



FCC TEST REPORT

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant : Billion Electric Co., Ltd.

Address : 8F., No. 192, Sec. 2, Zhongxing Road, Xindian
Dist., New Taipei City, Taiwan

Equipment : Mobile Broadband Wireless-N Router

Model No. : BiPAC 6200WZL R2, BiPAC 6200WZL R3,
BiPAC 6200WZL R4, BiPAC 6200WZ R2,
BiPAC 6200WZ R3, BiPAC 6200WZ R4,
BEC 6200WZL R2, BEC 6200WZL R3,
BEC 6200WZL R4, BEC 6200WZ R2,
BEC 6200WZ R3, BEC 6200WZ R4

FCC ID : QI3BIL-6200WZLR3

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **CerpPASS 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

1. Report of Measurements and Examinations	6
1.1 List of Measurements and Examinations	6
2. Test Configuration of Equipment under Test	7
2.1 Feature of Equipment under Test	7
2.2 Carrier Frequency of Channels	8
2.3 Test Mode and Test Software	9
2.4 Description of Test System	9
2.5 General Information of Test	10
2.6 Measurement Uncertainty	10
3. Antenna Requirements	11
3.1 Standard Applicable	11
3.2 Antenna Construction and Directional Gain	11
4. Test of Conducted Emission	12
4.1 Test Limit	12
4.2 Test Procedures	12
4.3 Typical Test Setup	13
4.4 Measurement Equipment	13
4.5 Test Result and Data	14
4.6 Test Photographs	20
5. Test of Radiated Emission	21
5.1 Test Limit	21
5.2 Test Procedures	21
5.3 Typical Test Setup	22
5.4 Measurement Equipment	22
5.5 Test Result and Data (9kHz ~ 30MHz)	23
5.6 Test Result and Data	23
5.7 Test Photographs (30MHz~1000MHz)	59
5.8 Test Photographs (1000MHz~25000MHz)	60
6. 6dB Bandwidth Measurement Data	61
6.1 Test Limit	61
6.2 Test Procedures	61
6.3 Test Setup Layout	61
6.4 Measurement Equipment	61
6.5 Test Result and Data	61
7. Maximum Peak and Average Output Power	68
7.1 Test Limit	68
7.2 Test Procedures	68
7.3 Test Setup Layout	68
7.4 Measurement Equipment	68
7.5 Test Result and Data	69
8. Power Spectral Density	70
8.1 Test Limit	70
8.2 Test Procedures	70



8.3 Test Setup Layout70

8.4 Measurement Equipment.....70

8.5 Test Result and Data.....70

9. Band Edges Measurement77

9.1 Test Limit77

9.2 Test Procedure77

9.3 Test Setup Layout77

9.4 Measurement Equipment.....77

9.5 Test Result and Data.....77

9.6 Restrict Band Emission Measurement Data86

10. Restricted Bands of Operation88

10.1 Labeling Requirement.....88

Appendix A. Photographs of EUT.....A1 ~ A8



CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant : Billion Electric Co., Ltd.

Address : 8F., No. 192, Sec. 2, Zhongxing Road, Xindian
Dist., New Taipei City, Taiwan

Equipment : Mobile Broadband Wireless-N Router

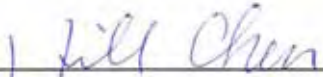
Model No. : BiPAC 6200WZL R2, BiPAC 6200WZL R3,
BiPAC 6200WZL R4, BiPAC 6200WZ R2,
BiPAC 6200WZ R3, BiPAC 6200WZ R4,
BEC 6200WZL R2, BEC 6200WZL R3,
BEC 6200WZL R4, BEC 6200WZ R2,
BEC 6200WZ R3, BEC 6200WZ R4

FCC ID : QI3BIL-6200WZLR3


I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 2009, KDB558074 & KDB662911**. The equipment was **passed** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2010)**. The test was carried out on Sep. 25, 2012 at CerpPASS Technology Corp.

Approved by:


Hill Chen
EMC/RF B.U. Assistant Manager

Tested by:


Ben Lu
Engineer



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

Model difference is as follows, the other is for the same.

Model name	Brand	EWAN	Wireless-N	Ethernet 10/100	USB port	VPN IPSec
BiPAC 6200WZL R2	Billion	V	V	V	V	---
BiPAC 6200WZL R3	Billion	V	V	V	V	---
BiPAC 6200WZL R4	Billion	V	V	V	---	---
BiPAC 6200WZ R2	Billion	V	V	V	V	V
BiPAC 6200WZ R3	Billion	V	V	V	V	V
BiPAC 6200WZ R4	Billion	V	V	V	---	V
BEC 6200WZL R2	BEC	V	V	V	V	---
BEC 6200WZL R3	BEC	V	V	V	V	---
BEC 6200WZL R4	BEC	V	V	V	---	---
BEC 6200WZ R2	BEC	V	V	V	V	V
BEC 6200WZ R3	BEC	V	V	V	V	V
BEC 6200WZ R4	BEC	V	V	V	---	V

- 3G / 4G embedded with a built-in SIM card slot
- Dual WAN interfaces for EWAN and 3G / 3.5G / 3.75G / 4G connections
- 150Mbps. Wireless-N AP
- Supports Wi-Fi Protected Setup (WPS) and WPA-PSK / WPA2-PSK
- Supports multiple SSIDs for flexibility of network infrastructure
- High-speed wireless connection up to 150Mbps data rate
- Auto fail-over for always-on connection
- 3G / 4G Management Center for connection monitoring
- SOHO firewall security with DoS prevention and SPI
- Quality of Service control
- Syslog monitoring
- Ideal for SOHO users, Office users, and Event or meeting organizers



Specifications:

A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz
S.W.R.	<= 2.0
Antenna Gain	4.8 dBi
Efficiency	48 ~ 50%
Polarization	Linear
Impedance 50 Ohm B. Material & Mechanical Characteristics	
Material of Radiator	PCB
Cable Type	O.D. 1.13 mm
Connector Type	Mini Connector
Connector Pull Test	>= 1 Kg
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Storage Time	1800 Days

2.2 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)
---	---	08	2447
---	---	09	2452
03	2422	---	---
04	2427	---	---
05	2432	---	---
06	2437	---	---
07	2442	---	---



2.3 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 Notebook and EUT for the test.
- c. An executive program, "QA TEST" under WIN XP was executed to transmit and receive data to the remote workstation through WLAN.
- 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

*Adapter: EGB \ PAW018A12UL 8066

* Power output of data rate:

802.11b		802.11g		802.11n HT20		802.11n HT40	
Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)	Data Rate (Mbps)	Power output (dBm)
11	20.18	54	23.56	130/15	---	270/15	---
5.5	20.16	48	23.50	117/14	---	243/14	---
2	20.15	36	23.47	104/13	---	216/13	---
1	20.15	24	23.49	78/12	---	162/12	---
---	---	18	23.50	52/11	---	108/11	---
---	---	12	23.52	39/10	---	81/10	---
---	---	9	23.50	26/9	---	54/9	---
---	---	6	23.53	13/8	---	27/8	---
---	---	---	---	65/7	23.01	135/7	22.98
---	---	---	---	58.5/6	22.97	121.5/6	22.93
---	---	---	---	52/5	22.89	108/5	22.95
---	---	---	---	39/4	22.88	81/4	22.95
---	---	---	---	26/3	22.95	54/3	22.96
---	---	---	---	19.5/2	22.89	40.5/2	22.92
---	---	---	---	13/1	22.88	27/1	22.90
---	---	---	---	6.5/0	22.92	13.5/0	22.90

2.4 Description of Test System


Device	Manufacturer	Model No.	Description
Notebook	ASUS	A8J	Power Cable, Unshielding 1.8m

Use Cable:

Cable	Quantity	Description
RJ45	1	Unshielding, 1.0 m



2.5 General Information of Test

Test Site :	CerpPASS Technology Corp. 2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location (OATS2-SD) :	No.68-1, Shihbachongsi, Shihding Township, Taipei City 223, Taiwan, R.O.C.
FCC Registration Number:	TW1049, TW1061, 390316, 488071
IC Registration Number :	4934B-1, 4934D-1
VCCI Registration Number:	T-1173 for Telecommunication Test C-4139 for Conducted emission test R-3428 for Radiated emission test G-97 for Radiated emission test above 1GHz
Frequency Range Investigated:	Conducted: 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.
Laboratory Accreditation	

2.6 Measurement Uncertainty

Measurement Item	Uncertainty
Radiated emission	±4.11dB
Peak Output Power(conducted)	±1.38dB
Peak Output Power(Radiated)	±1.70dB
Power Spectral Density	±1.39dB
Radiated emission(3m)	±4.11dB
Radiated emission(10m)	±3.89dB



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

Antenna Type: PCB Antenna

Antenna Gain: 4.8 dBi



4. Test of Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 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 C63.4-2009 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.

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

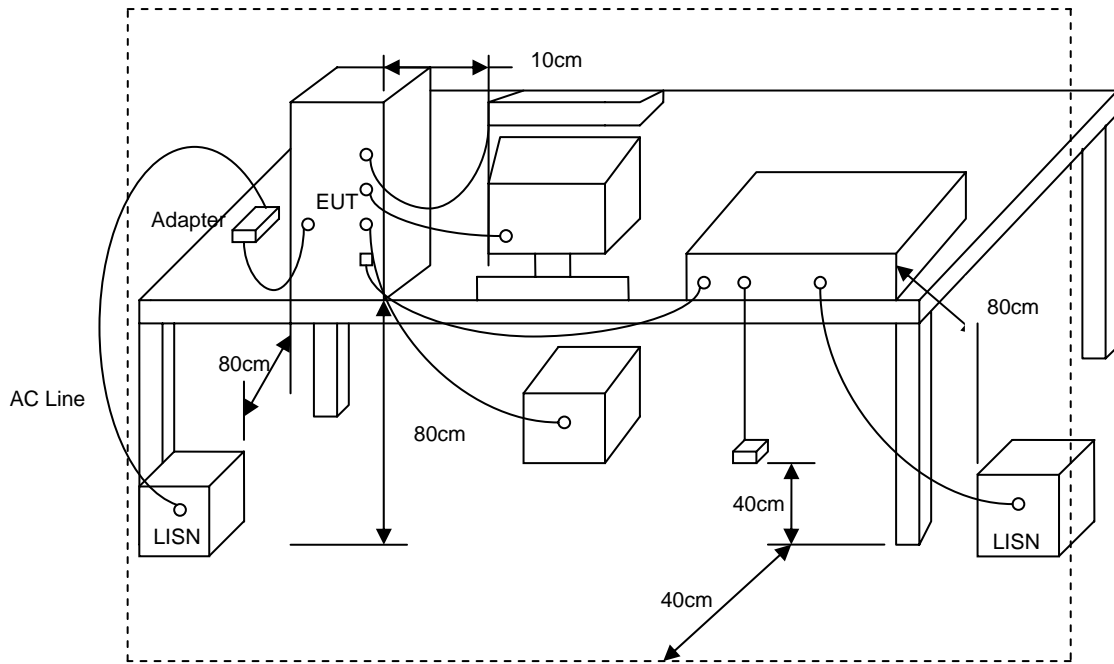
*Decreases with the logarithm of the frequency.

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



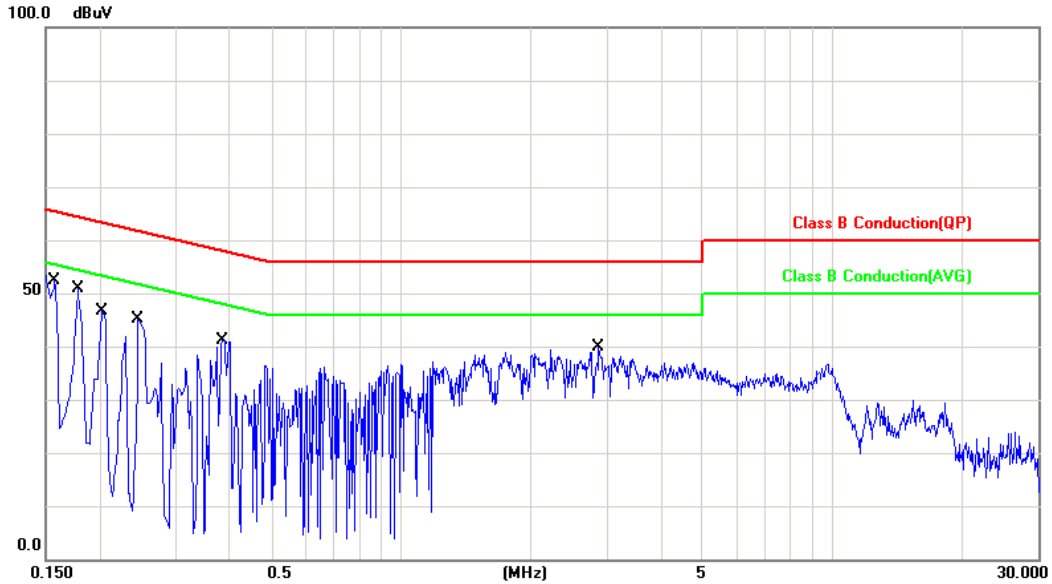
4.4 Measurement Equipment

Instrument/Ancillary	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100443	2012/01/12	2013/01/11
LISN	Schwarzbeck	NSLK 8127	8127-516	2012/03/08	2013/03/07
LISN	Schwarzbeck	NSLK 8127	8127-568	2012/08/22	2013/08/21



4.5 Test Result and Data

Power	: AC 120V	Pol/Phase	: LINE
Test Mode 1	: 802.11g, CH1	Temperature	: 23 °C
Test Date	: Sep. 24, 2012	Humidity	: 50 %

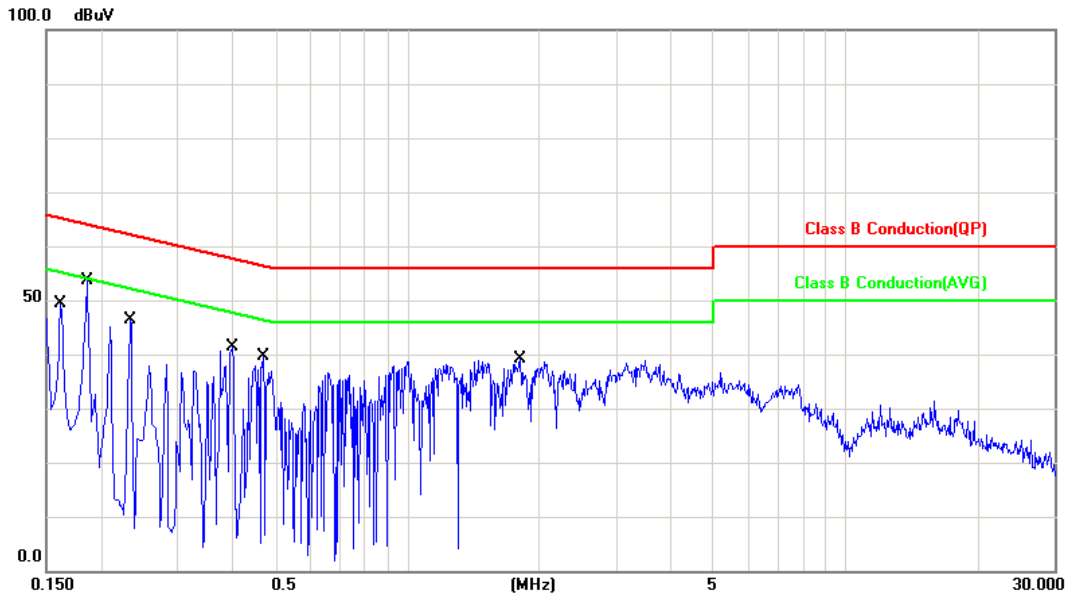


No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.22	43.94	44.16	65.56	-21.40	QP	P
2	0.1580	0.22	23.42	23.64	55.56	-31.92	AVG	P
3	0.1780	0.22	48.42	48.64	64.57	-15.93	QP	P
4	0.1780	0.22	30.31	30.53	54.57	-24.04	AVG	P
5	0.2020	0.22	48.24	48.46	63.52	-15.06	QP	P
6	0.2020	0.22	27.52	27.74	53.52	-25.78	AVG	P
7	0.2460	0.22	42.00	42.22	61.89	-19.67	QP	P
8	0.2460	0.22	25.03	25.25	51.89	-26.64	AVG	P
9	0.3860	0.23	39.23	39.46	58.15	-18.69	QP	P
10	0.3860	0.23	27.56	27.79	48.15	-20.36	AVG	P
11	2.8820	0.41	34.55	34.96	56.00	-21.04	QP	P
12	2.8820	0.41	20.38	20.79	46.00	-25.21	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 1	: 802.11g, CH1	Temperature	: 23 °C
Test Date	: Sep. 24, 2012	Humidity	: 50 %

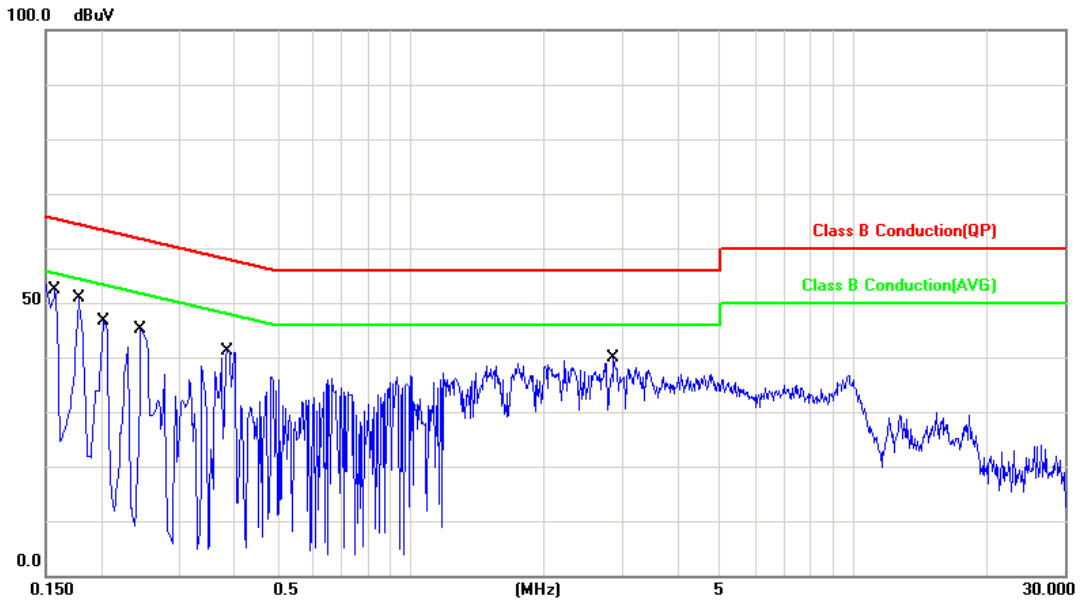


No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	0.17	44.72	44.89	65.36	-20.47	QP	P
2	0.1620	0.17	22.98	23.15	55.36	-32.21	AVG	P
3	0.1860	0.18	51.15	51.33	64.21	-12.88	QP	P
4	0.1860	0.18	32.45	32.63	54.21	-21.58	AVG	P
5	0.2340	0.18	36.00	36.18	62.30	-26.12	QP	P
6	0.2340	0.18	13.15	13.33	52.30	-38.97	AVG	P
7	0.3980	0.19	37.96	38.15	57.89	-19.74	QP	P
8	0.3980	0.19	26.64	26.83	47.89	-21.06	AVG	P
9	0.4700	0.19	36.43	36.62	56.51	-19.89	QP	P
10	0.4700	0.19	19.99	20.18	46.51	-26.33	AVG	P
11	1.8180	0.31	36.66	36.97	56.00	-19.03	QP	P
12	1.8180	0.31	22.58	22.89	46.00	-23.11	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 23 °C
Test Date	: Sep. 24, 2012	Humidity	: 50 %

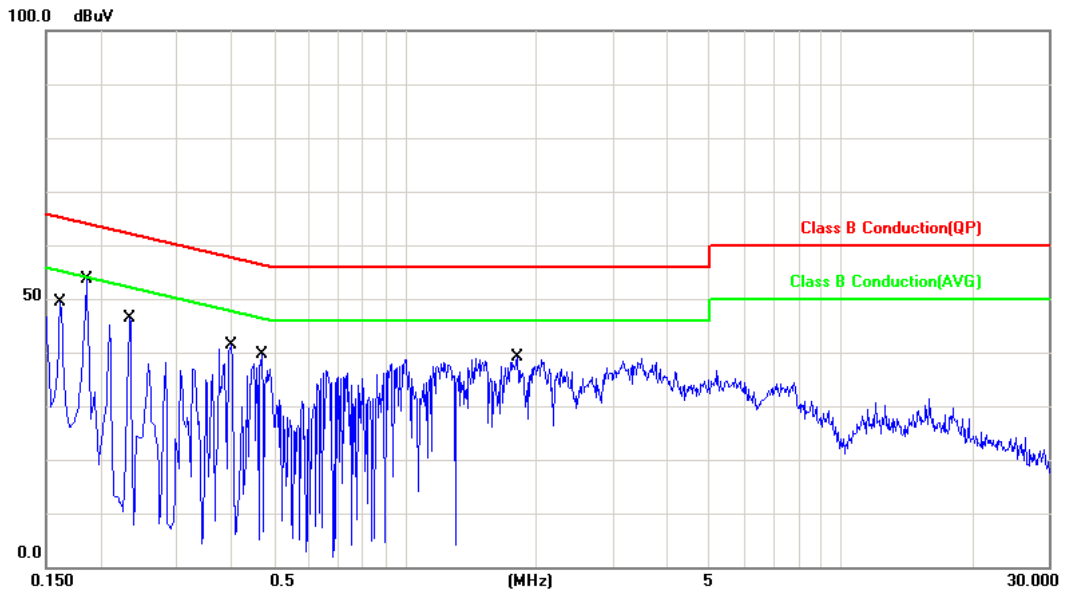


No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.19	44.35	44.54	65.56	-21.02	QP	P
2	0.1580	0.19	23.64	23.83	55.56	-31.73	AVG	P
3	0.1780	0.18	48.20	48.38	64.57	-16.19	QP	P
4	0.1780	0.18	30.01	30.19	54.57	-24.38	AVG	P
5	0.2020	0.18	48.54	48.72	63.52	-14.80	QP	P
6	0.2020	0.18	27.45	27.63	53.52	-25.89	AVG	P
7	0.2460	0.18	42.18	42.36	61.89	-19.53	QP	P
8	0.2460	0.18	24.88	25.06	51.89	-26.83	AVG	P
9	0.3860	0.18	39.42	39.60	58.15	-18.55	QP	P
10	0.3860	0.18	27.46	27.64	48.15	-20.51	AVG	P
11	2.8820	0.24	34.60	34.84	56.00	-21.16	QP	P
12	2.8820	0.24	20.09	20.33	46.00	-25.67	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 23 °C
Test Date	: Sep. 24, 2012	Humidity	: 50 %

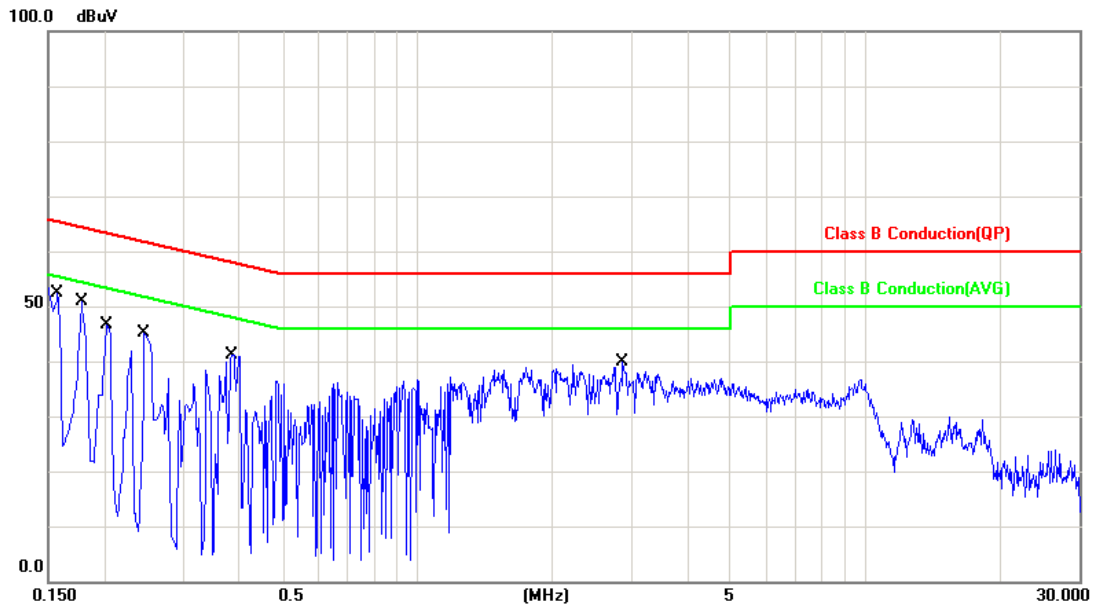


No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	0.14	44.01	44.15	65.36	-21.21	QP	P
2	0.1620	0.14	23.38	23.52	55.36	-31.84	AVG	P
3	0.1860	0.14	51.43	51.57	64.21	-12.64	QP	P
4	0.1860	0.14	32.70	32.84	54.21	-21.37	AVG	P
5	0.2340	0.14	36.20	36.34	62.30	-25.96	QP	P
6	0.2340	0.14	12.92	13.06	52.30	-39.24	AVG	P
7	0.3980	0.14	38.46	38.60	57.89	-19.29	QP	P
8	0.3980	0.14	25.98	26.12	47.89	-21.77	AVG	P
9	0.4700	0.14	36.19	36.33	56.51	-20.18	QP	P
10	0.4700	0.14	20.16	20.30	46.51	-26.21	AVG	P
11	1.8180	0.17	35.97	36.14	56.00	-19.86	QP	P
12	1.8180	0.17	22.14	22.31	46.00	-23.69	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit



Power	: AC 120V	Pol/Phase	: LINE
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 23 °C
Test Date	: Sep. 24, 2012	Humidity	: 50 %

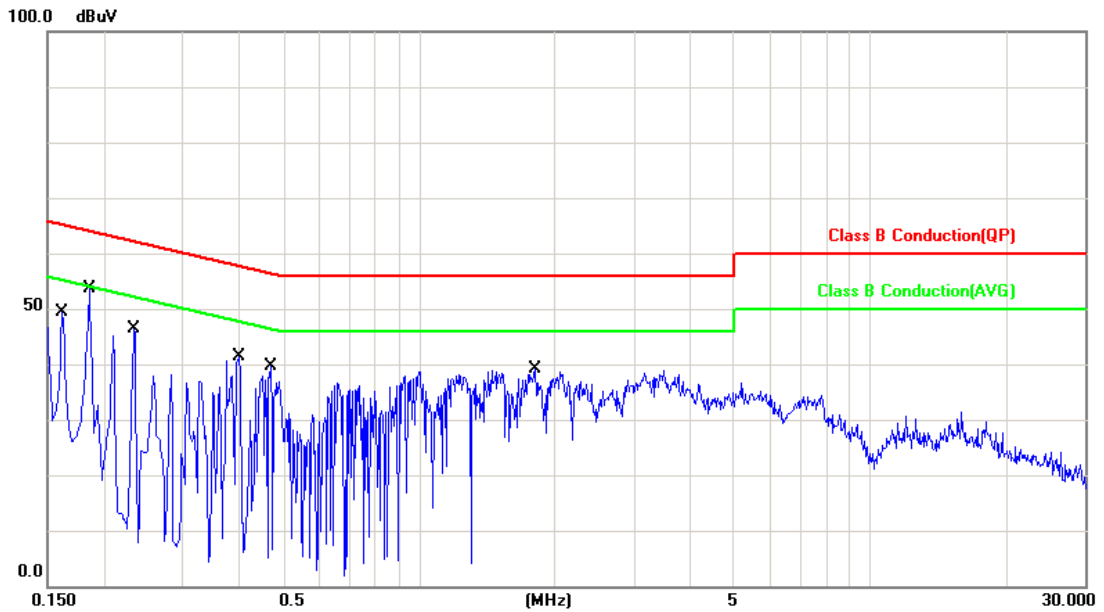


No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1580	0.19	44.79	44.98	65.56	-20.58	QP	P
2	0.1580	0.19	23.02	23.21	55.56	-32.35	AVG	P
3	0.1780	0.18	47.97	48.15	64.57	-16.42	QP	P
4	0.1780	0.18	30.30	30.48	54.57	-24.09	AVG	P
5	0.2020	0.18	48.11	48.29	63.52	-15.23	QP	P
6	0.2020	0.18	27.19	27.37	53.52	-26.15	AVG	P
7	0.2460	0.18	42.60	42.78	61.89	-19.11	QP	P
8	0.2460	0.18	25.03	25.21	51.89	-26.68	AVG	P
9	0.3860	0.18	39.74	39.92	58.15	-18.23	QP	P
10	0.3860	0.18	26.87	27.05	48.15	-21.10	AVG	P
11	2.8820	0.24	34.47	34.71	56.00	-21.29	QP	P
12	2.8820	0.24	19.83	20.07	46.00	-25.93	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit



Power	: AC 120V	Pol/Phase	: NEUTRAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 23 °C
Test Date	: Sep. 24, 2012	Humidity	: 50 %



No.	Frequency (MHz)	Factor (dBuV)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1620	0.14	44.28	44.42	65.36	-20.94	QP	P
2	0.1620	0.14	23.69	23.83	55.36	-31.53	AVG	P
3	0.1860	0.14	51.09	51.23	64.21	-12.98	QP	P
4	0.1860	0.14	32.41	32.55	54.21	-21.66	AVG	P
5	0.2340	0.14	36.27	36.41	62.30	-25.89	QP	P
6	0.2340	0.14	13.42	13.56	52.30	-38.74	AVG	P
7	0.3980	0.14	38.60	38.74	57.89	-19.15	QP	P
8	0.3980	0.14	26.19	26.33	47.89	-21.56	AVG	P
9	0.4700	0.14	36.34	36.48	56.51	-20.03	QP	P
10	0.4700	0.14	20.25	20.39	46.51	-26.12	AVG	P
11	1.8180	0.17	36.32	36.49	56.00	-19.51	QP	P
12	1.8180	0.17	22.40	22.57	46.00	-23.43	AVG	P

Note: Level = Reading + Factor

Margin = Level – Limit



5. Test of Radiated Emission

5.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

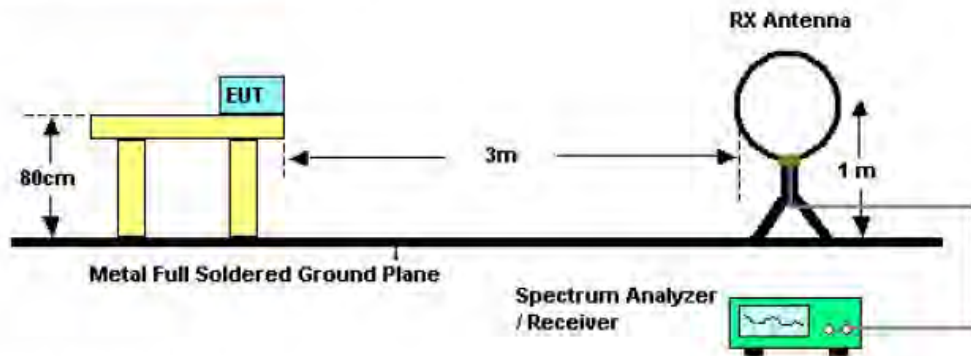
5.2 Test Procedures

- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- 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.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- 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.
- 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.
- "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

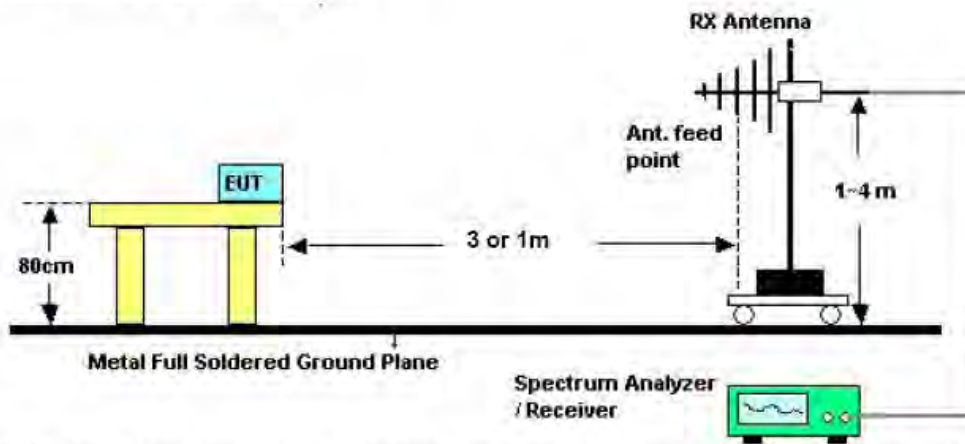


5.3 Typical Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
 Distance extrapolation factor = $20 \log(\text{specific distance [3m]} / \text{test distance [1m]})$ (dB);
 Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

5.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100821	2012/01/31	2013/01/30
Amplifier	QuieTek	AP/0100A	CHM0906075	2012/01/13	2013/01/12
Signal Generator	HP	8648B	3629U00612	2012/01/11	2013/01/10
Bilog Antenna	Schwarzbeck	VULB 9168	275	2012/03/23	2013/03/22
Spectrum Analyzer	R&S	FSP40	100047	2012/03/01	2013/02/28
Horn Antenna	EMCO	3115	31589	2012/03/01	2013/02/28
Preamplifier	Agilent	8449B	3008A01954	2012/02/29	2013/02/28
Loop Antenna	EMCO	6507	40855	2012/02/29	2013/02/28

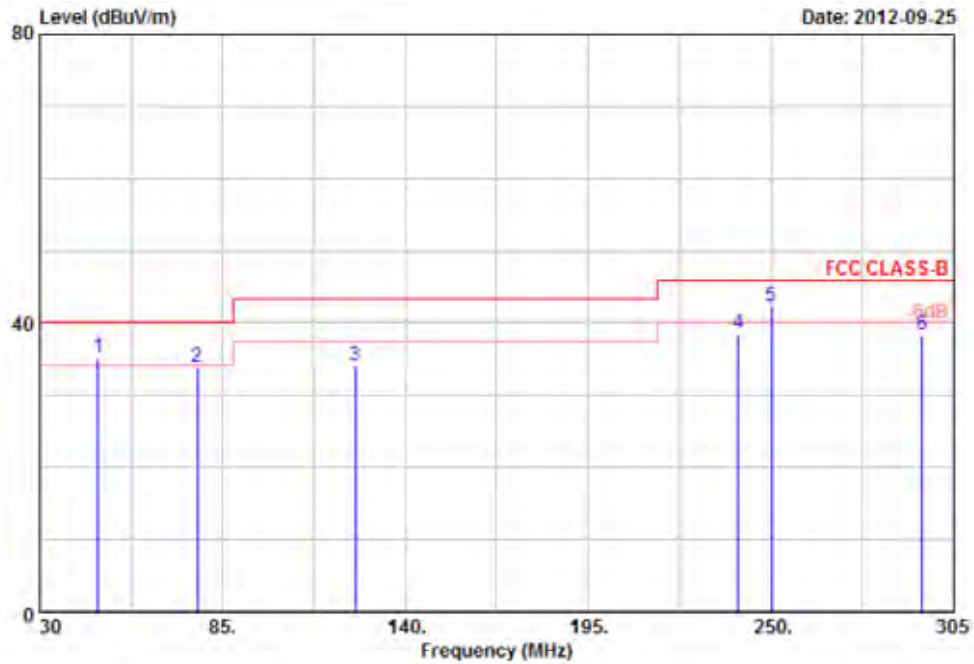


5.5 Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

5.6 Test Result and Data

Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11g, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



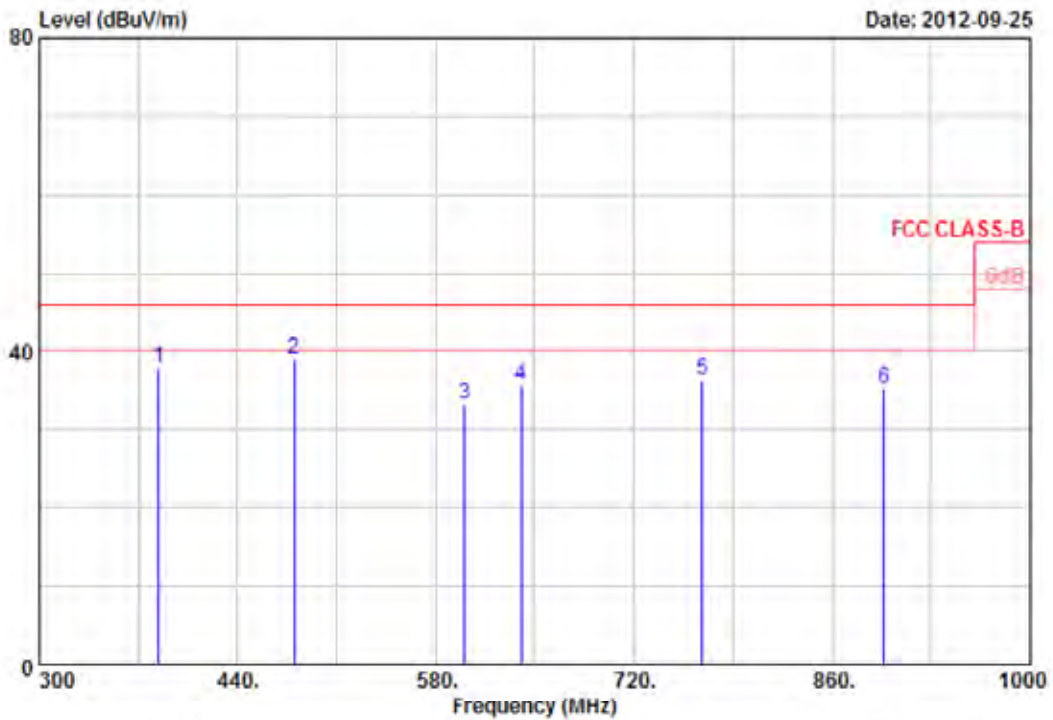
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	47.60	54.63	-19.51	35.12	40.00	-4.88	QP	100	120
2	77.30	53.16	-19.29	33.87	40.00	-6.13	Peak	100	0
3	124.88	54.49	-20.48	34.01	43.50	-9.49	Peak	100	0
4	240.10	56.04	-17.47	38.57	46.00	-7.43	Peak	100	0
5	250.00	59.15	-16.77	42.38	46.00	-3.62	QP	100	112
6	295.38	54.46	-16.04	38.42	46.00	-7.58	QP	100	103

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11g, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



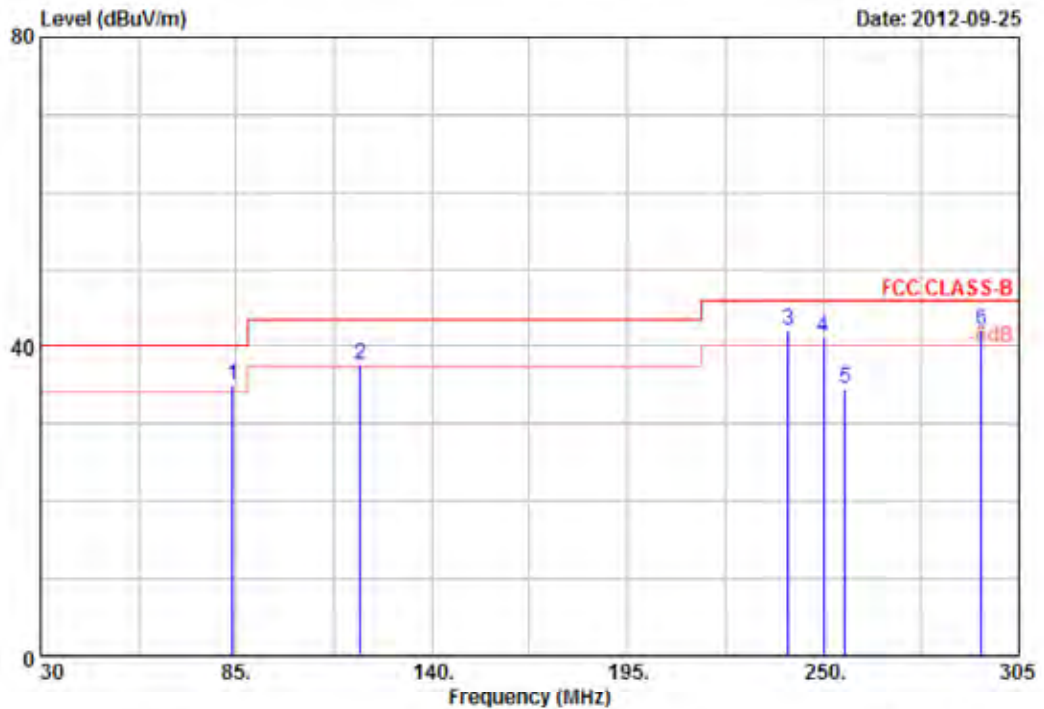
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	384.00	51.66	-13.74	37.92	46.00	-8.08	Peak	100	360
2	479.90	50.32	-11.34	38.98	46.00	-7.02	Peak	100	360
3	600.30	41.07	-7.97	33.10	46.00	-12.90	Peak	100	360
4	640.20	43.93	-8.21	35.72	46.00	-10.28	Peak	100	360
5	768.30	43.65	-7.38	36.27	46.00	-9.73	Peak	100	360
6	896.40	40.65	-5.36	35.29	46.00	-10.71	Peak	100	360

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11g, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



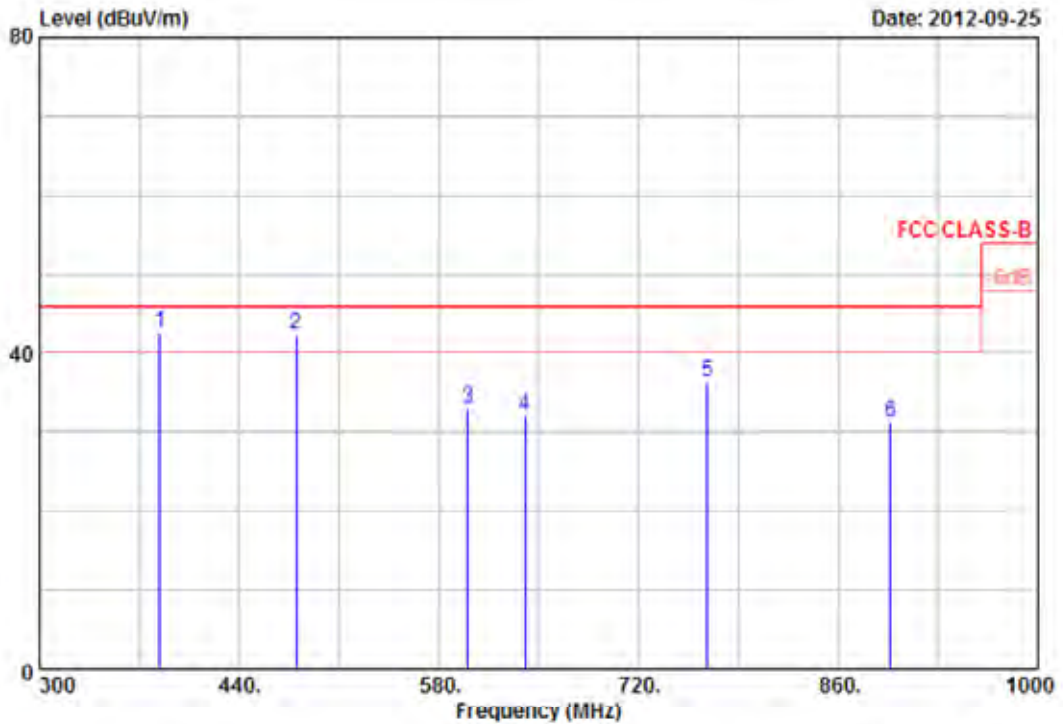
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	83.90	56.29	-21.20	35.09	40.00	-4.91	QP	100	122
2	119.93	55.51	-17.74	37.77	43.50	-5.73	QP	100	50
3	240.10	60.58	-18.52	42.06	46.00	-3.94	QP	100	164
4	250.00	59.59	-18.28	41.31	46.00	-4.69	QP	100	88
5	256.05	52.57	-18.08	34.49	46.00	-11.51	Peak	100	0
6	294.55	58.65	-16.64	42.01	46.00	-3.99	QP	100	144

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1, 6, 11 or 3, 6, 9 (for HT40) are almost the same below 1GHz, so that the channel 1 or 3 (for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11g, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



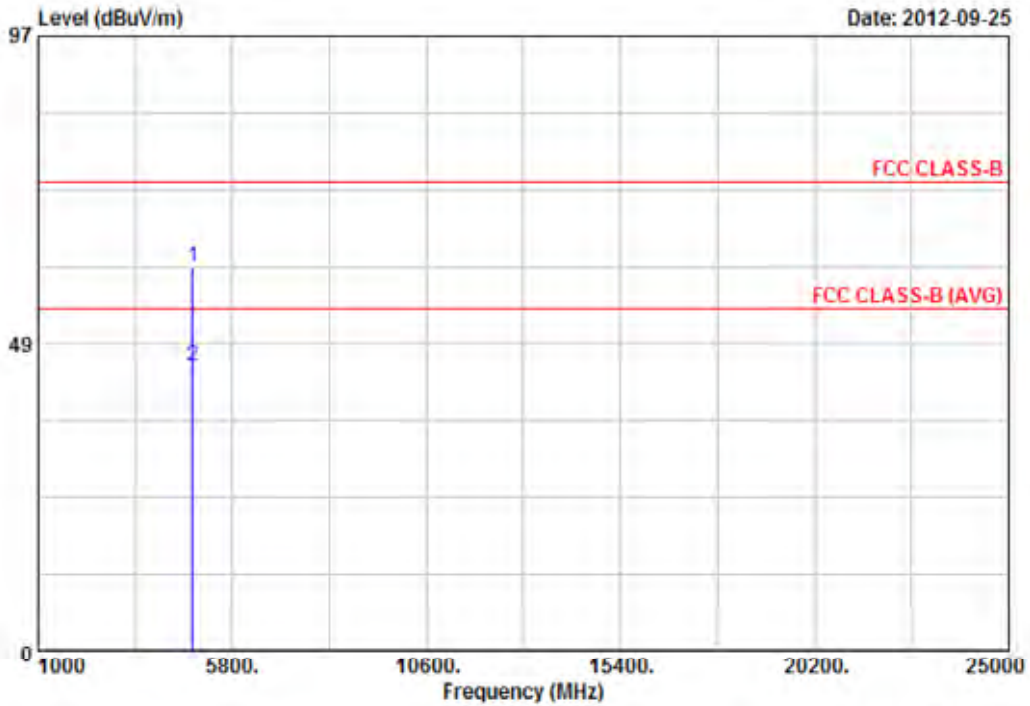
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	384.00	56.47	-13.81	42.66	46.00	-3.34	QP	100	335
2	479.90	54.35	-12.12	42.23	46.00	-3.77	QP	100	211
3	600.30	41.64	-8.70	32.94	46.00	-13.06	Peak	100	360
4	640.20	40.65	-8.60	32.05	46.00	-13.95	Peak	100	360
5	768.30	43.29	-6.95	36.34	46.00	-9.66	Peak	100	360
6	896.40	36.39	-5.24	31.15	46.00	-14.85	Peak	100	360

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1, 6, 11 or 3, 6, 9 (for HT40) are almost the same below 1GHz, so that the channel 1 or 3 (for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11b, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



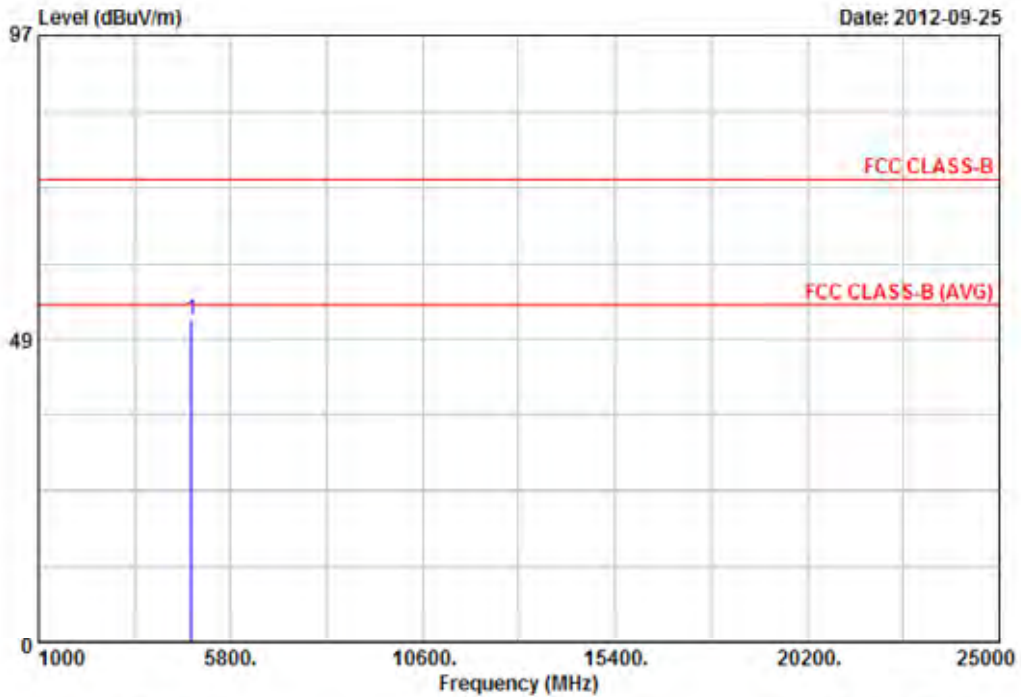
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4823.79	49.53	11.04	60.57	74.00	-13.43	Peak	100	119
2	4825.86	33.87	11.04	44.91	54.00	-9.09	Average	100	120

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11b, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



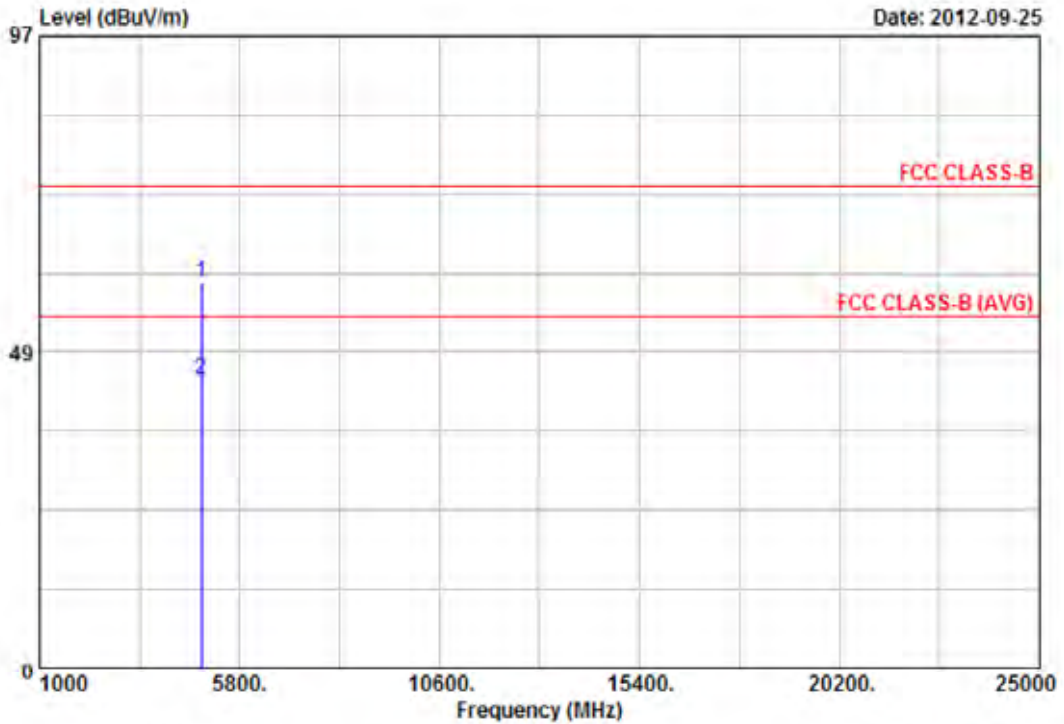
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4823.75	41.29	10.28	51.57	74.00	-22.43	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11b, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



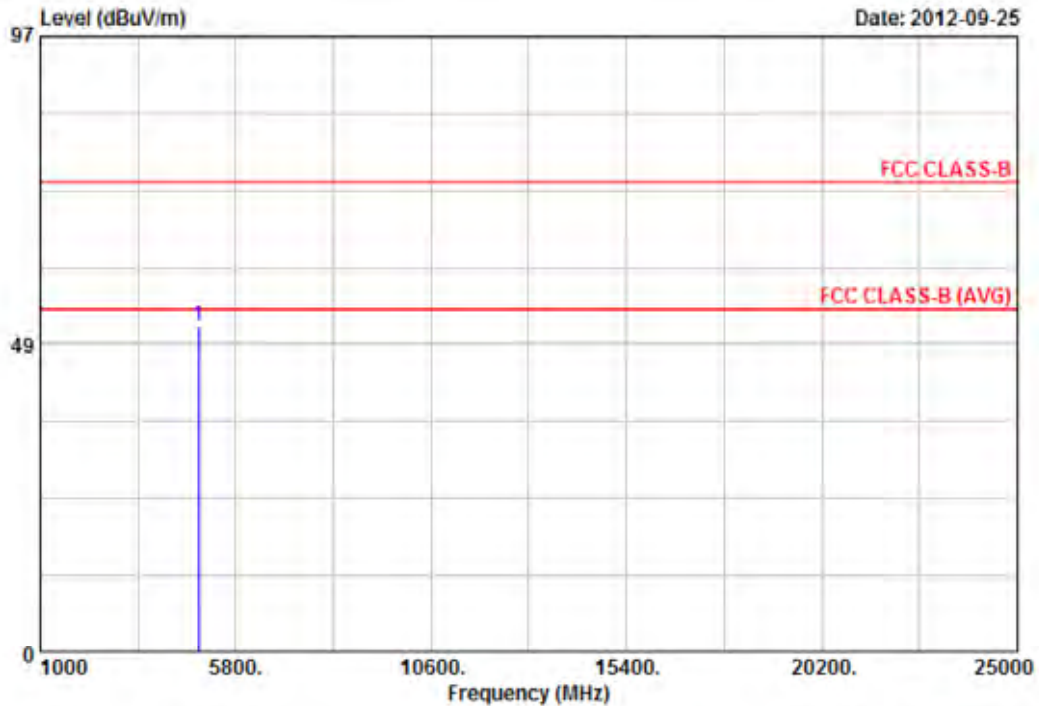
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.73	47.97	11.28	59.25	74.00	-14.75	Peak	100	11
2	4875.03	33.10	11.28	44.38	54.00	-9.62	Average	100	11

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11b, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



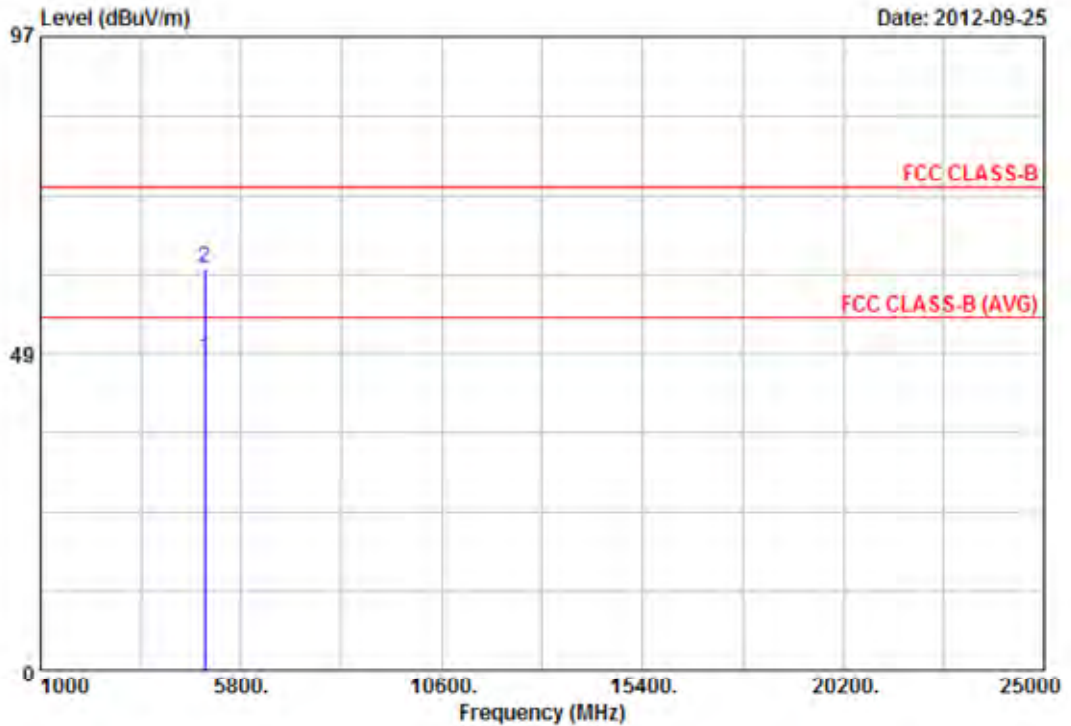
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.75	40.06	11.19	51.25	74.00	-22.75	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11b, CH11	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



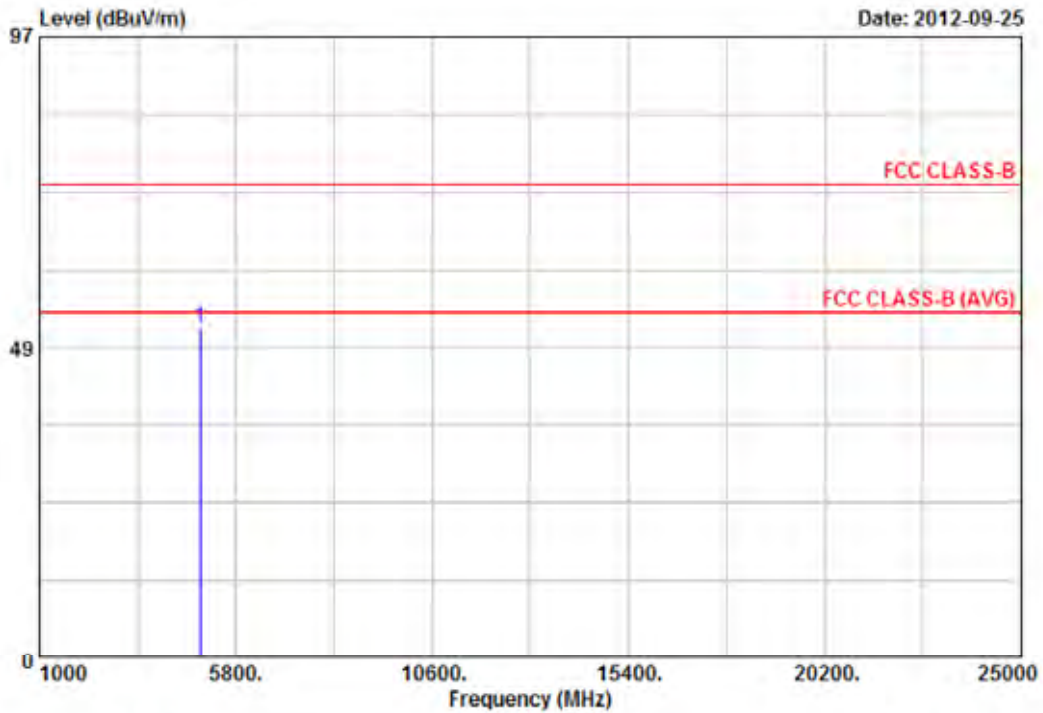
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4921.84	36.05	11.73	47.78	54.00	-6.22	Average	100	237
2	4923.76	49.85	11.76	61.61	74.00	-12.39	Peak	100	237

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11b, CH11	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



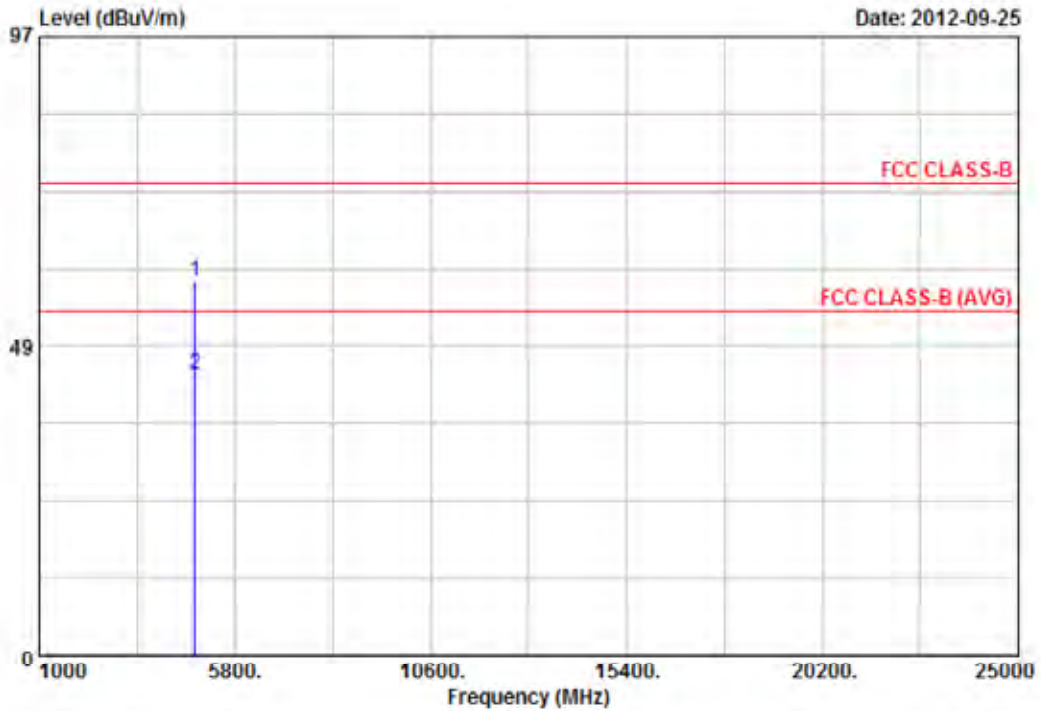
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4923.76	40.03	11.58	51.61	74.00	-22.39	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11g, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



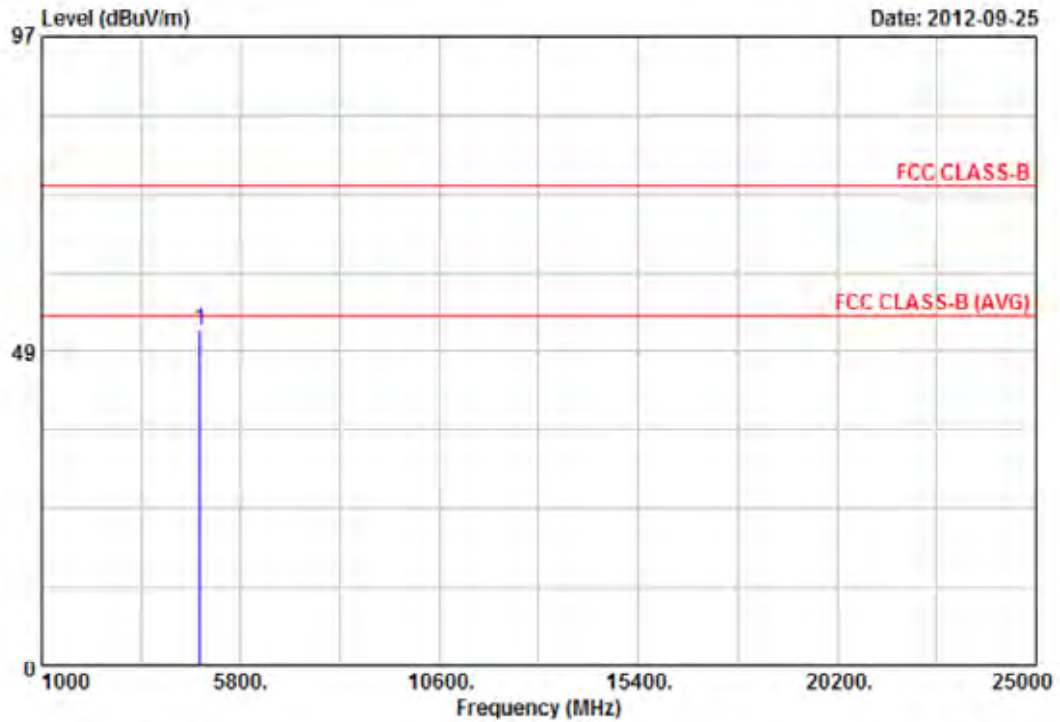
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4823.02	47.73	11.03	58.76	74.00	-15.24	Peak	100	227
2	4825.70	33.11	11.04	44.15	54.00	-9.85	Average	100	227

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11g, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



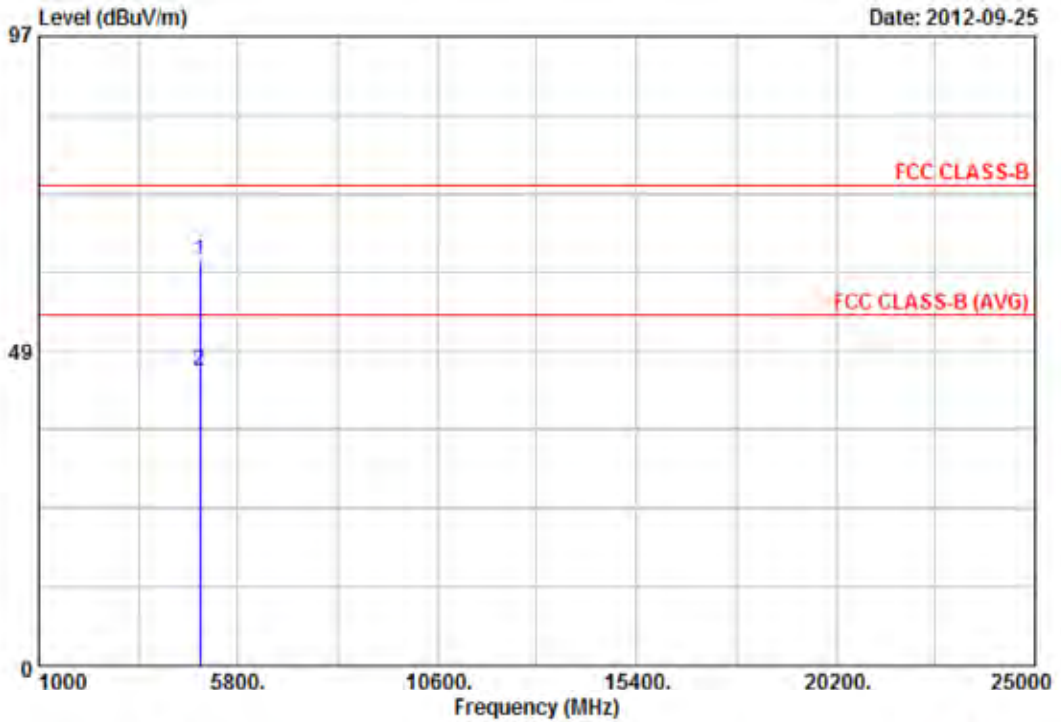
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4823.50	41.48	10.28	51.76	74.00	-22.24	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11g, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



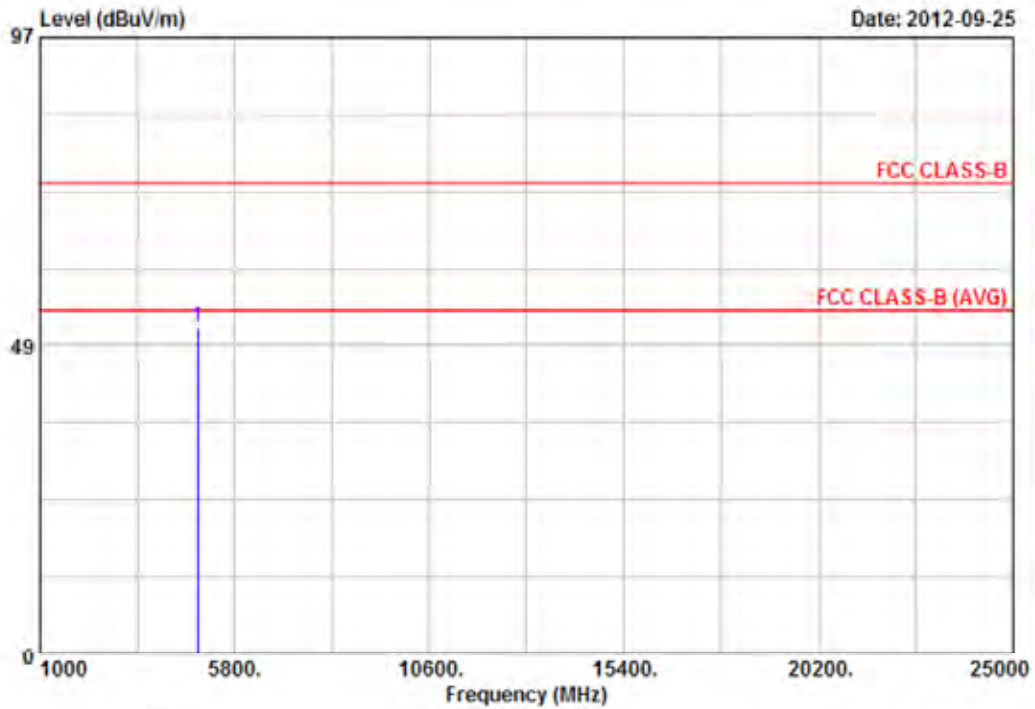
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.56	51.11	11.28	62.39	79.00	-11.61	Peak	100	127
2	4875.68	33.98	11.28	45.26	54.00	-8.74	Average	100	128

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11g, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



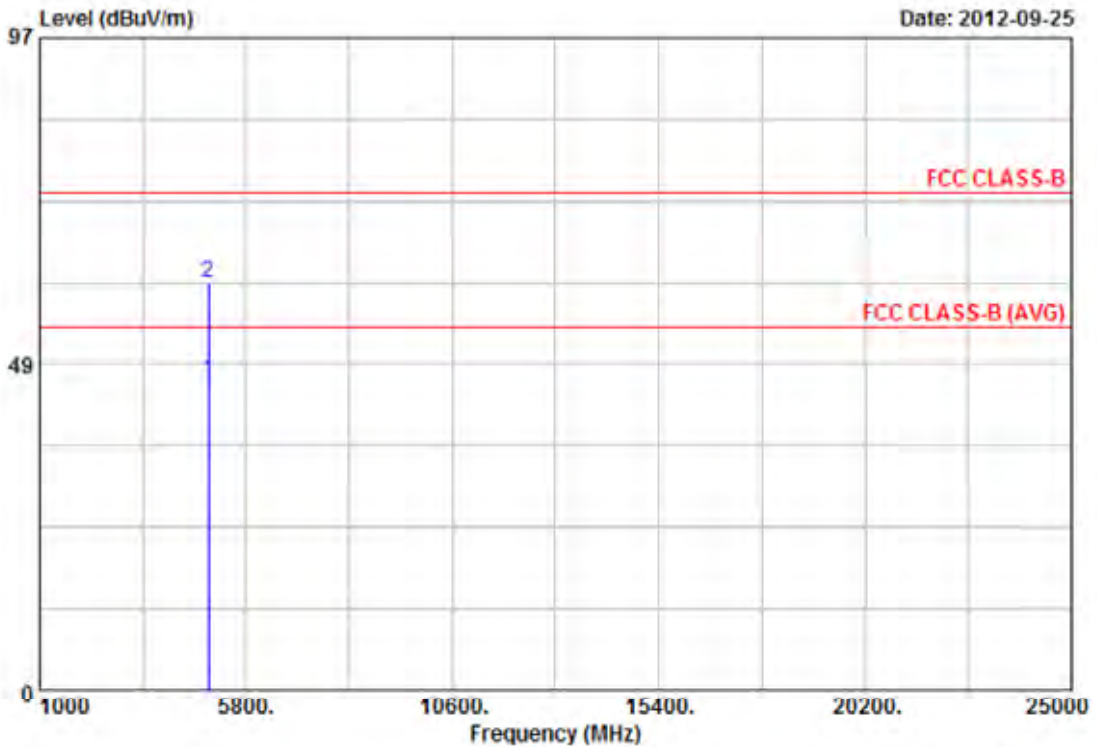
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.50	40.20	11.19	51.39	74.00	-22.61	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11g, CH11	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



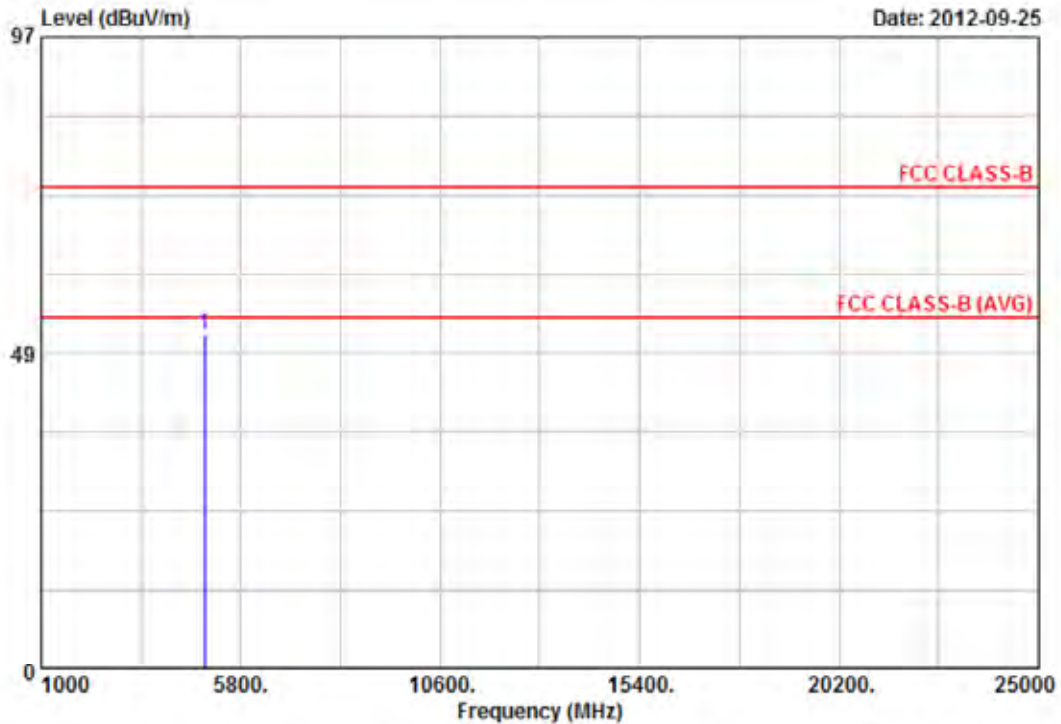
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4923.73	34.17	11.76	45.93	54.00	-8.07	Average	100	237
2	4925.60	48.61	11.78	60.39	74.00	-13.61	Peak	100	237

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11g, CH11	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



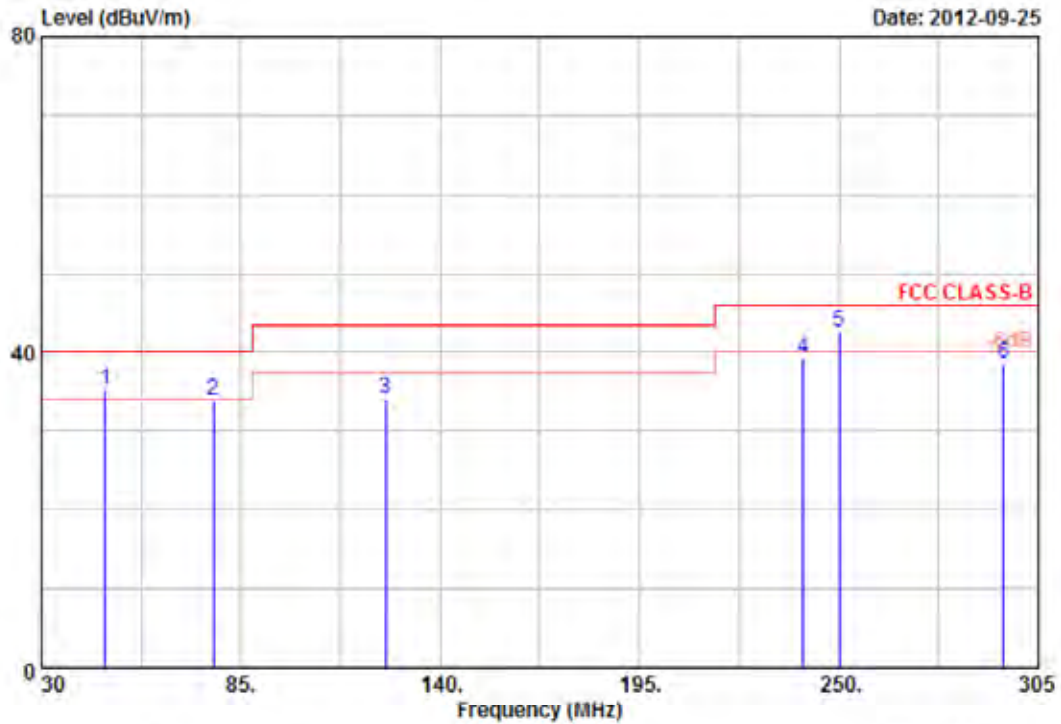
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4925.75	39.82	11.57	51.39	74.00	-22.61	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



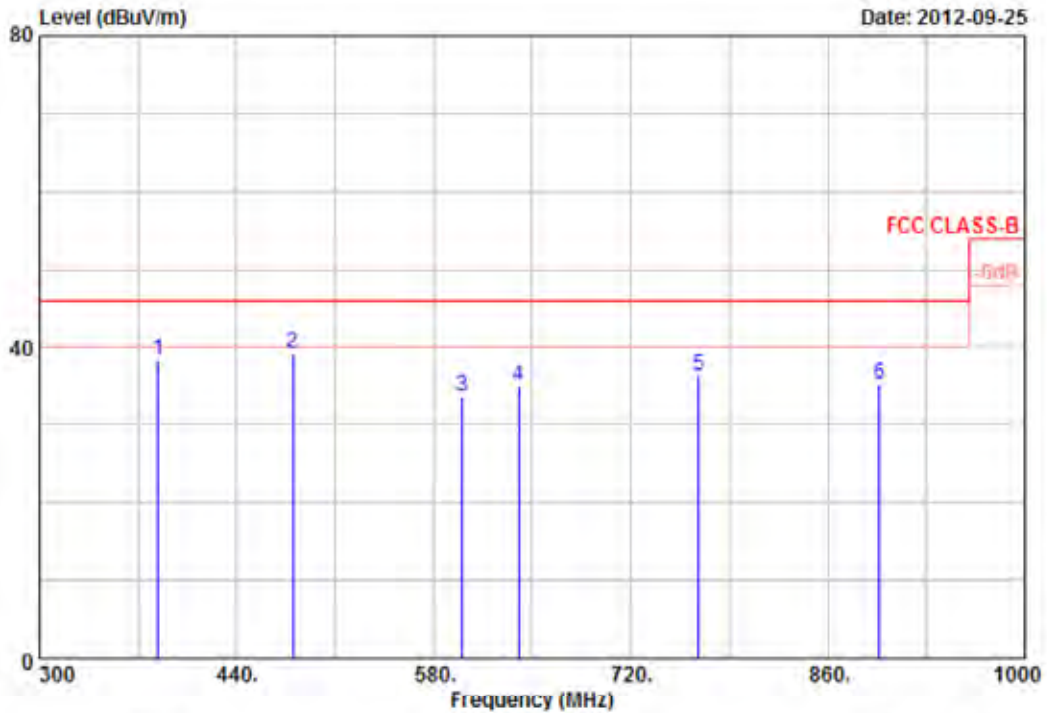
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	47.60	54.61	-19.51	35.10	40.00	-4.90	QP	100	120
2	77.30	53.23	-19.29	33.94	40.00	-6.06	Peak	100	0
3	124.88	54.65	-20.48	34.17	43.50	-9.33	Peak	100	0
4	240.10	56.66	-17.47	39.19	46.00	-6.81	Peak	100	0
5	250.00	59.31	-16.77	42.54	46.00	-3.46	QP	100	112
6	295.38	54.60	-16.04	38.56	46.00	-7.44	QP	100	103

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1, 6, 11 or 3, 6, 9 (for HT40) are almost the same below 1GHz, so that the channel 1 or 3 (for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



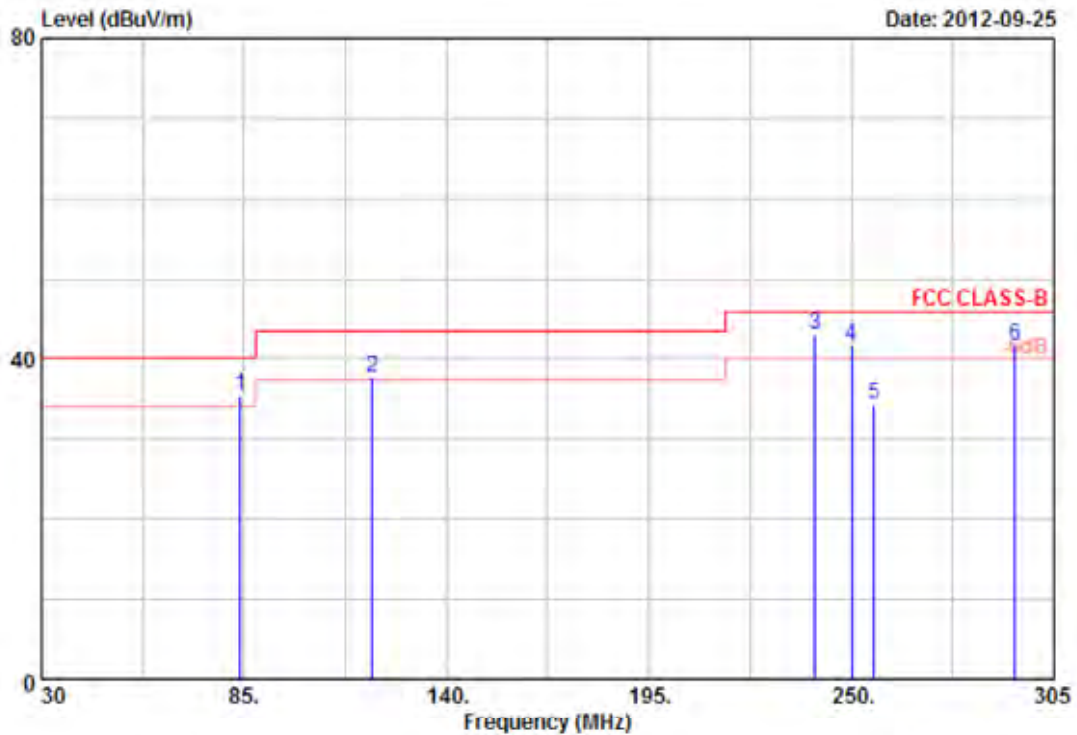
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	384.00	51.97	-13.74	38.23	46.00	-7.77	Peak	100	360
2	479.90	50.65	-11.34	39.31	46.00	-6.69	Peak	100	360
3	600.30	41.66	-7.97	33.69	46.00	-12.31	Peak	100	360
4	640.20	43.24	-8.21	35.03	46.00	-10.97	Peak	100	360
5	768.30	43.64	-7.38	36.26	46.00	-9.74	Peak	100	360
6	896.40	40.66	-5.36	35.30	46.00	-10.70	Peak	100	360

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



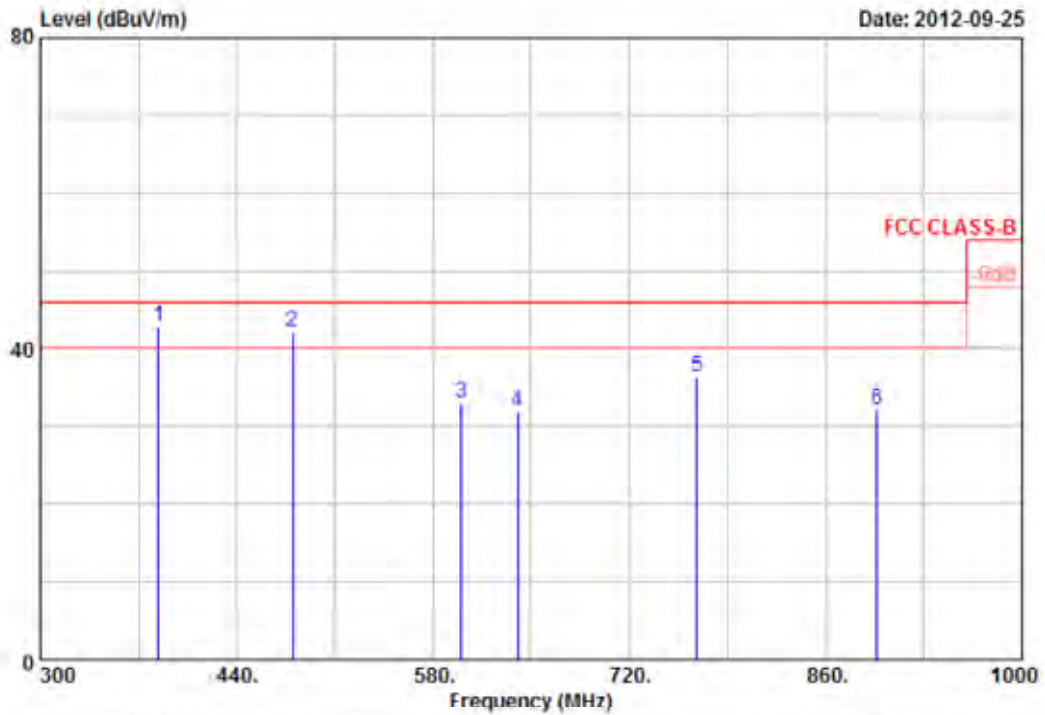
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	83.90	56.68	-21.20	35.48	40.00	-4.52	QP	100	122
2	119.93	55.46	-17.74	37.72	43.50	-5.78	QP	100	50
3	240.10	61.51	-18.52	42.99	46.00	-3.01	QP	100	164
4	250.00	59.89	-18.28	41.61	46.00	-4.39	QP	100	88
5	256.05	52.35	-18.08	34.27	46.00	-11.73	Peak	100	0
6	294.55	58.33	-16.64	41.69	46.00	-4.31	QP	100	144

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1, 6, 11 or 3, 6, 9 (for HT40) are almost the same below 1GHz, so that the channel 1 or 3 (for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



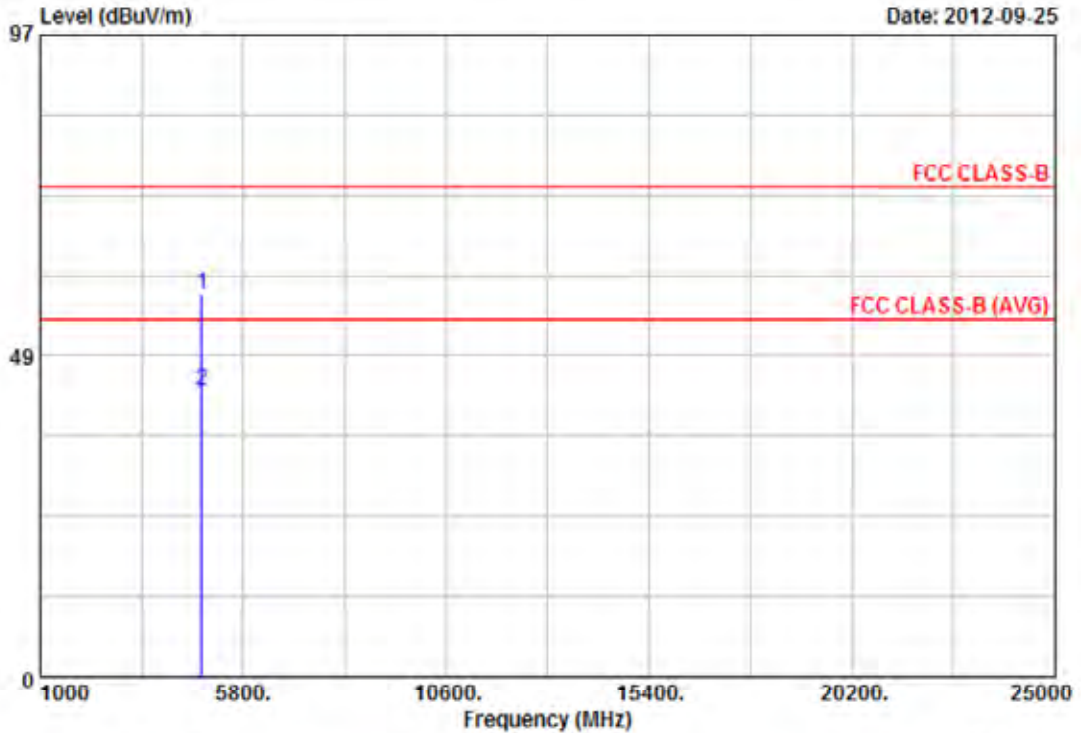
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	384.00	56.59	-13.81	42.78	46.00	-3.22	QP	100	335
2	479.90	54.27	-12.12	42.15	46.00	-3.85	QP	100	211
3	600.30	41.74	-8.70	33.04	46.00	-12.96	Peak	100	360
4	640.20	40.47	-8.60	31.87	46.00	-14.13	Peak	100	360
5	768.30	43.29	-6.95	36.34	46.00	-9.66	Peak	100	360
6	896.40	37.28	-5.24	32.04	46.00	-13.96	Peak	100	360

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



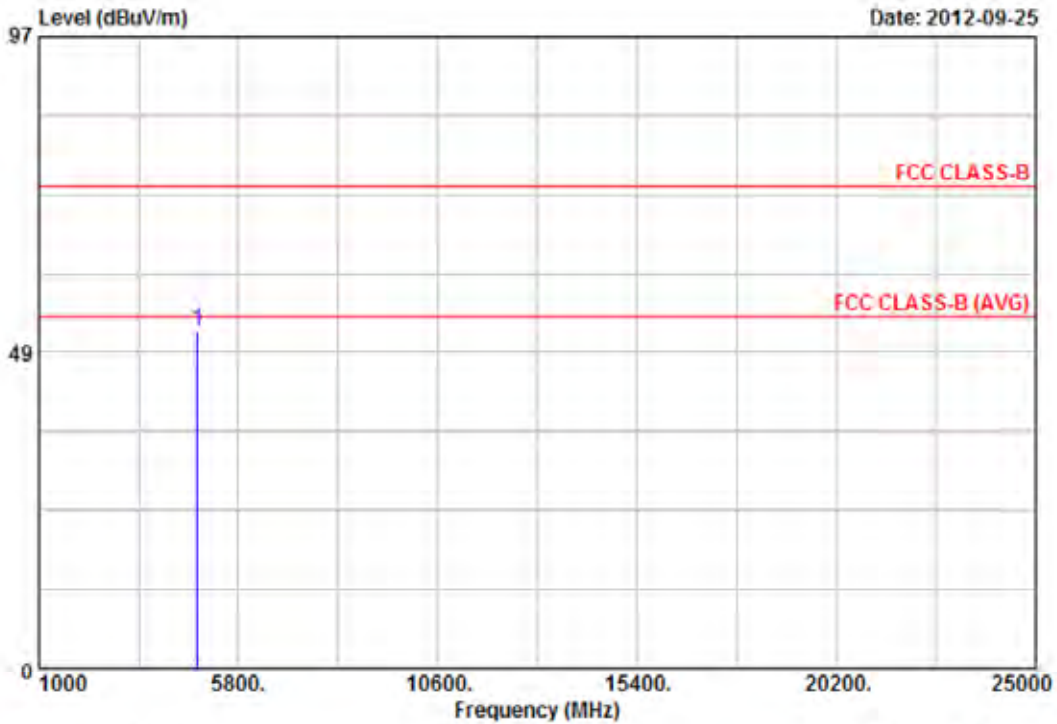
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4821.72	46.77	11.03	57.80	74.00	-16.20	Peak	100	218
2	4823.75	32.18	11.04	43.22	54.00	-10.78	Average	100	218

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT20, CH1	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



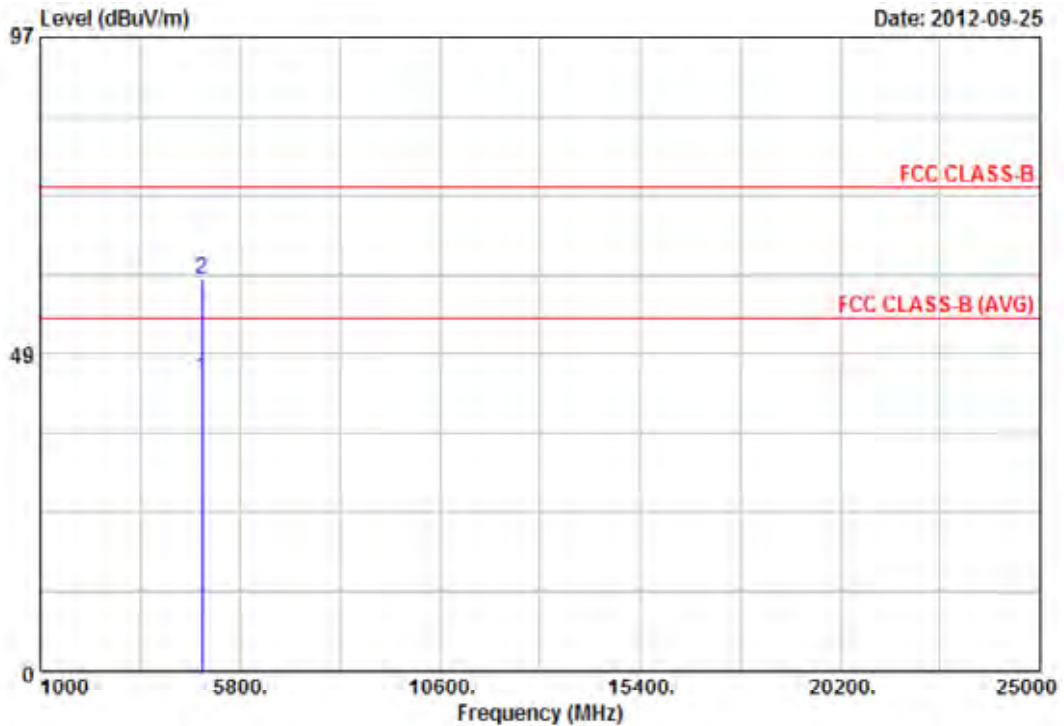
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4922.70	41.55	10.25	51.80	74.00	-22.20	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT20, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



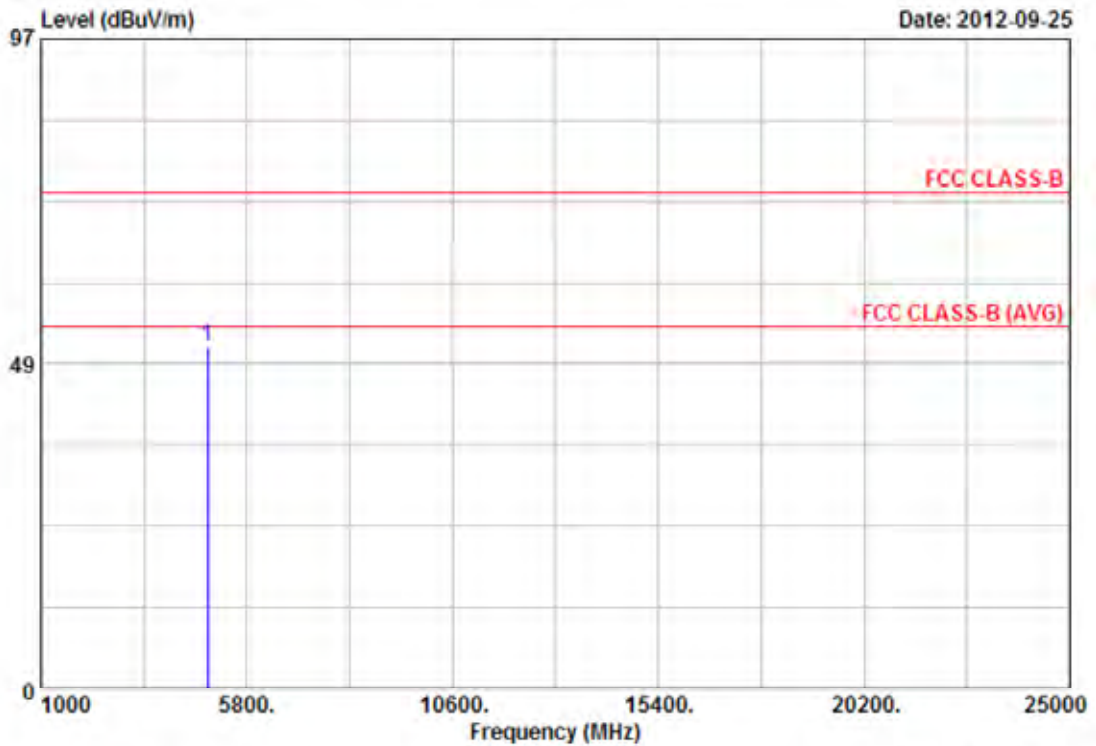
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.81	33.49	11.28	44.77	54.00	-9.23	Average	100	220
2	4875.99	48.77	11.28	60.05	74.00	-13.95	Peak	100	220

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBUV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT20, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



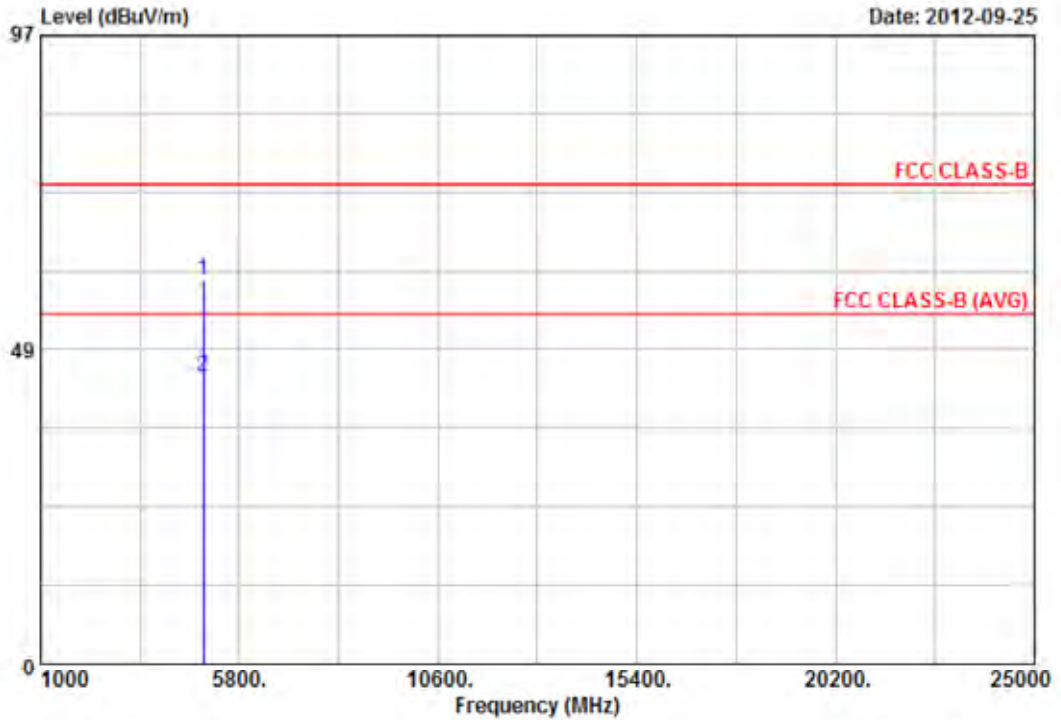
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4874.90	39.84	11.21	51.05	74.00	-22.95	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT20, CH11	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



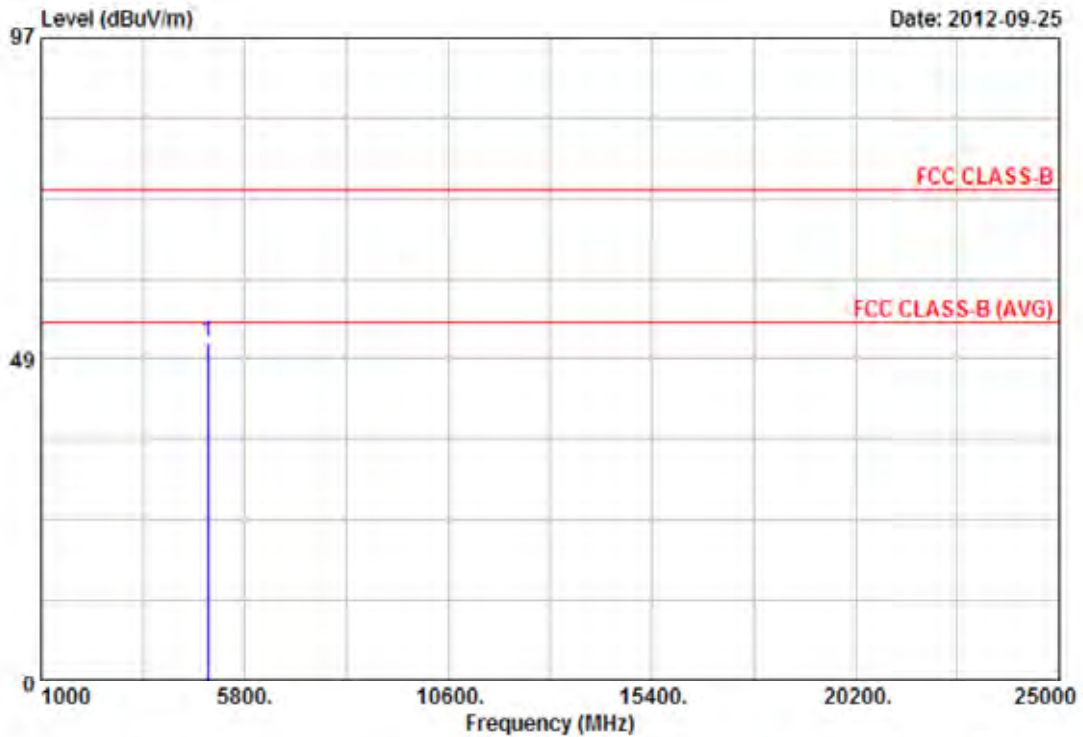
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.93	47.38	11.77	59.15	74.00	-14.85	Peak	100	219
2	4926.28	32.58	11.79	44.37	54.00	-9.63	Average	100	219

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT20, CH11	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



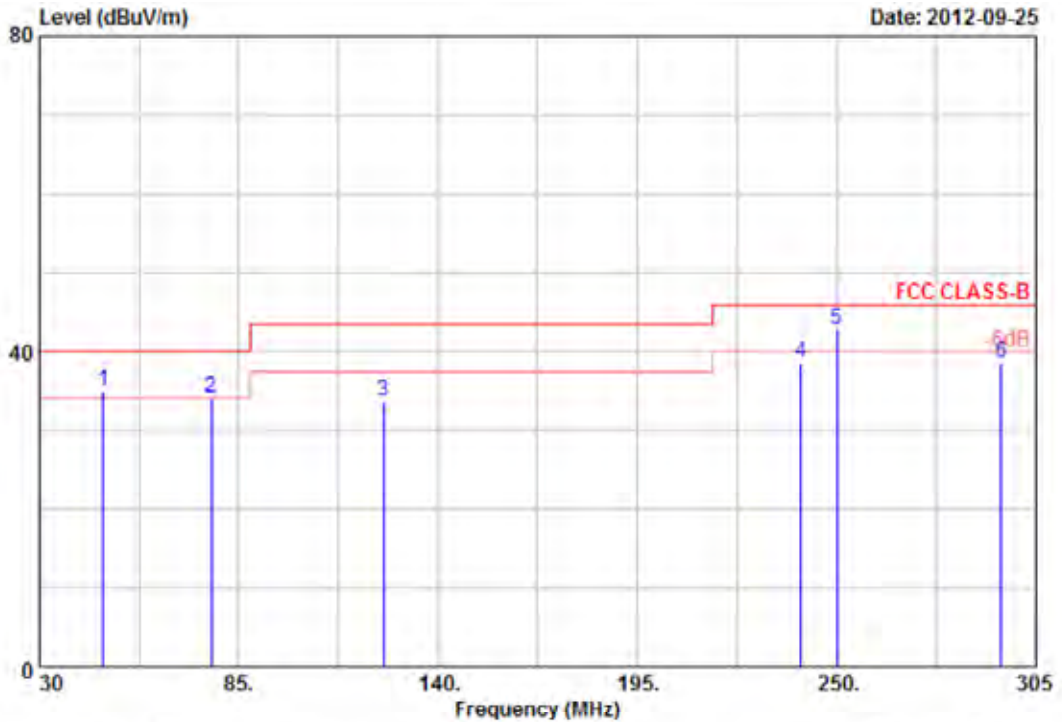
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4924.25	39.57	11.58	51.15	74.00	-22.85	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



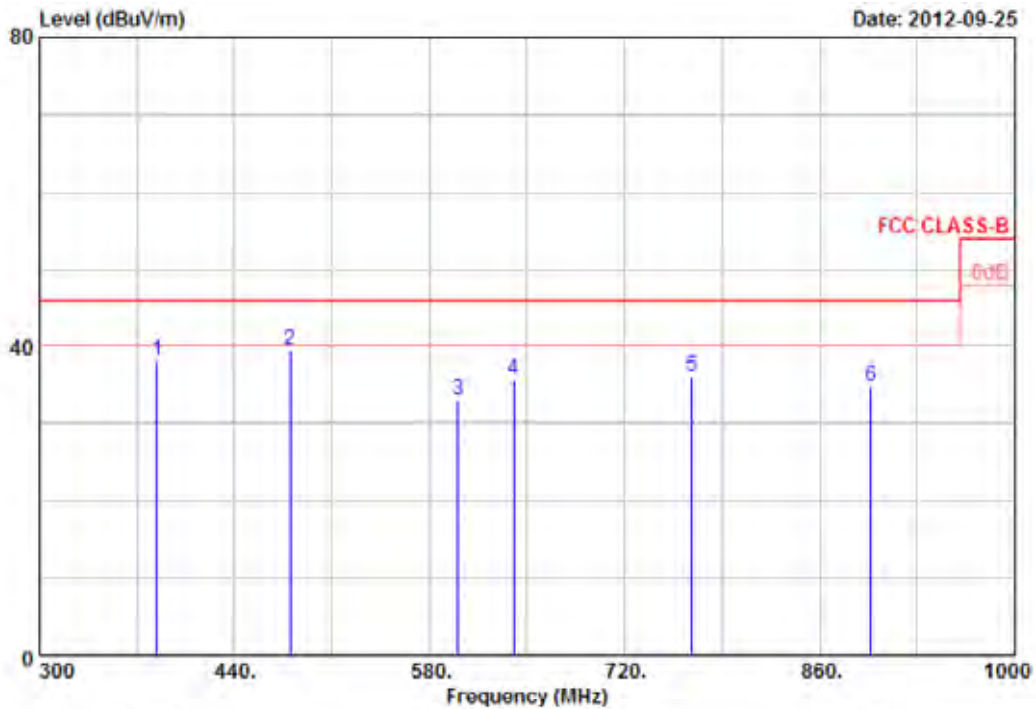
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	47.60	54.52	-19.51	35.01	40.00	-4.99	QP	100	120
2	77.30	53.29	-19.29	34.00	40.00	-6.00	Peak	100	0
3	124.88	54.24	-20.48	33.76	43.50	-9.74	Peak	100	0
4	240.10	56.07	-17.47	38.60	46.00	-7.40	Peak	100	0
5	250.00	59.60	-16.77	42.83	46.00	-3.17	QP	100	112
6	295.38	54.50	-16.04	38.46	46.00	-7.54	QP	100	103

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



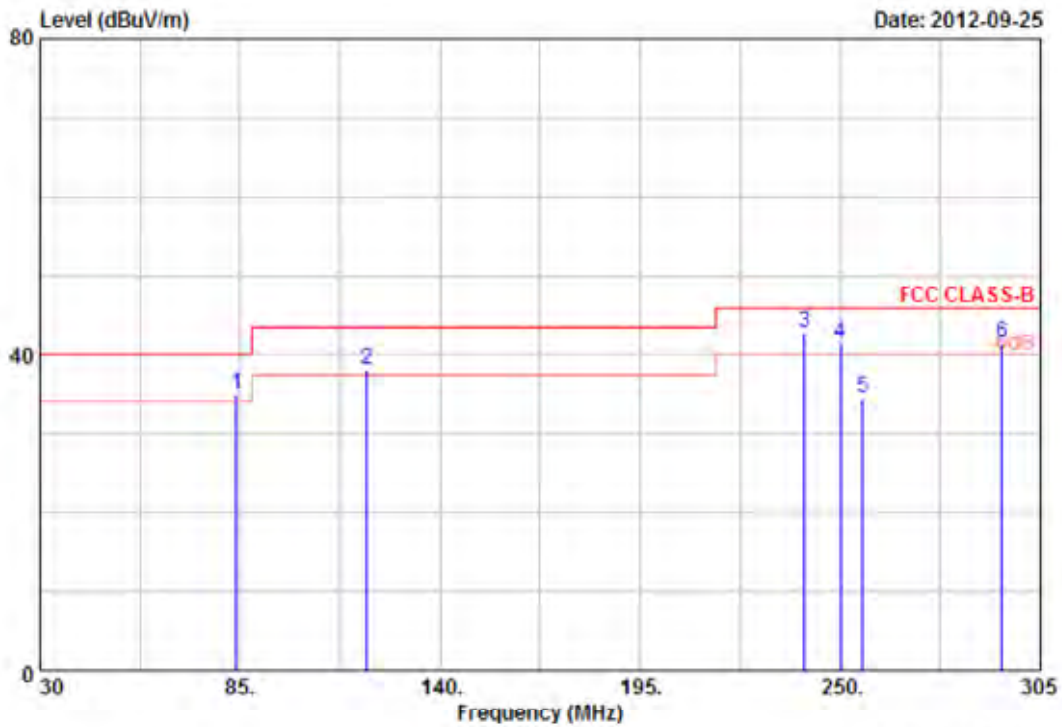
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	384.00	51.93	-13.74	38.19	46.00	-7.81	Peak	100	360
2	479.90	50.77	-11.34	39.43	46.00	-6.57	Peak	100	360
3	600.30	41.02	-7.97	33.05	46.00	-12.95	Peak	100	360
4	640.20	43.91	-8.21	35.70	46.00	-10.30	Peak	100	360
5	768.30	43.54	-7.38	36.16	46.00	-9.84	Peak	100	360
6	896.40	40.19	-5.36	34.83	46.00	-11.17	Peak	100	360

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1, 6, 11 or 3, 6, 9 (for HT40) are almost the same below 1GHz, so that the channel 1 or 3 (for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



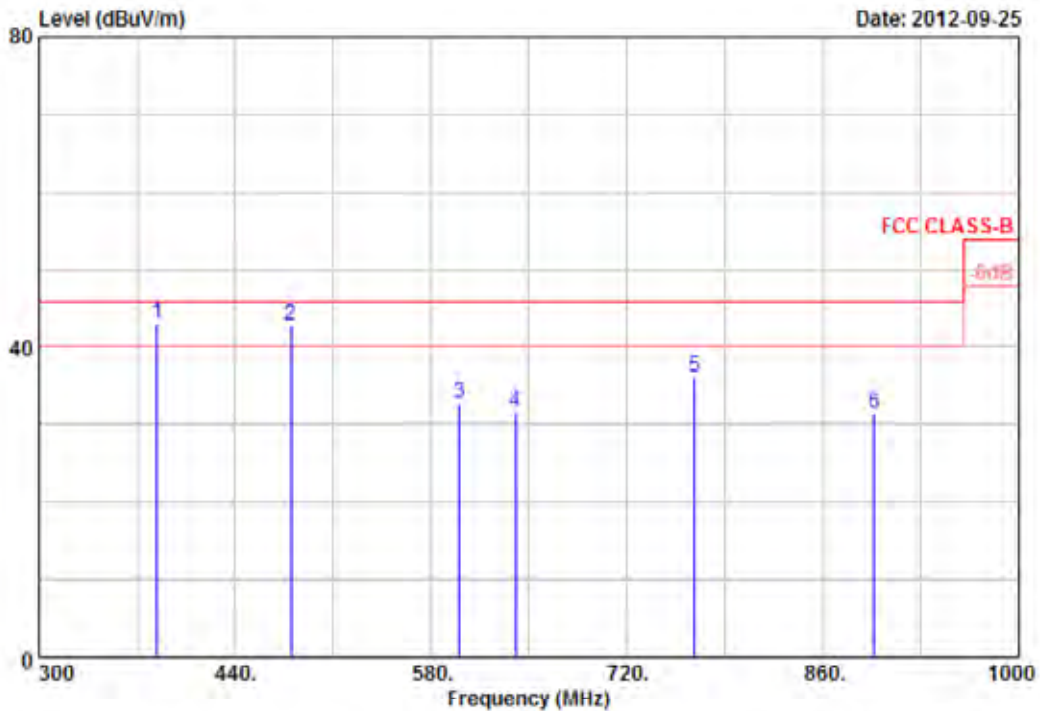
Item	Freq MHz	Read Value dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark	Ant Pos cm	Tab Pos Deg
1	83.90	56.20	-21.20	35.00	40.00	-5.00	QP	100	122
2	119.93	55.82	-17.74	38.08	43.50	-5.42	QP	100	50
3	240.10	61.29	-18.52	42.77	46.00	-3.23	QP	100	164
4	250.00	59.66	-18.28	41.38	46.00	-4.62	QP	100	88
5	256.05	52.52	-18.08	34.44	46.00	-11.56	Peak	100	0
6	294.55	58.19	-16.64	41.55	46.00	-4.45	QP	100	144

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1,6,11 or 3,6,9(for HT40) are almost the same below 1GHz, so that the channel 1 or 3(for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



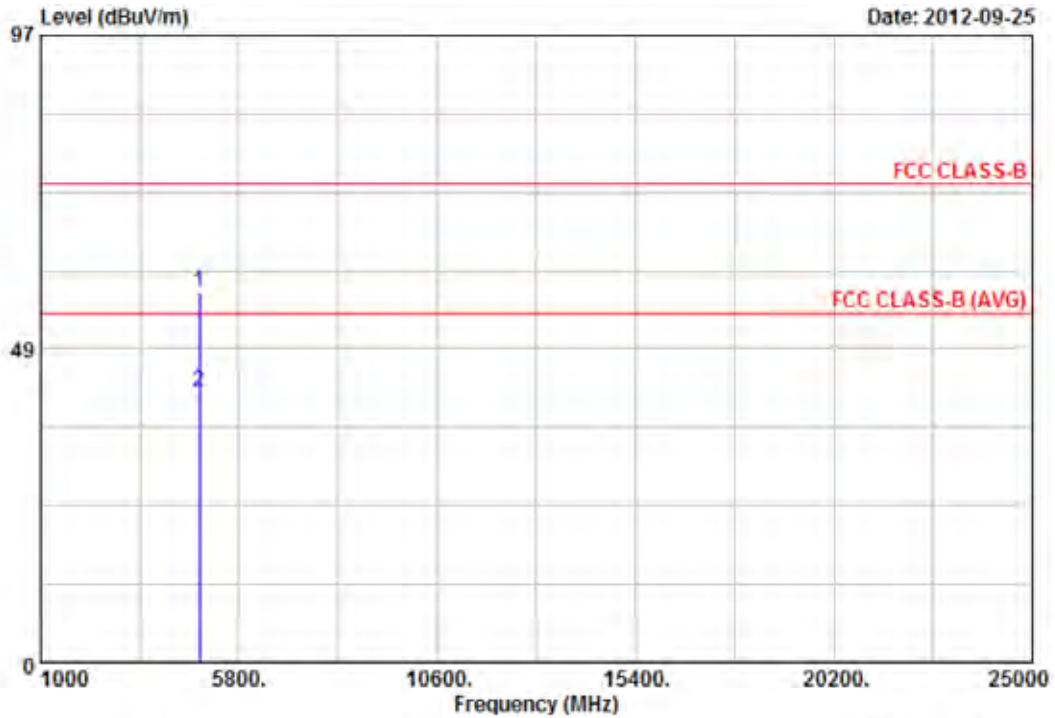
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	384.00	56.73	-13.81	42.92	46.00	-3.08	QP	100	335
2	479.90	54.94	-12.12	42.82	46.00	-3.18	QP	100	211
3	600.30	41.55	-8.70	32.85	46.00	-13.15	Peak	100	360
4	640.20	40.32	-8.60	31.72	46.00	-14.28	Peak	100	360
5	768.30	43.03	-6.95	36.08	46.00	-9.92	Peak	100	360
6	896.40	36.67	-5.24	31.43	46.00	-14.57	Peak	100	360

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/n mode are all the same, so the 802.11g/n mode chosen as representative in final test.
5. According to technical experiences, all spurious emission of 802.11g/n mode at channel 1, 6, 11 or 3, 6, 9 (for HT40) are almost the same below 1GHz, so that the channel 1 or 3 (for HT40) was chosen as representative in final test.
6. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



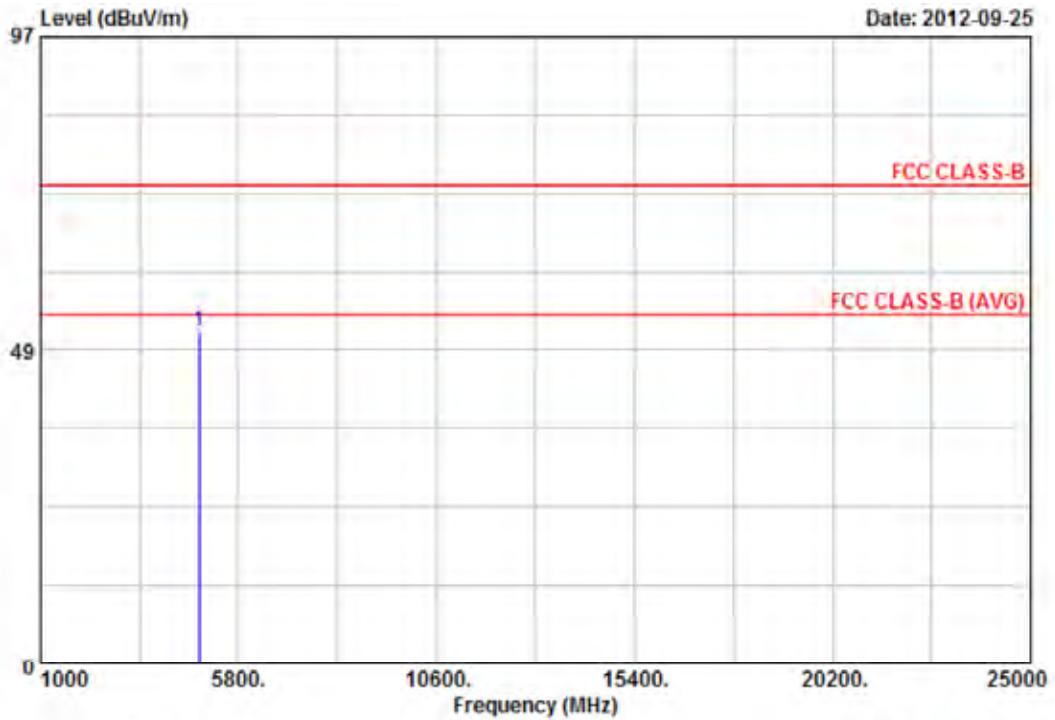
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4843.88	46.27	11.14	57.41	74.00	-16.59	Peak	100	236
2	4846.18	30.83	11.15	41.98	54.00	-12.02	Average	100	236

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT40, CH3	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



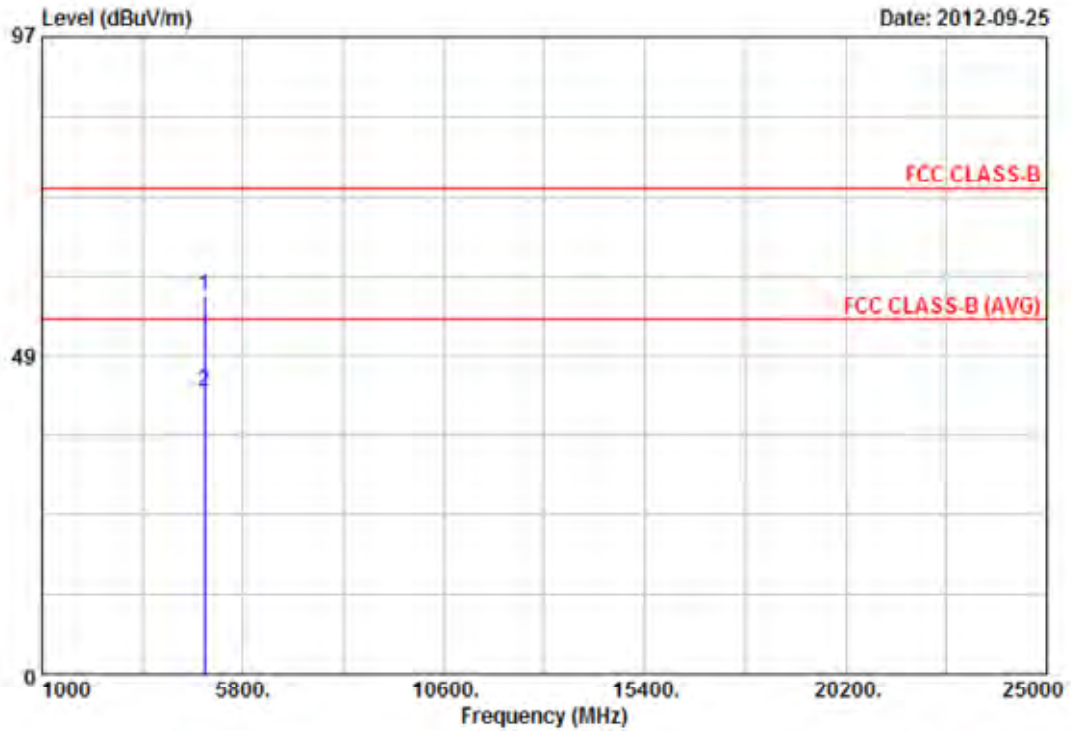
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4843.58	40.77	10.64	51.41	74.00	-22.59	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT40, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



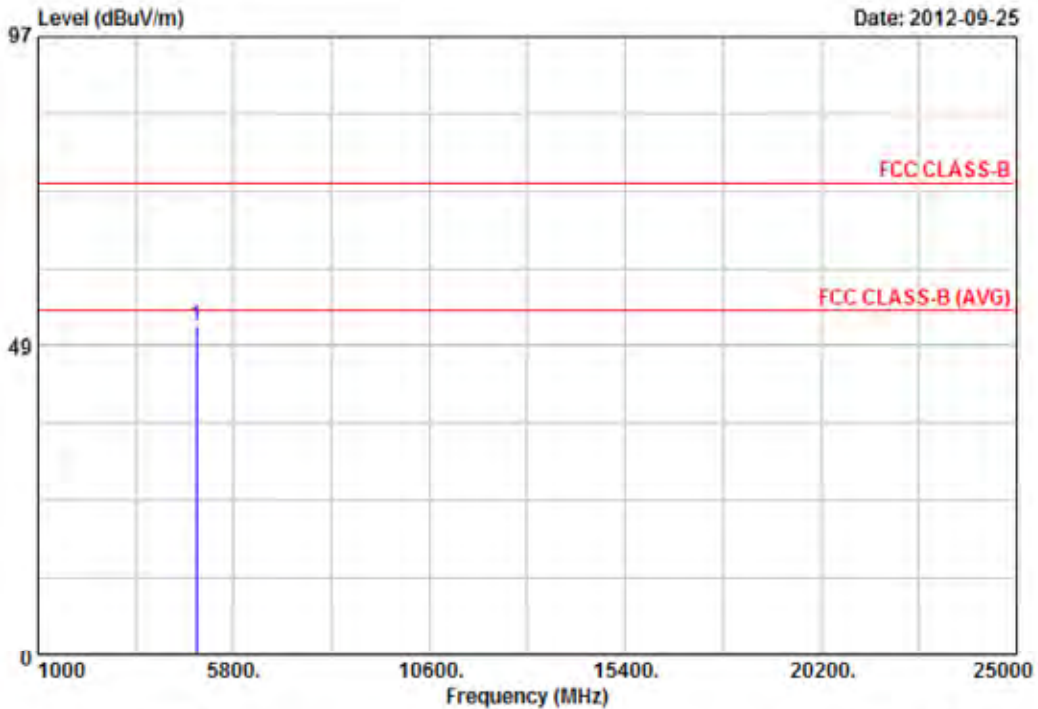
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.89	46.31	11.28	57.59	74.00	-16.41	Peak	100	219
2	4874.29	31.80	11.28	43.08	54.00	-10.92	Average	100	219

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT40, CH6	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



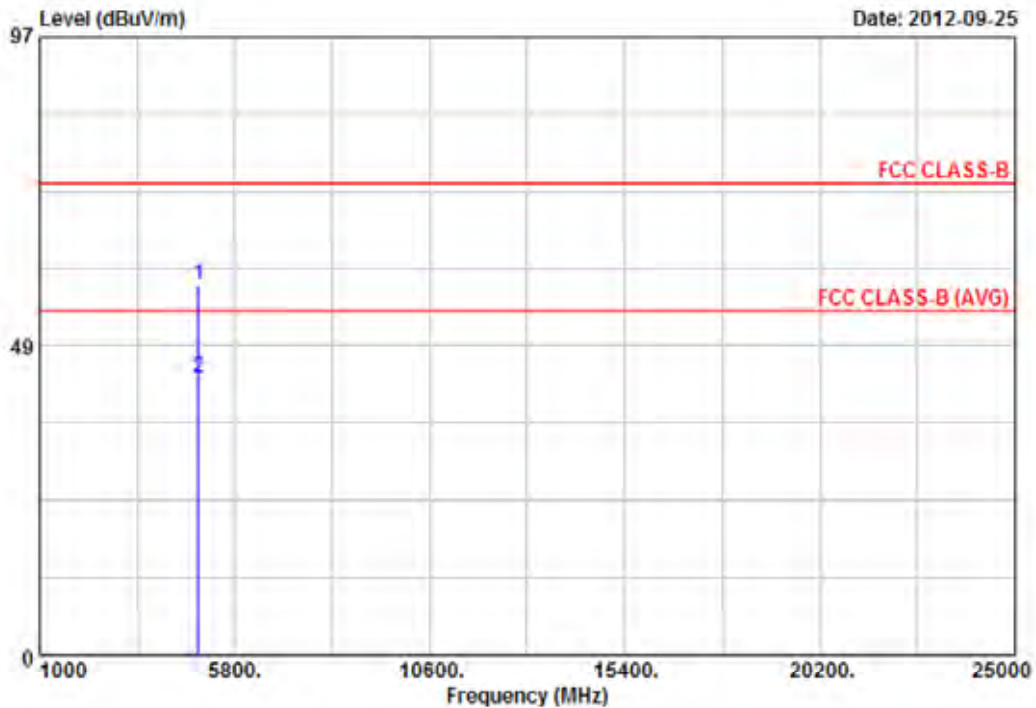
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4873.89	40.39	11.20	51.59	74.00	-22.41	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBUV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: VERTICAL
Test Mode 1	: 802.11n HT40, CH9	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



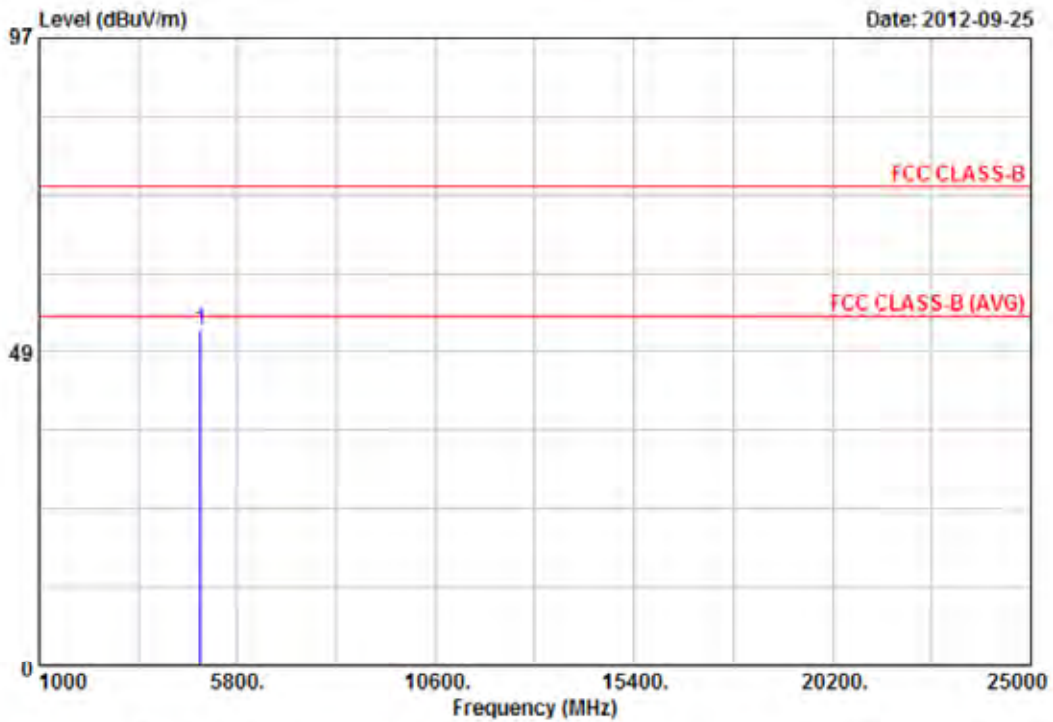
Item	Freq	Read Value	Factor	Result	Limit	Margin	Remark	Ant Pos	Tab Pos
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	Deg
1	4901.78	46.56	11.43	57.99	74.00	-16.01	Peak	100	238
2	4903.33	32.11	11.46	43.57	54.00	-10.43	Average	100	238

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



Power	: AC 120V	Pol/Phase	: HORIZONTAL
Test Mode 1	: 802.11n HT40, CH9	Temperature	: 25 °C
Adapter	: EGB \ PAW018A12UL 8066	Humidity	: 65 %



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	4903.78	40.33	11.66	51.99	74.00	-22.01	Peak	100	360

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 3MHz (detector sample mode) for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured. (The worst case noise floor measurements value is 47.93 dBuV at 16.10GHz)
7. The data is worse case.



6. 6dB Bandwidth Measurement Data

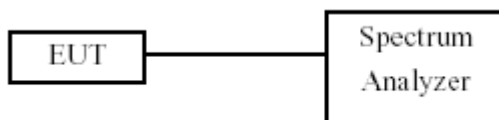
6.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

6.2 Test Procedures

- The transmitter output was connected to the spectrum analyzer.
- Set RBW of spectrum analyzer to 1~5% of the emission bandwidth and VBW \geq 3x RBW.
- The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
- The 6dB Bandwidth was measured and recorded.

6.3 Test Setup Layout



6.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100219	2011/11/24	2012/11/23

6.5 Test Result and Data

Test Date: Sep. 24, 2012

Temperature: 25

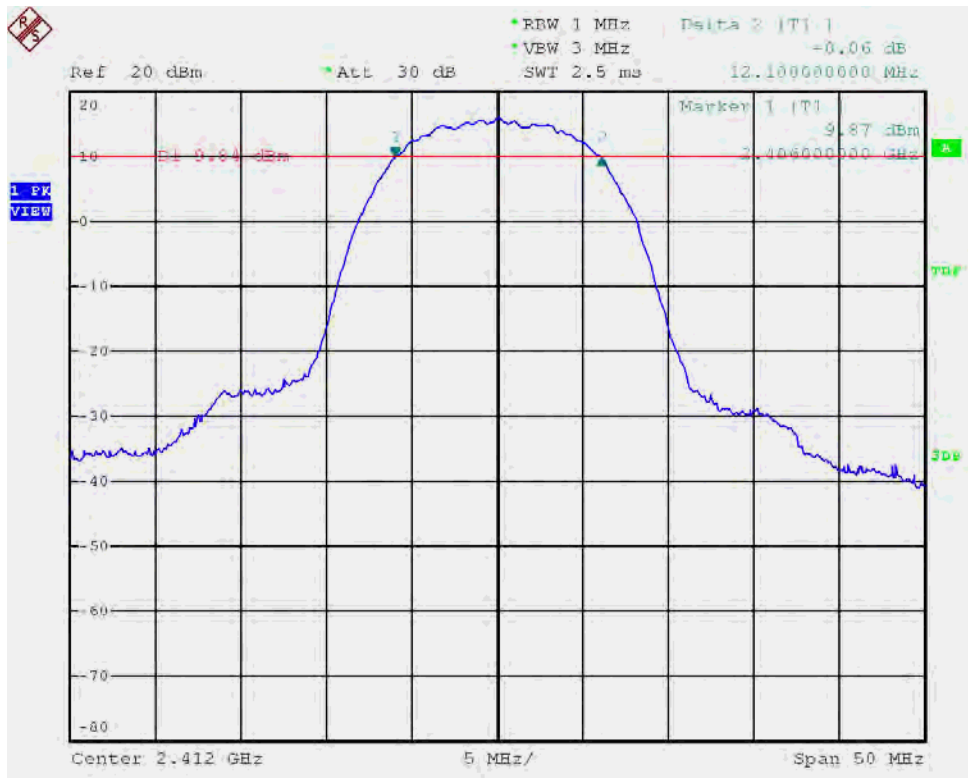
Atmospheric pressure: 1020 hPa

Humidity: 65%

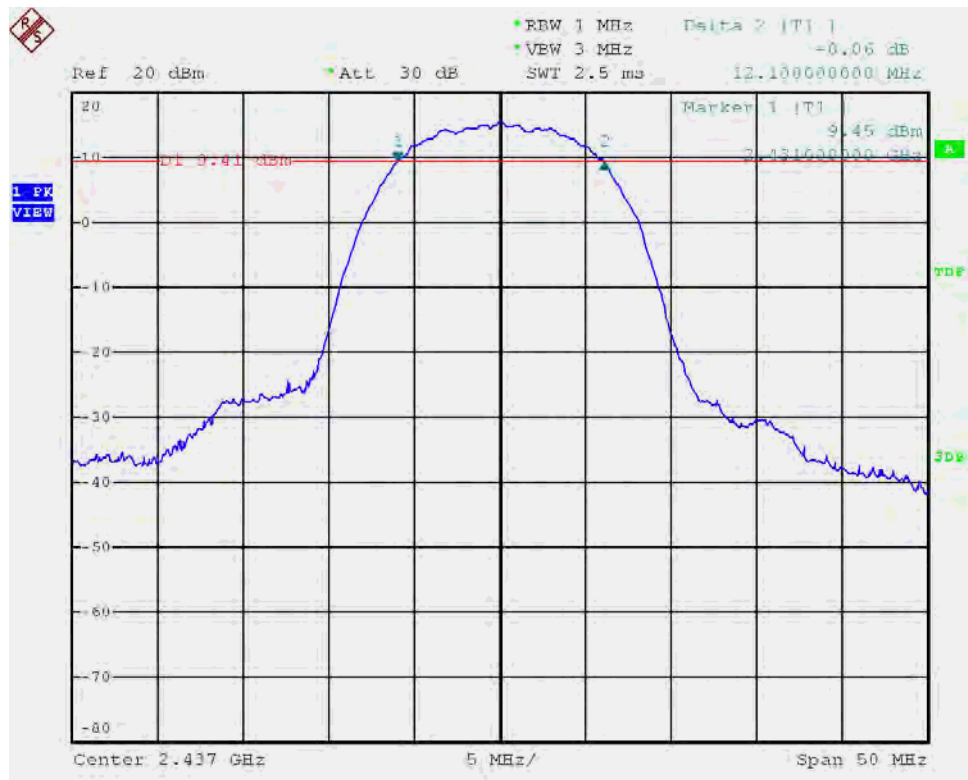
Modulation Standard	Channel	Frequency (MHz)	6dB Bandwidth (MHz)
802.11b (11Mbps)	01	2412	12.1
	06	2437	12.1
	11	2462	12.0
802.11g (54Mbps)	01	2412	16.3
	06	2437	16.3
	11	2462	16.4
802.11n HT20 (65Mbps)	01	2412	17.0
	06	2437	17.0
	11	2462	17.1
802.11n HT40 (135Mbps)	03	2422	34.2
	06	2437	34.8
	09	2452	34.4



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

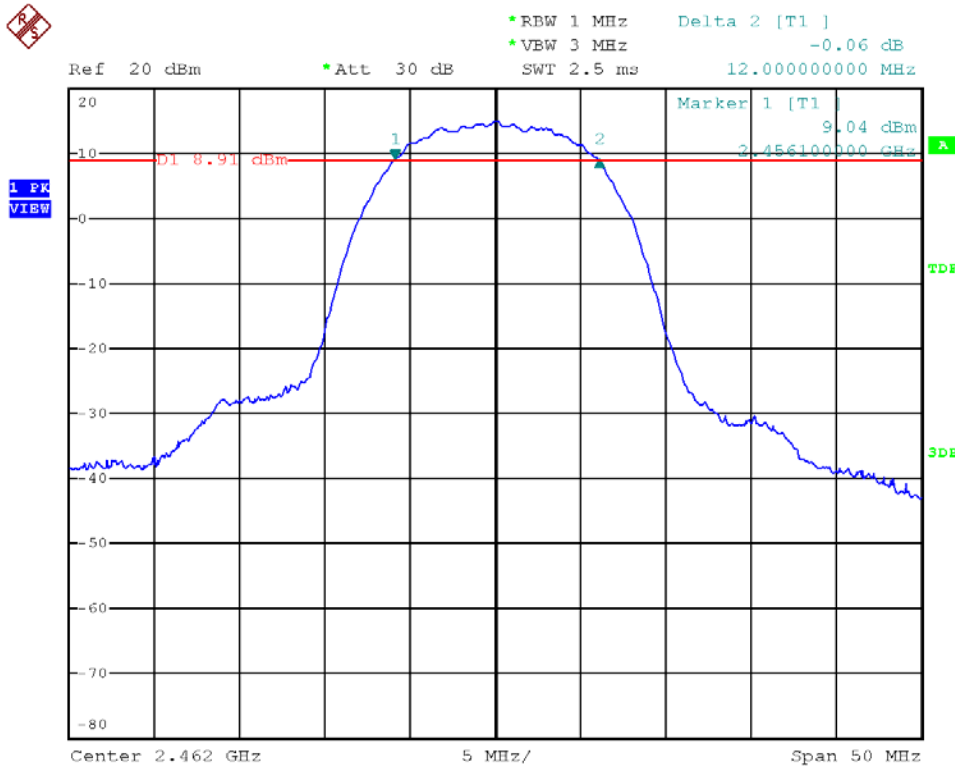


Modulation Standard: 802.11b (11Mbps)
Channel: 06

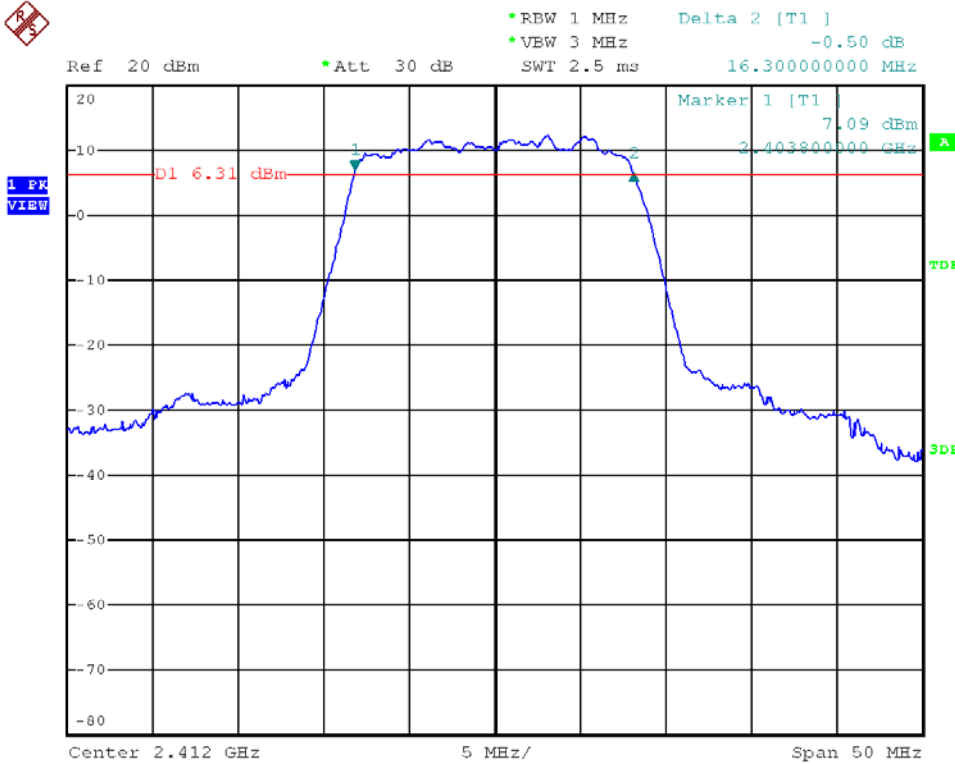




Modulation Standard: 802.11b (11Mbps)
Channel: 11

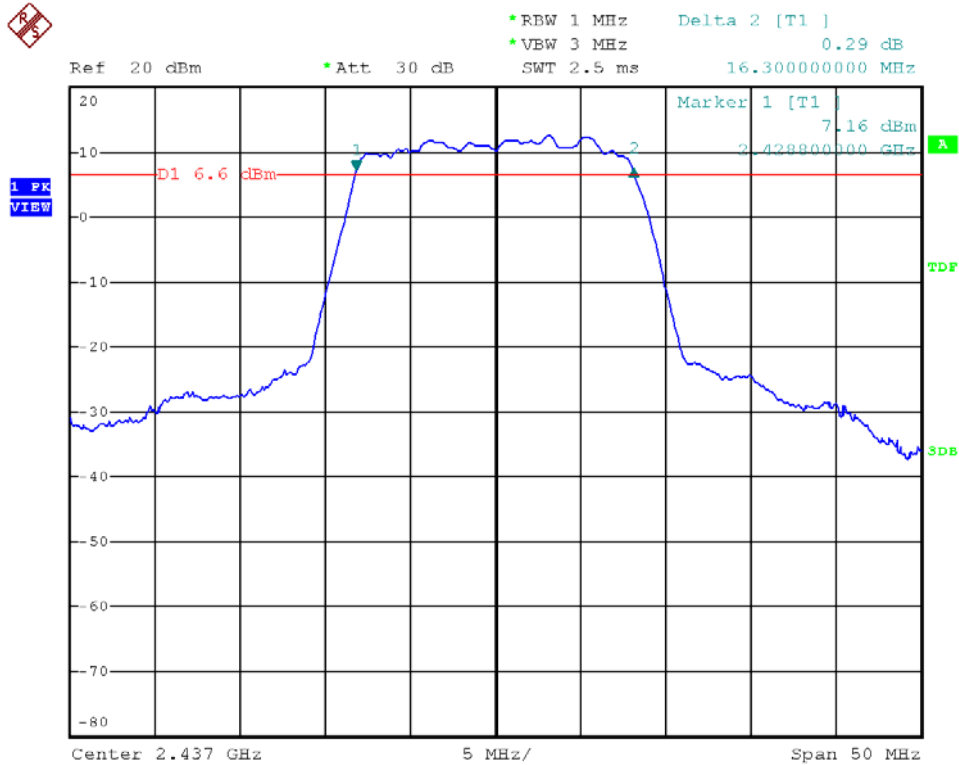


Modulation Standard: 802.11g (54Mbps)
Channel: 01

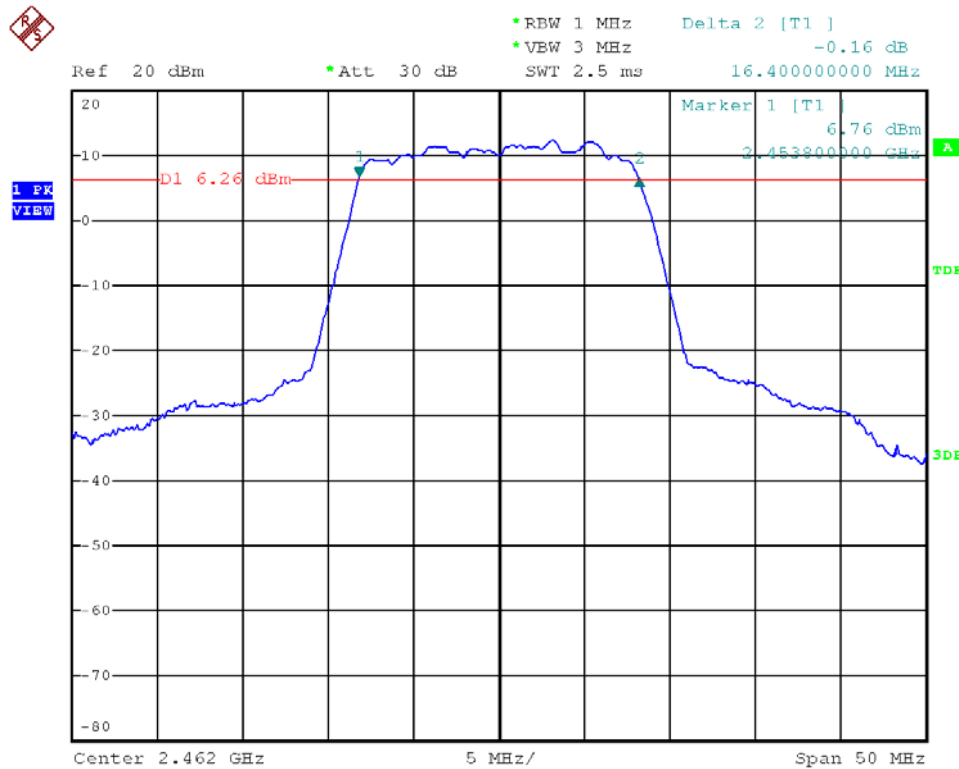




Modulation Standard: 802.11g (54Mbps)
Channel: 06

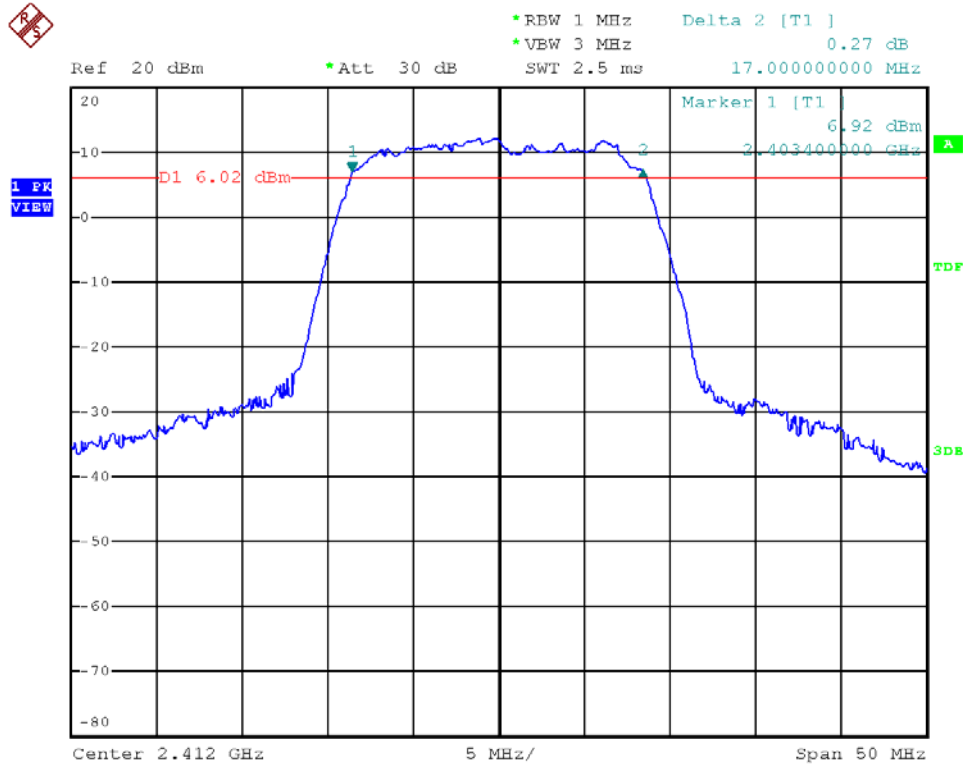


Modulation Standard: 802.11g (54Mbps)
Channel: 11

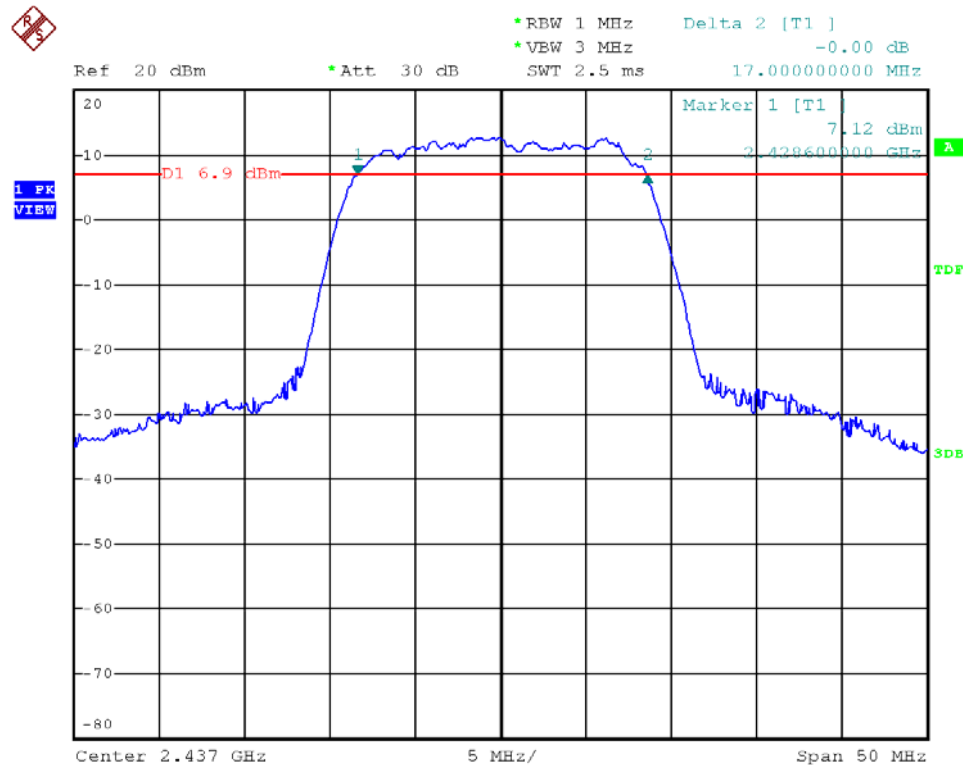




Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 01

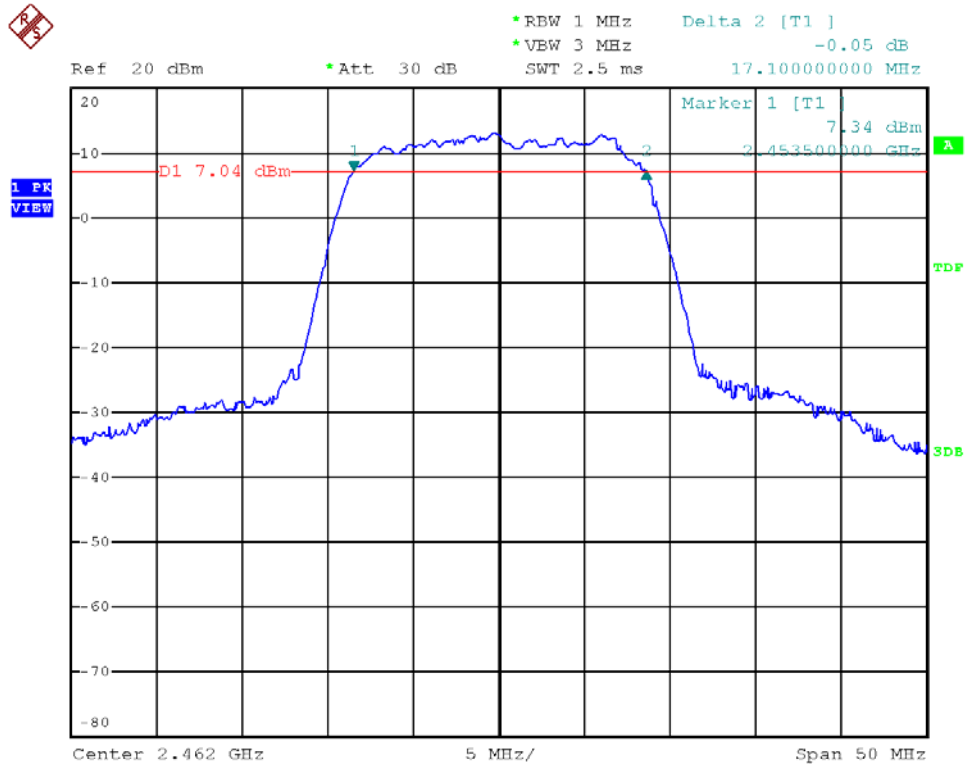


Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 06

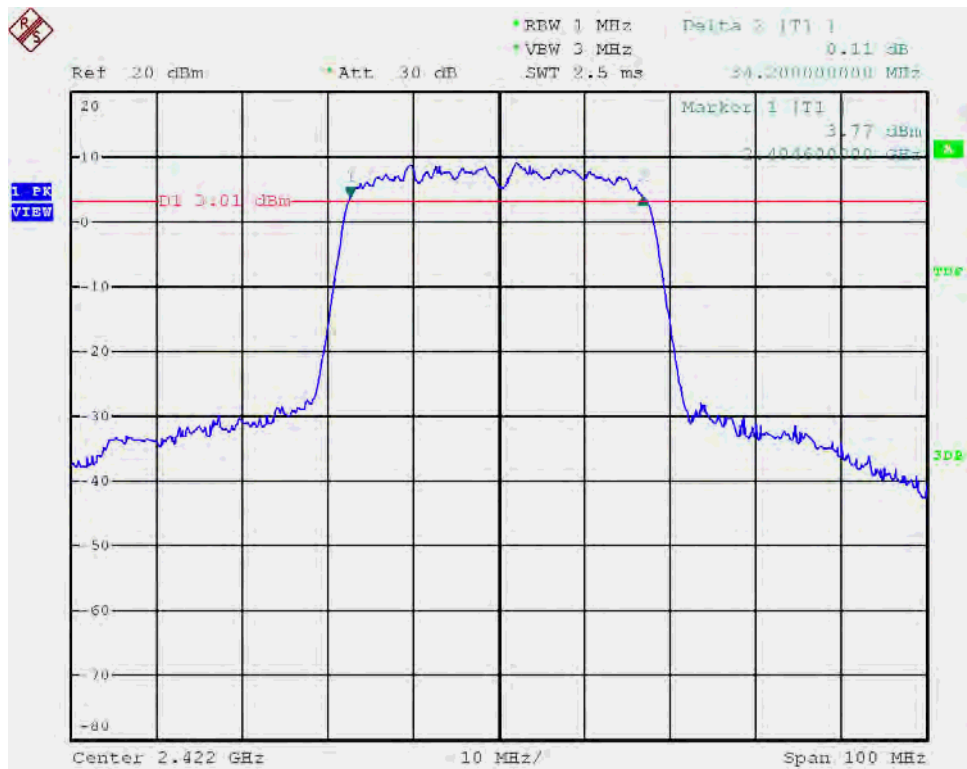




Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 11

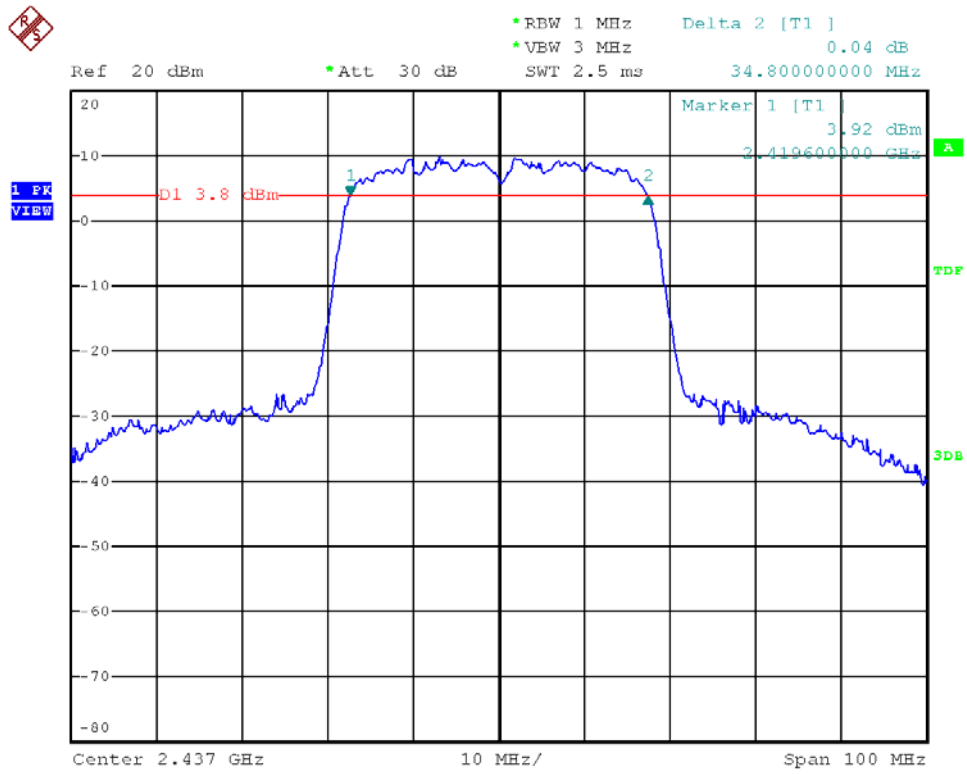


Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 03

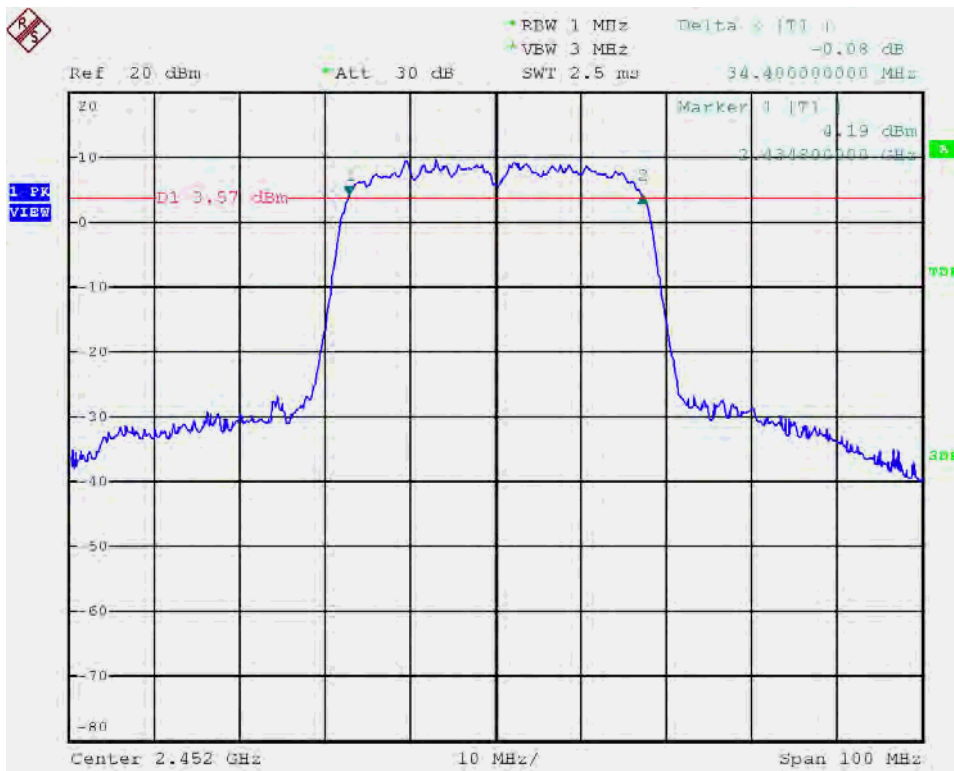




Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 06



Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 09





7. Maximum Peak and Average Output Power

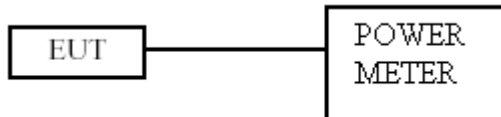
7.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

7.2 Test Procedures

- a. The transmitter output was connected to the Power meter.
- b. The maximum peak and average output power was measured and recorded.

7.3 Test Setup Layout



7.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
SERIES POWER METER	Anritsu	ML2495A	1224005	2012/06/22	2013/06/21
POWER SENSOR	Anritsu	MA2411B	1207295	2012/07/09	2013/07/08



7.5 Test Result and Data

Test Date: Sep. 24, 2012

Temperature: 25

Atmospheric pressure: 1020 hPa

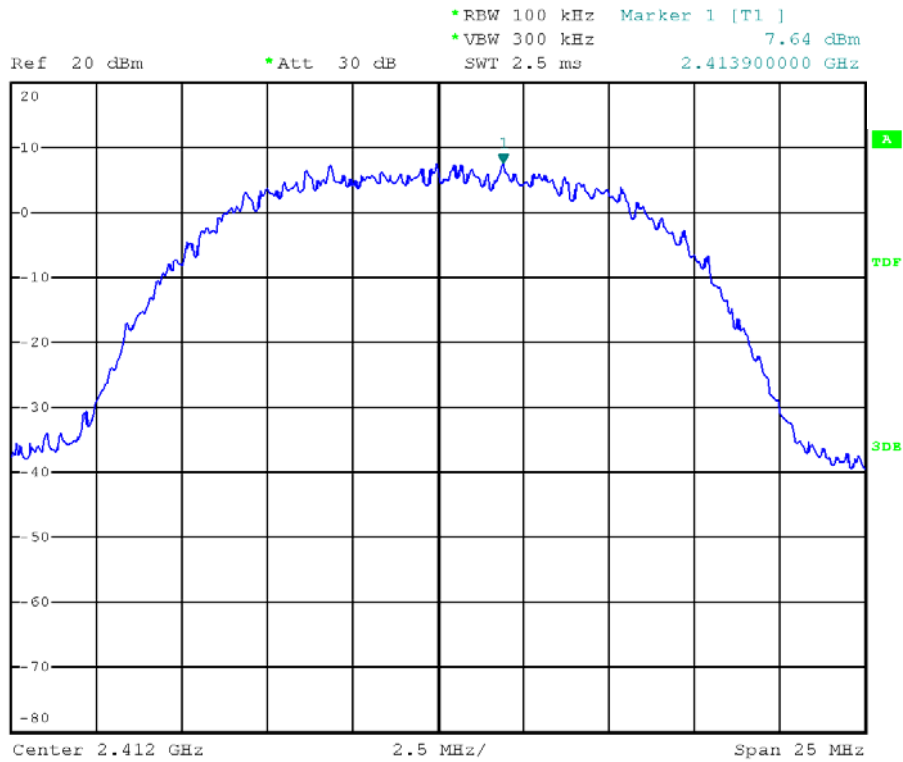
Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)		Power Output (mW)	
			Peak	Average	Peak	Average
802.11b (11Mbps)	01	2412	20.51	18.10	112.5	64.6
	06	2437	20.18	17.78	104.2	60.0
	11	2462	20.05	17.65	101.2	58.2
802.11g (54Mbps)	01	2412	23.37	14.00	217.3	25.1
	06	2437	23.56	13.84	227.0	24.2
	11	2462	23.41	13.65	219.3	23.2

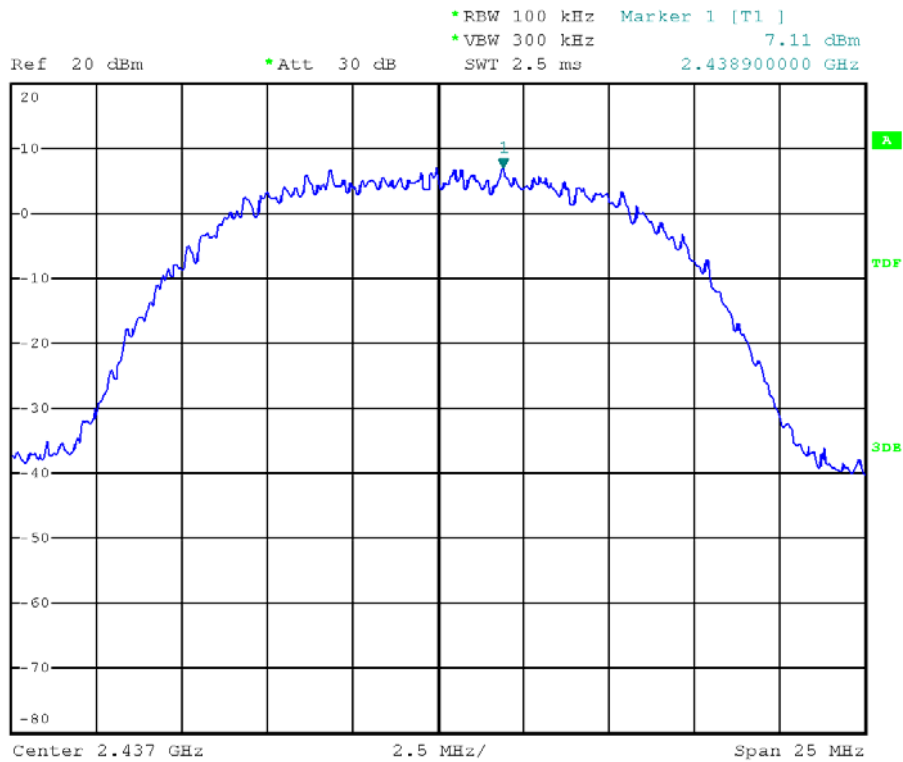
Modulation Standard	Channel	Frequency (MHz)	Peak Power Output (dBm)		Power Output (mW)	
			Peak	Average	Peak	Average
802.11n HT20 (65Mbps)	01	2412	22.68	14.00	185.4	25.1
	06	2437	23.01	14.22	200.0	26.4
	11	2462	22.78	14.02	189.7	25.2
802.11n HT40 (135Mbps)	03	2422	22.25	13.35	167.9	21.6
	06	2437	22.98	14.23	198.6	26.5
	09	2452	22.88	14.10	194.1	25.7



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

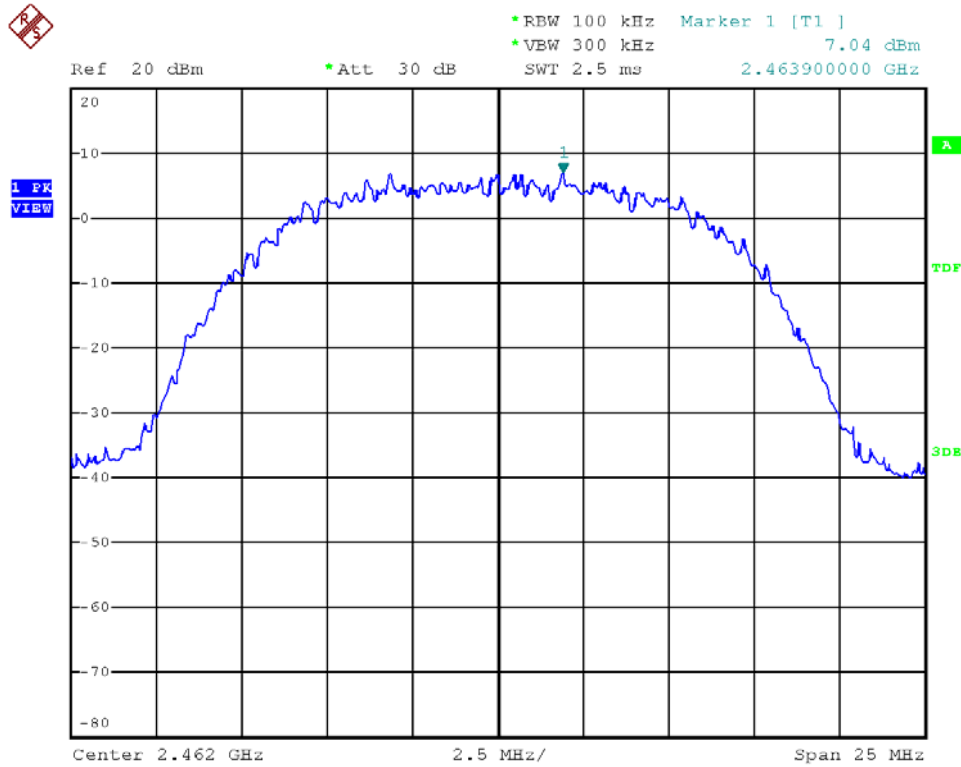


Modulation Standard: 802.11b (11Mbps)
Channel: 06

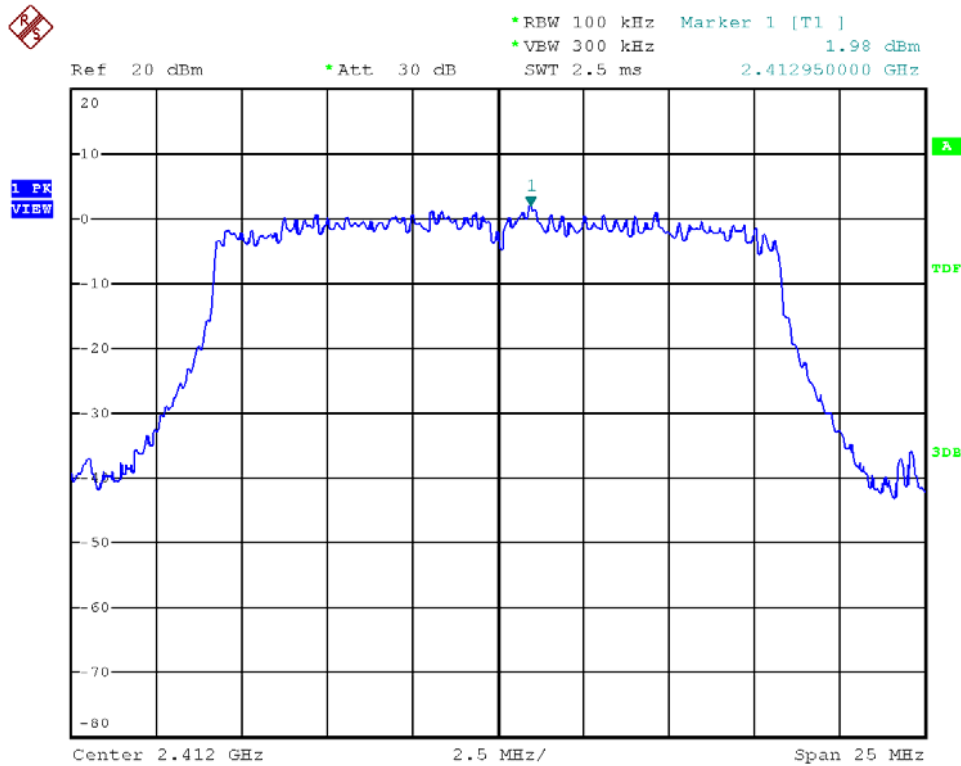




Modulation Standard: 802.11b (11Mbps)
Channel: 11

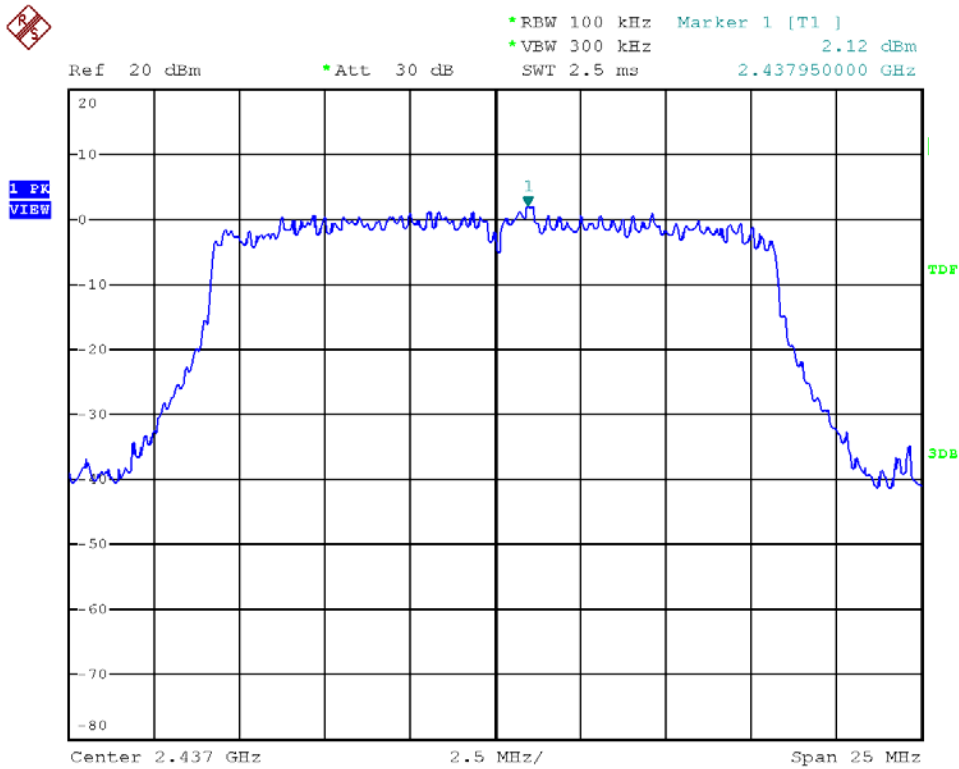


Modulation Standard: 802.11g (54Mbps)
Channel: 01

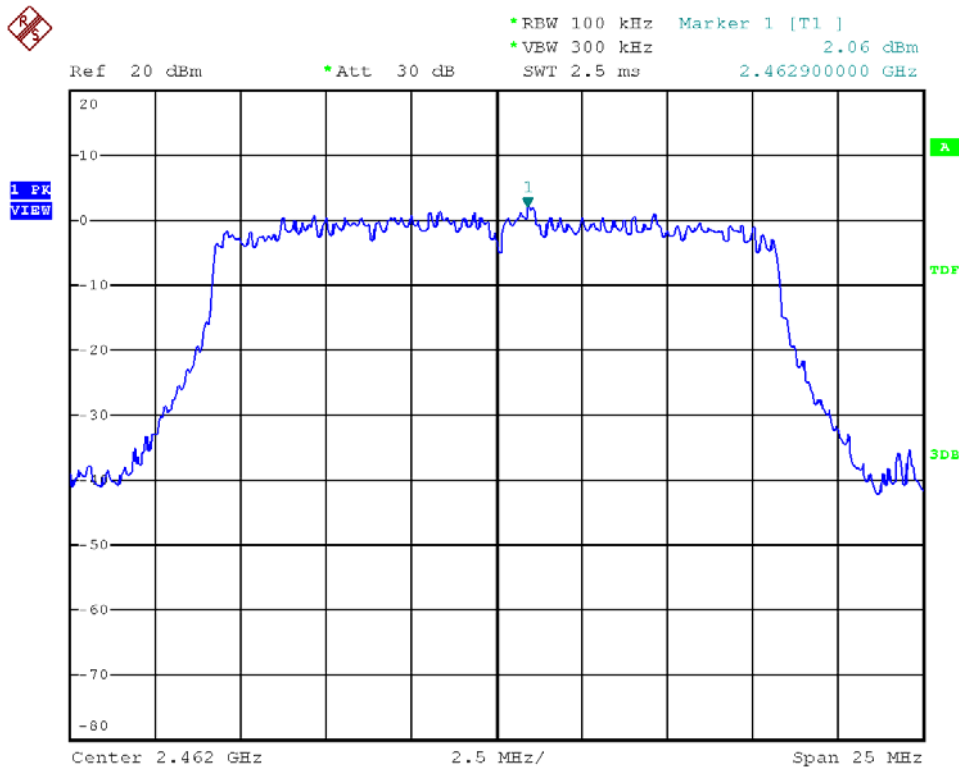




Modulation Standard: 802.11g (54Mbps)
Channel: 06

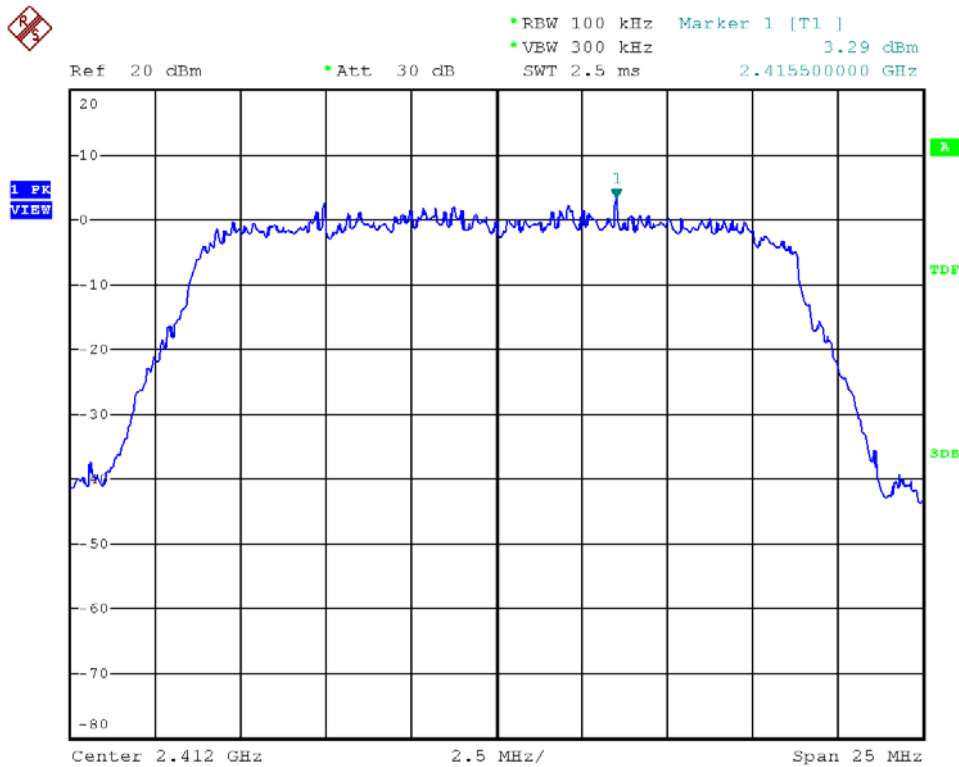


Modulation Standard: 802.11g (54Mbps)
Channel: 11

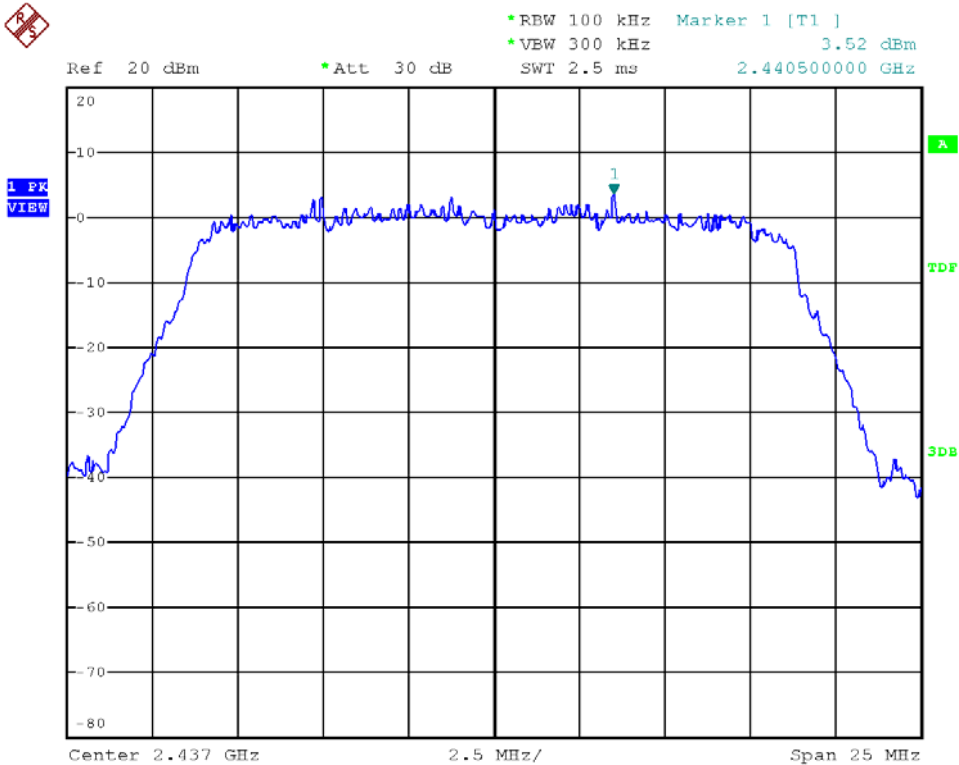




Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 01

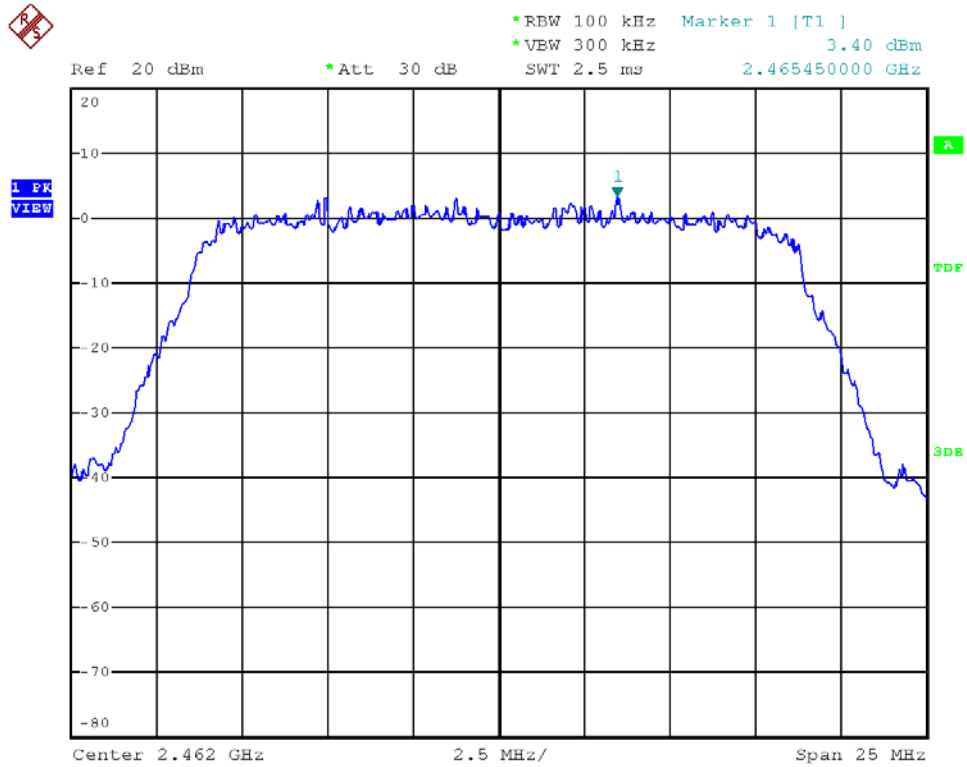


Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 06

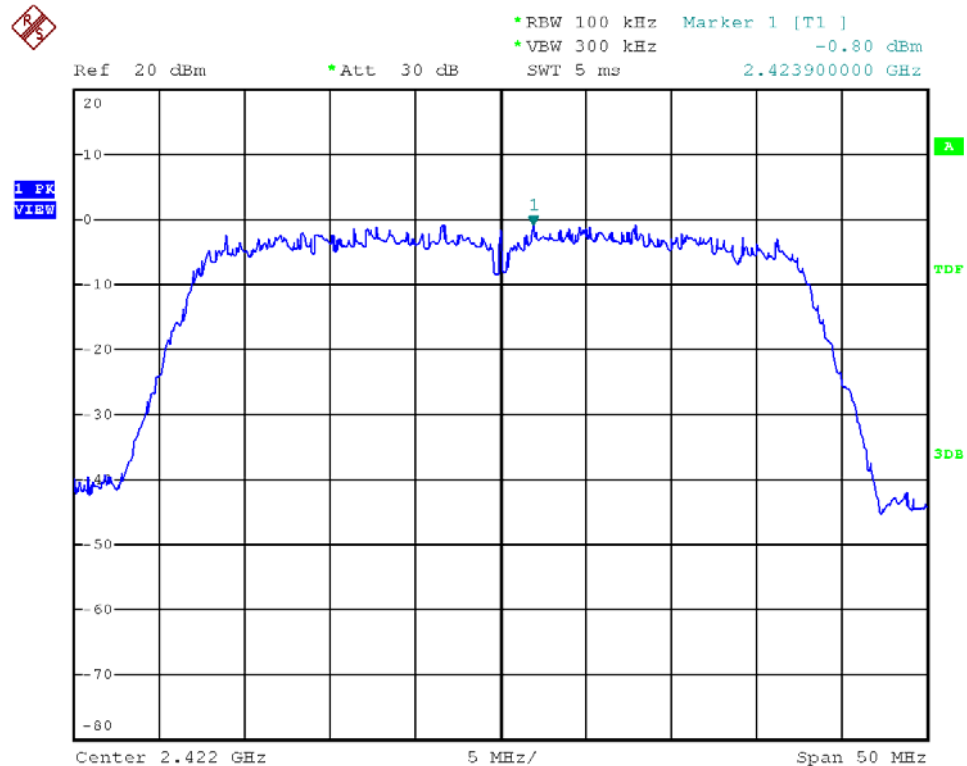




Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 11

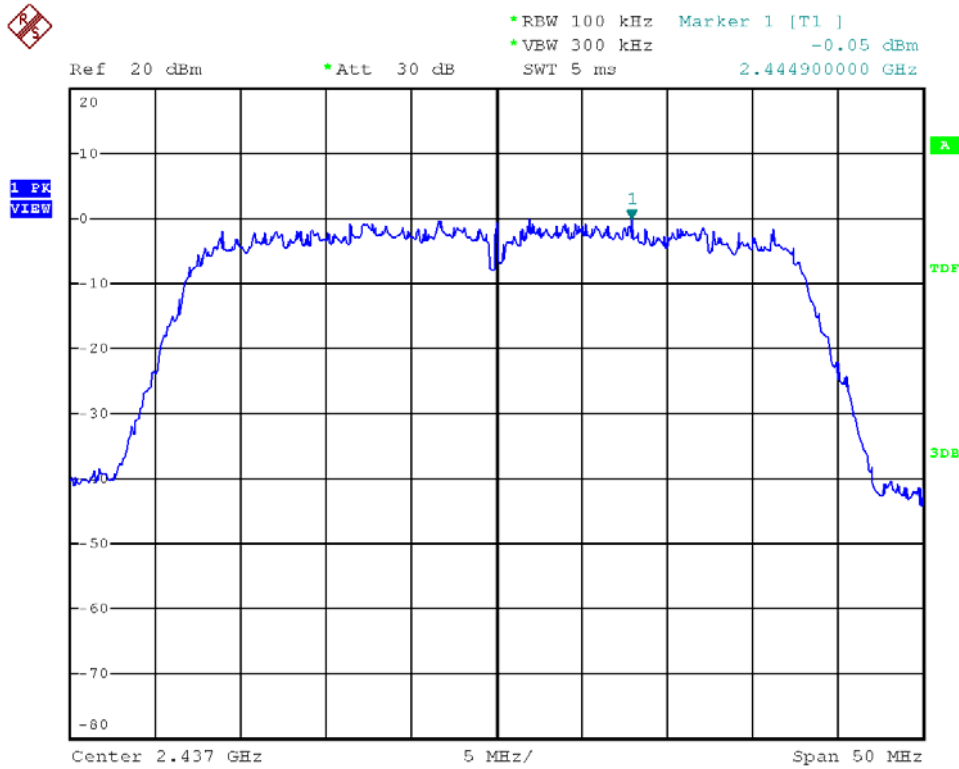


Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 03

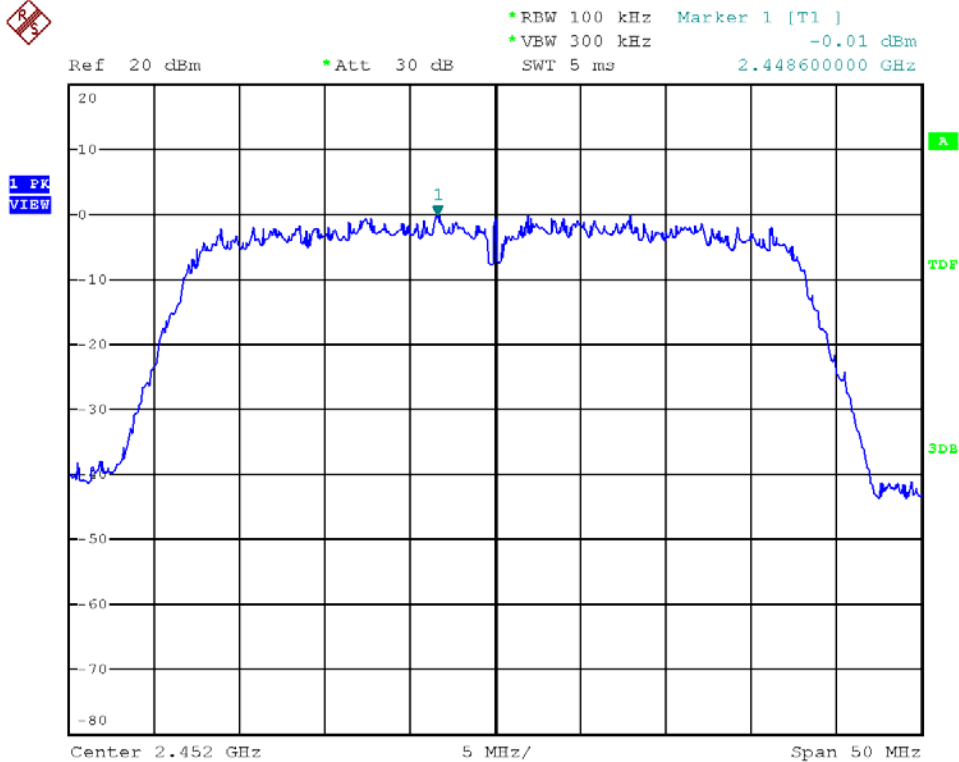




Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 06



Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 09





9. Band Edges Measurement

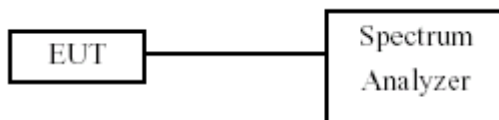
9.1 Test Limit

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

9.2 Test Procedure

- The transmitter output was connected to the spectrum analyzer via a low lose cable.
- Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
- Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20dB relative to the maximum measured in-band peak PSD level.
- The band edges was measured and recorded.

9.3 Test Setup Layout



9.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100219	2011/11/24	2012/11/23

9.5 Test Result and Data

Test Date: Sep. 24, 2012

Temperature: 25

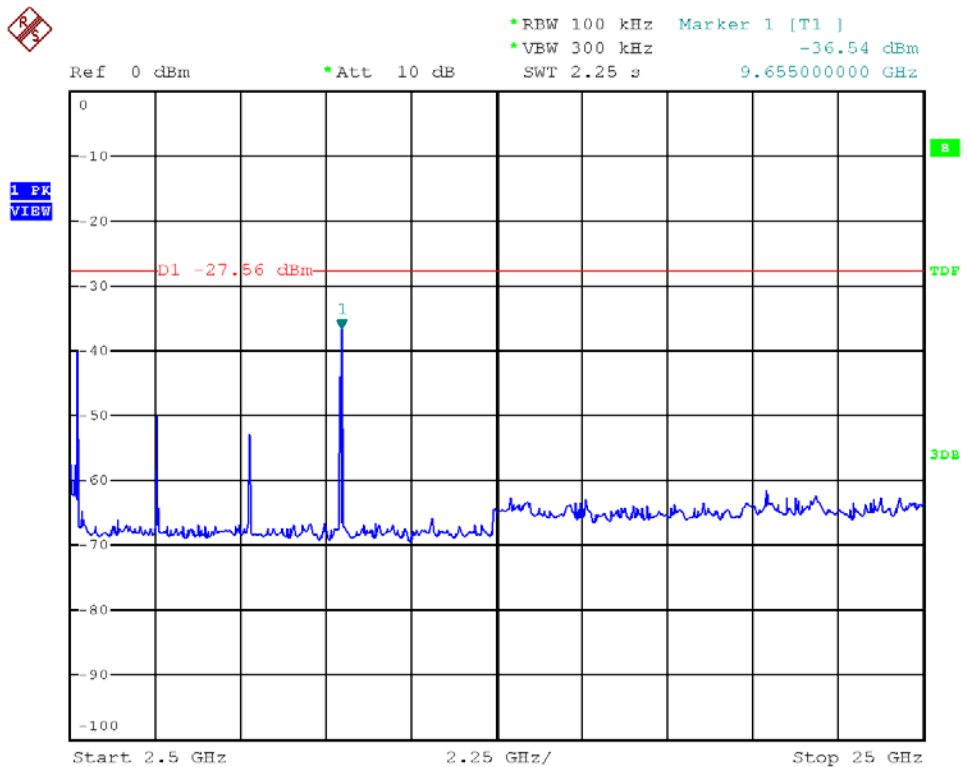
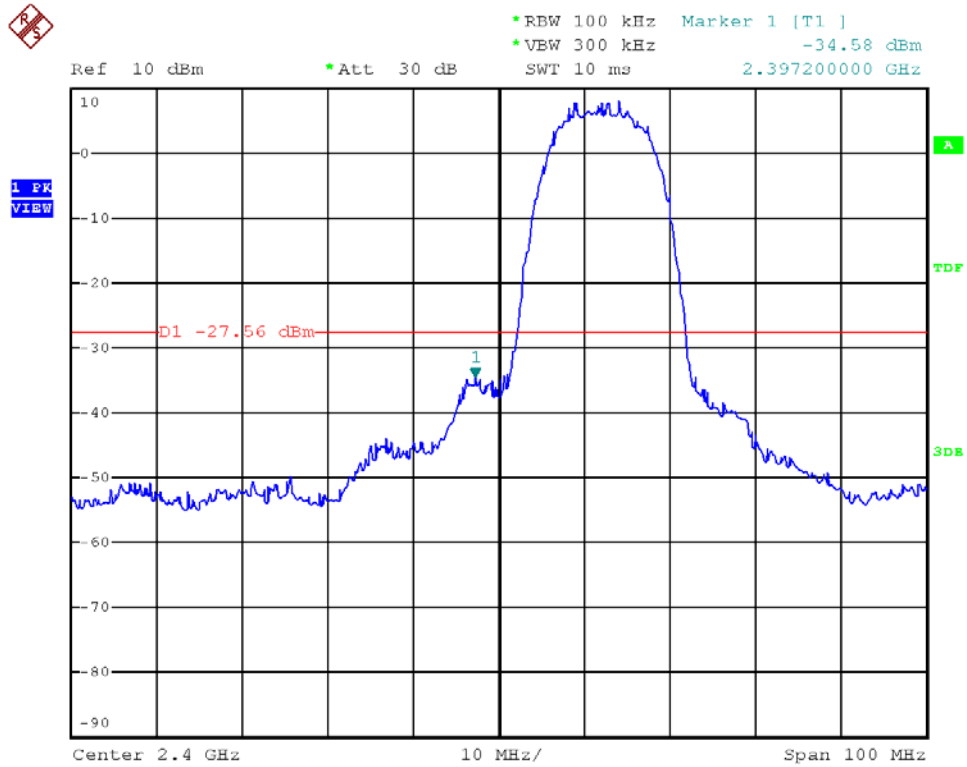
Atmospheric pressure: 1020 hPa

Humidity: 65%

Modulation Standard	Channel	Frequency (MHz)	maximum value in frequency (MHz)	maximum value (dBm)	Limit (dBm)
802.11b (11Mbps)	01	2412	9655.00	-36.54	-27.56
	11	2462	2860.00	-32.80	-28.16
802.11g (54Mbps)	01	2412	2399.60	-38.81	-33.22
	11	2462	2483.50	-49.21	-33.14
802.11n HT20 (65Mbps)	01	2412	2399.80	-38.54	-31.91
	11	2462	2484.30	-46.74	-31.80
802.11n HT40 (135Mbps)	03	2422	2400.00	-39.76	-36.00
	09	2452	2484.70	-43.41	-35.21

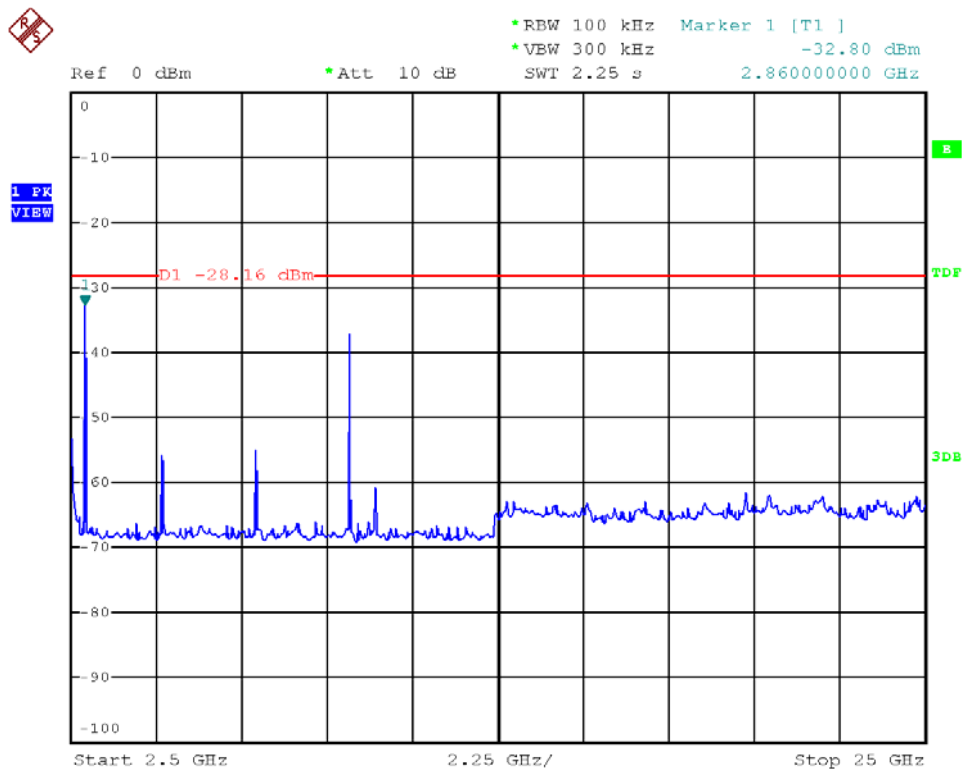
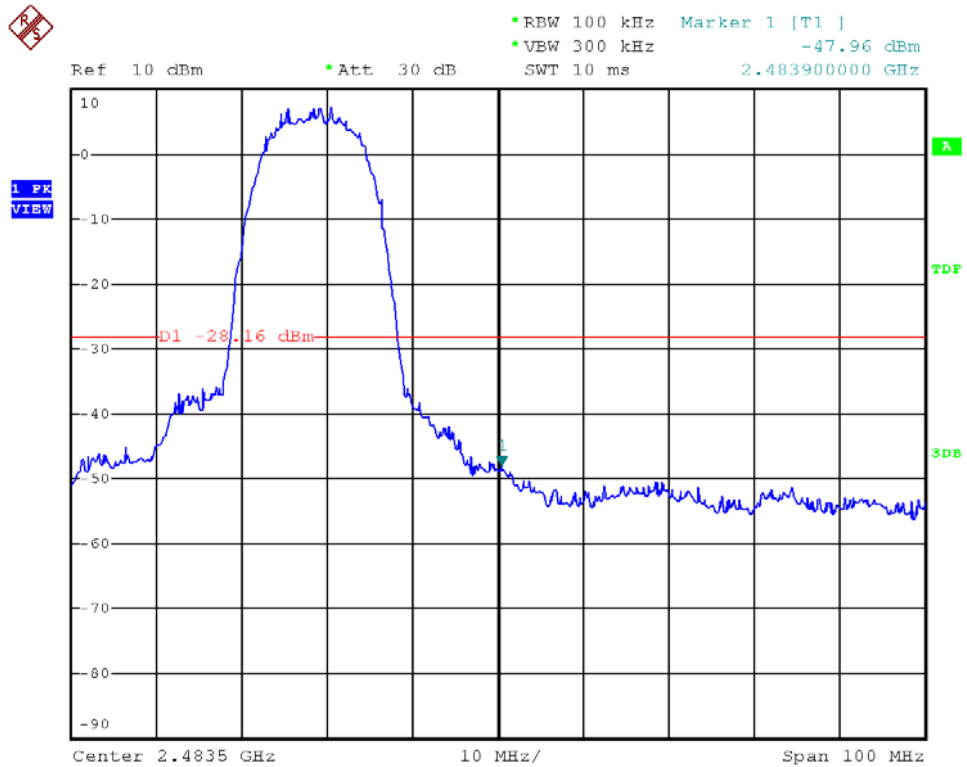


Modulation Standard: 802.11b (11Mbps)
Channel: 01



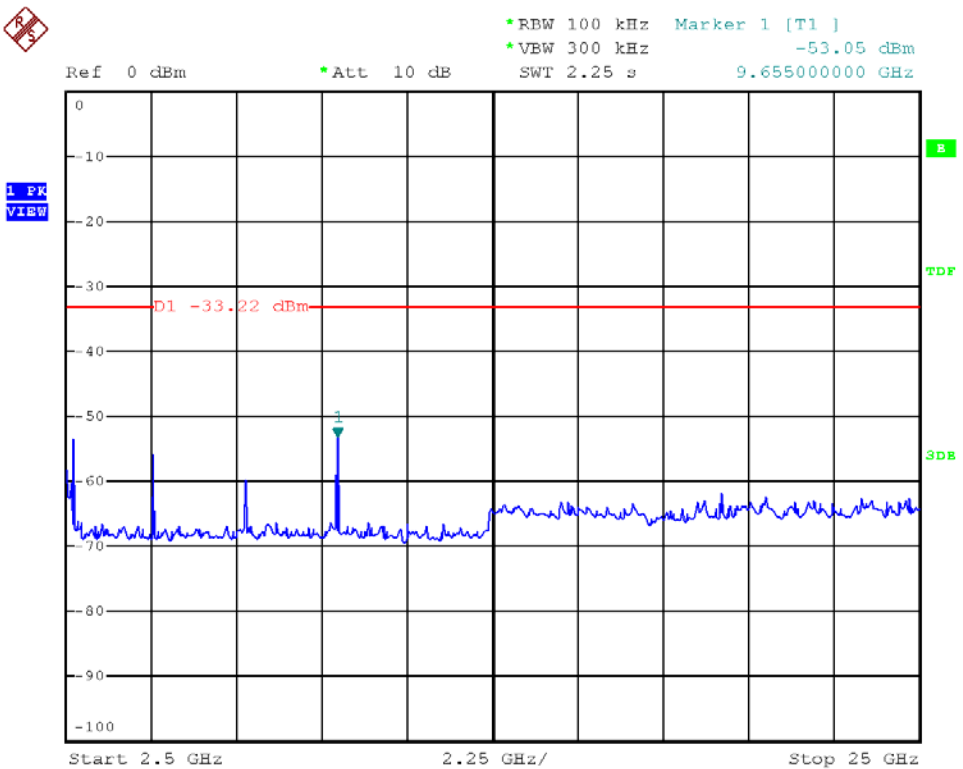
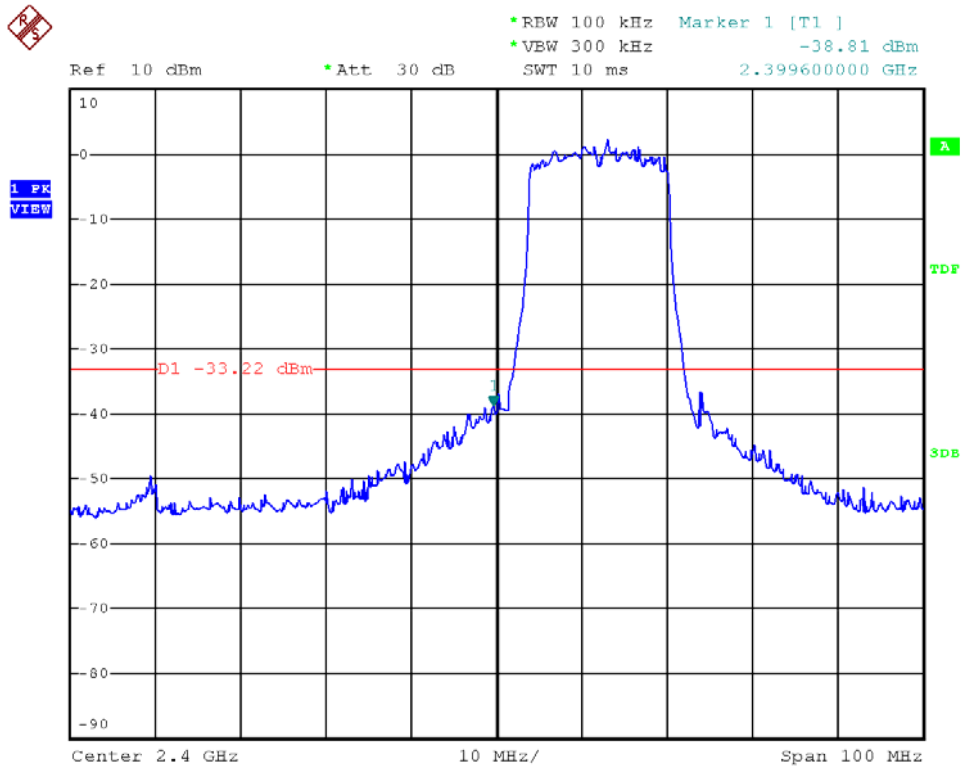


Modulation Standard: 802.11b (11Mbps)
Channel: 11



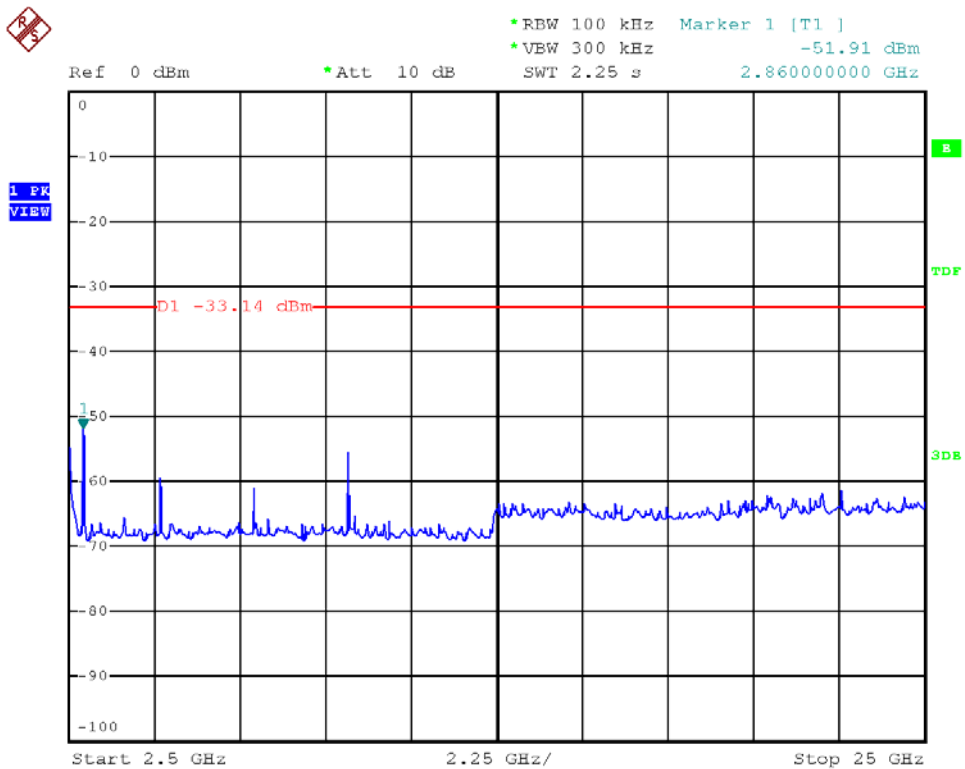
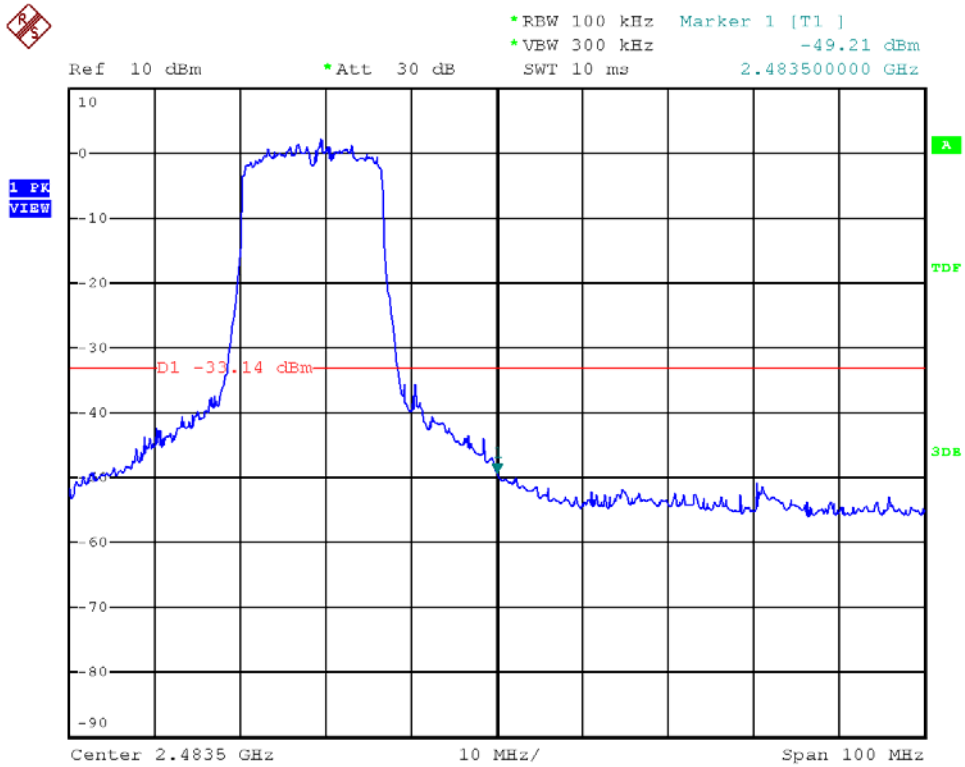


Modulation Standard: 802.11g (54Mbps)
Channel: 01



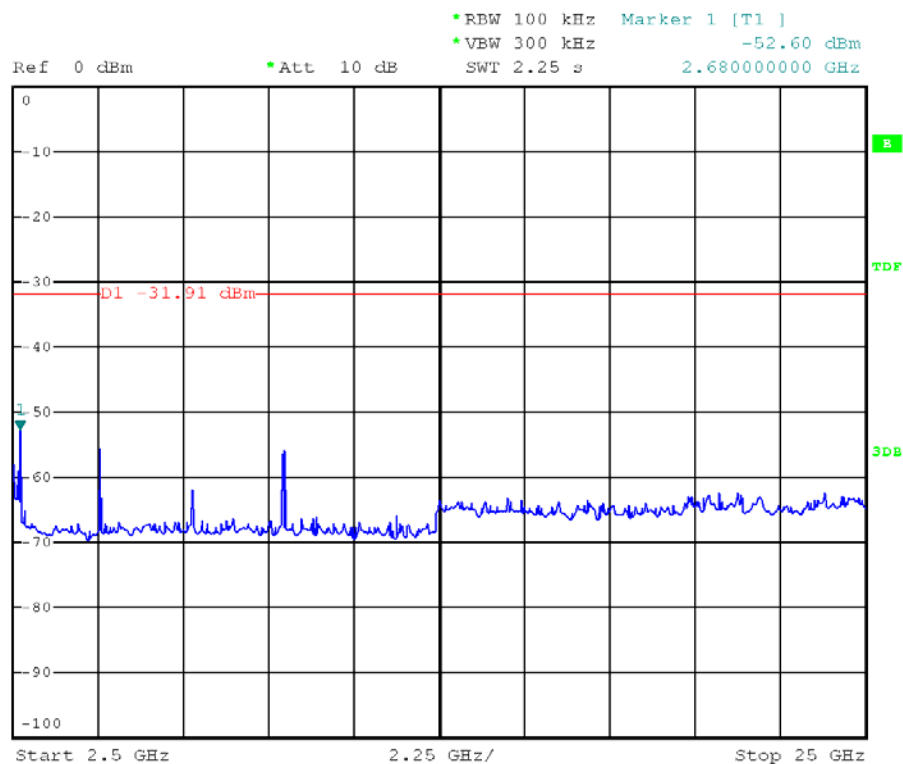
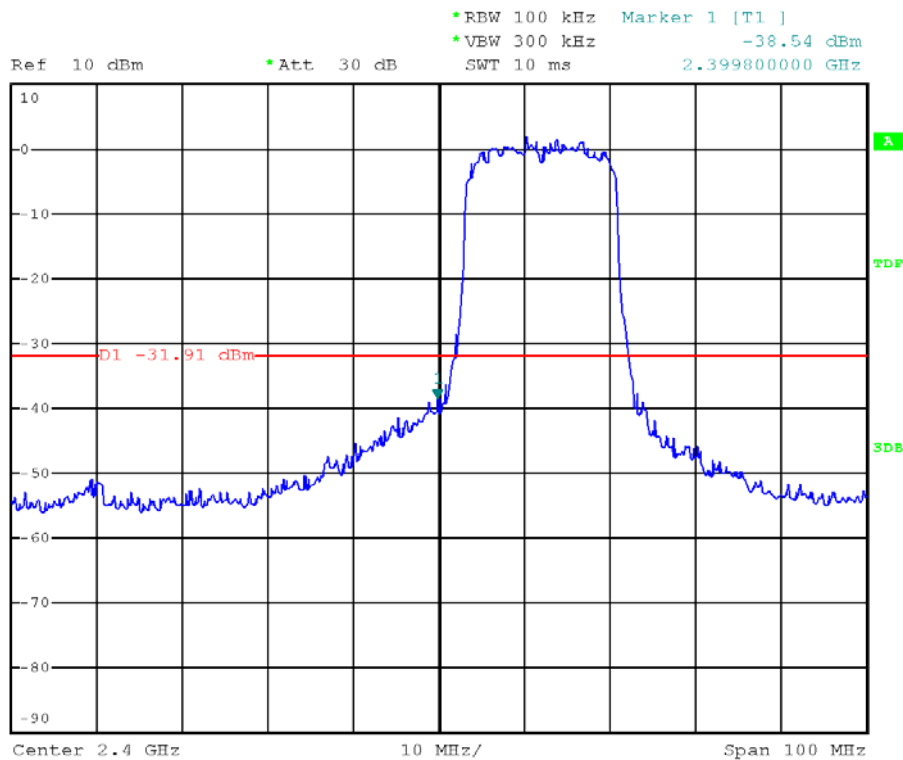


Modulation Standard: 802.11g (54Mbps)
Channel: 11



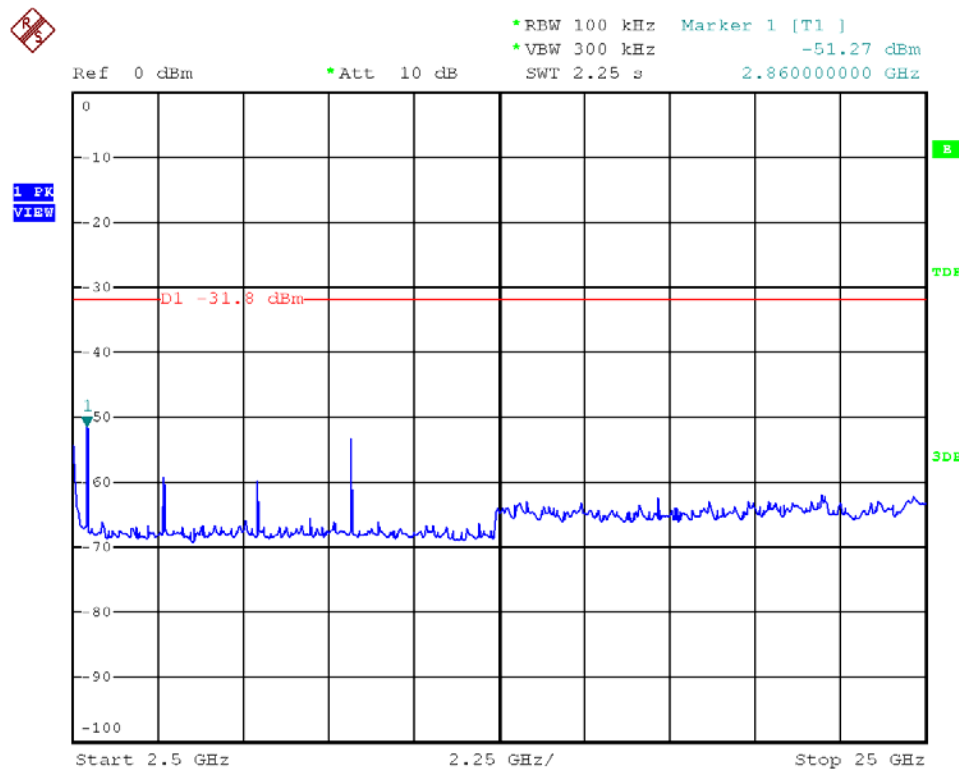
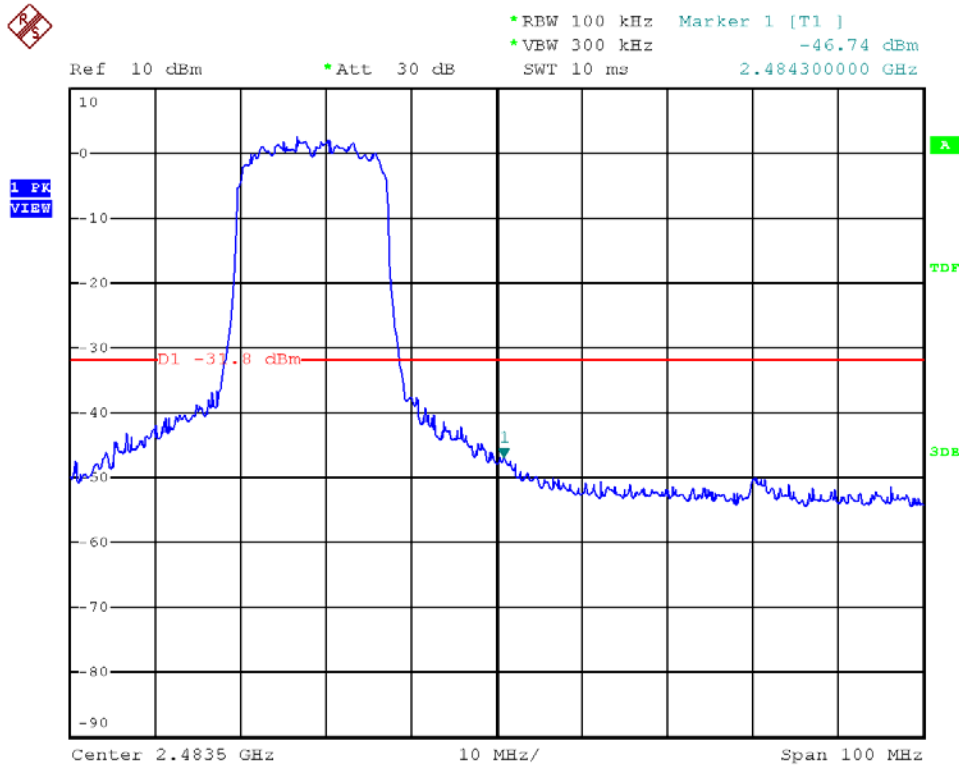


Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 01



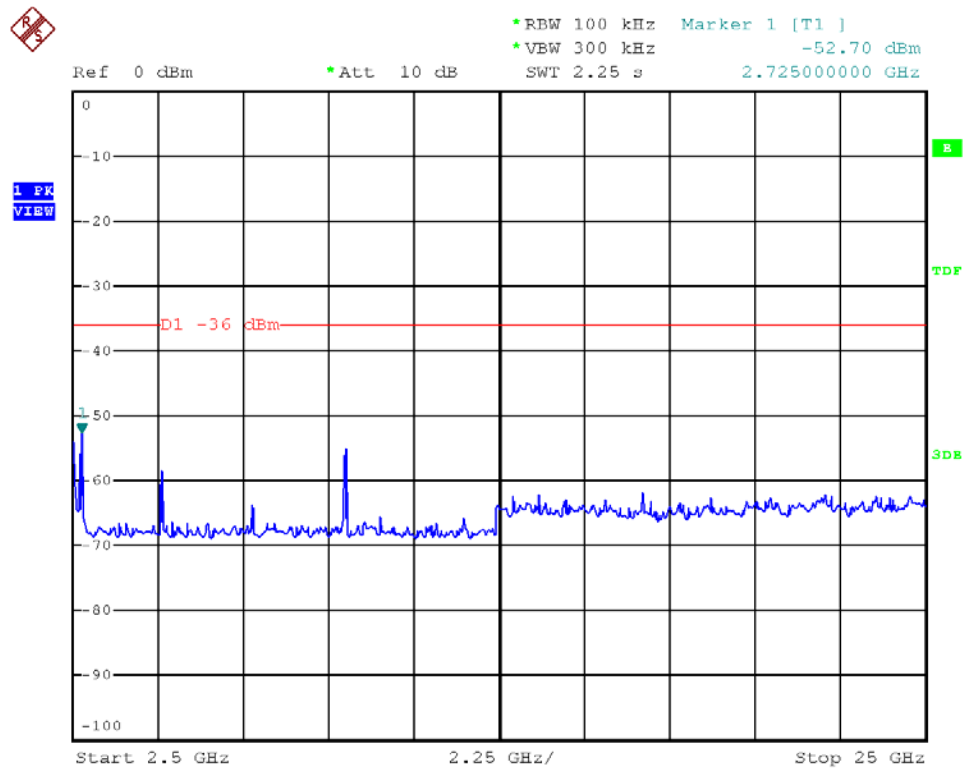
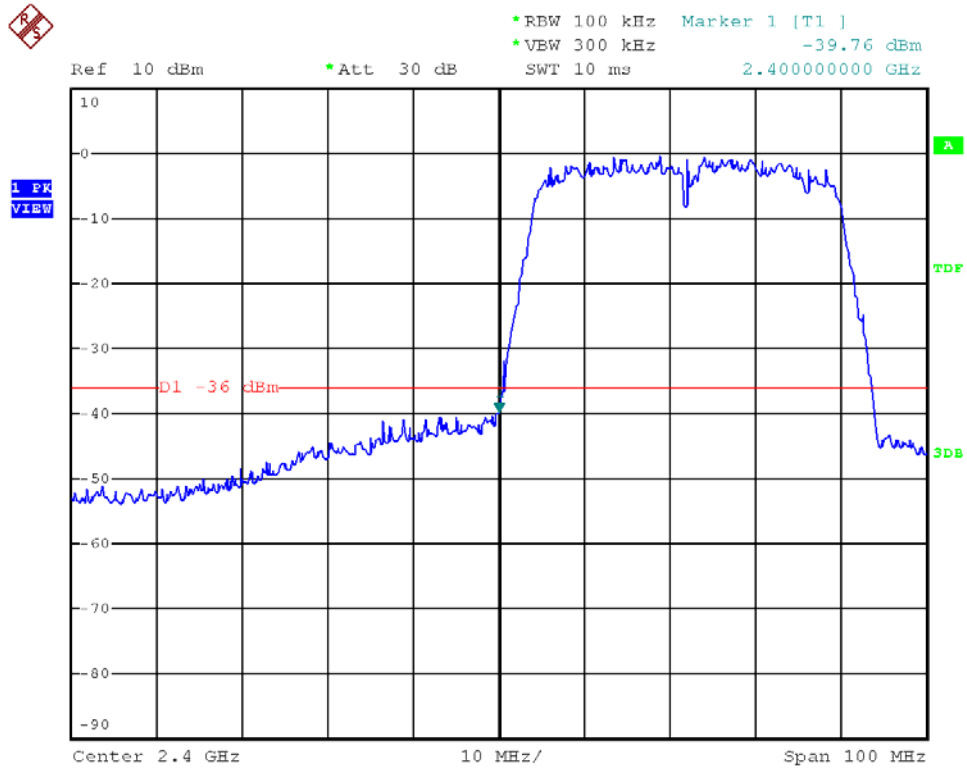


Modulation Standard: 802.11n HT20 (65Mbps)
Channel: 11



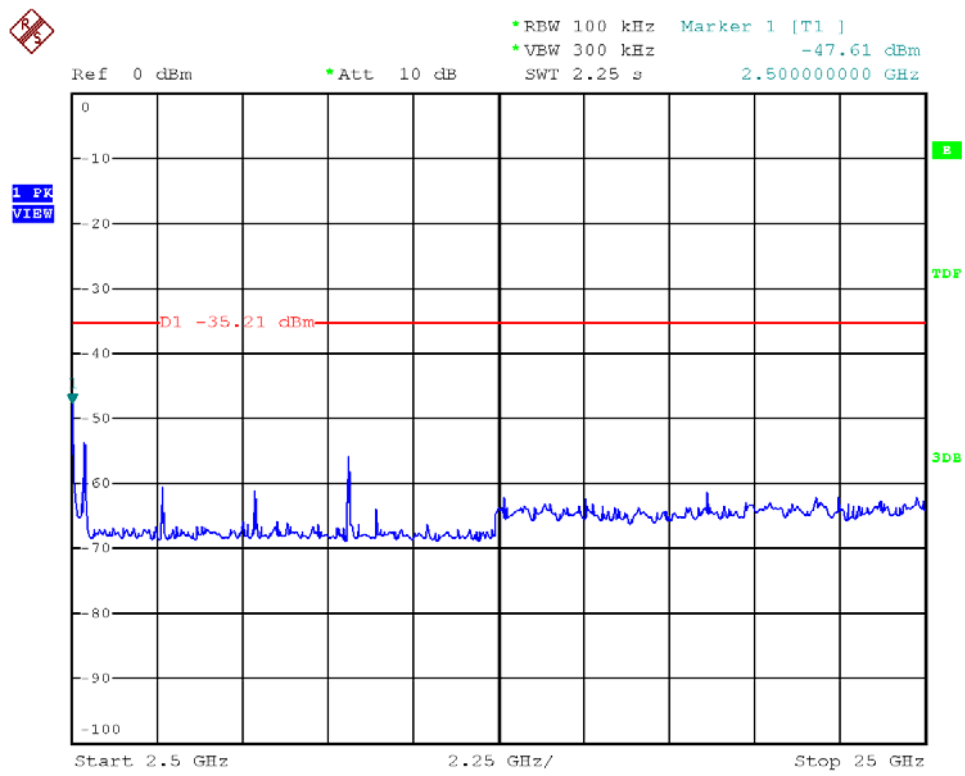
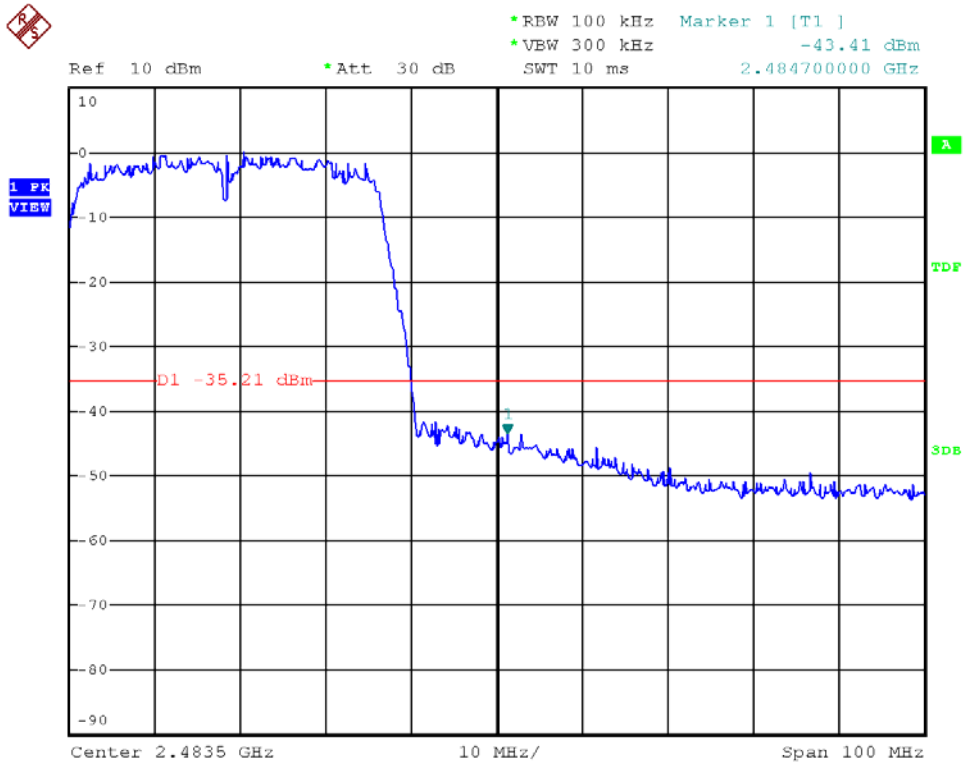


Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 03





Modulation Standard: 802.11n HT40 (135Mbps)
Channel: 09



**9.6 Restrict Band Emission Measurement Data**

Test Date: Sep. 24, 2012

Temperature: 25

Atmospheric pressure: 1020 hPa

Humidity: 65 %

Adapter: EGB \ PAW018A12UL 8066

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			
2331.62	H	54.72	3.37	58.09	Peak	74	54	-15.91	240	1.00
2332.03	H	42.80	3.36	46.15	Ave	74	54	-7.85	240	1.00
2389.96	V	60.88	2.72	63.60	Peak	74	54	-10.40	61	1.00
2389.96	V	47.95	2.72	50.67	Ave	74	54	-3.33	61	1.00
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			
2483.51	H	54.44	1.32	55.76	Peak	74	54	-18.24	224	1.00
2483.51	H	41.48	1.32	42.80	Ave	74	54	-11.20	224	1.00
2483.88	V	63.94	-0.11	63.82	Peak	74	54	-10.17	77	1.00
2484.04	V	50.85	-0.11	50.74	Ave	74	54	-3.26	77	1.00

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			
2389.56	H	57.70	0.25	57.95	Peak	74	54	-16.05	217	1.00
2359.57	H	41.11	1.86	42.97	Ave	74	54	-11.03	217	1.00
2389.96	V	68.10	2.72	70.82	Peak	74	54	-3.18	306	1.00
2389.96	V	48.18	2.72	50.90	Ave	74	54	-3.10	306	1.00
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			
2483.77	H	58.14	1.32	59.46	Peak	74	54	-14.54	230	1.00
2483.51	H	38.24	1.32	39.56	Ave	74	54	-14.44	230	1.00
2483.54	V	70.48	-0.10	70.38	Peak	74	54	-3.62	62	1.00
2483.54	V	50.72	-0.10	50.62	Ave	74	54	-3.38	62	1.00



Modulation Standard: IEEE 802.11n HT20 (65Mbps)

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			
2389.87	H	56.98	0.22	57.20	Peak	74	54	-16.80	239	1.00
2359.98	H	41.47	1.84	43.41	Ave	74	54	-10.69	239	1.00
2389.86	V	67.67	2.72	70.39	Peak	74	54	-3.61	308	1.00
2389.86	V	47.62	2.72	50.34	Ave	74	54	-3.66	308	1.00
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			
2483.77	H	54.88	1.32	56.20	Peak	74	54	-17.80	225	1.00
2483.51	H	38.28	1.32	39.68	Ave	74	54	-14.40	225	1.00
2483.54	V	71.10	-0.10	71.00	Peak	74	54	-3.00	63	1.00
2483.54	V	49.21	-0.10	49.11	Ave	74	54	-4.89	63	1.00

Modulation Standard: IEEE 802.11n HT40 (135Mbps)

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			
2388.03	H	55.72	0.32	56.04	Peak	74	54	-17.96	223	1.00
2389.86	H	39.83	0.32	40.05	Ave	74	54	-13.95	223	1.00
2388.94	V	64.19	2.71	66.90	Peak	74	54	-7.10	306	1.00
2389.96	V	47.53	2.72	50.25	Ave	74	54	-3.75	306	1.00
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			
2483.77	H	61.68	1.32	63.00	Peak	74	54	-11.00	278	1.00
2483.51	H	43.21	1.32	44.53	Ave	74	54	-9.47	278	1.00
2483.69	V	70.79	-0.10	70.69	Peak	74	54	-3.31	86	1.00
2483.51	V	50.33	-0.09	50.24	Ave	74	54	-3.76	86	1.00

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 (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector sample mode) 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.