



# SPORTON International Inc.

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## FCC RADIO TEST REPORT

Applicant's company	Realtek Semiconductor Corp.
Applicant Address	No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan
FCC ID	TX2-RTL8711AM
Manufacturer's company	Realtek Semiconductor Corp.
Manufacturer Address	No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

Product Name	802.11 b/g/n Wireless LAN+NFC module
Brand Name	REALTEK
Model No.	RTL8711AM
Test Rule	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	2400 ~ 2483.5MHz
Received Date	Jun. 10, 2015
Final Test Date	Aug. 05, 2015
Submission Type	Original Equipment

### Statement

Test result included in this report is for the IEEE 802.11n and IEEE 802.11b/g of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in ANSI C63.10-2013, 47 CFR FCC Part 15 Subpart C, KDB558074 D01 v03r03 and KDB 662911 D01 v02r01.

The test equipment used to perform the test is calibrated and traceable to NML/ROC.



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## History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR560448	Rev. 01	Initial issue of report	Aug. 13, 2015

## 1. VERIFICATION OF COMPLIANCE

Product Name : 802.11 b/g/n Wireless LAN+NFC module  
Brand Name : REALTEK  
Model No. : RTL8711AM  
Applicant : Realtek Semiconductor Corp.  
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart C § 15.247

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Jun. 10, 2015 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.



Sam Chen

SPORTON INTERNATIONAL INC.

## 2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	Rule Section	Description of Test	Result	Under Limit
4.1	15.207	AC Power Line Conducted Emissions	Complies	15.71 dB
4.2	15.247(b)(3)	Maximum Conducted Output Power	Complies	12.71 dB
4.3	15.247(e)	Power Spectral Density	Complies	18.91 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions	Complies	2.27 dB
4.6	15.247(d)	Band Edge Emissions	Complies	1.95 dB
4.7	15.203	Antenna Requirements	Complies	-

### 3. GENERAL INFORMATION

#### 3.1. Product Details

Items	Description
Product Type	WLAN (1TX, 1RX)
Radio Type	Intentional Transceiver
Power Type	From host system
Modulation	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: see the below table
Data Modulation	IEEE 802.11b: DSSS (BPSK / QPSK / CCK) IEEE 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	IEEE 802.11b: DSSS (1/ 2/ 5.5/11) IEEE 802.11g: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n: see the below table
Frequency Range	2400 ~ 2483.5MHz
Channel Number	13 for 20MHz bandwidth ; 9 for 40MHz bandwidth
Channel Band Width (99%)	IEEE 802.11b: 14.59 MHz IEEE 802.11g: 16.85 MHz IEEE 802.11n MCS0 (HT20): 17.89 MHz IEEE 802.11n MCS0 (HT40): 36.61 MHz
Maximum Conducted Output Power	IEEE 802.11b: 17.29 dBm IEEE 802.11g: 16.08 dBm IEEE 802.11n MCS0 (HT20): 16.19 dBm IEEE 802.11n MCS0 (HT40): 13.08 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Items	Description
Beamforming Function	<input type="checkbox"/> With beamforming <input checked="" type="checkbox"/> Without beamforming

**Antenna and Band width**

Antenna	Single (TX)	
Band width Mode	20 MHz	40 MHz
IEEE 802.11b	V	X
IEEE 802.11g	V	X
IEEE 802.11n	V	V

**IEEE 11n Spec.**

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	1	MCS 0-7
802.11n (HT40)	1	MCS 0-7

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput).  
Then EUT supports HT20 and HT40.

Note 2: Modulation modes consist of below configuration: HT20/HT40: IEEE 802.11n

**3.2. Accessories**

N/A

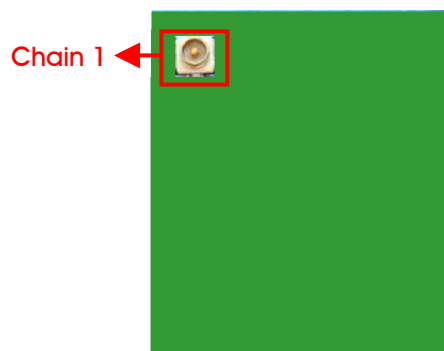
### 3.3. Table for Filed Antenna

Ant.	Brand	Model Name (P/N)	Antenna Type	Connector	Gain (dBi)
1	REALTEK	Ameba-AM0001	Printed Antenna	N/A	2.0
2	LYNwave	ALA110-222050-300010	PIFA Antenna	I-PEX	3.5
3	JOYMAX	TWF-614XMPXX-500	Dipole Antenna	I-PEX	3.0

Note: The EUT has three types of antenna.

**For IEEE 802.11b/g/n mode (1TX/1RX):**

Only Chain 1 can be used as transmitting antenna and receiving antenna.



### 3.4. Table for Carrier Frequencies

There are two bandwidth systems.

For 20MHz bandwidth systems, use Channel 1~Channel 13.

For 40MHz bandwidth systems, use Channel 3~Channel 9.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	1	2412 MHz	8	2447 MHz
	2	2417 MHz	9	2452 MHz
	3	2422 MHz	10	2457 MHz
	4	2427 MHz	11	2462 MHz
	5	2432 MHz	12	2467 MHz
	6	2437 MHz	13	2472 MHz
	7	2442 MHz	-	-



### 3.5. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	Chain
AC Power Line Conducted Emissions	Normal Link	-	-	-
Maximum Conducted Output Power	11b/CCK	1 Mbps	1/6/11/12/13	1
	11g/BPSK	6 Mbps	1/6/11/12/13	1
	11n HT20	MCS0	1/6/11/12/13	1
	11n HT40	MCS0	3/6/9/10/11	1
Power Spectral Density	11b/CCK	1 Mbps	1/6/11/12/13	1
	11g/BPSK	6 Mbps	1/6/11/12/13	1
	11n HT20	MCS0	1/6/11/12/13	1
	11n HT40	MCS0	3/6/9/10/11	1
6dB Spectrum Bandwidth	11b/CCK	1 Mbps	1/6/11/12/13	1
	11g/BPSK	6 Mbps	1/6/11/12/13	1
	11n HT20	MCS0	1/6/11/12/13	1
	11n HT40	MCS0	3/6/9/10/11	1
Radiated Emissions 9kHz~1GHz	Normal Link	-	-	-
Radiated Emissions 1GHz~10 <sup>th</sup> Harmonic	11b/CCK	1 Mbps	1/6/11/12/13	1
	11g/BPSK	6 Mbps	1/6/11/12/13	1
	11n HT20	MCS0	1/6/11/12/13	1
	11n HT40	MCS0	3/6/9/10/11	1
Band Edge Emissions	11b/CCK	1 Mbps	1/6/11/12/13	1
	11g/BPSK	6 Mbps	1/6/11/12/13	1
	11n HT20	MCS0	1/6/11/12/13	1
	11n HT40	MCS0	3/6/9/10/11	1

Note: For Conducted Output Power, Power Spectral Density, 6dB Spectrum Bandwidth, only the higher gain antenna "Ant.2" was selected to perform the test and recorded in this report.

The following test modes were performed for all tests:

**For Conducted Emission test:**

Mode 1. Normal Link - EUT with Ant. 1

Mode 2. Normal Link - EUT with Ant. 2

Mode 3. Normal Link - EUT with Ant. 3

Mode 3 is the worst case, so it was selected to record in this test report.

**For Radiated Emission test (Below 1GHz):**

Mode 1. Normal Link - EUT with Ant. 1 - Y axis

Mode 2. Normal Link - EUT with Ant. 1 - Z axis

Mode 2 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 ~ 4 will follow this same test mode.

Mode 3. Normal Link - EUT with Ant. 2 - Z axis

Mode 4. Normal Link - EUT with Ant. 3 - Z axis

Mode 2 is the worst case, so it was selected to record in this test report.

**For Radiated Emission test (Above 1GHz):**

For Ant.1 and Ant.2, the EUT was performed at X axis, Y axis and Z axis position and the worst case was found as below. So the measurement will follow this same test configuration.

Mode 1. CTX - EUT with Ant. 1 - X axis

Mode 2. CTX - EUT with Ant. 2 - Y axis

Mode 3. CTX - EUT with Ant. 3 - Y axis

**3.6. Table for Testing Locations**

Test Site Location				
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.			
TEL:	886-3-656-9065			
FAX:	886-3-656-9085			
Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.
03CH01-CB	SAC	Hsin Chu	262045	IC 4086D
CO01-CB	Conduction	Hsin Chu	262045	IC 4086D
TH01-CB	OVEN Room	Hsin Chu	-	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC).

### 3.7. Table for Supporting Units

#### For Test Site No: 03CH01-CB (Below 1GHz)

Support Unit	Brand	Model	FCC ID
Notebook*2	DELL	E4300	DoC
Wireless ac AP	Netgear	R6300V2	PY313200227
Mouse	Logitech	M-U0026	DoC
Earphone	e-Power	S90W	N/A
Test Fixture	REALTEK	Ameba adapter	N/A

#### For Test Site No: 03CH01-CB (Above 1GHz)

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
Test Fixture	REALTEK	Ameba adapter	N/A

#### For Test Site No: CO01-CB

Support Unit	Brand	Model	FCC ID
AP Router	Planex	GW-AP54SGX	KA220030603014-1
Notebook*2	DELL	E6430	DoC
Earphone	SHYARO CHI	MIC-04	N/A
Mouse	Logitech	M-U0026	DoC
Test fixture	REALTEK	Ameba adapter	N/A

#### For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
Test fixture	REALTEK	Ameba adapter	N/A

### 3.8. Table for Parameters of Test Software Setting

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Test Software Version	UI_mptool									
Mode	Test Frequency (MHz)									
	NCB: 20MHz					NCB: 40MHz				
	2412 MHz	2437 MHz	2462 MHz	2467 MHz	2472 MHz	2422 MHz	2437 MHz	2452 MHz	2457 MHz	2462 MHz
802.11b	36	36	36	34	30	-	-	-	-	-
802.11g	40	44	40	36	23	-	-	-	-	-
802.11n MCS0 HT20	38	44	38	36	23	-	-	-	-	-
802.11n MCS0 HT40	-	-	-	-	-	37	37	37	35	17

### 3.9. EUT Operation during Test

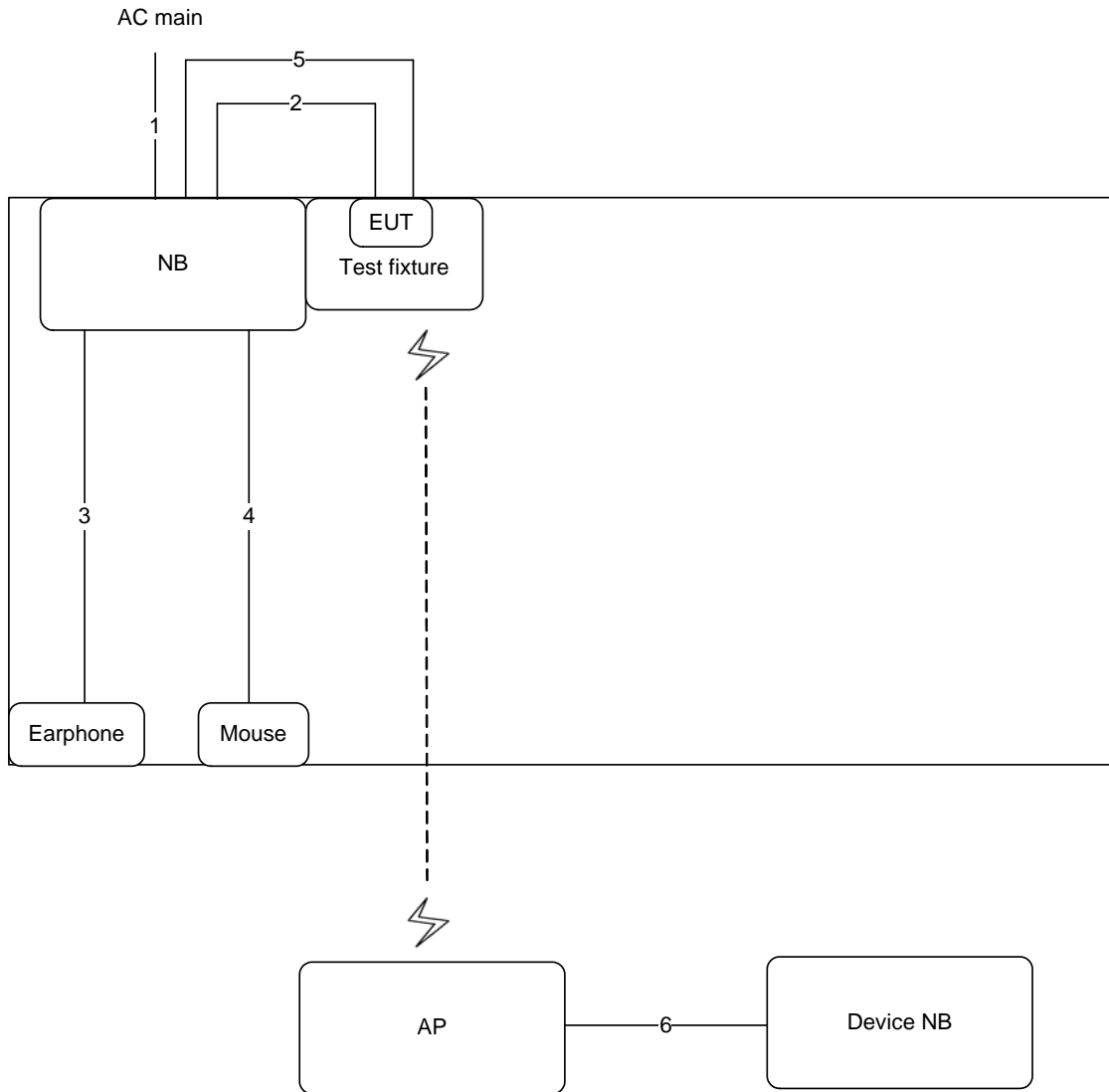
The EUT was programmed to be in continuously transmitting mode.

### 3.10. Duty Cycle

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	1.000	1.000	100.00%	0.00	0.01
802.11n MCS0 HT20	1.000	1.000	100.00%	0.00	0.01
802.11n MCS0 HT40	1.000	1.000	100.00%	0.00	0.01

### 3.11. Test Configurations

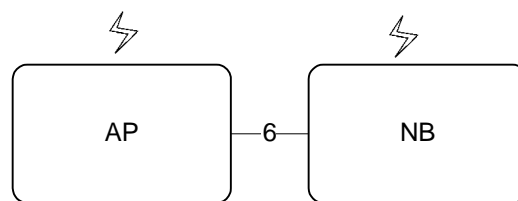
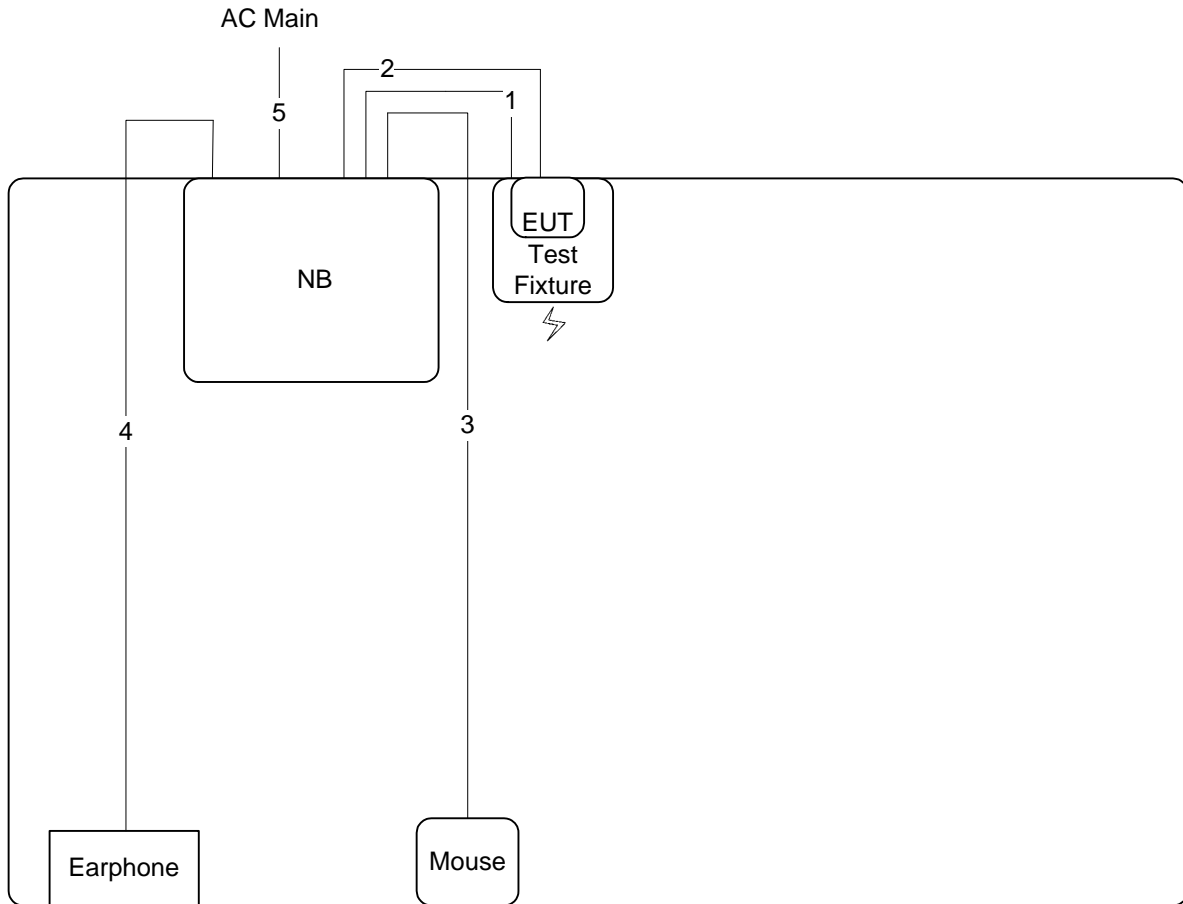
#### 3.11.1. AC Power Line Conduction Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB cable	Yes	1m
3	Audio cable	No	1.1m
4	USB cable	Yes	1.8m
5	USB cable	Yes	0.2m
6	RJ-45 cable	No	1.5m

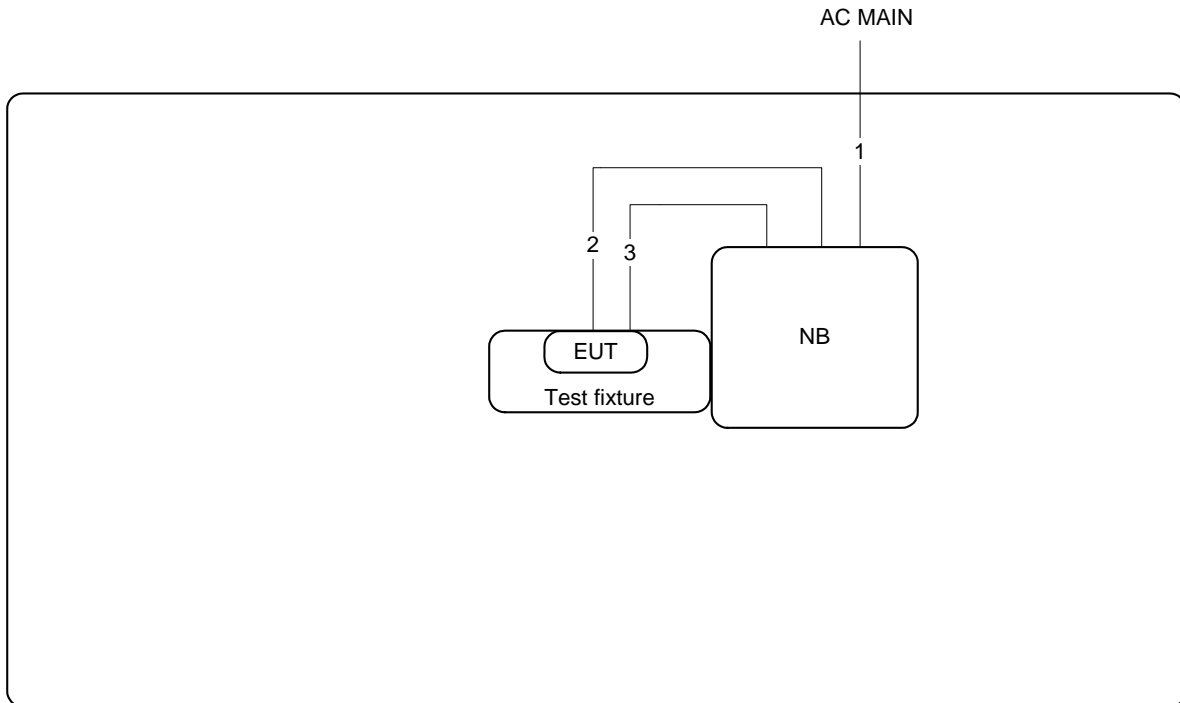
### 3.11.2. Radiation Emissions Test Configuration

Test Configuration: 30MHz~1GHz



Item	Connection	Shielded	Length
1	USB Cable	Yes	0.2m
2	USB Cable	Yes	2m
3	USB Cable	Yes	1.8m
4	Audio Cable	No	1.1m
5	Power Cable	No	2.6m
6	RJ-45 Cable	No	1.5m

Test Configuration: above 1GHz



Item	Connection	Shielded	Length
1	Power cable	No	2.6m
2	USB cable	Yes	1m
3	USB cable	Yes	0.2m

## 4. TEST RESULT

### 4.1. AC Power Line Conducted Emissions Measurement

#### 4.1.1. Limit

For this product which is designed to be connected to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

#### 4.1.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

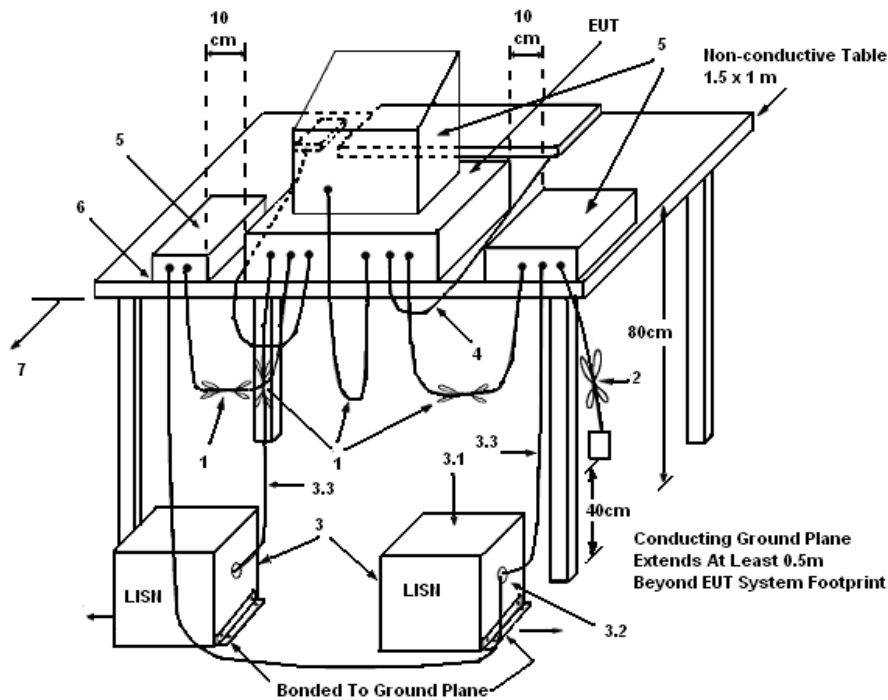
Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

#### 4.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.



#### 4.1.4. Test Setup Layout



#### LEGEND:

- (1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- (2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- (3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference ground plane.
- (3.1) All other equipment powered from additional LISN(s).
- (3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.
- (3.3) LISN at least 80 cm from nearest part of EUT chassis.
- (4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.
- (5) Non-EUT components of EUT system being tested.
- (6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.
- (7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

#### 4.1.5. Test Deviation

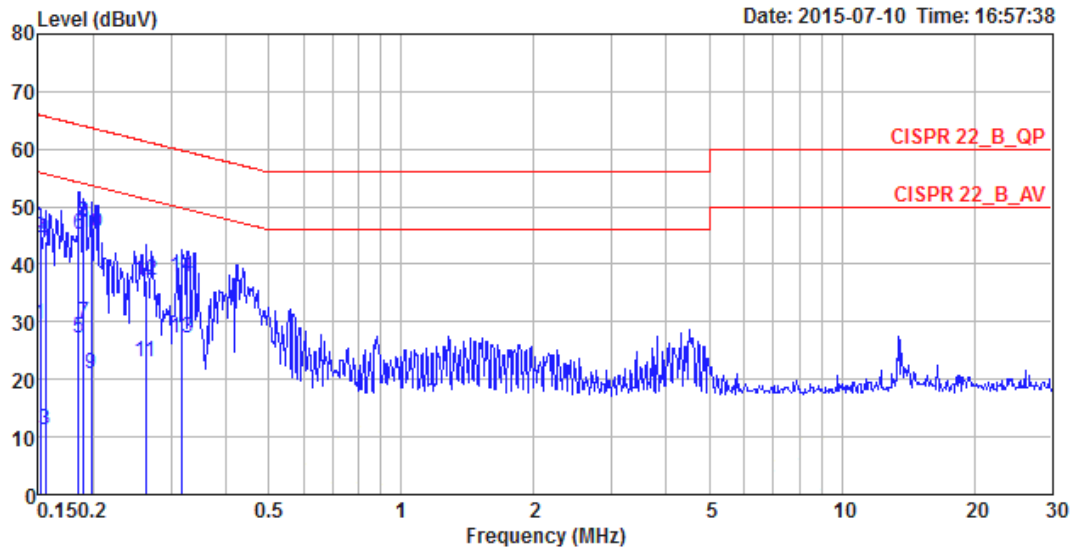
There is no deviation with the original standard.

#### 4.1.6. EUT Operation during Test

The EUT was placed on the test table and programmed in normal function.

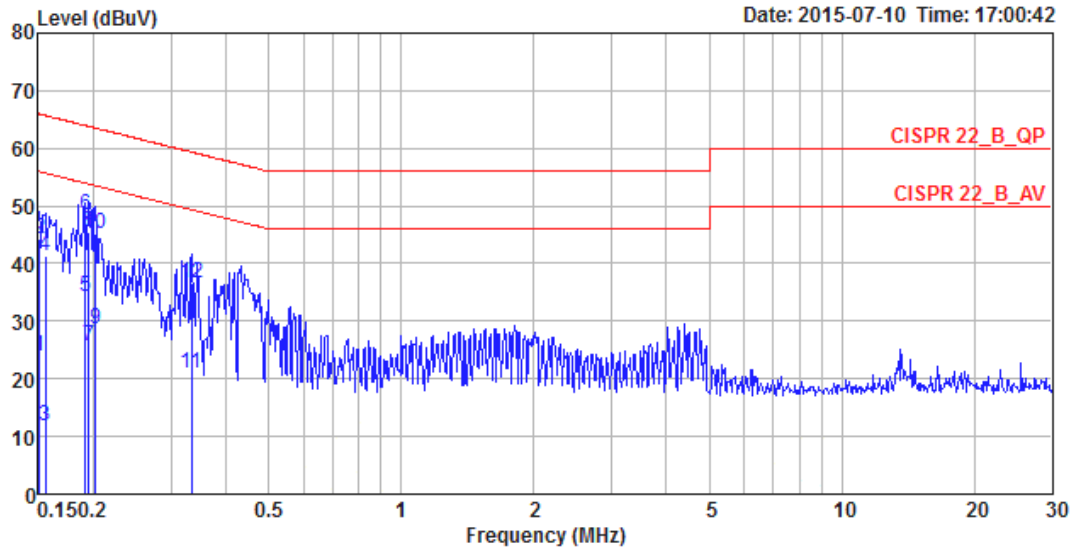
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	25°C	Humidity	65%
Test Engineer	Kane Liu	Phase	Line
Configuration	Normal Link / Mode 3		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1516	29.63	-26.28	55.91	19.68	9.93	0.02	LINE	Average
2	0.1516	44.45	-21.46	65.91	34.50	9.93	0.02	LINE	QP
3	0.1557	11.16	-44.53	55.69	1.21	9.93	0.02	LINE	Average
4	0.1557	43.93	-21.76	65.69	33.98	9.93	0.02	LINE	QP
5	0.1854	27.08	-27.16	54.24	17.13	9.93	0.02	LINE	Average
6	0.1854	45.11	-19.13	64.24	35.16	9.93	0.02	LINE	QP
7	0.1904	29.86	-24.16	54.02	19.91	9.93	0.02	LINE	Average
8	0.1904	47.29	-16.73	64.02	37.34	9.93	0.02	LINE	QP
9	0.1976	21.06	-32.65	53.71	11.11	9.93	0.02	LINE	Average
10	0.1976	45.41	-18.30	63.71	35.46	9.93	0.02	LINE	QP
11	0.2630	23.08	-28.26	51.34	13.12	9.93	0.03	LINE	Average
12	0.2630	37.32	-24.02	61.34	27.36	9.93	0.03	LINE	QP
13	0.3166	27.10	-22.70	49.80	17.13	9.93	0.04	LINE	Average
14	0.3166	37.67	-22.13	59.80	27.70	9.93	0.04	LINE	QP

Temperature	25°C	Humidity	65%
Test Engineer	Kane Liu	Phase	Neutral
Configuration	Normal Link / Mode 3		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1508	23.81	-32.15	55.96	14.01	9.78	0.02	NEUTRAL	Average
2	0.1508	44.28	-21.68	65.96	34.48	9.78	0.02	NEUTRAL	QP
3	0.1557	11.88	-43.81	55.69	2.08	9.78	0.02	NEUTRAL	Average
4	0.1557	41.36	-24.33	65.69	31.56	9.78	0.02	NEUTRAL	QP
5	0.1914	34.13	-19.85	53.98	24.32	9.79	0.02	NEUTRAL	Average
6	0.1914	48.27	-15.71	63.98	38.46	9.79	0.02	NEUTRAL	QP
7	0.1955	25.63	-28.17	53.80	15.82	9.79	0.02	NEUTRAL	Average
8	0.1955	45.51	-18.29	63.80	35.70	9.79	0.02	NEUTRAL	QP
9	0.2018	28.64	-24.90	53.54	18.83	9.79	0.02	NEUTRAL	Average
10	0.2018	45.13	-18.41	63.54	35.32	9.79	0.02	NEUTRAL	QP
11	0.3338	21.01	-28.34	49.35	11.18	9.79	0.04	NEUTRAL	Average
12	0.3338	36.67	-22.68	59.35	26.84	9.79	0.04	NEUTRAL	QP

Note:

Level = Read Level + LISN Factor + Cable Loss.

## 4.2. Maximum Conducted Output Power Measurement

### 4.2.1. Limit

The limit for output power is 30dBm.

### 4.2.2. Measuring Instruments and Setting

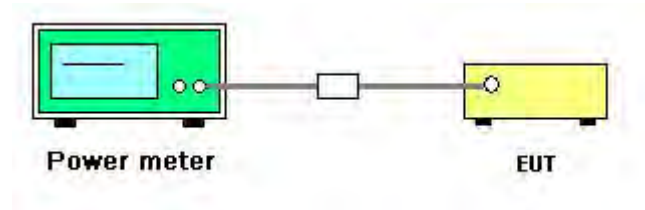
Please refer to section 5 of equipments list in this report. The following table is the setting of the power meter.

Power Meter Parameter	Setting
Bandwidth	50MHz bandwidth is greater than the EUT emission bandwidth
Detector	Average

### 4.2.3. Test Procedures

1. Test procedures refer KDB558074 D01 v03r03 section 9.2.3.2 Measurement using a power meter (PM).
2. Multiple antenna systems was performed in accordance with KDB 662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
3. This procedure provides an alternative for determining the RMS output power using a broadband RF average power meter with a thermocouple detector.

### 4.2.4. Test Setup Layout



### 4.2.5. Test Deviation

There is no deviation with the original standard.

### 4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.2.7. Test Result of Maximum Conducted Output Power

<b>Temperature</b>	25°C	<b>Humidity</b>	45%
<b>Test Engineer</b>	Serway Li	<b>Test Date</b>	Jul. 28, 2015

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
802.11b	2412 MHz	17.27	30.00	Complies
	2437 MHz	17.29	30.00	Complies
	2462 MHz	17.12	30.00	Complies
	2467 MHz	15.39	30.00	Complies
	2472 MHz	14.62	30.00	Complies
802.11g	2412 MHz	14.22	30.00	Complies
	2437 MHz	16.08	30.00	Complies
	2462 MHz	14.29	30.00	Complies
	2467 MHz	12.33	30.00	Complies
	2472 MHz	6.64	30.00	Complies
802.11n MCS0 HT20	2412 MHz	13.28	30.00	Complies
	2437 MHz	16.19	30.00	Complies
	2462 MHz	13.21	30.00	Complies
	2467 MHz	12.34	30.00	Complies
	2472 MHz	6.58	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.05	30.00	Complies
	2437 MHz	13.08	30.00	Complies
	2452 MHz	13.07	30.00	Complies
	2457 MHz	12.22	30.00	Complies
	2462 MHz	3.78	30.00	Complies

### 4.3. Power Spectral Density Measurement

#### 4.3.1. Limit

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

#### 4.3.2. Measuring Instruments and Setting

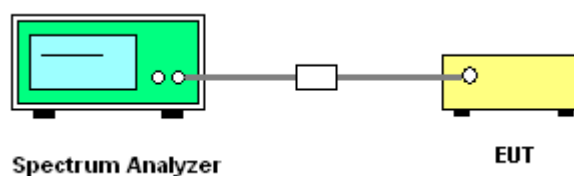
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Set the span to 1.5 times the DTS channel bandwidth.
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100\text{kHz}$
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto couple

#### 4.3.3. Test Procedures

1. Test was performed in accordance with KDB558074 D01 v03r03 for Performing Compliance Measurements on Digital Transmission Systems (DTS) - section 10.2 Method PKPSD (peak PSD) and KDB 662911 D01 v02r01 section In-Band Power Spectral Density (PSD) Measurements option (b) Measure and sum spectral maximal across the outputs.
2. Use this procedure when the maximum conducted output power in the fundamental emission is used to demonstrate compliance. The EUT must be configured to transmit continuously at full power over the measurement duration.
3. Ensure that the number of measurement points in the sweep  $\geq 2 \times \text{span}/\text{RBW}$  (use of a greater number of measurement points than this minimum requirement is recommended).
4. Use the peak marker function to determine the maximum level in any 3 kHz band segment within the fundamental EBW.
5. The resulting PSD level must be  $\leq 8 \text{ dBm}$ .

#### 4.3.4. Test Setup Layout



#### 4.3.5. Test Deviation

There is no deviation with the original standard.

#### 4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.3.7. Test Result of Power Spectral Density

Temperature	25°C	Humidity	45%
Test Engineer	Serway Li		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
802.11b	2412 MHz	-12.44	8.00	Complies
	2437 MHz	-12.43	8.00	Complies
	2462 MHz	-12.51	8.00	Complies
	2467 MHz	-12.74	8.00	Complies
	2472 MHz	-15.05	8.00	Complies
802.11g	2412 MHz	-14.03	8.00	Complies
	2437 MHz	-11.69	8.00	Complies
	2462 MHz	-13.77	8.00	Complies
	2467 MHz	-15.73	8.00	Complies
	2472 MHz	-21.79	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-14.13	8.00	Complies
	2437 MHz	-10.91	8.00	Complies
	2462 MHz	-14.23	8.00	Complies
	2467 MHz	-15.26	8.00	Complies
	2472 MHz	-21.20	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-16.16	8.00	Complies
	2437 MHz	-15.60	8.00	Complies
	2452 MHz	-16.18	8.00	Complies
	2457 MHz	-17.19	8.00	Complies
	2462 MHz	-25.37	8.00	Complies

Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

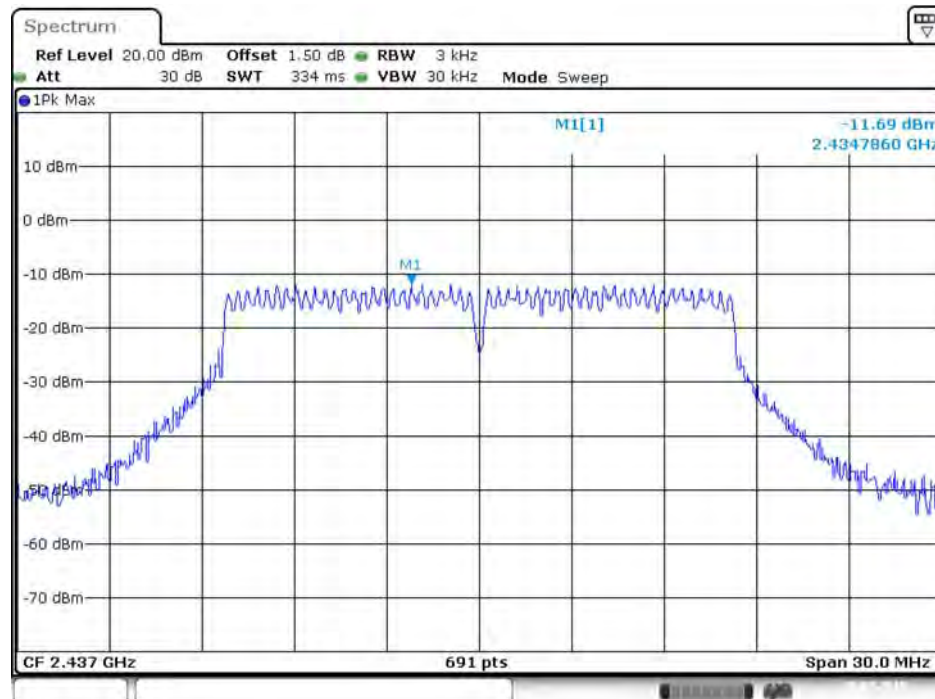


Power Density Plot on Configuration IEEE 802.11b / 2437 MHz / Chain 1



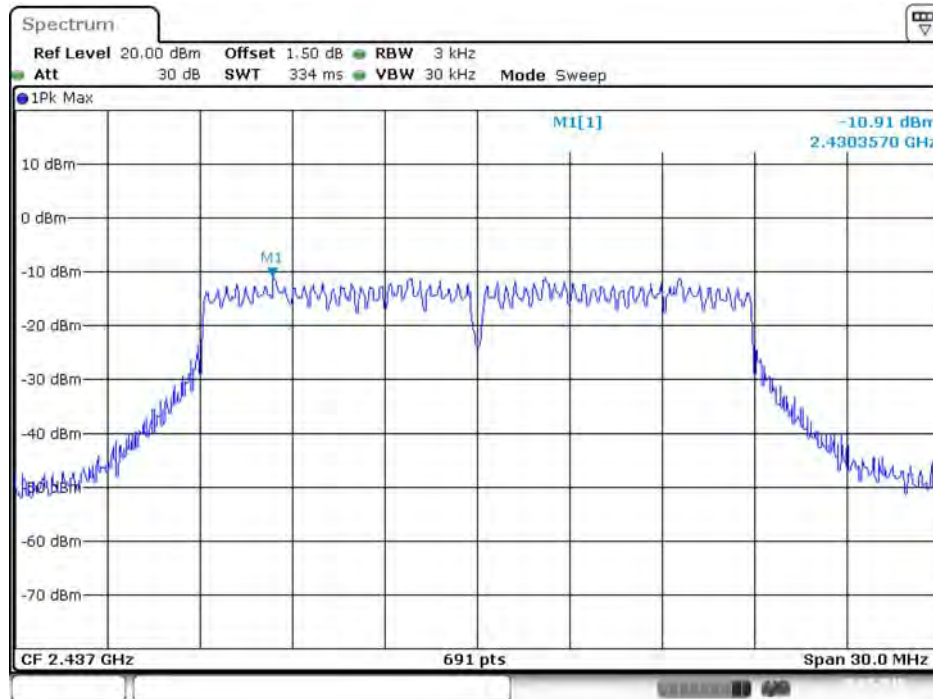
Date: 28.JUL.2015 20:44:24

Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1



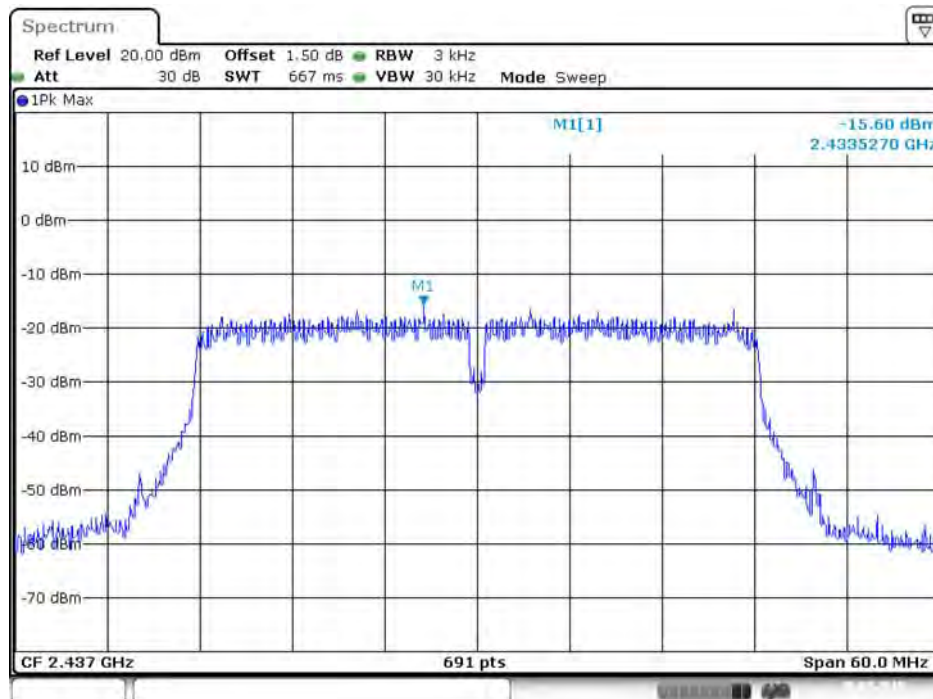
Date: 28.JUL.2015 20:54:38

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



Date: 28.JUL.2015 21:12:43

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**



Date: 28.JUL.2015 21:22:37

## 4.4. 6dB Spectrum Bandwidth Measurement

### 4.4.1. Limit

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

### 4.4.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the Spectrum Analyzer.

6dB Spectrum Bandwidth	
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 6dB Bandwidth
RBW	100kHz
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
99% Occupied Bandwidth	
Spectrum Parameters	Setting
Span	1.5 times to 5.0 times the OBW
RBW	1 % to 5 % of the OBW
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold

### 4.4.3. Test Procedures

For Radiated 6dB Bandwidth Measurement:

1. The transmitter was radiated to the spectrum analyzer in peak hold mode.
2. Test was performed in accordance with KDB558074 D01 v03r03 for Performing Compliance Measurements on Digital Transmission Systems (DTS) - section 8.0 DTS bandwidth = > 8.1 Option 1.
3. Multiple antenna system was performed in accordance with KDB 662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
4. Measured the spectrum width with power higher than 6dB below carrier.

### 4.4.4. Test Setup Layout

For Radiated 6dB Bandwidth Measurement:

This test setup layout is the same as that shown in section 4.5.4.

#### 4.4.5. Test Deviation

There is no deviation with the original standard.

#### 4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.4.7. Test Result of 6dB Spectrum Bandwidth

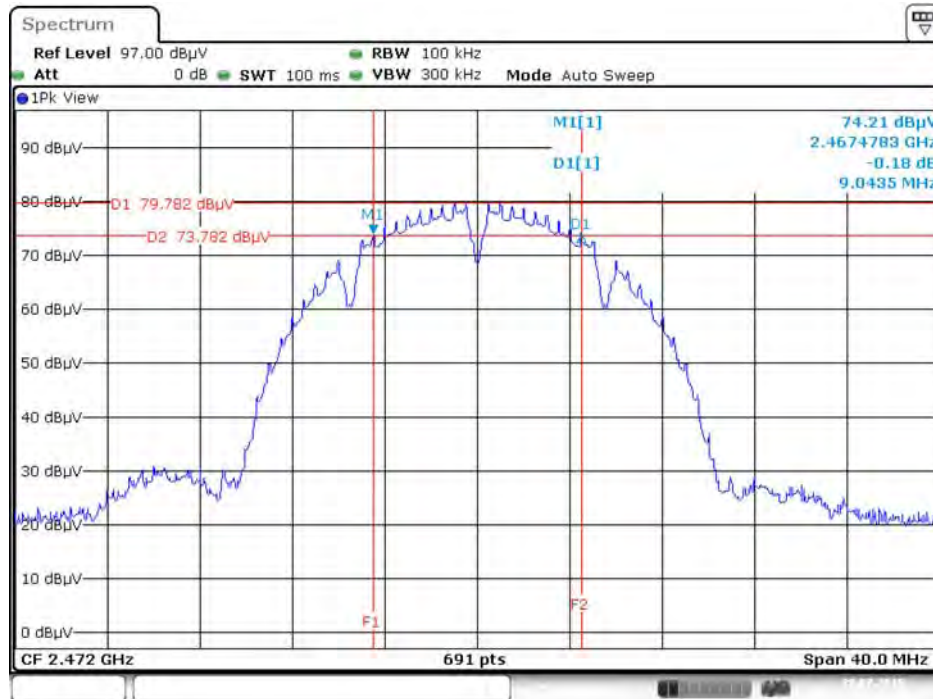
<b>Temperature</b>	25°C	<b>Humidity</b>	45%
<b>Test Engineer</b>	Serway Li		

Mode	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
802.11b	2412 MHz	10.03	14.59	500	Complies
	2437 MHz	10.03	14.59	500	Complies
	2462 MHz	10.03	14.59	500	Complies
	2467 MHz	9.04	13.29	500	Complies
	2472 MHz	9.04	13.37	500	Complies
802.11g	2412 MHz	16.58	16.85	500	Complies
	2437 MHz	16.58	16.85	500	Complies
	2462 MHz	16.58	16.85	500	Complies
	2467 MHz	16.58	16.85	500	Complies
	2472 MHz	16.58	16.85	500	Complies
802.11n MCS0 HT20	2412 MHz	17.80	17.89	500	Complies
	2437 MHz	17.80	17.89	500	Complies
	2462 MHz	17.80	17.89	500	Complies
	2467 MHz	17.80	17.89	500	Complies
	2472 MHz	17.74	17.89	500	Complies
802.11n MCS0 HT40	2422 MHz	36.41	36.61	500	Complies
	2437 MHz	36.41	36.61	500	Complies
	2452 MHz	36.41	36.61	500	Complies
	2457 MHz	36.41	36.61	500	Complies
	2462 MHz	36.41	36.61	500	Complies

Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

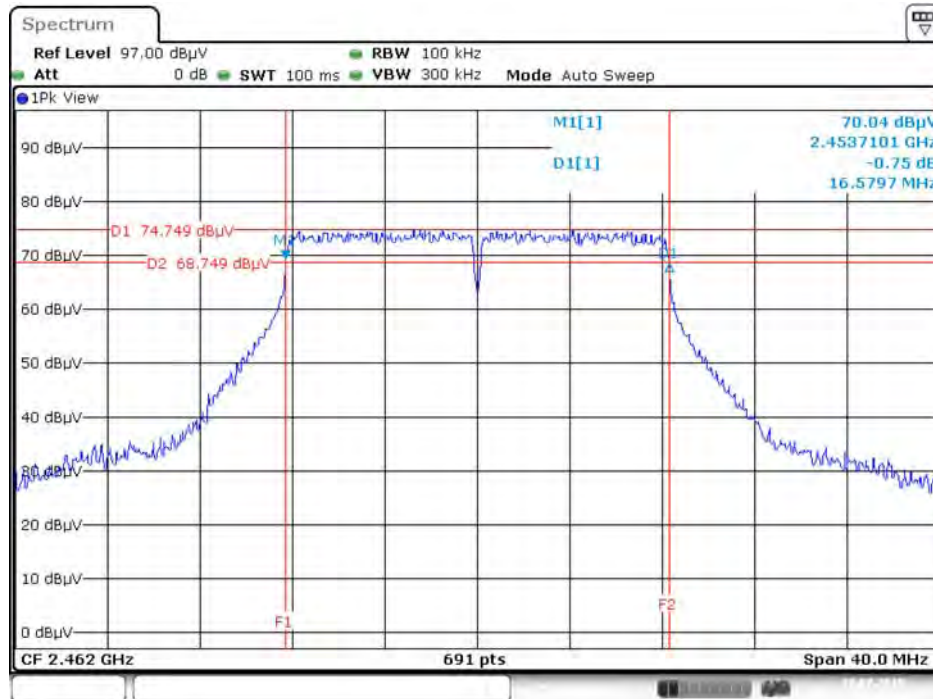
6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2472 MHz / Chain 1



99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / 2437 MHz / Chain 1

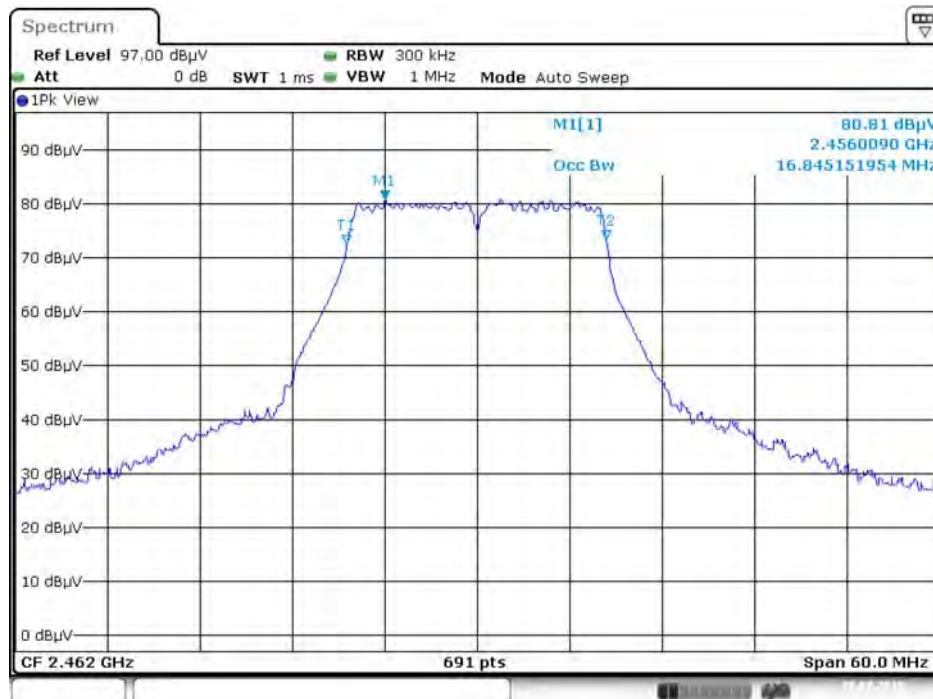


6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2462 MHz / Chain 1



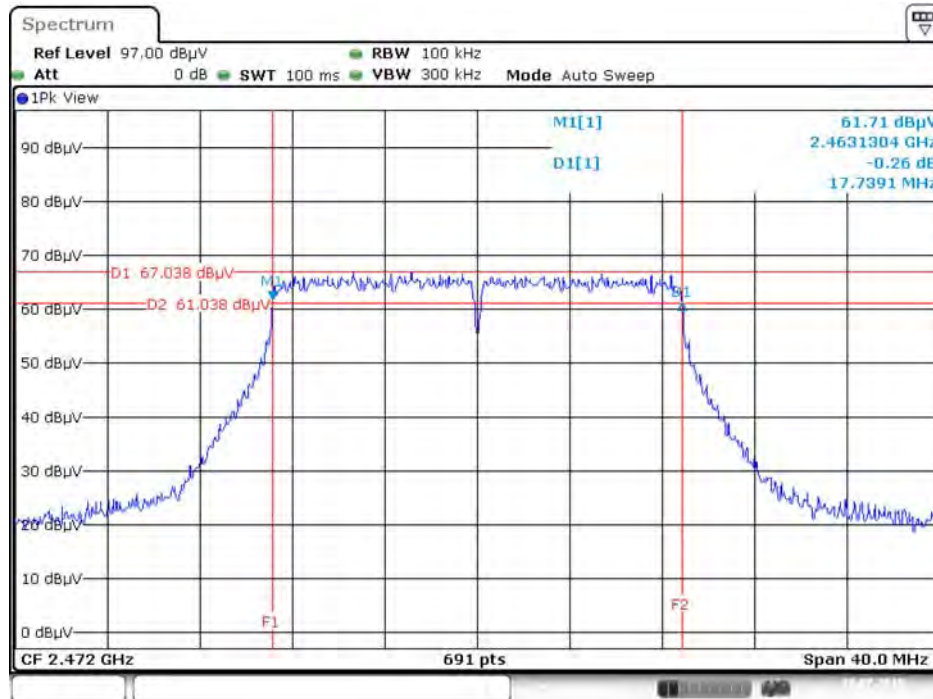
Date: 28.JUL.2015 19:46:04

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / 2462 MHz / Chain 1



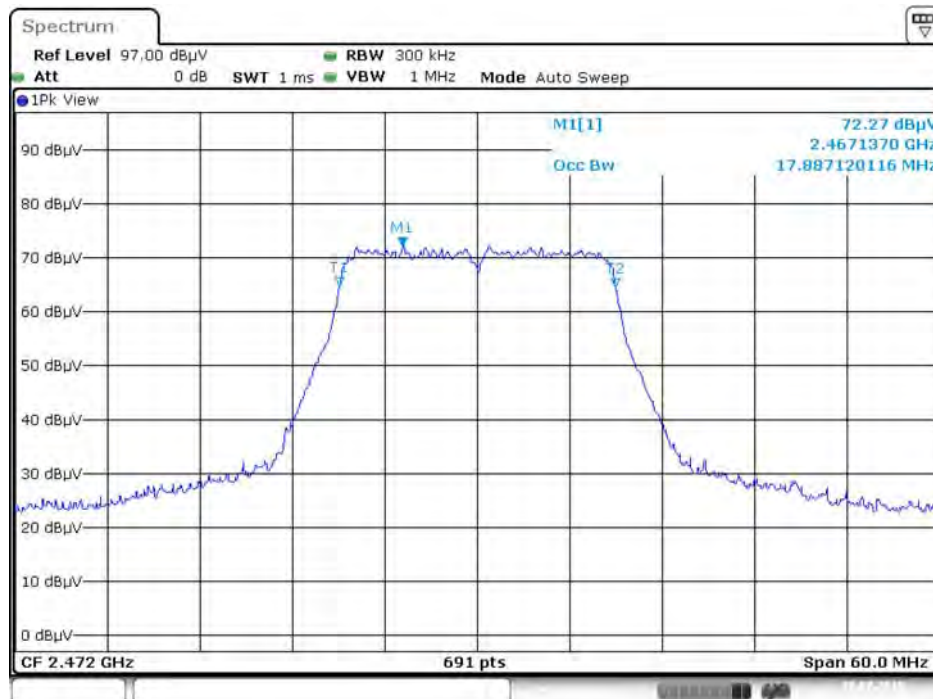
Date: 28.JUL.2015 20:19:58

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 HT20 / 2472 MHz / Chain 1



Date: 28.JUL.2015 19:52:56

99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 HT20 / 2472 MHz / Chain 1



Date: 28.JUL.2015 20:27:45





## 4.5. Radiated Emissions Measurement

### 4.5.1. Limit

30dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

### 4.5.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	100kHz / 300kHz for peak

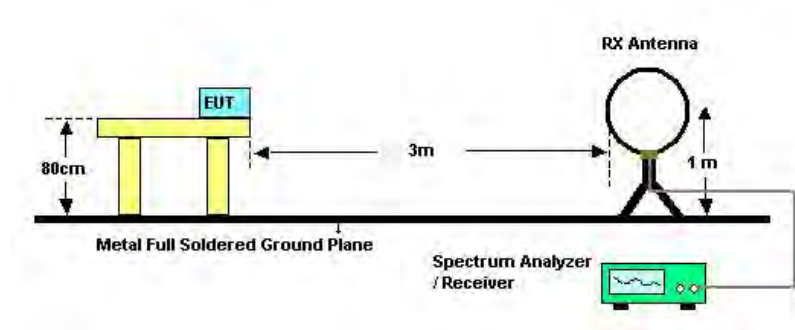
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

#### 4.5.3. Test Procedures

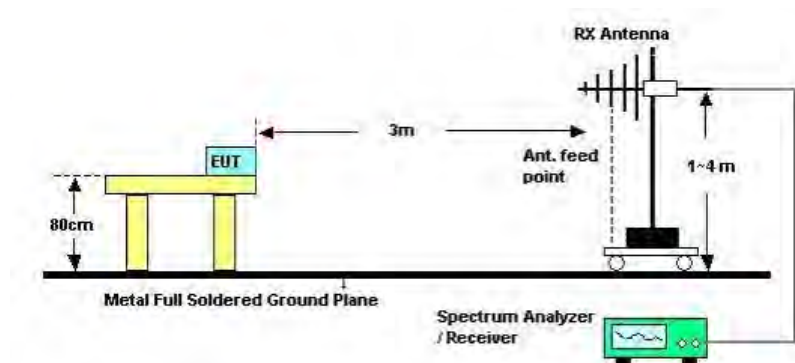
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1m & 3m far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 m to 4 m) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 1/T VBW for average reading in spectrum analyzer.
7. If the emissions level of the EUT in peak mode was 3 dB lower than the average 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 for below 1GHz.
8. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions 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.
9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

#### 4.5.4. Test Setup Layout

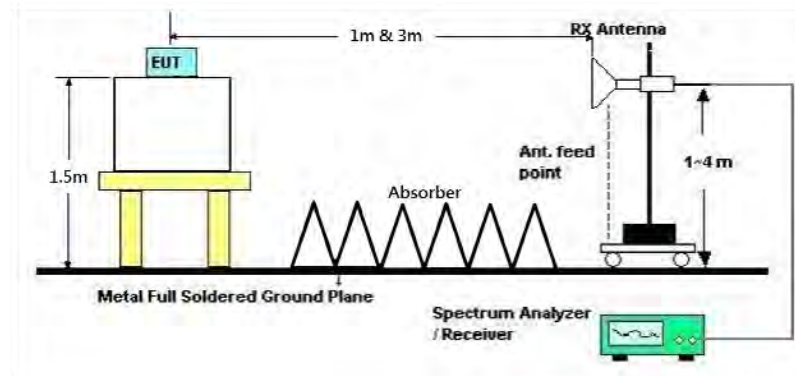
For Radiated Emissions: 9kHz ~30MHz



For Radiated Emissions: 30MHz~1GHz



For Radiated Emissions: Above 1GHz



#### 4.5.5. Test Deviation

There is no deviation with the original standard.

#### 4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.5.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	24°C	Humidity	66%
Test Engineer	Alvin Li	Configurations	Normal Link / Mode 2
Test Date	Jul. 18, 2015		

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

**Note:**

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

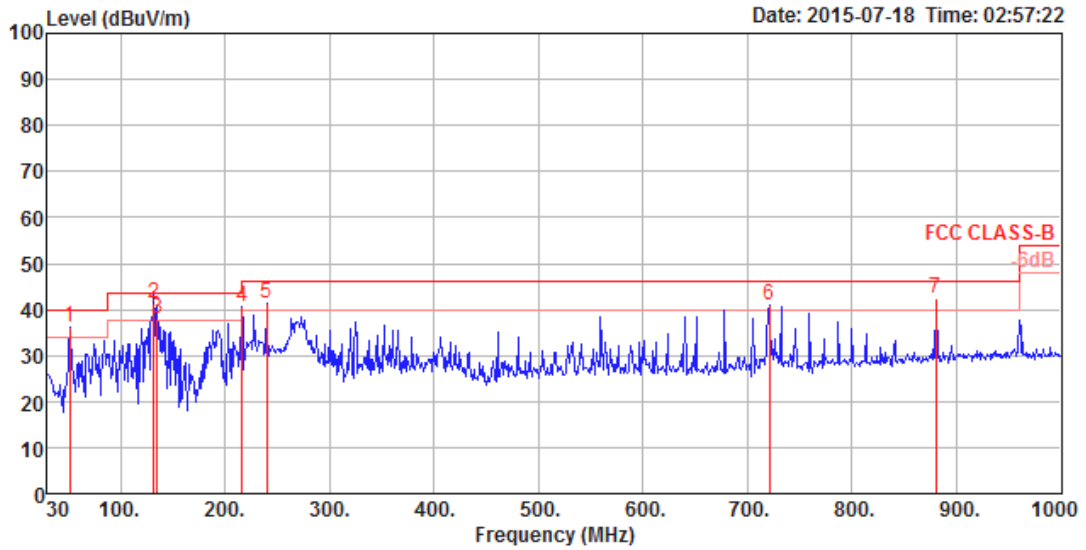
Distance extrapolation factor =  $40 \log(\text{specific distance} / \text{test distance})$  (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

4.5.8. Results of Radiated Emissions (30MHz~1GHz)

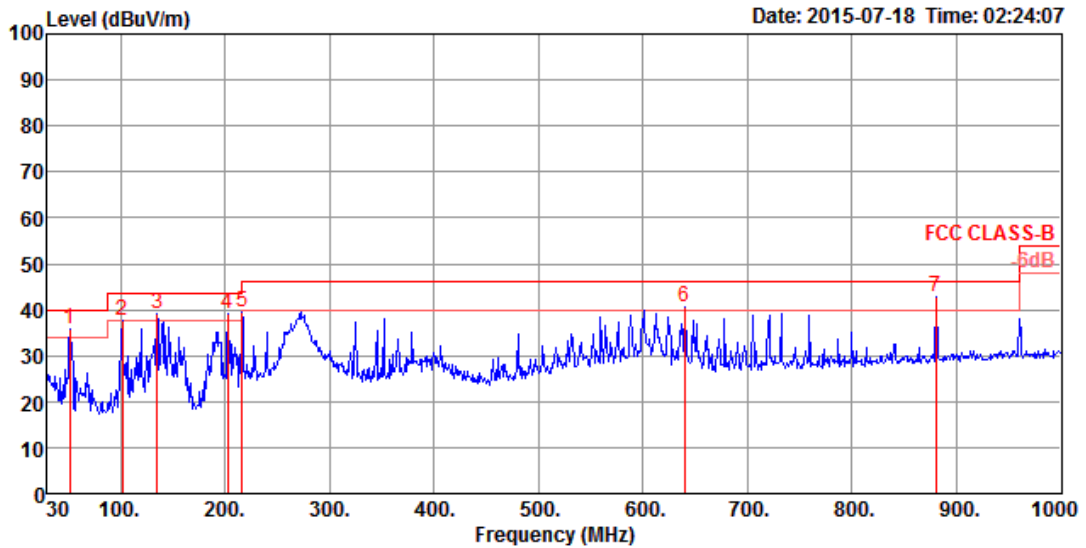
Temperature	24°C	Humidity	66%
Test Engineer	Alvin Li	Configurations	Normal Link / Mode 2

Horizontal



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	51.34	36.29	40.00	-3.71	59.25	0.73	8.72	32.41	150	183 Peak	HORIZONTAL
2	131.85	41.23	43.50	-2.27	59.96	1.05	12.59	32.37	200	114 QP	HORIZONTAL
3	134.76	38.10	43.50	-5.40	56.99	1.06	12.41	32.36	125	2 QP	HORIZONTAL
4	216.24	40.54	46.00	-5.46	60.82	1.30	10.74	32.32	200	23 Peak	HORIZONTAL
5	239.52	41.44	46.00	-4.56	60.27	1.36	12.12	32.31	150	174 Peak	HORIZONTAL
6	720.64	41.00	46.00	-5.00	51.16	2.17	20.01	32.34	150	216 Peak	HORIZONTAL
7	880.69	42.44	46.00	-3.56	50.32	2.41	21.55	31.84	100	195 Peak	HORIZONTAL

**Vertical**



	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	51.34	35.73	40.00	-4.27	58.69	0.73	8.72	32.41	125	89 Peak	VERTICAL
2	101.78	37.63	43.50	-5.87	57.77	0.94	11.31	32.39	150	316 Peak	VERTICAL
3	134.76	39.24	43.50	-4.26	58.13	1.06	12.41	32.36	200	115 Peak	VERTICAL
4	202.66	39.20	43.50	-4.30	59.75	1.27	10.51	32.33	100	192 Peak	VERTICAL
5	216.24	39.41	46.00	-6.59	59.69	1.30	10.74	32.32	100	192 Peak	VERTICAL
6	640.13	40.42	46.00	-5.58	51.21	2.09	19.51	32.39	125	39 Peak	VERTICAL
7	880.69	42.93	46.00	-3.07	50.81	2.41	21.55	31.84	100	58 Peak	VERTICAL

**Note:**

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

#### 4.5.9. Results for Radiated Emissions (1GHz~10<sup>th</sup> Harmonic)

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 1 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

##### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4824.01	43.15	54.00	-10.85	38.05	31.08	7.05	33.03	211	22	HORIZONTAL	Average
2	4824.20	49.94	74.00	-24.06	44.84	31.08	7.05	33.03	211	22	HORIZONTAL	Peak

##### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4823.80	50.59	74.00	-23.41	45.49	31.08	7.05	33.03	181	152	VERTICAL	Peak
2	4823.96	44.03	54.00	-9.97	38.93	31.08	7.05	33.03	181	152	VERTICAL	Average



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 6 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4873.97	43.29	54.00	-10.71	38.03	31.18	7.09	33.01	230	205	HORIZONTAL	Average
2	4874.22	50.61	74.00	-23.39	45.35	31.18	7.09	33.01	230	205	HORIZONTAL	Peak

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.01	50.76	74.00	-23.24	45.50	31.18	7.09	33.01	180	22	VERTICAL	Peak
2	4874.01	44.19	54.00	-9.81	38.93	31.18	7.09	33.01	180	22	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 11 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4924.04	42.02	54.00	-11.98	36.60	31.28	7.13	32.99	220	225	HORIZONTAL	Average
2	4924.14	49.58	74.00	-24.42	44.16	31.28	7.13	32.99	220	225	HORIZONTAL	Peak

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4923.86	49.54	74.00	-24.46	44.12	31.28	7.13	32.99	144	23	VERTICAL	Peak
2	4923.99	42.56	54.00	-11.44	37.14	31.28	7.13	32.99	144	23	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 12 / Chain 1
<b>Test Date</b>	Jul. 20, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.96	46.68	74.00	-27.32	44.14	4.15	32.88	34.49	154	135	Peak	HORIZONTAL
2	4933.99	40.79	54.00	-13.21	38.25	4.15	32.88	34.49	154	135	Average	HORIZONTAL
3	7399.42	37.21	54.00	-16.79	29.50	5.12	37.36	34.77	175	156	Average	HORIZONTAL
4	7400.02	50.28	74.00	-23.72	42.57	5.12	37.36	34.77	175	156	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.99	38.03	54.00	-15.97	35.49	4.15	32.88	34.49	157	117	Average	VERTICAL
2	4934.28	45.85	74.00	-28.15	43.31	4.15	32.88	34.49	157	117	Peak	VERTICAL
3	7399.23	49.94	74.00	-24.06	42.23	5.12	37.36	34.77	281	157	Peak	VERTICAL
4	7401.80	37.51	54.00	-16.49	29.78	5.12	37.38	34.77	281	157	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 13 / Chain 1
<b>Test Date</b>	Jul. 20, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.78	44.43	74.00	-29.57	41.85	4.16	32.91	34.49	304	196	Peak	HORIZONTAL
2	4944.01	34.51	54.00	-19.49	31.93	4.16	32.91	34.49	304	196	Average	HORIZONTAL
3	7414.40	36.90	54.00	-17.10	29.18	5.12	37.38	34.78	190	152	Average	HORIZONTAL
4	7414.51	49.86	74.00	-24.14	42.14	5.12	37.38	34.78	190	152	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.80	43.40	74.00	-30.60	40.82	4.16	32.91	34.49	281	186	Peak	VERTICAL
2	4944.01	32.36	54.00	-21.64	29.78	4.16	32.91	34.49	281	186	Average	VERTICAL
3	7416.02	49.84	74.00	-24.16	42.12	5.12	37.38	34.78	117	156	Peak	VERTICAL
4	7417.95	36.99	54.00	-17.01	29.25	5.12	37.40	34.78	117	156	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 1 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4824.00	46.64	74.00	-27.36	41.54	31.08	7.05	33.03	155	23	HORIZONTAL	Peak
2	4824.00	33.63	54.00	-20.37	28.53	31.08	7.05	33.03	155	23	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4823.25	46.75	74.00	-27.25	41.65	31.08	7.05	33.03	190	322	VERTICAL	Peak
2	4825.68	33.48	54.00	-20.52	28.34	31.11	7.06	33.03	190	322	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 6 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.00	46.99	74.00	-27.01	41.73	31.18	7.09	33.01	144	255	HORIZONTAL	Peak
2	4874.00	33.48	54.00	-20.52	28.22	31.18	7.09	33.01	144	255	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.00	46.22	74.00	-27.78	40.96	31.18	7.09	33.01	184	237	VERTICAL	Peak
2	4874.00	34.12	54.00	-19.88	28.86	31.18	7.09	33.01	184	237	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 11 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	4924.00	47.43	74.00	-26.57	42.01	31.28	7.13	32.99	136	265	HORIZONTAL Peak
2	4924.00	33.34	54.00	-20.66	27.92	31.28	7.13	32.99	136	265	HORIZONTAL Average

### Vertical

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	4924.00	45.92	74.00	-28.08	40.50	31.28	7.13	32.99	132	283	VERTICAL Peak
2	4924.00	33.17	54.00	-20.83	27.75	31.28	7.13	32.99	132	283	VERTICAL Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 12 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4934.00	46.79	74.00	-27.21	41.36	31.28	7.13	32.98	140	254	HORIZONTAL	Peak
2	4934.00	33.26	54.00	-20.74	27.83	31.28	7.13	32.98	140	254	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4934.00	46.62	74.00	-27.38	41.19	31.28	7.13	32.98	142	281	VERTICAL	Peak
2	4934.00	33.31	54.00	-20.69	27.88	31.28	7.13	32.98	142	281	VERTICAL	Average





<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 13 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

**Horizontal**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4944.00	46.97	74.00	-27.03	41.50	31.30	7.14	32.97	171	220	HORIZONTAL	Peak
2	4944.00	33.36	54.00	-20.64	27.89	31.30	7.14	32.97	171	220	HORIZONTAL	Average

**Vertical**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4944.00	46.55	74.00	-27.45	41.08	31.30	7.14	32.97	161	240	VERTICAL	Peak
2	4944.00	33.35	54.00	-20.65	27.88	31.30	7.14	32.97	161	240	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 1 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4824.00	46.10	74.00	-27.90	41.00	31.08	7.05	33.03	163	262	HORIZONTAL	Peak
2	4824.00	33.06	54.00	-20.94	27.96	31.08	7.05	33.03	163	262	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4824.00	46.61	74.00	-27.39	41.51	31.08	7.05	33.03	167	338	VERTICAL	Peak
2	4824.00	33.12	54.00	-20.88	28.02	31.08	7.05	33.03	167	338	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 6 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.00	47.19	74.00	-26.81	41.93	31.18	7.09	33.01	158	98	HORIZONTAL	Peak
2	4874.00	33.47	54.00	-20.53	28.21	31.18	7.09	33.01	158	98	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.00	47.54	74.00	-26.46	42.28	31.18	7.09	33.01	192	30	VERTICAL	Peak
2	4874.00	33.97	54.00	-20.03	28.71	31.18	7.09	33.01	192	30	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 11 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

#### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4924.00	46.70	74.00	-27.30	41.28	31.28	7.13	32.99	160	177	HORIZONTAL	Peak
2	4924.00	33.13	54.00	-20.87	27.71	31.28	7.13	32.99	160	177	HORIZONTAL	Average

#### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4924.00	47.55	74.00	-26.45	42.13	31.28	7.13	32.99	176	206	VERTICAL	Peak
2	4924.00	33.04	54.00	-20.96	27.62	31.28	7.13	32.99	176	206	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 12 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4934.00	46.20	74.00	-27.80	40.77	31.28	7.13	32.98	156	122	HORIZONTAL	Peak
2	4934.00	33.29	54.00	-20.71	27.86	31.28	7.13	32.98	156	184	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4934.00	46.99	74.00	-27.01	41.56	31.28	7.13	32.98	162	322	VERTICAL	Peak
2	4934.00	33.22	54.00	-20.78	27.79	31.28	7.13	32.98	162	322	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 13 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4944.00	46.39	74.00	-27.61	40.92	31.30	7.14	32.97	133	91	HORIZONTAL	Peak
2	4944.00	33.21	54.00	-20.79	27.74	31.30	7.14	32.97	133	91	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4944.00	46.87	74.00	-27.13	41.40	31.30	7.14	32.97	152	65	VERTICAL	Peak
2	4944.00	33.25	54.00	-20.75	27.78	31.30	7.14	32.97	152	65	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 3 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4844.00	45.50	74.00	-28.50	40.32	31.13	7.07	33.02	149	303	HORIZONTAL	Peak
2	4844.00	32.60	54.00	-21.40	27.42	31.13	7.07	33.02	149	303	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4844.00	45.98	74.00	-28.02	40.80	31.13	7.07	33.02	142	328	VERTICAL	Peak
2	4844.00	32.68	54.00	-21.32	27.50	31.13	7.07	33.02	142	328	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 6 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

**Horizontal**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.00	46.59	74.00	-27.41	41.33	31.18	7.09	33.01	174	300	HORIZONTAL	Peak
2	4874.00	33.27	54.00	-20.73	28.01	31.18	7.09	33.01	174	300	HORIZONTAL	Average

**Vertical**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4874.00	46.38	74.00	-27.62	41.12	31.18	7.09	33.01	186	262	VERTICAL	Peak
2	4874.00	33.38	54.00	-20.62	28.12	31.18	7.09	33.01	186	262	VERTICAL	Average



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 9 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

**Horizontal**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4904.00	46.32	74.00	-27.68	40.97	31.23	7.11	32.99	144	337	HORIZONTAL	Peak
2	4904.00	32.85	54.00	-21.15	27.50	31.23	7.11	32.99	144	337	HORIZONTAL	Average

**Vertical**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4904.00	46.53	74.00	-27.47	41.18	31.23	7.11	32.99	138	350	VERTICAL	Peak
2	4904.00	32.86	54.00	-21.14	27.51	31.23	7.11	32.99	138	350	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 10 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

#### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4914.00	46.25	74.00	-27.75	40.87	31.25	7.12	32.99	111	306	HORIZONTAL	Peak
2	4914.00	32.95	54.00	-21.05	27.57	31.25	7.12	32.99	111	306	HORIZONTAL	Average

#### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4914.00	45.75	74.00	-28.25	40.37	31.25	7.12	32.99	121	360	VERTICAL	Peak
2	4914.00	33.00	54.00	-21.00	27.62	31.25	7.12	32.99	121	360	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 11 / Chain 1
<b>Test Date</b>	Jul. 03, 2015	<b>Test Mode</b>	Mode 1

### Horizontal

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4924.00	46.34	74.00	-27.66	40.92	31.28	7.13	32.99	133	162	HORIZONTAL	Peak
2	4924.00	33.07	54.00	-20.93	27.65	31.28	7.13	32.99	133	162	HORIZONTAL	Average

### Vertical

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	4924.00	46.10	74.00	-27.90	40.68	31.28	7.13	32.99	173	216	VERTICAL	Peak
2	4924.00	33.04	54.00	-20.96	27.62	31.28	7.13	32.99	173	216	VERTICAL	Average

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 1 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.88	51.04	74.00	-22.96	48.77	4.10	32.69	34.52	131	225	Peak	HORIZONTAL
2	4824.00	47.19	54.00	-6.81	44.92	4.10	32.69	34.52	131	225	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.98	48.06	54.00	-5.94	45.79	4.10	32.69	34.52	176	208	Average	VERTICAL
2	4824.02	51.86	74.00	-22.14	49.59	4.10	32.69	34.52	176	208	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.98	44.36	54.00	-9.64	41.96	4.13	32.78	34.51	135	109	Average	HORIZONTAL
2	4874.11	50.32	74.00	-23.68	47.92	4.13	32.78	34.51	135	109	Peak	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.95	52.75	74.00	-21.25	50.35	4.13	32.78	34.51	176	199	Peak	VERTICAL
2	4874.01	49.18	54.00	-4.82	46.78	4.13	32.78	34.51	176	199	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.92	51.04	74.00	-22.96	48.50	4.15	32.88	34.49	155	215	Peak	HORIZONTAL
2	4924.00	46.62	54.00	-7.38	44.08	4.15	32.88	34.49	155	215	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.00	47.68	54.00	-6.32	45.14	4.15	32.88	34.49	196	165	Average	VERTICAL
2	4924.07	51.86	74.00	-22.14	49.32	4.15	32.88	34.49	196	165	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 12 / Chain 1
<b>Test Date</b>	Jul. 20, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.96	49.62	74.00	-24.38	47.08	4.15	32.88	34.49	146	142	Peak	HORIZONTAL
2	4934.00	43.16	54.00	-10.84	40.62	4.15	32.88	34.49	146	142	Average	HORIZONTAL
3	7400.24	40.22	54.00	-13.78	32.51	5.12	37.36	34.77	62	113	Average	HORIZONTAL
4	7402.13	51.74	74.00	-22.26	44.01	5.12	37.38	34.77	62	113	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4934.00	44.75	54.00	-9.25	42.21	4.15	32.88	34.49	202	142	Average	VERTICAL
2	4934.15	49.72	74.00	-24.28	47.18	4.15	32.88	34.49	202	142	Peak	VERTICAL
3	7401.74	39.44	54.00	-14.56	31.71	5.12	37.38	34.77	27	100	Average	VERTICAL
4	7403.12	51.54	74.00	-22.46	43.81	5.12	37.38	34.77	27	100	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 13 / Chain 1
<b>Test Date</b>	Jul. 20, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4944.00	37.45	54.00	-16.55	34.87	4.16	32.91	34.49	144	140	Average	HORIZONTAL
2	4944.22	46.56	74.00	-27.44	43.98	4.16	32.91	34.49	144	140	Peak	HORIZONTAL
3	7415.13	36.97	54.00	-17.03	29.25	5.12	37.38	34.78	173	101	Average	HORIZONTAL
4	7416.18	49.99	74.00	-24.01	42.27	5.12	37.38	34.78	173	101	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.99	38.80	54.00	-15.20	36.22	4.16	32.91	34.49	203	137	Average	VERTICAL
2	4944.26	47.13	74.00	-26.87	44.55	4.16	32.91	34.49	203	137	Peak	VERTICAL
3	7415.14	37.46	54.00	-16.54	29.74	5.12	37.38	34.78	54	101	Average	VERTICAL
4	7415.46	49.95	74.00	-24.05	42.23	5.12	37.38	34.78	54	101	Peak	VERTICAL



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 1 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.26	31.94	54.00	-22.06	29.67	4.10	32.69	34.52	152	150	Average	HORIZONTAL
2	4824.81	44.57	74.00	-29.43	42.30	4.10	32.69	34.52	152	150	Peak	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.90	45.02	74.00	-28.98	42.75	4.10	32.69	34.52	160	151	Peak	VERTICAL
2	4824.17	32.22	54.00	-21.78	29.95	4.10	32.69	34.52	160	151	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4874.50	32.74	54.00	-21.26	30.34	4.13	32.78	34.51	136	151	Average	HORIZONTAL
2	4874.55	45.45	74.00	-28.55	43.05	4.13	32.78	34.51	136	151	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4874.45	32.66	54.00	-21.34	30.26	4.13	32.78	34.51	136	152	Average	VERTICAL
2	4874.48	45.84	74.00	-28.16	43.44	4.13	32.78	34.51	136	152	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.14	32.06	54.00	-21.94	29.52	4.15	32.88	34.49	138	152	Average	HORIZONTAL
2	4924.20	44.72	74.00	-29.28	42.18	4.15	32.88	34.49	138	152	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.01	45.06	74.00	-28.94	42.52	4.15	32.88	34.49	144	150	Peak	VERTICAL
2	4924.64	32.01	54.00	-21.99	29.47	4.15	32.88	34.49	144	150	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 12 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.44	31.96	74.00	-42.04	29.42	4.15	32.88	34.49	146	150	Peak	HORIZONTAL
2	4933.44	31.96	54.00	-22.04	29.42	4.15	32.88	34.49	146	150	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.03	31.70	54.00	-22.30	29.16	4.15	32.88	34.49	148	150	Average	VERTICAL
2	4934.95	45.20	74.00	-28.80	42.66	4.15	32.88	34.49	148	150	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 13 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4944.00	45.15	74.00	-28.85	42.57	4.16	32.91	34.49	155	151	Peak	HORIZONTAL
2	4944.50	32.25	54.00	-21.75	29.67	4.16	32.91	34.49	155	151	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.32	32.80	54.00	-21.20	30.22	4.16	32.91	34.49	158	151	Average	VERTICAL
2	4944.74	45.79	74.00	-28.21	43.21	4.16	32.91	34.49	158	151	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 1 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.83	31.35	54.00	-22.65	29.08	4.10	32.69	34.52	158	151	Average	HORIZONTAL
2	4823.95	43.76	74.00	-30.24	41.49	4.10	32.69	34.52	158	151	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.11	31.89	54.00	-22.11	29.62	4.10	32.69	34.52	168	151	Average	VERTICAL
2	4824.90	45.13	74.00	-28.87	42.86	4.10	32.69	34.52	168	151	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4874.58	31.61	54.00	-22.39	29.21	4.13	32.78	34.51	168	151	Average	HORIZONTAL
2	4874.63	44.16	74.00	-29.84	41.76	4.13	32.78	34.51	168	151	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.45	44.62	74.00	-29.38	42.22	4.13	32.78	34.51	175	151	Peak	VERTICAL
2	4873.78	31.38	54.00	-22.62	28.98	4.13	32.78	34.51	175	151	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.48	44.25	74.00	-29.75	41.71	4.15	32.88	34.49	178	151	Peak	HORIZONTAL
2	4924.72	31.69	54.00	-22.31	29.15	4.15	32.88	34.49	178	151	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.65	44.93	74.00	-29.07	42.39	4.15	32.88	34.49	182	151	Peak	VERTICAL
2	4924.77	31.66	54.00	-22.34	29.12	4.15	32.88	34.49	182	151	Average	VERTICAL



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 12 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.12	31.56	54.00	-22.44	29.02	4.15	32.88	34.49	188	151	Average	HORIZONTAL
2	4933.24	44.03	74.00	-29.97	41.49	4.15	32.88	34.49	188	151	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.40	31.48	54.00	-22.52	28.94	4.15	32.88	34.49	192	151	Average	VERTICAL
2	4933.88	44.20	74.00	-29.80	41.66	4.15	32.88	34.49	192	151	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 13 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.04	44.52	74.00	-29.48	41.94	4.16	32.91	34.49	198	151	Peak	HORIZONTAL
2	4944.97	31.59	54.00	-22.41	29.01	4.16	32.91	34.49	198	151	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4944.37	44.05	74.00	-29.95	41.47	4.16	32.91	34.49	205	151	Peak	VERTICAL
2	4944.90	31.64	54.00	-22.36	29.06	4.16	32.91	34.49	205	151	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 3 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4843.46	44.57	74.00	-29.43	42.25	4.11	32.72	34.51	209	151	Peak	HORIZONTAL
2	4843.79	31.83	54.00	-22.17	29.51	4.11	32.72	34.51	209	151	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4843.81	31.89	74.00	-42.11	29.57	4.11	32.72	34.51	211	151	Peak	VERTICAL
2	4843.81	31.89	54.00	-22.11	29.57	4.11	32.72	34.51	211	151	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.12	31.54	54.00	-22.46	29.14	4.13	32.78	34.51	214	151	Average	HORIZONTAL
2	4874.54	44.24	74.00	-29.76	41.84	4.13	32.78	34.51	214	151	Peak	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.76	44.14	74.00	-29.86	41.74	4.13	32.78	34.51	217	151	Peak	VERTICAL
2	4874.62	31.66	54.00	-22.34	29.26	4.13	32.78	34.51	217	151	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 9 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4903.56	31.39	54.00	-22.61	28.91	4.14	32.84	34.50	221	151	Average	HORIZONTAL
2	4904.04	44.08	74.00	-29.92	41.60	4.14	32.84	34.50	221	151	Peak	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4903.63	44.81	74.00	-29.19	42.33	4.14	32.84	34.50	225	151	Peak	VERTICAL
2	4903.75	31.38	54.00	-22.62	28.90	4.14	32.84	34.50	225	151	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 10 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4913.10	31.71	54.00	-22.29	29.23	4.14	32.84	34.50	234	151	Average	HORIZONTAL
2	4914.16	44.81	74.00	-29.19	42.33	4.14	32.84	34.50	234	151	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4913.36	31.58	54.00	-22.42	29.10	4.14	32.84	34.50	237	151	Average	VERTICAL
2	4913.66	44.32	74.00	-29.68	41.84	4.14	32.84	34.50	237	151	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 2

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.28	44.51	74.00	-29.49	41.97	4.15	32.88	34.49	242	151	Peak	HORIZONTAL
2	4924.23	31.39	54.00	-22.61	28.85	4.15	32.88	34.49	242	151	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.48	31.61	54.00	-22.39	29.07	4.15	32.88	34.49	249	151	Average	VERTICAL
2	4924.95	45.36	74.00	-28.64	42.82	4.15	32.88	34.49	249	151	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 1 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.96	44.86	54.00	-9.14	42.59	4.10	32.69	34.52	209	119	Average	HORIZONTAL
2	4824.04	49.60	74.00	-24.40	47.33	4.10	32.69	34.52	209	119	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.99	45.88	54.00	-8.12	43.61	4.10	32.69	34.52	153	161	Average	VERTICAL
2	4824.00	50.69	74.00	-23.31	48.42	4.10	32.69	34.52	153	161	Peak	VERTICAL



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4874.03	49.57	74.00	-24.43	47.17	4.13	32.78	34.51	206	105	Peak	HORIZONTAL
2	4874.03	44.55	54.00	-9.45	42.15	4.13	32.78	34.51	206	105	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.98	46.16	54.00	-7.84	43.76	4.13	32.78	34.51	157	114	Average	VERTICAL
2	4873.99	51.17	74.00	-22.83	48.77	4.13	32.78	34.51	157	114	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.84	47.99	74.00	-26.01	45.45	4.15	32.88	34.49	203	100	Peak	HORIZONTAL
2	4924.04	41.76	54.00	-12.24	39.22	4.15	32.88	34.49	203	100	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.03	45.12	54.00	-8.88	42.58	4.15	32.88	34.49	154	133	Average	VERTICAL
2	4924.14	49.83	74.00	-24.17	47.29	4.15	32.88	34.49	154	133	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 12 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4933.81	47.21	74.00	-26.79	44.67	4.15	32.88	34.49	209	124	Peak	HORIZONTAL
2	4933.99	36.87	54.00	-17.13	34.33	4.15	32.88	34.49	209	124	Average	HORIZONTAL
3	7399.92	39.12	54.00	-14.88	31.41	5.12	37.36	34.77	16	102	Average	HORIZONTAL
4	7400.71	51.10	74.00	-22.90	43.37	5.12	37.38	34.77	16	102	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4934.02	43.57	54.00	-10.43	41.03	4.15	32.88	34.49	184	100	Average	VERTICAL
2	4934.07	49.35	74.00	-24.65	46.81	4.15	32.88	34.49	184	100	Peak	VERTICAL
3	7400.19	38.97	54.00	-15.03	31.26	5.12	37.36	34.77	330	143	Average	VERTICAL
4	7402.18	50.78	74.00	-23.22	43.05	5.12	37.38	34.77	330	143	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 13 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.12	45.26	74.00	-28.74	42.68	4.16	32.91	34.49	3	100	Peak	HORIZONTAL
2	4943.99	33.32	54.00	-20.68	30.74	4.16	32.91	34.49	3	100	Average	HORIZONTAL
3	7414.78	49.94	74.00	-24.06	42.22	5.12	37.38	34.78	312	100	Peak	HORIZONTAL
4	7416.29	36.66	54.00	-17.34	28.94	5.12	37.38	34.78	312	100	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4943.99	38.06	54.00	-15.94	35.48	4.16	32.91	34.49	183	100	Average	VERTICAL
2	4944.02	47.06	74.00	-26.94	44.48	4.16	32.91	34.49	183	100	Peak	VERTICAL
3	7416.44	36.77	54.00	-17.23	29.05	5.12	37.38	34.78	171	100	Average	VERTICAL
4	7416.70	49.53	74.00	-24.47	41.81	5.12	37.38	34.78	171	100	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 1 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

**Horizontal**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4830.12	31.14	54.00	-22.86	28.87	4.10	32.69	34.52	73	105	Average	HORIZONTAL
2	4832.68	44.72	74.00	-29.28	42.45	4.10	32.69	34.52	73	105	Peak	HORIZONTAL

**Vertical**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.96	32.08	54.00	-21.92	29.81	4.10	32.69	34.52	32	122	Average	VERTICAL
2	4825.08	44.38	74.00	-29.62	42.11	4.10	32.69	34.52	32	122	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4868.52	30.84	54.00	-23.16	28.44	4.13	32.78	34.51	22	100	Average	HORIZONTAL
2	4873.08	44.89	74.00	-29.11	42.49	4.13	32.78	34.51	22	100	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4865.40	31.45	54.00	-22.55	29.09	4.12	32.75	34.51	3	100	Average	VERTICAL
2	4866.92	44.22	74.00	-29.78	41.86	4.12	32.75	34.51	3	100	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4926.04	44.04	74.00	-29.96	41.50	4.15	32.88	34.49	147	100	Peak	HORIZONTAL
2	4927.96	31.75	54.00	-22.25	29.21	4.15	32.88	34.49	147	100	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4927.76	44.60	74.00	-29.40	42.06	4.15	32.88	34.49	120	104	Peak	VERTICAL
2	4933.24	31.65	54.00	-22.35	29.11	4.15	32.88	34.49	120	104	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 12 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4932.72	31.85	54.00	-22.15	29.31	4.15	32.88	34.49	197	100	Average	HORIZONTAL
2	4938.40	44.87	74.00	-29.13	42.29	4.16	32.91	34.49	197	100	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.72	44.05	74.00	-29.95	41.51	4.15	32.88	34.49	262	100	Peak	VERTICAL
2	4932.36	32.59	54.00	-21.41	30.05	4.15	32.88	34.49	262	100	Average	VERTICAL



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 13 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4938.24	31.82	54.00	-22.18	29.24	4.16	32.91	34.49	209	100	Average	HORIZONTAL
2	4946.72	44.16	74.00	-29.84	41.58	4.16	32.91	34.49	209	100	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4937.44	31.89	54.00	-22.11	29.31	4.16	32.91	34.49	84	100	Average	VERTICAL
2	4941.32	45.14	74.00	-28.86	42.56	4.16	32.91	34.49	84	100	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 1 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4818.80	30.95	54.00	-23.05	28.68	4.10	32.69	34.52	203	100	Average	HORIZONTAL
2	4824.96	43.62	74.00	-30.38	41.35	4.10	32.69	34.52	203	100	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4814.16	31.31	54.00	-22.69	29.08	4.09	32.66	34.52	134	100	Average	VERTICAL
2	4816.20	44.94	74.00	-29.06	42.71	4.09	32.66	34.52	134	100	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	4869.36	45.37	74.00	-28.63	42.97	4.13	32.78	34.51	221	100 Peak	HORIZONTAL
2	4875.80	31.27	54.00	-22.73	28.87	4.13	32.78	34.51	221	100 Average	HORIZONTAL

### Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	4874.24	40.39	74.00	-33.61	37.99	4.13	32.78	34.51	109	100 Peak	VERTICAL
2	4874.32	30.61	54.00	-23.39	28.21	4.13	32.78	34.51	109	100 Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm			
1	4921.48	44.76	74.00	-29.24	42.22	4.15	32.88	34.49	226	101	Peak	HORIZONTAL
2	4929.52	31.52	54.00	-22.48	28.98	4.15	32.88	34.49	226	101	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm			
1	4928.08	43.87	74.00	-30.13	41.33	4.15	32.88	34.49	297	103	Peak	VERTICAL
2	4929.40	31.74	54.00	-22.26	29.20	4.15	32.88	34.49	297	103	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 12 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4929.56	44.73	74.00	-29.27	42.19	4.15	32.88	34.49	219	111	Peak	HORIZONTAL
2	4937.72	31.72	54.00	-22.28	29.14	4.16	32.91	34.49	219	111	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4926.76	44.41	74.00	-29.59	41.87	4.15	32.88	34.49	360	100	Peak	VERTICAL
2	4930.60	31.76	54.00	-22.24	29.22	4.15	32.88	34.49	360	100	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 13 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4949.04	44.46	74.00	-29.54	41.88	4.16	32.91	34.49	301	192	Peak	HORIZONTAL
2	4949.20	31.70	54.00	-22.30	29.12	4.16	32.91	34.49	301	192	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4935.44	30.69	54.00	-23.31	28.15	4.15	32.88	34.49	330	127	Average	VERTICAL
2	4942.76	43.23	74.00	-30.77	40.65	4.16	32.91	34.49	330	127	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 3 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4816.00	43.94	74.00	-30.06	41.71	4.09	32.66	34.52	248	103	Peak	HORIZONTAL
2	4821.20	30.32	54.00	-23.68	28.05	4.10	32.69	34.52	248	103	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4818.84	30.45	54.00	-23.55	28.18	4.10	32.69	34.52	143	100	Average	VERTICAL
2	4825.24	43.31	74.00	-30.69	41.04	4.10	32.69	34.52	143	100	Peak	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 6 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4868.76	43.24	74.00	-30.76	40.84	4.13	32.78	34.51	145	110	Peak	HORIZONTAL
2	4878.40	30.66	54.00	-23.34	28.26	4.13	32.78	34.51	145	110	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4869.96	30.93	54.00	-23.07	28.53	4.13	32.78	34.51	145	113	Average	VERTICAL
2	4870.68	43.36	74.00	-30.64	40.96	4.13	32.78	34.51	357	113	Peak	VERTICAL



<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 9 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4910.08	43.58	74.00	-30.42	41.10	4.14	32.84	34.50	214	100	Peak	HORIZONTAL
2	4913.28	30.89	54.00	-23.11	28.41	4.14	32.84	34.50	214	100	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4907.28	43.31	74.00	-30.69	40.83	4.14	32.84	34.50	288	122	Peak	VERTICAL
2	4909.52	31.00	54.00	-23.00	28.52	4.14	32.84	34.50	288	122	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 10 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4908.20	43.78	74.00	-30.22	41.30	4.14	32.84	34.50	197	105	Peak	HORIZONTAL
2	4938.30	31.27	54.00	-22.73	28.69	4.16	32.91	34.49	197	105	Average	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4906.92	44.13	74.00	-29.87	41.65	4.14	32.84	34.50	244	100	Peak	VERTICAL
2	4917.84	31.19	54.00	-22.81	28.70	4.14	32.84	34.49	244	100	Average	VERTICAL

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 11 / Chain 1
<b>Test Date</b>	Jul. 07, 2015	<b>Test Mode</b>	Mode 3

### Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4960.22	31.77	54.00	-22.23	29.15	4.17	32.94	34.49	144	114	Average	HORIZONTAL
2	4960.80	44.04	74.00	-29.96	41.42	4.17	32.94	34.49	144	114	Peak	HORIZONTAL

### Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4937.24	44.45	74.00	-29.55	41.87	4.16	32.91	34.49	27	123	Peak	VERTICAL
2	4937.80	32.26	54.00	-21.74	29.68	4.16	32.91	34.49	27	123	Average	VERTICAL

### Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

## 4.6. Emissions Measurement

### 4.6.1. Limit

30dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

### 4.6.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (30dBc in any 100 kHz bandwidth emission)	100 kHz / 300 kHz for Peak

### 4.6.3. Test Procedures

For Radiated band edges Measurement:

1. The test procedure is the same as section 4.5.3.

For Radiated Out of Band Emission Measurement:

1. Test was performed in accordance with KDB558074 D01 v03r03 for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 10.1 Unwanted Emissions into Non-Restricted Frequency Bands Measurement Procedure.

#### **4.6.4. Test Setup Layout**

For Radiated band edges Measurement:

This test setup layout is the same as that shown in section 4.5.4.

For Radiated Out of Band Emission Measurement:

This test setup layout is the same as that shown in section 4.5.4.

#### **4.6.5. Test Deviation**

There is no deviation with the original standard.

#### **4.6.6. EUT Operation during Test**

The EUT was programmed to be in continuously transmitting mode.

#### 4.6.7. Test Result of Band Edge and Fundamental Emissions

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 1	<b>Test Date</b>	Jul. 10, 2015, Jul. 23, 2015

##### Channel 1

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2373.94	59.70	74.00	-14.30	27.80	27.00	4.90	0.00	100	352	HORIZONTAL	Peak
2	2386.38	45.43	54.00	-8.57	13.49	27.03	4.91	0.00	100	352	HORIZONTAL	Average
3	2412.00	104.32			72.28	27.10	4.94	0.00	100	352	HORIZONTAL	Peak
4	2412.72	101.33			69.29	27.10	4.94	0.00	100	352	HORIZONTAL	Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

##### Channel 6

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2350.75	58.72	74.00	-15.28	26.90	26.95	4.87	0.00	100	353	HORIZONTAL	Peak
2	2353.06	44.81	54.00	-9.19	12.98	26.95	4.88	0.00	100	353	HORIZONTAL	Average
3	2437.00	105.14			73.03	27.15	4.96	0.00	100	353	HORIZONTAL	Peak
4	2437.87	102.16			70.04	27.15	4.97	0.00	100	353	HORIZONTAL	Average
5	2486.68	45.94	54.00	-8.06	13.65	27.27	5.02	0.00	100	353	HORIZONTAL	Average
6	2491.89	59.44	74.00	-14.56	27.14	27.28	5.02	0.00	100	353	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

##### Channel 11

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2461.28	102.61			70.40	27.22	4.99	0.00	100	354	HORIZONTAL	Average
2	2461.86	105.63			73.42	27.22	4.99	0.00	100	354	HORIZONTAL	Peak
3	2487.76	46.50	54.00	-7.50	14.21	27.27	5.02	0.00	100	354	HORIZONTAL	Average
4	2505.99	59.86	74.00	-14.14	27.50	27.32	5.04	0.00	100	354	HORIZONTAL	Peak

Item 1, 2 are the fundamental frequency at 2462 MHz.

**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1 0	2466.00	109.39			78.15	3.93	27.31	0.00	180	249 Peak	VERTICAL
2 0	2466.20	105.62			74.38	3.93	27.31	0.00	180	249 Average	VERTICAL
3	2484.10	51.81	54.00	-2.19	20.50	3.95	27.36	0.00	180	249 Average	VERTICAL
4	2484.10	59.89	74.00	-14.11	28.58	3.95	27.36	0.00	180	249 Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1 0	2471.00	106.62			75.35	3.94	27.33	0.00	161	92 Peak	VERTICAL
2 0	2471.20	102.69			71.42	3.94	27.33	0.00	161	92 Average	VERTICAL
3	2483.50	61.80	74.00	-12.20	30.49	3.95	27.36	0.00	161	92 Peak	VERTICAL
4	2483.70	51.97	54.00	-2.03	20.66	3.95	27.36	0.00	161	92 Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 1	<b>Test Date</b>	Jul. 10, 2015, Jul. 03, 2015

**Channel 1**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2388.27	59.82	74.00	-14.18	27.88	27.03	4.91	0.00	100	352	HORIZONTAL	Peak
2	2390.00	45.93	54.00	-8.07	13.98	27.03	4.92	0.00	100	352	HORIZONTAL	Average
3	2414.03	92.70			60.66	27.10	4.94	0.00	100	352	HORIZONTAL	Average
4	2418.80	102.63			70.57	27.11	4.95	0.00	100	352	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2370.14	44.77	54.00	-9.23	12.88	27.00	4.89	0.00	100	353	HORIZONTAL	Average
2	2387.68	57.70	74.00	-16.30	25.76	27.03	4.91	0.00	100	353	HORIZONTAL	Peak
3	2443.37	95.38			63.25	27.16	4.97	0.00	100	353	HORIZONTAL	Average
4	2443.95	105.30			73.17	27.16	4.97	0.00	100	353	HORIZONTAL	Peak
5	2486.39	58.96	74.00	-15.04	26.67	27.27	5.02	0.00	100	353	HORIZONTAL	Peak
6	2498.84	46.01	54.00	-7.99	13.68	27.30	5.03	0.00	100	353	HORIZONTAL	Average

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2455.63	104.09			71.91	27.20	4.98	0.00	100	355	HORIZONTAL	Peak
2	2459.40	94.49			62.30	27.20	4.99	0.00	100	355	HORIZONTAL	Average
3	2483.50	61.99	74.00	-12.01	29.71	27.27	5.01	0.00	100	355	HORIZONTAL	Peak
4	2483.50	47.03	54.00	-6.97	14.75	27.27	5.01	0.00	100	355	HORIZONTAL	Average

Item 1, 2 are the fundamental frequency at 2462 MHz.



**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2460.80	103.62	74.00			2.90	28.05	0.00	67	111	Peak	VERTICAL
2	2461.80	94.08	54.00			2.90	28.05	0.00	67	111	Average	VERTICAL
3	2483.50	48.14	54.00	-5.86	17.21	2.91	28.02	0.00	67	111	Average	VERTICAL
4	2484.20	60.49	74.00	-13.51	29.56	2.91	28.02	0.00	67	111	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2473.40	99.91			68.98	2.91	28.02	0.00	67	159	Peak	VERTICAL
2	2474.00	90.42			59.49	2.91	28.02	0.00	67	159	Average	VERTICAL
3	2483.50	70.68	74.00	-3.32	39.75	2.91	28.02	0.00	67	159	Peak	VERTICAL
4	2483.50	51.97	54.00	-2.03	21.04	2.91	28.02	0.00	67	159	Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 1	<b>Test Date</b>	Jul. 10, 2015, Jul. 03, 2015

**Channel 1**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	59.95	74.00	-14.05	28.00	27.03	4.92	0.00	100	352	HORIZONTAL Peak
2	2390.00	45.73	54.00	-8.27	13.78	27.03	4.92	0.00	100	352	HORIZONTAL Average
3	2409.11	100.26	74.00			27.08	4.94	0.00	100	352	HORIZONTAL Peak
4	2417.35	90.47	54.00			27.10	4.94	0.00	100	352	HORIZONTAL Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2372.75	58.78	74.00	-15.22	26.88	27.00	4.90	0.00	103	352	HORIZONTAL Peak
2	2389.13	44.96	54.00	-9.04	13.02	27.03	4.91	0.00	103	352	HORIZONTAL Average
3	2433.82	105.01			72.90	27.15	4.96	0.00	103	352	HORIZONTAL Peak
4	2442.50	95.29			63.16	27.16	4.97	0.00	103	352	HORIZONTAL Average
5	2483.50	58.81	74.00	-15.19	26.53	27.27	5.01	0.00	103	352	HORIZONTAL Peak
6	2483.50	45.91	54.00	-8.09	13.63	27.27	5.01	0.00	103	352	HORIZONTAL Average

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2456.36	93.20			61.01	27.20	4.99	0.00	102	354	HORIZONTAL Average
2	2459.11	103.91			71.72	27.20	4.99	0.00	102	354	HORIZONTAL Peak
3	2483.50	47.04	54.00	-6.96	14.76	27.27	5.01	0.00	102	354	HORIZONTAL Average
4	2483.79	61.92	74.00	-12.08	29.64	27.27	5.01	0.00	102	354	HORIZONTAL Peak

Item 1, 2 are the fundamental frequency at 2462 MHz.

**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	2461.40	92.61	54.00			2.90	28.05	0.00	279	166 Average	VERTICAL
2	2464.00	102.01	74.00			2.90	28.05	0.00	279	166 Peak	VERTICAL
3	2483.50	48.36	54.00	-5.64	17.43	2.91	28.02	0.00	279	166 Average	VERTICAL
4	2484.20	61.00	74.00	-13.00	30.07	2.91	28.02	0.00	279	166 Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	2469.00	98.90	74.00			2.90	28.05	0.00	282	148 Peak	VERTICAL
2	2473.60	89.01	54.00			2.91	28.02	0.00	282	148 Average	VERTICAL
3	2483.50	71.97	74.00	-2.03	41.04	2.91	28.02	0.00	282	148 Peak	VERTICAL
4	2483.50	51.83	54.00	-2.17	20.90	2.91	28.02	0.00	282	148 Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 3, 6, 9, 10, 11 /Chain 1
<b>Test Mode</b>	Mode 1	<b>Test Date</b>	Jul. 10, 2015, Jul. 03, 2015

### Channel 3

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2389.58	59.49	74.00	-14.51	27.55	27.03	4.91	0.00	101	352	HORIZONTAL	Peak
2	2390.00	46.99	54.00	-7.01	15.04	27.03	4.92	0.00	101	352	HORIZONTAL	Average
3	2431.26	88.91			56.82	27.13	4.96	0.00	101	352	HORIZONTAL	Average
4	2432.42	99.16			67.05	27.15	4.96	0.00	101	352	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2422 MHz.

### Channel 6

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2323.25	58.45	74.00	-15.55	26.73	26.88	4.84	0.00	102	353	HORIZONTAL	Peak
2	2390.00	45.13	54.00	-8.87	13.18	27.03	4.92	0.00	102	353	HORIZONTAL	Average
3	2442.21	89.68			57.55	27.16	4.97	0.00	102	353	HORIZONTAL	Average
4	2443.95	99.85			67.72	27.16	4.97	0.00	102	353	HORIZONTAL	Peak
5	2483.50	46.26	54.00	-7.74	13.98	27.27	5.01	0.00	102	353	HORIZONTAL	Average
6	2507.38	59.75	74.00	-14.25	27.39	27.32	5.04	0.00	102	353	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

### Channel 9

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2449.97	100.46			68.30	27.18	4.98	0.00	101	353	HORIZONTAL	Peak
2	2457.50	89.98			57.79	27.20	4.99	0.00	101	353	HORIZONTAL	Average
3	2483.50	47.91	54.00	-6.09	15.63	27.27	5.01	0.00	101	353	HORIZONTAL	Average
4	2484.95	61.21	74.00	-12.79	28.93	27.27	5.01	0.00	101	353	HORIZONTAL	Peak

Item 1, 2 are the fundamental frequency at 2452 MHz.

**Channel 10**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	2449.40	99.72			68.76	2.89	28.07	0.00	94	169 Peak	VERTICAL
2	2451.40	90.44			59.48	2.89	28.07	0.00	94	169 Average	VERTICAL
3	2483.50	58.33	74.00	-15.67	27.40	2.91	28.02	0.00	94	169 Peak	VERTICAL
4	2483.50	47.91	54.00	-6.09	16.98	2.91	28.02	0.00	94	169 Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2457 MHz.

**Channel 11**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	2457.60	83.12			52.17	2.90	28.05	0.00	278	169 Average	VERTICAL
2	2472.40	93.03			62.10	2.91	28.02	0.00	278	169 Peak	VERTICAL
3	2483.50	64.21	74.00	-9.79	33.28	2.91	28.02	0.00	278	169 Peak	VERTICAL
4	2483.50	51.65	54.00	-2.35	20.72	2.91	28.02	0.00	278	169 Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 2	<b>Test Date</b>	Jul. 10, 2015, Jul. 23, 2015

**Channel 1**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2373.94	60.87	74.00	-13.13	28.97	27.00	4.90	0.00	156	360	HORIZONTAL	Peak
2	2386.53	46.10	54.00	-7.90	14.16	27.03	4.91	0.00	156	360	HORIZONTAL	Average
3	2412.00	105.02			72.98	27.10	4.94	0.00	156	360	HORIZONTAL	Peak
4	2412.72	102.13			70.09	27.10	4.94	0.00	156	360	HORIZONTAL	Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2360.01	45.97	54.00	-8.03	14.13	26.96	4.88	0.00	148	358	HORIZONTAL	Average
2	2373.90	59.15	74.00	-14.85	27.25	27.00	4.90	0.00	148	358	HORIZONTAL	Peak
3	2437.00	108.06			75.95	27.15	4.96	0.00	148	358	HORIZONTAL	Peak
4	2437.87	105.21			73.09	27.15	4.97	0.00	148	358	HORIZONTAL	Average
5	2485.82	60.07	74.00	-13.93	27.78	27.27	5.02	0.00	148	358	HORIZONTAL	Peak
6	2494.21	47.15	54.00	-6.85	14.85	27.28	5.02	0.00	148	358	HORIZONTAL	Average

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2462.00	108.55			76.34	27.22	4.99	0.00	142	359	HORIZONTAL	Peak
2	2462.72	105.64			73.43	27.22	4.99	0.00	142	359	HORIZONTAL	Average
3	2487.70	60.62	74.00	-13.38	28.33	27.27	5.02	0.00	142	359	HORIZONTAL	Peak
4	2487.70	48.50	54.00	-5.50	16.21	27.27	5.02	0.00	142	359	HORIZONTAL	Average

Item 1, 2 are the fundamental frequency at 2462 MHz.

**Channel 12**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1 0	2466.20	105.94			74.70	3.93	27.31	0.00	175	187	Average	HORIZONTAL
2 0	2468.00	109.84			78.57	3.94	27.33	0.00	175	187	Peak	HORIZONTAL
3	2483.70	59.80	74.00	-14.20	28.49	3.95	27.36	0.00	175	187	Peak	HORIZONTAL
4	2484.10	51.92	54.00	-2.08	20.61	3.95	27.36	0.00	175	187	Average	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1 0	2471.20	103.17			71.90	3.94	27.33	0.00	173	176	Average	HORIZONTAL
2 0	2473.00	107.10			75.83	3.94	27.33	0.00	173	176	Peak	HORIZONTAL
3	2483.70	51.99	54.00	-2.01	20.68	3.95	27.36	0.00	173	176	Average	HORIZONTAL
4	2483.90	61.39	74.00	-12.61	30.08	3.95	27.36	0.00	173	176	Peak	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 2	<b>Test Date</b>	Jul. 10, 2015, Jul. 06, 2015

**Channel 1**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2390.00	61.20	74.00	-12.80	29.25	27.03	4.92	0.00	152	355	HORIZONTAL	Peak
2	2390.00	47.50	54.00	-6.50	15.55	27.03	4.92	0.00	152	355	HORIZONTAL	Average
3	2418.80	105.77			73.71	27.11	4.95	0.00	152	355	HORIZONTAL	Peak
4	2418.80	96.51			64.45	27.11	4.95	0.00	152	355	HORIZONTAL	Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2382.01	58.76	74.00	-15.24	26.84	27.01	4.91	0.00	149	359	HORIZONTAL	Peak
2	2390.00	45.86	54.00	-8.14	13.91	27.03	4.92	0.00	149	359	HORIZONTAL	Average
3	2438.74	108.83			76.71	27.15	4.97	0.00	149	359	HORIZONTAL	Peak
4	2443.95	99.40			67.27	27.16	4.97	0.00	149	359	HORIZONTAL	Average
5	2483.50	46.94	54.00	-7.06	14.66	27.27	5.01	0.00	149	359	HORIZONTAL	Average
6	2485.24	60.06	74.00	-13.94	27.78	27.27	5.01	0.00	149	359	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2459.40	97.88			65.69	27.20	4.99	0.00	148	359	HORIZONTAL	Average
2	2463.59	107.34			75.13	27.22	4.99	0.00	148	359	HORIZONTAL	Peak
3	2483.50	64.70	74.00	-9.30	32.42	27.27	5.01	0.00	148	359	HORIZONTAL	Peak
4	2483.50	49.79	54.00	-4.21	17.51	27.27	5.01	0.00	148	359	HORIZONTAL	Average

Item 1, 2 are the fundamental frequency at 2462 MHz.



**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2460.80	106.95			76.00	2.90	28.05	0.00	17	130	Peak	HORIZONTAL
2	2464.40	97.06			66.11	2.90	28.05	0.00	17	130	Average	HORIZONTAL
3	2483.50	50.94	54.00	-3.06	20.01	2.91	28.02	0.00	17	130	Average	HORIZONTAL
4	2484.00	63.18	74.00	-10.82	32.25	2.91	28.02	0.00	17	130	Peak	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2465.60	99.22			68.27	2.90	28.05	0.00	16	124	Peak	HORIZONTAL
2	2465.60	89.29			58.34	2.90	28.05	0.00	16	124	Average	HORIZONTAL
3	2483.50	70.39	74.00	-3.61	39.46	2.91	28.02	0.00	16	124	Peak	HORIZONTAL
4	2483.50	51.32	54.00	-2.68	20.39	2.91	28.02	0.00	16	124	Average	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 2	<b>Test Date</b>	Jul. 10, 2015, Jul. 06, 2015

**Channel 1**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2389.86	47.46	54.00	-6.54	15.52	27.03	4.91	0.00	155	357	HORIZONTAL Average
2	2390.00	62.06	74.00	-11.94	30.11	27.03	4.92	0.00	155	357	HORIZONTAL Peak
3	2409.11	103.32			71.30	27.08	4.94	0.00	155	357	HORIZONTAL Peak
4	2417.50	93.92			61.88	27.10	4.94	0.00	155	357	HORIZONTAL Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2353.64	45.89	54.00	-8.11	14.06	26.95	4.88	0.00	149	360	HORIZONTAL Average
2	2364.64	59.01	74.00	-14.99	27.14	26.98	4.89	0.00	149	360	HORIZONTAL Peak
3	2440.18	108.31			76.18	27.16	4.97	0.00	149	360	HORIZONTAL Peak
4	2442.50	99.05			66.92	27.16	4.97	0.00	149	360	HORIZONTAL Average
5	2483.50	46.70	54.00	-7.30	14.42	27.27	5.01	0.00	149	360	HORIZONTAL Average
6	2484.66	59.46	74.00	-14.54	27.18	27.27	5.01	0.00	149	360	HORIZONTAL Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2455.05	97.43			65.25	27.20	4.98	0.00	174	359	HORIZONTAL Average
2	2459.11	107.51			75.32	27.20	4.99	0.00	174	359	HORIZONTAL Peak
3	2483.50	63.98	74.00	-10.02	31.70	27.27	5.01	0.00	174	359	HORIZONTAL Peak
4	2483.50	49.91	54.00	-4.09	17.63	27.27	5.01	0.00	174	359	HORIZONTAL Average

Item 1, 2 are the fundamental frequency at 2462 MHz.

**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm			
1	2460.00	96.14			65.19	2.90	28.05	0.00	350	160	Average	HORIZONTAL
2	2464.00	105.89			74.94	2.90	28.05	0.00	350	160	Peak	HORIZONTAL
3	2483.50	50.68	54.00	-3.32	19.75	2.91	28.02	0.00	350	160	Average	HORIZONTAL
4	2487.10	62.55	74.00	-11.45	31.62	2.91	28.02	0.00	350	160	Peak	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm			
1	2466.20	89.45			58.50	2.90	28.05	0.00	360	162	Average	HORIZONTAL
2	2469.00	98.99			68.04	2.90	28.05	0.00	360	162	Peak	HORIZONTAL
3	2483.50	71.10	74.00	-2.90	40.17	2.91	28.02	0.00	360	162	Peak	HORIZONTAL
4	2483.50	51.86	54.00	-2.14	20.93	2.91	28.02	0.00	360	162	Average	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 3, 6, 9, 10, 11 /Chain 1
<b>Test Mode</b>	Mode 2	<b>Test Date</b>	Jul. 10, 2015, Jul. 06, 2015

### Channel 3

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2389.58	61.86	74.00	-12.14	29.92	27.03	4.91	0.00	158	359	HORIZONTAL	Peak
2	2390.00	49.86	54.00	-4.14	17.91	27.03	4.92	0.00	158	359	HORIZONTAL	Average
3	2429.53	92.33			60.24	27.13	4.96	0.00	158	359	HORIZONTAL	Average
4	2432.42	101.86			69.75	27.15	4.96	0.00	158	359	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2422 MHz.

### Channel 6

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2389.24	59.58	74.00	-14.42	27.64	27.03	4.91	0.00	149	357	HORIZONTAL	Peak
2	2389.24	46.46	54.00	-7.54	14.52	27.03	4.91	0.00	149	357	HORIZONTAL	Average
3	2441.78	93.11			60.98	27.16	4.97	0.00	149	357	HORIZONTAL	Average
4	2447.42	102.80			70.64	27.18	4.98	0.00	149	357	HORIZONTAL	Peak
5	2483.50	47.71	54.00	-6.29	15.43	27.27	5.01	0.00	149	357	HORIZONTAL	Average
6	2489.14	60.11	74.00	-13.89	27.81	27.28	5.02	0.00	149	357	HORIZONTAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

### Channel 9

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2459.53	94.05			61.86	27.20	4.99	0.00	190	360	HORIZONTAL	Average
2	2462.42	103.93			71.72	27.22	4.99	0.00	190	360	HORIZONTAL	Peak
3	2483.50	64.11	74.00	-9.89	31.83	27.27	5.01	0.00	190	360	HORIZONTAL	Peak
4	2483.50	52.05	54.00	-1.95	19.77	27.27	5.01	0.00	190	360	HORIZONTAL	Average

Item 1, 2 are the fundamental frequency at 2452 MHz.

**Channel 10**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	2462.20	92.98			62.03	2.90	28.05	0.00	185	173 Average	HORIZONTAL
2	2463.80	102.59			71.64	2.90	28.05	0.00	185	173 Peak	HORIZONTAL
3	2483.50	61.35	74.00	-12.65	30.42	2.91	28.02	0.00	185	173 Peak	HORIZONTAL
4	2483.50	50.98	54.00	-3.02	20.05	2.91	28.02	0.00	185	173 Average	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2457 MHz.

**Channel 11**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	2459.60	93.52			62.57	2.90	28.05	0.00	355	163 Peak	HORIZONTAL
2	2463.60	83.68			52.73	2.90	28.05	0.00	355	163 Average	HORIZONTAL
3	2483.50	63.96	74.00	-10.04	33.03	2.91	28.02	0.00	355	163 Peak	HORIZONTAL
4	2483.90	51.46	54.00	-2.54	20.53	2.91	28.02	0.00	355	163 Average	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11b CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 3	<b>Test Date</b>	Jul. 08, 2015

**Channel 1**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2386.96	45.95	54.00	-8.05	14.01	27.03	4.91	0.00	108	359	VERTICAL	Average
2	2388.41	58.38	74.00	-15.62	26.44	27.03	4.91	0.00	108	359	VERTICAL	Peak
3	2411.28	99.97			67.93	27.10	4.94	0.00	108	359	VERTICAL	Average
4	2411.86	102.83			70.79	27.10	4.94	0.00	108	359	VERTICAL	Peak

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2353.06	45.92	54.00	-8.08	14.09	26.95	4.88	0.00	118	4	VERTICAL	Average
2	2373.03	58.57	74.00	-15.43	26.67	27.00	4.90	0.00	118	4	VERTICAL	Peak
3	2436.13	103.12			71.01	27.15	4.96	0.00	118	4	VERTICAL	Average
4	2437.00	106.10			73.99	27.15	4.96	0.00	118	4	VERTICAL	Peak
5	2487.55	46.59	54.00	-7.41	14.30	27.27	5.02	0.00	118	4	VERTICAL	Average
6	2498.84	60.31	74.00	-13.69	27.98	27.30	5.03	0.00	118	4	VERTICAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2461.28	102.12			69.91	27.22	4.99	0.00	135	12	VERTICAL	Average
2	2461.86	105.01			72.80	27.22	4.99	0.00	135	12	VERTICAL	Peak
3	2483.50	46.59	54.00	-7.41	14.31	27.27	5.01	0.00	135	12	VERTICAL	Average
4	2484.08	59.49	74.00	-14.51	27.21	27.27	5.01	0.00	135	12	VERTICAL	Peak

Item 1, 2 are the fundamental frequency at 2462 MHz.

**Channel 12**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1 0	2466.20	106.71			75.47	3.93	27.31	0.00	172	219	Average	VERTICAL
2 0	2466.20	110.45			79.21	3.93	27.31	0.00	172	219	Peak	VERTICAL
3	2483.70	59.40	74.00	-14.60	28.09	3.95	27.36	0.00	172	219	Peak	VERTICAL
4	2484.10	51.98	54.00	-2.02	20.67	3.95	27.36	0.00	172	219	Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1 0	2471.00	107.61			76.34	3.94	27.33	0.00	171	216	Peak	VERTICAL
2 0	2471.20	103.83			72.56	3.94	27.33	0.00	171	216	Average	VERTICAL
3	2483.50	50.80	54.00	-3.20	19.49	3.95	27.36	0.00	171	216	Average	VERTICAL
4	2483.50	60.97	74.00	-13.03	29.66	3.95	27.36	0.00	171	216	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11g CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 3	<b>Test Date</b>	Jul. 08, 2015

**Channel 1**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	PoI/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2389.71	61.05	74.00	-12.95	29.11	27.03	4.91	0.00	162	59	VERTICAL	Peak
2	2390.00	47.34	54.00	-6.66	15.39	27.03	4.92	0.00	162	59	VERTICAL	Average
3	2418.80	105.41			73.35	27.11	4.95	0.00	162	59	VERTICAL	Peak
4	2418.80	96.12			64.06	27.11	4.95	0.00	162	59	VERTICAL	Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	PoI/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2351.91	45.74	54.00	-8.26	13.92	26.95	4.87	0.00	150	63	VERTICAL	Average
2	2365.80	58.97	74.00	-15.03	27.10	26.98	4.89	0.00	150	63	VERTICAL	Peak
3	2430.63	107.74			75.65	27.13	4.96	0.00	150	63	VERTICAL	Peak
4	2430.92	98.26			66.17	27.13	4.96	0.00	150	63	VERTICAL	Average
5	2483.50	46.50	54.00	-7.50	14.22	27.27	5.01	0.00	150	63	VERTICAL	Average
6	2487.26	59.18	74.00	-14.82	26.89	27.27	5.02	0.00	150	63	VERTICAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit Line	Over Limit	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	PoI/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg		
1	2455.63	105.01			72.83	27.20	4.98	0.00	189	63	VERTICAL	Peak
2	2459.40	95.88			63.69	27.20	4.99	0.00	189	63	VERTICAL	Average
3	2483.50	60.99	74.00	-13.01	28.71	27.27	5.01	0.00	189	63	VERTICAL	Peak
4	2483.50	47.49	54.00	-6.51	15.21	27.27	5.01	0.00	189	63	VERTICAL	Average

Item 1, 2 are the fundamental frequency at 2462 MHz.



**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2468.40	106.42			75.47	2.90	28.05	0.00	225	128	Peak	VERTICAL
2	2468.80	96.93			65.98	2.90	28.05	0.00	225	128	Average	VERTICAL
3	2483.50	51.98	54.00	-2.02	21.05	2.91	28.02	0.00	225	128	Average	VERTICAL
4	2484.00	70.25	74.00	-3.75	39.32	2.91	28.02	0.00	225	128	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2473.40	99.59			68.66	2.91	28.02	0.00	302	177	Peak	VERTICAL
2	2473.80	90.01			59.08	2.91	28.02	0.00	302	177	Average	VERTICAL
3	2483.50	71.29	74.00	-2.71	40.36	2.91	28.02	0.00	302	177	Peak	VERTICAL
4	2483.50	51.95	54.00	-2.05	21.02	2.91	28.02	0.00	302	177	Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT20 CH 1, 6, 11, 12, 13 / Chain 1
<b>Test Mode</b>	Mode 3	<b>Test Date</b>	Jul. 08, 2015, Jul. 11, 2015

**Channel 1**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2389.86	61.55	74.00	-12.45	29.61	27.03	4.91	0.00	179	65 VERTICAL	Peak
2	2390.00	47.23	54.00	-6.77	15.28	27.03	4.92	0.00	179	65 VERTICAL	Average
3	2415.33	103.27			71.23	27.10	4.94	0.00	179	65 VERTICAL	Peak
4	2417.35	94.16			62.12	27.10	4.94	0.00	179	65 VERTICAL	Average

Item 3, 4 are the fundamental frequency at 2412 MHz.

**Channel 6**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2348.43	45.81	54.00	-8.19	14.01	26.93	4.87	0.00	171	67 VERTICAL	Average
2	2382.59	59.42	74.00	-14.58	27.50	27.01	4.91	0.00	171	67 VERTICAL	Peak
3	2430.05	98.29			66.20	27.13	4.96	0.00	171	67 VERTICAL	Average
4	2434.11	107.92			75.81	27.15	4.96	0.00	171	67 VERTICAL	Peak
5	2483.50	46.65	54.00	-7.35	14.37	27.27	5.01	0.00	171	67 VERTICAL	Average
6	2494.21	59.44	74.00	-14.56	27.14	27.28	5.02	0.00	171	67 VERTICAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 11**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2456.50	95.32			63.13	27.20	4.99	0.00	190	65 VERTICAL	Average
2	2459.11	105.42			73.23	27.20	4.99	0.00	190	65 VERTICAL	Peak
3	2483.50	59.87	74.00	-14.13	27.59	27.27	5.01	0.00	190	65 VERTICAL	Peak
4	2483.50	47.67	54.00	-6.33	15.39	27.27	5.01	0.00	190	65 VERTICAL	Average

Item 1, 2 are the fundamental frequency at 2462 MHz.



**Channel 12**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2472.40	96.18			65.25	2.91	28.02	0.00	234	125	Average	VERTICAL
2	2473.60	105.80			74.87	2.91	28.02	0.00	234	125	Peak	VERTICAL
3	2483.50	51.31	54.00	-2.69	20.38	2.91	28.02	0.00	234	125	Average	VERTICAL
4	2484.20	67.59	74.00	-6.41	36.66	2.91	28.02	0.00	234	125	Peak	VERTICAL

Item 1, 2 are the fundamental frequency at 2467 MHz.

**Channel 13**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2473.60	89.46			58.53	2.91	28.02	0.00	120	130	Average	VERTICAL
2	2473.80	99.00			68.07	2.91	28.02	0.00	120	130	Peak	VERTICAL
3	2483.50	71.43	74.00	-2.57	40.50	2.91	28.02	0.00	120	130	Peak	VERTICAL
4	2483.50	51.87	54.00	-2.13	20.94	2.91	28.02	0.00	120	130	Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2472 MHz.

<b>Temperature</b>	24°C	<b>Humidity</b>	66%
<b>Test Engineer</b>	Alvin Li	<b>Configurations</b>	IEEE 802.11n MCS0 HT40 CH 3, 6, 9, 10, 11 /Chain 1
<b>Test Mode</b>	Mode 3	<b>Test Date</b>	Jul. 08, 2015, Jul. 11, 2015

**Channel 3**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2389.58	62.04	74.00	-11.96	30.10	27.03	4.91	0.00	188	68 VERTICAL	Peak
2	2390.00	49.41	54.00	-4.59	17.46	27.03	4.92	0.00	188	68 VERTICAL	Average
3	2426.63	92.78			60.70	27.13	4.95	0.00	188	68 VERTICAL	Average
4	2428.95	102.46			70.37	27.13	4.96	0.00	188	68 VERTICAL	Peak

Item 3, 4 are the fundamental frequency at 2422 MHz.

**Channel 6**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2357.12	58.43	74.00	-15.57	26.59	26.96	4.88	0.00	166	65 VERTICAL	Peak
2	2390.00	46.11	54.00	-7.89	14.16	27.03	4.92	0.00	166	65 VERTICAL	Average
3	2425.71	102.34			70.26	27.13	4.95	0.00	166	65 VERTICAL	Peak
4	2427.88	92.67			60.58	27.13	4.96	0.00	166	65 VERTICAL	Average
5	2483.50	47.07	54.00	-6.93	14.79	27.27	5.01	0.00	166	65 VERTICAL	Average
6	2521.71	59.85	74.00	-14.15	27.44	27.36	5.05	0.00	166	65 VERTICAL	Peak

Item 3, 4 are the fundamental frequency at 2437 MHz.

**Channel 9**

	Freq	Level	Limit	Over	ReadAntenna	Cable	Preamp	A/Pos	T/Pos	Pol/Phase	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	dB	dB	cm	deg	
1	2448.24	91.90			59.74	27.18	4.98	0.00	187	67 VERTICAL	Average
2	2449.97	101.73			69.57	27.18	4.98	0.00	187	67 VERTICAL	Peak
3	2483.50	48.58	54.00	-5.42	16.30	27.27	5.01	0.00	187	67 VERTICAL	Average
4	2483.79	60.75	74.00	-13.25	28.47	27.27	5.01	0.00	187	67 VERTICAL	Peak

Item 1, 2 are the fundamental frequency at 2452 MHz.



**Channel 10**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2447.40	95.78			64.82	2.89	28.07	0.00	236	107	Average	VERTICAL
2	2449.40	105.86			74.90	2.89	28.07	0.00	236	107	Peak	VERTICAL
3	2483.50	51.88	54.00	-2.12	20.95	2.91	28.02	0.00	236	107	Average	VERTICAL
4	2491.00	69.95	74.00	-4.05	39.03	2.92	28.00	0.00	236	107	Peak	VERTICAL

Item 3, 4 are the fundamental frequency at 2457 MHz.

**Channel 11**

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2447.20	96.72			65.76	2.89	28.07	0.00	234	103	Peak	VERTICAL
2	2448.80	87.37			56.41	2.89	28.07	0.00	234	103	Average	VERTICAL
3	2483.50	65.20	74.00	-8.80	34.27	2.91	28.02	0.00	234	103	Peak	VERTICAL
4	2484.00	51.87	54.00	-2.13	20.94	2.91	28.02	0.00	234	103	Average	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

**Note:**

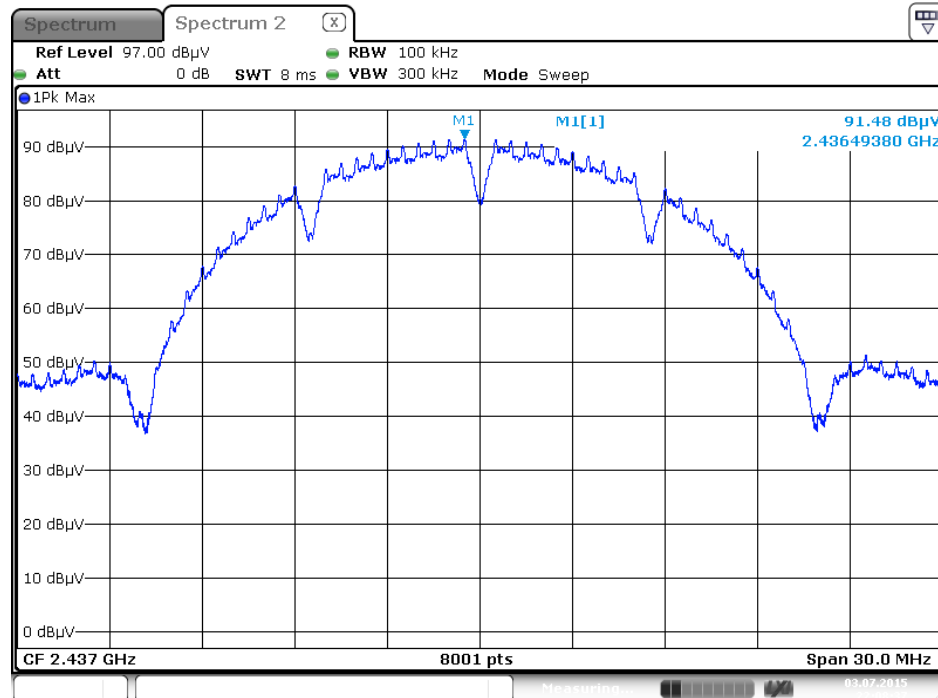
Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

For Emission not in Restricted Band

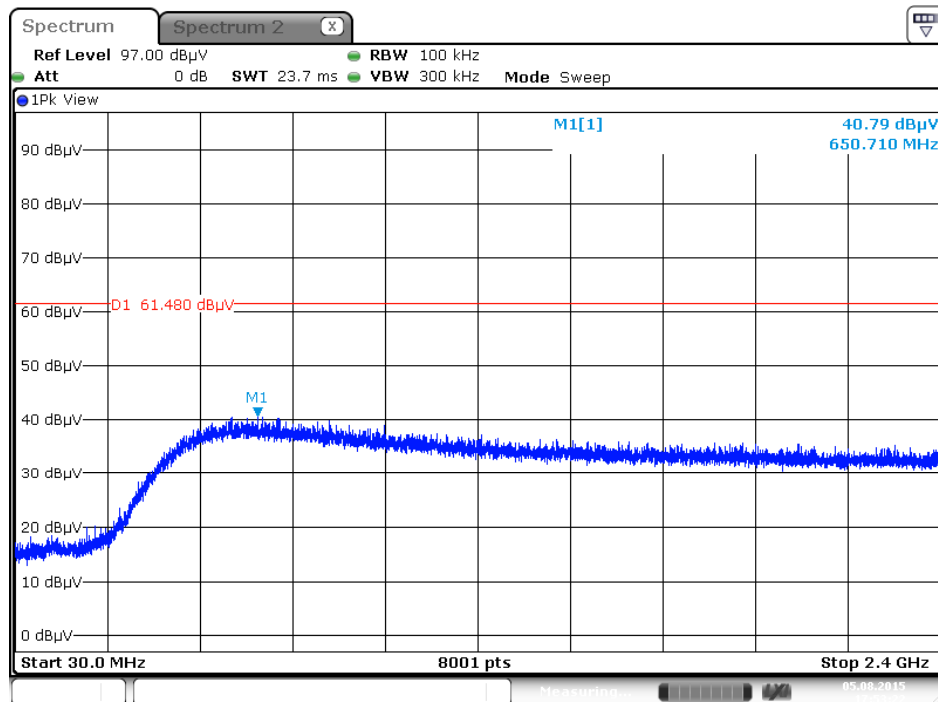
Test Moe: Mode 1

Plot on Configuration IEEE 802.11b / Reference Level

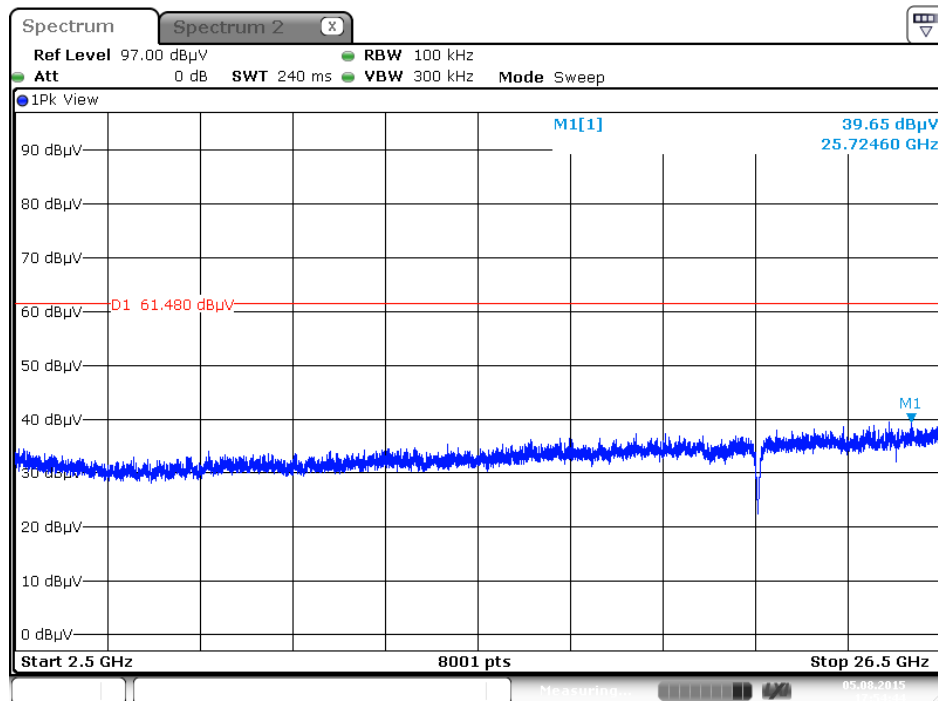


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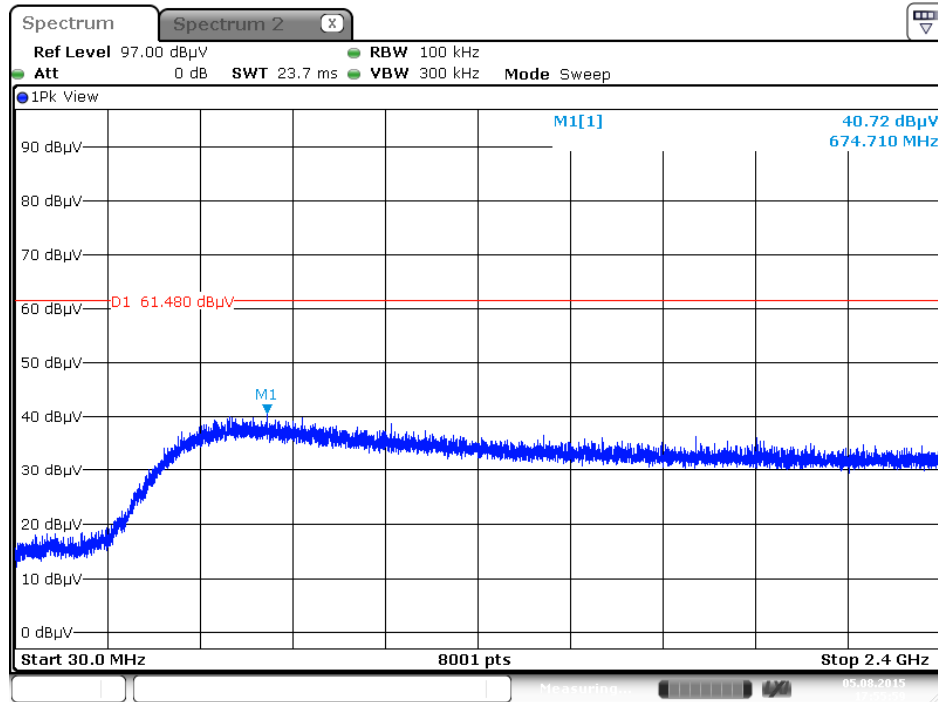
Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc)



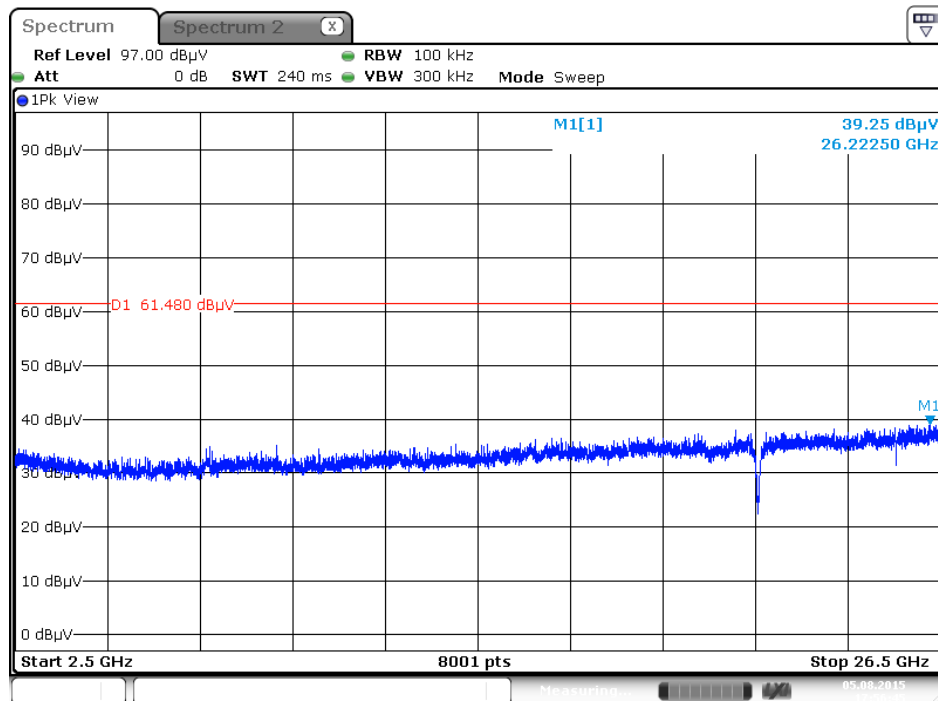
Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~26500MHz (down 30dBc)



Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc)

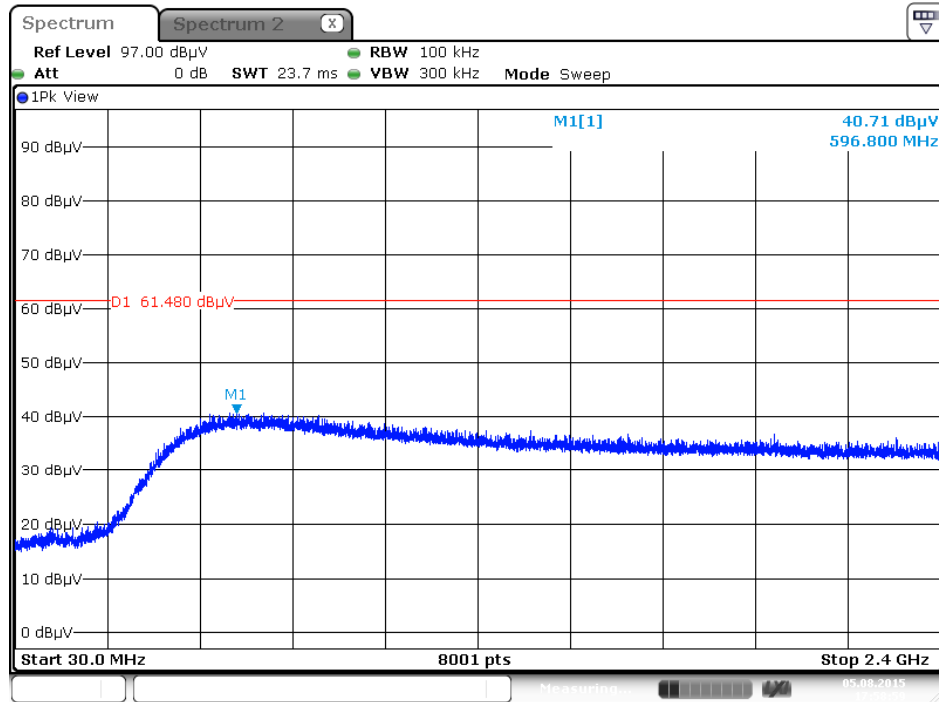


Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc)

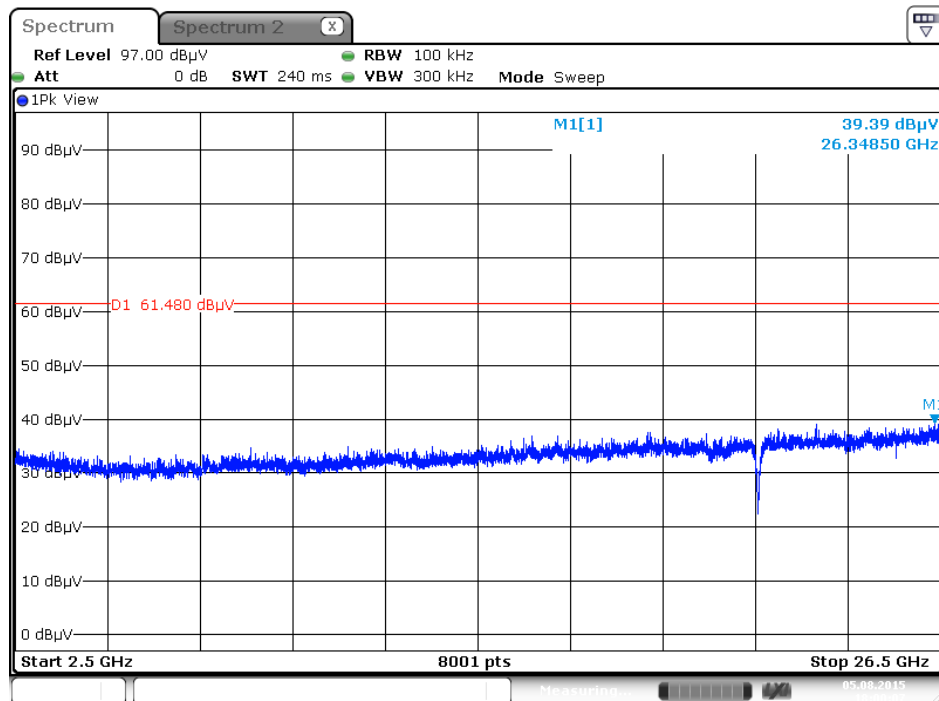




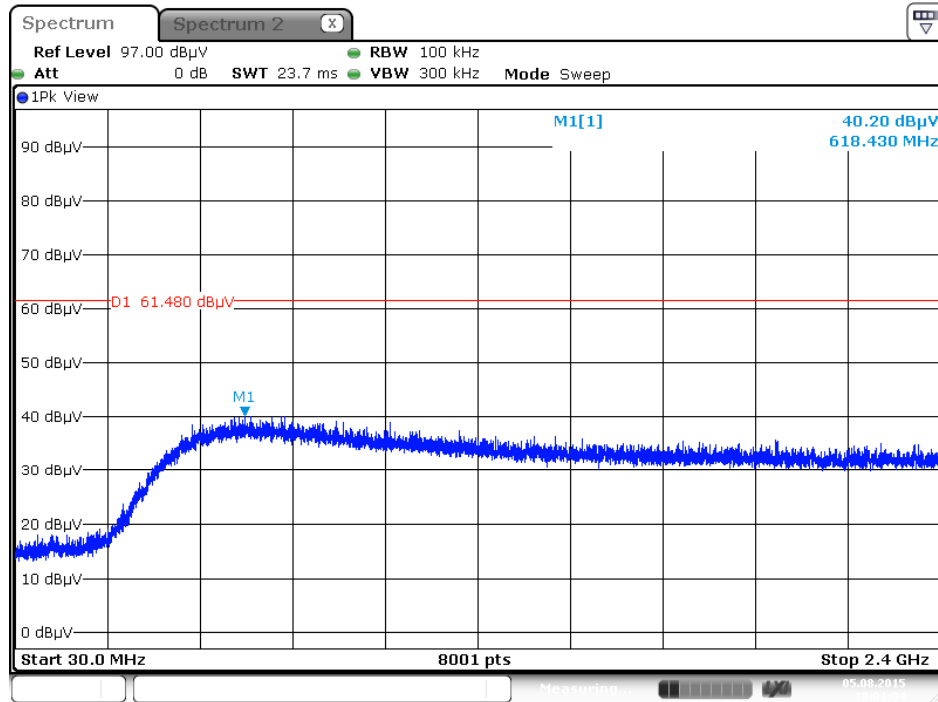
Plot on Configuration IEEE 802.11b / CH 12 / 30MHz~2400MHz (down 30dBc)



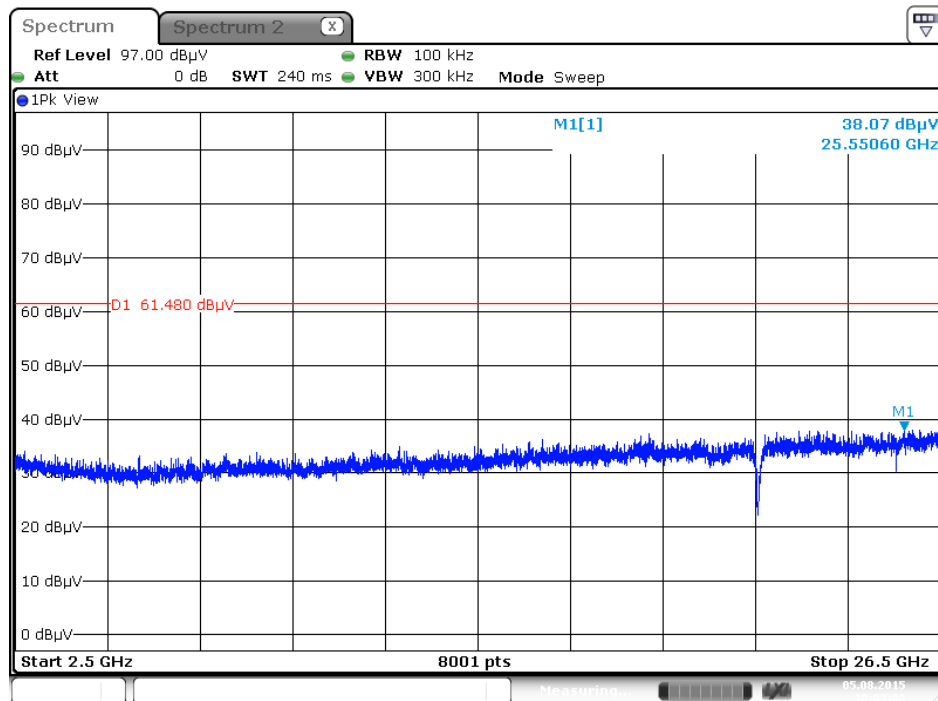
Plot on Configuration IEEE 802.11b / CH 12 / 2500MHz~26500MHz (down 30dBc)



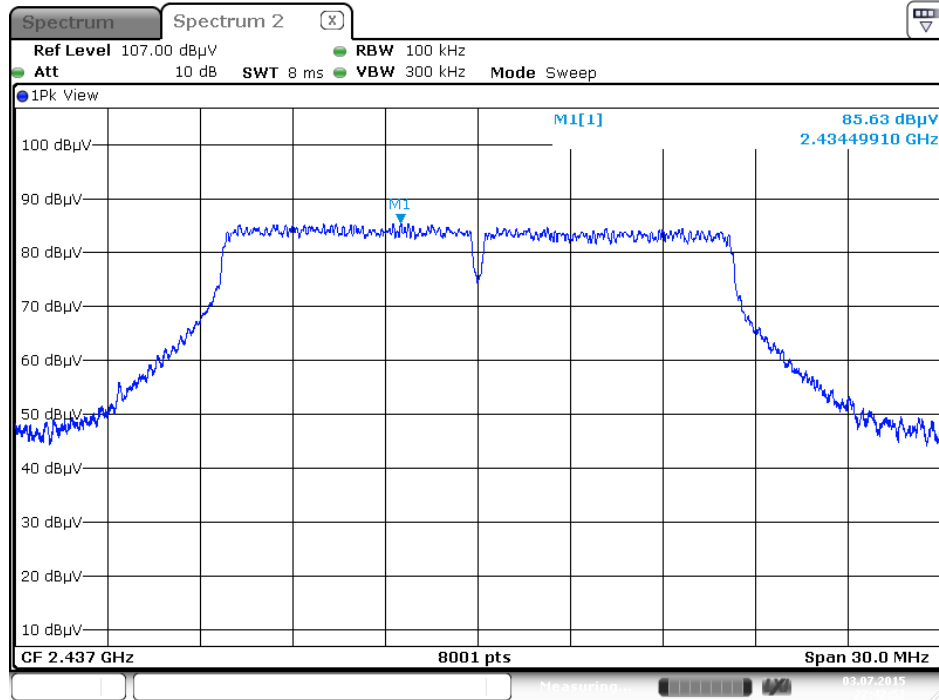
Plot on Configuration IEEE 802.11b / CH 13 / 30MHz~2400MHz (down 30dBc)



Plot on Configuration IEEE 802.11b / CH 13 / 2500MHz~26500MHz (down 30dBc)

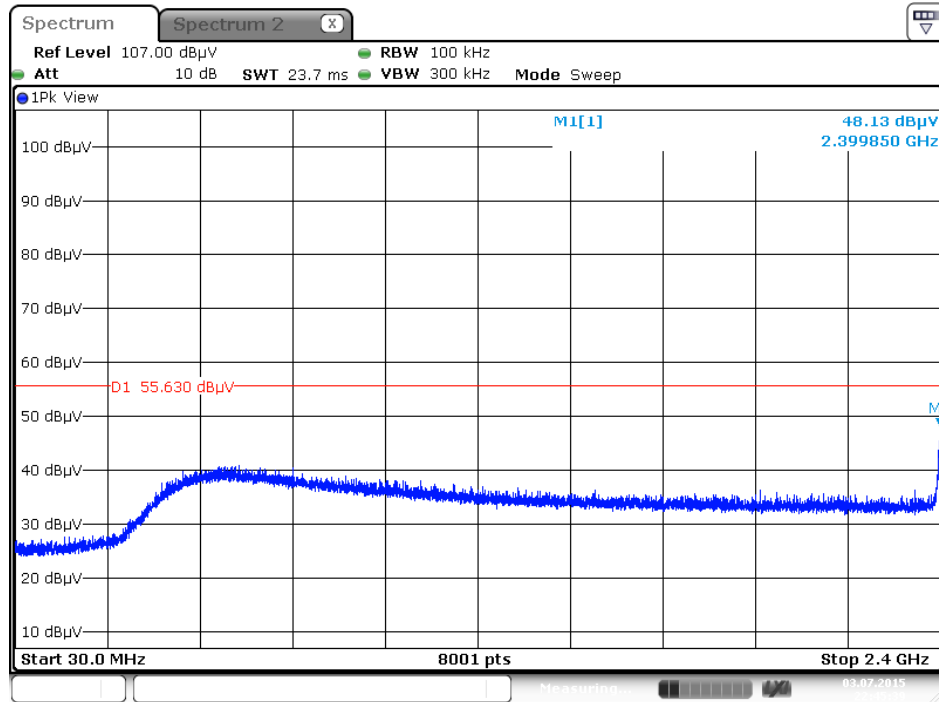


Plot on Configuration IEEE 802.11g / Reference Level

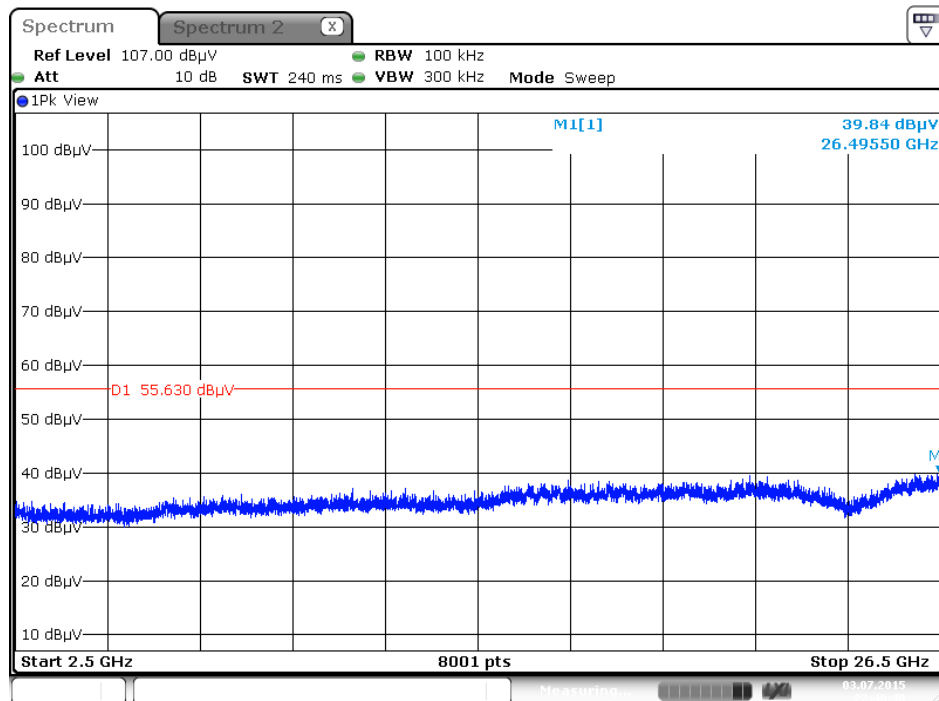


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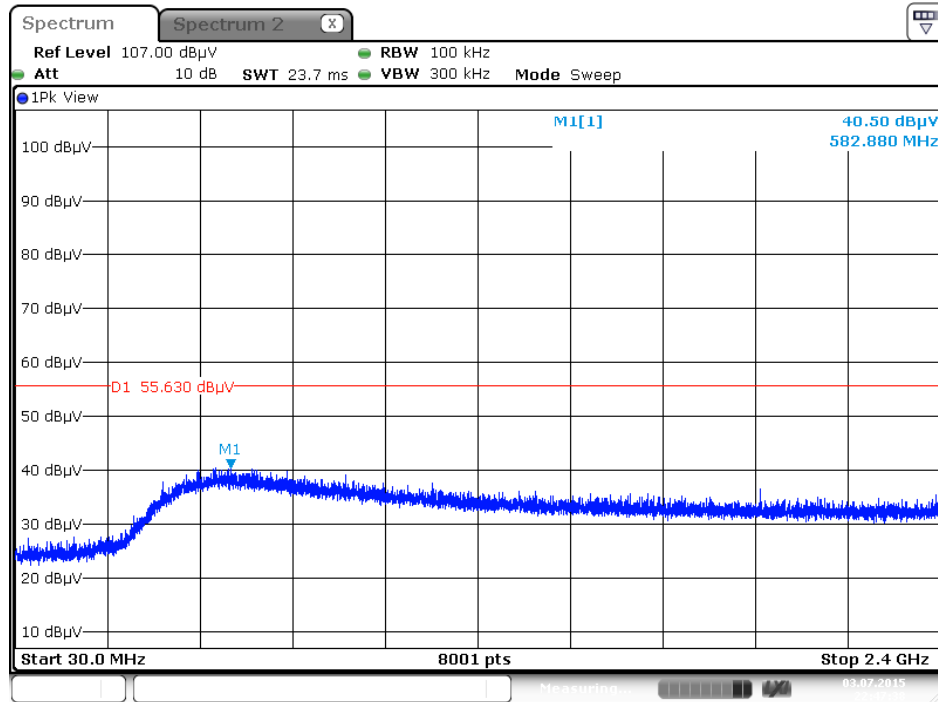
Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc)



Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~26500MHz (down 30dBc)

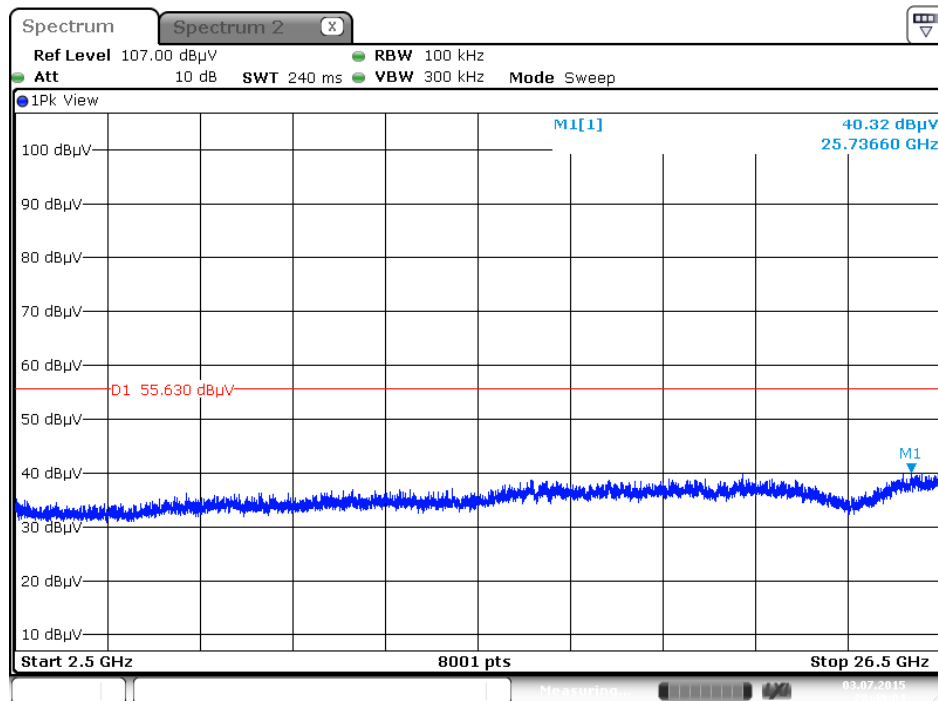


Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc)



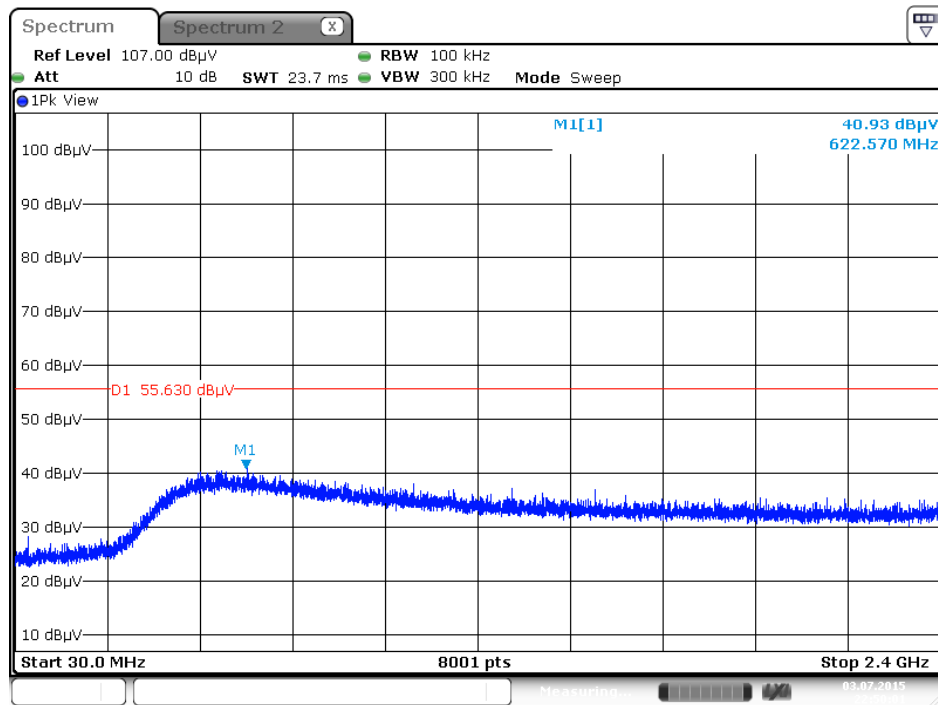
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Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc)

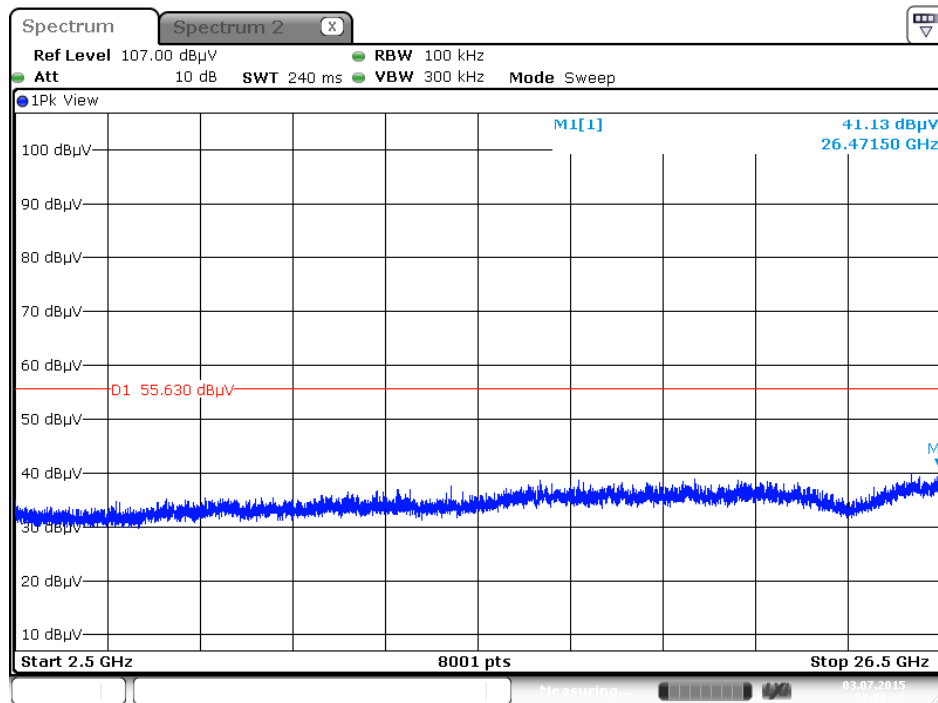


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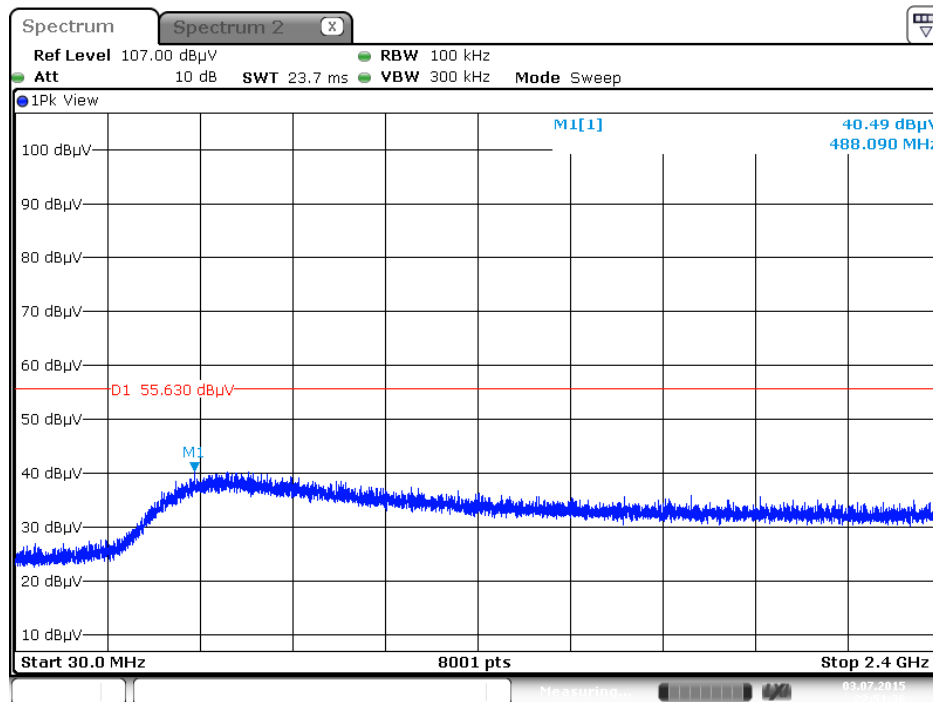
Plot on Configuration IEEE 802.11g / CH 12 / 30MHz~2400MHz (down 30dBc)



Plot on Configuration IEEE 802.11g / CH 12 / 2500MHz~26500MHz (down 30dBc)

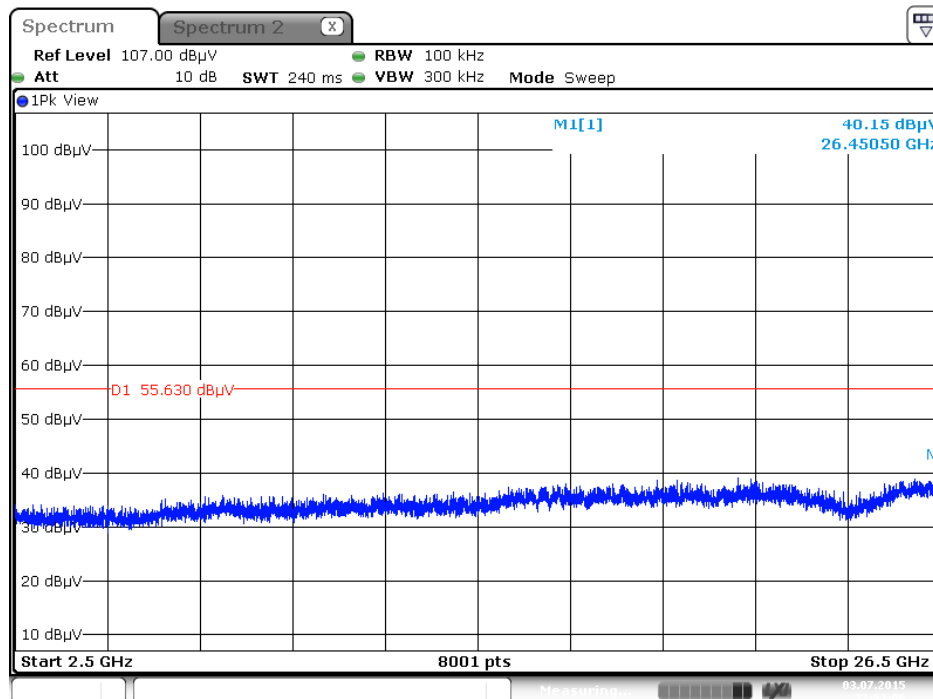


Plot on Configuration IEEE 802.11g / CH 13 / 30MHz~2400MHz (down 30dBc)



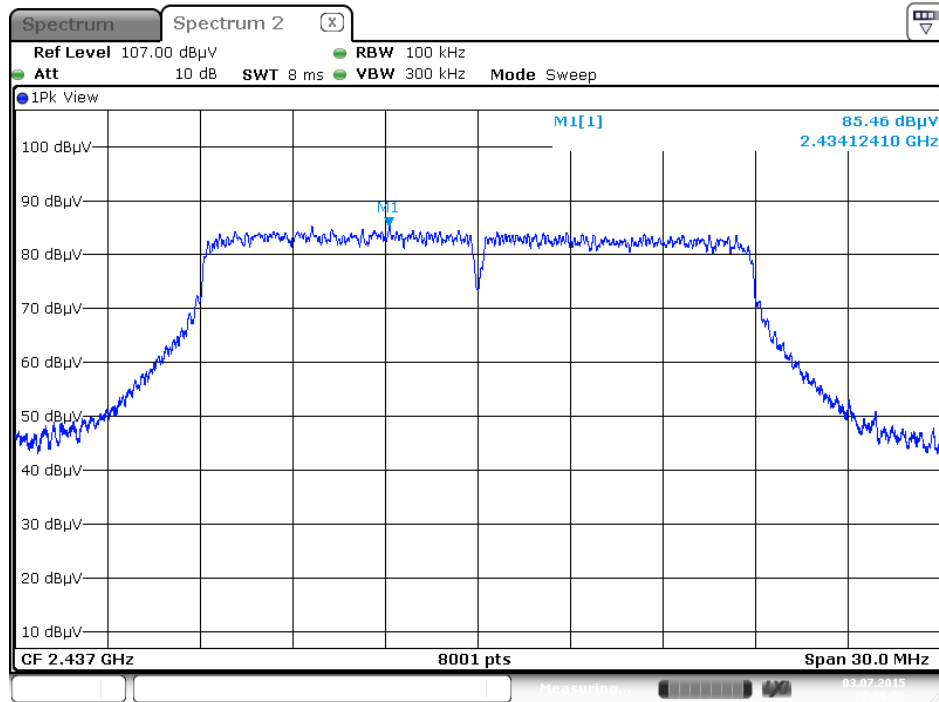
Date: 3 JUL 2015 22:51:36

Plot on Configuration IEEE 802.11g / CH 13 / 2500MHz~26500MHz (down 30dBc)



Date: 3 JUL 2015 22:52:07

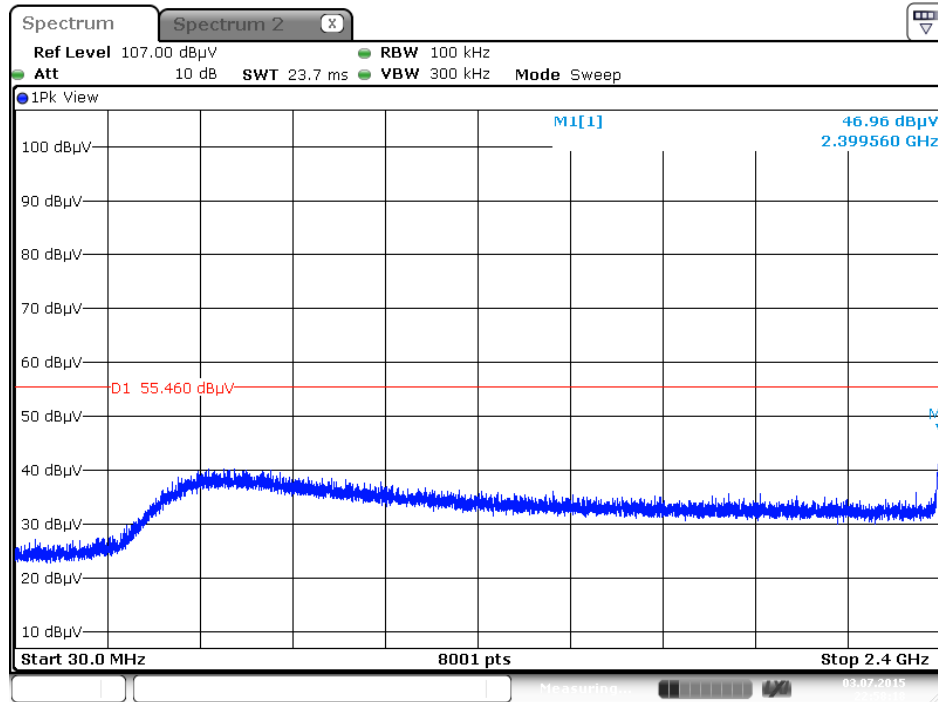
### Plot on Configuration IEEE 802.11n MCS0 HT20 / Reference Level



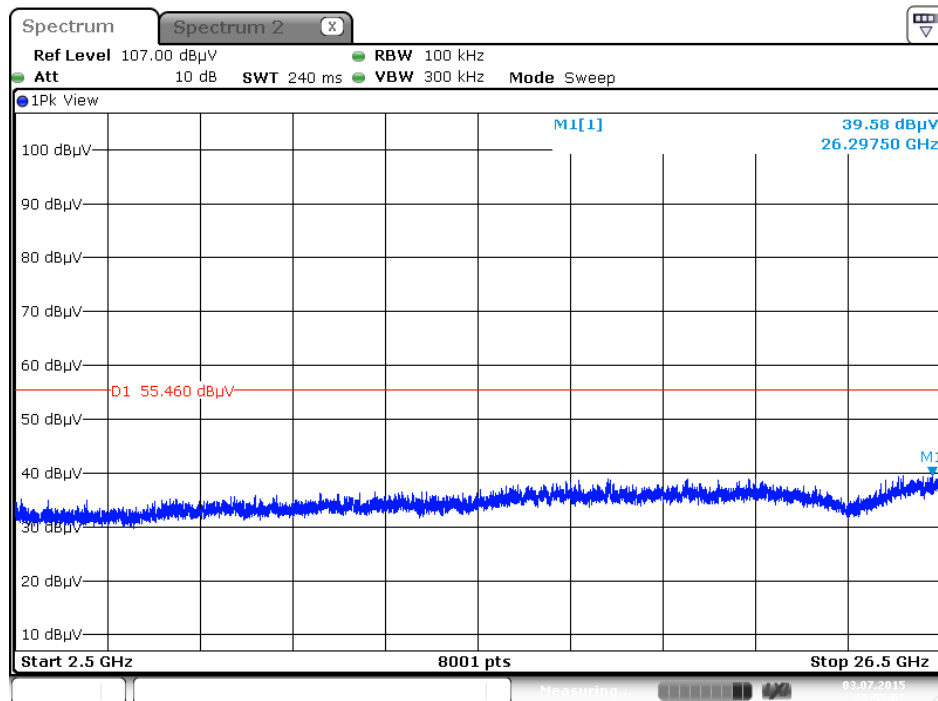
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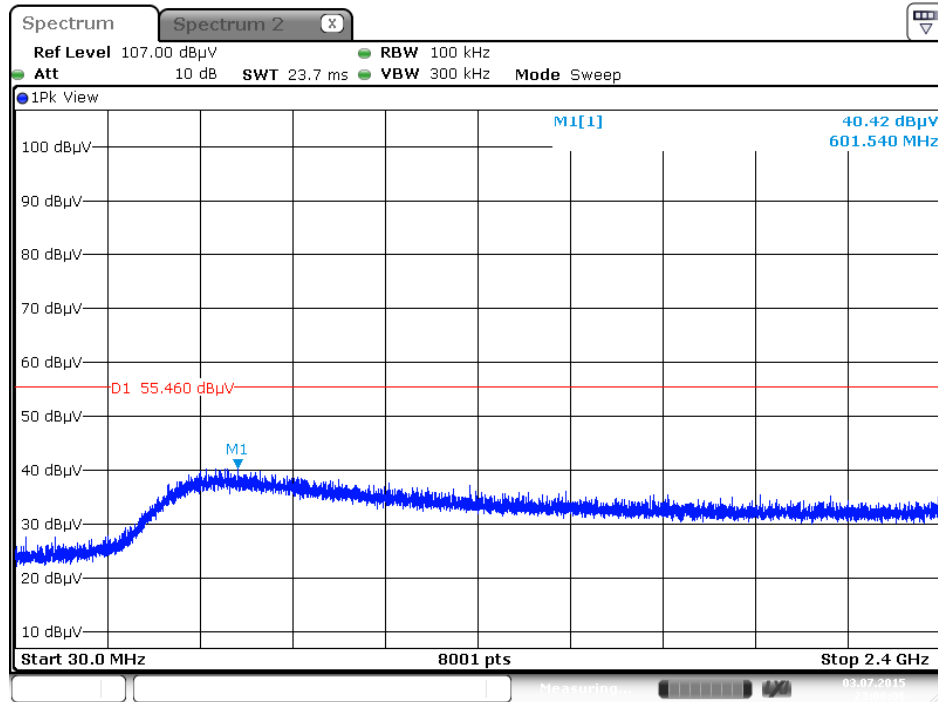
Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 30MHz~2400MHz (down 30dBc)



Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 2500MHz~26500MHz (down 30dBc)

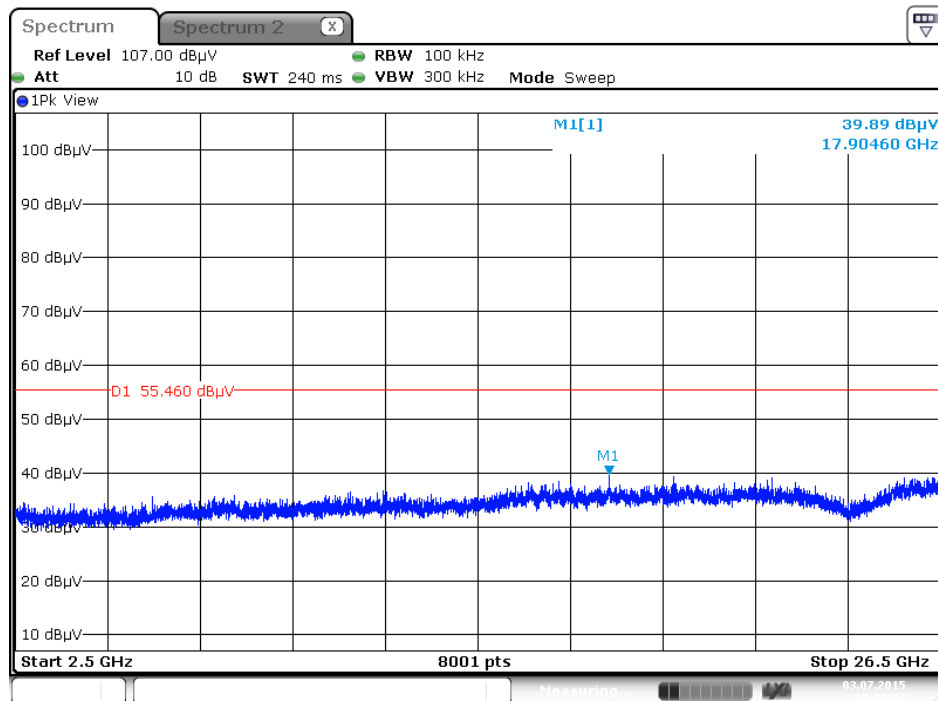


Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 30MHz~2400MHz (down 30dBc)



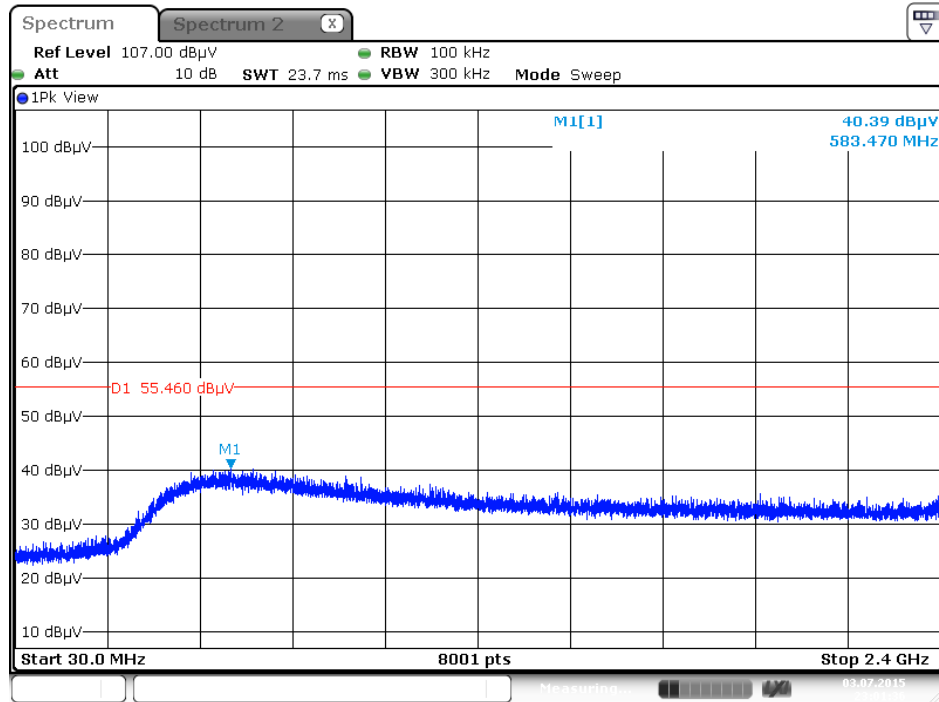
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Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 2500MHz~26500MHz (down 30dBc)



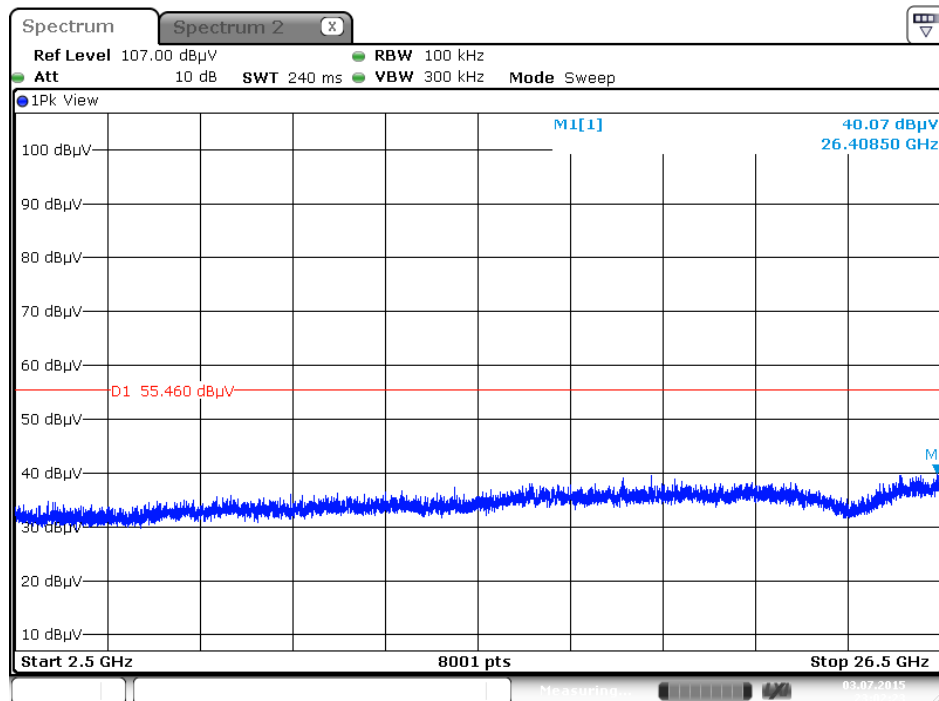
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Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 12 / 30MHz~2400MHz (down 30dBc)



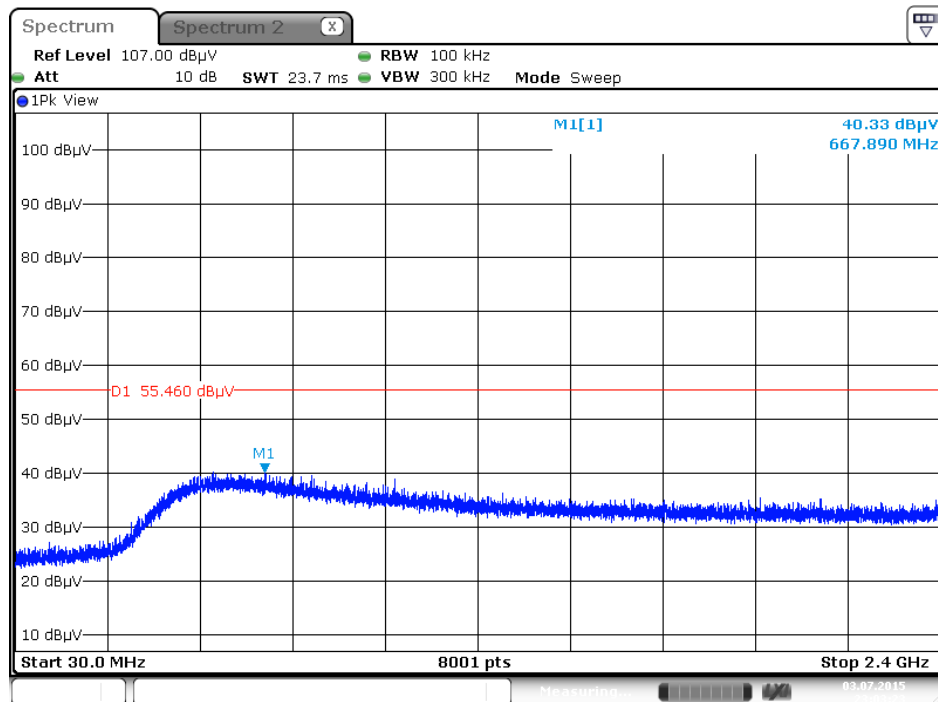
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Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 12 / 2500MHz~26500MHz (down 30dBc)



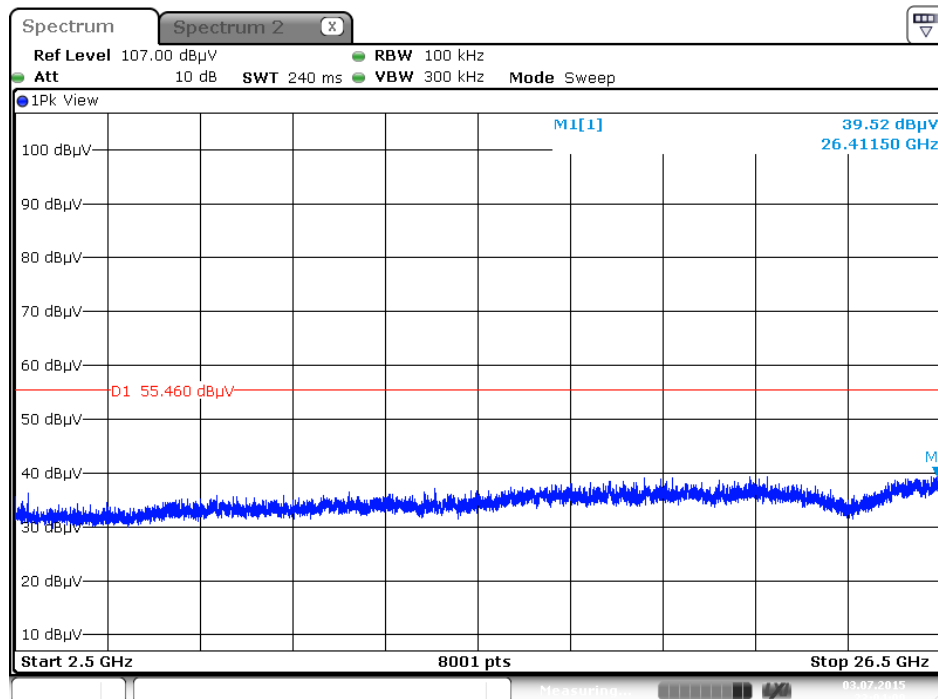
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Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 13 / 30MHz~2400MHz (down 30dBc)



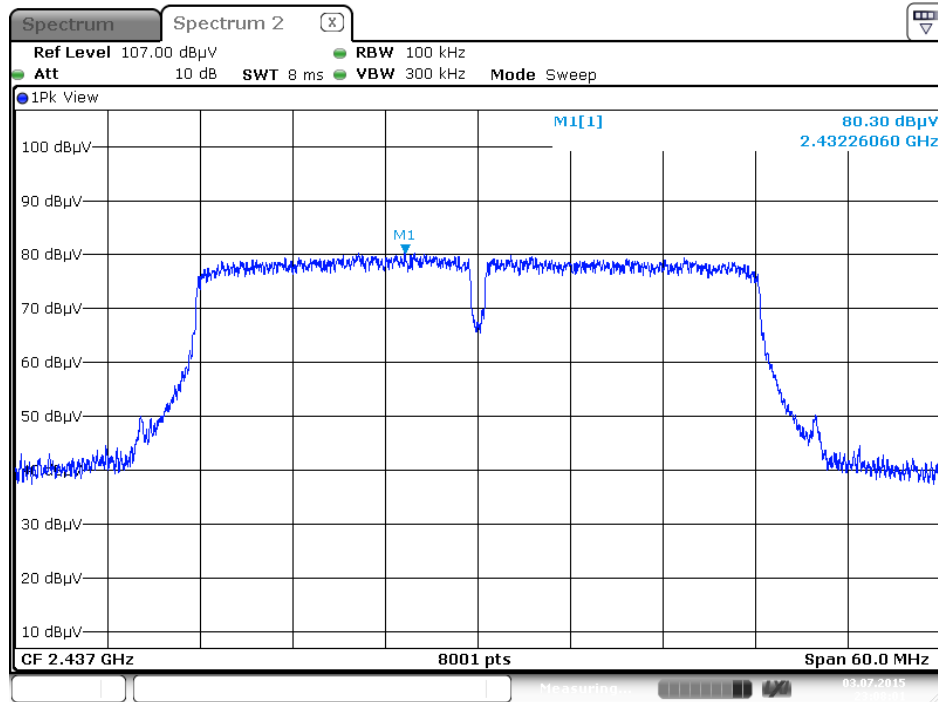
Date: 3 JUL 2015 23:03:24

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 13 / 2500MHz~26500MHz (down 30dBc)



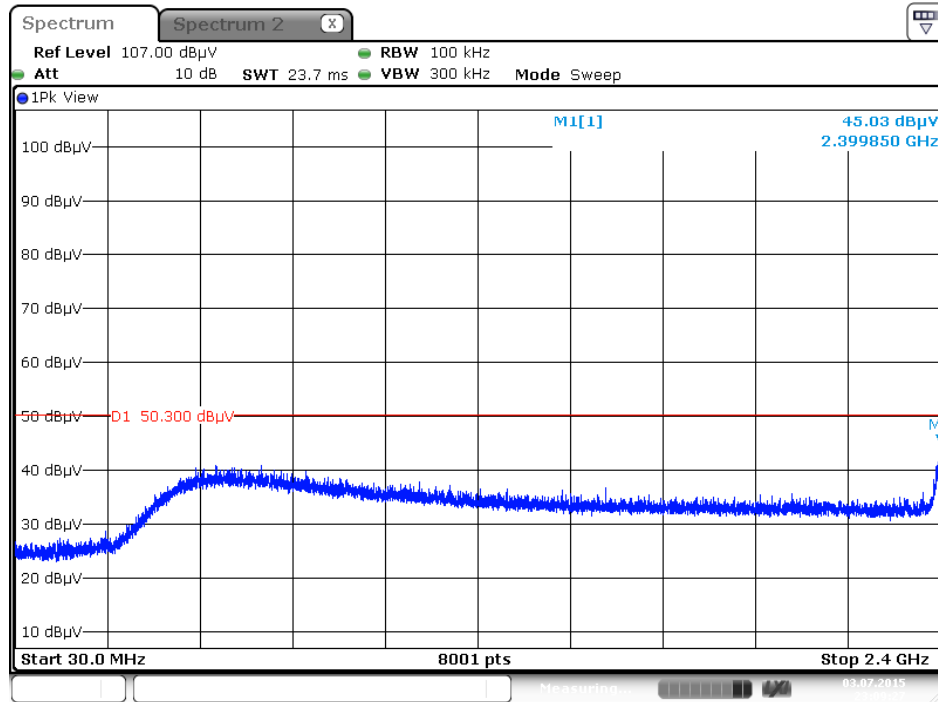
Date: 3 JUL 2015 23:04:09

### Plot on Configuration IEEE 802.11n MCS0 HT40 / Reference Level

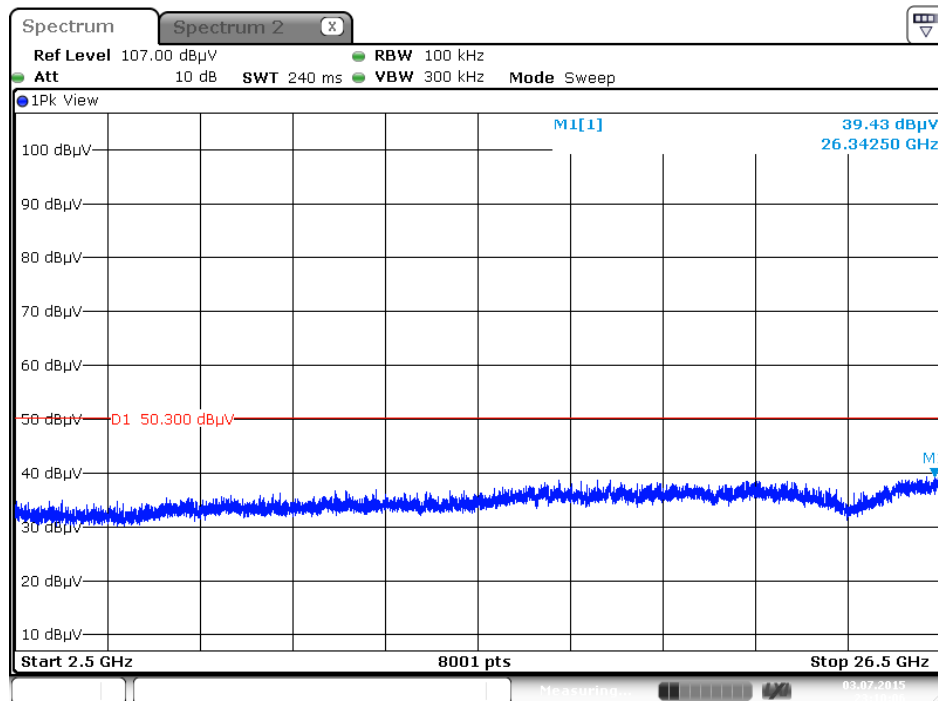


Date: 3 JUL 2015 23:08:01

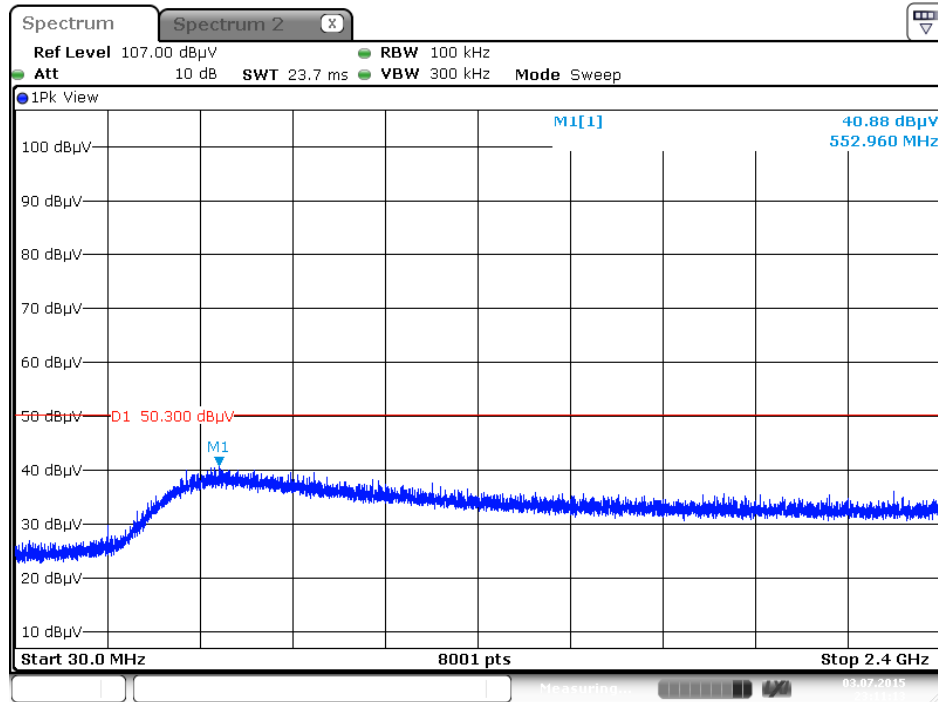
Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 30MHz~2400MHz (down 30dBc)



Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 2500MHz~26500MHz (down 30dBc)

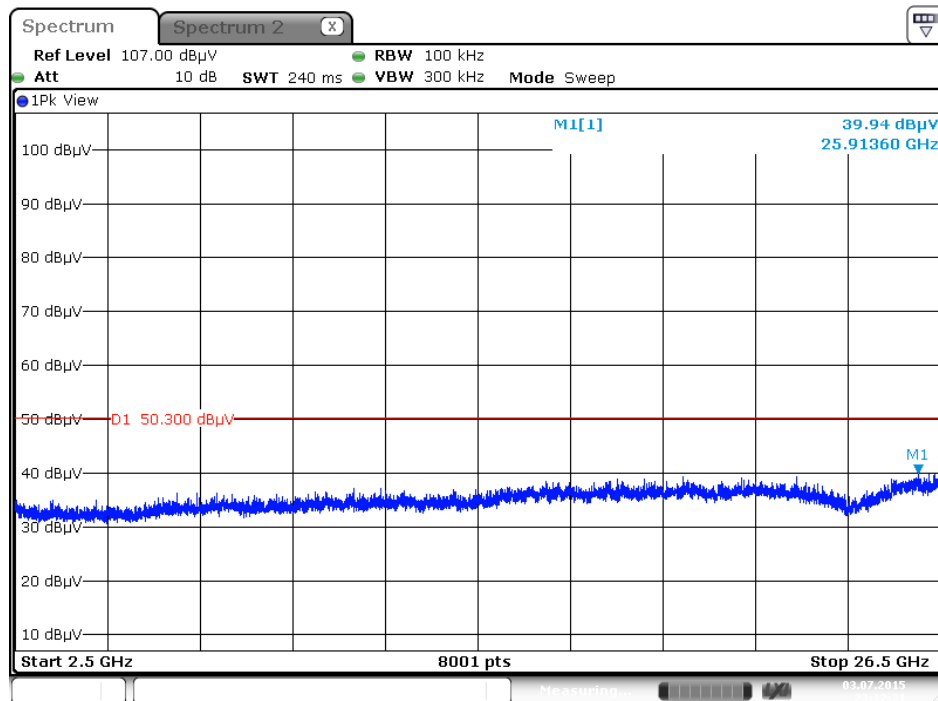


Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 30MHz~2400MHz (down 30dBc)



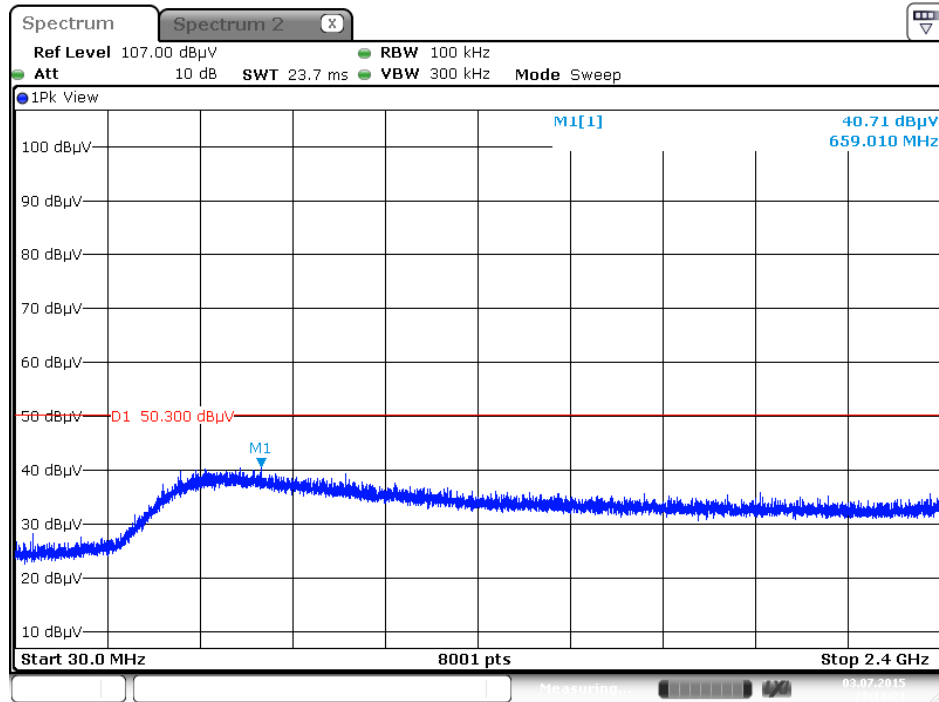
Date: 3 JUL 2015 23:11:13

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 2500MHz~26500MHz (down 30dBc)



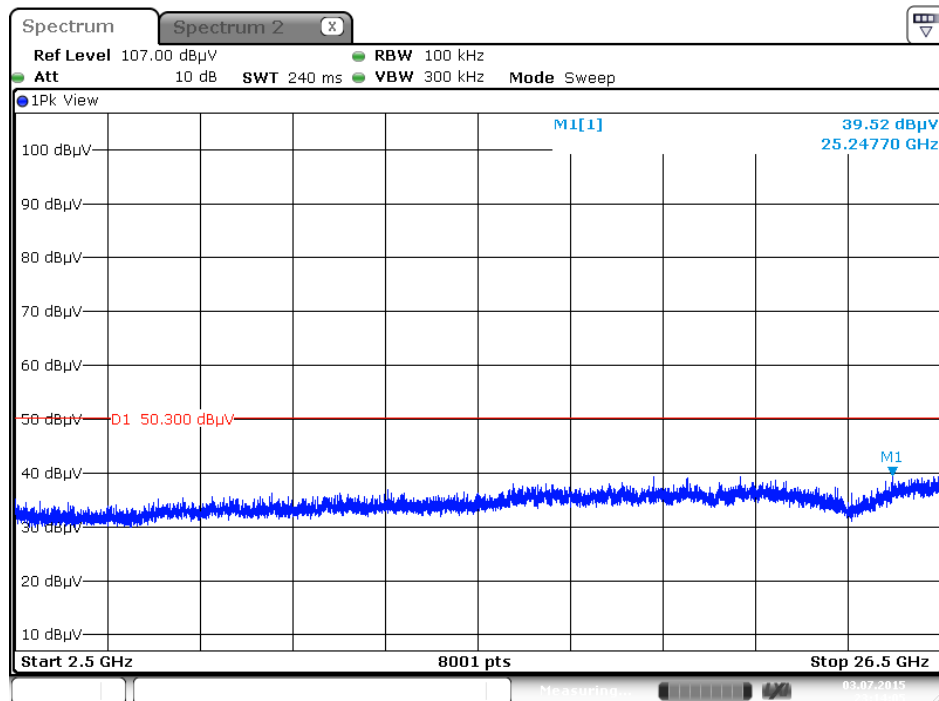
Date: 3 JUL 2015 23:12:21

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 10 / 30MHz~2400MHz (down 30dBc)



Date: 3 JUL 2015 23:13:21

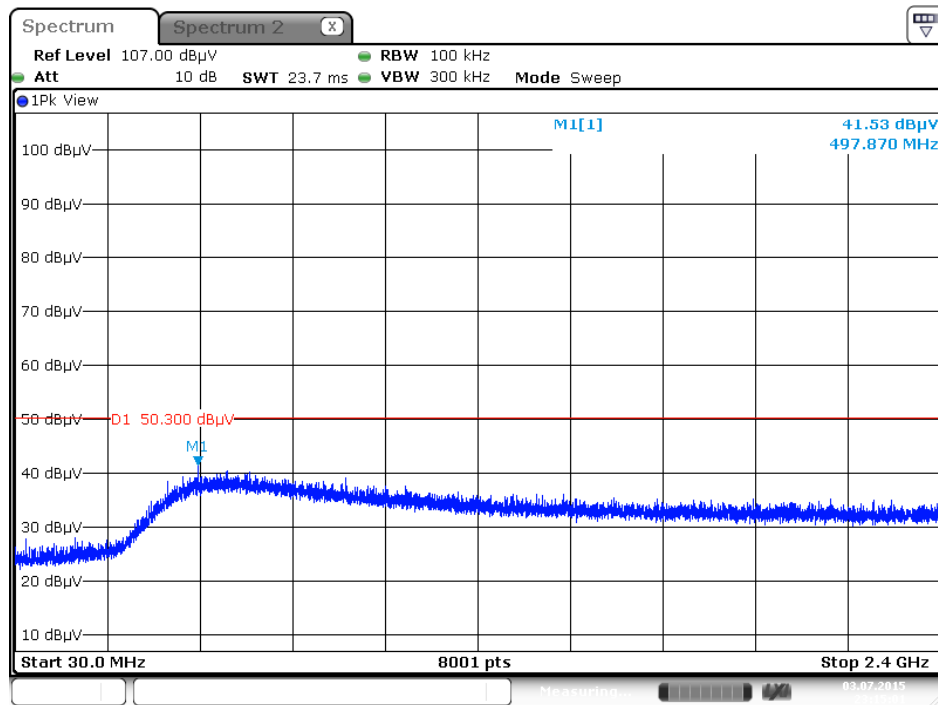
Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 10 / 2500MHz~26500MHz (down 30dBc)



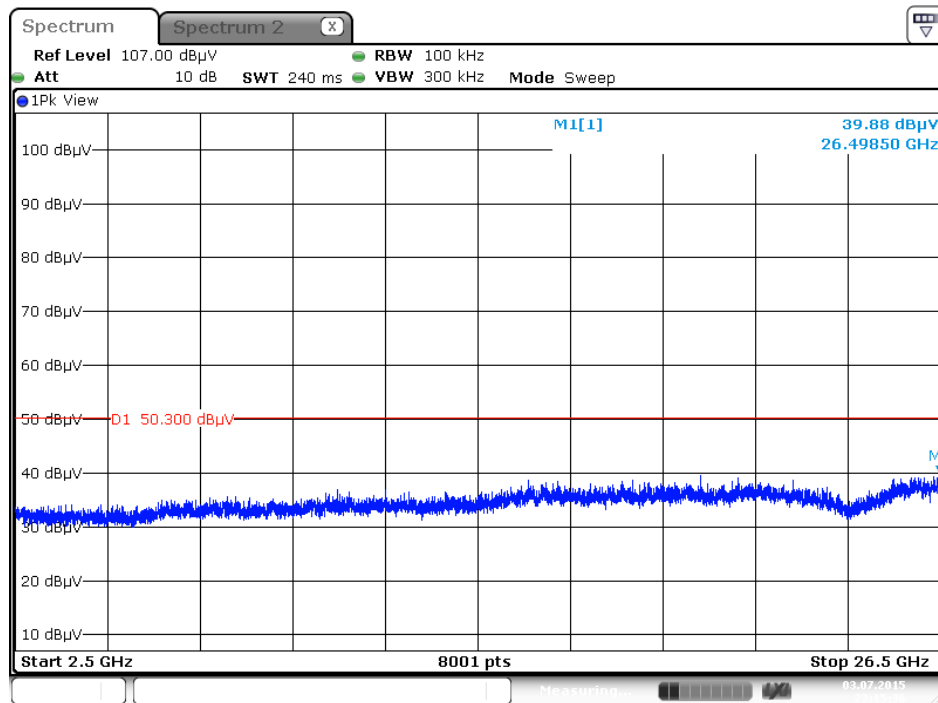
Date: 3 JUL 2015 23:14:05



Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 11 / 30MHz~2400MHz (down 30dBc)

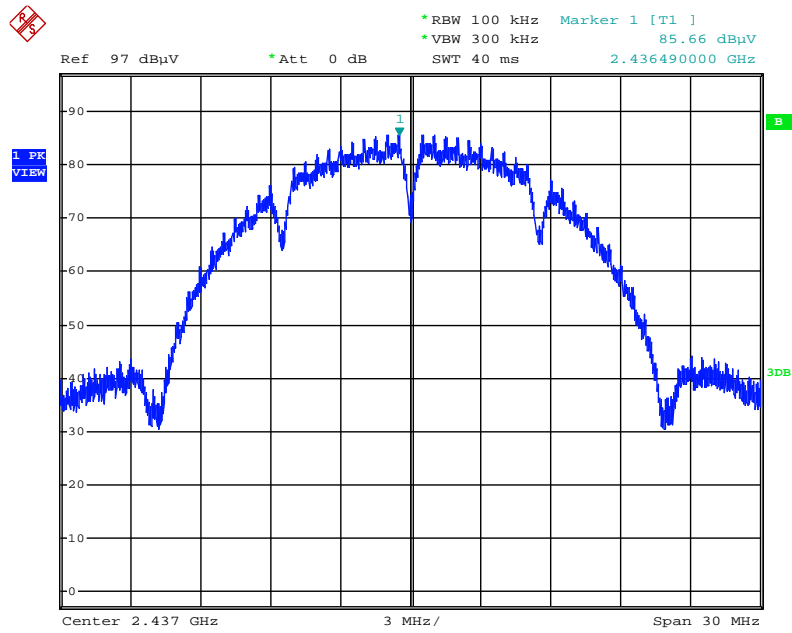


Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 11 / 2500MHz~26500MHz (down 30dBc)



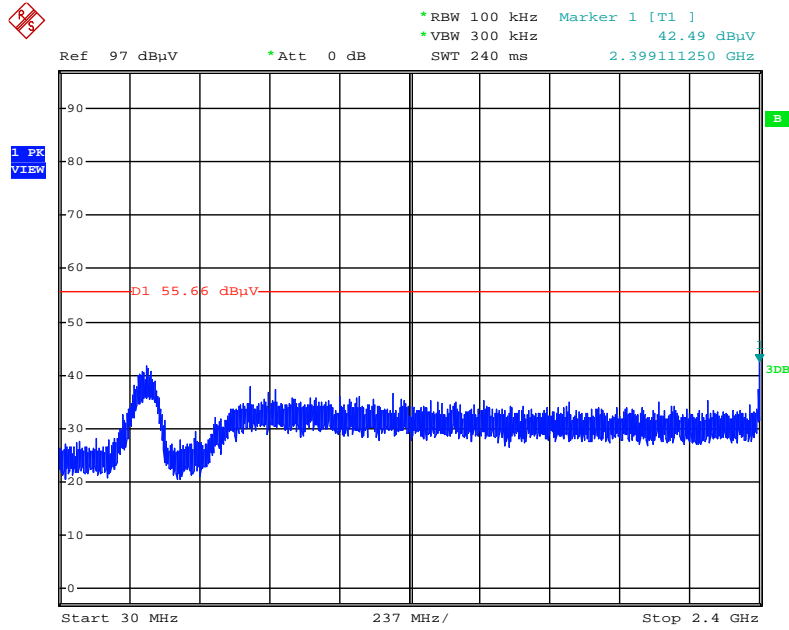
Test Moe: Mode 2

Plot on Configuration IEEE 802.11b / Reference Level



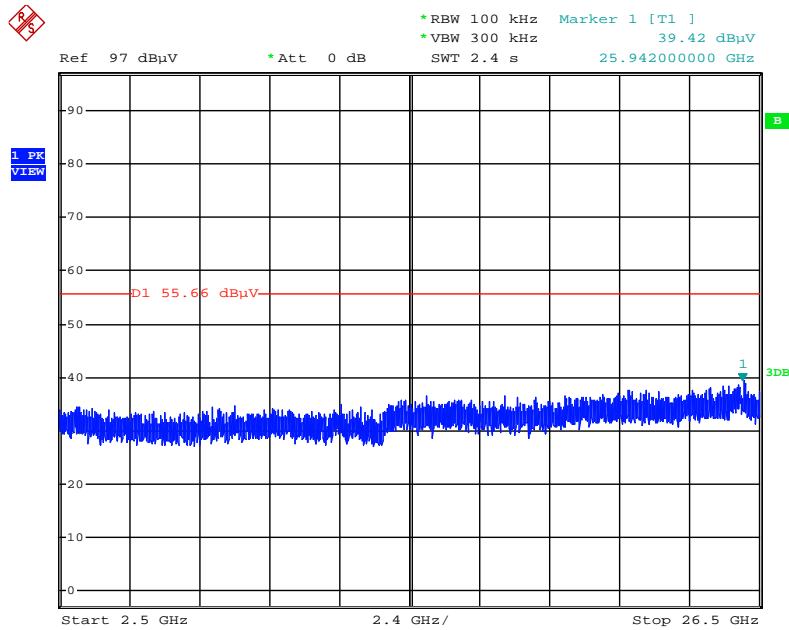
Date: 7.JUL.2015 02:48:55

Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc)



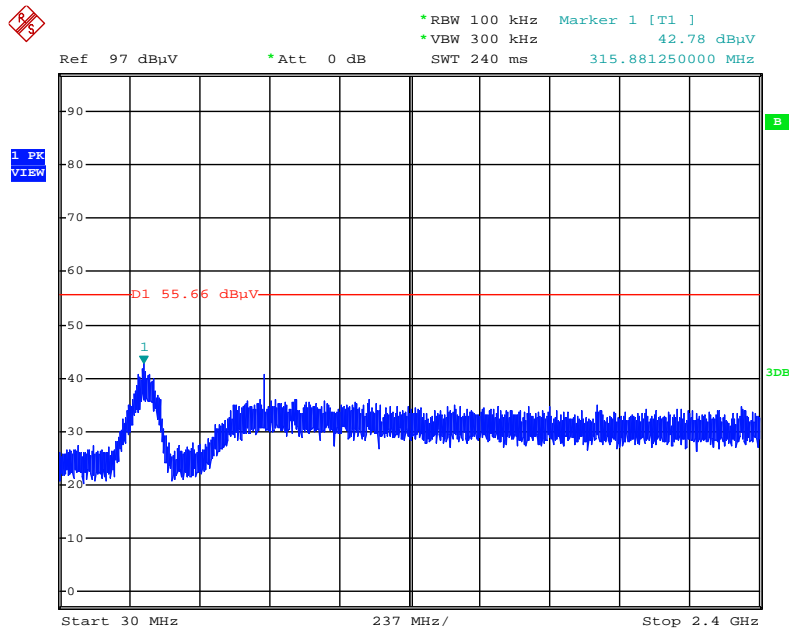
Date: 7.JUL.2015 02:49:25

Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~26500MHz (down 30dBc)



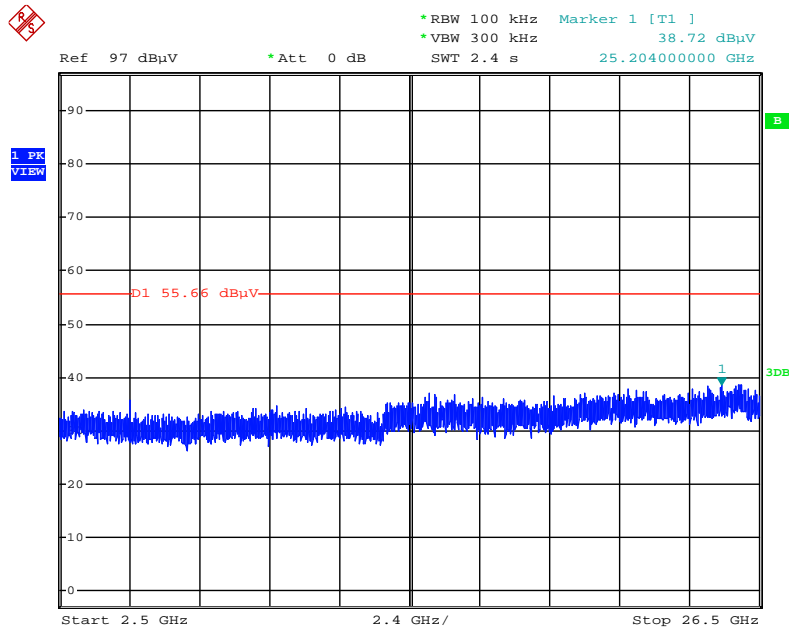
Date: 7.JUL.2015 02:49:59

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc)



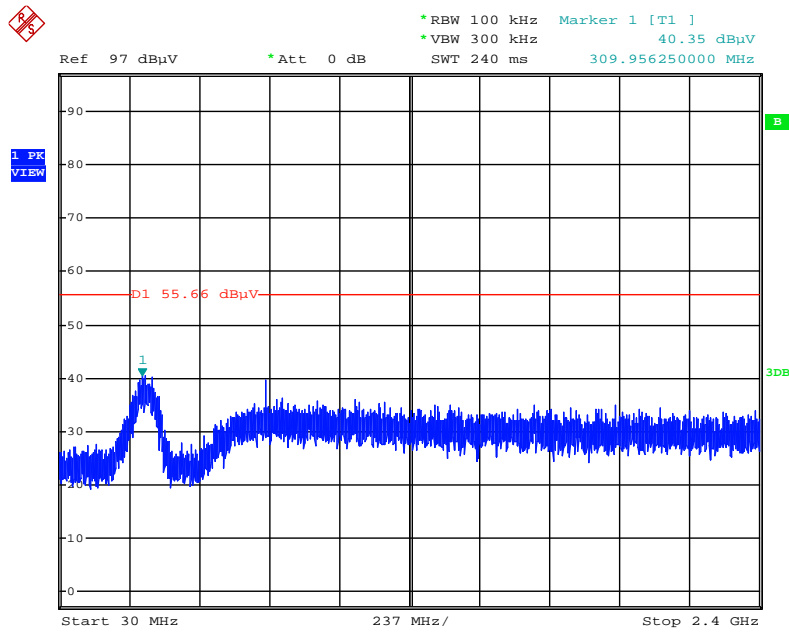
Date: 7.JUL.2015 02:50:35

Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc)



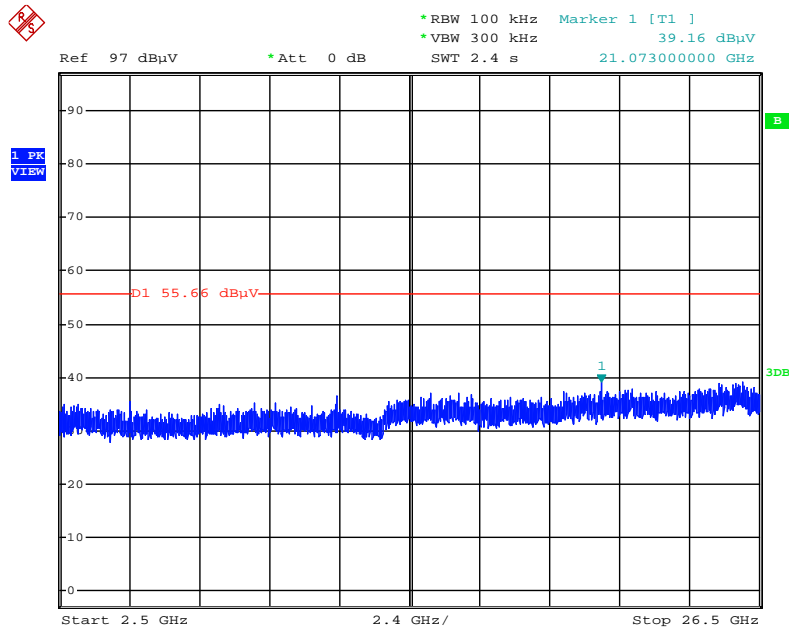
Date: 7.JUL.2015 02:50:21

Plot on Configuration IEEE 802.11b / CH 12 / 30MHz~2400MHz (down 30dBc)



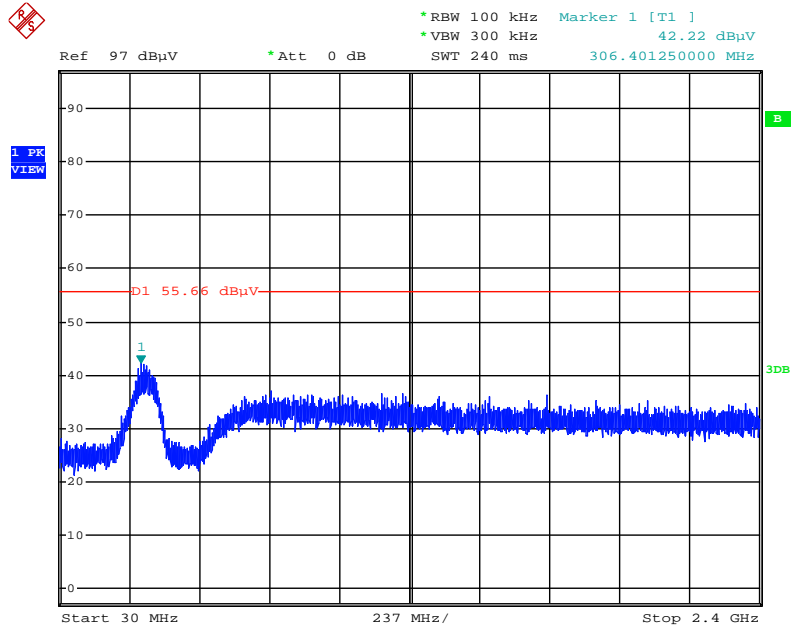
Date: 7.JUL.2015 02:51:17

Plot on Configuration IEEE 802.11b / CH 12 / 2500MHz~26500MHz (down 30dBc)



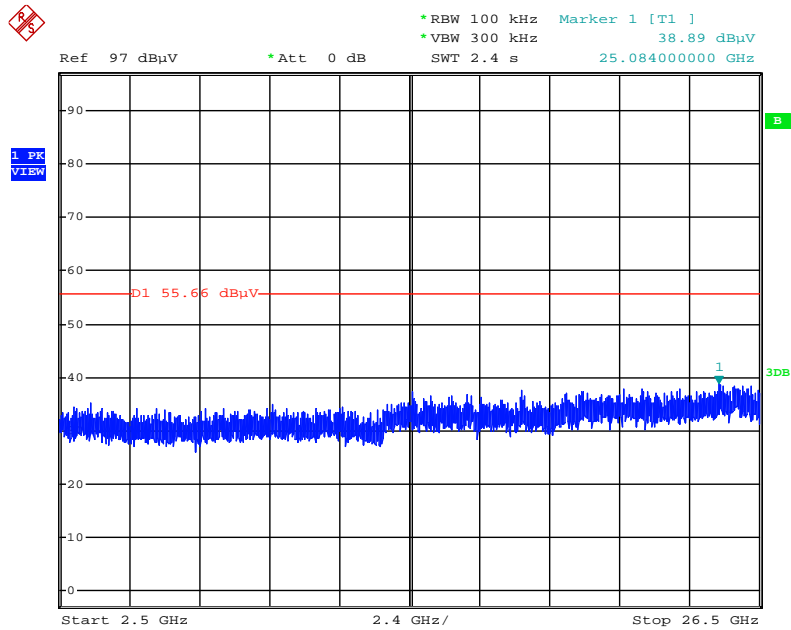
Date: 7.JUL.2015 02:51:44

Plot on Configuration IEEE 802.11b / CH 13 / 30MHz~2400MHz (down 30dBc)



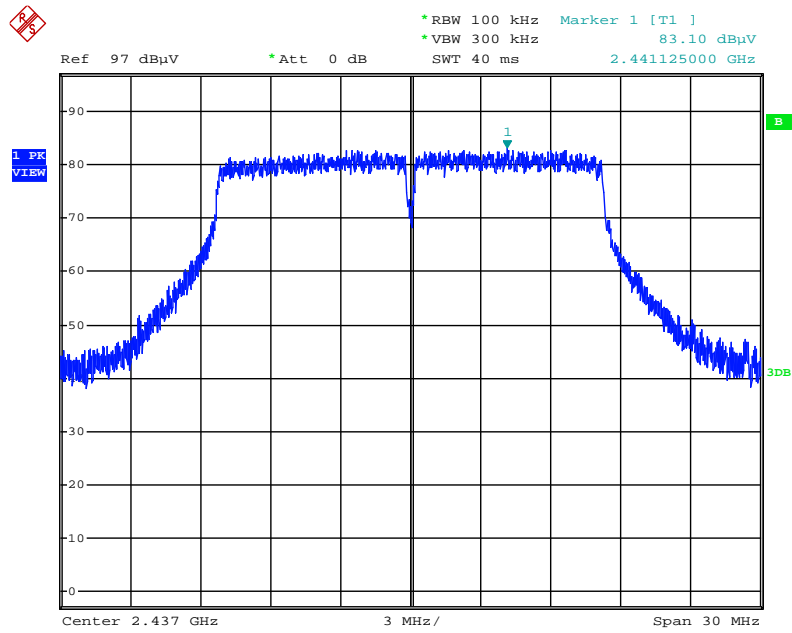
Date: 7.JUL.2015 02:52:40

Plot on Configuration IEEE 802.11b / CH 13 / 2500MHz~26500MHz (down 30dBc)



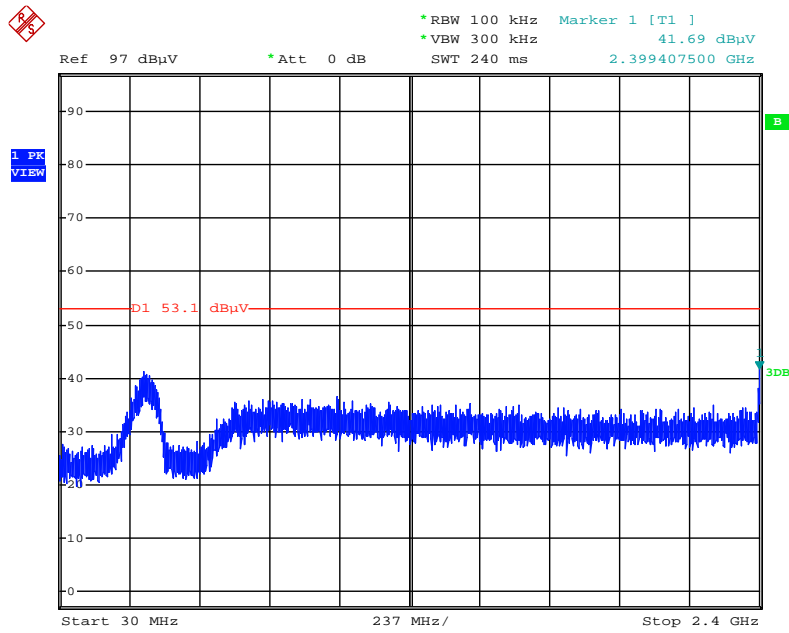
Date: 7.JUL.2015 02:52:12

### Plot on Configuration IEEE 802.11g / Reference Level



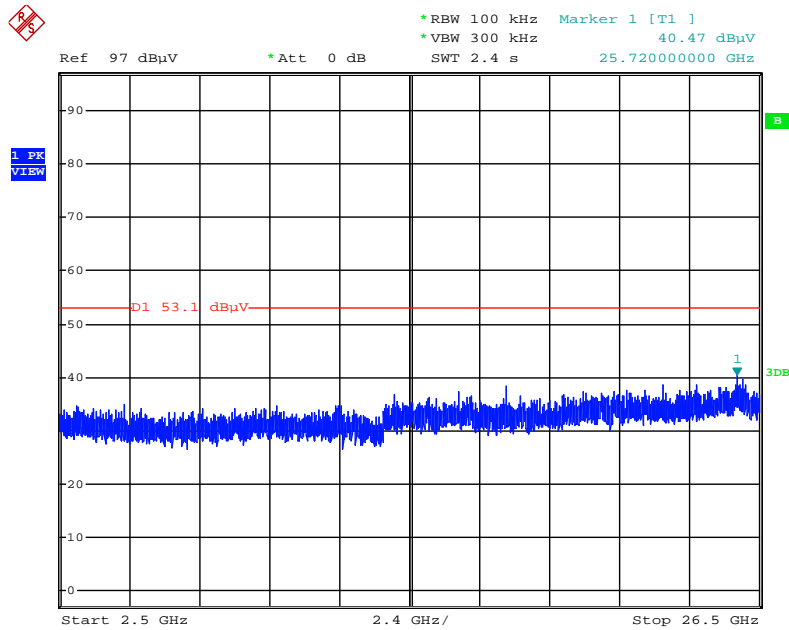
Date: 7.JUL.2015 02:44:13

Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc)



Date: 7.JUL.2015 02:45:11

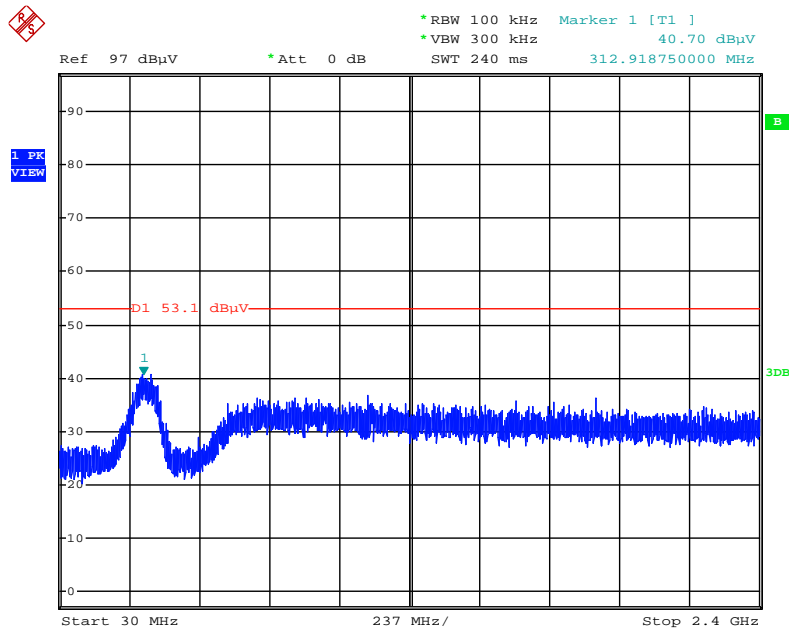
Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 02:45:38

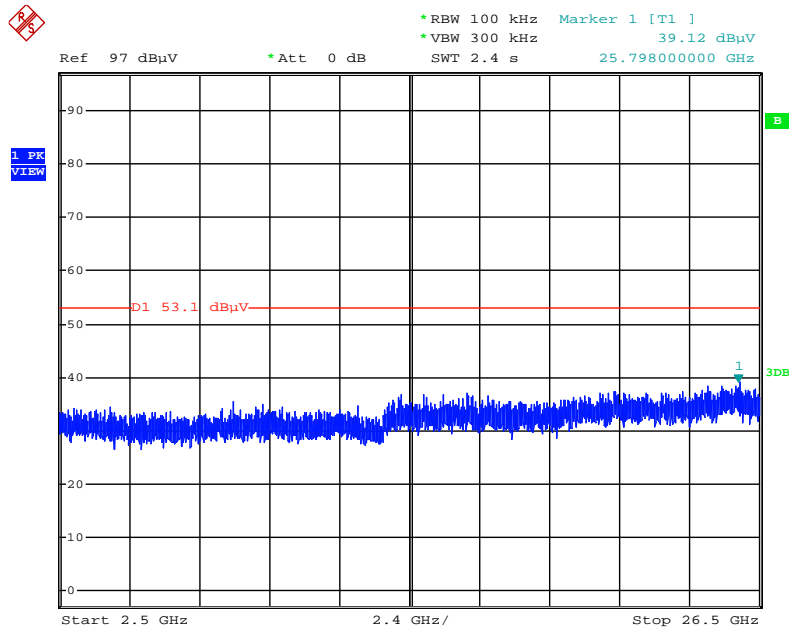


Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc)



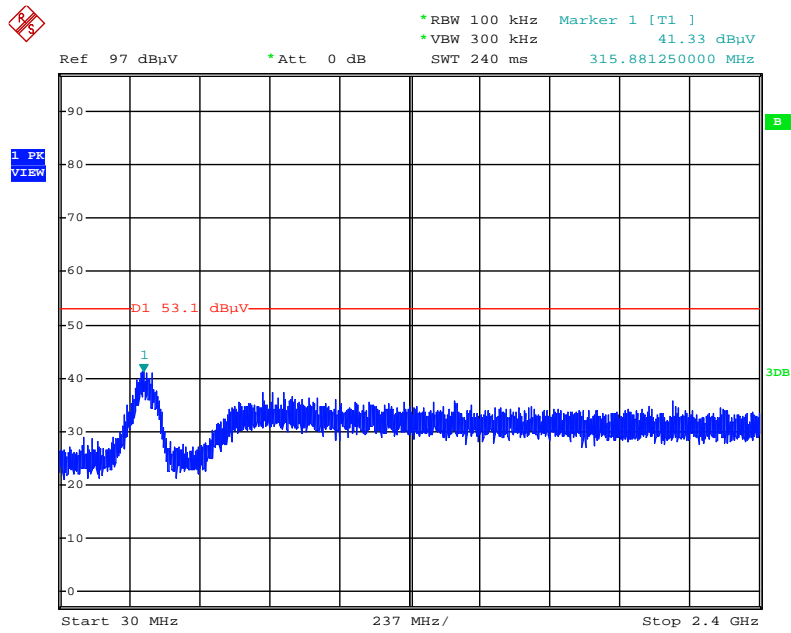
Date: 7.JUL.2015 02:46:30

Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc)



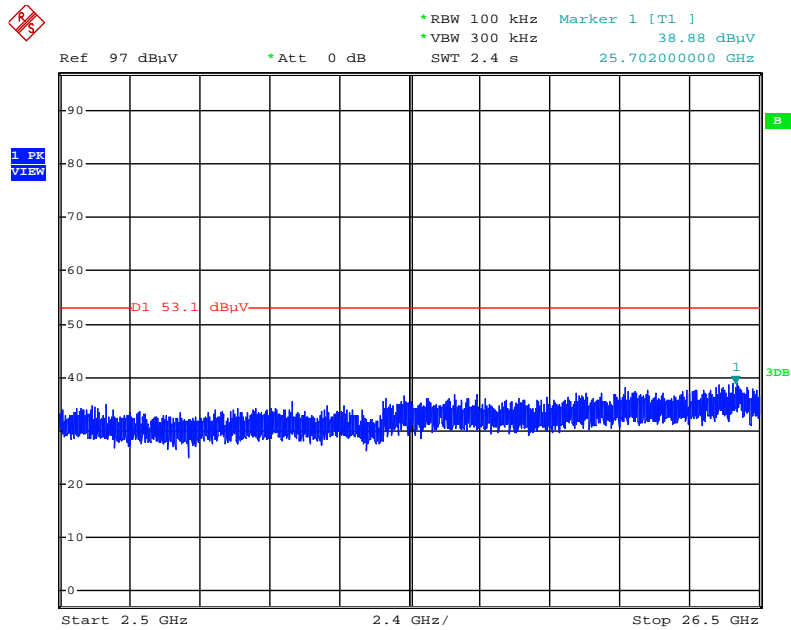
Date: 7.JUL.2015 02:46:08

Plot on Configuration IEEE 802.11g / CH 12 / 30MHz~2400MHz (down 30dBc)



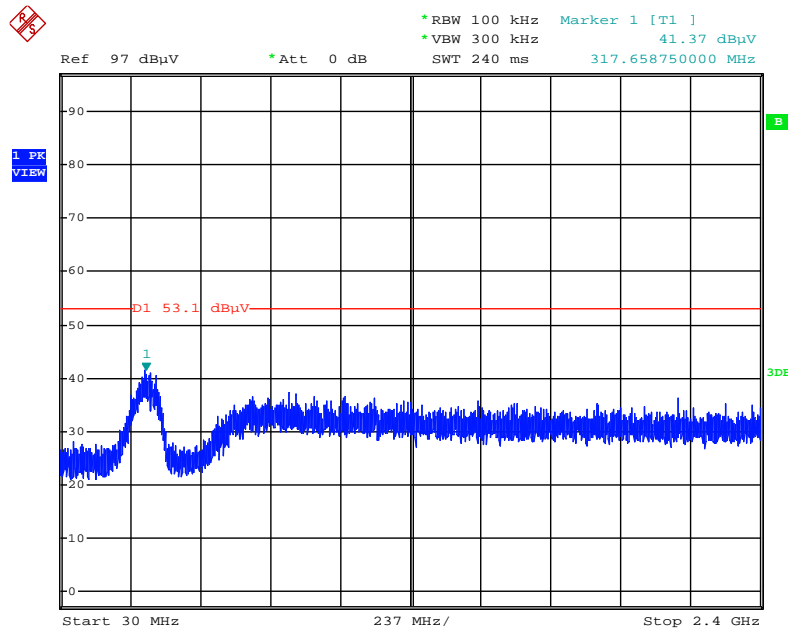
Date: 7.JUL.2015 02:46:54

Plot on Configuration IEEE 802.11g / CH 12 / 2500MHz~26500MHz (down 30dBc)



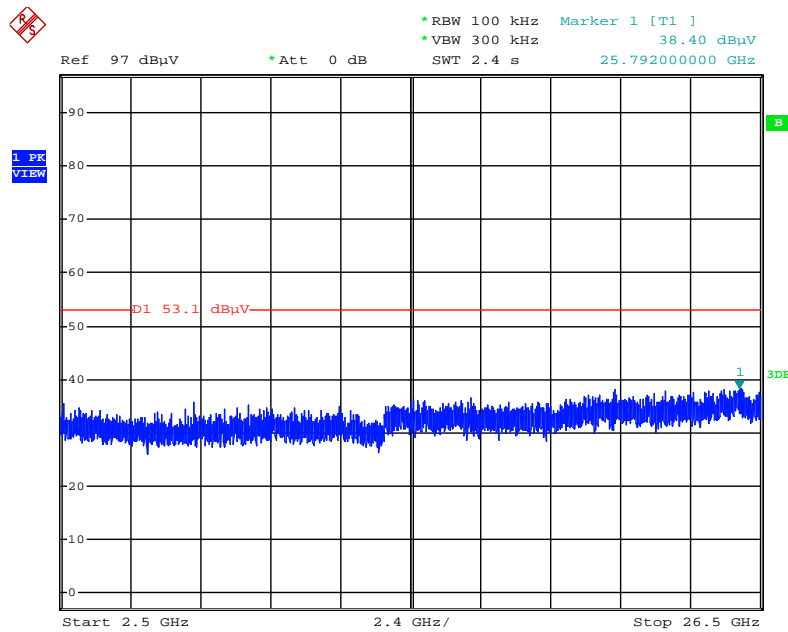
Date: 7.JUL.2015 02:47:20

Plot on Configuration IEEE 802.11g / CH 13 / 30MHz~2400MHz (down 30dBc)



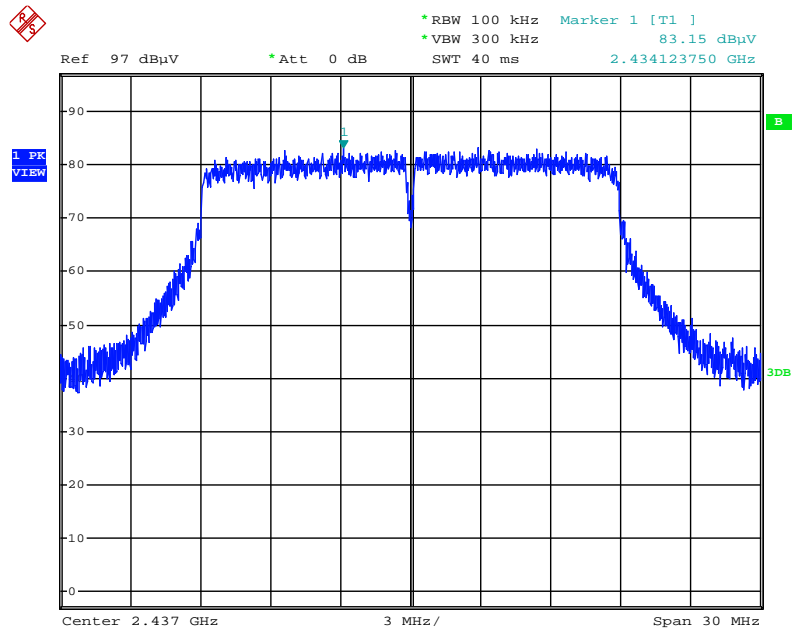
Date: 7.JUL.2015 02:48:08

Plot on Configuration IEEE 802.11g / CH 13 / 2500MHz~26500MHz (down 30dBc)



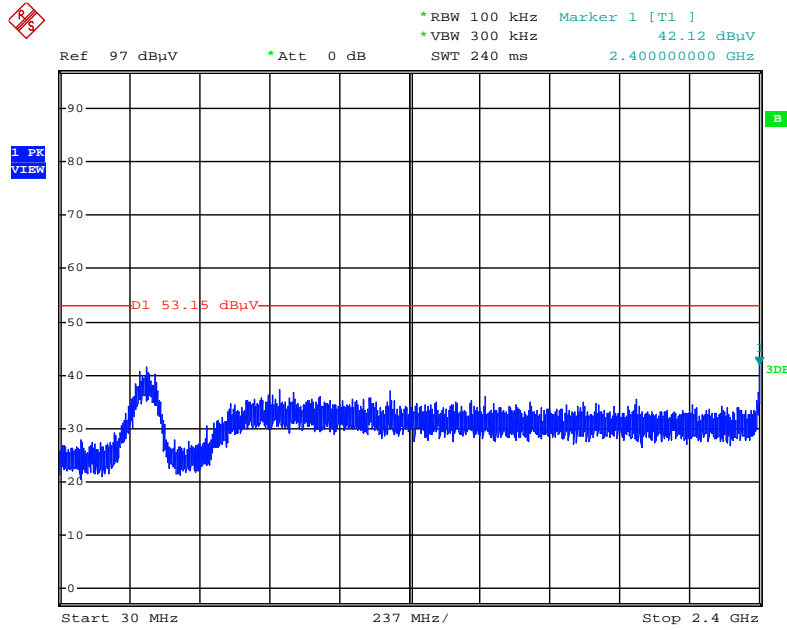
Date: 7.JUL.2015 02:47:48

### Plot on Configuration IEEE 802.11n MCS0 HT20 / Reference Level



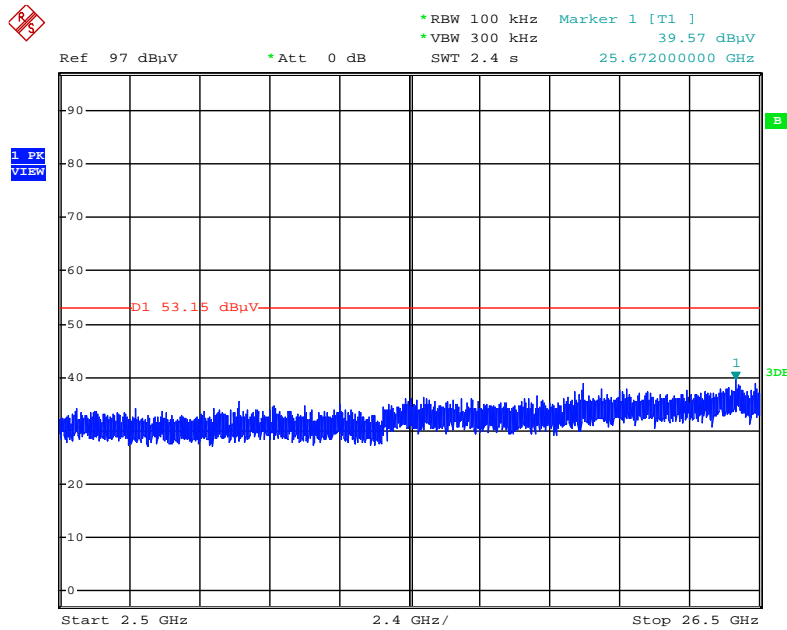
Date: 7.JUL.2015 02:37:50

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 30MHz~2400MHz (down 30dBc)



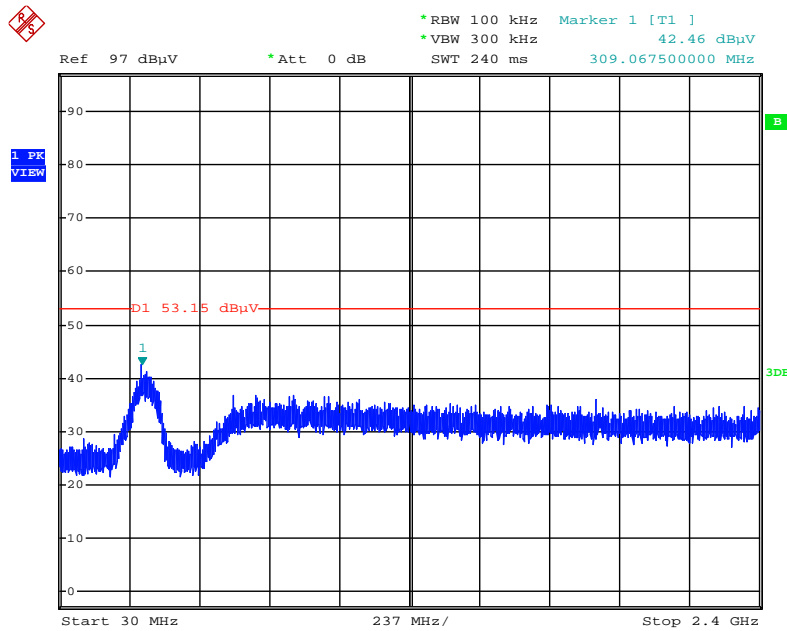
Date: 7.JUL.2015 02:38:42

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 2500MHz~26500MHz (down 30dBc)



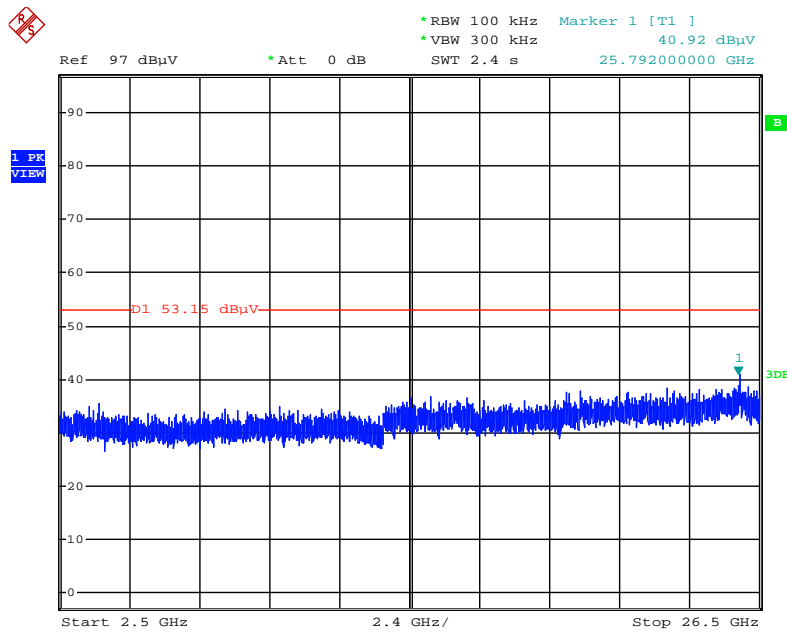
Date: 7.JUL.2015 02:39:06

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 30MHz~2400MHz (down 30dBc)



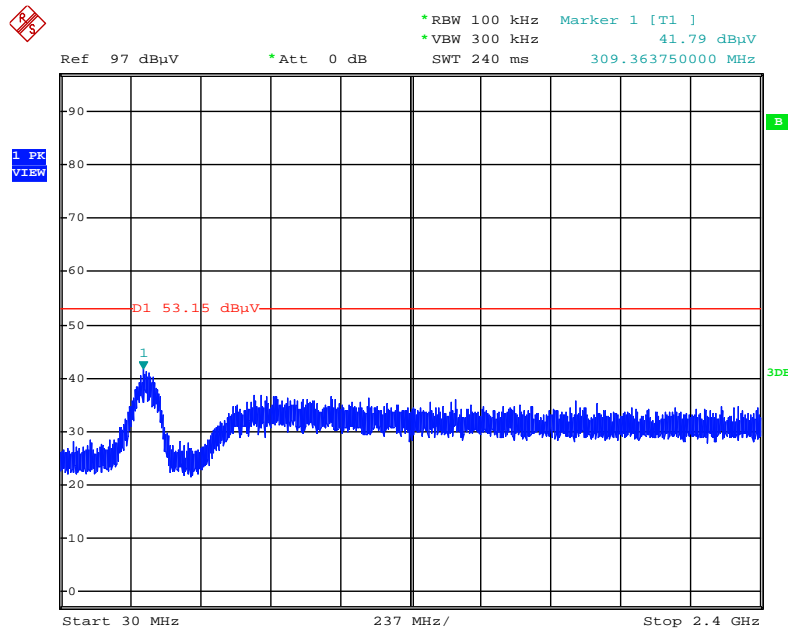
Date: 7.JUL.2015 02:39:59

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 2500MHz~26500MHz (down 30dBc)



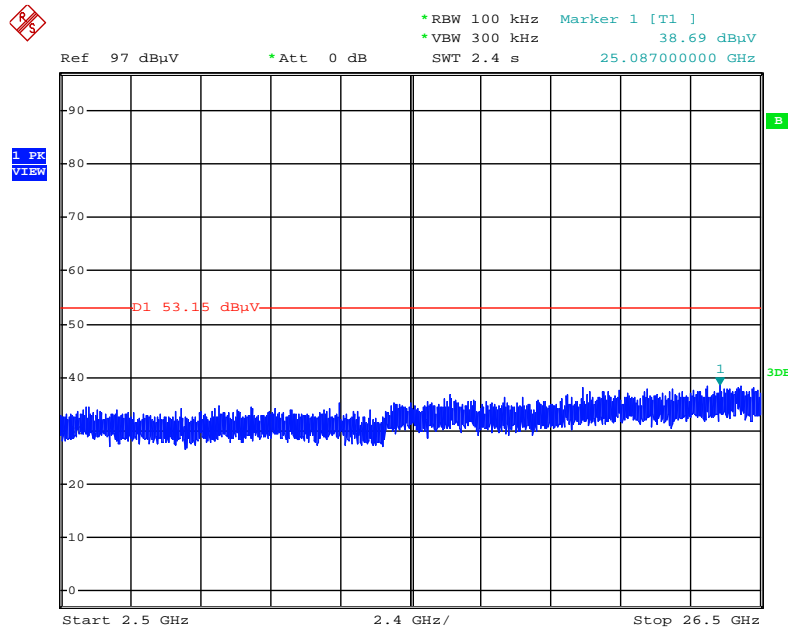
Date: 7.JUL.2015 02:39:36

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 12 / 30MHz~2400MHz (down 30dBc)



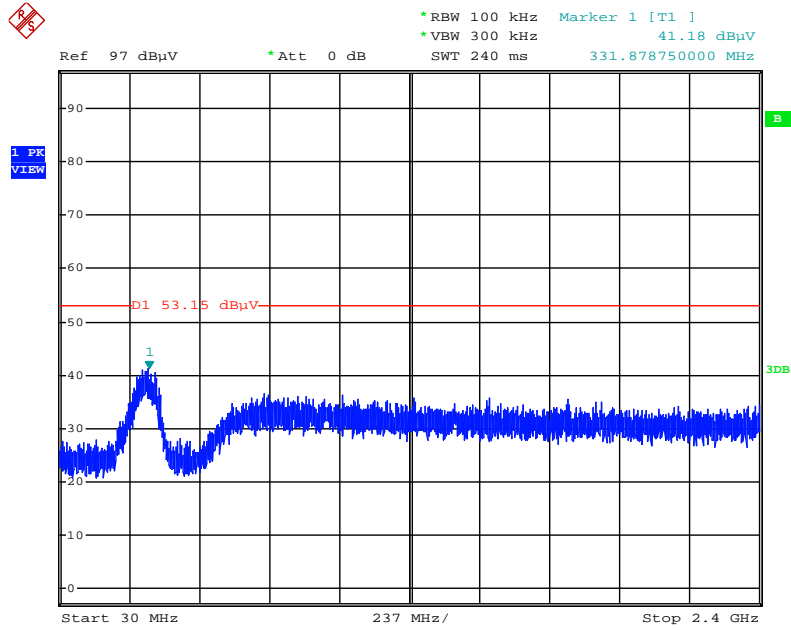
Date: 7.JUL.2015 02:41:18

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 12 / 2500MHz~26500MHz (down 30dBc)



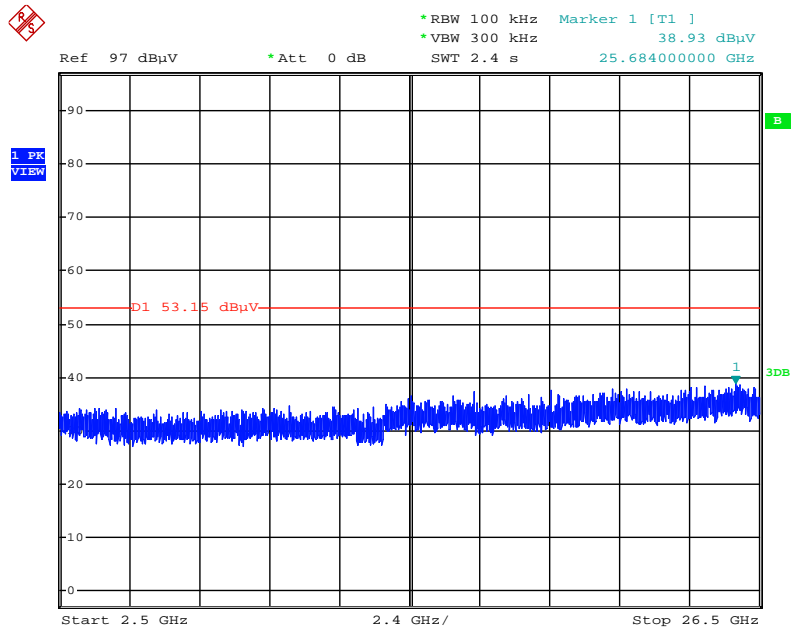
Date: 7.JUL.2015 02:42:16

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 13 / 30MHz~2400MHz (down 30dBc)



Date: 7.JUL.2015 02:43:11

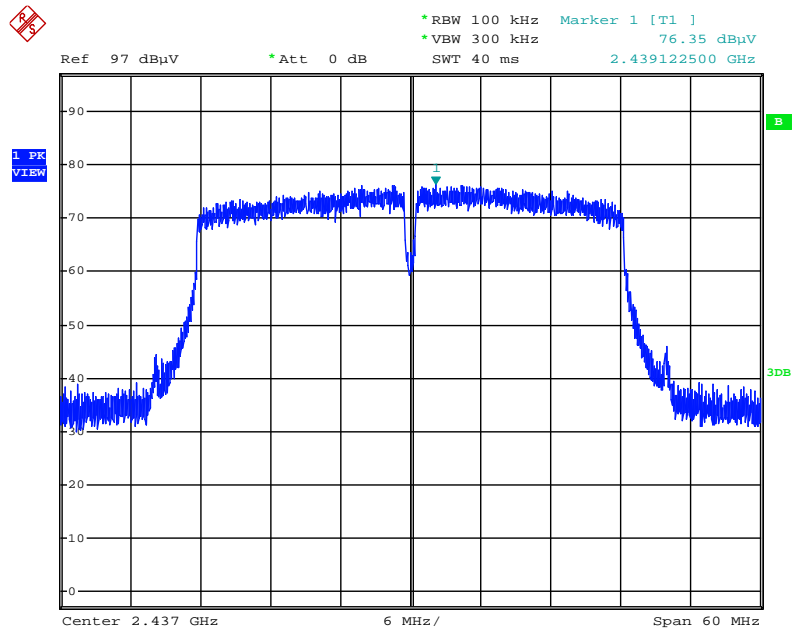
Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 13 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 02:42:49

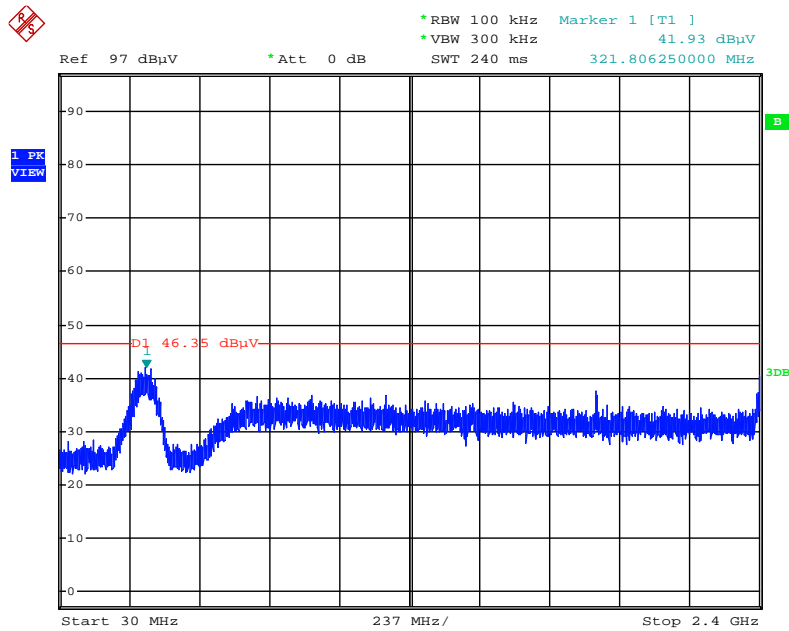


### Plot on Configuration IEEE 802.11n MCS0 HT40 / Reference Level



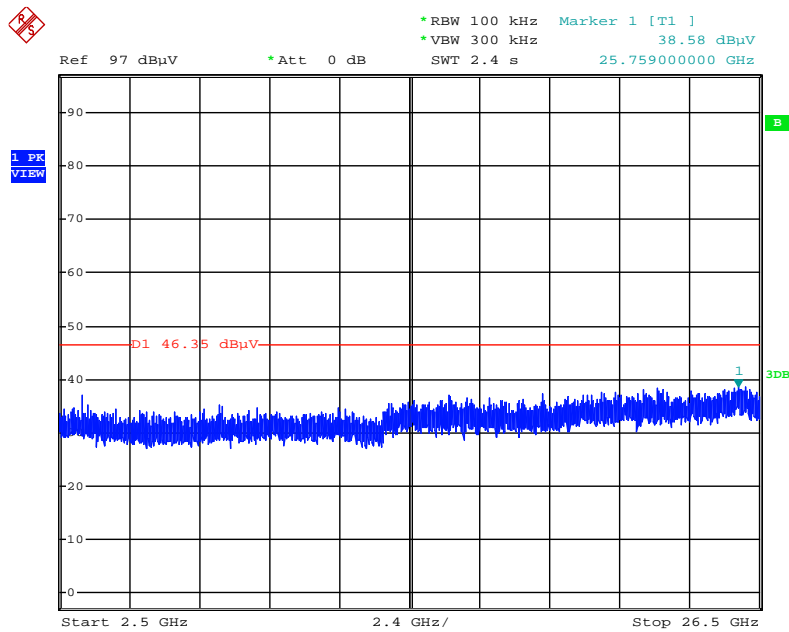
Date: 7.JUL.2015 02:30:50

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 30MHz~2400MHz (down 30dBc)



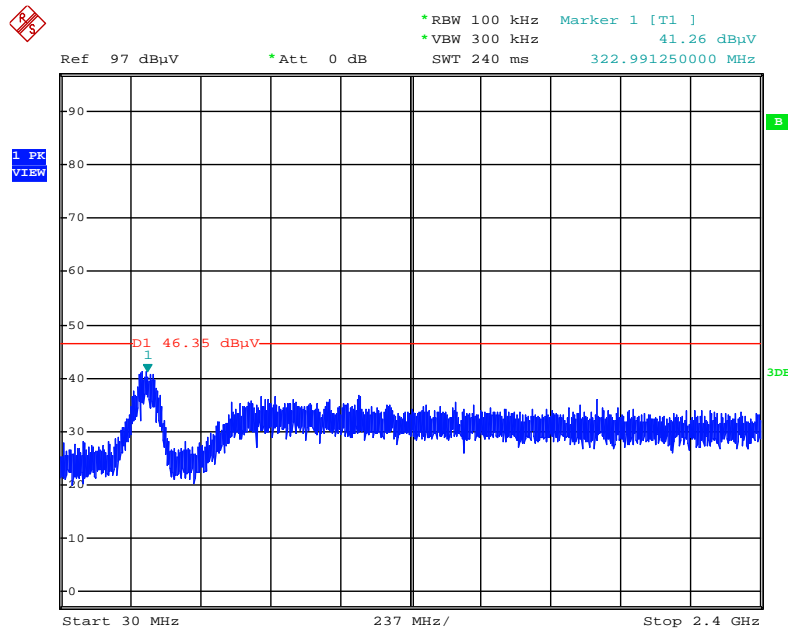
Date: 7.JUL.2015 02:32:21

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 2500MHz~26500MHz (down 30dBc)



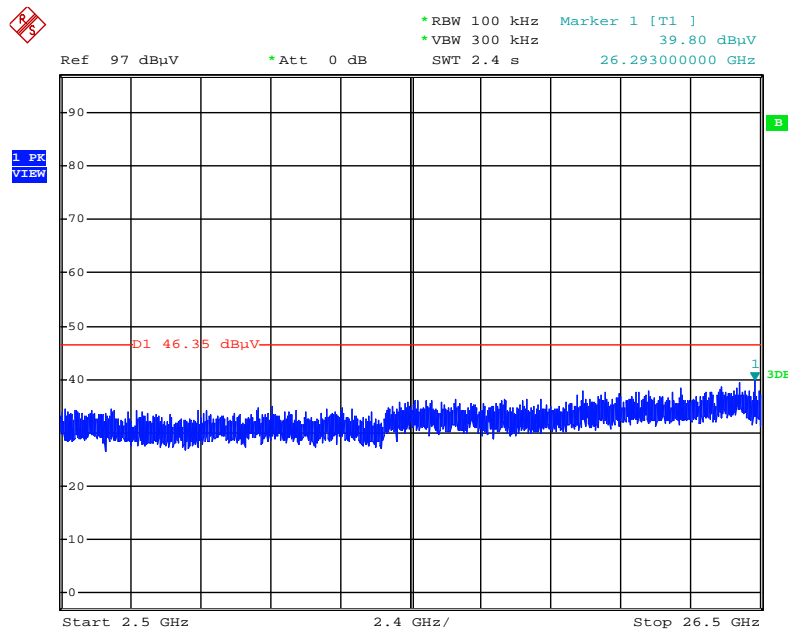
Date: 7.JUL.2015 02:33:14

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 30MHz~2400MHz (down 30dBc)



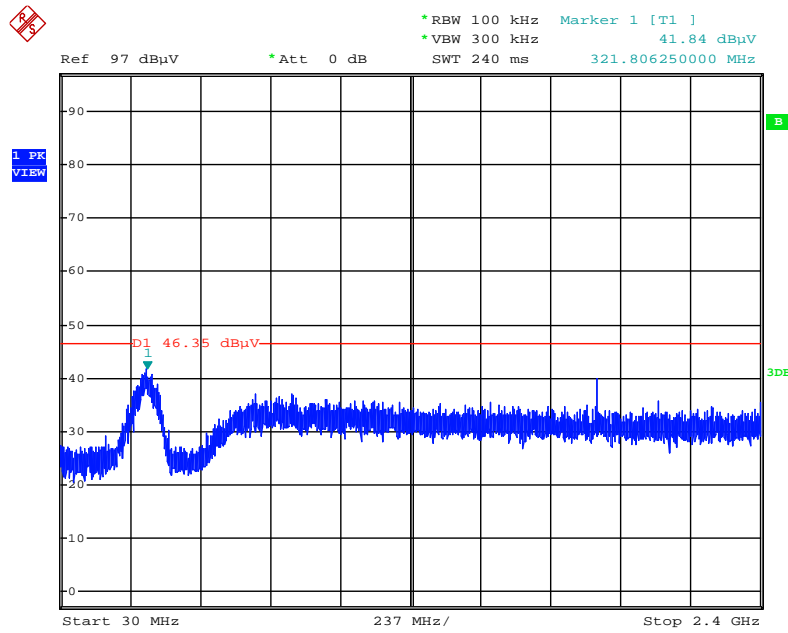
Date: 7.JUL.2015 02:34:08

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 2500MHz~26500MHz (down 30dBc)



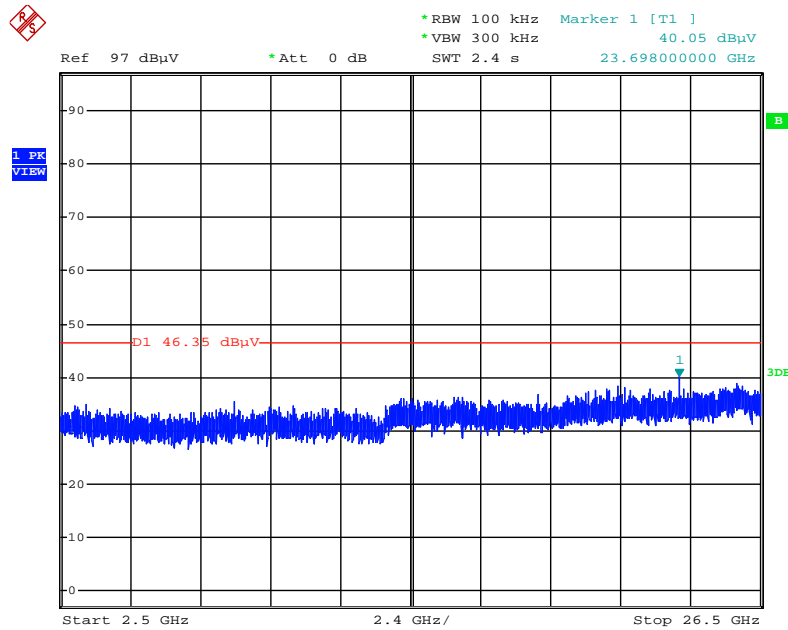
Date: 7.JUL.2015 02:33:49

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 10 / 30MHz~2400MHz (down 30dBc)



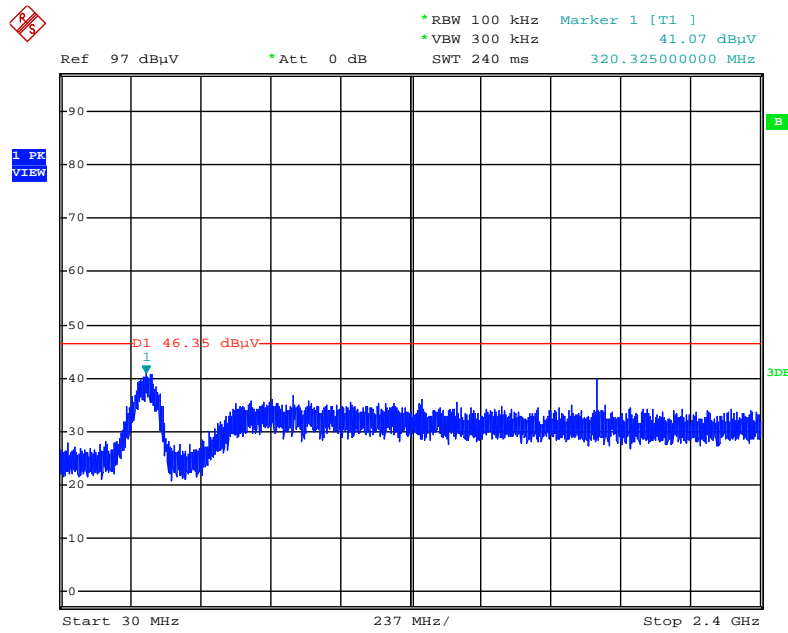
Date: 7.JUL.2015 02:35:07

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 10 / 2500MHz~26500MHz (down 30dBc)



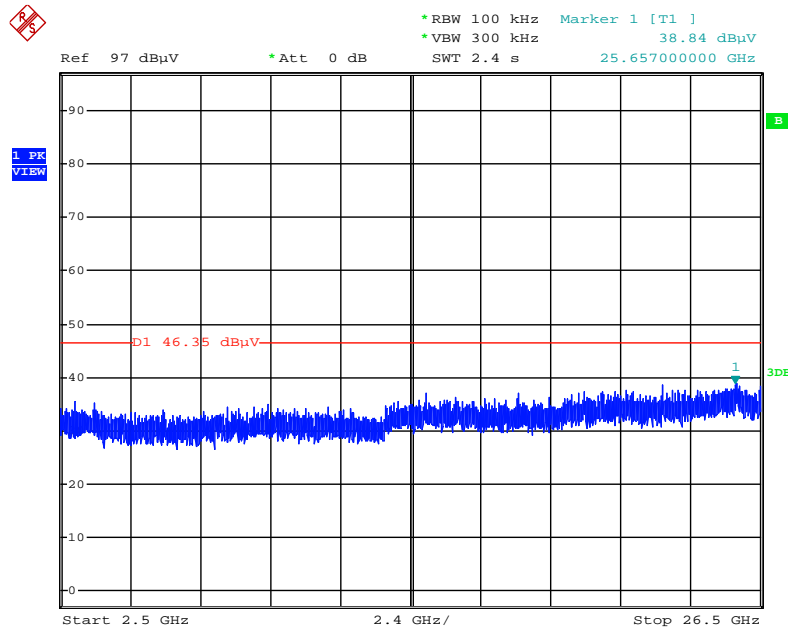
Date: 7.JUL.2015 02:35:31

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 11 / 30MHz~2400MHz (down 30dBc)



Date: 7.JUL.2015 02:36:50

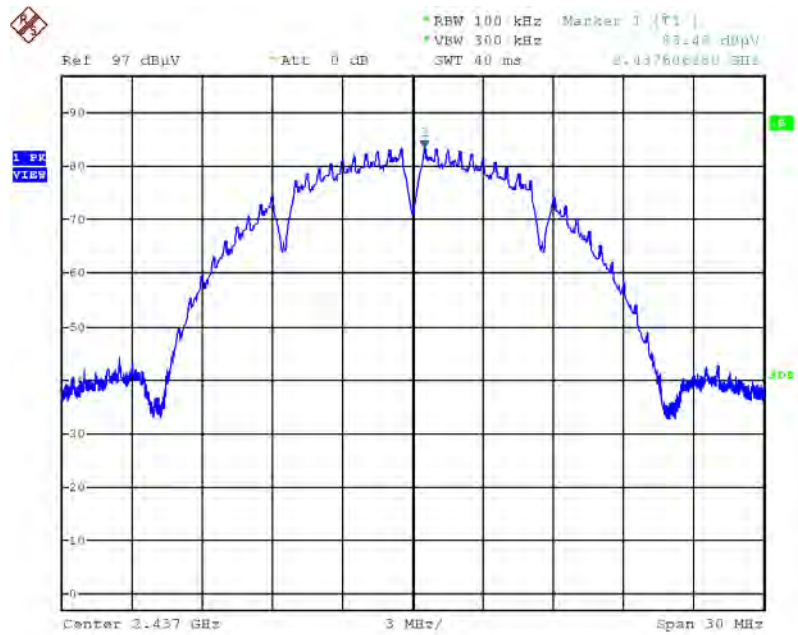
Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 11 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 02:36:29

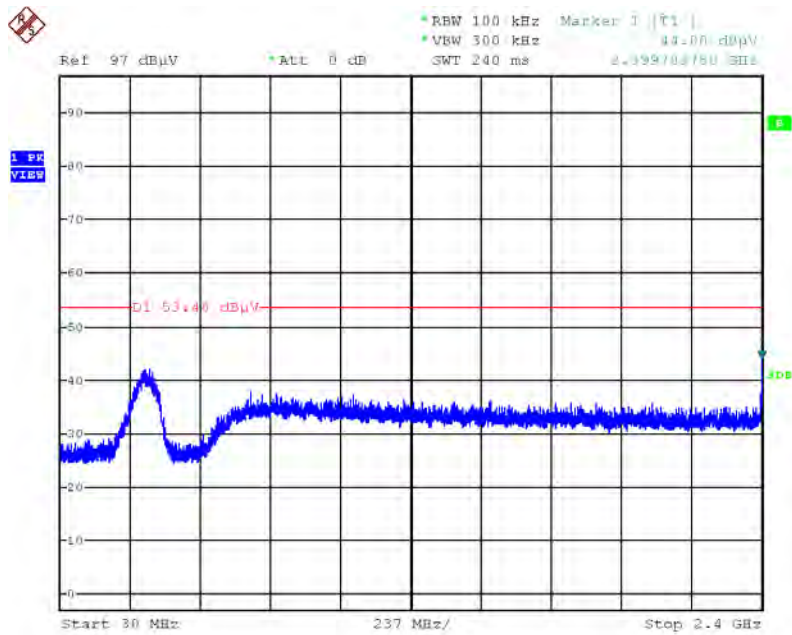
Test Moe: Mode 3

Plot on Configuration IEEE 802.11b / Reference Level



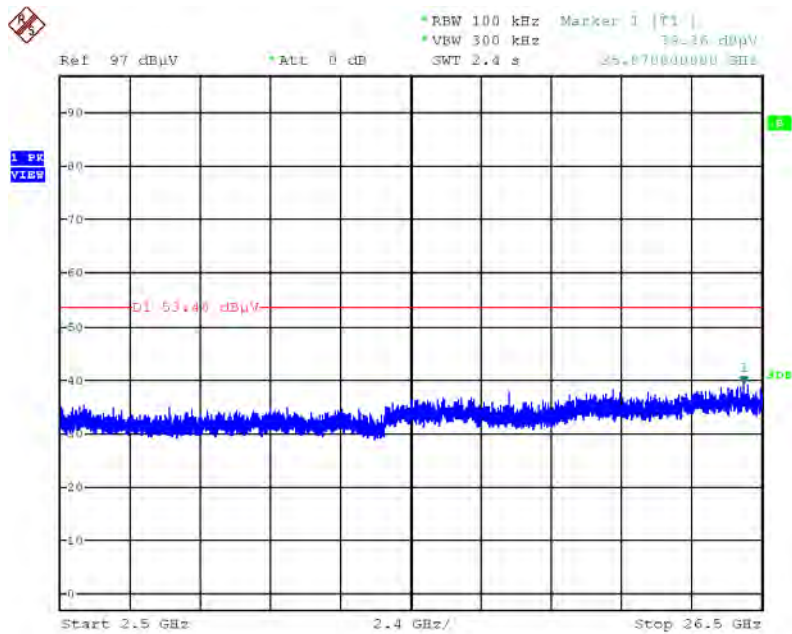
Date: 7-JUL-2015 21:46:56

Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc)



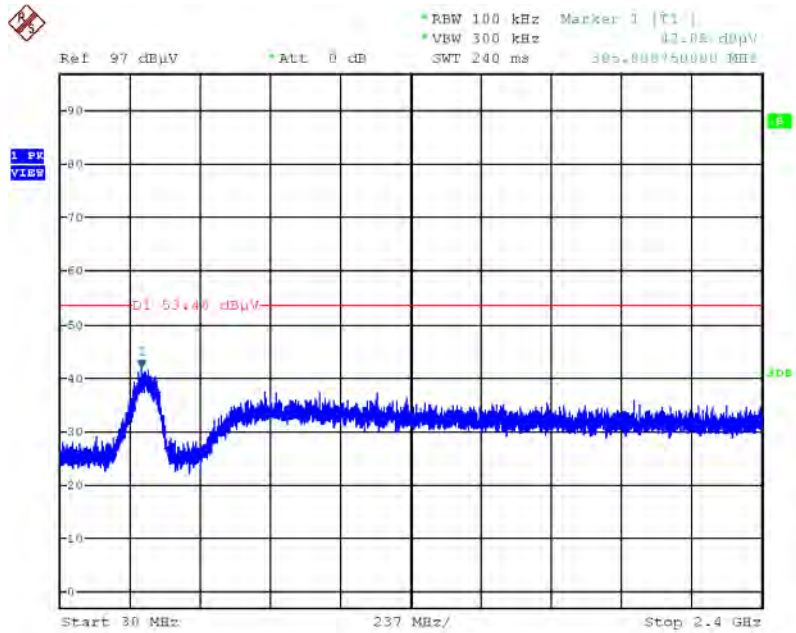
Date: 7.JUL.2015 21:49:40

Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~2650MHz (down 30dBc)



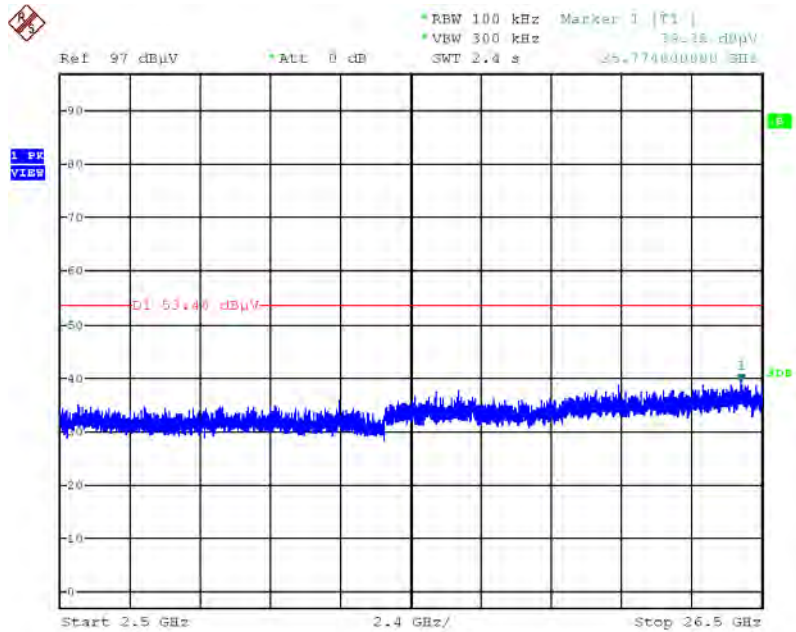
Date: 7.JUL.2015 21:50:10

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc)



Date: 7.JUL.2015 21:53:40

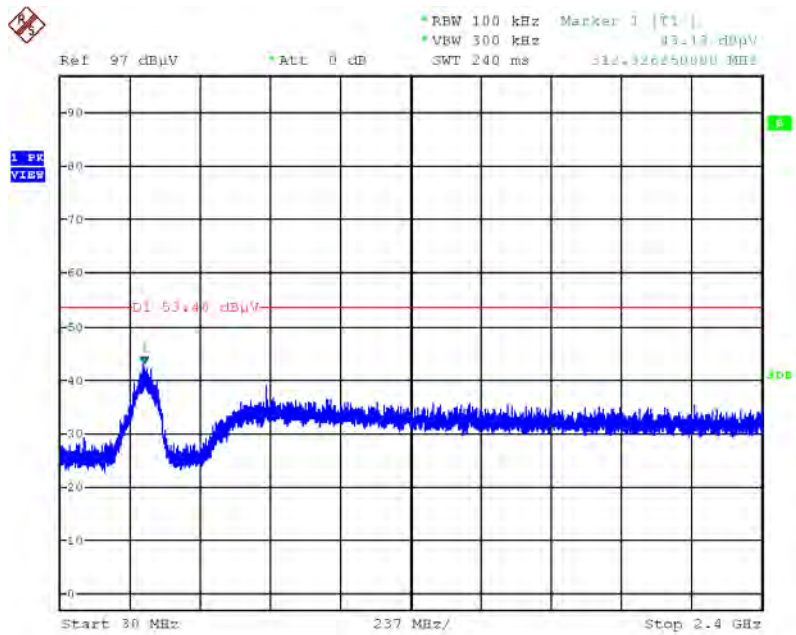
Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 21:53:06

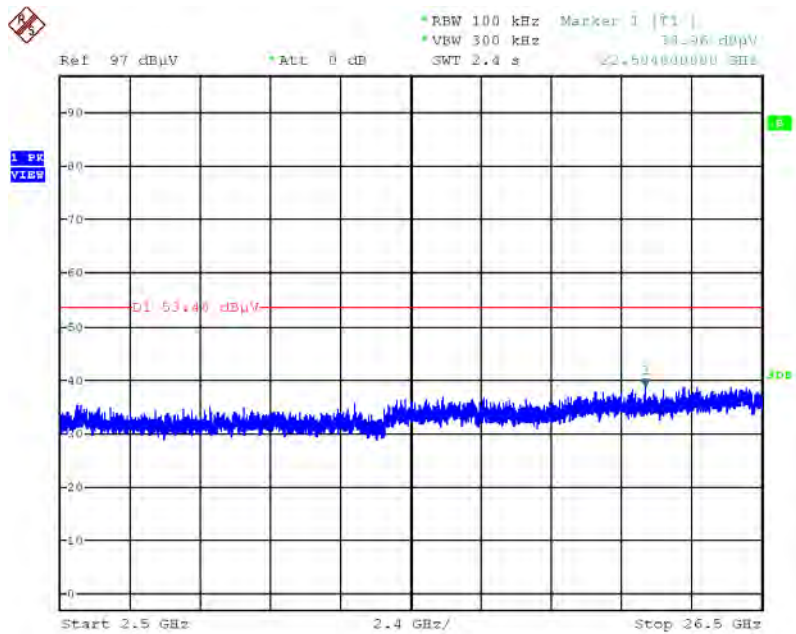


Plot on Configuration IEEE 802.11b / CH 12 / 30MHz~2400MHz (down 30dBc)



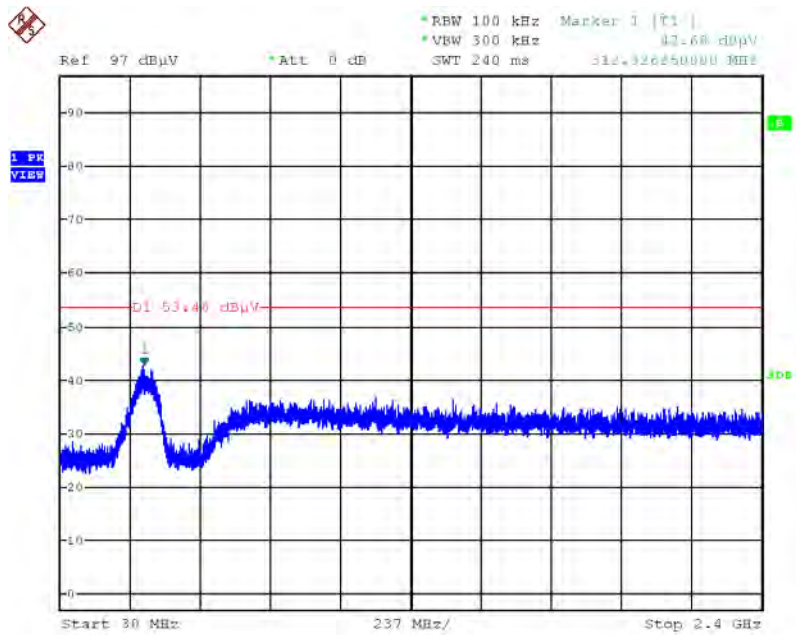
Date: 7.JUL.2015 21:54:22

Plot on Configuration IEEE 802.11b / CH 12 / 2500MHz~26500MHz (down 30dBc)



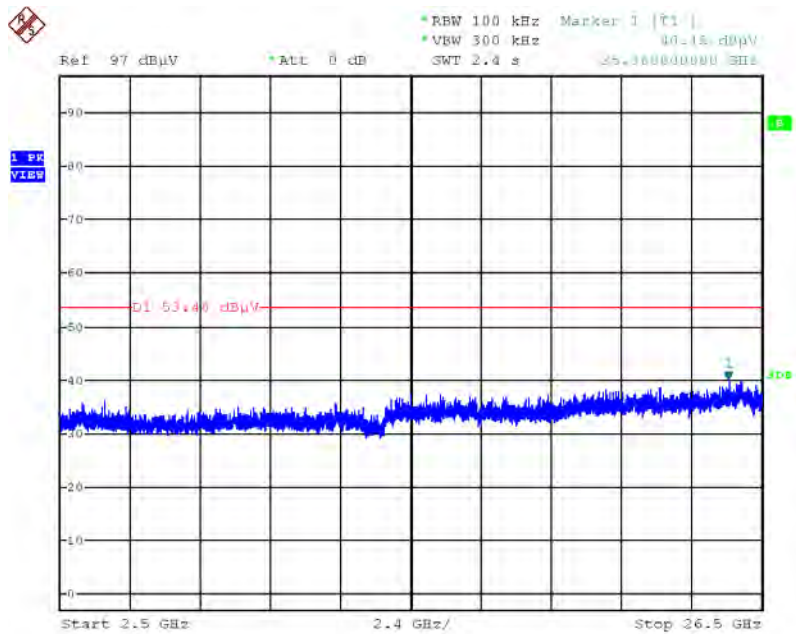
Date: 7.JUL.2015 21:55:03

Plot on Configuration IEEE 802.11b / CH 13 / 30MHz~2400MHz (down 30dBc)



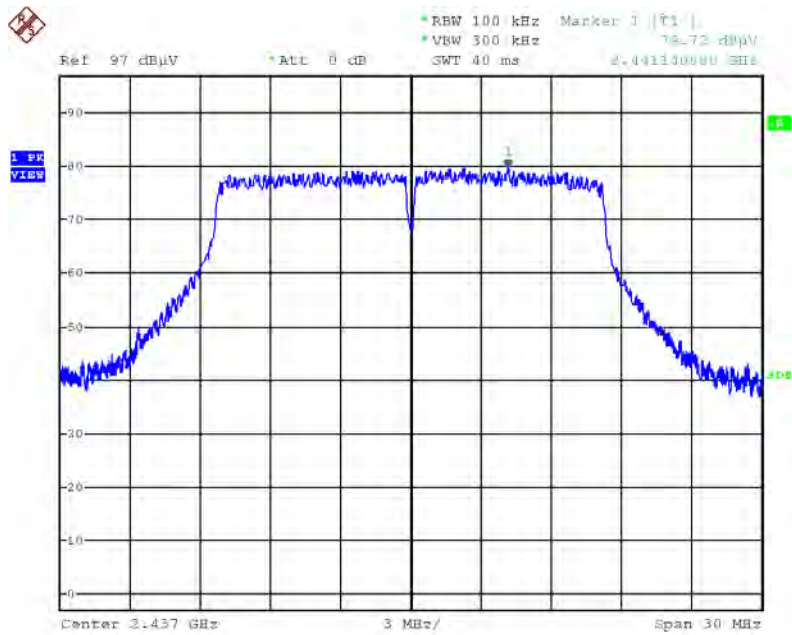
Date: 7.JUL.2015 21:59:33

Plot on Configuration IEEE 802.11b / CH 13 / 2500MHz~26500MHz (down 30dBc)



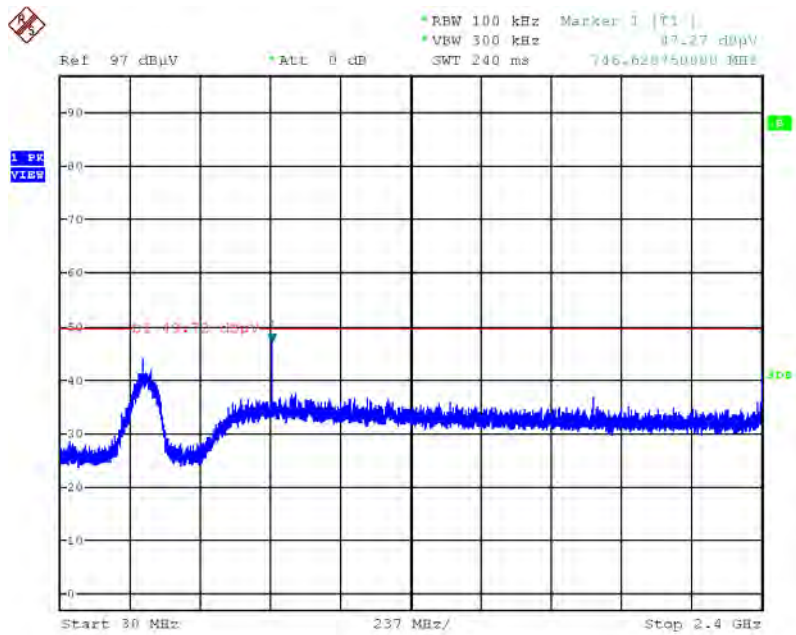
Date: 7.JUL.2015 21:58:50

### Plot on Configuration IEEE 802.11g / Reference Level



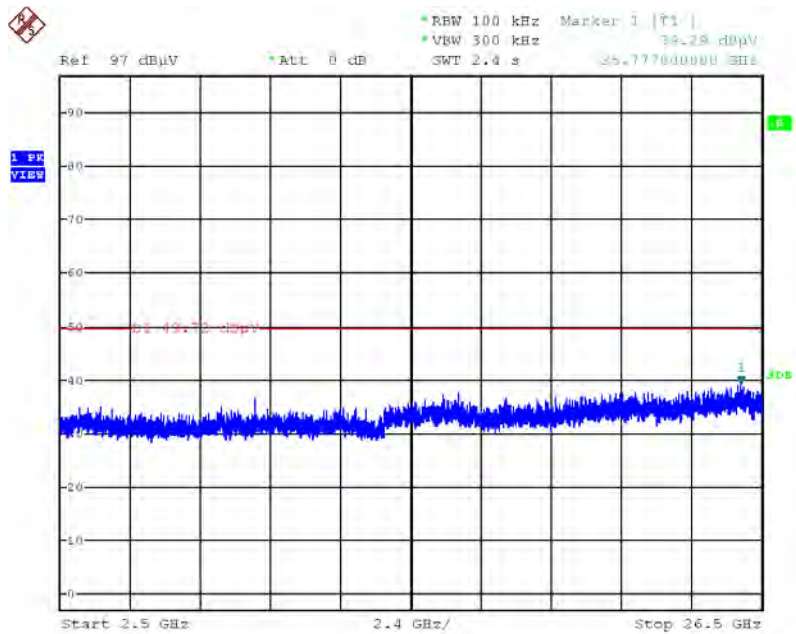
Date: 7 JUL 2015 22:05:10

Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc)



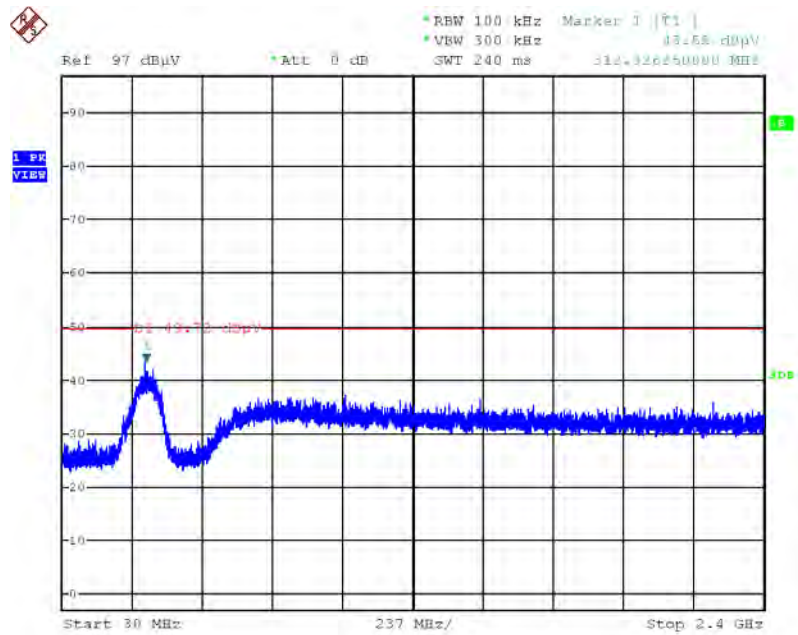
Date: 7.JUL.2015 22:06:41

Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~2650MHz (down 30dBc)



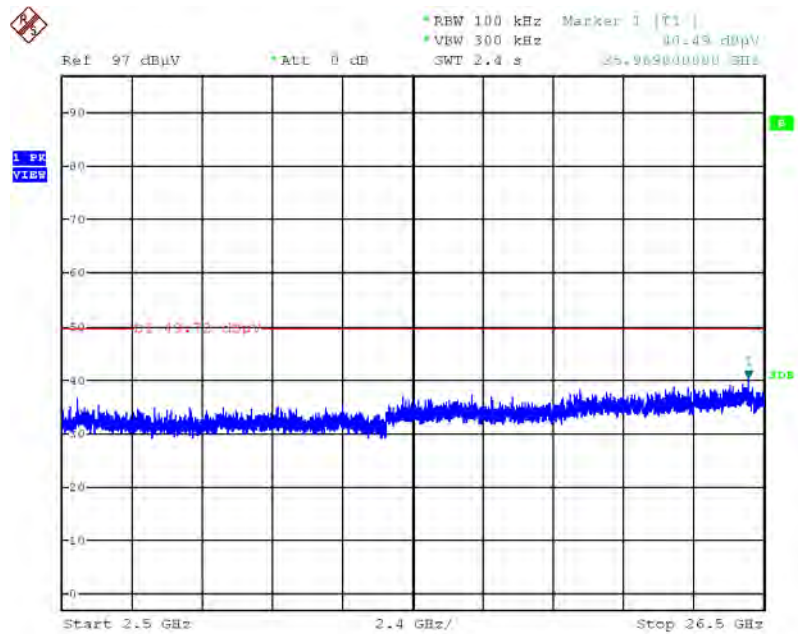
Date: 7.JUL.2015 22:12:06

Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc)



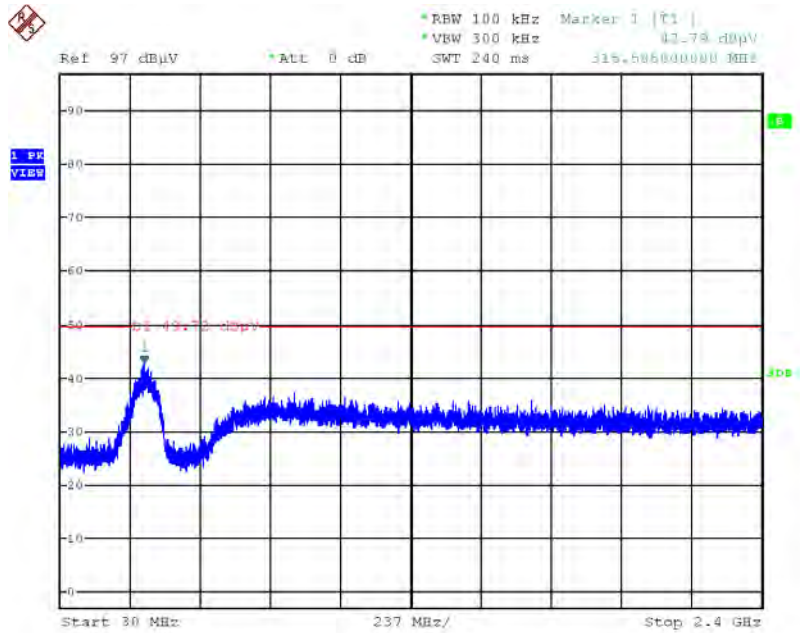
Date: 7.JUL.2015 22:08:36

Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc)



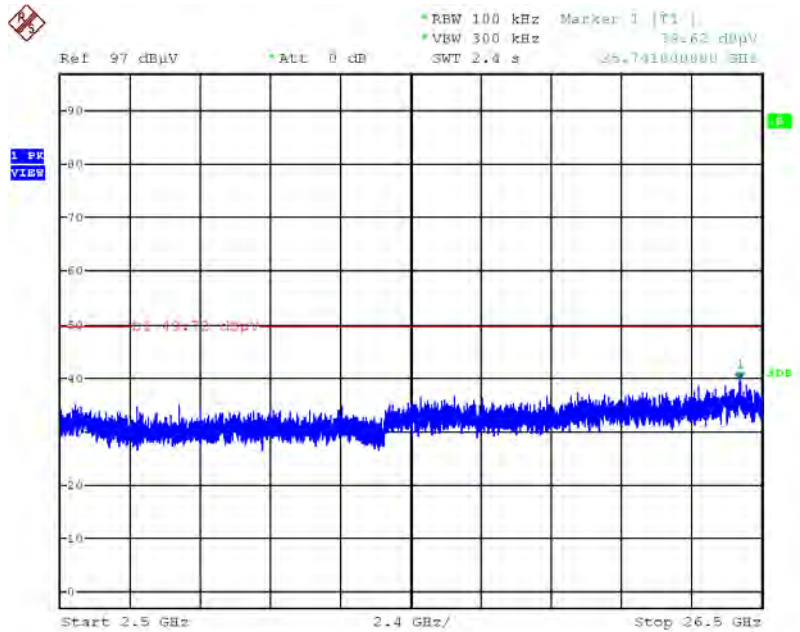
Date: 7.JUL.2015 22:09:16

Plot on Configuration IEEE 802.11g / CH 12 / 30MHz~2400MHz (down 30dBc)



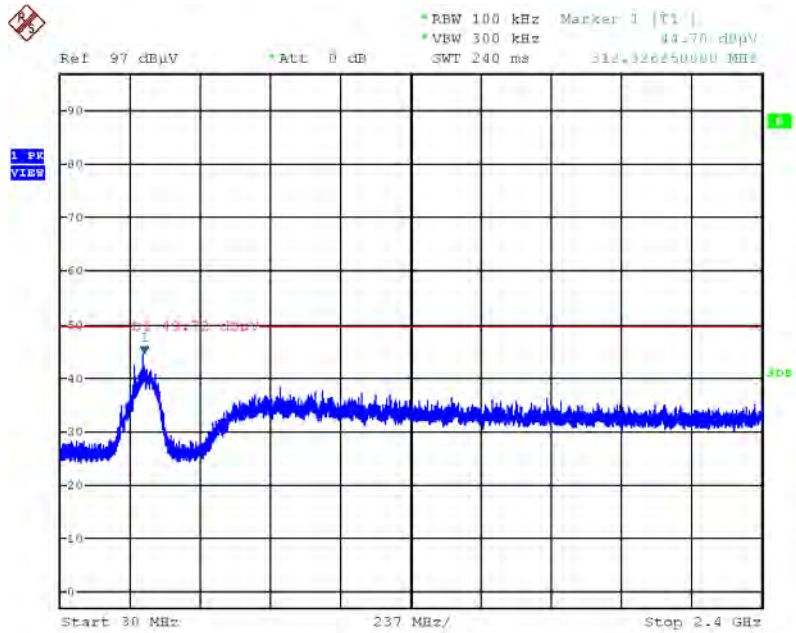
Date: 7.JUL.2015 22:13:35

Plot on Configuration IEEE 802.11g / CH 12 / 2500MHz~26500MHz (down 30dBc)



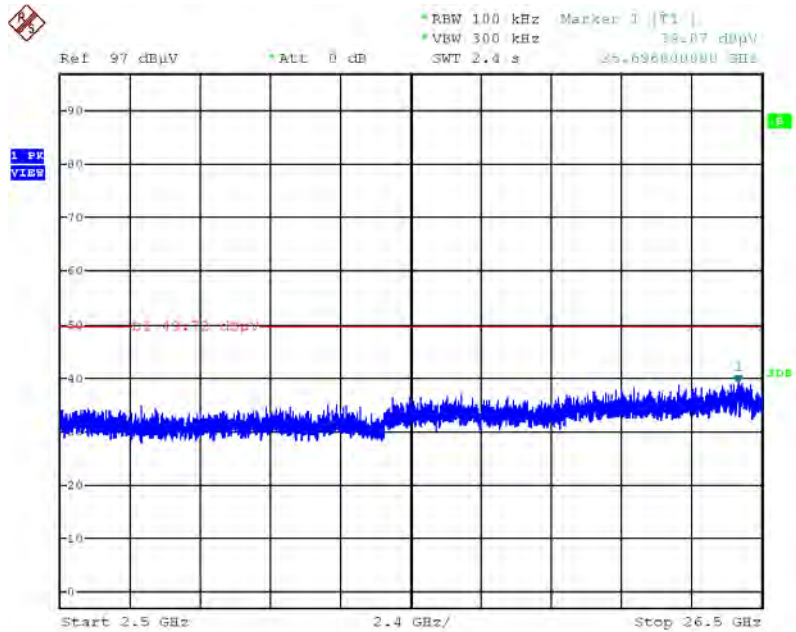
Date: 7.JUL.2015 22:13:06

Plot on Configuration IEEE 802.11g / CH 13 / 30MHz~2400MHz (down 30dBc)



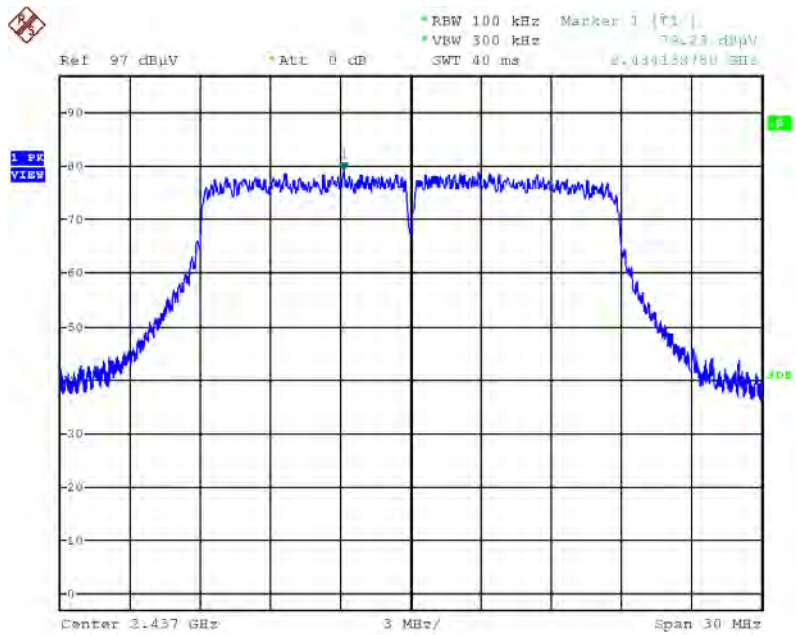
Date: 7.JUL.2015 22:21:12

Plot on Configuration IEEE 802.11g / CH 13 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 22:15:02

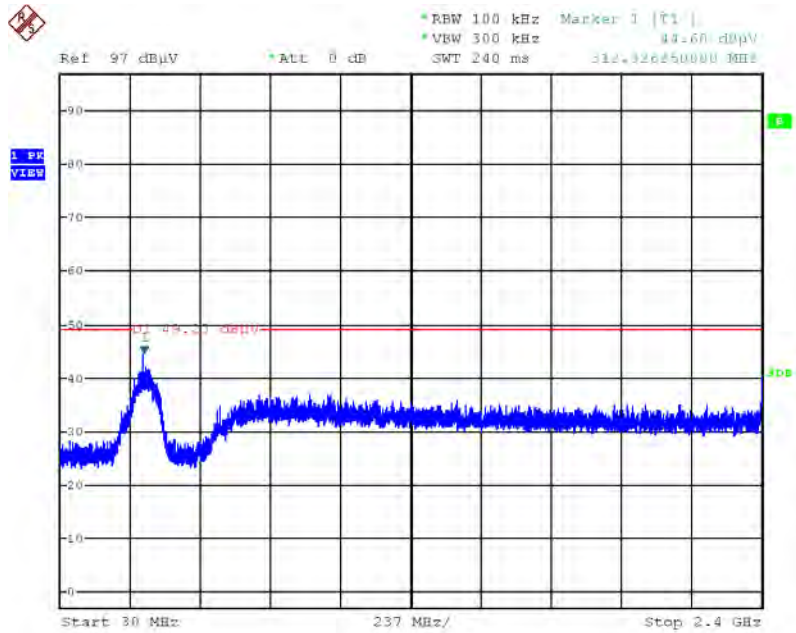
Plot on Configuration IEEE 802.11n MCS0 HT20 / Reference Level



Date: 7.JUL.2015 22:19:45

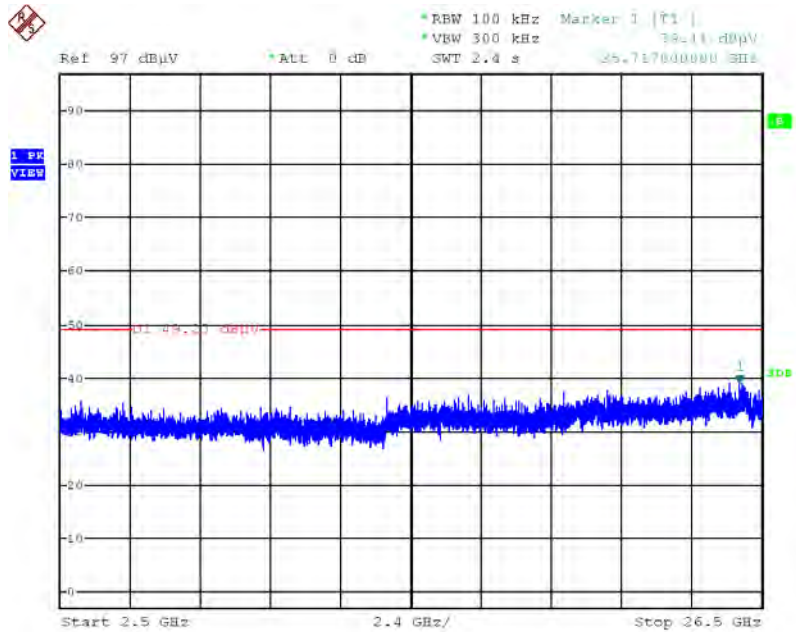


Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 30MHz~2400MHz (down 30dBc)



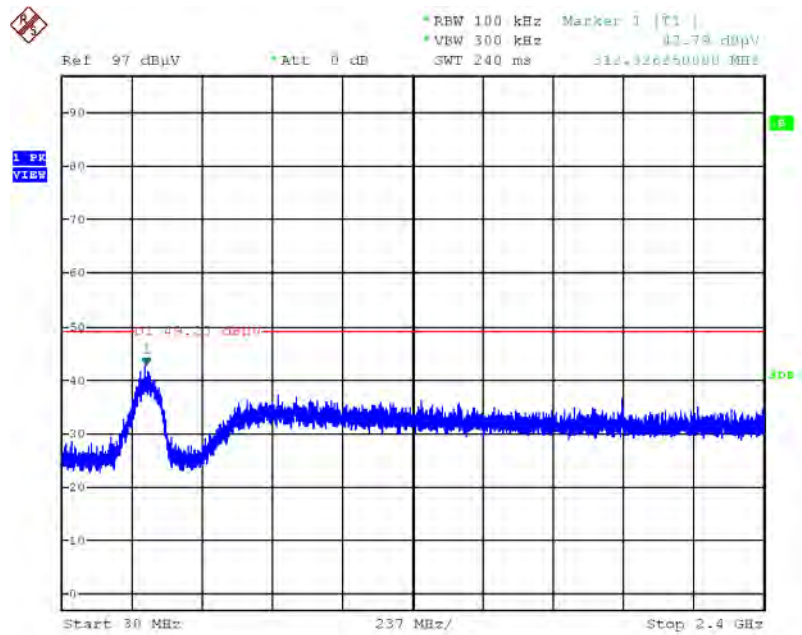
Date: 7.JUL.2015 22:22:13

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 1 / 2500MHz~26500MHz (down 30dBc)



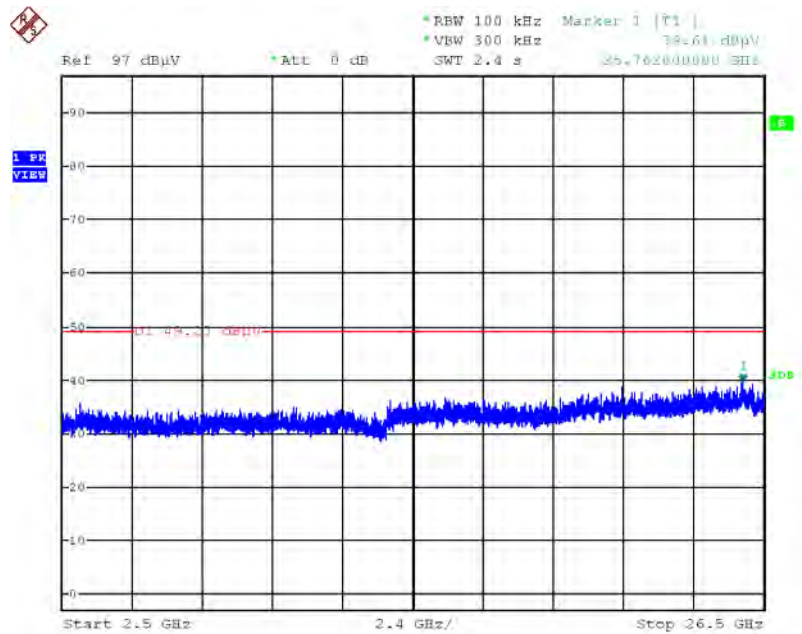
Date: 7.JUL.2015 22:22:49

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 30MHz~2400MHz (down 30dBc)



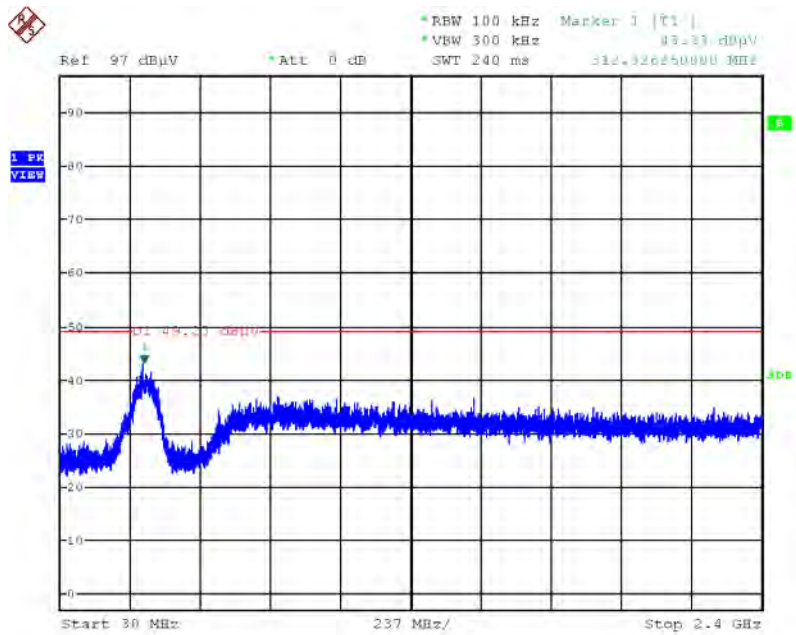
Date: 7.JUL.2015 22:24:14

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 11 / 2500MHz~26500MHz (down 30dBc)



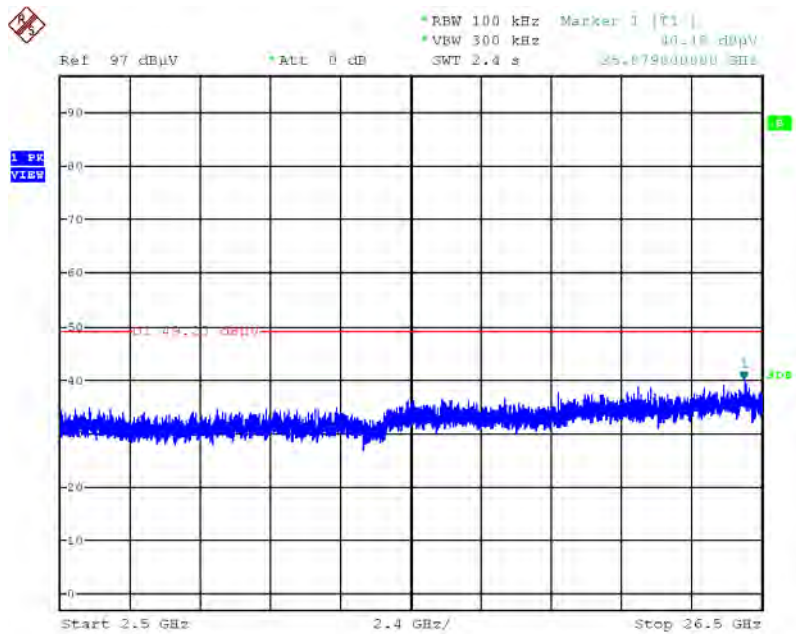
Date: 7.JUL.2015 22:23:47

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 12 / 30MHz~2400MHz (down 30dBc)



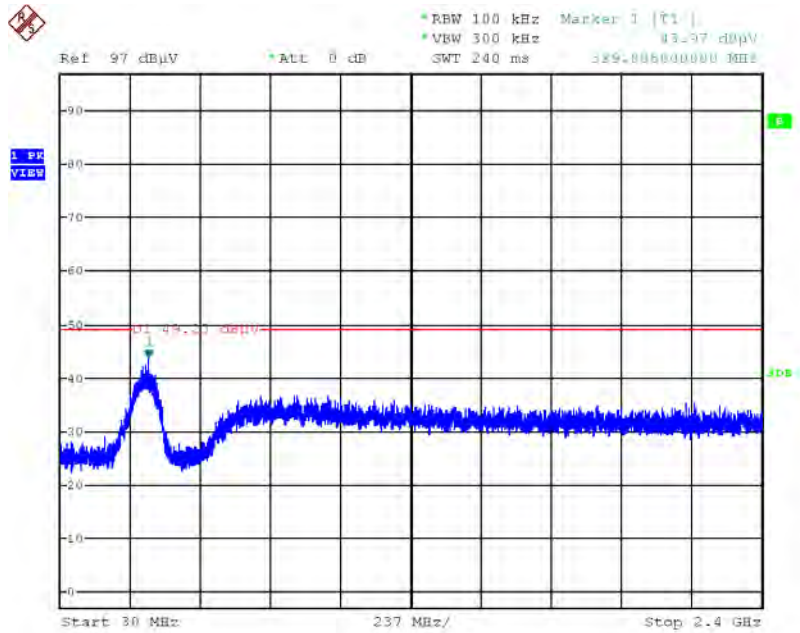
Date: 7.JUL.2015 22:24:55

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 12 / 2500MHz~26500MHz (down 30dBc)



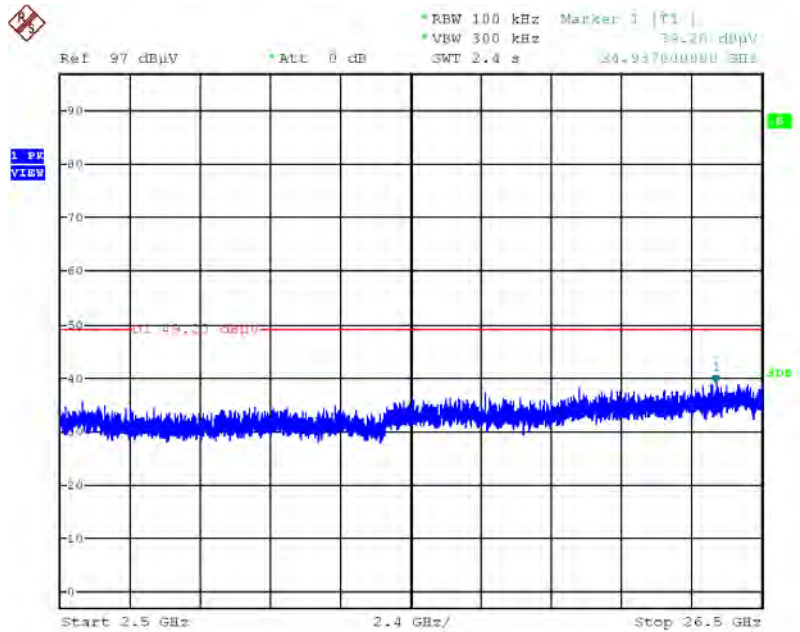
Date: 7.JUL.2015 22:25:22

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 13 / 30MHz~2400MHz (down 30dBc)



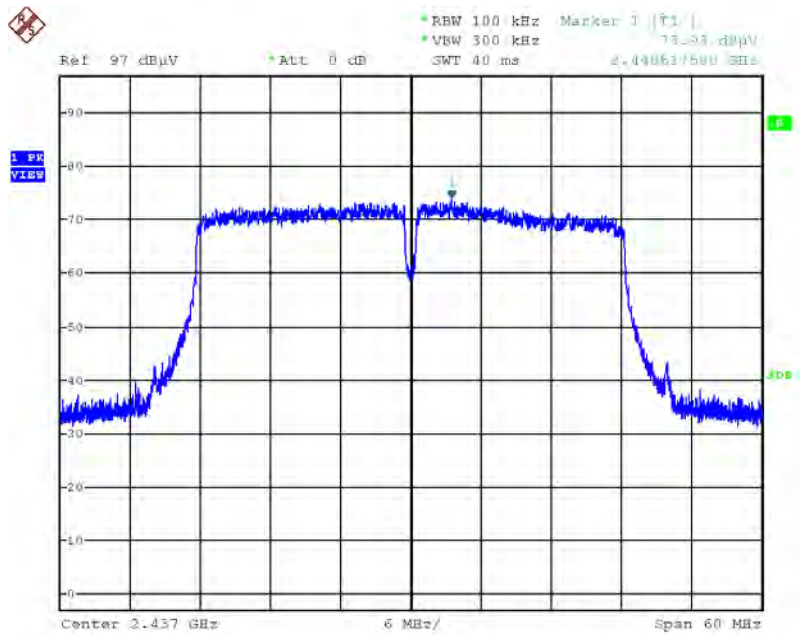
Date: 7.JUL.2015 22:26:24

Plot on Configuration IEEE 802.11n MCS0 HT20 / CH 13 / 2500MHz~26500MHz (down 30dBc)



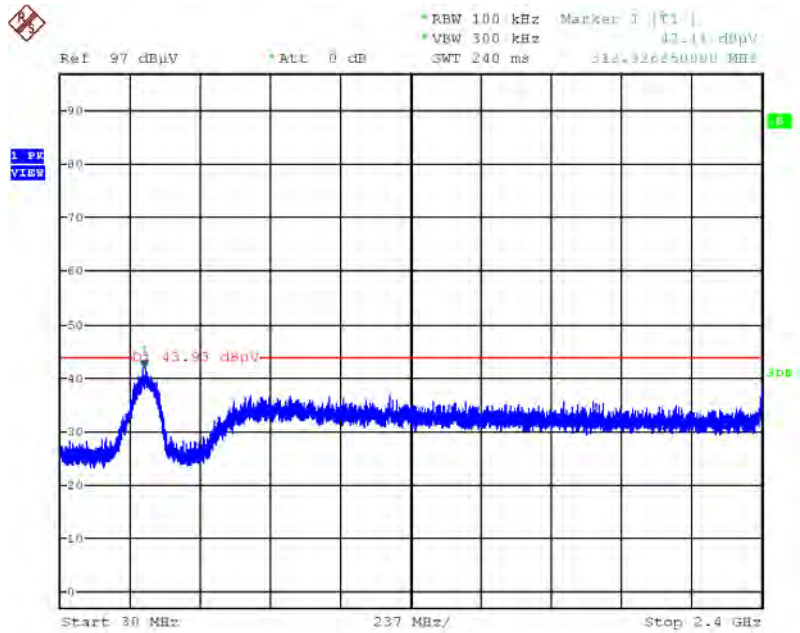
Date: 7.JUL.2015 22:25:52

Plot on Configuration IEEE 802.11n MCS0 HT40 / Reference Level



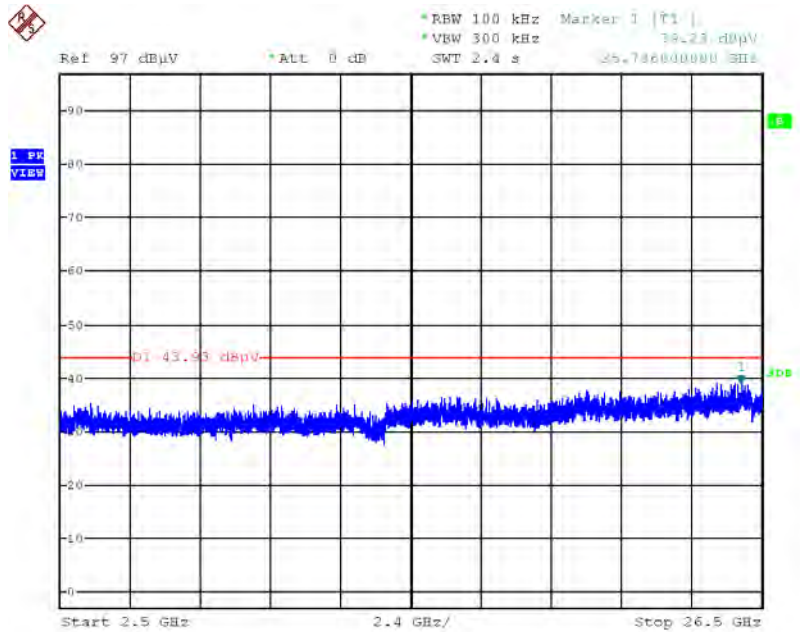
Date: 7.JUL.2015 22:31:32

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 30MHz~2400MHz (down 30dBc)



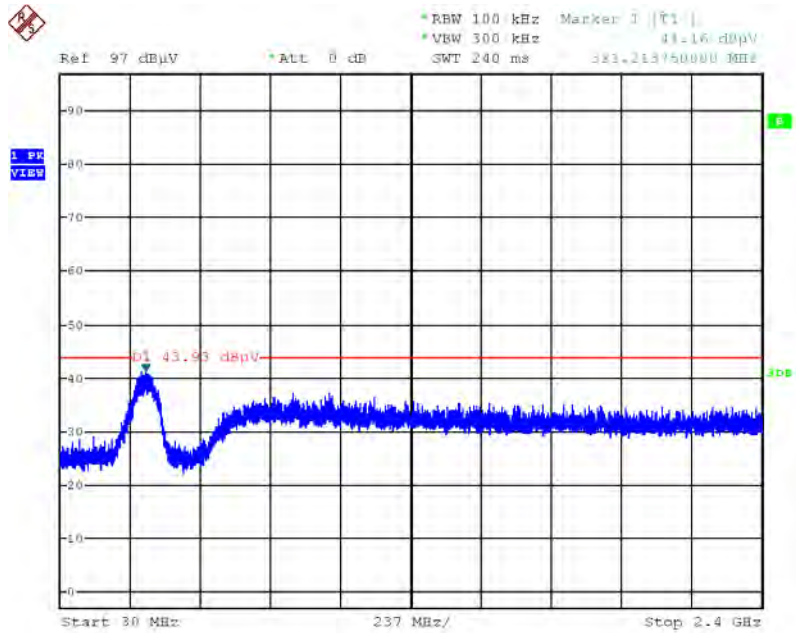
Date: 7.JUL.2015 22:32:51

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 3 / 2500MHz~26500MHz (down 30dBc)



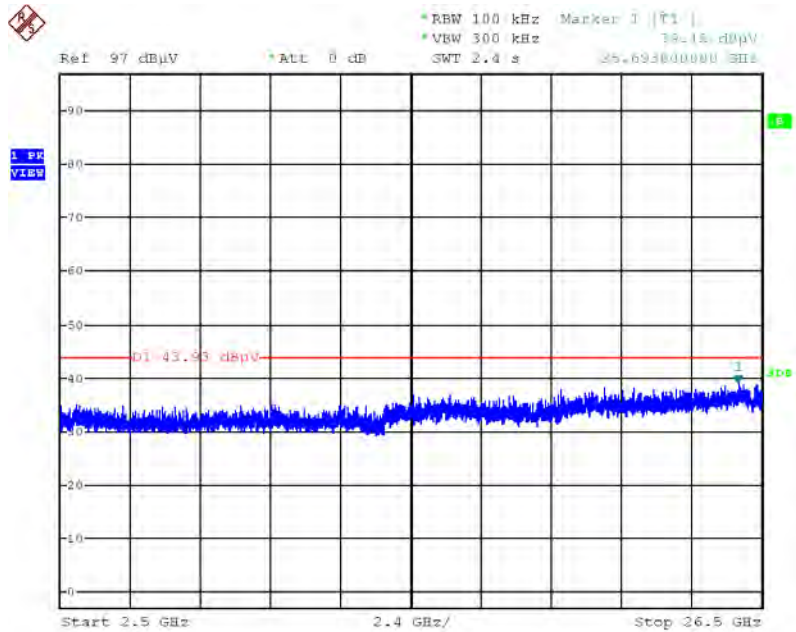
Date: 7.JUL.2015 22:33:23

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 30MHz~2400MHz (down 30dBc)



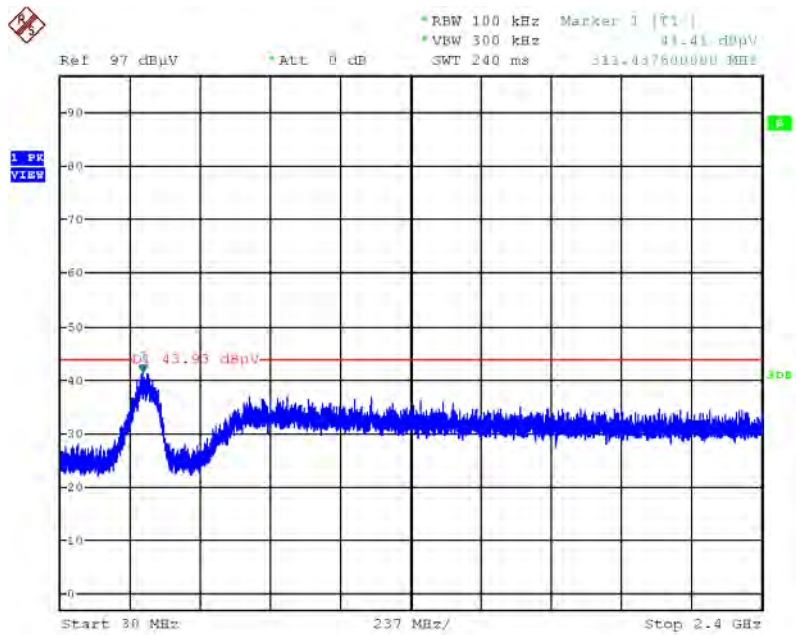
Date: 7.JUL.2015 22:34:33

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 9 / 2500MHz~26500MHz (down 30dBc)



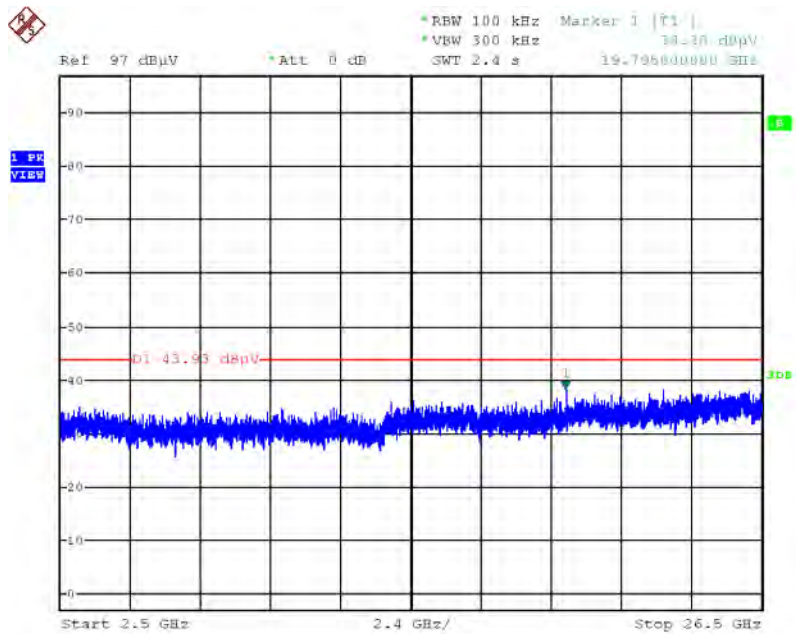
Date: 7.JUL.2015 22:34:00

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 10 / 30MHz~2400MHz (down 30dBc)



Date: 7.JUL.2015 22:42:20

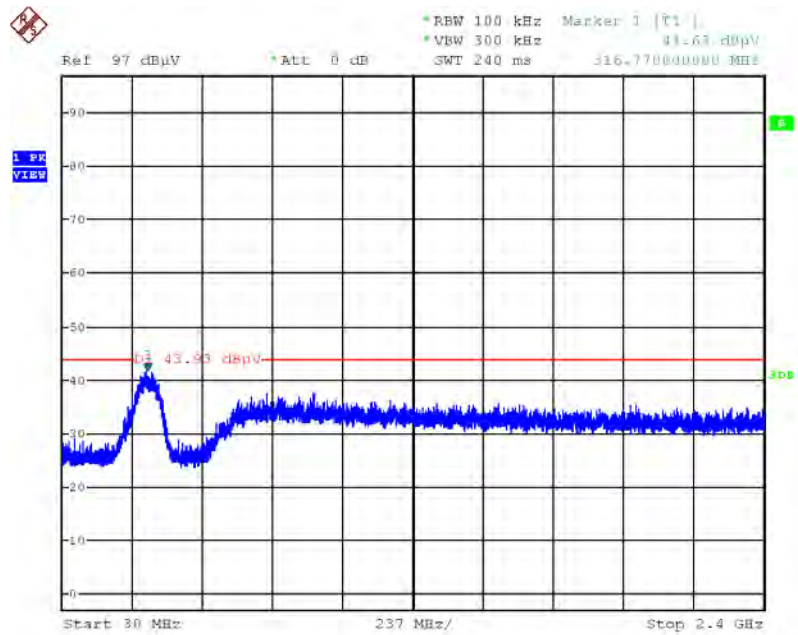
Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 10 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 22:36:05

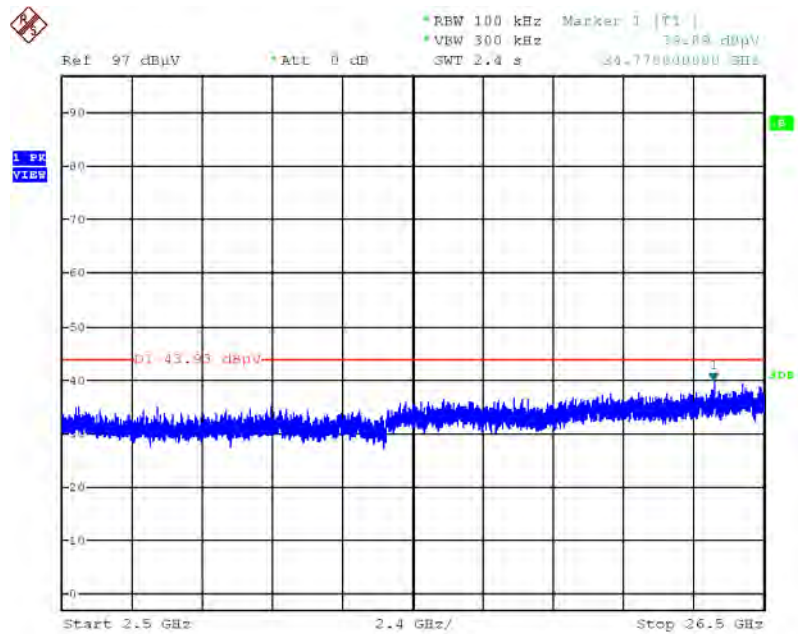


Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 11 / 30MHz~2400MHz (down 30dBc)



Date: 7.JUL.2015 22:41:25

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 11 / 2500MHz~26500MHz (down 30dBc)



Date: 7.JUL.2015 22:36:29

## 4.7. Antenna Requirements

### 4.7.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

### 4.7.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

## 5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESCS 30	100355	9kHz ~ 2.75GHz	Apr. 22, 2015	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 02, 2014	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 02, 2014	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	150kHz ~ 30MHz	Dec. 03, 2014	Conduction (CO01-CB)
Software	Audix	E3	5.410e	-	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	May 06, 2015	Radiation (O3CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 12, 2015	Radiation (10CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Oct. 28, 2014	Radiation (O3CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2014	Radiation (O3CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Feb. 24, 2015	Radiation (O3CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 12, 2015	Radiation (O3CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Nov. 25, 2014	Radiation (O3CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 06, 2014	Radiation (O3CH01-CB)
EMI Receiver	Agilent	N9038A	MY52260123	9kHz ~ 8.4GHz	Jan. 21, 2015	Radiation (O3CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz ~ 1 GHz	Nov. 15, 2014	Radiation (O3CH01-CB)
RF Cable-high	Woken	High Cable-40G-1	N/A	1 GHz ~ 40 GHz	Nov. 15, 2014	Radiation (O3CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	1 GHz ~ 40 GHz	Nov. 15, 2014	Radiation (O3CH01-CB)
Spectrum analyzer	R&S	FSV40	100979	9kHz~40GHz	Dec. 12, 2014	Conducted (TH01-CB)
RF Power Divider	Woken	2 Way	TH01-DV-02	1GHz ~ 6GHz	Jan. 10, 2015	Conducted (TH01-CB)
RF Power Divider	Woken	4 Way	TH01-DV-01	1GHz ~ 6GHz	Jan. 10, 2015	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-7	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-8	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-9	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-10	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	RG402	High Cable-6	1 GHz – 26.5 GHz	Nov. 15, 2014	Conducted (TH01-CB)
Power Sensor	Agilent	U2021XA	MY53410001	50MHz~18GHz	Nov. 03, 2014	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

## 6. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%