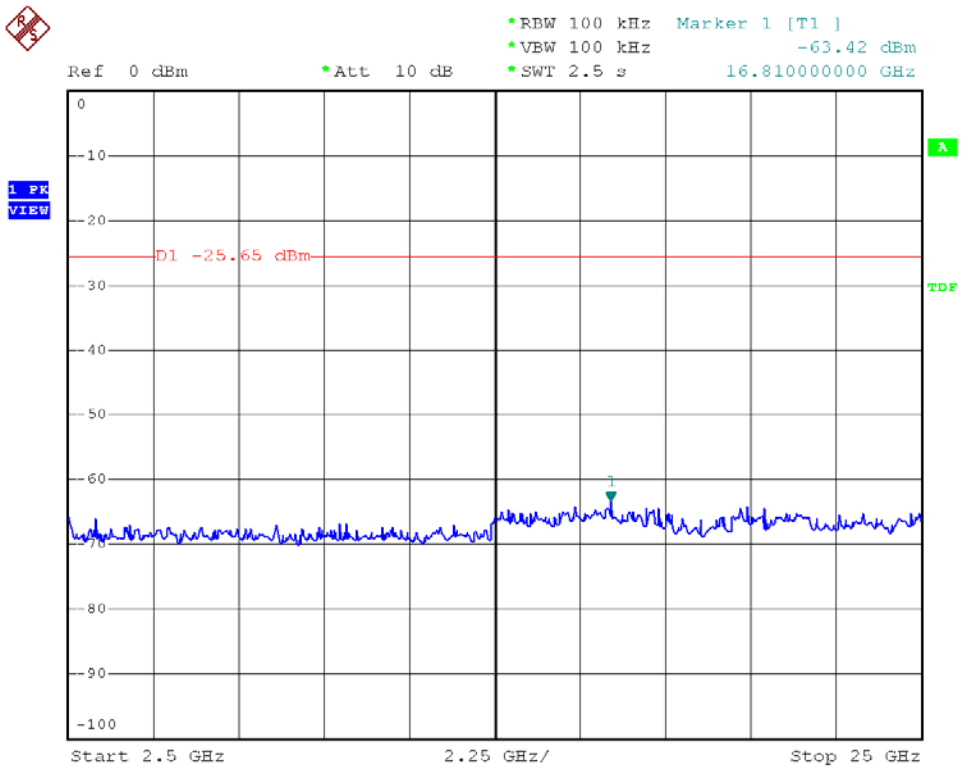
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 06



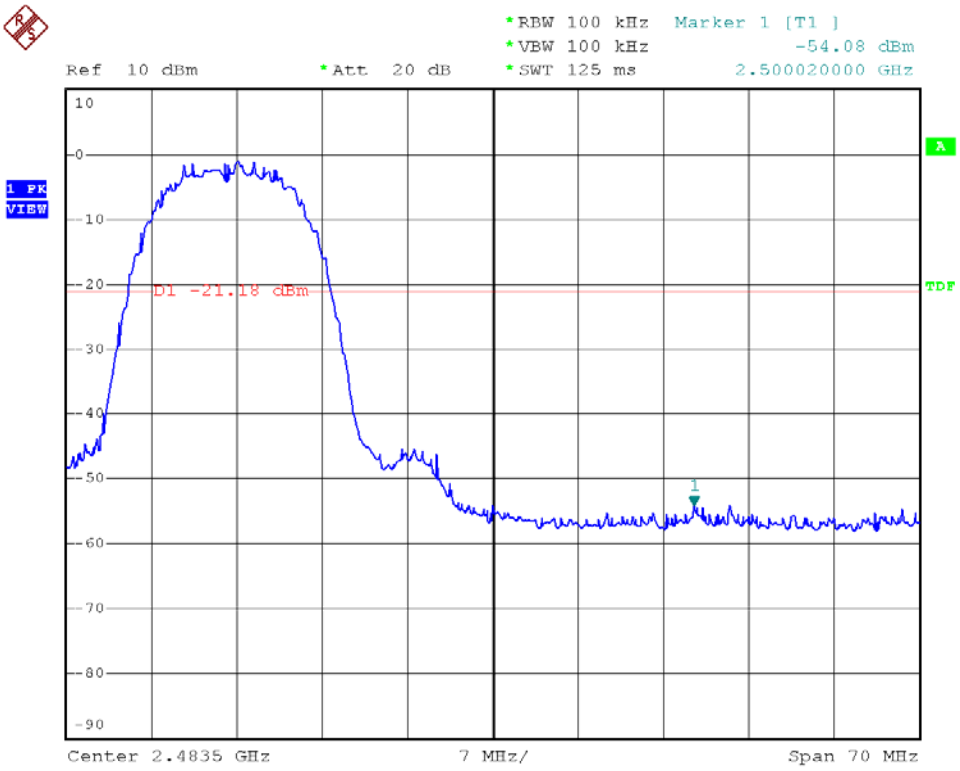
30MHz~2.4GHz:



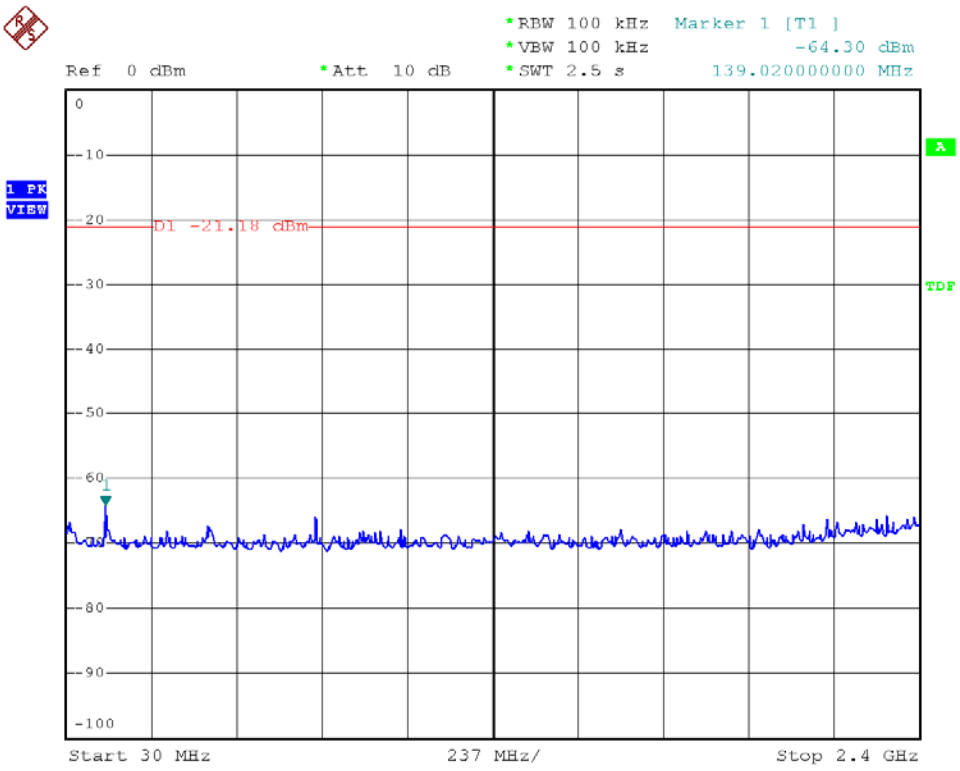
2.5GHz~25GHz:



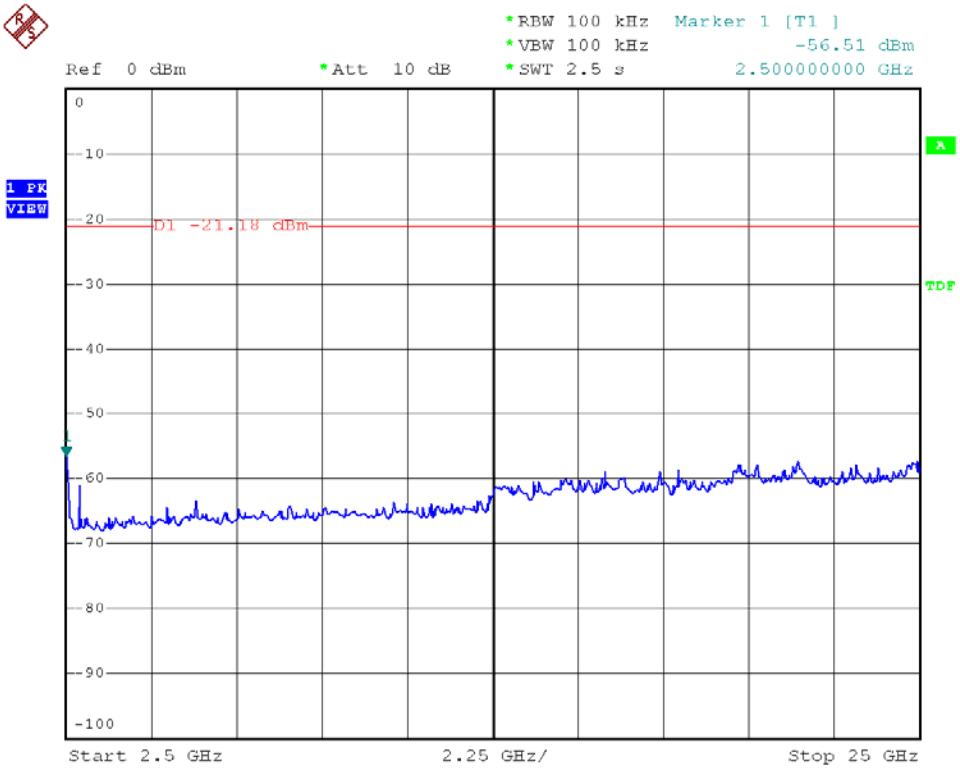
Modulation Standard: 802.11b (11Mbps), Ant1
Channel: 11



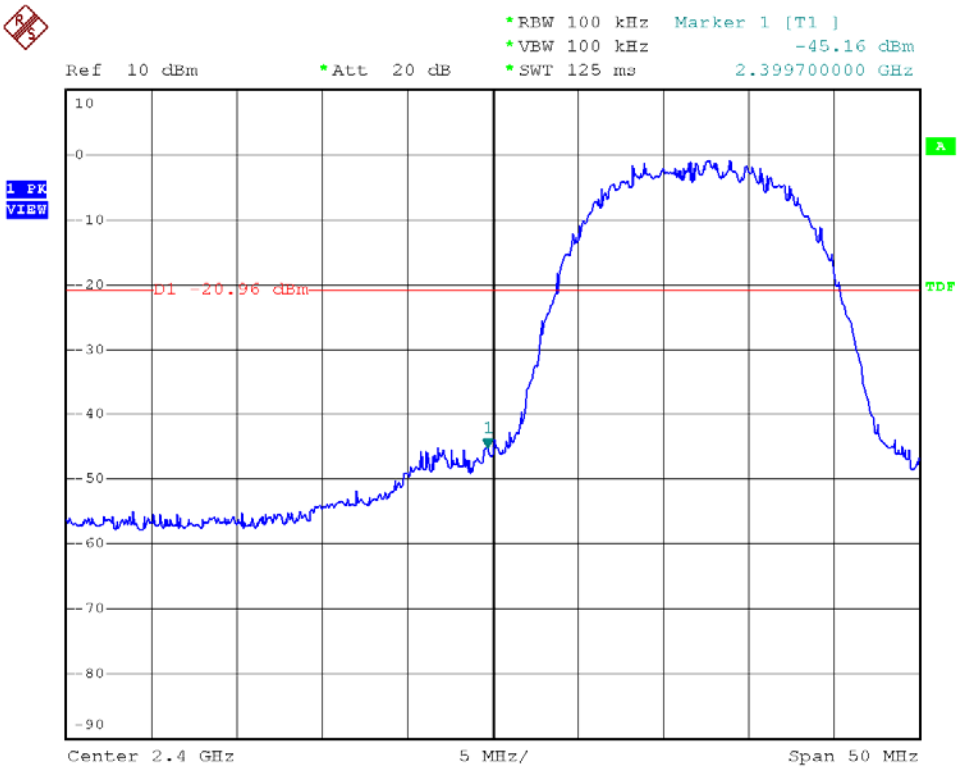
30MHz~2.4GHz:



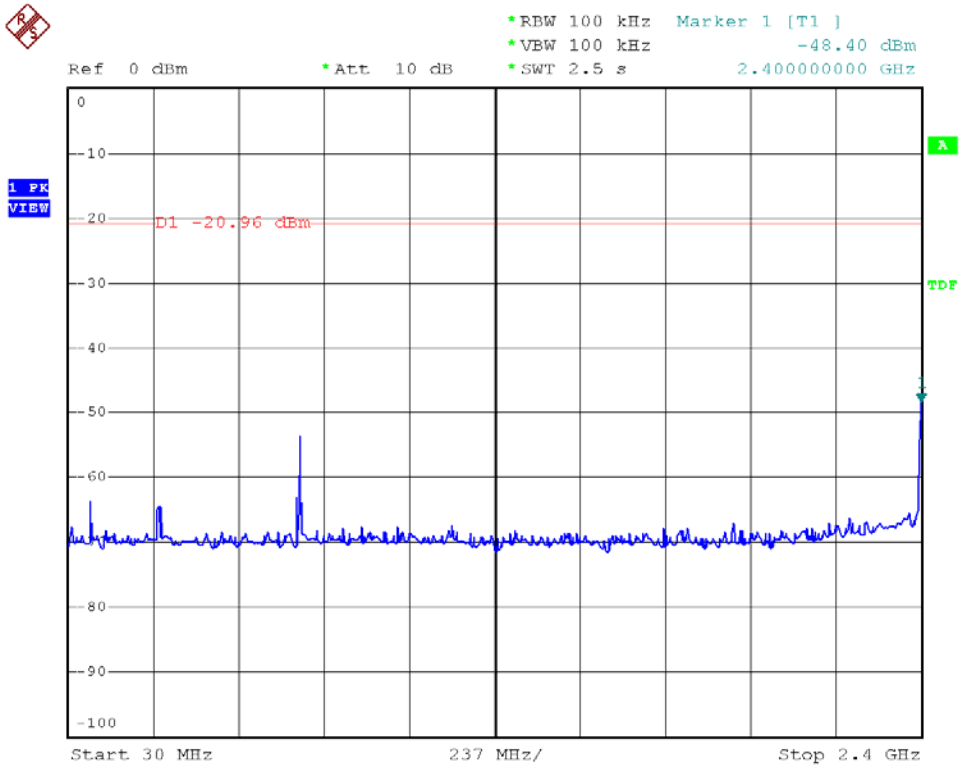
2.5GHz~25GHz:



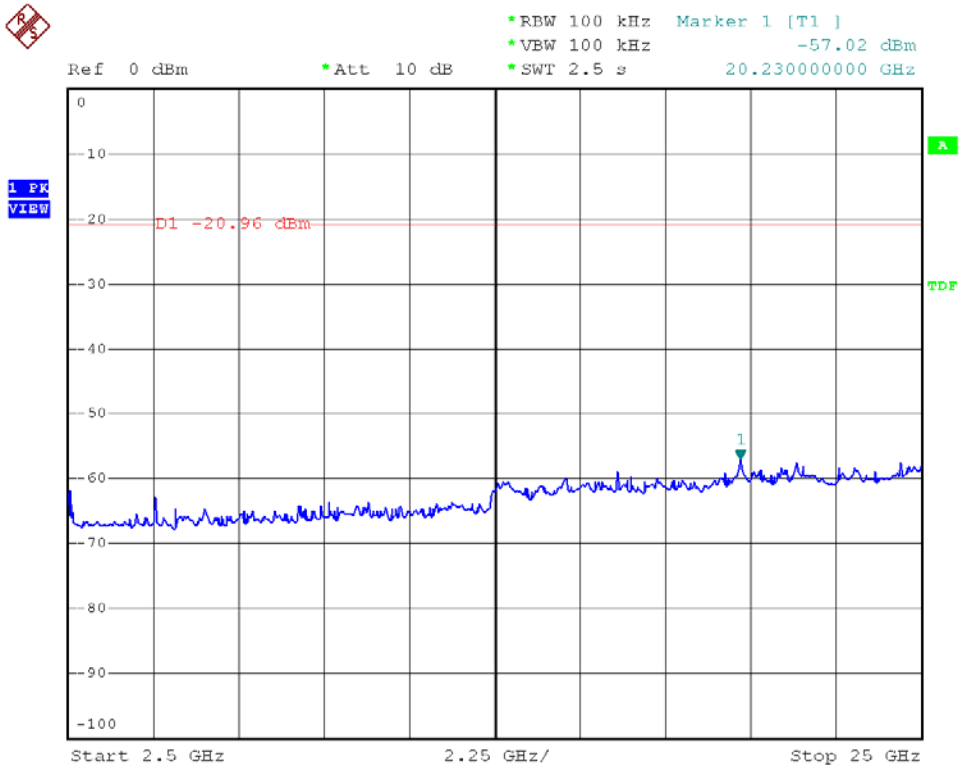
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 01



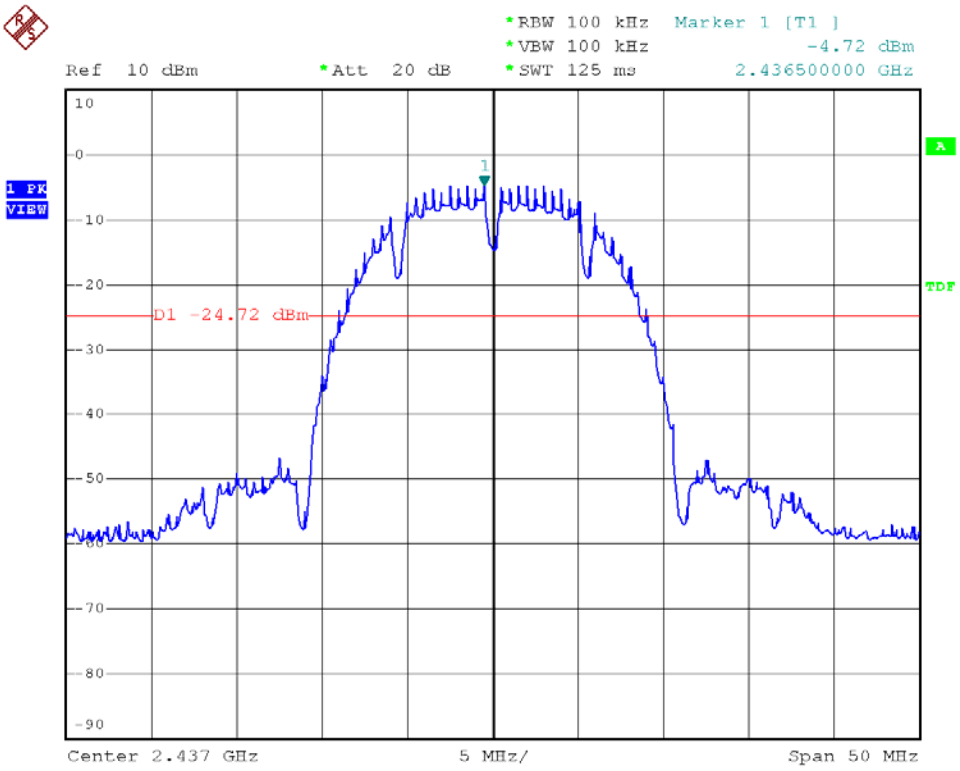
30MHz~2.4GHz:



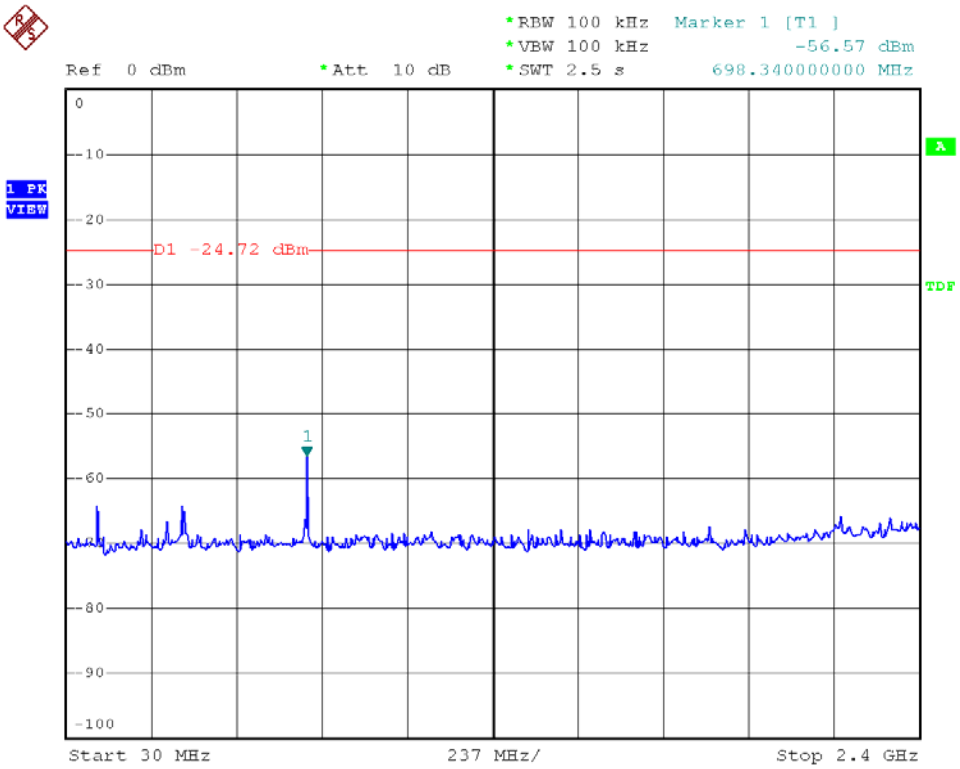
2.5GHz~25GHz:



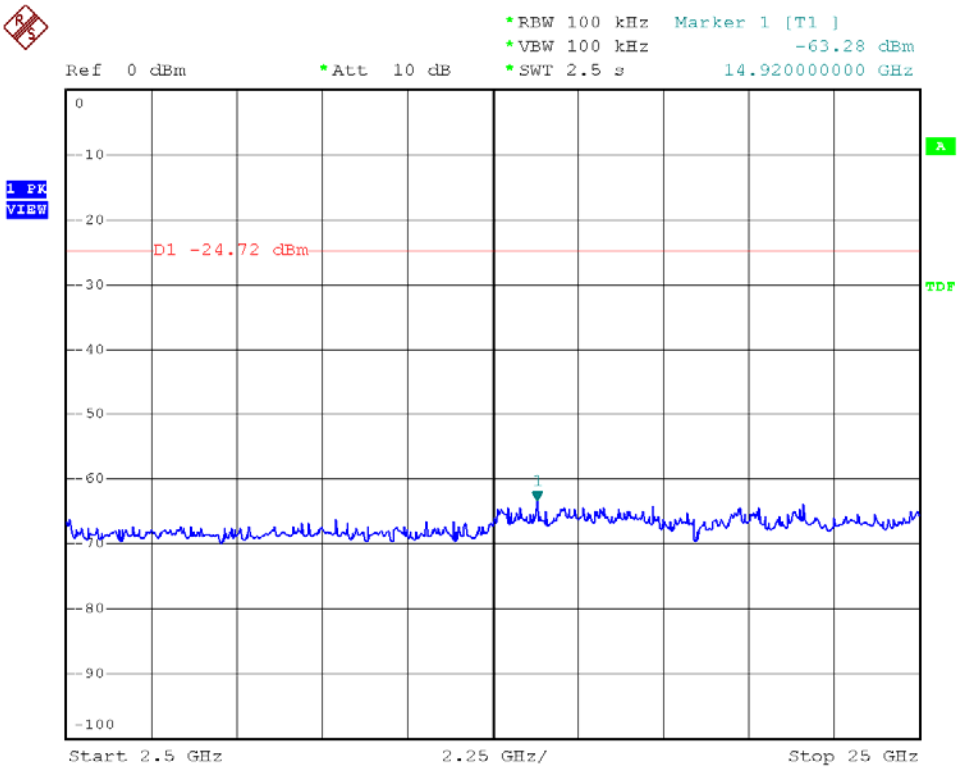
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 06



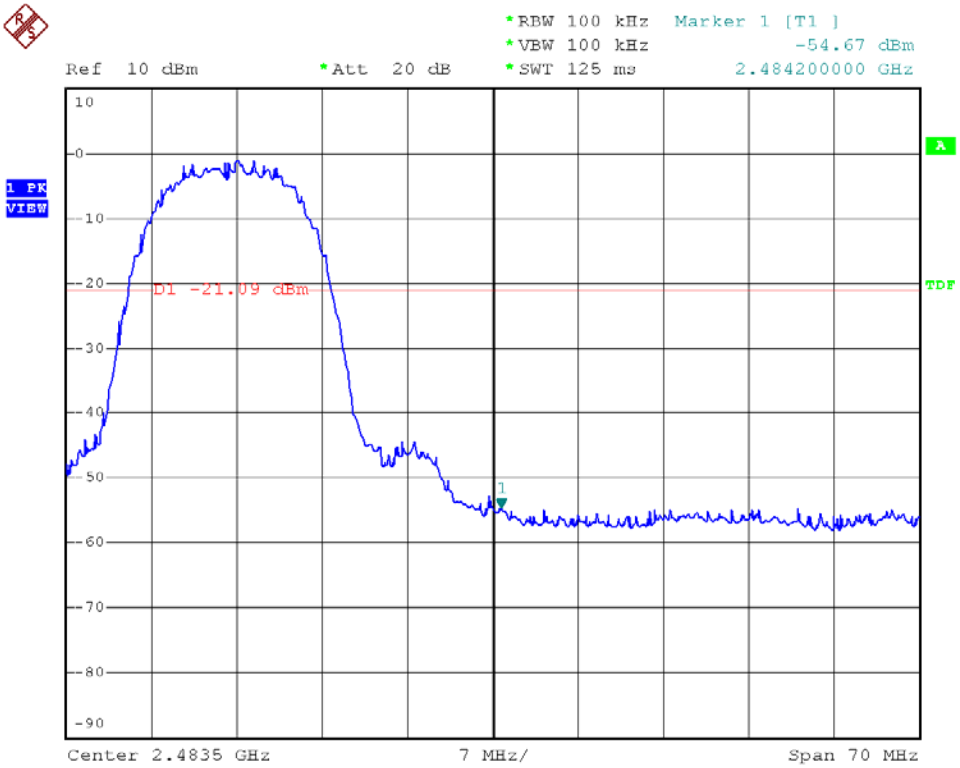
30MHz~2.4GHz:



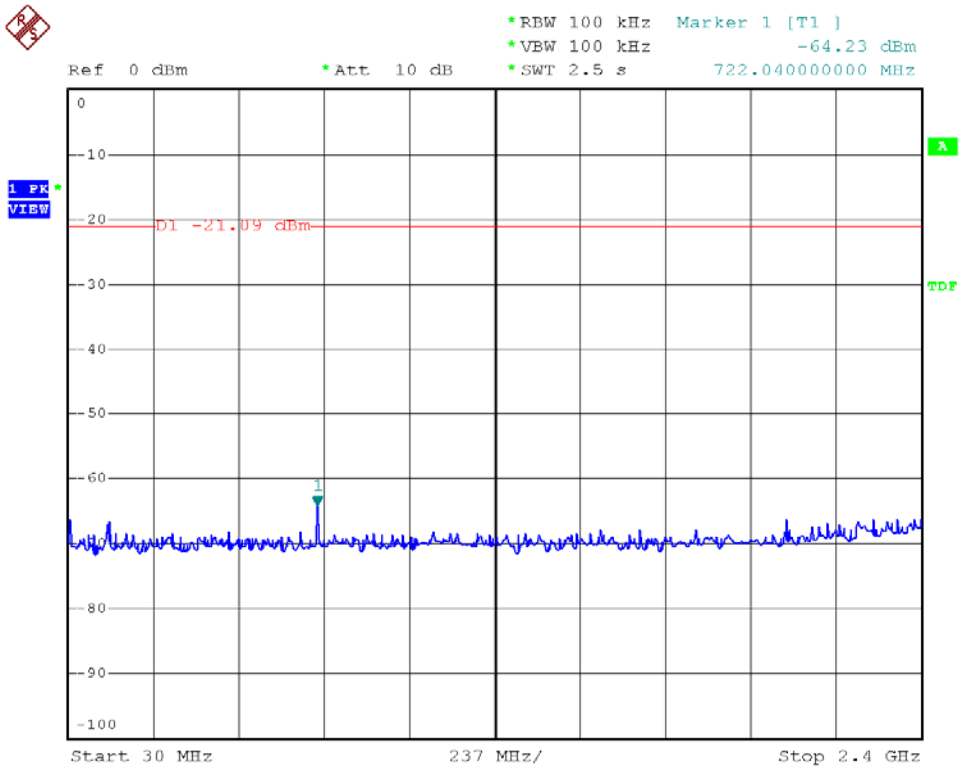
2.5GHz~25GHz:



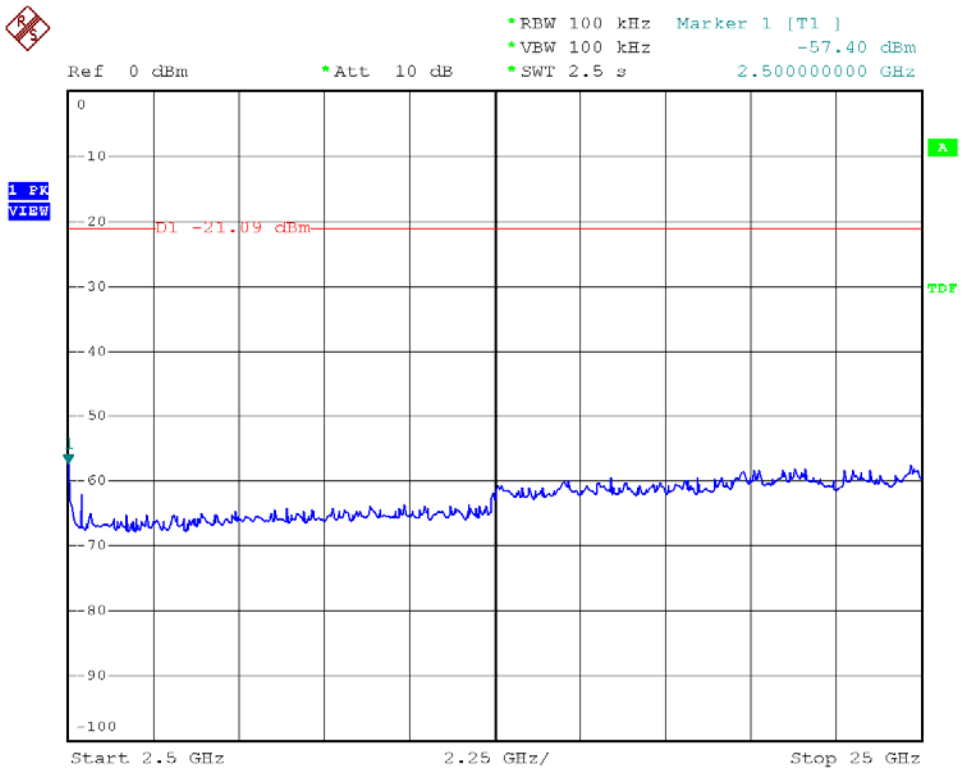
Modulation Standard: 802.11b (11Mbps), Ant2
Channel: 11



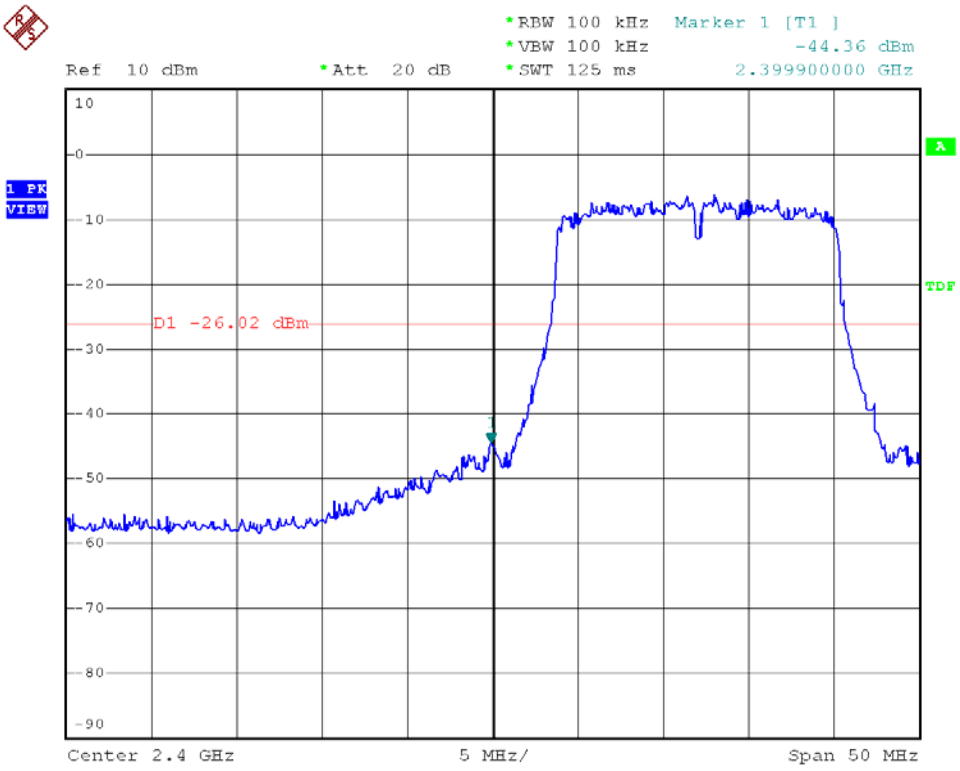
30MHz~2.4GHz:



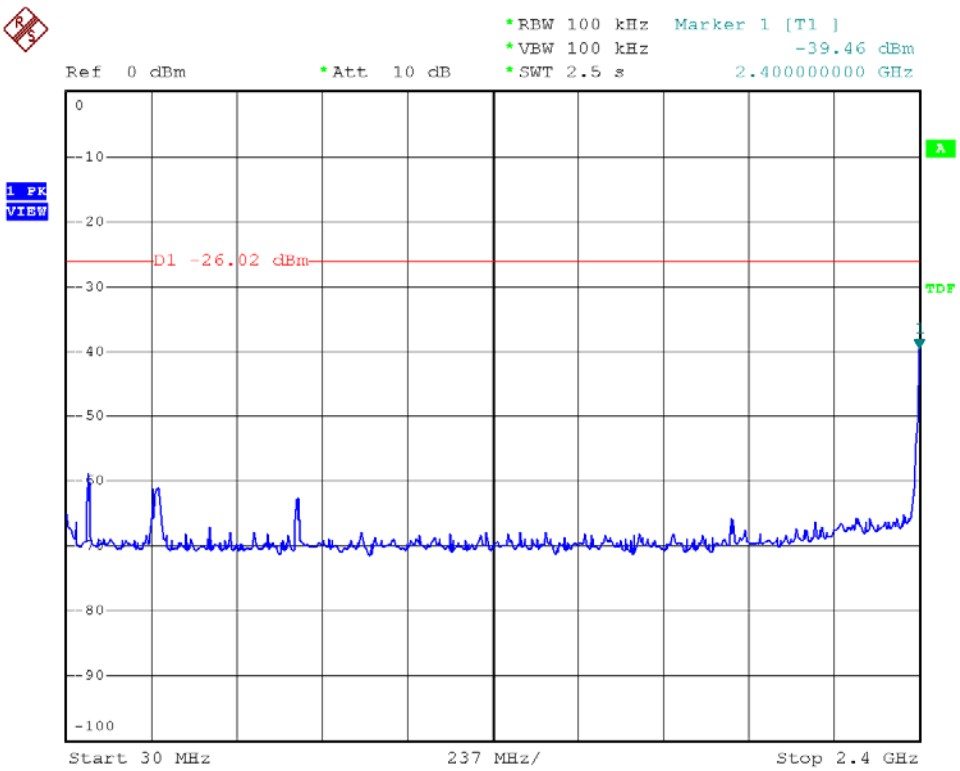
2.5GHz~25GHz:



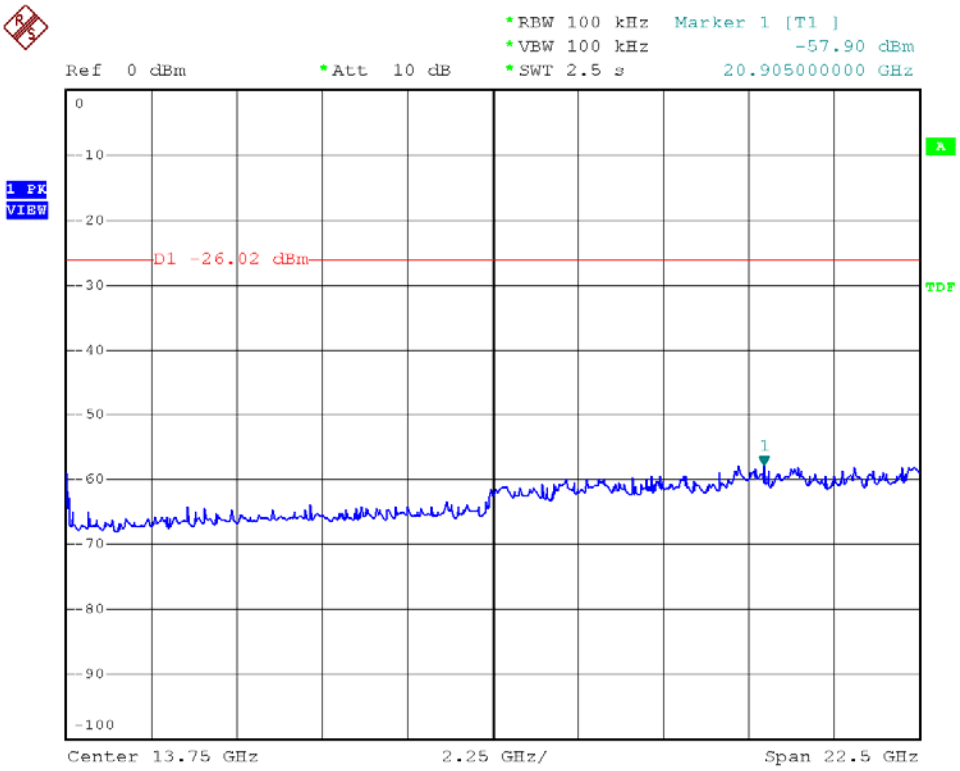
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 01



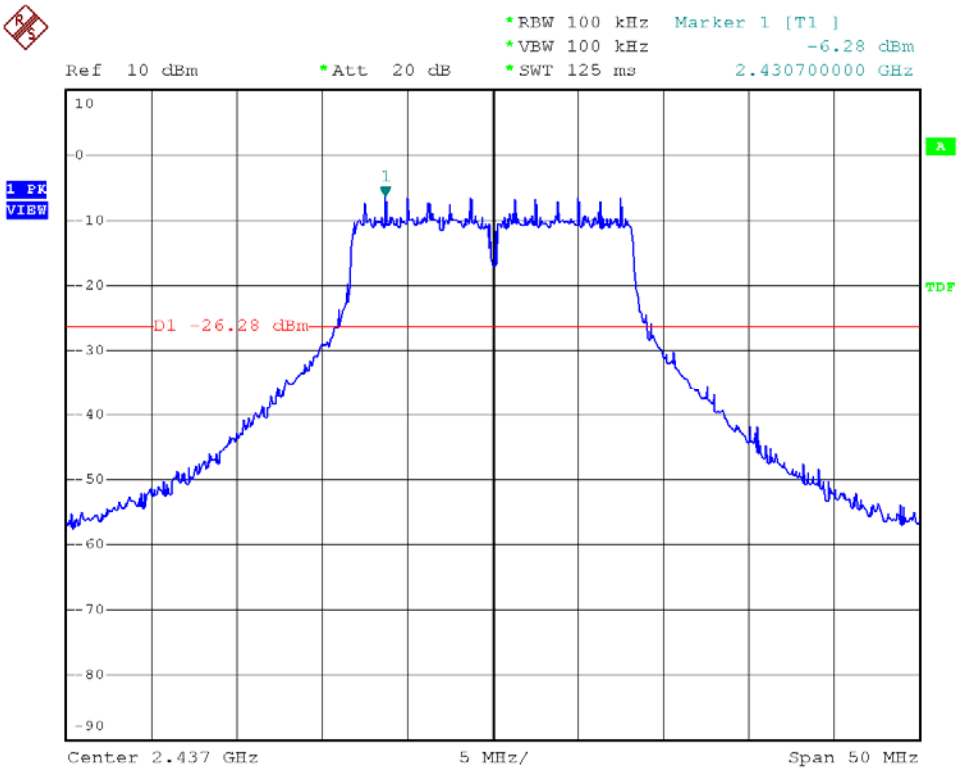
30MHz~2.4GHz:



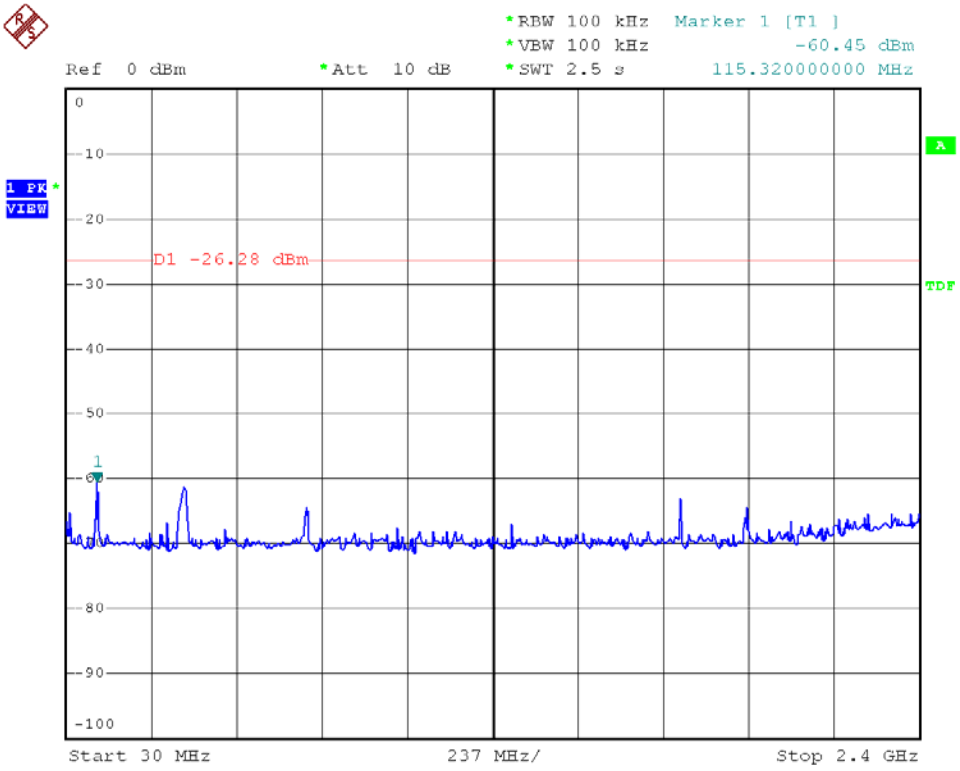
2.5GHz~25GHz:



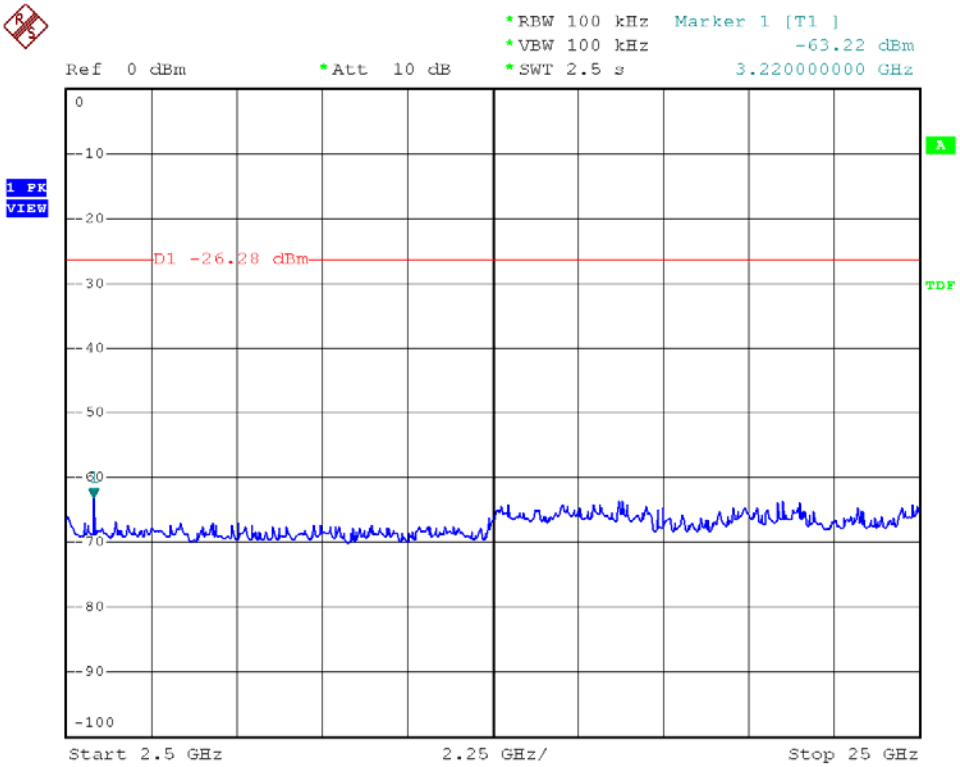
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 06



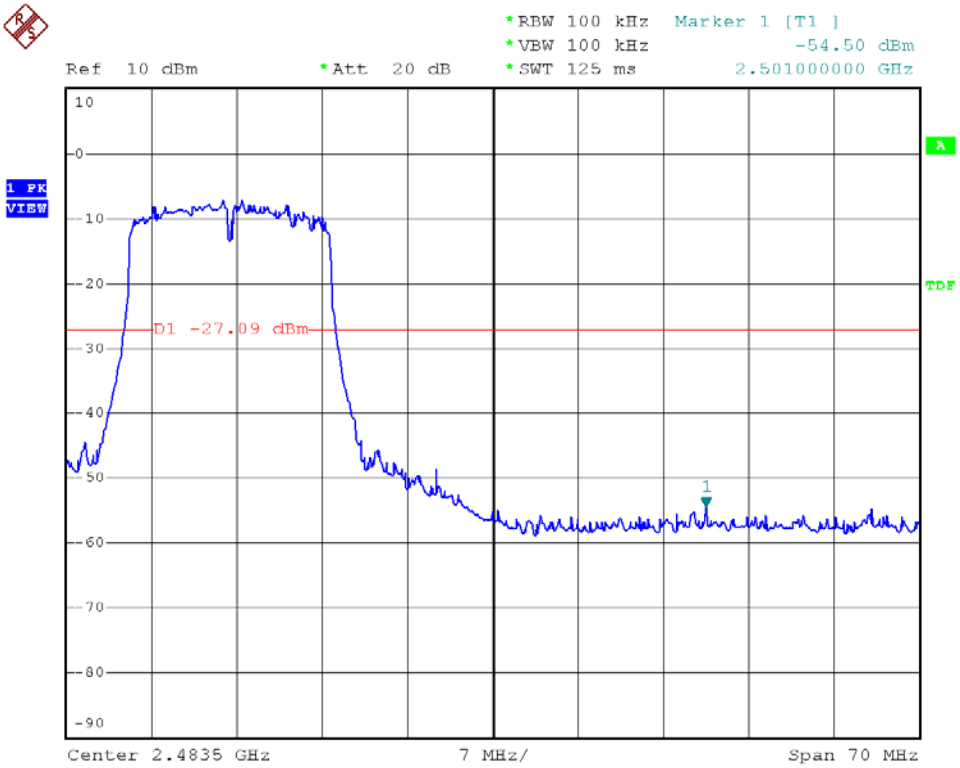
30MHz~2.4GHz:



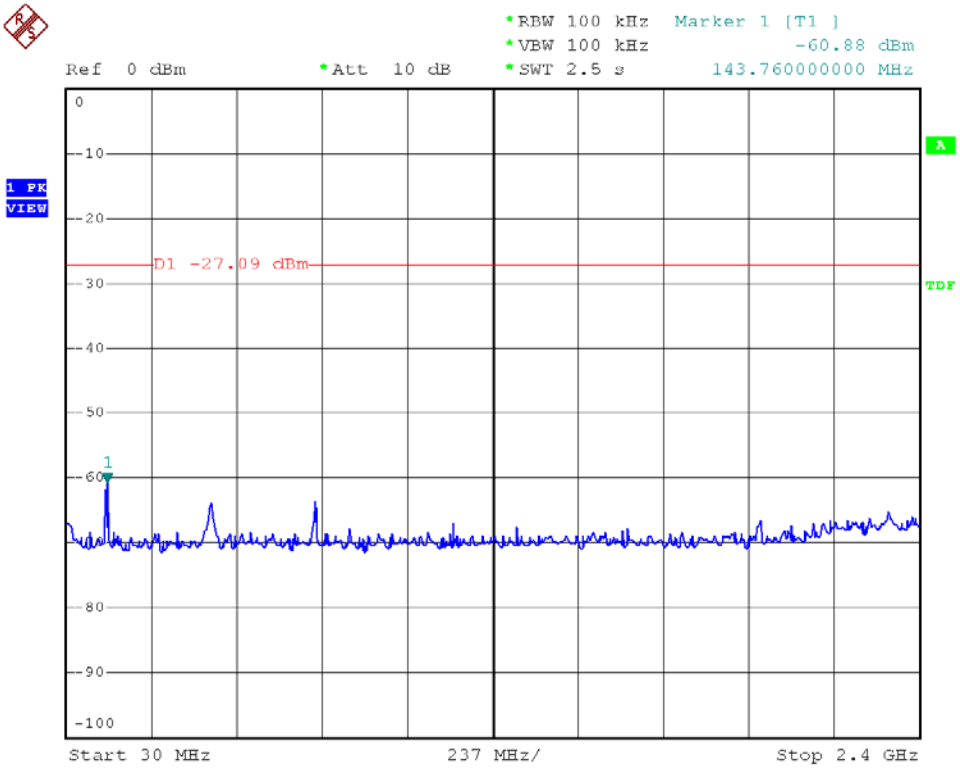
2.5GHz~25GHz:



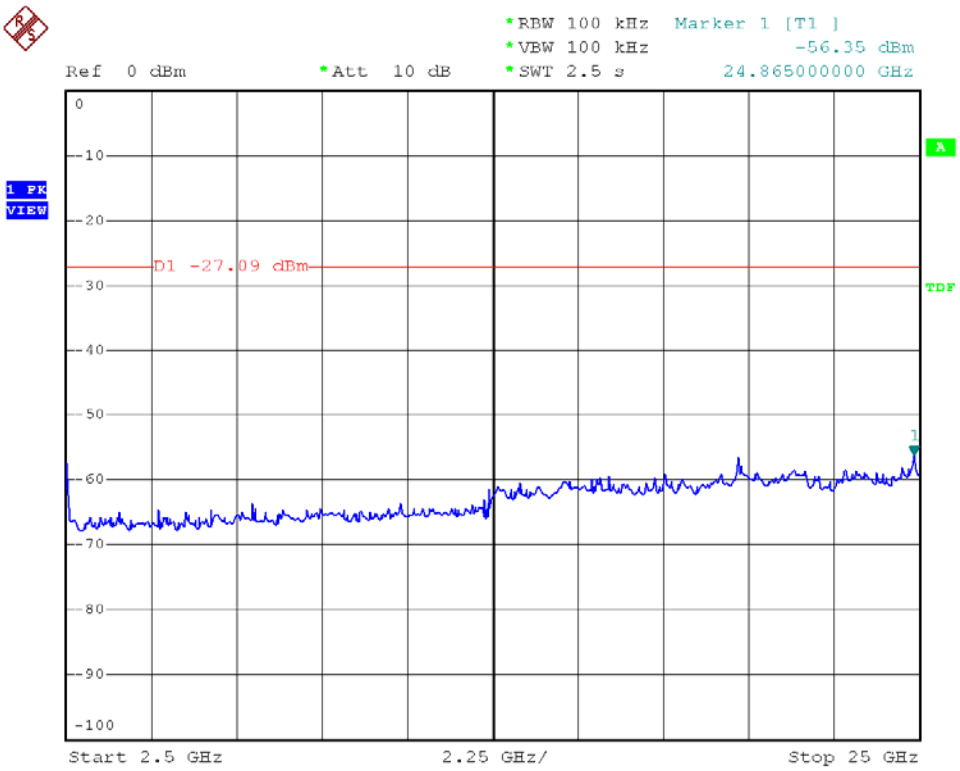
Modulation Standard: 802.11g (54Mbps), Ant1
Channel: 11



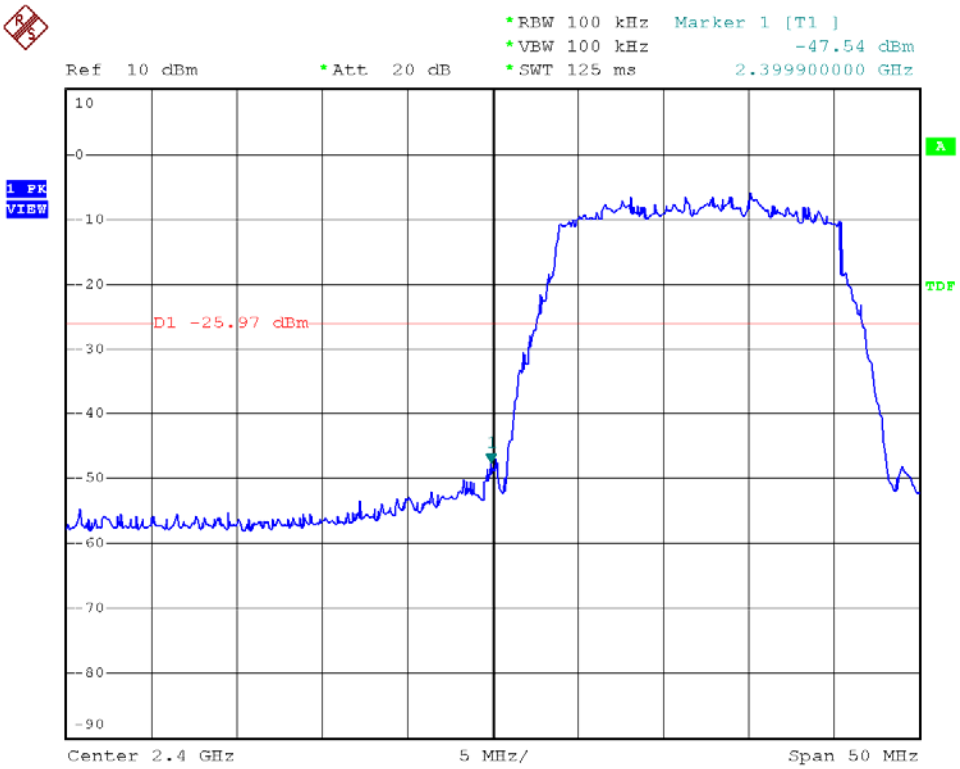
30MHz~2.4GHz:



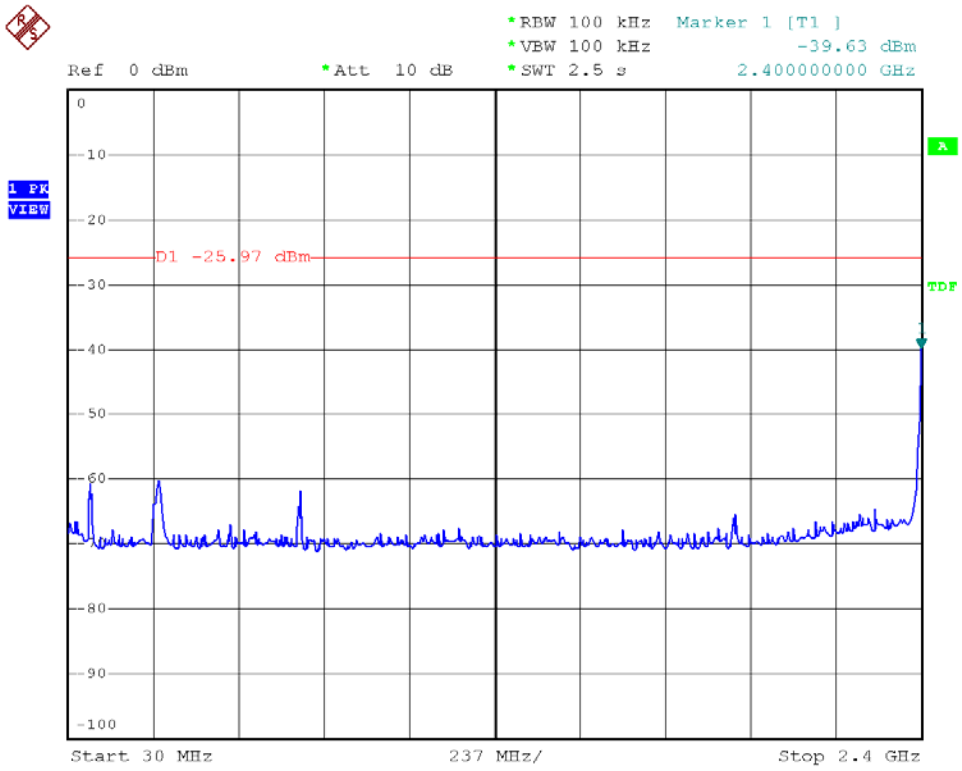
2.5GHz~25GHz:



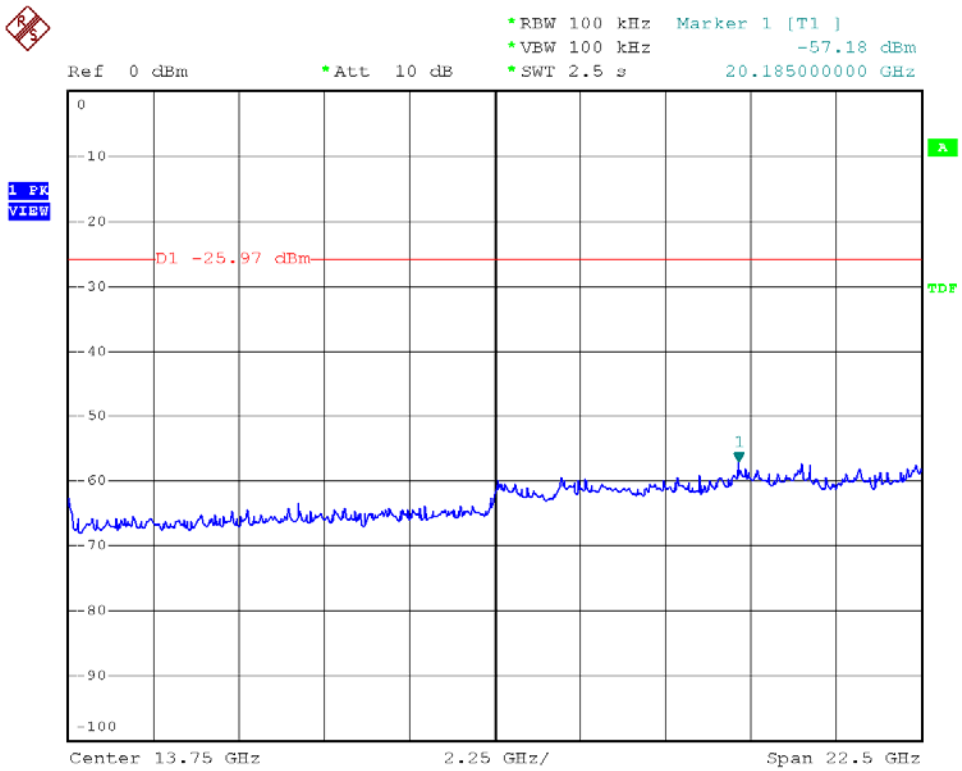
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 01



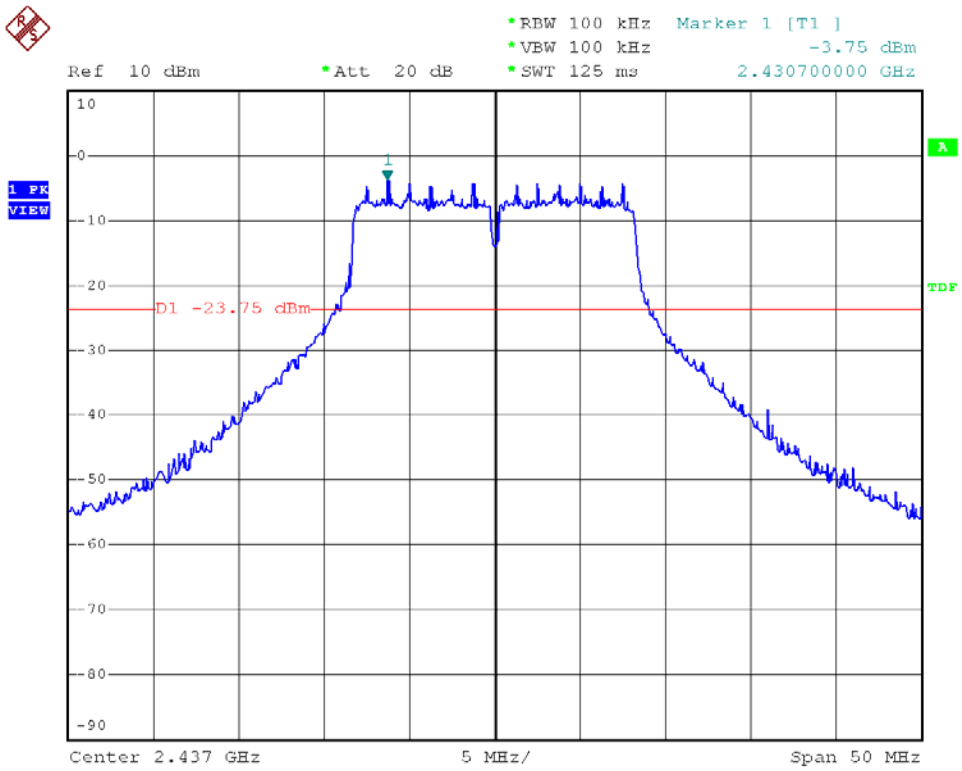
30MHz~2.4GHz:



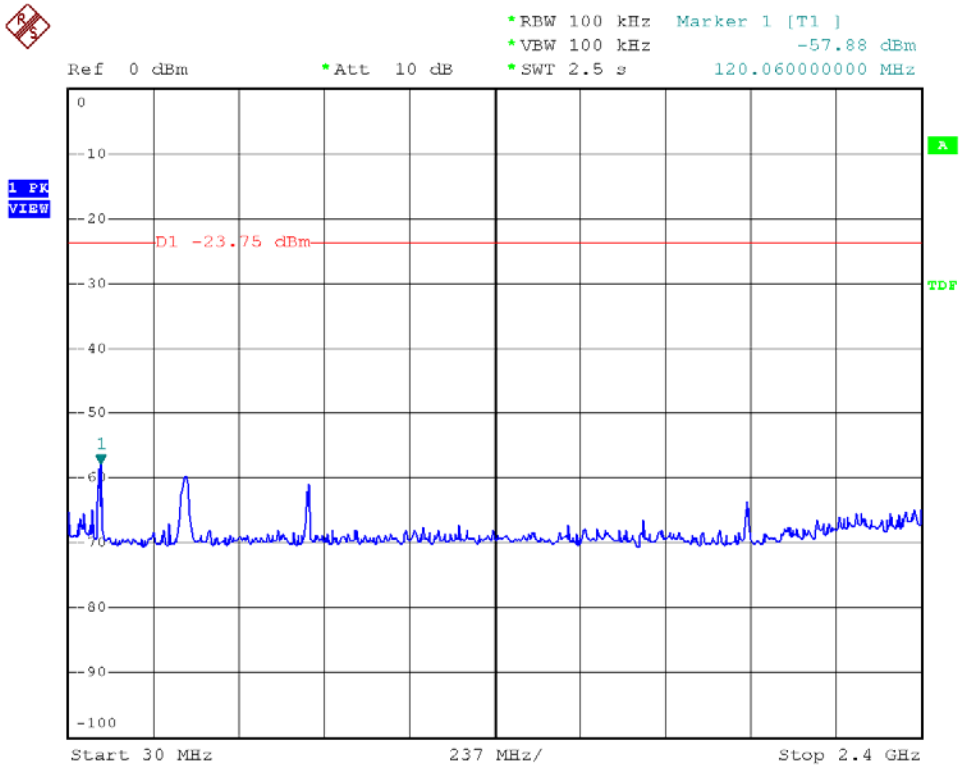
2.5GHz~25GHz:



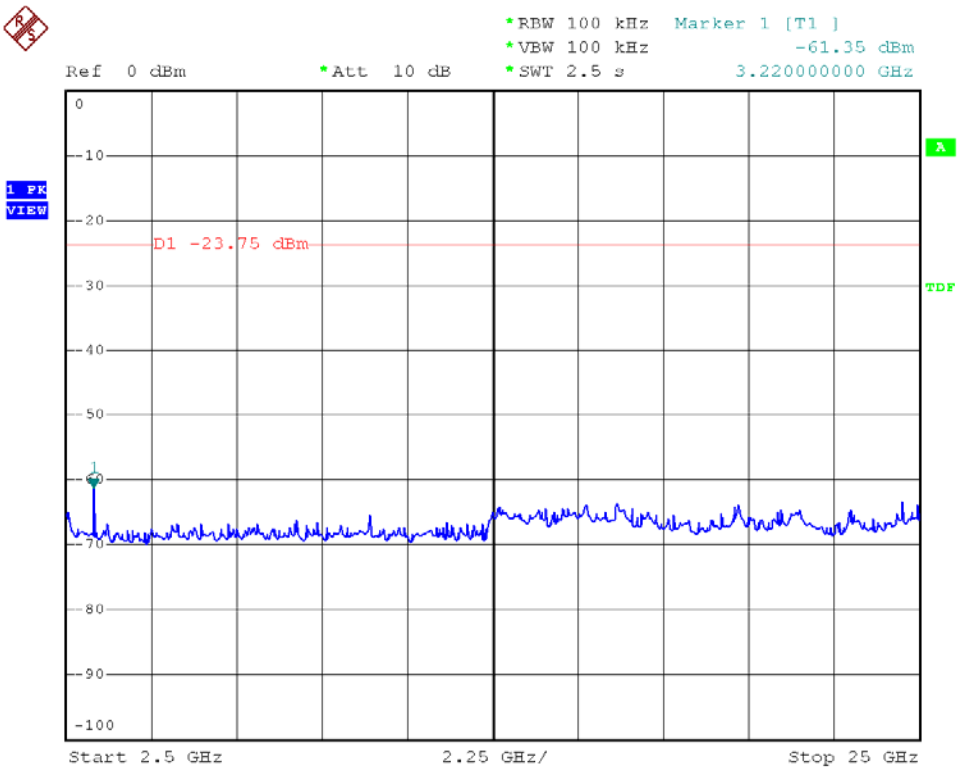
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 06



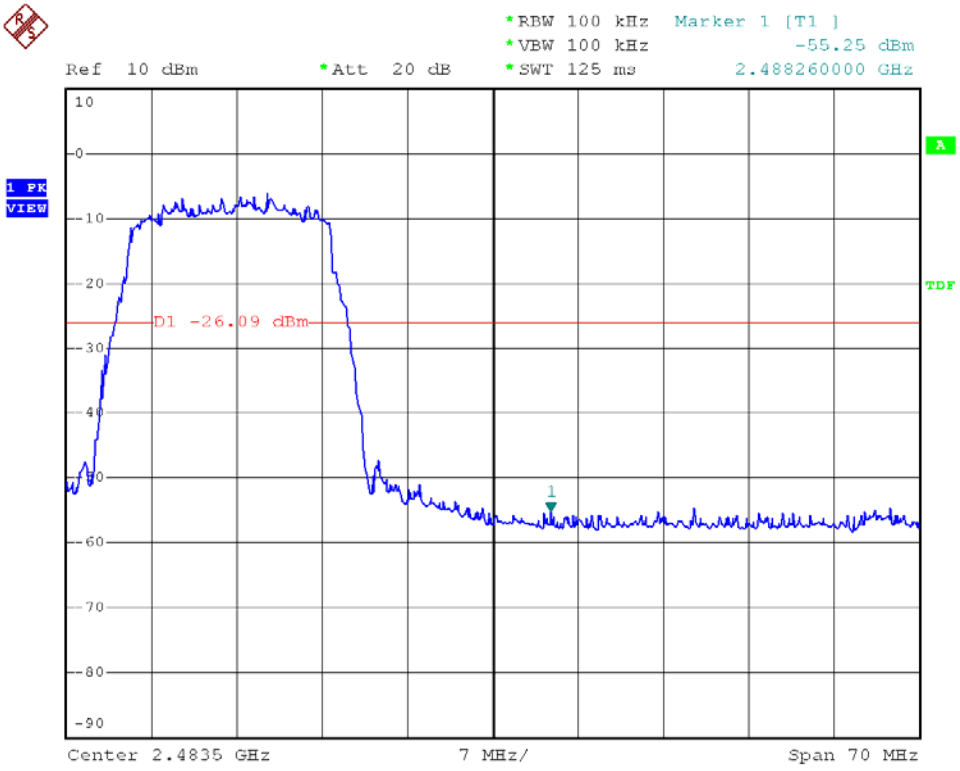
30MHz~2.4GHz:



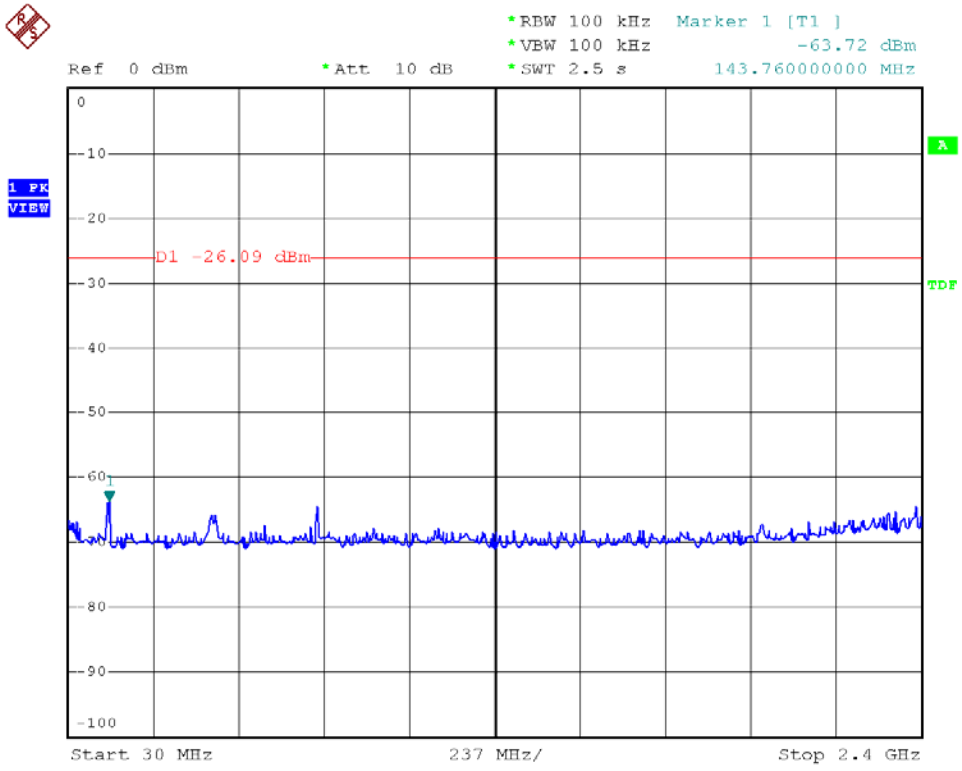
2.5GHz~25GHz:



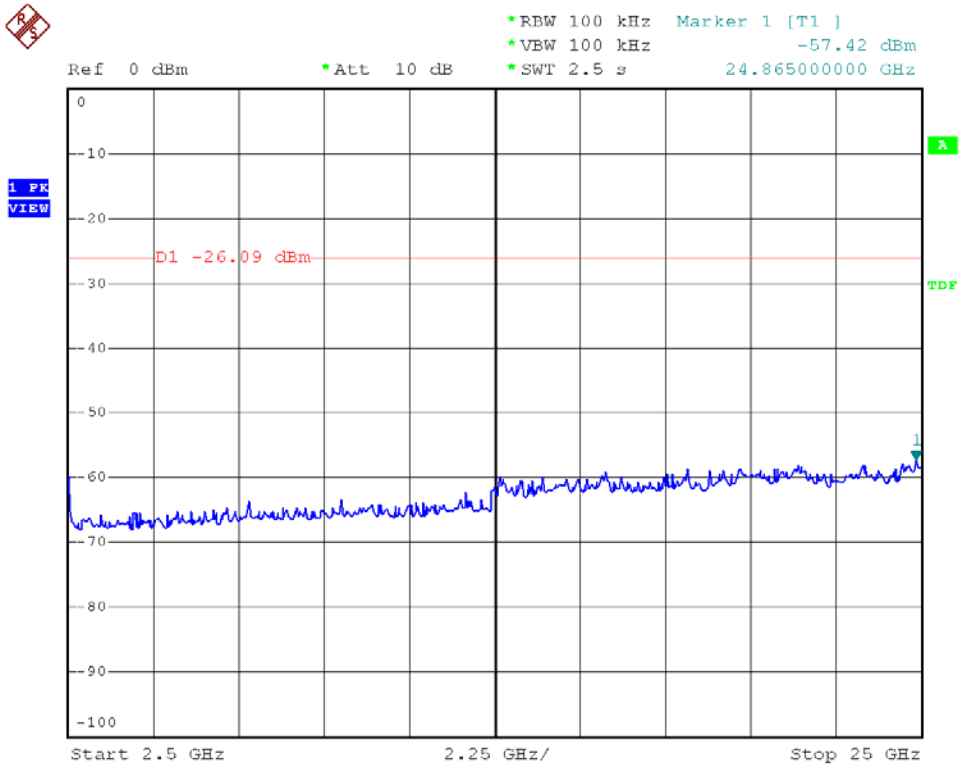
Modulation Standard: 802.11g (54Mbps), Ant2
Channel: 11



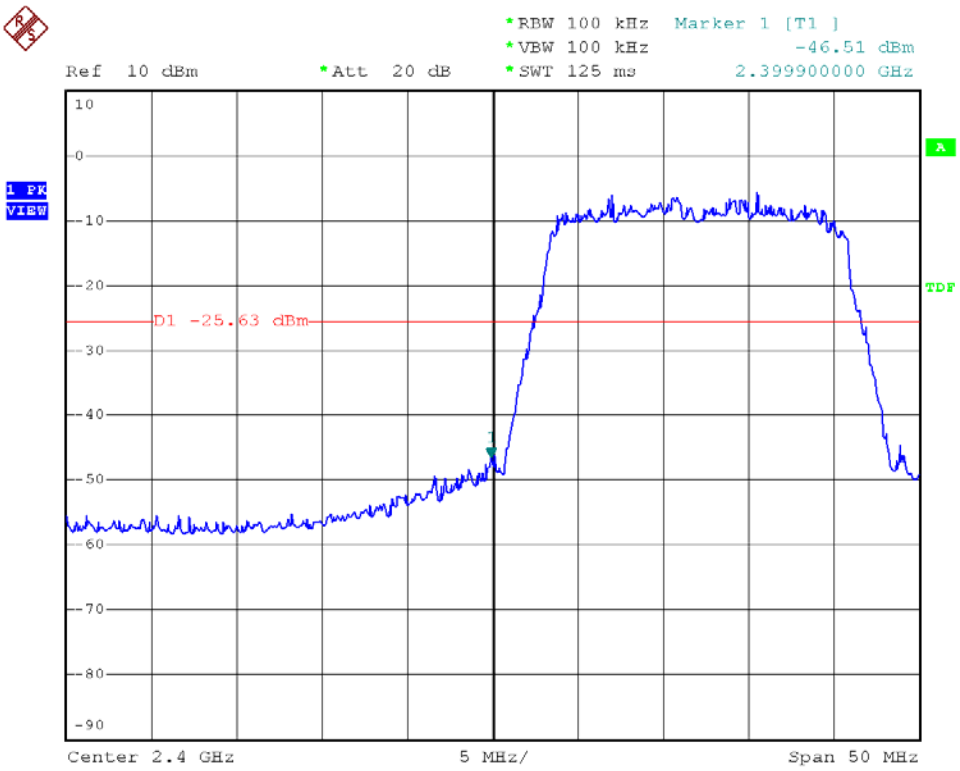
30MHz~2.4GHz:



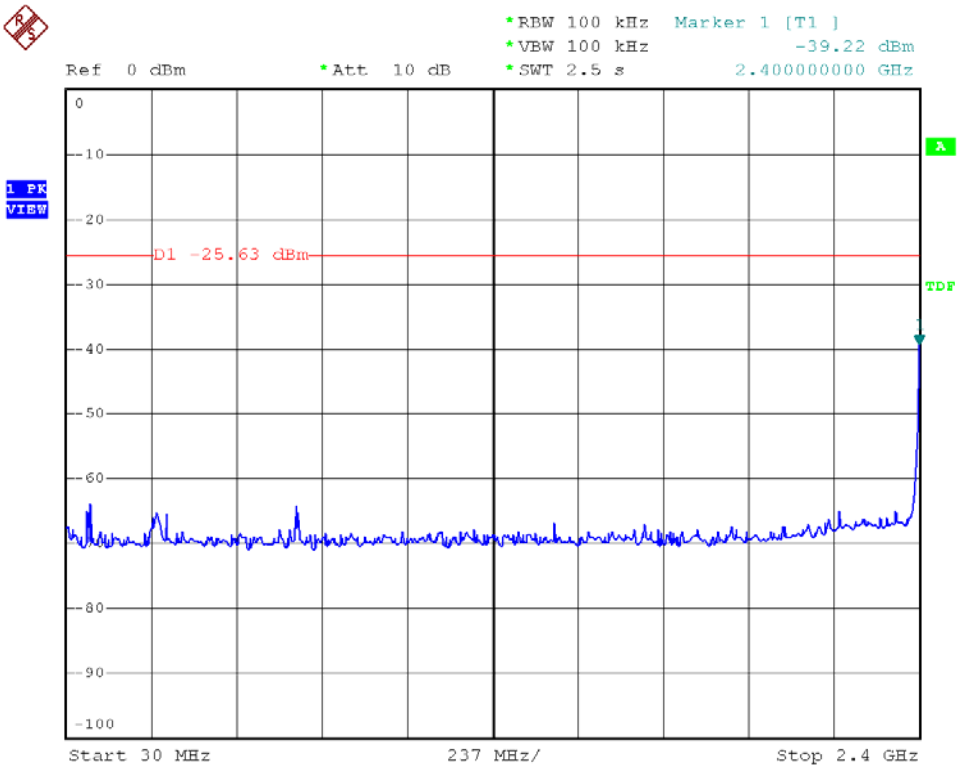
2.5GHz~25GHz:



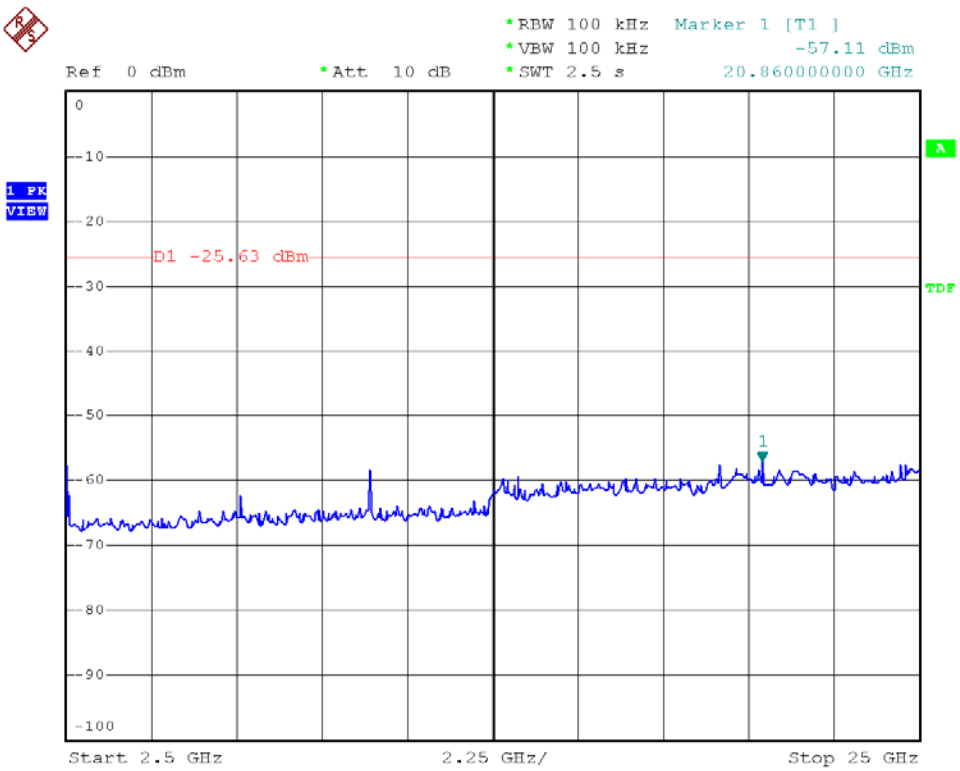
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 01



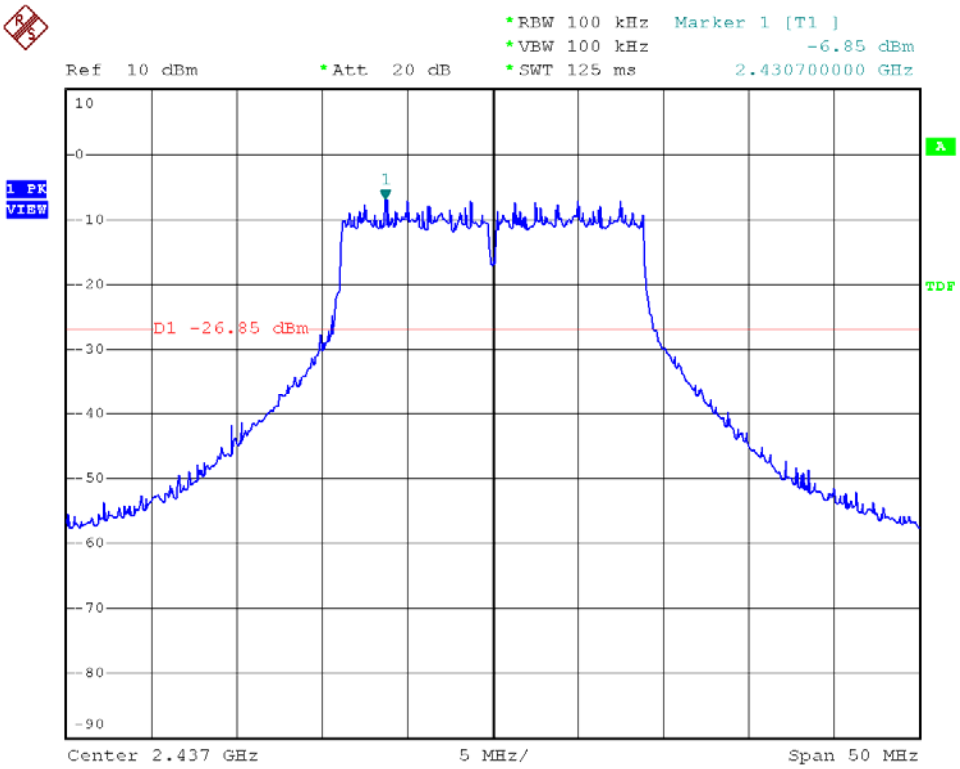
30MHz~2.4GHz:



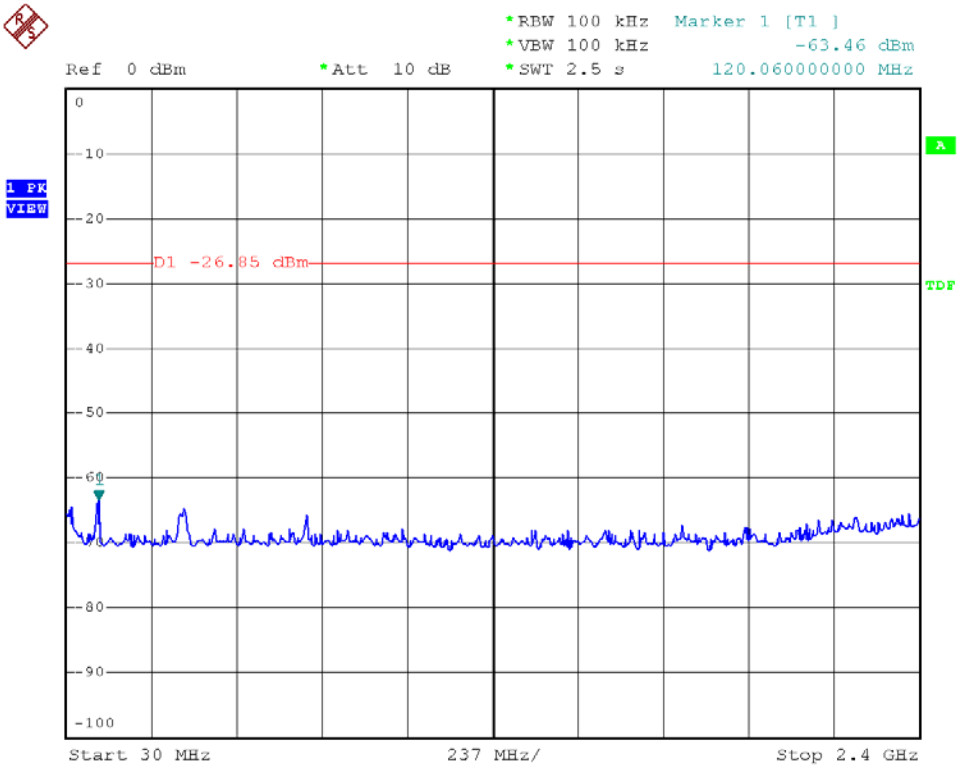
2.5GHz~25GHz:



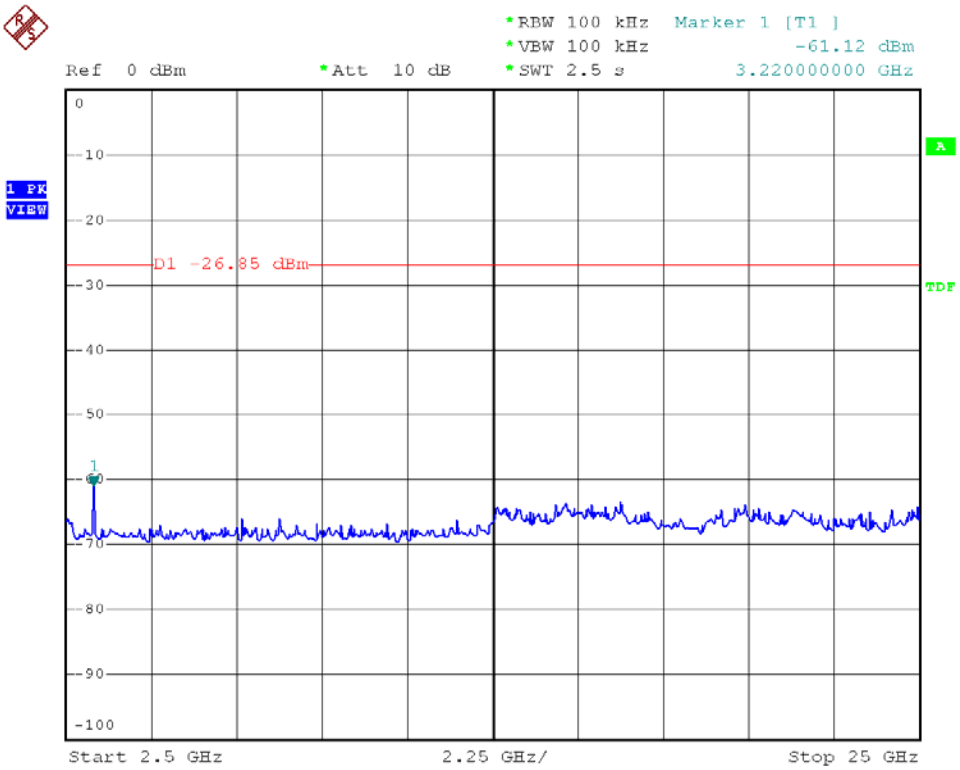
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 06



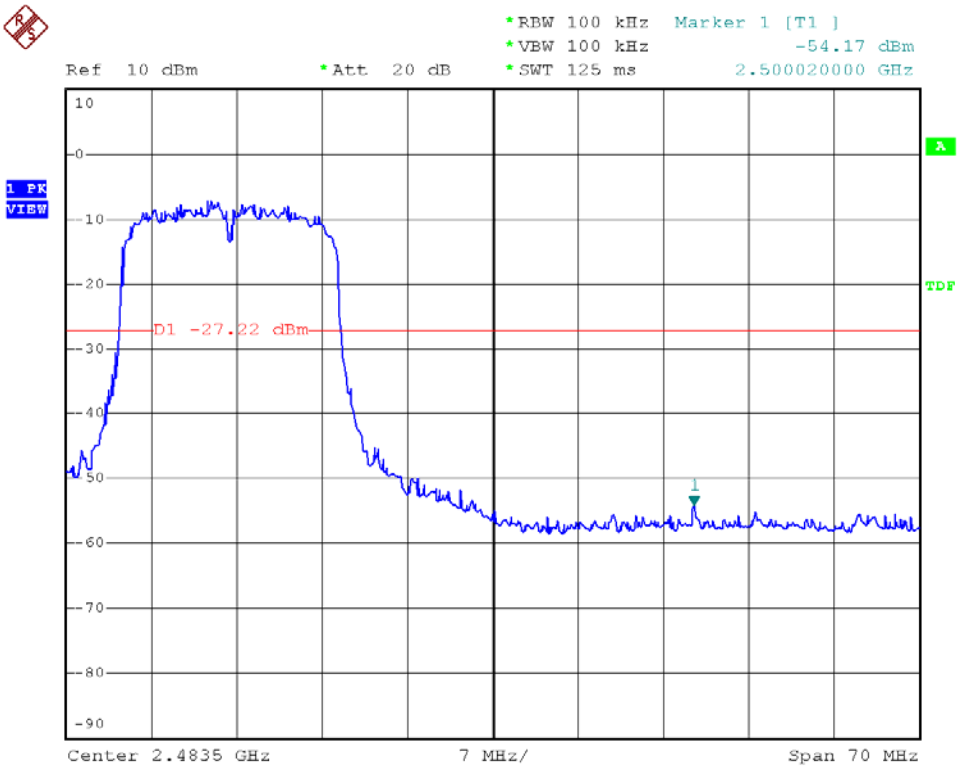
30MHz~2.4GHz:



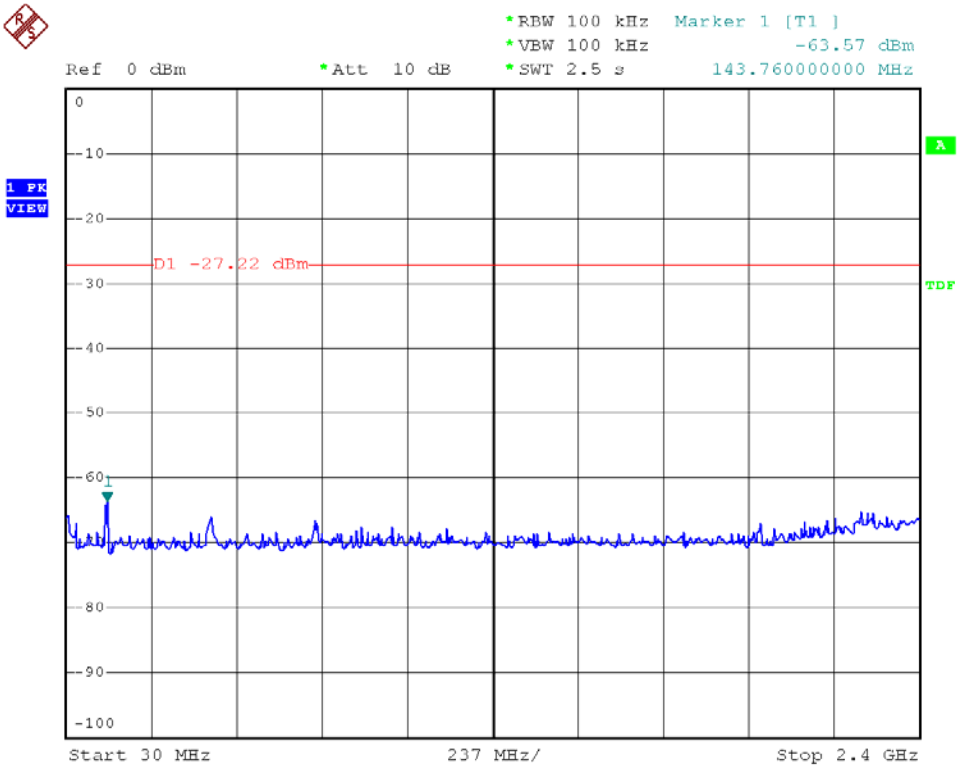
2.5GHz~25GHz:



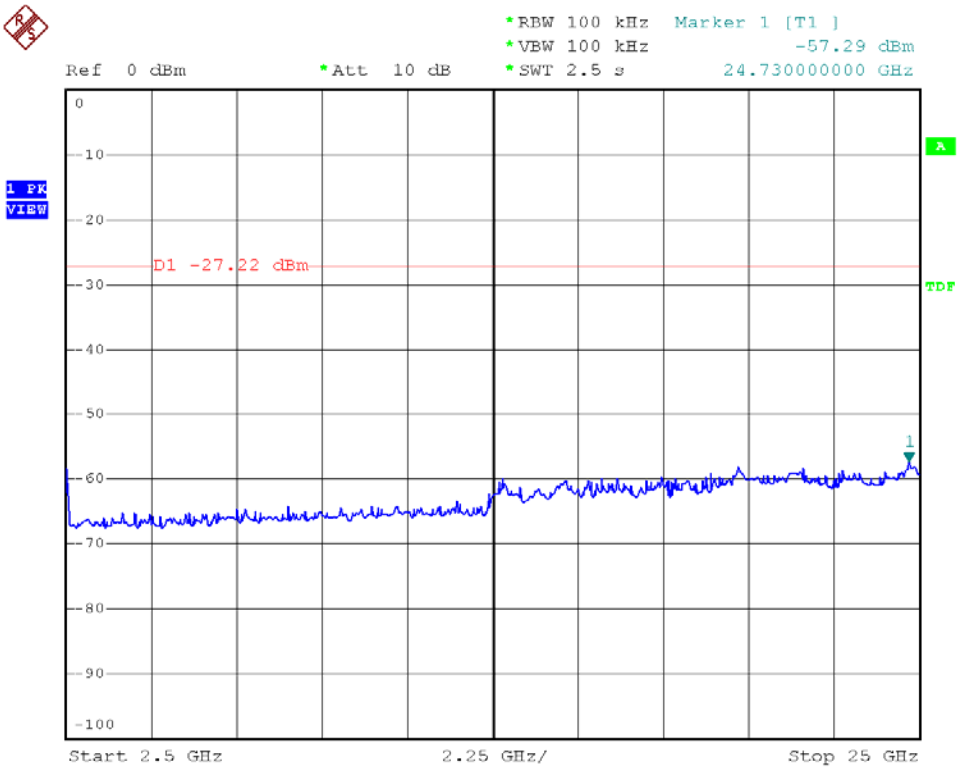
Modulation Standard: 802.11n HT20 (130Mbps), Ant1
Channel: 11



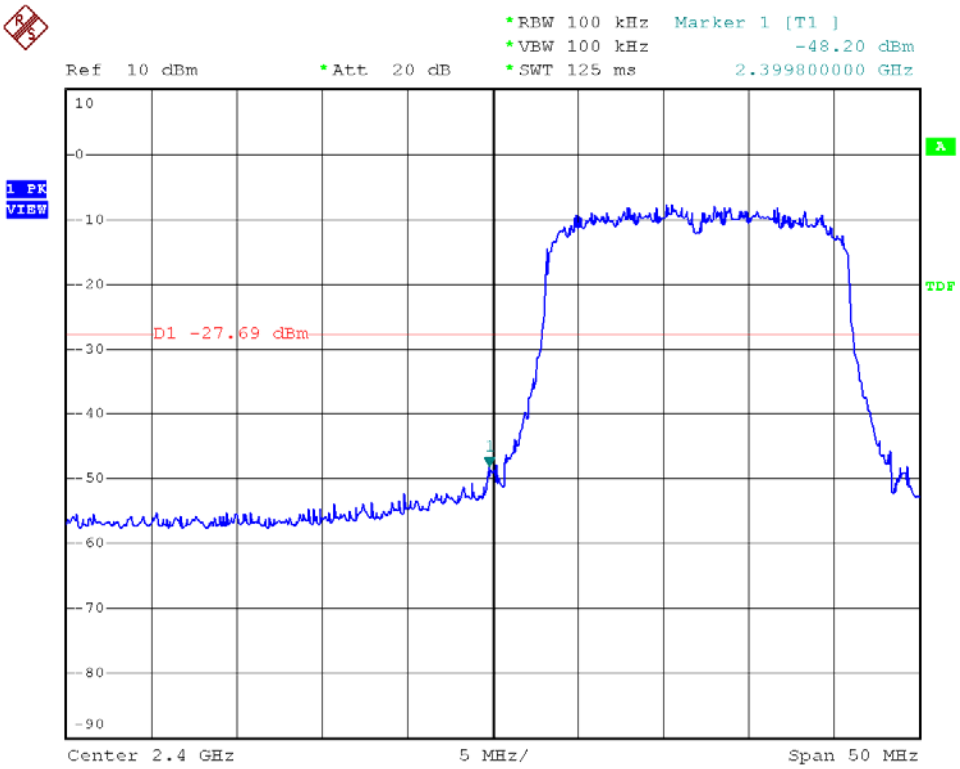
30MHz~2.4GHz:



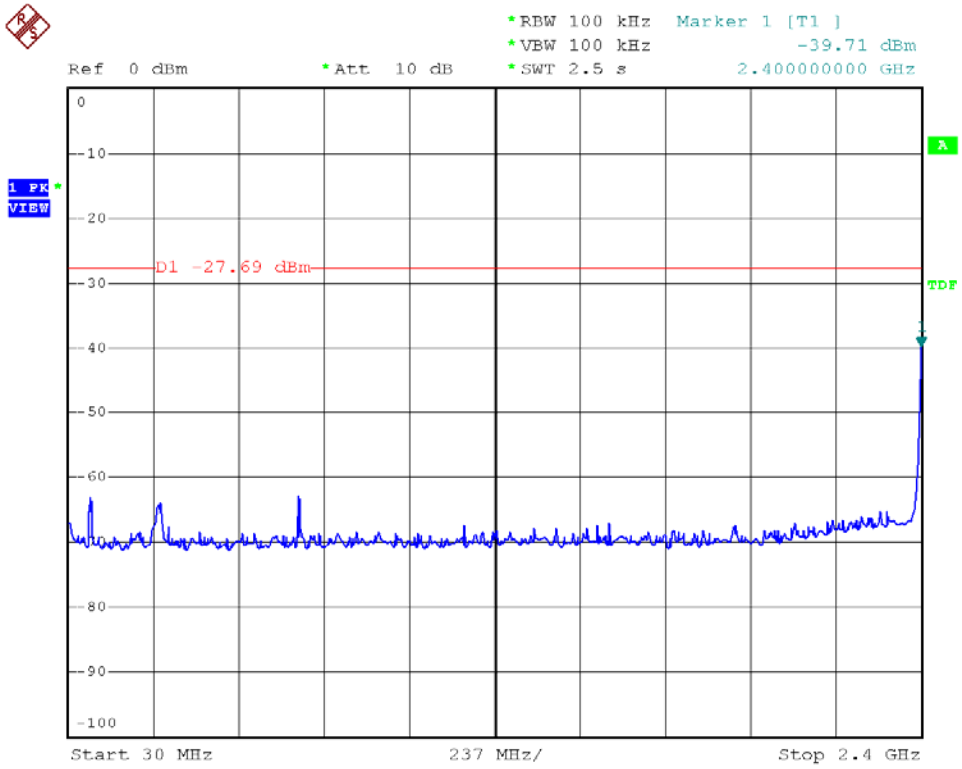
2.5GHz~25GHz:



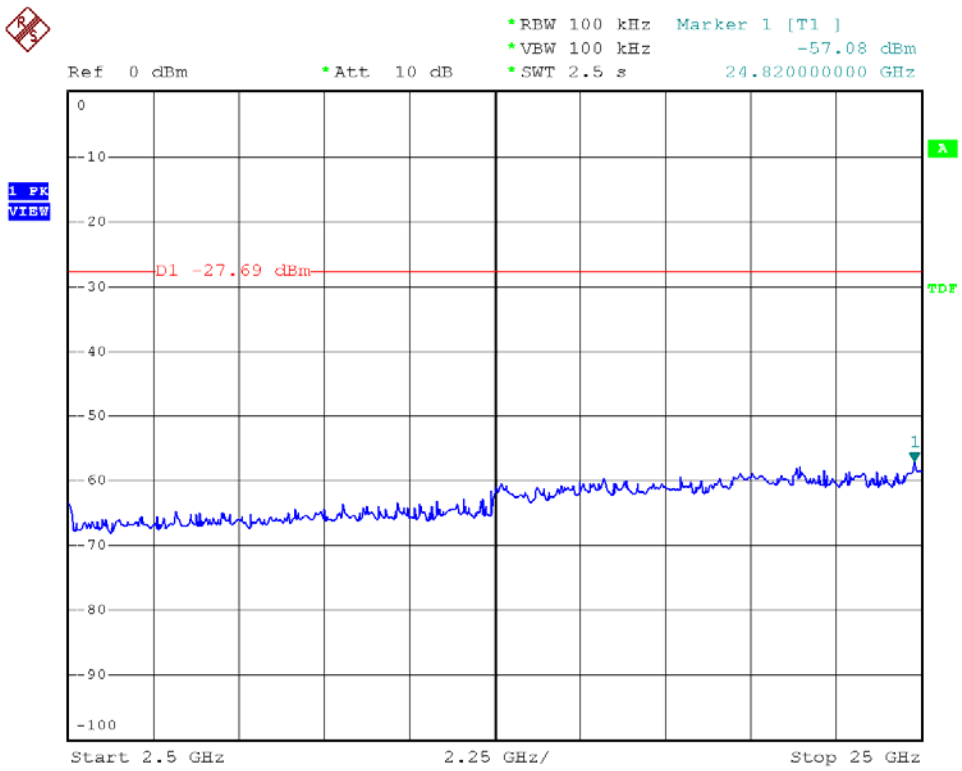
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 01



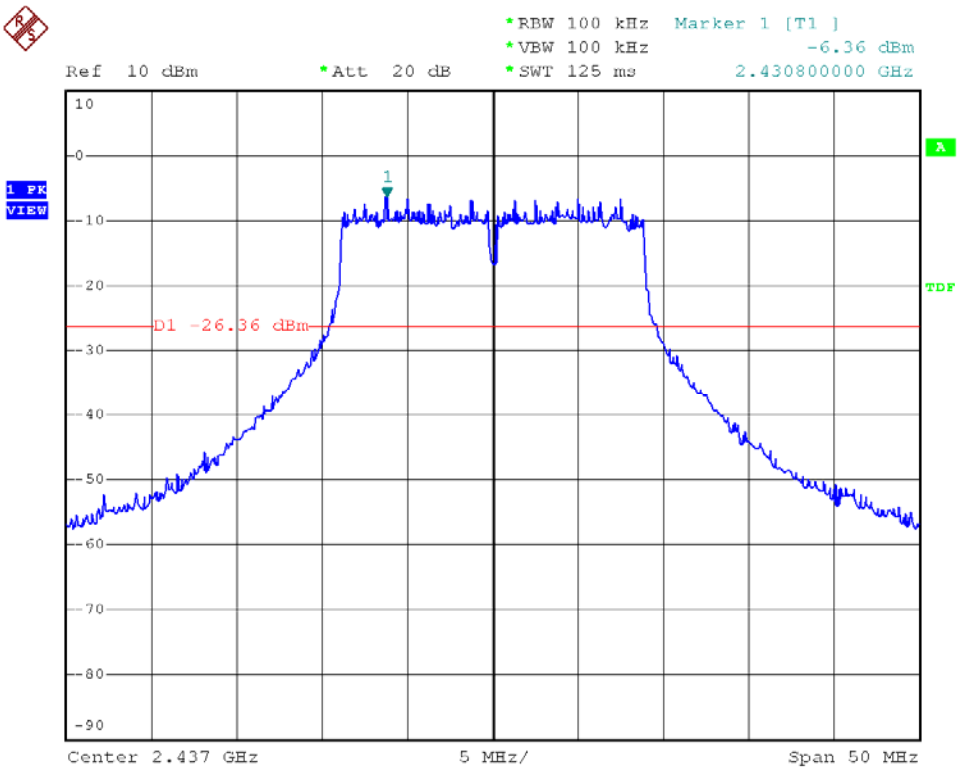
30MHz~2.4GHz:



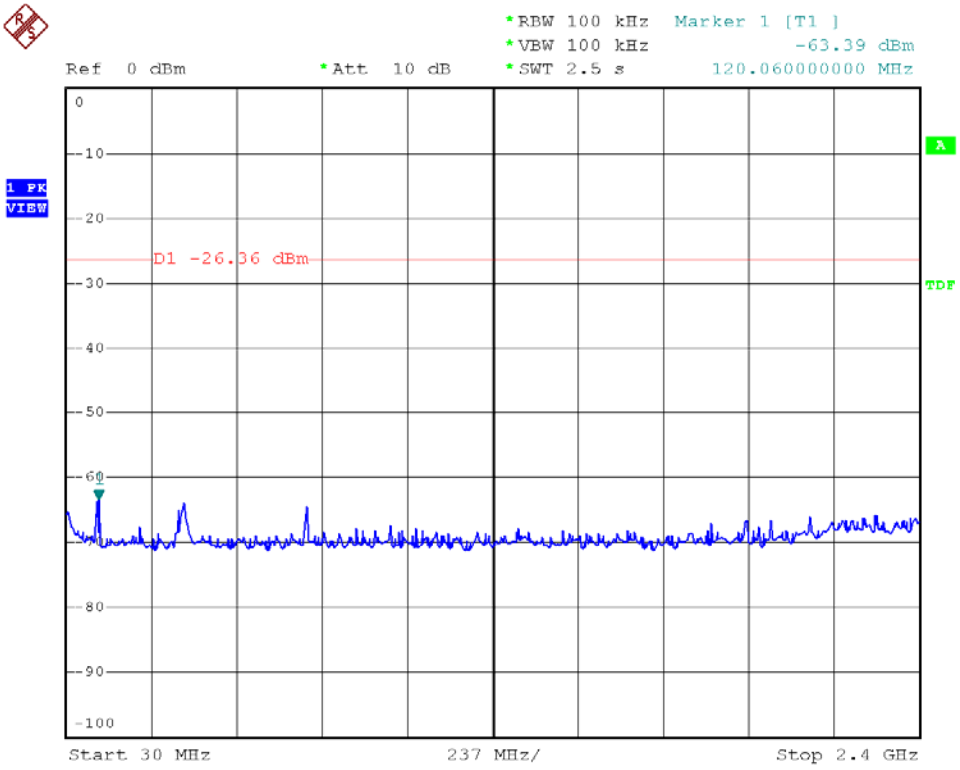
2.5GHz~25GHz:



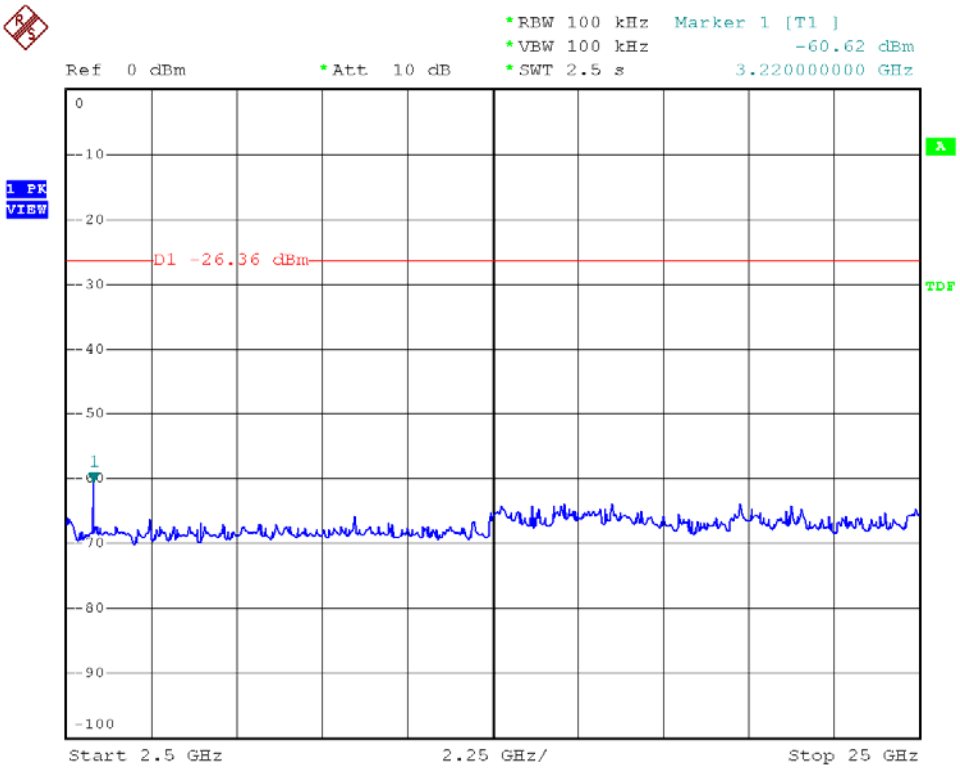
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 06



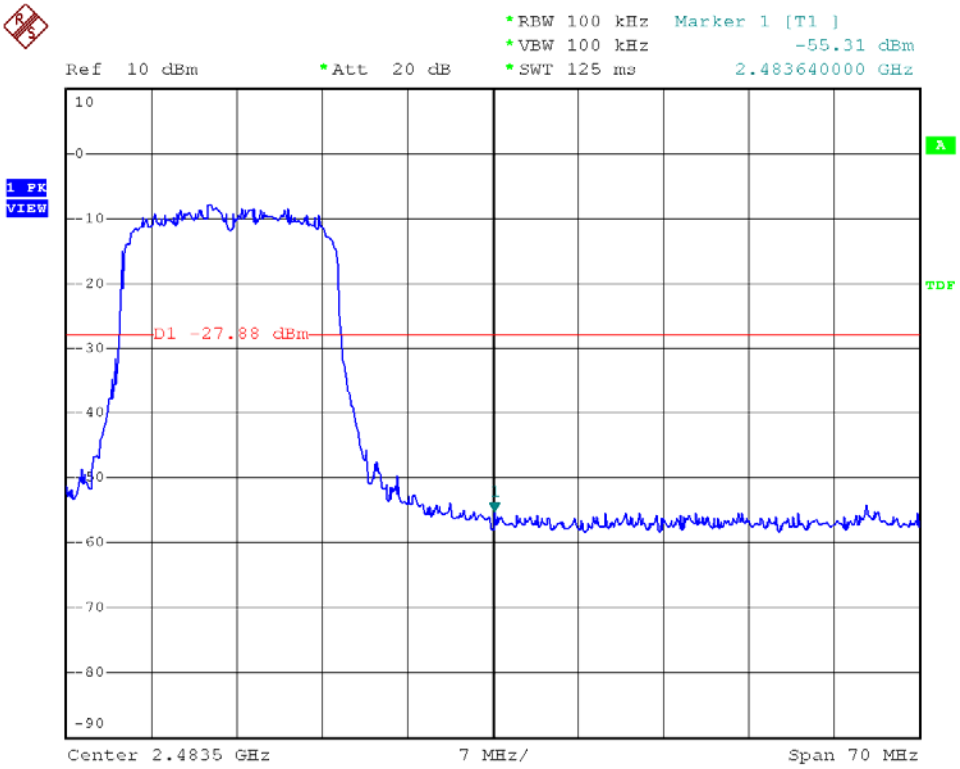
30MHz~2.4GHz:



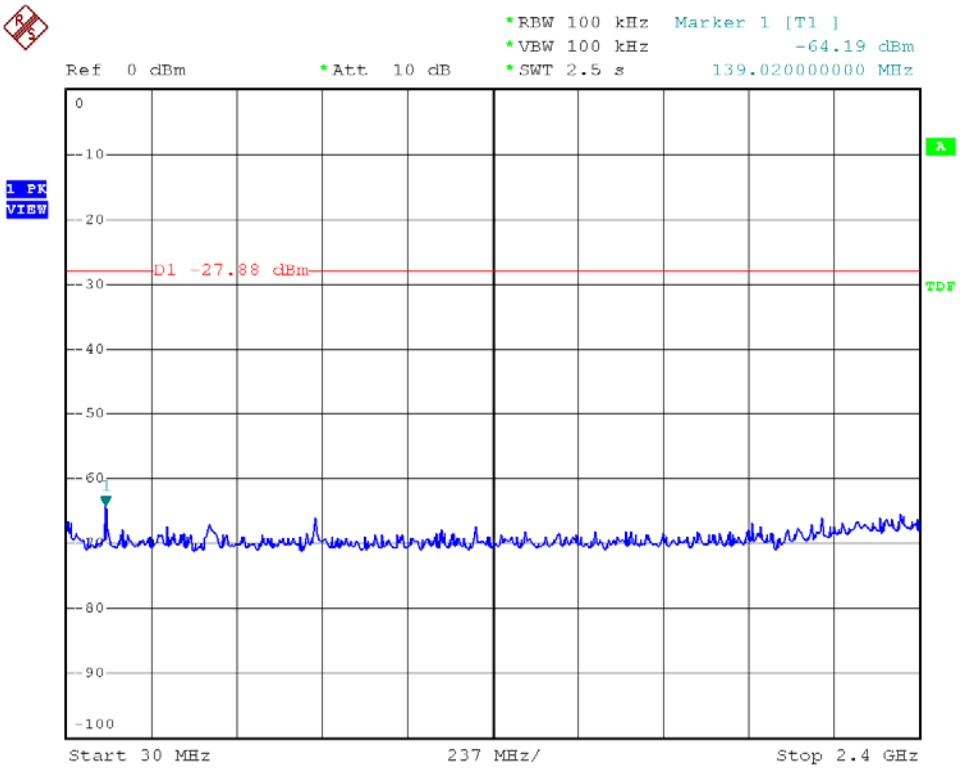
2.5GHz~25GHz:



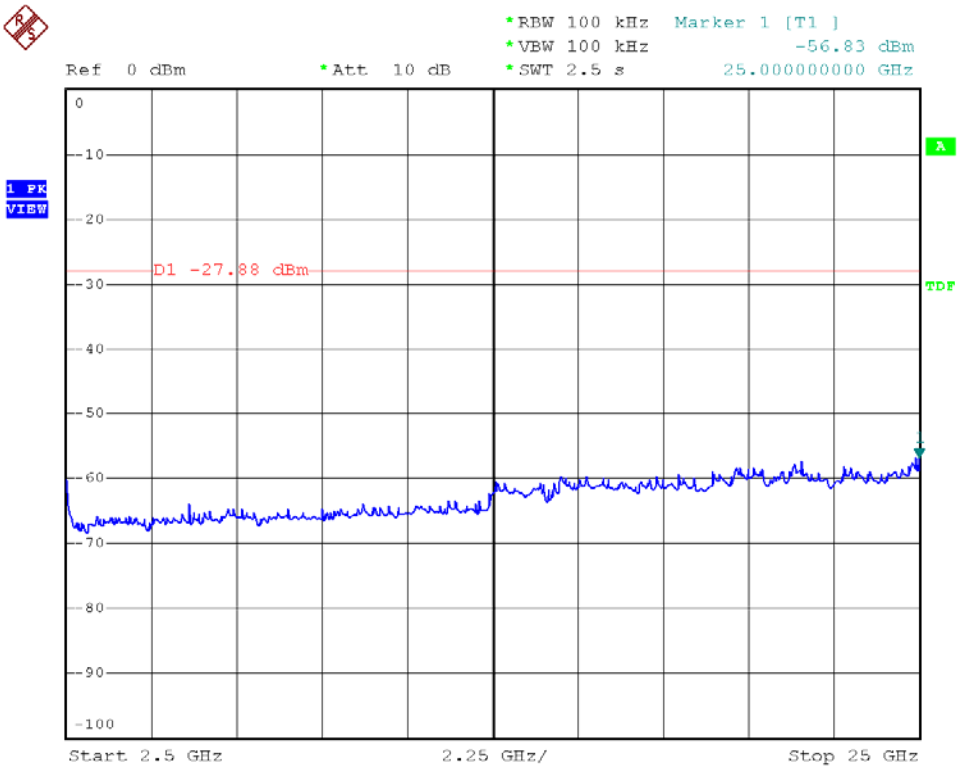
Modulation Standard: 802.11n HT20 (130Mbps), Ant2
Channel: 11



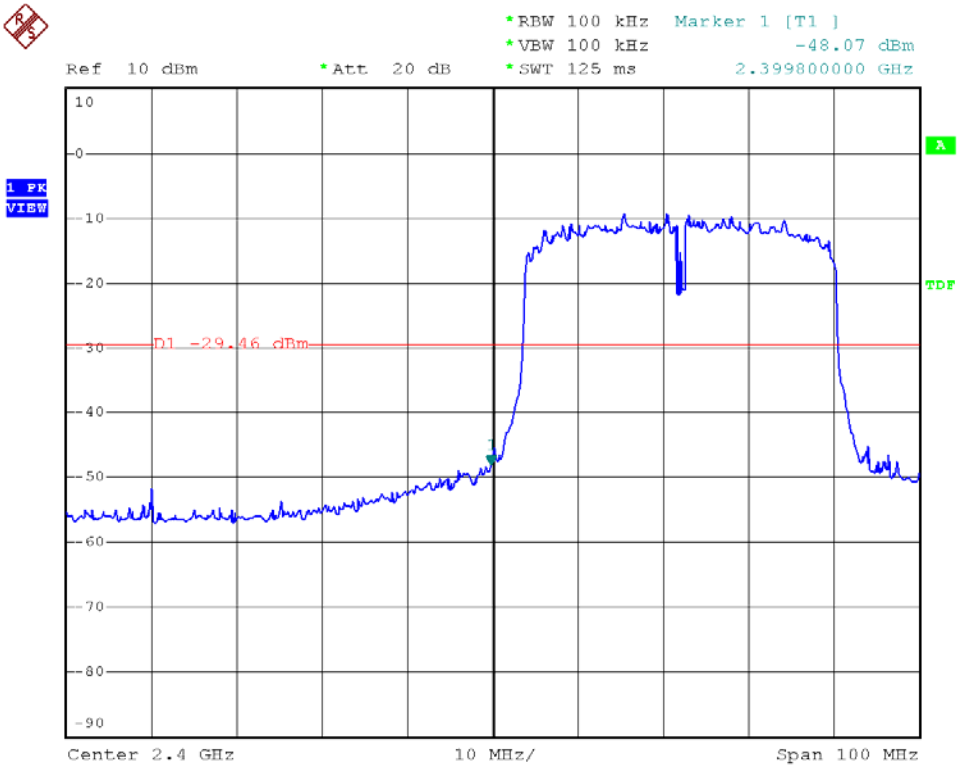
30MHz~2.4GHz:



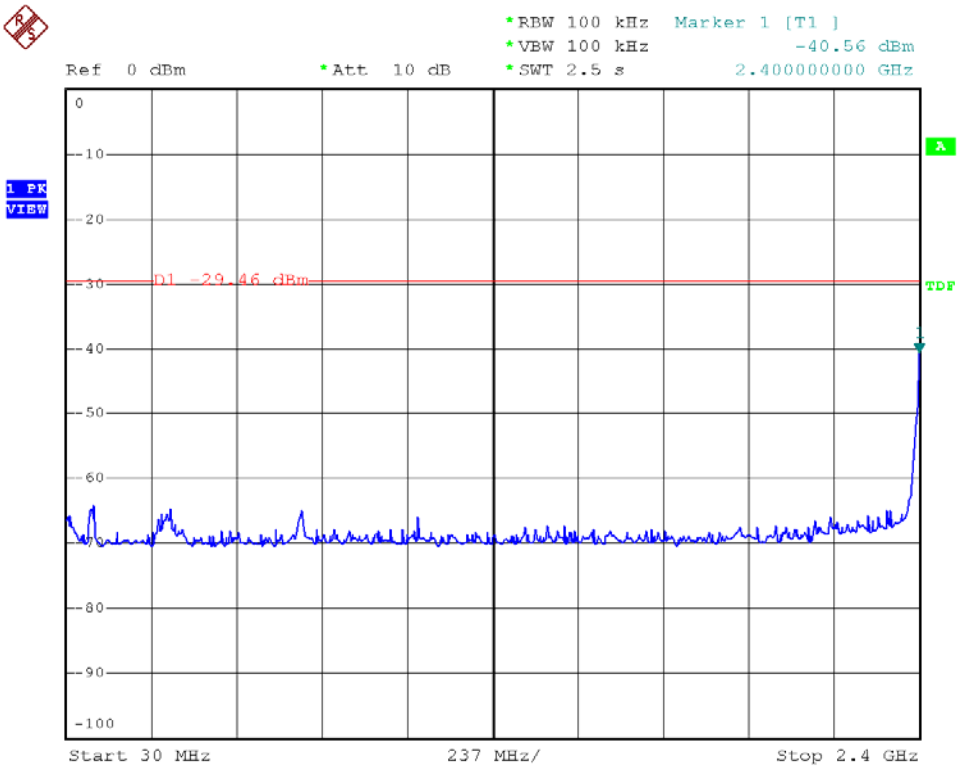
2.5GHz~25GHz:



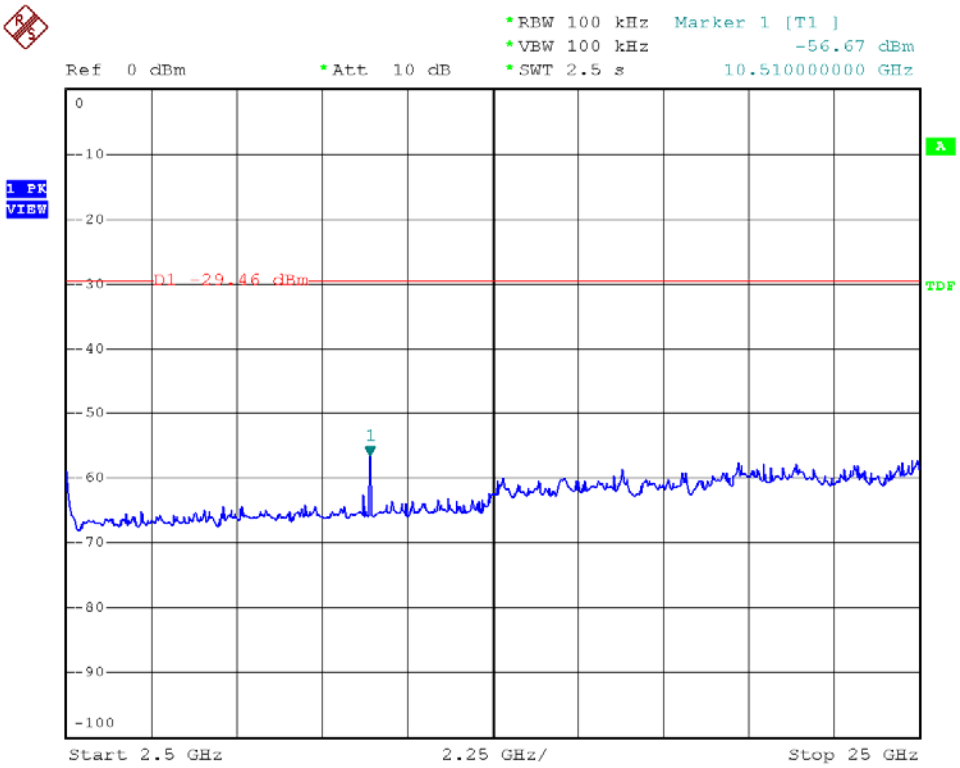
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 03



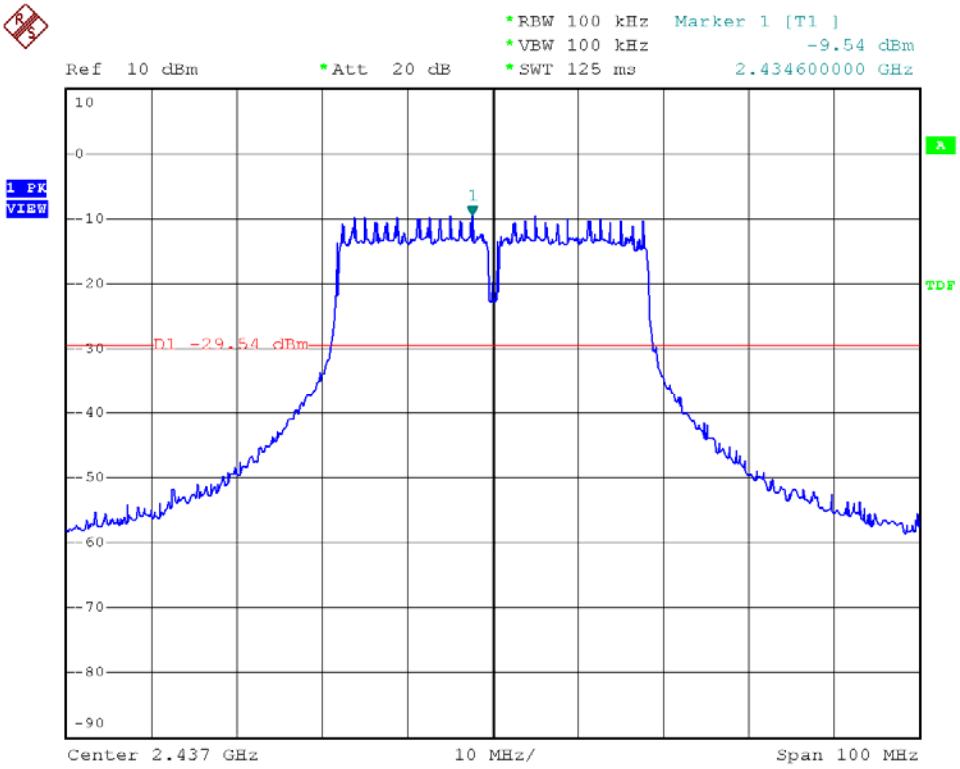
30MHz~2.4GHz:



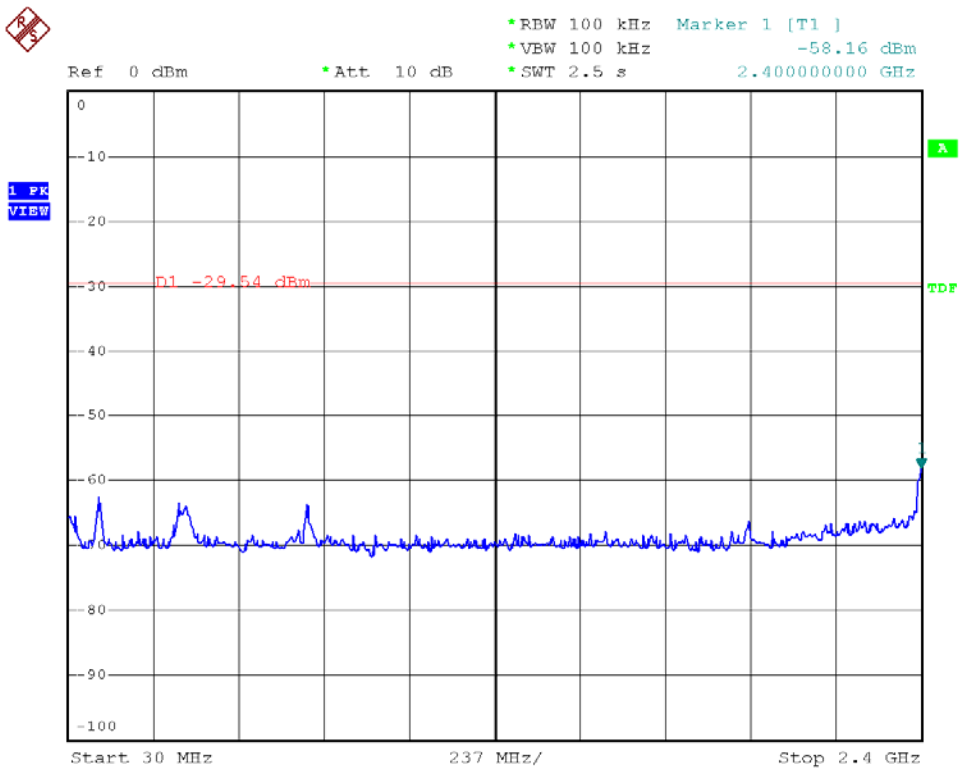
2.5GHz~25GHz:



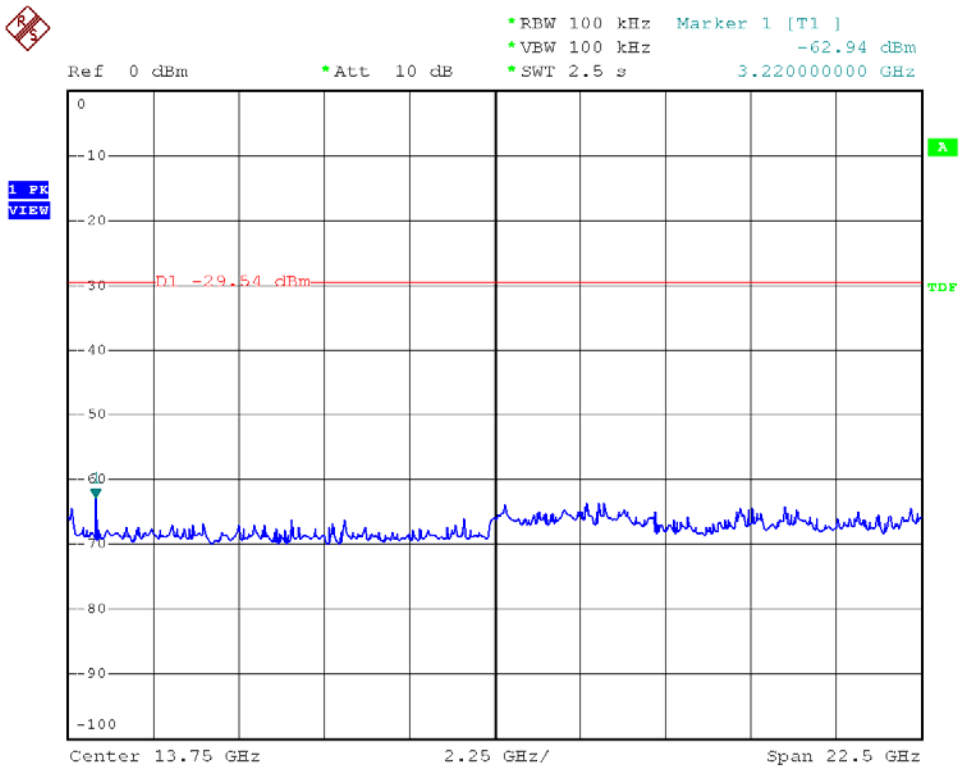
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 06



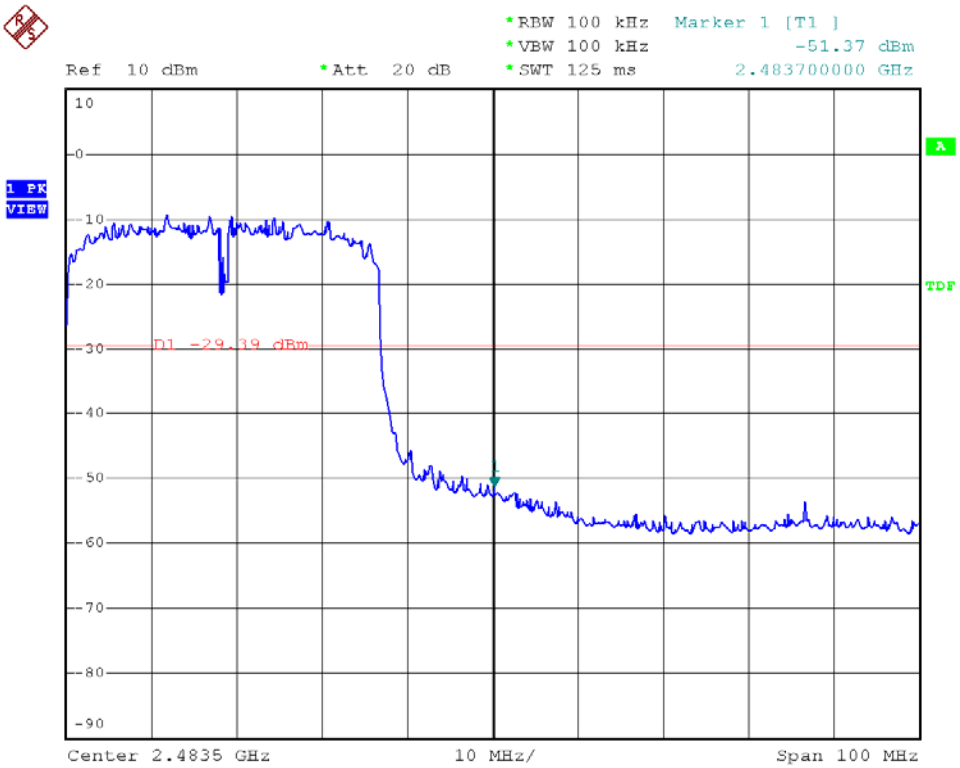
30MHz~2.4GHz:



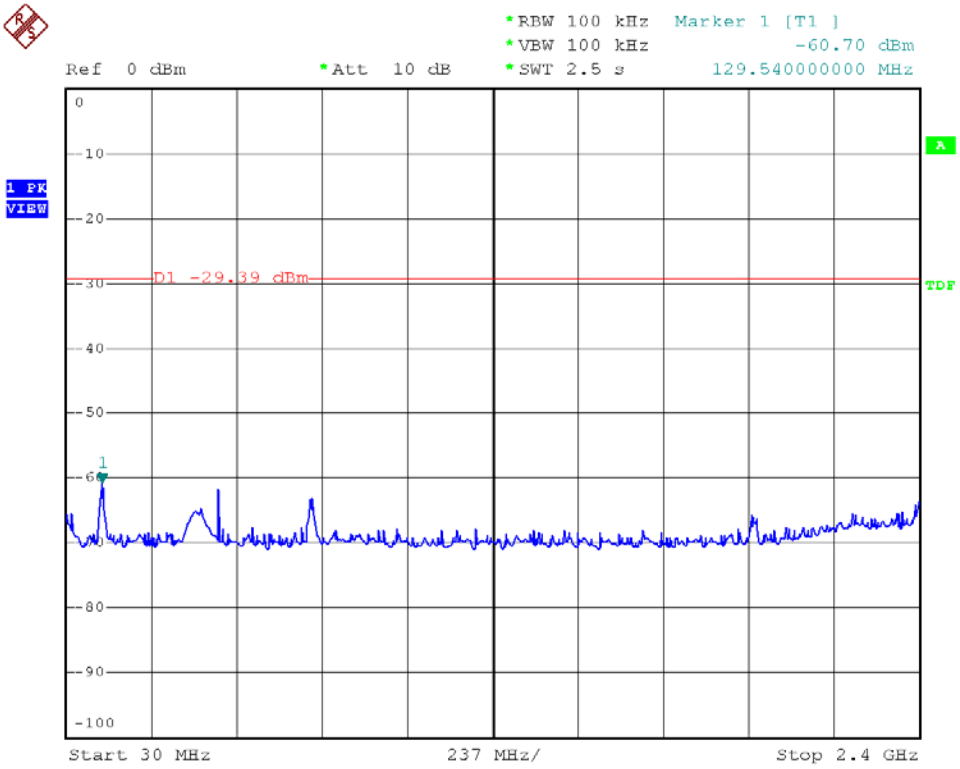
2.5GHz~25GHz:



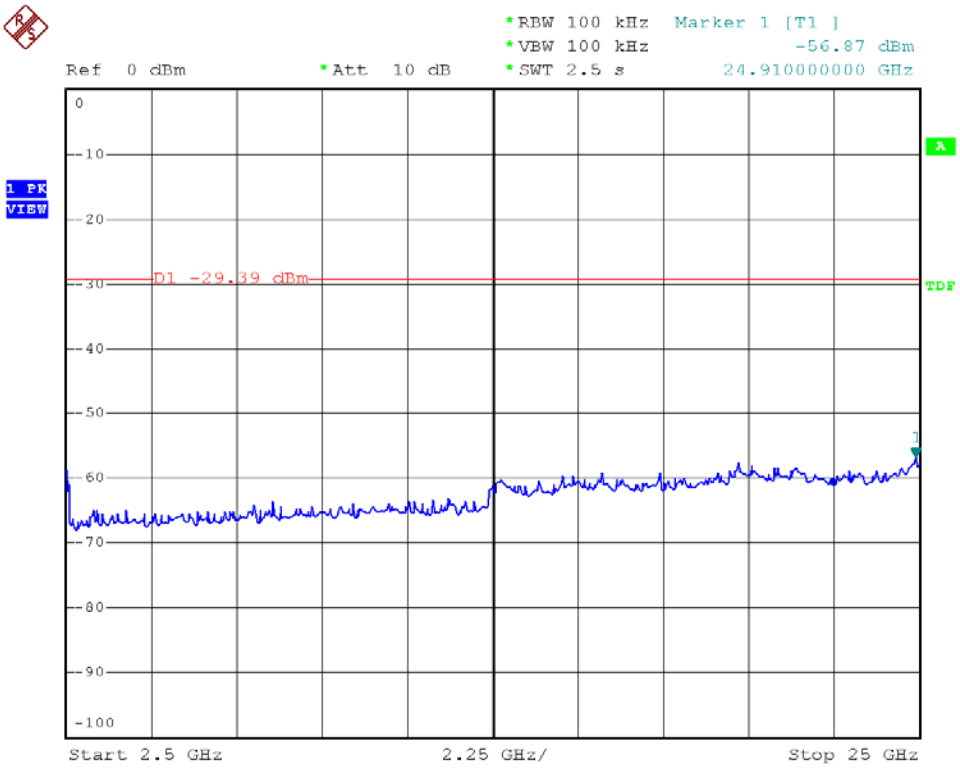
Modulation Standard: 802.11n HT40 (270Mbps), Ant1
Channel: 09



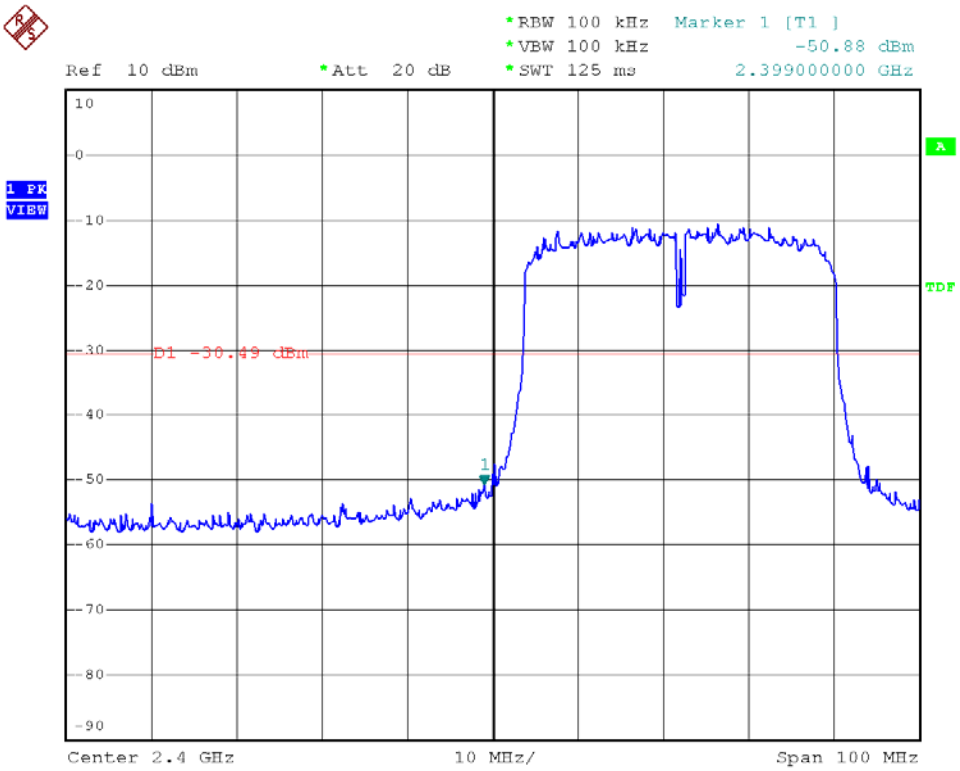
30MHz~2.4GHz:



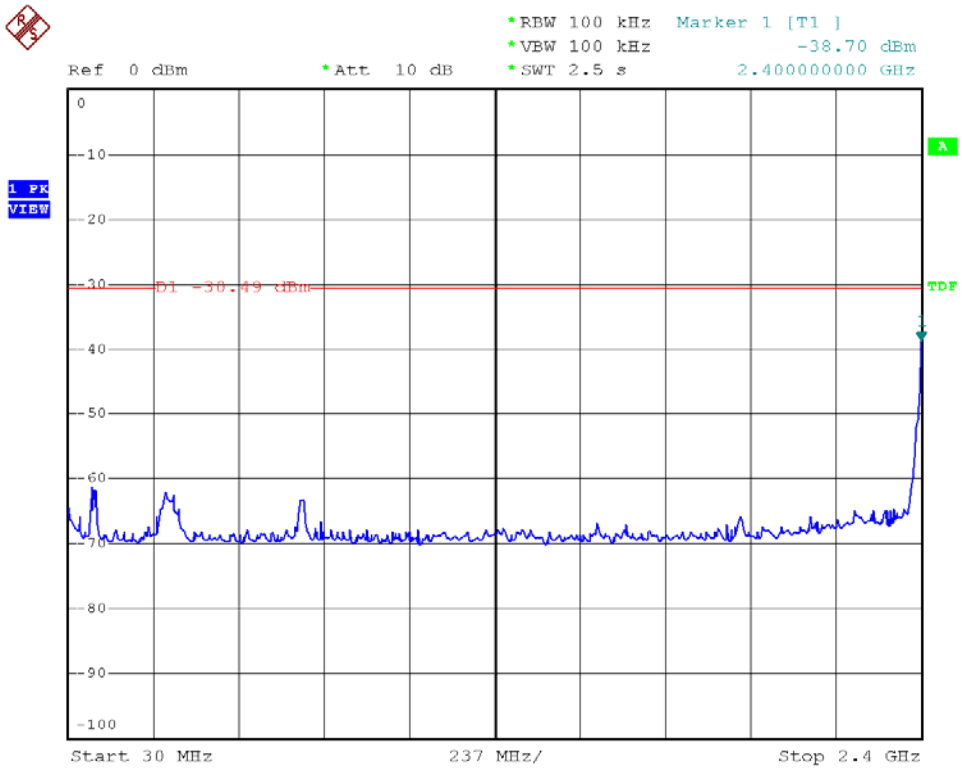
2.5GHz~25GHz:



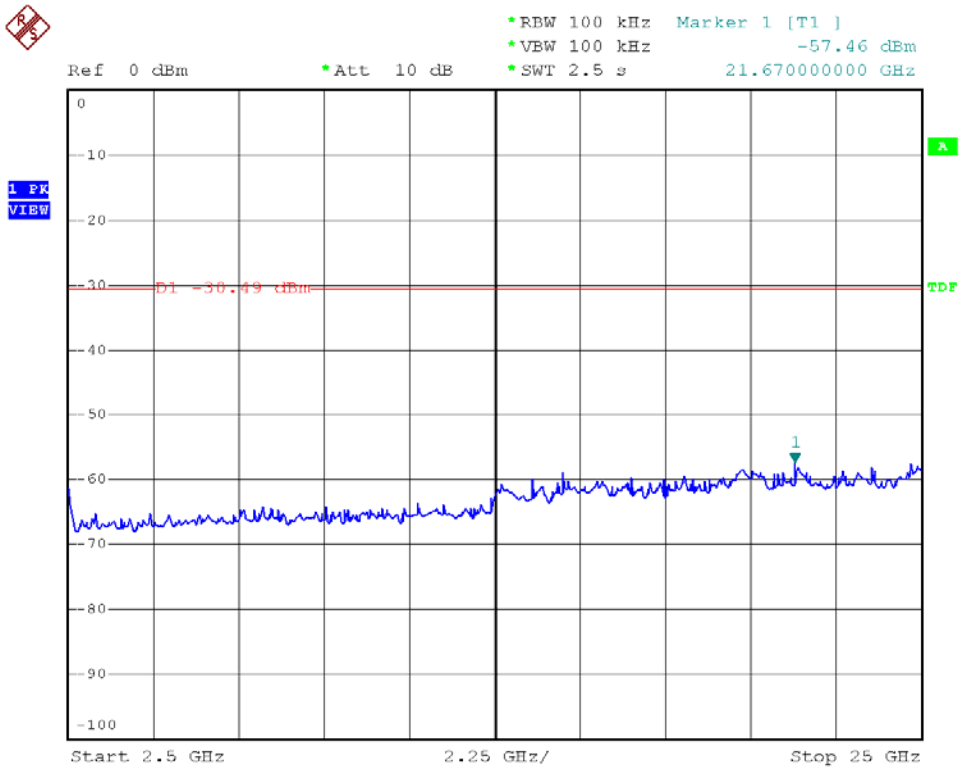
Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 03



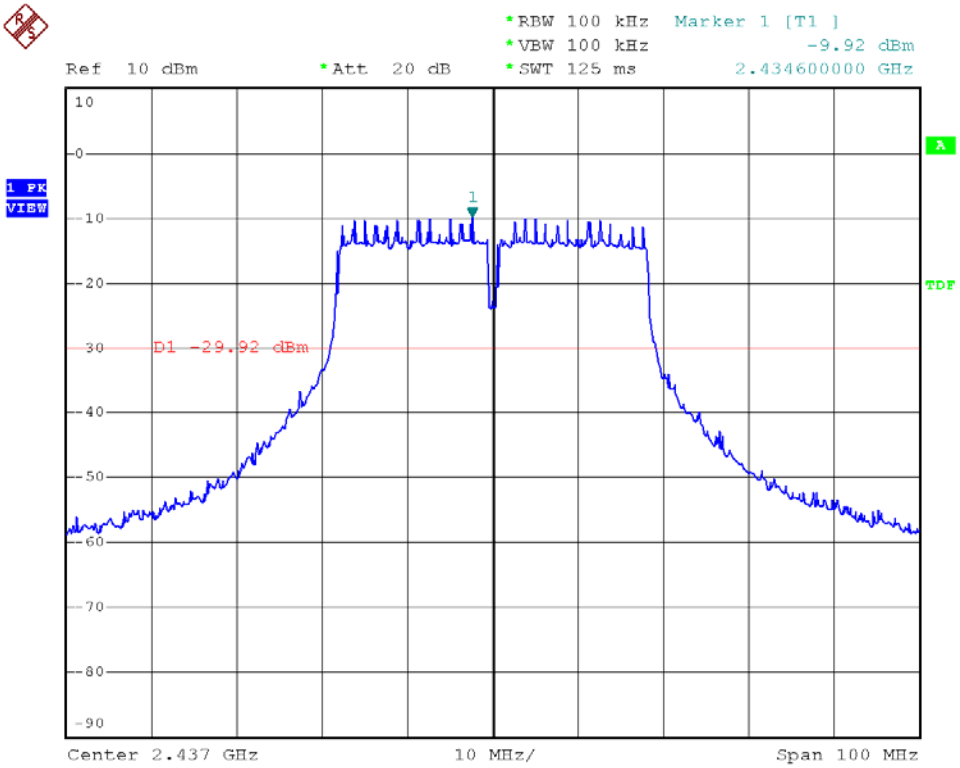
30MHz~2.4GHz:



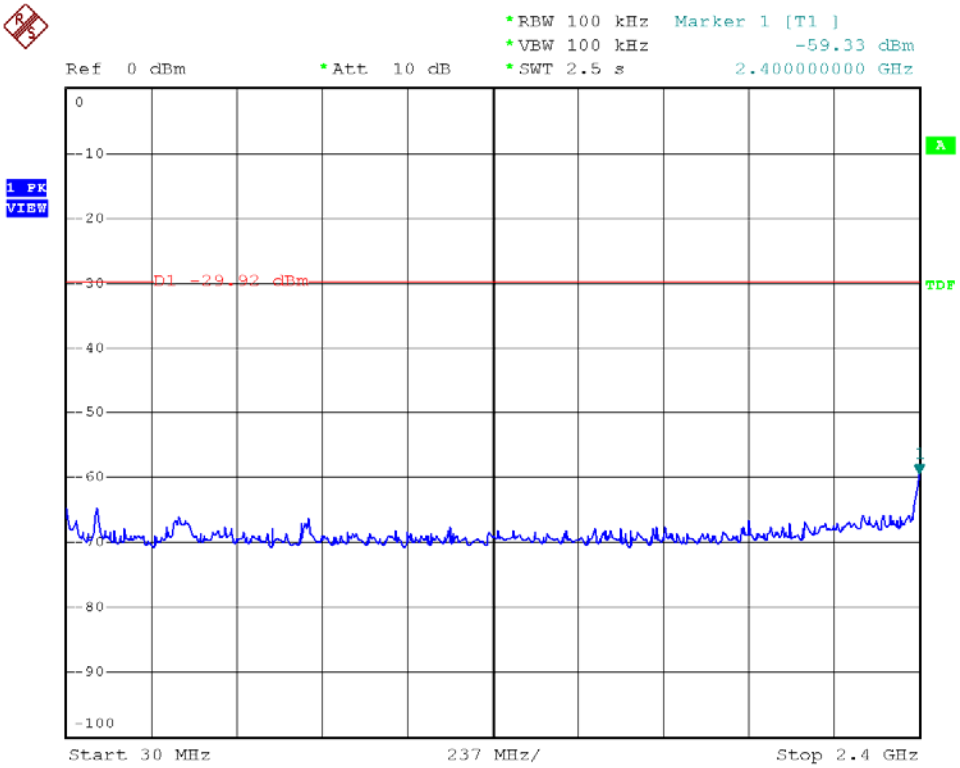
2.5GHz~25GHz:



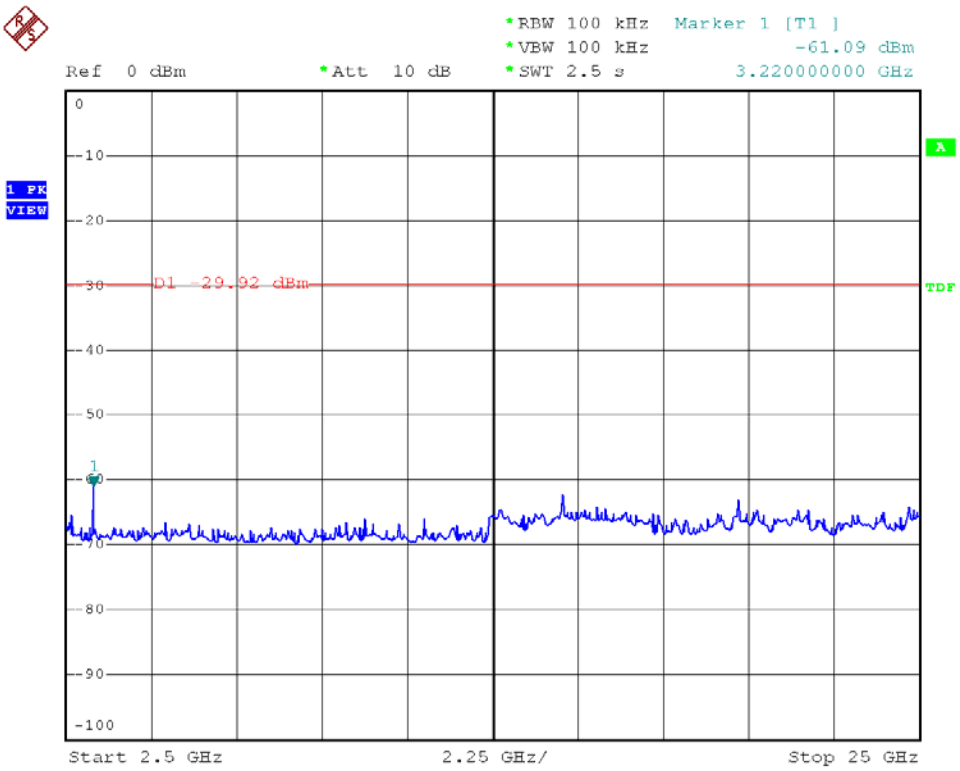
Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 06



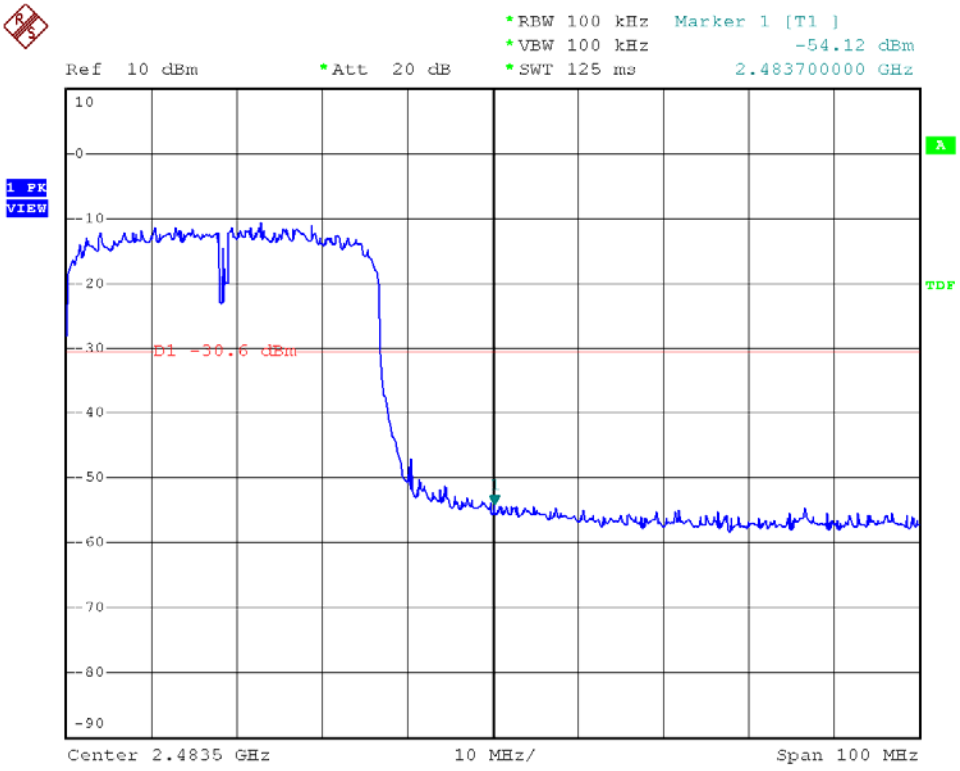
30MHz~2.4GHz:



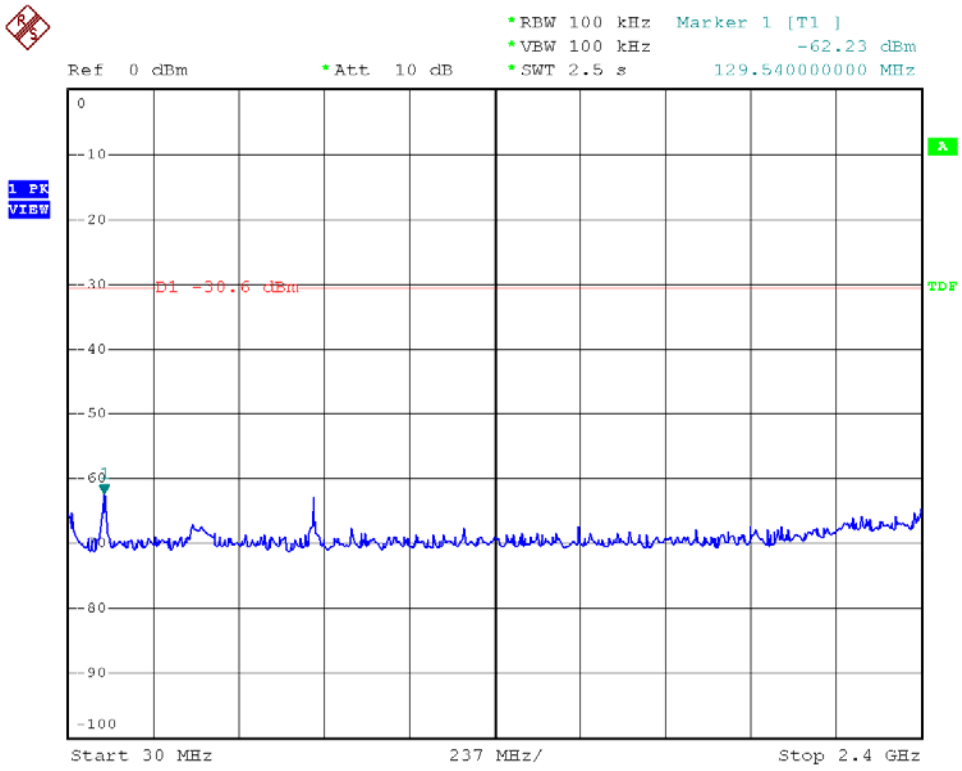
2.5GHz~25GHz:



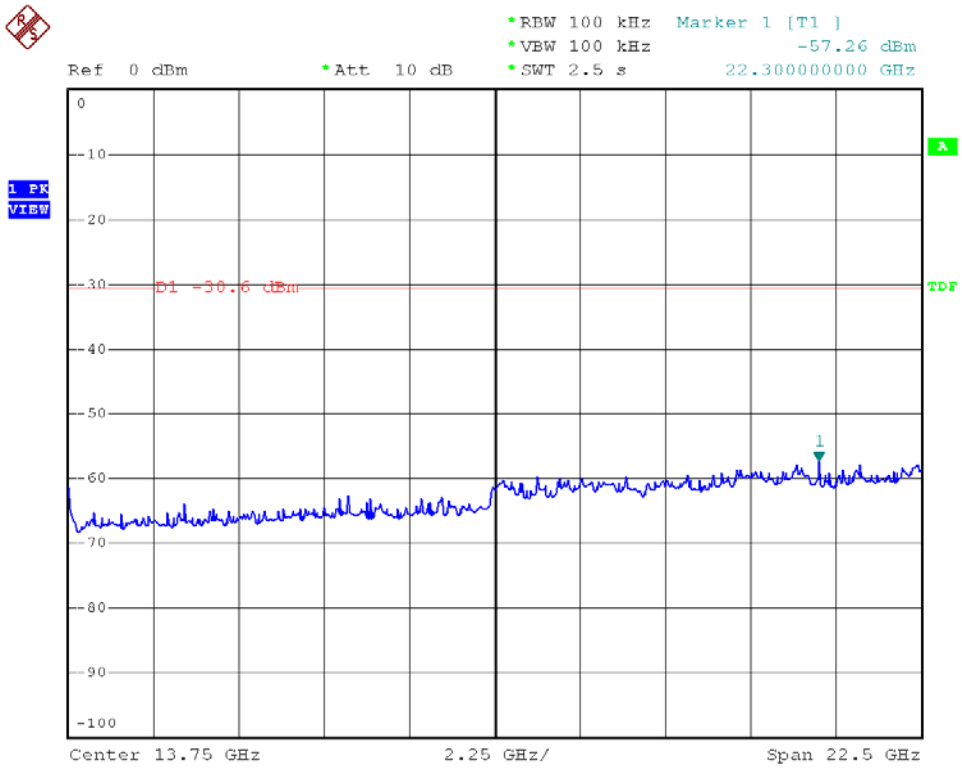
Modulation Standard: 802.11n HT40 (270Mbps), Ant2
Channel: 09



30MHz~2.4GHz:



2.5GHz~25GHz:



9.6 Restrict Band Emission Measurement Data

Test Date: Nov. 10, 2009 Temperature: 26℃

Atmospheric pressure: 1022 hPa Humidity: 58%

Modulation Standard: IEEE 802.11b (11Mbps)

Channel 1										Fundamental Frequency: 2412 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2323.28	H	48.75	-5.14	43.61	Peak	74	54	-30.39	265	208
2386.30	H	33.87	-4.93	28.94	Ave	74	54	-25.06	265	208
2325.62	V	49.10	-5.12	43.98	Peak	74	54	-30.02	181	109
2385.59	V	33.91	-4.93	28.98	Ave	74	54	-25.02	181	109
Channel 11										Fundamental Frequency: 2462 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2492.08	H	48.21	-4.56	43.65	Peak	74	54	-30.35	273	211
2499.63	H	33.60	-4.53	29.07	Ave	74	54	-24.93	273	211
2487.51	V	48.80	-4.57	44.23	Peak	74	54	-29.77	176	112
2499.37	V	33.61	-4.53	29.08	Ave	74	54	-24.92	176	112

Modulation Standard: IEEE 802.11g (54Mbps)

Channel 1										Fundamental Frequency: 2412 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2320.32	H	49.41	-5.15	44.26	Peak	74	54	-29.74	273	213
2386.38	H	33.83	-4.92	28.91	Ave	74	54	-25.09	273	213
2333.07	V	48.72	-5.10	43.62	Peak	74	54	-30.38	201	106
2386.20	V	33.85	-4.93	28.92	Ave	74	54	-25.08	201	106
Channel 11										Fundamental Frequency: 2462 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2491.44	H	33.54	-4.56	28.98	Peak	74	54	25.02	141	202
2497.77	H	50.17	-4.54	45.63	Ave	74	54	28.37	141	202
2490.43	V	48.34	-4.56	43.78	Peak	74	54	-30.22	197	107
2499.72	V	33.60	-4.53	29.07	Ave	74	54	-24.93	197	107

Modulation Standard: IEEE 802.11n HT20 (130Mbps)

Channel 1										Fundamental Frequency: 2412 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2365.79	H	49.41	-4.99	44.42	Peak	74	54	-29.58	263	200
2386.50	H	33.94	-4.92	29.02	Ave	74	54	-24.98	263	200
2323.05	V	50.66	-5.14	45.52	Peak	74	54	-28.48	188	100
2377.42	V	33.95	-4.95	29.00	Ave	74	54	-25.00	188	100
Channel 11										Fundamental Frequency: 2462 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2494.14	H	49.18	-4.56	44.62	Peak	74	54	-29.38	250	200
2491.45	H	33.73	-4.56	29.17	Ave	74	54	-24.83	250	200
2491.29	V	48.01	-4.56	43.45	Peak	74	54	-30.55	186	100
2491.52	V	33.72	-4.56	29.16	Ave	74	54	-24.84	186	100

Modulation Standard: IEEE 802.11n HT40 (270Mbps)

Channel 3										Fundamental Frequency: 2422 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2365.28	H	48.74	-4.99	43.75	Peak	74	54	-30.25	262	200
2386.19	H	34.00	-4.93	29.07	Ave	74	54	-24.93	262	200
2327.03	V	49.79	-5.12	44.67	Peak	74	54	-29.33	188	100
2386.39	V	34.03	-4.92	29.11	Ave	74	54	-24.89	188	100
Channel 9										Fundamental Frequency: 2452 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2499.24	H	48.49	-4.53	43.96	Peak	74	54	-30.04	251	197
2499.88	H	33.73	-4.53	29.20	Ave	74	54	-24.80	251	197
2498.86	V	48.25	-4.56	43.72	Peak	74	54	-30.28	186	100
2491.52	V	33.81	-4.53	29.25	Ave	74	54	-24.75	186	100

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10 Hz for Average detection at frequency above 1GHz.

10. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

10.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.