

FCC RADIO TEST REPORT

Applicant's company	Enterasys Networks
Applicant Address	50 Minuteman Road Andover MA 01810
FCC ID	QXO-OAP36B
Manufacturer's company	Accton Technology Corporation
Manufacturer Address	No. 1 Creation Rd., Ill, Science-based Industrial Park, Hsinchu 300, Taiwan, R.O.C.

Product Name	HiPath Wireless Outdoor Access Point
Brand Name	Enterasys
Model Name	WS-AP3660
Test Rule Part(s)	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Received Date	Jul. 20, 2010
Final Test Date	Sep. 03, 2010
Submission Type	Original Equipment



Statement

Test result included is only for the IEEE 802.11n, IEEE 802.11b/g part and IEEE 802.11a (5725 ~ 5850MHz) 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 C63.4-2003** and **47 CFR FCC Part 15 Subpart C**.

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

Table of Contents

1. CERTIFICATE OF COMPLIANCE	1
2. SUMMARY OF THE TEST RESULT	2
3. GENERAL INFORMATION	3
3.1. Product Details.....	3
3.2. Accessories.....	7
3.3. Table for Filed Antenna.....	8
3.4. Table for Carrier Frequencies	10
3.5. Table for Test Modes	11
3.6. Table for Testing Locations.....	16
3.7. Table for Supporting Units	16
3.8. Table for Parameters of Test Software Setting	17
3.9. Test Configurations	22
4. TEST RESULT	32
4.1. AC Power Line Conducted Emissions Measurement.....	32
4.2. Maximum Conducted Output Power Measurement.....	38
4.3. Power Spectral Density Measurement	127
4.4. 6dB Spectrum Bandwidth Measurement	159
4.5. Radiated Emissions Measurement	215
4.6. Band Edge Emissions Measurement	311
4.7. Antenna Requirements	359
5. LIST OF MEASURING EQUIPMENTS	360
6. TEST LOCATION.....	362
7. TAF CERTIFICATE OF ACCREDITATION	363
APPENDIX A. PHOTOGRAPHS OF EUT.....	A1 ~ A34
APPENDIX B. TEST PHOTOS.....	B1 ~ B16
APPENDIX C. MAXIMUM PERMISSIBLE EXPOSURE.....	C1 ~ C5
APPENDIX D. CO-LOCATION	D1 ~D6

History of This Test Report

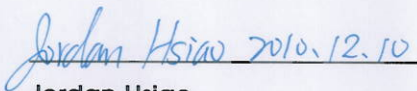
- ☒ No additional attachment.
- ☐ Additional attachment were issued as following record:

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR072010	Rev. 01	Initial issue of report	Sep. 06, 2010
FR072010	Rev. 02	The modified items were listed as below. 1. Antenna information 2. Test configuration and test photo	Nov. 02, 2010

1. CERTIFICATE OF COMPLIANCE

Product Name : HiPath Wireless Outdoor Access Point
Brand Name : Enterasys
Model Name : WS-AP3660
Applicant : Enterasys Networks
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart C § 15.247

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Jul. 20, 2010 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.



Jordan Hsiao

SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	Rule Section	Description of Test	Result	Under Limit
4.1	15.207	AC Power Line Conducted Emissions	Complies	10.35 dB
4.2	15.247(b)(3)	Maximum Conducted Output Power	Complies	0.41 dB
4.3	15.247(e)	Power Spectral Density	Complies	1.33 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions Below 1GHz	Complies	3.84 dB
4.5	15.247(d)	Radiated Emissions Above 1GHz	Complies	0.57 dB
4.6	15.247(d)	Band Edge Emissions	Complies	0.05 dB
4.7	15.203	Antenna Requirements	Complies	-

Test Items	Uncertainty	Remark
AC Power Line Conducted Emissions	±2.3dB	Confidence levels of 95%
Maximum Conducted Output Power	±0.8dB	Confidence levels of 95%
Power Spectral Density	±0.5dB	Confidence levels of 95%
6dB Spectrum Bandwidth	±8.5×10 ⁻⁸	Confidence levels of 95%
Radiated Emissions (9kHz~30MHz)	±0.8dB	Confidence levels of 95%
Radiated Emissions (30MHz~1000MHz)	±1.9dB	Confidence levels of 95%
Radiated / Band Edge Emissions (1GHz~18GHz)	±1.9dB	Confidence levels of 95%
Radiated Emissions (18GHz~40GHz)	±1.9dB	Confidence levels of 95%
Temperature	±0.7°C	Confidence levels of 95%
Humidity	±3.2%	Confidence levels of 95%
DC / AC Power Source	±1.4%	Confidence levels of 95%

3. GENERAL INFORMATION

3.1. Product Details

IEEE 802.11n

Items	Description
Product Type	For Ant. 1, Ant. 2: WLAN (2TX, 2RX) For Ant. 3, Ant. 4, Ant. 5, Ant. 6, Ant. 7: WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Power Adapter & POE
Modulation	see the below table for IEEE 802.11n
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	see the below table for IEEE 802.11n
Frequency Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Channel Number	For 2.4GHz Band: 11 for 20MHz bandwidth ; 9 for 40MHz bandwidth For 5GHz Band: 5 for 20MHz bandwidth ; 2 for 40MHz bandwidth
Channel Band Width (99%)	For 2.4GHz Band: For Mode 3 (Ant. 3): MCS8 (20MHz): 17.72 MHz ; MCS8 (40MHz): 36.16 MHz For Mode 4 (Ant. 4): MCS8 (20MHz): 17.68 MHz ; MCS8 (40MHz): 36.32 MHz For Mode 5 (Ant. 5): MCS8 (20MHz): 17.72 MHz ; MCS8 (40MHz): 36.40 MHz For Mode 7 (Ant. 7): MCS8 (20MHz): 17.72 MHz ; MCS8 (40MHz): 36.24 MHz For 5GHz Band: For Mode 1 (Ant. 1): MCS8 (20MHz): 17.72 MHz ; MCS8 (40MHz): 36.40 MHz For Mode 2 (Ant. 2): MCS8 (20MHz): 17.88 MHz ; MCS8 (40MHz): 36.40 MHz For Mode 4 (Ant. 4): MCS8 (20MHz): 18.16 MHz ; MCS8 (40MHz): 36.56 MHz For Mode 6 (Ant. 6): MCS8 (20MHz): 17.68 MHz ; MCS8 (40MHz): 36.00 MHz For Mode 7 (Ant. 7): MCS8 (20MHz): 17.80 MHz ; MCS8 (40MHz): 36.56 MHz

Items	Description
Conducted Output Power	For 2.4GHz Band: For Mode 3 (Ant. 3): MCS8 (20MHz): 20.97 dBm ; MCS8 (40MHz): 17.67 dBm For Mode 4 (Ant. 4): MCS8 (20MHz): 28.90 dBm ; MCS8 (40MHz): 21.30 dBm For Mode 5 (Ant. 5): MCS8 (20MHz): 25.03 dBm ; MCS8 (40MHz): 19.25 dBm For Mode 7 (Ant. 7): MCS8 (20MHz): 29.12 dBm ; MCS8 (40MHz): 23.65 dBm For 5GHz Band: For Mode 1 (Ant. 1): MCS8 (20MHz): 20.59 dBm ; MCS8 (40MHz): 20.24 dBm For Mode 2 (Ant. 2): MCS8 (20MHz): 27.56 dBm ; MCS8 (40MHz): 26.81 dBm For Mode 4 (Ant. 4): MCS8 (20MHz): 28.53 dBm ; MCS8 (40MHz): 28.12 dBm For Mode 6 (Ant. 6): MCS8 (20MHz): 25.48 dBm ; MCS8 (40MHz): 24.96 dBm For Mode 7 (Ant. 7): MCS8 (20MHz): 28.22 dBm ; MCS8 (40MHz): 28.12 dBm

802.11a/b/g

Items	Description
Product Type	For Ant. 1, Ant. 2: WLAN (2TX, 2RX) For Ant. 3, Ant. 4, Ant. 5, Ant. 6, Ant. 7: WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Power Adapter & POE
Modulation	DSSS for IEEE 802.11b ; OFDM for IEEE 802.11a/g
Data Modulation	DSSS (BPSK / QPSK / CCK) ; OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	DSSS (1/ 2/ 5.5/11) ; OFDM (6/9/12/18/24/36/48/54)
Frequency Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Channel Number	11b/g: 11 ; 11a: 5
Channel Band Width (99%)	For Mode 1 (Ant. 1): 11a: 16.44 MHz For Mode 2 (Ant. 2): 11a: 17.48 MHz For Mode 3 (Ant. 3): 11b: 15.12 MHz ; 11g: 16.48 MHz For Mode 4 (Ant. 4): 11b: 15.28 MHz ; 11g: 16.48 MHz ; 11a: 19.00 MHz For Mode 5 (Ant. 5): 11b: 15.64 MHz ; 11g: 16.76 MHz For Mode 6 (Ant. 6): 11a: 16.56 MHz For Mode 7 (Ant. 7): 11b: 15.36 MHz ; 11g: 16.40 MHz ; 11a: 17.04 MHz
Conducted Output Power	For Mode 1 (Ant. 1): 11a: 20.56 MHz For Mode 2 (Ant. 2): 11a: 21.21 dBm For Mode 3 (Ant. 3): 11b: 25.44 dBm ; 11g: 20.56 dBm For Mode 4 (Ant. 4): 11b: 26.52 dBm ; 11g: 27.83 dBm ; 11a: 28.60 dBm For Mode 5 (Ant. 5): 11b: 24.90 dBm ; 11g: 24.65 dBm ; For Mode 6 (Ant. 6): 11a: 25.38 dBm For Mode 7 (Ant. 7): 11b: 27.14 dBm ; 11g: 29.42 dBm ; 11a: 28.05 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3
Note: Due to the system cannot execute RF program, so only use module to test in this report.	

<For Ant.1, Ant. 2>: Antenna & Band width

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

<For Ant. 3, Ant. 4, Ant. 5, Ant. 6, Ant. 7>: Antenna & Band width

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

IEEE 802.11n spec

MCS Index	Nss	Modulation	R	NBPSC	NCBPS		NDBPS		Datarate(Mbps)			
									800nsGI		400nsGI	
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.200	15
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.400	30
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.700	45
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.900	60
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.300	90
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.800	120
6	1	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.000	135
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.200	150
8	2	BPSK	1/2	1	104	216	52	108	13.0	27.0	14.444	30
9	2	QPSK	1/2	2	208	432	104	216	26.0	54.0	28.889	60
10	2	QPSK	3/4	2	208	432	156	324	39.0	81.0	43.333	90
11	2	16-QAM	1/2	4	416	864	208	432	52.0	108.0	57.778	120
12	2	16-QAM	3/4	4	416	864	312	648	78.0	162.0	86.667	180
13	2	64-QAM	2/3	6	624	1296	416	864	104.0	216.0	115.556	240
14	2	64-QAM	3/4	6	624	1296	468	972	117.0	243.0	130.000	270
15	2	64-QAM	5/6	6	624	1296	520	1080	130.0	270.0	144.444	300

Symbol	Explanation
NSS	Number of spatial streams
R	Code rate
NBPSC	Number of coded bits per single carrier
NCBPS	Number of coded bits per symbol
NDBPS	Number of data bits per symbol
GI	guard interval

3.2. Accessories

Power	Brand	Model	Rating
Adapter	UMEC	UP0601C-1273	Input: 100-240VAC, 50-60Hz, 1A Output: 12VDC, 3.33A

3.3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Antenna gain		Cable Loss		Test Antenna gain	
					2.4GHz Band	5GHz Band	2.4GHz Band	5GHz Band	2.4GHz Band	5GHz Band
1	MTI	MT-484026/NVH/B	Sector Antenna	Reverse N-Type	-	16	-	1	-	15
2	MTI	MT-485025/NVH	Panel Antenna	Reverse N-Type	-	23	-	1	-	22
3	PCTEL	WISP24018PTNF	Panel Antenna	Reverse N-Type	18	-	0.5	-	17.5	-
4	MARS	MA-WE2458-3H2	Sector Antenna	Reverse N-Type	5	5	0.5	1	4.5	4
5	PCTEL	MFB24010	Omni Antenna	Reverse N-Type	10	-	0.5	-	9.5	-
6	PCTEL	MFB58010	Omni Antenna	Reverse N-Type	-	10	-	1	-	9
7	Laird	S24493BPX	Omni Antenna	Reverse N-Type	5	5	0.5	1	4.5	4

Note: <For Ant. 1, Ant. 2 (2TX/2RX)>:

The EUT has three antenna connectors that can be used for transmitting and receiving simultaneously as 2TX and 2RX.

Connector J2 and J4 can both receive/transmit simultaneously.

Ant. 1: 5GHz Antenna

Ant. 2: 5GHz Antenna, Ant. 2 supports point-to-point function.

<For Ant. 3, Ant. 4, Ant. 5, Ant. 6, Ant. 7 (3TX/3RX)>:

The EUT has three antenna connectors that can be used for transmitting and receiving simultaneously as 3TX and 3RX.

Connector J2, J3 and J4 can both receive/transmit simultaneously.

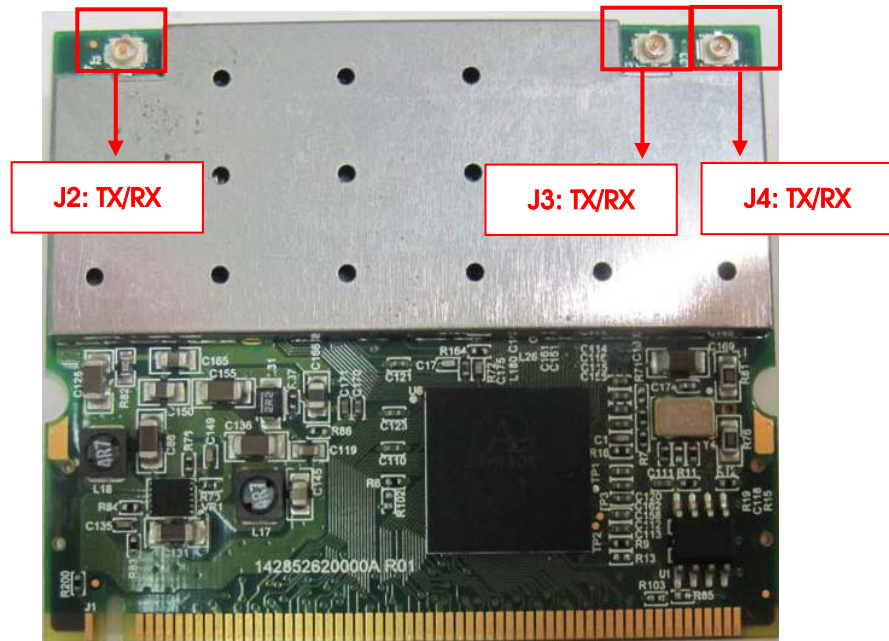
Ant. 3: 2.4GHz Antenna, Ant. 3 supports point-to-point function.

Ant. 4: 2.4GHz / 5GHz Antenna

Ant. 5: 2.4GHz Antenna

Ant. 6: 5GHz Antenna

Ant. 7: 2.4GHz / 5GHz Antenna



3.4. Table for Carrier Frequencies

For 2.4GHz Band

Frequency Allocation for IEEE 802.11b/g

For IEEE 802.11b/g, use Channel 1~Channel 11.

There are two bandwidth systems for IEEE 802.11n.

For both 20MHz bandwidth systems, use Channel 1~Channel 11.

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

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

For 5GHz Band

Frequency Allocation for IEEE 802.11a

For IEEE 802.11a, use Channel 149, 153, 157, 161, 165.

There are two bandwidth systems for IEEE 802.11n.

For 20MHz bandwidth systems, use Channel 149, 153, 157, 161, 165.

For 40MHz bandwidth systems, use Channel 151, 159.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5725~5850 MHz	149	5745 MHz	159	5795 MHz
	151	5755 MHz	161	5805 MHz
	153	5765 MHz	165	5825 MHz
	157	5785 MHz	-	-

3.5. Table for Test Modes

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

<For Ant. 1, Ant. 2>:

For 2.4GHz Band

Test Items	Mode	Data Rate	Channel	Connector
AC Power Line Conducted Emissions	TX Mode	6Mbps	6	-
Max. Peak Conducted Output Power	MCS8/20MHz	13 Mbps	1/6/11	J2/J4/J2+J4
	MCS8/40MHz	27 Mbps	3/6/9	J2/J4/J2+J4
	11b/CCK	1 Mbps	1/6/11	J2/J4/J2+J4
	11g/BPSK	6 Mbps	1/6/11	J2/J4/J2+J4
Power Spectral Density 6dB Spectrum Bandwidth	MCS8/20MHz	13 Mbps	1/6/11	J2+J4
	MCS8/40MHz	27 Mbps	3/6/9	J2+J4
	11b/CCK	1 Mbps	1/6/11	J2+J4
	11g/BPSK	6 Mbps	1/6/11	J2+J4
Radiated Emissions Below 1GHz	TX Mode	6 Mbps	-	-
Radiated Emissions Above 1GHz	MCS8/20MHz	13 Mbps	1/6/11	J2+J4
	MCS8/40MHz	27 Mbps	3/6/9	J2+J4
	11b/CCK	1 Mbps	1/6/11	J2+J4
	11g/BPSK	6 Mbps	1/6/11	J2+J4
Band Edge Emissions	MCS8/20MHz	13 Mbps	1/11	J2+J4
	MCS8/40MHz	27 Mbps	3/9	J2+J4
	11b/CCK	1 Mbps	1/11	J2+J4
	11g/BPSK	6 Mbps	1/11	J2+J4

For 5GHz Band

Test Items	Mode	Data Rate	Channel	Antenna
AC Power Line Conducted Emissions	TX Mode	6 Mbps	-	-
Max. Peak Conducted Output Power	MCS8/20MHz	13 Mbps	149/157/165	J2/J4/J2+J4
	MCS8/40MHz	27 Mbps	151/159	J2/J4/J2+J4
	11a/BPSK	6 Mbps	149/157/165	J2/J4/J2+J4
Power Spectral Density 6dB Spectrum Bandwidth	MCS8/20MHz	13 Mbps	149/157/165	J2+J4
	MCS8/40MHz	27 Mbps	151/159	J2+J4
	11a/BPSK	6 Mbps	149/157/165	J2+J4
Radiated Emissions Below 1GHz	TX Mode	6 Mbps	-	-
Radiated Emissions Above 1GHz	MCS8/20MHz	13 Mbps	149/157/165	J2+J4
	MCS8/40MHz	27 Mbps	151/159	J2+J4
	11a/BPSK	6 Mbps	149/157/165	J2+J4
Band Edge Emissions	MCS8/20MHz	13 Mbps	149/157/165	J2+J4
	MCS8/40MHz	27 Mbps	151/159	J2+J4
	11a/BPSK	6 Mbps	149/157/165	J2+J4

<For Ant. 3, Ant. 4, Ant. 5, Ant. 6, Ant. 7>:

For 2.4GHz Band

Test Items	Mode	Data Rate	Channel	Connector
AC Power Line Conducted Emissions	Normal Link	Auto	-	-
Max. Peak Conducted Output Power	MCS8/20MHz	13 Mbps	1/6/11	J2/J3/J4 /J2+J3+J4
	MCS8/40MHz	27 Mbps	3/6/9	J2/J3/J4 /J2+J3+J4
	11b/CCK	1 Mbps	1/6/11	J2/J3/J4 /J2+J3+J4
	11g/BPSK	6 Mbps	1/6/11	J2/J3/J4 /J2+J3+J4
Power Spectral Density 6dB Spectrum Bandwidth	MCS8/20MHz	13 Mbps	1/6/11	J2+J3+J4
	MCS8/40MHz	27 Mbps	3/6/9	J2+J3+J4
	11b/CCK	1 Mbps	1/6/11	J2+J3+J4
	11g/BPSK	6 Mbps	1/6/11	J2+J3+J4
Radiated Emissions Below 1GHz	Normal Link	Auto	-	-
Radiated Emissions Above 1GHz	MCS8/20MHz	13 Mbps	1/6/11	J2+J3+J4
	MCS8/40MHz	27 Mbps	3/6/9	J2+J3+J4
	11b/CCK	1 Mbps	1/6/11	J2+J3+J4
	11g/BPSK	6 Mbps	1/6/11	J2+J3+J4
Band Edge Emissions	MCS8/20MHz	13 Mbps	1/11	J2+J3+J4
	MCS8/40MHz	27 Mbps	3/9	J2+J3+J4
	11b/CCK	1 Mbps	1/11	J2+J3+J4
	11g/BPSK	6 Mbps	1/11	J2+J3+J4

For 5GHz Band

Test Items	Mode	Data Rate	Channel	Antenna
AC Power Line Conducted Emissions	Normal Link	Auto	-	-
Max. Peak Conducted Output Power	MCS8/20MHz	13 Mbps	149/157/165	J2/J3/J4 /J2+J3+J4
	MCS8/40MHz	27 Mbps	151/159	J2/J3/J4 /J2+J3+J4
	11a/BPSK	6 Mbps	149/157/165	J2/J3/J4 /J2+J3+J4
Power Spectral Density 6dB Spectrum Bandwidth	MCS8/20MHz	13 Mbps	149/157/165	J2+J3+J4
	MCS8/40MHz	27 Mbps	151/159	J2+J3+J4
	11a/BPSK	6 Mbps	149/157/165	J2+J3+J4
Radiated Emissions Below 1GHz	Normal Link	Auto	-	-
Radiated Emissions Above 1GHz	MCS8/20MHz	13 Mbps	149/157/165	J2+J3+J4
	MCS8/40MHz	27 Mbps	151/159	J2+J3+J4
	11a/BPSK	6 Mbps	149/157/165	J2+J3+J4
Band Edge Emissions	MCS8/20MHz	13 Mbps	149/157/165	J2+J3+J4
	MCS8/40MHz	27 Mbps	151/159	J2+J3+J4
	11a/BPSK	6 Mbps	149/157/165	J2+J3+J4

Note: All the test modes were listed as below:

Mode 1. EUT + Ant. 1 (5GHz Antenna)

Mode 2. EUT + Ant. 2 (5GHz Antenna)

Mode 3. EUT + Ant. 3 (2.4GHz Antenna)

Mode 4. EUT + Ant. 4 (2.4GHz / 5GHz Antenna)

Mode 5. EUT + Ant. 5 (2.4GHz Antenna)

Mode 6. EUT + Ant. 6 (5GHz Antenna)

Mode 7. EUT + Ant. 7 (2.4GHz / 5GHz Antenna)

<For Conducted Emission test>:

After evaluating, Mode 1 and Mode 3 were selected as worse case and recorded the test data in the report.

<For Radiated Emissions Test Below 1GHz>:

After evaluating, Mode 1 and Mode 3 were selected as worse case and recorded the test data in the report.

<For Radiated Emissions Test Above 1GHz>:

All the test modes were tested and recorded in the report.

<For MPE Test>:

All the test modes were tested and recorded in the report.

<For Co-location Test>:

The Highest Gain of 5GHz Band: Ant. 2

The Highest Gain of 2.4GHz Band: Ant. 3

When we executed the Co-Location measurement, we used the host to test in this report.

Due to Ant. 2 is the highest gain of 5GHz Band and Ant. 3 is the highest gain of 2.4GHz Band, so they would be selected as worse case and recorded the test data in the report.

The EUT could be applied with wireless LAN function 2.4GHz Band and wireless LAN function 5GHz Band; therefore Maximum Permissible Exposure (please refer to Appendix C) and Co-location (please refer to Appendix D) tests are added for simultaneously transmit between wireless LAN function 2.4GHz Band and wireless LAN function 5GHz Band.

3.6. Table for Testing Locations

Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.	VCCI Reg. No
CO04-HY	Conduction	Hwa Ya	879474	IC 4086	-
03CH03-HY	SAC	Hwa Ya	879474	IC 4086	-
TH01-HY	OVEN Room	Hwa Ya	-	-	-

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

Please refer section 6 for Test Site Address.

3.7. Table for Supporting Units

Support Unit	Brand	Model	FCC ID
Notebook	DELL	D400	E2K24GBRL
Wireless AP	Planex	GW-AP54SGX	N/A

3.8. 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.

<For Mode 1 (Ant. 1)>:

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS8 20MHz	16	16	15.5

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n	
Frequency	5755 MHz	5795 MHz
MCS8 40MHz	16	16

Power Parameters of IEEE 802.11a

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	16	16	16

<For Mode 2 (Ant. 2)>:

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS8 20MHz	20	21	21

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n	
Frequency	5755 MHz	5795 MHz
MCS8 40MHz	17.5	21

Power Parameters of IEEE 802.11a

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	21	21	21

<For Mode 3 (Ant. 3)>:

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
MCS8 20MHz	11	13	10.5

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2422 MHz	2437 MHz	2452 MHz
MCS8 40MHz	6	10	5.5

Power Parameters of IEEE 802.11b/g

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	16	18	15.5
IEEE 802.11g	12	13	11.5

<For Mode 4 (Ant. 4)>:

For 2.4GHz Band

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
MCS8 20MHz	13	19	13.5

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2422 MHz	2437 MHz	2452 MHz
MCS8 40MHz	12	14	12.5

Power Parameters of IEEE 802.11b/g

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	16	19	16
IEEE 802.11g	14	19	14.5

For 5GHz Band

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS8 20MHz	21	21	21

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5755 MHz	5795 MHz	
MCS8 40MHz	21	21	

Power Parameters of IEEE 802.11a

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	21	21	21

<For Mode 5 (Ant. 5)>:

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
MCS8 20MHz	12.5	17.5	14

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2422 MHz	2437 MHz	2452 MHz
MCS8 40MHz	10	13.5	11

Power Parameters of IEEE 802.11b/g

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	17	19.5	17.5
IEEE 802.11g	13	18	14.0

<For Mode 6 (Ant. 6)>:

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS8 20MHz	18	18	18

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n	
Frequency	5755 MHz	5795 MHz
MCS8 40MHz	18	18

Power Parameters of IEEE 802.11a

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	18	18	18

<For Mode 7 (Ant. 7)>:

For 2.4GHz Band

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
MCS8 20MHz	13.5	19	14

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2422 MHz	2437 MHz	2452 MHz
MCS8 40MHz	12	14.5	12.5

Power Parameters of IEEE 802.11b/g

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	16.5	19.5	17
IEEE 802.11g	14.5	20	14.5

For 5GHz Band

Power Parameters of IEEE 802.11n MCS8 20MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS8 20MHz	16.5	19	21

Power Parameters of IEEE 802.11n MCS8 40MHz

Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5755 MHz	5795 MHz	
MCS8 40MHz	17	21	

Power Parameters of IEEE 802.11a

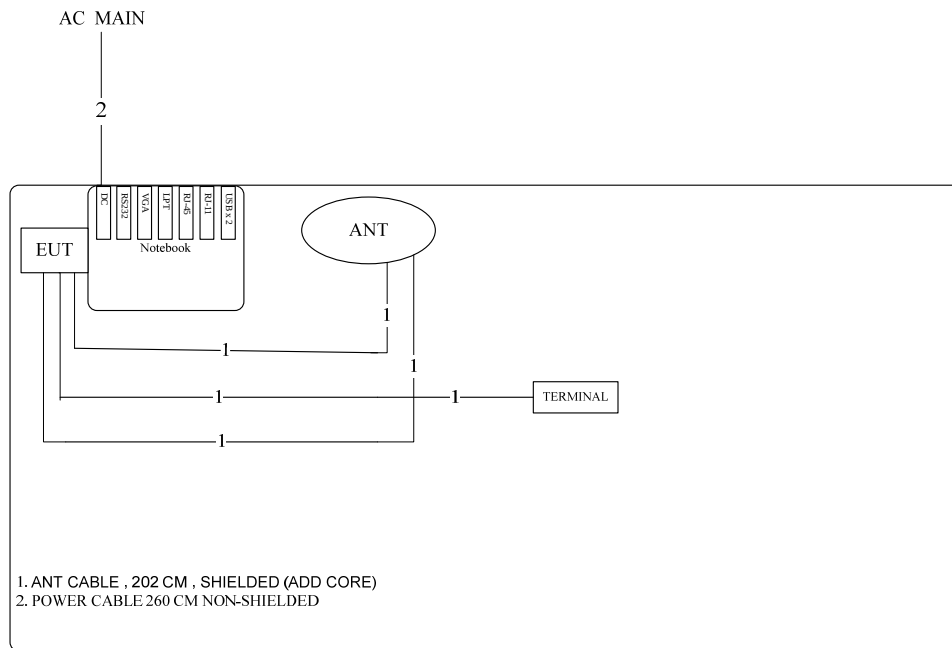
Test Software Version	0.9 BUILD #21 ART 11_n		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	16.5	19	21

During the test, "0.9 BUILD #21 ART 11_n" under WIN XP was executed to control the EUT continuously transmit RF signal.

3.9. Test Configurations

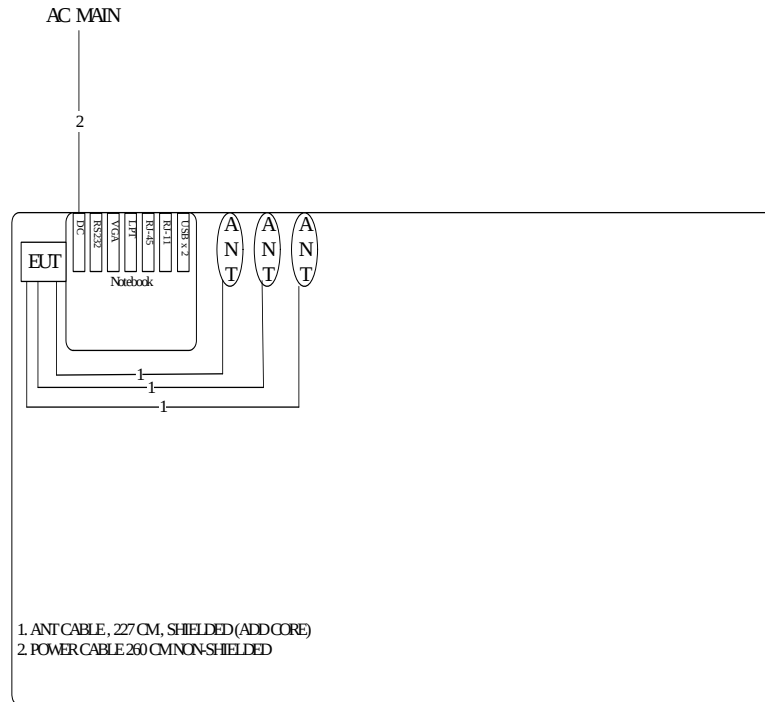
3.9.1. AC Power Line Conducted Emissions Test Configuration

<For Mode 1 (Ant. 1)> <5GHz Antenna>:



AP

<For Mode 3 (Ant. 3)> <2.4GHz Antenna>:



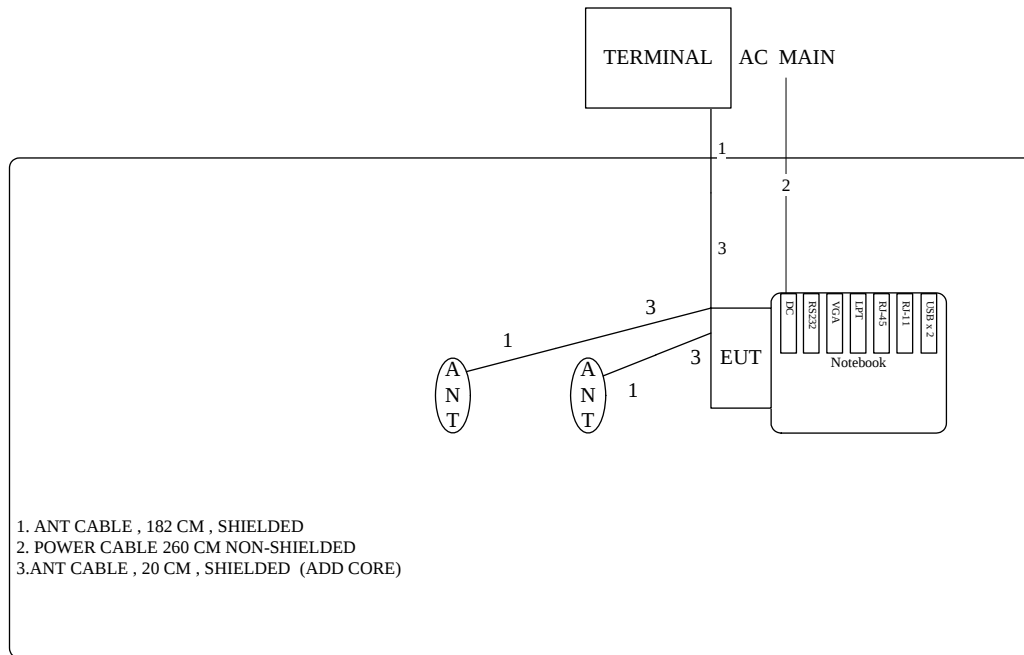
AP

3.9.2. Radiation Emissions Test Configuration

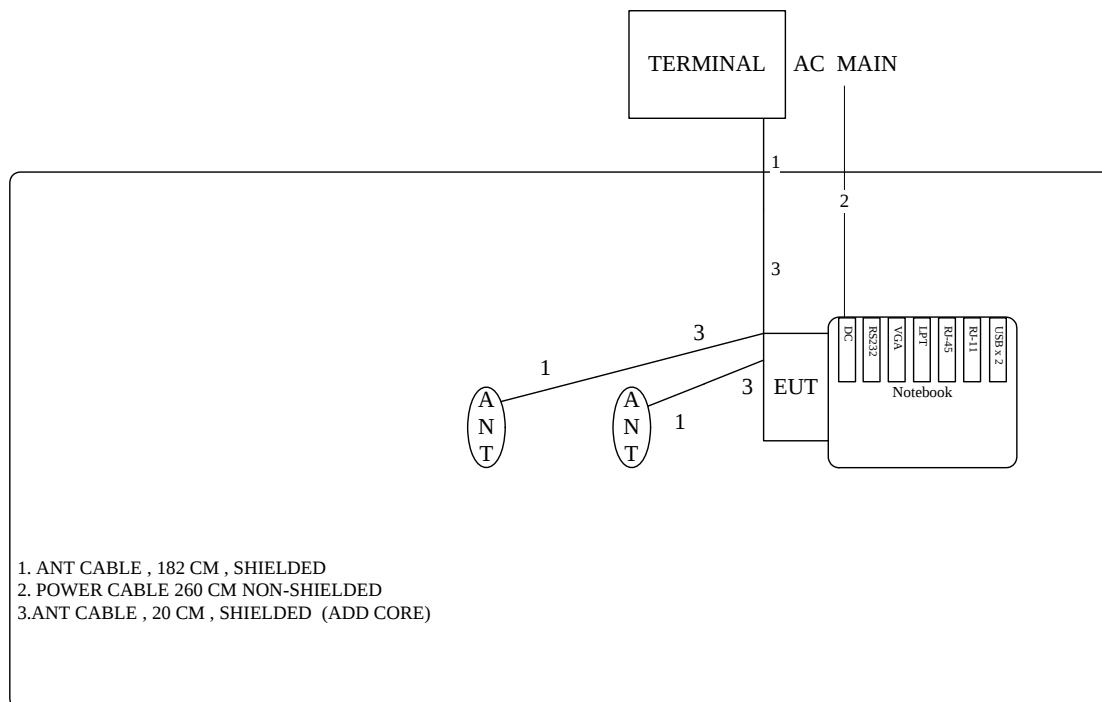
<For Mode 1 (Ant. 1)>:

<For WLAN Function>

Test Configuration: 9kHz~1GHz



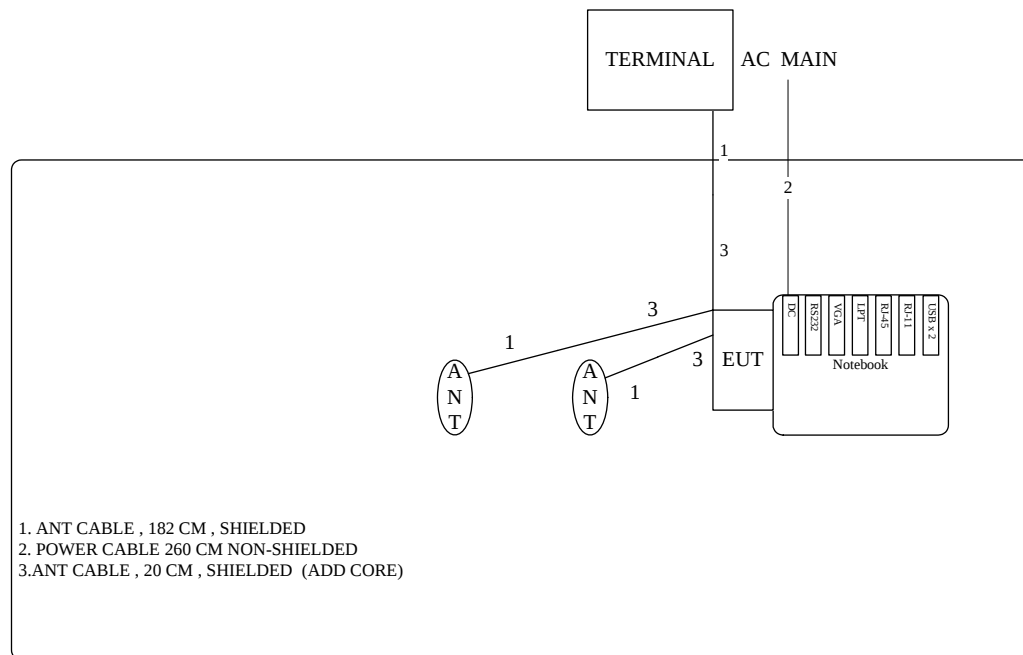
Test Configuration: above 1GHz



<For Mode 2 (Ant. 2)>:

<For WLAN Function>

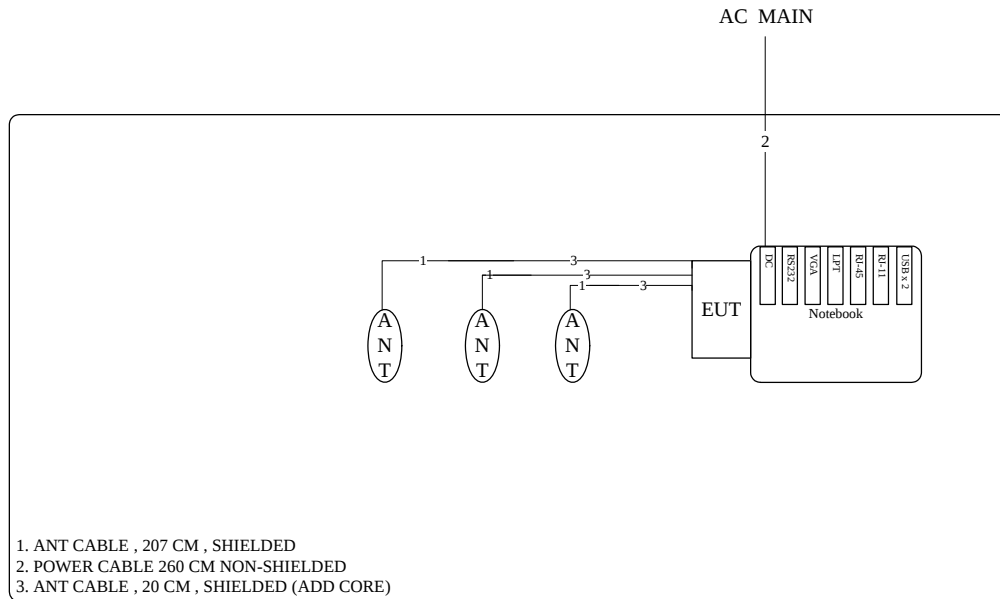
Test Configuration: above 1GHz



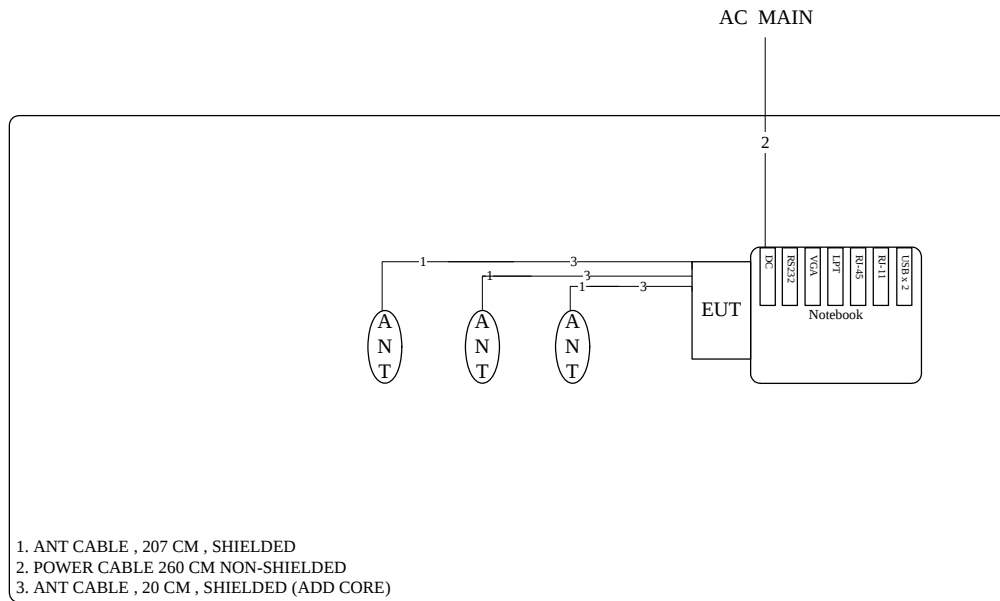
<For Mode 3 (Ant. 3)>:

<For WLAN Function>

Test Configuration: 9kHz~1GHz



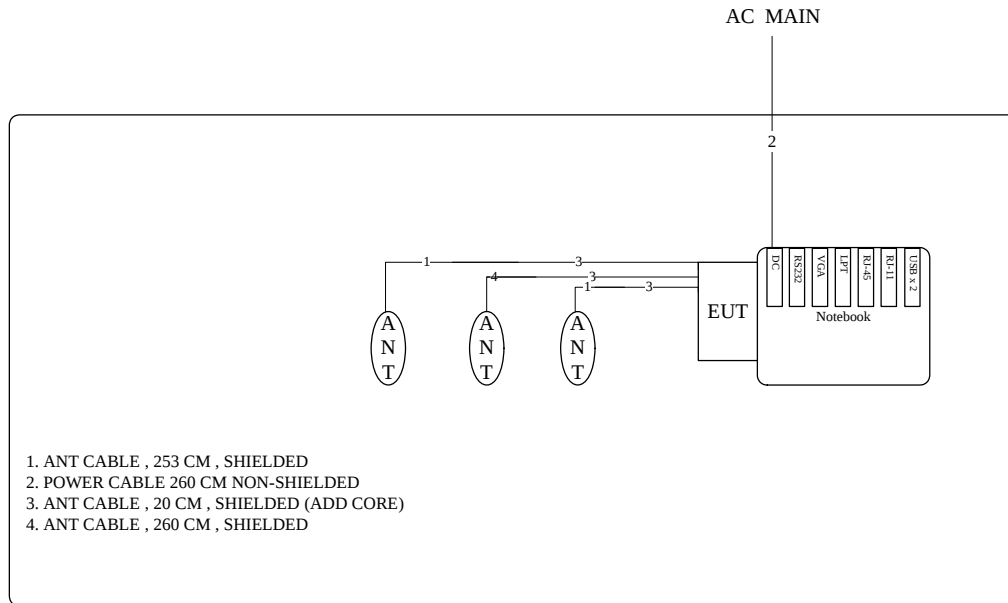
Test Configuration: above 1GHz



<For Mode 4 (Ant. 4)>:

<For WLAN Function>

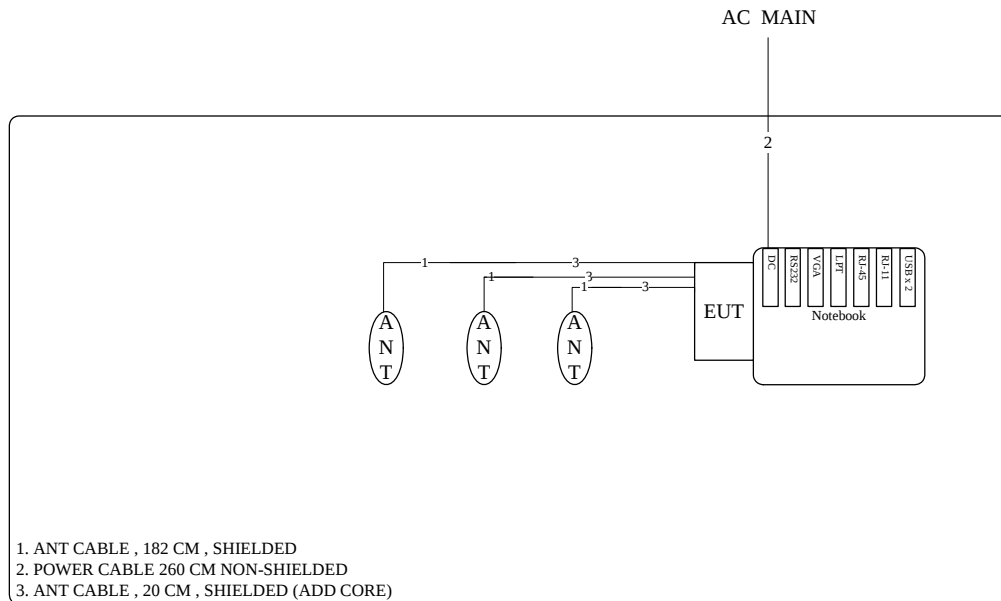
Test Configuration: above 1GHz



<For Mode 5 (Ant. 5), Mode 6 (Ant. 6)>:

<For WLAN Function>

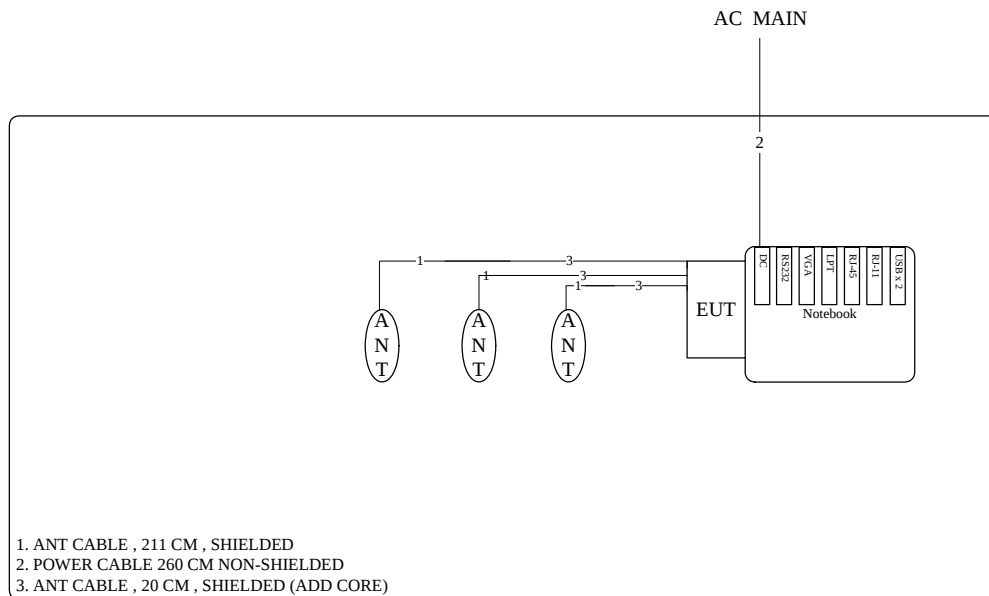
Test Configuration: above 1GHz



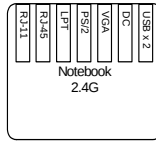
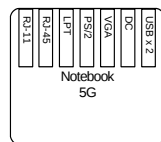
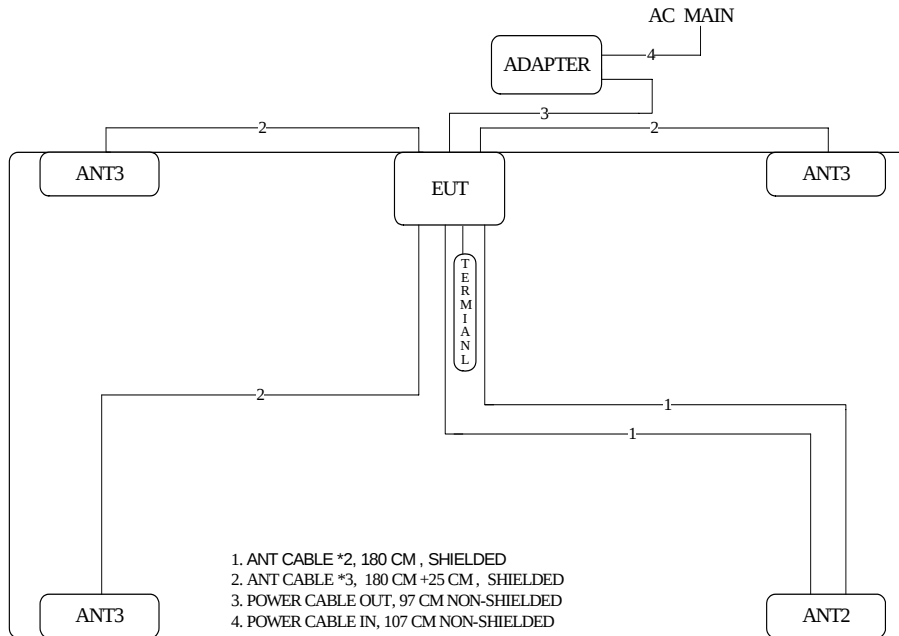
<For Mode 7 (Ant. 7)>

<For WLAN Function>

Test Configuration: above 1GHz



<For Co-location Function> <Ant. 2 (5GHz Band)+Ant. 3 (2.4GHz Band)>:



4. TEST RESULT

4.1. AC Power Line Conducted Emissions Measurement

4.1.1. Limit

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

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

4.1.2. Measuring Instruments and Setting

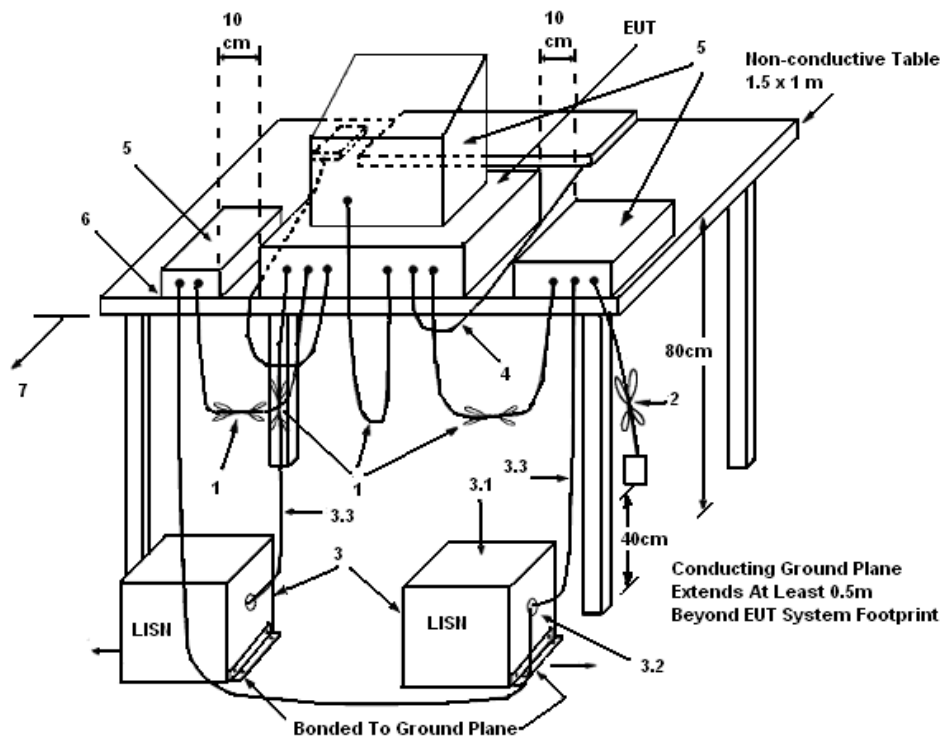
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

4.1.3. Test Procedures

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

4.1.4. Test Setup Layout



LEGEND:

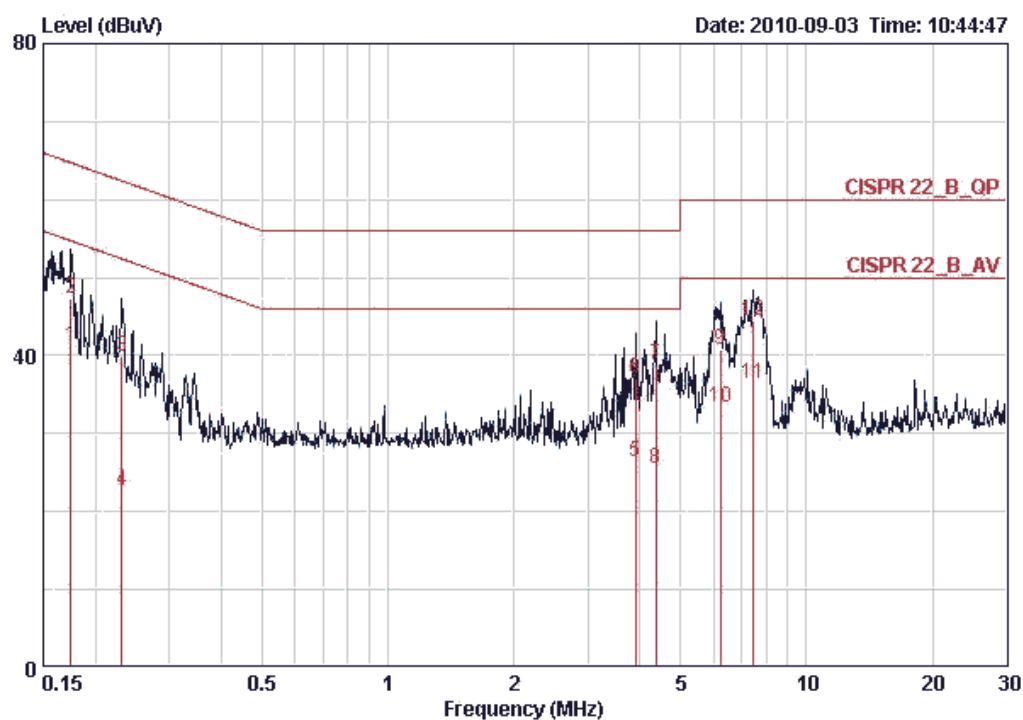
- (1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- (2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using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

4.1.5. Test Deviation

There is no deviation with the original standard.

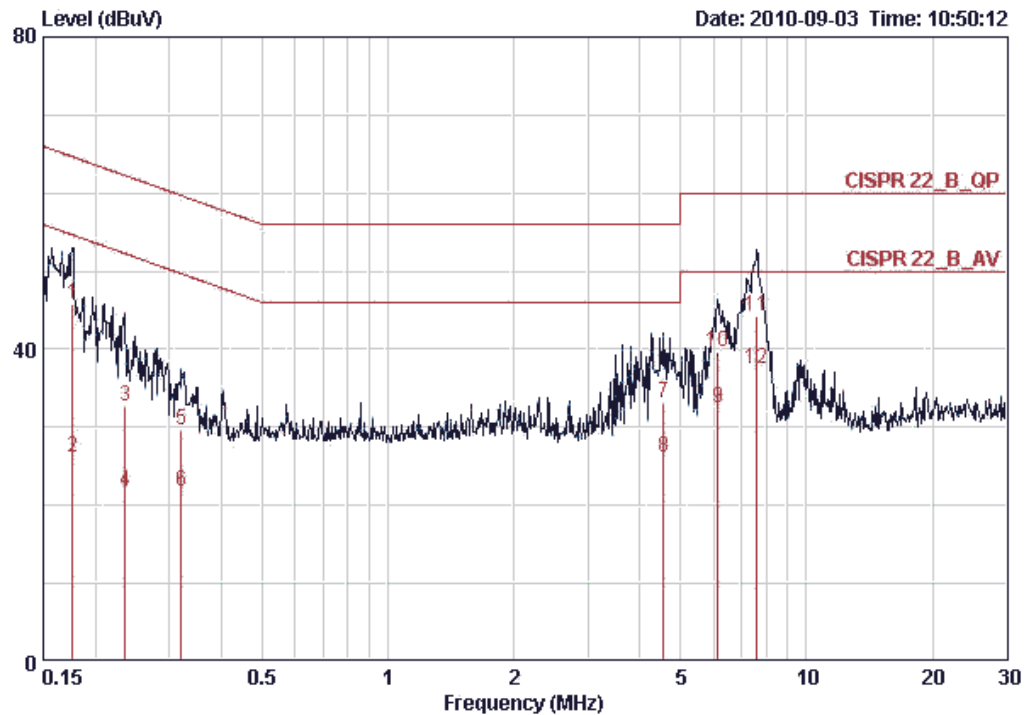
4.1.6. Results of AC Power Line Conducted Emissions Measurement

Temperature	26°C	Humidity	55%
Test Engineer	Beck Wu	Phase	Line
Configuration	TX Mode / Mode 1 (Ant. 1)		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17491	41.12	-13.60	54.72	40.86	0.06	0.20	AVERAGE
2	0.17491	47.22	-17.50	64.72	46.96	0.06	0.20	QP
3	0.23162	39.94	-22.46	62.39	39.69	0.05	0.20	QP
4	0.23162	22.72	-29.68	52.39	22.47	0.05	0.20	AVERAGE
5	3.901	26.34	-19.66	46.00	25.94	0.10	0.30	AVERAGE
6	3.901	37.15	-18.85	56.00	36.75	0.10	0.30	QP
7	4.361	38.84	-17.16	56.00	38.42	0.12	0.30	QP
8	4.361	25.47	-20.53	46.00	25.05	0.12	0.30	AVERAGE
9	6.219	40.76	-19.24	60.00	40.20	0.22	0.34	QP
10	6.219	33.39	-16.61	50.00	32.83	0.22	0.34	AVERAGE
11	7.486	36.48	-13.52	50.00	35.81	0.27	0.39	AVERAGE
12	7.486	44.50	-15.50	60.00	43.83	0.27	0.39	QP

Temperature	26°C	Humidity	55%
Test Engineer	Beck Wu	Phase	Neutral
Configuration	TX Mode / Mode 1 (Ant. 1)		

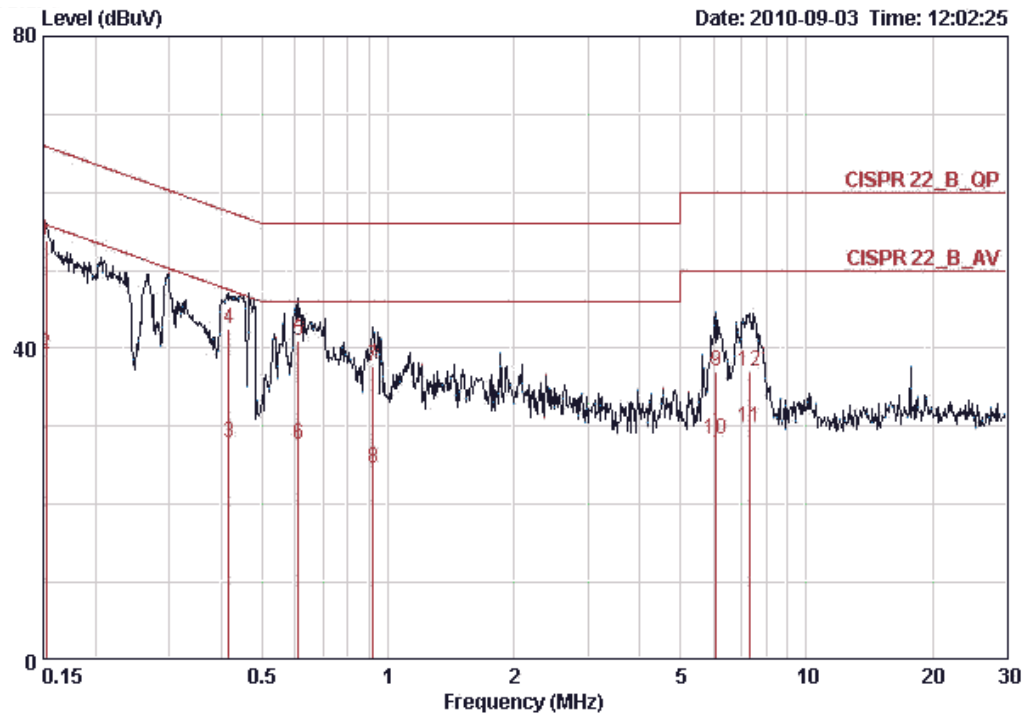


	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17584	45.79	-18.89	64.68	45.50	0.09	0.20	QP
2	0.17584	26.23	-28.45	54.68	25.94	0.09	0.20	AVERAGE
3	0.23533	32.77	-29.49	62.26	32.49	0.08	0.20	QP
4	0.23533	21.73	-30.53	52.26	21.45	0.08	0.20	AVERAGE
5	0.31999	29.66	-30.04	59.71	29.39	0.07	0.20	QP
6	0.31999	21.76	-27.94	49.71	21.49	0.07	0.20	AVERAGE
7	4.549	33.13	-22.87	56.00	32.66	0.17	0.30	QP
8	4.549	26.15	-19.85	46.00	25.68	0.17	0.30	AVERAGE
9	6.153	32.47	-17.53	50.00	31.88	0.26	0.34	AVERAGE
10	6.153	39.73	-20.27	60.00	39.14	0.26	0.34	QP
11	7.606	44.28	-15.72	60.00	43.57	0.32	0.40	QP
12	7.606	37.41	-12.59	50.00	36.70	0.32	0.40	AVERAGE

Note:

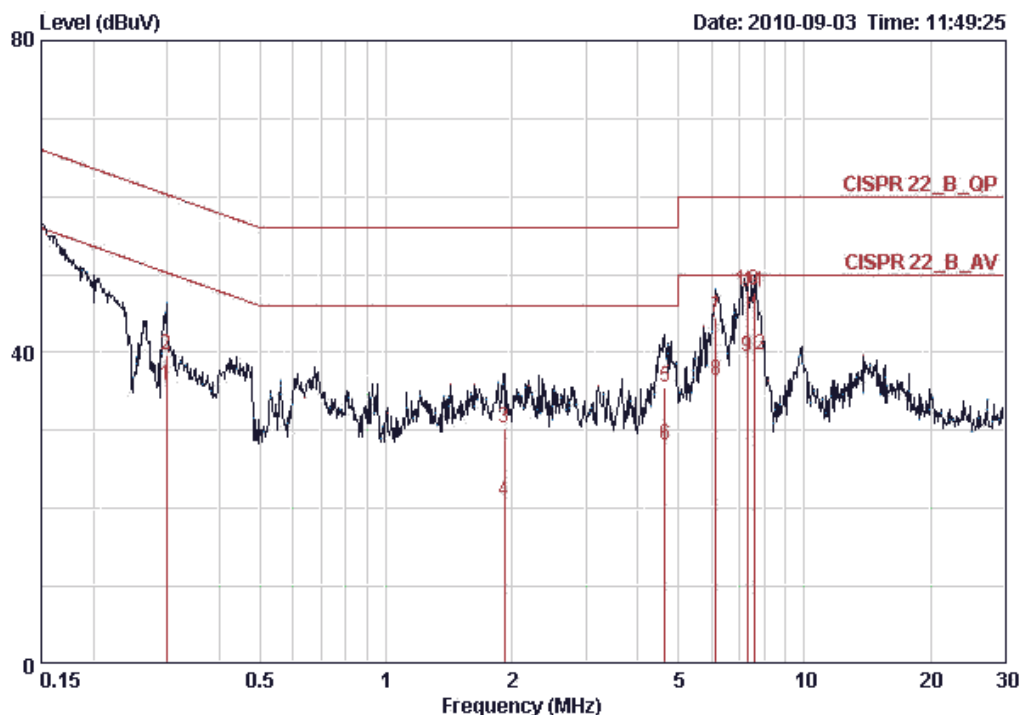
Level = Read Level + LISN Factor + Cable Loss.

Temperature	26°C	Humidity	55%
Test Engineer	Beck Wu	Phase	Line
Configuration	TX Mode / Mode 3 (Ant. 3)		



	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15240	53.77	-12.09	65.87	53.50	0.07	0.20	QP
2	0.15240	39.21	-16.65	55.87	38.94	0.07	0.20	AVERAGE
3	0.41705	27.83	-19.68	47.51	27.60	0.03	0.20	AVERAGE
4	0.41705	42.42	-15.09	57.51	42.19	0.03	0.20	QP
5	0.61075	40.96	-15.04	56.00	40.73	0.03	0.20	QP
6	0.61075	27.63	-18.37	46.00	27.40	0.03	0.20	AVERAGE
7	0.92330	37.69	-18.31	56.00	37.46	0.03	0.20	QP
8	0.92330	24.60	-21.40	46.00	24.37	0.03	0.20	AVERAGE
9	6.089	36.96	-23.04	60.00	36.43	0.22	0.32	QP
10	6.089	28.43	-21.57	50.00	27.90	0.22	0.32	AVERAGE
11	7.290	29.81	-20.19	50.00	29.19	0.26	0.36	AVERAGE
12	7.290	37.05	-22.95	60.00	36.43	0.26	0.36	QP

Temperature	26°C	Humidity	55%
Test Engineer	Beck Wu	Phase	Neutral
Configuration	TX Mode / Mode 3 (Ant. 3)		



	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.29869	35.85	-14.42	50.28	35.58	0.07	0.20	AVERAGE
2	0.29869	39.63	-20.64	60.28	39.36	0.07	0.20	QP
3	1.918	30.21	-25.79	56.00	29.94	0.09	0.19	QP
4	1.918	20.85	-25.15	46.00	20.58	0.09	0.19	AVERAGE
5	4.647	35.50	-20.50	56.00	35.02	0.18	0.30	QP
6	4.647	28.12	-17.88	46.00	27.64	0.18	0.30	AVERAGE
7	6.153	44.52	-15.48	60.00	43.93	0.26	0.34	QP
8	6.153	36.36	-13.64	50.00	35.77	0.26	0.34	AVERAGE
9 B	7.290	39.53	-10.47	50.00	38.87	0.30	0.36	AVERAGE
10	7.290	47.88	-12.12	60.00	47.22	0.30	0.36	QP
11	7.566	47.70	-12.30	60.00	46.99	0.31	0.40	QP
12 B	7.566	39.65	-10.35	50.00	38.94	0.31	0.40	AVERAGE

Note:

Level = Read Level + LISN Factor + Cable Loss.

4.2. Maximum Conducted Output Power Measurement

4.2.1. Limit

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. The limit 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. Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

4.2.2. Measuring Instruments and Setting

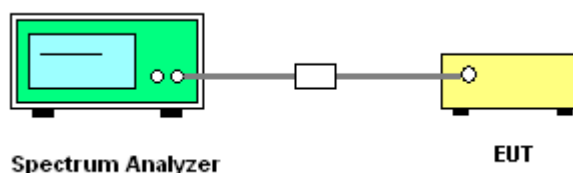
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1 MHz
VB	3MHz
Detector	RMS
Trace	Max Hold
Sweep Time	Auto
Cable Loss	
2.4GHz Band	5GHz Band
0.8	1.5
Combiner Loss	
2.4GHz Band	5GHz Band
5.15	5.38

4.2.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Test was performed in accordance with Measurement of Digital Transmission Systems Operating under Section 15.247 March 23, 2005.
3. When measuring maximum conducted output power with multiple antenna systems, add every result of the values by mathematic formula.

4.2.4. Test Setup Layout



4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of Maximum Conducted Output Power

<For Mode 1 (Ant. 1)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 1 (Ant. 1)

For 5GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.45	21.00	Complies
157	5785 MHz	17.67	21.00	Complies
165	5825 MHz	17.16	21.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.56	21.00	Complies
157	5785 MHz	17.48	21.00	Complies
165	5825 MHz	17.10	21.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.52	21.00	Complies
157	5785 MHz	20.59	21.00	Complies
165	5825 MHz	20.14	21.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	17.39	21.00	Complies
159	5795 MHz	17.43	21.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	17.01	21.00	Complies
159	5795 MHz	17.03	21.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	20.21	21.00	Complies
159	5795 MHz	20.24	21.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a/b/g / Mode 1 (Ant. 1)

Configuration IEEE 802.11a J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.13	21.00	Complies
157	5785 MHz	17.28	21.00	Complies
165	5825 MHz	17.58	21.00	Complies

Configuration IEEE 802.11a J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.94	21.00	Complies
157	5785 MHz	17.14	21.00	Complies
165	5825 MHz	17.49	21.00	Complies

Configuration IEEE 802.11a J2+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.56	21.00	Complies
157	5785 MHz	20.22	21.00	Complies
165	5825 MHz	20.55	21.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 2 (Ant. 2)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 2 (Ant. 2)

For 5GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.76	30.00	Complies
157	5785 MHz	23.38	30.00	Complies
165	5825 MHz	24.65	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.21	30.00	Complies
157	5785 MHz	24.46	30.00	Complies
165	5825 MHz	24.45	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	23.50	30.00	Complies
157	5785 MHz	26.96	30.00	Complies
165	5825 MHz	27.56	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	18.33	30.00	Complies
159	5795 MHz	23.74	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	20.91	30.00	Complies
159	5795 MHz	23.86	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	22.82	30.00	Complies
159	5795 MHz	26.81	30.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 2 (Ant. 2)

Configuration IEEE 802.11a J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	23.50	30.00	Complies
157	5785 MHz	23.91	30.00	Complies
165	5825 MHz	24.16	30.00	Complies

Configuration IEEE 802.11a J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	24.28	30.00	Complies
157	5785 MHz	24.47	30.00	Complies
165	5825 MHz	24.20	30.00	Complies

Configuration IEEE 802.11a J2+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	26.92	30.00	Complies
157	5785 MHz	27.21	30.00	Complies
165	5825 MHz	27.19	30.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 3 (Ant. 3)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 3 (Ant. 3)

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	13.82	26.17	Complies
6	2437 MHz	15.05	26.17	Complies
11	2462 MHz	13.52	26.17	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	14.90	26.17	Complies
6	2437 MHz	16.63	26.17	Complies
11	2462 MHz	14.18	26.17	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.20	26.17	Complies
6	2437 MHz	16.72	26.17	Complies
11	2462 MHz	14.49	26.17	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.45	26.17	Complies
6	2437 MHz	20.97	26.17	Complies
11	2462 MHz	18.85	26.17	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	8.64	26.17	Complies
6	2437 MHz	12.24	26.17	Complies
9	2452 MHz	8.78	26.17	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	9.44	26.17	Complies
6	2437 MHz	13.15	26.17	Complies
9	2452 MHz	9.21	26.17	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	9.62	26.17	Complies
6	2437 MHz	13.25	26.17	Complies
9	2452 MHz	9.38	26.17	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	14.02	26.17	Complies
6	2437 MHz	17.67	26.17	Complies
9	2452 MHz	13.90	26.17	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b/g / Mode 3 (Ant. 3)

Configuration IEEE 802.11b J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.48	26.17	Complies
6	2437 MHz	18.26	26.17	Complies
11	2462 MHz	16.08	26.17	Complies

Configuration IEEE 802.11b J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.43	26.17	Complies
6	2437 MHz	19.96	26.17	Complies
11	2462 MHz	17.43	26.17	Complies

Configuration IEEE 802.11b J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.15	26.17	Complies
6	2437 MHz	22.65	26.17	Complies
11	2462 MHz	18.99	26.17	Complies

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	22.60	26.17	Complies
6	2437 MHz	25.44	26.17	Complies
11	2462 MHz	22.43	26.17	Complies

Configuration IEEE 802.11g J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	13.51	26.17	Complies
6	2437 MHz	14.85	26.17	Complies
11	2462 MHz	13.48	26.17	Complies

Configuration IEEE 802.11g J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.07	26.17	Complies
6	2437 MHz	15.93	26.17	Complies
11	2462 MHz	14.39	26.17	Complies

Configuration IEEE 802.11g J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.14	26.17	Complies
6	2437 MHz	16.45	26.17	Complies
11	2462 MHz	16.26	26.17	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.41	26.17	Complies
6	2437 MHz	20.56	26.17	Complies
11	2462 MHz	19.64	26.17	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 4 (Ant. 4)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 4 (Ant. 4)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.98	30.00	Complies
6	2437 MHz	22.06	30.00	Complies
11	2462 MHz	16.35	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.18	30.00	Complies
6	2437 MHz	23.94	30.00	Complies
11	2462 MHz	17.04	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	18.06	30.00	Complies
6	2437 MHz	25.66	30.00	Complies
11	2462 MHz	18.46	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	21.93	30.00	Complies
6	2437 MHz	28.90	30.00	Complies
11	2462 MHz	22.15	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	13.97	30.00	Complies
6	2437 MHz	16.04	30.00	Complies
9	2452 MHz	14.47	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	14.59	30.00	Complies
6	2437 MHz	16.34	30.00	Complies
9	2452 MHz	15.32	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	15.11	30.00	Complies
6	2437 MHz	17.14	30.00	Complies
9	2452 MHz	16.53	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	19.35	30.00	Complies
6	2437 MHz	21.30	30.00	Complies
9	2452 MHz	20.29	30.00	Complies

For 5GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	23.75	30.00	Complies
157	5785 MHz	24.42	30.00	Complies
165	5825 MHz	24.70	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	24.63	30.00	Complies
157	5785 MHz	23.56	30.00	Complies
165	5825 MHz	22.50	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	22.66	30.00	Complies
157	5785 MHz	22.93	30.00	Complies
165	5825 MHz	22.84	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	28.53	30.00	Complies
157	5785 MHz	28.45	30.00	Complies
165	5825 MHz	28.23	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	23.62	30.00	Complies
159	5795 MHz	23.71	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	23.85	30.00	Complies
159	5795 MHz	23.66	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	22.30	30.00	Complies
159	5795 MHz	22.59	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	28.08	30.00	Complies
159	5795 MHz	28.12	30.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11 a/b/g / Mode 4 (Ant. 4)

Configuration IEEE 802.11b J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.40	30.00	Complies
6	2437 MHz	19.39	30.00	Complies
11	2462 MHz	16.48	30.00	Complies

Configuration IEEE 802.11b J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.83	30.00	Complies
6	2437 MHz	21.19	30.00	Complies
11	2462 MHz	17.85	30.00	Complies

Configuration IEEE 802.11b J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.46	30.00	Complies
6	2437 MHz	23.62	30.00	Complies
11	2462 MHz	19.69	30.00	Complies

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	22.85	30.00	Complies
6	2437 MHz	26.52	30.00	Complies
11	2462 MHz	22.98	30.00	Complies

Configuration IEEE 802.11g J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.11	30.00	Complies
6	2437 MHz	20.85	30.00	Complies
11	2462 MHz	16.42	30.00	Complies

Configuration IEEE 802.11g J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.54	30.00	Complies
6	2437 MHz	22.26	30.00	Complies
11	2462 MHz	17.32	30.00	Complies

Configuration IEEE 802.11g J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	18.55	30.00	Complies
6	2437 MHz	25.01	30.00	Complies
11	2462 MHz	18.86	30.00	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	22.28	30.00	Complies
6	2437 MHz	27.83	30.00	Complies
11	2462 MHz	22.42	30.00	Complies

Configuration IEEE 802.11a J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	24.18	30.00	Complies
157	5785 MHz	24.07	30.00	Complies
165	5825 MHz	24.59	30.00	Complies

Configuration IEEE 802.11a J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	24.44	30.00	Complies
157	5785 MHz	22.21	30.00	Complies
165	5825 MHz	21.98	30.00	Complies

Configuration IEEE 802.11a J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	22.67	30.00	Complies
157	5785 MHz	22.96	30.00	Complies
165	5825 MHz	22.84	30.00	Complies

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	28.60	30.00	Complies
157	5785 MHz	27.92	30.00	Complies
165	5825 MHz	28.05	30.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 5 (Ant. 5)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 5 (Ant. 5)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	14.02	26.50	Complies
6	2437 MHz	19.62	26.50	Complies
11	2462 MHz	16.02	26.50	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.29	26.50	Complies
6	2437 MHz	20.33	26.50	Complies
11	2462 MHz	16.25	26.50	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.71	26.50	Complies
6	2437 MHz	20.74	26.50	Complies
11	2462 MHz	17.76	26.50	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	20.25	26.50	Complies
6	2437 MHz	25.03	26.50	Complies
11	2462 MHz	21.52	26.50	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	10.29	26.50	Complies
6	2437 MHz	13.84	26.50	Complies
9	2452 MHz	12.65	26.50	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	11.93	26.50	Complies
6	2437 MHz	14.55	26.50	Complies
9	2452 MHz	11.97	26.50	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	11.37	26.50	Complies
6	2437 MHz	14.96	26.50	Complies
9	2452 MHz	12.13	26.50	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	16.02	26.50	Complies
6	2437 MHz	19.25	26.50	Complies
9	2452 MHz	17.03	26.50	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b/g / Mode 5 (Ant. 5)

Configuration IEEE 802.11b J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.85	26.50	Complies
6	2437 MHz	18.95	26.50	Complies
11	2462 MHz	16.87	26.50	Complies

Configuration IEEE 802.11b J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	18.28	26.50	Complies
6	2437 MHz	19.93	26.50	Complies
11	2462 MHz	18.37	26.50	Complies

Configuration IEEE 802.11b J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.51	26.50	Complies
6	2437 MHz	21.22	26.50	Complies
11	2462 MHz	19.58	26.50	Complies

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	23.12	26.50	Complies
6	2437 MHz	24.90	26.50	Complies
11	2462 MHz	23.18	26.50	Complies

Configuration IEEE 802.11g J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	13.79	26.50	Complies
6	2437 MHz	18.73	26.50	Complies
11	2462 MHz	14.93	26.50	Complies

Configuration IEEE 802.11g J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.09	26.50	Complies
6	2437 MHz	19.86	26.50	Complies
11	2462 MHz	15.12	26.50	Complies

Configuration IEEE 802.11g J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.97	26.50	Complies
6	2437 MHz	20.81	26.50	Complies
11	2462 MHz	16.16	26.50	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.81	26.50	Complies
6	2437 MHz	24.65	26.50	Complies
11	2462 MHz	20.21	26.50	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 6 (Ant. 6)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 6 (Ant. 6)

For 5GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	19.89	27.00	Complies
157	5785 MHz	20.03	27.00	Complies
165	5825 MHz	20.53	27.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	21.09	27.00	Complies
157	5785 MHz	20.73	27.00	Complies
165	5825 MHz	20.73	27.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.57	27.00	Complies
157	5785 MHz	20.76	27.00	Complies
165	5825 MHz	20.85	27.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	25.32	27.00	Complies
157	5785 MHz	25.29	27.00	Complies
165	5825 MHz	25.48	27.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	19.11	27.00	Complies
159	5795 MHz	19.15	27.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	20.38	27.00	Complies
159	5795 MHz	20.31	27.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	20.88	27.00	Complies
159	5795 MHz	20.60	27.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	24.96	27.00	Complies
159	5795 MHz	24.83	27.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 6 (Ant. 6)

Configuration IEEE 802.11a J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.12	27.00	Complies
157	5785 MHz	19.86	27.00	Complies
165	5825 MHz	20.56	27.00	Complies

Configuration IEEE 802.11a J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	21.09	27.00	Complies
157	5785 MHz	20.31	27.00	Complies
165	5825 MHz	20.14	27.00	Complies

Configuration IEEE 802.11a J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.55	27.00	Complies
157	5785 MHz	20.04	27.00	Complies
165	5825 MHz	20.63	27.00	Complies

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	25.38	27.00	Complies
157	5785 MHz	24.85	27.00	Complies
165	5825 MHz	25.22	27.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 7 (Ant. 7)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 7 (Ant. 7)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.64	30.00	Complies
6	2437 MHz	22.23	30.00	Complies
11	2462 MHz	16.77	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	18.40	30.00	Complies
6	2437 MHz	23.90	30.00	Complies
11	2462 MHz	18.00	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	21.57	30.00	Complies
6	2437 MHz	26.07	30.00	Complies
11	2462 MHz	19.86	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	24.13	30.00	Complies
6	2437 MHz	29.12	30.00	Complies
11	2462 MHz	23.17	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	13.97	30.00	Complies
6	2437 MHz	17.35	30.00	Complies
9	2452 MHz	14.47	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	14.59	30.00	Complies
6	2437 MHz	18.65	30.00	Complies
9	2452 MHz	15.32	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	15.11	30.00	Complies
6	2437 MHz	20.17	30.00	Complies
9	2452 MHz	16.53	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	19.35	30.00	Complies
6	2437 MHz	23.65	30.00	Complies
9	2452 MHz	20.29	30.00	Complies

For 5GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	18.44	30.00	Complies
157	5785 MHz	20.50	30.00	Complies
165	5825 MHz	24.67	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.51	30.00	Complies
157	5785 MHz	22.75	30.00	Complies
165	5825 MHz	22.50	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	18.86	30.00	Complies
157	5785 MHz	23.64	30.00	Complies
165	5825 MHz	22.84	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	23.08	30.00	Complies
157	5785 MHz	27.26	30.00	Complies
165	5825 MHz	28.22	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	19.53	30.00	Complies
159	5795 MHz	23.71	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	18.41	30.00	Complies
159	5795 MHz	23.66	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	19.50	30.00	Complies
159	5795 MHz	22.59	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	23.95	30.00	Complies
159	5795 MHz	28.12	30.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11 a/b/g / Mode 7 (Ant. 7)

Configuration IEEE 802.11b J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.54	30.00	Complies
6	2437 MHz	20.23	30.00	Complies
11	2462 MHz	17.36	30.00	Complies

Configuration IEEE 802.11b J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	18.93	30.00	Complies
6	2437 MHz	22.18	30.00	Complies
11	2462 MHz	18.96	30.00	Complies

Configuration IEEE 802.11b J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	22.04	30.00	Complies
6	2437 MHz	23.93	30.00	Complies
11	2462 MHz	21.53	30.00	Complies

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	24.70	30.00	Complies
6	2437 MHz	27.14	30.00	Complies
11	2462 MHz	24.40	30.00	Complies

Configuration IEEE 802.11g J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.50	30.00	Complies
6	2437 MHz	21.79	30.00	Complies
11	2462 MHz	16.42	30.00	Complies

Configuration IEEE 802.11g J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	18.51	30.00	Complies
6	2437 MHz	24.71	30.00	Complies
11	2462 MHz	17.32	30.00	Complies

Configuration IEEE 802.11g J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	21.01	30.00	Complies
6	2437 MHz	26.32	30.00	Complies
11	2462 MHz	18.86	30.00	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	23.83	30.00	Complies
6	2437 MHz	29.42	30.00	Complies
11	2462 MHz	22.42	30.00	Complies

Configuration IEEE 802.11a J2

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.53	30.00	Complies
157	5785 MHz	22.70	30.00	Complies
165	5825 MHz	24.59	30.00	Complies

Configuration IEEE 802.11a J3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	16.48	30.00	Complies
157	5785 MHz	22.36	30.00	Complies
165	5825 MHz	21.98	30.00	Complies

Configuration IEEE 802.11a J4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	18.05	30.00	Complies
157	5785 MHz	23.06	30.00	Complies
165	5825 MHz	22.84	30.00	Complies

Configuration IEEE 802.11a J2+J3+J4

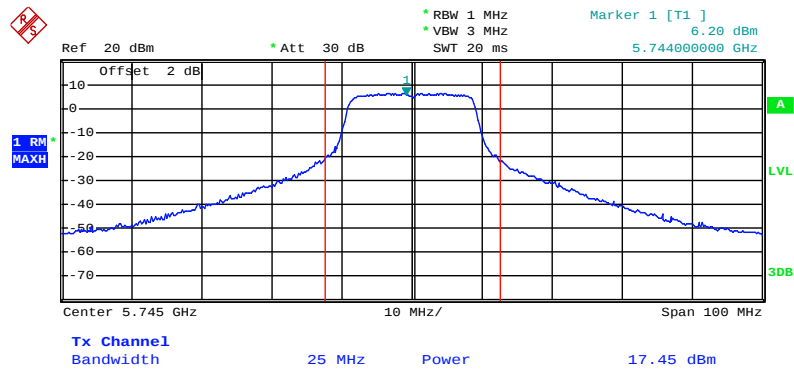
Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	22.17	30.00	Complies
157	5785 MHz	27.49	30.00	Complies
165	5825 MHz	28.05	30.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

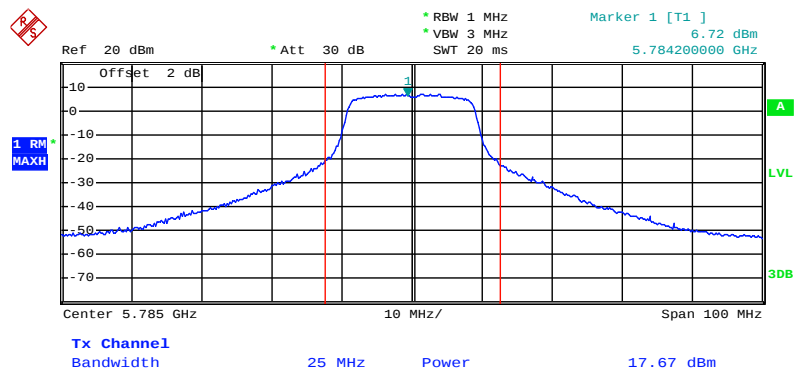
<For Mode 1 (Ant. 1)>:

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5745 MHz



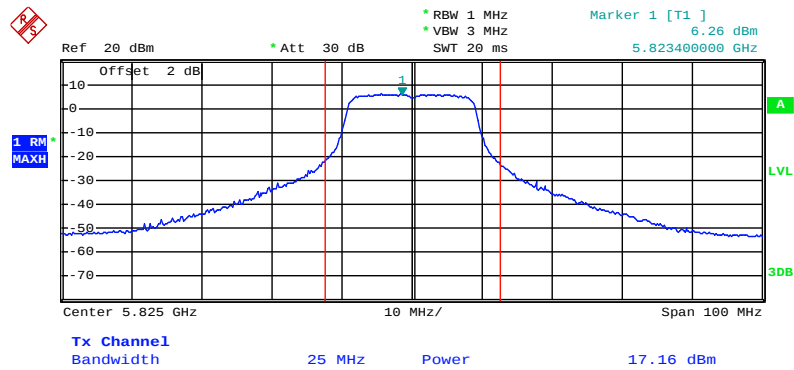
Date: 11.AUG.2010 23:16:00

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5785 MHz



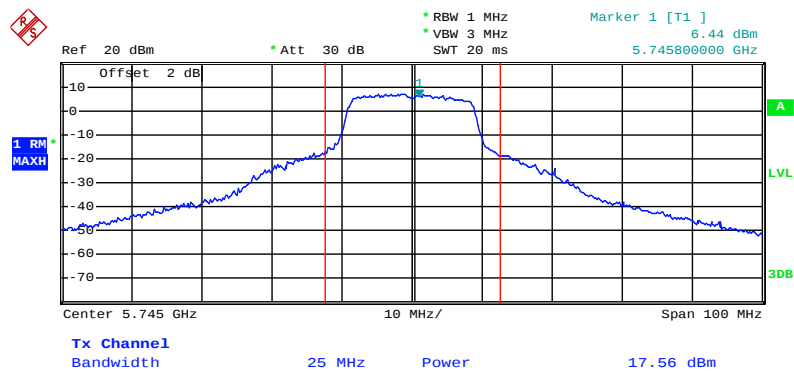
Date: 11.AUG.2010 23:18:20

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5825 MHz



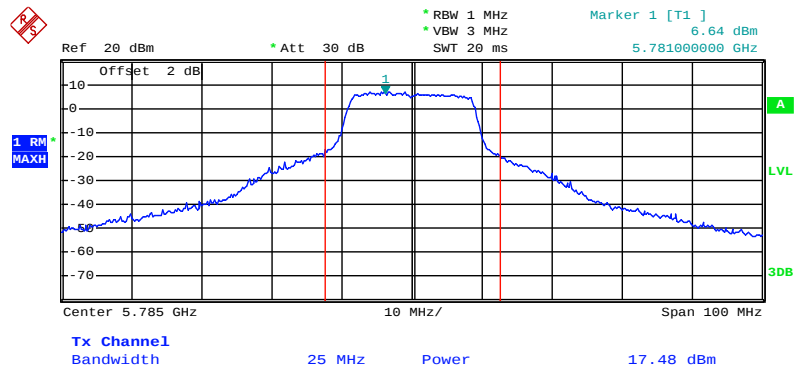
Date: 11.AUG.2010 23:21:03

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5745 MHz



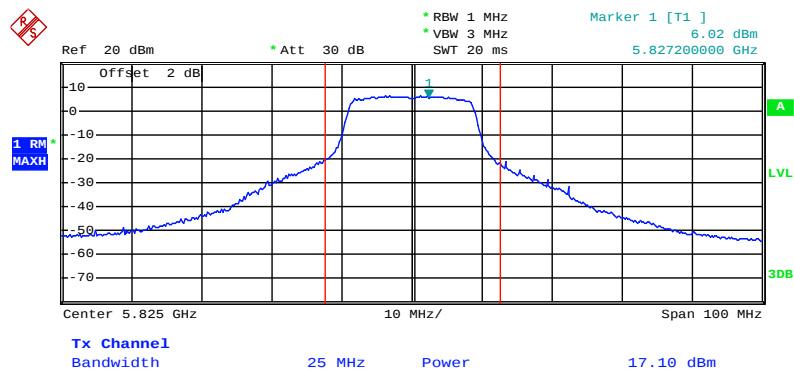
Date: 11.AUG.2010 23:16:40

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5785 MHz



Date: 11.AUG.2010 23:17:54

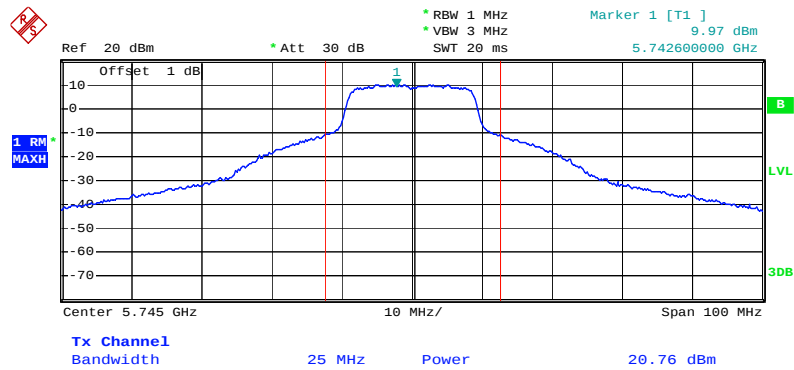
Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5825 MHz



Date: 11.AUG.2010 23:20:30

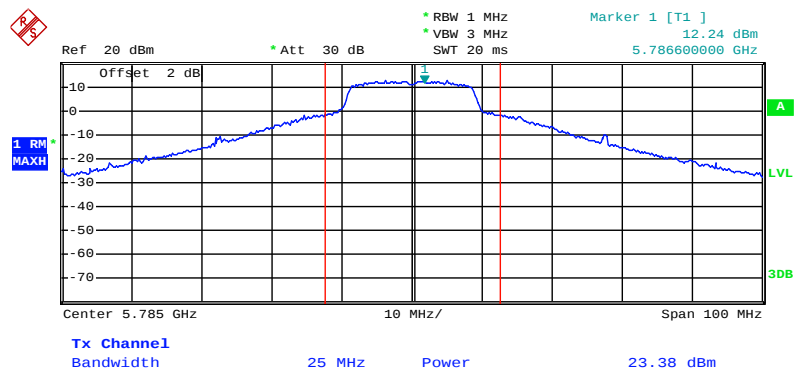
<For Mode 2 (Ant. 2)>:

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5745 MHz



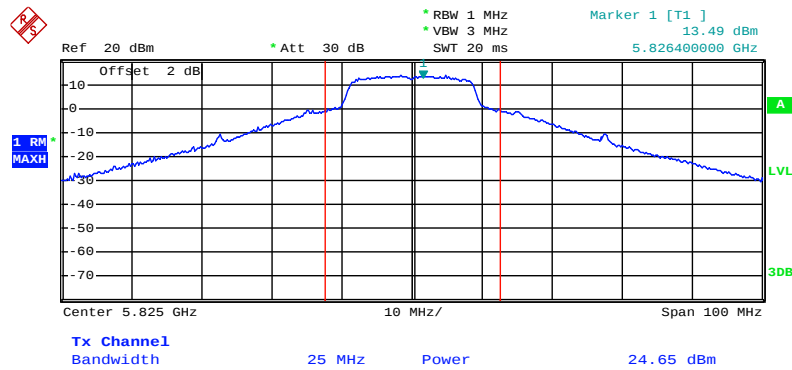
Date: 11.AUG.2010 20:17:02

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5785 MHz



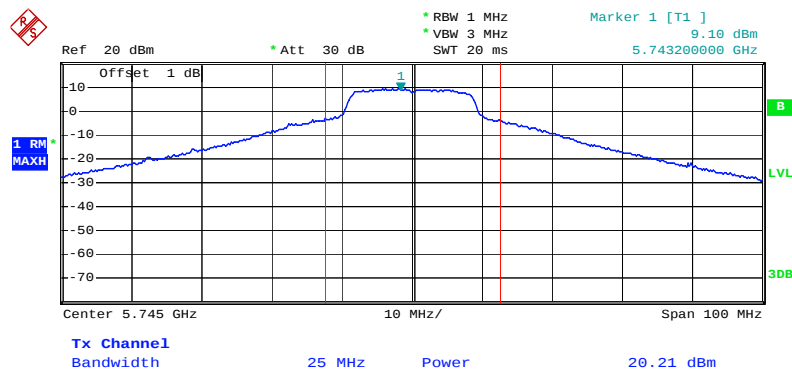
Date: 12.AUG.2010 00:38:28

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5825 MHz



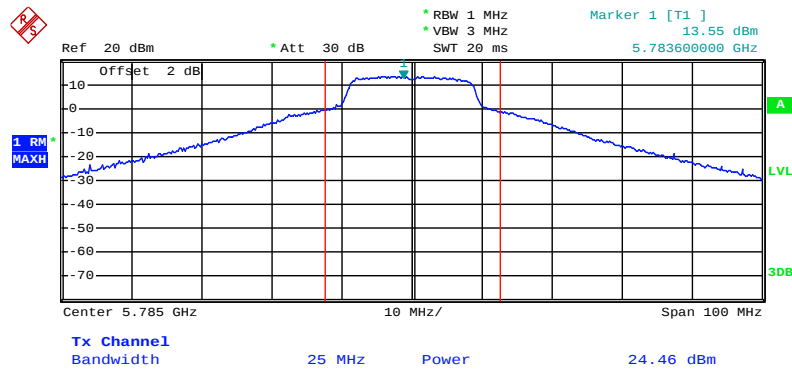
Date: 12.AUG.2010 00:36:25

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5745 MHz



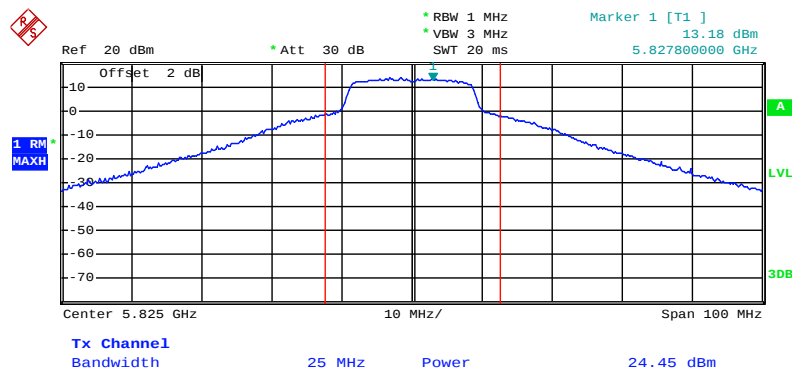
Date: 11.AUG.2010 20:17:48

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5785 MHz



Date: 12.AUG.2010 00:38:50

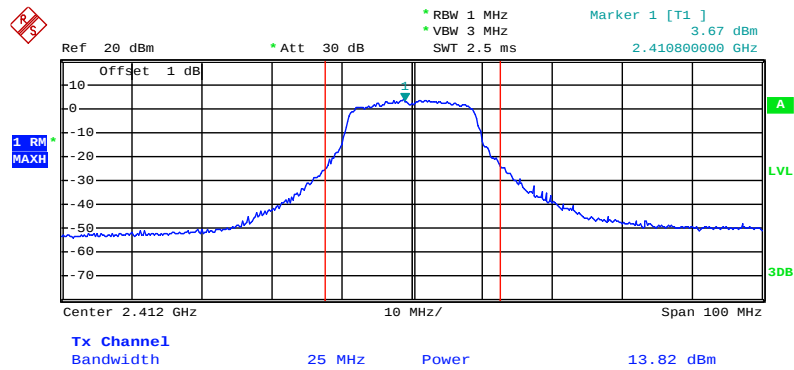
Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5825 MHz



Date: 12.AUG.2010 00:35:42

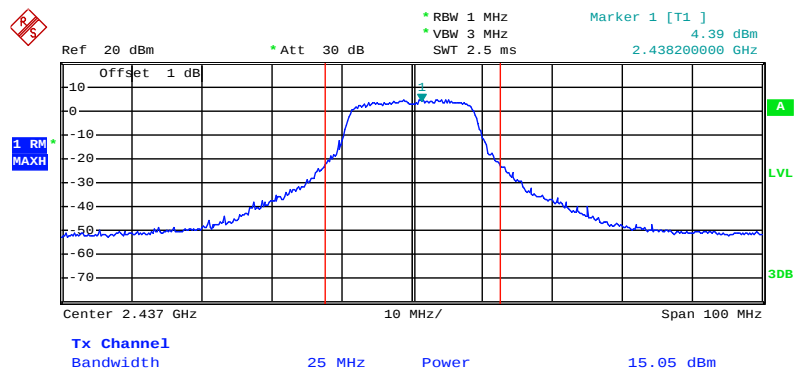
<For Mode 3 (Ant. 3)>:

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2412 MHz



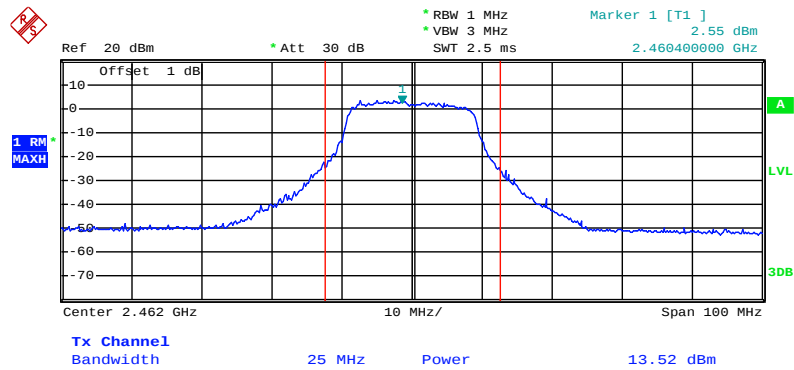
Date: 11.AUG.2010 21:08:18

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2437 MHz



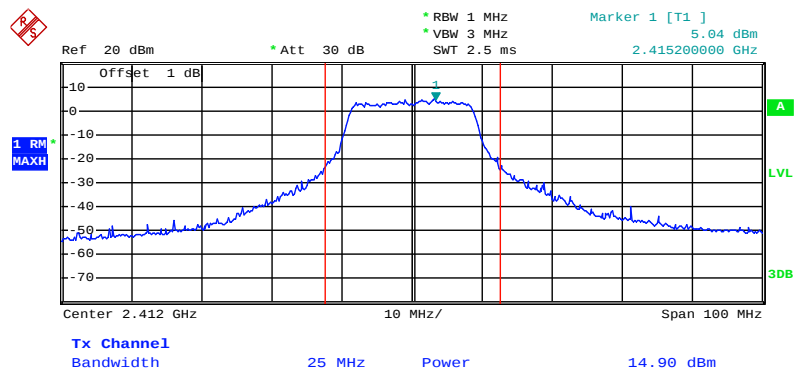
Date: 11.AUG.2010 21:12:24

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2462 MHz



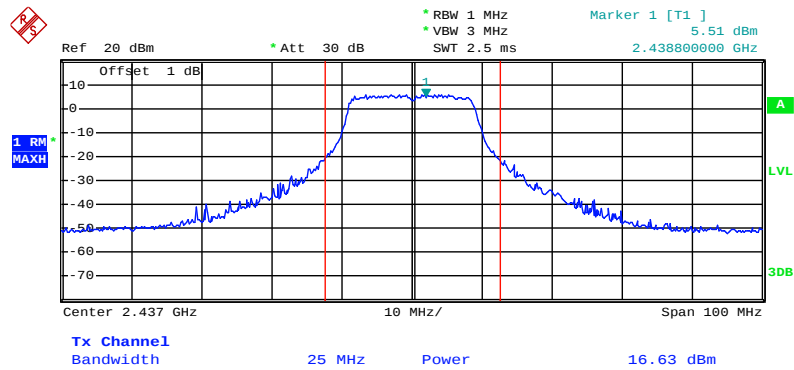
Date: 11.AUG.2010 21:13:07

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2412 MHz



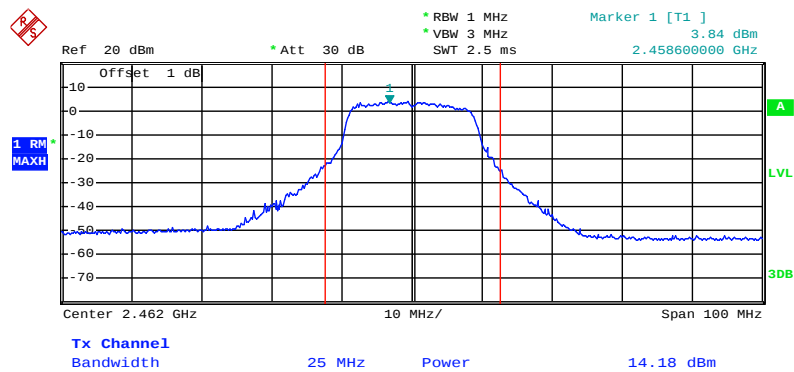
Date: 11.AUG.2010 21:09:55

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2437 MHz



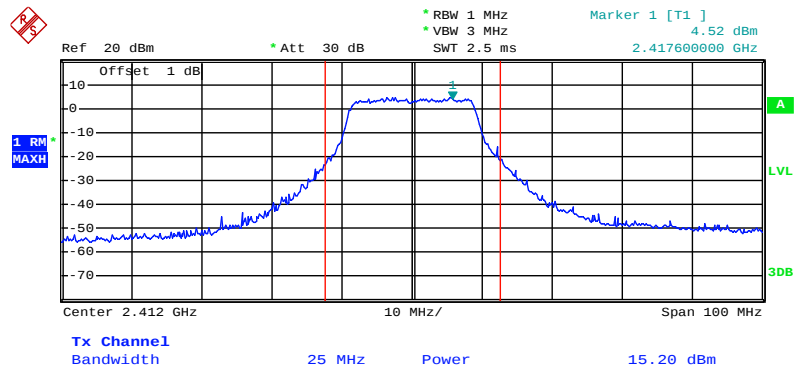
Date: 11.AUG.2010 21:11:29

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2462 MHz



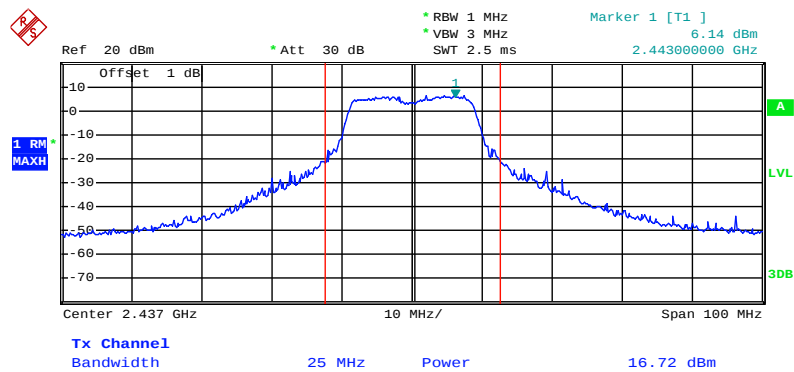
Date: 11.AUG.2010 21:13:49

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2412 MHz



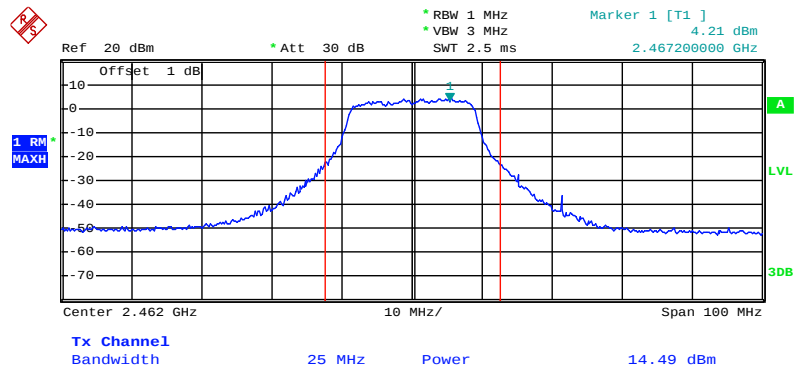
Date: 11.AUG.2010 21:08:57

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2437 MHz



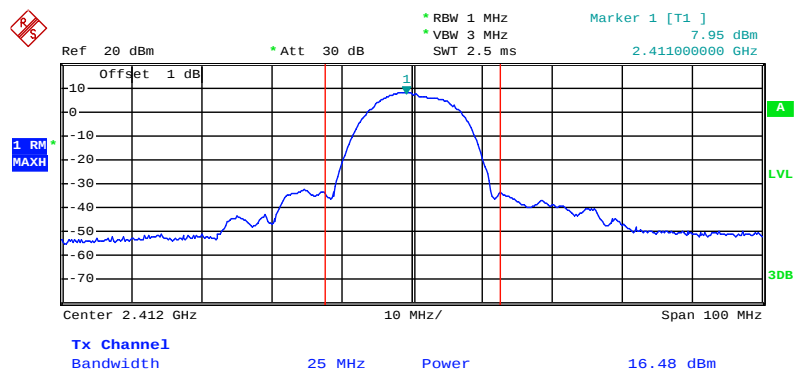
Date: 11.AUG.2010 21:11:01

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2462 MHz



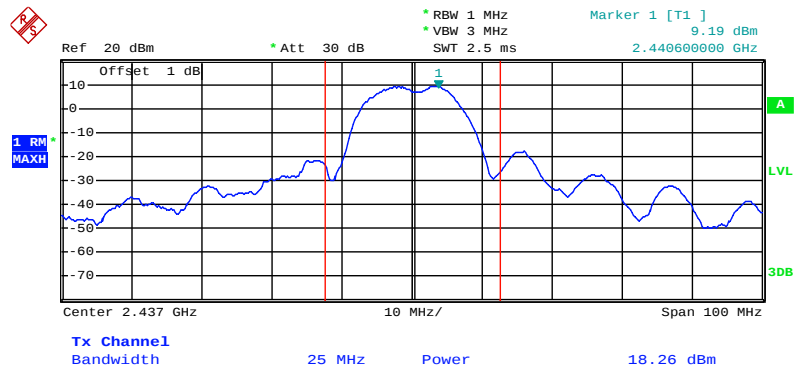
Date: 11.AUG.2010 21:14:31

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2412 MHz



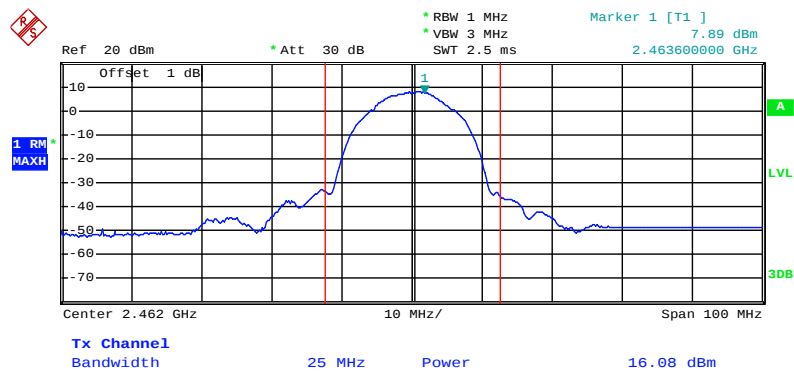
Date: 11.AUG.2010 20:30:23

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2437 MHz



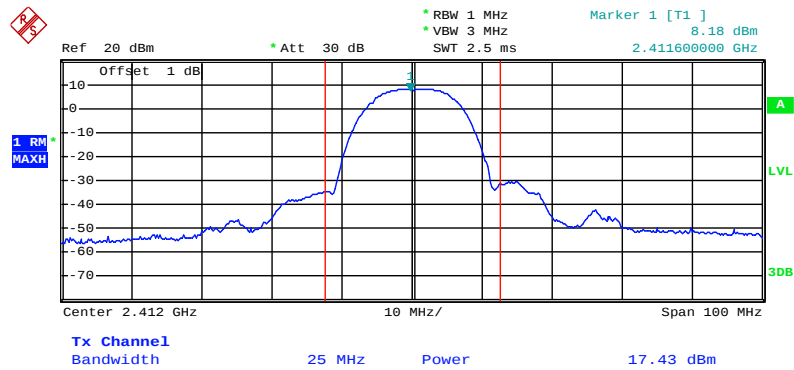
Date: 11.AUG.2010 20:55:33

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2462 MHz



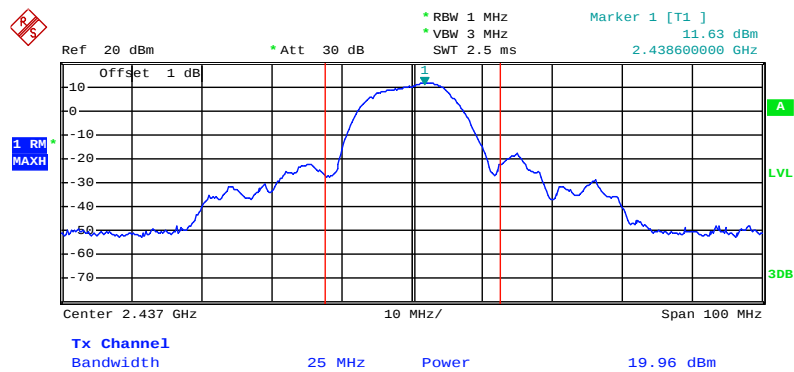
Date: 11.AUG.2010 20:56:13

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2412 MHz



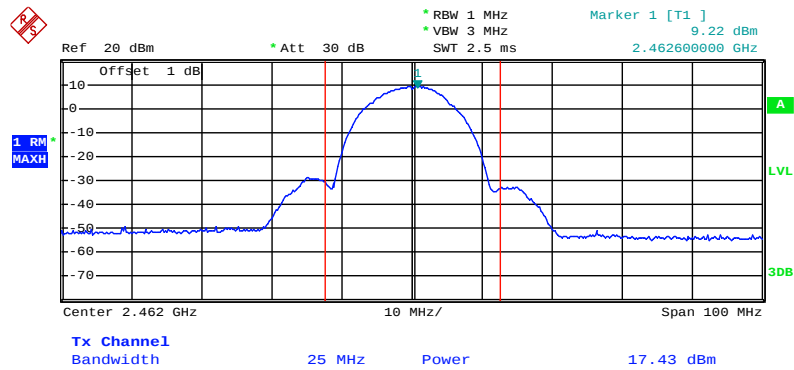
Date: 11.AUG.2010 20:29:51

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2437 MHz



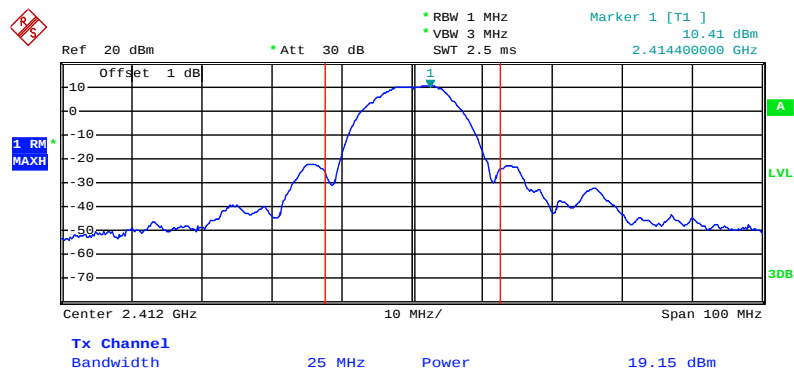
Date: 11.AUG.2010 20:54:50

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2462 MHz



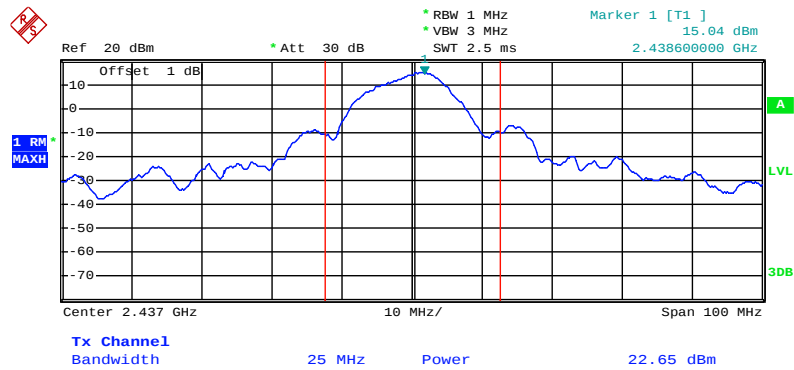
Date: 11.AUG.2010 20:56:48

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2412 MHz



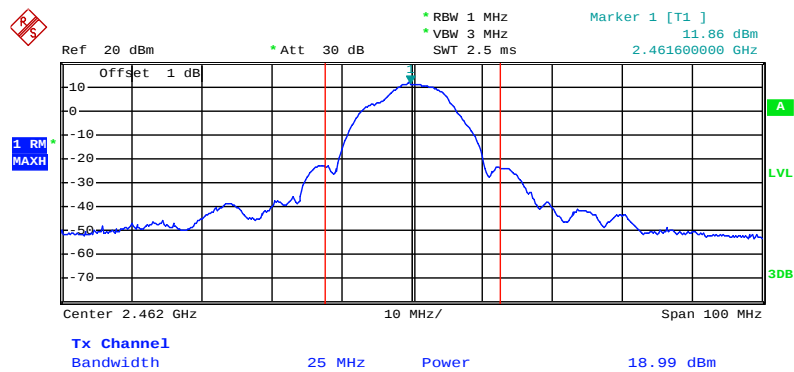
Date: 11.AUG.2010 20:28:57

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2437 MHz



Date: 11.AUG.2010 20:54:00

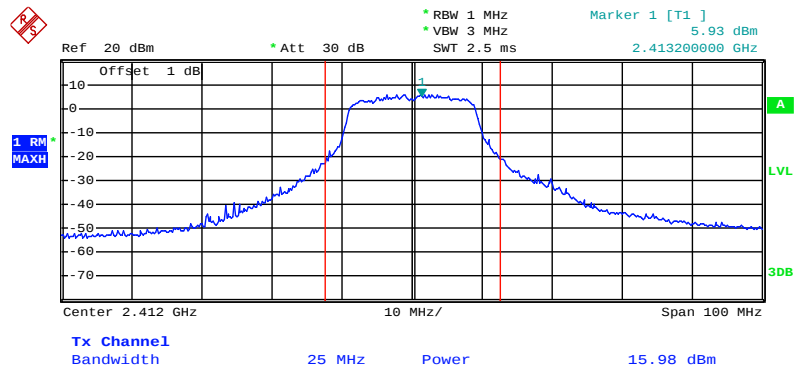
Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2462 MHz



Date: 11.AUG.2010 20:57:29

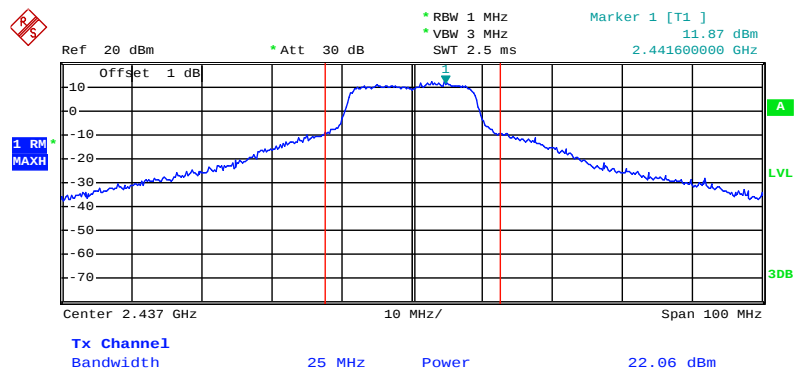
<For Mode 4 (Ant. 4)>:

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2412 MHz



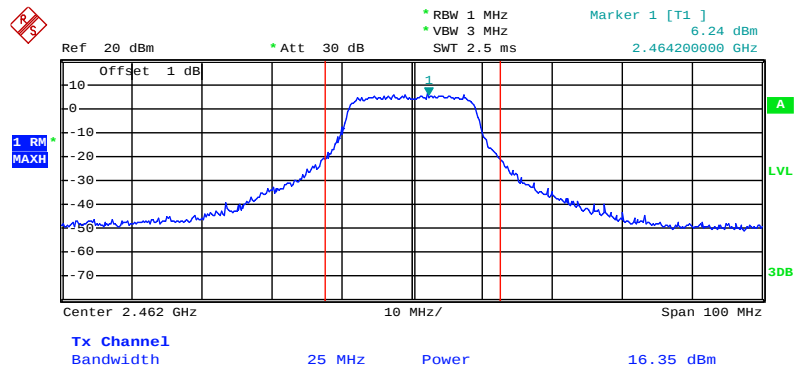
Date: 11.AUG.2010 21:39:22

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2437 MHz



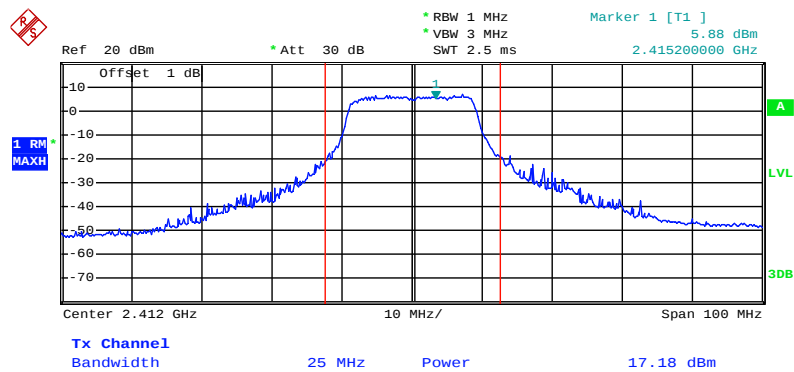
Date: 18.AUG.2010 04:09:39

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2462 MHz



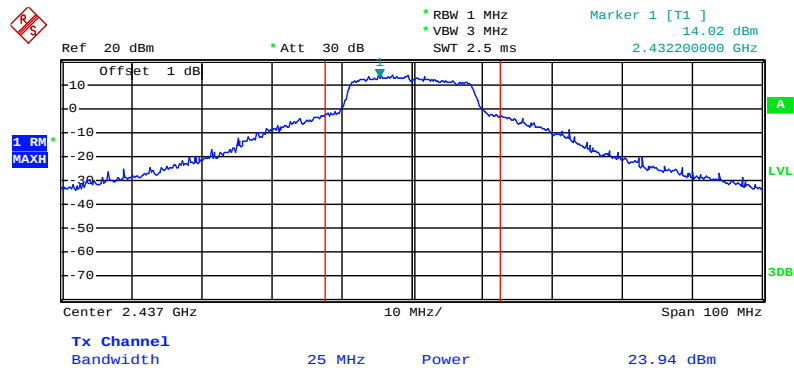
Date: 11.AUG.2010 21:35:19

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2412 MHz



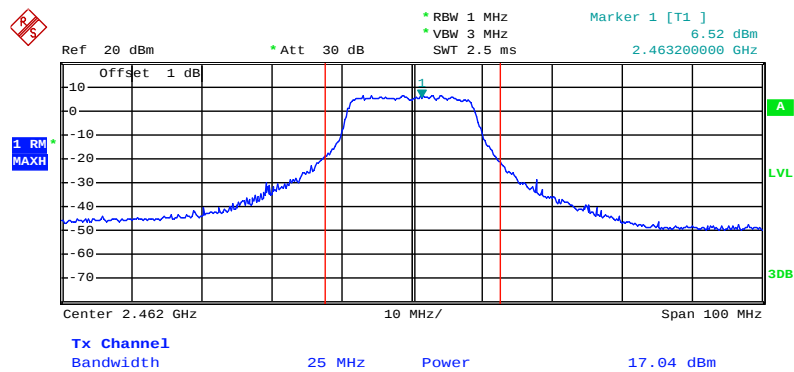
Date: 11.AUG.2010 21:38:44

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2437 MHz



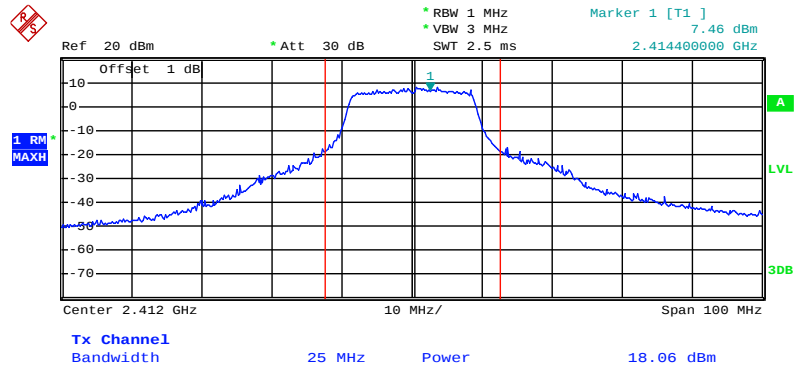
Date: 11.AUG.2010 21:36:30

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2462 MHz



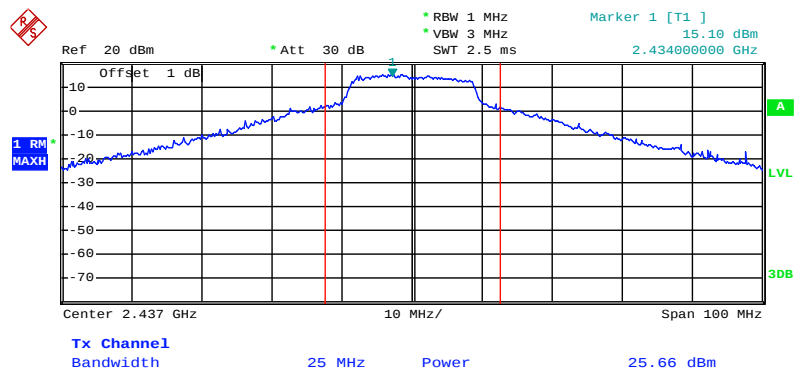
Date: 11.AUG.2010 21:34:35

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2412 MHz



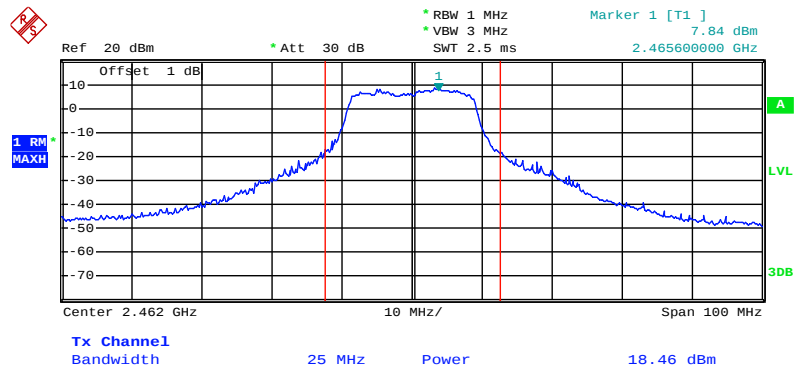
Date: 11.AUG.2010 21:37:57

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2437 MHz



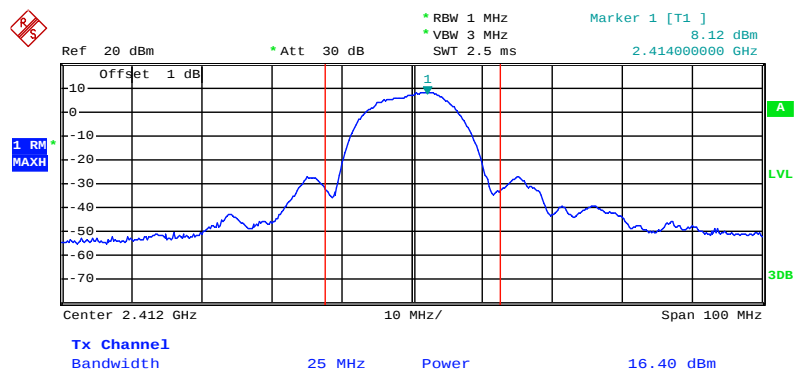
Date: 11.AUG.2010 21:36:58

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2462 MHz



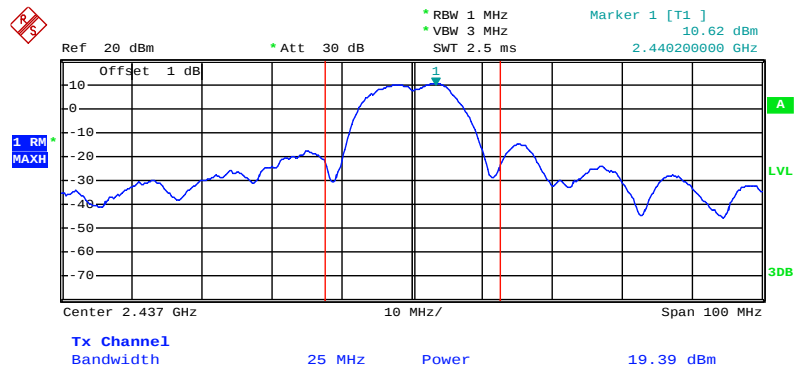
Date: 11.AUG.2010 21:33:58

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2412 MHz



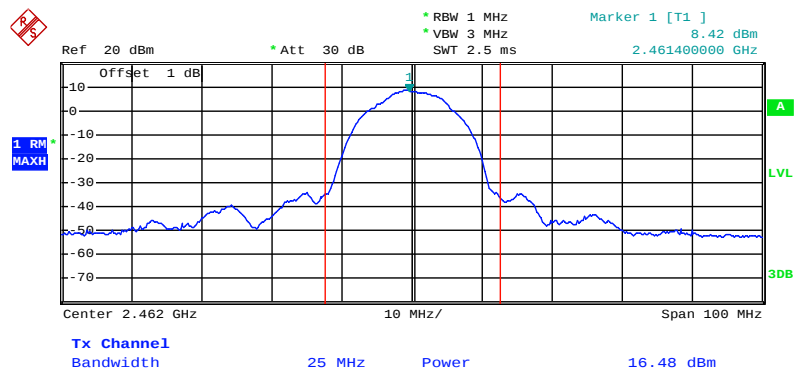
Date: 11.AUG.2010 21:52:34

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2437 MHz



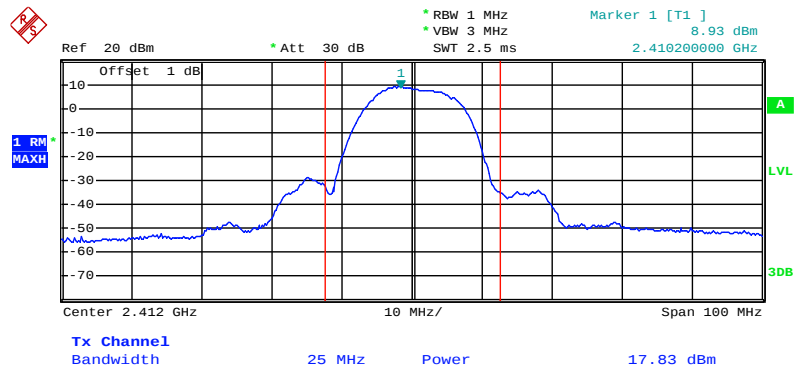
Date: 11.AUG.2010 21:48:08

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2462 MHz



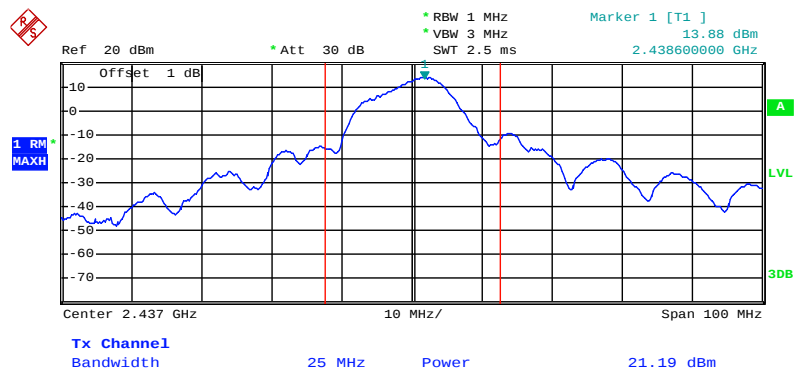
Date: 11.AUG.2010 21:47:31

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2412 MHz



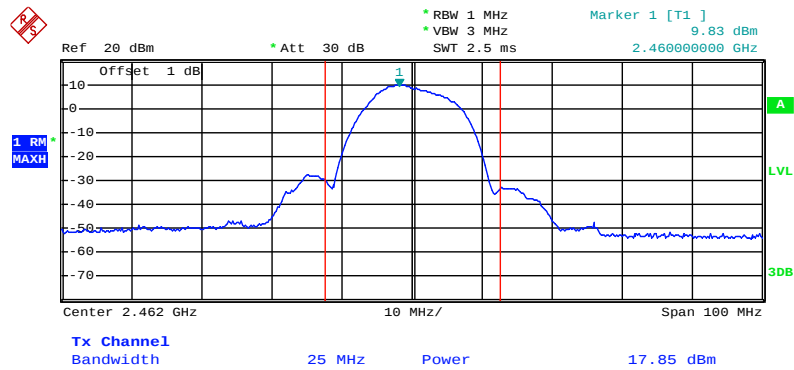
Date: 11.AUG.2010 21:50:33

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2437 MHz



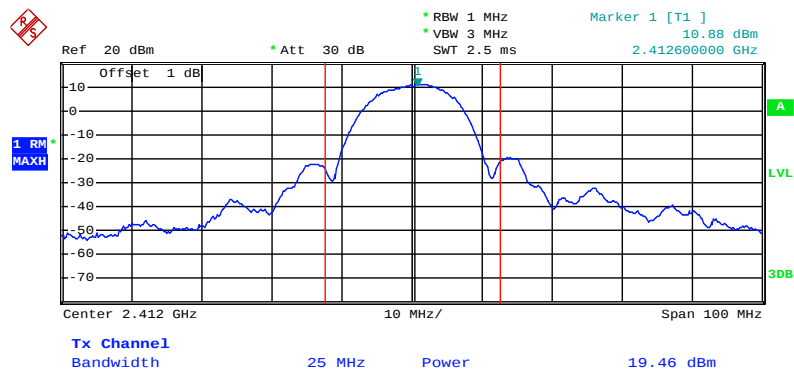
Date: 11.AUG.2010 21:48:48

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2462 MHz



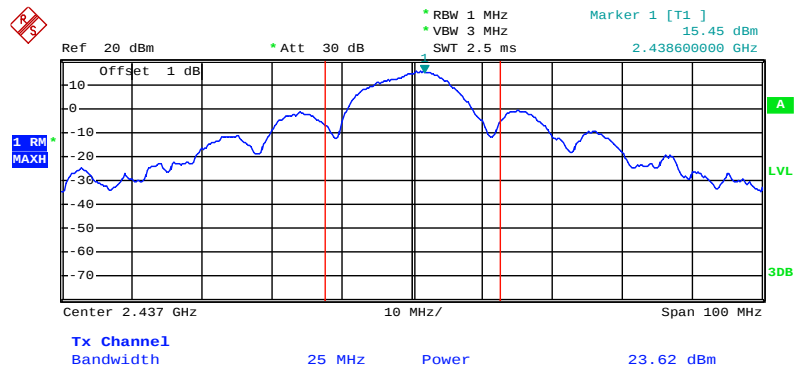
Date: 11.AUG.2010 21:46:58

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2412 MHz



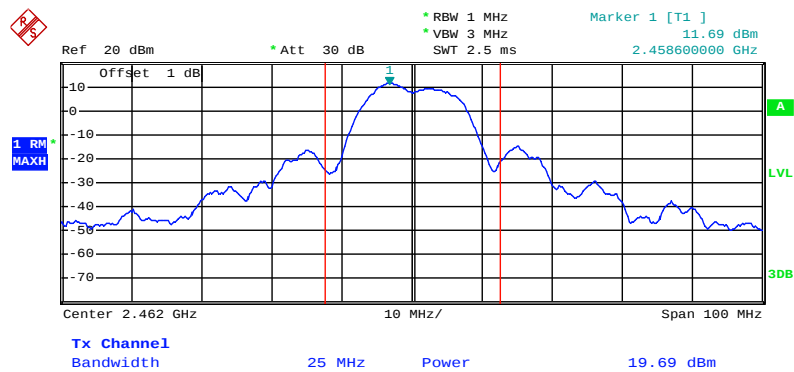
Date: 11.AUG.2010 21:50:03

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2437 MHz



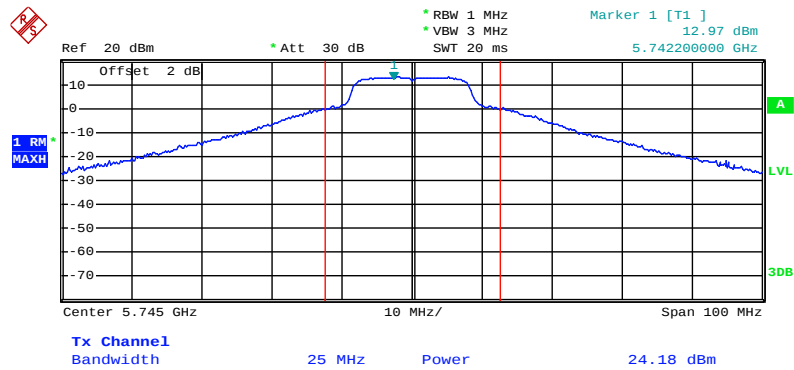
Date: 11.AUG.2010 21:49:22

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2462 MHz



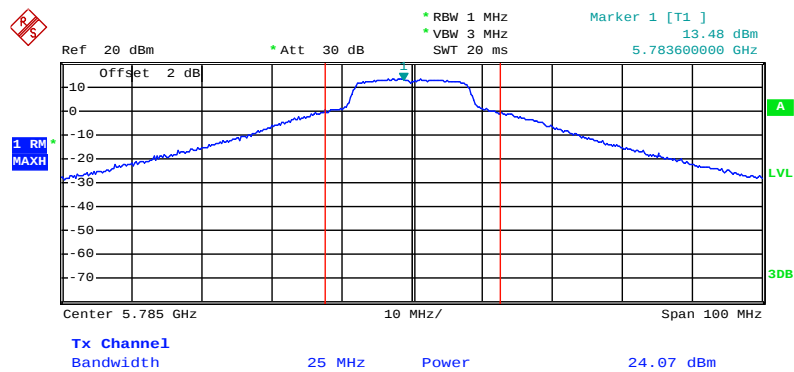
Date: 11.AUG.2010 21:46:22

Channel Output Power Plot on Configuration IEEE 802.11a J2 / 5745 MHz



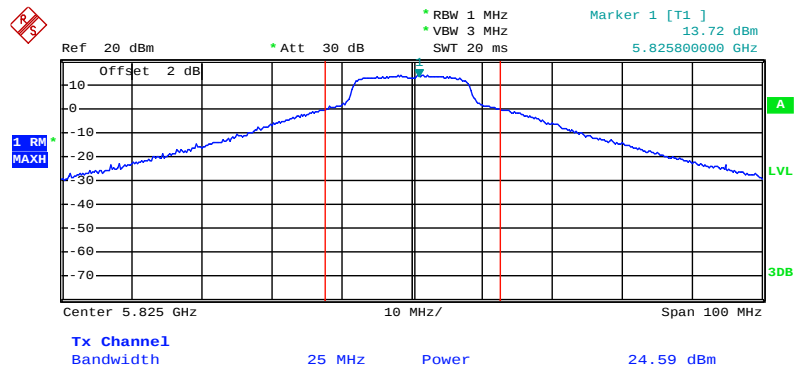
Date: 11.AUG.2010 22:01:09

Channel Output Power Plot on Configuration IEEE 802.11a J2 / 5785MHz



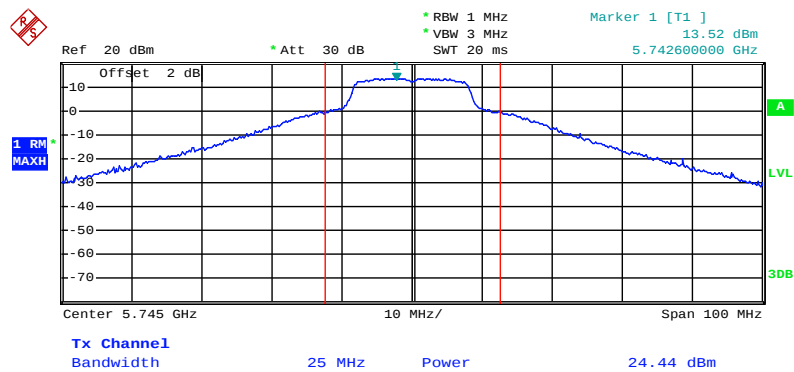
Date: 11.AUG.2010 21:57:45

Channel Output Power Plot on Configuration IEEE 802.11a J2 / 5825 MHz



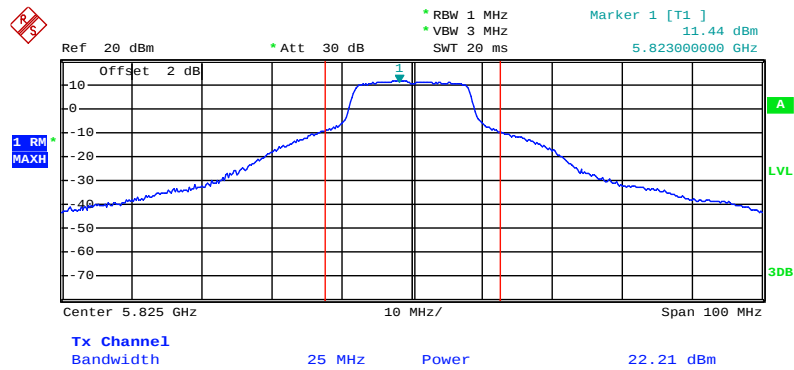
Date: 11.AUG.2010 21:58:30

Channel Output Power Plot on Configuration IEEE 802.11a J3 / 5745 MHz



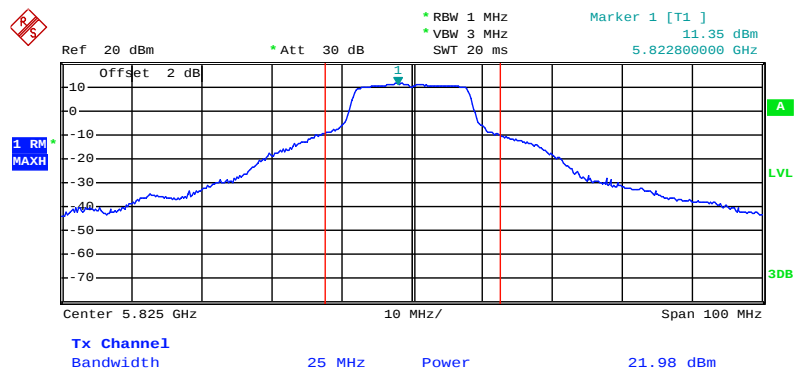
Date: 11.AUG.2010 21:55:10

Channel Output Power Plot on Configuration IEEE 802.11a J3 / 5785MHz



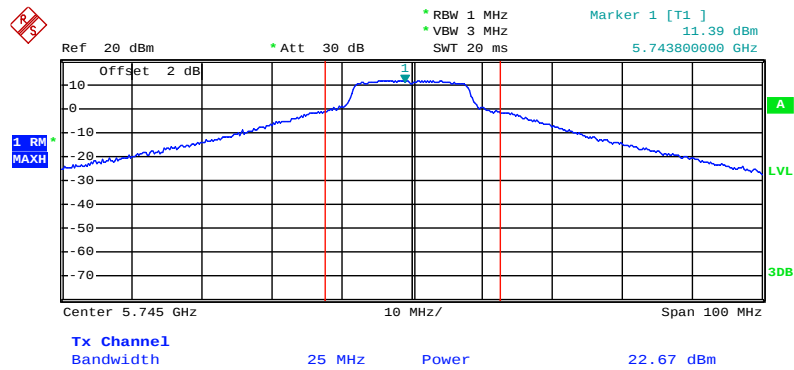
Date: 11.AUG.2010 22:02:44

Channel Output Power Plot on Configuration IEEE 802.11a J3 / 5825 MHz



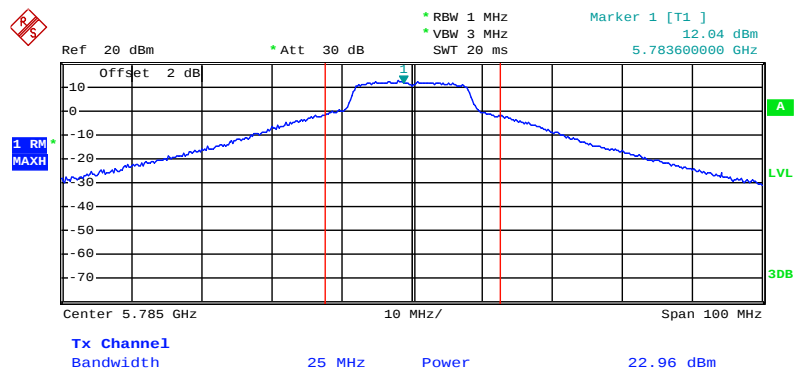
Date: 11.AUG.2010 21:59:08

Channel Output Power Plot on Configuration IEEE 802.11a J4 / 5745 MHz



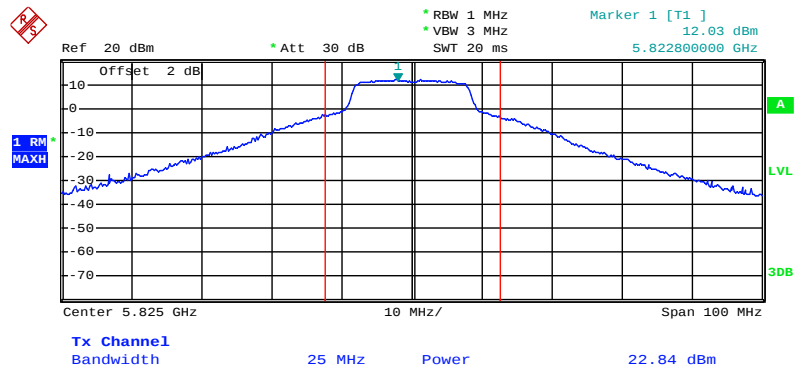
Date: 11.AUG.2010 21:55:51

Channel Output Power Plot on Configuration IEEE 802.11a J4 / 5785MHz



Date: 11.AUG.2010 21:56:35

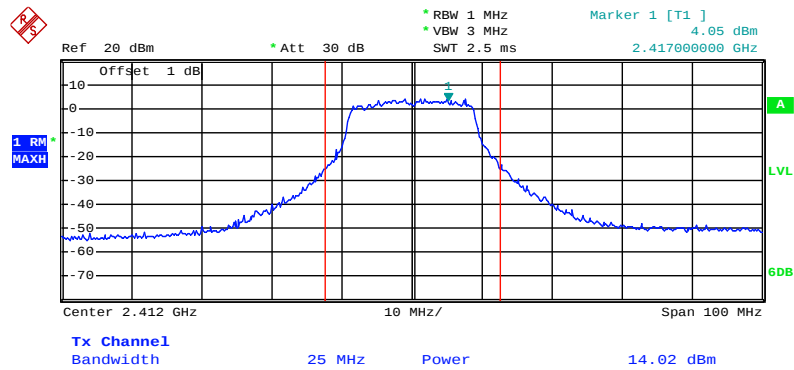
Channel Output Power Plot on Configuration IEEE 802.11a J4 / 5825 MHz



Date: 11.AUG.2010 21:59:44

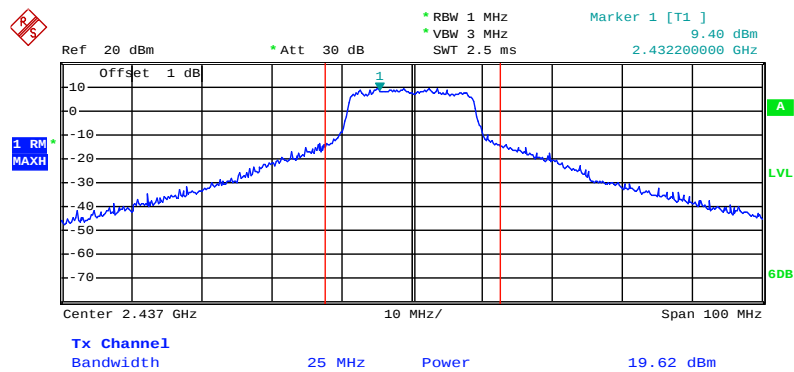
<For Mode 5 (Ant. 5)>:

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2412 MHz



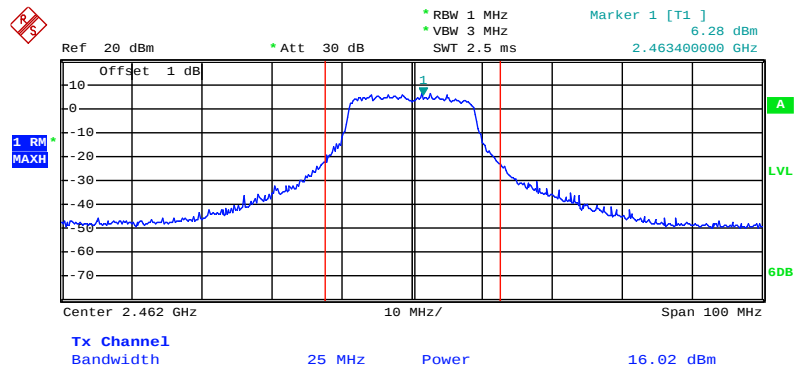
Date: 12.AUG.2010 22:03:13

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2437 MHz



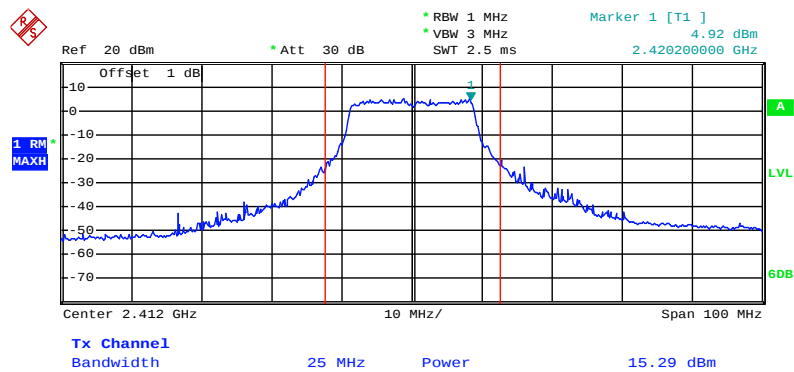
Date: 12.AUG.2010 22:00:18

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J2 / 2462 MHz



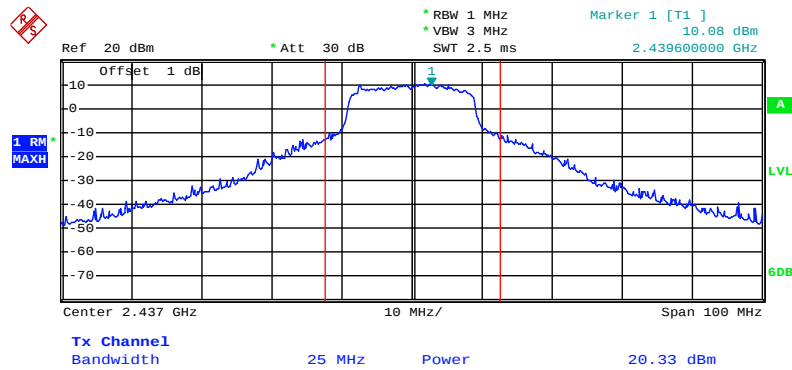
Date: 12.AUG.2010 21:59:22

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2412 MHz



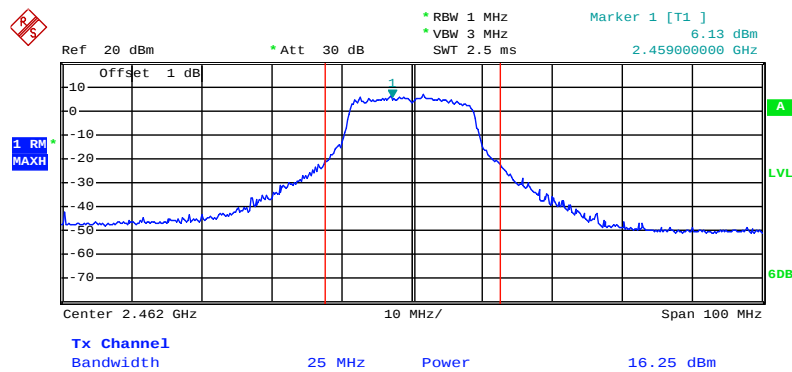
Date: 12.AUG.2010 22:02:44

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2437 MHz



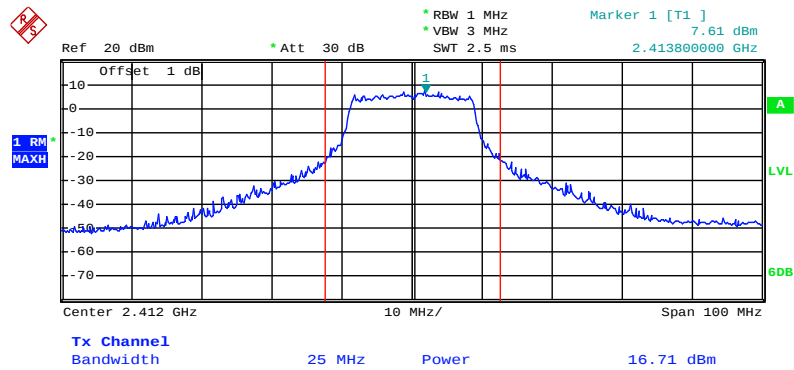
Date: 12.AUG.2010 22:00:43

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J3 / 2462 MHz



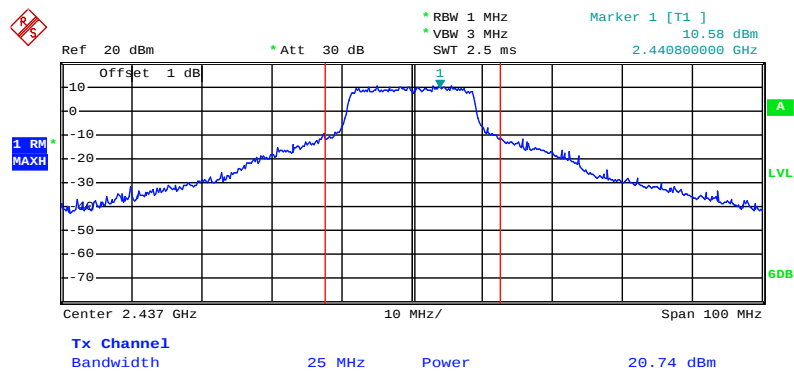
Date: 12.AUG.2010 21:58:50

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2412 MHz



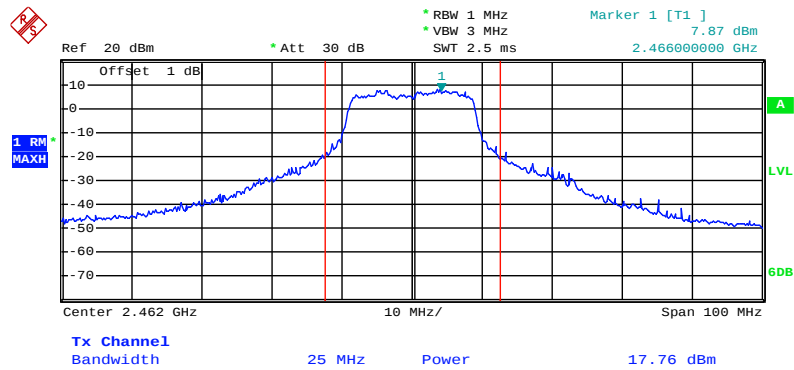
Date: 12.AUG.2010 22:02:09

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2437 MHz



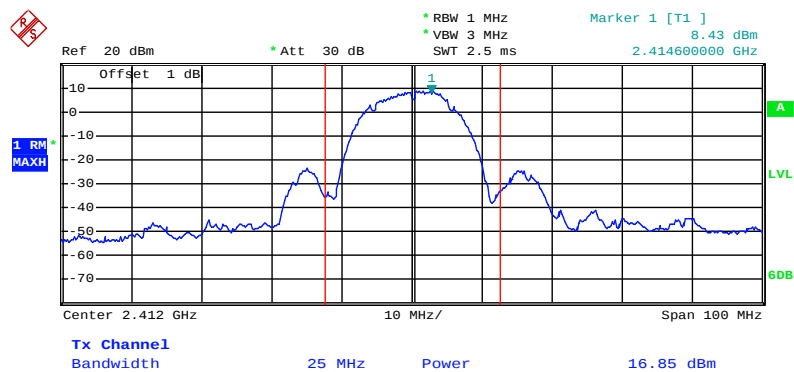
Date: 12.AUG.2010 22:01:09

Channel Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz J4 / 2462 MHz



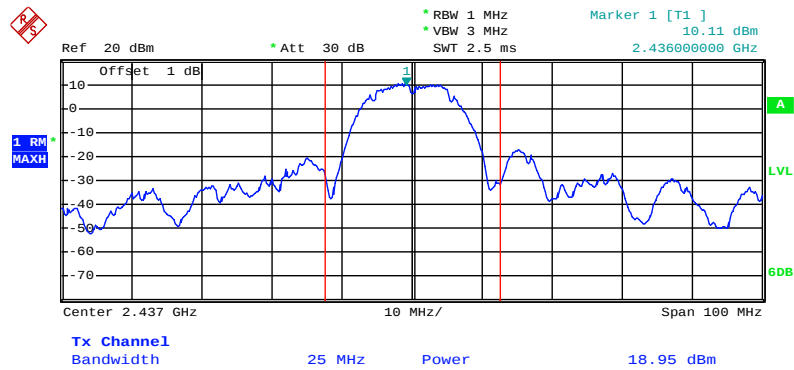
Date: 12.AUG.2010 22:05:14

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2412 MHz



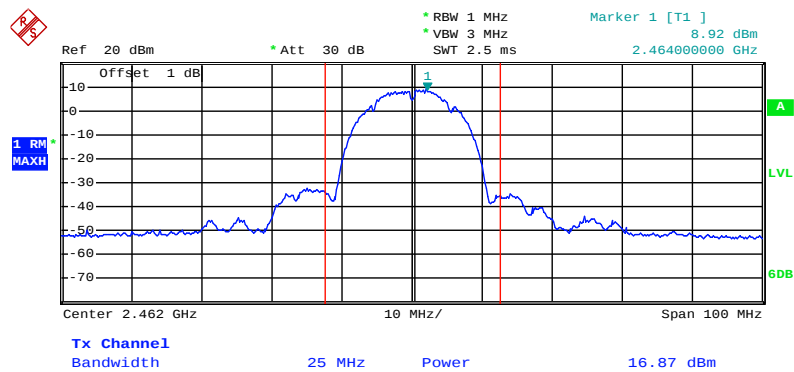
Date: 12.AUG.2010 21:43:42

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2437 MHz



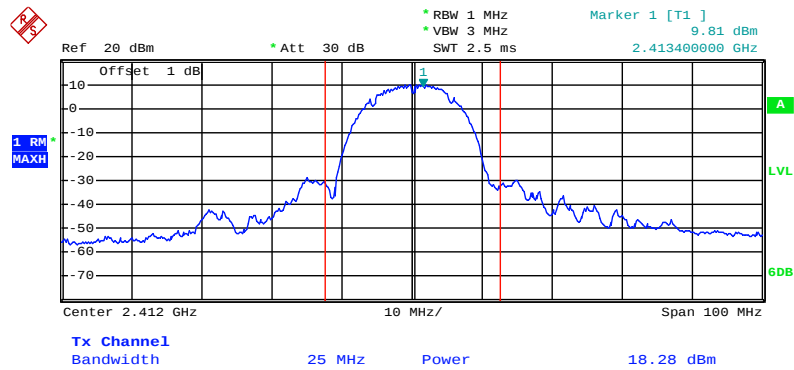
Date: 12.AUG.2010 21:46:24

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2462 MHz



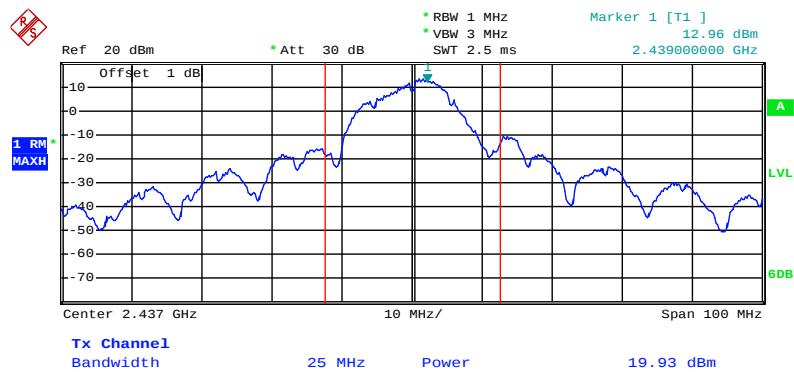
Date: 12.AUG.2010 21:47:42

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2412 MHz



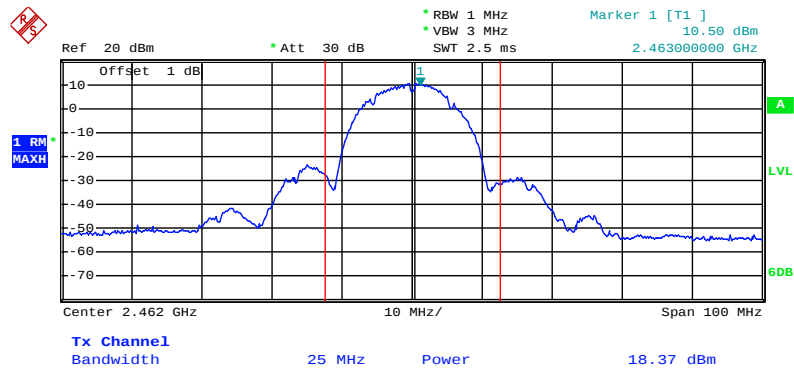
Date: 12.AUG.2010 21:44:25

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2437 MHz



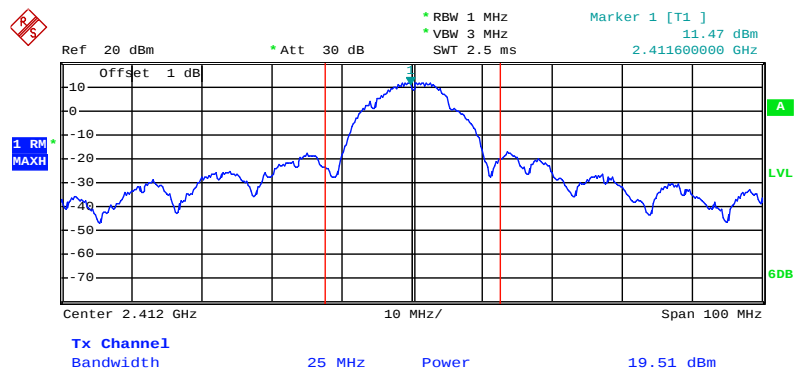
Date: 12.AUG.2010 21:46:00

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2462 MHz



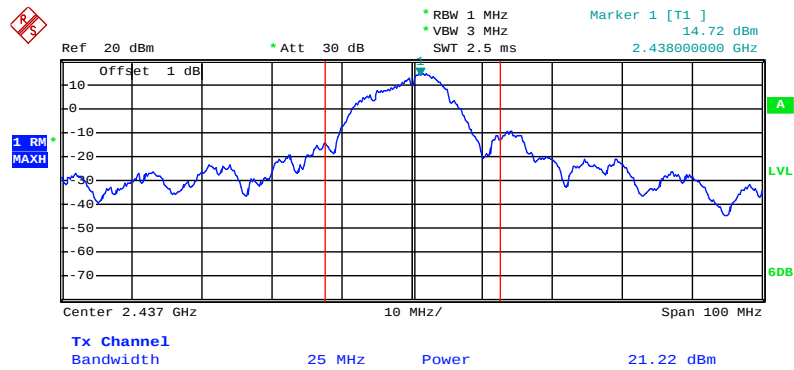
Date: 12.AUG.2010 22:16:42

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2412 MHz



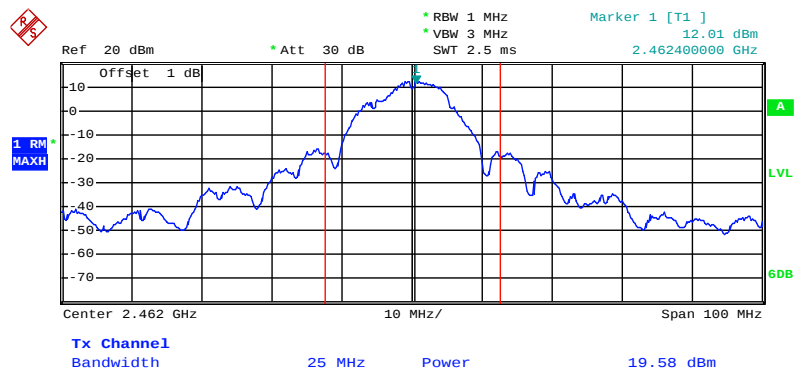
Date: 12.AUG.2010 21:44:56

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2437 MHz



Date: 12.AUG.2010 21:45:37

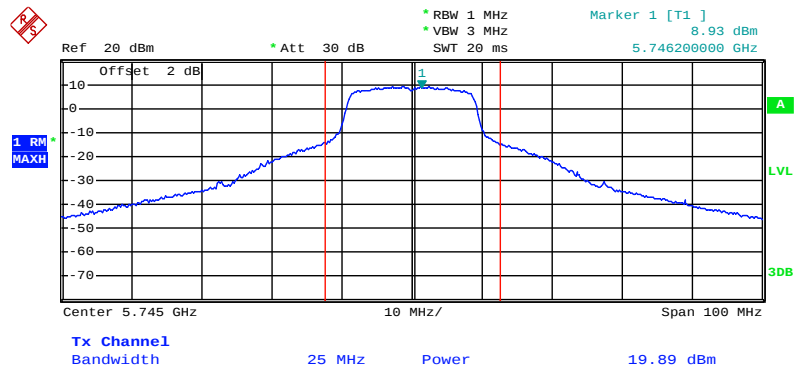
Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2462 MHz



Date: 12.AUG.2010 22:15:55

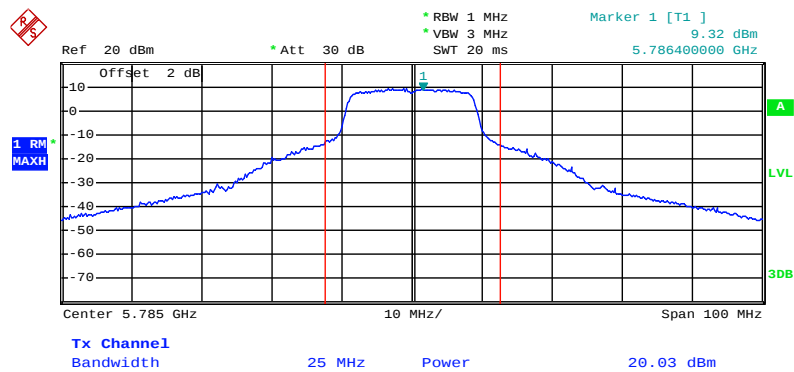
<For Mode 6 (Ant. 6)>:

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5745 MHz



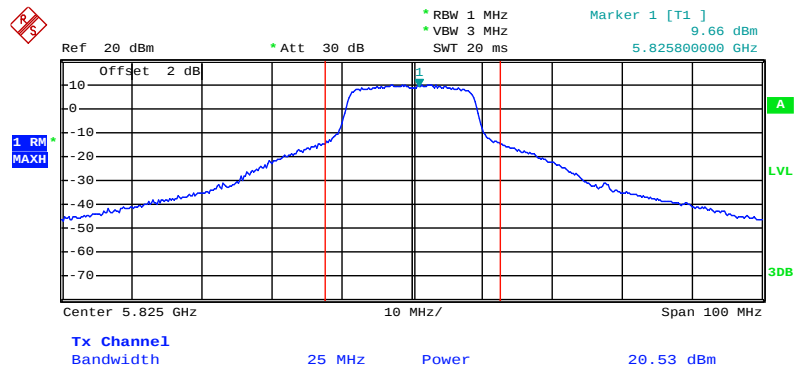
Date: 11.AUG.2010 23:58:10

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5785 MHz



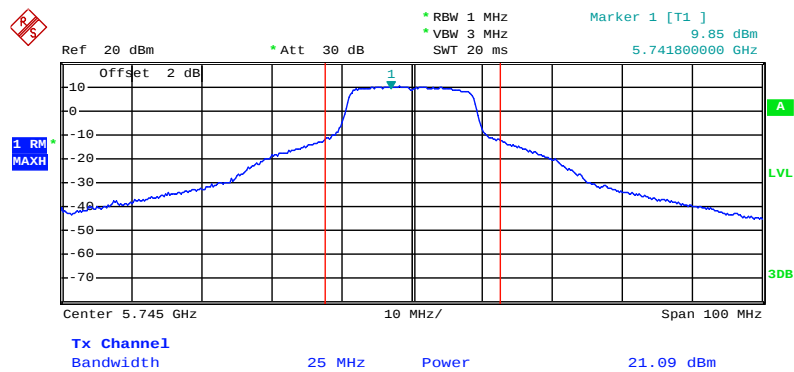
Date: 12.AUG.2010 00:05:41

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5825 MHz



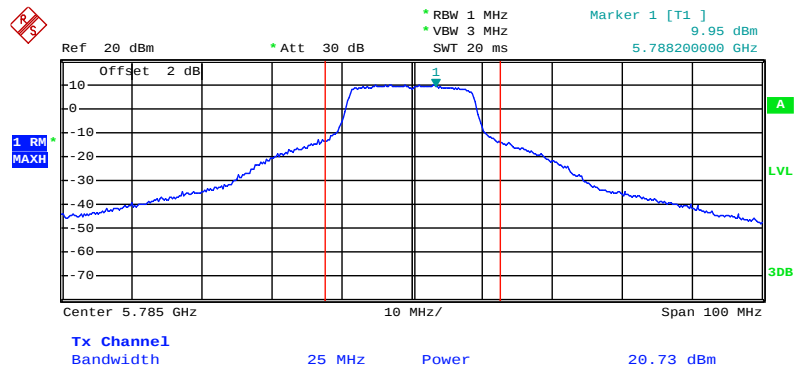
Date: 12.AUG.2010 00:08:13

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J3 / 5745 MHz



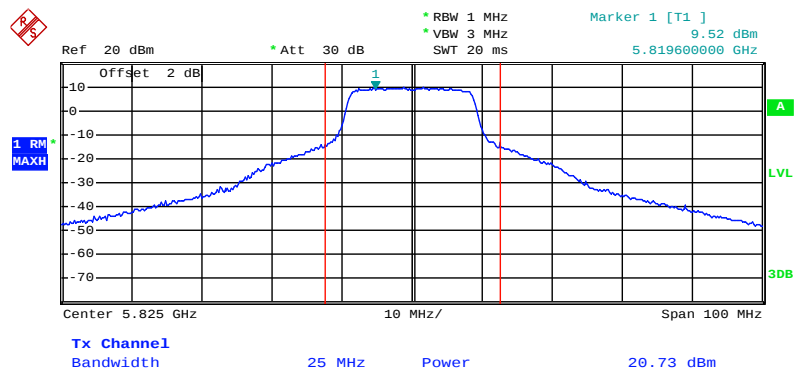
Date: 11.AUG.2010 23:56:51

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J3 / 5785 MHz



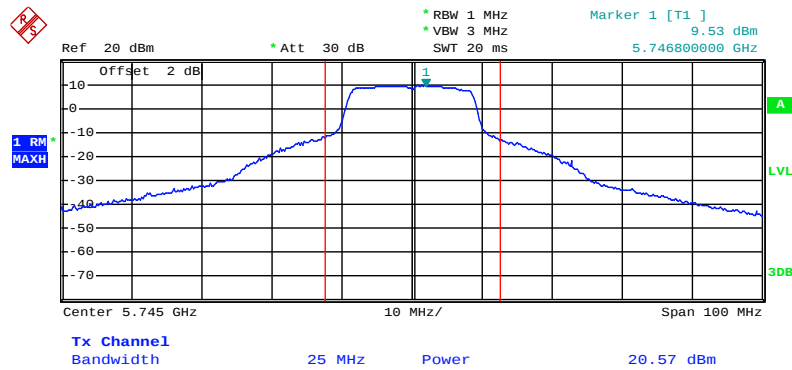
Date: 12.AUG.2010 00:05:08

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J3 / 5825 MHz



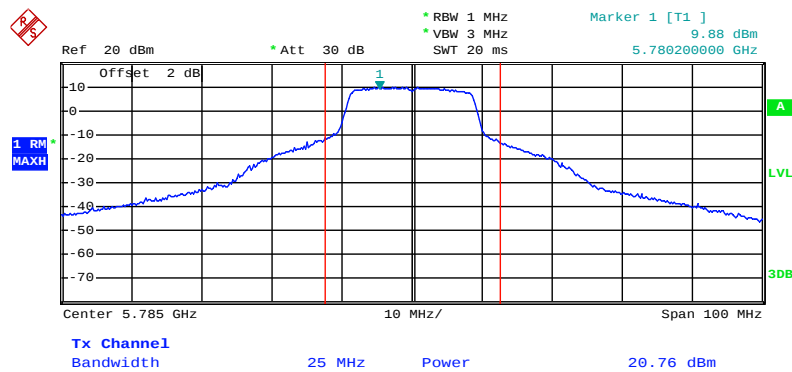
Date: 12.AUG.2010 00:09:54

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5745 MHz



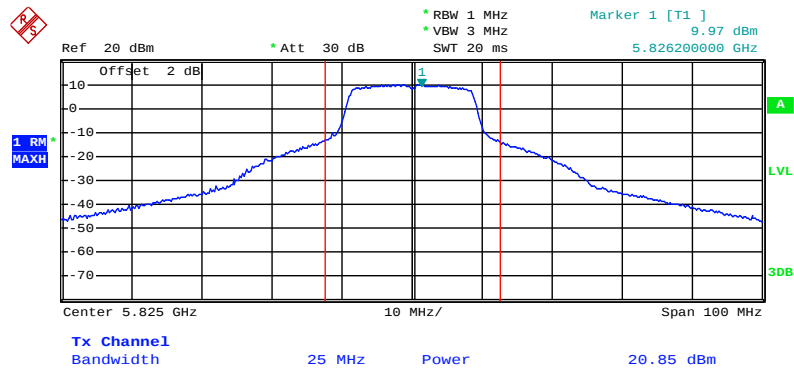
Date: 11.AUG.2010 23:57:37

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5785 MHz



Date: 12.AUG.2010 00:04:38

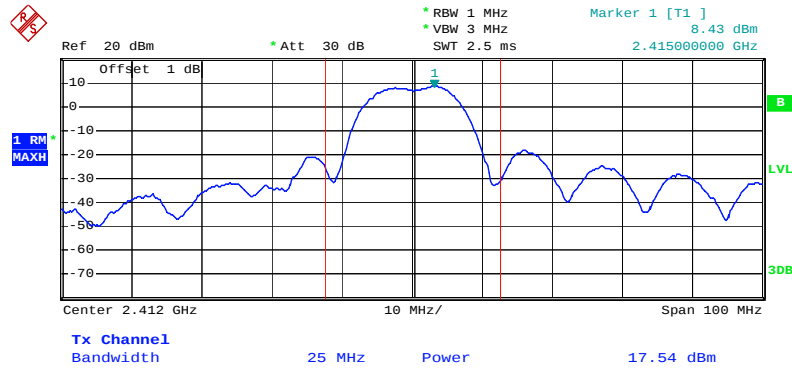
Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5825 MHz



Date: 12.AUG.2010 00:14:16

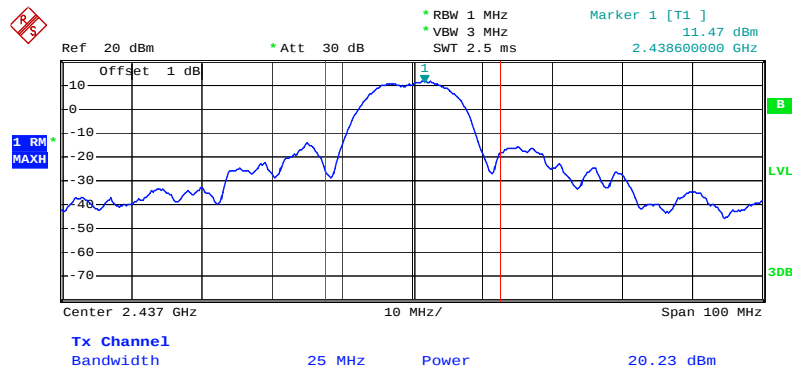
<For Mode 7 (Ant. 7)>:

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2412 MHz



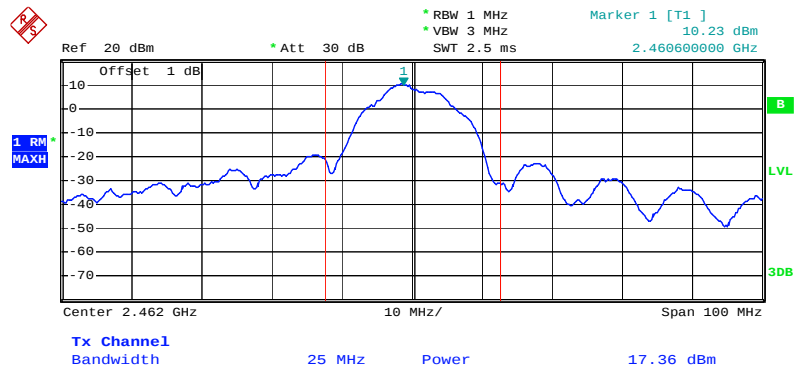
Date: 2.SEP.2010 11:49:19

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2437 MHz



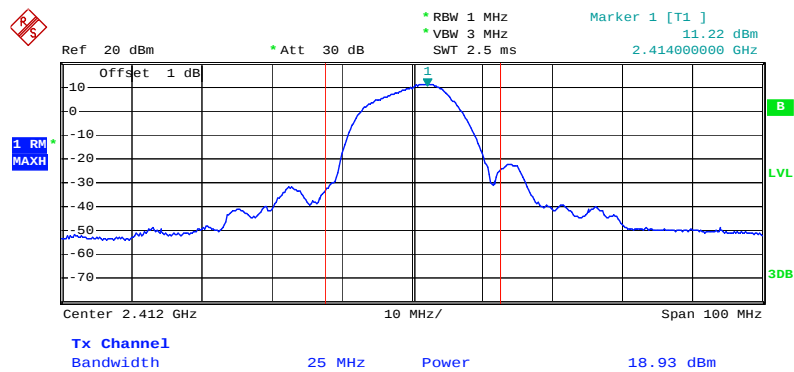
Date: 2.SEP.2010 11:57:29

Conducted Output Power Plot on Configuration IEEE 802.11b J2 / 2462 MHz



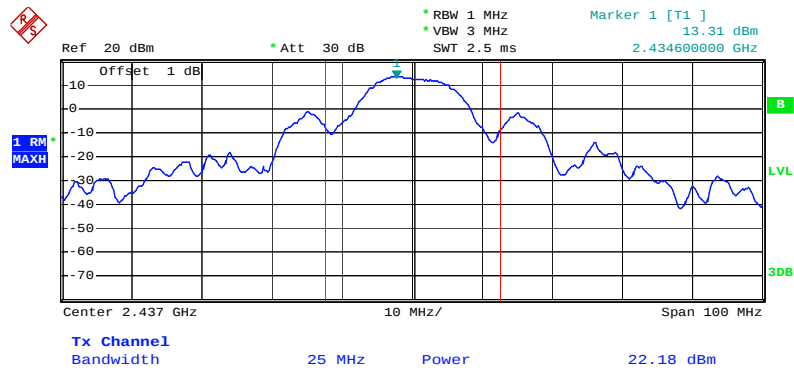
Date: 2.SEP.2010 13:42:46

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2412 MHz



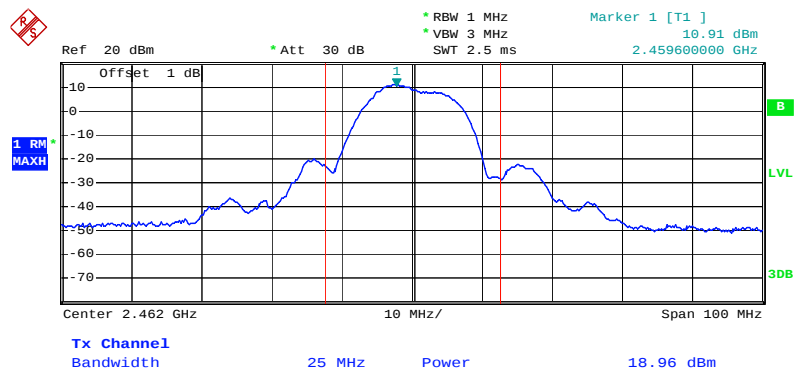
Date: 2.SEP.2010 11:47:23

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2437 MHz



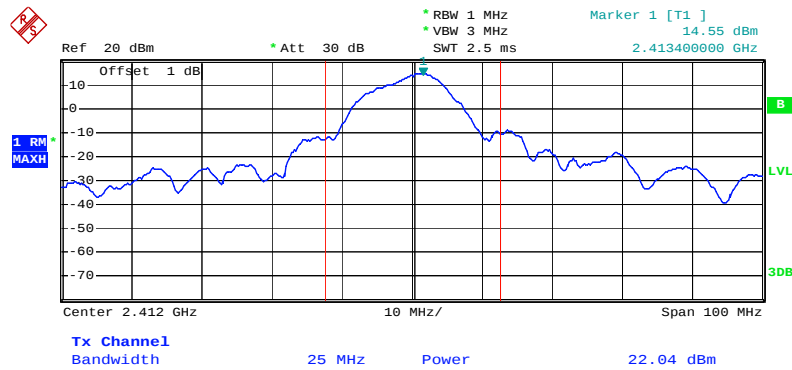
Date: 2.SEP.2010 12:02:25

Conducted Output Power Plot on Configuration IEEE 802.11b J3 / 2462 MHz



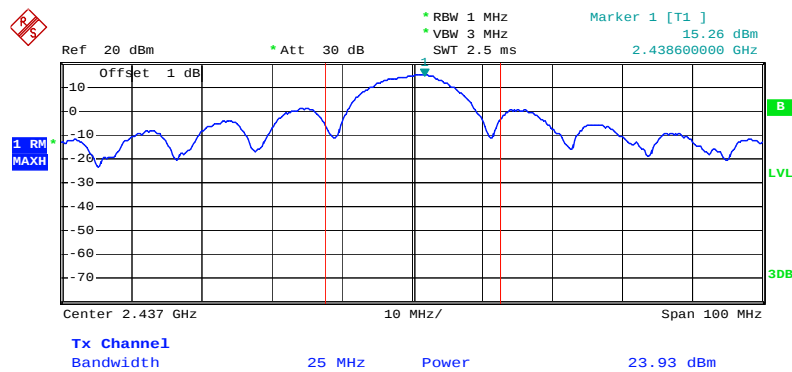
Date: 2.SEP.2010 13:41:33

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2412 MHz



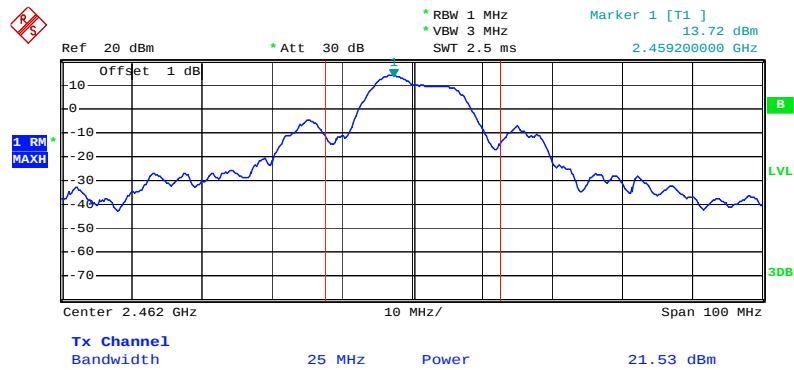
Date: 2.SEP.2010 11:46:20

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2437 MHz



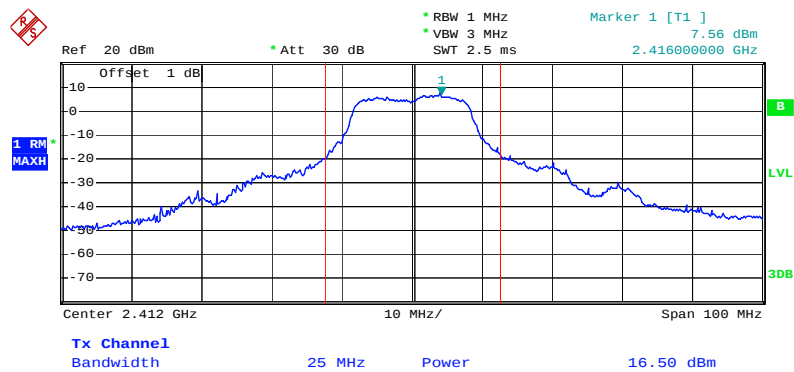
Date: 2.SEP.2010 12:05:10

Conducted Output Power Plot on Configuration IEEE 802.11b J4 / 2462 MHz



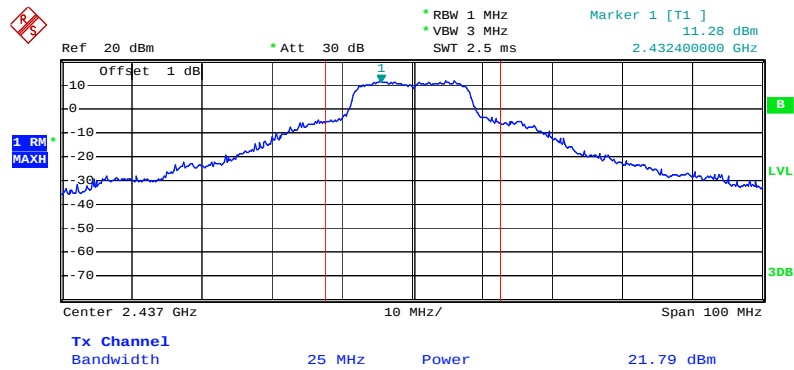
Date: 2.SEP.2010 13:39:49

Conducted Output Power Plot on Configuration IEEE 802.11g J2 / 2412 MHz



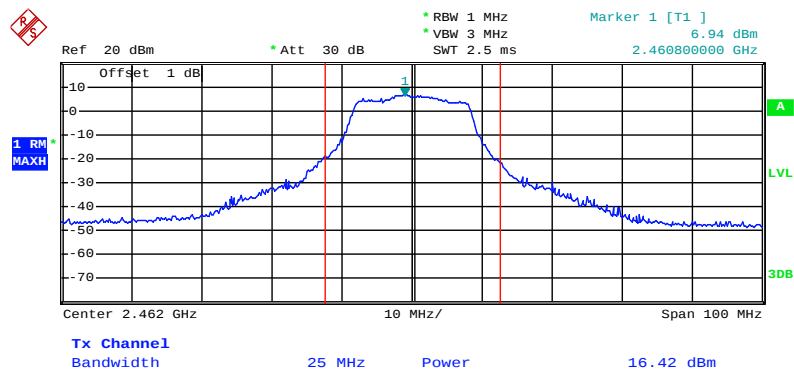
Date: 2.SEP.2010 13:45:04

Conducted Output Power Plot on Configuration IEEE 802.11g J2 / 2437 MHz



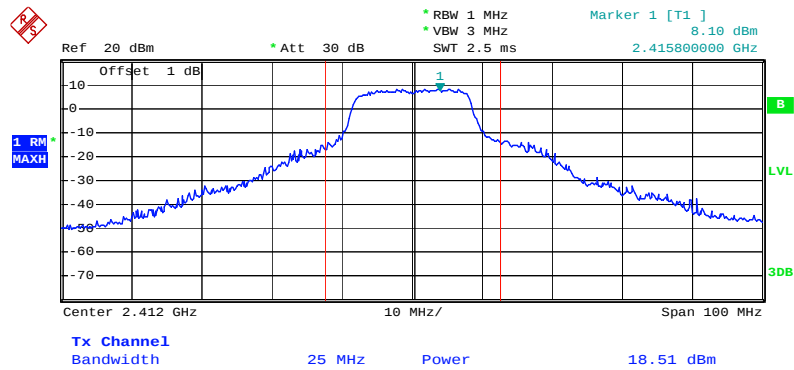
Date: 2.SEP.2010 13:49:14

Conducted Output Power Plot on Configuration IEEE 802.11g J2 / 2462 MHz



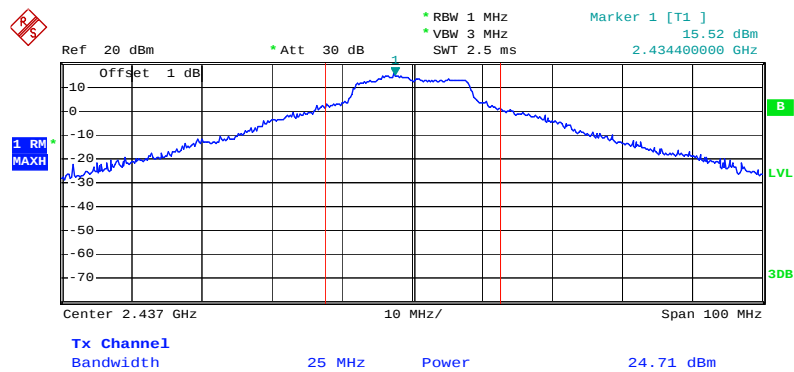
Date: 11.AUG.2010 21:44:13

Conducted Output Power Plot on Configuration IEEE 802.11g J3 / 2412 MHz



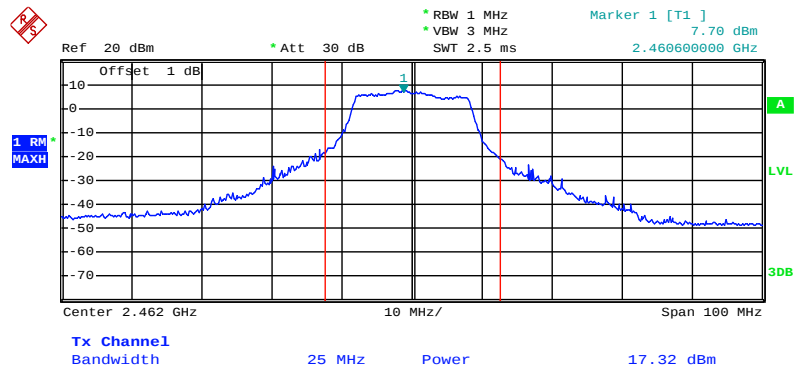
Date: 2.SEP.2010 13:45:57

Conducted Output Power Plot on Configuration IEEE 802.11g J3 / 2437 MHz



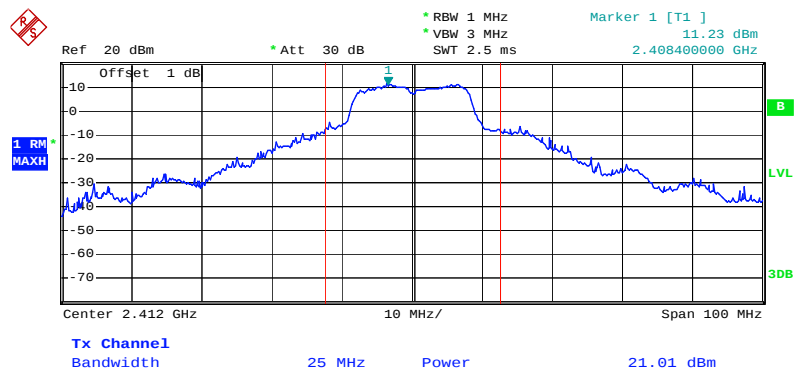
Date: 2.SEP.2010 13:48:36

Conducted Output Power Plot on Configuration IEEE 802.11g J3 / 2462 MHz



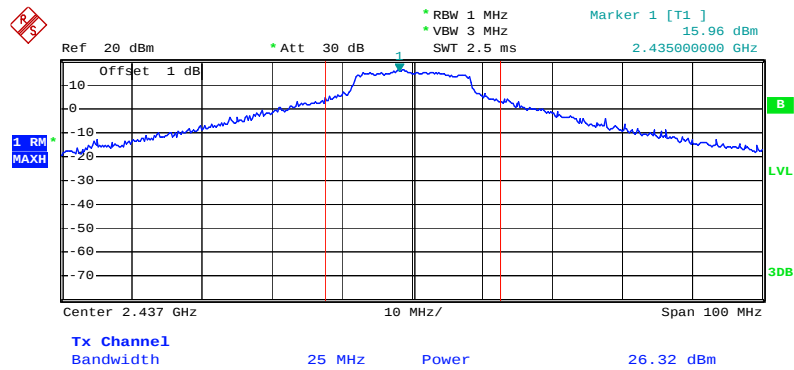
Date: 11.AUG.2010 21:44:59

Conducted Output Power Plot on Configuration IEEE 802.11g J4 / 2412 MHz



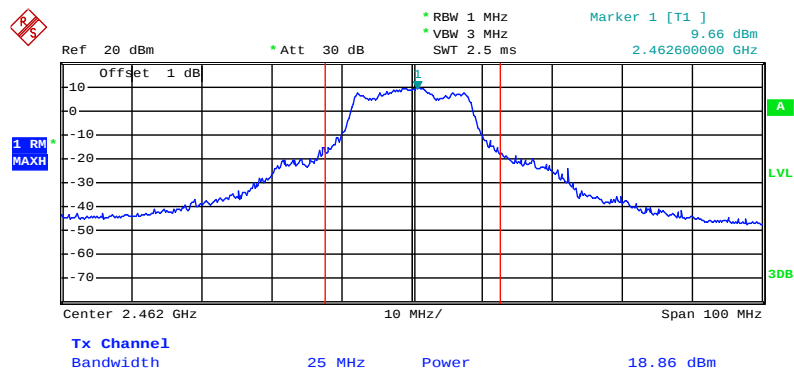
Date: 2.SEP.2010 13:46:46

Conducted Output Power Plot on Configuration IEEE 802.11g J4 / 2437 MHz



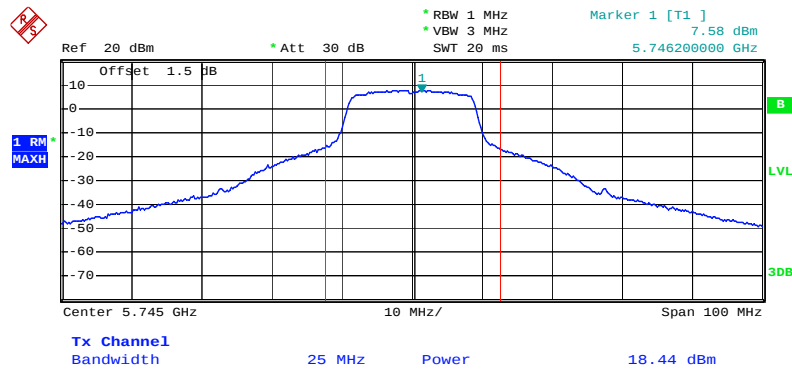
Date: 2.SEP.2010 13:47:58

Conducted Output Power Plot on Configuration IEEE 802.11g J4 / 2462 MHz



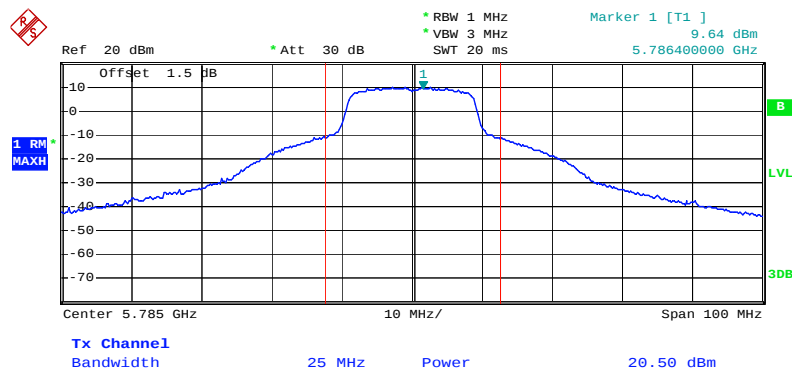
Date: 11.AUG.2010 21:45:38

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5745 MHz



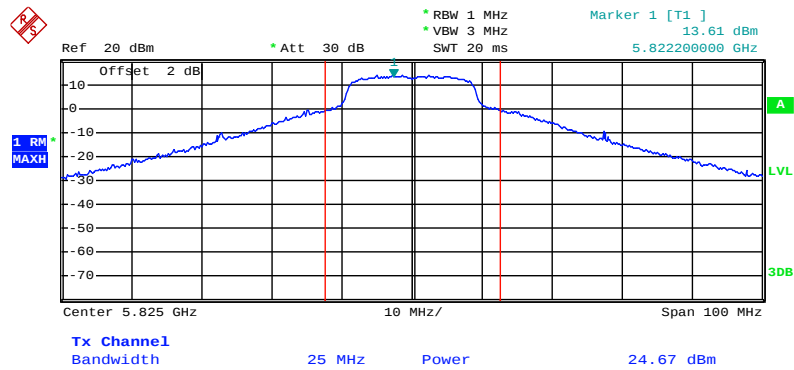
Date: 2.SEP.2010 14:49:07

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5785MHz



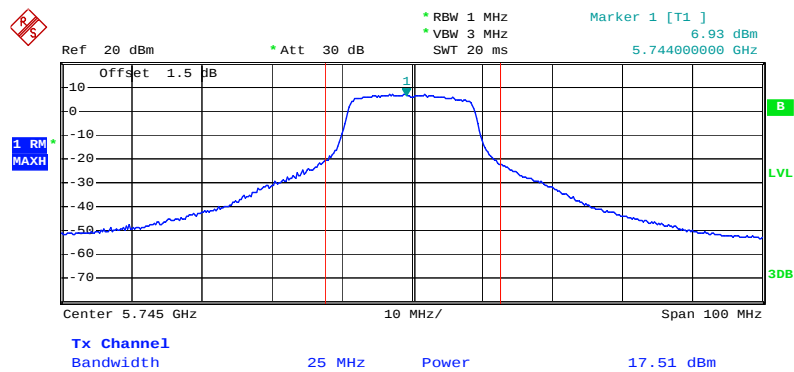
Date: 2.SEP.2010 14:50:31

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J2 / 5825 MHz



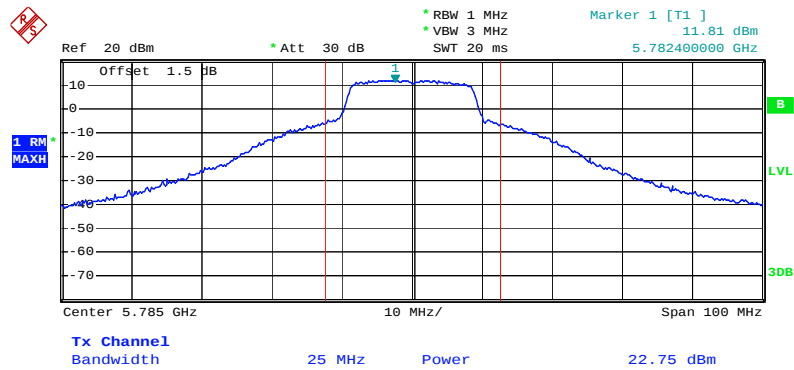
Date: 11.AUG.2010 22:04:34

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J3 / 5745 MHz



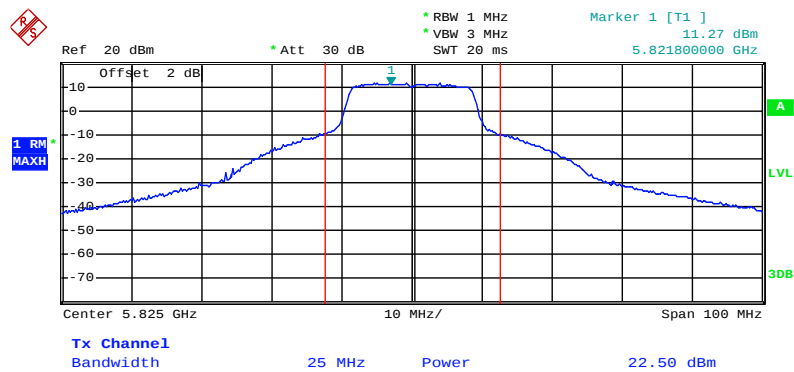
Date: 2.SEP.2010 14:47:35

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J3 / 5785MHz



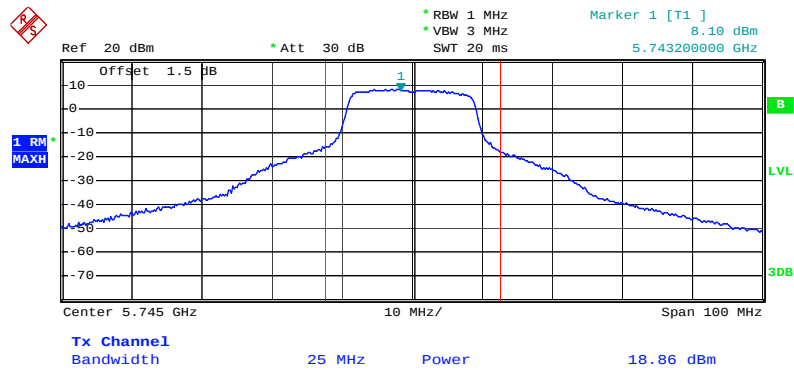
Date: 2.SEP.2010 14:51:09

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J3 / 5825 MHz



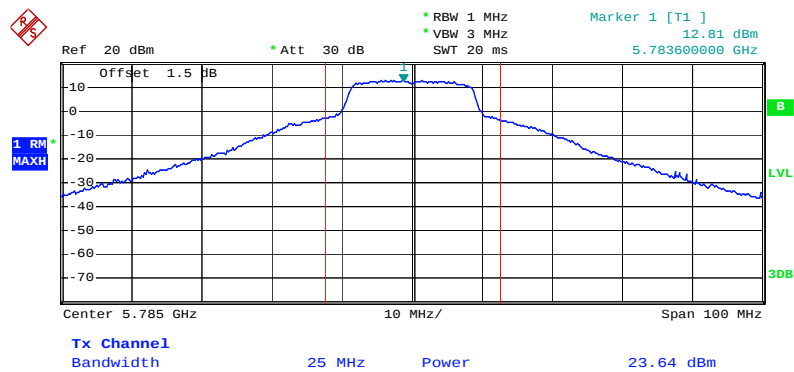
Date: 11.AUG.2010 22:05:28

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5745 MHz



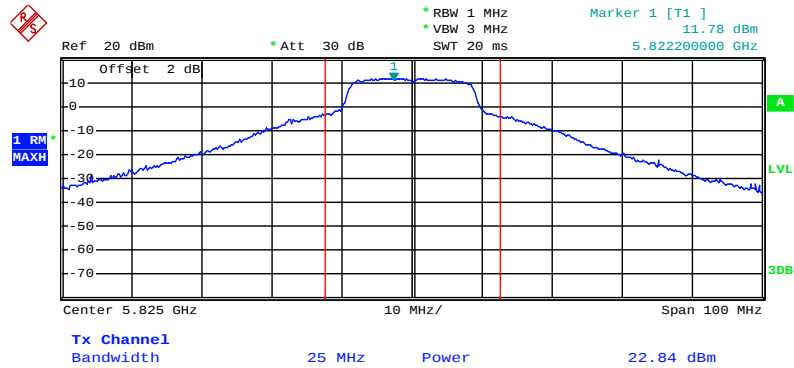
Date: 2.SEP.2010 14:46:23

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5785MHz



Date: 2.SEP.2010 14:52:03

Channel Output Power Plot on Configuration IEEE 802.11an MCS8 20MHz J4 / 5825 MHz



Date: 11.AUG.2010 22:06:15

4.3. Power Spectral Density Measurement

4.3.1. Limit

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

4.3.2. Measuring Instruments and Setting

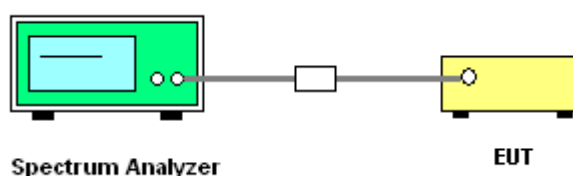
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting		
Attenuation	Auto		
Span Frequency	30 kHz		
RB	3 kHz		
VB	30 kHz		
Detector	Peak		
Trace	Max Hold		
Sweep Time	10s		
Cable Loss		Combiner Loss	
2.4GHz Band	5GHz Band	2.4GHz Band	5GHz Band
0.8	1.5	5.15	5.38

4.3.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 3kHz and VBW to 30kHz. Set Detector to Peak, Trace to Max Hold.
3. Mark the frequency with maximum peak power as the center of the display of the spectrum.
4. Set the span to 30kHz and the sweep time to 10s and record the maximum peak value.
5. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

4.3.4. Test Setup Layout



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of Power Spectral Density

<For Mode 1 (Ant. 1)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 1 (Ant. 1)

Configuration IEEE 802.11an MCS8 20MHz J2+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-4.17	8.00	Complies
157	5785 MHz	-4.90	8.00	Complies
165	5825 MHz	-5.71	8.00	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-7.26	8.00	Complies
159	5795 MHz	-9.53	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 1 (Ant. 1)

Configuration IEEE 802.11a J2+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-3.60	8.00	Complies
157	5785 MHz	-2.83	8.00	Complies
165	5825 MHz	-2.74	8.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 2 (Ant. 2)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 2 (Ant. 2)

Configuration IEEE 802.11an MCS8 20MHz J2+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	1.03	8.00	Complies
157	5785 MHz	1.12	8.00	Complies
165	5825 MHz	1.67	8.00	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-5.41	8.00	Complies
159	5795 MHz	-2.30	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 2 (Ant. 2)

Configuration IEEE 802.11a J2+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	3.10	8.00	Complies
157	5785 MHz	1.96	8.00	Complies
165	5825 MHz	3.34	8.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 3 (Ant. 3)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 3 (Ant. 3)

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-7.15	8.00	Complies
6	2437 MHz	-6.32	8.00	Complies
11	2462 MHz	-7.78	8.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-16.06	8.00	Complies
6	2437 MHz	-12.55	8.00	Complies
9	2452 MHz	-14.68	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b/g / Mode 3 (Ant. 3)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	2.86	8.00	Complies
6	2437 MHz	2.37	8.00	Complies
11	2462 MHz	1.93	8.00	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-2.60	8.00	Complies
6	2437 MHz	-3.58	8.00	Complies
11	2462 MHz	-2.69	8.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 4 (Ant. 4)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 4 (Ant. 4)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-5.24	8.00	Complies
6	2437 MHz	4.43	8.00	Complies
11	2462 MHz	-5.51	8.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-9.61	8.00	Complies
6	2437 MHz	-7.53	8.00	Complies
9	2452 MHz	-8.24	8.00	Complies

For 5GHz Band

Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	3.13	8.00	Complies
157	5785 MHz	2.65	8.00	Complies
165	5825 MHz	4.32	8.00	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-1.01	8.00	Complies
159	5795 MHz	-0.66	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11 a/b/g / Mode 4 (Ant. 4)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	2.09	8.00	Complies
6	2437 MHz	3.37	8.00	Complies
11	2462 MHz	0.28	8.00	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-0.57	8.00	Complies
6	2437 MHz	3.16	8.00	Complies
11	2462 MHz	-1.90	8.00	Complies

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	5.47	8.00	Complies
157	5785 MHz	5.20	8.00	Complies
165	5825 MHz	5.31	8.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 5 (Ant. 5)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 5 (Ant. 5)

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-6.48	8.00	Complies
6	2437 MHz	-1.22	8.00	Complies
11	2462 MHz	-3.74	8.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-11.67	8.00	Complies
6	2437 MHz	-9.31	8.00	Complies
9	2452 MHz	-10.24	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b/g / Mode 5 (Ant. 5)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	1.23	8.00	Complies
6	2437 MHz	6.67	8.00	Complies
11	2462 MHz	2.00	8.00	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-4.36	8.00	Complies
6	2437 MHz	3.15	8.00	Complies
11	2462 MHz	-2.08	8.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 6 (Ant. 6)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 6 (Ant. 6)

Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	0.74	8.00	Complies
157	5785 MHz	-0.10	8.00	Complies
165	5825 MHz	0.37	8.00	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-2.76	8.00	Complies
159	5795 MHz	-2.73	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 6 (Ant. 6)

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	2.57	8.00	Complies
157	5785 MHz	2.60	8.00	Complies
165	5825 MHz	2.40	8.00	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 7 (Ant. 7)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 7 (Ant. 7)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-4.12	8.00	Complies
6	2437 MHz	1.82	8.00	Complies
11	2462 MHz	-3.12	8.00	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-9.61	8.00	Complies
6	2437 MHz	-5.85	8.00	Complies
9	2452 MHz	-8.24	8.00	Complies

For 5GHz Band

Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-2.18	8.00	Complies
157	5785 MHz	0.50	8.00	Complies
165	5825 MHz	4.32	8.00	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-5.52	8.00	Complies
159	5795 MHz	-0.66	8.00	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11 a/b/g / Mode 7 (Ant. 7)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	1.71	8.00	Complies
6	2437 MHz	5.25	8.00	Complies
11	2462 MHz	2.35	8.00	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-0.76	8.00	Complies
6	2437 MHz	5.45	8.00	Complies
11	2462 MHz	-1.90	8.00	Complies

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-1.23	8.00	Complies
157	5785 MHz	0.95	8.00	Complies
165	5825 MHz	5.31		

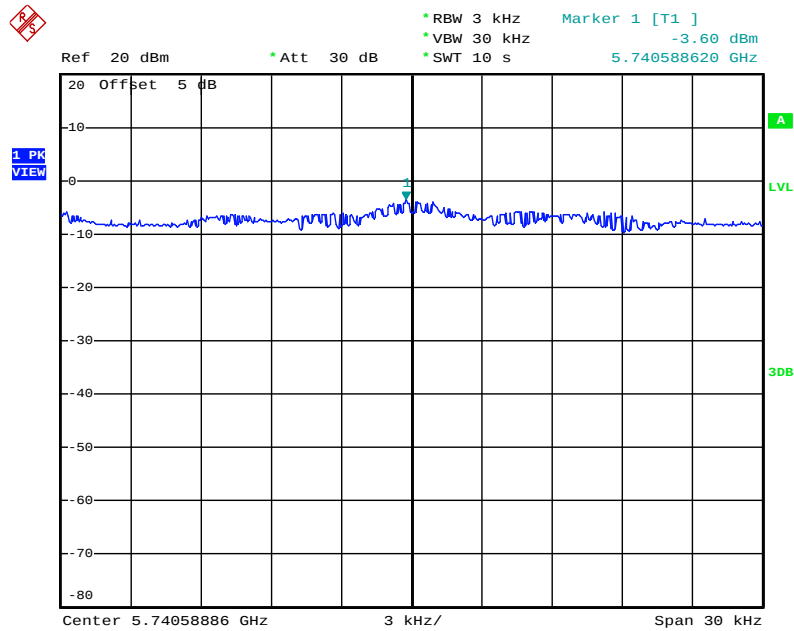
8.00 Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

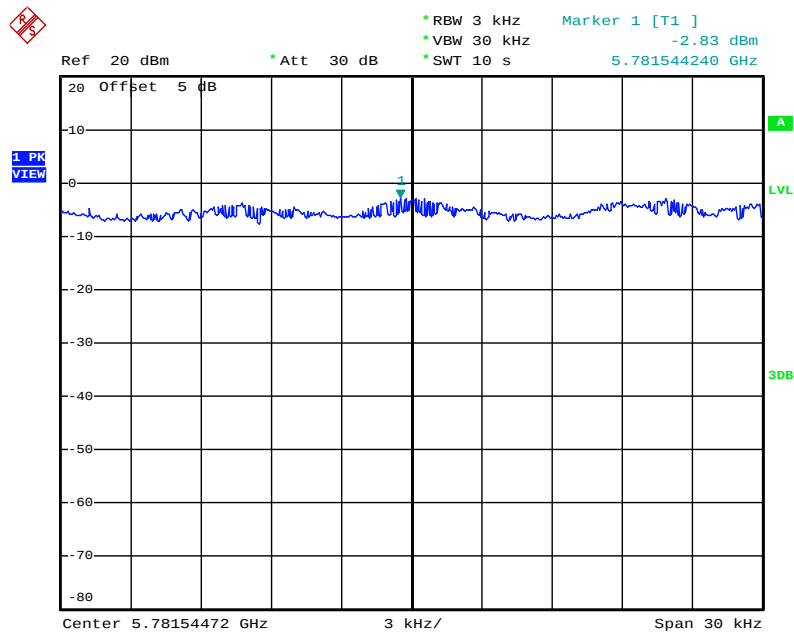
<For Mode 1 (Ant. 1)>:

Power Density Plot on Configuration IEEE 802.11a J2+J3 / 5745 MHz



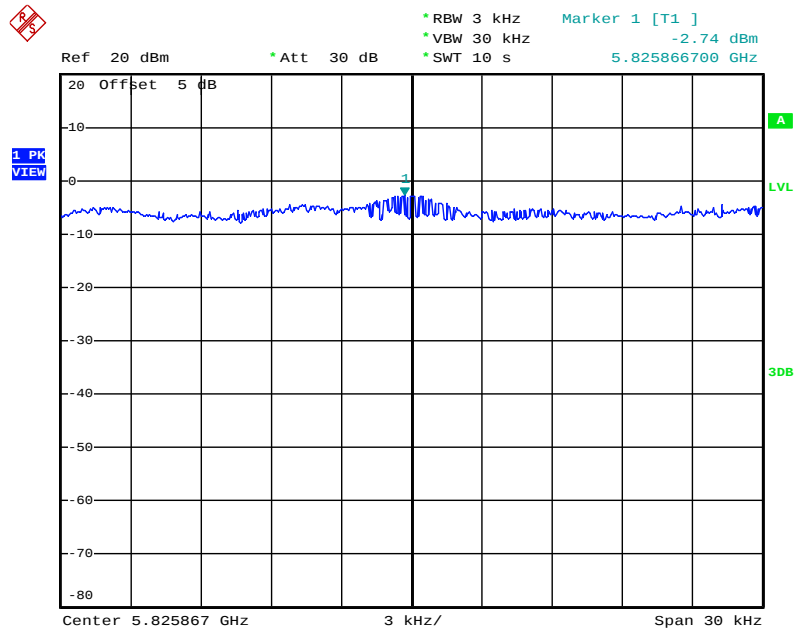
Date: 12.AUG.2010 15:45:07

Power Density Plot on Configuration IEEE 802.11a J2+J3 / 5785 MHz



Date: 12.AUG.2010 15:47:03

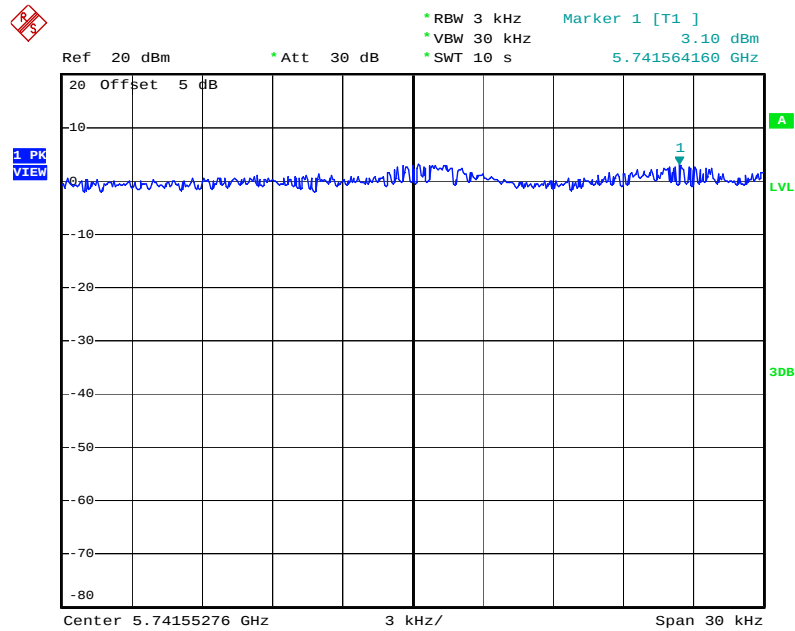
Power Density Plot on Configuration IEEE 802.11a J2+J3 / 5825 MHz



Date: 12.AUG.2010 15:48:48

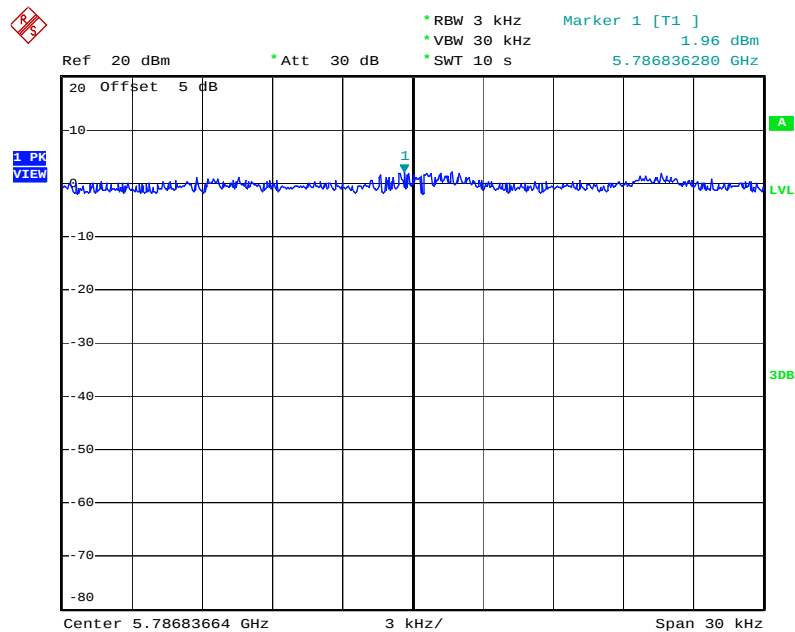
<For Mode 2 (Ant. 2)>:

Power Density Plot on Configuration IEEE 802.11a J2+J3 / 5745 MHz



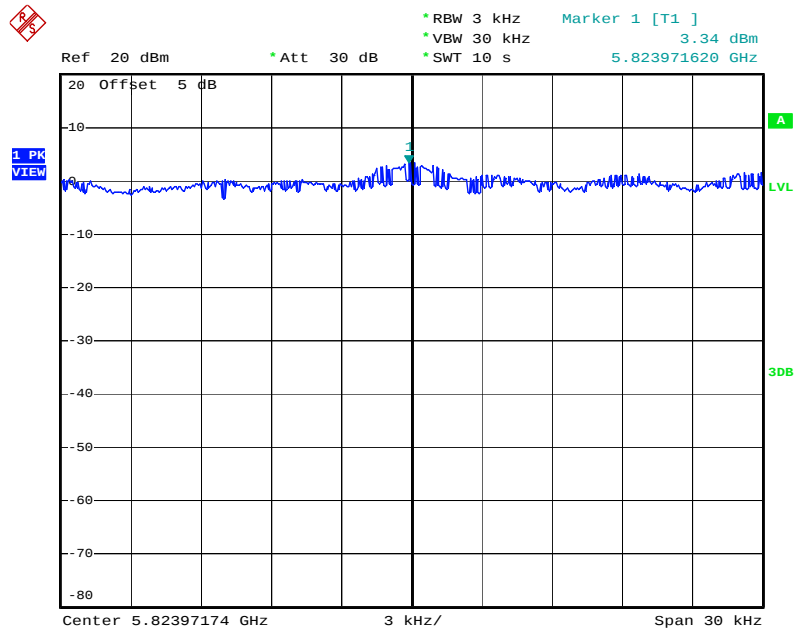
Date: 11.AUG.2010 19:52:23

Power Density Plot on Configuration IEEE 802.11a J2+J3 / 5785 MHz



Date: 11.AUG.2010 19:49:30

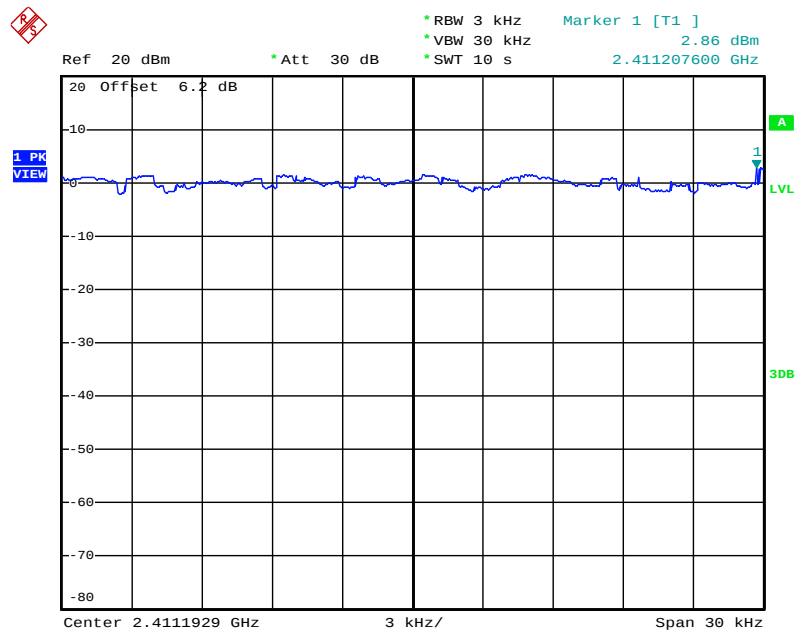
Power Density Plot on Configuration IEEE 802.11a J2+J3 / 5825 MHz



Date: 11.AUG.2010 19:46:31

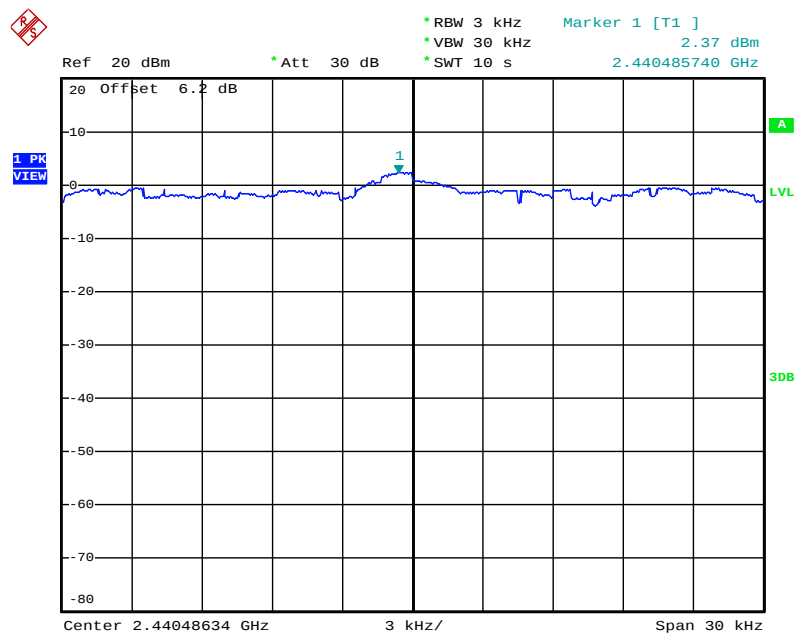
<For Mode 3 (Ant. 3)>:

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



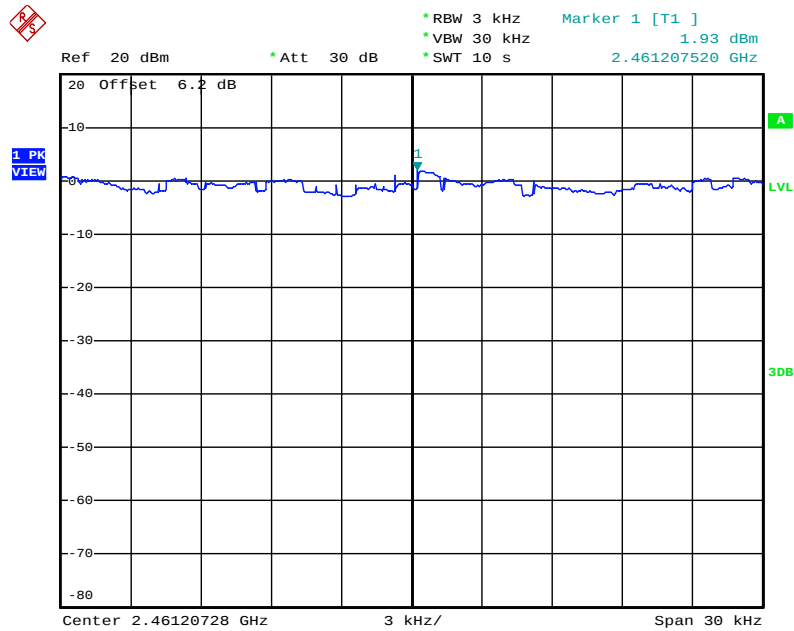
Date: 12.AUG.2010 02:31:21

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



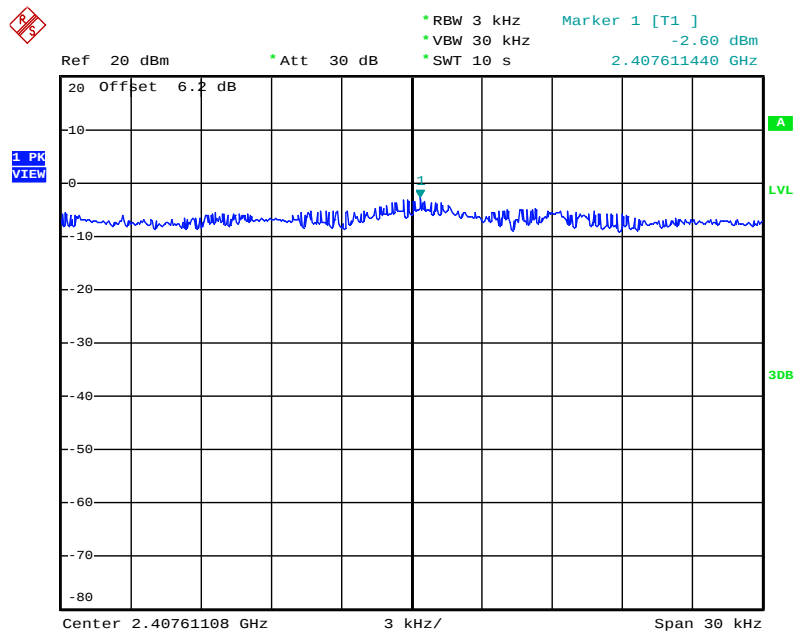
Date: 12.AUG.2010 02:33:26

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



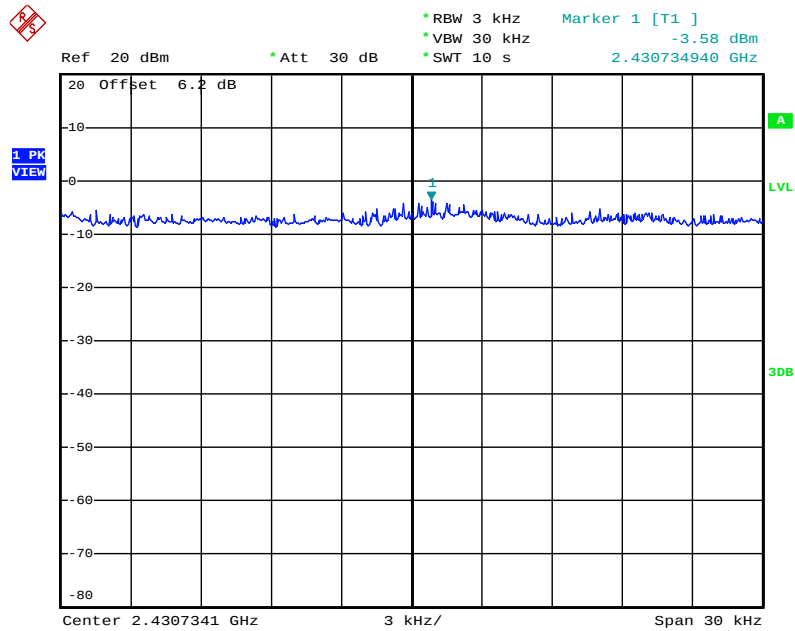
Date: 12.AUG.2010 02:35:27

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



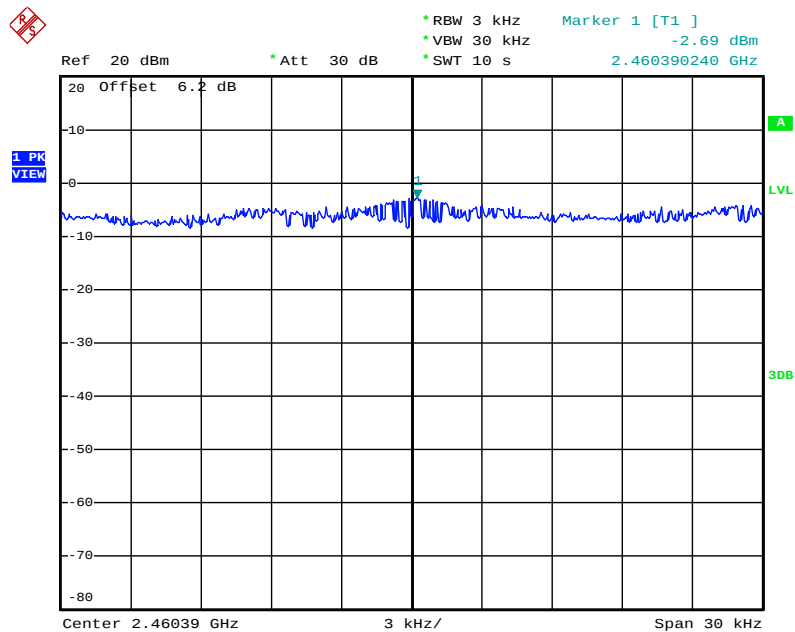
Date: 12.AUG.2010 02:41:44

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



Date: 12.AUG.2010 02:39:43

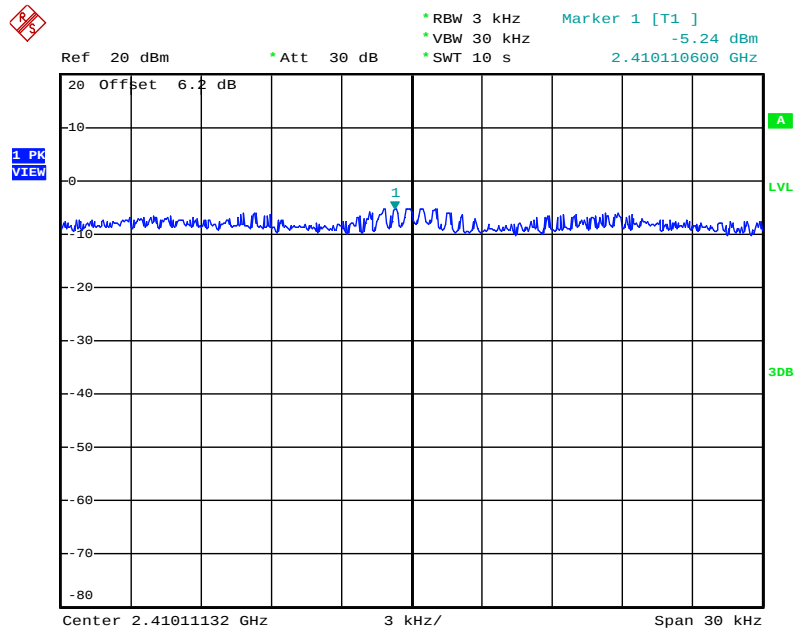
Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



Date: 12.AUG.2010 02:37:41

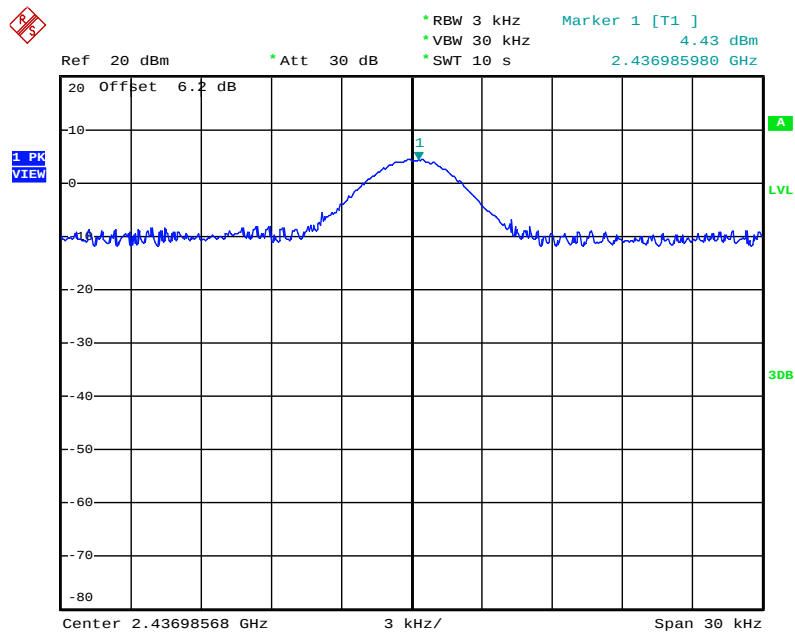
<For Mode 4 (Ant. 4)>:

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2412 MHz



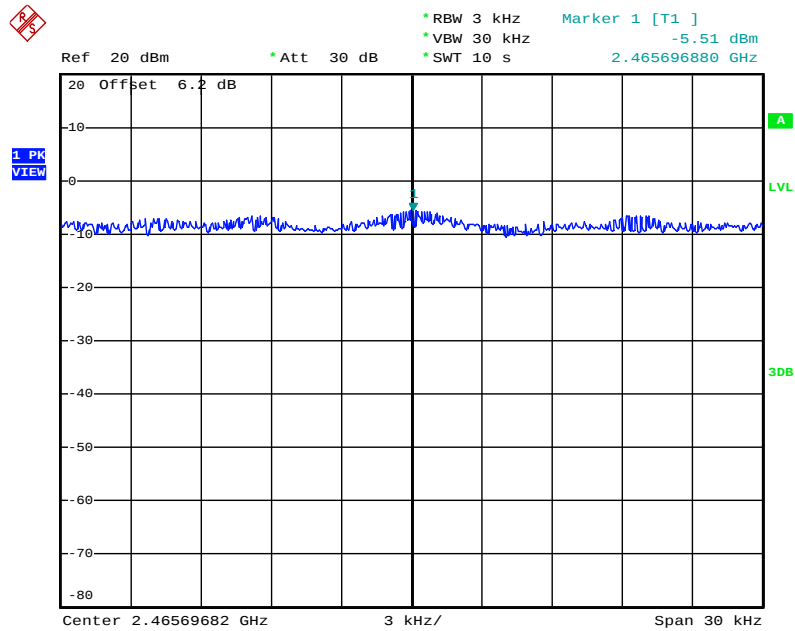
Date: 12.AUG.2010 03:02:28

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2437 MHz



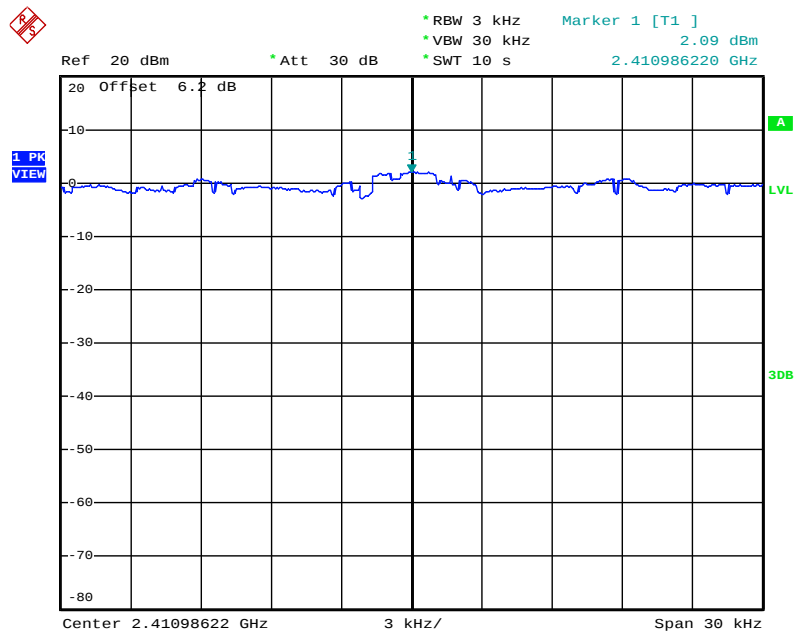
Date: 12.AUG.2010 03:04:35

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2462 MHz



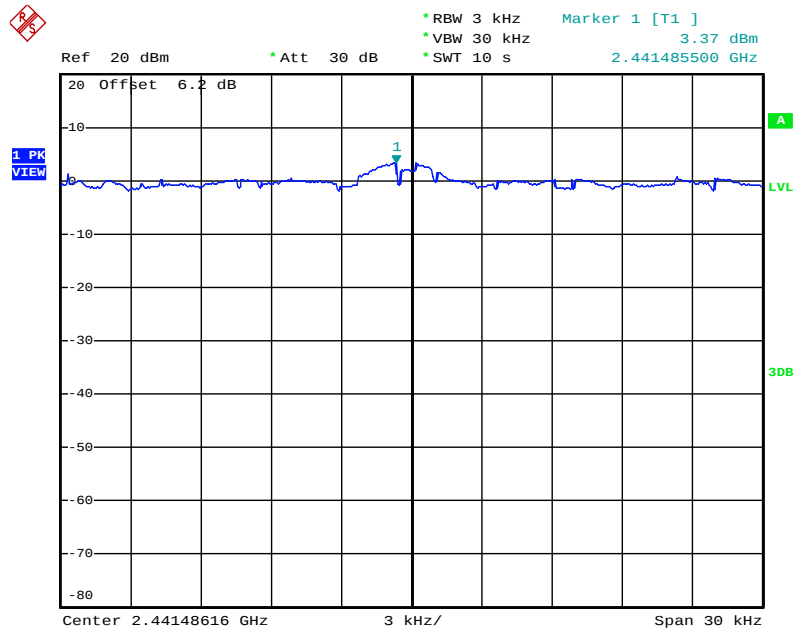
Date: 12.AUG.2010 03:06:31

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



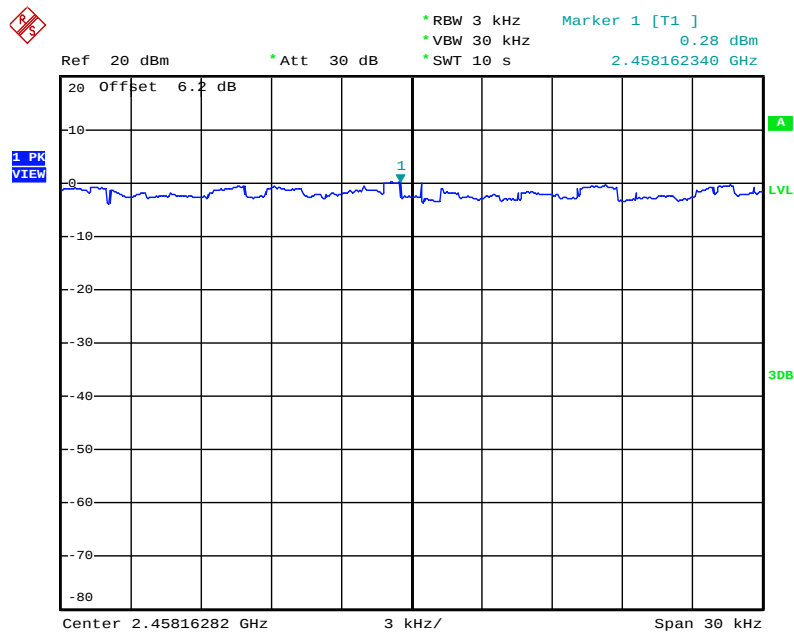
Date: 12.AUG.2010 03:00:09

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



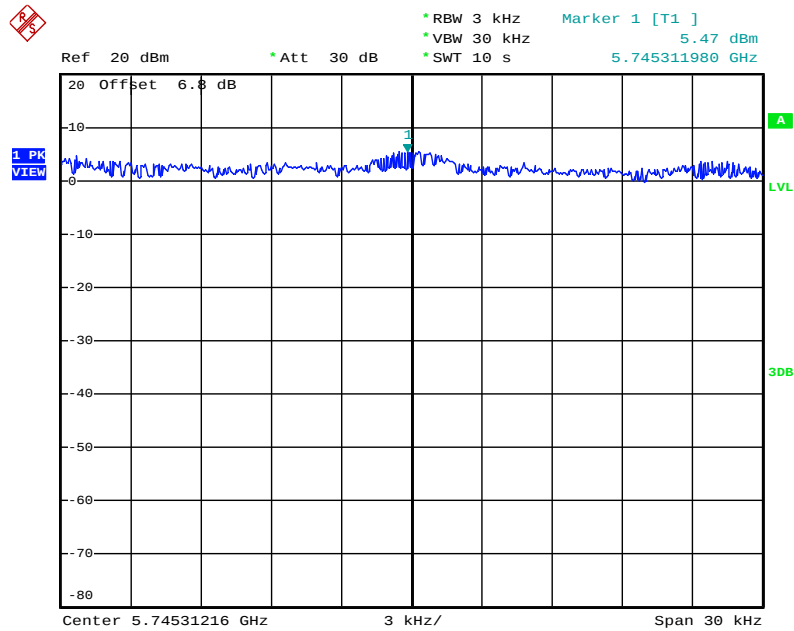
Date: 12.AUG.2010 02:57:46

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



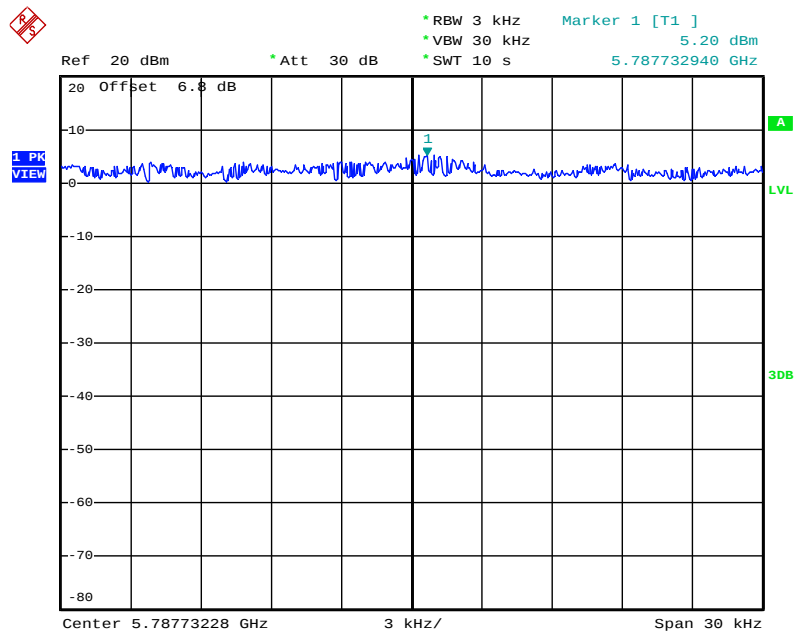
Date: 12.AUG.2010 02:55:22

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5745 MHz



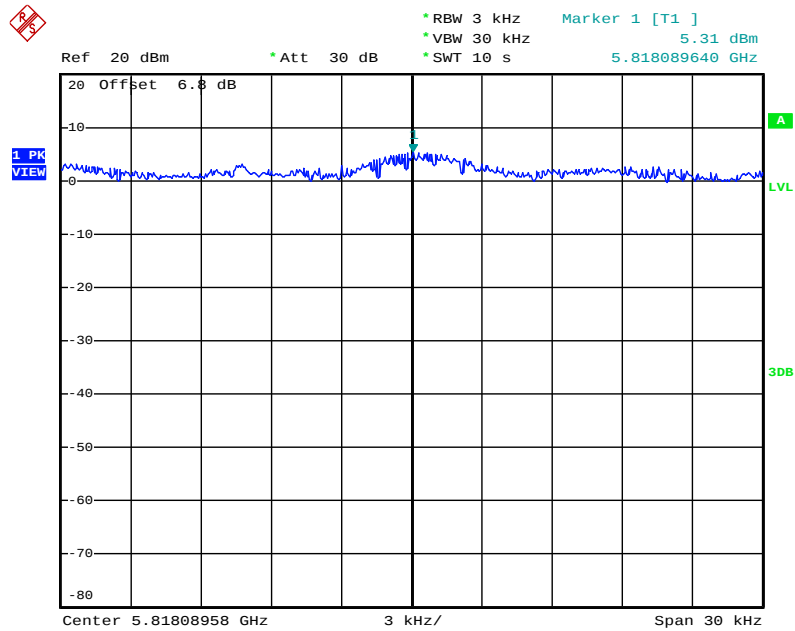
Date: 12.AUG.2010 23:01:31

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5785 MHz



Date: 12.AUG.2010 23:04:16

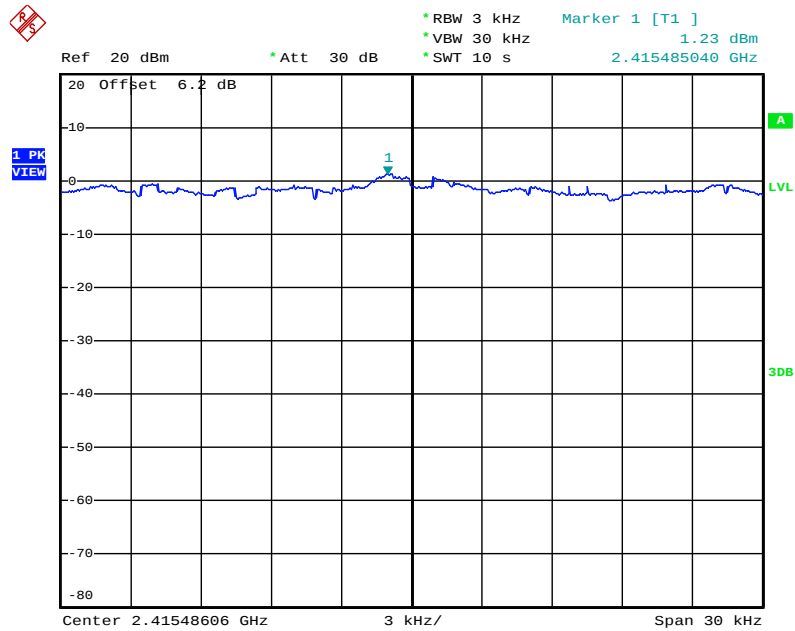
Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5825 MHz



Date: 12.AUG.2010 23:06:11

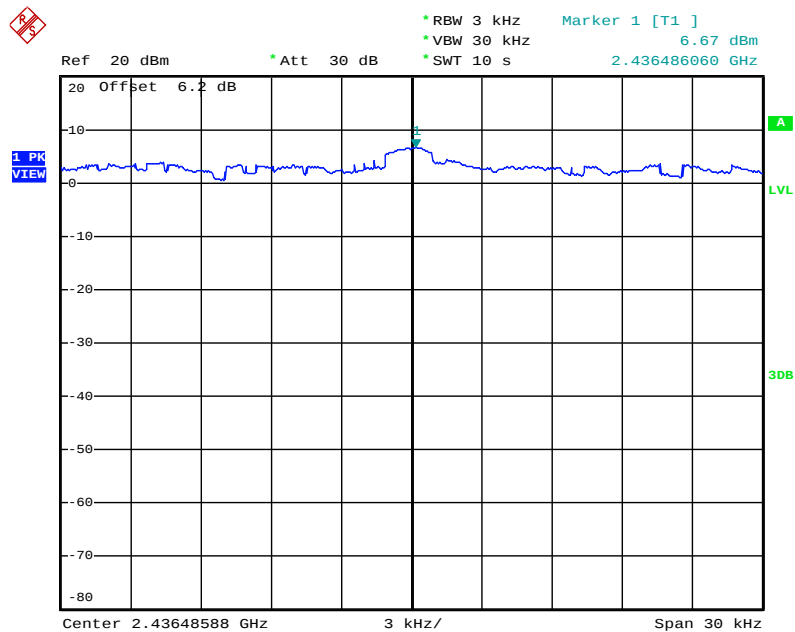
<For Mode 5 (Ant. 5)>:

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



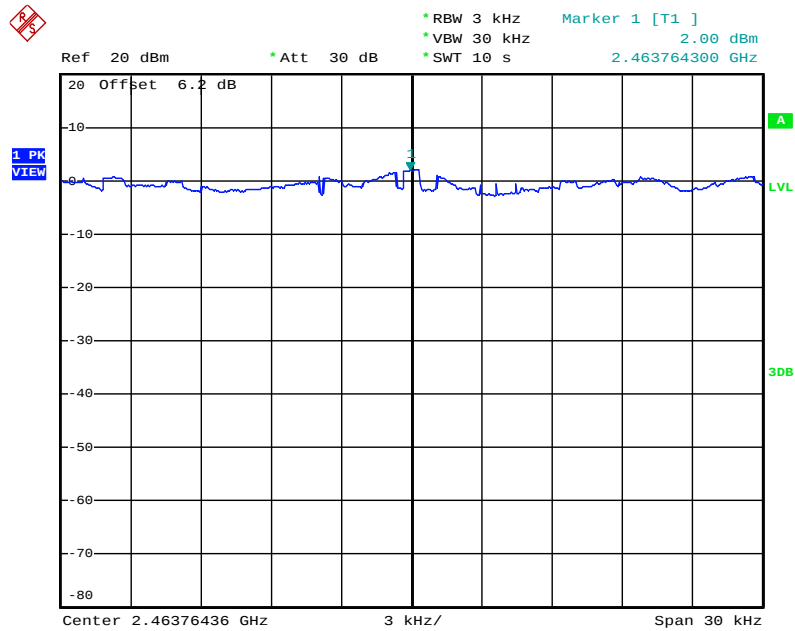
Date: 12.AUG.2010 22:25:41

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



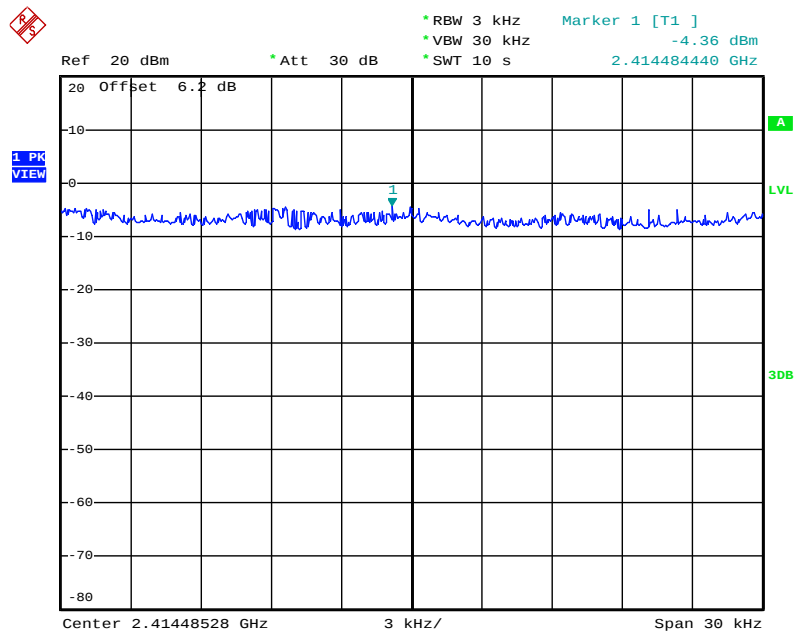
Date: 12.AUG.2010 22:23:44

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



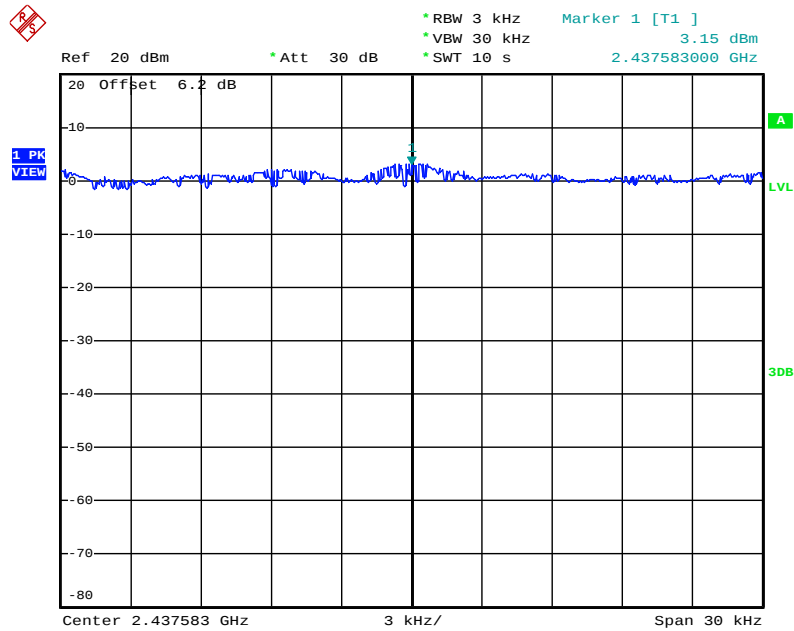
Date: 12.AUG.2010 22:21:45

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



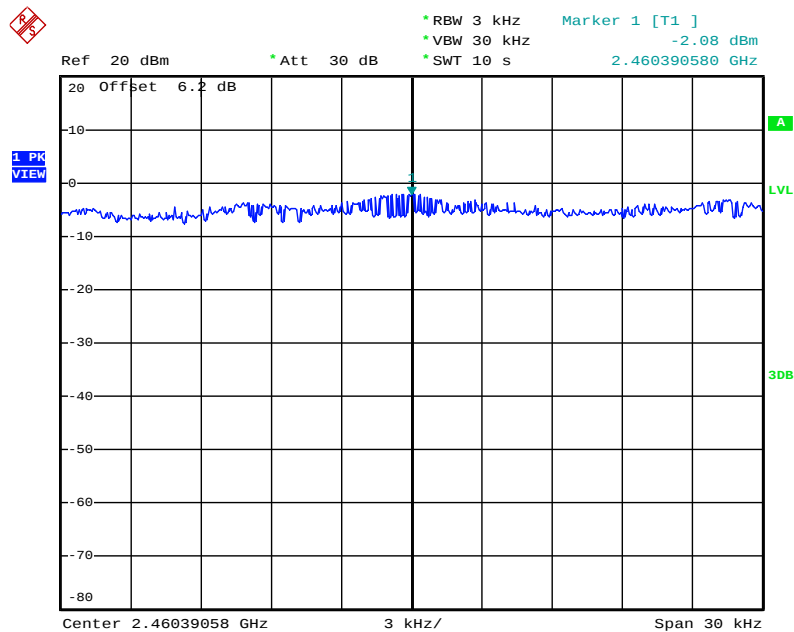
Date: 12.AUG.2010 22:27:46

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



Date: 12.AUG.2010 22:29:42

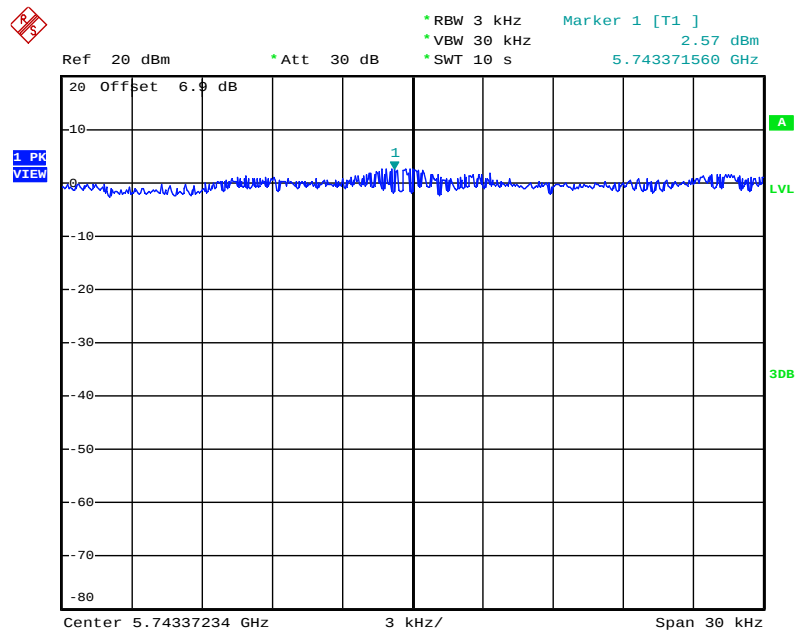
Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



Date: 12.AUG.2010 22:31:39

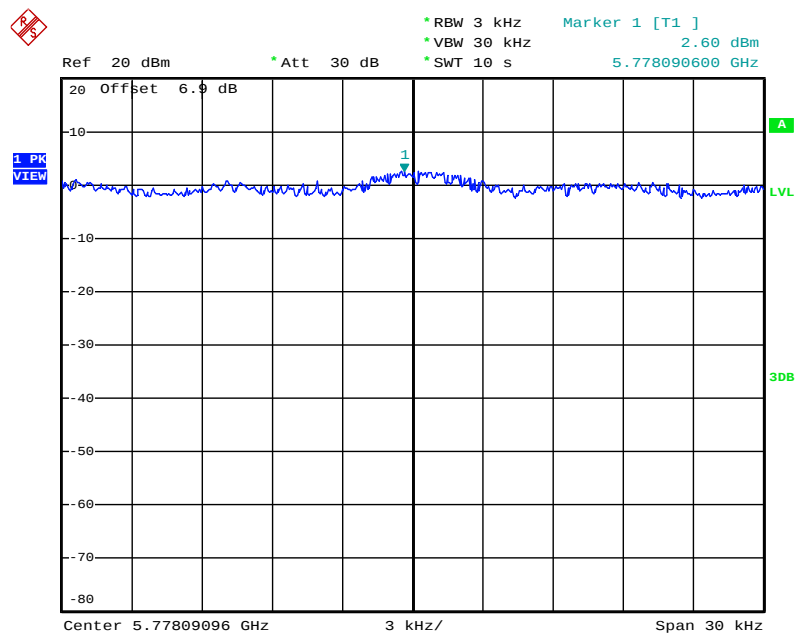
<For Mode 6 (Ant. 6)>:

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5745 MHz



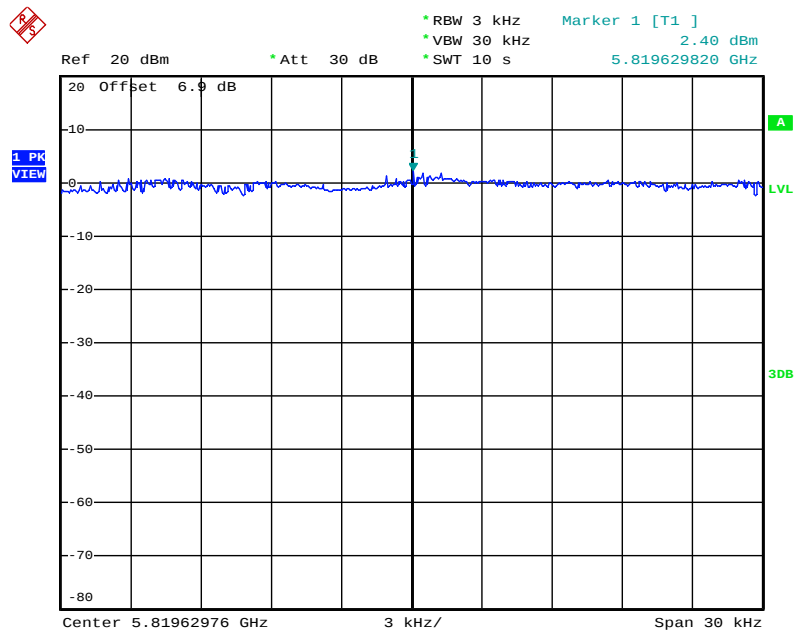
Date: 13.AUG.2010 01:29:31

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5785 MHz



Date: 13.AUG.2010 01:31:26

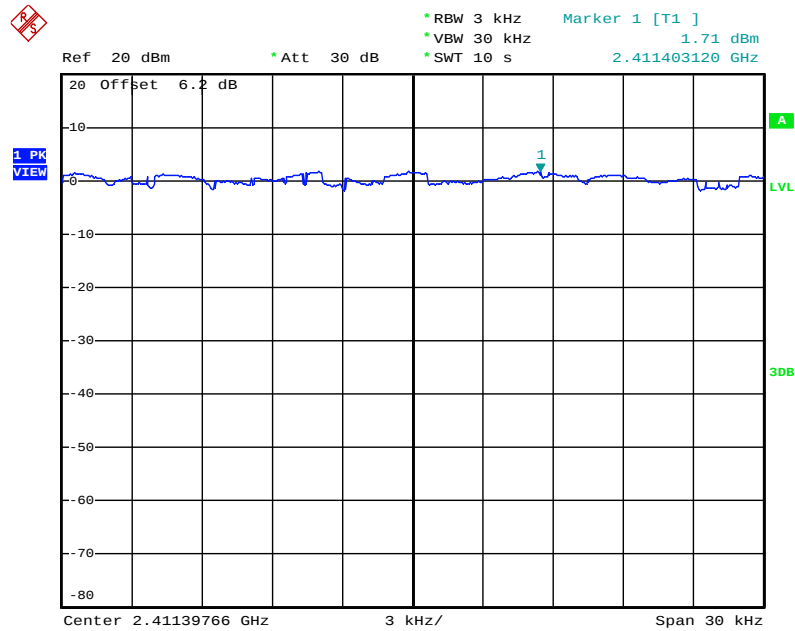
Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5825 MHz



Date: 13.AUG.2010 01:33:18

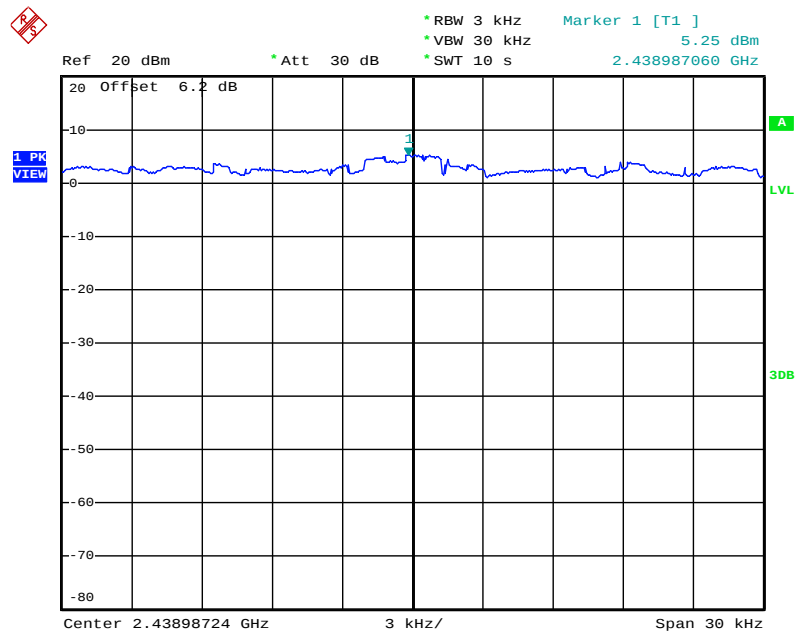
<For Mode 7 (Ant. 7)>:

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



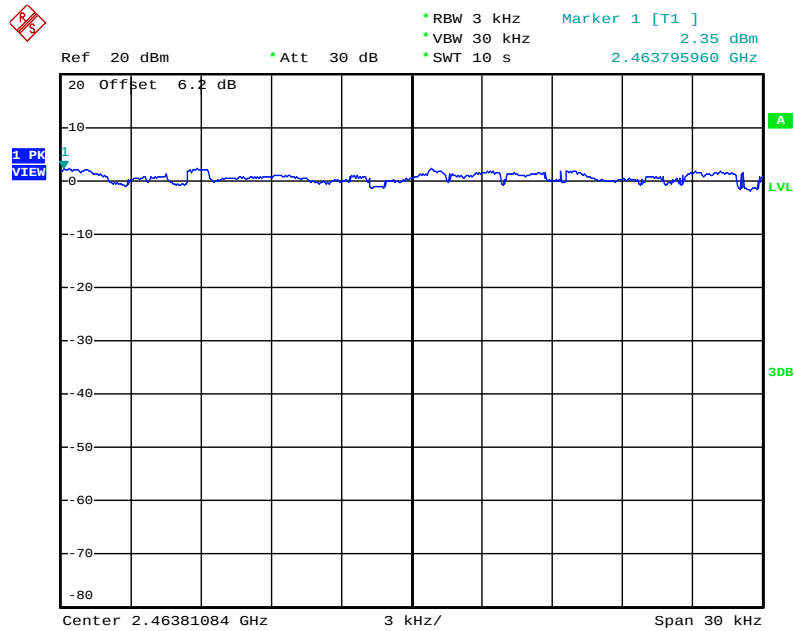
Date: 2.SEP.2010 18:02:49

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



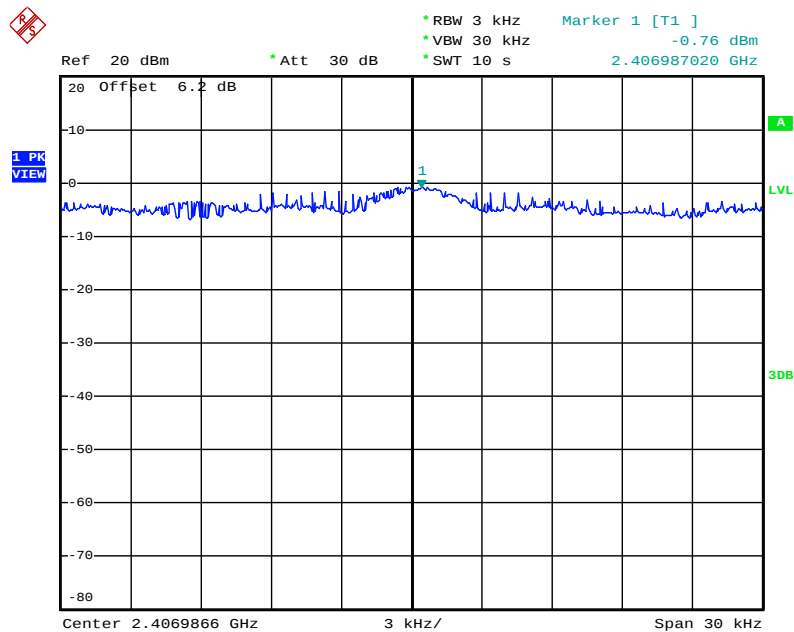
Date: 2.SEP.2010 18:05:10

Power Density Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



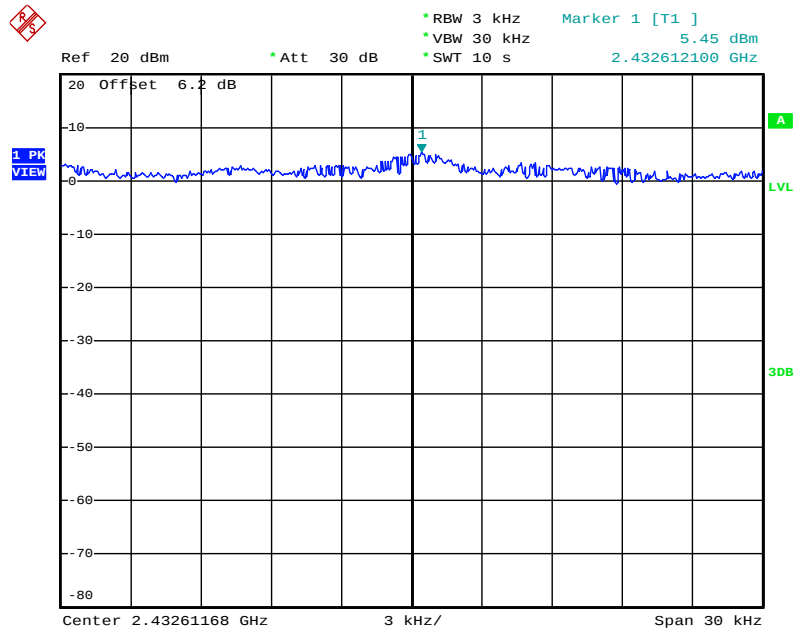
Date: 2.SEP.2010 18:07:45

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



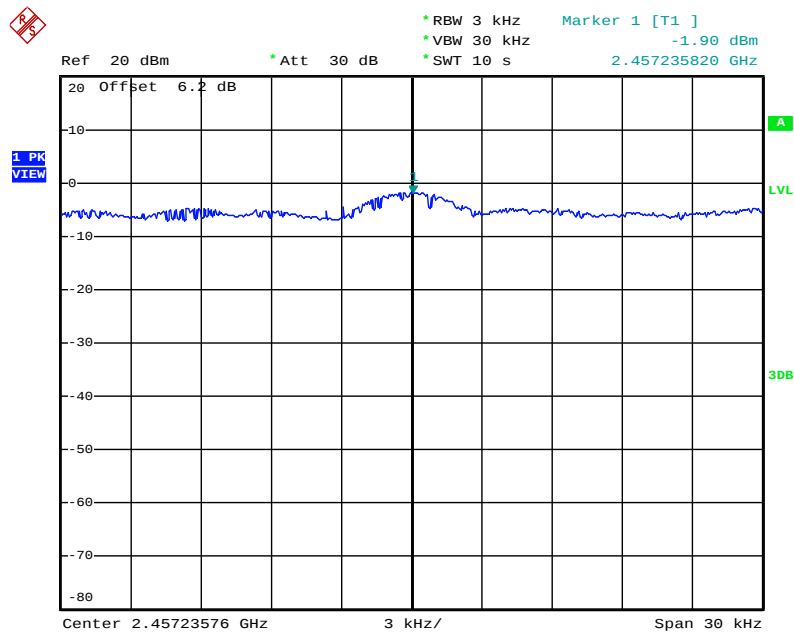
Date: 2.SEP.2010 18:10:46

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



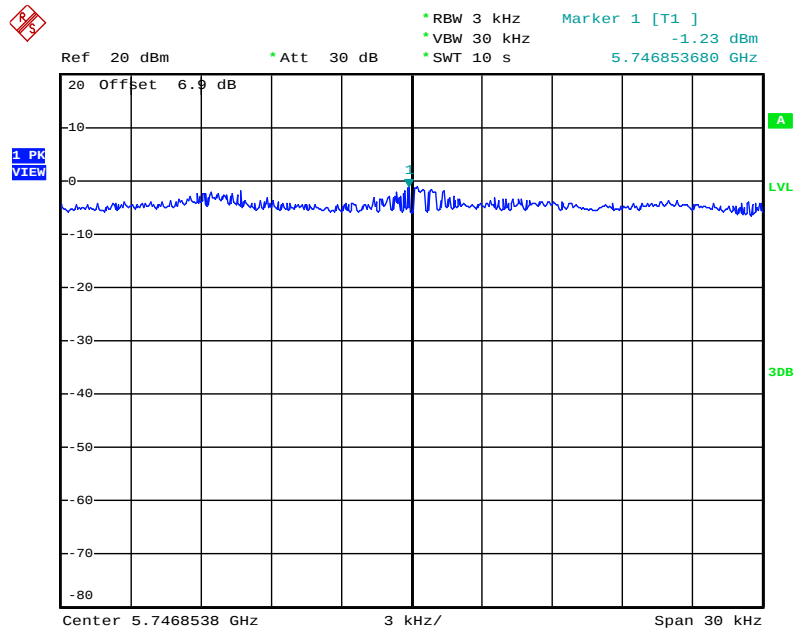
Date: 2.SEP.2010 18:12:57

Power Density Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



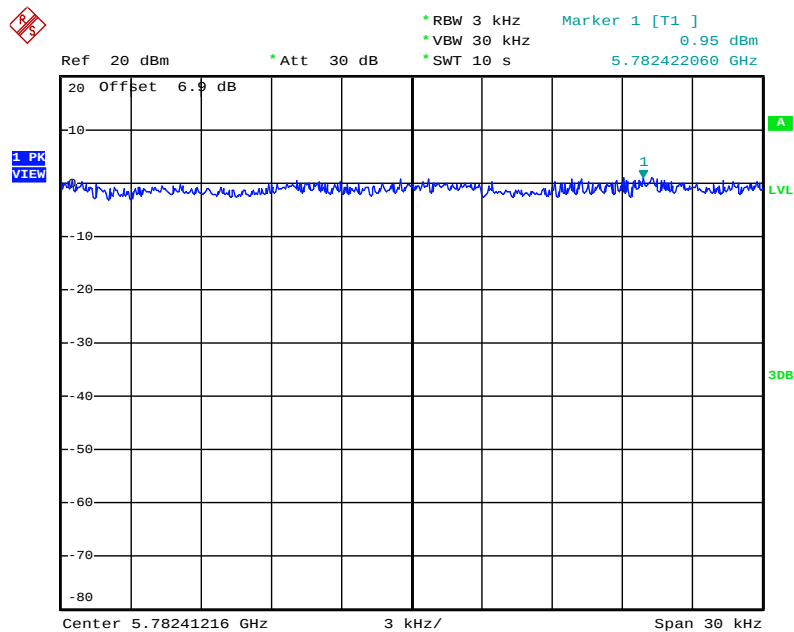
Date: 12.AUG.2010 02:53:15

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5745 MHz



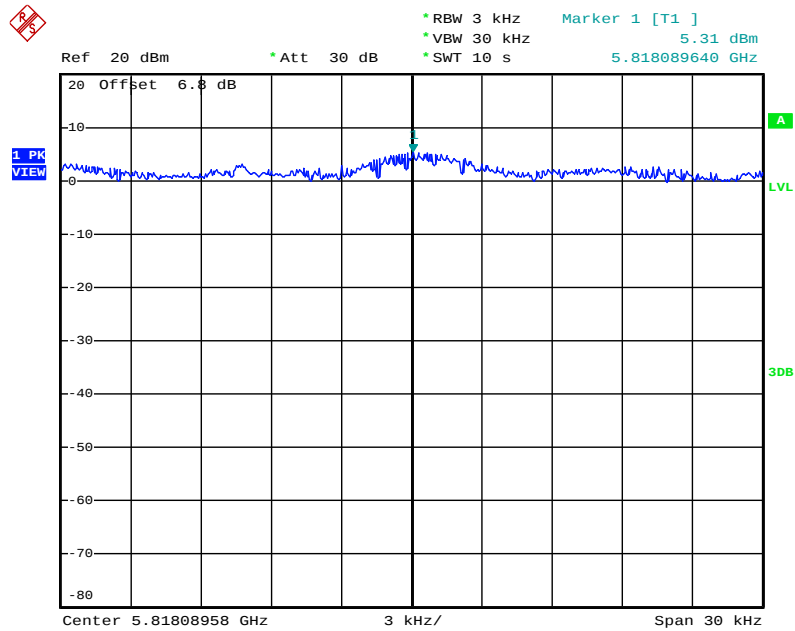
Date: 2.SEP.2010 18:32:04

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5785 MHz



Date: 2.SEP.2010 18:34:16

Power Density Plot on Configuration IEEE 802.11a J2+J3+J4 / 5825 MHz



Date: 12.AUG.2010 23:06:11

4.4. 6dB Spectrum Bandwidth Measurement

4.4.1. Limit

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

4.4.2. Measuring Instruments and Setting

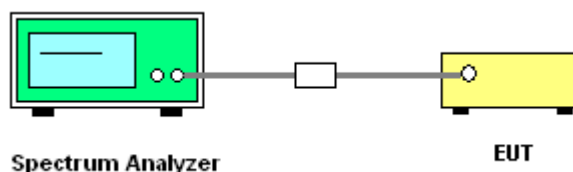
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameters	Setting		
Attenuation	Auto		
Span Frequency	> 6dB Bandwidth		
RB	100 kHz		
VB	100 kHz		
Detector	Peak		
Trace	Max Hold		
Sweep Time	Auto		
Cable Loss		Combiner Loss	
2.4GHz Band	5GHz Band	2.4GHz Band	5GHz Band
0.8	1.5	5.15	5.38

4.4.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.
2. The resolution bandwidth of 100 kHz and the video bandwidth of 100 kHz were used.
3. Measured the spectrum width with power higher than 6dB below carrier.
4. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

4.4.4. Test Setup Layout



4.4.5. Test Deviation

There is no deviation with the original standard.

4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.7. Test Result of 6dB Spectrum Bandwidth

<For Mode 1 (Ant. 1)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 1 (Ant. 1)

Configuration IEEE 802.11an MCS8 20MHz J2+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.28	17.72	500	Complies
157	5785 MHz	15.04	17.40	500	Complies
165	5825 MHz	15.08	17.48	500	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	35.76	36.40	500	Complies
159	5795 MHz	35.12	36.16	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 1 (Ant. 1)

Configuration IEEE 802.11a J2+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	15.48	16.40	500	Complies
157	5785 MHz	15.68	16.44	500	Complies
165	5825 MHz	15.72	16.40	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 2 (Ant. 2)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 2 (Ant. 2)

Configuration IEEE 802.11an MCS8 20MHz J2+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	14.72	17.84	500	Complies
157	5785 MHz	15.12	17.76	500	Complies
165	5825 MHz	15.20	17.88	500	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	36.32	36.40	500	Complies
159	5795 MHz	35.12	36.32	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 2 (Ant. 2)

Configuration IEEE 802.11a J2+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	15.32	17.48	500	Complies
157	5785 MHz	15.68	17.48	500	Complies
165	5825 MHz	14.44	17.20	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 3 (Ant. 3)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 3 (Ant. 3)

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.04	17.72	500	Complies
6	2437 MHz	15.88	17.64	500	Complies
11	2462 MHz	16.96	17.68	500	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	35.84	36.08	500	Complies
6	2437 MHz	35.68	36.16	500	Complies
9	2452 MHz	34.72	35.76	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b/g / Mode 3 (Ant. 3)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	4.04	14.48	500	Complies
6	2437 MHz	11.36	15.12	500	Complies
11	2462 MHz	4.00	14.64	500	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	13.20	15.48	500	Complies
6	2437 MHz	13.52	16.44	500	Complies
11	2462 MHz	11.32	16.48	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

< For Mode 4 (Ant. 4) >

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 4 (Ant. 4)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.92	17.68	500	Complies
6	2437 MHz	12.56	17.32	500	Complies
11	2462 MHz	15.48	17.68	500	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	35.76	36.08	500	Complies
6	2437 MHz	34.72	36.32	500	Complies
9	2452 MHz	34.56	36.24	500	Complies

For 5GHz Band

Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	12.60	18.16	500	Complies
157	5785 MHz	15.72	17.60	500	Complies
165	5825 MHz	15.68	17.56	500	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	32.64	36.40	500	Complies
159	5795 MHz	36.40	36.56	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a/b/g / Mode 4 (Ant. 4)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	4.52	14.52	500	Complies
6	2437 MHz	12.60	15.08	500	Complies
11	2462 MHz	11.04	15.28	500	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.76	16.48	500	Complies
6	2437 MHz	12.56	16.48	500	Complies
11	2462 MHz	13.80	16.24	500	Complies

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	11.92	19.00	500	Complies
157	5785 MHz	15.68	17.04	500	Complies
165	5825 MHz	12.00	16.84	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 5 (Ant. 5)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 5 (Ant. 5)

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	17.56	17.68	500	Complies
6	2437 MHz	16.72	17.64	500	Complies
11	2462 MHz	16.32	17.72	500	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	36.40	36.40	500	Complies
6	2437 MHz	35.84	36.24	500	Complies
9	2452 MHz	33.68	35.76	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b/g / Mode 5 (Ant. 5)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	8.60	15.60	500	Complies
6	2437 MHz	4.04	14.40	500	Complies
11	2462 MHz	8.08	15.64	500	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.12	16.52	500	Complies
6	2437 MHz	11.36	16.76	500	Complies
11	2462 MHz	16.04	16.48	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

<For Mode 6 (Ant. 6)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 6 (Ant. 6)

Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	13.84	17.68	500	Complies
157	5785 MHz	12.60	17.24	500	Complies
165	5825 MHz	15.96	17.36	500	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	34.56	36.00	500	Complies
159	5795 MHz	34.48	35.84	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a / Mode 6 (Ant. 6)

Configuration IEEE 802.11a J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	12.44	16.56	500	Complies
157	5785 MHz	12.60	16.48	500	Complies
165	5825 MHz	12.56	15.84	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

< For Mode 7 (Ant. 7)>:

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n / Mode 7 (Ant. 7)

For 2.4GHz Band

Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	15.36	17.68	500	Complies
6	2437 MHz	13.92	17.64	500	Complies
11	2462 MHz	16.32	17.72	500	Complies

Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	35.76	36.08	500	Complies
6	2437 MHz	35.20	36.24	500	Complies
9	2452 MHz	34.56	36.24	500	Complies

For 5GHz Band

Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	12.56	17.68	500	Complies
157	5785 MHz	14.52	17.80	500	Complies
165	5825 MHz	15.68	17.56	500	Complies

Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	32.64	35.52	500	Complies
159	5795 MHz	36.40	36.56	500	Complies

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a/b/g / Mode 7 (Ant. 7)

Configuration IEEE 802.11b J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	4.08	14.56	500	Complies
6	2437 MHz	4.56	15.36	500	Complies
11	2462 MHz	4.04	15.16	500	Complies

Configuration IEEE 802.11g J2+J3+J4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	12.92	15.96	500	Complies
6	2437 MHz	13.20	16.40	500	Complies
11	2462 MHz	13.80	16.24	500	Complies

Configuration IEEE 802.11a J2+J3+J4

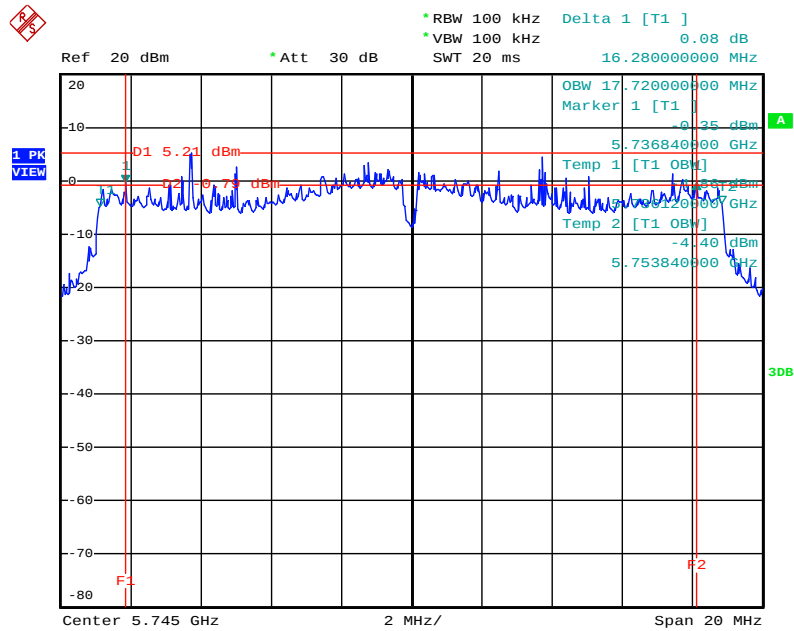
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	15.96	16.52	500	Complies
157	5785 MHz	15.68	17.04	500	Complies
165	5825 MHz	12.00	16.84	500	Complies

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

For plots, only the worse case of DSSS and OFDM modulation were listed in the report.

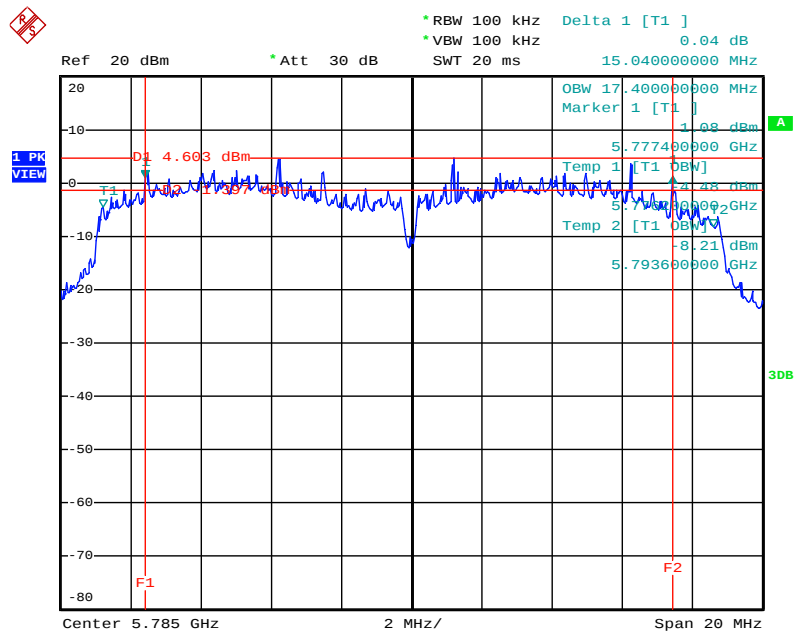
<For Mode 1 (Ant. 1)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3 / 5745 MHz



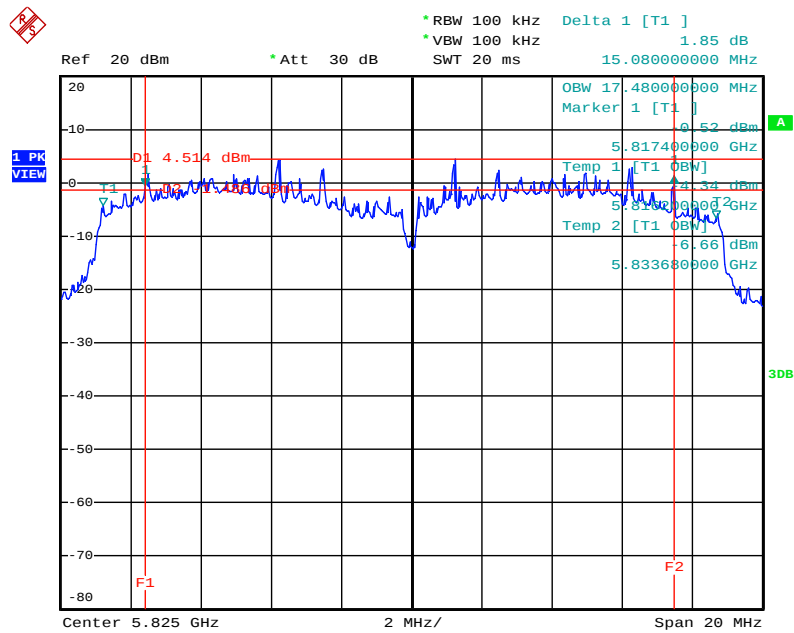
Date: 12.AUG.2010 15:53:47

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3 / 5785MHz



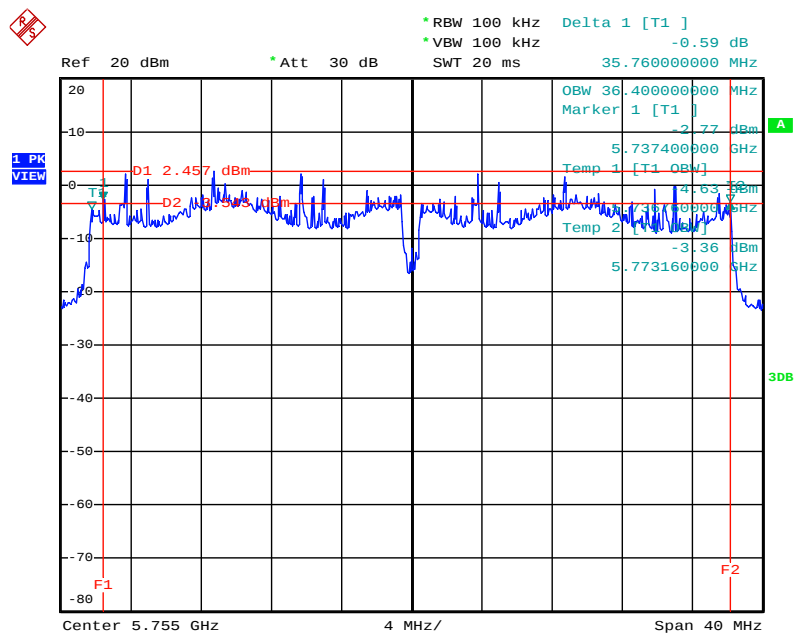
Date: 12.AUG.2010 15:51:22

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3 / 5825 MHz



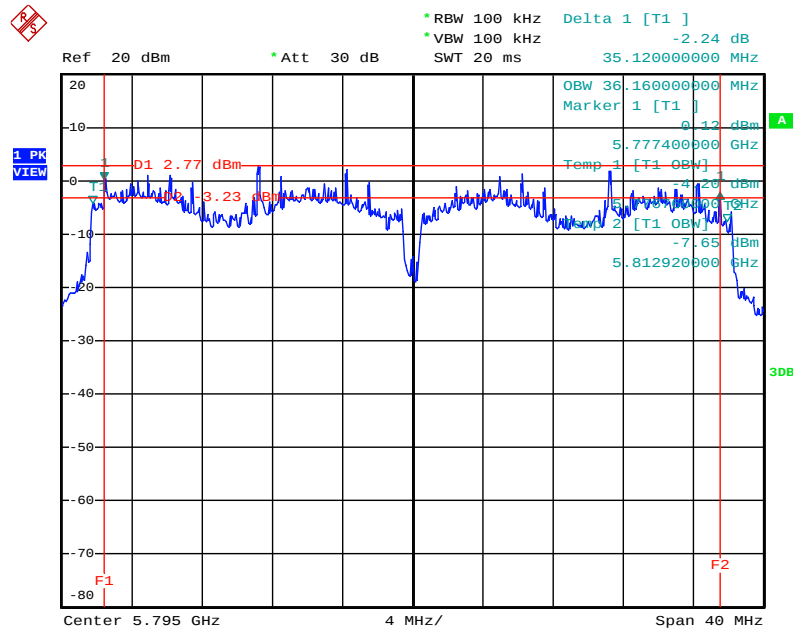
Date: 12.AUG.2010 15:49:27

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3 / 5755 MHz



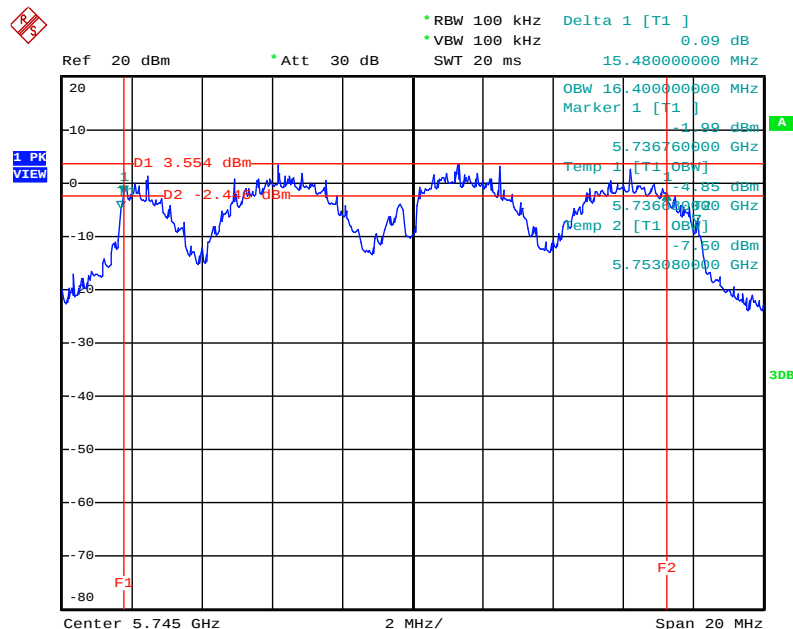
Date: 12.AUG.2010 15:56:11

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3 / 5795 MHz



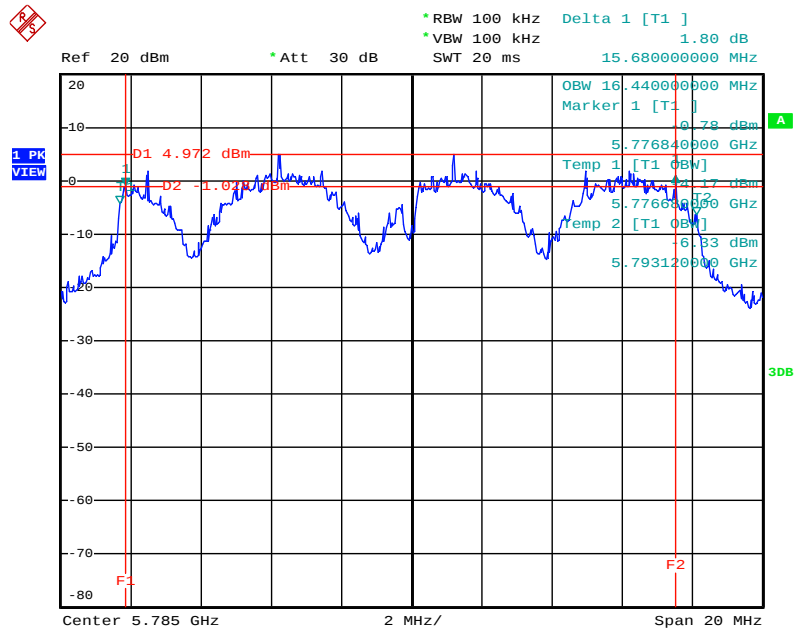
Date: 12.AUG.2010 15:58:03

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3 / 5745 MHz



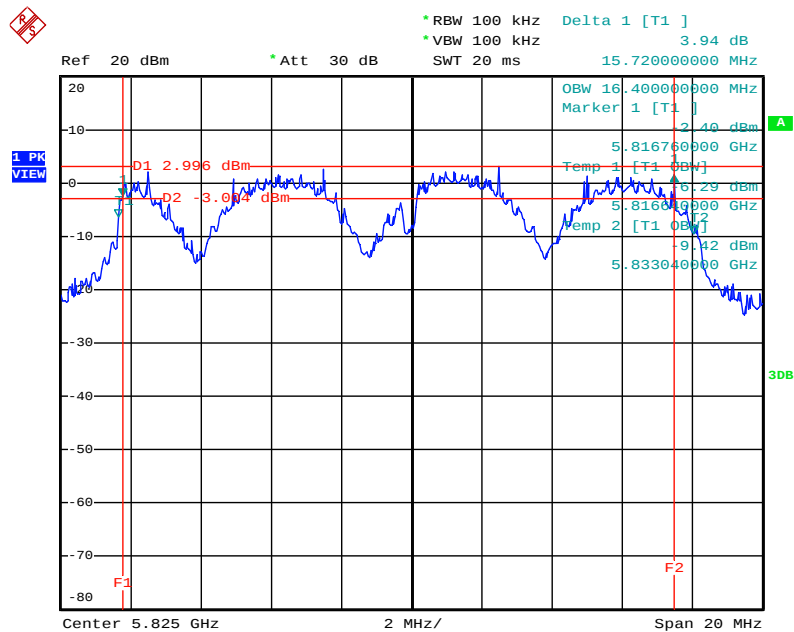
Date: 12.AUG.2010 15:43:40

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3 / 5785MHz



Date: 12.AUG.2010 15:45:36

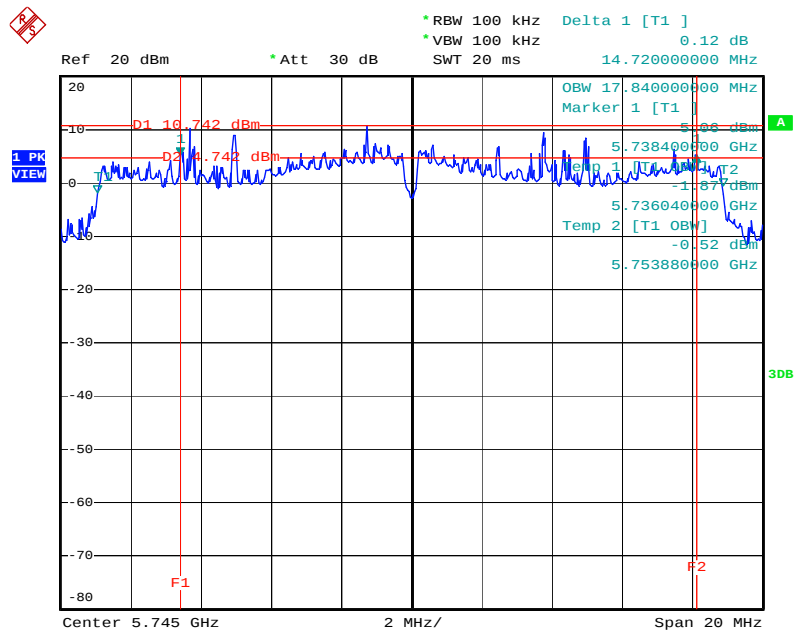
6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3 / 5825 MHz



Date: 12.AUG.2010 15:47:20

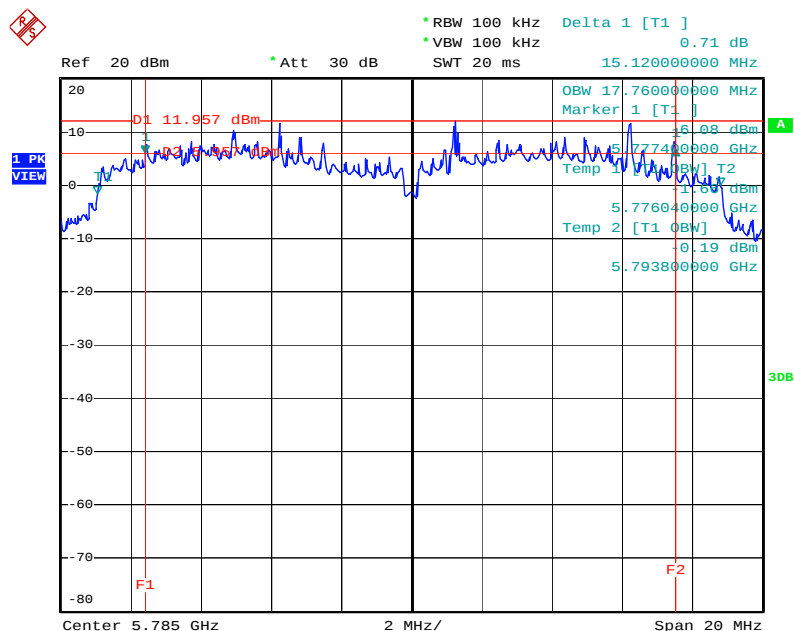
<For Mode 2 (Ant. 2)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3 / 5745 MHz



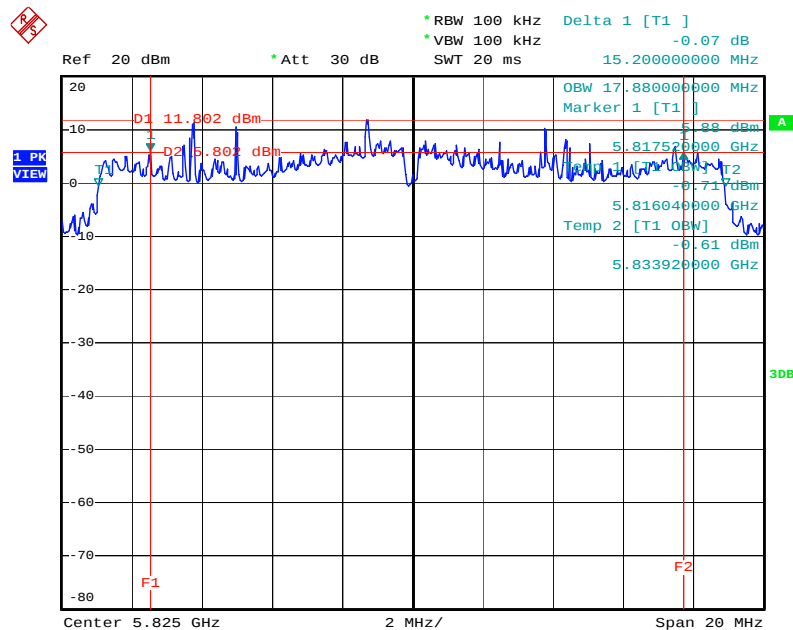
Date: 11.AUG.2010 19:35:37

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3 / 5785MHz



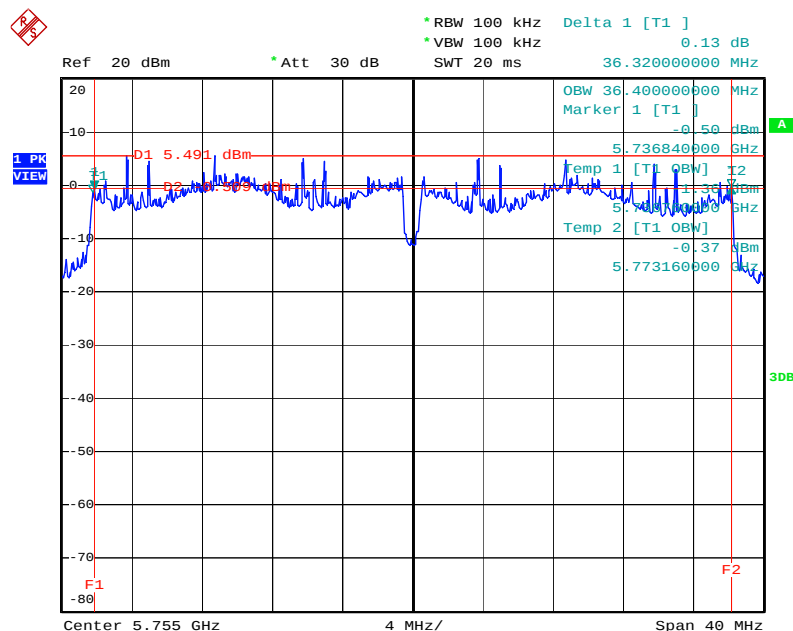
Date: 11.AUG.2010 19:38:39

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3 / 5825 MHz



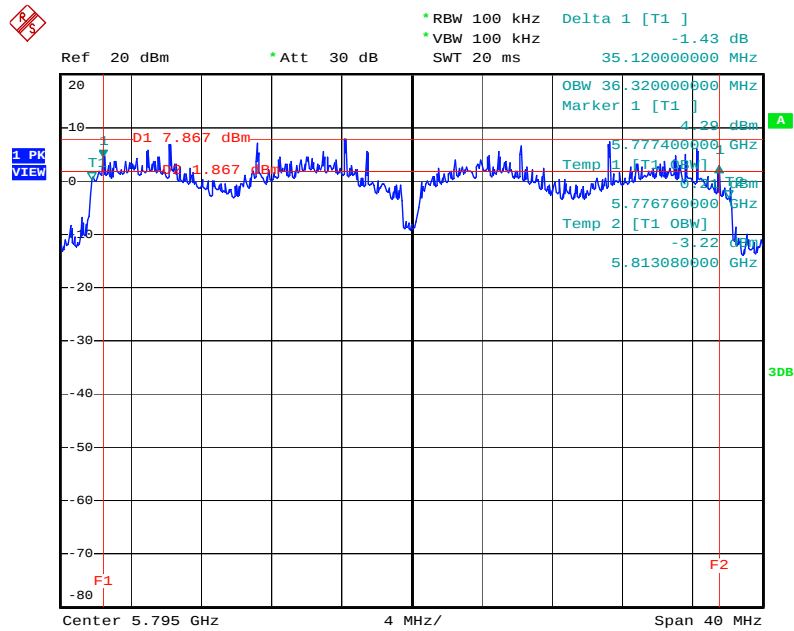
Date: 11.AUG.2010 19:40:42

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3 / 5755 MHz



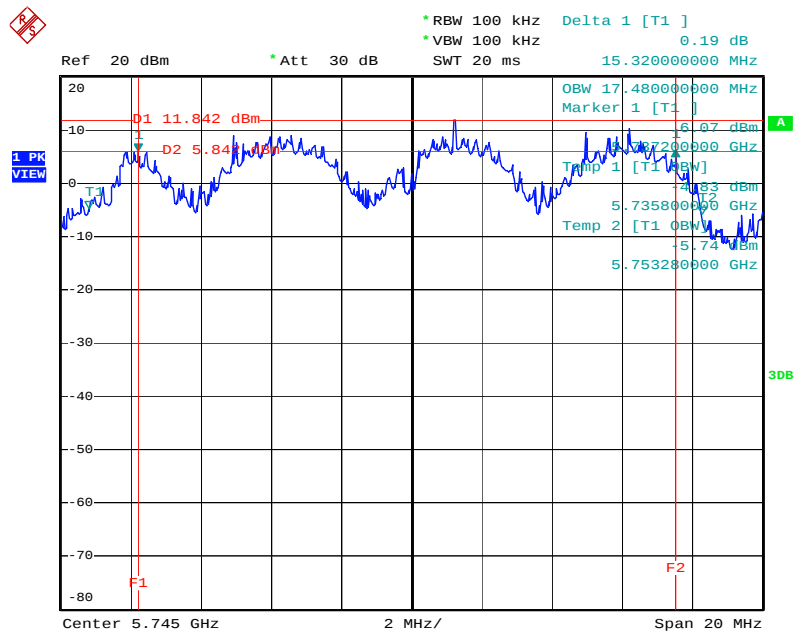
Date: 11.AUG.2010 19:10:30

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3 / 5795 MHz



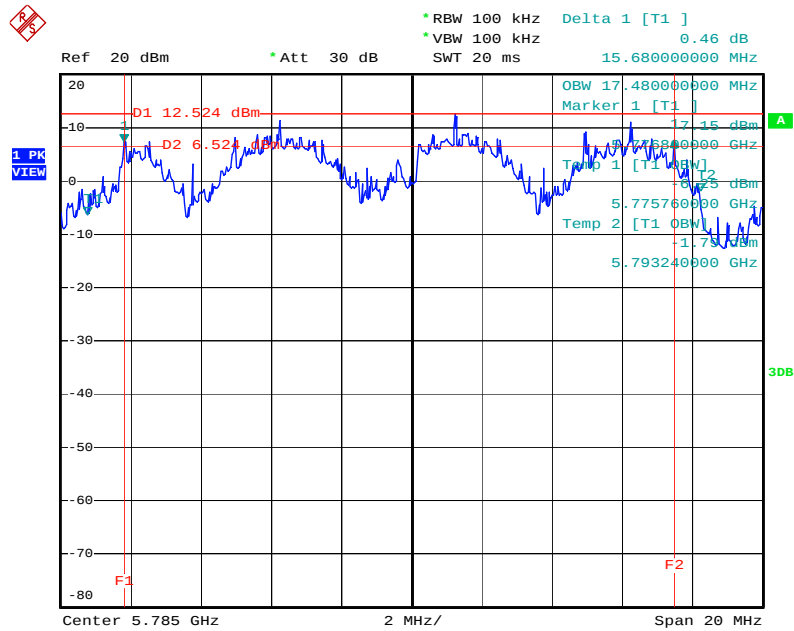
Date: 11.AUG.2010 19:17:42

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3 / 5745 MHz



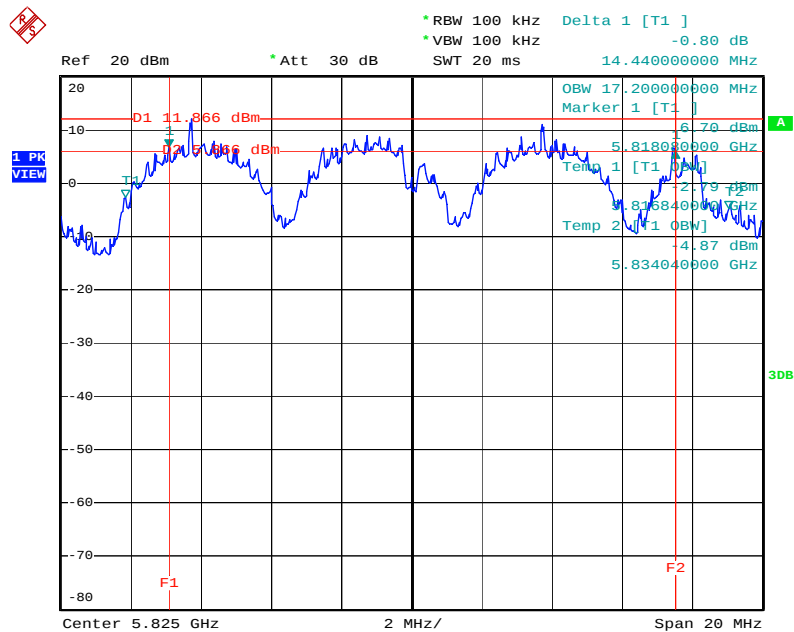
Date: 11.AUG.2010 19:50:54

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3 / 5785MHz



Date: 11.AUG.2010 19:48:01

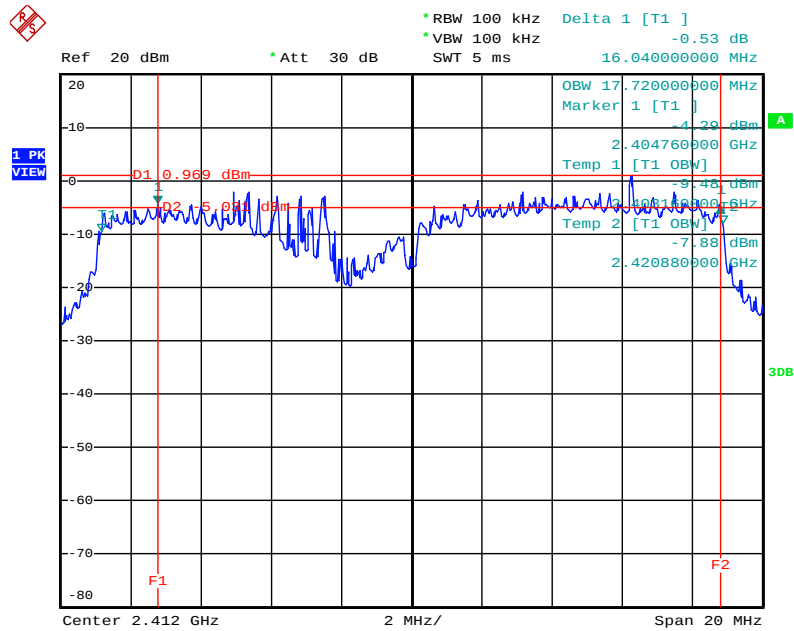
6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3 / 5825 MHz



Date: 11.AUG.2010 19:45:02

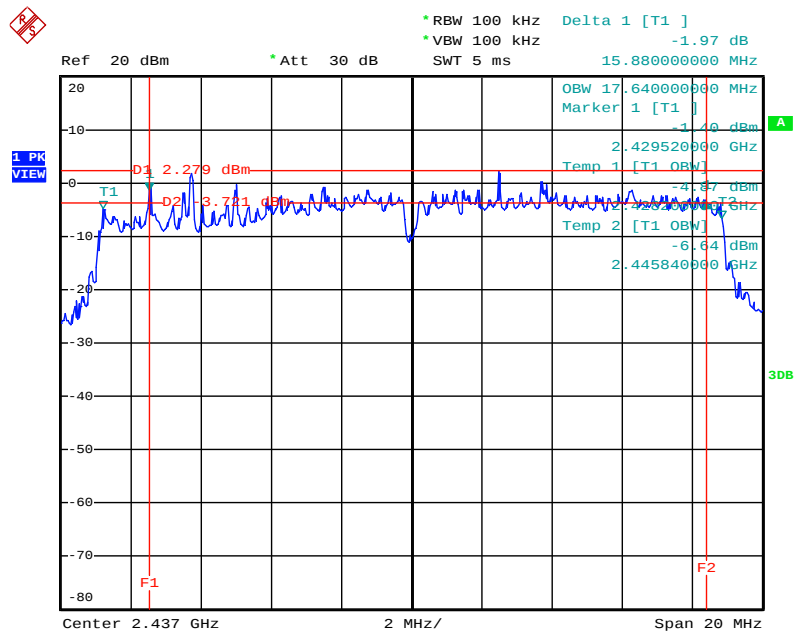
<For Mode 3 (Ant. 3)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2412 MHz



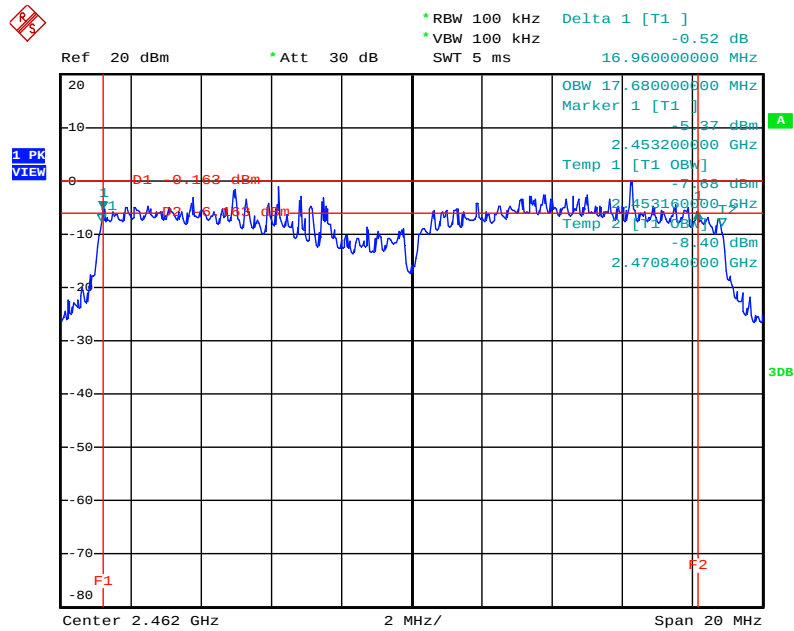
Date: 12.AUG.2010 02:27:35

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2437 MHz



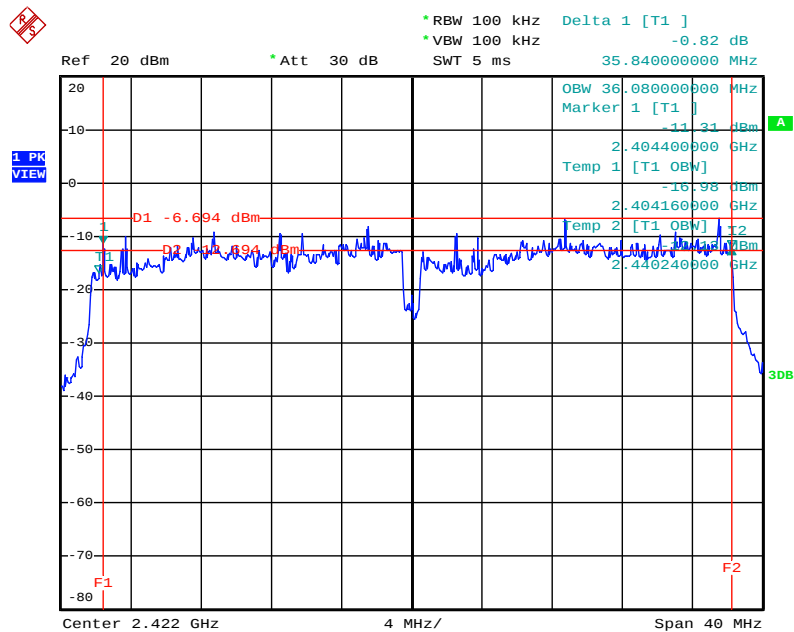
Date: 12.AUG.2010 02:25:31

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4/ 2462 MHz



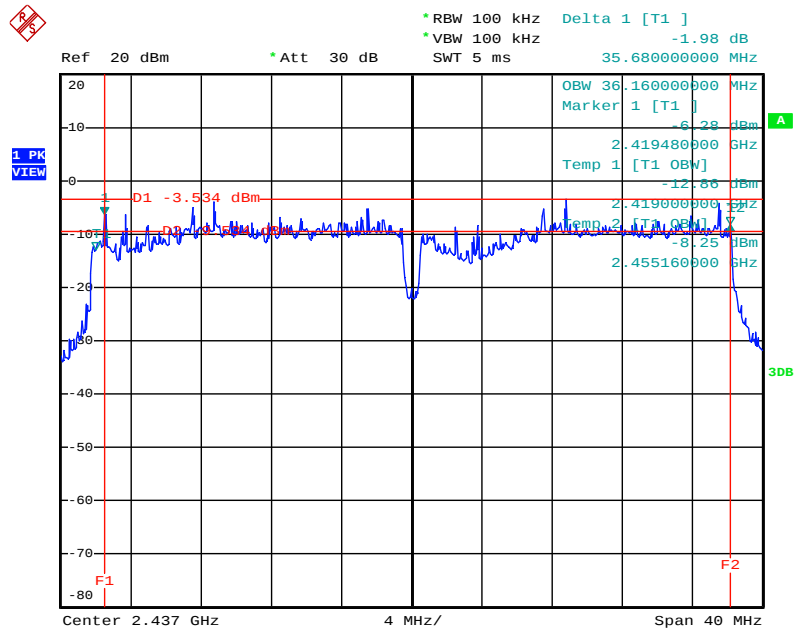
Date: 12.AUG.2010 02:23:18

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2422 MHz



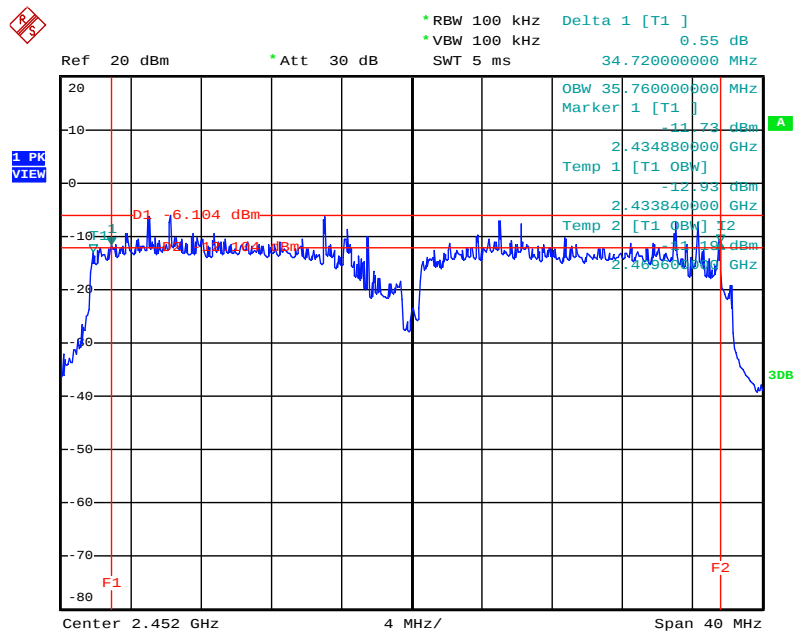
Date: 12.AUG.2010 02:16:28

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2437 MHz



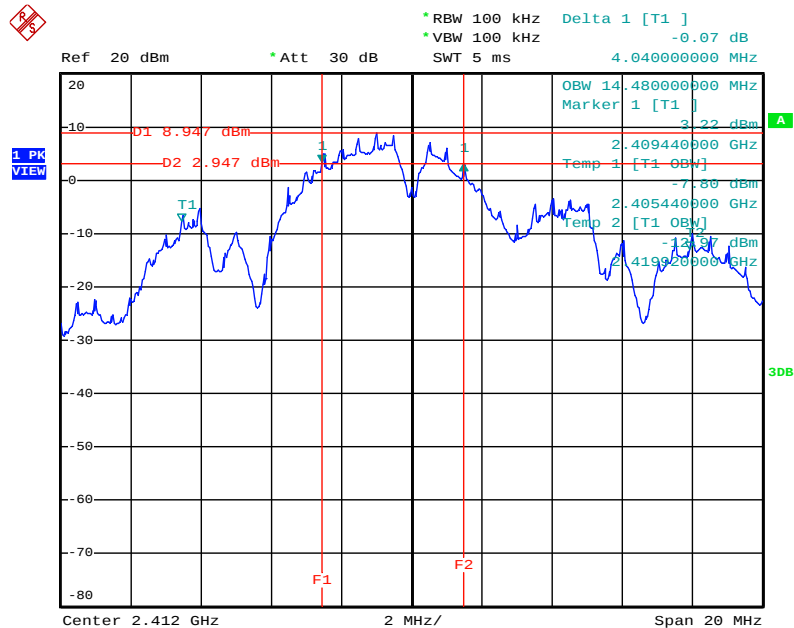
Date: 12.AUG.2010 02:18:28

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2452 MHz



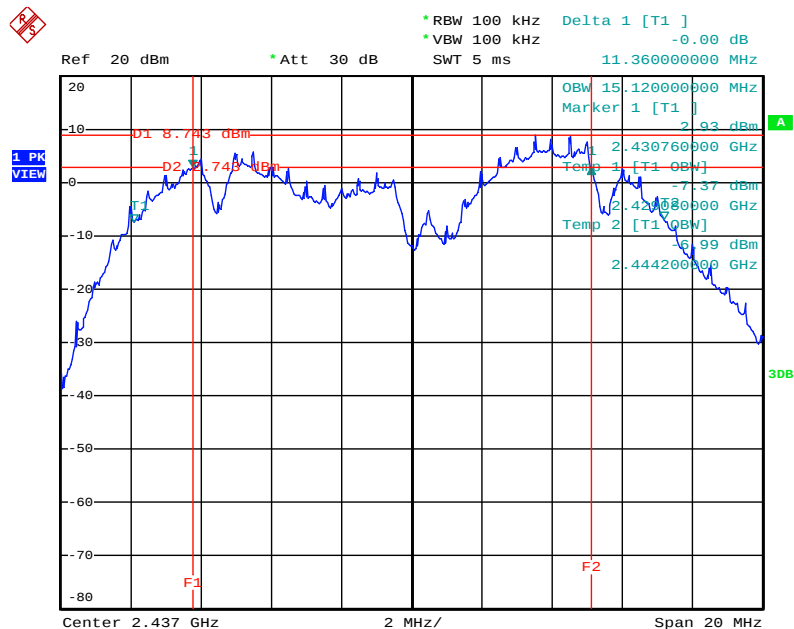
Date: 12.AUG.2010 02:20:31

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



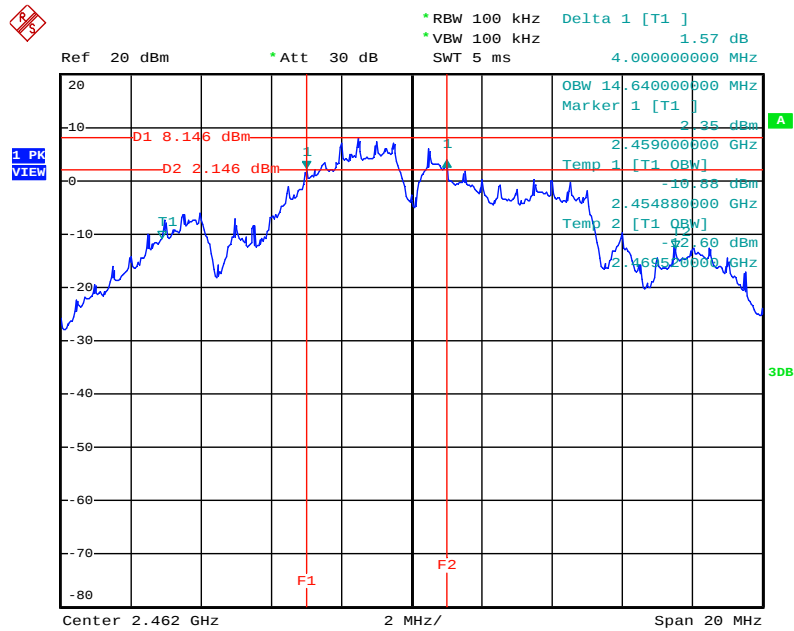
Date: 12.AUG.2010 02:29:54

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



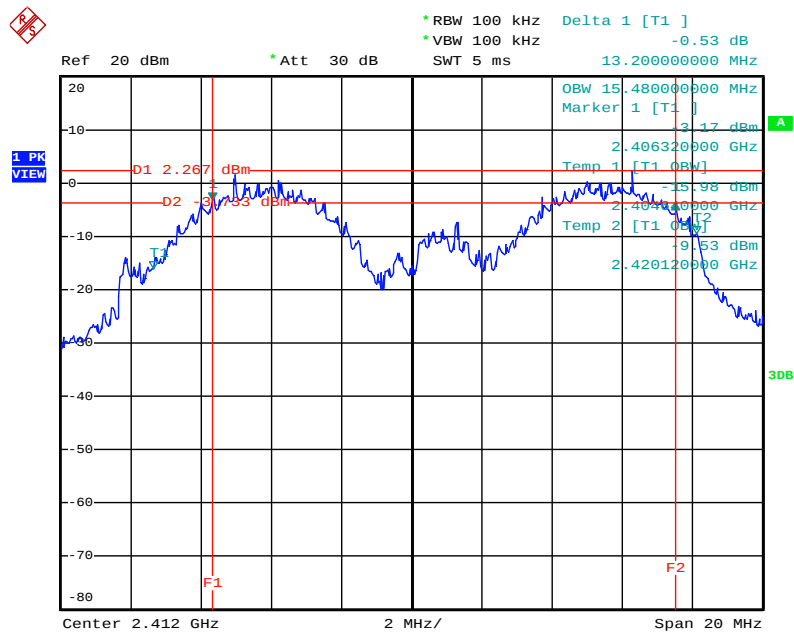
Date: 12.AUG.2010 02:31:57

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



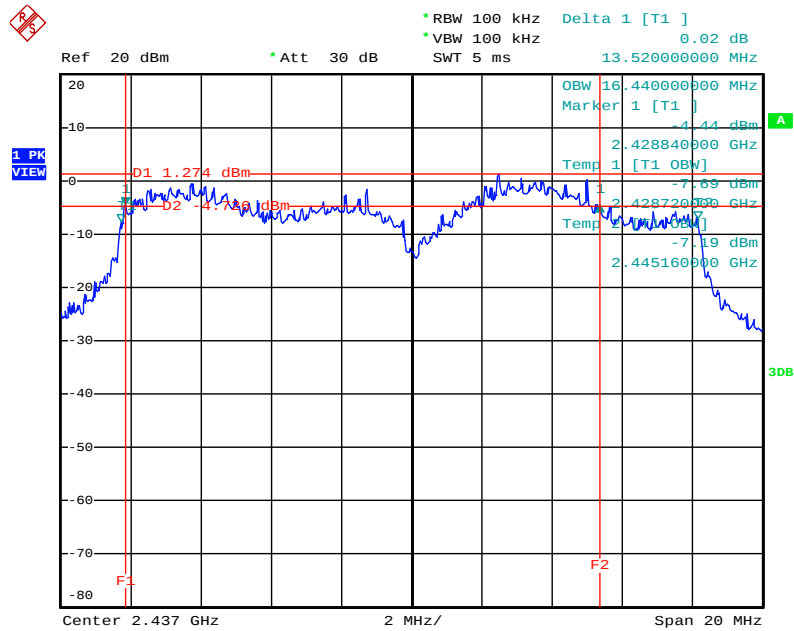
Date: 12.AUG.2010 02:34:00

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



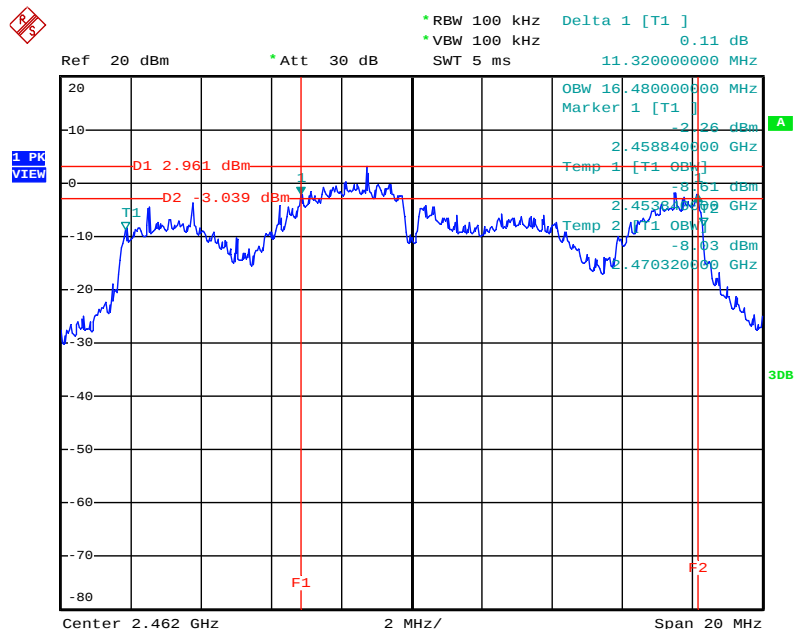
Date: 12.AUG.2010 02:40:16

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



Date: 12.AUG.2010 02:38:15

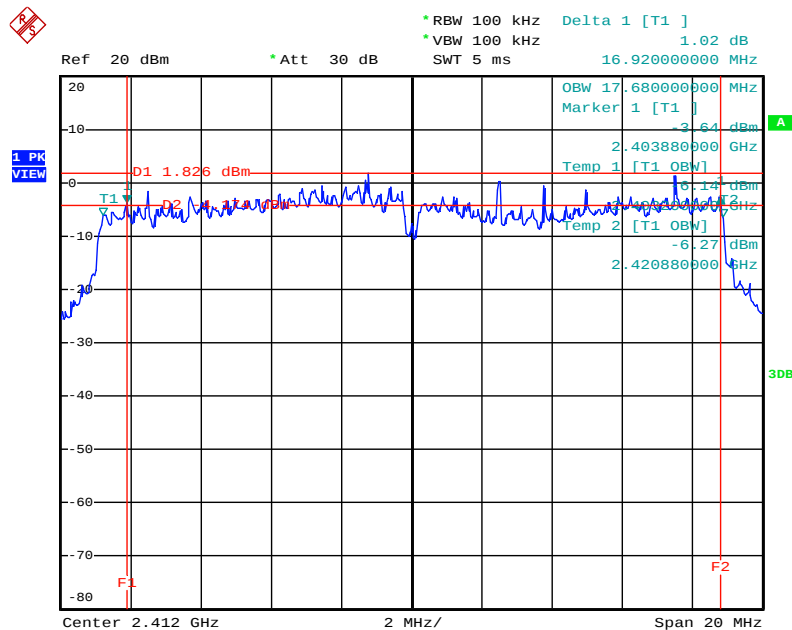
6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



Date: 12.AUG.2010 02:36:13

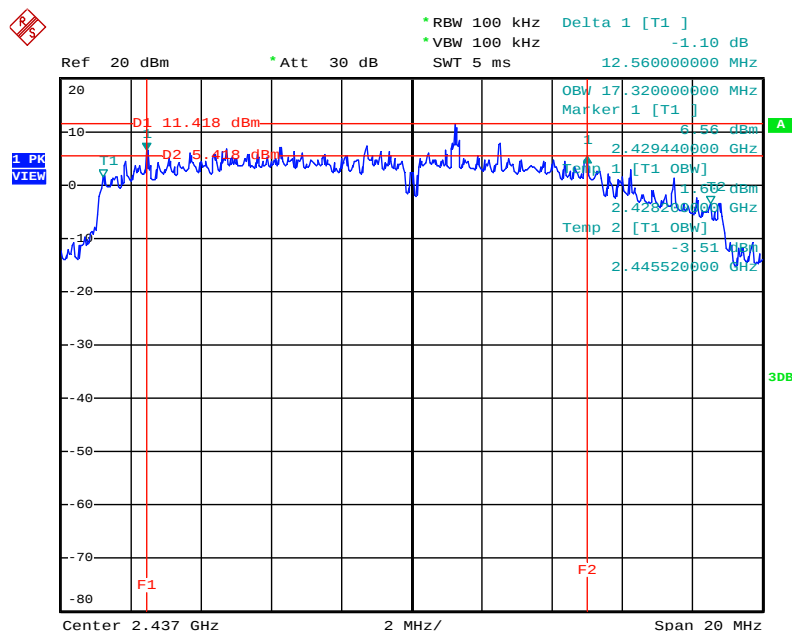
<For Mode 4 (Ant. 4)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2412 MHz



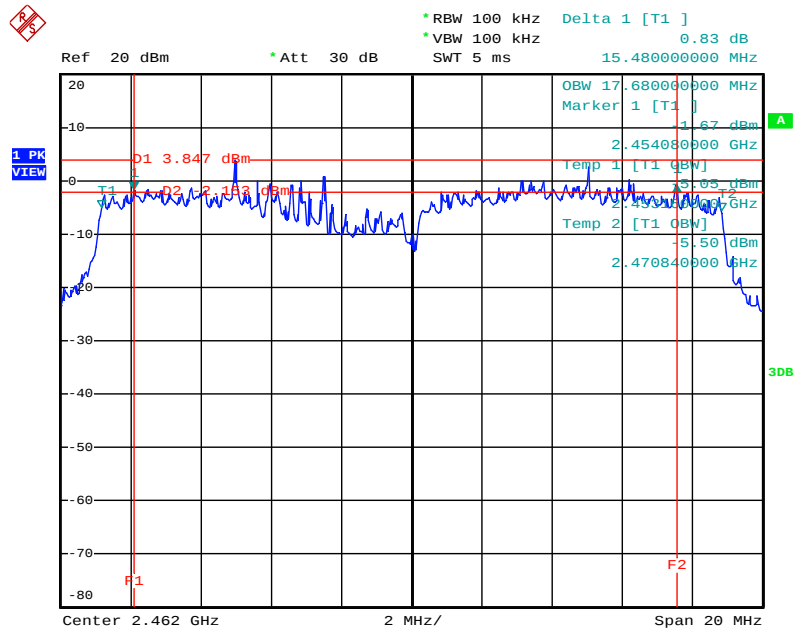
Date: 12.AUG.2010 03:01:00

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2437 MHz



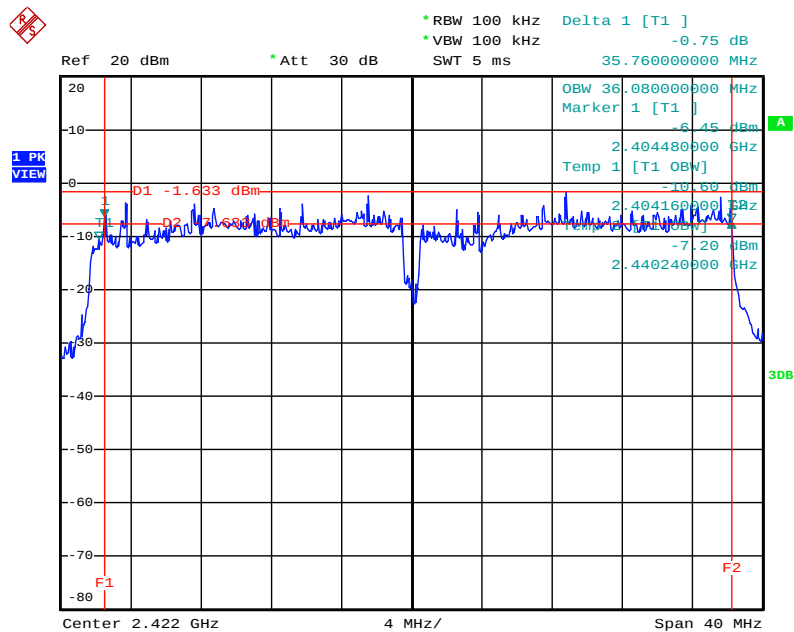
Date: 12.AUG.2010 03:03:06

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4/ 2462 MHz



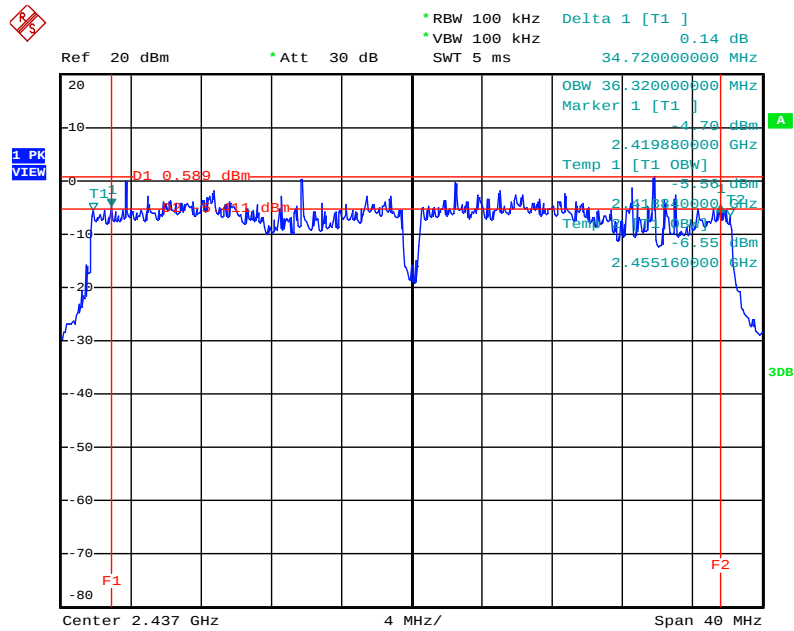
Date: 12.AUG.2010 03:05:04

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2422 MHz



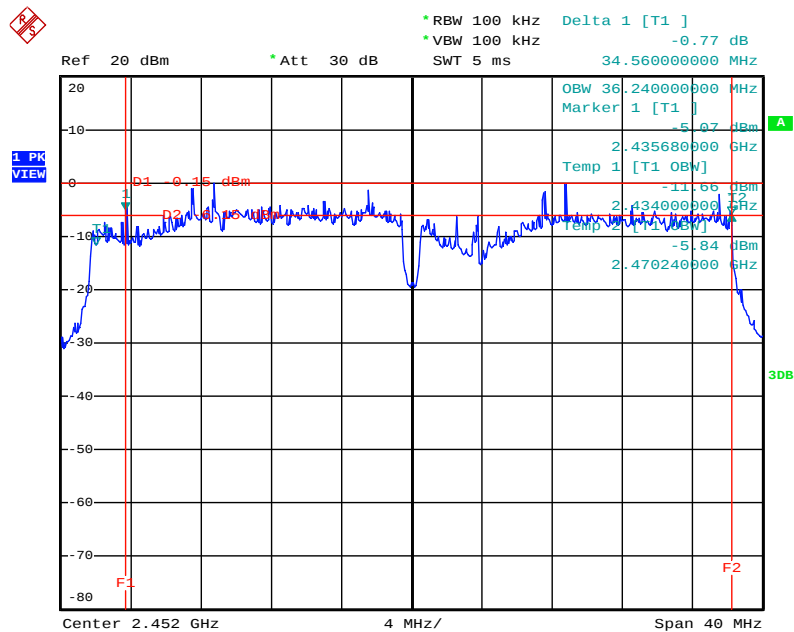
Date: 12.AUG.2010 03:11:25

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2437 MHz



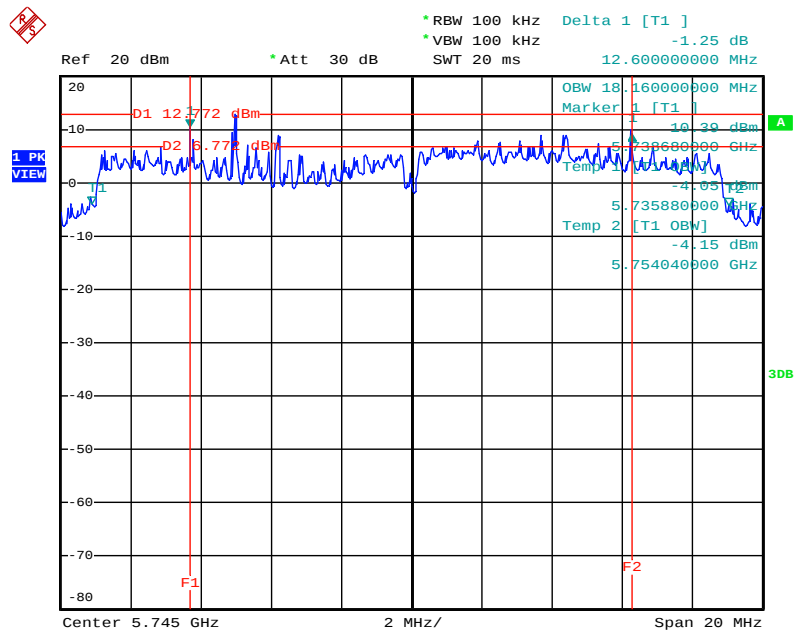
Date: 12.AUG.2010 03:09:23

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2452 MHz



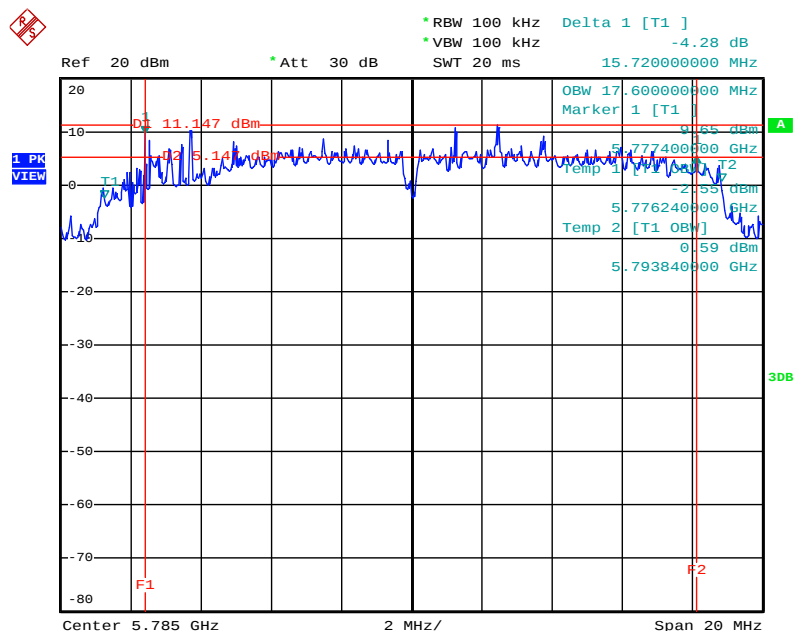
Date: 12.AUG.2010 03:07:21

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5745 MHz



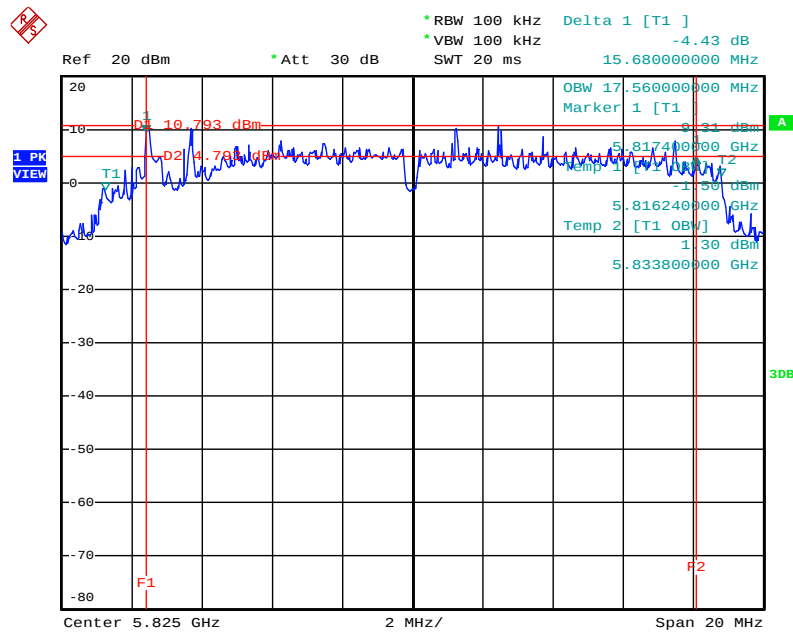
Date: 12.AUG.2010 23:14:27

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5785MHz



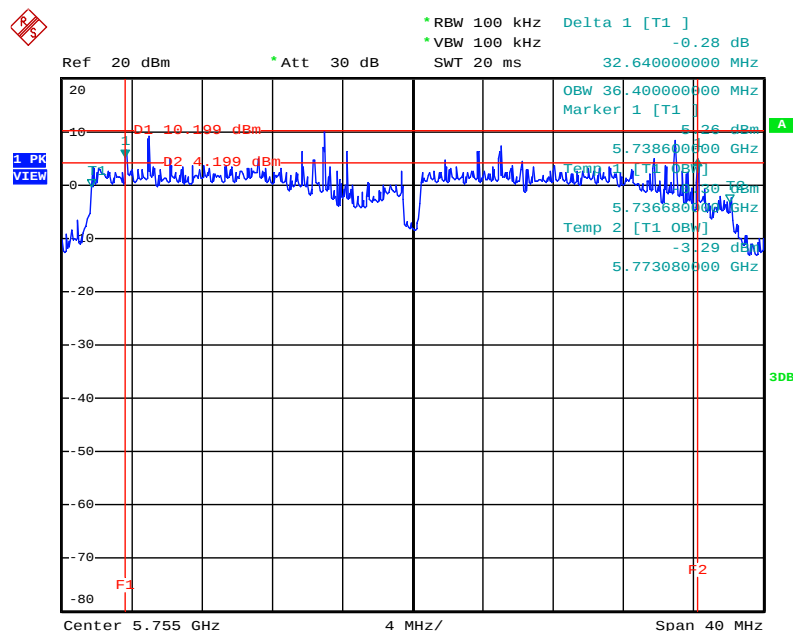
Date: 12.AUG.2010 23:12:27

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5825 MHz



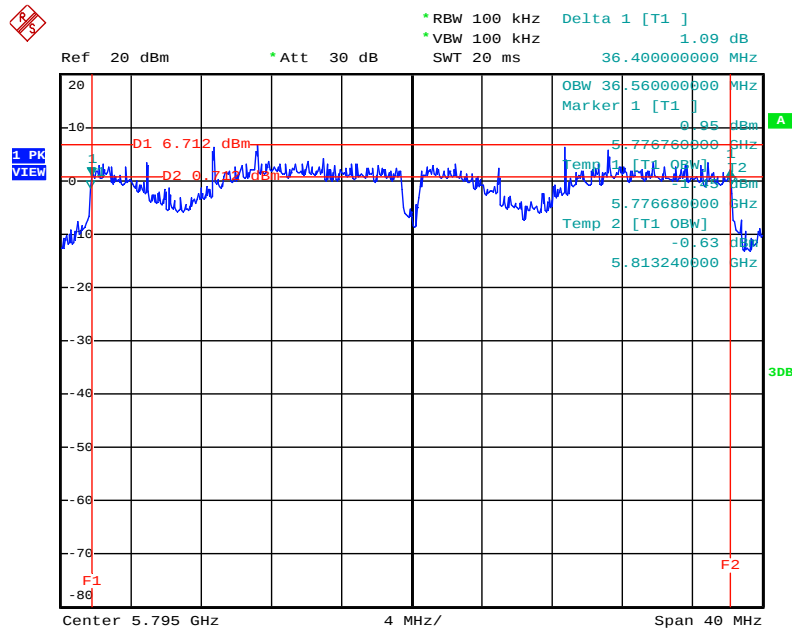
Date: 12.AUG.2010 23:10:27

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4 / 5755 MHz



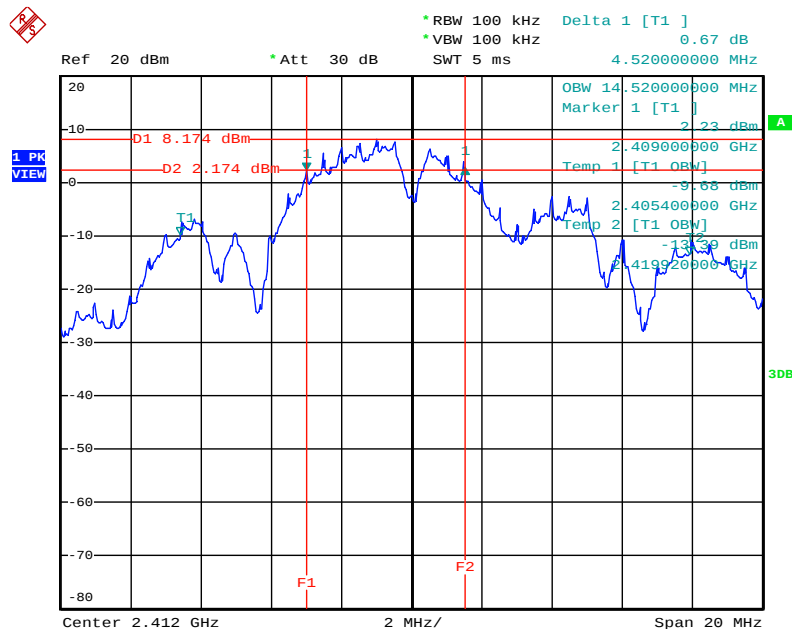
Date: 12.AUG.2010 23:16:55

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4 / 5795 MHz



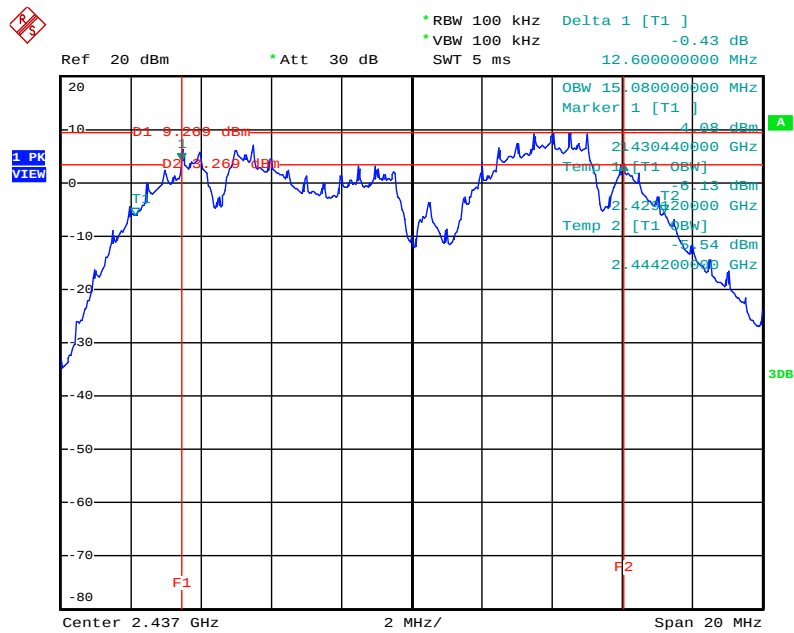
Date: 12.AUG.2010 23:19:35

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



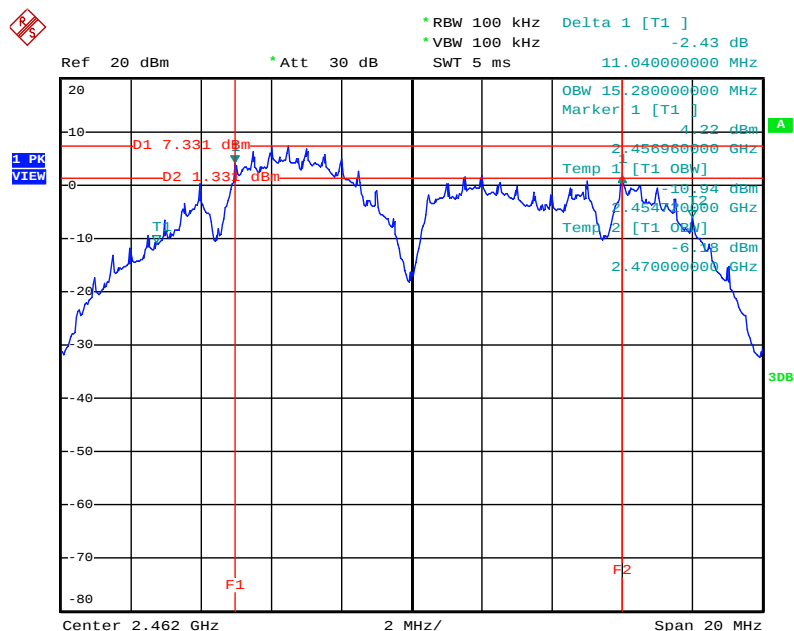
Date: 12.AUG.2010 02:58:41

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



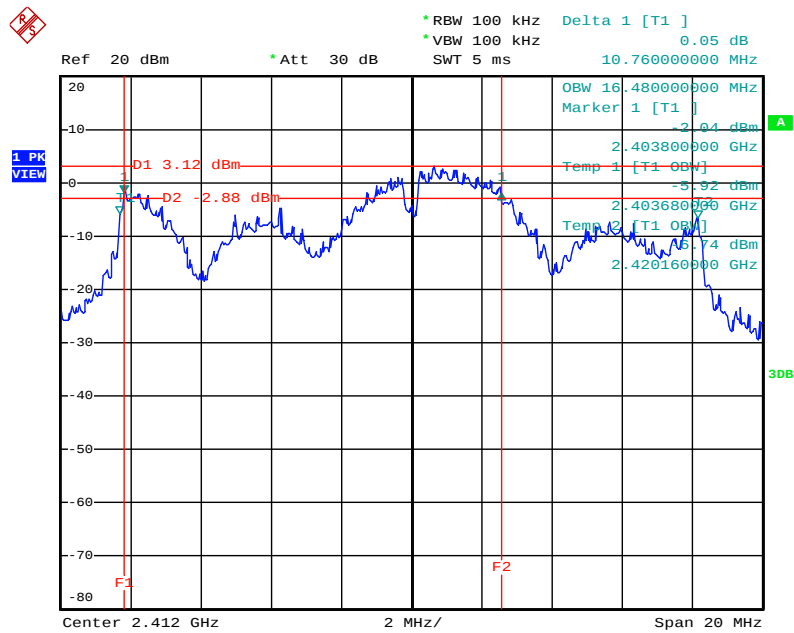
Date: 12.AUG.2010 02:56:17

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



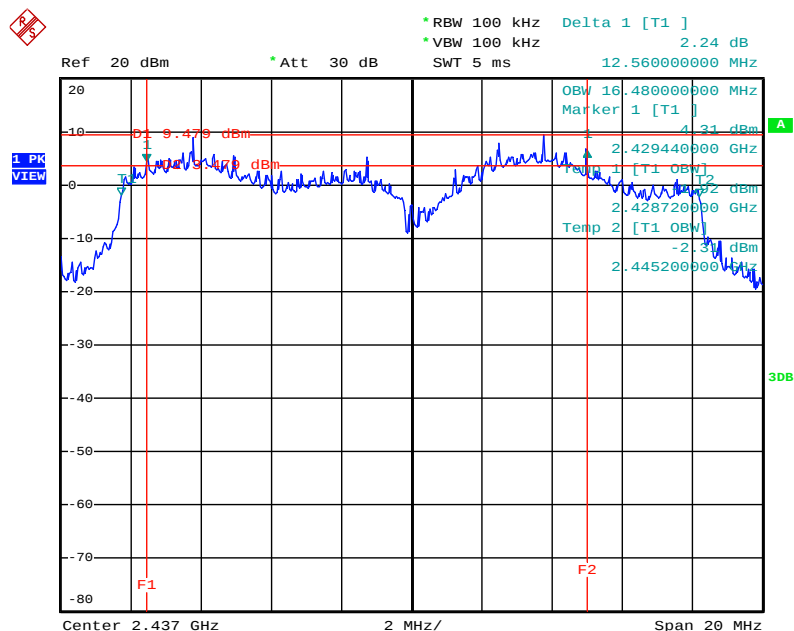
Date: 12.AUG.2010 02:53:55

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



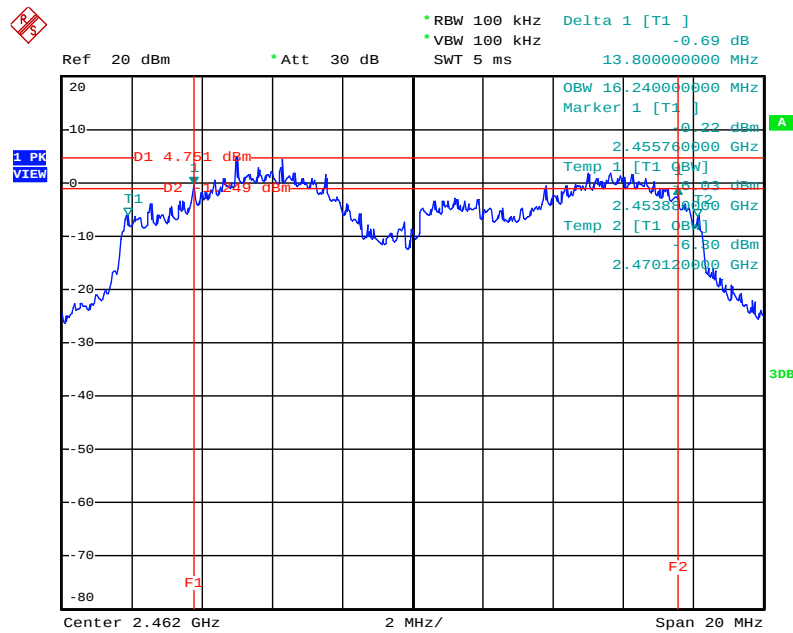
Date: 12.AUG.2010 02:47:50

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



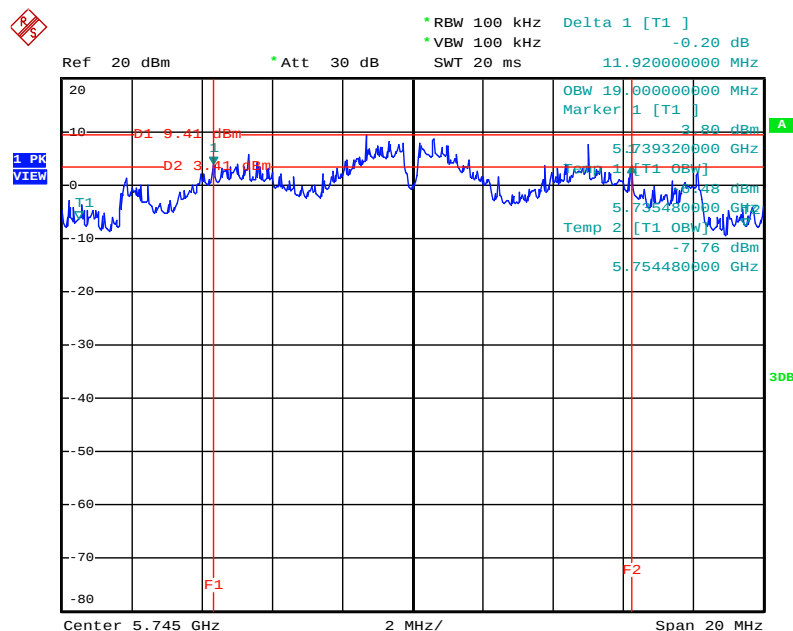
Date: 12.AUG.2010 02:49:54

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



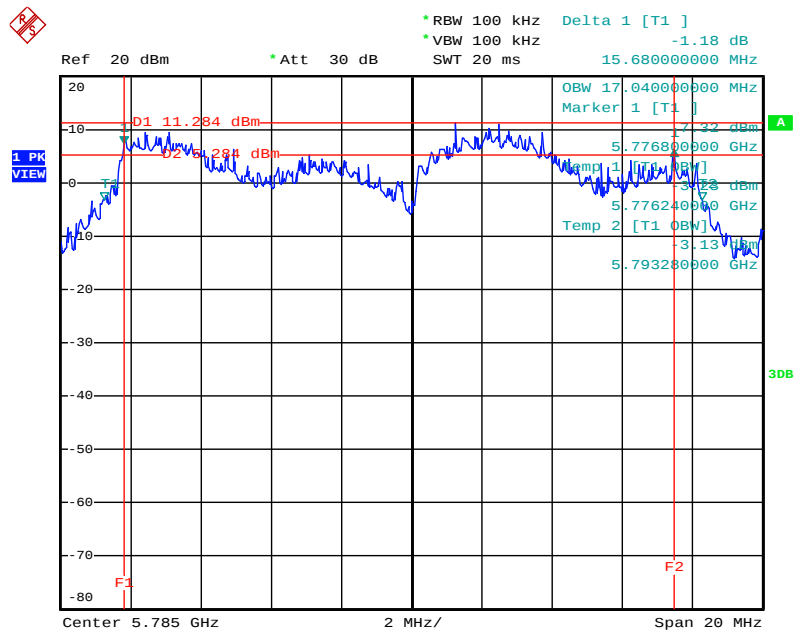
Date: 12.AUG.2010 02:51:47

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5745 MHz



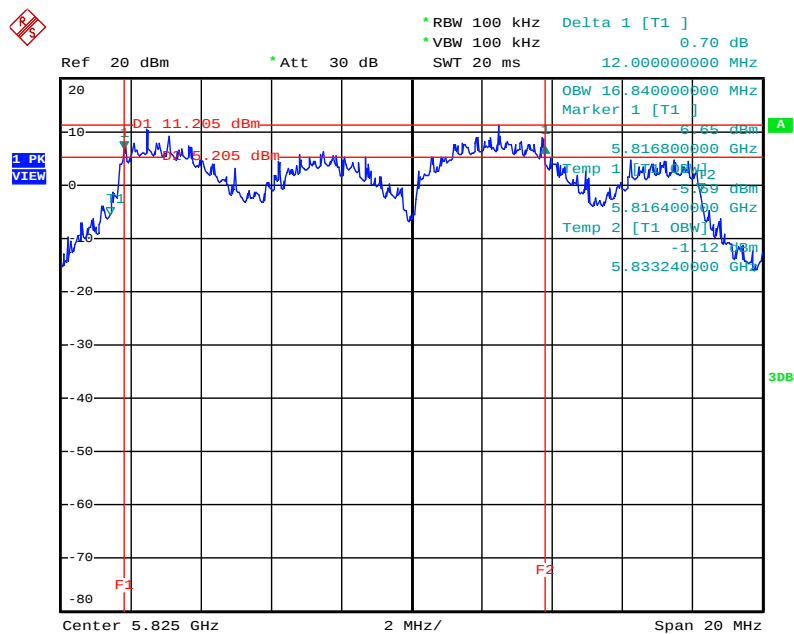
Date: 12.AUG.2010 23:00:04

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5785MHz



Date: 12.AUG.2010 23:02:48

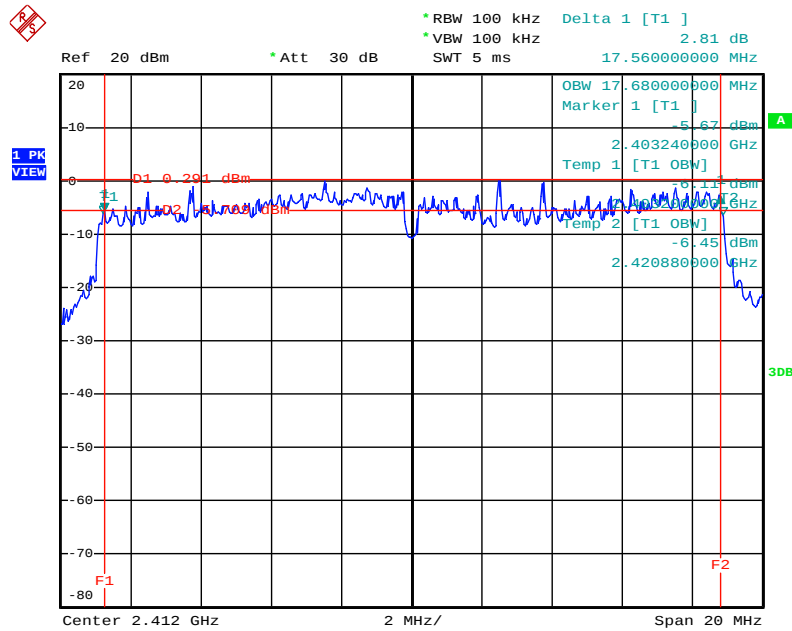
6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5825 MHz



Date: 12.AUG.2010 23:04:44

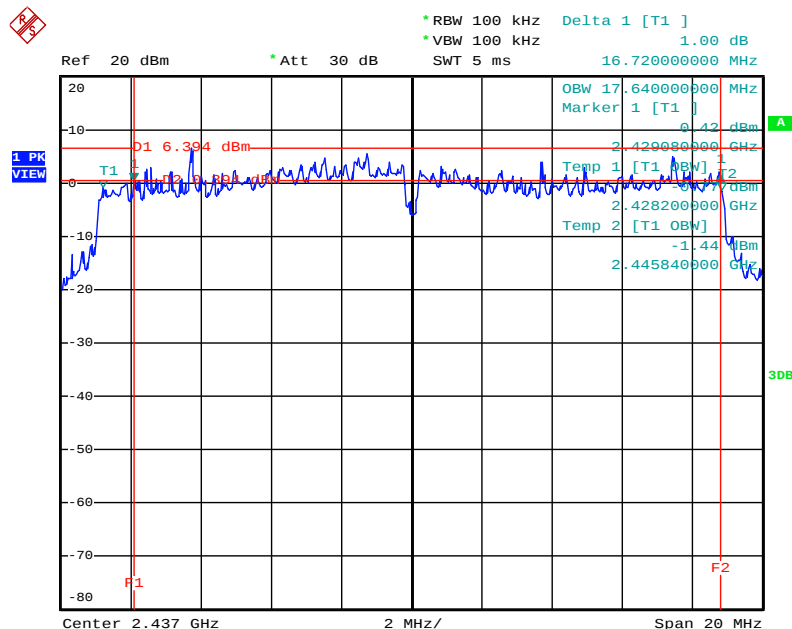
<For Mode 5 (Ant. 5)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2412 MHz



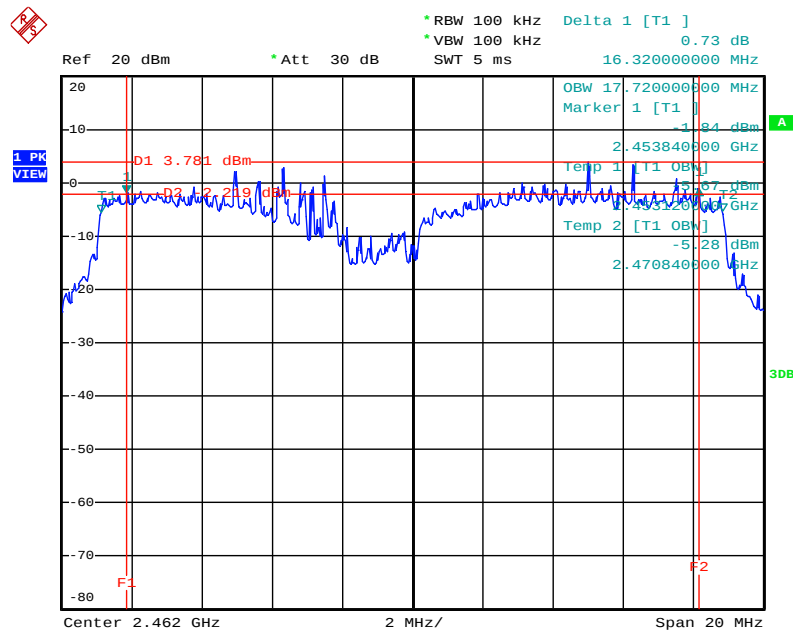
Date: 12.AUG.2010 22:37:39

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2437 MHz



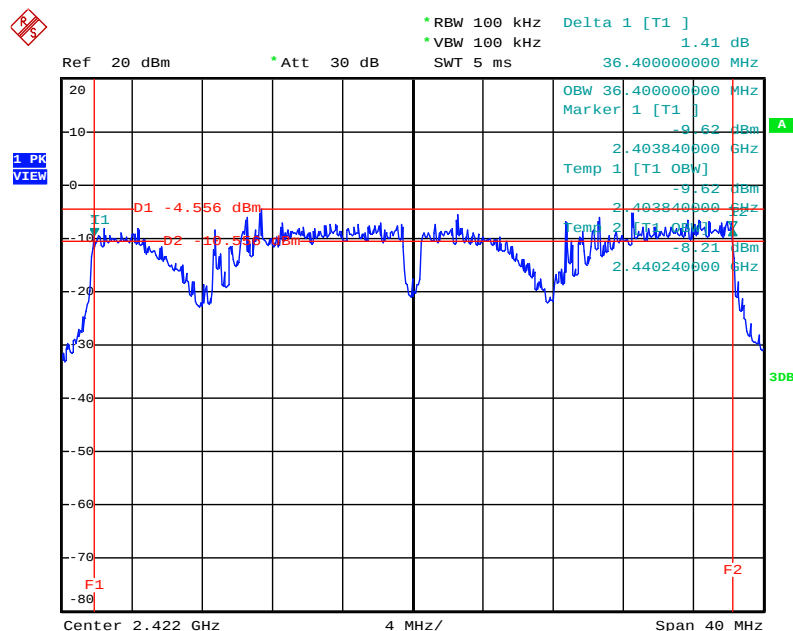
Date: 12.AUG.2010 22:35:06

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4/ 2462 MHz



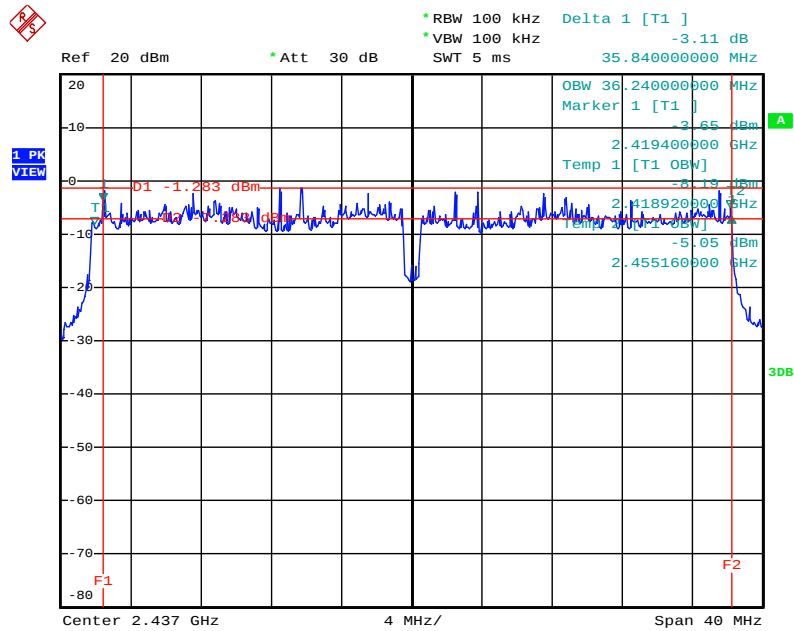
Date: 12.AUG.2010 22:46:35

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2422 MHz



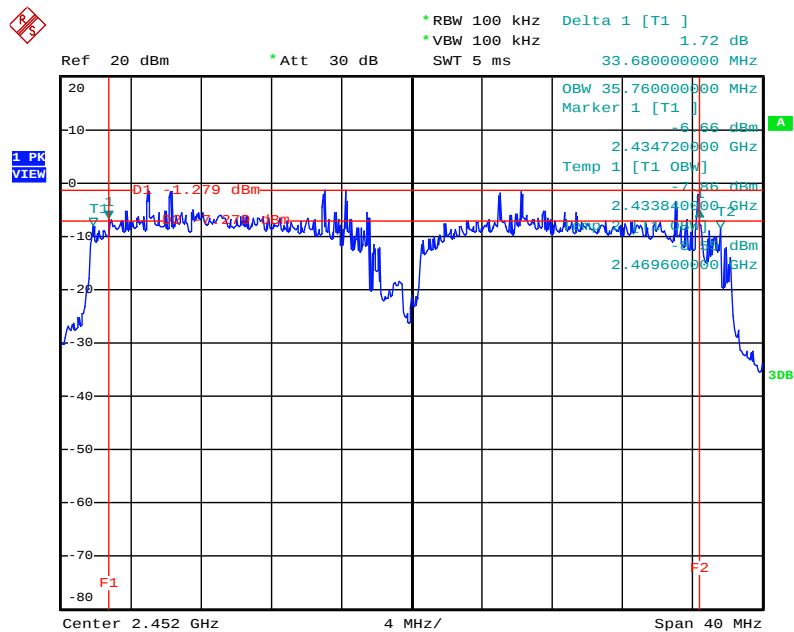
Date: 12.AUG.2010 22:40:03

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2437 MHz



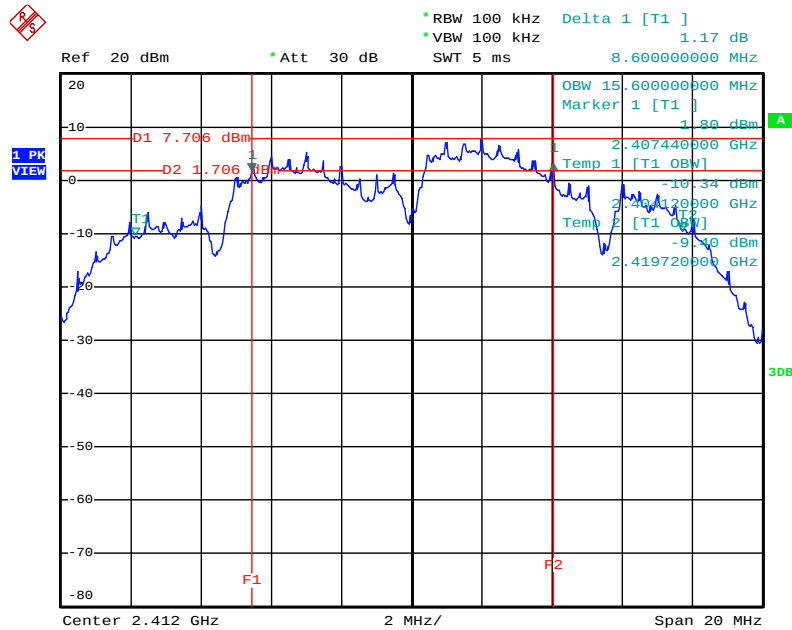
Date: 12.AUG.2010 22:42:00

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2452 MHz



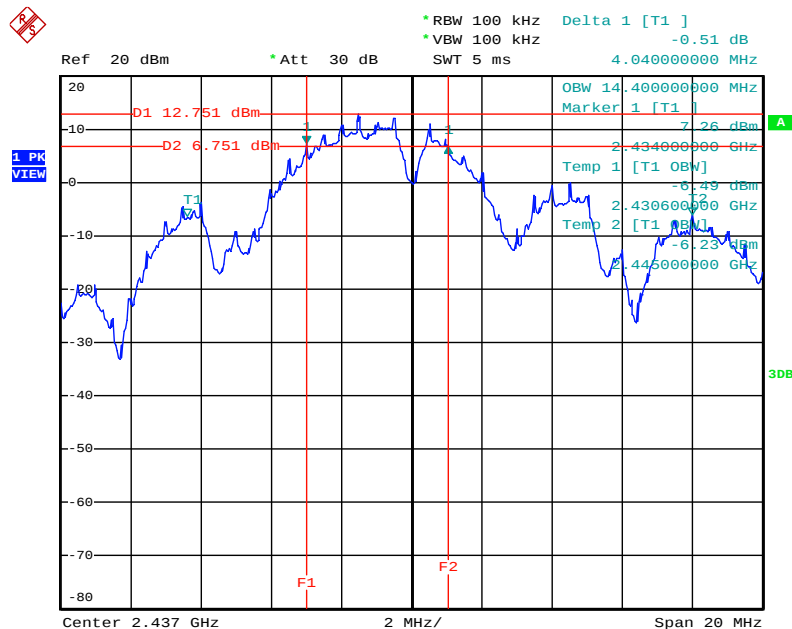
Date: 12.AUG.2010 22:43:53

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



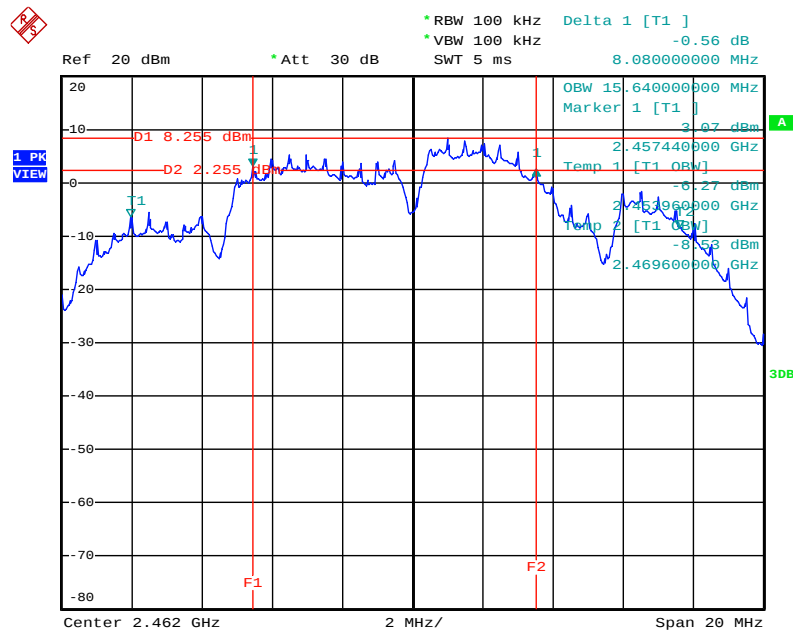
Date: 12.AUG.2010 22:48:43

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



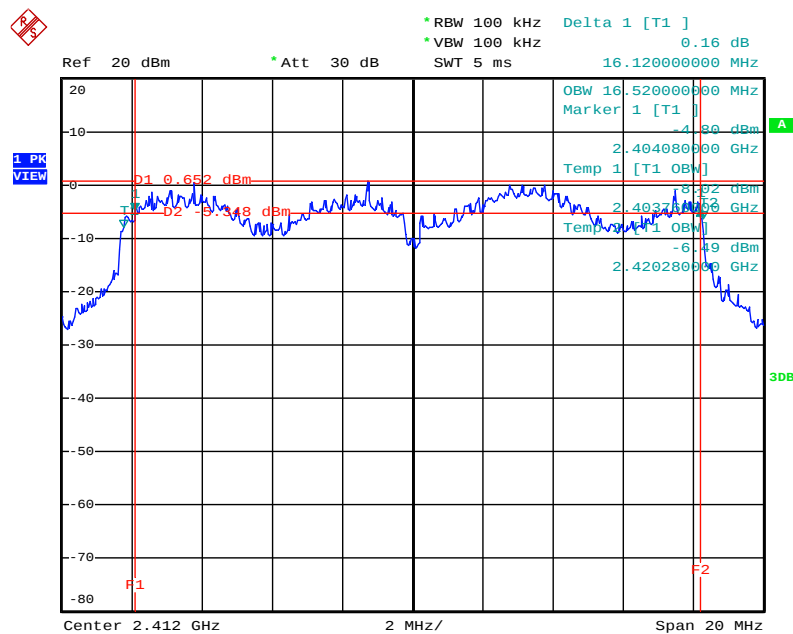
Date: 12.AUG.2010 22:22:15

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



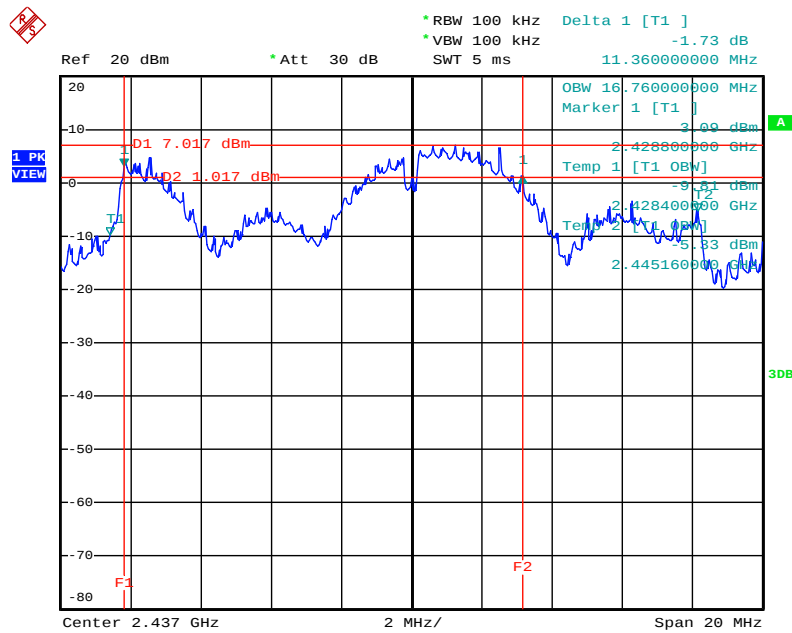
Date: 12.AUG.2010 22:20:18

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



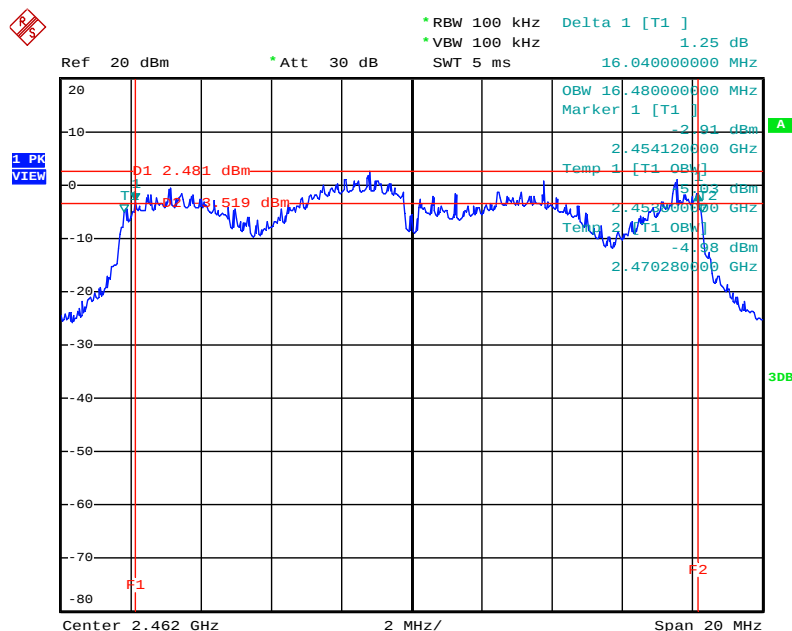
Date: 12.AUG.2010 22:26:18

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



Date: 12.AUG.2010 22:28:13

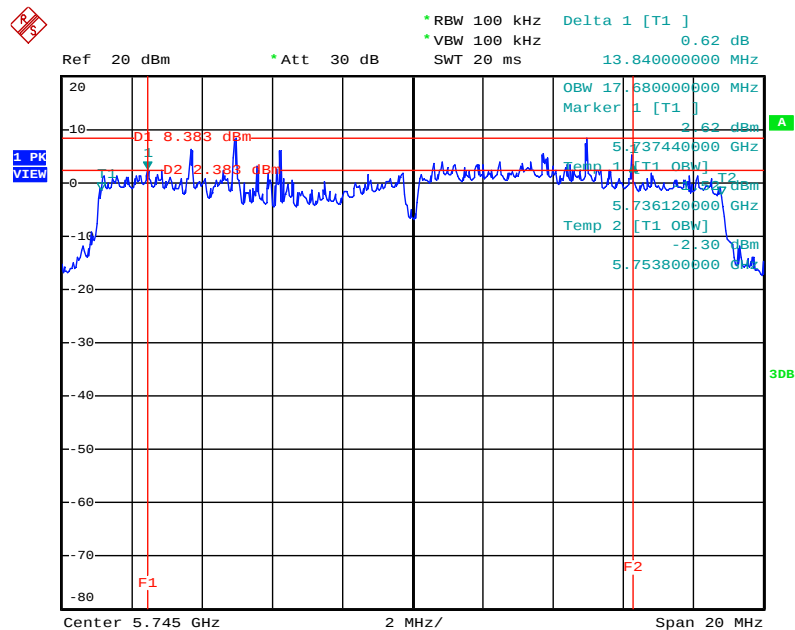
6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



Date: 12.AUG.2010 22:30:12

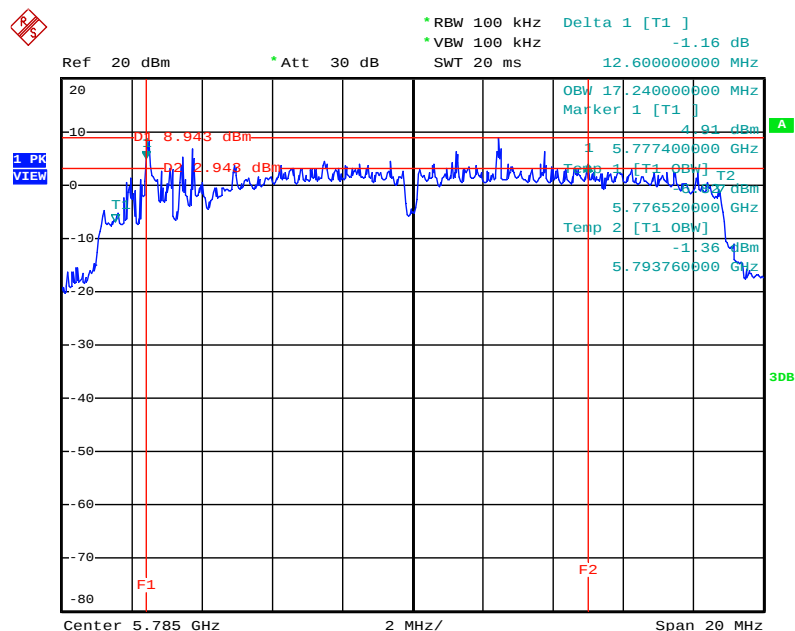
<For Mode 6 (Ant. 6)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5745 MHz



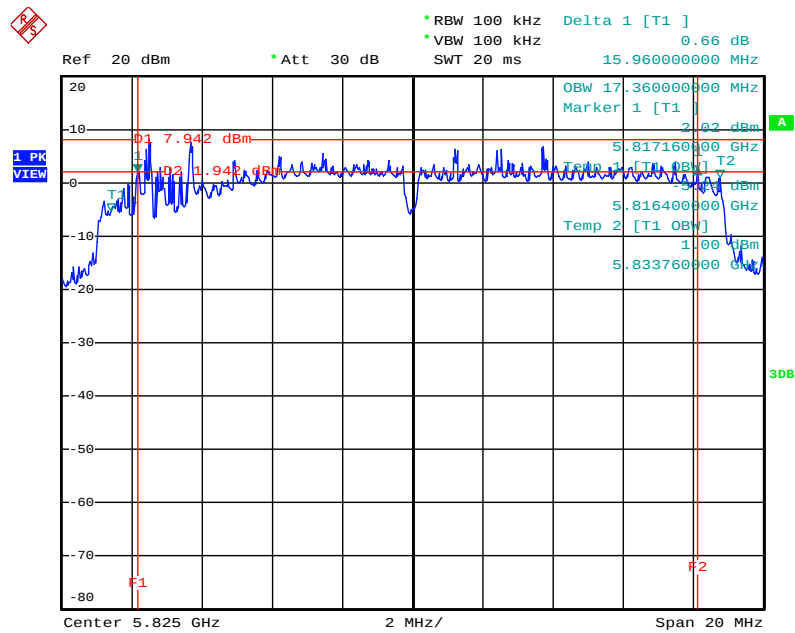
Date: 13.AUG.2010 01:37:41

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5785MHz



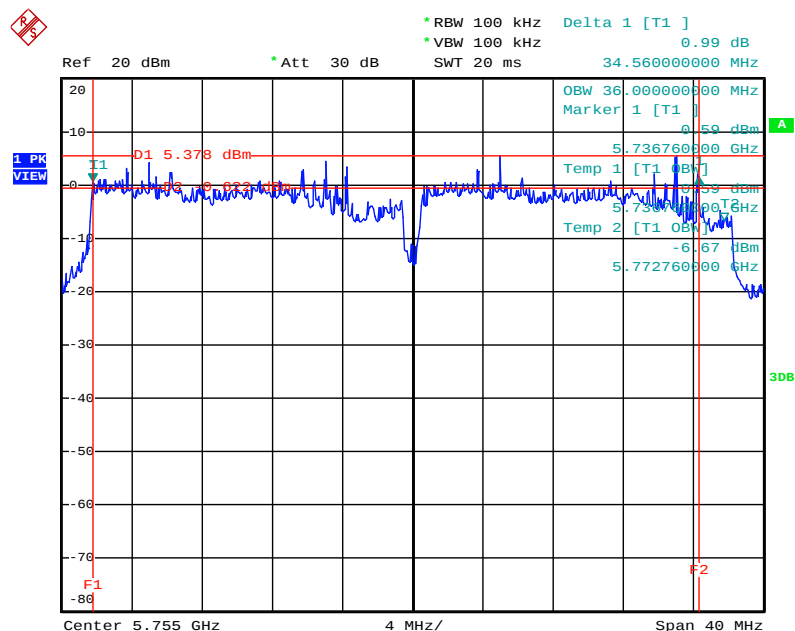
Date: 13.AUG.2010 01:35:44

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5825 MHz

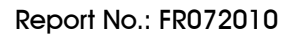


Date: 13.AUG.2010 01:33:48

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4 / 5755 MHz

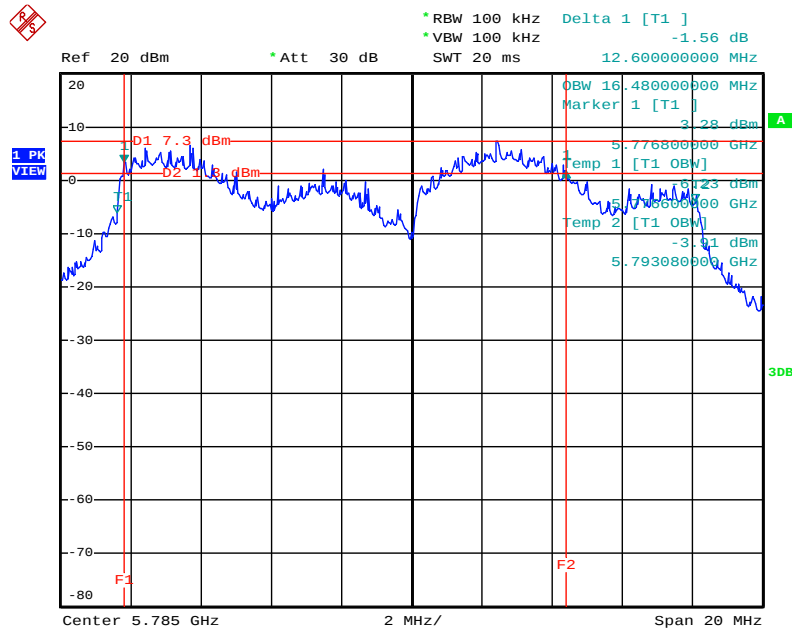


Date: 13.AUG.2010 01:39:47

[illegible][illegible]

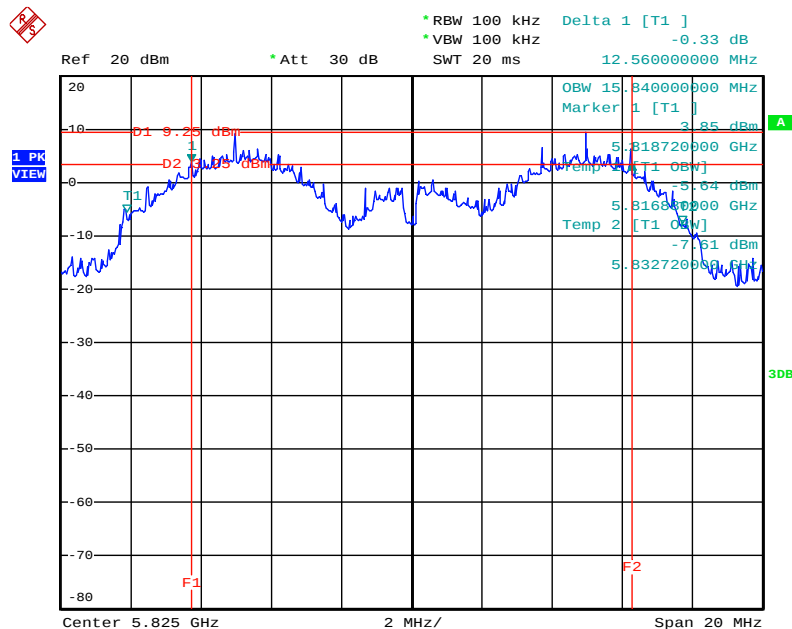
Issued Date : Nov. 02, 2010

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5785MHz



Date: 13.AUG.2010 01:29:59

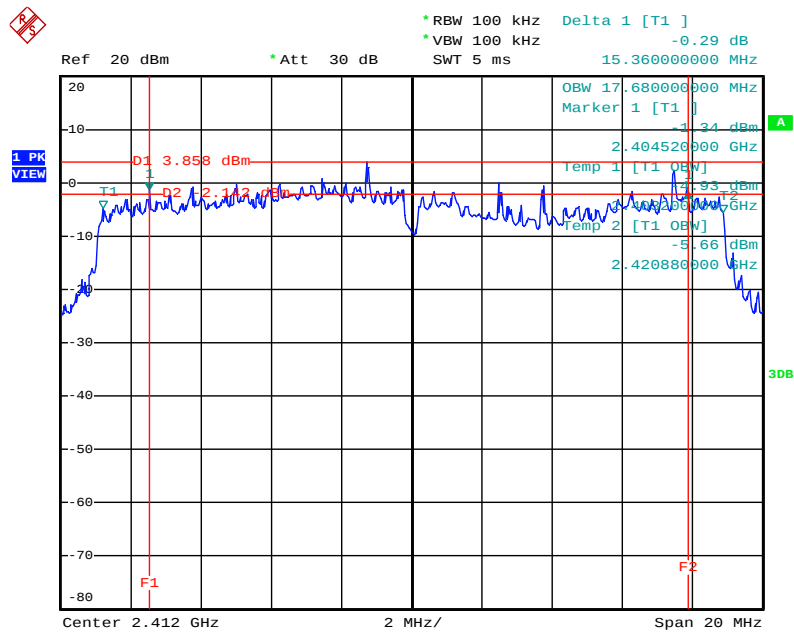
6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5825 MHz



Date: 13.AUG.2010 01:31:50

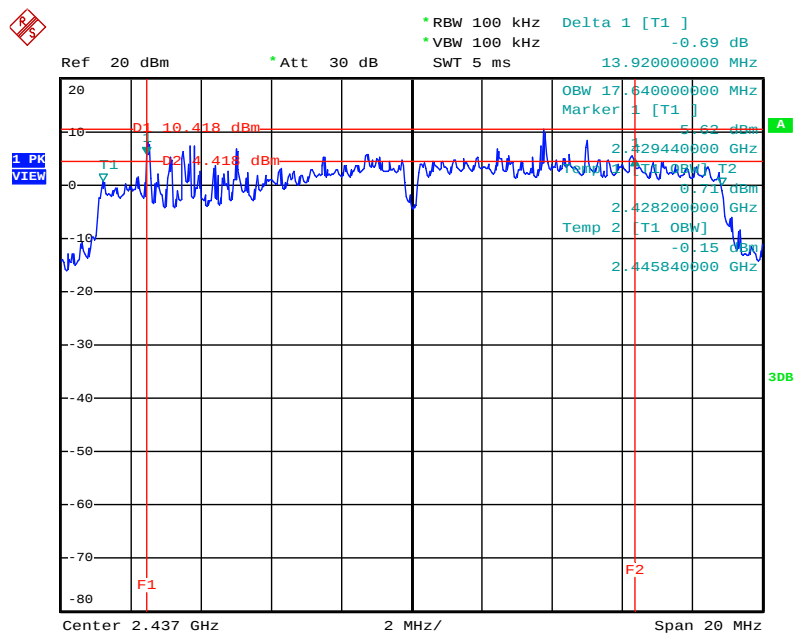
<For Mode 7 (Ant. 7)>:

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2412 MHz



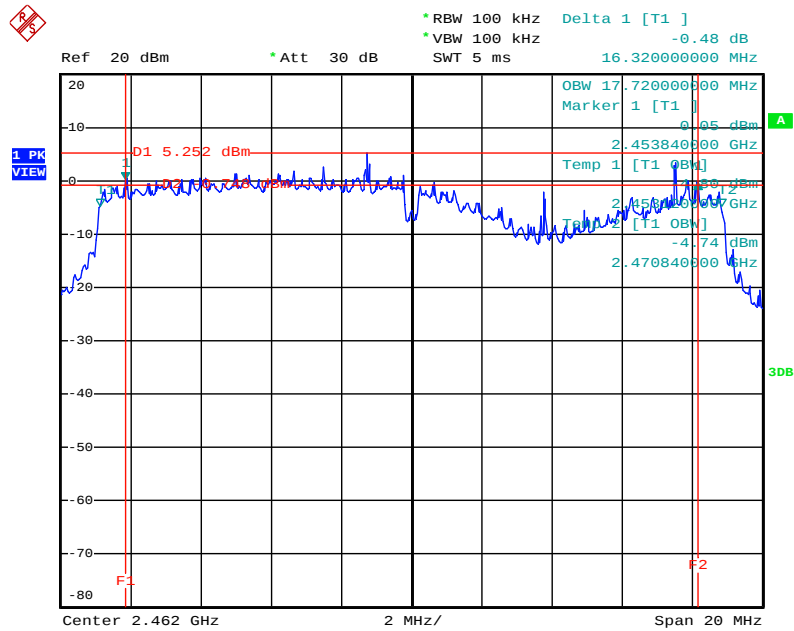
Date: 2.SEP.2010 18:14:04

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4 / 2437 MHz



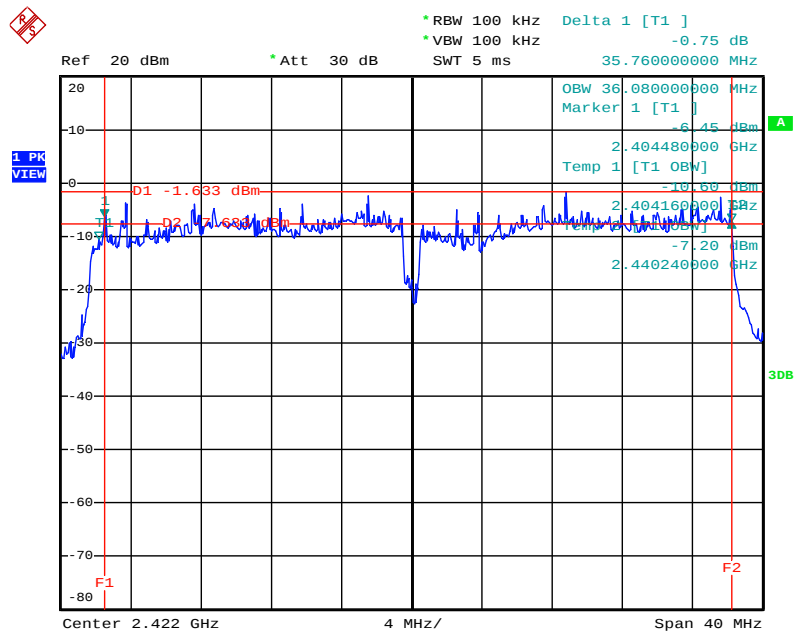
Date: 2.SEP.2010 18:16:16

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz J2+J3+J4/ 2462 MHz



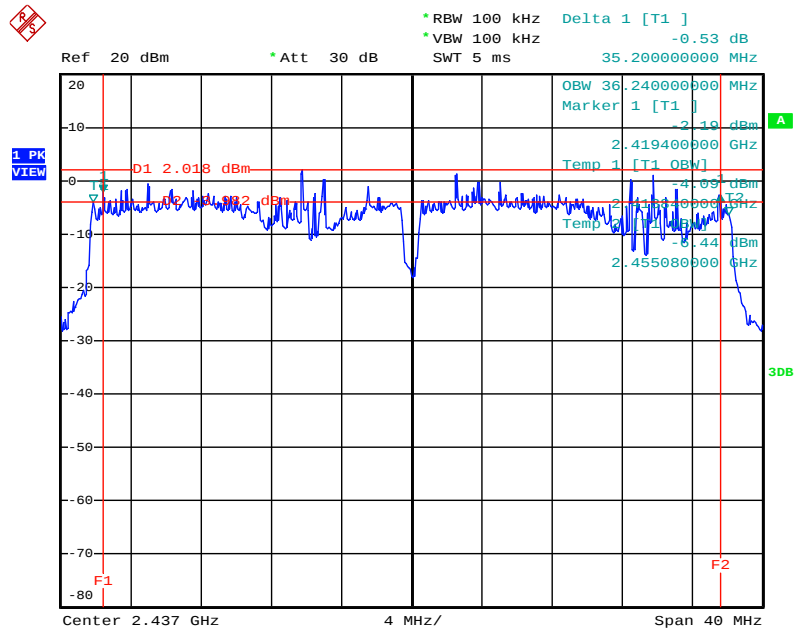
Date: 2.SEP.2010 18:18:23

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2422 MHz



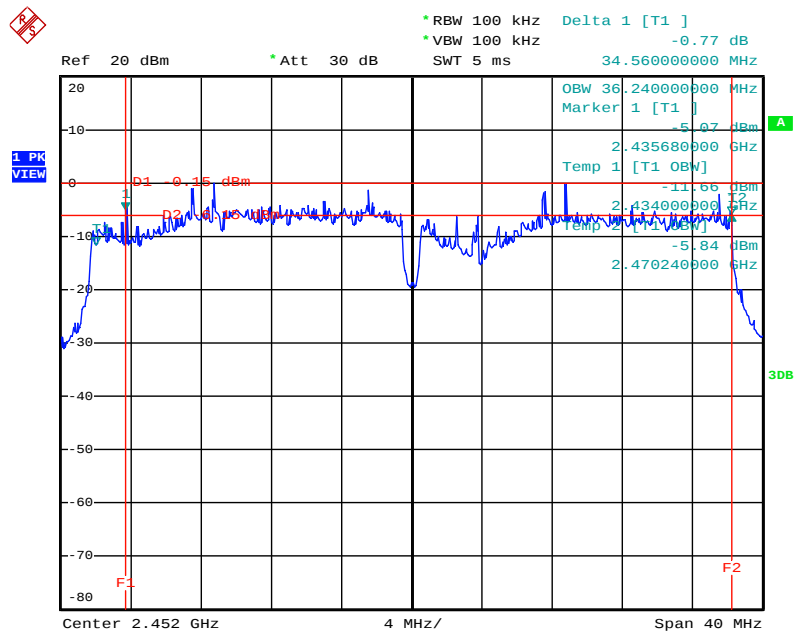
Date: 12.AUG.2010 03:11:25

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2437 MHz



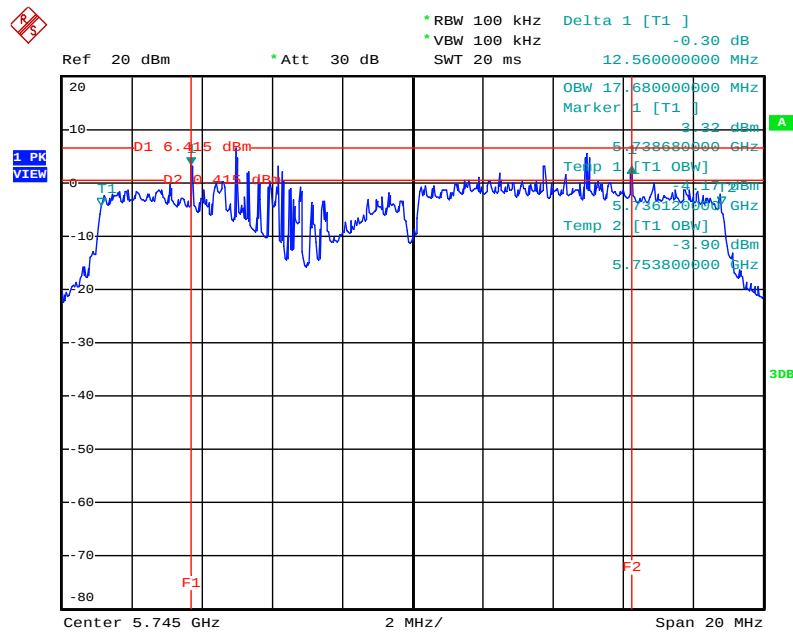
Date: 2.SEP.2010 18:20:49

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz J2+J3+J4 / 2452 MHz



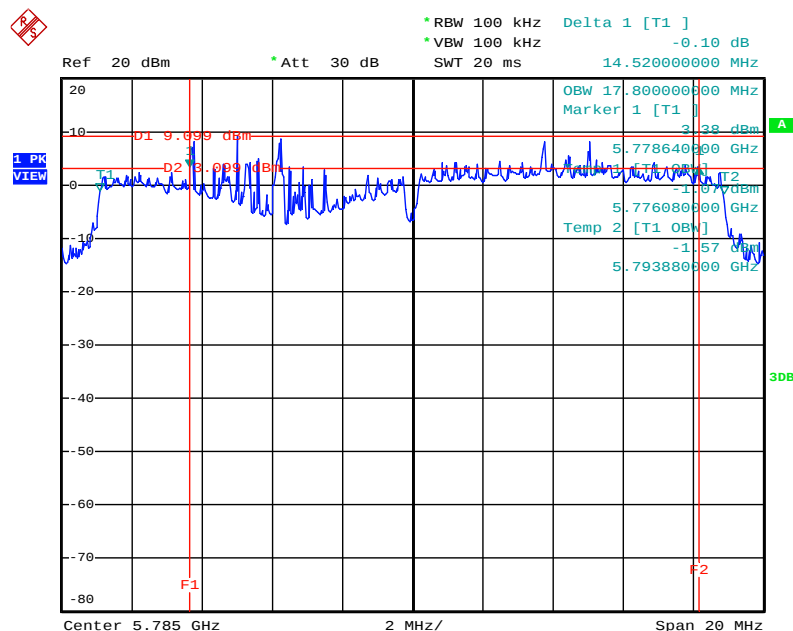
Date: 12.AUG.2010 03:07:21

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5745 MHz



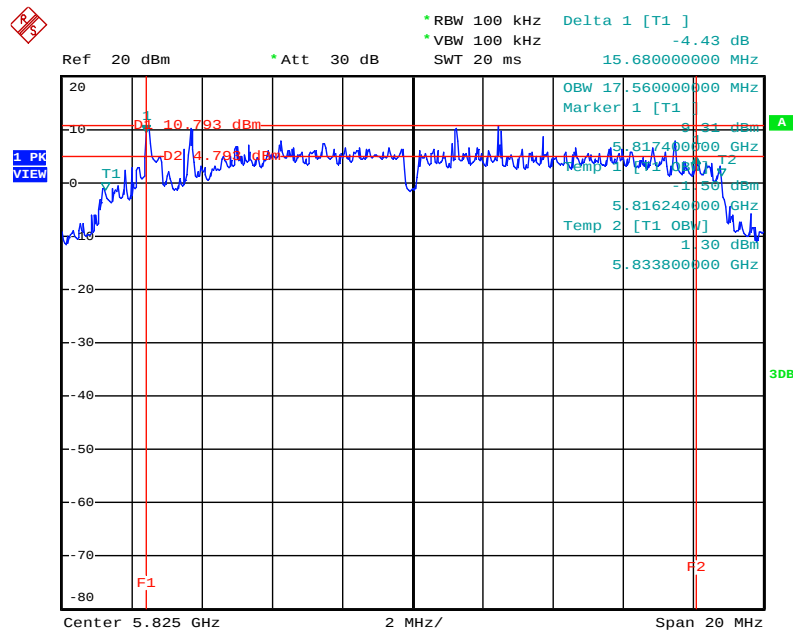
Date: 2.SEP.2010 18:37:22

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5785MHz



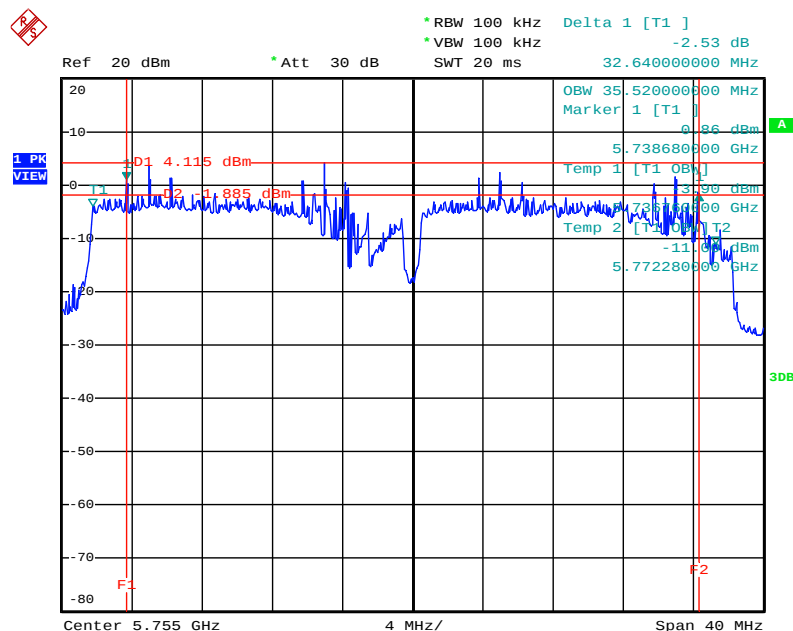
Date: 2.SEP.2010 18:35:03

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 20MHz J2+J3+J4 / 5825 MHz



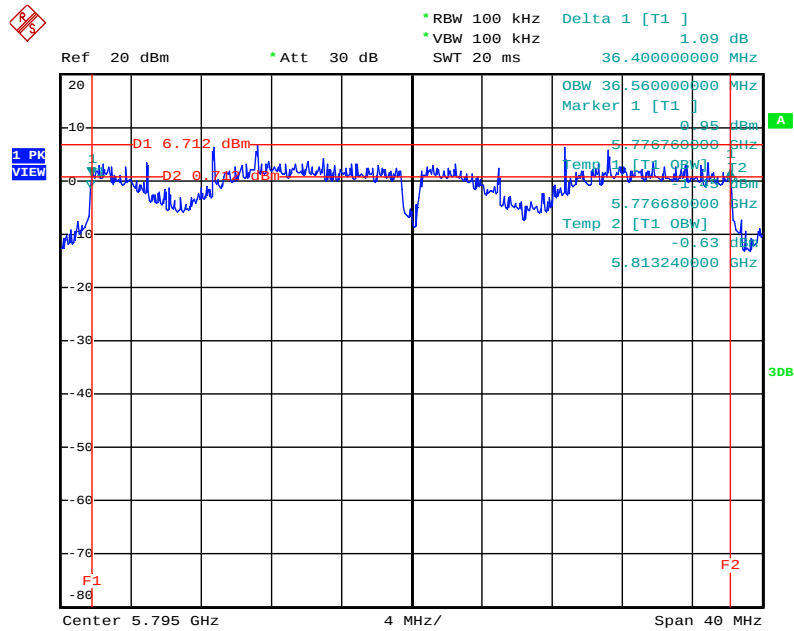
Date: 12.AUG.2010 23:10:27

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4 / 5755 MHz



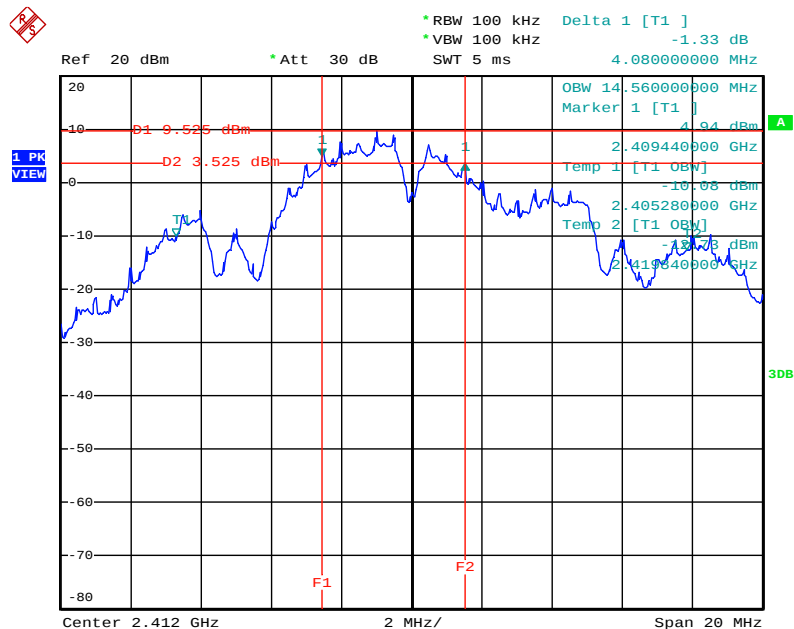
Date: 2.SEP.2010 18:39:52

6 dB Bandwidth Plot on Configuration IEEE 802.11an MCS8 40MHz J2+J3+J4 / 5795 MHz



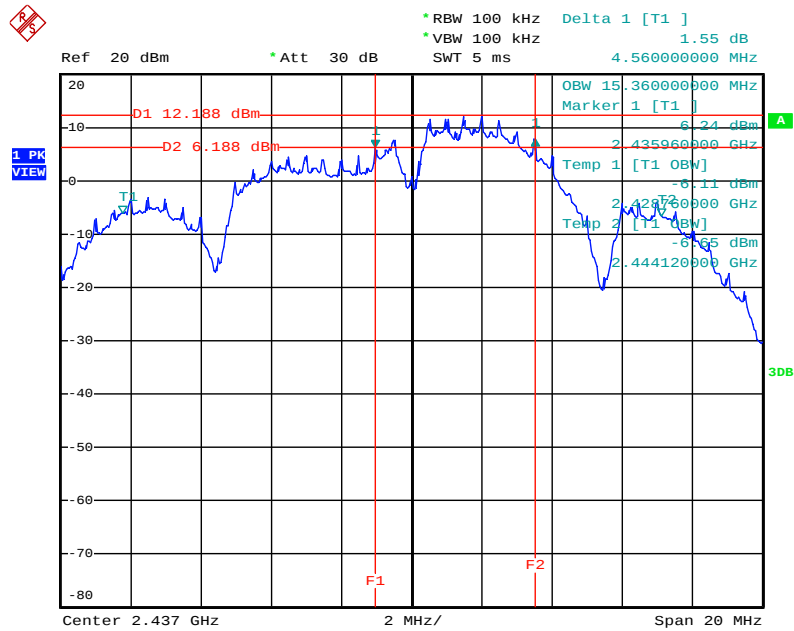
Date: 12.AUG.2010 23:19:35

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2412 MHz



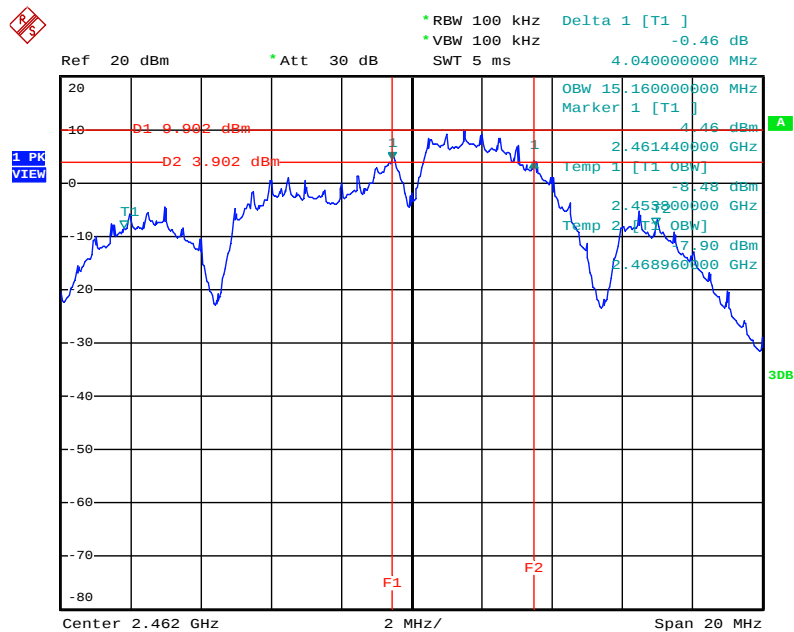
Date: 2.SEP.2010 18:01:21

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2437 MHz



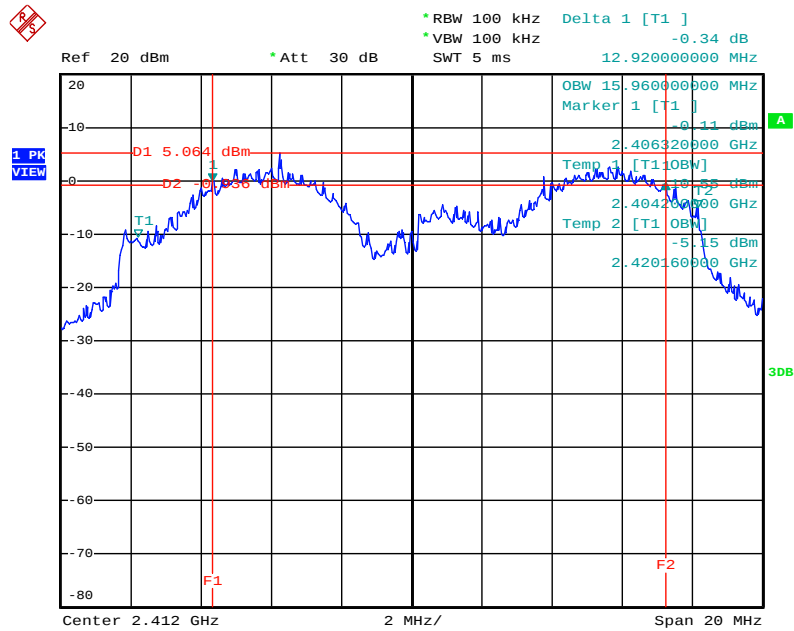
Date: 2.SEP.2010 18:03:42

6 dB Bandwidth Plot on Configuration IEEE 802.11b J2+J3+J4 / 2462 MHz



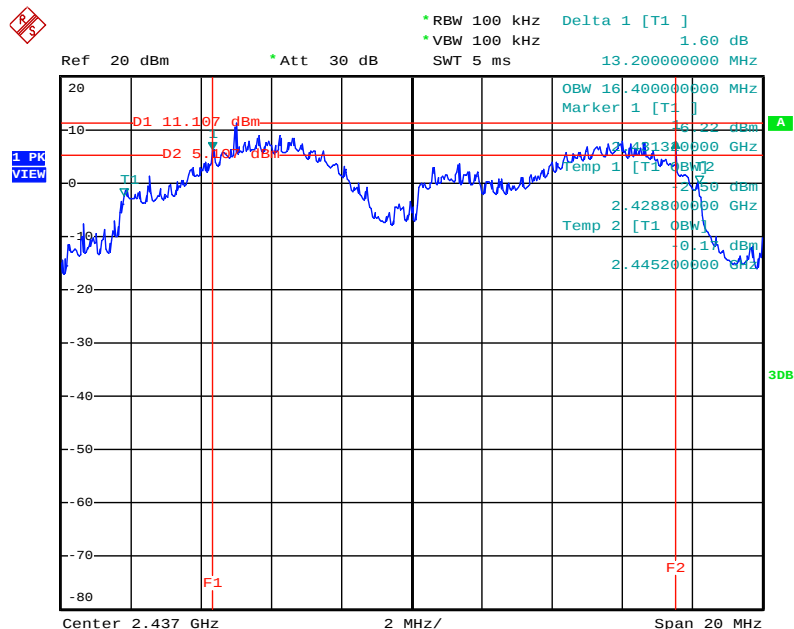
Date: 2.SEP.2010 18:06:18

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2412 MHz



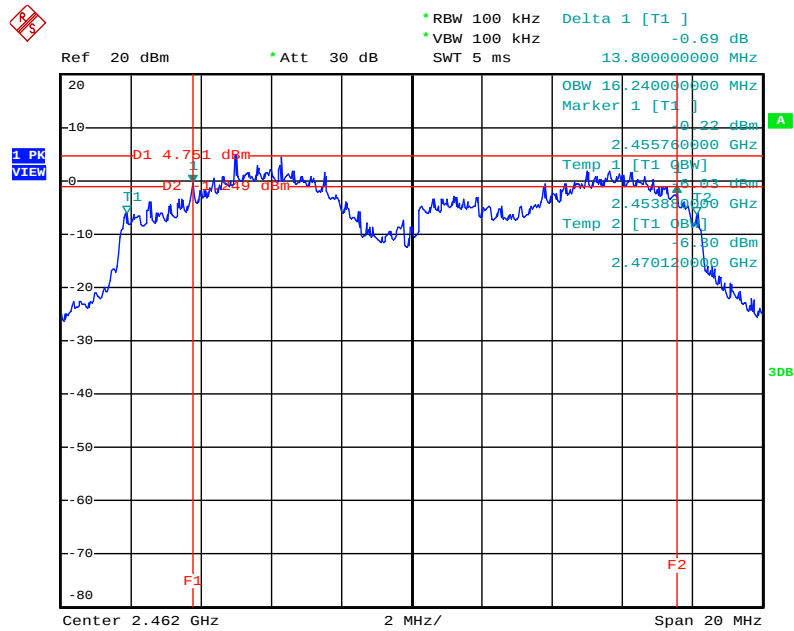
Date: 2.SEP.2010 18:09:18

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2437 MHz



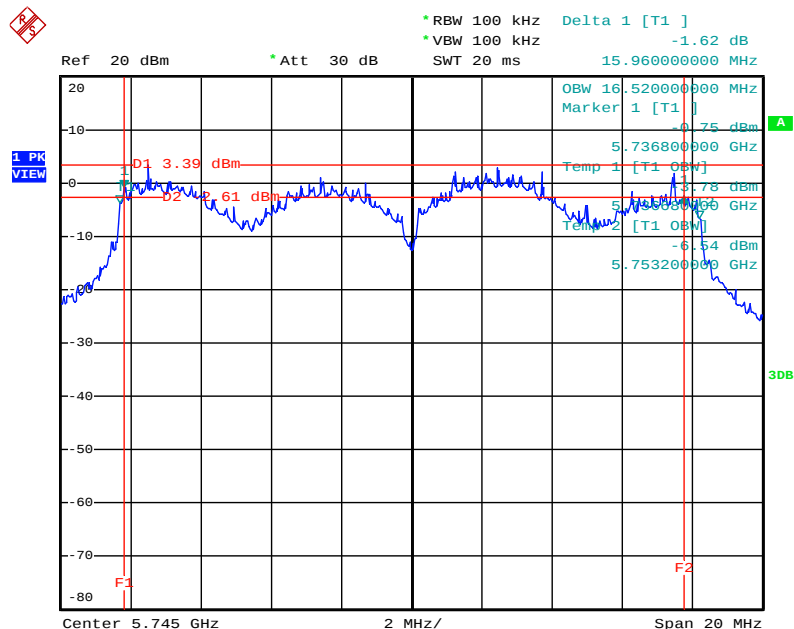
Date: 2.SEP.2010 18:11:29

6 dB Bandwidth Plot on Configuration IEEE 802.11g J2+J3+J4 / 2462 MHz



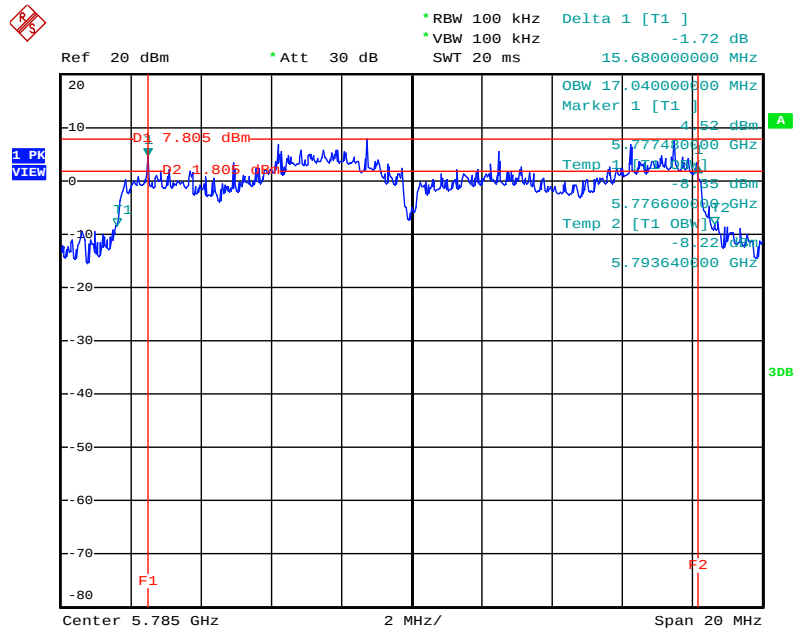
Date: 12.AUG.2010 02:51:47

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5745 MHz



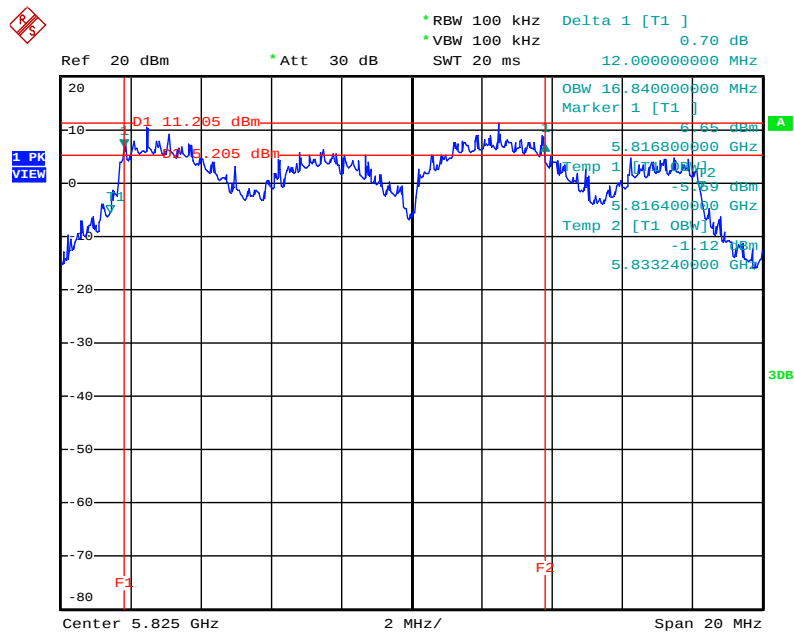
Date: 2.SEP.2010 18:30:37

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5785MHz



Date: 2.SEP.2010 18:32:48

6 dB Bandwidth Plot on Configuration IEEE 802.11a J2+J3+J4 / 5825 MHz



Date: 12.AUG.2010 23:04:44

4.5. Radiated Emissions Measurement

4.5.1. Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

4.5.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for peak

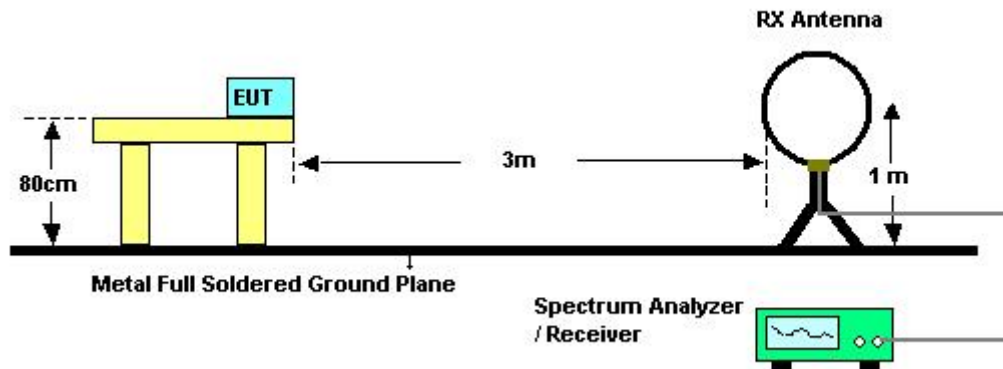
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.5.3. Test Procedures

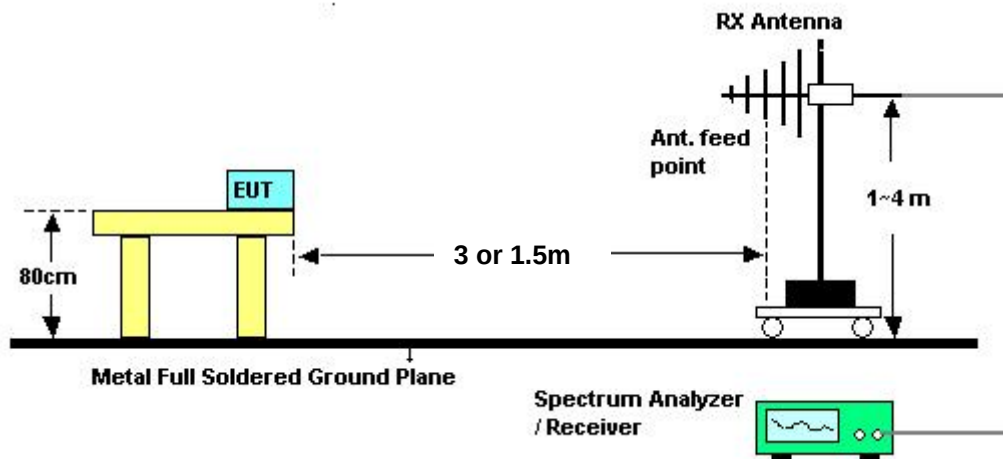
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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 RBW for peak reading. Then 1MHz RBW and 10Hz 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.

4.5.4. Test Setup Layout

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	Normal Link
Test Date	Aug. 13, 2010		

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

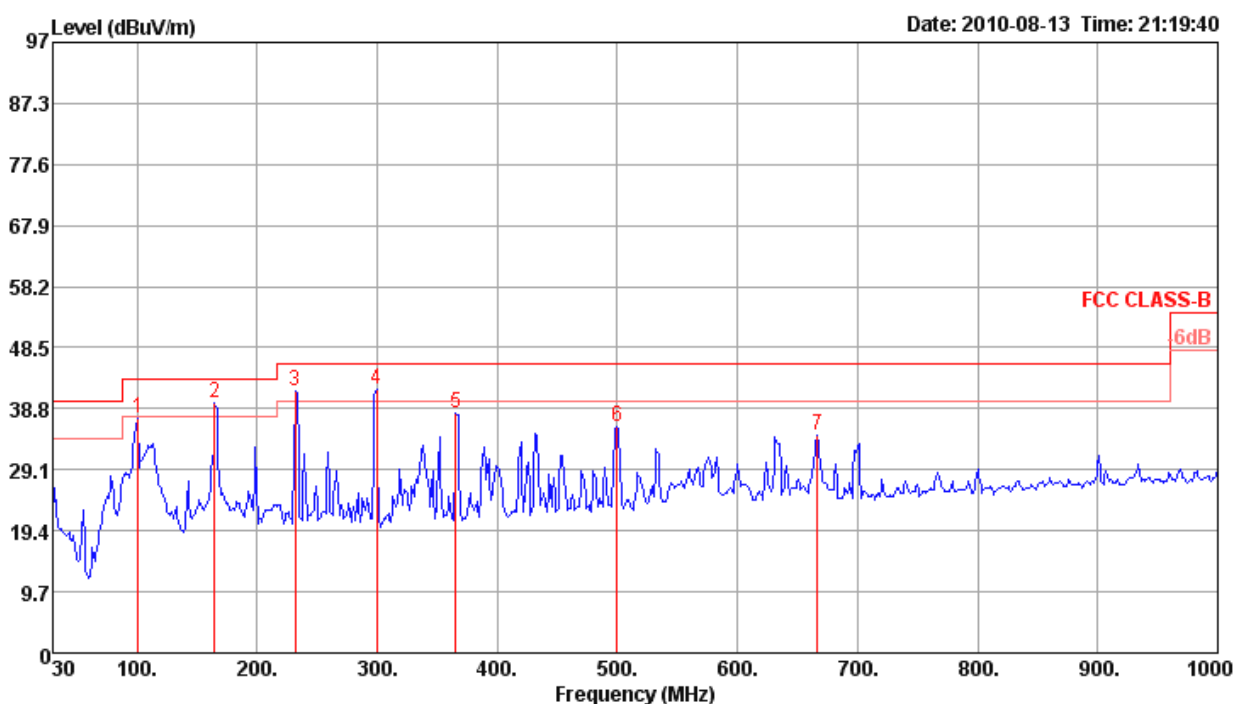
Limit line = specific limits (dBuV) + distance extrapolation factor.

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

<For Mode 2 (Ant. 2)>

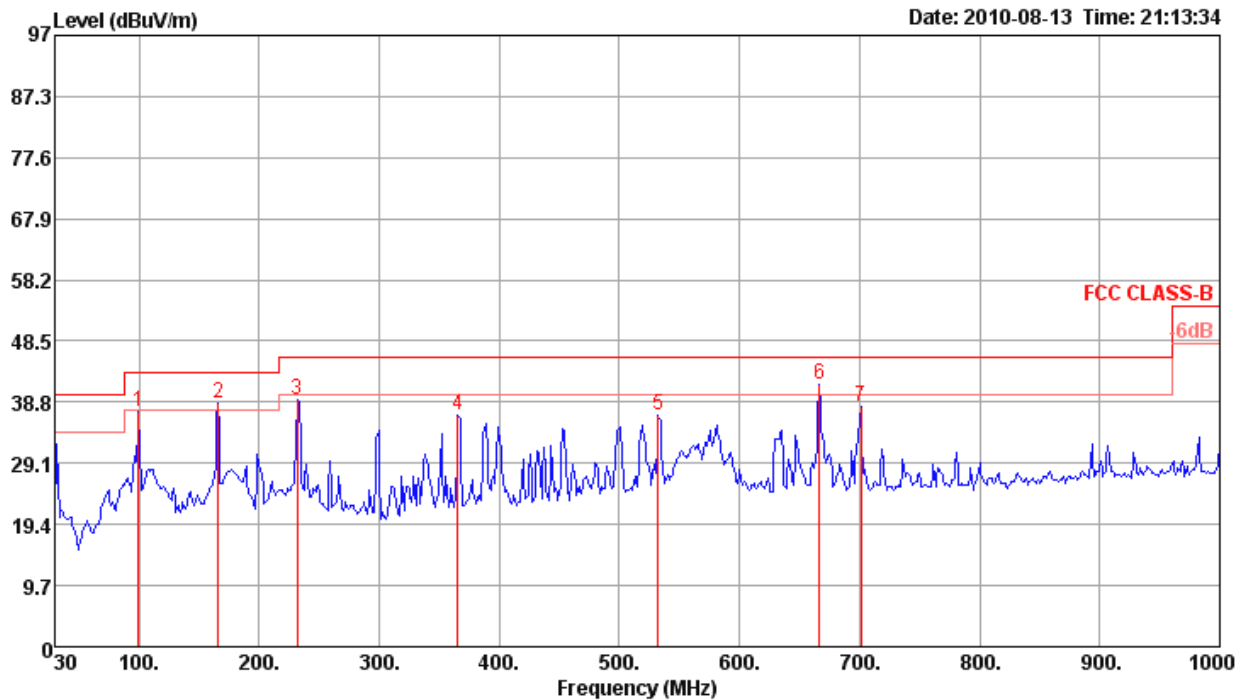
Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	TX Mode / Mode 2 (Ant. 2)

Horizontal



	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	100.81	37.22	43.50	-6.28	52.56	1.20	27.60	11.06	0	100	Peak	HORIZONTAL
2	164.83	39.66	43.50	-3.84	53.02	1.52	27.27	12.39	0	100	Peak	HORIZONTAL
3	231.76	41.49	46.00	-4.51	55.29	1.83	27.04	11.41	0	100	Peak	HORIZONTAL
4	299.66	41.81	46.00	-4.19	53.25	2.10	26.90	13.36	0	100	Peak	HORIZONTAL
5	365.62	38.18	46.00	-7.82	48.17	2.23	27.36	15.14	0	100	Peak	HORIZONTAL
6	499.48	36.04	46.00	-9.96	43.82	2.70	28.09	17.61	0	100	Peak	HORIZONTAL
7	666.32	34.61	46.00	-11.39	40.23	3.43	28.03	18.98	0	100	Peak	HORIZONTAL

Vertical



	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	99.84	37.19	43.50	-6.31	52.60	1.20	27.60	10.99	0	400	Peak	VERTICAL
2	165.80	38.65	43.50	-4.85	51.92	1.53	27.27	12.47	0	400	Peak	VERTICAL
3	231.76	39.21	46.00	-6.79	53.01	1.83	27.04	11.41	0	400	Peak	VERTICAL
4	365.62	36.65	46.00	-9.35	46.64	2.23	27.36	15.14	0	400	Peak	VERTICAL
5	532.46	36.64	46.00	-9.36	43.98	2.76	28.10	18.00	0	400	Peak	VERTICAL
6	666.32	41.60	46.00	-4.40	47.22	3.43	28.03	18.98	0	400	Peak	VERTICAL
7	701.24	38.19	46.00	-7.81	43.78	3.30	27.99	19.10	0	400	Peak	VERTICAL

Note:

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

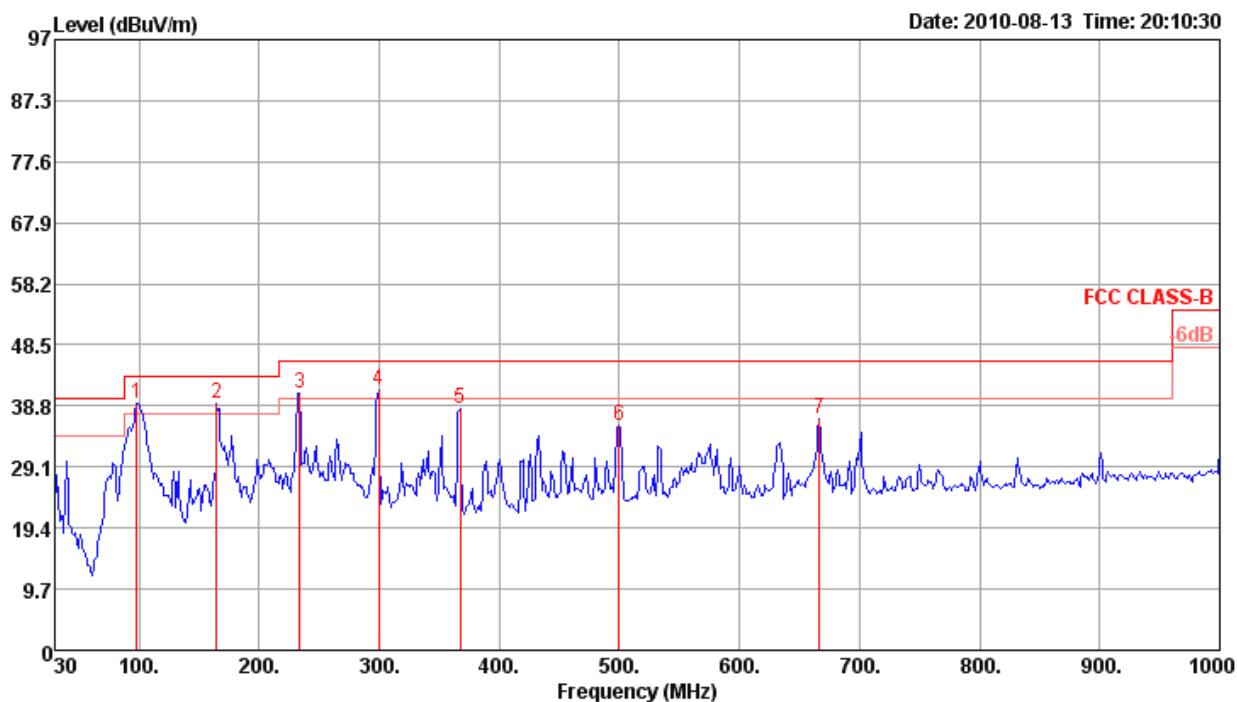
Emission level (dBuV/m) = 20 log Emission level (uV/m).

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

<For Mode 3 (Ant. 3)>

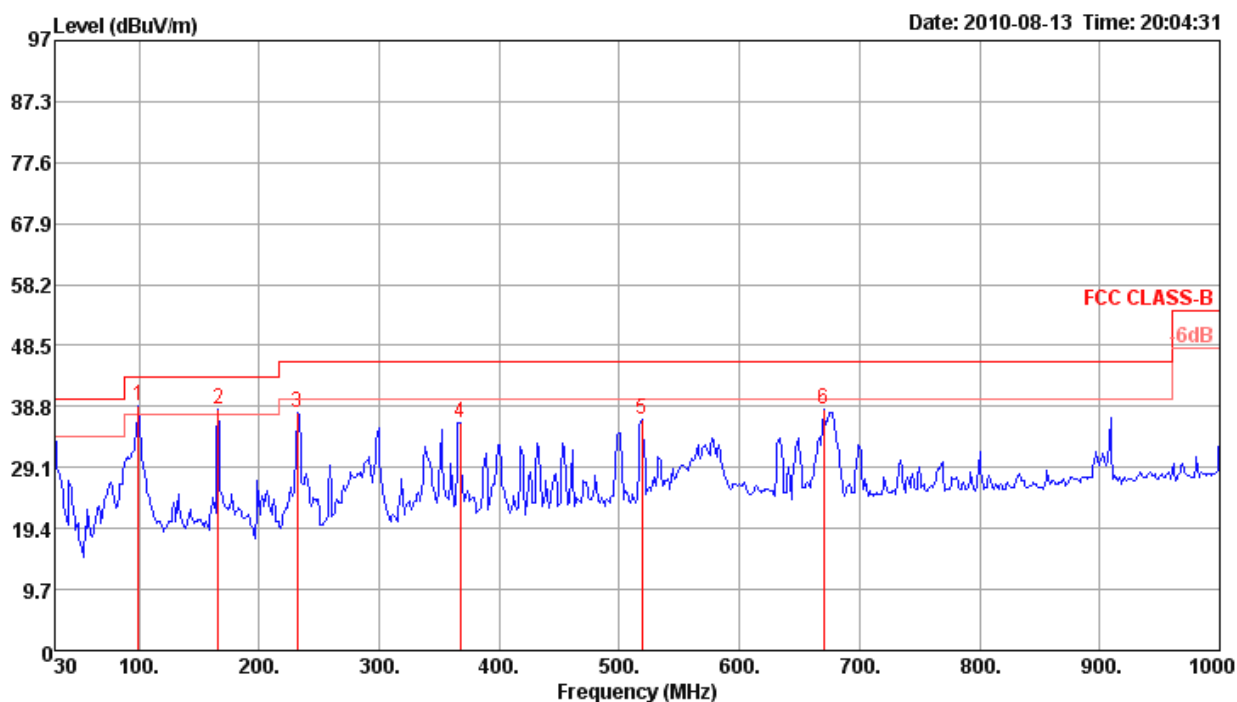
Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	TX Mode / Mode 3 (Ant. 3)

Horizontal



	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	97.90	39.22	43.50	-4.28	55.08	1.16	27.61	10.59	0	100	Peak	HORIZONTAL
2	164.83	39.26	43.50	-4.24	52.62	1.52	27.27	12.39	0	100	Peak	HORIZONTAL
3	233.70	40.83	46.00	-5.17	54.48	1.83	27.03	11.55	0	100	Peak	HORIZONTAL
4	299.66	41.28	46.00	-4.72	52.72	2.10	26.90	13.36	0	100	Peak	HORIZONTAL
5	367.56	38.34	46.00	-7.66	48.29	2.24	27.38	15.19	0	100	Peak	HORIZONTAL
6	499.48	35.72	46.00	-10.28	43.50	2.70	28.09	17.61	0	100	Peak	HORIZONTAL
7	666.32	36.69	46.00	-9.31	42.31	3.43	28.03	18.98	0	100	Peak	HORIZONTAL

Vertical



	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	99.84	38.99	43.50	-4.51	54.40	1.20	27.60	10.99	0	400	Peak	VERTICAL
2	165.80	38.34	43.50	-5.16	51.61	1.53	27.27	12.47	0	400	Peak	VERTICAL
3	231.76	37.76	46.00	-8.24	51.56	1.83	27.04	11.41	0	400	Peak	VERTICAL
4	367.56	36.17	46.00	-9.83	46.12	2.24	27.38	15.19	0	400	Peak	VERTICAL
5	518.88	36.71	46.00	-9.29	44.23	2.74	28.10	17.84	0	400	Peak	VERTICAL
6	670.20	38.44	46.00	-7.56	44.06	3.42	28.03	18.99	0	400	Peak	VERTICAL

Note:

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

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

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

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

<For Mode 1 (Ant. 1)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 149 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11490.17	70.63	80.00	-9.37	62.12	4.76	34.75	38.50	287	100	Peak	HORIZONTAL
2	11490.50	56.67	60.00	-3.33	48.16	4.76	34.75	38.50	287	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.52	56.24	60.00	-3.76	47.73	4.76	34.75	38.50	276	100	Average	VERTICAL
2	11489.93	70.36	80.00	-9.64	61.85	4.76	34.75	38.50	276	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 157 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.64	54.64	60.00	-5.36	46.07	4.86	34.80	38.51	306	109	Average	HORIZONTAL
2	11569.87	68.82	80.00	-11.68	59.72	4.91	34.82	38.51	306	109	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.64	54.40	60.00	-5.60	45.83	4.86	34.80	38.51	305	100	Average	VERTICAL
2	11569.93	71.41	80.00	-8.59	62.81	4.91	34.82	38.51	305	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 165 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11650.24	66.28	80.00	-13.72	57.62	5.03	34.90	38.53	305	106	Peak	HORIZONTAL
2	11650.44	52.16	60.00	-7.84	43.50	5.03	34.90	38.53	305	106	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11649.92	69.45	80.00	-10.55	60.79	5.03	34.90	38.53	304	102	Peak	VERTICAL
2	11650.46	53.48	60.00	-6.52	44.82	5.03	34.90	38.53	304	102	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 151 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11509.56	50.97	60.00	-9.03	42.44	4.78	34.75	38.50	277	100	Average	HORIZONTAL
2	11509.75	65.47	80.00	-14.53	56.94	4.78	34.75	38.50	277	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11509.66	50.36	60.00	-9.64	41.83	4.78	34.75	38.50	276	100	Average	VERTICAL
2	11509.83	65.13	80.00	-14.87	56.60	4.78	34.75	38.50	276	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 159 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11589.60	48.88	60.00	-11.12	40.27	4.91	34.82	38.52	288	106	Average	HORIZONTAL
2	11590.24	63.06	80.00	-16.94	54.45	4.91	34.82	38.52	288	106	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11589.97	67.76	80.00	-12.24	59.15	4.91	34.82	38.52	304	105	Peak	VERTICAL
2	11590.50	50.36	60.00	-9.64	41.75	4.91	34.82	38.52	304	105	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 149 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.50	51.02	60.00	-8.98	42.51	4.76	34.75	38.50	288	100	Average	HORIZONTAL
2	11490.36	64.93	80.00	-15.07	56.42	4.76	34.75	38.50	288	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.50	58.86	60.00	-1.14	50.35	4.76	34.75	38.50	275	108	Average	VERTICAL
2	11489.54	72.60	80.00	-7.40	64.09	4.76	34.75	38.50	275	108	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 157 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.50	47.79	60.00	-12.21	39.22	4.86	34.80	38.51	303	108	Average	HORIZONTAL
2	11569.61	63.26	80.00	-16.74	54.69	4.86	34.80	38.51	303	108	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.53	49.03	60.00	-10.97	40.46	4.86	34.80	38.51	304	105	Average	VERTICAL
2	11570.35	63.42	80.00	-16.58	54.82	4.91	34.82	38.51	304	105	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 165 / J2+J4, Mode 1 (Ant. 1)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11649.50	50.05	60.00	-9.95	41.39	5.03	34.90	38.53	287	100	Average	HORIZONTAL
2	11649.55	63.79	80.00	-16.21	55.13	5.03	34.90	38.53	287	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11649.50	47.29	60.00	-12.71	38.63	5.03	34.90	38.53	274	116	Average	VERTICAL
2	11649.51	60.82	80.00	-19.18	52.16	5.03	34.90	38.53	274	116	Peak	VERTICAL

Note:

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

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

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

<For Mode 2 (Ant. 2)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 149 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11486.30	68.98	80.00	-11.02	60.47	4.76	34.75	38.50	289	100	Peak	HORIZONTAL
2	11486.50	53.91	60.00	-6.09	45.40	4.76	34.75	38.50	289	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.10	53.08	60.00	-6.92	44.57	4.76	34.75	38.50	276	100	Average	VERTICAL
2	11489.90	69.20	80.00	-10.80	60.69	4.76	34.75	38.50	276	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 157 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11568.60	49.16	60.00	-10.84	40.59	4.86	34.80	38.51	296	110	Average	HORIZONTAL
2	11570.10	65.00	80.00	-15.00	56.40	4.91	34.82	38.51	296	110	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11568.60	50.32	60.00	-9.68	41.75	4.86	34.80	38.51	273	100	Average	VERTICAL
2	11569.90	67.12	80.00	-12.88	58.52	4.91	34.82	38.51	273	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 165 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11646.80	45.05	60.00	-14.95	36.39	5.03	34.90	38.53	287	102	Average	HORIZONTAL
2	11648.30	58.29	80.00	-21.71	49.63	5.03	34.90	38.53	287	102	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11646.30	61.15	80.00	-18.85	52.49	5.03	34.90	38.53	298	100	Peak	VERTICAL
2	11649.50	46.29	60.00	-13.71	37.63	5.03	34.90	38.53	298	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 151 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11497.40	50.23	60.00	-9.77	41.70	4.78	34.75	38.50	291	100	Average	HORIZONTAL
2	11506.40	65.86	80.00	-14.14	57.33	4.78	34.75	38.50	291	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11499.20	49.27	60.00	-10.73	40.74	4.78	34.75	38.50	276	100	Average	VERTICAL
2	11510.20	63.98	80.00	-16.02	55.45	4.78	34.75	38.50	276	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 159 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11588.40	44.56	60.00	-15.44	35.95	4.91	34.82	38.52	299	100	Average	HORIZONTAL
2	11590.00	59.72	80.00	-20.28	51.11	4.91	34.82	38.52	299	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11590.00	61.51	80.00	-18.49	52.90	4.91	34.82	38.52	296	100	Peak	VERTICAL
2	11591.00	45.14	60.00	-14.86	36.53	4.91	34.82	38.52	296	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 149 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11486.90	57.29	60.00	-2.71	48.78	4.76	34.75	38.50	292	104	Average	HORIZONTAL
2	11487.10	71.02	80.00	-8.98	62.51	4.76	34.75	38.50	292	104	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11487.30	55.67	60.00	-4.33	47.16	4.76	34.75	38.50	273	100	Average	VERTICAL
2	11487.60	69.16	80.00	-10.84	60.65	4.76	34.75	38.50	273	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 157 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11567.20	50.48	60.00	-9.52	41.91	4.86	34.80	38.51	292	106	Average	HORIZONTAL
2	11567.30	64.08	80.00	-15.92	55.51	4.86	34.80	38.51	292	106	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11567.90	52.32	60.00	-7.68	43.75	4.86	34.80	38.51	274	100	Average	VERTICAL
2	11568.00	65.32	80.00	-14.68	56.75	4.86	34.80	38.51	274	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 165 / J2+J4, Mode 2 (Ant. 2)
Test Date	Aug. 07, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11647.10	45.65	60.00	-14.35	36.99	5.03	34.90	38.53	292	100	Average	HORIZONTAL
2	11652.50	58.63	80.00	-21.37	49.97	5.03	34.90	38.53	292	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11644.60	59.81	80.00	-20.19	51.16	4.99	34.87	38.53	295	100	Peak	VERTICAL
2	11650.00	48.80	60.00	-11.20	40.14	5.03	34.90	38.53	295	100	Average	VERTICAL

Note:

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

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

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

<For Mode 3 (Ant. 3)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.65	43.01	74.00	-30.99	42.81	3.00	35.26	32.46	163	100	Peak	HORIZONTAL
2	4824.44	27.70	54.00	-26.30	27.50	3.00	35.26	32.46	163	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.93	41.79	74.00	-32.21	41.59	3.00	35.26	32.46	216	100	Peak	VERTICAL
2	4824.50	27.90	54.00	-26.10	27.70	3.00	35.26	32.46	216	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 6 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.77	27.53	54.00	-26.47	27.11	3.01	35.15	32.56	117	100	Average	HORIZONTAL
2	4873.96	40.79	74.00	-33.21	40.37	3.01	35.15	32.56	117	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.85	28.66	54.00	-25.34	28.24	3.01	35.15	32.56	150	100	Average	VERTICAL
2	4874.09	41.70	74.00	-32.30	40.78	3.01	35.15	32.56	150	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch11 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.79	28.36	54.00	-25.64	27.71	3.02	35.03	32.66	100	100	Average	HORIZONTAL
2	4924.20	41.87	74.00	-32.13	41.22	3.02	35.03	32.66	100	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.81	41.82	74.00	-32.18	41.17	3.02	35.03	32.66	133	100	Peak	VERTICAL
2	4924.27	28.43	54.00	-25.57	27.78	3.02	35.03	32.66	133	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4844.03	41.91	74.00	-32.09	41.61	3.01	35.20	32.49	132	100	Peak	HORIZONTAL
2	4844.46	27.68	54.00	-26.32	27.38	3.01	35.20	32.49	132	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4843.72	40.97	74.00	-33.03	40.67	3.01	35.20	32.49	244	100	Peak	VERTICAL
2	4844.16	27.66	54.00	-26.34	27.36	3.01	35.20	32.49	244	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 6 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.50	27.44	54.00	-26.56	27.02	3.01	35.15	32.56	185	100	Average	HORIZONTAL
2	4874.00	40.67	74.00	-33.33	40.25	3.01	35.15	32.56	185	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.53	27.49	54.00	-26.51	27.07	3.01	35.15	32.56	266	100	Average	VERTICAL
2	4874.00	41.12	74.00	-32.88	40.70	3.01	35.15	32.56	266	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 9 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4904.03	41.64	74.00	-32.36	41.08	3.02	35.09	32.63	224	100	Peak	HORIZONTAL
2	4904.46	28.05	54.00	-25.95	27.49	3.02	35.09	32.63	224	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4904.00	41.02	74.00	-32.98	40.46	3.02	35.09	32.63	134	100	Peak	VERTICAL
2	4904.23	28.03	54.00	-25.97	27.47	3.02	35.09	32.63	134	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4824.00	41.47	54.00	-12.53	41.27	3.00	35.26	32.46	161	100	Average	HORIZONTAL
2	4824.03	46.50	74.00	-27.50	46.30	3.00	35.26	32.46	161	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.95	46.58	74.00	-27.42	46.38	3.00	35.26	32.46	140	113	Peak	VERTICAL
2	4823.97	40.50	54.00	-13.50	40.30	3.00	35.26	32.46	140	113	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 6 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.93	42.80	54.00	-11.20	42.38	3.01	35.15	32.56	162	100	Average	HORIZONTAL
2	4873.93	47.28	74.00	-26.72	46.86	3.01	35.15	32.56	162	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.92	47.72	74.00	-26.28	47.30	3.01	35.15	32.56	254	100	Peak	VERTICAL
2	4873.94	43.21	54.00	-10.79	42.79	3.01	35.15	32.56	254	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 11 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.92	45.22	74.00	-28.78	44.57	3.02	35.03	32.66	215	100	Peak	HORIZONTAL
2	4923.94	38.19	54.00	-15.81	37.54	3.02	35.03	32.66	215	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.95	46.19	74.00	-27.81	45.54	3.02	35.03	32.66	227	100	Peak	VERTICAL
2	4923.99	39.81	54.00	-14.19	39.16	3.02	35.03	32.66	227	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.95	42.06	74.00	-31.94	41.86	3.00	35.26	32.46	251	100	Peak	HORIZONTAL
2	4824.50	27.52	54.00	-26.48	27.32	3.00	35.26	32.46	251	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.70	41.68	74.00	-32.32	41.48	3.00	35.26	32.46	217	100	Peak	VERTICAL
2	4824.37	27.74	54.00	-26.26	27.54	3.00	35.26	32.46	217	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 6 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.56	27.66	54.00	-26.34	27.24	3.01	35.15	32.56	214	100	Average	HORIZONTAL
2	4874.36	41.50	74.00	-32.50	41.08	3.01	35.15	32.56	214	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.51	27.53	54.00	-26.47	27.11	3.01	35.15	32.56	123	100	Average	VERTICAL
2	4873.79	41.02	74.00	-32.98	40.60	3.01	35.15	32.56	123	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 11 / J2+J3+J4, Mode 3 (Ant. 3)
Test Date	Aug. 06, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.87	28.34	54.00	-25.66	27.69	3.02	35.03	32.66	270	100	Average	HORIZONTAL
2	4923.95	41.96	74.00	-32.04	41.31	3.02	35.03	32.66	270	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.97	28.84	54.00	-25.16	28.19	3.02	35.03	32.66	282	100	Average	VERTICAL
2	4924.17	42.04	74.00	-31.96	41.39	3.02	35.03	32.66	282	100	Peak	VERTICAL

Note:

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

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

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

<For Mode 4 (Ant. 4)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4824.08	43.89	74.00	-30.11	43.69	3.00	35.26	32.46	158	100	Peak	HORIZONTAL
2	4824.29	29.89	54.00	-24.11	29.69	3.00	35.26	32.46	158	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2412.24	34.46	74.00	-39.54	39.62	2.05	35.05	27.84	185	100	Peak	VERTICAL
2	2412.50	25.47	54.00	-28.53	30.63	2.05	35.05	27.84	185	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 6 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4873.98	35.43	54.00	-18.57	32.82	4.33	35.20	33.48	339	100	Average	HORIZONTAL
2 p	4874.02	51.40	74.00	-22.60	48.79	4.33	35.20	33.48	339	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4874.44	38.10	54.00	-15.90	35.49	4.33	35.20	33.48	2	100	Average	VERTICAL
2 p	4874.72	51.30	74.00	-22.70	48.69	4.33	35.20	33.48	2	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch11 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4921.40	42.89	74.00	-31.11	42.24	3.02	35.03	32.66	159	100	Peak	HORIZONTAL
2	4927.30	30.27	54.00	-23.73	29.62	3.02	35.03	32.66	159	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4924.01	46.95	74.00	-27.05	46.30	3.02	35.03	32.66	186	100	Peak	VERTICAL
2	4924.09	31.18	54.00	-22.82	30.53	3.02	35.03	32.66	186	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.74	28.28	54.00	-25.72	28.08	3.00	35.26	32.46	142	100	Average	HORIZONTAL
2	4823.86	42.59	74.00	-31.41	42.39	3.00	35.26	32.46	142	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4824.32	41.02	74.00	-32.98	40.82	3.00	35.26	32.46	108	100	Peak	VERTICAL
2	4824.35	28.95	54.00	-25.05	28.75	3.00	35.26	32.46	108	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 6 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4873.98	30.81	54.00	-23.19	28.20	4.33	35.20	33.48	345	100	Average	HORIZONTAL
2 p	4873.99	44.23	74.00	-29.77	41.62	4.33	35.20	33.48	345	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 p	4873.99	44.05	74.00	-29.95	41.44	4.33	35.20	33.48	102	100	Peak	VERTICAL
2 a	4874.01	37.03	54.00	-16.97	34.42	4.33	35.20	33.48	102	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 9 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4903.64	42.11	74.00	-31.89	41.55	3.02	35.09	32.63	185	100	Peak	HORIZONTAL
2	4904.20	28.14	54.00	-25.86	27.58	3.02	35.09	32.63	185	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4904.05	42.57	74.00	-31.43	42.01	3.02	35.09	32.63	179	100	Peak	VERTICAL
2	4904.06	28.57	54.00	-25.43	28.01	3.02	35.09	32.63	179	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 149 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11487.10	52.19	60.00	-7.81	43.45	5.24	38.78	35.28	26	100 Average	HORIZONTAL
2	11490.00	66.51	80.00	-13.49	57.77	5.24	38.78	35.28	26	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11488.70	51.62	60.00	-8.38	42.88	5.24	38.78	35.28	262	122 Average	VERTICAL
2	11489.90	68.48	80.00	-11.52	59.74	5.24	38.78	35.28	262	122 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 157 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11565.10	44.82	60.00	-15.18	36.05	5.25	38.82	35.30	77	101	Average	HORIZONTAL
2	11566.30	58.93	80.00	-21.07	50.16	5.25	38.82	35.30	77	101	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11566.50	48.26	60.00	-11.74	39.49	5.25	38.82	35.30	316	101	Average	VERTICAL
2	11571.20	63.02	80.00	-16.98	54.24	5.25	38.83	35.30	316	101	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 165 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11647.30	42.99	60.00	-17.01	34.15	5.28	38.86	35.30	72	100	Average	HORIZONTAL
2	11651.40	57.42	80.00	-22.58	48.58	5.28	38.86	35.30	72	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11644.90	43.69	60.00	-16.31	34.85	5.28	38.86	35.30	244	100	Average	VERTICAL
2	11651.20	57.28	80.00	-22.72	48.44	5.28	38.86	35.30	244	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 151 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11495.80	45.50	60.00	-14.50	36.76	5.24	38.78	35.28	95	111 Average	HORIZONTAL
2	11510.20	60.16	80.00	-19.84	51.41	5.24	38.79	35.28	95	111 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11506.40	47.65	60.00	-12.35	38.90	5.24	38.79	35.28	319	100 Average	VERTICAL
2	11511.20	62.87	80.00	-17.13	54.12	5.24	38.79	35.28	319	100 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 159 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11586.60	40.74	60.00	-19.26	31.95	5.26	38.83	35.30	69	100 Average	HORIZONTAL
2	11591.20	54.11	80.00	-25.89	45.32	5.26	38.83	35.30	69	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11586.80	42.39	60.00	-17.61	33.60	5.26	38.83	35.30	317	100 Average	VERTICAL
2	11590.00	57.57	80.00	-22.43	48.78	5.26	38.83	35.30	317	100 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 23, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	4823.97	45.88	54.00	-8.12	45.39	2.46	33.06	35.03	187	100	Average	HORIZONTAL
2	4824.00	49.78	74.00	-24.22	49.29	2.46	33.06	35.03	187	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	4823.96	52.00	54.00	-2.00	51.51	2.46	33.06	35.03	179	128	Average	VERTICAL
2	4824.04	53.26	74.00	-20.74	52.77	2.46	33.06	35.03	179	128	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 6 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 31, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4873.96	50.71	54.00	-3.29	48.10	4.33	35.20	33.48	345	117	Average	HORIZONTAL
2 p	4874.00	53.13	74.00	-20.87	50.52	4.33	35.20	33.48	345	117	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4873.99	53.18	54.00	-0.82	50.57	4.33	35.20	33.48	358	103	Average	VERTICAL
2 p	4874.04	55.64	74.00	-18.36	53.03	4.33	35.20	33.48	358	103	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 11 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 23, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	4923.97	42.51	54.00	-11.49	41.79	2.47	33.26	35.01	187	100	Average	HORIZONTAL
2	4924.09	47.45	74.00	-26.55	46.73	2.47	33.26	35.01	187	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	4923.92	50.70	74.00	-23.30	49.98	2.47	33.26	35.01	185	123	Peak	VERTICAL
2	4923.96	47.09	54.00	-6.91	46.37	2.47	33.26	35.01	185	123	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2412.41	40.00	74.00	-34.00	45.16	2.05	35.05	27.84	179	124	Peak	HORIZONTAL
2	2412.50	28.50	54.00	-25.50	33.66	2.05	35.05	27.84	179	124	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2411.50	24.20	54.00	-29.80	29.36	2.05	35.05	27.84	219	130	Average	VERTICAL
2	2411.99	36.92	74.00	-37.08	42.08	2.05	35.05	27.84	219	130	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 6 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 31, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4872.20	41.24	54.00	-12.76	38.63	4.33	35.20	33.48	2	118	Average	HORIZONTAL
2 p	4872.50	52.73	74.00	-21.27	50.12	4.33	35.20	33.48	2	118	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1 a	4872.10	44.16	54.00	-9.84	41.55	4.33	35.20	33.48	347	103	Average	VERTICAL
2 p	4872.20	56.38	74.00	-17.62	53.77	4.33	35.20	33.48	347	103	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 11 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4924.06	47.81	74.00	-26.19	47.16	3.02	35.03	32.66	190	100	Peak	HORIZONTAL
2	4924.44	34.10	54.00	-19.90	33.45	3.02	35.03	32.66	190	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.50	33.26	54.00	-20.74	32.61	3.02	35.03	32.66	158	100	Average	VERTICAL
2	4923.56	45.90	74.00	-28.10	45.25	3.02	35.03	32.66	158	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 149 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11490.36	66.69	80.00	-13.31	58.18	4.76	34.75	38.50	197	100	Peak	HORIZONTAL
2	11490.44	51.61	60.00	-8.39	43.10	4.76	34.75	38.50	197	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.50	49.97	60.00	-10.03	41.46	4.76	34.75	38.50	163	100	Average	VERTICAL
2	11489.59	63.81	80.00	-16.19	55.30	4.76	34.75	38.50	163	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 157 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11570.46	57.51	80.00	-22.49	48.91	4.91	34.82	38.51	213	102	Peak	HORIZONTAL
2	11570.50	49.28	60.00	-10.72	40.68	4.91	34.82	38.51	213	102	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.50	50.82	60.00	-9.18	42.25	4.86	34.80	38.51	161	100	Average	VERTICAL
2	11569.51	64.33	80.00	-15.67	55.76	4.86	34.80	38.51	161	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 165 / J2+J3+J4, Mode 4 (Ant. 4)
Test Date	Jul. 26, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11650.43	57.98	80.00	-22.02	49.32	5.03	34.90	38.53	181	115	Peak	HORIZONTAL
2	11650.50	44.86	60.00	-15.14	36.20	5.03	34.90	38.53	181	115	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11649.64	50.30	60.00	-9.70	41.64	5.03	34.90	38.53	156	101	Average	VERTICAL
2	11649.75	63.73	80.00	-16.27	55.07	5.03	34.90	38.53	156	101	Peak	VERTICAL

Note:

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

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

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

<For Mode 5 (Ant. 5)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	4823.85	41.24	74.00	-32.76	40.75	2.46	33.06	35.03	43	100 Peak	HORIZONTAL
2	4824.34	28.42	54.00	-25.58	27.93	2.46	33.06	35.03	43	100 Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	deg	cm		
1	4823.88	41.65	74.00	-32.35	41.16	2.46	33.06	35.03	245	100 Peak	VERTICAL
2	4824.45	30.90	54.00	-23.10	30.41	2.46	33.06	35.03	245	100 Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 6 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	4873.53	42.44	74.00	-31.56	41.84	2.47	33.16	35.03	150	100 Peak	HORIZONTAL
2	4874.45	29.20	54.00	-24.80	28.60	2.47	33.16	35.03	150	100 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	4873.77	42.51	74.00	-31.49	41.91	2.47	33.16	35.03	320	100 Peak	VERTICAL
2	4873.93	30.11	54.00	-23.89	29.51	2.47	33.16	35.03	320	100 Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch11 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4924.21	29.53	54.00	-24.47	28.84	2.47	33.23	35.01	159	100	Average	HORIZONTAL
2	4924.23	40.27	74.00	-33.73	39.67	2.47	33.16	35.03	159	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.20	30.24	54.00	-23.76	29.52	2.47	33.26	35.01	322	100	Average	VERTICAL
2	4925.80	41.13	74.00	-32.87	40.41	2.47	33.26	35.01	322	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	4844.27	28.71	54.00	-25.29	28.19	2.46	33.09	35.03	311	100 Average	HORIZONTAL
2	4844.50	41.14	74.00	-32.86	40.62	2.46	33.09	35.03	311	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	4843.71	41.33	74.00	-32.67	40.81	2.46	33.09	35.03	149	100 Peak	VERTICAL
2	4843.93	30.81	54.00	-23.19	30.29	2.46	33.09	35.03	149	100 Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 6 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	4874.07	28.90	54.00	-25.10	28.30	2.47	33.16	35.03	306	100 Average	HORIZONTAL
2	4874.11	40.97	74.00	-33.03	40.37	2.47	33.16	35.03	306	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	4874.19	30.05	54.00	-23.95	29.45	2.47	33.16	35.03	185	100 Average	VERTICAL
2	4874.31	40.93	74.00	-33.07	40.33	2.47	33.16	35.03	185	100 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 9 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	4903.59	29.06	54.00	-24.94	28.42	2.47	33.19	35.02	123	100 Average	HORIZONTAL
2	4904.09	41.02	74.00	-32.98	40.38	2.47	33.19	35.02	123	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	4903.89	41.78	74.00	-32.22	41.14	2.47	33.19	35.02	305	100 Peak	VERTICAL
2	4904.05	31.20	54.00	-22.80	30.56	2.47	33.19	35.02	305	100 Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.96	32.40	54.00	-21.60	31.91	2.46	33.06	35.03	76	100	Average	HORIZONTAL
2	4823.98	42.32	74.00	-31.68	41.83	2.46	33.06	35.03	76	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.98	43.82	54.00	-10.18	43.33	2.46	33.06	35.03	264	110	Average	VERTICAL
2	4824.07	47.55	74.00	-26.45	47.06	2.46	33.06	35.03	264	110	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 6 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm	
1	4873.97	44.55	74.00	-29.45	43.95	2.47	33.16	35.03	25	100 Peak	HORIZONTAL
2	4874.06	37.05	54.00	-16.95	36.45	2.47	33.16	35.03	25	100 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm	
1	4874.00	43.78	54.00	-10.22	43.18	2.47	33.16	35.03	19	125 Average	VERTICAL
2	4874.03	48.15	74.00	-25.85	47.55	2.47	33.16	35.03	19	125 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 11 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.93	42.73	74.00	-31.27	42.01	2.47	33.26	35.01	346	100	Peak	HORIZONTAL
2	4924.00	31.06	54.00	-22.94	30.34	2.47	33.26	35.01	346	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.97	41.39	54.00	-12.61	40.67	2.47	33.26	35.01	6	100	Average	VERTICAL
2	4924.13	46.71	74.00	-27.29	45.99	2.47	33.26	35.01	6	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.52	28.51	54.00	-25.49	28.02	2.46	33.06	35.03	224	100	Average	HORIZONTAL
2	4824.34	41.46	74.00	-32.54	40.97	2.46	33.06	35.03	224	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4823.53	31.18	54.00	-22.82	30.69	2.46	33.06	35.03	32	100	Average	VERTICAL
2	4824.48	41.53	74.00	-32.47	41.04	2.46	33.06	35.03	32	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 6 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.95	41.95	74.00	-32.05	41.35	2.47	33.16	35.03	152	100	Peak	HORIZONTAL
2	4874.26	29.20	54.00	-24.80	28.60	2.47	33.16	35.03	152	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4873.53	31.98	54.00	-22.02	31.38	2.47	33.16	35.03	305	100	Average	VERTICAL
2	4873.65	44.40	74.00	-29.60	43.80	2.47	33.16	35.03	305	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 11 / J2+J3+J4, Mode 5 (Ant. 5)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamplifier Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.79	29.68	54.00	-24.32	28.96	2.47	33.26	35.01	311	100	Average	HORIZONTAL
2	4923.97	42.86	74.00	-31.14	42.14	2.47	33.26	35.01	311	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamplifier Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	4923.73	30.01	54.00	-23.99	29.29	2.47	33.26	35.01	212	100	Average	VERTICAL
2	4924.28	42.14	74.00	-31.86	41.42	2.47	33.26	35.01	212	100	Peak	VERTICAL

Note:

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

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

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

<For Mode 6 (Ant. 6)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 149 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11488.80	40.65	60.00	-19.35	31.91	5.24	38.78	35.28	170	100	Average	HORIZONTAL
2	11491.30	53.58	80.00	-26.42	44.84	5.24	38.78	35.28	170	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11486.60	50.86	80.00	-29.14	42.12	5.24	38.78	35.28	193	111	Peak	VERTICAL
2	11489.00	42.41	60.00	-17.59	33.67	5.24	38.78	35.28	193	111	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 157 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11570.30	41.17	60.00	-18.83	32.39	5.25	38.83	35.30	53	100 Average	HORIZONTAL
2	11571.80	53.66	80.00	-26.34	44.88	5.25	38.83	35.30	53	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11570.91	40.04	60.00	-19.96	31.26	5.25	38.83	35.30	360	100 Average	VERTICAL
2	11571.39	51.07	80.00	-28.93	42.29	5.25	38.83	35.30	360	100 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 165 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	11650.00	53.49	80.00	-26.51	44.65	5.28	38.86	35.30	224	100 Peak	HORIZONTAL
2	11650.50	44.95	60.00	-15.05	36.11	5.28	38.86	35.30	224	100 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	11649.10	45.61	60.00	-14.39	36.77	5.28	38.86	35.30	62	105 Average	VERTICAL
2	11650.10	61.55	80.00	-18.45	52.71	5.28	38.86	35.30	62	105 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 151 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11509.98	42.24	60.00	-17.76	33.49	5.24	38.79	35.28	207	100 Average	HORIZONTAL
2	11510.00	59.11	80.00	-20.89	50.36	5.24	38.79	35.28	207	100 Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11509.96	44.19	60.00	-15.81	35.44	5.24	38.79	35.28	6	100 Average	VERTICAL
2	11509.96	60.39	80.00	-19.61	51.64	5.24	38.79	35.28	6	100 Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 159 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11589.97	59.36	80.00	-20.64	50.57	5.26	38.83	35.30	210	101	Peak	HORIZONTAL
2	11590.02	40.99	60.00	-19.01	32.20	5.26	38.83	35.30	210	101	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	11589.99	40.34	60.00	-19.66	31.55	5.26	38.83	35.30	54	152	Average	VERTICAL
2	11590.00	56.14	80.00	-23.86	47.35	5.26	38.83	35.30	54	152	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 149 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	11486.42	57.97	80.00	-22.03	49.23	5.24	38.78	35.28	235	112 Peak	HORIZONTAL
2	11490.32	45.27	60.00	-14.73	36.53	5.24	38.78	35.28	235	112 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	11488.28	60.74	80.00	-19.26	52.00	5.24	38.78	35.28	203	106 Peak	VERTICAL
2	11488.48	46.15	60.00	-13.85	37.41	5.24	38.78	35.28	203	106 Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 157 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11568.55	57.08	80.00	-22.92	48.30	5.25	38.83	35.30	250	100 Peak	HORIZONTAL
2	11569.12	46.11	60.00	-13.89	37.33	5.25	38.83	35.30	250	100 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11567.50	54.52	80.00	-25.48	45.74	5.25	38.83	35.30	223	100 Peak	VERTICAL
2	11569.00	43.22	60.00	-16.78	34.44	5.25	38.83	35.30	223	100 Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 165 / J2+J3+J4, Mode 6 (Ant. 6)
Test Date	Aug. 12, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11648.90	63.59	80.00	-16.41	54.75	5.28	38.86	35.30	171	110 Peak	HORIZONTAL
2	11649.00	50.10	60.00	-9.90	41.26	5.28	38.86	35.30	171	110 Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm	
1	11650.10	61.50	80.00	-18.50	52.66	5.28	38.86	35.30	334	100 Peak	VERTICAL
2	11654.20	49.57	60.00	-10.43	40.73	5.28	38.86	35.30	334	100 Average	VERTICAL

Note:

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

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

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

<For Mode 7 (Ant. 7)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.57	41.73	74.00	-32.27	41.53	3.00	35.26	32.46	152	100	Peak	HORIZONTAL
2	4823.81	28.13	54.00	-25.87	27.93	3.00	35.26	32.46	152	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.83	42.82	74.00	-31.18	42.62	3.00	35.26	32.46	0	107	Peak	VERTICAL
2	4824.10	29.08	54.00	-24.92	28.88	3.00	35.26	32.46	0	107	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 6 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.83	30.23	54.00	-23.77	29.81	3.01	35.15	32.56	322	100	Average	HORIZONTAL
2	4874.09	44.38	74.00	-29.62	43.96	3.01	35.15	32.56	322	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.51	35.28	54.00	-18.72	34.86	3.01	35.15	32.56	326	100	Average	VERTICAL
2	4873.98	51.19	74.00	-22.81	50.77	3.01	35.15	32.56	326	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch11 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4924.14	28.93	54.00	-25.07	28.28	3.02	35.03	32.66	136	100	Average	HORIZONTAL
2	4924.29	43.04	74.00	-30.96	42.39	3.02	35.03	32.66	136	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4924.03	45.12	74.00	-28.88	44.47	3.02	35.03	32.66	96	100	Peak	VERTICAL
2	4924.26	31.47	54.00	-22.53	30.82	3.02	35.03	32.66	96	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4843.84	41.69	74.00	-32.31	41.39	3.01	35.20	32.49	198	100	Peak	HORIZONTAL
2	4844.43	27.92	54.00	-26.08	27.62	3.01	35.20	32.49	198	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4844.05	42.68	74.00	-31.32	42.38	3.01	35.20	32.49	264	100	Peak	VERTICAL
2	4844.50	28.28	54.00	-25.72	27.98	3.01	35.20	32.49	264	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 6 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.73	28.05	54.00	-25.95	27.63	3.01	35.15	32.56	209	100	Average	HORIZONTAL
2	4874.11	42.37	74.00	-31.63	41.95	3.01	35.15	32.56	209	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.76	28.61	54.00	-25.39	28.19	3.01	35.15	32.56	119	100	Average	VERTICAL
2	4873.90	43.04	74.00	-30.96	42.62	3.01	35.15	32.56	119	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 9 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4903.87	28.56	54.00	-25.44	28.00	3.02	35.09	32.63	170	100	Average	HORIZONTAL
2	4904.09	42.04	74.00	-31.96	41.48	3.02	35.09	32.63	170	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4903.76	28.89	54.00	-25.11	28.33	3.02	35.09	32.63	282	100	Average	VERTICAL
2	4904.03	43.91	74.00	-30.09	43.35	3.02	35.09	32.63	282	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 149 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.74	53.79	60.00	-6.21	45.28	4.76	34.75	38.50	294	100	Average	HORIZONTAL
2	11489.92	68.78	80.00	-11.22	60.27	4.76	34.75	38.50	294	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.77	58.54	60.00	-1.46	50.03	4.76	34.75	38.50	302	100	Average	VERTICAL
2	11489.96	73.42	80.00	-6.58	64.91	4.76	34.75	38.50	302	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 157 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.67	54.34	60.00	-5.66	45.77	4.86	34.80	38.51	294	100	Average	HORIZONTAL
2	11569.97	70.00	80.00	-10.00	61.40	4.91	34.82	38.51	294	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11569.69	59.14	60.00	-0.86	50.57	4.86	34.80	38.51	302	100	Average	VERTICAL
2	11570.00	75.30	80.00	-4.70	66.70	4.91	34.82	38.51	302	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 20MHz CH 165 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11647.52	62.13	80.00	-17.87	53.47	5.03	34.90	38.53	285	100	Peak	HORIZONTAL
2	11648.23	47.60	60.00	-12.40	38.94	5.03	34.90	38.53	285	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11647.43	51.07	60.00	-8.93	42.41	5.03	34.90	38.53	300	100	Average	VERTICAL
2	11648.06	65.52	80.00	-14.48	56.86	5.03	34.90	38.53	300	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 151 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11509.51	54.40	60.00	-5.60	45.87	4.78	34.75	38.50	293	100	Average	HORIZONTAL
2	11510.00	71.54	80.00	-8.46	63.01	4.78	34.75	38.50	293	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11509.97	76.65	80.00	-3.35	68.12	4.78	34.75	38.50	304	100	Peak	VERTICAL
2	11510.30	59.39	60.00	-0.61	50.86	4.78	34.75	38.50	304	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11an MCS8 40MHz CH 159 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11589.87	51.03	60.00	-8.97	42.42	4.91	34.82	38.52	293	100	Average	HORIZONTAL
2	11589.94	68.59	80.00	-11.41	59.98	4.91	34.82	38.52	293	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11589.94	71.74	80.00	-8.26	63.13	4.91	34.82	38.52	301	100	Peak	VERTICAL
2	11590.34	56.02	60.00	-3.98	47.41	4.91	34.82	38.52	301	100	Average	VERTICAL

Temperature	24°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4824.00	40.65	54.00	-13.35	40.45	3.00	35.26	32.46	348	100	Average	HORIZONTAL
2	4824.03	46.35	74.00	-27.65	46.15	3.00	35.26	32.46	348	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.94	49.22	54.00	-4.78	49.02	3.00	35.26	32.46	23	123	Average	VERTICAL
2	4823.94	51.92	74.00	-22.08	51.72	3.00	35.26	32.46	23	123	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 6 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4874.00	48.09	74.00	-25.91	47.67	3.01	35.15	32.56	294	100	Peak	HORIZONTAL
2	4874.03	43.03	54.00	-10.97	42.61	3.01	35.15	32.56	294	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.95	53.40	54.00	-0.60	52.98	3.01	35.15	32.56	304	154	Average	VERTICAL
2	4873.98	55.19	74.00	-18.81	54.77	3.01	35.15	32.56	304	154	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 11 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.97	44.44	54.00	-9.56	43.79	3.02	35.03	32.66	94	100	Average	HORIZONTAL
2	4924.12	48.54	74.00	-25.46	47.89	3.02	35.03	32.66	94	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.93	52.27	54.00	-1.73	51.62	3.02	35.03	32.66	91	128	Average	VERTICAL
2	4924.00	54.53	74.00	-19.47	53.88	3.02	35.03	32.66	91	128	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4824.21	27.66	54.00	-26.34	27.46	3.00	35.26	32.46	197	100	Average	HORIZONTAL
2	4824.43	41.45	74.00	-32.55	41.25	3.00	35.26	32.46	197	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4823.56	32.48	54.00	-21.52	32.28	3.00	35.26	32.46	22	123	Average	VERTICAL
2	4823.93	47.59	74.00	-26.41	47.39	3.00	35.26	32.46	22	123	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 6 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4873.79	31.19	54.00	-22.81	30.77	3.01	35.15	32.56	232	100	Average	HORIZONTAL
2	4873.93	45.07	74.00	-28.93	44.65	3.01	35.15	32.56	232	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4874.50	47.60	74.00	-26.40	47.18	3.01	35.15	32.56	323	138	Peak	VERTICAL
2	4874.50	33.71	54.00	-20.29	33.29	3.01	35.15	32.56	323	138	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 11 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.83	42.22	74.00	-31.78	41.57	3.02	35.03	32.66	178	100	Peak	HORIZONTAL
2	4924.31	28.70	54.00	-25.30	28.05	3.02	35.03	32.66	178	100	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	4923.97	50.55	74.00	-23.45	49.90	3.02	35.03	32.66	94	139	Peak	VERTICAL
2	4924.11	35.72	54.00	-18.28	35.07	3.02	35.03	32.66	94	139	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 149 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11489.69	53.84	60.00	-6.16	45.33	4.76	34.75	38.50	293	100	Average	HORIZONTAL
2	11490.33	69.29	80.00	-10.71	60.78	4.76	34.75	38.50	293	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11490.41	74.98	80.00	-5.02	66.47	4.76	34.75	38.50	303	100	Peak	VERTICAL
2	11490.50	59.43	60.00	-0.57	50.92	4.76	34.75	38.50	303	100	Average	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 157 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11567.30	54.39	60.00	-5.61	45.82	4.86	34.80	38.51	294	100	Average	HORIZONTAL
2	11567.62	68.27	80.00	-11.73	59.70	4.86	34.80	38.51	294	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11567.37	59.22	60.00	-0.78	50.65	4.86	34.80	38.51	302	100	Average	VERTICAL
2	11567.38	73.16	80.00	-6.84	64.59	4.86	34.80	38.51	302	100	Peak	VERTICAL

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11a CH 165 / J2+J3+J4, Mode 7 (Ant. 7)
Test Date	Sep. 01, 2010		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11646.14	47.66	60.00	-12.34	39.01	4.99	34.87	38.53	301	100	Average	HORIZONTAL
2	11646.49	61.63	80.00	-18.37	52.97	5.03	34.90	38.53	301	100	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	11646.14	52.93	60.00	-7.07	44.28	4.99	34.87	38.53	301	100	Average	VERTICAL
2	11646.49	67.02	80.00	-12.98	58.36	5.03	34.90	38.53	301	100	Peak	VERTICAL

Note:

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

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

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

4.6. Band Edge Emissions Measurement

4.6.1. Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

4.6.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (Emission in restricted band)	1 MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	100 KHz /100 KHz for Peak

4.6.3. Test Procedures

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

4.6.4. Test Setup Layout

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

4.6.5. Test Deviation

There is no deviation with the original standard.

4.6.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.6.7. Test Result of Band Edge and Fundamental Emissions

<For Mode 3 (Ant. 3)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1, 6, 11 / J2+J3+J4, Mode 3 (Ant. 3)
Test date	Aug. 06, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2390.00	53.16	54.00	-0.84	23.24	2.05	0.00	27.87	184	100	Average	VERTICAL
2	2390.00	66.35	74.00	-7.65	36.43	2.05	0.00	27.87	184	100	Peak	VERTICAL
3	2415.80	120.37	74.00			2.07	0.00	27.84	184	100	Peak	VERTICAL
4	2417.60	107.99	54.00			2.07	0.00	27.84	184	100	Average	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2389.80	64.65	74.00	-9.35	34.73	2.05	0.00	27.87	188	100	Peak	VERTICAL
2	2390.00	52.78	54.00	-1.22	22.86	2.05	0.00	27.87	188	100	Average	VERTICAL
3	2436.40	122.39	74.00			2.07	0.00	27.81	188	100	Peak	VERTICAL
4	2438.00	110.39	54.00			2.07	0.00	27.78	188	100	Average	VERTICAL
5	2483.50	50.23	54.00	-3.77	20.40	2.10	0.00	27.73	188	100	Average	VERTICAL
6	2485.30	64.56	74.00	-9.44	34.73	2.10	0.00	27.73	188	100	Peak	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2460.00	119.17	74.00			2.08	0.00	27.76	191	112	Peak	VERTICAL
2	2460.20	106.54	54.00			2.08	0.00	27.76	191	112	Average	VERTICAL
3	2483.50	52.91	54.00	-1.09	23.08	2.10	0.00	27.73	191	112	Average	VERTICAL
4	2483.50	66.52	74.00	-7.48	36.69	2.10	0.00	27.73	191	112	Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3, 6, 9 / J2+J3+J4, Mode 3 (Ant. 3)
Test date	Aug. 06, 2010		

Channel 3

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2390.00	53.17	54.00	-0.83	23.25	2.05	0.00	27.87	186	100	Average	VERTICAL
2	2390.00	69.06	74.00	-4.94	39.14	2.05	0.00	27.87	186	100	Peak	VERTICAL
3	2415.20	100.10	54.00			2.05	0.00	27.84	186	100	Average	VERTICAL
4	2415.60	113.26	74.00			2.07	0.00	27.84	186	100	Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2389.60	66.29	74.00	-7.71	36.38	2.04	0.00	27.87	187	100	Peak	VERTICAL
2	2390.00	52.86	54.00	-1.14	22.94	2.05	0.00	27.87	187	100	Average	VERTICAL
3	2427.00	115.78	74.00			2.07	0.00	27.81	187	100	Peak	VERTICAL
4	2428.60	102.82	54.00			2.07	0.00	27.81	187	100	Average	VERTICAL
5	2483.50	50.19	54.00	-3.81	20.36	2.10	0.00	27.73	187	100	Average	VERTICAL
6	2484.30	62.60	74.00	-11.40	32.77	2.10	0.00	27.73	187	100	Peak	VERTICAL

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

Channel 9

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2443.20	99.98	54.00			2.08	0.00	27.78	179	100	Average	VERTICAL
2	2444.80	112.82	74.00			2.08	0.00	27.78	179	100	Peak	VERTICAL
3	2483.50	53.65	54.00	-0.35	23.82	2.10	0.00	27.73	179	100	Average	VERTICAL
4	2483.50	70.86	74.00	-3.14	41.03	2.10	0.00	27.73	179	100	Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1, 6, 11 / J2+J3+J4, Mode 3 (Ant. 3)
Test date	Aug. 06, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	2386.20	53.12	54.00	-0.88	23.21	2.04	0.00	27.87	182	100	Average	VERTICAL
2	2386.60	64.48	74.00	-9.52	34.57	2.04	0.00	27.87	182	100	Peak	VERTICAL
3	2411.20	118.68	54.00			2.05	0.00	27.84	182	100	Average	VERTICAL
4	2411.20	122.21	74.00			2.05	0.00	27.84	182	100	Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	2389.00	53.05	54.00	-0.95	23.14	2.04	0.00	27.87	189	100	Average	VERTICAL
2	2389.60	64.88	74.00	-9.12	34.97	2.04	0.00	27.87	189	100	Peak	VERTICAL
3	2439.60	123.75	74.00			2.07	0.00	27.78	189	100	Peak	VERTICAL
4	2439.80	120.05	54.00			2.07	0.00	27.78	189	100	Average	VERTICAL
5	2483.50	49.62	54.00	-4.38	19.79	2.10	0.00	27.73	189	100	Average	VERTICAL
6	2485.50	62.68	74.00	-11.32	32.85	2.10	0.00	27.73	189	100	Peak	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	2464.60	119.62	74.00			2.08	0.00	27.76	189	100	Peak	VERTICAL
2	2464.80	116.07	54.00			2.08	0.00	27.76	189	100	Average	VERTICAL
3	2487.70	53.08	54.00	-0.92	23.28	2.10	0.00	27.70	189	100	Average	VERTICAL
4	2487.90	63.77	74.00	-10.23	33.97	2.10	0.00	27.70	189	100	Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1, 6, 11 / J2+J3+J4, Mode 3 (Ant. 3)
Test date	Aug. 06, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	2388.00	69.65	74.00	-4.35	39.74	2.04	0.00	27.87	190	100	Peak	VERTICAL
2	2390.00	53.27	54.00	-0.73	23.35	2.05	0.00	27.87	190	100	Average	VERTICAL
3	2412.80	111.18	54.00			2.05	0.00	27.84	190	100	Average	VERTICAL
4	2413.40	122.12	74.00			2.05	0.00	27.84	190	100	Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	2387.00	52.56	54.00	-1.44	22.65	2.04	0.00	27.87	187	100	Average	VERTICAL
2	2389.60	64.34	74.00	-9.66	34.43	2.04	0.00	27.87	187	100	Peak	VERTICAL
3	2435.20	121.65	74.00			2.07	0.00	27.81	187	100	Peak	VERTICAL
4	2435.40	111.62	54.00			2.07	0.00	27.81	187	100	Average	VERTICAL
5	2483.50	50.01	54.00	-3.99	20.18	2.10	0.00	27.73	187	100	Average	VERTICAL
6	2483.50	63.17	74.00	-10.83	33.34	2.10	0.00	27.73	187	100	Peak	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	deg	cm		
1	2462.80	108.61	54.00			2.08	0.00	27.76	181	100	Average	VERTICAL
2	2463.20	118.46	74.00			2.08	0.00	27.76	181	100	Peak	VERTICAL
3	2483.50	53.10	54.00	-0.90	23.27	2.10	0.00	27.73	181	100	Average	VERTICAL
4	2483.50	67.69	74.00	-6.31	37.86	2.10	0.00	27.73	181	100	Peak	VERTICAL

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

Note:

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

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

<For Mode 4 (Ant. 4)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1, 6, 11 / J2+J3+J4, Mode 4 (Ant. 4)
Test date	Jul. 31, 2010		

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2389.00	67.49	74.00	-6.51	37.56	1.76	28.17	0.00	182	148	Peak	HORIZONTAL
2	2390.00	53.38	54.00	-0.62	23.45	1.76	28.17	0.00	182	148	Average	HORIZONTAL
3	2409.00	113.12	74.00			1.77	28.21	0.00	182	148	Peak	HORIZONTAL
4	2419.40	100.59	54.00			1.77	28.25	0.00	182	148	Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2388.80	67.85	74.00	-6.15	36.94	2.86	0.00	28.05	353	153	Peak	HORIZONTAL
2	2390.00	53.14	54.00	-0.86	22.21	2.88	0.00	28.05	353	153	Average	HORIZONTAL
3	2434.60	107.54	54.00			2.89	0.00	28.18	353	153	Average	HORIZONTAL
4	2435.80	118.98	74.00			2.89	0.00	28.18	353	153	Peak	HORIZONTAL
5	2484.10	53.73	54.00	-0.27	22.54	2.93	0.00	28.26	353	153	Average	HORIZONTAL
6	2485.10	68.29	74.00	-5.71	37.06	2.93	0.00	28.30	353	153	Peak	HORIZONTAL

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

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2457.00	114.42	74.00			1.80	28.33	0.00	171	114	Peak	HORIZONTAL
2	2457.20	101.17	54.00			1.80	28.33	0.00	171	114	Average	HORIZONTAL
3	2483.50	52.22	54.00	-1.78	22.03	1.81	28.38	0.00	171	114	Average	HORIZONTAL
4	2483.90	66.40	74.00	-7.60	36.21	1.81	28.38	0.00	171	114	Peak	HORIZONTAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3, 6, 9 / J2+J3+J4, Mode 4 (Ant. 4)
Test date	Jul. 26, 2010		

Channel 3

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2388.40	66.10	74.00	-7.90	36.17	1.76	28.17	0.00	200	152	Peak	HORIZONTAL
2	2390.00	52.44	54.00	-1.56	22.51	1.76	28.17	0.00	200	152	Average	HORIZONTAL
3	2415.20	107.90	74.00			1.77	28.21	0.00	200	152	Peak	HORIZONTAL
4	2417.60	95.28	54.00			1.77	28.25	0.00	200	152	Average	HORIZONTAL

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

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2388.40	65.62	74.00	-8.38	34.71	2.86	0.00	28.05	357	150	Peak	HORIZONTAL
2	2390.00	50.65	54.00	-3.35	19.72	2.88	0.00	28.05	357	150	Average	HORIZONTAL
3	2441.40	110.54	74.00			2.91	0.00	28.18	357	150	Peak	HORIZONTAL
4	2449.80	97.94	54.00			2.91	0.00	28.18	357	150	Average	HORIZONTAL
5	2483.50	52.86	54.00	-1.14	21.67	2.93	0.00	28.26	357	150	Average	HORIZONTAL
6	2484.30	68.91	74.00	-5.09	37.72	2.93	0.00	28.26	357	150	Peak	HORIZONTAL

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

Channel 9

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2446.80	109.64	74.00			2.08	0.00	27.78	172	118	Peak	HORIZONTAL
2	2458.00	96.00	54.00			2.08	0.00	27.76	172	118	Average	HORIZONTAL
3	2483.50	53.07	54.00	-0.93	23.24	2.10	0.00	27.73	172	118	Average	HORIZONTAL
4	2483.90	71.65	74.00	-2.35	41.82	2.10	0.00	27.73	172	118	Peak	HORIZONTAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1, 6, 11 / J2+J3+J4, Mode 4 (Ant. 4)
Test date	Jul. 26, 2010		

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2386.00	50.27	54.00	-3.73	20.34	1.76	28.17	0.00	148	100	Average	VERTICAL
2	2387.20	57.69	74.00	-16.31	27.76	1.76	28.17	0.00	148	100	Peak	VERTICAL
3	2409.20	106.95	54.00			1.77	28.21	0.00	148	100	Average	VERTICAL
4	2409.40	110.40	74.00			1.77	28.21	0.00	148	100	Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2388.00	55.09	74.00	-18.91	24.18	2.86	0.00	28.05	7	146	Peak	HORIZONTAL
2	2388.60	45.38	54.00	-8.62	14.47	2.86	0.00	28.05	7	146	Average	HORIZONTAL
3 a	2437.80	110.73	54.00			2.89	0.00	28.18	7	146	Average	HORIZONTAL
4 p	2438.00	114.43	74.00			2.89	0.00	28.18	7	146	Peak	HORIZONTAL
5	2484.30	59.03	74.00	-14.97	27.84	2.93	0.00	28.26	7	146	Peak	HORIZONTAL
6	2484.90	47.73	54.00	-6.27	16.54	2.93	0.00	28.26	7	146	Average	HORIZONTAL

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

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2458.20	108.31	54.00			1.80	28.33	0.00	173	117	Average	HORIZONTAL
2	2459.40	111.74	74.00			1.80	28.33	0.00	173	117	Peak	HORIZONTAL
3	2487.90	47.22	54.00	-6.78	16.99	1.81	28.42	0.00	173	117	Average	HORIZONTAL
4	2487.90	57.73	74.00	-16.27	27.50	1.81	28.42	0.00	173	117	Peak	HORIZONTAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1, 6, 11 / J2+J3+J4, Mode 4 (Ant. 4)
Test date	Jul. 31, 2010		

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2389.80	73.06	74.00	-0.94	43.13	1.76	28.17	0.00	175	121	Peak	HORIZONTAL
2	2390.00	53.32	54.00	-0.68	23.39	1.76	28.17	0.00	175	121	Average	HORIZONTAL
3	2410.40	103.78	54.00			1.77	28.21	0.00	175	121	Average	HORIZONTAL
4	2410.80	113.78	74.00			1.77	28.21	0.00	175	121	Peak	HORIZONTAL

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

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2388.40	50.52	54.00	-3.48	19.61	2.86	0.00	28.05	356	125	Average	HORIZONTAL
2	2388.80	63.43	74.00	-10.57	32.52	2.86	0.00	28.05	356	125	Peak	HORIZONTAL
3	2438.00	108.07	54.00			2.89	0.00	28.18	356	125	Average	HORIZONTAL
4	2438.20	118.21	74.00			2.89	0.00	28.18	356	125	Peak	HORIZONTAL
5	2483.50	67.11	74.00	-6.89	35.92	2.93	0.00	28.26	356	125	Peak	HORIZONTAL
6	2483.50	52.45	54.00	-1.55	21.26	2.93	0.00	28.26	356	125	Average	HORIZONTAL

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

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2460.80	104.92	54.00			1.80	28.33	0.00	169	139	Average	HORIZONTAL
2	2460.80	115.10	74.00			1.80	28.33	0.00	169	139	Peak	HORIZONTAL
3	2483.50	52.20	54.00	-1.80	22.01	1.81	28.38	0.00	169	139	Average	HORIZONTAL
4	2483.50	65.51	74.00	-8.49	35.32	1.81	28.38	0.00	169	139	Peak	HORIZONTAL

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

Note:

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

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

<For Mode 5 (Ant. 5)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1, 6, 11 / J2+J3+J4, Mode 5 (Ant. 5)
Test date	Aug. 12, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2389.40	69.22	74.00	-4.78	39.29	1.76	28.17	0.00	314	118	Peak
2	2390.00	53.73	54.00	-0.27	23.80	1.76	28.17	0.00	314	118	Average
3	2410.80	114.56	74.00			1.77	28.21	0.00	314	118	Peak
4	2411.00	104.20	54.00			1.77	28.21	0.00	314	118	Average

Item 3, 4 are the fundamental frequency at 2412 MHz

Channel 6

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2389.60	64.38	74.00	-9.62	34.45	1.76	28.17	0.00	318	125	Peak
2	2390.00	53.77	54.00	-0.23	23.84	1.76	28.17	0.00	318	125	Average
3	2439.80	109.82	54.00			1.78	28.29	0.00	318	125	Average
4	2441.20	121.94	74.00			1.78	28.29	0.00	318	125	Peak
5	2483.50	53.60	54.00	-0.40	23.42	1.81	28.37	0.00	318	125	Average
6	2484.10	69.70	74.00	-4.30	39.52	1.81	28.37	0.00	318	125	Peak

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

Channel 11

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2456.60	117.28	74.00			1.80	28.33	0.00	311	129	Peak
2	2462.80	104.79	54.00			1.80	28.33	0.00	311	129	Average
3	2483.50	53.79	54.00	-0.21	23.61	1.81	28.37	0.00	311	129	Average
4	2483.50	70.76	74.00	-3.24	40.58	1.81	28.37	0.00	311	129	Peak

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3, 6, 9 / J2+J3+J4, Mode 5 (Ant. 5)
Test date	Aug. 12, 2010		

Channel 3

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2384.80	67.91	74.00	-6.09	37.98	1.76	28.17	0.00	313	119 Peak	VERTICAL
2	2390.00	53.69	54.00	-0.31	23.76	1.76	28.17	0.00	313	119 Average	VERTICAL
3	2425.60	108.93	74.00			1.77	28.25	0.00	313	119 Peak	VERTICAL
4	2426.80	97.88	54.00			1.77	28.25	0.00	313	119 Average	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2384.40	65.61	74.00	-8.39	35.68	1.76	28.17	0.00	314	137 Peak	VERTICAL
2	2390.00	51.88	54.00	-2.12	21.95	1.76	28.17	0.00	314	137 Average	VERTICAL
3	2443.40	100.18	54.00			1.78	28.29	0.00	314	137 Average	VERTICAL
4	2444.20	112.07	74.00			1.78	28.29	0.00	314	137 Peak	VERTICAL
5	2483.50	52.85	54.00	-1.15	22.67	1.81	28.37	0.00	314	137 Average	VERTICAL
6	2484.70	68.66	74.00	-5.34	38.48	1.81	28.37	0.00	314	137 Peak	VERTICAL

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

Channel 9

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2456.00	111.64	74.00			1.80	28.33	0.00	312	132 Peak	VERTICAL
2	2456.80	99.34	54.00			1.80	28.33	0.00	312	132 Average	VERTICAL
3	2483.50	53.52	54.00	-0.48	23.34	1.81	28.37	0.00	312	132 Average	VERTICAL
4	2487.90	69.27	74.00	-4.73	39.05	1.81	28.41	0.00	312	132 Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1, 6, 11 / J2+J3+J4, Mode 5 (Ant. 5)
Test date	Aug. 12, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2386.20	53.03	54.00	-0.97	23.10	1.76	28.17	0.00	360	118 Average	VERTICAL
2	2386.60	61.55	74.00	-12.45	31.62	1.76	28.17	0.00	360	118 Peak	VERTICAL
3	2411.20	114.08	54.00			1.77	28.21	0.00	360	118 Average	VERTICAL
4	2411.20	117.47	74.00			1.77	28.21	0.00	360	118 Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2388.60	50.36	54.00	-3.64	20.43	1.76	28.17	0.00	31	115 Average	VERTICAL
2	2388.60	61.35	74.00	-12.65	31.42	1.76	28.17	0.00	31	115 Peak	VERTICAL
3	2438.60	120.57	74.00			1.78	28.29	0.00	31	115 Peak	VERTICAL
4	2438.80	117.14	54.00			1.78	28.29	0.00	31	115 Average	VERTICAL
5	2483.50	62.09	74.00	-11.91	31.91	1.81	28.37	0.00	31	115 Peak	VERTICAL
6	2484.30	53.16	54.00	-0.84	22.98	1.81	28.37	0.00	31	115 Average	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	deg	cm	
1	2458.00	117.89	74.00			1.80	28.33	0.00	145	141 Peak	VERTICAL
2	2458.20	114.48	54.00			1.80	28.33	0.00	145	141 Average	VERTICAL
3	2488.10	62.69	74.00	-11.31	32.47	1.81	28.41	0.00	145	141 Peak	VERTICAL
4	2488.20	53.31	54.00	-0.69	23.09	1.81	28.41	0.00	145	141 Average	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1, 6, 11 / J2+J3+J4, Mode 5 (Ant. 5)
Test date	Aug. 12, 2010		

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2389.00	71.23	74.00	-2.77	41.30	1.76	28.17	0.00	360	120	Peak	VERTICAL
2	2390.00	53.47	54.00	-0.53	23.54	1.76	28.17	0.00	360	120	Average	VERTICAL
3	2418.20	116.04	74.00			1.77	28.25	0.00	360	120	Peak	VERTICAL
4	2418.40	106.75	54.00			1.77	28.25	0.00	360	120	Average	VERTICAL

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

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2389.00	68.67	74.00	-5.33	38.74	1.76	28.17	0.00	325	128	Peak	VERTICAL
2	2390.00	53.95	54.00	-0.05	24.02	1.76	28.17	0.00	325	128	Average	VERTICAL
3	2439.00	122.71	74.00			1.78	28.29	0.00	325	128	Peak	VERTICAL
4	2439.60	112.99	54.00			1.78	28.29	0.00	325	128	Average	VERTICAL
5	2483.50	53.87	54.00	-0.13	23.69	1.81	28.37	0.00	325	128	Average	VERTICAL
6	2483.90	70.18	74.00	-3.82	40.00	1.81	28.37	0.00	325	128	Peak	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor				
			dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	2468.80	107.27	54.00			1.80	28.37	0.00	300	114	Average	VERTICAL
2	2469.00	116.33	74.00			1.80	28.37	0.00	300	114	Peak	VERTICAL
3	2483.50	52.78	54.00	-1.22	22.60	1.81	28.37	0.00	300	114	Average	VERTICAL
4	2483.70	68.09	74.00	-5.91	37.91	1.81	28.37	0.00	300	114	Peak	VERTICAL

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

Note:

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

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

<For Mode 7 (Ant. 7)>:

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 20MHz Ch 1, 6, 11 / J2+J3+J4, Mode 7 (Ant. 7)
Test date	Sep. 01, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2389.40	66.08	74.00	-7.92	36.17	2.04	0.00	27.87	194	100	Peak	HORIZONTAL
2	2390.00	48.74	54.00	-5.26	18.82	2.05	0.00	27.87	194	100	Average	HORIZONTAL
3	2411.60	107.63	74.00			2.05	0.00	27.84	194	100	Peak	HORIZONTAL
4	2416.00	95.67	54.00			2.07	0.00	27.84	194	100	Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2389.20	66.34	74.00	-7.66	36.43	2.04	0.00	27.87	182	155	Peak	VERTICAL
2	2390.00	52.33	54.00	-1.67	22.41	2.05	0.00	27.87	182	155	Average	VERTICAL
3	2430.60	105.59	54.00			2.07	0.00	27.81	182	155	Average	VERTICAL
4	2433.80	117.81	74.00			2.07	0.00	27.81	182	155	Peak	VERTICAL
5	2483.50	50.94	54.00	-3.06	21.11	2.10	0.00	27.73	182	155	Average	VERTICAL
6	2483.70	67.00	74.00	-7.00	37.17	2.10	0.00	27.73	182	155	Peak	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2464.20	102.50	54.00			2.08	0.00	27.76	144	158	Average	VERTICAL
2	2464.60	114.45	74.00			2.08	0.00	27.76	144	158	Peak	VERTICAL
3	2483.50	52.55	54.00	-1.45	22.72	2.10	0.00	27.73	144	158	Average	VERTICAL
4	2483.50	68.80	74.00	-5.20	38.97	2.10	0.00	27.73	144	158	Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11n MCS8 40MHz Ch 3, 6, 9 / J2+J3+J4, Mode 7 (Ant. 7)
Test date	Sep. 01, 2010		

Channel 3

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2390.00	52.97	54.00	-1.03	23.05	2.05	0.00	27.87	179	168	Average	VERTICAL
2	2390.00	68.17	74.00	-5.83	38.25	2.05	0.00	27.87	179	168	Peak	VERTICAL
3	2426.00	110.44	74.00			2.07	0.00	27.81	179	168	Peak	VERTICAL
4	2426.80	97.57	54.00			2.07	0.00	27.81	179	168	Average	VERTICAL

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

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2384.00	70.55	74.00	-3.45	40.62	2.04	0.00	27.89	179	137	Peak	VERTICAL
2	2390.00	53.06	54.00	-0.94	23.14	2.05	0.00	27.87	179	137	Average	VERTICAL
3	2427.40	112.12	74.00			2.07	0.00	27.81	179	137	Peak	VERTICAL
4	2428.60	98.74	54.00			2.07	0.00	27.81	179	137	Average	VERTICAL
5	2483.50	51.06	54.00	-2.94	21.23	2.10	0.00	27.73	179	137	Average	VERTICAL
6	2483.90	66.48	74.00	-7.52	36.65	2.10	0.00	27.73	179	137	Peak	VERTICAL

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

Channel 9

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2447.60	109.49	74.00			2.08	0.00	27.78	176	147	Peak	VERTICAL
2	2457.20	97.39	54.00			2.08	0.00	27.76	176	147	Average	VERTICAL
3	2483.50	53.18	54.00	-0.82	23.35	2.10	0.00	27.73	176	147	Average	VERTICAL
4	2483.50	69.29	74.00	-4.71	39.46	2.10	0.00	27.73	176	147	Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11b CH 1, 6, 11 / J2+J3+J4, Mode 7 (Ant. 7)
Test date	Sep. 01, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2386.00	58.83	74.00	-15.17	28.92	2.04	0.00	27.87	225	121	Peak	VERTICAL
2	2386.40	50.62	54.00	-3.38	20.71	2.04	0.00	27.87	225	121	Average	VERTICAL
3	2412.80	110.29	54.00			2.05	0.00	27.84	225	121	Average	VERTICAL
4	2413.00	113.98	74.00			2.05	0.00	27.84	225	121	Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2389.00	46.26	54.00	-7.74	16.35	2.04	0.00	27.87	195	145	Average	VERTICAL
2	2389.20	56.67	74.00	-17.33	26.76	2.04	0.00	27.87	195	145	Peak	VERTICAL
3	2438.80	110.77	54.00			2.07	0.00	27.78	195	145	Average	VERTICAL
4	2439.60	114.41	74.00			2.07	0.00	27.78	195	145	Peak	VERTICAL
5	2484.30	56.15	74.00	-17.85	26.32	2.10	0.00	27.73	195	145	Peak	VERTICAL
6	2485.50	44.77	54.00	-9.23	14.94	2.10	0.00	27.73	195	145	Average	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2459.40	113.99	74.00			2.08	0.00	27.76	213	138	Peak	VERTICAL
2	2460.20	110.34	54.00			2.08	0.00	27.76	213	138	Average	VERTICAL
3	2487.70	47.69	54.00	-6.31	17.89	2.10	0.00	27.70	213	138	Average	VERTICAL
4	2487.70	57.45	74.00	-16.55	27.65	2.10	0.00	27.70	213	138	Peak	VERTICAL

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

Temperature	26°C	Humidity	60%
Test Engineer	Johnson Chang	Configurations	IEEE 802.11g CH 1, 6, 11 / J2+J3+J4, Mode 7 (Ant. 7)
Test date	Sep. 01, 2010		

Channel 1

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2390.00	53.38	54.00	-0.62	23.46	2.05	0.00	27.87	164	150	Average	VERTICAL
2	2390.00	72.78	74.00	-1.22	42.86	2.05	0.00	27.87	164	150	Peak	VERTICAL
3	2411.20	104.54	54.00			2.05	0.00	27.84	164	150	Average	VERTICAL
4	2411.60	114.55	74.00			2.05	0.00	27.84	164	150	Peak	VERTICAL

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

Channel 6

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2388.80	69.73	74.00	-4.27	39.82	2.04	0.00	27.87	339	157	Peak	VERTICAL
2	2390.00	52.53	54.00	-1.47	22.61	2.05	0.00	27.87	339	157	Average	VERTICAL
3	2436.00	106.74	54.00			2.07	0.00	27.81	339	157	Average	VERTICAL
4	2436.00	116.52	74.00			2.07	0.00	27.81	339	157	Peak	VERTICAL
5	2483.70	50.71	54.00	-3.29	20.88	2.10	0.00	27.73	339	157	Average	VERTICAL
6	2483.70	64.42	74.00	-9.58	34.59	2.10	0.00	27.73	339	157	Peak	VERTICAL

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

Channel 11

	Freq	Level	Limit	Over	Read	Cable	Preamp	Antenna	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	2460.80	115.30	74.00			2.08	0.00	27.76	212	148	Peak	VERTICAL
2	2461.00	105.46	54.00			2.08	0.00	27.76	212	148	Average	VERTICAL
3	2483.50	52.19	54.00	-1.81	22.36	2.10	0.00	27.73	212	148	Average	VERTICAL
4	2483.50	70.32	74.00	-3.68	40.49	2.10	0.00	27.73	212	148	Peak	VERTICAL

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

Note:

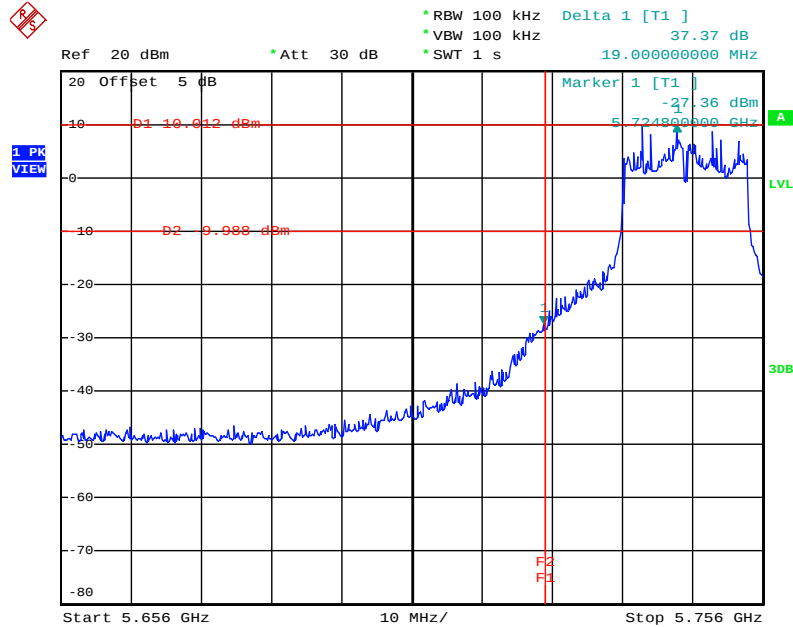
Emission level (dBuV/m) = 20 log Emission level (uV/m).

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

For Emission not in Restricted Band

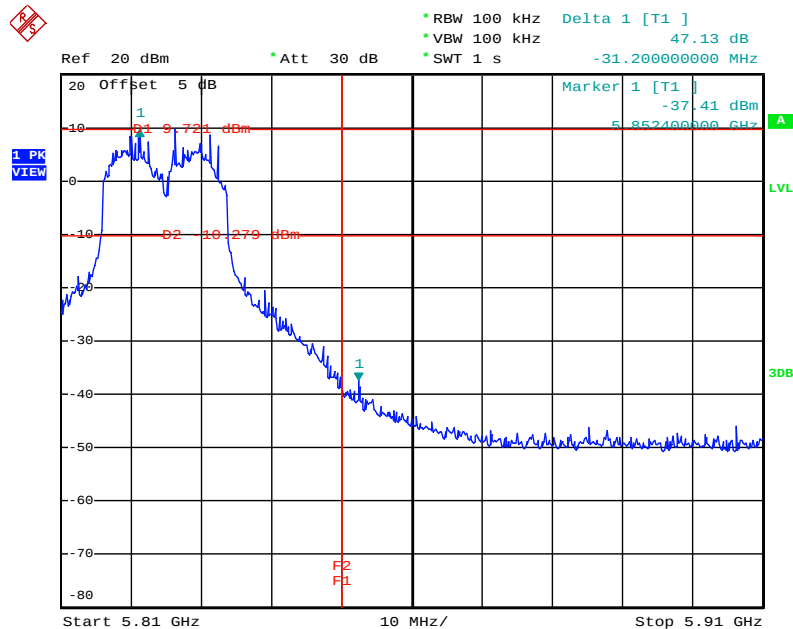
<For Mode 1 (Ant. 1)>:

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5745 MHz



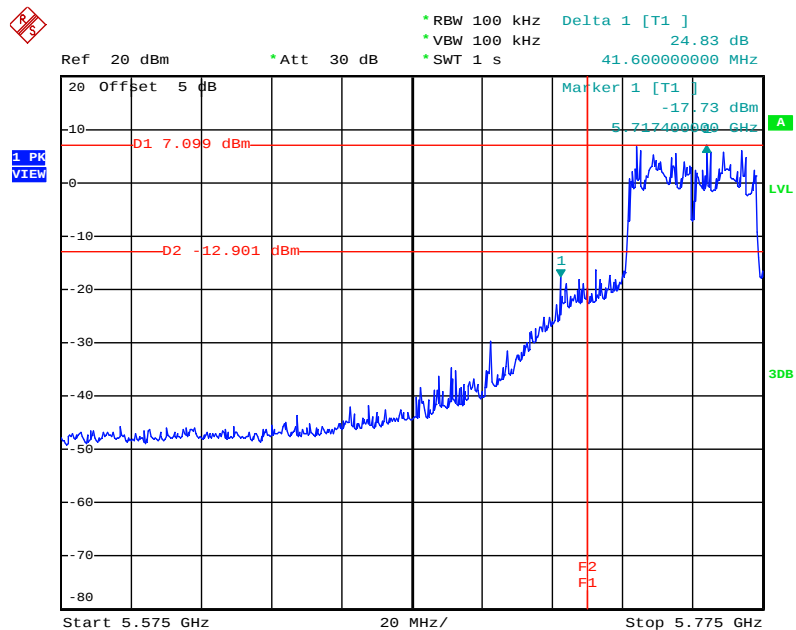
Date: 12.AUG.2010 15:55:23

High Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5825 MHz



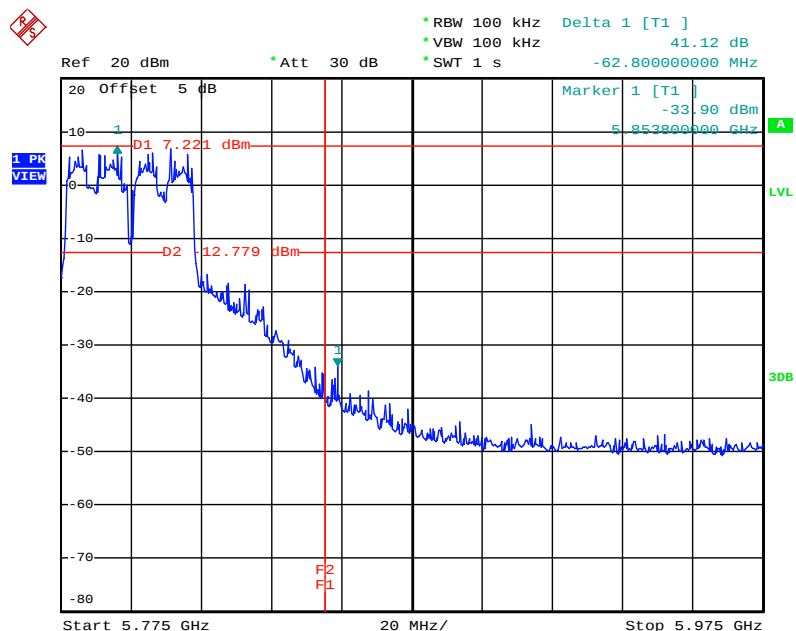
Date: 12.AUG.2010 15:51:03

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5755 MHz



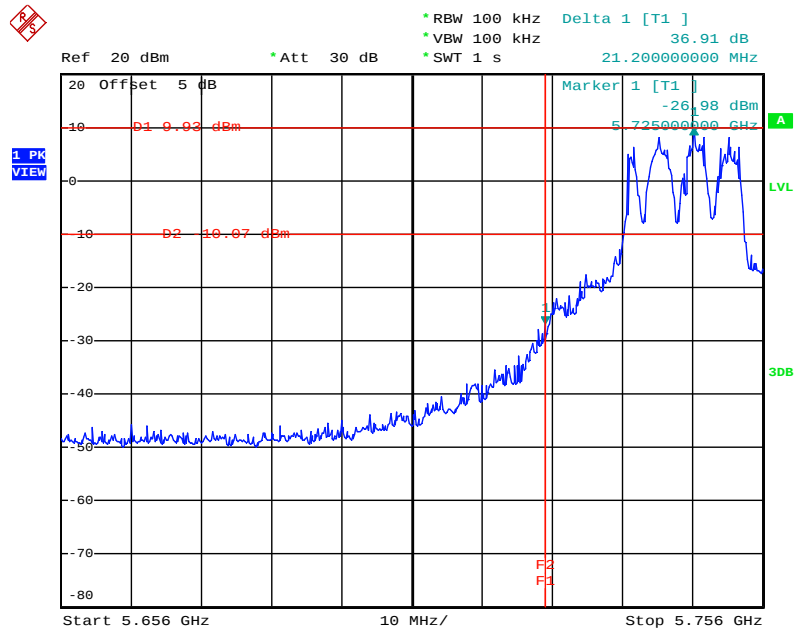
Date: 12.AUG.2010 15:57:47

High Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5795 MHz



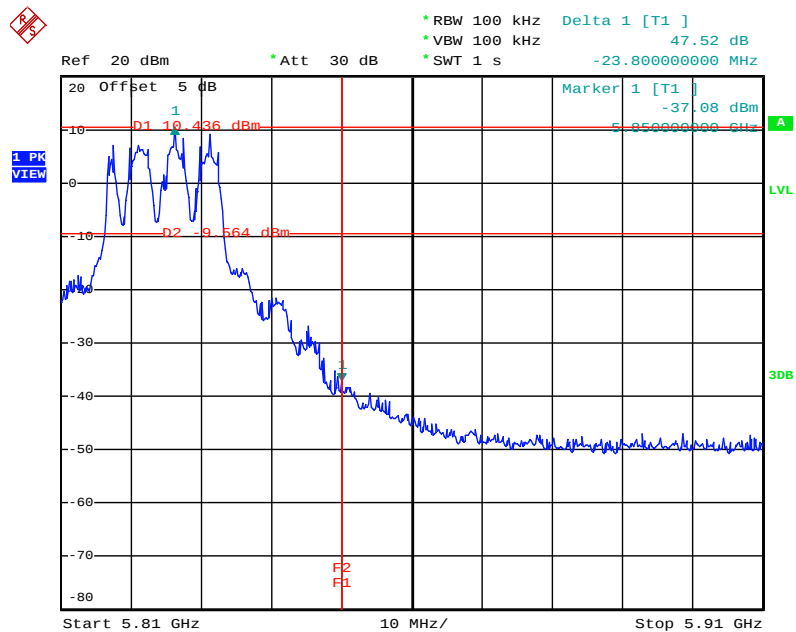
Date: 12.AUG.2010 15:59:38

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



Date: 12.AUG.2010 15:45:16

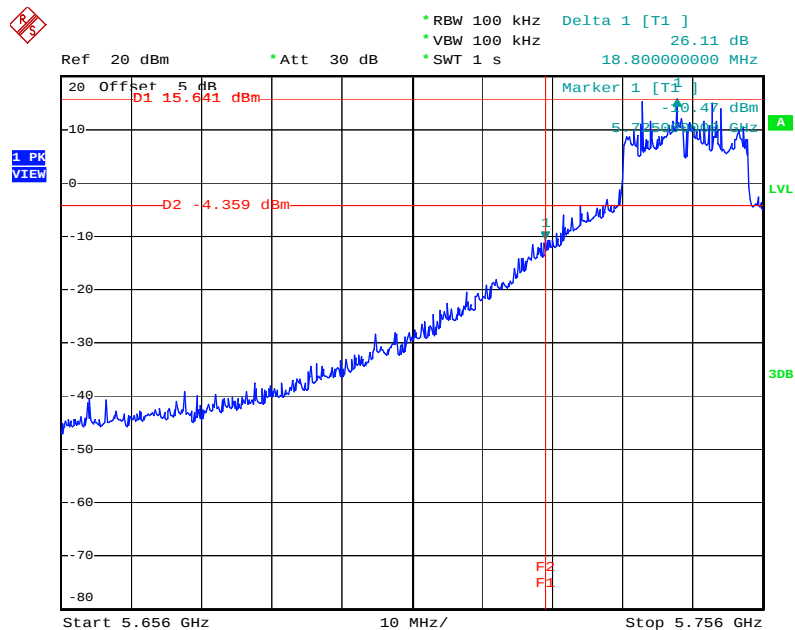
High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



Date: 12.AUG.2010 15:48:56

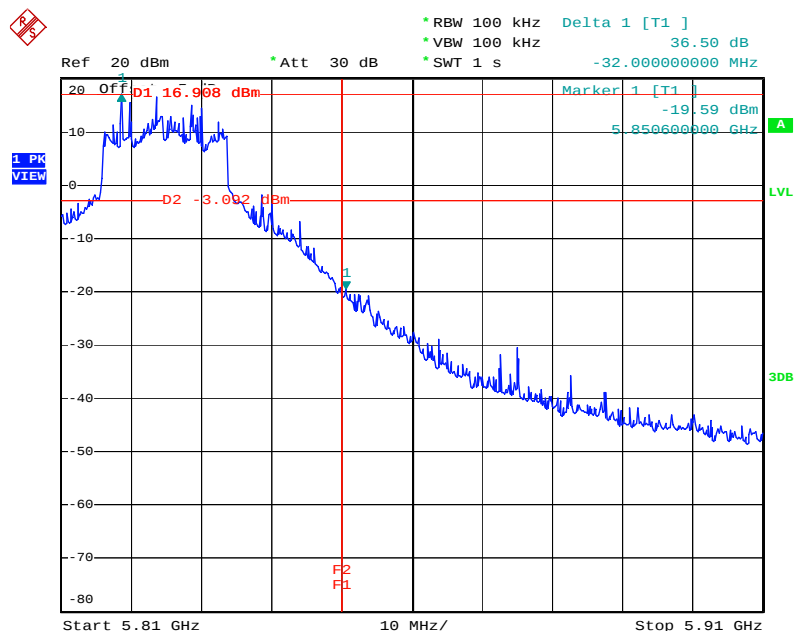
<For Mode 2 (Ant. 2)>:

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5745 MHz



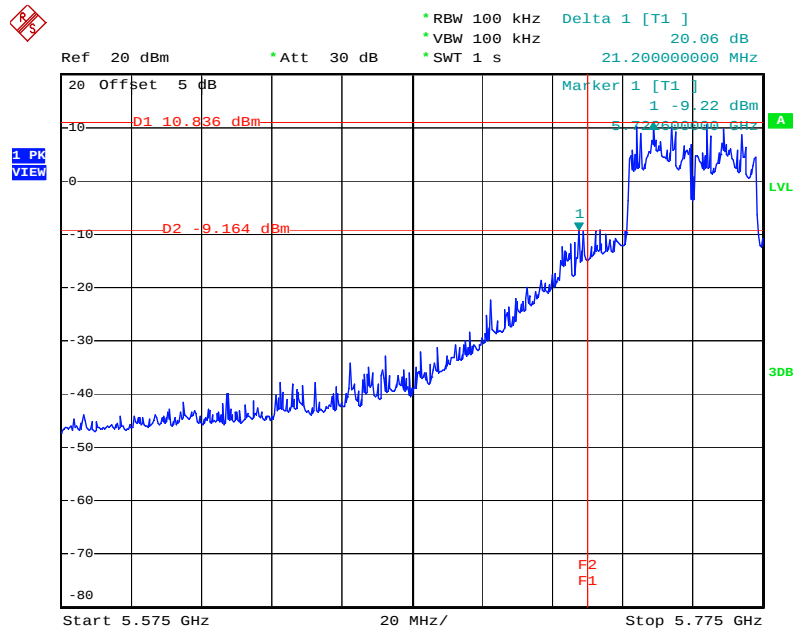
Date: 11.AUG.2010 19:37:16

High Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5825 MHz



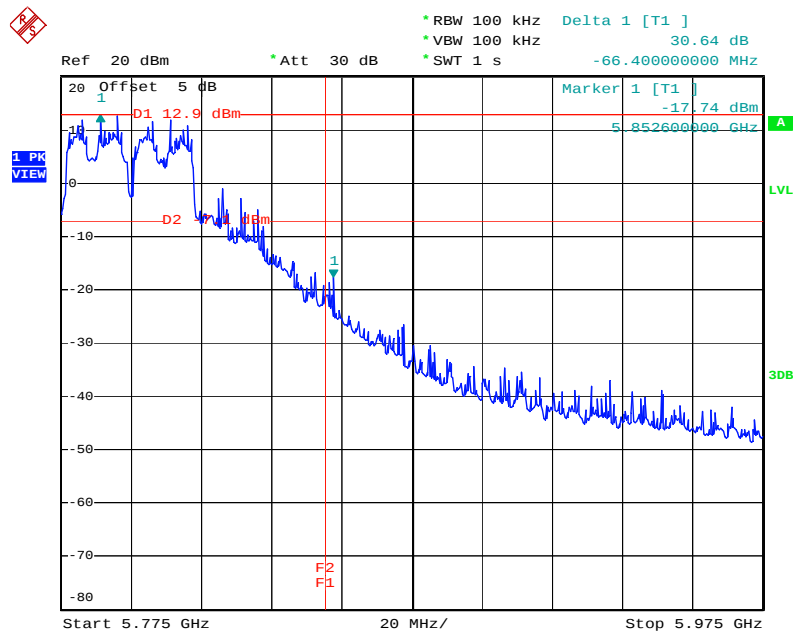
Date: 11.AUG.2010 19:42:21

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5755 MHz



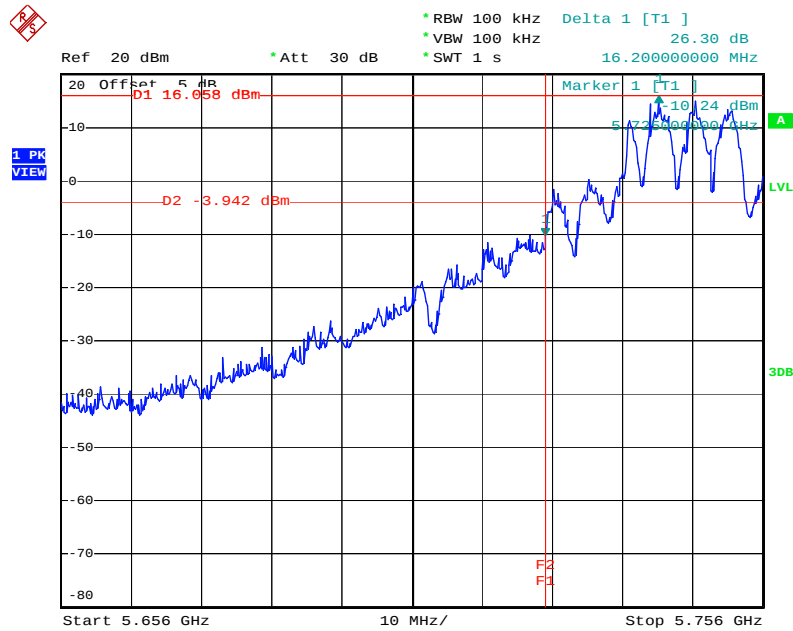
Date: 11.AUG.2010 19:14:00

High Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5795 MHz



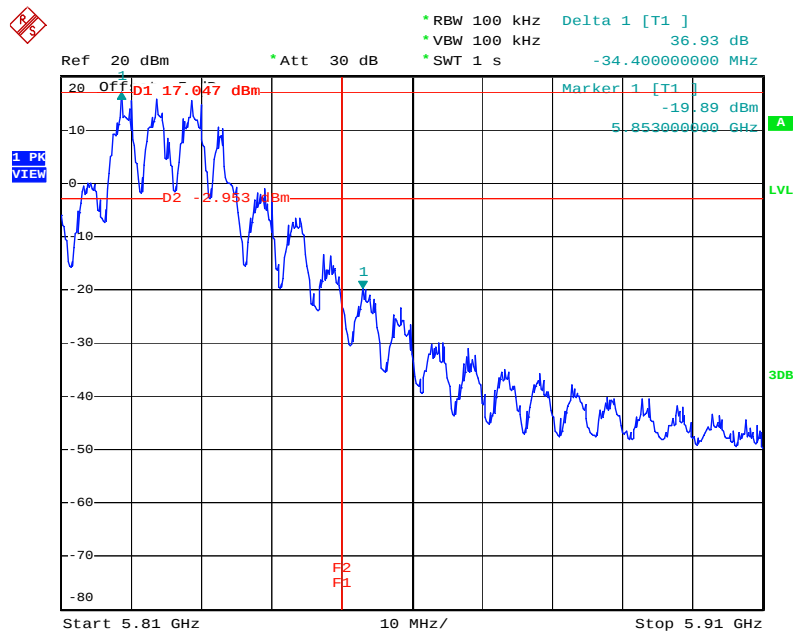
Date: 11.AUG.2010 19:19:21

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



Date: 11.AUG.2010 19:52:33

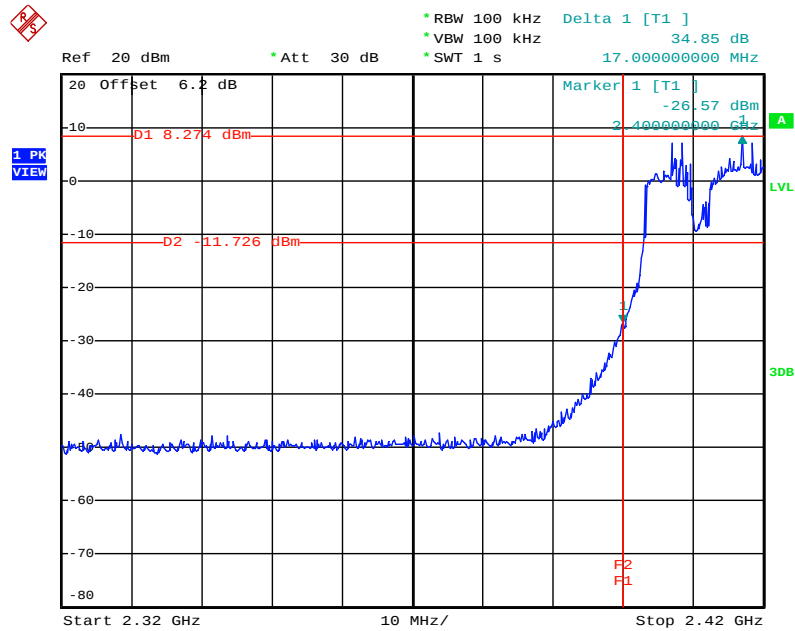
High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



Date: 11.AUG.2010 19:46:41

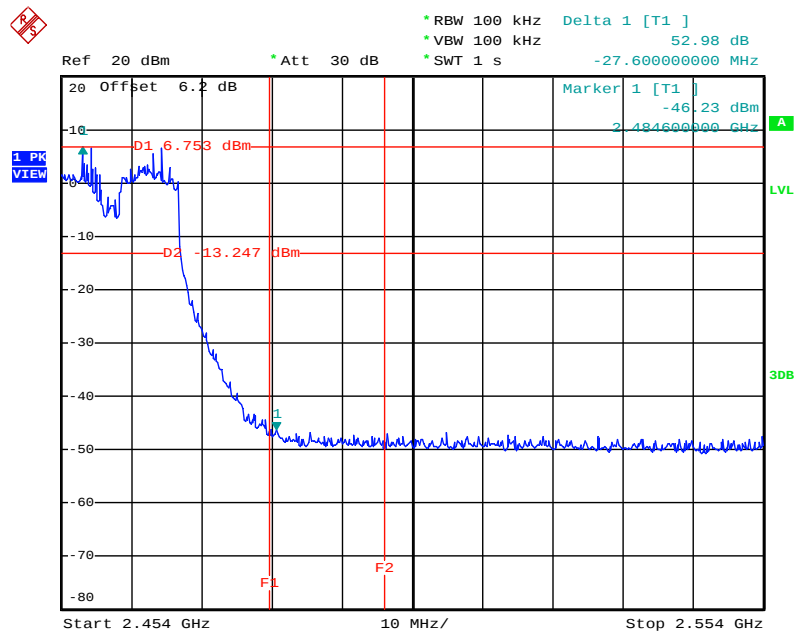
<For Mode 3 (Ant. 3)>:

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2412 MHz



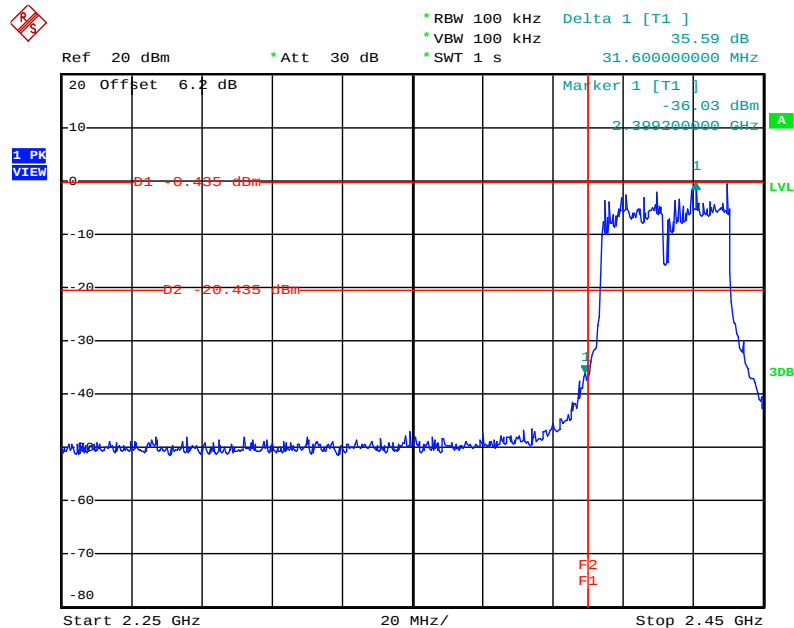
Date: 12.AUG.2010 02:29:11

High Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2462 MHz



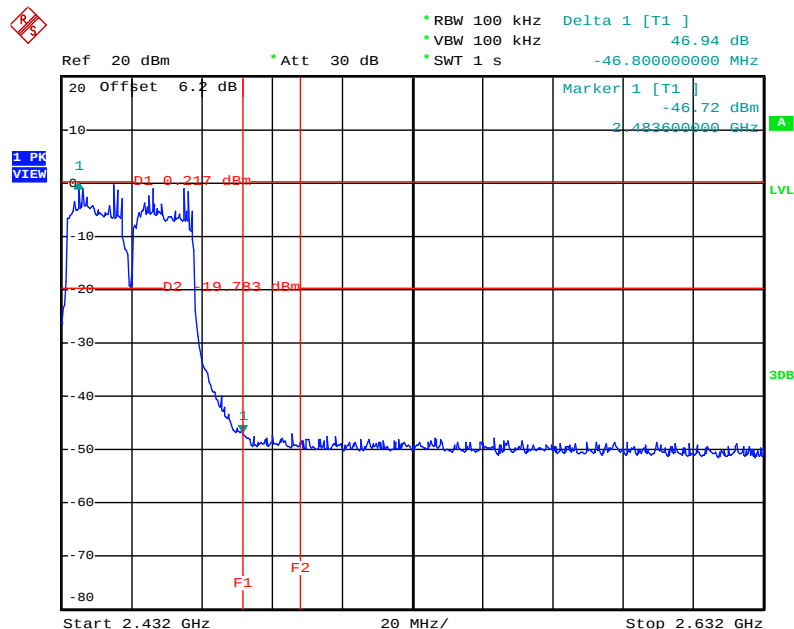
Date: 12.AUG.2010 02:24:54

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2422 MHz



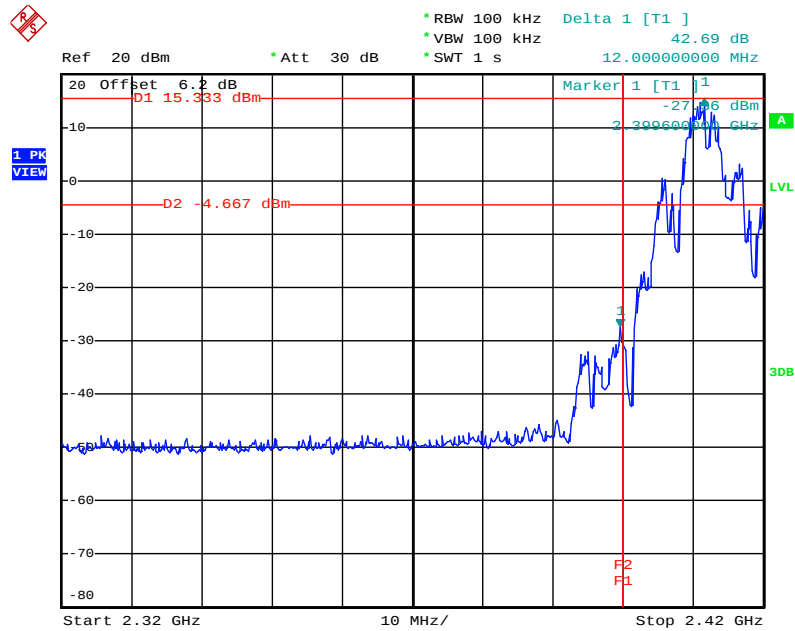
Date: 12.AUG.2010 02:18:04

High Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2452 MHz



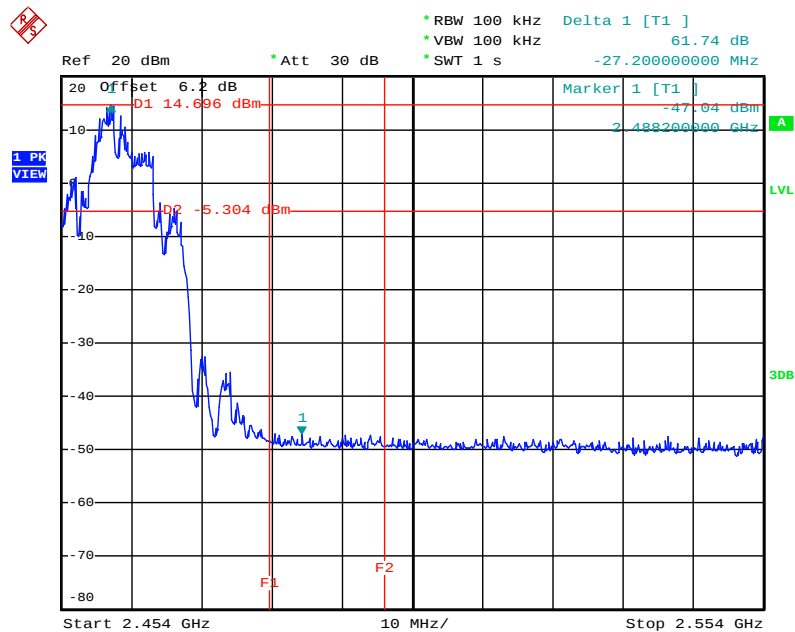
Date: 12.AUG.2010 02:22:06

Low Band Edge Plot on Configuration IEEE 802.11b / 2412 MHz



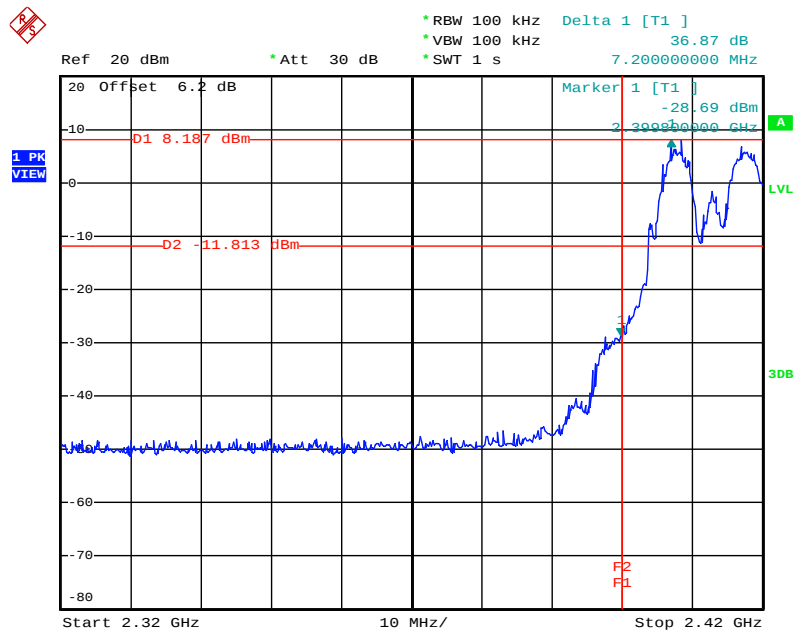
Date: 12.AUG.2010 02:31:30

High Band Edge Plot on Configuration IEEE 802.11b / 2462 MHz



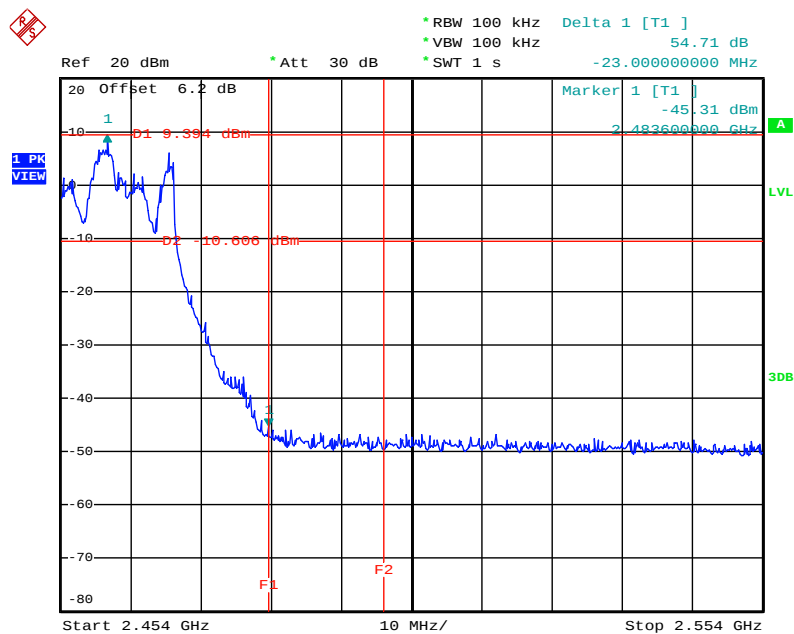
Date: 12.AUG.2010 02:35:35

Low Band Edge Plot on Configuration IEEE 802.11g / 2412 MHz



Date: 12.AUG.2010 02:41:52

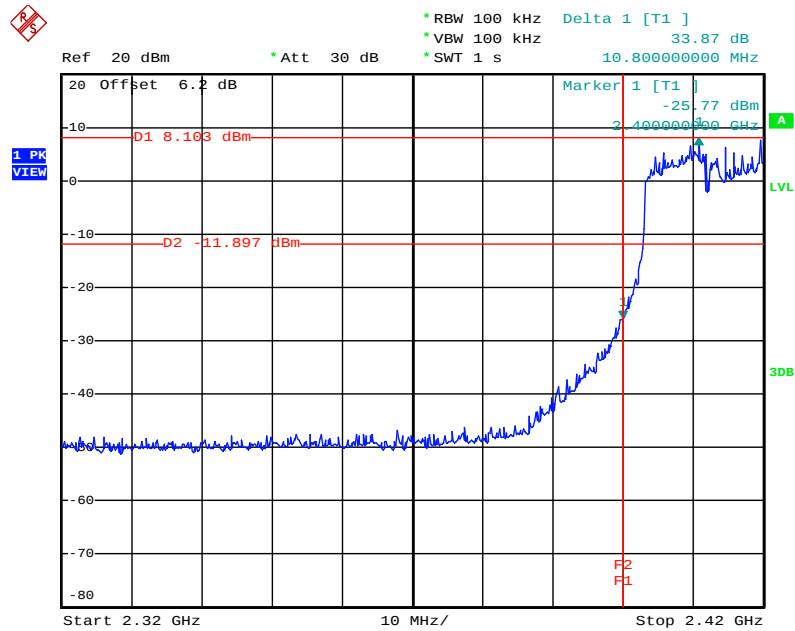
High Band Edge Plot on Configuration IEEE 802.11g / 2462 MHz



Date: 12.AUG.2010 02:37:49

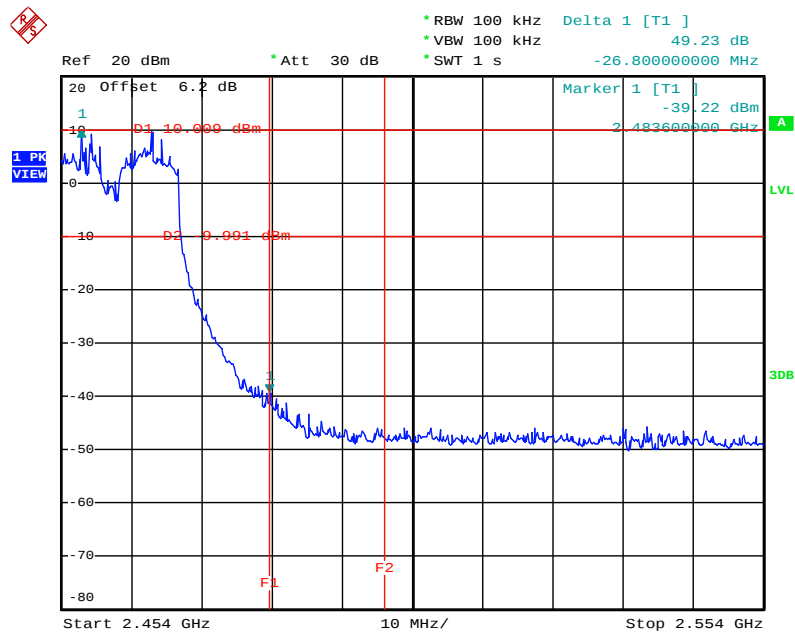
<For Mode 4 (Ant. 4)>:

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2412 MHz



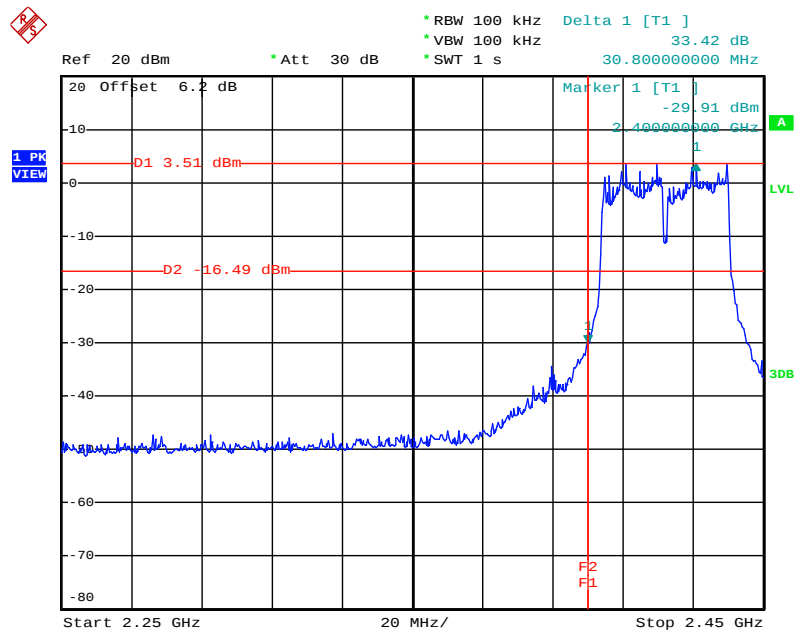
Date: 12.AUG.2010 03:02:36

High Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2462 MHz



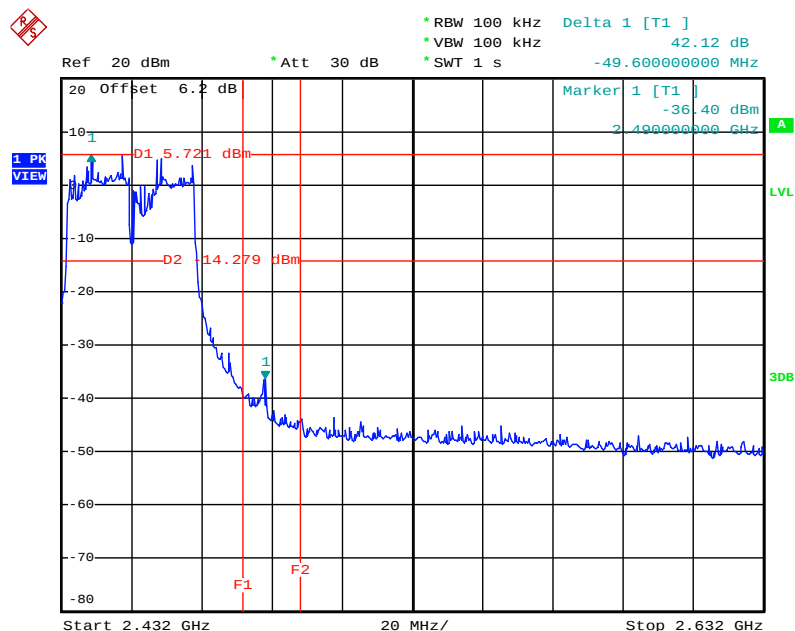
Date: 12.AUG.2010 03:06:40

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2422 MHz



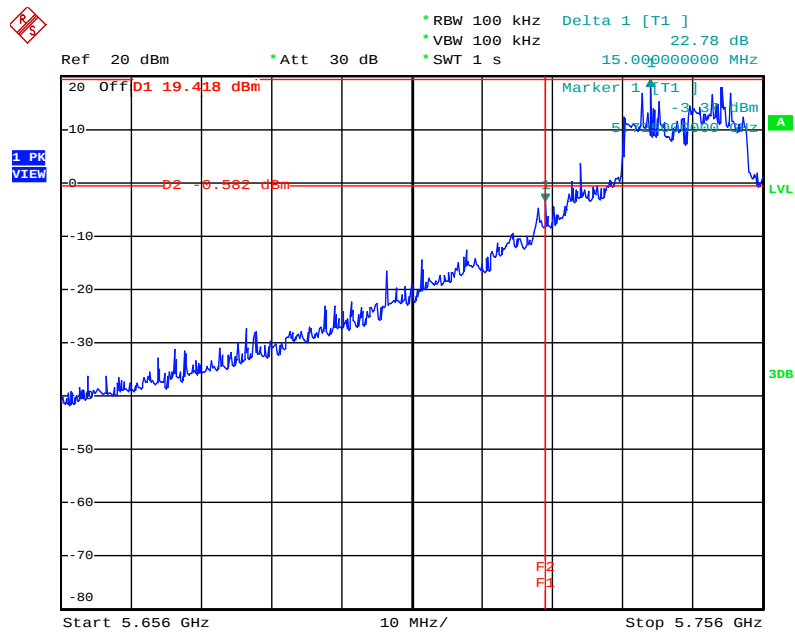
Date: 12.AUG.2010 03:13:01

High Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2452 MHz



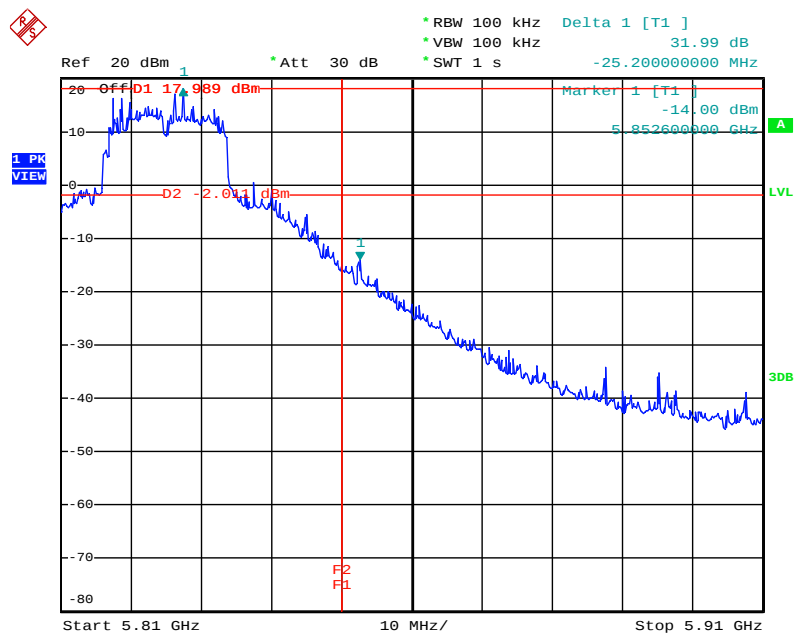
Date: 12.AUG.2010 03:08:57

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5745 MHz



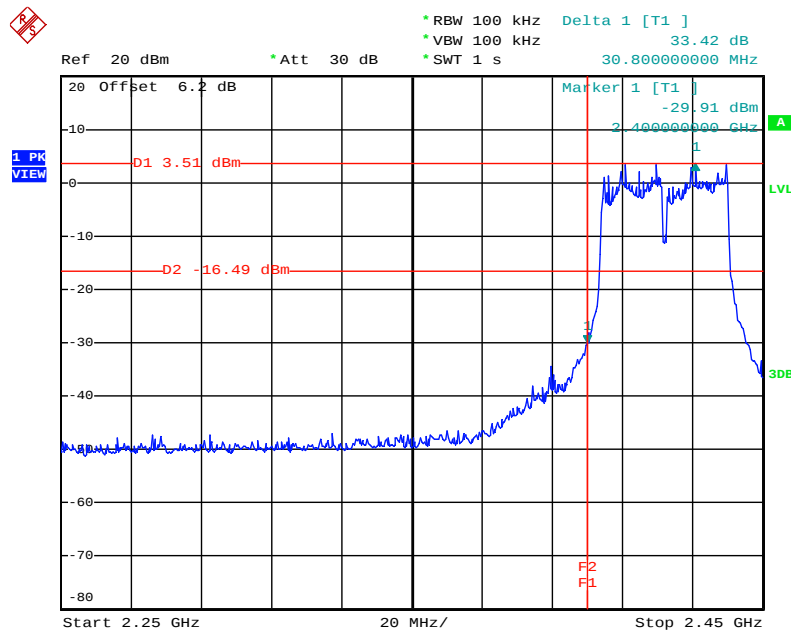
Date: 12.AUG.2010 23:16:02

High Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5825 MHz



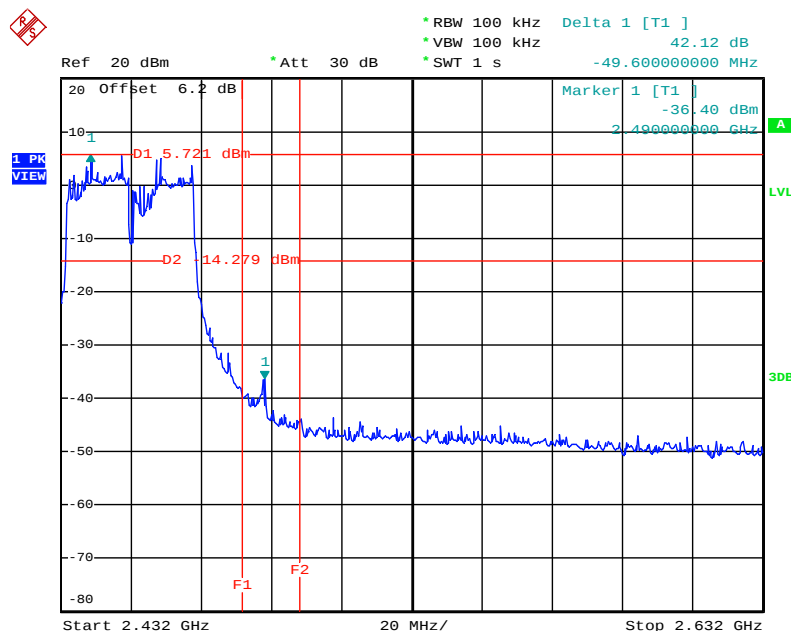
Date: 12.AUG.2010 23:12:02

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5755 MHz



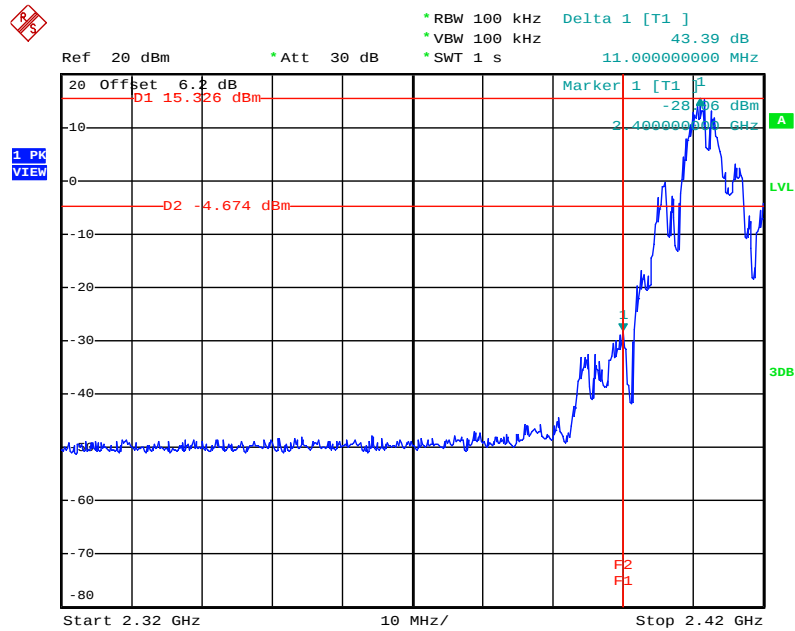
Date: 12.AUG.2010 03:13:01

High Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5795 MHz



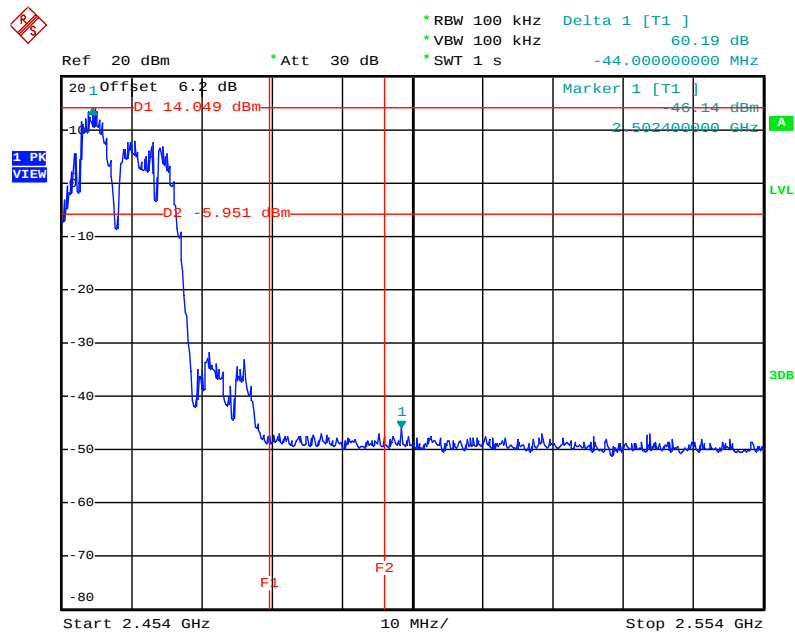
Date: 12.AUG.2010 03:08:57

Low Band Edge Plot on Configuration IEEE 802.11b / 2412 MHz



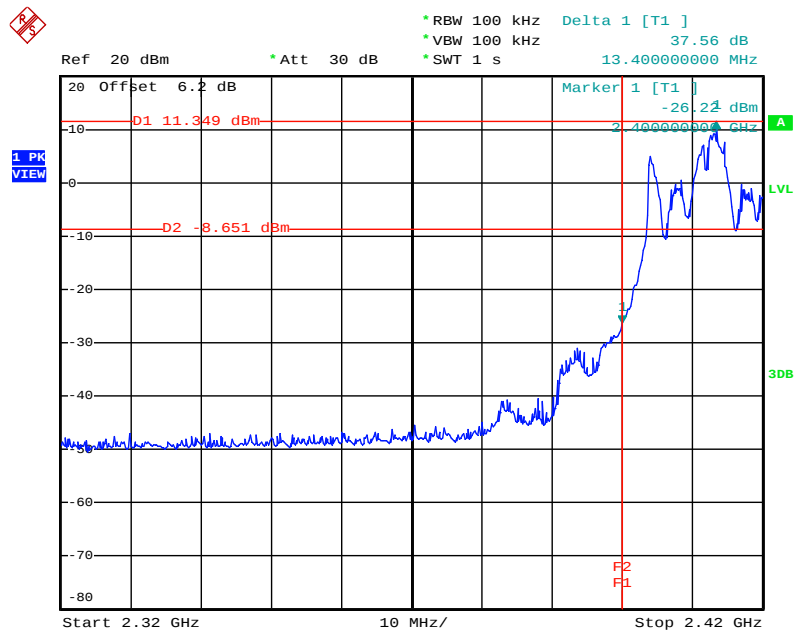
Date: 12.AUG.2010 03:00:17

High Band Edge Plot on Configuration IEEE 802.11b / 2462 MHz



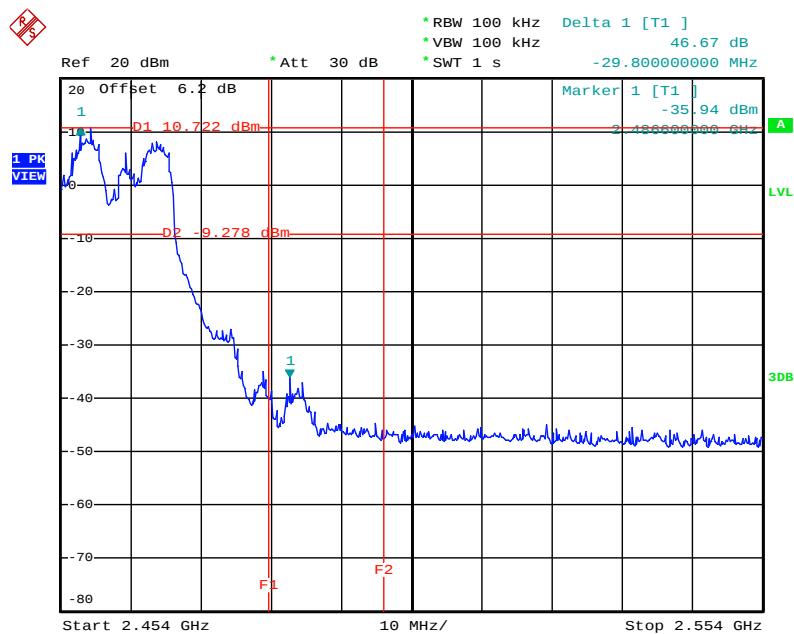
Date: 12.AUG.2010 02:55:31

Low Band Edge Plot on Configuration IEEE 802.11g / 2412 MHz



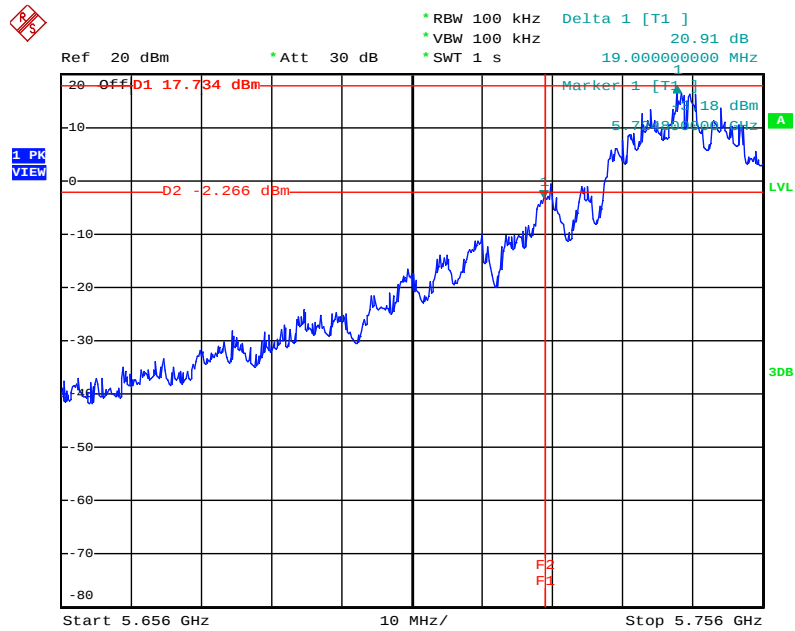
Date: 12.AUG.2010 02:49:26

High Band Edge Plot on Configuration IEEE 802.11g / 2462 MHz



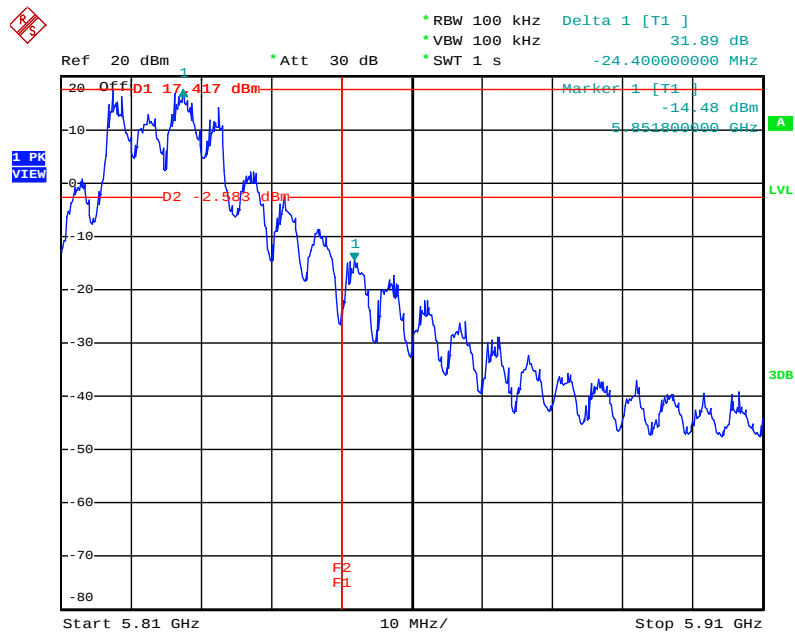
Date: 12.AUG.2010 02:53:23

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



Date: 12.AUG.2010 23:01:39

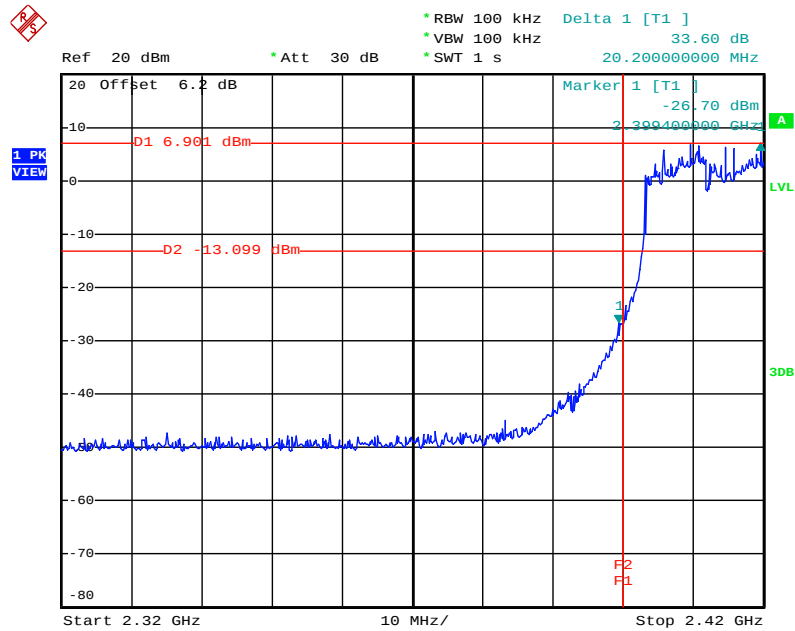
High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



Date: 12.AUG.2010 23:06:19

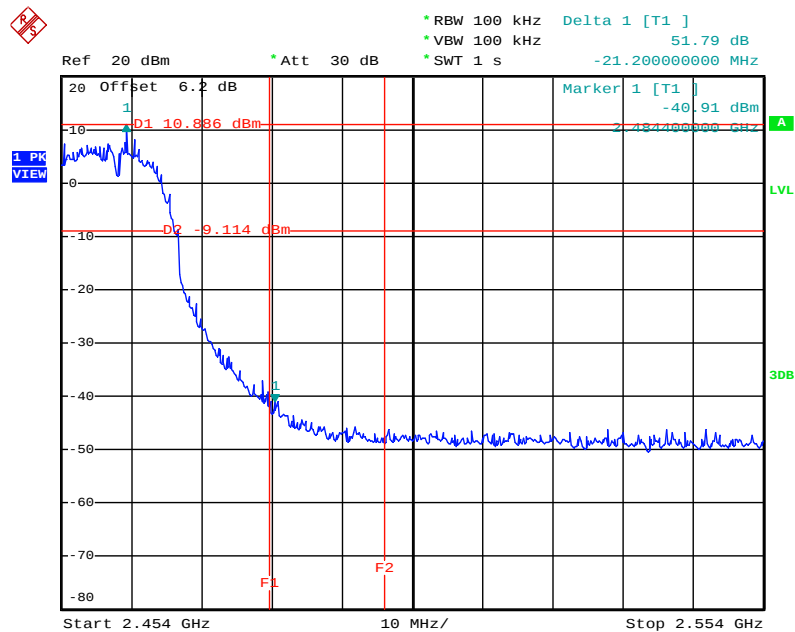
<For Mode 5 (Ant. 5)>:

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2412 MHz



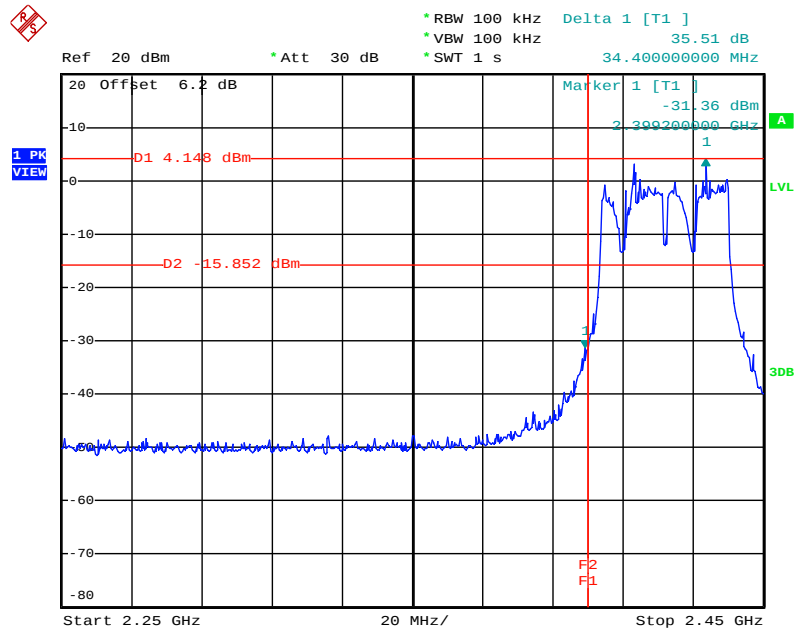
Date: 12.AUG.2010 22:39:14

High Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2462 MHz



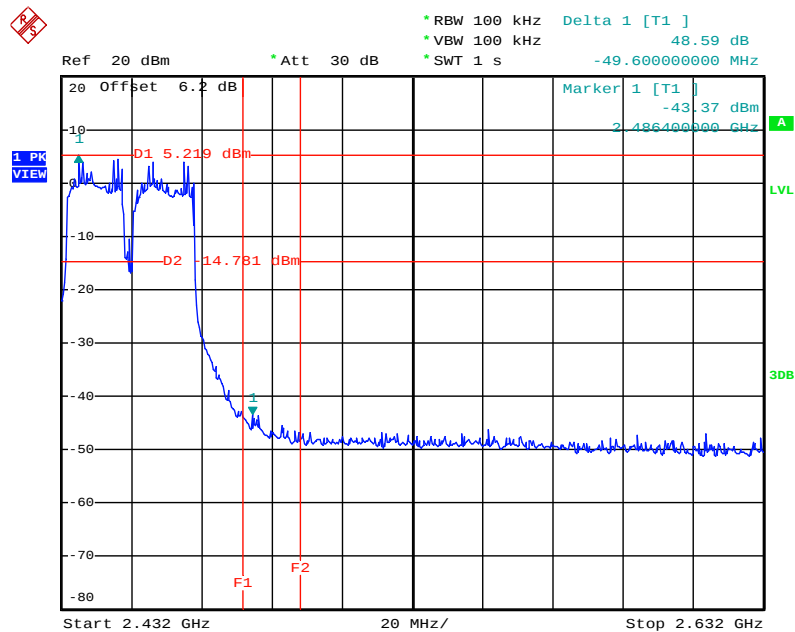
Date: 12.AUG.2010 22:34:36

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2422 MHz



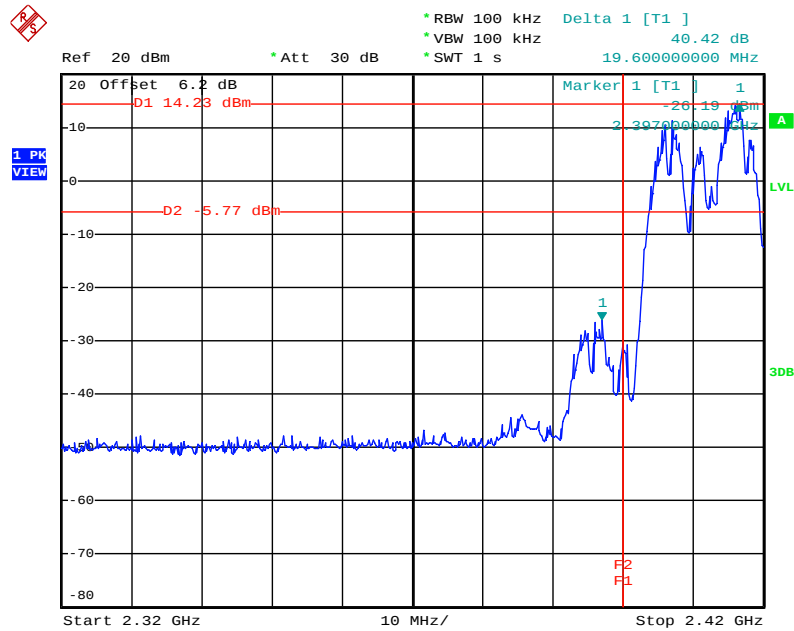
Date: 12.AUG.2010 22:41:39

High Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2452 MHz



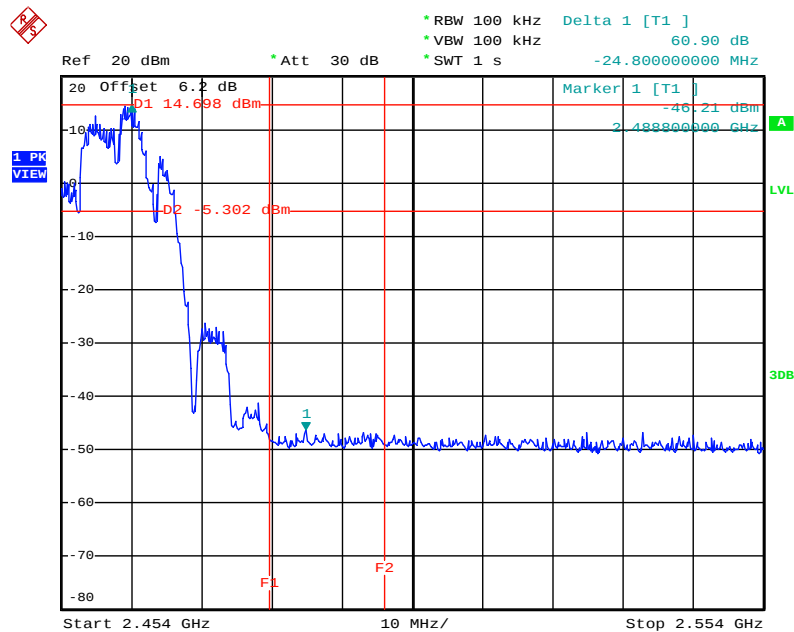
Date: 12.AUG.2010 22:45:28

Low Band Edge Plot on Configuration IEEE 802.11b / 2412 MHz



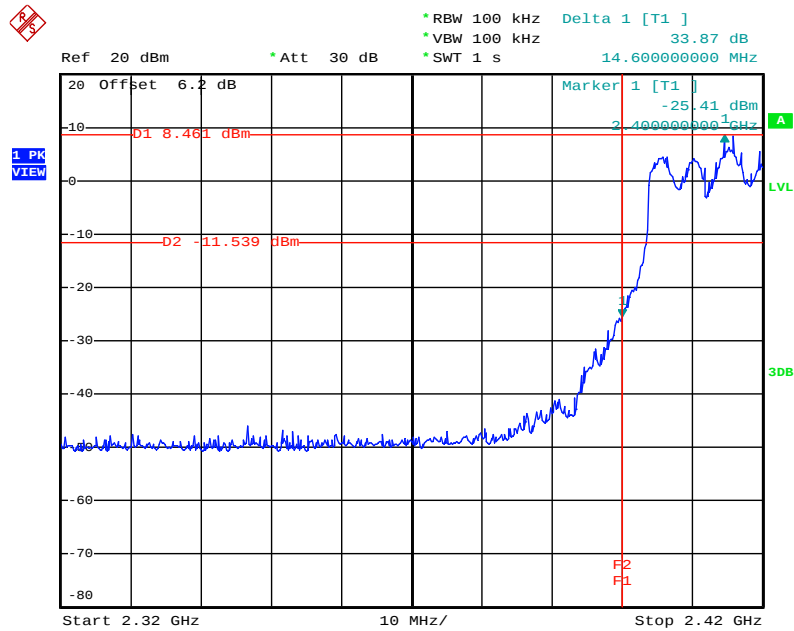
Date: 12.AUG.2010 22:25:49

High Band Edge Plot on Configuration IEEE 802.11b / 2462 MHz



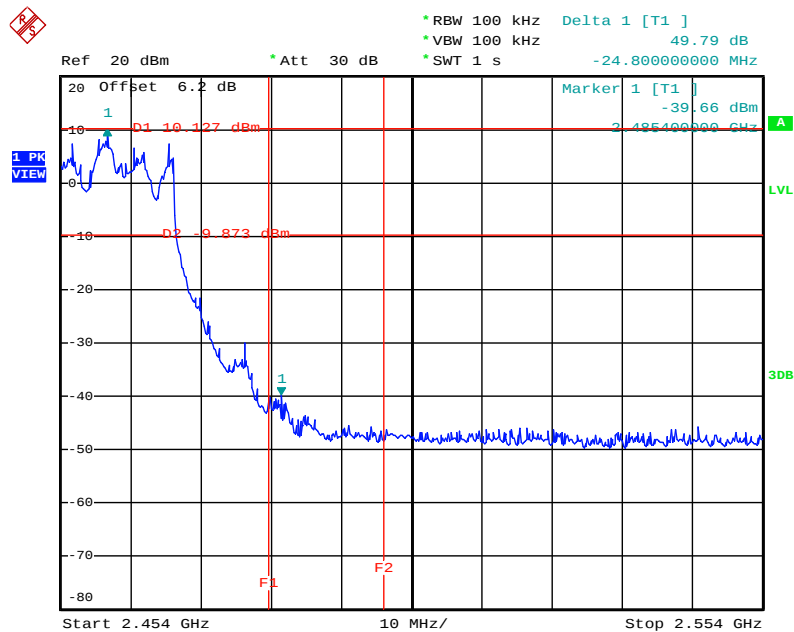
Date: 12.AUG.2010 22:21:53

Low Band Edge Plot on Configuration IEEE 802.11g / 2412 MHz



Date: 12.AUG.2010 22:27:54

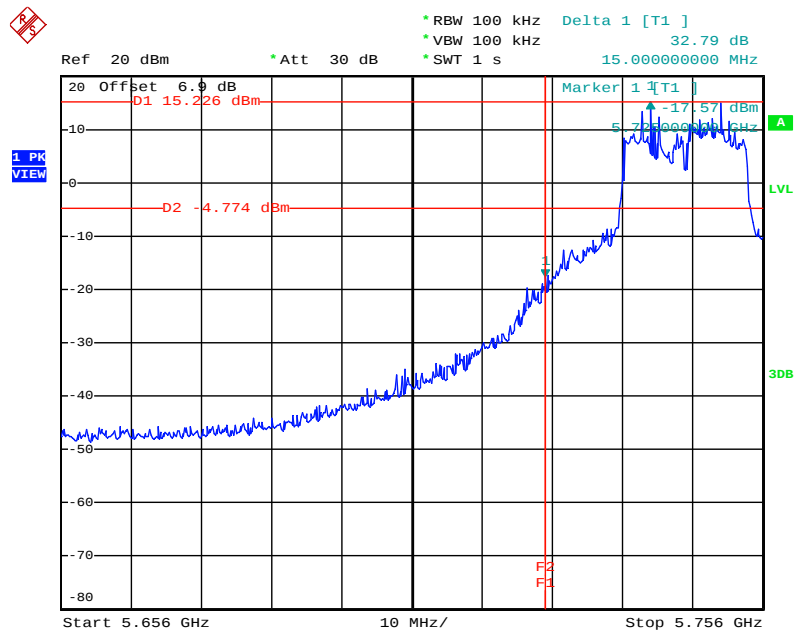
High Band Edge Plot on Configuration IEEE 802.11g / 2462 MHz



Date: 12.AUG.2010 22:31:47

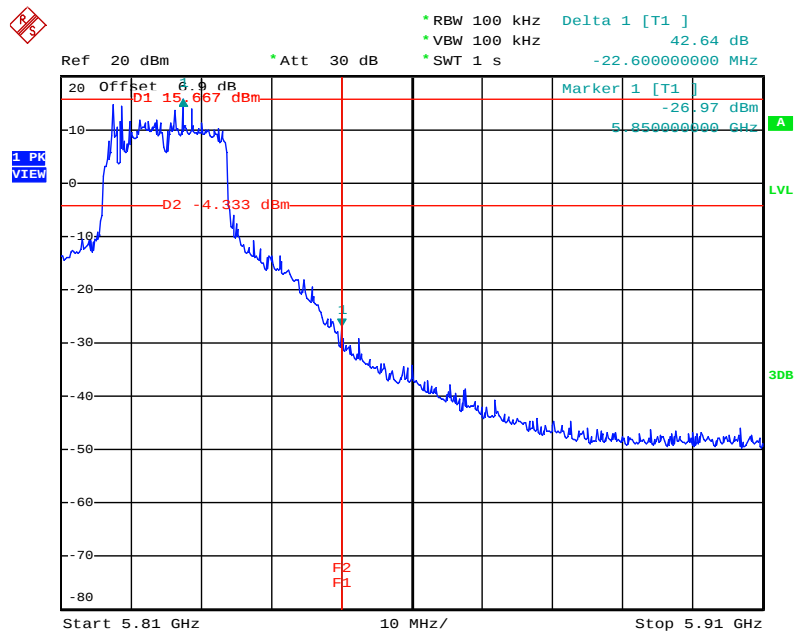
<For Mode 6 (Ant. 6)>:

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5745 MHz



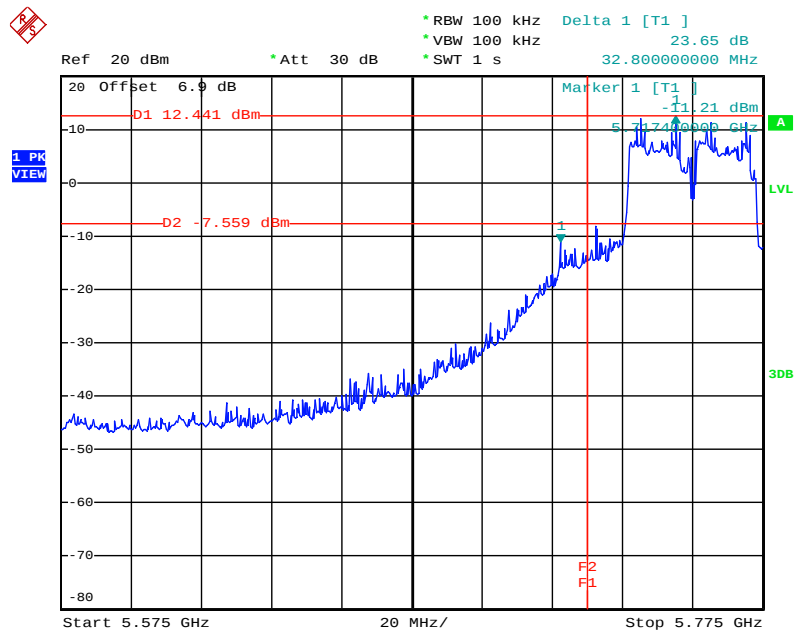
Date: 13.AUG.2010 01:39:16

High Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5825 MHz



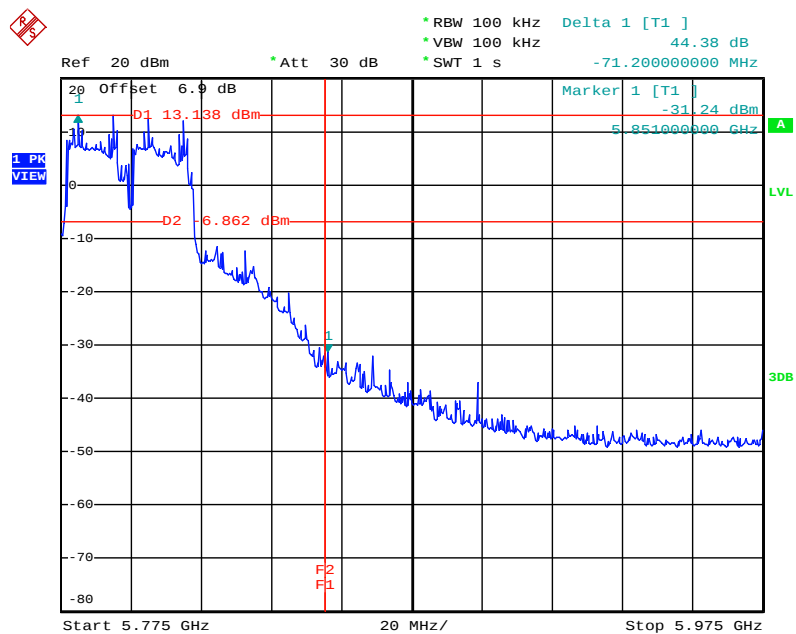
Date: 13.AUG.2010 01:35:24

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5755 MHz



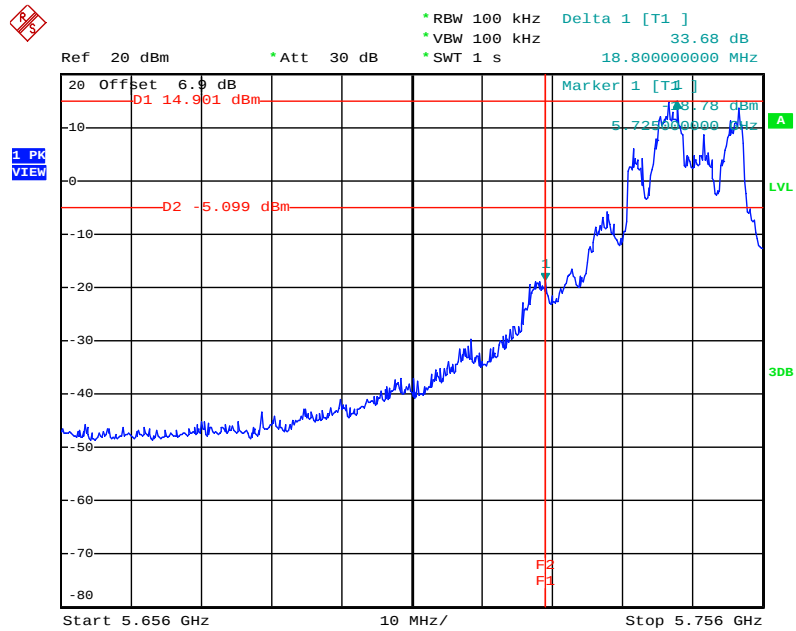
Date: 13.AUG.2010 01:41:22

High Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5795 MHz



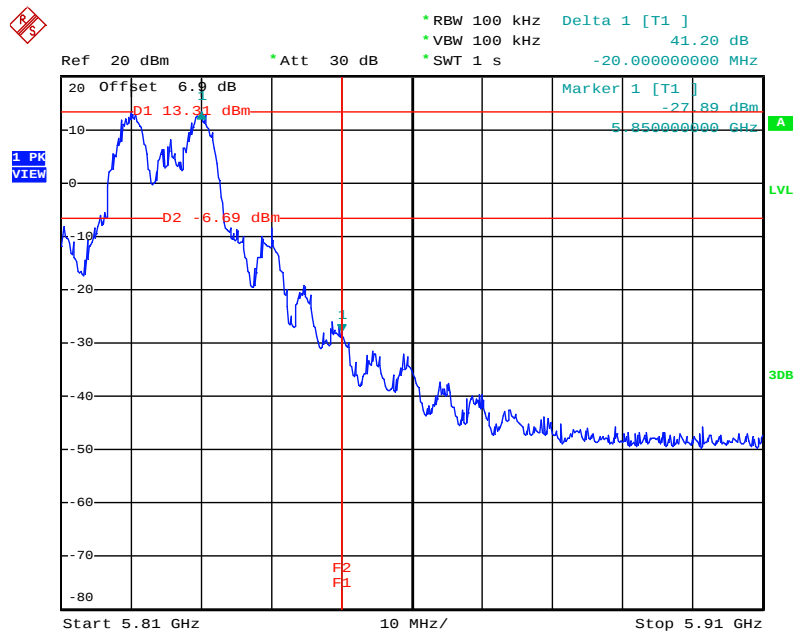
Date: 13.AUG.2010 01:43:19

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



Date: 13.AUG.2010 01:29:40

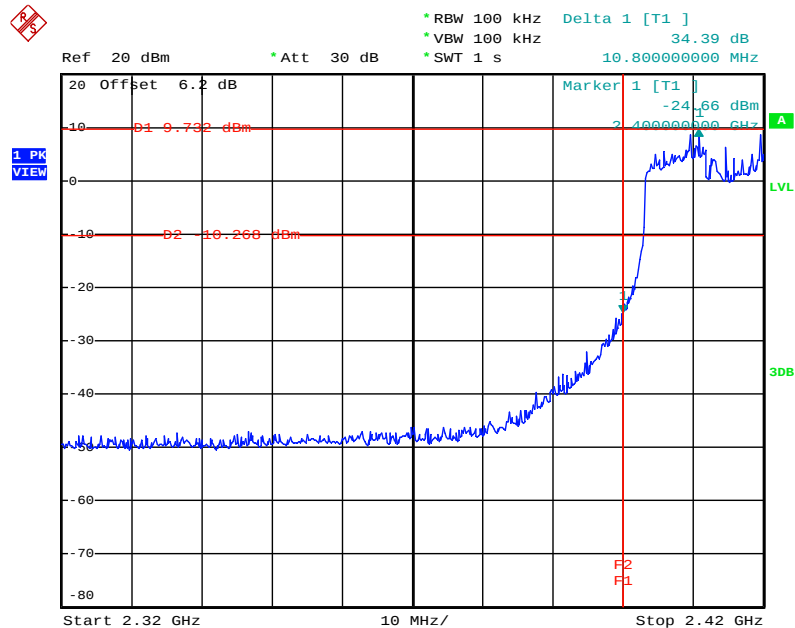
High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



Date: 13.AUG.2010 01:33:26

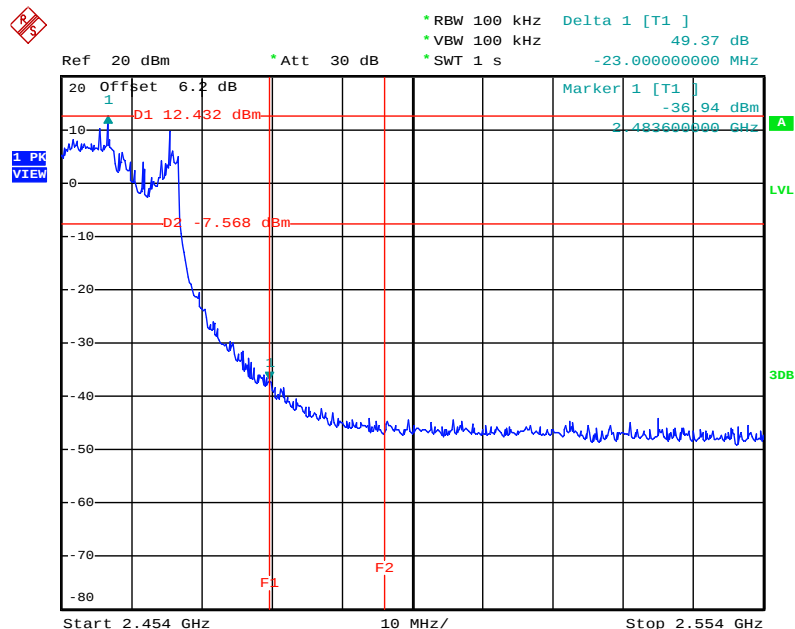
<For Mode 7 (Ant. 7)>:

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2412 MHz



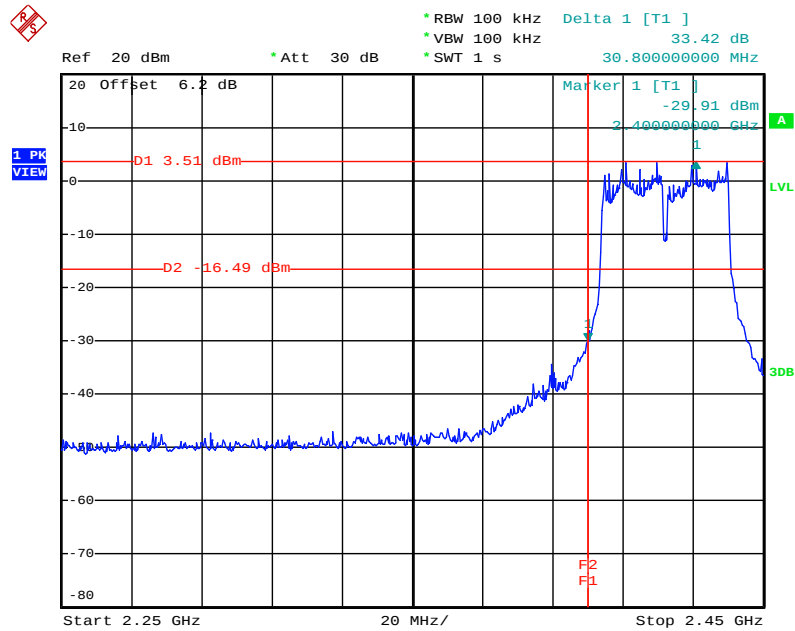
Date: 2.SEP.2010 18:15:39

High Band Edge Plot on Configuration IEEE 802.11n MCS8 20MHz / 2462 MHz



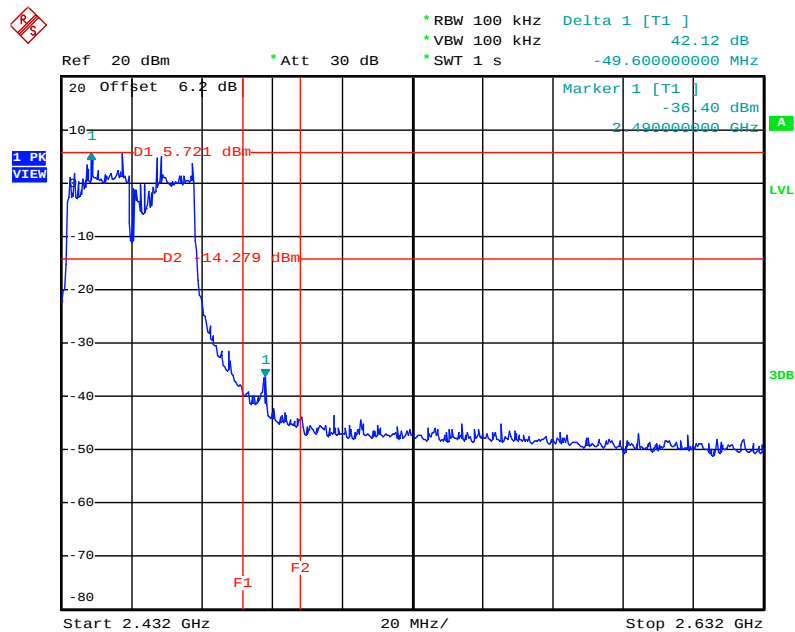
Date: 2.SEP.2010 18:19:58

Low Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2422 MHz



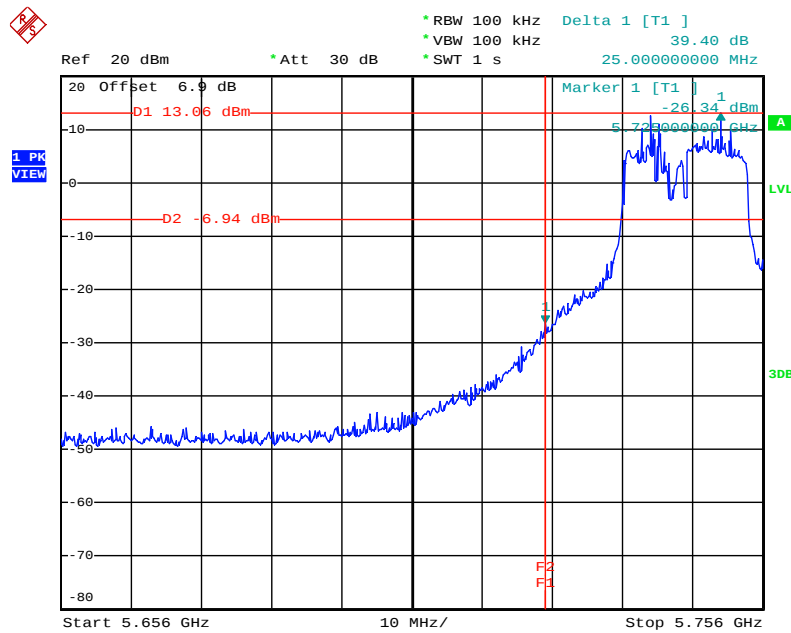
Date: 12.AUG.2010 03:13:01

High Band Edge Plot on Configuration IEEE 802.11n MCS8 40MHz / 2452 MHz



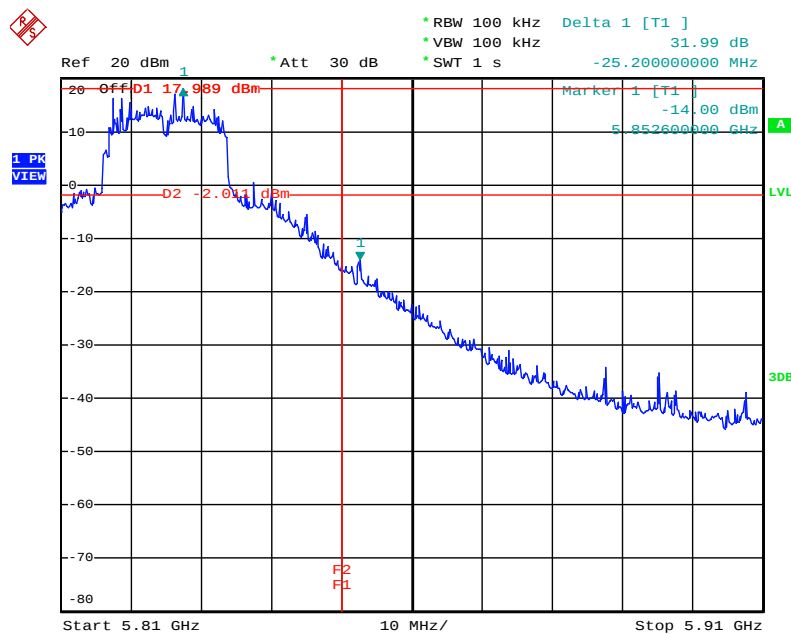
Date: 12.AUG.2010 03:08:57

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5745 MHz



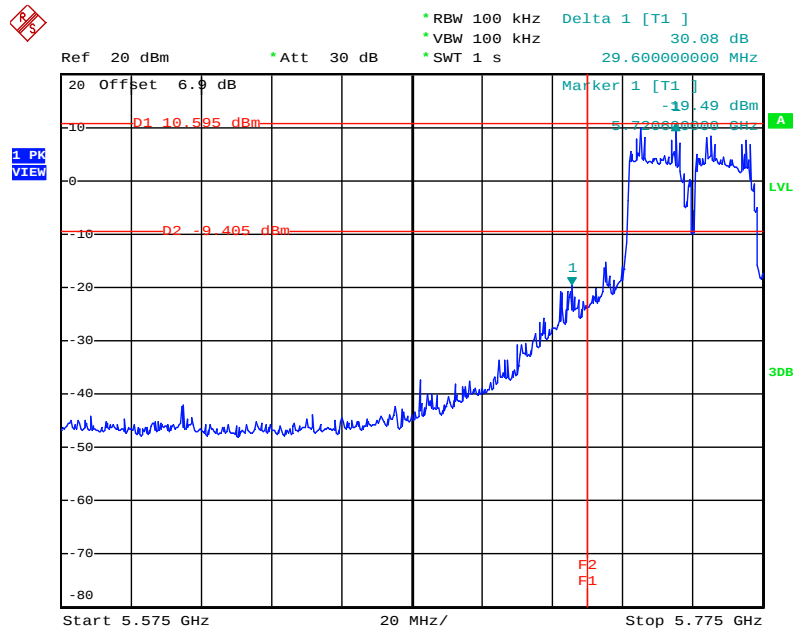
Date: 2.SEP.2010 18:38:58

High Band Edge Plot on Configuration IEEE 802.11an MCS8 20MHz / 5825 MHz



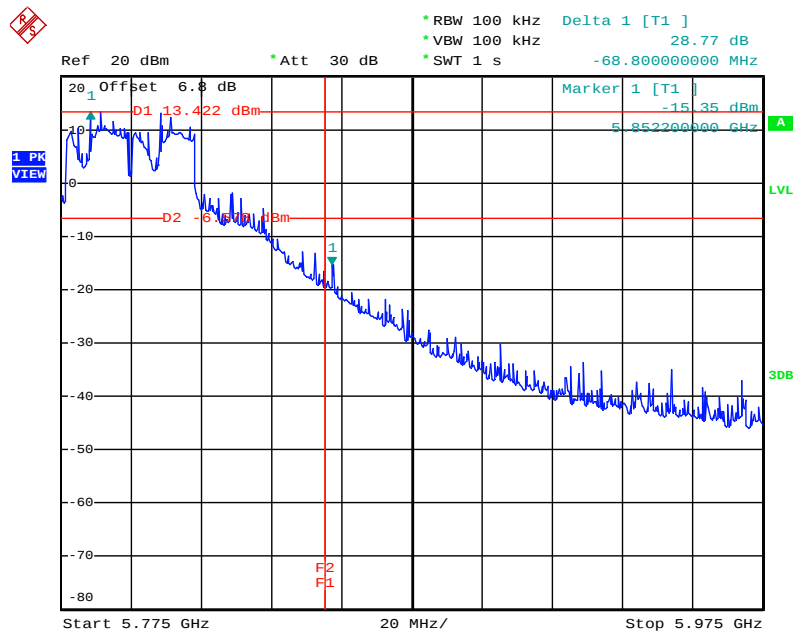
Date: 12.AUG.2010 23:12:02

Low Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5755 MHz



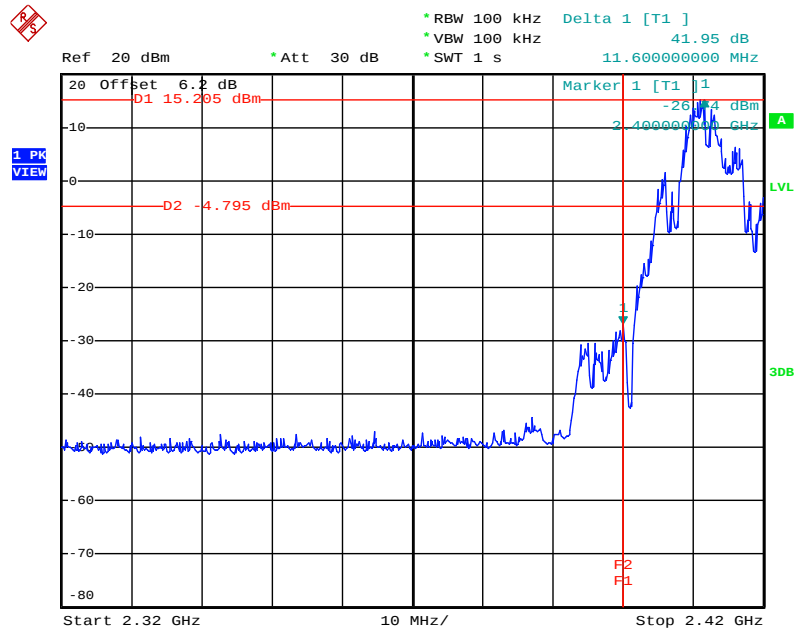
Date: 2.SEP.2010 18:41:28

High Band Edge Plot on Configuration IEEE 802.11an MCS8 40MHz / 5795 MHz



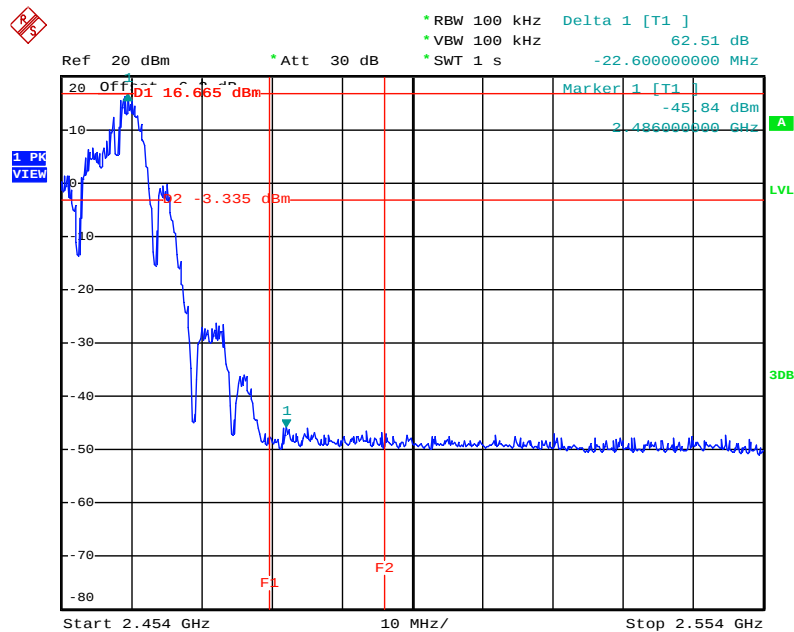
Date: 12.AUG.2010 23:21:10

Low Band Edge Plot on Configuration IEEE 802.11b / 2412 MHz



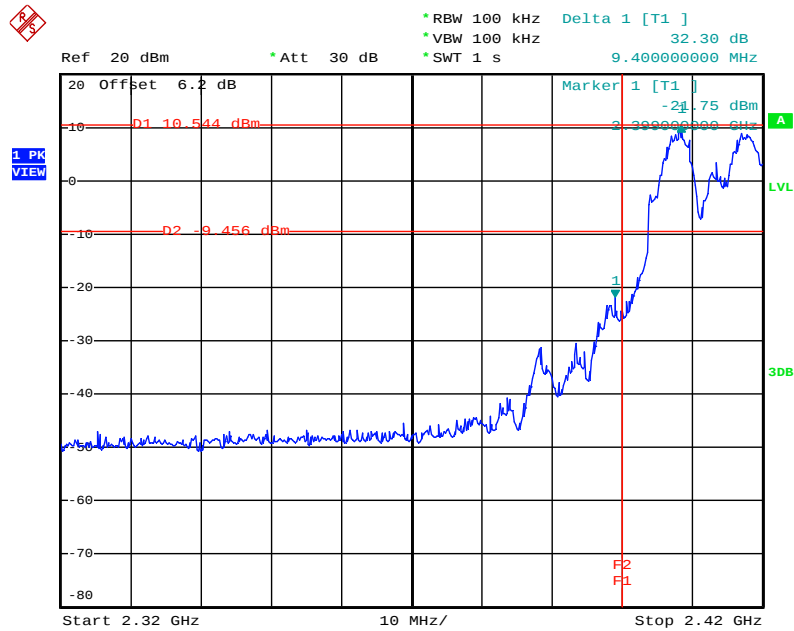
Date: 2.SEP.2010 18:02:57

High Band Edge Plot on Configuration IEEE 802.11b / 2462 MHz



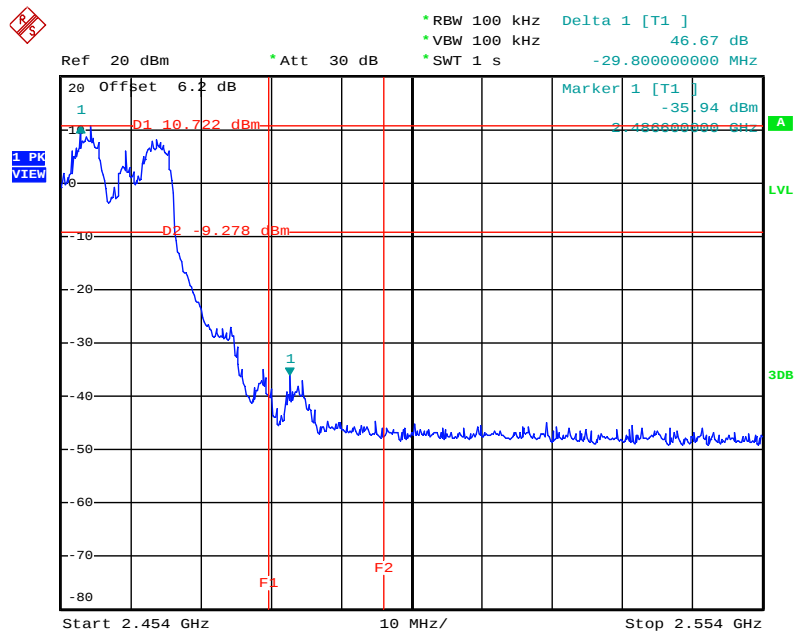
Date: 2.SEP.2010 18:07:54

Low Band Edge Plot on Configuration IEEE 802.11g / 2412 MHz



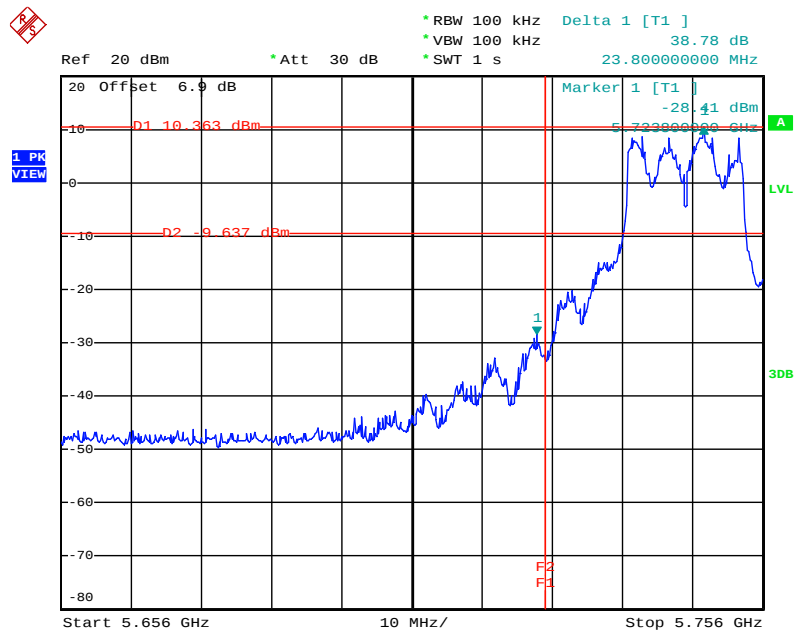
Date: 2.SEP.2010 18:10:54

High Band Edge Plot on Configuration IEEE 802.11g / 2462 MHz



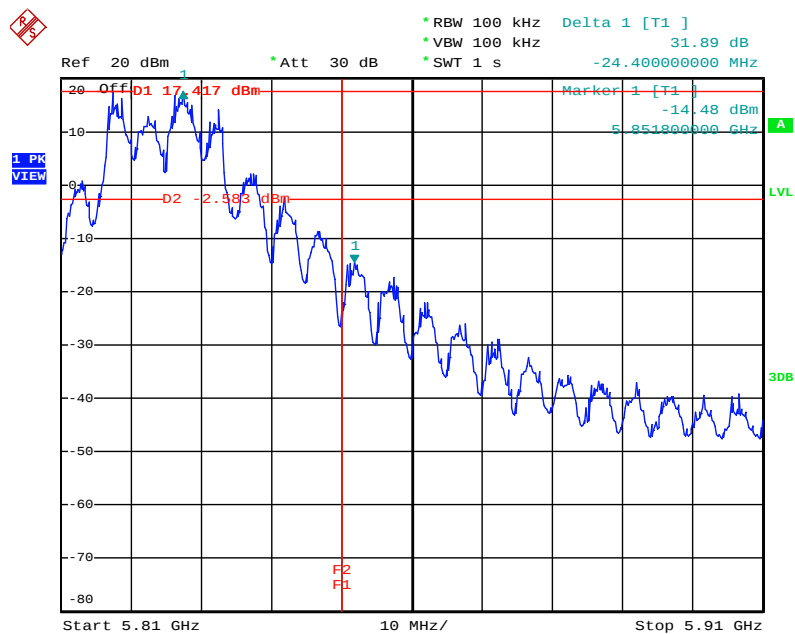
Date: 12.AUG.2010 02:53:23

Low Band Edge Plot on Configuration IEEE 802.11a / 5745 MHz



Date: 2.SEP.2010 18:32:12

High Band Edge Plot on Configuration IEEE 802.11a / 5825 MHz



Date: 12.AUG.2010 23:06:19

4.7. Antenna Requirements

4.7.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.7.2. Antenna Connector Construction

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

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Apr. 06, 2010	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99041	9kHz – 30MHz	Mar. 23, 2010	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Apr. 29, 2010	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2010	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 07, 2010	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 24, 2010	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jul. 21, 2010	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Apr. 06, 2009*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP40	100004	9 kHz - 40 GHz	Oct. 03, 2009	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 21, 2009*	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Sep. 26, 2009	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 28, 2010	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan. 11, 2010	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 05, 2010	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 05, 2010	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 – 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSU26.5	100015	20Hz ~ 26.5GHz	Oct. 29, 2009	Conducted (TH01-HY)
Power Meter	R&S	NRVS	100444	DC ~ 40GHz	Jul. 28, 2010	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z51	100666	DC ~ 30GHz	Jul. 04, 2010	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jul. 31, 2010	Conducted (TH01-HY)
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	Jul. 12, 2009*	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Mar. 13, 2010	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Aug. 06, 2010	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 02, 2009	Conducted (TH01-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 02, 2009	Conducted (TH01-HY)
Vector Signal Generator	R&S	SMU200A	102098	100kHz ~ 6GHz	Feb. 13, 2010	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 25, 2010	Conducted (TH01-HY)
Power Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	Dec. 03, 2009	Conducted (TH01-HY)
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	Dec. 03, 2009	Conducted (TH01-HY)

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

Note: For “*” Calibration Interval of instruments listed above is two years.

6. TEST LOCATION

SHIJR	ADD : 6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C. TEL : 886-2-2696-2468 FAX : 886-2-2696-2255
HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL : 886-3-327-3456 FAX : 886-3-318-0055
LINKOU	ADD : No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C TEL : 886-2-2601-1640 FAX : 886-2-2601-1695
DUNGHU	ADD : No. 3, Lane 238, Kangle St., Neihsu Chiu, Taipei, Taiwan 114, R.O.C. TEL : 886-2-2631-4739 FAX : 886-2-2631-9740
JUNGHE	ADD : 7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C. TEL : 886-2-8227-2020 FAX : 886-2-8227-2626
NEIHU	ADD : 4Fl., No. 339, Hsin Hu 2 nd Rd., Taipei 114, Taiwan, R.O.C. TEL : 886-2-2794-8886 FAX : 886-2-2794-9777
JHUBEI	ADD : No.8, Lane 728, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C. TEL : 886-3-656-9065 FAX : 886-3-656-9085

7. TAF CERTIFICATE OF ACCREDITATION



Certificate No. : L1190-091230

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien,
Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	: ISO/IEC 17025:2005
Accreditation Number	: 1190
Originally Accredited	: December 15, 2003
Effective Period	: January 10, 2010 to January 09, 2013
Accredited Scope	: Testing Field, see described in the Appendix
Specific Accreditation Program	: Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory Accreditation Program for BSMI Mutual Recognition Arrangement with Foreign Authorities



Jay-San Chen
President, Taiwan Accreditation Foundation
Date : December 30, 2009

P1, total 22 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix