



SPORTON International Inc.

No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, TaoYuan Hsien, Taiwan, R.O.C.
Ph: 886-3-327-3456 / FAX: 886-3-327-0973 / www.sporton.com.tw

FCC RADIO TEST REPORT

Applicant's company	Motorola, Inc.
Applicant Address	One Motorola Plaza Holtsville NY 111742 USA
FCC ID	UZ7MB82
Manufacturer's company	Wistron NeWeb Corporation
Manufacturer Address	No.10-1,Li-hsin Road I,Hsinchu Science Park,Hsinchu 300,Taiwan, R.O.C.

Product Name	MB82 Access Point Radio Module
Brand Name	Motorola
Model Name	MB82
Test Rule Part(s)	47 CFR FCC Part 15 Subpart E § 15.407
Test Freq. Range	5150 ~ 5250MHz
Received Date	Aug. 07, 2009
Final Test Date	Oct. 09, 2009
Submission Type	Original Equipment
Operating Mode	Master



Statement

Test result included is for the Draft n and 802.11a (5150 ~ 5250MHz) 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 E**.

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.....	4
3.3. Table for Filed Antenna.....	5
3.4. Table for Carrier Frequencies	6
3.5. Table for Test Modes.....	7
3.6. Table for Testing Locations.....	7
3.7. Table for Supporting Units	8
3.8. Table for Parameters of Test Software Setting	8
3.9. Test Configurations	14
4. TEST RESULT	23
4.1. AC Power Line Conducted Emissions Measurement.....	23
4.2. 99% Occupied Bandwidth Measurement	37
4.3. Maximum Conducted Output Power Measurement.....	68
4.4. Power Spectral Density Measurement	136
4.5. Peak Excursion Measurement	168
4.6. Radiated Emissions Measurement	199
4.7. Band Edge Emissions Measurement	311
4.8. Frequency Stability Measurement	330
4.9. Antenna Requirements	337
5. LIST OF MEASURING EQUIPMENTS	338
6. TEST LOCATION.....	340
7. TAF CERTIFICATE OF ACCREDITATION	341
APPENDIX A. PHOTOGRAPHS OF EUT.....	A1 ~ A13
APPENDIX B. TEST PHOTOS.....	B1 ~ B34
APPENDIX C. MAXIMUM PERMISSIBLE EXPOSURE.....	C1 ~ C12
APPENDIX D. CO-LOCATION REPORT	D1 ~ D16



History of This Test Report

Original Issue Date: Oct. 12, 2009

Report No.: FR972826AA

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



SPORTON LAB.

Report No.: FR972826AA

Certificate No.: CB9809095

1. CERTIFICATE OF COMPLIANCE

Product Name : MB82 Access Point Radio Module
Brand Name : Motorola
Model Name : MB82
Applicant : Motorola, Inc.
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart E § 15.407

Sportun International as requested by the applicant to evaluate the EMC performance of the product sample received on Aug. 07, 2009 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 2009.10.28

Jordan Hsiao

SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart E				
Part	Rule Section	Description of Test	Result	Under Limit
4.1	15.207	AC Power Line Conducted Emissions	Complies	7.74 dB
4.2	15.407(a)	26dB Spectrum Bandwidth	Complies	-
4.3	15.407(a)	Maximum Conducted Output Power	Complies	0.04 dB
4.4	15.407(a)	Power Spectral Density	Complies	0.05 dB
4.5	15.407(a)	Peak Excursion	Complies	6.82 dB
4.6	15.407(b)	Radiated Emissions	Complies	0.06 dB
4.7	15.407(b)	Band Edge Emissions	Complies	0.03 dB
4.8	15.407(g)	Frequency Stability	Complies	-
4.9	15.203	Antenna Requirements	Complies	-

Test Items	Uncertainty	Remark
AC Power Line Conducted Emissions	±2.3dB	Confidence levels of 95%
Maximum Conducted Output Power	±0.5dB	Confidence levels of 95%
Power Spectral Density	±0.5dB	Confidence levels of 95%
Peak Excursion	±0.5dB	Confidence levels of 95%
26dB Spectrum Bandwidth / Frequency Stability	$\pm 8.5 \times 10^{-8}$	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

Draft n

Items	Description
Product Type	WLAN (2TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Host System
Modulation	see the below table for draft n
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	see the below table for Draft n
Frequency Range	5150 ~ 5250MHz
Channel Number	4 for 20MHz bandwidth ; 2 for 40MHz bandwidth
Channel Band Width (99%)	MCS8 (20MHz): 18.08 MHz ; MCS8 (40MHz): 36.48 MHz
Conducted Output Power	Band 1: MCS8 (20MHz): 16.85 dBm ; MCS8 (40MHz): 16.81 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

802.11a

Items	Description
Product Type	WLAN (2TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Host System
Modulation	OFDM for IEEE 802.11a
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	OFDM (6/9/12/18/24/36/48/54)
Frequency Range	5150 ~ 5250MHz
Channel Number	11a: 4
Channel Band Width (99%)	11a: 17.72 MHz
Conducted Output Power	Band 1: 16.74 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Antenna & Band width

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

Draft n spec

MCS Index	Nss	Modulation	R	NBPSC	NCBPS		NDBPS		Datarate(Mbps)			
					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

N/A

3.3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Frequency Band	Antenna Gain (dBi)
1	Symbol	ML-2452-APA2-01	Dipole Antenna	Reversed-SMA	2.4GHz	7
	Symbol	ML-2452-APA2-01	Dipole Antenna	Reversed-SMA	5GHz	7
2	MOTOROLA	RPAA-M1	Embedded Antenna	I-PEX	2.4GHz	2
	MOTOROLA	RPAA-M1	Embedded Antenna	I-PEX	5GHz	3.42
3	Symbol	ML-2499-SD3-01R	Patch Antenna	RP-BNC Male	2.4GHz	3.5
	Symbol	ML-5299-PTA1-01R	Patch Antenna	RP-SMA Male	5GHz	3
4	Symbol	ML-2499-HPA3-01R	Omni Antenna	RP-BNC Male	2.4GHz	3.3
	Symbol	ML-5299-HPA1-01R	Omni Antenna	RP-SMA Male	5GHz	4.2
5	Symbol	ML-2452-PNA5-01R	Panel Antenna	N Type Male	2.4GHz	4.5
	Symbol	ML-2452-PNA5-01R	Panel Antenna	N Type Male	5GHz	5
6	Symbol	ML-2452-PTA3M3-036	Omni Antenna	RP-SMA Male	2.4GHz	4
	Symbol	ML-2452-PTA3M3-036	Omni Antenna	RP-SMA Male	5GHz	7

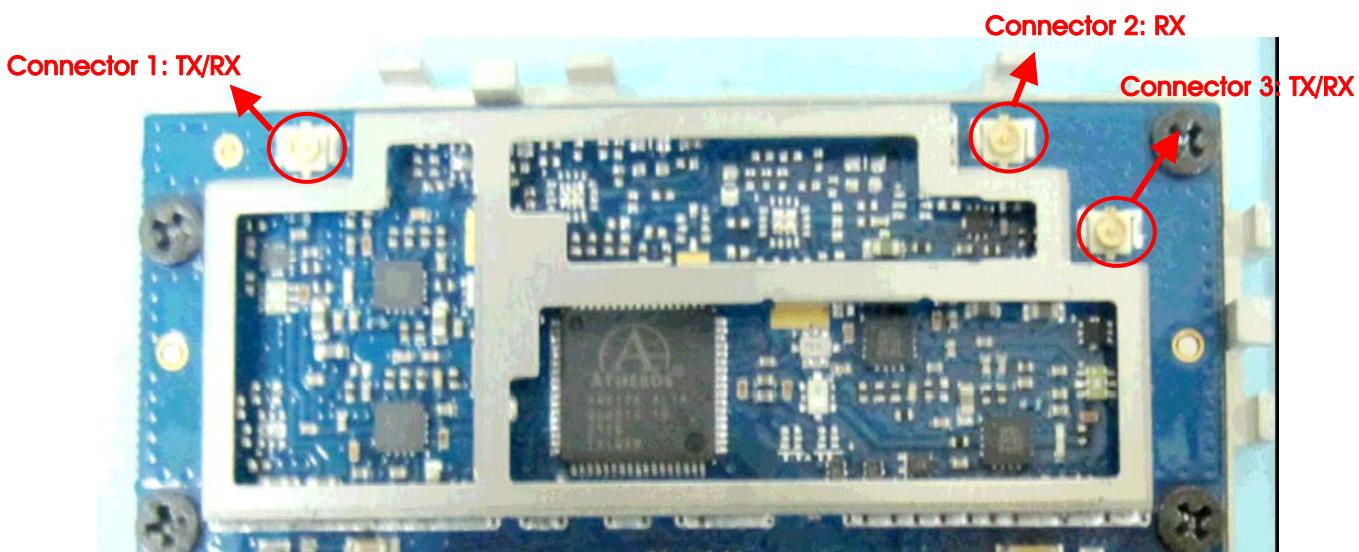
Test external cable is used to connect the EUT and antenna.

Loss of External Cable list

Ant.	Frequency Band	Loss of External Cable (dB)
1	2.4GHz	0.65
	5GHz	1.42
2	2.4GHz	-
	5GHz	-
3	2.4GHz	0.65
	5GHz	1.42
4	2.4GHz	0.65
	5GHz	1.42
5	2.4GHz	1.54
	5GHz	2.23
6	2.4GHz	0.65
	5GHz	1.42

Note:

The EUT has three antenna connectors which can be used for transmitting and receiving simultaneously as 2Tx and 3Rx. There are six sets of antenna provided to this EUT and all of them can be used as transmitting and receiving antenna.



3.4. Table for Carrier Frequencies

Frequency Allocation for 802.11a

There are two bandwidth systems for draft n.

For both 20MHz bandwidth systems, use Channel 36, 40, 44, 48

For both 40MHz bandwidth systems, use Channel 38, 46

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5150~5250 MHz (USA/Canada) Band 1	36	5180 MHz	44	5220 MHz
	38	5190 MHz	46	5230 MHz
	40	5200 MHz	48	5240 MHz

3.5. Table for Test Modes

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

Test Items	Mode		Data Rate	Channel	Antenna
AC Power Conducted Emission	Normal Link		Auto	-	-
Max. Conducted Output Power	MCS8/20MHz	Band 1	13Mbps	36/40/48	1/2/3/4/5/6
	MCS8/40MHz	Band 1	27Mbps	38/46	1/2/3/4/5/6
	11a/BPSK	Band 1	6Mbps	36/40/48	1/2/3/4/5/6
26dB Spectrum Bandwidth 99% Occupied Bandwidth Measurement Power Spectral Density Peak Excursion	MCS8/20MHz	Band 1	13Mbps	36/40/48	1/2/3/4/5/6
	MCS8/40MHz	Band 1	27Mbps	38/46	1/2/3/4/5/6
	11a/BPSK	Band 1	6Mbps	36/40/48	1/2/3/4/5/6
Radiated Emission Below 1GHz	Normal Link		Auto	-	-
Radiated Emission Above 1GHz	MCS8/20MHz	Band 1	13Mbps	36/40/48	1/2/3/4/5/6
	MCS8/40MHz	Band 1	27Mbps	38/46	1/2/3/4/5/6
	11a/BPSK	Band 1	6Mbps	36/40/48	1/2/3/4/5/6
Band Edge Emission	MCS8/20MHz	Band 1	13Mbps	36/40/48	1/2/3/4/5/6
	MCS8/40MHz	Band 1	27Mbps	38/46	1/2/3/4/5/6
	11a/BPSK	Band 1	6Mbps	36/40/48	1/2/3/4/5/6
Frequency Stability	Un-modulation		-	40	N/A

3.6. Table for Testing Locations

Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.	VCCI Reg. No
03CH03-HY	SAC	Hwa Ya	480872	IC 4086	-
CO04-HY	Conduction	Hwa Ya	480872	IC 4086	-
TH01-HY	OVEN Room	Hwa Ya	480872	IC 4086	-

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
Mouse	iCooky	AMS0706W	DoC
Modem	ACEEX	DM1414	IFAXDM1414
Printer	EPSON	LQ-300+	DoC
Notebook	DELL	D505	E2K24GBRL

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 Antenna 1>:

Power Parameters of Draft n MCS8 20MHz

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
Draft n 20MHz Ant. 1	9.5	9.5	10.5

Power Parameters of Draft n MCS8 40MHz

Test Software Version	ART	
Frequency	5190 MHz	5230 MHz
Draft n 40MHz Ant. 1	10	11

Power Parameters of IEEE 802.11a

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
IEEE 11a Ant. 1	9.5	9.5	10



<For Antenna 2>:

Power Parameters of Draft n MCS8 20MHz

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
Draft n 20MHz Ant. 2	12	12	12

Power Parameters of Draft n MCS8 40MHz

Test Software Version	ART	
Frequency	5190 MHz	5230 MHz
Draft n 40MHz Ant. 2	11	12.5

Power Parameters of IEEE 802.11a

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
IEEE 11a Ant. 2	10.5	11	11

<For Antenna 3>:

Power Parameters of Draft n MCS8 20MHz

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
Draft n 20MHz Ant. 3	12	12	12

Power Parameters of Draft n MCS8 40MHz

Test Software Version	ART	
Frequency	5190 MHz	5230 MHz
Draft n 40MHz Ant. 3	11	12.5

Power Parameters of IEEE 802.11a

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
IEEE 11a Ant. 3	10.5	11	11



<For Antenna 4>:

Power Parameters of Draft n MCS8 20MHz

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
Draft n 20MHz Ant. 4	12	12	12

Power Parameters of Draft n MCS8 40MHz

Test Software Version	ART	
Frequency	5190 MHz	5230 MHz
Draft n 40MHz Ant. 4	11	12.5

Power Parameters of IEEE 802.11a

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
IEEE 11a Ant. 4	10.5	11	11

<For Antenna 5>:

Power Parameters of Draft n MCS8 20MHz

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
Draft n 20MHz Ant. 5	12	12	12

Power Parameters of Draft n MCS8 40MHz

Test Software Version	ART	
Frequency	5190 MHz	5230 MHz
Draft n 40MHz Ant. 5	11	12.5

Power Parameters of IEEE 802.11a

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
IEEE 11a Ant. 5	10.5	11	11

<For Antenna 6>:

Power Parameters of Draft n MCS8 20MHz

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
Draft n 20MHz Ant. 6	9.5	9.5	10.5

Power Parameters of Draft n MCS8 40MHz

Test Software Version	ART	
Frequency	5190 MHz	5230 MHz
Draft n 40MHz Ant. 6	10	11

Power Parameters of IEEE 802.11a

Test Software Version	ART		
Frequency	5180 MHz	5200 MHz	5240 MHz
IEEE 11a Ant. 6	9.5	9.5	10

During the test, the following programs under WIN XP were executed:

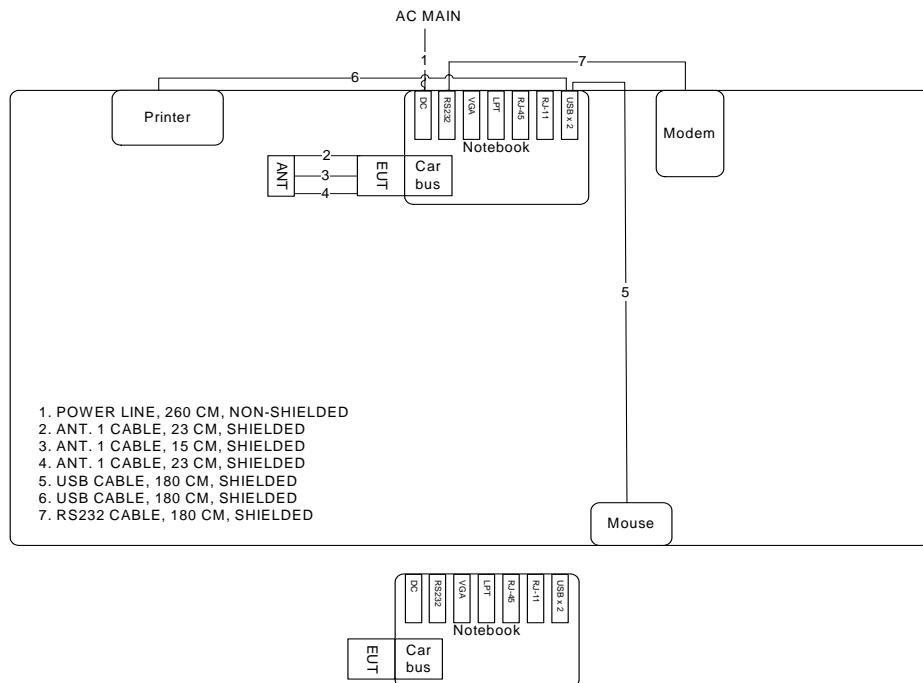
Executed "ART" to control the EUT continuously transmit RF signal.

3.9. Test Configurations

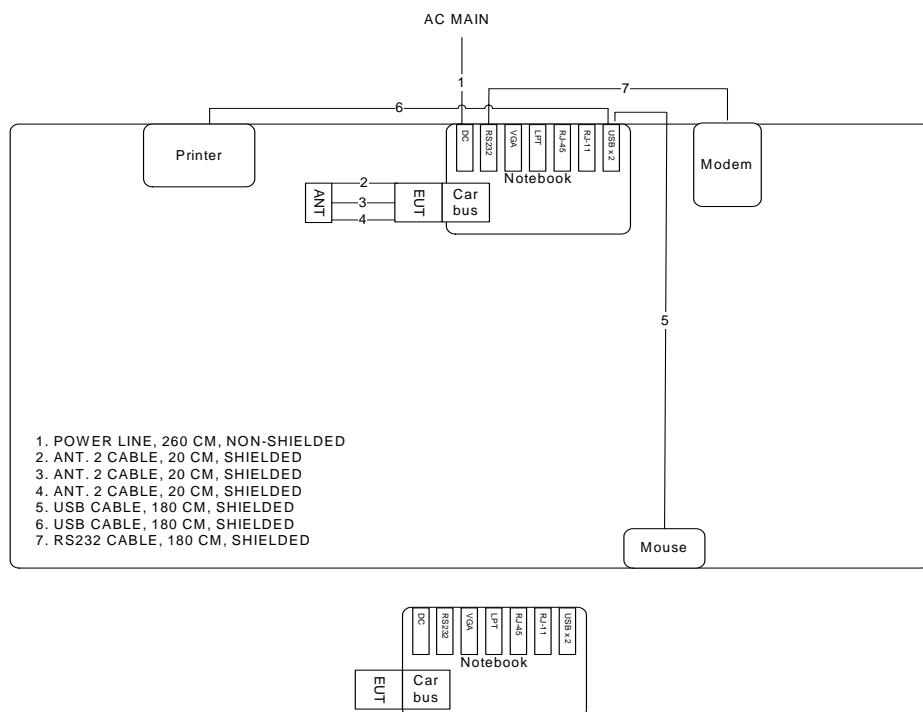
3.9.1. Radiation Emissions Test Configuration

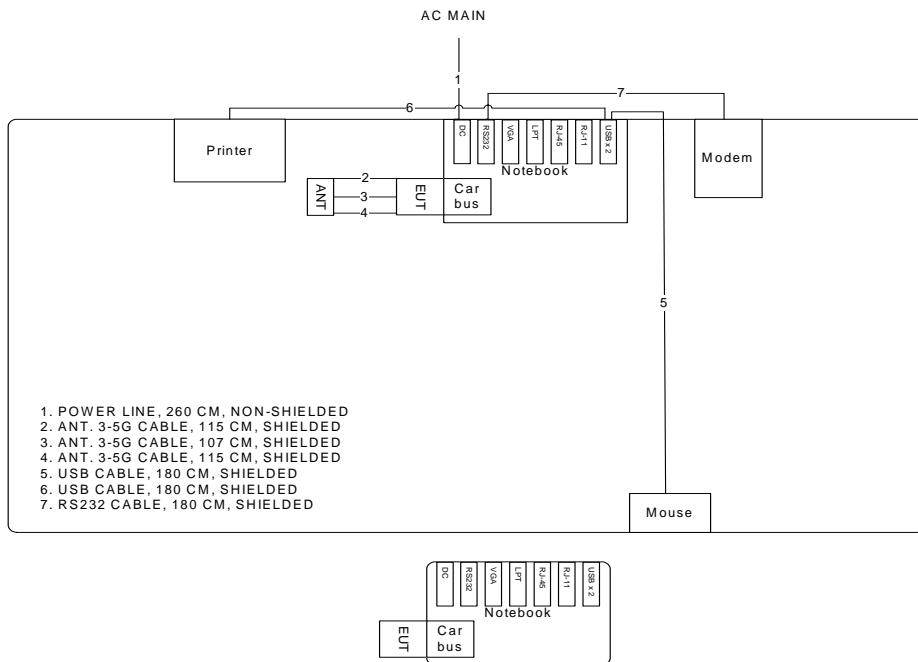
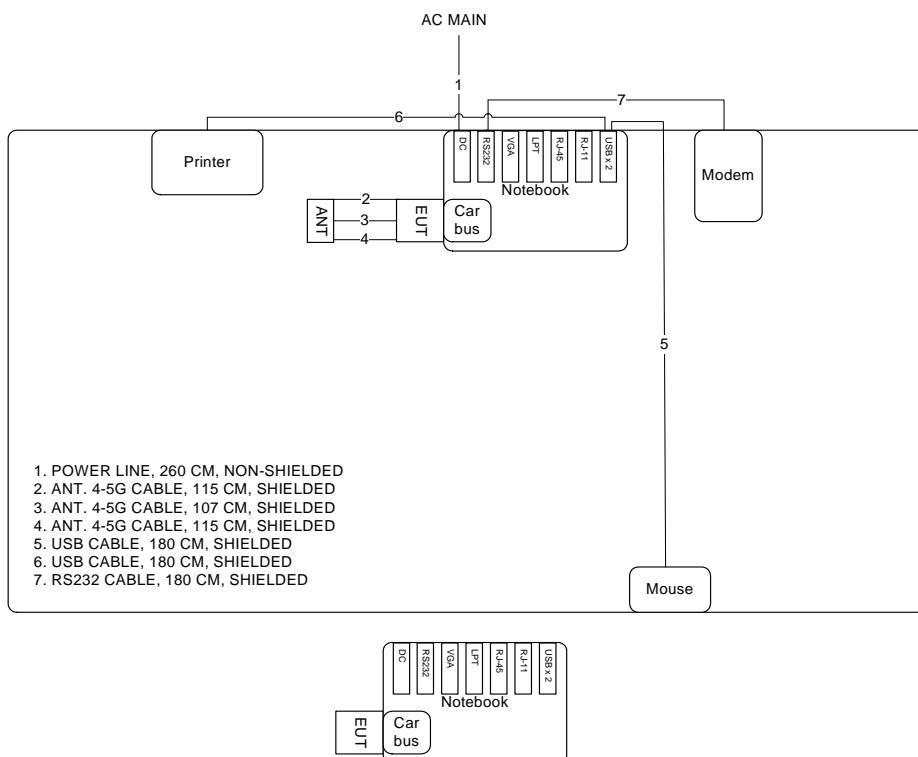
Test Configuration: 9kHz~1GHz

<For Antenna 1>:

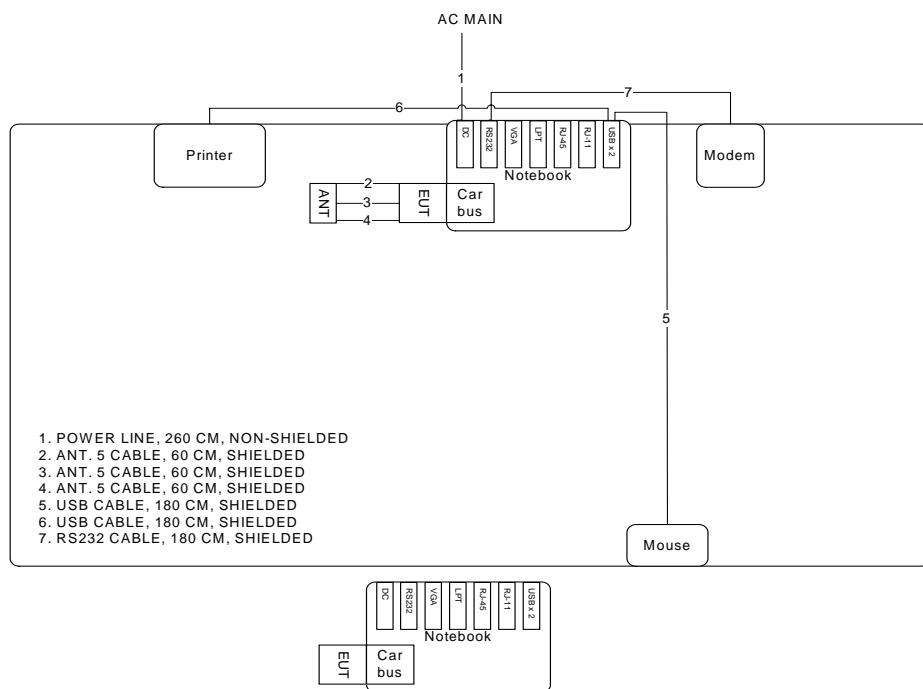


<For Antenna 2>:

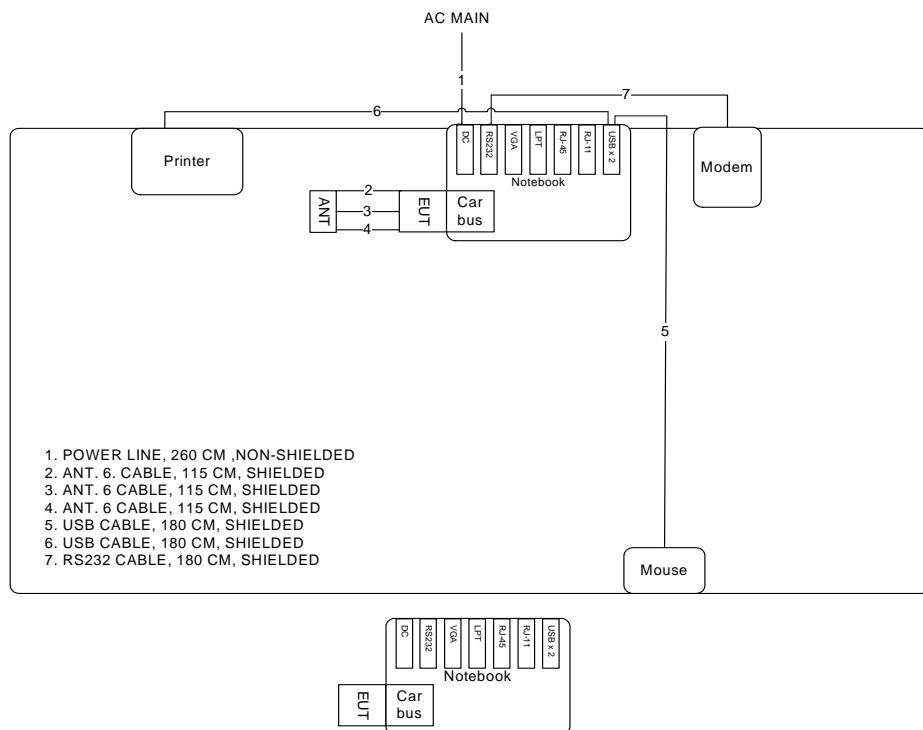


<For Antenna 3>:

<For Antenna 4>:


<For Antenna 5>:

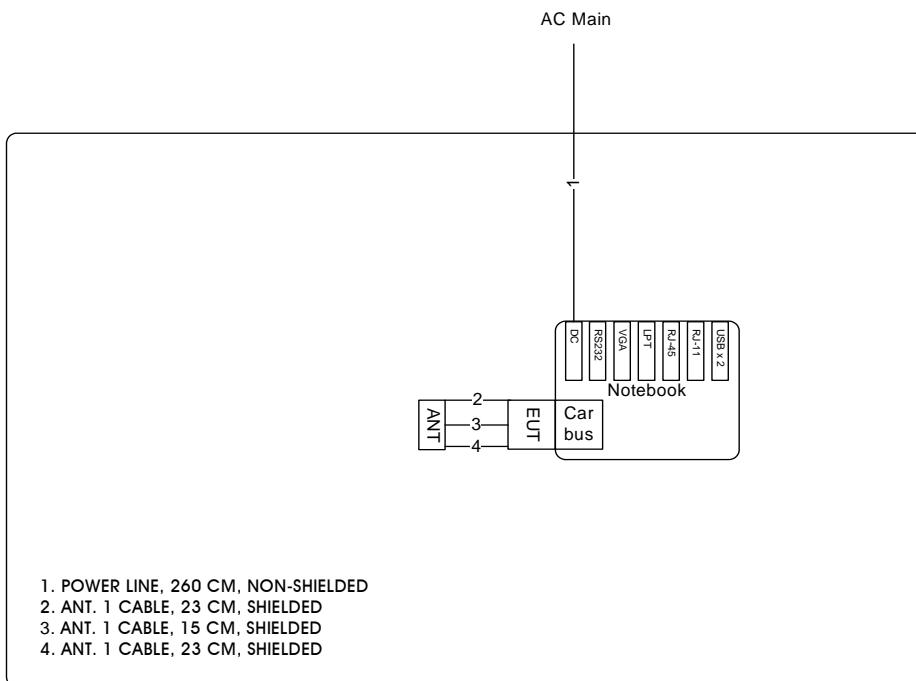


<For Antenna 6>:

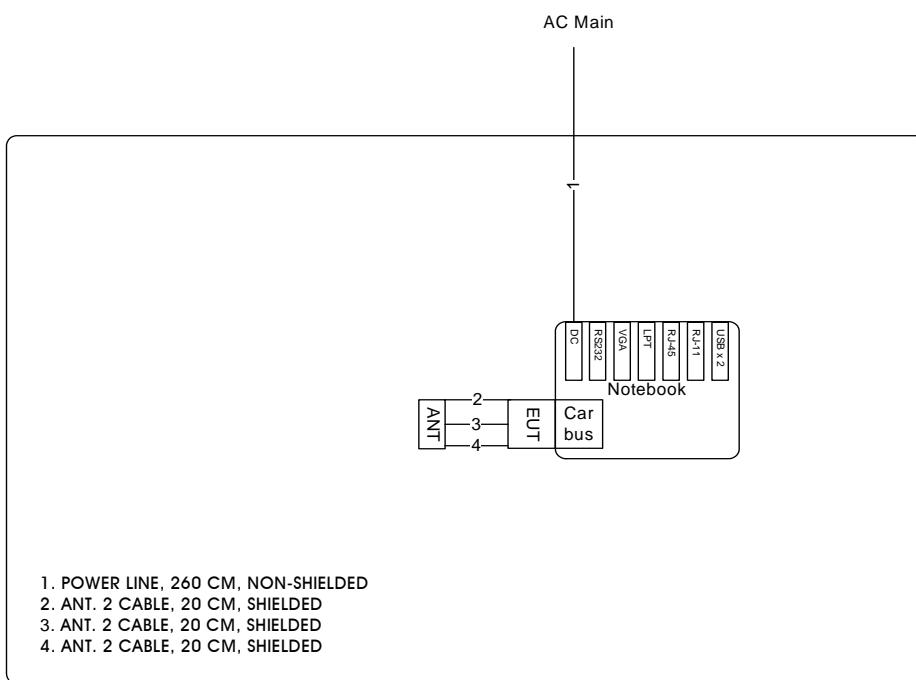


Test Configuration: above 1GHz

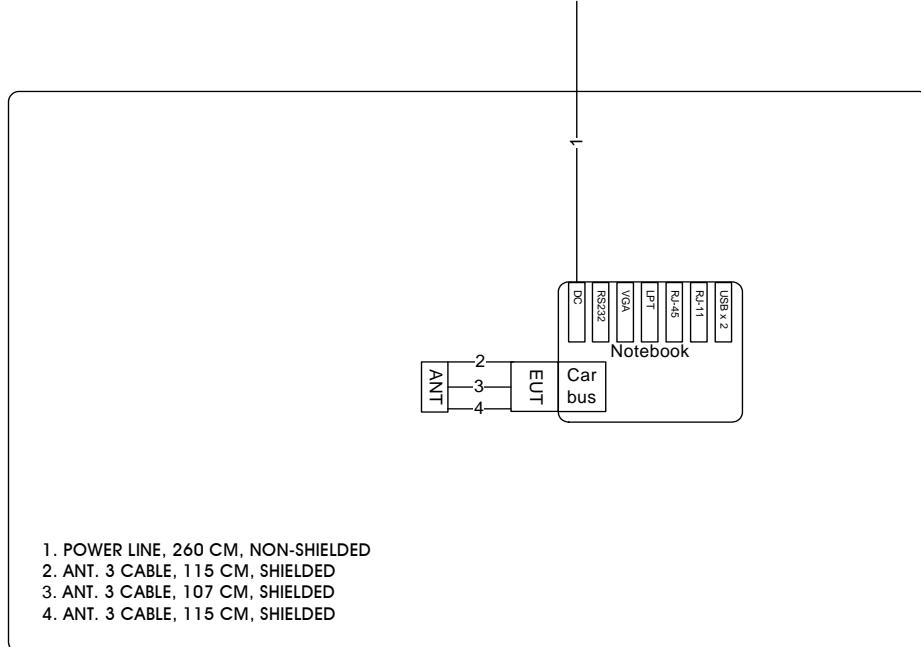
<For Antenna 1>:



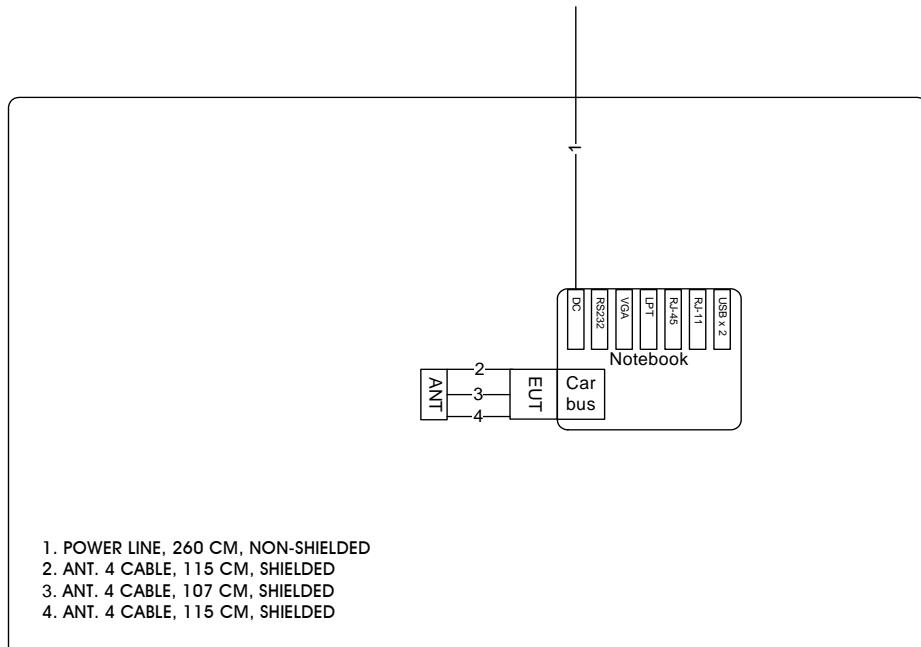
<For Antenna 2>:



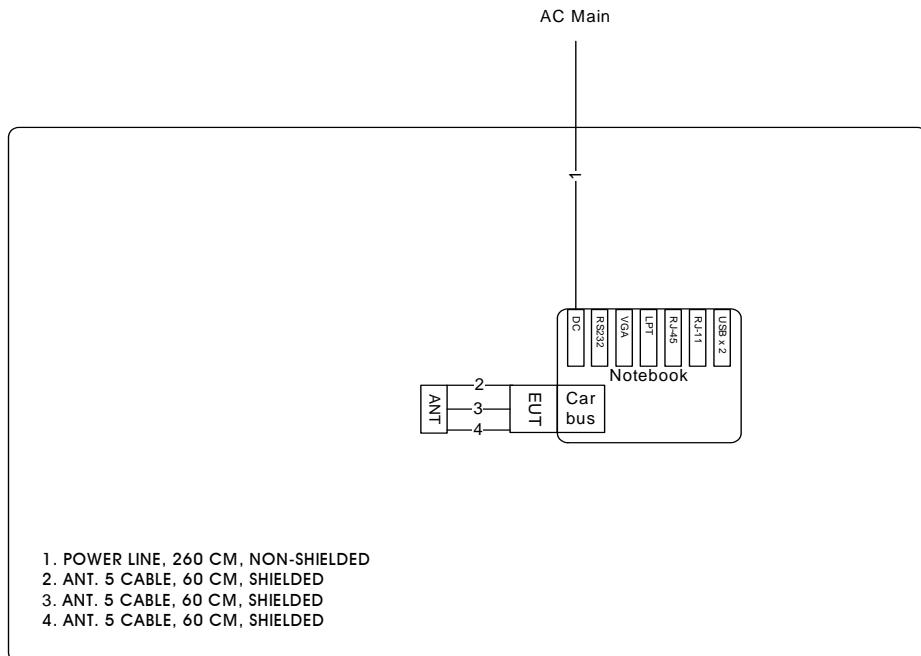
<For Antenna 3>:



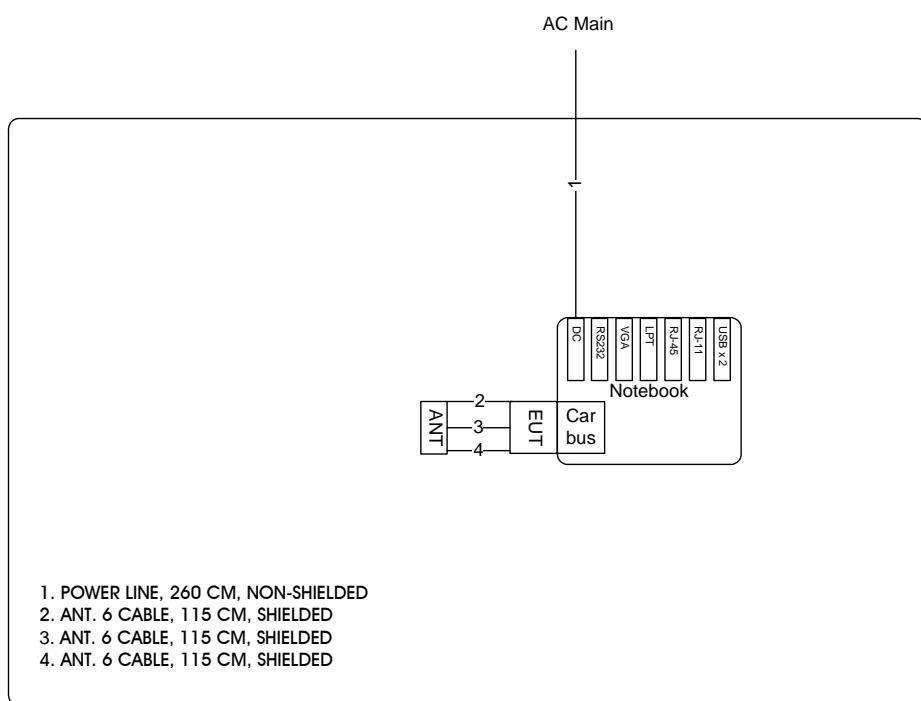
<For Antenna 4>:



<For Antenna 5>:

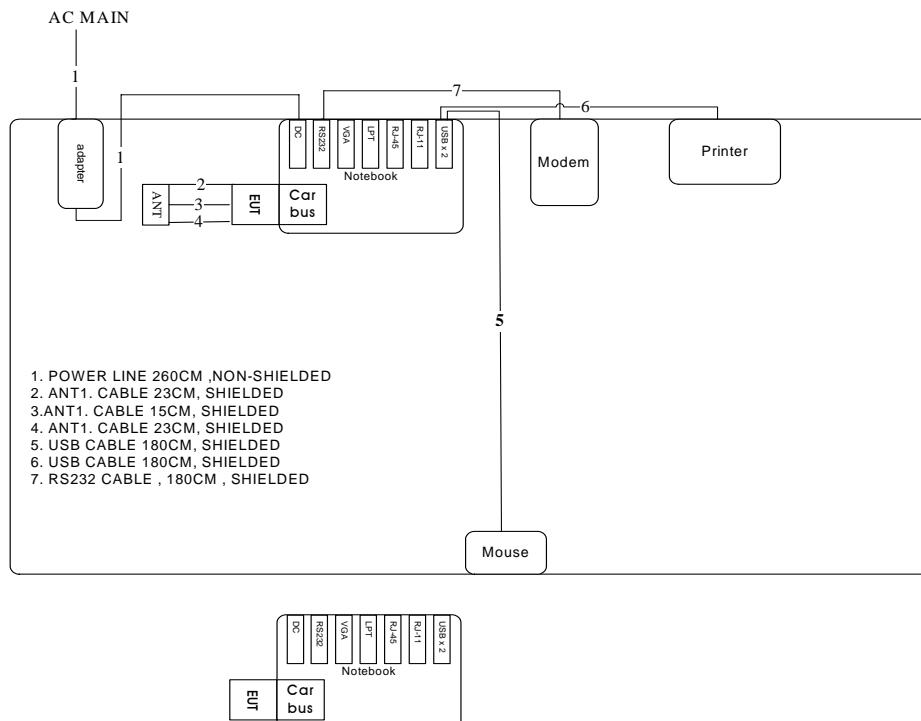


<For Antenna 6>:

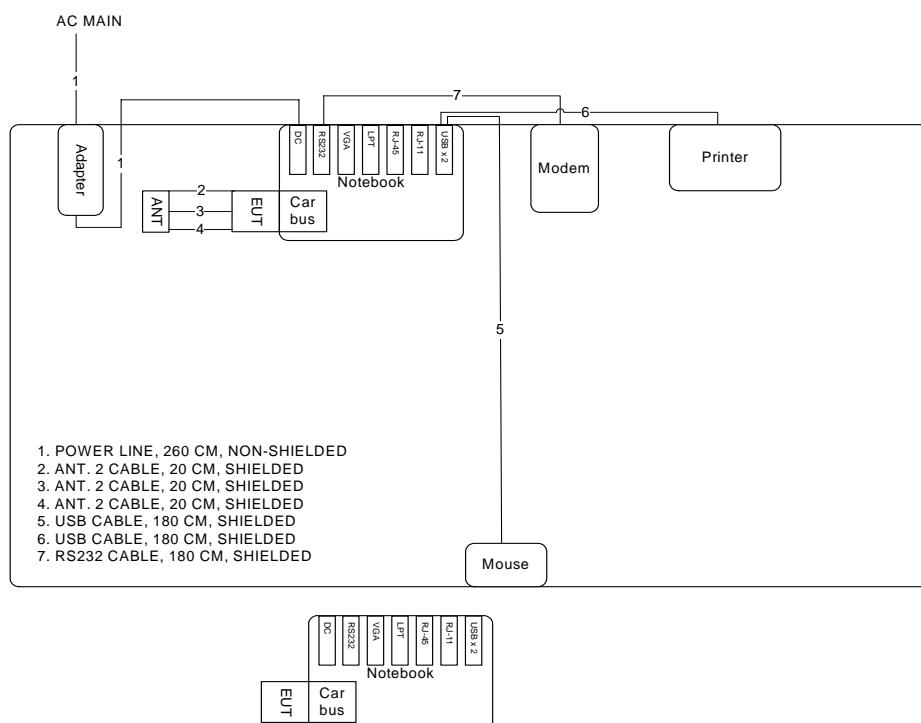


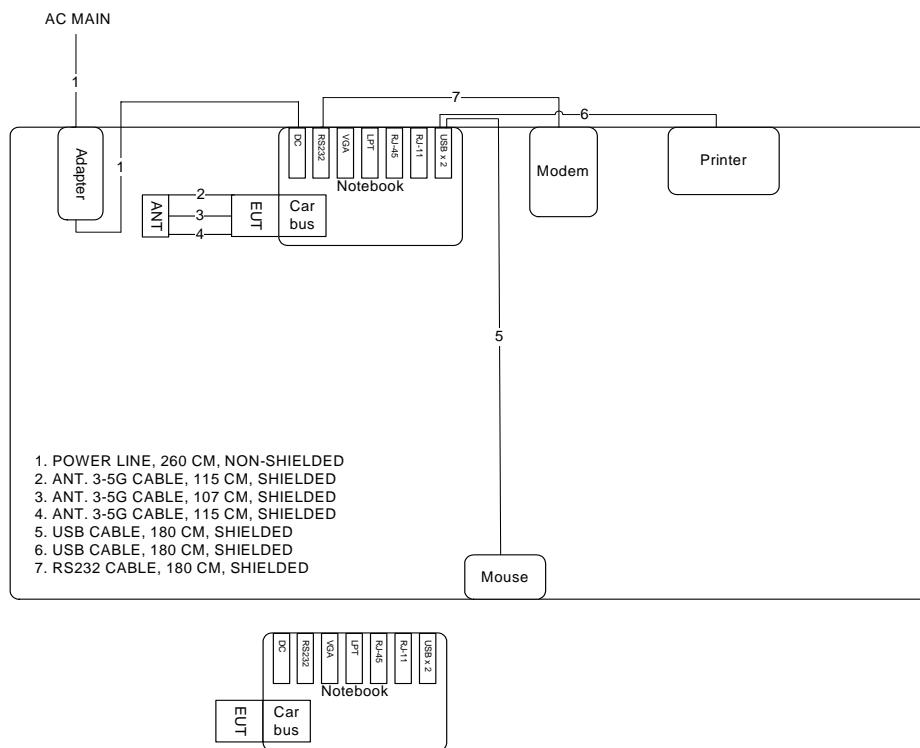
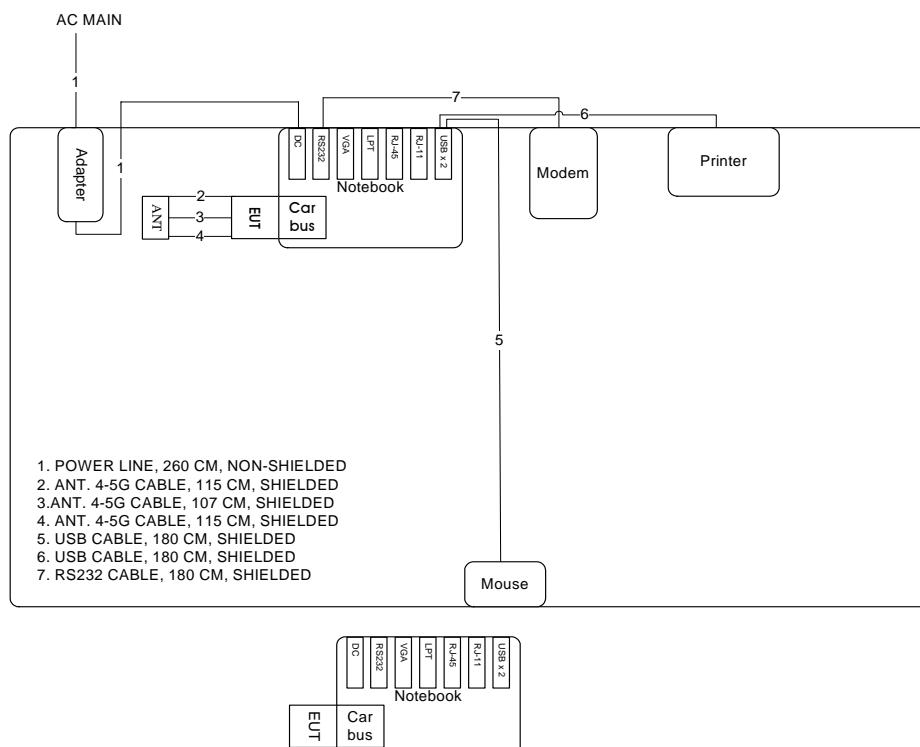
3.9.2. AC Power Line Conduction Emissions Test Configuration

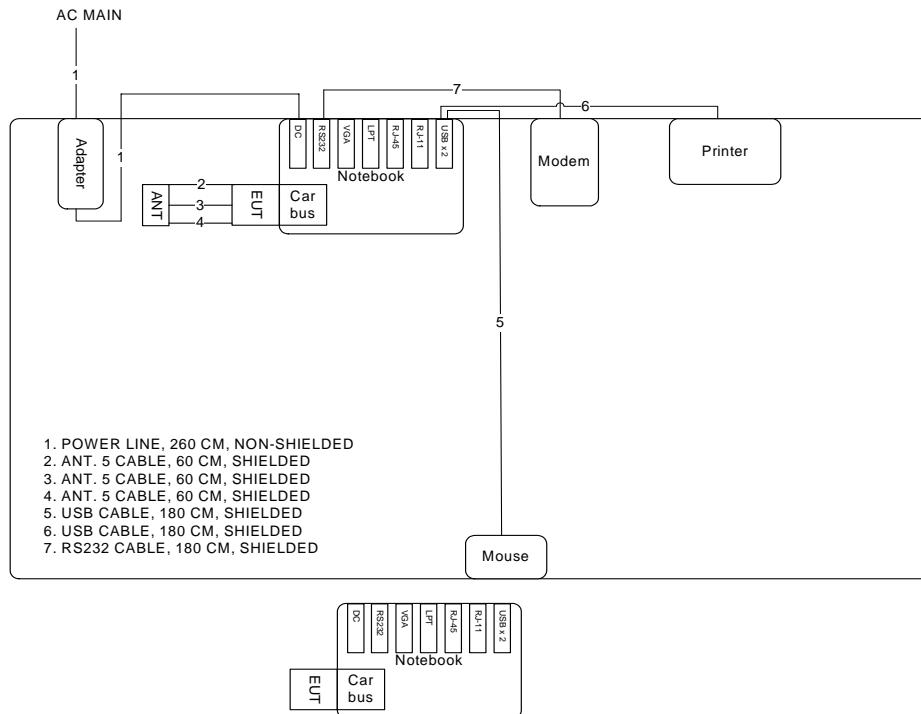
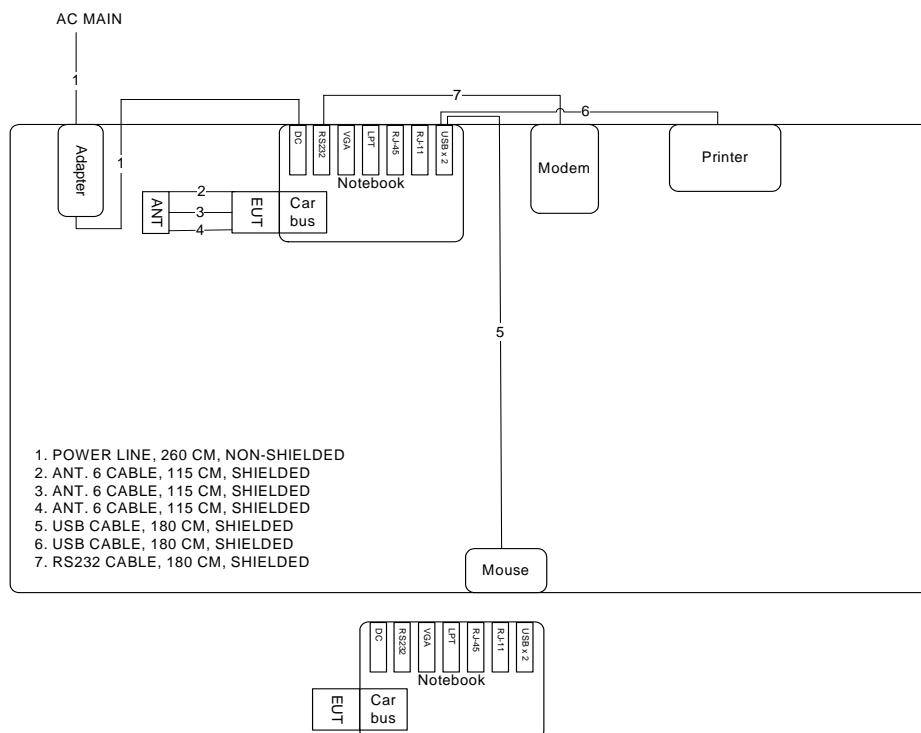
<For Antenna 1>:



<For Antenna 2>:



<For Antenna 3>:

<For Antenna 4>:


<For Antenna 5>:

<For Antenna 6>:


4. TEST RESULT

4.1. AC Power Line Conducted Emissions Measurement

4.1.1. Limit

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

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

4.1.2. Measuring Instruments and Setting

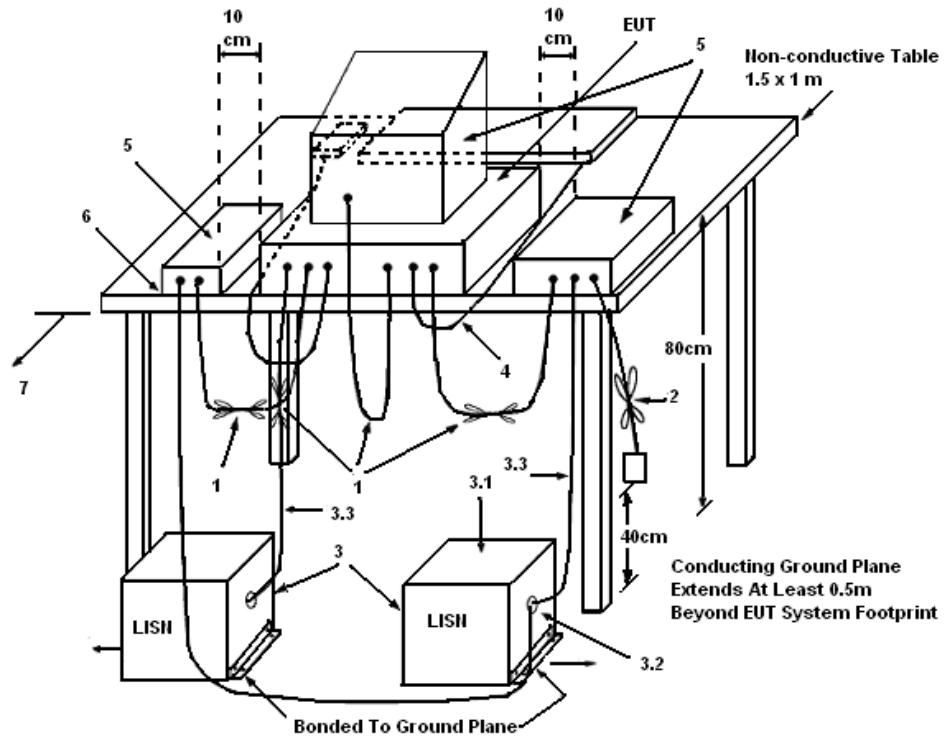
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

4.1.3. Test Procedures

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

4.1.4. Test Setup Layout



LEGEND:

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

4.1.5. Test Deviation

There is no deviation with the original standard.

4.1.6. EUT Operation during Test

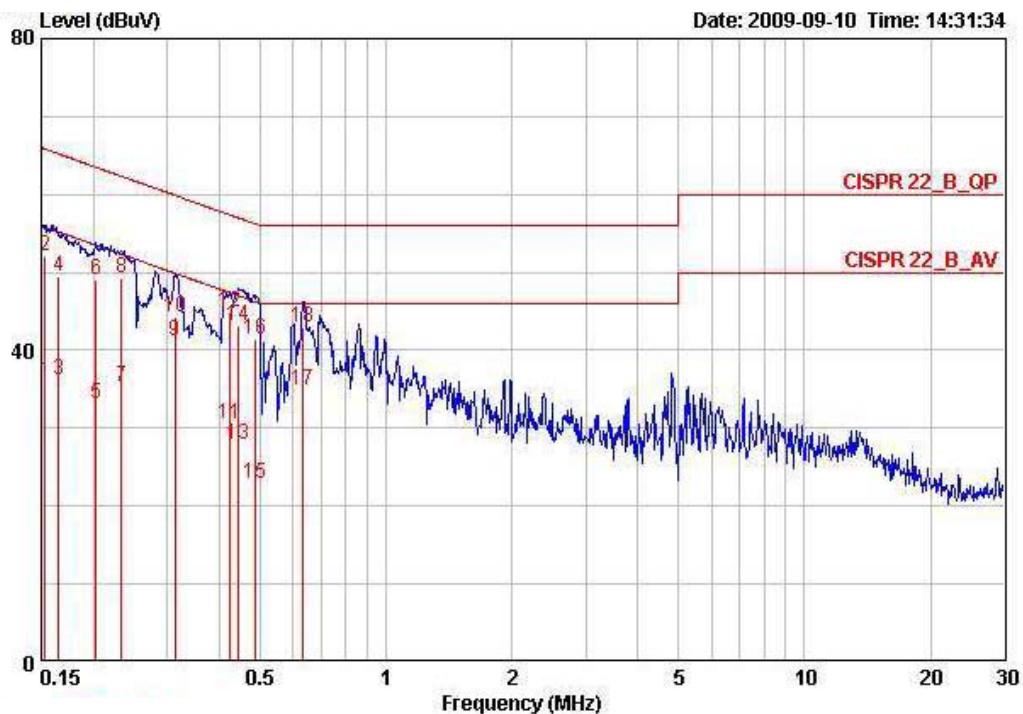
The EUT was placed on the test table and programmed in normal function.



4.1.7. Results of AC Power Line Conducted Emissions Measurement

<For Antenna 1>;

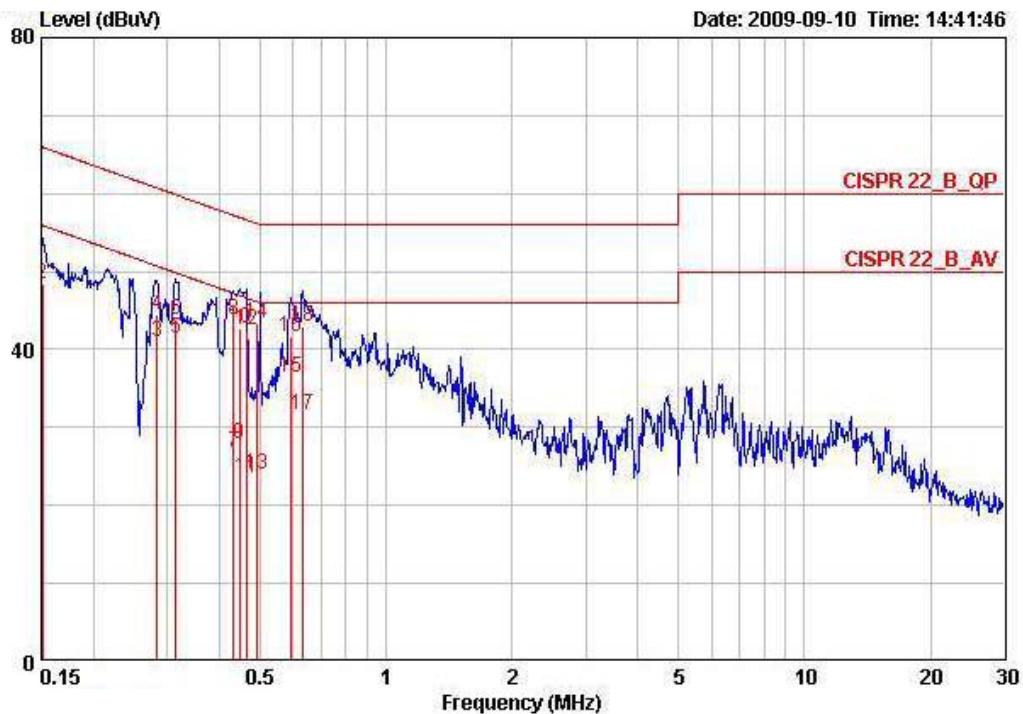
Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Line
Configuration	Normal Link / Antenna 1		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15321	36.01	-19.81	55.82	35.74	0.07	0.20	AVERAGE
2	0.15321	52.02	-13.80	65.82	51.75	0.07	0.20	QP
3	0.16501	36.17	-19.04	55.21	35.90	0.07	0.20	AVERAGE
4	0.16501	49.47	-15.74	65.21	49.20	0.07	0.20	QP
5	0.20289	33.15	-20.34	53.49	32.90	0.05	0.20	AVERAGE
6	0.20289	48.97	-14.52	63.49	48.72	0.05	0.20	QP
7	0.23285	35.40	-16.95	52.35	35.15	0.05	0.20	AVERAGE
8	0.23285	49.36	-12.99	62.35	49.11	0.05	0.20	QP
9	0.31328	41.12	-8.77	49.88	40.88	0.04	0.20	AVERAGE
10	0.31328	44.25	-15.64	59.88	44.01	0.04	0.20	QP
11	0.42150	30.49	-16.93	47.42	30.26	0.03	0.20	AVERAGE
12	0.42150	45.01	-12.41	57.42	44.78	0.03	0.20	QP
13	0.44443	27.86	-19.12	46.98	27.63	0.03	0.20	AVERAGE
14	0.44443	43.22	-13.76	56.98	42.99	0.03	0.20	QP
15	0.48632	22.87	-23.36	46.23	22.73	0.03	0.11	AVERAGE
16	0.48632	41.45	-14.78	56.23	41.31	0.03	0.11	QP
17	0.63018	34.85	-11.15	46.00	34.62	0.03	0.20	AVERAGE
18	0.63018	42.93	-13.07	56.00	42.70	0.03	0.20	QP



Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	Normal Link / Antenna 1		



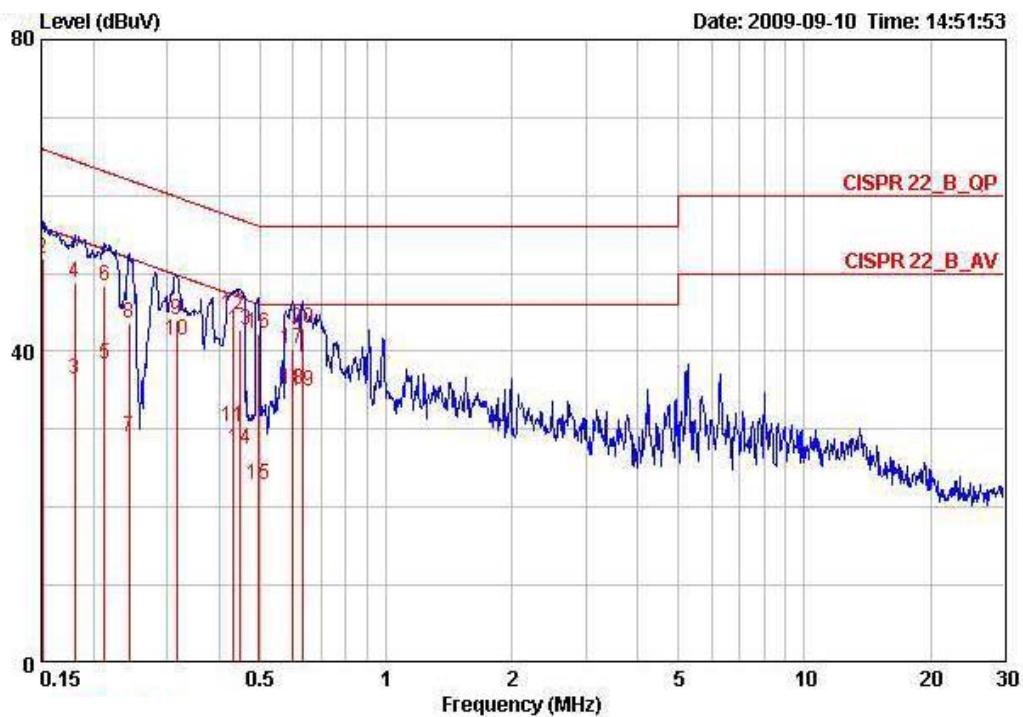
Freq	Level	Over Limit		Line	Read Level	LISN Factor	Cable Loss		Remark
		MHz	dBuV				dB	dB	
1	0.15080	36.15	-19.80	55.96	35.85	0.10	0.20	AVERAGE	
2	0.15080	48.31	-17.64	65.96	48.01	0.10	0.20	QP	
3	0.28328	40.92	-9.79	50.72	40.65	0.07	0.20	AVERAGE	
4	0.28328	44.49	-16.22	60.72	44.22	0.07	0.20	QP	
5	0.31495	41.52	-8.32	49.84	41.25	0.07	0.20	AVERAGE	
6	0.31495	43.84	-16.00	59.84	43.57	0.07	0.20	QP	
7	0.43281	26.79	-20.41	47.20	26.52	0.07	0.20	AVERAGE	
8	0.43281	43.90	-13.30	57.20	43.63	0.07	0.20	QP	
9	0.44619	27.94	-18.99	46.93	27.67	0.07	0.20	AVERAGE	
10	0.44679	42.78	-14.15	56.93	42.51	0.07	0.20	QP	
11	0.46614	23.56	-23.02	46.58	23.29	0.07	0.20	AVERAGE	
12	0.46614	42.61	-13.97	56.58	42.34	0.07	0.20	QP	
13	0.49237	23.93	-22.20	46.13	23.73	0.07	0.13	AVERAGE	
14	0.49237	43.37	-12.76	56.13	43.17	0.07	0.13	QP	
15	0.59324	36.44	-9.56	46.00	36.17	0.07	0.20	AVERAGE	
16	0.59324	41.67	-14.33	56.00	41.40	0.07	0.20	QP	
17	0.63383	31.68	-14.32	46.00	31.41	0.07	0.20	AVERAGE	
18	0.63383	42.91	-13.09	56.00	42.64	0.07	0.20	QP	

Note: Level = Read Level + LISN Factor + Cable Loss



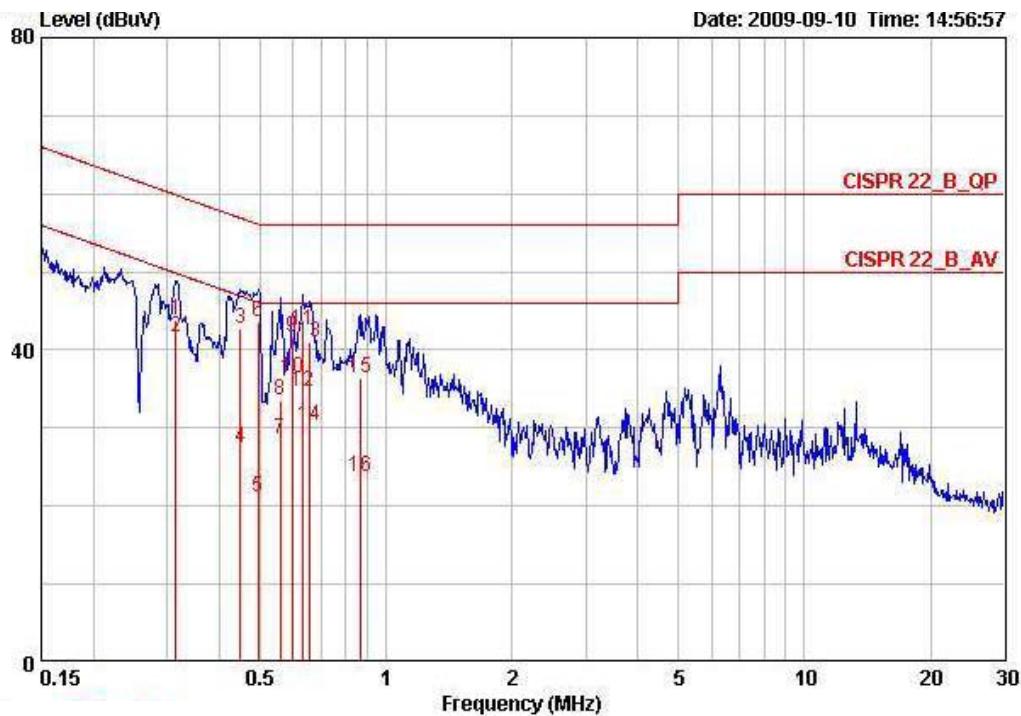
<For Antenna 2>:

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Line
Configuration	Normal Link / Antenna 2		



	Freq	Over Level	Limit	Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15080	36.90	-19.05	55.96	36.63	0.07	0.20	AVERAGE
2	0.15080	51.83	-14.12	65.96	51.56	0.07	0.20	QP
3	0.18056	36.34	-18.12	54.46	36.08	0.06	0.20	AVERAGE
4	0.18056	48.86	-15.60	64.46	48.60	0.06	0.20	QP
5	0.21279	38.37	-14.73	53.10	38.12	0.05	0.20	AVERAGE
6	0.21279	48.47	-14.63	63.10	48.22	0.05	0.20	QP
7	0.24293	29.07	-22.92	52.00	28.83	0.04	0.20	AVERAGE
8	0.24293	43.62	-18.37	62.00	43.38	0.04	0.20	QP
9	0.31608	44.01	-15.80	59.81	43.77	0.04	0.20	QP
10	0.31608	41.37	-8.44	49.81	41.13	0.04	0.20	AVERAGE
11	0.43052	30.37	-16.87	47.24	30.14	0.03	0.20	AVERAGE
12	0.43052	44.70	-12.54	57.24	44.47	0.03	0.20	QP
13	0.44916	42.77	-14.12	56.89	42.54	0.03	0.20	QP
14	0.44916	27.52	-19.37	46.89	27.29	0.03	0.20	AVERAGE
15	0.49411	22.85	-23.25	46.10	22.64	0.03	0.18	AVERAGE
16	0.49411	42.40	-13.70	56.10	42.19	0.03	0.18	QP
17	0.59794	40.35	-15.65	56.00	40.12	0.03	0.20	QP
18	0.59794	35.02	-10.98	46.00	34.79	0.03	0.20	AVERAGE
19	0.63048	34.77	-11.23	46.00	34.54	0.03	0.20	AVERAGE
20	0.63048	42.99	-13.01	56.00	42.76	0.03	0.20	QP

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	Normal Link / Antenna 2		

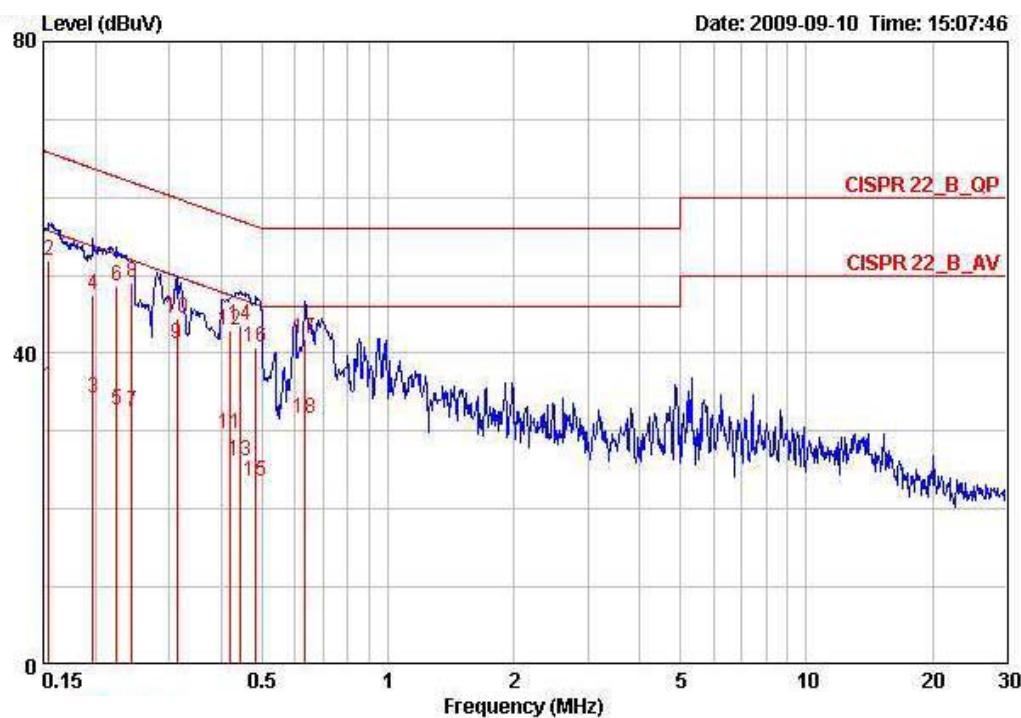


Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		Line	dBuV	Level	Factor	Loss	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.31495	43.86	-15.98	59.84	43.59	0.07	0.20 QP
2	0.31495	41.71	-8.13	49.84	41.44	0.07	0.20 AVERAGE
3	0.44916	42.79	-14.10	56.89	42.52	0.07	0.20 QP
4	0.44916	27.51	-19.38	46.89	27.24	0.07	0.20 AVERAGE
5	0.49411	21.10	-25.00	46.10	20.85	0.07	0.18 AVERAGE
6	0.49411	43.68	-12.42	56.10	43.43	0.07	0.18 QP
7	0.55815	28.60	-17.40	46.00	28.33	0.07	0.20 AVERAGE
8	0.55815	33.48	-22.52	56.00	33.21	0.07	0.20 QP
9	0.59695	41.53	-14.47	56.00	41.26	0.07	0.20 QP
10	0.59695	36.39	-9.61	46.00	36.12	0.07	0.20 AVERAGE
11	0.63048	42.53	-13.47	56.00	42.26	0.07	0.20 QP
12	0.63048	34.61	-11.39	46.00	34.34	0.07	0.20 AVERAGE
13	0.65778	40.90	-15.10	56.00	40.63	0.07	0.20 QP
14	0.65778	30.32	-15.68	46.00	30.05	0.07	0.20 AVERAGE
15	0.86643	36.51	-19.49	56.00	36.24	0.07	0.20 QP
16	0.86643	23.77	-22.23	46.00	23.50	0.07	0.20 AVERAGE

Note: Level = Read Level + LISN Factor + Cable Loss

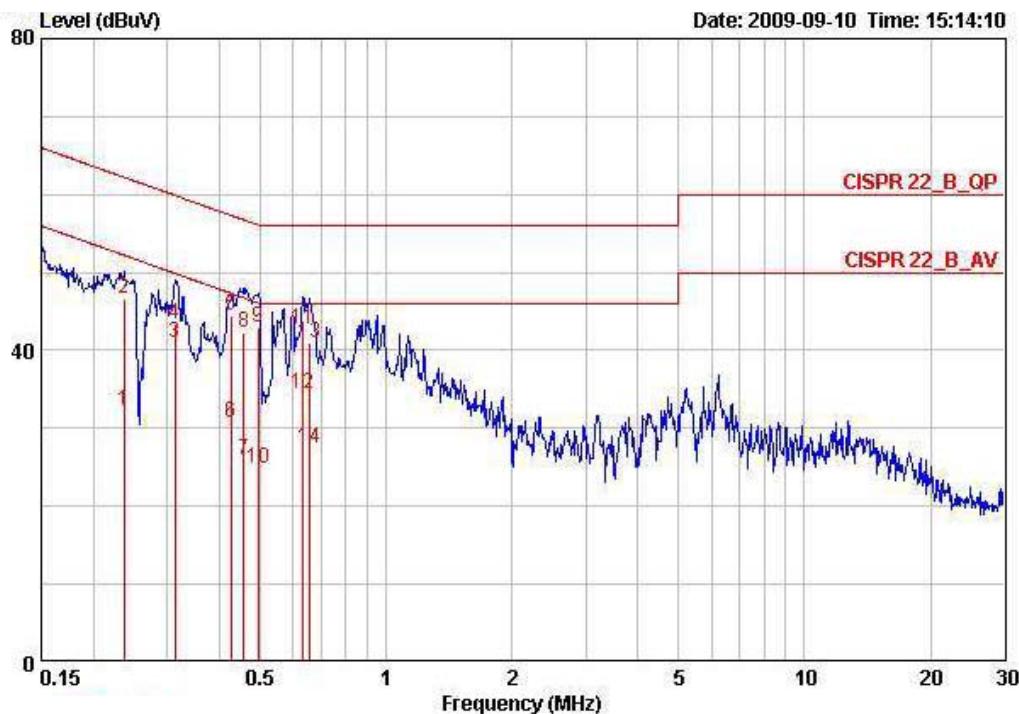
<For Antenna 3>:

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Line
Configuration	Normal Link / Antenna 3		



Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		MHz	dBuV	dB	dBuV	dB	
1	0.15485	35.72	-20.01	55.74	35.45	0.07	0.20 AVERAGE
2	0.15485	51.81	-13.92	65.74	51.54	0.07	0.20 QP
3	0.19758	34.14	-19.57	53.71	33.89	0.05	0.20 AVERAGE
4	0.19758	47.43	-16.28	63.71	47.18	0.05	0.20 QP
5	0.22437	32.64	-20.02	52.66	32.39	0.05	0.20 AVERAGE
6	0.22437	48.64	-14.02	62.66	48.39	0.05	0.20 QP
7	0.24422	32.45	-19.50	51.95	32.21	0.04	0.20 AVERAGE
8	0.24422	48.98	-12.97	61.95	48.74	0.04	0.20 QP
9	0.31328	41.31	-8.58	49.88	41.07	0.04	0.20 AVERAGE
10	0.31328	44.45	-15.44	59.88	44.21	0.04	0.20 QP
11	0.41927	29.69	-17.77	47.46	29.46	0.03	0.20 AVERAGE
12	0.41927	42.95	-14.51	57.46	42.72	0.03	0.20 QP
13	0.44208	26.14	-20.88	47.02	25.91	0.03	0.20 AVERAGE
14	0.44208	43.62	-13.40	57.02	43.39	0.03	0.20 QP
15	0.48375	23.49	-22.78	46.27	23.36	0.03	0.10 AVERAGE
16	0.48375	40.68	-15.59	56.27	40.55	0.03	0.10 QP
17	0.63383	41.89	-14.11	56.00	41.66	0.03	0.20 QP
18	0.63383	31.58	-14.42	46.00	31.35	0.03	0.20 AVERAGE

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	Normal Link / Antenna 3		

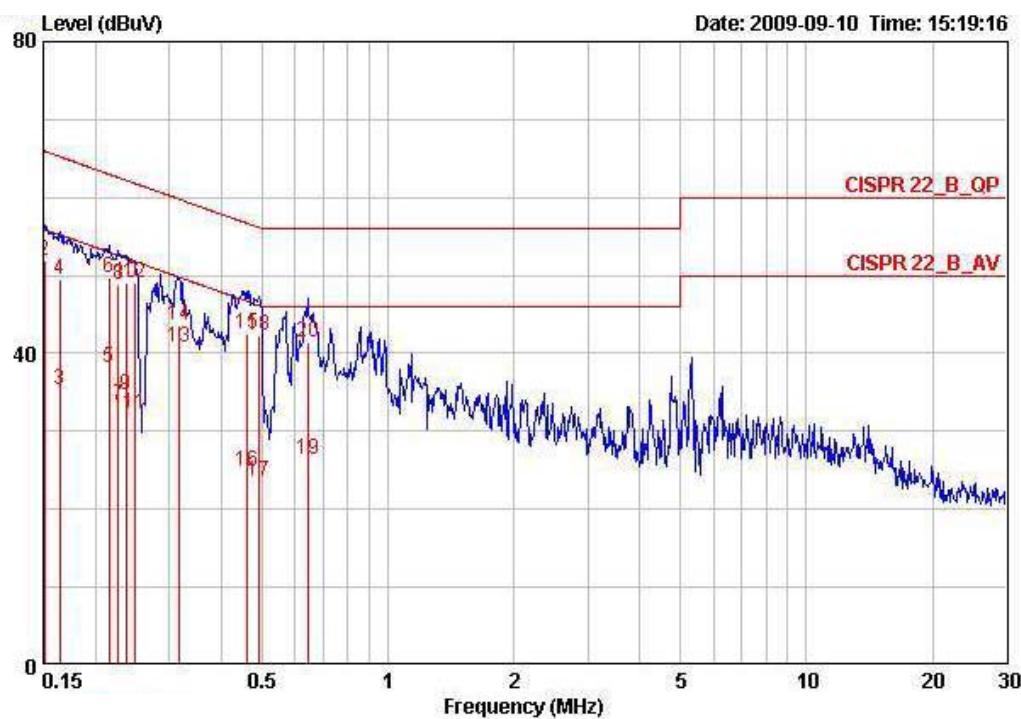


Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		Line	Limit	Level	Factor	Loss	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.23658	32.26	-19.96	52.22	31.98	0.08	0.20 AVERAGE
2	0.23658	46.62	-15.60	62.22	46.34	0.08	0.20 QP
3	0.31328	41.08	-8.80	49.88	40.81	0.07	0.20 AVERAGE
4	0.31328	43.30	-16.58	59.88	43.03	0.07	0.20 QP
5	0.42599	44.55	-12.78	57.33	44.28	0.07	0.20 QP
6	0.42599	30.74	-16.59	47.33	30.47	0.07	0.20 AVERAGE
7	0.45636	25.88	-20.88	46.76	25.61	0.07	0.20 AVERAGE
8	0.45636	42.23	-14.53	56.76	41.96	0.07	0.20 QP
9	0.49411	43.00	-13.10	56.10	42.75	0.07	0.18 QP
10	0.49411	24.82	-21.28	46.10	24.57	0.07	0.18 AVERAGE
11	0.63383	42.79	-13.21	56.00	42.52	0.07	0.20 QP
12	0.63383	34.48	-11.52	46.00	34.21	0.07	0.20 AVERAGE
13	0.65430	41.00	-15.00	56.00	40.73	0.07	0.20 QP
14	0.65430	27.57	-18.43	46.00	27.30	0.07	0.20 AVERAGE

Note: Level = Read Level + LISN Factor + Cable Loss

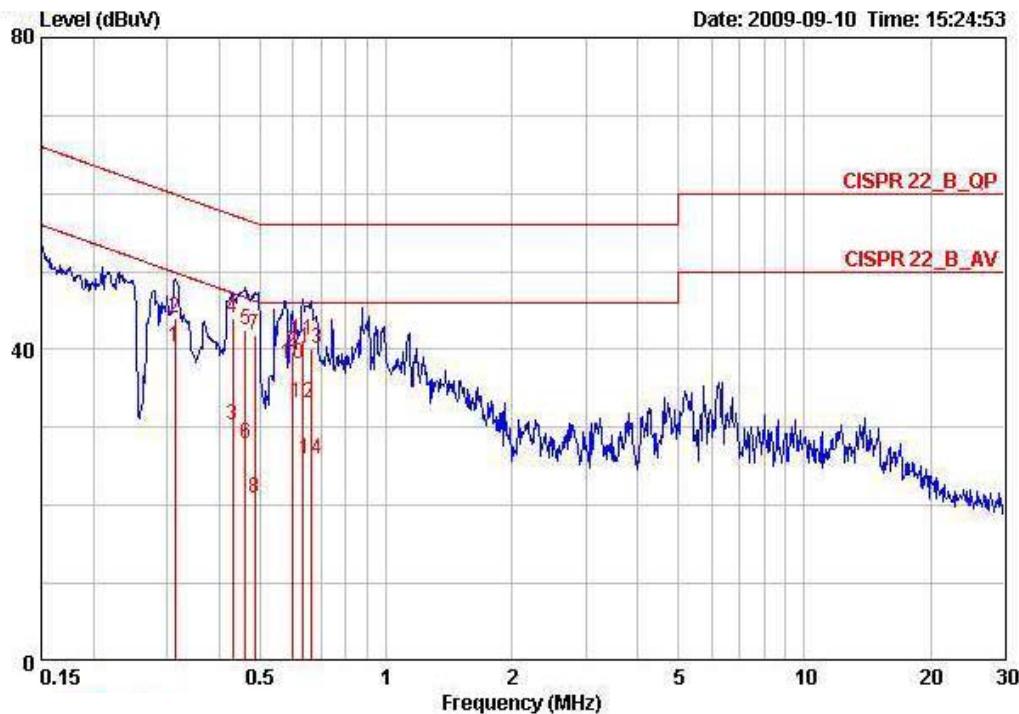
<For Antenna 4>:

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Line
Configuration	Normal Link / Antenna 4		



Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss		Remark
						dB	dBuV	
MHz	dBuV		dB	dBuV		dB	dB	
1	0.15080	36.90	-19.05	55.96	36.63	0.07	0.20	AVERAGE
2	0.15080	51.87	-14.08	65.96	51.60	0.07	0.20	QP
3	0.16414	35.34	-19.91	55.25	35.07	0.07	0.20	AVERAGE
4	0.16414	49.54	-15.71	65.25	49.27	0.07	0.20	QP
5	0.21506	38.05	-14.96	53.01	37.80	0.05	0.20	AVERAGE
6	0.21506	49.71	-13.30	63.01	49.46	0.05	0.20	QP
7	0.22676	33.30	-19.27	52.57	33.05	0.05	0.20	AVERAGE
8	0.22676	48.80	-13.77	62.57	48.55	0.05	0.20	QP
9	0.23658	34.68	-17.54	52.22	34.43	0.05	0.20	AVERAGE
10	0.23658	48.97	-13.25	62.22	48.72	0.05	0.20	QP
11	0.24814	32.18	-19.64	51.82	31.94	0.04	0.20	AVERAGE
12	0.24814	49.00	-12.82	61.82	48.76	0.04	0.20	QP
13	0.31662	40.72	-9.08	49.80	40.48	0.04	0.20	AVERAGE
14	0.31662	43.53	-16.27	59.80	43.29	0.04	0.20	QP
15	0.45878	42.53	-14.18	56.71	42.30	0.03	0.20	QP
16	0.45878	24.77	-21.94	46.71	24.54	0.03	0.20	AVERAGE
17	0.49150	23.60	-22.55	46.14	23.44	0.03	0.13	AVERAGE
18	0.49150	42.37	-13.78	56.14	42.21	0.03	0.13	QP
19	0.64398	26.37	-19.63	46.00	26.14	0.03	0.20	AVERAGE
20	0.64398	41.52	-14.48	56.00	41.29	0.03	0.20	QP

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	Normal Link / Antenna 4		

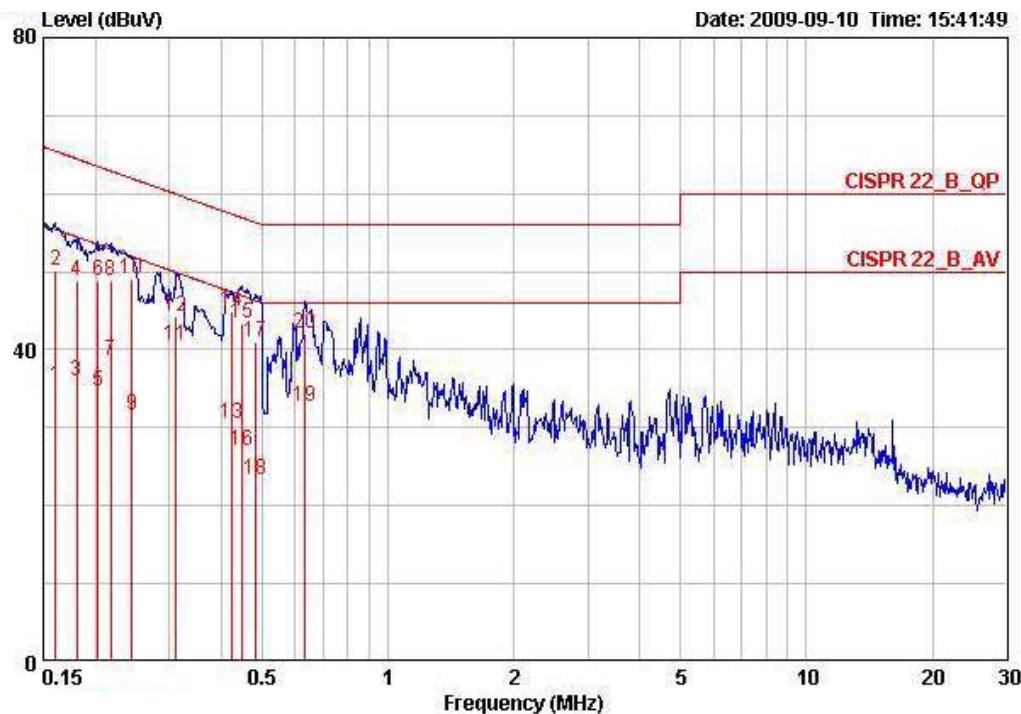


Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		Line	dBuV	Level	Factor	Loss	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.31328	40.41	-9.47	49.88	40.14	0.07	0.20 AVERAGE
2	0.31328	44.06	-15.82	59.88	43.79	0.07	0.20 QP
3	0.43052	30.25	-16.99	47.24	29.98	0.07	0.20 AVERAGE
4	0.43052	44.02	-13.22	57.24	43.75	0.07	0.20 QP
5	0.46122	42.41	-14.26	56.67	42.14	0.07	0.20 QP
6	0.46122	27.89	-18.78	46.67	27.62	0.07	0.20 AVERAGE
7	0.48632	41.77	-14.46	56.23	41.59	0.07	0.11 QP
8	0.48632	20.93	-25.30	46.23	20.75	0.07	0.11 AVERAGE
9	0.59553	39.75	-16.25	56.00	39.48	0.07	0.20 QP
10	0.59553	38.16	-7.84	46.00	37.89	0.07	0.20 AVERAGE
11	0.63383	41.11	-14.89	56.00	40.84	0.07	0.20 QP
12	0.63383	33.13	-12.87	46.00	32.86	0.07	0.20 AVERAGE
13	0.66478	40.20	-15.80	56.00	39.93	0.07	0.20 QP
14	0.66478	25.84	-20.16	46.00	25.57	0.07	0.20 AVERAGE

Note: Level = Read Level + LISN Factor + Cable Loss

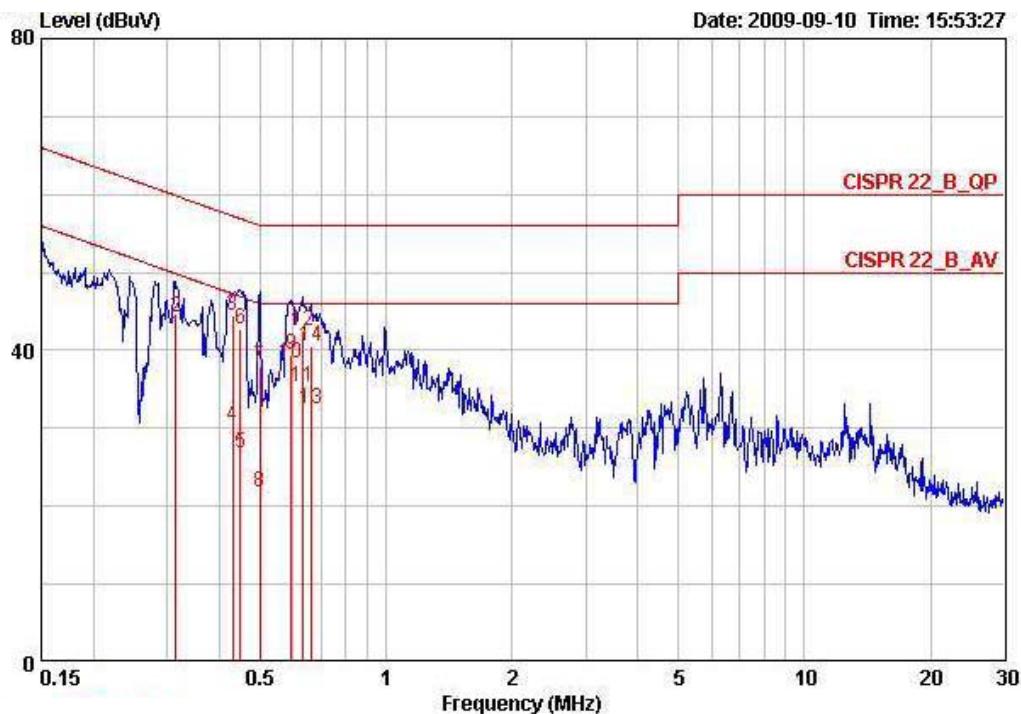
<For Antenna 5>:

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Line
Configuration	Normal Link / Antenna 5		



Freq	Level	Over	Limit	Read	LISN	Cable	
		Limit	Line	Level	Factor	Loss	
0.15	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16070	35.22	-20.21	55.43	34.95	0.07	0.20 AVERAGE
2	0.16070	50.04	-15.39	65.43	49.77	0.07	0.20 QP
3	0.18056	36.05	-18.41	54.46	35.79	0.06	0.20 AVERAGE
4	0.18056	48.90	-15.56	64.46	48.64	0.06	0.20 QP
5	0.20289	34.63	-18.86	53.49	34.38	0.05	0.20 AVERAGE
6	0.20289	48.91	-14.58	63.49	48.66	0.05	0.20 QP
7	0.21735	38.67	-14.25	52.92	38.42	0.05	0.20 AVERAGE
8	0.21735	48.81	-14.11	62.92	48.56	0.05	0.20 QP
9	0.24422	31.57	-20.38	51.95	31.33	0.04	0.20 AVERAGE
10	0.24422	49.06	-12.89	61.95	48.82	0.04	0.20 QP
11	0.31163	40.45	-9.48	49.93	40.21	0.04	0.20 AVERAGE
12	0.31163	44.31	-15.62	59.93	44.07	0.04	0.20 QP
13	0.42150	30.49	-16.93	47.42	30.26	0.03	0.20 AVERAGE
14	0.42150	44.95	-12.47	57.42	44.72	0.03	0.20 QP
15	0.44679	43.36	-13.57	56.93	43.13	0.03	0.20 QP
16	0.44679	27.12	-19.81	46.93	26.89	0.03	0.20 AVERAGE
17	0.48119	41.05	-15.27	56.32	40.92	0.03	0.10 QP
18	0.48119	23.42	-22.90	46.32	23.29	0.03	0.10 AVERAGE
19	0.63048	32.67	-13.33	46.00	32.44	0.03	0.20 AVERAGE
20	0.63048	42.17	-13.83	56.00	41.94	0.03	0.20 QP

Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	Normal Link / Antenna 5		

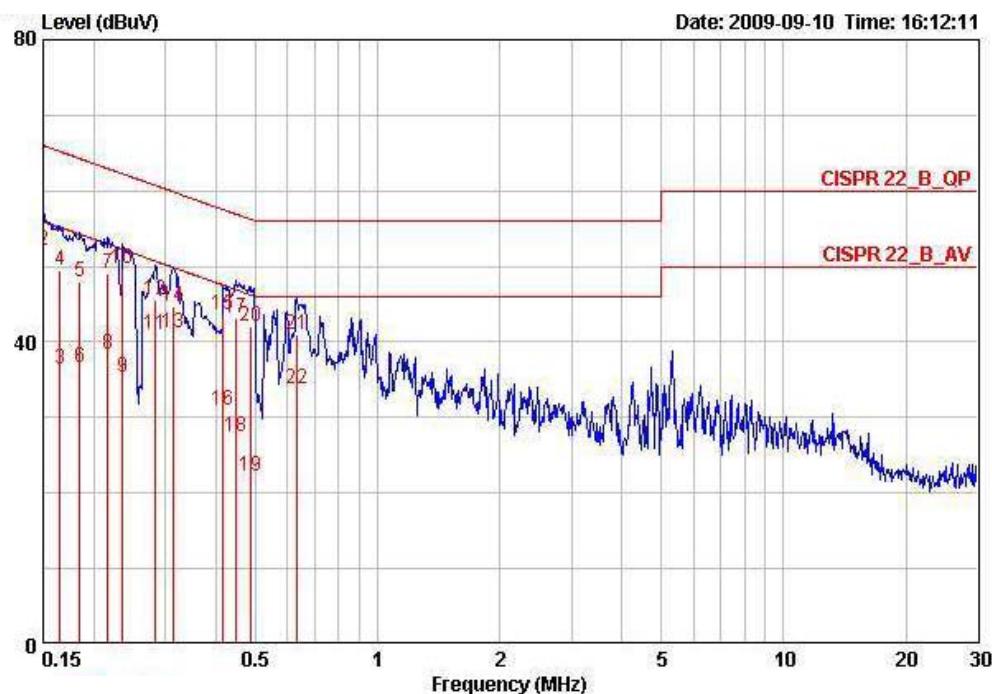


Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		Line	Limit	Level	Factor	Loss	
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.31523	41.95	-7.88	49.83	41.68	0.07	0.20 AVERAGE
2	0.31523	44.16	-15.67	59.83	43.89	0.07	0.20 QP
3	0.43052	44.38	-12.86	57.24	44.11	0.07	0.20 QP
4	0.43052	30.30	-16.94	47.24	30.03	0.07	0.20 AVERAGE
5	0.44916	26.73	-20.16	46.89	26.46	0.07	0.20 AVERAGE
6	0.44916	42.77	-14.12	56.89	42.50	0.07	0.20 QP
7	0.49937	37.87	-18.14	56.01	37.62	0.07	0.18 QP
8	0.49937	21.79	-24.22	46.01	21.54	0.07	0.18 AVERAGE
9	0.59478	39.54	-16.46	56.00	39.27	0.07	0.20 QP
10	0.59478	38.26	-7.74	46.00	37.99	0.07	0.20 AVERAGE
11	0.63048	35.39	-10.61	46.00	35.12	0.07	0.20 AVERAGE
12	0.63048	42.61	-13.39	56.00	42.34	0.07	0.20 QP
13	0.66127	32.44	-13.56	46.00	32.17	0.07	0.20 AVERAGE
14	0.66127	40.44	-15.56	56.00	40.17	0.07	0.20 QP

Note: Level = Read Level + LISN Factor + Cable Loss

<For Antenna 6>:

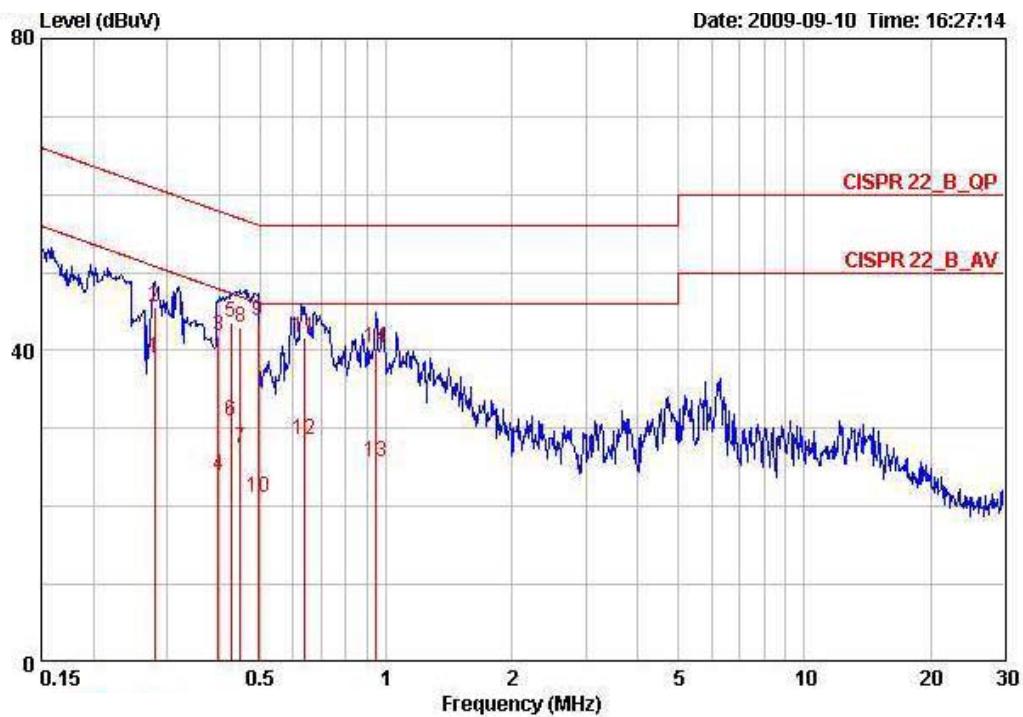
Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Line
Configuration	Normal Link / Antenna 6		



Freq	Level	Over Limit	Limit Line	Read Level		LISN	Cable Loss	Remark
				MHz	dBuV			
1	0.15000	37.32	-18.68	56.00	37.04	0.08	0.20	AVERAGE
2	0.15000	52.11	-13.89	66.00	51.83	0.08	0.20	QP
3	0.16501	36.40	-18.81	55.21	36.13	0.07	0.20	AVERAGE
4	0.16501	49.43	-15.78	65.21	49.16	0.07	0.20	QP
5	0.18443	47.86	-16.43	64.28	47.60	0.06	0.20	QP
6	0.18443	36.65	-17.64	54.28	36.39	0.06	0.20	AVERAGE
7	0.21620	49.13	-13.84	62.96	48.88	0.05	0.20	QP
8	0.21620	38.37	-14.60	52.96	38.12	0.05	0.20	AVERAGE
9	0.23533	35.21	-17.05	52.26	34.96	0.05	0.20	AVERAGE
10	0.23533	49.61	-12.65	62.26	49.36	0.05	0.20	QP
11	0.28328	40.89	-9.83	50.72	40.65	0.04	0.20	AVERAGE
12	0.28328	45.46	-15.26	60.72	45.22	0.04	0.20	QP
13	0.31495	41.18	-8.66	49.84	40.94	0.04	0.20	AVERAGE
14	0.31495	44.77	-15.07	59.84	44.53	0.04	0.20	QP
15	0.41705	43.49	-14.02	57.51	43.26	0.03	0.20	QP
16	0.41705	30.90	-16.61	47.51	30.67	0.03	0.20	AVERAGE
17	0.44916	43.09	-13.80	56.89	42.86	0.03	0.20	QP
18	0.44916	27.41	-19.48	46.89	27.18	0.03	0.20	AVERAGE
19	0.48632	22.13	-24.10	46.23	21.99	0.03	0.11	AVERAGE
20	0.48632	42.07	-14.16	56.23	41.93	0.03	0.11	QP
21	0.63383	40.99	-15.01	56.00	40.76	0.03	0.20	QP
22	0.63383	33.79	-12.21	46.00	33.56	0.03	0.20	AVERAGE



Temperature	24°C	Humidity	56%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	Normal Link / Antenna 6		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.28029	39.01	-11.80	50.81	38.73	0.08	0.20	AVERAGE
2	0.28029	45.46	-15.35	60.81	45.18	0.08	0.20	QP
3	0.39763	41.80	-16.10	57.90	41.53	0.07	0.20	QP
4	0.39763	24.08	-23.82	47.90	23.81	0.07	0.20	AVERAGE
5	0.42599	43.57	-13.76	57.33	43.30	0.07	0.20	QP
6	0.42599	30.88	-16.45	47.33	30.61	0.07	0.20	AVERAGE
7	0.44916	27.56	-19.33	46.89	27.29	0.07	0.20	AVERAGE
8	0.44916	42.95	-13.94	56.89	42.68	0.07	0.20	QP
9	0.49411	43.76	-12.34	56.10	43.51	0.07	0.18	QP
10	0.49411	21.20	-24.90	46.10	20.95	0.07	0.18	AVERAGE
11	0.63733	41.67	-14.33	56.00	41.40	0.07	0.20	QP
12	0.63733	28.65	-17.35	46.00	28.38	0.07	0.20	AVERAGE
13	0.94809	25.69	-20.31	46.00	25.42	0.07	0.20	AVERAGE
14	0.94809	40.25	-15.75	56.00	39.98	0.07	0.20	QP

Note: Level = Read Level + LISN Factor + Cable Loss

4.2. 99% Occupied Bandwidth Measurement

4.2.1. Limit

No restriction limits. But resolution bandwidth within band edge measurement is 1% of the 99% occupied bandwidth.

4.2.2. Measuring Instruments and Setting

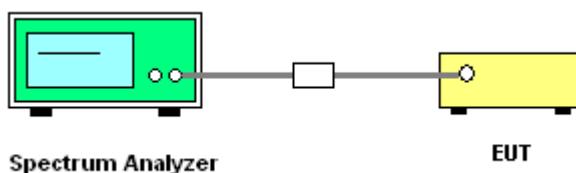
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RB	300 kHz
VB	1000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.2.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.
2. The resolution bandwidth of 300 kHz and the video bandwidth of 1000 kHz were used.
3. Measured the spectrum width with power higher than 26dB below carrier.
4. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

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 99% Occupied Bandwidth

<For Antenna 1>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 1

Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.52	17.92
40	5200 MHz	23.36	18.08
48	5240 MHz	23.52	17.92

Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	44.64	36.48
46	5230 MHz	44.16	36.48

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 1

Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	22.24	16.80
40	5200 MHz	22.56	16.96
48	5240 MHz	22.24	16.80

<For Antenna 2>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 2

Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	22.72	17.92
40	5200 MHz	22.88	17.92
48	5240 MHz	24.00	17.92

Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	43.36	36.48
46	5230 MHz	44.32	36.48

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 2

Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.04	17.12
40	5200 MHz	22.08	17.72
48	5240 MHz	22.08	16.80

<For Antenna 3>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 3

Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	22.72	17.92
40	5200 MHz	22.88	17.92
48	5240 MHz	24.00	17.92

Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	43.36	36.48
46	5230 MHz	44.32	36.48

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 3

Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.04	17.12
40	5200 MHz	22.08	17.12
48	5240 MHz	22.08	16.80

<For Antenna 4>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 4

Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	22.72	17.92
40	5200 MHz	22.88	17.92
48	5240 MHz	24.00	17.92

Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	43.36	36.48
46	5230 MHz	44.32	36.48

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 4

Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.04	17.12
40	5200 MHz	22.08	17.12
48	5240 MHz	22.08	16.80

<For Antenna 5>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 5

Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	22.72	17.92
40	5200 MHz	22.88	17.92
48	5240 MHz	24.00	17.92

Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	43.36	36.48
46	5230 MHz	44.32	36.48

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 5

Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.04	17.12
40	5200 MHz	22.08	17.12
48	5240 MHz	22.08	16.80

<For Antenna 6>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 6

Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.52	17.92
40	5200 MHz	23.36	18.08
48	5240 MHz	23.52	17.92

Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	44.32	36.48
46	5230 MHz	44.16	36.48

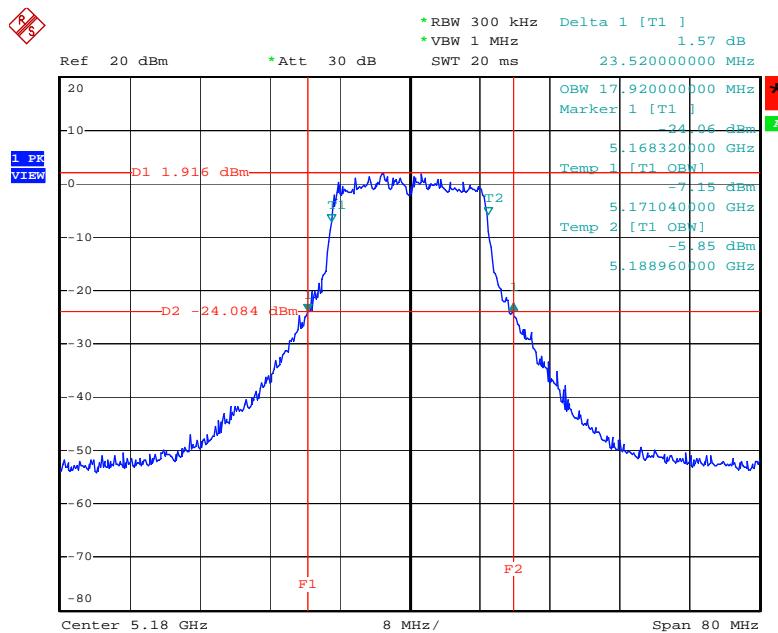
Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 6

Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	22.24	16.80
40	5200 MHz	22.56	16.96
48	5240 MHz	22.24	16.80

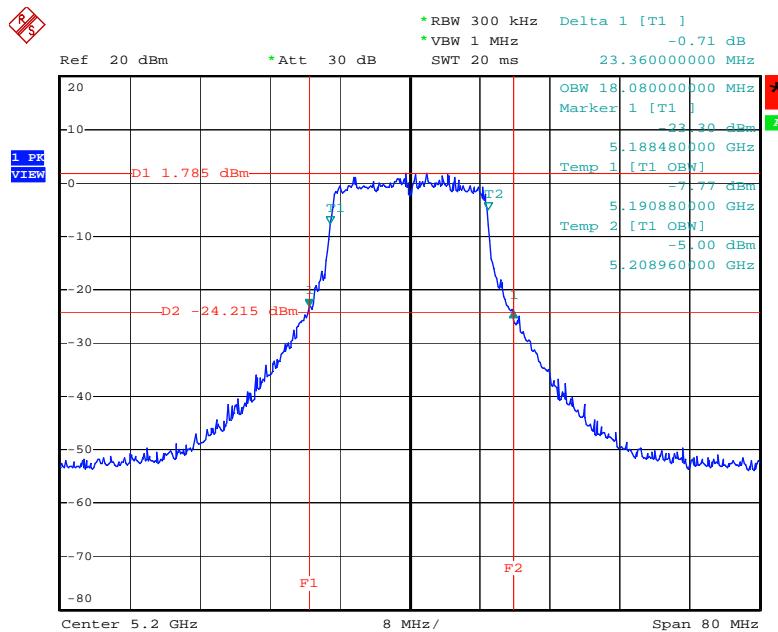
<For Antenna 1>:

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5180 MHz



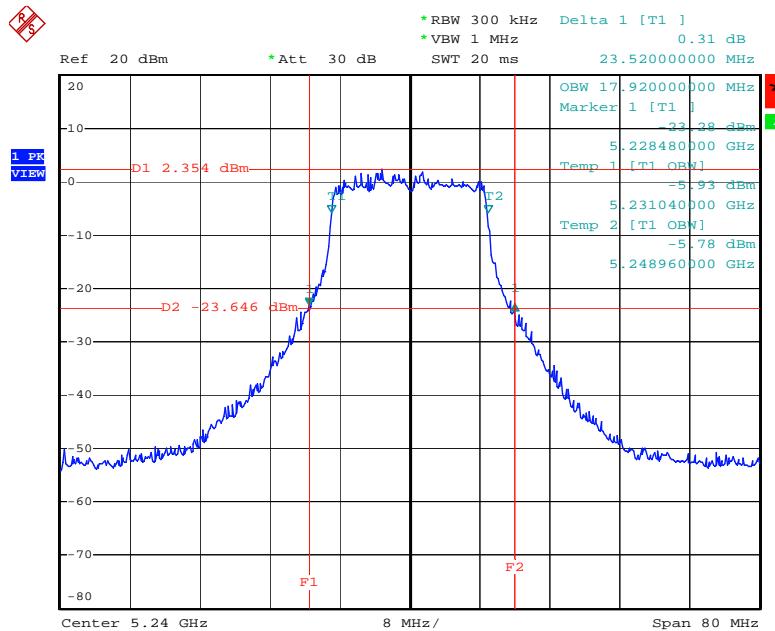
Date: 9.OCT.2009 17:25:06

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5200 MHz



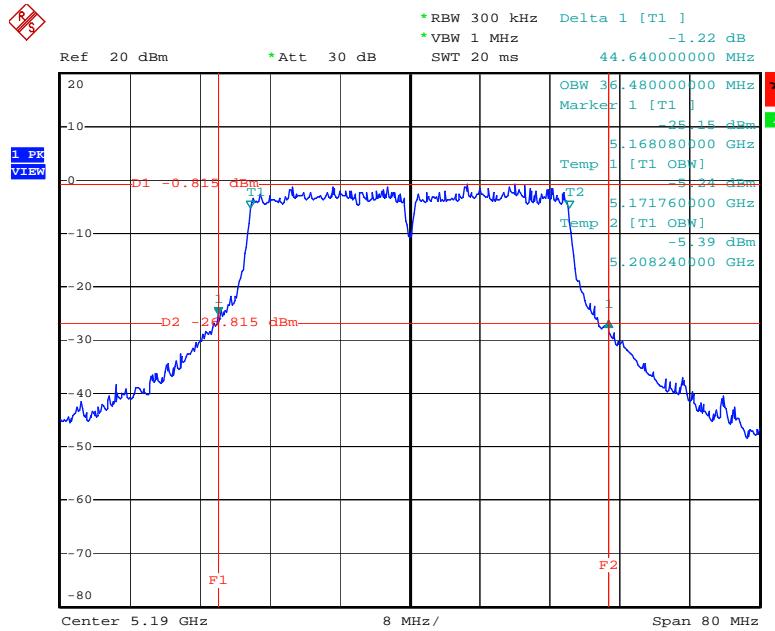
Date: 9.OCT.2009 17:25:56

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5240 MHz



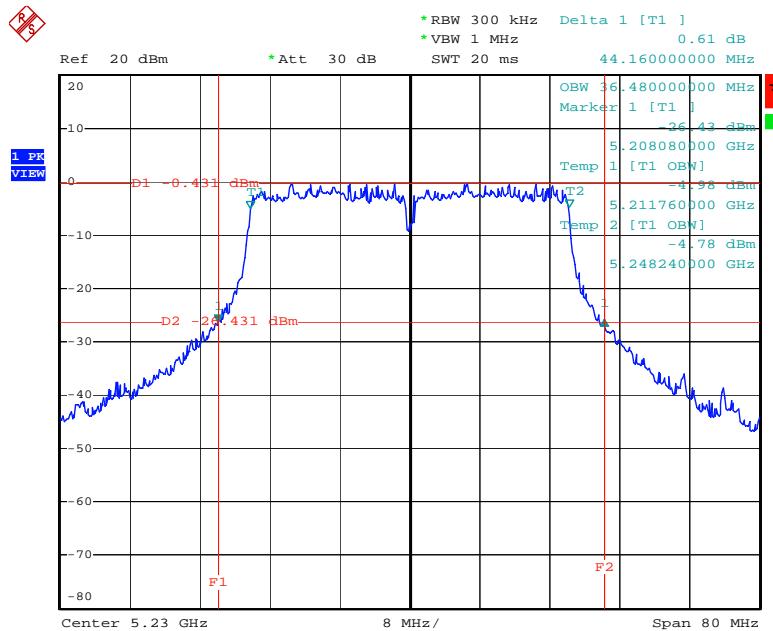
Date: 9.OCT.2009 17:26:59

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3 / 5190 MHz



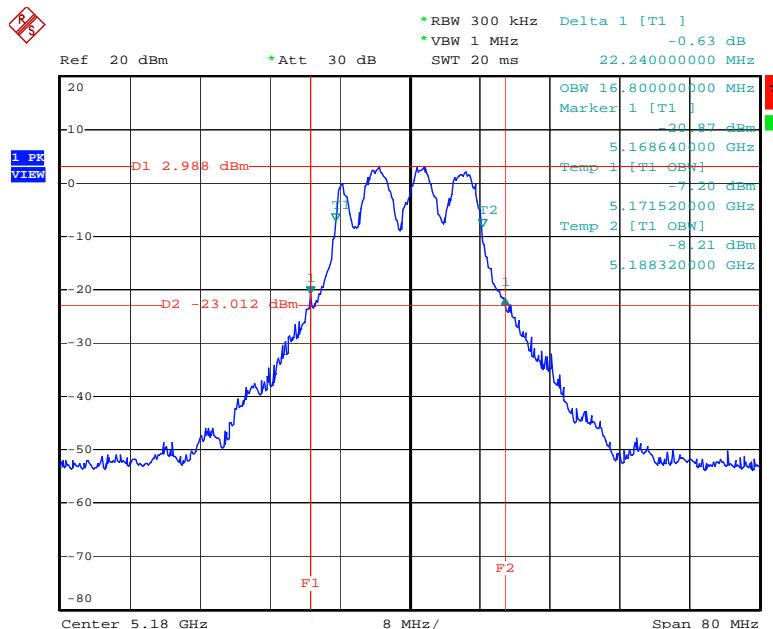
Date: 9.OCT.2009 16:56:31

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3 / 5230 MHz



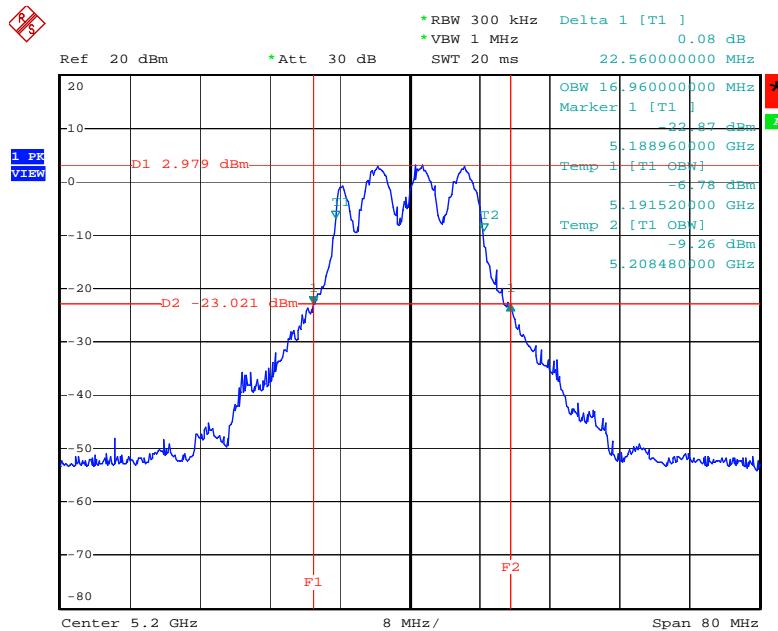
Date: 9.OCT.2009 16:55:26

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5180 MHz



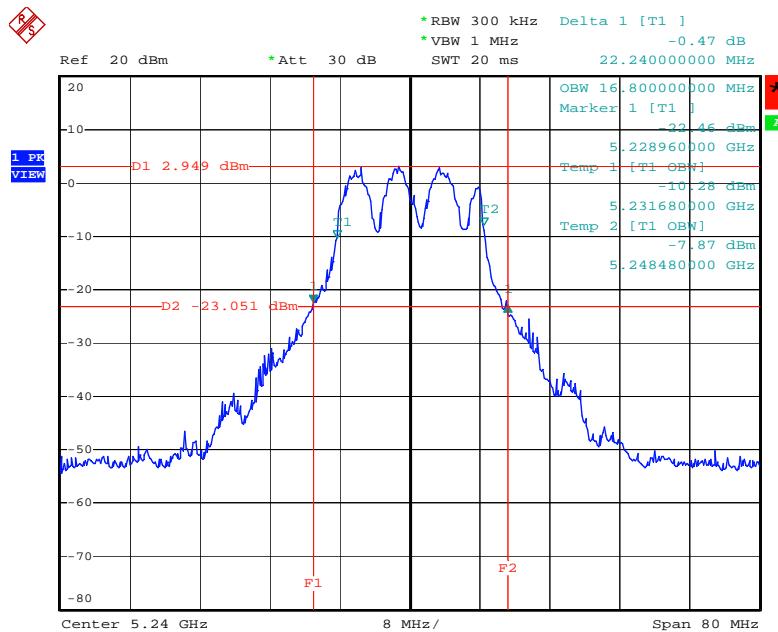
Date: 9.OCT.2009 17:10:22

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5200 MHz



Date: 9.OCT.2009 17:15:27

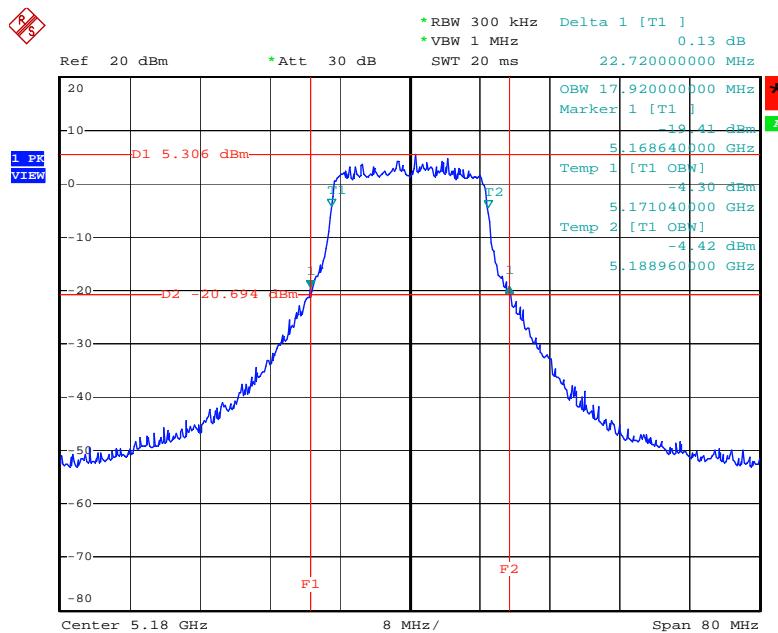
26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5240 MHz



Date: 9.OCT.2009 17:13:51

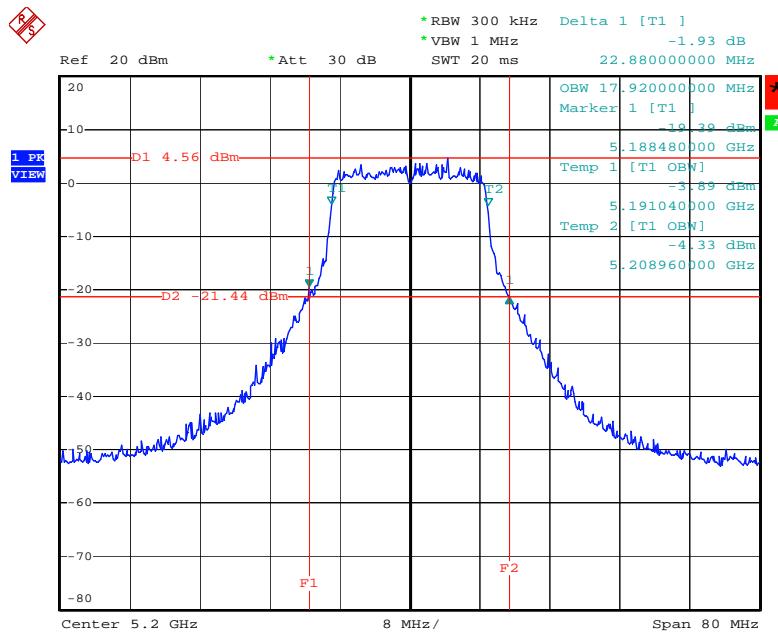
<For Antenna 2>:

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5180 MHz



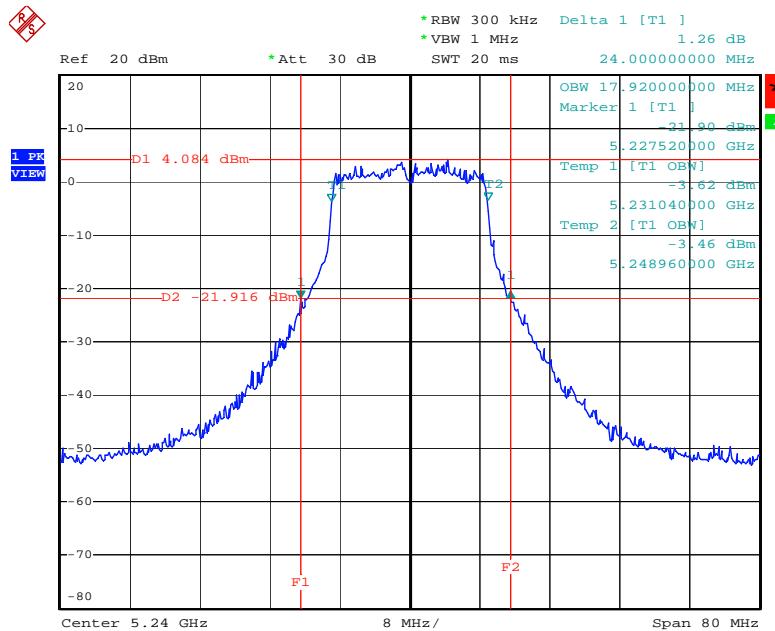
Date: 16.SEP.2009 18:19:25

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5200 MHz



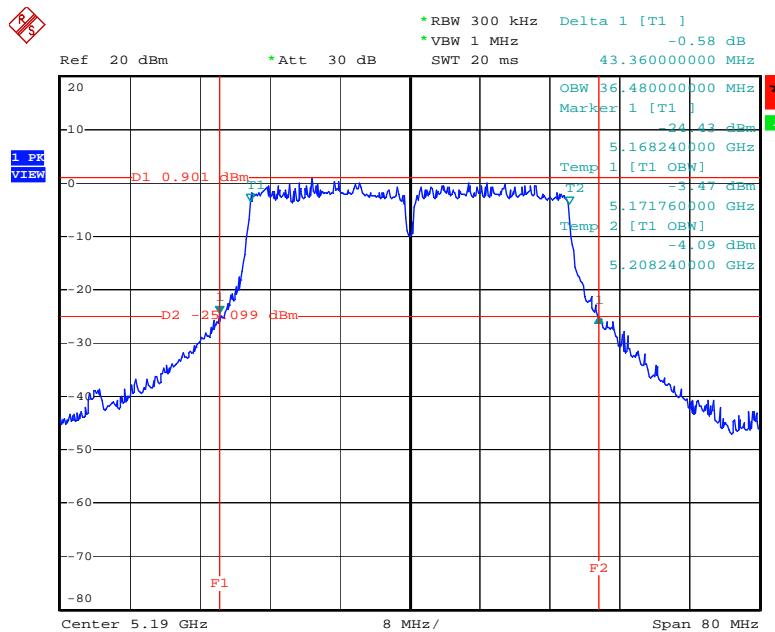
Date: 16.SEP.2009 18:20:17

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5240 MHz



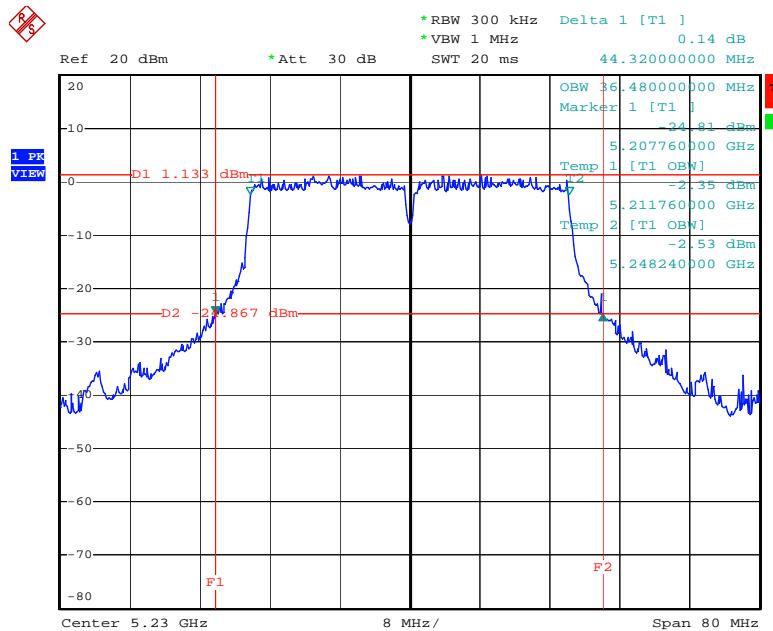
Date: 16.SEP.2009 18:21:06

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3 / 5190 MHz



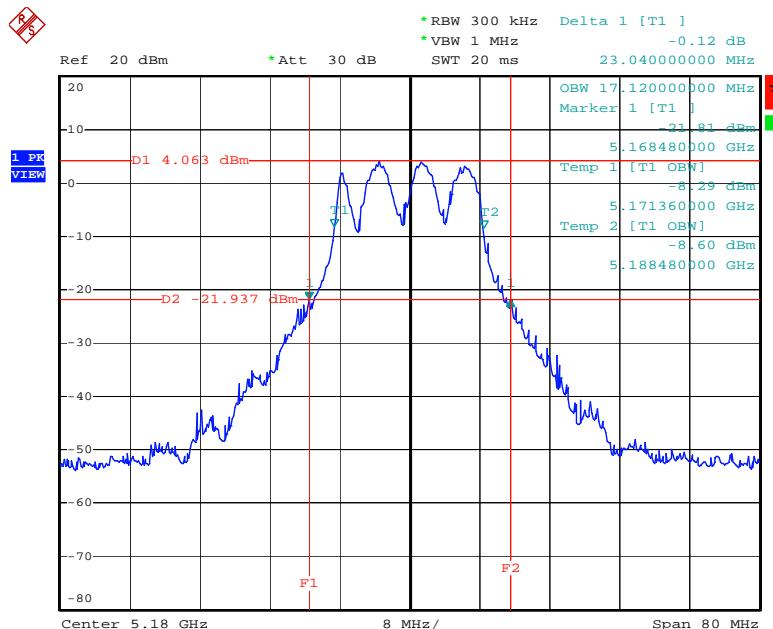
Date: 16.SEP.2009 18:47:37

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3 / 5230 MHz



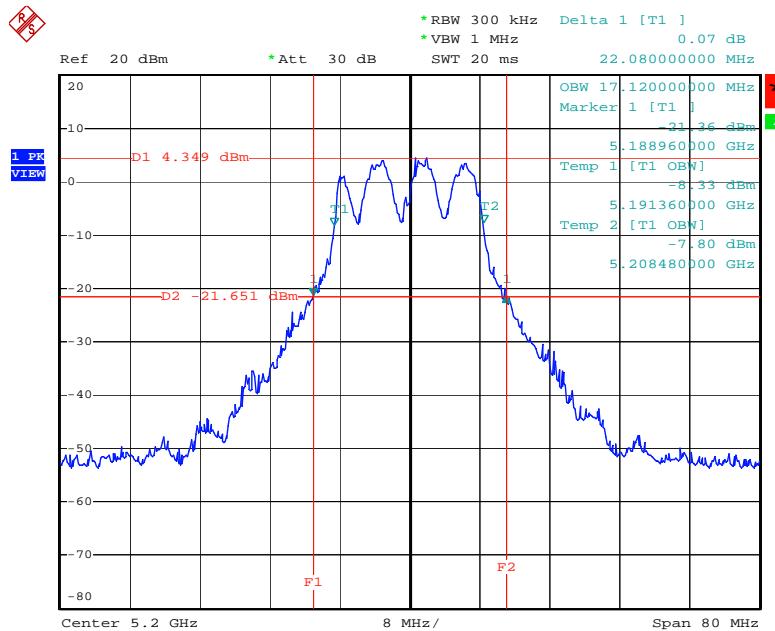
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26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5180 MHz



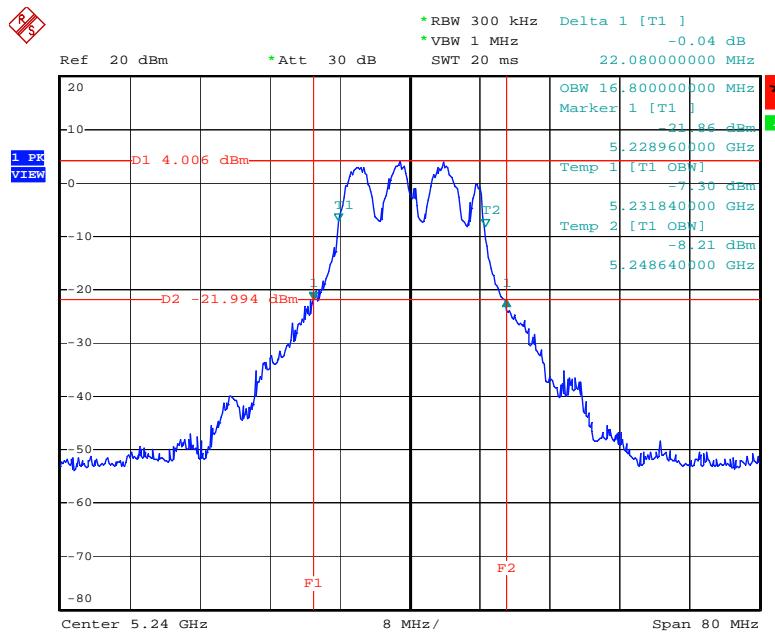
Date: 16.SEP.2009 17:34:37

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5200 MHz



Date: 16.SEP.2009 17:36:56

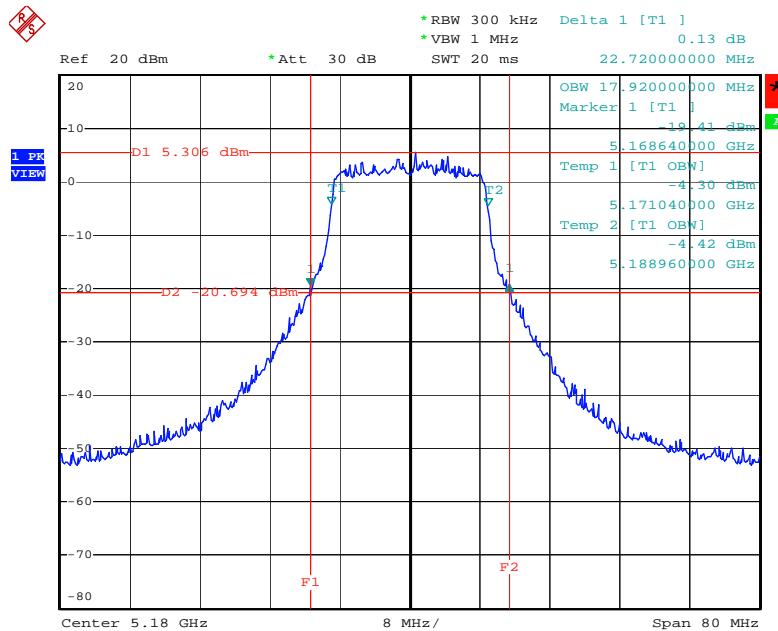
26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5240 MHz



Date: 16.SEP.2009 17:37:45

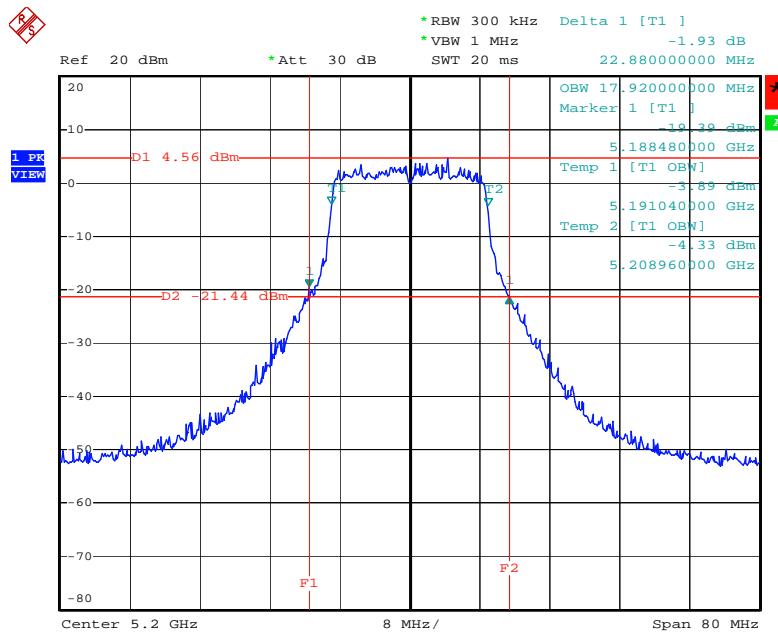
<For Antenna 3>:

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5180 MHz



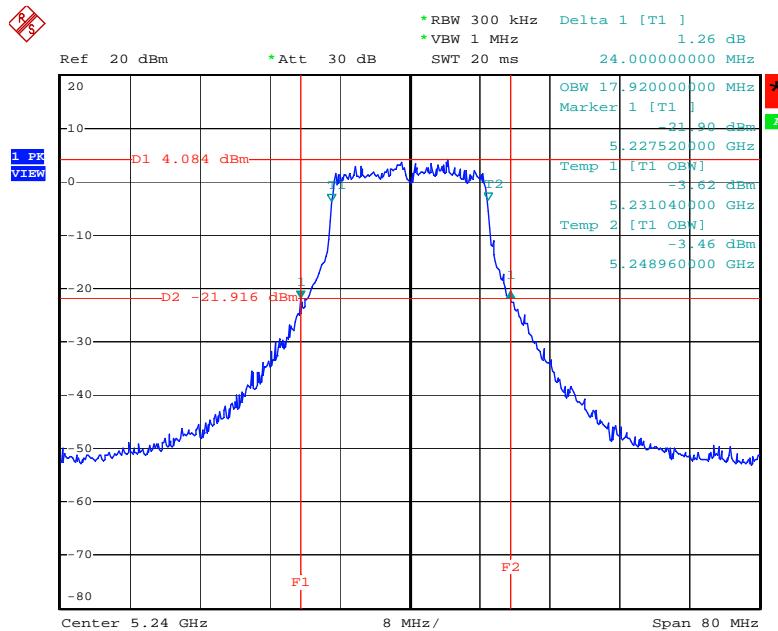
Date: 16.SEP.2009 18:19:25

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5200 MHz



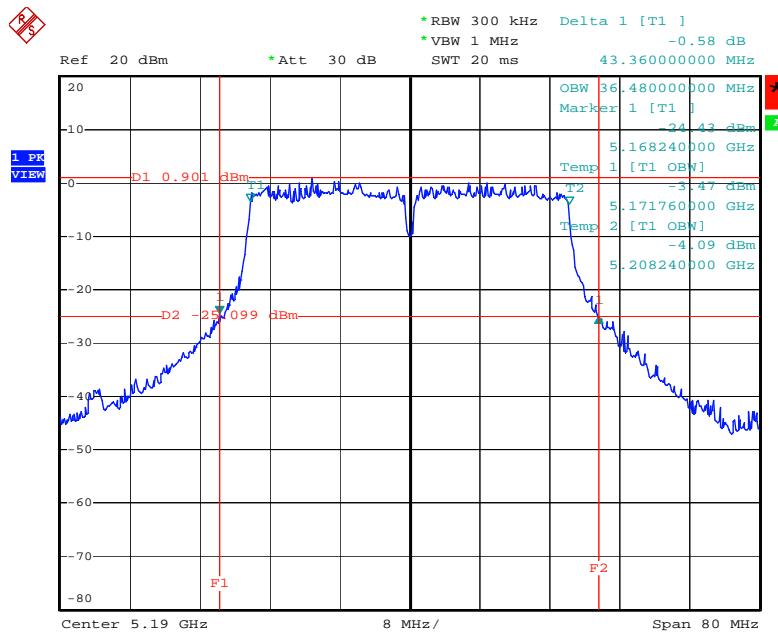
Date: 16.SEP.2009 18:20:17

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5240 MHz



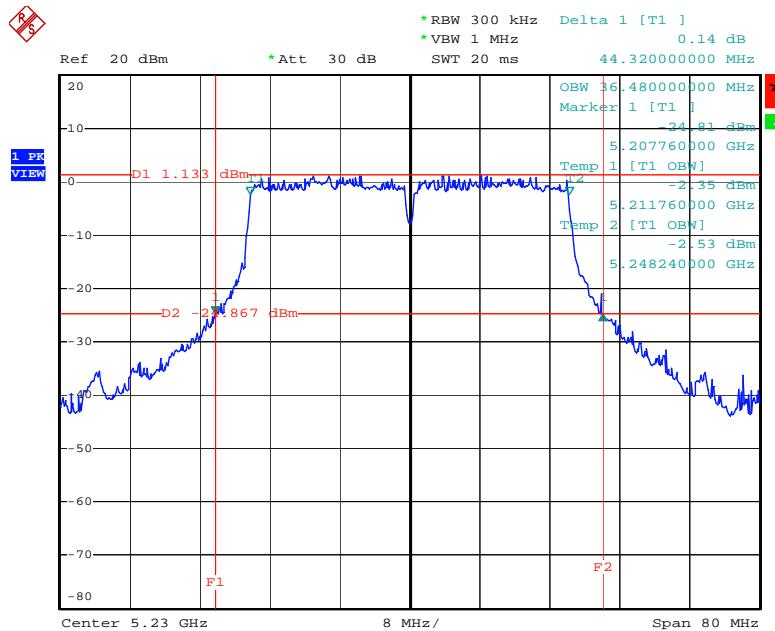
Date: 16.SEP.2009 18:21:06

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3 / 5190 MHz



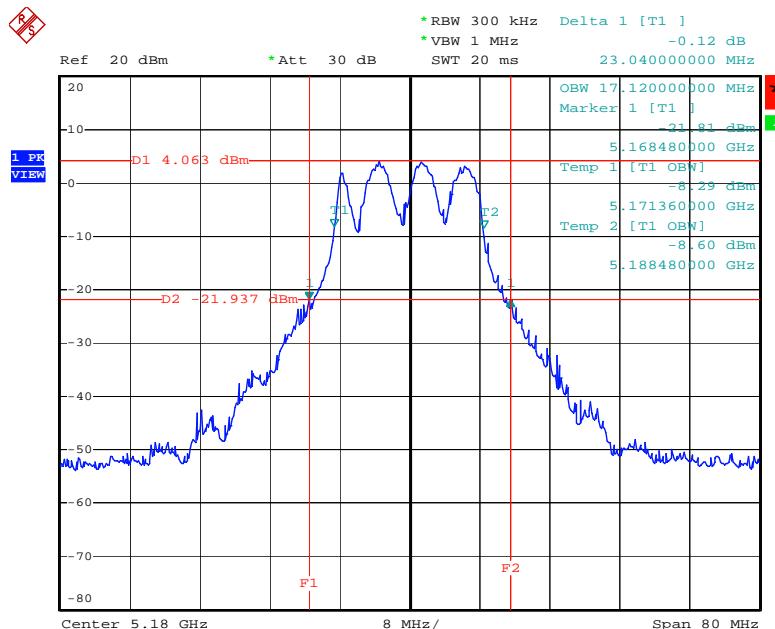
Date: 16.SEP.2009 18:47:37

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3 / 5230 MHz



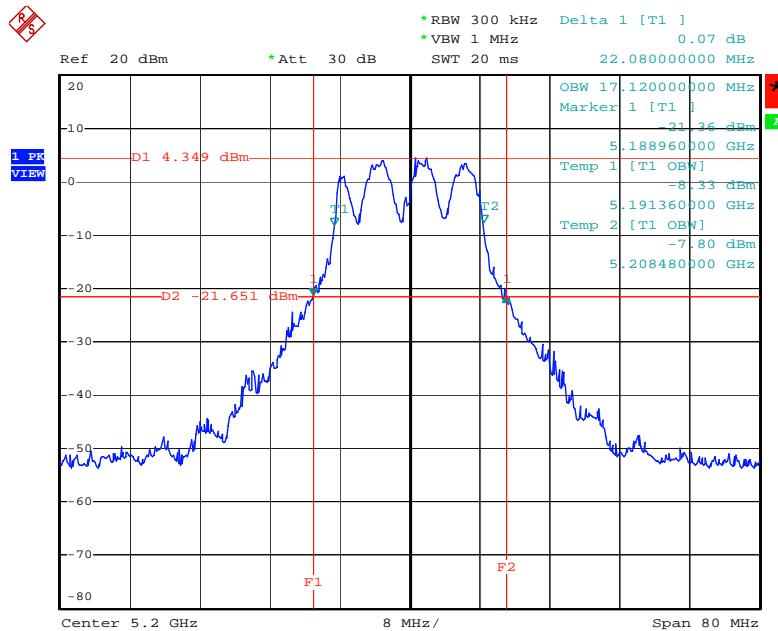
Date: 16.SEP.2009 18:49:48

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5180 MHz



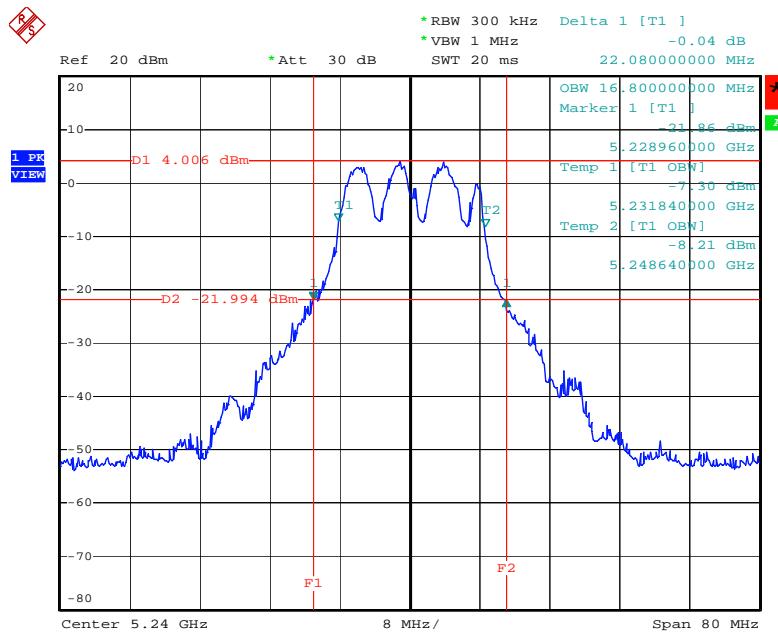
Date: 16.SEP.2009 17:34:37

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5200 MHz



Date: 16.SEP.2009 17:36:56

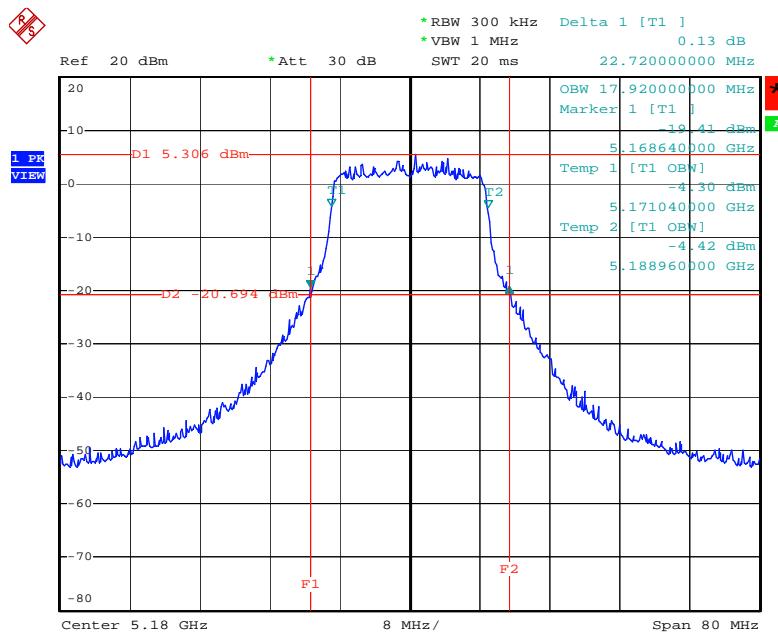
26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5240 MHz



Date: 16.SEP.2009 17:37:45

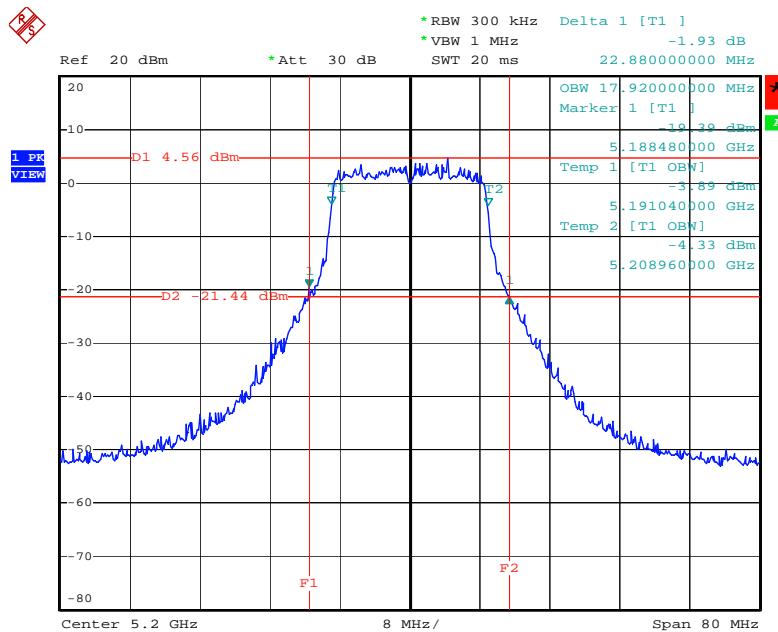
<For Antenna 4>:

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5180 MHz



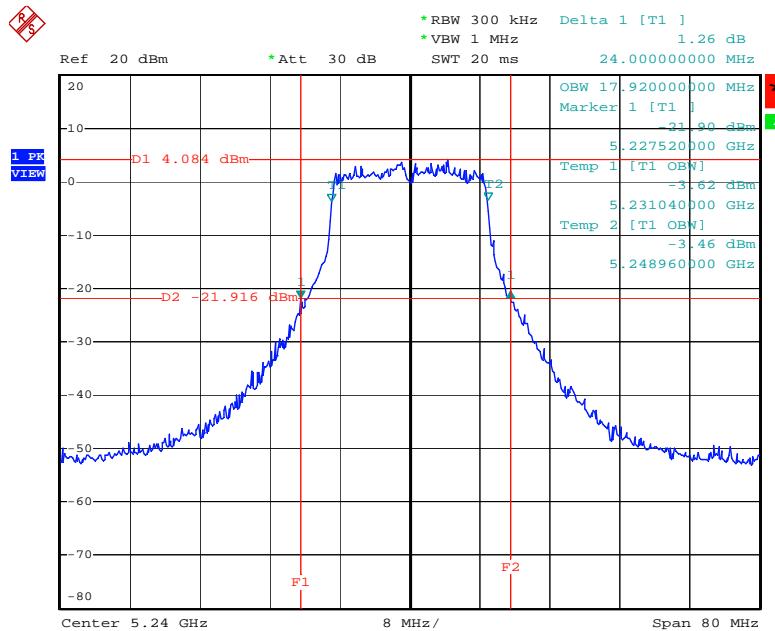
Date: 16.SEP.2009 18:19:25

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5200 MHz



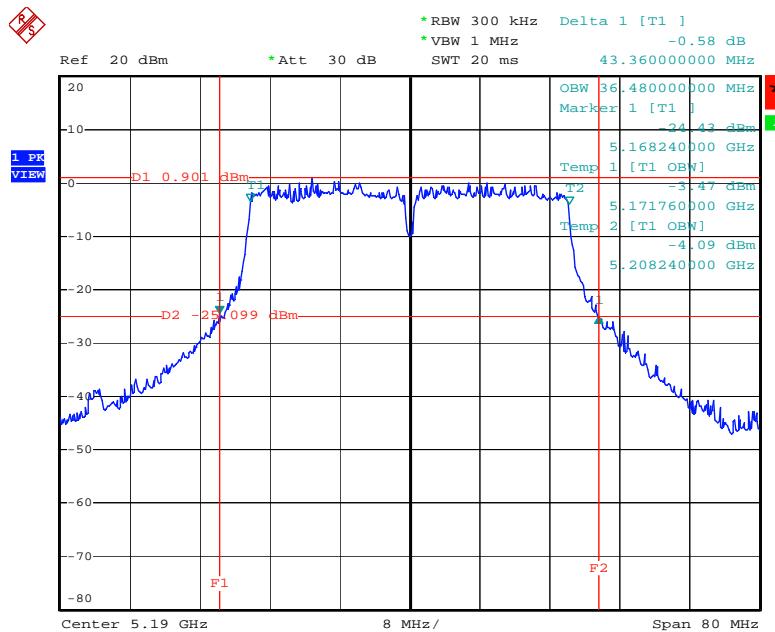
Date: 16.SEP.2009 18:20:17

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5240 MHz



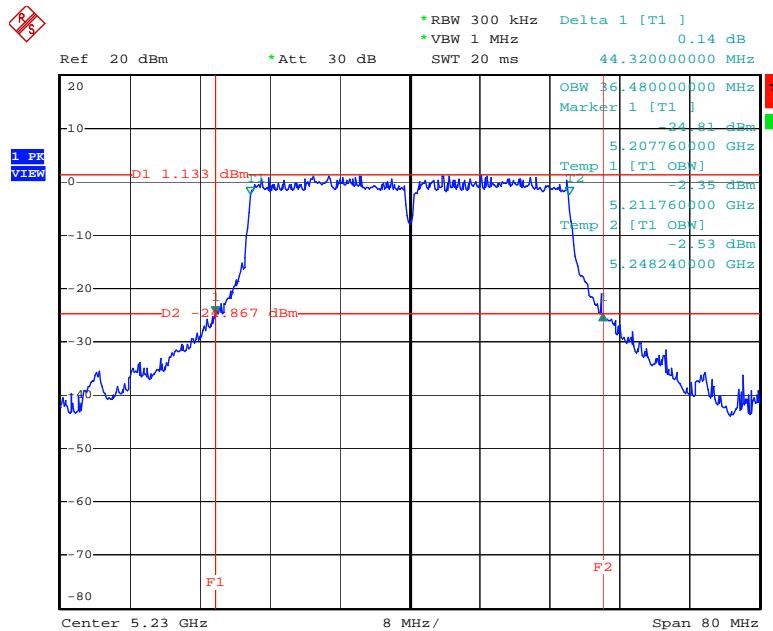
Date: 16.SEP.2009 18:21:06

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3 / 5190 MHz



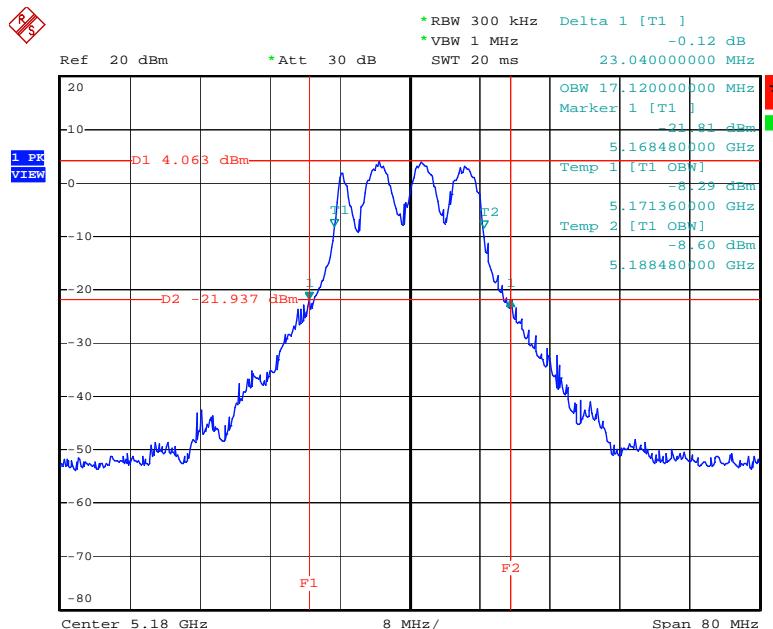
Date: 16.SEP.2009 18:47:37

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3 / 5230 MHz



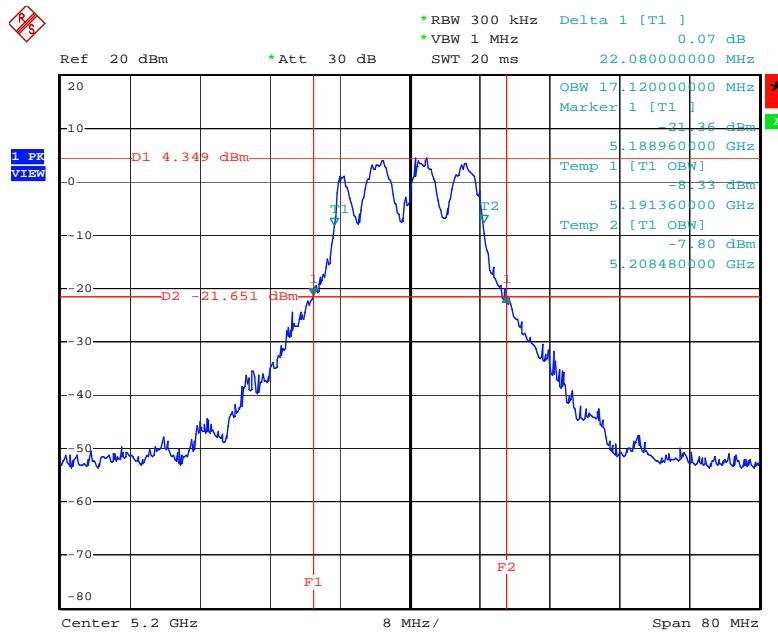
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26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5180 MHz



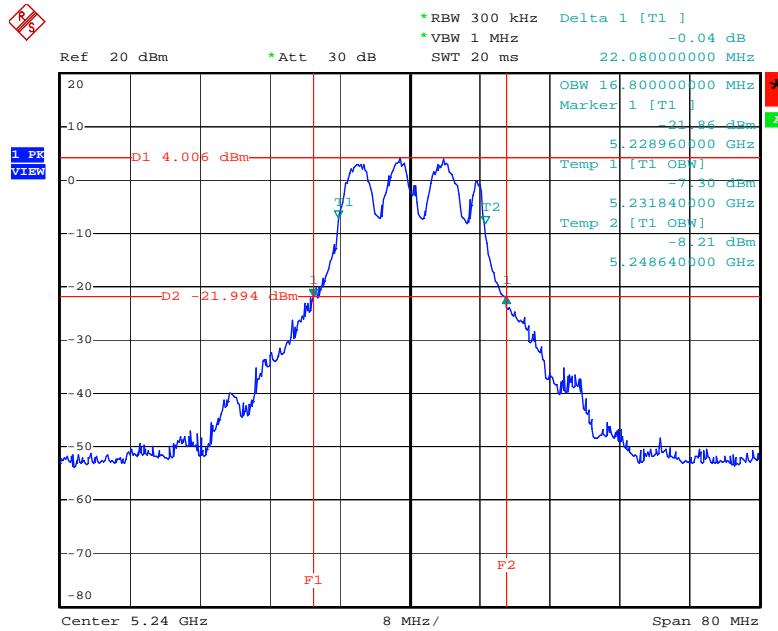
Date: 16.SEP.2009 17:34:37

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5200 MHz



Date: 16.SEP.2009 17:36:56

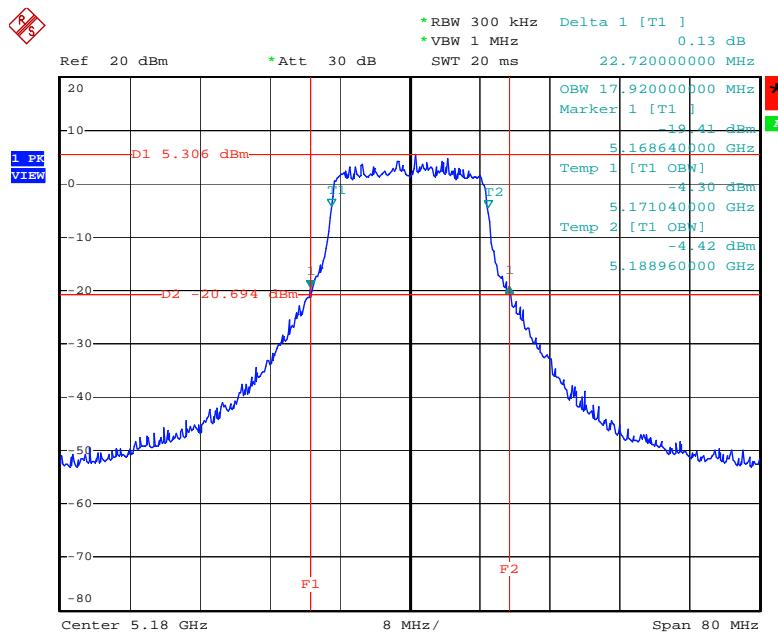
26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5240 MHz



Date: 16.SEP.2009 17:37:45

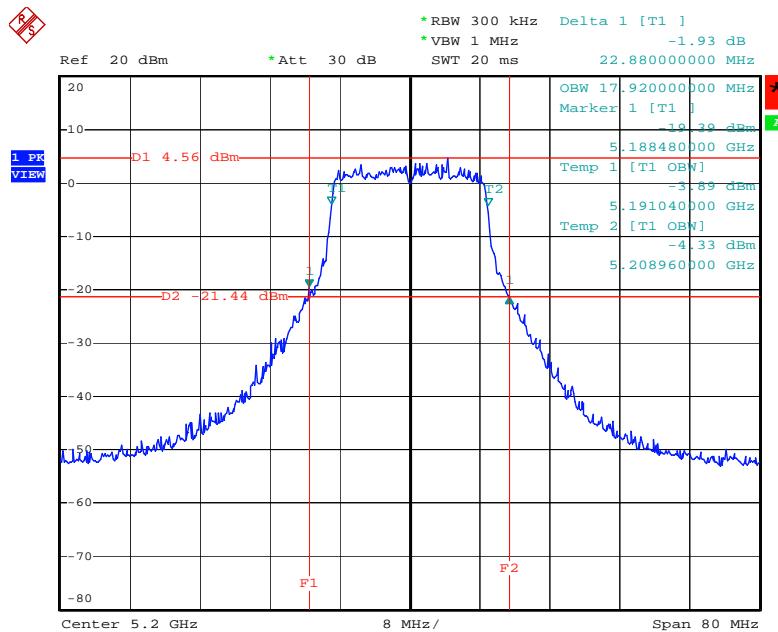
<For Antenna 5>:

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5180 MHz



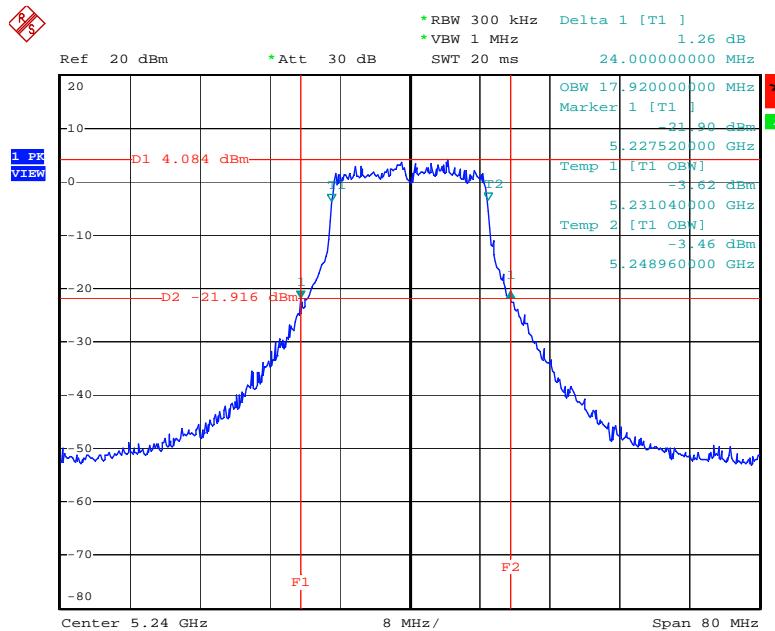
Date: 16.SEP.2009 18:19:25

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5200 MHz



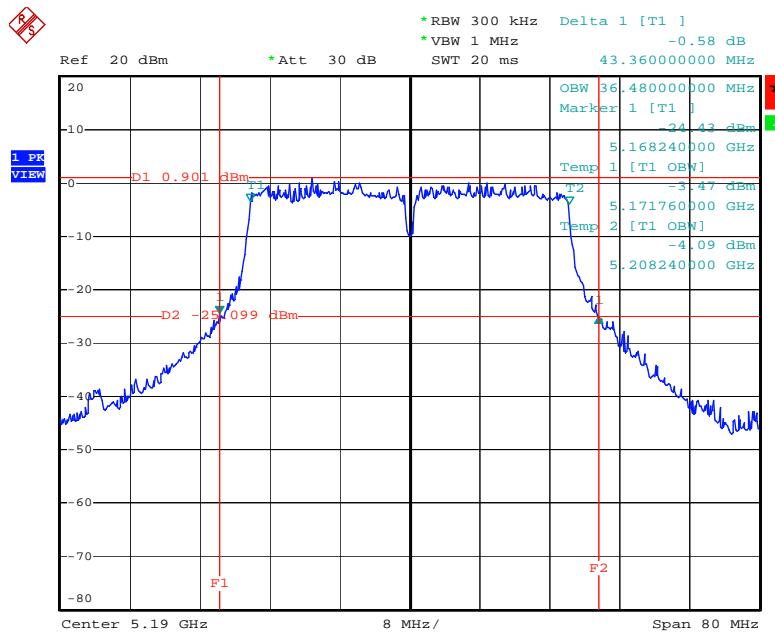
Date: 16.SEP.2009 18:20:17

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5240 MHz



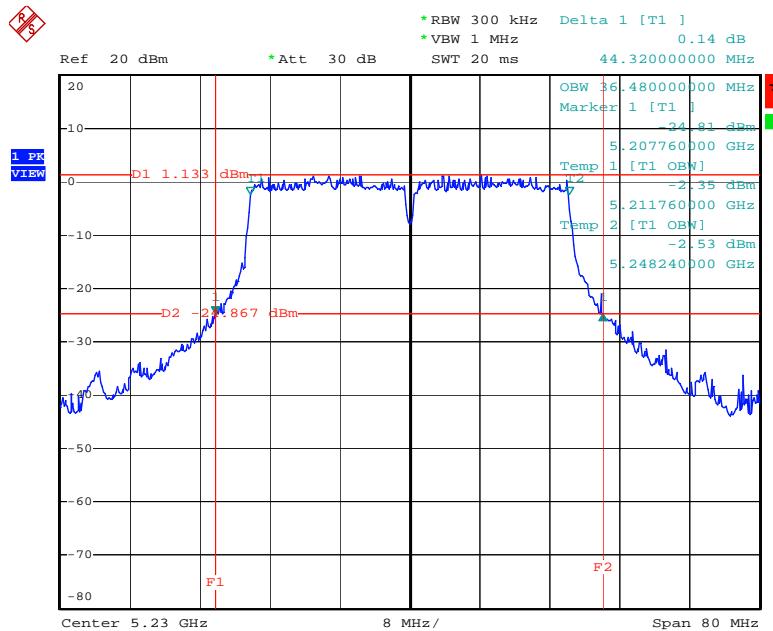
Date: 16.SEP.2009 18:21:06

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3 / 5190 MHz



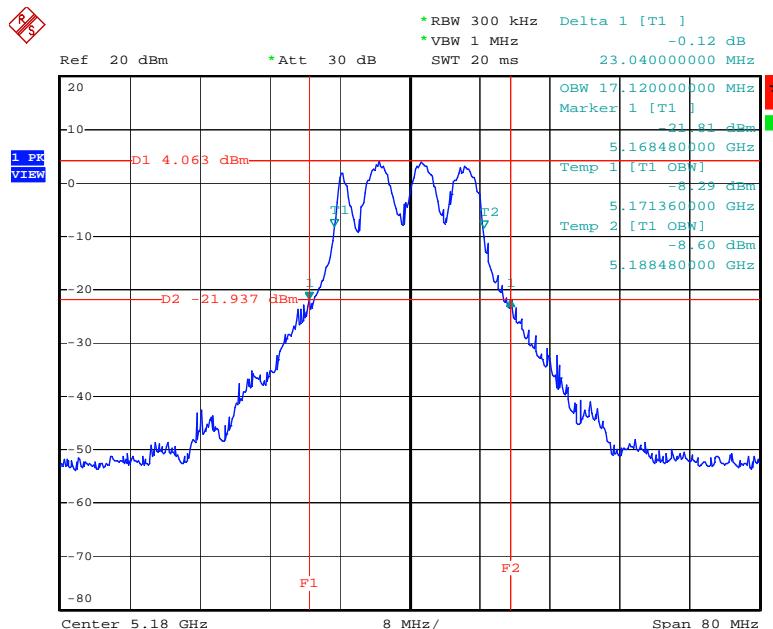
Date: 16.SEP.2009 18:47:37

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3 / 5230 MHz



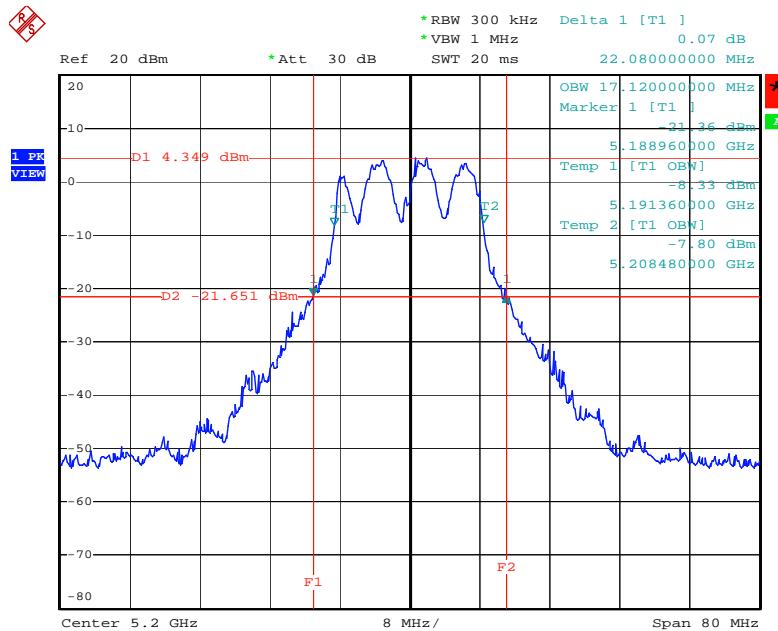
Date: 16.SEP.2009 18:49:48

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5180 MHz



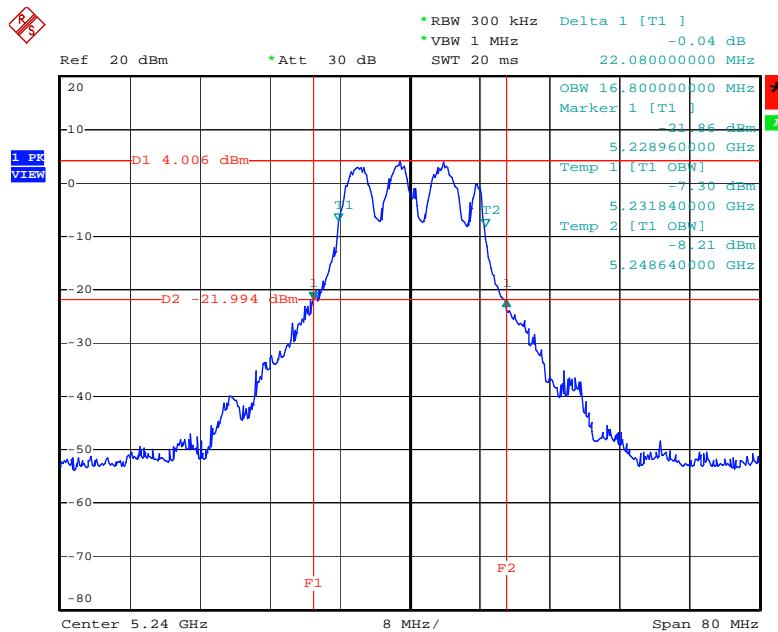
Date: 16.SEP.2009 17:34:37

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5200 MHz



Date: 16.SEP.2009 17:36:56

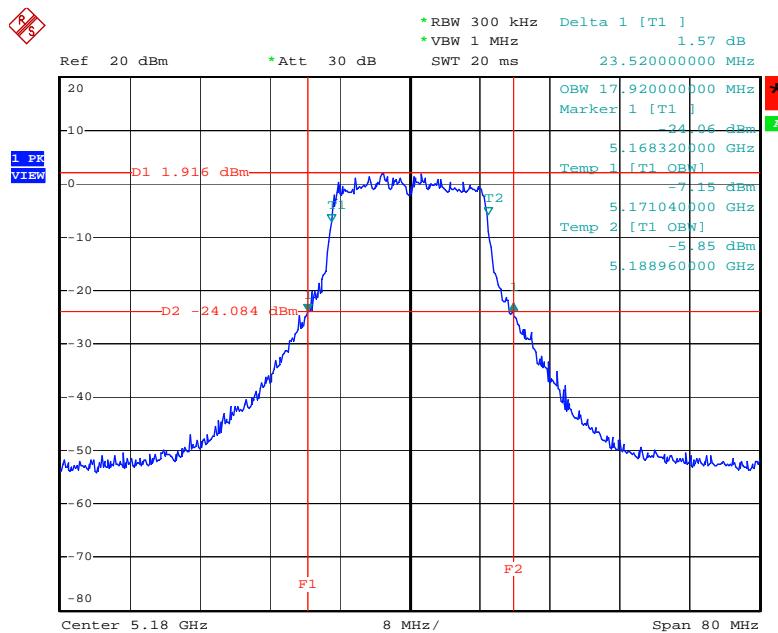
26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5240 MHz



Date: 16.SEP.2009 17:37:45

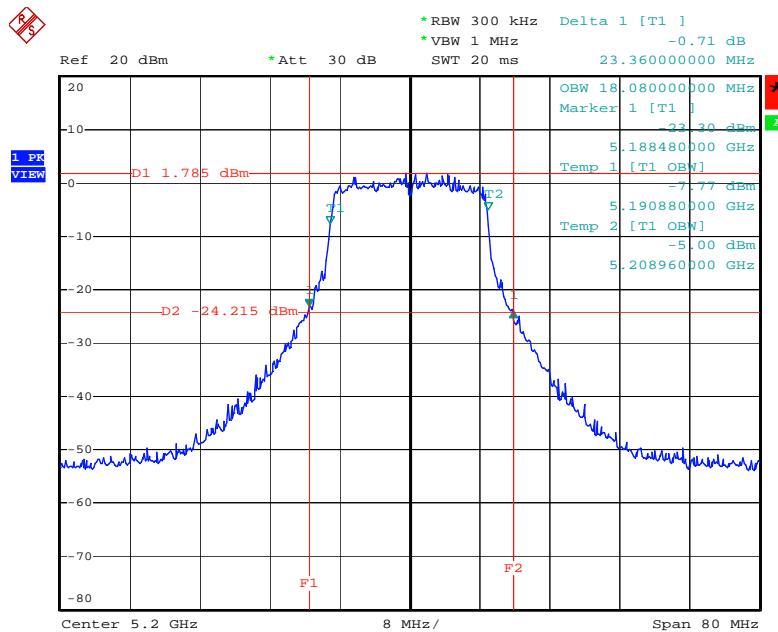
<For Antenna 6>:

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5180 MHz



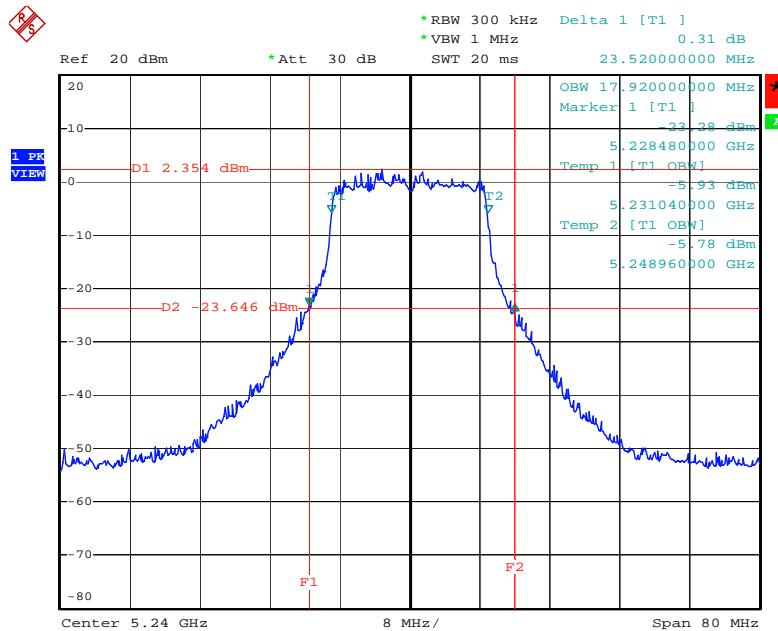
Date: 9.OCT.2009 17:25:06

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5200 MHz



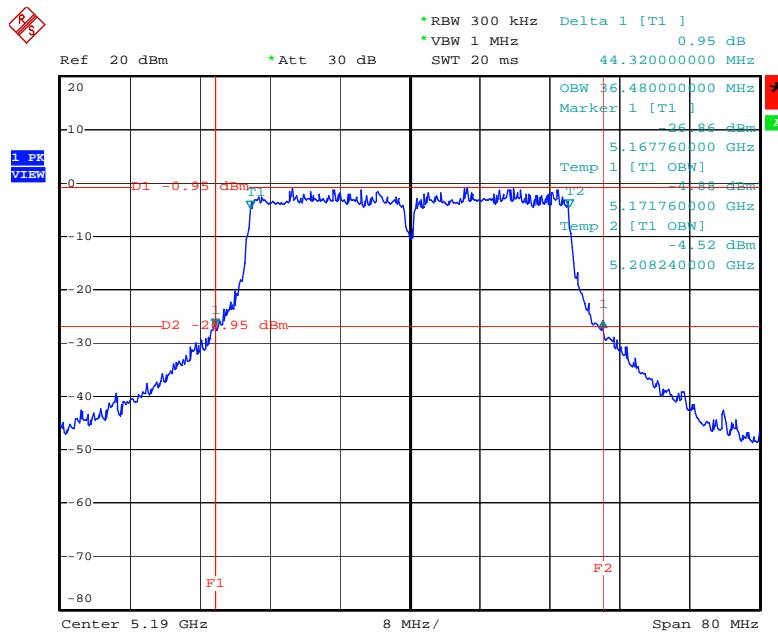
Date: 9.OCT.2009 17:25:56

26 dB Bandwidth Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5240 MHz



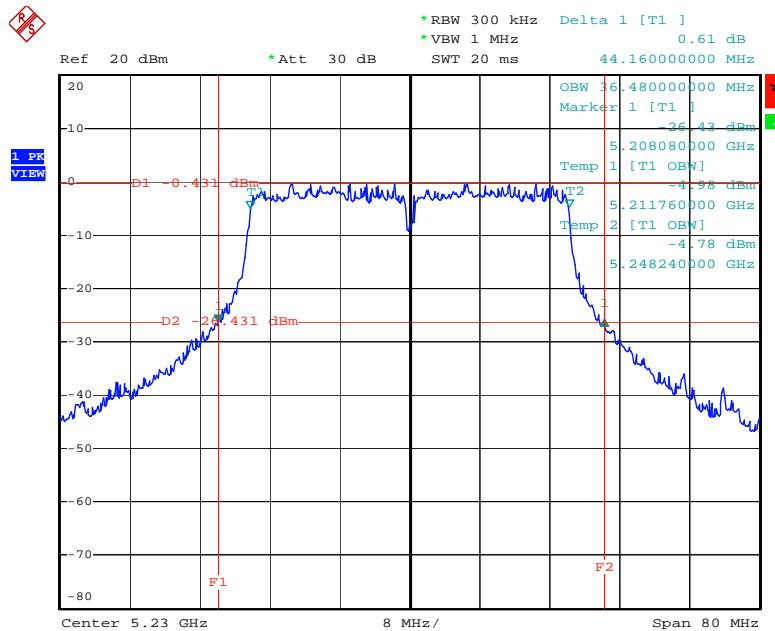
Date: 9.OCT.2009 17:26:59

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3 / 5190 MHz



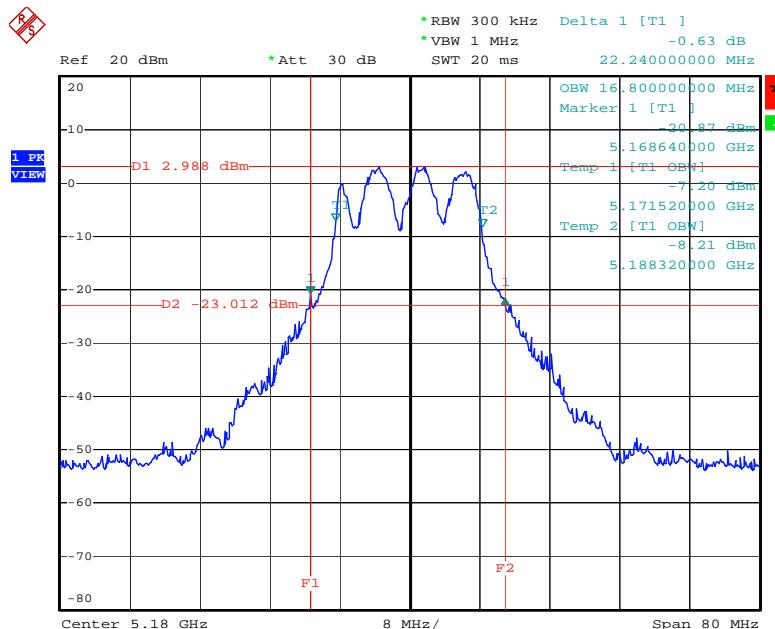
Date: 16.SEP.2009 18:48:29

26 dB Bandwidth Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3 / 5230 MHz



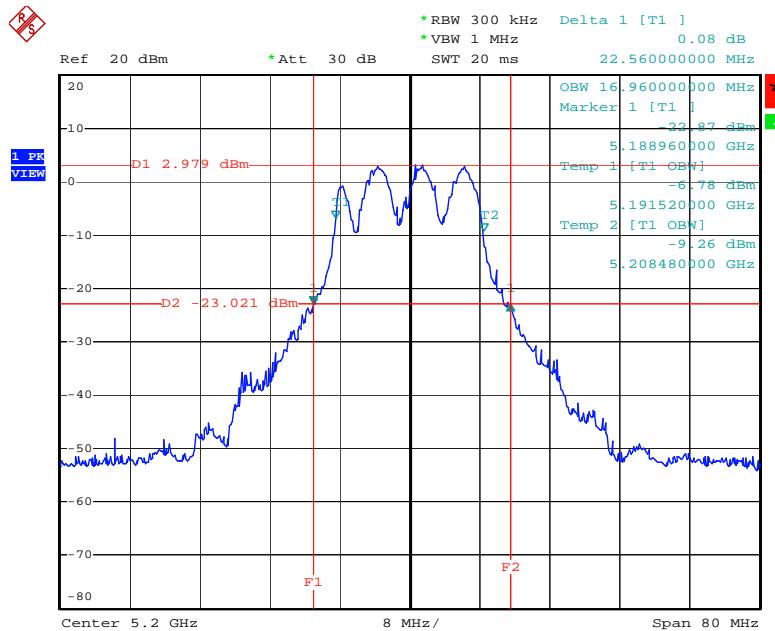
Date: 9.OCT.2009 16:55:26

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5180 MHz



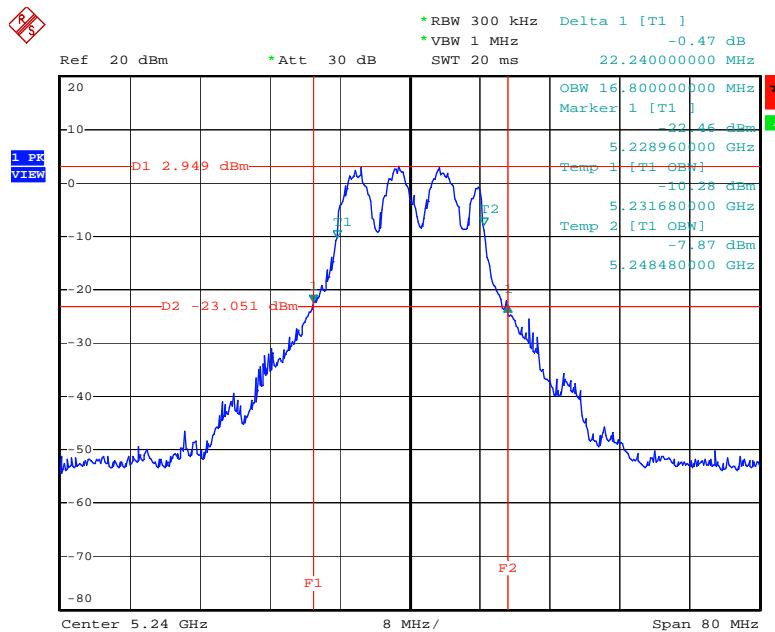
Date: 9.OCT.2009 17:10:22

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5200 MHz



Date: 9.OCT.2009 17:15:27

26 dB Bandwidth Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5240 MHz



Date: 9.OCT.2009 17:13:51

4.3. Maximum Conducted Output Power Measurement

4.3.1. Limit

For the band 5.15~5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or $4 \text{ dBm} + 10\log B$, where B is the 26 dB emissions bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power and power density from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.470-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or $11 \text{ dBm} + 10\log B$. If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power and power density from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W (30dBm) or $17 \text{ dBm} + 10\log B$. If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power and power density from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power and peak power spectral density. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power and peak power spectral density for each 1 dB of antenna gain in excess of 23 dBi would be required.

4.3.2. Measuring Instruments and Setting

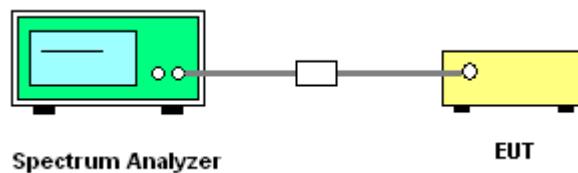
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz
VB	3000 kHz
Detector	RMS
Trace	MAX HOLD
Sweep Time	Auto

4.3.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Test was performed in accordance with FCC Public Notice DA 02-2138, August 30, 2002.
3. When measuring maximum conducted output power with multiple antenna systems, add every result of the values by mathematic formula.

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 Maximum Conducted Output Power

<For Antenna 1>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 1

Configuration Draft n MCS8 20MHz Ant. 1-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	12.71	16.00	Complies
40	5200 MHz	12.41	16.00	Complies
48	5240 MHz	12.01	16.00	Complies

Configuration Draft n MCS8 20MHz Ant. 1-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.13	16.00	Complies
40	5200 MHz	13.10	16.00	Complies
48	5240 MHz	13.40	16.00	Complies

Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	15.94	16.00	Complies
40	5200 MHz	15.78	16.00	Complies
48	5240 MHz	15.77	16.00	Complies

Configuration Draft n MCS8 40MHz Ant. 1-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	12.70	16.00	Complies
46	5230 MHz	12.59	16.00	Complies

Configuration Draft n MCS8 40MHz Ant. 1-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.00	16.00	Complies
46	5230 MHz	13.19	16.00	Complies

Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	15.86	16.00	Complies
46	5230 MHz	15.91	16.00	Complies



Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 1

Configuration IEEE 802.11a Ant. 1-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	12.50	16.00	Complies
40	5200 MHz	12.64	16.00	Complies
48	5240 MHz	11.93	16.00	Complies

Configuration IEEE 802.11a Ant. 1-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	12.88	16.00	Complies
40	5200 MHz	13.23	16.00	Complies
48	5240 MHz	13.15	16.00	Complies

Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	15.70	16.00	Complies
40	5200 MHz	15.96	16.00	Complies
48	5240 MHz	15.59	16.00	Complies



<For Antenna 2>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 2

Configuration Draft n MCS8 20MHz Ant. 2-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.60	17.00	Complies
40	5200 MHz	13.28	17.00	Complies
48	5240 MHz	13.48	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 2-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	14.06	17.00	Complies
40	5200 MHz	13.78	17.00	Complies
48	5240 MHz	14.00	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.85	17.00	Complies
40	5200 MHz	16.55	17.00	Complies
48	5240 MHz	16.76	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 2-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.48	17.00	Complies
46	5230 MHz	13.47	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 2-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.80	17.00	Complies
46	5230 MHz	14.10	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	16.65	17.00	Complies
46	5230 MHz	16.81	17.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 2

Configuration IEEE 802.11a Ant. 2-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.34	17.00	Complies
40	5200 MHz	13.60	17.00	Complies
48	5240 MHz	12.80	17.00	Complies

Configuration IEEE 802.11a Ant. 2-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.58	17.00	Complies
40	5200 MHz	13.85	17.00	Complies
48	5240 MHz	13.52	17.00	Complies

Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.47	17.00	Complies
40	5200 MHz	16.74	17.00	Complies
48	5240 MHz	16.19	17.00	Complies



<For Antenna 3>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 3

Configuration Draft n MCS8 20MHz Ant. 3-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.60	17.00	Complies
40	5200 MHz	13.28	17.00	Complies
48	5240 MHz	13.48	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 3-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	14.06	17.00	Complies
40	5200 MHz	13.78	17.00	Complies
48	5240 MHz	14.00	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.85	17.00	Complies
40	5200 MHz	16.55	17.00	Complies
48	5240 MHz	16.76	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 3-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.48	17.00	Complies
46	5230 MHz	13.47	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 3-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.80	17.00	Complies
46	5230 MHz	14.10	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	16.65	17.00	Complies
46	5230 MHz	16.81	17.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 3

Configuration IEEE 802.11a Ant. 3-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.34	17.00	Complies
40	5200 MHz	13.60	17.00	Complies
48	5240 MHz	12.80	17.00	Complies

Configuration IEEE 802.11a Ant. 3-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.58	17.00	Complies
40	5200 MHz	13.85	17.00	Complies
48	5240 MHz	13.52	17.00	Complies

Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.47	17.00	Complies
40	5200 MHz	16.74	17.00	Complies
48	5240 MHz	16.19	17.00	Complies



<For Antenna 4>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 4

Configuration Draft n MCS8 20MHz Ant. 4-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.60	17.00	Complies
40	5200 MHz	13.28	17.00	Complies
48	5240 MHz	13.48	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 4-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	14.06	17.00	Complies
40	5200 MHz	13.78	17.00	Complies
48	5240 MHz	14.00	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.85	17.00	Complies
40	5200 MHz	16.55	17.00	Complies
48	5240 MHz	16.76	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 4-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.48	17.00	Complies
46	5230 MHz	13.47	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 4-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.80	17.00	Complies
46	5230 MHz	14.10	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	16.65	17.00	Complies
46	5230 MHz	16.81	17.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 4

Configuration IEEE 802.11a Ant. 4-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.34	17.00	Complies
40	5200 MHz	13.60	17.00	Complies
48	5240 MHz	12.80	17.00	Complies

Configuration IEEE 802.11a Ant. 4-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.58	17.00	Complies
40	5200 MHz	13.85	17.00	Complies
48	5240 MHz	13.52	17.00	Complies

Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.47	17.00	Complies
40	5200 MHz	16.74	17.00	Complies
48	5240 MHz	16.19	17.00	Complies



<For Antenna 5>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 5

Configuration Draft n MCS8 20MHz Ant. 5-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.60	17.00	Complies
40	5200 MHz	13.28	17.00	Complies
48	5240 MHz	13.48	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 5-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	14.06	17.00	Complies
40	5200 MHz	13.78	17.00	Complies
48	5240 MHz	14.00	17.00	Complies

Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.85	17.00	Complies
40	5200 MHz	16.55	17.00	Complies
48	5240 MHz	16.76	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 5-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.48	17.00	Complies
46	5230 MHz	13.47	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 5-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	13.80	17.00	Complies
46	5230 MHz	14.10	17.00	Complies

Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	16.65	17.00	Complies
46	5230 MHz	16.81	17.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 5

Configuration IEEE 802.11a Ant. 5-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.34	17.00	Complies
40	5200 MHz	13.60	17.00	Complies
48	5240 MHz	12.80	17.00	Complies

Configuration IEEE 802.11a Ant. 5-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.58	17.00	Complies
40	5200 MHz	13.85	17.00	Complies
48	5240 MHz	13.52	17.00	Complies

Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	16.47	17.00	Complies
40	5200 MHz	16.74	17.00	Complies
48	5240 MHz	16.19	17.00	Complies



<For Antenna 6>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 6

Configuration Draft n MCS8 20MHz Ant. 6-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	12.71	16.00	Complies
40	5200 MHz	12.41	16.00	Complies
48	5240 MHz	12.01	16.00	Complies

Configuration Draft n MCS8 20MHz Ant. 6-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	13.13	16.00	Complies
40	5200 MHz	13.10	16.00	Complies
48	5240 MHz	13.40	16.00	Complies

Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	15.94	16.00	Complies
40	5200 MHz	15.78	16.00	Complies
48	5240 MHz	15.77	16.00	Complies

Configuration Draft n MCS8 40MHz Ant. 6-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	12.27	16.00	Complies
46	5230 MHz	12.59	16.00	Complies

Configuration Draft n MCS8 40MHz Ant. 6-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	12.65	16.00	Complies
46	5230 MHz	13.19	16.00	Complies

Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	15.47	16.00	Complies
46	5230 MHz	15.91	16.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 6

Configuration IEEE 802.11a Ant. 6-1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	12.50	16.00	Complies
40	5200 MHz	12.64	16.00	Complies
48	5240 MHz	11.93	16.00	Complies

Configuration IEEE 802.11a Ant. 6-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	12.88	16.00	Complies
40	5200 MHz	13.23	16.00	Complies
48	5240 MHz	13.15	16.00	Complies

Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	15.70	16.00	Complies
40	5200 MHz	15.96	16.00	Complies
48	5240 MHz	15.59	16.00	Complies

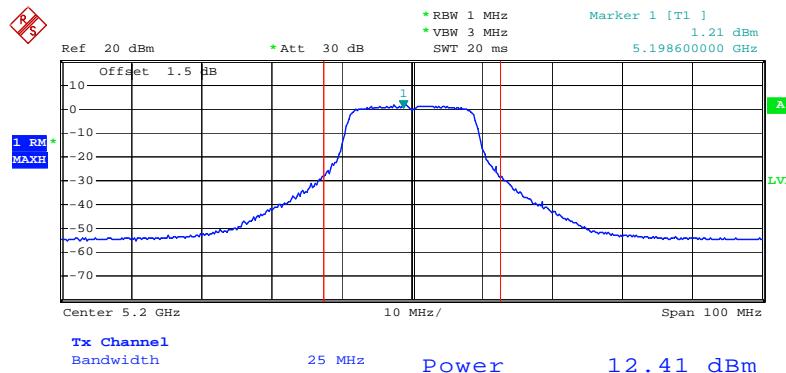
<For Antenna 1>:

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 / 5180 MHz



Date: 9.OCT.2009 16:39:54

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 / 5200 MHz



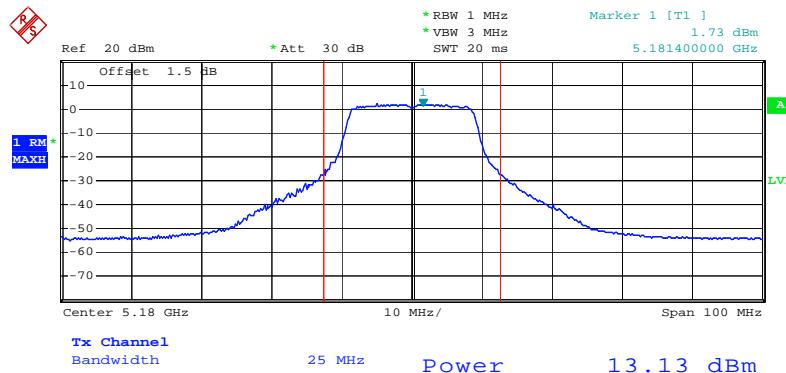
Date: 9.OCT.2009 16:36:22

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 / 5240 MHz



Date: 9.OCT.2009 16:25:46

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 1-3 / 5180 MHz



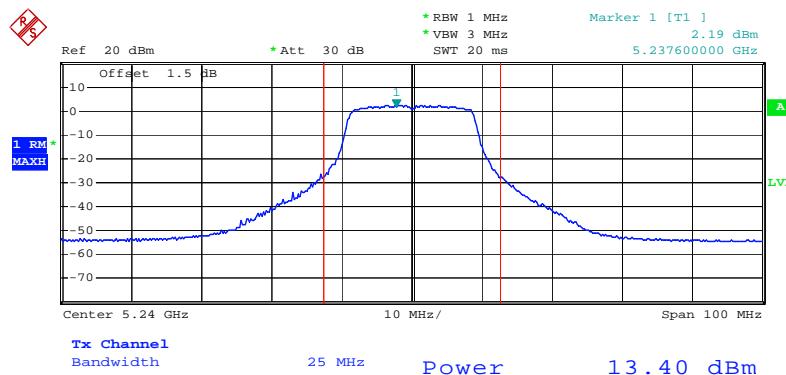
Date: 9.OCT.2009 16:38:50

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 1-3 / 5200 MHz



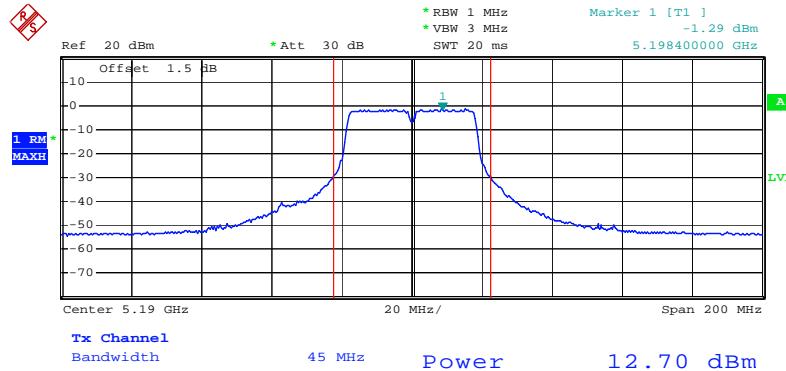
Date: 9.OCT.2009 16:37:44

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 1-3 / 5240 MHz



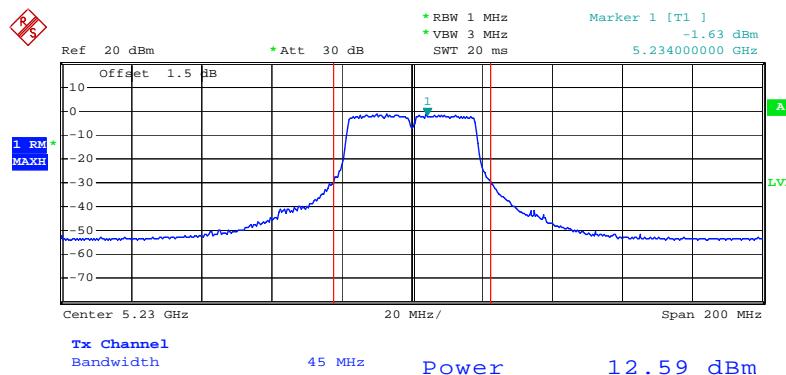
Date: 9.OCT.2009 16:24:22

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 / 5190 MHz



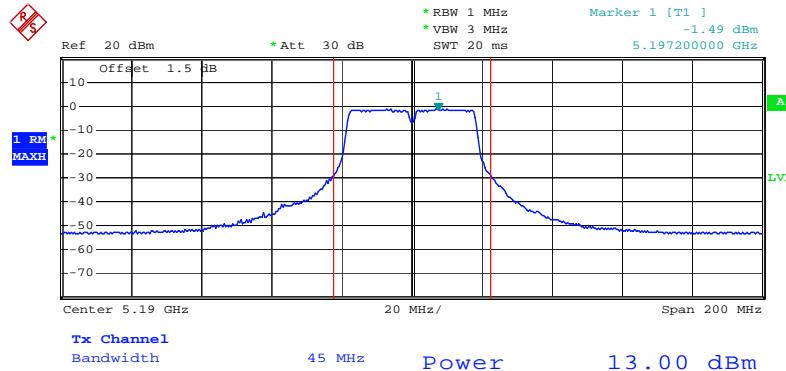
Date: 9.OCT.2009 16:45:00

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 / 5230 MHz



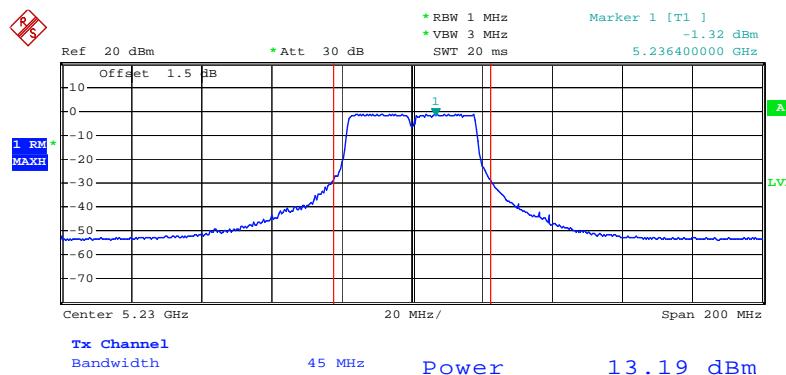
Date: 9.OCT.2009 16:49:59

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 1-3 / 5190 MHz



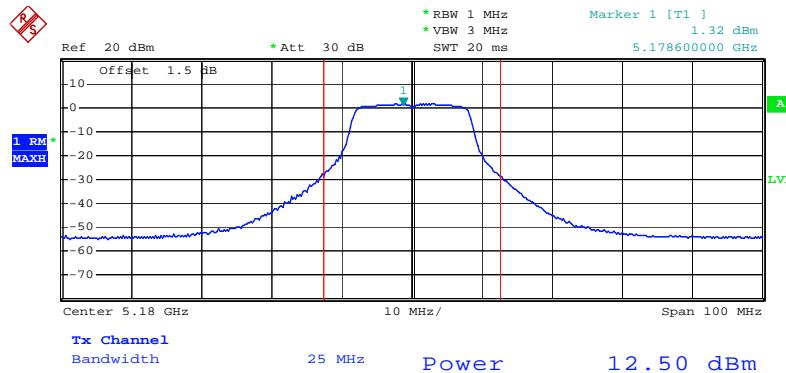
Date: 9.OCT.2009 16:44:01

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 1-3 / 5230 MHz



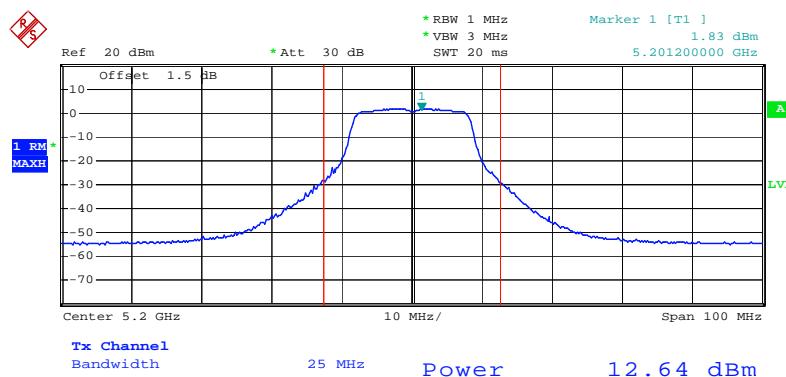
Date: 9.OCT.2009 16:50:58

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 1-1 / 5180 MHz



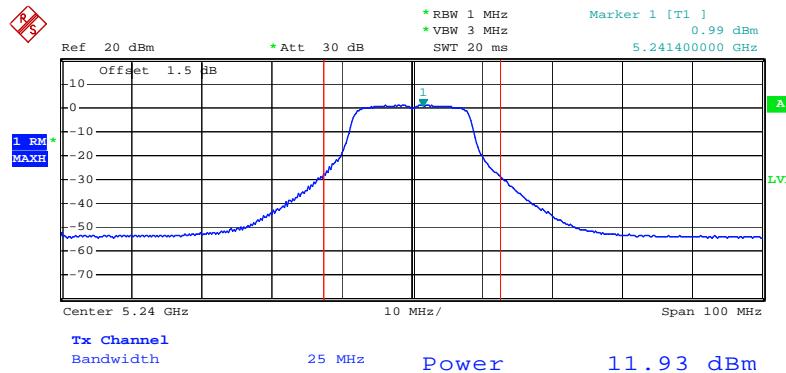
Date: 9.OCT.2009 15:33:20

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 1-1 / 5200 MHz



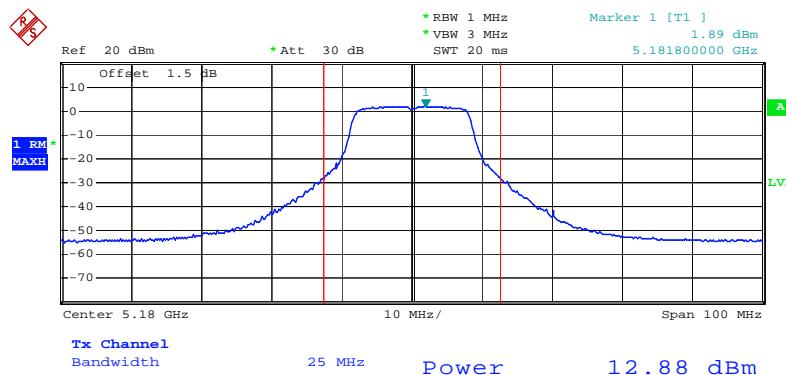
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Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 1-1 / 5240 MHz



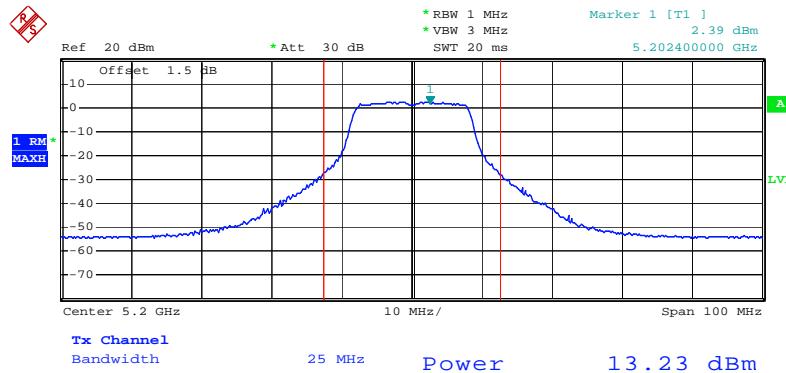
Date: 9.OCT.2009 16:13:59

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 1-3 / 5180 MHz



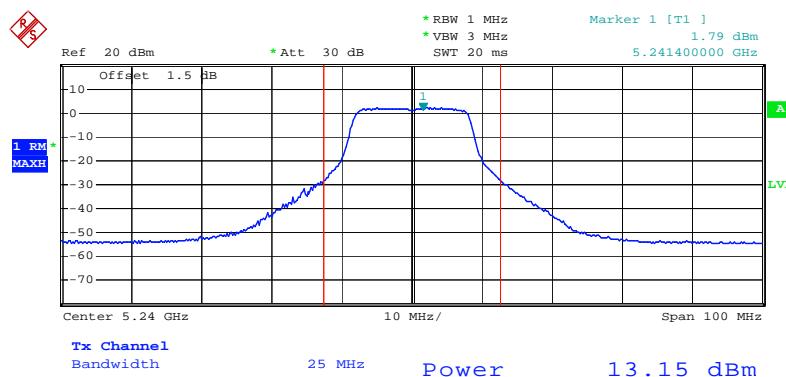
Date: 9.OCT.2009 15:31:25

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 1-3 / 5200 MHz



Date: 9.OCT.2009 15:35:05

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 1-3 / 5240 MHz



Date: 9.OCT.2009 16:18:47

<For Antenna 2>:

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 / 5180 MHz



Date: 17.SEP.2009 01:45:23

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 / 5200 MHz



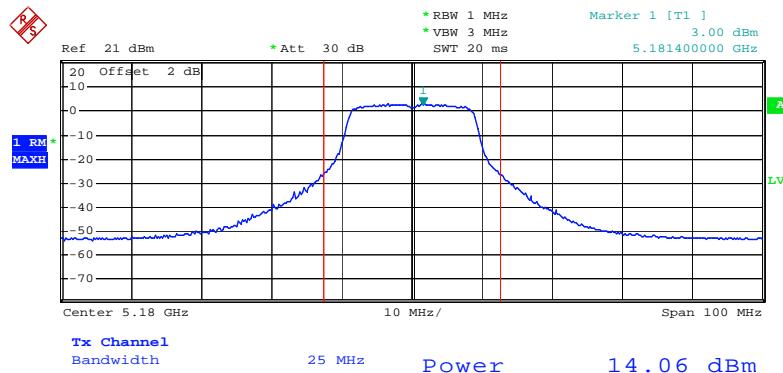
Date: 17.SEP.2009 01:50:13

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 / 5240 MHz



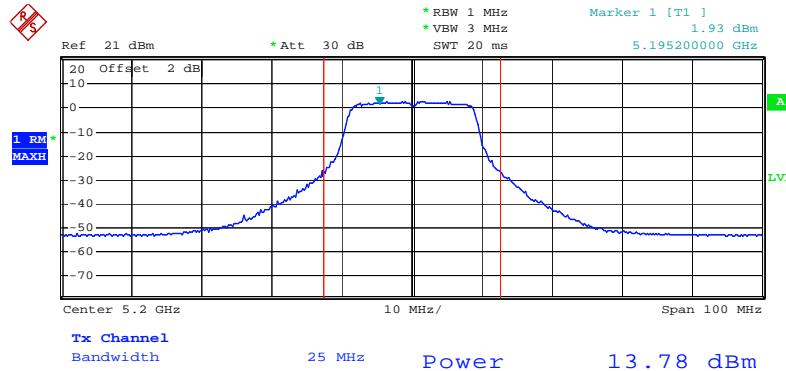
Date: 17.SEP.2009 01:50:49

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 2-3 / 5180 MHz



Date: 17.SEP.2009 01:45:03

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 2-3 / 5200 MHz



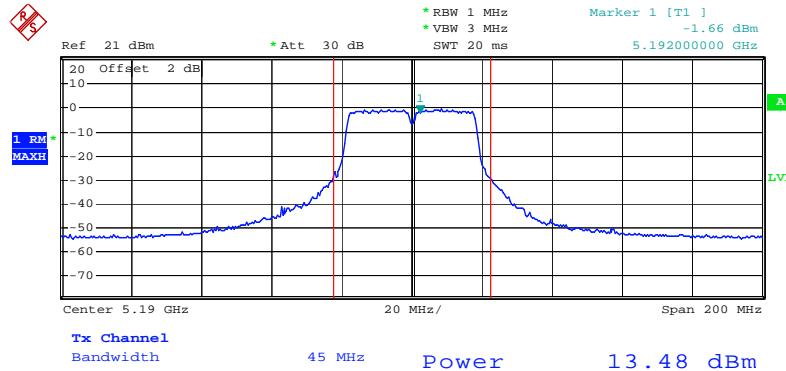
Date: 17.SEP.2009 01:49:50

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 2-3 / 5240 MHz



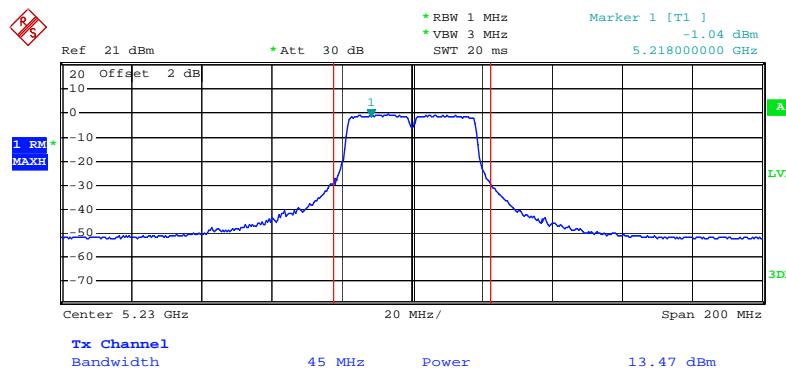
Date: 17.SEP.2009 01:51:20

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 / 5190 MHz



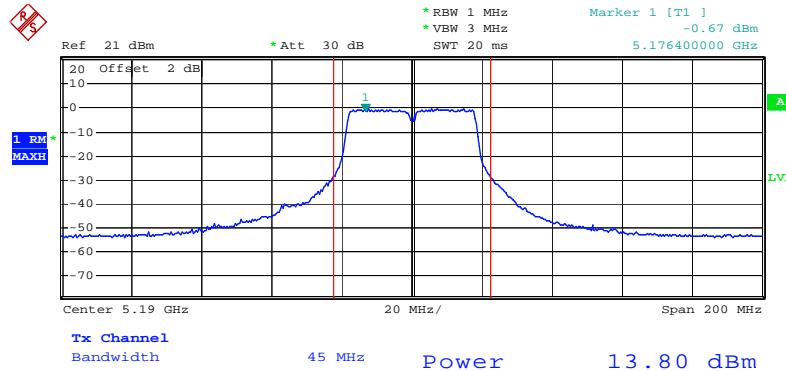
Date: 16.SEP.2009 22:06:03

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 / 5230 MHz



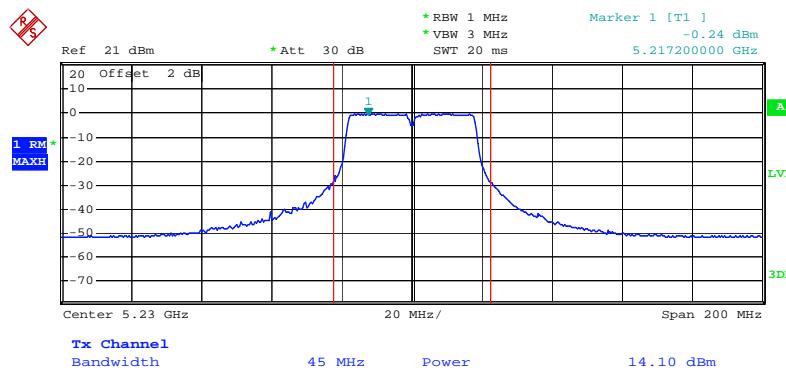
Date: 15.SEP.2009 10:33:38

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 2-3 / 5190 MHz



Date: 16.SEP.2009 22:06:29

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 2-3 / 5230 MHz



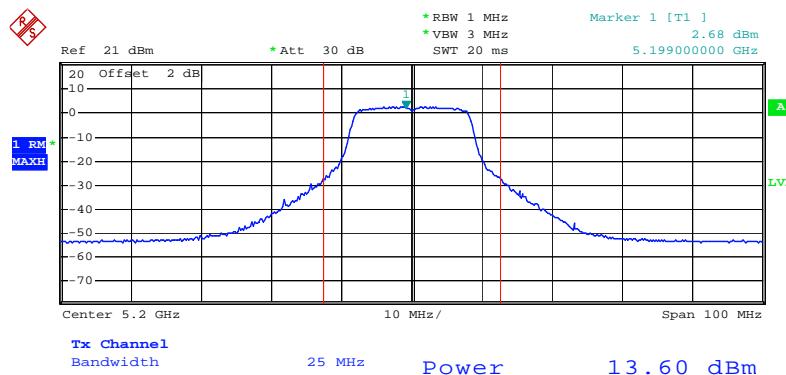
Date: 15.SEP.2009 10:02:37

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 2-1 / 5180 MHz



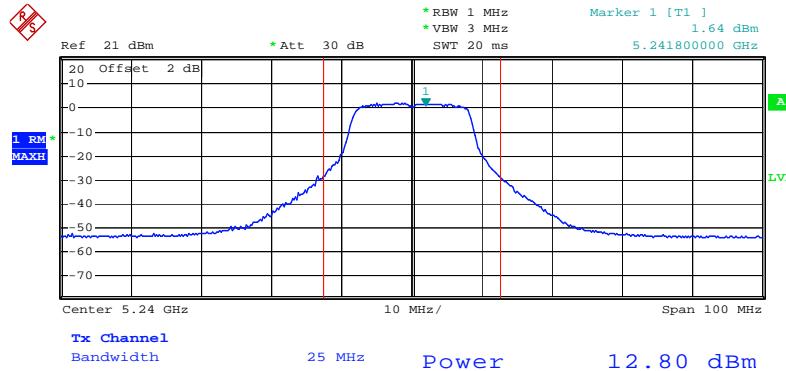
Date: 16.SEP.2009 21:15:44

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 2-1 / 5200 MHz



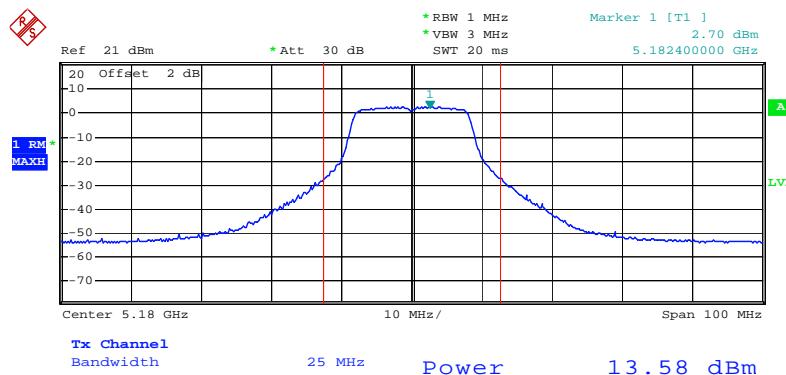
Date: 16.SEP.2009 21:17:21

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 2-1 / 5240 MHz



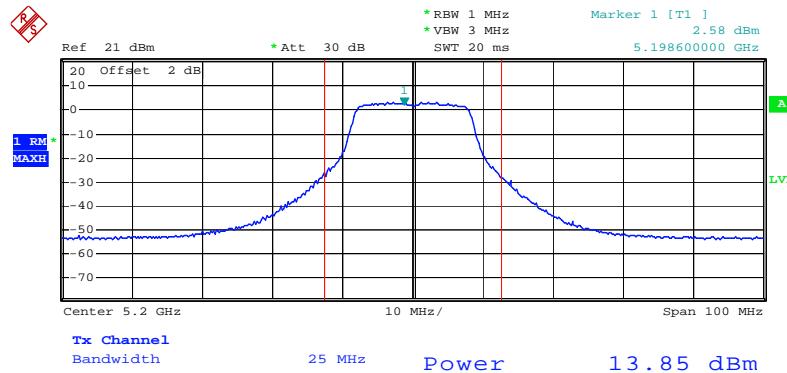
Date: 16.SEP.2009 21:18:54

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 2-3 / 5180 MHz



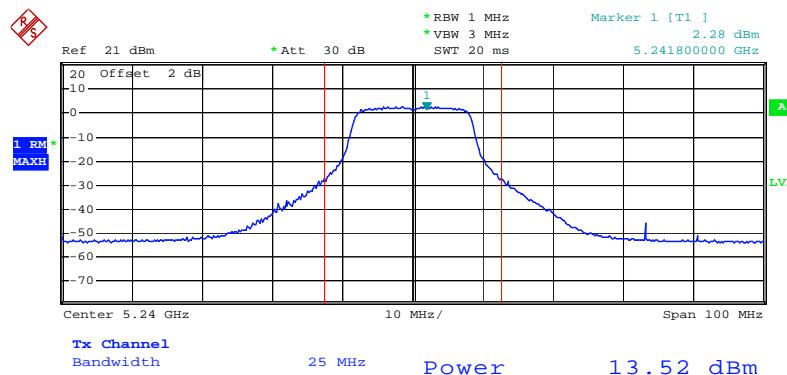
Date: 16.SEP.2009 21:15:20

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 2-3 / 5200 MHz



Date: 16.SEP.2009 21:16:55

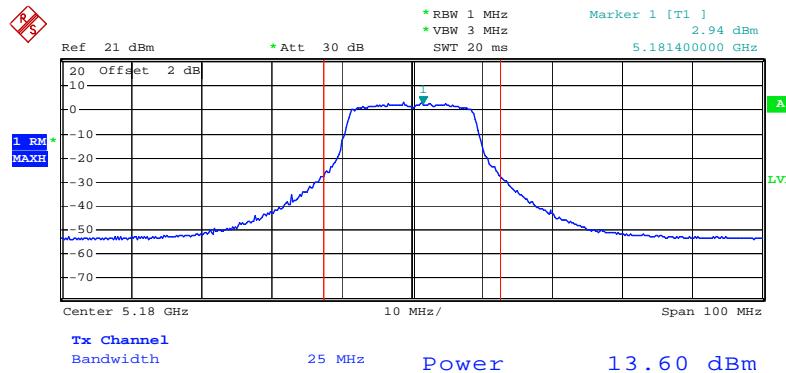
Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 2-3 / 5240 MHz



Date: 16.SEP.2009 21:19:07

<For Antenna 3>:

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 / 5180 MHz



Date: 17.SEP.2009 01:45:23

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 / 5200 MHz



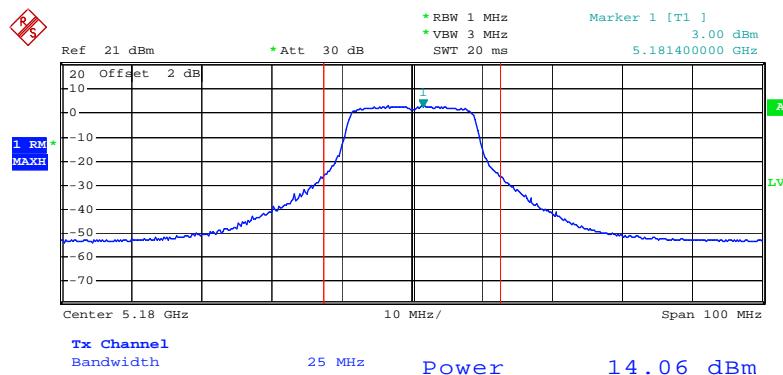
Date: 17.SEP.2009 01:50:13

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 / 5240 MHz



Date: 17.SEP.2009 01:50:49

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 3-3 / 5180 MHz



Date: 17.SEP.2009 01:45:03

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 3-3 / 5200 MHz



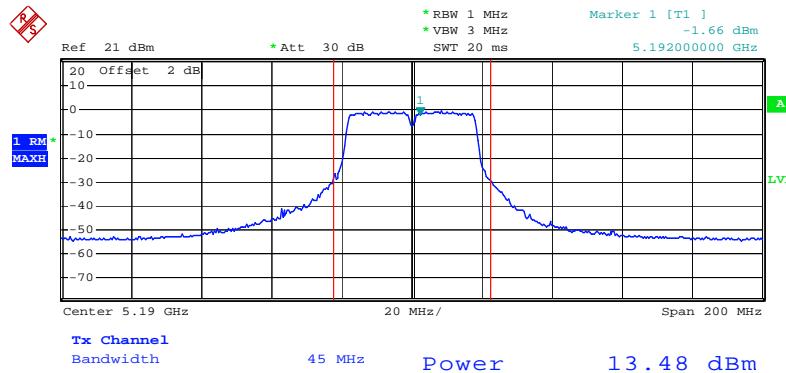
Date: 17.SEP.2009 01:49:50

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 3-3 / 5240 MHz



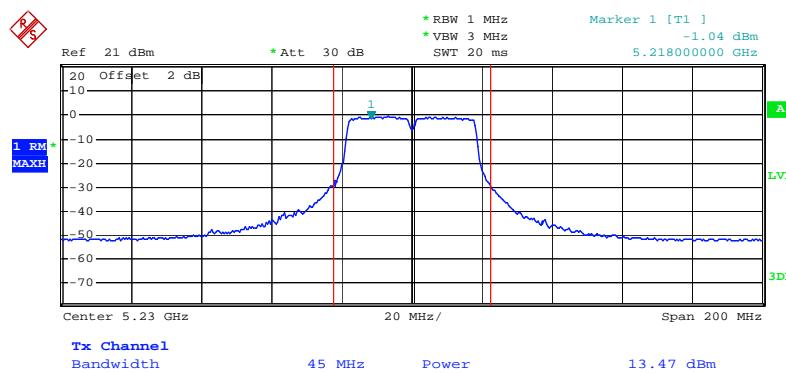
Date: 17.SEP.2009 01:51:20

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 / 5190 MHz



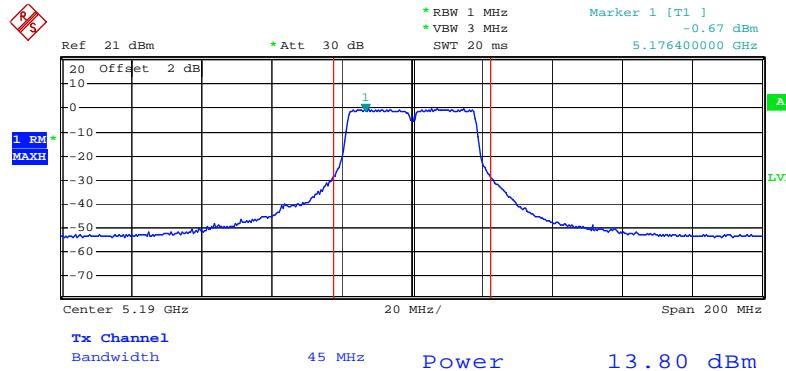
Date: 16.SEP.2009 22:06:03

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 / 5230 MHz



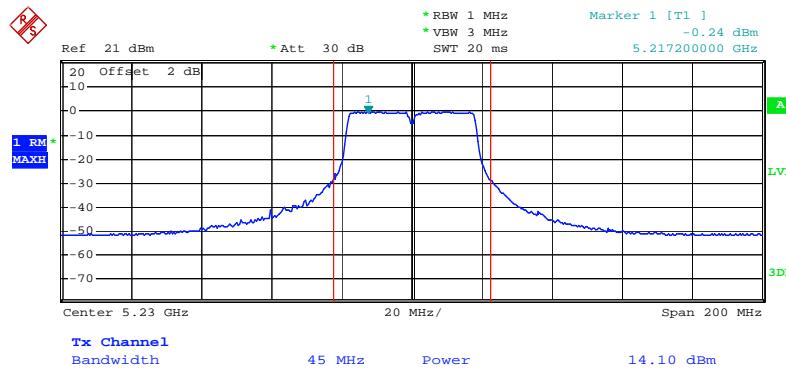
Date: 15.SEP.2009 10:33:38

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 3-3 / 5190 MHz



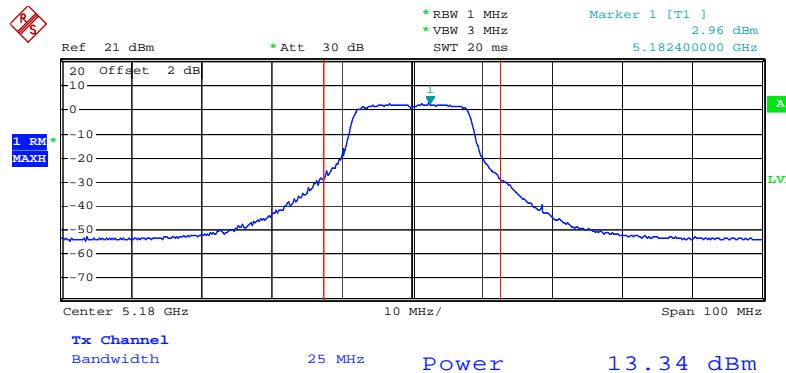
Date: 16.SEP.2009 22:06:29

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 3-3 / 5230 MHz



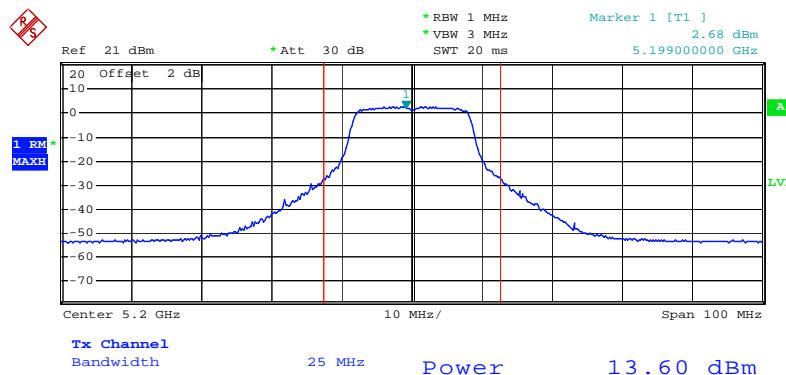
Date: 15.SEP.2009 10:02:37

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 3-1 / 5180 MHz



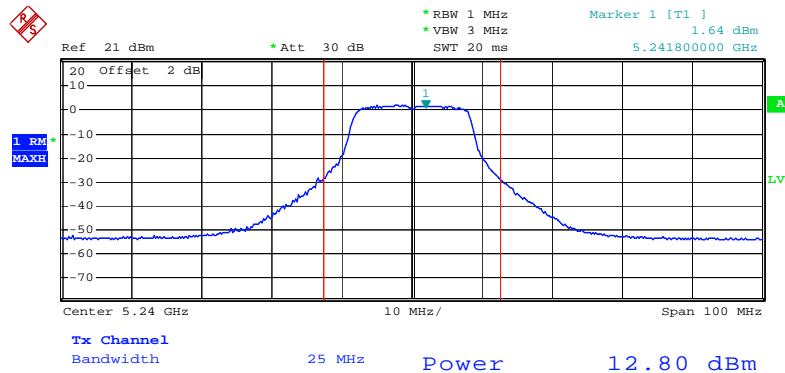
Date: 16.SEP.2009 21:15:44

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 3-1 / 5200 MHz



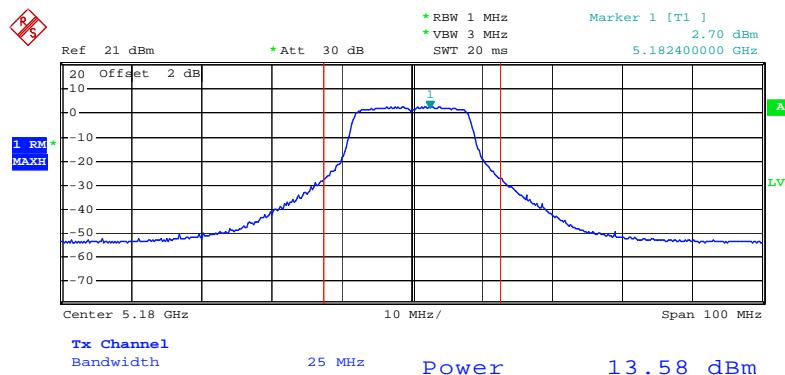
Date: 16.SEP.2009 21:17:21

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 3-1 / 5240 MHz



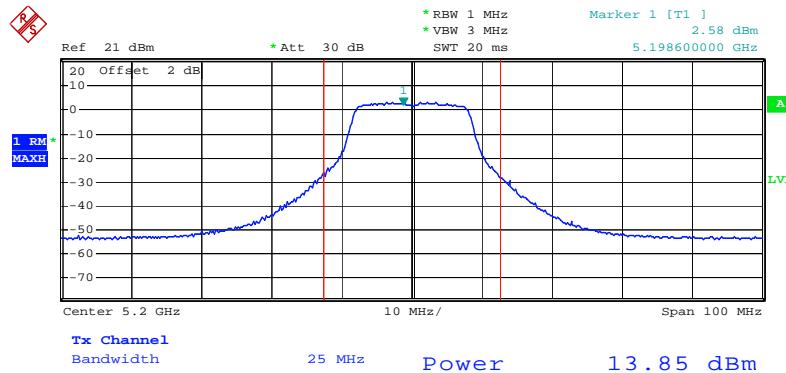
Date: 16.SEP.2009 21:18:54

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 3-3 / 5180 MHz



Date: 16.SEP.2009 21:15:20

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 3-3 / 5200 MHz



Date: 16.SEP.2009 21:16:55

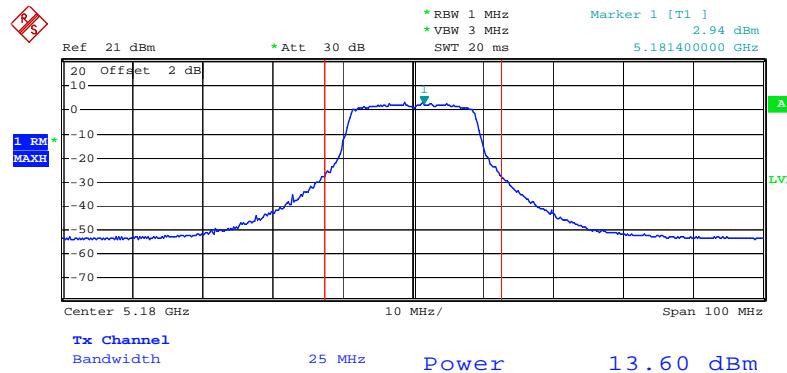
Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 3-3 / 5240 MHz



Date: 16.SEP.2009 21:19:07

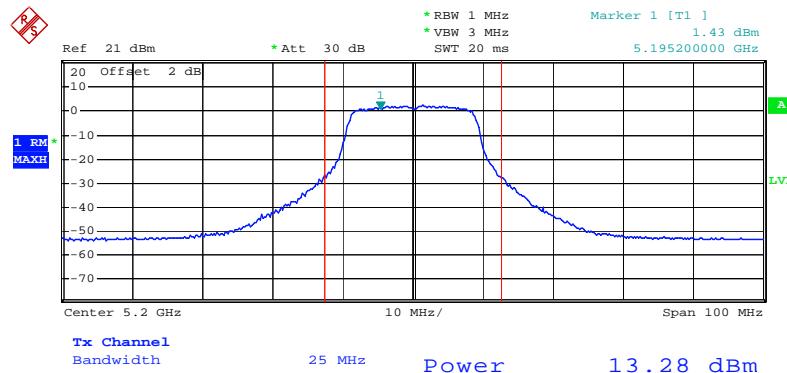
<For Antenna 4>:

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 / 5180 MHz



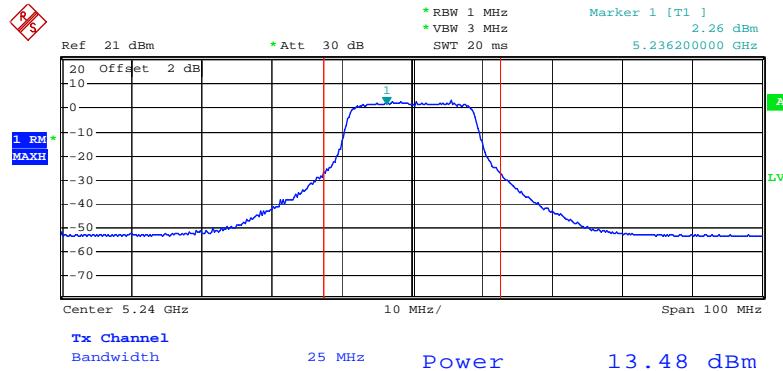
Date: 17.SEP.2009 01:45:23

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 / 5200 MHz



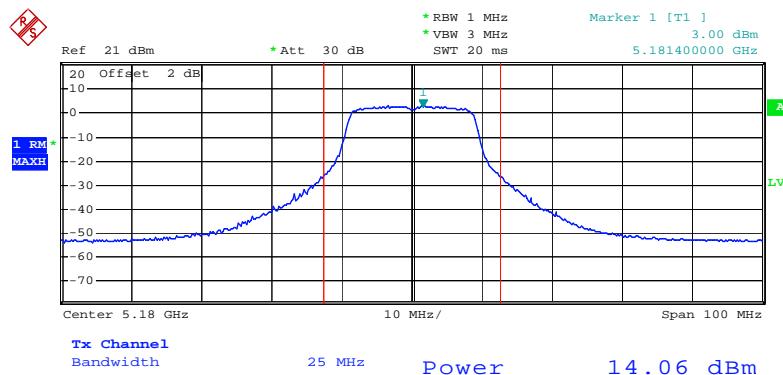
Date: 17.SEP.2009 01:50:13

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 / 5240 MHz



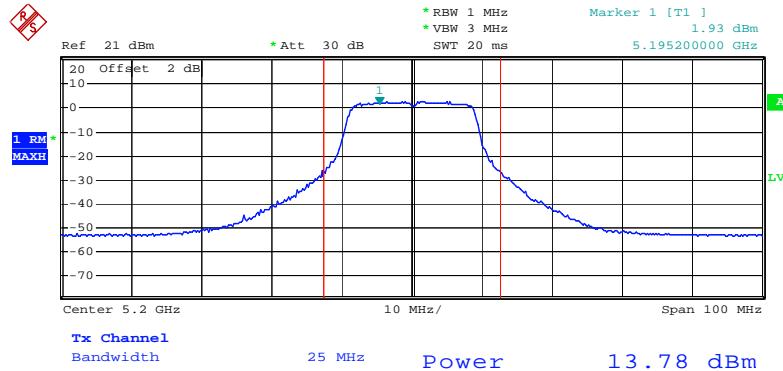
Date: 17.SEP.2009 01:50:49

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 4-3 / 5180 MHz



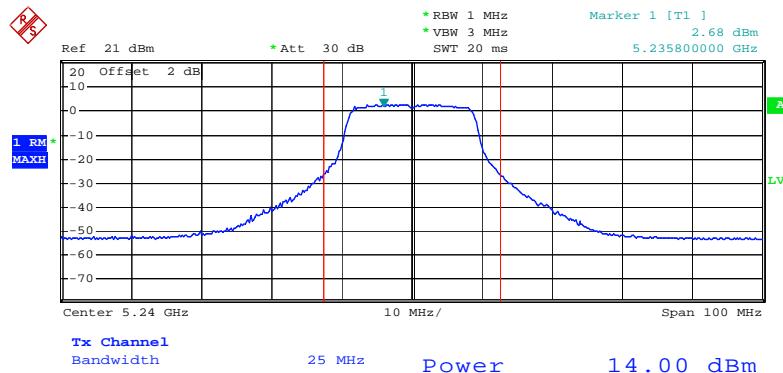
Date: 17.SEP.2009 01:45:03

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 4-3 / 5200 MHz



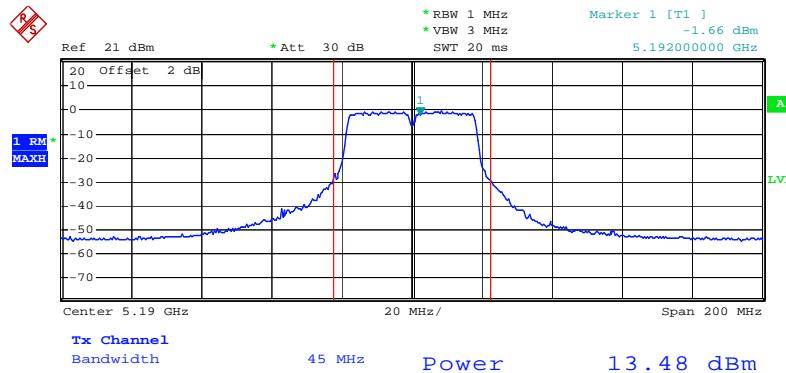
Date: 17.SEP.2009 01:49:50

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 4-3 / 5240 MHz



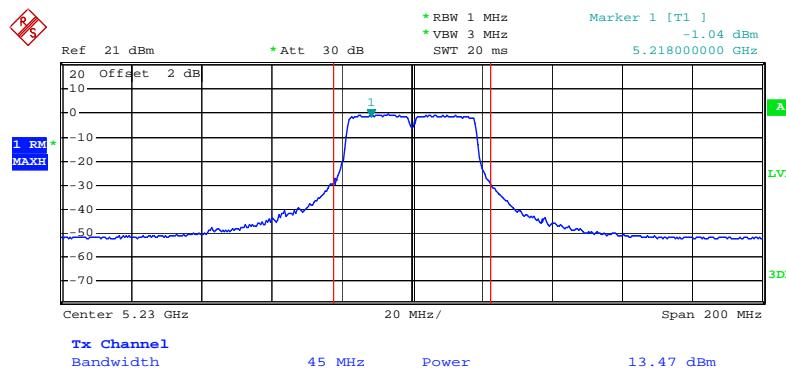
Date: 17.SEP.2009 01:51:20

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 / 5190 MHz



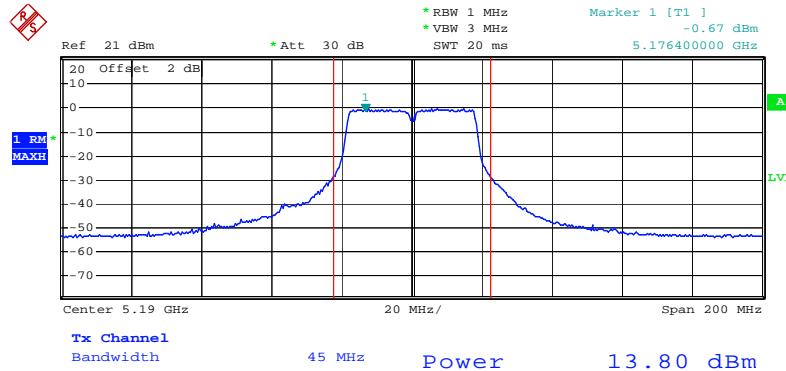
Date: 16.SEP.2009 22:06:03

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 / 5230 MHz



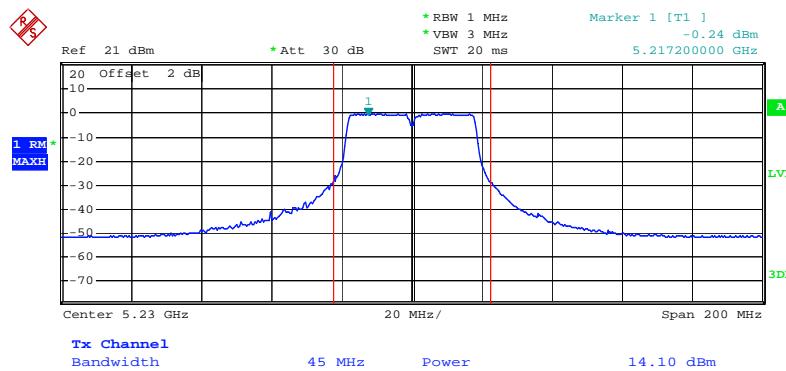
Date: 15.SEP.2009 10:33:38

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 4-3 / 5190 MHz



Date: 16.SEP.2009 22:06:29

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 4-3 / 5230 MHz



Date: 15.SEP.2009 10:02:37

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 4-1 / 5180 MHz



Date: 16.SEP.2009 21:15:44

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 4-1 / 5200 MHz



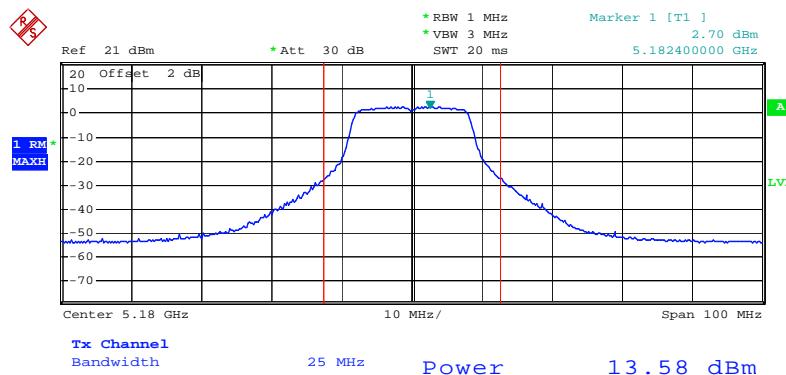
Date: 16.SEP.2009 21:17:21

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 4-1 / 5240 MHz



Date: 16.SEP.2009 21:18:54

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 4-3 / 5180 MHz



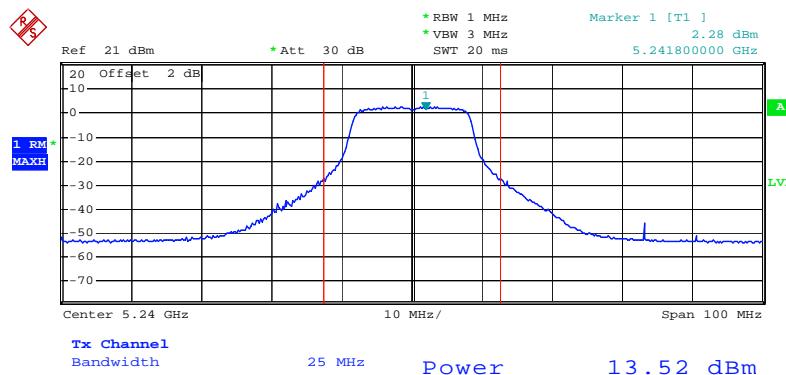
Date: 16.SEP.2009 21:15:20

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 4-3 / 5200 MHz



Date: 16.SEP.2009 21:16:55

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 4-3 / 5240 MHz



Date: 16.SEP.2009 21:19:07

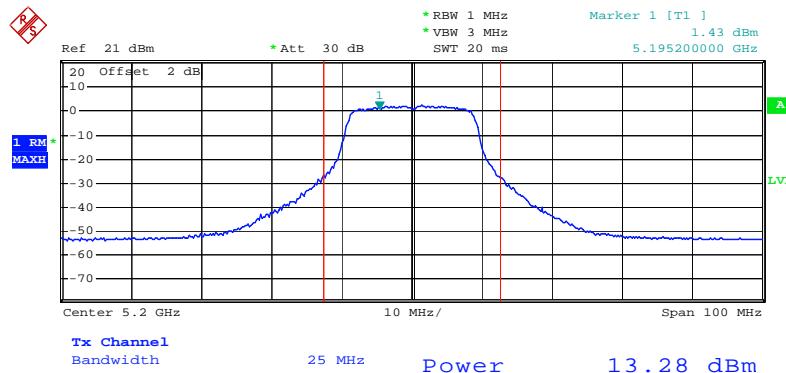
<For Antenna 5>:

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 / 5180 MHz



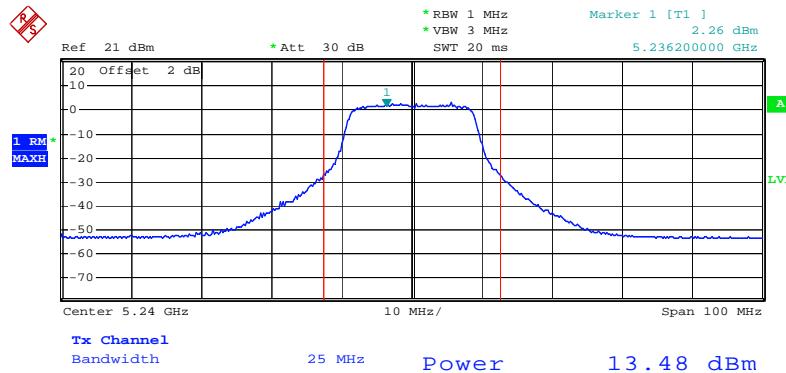
Date: 17.SEP.2009 01:45:23

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 / 5200 MHz



Date: 17.SEP.2009 01:50:13

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 / 5240 MHz



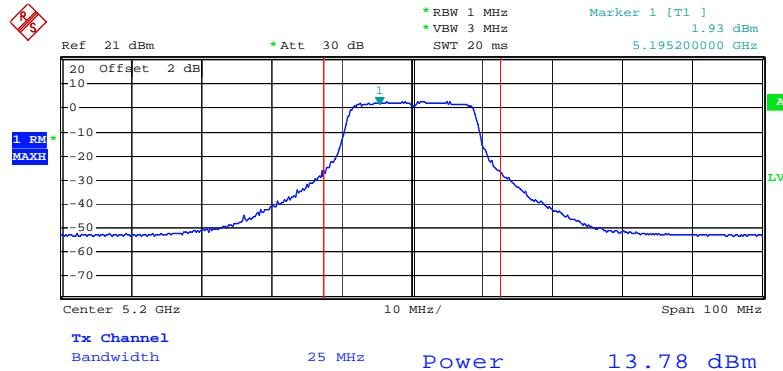
Date: 17.SEP.2009 01:50:49

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 5-3 / 5180 MHz



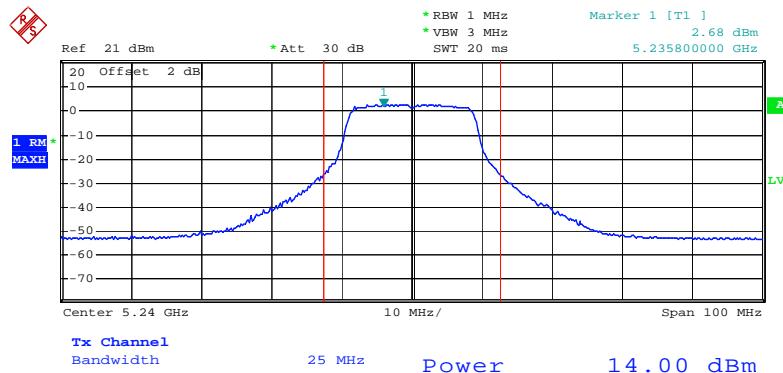
Date: 17.SEP.2009 01:45:03

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 5-3 / 5200 MHz



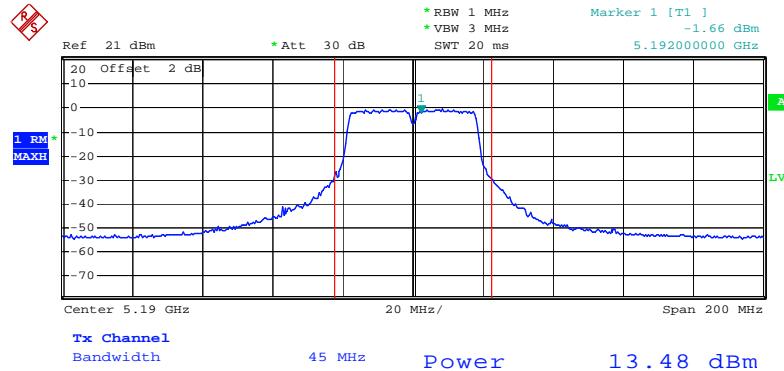
Date: 17.SEP.2009 01:49:50

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 5-3 / 5240 MHz



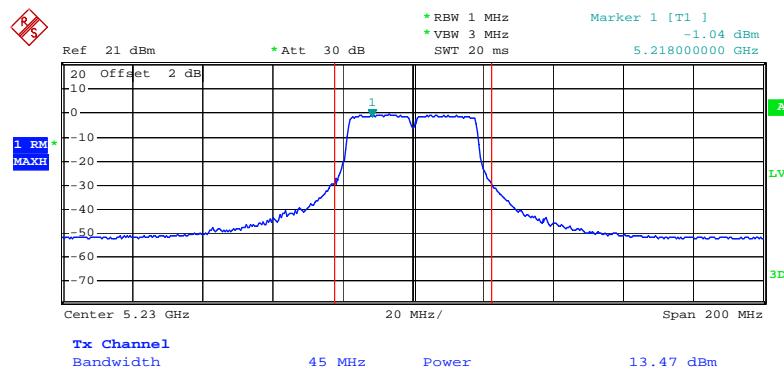
Date: 17.SEP.2009 01:51:20

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 / 5190 MHz



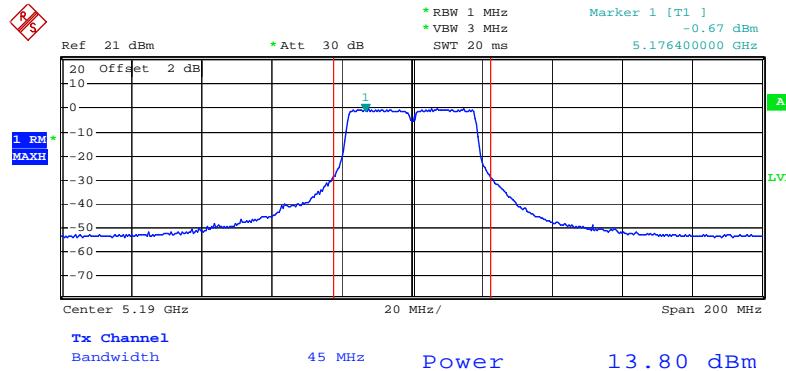
Date: 16.SEP.2009 22:06:03

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 / 5230 MHz



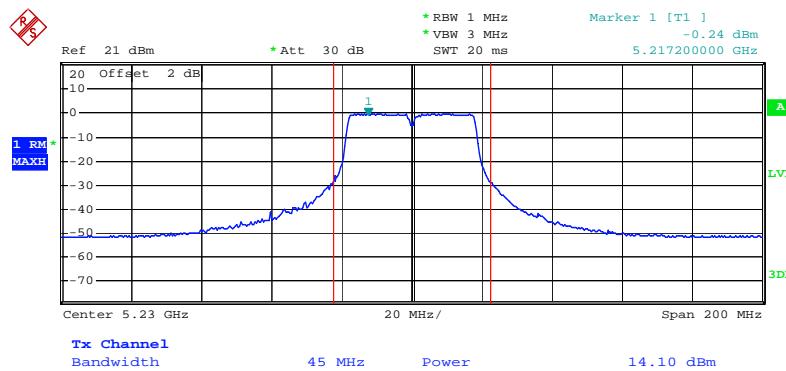
Date: 15.SEP.2009 10:33:38

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 5-3 / 5190 MHz



Date: 16.SEP.2009 22:06:29

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 5-3 / 5230 MHz



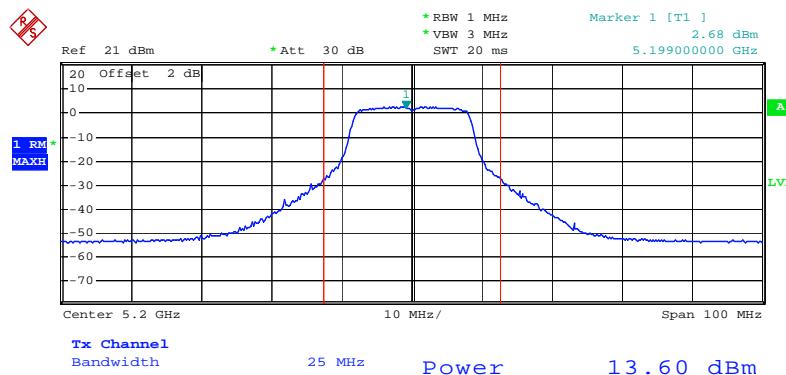
Date: 15.SEP.2009 10:02:37

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 5-1 / 5180 MHz



Date: 16.SEP.2009 21:15:44

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 5-1 / 5200 MHz



Date: 16.SEP.2009 21:17:21

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 5-1 / 5240 MHz



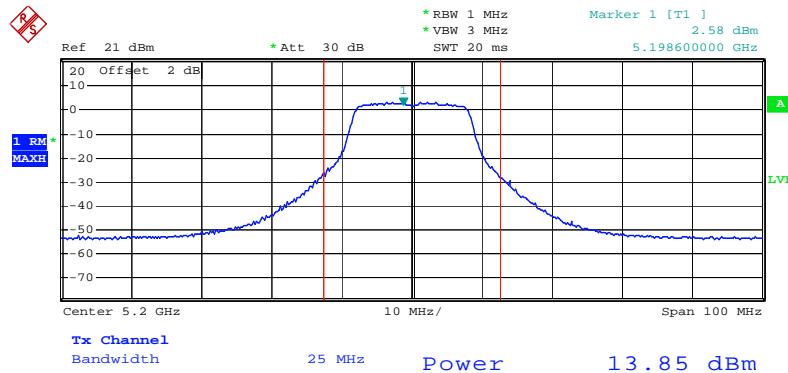
Date: 16.SEP.2009 21:18:54

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 5-3 / 5180 MHz



Date: 16.SEP.2009 21:15:20

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 5-3 / 5200 MHz



Date: 16.SEP.2009 21:16:55

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 5-3 / 5240 MHz



Date: 16.SEP.2009 21:19:07

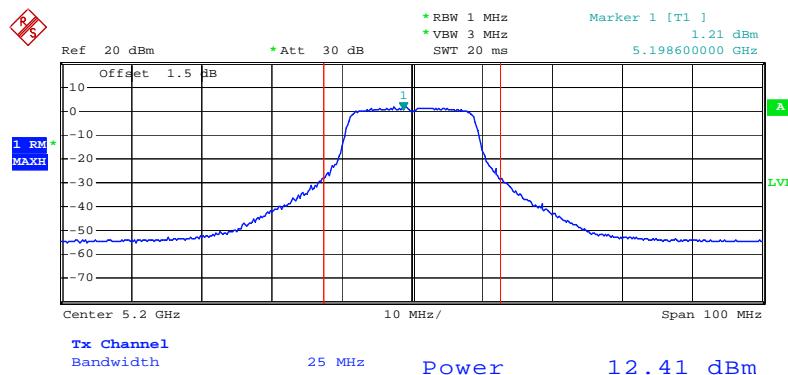
<For Antenna 6>:

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 / 5180 MHz



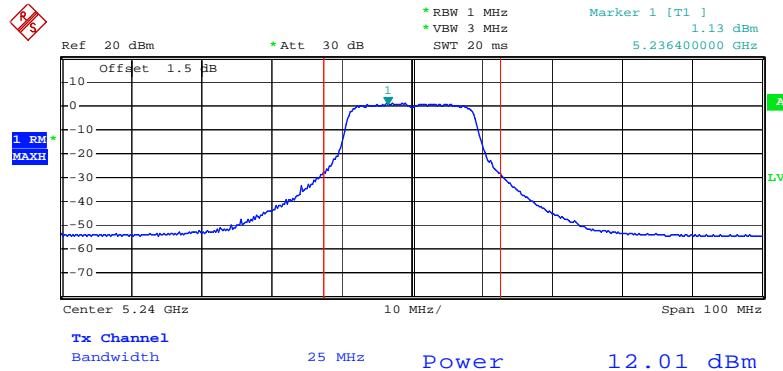
Date: 9.OCT.2009 16:39:54

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 / 5200 MHz



Date: 9.OCT.2009 16:36:22

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 / 5240 MHz



Date: 9.OCT.2009 16:25:46

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 6-3 / 5180 MHz



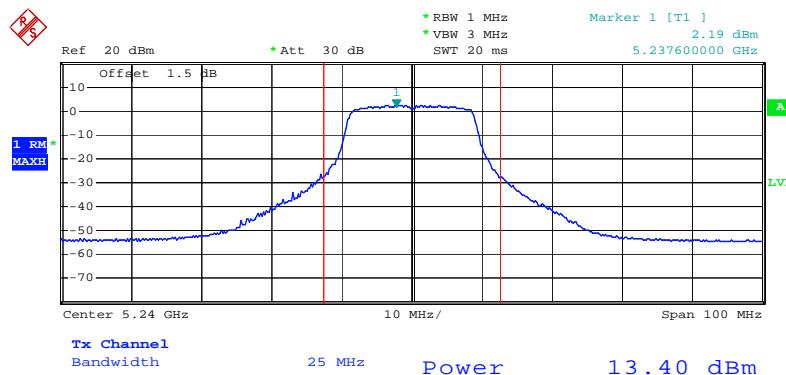
Date: 9.OCT.2009 16:38:50

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 6-3 / 5200 MHz



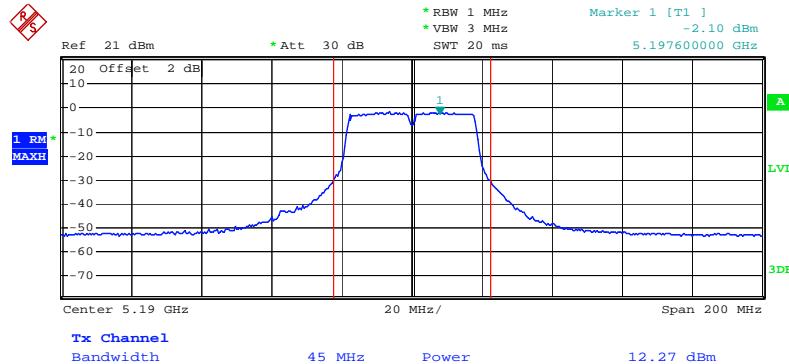
Date: 9.OCT.2009 16:37:44

Conducted Output Power Plot on Configuration Draft n MCS8 20MHz Ant. 6-3 / 5240 MHz



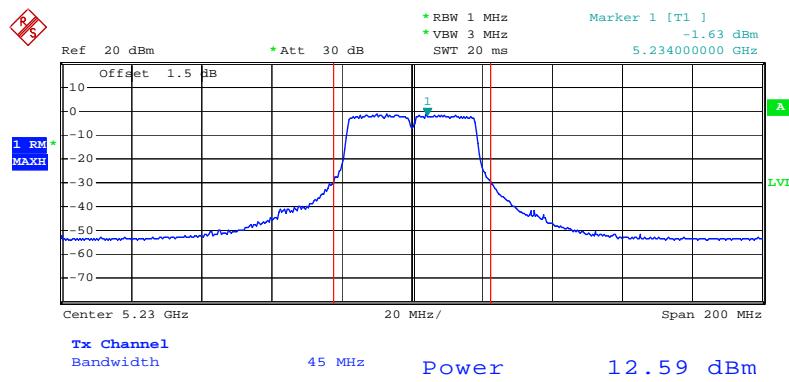
Date: 9.OCT.2009 16:24:22

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 / 5190 MHz



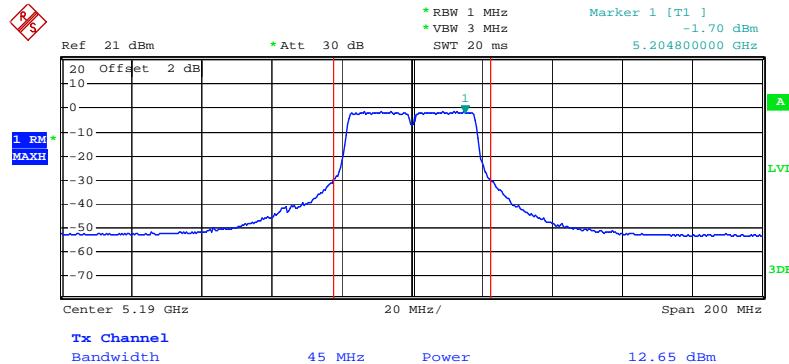
Date: 14.SEP.2009 22:37:56

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 / 5230 MHz



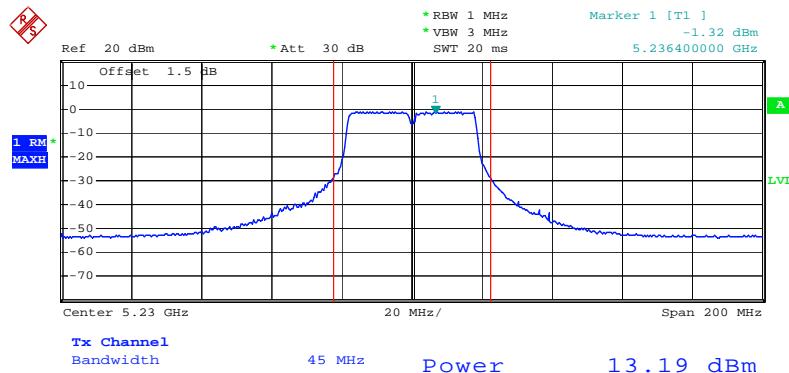
Date: 9.OCT.2009 16:49:59

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 6-3 / 5190 MHz



Date: 14.SEP.2009 23:25:44

Conducted Output Power Plot on Configuration Draft n MCS8 40MHz Ant. 6-3 / 5230 MHz



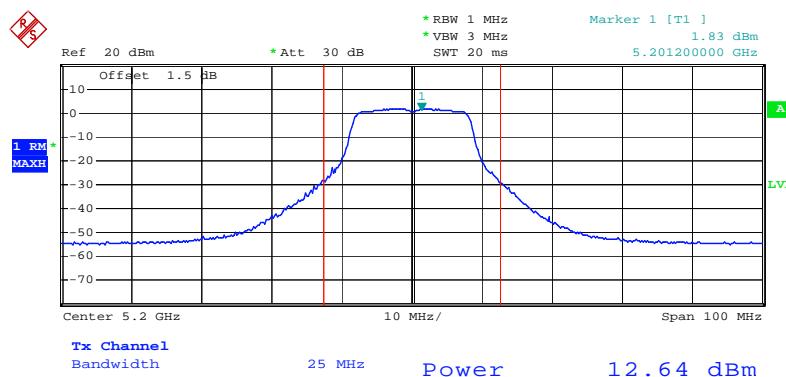
Date: 9.OCT.2009 16:50:58

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 6-1 / 5180 MHz



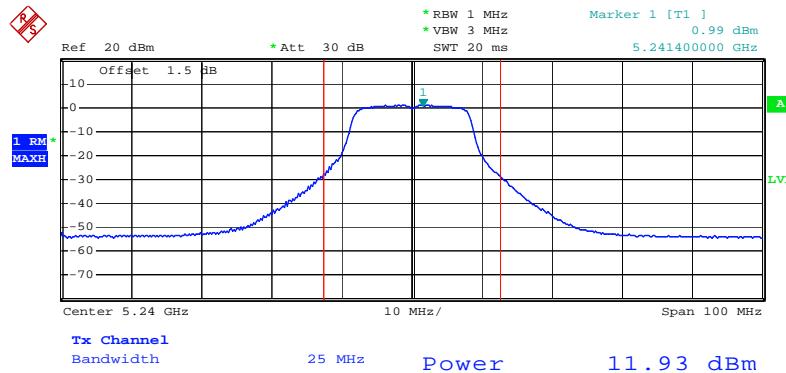
Date: 9.OCT.2009 15:33:20

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 6-1 / 5200 MHz



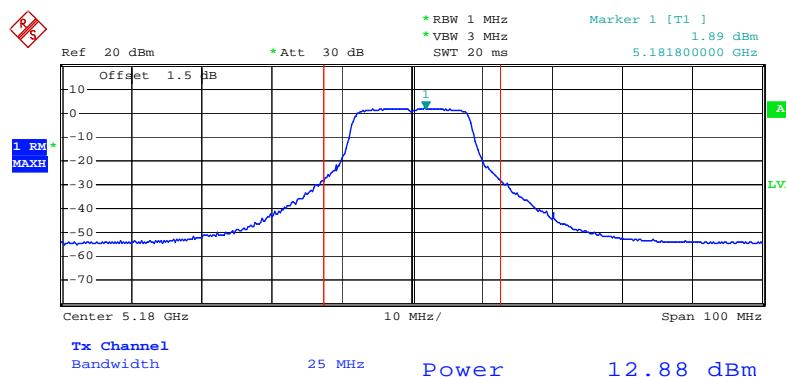
Date: 9.OCT.2009 15:33:54

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 6-1 / 5240 MHz



Date: 9.OCT.2009 16:13:59

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 6-3 / 5180 MHz



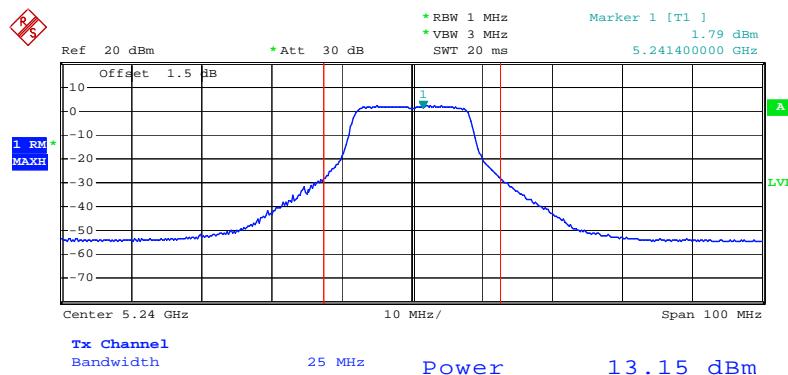
Date: 9.OCT.2009 15:31:25

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 6-3 / 5200 MHz



Date: 9.OCT.2009 15:35:05

Conducted Output Power Plot on Configuration IEEE 802.11a Ant. 6-3 / 5240 MHz



Date: 9.OCT.2009 16:18:47

4.4. Power Spectral Density Measurement

4.4.1. Limit

The power spectral density is defined as the highest level of power in dBm per MHz generated by the transmitter within the power envelope. The following table is power spectral density limits and decrease power density limit rule refer to section 4.3.1.

<For Antenna 1 and Antenna 6>:

Frequency Range	Power Spectral Density limit (dBm/MHz)
5.15~5.25 GHz	3
5.25-5.35 GHz	10
5470-5725	10

<For Antenna 2~Antenna 5>:

Frequency Range	Power Spectral Density limit (dBm/MHz)
5.15~5.25 GHz	4
5.25-5.35 GHz	11
5470-5725	11

4.4.2. Measuring Instruments and Setting

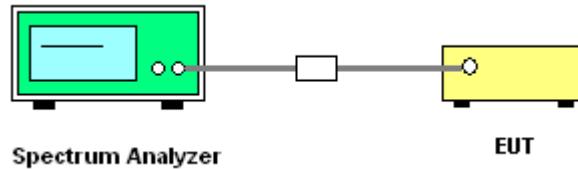
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz
VB	3000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.4.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 1000kHz and VBW to 3000kHz. Set Detector to Peak, Trace to Max Hold. Mark the frequency with maximum peak power as the center of the display of the spectrum.
3. 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 Power Spectral Density

<For Antenna 1>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 1

Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	0.50	3.00	Complies
40	5200 MHz	-0.11	3.00	Complies
48	5240 MHz	0.18	3.00	Complies

Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	-3.17	3.00	Complies
46	5230 MHz	-2.17	3.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 1

Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	2.95	3.00	Complies
40	5200 MHz	2.67	3.00	Complies
48	5240 MHz	2.54	3.00	Complies



<For Antenna 2>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 2

Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	2.51	4.00	Complies
40	5200 MHz	2.36	4.00	Complies
48	5240 MHz	2.42	4.00	Complies

Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	-2.13	4.00	Complies
46	5230 MHz	-0.14	4.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 2

Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	3.85	4.00	Complies
40	5200 MHz	3.50	4.00	Complies
48	5240 MHz	3.70	4.00	Complies



<For Antenna 3>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 3

Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	2.51	4.00	Complies
40	5200 MHz	2.36	4.00	Complies
48	5240 MHz	2.42	4.00	Complies

Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	-2.13	4.00	Complies
46	5230 MHz	-0.14	4.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 3

Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	3.85	4.00	Complies
40	5200 MHz	3.50	4.00	Complies
48	5240 MHz	3.70	4.00	Complies



<For Antenna 4>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 4

Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	2.51	4.00	Complies
40	5200 MHz	2.36	4.00	Complies
48	5240 MHz	2.42	4.00	Complies

Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	-2.13	4.00	Complies
46	5230 MHz	-0.14	4.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 4

Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	3.85	4.00	Complies
40	5200 MHz	3.50	4.00	Complies
48	5240 MHz	3.70	4.00	Complies



<For Antenna 5>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 5

Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	2.51	4.00	Complies
40	5200 MHz	2.36	4.00	Complies
48	5240 MHz	2.42	4.00	Complies

Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	-2.13	4.00	Complies
46	5230 MHz	-0.14	4.00	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 5

Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	3.85	4.00	Complies
40	5200 MHz	3.50	4.00	Complies
48	5240 MHz	3.70	4.00	Complies



<For Antenna 6>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 6

Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	0.50	3.00	Complies
40	5200 MHz	-0.11	3.00	Complies
48	5240 MHz	0.18	3.00	Complies

Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
38	5190 MHz	-3.02	3.00	Complies
46	5230 MHz	-2.17	3.00	Complies

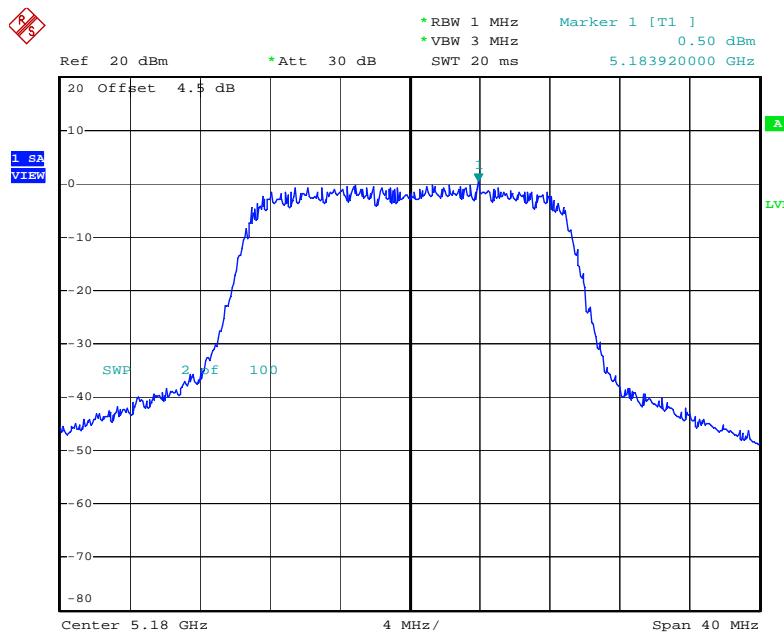
Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 6

Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
36	5180 MHz	2.95	3.00	Complies
40	5200 MHz	2.67	3.00	Complies
48	5240 MHz	2.54	3.00	Complies

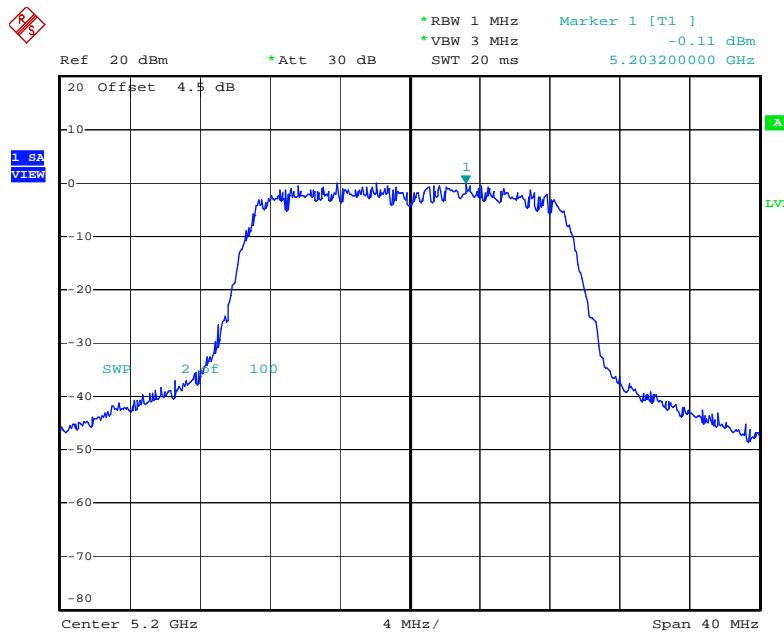
<For Antenna 1>:

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5180 MHz



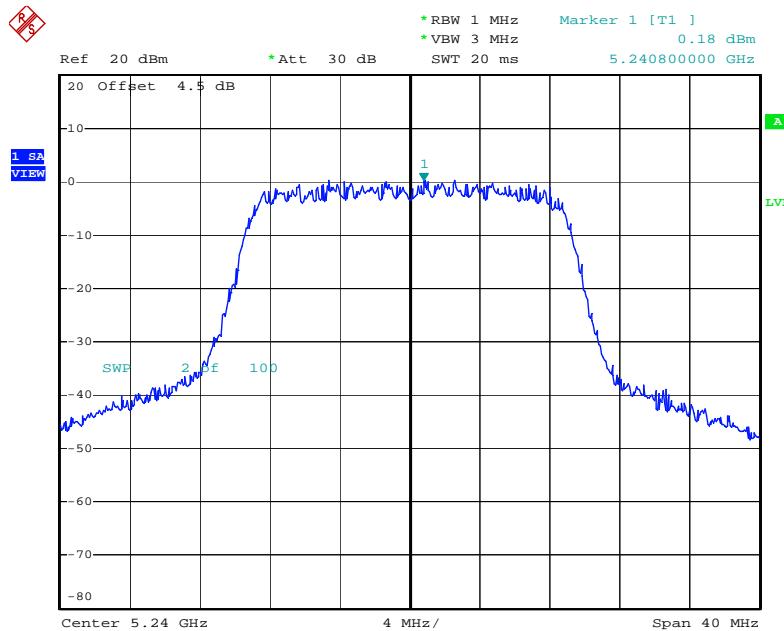
Date: 9.OCT.2009 17:25:13

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5200 MHz



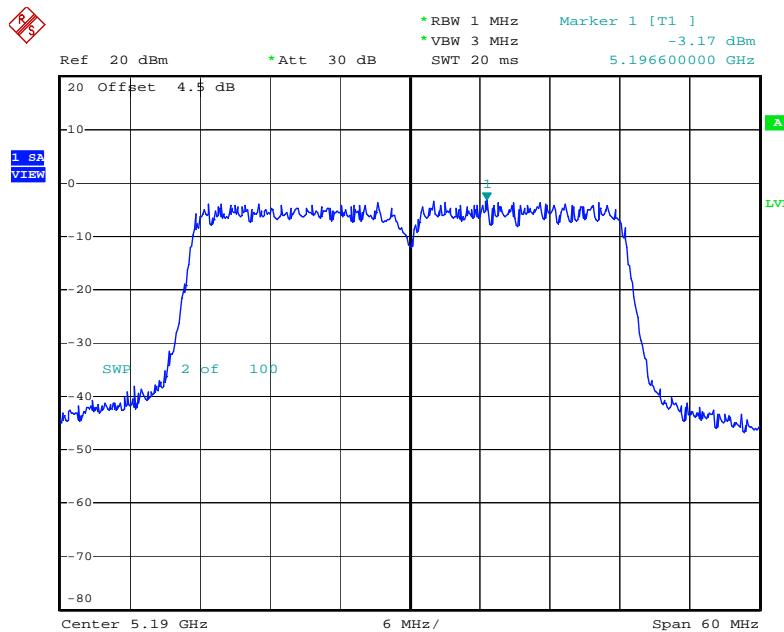
Date: 9.OCT.2009 17:26:02

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5240 MHz



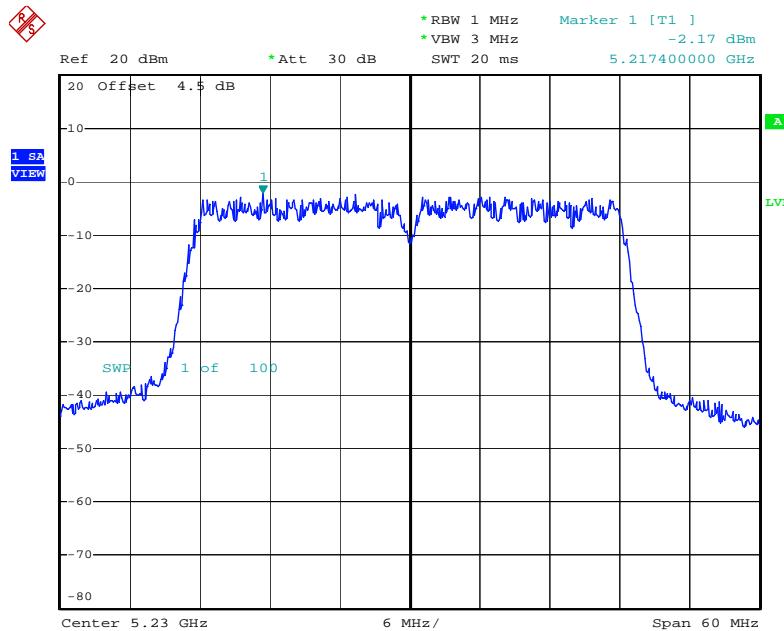
Date: 9.OCT.2009 17:27:05

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3 / 5190 MHz



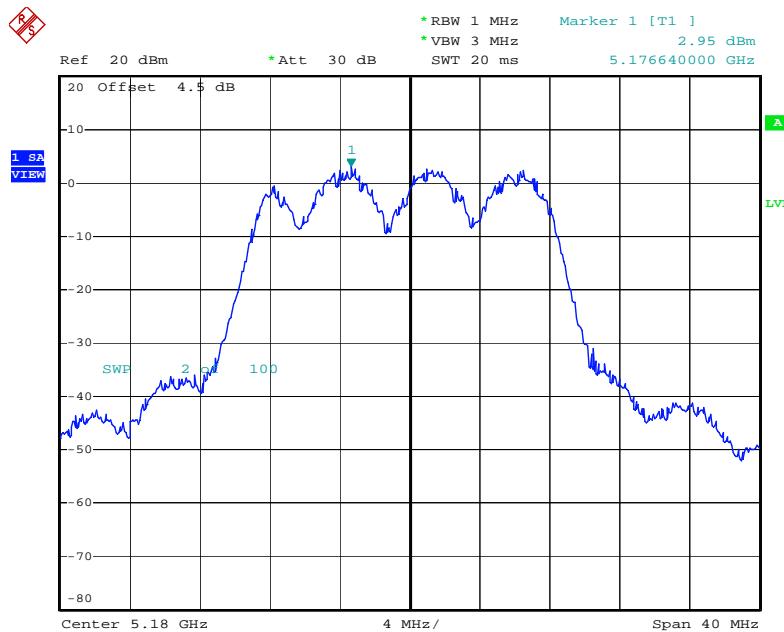
Date: 9.OCT.2009 16:56:38

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3 / 5230 MHz



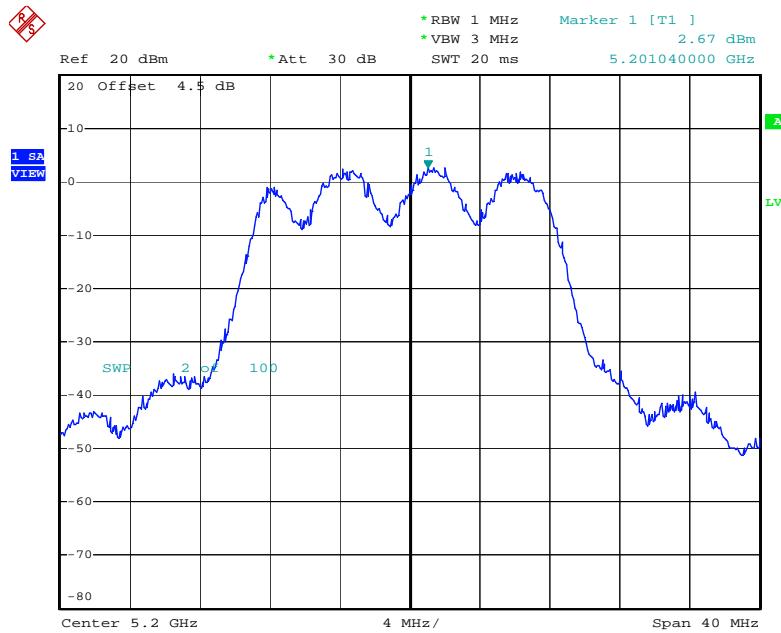
Date: 9.OCT.2009 16:55:32

Power Density Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5180 MHz



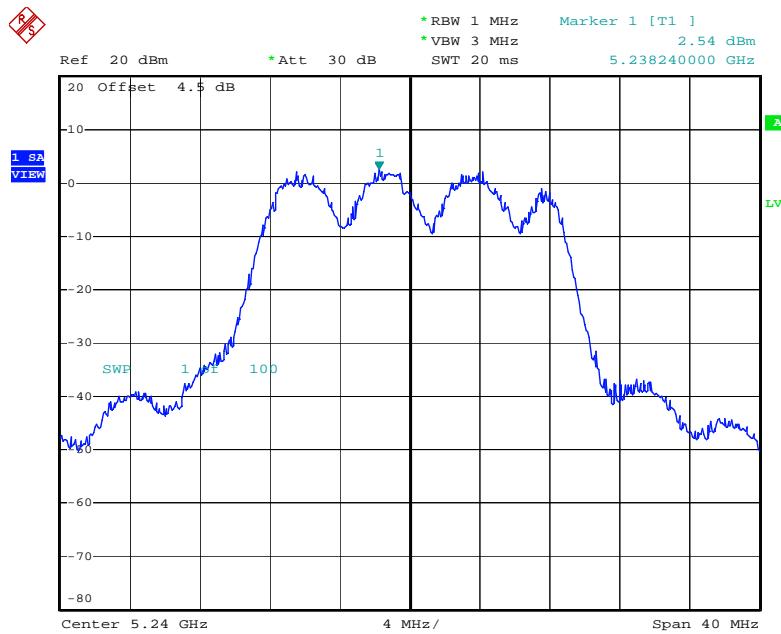
Date: 9.OCT.2009 17:10:28

Power Density Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5200 MHz



Date: 9.OCT.2009 17:15:55

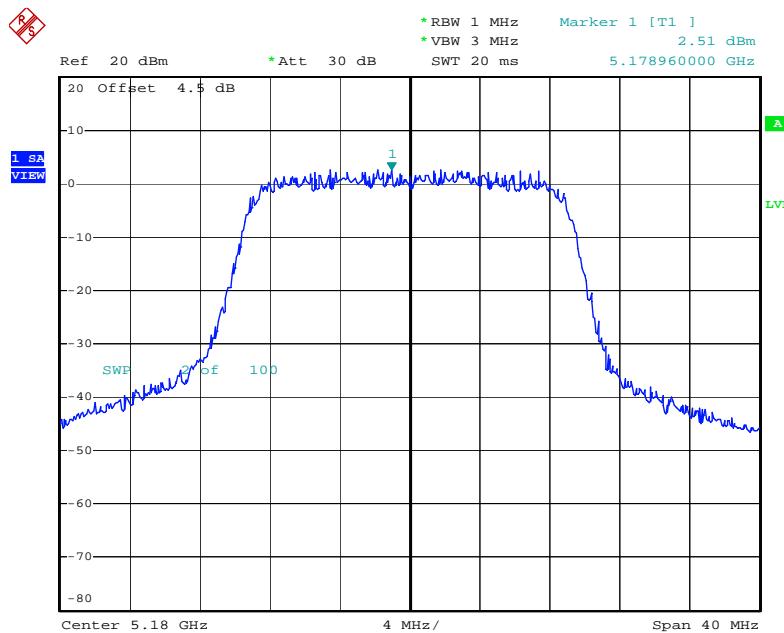
Power Density Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5240 MHz



Date: 9.OCT.2009 17:13:57

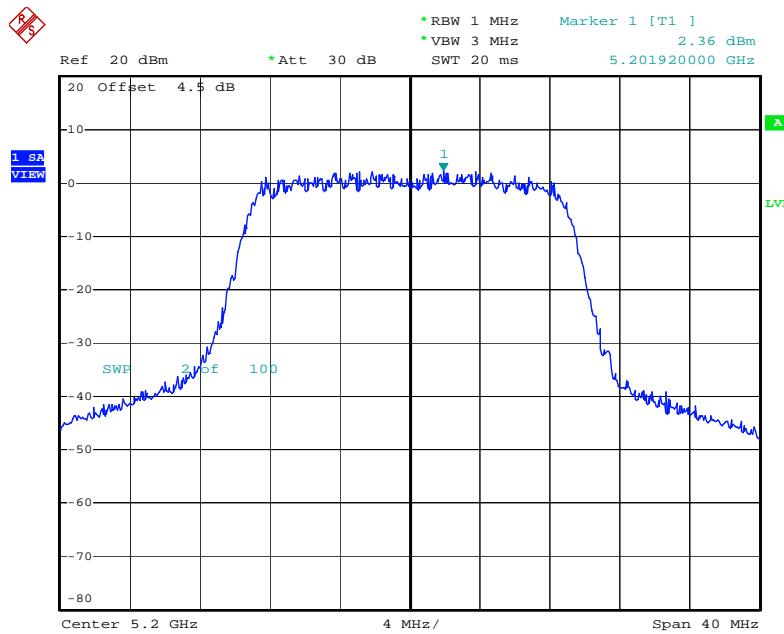
<For Antenna 2>:

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5180 MHz



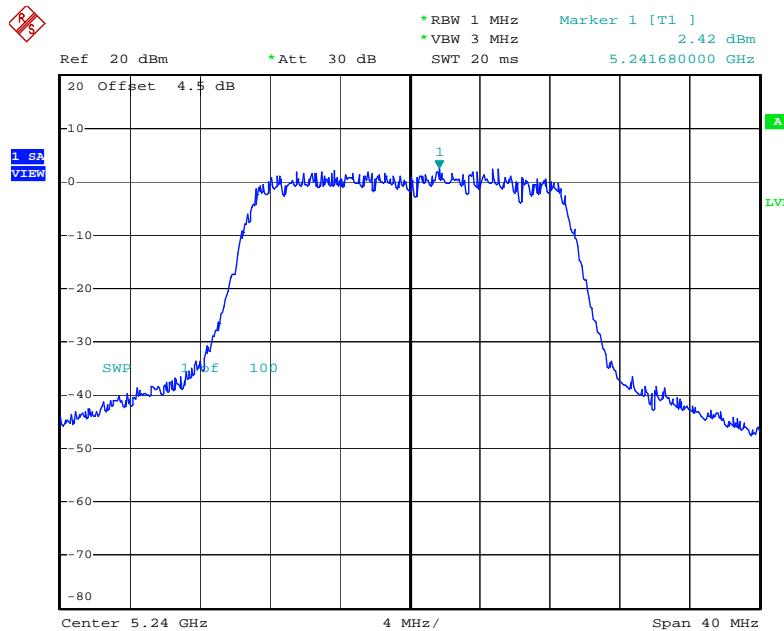
Date: 16.SEP.2009 18:19:31

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5200 MHz



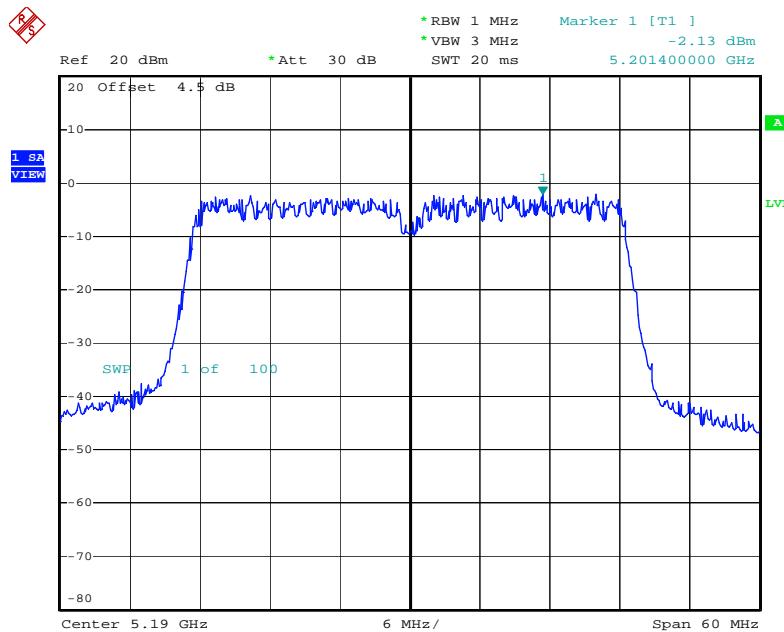
Date: 16.SEP.2009 18:20:23

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5240 MHz



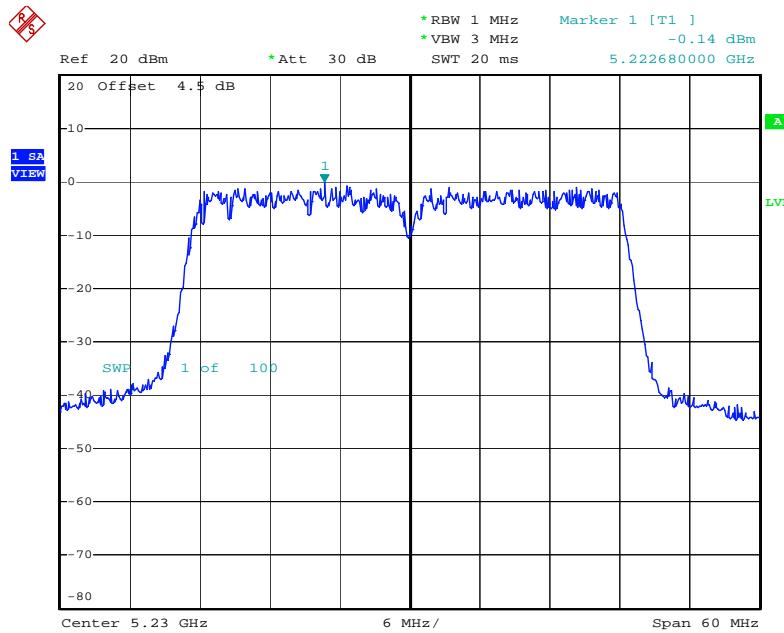
Date: 16.SEP.2009 18:21:13

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3 / 5190 MHz



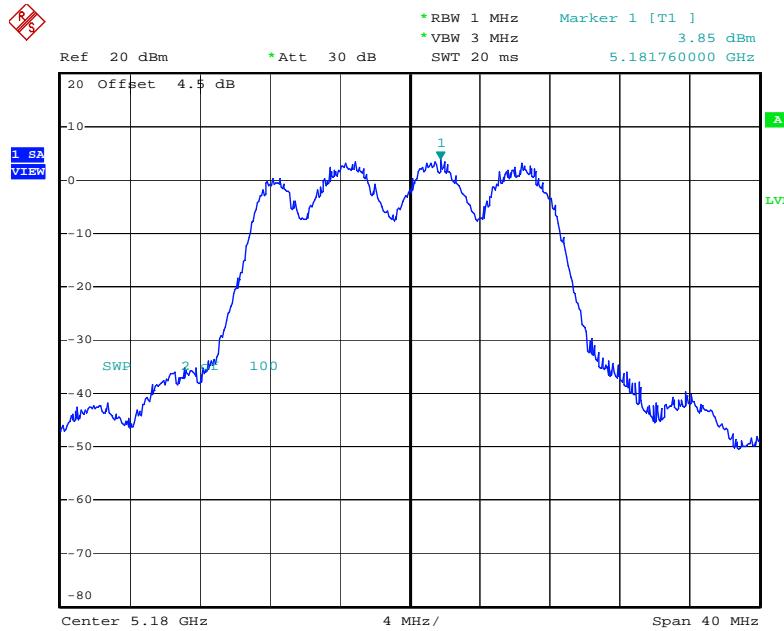
Date: 16.SEP.2009 18:47:44

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3 / 5230 MHz



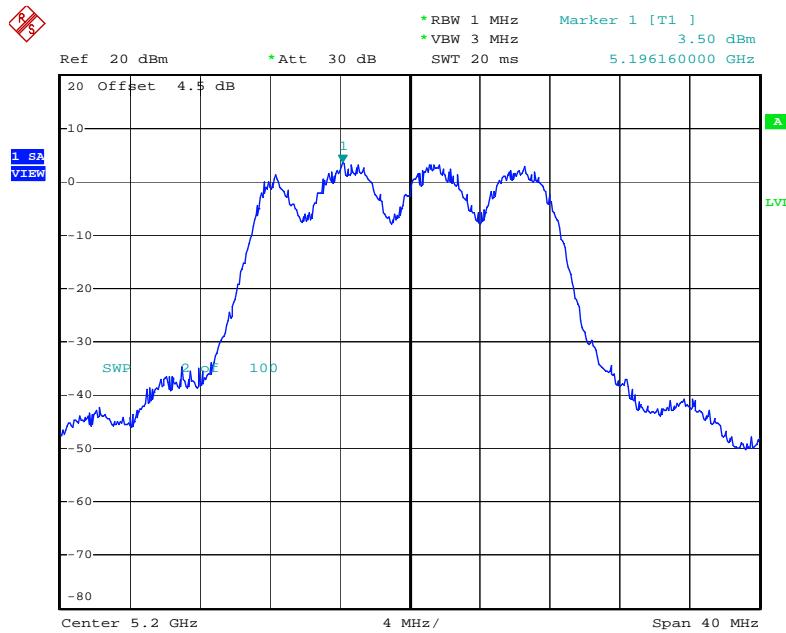
Date: 16.SEP.2009 18:49:54

Power Density Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5180 MHz



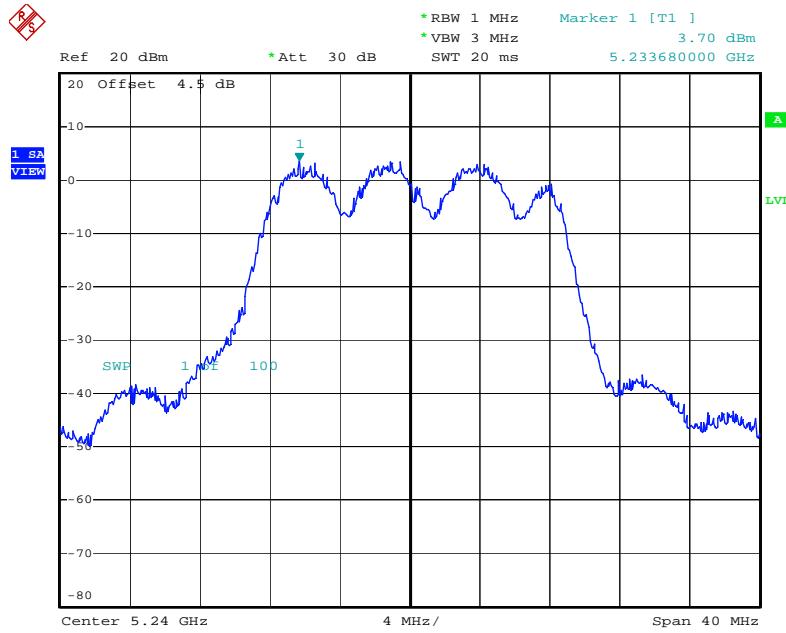
Date: 16.SEP.2009 17:34:43

Power Density Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5200 MHz



Date: 16.SEP.2009 17:37:02

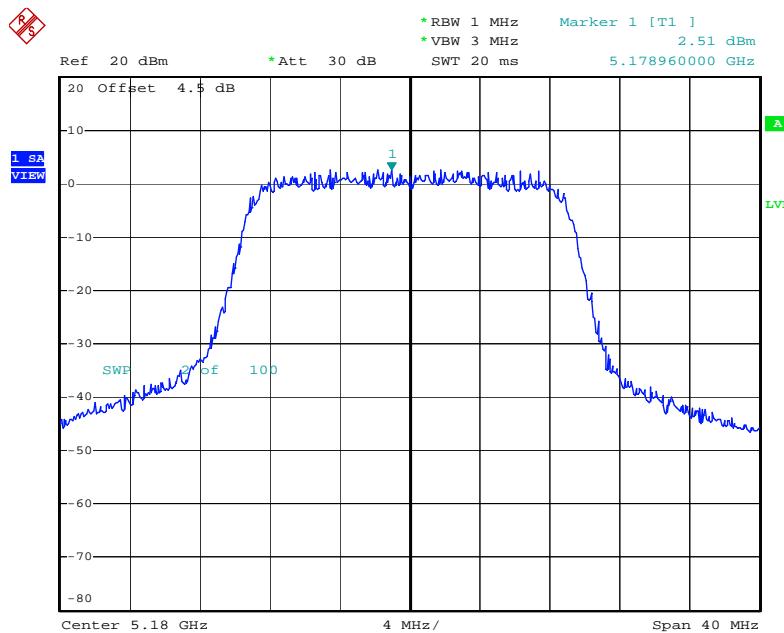
Power Density Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5240 MHz



Date: 16.SEP.2009 17:37:51

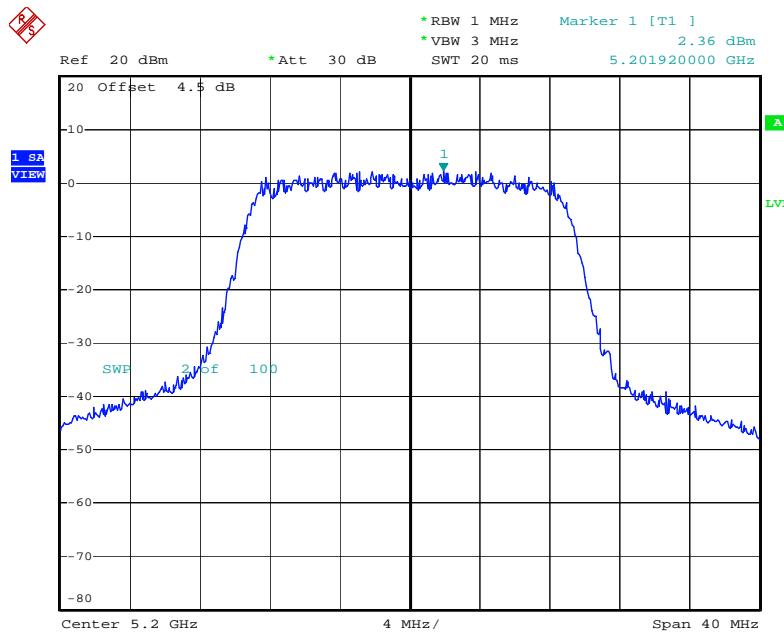
<For Antenna 3>:

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5180 MHz



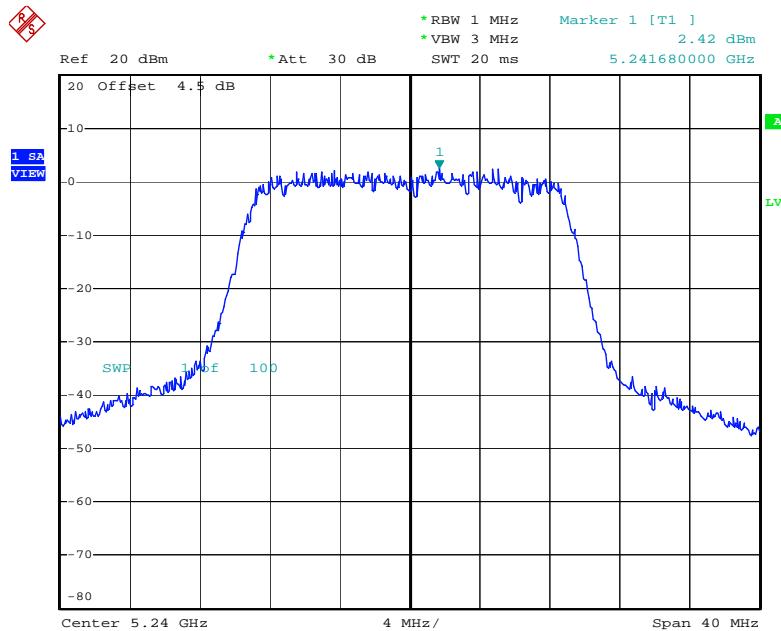
Date: 16.SEP.2009 18:19:31

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5200 MHz



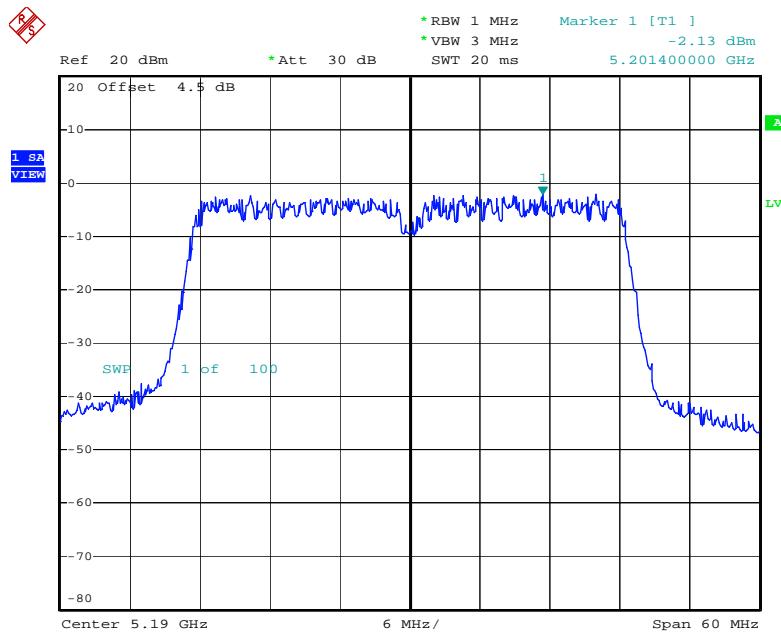
Date: 16.SEP.2009 18:20:23

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5240 MHz



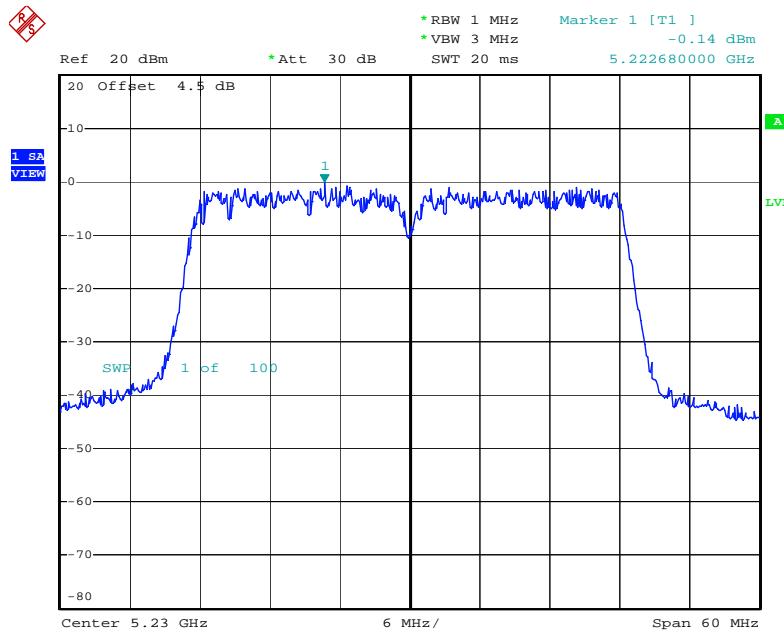
Date: 16.SEP.2009 18:21:13

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3 / 5190 MHz



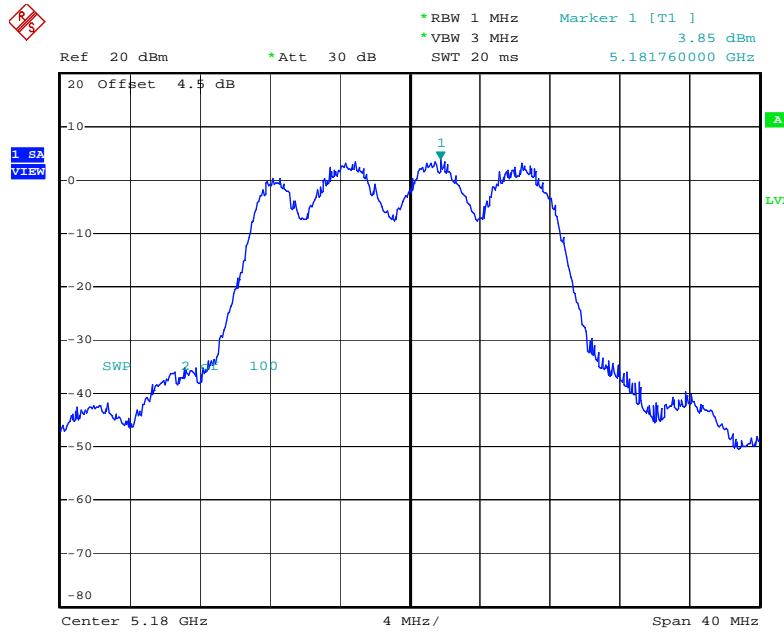
Date: 16.SEP.2009 18:47:44

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3 / 5230 MHz



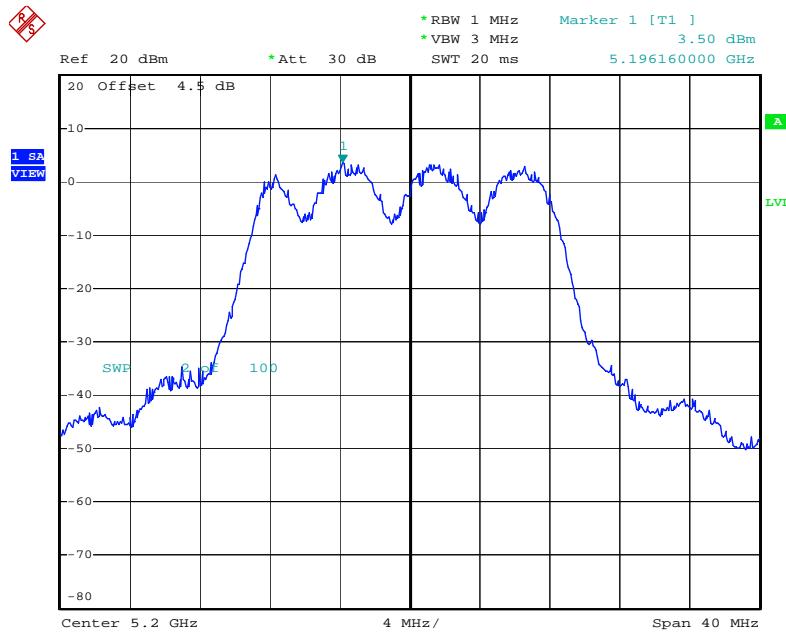
Date: 16.SEP.2009 18:49:54

Power Density Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5180 MHz



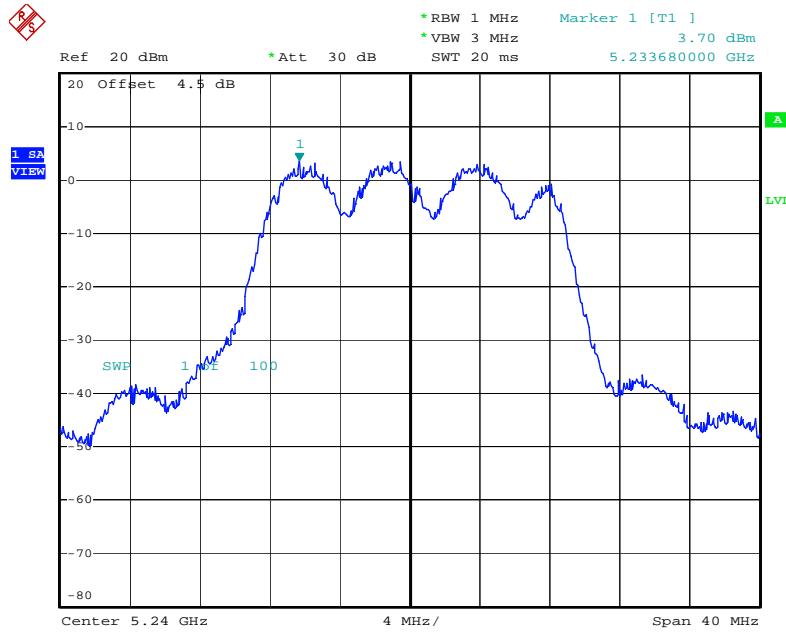
Date: 16.SEP.2009 17:34:43

Power Density Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5200 MHz



Date: 16.SEP.2009 17:37:02

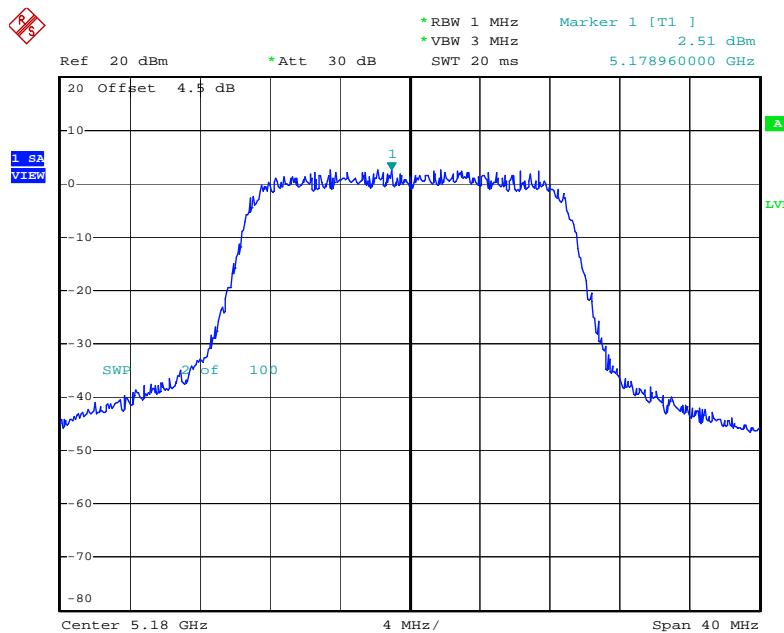
Power Density Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5240 MHz



Date: 16.SEP.2009 17:37:51

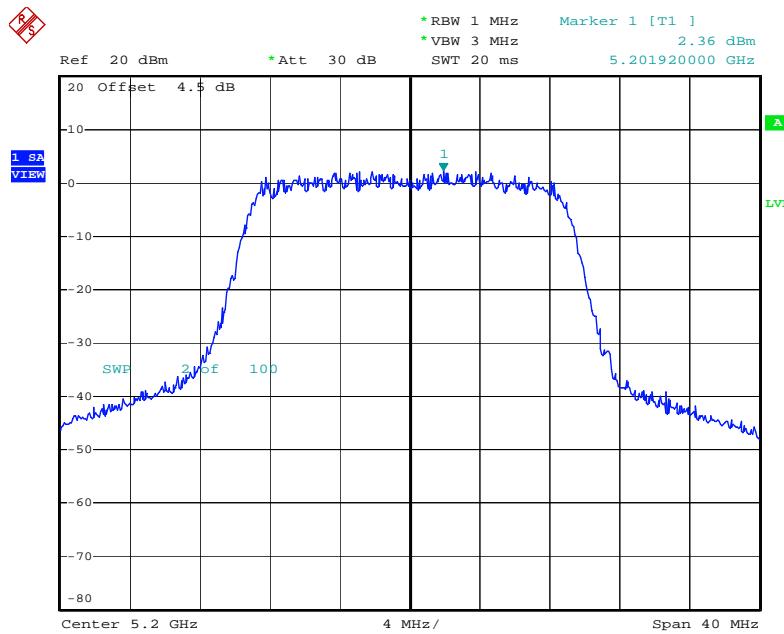
<For Antenna 4>:

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5180 MHz



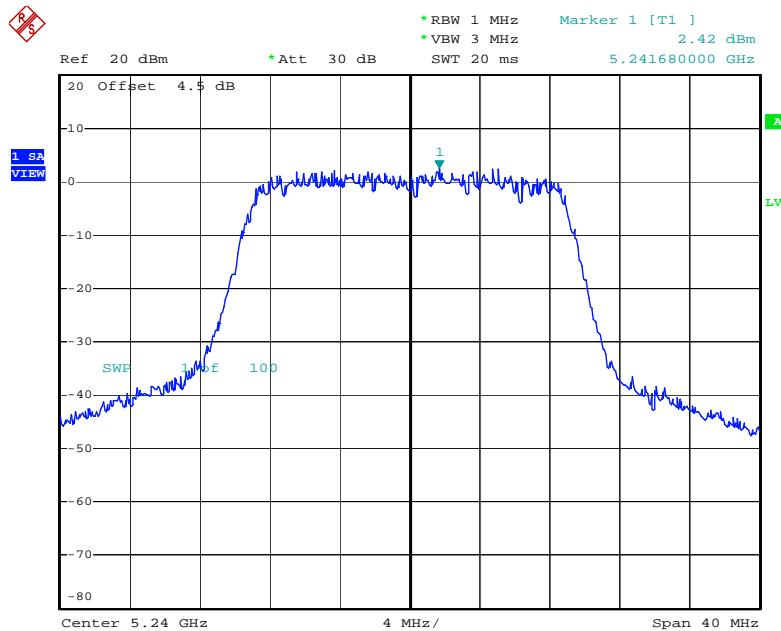
Date: 16.SEP.2009 18:19:31

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5200 MHz



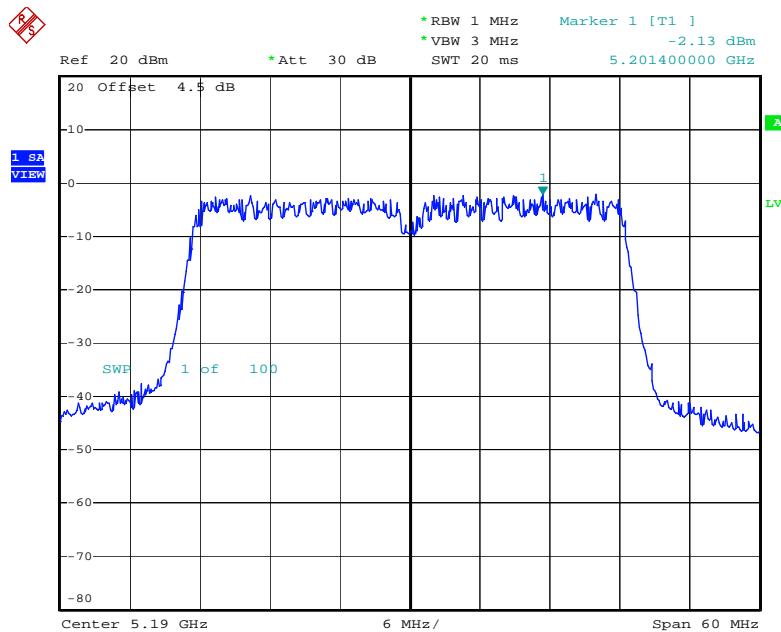
Date: 16.SEP.2009 18:20:23

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5240 MHz



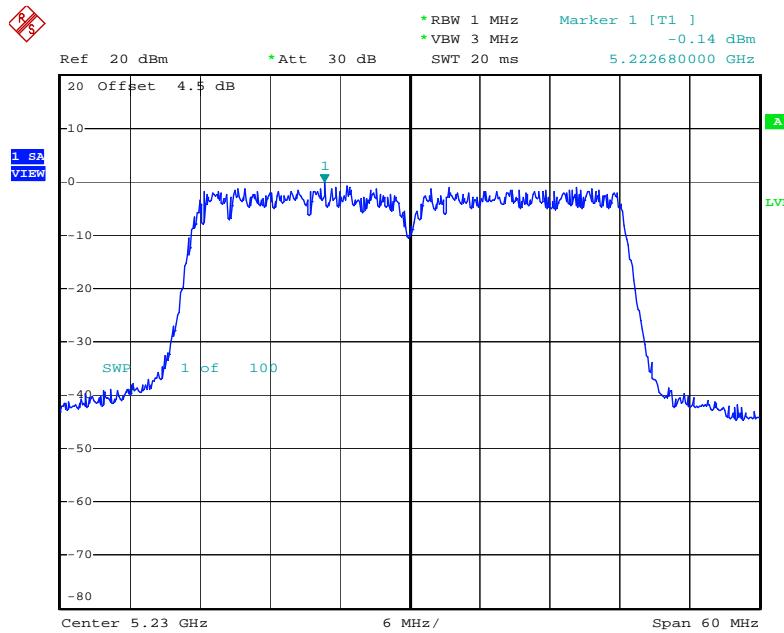
Date: 16.SEP.2009 18:21:13

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3 / 5190 MHz



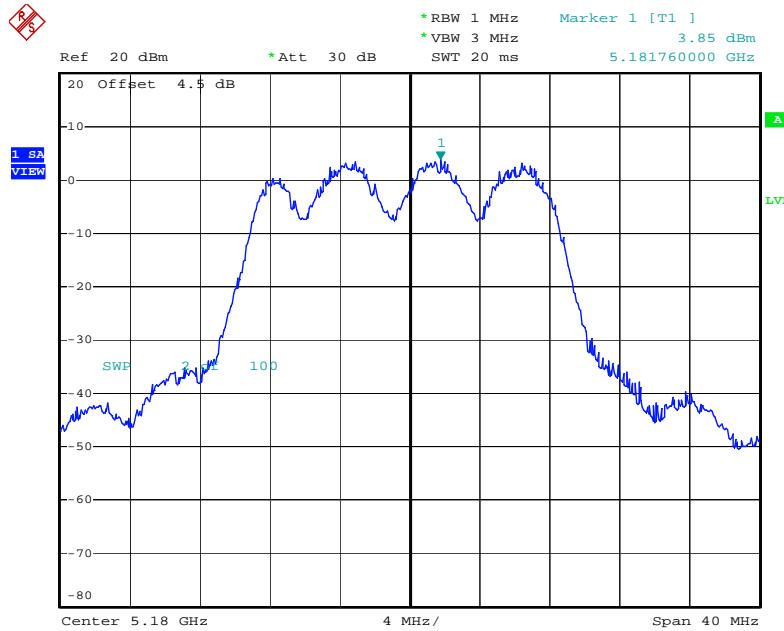
Date: 16.SEP.2009 18:47:44

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3 / 5230 MHz



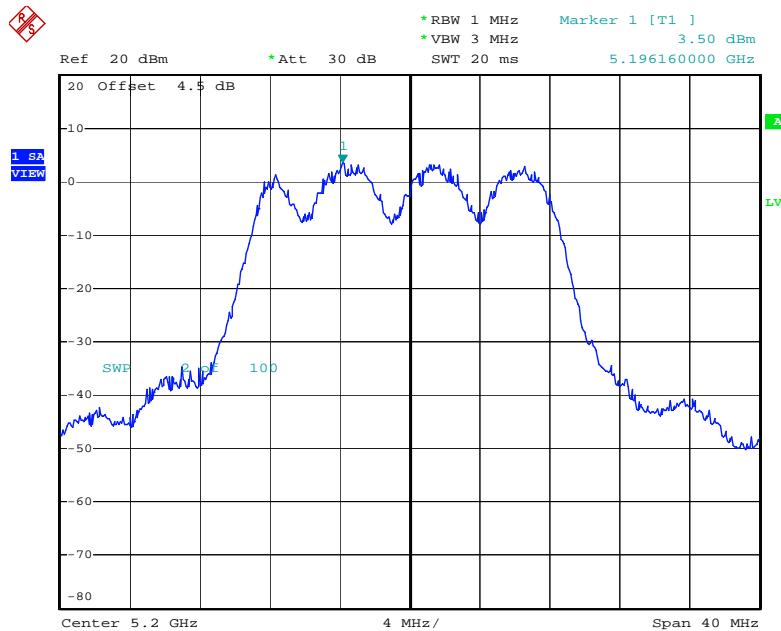
Date: 16.SEP.2009 18:49:54

Power Density Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5180 MHz



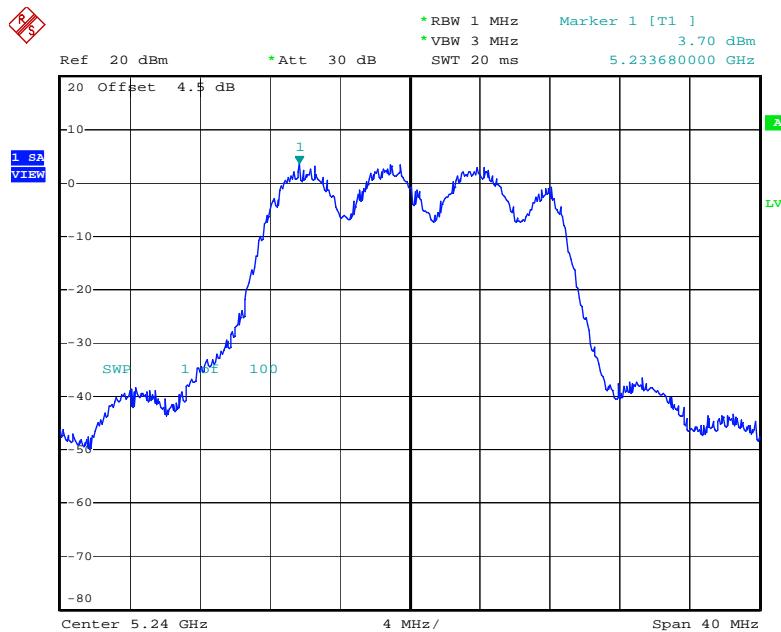
Date: 16.SEP.2009 17:34:43

Power Density Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5200 MHz



Date: 16.SEP.2009 17:37:02

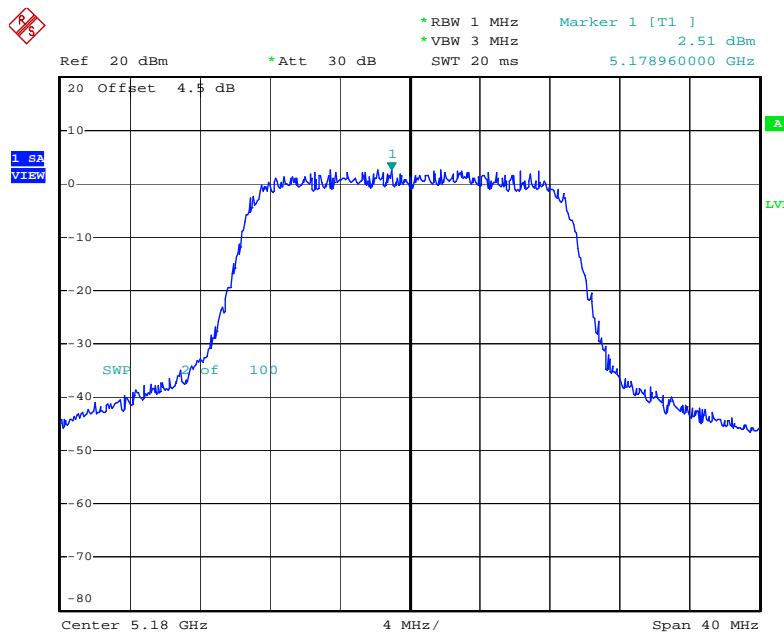
Power Density Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5240 MHz



Date: 16.SEP.2009 17:37:51

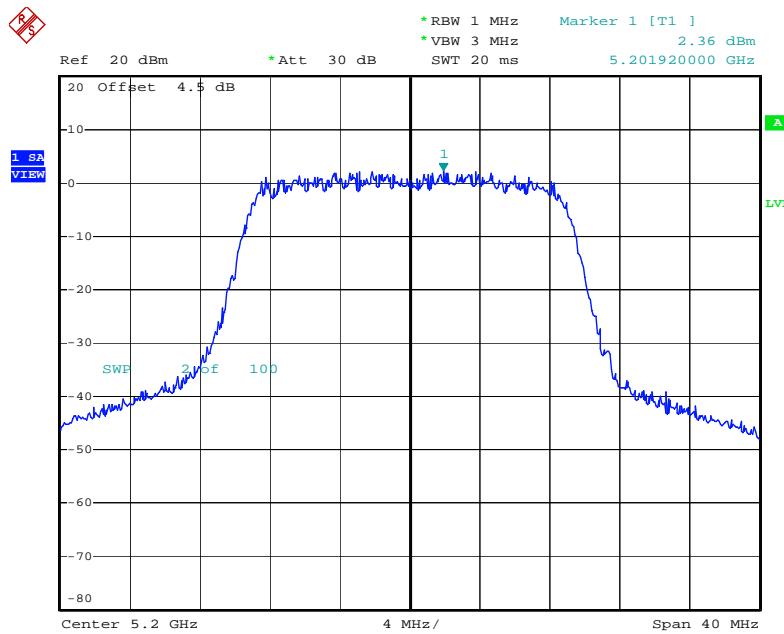
<For Antenna 5>:

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5180 MHz



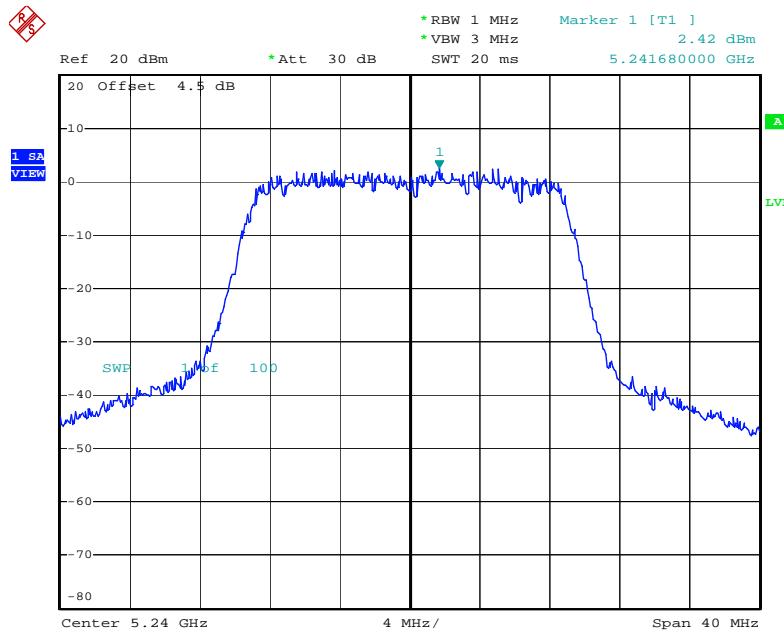
Date: 16.SEP.2009 18:19:31

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5200 MHz



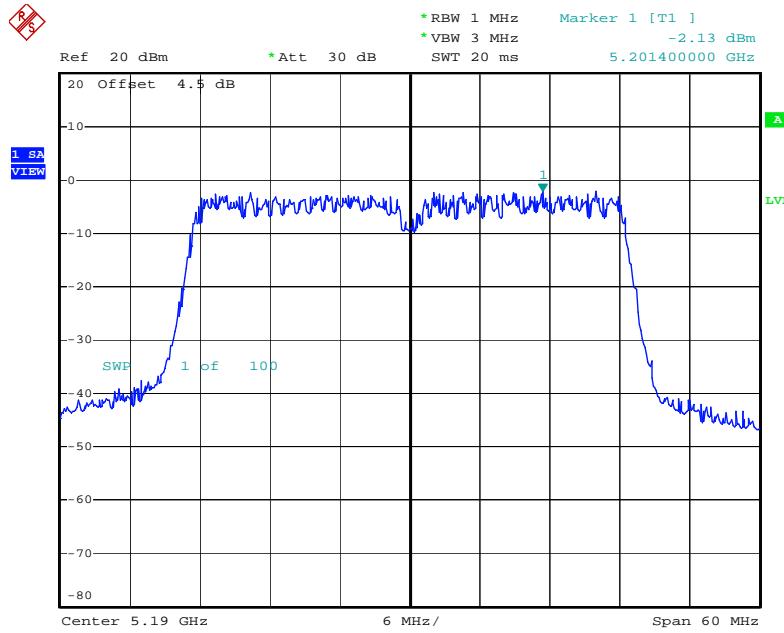
Date: 16.SEP.2009 18:20:23

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5240 MHz



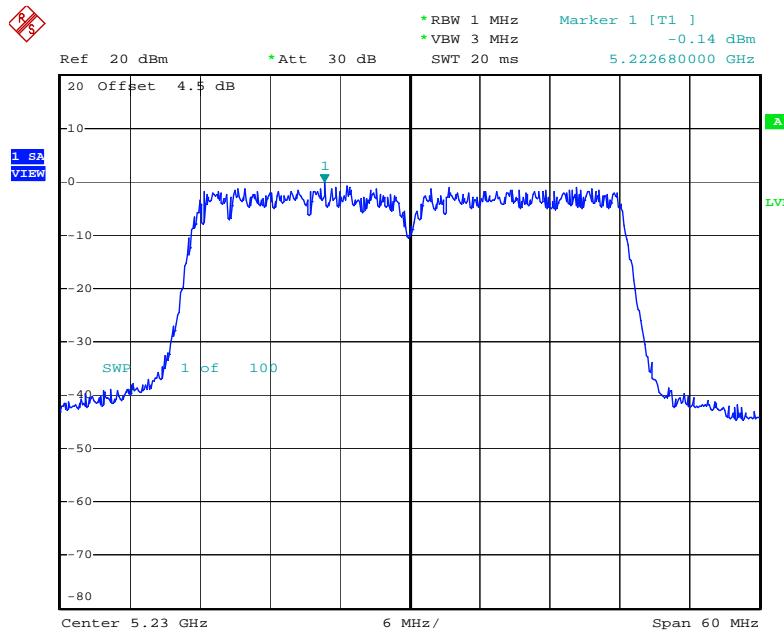
Date: 16.SEP.2009 18:21:13

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3 / 5190 MHz



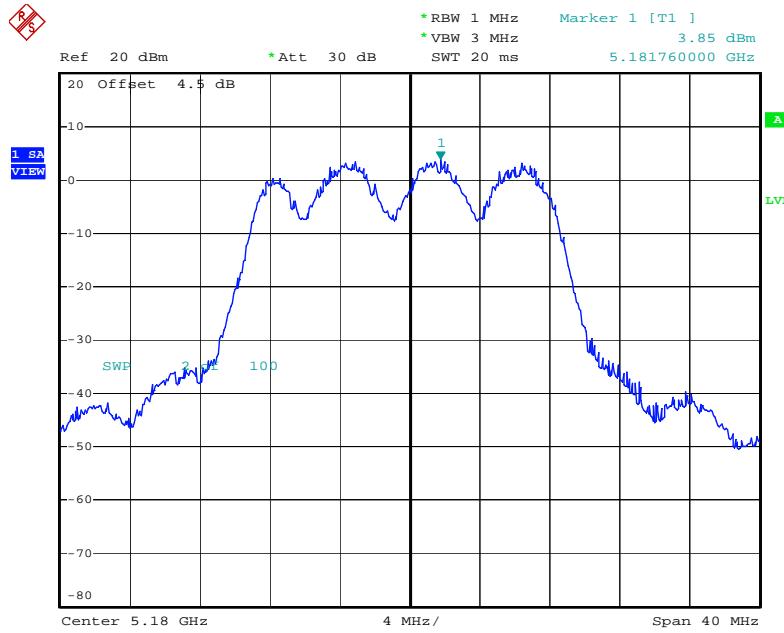
Date: 16.SEP.2009 18:47:44

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3 / 5230 MHz



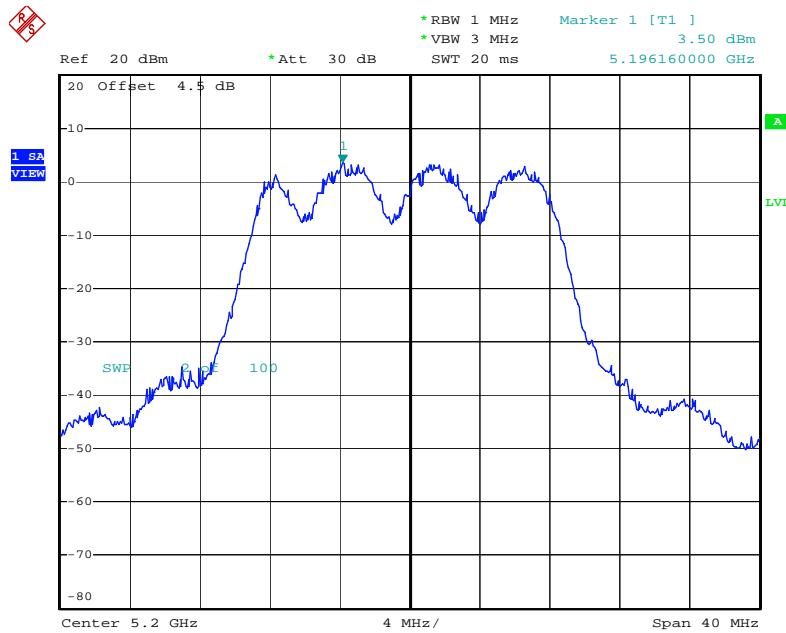
Date: 16.SEP.2009 18:49:54

Power Density Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5180 MHz



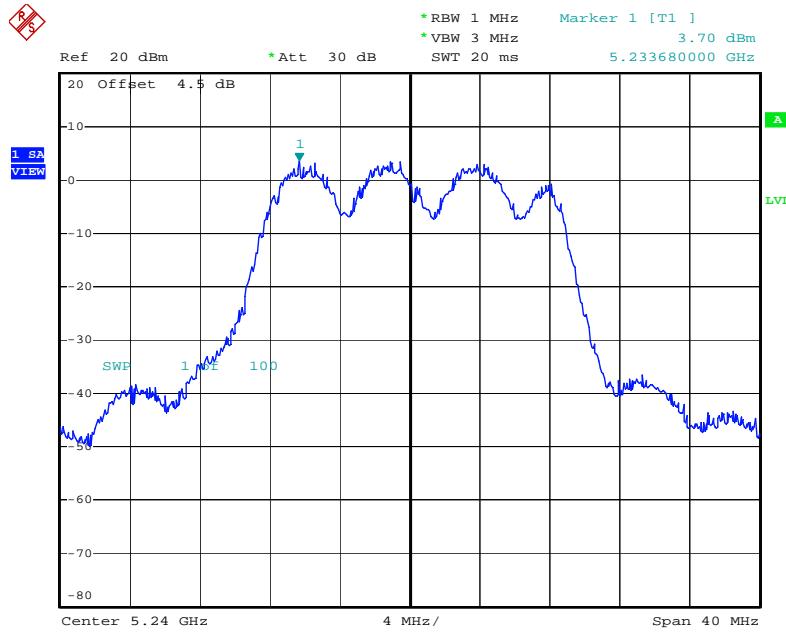
Date: 16.SEP.2009 17:34:43

Power Density Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5200 MHz



Date: 16.SEP.2009 17:37:02

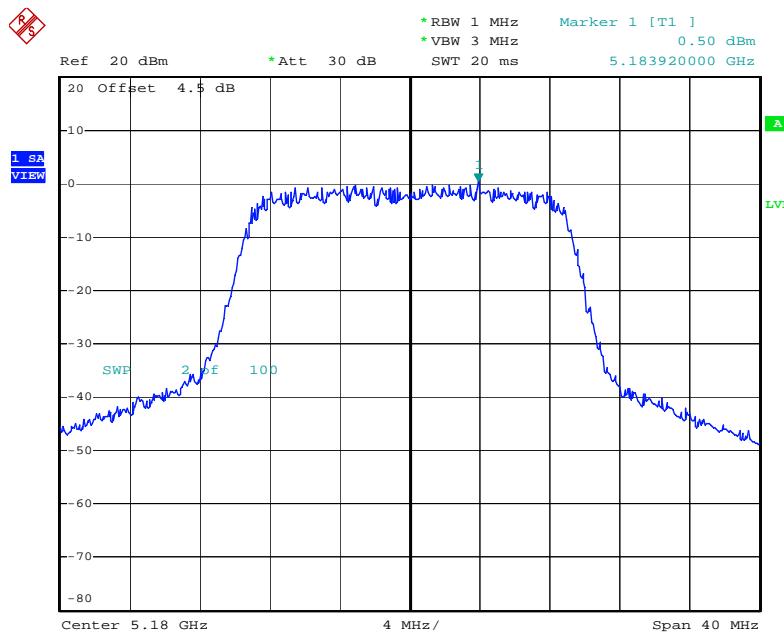
Power Density Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5240 MHz



Date: 16.SEP.2009 17:37:51

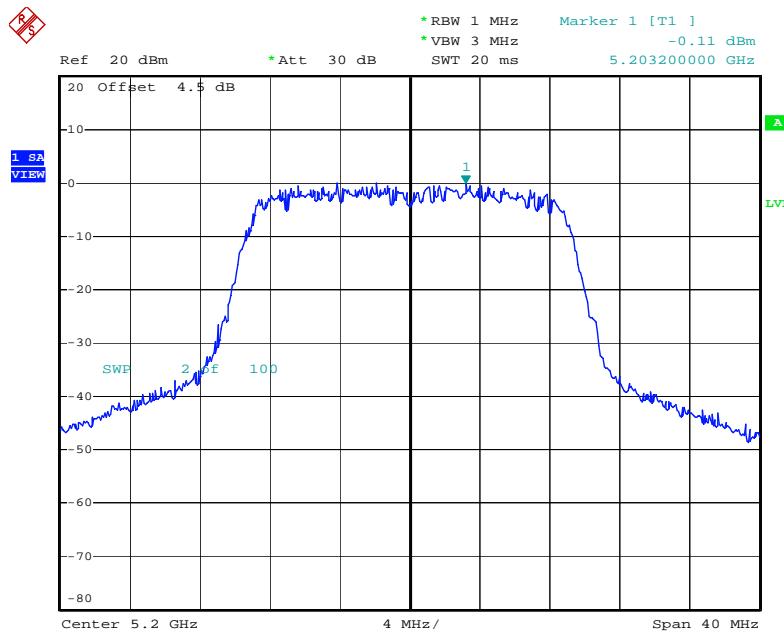
<For Antenna 6>:

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5180 MHz



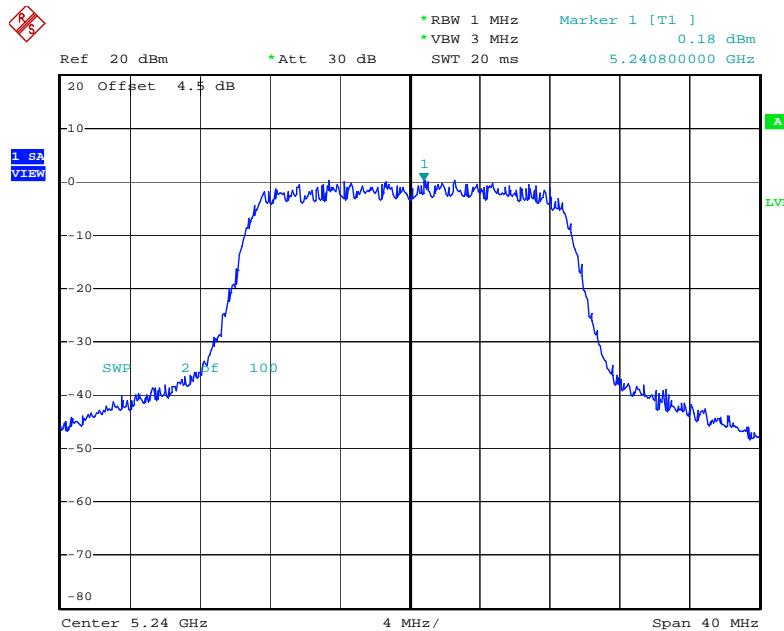
Date: 9.OCT.2009 17:25:13

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5200 MHz



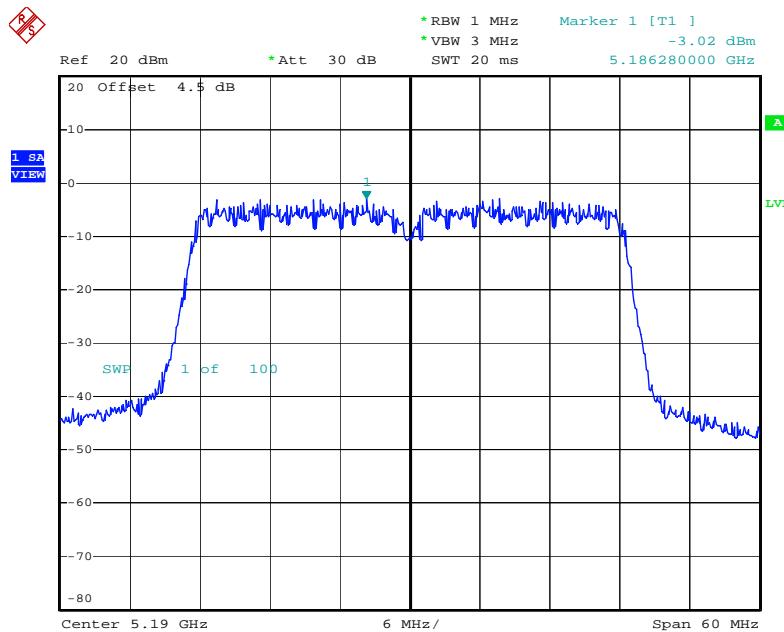
Date: 9.OCT.2009 17:26:02

Power Density Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5240 MHz



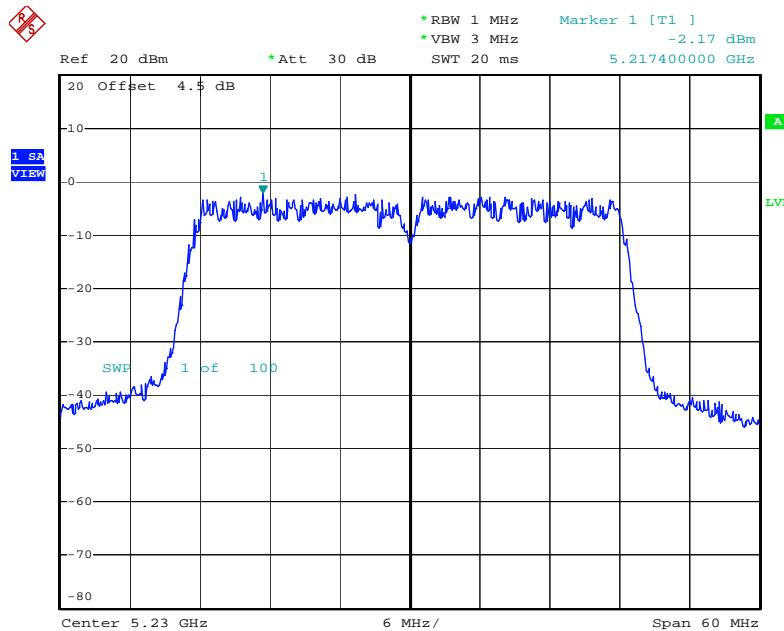
Date: 9.OCT.2009 17:27:05

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3 / 5190 MHz



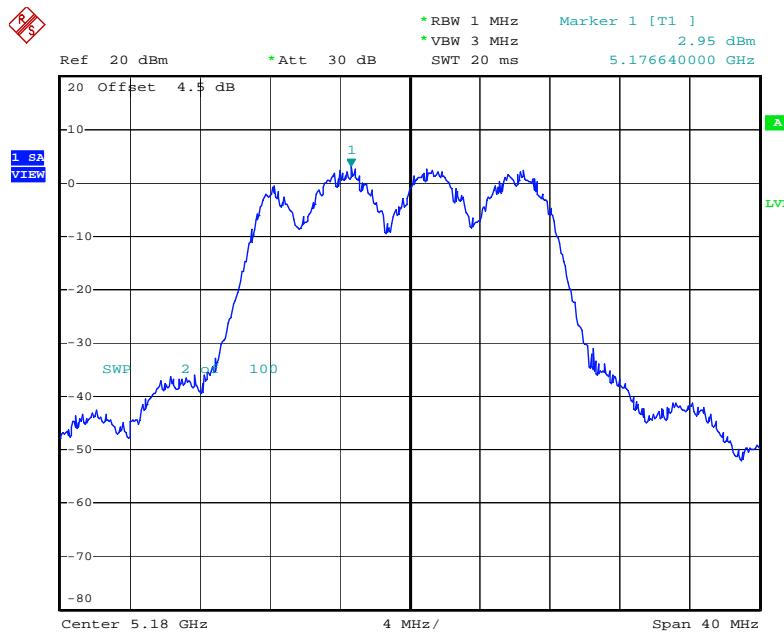
Date: 16.SEP.2009 18:48:35

Power Density Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3 / 5230 MHz



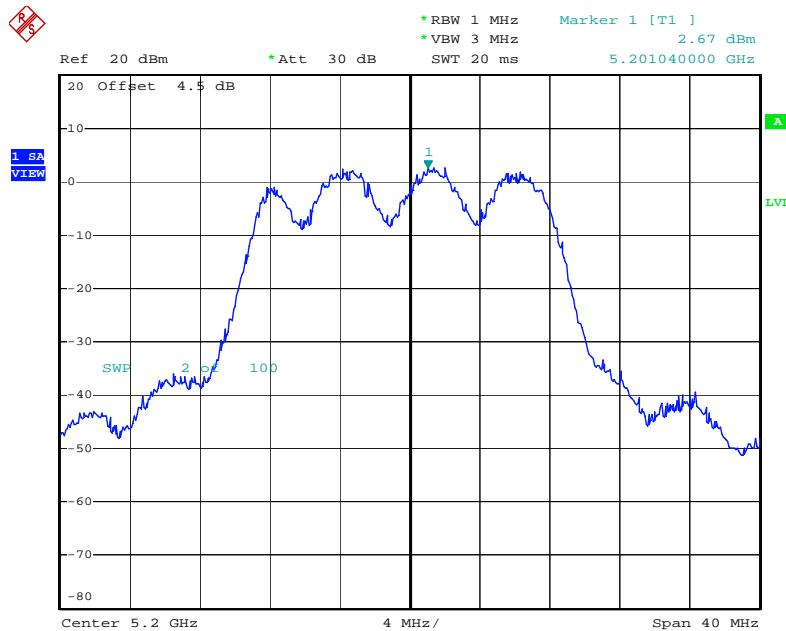
Date: 9.OCT.2009 16:55:32

Power Density Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5180 MHz



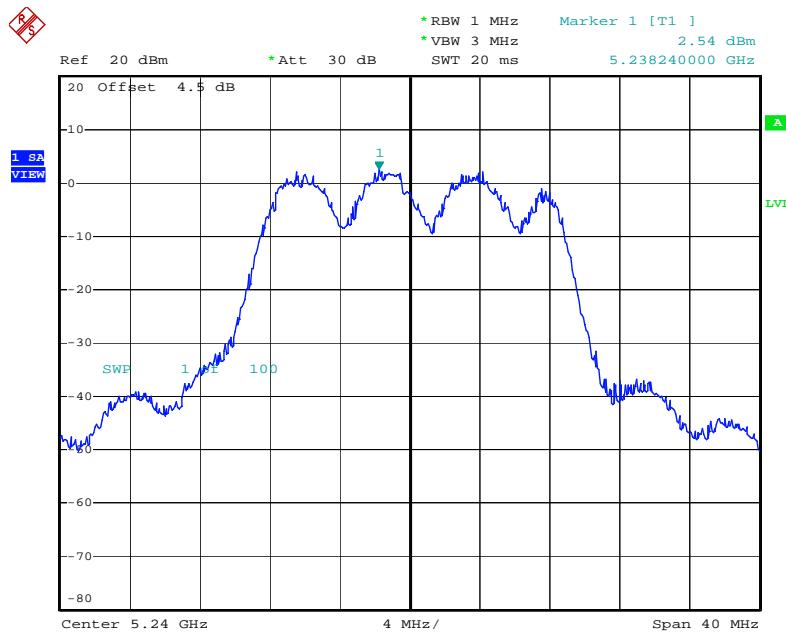
Date: 9.OCT.2009 17:10:28

Power Density Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5200 MHz



Date: 9.OCT.2009 17:15:55

Power Density Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5240 MHz



Date: 9.OCT.2009 17:13:57

4.5. Peak Excursion Measurement

4.5.1. Limit

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emissions bandwidth whichever is less.

4.5.2. Measuring Instruments and Setting

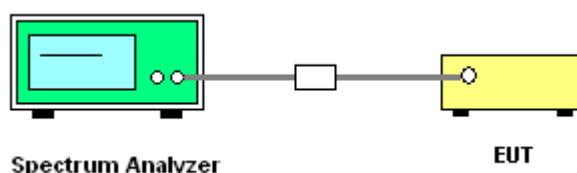
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz (Peak Trace) / 1000 kHz (Average Trace)
VB	3000 kHz (Peak Trace) / 300 kHz (Average Trace)
Detector	Peak (Peak Trace) / Sample (Average Trace)
Trace	Max Hold
Sweep Time	60s

4.5.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Set the spectrum analyzer span to view the entire emissions bandwidth. The largest difference between the following two traces (Peak Trace and Average Trace) must be ≤ 13 dB for all frequencies across the emissions bandwidth. Submit a plot.
3. Peak Trace: Set RBW = 1 MHz, VBW \geq 3 MHz with peak detector and max-hold settings.
4. Average Trace: Method #3—video averaging with max hold--and sum power across the band. Set span to encompass the entire emissions bandwidth (EBW) of the signal. Set sweep trigger to “free run”. Set RBW = 1 MHz. Set VBW $\geq 1/T$ (Draft n VBW = 300kHz $\geq 1/4\mu s$). Use sample detector mode if bin width (i.e., span/number of points in spectrum) < 0.5 RBW. Otherwise use peak detector mode. Set max hold. Allow max hold to run for 60 seconds.
5. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

4.5.4. Test Setup Layout



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. Test Result of Peak Excursion

<For Antenna 1>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 1

Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	6.18	13	Complies
40	5200 MHz	5.71	13	Complies
48	5240 MHz	5.16	13	Complies

Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
38	5190 MHz	5.39	13	Complies
46	5230 MHz	5.83	13	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 1

Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	4.82	13	Complies
40	5200 MHz	4.97	13	Complies
48	5240 MHz	5.33	13	Complies

<For Antenna 2>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 2

Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.21	13	Complies
40	5200 MHz	5.56	13	Complies
48	5240 MHz	5.37	13	Complies

Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
38	5190 MHz	5.11	13	Complies
46	5230 MHz	5.80	13	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 2

Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.45	13	Complies
40	5200 MHz	4.34	13	Complies
48	5240 MHz	4.39	13	Complies



<For Antenna 3>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 3

Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.21	13	Complies
40	5200 MHz	5.56	13	Complies
48	5240 MHz	5.37	13	Complies

Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
38	5190 MHz	5.11	13	Complies
46	5230 MHz	5.80	13	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 3

Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.45	13	Complies
40	5200 MHz	4.34	13	Complies
48	5240 MHz	4.39	13	Complies



<For Antenna 4>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 4

Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.21	13	Complies
40	5200 MHz	5.56	13	Complies
48	5240 MHz	5.37	13	Complies

Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
38	5190 MHz	5.11	13	Complies
46	5230 MHz	5.80	13	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 4

Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.45	13	Complies
40	5200 MHz	4.34	13	Complies
48	5240 MHz	4.39	13	Complies



<For Antenna 5>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 5

Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.21	13	Complies
40	5200 MHz	5.56	13	Complies
48	5240 MHz	5.37	13	Complies

Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
38	5190 MHz	5.11	13	Complies
46	5230 MHz	5.80	13	Complies

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 5

Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	5.45	13	Complies
40	5200 MHz	4.34	13	Complies
48	5240 MHz	4.39	13	Complies



<For Antenna 6>:

Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	Draft n / Antenna 6

Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	6.18	13	Complies
40	5200 MHz	5.71	13	Complies
48	5240 MHz	5.16	13	Complies

Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
38	5190 MHz	4.84	13	Complies
46	5230 MHz	5.83	13	Complies

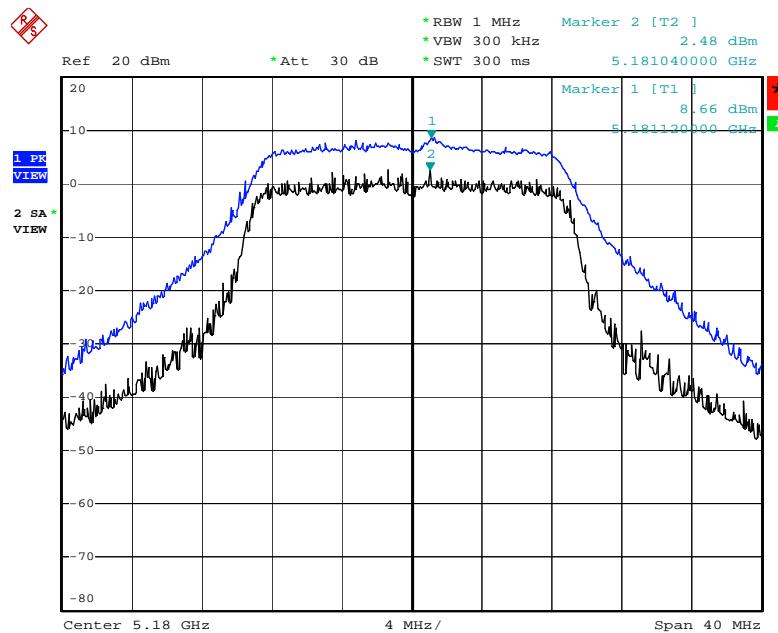
Temperature	21°C	Humidity	56%
Test Engineer	Johnson Chang	Configurations	802.11a / Antenna 6

Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
36	5180 MHz	4.82	13	Complies
40	5200 MHz	4.97	13	Complies
48	5240 MHz	5.33	13	Complies

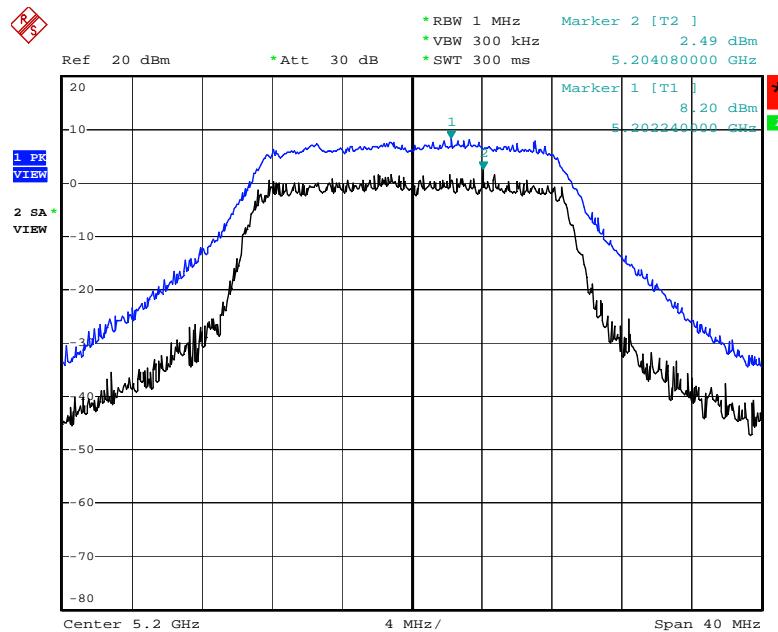
<For Antenna 1>:

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5180 MHz



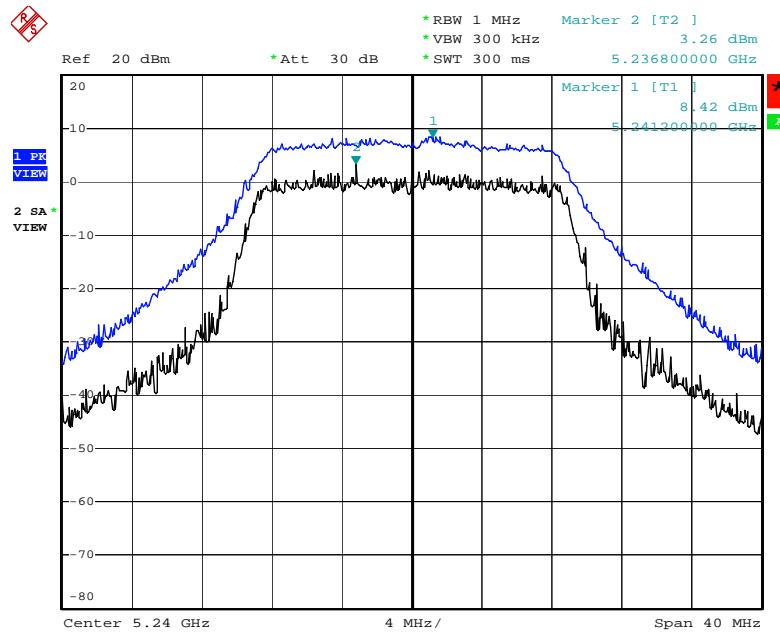
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Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5200 MHz



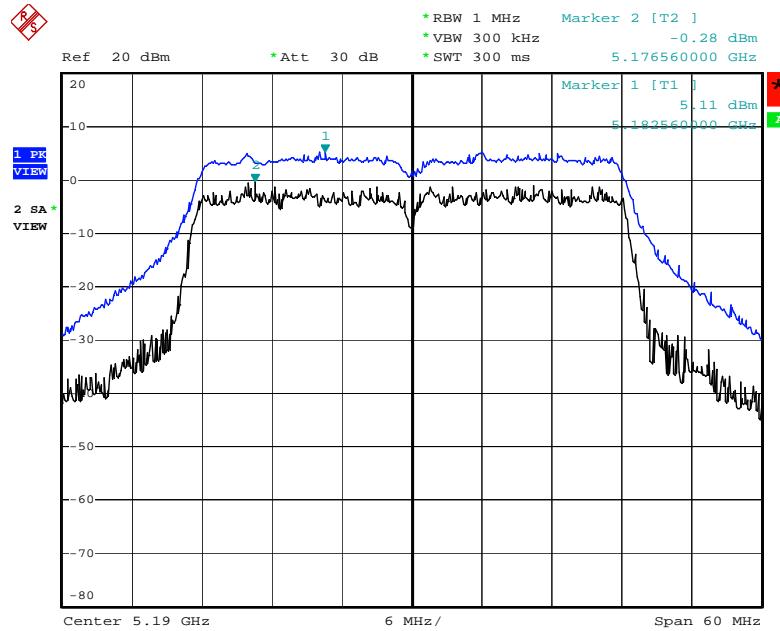
Date: 9.OCT.2009 17:26:23

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 1-1 + Ant. 1-3 / 5240 MHz



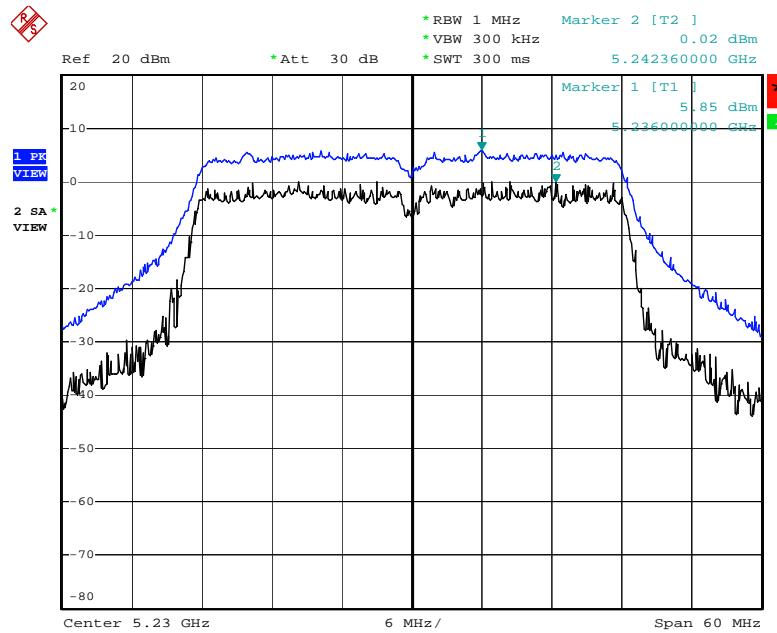
Date: 9.OCT.2009 17:27:26

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3 / 5190 MHz



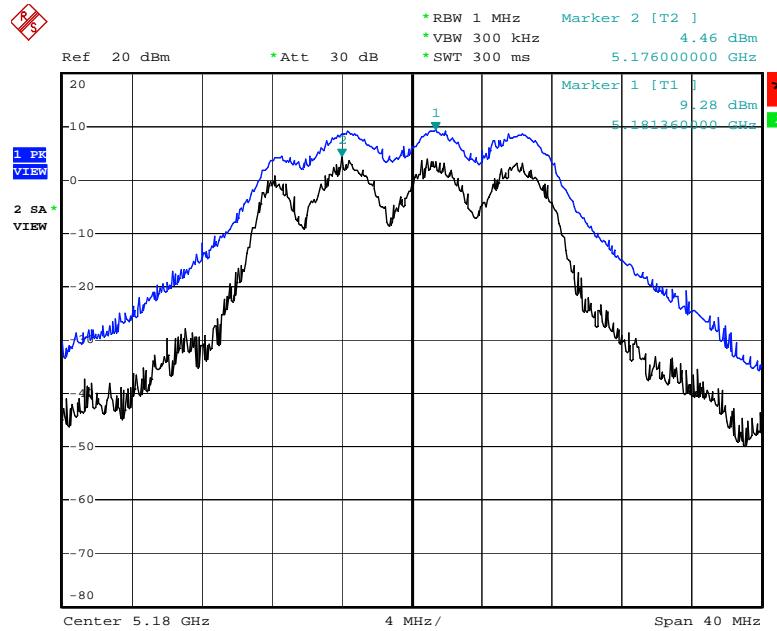
Date: 9.OCT.2009 16:56:58

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 1-1 + Ant. 1-3 / 5230 MHz



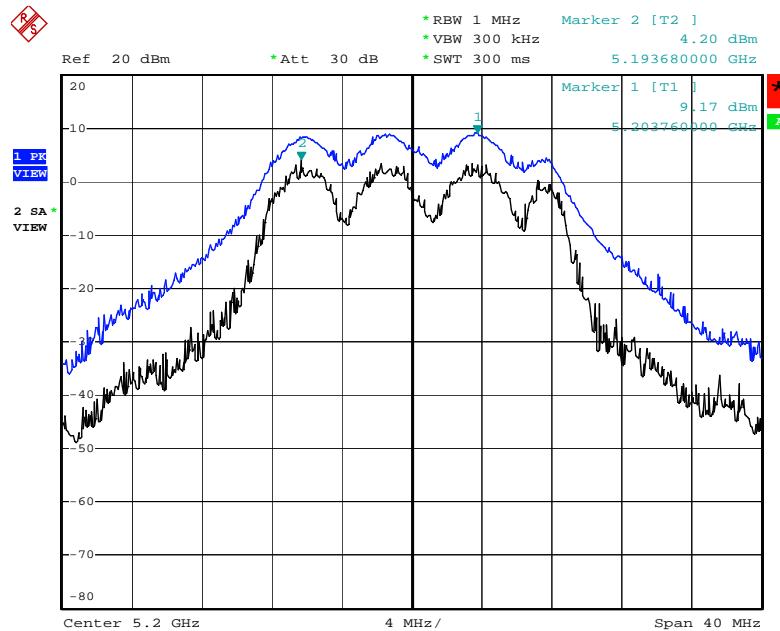
Date: 9.OCT.2009 16:55:53

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5180 MHz



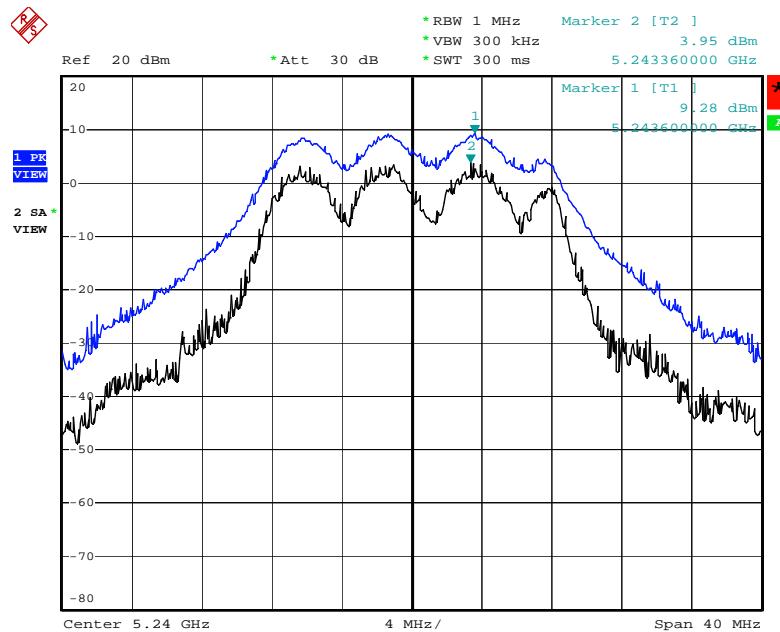
Date: 9.OCT.2009 17:10:49

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5200 MHz



Date: 9.OCT.2009 17:13:25

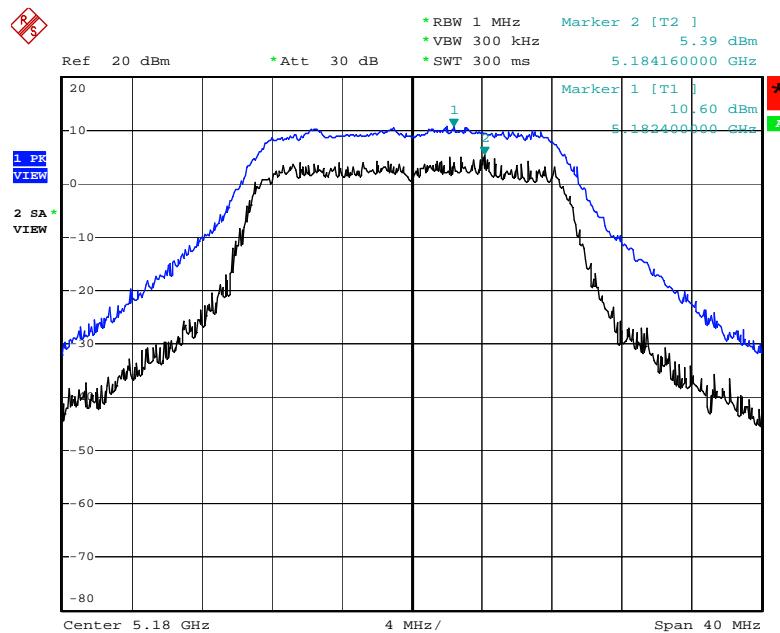
Peak Excusion Plot on Configuration IEEE 802.11a Ant. 1-1 + Ant. 1-3 / 5240 MHz



Date: 9.OCT.2009 17:14:18

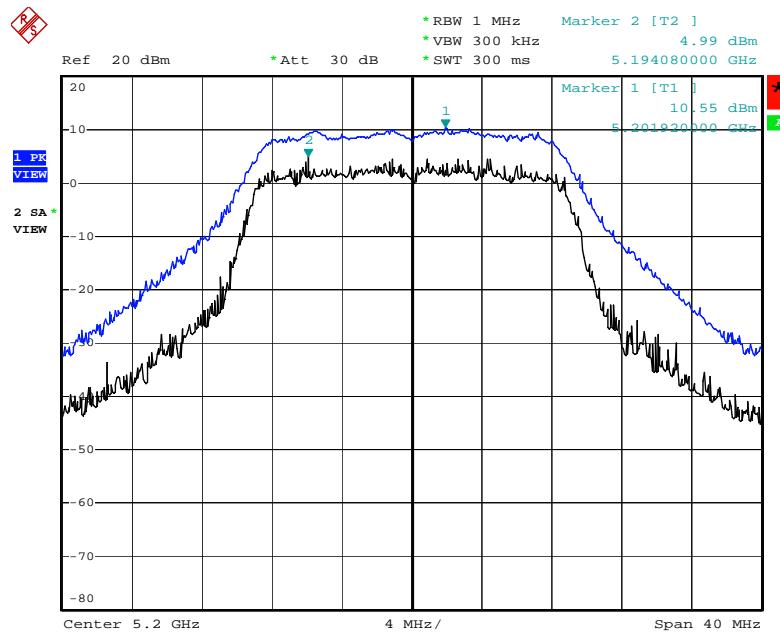
<For Antenna 2>:

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5180 MHz



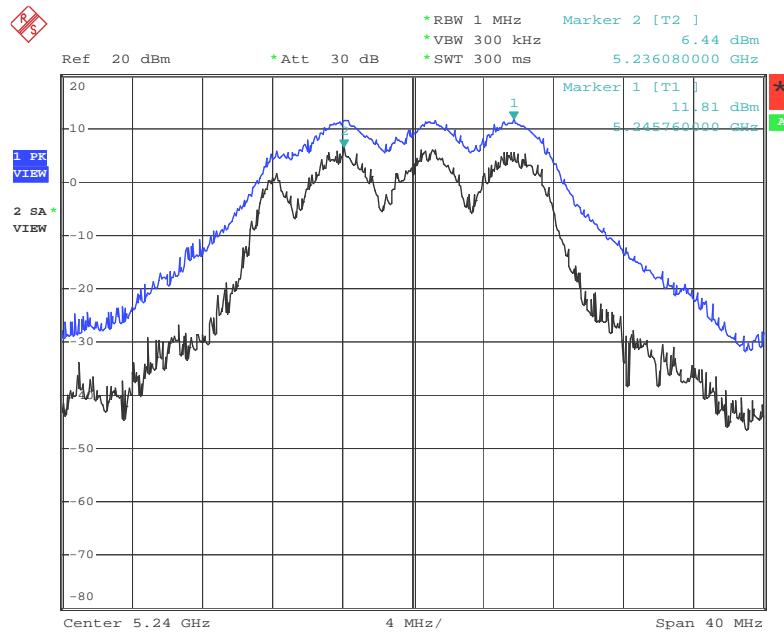
Date: 16.SEP.2009 18:19:58

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5200 MHz



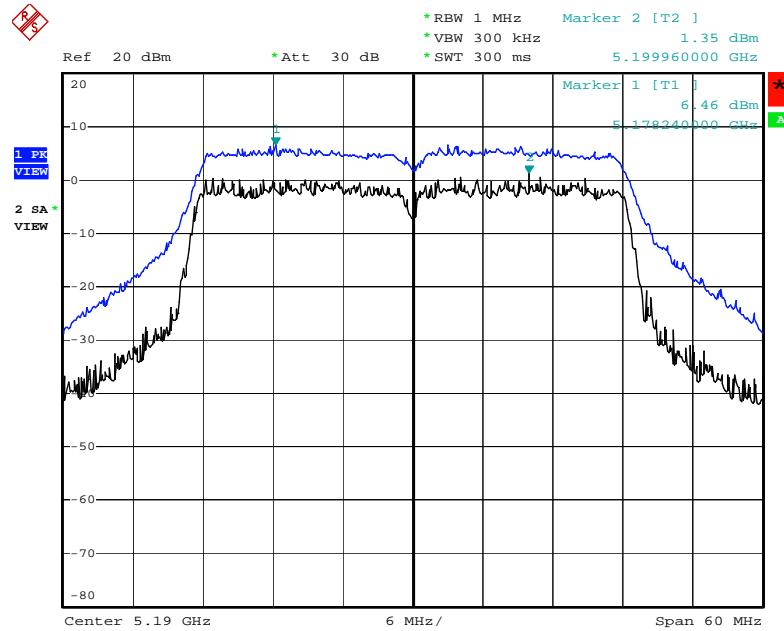
Date: 16.SEP.2009 18:20:50

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 2-1 + Ant. 2-3 / 5240 MHz



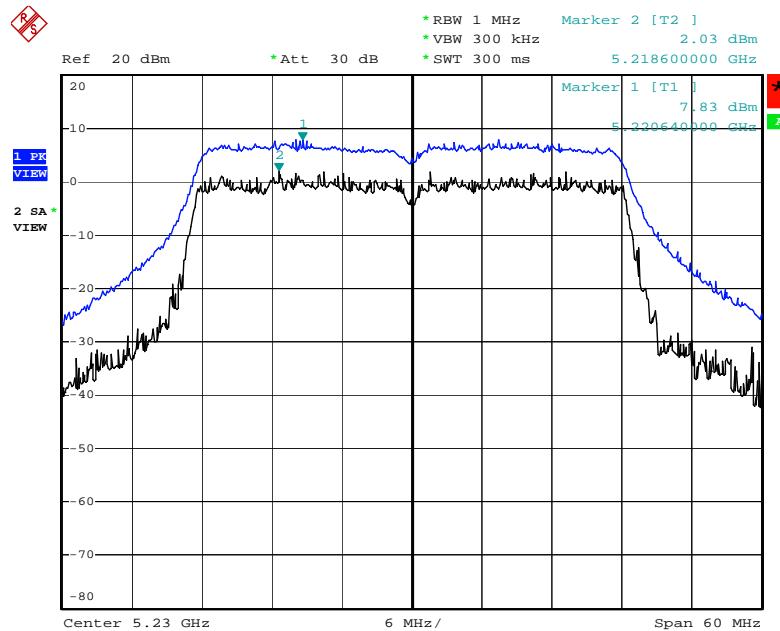
Date: 16.SEP.2009 22:59:38

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3 / 5190 MHz



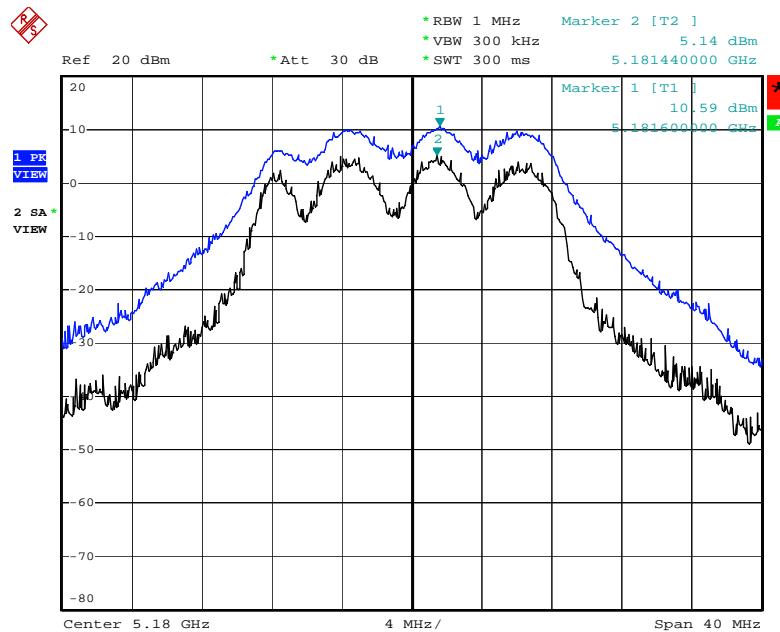
Date: 16.SEP.2009 18:48:11

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 2-1 + Ant. 2-3 / 5230 MHz



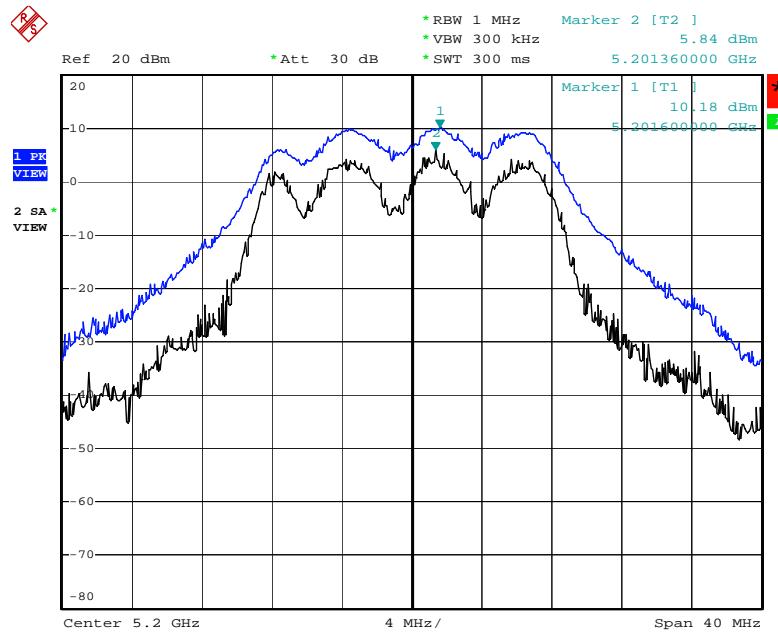
Date: 16.SEP.2009 18:50:21

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5180 MHz



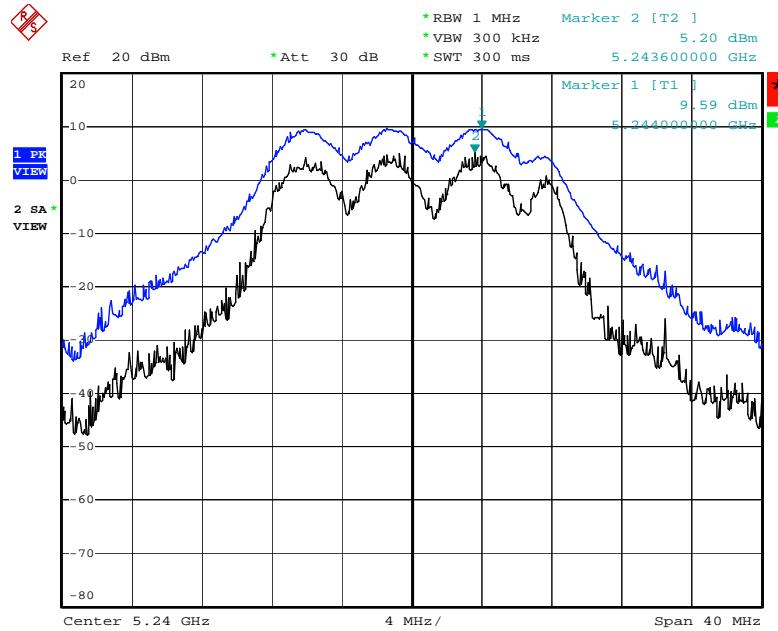
Date: 16.SEP.2009 17:35:10

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5200 MHz



Date: 16.SEP.2009 17:37:29

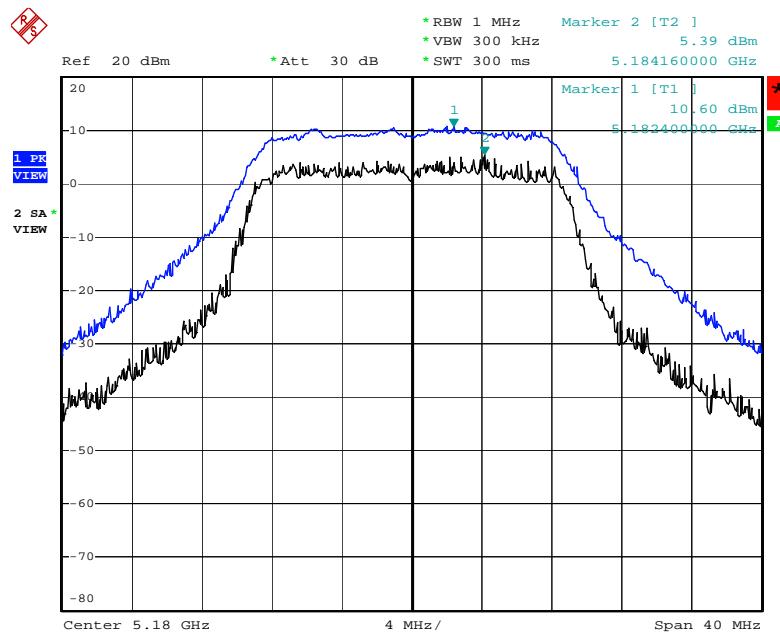
Peak Excusion Plot on Configuration IEEE 802.11a Ant. 2-1 + Ant. 2-3 / 5240 MHz



Date: 16.SEP.2009 17:38:18

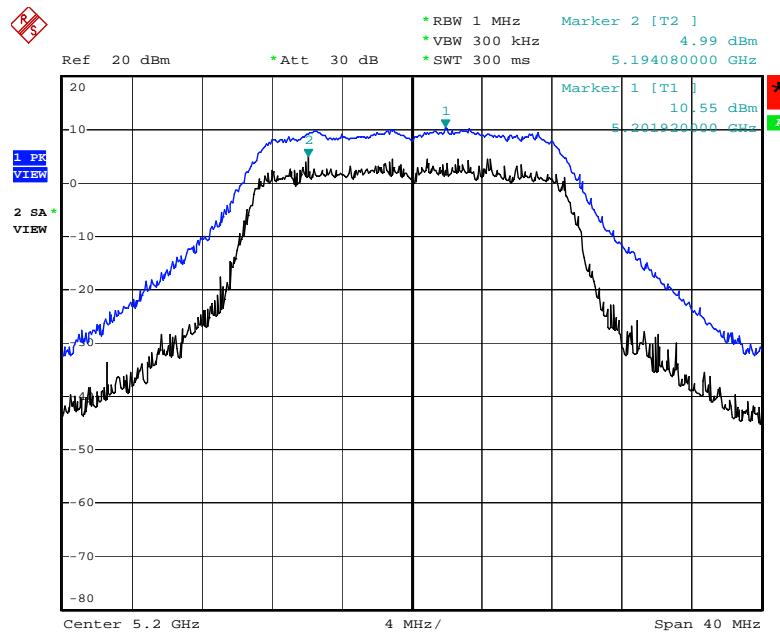
<For Antenna 3>:

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5180 MHz



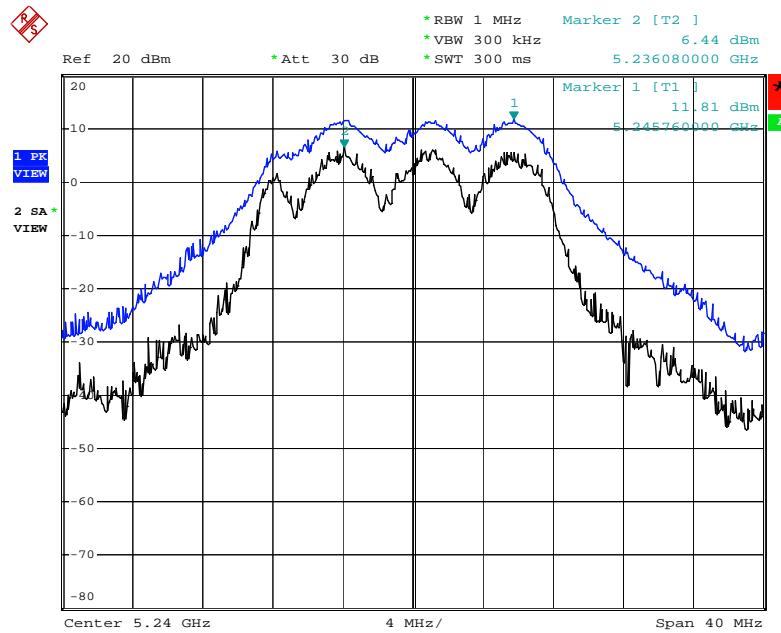
Date: 16.SEP.2009 18:19:58

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5200 MHz



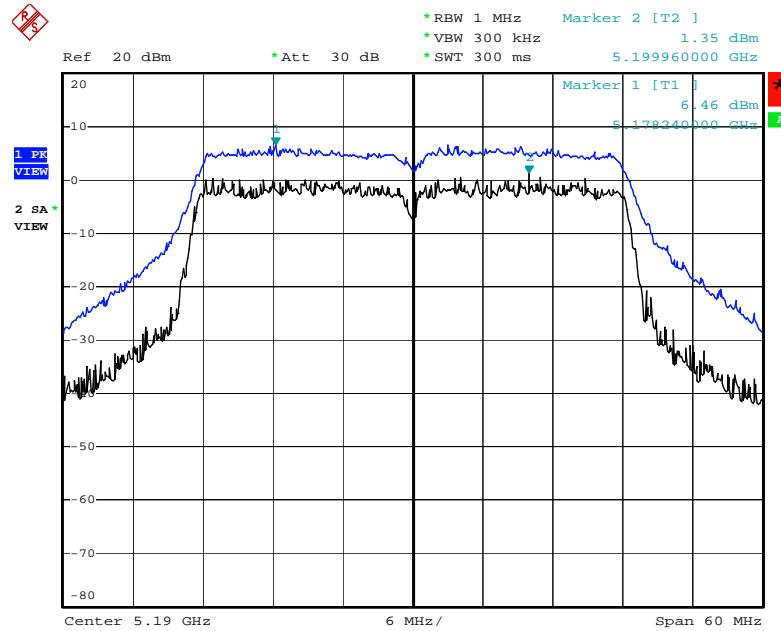
Date: 16.SEP.2009 18:20:50

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 3-1 + Ant. 3-3 / 5240 MHz



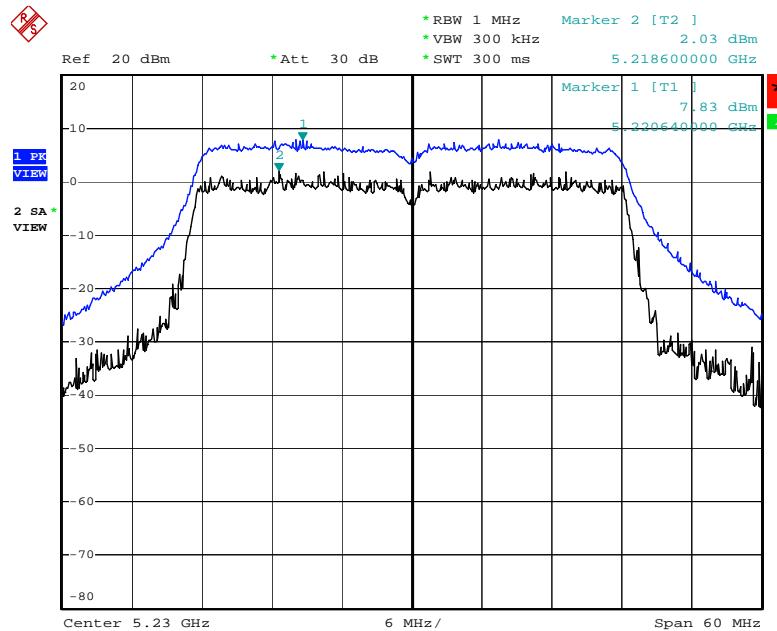
Date: 16.SEP.2009 22:59:38

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3 / 5190 MHz



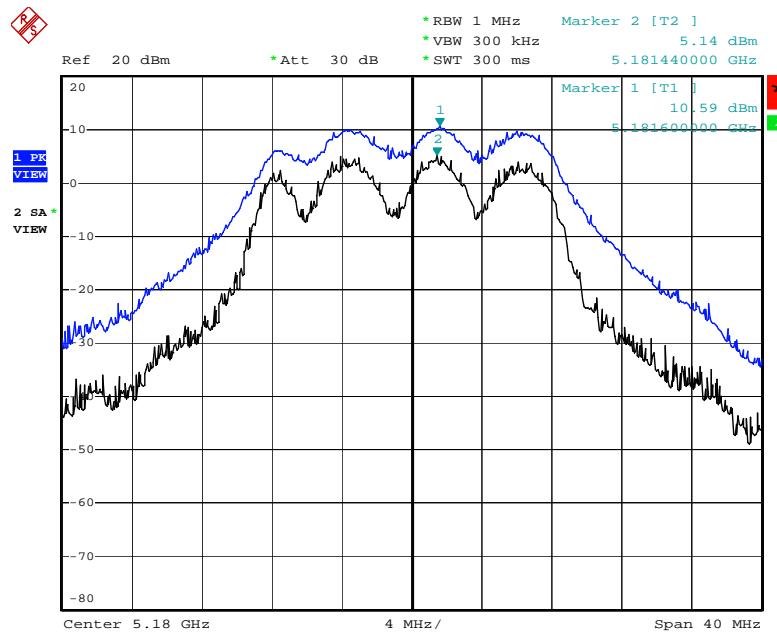
Date: 16.SEP.2009 18:48:11

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 3-1 + Ant. 3-3 / 5230 MHz



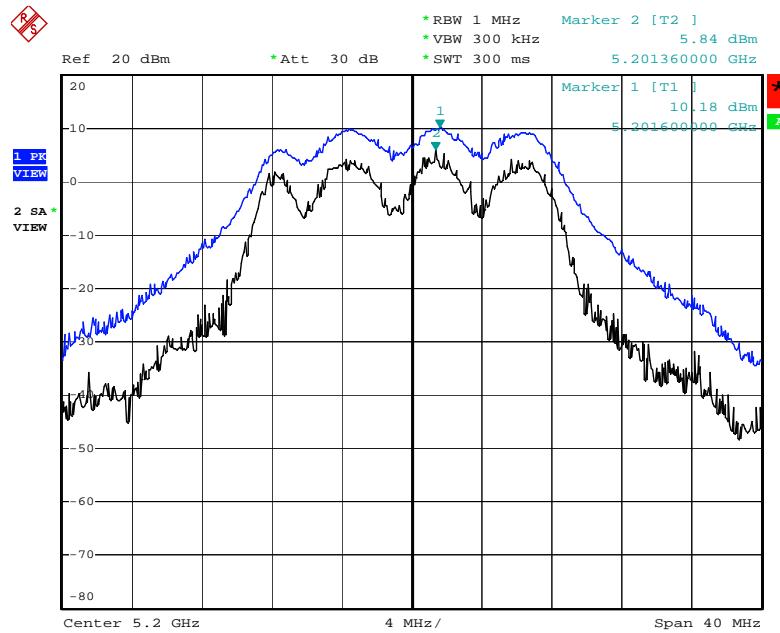
Date: 16.SEP.2009 18:50:21

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5180 MHz



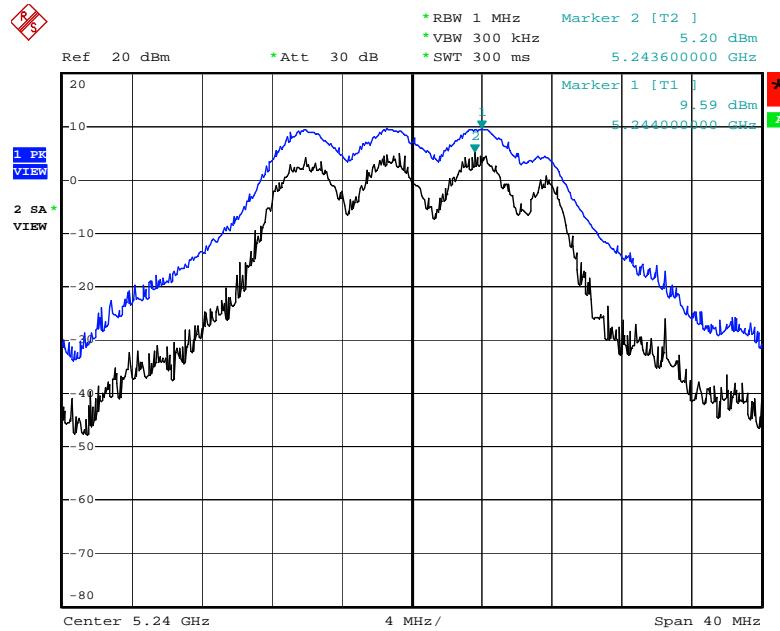
Date: 16.SEP.2009 17:35:10

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5200 MHz



Date: 16.SEP.2009 17:37:29

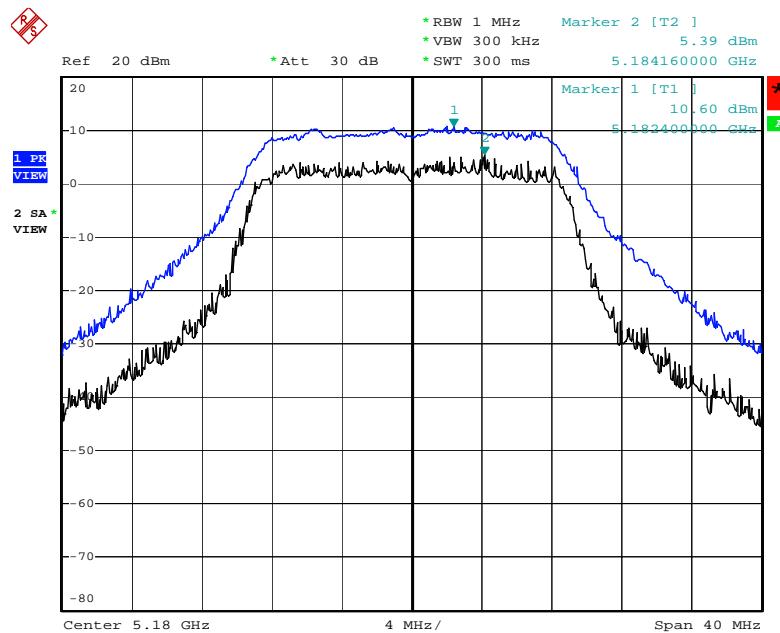
Peak Excusion Plot on Configuration IEEE 802.11a Ant. 3-1 + Ant. 3-3 / 5240 MHz



Date: 16.SEP.2009 17:38:18

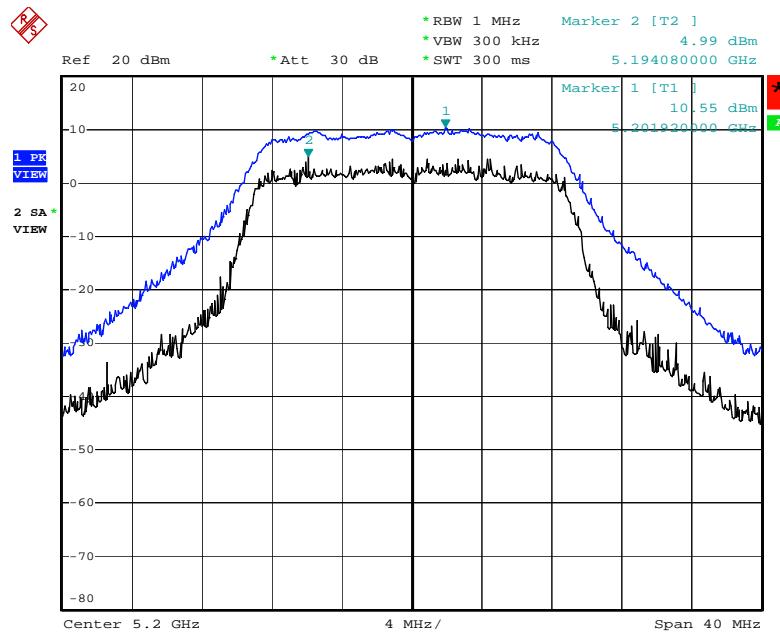
<For Antenna 4>:

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5180 MHz



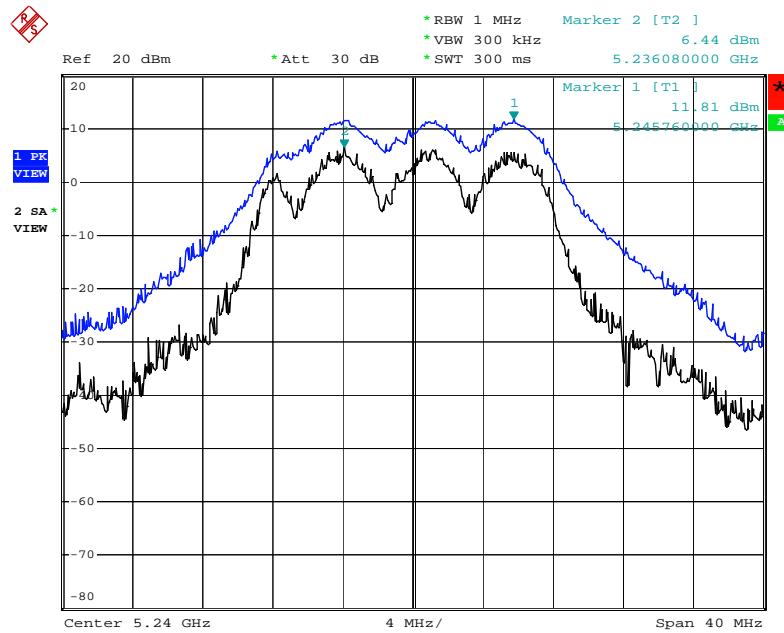
Date: 16.SEP.2009 18:19:58

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5200 MHz



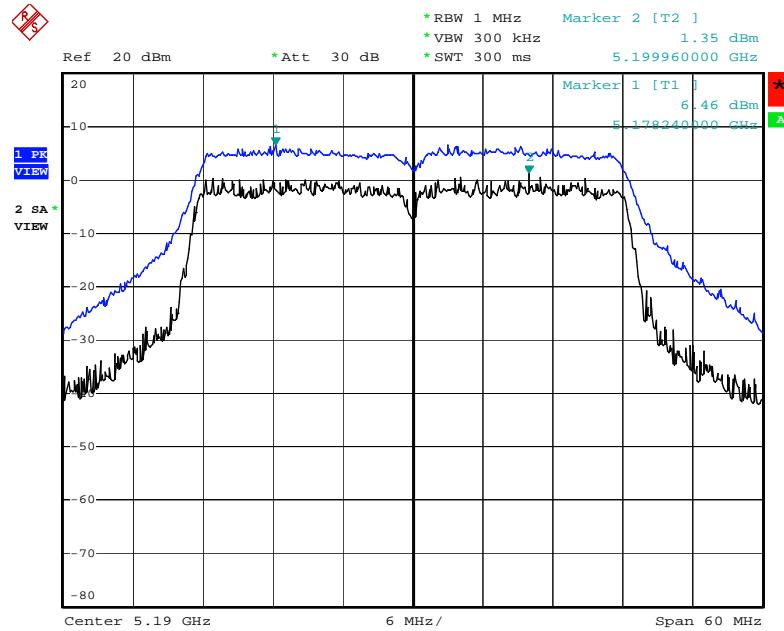
Date: 16.SEP.2009 18:20:50

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 4-1 + Ant. 4-3 / 5240 MHz



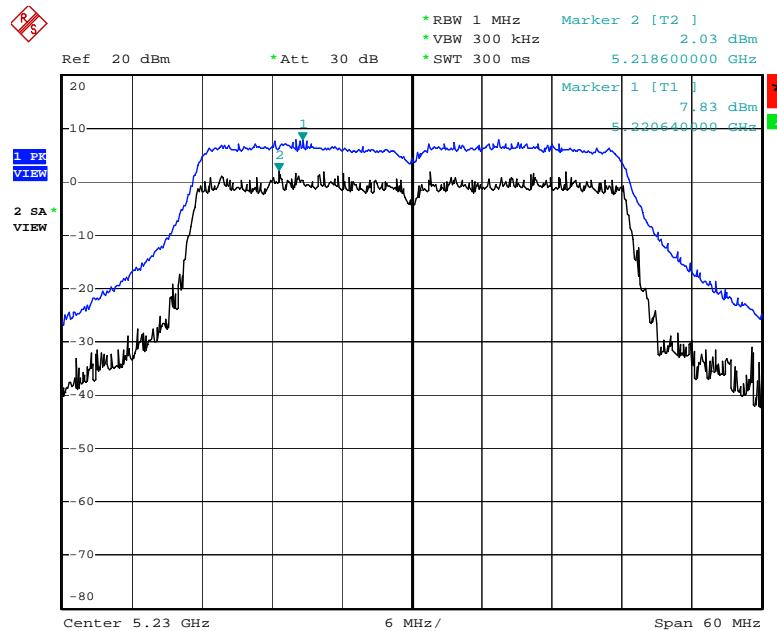
Date: 16.SEP.2009 22:59:38

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3 / 5190 MHz



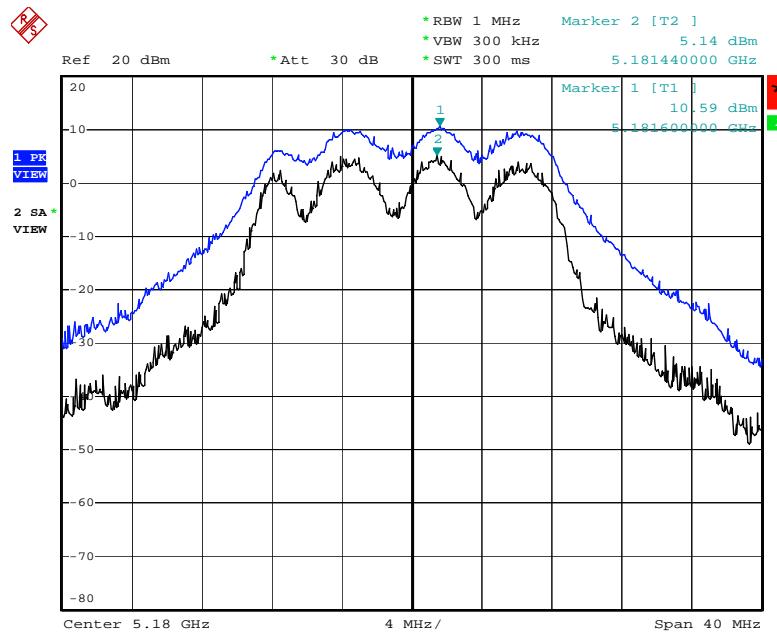
Date: 16.SEP.2009 18:48:11

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 4-1 + Ant. 4-3 / 5230 MHz



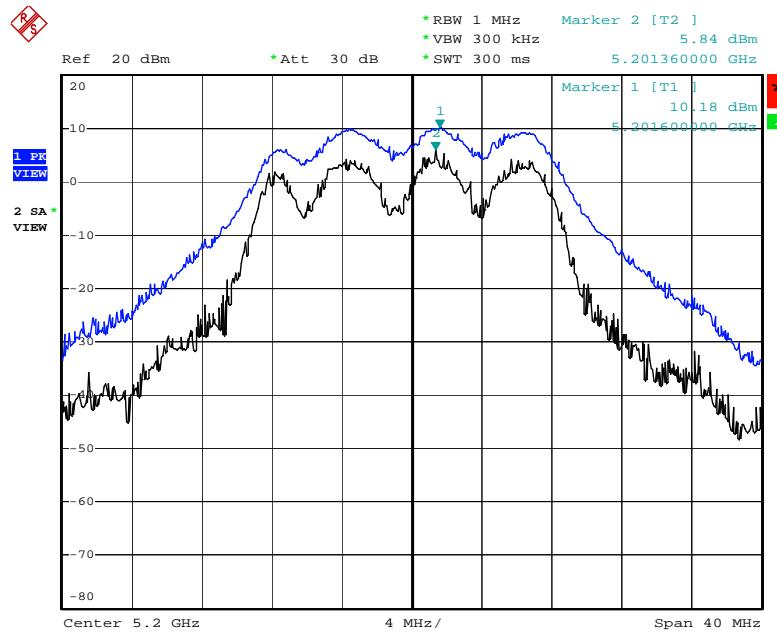
Date: 16.SEP.2009 18:50:21

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5180 MHz



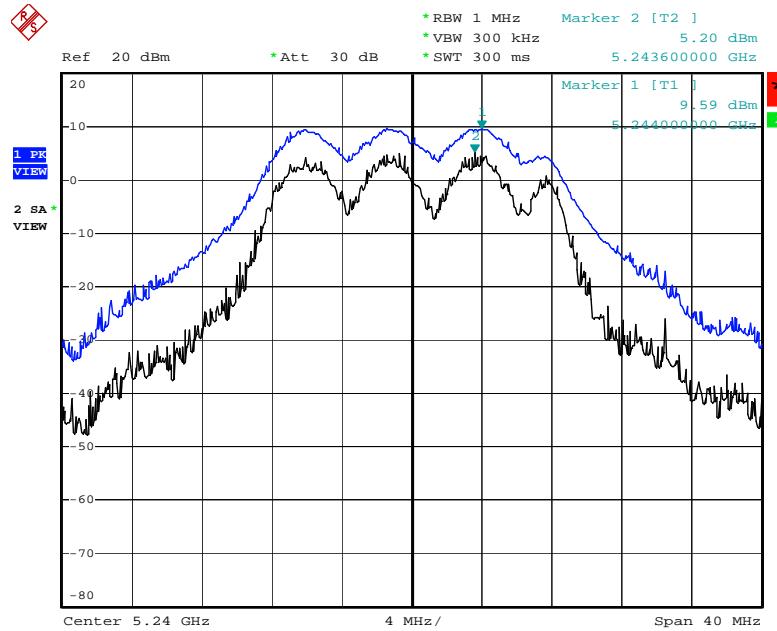
Date: 16.SEP.2009 17:35:10

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5200 MHz



Date: 16.SEP.2009 17:37:29

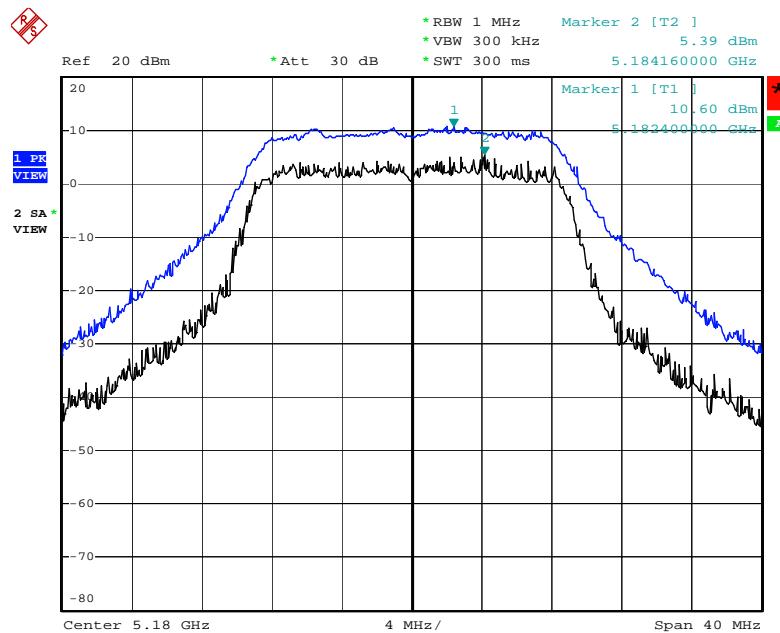
Peak Excusion Plot on Configuration IEEE 802.11a Ant. 4-1 + Ant. 4-3 / 5240 MHz



Date: 16.SEP.2009 17:38:18

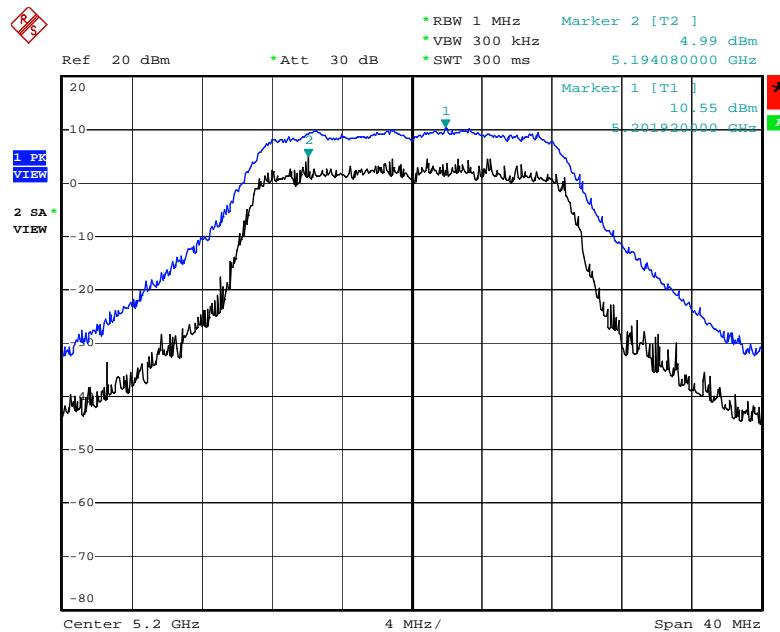
<For Antenna 5>:

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5180 MHz



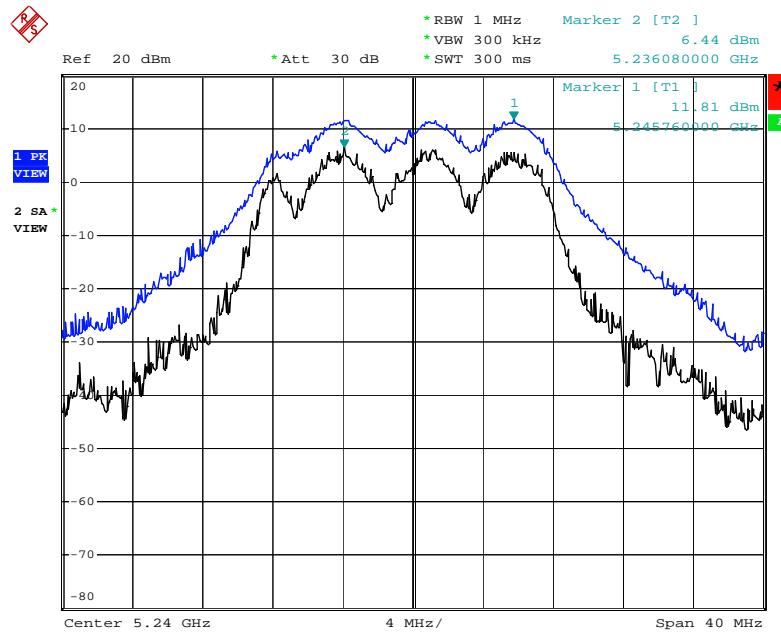
Date: 16.SEP.2009 18:19:58

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5200 MHz



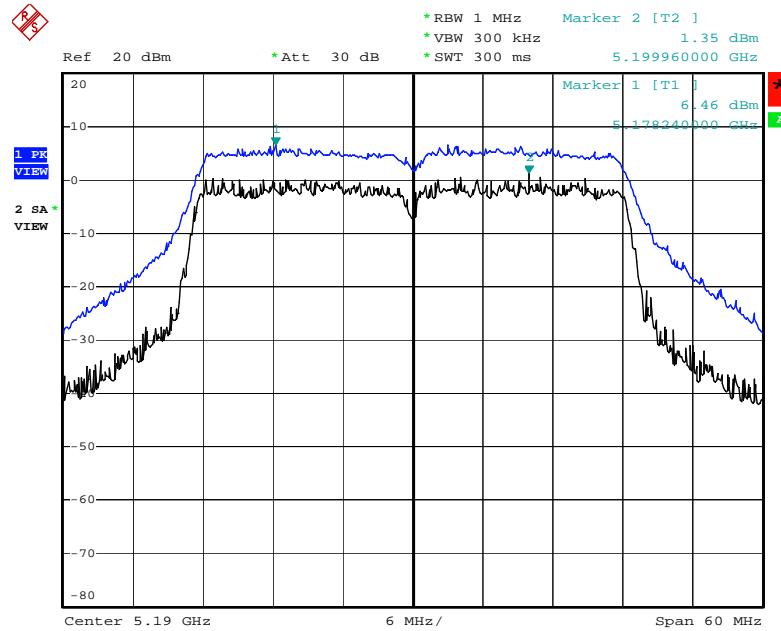
Date: 16.SEP.2009 18:20:50

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 5-1 + Ant. 5-3 / 5240 MHz



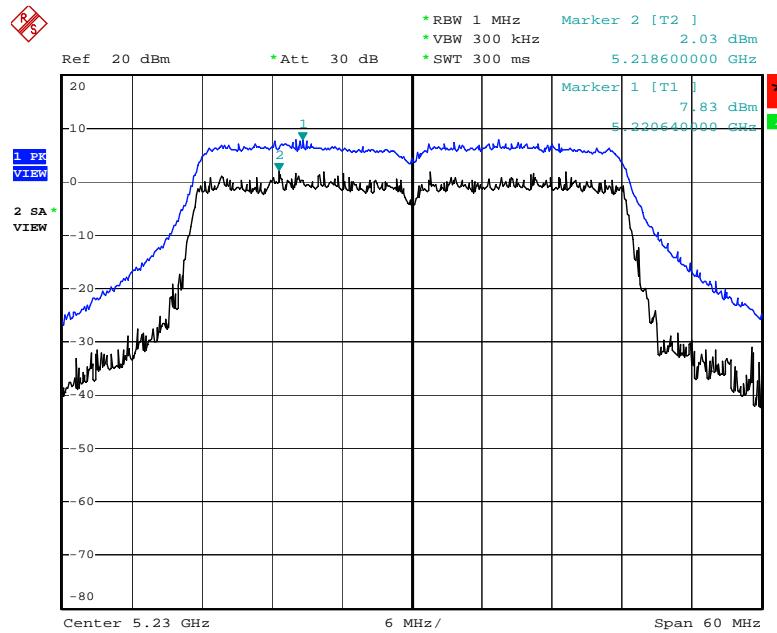
Date: 16.SEP.2009 22:59:38

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3 / 5190 MHz



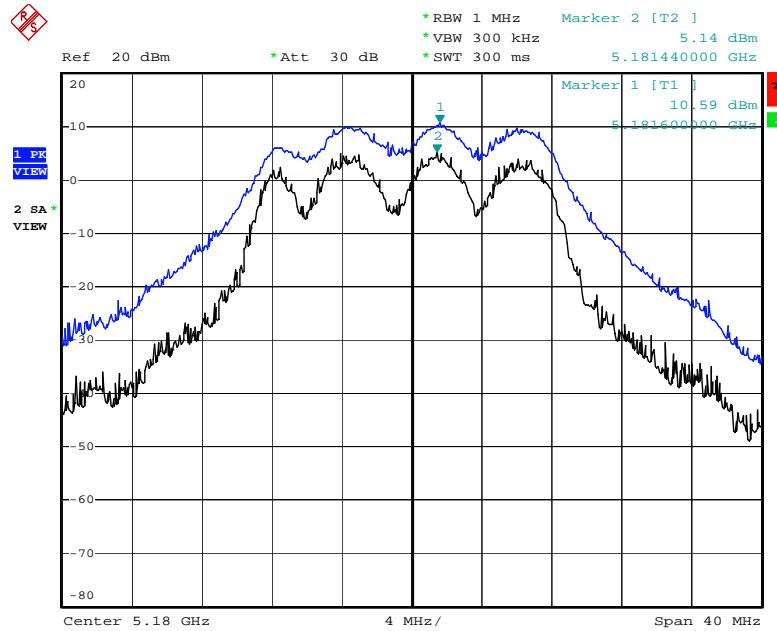
Date: 16.SEP.2009 18:48:11

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 5-1 + Ant. 5-3 / 5230 MHz



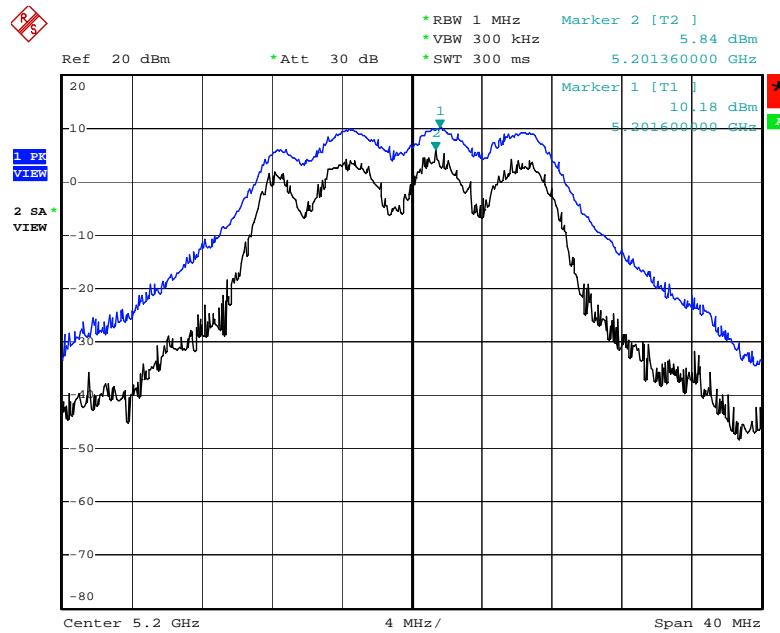
Date: 16.SEP.2009 18:50:21

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5180 MHz



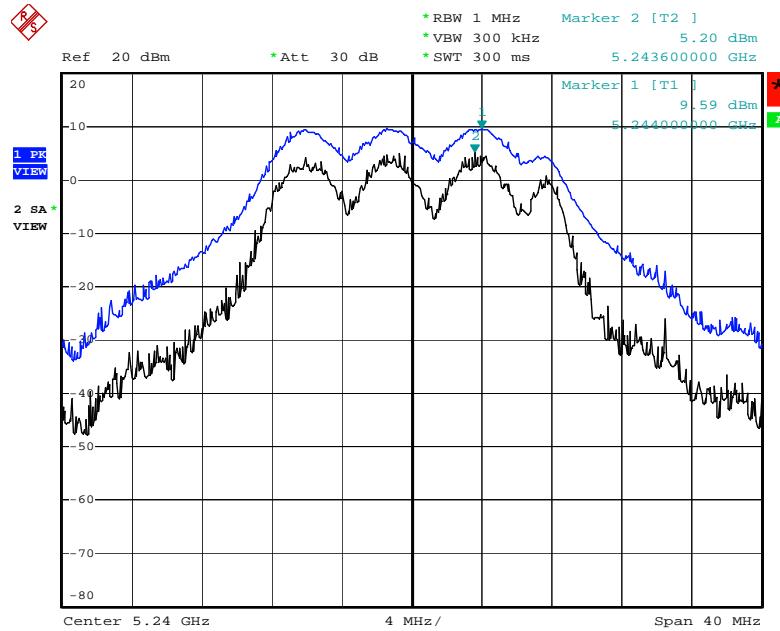
Date: 16.SEP.2009 17:35:10

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5200 MHz



Date: 16.SEP.2009 17:37:29

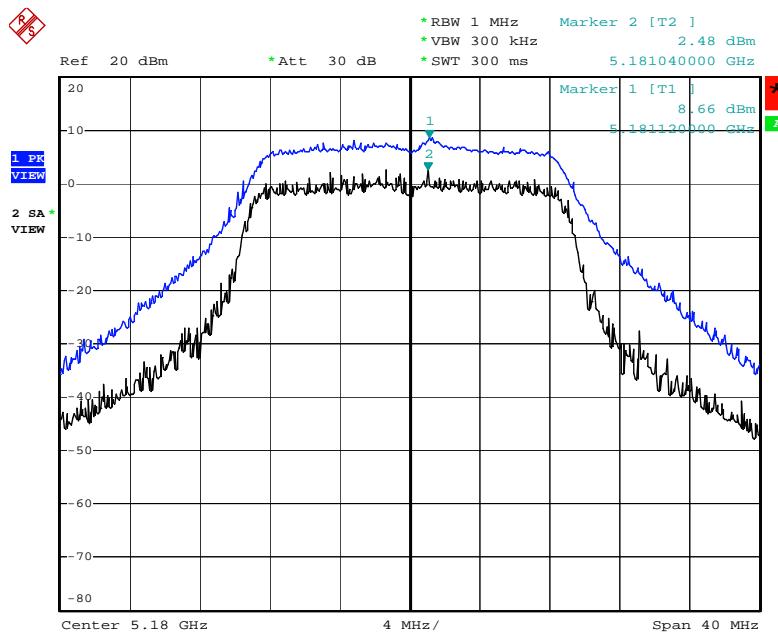
Peak Excusion Plot on Configuration IEEE 802.11a Ant. 5-1 + Ant. 5-3 / 5240 MHz



Date: 16.SEP.2009 17:38:18

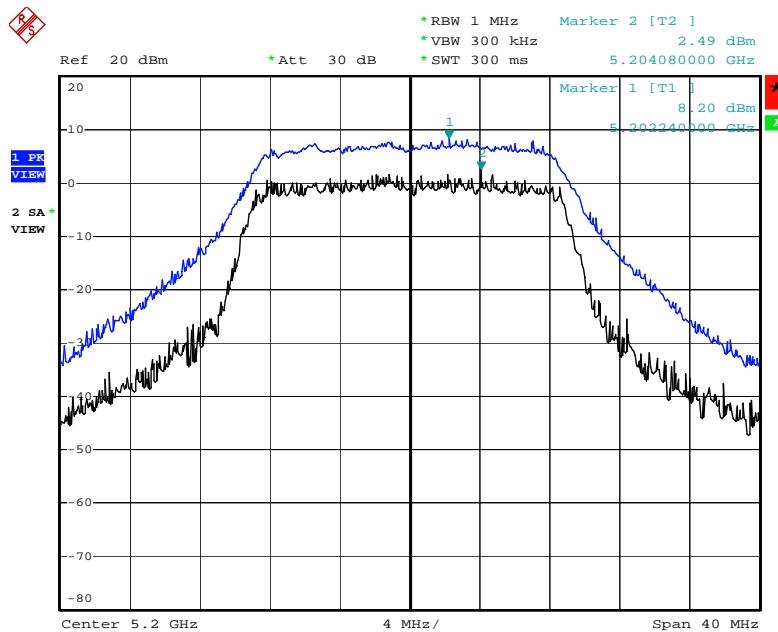
<For Antenna 6>:

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5180 MHz



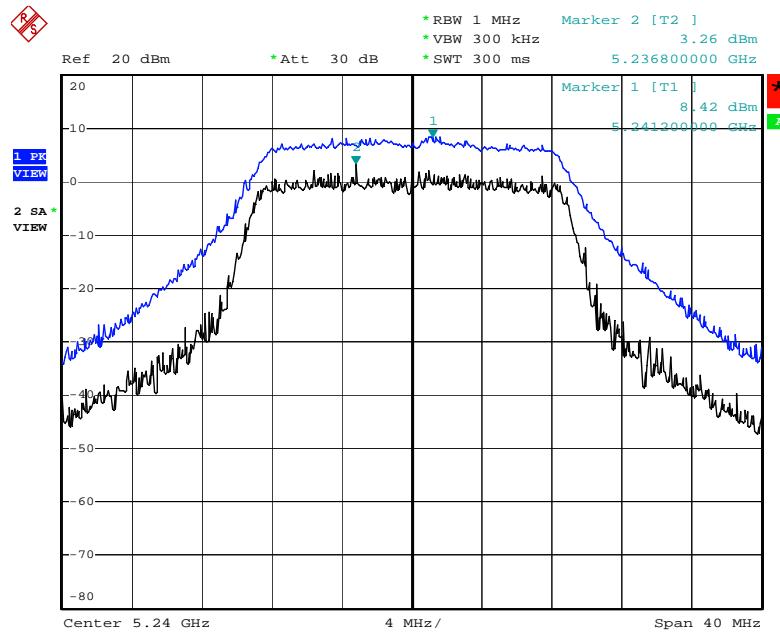
Date: 9.OCT.2009 17:25:34

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5200 MHz



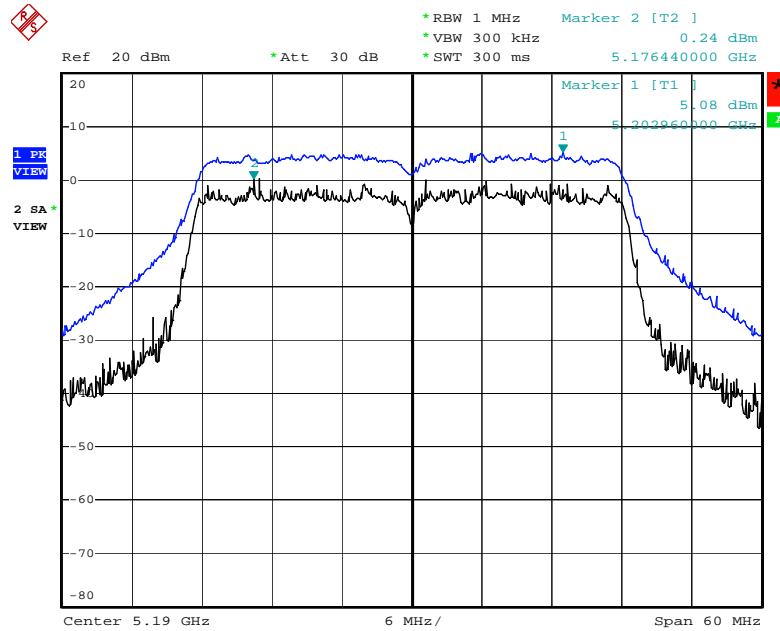
Date: 9.OCT.2009 17:26:23

Peak Excursion Plot on Configuration Draft n MCS8 20MHz Ant. 6-1 + Ant. 6-3 / 5240 MHz



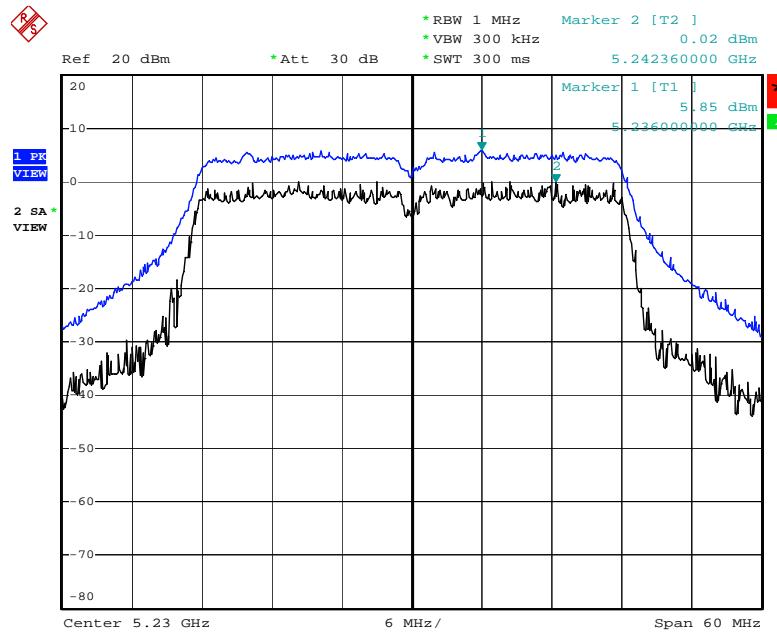
Date: 9.OCT.2009 17:27:26

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3 / 5190 MHz



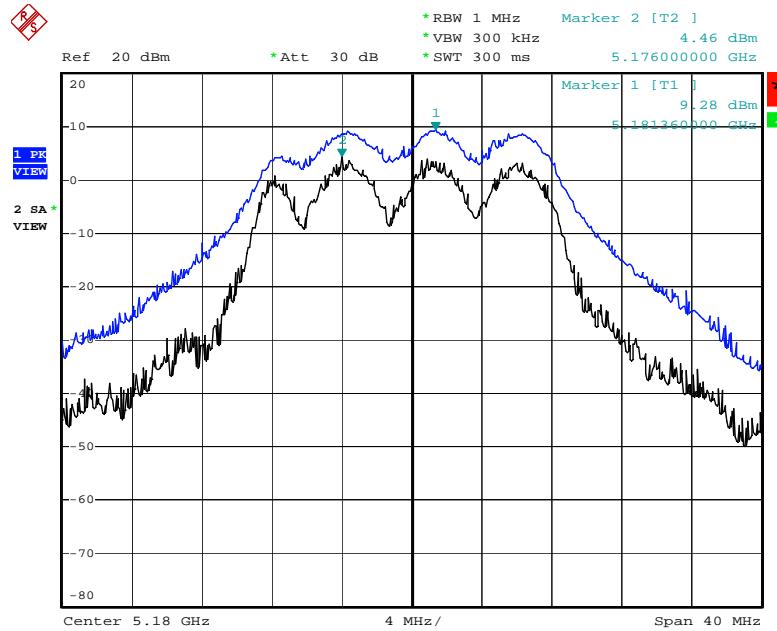
Date: 16.SEP.2009 18:49:02

Peak Excursion Plot on Configuration Draft n MCS8 40MHz Ant. 6-1 + Ant. 6-3 / 5230 MHz



Date: 9.OCT.2009 16:55:53

Peak Excursion Plot on Configuration IEEE 802.11a Ant. 6-1 + Ant. 6-3 / 5180 MHz



Date: 9.OCT.2009 17:10:49