JQA File No. : KL80120078
Issue Date : May 24, 2012

TEST REPORT

APPLICANT	:	Sharp Corporation, Communication Systems Group
ADDRESS	:	2-13-1, Iida Hachihonmatsu, Higashi-Hiroshima City, Hiroshima, 739-0192, JAPAN
PRODUCTS	:	Cellular Phone
MODEL NO.	:	106SH
SERIAL NO.	:	004401/11/393629/4 004401/11/394016/3
FCC ID	:	APYHRO00174
TEST STANDARD	:	CFR 47 FCC Rules and Regulations Part 15
TESTING LOCATION	:	Japan Quality Assurance Organization KITA-KANSAI Testing Center 1-7-7, Ishimaru, Minoh-shi, Osaka 562-0027, Japan
TEST RESULTS	:	**Passed**
DATE OF TEST	:	April 27 ~ May 16, 2012

ilac-MRA VLAC Lab Accreditation VLAC-001-2

Kousei Shibata
Manager
Japan Quality Assurance Organization
KITA-KANSAI Testing Center
SAITO EMC Branch
7-3-10, Saito-asagi, Ibaraki-shi, Osaka 567-0085, Japan

- The measurement values stated in Test Report was made with traceable to National Institute of Advanced Industrial Science and Technology (AIST) of Japan and National Institute of Information and Communications Technology (NICT) of Japan.
- The applicable standard, testing condition and testing method which were used for the tests are based on the request of the applicant.
- The test results presented in this report relate only to the offered test sample.
- The contents of this test report cannot be used for the purposes, such as advertisement for consumers.
- This test report shall not be reproduced except in full without the written approval of JQA.
- VLAC does not approve, certify or warrant the product by this test report.

TABLE OF CONTENTS

DEFINITIONS FOR ABBREVIATION AND SYMBOLS USED IN THIS TEST REPORT

EUT : Equipment Under Test
AE : Associated Equipment
N/A : Not Applicable
N/T : Not Tested
EMC : Electromagnetic Compatibility
EMI : Electromagnetic Interference
EMS : Electromagnetic Susceptibility

☒ - indicates that the listed condition, standard or equipment is applicable for this report.
☐ - indicates that the listed condition, standard or equipment is not applicable for this report.

Documentation

1 Test Regulation

Applied Standard : CFR 47 FCC Rules and Regulations Part 15
Subpart C – Intentional Radiators

Test Requirements : §15.247, §15.207 and §15.209

Test Procedure : ANSI C63.4–2003
The tests were performed with reference to the FCC KDB 558074 D01 DTS Meas Guidance, released January 18, 2012. The test set-up was made in accordance to the general provisions of ANSI C63.4-2003.

2 Test Location

Japan Quality Assurance Organization (JQA)
KITA-KANSAI Testing Center SAITO EMC Branch
7-3-10, Saito-asagi, Ibaraki-shi, Osaka 567-0085, Japan
MINOH Test Site (KITA-KANSAI Testing Center)
7-7, Ishimaru, 1-chome, Minoh-shi, Osaka, 562-0027, Japan
KAMEOKA EMC Branch
9-1, Ozaki, Inukanno, Nishibetsuin-cho, Kameoka-shi, Kyoto, 621-0126, Japan

3 Recognition of Test Laboratory

JQA KITA-KANSAI Testing Center SAITO EMC Branch is accredited under ISO/IEC 17025 by following accreditation bodies and the test facility of Testing Division is registered by the following bodies.

VLAC Code : VLAC-001-2 (Effective through : March 30, 2014)
VCCI Registration No. : A-0002 (Expiry date : March 30, 2014)
BSMI Recognition No. : SL2-IS-E-6006, SL2-IN-E-6006, SL2-AI-E-6006
(Effective through : September 14, 2013)
IC Registration No. : 2079E-3, 2079E-4 (Effective through : July 20, 2014)

Accredited as conformity assessment body for Japan electrical appliances and material law by METI.
(Effective through : February 22, 2013)

4 Description of the Equipment Under Test

4.1 General Information

1.	Manufacturer	:	Sharp Corporation, Communication Systems Group 2-13-1, Iida Hachihonmatsu, Higashi-Hiroshima City, Hiroshima, 739-0192, JAPAN
2.	Products	:	Cellular Phone
3.	Model No.	:	106SH
4.	Serial No.	:	004401/11/393629/4
		:	004401/11/394016/3
5.	Product Type	:	Pre-production
6.	Date of Manufacture	:	March, 2012
7.	Transmitting Frequency	:	2412.0 MHz(01CH) –2462.0MHz(11CH)
8.	Receiving Frequency	:	2412.0 MHz(01CH) –2462.0MHz(11CH)
9.	Max. RF Output Power	:	21.08dBm(Measure Value of IEEE802.11b)
		:	20.63dBm(Measure Value of IEEE802.11g)
		:	20.79dBm(Measure Value of IEEE802.11n)
10.	Power Rating	:	4.0VDC (Lithium-ion Battery Pack SHBEJ1 1900mAh)
11.	EUT Grounding	:	None
12.	EUT Authorization	:	Certification
13.	Receive Date of EUT	:	April 26, 2012

4.2 Channel Plan

The carrier spacing is 5 MHz.
The carrier frequency is designated by the absolute frequency channel number (ARFCN).
The carrier frequency is expressed in the equation shown as follows:

Transmitting Frequency (in MHz) = 2407.0 + 5*n
Receiving Frequency (in MHz) = 2407.0 + 5*n
where, n : channel number ($1 \leq n \leq 11$)

5 Test Condition

5.1 Channel Separation

The requirements are ☐ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☒ - Not Applicable

Test site : SAITO ☐ - Shielded room (S1) ☐ - Shielded room (S2)
☐ - Shielded room (S3) ☐ - Shielded room (S4)
MINOH ☐ - Shielded room
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility

Test instruments : Refer to Appendix C.

5.2 Minimum Hopping Channel

The requirements are ☐ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☒ - Not Applicable

Test site : SAITO ☐ - Shielded room (S1) ☐ - Shielded room (S2)
☐ - Shielded room (S3) ☐ - Shielded room (S4)
MINOH ☐ - Shielded room
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility

Test instruments : Refer to Appendix C.

5.3 Occupied Bandwidth

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : SAITO ☐ - Shielded room (S1) ☐ - Shielded room (S2)
☐ - Shielded room (S3) ☒ - Shielded room (S4)
MINOH ☐ - Shielded room
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility

Test instruments : Refer to Appendix C.

5.4 Dwell Time

The requirements are ☐ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☒ - Not Applicable

Test site : SAITO ☐ - Shielded room (S1) ☐ - Shielded room (S2)
☐ - Shielded room (S3) ☐ - Shielded room (S4)
MINOH ☐ - Shielded room
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility

Test instruments : Refer to Appendix C.

5.5 Peak Output Power and Density (Conduction)

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : SAITO ☐ - Shielded room (S1) ☐ - Shielded room (S2)
☐ - Shielded room (S3) ☒ - Shielded room (S4)
MINOH ☐ - Shielded room
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility

Test instruments : Refer to Appendix C.

5.6 Spurious Emission (Conduction)

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : SAITO ☐ - Shielded room (S1) ☐ - Shielded room (S2)
☐ - Shielded room (S3) ☒ - Shielded room (S4)
MINOH ☐ - Shielded room
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility

Test instruments : Refer to Appendix C.

5.7 AC Powerline Conducted Emission

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : SAITO ☐ - Anechoic chamber (A1) ☐ - Measurement room (M1)
☐ - Measurement room (M2) ☐ - Measurement room (M3)
☐ - Shielded room (S1) ☒ - Shielded room (S2)
MINOH ☐ - Shielded room
☐ - Anechoic chamber
KAMEOKA ☐ - Shielded room ☐ - Conducted emission facility
☐ - 1st open site

Test instruments : Refer to Appendix C.

5.8 Field Strength of Spurious Radiation

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Test site : SAITO ☐ - Anechoic chamber (A1) ☒ - Anechoic chamber (A2)
KAMEOKA ☐ - 1st open site

Test instruments : Refer to Appendix C.

6 Preliminary Test and Test Setup

6.1 Channel Separation

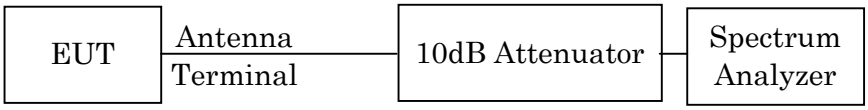
Not Applicable

6.2 Minimum Hopping Channel

Not Applicable

6.3 Occupied Bandwidth

The test system is shown as follows:



The setting of the spectrum analyzer are shown as follows:

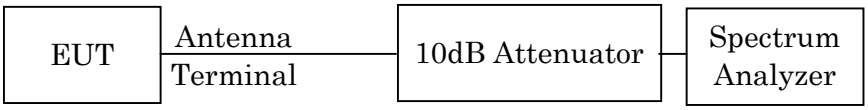
Res. Bandwidth	300 kHz
Video Bandwidth	1 MHz
Span	30 MHz
Sweep Time	AUTO
Trace	Maxhold

6.4 Dwell Time

Not Applicable

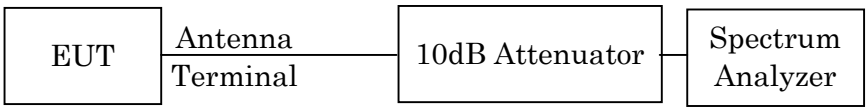
6.5 Peak Output Power and Peak Power Density

The test system is shown as follows:



6.6 Spurious Emission(Conduction)

The test system is shown as follows:



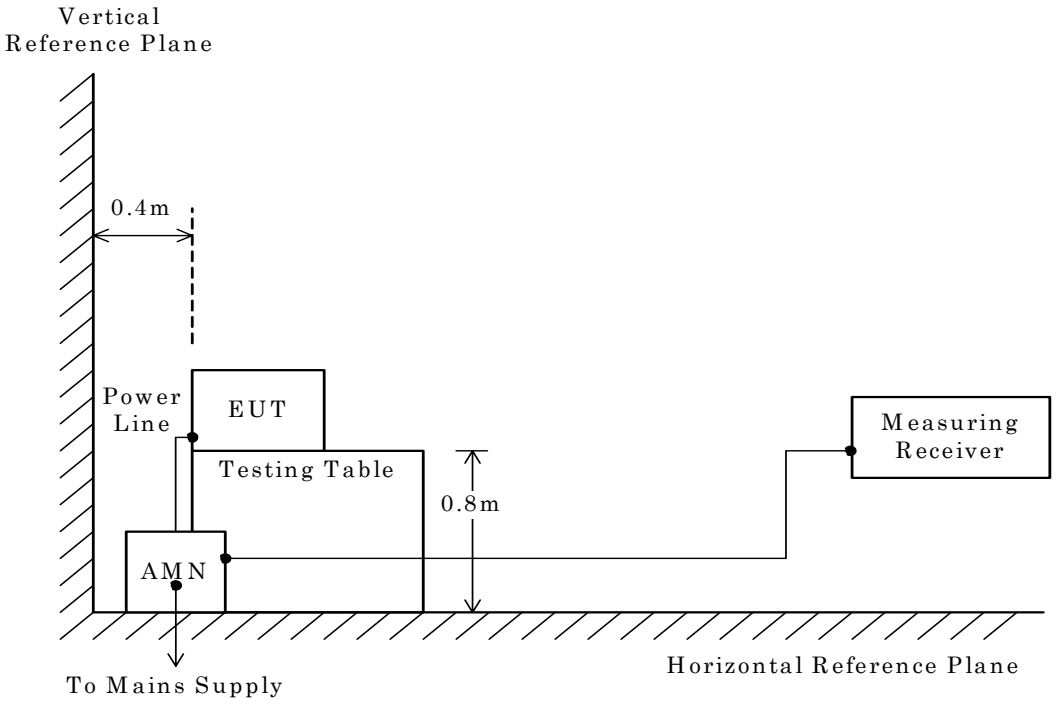
The setting of the spectrum analyzer are shown as follows:

Frequency Range	30 MHz - 25 GHz	Band-Edge
Res. Bandwidth	100 kHz	100 kHz
Video Bandwidth	300 kHz	300 kHz
Sweep Time	AUTO	AUTO
Trace	Maxhold	Maxhold

6.7 AC Powerline Conducted Emission

The preliminary tests were performed using the scan mode of test receiver or spectrum analyzer to observe the emissions characteristics of the EUT.
The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions.
This configurations was used for final tests.

– Side View –



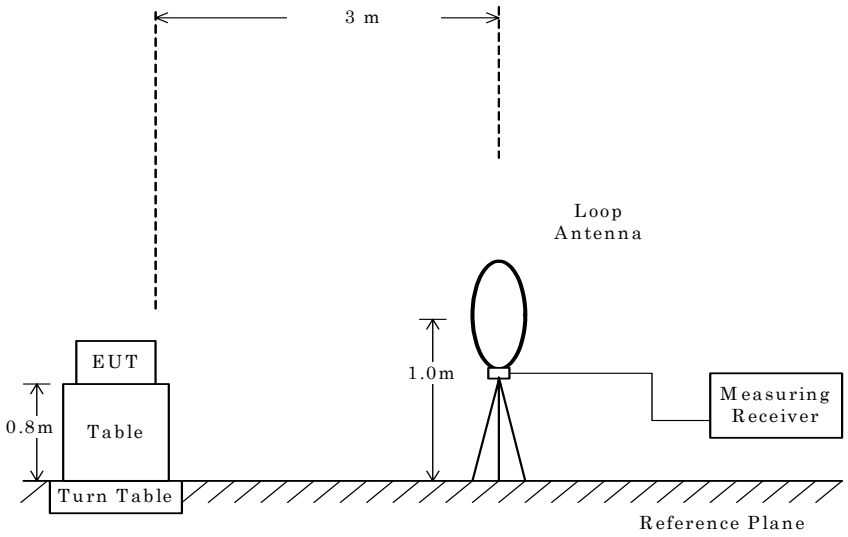
NOTE
AMN : Artificial Mains Network

6.8 Field Strength of Spurious Emission

6.8.1 Field Strength of Spurious Emission 9 kHz – 30 MHz

The preliminary tests were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT.
The EUT configuration(in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions.
This configurations was used for the final tests.

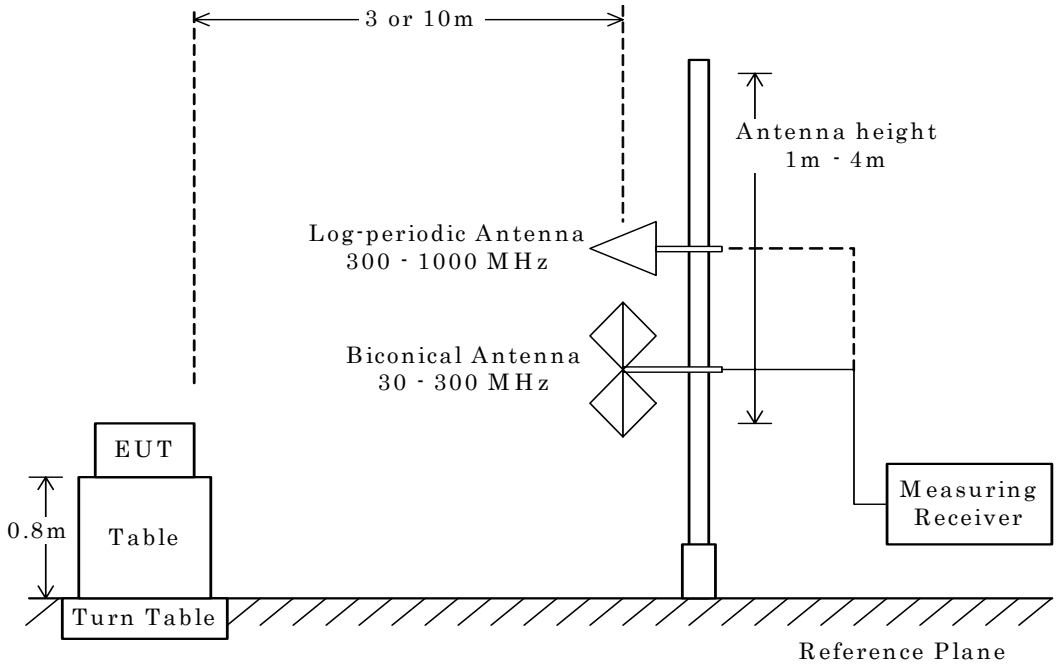
– Side View –



6.8.2 Field Strength of Spurious Emission 30 MHz – 1000 MHz

The preliminary tests were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT.
The EUT configuration(in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions.
This configurations was used for the final tests.

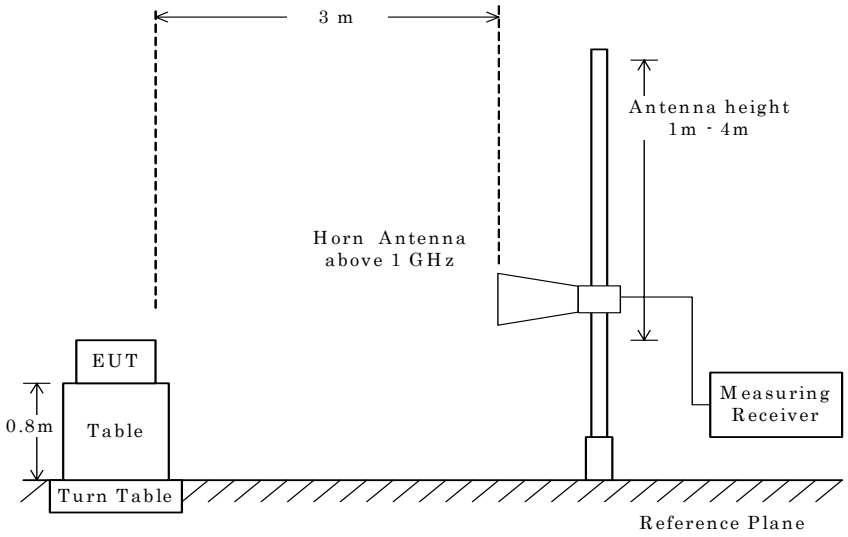
– Side View –



6.8.3 Field Strength of Spurious Emission above 1 GHz

The preliminary tests were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT.
The EUT configuration(in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions.
This configurations was used for the final tests.

– Side View –



NOTE
The antenna height is scanned depending on the EUT's size and mounting height.

7 Equipment Under Test Modification

☒ - No modifications were conducted by JQA to achieve compliance to the limitations.
☐ - To achieve compliance to the limitations, the following changes were made by JQA during the compliance test.

The modifications will be implemented in all production models of this equipment.

Applicant : Not Applicable
Date : Not Applicable
Typed Name : Not Applicable
Position : Not Applicable Signatory : Not Applicable

8 Responsible Party

Responsible Party of Test Item (Product)

Responsible Party :

Contact Person :

Signatory

9 Deviation from Standard

☒ - No deviations from the standard described in clause 1.
☐ - The following deviations were employed from the standard described in clause 1.

10 Test Results

10.1 RF Power Output (§2.1046)

10.1.1 Channel Separation

The requirements are ☐ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☒ - Not Applicable

☐ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Channel Separation is _____ MHz
Channel Separation(Inquiry) is _____ MHz

Uncertainty of Measurement Results +/-0.9 %(2σ)

Remarks : _____

10.1.2 Minimum Hopping Channel

The requirements are ☐ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☒ - Not Applicable

Number of Channel is _____
Number of Channel (Inquiry) is _____

Remarks : _____

10.1.3 Occupied Bandwidth

The requirements are ☒ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

☒ - **Passed** ☐ - **Failed** ☐ - **Not judged**

The 99% Bandwidth of IEEE802.11b is	13.217	MHz	at	2462.0 MHz
The 99% Bandwidth of IEEE802.11g is	16.993	MHz	at	2437.0 MHz
The 99% Bandwidth of IEEE802.11n is	18.000	MHz	at	2462.0 MHz
The 6dB Bandwidth of IEEE802.11b is	8.603	MHz	at	2412.0 MHz
The 6dB Bandwidth of IEEE802.11g is	16.600	MHz	at	2412.0 MHz
The 6dB Bandwidth of IEEE802.11n is	17.791	MHz	at	2412.0 MHz

Uncertainty of Measurement Results +/-0.9 %(2σ)

Remarks : _____

10.1.4 Dwell Time

The requirements are ☐ - Applicable [☐ - Tested. ☐ - Not tested by applicant request.]
☒ - Not Applicable

☐ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Dwell Time is _____ msec
Dwell Time (Inquiry) is _____ msec

Uncertainty of Measurement Results +/-0.6 %(2σ)

Remarks : _____

10.1.5 Peak Output Power(Conduction)

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Peak Output Power of IEEE802.11b is	21.08	dBm	at	2437.0	MHz
Peak Output Power of IEEE802.11g is	20.63	dBm	at	2437.0	MHz
Peak Output Power of IEEE802.11n is	20.79	dBm	at	2437.0	MHz

Uncertainty of Measurement Results at Amplitude +/-1.2 dB(2σ)

Remarks : _____

10.1.6 Peak Power Density(Conduction)

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

Peak Power Density of IEEE802.11b is	-8.05	dBm	at	2437.0	MHz
Peak Power Density of IEEE802.11g is	-13.54	dBm	at	2437.0	MHz
Peak Power Density of IEEE802.11n is	-13.29	dBm	at	2437.0	MHz

Uncertainty of Measurement Results at Amplitude +/-0.8 dB(2σ)

Remarks : _____

10.2 Spurious Emissions(Conduction)

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

☒ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Uncertainty of Measurement Results		
9 kHz – 1GHz	+/-1.0	dB(2σ)
1GHz – 18GHz	+/-1.2	dB(2σ)
18GHz – 40GHz	+/-1.6	dB(2σ)

Remarks : _____

10.3 AC Powerline Conducted Emission

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

☒ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Min. Limit Margin (Quasi-Peak)	18.8	dB	at	2.34 MHz
Max. Limit Exceeding (Quasi-Peak)	_____	dB	at	_____ MHz
Uncertainty of Measurement Results				+/-2.7 dB(2σ)

Remarks : _____

10.4 Field Strength of Spurious Emission

The requirements are ☒ - Applicable [☒ - Tested. ☐ - Not tested by applicant request.]
☐ - Not Applicable

☒ - **Passed** ☐ - **Failed** ☐ - **Not judged**

Min. Limit Margin (Average)	>5.3	dB	at	22158.0 MHz
Max. Limit Exceeding (Average)	_____	dB	at	_____ MHz

Uncertainty of Measurement Results		
9 kHz – 30 MHz	+/-1.9	dB(2σ)
30 MHz – 300 MHz	+/-4.3	dB(2σ)
300 MHz – 1000 MHz	+/-5.4	dB(2σ)
1 GHz – 6 GHz	+/-4.6	dB(2σ)
6 GHz – 18 GHz	+/-5.2	dB(2σ)
18 GHz – 40 GHz	+/-5.4	dB(2σ)

Remarks : _____

11 Summary

General Remarks :

The EUT was tested according to the requirements of the following standard.
CFR 47 FCC Rules and Regulations Part 15
The test configuration is shown in clause 12 to 14.
The conclusion for the test items of which are required by the applied regulation is indicated under the test results.
Determining compliance with the limits in this report was based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Test Results :

The "as received" sample;

☒ - fulfill the test requirements of the regulation mentioned on clause 1.
☐ - doesn't fulfill the test requirements of the regulation mentioned on clause 1.

Reviewed by:

Shigeru Kinoshita
Deputy Manager
JQA KITA-KANSAI Testing Center
SAITO EMC Branch

Tested by:

Shigeru Osawa
Deputy Manager
JQA KITA-KANSAI Testing Center
SAITO EMC Branch

12 Operating Condition

Transmitting/Receiving

Transmitting frequency : 2412.0 MHz(1CH) – 2462.0 MHz(11CH)
Receiver frequency : 2412.0 MHz(1CH) – 2462.0 MHz(11CH)

Modulation Type
1. 802.11b : DSSS
2. 802.11g : OFDM
3. 802.11n : OFDM

Other Clock Frequency
32.768 kHz, 19.2 MHz, 27 MHz

13 Test Configuration

The equipment under test (EUT) consists of :

	Item	Manufacturer	Model No.	Serial No.	FCC ID
A	Cellular Phone	Sharp	106SH	004401/11/393629/4*1) 004401/11/394016/3*2)	APYHRO00174
B	Lithium-ion Battery	Sharp	SHBEJ1	--	N/A
C	AC Adapter	Sharp	SHCEJ1	--	N/A
D	Stereo Handsfree	Sharp	SHLDL1	--	N/A

*1) Used for AC Powerline Conducted Emission and Field Strength of Spurious Emission
*2) Used for Antenna Conducted Emission

The auxiliary equipment used for testing :
None

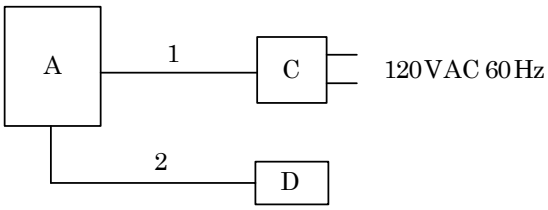
Type of Cable:

No.	Description	Identification (Manu. etc.)	Connector Shielded	Cable Shielded	Ferrite Core	Length (m)
1	DC Power Cable	--	--	NO	NO	1.5
2	Handsfree Cable	--	NO	--	NO	1.5

14 Equipment Under Test Arrangement (Drawings)

a) Single Unit

b) AC Adapter used



Appendix A: Test Data

A.1 Channel Separation

Not Applicable

A.2 Minimum Hopping Channel

Not Applicable

A.3 Occupied Bandwidth

Test Date : May 16, 2012
Temp.:23°C, Humi:60%

The resolution bandwidth was set to 1 - 5 % of emission bandwidth, -6dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

A) IEEE 802.11b

1)Data Rate : 1Mbps

Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	13.090	8.219
06	2437.0	13.117	8.228
11	2462.0	13.104	8.225

2)Data Rate : 2Mbps

Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	13.088	8.119
06	2437.0	13.151	8.144
11	2462.0	13.217	8.140

3)Data Rate : 5.5Mbps

Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	12.739	8.026
06	2437.0	12.778	7.567
11	2462.0	12.757	8.428

4)Data Rate : 11Mbps

Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	12.890	8.603
06	2437.0	12.973	8.377
11	2462.0	12.796	8.426

B) IEEE 802.11g

1)Data Rate : 6Mbps

Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	16.961	16.435
06	2437.0	16.993	16.469
11	2462.0	16.986	16.438

2)Data Rate : 54Mbps

Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	16.764	16.600
06	2437.0	16.780	16.518
11	2462.0	16.764	16.509

C) IEEE 802.11n

1)Data Rate : 6.5Mbps

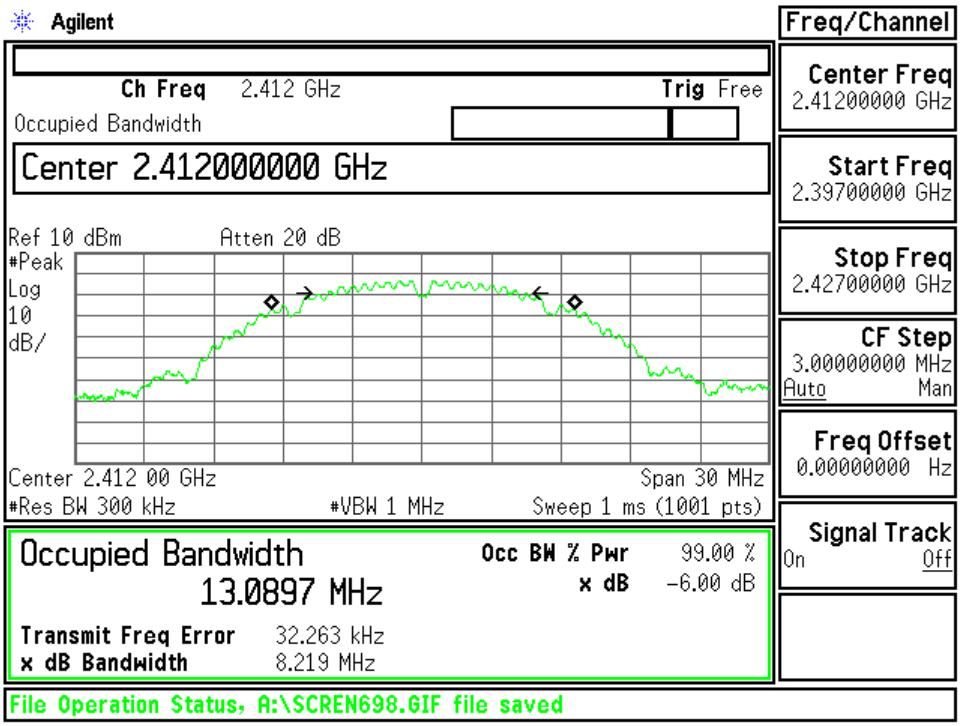
Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	17.961	17.791
06	2437.0	17.983	17.702
11	2462.0	18.000	17.686

2)Data Rate :65Mbps

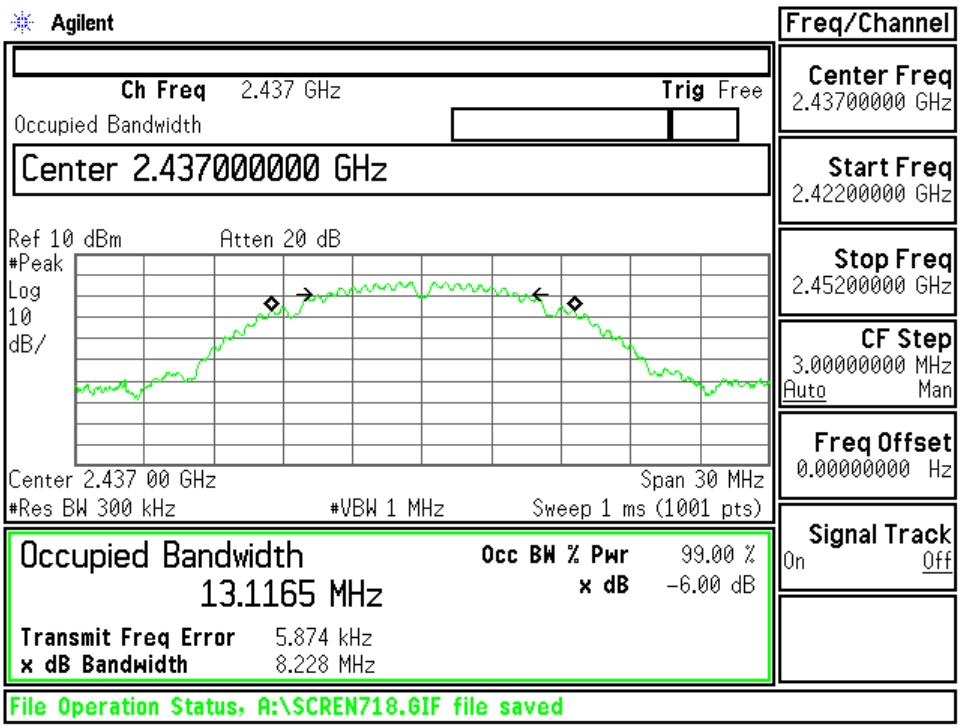
Channel	Frequency (MHz)	99% Bandwidth (MHz)	-6dBc Bandwidth (MHz)
01	2412.0	17.891	17.708
06	2437.0	17.871	17.771
11	2462.0	17.902	17.754

1)Data Rate : 1Mbps(IEEE 802.11b)

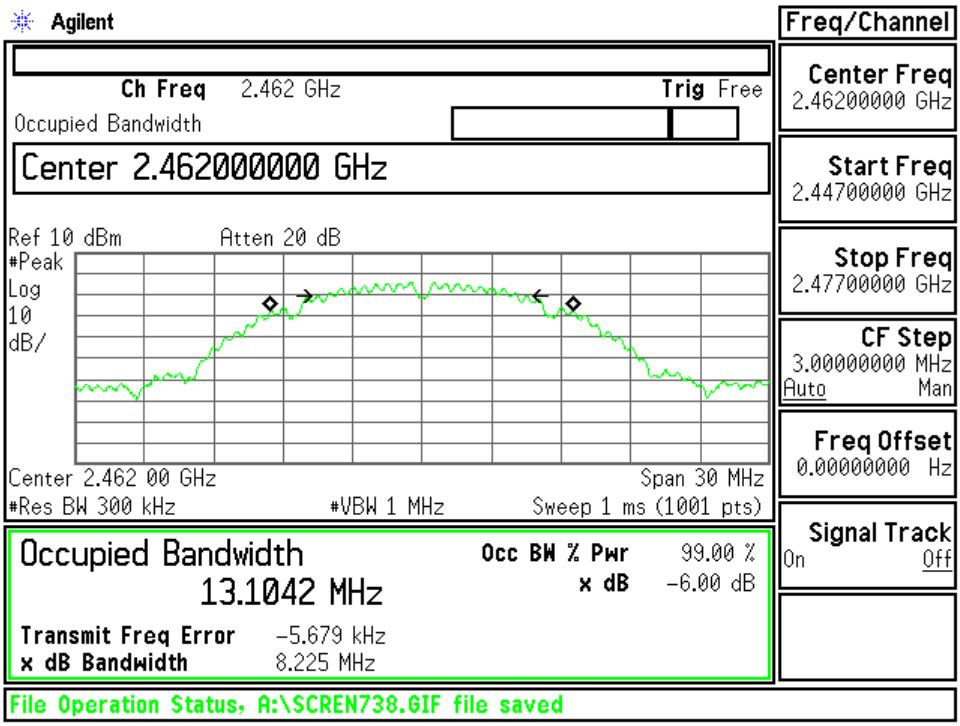
Low Channel



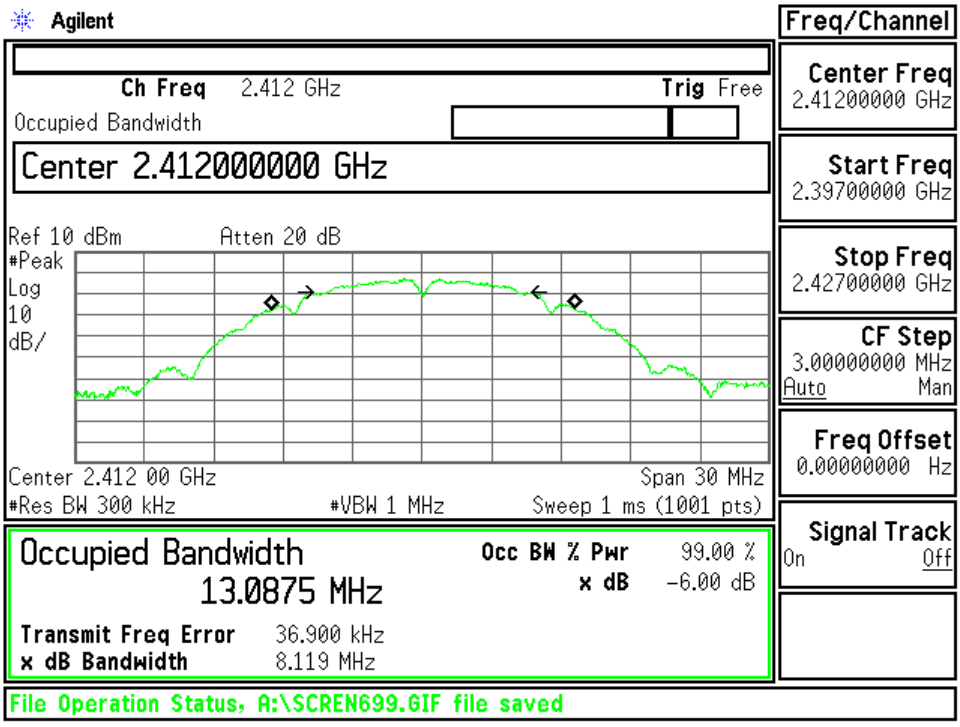
Middle Channel



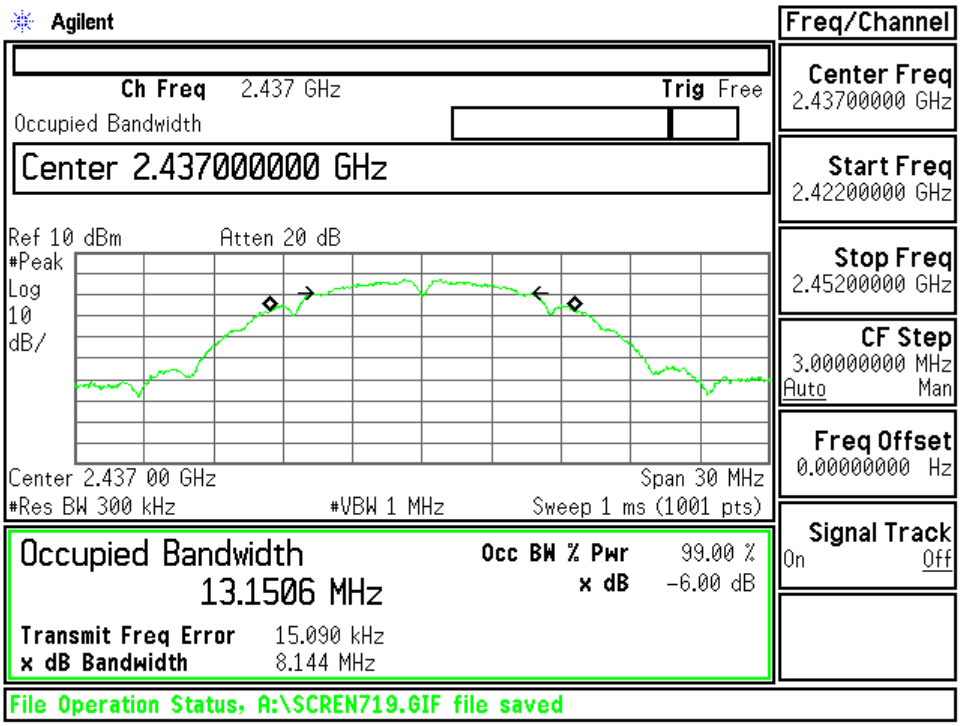
High Channel



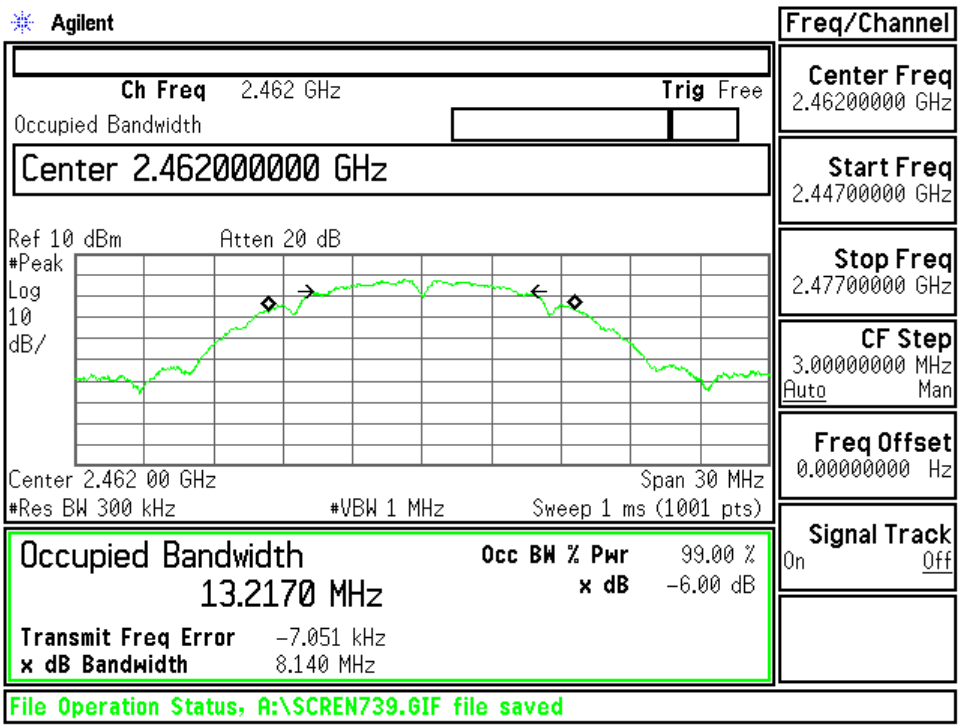
2)Data Rate : 2Mbps(IEEE 802.11b)
Low Channel



Middle Channel

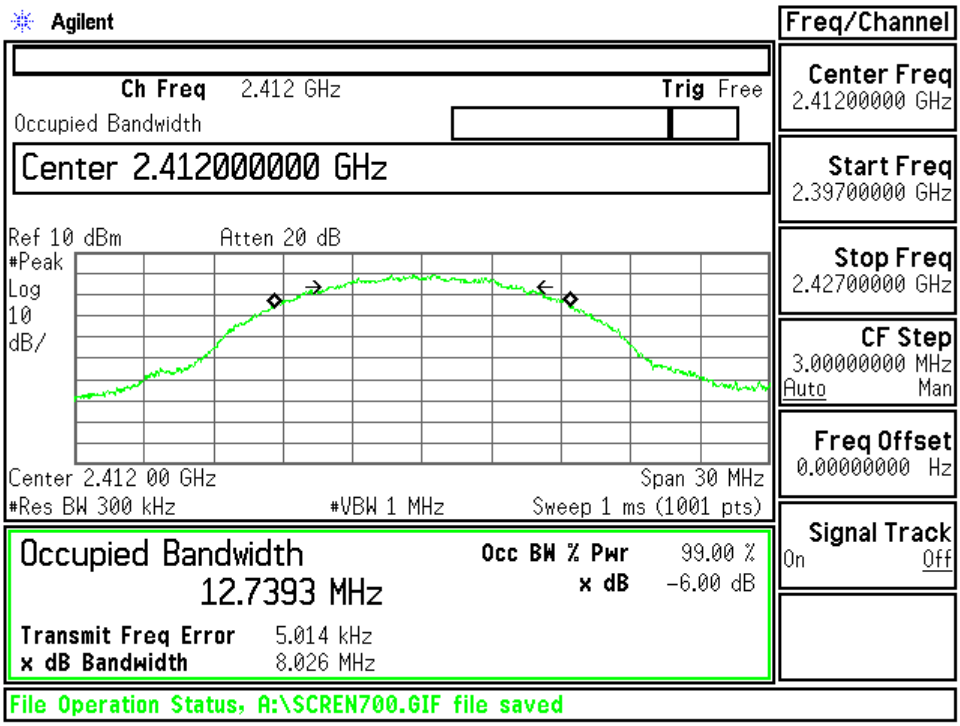


High Channel

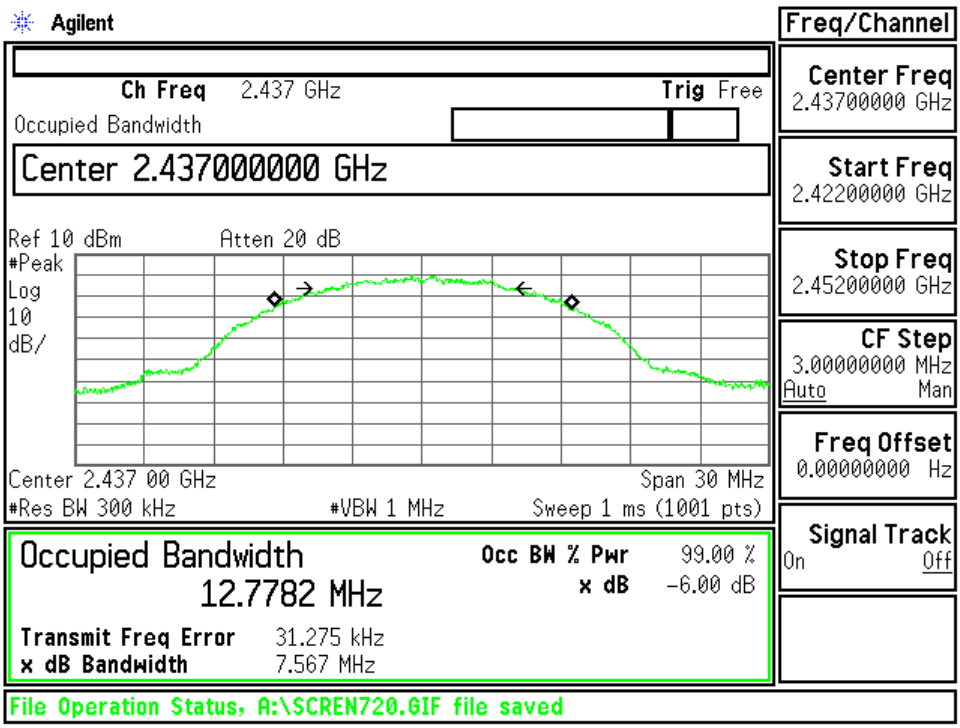


3)Data Rate : 5.5Mbps(IEEE 802.11b)

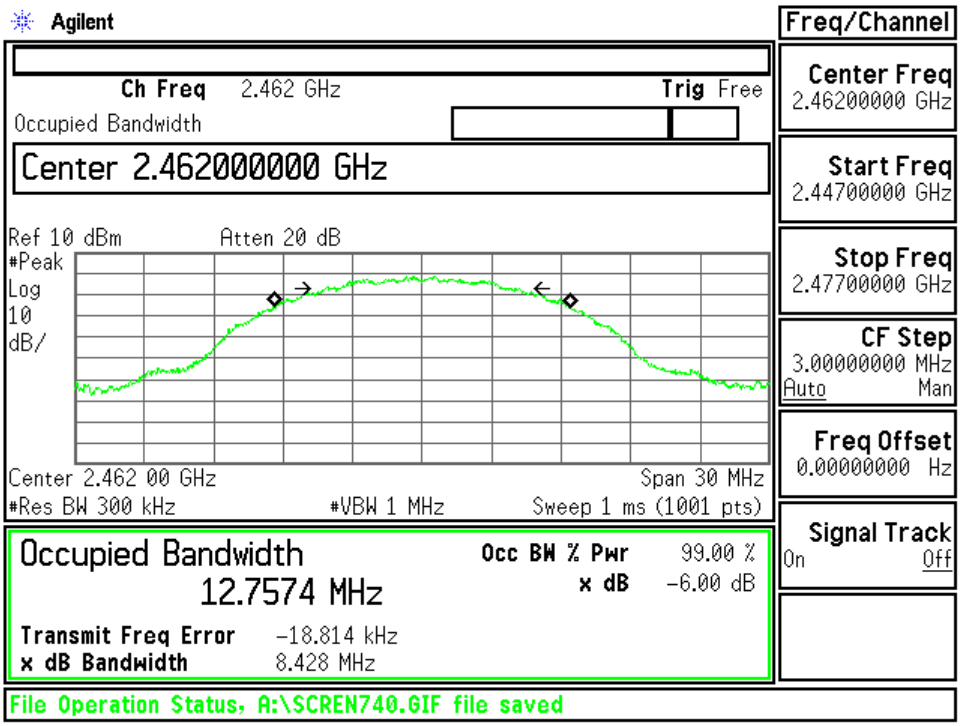
Low Channel



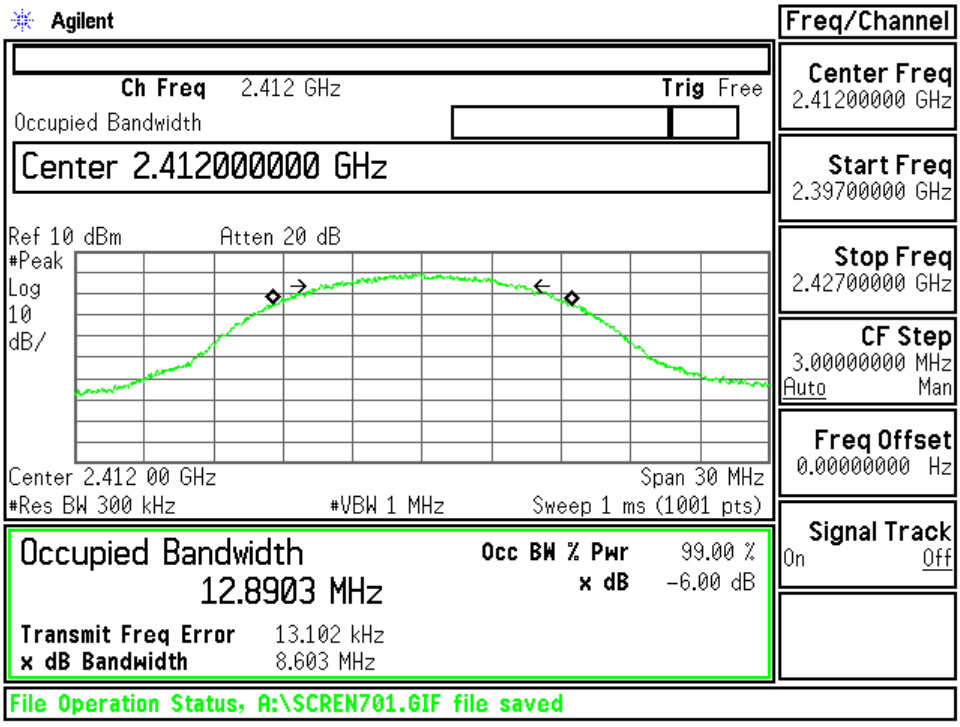
Middle Channel



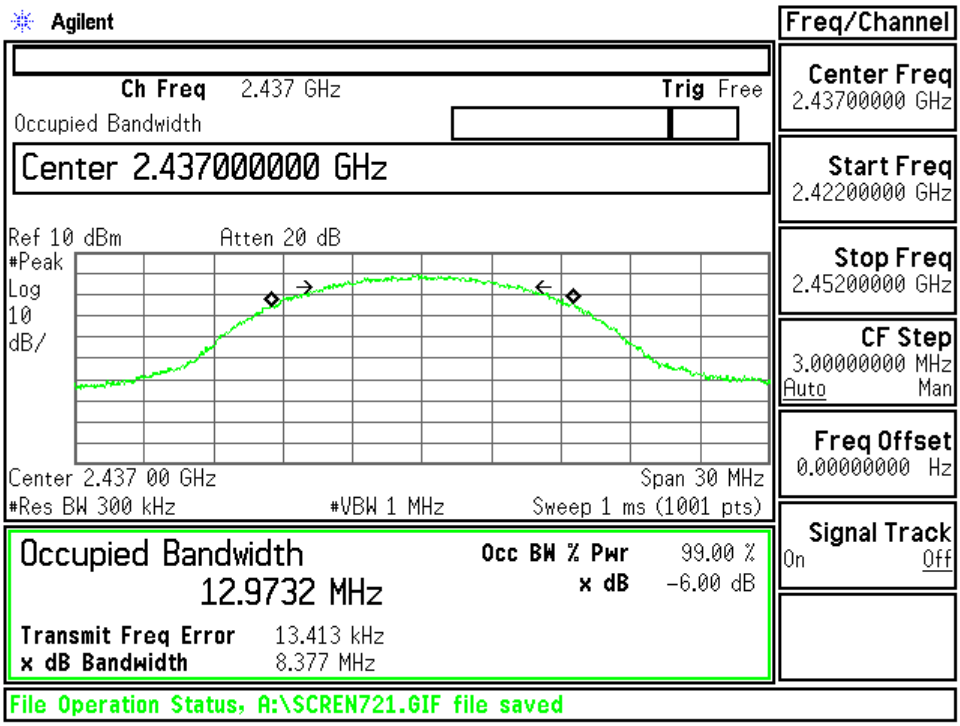
High Channel



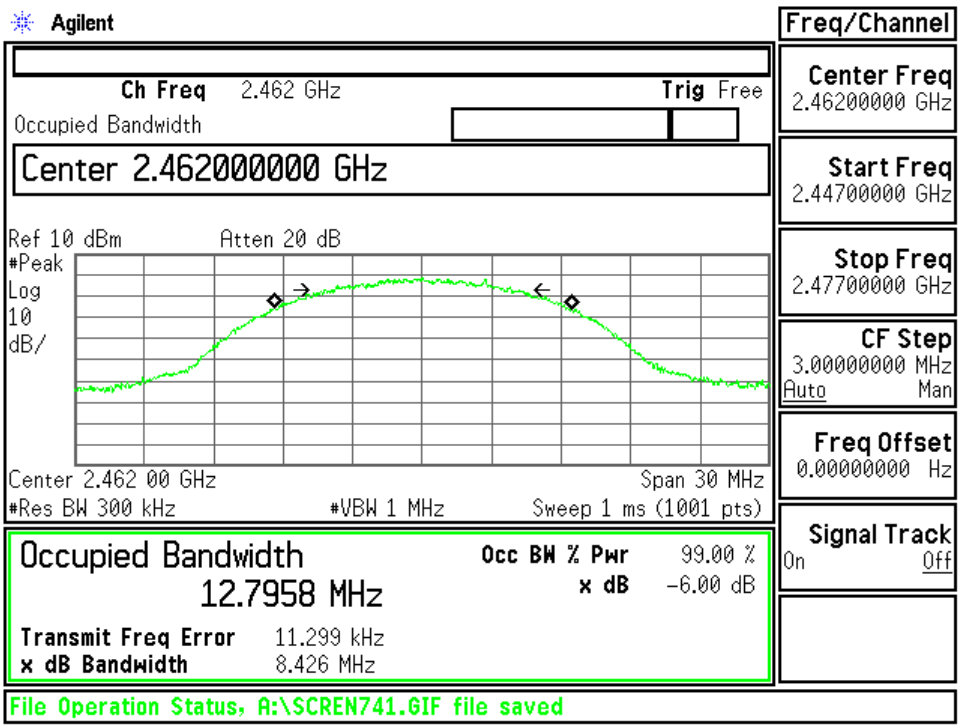
4)Data Rate : 11Mbps(IEEE 802.11b)
Low Channel



Middle Channel

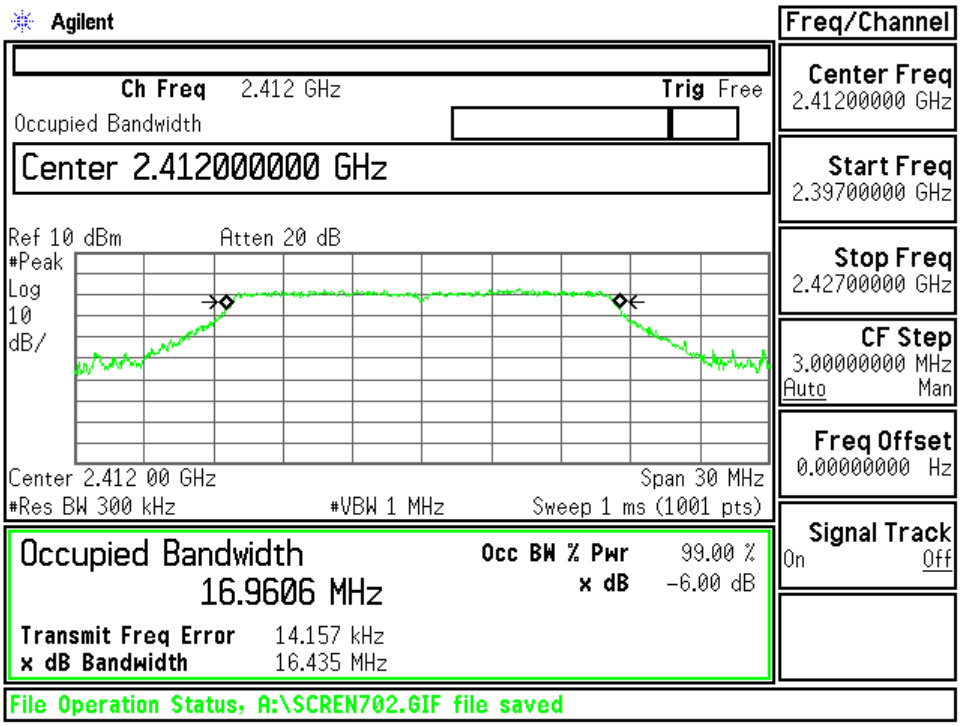


High Channel

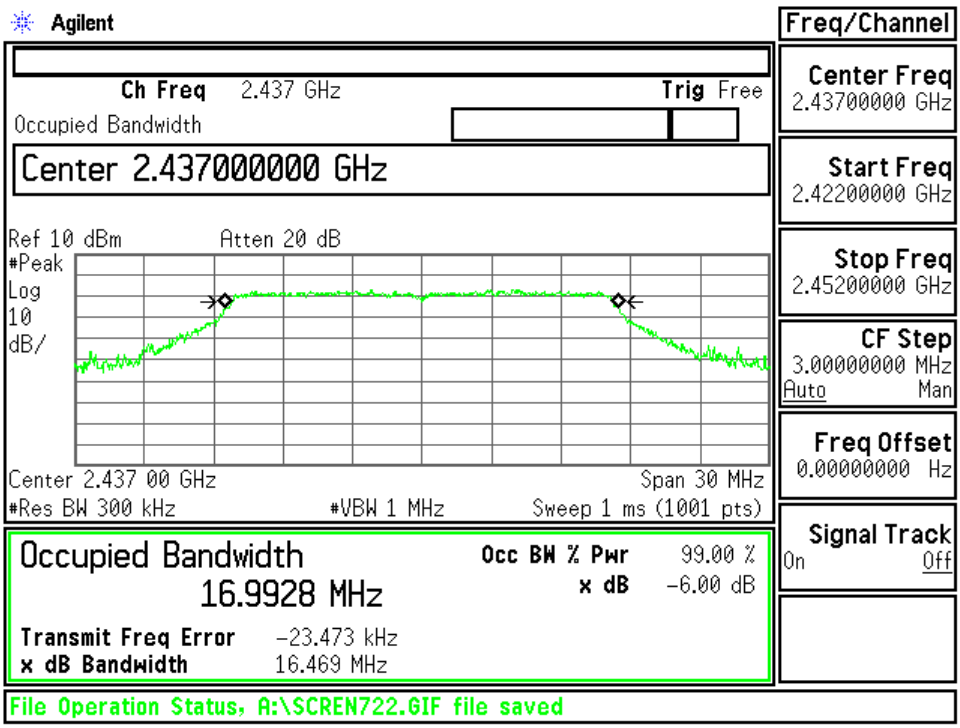


5)Data Rate : 6Mbps(IEEE 802.11g)

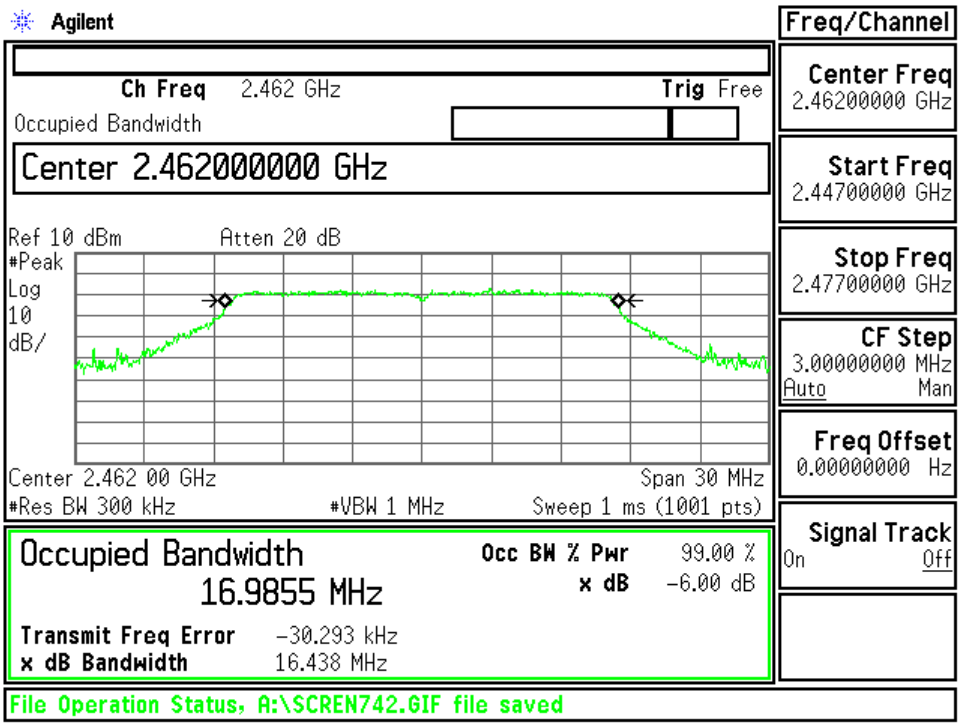
Low Channel



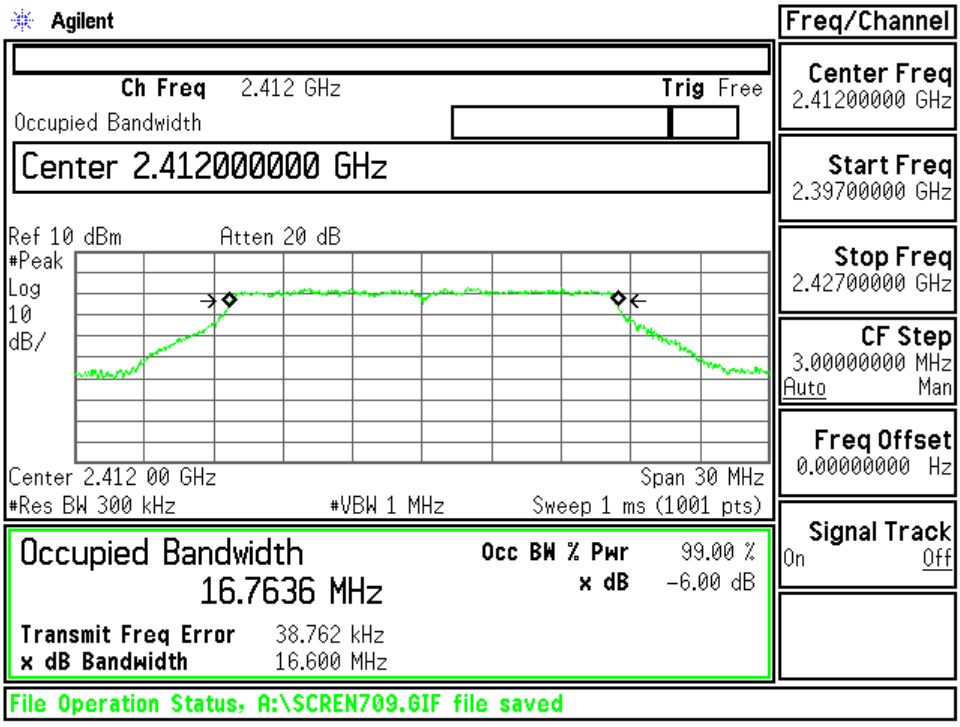
Middle Channel



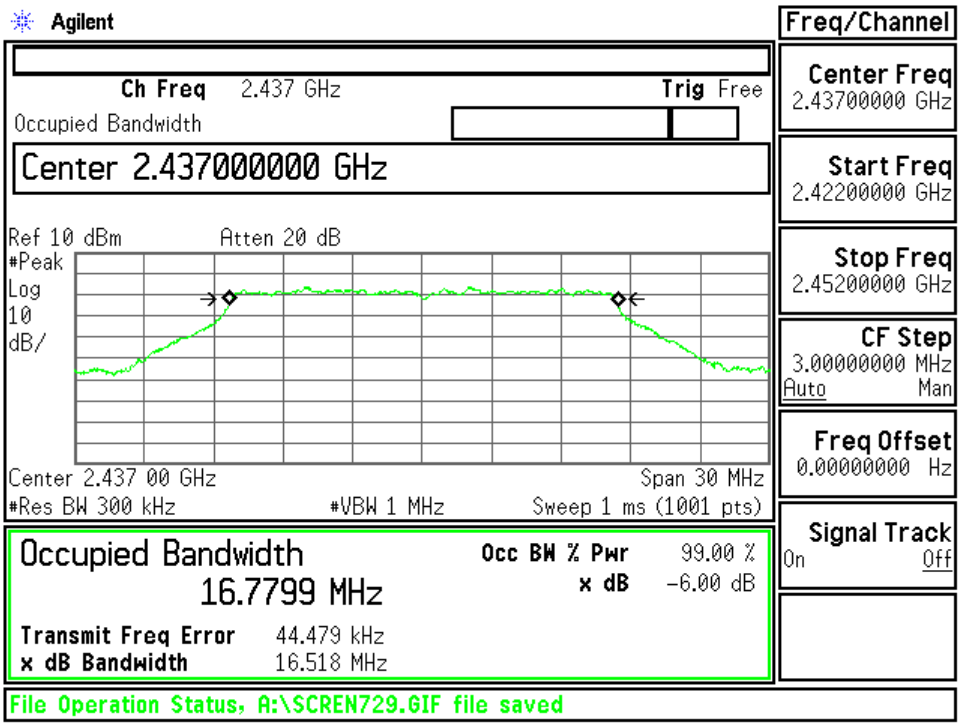
High Channel



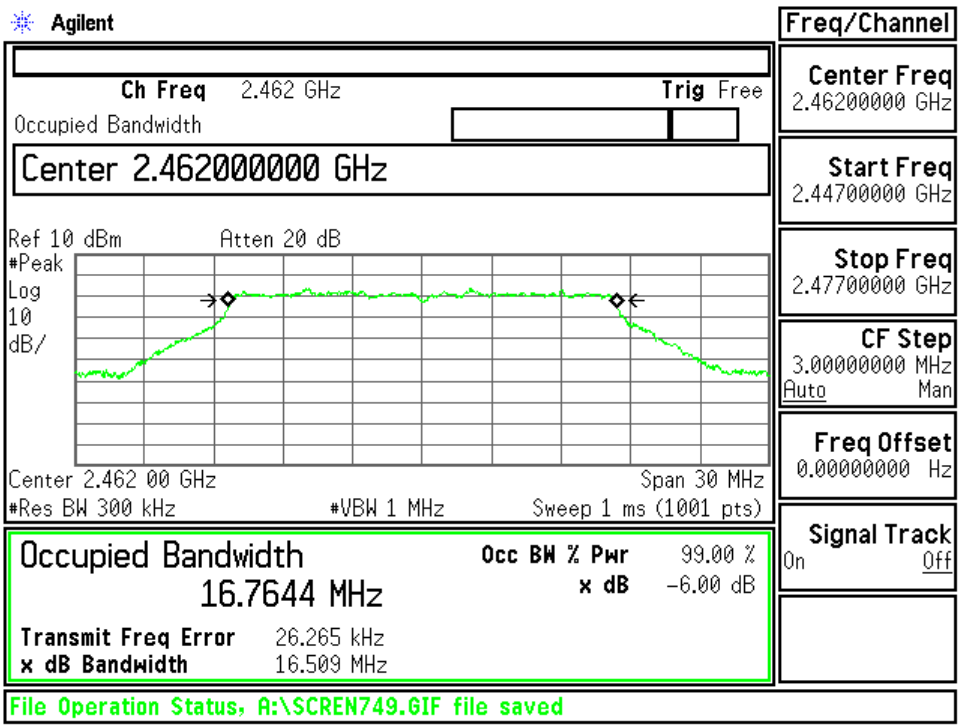
6)Data Rate : 54Mbps(IEEE 802.11g)
Low Channel



Middle Channel

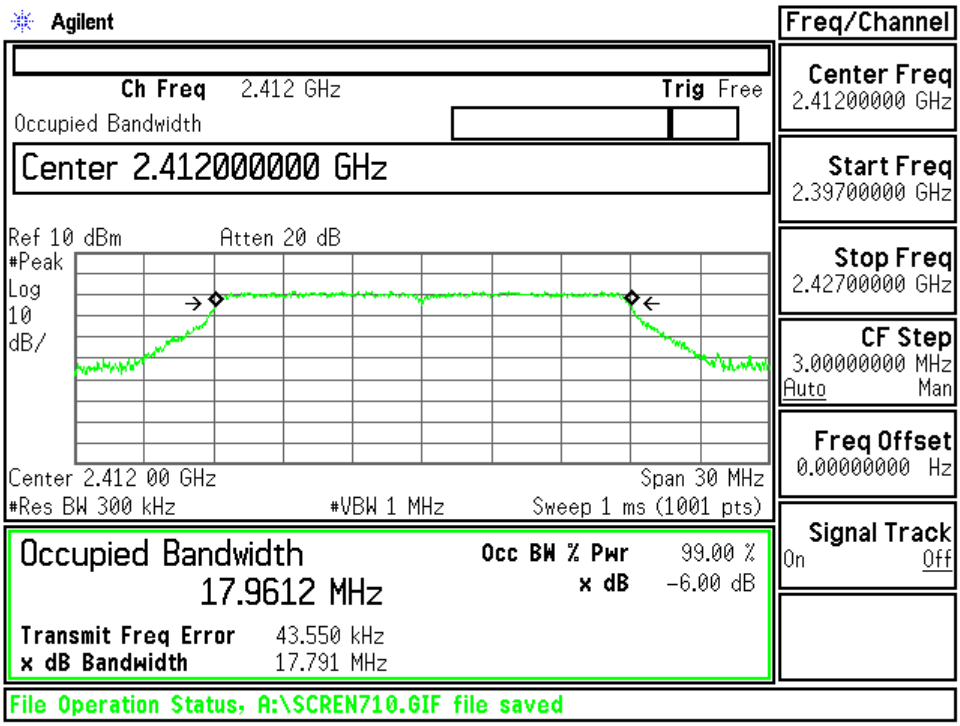


High Channel

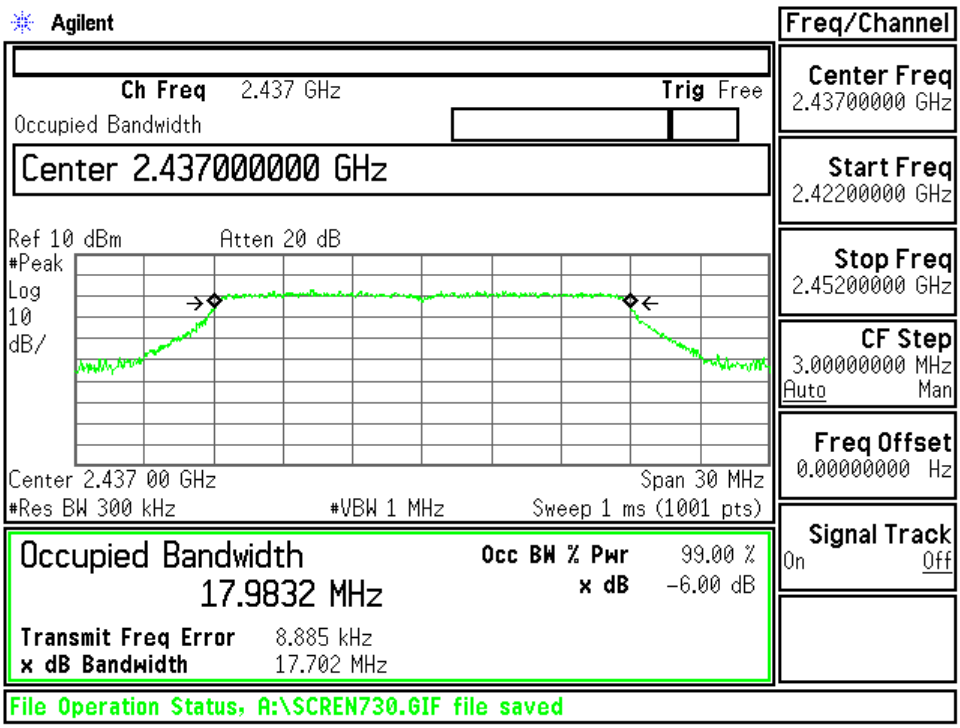


7)Data Rate : 6.5Mbps(IEEE 802.11n)

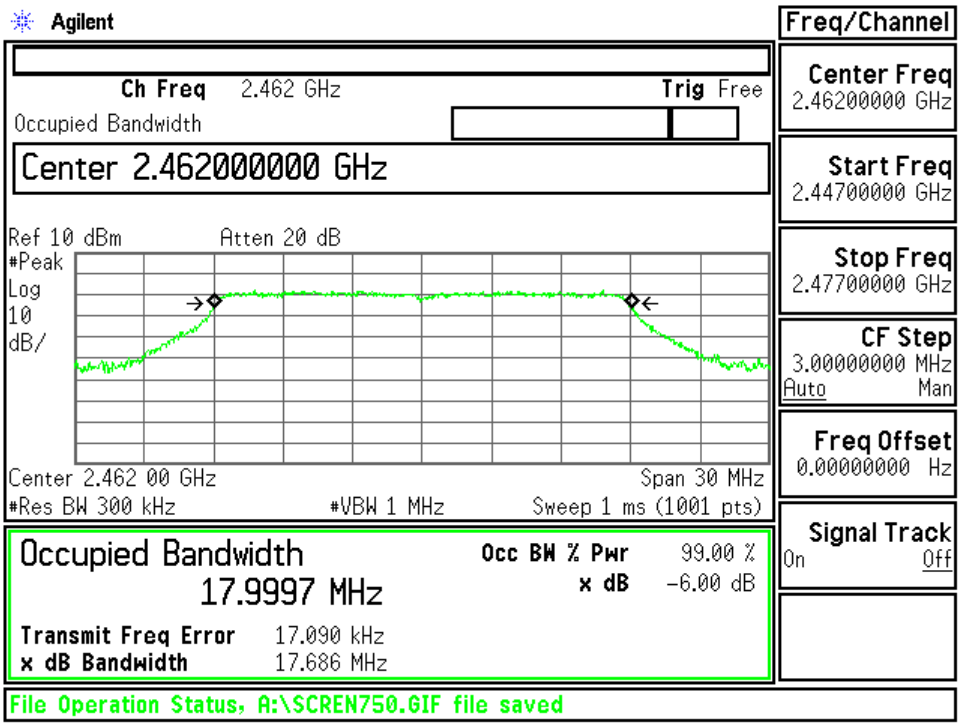
Low Channel



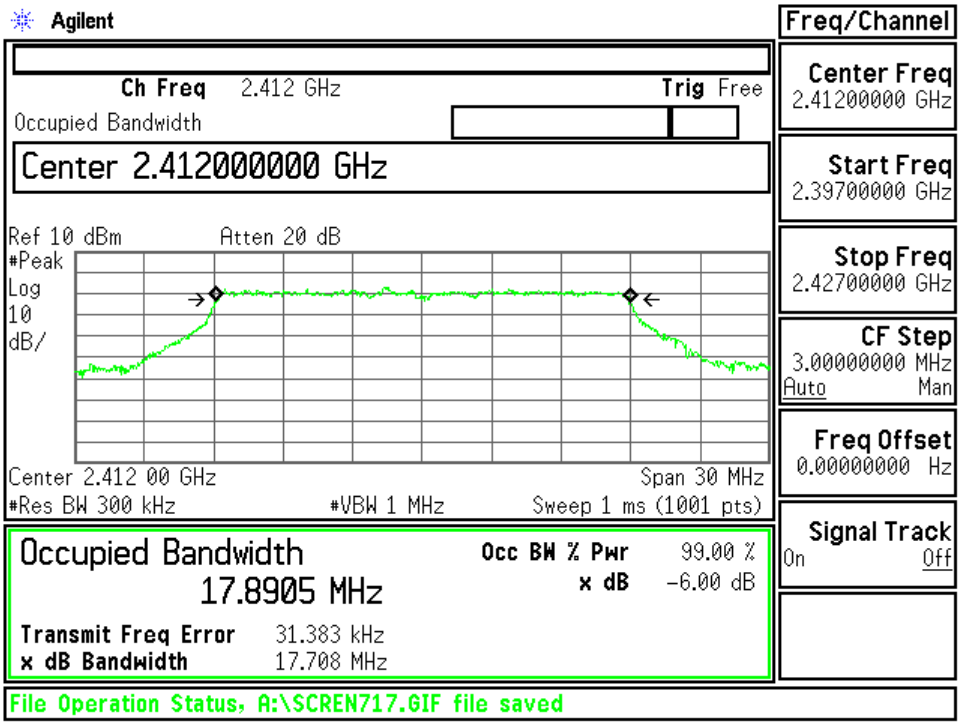
Middle Channel



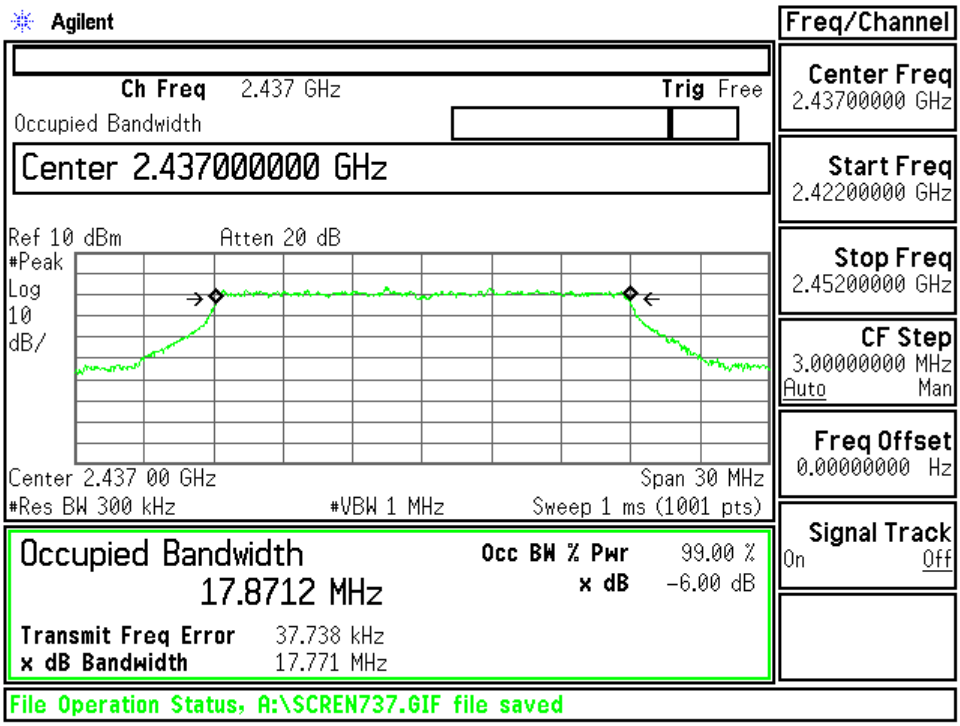
High Channel



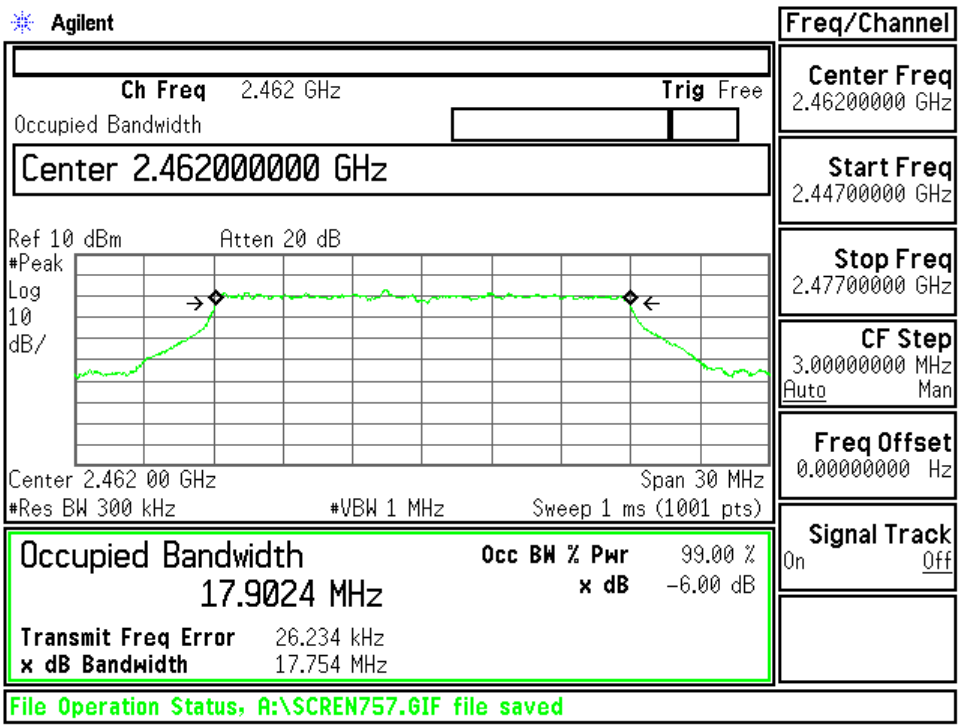
8)Data Rate : 65Mbps(IEEE 802.11n)
Low Channel



Middle Channel



High Channel



A.4 Dwell Time

Not Applicable

A.5 Peak Output Power(Conduction)

1)Data Rate : 1Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 1Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	6.94	17.13	51.64	30.00	+12.87
06	2437	10.19	7.26	17.45	55.59	30.00	+12.55
11	2462	10.19	7.07	17.26	53.21	30.00	+12.74

Calculated result at 2437.000 MHz, as the worst point shown on underline:

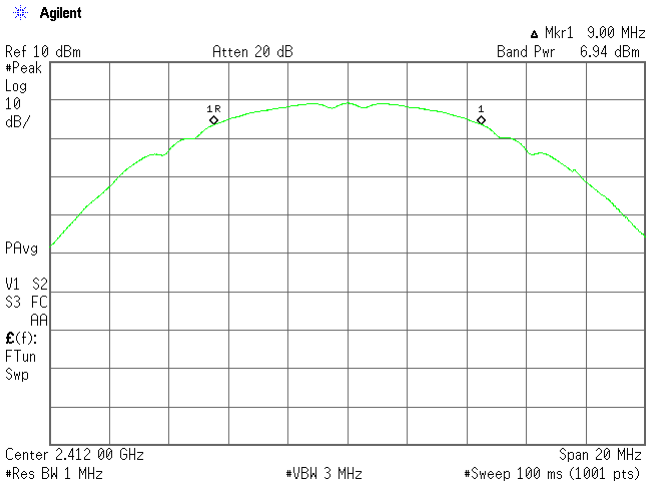
	Correction Factor	=	10.19 dB
+)	Meter Reading	=	7.26 dBm
	Result	=	17.45 dBm = 55.59 mW

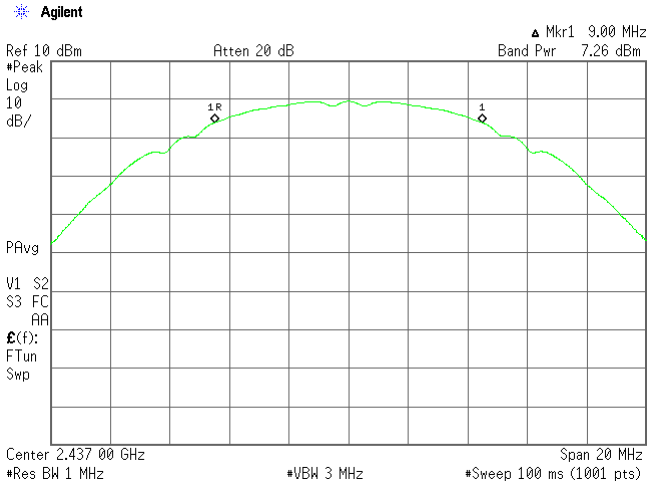
Minimum Margin: 30.00 - 17.45 = 12.55 (dB)

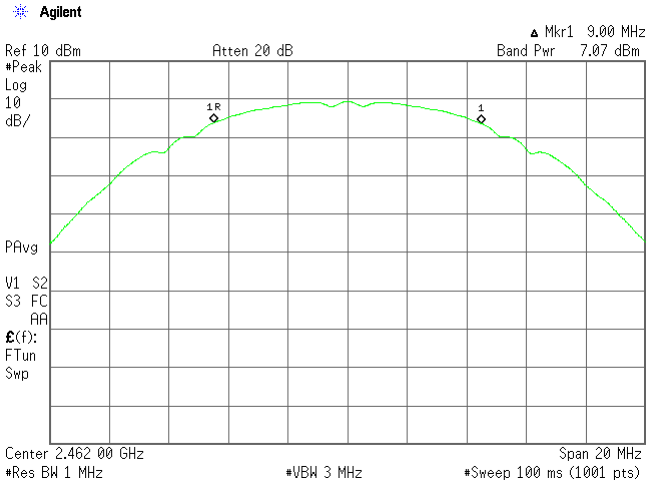
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







2)Data Rate : 2Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 2Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	7.22	17.41	55.08	30.00	+12.59
06	2437	10.19	7.49	17.68	58.61	30.00	+12.32
11	2462	10.19	7.31	17.50	56.23	30.00	+12.50

Calculated result at 2437.000 MHz, as the worst point shown on underline:

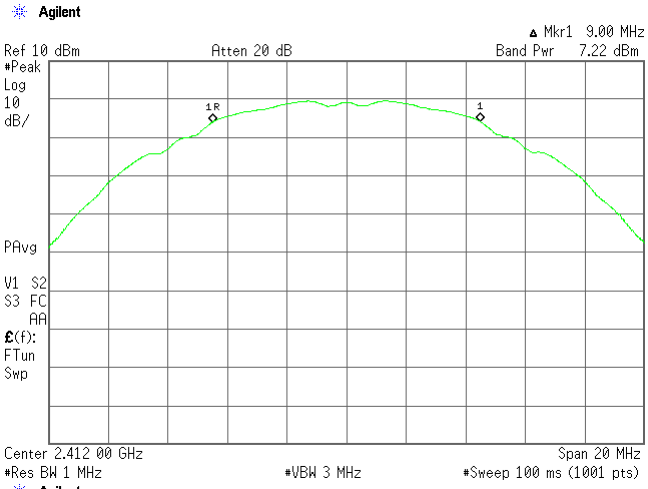
Correction Factor	=	10.19 dB	
+) Meter Reading	=	7.49 dBm	
Result	=	17.68 dBm	= 58.61 mW

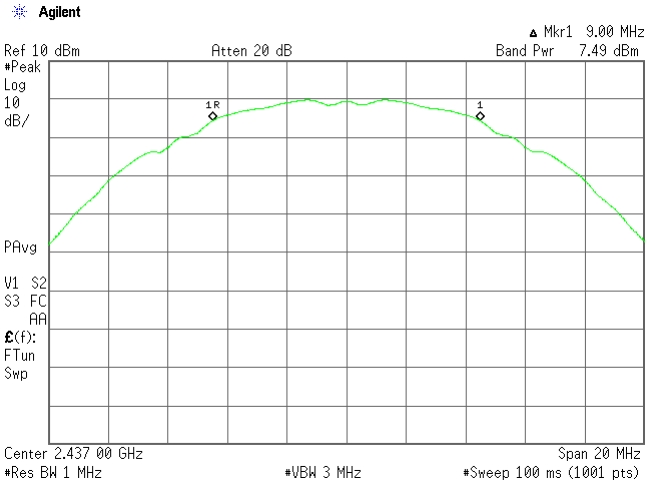
Minimum Margin: 30.00 - 17.68 = 12.32 (dB)

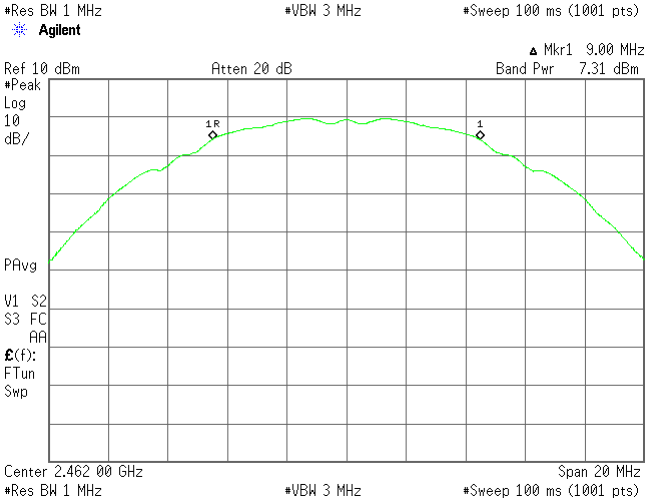
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







3)Data Rate : 5.5Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 5.5Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	8.84	19.03	79.98	30.00	+10.97
06	2437	10.19	9.96	20.15	103.51	30.00	+ 9.85
11	2462	10.19	8.94	19.13	81.85	30.00	+10.87

Calculated result at 2437.000 MHz, as the worst point shown on underline:

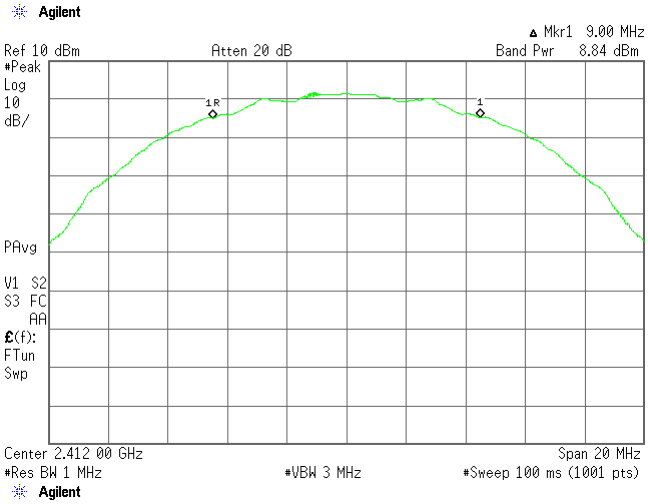
Correction Factor	=	10.19 dB	
+) Meter Reading	=	9.96 dBm	
Result	=	20.15 dBm	= 103.51 mW

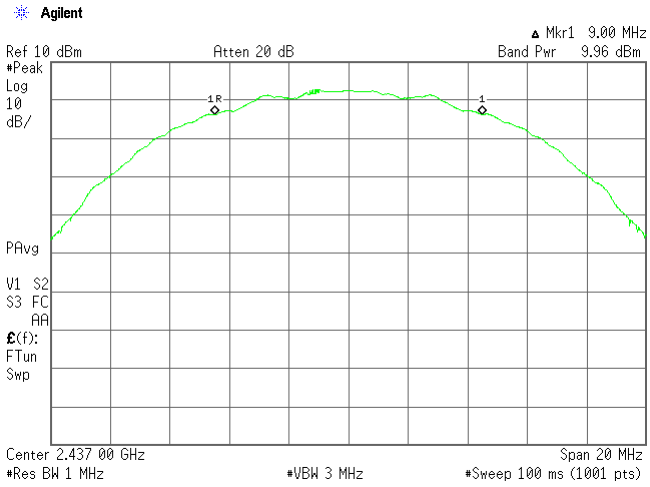
Minimum Margin: 30.00 - 20.15 = 9.85 (dB)

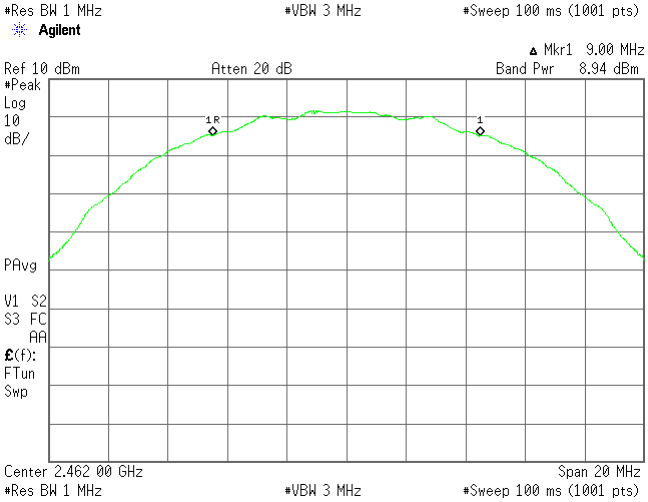
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







4)Data Rate : 11Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 11Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	10.78	20.97	125.03	30.00	+ 9.03
06	2437	10.19	10.89	21.08	128.23	30.00	+ 8.92
11	2462	10.19	10.43	20.62	115.35	30.00	+ 9.38

Calculated result at 2437.000 MHz, as the worst point shown on underline:

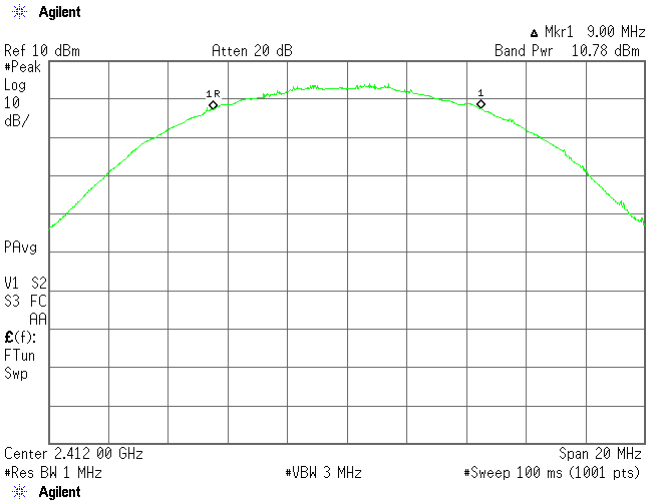
Correction Factor	=	10.19 dB	
+) Meter Reading	=	10.89 dBm	
Result	=	21.08 dBm	= 128.23 mW

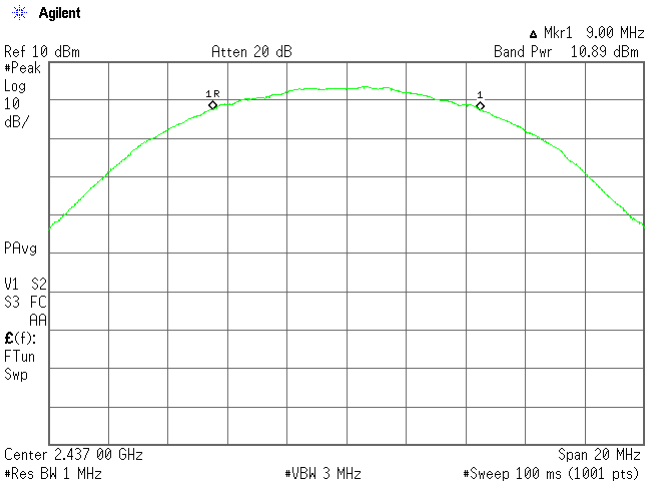
Minimum Margin: 30.00 - 21.08 = 8.92 (dB)

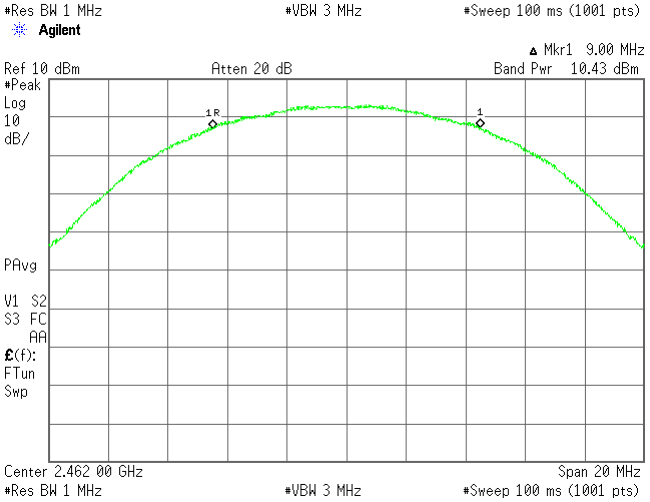
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







5)Data Rate : 6Mbps(IEEE 802.11g)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 6Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	10.06	20.25	105.93	30.00	+ 9.75
06	2437	10.19	10.30	20.49	111.94	30.00	+ 9.51
11	2462	10.19	9.92	20.11	102.57	30.00	+ 9.89

Calculated result at 2437.000 MHz, as the worst point shown on underline:

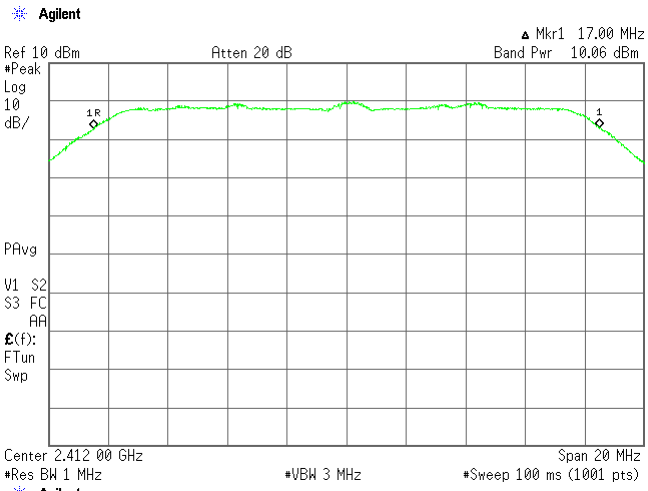
Correction Factor	=	10.19 dB	
+) Meter Reading	=	10.30 dBm	
Result	=	20.49 dBm	= 111.94 mW

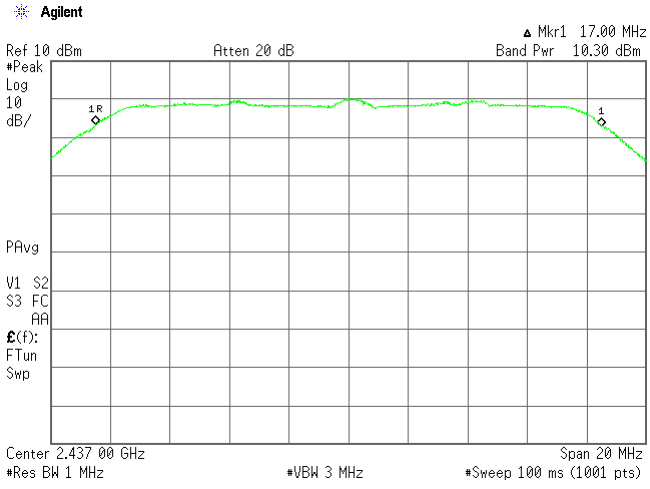
Minimum Margin: 30.00 - 20.49 = 9.51 (dB)

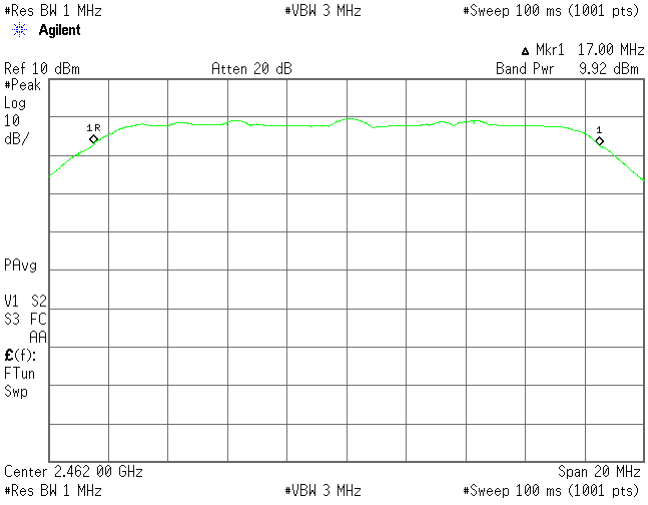
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







6)Data Rate : 54Mbps(IEEE 802.11g)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 54Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	10.22	20.41	109.90	30.00	+ 9.59
06	2437	10.19	10.44	20.63	115.61	30.00	+ 9.37
11	2462	10.19	10.28	20.47	111.43	30.00	+ 9.53

Calculated result at 2437.000 MHz, as the worst point shown on underline:

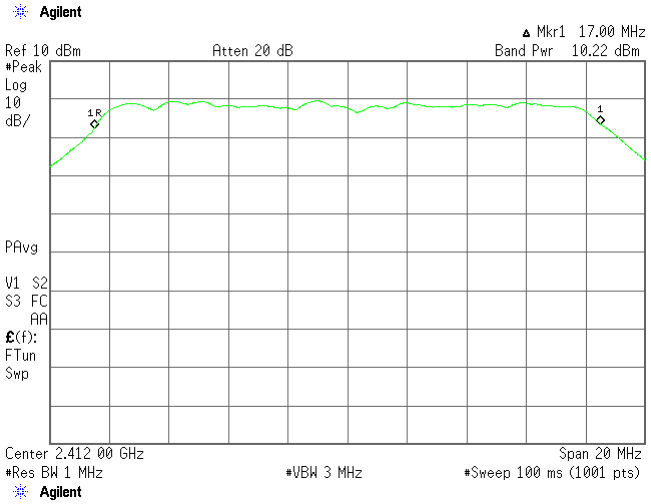
	Correction Factor	=	10.19 dB
+)	Meter Reading	=	10.44 dBm
	Result	=	20.63 dBm = 115.61 mW

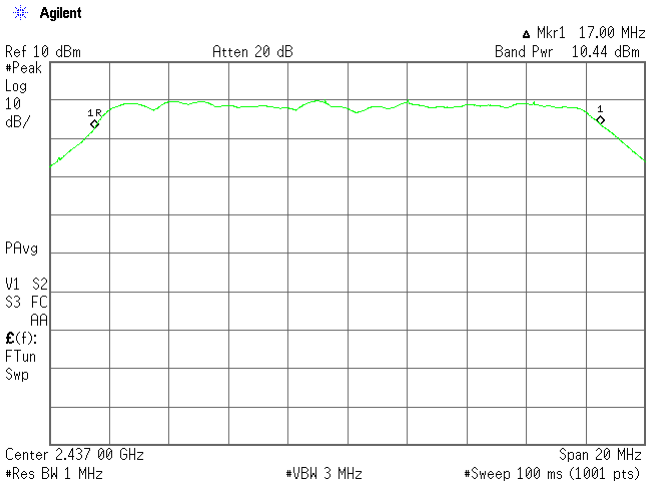
Minimum Margin: 30.00 - 20.63 = 9.37 (dB)

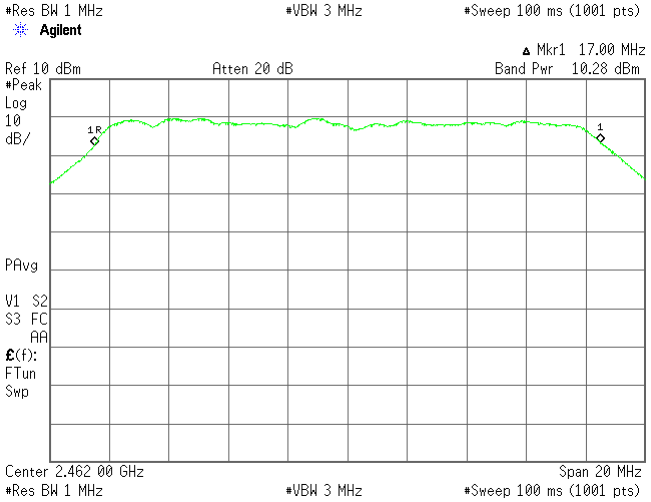
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







7)Data Rate : 6.5Mbps(IEEE 802.11n)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 6.5Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	10.41	20.60	114.82	30.00	+ 9.40
06	2437	10.19	10.60	20.79	119.95	30.00	+ 9.21
11	2462	10.19	10.00	20.19	104.47	30.00	+ 9.81

Calculated result at 2437.000 MHz, as the worst point shown on underline:

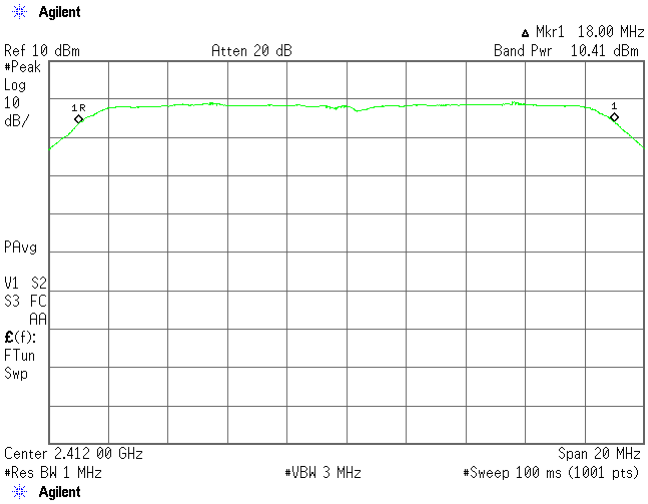
Correction Factor	=	10.19 dB	
+) Meter Reading	=	10.60 dBm	
Result	=	20.79 dBm	= 119.95 mW

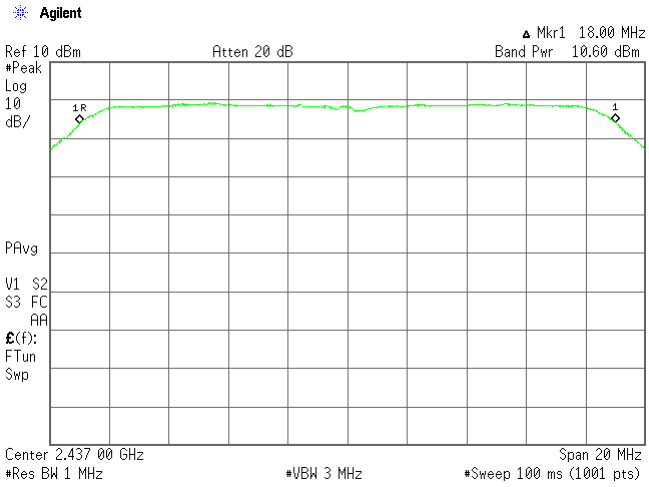
Minimum Margin: 30.00 - 20.79 = 9.21 (dB)

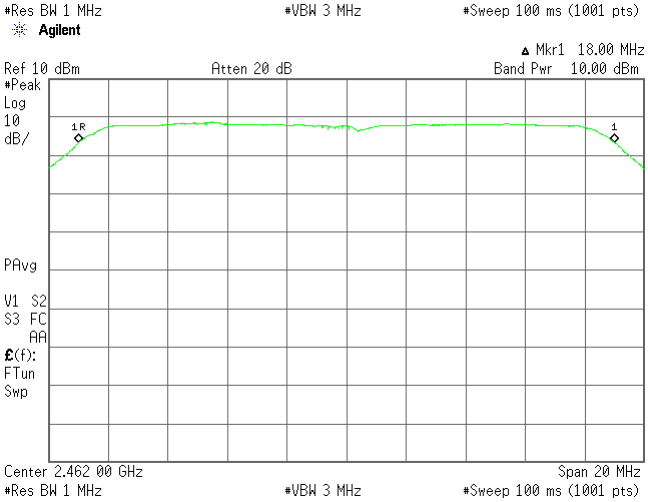
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







8)Data Rate : 65Mbps(IEEE 802.11n)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 65Mbps

Transmitting Frequency		Correction Factor	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	10.29	20.48	111.69	30.00	+ 9.52
06	2437	10.19	10.59	20.78	119.67	30.00	+ 9.22
11	2462	10.19	10.18	20.37	108.89	30.00	+ 9.63

Calculated result at 2437.000 MHz, as the worst point shown on underline:

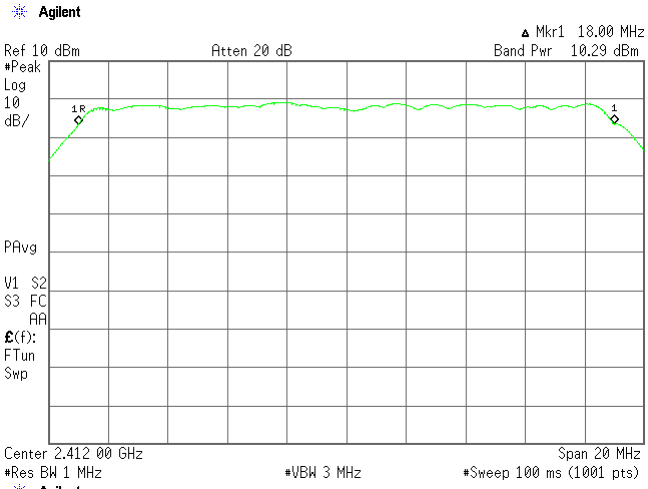
Correction Factor	=	10.19 dB	
+) Meter Reading	=	10.59 dBm	
Result	=	20.78 dBm	= 119.67 mW

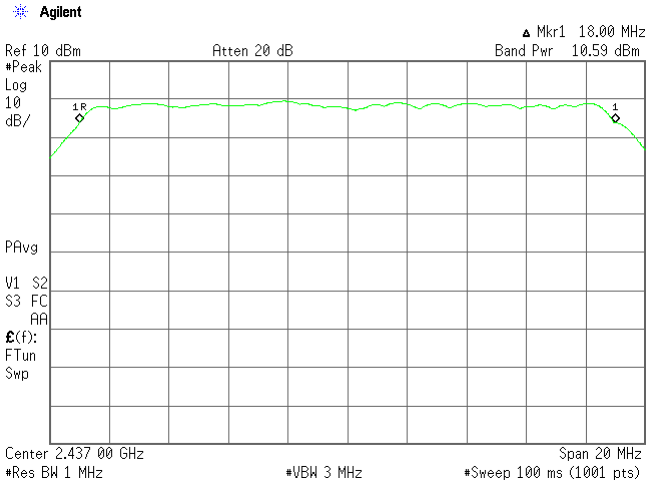
Minimum Margin: 30.00 - 20.78 = 9.22 (dB)

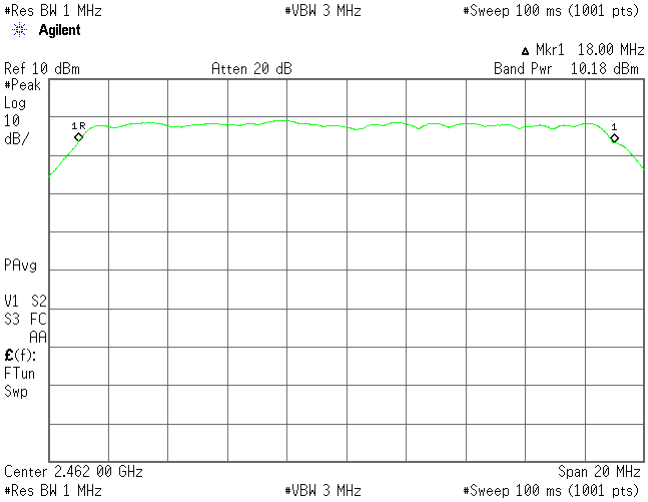
NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	1MHz	3MHz

The band power function was used.







A.6 Peak Power Density(Conduction)

1)Data Rate : 1Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 1Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-4.07	-9.08	0.12	8.00	+17.08
06	2437	10.19	-15.20	-3.68	-8.69	0.14	8.00	+16.69
11	2462	10.19	-15.20	-4.06	-9.07	0.12	8.00	+17.07

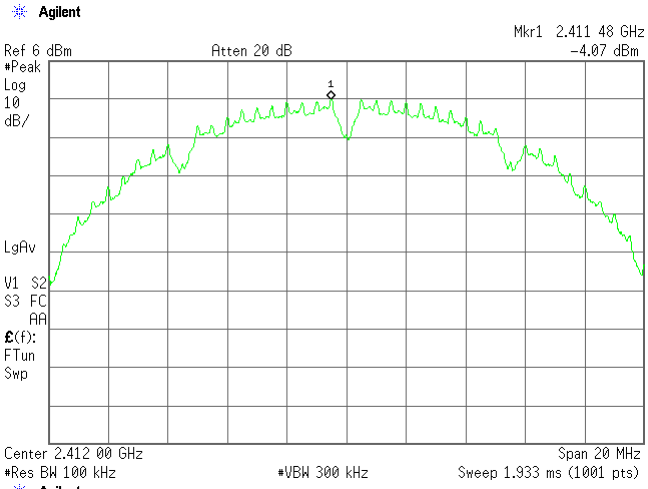
Calculated result at 2437.000 MHz, as the worst point shown on underline:

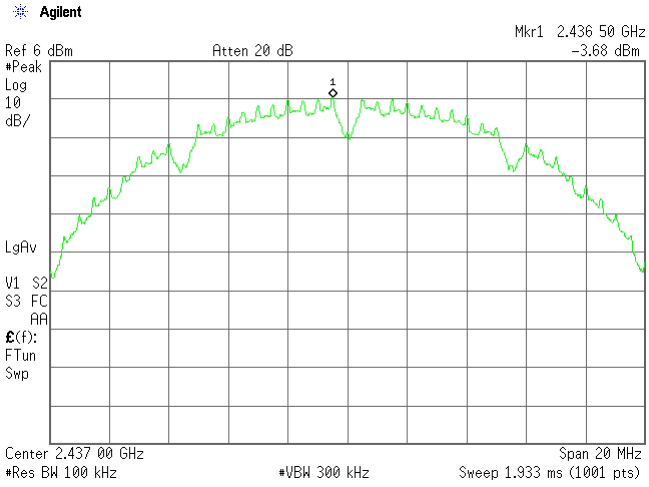
Correction Factor	=	10.19	dB
BWCF	=	-15.20	dB
+) Meter Reading	=	-3.68	dBm
Result	=	-8.69	dBm = 0.14 mW

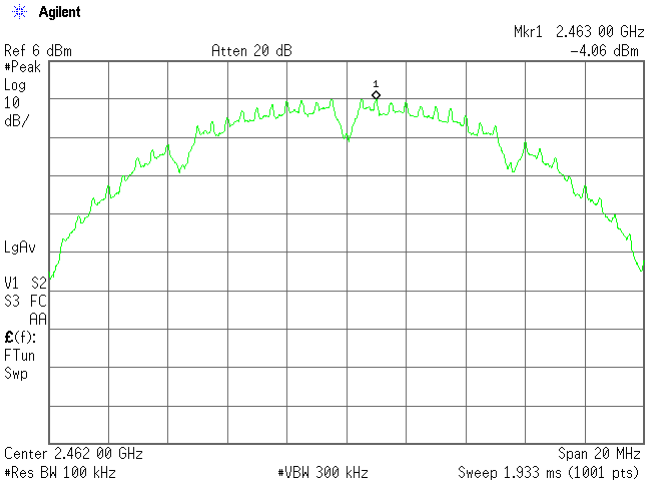
Minimum Margin: 8.00 - -8.69 = 16.69 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







2)Data Rate : 2Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 2Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-4.20	-9.21	0.12	8.00	+17.21
06	2437	10.19	-15.20	-3.28	-8.29	0.15	8.00	+16.29
11	2462	10.19	-15.20	-3.68	-8.69	0.14	8.00	+16.69

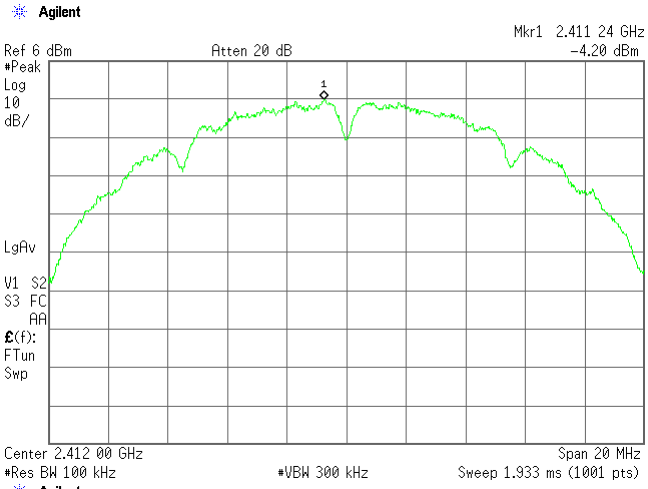
Calculated result at 2437.000 MHz, as the worst point shown on underline:

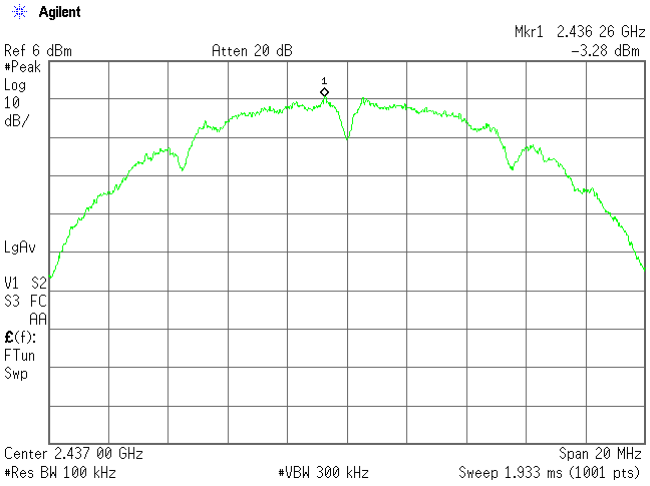
Correction Factor	=	10.19	dB
BWCF	=	-15.20	dB
+) Meter Reading	=	-3.28	dBm
Result	=	-8.29 dBm	= 0.15 mW

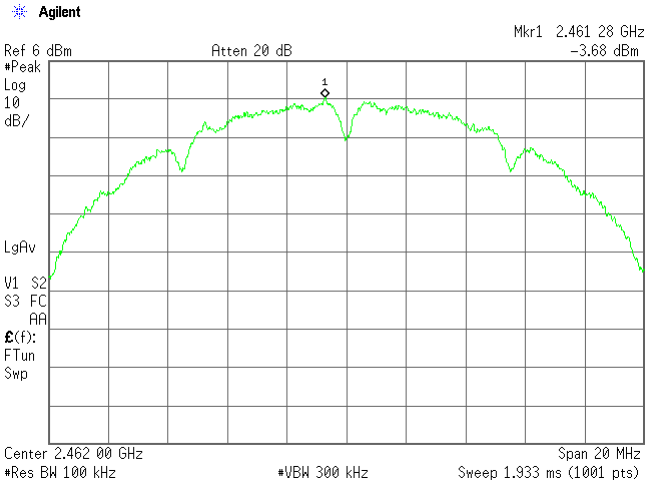
Minimum Margin: 8.00 - -8.29 = 16.29 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







3)Data Rate : 5.5Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 5.5Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-3.77	-8.78	0.13	8.00	+16.78
06	2437	10.19	-15.20	-3.36	-8.37	0.15	8.00	+16.37
11	2462	10.19	-15.20	-3.87	-8.88	0.13	8.00	+16.88

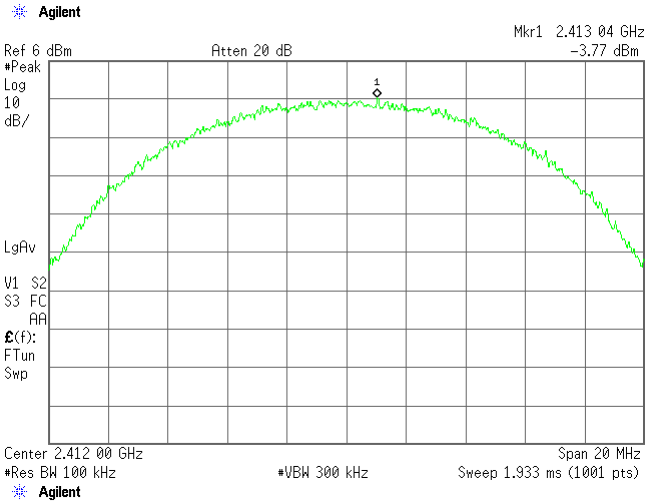
Calculated result at 2437.000 MHz, as the worst point shown on underline:

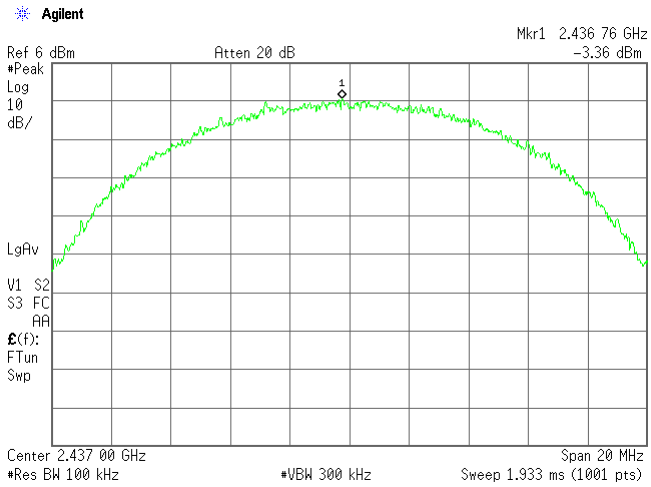
Correction Factor	=	10.19 dB	
BWCF	=	-15.20 dB	
+) Meter Reading	=	-3.36 dBm	
Result	=	-8.37 dBm	= 0.15 mW

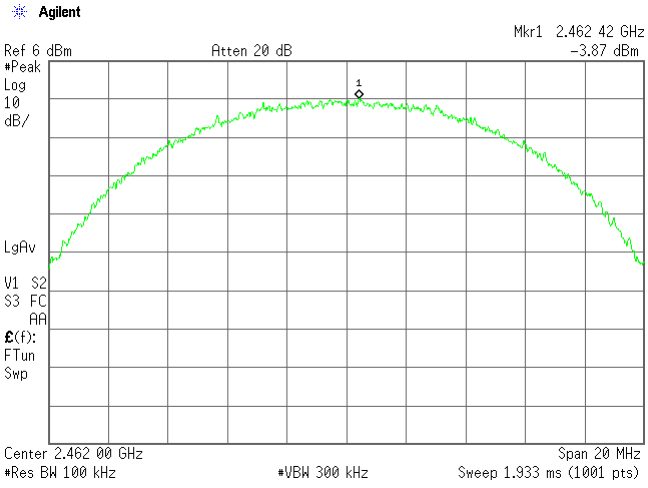
Minimum Margin: 8.00 - -8.37 = 16.37 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







4)Data Rate : 11Mbps(IEEE 802.11b)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 11Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-4.21	-9.22	0.12	8.00	+17.22
06	2437	10.19	-15.20	-3.04	-8.05	0.16	8.00	+16.05
11	2462	10.19	-15.20	-4.03	-9.04	0.12	8.00	+17.04

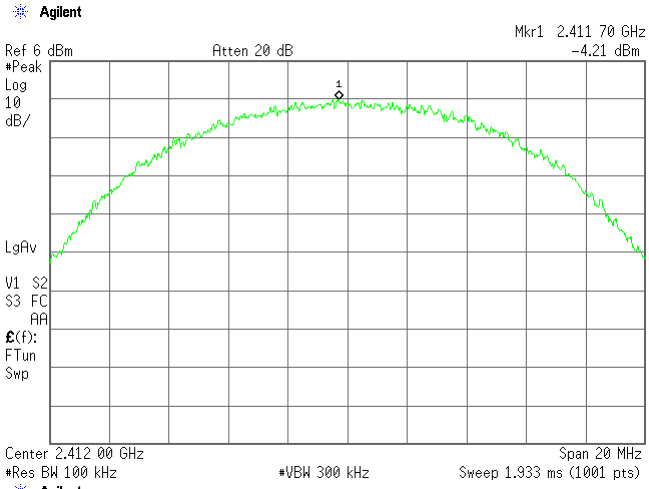
Calculated result at 2437.000 MHz, as the worst point shown on underline:

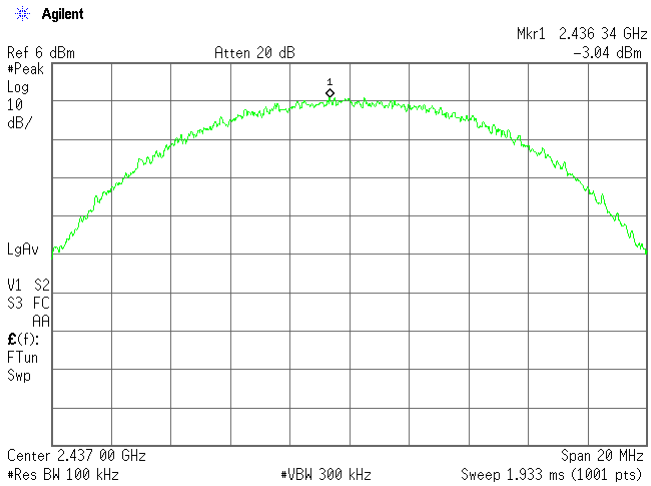
Correction Factor	=	10.19 dB	
BWCF	=	-15.20 dB	
+) Meter Reading	=	-3.04 dBm	
Result	=	-8.05 dBm	= 0.16 mW

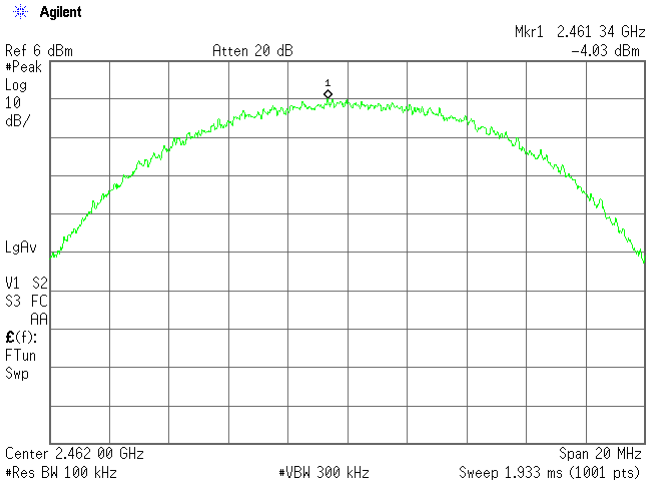
Minimum Margin: 8.00 - -8.05 = 16.05 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







5)Data Rate : 6Mbps(IEEE 802.11g)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 6Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-9.60	-14.61	0.03	8.00	+22.61
06	2437	10.19	-15.20	-9.05	-14.06	0.04	8.00	+22.06
11	2462	10.19	-15.20	-9.16	-14.17	0.04	8.00	+22.17

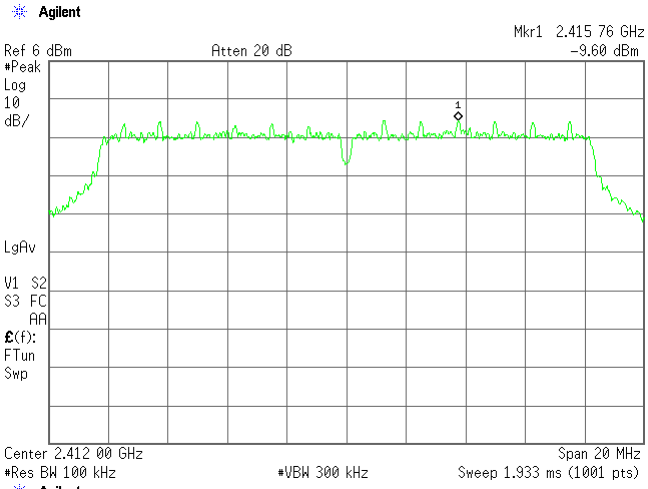
Calculated result at 2437.000 MHz, as the worst point shown on underline:

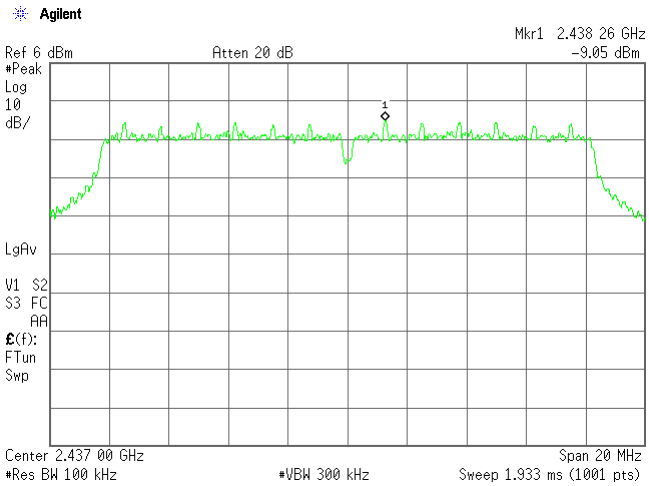
Correction Factor	=	10.19	dB
BWCF	=	-15.20	dB
+) Meter Reading	=	-9.05	dBm
Result	=	-14.06 dBm	= 0.04 mW

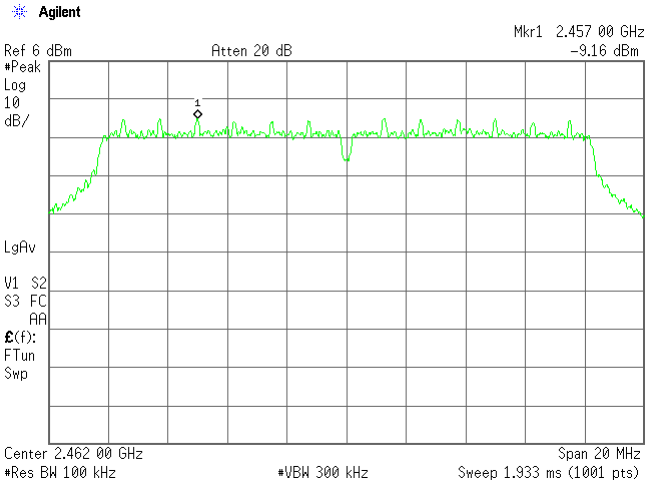
Minimum Margin: 8.00 - -14.06 = 22.06 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







6)Data Rate : 54Mbps(IEEE 802.11g)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 54Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-8.71	-13.72	0.04	8.00	+21.72
06	2437	10.19	-15.20	-8.53	-13.54	0.04	8.00	+21.54
11	2462	10.19	-15.20	-9.19	-14.20	0.04	8.00	+22.20

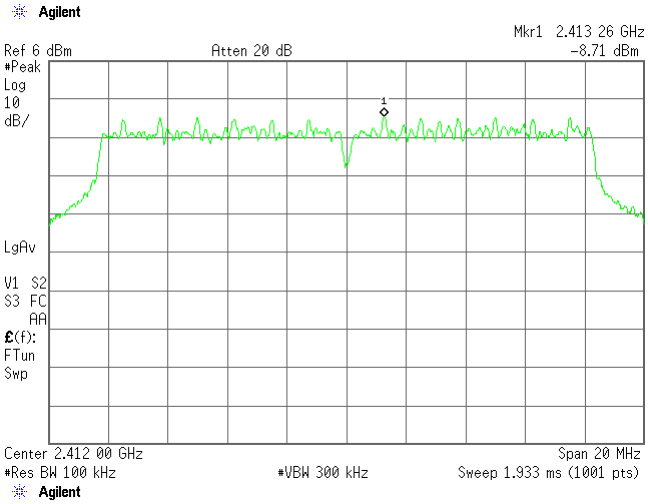
Calculated result at 2437.000 MHz, as the worst point shown on underline:

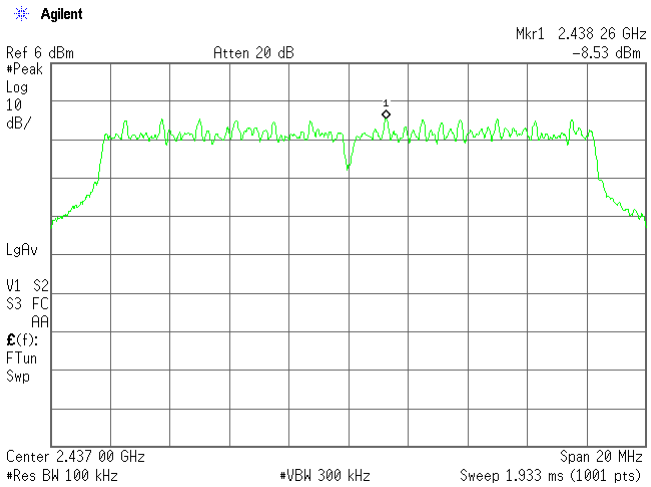
Correction Factor	=	10.19	dB
BWCF	=	-15.20	dB
+) Meter Reading	=	-8.53	dBm
Result	=	-13.54 dBm	= 0.04 mW

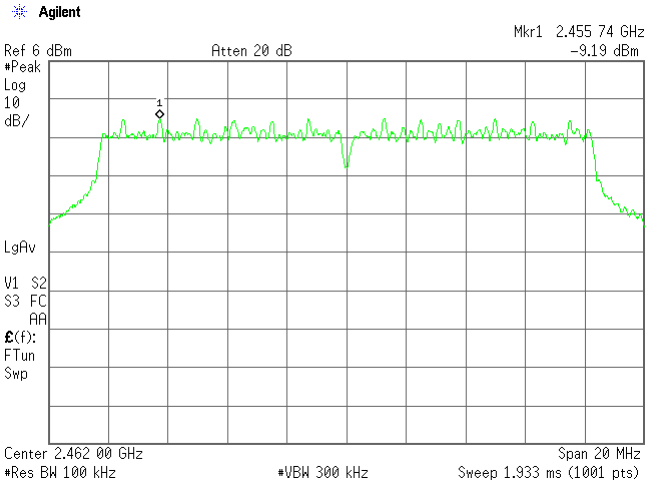
Minimum Margin: 8.00 - -13.54 = 21.54 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







7)Data Rate : 6.5Mbps(IEEE 802.11n)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 6.5Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-9.75	-14.76	0.03	8.00	+22.76
06	2437	10.19	-15.20	-9.11	-14.12	0.04	8.00	+22.12
11	2462	10.19	-15.20	-9.23	-14.24	0.04	8.00	+22.24

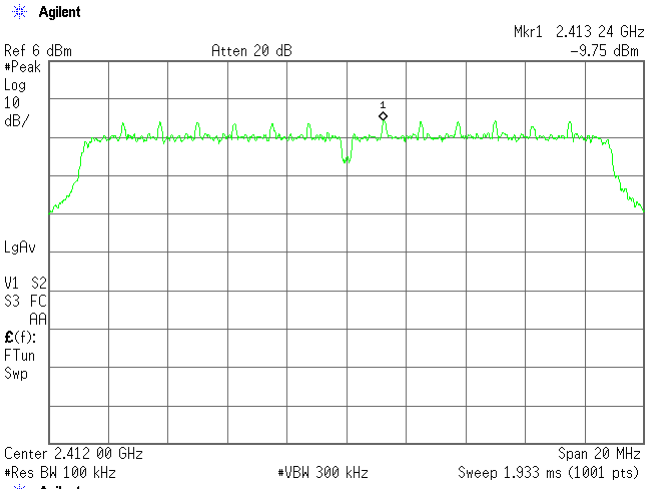
Calculated result at 2437.000 MHz, as the worst point shown on underline:

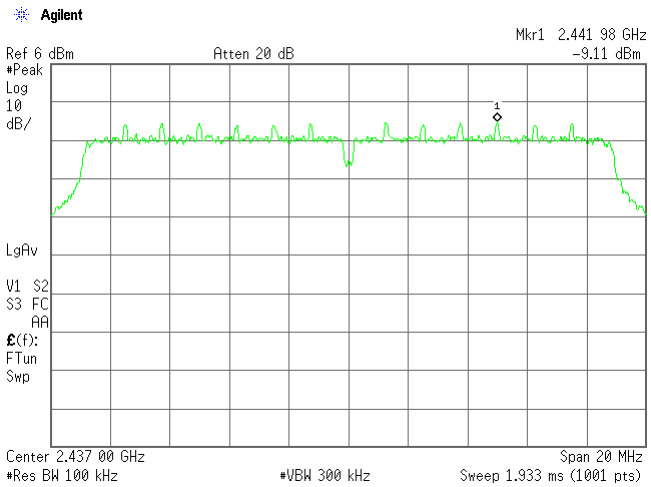
Correction Factor	=	10.19 dB	
BWCF	=	-15.20 dB	
+) Meter Reading	=	-9.11 dBm	
Result	=	-14.12 dBm	= 0.04 mW

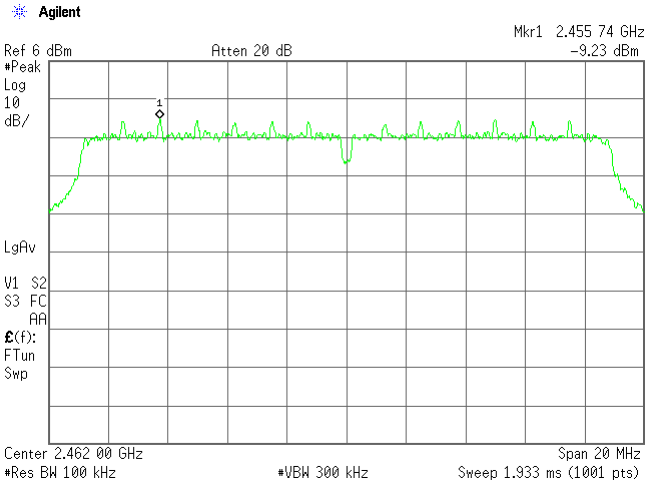
Minimum Margin: 8.00 - -14.12 = 22.12 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz







8)Data Rate : 65Mbps(IEEE 802.11n)

Test Date: May 16, 2012
Temp.: 23 °C, Humi: 60 %

Data Rate : 65Mbps

Transmitting Frequency		Correction Factor	BWCF	Meter Reading	Conducted Peak Output Power		Limits	Margin
CH	[MHz]	[dB]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dB]
01	2412	10.19	-15.20	-8.70	-13.71	0.04	8.00	+21.71
06	2437	10.19	-15.20	-8.28	-13.29	0.05	8.00	+21.29
11	2462	10.19	-15.20	-9.13	-14.14	0.04	8.00	+22.14

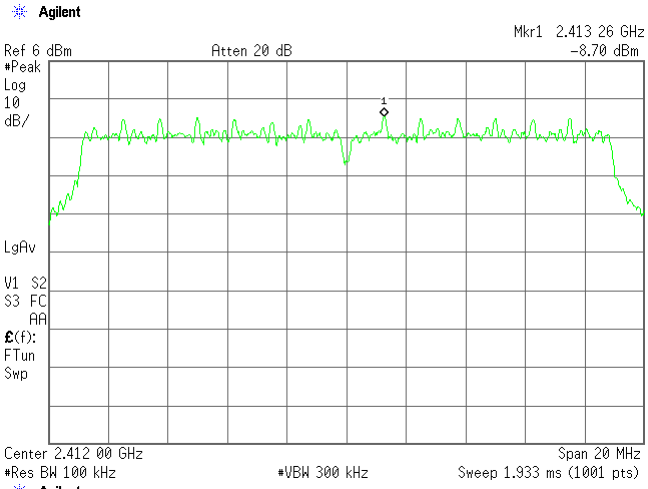
Calculated result at 2437.000 MHz, as the worst point shown on underline:

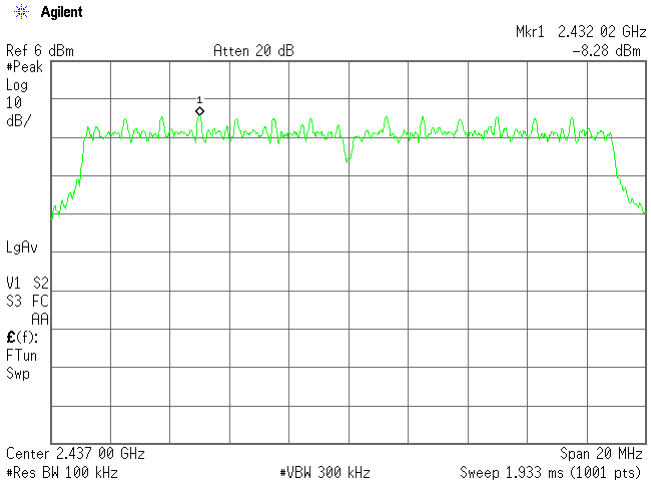
Correction Factor	=	10.19	dB
BWCF	=	-15.20	dB
+) Meter Reading	=	-8.28	dBm
Result	=	-13.29	dBm = 0.05 mW

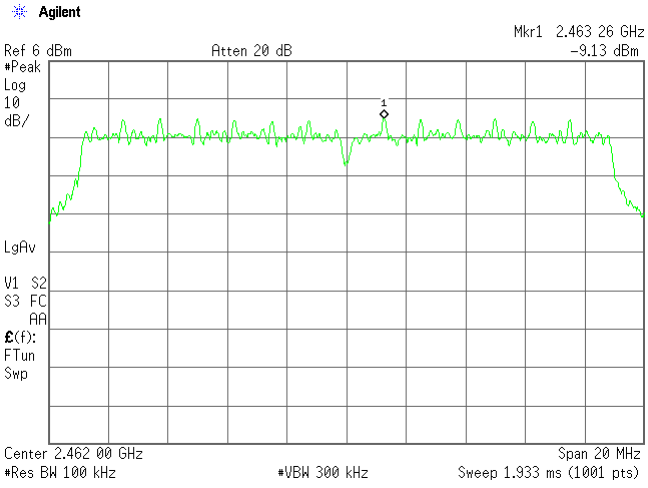
Minimum Margin: 8.00 - -13.29 = 21.29 (dB)

NOTES
1. The correction factor shows the attenuation pad loss including the short, low loss cable or adapter.
2. BWCF(bandwidth correction factor) = 10 log (3 kHz/100 kHz) = -15.2 dB
3. Setting of measuring instrument(s) :

Detector Function	RES B.W.	Video B.W.
Peak	100kHz	300kHz



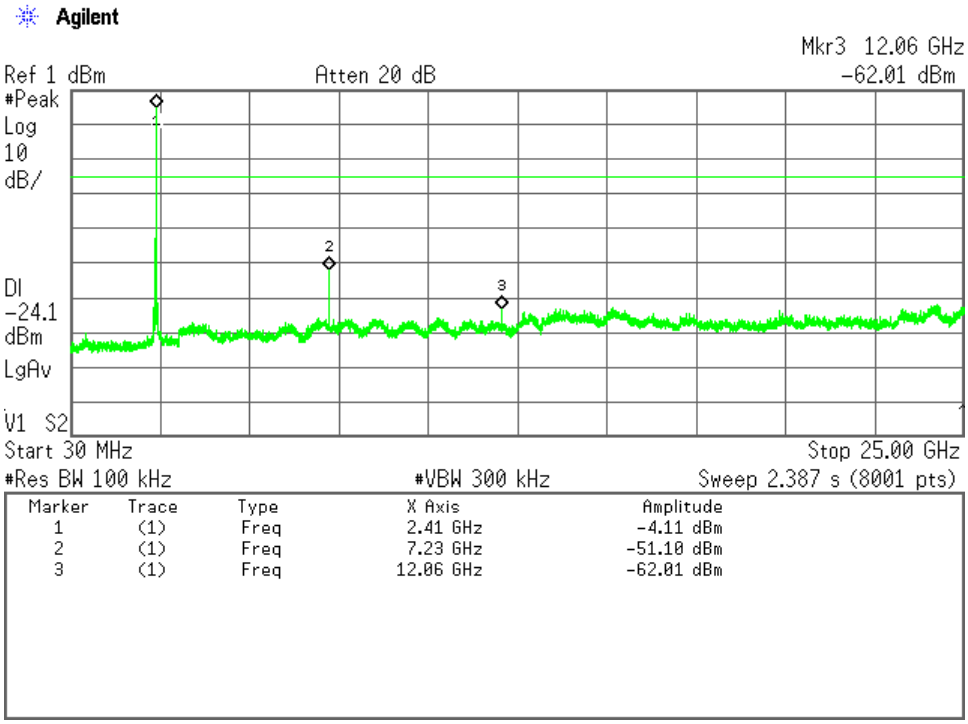




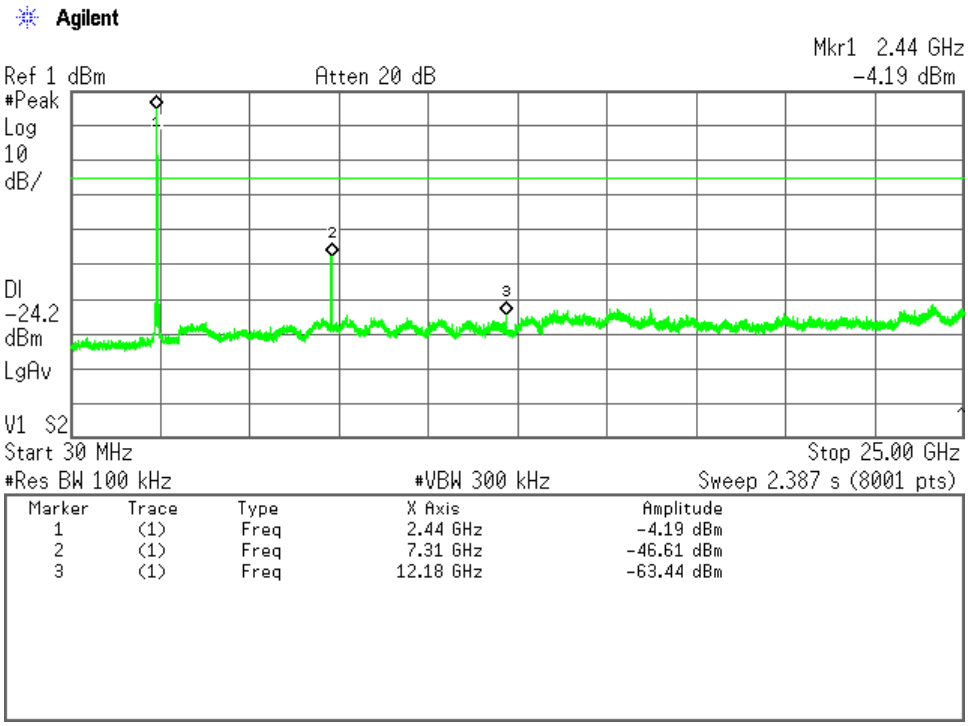
A.7 Spurious Emission(Conduction)

Test Date : May 16, 2012
Temp.:23°C, Humi:60%

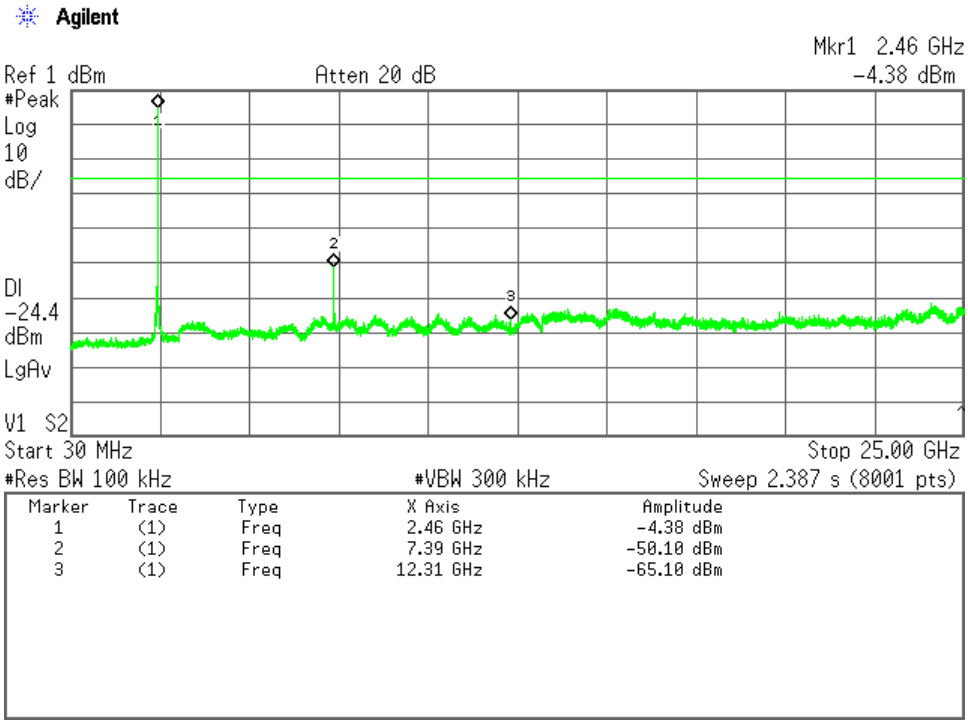
1)Data Rate : 1Mbps(IEEE 802.11b)
Low Channel



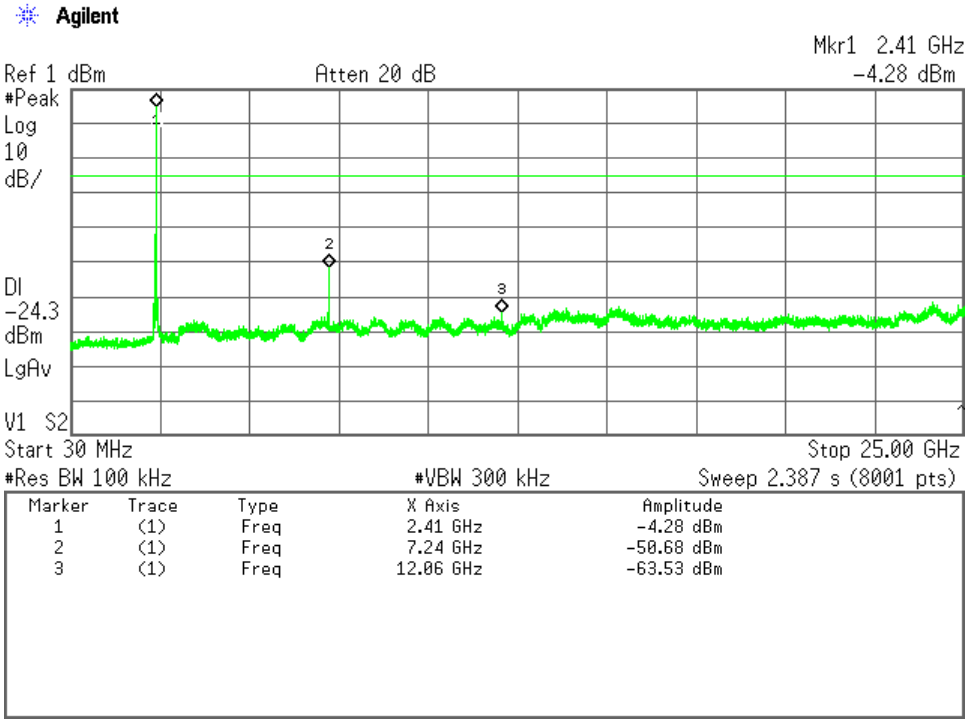
Middle Channel



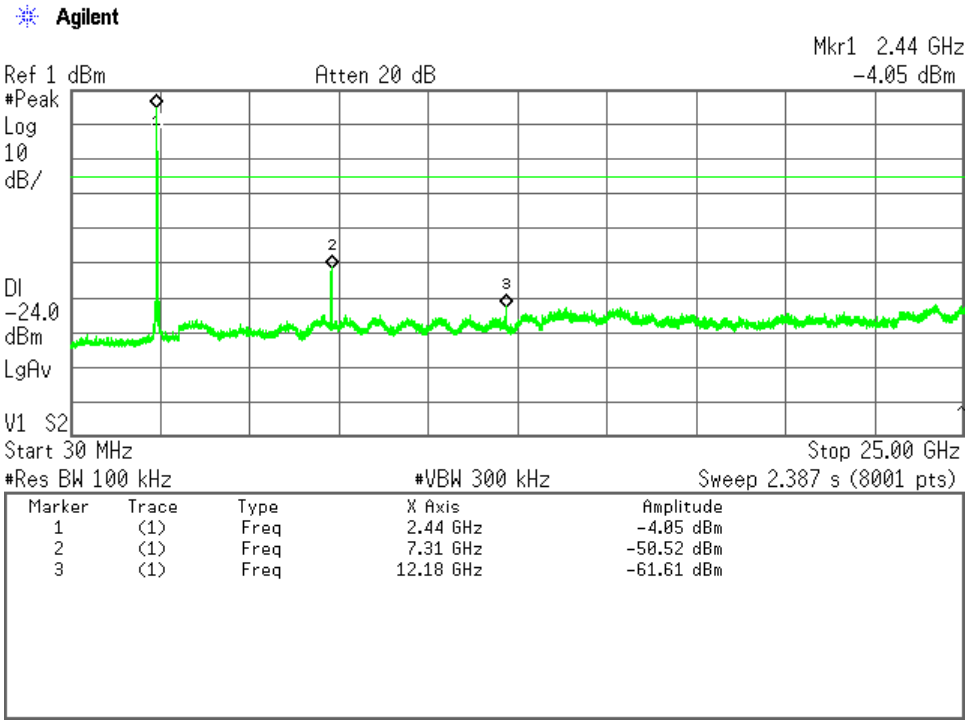
High Channel



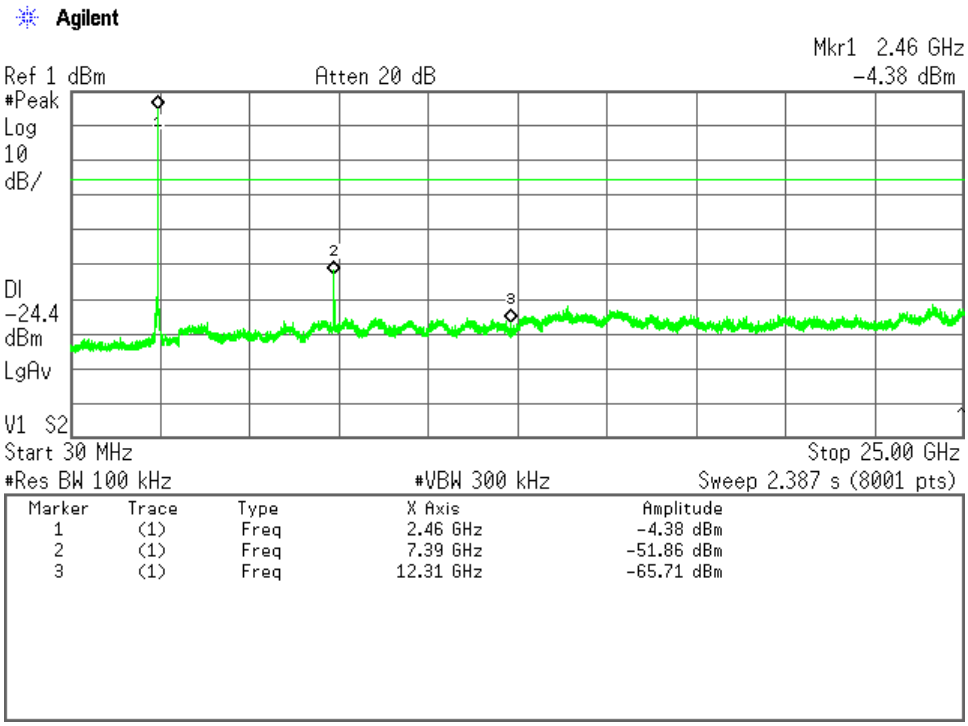
2)Data Rate : 11Mbps(IEEE 802.11b)
Low Channel



Middle Channel

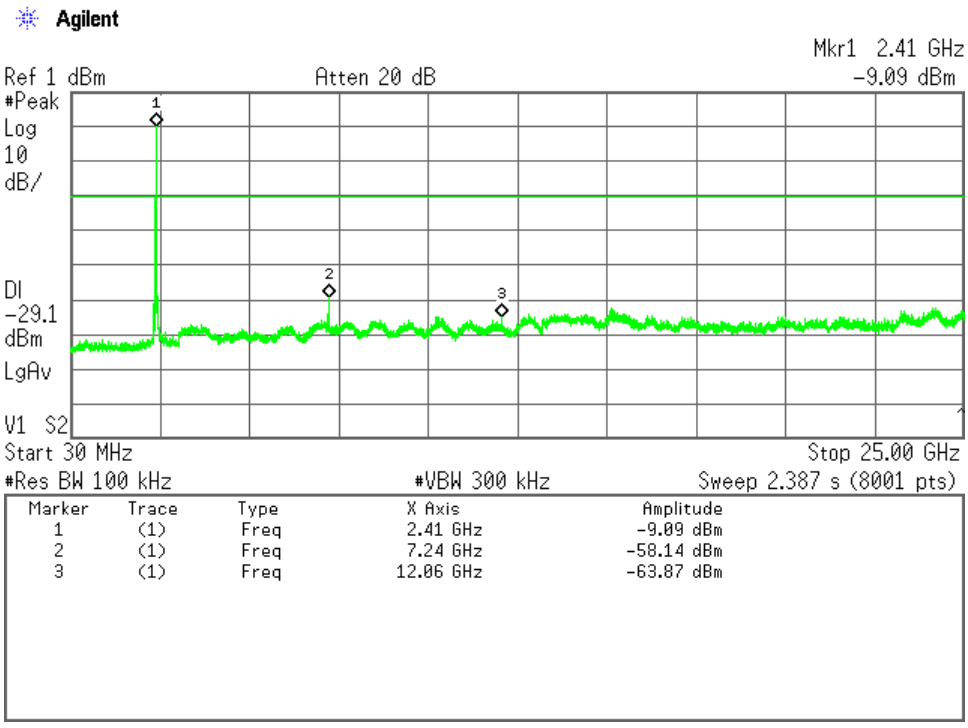


High Channel

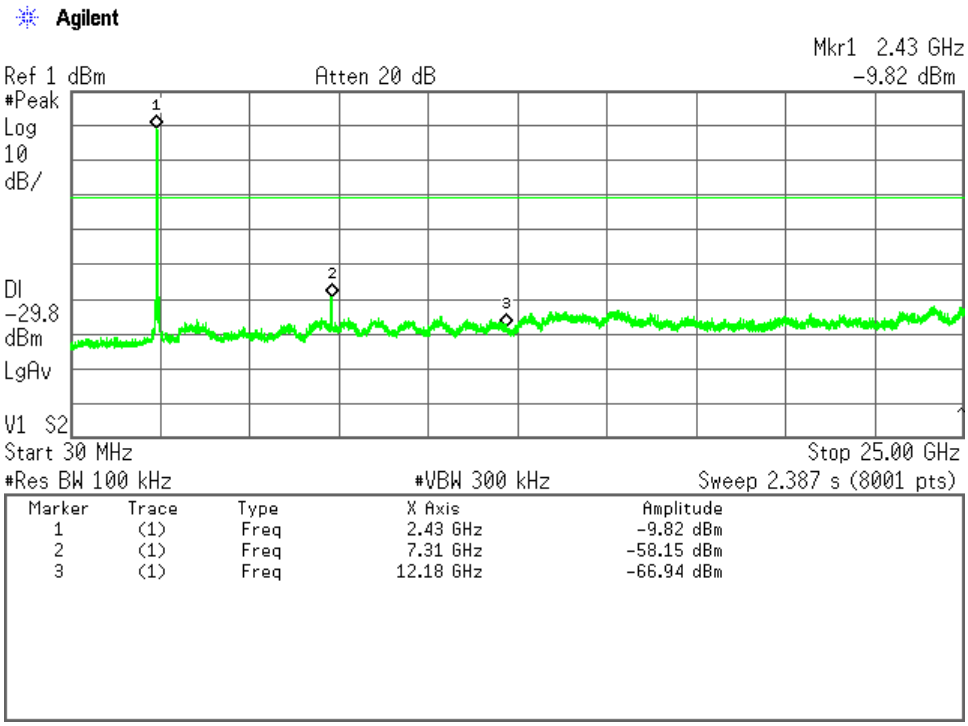


3)Data Rate : 6Mbps(IEEE 802.11g)

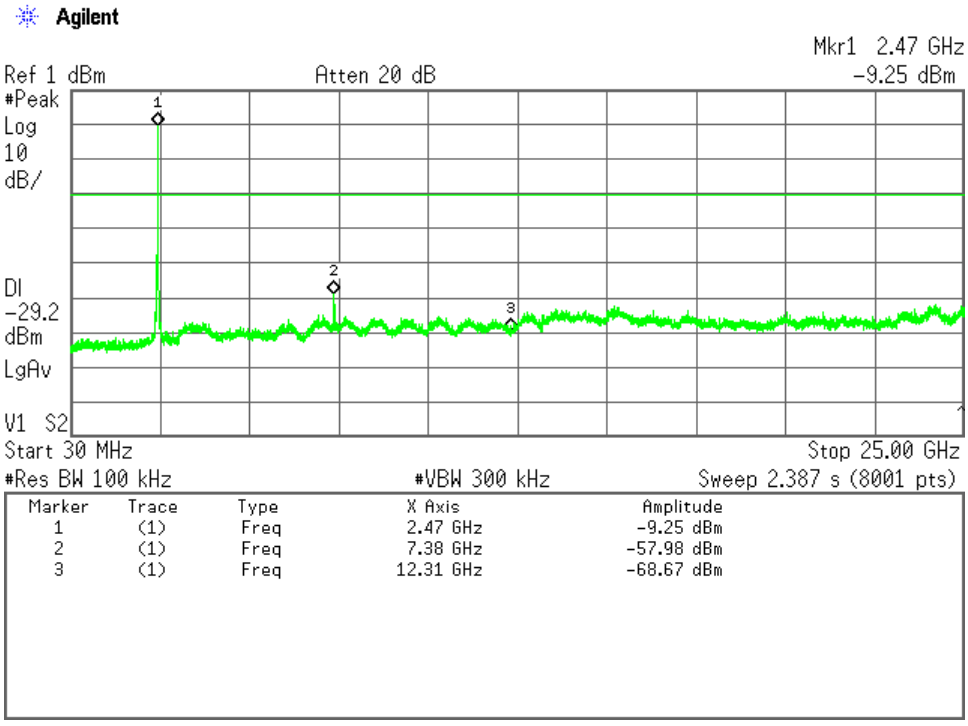
Low Channel



Middle Channel

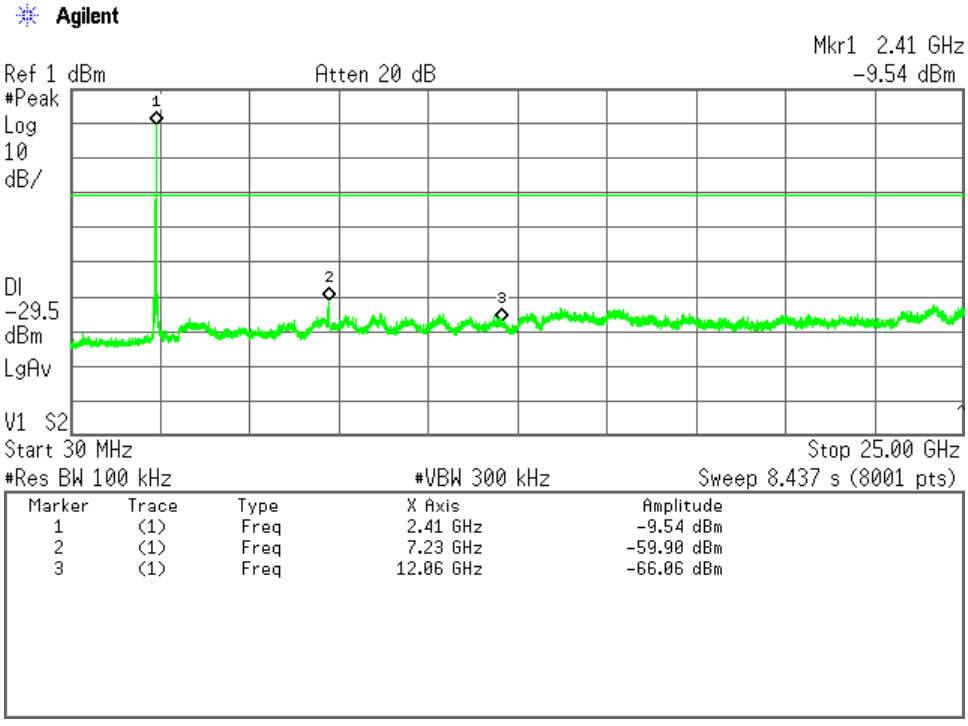


High Channel

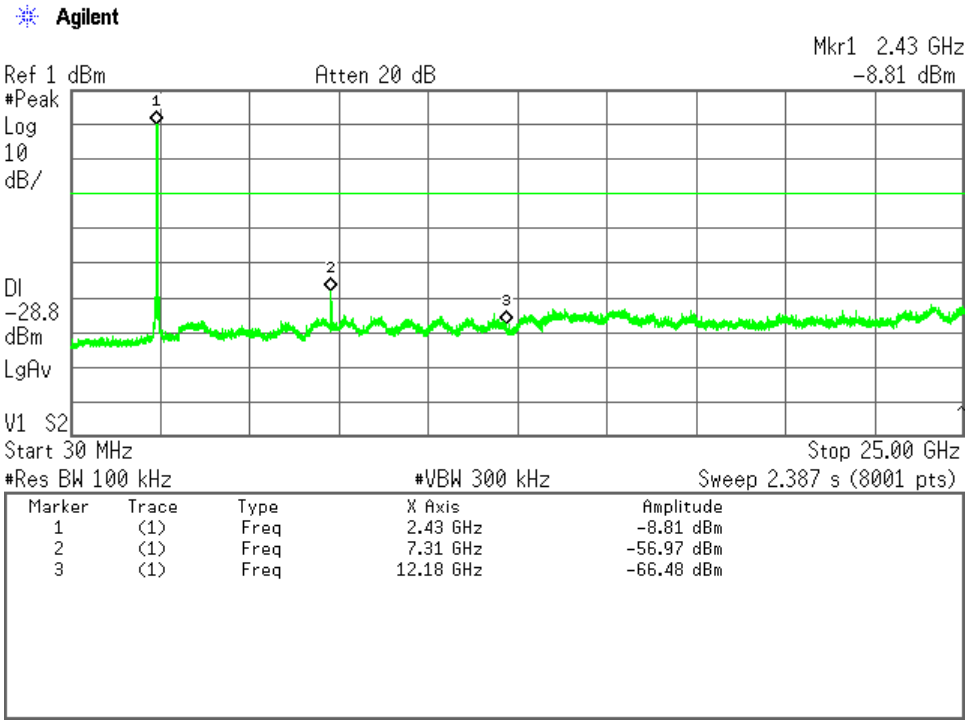


4)Data Rate : 54Mbps(IEEE 802.11g)

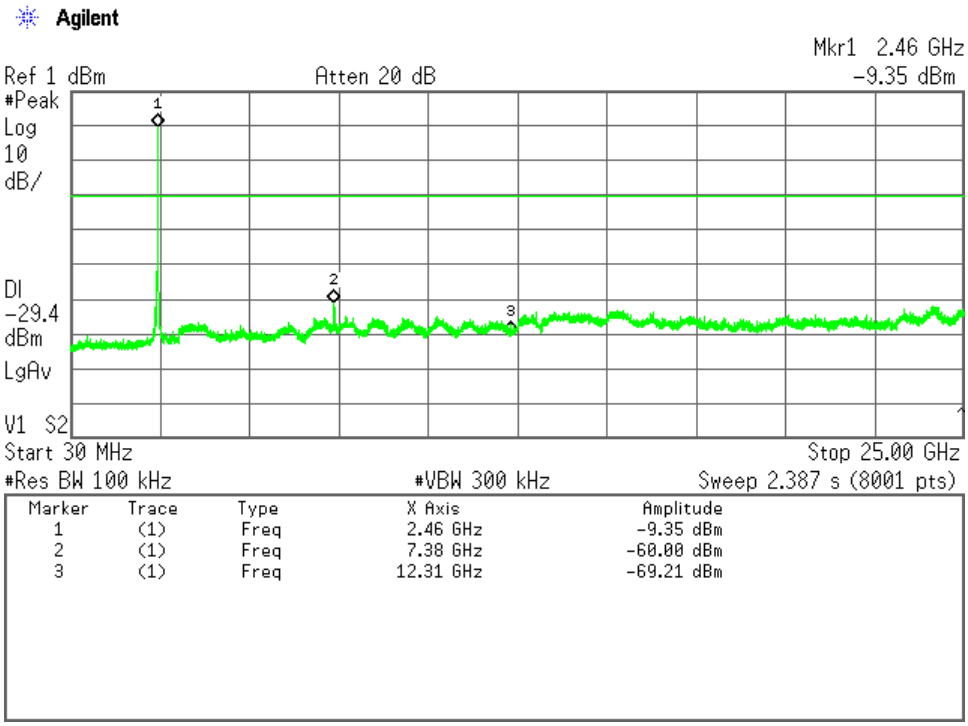
Low Channel



Middle Channel

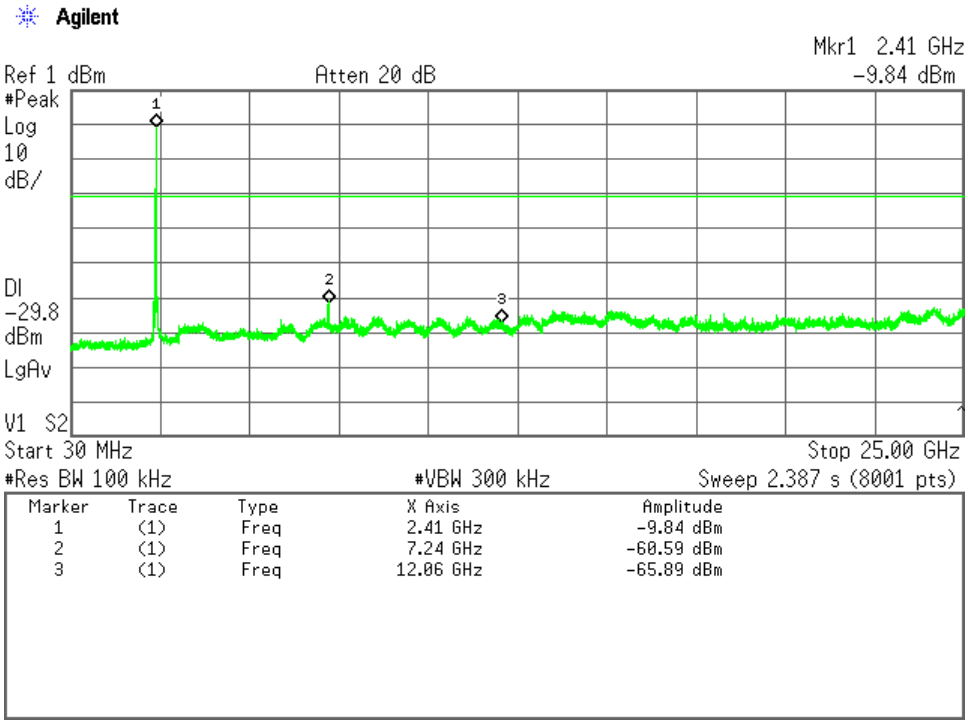


High Channel

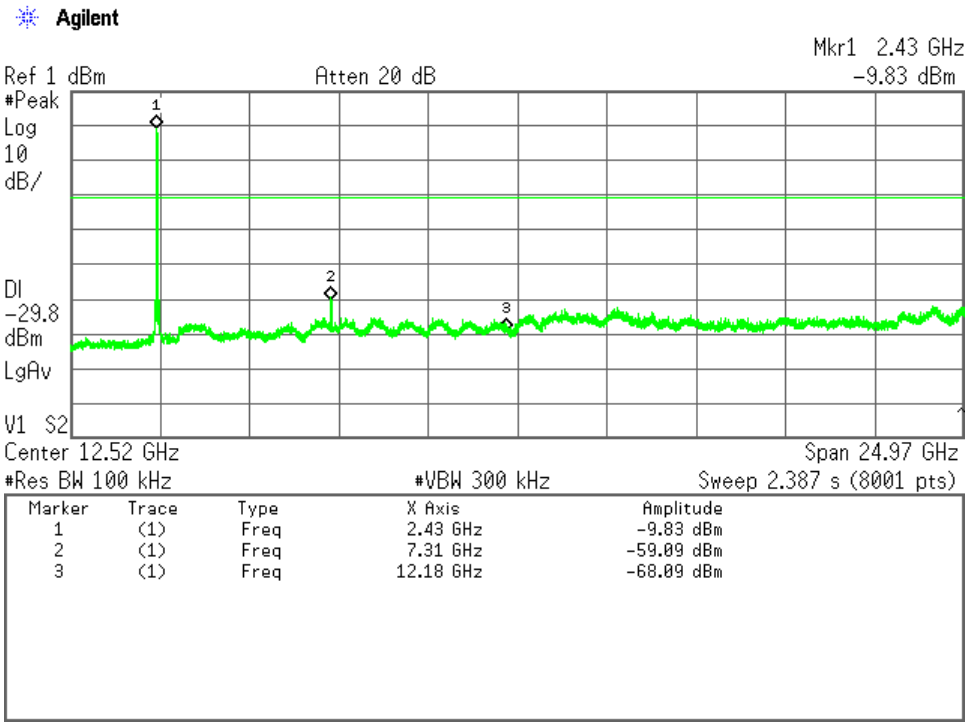


5)Data Rate : 6.5Mbps(IEEE 802.11n)

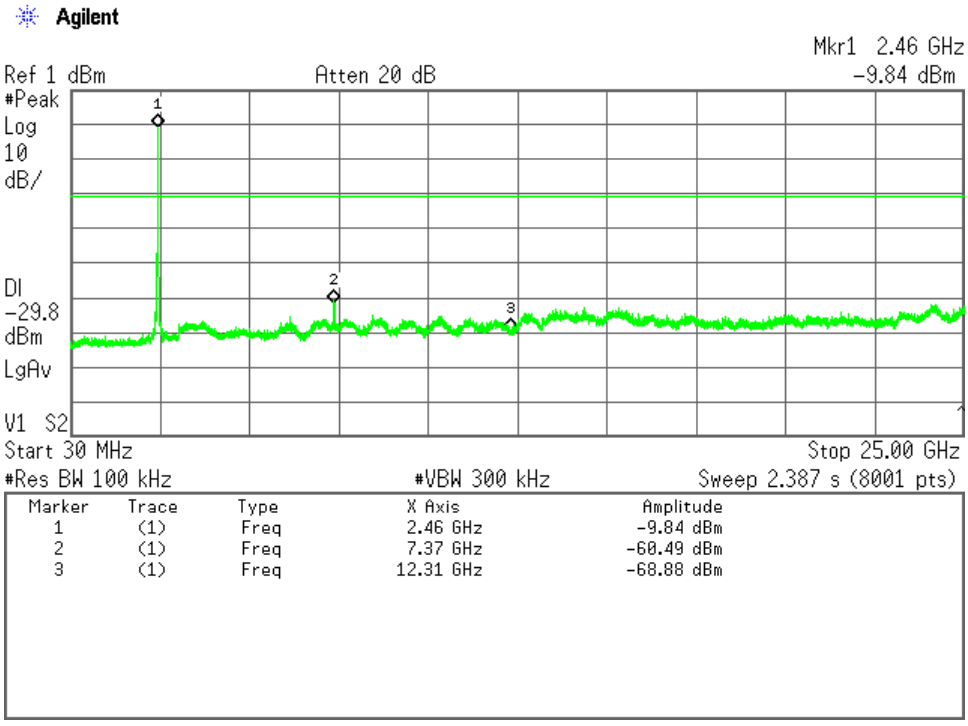
Low Channel



Middle Channel

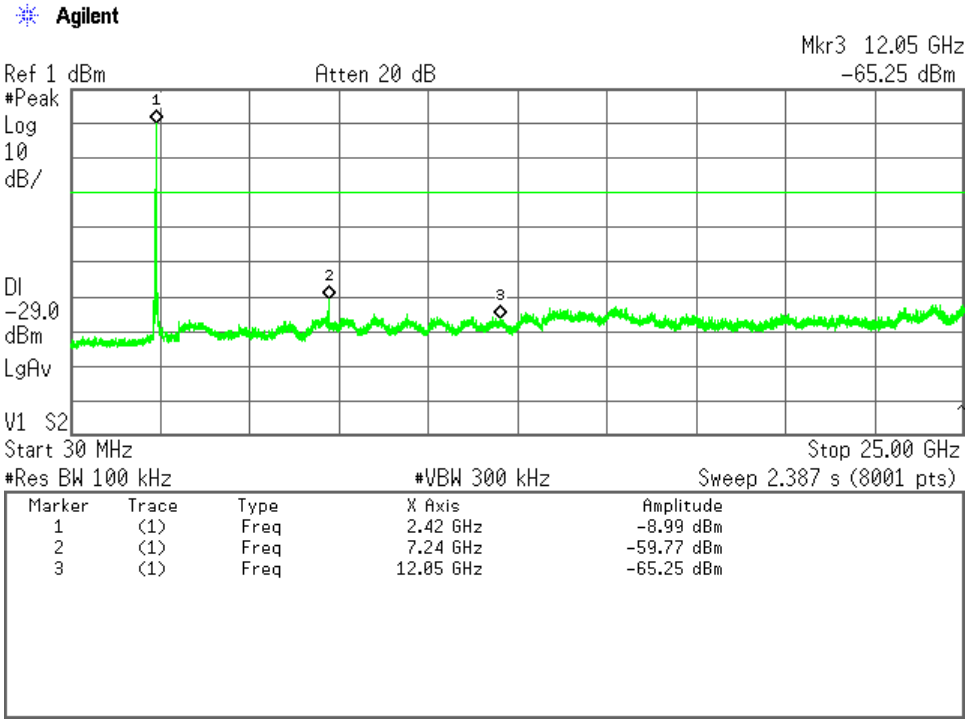


High Channel

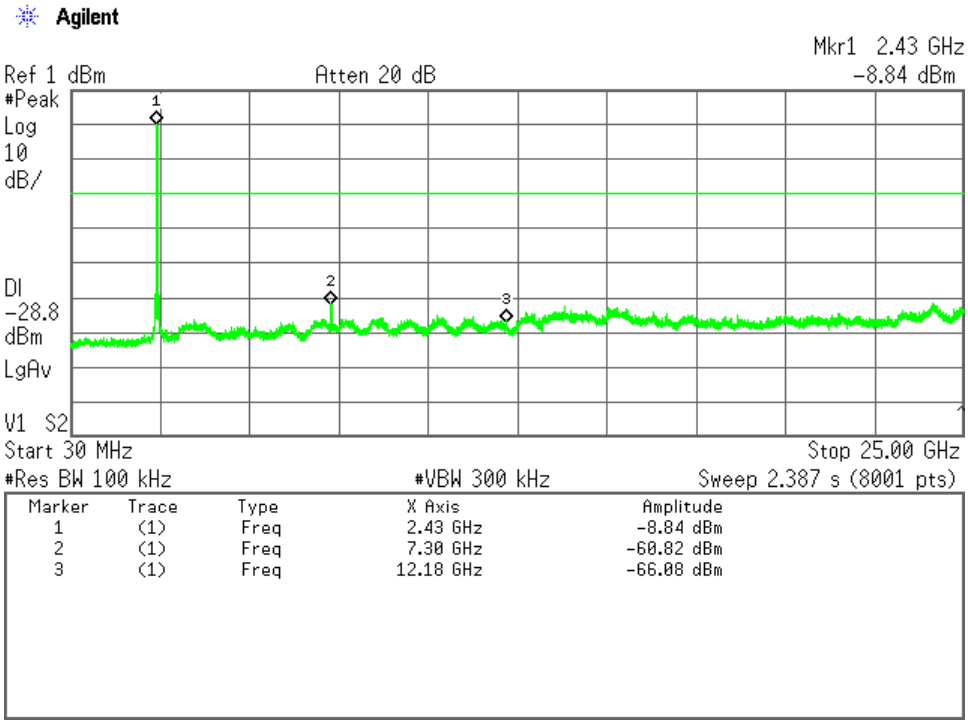


6)Data Rate : 65Mbps(IEEE 802.11n)

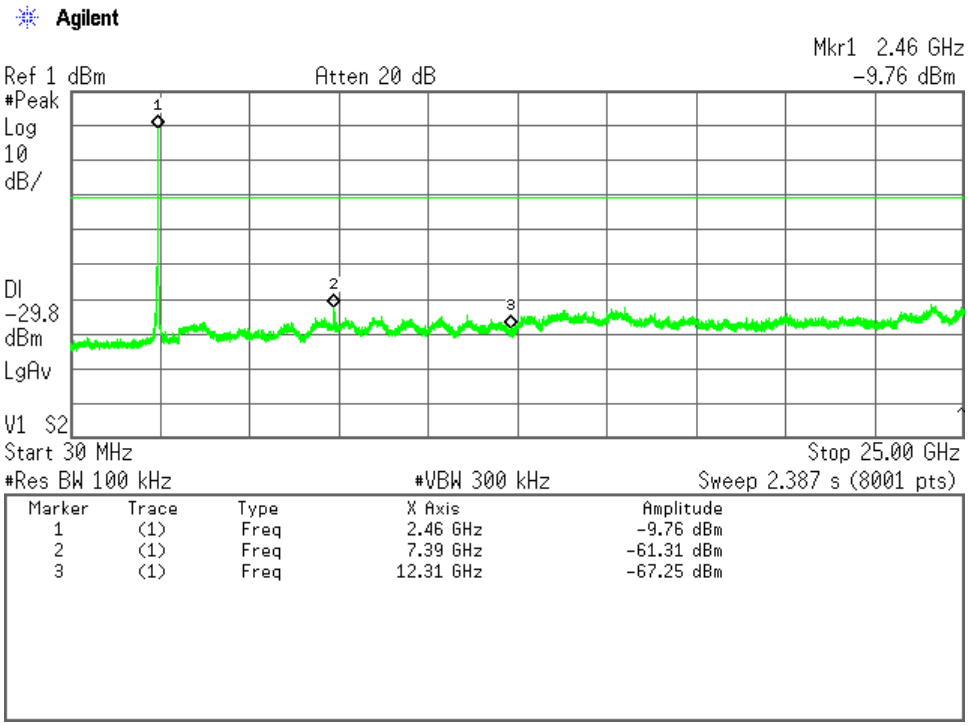
Low Channel



Middle Channel



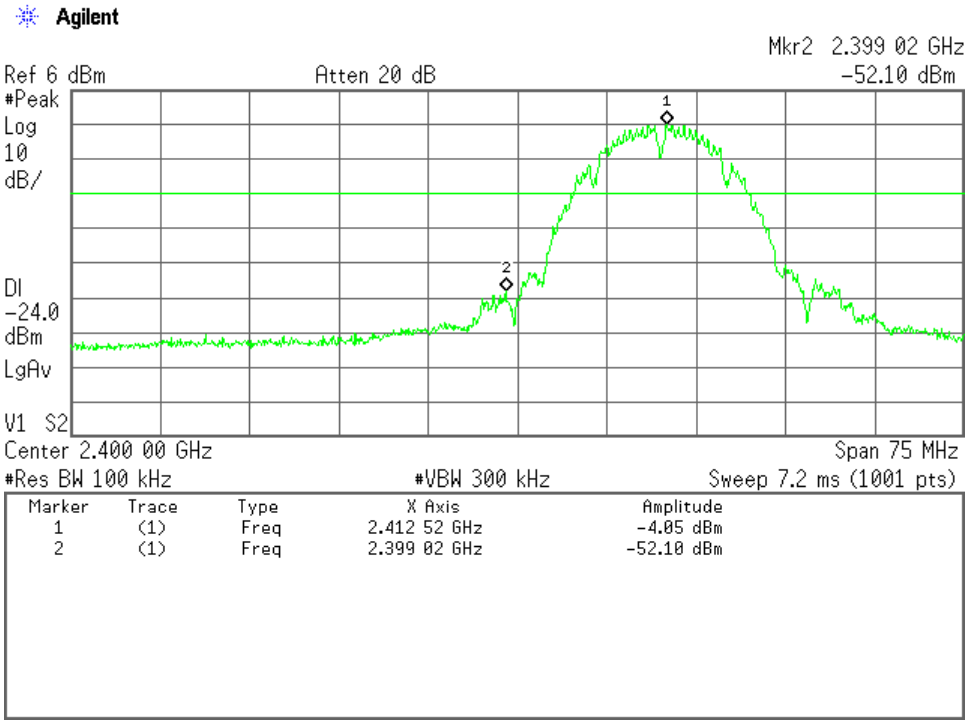
High Channel



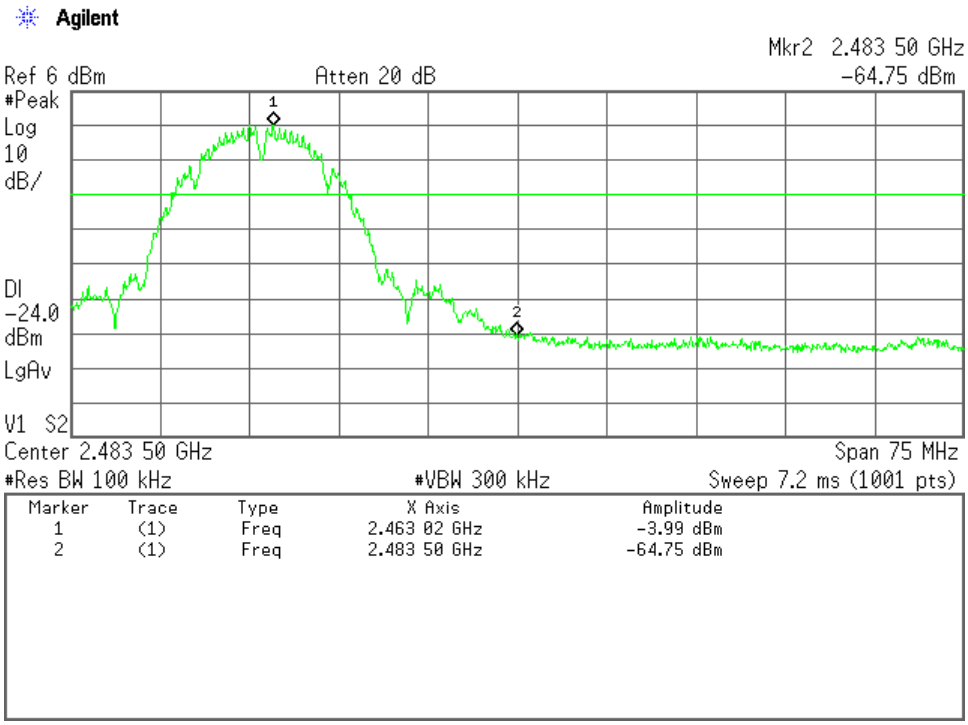
Band-Edge Emission

1)Data Rate : 1Mbps(IEEE 802.11b)

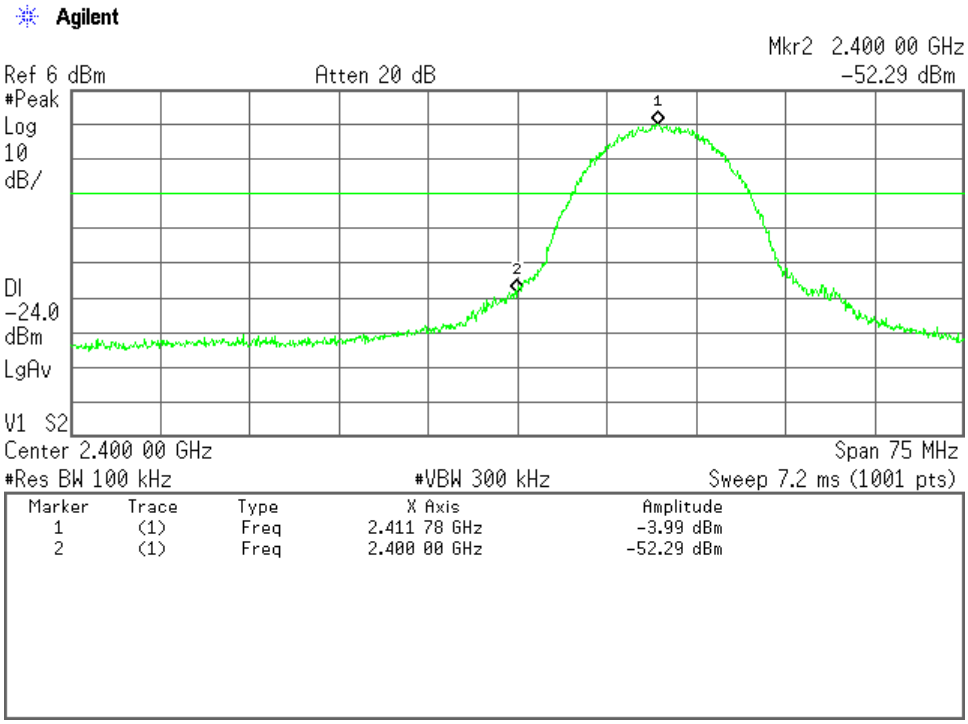
Low Channel



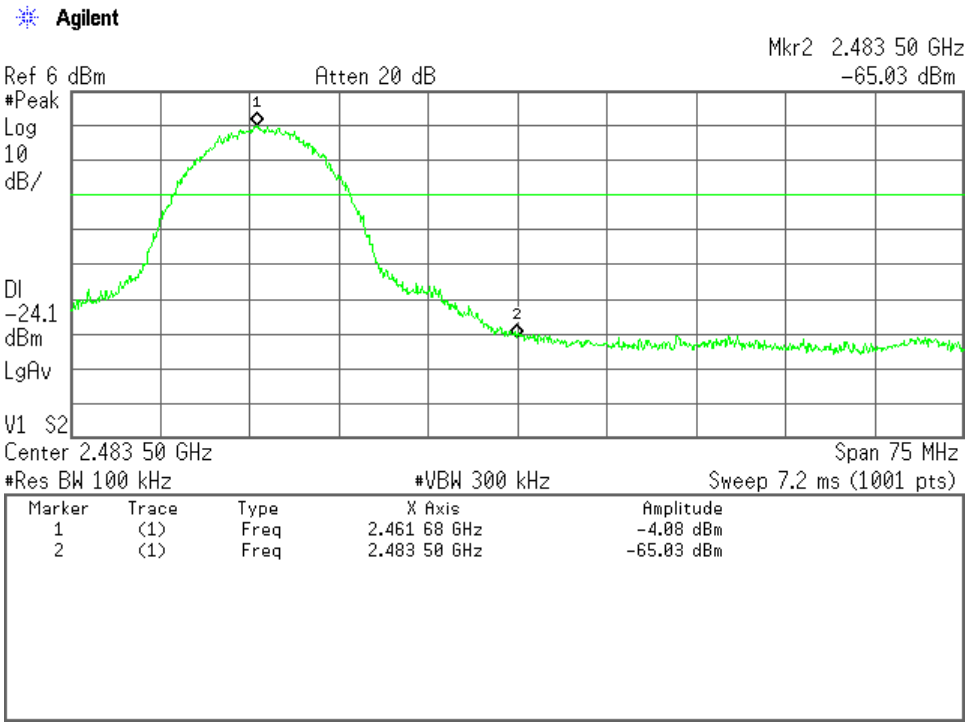
High Channel



2)Data Rate : 11Mbps(IEEE 802.11b)
Low Channel

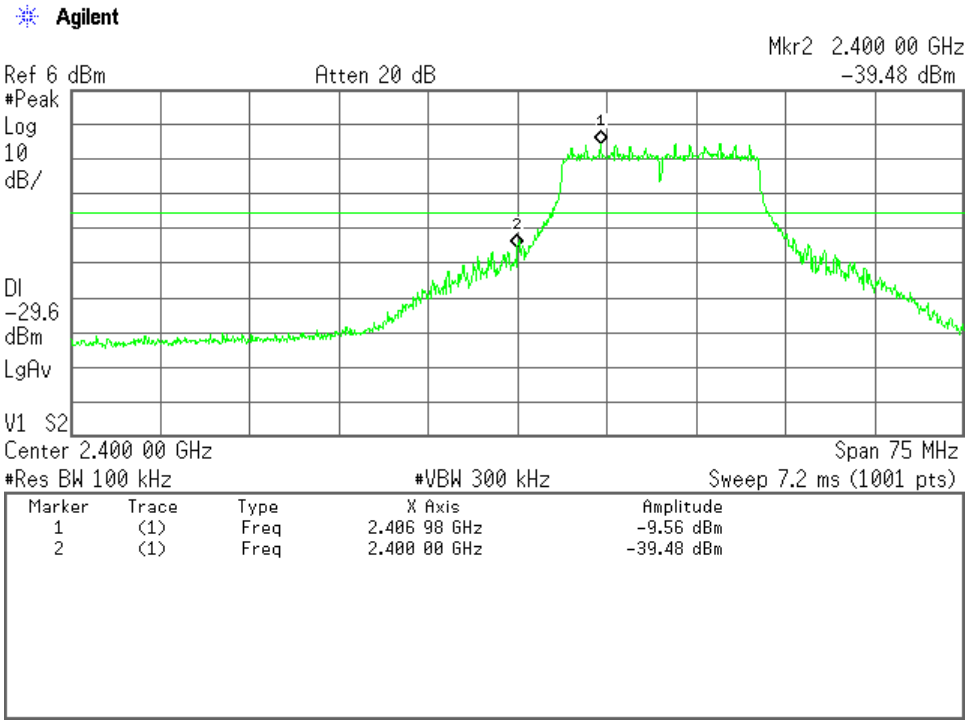


High Channel

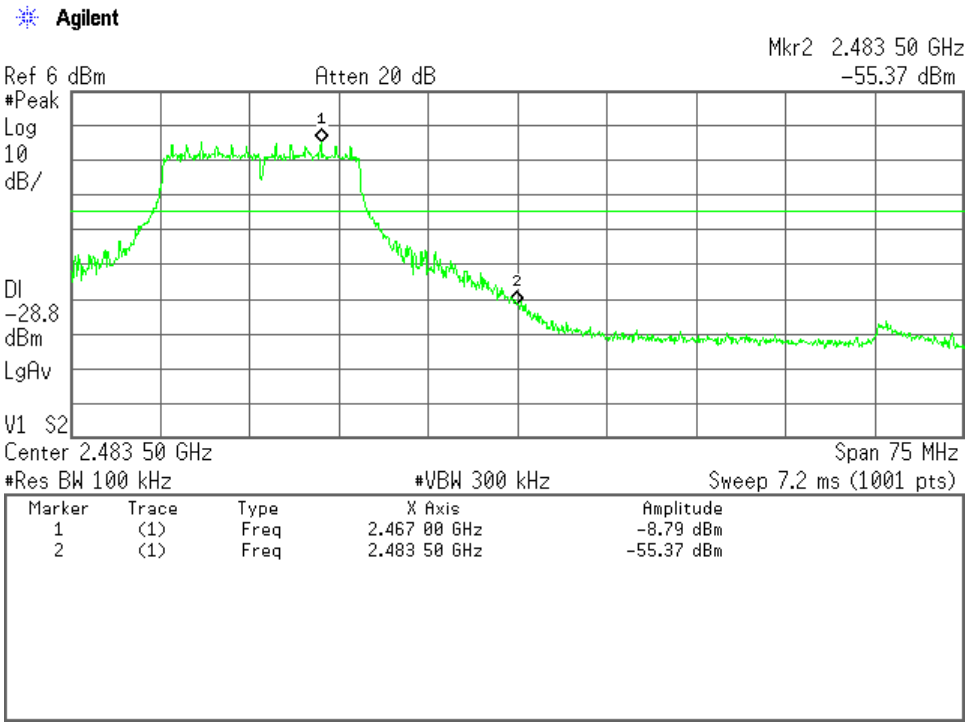


3)Data Rate : 6Mbps(IEEE 802.11g)

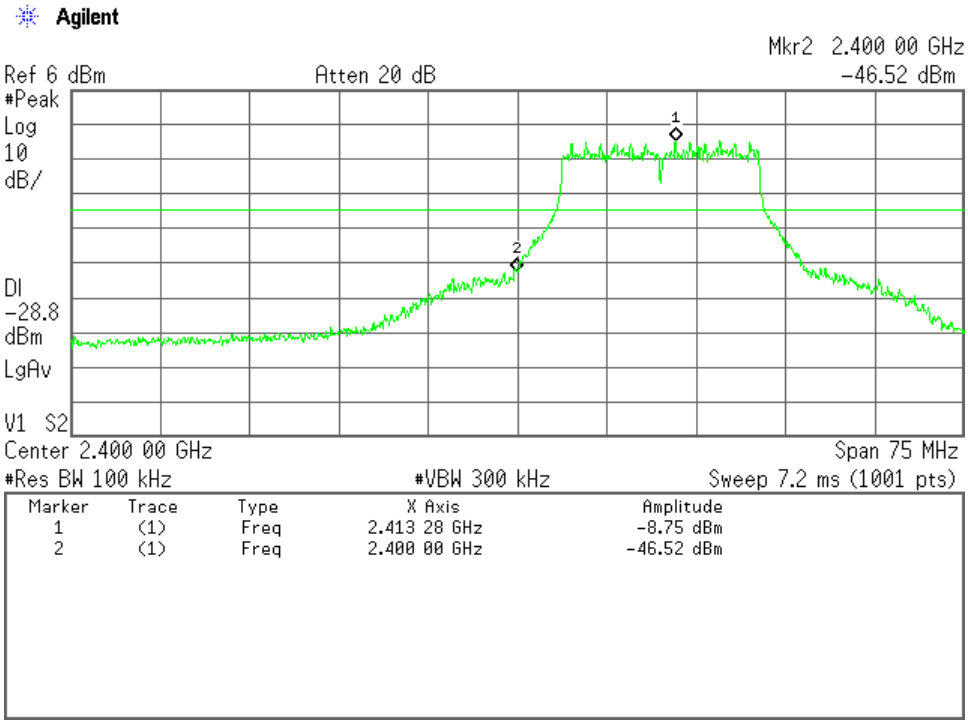
Low Channel



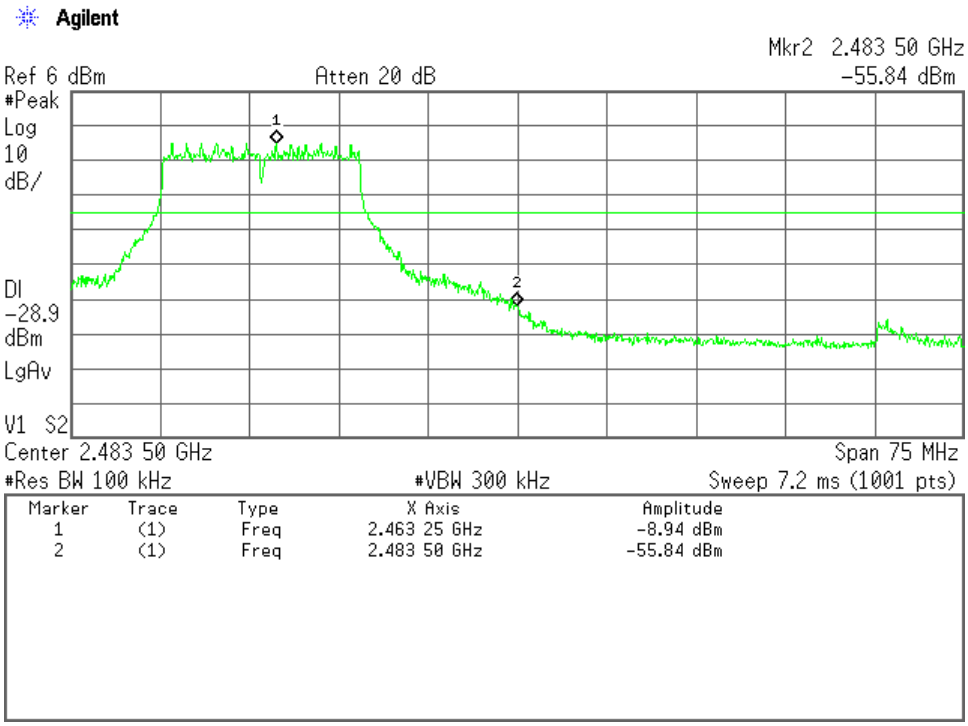
High Channel



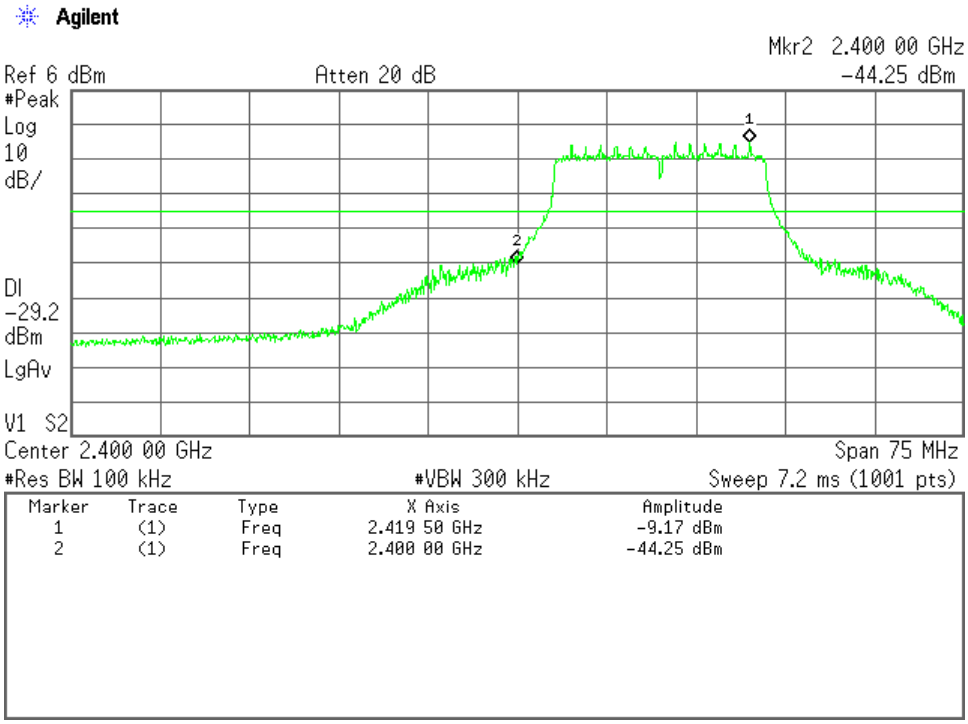
4)Data Rate : 54Mbps(IEEE 802.11g)
Low Channel



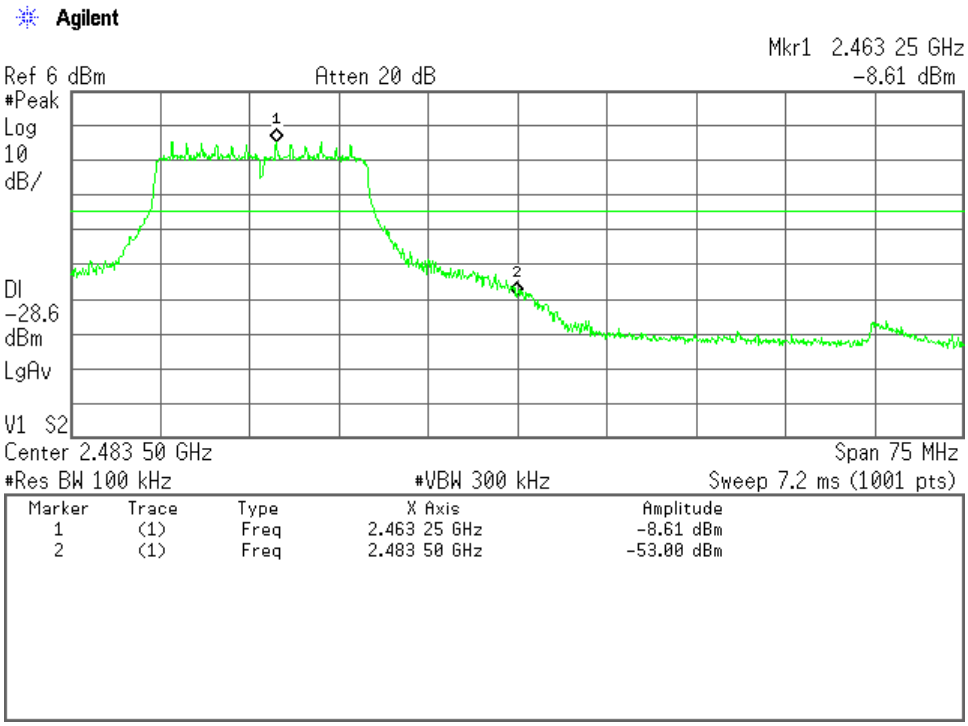
High Channel



5)Data Rate : 6.5Mbps(IEEE 802.11n)
Low Channel

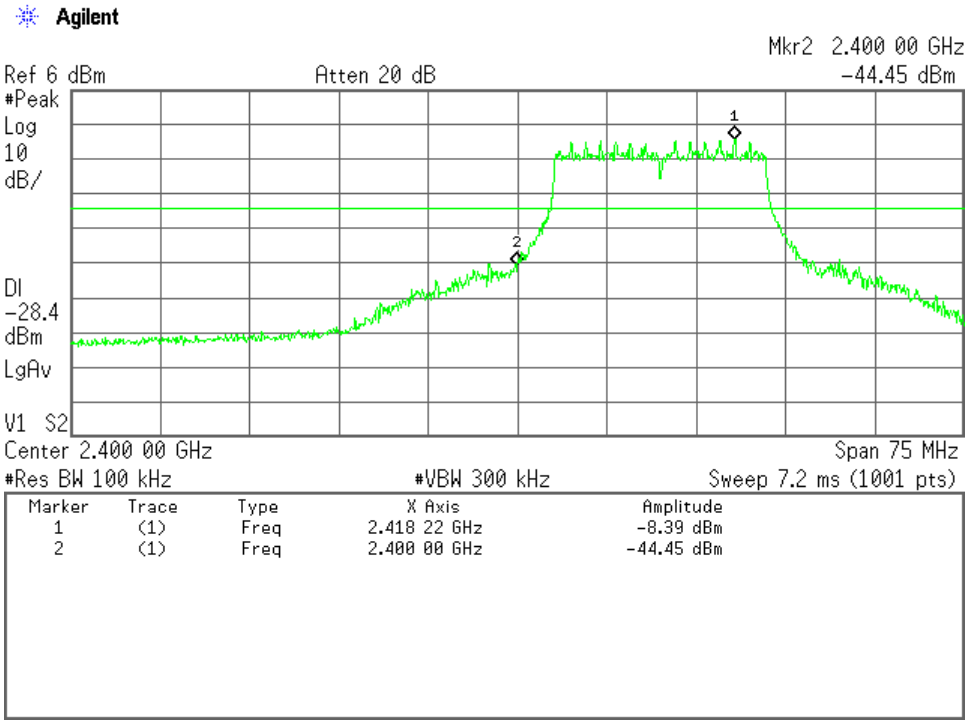


High Channel

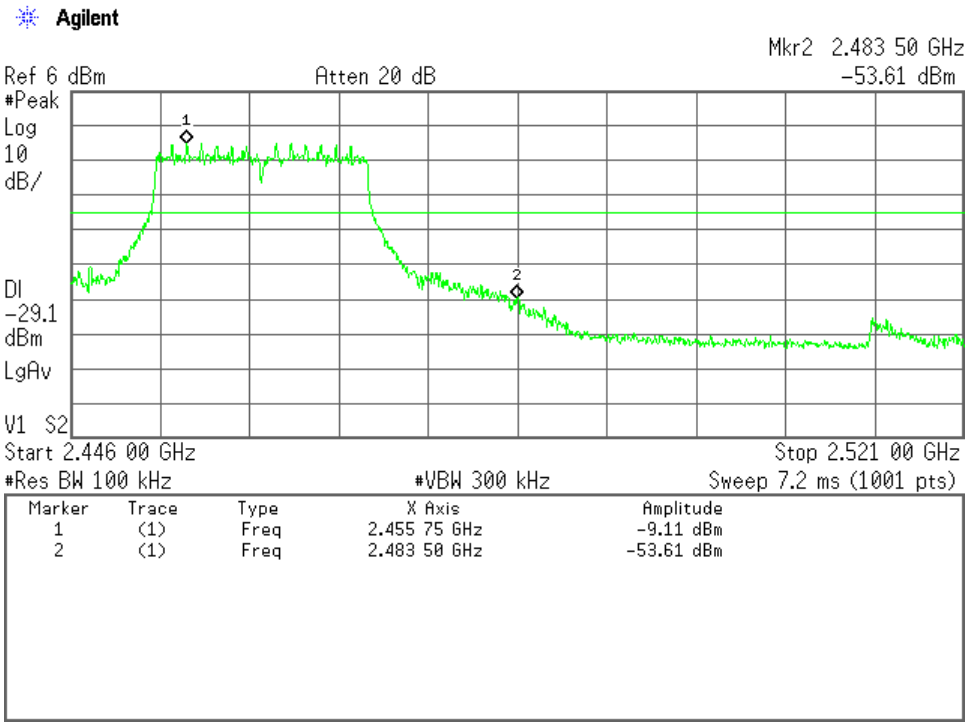


6)Data Rate : 65Mbps(IEEE 802.11n)

Low Channel



High Channel



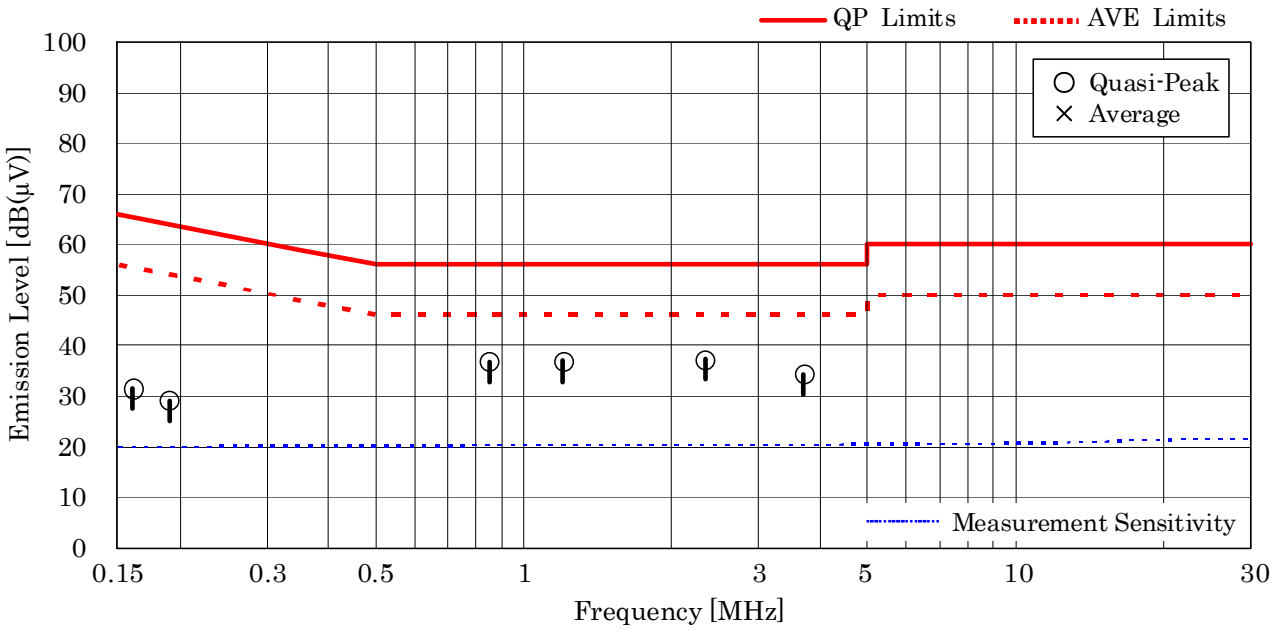
A.8 AC Powerline Conducted Emission

Mode of EUT : All modes have been investigated and the worst case mode for channel (06ch: 2437MHz / IEEE 802.11b, IEEE 802.11g and IEEE 802.11n) has been listed.

Test condition : 106SH / W LAN

Test Date: April 27, 2012
Temp.: 20 °C, Humi.: 30 %

Frequency	Corr. Factor	Meter Readings [dB(μV)] VA		VB		Limits [dB(μV)]		Results [dB(μV)]		Margin	Remarks
[MHz]	[dB]	QP	AVE	QP	AVE	QP	AVE	QP	AVE	[dB]	
0.16	10.1	21.4	--	20.3	--	65.5	55.5	31.5	--	+34.0	-
0.19	10.1	19.0	--	18.3	--	64.0	54.0	29.1	--	+34.9	-
0.85	10.3	21.4	--	26.5	--	56.0	46.0	36.8	--	+19.2	-
1.20	10.3	26.6	--	25.2	--	56.0	46.0	36.9	--	+19.1	-
2.34	10.3	16.9	--	26.9	--	56.0	46.0	37.2	--	+18.8	-
3.71	10.3	13.5	--	24.0	--	56.0	46.0	34.3	--	+21.7	-



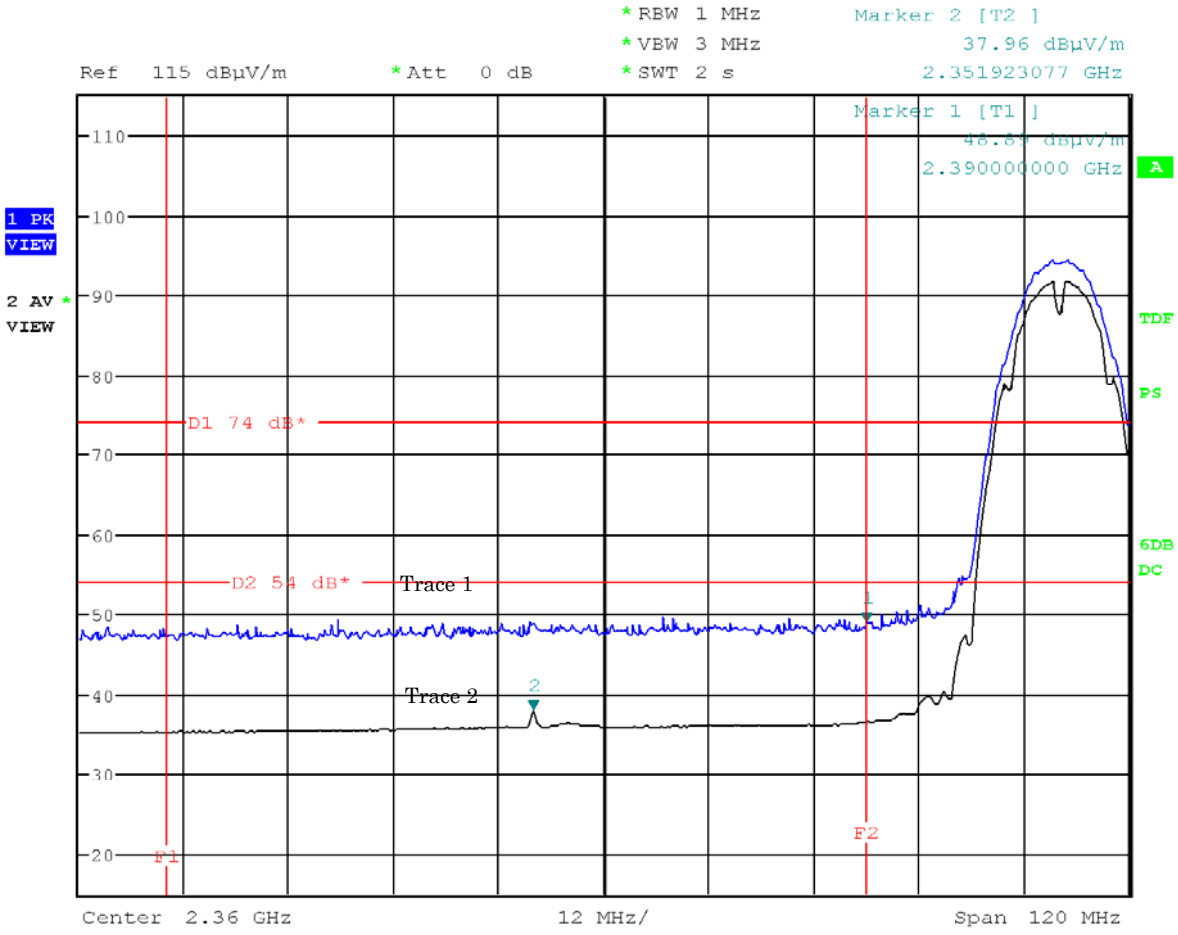
NOTES
1. The spectrum was checked from 0.15 MHz to 30 MHz.
2. The correction factor includes the AMN insertion loss and the cable loss.
3. The symbol of "<" means "or less".
4. The symbol of ">" means "more than".
5. The symbol of "--" means "not applicable".
6. Calculated result at 2.34 MHz, as the worst point shown on underline:
   Correction Factor + Meter Reading = 10.3 + 26.9 = 37.2 dB(μV)
7. QP : Quasi-Peak Detector / AVE : Average Detector
8. Test receiver setting(s) : CISPR QP 9 kHz / Average 9 kHz

A.9 Field Strength of Spurious Radiation

A.9.1 Band-edge Compliance

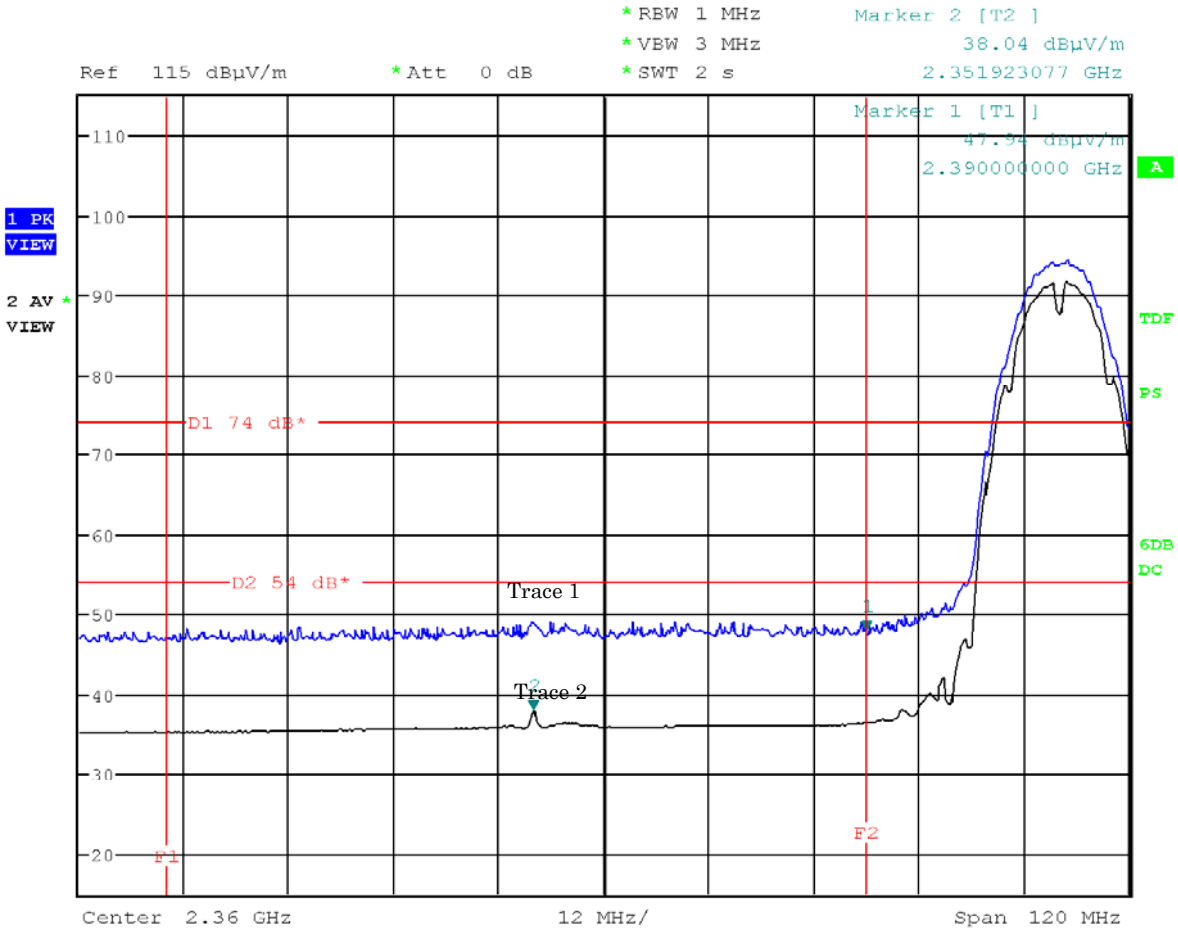
Test Date : May 8, 2012
Temp.:23°C, Humi:41%

Mode of EUT : TX(1ch: 2412 MHz, data rate : 1Mbps(IEEE 802.11b))
Antenna Polarization : Horizontal



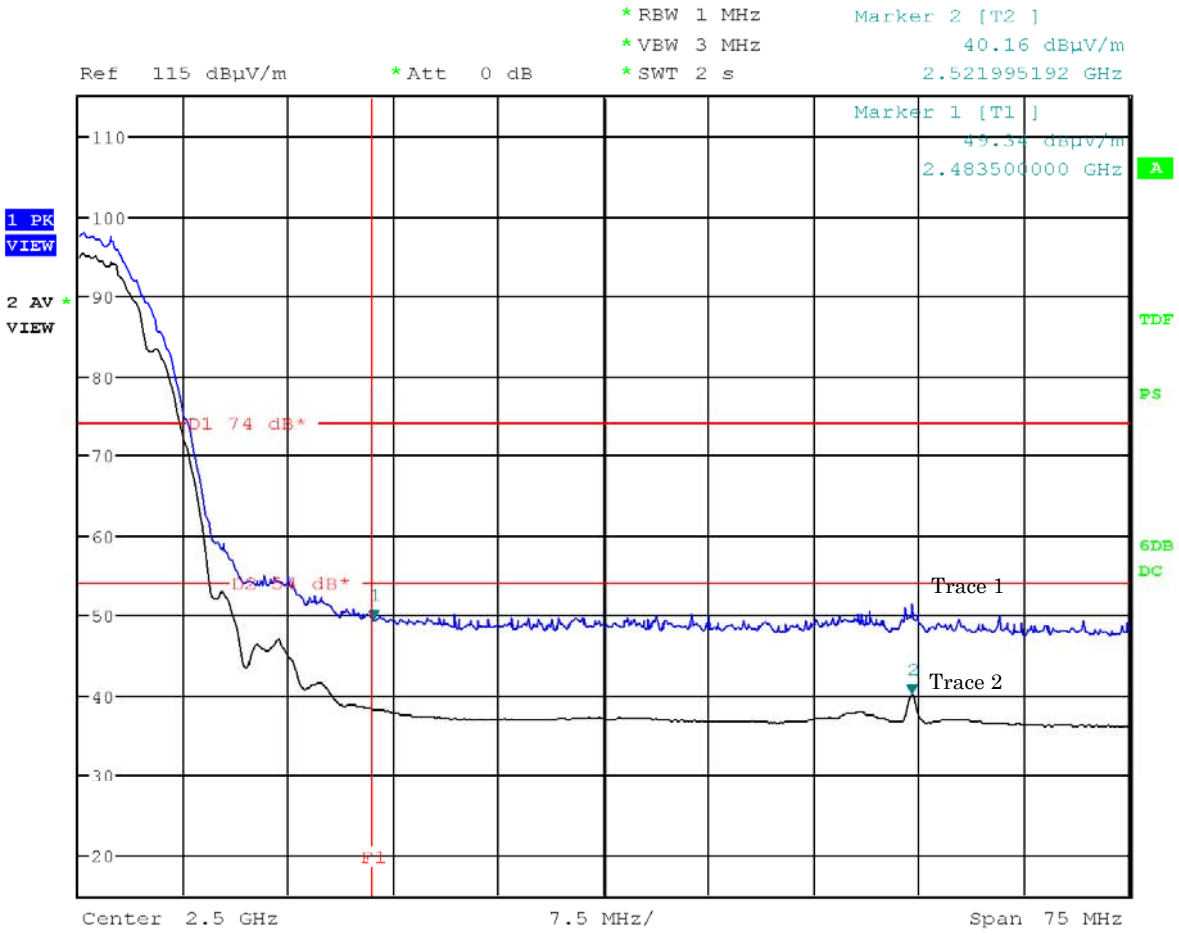
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 1Mbps(IEEE 802.11b))
Antenna Polarization : Vertical



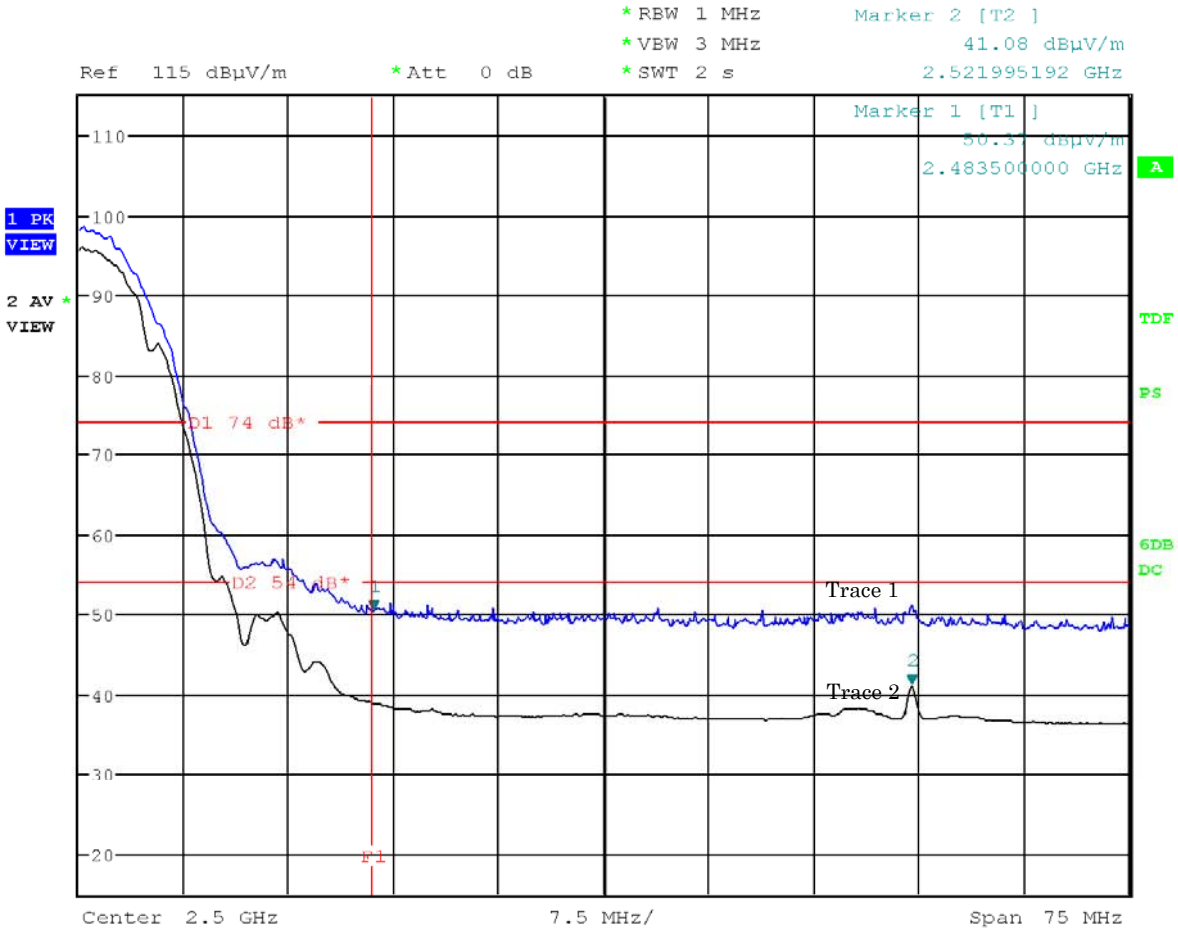
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 1Mbps(IEEE 802.11b))
Antenna Polarization : Horizontal



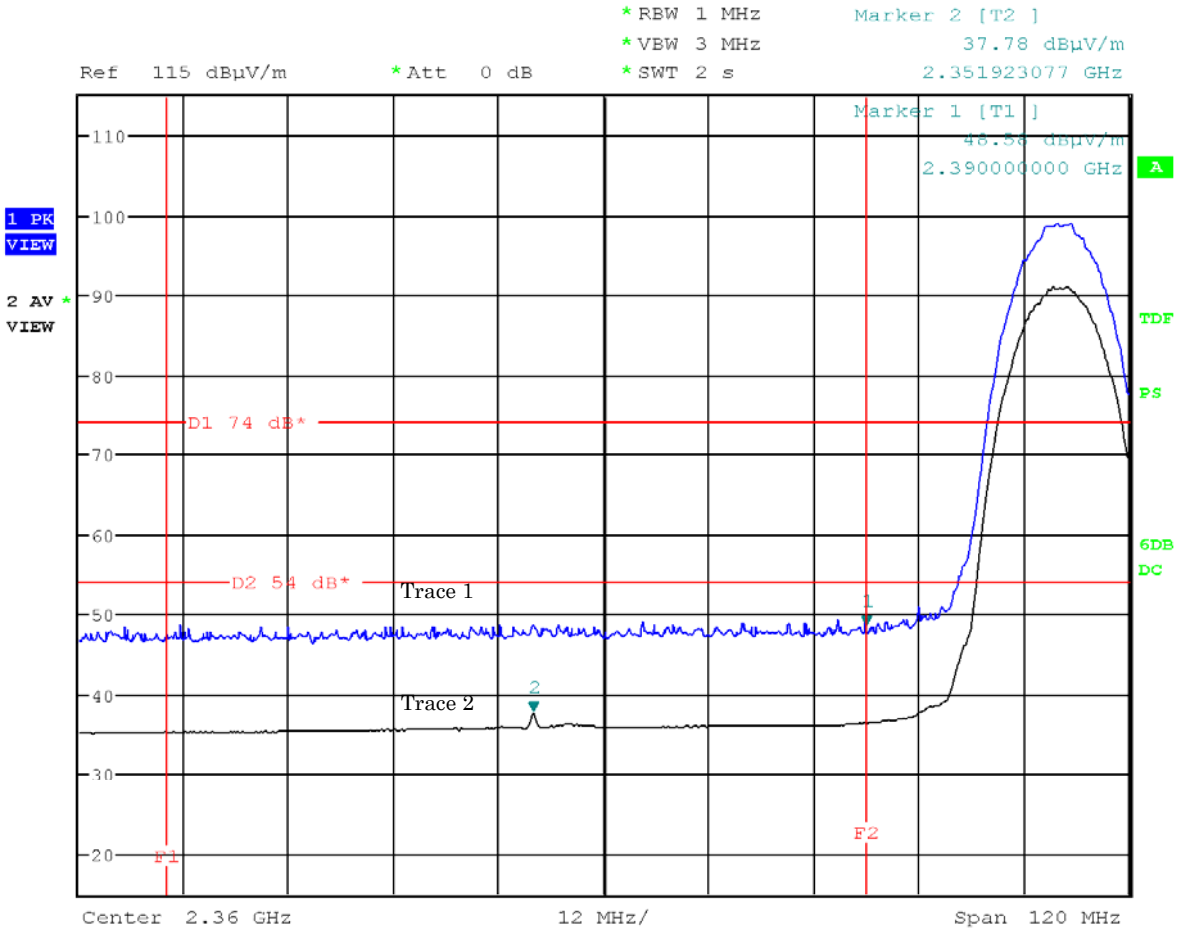
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 1Mbps(IEEE 802.11b))
Antenna Polarization : Vertical



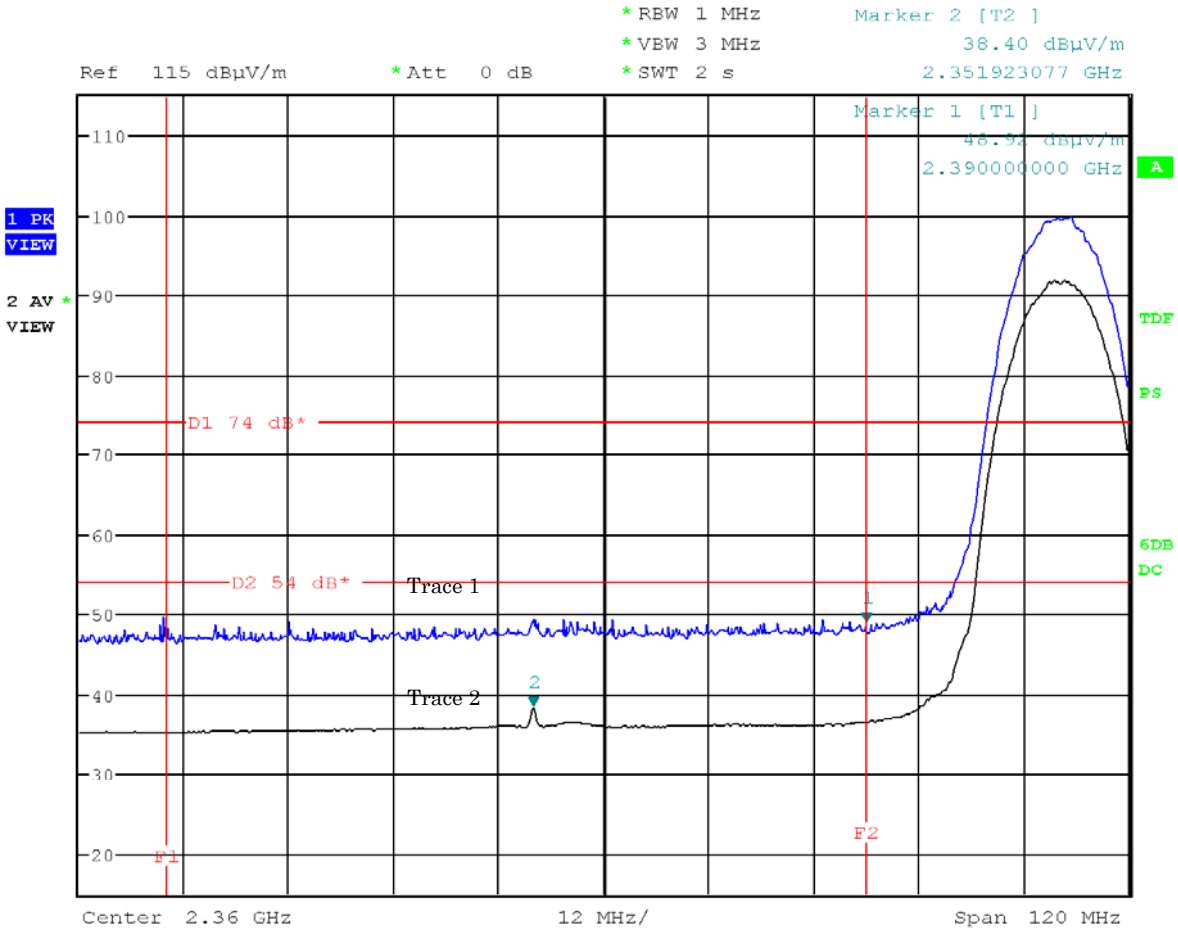
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 11Mbps(IEEE 802.11b))
Antenna Polarization : Horizontal



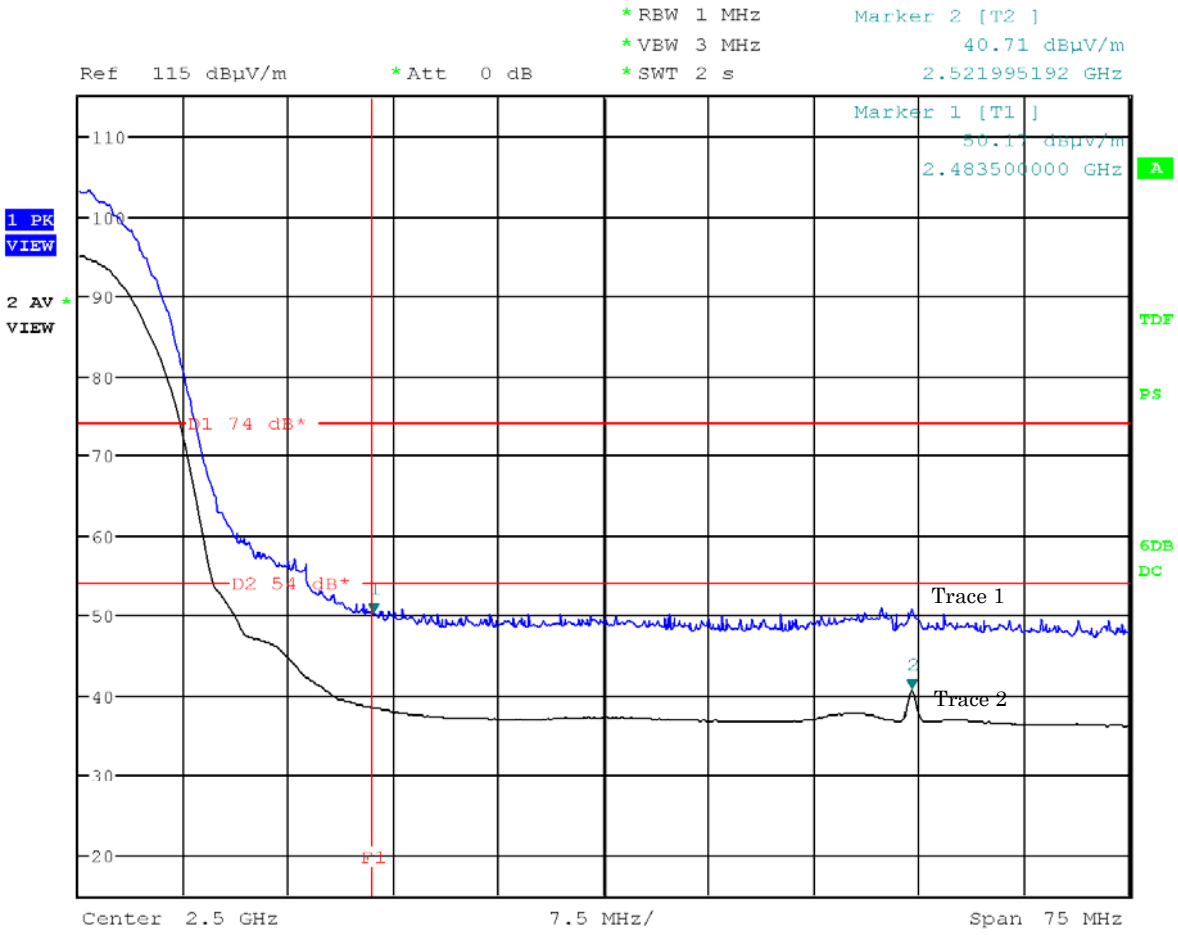
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 11Mbps(IEEE 802.11b))
Antenna Polarization : Vertical



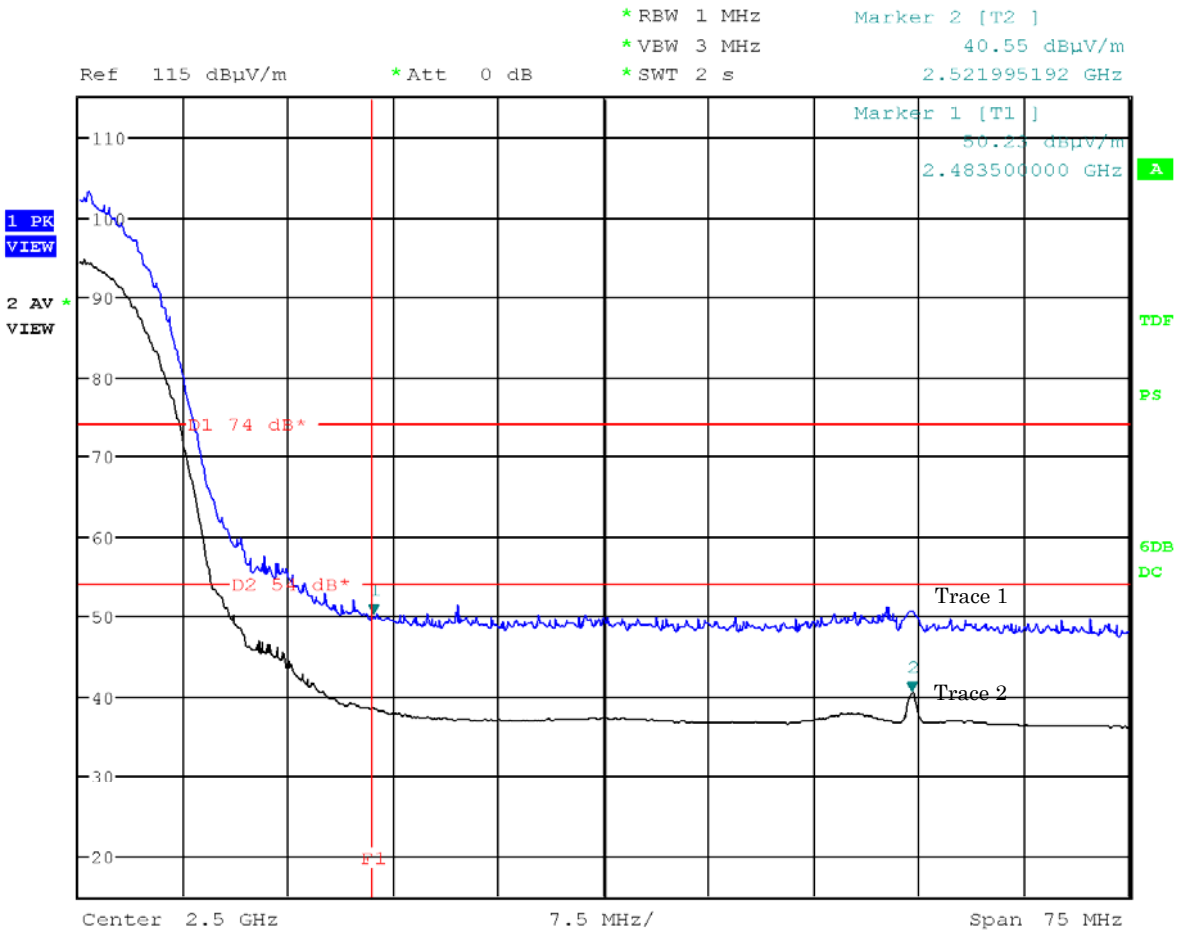
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 11Mbps(IEEE 802.11b))
Antenna Polarization : Horizontal



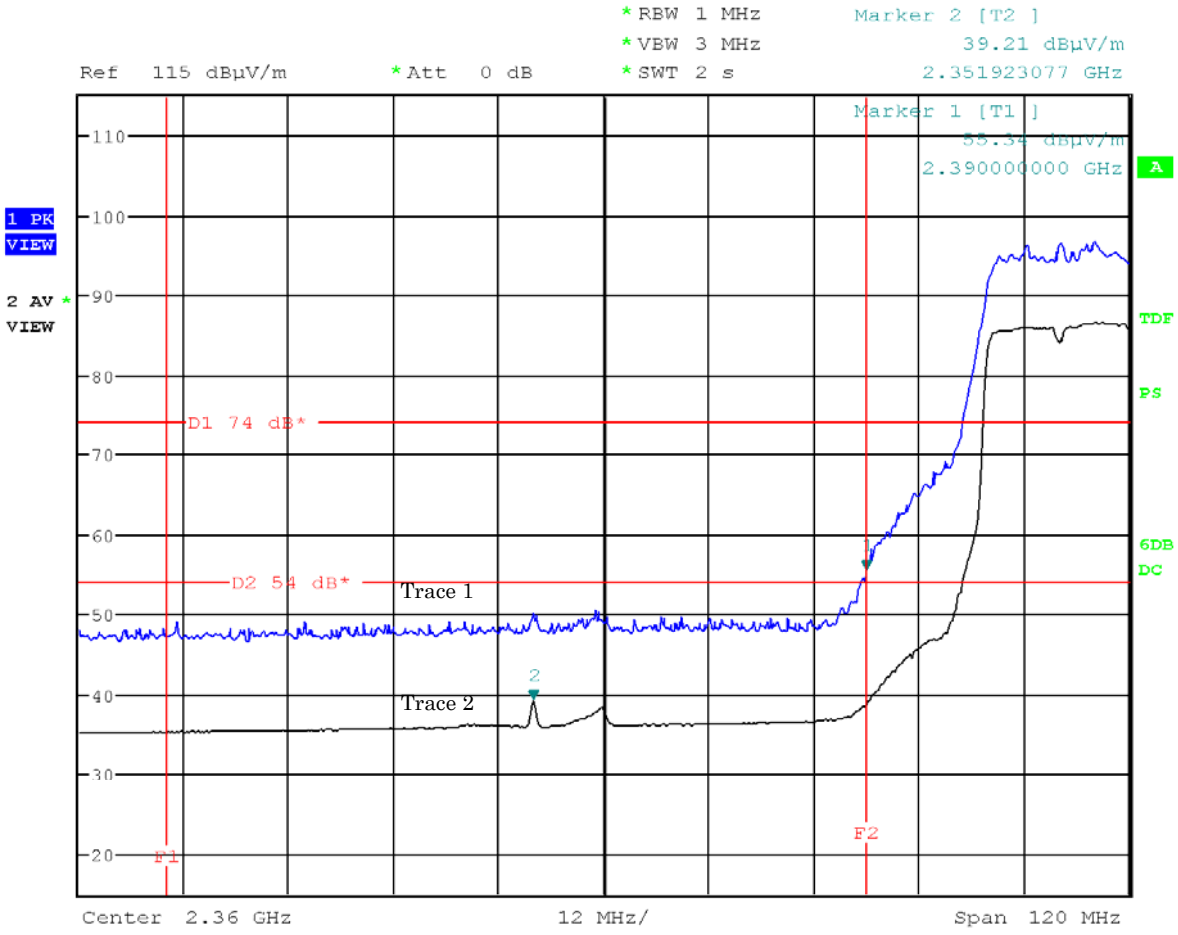
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 11Mbps(IEEE 802.11b))
Antenna Polarization : Vertical



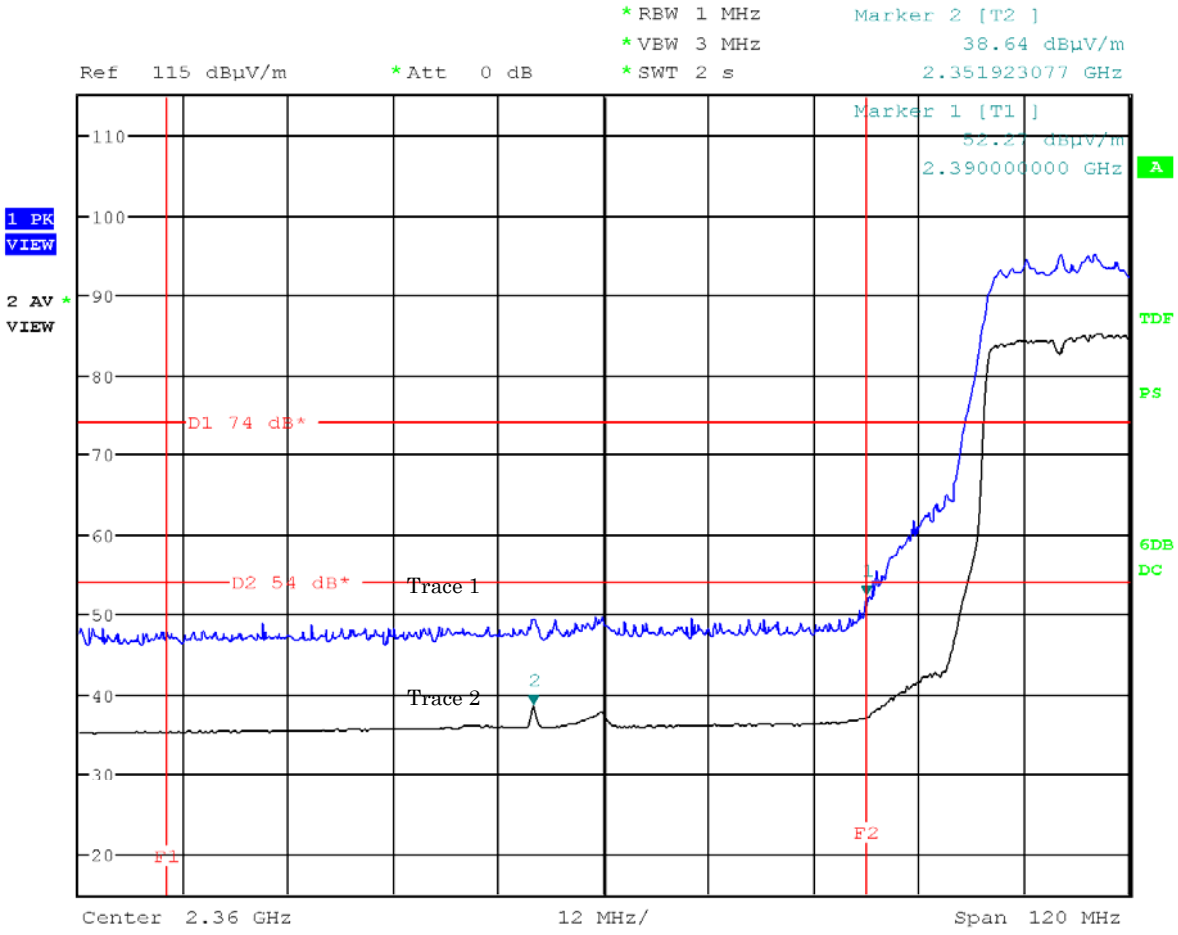
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 6Mbps(IEEE 802.11g))
Antenna Polarization : Horizontal



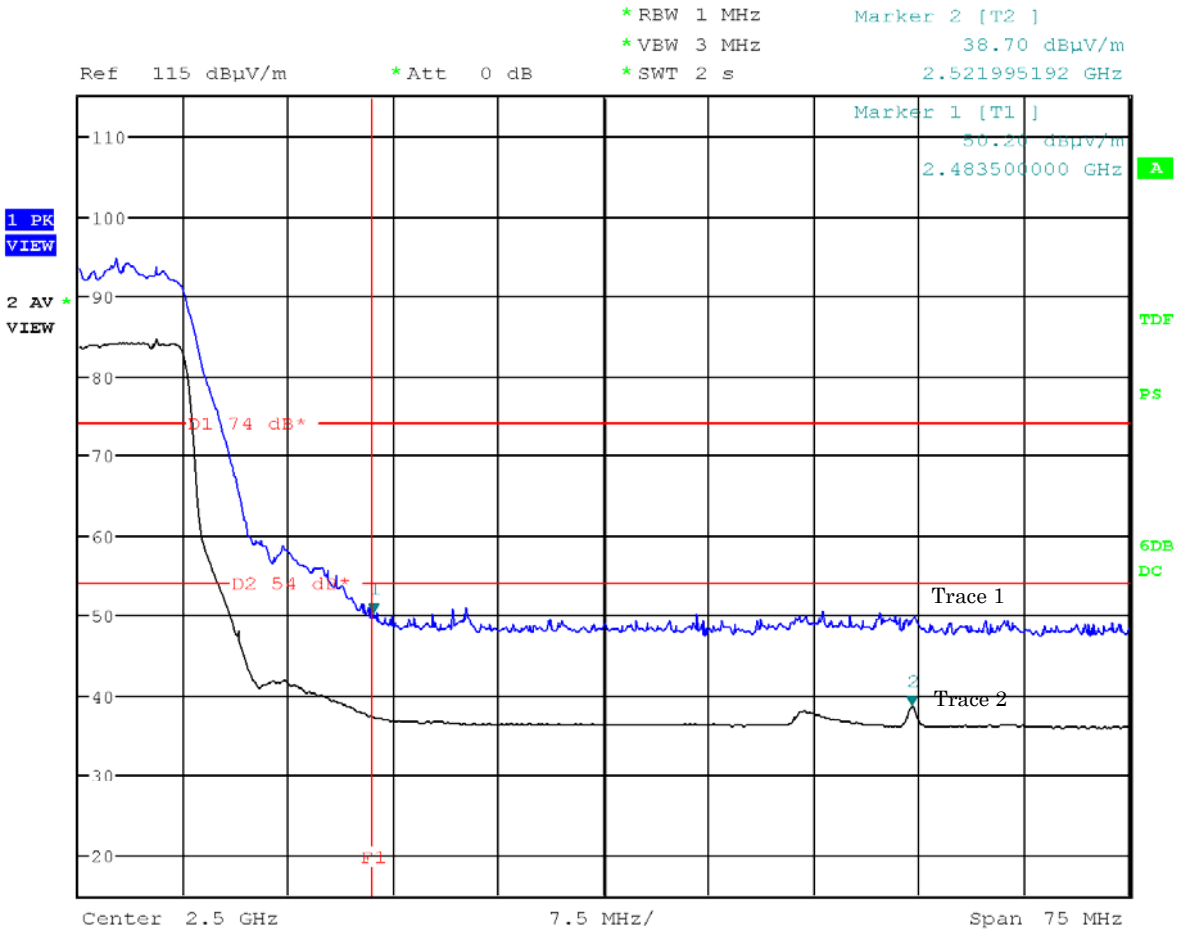
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 6Mbps(IEEE 802.11g))
Antenna Polarization : Vertical



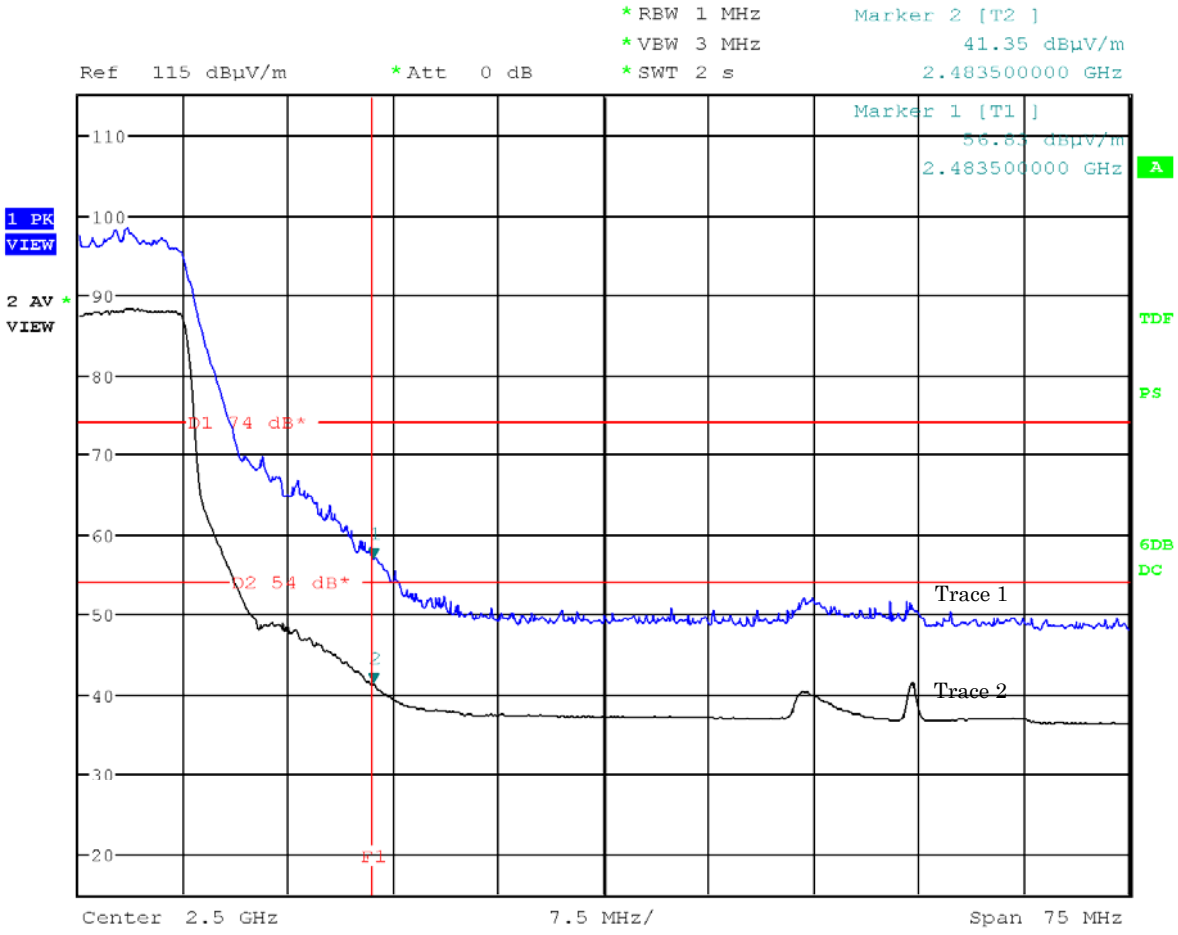
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 6Mbps(IEEE 802.11g))
Antenna Polarization : Horizontal



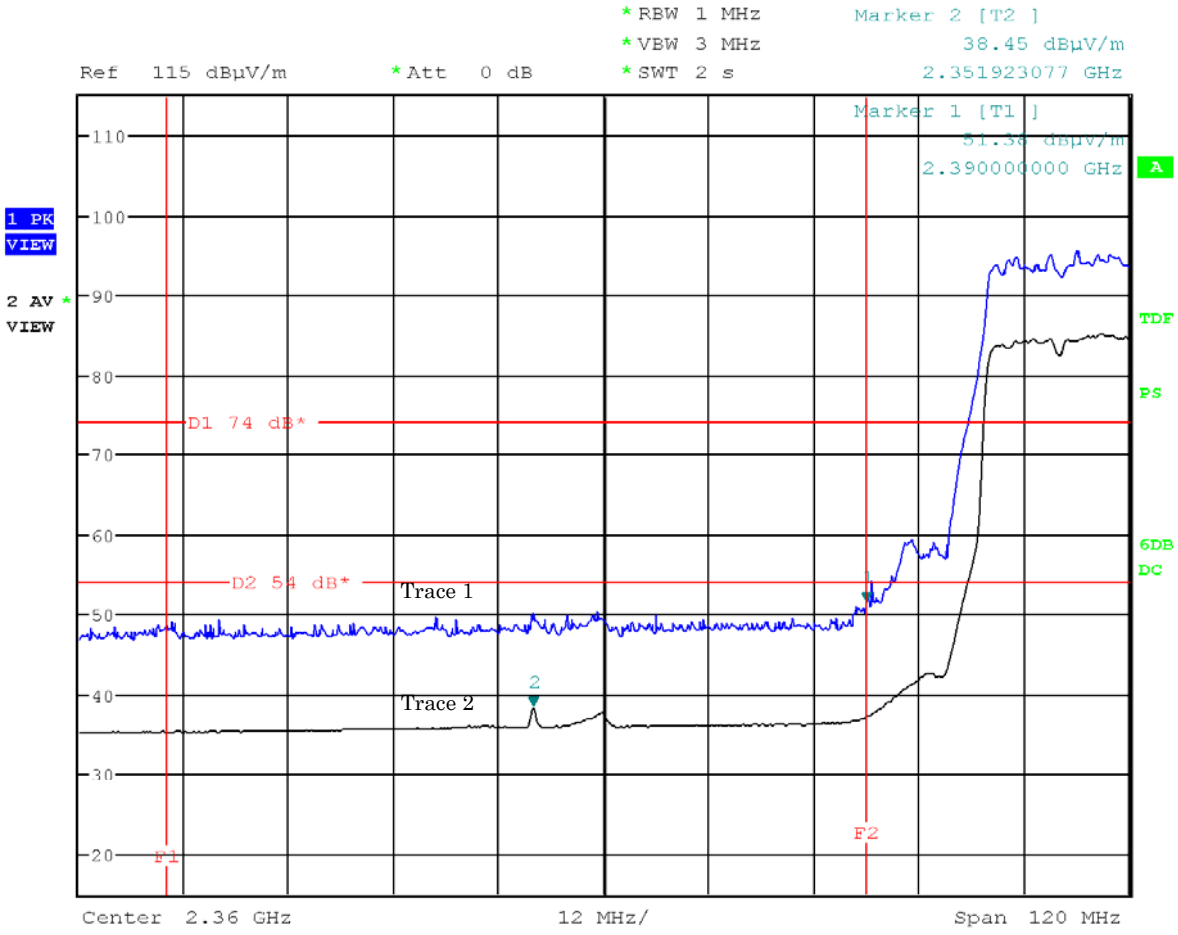
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 6Mbps(IEEE 802.11g))
Antenna Polarization : Vertical



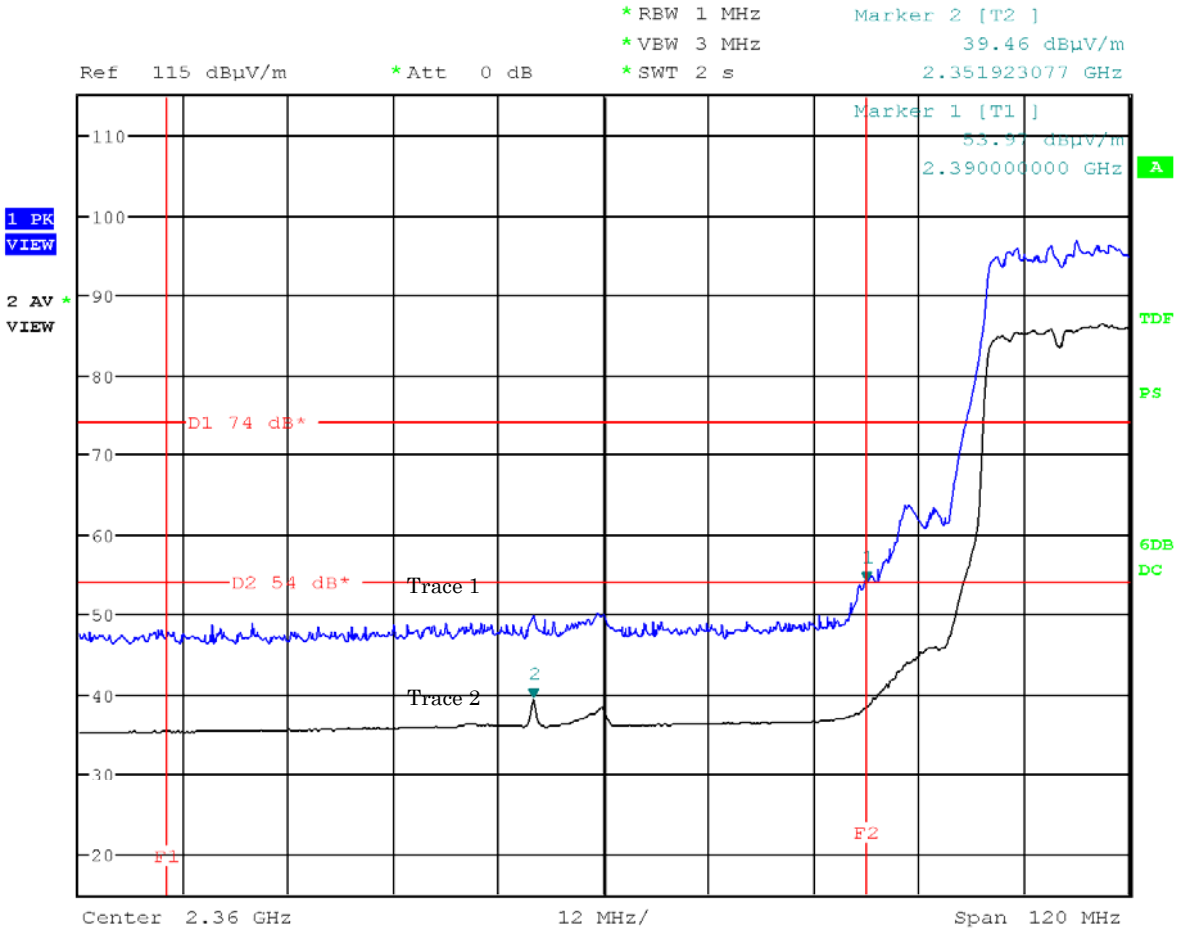
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 54Mbps(IEEE 802.11g))
Antenna Polarization : Horizontal



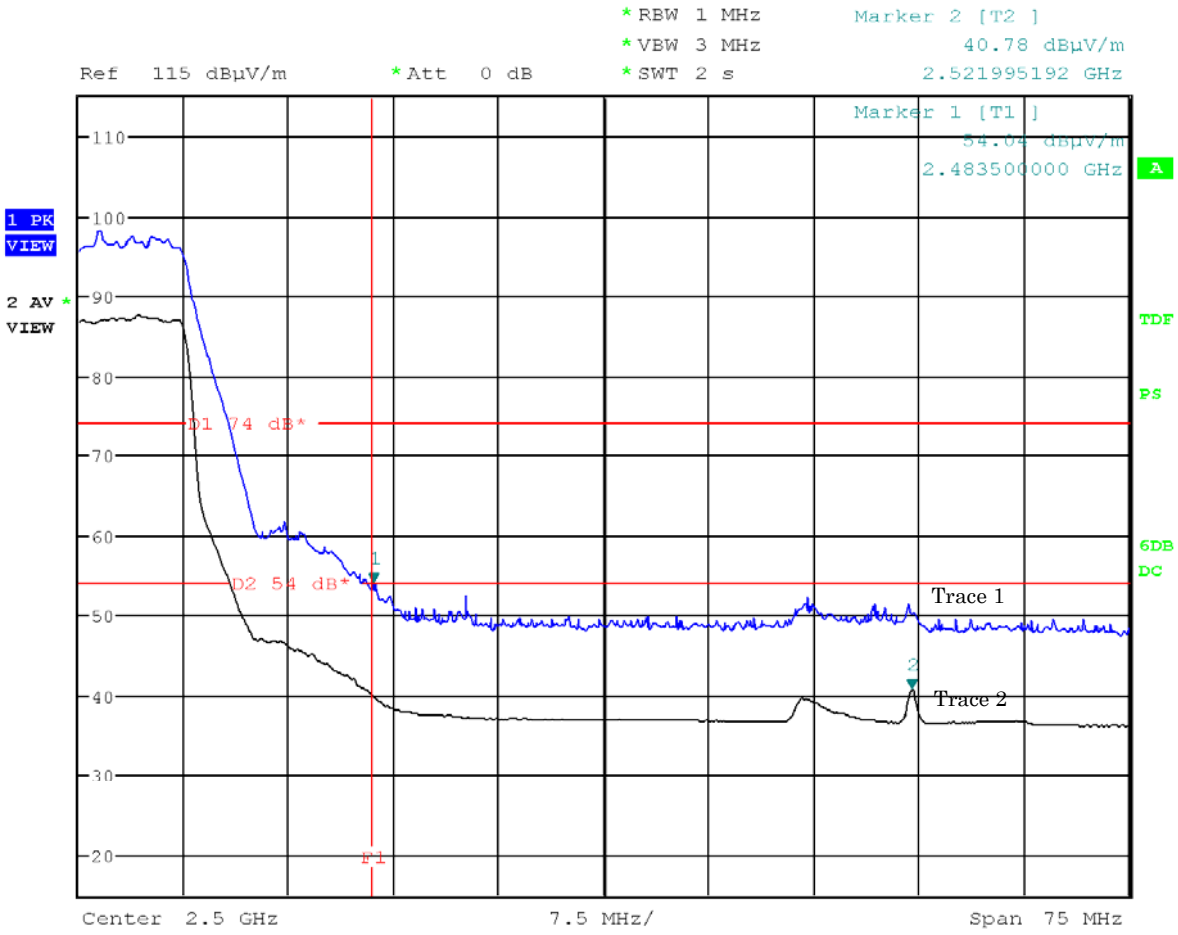
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 54Mbps(IEEE 802.11g))
Antenna Polarization : Vertical



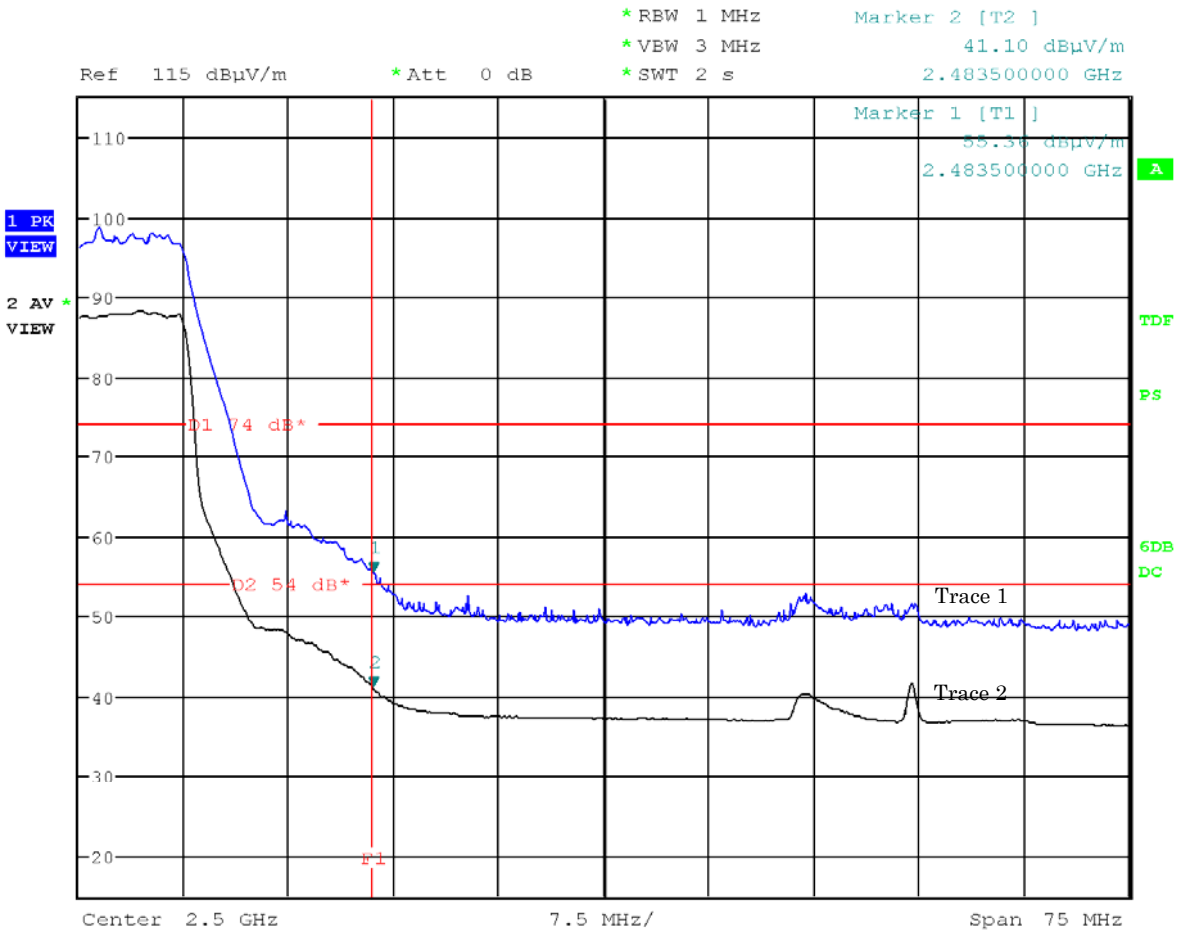
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 54Mbps(IEEE 802.11g))
Antenna Polarization : Horizontal



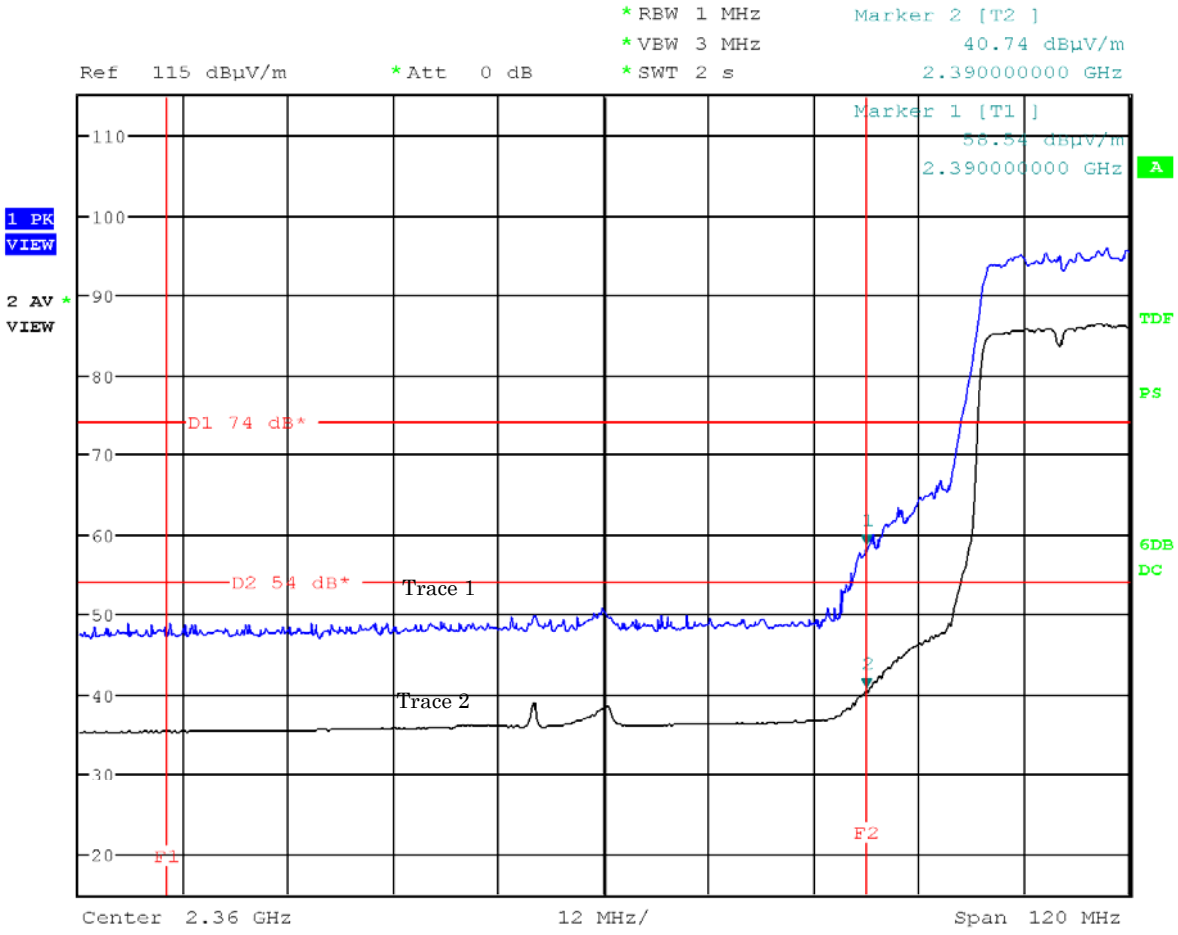
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 54Mbps(IEEE 802.11g))
Antenna Polarization : Vertical



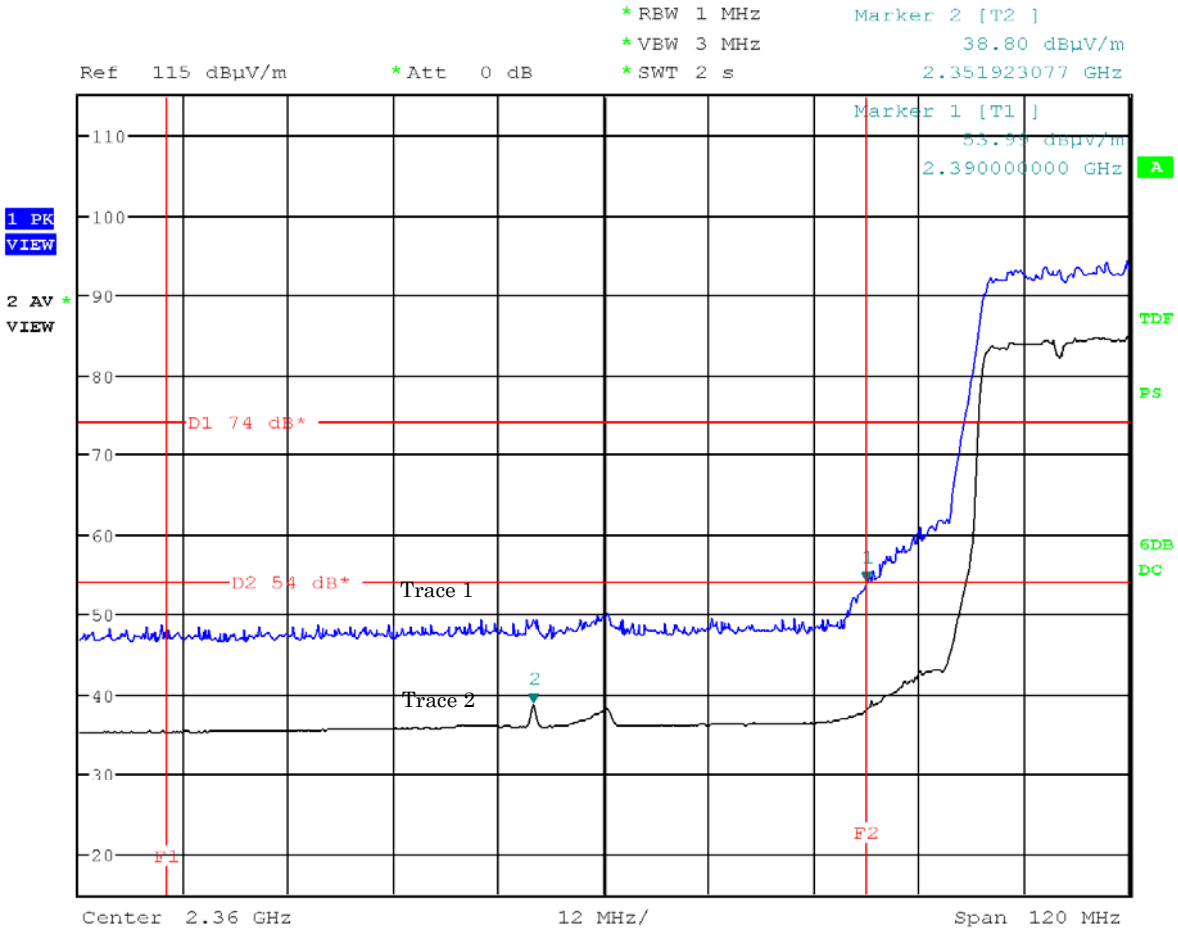
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 6.5Mbps(IEEE 802.11n))
Antenna Polarization : Horizontal



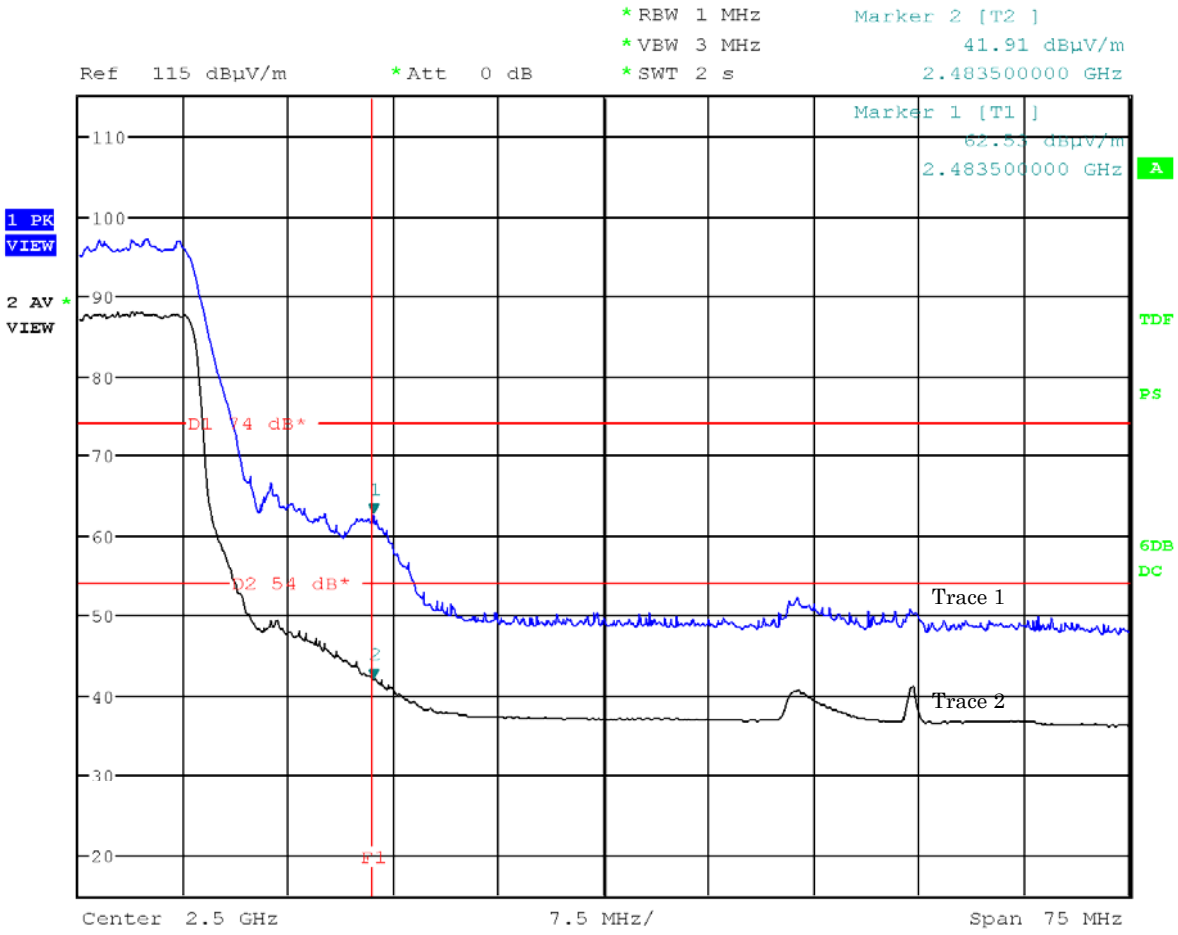
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 6.5Mbps(IEEE 802.11n))
Antenna Polarization : Vertical



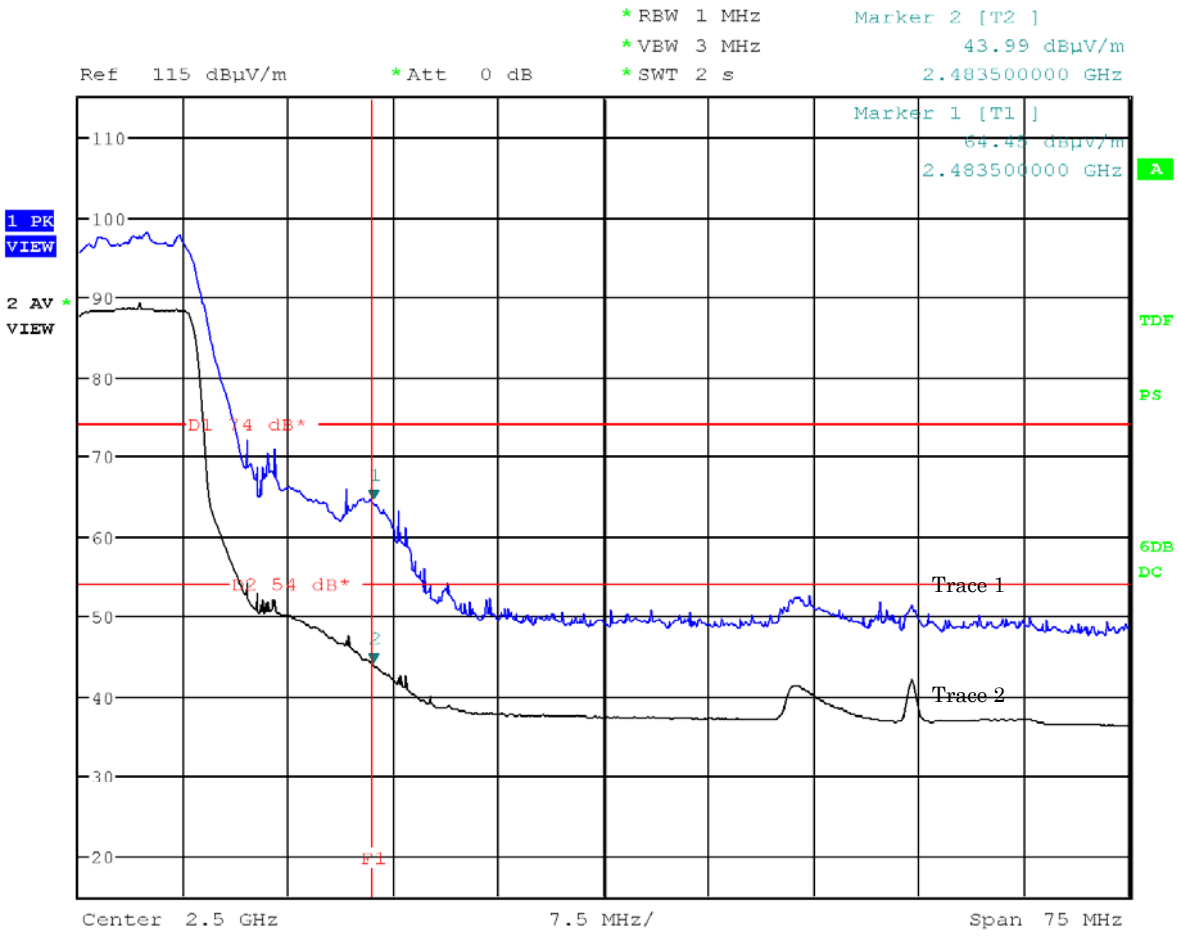
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 6.5Mbps(IEEE 802.11n))
Antenna Polarization : Horizontal



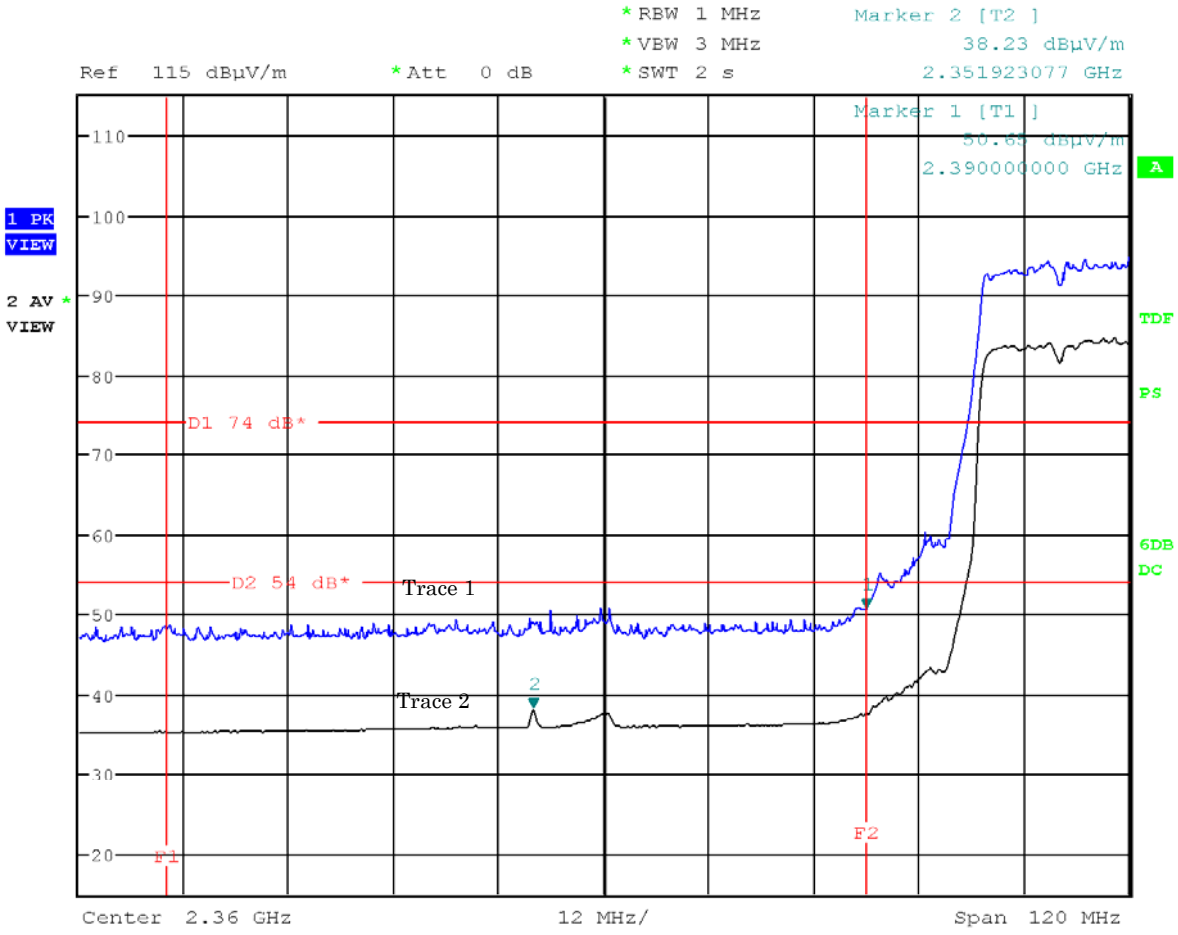
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 6.5Mbps(IEEE 802.11n))
Antenna Polarization : Vertical



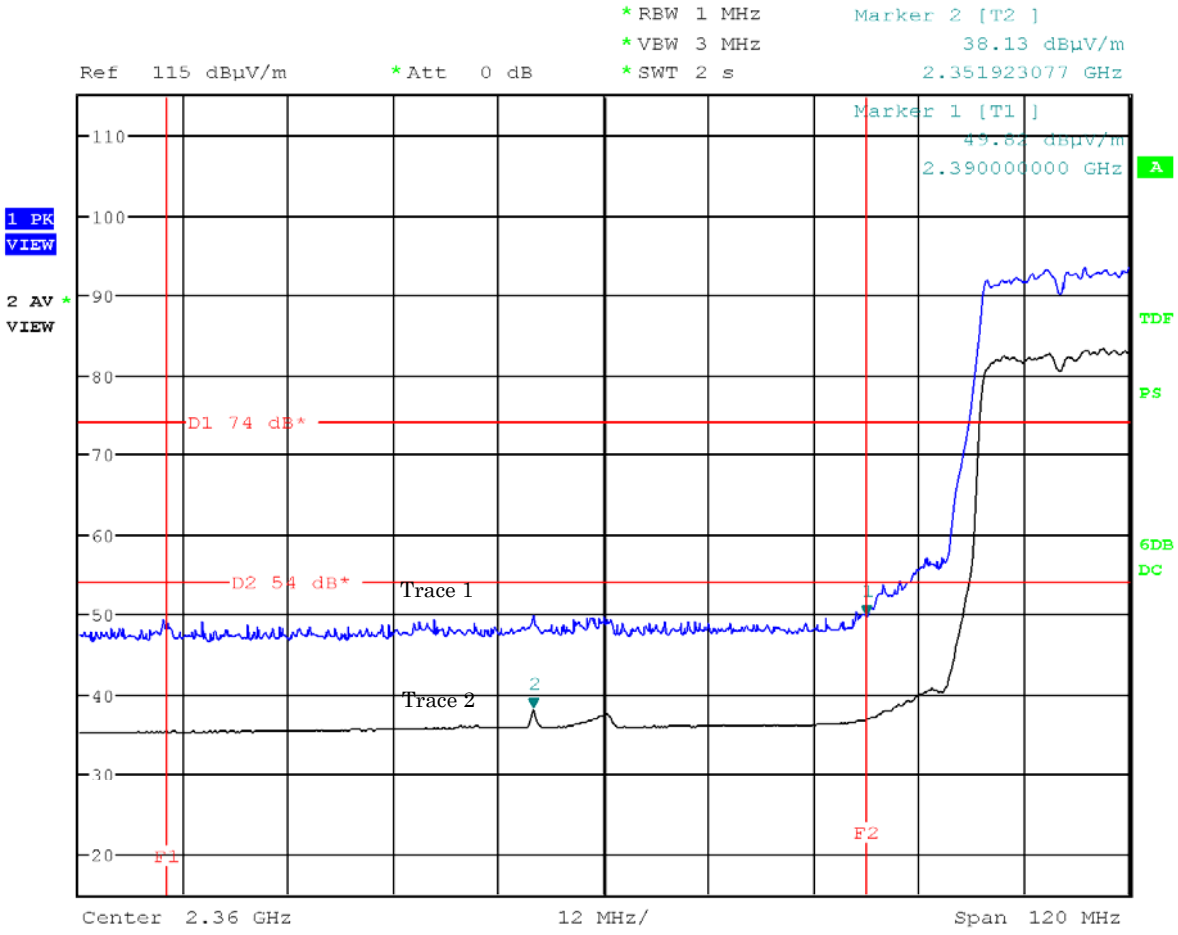
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 65Mbps(IEEE 802.11n))
Antenna Polarization : Horizontal



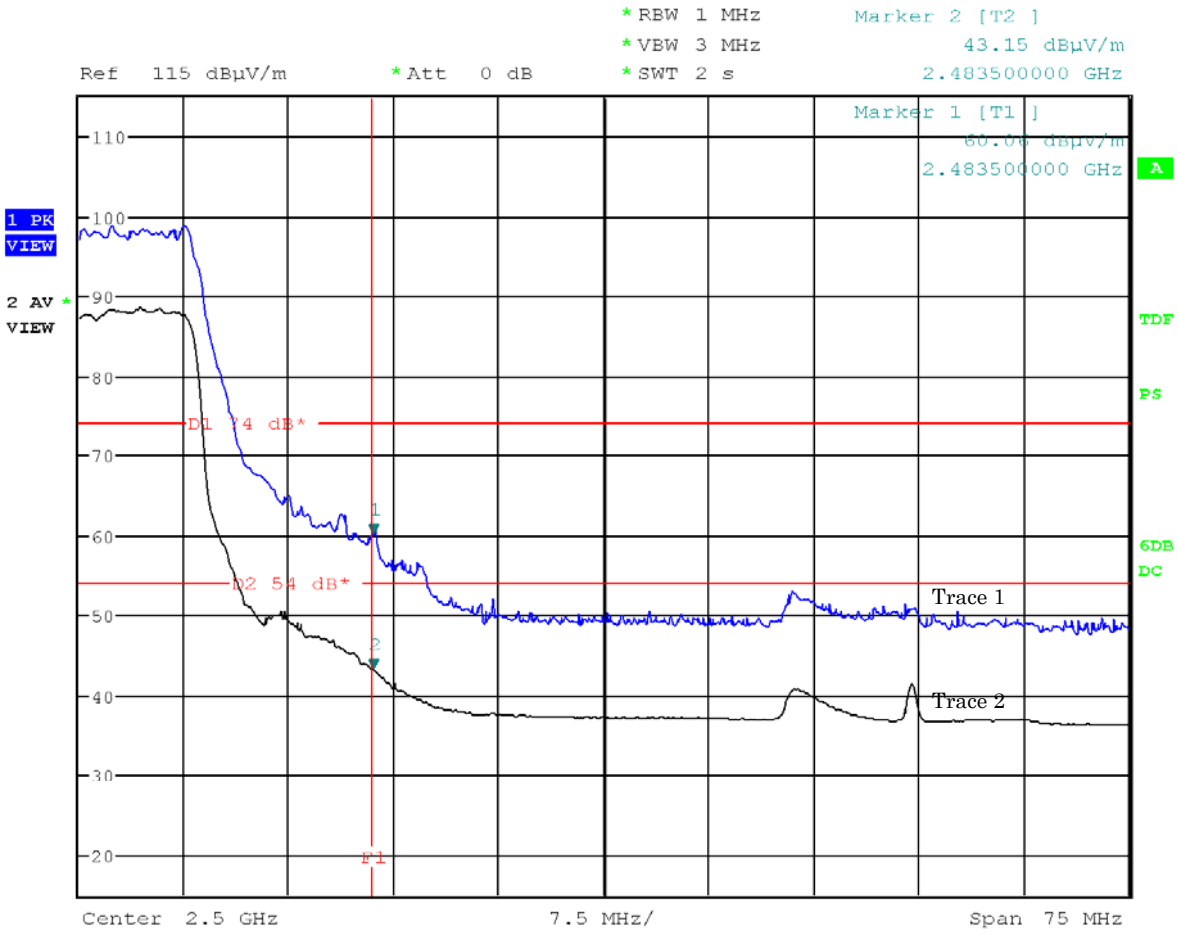
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(1ch: 2412 MHz, data rate : 65Mbps(IEEE 802.11n))
Antenna Polarization : Vertical



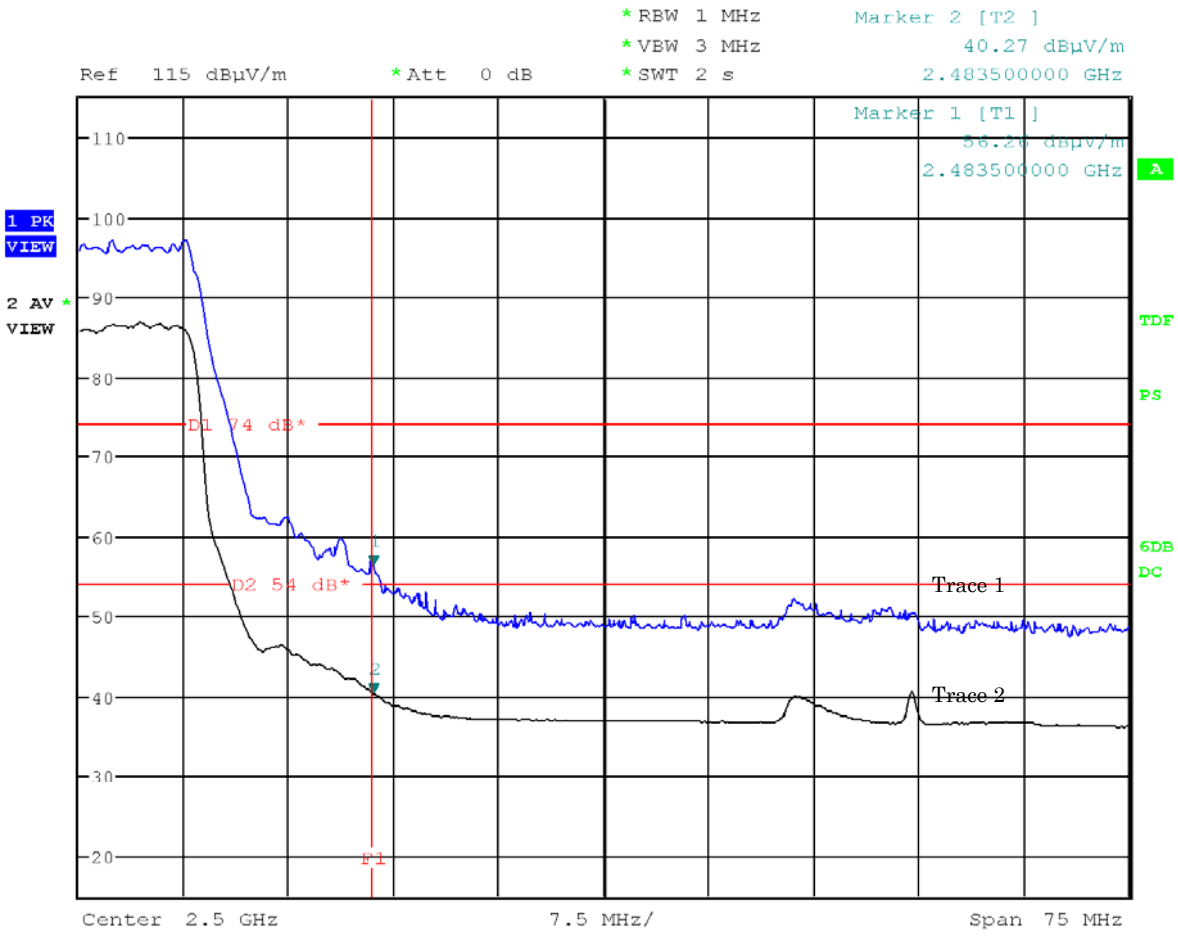
Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 65Mbps(IEEE 802.11n))
Antenna Polarization : Horizontal



Note: The trace 1 is Peak detection. The trace 2 is Average detection.

Mode of EUT : TX(11ch: 2462 MHz, data rate : 65Mbps(IEEE 802.11n))
Antenna Polarization : Vertical



Note: The trace 1 is Peak detection. The trace 2 is Average detection.

A.9.2 Other Spurious Emission

A.9.2.1 Other Spurious Emission(9kHz – 30MHz)

Test Date : April 27, 2012
Temp.:20°C, Humi:40%

Mode of EUT : All modes have been investigated and the worst case mode for channel (06ch: 2437MHz / IEEE802.11b, IEEE802.11g and IEEE802.11n) has been listed.

Results : No spurious emissions in the range 20dB below the limit.

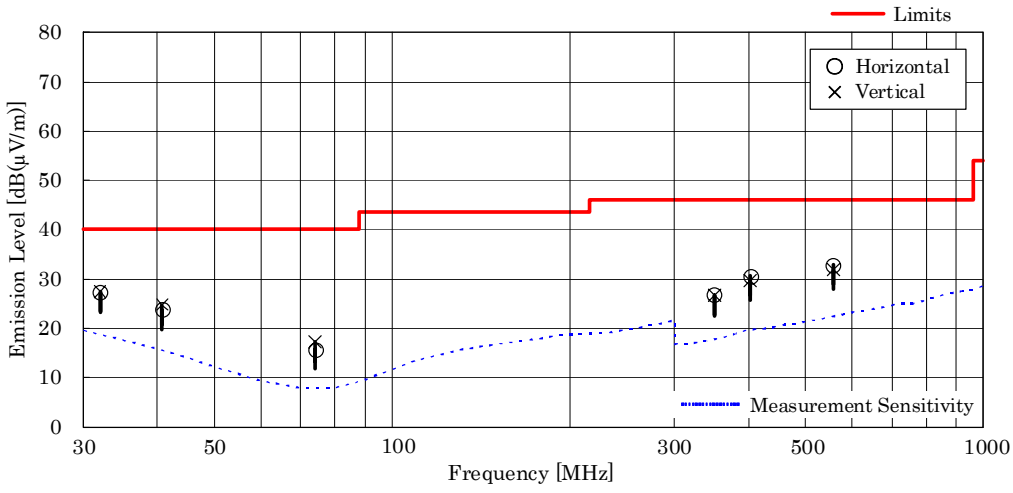
A.9.2.2 Other Spurious Emission(30MHz – 1000MHz)

Mode of EUT : All modes have been investigated and the worst case mode for channel (06ch: 2437MHz / IEEE802.11b, IEEE802.11g and IEEE802.11n) has been listed.

Test Date: April 27, 2012
Temp.: 20 °C, Humi: 40 %

Test condition : 106SH / W LAN

Frequency [MHz]	Antenna Factor [dB(1/m)]	Cable Loss [dB]	Meter Readings [dB(μV)] Hori.	Meter Readings [dB(μV)] Vert.	Limits [dB(μV/m)]	Results [dB(μV/m)] Hori.	Results [dB(μV/m)] Vert.	Margin [dB]	Remarks
32.0	17.9	0.9	8.4	8.7	40.0	27.2	27.5	+12.5	-
40.8	14.6	1.0	8.2	9.2	40.0	23.8	24.8	+15.2	-
74.1	6.6	1.3	7.8	9.3	40.0	15.7	17.2	+22.8	-
350.2	14.7	3.1	8.9	8.8	46.0	26.7	26.6	+19.3	-
403.2	16.4	3.4	10.8	9.8	46.0	30.6	29.6	+15.4	-
556.8	18.5	3.9	10.4	9.5	46.0	32.8	31.9	+13.2	-



NOTES
1. Test Distance : 3 m
2. The spectrum was checked from 30 MHz to 1000 MHz.
3. The symbol of "<" means "or less".
4. The symbol of ">" means "more than".
5. Calculated result at 32.0 MHz, as the worst point shown on underline:
   Antenna Factor + Cable Loss + Meter Reading = 17.9 + 0.9 + 8.7 = 27.5 dB(μV/m)
6. Test receiver setting(s) : CISPR QP 120 kHz (QP : Quasi-Peak)

A.9.2.3 Other Spurious Emission(Above 1000MHz)

A.9.2.3.1 Mode of TX

A.9.2.3.1.1. IEEE802.11b

Test Date: May 8, 2012
Temp.: 23 °C, Humi: 41 %

Frequency [MHz]	Antenna Factor [dB(1/m)]	Corr. Factor [dB]	Meter Readings [dB(μV)] Horizontal PK	Horizontal AVE	Vertical PK	Vertical AVE	Limits [dB(μV/m)] PK	Limits AVE	Results [dB(μV/m)] PK	Results AVE	Margin [dB]	Remarks
Test condition : Tx Low Ch												
4824.0	27.3	-21.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.1	< 36.1	> +17.9	A/B
12060.0	33.6	-27.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.4	< 36.4	> +17.6	A/B
19296.0	40.3	-22.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.8	< 47.8	> + 6.2	A/B
Test condition : TX Middle Ch												
4874.0	27.3	-21.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.1	< 36.1	> +17.9	A/B
7311.0	29.9	-19.6	< 40.0	< 30.0	42.1	30.9	74.0	54.0	52.4	41.2	+12.8	A/B
12185.0	33.5	-27.0	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.5	< 36.5	> +17.5	A/B
19496.0	40.2	-22.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.7	< 47.7	> + 6.3	A/B
Test condition : TX High Ch												
4924.0	27.3	-21.3	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.0	< 36.0	> +18.0	A/B
7386.0	29.9	-19.5	< 40.0	< 30.0	41.4	31.8	74.0	54.0	51.8	42.2	+11.8	A/B
12310.0	33.5	-26.8	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.7	< 36.7	> +17.3	A/B
19696.0	40.3	-22.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.7	< 47.7	> + 6.3	A/B
22158.0	40.3	-21.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 58.7	< 48.7	> + 5.3	A/B

Calculated result at 22158.0 MHz, as the worst point shown on underline:

	Antenna Factor	=	40.3 dB(1/m)
	Corr. Factor	=	-21.6 dB
+)	Meter Reading	=	<30.0 dB(μV)
	Result	=	<48.7 dB(μV/m)

Minimum Margin: 54.0 - <48.7 = >5.3 (dB)

NOTES
1. Test Distance : 3 m
2. The spectrum was checked from 1 GHz to 25 GHz (10th harmonic of the highest fundamental frequency).
3. The correction factor is shown as follows:
   Corr. Factor [dB] = Cable Loss + 20dB Pad Att. - Pre-Amp. Gain [dB] (1.0 - 7.6GHz)
   Corr. Factor [dB] = Cable Loss + 10dB Pad Att. - Pre-Amp. Gain [dB] (7.6 - 18.0GHz)
   Corr. Factor [dB] = Cable Loss - Pre-Amp. Gain [dB] (over 18 GHz)
4. The symbol of "<" means "or less".
5. The symbol of ">" means "more than".
6. PK : Peak Detector / AVE : Average Detector
7. Setting of measuring instrument(s) :

	Detector Function	Resolution B.W.	Video B.W.	Sweep Time
A	Peak	1 MHz	1 MHz	AUTO
B	Peak	1 MHz	10 Hz	AUTO

A.9.2.3.1.2 IEEE802.11g

Test Date: May 8, 2012
Temp.: 23 °C, Humi: 41 %

Frequency [MHz]	Antenna Factor [dB(1/m)]	Corr. Factor [dB]	Meter Readings [dB(μV)] Horizontal PK	Horizontal AVE	Vertical PK	Vertical AVE	Limits [dB(μV/m)] PK	Limits AVE	Results [dB(μV/m)] PK	Results AVE	Margin [dB]	Remarks
Test condition : Tx Low Ch												
4824.0	27.3	-21.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.1	< 36.1	> +17.9	A/B
12060.0	33.6	-27.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.4	< 36.4	> +17.6	A/B
19296.0	40.3	-22.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.8	< 47.8	> + 6.2	A/B
Test condition : TX Middle Ch												
4874.0	27.3	-21.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.1	< 36.1	> +17.9	A/B
7311.0	29.9	-19.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 50.3	< 40.3	> +13.7	A/B
12185.0	33.5	-27.0	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.5	< 36.5	> +17.5	A/B
19496.0	40.2	-22.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.7	< 47.7	> + 6.3	A/B
Test condition : TX High Ch												
4924.0	27.3	-21.3	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.0	< 36.0	> +18.0	A/B
7386.0	29.9	-19.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 50.4	< 40.4	> +13.6	A/B
12310.0	33.5	-26.8	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.7	< 36.7	> +17.3	A/B
19696.0	40.3	-22.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.7	< 47.7	> + 6.3	A/B
22158.0	40.3	-21.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 58.7	< 48.7	> + 5.3	A/B

Calculated result at 22158.0 MHz, as the worst point shown on underline:

	Antenna Factor	=	40.3 dB(1/m)
	Corr. Factor	=	-21.6 dB
+)	Meter Reading	=	<30.0 dB(μV)
	Result	=	<48.7 dB(μV/m)

Minimum Margin: 54.0 - <48.7 = >5.3 (dB)

NOTES
1. Test Distance : 3 m
2. The spectrum was checked from 1 GHz to 25 GHz (10th harmonic of the highest fundamental frequency).
3. The correction factor is shown as follows:
   Corr. Factor [dB] = Cable Loss + 20dB Pad Att. - Pre-Amp. Gain [dB] (1.0 - 7.6GHz)
   Corr. Factor [dB] = Cable Loss + 10dB Pad Att. - Pre-Amp. Gain [dB] (7.6 - 18.0GHz)
   Corr. Factor [dB] = Cable Loss - Pre-Amp. Gain [dB] (over 18 GHz)
4. The symbol of "<" means "or less".
5. The symbol of ">" means "more than".
6. PK : Peak Detector / AVE : Average Detector
7. Setting of measuring instrument(s) :

	Detector Function	Resolution B.W.	Video B.W.	Sweep Time
A	Peak	1 MHz	1 MHz	AUTO
B	Peak	1 MHz	10 Hz	AUTO

A.9.2.3.1.3 IEEE802.11n

Test Date: May 8, 2012
Temp.: 23 °C, Humi: 41 %

Frequency [MHz]	Antenna Factor [dB(1/m)]	Corr. Factor [dB]	Meter Readings [dB(μV)] Horizontal PK	Horizontal AVE	Vertical PK	Vertical AVE	Limits [dB(μV/m)] PK	Limits AVE	Results [dB(μV/m)] PK	Results AVE	Margin [dB]	Remarks
Test condition : Tx Low Ch												
4824.0	27.3	-21.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.1	< 36.1	> +17.9	A/B
12060.0	33.6	-27.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.4	< 36.4	> +17.6	A/B
19296.0	40.3	-22.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.8	< 47.8	> + 6.2	A/B
Test condition : TX Middle Ch												
4874.0	27.3	-21.2	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.1	< 36.1	> +17.9	A/B
7311.0	29.9	-19.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 50.3	< 40.3	> +13.7	A/B
12185.0	33.5	-27.0	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.5	< 36.5	> +17.5	A/B
19496.0	40.2	-22.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.7	< 47.7	> + 6.3	A/B
Test condition : TX High Ch												
4924.0	27.3	-21.3	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.0	< 36.0	> +18.0	A/B
7386.0	29.9	-19.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 50.4	< 40.4	> +13.6	A/B
12310.0	33.5	-26.8	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 46.7	< 36.7	> +17.3	A/B
19696.0	40.3	-22.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 57.7	< 47.7	> + 6.3	A/B
22158.0	40.3	-21.6	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 58.7	< 48.7	> + 5.3	A/B

Calculated result at 22158.0 MHz, as the worst point shown on underline:

	Antenna Factor	=	40.3 dB(1/m)
	Corr. Factor	=	-21.6 dB
+)	Meter Reading	=	<30.0 dB(μV)
	Result	=	<48.7 dB(μV/m)

Minimum Margin: 54.0 - <48.7 = >5.3 (dB)

NOTES
1. Test Distance : 3 m
2. The spectrum was checked from 1 GHz to 25 GHz (10th harmonic of the highest fundamental frequency).
3. The correction factor is shown as follows:
   Corr. Factor [dB] = Cable Loss + 20dB Pad Att. - Pre-Amp. Gain [dB] (1.0 - 7.6GHz)
   Corr. Factor [dB] = Cable Loss + 10dB Pad Att. - Pre-Amp. Gain [dB] (7.6 - 18.0GHz)
   Corr. Factor [dB] = Cable Loss - Pre-Amp. Gain [dB] (over 18 GHz)
4. The symbol of "<" means "or less".
5. The symbol of ">" means "more than".
6. PK : Peak Detector / AVE : Average Detector
7. Setting of measuring instrument(s) :

	Detector Function	Resolution B.W.	Video B.W.	Sweep Time
A	Peak	1 MHz	1 MHz	AUTO
B	Peak	1 MHz	10 Hz	AUTO

A.9.2.3.2 Mode of RX

Test Date: May 8, 2012
Temp.: 23 °C, Humi: 41 %

Frequency [MHz]	Antenna Factor [dB(1/m)]	Corr. Factor [dB]	Meter Readings [dB(μV)] Horizontal PK	Horizontal AVE	Vertical PK	Vertical AVE	Limits [dB(μV/m)] PK	Limits AVE	Results [dB(μV/m)] PK	Results AVE	Margin [dB]	Remarks
Test condition : RX Middle Ch												
2437.0	21.4	-21.9	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 39.5	< 29.5	> +24.5	A/B
4874.0	27.3	-21.5	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 45.8	< 35.8	> +18.2	A/B
7311.0	29.9	-19.9	< 40.0	< 30.0	< 40.0	< 30.0	74.0	54.0	< 50.0	< 40.0	> +14.0	A/B

Calculated result at 4874.0 MHz, as the worst point shown on underline:

	Antenna Factor	=	27.3 dB(1/m)
	Corr. Factor	=	-21.5 dB
+)	Meter Reading	=	<30.0 dB(μV)
	Result	=	<35.8 dB(μV/m)

Minimum Margin: 54.0 - <35.8 = >14.0 (dB)

NOTES
1. Test Distance : 3 m
2. The spectrum was checked from 1 GHz to 25 GHz (10th harmonic of the highest fundamental frequency).
3. The correction factor is shown as follows:
   Corr. Factor [dB] = Cable Loss + 20dB Pad Att. - Pre-Amp. Gain [dB] (1.0 - 7.6GHz)
4. The symbol of "<" means "or less".
5. The symbol of ">" means "more than".
6. PK : Peak Detector / AVE : Average Detector
7. Setting of measuring instrument(s) :

	Detector Function	Resolution B.W.	Video B.W.	Sweep Time
A	Peak	1 MHz	1 MHz	AUTO
B	Peak	1 MHz	10 Hz	AUTO

Appendix C: Test Instruments

C.1 Channel Separation

Not Applicable

C.2 Minimum Hopping Channel

Not Applicable

C.3 Occupied Bandwidth

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Spectrum Analyzer	E4446A	Agilent	A-39	2011/9	1 Year
Attenuator	54A-10	Weinschel	D-28	2011/9	1 Year
RF Cable	SUCOFLEX102	SUHNER	C-52	2011/6	1 Year

C.4 Dwell Time

Not Applicable

C.5.1 Peak Output Power (Conduction)

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Spectrum Analyzer	E4446A	Agilent	A-39	2011/9	1 Year
Attenuator	54A-10	Weinschel	D-28	2011/9	1 Year
RF Cable	SUCOFLEX102	SUHNER	C-52	2011/6	1 Year

C.5.2 Peak Output Power Density (Conduction)

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Spectrum Analyzer	E4446A	Agilent	A-39	2011/9	1 Year
Attenuator	54A-10	Weinschel	D-28	2011/9	1 Year
RF Cable	SUCOFLEX102	SUHNER	C-52	2011/6	1 Year

C.6 Spurious Emission (Conduction)

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Spectrum Analyzer	E4446A	Agilent	A-39	2011/9	1 Year
Attenuator	54A-10	Weinschel	D-28	2011/9	1 Year
RF Cable	SUCOFLEX102	SUHNER	C-52	2011/6	1 Year

C.7 AC Power Conducted Emission

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Test Receiver	ESCI	Rohde & Schwarz	A-42	2011/12	1 Year
AMN (main)	ESH3-Z5	Rohde & Schwarz	D-12	2011/8	1 Year
RF Cable	RG223/U	SUHNER	H-35	2011/6	1 Year

C.8 Radiated Emission

C.8.1 Radiated Emission 9 kHz – 30 MHz

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Test Receiver	ESU 26	Rohde & Schwarz	A-6	2012/4	1 Year
Loop Antenna	HFH2-Z2	Rohde & Schwarz	C-2	2011/8	1 Year
RF Cable	RG213/U	SUHNER	H-28	2011/8	1 Year

C.8.2 Radiated Emission 30MHz – 1000 MHz

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Test Receiver	ESU 26	Rohde & Schwarz	A-6	2012/4	1 Year
Biconical Antenna	VHA9103/BBA9106	Schwarzbeck	C-30	2011/5	1 Year
Log-periodic Antenna	UHALP9108-A1	Schwarzbeck	C-31	2011/5	1 Year
RF Cable	S 10162 B-11 etc.	SUHNER	H-4	2012/3	1 Year
Site Attenuation	--	----	H-15	2012/2	1 Year

C.8.3 Radiated Emission Above 1000 MHz

Type	Model	Manufacturer	ID No.	Last Cal.	Interval
Test Receiver	ESU 26	Rohde & Schwarz	A-6	2012/4	1 Year
Pre-Amplifier	WJ-6882-824	Watkins Johnson	A-21	2012/1	1 Year
Pre-Amplifier	WJ-6611-513	Watkins Johnson	A-23	2012/1	1 Year
Pre-Amplifier	BZ1840LD1	B&Z	A-29	2012/1	1 Year
Pre-Amplifier	DBL-0618N515	DBS Microwave	A-33	2012/1	1 Year
Horn Antenna	91888-2	EATON	C-41-1	2011/6	1 Year
Horn Antenna	91889-2	EATON	C-41-2	2011/6	1 Year
Horn Antenna	3160-04	EMCO	C-55	2011/6	2 Years
Horn Antenna	3160-05	EMCO	C-56	2011/6	2 Years
Horn Antenna	3160-06	EMCO	C-57	2011/6	2 Years
Horn Antenna	3160-07	EMCO	C-58	2011/6	2 Years
Horn Antenna	3160-08	EMCO	C-59	2011/6	2 Years
Horn Antenna	3160-09	EMCO	C-48	2011/6	2 Years
Attenuator	54A-10	Weinschel	D-29	2011/9	1 Year
Attenuator	2-10	Weinschel	D-79	2011/11	1 Year
Band Rejection Filter	BRM50701	MICRO-TRONICS	D-93	2012/2	1 Year
RF Cable	SUCOFLEX102	SUHNER	C-52	2011/6	1 Year
RF Cable	SUCOFLEX104	SUHNER	C-66	2012/1	1 Year
RF Cable	SUCOFLEX104	SUHNER	C-67	2012/1	1 Year
RF Cable	SUCOFLEX102EA	SUHNER	C-69	2012/1	1 Year
SVSWR	--	----	H-19	2012/2	1 Year