

FCC RADIO TEST REPORT

according to

47 CFR FCC Part 15 Subpart C § 15.247

Equipment Name : Cable Modem
Model Number : TC8737C , TC8737COX , TC8735S
Filing Type : New Application
FCC ID : G95-TC8737C
Trade Name : technicolor
Applicant : Technicolor USA, Inc.
101 West 103rd Street
Indianapolis, IN 46290

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, KDB 558074 D01 v03r02 and KDB 662911 D01 v02r01.

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



SPORTON International Inc.

No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR510501AA	Rev.01	Initial issue of report	Apr. 17, 2015

VERIFICATION OF COMPLIANCE

according to

47 CFR FCC Part 15 Subpart C § 15.247

Equipment Name : Cable Modem
Model Number : TC8737C , TC8737COX , TC8735S
Trade Name : technicolor
Applicant : Technicolor USA, Inc.
101 West 103rd Street
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Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Mar. 23, 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.

No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

1. SUMMARY OF THE TEST RESULT

1.1. Summary of the 2.4G Band test result

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	Rule Section	Description of Test	Result	Under Limit
3.1	15.207	AC Power Line Conducted Emissions	Complies	14.68 dB
3.2	15.247(b)(3)	Conducted Output Power	Complies	0.06 dB
3.3	15.247(e)	Power Spectral Density	Complies	5.63 dB
3.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
3.5	15.247(d)	Radiated Emissions	Complies	3.71 dB
3.6	15.247(d)	Band Edge Emissions	Complies	0.02 dB
3.7	15.203	Antenna Requirements	Complies	-

1.2. Information provided by the manufacturer

Equipment Name: Cable Modem

Model Number: TC8737C , TC8737COX , TC8735S

Trade Name: technicolor

Power Supply: 1. Internal AC-DC power pack, 12Vdc, 3.5A, Manufacturer: AcBel, Model: STD003
 2. Battery, Manufacturer: Getac, Model: BP-TC8-22/2250 S, Rating:7.2V 4300mAh

AC Power Cord: 2pin

Hardware Version: LAB2

Interface Availability

Interface Model Number	Internal AC-DC power pack Input: 120V Output: 12Vdc3.5A	Battery	Cable modem: DOCSIS 3.0 Cable Modem MoCA: 2.0 D Band 1125MHz and 1525MHz	Ethernet 10/100/1000Mbps	USB 2. 0	FXS	WLAN IEEE 802.11a/b/g/n/a c (2.4GHz/5GHz 3*3)
TC8737C	●	●	●	●(4 port)	●(2 port)	●(2 port)	●
TC8737COX	●	●	●	●(4 port)	●(2 port)	●(2 port)	●
TC8735S	●	○	●	●(4 port)	●(2 port)	○	●

- : Equipped ○: Not Equipped
- Model Number: TC8737C and TC8737COX HW are the same, different model name is because for different marketing purpose.
- Model Number: TC8735S is without battery pack and without FXS port function.
- Model Number: TC8737C was selected as representative model for the test and its data was recorded in this report.

1.3. Application of standard

US Standard: 47 CFR FCC Part 15 Subpart C § 15.247

ANSI C63.10-2013

KDB662911 D01 Multiple Transmitter Output v02r01, 10/31/2013

KDB558074 D01 DTS Meas Guidance v03r02, 06/05/2014

1.4. Cabling Attached to the Equipment

Table 1- Cable and Interconnection

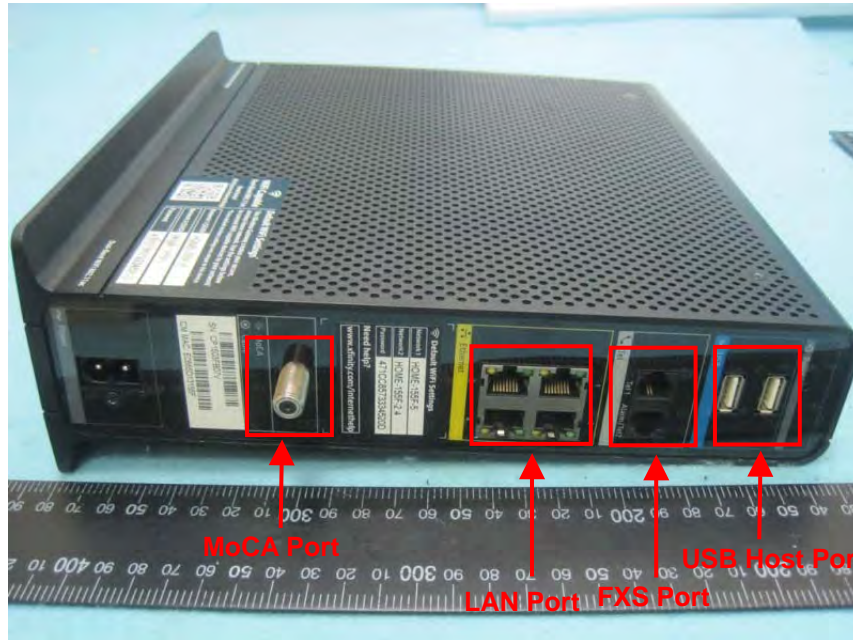
For Model Number: TC8737C, TC8737COX

Interface	Cable type	Cable length delivered with the modem	“Real life” Cable length that can be attached to this type of interface	Cable length to be used for testing	Internal/ external connection
Cable & MoCA	coaxial	2 meter	> 10 meter	10 meter	External
Eth1	UTP Cat 5	2 meter	> 10 meter	10 meter	Internal
FXS1/2	UTP Cat 3	2 meter	> 10 meter	1 meter flat cable	Internal
USB1/2	STP	1 meter	< 3 meter	1 meter	Internal
AC power					Internal
Battery					Internal

For Model Number: TC8735S

Interface	Cable type	Cable length delivered with the modem	“Real life” Cable length that can be attached to this type of interface	Cable length to be used for testing	Internal/ external connection
Cable & MoCA	coaxial	2 meter	> 10 meter	10 meter	External
Eth1	UTP Cat 5	2 meter	> 10 meter	10 meter	Internal
USB1/2	STP	1 meter	< 3 meter	1 meter	Internal
AC power					Internal

1.5. Panel Drawing



2. GENERAL INFORMATION

2.1. Product Details

Items	Description	
Product	Stand alone	
Model Number	TC8737C , TC8737COX , TC8735S	
FCC ID	G95-TC8737C	
Power Type	Internal power supply and Battery	
EUT Stage	<input checked="" type="checkbox"/> Product Unit	<input type="checkbox"/> Pre-Sample
Antenna Type	Please see Section 2.3	
Operating Band, Conducted Power power	2400~2483.5MHz	<input checked="" type="checkbox"/> IEEE 802.11b: 29.94 dBm
		<input checked="" type="checkbox"/> IEEE 802.11g: 29.60 dBm
		<input checked="" type="checkbox"/> IEEE 802.11n (20MHz): 28.39 dBm
		<input checked="" type="checkbox"/> IEEE 802.11n (40MHz): 20.72 dBm
Product Type	For IEEE 802.11b: WLAN(3TX, 3RX) For IEEE 802.11g: WLAN(3TX, 3RX) For IEEE 802.11n: WLAN(3TX, 3RX)	
Nominal Channel Bandwidth	20MHz / 40MHz	
Modulation	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g: OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11n: See the below table.	
Data Rate (Mbps)	11b mode :DSSS (1/2/5.5/11) 11g mode :OFDM (6/9/12/18/24/36/48/54) 11n(20MHz) mode(MCS0~MCS23) 11n(40MHz) mode(MCS0~MCS23)	
I/O Ports	LAN Port x 4 USB Host Port x 2 FXS Port x 2 Cable + MoCA Port x 1(Coaxial type)	
Software Version	02.87.15.05.00	
Associated Devices	single-range internal AC-DC power pack	

2.2. Accessories

Other
AC power cord*1, unshielded 1.8m

2.3. Table for Filed Antenna

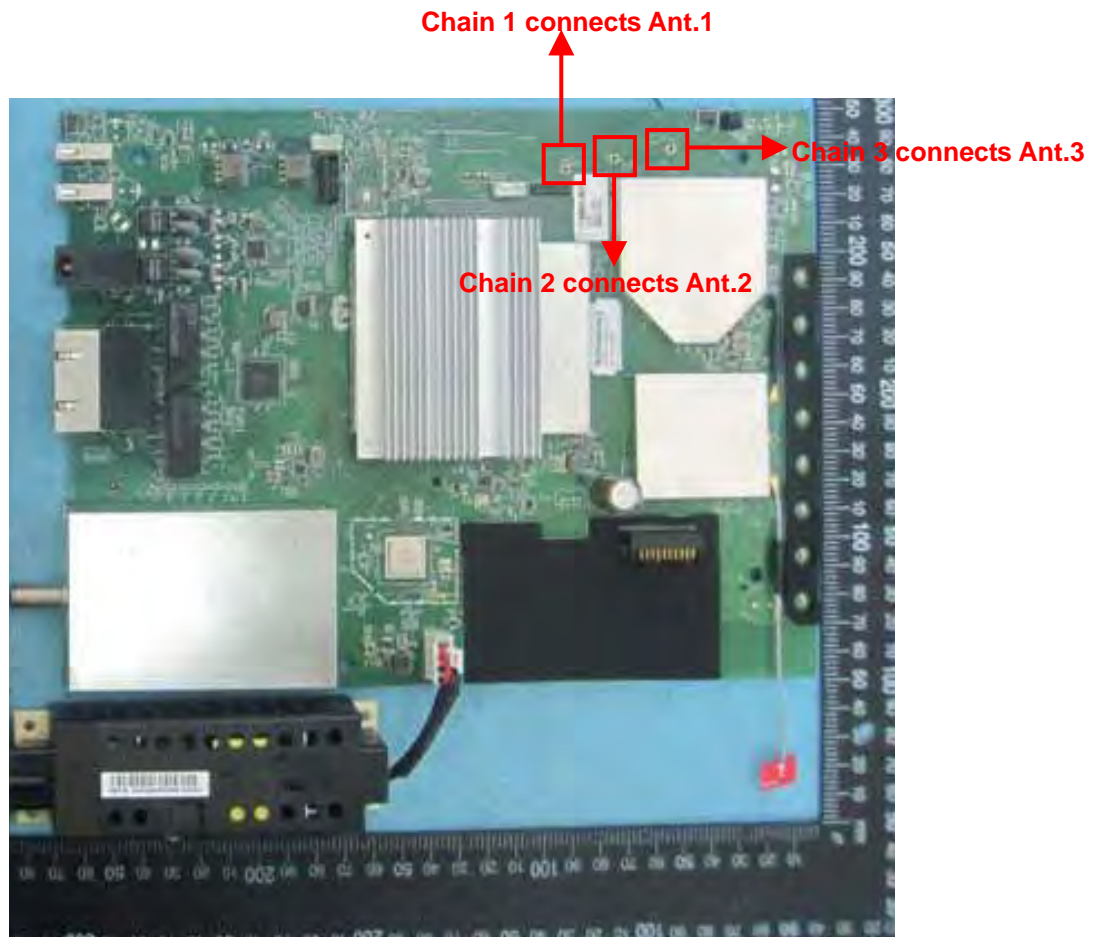
Ant.	Brand	Model Name	Antenna Type	Connector
1	-	-	Printed Antenna	I-PEX
2	-	-	Printed Antenna	I-PEX
3	-	-	Printed Antenna	I-PEX

Antenna & Bandwidth

Antenna	1st (TX)		2nd (TX)		3rd (TX)	
Bandwidth Mode	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz
802.11b	V	X	X	X	V	X
802.11g	V	X	X	X	V	X
802.11n	V	V	V	V	V	V

Frequency	Antenna Gain (dBi)					
	Ant. 1 (WJ1)		Ant. 2 (WJ2)		Ant. 3 (WJ3)	
	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz
2412MHz	1.70	-	3.98	-	4.06	-
2422MHz	-	1.70	-	3.86	-	4.14
2437MHz	2.00	2.00	3.51	3.51	4.12	4.12
2452MHz	-	2.18	-	3.40	-	3.97
2462MHz	2.30	-	3.30	-	3.89	-

Frequency	Directional Gain (dBi)					
	1 Stream 3 TX Ant. 1 + 2 + 3		2 Stream 3 TX Ant. 1 + 2 + 3		3 Stream 3 TX Ant. 1 + 2 + 3	
	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz
2412MHz	5.53	-	3.92	-	1.19	-
2422MHz	-	5.49	-	3.93	-	1.17
2437MHz	5.40	5.40	3.97	3.97	1.17	1.17
2452MHz	-	5.42	-	4.03	-	1.19
2462MHz	5.48	-	4.11	-	1.26	-



IEEE 802.11n Data Rate spec

Standard	INDEX	Data Rate (Mbps)		Standard	INDEX	Data Rate (Mbps)	
		LGI (800ns)	SIGI (400ns)			LGI (800ns)	SIGI (400ns)
11n 20MHz N_{ss} = 1	MCS0	6.5	7.2	11n 40MHz N_{ss} = 1	MCS0	13.5	15
	MCS1	13	14.4		MCS1	27	30
	MCS2	19.5	21.7		MCS2	40.5	45
	MCS3	26	28.9		MCS3	54	60
	MCS4	39	43.3		MCS4	81	90
	MCS5	52	57.8		MCS5	108	120
	MCS6	58.5	65		MCS6	121.5	135
	MCS7	65	72.2	MCS7	135	150	
11n 20MHz N_{ss} = 2	MCS8	13	14.4	11n 40MHz N_{ss} = 2	MCS8	27	30
	MCS9	26	28.9		MCS9	54	60
	MCS10	39	43.3		MCS10	81	90
	MCS11	52	57.8		MCS11	108	120
	MCS12	78	86.7		MCS12	162	180
	MCS13	104	115.6		MCS13	216	240
	MCS14	117	130		MCS14	243	270
	MCS15	130	144.4	MCS15	270	300	
11n 20MHz N_{ss} = 3	MCS16	19.5	21.7	11n 40MHz N_{ss} = 3	MCS16	40.5	45
	MCS17	39	43.3		MCS17	81	90
	MCS18	58.5	65		MCS18	121.5	135
	MCS19	78	86.7		MCS19	162	180
	MCS20	117	130		MCS20	243	270
	MCS21	156	173.3		MCS21	324	360
	MCS22	175.5	195		MCS22	364.5	405
	MCS23	195	216.7	MCS23	405	450	

2.4. Transmit Operating Modes

Transmit Operating Mode						Transmit Multiple Antennas					
<input type="checkbox"/>	Operating mode 1 (single antenna)					<input checked="" type="checkbox"/>	1TX				
<input type="checkbox"/>	Operating mode 2 (multiple antenna, no beam forming)					<input checked="" type="checkbox"/>	2TX	<input checked="" type="checkbox"/>	3TX	<input type="checkbox"/>	4TX
<input type="checkbox"/>	Operating mode 3 (multiple antenna, with beam forming)					<input type="checkbox"/>	2TX	<input type="checkbox"/>	3TX	<input type="checkbox"/>	4TX
<input type="checkbox"/>	802.11b	Operating mode	<input checked="" type="checkbox"/>	1TX	<input checked="" type="checkbox"/>	2TX	<input checked="" type="checkbox"/>	3TX	<input type="checkbox"/>	Cyclic shift	
<input type="checkbox"/>	802.11g	Operating mode	<input checked="" type="checkbox"/>	1TX	<input checked="" type="checkbox"/>	2TX	<input checked="" type="checkbox"/>	3TX	<input type="checkbox"/>	Cyclic shift	
<input type="checkbox"/>	802.11n (20MHz)	Operating mode	<input checked="" type="checkbox"/>	1TX	<input checked="" type="checkbox"/>	2TX	<input checked="" type="checkbox"/>	3TX	<input type="checkbox"/>	Cyclic shift	
<input type="checkbox"/>	802.11n (40MHz)	Operating mode	<input checked="" type="checkbox"/>	1TX	<input checked="" type="checkbox"/>	2TX	<input checked="" type="checkbox"/>	3TX	<input type="checkbox"/>	Cyclic shift	

Note1: For IEEE802.11n, MCS0~MCS7: 1TX; MCS8~MCS15: 2TX; MCS16~MCS23: 3TX

Note 2: For IEEE802.11b/g: 2TX without test due to covered by 3TX.

Note 3: For 1 Stream 2TX, 2 Stream 2TX, 2 Stream 3TX, 3 Stream 3TX without test due to covered by 1 Stream 3TX MCS0.

2.5. Table for Carrier Frequencies

Eleven channels are provided for 802.11b, 802.11g, 802.11n (20MHz):

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

Seven channels are provided for 802.11n (40MHz):

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400 ~ 2483.5 MHz	3	2422 MHz	7	2442MHz
	4	2427MHz	8	2447MHz
	5	2432MHz	9	2452MHz
	6	2437MHz	-	-

2.6. Table for Test Modes

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	Note	Channel	Data Rate	Antenna
AC Power Line Conducted Emissions	CTX	OFDM/BPSK	-	-	1+2+3
Maximum Average Output Power	11b	DSSS/DBPSK	1/6/11	1Mbps	2
				1Mbps	1S3T(CDD)
	11g		1/6/11	1Mbps	2
				1Mbps	1S3T(CDD)
	11n(20MHz)	OFDM/BPSK	1/6/11	6Mbps	2
				6Mbps	1S3T(CDD)
	11n(40MHz)		3/6/9	MCS0	2
				MCS0	1S3T(CDD)
Power Spectral Density	11b	DSSS/DBPSK	1/6/11	1Mbps	2
				1Mbps	1S3T(CDD)
	11g		1/6/11	6Mbps	2
				6Mbps	1S3T(CDD)
	11n(20MHz)	OFDM/BPSK	1/6/11	MCS0	2
				MCS0	1S3T(CDD)
	11n(40MHz)		3/6/9	MCS0	2
				MCS0	1S3T(CDD)
6dB Spectrum Bandwidth	11b	DSSS/DBPSK	1/6/11	1Mbps	2
				1Mbps	1S3T(CDD)
	11g		1/6/11	6Mbps	2
				6Mbps	1S3T(CDD)
	11n(20MHz)	OFDM/BPSK	1/6/11	MCS0	2
				MCS0	1S3T(CDD)
	11n(40MHz)		3/6/9	MCS0	2
				MCS0	1S3T(CDD)

Band Edge Emissions (Radiated)	11b	DSSS/DBPSK	1/6/11	1Mbps	2	
				1Mbps	1S3T(CDD)	
	11g			1/6/11	6Mbps	2
					6Mbps	1S3T(CDD)
	11n(20MHz)	OFDM/BPSK		1/6/11	MCS0	2
					MCS0	1S3T(CDD)
	11n(40MHz)			3/6/9	MCS0	2
					MCS0	1S3T(CDD)
Radiated Emissions Above 1GHz (Radiated)	11b	DSSS/DBPSK	1/6/11	1Mbps	2	
				1Mbps	1S3T(CDD)	
	11g			1/6/11	6Mbps	2
					6Mbps	1S3T(CDD)
	11n(20MHz)	OFDM/BPSK		1/6/11	MCS0	2
					MCS0	1S3T(CDD)
	11n(40MHz)			3/6/9	MCS0	2
					MCS0	1S3T(CDD)
Radiated Emissions Below 1GHz(Radiated)	CTX	OFDM/BPSK	-	-	1+2+3	

Note: For 1 Stream 2TX, 2 Stream 2TX, 2 Stream 3TX, 3 Stream 3TX without test due to covered by 1 Stream 3TX MCS0.

2.7. 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.	VCCI Reg. 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).

2.8. Table for Supporting Units

For Test Site No: CO01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E6430	DoC

For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E6220	DoC

For Test Site No: 03CH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	M1330	DoC

2.9. Table for Parameters of Test Software Setting

During testing, Channel & 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.

The Power Setting Parameter					
Test Software Version	02.87.15.05.00				
Worst Modulation Mode	Number of Transmit Chains (NTX)	Frequency (MHz)	Maximum Output Power (dBm)	Power Setting	Data Rate / MCS
802.11b, Ant.2	1Stream 1TX	2412	23.08	92	1Mbps
802.11b, Ant.2	1Stream 1TX	2437	26.24	100	1Mbps
802.11b, Ant.2	1Stream 1TX	2462	24.02	94	1Mbps
802.11b (CDD)	1Stream 3TX	2412	26.54	85	1Mbps
802.11b (CDD)	1Stream 3TX	2437	29.94	97	1Mbps
802.11b (CDD)	1Stream 3TX	2462	26.87	86	1Mbps
802.11g, Ant.2	1Stream 1TX	2412	17.64	73	6Mbps
802.11g, Ant.2	1Stream 1TX	2437	24.68	96	6Mbps
802.11g, Ant.2	1Stream 1TX	2462	19.20	79	6Mbps
802.11g (CDD)	1Stream 3TX	2412	19.69	56	6Mbps
802.11g (CDD)	1Stream 3TX	2437	29.60	96	6Mbps
802.11g (CDD)	1Stream 3TX	2462	21.27	62	6Mbps
802.11n 20MHz, Ant.2	1Stream 1TX	2412	16.56	69	MCS0
802.11n 20MHz, Ant.2	1Stream 1TX	2437	23.04	92	MCS0
802.11n 20MHz, Ant.2	1Stream 1TX	2462	19.05	78	MCS0
802.11n 20MHz (CDD)	1Stream 3TX	2412	18.35	51	MCS0
802.11n 20MHz (CDD)	1Stream 3TX	2437	28.39	92	MCS0
802.11n 20MHz (CDD)	1Stream 3TX	2462	20.50	59	MCS0
802.11n 40MHz, Ant.2	1Stream 1TX	2422	11.94	48	MCS0
802.11n 40MHz, Ant.2	1Stream 1TX	2437	18.79	75	MCS0
802.11n 40MHz, Ant.2	1Stream 1TX	2452	17.24	68	MCS0
802.11n 40MHz (CDD)	1Stream 3TX	2422	15.04	39	MCS0
802.11n 40MHz (CDD)	1Stream 3TX	2437	20.72	60	MCS0
802.11n 40MHz (CDD)	1Stream 3TX	2452	18.78	51	MCS0

Note: For 1 Stream 2TX, 2 Stream 2TX, 2 Stream 3TX, 3 Stream 3TX without test due to covered by 1 Stream 3TX MCS0.

2.10. Duty Cycle

For Ant.1 / 1TX

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	2.062	2.090	98.64%	0.06	0.01
802.11n 20MHz MCS0	1.925	1.955	98.47%	0.07	0.01
802.11n 40MHz MCS0	0.915	0.970	94.33%	0.25	1.09

For Ant.2 / 1TX

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	2.065	2.100	98.33%	0.07	0.01
802.11n 20MHz MCS0	1.925	1.955	98.47%	0.07	0.01
802.11n 40MHz MCS0	0.915	0.970	94.33%	0.25	1.09

For Ant.3 / 1TX

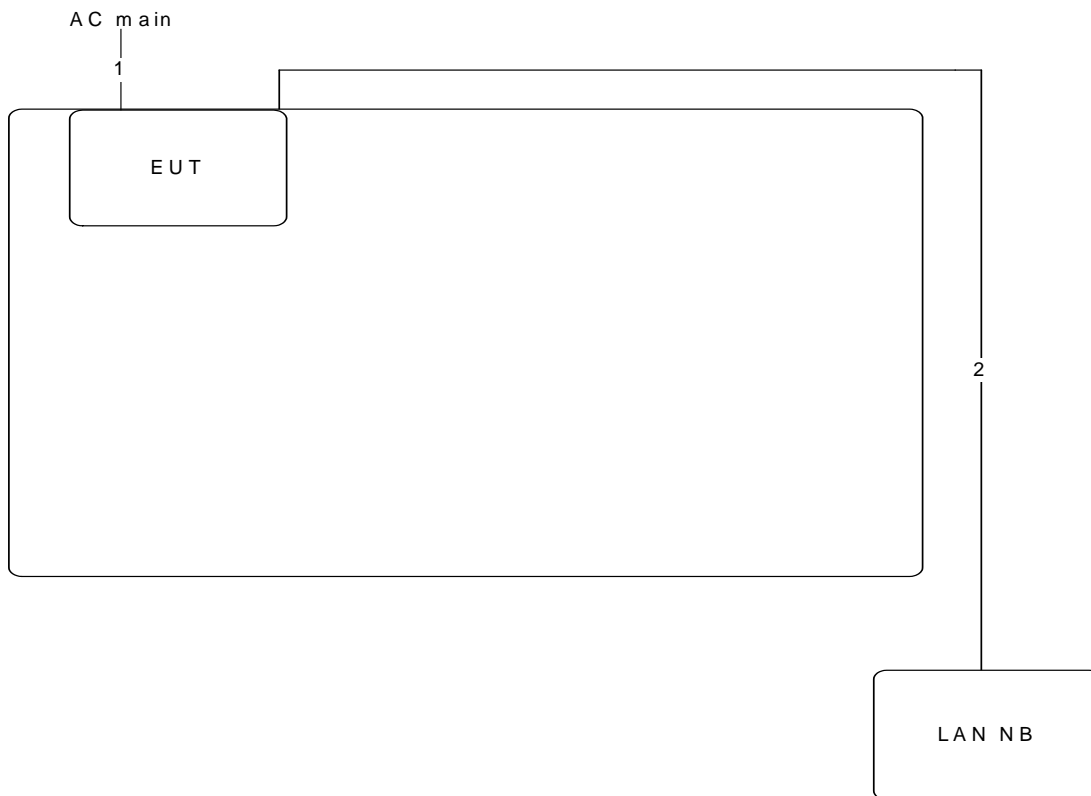
Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	2.070	2.100	98.57%	0.06	0.01
802.11n 20MHz MCS0	1.925	1.960	98.21%	0.08	0.01
802.11n 40MHz MCS0	0.915	0.970	94.33%	0.25	1.09

For 1S3T, CDD

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	2.061	2.083	98.92%	0.05	0.01
802.11n 20MHz MCS0	1.920	1.940	98.97%	0.05	0.01
802.11n 40MHz MCS0	0.980	1.032	94.96%	0.22	1.02

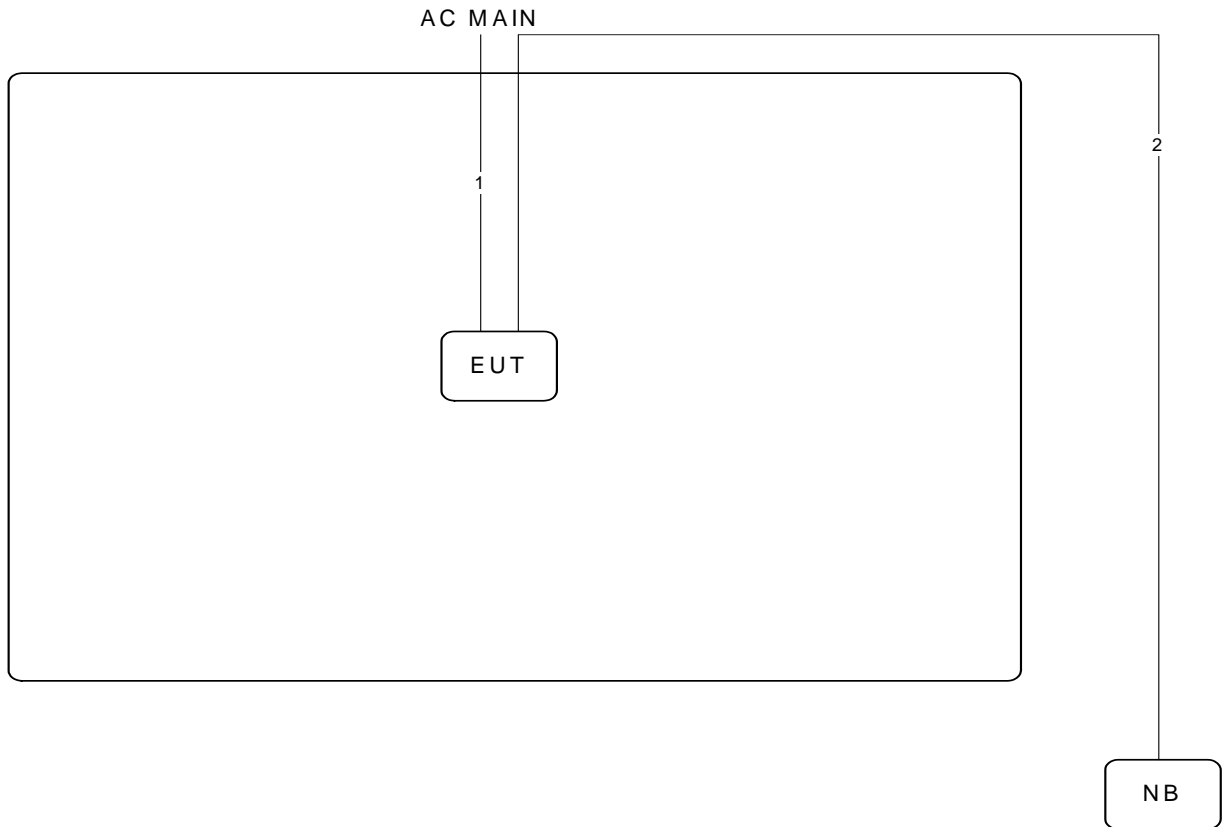
2.11. Test Configuration

2.11.1. AC Power Line Conduction Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

2.11.2. Radiation Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

3. TEST RESULT

3.1. AC Power Line Conducted Emissions Measurement

3.1.1. 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

3.1.2. Measuring Instruments and Setting

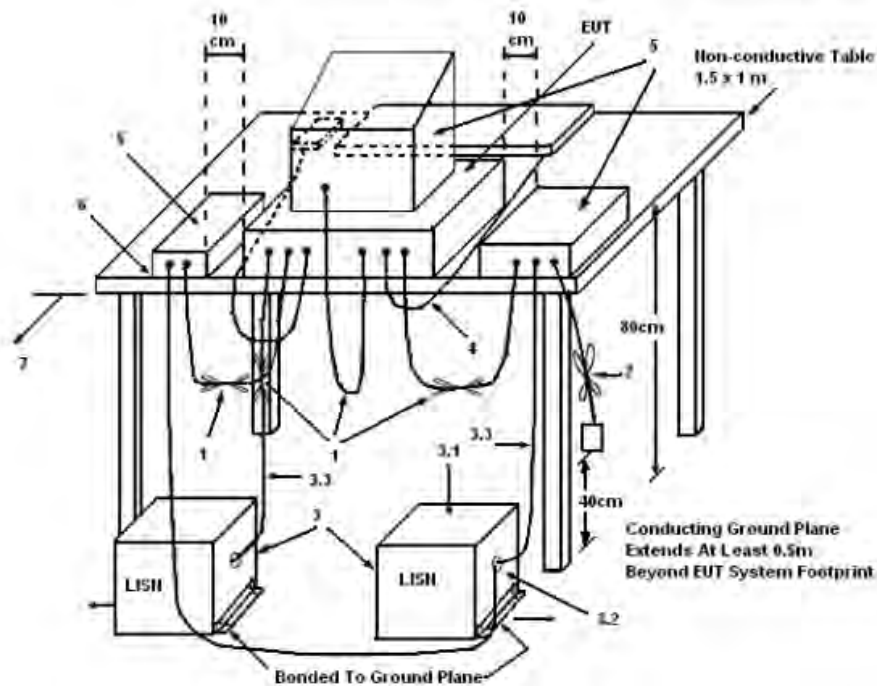
Please refer to section 4 of equipments list in this report. The following table is the setting of the receiver.

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

3.1.3. 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.

3.1.4. 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.
4. All other equipment powered from additional LISN(s).
5. Multiple outlet strip can be used for multiple power cords of non-EUT equipment.
6. LISN at least 80 cm from nearest part of EUT chassis.
7. Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.
8. Non-EUT components of EUT system being tested.
9. Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.
10. Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

3.1.5. Test Deviation

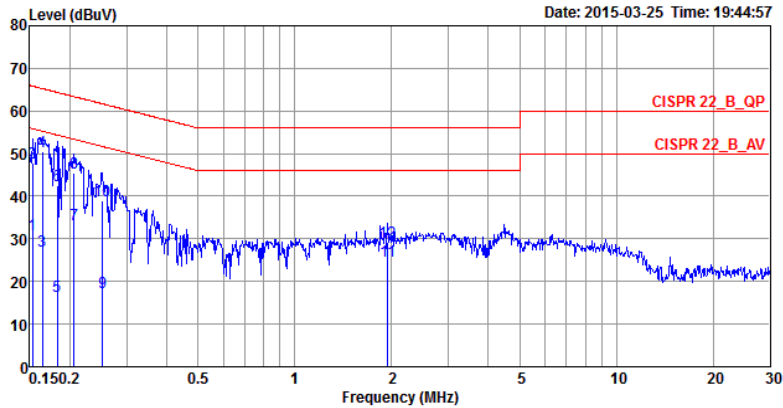
There is no deviation with the original standard.

3.1.6. EUT Operation during Test

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

3.1.7. Results of AC Power Line Conducted Emissions Measurement

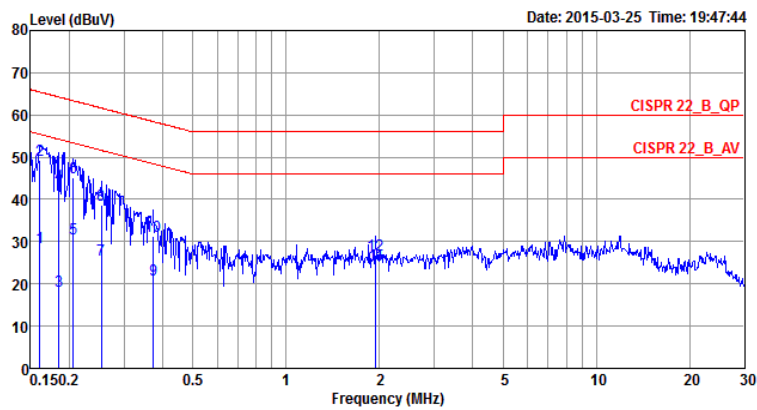
Temperature	22°C	Humidity	68%
Test Engineer	Da Deng	Phase	Line
Configuration	CTX		



	eq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.15	31.12	-24.70	55.82	21.17	9.93	0.02	LINE	Average
2	0.15	47.96	-17.86	65.82	38.01	9.93	0.02	LINE	QP
3	0.16	27.13	-28.12	55.25	17.18	9.93	0.02	LINE	Average
4	0.16	50.57	-14.68	65.25	40.62	9.93	0.02	LINE	QP
5	0.18	16.44	-37.93	54.37	6.49	9.93	0.02	LINE	Average
6	0.18	42.60	-21.77	64.37	32.65	9.93	0.02	LINE	QP
7	0.21	33.39	-19.97	53.36	23.44	9.93	0.02	LINE	Average
8	0.21	45.38	-17.98	63.36	35.43	9.93	0.02	LINE	QP
9	0.25	17.28	-34.41	51.69	7.32	9.93	0.03	LINE	Average
10	0.25	39.09	-22.60	61.69	29.13	9.93	0.03	LINE	QP
11	1.95	24.67	-21.33	46.00	14.62	9.99	0.06	LINE	Average
12	1.95	29.34	-26.66	56.00	19.29	9.99	0.06	LINE	QP

Note 1: The test was passed at the minimum margin that marked by the frame in the following data
 Note 2: The emission levels of other frequencies were very low against the limit.
 Note 3: Q.P. and AV. are abbreviations of quasi-peak and average individually.
 Note 4: Corrected Reading (dBuV) = LISN Factor + Cable Loss + Read Level = Level
 Note 5: Over Limit value = level - Limit value

Temperature	22°C	Humidity	68%
Test Engineer	Da Deng	Phase	Neutral
Configuration	CTX		



	req	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.16	28.67	-26.76	55.43	18.87	9.78	0.02	NEUTRAL	Average
2	0.16	49.43	-16.00	65.43	39.63	9.78	0.02	NEUTRAL	QP
3	0.19	18.39	-35.85	54.24	8.58	9.79	0.02	NEUTRAL	Average
4	0.19	43.31	-20.93	64.24	33.50	9.79	0.02	NEUTRAL	QP
5	0.21	30.62	-22.74	53.36	20.81	9.79	0.02	NEUTRAL	Average
6	0.21	45.08	-18.28	63.36	35.27	9.79	0.02	NEUTRAL	QP
7	0.25	25.73	-25.91	51.64	15.91	9.79	0.03	NEUTRAL	Average
8	0.25	38.73	-22.91	61.64	28.91	9.79	0.03	NEUTRAL	QP
9	0.37	20.90	-27.53	48.43	11.07	9.79	0.04	NEUTRAL	Average
10	0.37	31.19	-27.24	58.43	21.36	9.79	0.04	NEUTRAL	QP
11	1.95	24.47	-21.53	46.00	14.57	9.84	0.06	NEUTRAL	Average
12	1.95	26.90	-29.10	56.00	17.00	9.84	0.06	NEUTRAL	QP

Note 1: The test was passed at the minimum margin that marked by the frame in the following data

Note 2: The emission levels of other frequencies were very low against the limit.

Note 3: Q.P. and AV. are abbreviations of quasi-peak and average individually.

Note 4: Corrected Reading (dBµV) = LISN Factor + Cable Loss + Read Level = Level

Note 5: Over Limit value = level - Limit value

3.2. Maximum Conducted Output Power Measurement

3.2.1. Limit

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. The limited has to be reduced by the amount in dB that the gain of the antenna exceed 6dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

3.2.2. Measuring Instruments and Setting

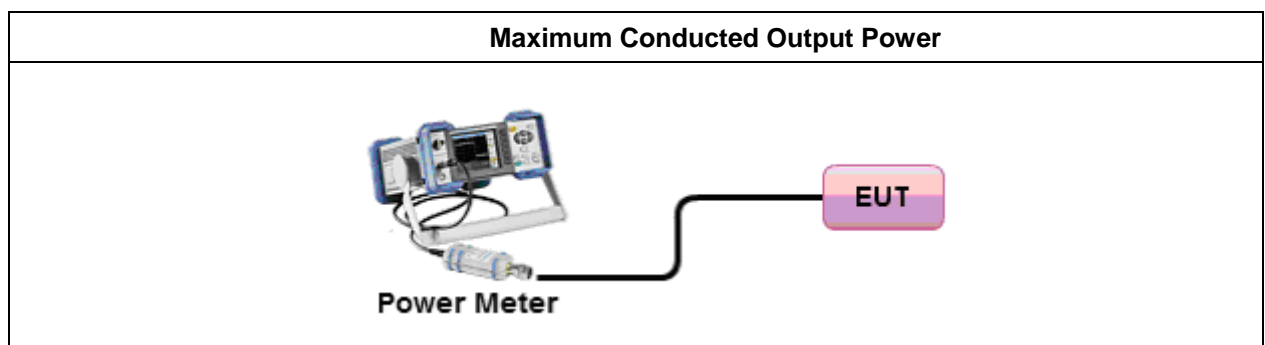
Please refer to section 6 of equipments list in this report. The following table is the setting of the power meter.

Power Meter Parameter	Setting
Filter No.	Auto
Measurement time	0.135 s ~ 26 s
Used Average Sensor	U2021XA

3.2.3. Test Procedures

1. Test was performed in accordance with Measurement of Digital Transmission Systems Operating under KDB558074 D01 DTS Meas Guidance v03r02, 06/05/2014
2. The average power sensor was used on the output port of the EUT. A power meter was used to read the response of the average power sensor and enable the trigger function to get the all on time transmission . Record the average power level.
3. When measuring maximum conducted output power with multiple antenna systems, add every result of the values by mathematic formula.

3.2.4. Test Setup Layout



3.2.5. Test Deviation

There is no deviation with the original standard.

3.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.2.7. Test Result for Maximum Conducted Output Power

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11b
Duty Cycle	Ant.2: 100% 1S3T, CDD: 100%		

Configuration IEEE 802.11b

<1Mbps, Ant.2 >

Channel	Frequency	Conducted Power (dBm)	Antenna Gain	Max. Limit (dBm)	Result
1	2412 MHz	23.08	3.98	30.00	Complies
6	2437 MHz	26.24	3.51	30.00	Complies
11	2462 MHz	24.02	3.30	30.00	Complies

Note:

2412 MHz= Antenna Gain= 3.98dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.30dBi <6dBi, so the limit doesn't reduce.

<1Mbps, 1S3T, CDD >

Channel	Frequency	Conducted Power (dBm)			Antenna Gain	Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Ant.1	Ant.2	Ant.3				
1	2412 MHz	21.75	21.22	22.26	4.06	26.54	30.00	Complies
6	2437 MHz	24.63	25.43	25.39	4.12	29.94	30.00	Complies
11	2462 MHz	22.07	21.47	22.67	3.89	26.87	30.00	Complies

Note 1:

2412 MHz= Antenna Gain= 4.06dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 4.12dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.89dBi <6dBi, so the limit doesn't reduce.

Note 2:

For power measurements onf IEEE 802.11 devices:

Directional gain= G ANT + Array Gain

Arry Gain= 0 dB (i.e., no array gain) for NANT ≤ 4.

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11g
Duty Cycle	Ant.2: 98.33% 1S3T, CDD: 98.92%		

Configuration IEEE 802.11g

<6Mbps, Ant.2>

Channel	Frequency	Conducted Power (dBm)	Antenna Gain	Max. Limit (dBm)	Result
1	2412 MHz	17.64	3.98	30.00	Complies
6	2437 MHz	24.68	3.51	30.00	Complies
11	2462 MHz	19.20	3.30	30.00	Complies

Note:

2412 MHz= Antenna Gain= 3.98dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.30dBi <6dBi, so the limit doesn't reduce.

<6Mbps, 1S3T, CDD >

Channel	Frequency	Conducted Power (dBm)			Antenna Gain	Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Ant.1	Ant.2	Ant.3				
1	2412 MHz	15.05	14.51	15.18	4.06	19.69	30.00	Complies
6	2437 MHz	24.49	24.91	25.07	4.12	29.60	30.00	Complies
11	2462 MHz	16.87	15.60	16.89	3.89	21.27	30.00	Complies

Note 1:

2412 MHz= Antenna Gain= 4.06dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 4.12dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.89dBi <6dBi, so the limit doesn't reduce.

Note 2:

For power measurements onf IEEE 802.11 devices:

Directional gain= G ANT + Array Gain

Arry Gain= 0 dB (i.e., no array gain) for NANT ≤ 4.

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11n 20MHz
Duty Cycle	Ant.2: 98.47% 1S3T, CDD: 98.97%		

Configuration IEEE 802.11n 20MHz

<MCS0, Ant. 2>

Channel	Frequency	Conducted Power (dBm)	Antenna Gain	Max. Limit (dBm)	Result
1	2412 MHz	16.56	3.98	30.00	Complies
6	2437 MHz	23.04	3.51	30.00	Complies
11	2462 MHz	19.05	3.30	30.00	Complies

Note:

2412 MHz= Antenna Gain= 3.98dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.30dBi <6dBi, so the limit doesn't reduce.

<MCS0, 1S3T, CDD >

Channel	Frequency	Conducted Power (dBm)			Antenna Gain	Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Ant.1	Ant.2	Ant.3				
1	2412 MHz	13.55	13.00	14.11	4.06	18.35	30.00	Complies
6	2437 MHz	23.45	23.32	24.05	4.12	28.39	30.00	Complies
11	2462 MHz	15.88	15.12	16.12	3.89	20.50	30.00	Complies

Note 1:

2412 MHz= Antenna Gain= 4.06dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 4.12dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.89dBi <6dBi, so the limit doesn't reduce.

Note 2:

For power measurements onf IEEE 802.11 devices:

Directional gain= G ANT + Array Gain

Arry Gain= 0 dB (i.e., no array gain) for NANT ≤ 4.

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11n 40MHz
Duty Cycle	Ant.2: 94.33% 1S3T, CDD: 94.96%		

Configuration IEEE 802.11n 40MHz

<MCS0, Ant. 2>

Channel	Frequency	Conducted Power (dBm)	Antenna Gain	Max. Limit (dBm)	Result
3	2422 MHz	11.94	3.86	30.00	Complies
6	2437 MHz	18.79	3.51	30.00	Complies
9	2452 MHz	17.24	3.40	30.00	Complies

Note:

2422 MHz= Antenna Gain= 3.86dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2452 MHz= Antenna Gain= 3.40dBi <6dBi, so the limit doesn't reduce.

<MCS0, 1S3T, CDD >

Channel	Frequency	Conducted Power (dBm)			Antenna Gain	Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Ant.1	Ant.2	Ant.3				
3	2422 MHz	10.03	9.67	11.00	4.14	30.00	15.04	Complies
6	2437 MHz	16.25	15.33	16.21	4.12	30.00	20.72	Complies
9	2452 MHz	14.05	13.85	14.11	3.97	30.00	18.78	Complies

Note 1:

2422 MHz= Antenna Gain= 4.14dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 4.12dBi <6dBi, so the limit doesn't reduce.

2452 MHz= Antenna Gain= 3.97dBi <6dBi, so the limit doesn't reduce.

Note 2:

For power measurements onf IEEE 802.11 devices:

Directional gain= G ANT + Array Gain

Arry Gain= 0 dB (i.e., no array gain) for NANT ≤ 4.

3.3. Power Spectral Density Measurement

3.3.1. 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.

3.3.2. Measuring Instruments and Setting

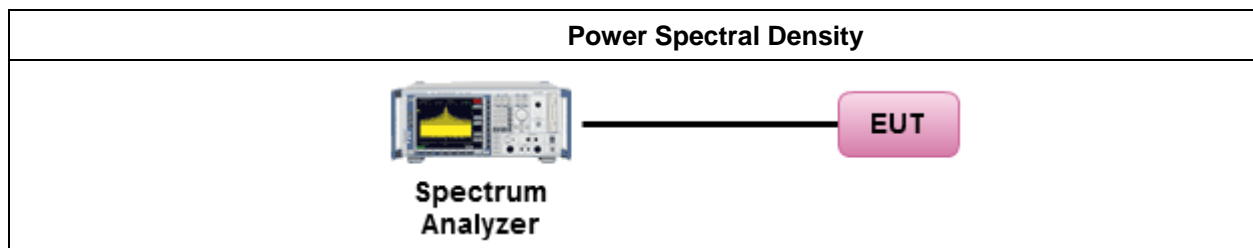
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Power Meter Parameter	Setting
Attenuation	Auto
Span Frequency	Set span to at least 1.5 times the DTS channel bandwidth.
RB	≥ 3 kHz.
VB	≥ 3 x RBW.
Detector	RMS
Trace	Averaging(RMS) mode over a minimum of 100 traces
Sweep Time	Auto

3.3.3. Test Procedures

1. Test was performed in accordance with KDB 558074 D01 v03r02 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. The transmitter output (antenna port) was connected to the spectrum analyzer. This measurement requires that EUT could be configured to transmit continuously(at a minimum duty cycle of 98%) at full power over the measurement duration. Time intervals during which the transmitter is off or transmitting at reduced power levels shall not be included
3. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span/RBW}$ (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 100 kHz band segment within the fundamental EBW.
5. Use the peak marker function to determine the maximum level in any 3 kHz band segment within the fundamental EBW.
6. The resulting PSD level must be ≤ 8 dBm.
7. When measuring power spectral density with multiple antenna systems, add every result of the values by mathematic formula.

3.3.4. Test Setup Layout



3.3.5. Test Deviation

There is no deviation with the original standard.

3.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.3.7. Test Result of Power Spectral Density

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11b
Duty Cycle	Ant.2: 100% 1S3T, CDD: 100%		

Configuration IEEE 802.11b

<1Mbps, Ant. 2>

Channel	Frequency	Power Density (dBm/3kHz)	Antenna Gain	Max. Limit (dBm /3kHz)	Result
1	2412 MHz	-4.27	3.98	8.00	Complies
6	2437 MHz	-1.33	3.51	8.00	Complies
11	2462 MHz	-3.51	3.30	8.00	Complies

Note:

2412 MHz= Antenna Gain= 3.98dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.30dBi <6dBi, so the limit doesn't reduce.

<1Mbps, 1S3T, CDD >

Channel	Frequency	Power Density (dBm/3kHz)	Directional Gain	Max. Limit (dBm /3kHz)	Result
1	2412 MHz	-0.73	5.53	8.00	Complies
6	2437 MHz	2.37	5.40	8.00	Complies
11	2462 MHz	-0.42	5.48	8.00	Complies

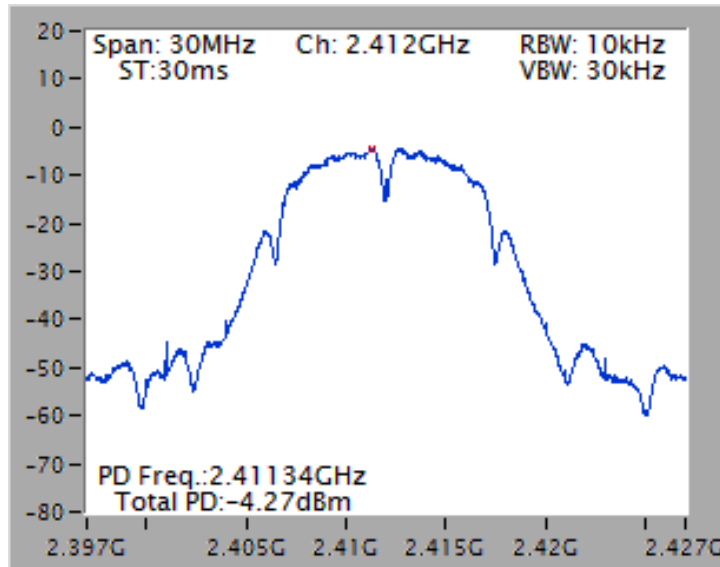
Note:

$$2412 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

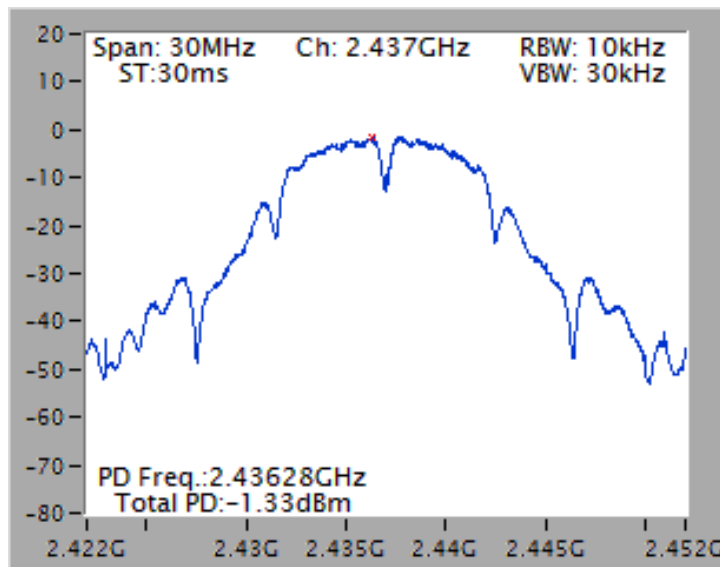
$$2437 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.40\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

$$2462 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.48\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

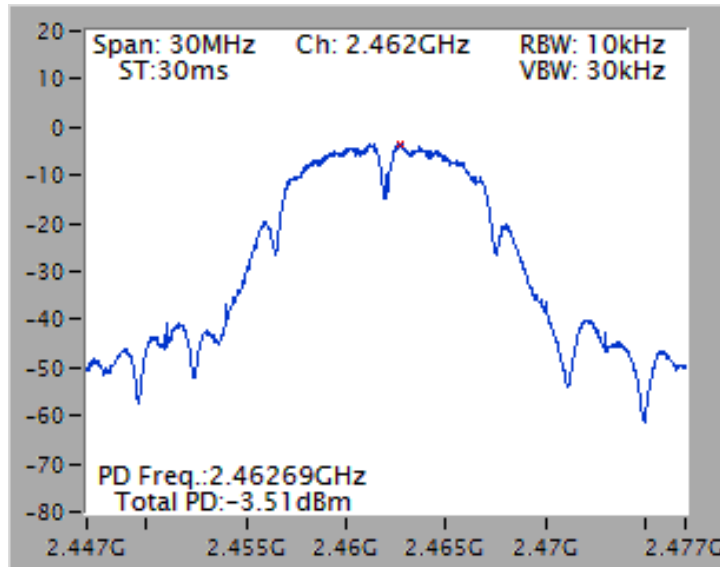
Power Density Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



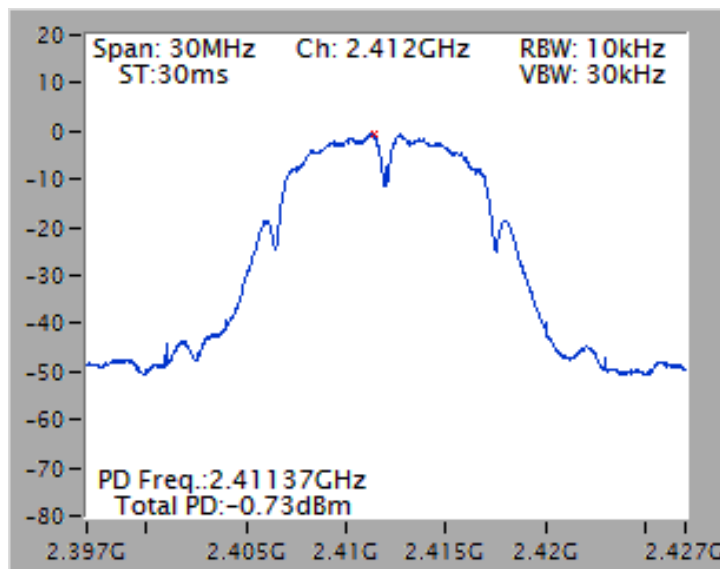
Power Density Plot on Configuration IEEE 802.11b / CH 6 / Ant.2



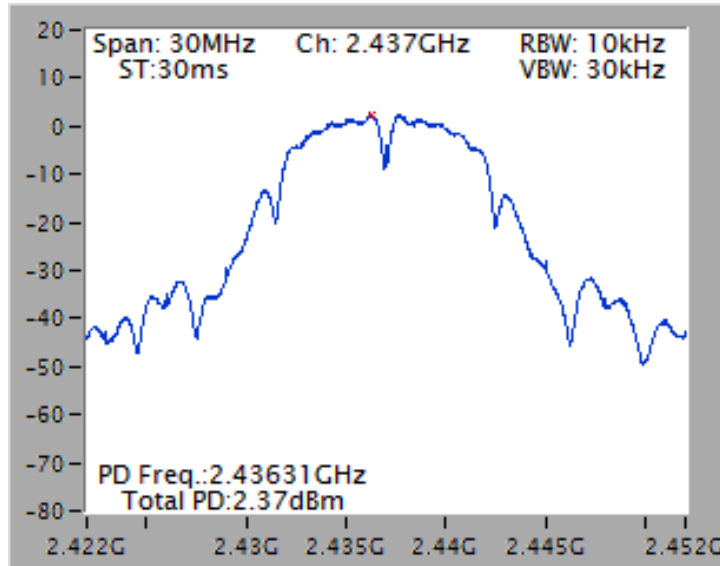
Power Density Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



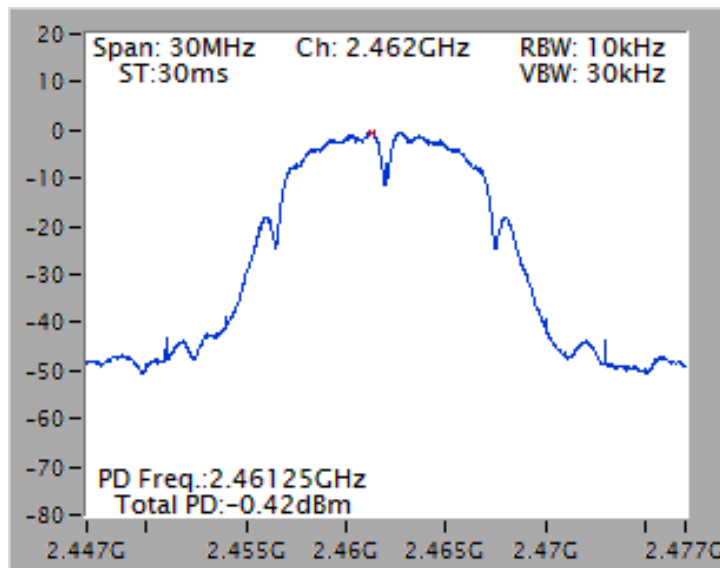
Power Density Plot on Configuration IEEE 802.11b / CH 1 / 1S3T, CDD



Power Density Plot on Configuration IEEE 802.11b / CH 6 / 1S3T, CDD



Power Density Plot on Configuration IEEE 802.11b / CH 11 / 1S3T, CDD



Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11g
Duty Cycle	Ant.2: 98.33% 1S3T, CDD: 98.92%		

Configuration IEEE 802.11g

<6Mbps, Ant. 2 >

Channel	Frequency	Power Density (dBm/3kHz)	Antenna Gain	Max. Limit (dBm 3kHz)	Result
1	2412 MHz	-13.00	3.98	8.00	Complies
6	2437 MHz	-5.94	3.51	8.00	Complies
11	2462 MHz	-11.34	3.30	8.00	Complies

Note:

2412 MHz= Antenna Gain= 3.98dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.30dBi <6dBi, so the limit doesn't reduce.

<6Mbps, 1S3T, CDD >

Channel	Frequency	Power Density (dBm/3kHz)	Directional Gain	Max. Limit (dBm 3kHz)	Result
1	2412 MHz	-10.14	5.53	8.00	Complies
6	2437 MHz	-0.75	5.40	8.00	Complies
11	2462 MHz	-8.48	5.48	8.00	Complies

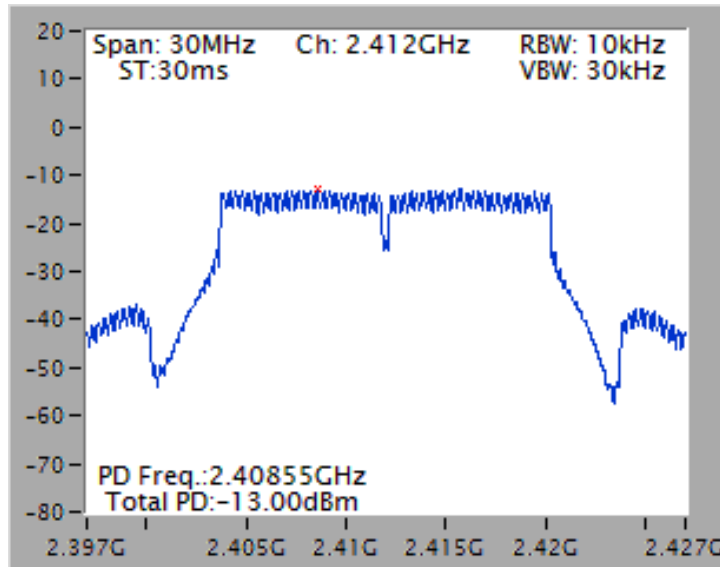
Note:

$$2412 \text{ MHz} = \textit{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

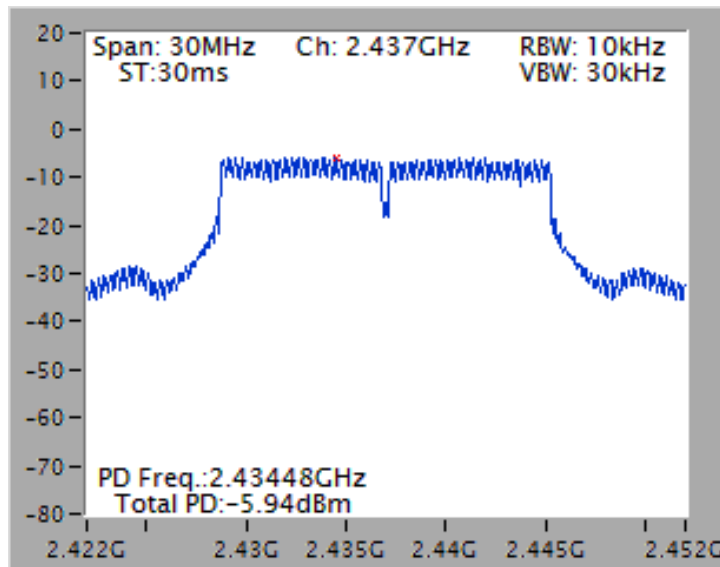
$$2437 \text{ MHz} = \textit{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.40\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

$$2462 \text{ MHz} = \textit{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.48\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

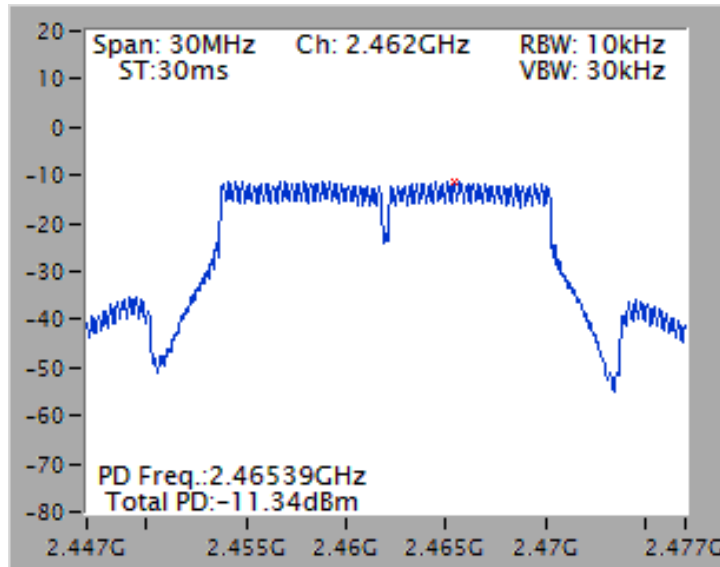
Power Density Plot on Configuration IEEE 802.11g / CH 1 / Ant.2



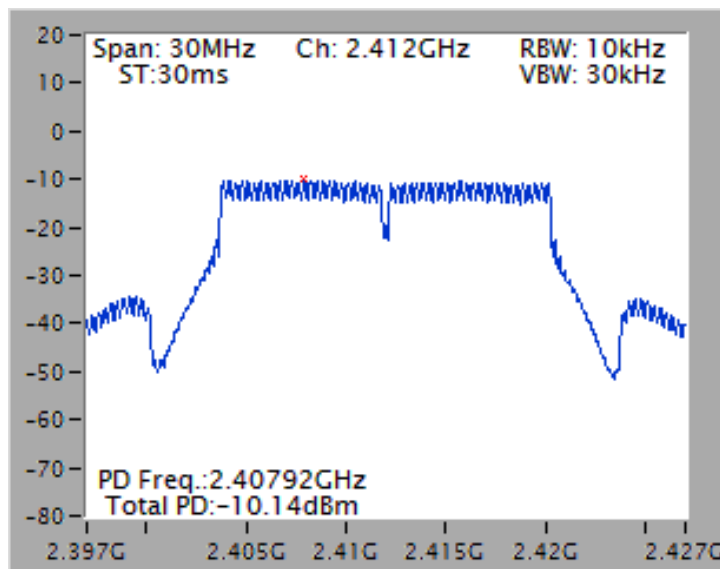
Power Density Plot on Configuration IEEE 802.11g / CH 6 / Ant.2



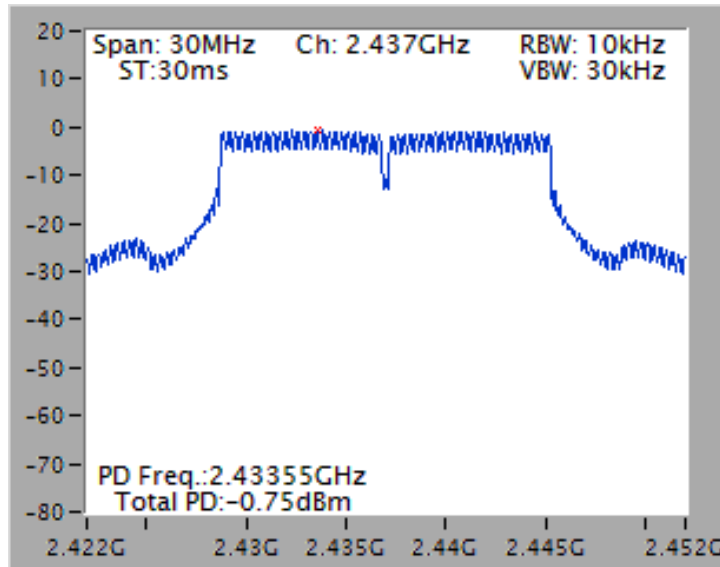
Power Density Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



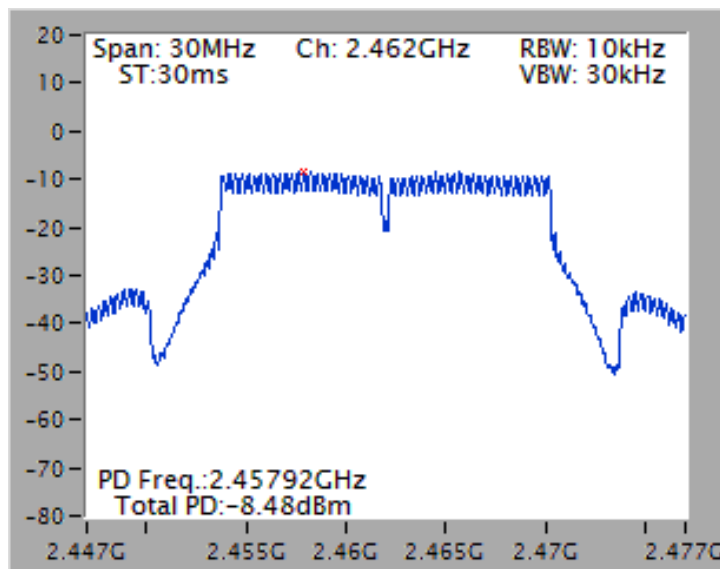
Power Density Plot on Configuration IEEE 802.11g / CH 1 / 1S3T, CDD



Power Density Plot on Configuration IEEE 802.11g / CH 6 / 1S3T, CDD



Power Density Plot on Configuration IEEE 802.11g / CH 11 / 1S3T, CDD



Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11n 20MHz
Duty Cycle	Ant.2: 98.47% 1S3T, CDD: 98.97%		

Configuration IEEE 802.11n 20MHz

<MCS0, Ant.2>

Channel	Frequency	Power Density (dBm/3kHz)	Antenna Gain	Max. Limit (dBm 3kHz)	Result
1	2412 MHz	-14.26	3.98	8.00	Complies
6	2437 MHz	-7.69	3.51	8.00	Complies
11	2462 MHz	-11.45	3.30	8.00	Complies

Note:

2412 MHz= Antenna Gain= 3.98dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2462 MHz= Antenna Gain= 3.30dBi <6dBi, so the limit doesn't reduce.

<MCS0, 1S3T, CDD >

Channel	Frequency	Power Density (dBm/3kHz)	Directional Gain	Max. Limit (dBm 3kHz)	Result
1	2412 MHz	-11.61	5.53	8.00	Complies
6	2437 MHz	-2.15	5.40	8.00	Complies
11	2462 MHz	-9.86	5.48	8.00	Complies

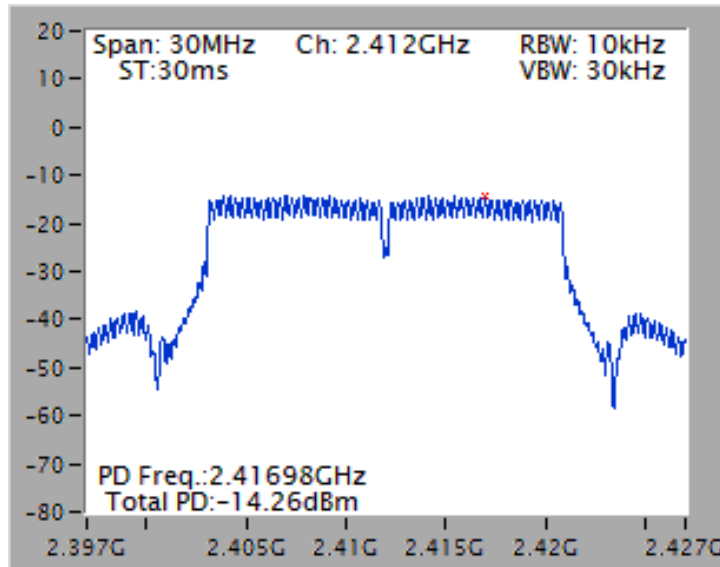
Note:

$$2412 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

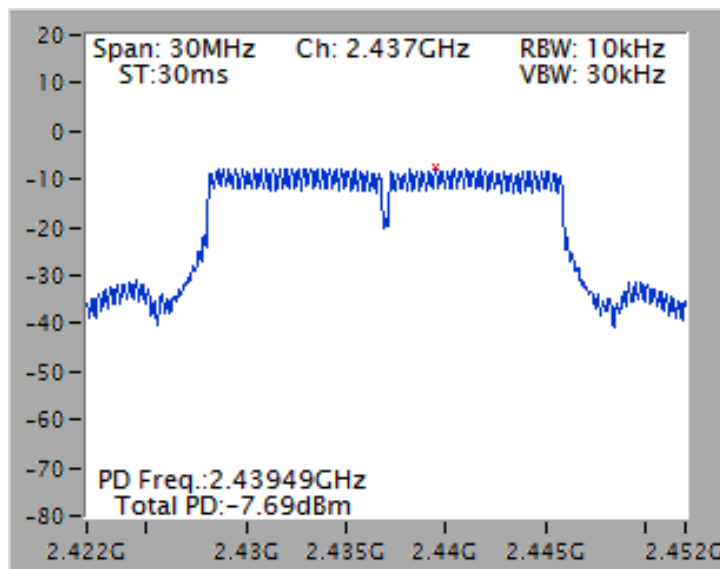
$$2437 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.40\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

$$2462 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.48\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

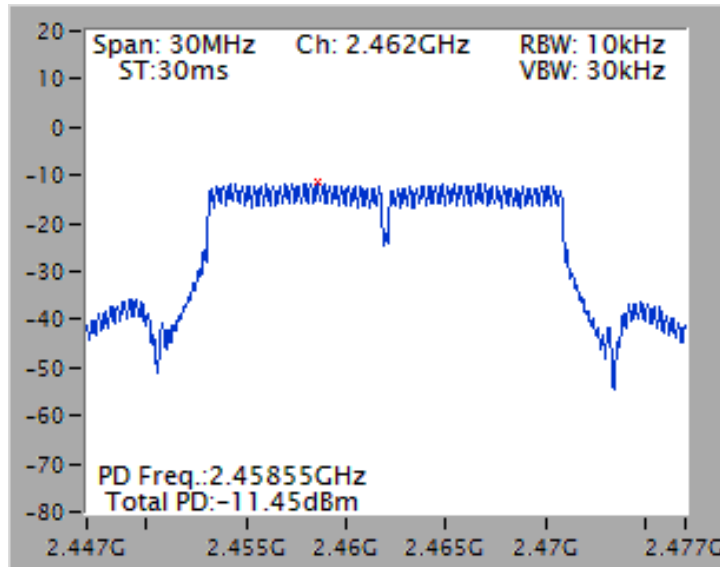
Power Density Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.2



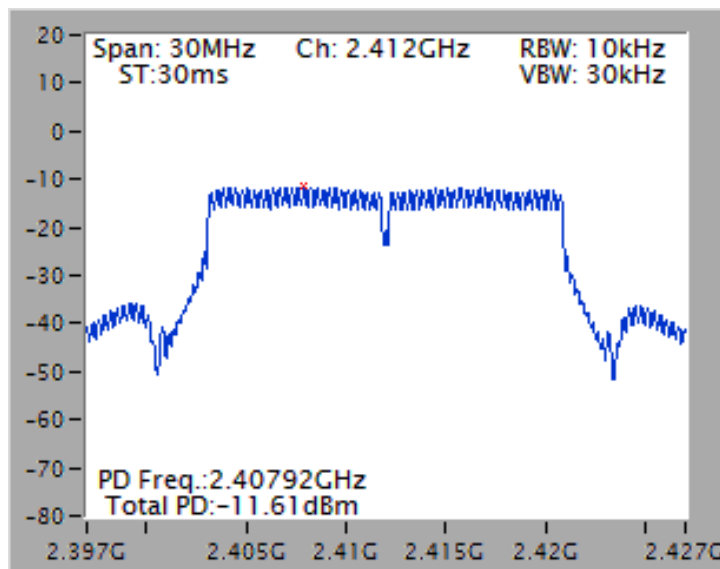
Power Density Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.2



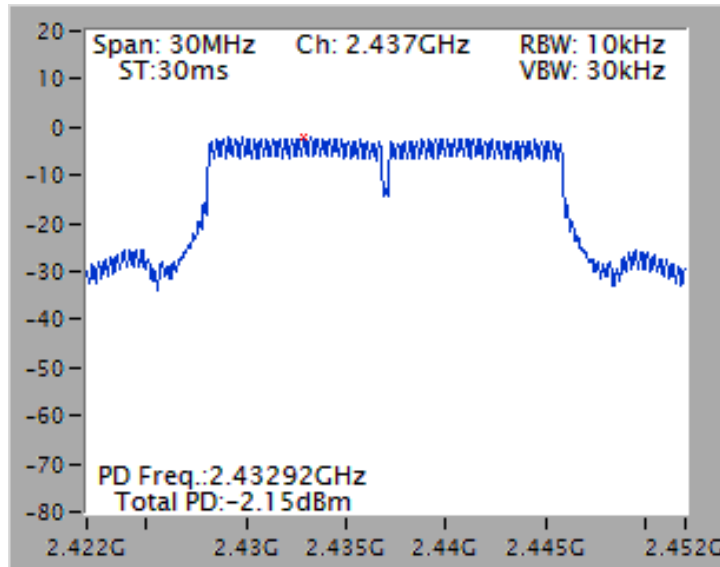
Power Density Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.2



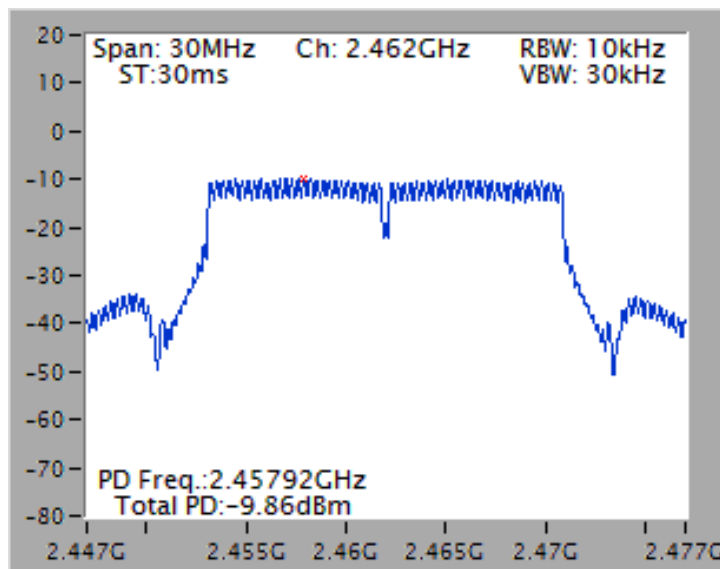
Power Density Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / 1S3T, CDD



Power Density Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / 1S3T, CDD



Power Density Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / 1S3T, CDD



Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11n 40MHz
Duty Cycle	Ant.2: 94.33% 1S3T, CDD: 94.96%		

Configuration IEEE 802.11n 40MHz

<MCS0, Ant.2>

Channel	Frequency	Power Density (dBm/3kHz)	Antenna Gain	Max. Limit (dBm 3kHz)	Result
3	2422 MHz	-20.99	3.86	8.00	Complies
6	2437 MHz	-14.14	3.51	8.00	Complies
9	2452 MHz	-15.74	3.40	8.00	Complies

Note:

2422 MHz= Antenna Gain= 3.86dBi <6dBi, so the limit doesn't reduce.

2437 MHz= Antenna Gain= 3.51dBi <6dBi, so the limit doesn't reduce.

2452 MHz= Antenna Gain= 3.40dBi <6dBi, so the limit doesn't reduce.

<MCS0, 1S3T, CDD >

Channel	Frequency	Power Density (dBm/3kHz)	Directional Gain	Max. Limit (dBm 3kHz)	Result
3	2422 MHz	-16.27	5.49	8.00	Complies
6	2437 MHz	-10.87	5.40	8.00	Complies
9	2452 MHz	-12.77	5.42	8.00	Complies

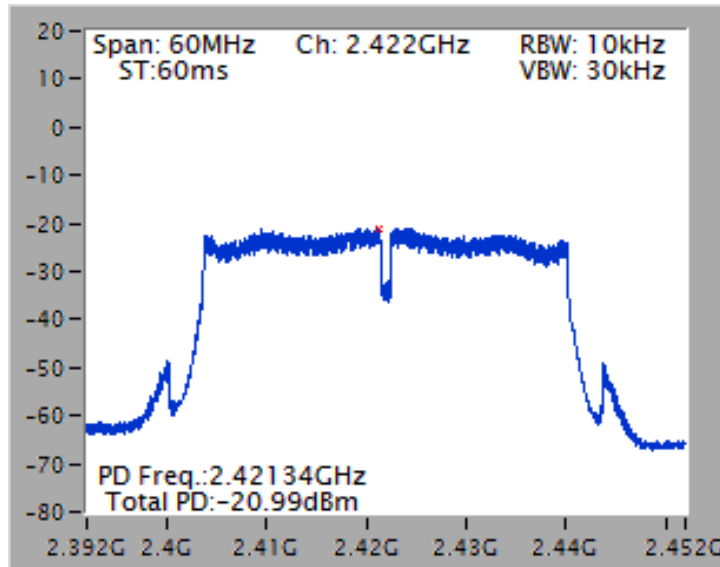
Note:

$$2422 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.49\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

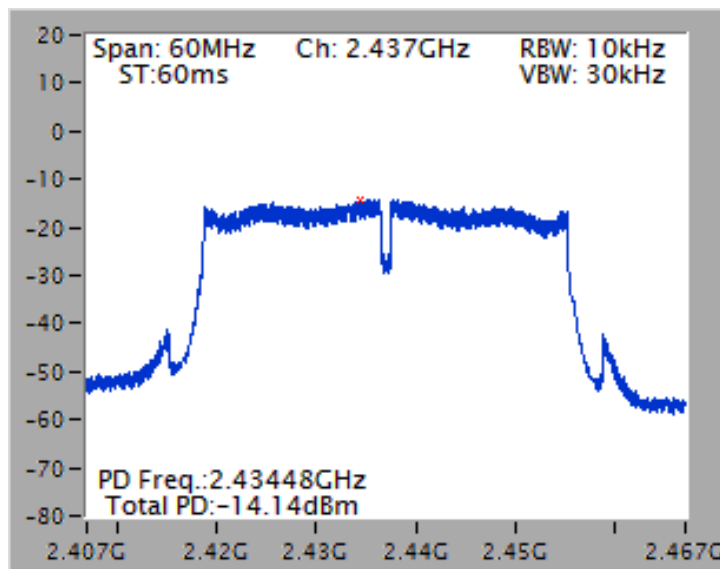
$$2437 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.40\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

$$2452 \text{ MHz} = \text{DirectionalGain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.42\text{dBi} <6\text{dBi, so the limit doesn't reduce.}$$

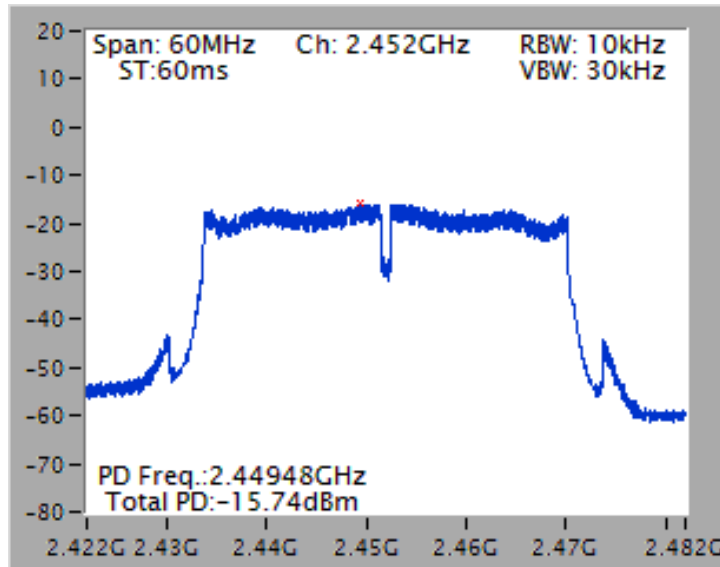
Power Density Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant.2



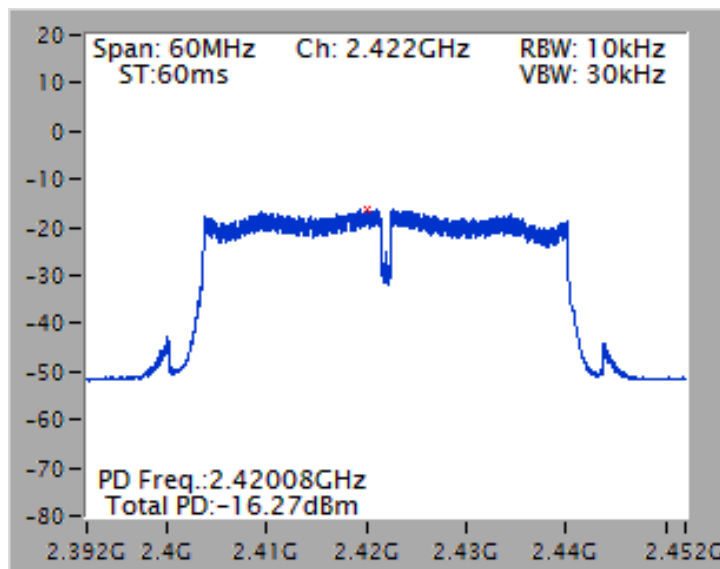
Power Density Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant.2



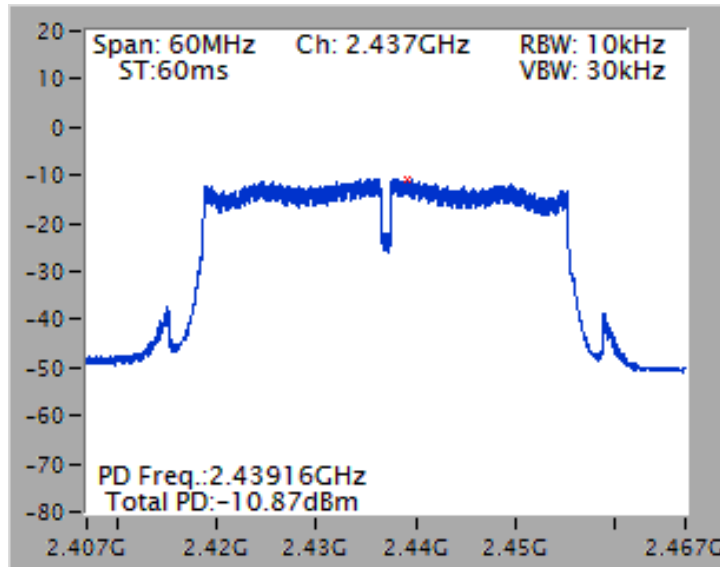
Power Density Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant.2



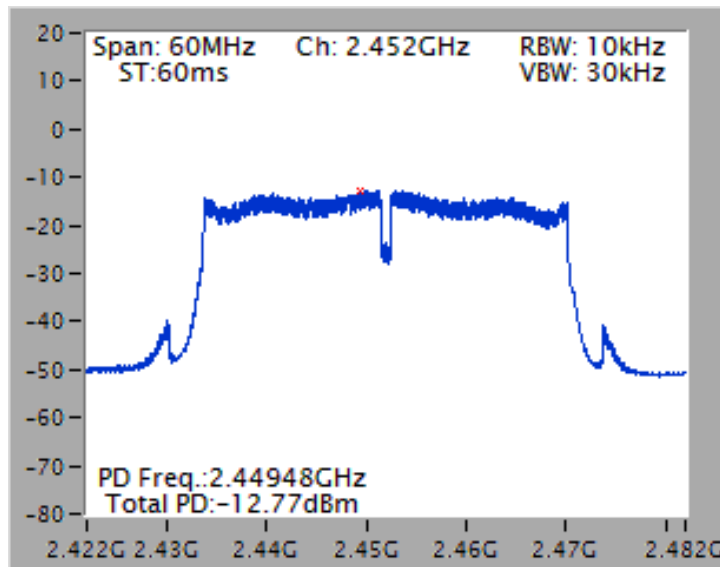
Power Density Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / 1S3T, CDD



Power Density Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / 1S3T, CDD



Power Density Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / 1S3T, CDD



3.4. 6dB Spectrum Bandwidth Measurement

3.4.1. Limit

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

3.4.2. Measuring Instruments and Setting

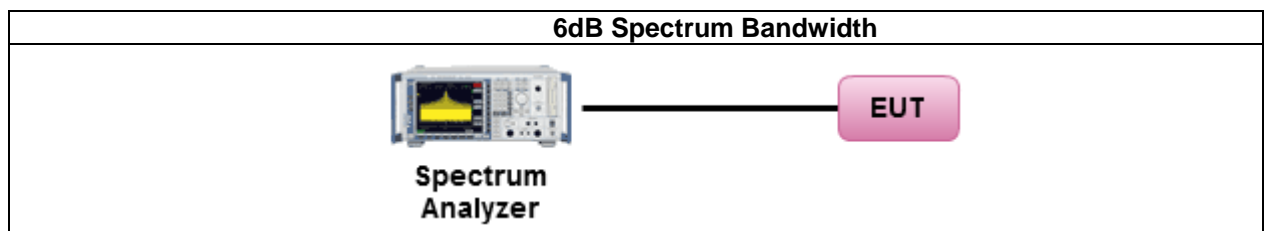
The following table is the setting of the spectrum analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 6dB Bandwidth
RBW	1-5 % of the emission bandwidth (EBW)
VBW	≥ 3 x RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.4.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.
2. Test was performed in accordance with KDB 558074 D01 v03r02 for Performing Compliance Measurements on Digital Transmission Systems (DTS) - section 8.0 DTS bandwidth=> 8.1 Option 1.
3. Multiple antennas system was performed in accordance with KDB 662911 Emission Testing of Transmitters with Multiple Outputs in the Same Band
4. Measured the spectrum width with power higher than 6dB account by this measurement.

3.4.4. Test Setup Layout



3.4.5. Test Deviation

There is no deviation with the original standard.

3.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.4.7. Test Result of 6dB Spectrum Bandwidth

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11b
Duty Cycle	Ant.2: 100% 1S3T, CDD: 100%		

Configuration IEEE 802.11b

<1Mbps, Ant.2>

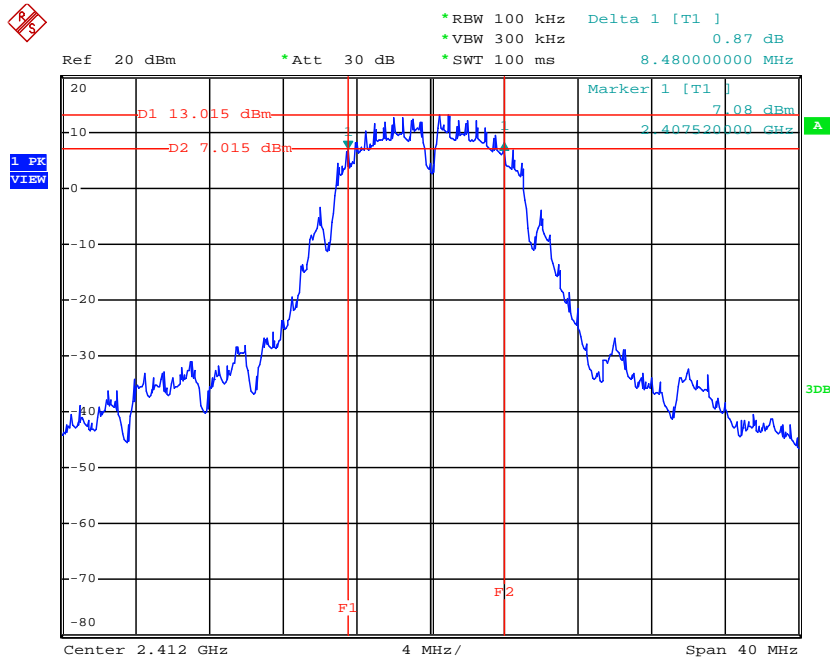
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Max. Limit (kHz)	Result
1	2412 MHz	8.48	10.56	500	Complies
6	2437 MHz	9.04	12.00	500	Complies
11	2462 MHz	8.56	10.56	500	Complies

<1Mbps, 1S3T, CDD >

Channel	Frequency	6dB Bandwidth (MHz)			99% Occupied Bandwidth (MHz)			Max. Limit (kHz)	Result
		Ant.1	Ant.2	Ant.3	Ant.1	Ant.2	Ant.3		
1	2412 MHz	8.08	8.00	8.00	10.32	10.44	10.32	500	Complies
6	2437 MHz	8.64	8.08	8.16	10.68	11.28	11.04	500	Complies
11	2462 MHz	8.00	8.08	8.24	10.32	10.32	10.32	500	Complies

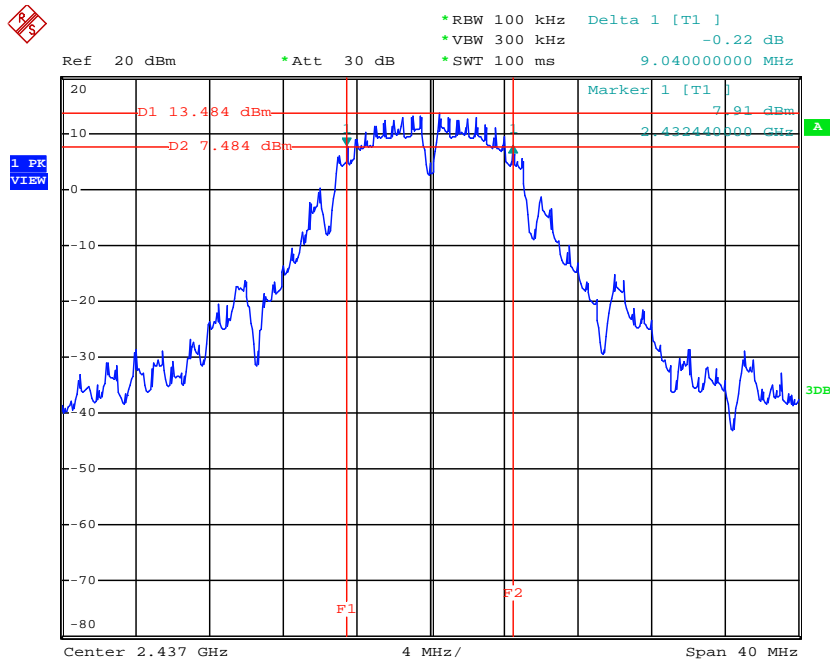
For <Ant.2>

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



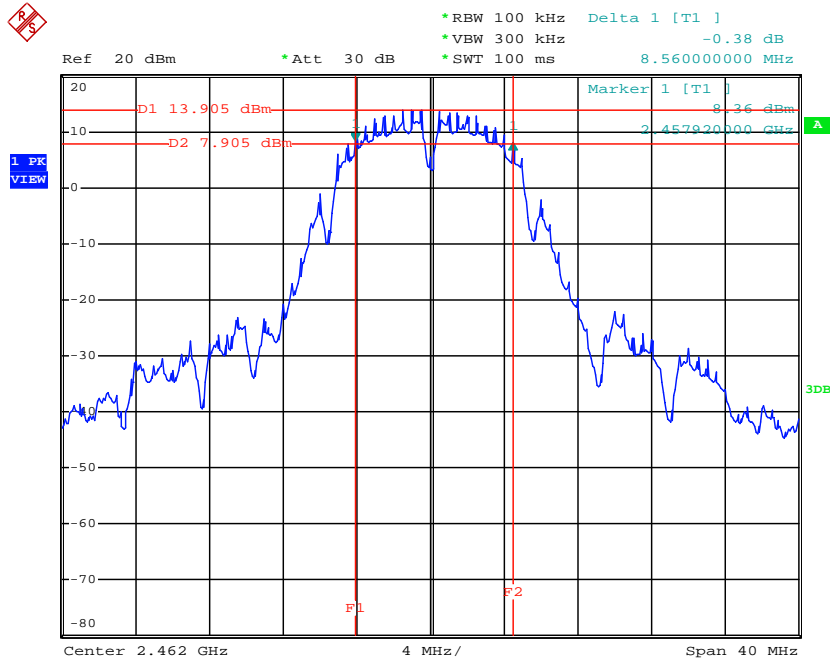
Date: 20.MAR.2015 23:44:51

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.2



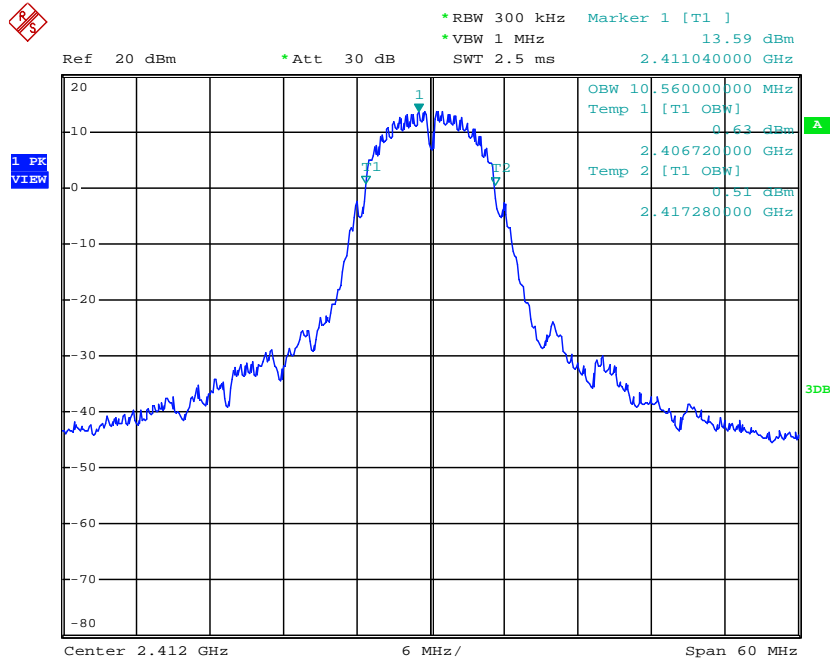
Date: 20.MAR.2015 23:49:15

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



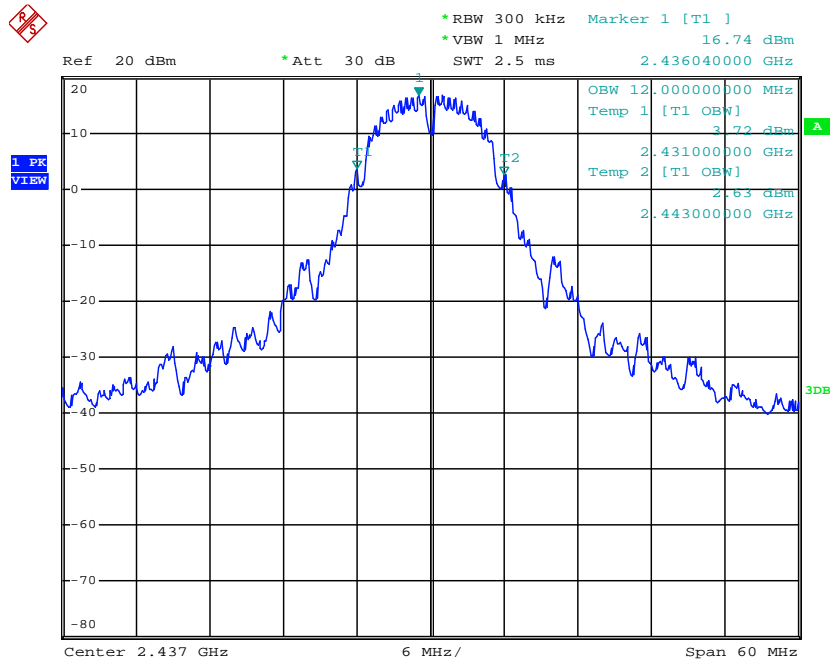
Date: 20.MAR.2015 23:50:49

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



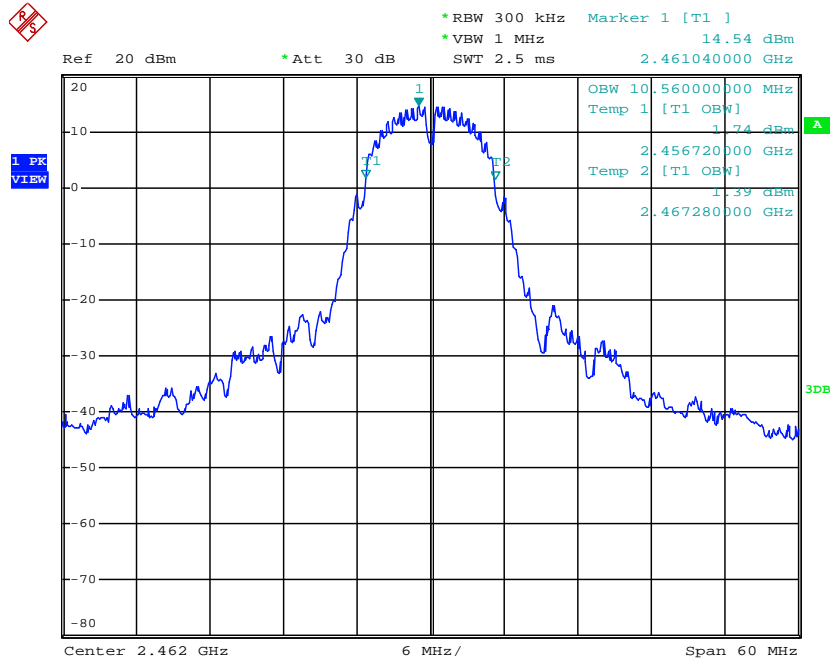
Date: 21.MAR.2015 00:01:34

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.2



Date: 21.MAR.2015 00:02:21

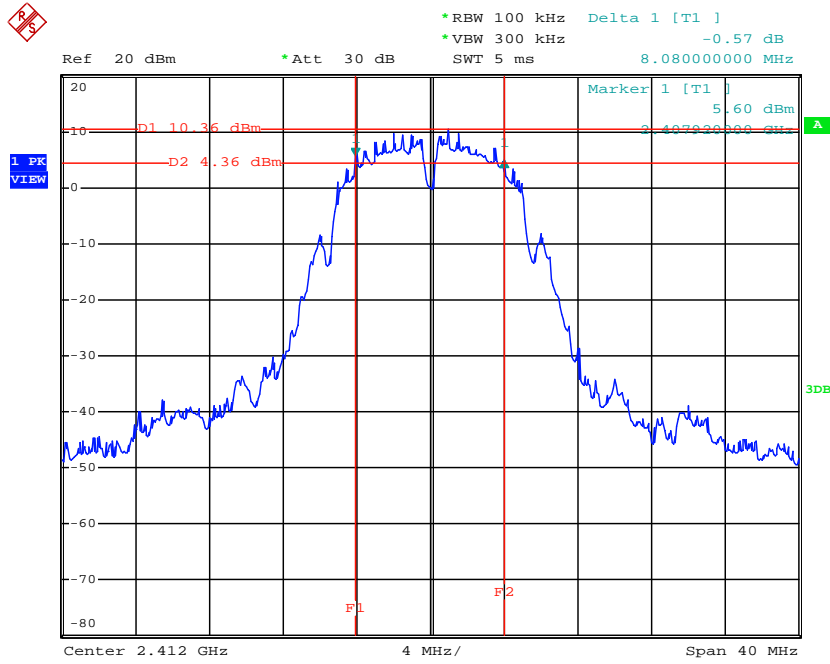
99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



Date: 21.MAR.2015 00:03:08

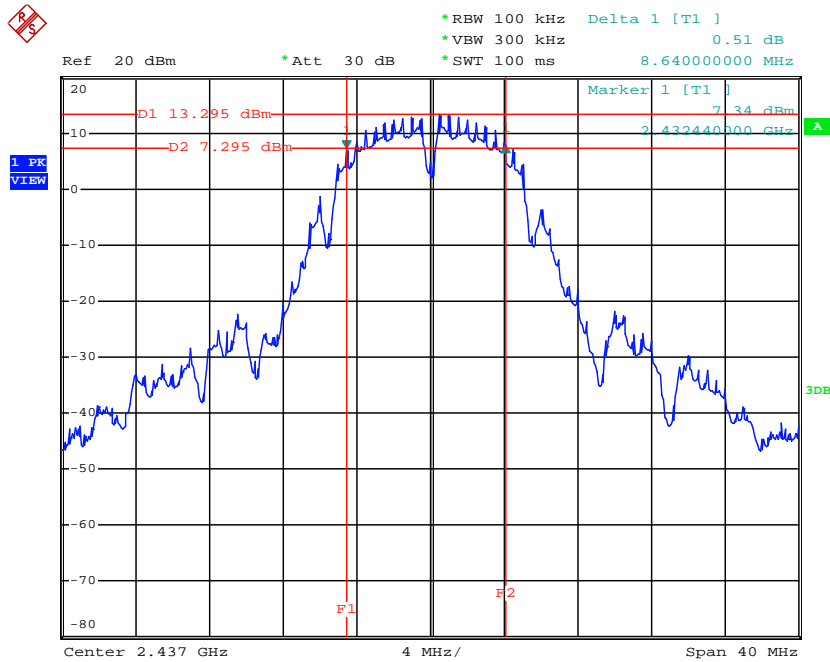
For <1S3T, CDD >

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.1



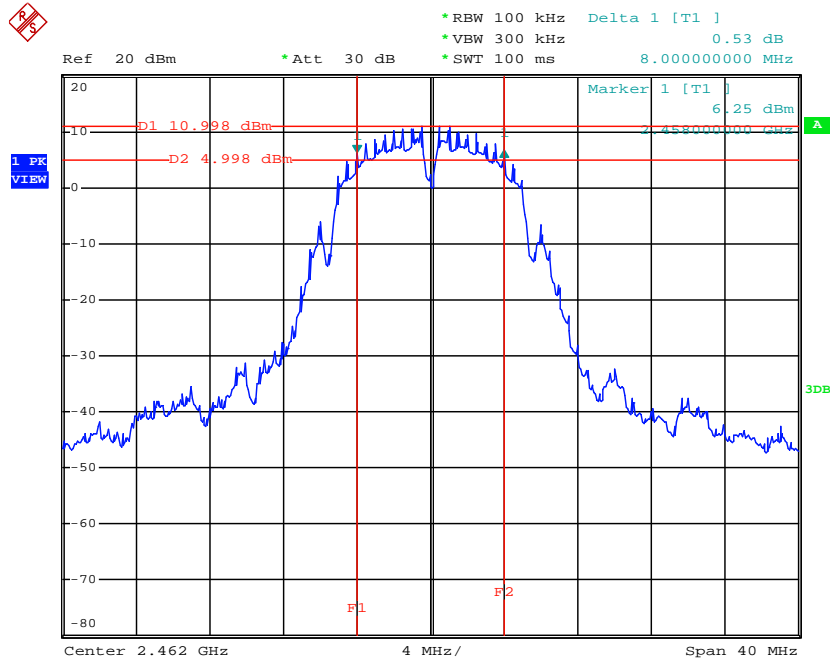
Date: 20.MAR.2015 20:48:02

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.1



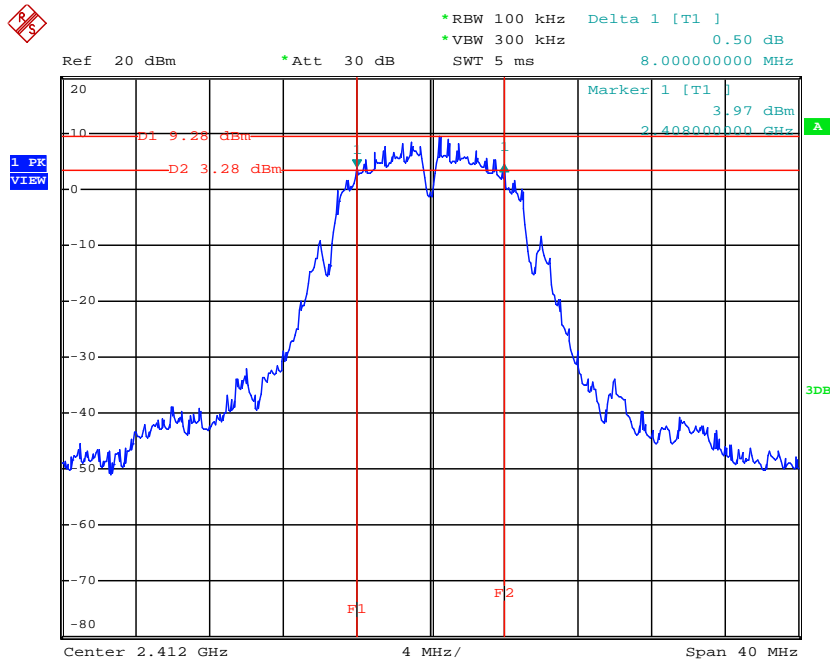
Date: 20.MAR.2015 20:51:01

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.1



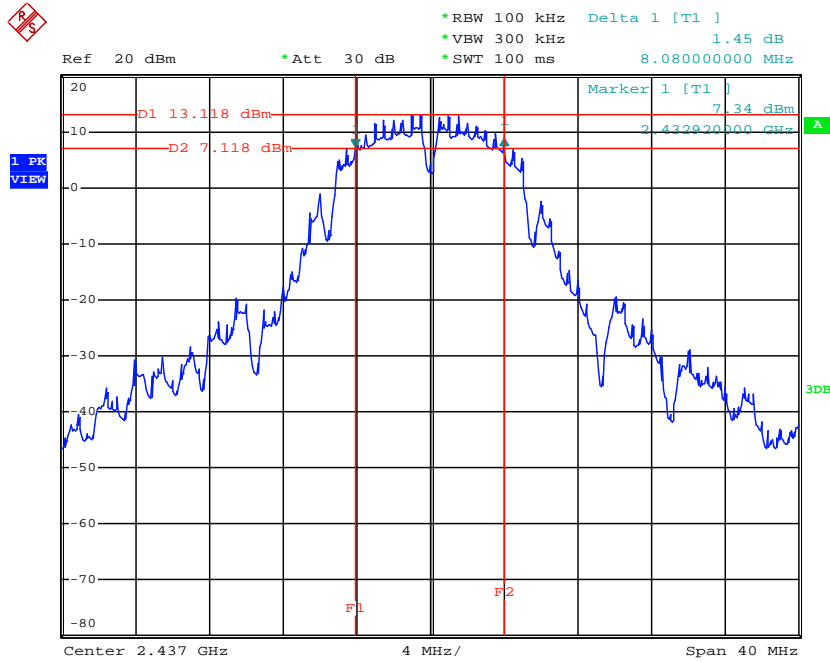
Date: 20.MAR.2015 20:54:45

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



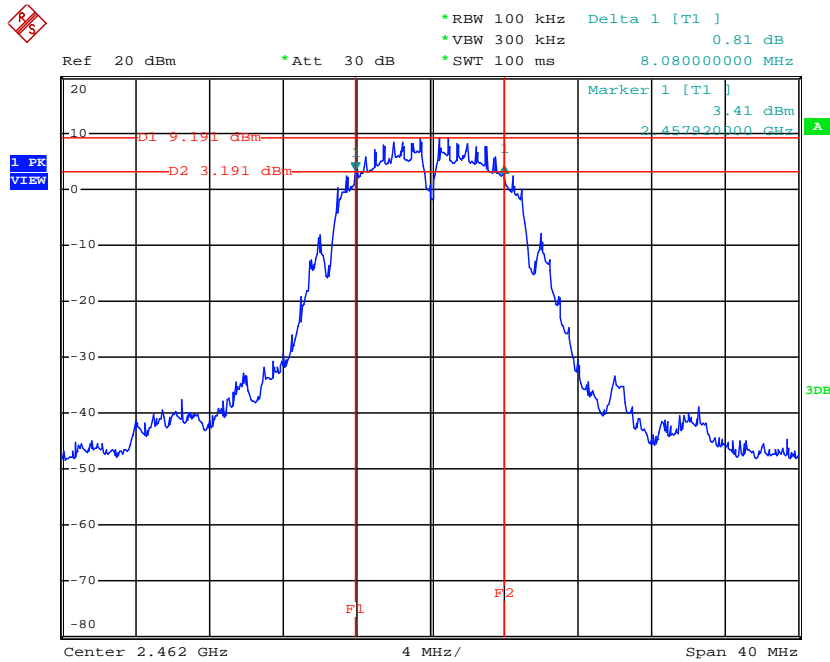
Date: 20.MAR.2015 20:49:12

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.2



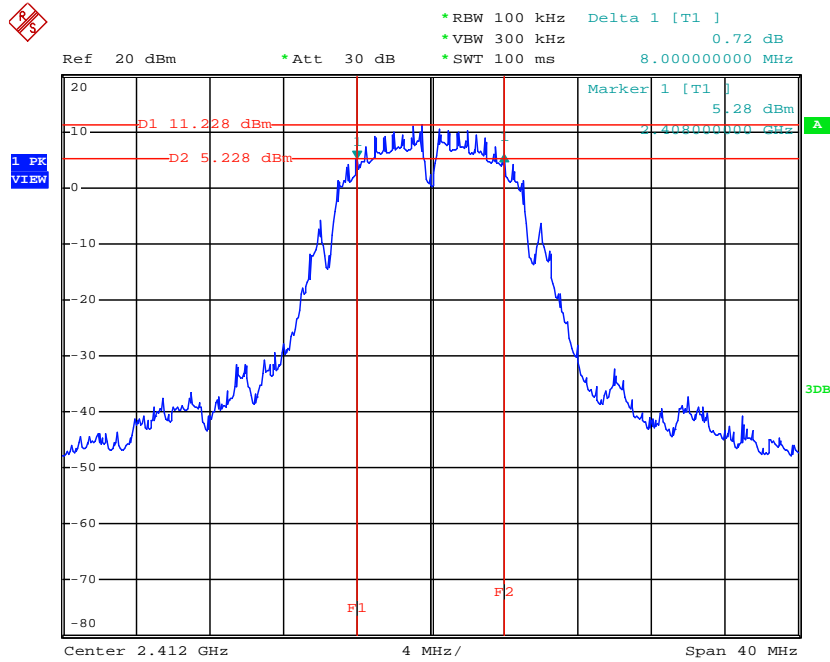
Date: 20.MAR.2015 20:51:56

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



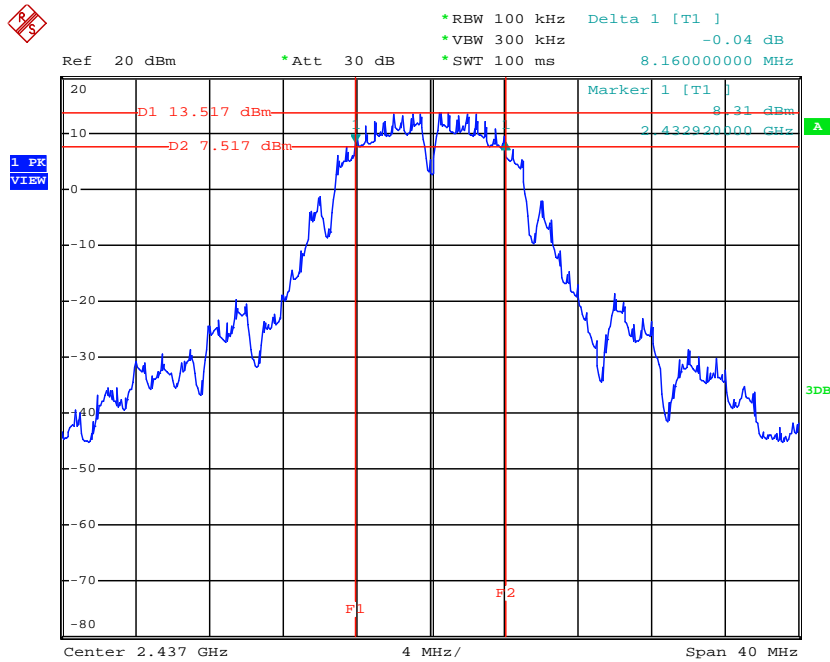
Date: 20.MAR.2015 20:54:08

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.3



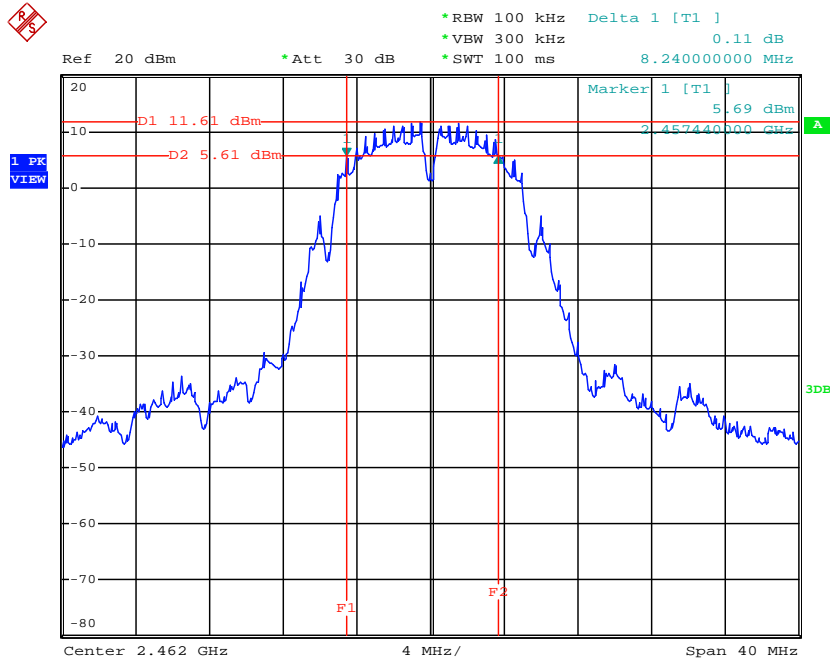
Date: 20.MAR.2015 20:49:58

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.3



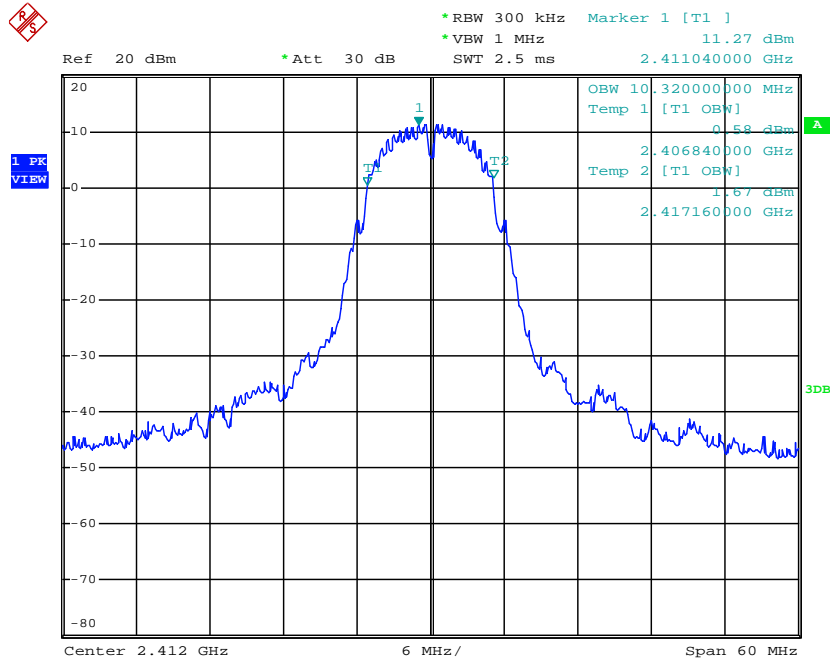
Date: 20.MAR.2015 20:52:27

6 dB Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.3



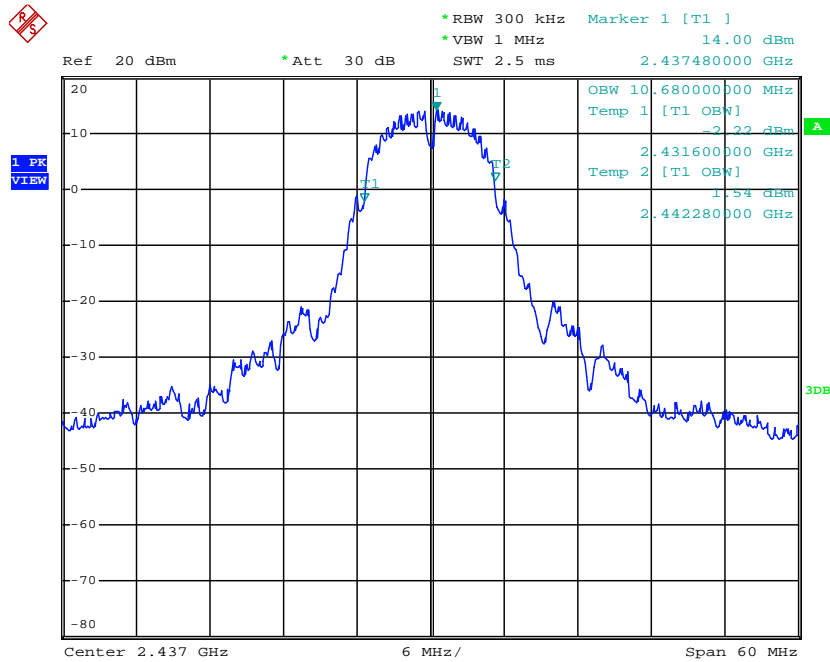
Date: 20.MAR.2015 20:53:26

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.1



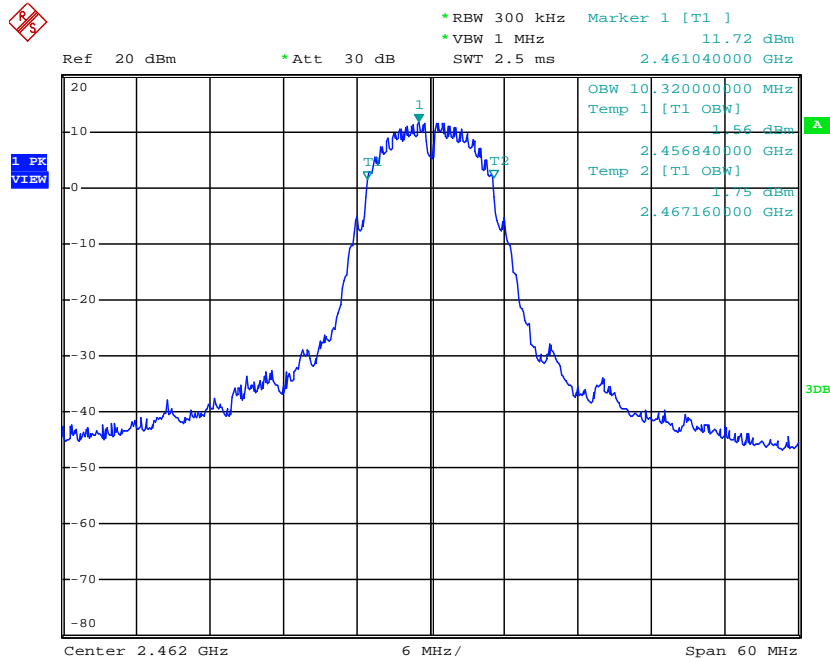
Date: 20.MAR.2015 21:25:31

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.1



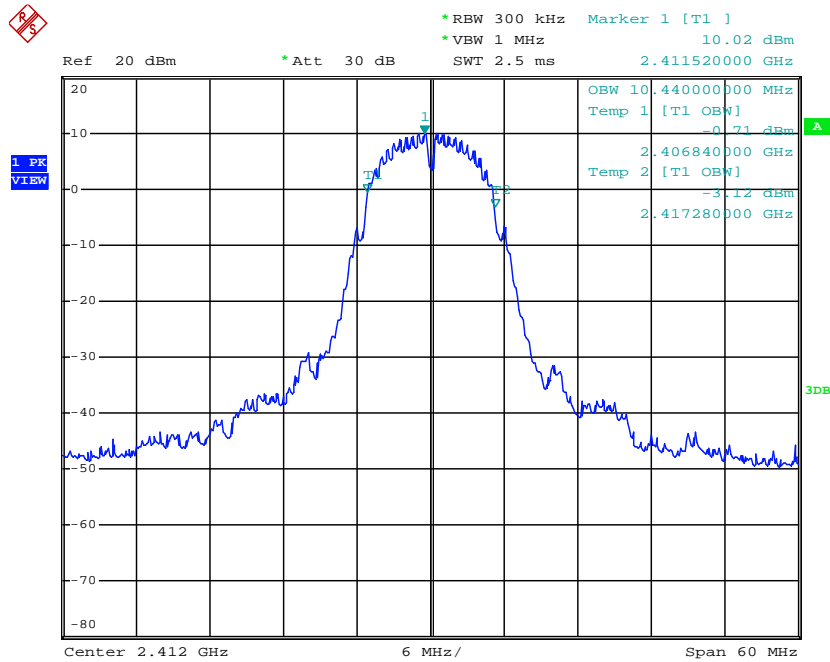
Date: 20.MAR.2015 21:30:25

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.1



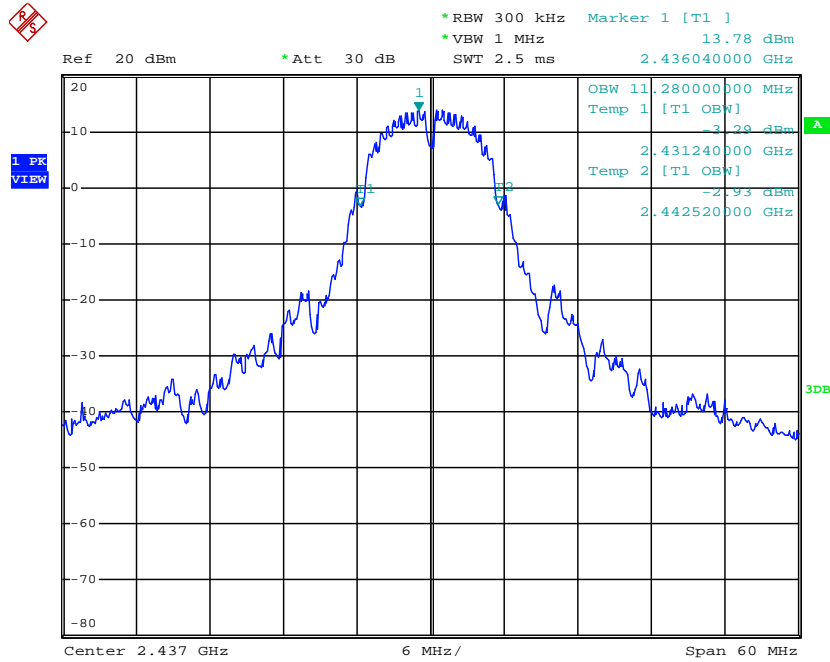
Date: 20.MAR.2015 21:31:14

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



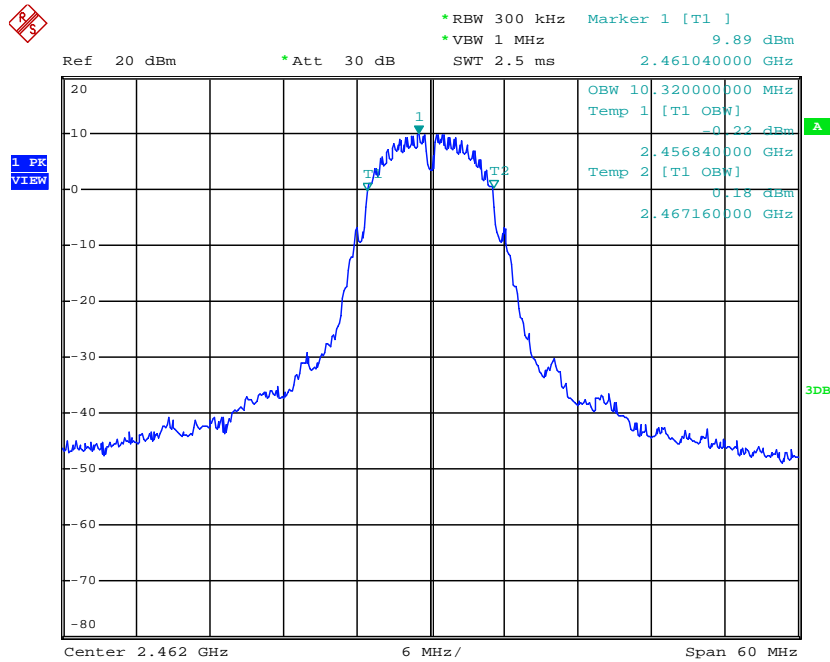
Date: 20.MAR.2015 21:27:15

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.2



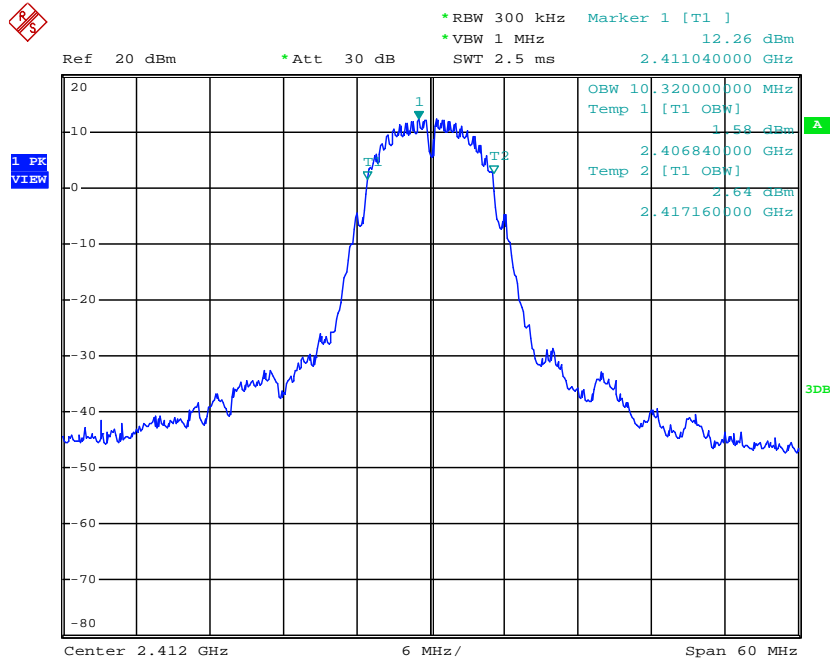
Date: 20.MAR.2015 21:29:42

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



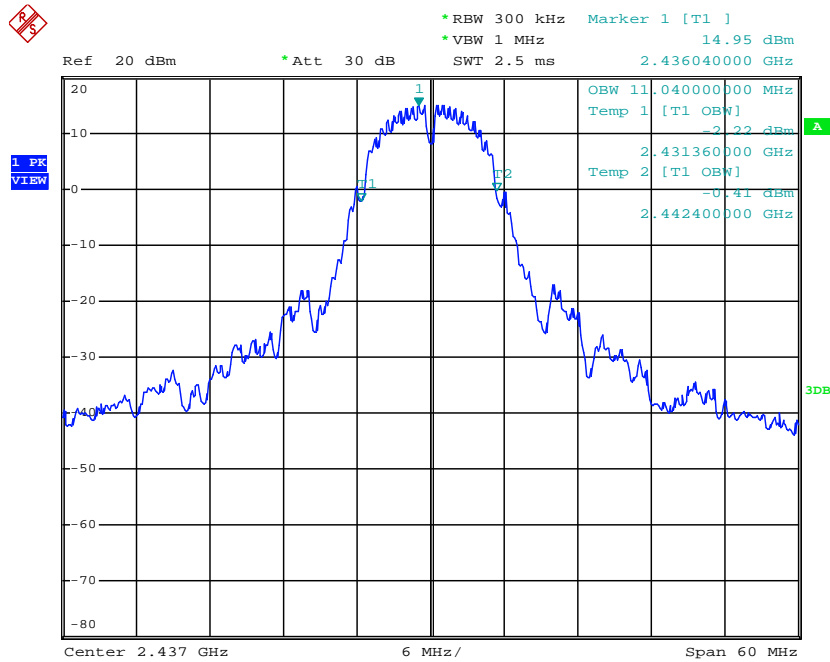
Date: 20.MAR.2015 21:32:07

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 1 / Ant.3



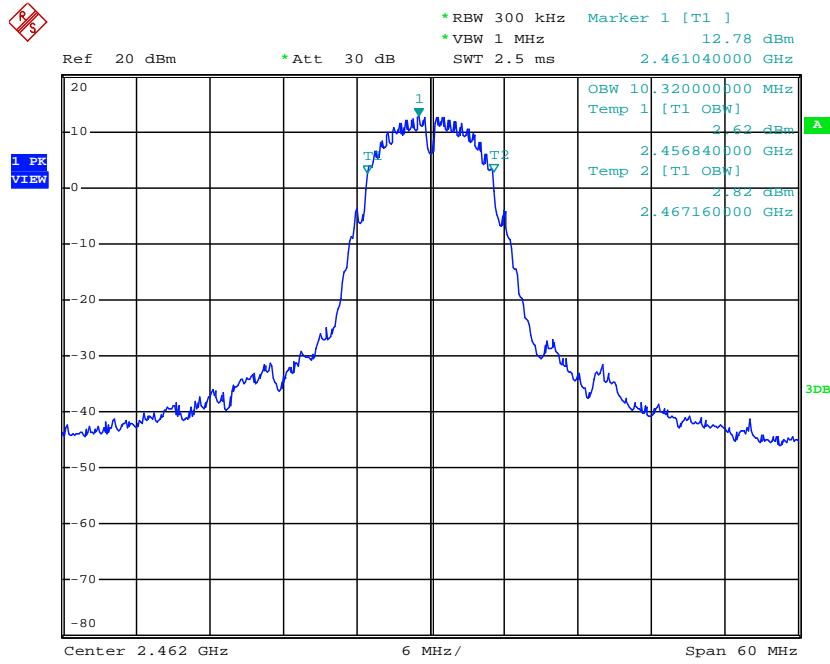
Date: 20.MAR.2015 21:28:00

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 6 / Ant.3



Date: 20.MAR.2015 21:28:53

99% Occupied Bandwidth Plot on Configuration IEEE 802.11b / CH 11 / Ant.3



Date: 20.MAR.2015 21:33:02

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11g
Duty Cycle	Ant.2: 98.33% 1S3T, CDD : 98.92%		

Configuration IEEE 802.11g

<6Mbps, Ant.2>

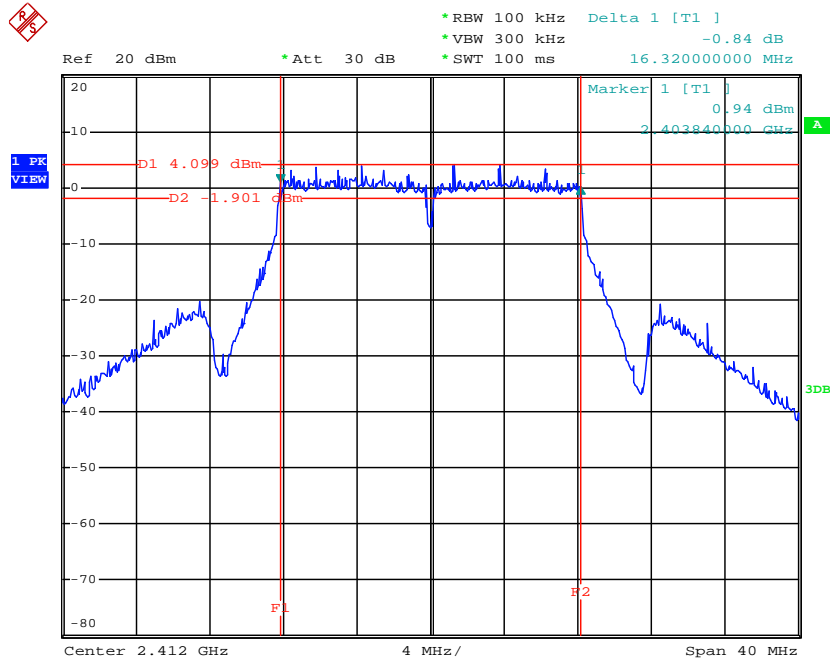
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Max. Limit (kHz)	Result
1	2412 MHz	16.32	17.28	500	Complies
6	2437 MHz	16.40	18.48	500	Complies
11	2462 MHz	16.32	17.40	500	Complies

<6Mbps, 1S3T, CDD >

Channel	Frequency	6dB Bandwidth (MHz)			99% Occupied Bandwidth (MHz)			Max. Limit (kHz)	Result
		Ant.1	Ant.2	Ant.3	Ant.1	Ant.2	Ant.3		
1	2412 MHz	16.40	16.32	16.32	17.28	17.28	17.04	500	Complies
6	2437 MHz	16.32	16.40	16.32	18.24	19.08	18.36	500	Complies
11	2462 MHz	16.32	16.32	16.56	17.28	17.18	17.18	500	Complies

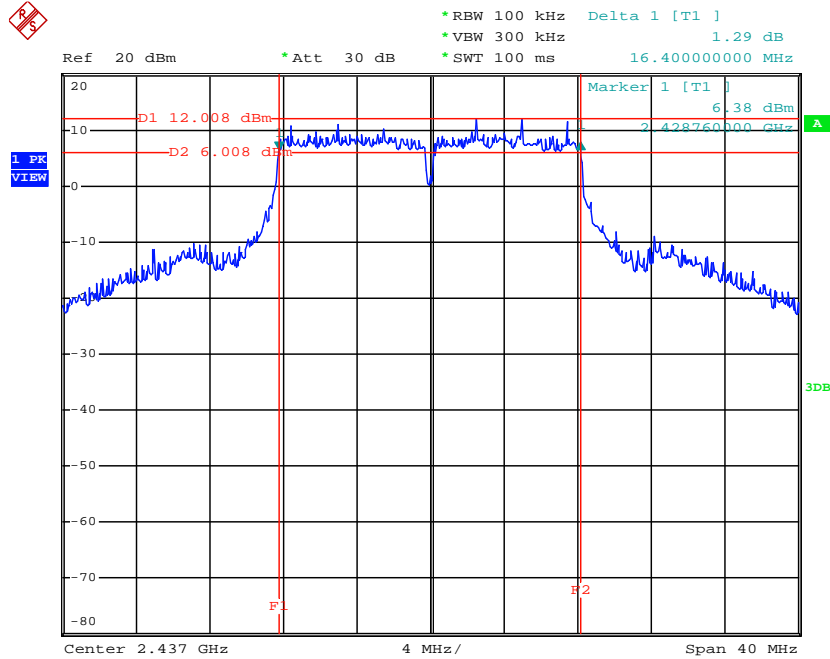
For <Ant. 2>

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.2



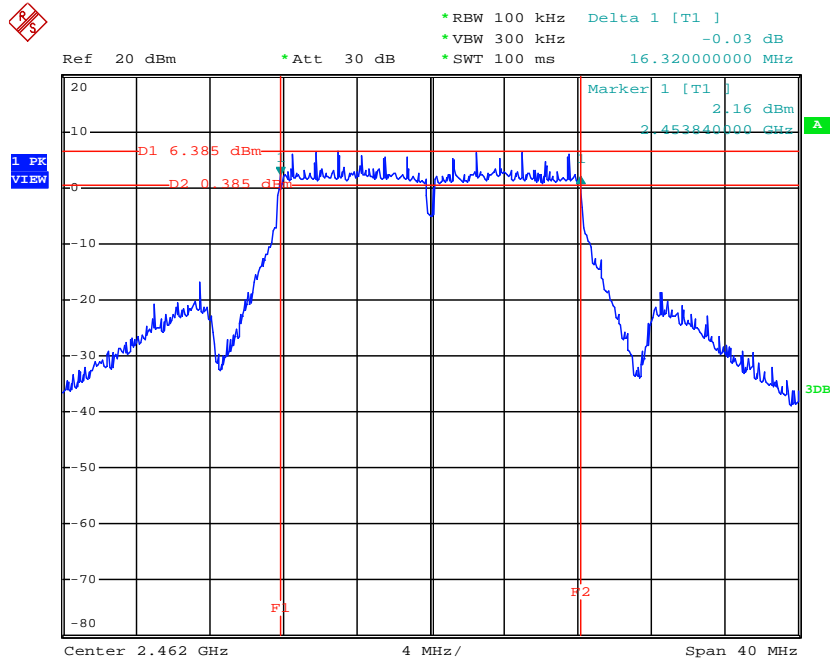
Date: 20.MAR.2015 23:53:05

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.2



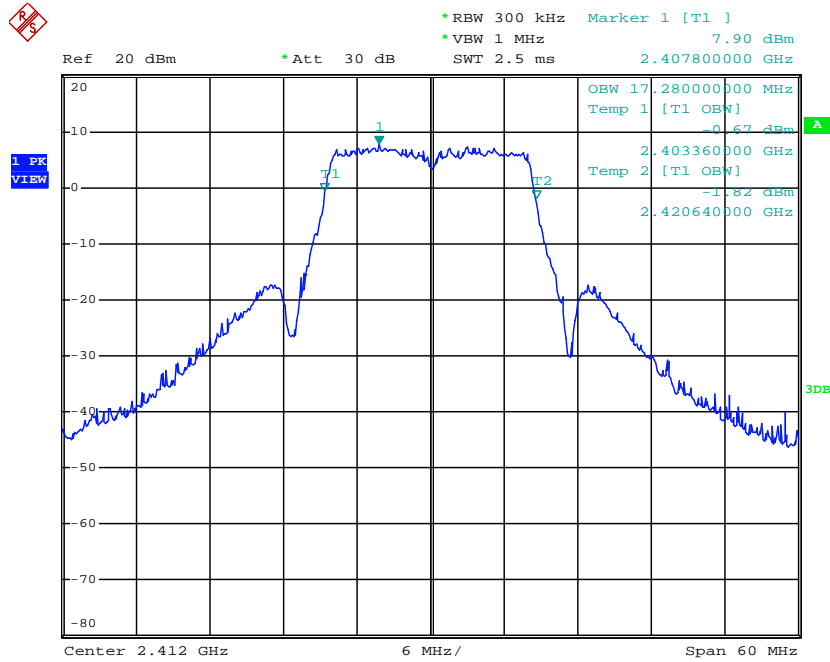
Date: 20.MAR.2015 23:52:19

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



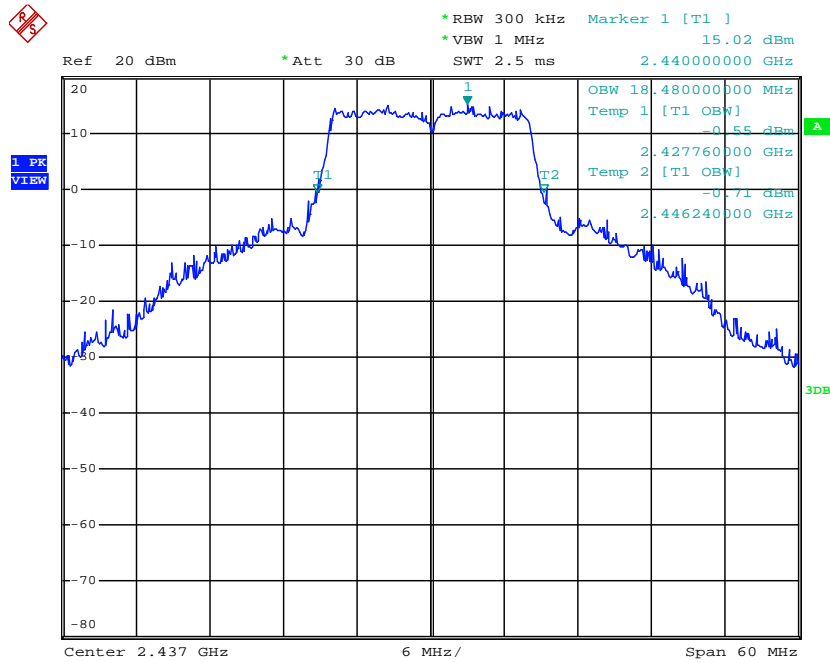
Date: 20.MAR.2015 23:51:40

99% Occupied Bandwidth Plot Configuration IEEE 802.11g / CH 1 / Ant.2



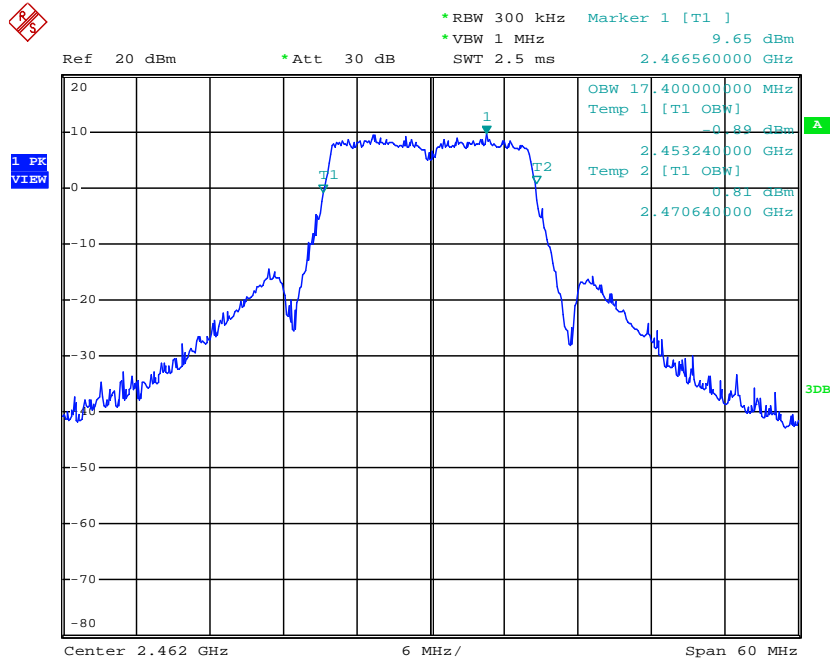
Date: 21.MAR.2015 00:05:40

99% Occupied Bandwidth Plot Configuration IEEE 802.11g / CH 6 / Ant.2



Date: 21.MAR.2015 00:05:04

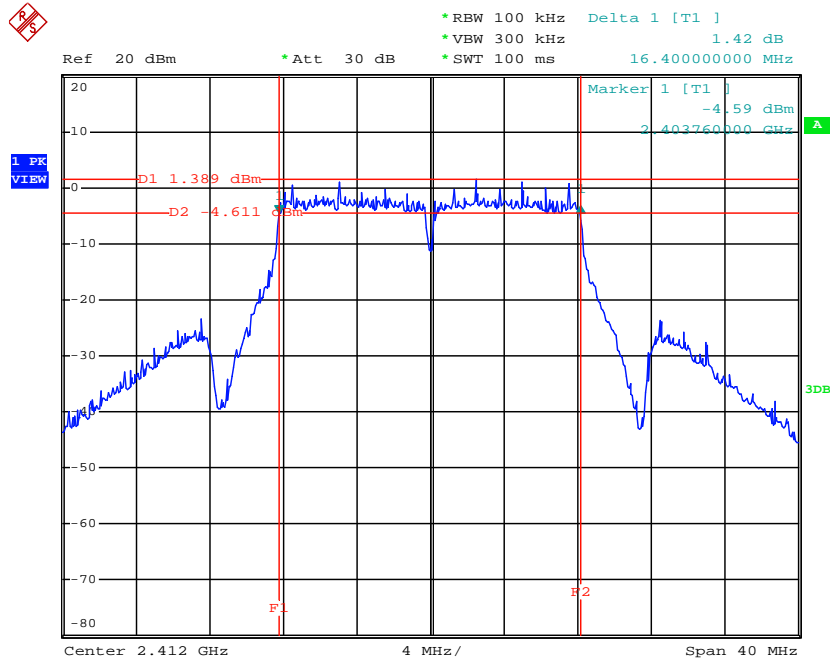
99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



Date: 21.MAR.2015 00:04:05

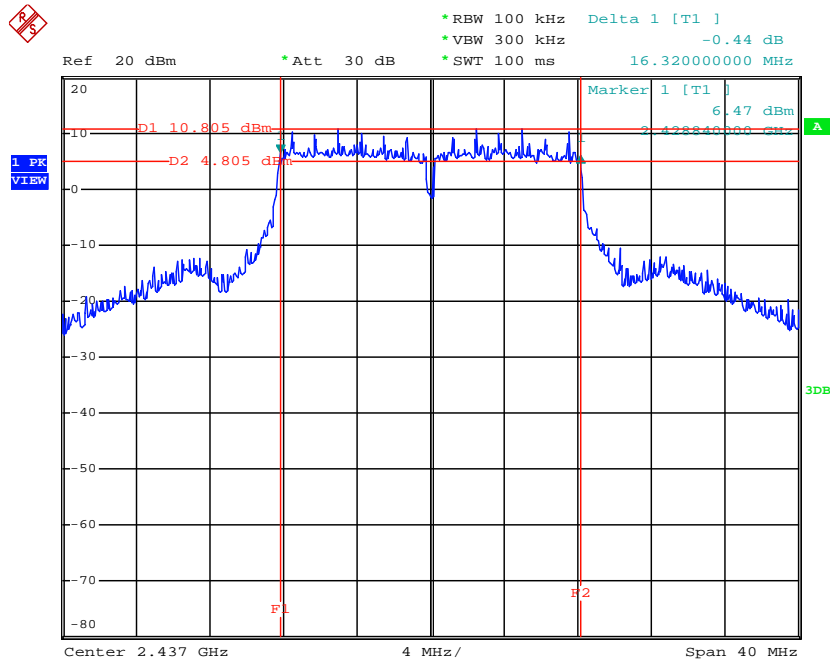
For <1S3T, CDD >

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.1



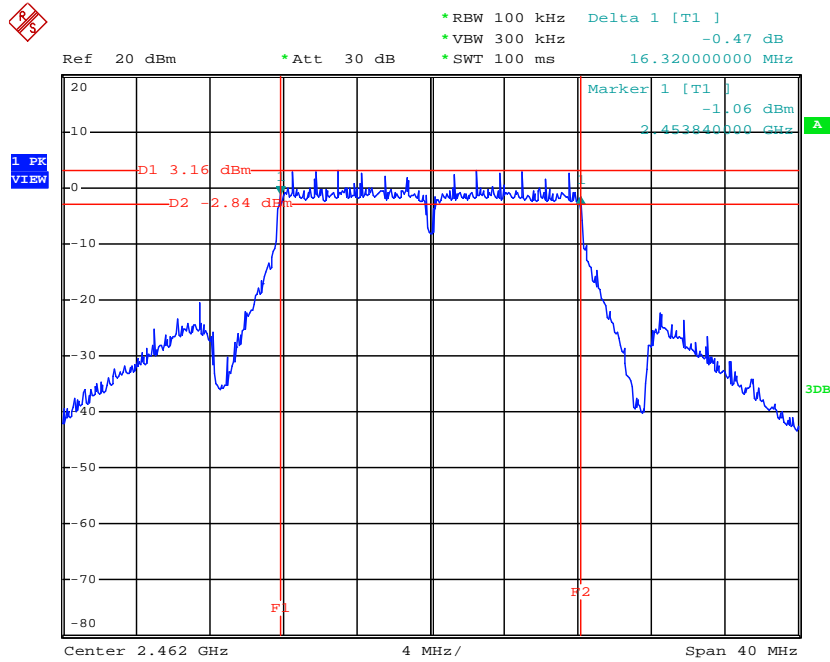
Date: 20.MAR.2015 20:55:40

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.1



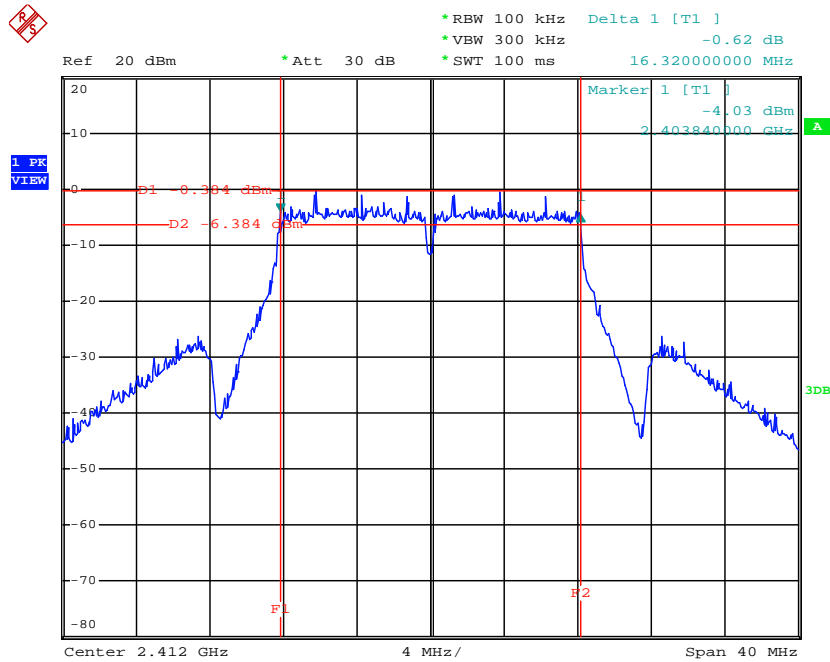
Date: 20.MAR.2015 20:59:54

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.1



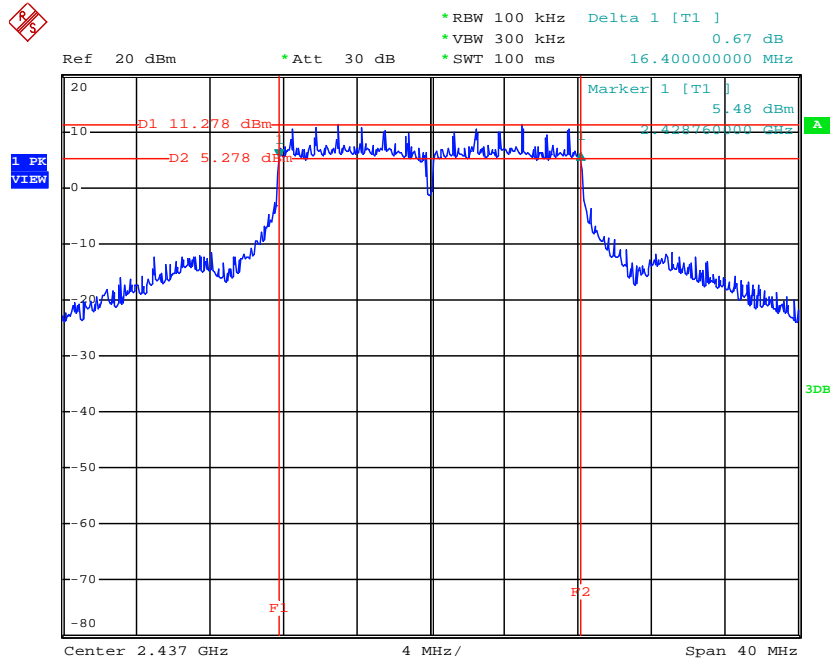
Date: 20.MAR.2015 21:00:57

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.2



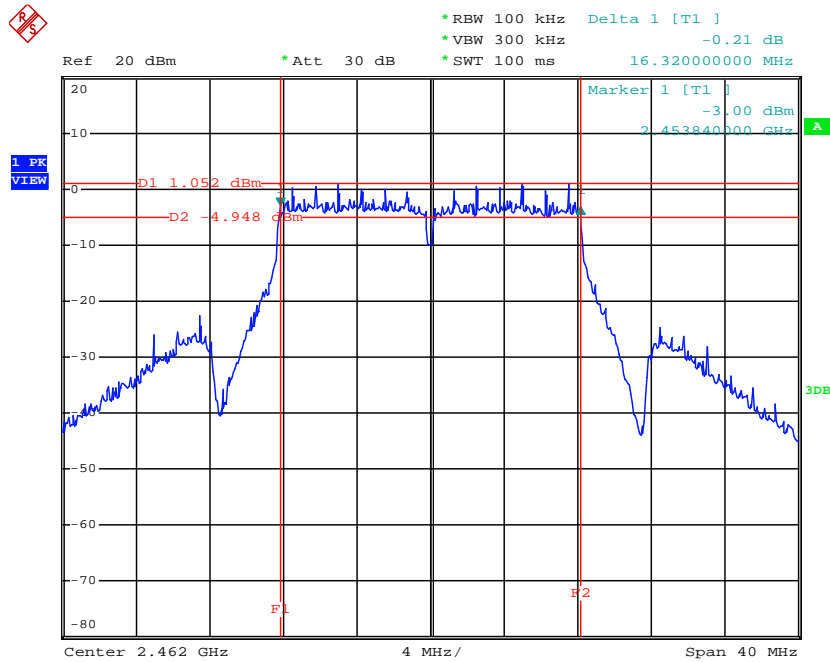
Date: 20.MAR.2015 20:56:23

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.2



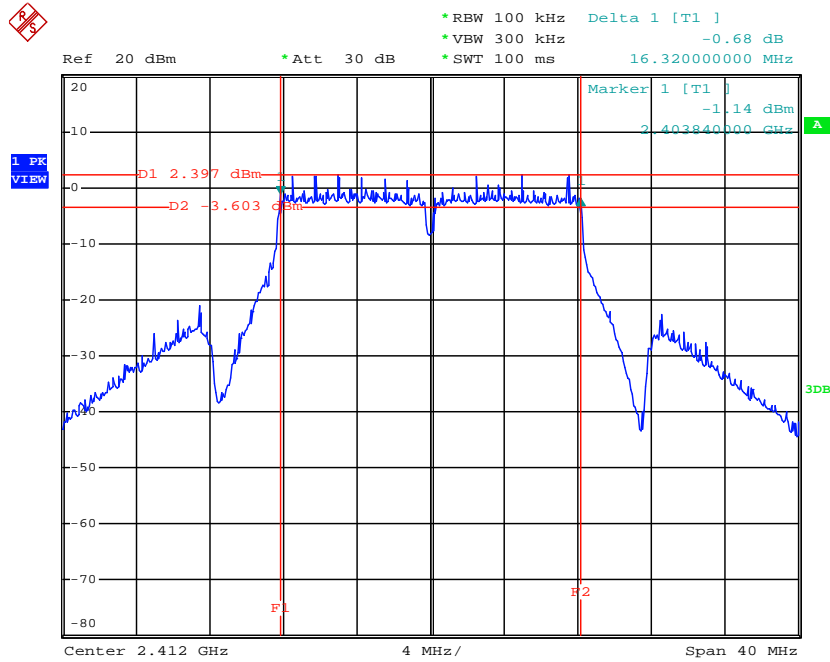
Date: 20.MAR.2015 20:58:58

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



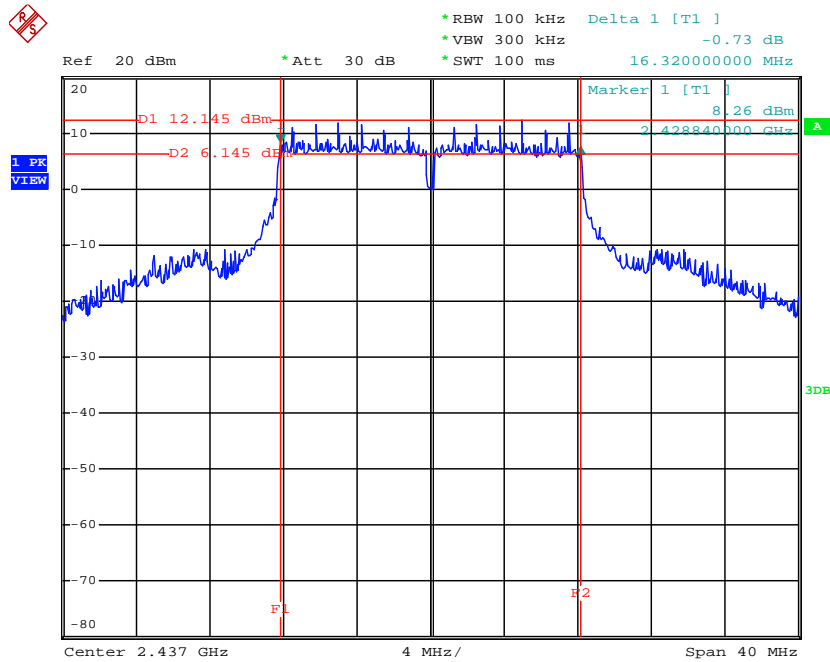
Date: 20.MAR.2015 21:01:48

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.3



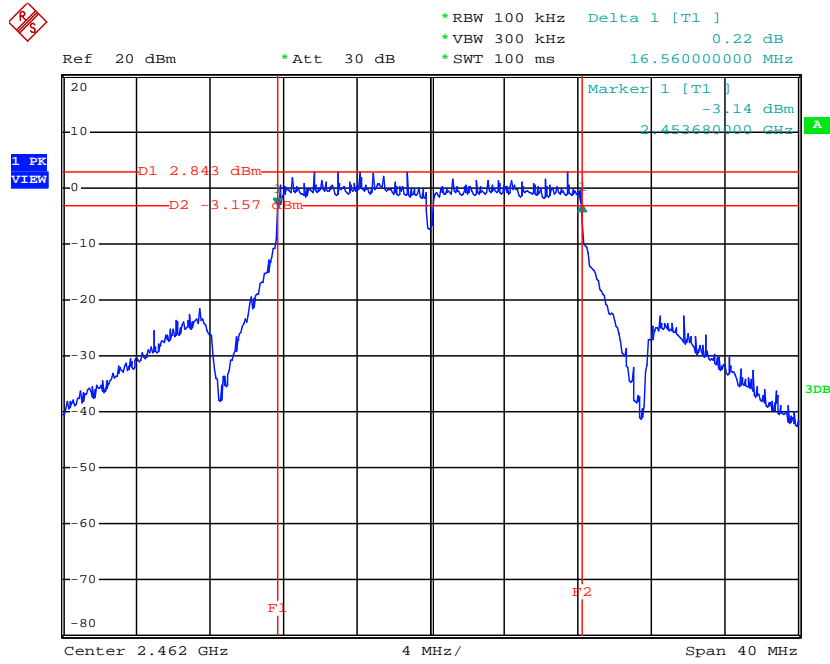
Date: 20.MAR.2015 20:57:05

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.3



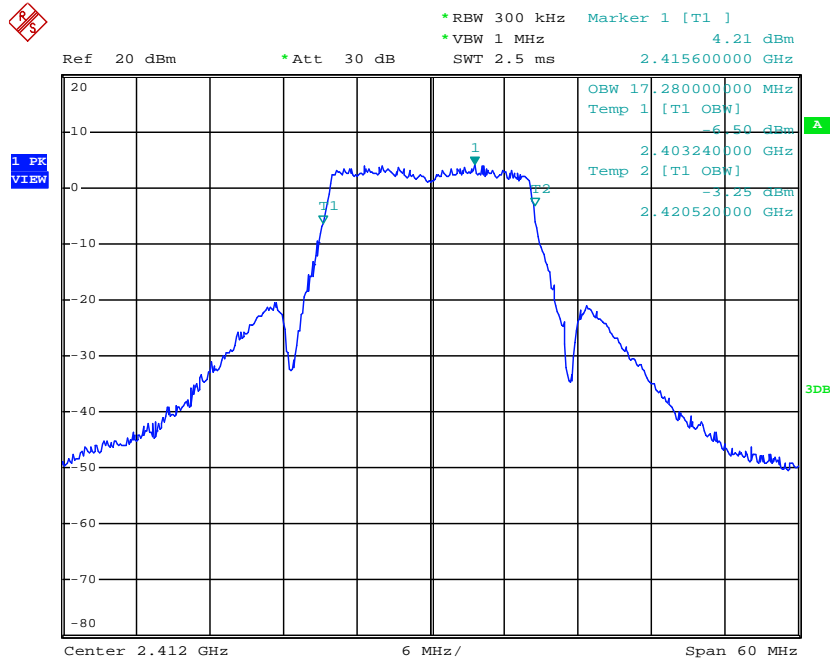
Date: 20.MAR.2015 20:57:57

6 dB Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.3



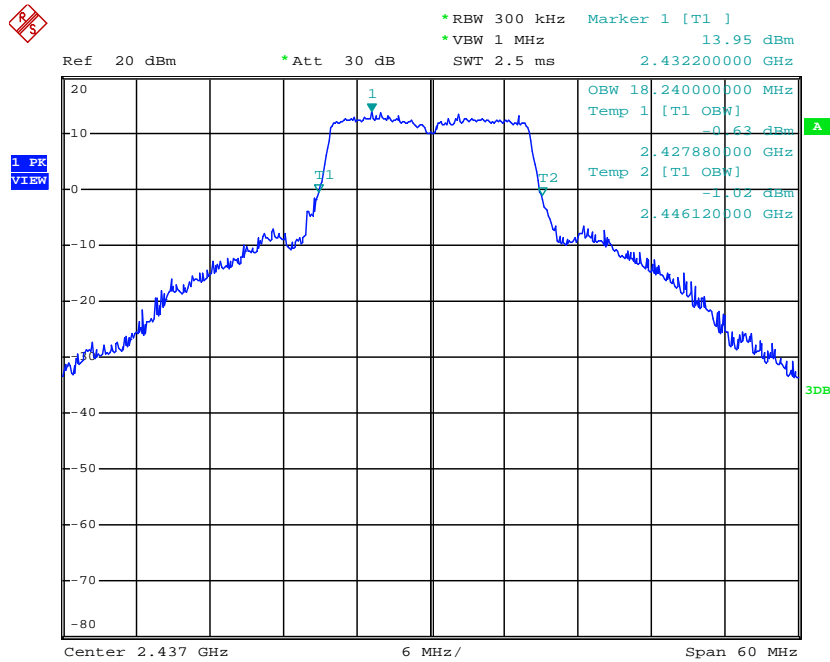
Date: 20.MAR.2015 21:02:43

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.1



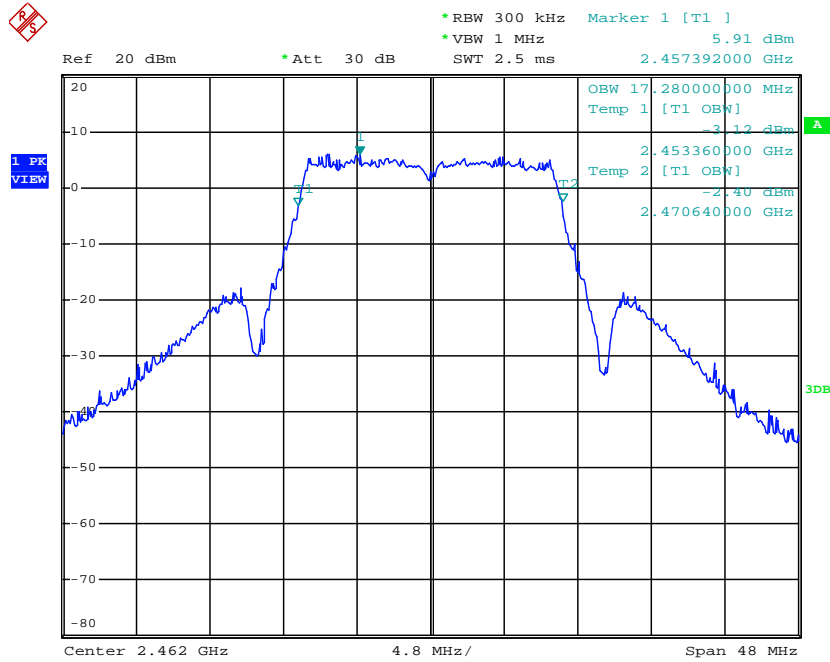
Date: 20.MAR.2015 21:36:06

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.1



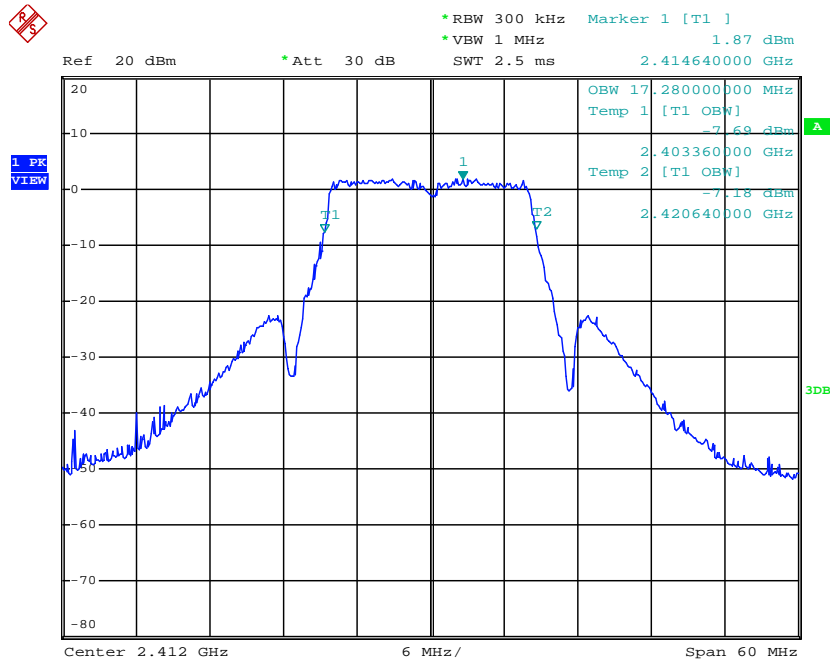
Date: 20.MAR.2015 21:37:19

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.1



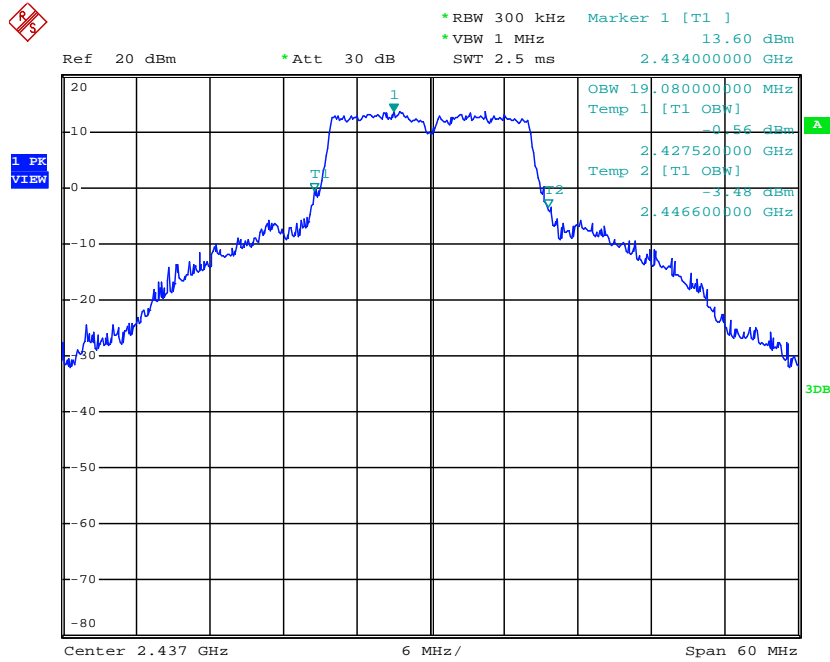
Date: 20.MAR.2015 21:42:29

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.2



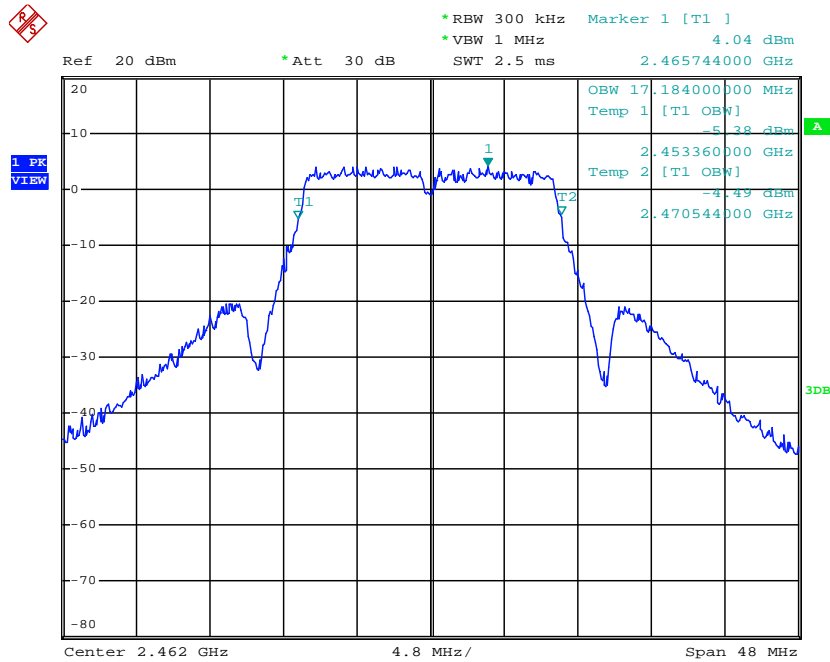
Date: 20.MAR.2015 21:35:19

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.2



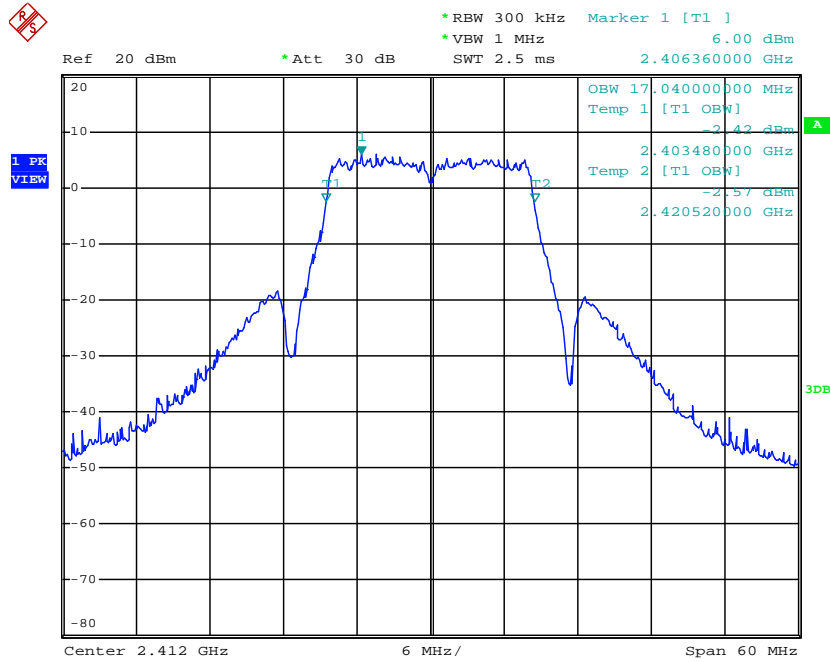
Date: 20.MAR.2015 21:38:05

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



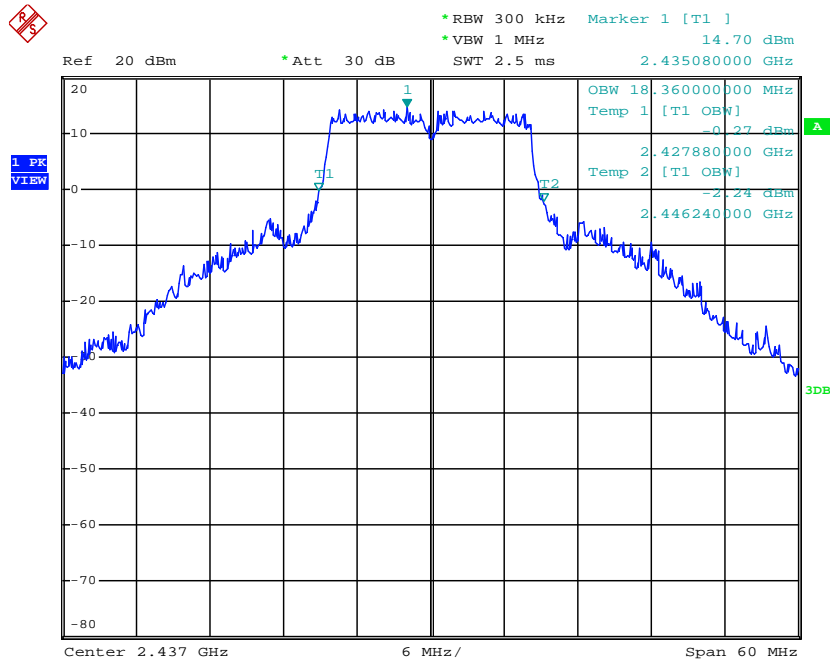
Date: 20.MAR.2015 21:40:53

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 1 / Ant.3



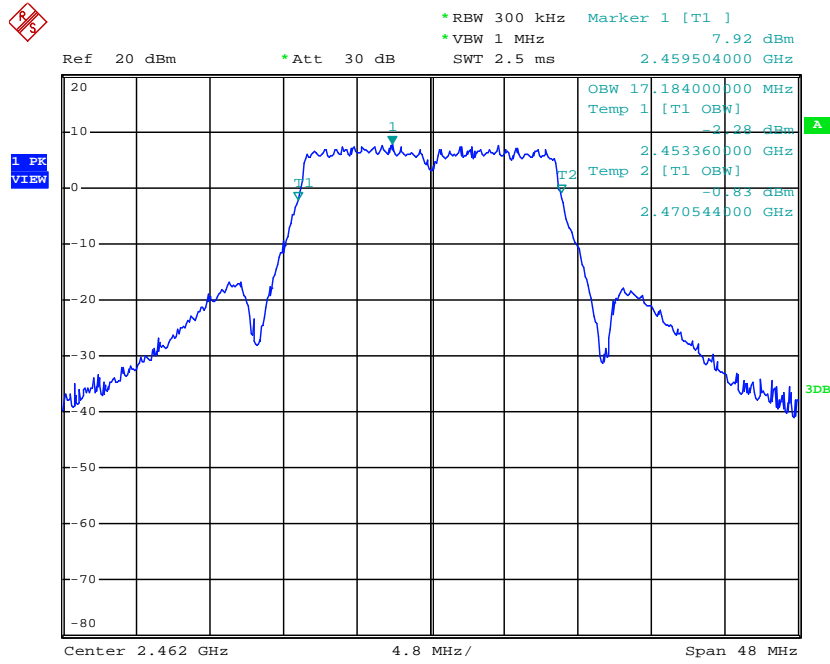
Date: 20.MAR.2015 21:34:05

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 6 / Ant.3



Date: 20.MAR.2015 21:38:22

99% Occupied Bandwidth Plot on Configuration IEEE 802.11g / CH 11 / Ant.3



Date: 20.MAR.2015 21:39:52

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11n 20MHz
Duty Cycle	Ant.2: 98.47% 1S3T, CDD : 98.97%		

Configuration IEEE 802.11n 20MHz

<MCS0, Ant.2>

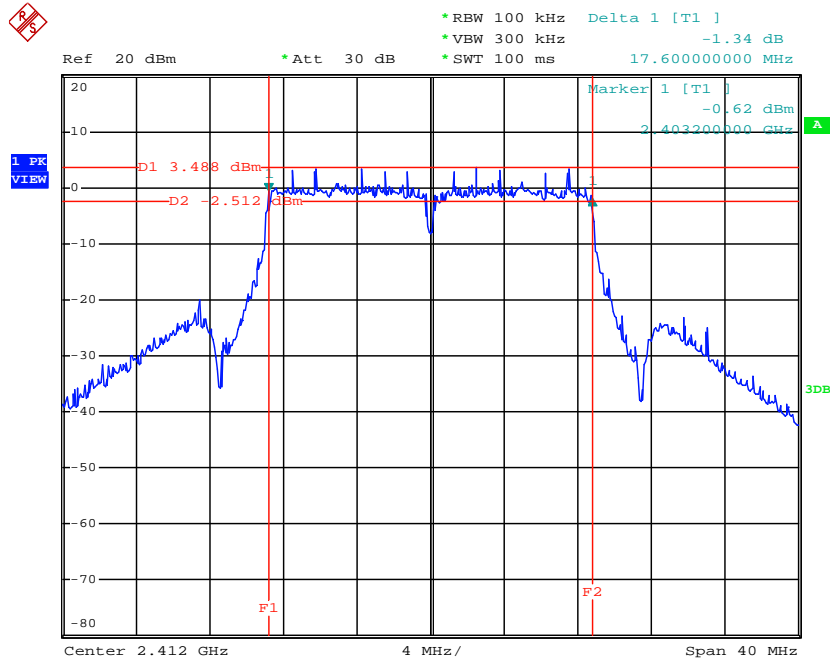
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Max. Limit (kHz)	Result
1	2412 MHz	17.60	18.24	500	Complies
6	2437 MHz	17.60	18.48	500	Complies
11	2462 MHz	17.60	18.24	500	Complies

<MCS 0, 1S3T, CDD >

Channel	Frequency	6dB Bandwidth (MHz)			99% Occupied Bandwidth (MHz)			Max. Limit (kHz)	Result
		Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3		
1	2412 MHz	17.60	17.60	17.60	18.05	18.05	18.05	500	Complies
6	2437 MHz	17.60	17.60	17.60	18.43	18.24	18.62	500	Complies
11	2462 MHz	17.60	17.60	17.60	18.14	17.95	18.05	500	Complies

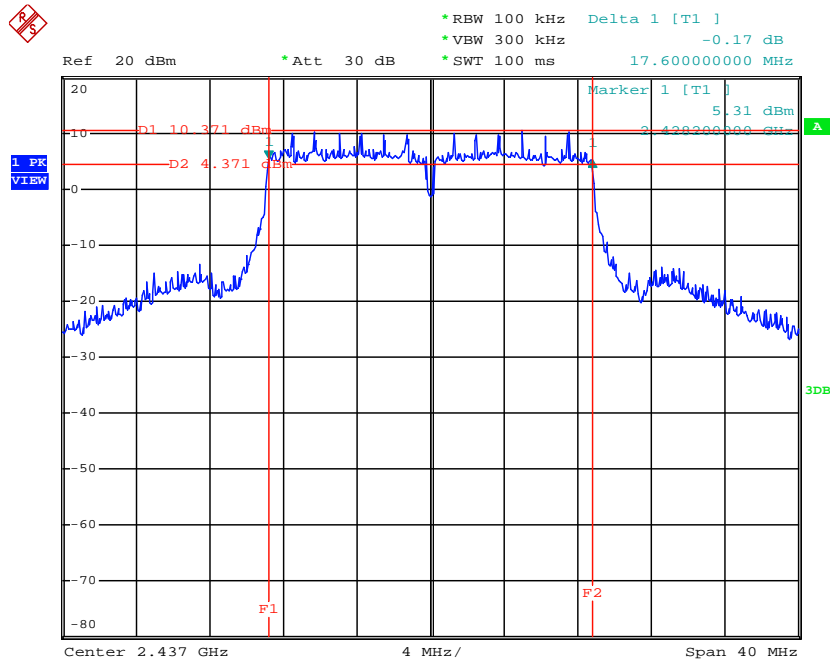
For <Ant. 2>

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH1 / Ant.2



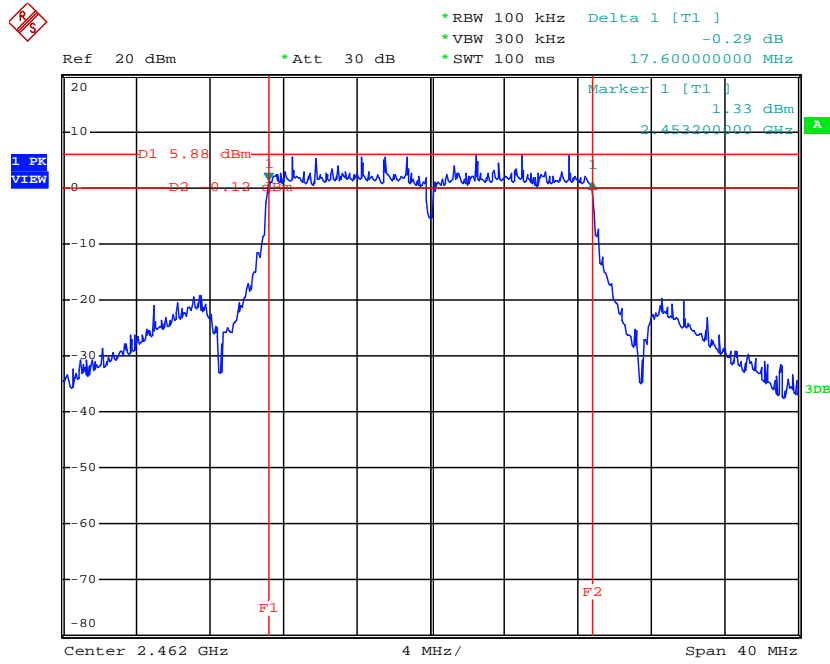
Date: 20.MAR.2015 23:54:07

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.2



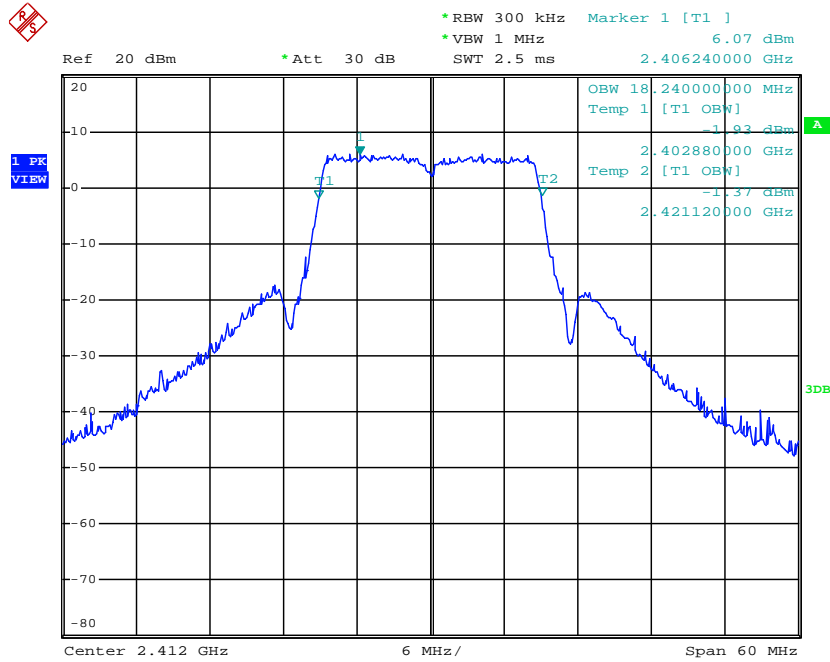
Date: 20.MAR.2015 23:54:43

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.2



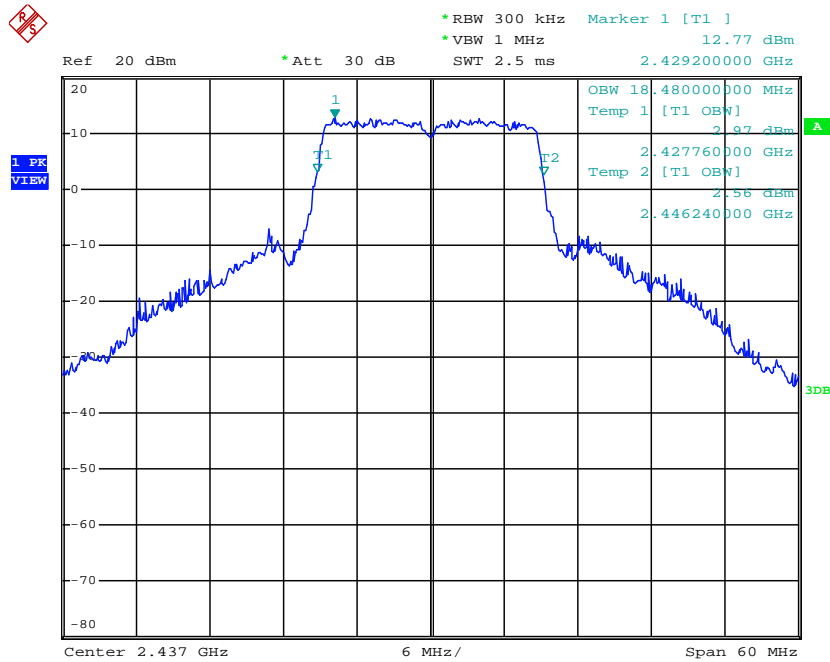
Date: 20.MAR.2015 23:56:46

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH1 / Ant.2



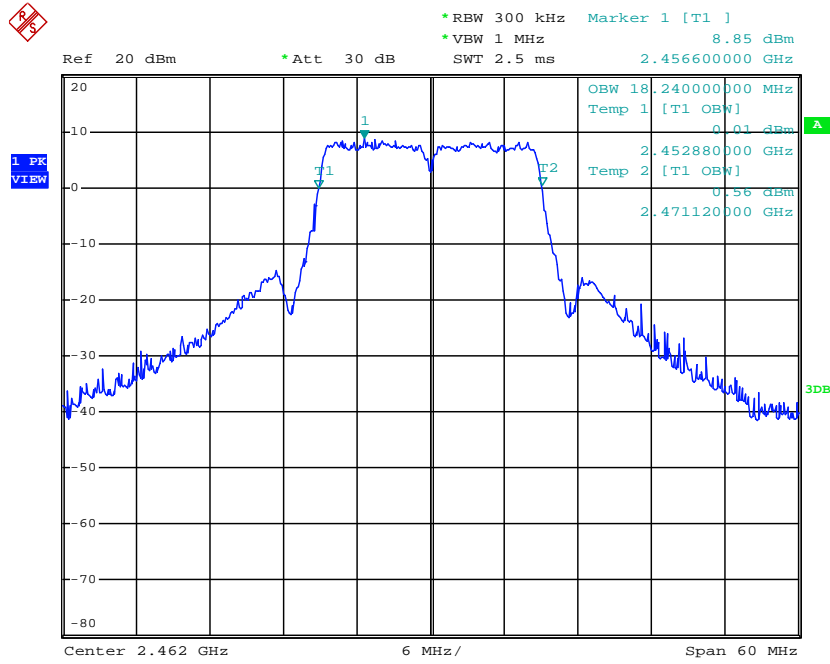
Date: 21.MAR.2015 00:06:31

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.2



Date: 21.MAR.2015 00:07:14

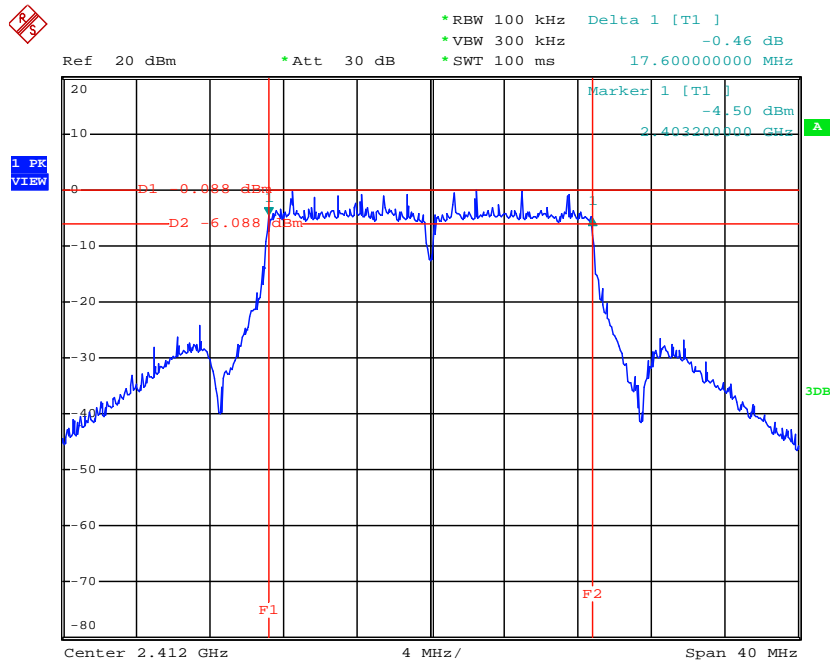
99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.2



Date: 21.MAR.2015 00:07:59

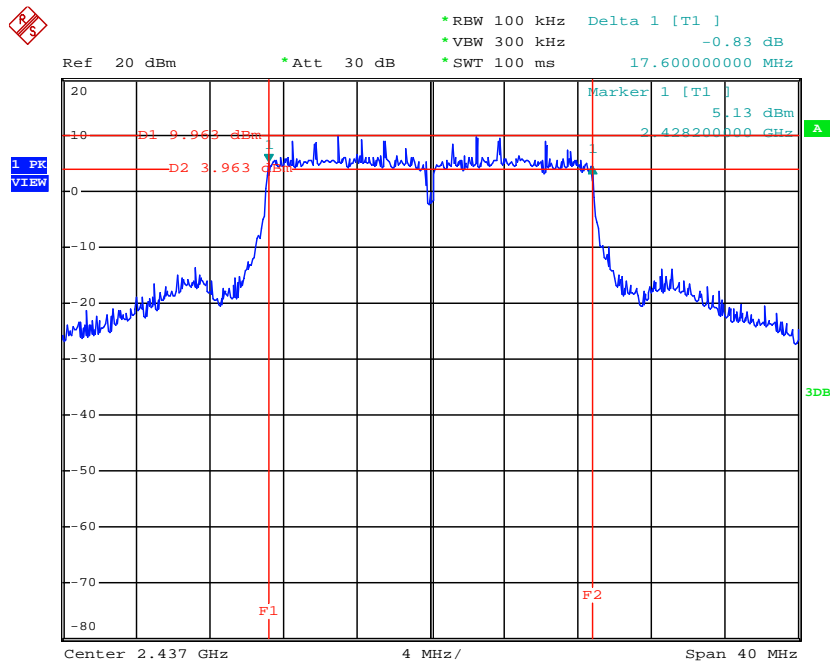
<MCS0, 1S3T, CDD >

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.1



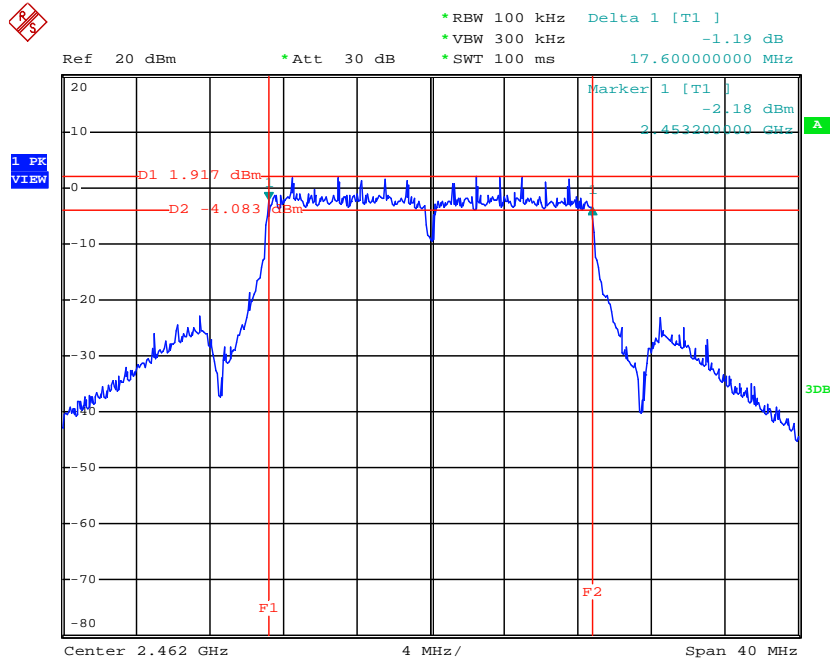
Date: 20.MAR.2015 21:05:32

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.1



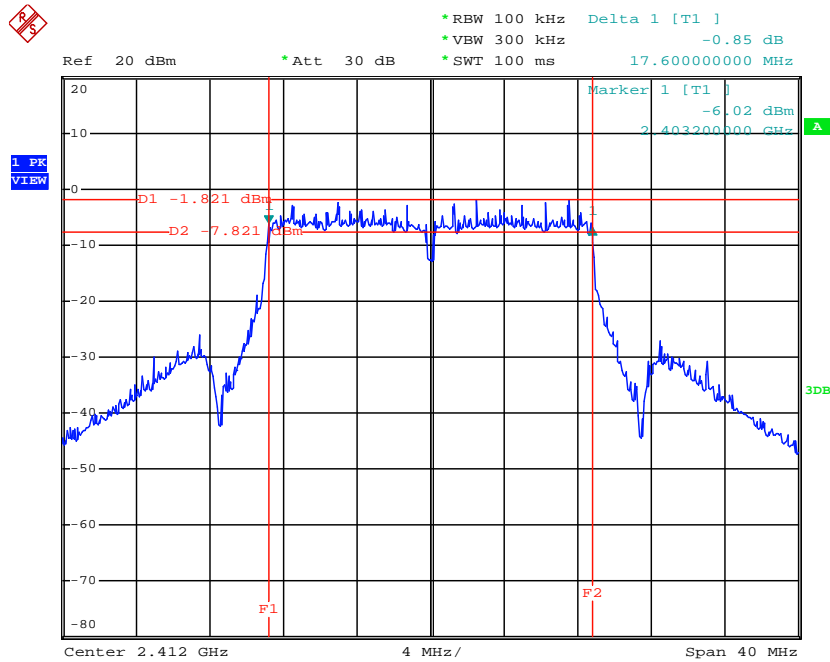
Date: 20.MAR.2015 21:06:28

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.1



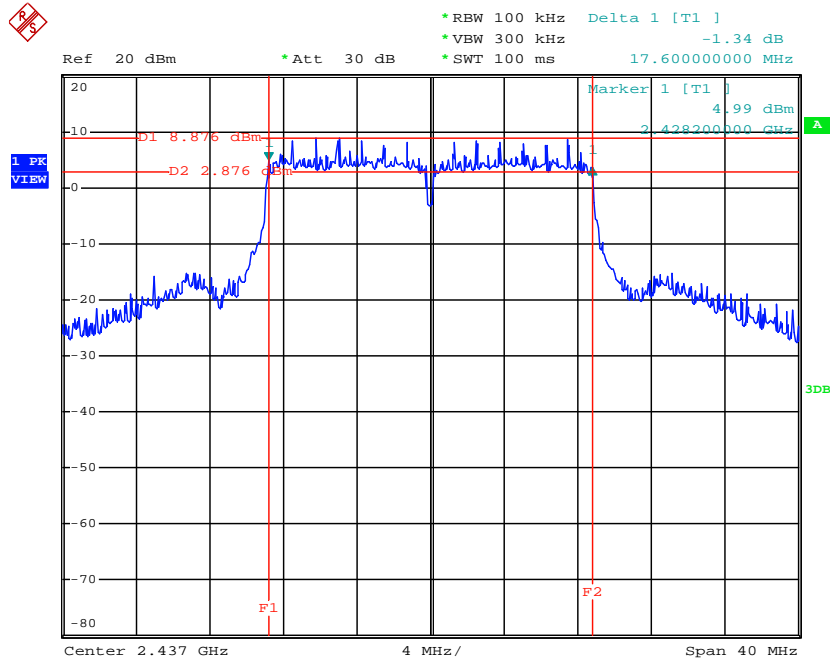
Date: 20.MAR.2015 21:11:39

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.2



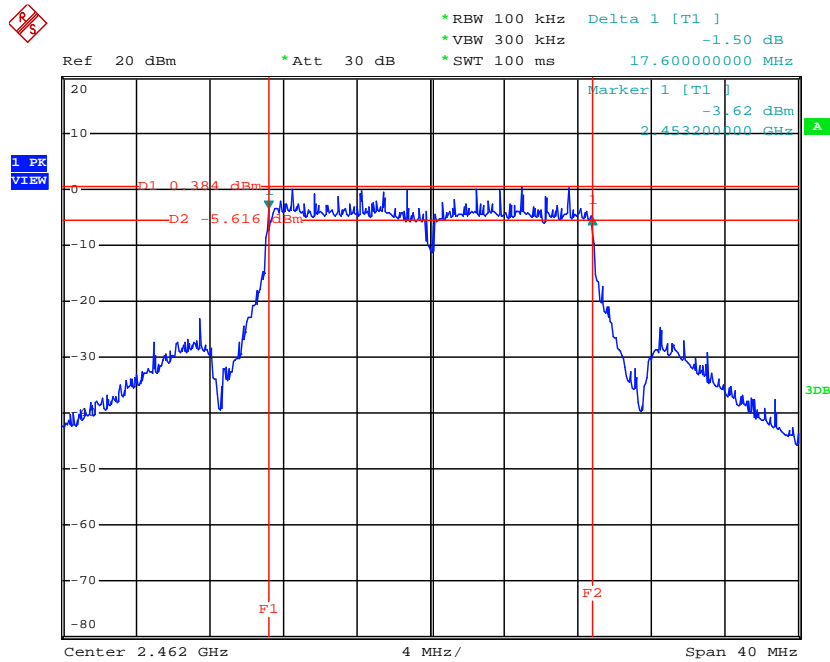
Date: 20.MAR.2015 21:04:33

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.2



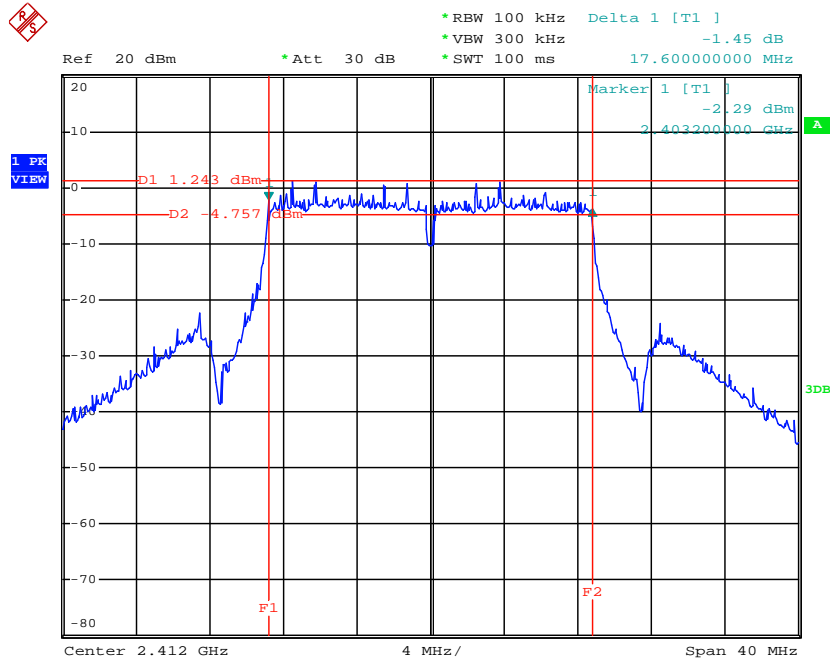
Date: 20.MAR.2015 21:08:33

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.2



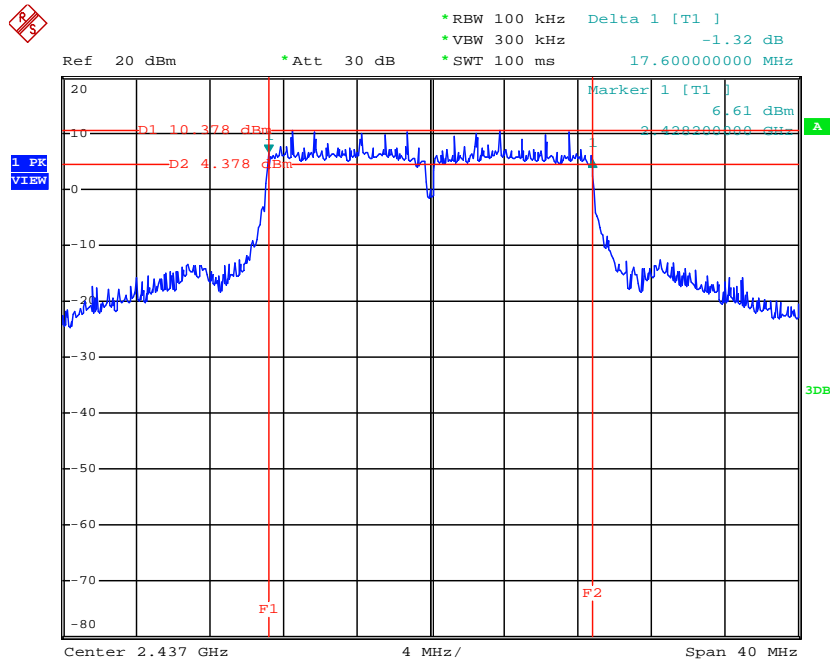
Date: 20.MAR.2015 21:10:52

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.3



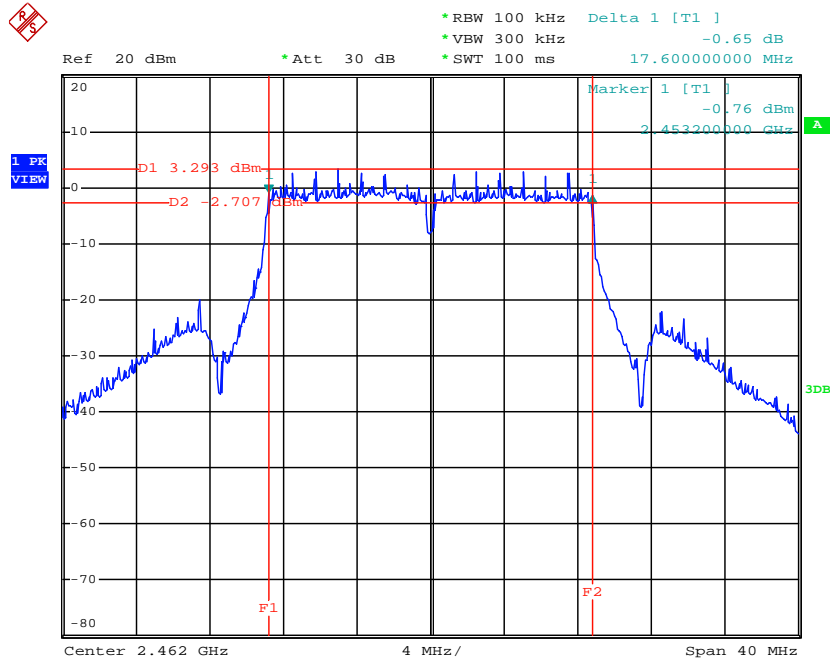
Date: 20.MAR.2015 21:03:51

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.3



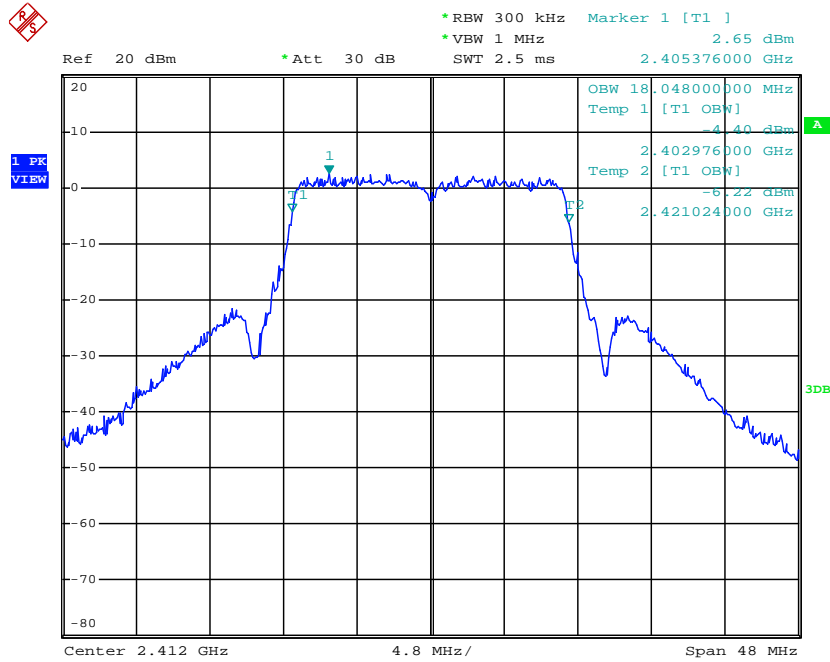
Date: 20.MAR.2015 21:09:16

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.3



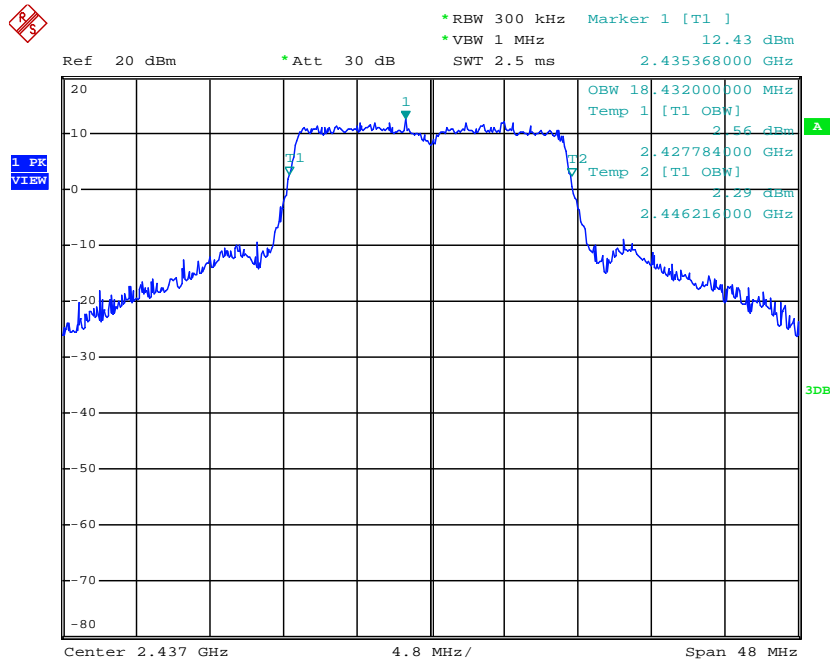
Date: 20.MAR.2015 21:10:09

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.1



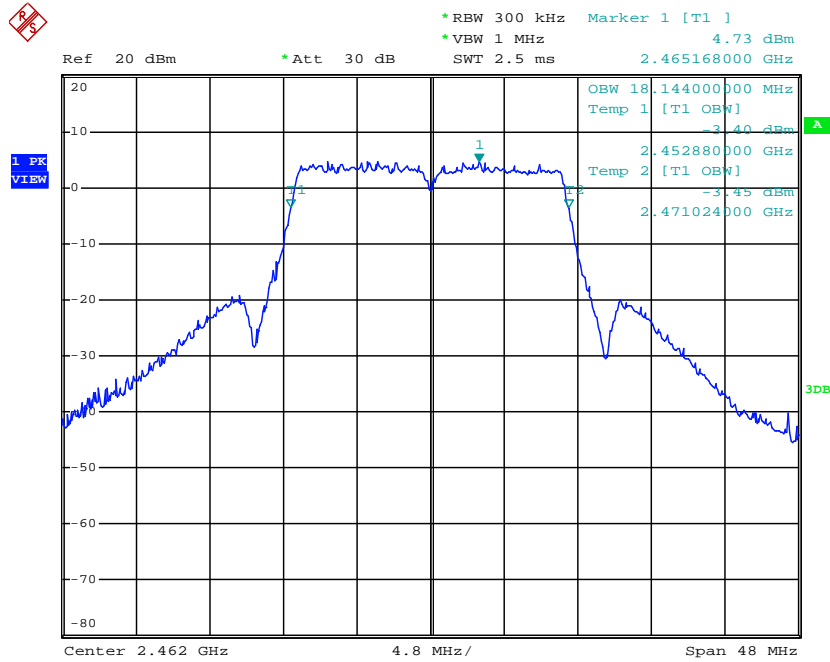
Date: 20.MAR.2015 21:43:29

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.1



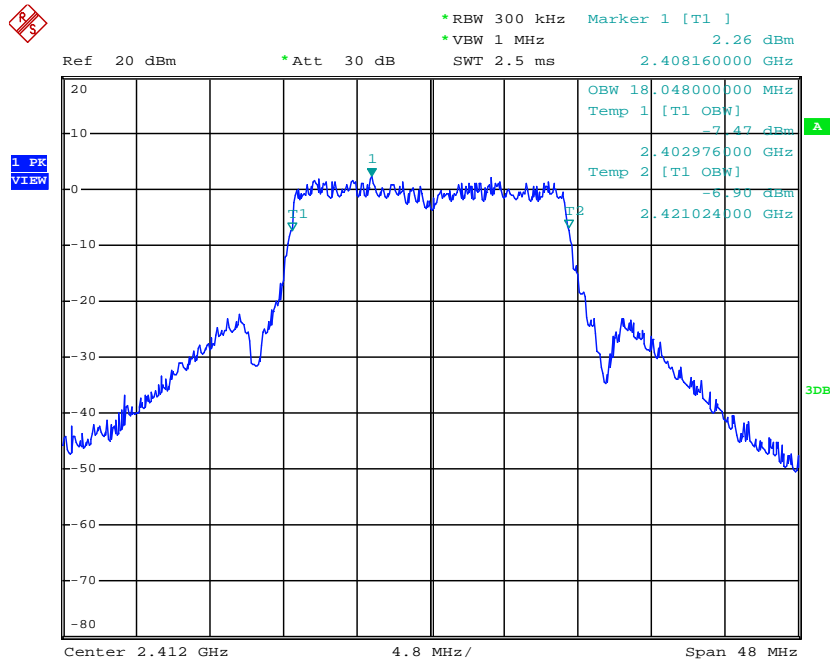
Date: 20.MAR.2015 21:47:02

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.1



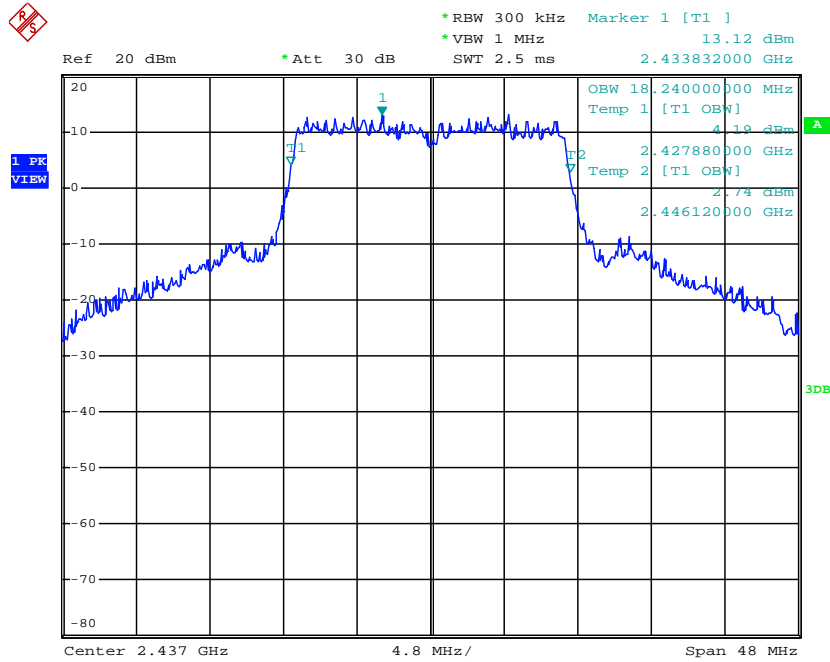
Date: 20.MAR.2015 21:48:01

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.2



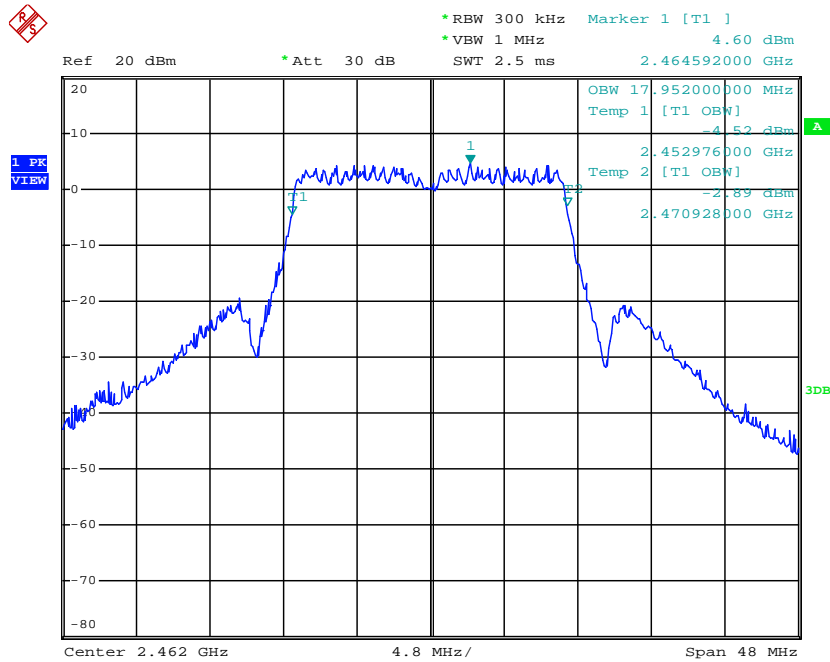
Date: 20.MAR.2015 21:44:04

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.2



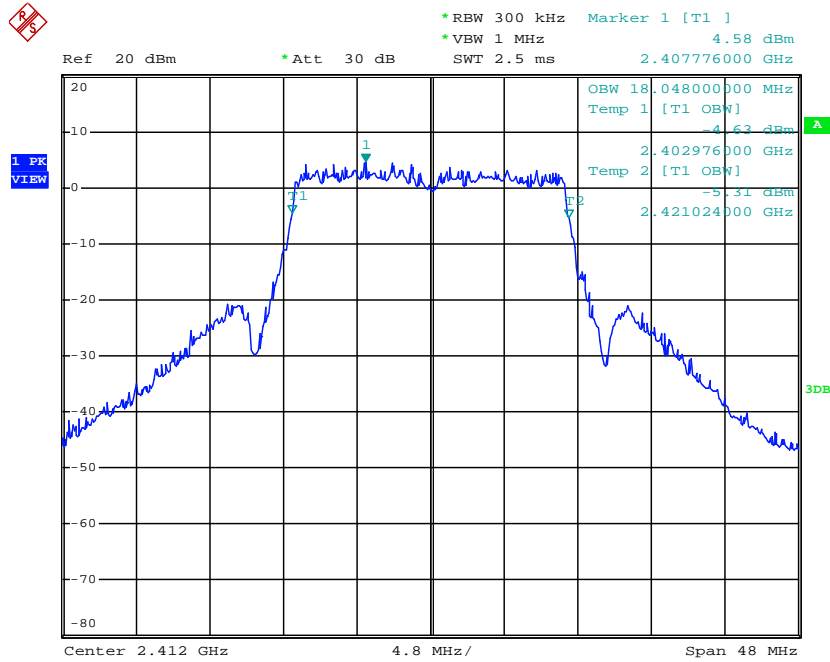
Date: 20.MAR.2015 21:46:23

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.2



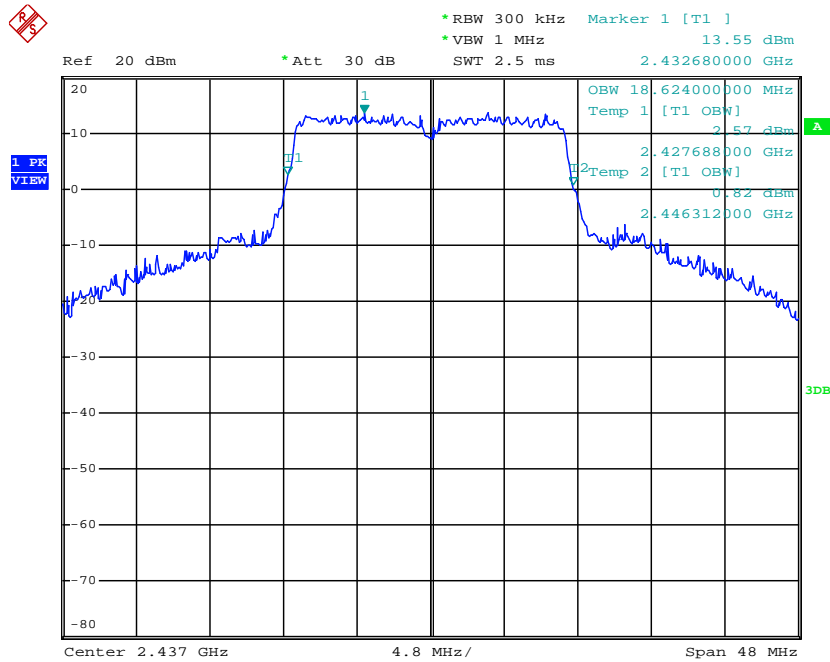
Date: 20.MAR.2015 21:49:31

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 1 / Ant.3



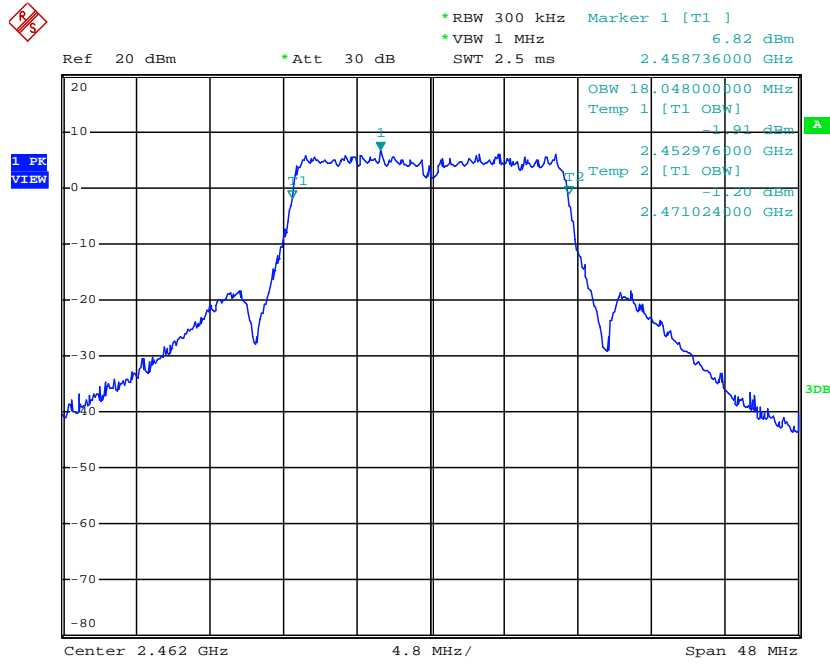
Date: 20.MAR.2015 21:44:23

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 6 / Ant.3



Date: 20.MAR.2015 21:45:34

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 20MHz MCS0 / CH 11 / Ant.3



Date: 20.MAR.2015 21:50:22

Final Test Date	Mar. 20, 2015 ~ Mar. 21, 2015	Test Site No.	TH01-CB
Temperature	20°C	Humidity	60%
Test Engineer	Nick Peng, Clemens Fang	Configurations	802.11n 40MHz
Duty Cycle	Ant.2: 94.33% 1S3T, CDD : 94.96%		

Configuration IEEE 802.11n 40MHz

<MCS0, Ant.2>

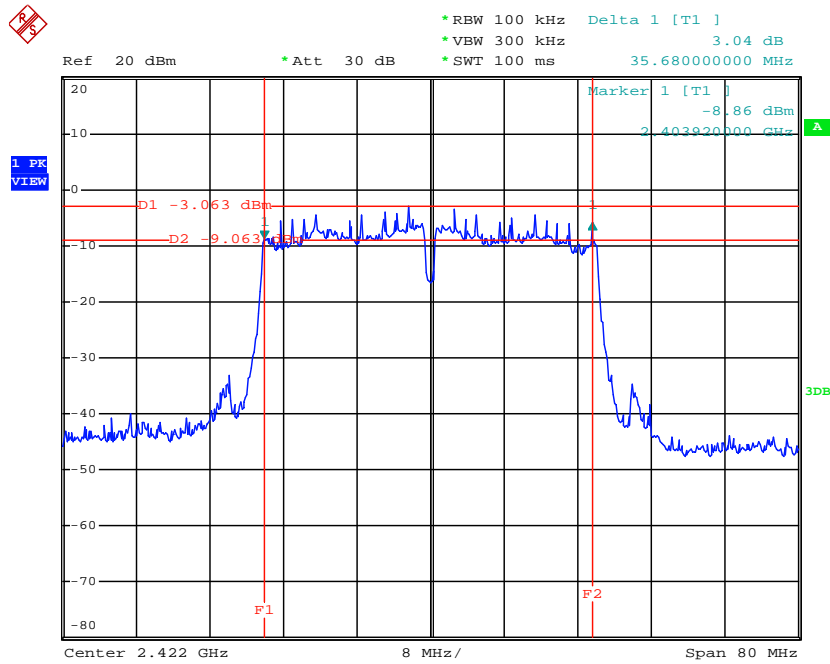
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Max. Limit (kHz)	Result
3	2422 MHz	35.68	37.00	500	Complies
6	2437 MHz	35.84	37.00	500	Complies
9	2452 MHz	36.48	37.00	500	Complies

<MCS 0, 1S3T, CDD >

Channel	Frequency	6dB Bandwidth (MHz)			99% Occupied Bandwidth (MHz)			Max. Limit (kHz)	Result
		Ant 1	Ant 2	Ant 3	Ant 1	Ant 2	Ant 3		
3	2422 MHz	36.00	36.48	36.48	37.00	37.20	36.80	500	Complies
6	2437 MHz	35.68	36.32	36.32	36.80	37.00	36.80	500	Complies
9	2452 MHz	36.00	36.48	35.84	36.80	36.80	36.80	500	Complies

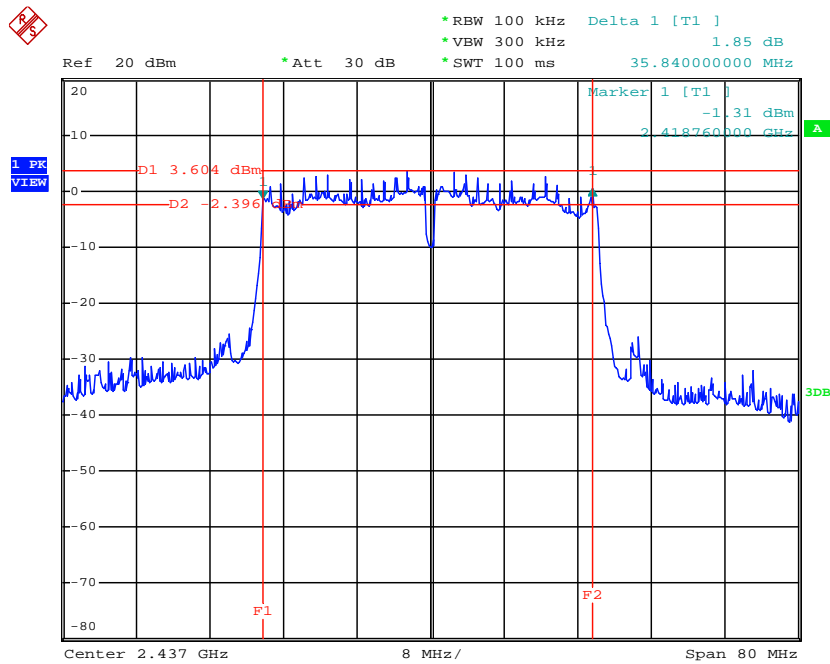
For <Ant. 2>

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH3 / Ant.2



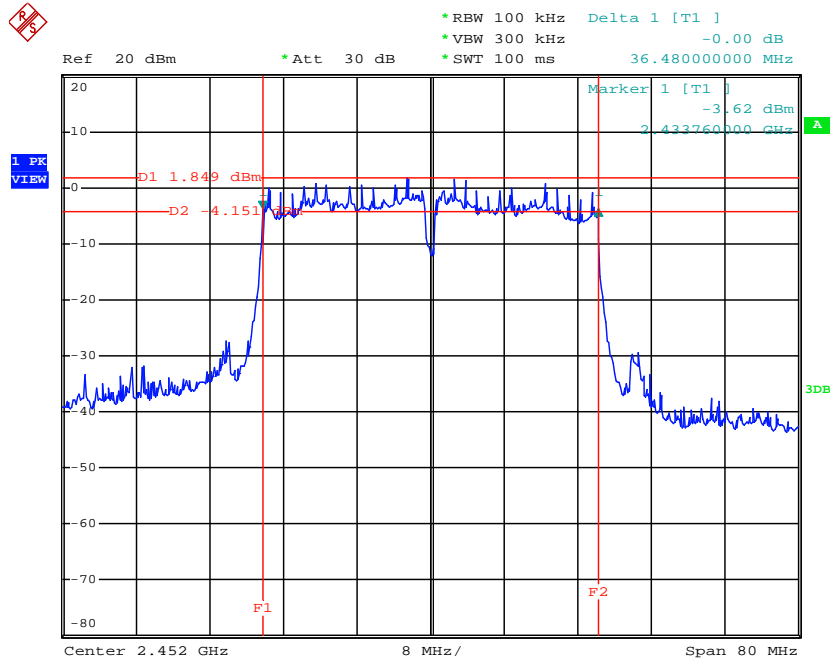
Date: 20.MAR.2015 23:57:55

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant.2



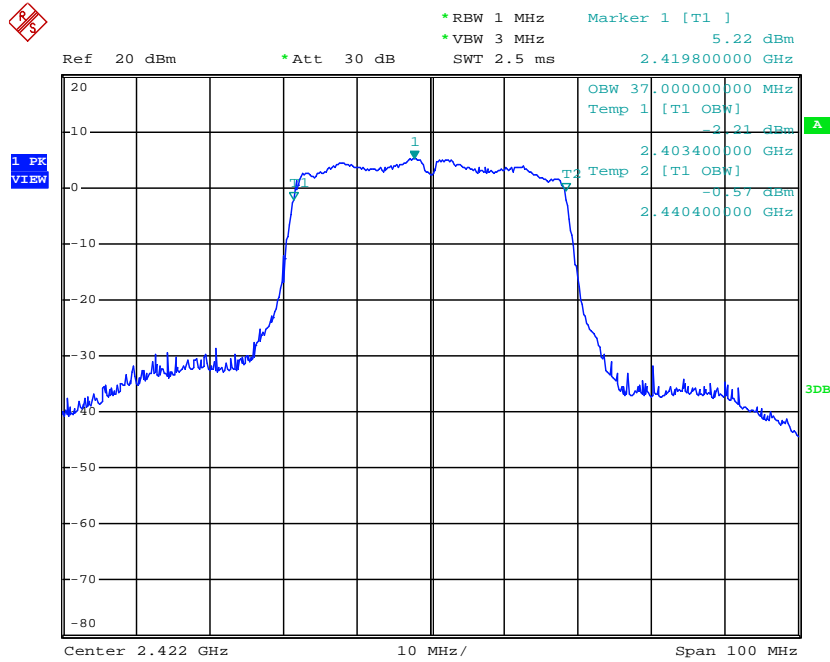
Date: 20.MAR.2015 23:58:43

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant.2



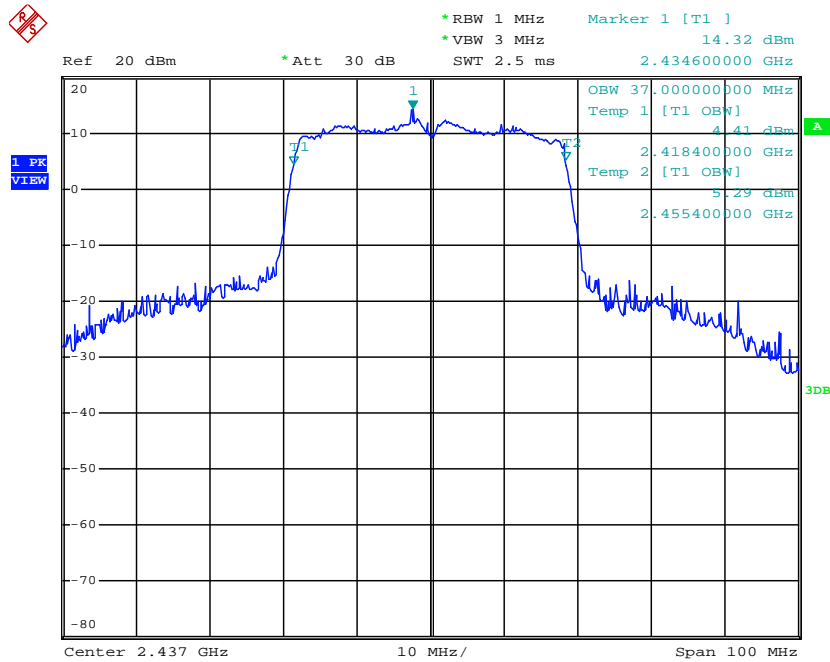
Date: 20.MAR.2015 23:59:24

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH3 / Ant.2



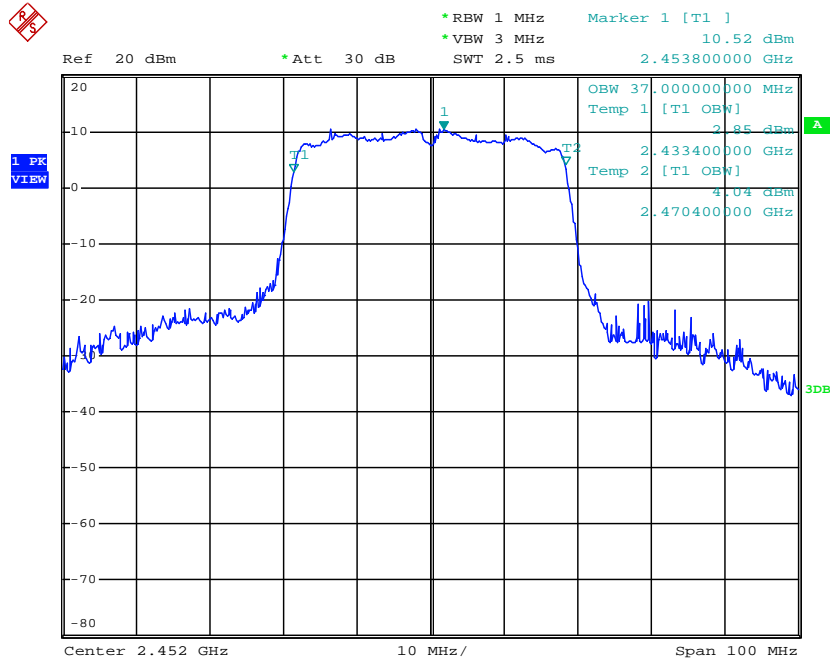
Date: 21.MAR.2015 00:09:09

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant.2



Date: 21.MAR.2015 00:10:38

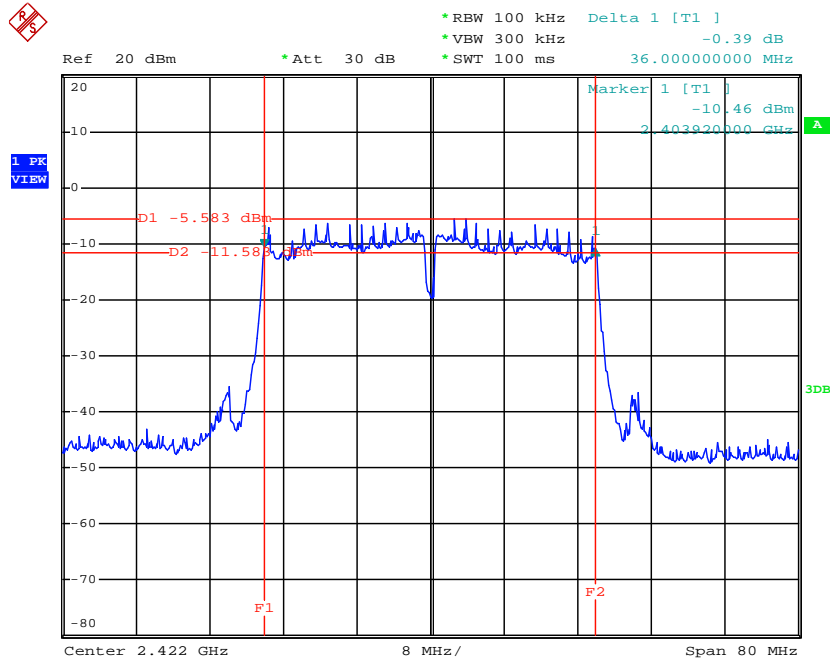
99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant.2



Date: 21.MAR.2015 00:11:22

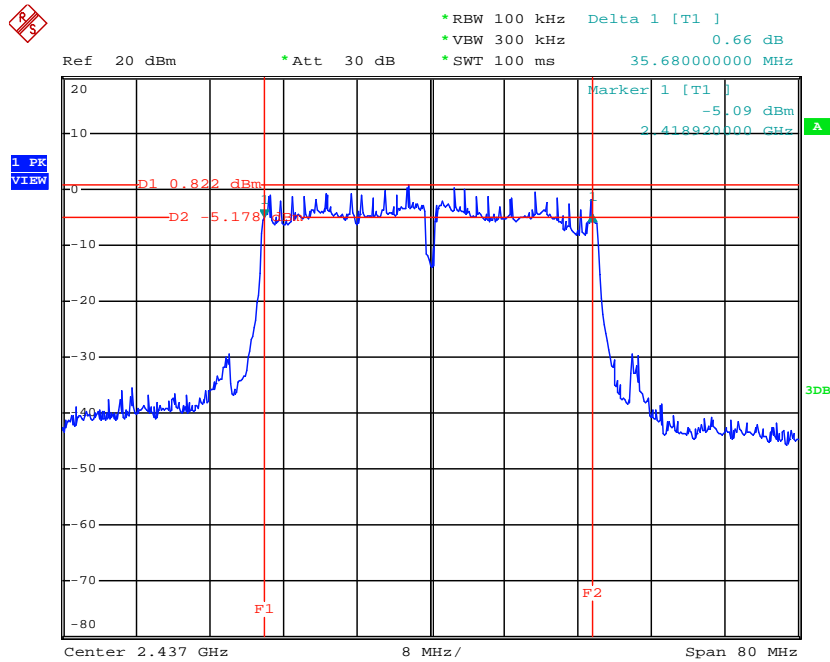
<MCS0, 1S3T, CDD >

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant. 1



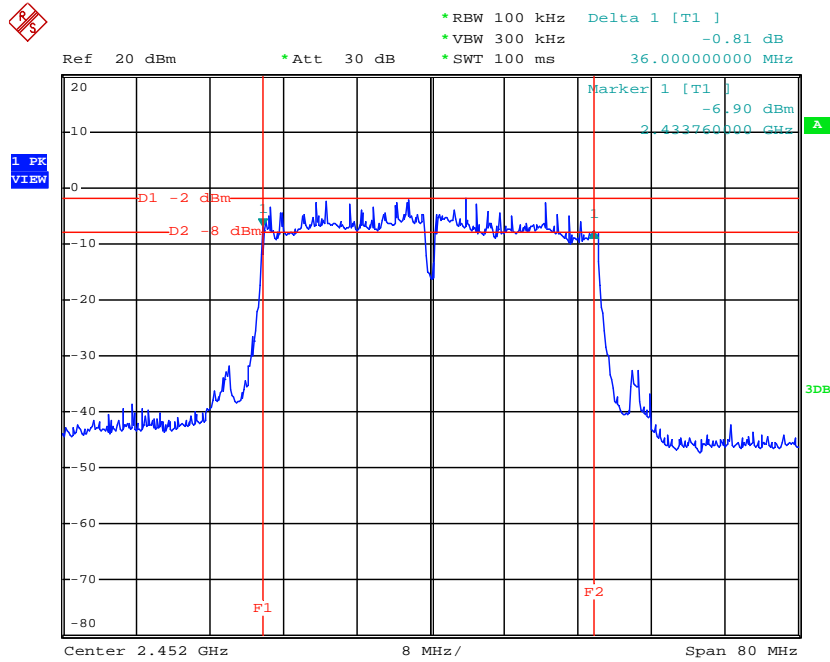
Date: 20.MAR.2015 21:13:16

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant. 1



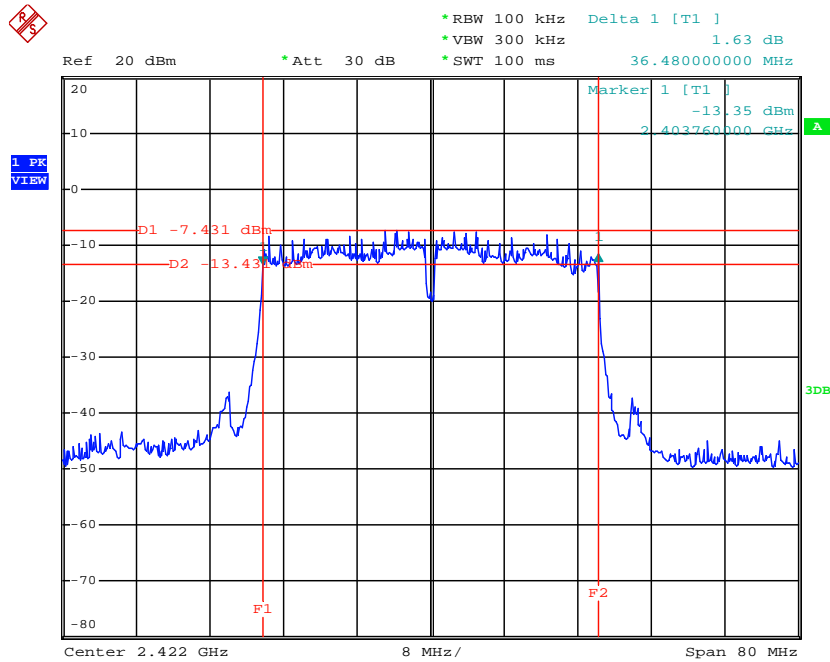
Date: 20.MAR.2015 21:17:53

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant. 1



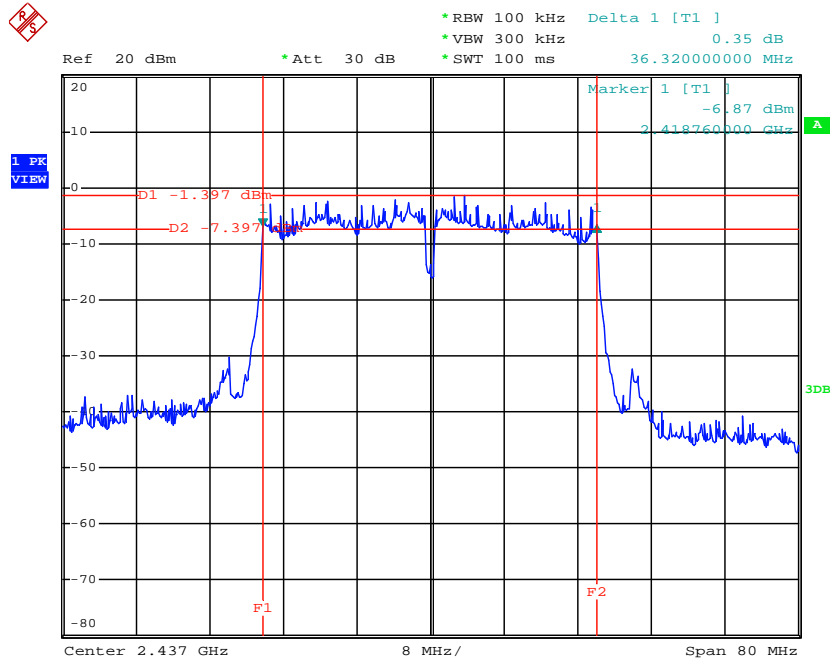
Date: 20.MAR.2015 21:19:09

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant. 2



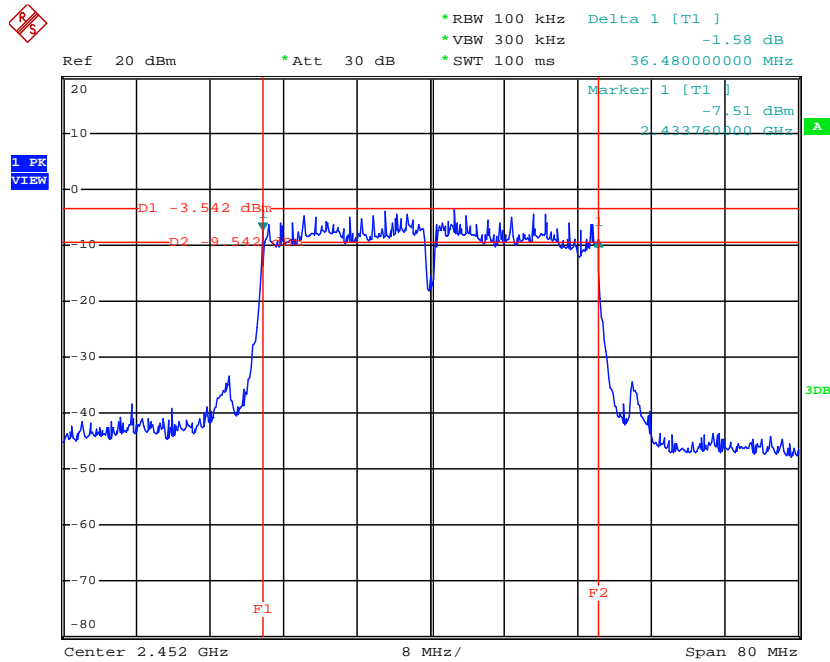
Date: 20.MAR.2015 21:14:25

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant. 2



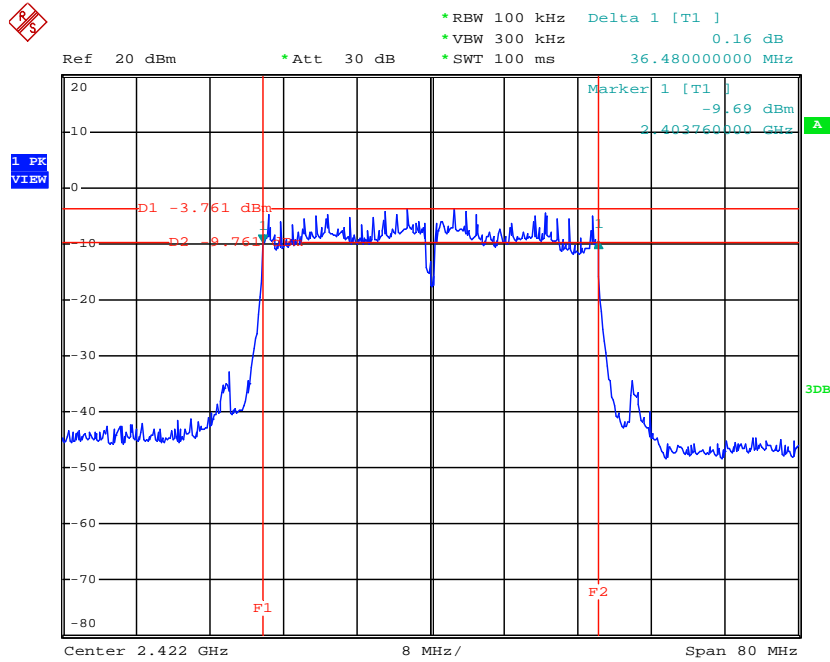
Date: 20.MAR.2015 21:17:02

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant. 2



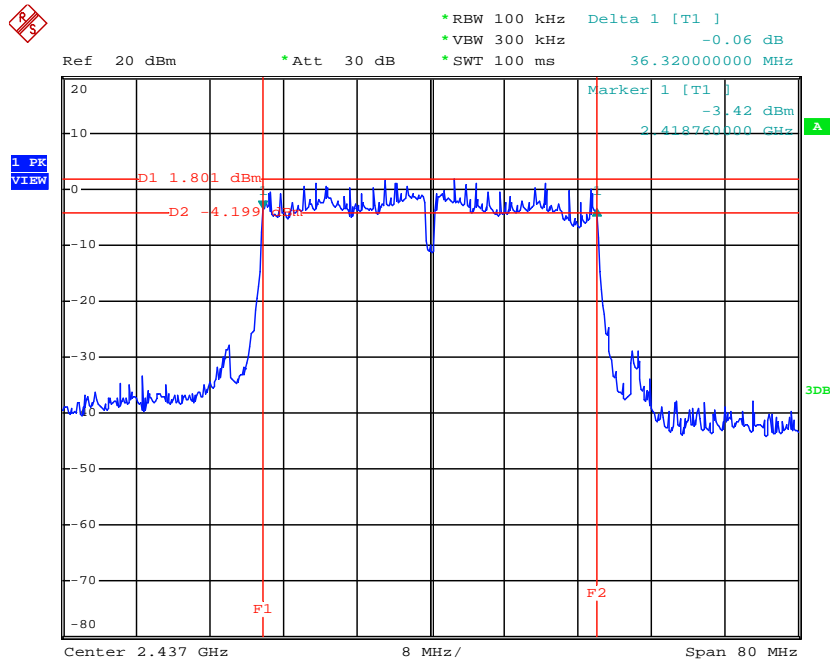
Date: 20.MAR.2015 21:20:36

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant. 3



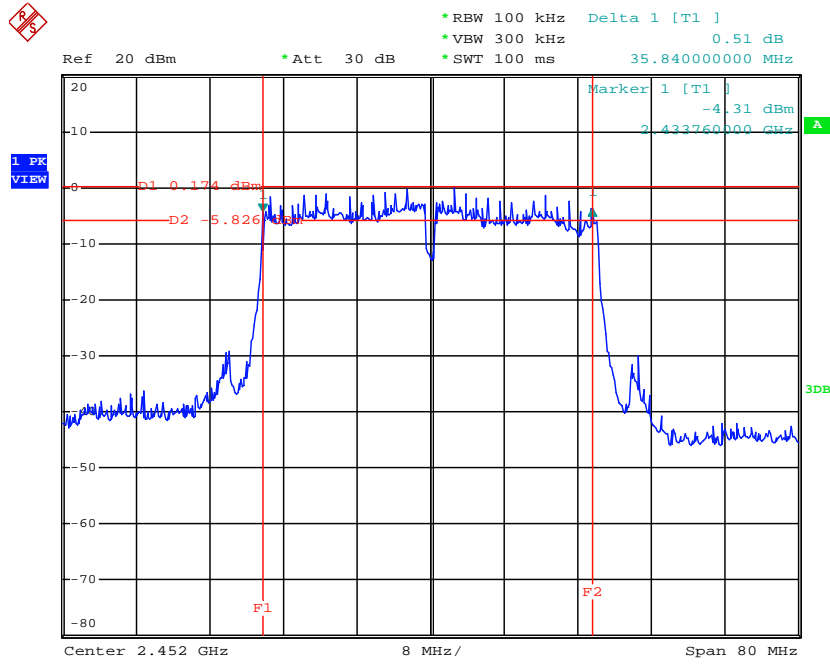
Date: 20.MAR.2015 21:15:06

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant. 3



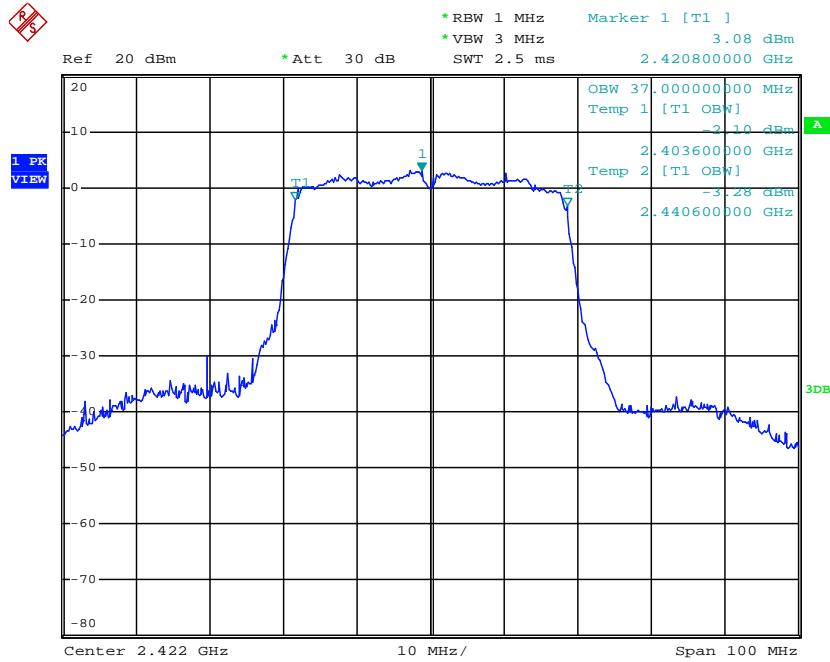
Date: 20.MAR.2015 21:16:11

6 dB Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant. 3



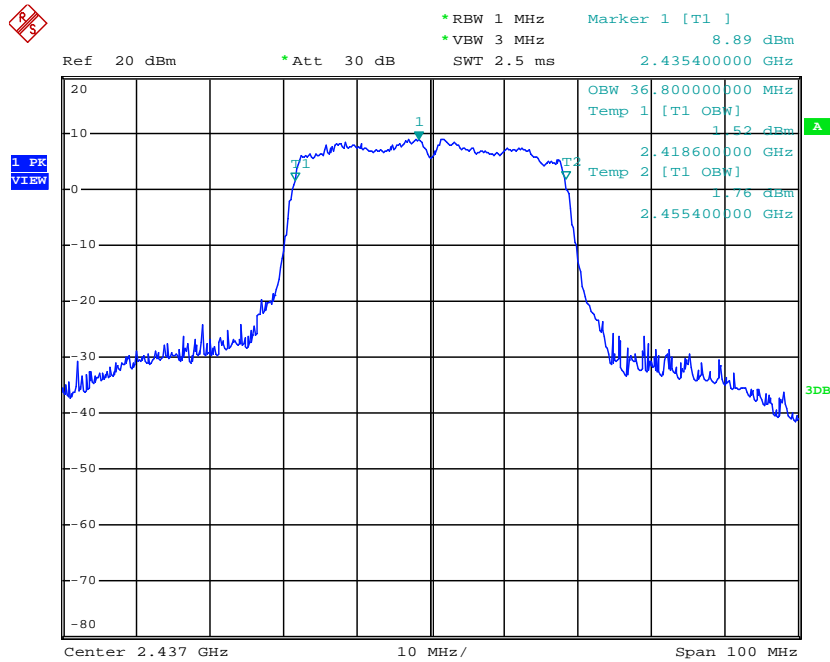
Date: 20.MAR.2015 21:21:27

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant. 1



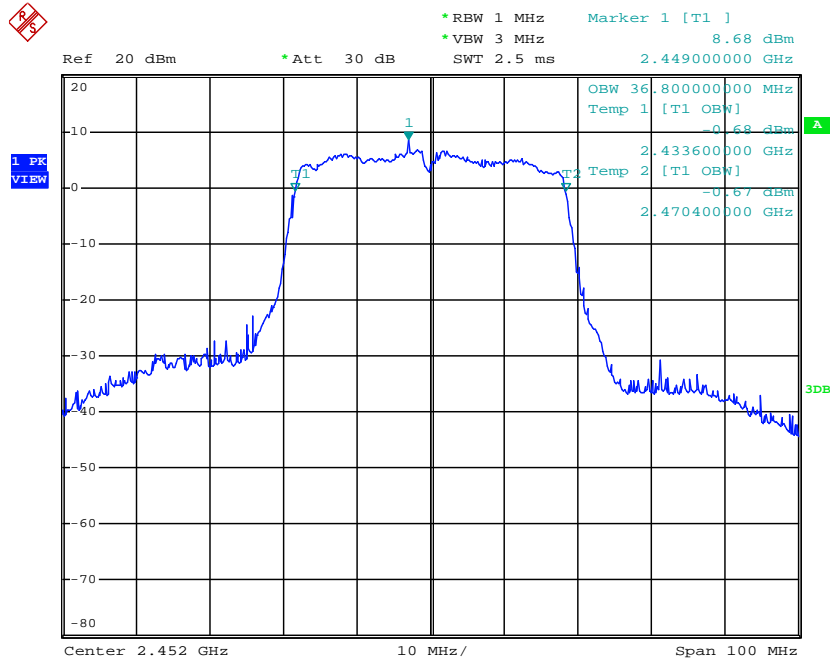
Date: 20.MAR.2015 21:52:50

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant. 1



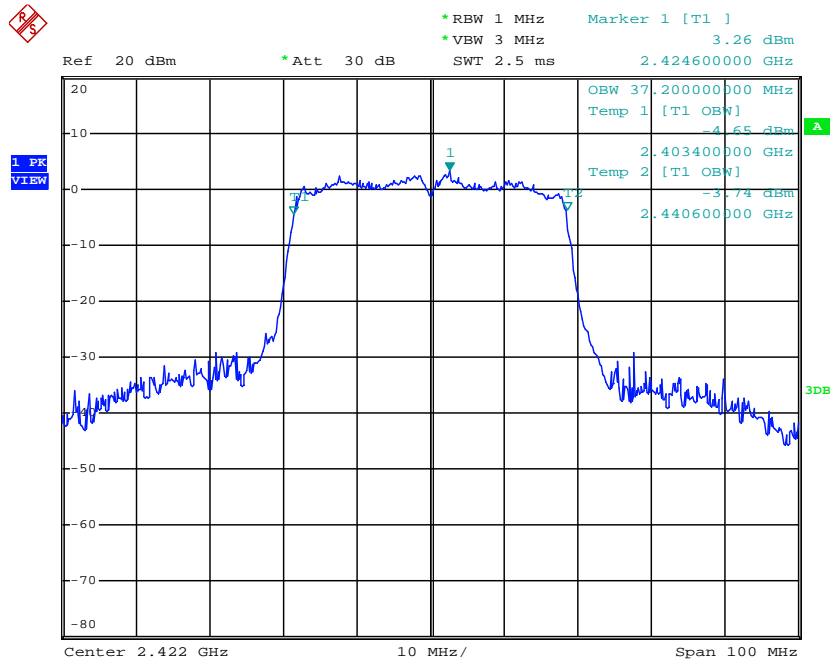
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99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant. 1



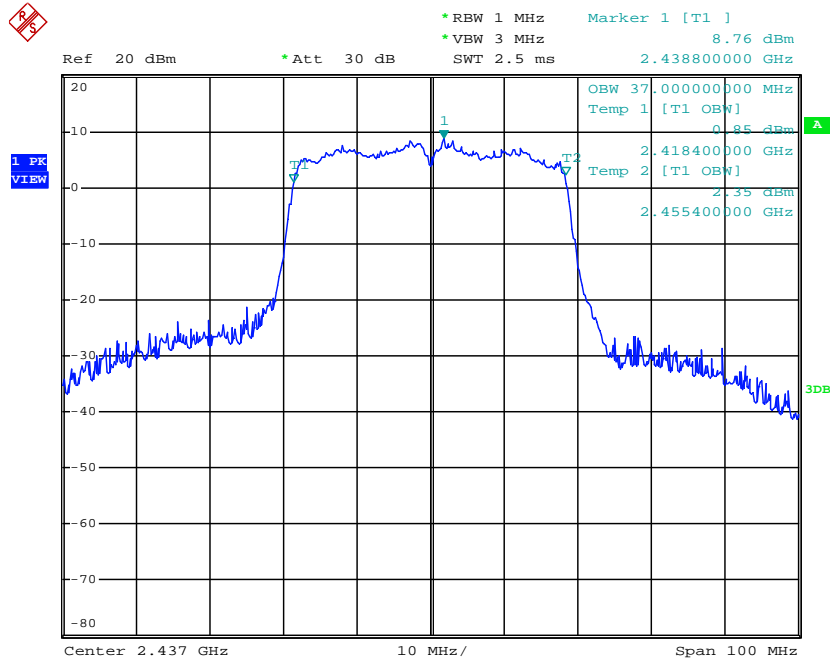
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99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant. 2



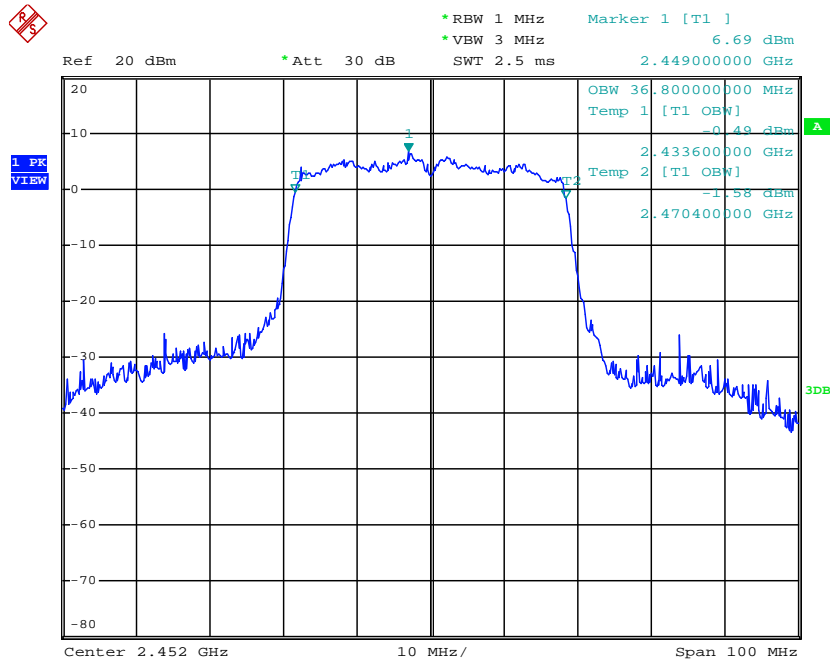
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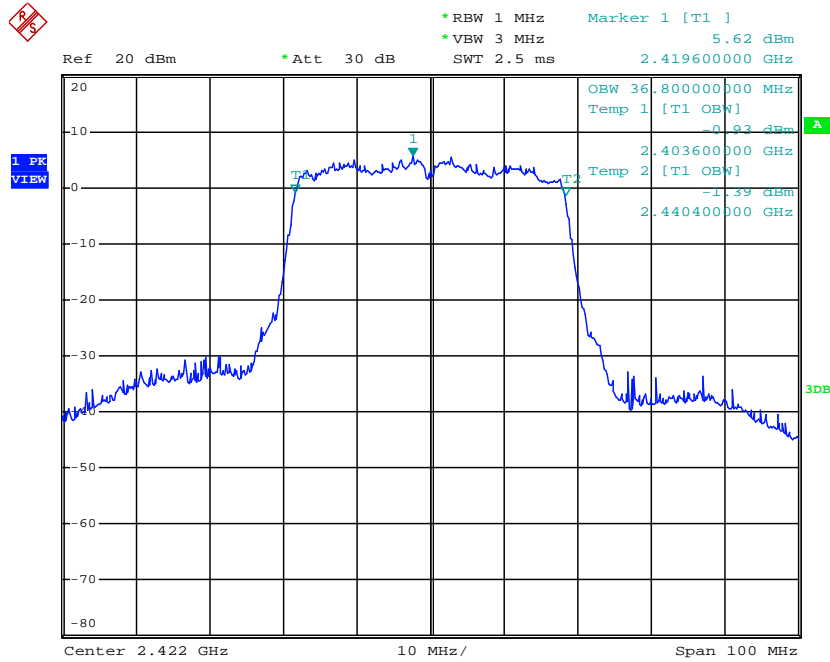
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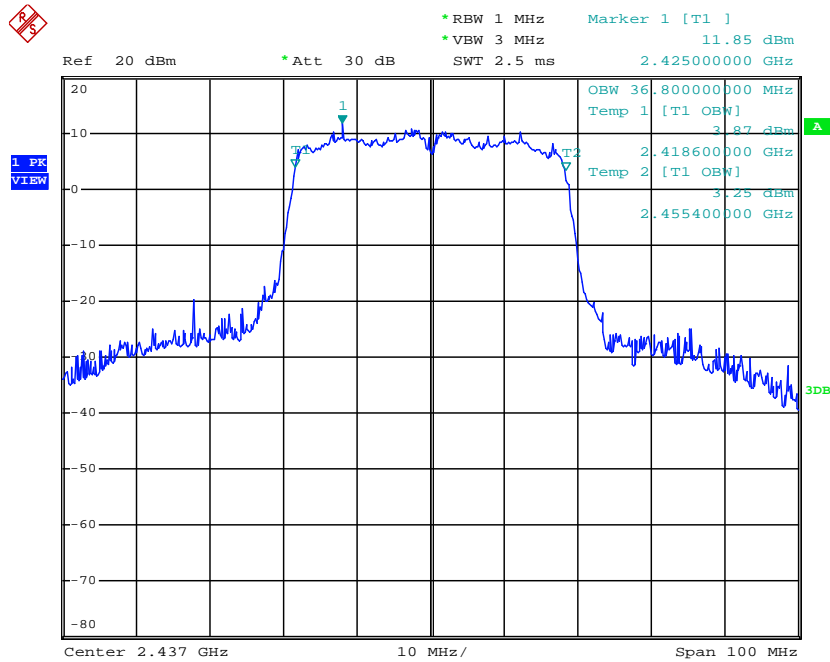
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99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 3 / Ant. 3



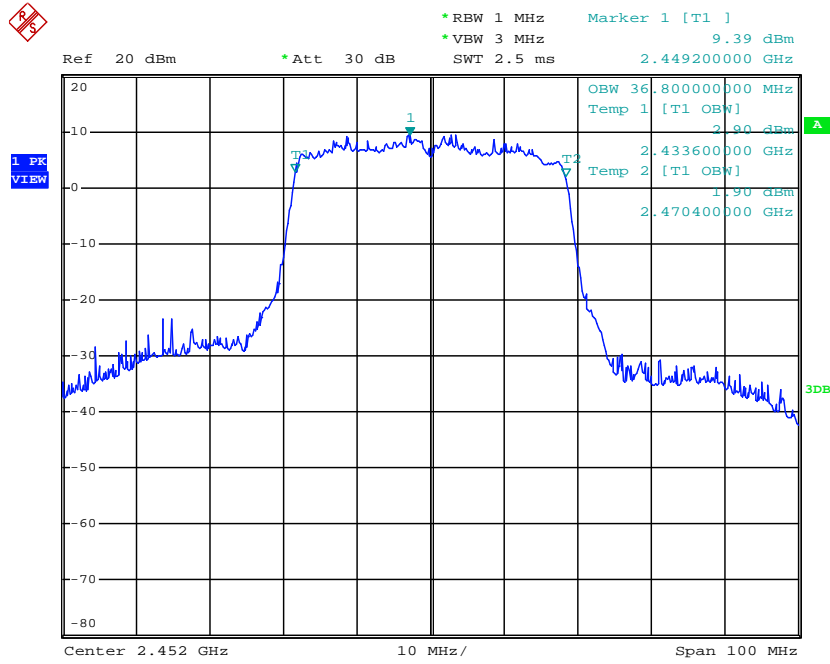
Date: 20.MAR.2015 21:51:25

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 6 / Ant. 3



Date: 20.MAR.2015 21:56:07

99% Occupied Bandwidth Plot on Configuration of IEEE 802.11n 40MHz MCS0 / CH 9 / Ant. 3



Date: 20.MAR.2015 21:57:16

3.5. Radiated Emissions Measurement

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

3.5.2. Measuring Instruments and Setting

Please refer to section 4 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1GHz
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

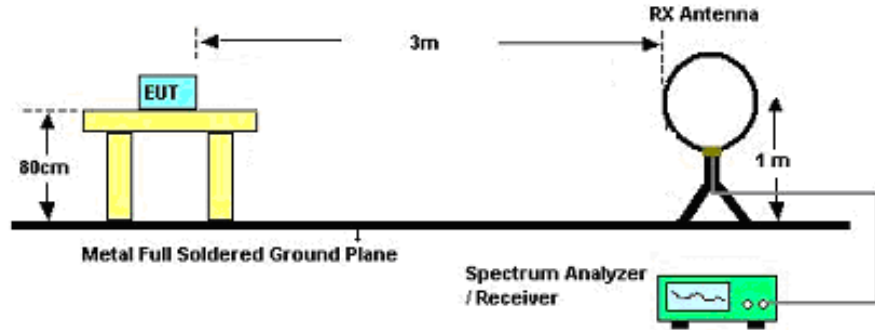
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1GHz / RBW 120kHz for QP

3.5.3. Test Procedures

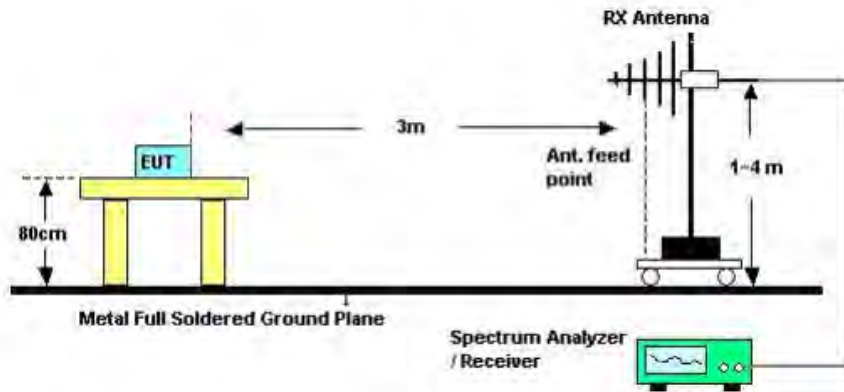
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
8. 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.
9. 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.
10. 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.

3.5.4. Test Setup Layout

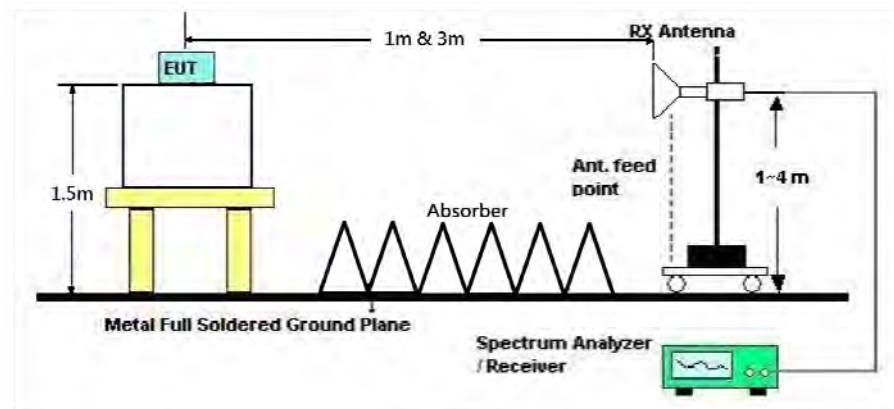
For Radiated Emissions below 1GHz (9kHz~30MHz)



For Radiated Emissions below 1GHz (30MHz~1GHz)



For Radiated Emissions above 1GHz



3.5.5. Test Deviation

There are no deviations with the original standard.

3.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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

Frequency Range	9kHz~30MHz	Test Site No.	03CH01-CB
Temperature	26°C	Humidity	68%
Test Engineer	Brain Sun	Configurations	CTX
Test Date	Mar. 23, 2015		

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

Note:

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

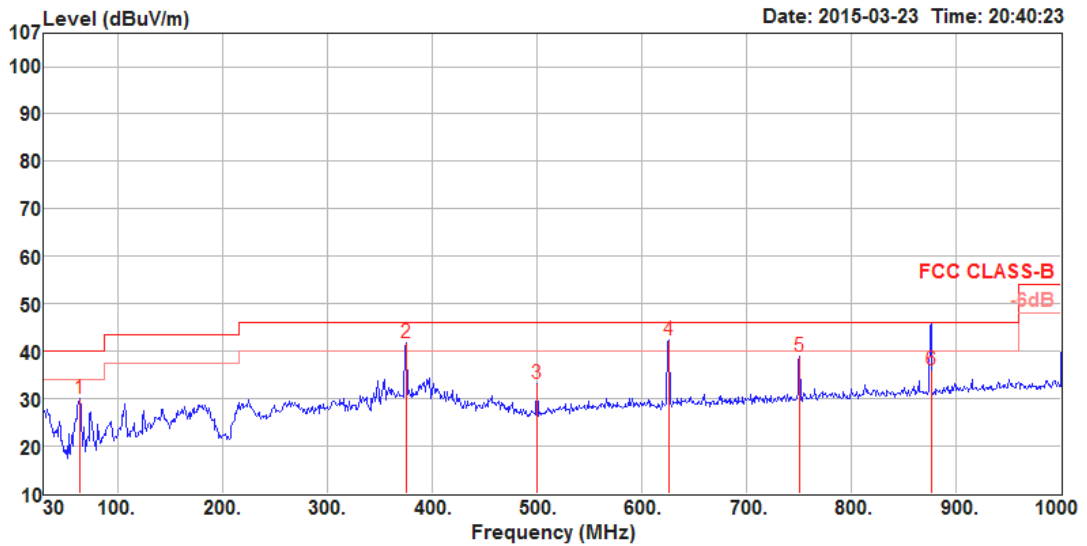
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

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

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

Frequency Range	30MHz~1GHz	Test Site No.	03CH01-CB
Temperature	26°C	Humidity	68%
Test Engineer	Brain Sun	Configurations	CTX

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	63.95	30.09	40.00	-9.91	55.00	6.80	0.81	32.52	300	286	HORIZONTAL	Peak
2	375.32	41.91	46.00	-4.09	56.37	15.93	1.93	32.32	100	256	HORIZONTAL	Peak
3	500.45	33.28	46.00	-12.72	45.67	17.81	2.21	32.41	150	261	HORIZONTAL	Peak
4	625.58	42.29	46.00	-3.71	53.10	19.26	2.46	32.53	125	279	HORIZONTAL	Peak
5	750.71	38.80	46.00	-7.20	48.30	20.21	2.71	32.42	100	288	HORIZONTAL	Peak
6	875.84	36.02	46.00	-9.98	43.76	21.36	2.95	32.05	100	300	HORIZONTAL	QP

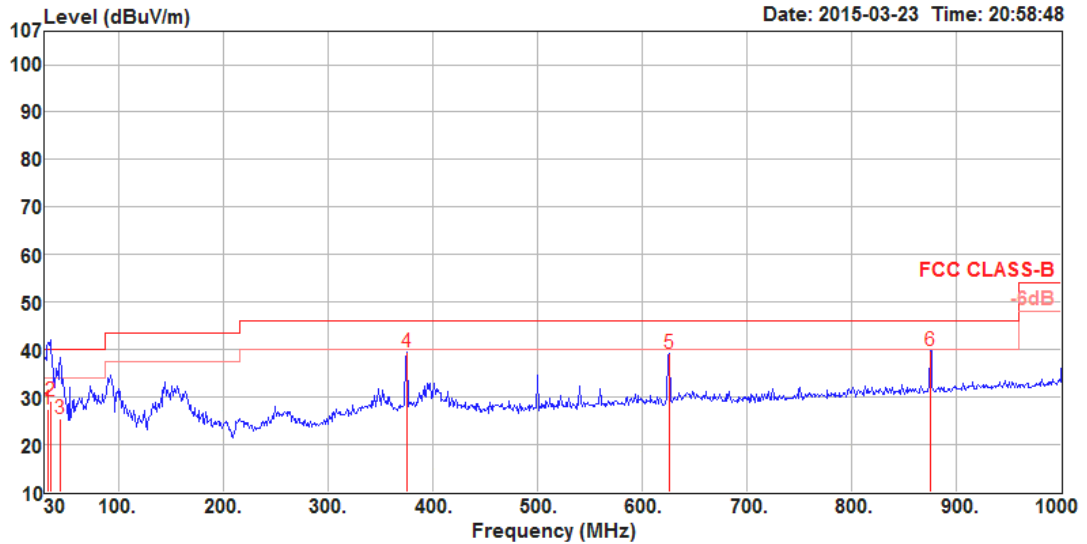
Note:

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.

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	32.91	27.59	40.00	-12.41	41.24	18.20	0.57	32.42	100	311	VERTICAL	QP
2	34.85	29.22	40.00	-10.78	44.01	17.00	0.62	32.41	100	262	VERTICAL	QP
3	44.55	25.57	40.00	-14.43	46.12	11.20	0.68	32.43	100	197	VERTICAL	QP
4	375.32	39.50	46.00	-6.50	53.98	15.91	1.93	32.32	150	237	VERTICAL	Peak
5	625.58	39.29	46.00	-6.71	50.11	19.25	2.46	32.53	100	322	VERTICAL	Peak
6	874.87	39.67	46.00	-6.33	47.42	21.35	2.95	32.05	125	301	VERTICAL	Peak

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).

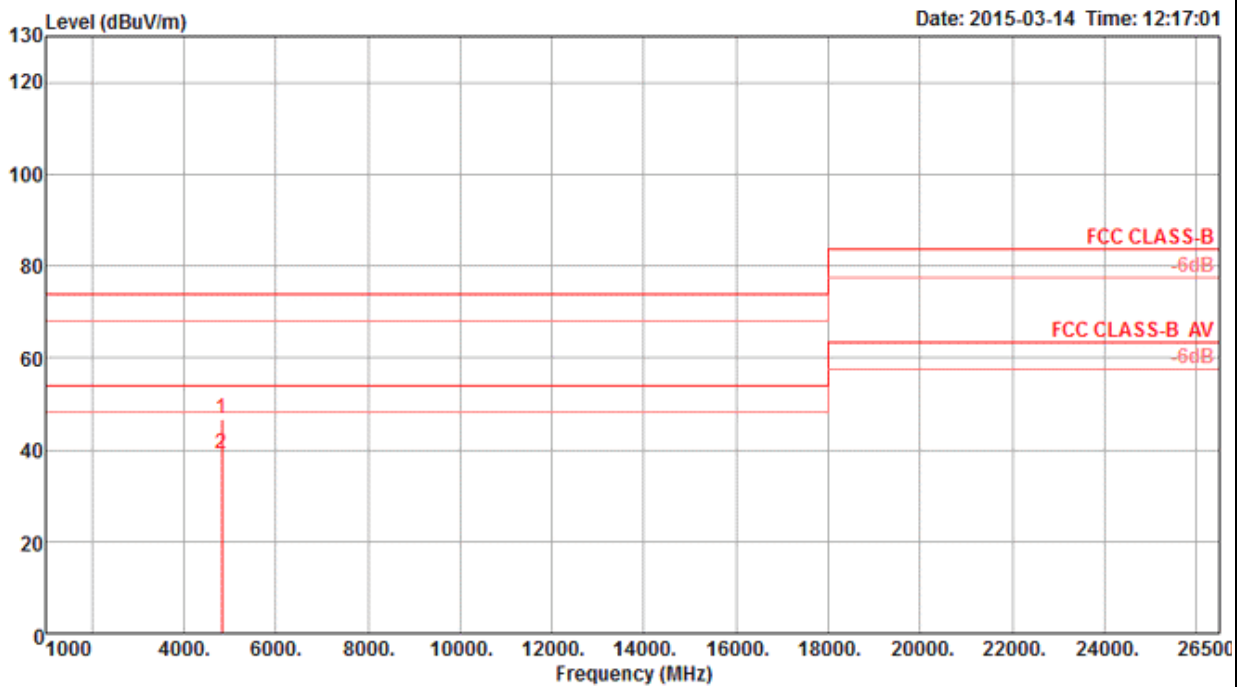
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

3.5.9. Results for Radiated Emissions (1GHz~10th Harmonic)

Following channel(s) was (were) selected for the final test as listed below.

MODE	TX Chain	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	Ant.2	1, 6, 11	DSSS	DBPSK	1
802.11b	1S3T, CDD	1, 6, 11	DSSS	DBPSK	1
802.11g	Ant.2	1, 6, 11	OFDM	BPSK	6
802.11g	1S3T, CDD	1, 6, 11	OFDM	BPSK	6
802.11n 20MHz	Ant.2	1, 6, 11	OFDM	BPSK	MCS0 (6.5)
802.11n 20MHz	1S3T, CDD	1, 6, 11	OFDM	BPSK	MCS0 (6.5)
802.11n 40MHz	Ant.2	3, 6, 9	OFDM	BPSK	MCS0 (13)
802.11n 40MHz	1S3T, CDD	3, 6, 9	OFDM	BPSK	MCS0 (13)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 1 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Line	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.94	46.59	74.00	-27.41	42.86	5.87	32.82	34.96	Peak	172	236	HORIZONTAL
2	4823.98	39.16	54.00	-14.84	35.43	5.87	32.82	34.96	Average	172	236	HORIZONTAL

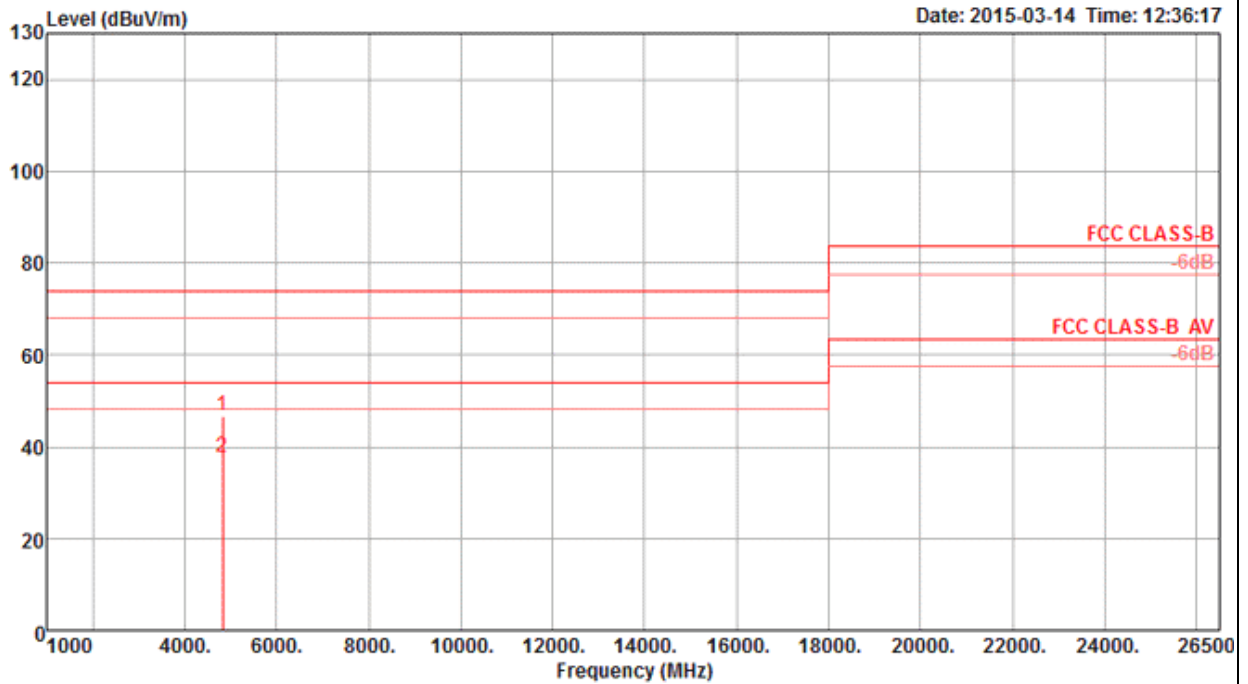
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 1 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1	4823.82	46.70	74.00	-27.30	42.97	5.87	32.82	34.96	Peak	188	274	VERTICAL
2	4823.98	37.61	54.00	-16.39	33.88	5.87	32.82	34.96	Average	188	274	VERTICAL

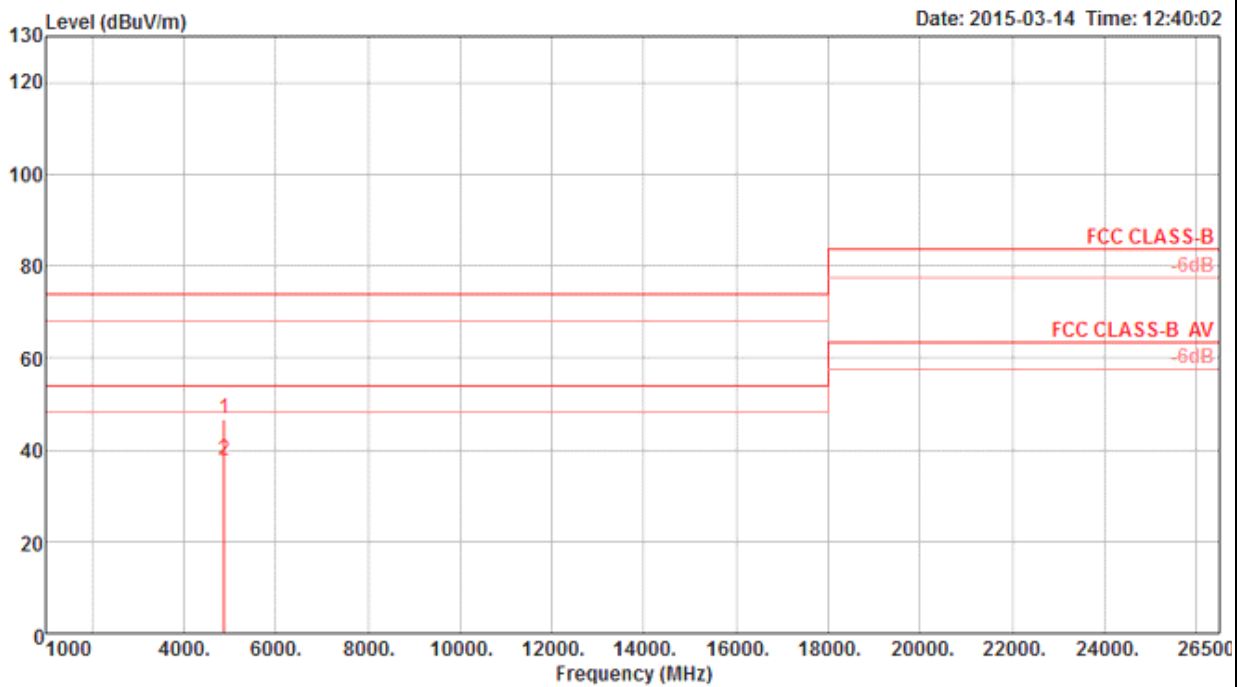
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4873.83	46.61	74.00	-27.39	42.72	5.92	32.93	34.96	Peak	140	307	HORIZONTAL
2	4873.98	37.78	54.00	-16.22	33.89	5.92	32.93	34.96	Average	140	307	HORIZONTAL

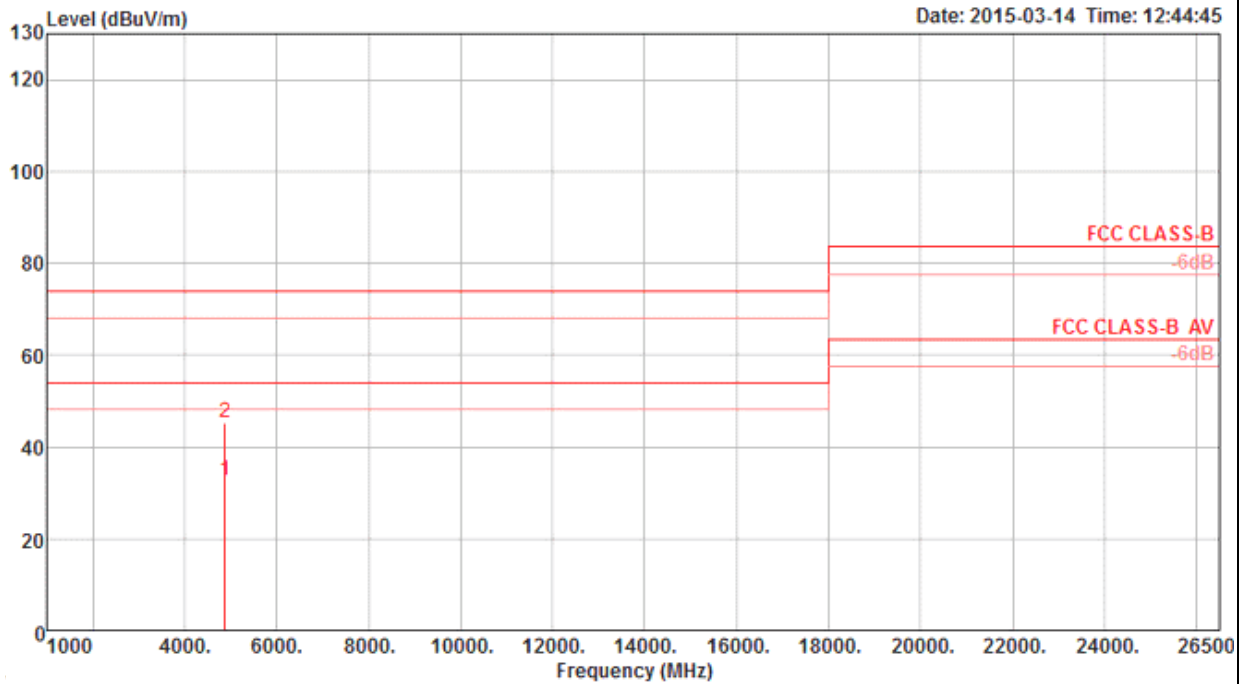
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 6 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4873.98	32.58	54.00	-21.42	28.69	5.92	32.93	34.96	Average	184	69	VERTICAL
2	4874.29	45.24	74.00	-28.76	41.35	5.92	32.93	34.96	Peak	184	69	VERTICAL

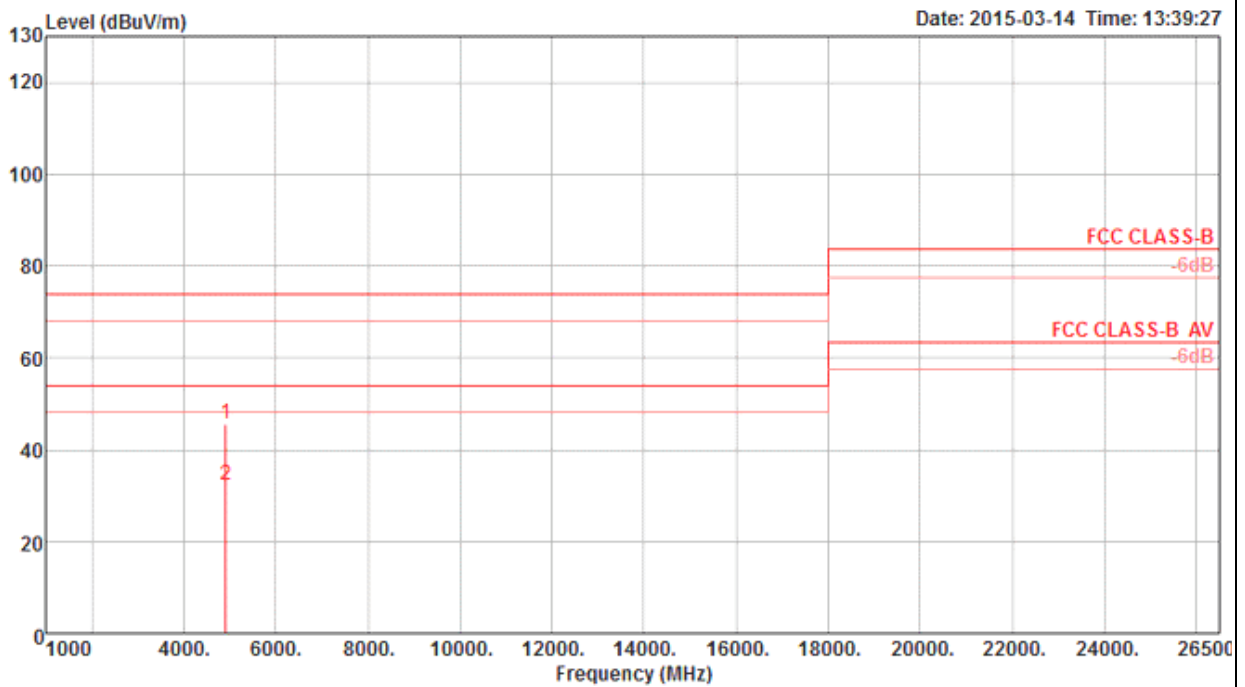
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 11 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.34	45.50	74.00	-28.50	41.43	5.97	33.05	34.95	Peak	271	283	HORIZONTAL
2	4924.10	32.28	54.00	-21.72	28.21	5.97	33.05	34.95	Average	271	283	HORIZONTAL

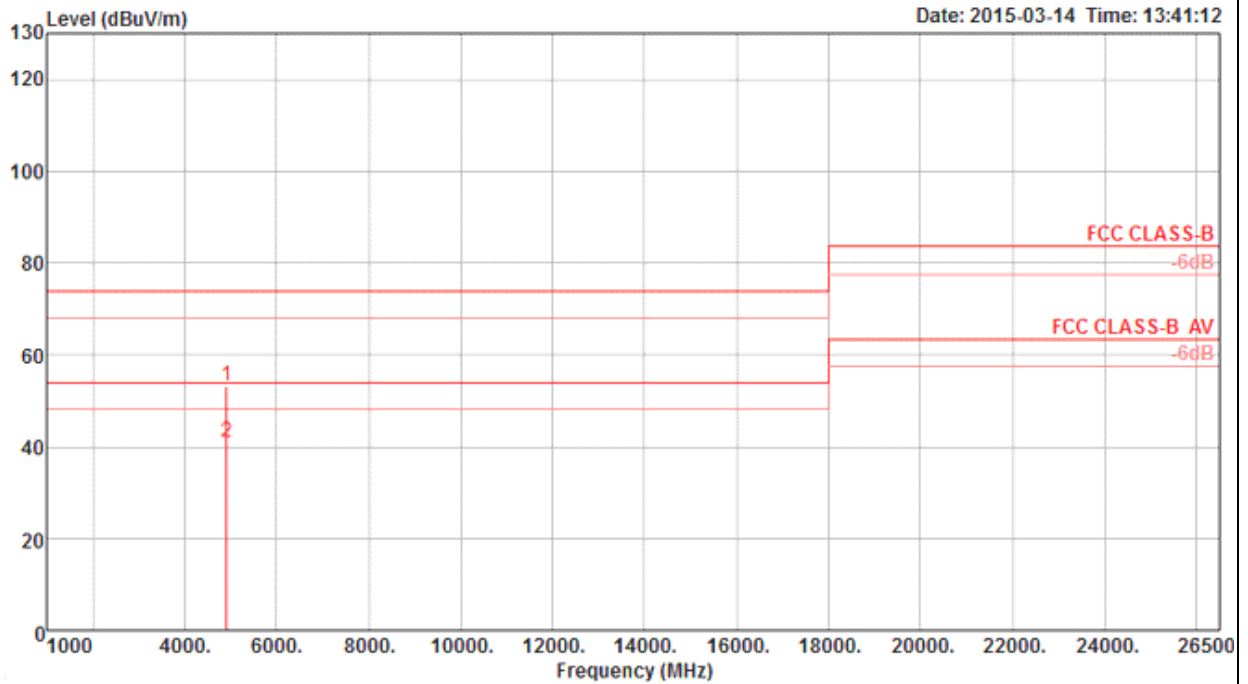
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 11 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4924.15	53.34	74.00	-20.66	49.27	5.97	33.05	34.95	Peak	271	8	VERTICAL
2	4924.46	40.83	54.00	-13.17	36.76	5.97	33.05	34.95	Average	271	8	VERTICAL

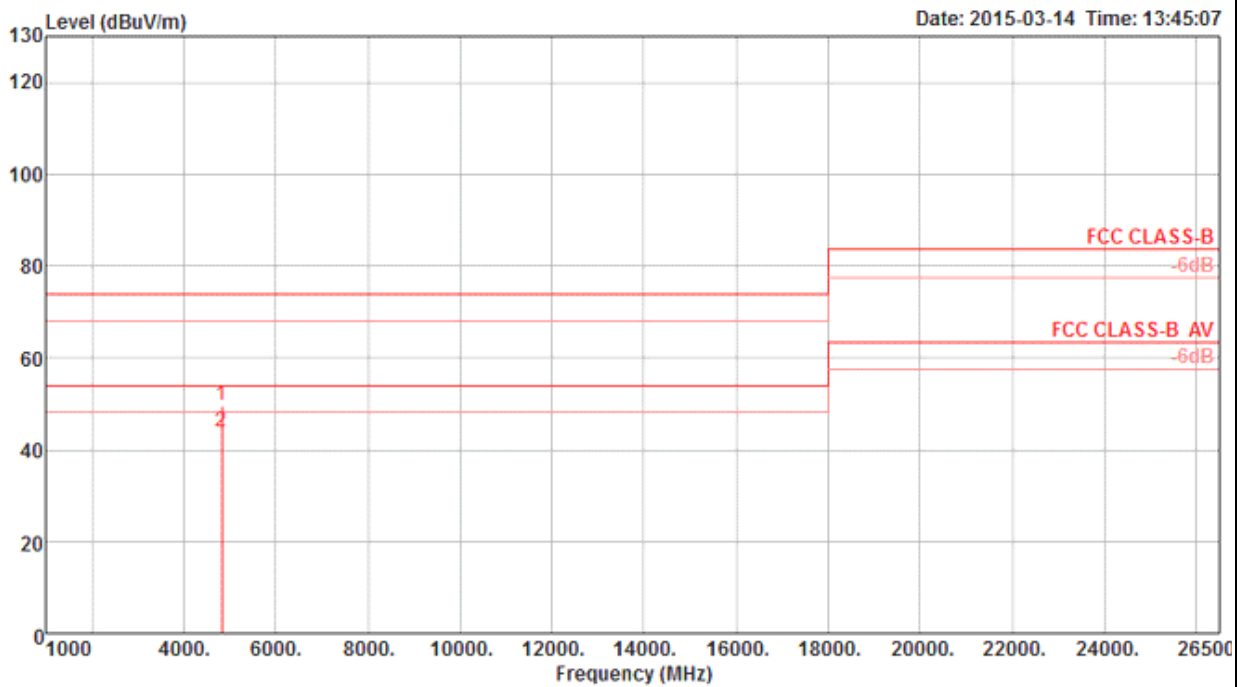
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 1 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Line	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	Remark	A/Pos cm	T/Pos deg	Pol/Phase
1	4824.00	49.51	74.00	-24.49	45.78	5.87	32.82	34.96	Peak	228	236	HORIZONTAL
2	4824.02	43.74	54.00	-10.26	40.01	5.87	32.82	34.96	Average	228	236	HORIZONTAL

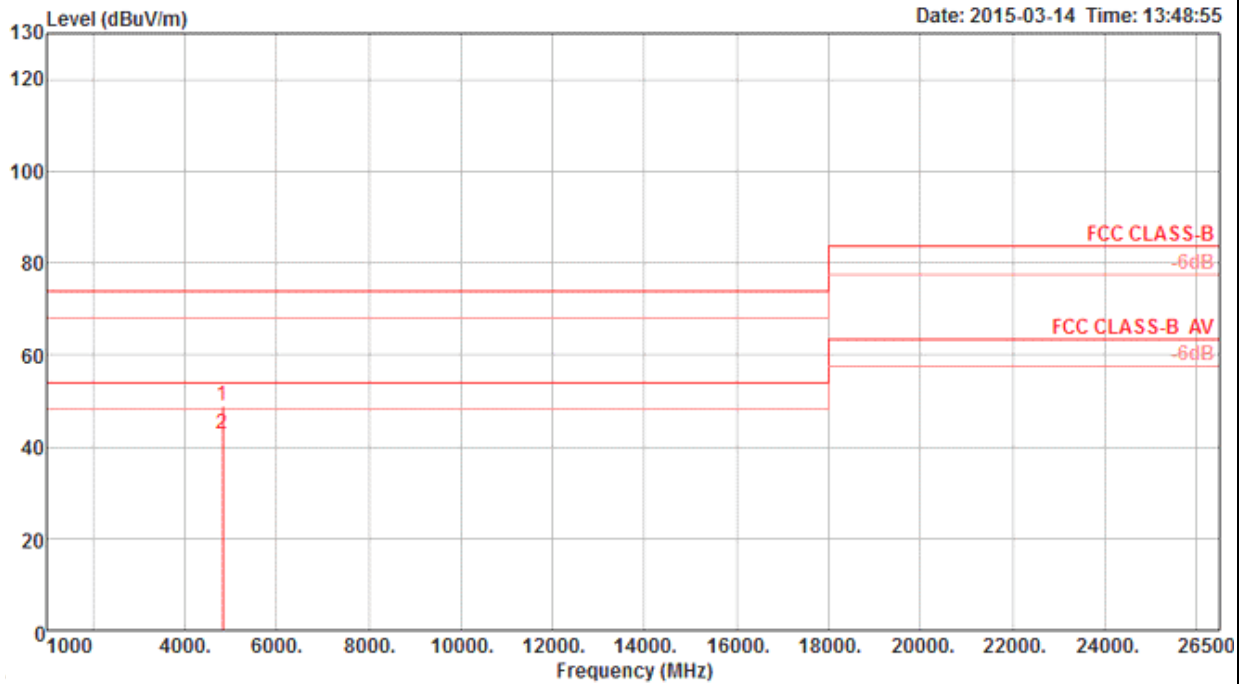
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 1 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



1	2	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
4823.88	49.06	74.00	-24.94	45.33	5.87	32.82	34.96	Peak	220	273	VERTICAL
4823.92	42.81	54.00	-11.19	39.08	5.87	32.82	34.96	Average	220	273	VERTICAL

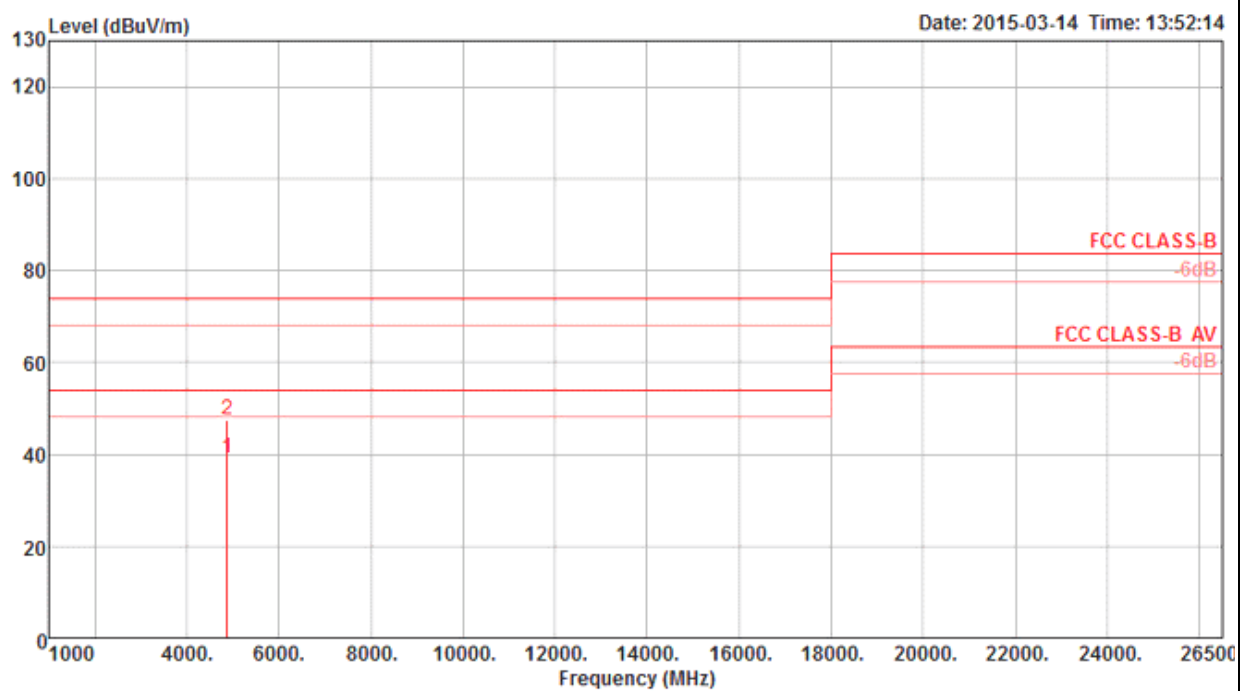
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 6 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4873.99	39.10	54.00	-14.90	35.21	5.92	32.93	34.96 Average	149	311	HORIZONTAL
2	4874.03	47.39	74.00	-26.61	43.50	5.92	32.93	34.96 Peak	149	311	HORIZONTAL

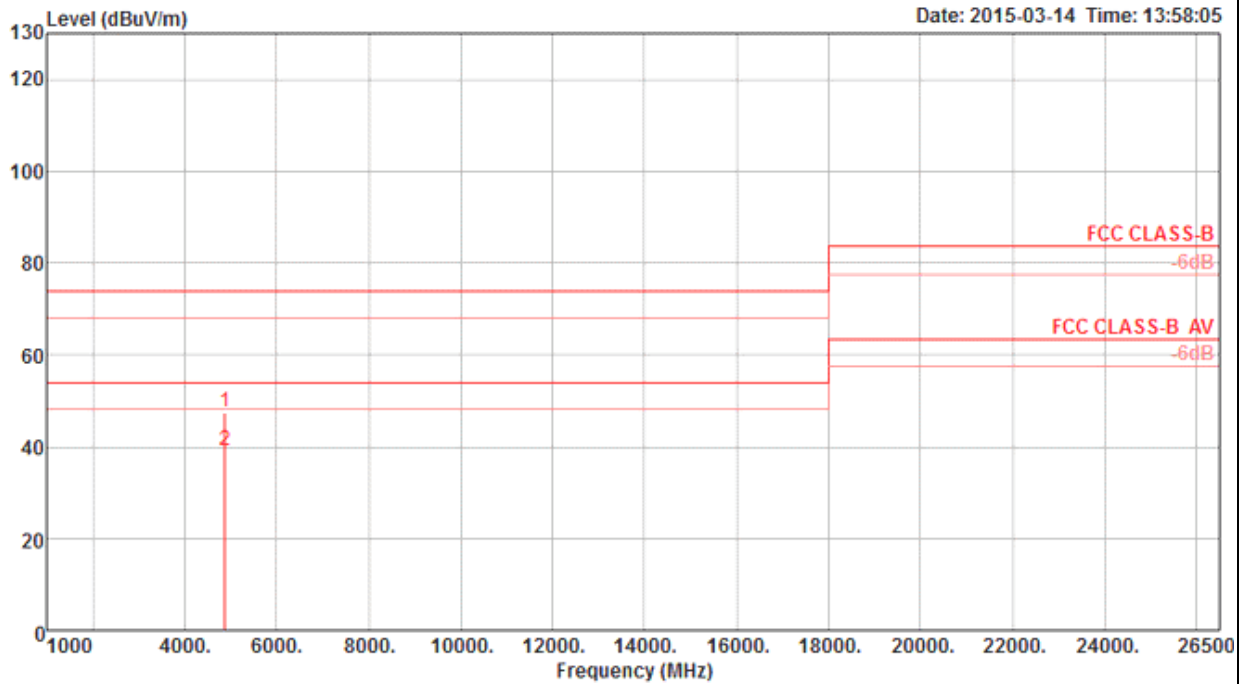
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBUV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 6 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



1	2	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
4873.85	47.33	74.00	-26.67	43.44	5.92	32.93	34.96	Peak	218	271	VERTICAL
4873.99	39.24	54.00	-14.76	35.35	5.92	32.93	34.96	Average	218	271	VERTICAL

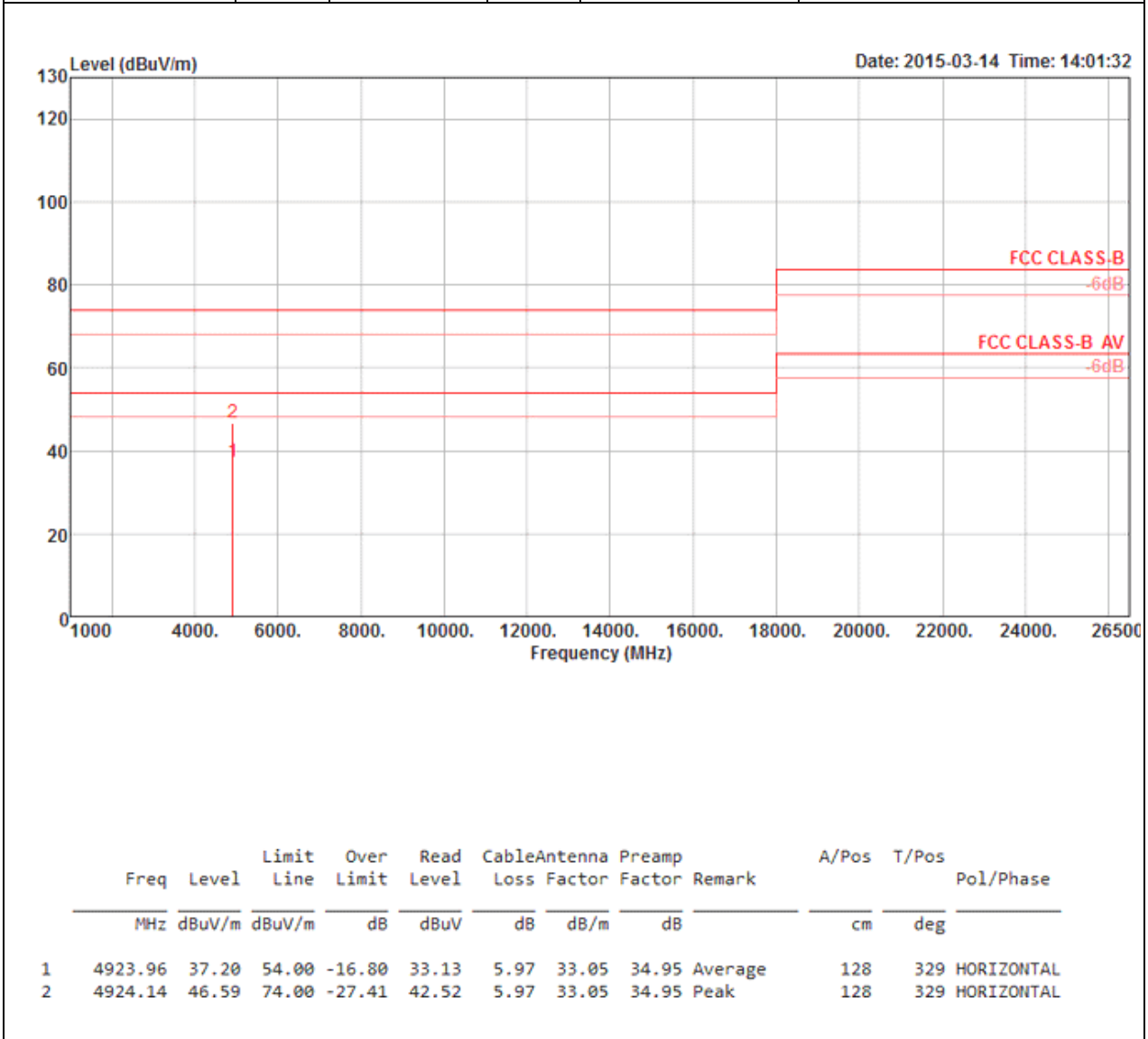
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 11 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



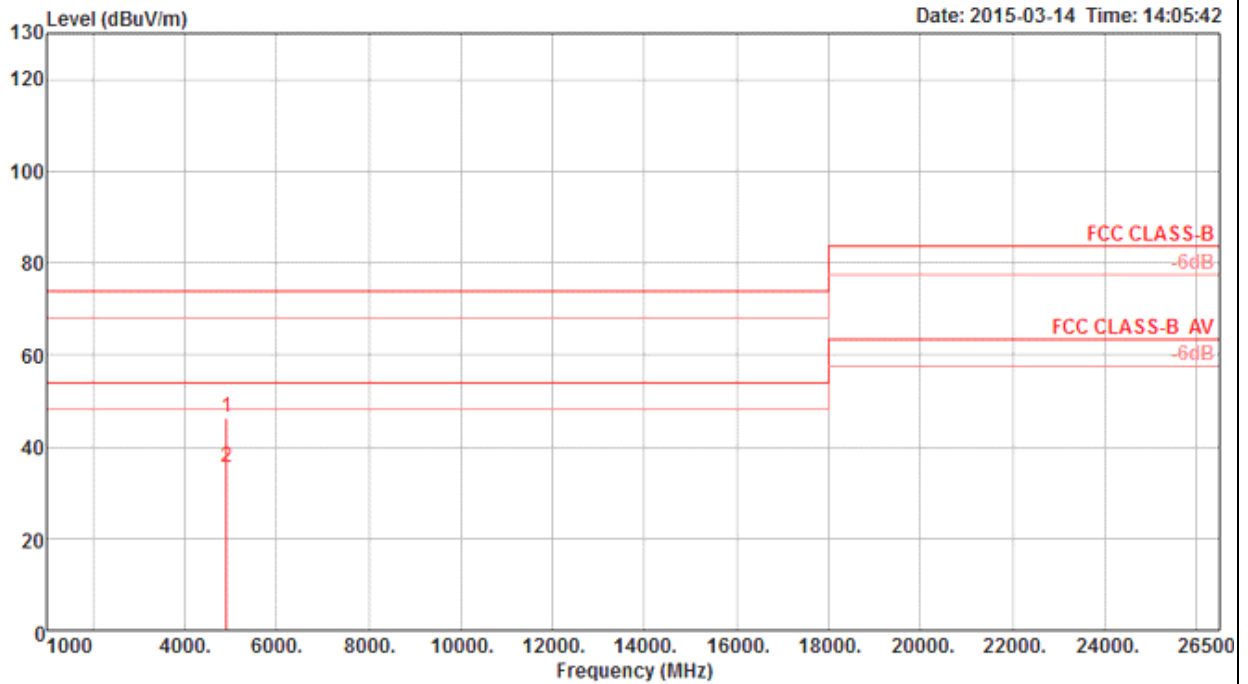
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBUV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11b CH 11 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



1	2	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
4923.60	46.45	74.00	-27.55	42.38	5.97	33.05	34.95	Peak	141	266	VERTICAL
4923.89	35.48	54.00	-18.52	31.41	5.97	33.05	34.95	Average	141	266	VERTICAL

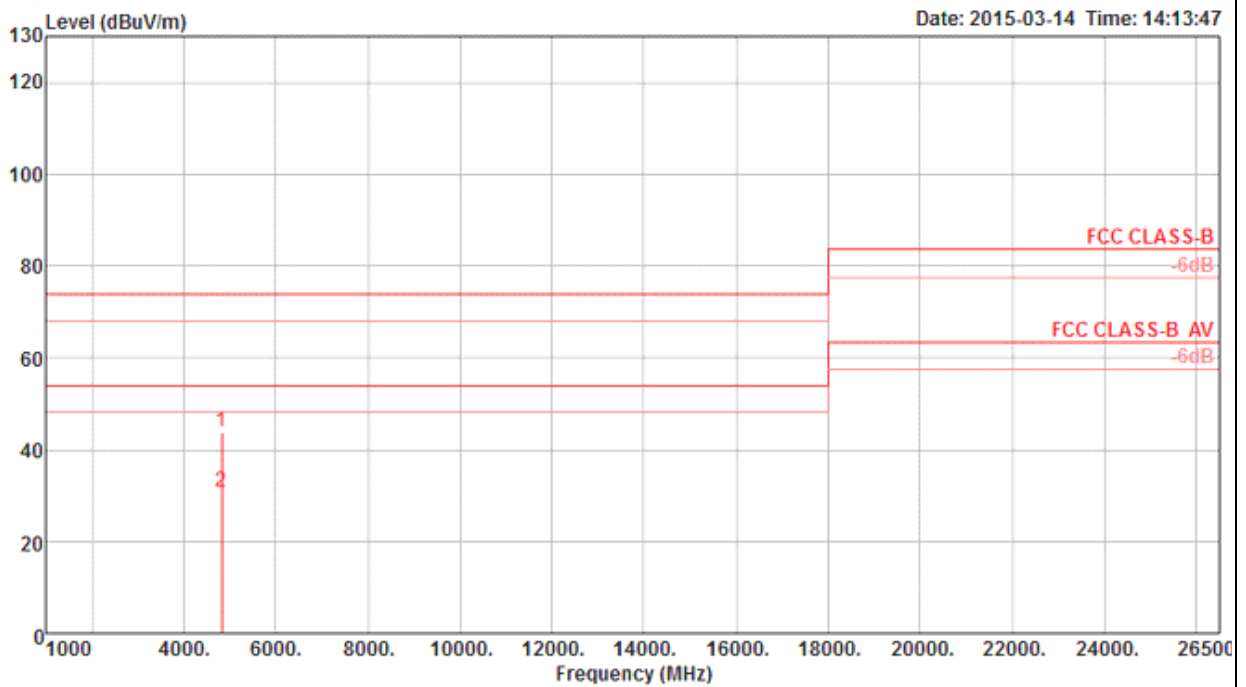
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 1 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.06	43.66	74.00	-30.34	39.93	5.87	32.82	34.96	Peak	157	114	HORIZONTAL
2	4823.63	30.76	54.00	-23.24	27.03	5.87	32.82	34.96	Average	157	114	HORIZONTAL

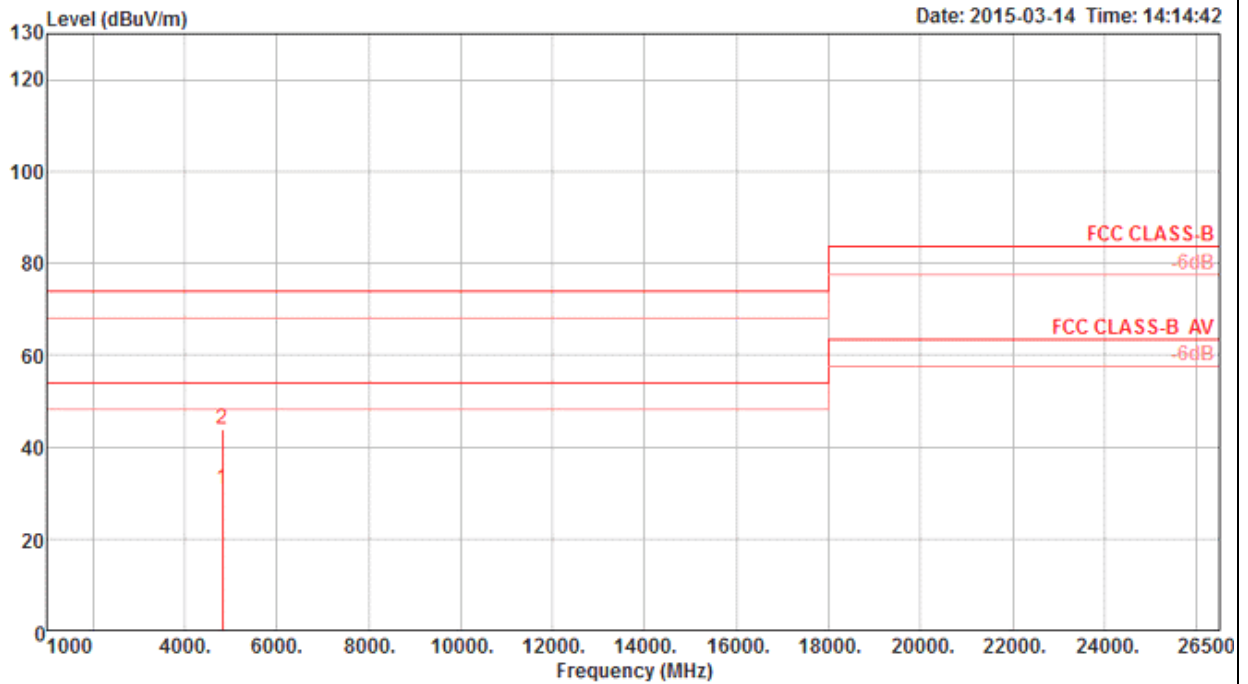
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 1 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.17	30.81	54.00	-23.19	27.08	5.87	32.82	34.96	Average	187	30	VERTICAL
2	4824.47	43.68	74.00	-30.32	39.95	5.87	32.82	34.96	Peak	187	30	VERTICAL

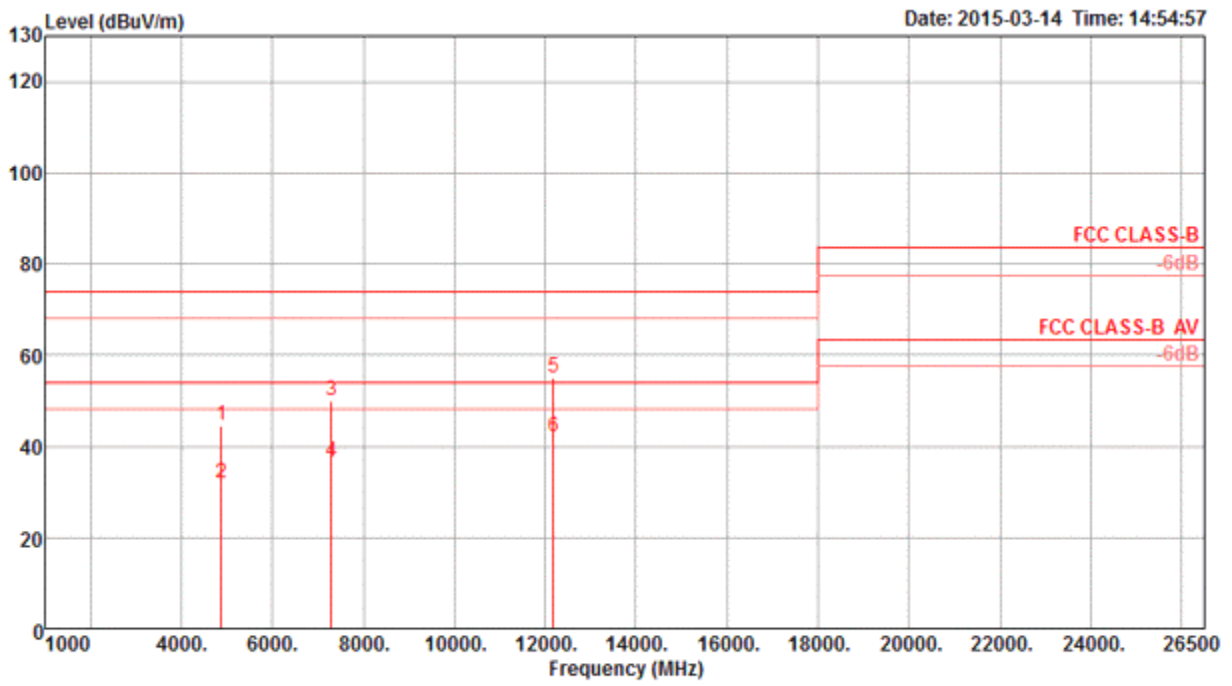
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



1	2	3	4	5	6				
Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
74.00	-29.37	40.74	5.92	32.93	34.96	Peak	145	50	HORIZONTAL
54.00	-22.17	27.94	5.92	32.93	34.96	Average	145	50	HORIZONTAL
74.00	-23.89	41.24	7.13	36.97	35.23	Peak	160	94	HORIZONTAL
54.00	-17.55	27.58	7.13	36.97	35.23	Average	160	94	HORIZONTAL
74.00	-18.99	40.29	9.38	40.04	34.70	Peak	190	4	HORIZONTAL
54.00	-11.83	27.45	9.38	40.04	34.70	Average	190	4	HORIZONTAL

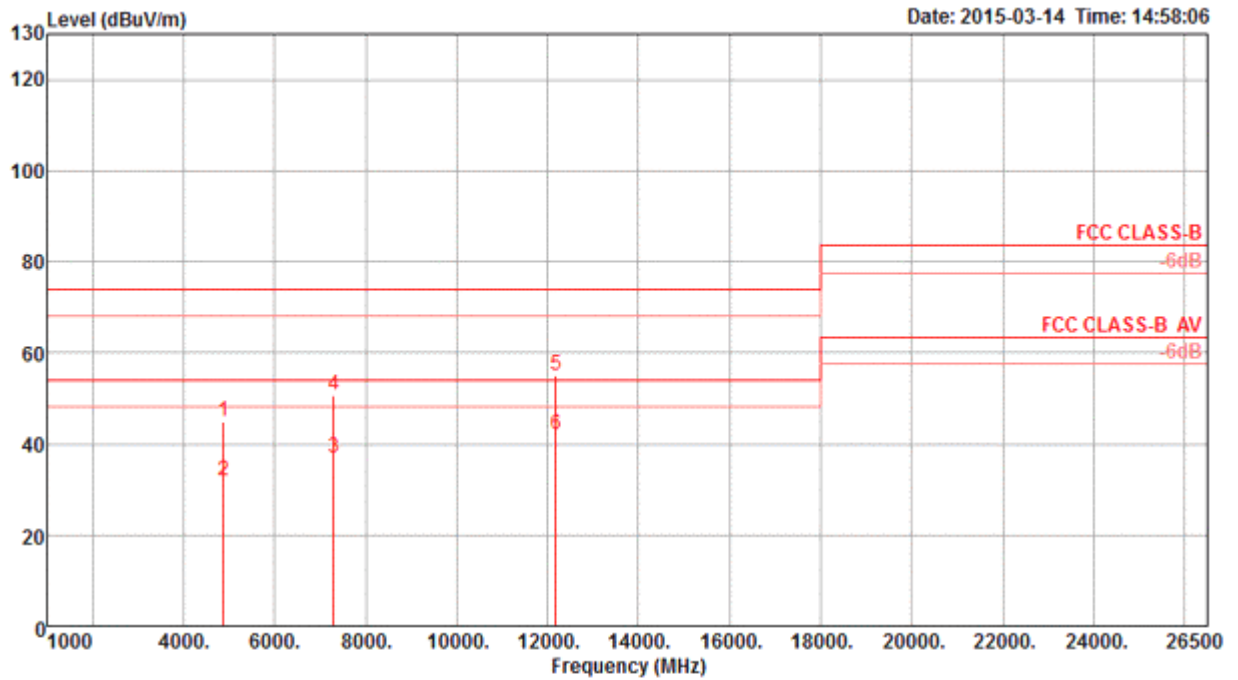
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 6 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4873.53	44.74	74.00	-29.26	40.85	5.92	32.93	34.96	Peak	175	324	VERTICAL
2	4873.97	31.87	54.00	-22.13	27.98	5.92	32.93	34.96	Average	175	324	VERTICAL
3	7310.04	36.87	54.00	-17.13	27.99	7.13	36.97	35.22	Average	147	276	VERTICAL
4	7311.16	50.73	74.00	-23.27	41.85	7.13	36.97	35.22	Peak	147	276	VERTICAL
5	12184.09	55.20	74.00	-18.80	40.48	9.38	40.04	34.70	Peak	172	2	VERTICAL
6	12185.61	41.99	54.00	-12.01	27.27	9.38	40.04	34.70	Average	172	2	VERTICAL

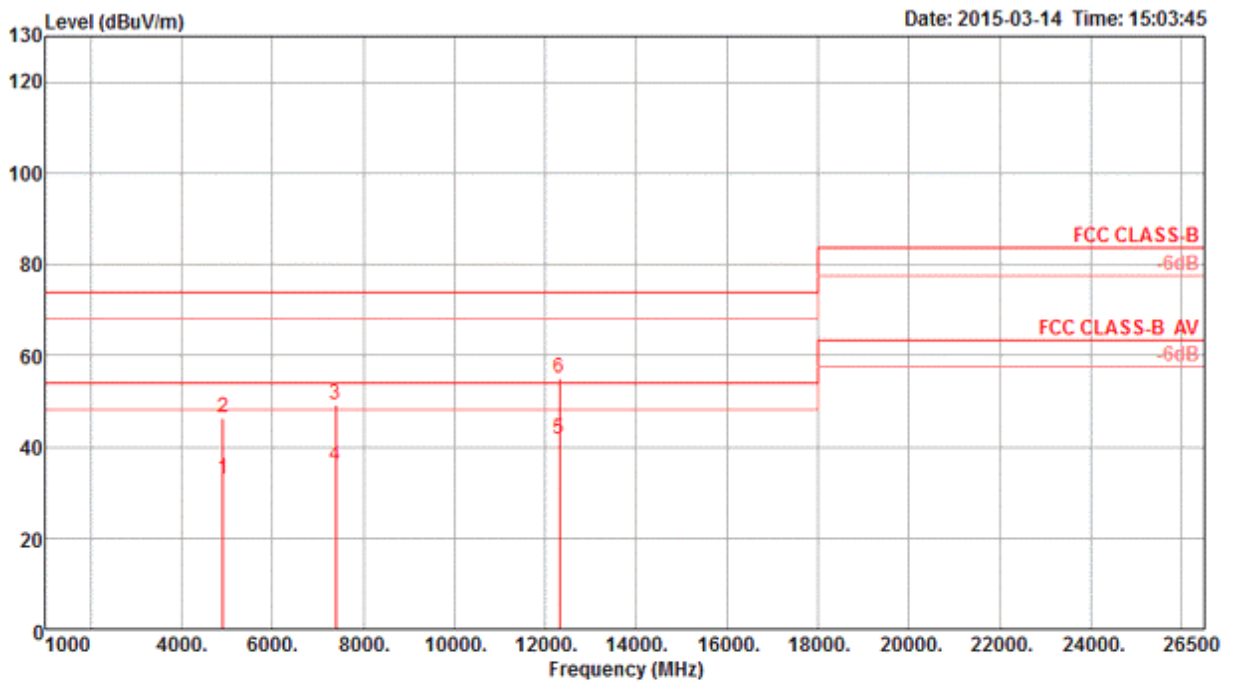
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 11 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.28	32.96	54.00	-21.04	28.89	5.97	33.05	34.95	Average	156	7	HORIZONTAL
2	4924.19	46.50	74.00	-27.50	42.43	5.97	33.05	34.95	Peak	156	7	HORIZONTAL
3	7385.81	49.18	74.00	-24.82	40.16	7.17	37.08	35.23	Peak	156	147	HORIZONTAL
4	7386.13	35.96	54.00	-18.04	26.94	7.17	37.08	35.23	Average	156	147	HORIZONTAL
5	12310.23	41.76	54.00	-12.24	26.91	9.40	40.06	34.61	Average	134	291	HORIZONTAL
6	12310.50	55.18	74.00	-18.82	40.33	9.40	40.06	34.61	Peak	134	291	HORIZONTAL

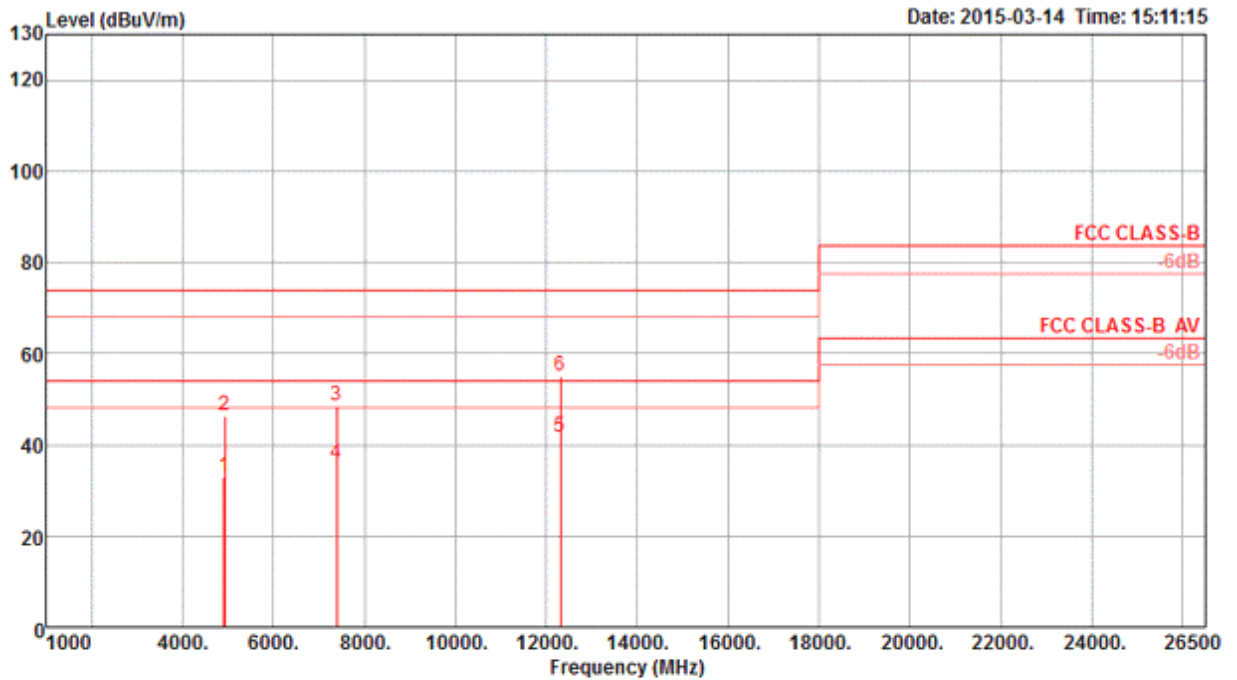
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 11 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4924.07	32.89	54.00	-21.11	28.82	5.97	33.05	34.95	Average	122	63	VERTICAL
2	4924.51	46.32	74.00	-27.68	42.25	5.97	33.05	34.95	Peak	122	63	VERTICAL
3	7385.23	48.67	74.00	-25.33	39.65	7.17	37.08	35.23	Peak	154	132	VERTICAL
4	7386.20	35.94	54.00	-18.06	26.92	7.17	37.08	35.23	Average	154	132	VERTICAL
5	12310.15	41.70	54.00	-12.30	26.85	9.40	40.06	34.61	Average	164	168	VERTICAL
6	12310.53	55.00	74.00	-19.00	40.15	9.40	40.06	34.61	Peak	164	168	VERTICAL

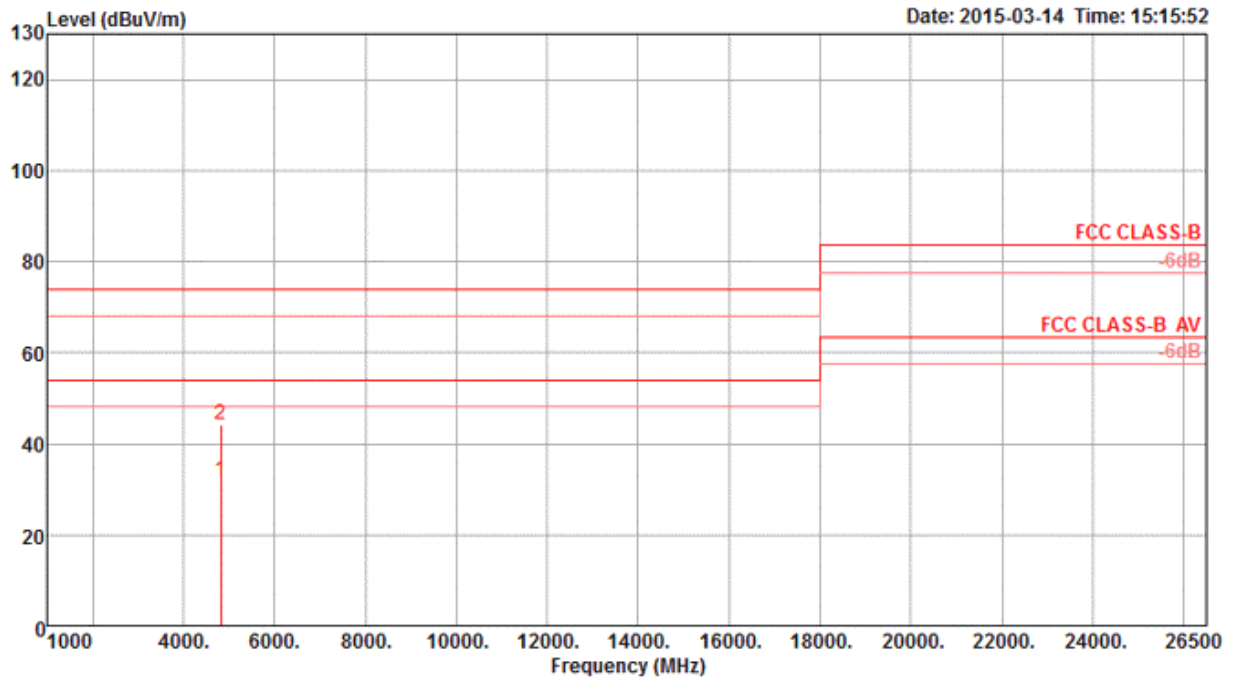
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 1 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4824.37	31.78	54.00	-22.22	28.05	5.87	32.82	34.96	Average	164	246 HORIZONTAL
2	4824.62	44.20	74.00	-29.80	40.47	5.87	32.82	34.96	Peak	164	246 HORIZONTAL

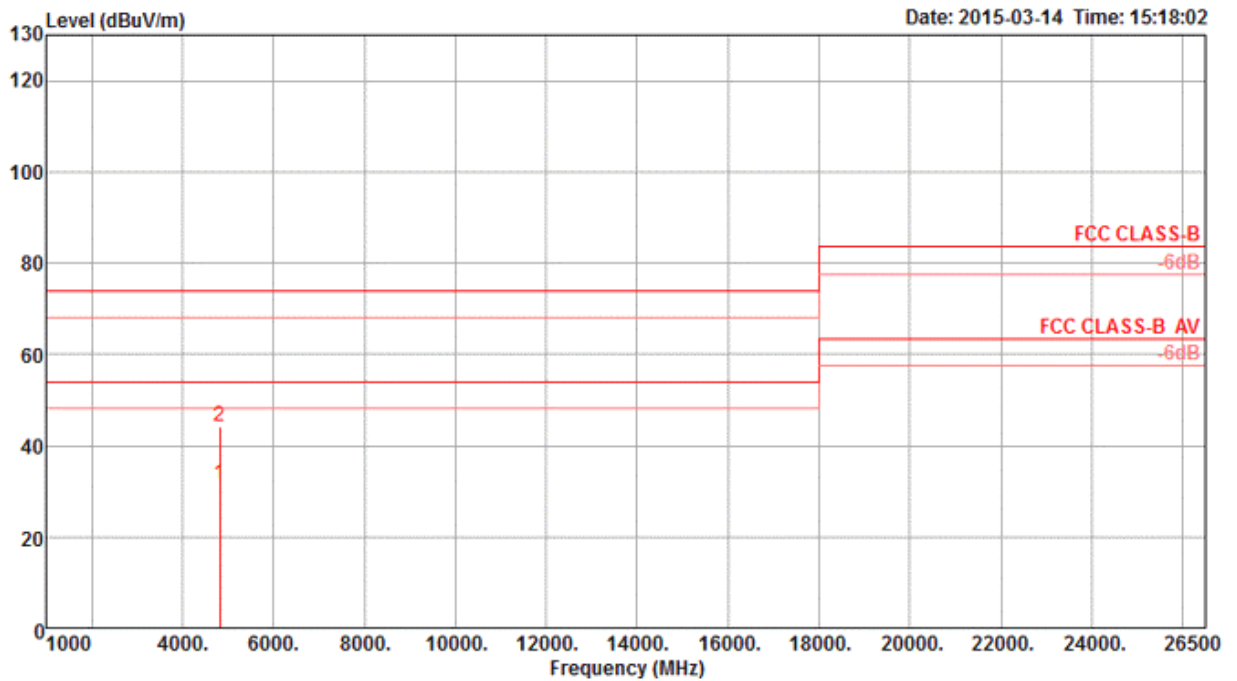
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 1 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



1	2	3	4	5	6	7	8	9	10	11	12	13
Limit	Over	Read	CableAntenna	Preamp	Remark			A/Pos	T/Pos	Pol/Phase		
Line	Limit	Level	Loss	Factor				cm	deg			
dBuV/m	dB	dBuV	dB	dB	dB	dB/m	dB					
54.00	-22.60	27.67	5.87	32.82	34.96	Average	116	131	VERTICAL			
74.00	-29.65	40.62	5.87	32.82	34.96	Peak	116	131	VERTICAL			

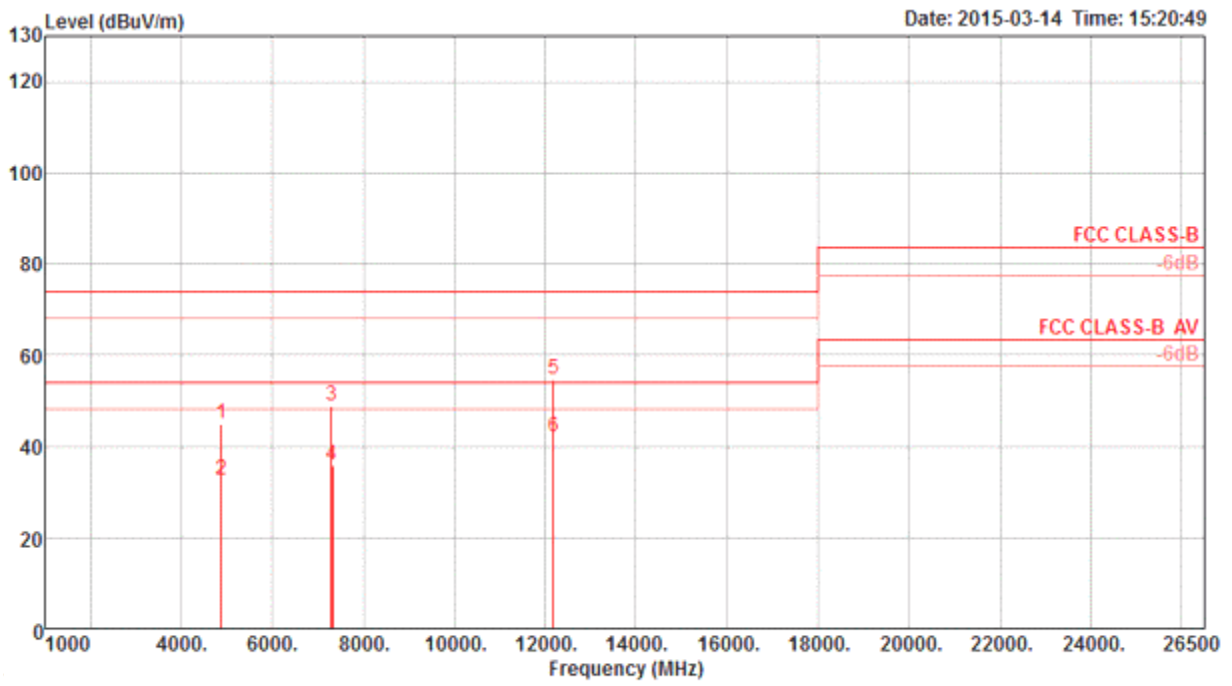
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 6 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1	4873.30	44.96	74.00	-29.04	41.07	5.92	32.93	34.96	Peak	123	31	HORIZONTAL
2	4874.03	32.49	54.00	-21.51	28.60	5.92	32.93	34.96	Average	123	31	HORIZONTAL
3	7310.69	49.04	74.00	-24.96	40.16	7.13	36.97	35.22	Peak	186	10	HORIZONTAL
4	7311.82	35.91	54.00	-18.09	27.04	7.13	36.97	35.23	Average	186	10	HORIZONTAL
5	12184.97	54.83	74.00	-19.17	40.11	9.38	40.04	34.70	Peak	199	187	HORIZONTAL
6	12185.67	41.98	54.00	-12.02	27.26	9.38	40.04	34.70	Average	199	187	HORIZONTAL

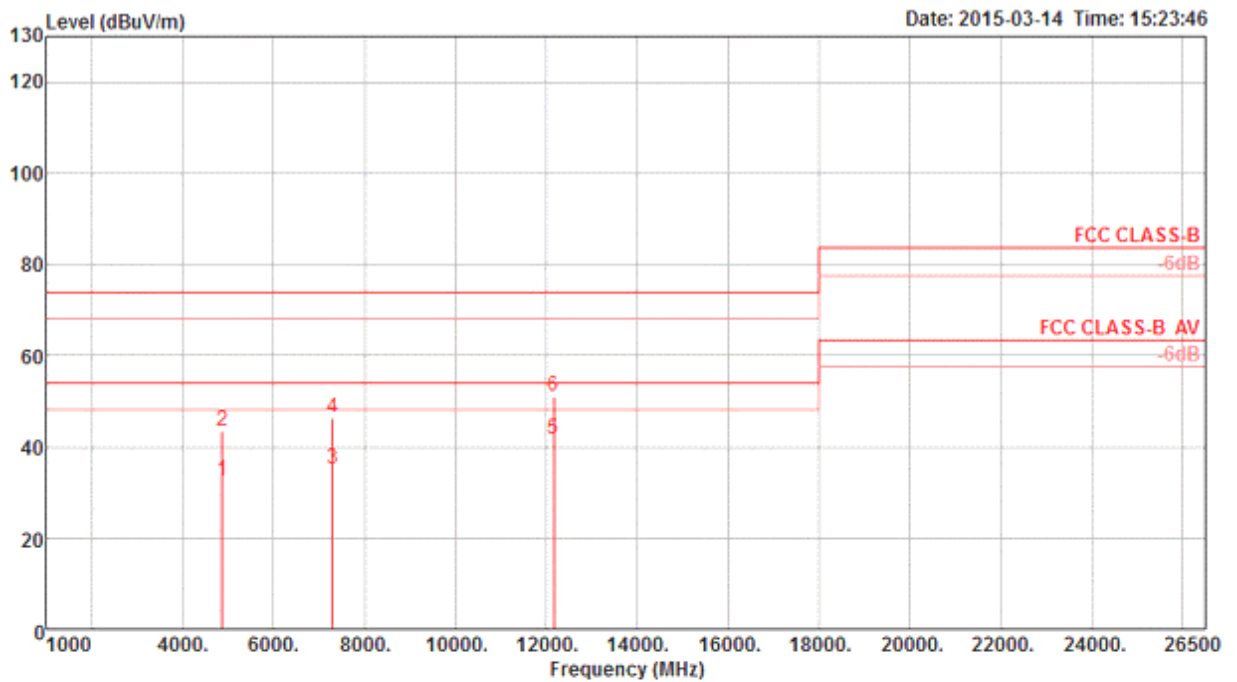
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 6 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4879.68	32.54	54.00	-21.46	28.65	5.92	32.93	34.96	Average	109	312	VERTICAL
2	4879.68	43.41	74.00	-30.59	39.52	5.92	32.93	34.96	Peak	109	312	VERTICAL
3	7301.00	35.26	54.00	-18.74	26.38	7.13	36.97	35.22	Average	266	267	VERTICAL
4	7301.00	46.50	74.00	-27.50	37.62	7.13	36.97	35.22	Peak	266	267	VERTICAL
5	12175.00	41.48	54.00	-12.52	26.79	9.38	40.03	34.72	Average	186	93	VERTICAL
6	12175.00	51.21	74.00	-22.79	36.52	9.38	40.03	34.72	Peak	186	93	VERTICAL

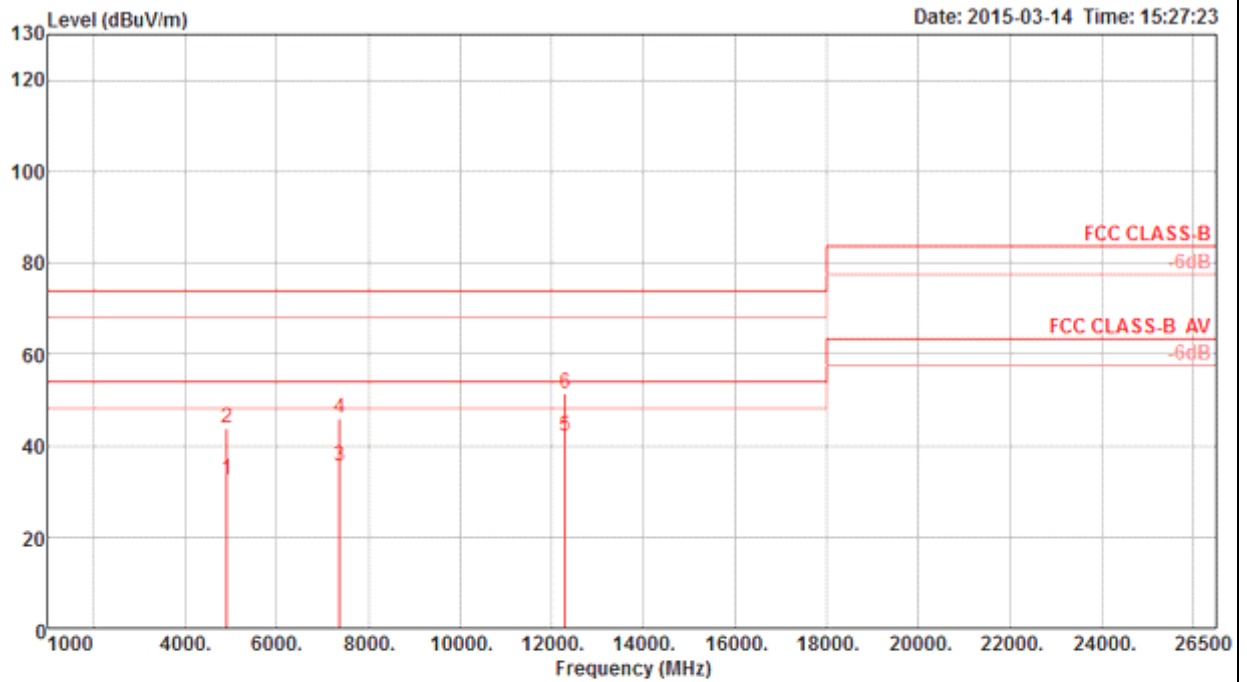
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 11 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4914.00	32.59	54.00	-21.41	28.58	5.95	33.01	34.95	211	59	HORIZONTAL
2	4914.00	43.80	74.00	-30.20	39.79	5.95	33.01	34.95	211	59	HORIZONTAL
3	7376.00	35.39	54.00	-18.61	26.40	7.16	37.06	35.23	164	359	HORIZONTAL
4	7376.00	45.91	74.00	-28.09	36.92	7.16	37.06	35.23	164	359	HORIZONTAL
5	12300.00	41.88	54.00	-12.12	27.05	9.40	40.06	34.63	178	313	HORIZONTAL
6	12300.00	51.30	74.00	-22.70	36.47	9.40	40.06	34.63	178	313	HORIZONTAL

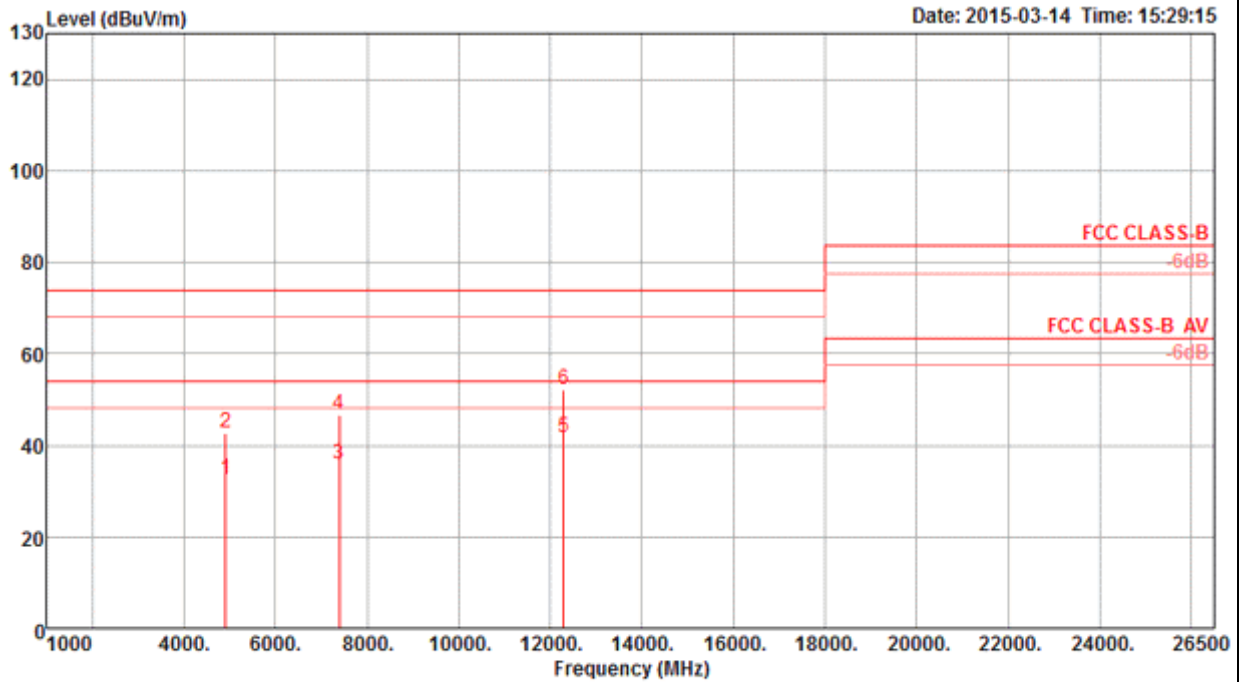
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11g CH 11 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4914.00	32.67	54.00	-21.33	28.66	5.95	33.01	34.95	Average	144	97	VERTICAL
2	4914.00	42.82	74.00	-31.18	38.81	5.95	33.01	34.95	Peak	144	97	VERTICAL
3	7396.00	35.72	54.00	-18.28	26.70	7.17	37.08	35.23	Average	151	203	VERTICAL
4	7396.00	46.64	74.00	-27.36	37.62	7.17	37.08	35.23	Peak	151	203	VERTICAL
5	12300.00	41.47	54.00	-12.53	26.64	9.40	40.06	34.63	Average	134	56	VERTICAL
6	12300.00	51.99	74.00	-22.01	37.16	9.40	40.06	34.63	Peak	134	56	VERTICAL

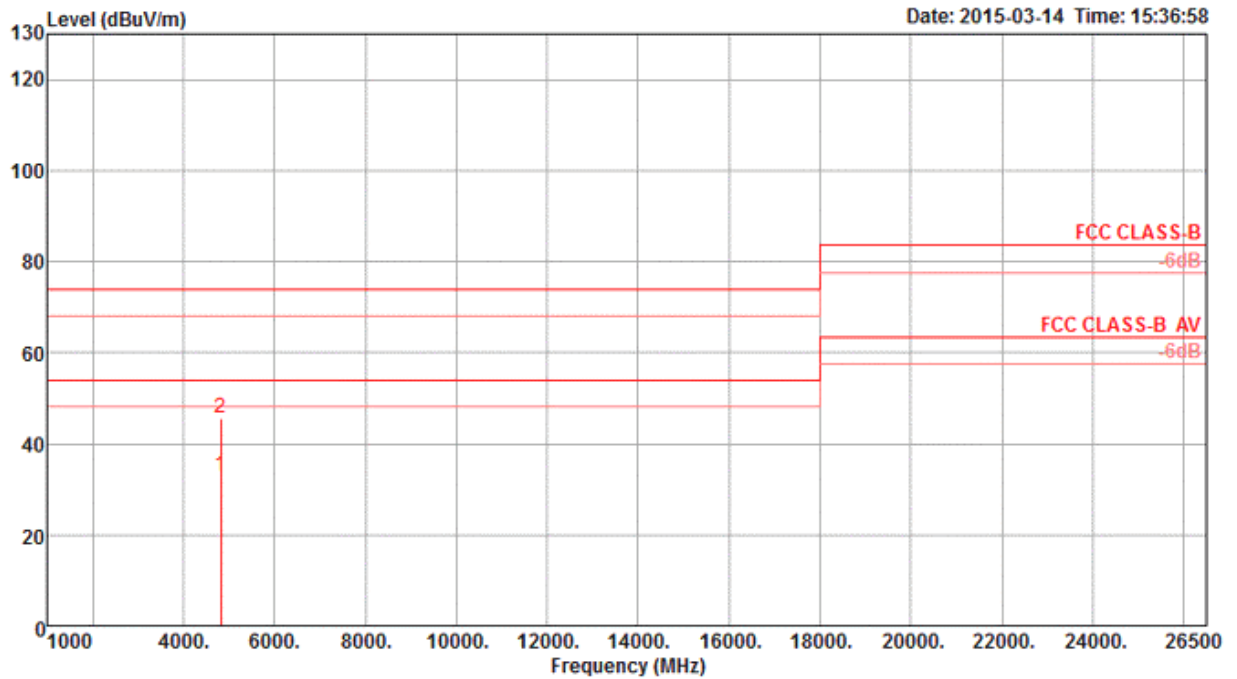
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 1 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4820.40	32.96	54.00	-21.04	29.23	5.87	32.82	34.96	Average	223	294 HORIZONTAL
2	4826.36	45.75	74.00	-28.25	42.02	5.87	32.82	34.96	Peak	223	294 HORIZONTAL

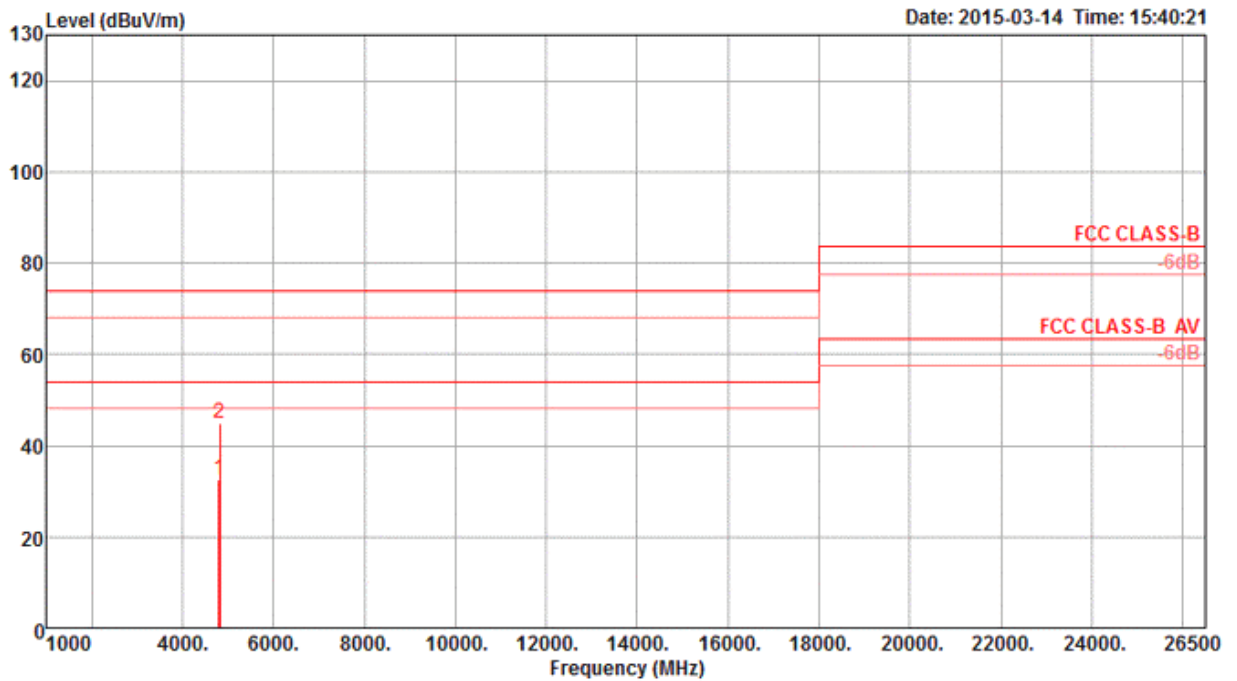
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 1 / Ant. 2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4815.60	32.42	54.00	-21.58	28.75	5.85	32.78	34.96	Average	180	63	VERTICAL
2	4829.64	44.85	74.00	-29.15	41.12	5.87	32.82	34.96	Peak	180	63	VERTICAL

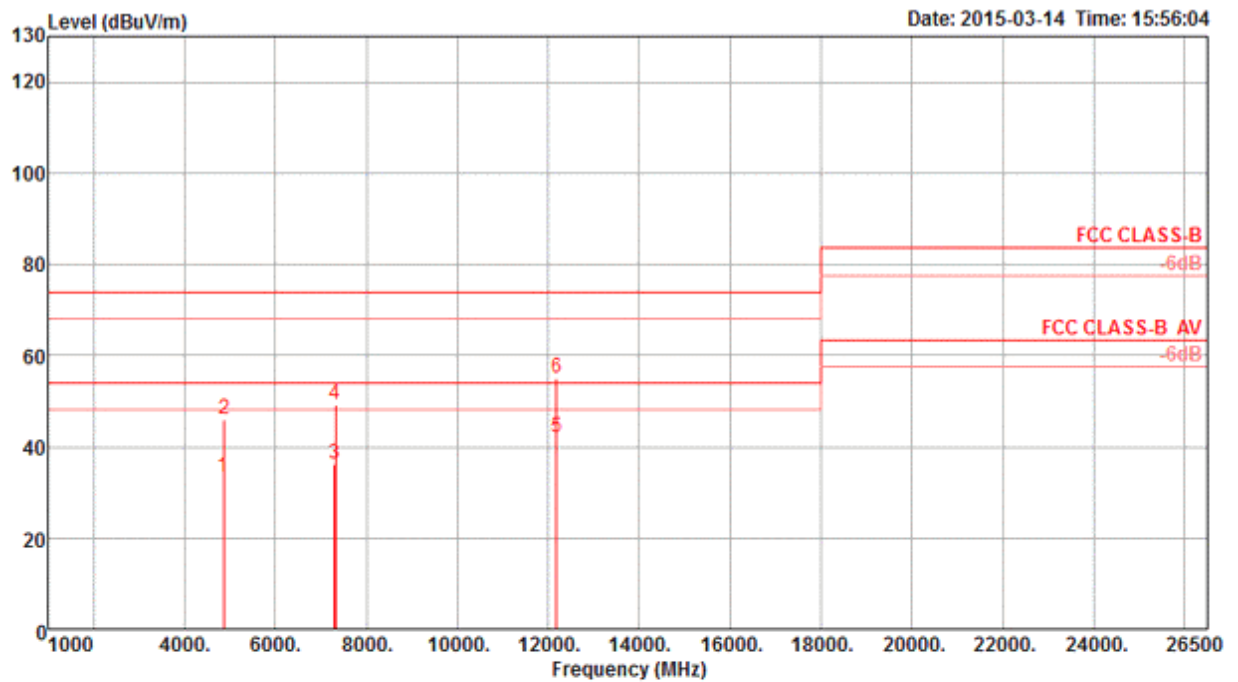
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4865.48	33.36	54.00	-20.64	29.52	5.90	32.90	34.96	Average	200	94	HORIZONTAL
2	4879.36	45.83	74.00	-28.17	41.94	5.92	32.93	34.96	Peak	200	94	HORIZONTAL
3	7308.60	36.25	54.00	-17.75	27.37	7.13	36.97	35.22	Average	133	21	HORIZONTAL
4	7318.64	49.14	74.00	-24.86	40.24	7.14	36.99	35.23	Peak	133	21	HORIZONTAL
5	12182.68	42.10	54.00	-11.90	27.38	9.38	40.04	34.70	Average	193	248	HORIZONTAL
6	12189.12	54.98	74.00	-19.02	40.26	9.38	40.04	34.70	Peak	193	248	HORIZONTAL

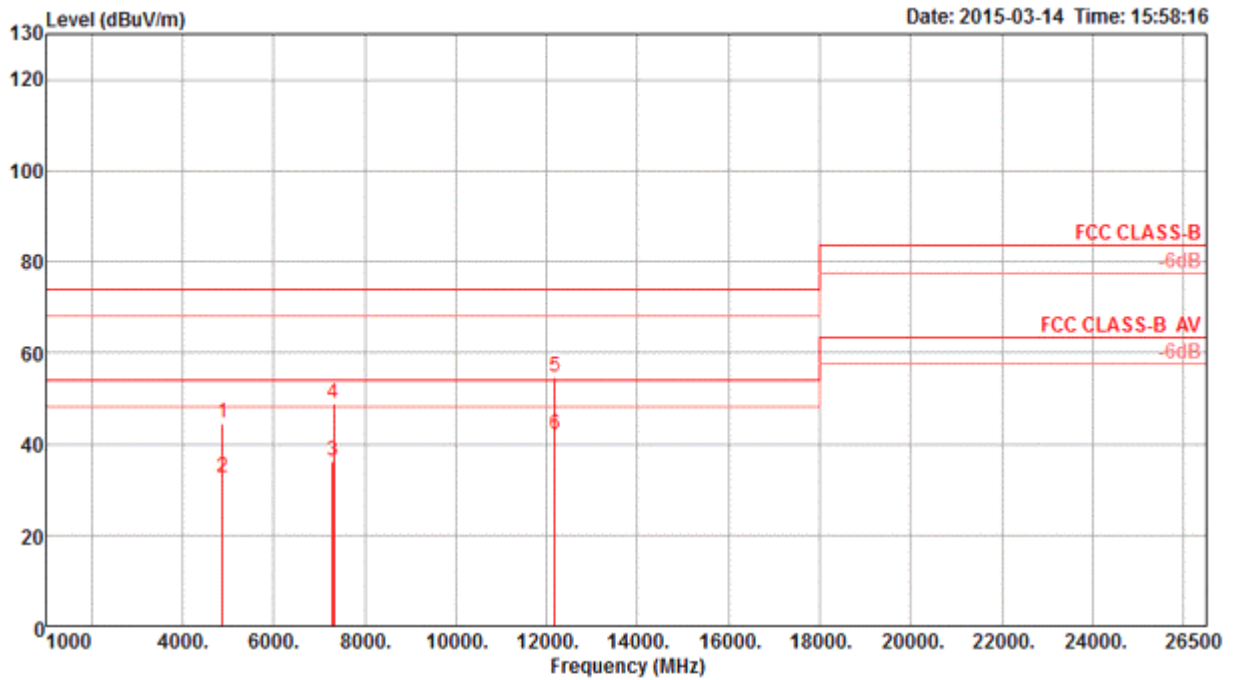
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 6 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4871.40	44.44	74.00	-29.56	40.55	5.92	32.93	34.96	Peak	211	11	VERTICAL
2	4880.32	32.53	54.00	-21.47	28.64	5.92	32.93	34.96	Average	211	11	VERTICAL
3	7309.08	36.31	54.00	-17.69	27.43	7.13	36.97	35.22	Average	123	237	VERTICAL
4	7313.20	48.74	74.00	-25.26	39.87	7.13	36.97	35.23	Peak	123	237	VERTICAL
5	12181.12	54.60	74.00	-19.40	39.90	9.38	40.04	34.72	Peak	133	194	VERTICAL
6	12183.24	42.19	54.00	-11.81	27.47	9.38	40.04	34.70	Average	133	194	VERTICAL

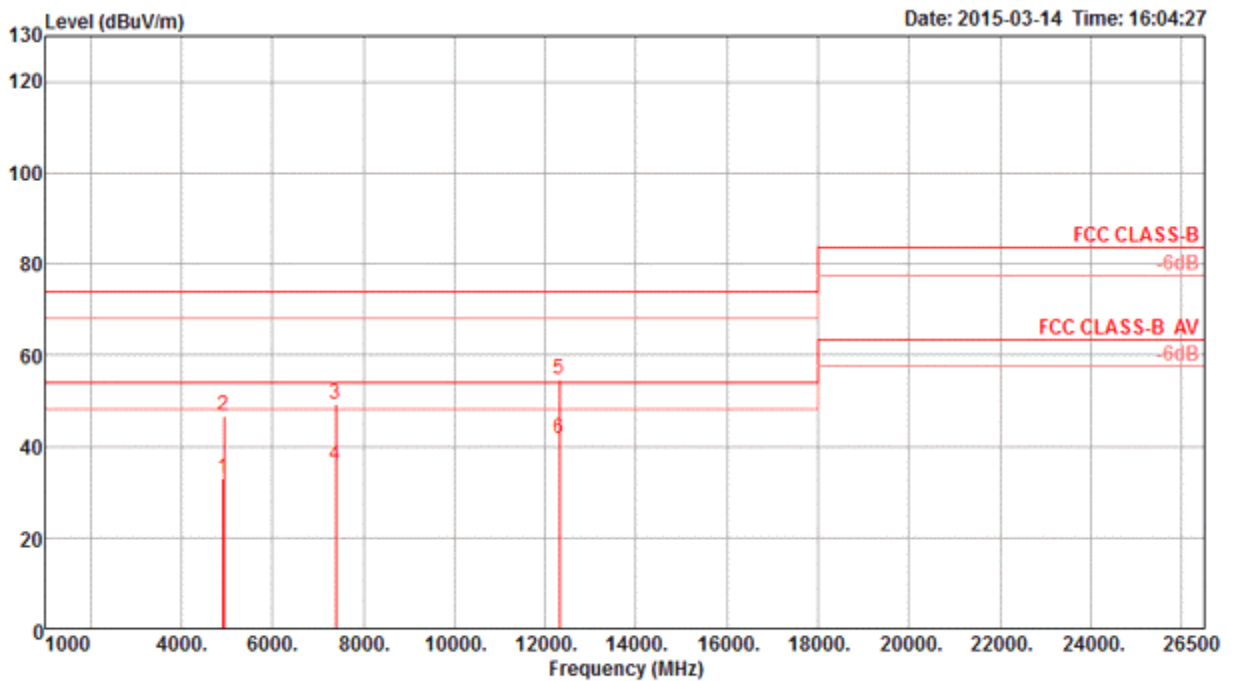
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 11 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4921.82	33.13	54.00	-20.87	29.06	5.97	33.05	34.95	Average	230	275	HORIZONTAL
2	4925.56	46.64	74.00	-27.36	42.57	5.97	33.05	34.95	Peak	230	275	HORIZONTAL
3	7390.54	49.20	74.00	-24.80	40.18	7.17	37.08	35.23	Peak	230	16	HORIZONTAL
4	7390.72	35.93	54.00	-18.07	26.91	7.17	37.08	35.23	Average	230	16	HORIZONTAL
5	12307.20	54.84	74.00	-19.16	40.01	9.40	40.06	34.63	Peak	124	237	HORIZONTAL
6	12311.68	41.81	54.00	-12.19	26.96	9.40	40.06	34.61	Average	124	237	HORIZONTAL

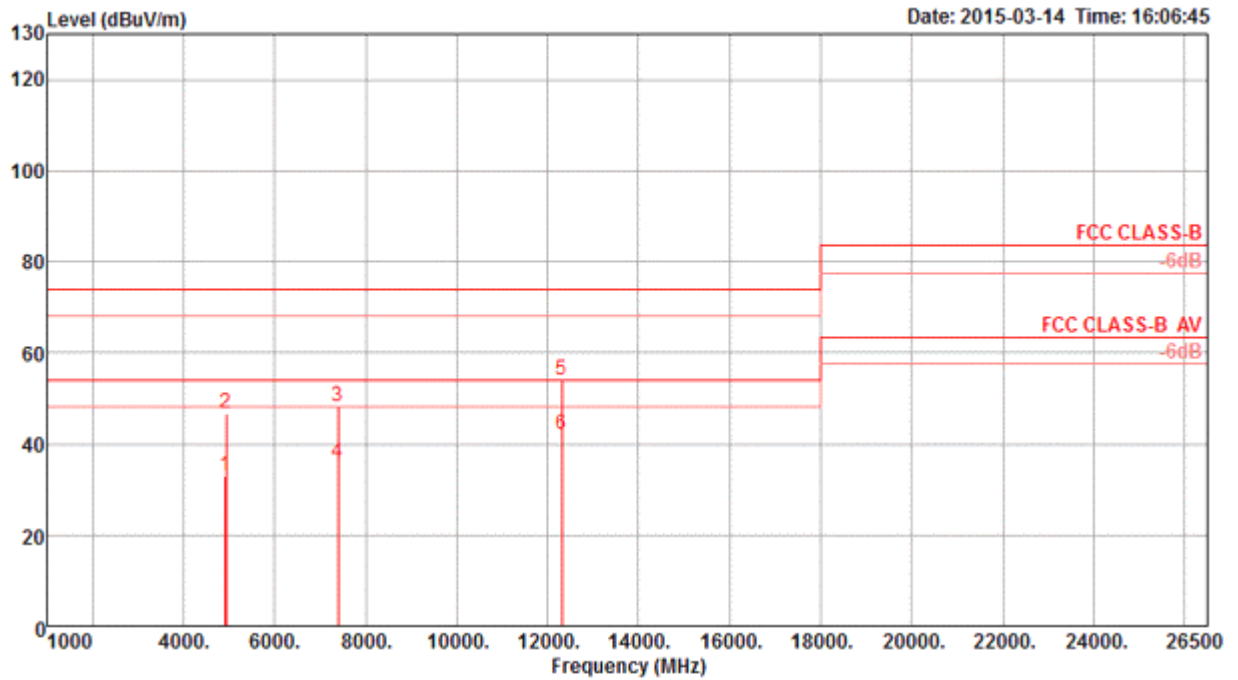
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 11 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4921.28	32.96	54.00	-21.04	28.89	5.97	33.05	34.95	179	56	VERTICAL
2	4927.56	46.58	74.00	-27.42	42.51	5.97	33.05	34.95	179	56	VERTICAL
3	7386.74	48.04	74.00	-25.96	39.02	7.17	37.08	35.23	136	277	VERTICAL
4	7390.96	35.82	54.00	-18.18	26.80	7.17	37.08	35.23	136	277	VERTICAL
5	12306.12	54.01	74.00	-19.99	39.18	9.40	40.06	34.63	232	98	VERTICAL
6	12312.24	41.89	54.00	-12.11	27.04	9.40	40.06	34.61	232	98	VERTICAL

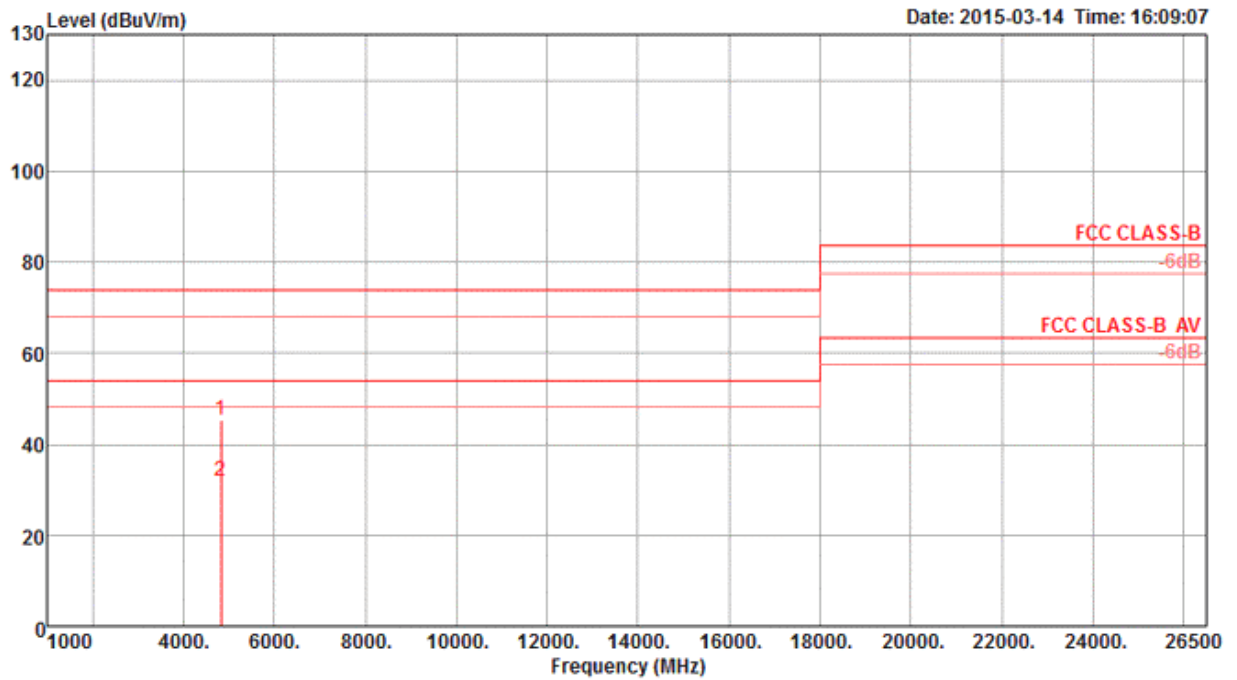
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 1 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Line	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4828.06	45.30	74.00	-28.70	41.57	5.87	32.82	34.96	Peak	230	16	HORIZONTAL
2	4828.88	31.73	54.00	-22.27	28.00	5.87	32.82	34.96	Average	230	16	HORIZONTAL

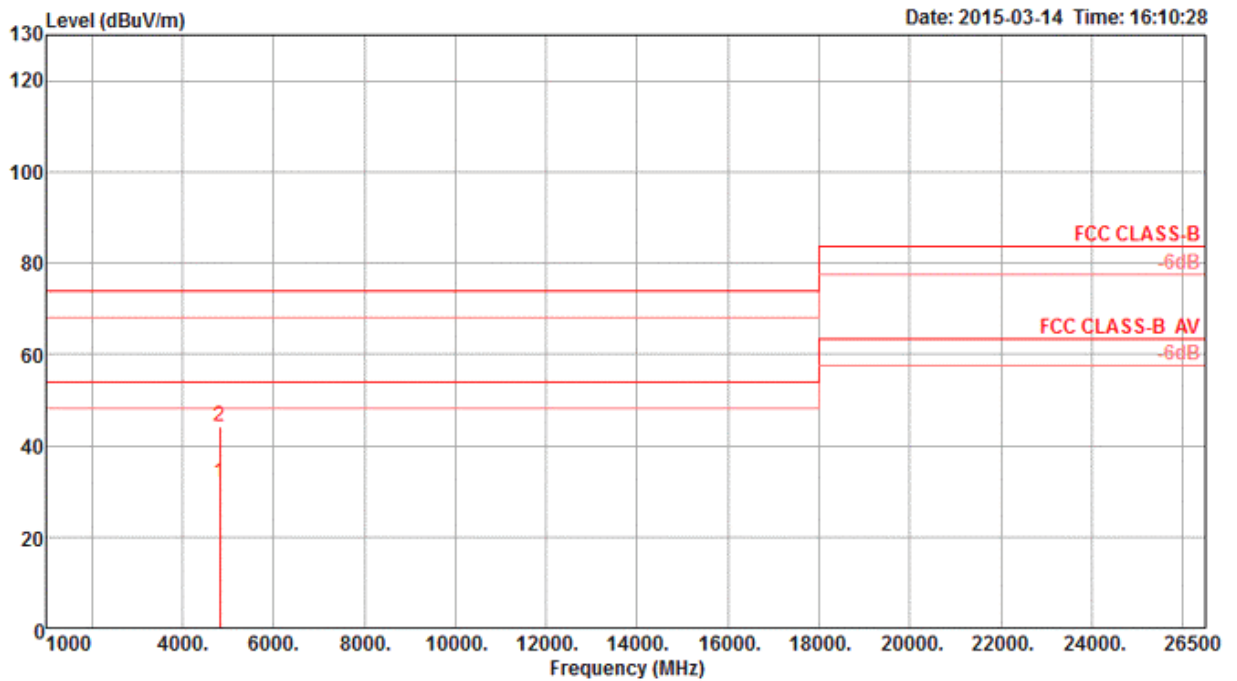
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 1 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4825.66	31.75	54.00	-22.25	28.02	5.87	32.82	34.96 Average	161	208	VERTICAL
2	4826.04	44.33	74.00	-29.67	40.60	5.87	32.82	34.96 Peak	161	208	VERTICAL

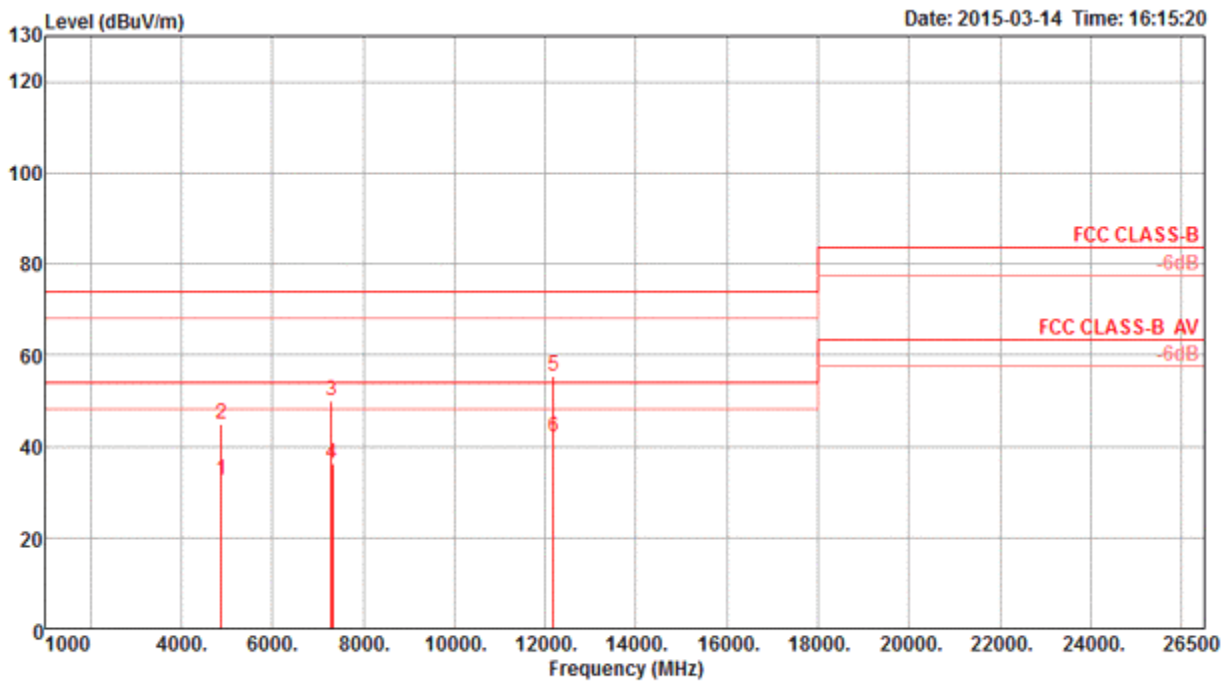
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 6 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



1	2	3	4	5	6					A/Pos	T/Pos	Pol/Phase
Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark			cm	deg	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB					
1	4877.04	32.51	54.00	-21.49	28.62	5.92	32.93	34.96	Average	131	211	HORIZONTAL
2	4878.08	45.00	74.00	-29.00	41.11	5.92	32.93	34.96	Peak	131	211	HORIZONTAL
3	7311.56	50.12	74.00	-23.88	41.25	7.13	36.97	35.23	Peak	151	208	HORIZONTAL
4	7311.88	36.21	54.00	-17.79	27.34	7.13	36.97	35.23	Average	151	208	HORIZONTAL
5	12183.24	55.41	74.00	-18.59	40.69	9.38	40.04	34.70	Peak	214	123	HORIZONTAL
6	12189.42	41.90	54.00	-12.10	27.18	9.38	40.04	34.70	Average	214	123	HORIZONTAL

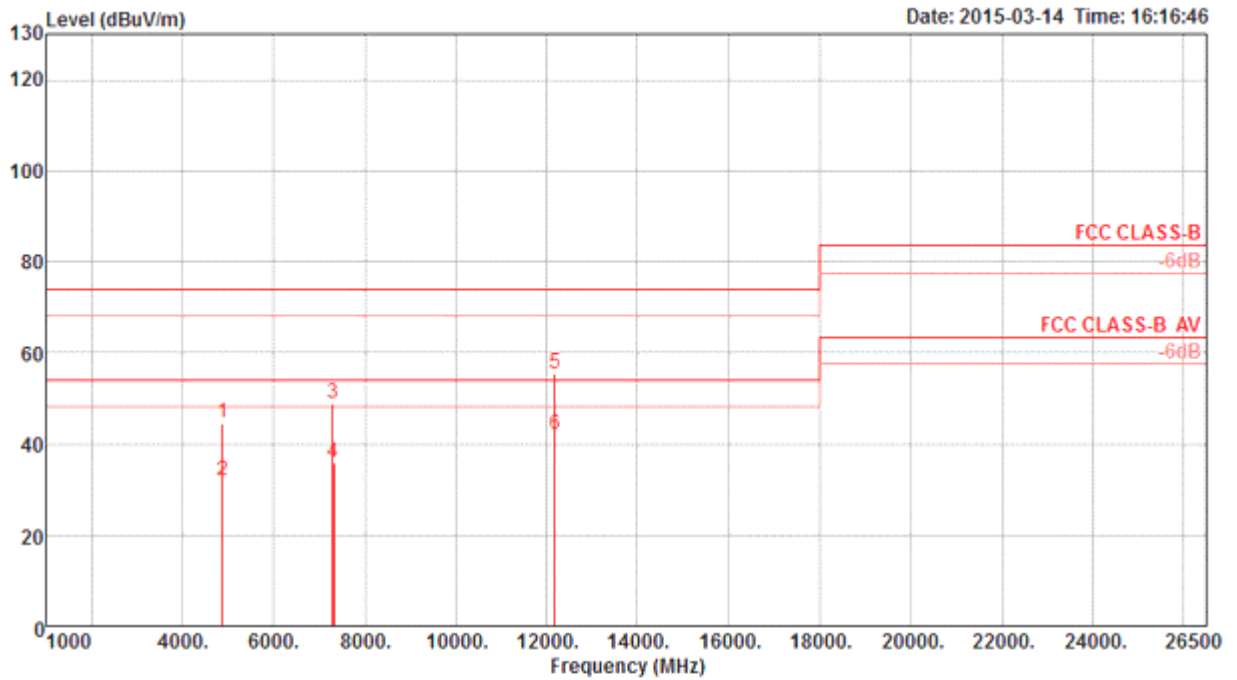
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 6 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	Pol/Phase
1	4876.20	44.53	74.00	-29.47	40.64	5.92	32.93	34.96	104	233	VERTICAL
2	4879.00	31.88	54.00	-22.12	27.99	5.92	32.93	34.96	104	233	VERTICAL
3	7309.02	48.98	74.00	-25.02	40.10	7.13	36.97	35.22	182	154	VERTICAL
4	7312.58	35.79	54.00	-18.21	26.92	7.13	36.97	35.23	182	154	VERTICAL
5	12184.74	55.35	74.00	-18.65	40.63	9.38	40.04	34.70	236	172	VERTICAL
6	12187.46	41.97	54.00	-12.03	27.25	9.38	40.04	34.70	236	172	VERTICAL

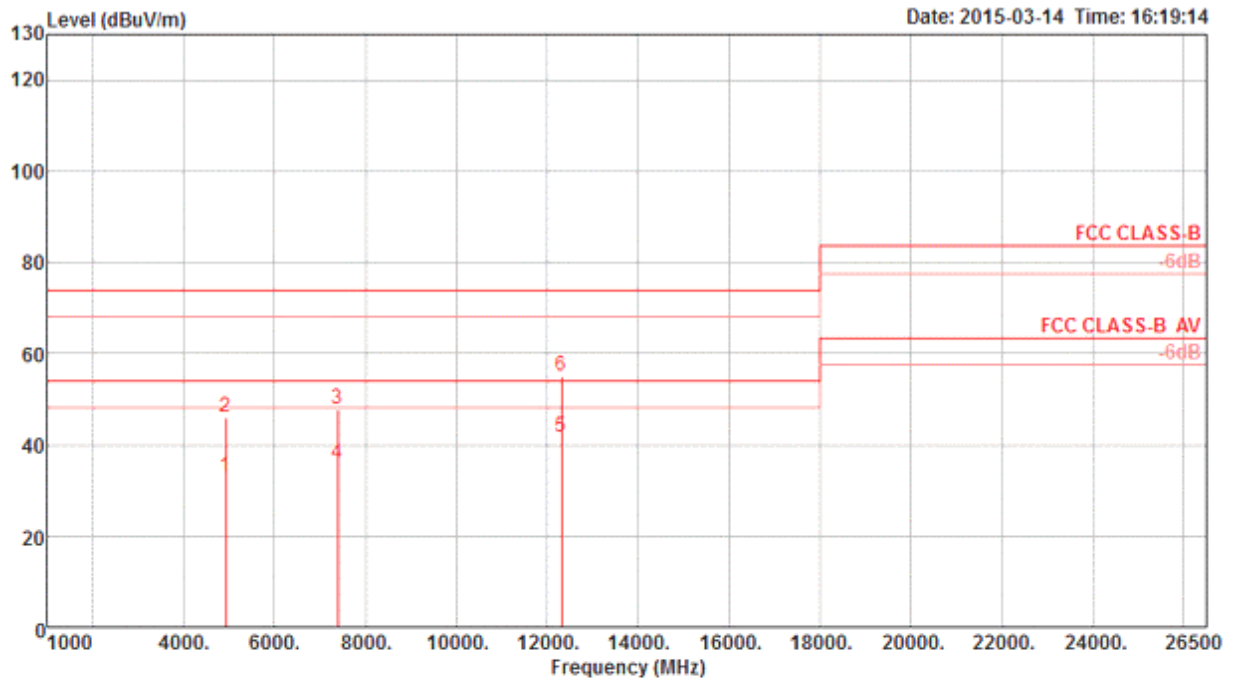
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 11 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4927.70	32.85	54.00	-21.15	28.78	5.97	33.05	34.95	Average	107	93	HORIZONTAL
2	4928.40	45.83	74.00	-28.17	41.76	5.97	33.05	34.95	Peak	107	93	HORIZONTAL
3	7385.68	47.81	74.00	-26.19	38.79	7.17	37.08	35.23	Peak	188	293	HORIZONTAL
4	7388.50	35.89	54.00	-18.11	26.87	7.17	37.08	35.23	Average	188	293	HORIZONTAL
5	12310.74	41.82	54.00	-12.18	26.97	9.40	40.06	34.61	Average	161	14	HORIZONTAL
6	12312.34	55.21	74.00	-18.79	40.36	9.40	40.06	34.61	Peak	161	14	HORIZONTAL

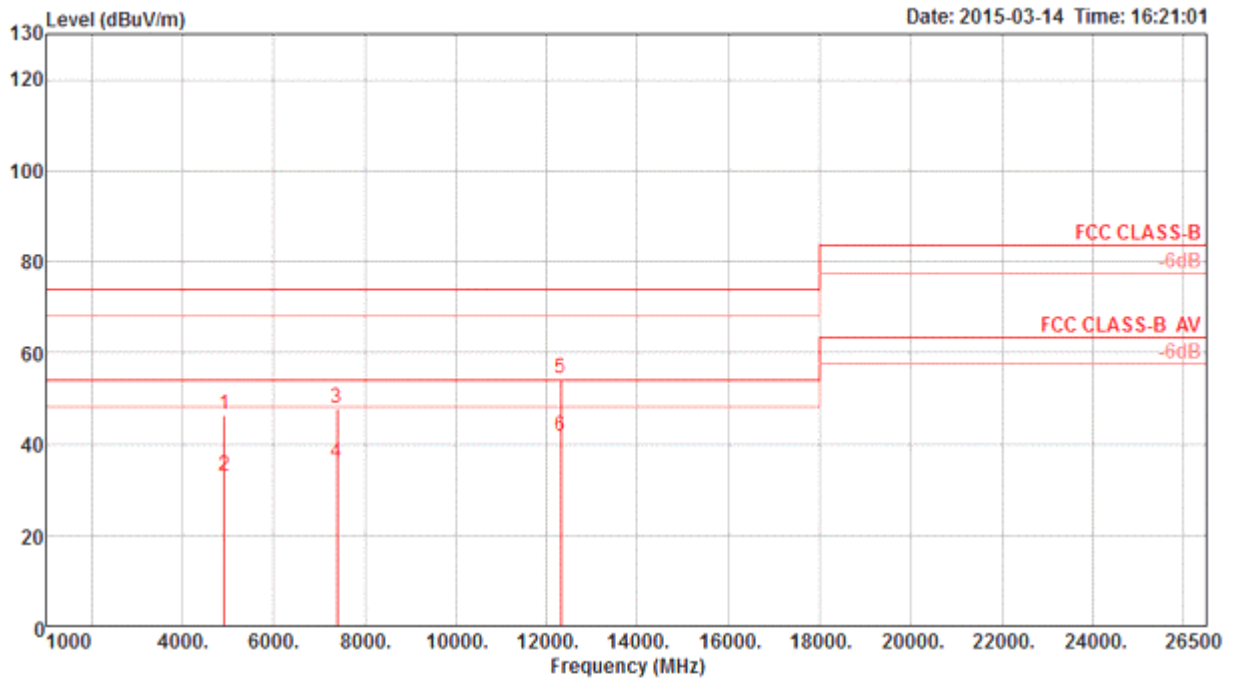
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 11 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	Pol/Phase
1	4919.02	46.24	74.00	-27.76	42.17	5.97	33.05	34.95	191	233	VERTICAL
2	4919.64	32.91	54.00	-21.09	28.84	5.97	33.05	34.95	191	233	VERTICAL
3	7387.72	47.98	74.00	-26.02	38.96	7.17	37.08	35.23	124	185	VERTICAL
4	7388.32	35.85	54.00	-18.15	26.83	7.17	37.08	35.23	124	185	VERTICAL
5	12308.30	54.29	74.00	-19.71	39.46	9.40	40.06	34.63	147	196	VERTICAL
6	12314.62	41.64	54.00	-12.36	26.78	9.40	40.07	34.61	147	196	VERTICAL

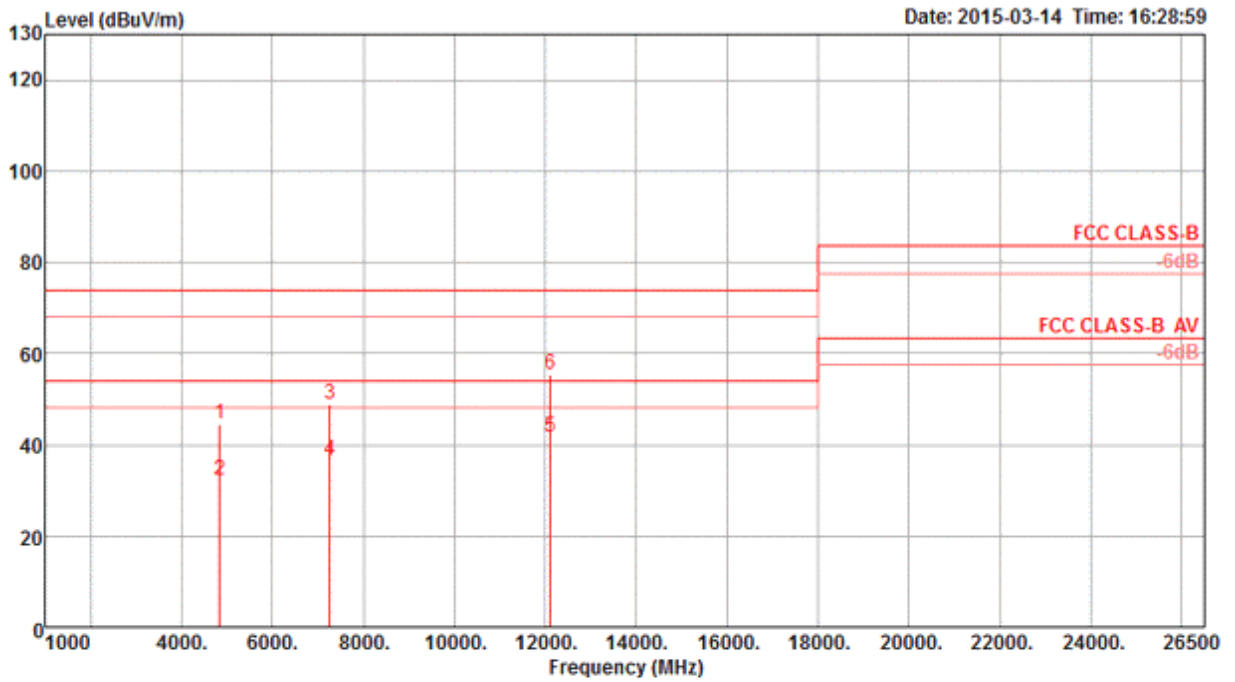
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 3 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4846.48	44.49	74.00	-29.51	40.71	5.88	32.86	34.96	Peak	211	93	HORIZONTAL
2	4848.12	32.21	54.00	-21.79	28.43	5.88	32.86	34.96	Average	211	93	HORIZONTAL
3	7267.72	48.81	74.00	-25.19	39.99	7.11	36.93	35.22	Peak	194	62	HORIZONTAL
4	7267.94	36.68	54.00	-17.32	27.86	7.11	36.93	35.22	Average	194	62	HORIZONTAL
5	12105.42	41.78	54.00	-12.22	27.15	9.37	40.02	34.76	Average	187	297	HORIZONTAL
6	12109.22	55.28	74.00	-18.72	40.65	9.37	40.02	34.76	Peak	187	297	HORIZONTAL

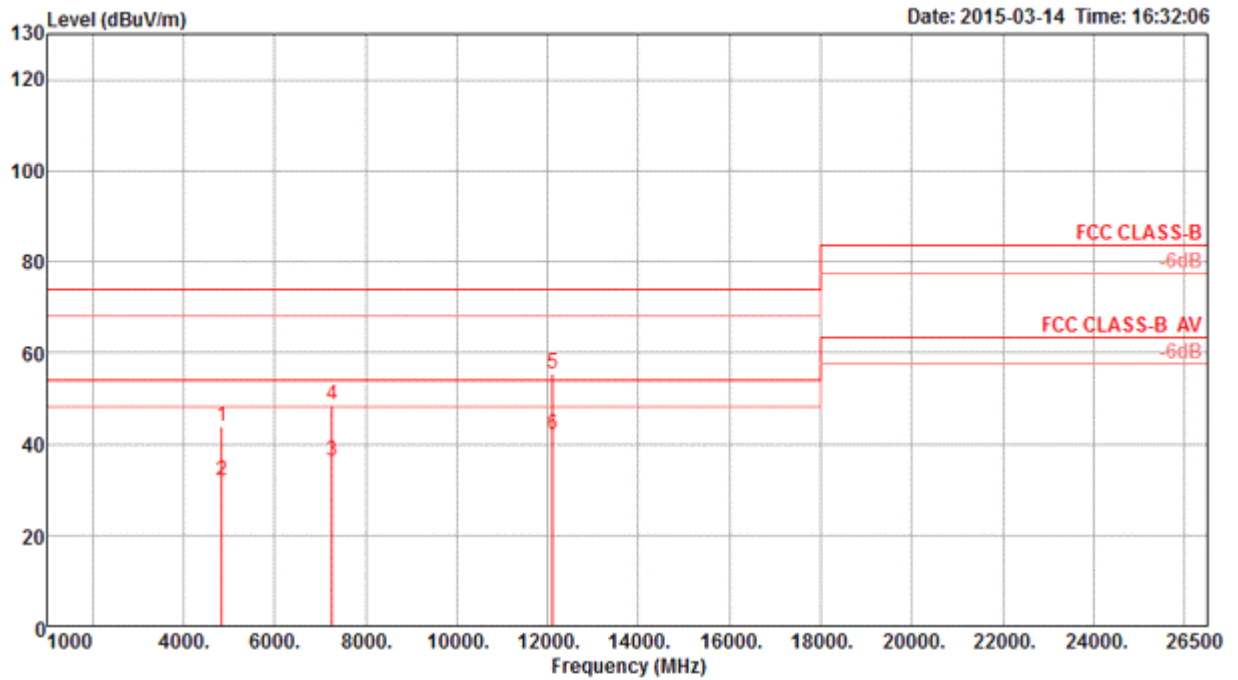
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 3 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4837.68	43.66	74.00	-30.34	39.88	5.88	32.86	34.96	Peak	241	258	VERTICAL
2	4850.24	32.00	54.00	-22.00	28.22	5.88	32.86	34.96	Average	241	258	VERTICAL
3	7265.56	36.18	54.00	-17.82	27.36	7.11	36.93	35.22	Average	112	311	VERTICAL
4	7266.48	48.45	74.00	-25.55	39.63	7.11	36.93	35.22	Peak	122	311	VERTICAL
5	12115.12	55.38	74.00	-18.62	40.75	9.37	40.02	34.76	Peak	159	148	VERTICAL
6	12119.76	42.05	54.00	-11.95	27.42	9.37	40.02	34.76	Average	159	148	VERTICAL

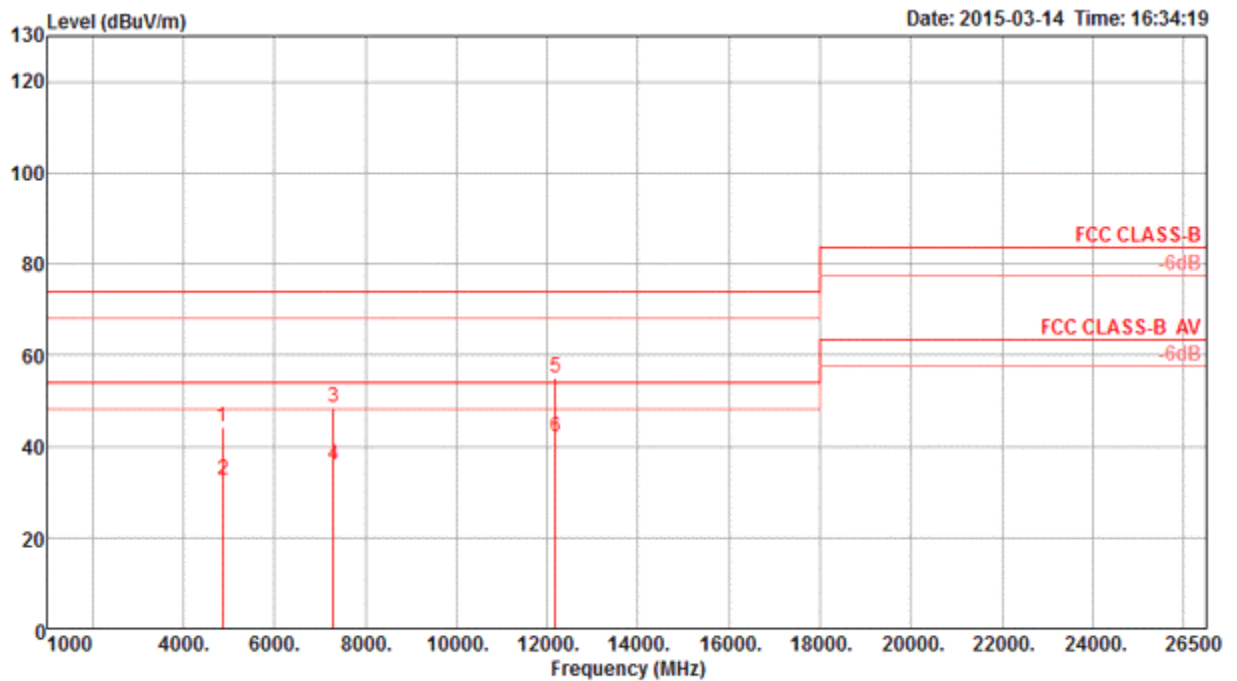
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4864.72	44.26	74.00	-29.74	40.42	5.90	32.90	34.96 Peak	107	54	HORIZONTAL
2	4879.84	32.48	54.00	-21.52	28.59	5.92	32.93	34.96 Average	107	54	HORIZONTAL
3	7301.00	48.50	74.00	-25.50	39.62	7.13	36.97	35.22 Peak	198	256	HORIZONTAL
4	7301.56	35.86	54.00	-18.14	26.98	7.13	36.97	35.22 Average	198	256	HORIZONTAL
5	12188.28	54.91	74.00	-19.09	40.19	9.38	40.04	34.70 Peak	211	147	HORIZONTAL
6	12189.00	41.91	54.00	-12.09	27.19	9.38	40.04	34.70 Average	211	147	HORIZONTAL

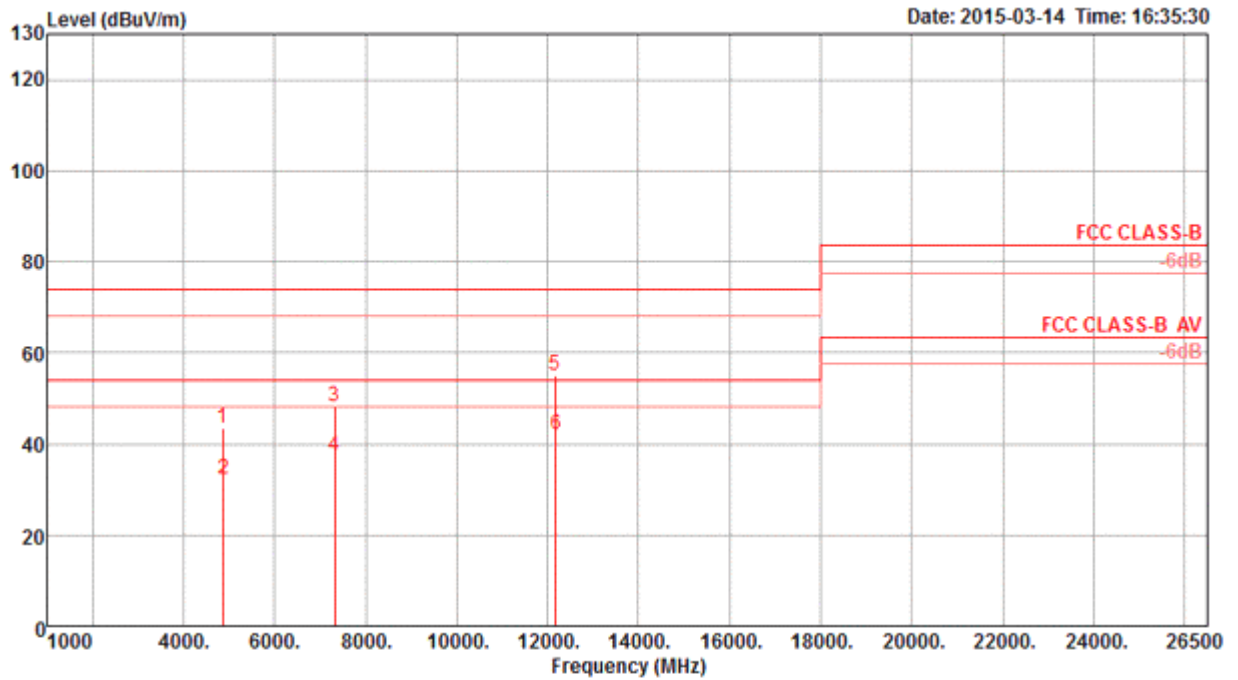
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 6 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4870.08	43.49	74.00	-30.51	39.60	5.92	32.93	34.96	Peak	167	133	VERTICAL
2	4880.48	32.23	54.00	-21.77	28.34	5.92	32.93	34.96	Average	167	133	VERTICAL
3	7312.08	48.26	74.00	-25.74	39.39	7.13	36.97	35.23	Peak	179	247	VERTICAL
4	7316.08	37.12	54.00	-16.88	28.22	7.14	36.99	35.23	Average	179	247	VERTICAL
5	12176.00	55.14	74.00	-18.86	40.45	9.38	40.03	34.72	Peak	264	301	VERTICAL
6	12190.36	42.06	54.00	-11.94	27.34	9.38	40.04	34.70	Average	264	301	VERTICAL

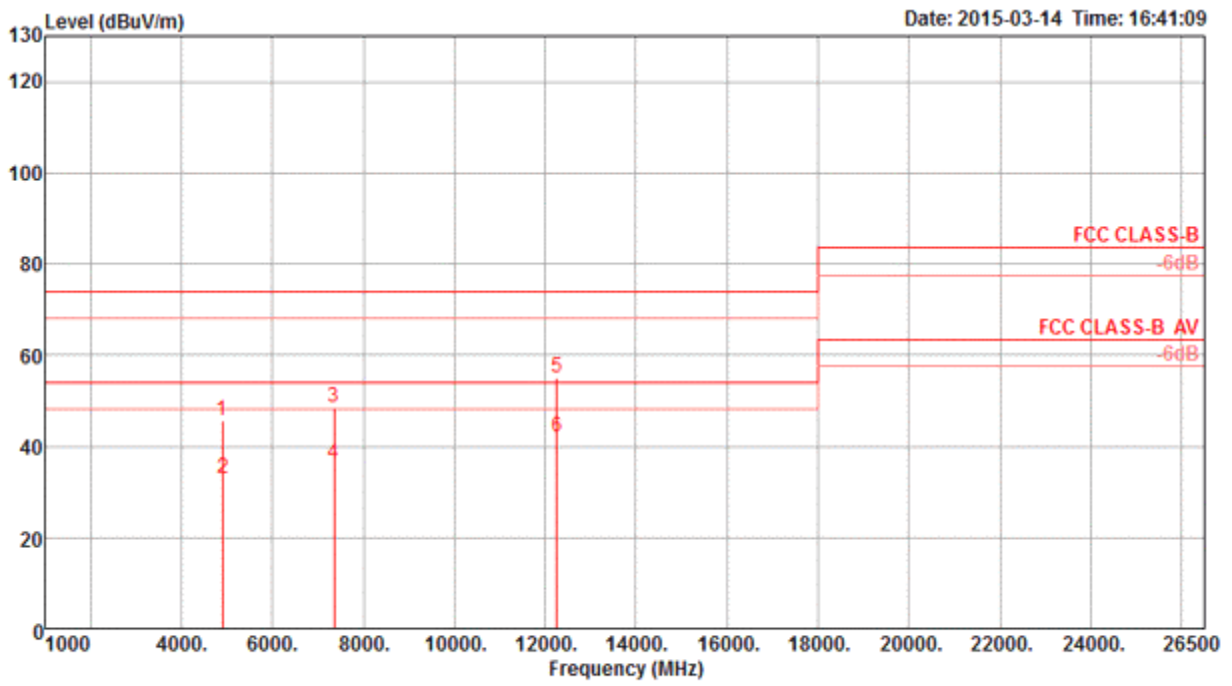
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 9 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4898.16	45.47	74.00	-28.53	41.52	5.93	32.97	34.95 Peak	164	187	HORIZONTAL
2	4908.48	33.08	54.00	-20.92	29.07	5.95	33.01	34.95 Average	164	187	HORIZONTAL
3	7348.64	48.70	74.00	-25.30	39.77	7.15	37.01	35.23 Peak	201	233	HORIZONTAL
4	7349.32	36.09	54.00	-17.91	27.16	7.15	37.01	35.23 Average	201	233	HORIZONTAL
5	12257.84	55.20	74.00	-18.80	40.43	9.39	40.05	34.67 Peak	255	233	HORIZONTAL
6	12261.96	42.17	54.00	-11.83	27.38	9.39	40.05	34.65 Average	255	233	HORIZONTAL

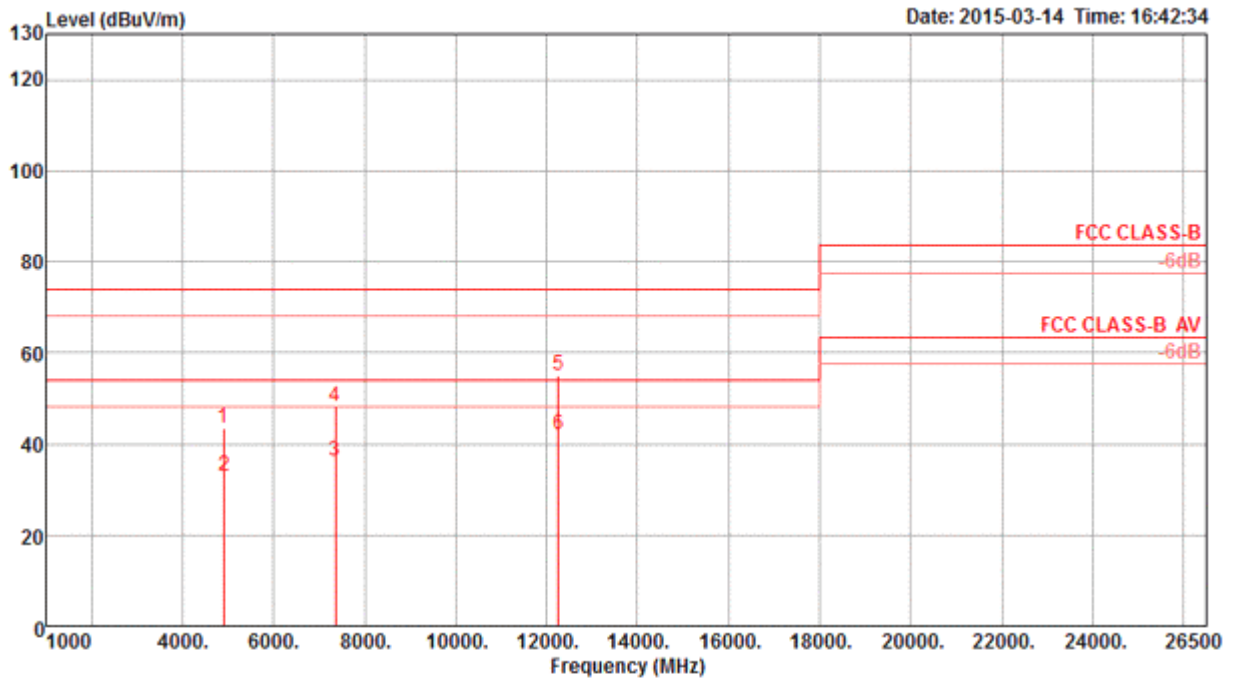
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 9 / Ant.2			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	Pol/Phase
1	4894.48	43.39	74.00	-30.61	39.44	5.93	32.97	34.95	261	307	VERTICAL
2	4910.08	33.02	54.00	-20.98	29.01	5.95	33.01	34.95	261	307	VERTICAL
3	7348.52	36.13	54.00	-17.87	27.20	7.15	37.01	35.23	122	351	VERTICAL
4	7354.68	48.32	74.00	-25.68	39.36	7.16	37.03	35.23	122	351	VERTICAL
5	12250.36	55.05	74.00	-18.95	40.28	9.39	40.05	34.67	211	234	VERTICAL
6	12254.56	42.13	54.00	-11.87	27.36	9.39	40.05	34.67	211	234	VERTICAL

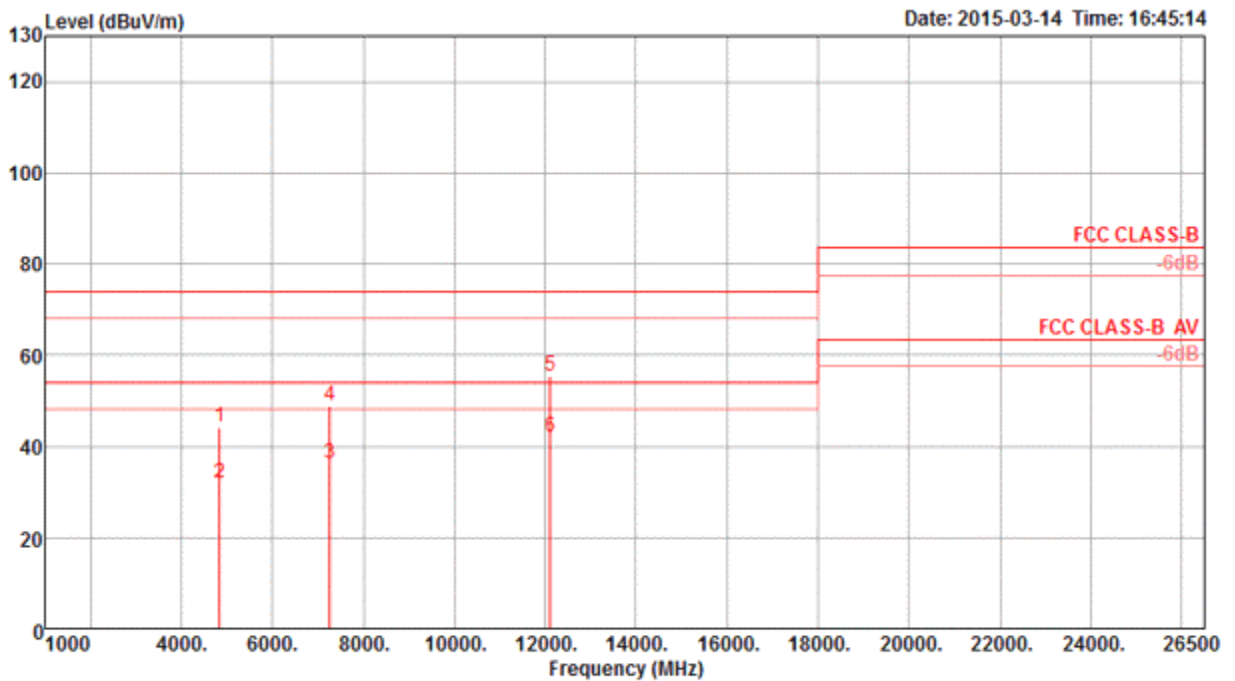
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 3 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase	
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg		
1	4847.24	44.24	74.00	-29.76	40.46	5.88	32.86	34.96	Peak	214	144	HORIZONTAL
2	4848.12	32.03	54.00	-21.97	28.25	5.88	32.86	34.96	Average	214	144	HORIZONTAL
3	7271.48	36.30	54.00	-17.70	27.48	7.11	36.93	35.22	Average	135	177	HORIZONTAL
4	7273.92	48.83	74.00	-25.17	40.01	7.11	36.93	35.22	Peak	135	177	HORIZONTAL
5	12111.24	55.31	74.00	-18.69	40.68	9.37	40.02	34.76	Peak	121	38	HORIZONTAL
6	12113.00	42.09	54.00	-11.91	27.46	9.37	40.02	34.76	Average	121	38	HORIZONTAL

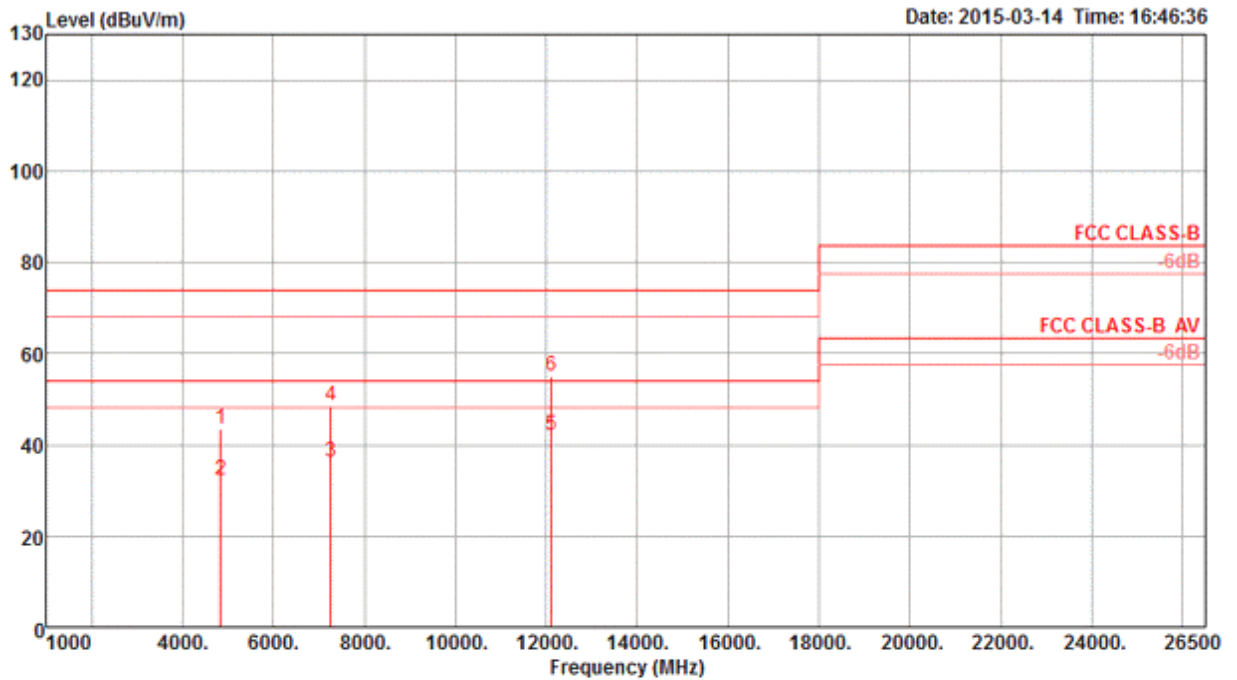
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 3 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4846.04	43.46	74.00	-30.54	39.68	5.88	32.86	34.96	Peak	156	89	VERTICAL
2	4848.32	32.22	54.00	-21.78	28.44	5.88	32.86	34.96	Average	156	89	VERTICAL
3	7269.44	36.23	54.00	-17.77	27.41	7.11	36.93	35.22	Average	204	137	VERTICAL
4	7275.44	48.41	74.00	-25.59	39.59	7.11	36.93	35.22	Peak	204	137	VERTICAL
5	12107.56	42.07	54.00	-11.93	27.44	9.37	40.02	34.76	Average	133	241	VERTICAL
6	12109.20	55.20	74.00	-18.80	40.57	9.37	40.02	34.76	Peak	133	241	VERTICAL

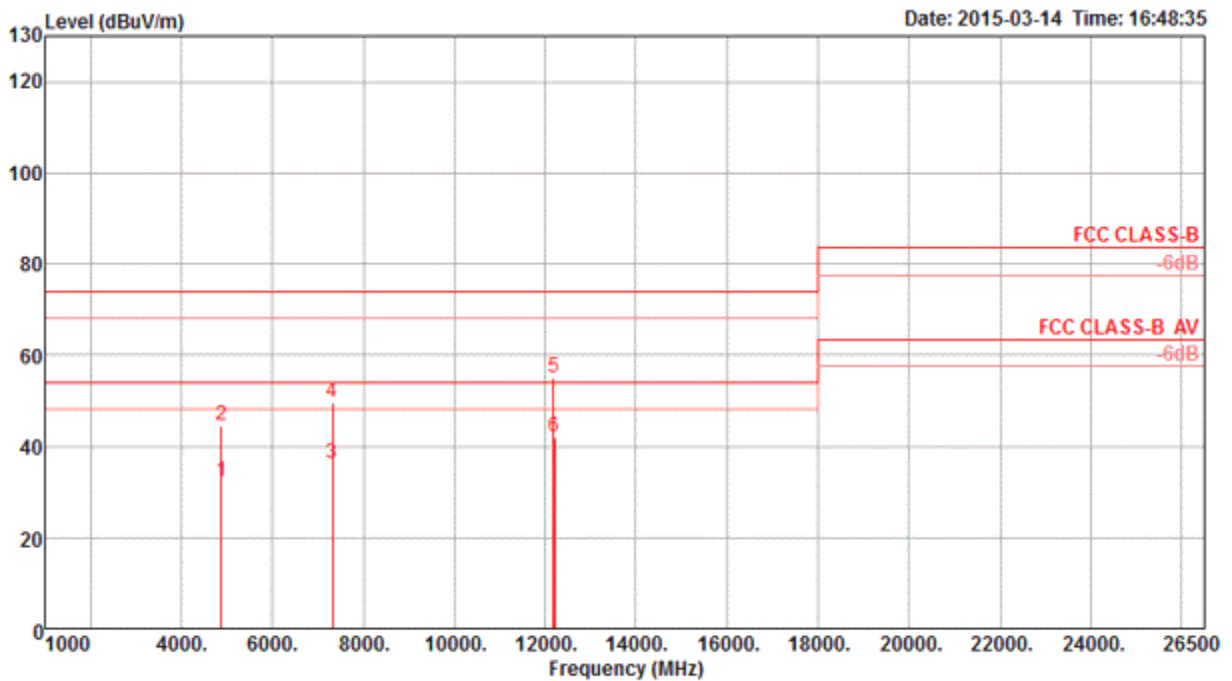
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 6 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4879.80	32.24	54.00	-21.76	28.35	5.92	32.93	34.96 Average	139	176	HORIZONTAL
2	4882.28	44.61	74.00	-29.39	40.72	5.92	32.93	34.96 Peak	139	176	HORIZONTAL
3	7320.72	36.17	54.00	-17.83	27.27	7.14	36.99	35.23 Average	121	176	HORIZONTAL
4	7320.84	49.79	74.00	-24.21	40.89	7.14	36.99	35.23 Peak	121	176	HORIZONTAL
5	12184.56	54.87	74.00	-19.13	40.15	9.38	40.04	34.70 Peak	250	233	HORIZONTAL
6	12194.72	41.99	54.00	-12.01	27.27	9.38	40.04	34.70 Average	250	233	HORIZONTAL

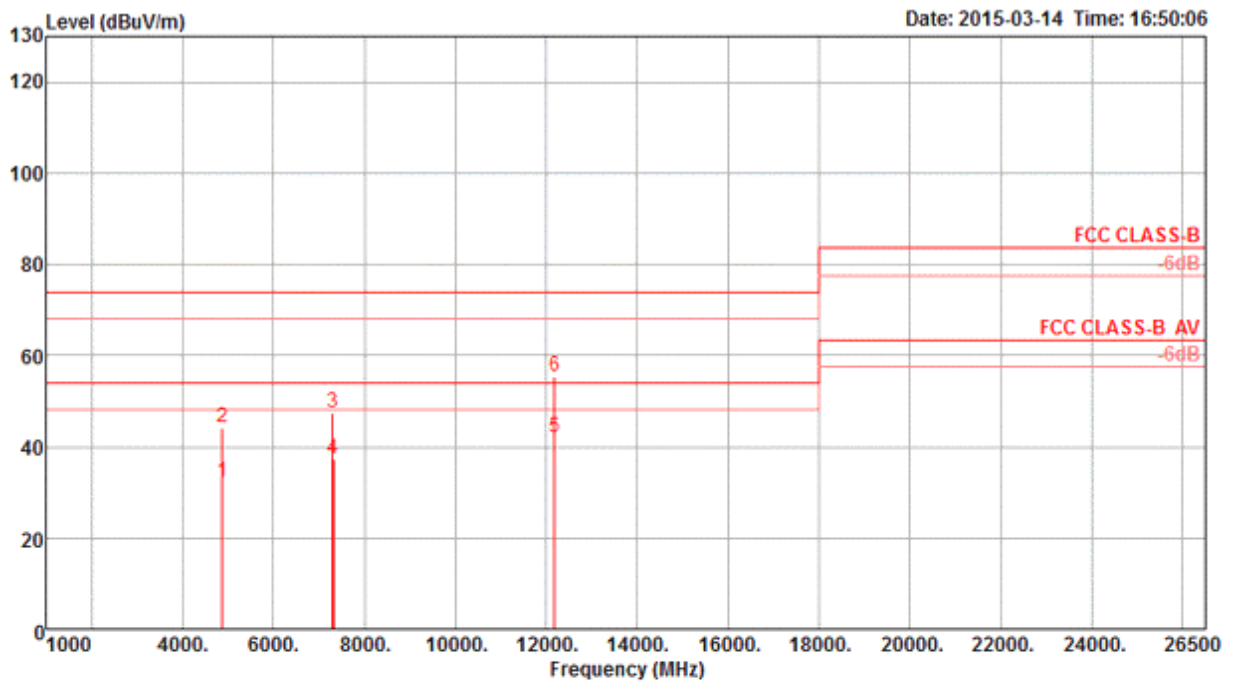
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 6 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	4879.16	32.34	54.00	-21.66	28.45	5.92	32.93	34.96	231	274	VERTICAL
2	4883.36	44.24	74.00	-29.76	40.35	5.92	32.93	34.96	231	274	VERTICAL
3	7308.64	47.39	74.00	-26.61	38.51	7.13	36.97	35.22	252	233	VERTICAL
4	7317.20	37.18	54.00	-16.82	28.28	7.14	36.99	35.23	252	233	VERTICAL
5	12190.20	41.87	54.00	-12.13	27.15	9.38	40.04	34.70	111	311	VERTICAL
6	12194.32	55.29	74.00	-18.71	40.57	9.38	40.04	34.70	111	311	VERTICAL

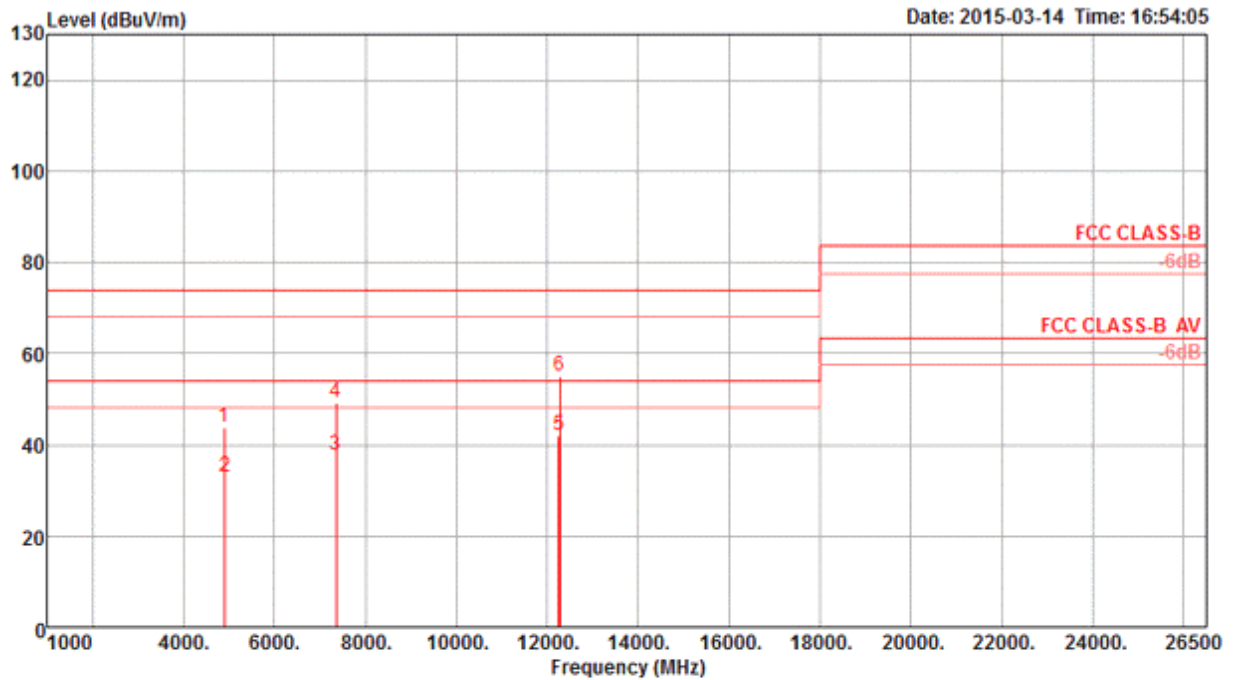
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 9 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4898.16	43.65	74.00	-30.35	39.70	5.93	32.97	34.95	Peak	166	351	HORIZONTAL
2	4910.44	33.04	54.00	-20.96	29.03	5.95	33.01	34.95	Average	166	351	HORIZONTAL
3	7358.72	37.76	54.00	-16.24	28.80	7.16	37.03	35.23	Average	244	257	HORIZONTAL
4	7365.48	49.14	74.00	-24.86	40.18	7.16	37.03	35.23	Peak	244	257	HORIZONTAL
5	12260.36	41.97	54.00	-12.03	27.18	9.39	40.05	34.65	Average	154	344	HORIZONTAL
6	12269.48	54.98	74.00	-19.02	40.18	9.39	40.06	34.65	Peak	154	344	HORIZONTAL

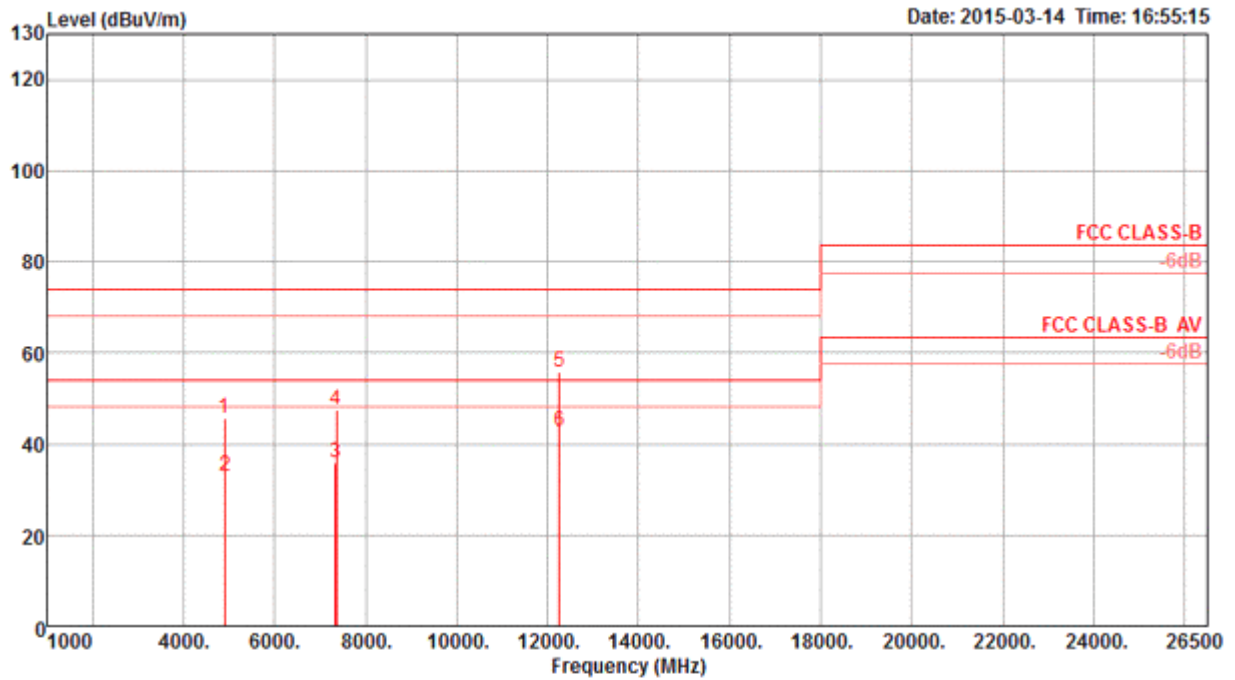
Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Transmitter Radiated Emissions (1GHz~10th Harmonic)					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 9 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4905.52	45.50	74.00	-28.50	41.49	5.95	33.01	34.95	Peak	121	212	VERTICAL
2	4909.16	32.99	54.00	-21.01	28.98	5.95	33.01	34.95	Average	121	212	VERTICAL
3	7346.52	35.82	54.00	-18.18	26.89	7.15	37.01	35.23	Average	103	53	VERTICAL
4	7350.24	47.41	74.00	-26.59	38.45	7.16	37.03	35.23	Peak	103	53	VERTICAL
5	12257.92	55.69	74.00	-18.31	40.92	9.39	40.05	34.67	Peak	166	355	VERTICAL
6	12265.32	42.62	54.00	-11.38	27.82	9.39	40.06	34.65	Average	166	355	VERTICAL

Note 1: The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

3.6. Out of Band Emissions Measurement

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

3.6.2. Measuring Instruments and Setting

Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Analyzer	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	100 kHz /300 kHz for Peak

3.6.3. Test Procedures

For Radiated band edges Measurement:

1. The test procedure is the same as section 3.5.3, only the frequency range investigated is limited to 100MHz around bandedges.
2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

For Radiated Out of Band Emission Measurement:

1. Test was performed in accordance with KDB 558074 D01 v03r02 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.

3.6.4. Test Setup Layout

This test setup layout is the same as that shown in section 3.5.4.

3.6.5. Test Deviation

There are no deviations with the original standard.

3.6.6. EUT Operation during Test

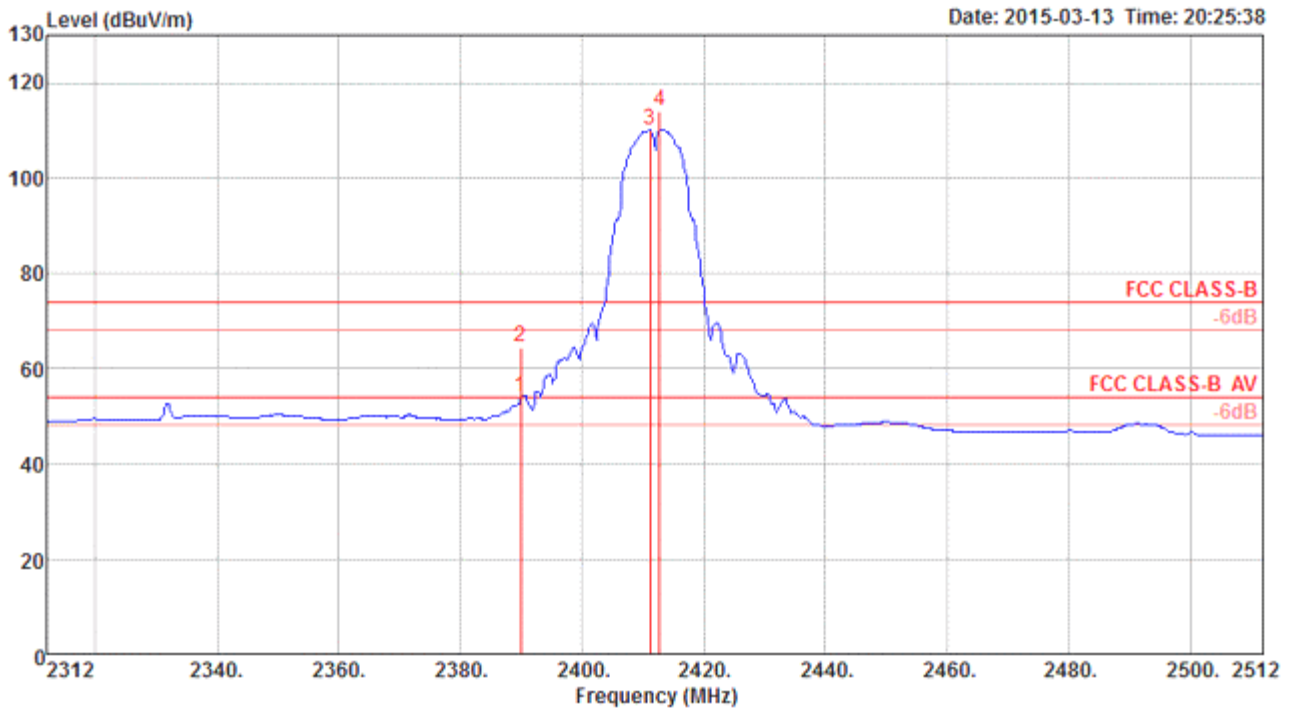
The EUT was programmed to be in continuously transmitting mode.

3.6.7. Test Result of Band Edge and Fundamental Emissions

Following channel(s) was (were) selected for the final test as listed below.

MODE	TX Chain	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	Ant.2	1, 6, 11	DSSS	DBPSK	1
802.11b	1S3T, CDD	1, 6, 11	DSSS	DBPSK	1
802.11g	Ant.2	1, 6, 11	OFDM	BPSK	6
802.11g	1S3T, CDD	1, 6, 11	OFDM	BPSK	6
802.11n 20MHz	Ant.2	1, 6, 11	OFDM	BPSK	MCS0 (6.5)
802.11n 20MHz	1S3T, CDD	1, 6, 11	OFDM	BPSK	MCS0 (6.5)
802.11n 40MHz	Ant.2	3, 6, 9	OFDM	BPSK	MCS0 (13)
802.11n 40MHz	1S3T, CDD	3, 6, 9	OFDM	BPSK	MCS0 (13)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11b CH 1 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	53.98	54.00	-0.02	21.05	4.09	28.84	0.00	Average	155	154	HORIZONTAL
2	2390.00	64.34	74.00	-9.66	31.41	4.09	28.84	0.00	Peak	155	154	HORIZONTAL
3	2411.20	110.09			77.13	4.11	28.85	0.00	Average	155	154	HORIZONTAL
4	2412.80	114.17			81.21	4.11	28.85	0.00	Peak	155	154	HORIZONTAL

Note 1: Item 3, 4 are the fundamental frequency at 2412 MHz

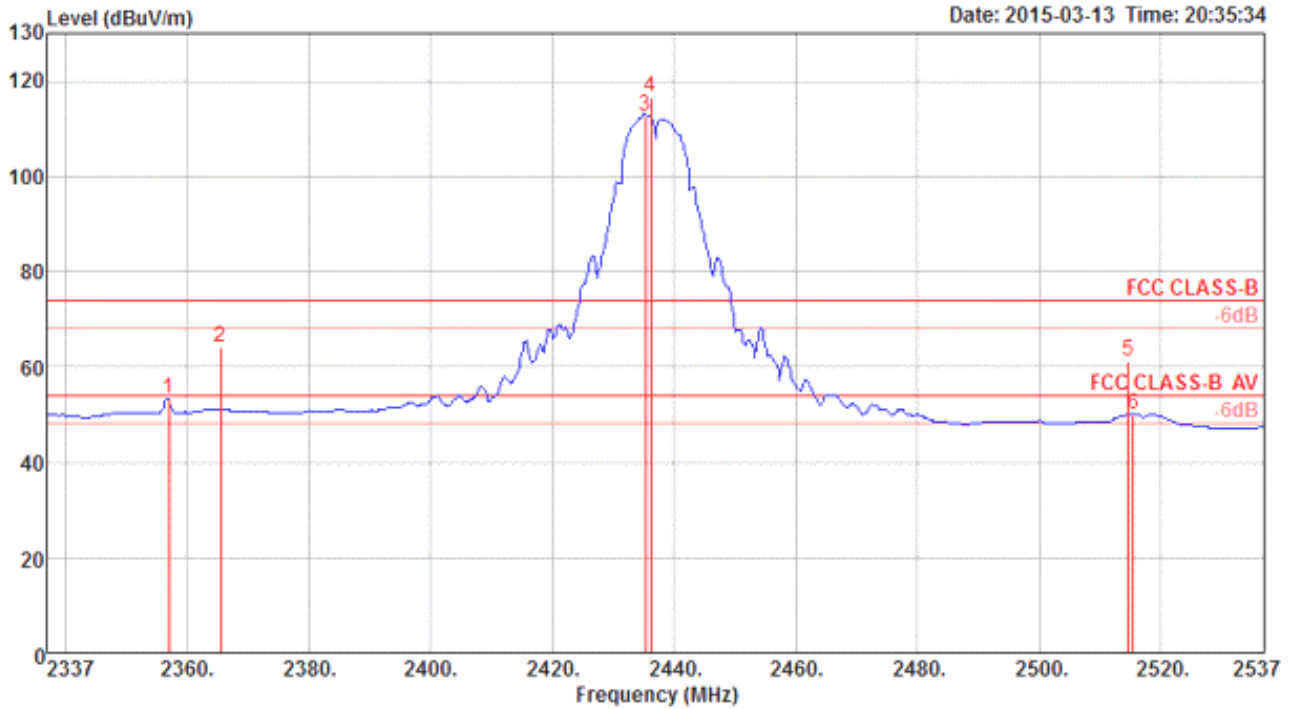
Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions

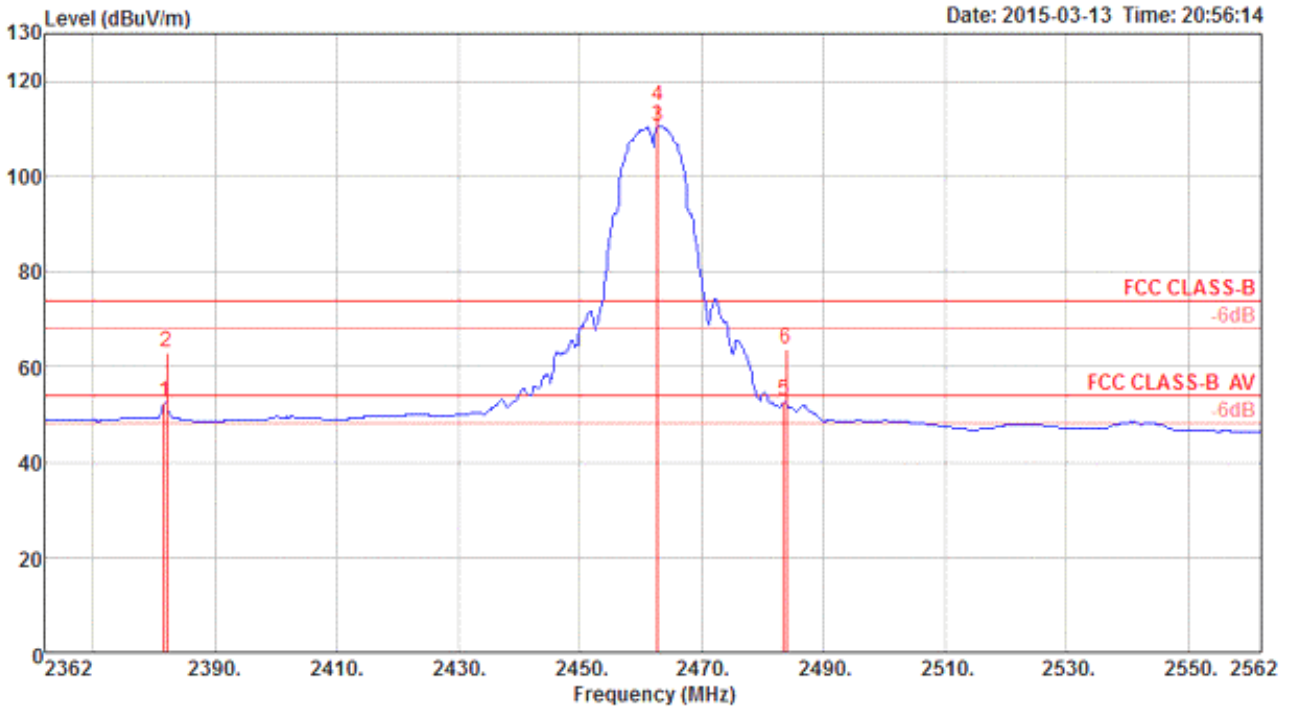
Operating Mode	IEEE 802.11b CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2357.00	53.37	54.00	-0.63	20.48	4.07	28.82	0.00 Average	154	308	HORIZONTAL
2	2365.60	64.12	74.00	-9.88	31.23	4.07	28.82	0.00 Peak	154	308	HORIZONTAL
3	2435.40	112.78			79.80	4.12	28.86	0.00 Average	154	308	HORIZONTAL
4	2436.20	116.77			83.79	4.12	28.86	0.00 Peak	154	308	HORIZONTAL
5	2514.70	61.15	74.00	-12.85	28.03	4.19	28.93	0.00 Peak	154	308	HORIZONTAL
6	2515.50	50.12	54.00	-3.88	17.00	4.19	28.93	0.00 Average	154	308	HORIZONTAL

Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz
 Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).
 Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
 Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

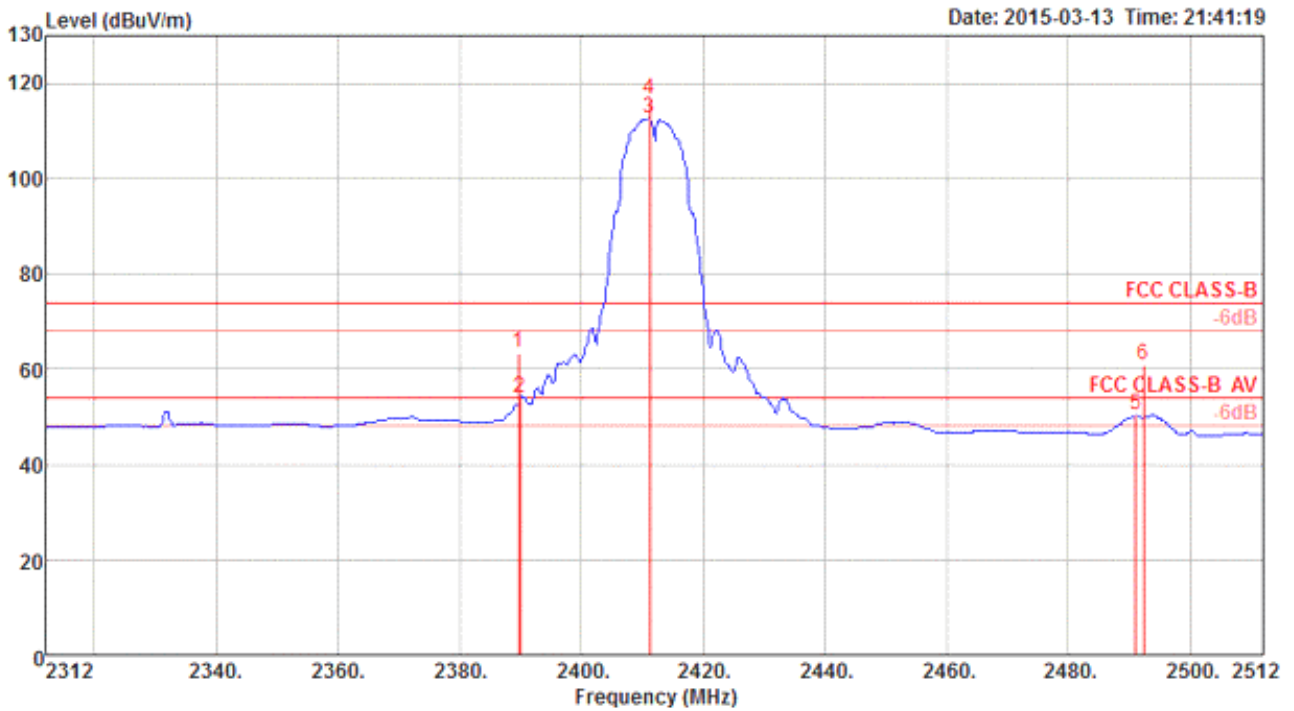
Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11b CH 11 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBUV/m	dBUV/m	dB	dBUV	dB	dB/m	dB		cm	deg	
1	2381.60	52.36	54.00	-1.64	19.45	4.08	28.83	0.00	Average	181	310	HORIZONTAL
2	2382.00	62.90	74.00	-11.10	29.99	4.08	28.83	0.00	Peak	181	310	HORIZONTAL
3	2462.80	110.34			77.32	4.14	28.88	0.00	Average	181	310	HORIZONTAL
4	2462.80	114.74			81.72	4.14	28.88	0.00	Peak	181	310	HORIZONTAL
5	2483.50	52.71	54.00	-1.29	19.66	4.16	28.89	0.00	Average	181	310	HORIZONTAL
6	2483.90	63.59	74.00	-10.41	30.54	4.16	28.89	0.00	Peak	181	310	HORIZONTAL

Note 1: Item 3, 4 are the fundamental frequency at 2462 MHz
 Note 2: Emission level (dBUV/m) = 20 log Emission level (uV/m).
 Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
 Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11b CH 1 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Item	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	Remark	A/Pos cm	T/Pos deg	Pol/Phase
1	2389.60	63.25	74.00	-10.75	30.32	4.09	28.84	0.00	Peak	164	0	VERTICAL
2	2390.00	53.87	54.00	-0.13	20.94	4.09	28.84	0.00	Average	164	0	VERTICAL
3	2411.20	112.60			79.64	4.11	28.85	0.00	Average	164	0	VERTICAL
4	2411.20	116.49			83.53	4.11	28.85	0.00	Peak	164	0	VERTICAL
5	2491.10	50.33	54.00	-3.67	17.26	4.17	28.90	0.00	Average	164	0	VERTICAL
6	2492.30	60.71	74.00	-13.29	27.64	4.17	28.90	0.00	Peak	164	0	VERTICAL

Note 1: Item 3, 4 are the fundamental frequency at 2412 MHz

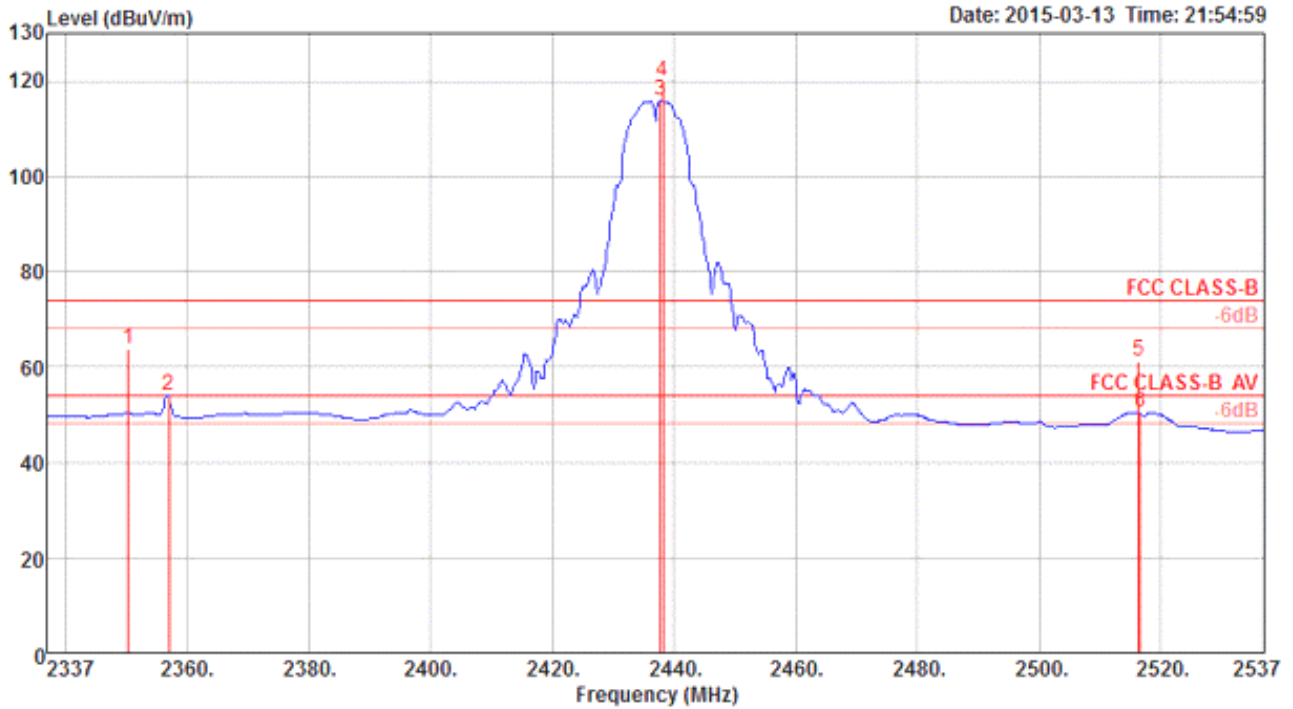
Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions

Operating Mode	IEEE 802.11b CH 6 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBUV/m	dBUV/m	dB	dBUV	dB	dB/m	dB		cm	deg	
1	2350.40	63.73	74.00	-10.27	30.86	4.06	28.81	0.00	Peak	160	359	VERTICAL
2	2357.00	53.97	54.00	-0.03	21.08	4.07	28.82	0.00	Average	160	359	VERTICAL
3	2437.80	115.85			82.85	4.13	28.87	0.00	Average	160	359	VERTICAL
4	2438.20	120.01			87.01	4.13	28.87	0.00	Peak	160	359	VERTICAL
5	2516.30	61.22	74.00	-12.78	28.10	4.19	28.93	0.00	Peak	160	359	VERTICAL
6	2516.70	50.36	54.00	-3.64	17.24	4.19	28.93	0.00	Average	160	359	VERTICAL

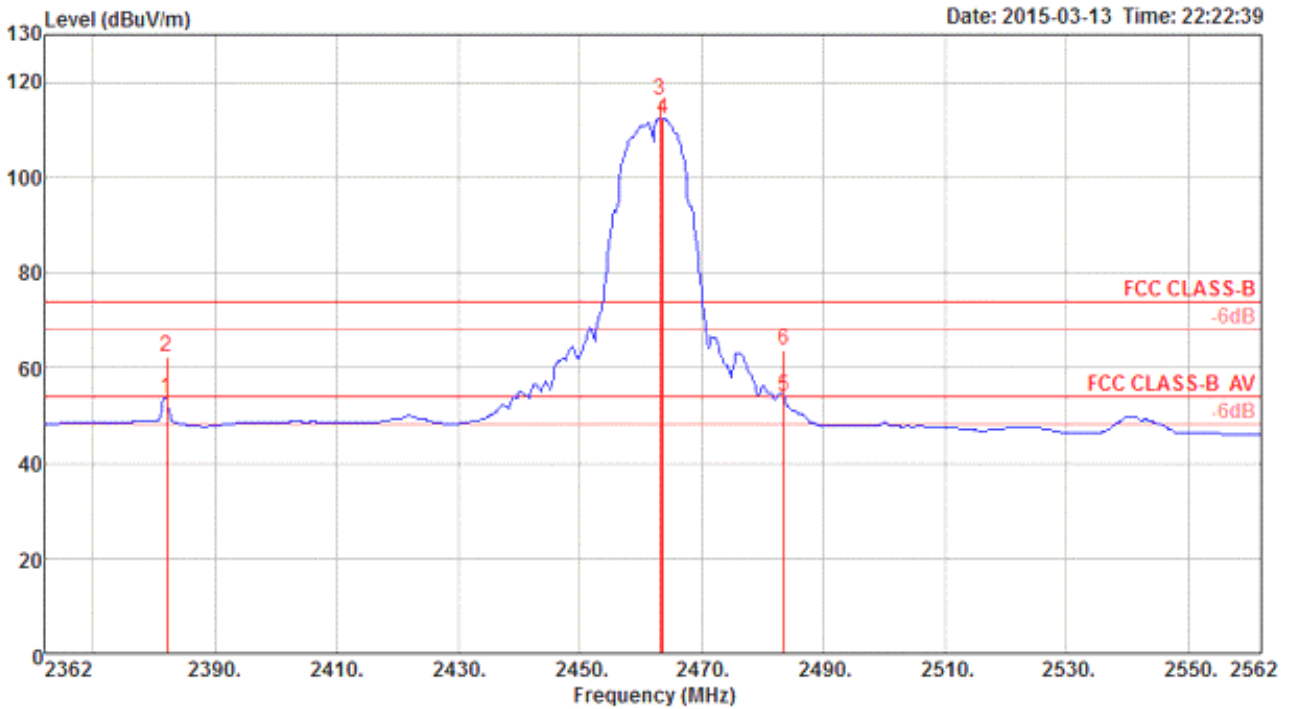
Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz

Note 2: Emission level (dBUV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11b CH 11 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2382.00	53.55	54.00	-0.45	20.64	4.08	28.83	0.00	Average	160	360	VERTICAL
2	2382.00	62.43	74.00	-11.57	29.52	4.08	28.83	0.00	Peak	160	360	VERTICAL
3	2463.20	116.27			83.25	4.14	28.88	0.00	Peak	160	360	VERTICAL
4	2463.60	112.28			79.26	4.14	28.88	0.00	Average	160	360	VERTICAL
5	2483.50	53.88	54.00	-0.12	20.83	4.16	28.89	0.00	Average	160	360	VERTICAL
6	2483.50	63.90	74.00	-10.10	30.85	4.16	28.89	0.00	Peak	160	360	VERTICAL

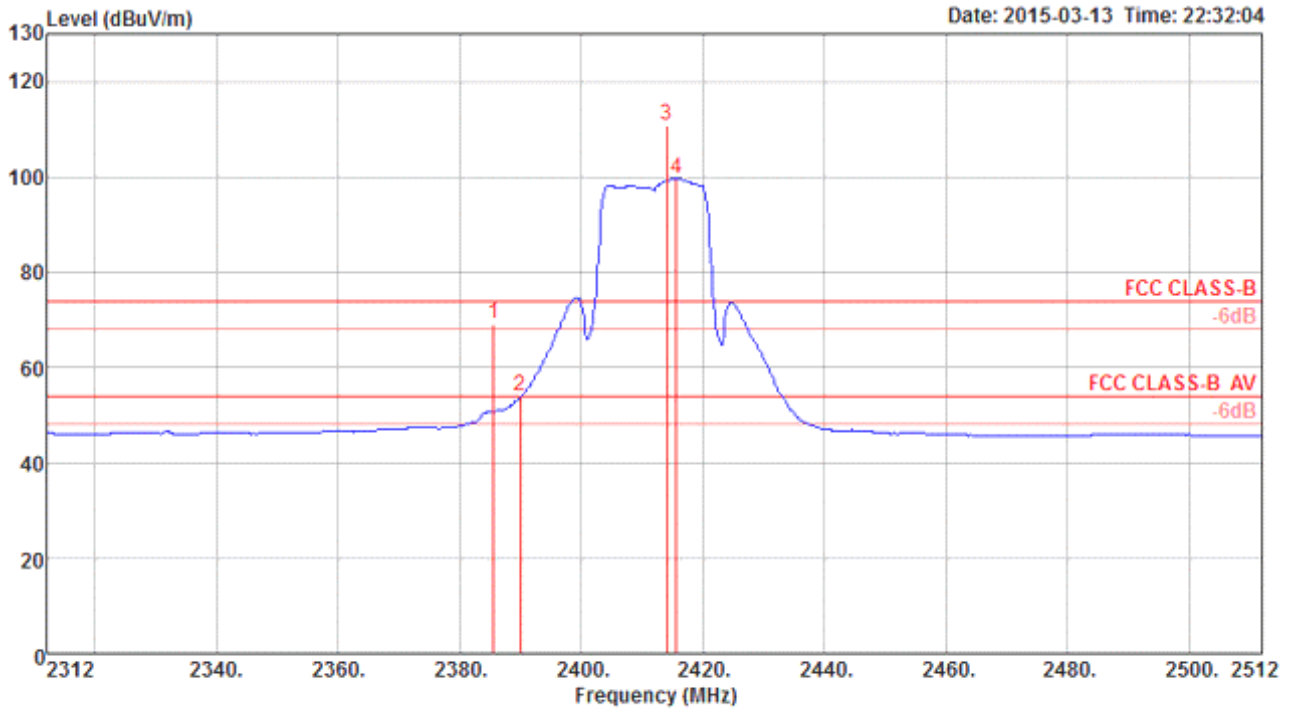
Note 1: Item 3, 4 are the fundamental frequency at 2462 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11g CH 1 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Item	Freq MHz	Level dBuV/m	Limit dBuV/m	Over dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	Remark	A/Pos cm	T/Pos deg	Pol/Phase
1	2385.60	69.13	74.00	-4.87	36.20	4.09	28.84	0.00	Peak	211	308	HORIZONTAL
2	2390.00	53.86	54.00	-0.14	20.93	4.09	28.84	0.00	Average	211	308	HORIZONTAL
3	2414.00	110.76			77.80	4.11	28.85	0.00	Peak	211	308	HORIZONTAL
4	2415.60	99.58			66.62	4.11	28.85	0.00	Average	211	308	HORIZONTAL

Note 1: Item 3, 4 are the fundamental frequency at 2412 MHz

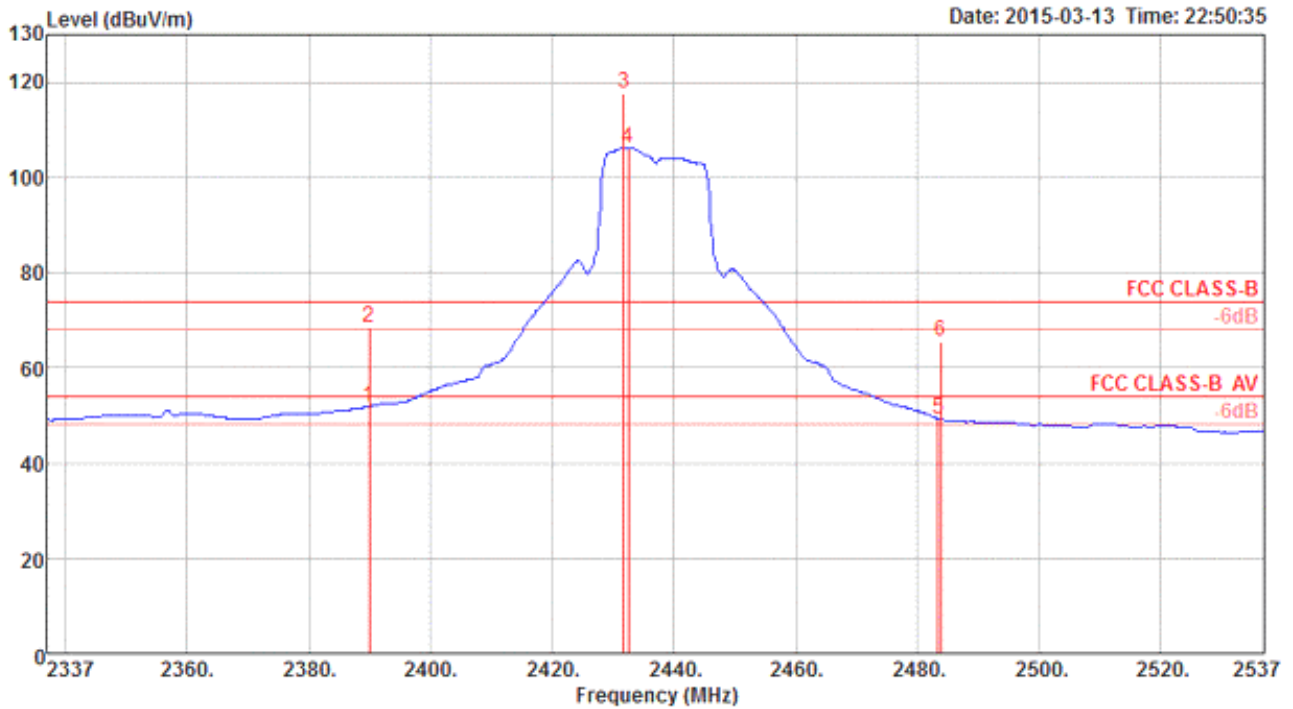
Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions

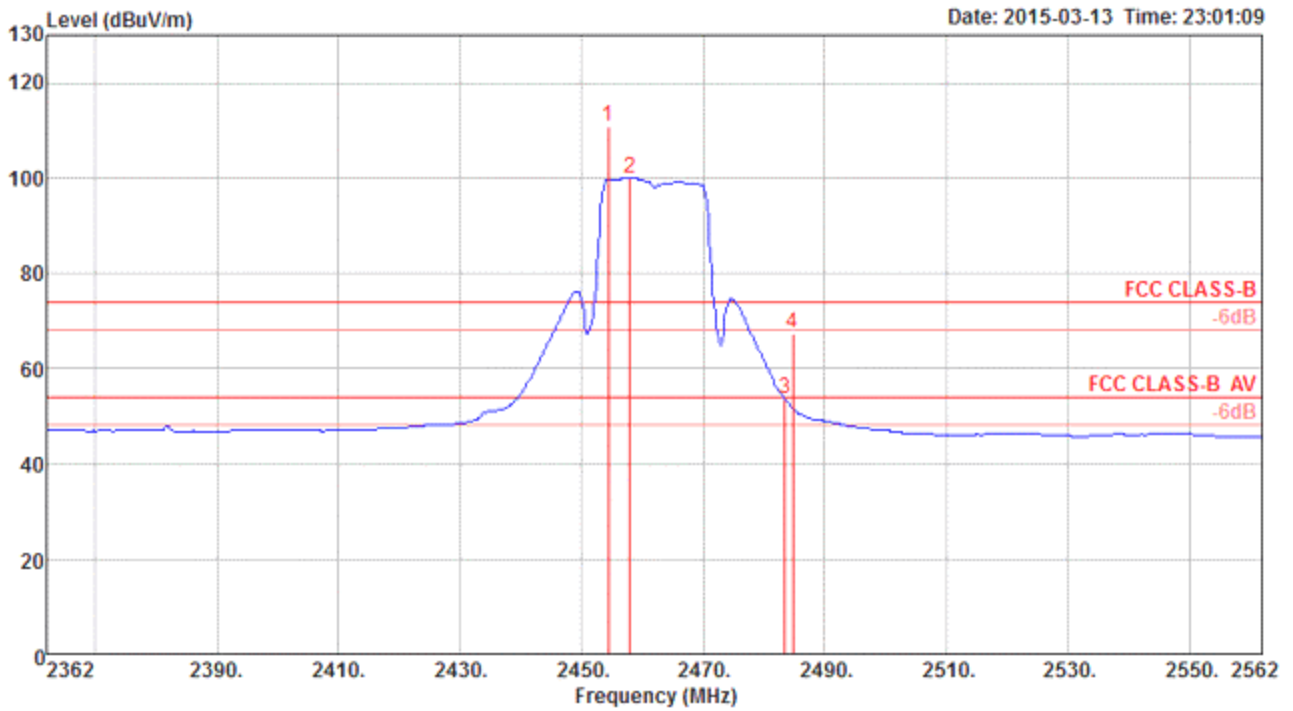
Operating Mode	IEEE 802.11g CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	51.92	54.00	-2.08	18.99	4.09	28.84	0.00	Average	217	311	HORIZONTAL
2	2390.00	68.27	74.00	-5.73	35.34	4.09	28.84	0.00	Peak	217	311	HORIZONTAL
3	2431.80	117.54			84.56	4.12	28.86	0.00	Peak	217	311	HORIZONTAL
4	2432.60	106.10			73.12	4.12	28.86	0.00	Average	217	311	HORIZONTAL
5	2483.50	49.30	54.00	-4.70	16.25	4.16	28.89	0.00	Average	217	311	HORIZONTAL
6	2483.90	65.39	74.00	-8.61	32.34	4.16	28.89	0.00	Peak	217	311	HORIZONTAL

- Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz
- Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).
- Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
- Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11g CH 11 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2454.40	110.83			77.81	4.14	28.88	0.00	Peak	195	308	HORIZONTAL
2	2458.00	99.97			66.95	4.14	28.88	0.00	Average	195	308	HORIZONTAL
3	2483.50	53.67	54.00	-0.33	20.62	4.16	28.89	0.00	Average	195	308	HORIZONTAL
4	2484.70	67.24	74.00	-6.76	34.19	4.16	28.89	0.00	Peak	195	308	HORIZONTAL

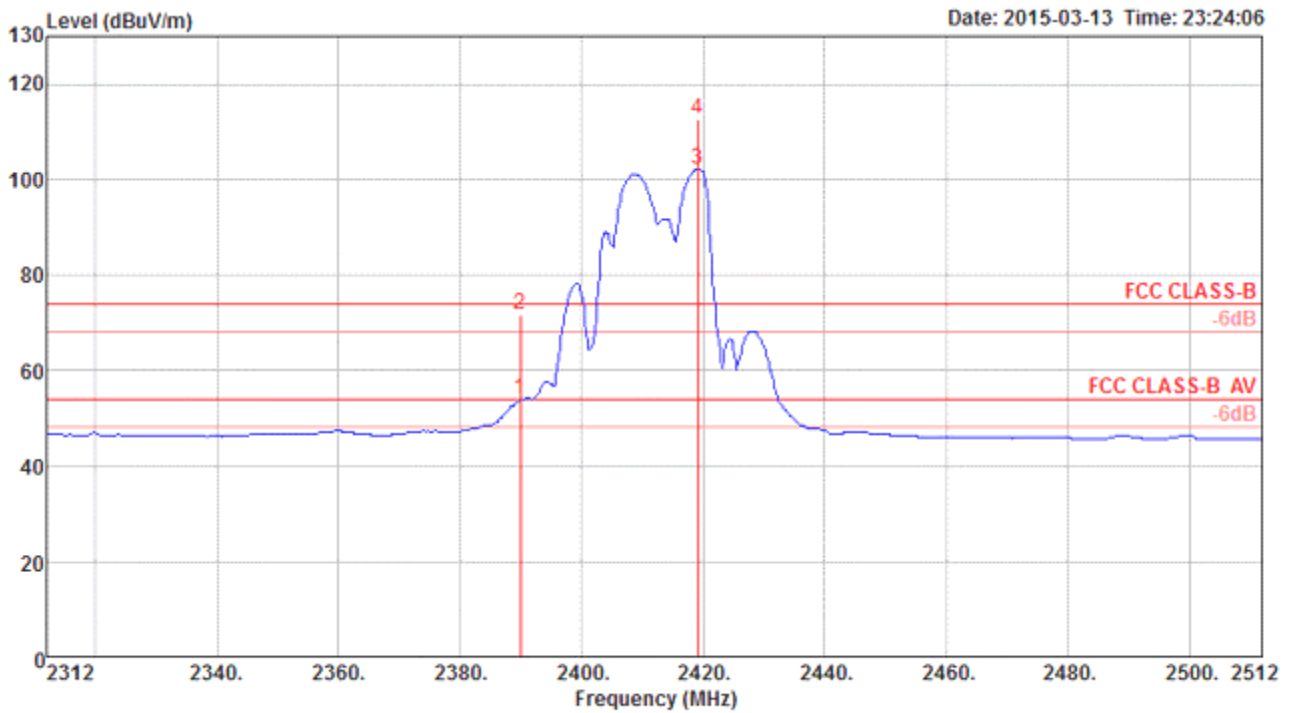
Note 1: Item 1, 2 are the fundamental frequency at 2462 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11g CH 1 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2390.00	53.90	54.00	-0.10	20.97	4.09	28.84	0.00	Average	240	188 VERTICAL
2	2390.00	71.52	74.00	-2.48	38.59	4.09	28.84	0.00	Peak	240	188 VERTICAL
3	2419.20	102.02			69.06	4.11	28.85	0.00	Average	240	188 VERTICAL
4	2419.20	112.53			79.57	4.11	28.85	0.00	Peak	240	188 VERTICAL

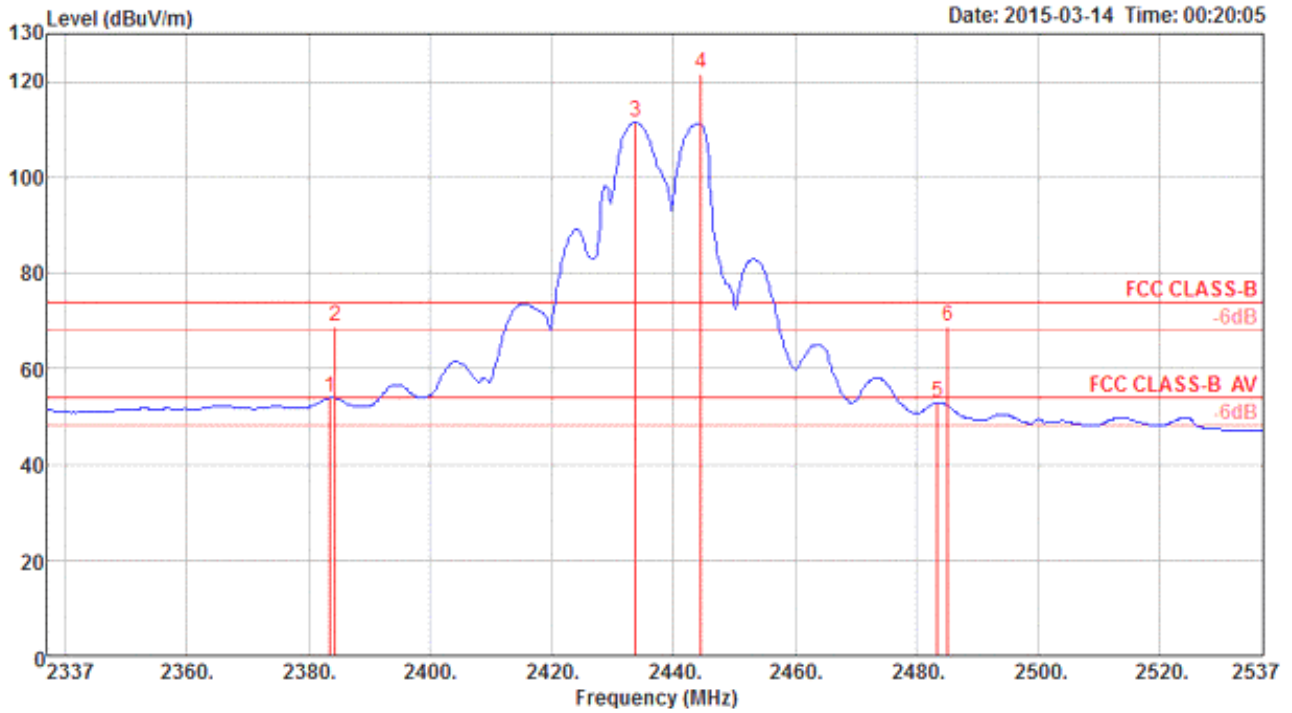
Note 1: Item 3, 4 are the fundamental frequency at 2412 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11g CH 6 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2383.60	53.84	54.00	-0.16	20.93	4.08	28.83	0.00	Average	170	153	HORIZONTAL
2	2384.40	68.88	74.00	-5.12	35.97	4.08	28.83	0.00	Peak	170	153	HORIZONTAL
3	2433.80	111.38			78.40	4.12	28.86	0.00	Average	170	153	HORIZONTAL
4	2444.60	121.69			88.69	4.13	28.87	0.00	Peak	170	153	HORIZONTAL
5	2483.50	52.83	54.00	-1.17	19.78	4.16	28.89	0.00	Average	170	153	HORIZONTAL
6	2485.10	68.90	74.00	-5.10	35.85	4.16	28.89	0.00	Peak	170	153	HORIZONTAL

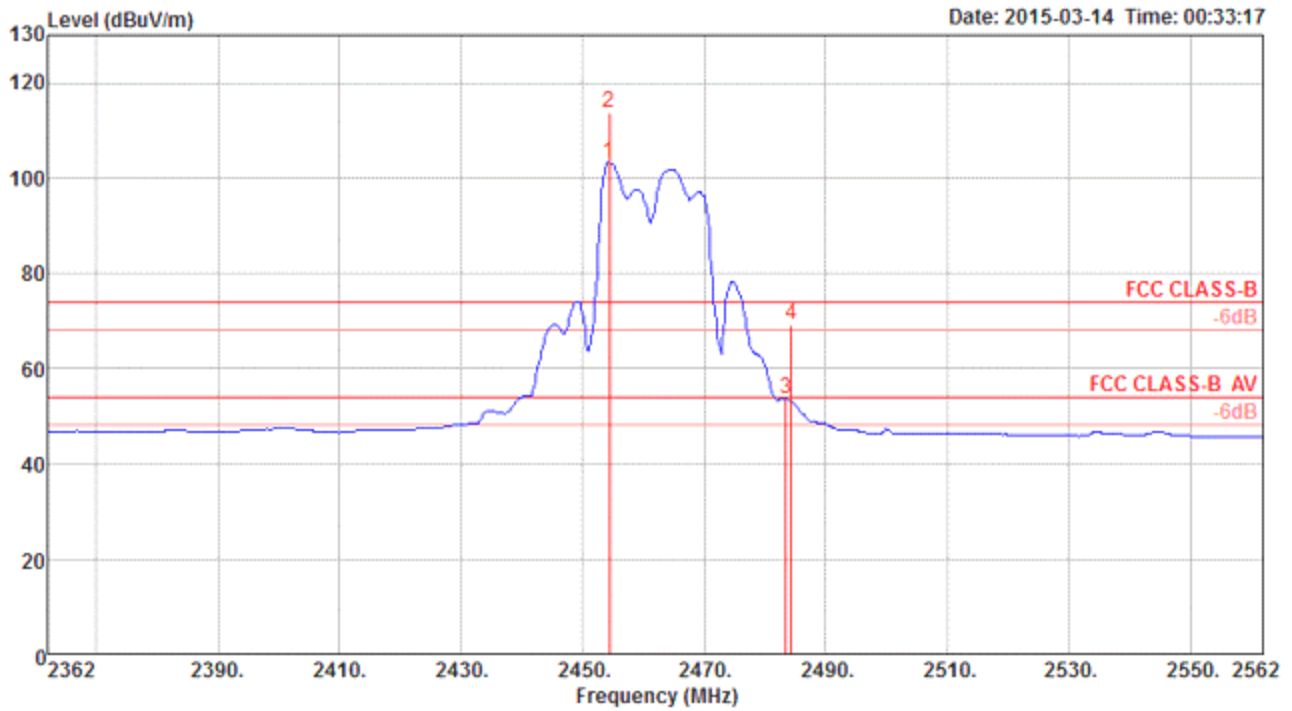
Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

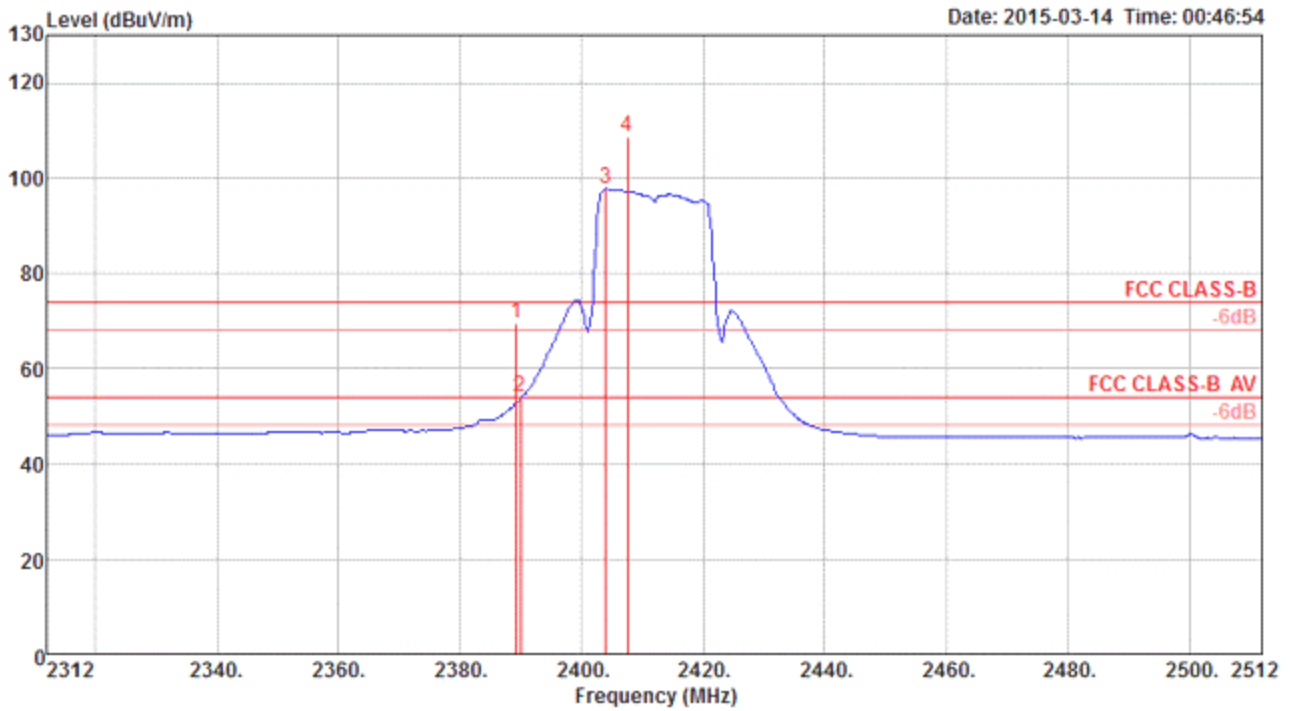
Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11g CH 11 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2454.40	103.16			70.14	4.14	28.88	0.00	Average	170	293	HORIZONTAL
2	2454.40	113.85			80.83	4.14	28.88	0.00	Peak	170	293	HORIZONTAL
3	2483.50	53.70	54.00	-0.30	20.65	4.16	28.89	0.00	Average	170	293	HORIZONTAL
4	2484.30	69.03	74.00	-4.97	35.98	4.16	28.89	0.00	Peak	170	293	HORIZONTAL

Note 1: Item 1, 2 are the fundamental frequency at 2462 MHz
 Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).
 Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
 Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 1 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.20	69.50	74.00	-4.50	36.57	4.09	28.84	0.00	Peak	166	154	HORIZONTAL
2	2390.00	53.79	54.00	-0.21	20.86	4.09	28.84	0.00	Average	166	154	HORIZONTAL
3	2404.00	97.65			64.69	4.11	28.85	0.00	Average	166	154	HORIZONTAL
4	2407.60	108.53			75.57	4.11	28.85	0.00	Peak	166	154	HORIZONTAL

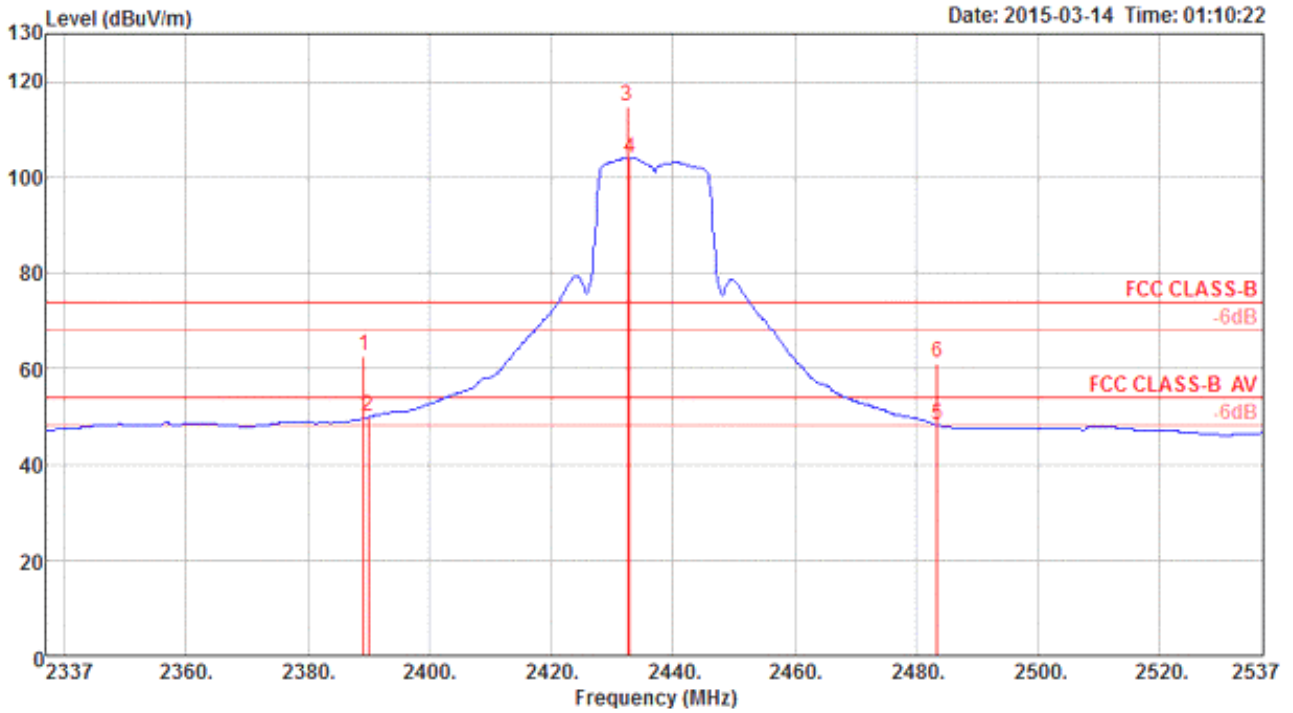
Note 1: Item 3, 4 are the fundamental frequency at 2412 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.20	62.54	74.00	-11.46	29.61	4.09	28.84	0.00	Peak	219	304	HORIZONTAL
2	2390.00	49.93	54.00	-4.07	17.00	4.09	28.84	0.00	Average	219	304	HORIZONTAL
3	2432.60	114.69			81.71	4.12	28.86	0.00	Peak	219	304	HORIZONTAL
4	2433.00	104.04			71.06	4.12	28.86	0.00	Average	219	304	HORIZONTAL
5	2483.50	48.16	54.00	-5.84	15.11	4.16	28.89	0.00	Average	219	304	HORIZONTAL
6	2483.50	61.21	74.00	-12.79	28.16	4.16	28.89	0.00	Peak	219	304	HORIZONTAL

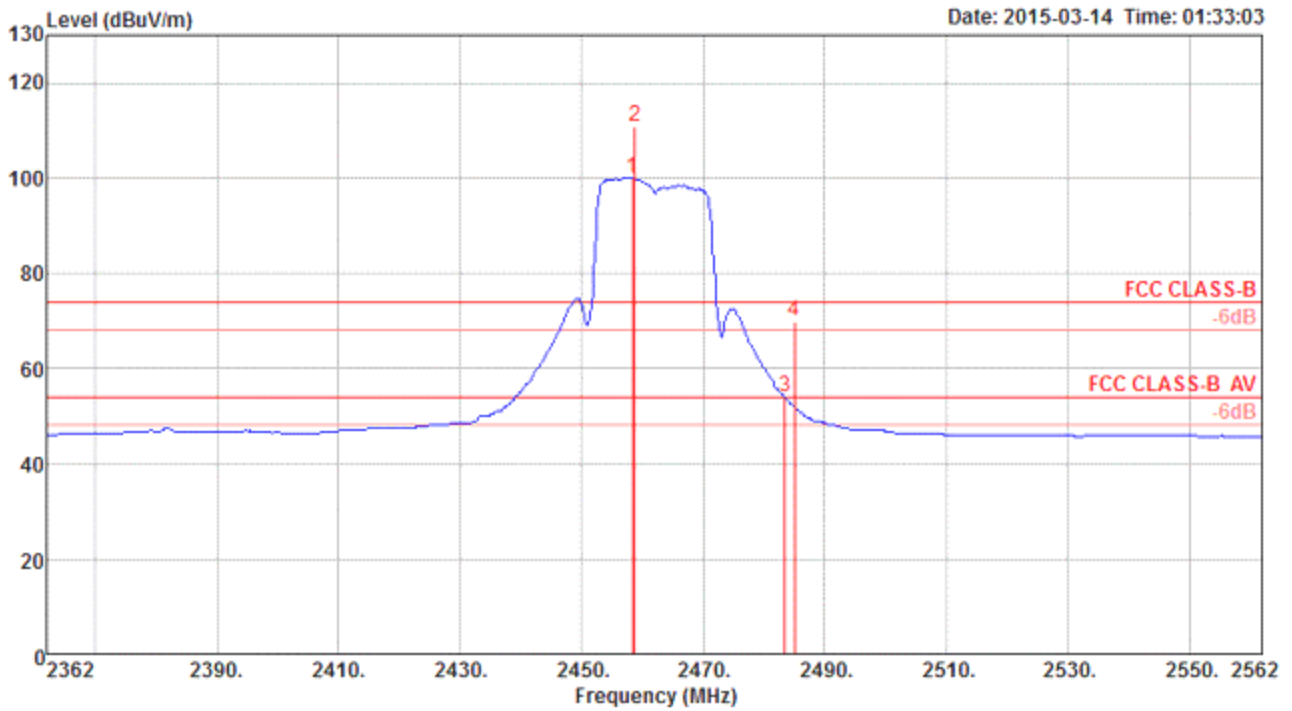
Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 11 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	LIMIT	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2458.40	100.03			67.01	4.14	28.88	0.00	Average	228	302	HORIZONTAL
2	2458.80	110.92			77.90	4.14	28.88	0.00	Peak	228	302	HORIZONTAL
3	2483.50	53.84	54.00	-0.16	20.79	4.16	28.89	0.00	Average	228	302	HORIZONTAL
4	2485.10	69.80	74.00	-4.20	36.75	4.16	28.89	0.00	Peak	228	302	HORIZONTAL

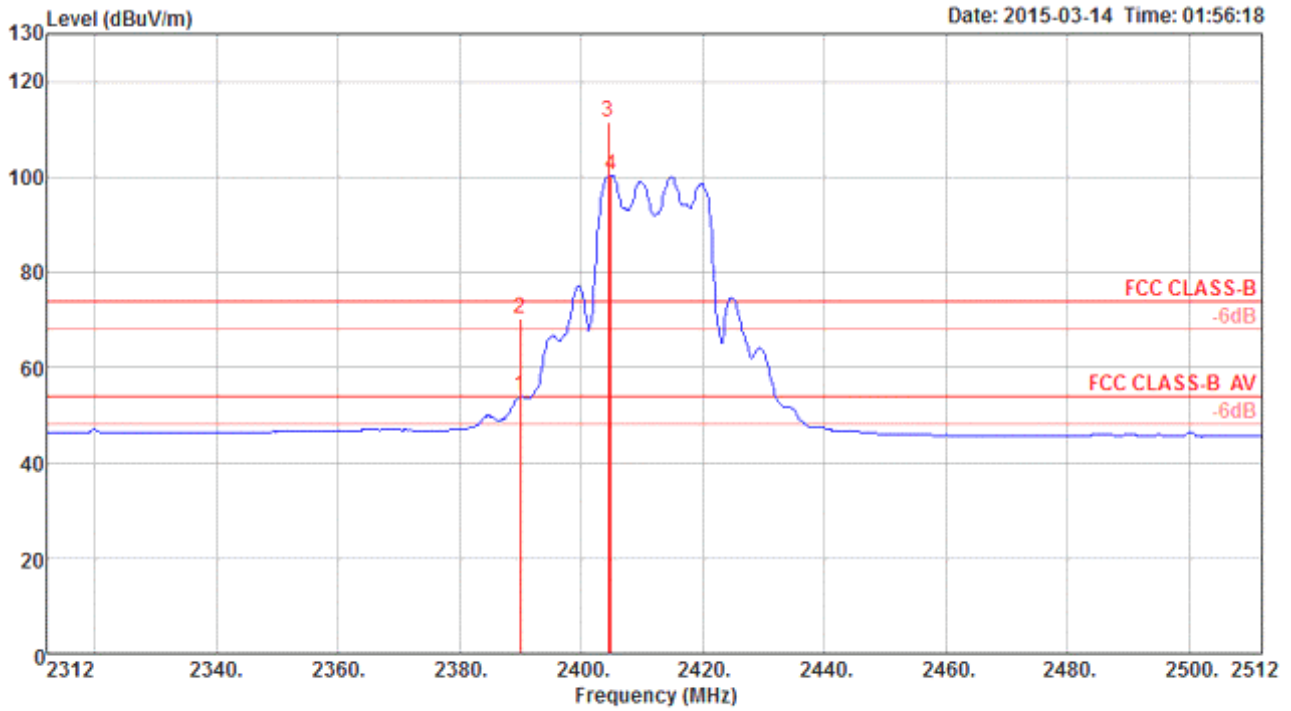
Note 1: Item 1, 2 are the fundamental frequency at 2462 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 1 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Item	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	53.84	54.00	-0.16	20.91	4.09	28.84	0.00	Average	172	298	HORIZONTAL
2	2390.00	70.37	74.00	-3.63	37.44	4.09	28.84	0.00	Peak	172	298	HORIZONTAL
3	2404.40	111.49			78.53	4.11	28.85	0.00	Peak	172	298	HORIZONTAL
4	2404.80	100.37			67.41	4.11	28.85	0.00	Average	172	298	HORIZONTAL

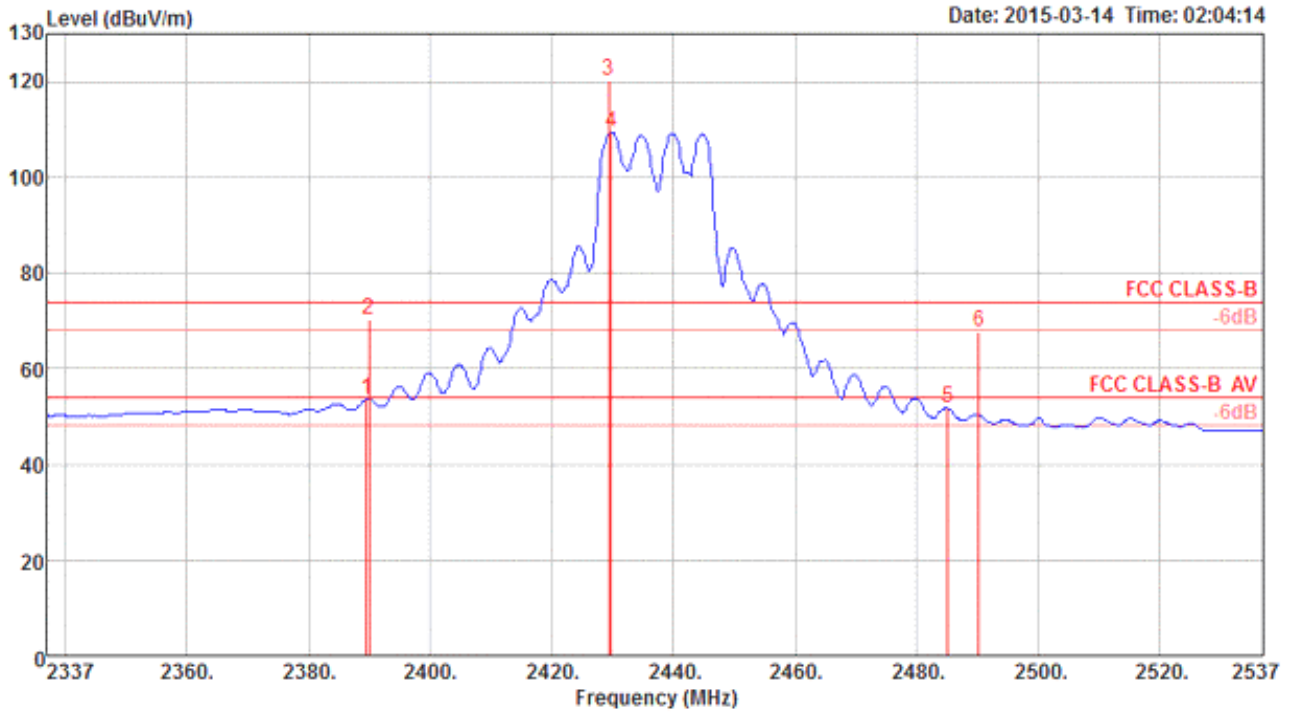
Note 1: Item 3, 4 are the fundamental frequency at 2412 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 6 / 1S3T, CDD			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.60	53.64	54.00	-0.36	20.71	4.09	28.84	0.00	Average	170	296	HORIZONTAL
2	2390.00	70.13	74.00	-3.87	37.20	4.09	28.84	0.00	Peak	170	296	HORIZONTAL
3	2429.40	120.20			87.22	4.12	28.86	0.00	Peak	170	296	HORIZONTAL
4	2429.80	109.46			76.48	4.12	28.86	0.00	Average	170	296	HORIZONTAL
5	2485.10	51.72	54.00	-2.28	18.67	4.16	28.89	0.00	Average	170	296	HORIZONTAL
6	2490.30	67.61	74.00	-6.39	34.54	4.17	28.90	0.00	Peak	170	296	HORIZONTAL

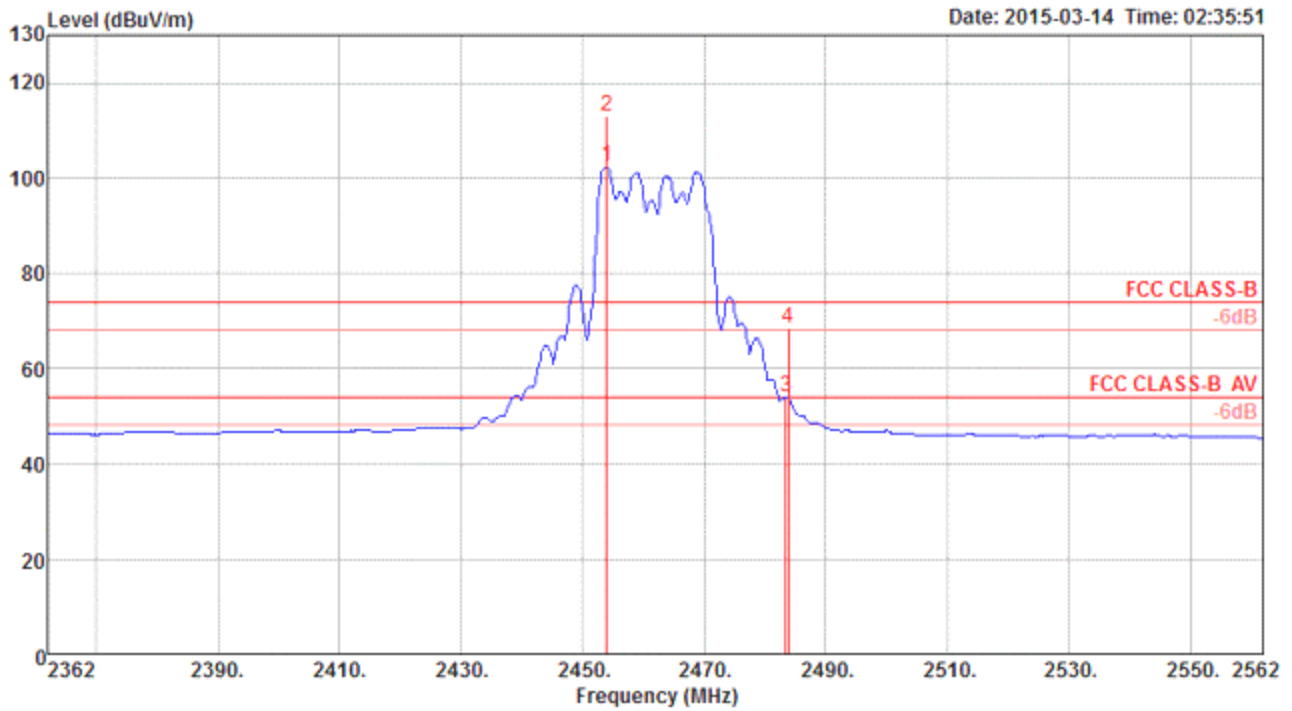
Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 20MHz MCS0 CH 11 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2454.00	102.40	54.00			4.14	28.88	0.00	Average	225	200	VERTICAL
2	2454.00	112.94	74.00			4.14	28.88	0.00	Peak	225	200	VERTICAL
3	2483.50	53.93	54.00	-0.07	20.88	4.16	28.89	0.00	Average	225	200	VERTICAL
4	2483.90	68.61	74.00	-5.39	35.56	4.16	28.89	0.00	Peak	225	200	VERTICAL

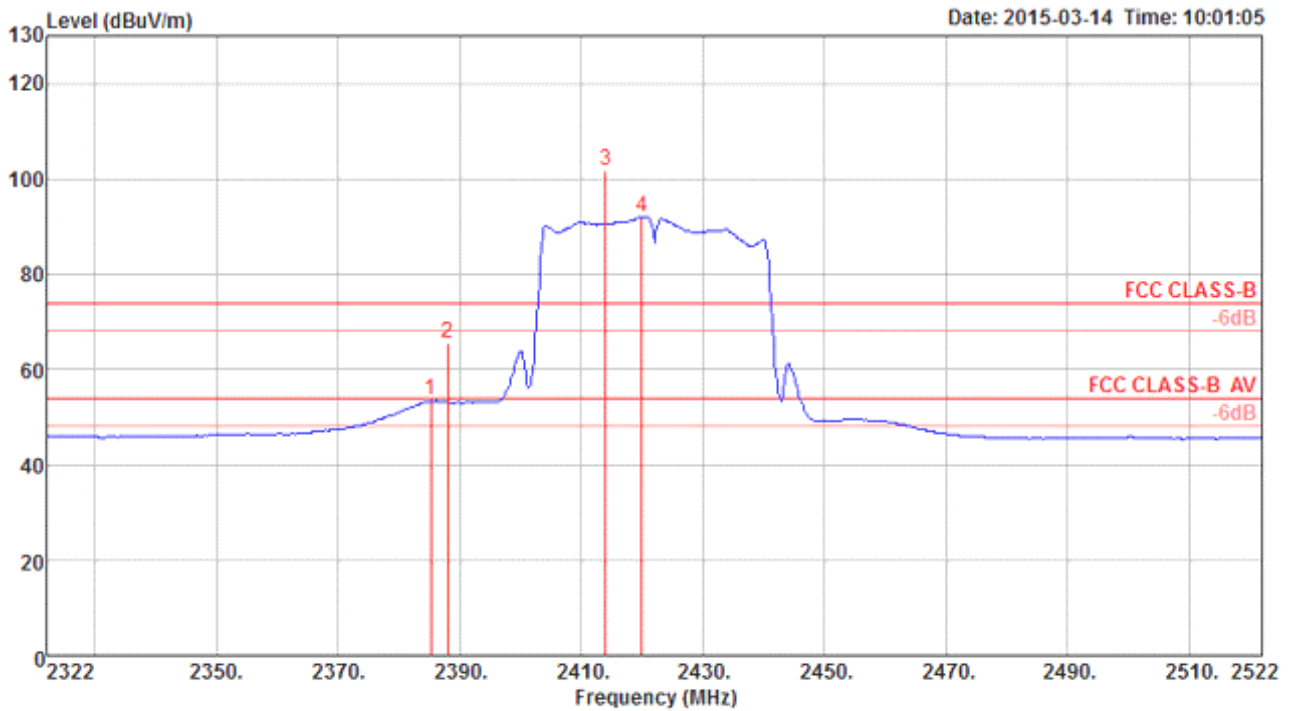
Note 1: Item 1, 2 are the fundamental frequency at 2462 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 3 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



Item	Freq MHz	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Read Level dBuV	Cable Loss dB	Antenna Factor dB/m	Preamp Factor dB	Remark	A/Pos cm	T/Pos deg	Pol/Phase
1	2385.20	53.42	54.00	-0.58	20.51	4.08	28.83	0.00	Average	121	149	HORIZONTAL
2	2388.00	65.56	74.00	-8.44	32.63	4.09	28.84	0.00	Peak	121	149	HORIZONTAL
3	2414.00	101.76	74.00			4.11	28.85	0.00	Peak	121	149	HORIZONTAL
4	2420.00	92.01	54.00			4.12	28.86	0.00	Average	121	149	HORIZONTAL

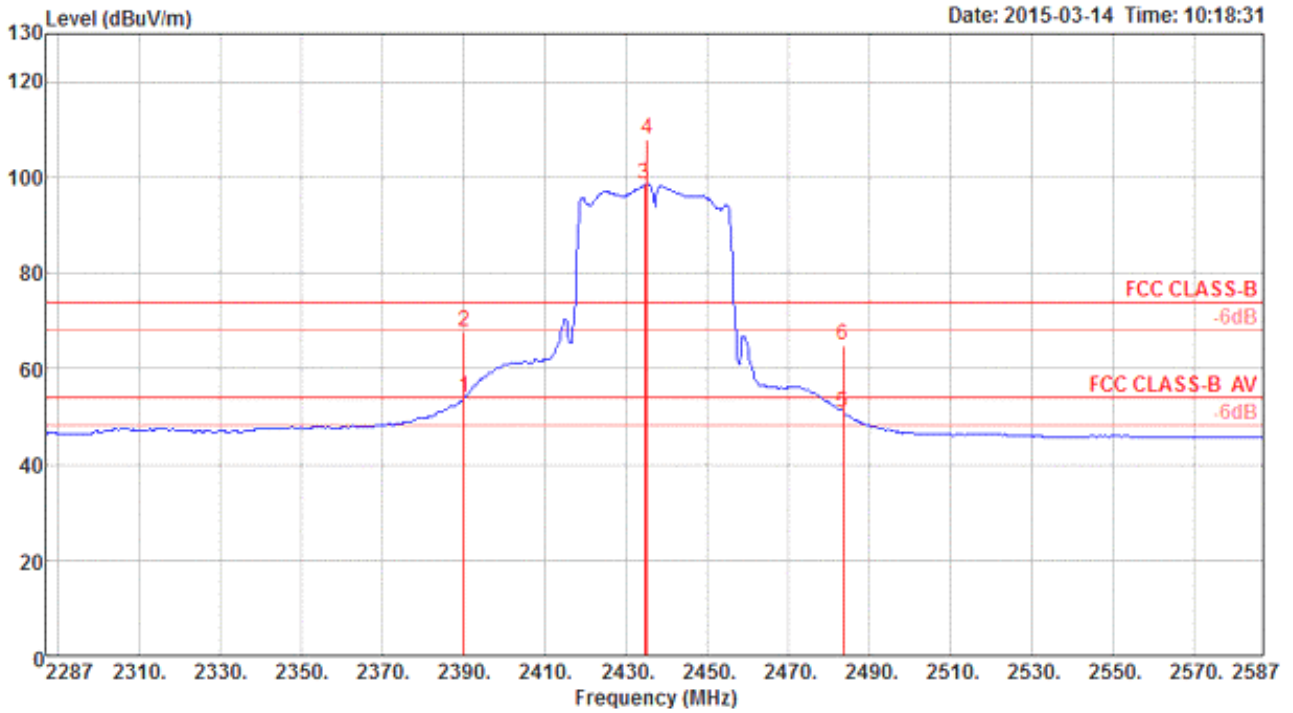
Note 1: Item 3, 4 are the fundamental frequency at 2422 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

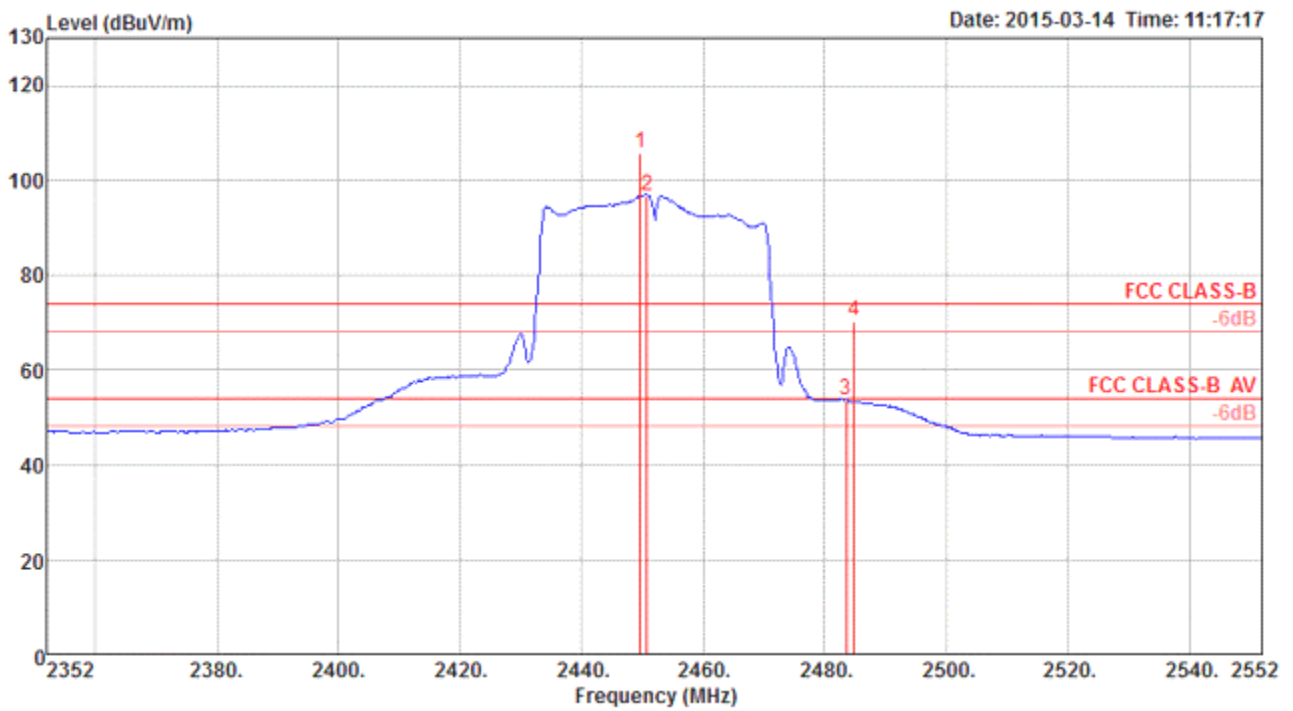
Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 6 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Limit	Over	Read	Cable	Antenna	Preamp	Remark		A/Pos	T/Pos	Pol/Phase	
Freq	Line	Limit	Level	Loss	Factor	Factor			cm	deg		
MHz	dBuV/m	dBuV/m	dBuV	dB	dB/m	dB						
1	2390.00	53.89	54.00	-0.11	20.96	4.09	28.84	0.00	Average	136	150	HORIZONTAL
2	2390.00	67.75	74.00	-6.25	34.82	4.09	28.84	0.00	Peak	136	150	HORIZONTAL
3	2434.60	98.42			65.44	4.12	28.86	0.00	Average	136	150	HORIZONTAL
4	2435.20	107.89			74.91	4.12	28.86	0.00	Peak	136	150	HORIZONTAL
5	2483.50	50.52	54.00	-3.48	17.47	4.16	28.89	0.00	Average	136	150	HORIZONTAL
6	2483.50	64.87	74.00	-9.13	31.82	4.16	28.89	0.00	Peak	136	150	HORIZONTAL

- Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz
- Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).
- Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
- Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 9 / Ant.2			Polarization	H
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2449.60	105.89			72.89	4.13	28.87	0.00	Peak	156	154	HORIZONTAL
2	2450.80	96.80			63.80	4.13	28.87	0.00	Average	156	154	HORIZONTAL
3	2483.50	53.77	54.00	-0.23	20.72	4.16	28.89	0.00	Average	156	154	HORIZONTAL
4	2484.80	70.08	74.00	-3.92	37.03	4.16	28.89	0.00	Peak	156	154	HORIZONTAL

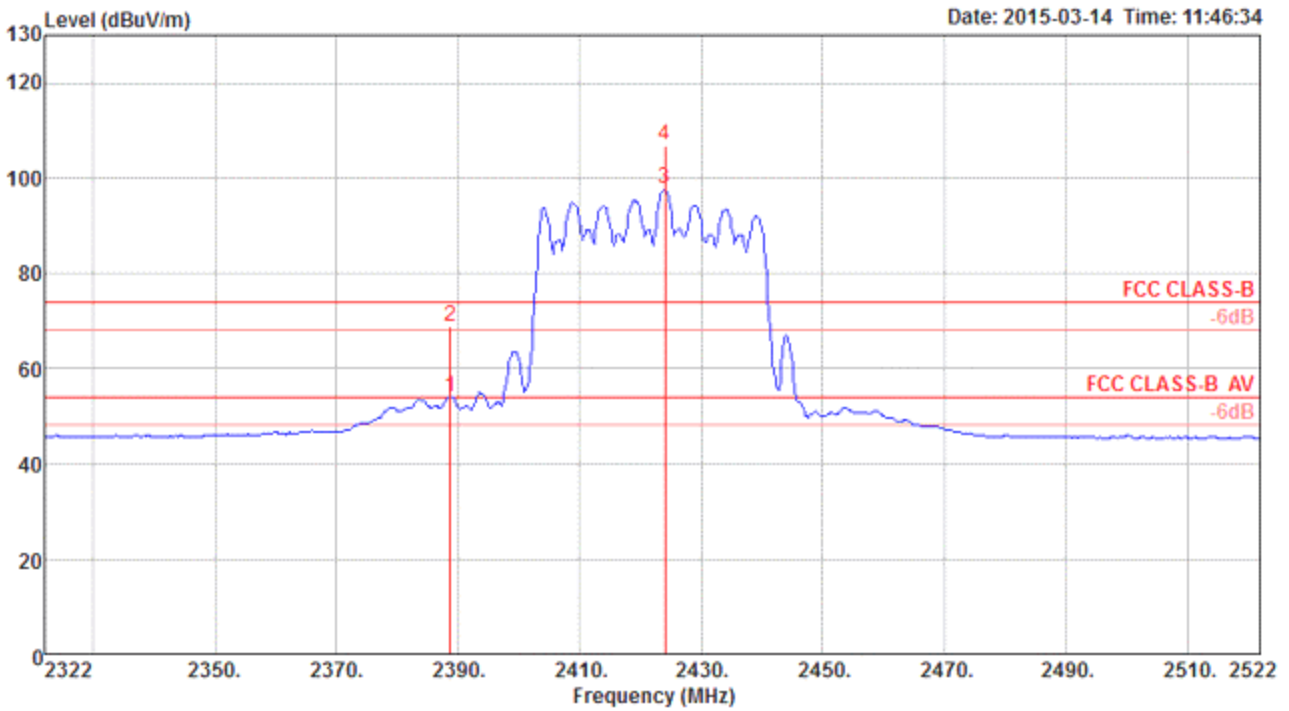
Note 1: Item 1, 2 are the fundamental frequency at 2452 MHz

Note 2: Emission level (dBUV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 3 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2388.80	53.94	54.00	-0.06	21.01	4.09	28.84	0.00 Average	227	184	VERTICAL
2	2388.80	68.91	74.00	-5.09	35.98	4.09	28.84	0.00 Peak	227	184	VERTICAL
3	2424.00	97.73			64.75	4.12	28.86	0.00 Average	227	184	VERTICAL
4	2424.00	106.90			73.92	4.12	28.86	0.00 Peak	227	184	VERTICAL

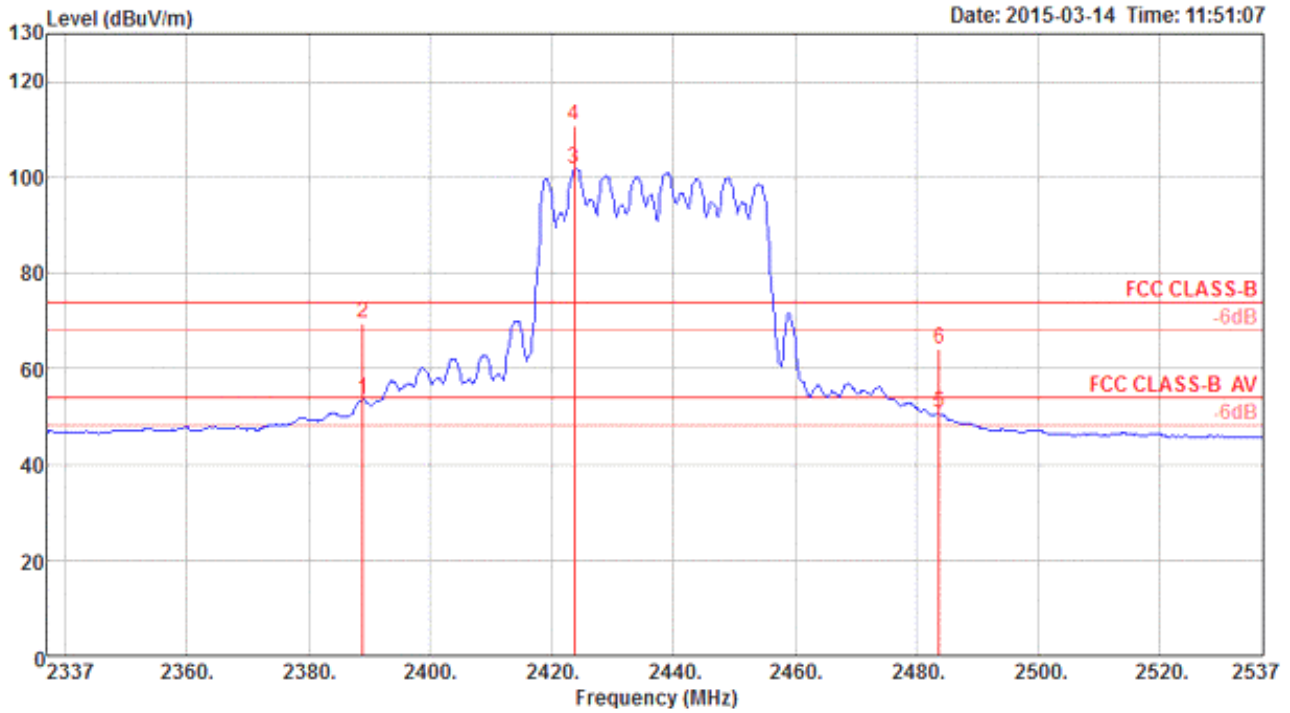
Note 1: Item 3, 4 are the fundamental frequency at 2422 MHz

Note 2: Emission level (dBUV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

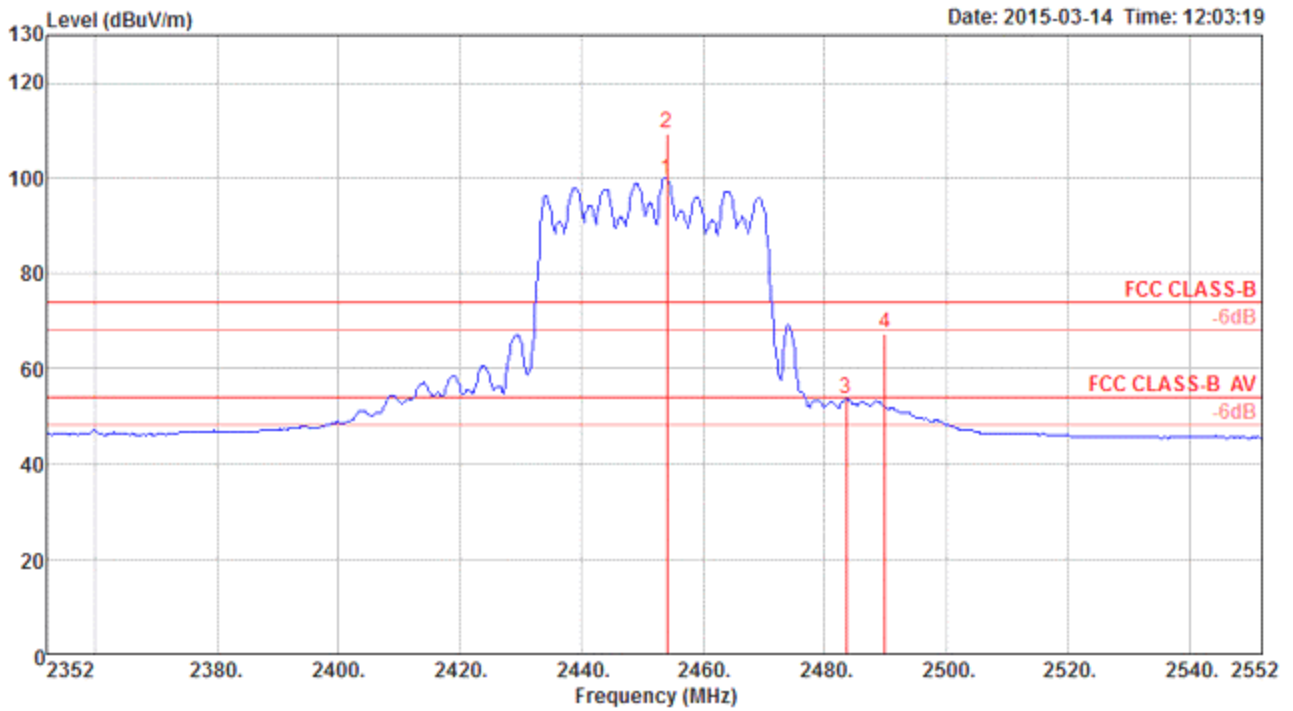
Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 6 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.00	53.70	54.00	-0.30	20.77	4.09	28.84	0.00	Average	227	181	VERTICAL
2	2389.00	69.45	74.00	-4.55	36.52	4.09	28.84	0.00	Peak	227	181	VERTICAL
3	2423.80	101.68			68.70	4.12	28.86	0.00	Average	227	181	VERTICAL
4	2423.80	110.71			77.73	4.12	28.86	0.00	Peak	227	181	VERTICAL
5	2483.80	50.73	54.00	-3.27	17.68	4.16	28.89	0.00	Average	227	181	VERTICAL
6	2483.80	64.25	74.00	-9.75	31.20	4.16	28.89	0.00	Peak	227	181	VERTICAL

- Note 1: Item 3, 4 are the fundamental frequency at 2437 MHz
- Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).
- Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.
- Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Band Edge and Fundamental Emissions					
Operating Mode	IEEE 802.11n 40MHz MCS0 CH 9 / 1S3T, CDD			Polarization	V
Temperature	26°C	Humidity	68%	Test Engineer	Brain Sun



	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2454.00	99.72			66.70	4.14	28.88	0.00 Average	224	178	VERTICAL
2	2454.00	109.50			76.48	4.14	28.88	0.00 Peak	224	178	VERTICAL
3	2483.50	53.67	54.00	-0.33	20.62	4.16	28.89	0.00 Average	224	178	VERTICAL
4	2490.00	67.50	74.00	-6.50	34.43	4.17	28.90	0.00 Peak	224	178	VERTICAL

Note 1: Item 1, 2 are the fundamental frequency at 2452 MHz

Note 2: Emission level (dBuV/m) = 20 log Emission level (uV/m).

Note 3: Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Note 4: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

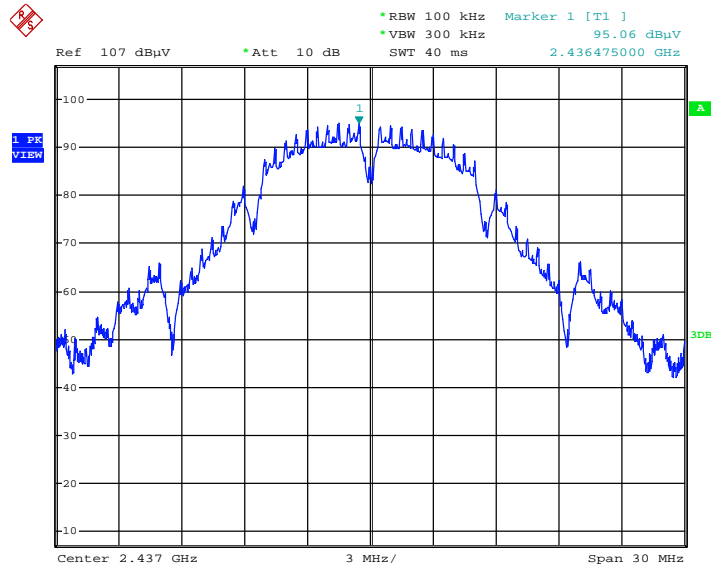
3.6.8. Results of Emission not in Restricted Band

Following channel(s) was (were) selected for the final test as listed below.

MODE	TX Chain	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	Ant.2	1, 6, 11	DSSS	DBPSK	1
802.11b	1S3T, CDD	1, 6, 11	DSSS	DBPSK	1
802.11g	Ant.2	1, 6, 11	OFDM	BPSK	6
802.11g	1S3T, CDD	1, 6, 11	OFDM	BPSK	6
802.11n 20MHz	Ant.2	1, 6, 11	OFDM	BPSK	MCS0 (6.5)
802.11n 20MHz	1S3T, CDD	1, 6, 11	OFDM	BPSK	MCS0 (6.5)
802.11n 40MHz	Ant.2	3, 6, 9	OFDM	BPSK	MCS0 (13)
802.11n 40MHz	1S3T, CDD	3, 6, 9	OFDM	BPSK	MCS0 (13)

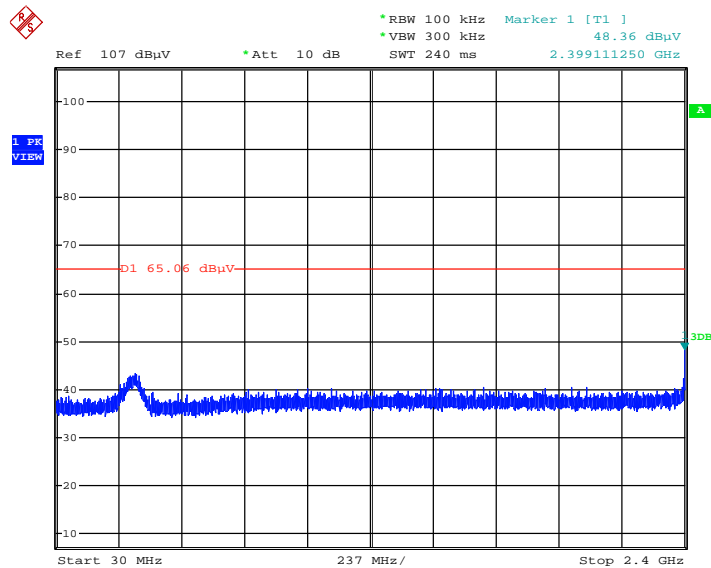
Final Test Date	Mar. 14, 2015	Test Site No.	03CH01-CB
Temperature	26°C	Humidity	68%
Configurations	802.11b	Test Engineer	Brain Sun

Low Band Edge Plot on Configuration IEEE 802.11b / Reference Level / Ant.2



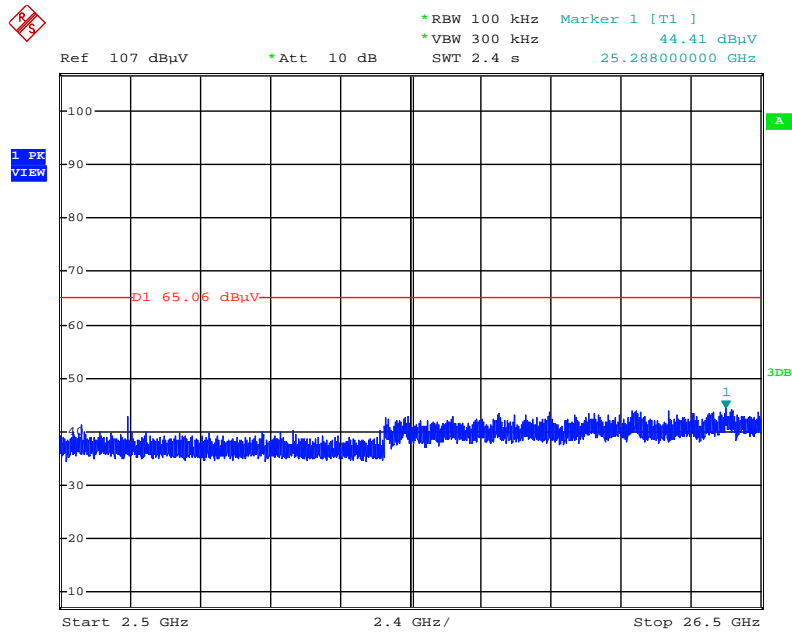
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



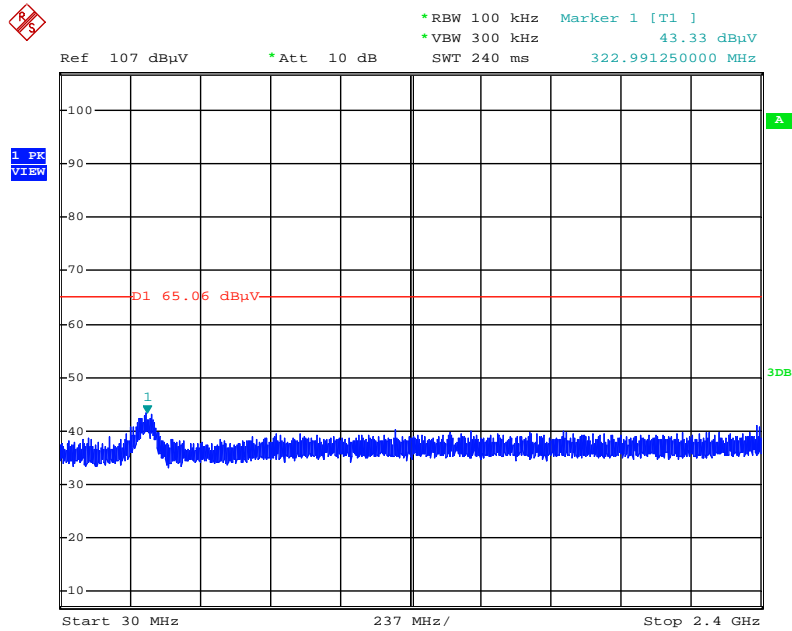
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 1 / Ant.2



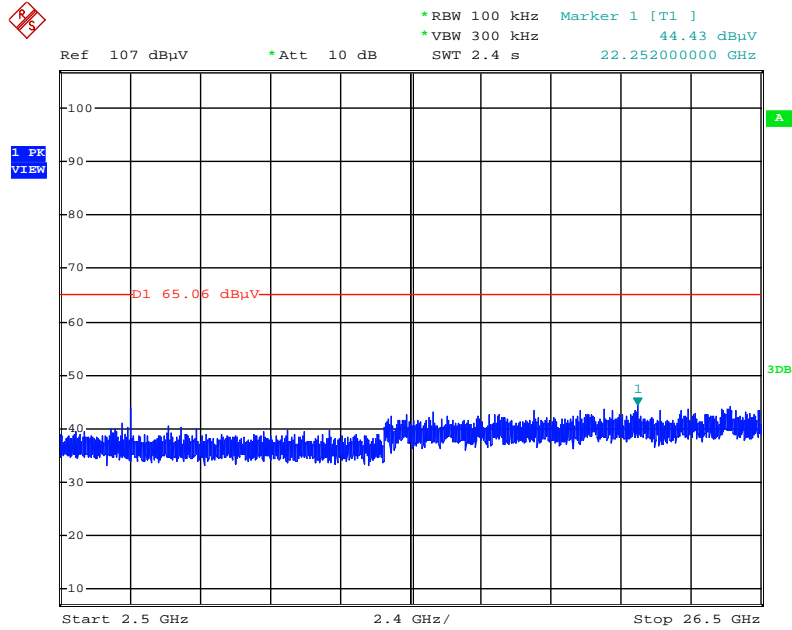
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



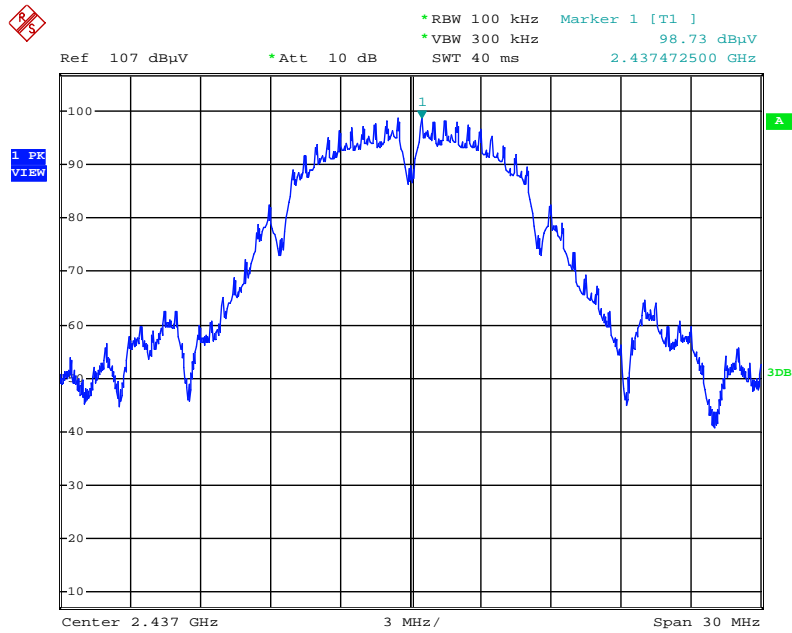
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 11 / Ant.2



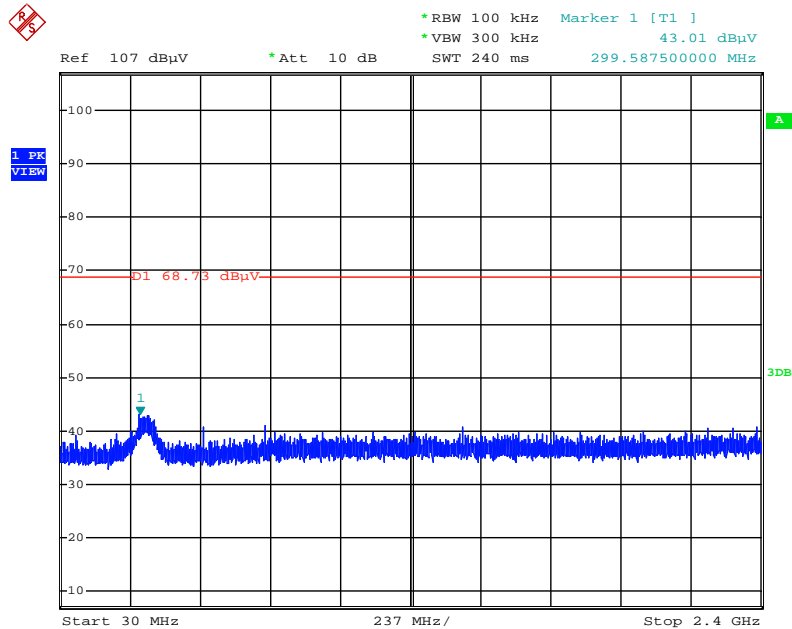
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Low Band Edge Plot on Configuration IEEE 802.11b / Reference Level / 1S3T, CDD



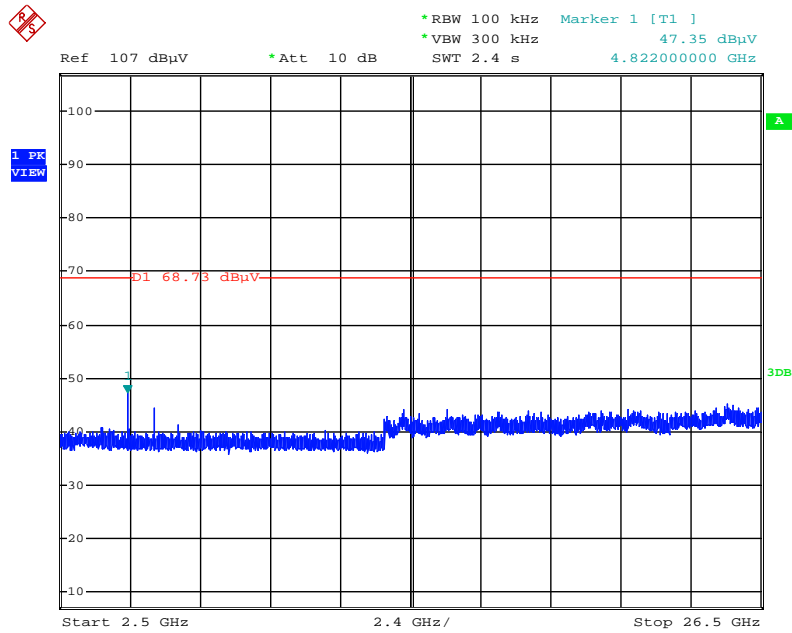
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 1 / 1S3T, CDD



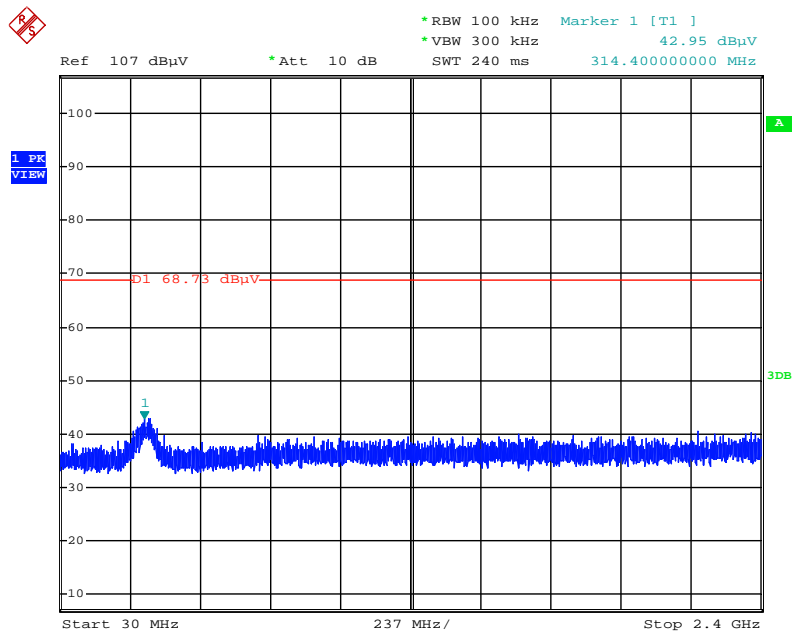
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 1 / 1S3T, CDD



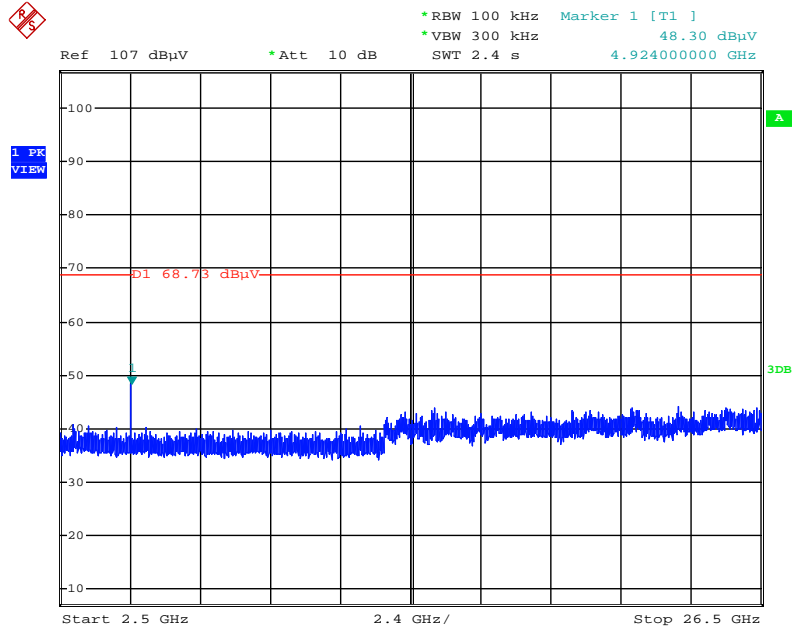
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Low Band Edge Plot on Configuration IEEE 802.11b / CH 11 / 1S3T, CDD



Date: 14.MAR.2015 16:58:30

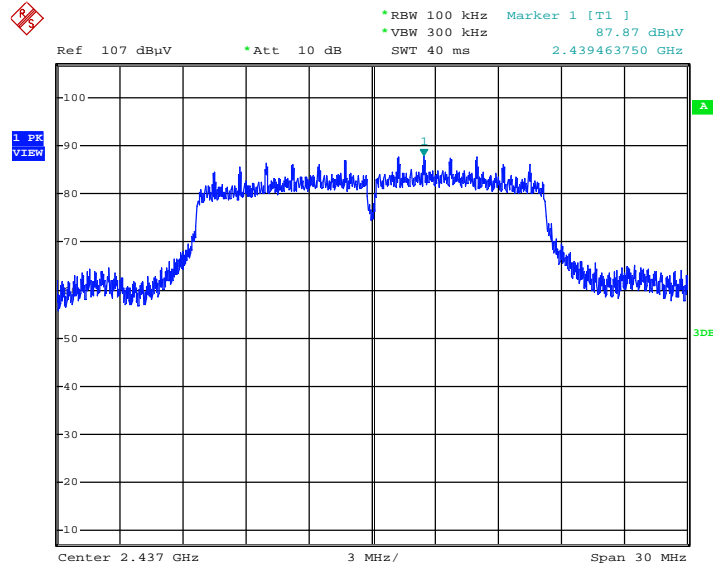
Low Band Edge Plot on Configuration IEEE 802.11b / CH 11 / 1S3T, CDD



Date: 14.MAR.2015 16:57:42

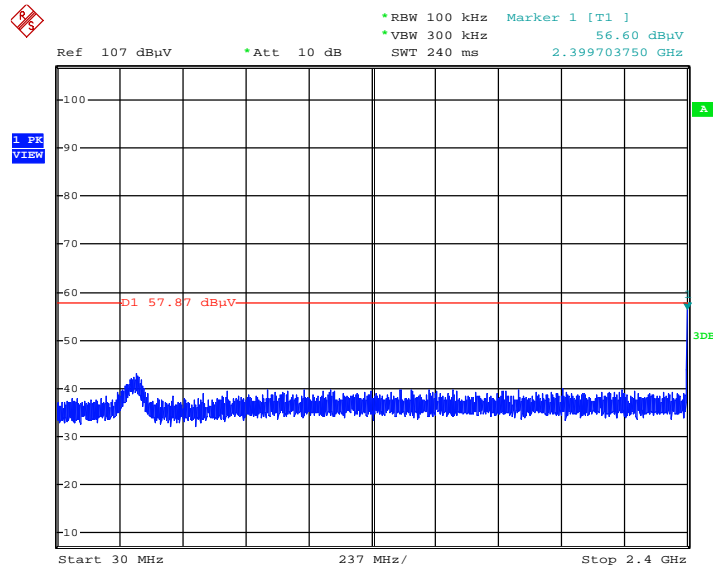
Final Test Date	Mar. 14, 2015	Test Site No.	03CH01-CB
Temperature	26°C	Humidity	68%
Configurations	802.11g	Test Engineer	Brain Sun

Low Band Edge Plot on Configuration IEEE 802.11g / Reference Level / Ant.2



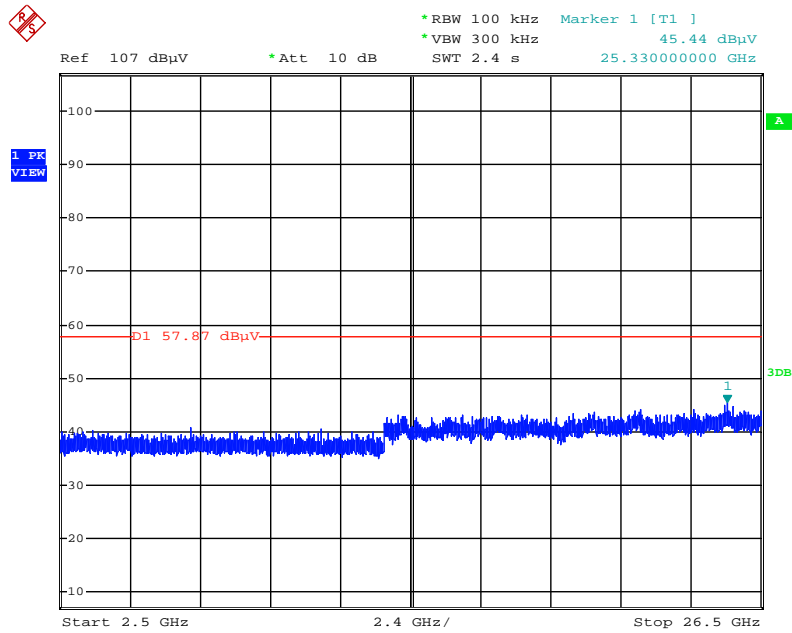
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Low Band Edge Plot on Configuration IEEE 802.11g / CH 1 / Ant.2



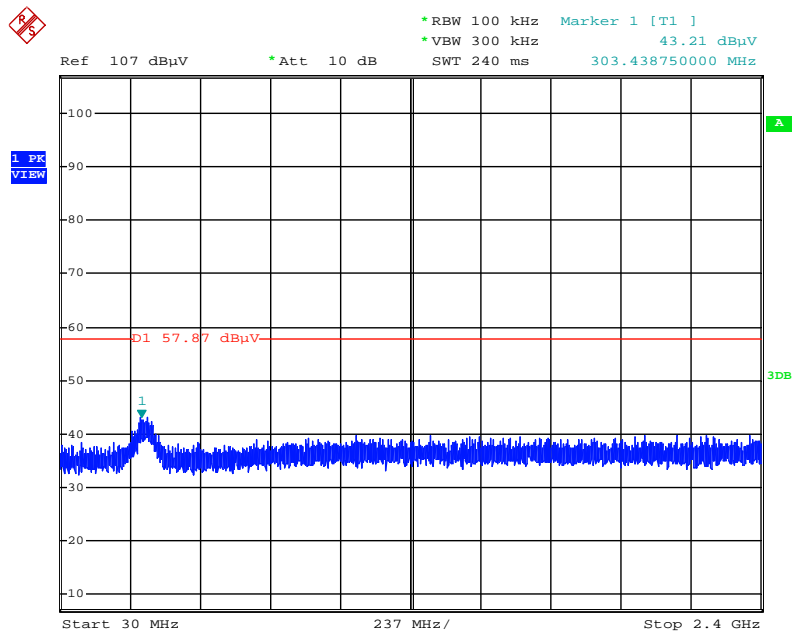
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Low Band Edge Plot on Configuration IEEE 802.11g / CH 1 / Ant.2



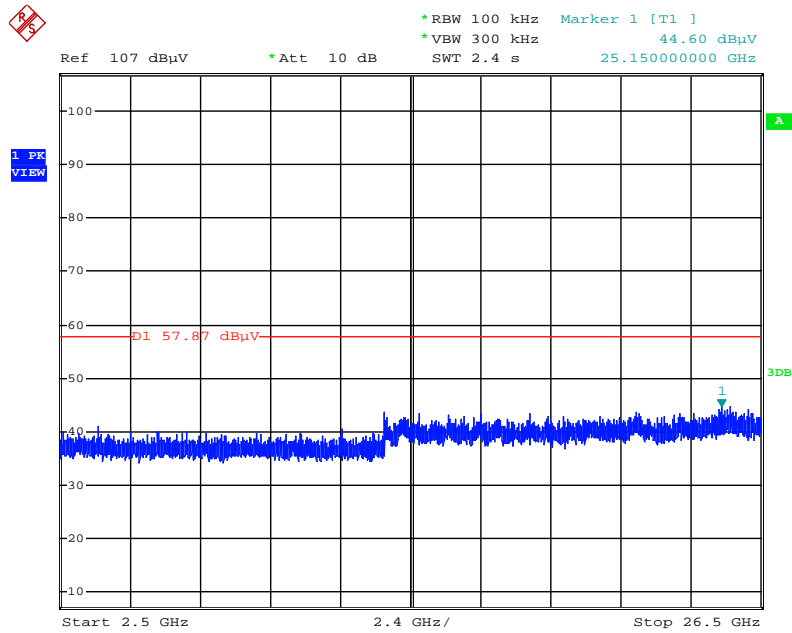
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Low Band Edge Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



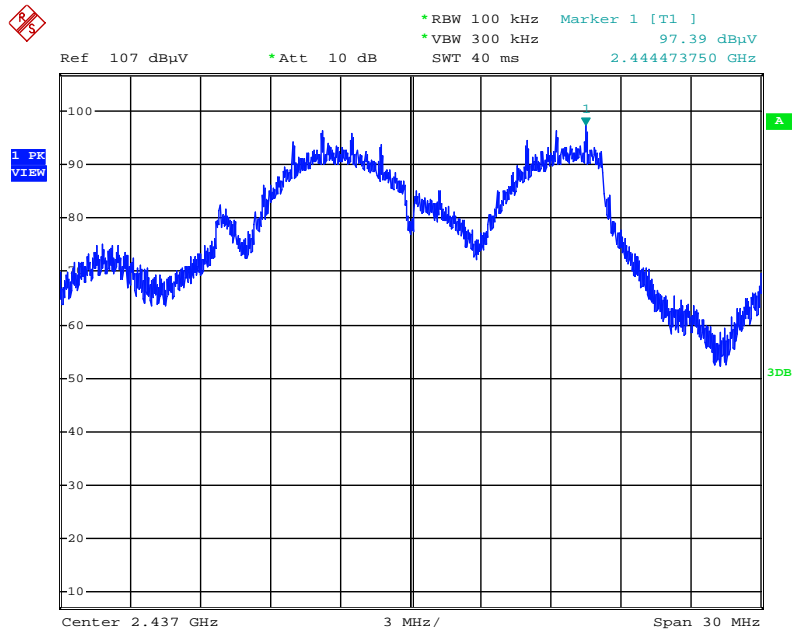
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Low Band Edge Plot on Configuration IEEE 802.11g / CH 11 / Ant.2



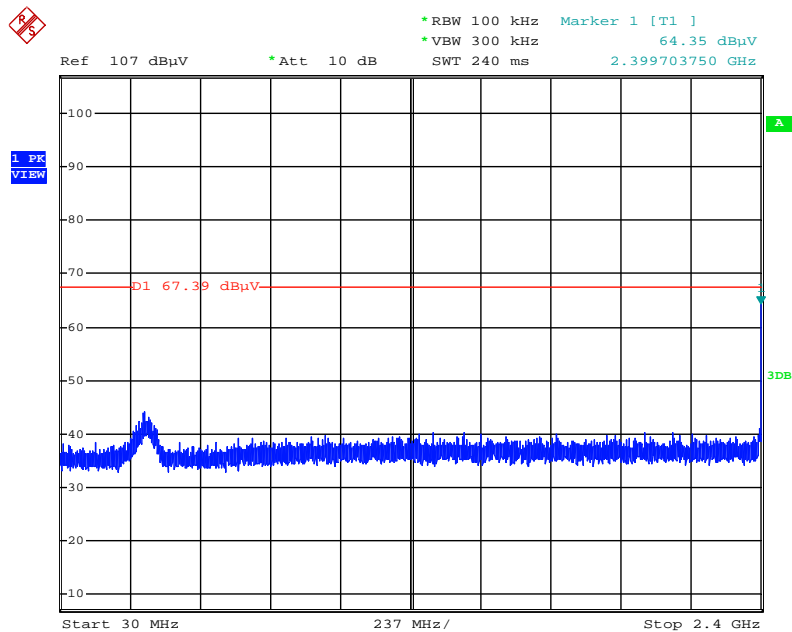
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Low Band Edge Plot on Configuration IEEE 802.11g / Reference Level / 1S3T, CDD



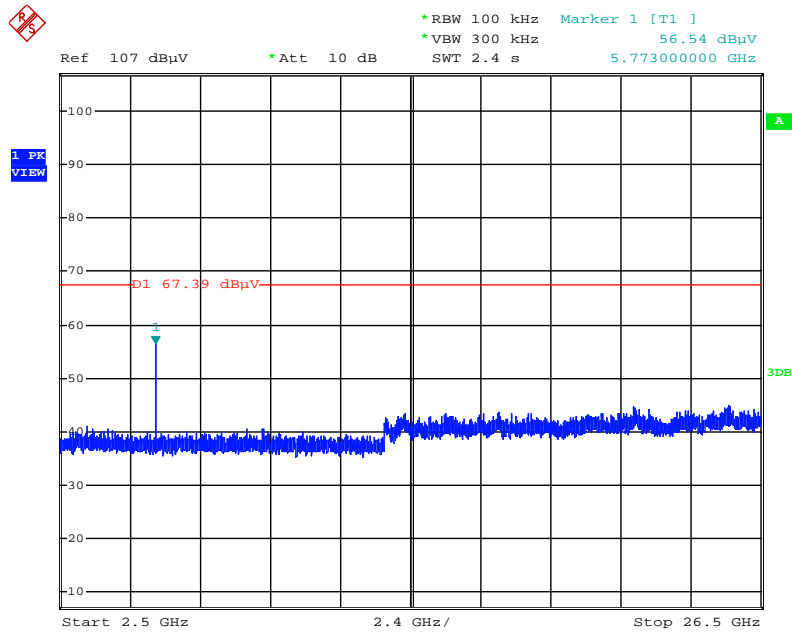
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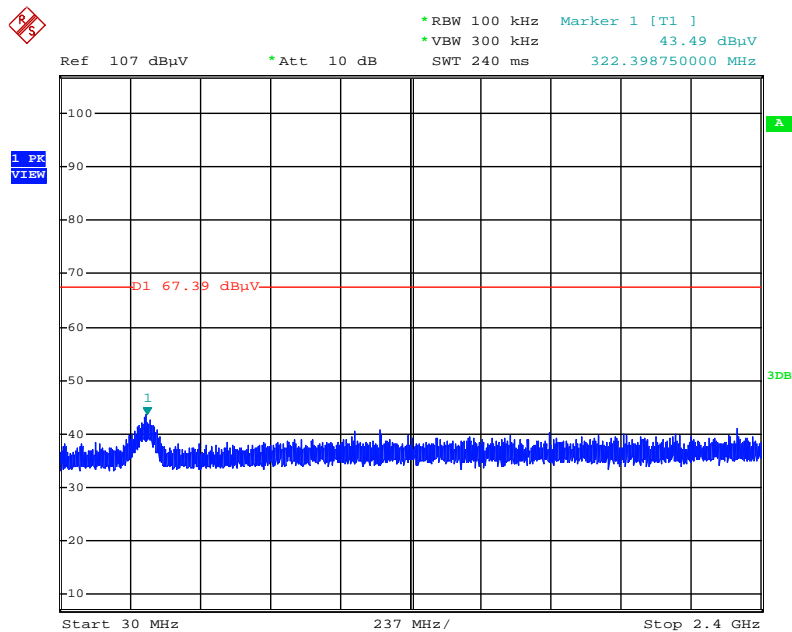
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Low Band Edge Plot on Configuration IEEE 802.11g / CH 1 / 1S3T, CDD



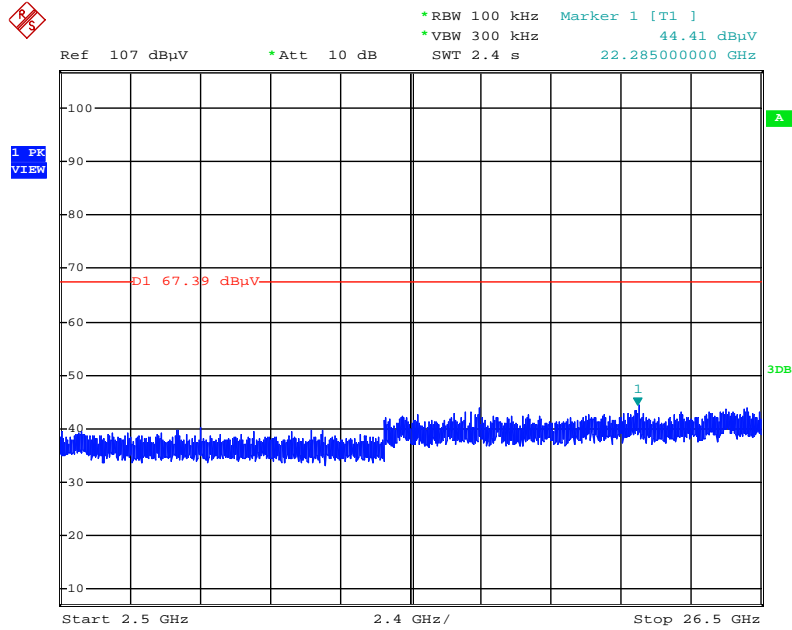
Date: 14.MAR.2015 17:10:53

Low Band Edge Plot on Configuration IEEE 802.11g / CH 11 / 1S3T, CDD



Date: 14.MAR.2015 17:11:53

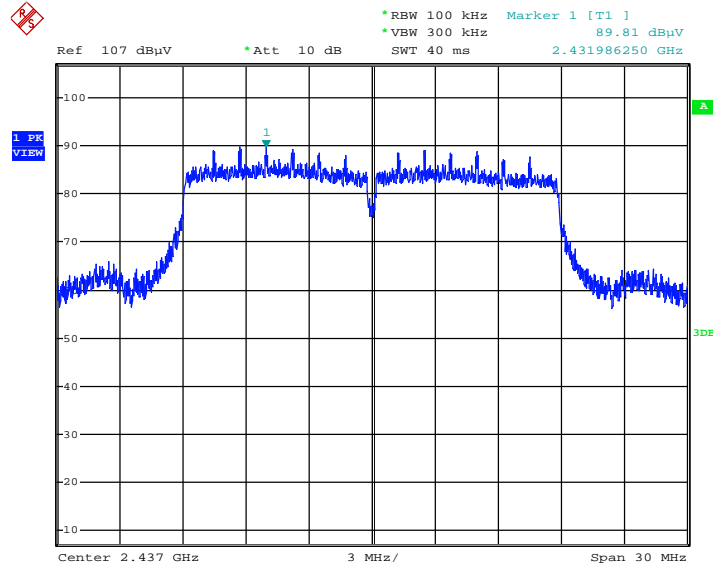
Low Band Edge Plot on Configuration IEEE 802.11g / CH 11 / 1S3T, CDD



Date: 14.MAR.2015 17:12:40

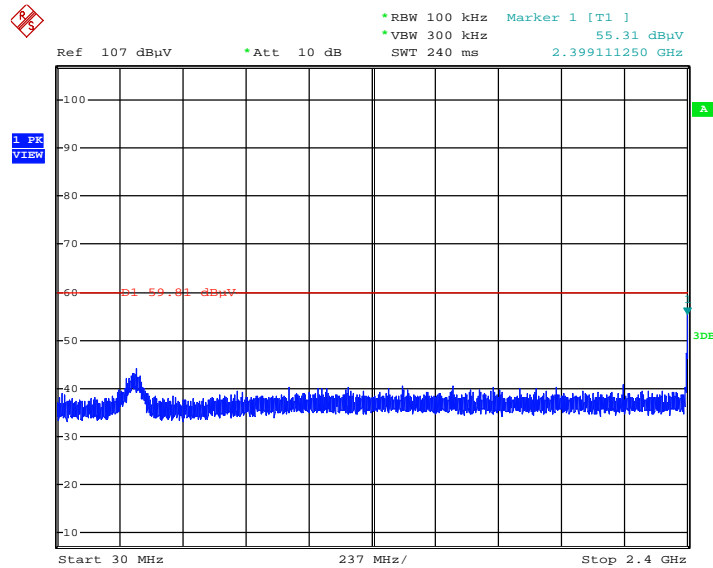
Final Test Date	Mar. 14, 2015	Test Site No.	03CH01-CB
Temperature	26°C	Humidity	68%
Configurations	802.11n 20MHz	Test Engineer	Brain Sun

Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / Reference Level / Ant.2



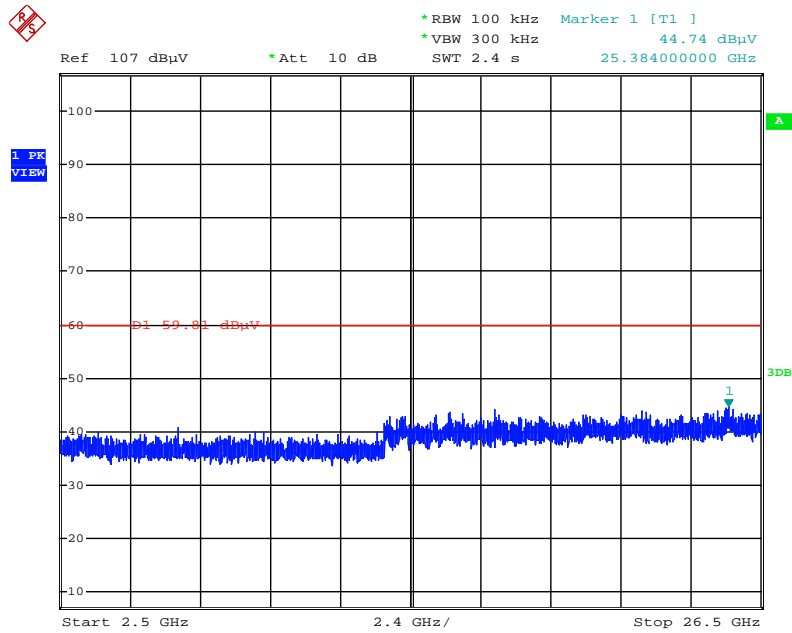
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH1 / Ant.2



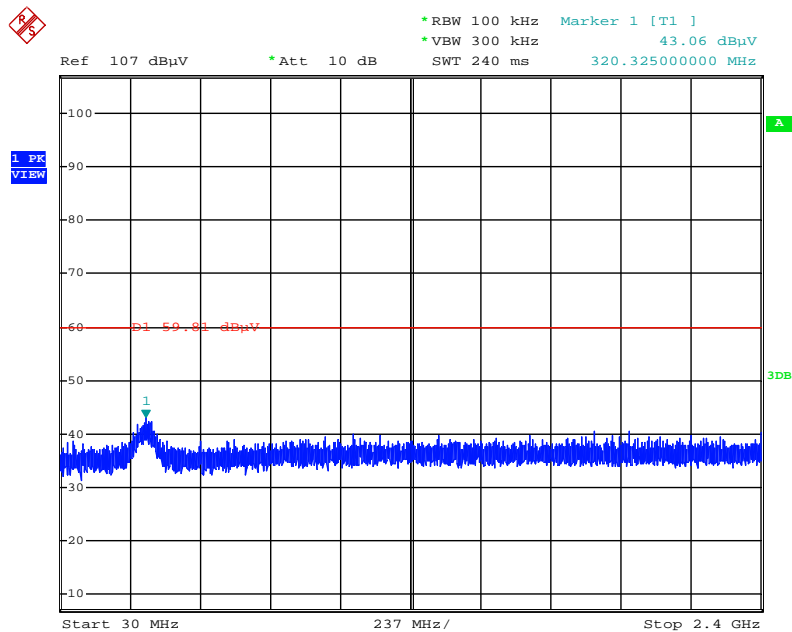
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH1 / Ant.2



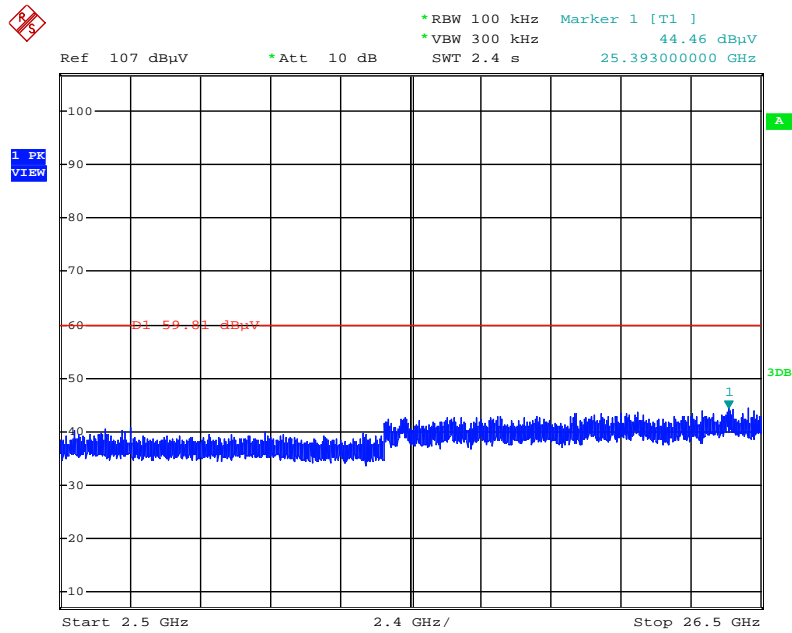
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH11 / Ant.2



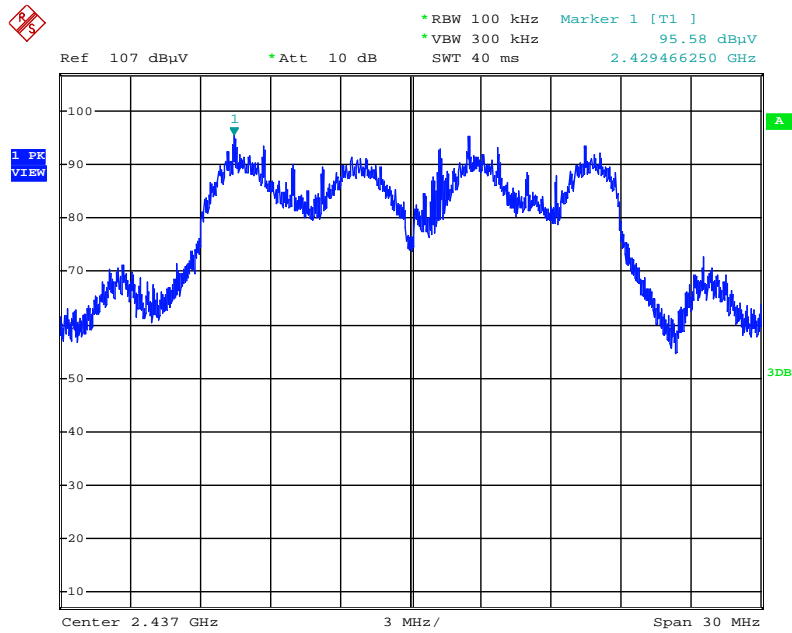
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH11 / Ant.2



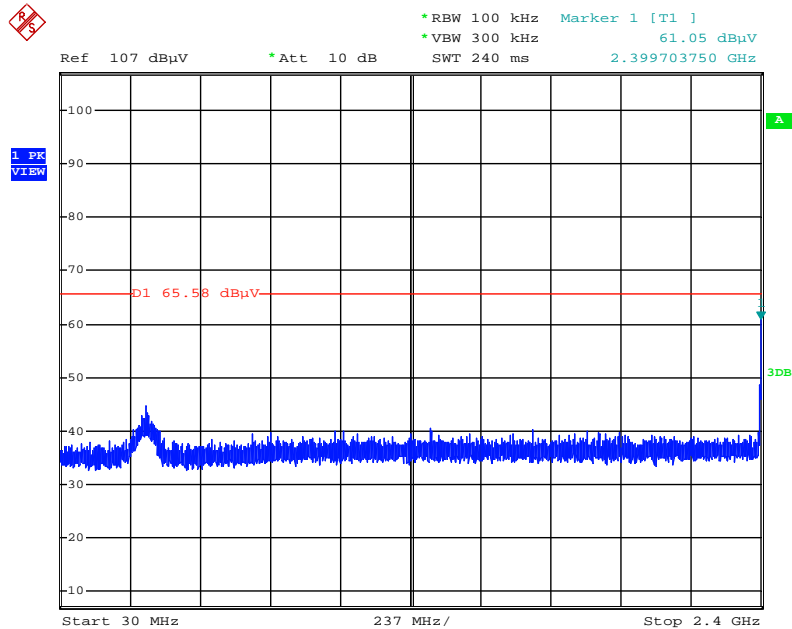
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / Reference Level / 1S3T, CDD



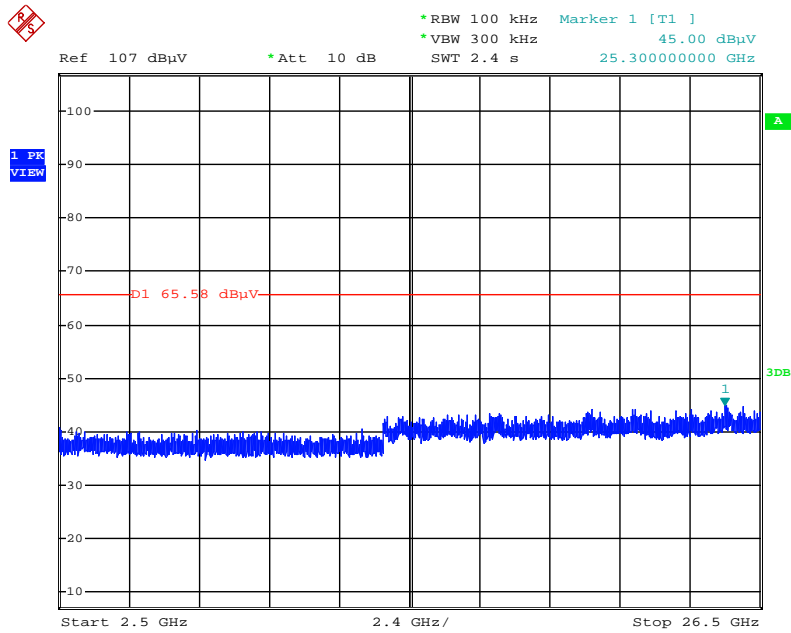
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH 1 / 1S3T, CDD



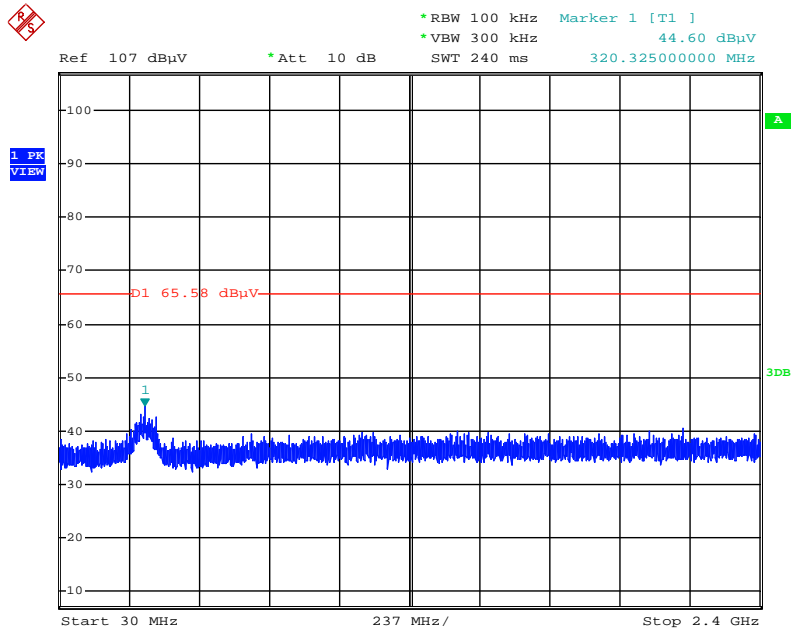
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH 1 / 1S3T, CDD



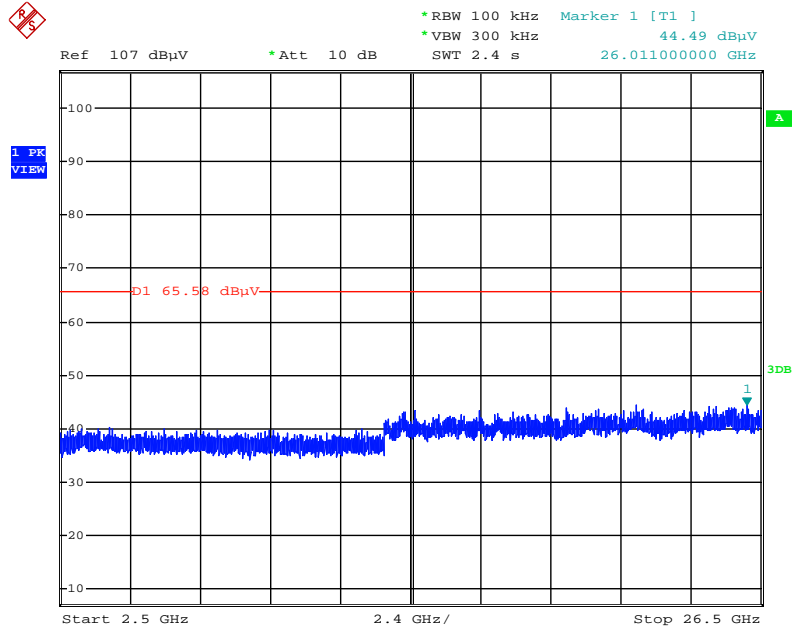
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Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH 11 / 1S3T, CDD



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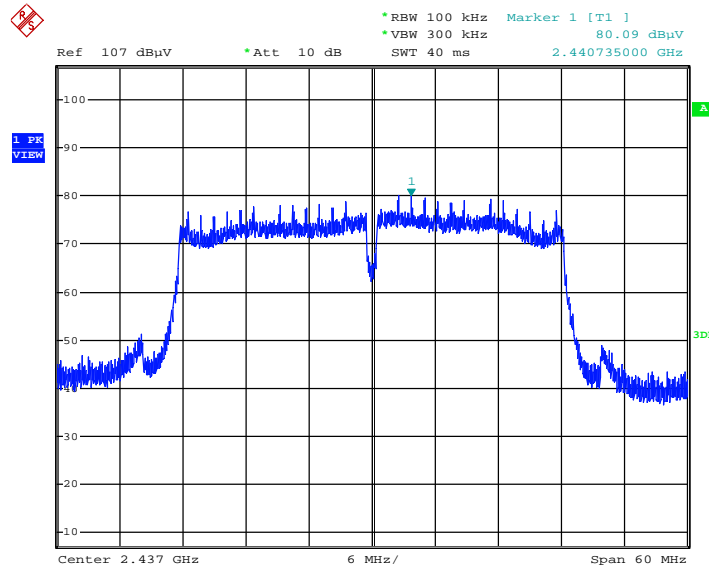
Low Band Edge Plot on Configuration IEEE 802.11n 20MHz MCS0 / CH 11 / 1S3T, CDD



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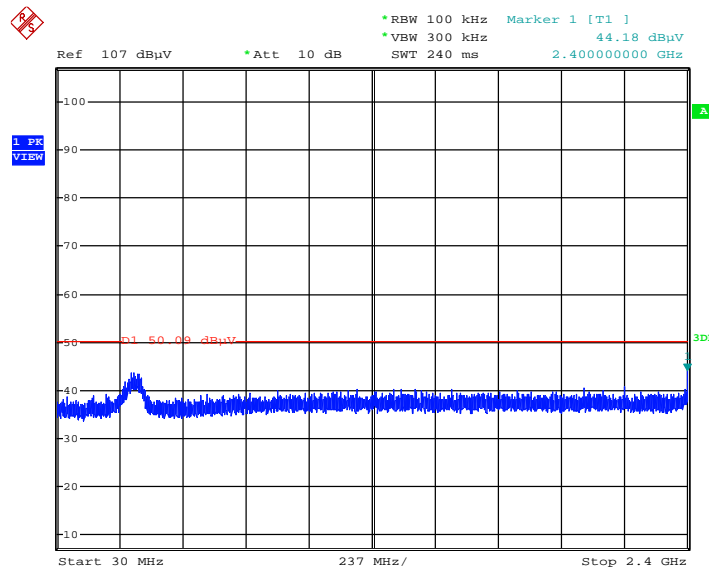
Final Test Date	Mar. 14, 2015	Test Site No.	03CH01-CB
Temperature	26°C	Humidity	68%
Configurations	802.11n 40MHz	Test Engineer	Brain Sun

Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / Reference Level / Ant.2



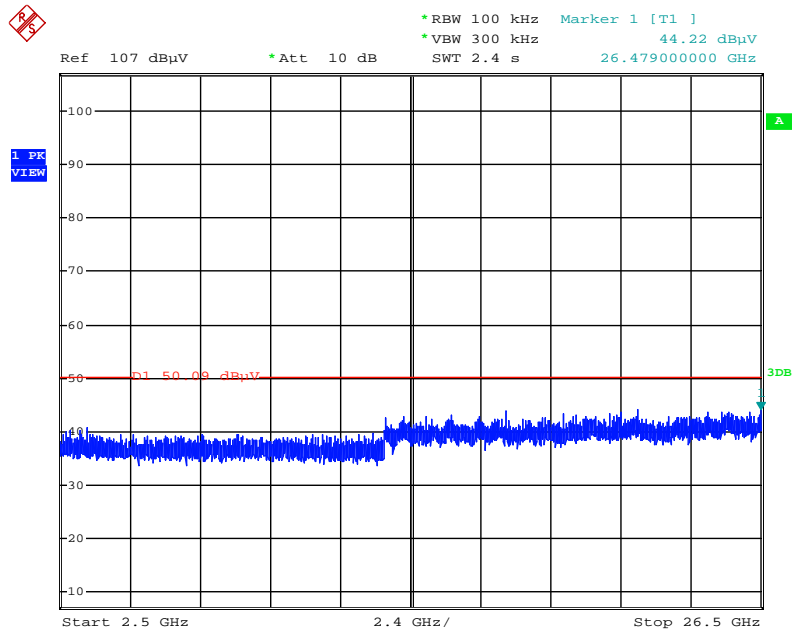
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 3 / Ant.2



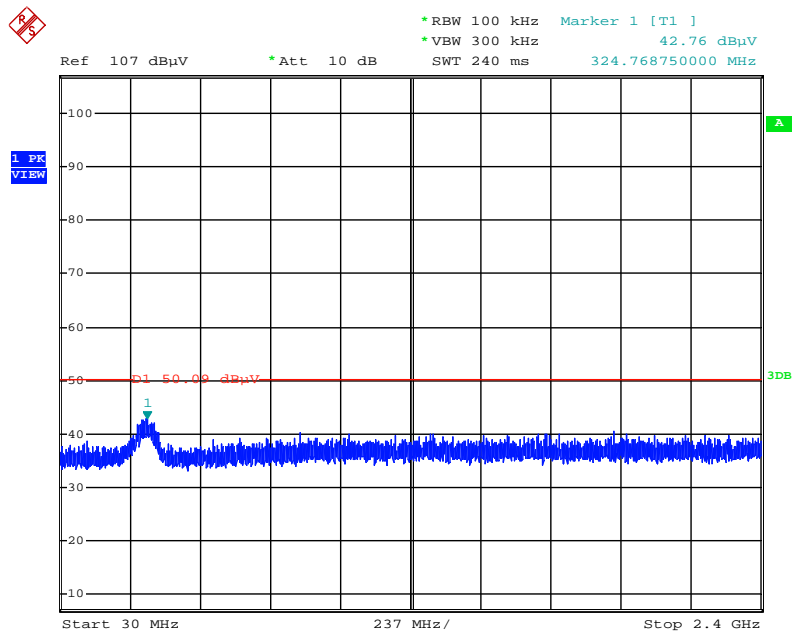
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 3 / Ant.2



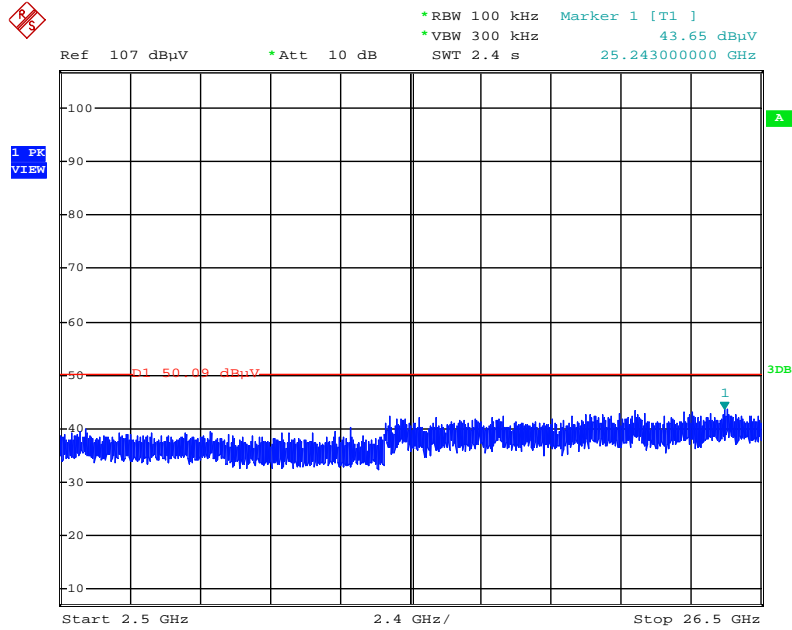
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 9 / Ant.2



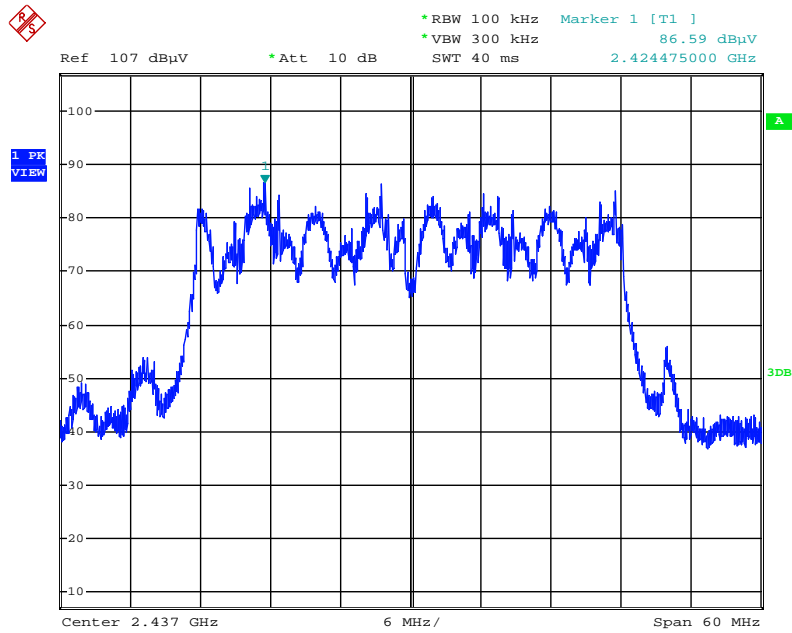
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 9 / Ant.2



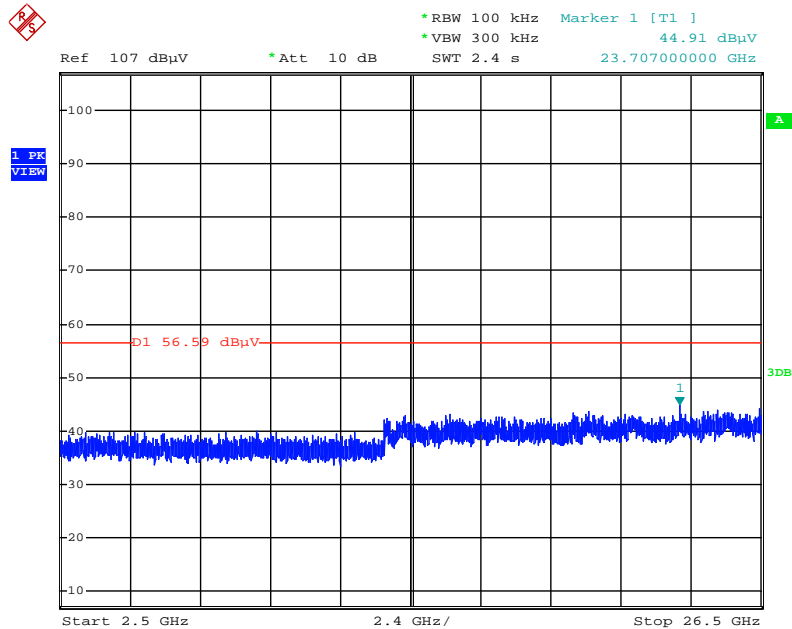
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / Reference Level / 1S3T, CDD



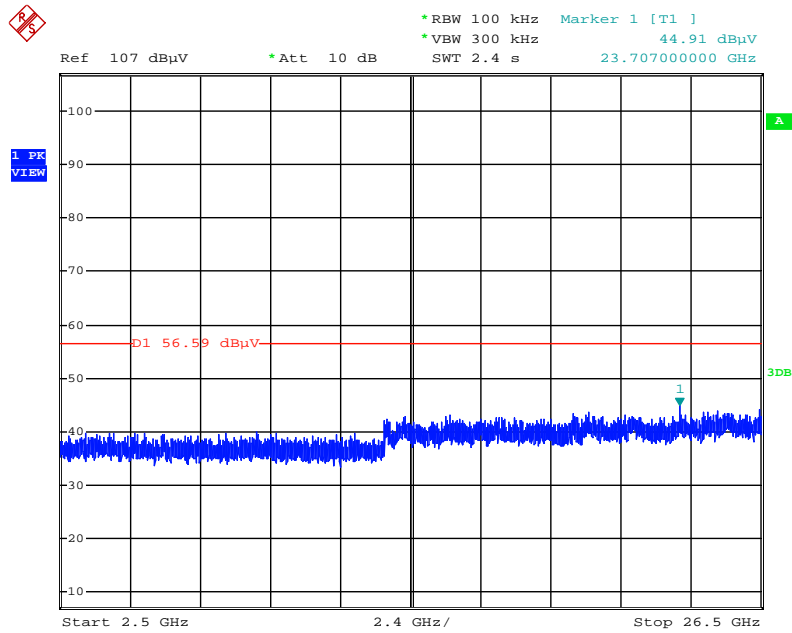
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 3 / 1S3T, CDD



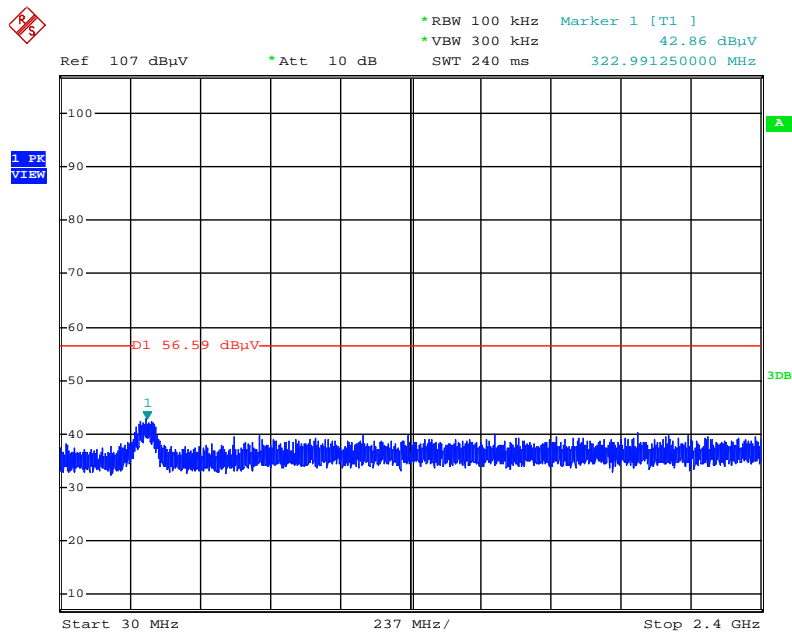
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Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 3 / 1S3T, CDD



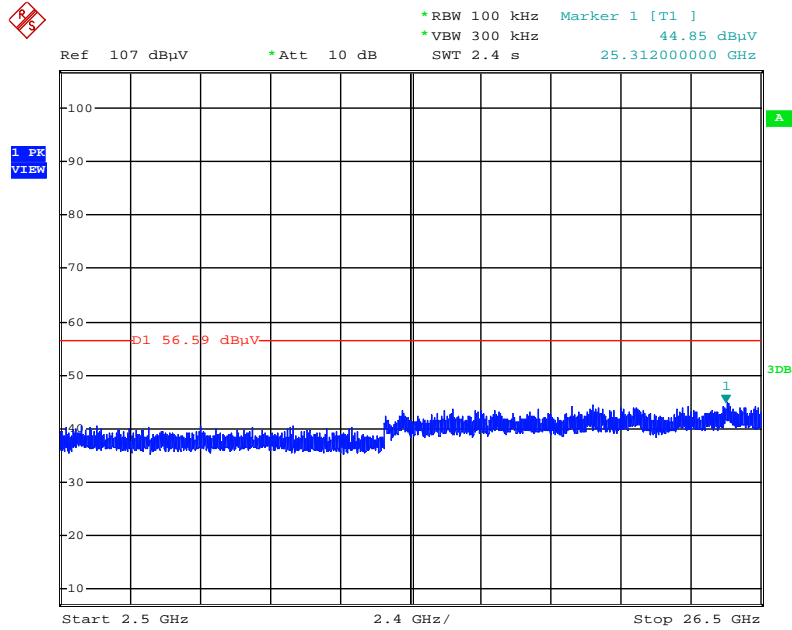
Date: 14.MAR.2015 17:38:52

Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 9 / 1S3T, CDD



Date: 14.MAR.2015 17:39:41

Low Band Edge Plot on Configuration IEEE 802.11n 40MHz MCS0 / CH 9 / 1S3T, CDD



Date: 14.MAR.2015 17:40:40

3.7. Antenna Requirements

3.7.1. 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.

3.7.2. Antenna Connector Construction

Please refer to section 2.3 in this test report; antenna connector complied with the requirements.

4. 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. 23, 2014	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 26, 2014	Radiation (03CH01-CB)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jul. 28, 2014	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Oct. 28, 2014	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 22, 2014	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 15, 2014	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 12, 2015	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Nov. 25, 2014	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 06, 2014	Radiation (03CH01-CB)
EMI Test Receiver	Agilent	N9038A	MY52260123	9kHz ~ 8GHz	Jan. 21, 2015	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESR26	101289	9kHz~26GHz	Aug. 22, 2014	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N.C.R.	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO 2000	N/A	1 m - 4 m	N.C.R.	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz - 1 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-1	N/A	1 GHz - 40 GHz	Nov. 15, 2014	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	1 GHz - 40 GHz	Nov. 15, 2014	Radiation (03CH01-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.

5. 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%