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FCC RADIO TEST REPORT

Applicant's company	Motorola Solutions, Inc.
Applicant Address	One Motorola Plaza Holtsville, NY 11742 USA
FCC ID	UZ7KHAP800
Manufacturer's company	Wistron NeWeb Corporation
Manufacturer Address	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C.

Product Name	802.11 a/b/g/n Module
Brand Name	MOTOROLA
Model Name	KHAP-800
Test Rule Part(s)	47 CFR FCC Part 15 Subpart E § 15.407
Test Freq. Range	5250 ~ 5350MHz / 5470 ~ 5725MHz
Received Date	Apr. 02, 2012
Final Test Date	Jun. 09, 2012
Submission Type	Original Equipment
Operating Mode	Master



Statement

Test result included is for the IEEE 802.11n and IEEE 802.11a (5250 ~ 5350MHz / 5470 ~ 5725MHz) of the product.

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

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

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in ANSI C63.10-2009 and 47 CFR FCC Part 15 Subpart E.

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





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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR240223-01	Rev. 01	Initial issue of report	Jul. 25, 2012



1. CERTIFICATE OF COMPLIANCE

Product Name : 802.11 a/b/g/n Module
Brand Name : MOTOROLA
Model Name : KHAP-800
Applicant : Motorola Solutions, Inc.
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart E § 15.407

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Apr. 02, 2012 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.

A handwritten signature in blue ink that reads 'Jordan Hsiao'.

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	9.02 dB
4.2	15.407(a)	26dB Spectrum Bandwidth	Complies	-
4.3	15.407(a)	Maximum Conducted Output Power	Complies	0.02 dB
4.4	15.407(a)	Power Spectral Density	Complies	0.02 dB
4.5	15.407(a)	Peak Excursion	Complies	5.02 dB
4.6	15.407(b)	Radiated Emissions	Complies	1.88 dB
4.7	15.407(b)	Band Edge Emissions	Complies	1.01 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	±8.5×10 ⁻⁸	Confidence levels of 95%
Radiated Emissions (9kHz~30MHz)	±0.8dB	Confidence levels of 95%
Radiated Emissions (30MHz~1000MHz)	±1.9dB	Confidence levels of 95%
Radiated / Band Edge Emissions (1GHz~18GHz)	±1.9dB	Confidence levels of 95%
Radiated Emissions (18GHz~40GHz)	±1.9dB	Confidence levels of 95%
Temperature	±0.7°C	Confidence levels of 95%
Humidity	±3.2%	Confidence levels of 95%
DC / AC Power Source	±1.4%	Confidence levels of 95%

3. GENERAL INFORMATION

3.1. Product Details

IEEE 802.11n

Items	Description
Product Type	WLAN (1/2/3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	powered by PC and DC power supply
Modulation	see the below table for IEEE 802.11n
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	see the below table for IEEE 802.11n
Frequency Range	5250 ~ 5350MHz / 5470 ~ 5725MHz
Channel Number	12 for 20MHz bandwidth ; 5 for 40MHz bandwidth
Channel Band Width (99%)	<p>Mode 1 : (Ant. 6 Dipole antenna / 8dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 20.80 MHz ; MCS0 (40MHz): 39.68 MHz 2TX : MCS0 (20MHz) : 19.20 MHz ; MCS0 (40MHz) : 37.44 MHz MCS8 (20MHz) : 18.40 MHz ; MCS8 (40MHz) : 36.80 MHz 3TX : MCS0 (20MHz) : 19.04 MHz ; MCS0 (40MHz) : 36.80 MHz MCS8 (20MHz) : 18.40 MHz ; MCS8 (40MHz) : 36.80 MHz MCS16(20MHz) : 18.40 MHz ; MCS16 (40MHz) : 36.80 MHz</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 21.76 MHz ; MCS0 (40MHz): 37.12 MHz 2TX : MCS0 (20MHz) : 19.20 MHz ; MCS0 (40MHz) : 37.44 MHz MCS8 (20MHz) : 18.40 MHz ; MCS8 (40MHz) : 36.80 MHz 3TX : MCS0 (20MHz) : 18.08 MHz ; MCS0 (40MHz) : 37.12 MHz MCS8 (20MHz) : 18.56 MHz ; MCS8 (40MHz) : 36.80 MHz MCS16 (20MHz) : 18.24 MHz ; MCS16 (40MHz) : 36.48 MHz</p> <p>Mode 2 : (Ant. 7 Patch antenna / 2.3dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 25.92 MHz ; MCS0 (40MHz): 50.88 MHz 2TX : MCS0(20MHz) : 21.12 MHz ; MCS0(40MHz) : 40.96 MHz MCS8(20MHz) : 20.00 MHz ; MCS8(40MHz) : 39.04 MHz 3TX : MCS0(20MHz) : 19.68 MHz ; MCS0(40MHz) : 37.12 MHz MCS8(20MHz) : 18.56 MHz ; MCS8(40MHz) : 37.12 MHz</p>

	<p>Band 3:</p> <p>1TX : MCS0 (20MHz): 26.24 MHz ; MCS0 (40MHz): 38.08 MHz 2TX : MCS0(20MHz) : 19.20 MHz ; MCS0(40MHz) : 38.72 MHz MCS8(20MHz) : 19.36 MHz ; MCS8(40MHz) : 41.92 MHz 3TX : MCS0(20MHz) : 18.08 MHz ; MCS0(40MHz) : 37.12 MHz MCS8(20MHz) : 18.88 MHz ; MCS8(40MHz) : 37.12 MHz</p> <p>Mode 3 : (Ant. 8 Panel antenna / 10.5dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 20.16 MHz ; MCS0 (40MHz): 36.80 MHz 2TX : MCS0(20MHz) : 19.20 MHz ; MCS0(40MHz) : 35.52 MHz MCS8(20MHz) : 18.24 MHz ; MCS8(40MHz) : 36.80 MHz 3TX : MCS0(20MHz) : 18.08 MHz ; MCS0(40MHz) : 36.80 MHz MCS8(20MHz) : 18.40 MHz ; MCS8(40MHz) : 37.12 MHz MCS16(20MHz) : 18.40 MHz ; MCS16(40MHz) : 37.12 MHz</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 22.24 MHz ; MCS0 (40MHz): 37.44 MHz 2TX : MCS0(20MHz) : 19.04 MHz ; MCS0(40MHz) : 37.44 MHz MCS8(20MHz) : 18.40 MHz ; MCS8(40MHz) : 36.80 MHz 3TX : MCS0(20MHz) : 18.24 MHz ; MCS0(40MHz) : 37.44 MHz MCS8(20MHz) : 18.56 MHz ; MCS8(40MHz) : 36.80 MHz MCS16(20MHz) : 18.40 MHz ; MCS16(40MHz) : 36.80 MHz</p> <p>Mode 4 : (Ant. 9 Yagi antenna / 8dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 22.56 MHz ; MCS0 (40MHz): 36.80 MHz 2TX : MCS0(20MHz) : 19.20 MHz ; MCS0(40MHz) : 34.24 MHz MCS8(20MHz) : 18.40 MHz ; MCS8(40MHz) : 36.80 MHz 3TX : MCS0(20MHz) : 19.20 MHz ; MCS0(40MHz) : 36.80 MHz MCS8(20MHz) : 18.56 MHz ; MCS8(40MHz) : 36.80 MHz MCS16(20MHz) : 18.40 MHz ; MCS16(40MHz) : 36.80 MHz</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 23.36 MHz ; MCS0 (40MHz): 37.12 MHz 2TX : MCS0(20MHz) : 19.20 MHz ; MCS0(40MHz) : 37.44 MHz MCS8(20MHz) : 18.56 MHz ; MCS8(40MHz) : 36.80 MHz 3TX : MCS0(20MHz) : 18.40 MHz ; MCS0(40MHz) : 37.12 MHz MCS8(20MHz) : 18.56 MHz ; MCS8(40MHz) : 37.12 MHz MCS16(20MHz) : 18.56 MHz ; MCS16(40MHz) : 36.80 MHz</p>
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	<p>Mode 5 : (Ant. 5 Facade antenna / 2.5dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 20.80 MHz ; MCS0 (40MHz): 40.00 MHz 2TX : MCS0(20MHz) : 20.00 MHz ; MCS0(40MHz) : 37.44 MHz MCS8(20MHz) : 18.88 MHz ; MCS8(40MHz) : 37.44 MHz 3TX : MCS0(20MHz) : 18.56 MHz ; MCS0(40MHz) : 36.80 MHz MCS8(20MHz) : 18.40 MHz ; MCS8(40MHz) : 36.80 MHz</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 22.24 MHz ; MCS0 (40MHz): 39.68 MHz 2TX : MCS0(20MHz) : 19.36 MHz ; MCS0(40MHz) : 37.44 MHz MCS8(20MHz) : 18.72 MHz ; MCS8(40MHz) : 37.76 MHz 3TX : MCS0(20MHz) : 18.24 MHz ; MCS0(40MHz) : 36.80 MHz MCS8(20MHz) : 18.56 MHz ; MCS8(40MHz) : 36.80 MHz</p>
<p>Conducted Output Power</p>	<p>Mode 1 : (Ant. 6 Dipole antenna / 8dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 21.40 dBm ; MCS0 (40MHz): 20.97 dBm 2TX : MCS0(20MHz) : 18.80 dBm ; MCS0(40MHz) : 18.77 dBm MCS8(20MHz) : 21.63 dBm ; MCS8(40MHz) : 21.73 dBm 3TX : MCS0(20MHz) : 16.98 dBm ; MCS0(40MHz) : 16.79 dBm MCS8(20MHz) : 18.83 dBm ; MCS8(40MHz) : 18.77 dBm MCS16(20MHz) : 21.73 dBm ; MCS16(40MHz) : 21.54 dBm</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 19.41 dBm ; MCS0 (40MHz): 18.35 dBm 2TX : MCS0(20MHz) : 18.73 dBm ; MCS0(40MHz) : 18.00 dBm MCS8(20MHz) : 21.71 dBm ; MCS8(40MHz) : 18.21 dBm 3TX : MCS0(20MHz) : 17.01 dBm ; MCS0(40MHz) : 17.13 dBm MCS8(20MHz) : 18.84 dBm ; MCS8(40MHz) : 18.81 dBm MCS16(20MHz) : 21.75 dBm ; MCS16(40MHz) : 21.93 dBm</p> <p>Mode 2 : (Ant. 7 Patch antenna / 2.3dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 22.32 dBm ; MCS0 (40MHz): 22.56 dBm 2TX : MCS0(20MHz) : 23.59 dBm ; MCS0(40MHz) : 23.93 dBm MCS8(20MHz) : 23.78 dBm ; MCS8(40MHz) : 23.73 dBm 3TX : MCS0(20MHz) : 22.51 dBm ; MCS0(40MHz) : 22.46 dBm MCS8(20MHz) : 23.80 dBm ; MCS8(40MHz) : 23.91 dBm</p>

	<p>Band 3:</p> <p>1TX : MCS0 (20MHz): 22.34 dBm ; MCS0 (40MHz): 20.84 dBm 2TX : MCS0(20MHz) : 23.96 dBm ; MCS0(40MHz) : 22.66 dBm MCS8(20MHz) : 23.57 dBm ; MCS8(40MHz) : 23.87 dBm 3TX : MCS0(20MHz) : 22.53 dBm ; MCS0(40MHz) : 22.72 dBm MCS8(20MHz) : 23.47 dBm ; MCS8(40MHz) : 23.64 dBm</p> <p>Mode 3 : (Ant. 8 Panel antenna / 10.5dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 19.15 dBm ; MCS0 (40MHz): 15.87 dBm 2TX : MCS0(20MHz) : 11.69 dBm ; MCS0(40MHz) : 10.40 dBm MCS8(20MHz) : 10.08 dBm ; MCS8(40MHz) : 10.53 dBm 3TX : MCS0(20MHz) : 4.98 dBm ; MCS0(40MHz) : 4.36 dBm MCS8(20MHz) : 4.14 dBm ; MCS8(40MHz) : 4.37 dBm MCS16(20MHz) : 5.32 dBm ; MCS16(40MHz) : 4.33 dBm</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 19.42 dBm ; MCS0 (40MHz): 16.14 dBm 2TX : MCS0(20MHz) : 13.23 dBm ; MCS0(40MHz) : 13.12 dBm MCS8(20MHz) : 12.96 dBm ; MCS8(40MHz) : 13.22 dBm 3TX : MCS0(20MHz) : 6.14 dBm ; MCS0(40MHz) 6.65 dBm MCS8(20MHz) : 5.14 dBm ; MCS8(40MHz) : 7.73 dBm MCS16(20MHz) : 6.55 dBm ; MCS16(40MHz) : 6.54 dBm</p> <p>Mode 4 : (Ant. 9 Yagi antenna / 8dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 21.79 dBm ; MCS0 (40MHz): 16.13 dBm 2TX : MCS0(20MHz) : 14.40 dBm ; MCS0(40MHz) : 15.32 dBm MCS8(20MHz) : 14.42 dBm ; MCS8(40MHz) : 15.19 dBm 3TX : MCS0(20MHz) : 14.28 dBm ; MCS0(40MHz) : 13.42 dBm MCS8(20MHz) : 14.17 dBm ; MCS8(40MHz) : 11.35 dBm MCS16(20MHz) : 15.04 dBm ; MCS16(40MHz) : 13.37 dBm</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 20.95 dBm ; MCS0 (40MHz): 19.07 dBm 2TX : MCS0(20MHz) : 18.86 dBm ; MCS0(40MHz) : 9.48 dBm MCS8(20MHz) : 21.83 dBm ; MCS8(40MHz) : 8.96 dBm 3TX : MCS0(20MHz) : 17.17 dBm ; MCS0(40MHz) : 9.06 dBm MCS8(20MHz) : 18.74 dBm ; MCS8(40MHz) : 9.23 dBm MCS16(20MHz) : 21.54 dBm ; MCS16(40MHz) : 8.78 dBm</p>
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	<p>Mode 5 : (Ant. 5 Facade antenna / 2.5dBi)</p> <p>Band 2:</p> <p>1TX : MCS0 (20MHz): 22.40 dBm ; MCS0 (40MHz): 21.68 dBm 2TX : MCS0(20MHz) : 23.90 dBm ; MCS0(40MHz) : 23.61 dBm MCS8(20MHz) : 23.69 dBm ; MCS8(40MHz) : 23.53 dBm 3TX : MCS0(20MHz) : 22.62 dBm ; MCS0(40MHz) : 22.62 dBm MCS8(20MHz) : 23.64 dBm ; MCS8(40MHz) : 23.87 dBm</p> <p>Band 3:</p> <p>1TX : MCS0 (20MHz): 22.35 dBm ; MCS0 (40MHz): 21.71 dBm 2TX : MCS0(20MHz) : 22.42 dBm ; MCS0(40MHz) : 23.67 dBm MCS8(20MHz) : 23.64 dBm ; MCS8(40MHz) : 23.98 dBm 3TX : MCS0(20MHz) : 22.30 dBm ; MCS0(40MHz) : 22.51 dBm MCS8(20MHz) : 23.74 dBm ; MCS8(40MHz) : 23.99 dBm</p>
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

IEEE 802.11a

Items	Description
Product Type	WLAN (1/2/3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	powered by PC and DC power supply
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	5250 ~ 5350MHz / 5470 ~ 5725MHz
Channel Number	12
Conducted Output Power	<p>Mode 1: (Ant. 6 Dipole antenna / 8dBi)</p> <p>Band 2 :</p> <p>1TX : 11a: 21.76 dBm</p> <p>2TX : 11a: 18.97 dBm</p> <p>3TX : 11a: 16.88 dBm</p> <p>Band 3 :</p> <p>1TX : 11a: 21.62 dBm</p> <p>2TX : 11a: 18.78 dBm</p> <p>3TX : 11a: 16.94 dBm</p> <p>Mode 2: (Ant. 7 Patch antenna / 2.3dBi)</p> <p>Band 2 :</p> <p>1TX : 11a: 22.54 dBm</p> <p>2TX : 11a: 23.53 dBm</p> <p>3TX : 11a: 22.54 dBm</p> <p>Band 3 :</p> <p>1TX : 11a: 22.54 dBm</p> <p>2TX : 11a: 23.54 dBm</p> <p>3TX : 11a: 22.55 dBm</p> <p>Mode 3: (Ant. 8 Panel antenna / 10.5dBi)</p> <p>Band 2 :</p> <p>1TX : 11a: 19.07 dBm</p> <p>2TX : 11a: 10.79 dBm</p> <p>3TX : 11a: 5.41 dBm</p> <p>Band 3 :</p> <p>1TX : 11a: 19.23 dBm</p> <p>2TX : 11a: 16.35 dBm</p> <p>3TX : 11a: 14.58 dBm</p>

	<p>Mode 4: (Ant. 9 Yagi antenna / 8dBi)</p> <p>Band 2 :</p> <p>1TX : 11a: 21.87 dBm</p> <p>2TX : 11a: 13.73 dBm</p> <p>3TX : 11a: 13.57 dBm</p> <p>Band 3 :</p> <p>1TX : 11a: 21.73 dBm</p> <p>2TX : 11a: 18.62 dBm</p> <p>3TX : 11a: 16.77 dBm</p> <p>Mode 5: (Ant. 5 Facade antenna / 2.5dBi)</p> <p>Band 2 :</p> <p>1TX : 11a: 22.17 dBm</p> <p>2TX : 11a: 23.82 dBm</p> <p>3TX : 11a: 22.68 dBm</p> <p>Band 3 :</p> <p>1TX : 11a: 22.20 dBm</p> <p>2TX : 11a: 23.52 dBm</p> <p>3TX : 11a: 22.24 dBm</p>
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Antenna & Band width

Antenna	Single (TX)		Two (TX)		Three (TX)	
	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz
IEEE 802.11a	V	X	V	X	V	X
IEEE 802.11n	V	V	V	V	V	V

IEEE 802.11n spec

MCS Index	Nss	Modulation	R	NBPS	NCBPS		NDBPS		Datarate(Mbps)			
					20MHz	40MHz	20MHz	40MHz	800nsGI		400nsGI	
									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
16	3	BPSK	1/2	1	208	432	104	216	19.5	40.5	21.7	45
17	3	QPSK	1/2	2	416	864	208	432	39	81	43.3	90
18	3	QPSK	3/4	2	416	864	208	432	58.5	121.5	65	135
19	3	16-QAM	1/2	4	832	1728	416	864	78	162	86.7	180
20	3	16-QAM	3/4	4	832	1728	416	864	117	243	130	270
21	3	64-QAM	2/3	6	1248	2592	624	1296	156	324	173.3	360
22	3	64-QAM	3/4	6	1248	2592	624	1296	175.5	364.5	195	405
23	3	64-QAM	5/6	6	1248	2592	624	1296	195	405	216.7	450

Symbol	Explanation
NSS	Number of spatial streams
R	Code rate
NBPS	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.	Model Name	Antenna Type	Chip/Radio	Antenna Gain		Cable loss		True Gain (dBi)	
				2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	ML-2499-FHPA9-01R	Dipole	Radio1/2-CH1/2/3	10.5	-	1.5	-	9	-
2	ML-2499-SD3-01R	Patch	Radio1/2-CH1/2/3	4	-	1	-	3	-
3	ML-2499-BPNA3-01R	Panel	Radio1/2-CH1/2/3	15	-	1	-	14	-
4	ML-2499-BYGA2-01R	Yagi	Radio1/2-CH1/2/3	14.5	-	1	-	13.5	-
5	KAP-FACADE-ANT	Facade	Radio1/2-CH1/2/3	3.5	4	1	1.5	2.5	2.5
6	ML-5299-FHPA10-01R	Dipole	Radio1/2-CH1/2/3	-	10.5	-	2.5	-	8
7	ML-5299-PTA1-01R	Patch	Radio1/2-CH1/2/3	-	3.8	-	1.5	-	2.3
8	ML-2452-PNA7-01R	Panel	Radio1/2-CH1/2/3	8	12	-	1.5	8	10.5
9	ML-5299-BYGA15-012	Yagi	Radio1/2-CH1/2/3	-	10.5	-	2.5	-	8
10	ML-2499-5PNL-72-N	Panel	Radio1/2-CH1/2/3	6.5	-	-	-	6.5	-
11	ML-2499-APA2-01	Dipole	Radio1/2-CH1/2/3	3.2	-	-	-	3.2	-
12	ML-2499-HPA3-01R	Dipole	Radio1/2-CH1/2/3	4	-	-	-	4	-
13	ML-5299-APA1-01R	Dipole	Radio1/2-CH1/2/3	-	4	-	-	-	4
14	ML-5299-HPA1-01R	Dipole	Radio1/2-CH1/2/3	-	6	-	-	-	6
15	ML-2452-APA2-01	Dipole	Radio1/2-CH1/2/3	3	5	-	-	3	5
16	ML-2452-PNA5-01R	Panel	Radio1/2-CH1/2/3	5.5	6	-	*4.5	5.5	1.5
17	ML-2452-HPA5-036	Dipole	Radio1/2-CH1/2/3	3	5	-	-	3	5
18	ML-2452-APA2GA1-01	Dipole	Radio1/2-CH1/2/3	2.7	2	-	-	2.7	2

Note:

1. There are 18 antennas in the antenna table list. Besides, only antenna 5 to 9 were selected to perform the test and written in this report due to the highest gain.

Table of TX/RX Function in each antenna:

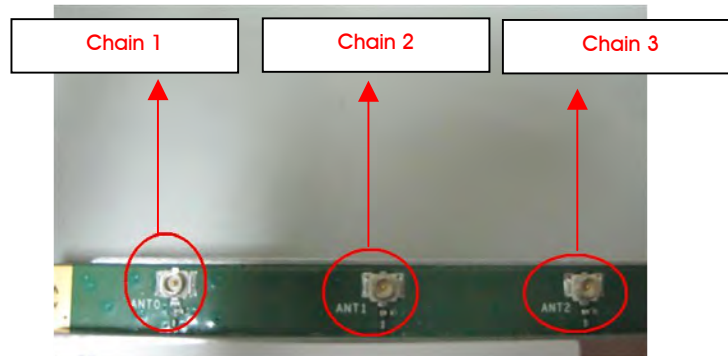
Item			Module					
			Chain 1		Chain 2		Chain 3	
			TX	RX	TX	RX	TX	RX
Ant.5	2.4GHz	11b	V	V	V	V	V	V
		11g	V	V	V	V	V	V
		11n	V	V	V	V	V	V
	5GHz	11a	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant.6	5GHz	11a	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant.7	5GHz	11a	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant.8	2.4GHz	11b	V	V	V	V	V	V
		11g	V	V	V	V	V	V
		11n	V	V	V	V	V	V
	5GHz	11a	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant.9	5GHz	11a	V	V	V	V	V	V
		11n	V	V	V	V	V	V

Note : Marked "-" on behalf of no function.

Module	Required 1TX Port
2.4G / 5G	Chain 1

Module	Required 2TX Port
2.4G / 5G	Chain 1 and Chain 2

Module	Required 3TX Port
2.4G / 5G	Chain 1 and Chain 2 and Chain 3



3.4. Table for Carrier Frequencies

For IEEE 802.11a, use Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140.

There are two bandwidth systems for IEEE 802.11n.

For both 20MHz bandwidth systems, use Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140.

For both 40MHz bandwidth systems, use Channel 54, 62, 102, 110, 134.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5250~5350 MHz Band 2	52	5260 MHz	60	5300 MHz
	54	5270 MHz	62	5310 MHz
	56	5280 MHz	64	5320 MHz
5470~5725 MHz Band 3	100	5500 MHz	116	5580 MHz
	102	5510MHz	132	5660 MHz
	104	5520 MHz	134	5670 MHz
	108	5540 MHz	136	5680 MHz
	110	5550 MHz	140	5700 MHz
	112	5560 MHz	-	-

3.5. Table for Test Modes

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

Test Items	Mode		Data Rate	Channel	Chain
AC Power Conducted Emission	Normal Link		Auto	-	-
Max. Conducted Output Power Power Spectral Density	MCS0/20MHz	Band 2	6.5Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6.5Mbps	100/116/140	1 1+2 1+2+3
	MCS0/40MHz	Band 2	13.5Mbps	54/62	1 1+2 1+2+3
		Band 3	13.5Mbps	102/110/134	1 1+2 1+2+3
	MCS8/20MHz	Band 2	13Mbps	52/60/64	1 1+2 1+2+3
		Band 3	13Mbps	100/116/140	1 1+2 1+2+3
	MCS8/40MHz	Band 2	27Mbps	54/62	1 1+2 1+2+3
		Band 3	27Mbps	102/110/134	1 1+2 1+2+3
	MCS16/20MHz	Band 2	130Mbps	52/60/64	1 1+2 1+2+3

		Band 3	130Mbps	100/116/140	1 1+2 1+2+3
	MCS16/40MHz	Band 2	270Mbps	54/62	1 1+2 1+2+3
		Band 3	270Mbps	102/110/134	1 1+2 1+2+3
	11a/BPSK	Band 2	6Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6Mbps	100/116/140	1 1+2 1+2+3
26dB Spectrum Bandwidth 99% Occupied Bandwidth Measurement Peak Excursion	MCS0/20MHz	Band 2	6.5Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6.5Mbps	100/116/140	1 1+2 1+2+3
	MCS0/40MHz	Band 2	13.5Mbps	54/62	1 1+2 1+2+3
		Band 3	13.5Mbps	102/110/134	1 1+2 1+2+3
	MCS8/20MHz	Band 2	13Mbps	52/60/64	1 1+2 1+2+3
		Band 3	13Mbps	100/116/140	1 1+2 1+2+3
	MCS8/40MHz	Band 2	27Mbps	54/62	1 1+2 1+2+3

		Band 3	27Mbps	102/110/134	1 1+2 1+2+3
	MCS16/20MHz	Band 2	130Mbps	52/60/64	1 1+2 1+2+3
		Band 3	130Mbps	100/116/140	1 1+2 1+2+3
	MCS16/40MHz	Band 2	270Mbps	54/62	1 1+2 1+2+3
		Band 3	270Mbps	102/110/134	1 1+2 1+2+3
	11a/BPSK	Band 2	6Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6Mbps	100/116/140	1 1+2 1+2+3
Radiated Emission Below 1GHz	Normal Link		Auto	-	-
Radiated Emission Above 1GHz	MCS0/20MHz	Band 2	6.5Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6.5Mbps	100/116/140	1 1+2 1+2+3
	MCS0/40MHz	Band 2	13.5Mbps	54/62	1 1+2 1+2+3
		Band 3	13.5Mbps	102/110/134	1 1+2 1+2+3
	MCS8/20MHz	Band 2	13Mbps	52/60/64	1 1+2 1+2+3

		Band 3	13Mbps	100/116/140	1 1+2 1+2+3
	MCS8/40MHz	Band 2	27Mbps	54/62	1 1+2 1+2+3
		Band 3	27Mbps	102/110/134	1 1+2 1+2+3
	MCS16/20MHz	Band 2	130Mbps	52/60/64	1 1+2 1+2+3
		Band 3	130Mbps	100/116/140	1 1+2 1+2+3
	MCS16/40MHz	Band 2	270Mbps	54/62	1 1+2 1+2+3
		Band 3	270Mbps	102/110/134	1 1+2 1+2+3
	11a/BPSK	Band 2	6Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6Mbps	100/116/140	1 1+2 1+2+3
Band Edge Emission	MCS0/20MHz	Band 2	6.5Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6.5Mbps	100/116/140	1 1+2 1+2+3
	MCS0/40MHz	Band 2	13.5Mbps	54/62	1 1+2 1+2+3

		Band 3	13.5Mbps	102/110/134	1 1+2 1+2+3
	MCS8/20MHz	Band 2	13Mbps	52/60/64	1 1+2 1+2+3
		Band 3	13Mbps	100/116/140	1 1+2 1+2+3
	MCS8/40MHz	Band 2	27Mbps	54/62	1 1+2 1+2+3
		Band 3	27Mbps	102/110/134	1 1+2 1+2+3
	MCS16/20MHz	Band 2	130Mbps	52/60/64	1 1+2 1+2+3
		Band 3	130Mbps	100/116/140	1 1+2 1+2+3
	MCS16/40MHz	Band 2	270Mbps	54/62	1 1+2 1+2+3
		Band 3	270Mbps	102/110/134	1 1+2 1+2+3
	11a/BPSK	Band 2	6Mbps	52/60/64	1 1+2 1+2+3
		Band 3	6Mbps	100/116/140	1 1+2 1+2+3
Frequency Stability	Un-modulation		-	60	N/A

The following test modes were performed for all tests:

<Conducted Emissions test>

Mode 1. Module + Antenna 3

Mode 2. Module + Antenna 8

<Radiated Emissions 30MHz~1GHz test>

Mode 1. Module + Antenna 3

Mode 2. Module + Antenna 8

The following test modes were performed for Radiated Emission above 1GHz tests:

Antenna/Radio Mode		11a 1TX	11a 2TX	11a 3TX	H20/40 1TX (MCS0)	H20/40 2TX (MCS0)	H20/40 3TX (MCS0)	H20/40 2TX (MCS8)	H20/40 3TX (MCS8)	HT20/40 3TX (MCS16)
Mode 1	Dipole-5G, Antenna 6	v	v	v	v	v	v	v	v	v
Mode 2	Patch-5G, Antenna 7	v	v	v	v	v	v	v	v	v
Mode 3	Panel-5G Antenna 8	v	v	v	v	v	v	v	v	v
Mode 4	Yagi -5G, Antenna 9	v	v	v	v	v	v	v	v	v
Mode 5.	Facade-5G, Antenna 5	v	v	v	v	v	v	v	v	v

Note 1:

11a/g 1TX/2TX/3TX just test output power and band edge .The other test items are covered by 802.11n HT20 1TX/2TX/3TX which are same modulation, bandwidth and frequency.

Note 2: For HT20/40 2TX, MCS8 ~ 15 (2-stream), MCS0(1-stream); For HT20/40 3TX, MCS16~23(3-stream)

Note 3: Because of the highest antenna gain in mode 1, mode 3 and mode 4, it was performed MCS16 3TX testing and recorded in the report.

<For MPE and Co-location Test>:

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

Expected Array Gain Adjustment to Antenna Directivity for 2TX / 3TX Configurations and Supported Operational Modes

In the FCC regulatory domain, conducted testing of systems with multiple transmitters (2Tx transmitter configurations) was performed in accordance with KDB 662911 requires adjustment of antenna directivity by an array gain factor. The array gain factor is dependent on correlation of the multiple tx signals, and is therefore a function of operational mode.

The following table establishes the expected array gain for the 2Tx and 3TX transmitter configuration case for each supported operational mode.

Operational Mode > Tx Config ^	11b (DSSS-CCK)	11a/g (Legacy OFDM)	HT20 1 Stream (MCS0-7)	HT40 1 Stream (MCS0-7)	HT20 2 Stream (MCS8-15)	HT40 2 Stream (MCS8-15)	HT20 3 Stream (MCS16-23)	HT40 3 Stream (MCS16-23)
2TX	3.01dB	3.01dB	3.01dB	3.01dB	NA	NA	NA	NA
3TX	4.77dB	4.77dB	4.77dB	4.77dB	3.01dB	3.01dB	NA	NA

Note: This project duty cycle > 98%.

3.6. Table for Testing Locations

Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.
03CH01-CB	SAC	Hsin Chu	262045	IC 4086D
CO01-CB	Conduction	Hsin Chu	262045	IC 4086D
TH01-CB	OVEN Room	Hsin Chu	-	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC); 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*2	DELL	M1330	E2KWM3945ABG
Mouse	Logitech	M-U0026	DoC
Wireless AP	Planex	GW-AP54SGX	N/A
Earphone	SHYARO CHI	MIC-04	N/A
FDISK*2	SILICON	SP002GBUF2M01V1K	DoC
Notebook*2	DELL	D420	E2KWM3945ABG
Notebook	DELL	PP25L	E2K4965AGNM

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.

Test Mode : Mode 1 (Ant. 6 Dipole antenna / 8dBi)

Power Parameters of IEEE 802.11n / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	24.00	25.00	20.00	16	24	13
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	24.00	15.50	12	19.5	16	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	19.00	19.00	19.00	14.5	18.5	13.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	18.50	16.00	10	16.5	16	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	16.00	15.50	16.00	15	15	14
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	16.00	15.00	11.5	15	16	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	22.50	22.00	21.00	17	21.5	14.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	21.50	17.00	12	16.5	18	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	18.00	18.50	18.00	16.5	17.5	16
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	18.00	14.50	12	16.5	18	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS16	21.50	22.00	18.00	18	21	17
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS16	21.00	14.50	11.5	20.5	21	

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	25.00	25.00	21.00	17.00	24.50	14.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	18.50	18.50	18.50	16.00	17.00	14.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	15.00	15.50	15.50	15.00	15.00	14.00

During the test, "ART2-GUI 2.3" under WIN XP was executed the test program to control the EUT continuously transmit RF signal.

Test Mode : Mode 2 (Ant. 7 Patch antenna / 2.3dBi)

Power Parameters of IEEE 802.11n / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	25.00	25.00	22.00	17	25	16.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	25.00	16.50	15.5	22	19	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	24.00	24.50	22.00	16.5	25	16.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	24.50	17.50	14.5	22	19.5	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	22.50	23.00	20.50	16.5	22.5	16.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	22.50	18.00	14	22.5	21	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	25.00	24.50	21.00	19.5	24.5	18
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	24.50	17.50	17	24.5	22	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	24.50	24.50	20.00	18.5	23.5	19
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	24.50	19.00	16.5	24	22.5	

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	25.00	25.00	22.00	17.00	25.00	16.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	23.50	24.00	21.00	17.00	24.50	17.50

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	22.50	23.00	22.00	17.00	22.50	17.50

During the test, "ART2-GUI 2.3" under WIN XP was executed the test program to control the EUT continuously transmit RF signal.

Test Mode : Mode 3 (Ant. 8 Panel antenna / 10.5dBi)

Power Parameters of IEEE 802.11n / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	24.50	23.00	16.00	13	25	14
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	20.00	12.00	11	20	17	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	12.00	12.00	12.00	13	14	12
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	12.00	11.00	11	14	13	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	4.00	4.00	4.00	4	5	4
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	4.00	4.00	4	5	4	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	12.00	12.00	12.00	13	14	12
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	12.00	11.00	11.5	14	13	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	4.00	4.00	4.00	4	4	4
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	4.00	4.00	4	6	4	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS16	5.00	4.00	4.00	4	5	5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS16	4.00	4.00	5	4	5	

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	24.00	23.50	16.50	13.50	24.00	14.50

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	12.00	12.00	12.00	12.00	18.00	12.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	4.00	4.00	4.00	4.00	13.00	4.00

During the test, "ART2-GUI 2.3" under WIN XP was executed the test program to control the EUT continuously transmit RF signal.

Test Mode : Mode 4 (Ant. 9 Yagi antenna / 8dBi)

Power Parameters of IEEE 802.11n / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	25.00	20.00	14.00	12.5	24	11.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	17.50	10.50	10.5	20	17.5	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	14.00	3.00	3.00	7	17.5	4
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	14.00	9.00	7	7	6	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	13.00	3.50	3.00	7	15	3.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	11.50	9.00	7	6.5	5	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	14.00	3.00	3.00	7	21	4
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	14.00	9.00	7	7	6	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	13.00	2.50	3.00	7	17	2.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	9.50	10.00	7	7	5	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS16	14.00	4.50	4.50	7	20.5	2
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS16	12.00	10.50	7	6	6	

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	24.50	21.00	15.00	13.00	24.00	13.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	14.00	3.00	3.00	7.00	18.00	4.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	12.00	3.00	3.00	6.50	15.00	4.00

During the test, "ART2-GUI 2.3" under WIN XP was executed the test program to control the EUT continuously transmit RF signal.

Test Mode : Mode 5 (Ant. 5 Facade antenna / 2.5dBi)
Power Parameters of IEEE 802.11n / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	25.00	25.00	19.50	17.5	25	15.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	24.00	15.50	14	23.5	18	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	24.50	25.00	23.00	18	23	17
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	24.00	18.50	15	23	20.5	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS0	22.00	23.00	22.50	16.5	22	16.5
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS0	22.00	18.50	15	21.5	20	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	24.50	24.50	22.00	18.5	24.5	17
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	24.00	17.00	15	24.5	20.5	

Power Parameters of IEEE 802.11n / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
20MHz MCS8	24.00	24.00	21.50	18	24	18
Frequency	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	
40MHz MCS8	24.00	18.50	18	24	18	

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	25.00	25.00	20.00	17.50	25.00	16.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	24.00	24.00	23.00	18.00	24.50	17.00

Power Parameters of IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3					
Frequency	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz
IEEE 802.11a	22.50	22.50	22.50	17.00	20.00	17.50

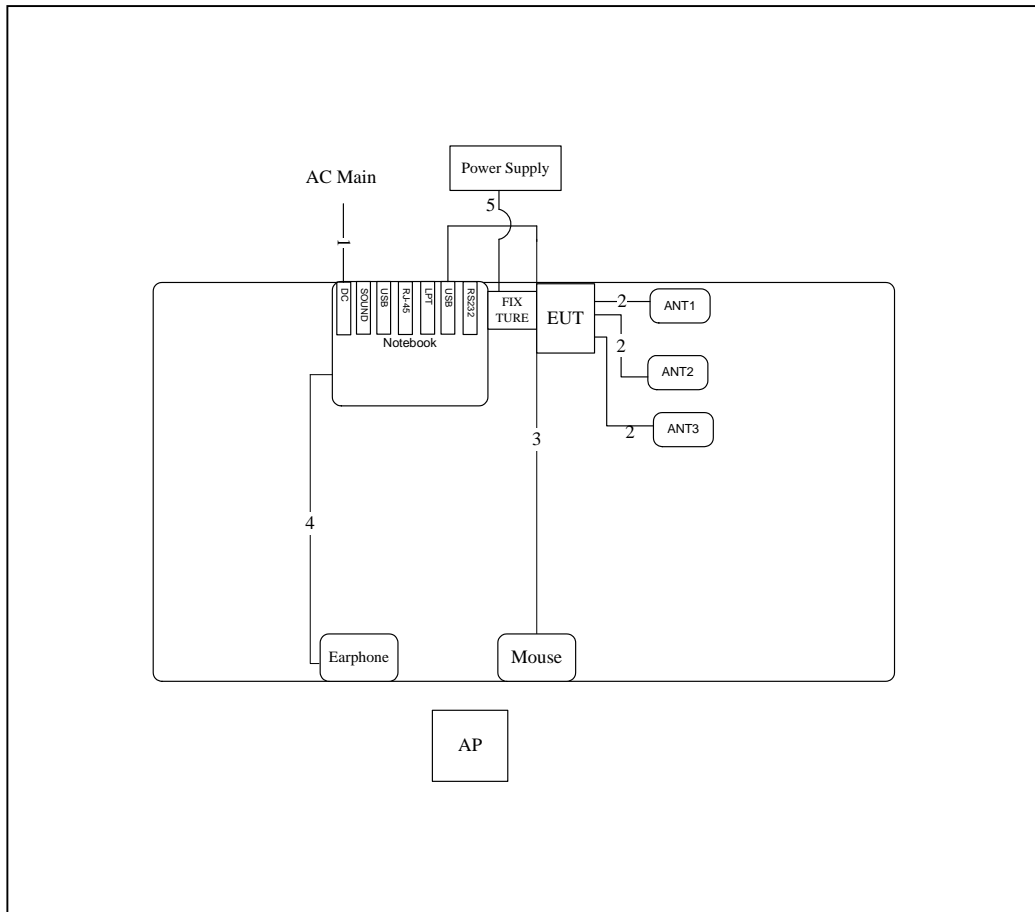
During the test, "ART2-GUI 2.3" under WIN XP was executed the test program to control the EUT continuously transmit RF signal.

3.9. Test Configurations

3.9.1. Radiation Emissions Test Configuration

Test Configuration: 30MHz ~ 1GHz

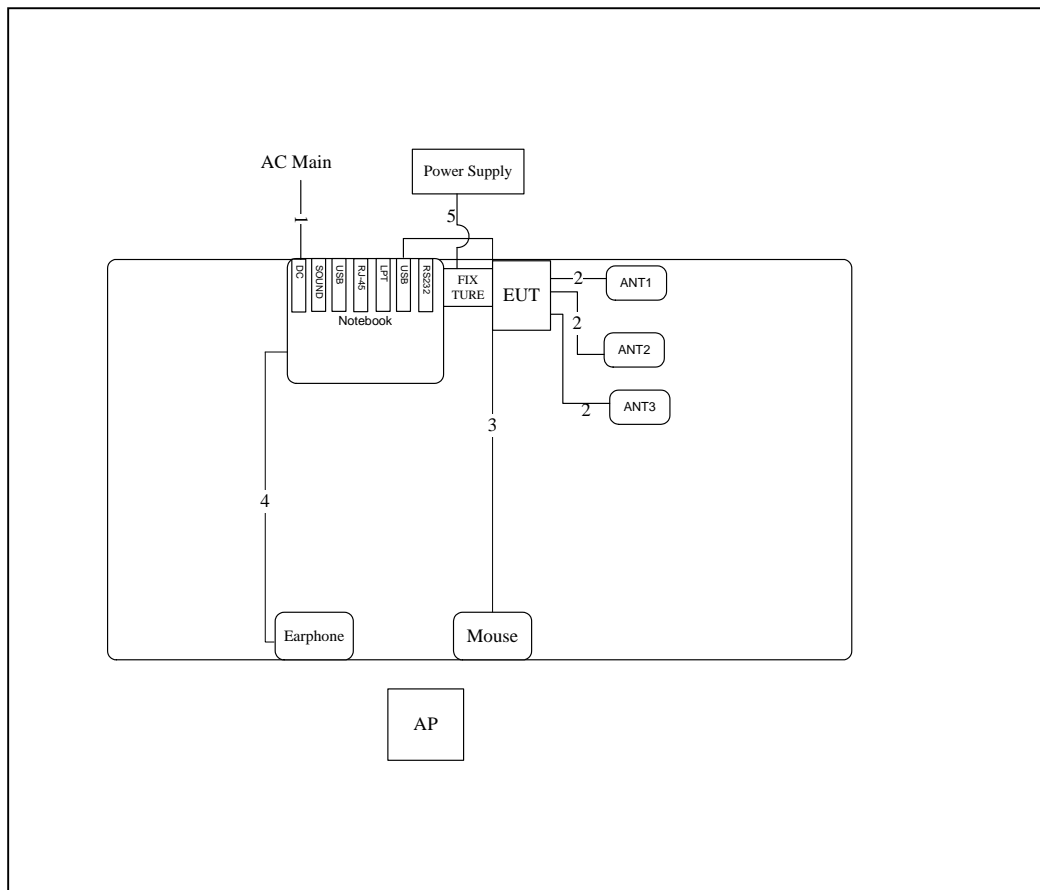
Test Mode : Mode 1 (Module + Ant. 3 Panel antenna / 14dBi)



Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	ANT cable*3	Yes	0.28M
3	USB cable	Yes	1.8M
4	Earphone cable	No	0.72M
5	Power cable	No	1M

Test Configuration: 30MHz~1GHz

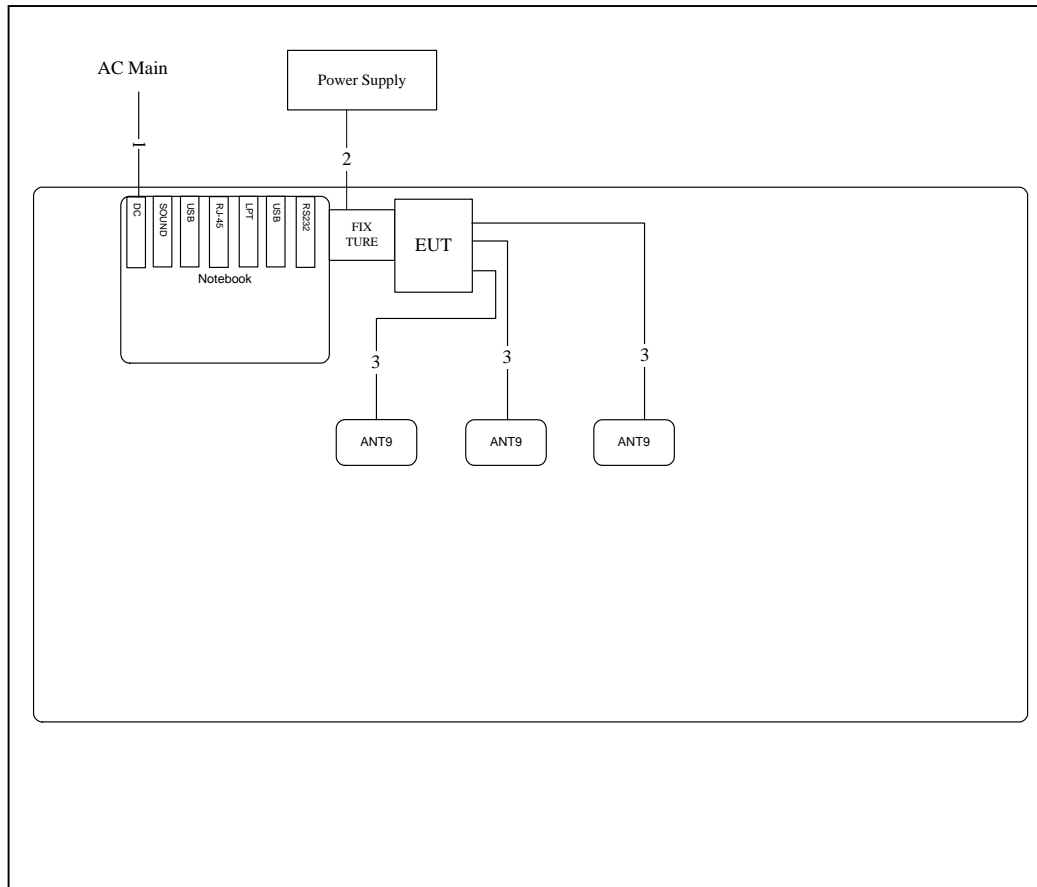
Test Mode : Mode 2 (Module + Ant. 8 Panel antenna / 10.5dBi)



Item	Connection	Shield	Length
1	Power Cable	No	1.8M
2	ANT Cable*3	Yes	1.1M
3	USB Cable	Yes	1.8M
4	Earphone Cable	No	0.72M
5	Power Cable	No	1M

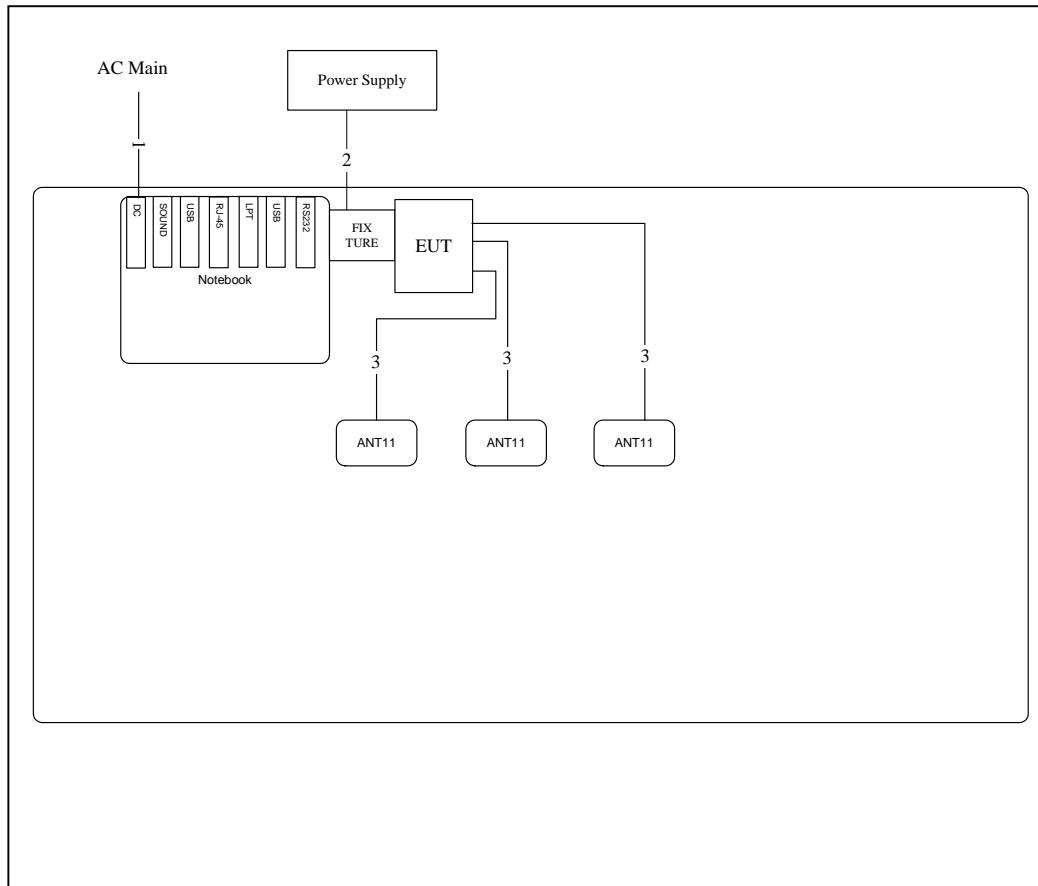
Test Configuration: above 1GHz

Test Mode : Mode 1(Ant. 6 Dipole antenna / 8dBi)



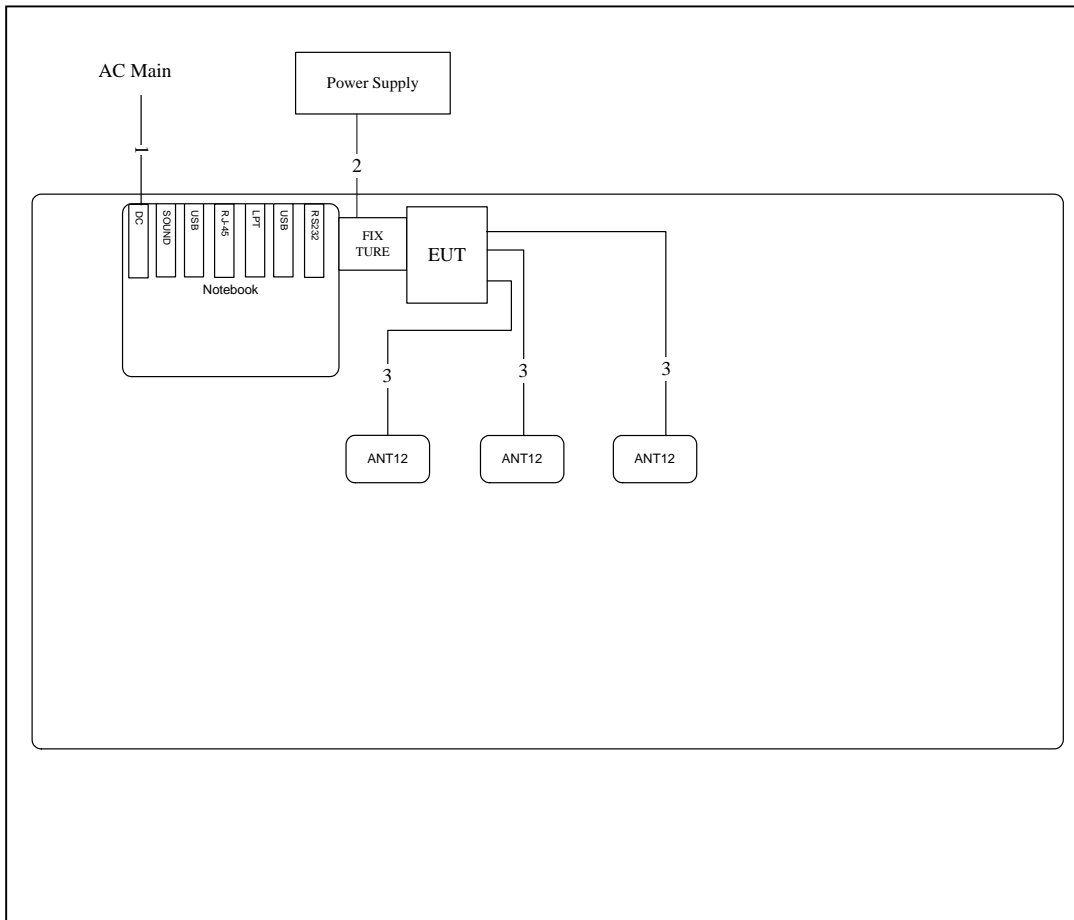
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.2M

Test Mode : Mode 2 (Ant. 7 Patch antenna / 2.3dBi)



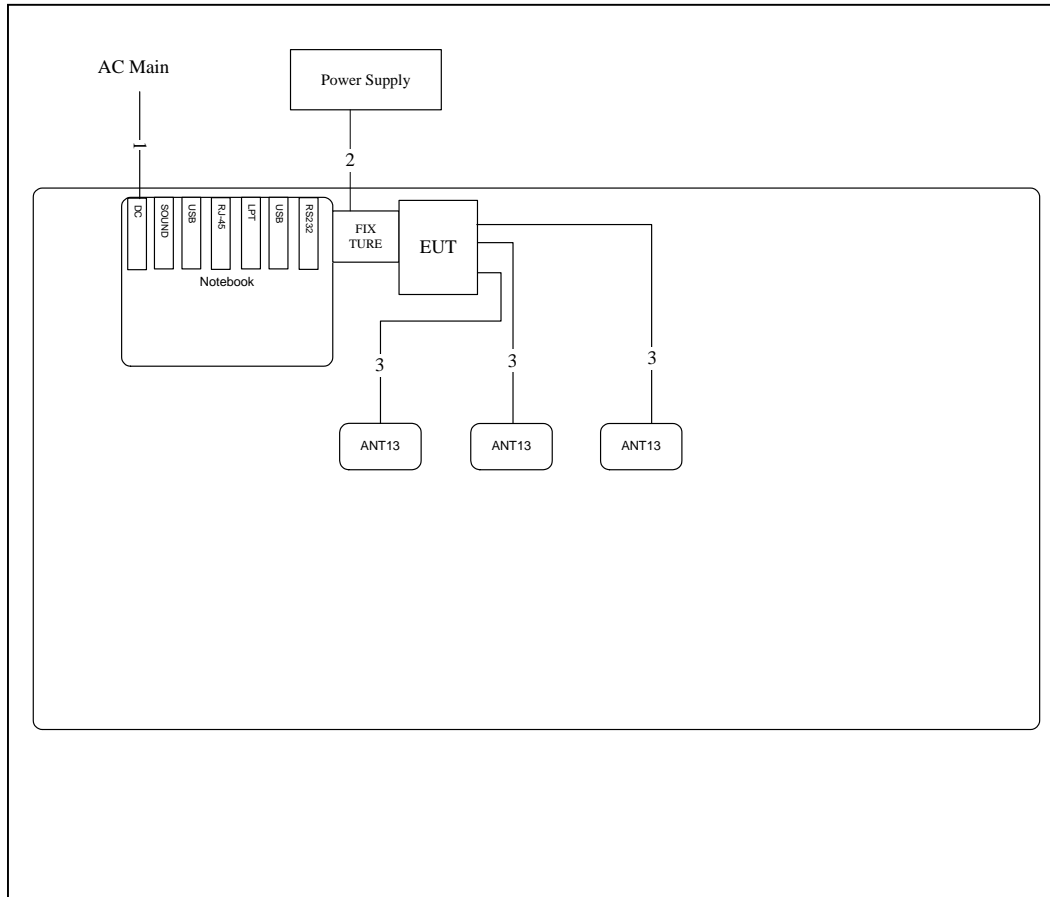
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	Ant cable*3	Yes	1.1M

Test Mode: Mode 3 (Ant. 8 Panel antenna / 10.5dBi)



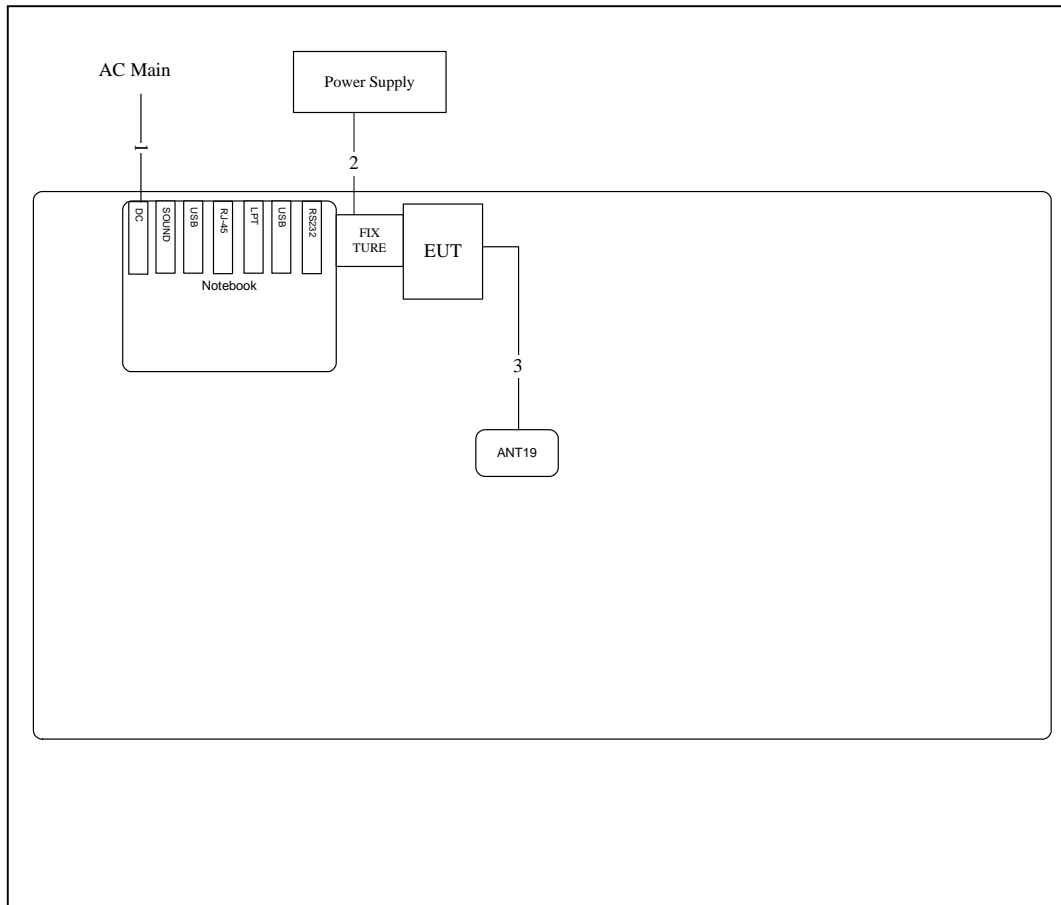
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.1M

Test Mode : Mode 4 (Ant. 9 Yagi antenna / 8dBi)



Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	Ant cable*3	Yes	1.06M

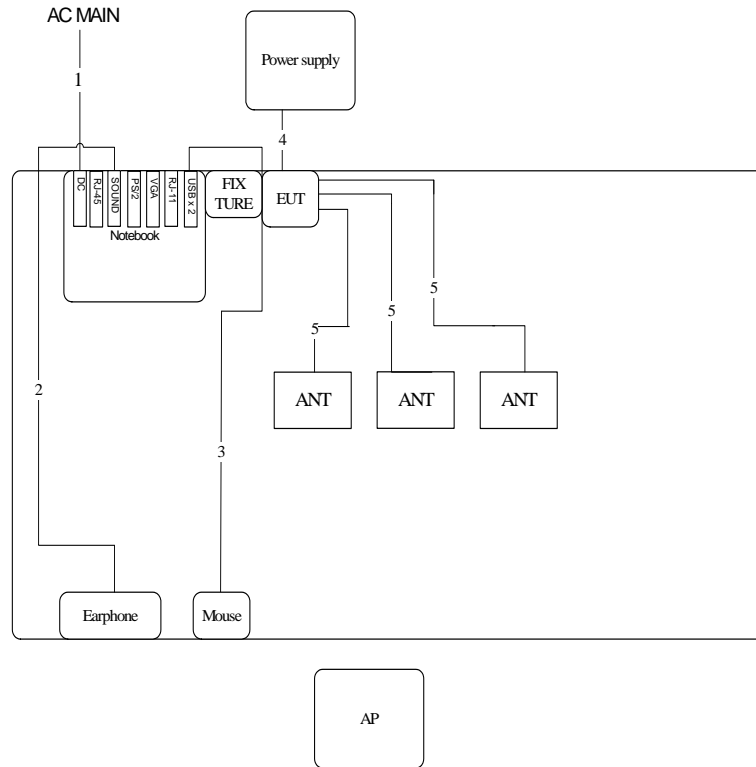
Test Mode : Mode 5 (Ant. 5 Facade antenna / 2.5dBi)



Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable *3	Yes	0.25M

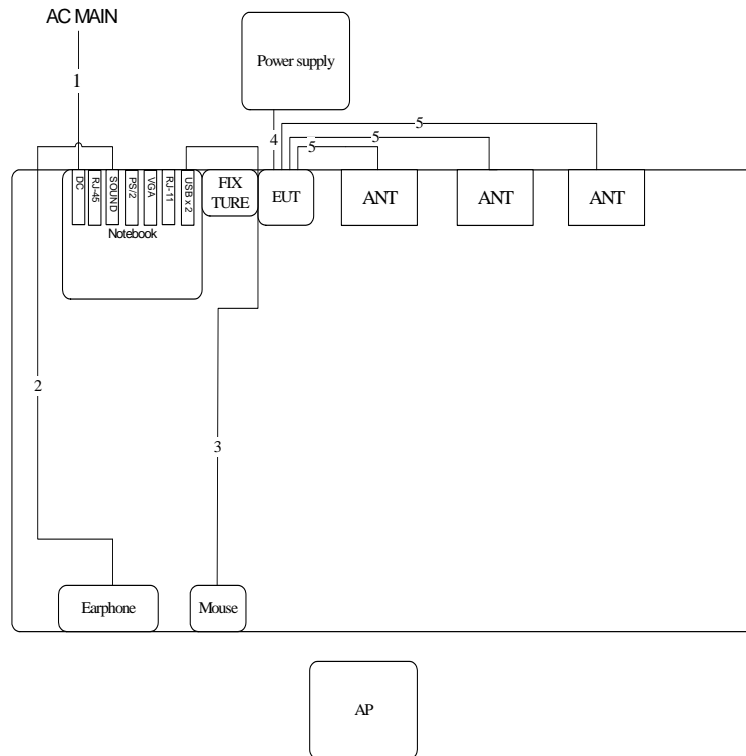
3.9.2. AC Power Line Conduction Emissions Test Configuration

Test Mode : Mode 1 (Module + Ant. 3 Panel antenna / 14dB)



Item	Connection	Shield	Length
1	Power Cable	No	1.8M
2	Earphone cable	No	0.72M
3	USB cable	Yes	1.8M
4	Power Cable	No	1M
5	ANT cable*3	Yes	0.28M

Test Mode : Mode 2 (Module + Ant. 8 Panel antenna / 10.5dBi)



Item	Connection	Shield	Length
1	Power Cable	No	1.8M
2	Earphone cable	No	0.72M
3	USB cable	Yes	1.8M
4	Power Cable	No	1M
5	ANT cable*3	Yes	1.1M

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

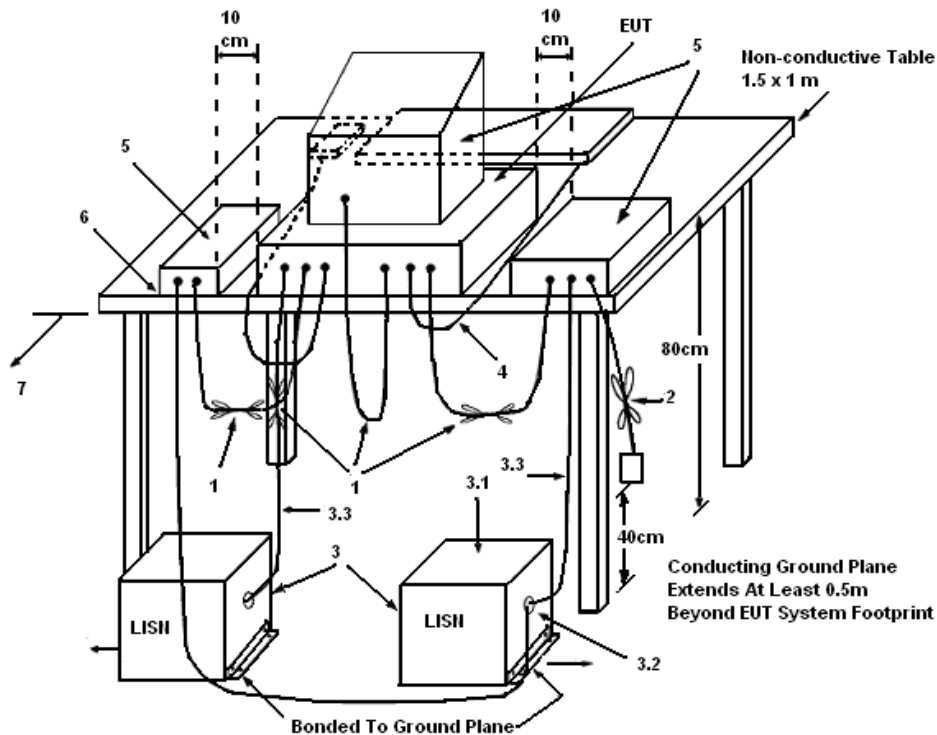
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

4.1.4. Test Setup Layout



LEGEND:

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

4.1.5. Test Deviation

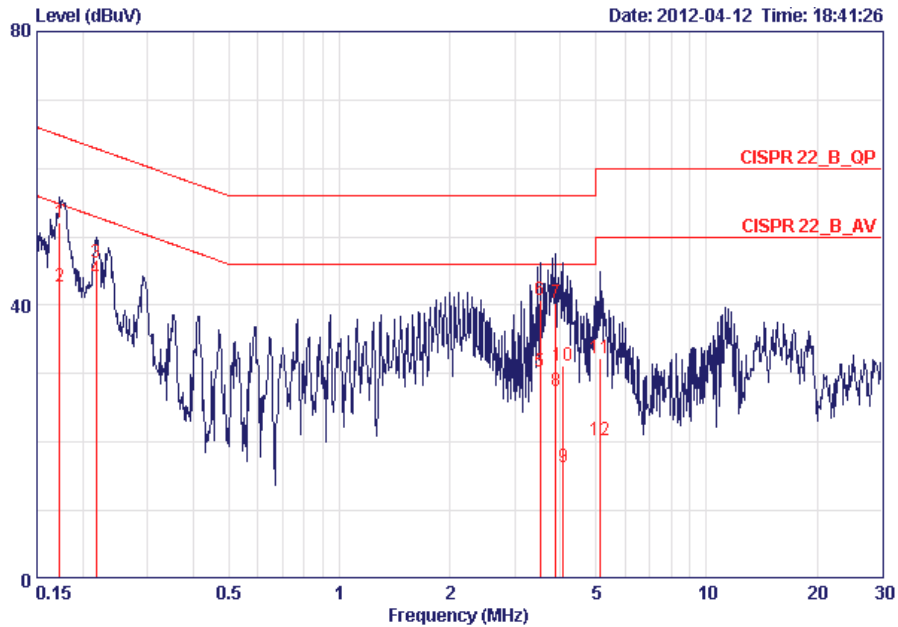
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

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

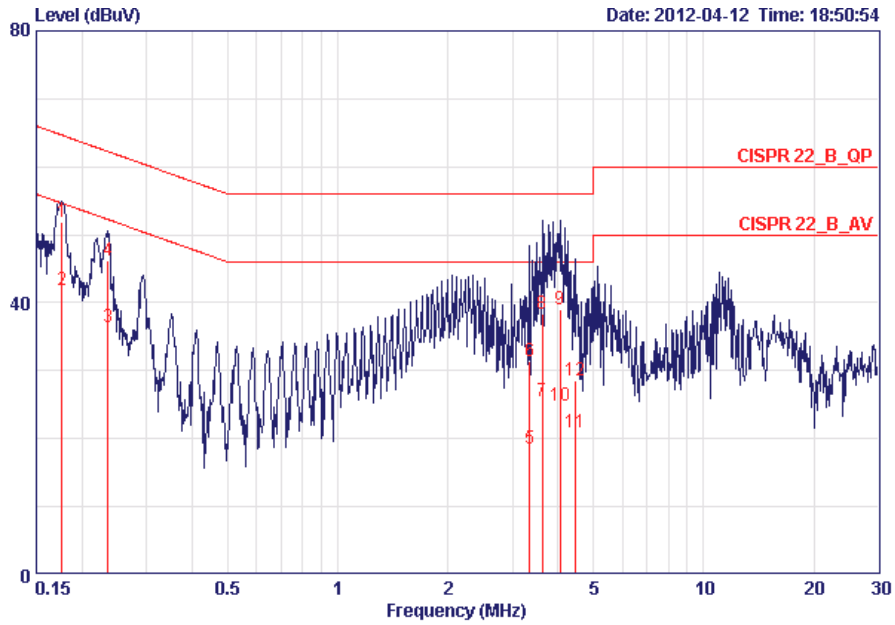
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	25°C	Humidity	65%
Test Engineer	Sin Chang	Phase	Line
Configuration	Normal Link / Mode 1 (Module + Ant. 3 Panel antenna / 14dBi)		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17307	51.99	-12.82	64.81	51.70	0.09	0.20	QP
2	0.17307	42.83	-11.98	54.81	42.54	0.09	0.20	AVERAGE
3	0.21735	46.19	-16.73	62.92	45.91	0.08	0.20	QP
4	0.21735	43.90	-9.02	52.92	43.62	0.08	0.20	AVERAGE
5	3.519	30.34	-15.66	46.00	29.91	0.13	0.30	AVERAGE
6	3.519	40.74	-15.26	56.00	40.31	0.13	0.30	QP
7	3.881	40.25	-15.75	56.00	39.81	0.14	0.30	QP
8	3.881	27.39	-18.61	46.00	26.95	0.14	0.30	AVERAGE
9	4.070	16.40	-29.60	46.00	15.95	0.15	0.30	AVERAGE
10	4.070	31.19	-24.81	56.00	30.74	0.15	0.30	QP
11	5.112	32.16	-27.84	60.00	31.65	0.21	0.30	QP
12	5.112	20.18	-29.82	50.00	19.67	0.21	0.30	AVERAGE

Temperature	25°C	Humidity	65%
Test Engineer	Sin Chang	Phase	Neutral
Configuration	Normal Link / Mode 1 (Module + Ant. 3 Panel antenna / 14dBi)		

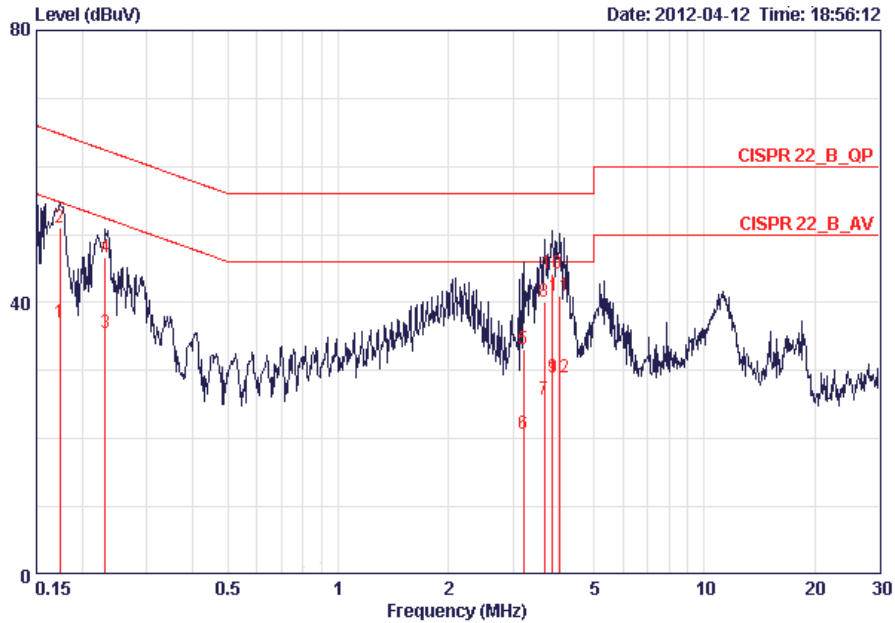


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 @	0.17584	51.98	-12.70	64.68	51.72	0.06	0.20	QP
2 @	0.17584	41.91	-12.77	54.68	41.65	0.06	0.20	AVERAGE
3	0.23533	36.39	-15.87	52.26	36.14	0.05	0.20	AVERAGE
4	0.23533	46.29	-15.97	62.26	46.04	0.05	0.20	QP
5	3.346	18.45	-27.55	46.00	18.09	0.09	0.27	AVERAGE
6	3.346	31.47	-24.53	56.00	31.11	0.09	0.27	QP
7	3.623	25.57	-20.43	46.00	25.18	0.09	0.30	AVERAGE
8	3.623	38.32	-17.68	56.00	37.93	0.09	0.30	QP
9	4.049	39.07	-16.93	56.00	38.67	0.10	0.30	QP
10	4.049	24.87	-21.13	46.00	24.47	0.10	0.30	AVERAGE
11	4.454	20.90	-25.10	46.00	20.47	0.13	0.30	AVERAGE
12	4.454	28.52	-27.48	56.00	28.09	0.13	0.30	QP

Note:

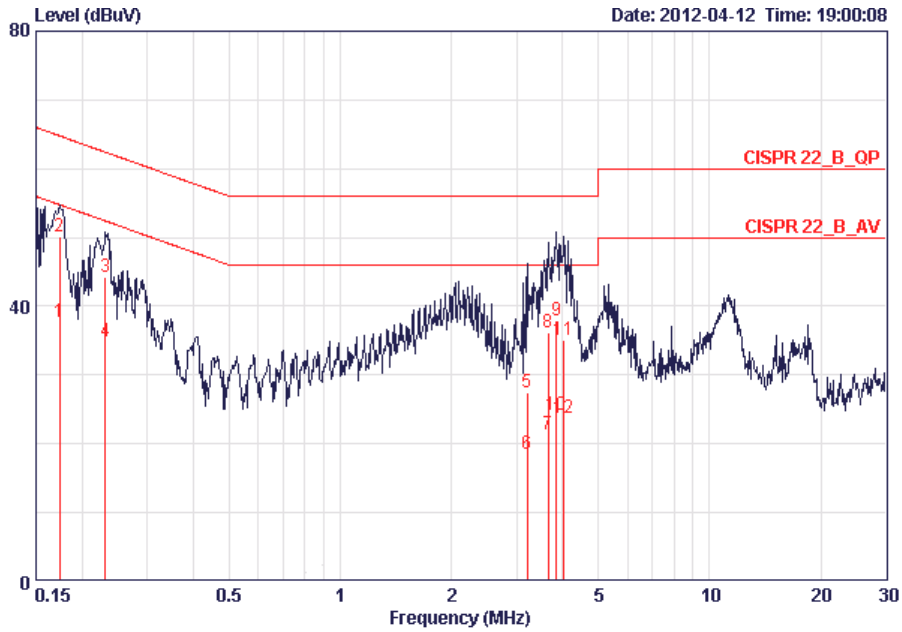
$$\text{Level} = \text{Read Level} + \text{LISN Factor} + \text{Cable Loss}$$

Temperature	25°C	Humidity	65%
Test Engineer	Sin Chang	Phase	Line
Configuration	Normal Link / Mode 2 (Module + Ant. 8 Panel antenna / 10.5dBi)		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17399	37.10	-17.67	54.77	36.84	0.06	0.20	AVERAGE
2 @	0.17399	51.06	-13.71	64.77	50.80	0.06	0.20	QP
3	0.23162	35.58	-16.82	52.39	35.33	0.05	0.20	AVERAGE
4	0.23162	46.71	-15.69	62.39	46.46	0.05	0.20	QP
5	3.207	33.05	-22.95	56.00	32.73	0.08	0.24	QP
6	3.207	20.80	-25.20	46.00	20.48	0.08	0.24	AVERAGE
7	3.661	25.71	-20.29	46.00	25.32	0.09	0.30	AVERAGE
8	3.661	40.08	-15.92	56.00	39.69	0.09	0.30	QP
9	3.840	28.97	-17.03	46.00	28.57	0.10	0.30	AVERAGE
10 @	3.840	44.35	-11.65	56.00	43.95	0.10	0.30	QP
11	4.027	40.91	-15.09	56.00	40.51	0.10	0.30	QP
12	4.027	28.90	-17.10	46.00	28.50	0.10	0.30	AVERAGE

Temperature	25°C	Humidity	65%
Test Engineer	Sin Chang	Phase	Neutral
Configuration	Normal Link / Mode 2 (Module + Ant. 8 Panel antenna / 10.5dBi)		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17399	37.75	-17.02	54.77	37.46	0.09	0.20	AVERAGE
2 @	0.17399	50.14	-14.63	64.77	49.85	0.09	0.20	QP
3	0.23162	44.28	-18.11	62.39	44.00	0.08	0.20	QP
4	0.23162	34.97	-17.42	52.39	34.69	0.08	0.20	AVERAGE
5	3.207	27.49	-28.51	56.00	27.13	0.12	0.24	QP
6	3.207	18.53	-27.47	46.00	18.17	0.12	0.24	AVERAGE
7	3.661	21.35	-24.65	46.00	20.92	0.13	0.30	AVERAGE
8	3.661	36.26	-19.74	56.00	35.83	0.13	0.30	QP
9	3.840	37.84	-18.16	56.00	37.40	0.14	0.30	QP
10	3.840	24.23	-21.77	46.00	23.79	0.14	0.30	AVERAGE
11	4.027	35.09	-20.91	56.00	34.65	0.14	0.30	QP
12	4.027	23.72	-22.28	46.00	23.28	0.14	0.30	AVERAGE

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

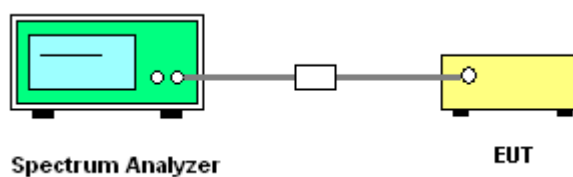
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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.

4.2.4. 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

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 1 (Ant. 6 Dipole antenna / 8dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	40.00	20.80
60	5300 MHz	39.68	19.52
64	5320 MHz	25.92	18.72
100	5500 MHz	25.60	18.56
116	5580 MHz	41.28	21.76
140	5700 MHz	25.12	18.56

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	74.56	39.68
62	5310 MHz	47.68	37.12
102	5510MHz	48.64	36.80
110	5550 MHz	49.28	37.12
134	5670 MHz	48.64	37.12

2TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	24.96	19.20
60	5300 MHz	25.12	19.20
64	5320 MHz	25.12	19.20
100	5500 MHz	21.92	16.48
116	5580 MHz	24.96	19.20
140	5700 MHz	25.60	19.04

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	42.24	34.24
62	5310 MHz	47.04	37.44
102	5510MHz	48.64	37.44
110	5550 MHz	44.48	35.52
134	5670 MHz	46.40	37.12

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	25.92	18.40
60	5300 MHz	27.52	18.24
64	5320 MHz	26.08	18.40
100	5500 MHz	24.80	18.24
116	5580 MHz	24.48	18.40
140	5700 MHz	24.48	18.40

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	48.32	36.80
62	5310 MHz	47.68	36.80
102	5510MHz	46.40	36.48
110	5550 MHz	47.04	36.80
134	5670 MHz	48.00	36.80

3TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	21.44	17.12
60	5300 MHz	23.36	19.04
64	5320 MHz	24.32	18.56
100	5500 MHz	22.08	17.92
116	5580 MHz	22.56	18.08
140	5700 MHz	22.24	17.60

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	41.28	36.16
62	5310 MHz	45.44	36.80
102	5510MHz	45.76	37.12
110	5550 MHz	42.24	36.16
134	5670 MHz	42.56	37.12

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	23.84	18.24
60	5300 MHz	23.36	18.24
64	5320 MHz	23.84	18.40
100	5500 MHz	24.00	18.40
116	5580 MHz	23.04	17.76
140	5700 MHz	24.00	18.56

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	43.52	36.80
62	5310 MHz	44.80	36.80
102	5510MHz	44.48	36.80
110	5550 MHz	45.12	36.80
134	5670 MHz	45.76	36.80

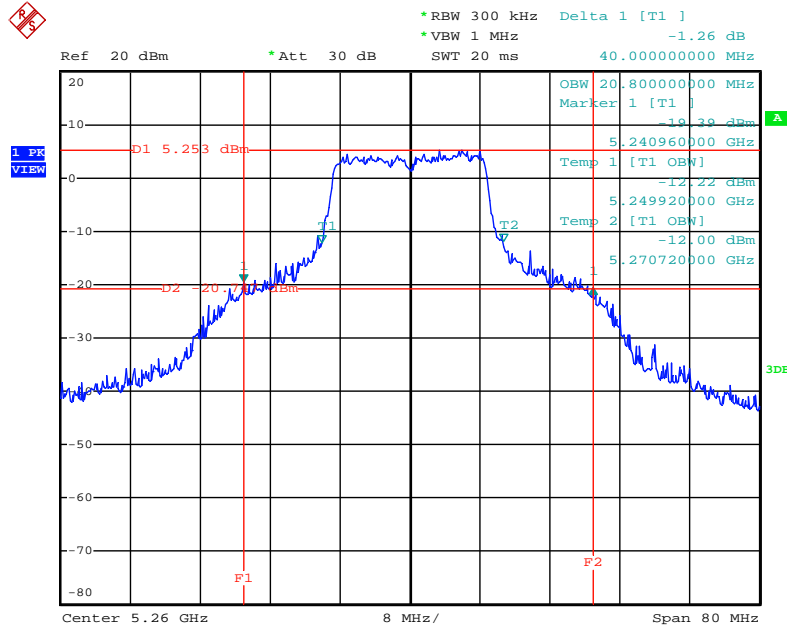
Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	24.00	18.40
60	5300 MHz	24.16	18.24
64	5320 MHz	24.00	18.24
100	5500 MHz	23.68	18.24
116	5580 MHz	24.64	18.24
140	5700 MHz	23.52	18.24

Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3

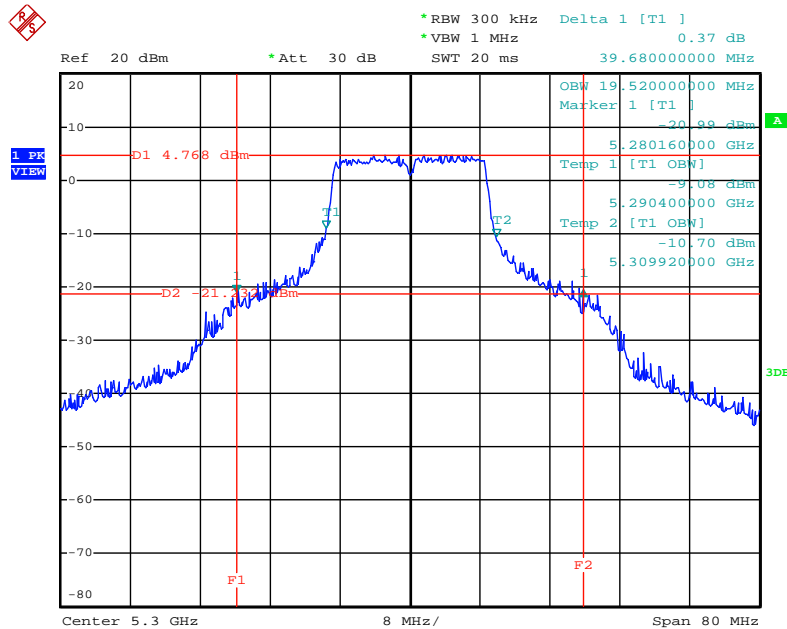
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	46.08	36.80
62	5310 MHz	45.76	36.80
102	5510MHz	44.48	36.48
110	5550 MHz	46.08	36.48
134	5670 MHz	44.16	36.48

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5260 MHz (1TX)



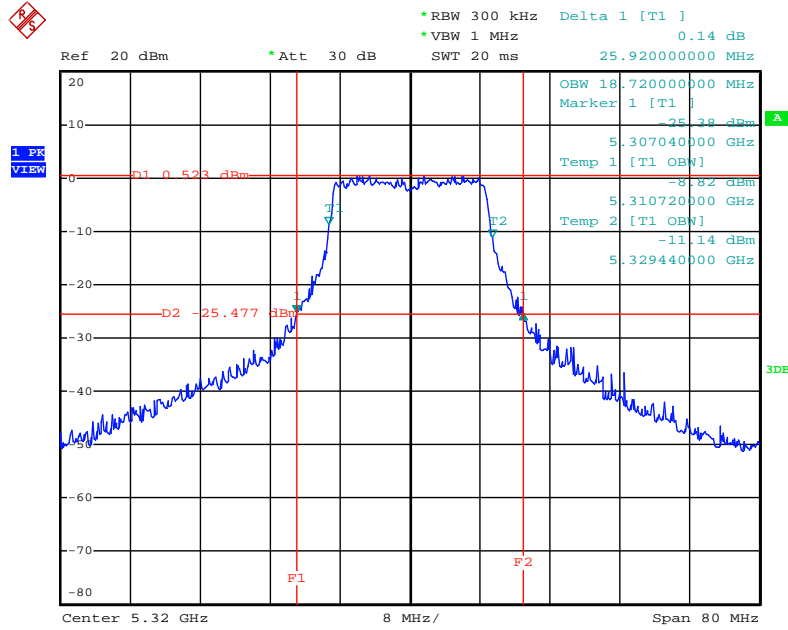
Date: 4.JUN.2012 09:13:55

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5300 MHz (1TX)



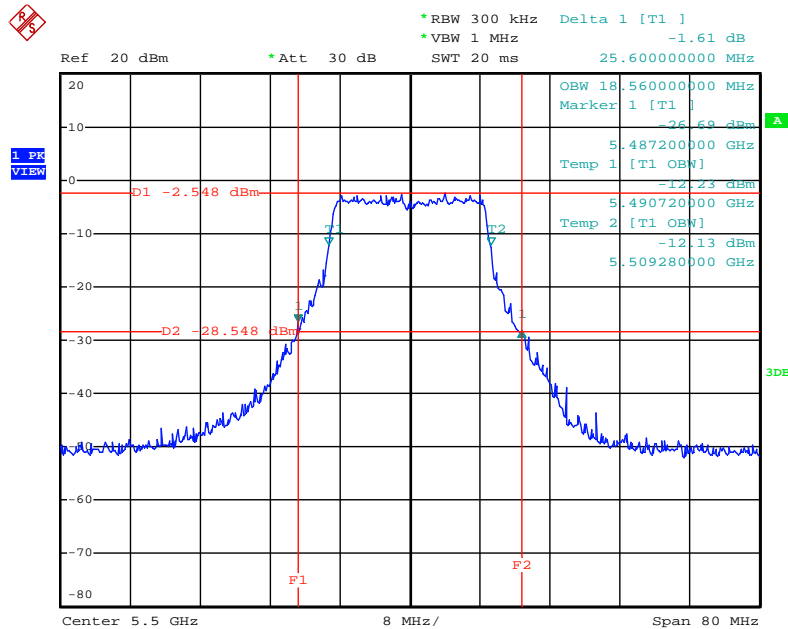
Date: 4.JUN.2012 09:14:11

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz (1TX)



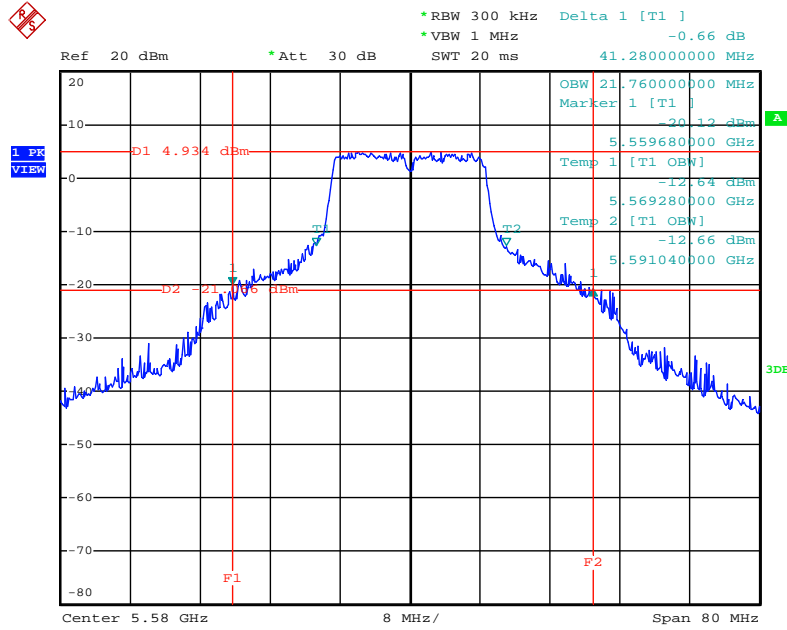
Date: 4.JUN.2012 09:14:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz (1TX)



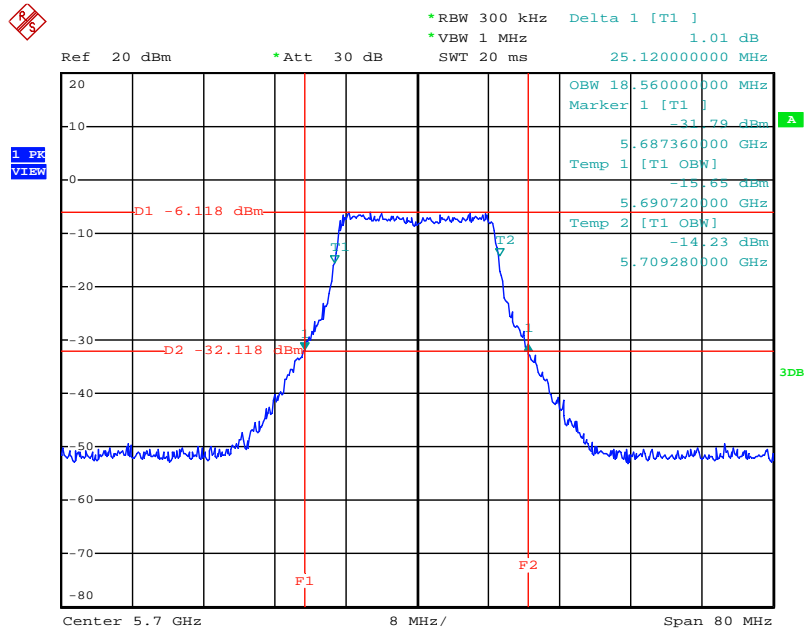
Date: 4.JUN.2012 09:15:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz (1TX)



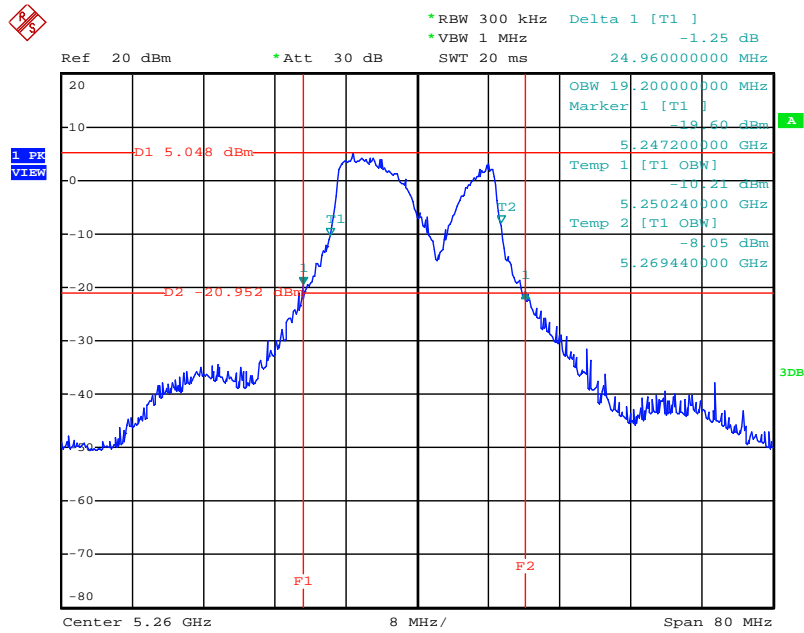
Date: 4.JUN.2012 09:15:19

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5700 MHz (1TX)



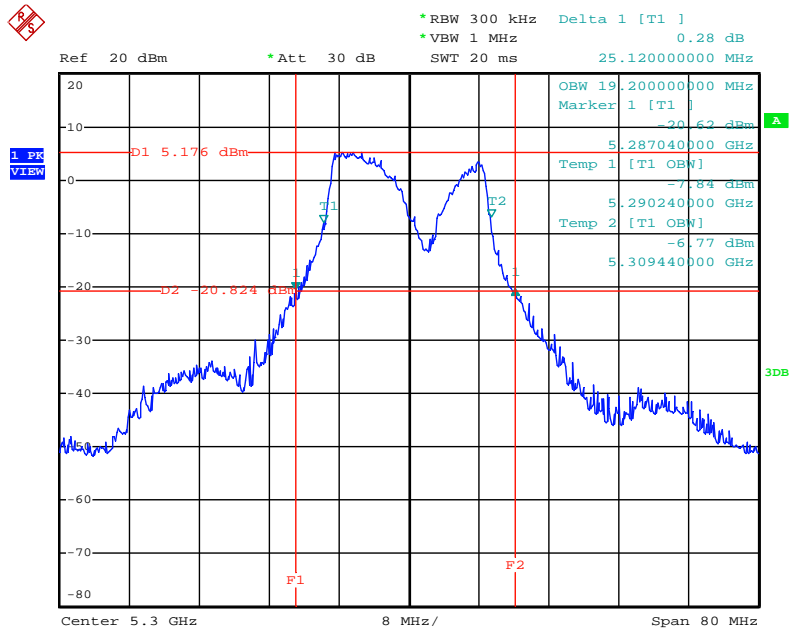
Date: 4.JUN.2012 09:15:41

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



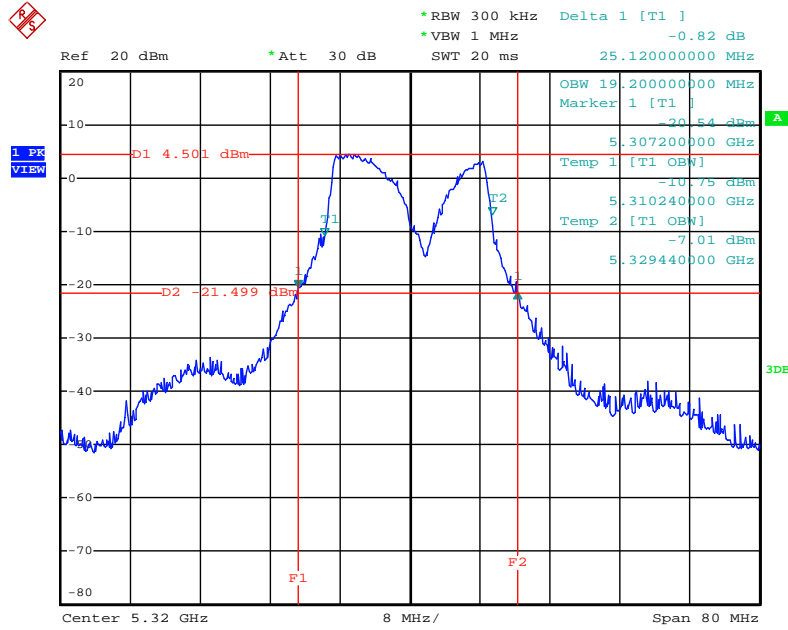
Date: 4.JUN.2012 09:09:46

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



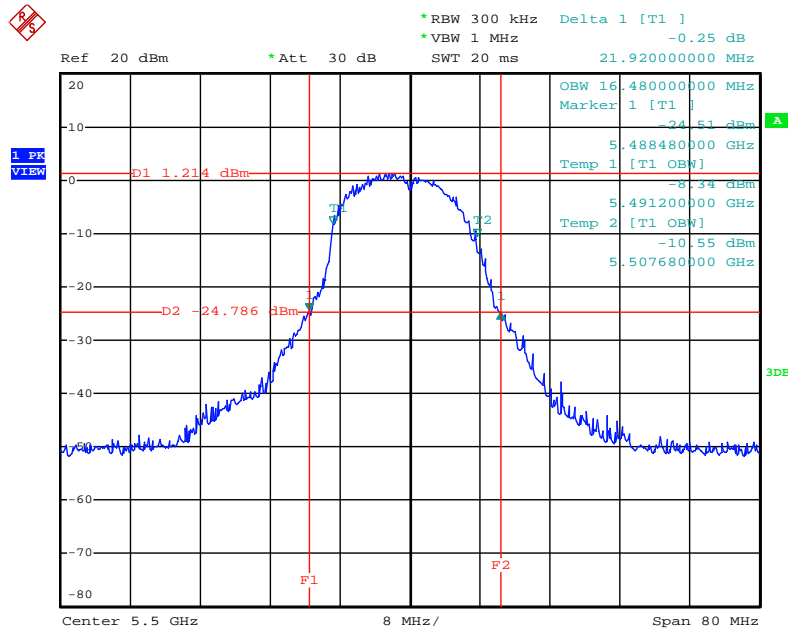
Date: 4.JUN.2012 09:10:02

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



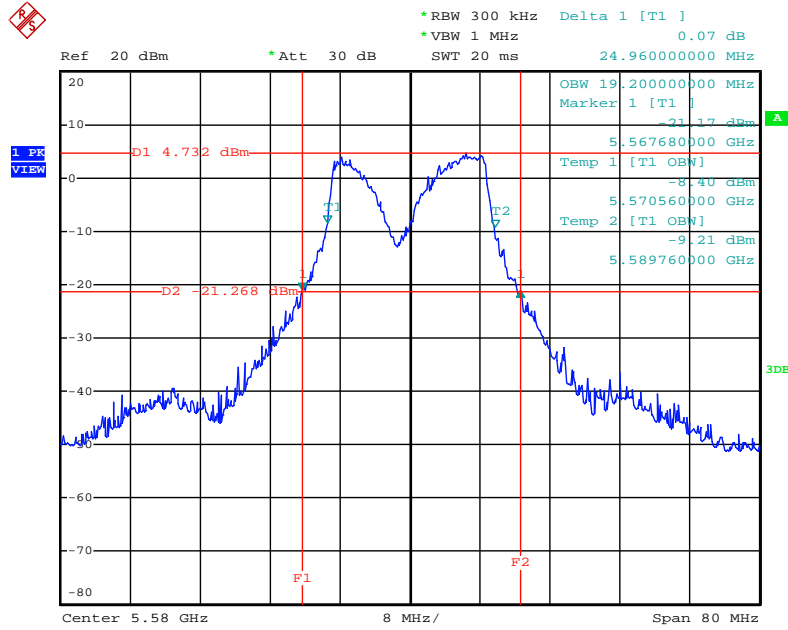
Date: 4.JUN.2012 09:10:14

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



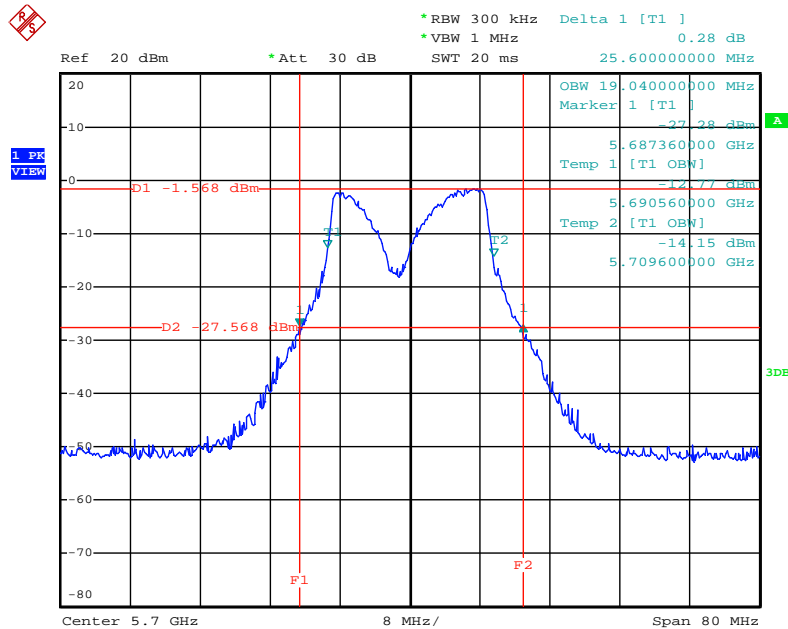
Date: 4.JUN.2012 09:10:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



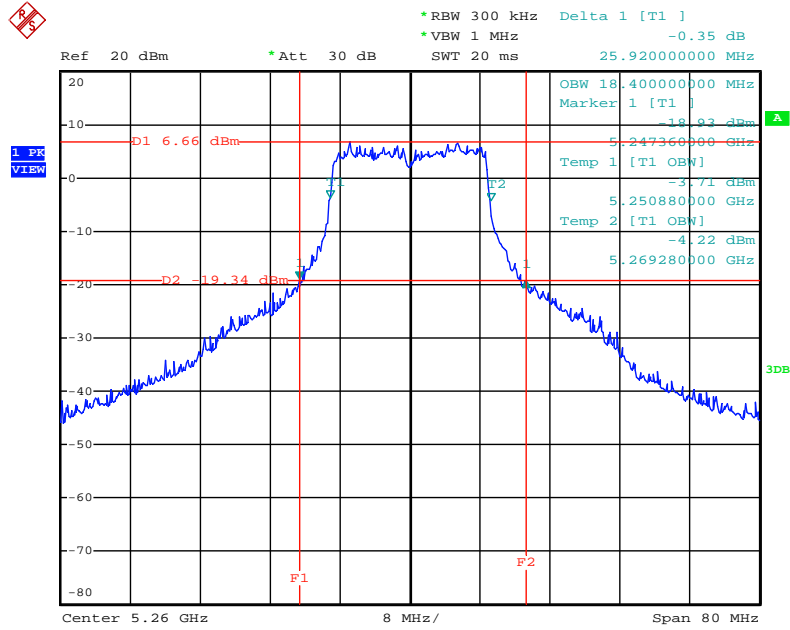
Date: 4.JUN.2012 09:11:01

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



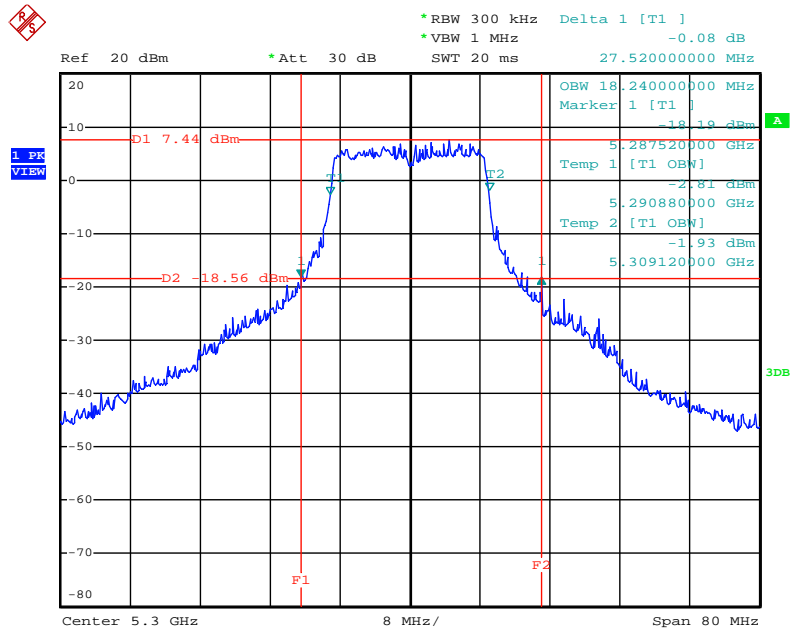
Date: 4.JUN.2012 09:11:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



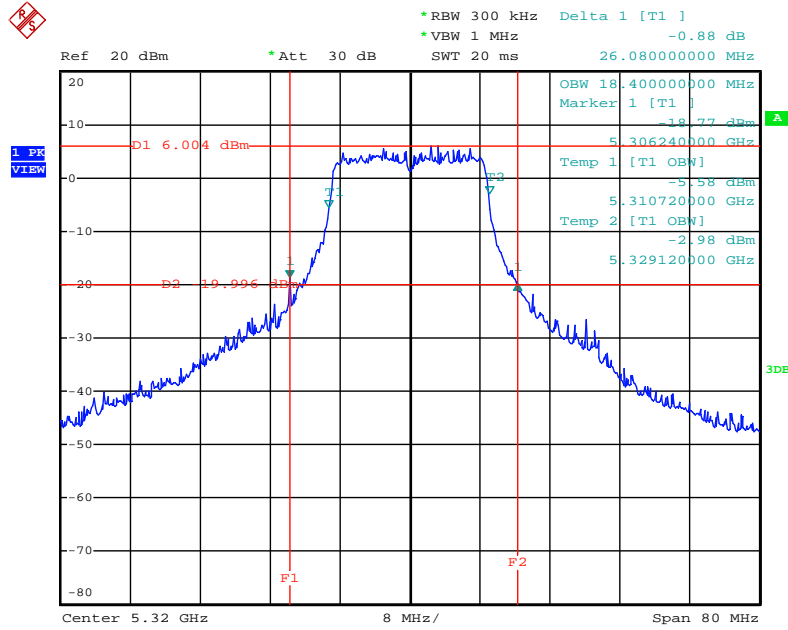
Date: 4.JUN.2012 09:13:12

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



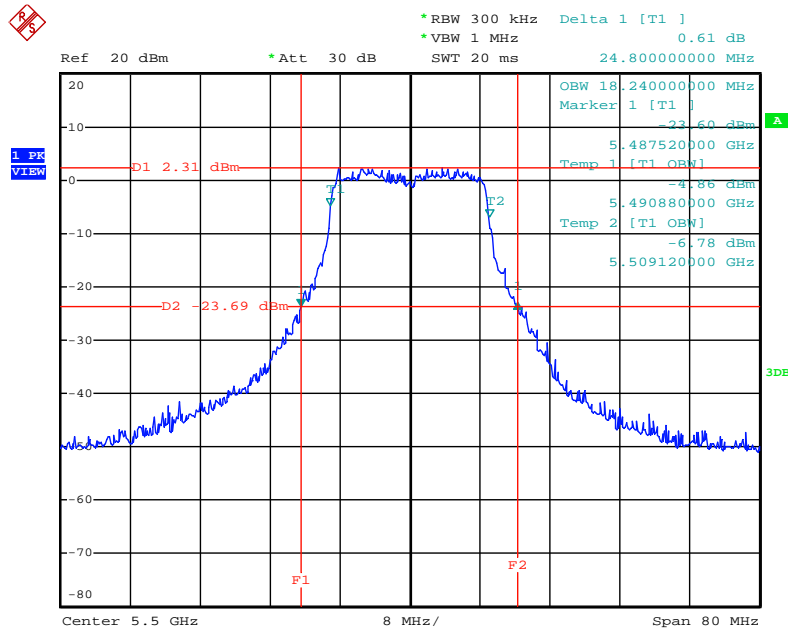
Date: 4.JUN.2012 09:12:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



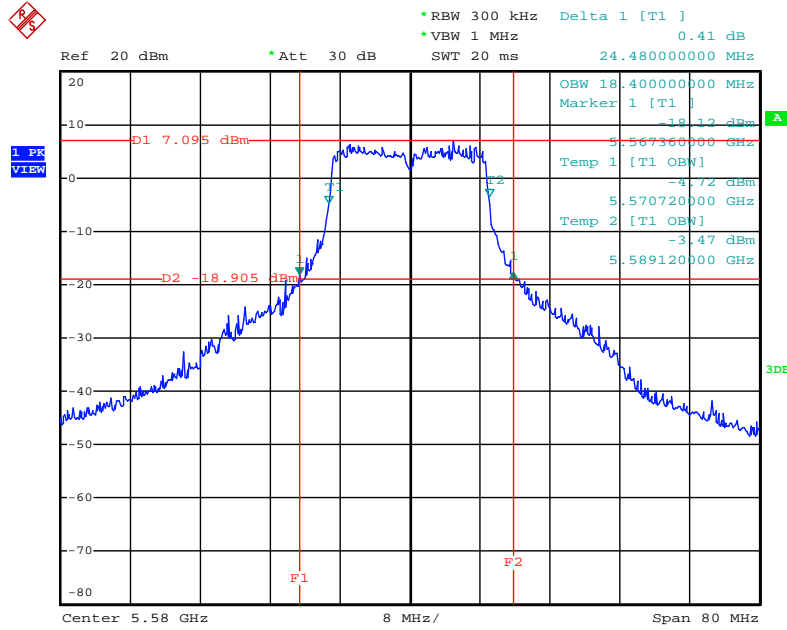
Date: 4.JUN.2012 09:12:40

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



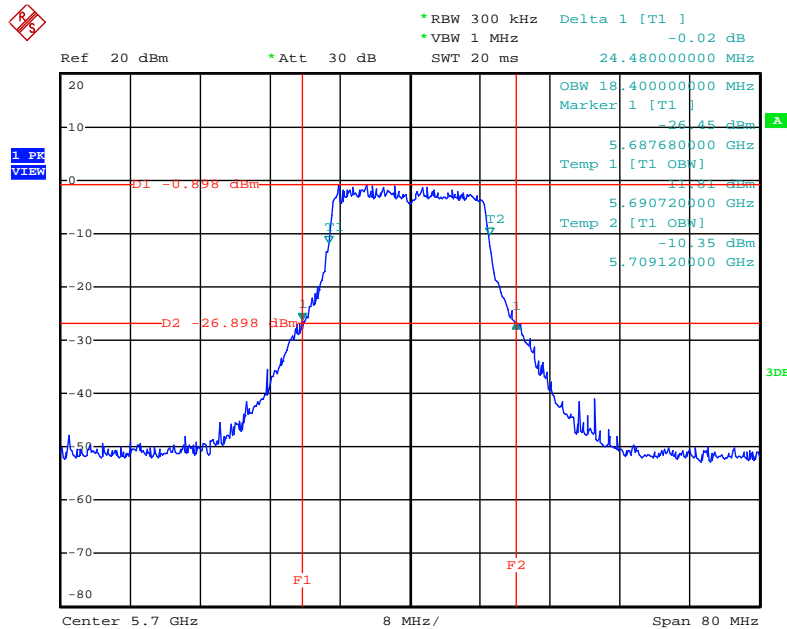
Date: 4.JUN.2012 09:12:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



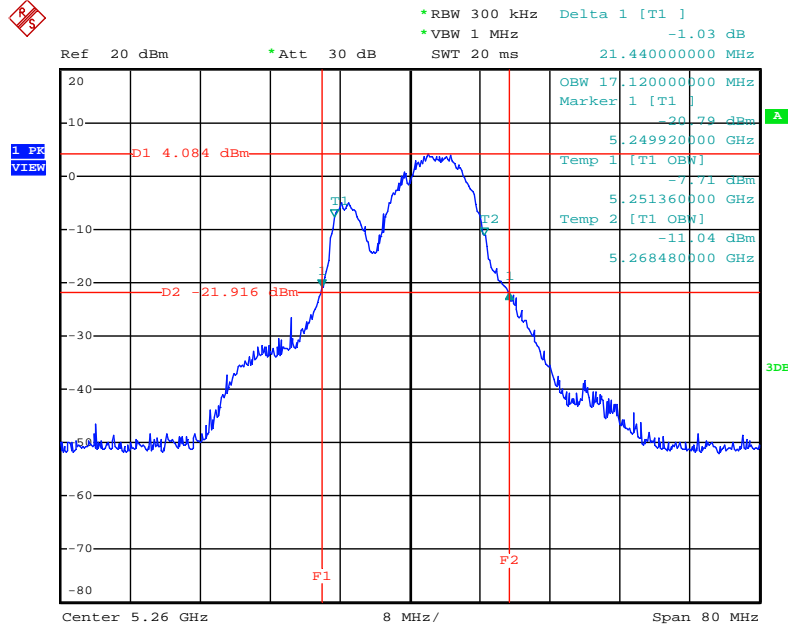
Date: 4.JUN.2012 09:12:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



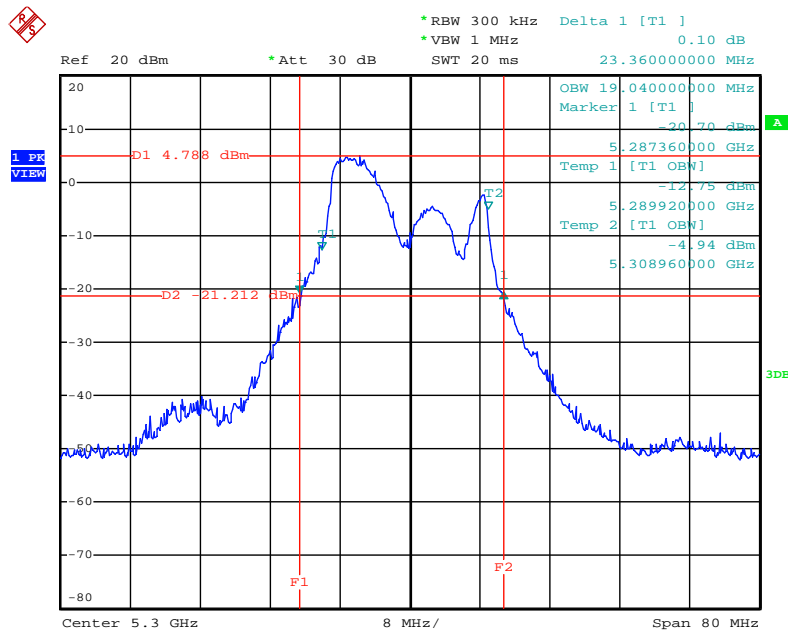
Date: 4.JUN.2012 09:11:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



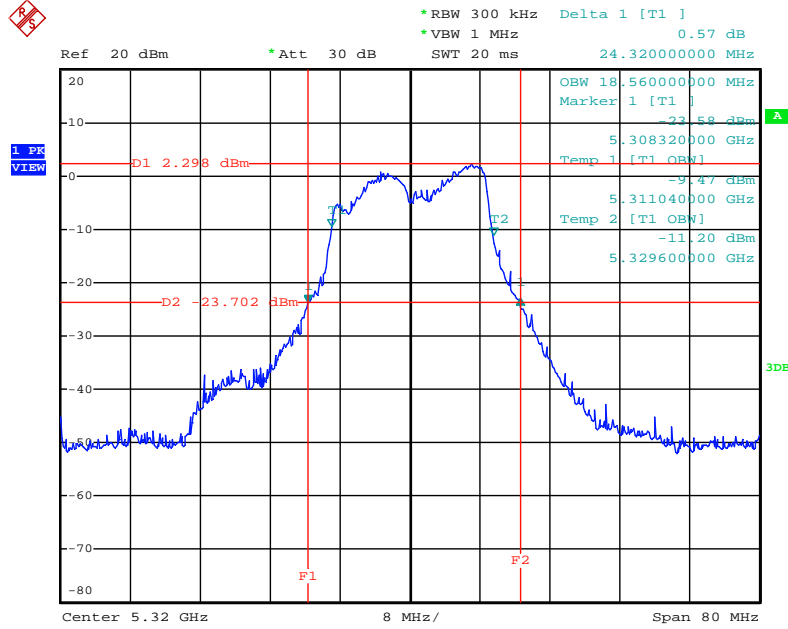
Date: 4.JUN.2012 09:01:41

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



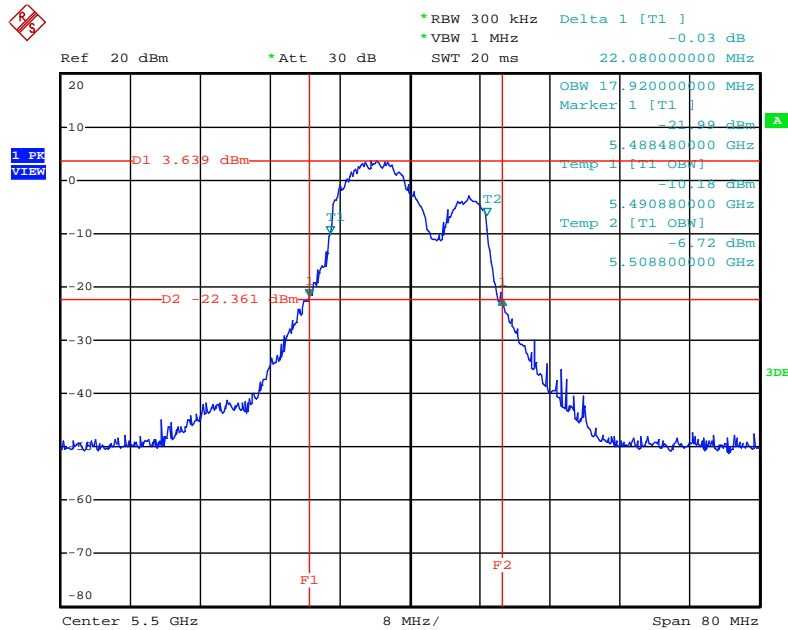
Date: 4.JUN.2012 09:01:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



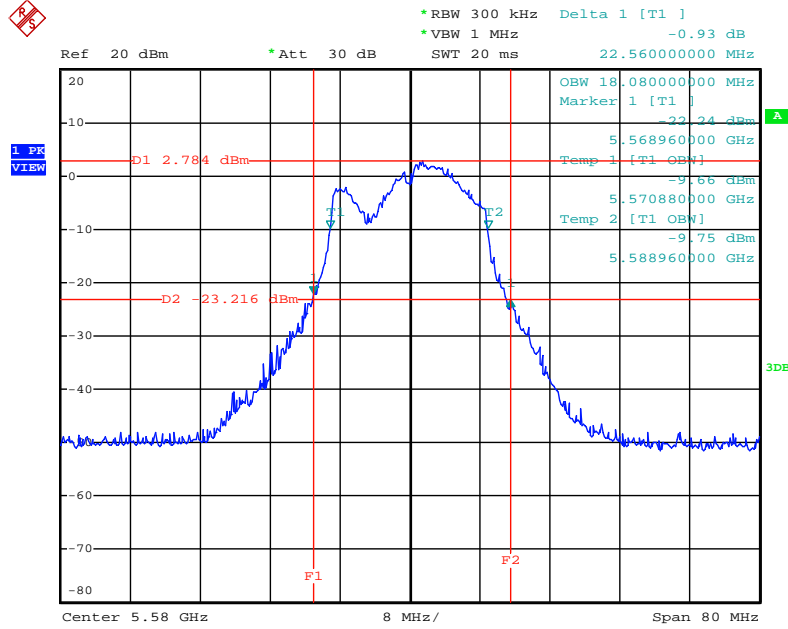
Date: 4.JUN.2012 09:01:05

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



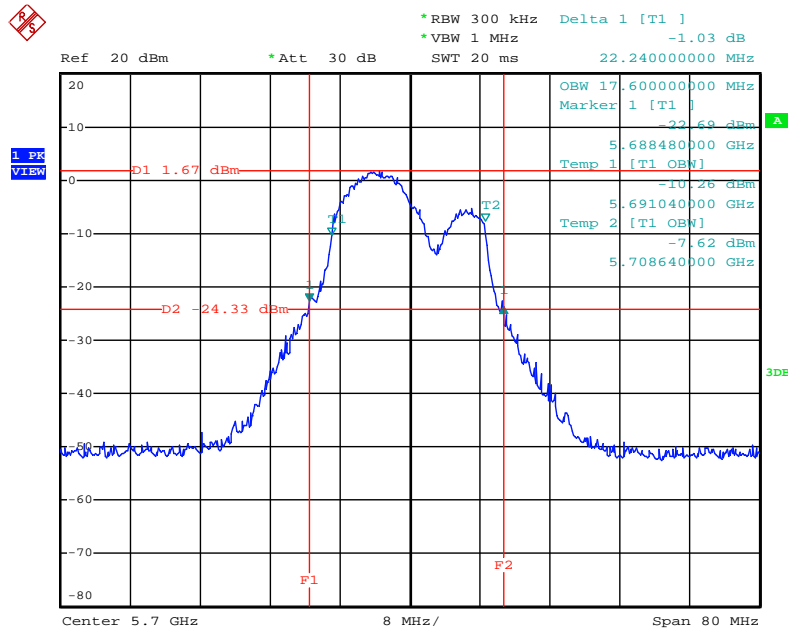
Date: 4.JUN.2012 09:00:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



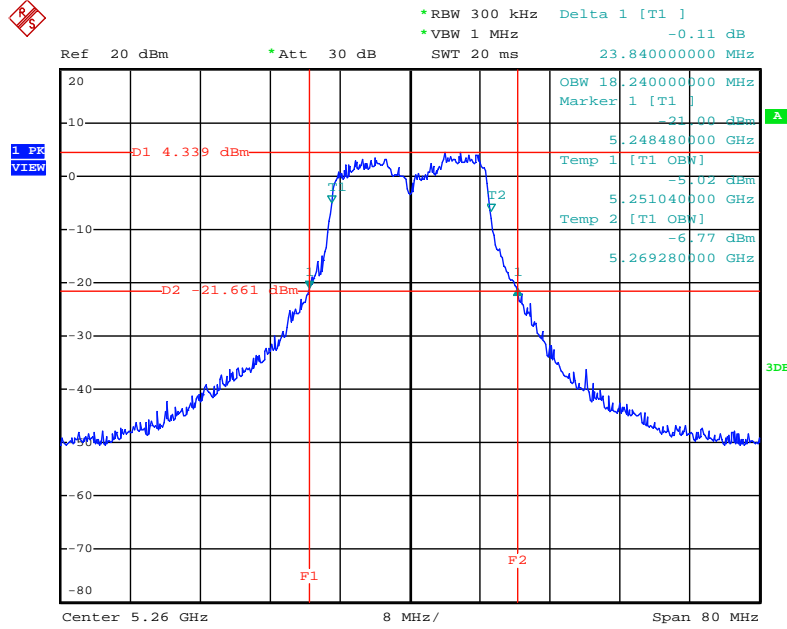
Date: 4.JUN.2012 09:00:26

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



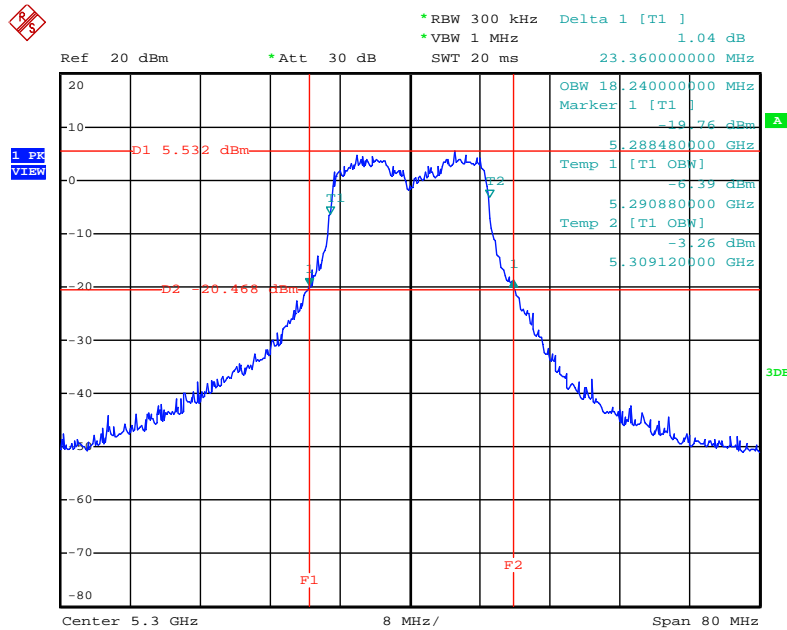
Date: 4.JUN.2012 08:58:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



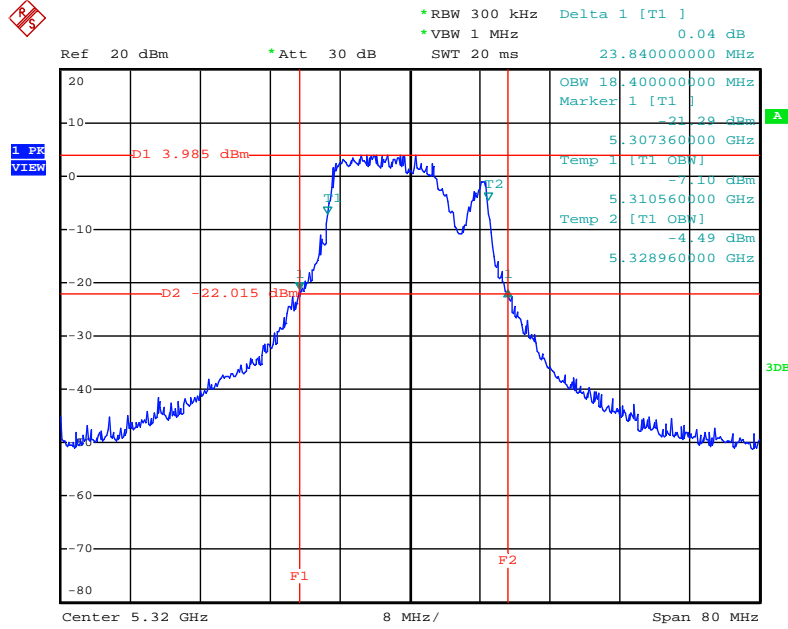
Date: 4.JUN.2012 08:55:40

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



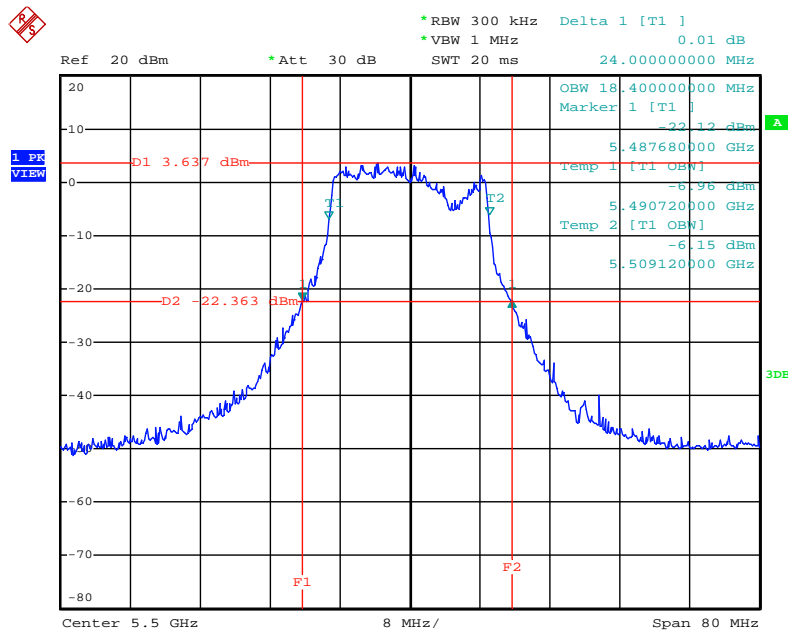
Date: 4.JUN.2012 08:55:58

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



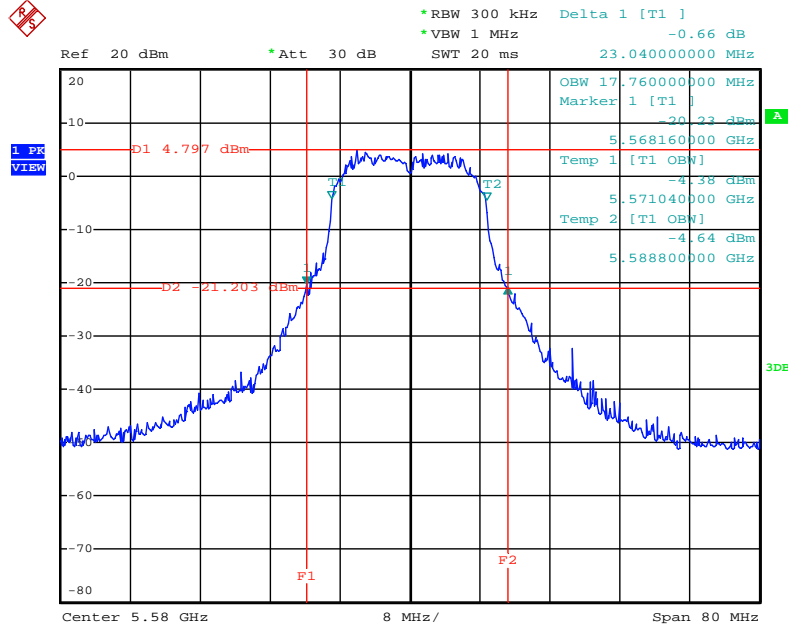
Date: 4.JUN.2012 08:56:13

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



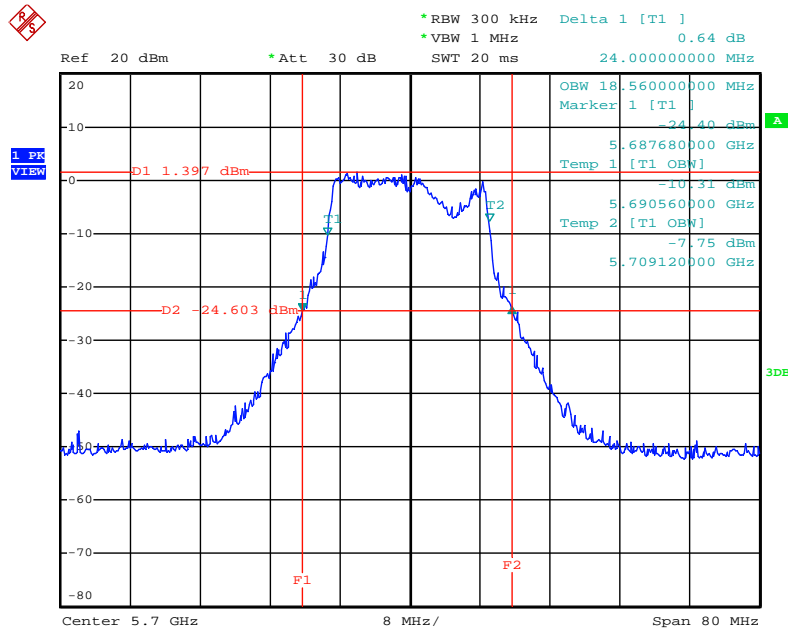
Date: 4.JUN.2012 08:56:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



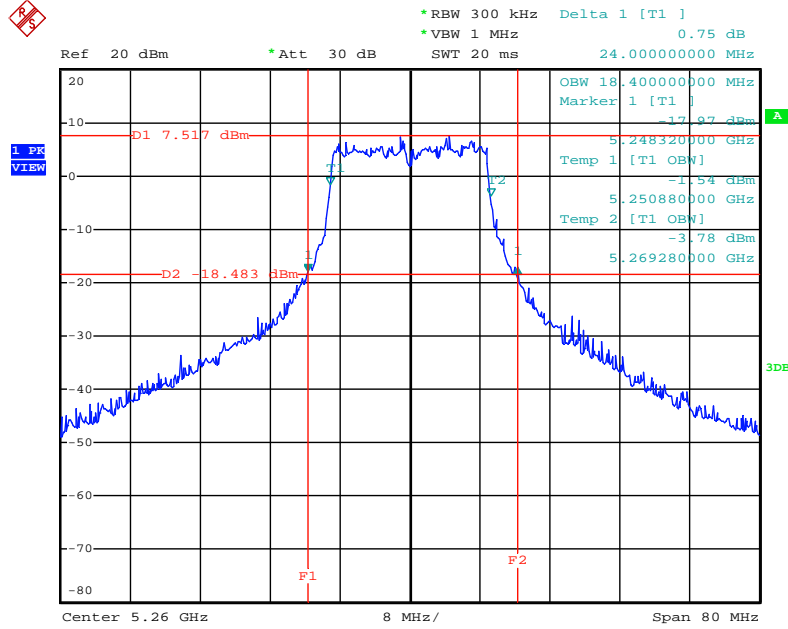
Date: 4.JUN.2012 08:57:03

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



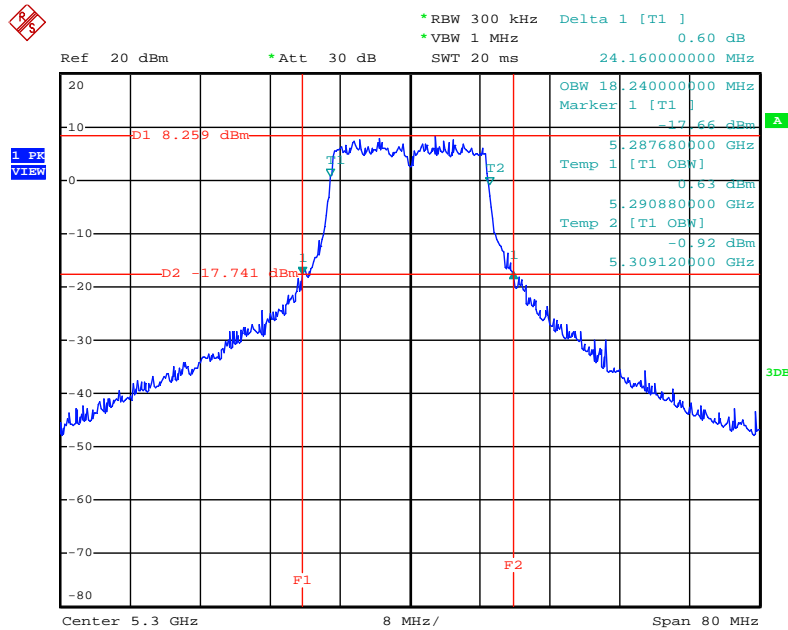
Date: 4.JUN.2012 08:57:27

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



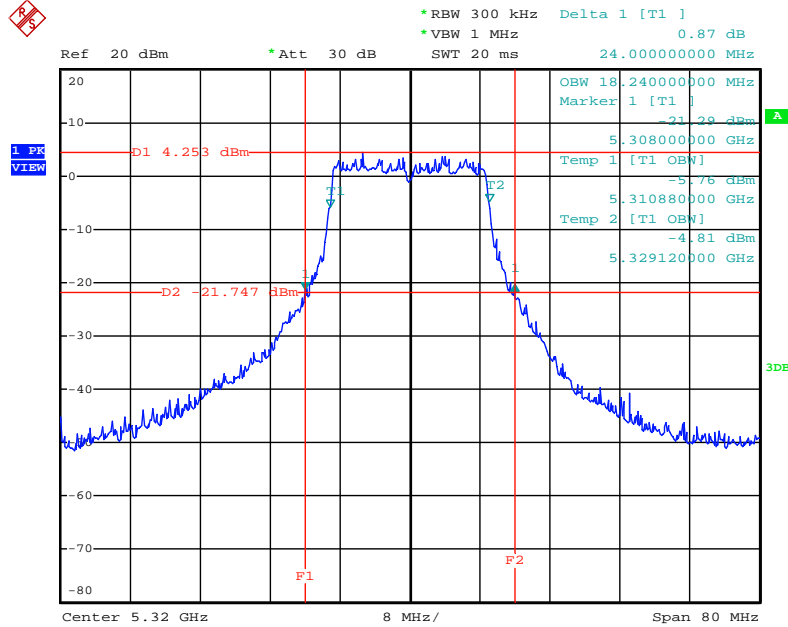
Date: 4.JUN.2012 08:54:48

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



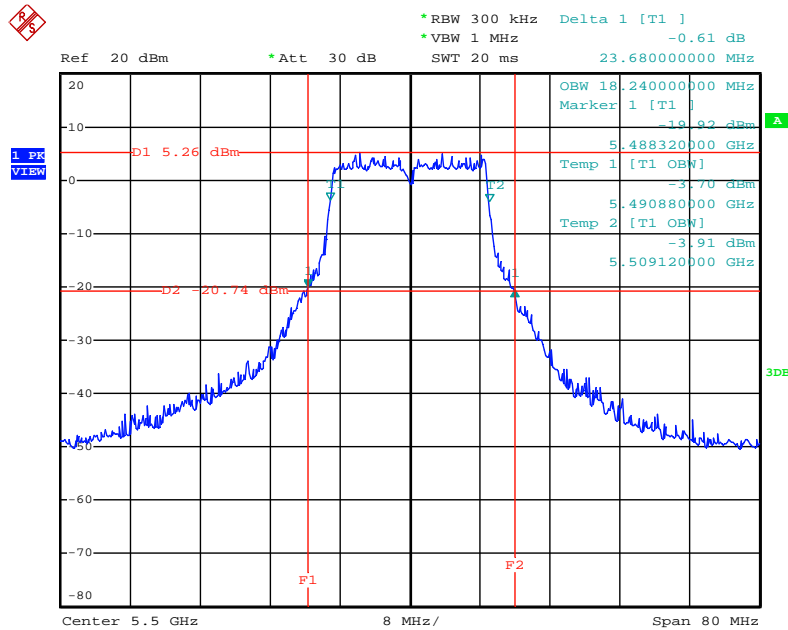
Date: 4.JUN.2012 08:54:32

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



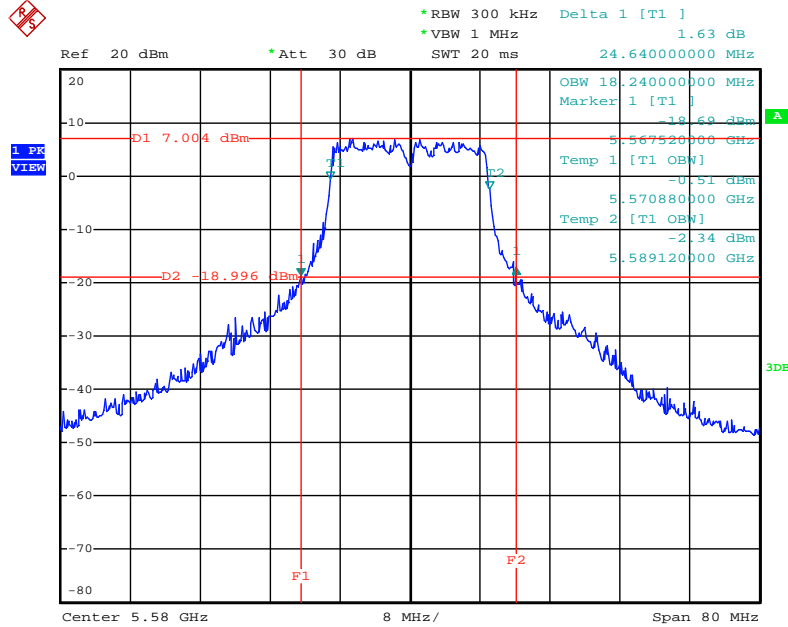
Date: 4.JUN.2012 08:54:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



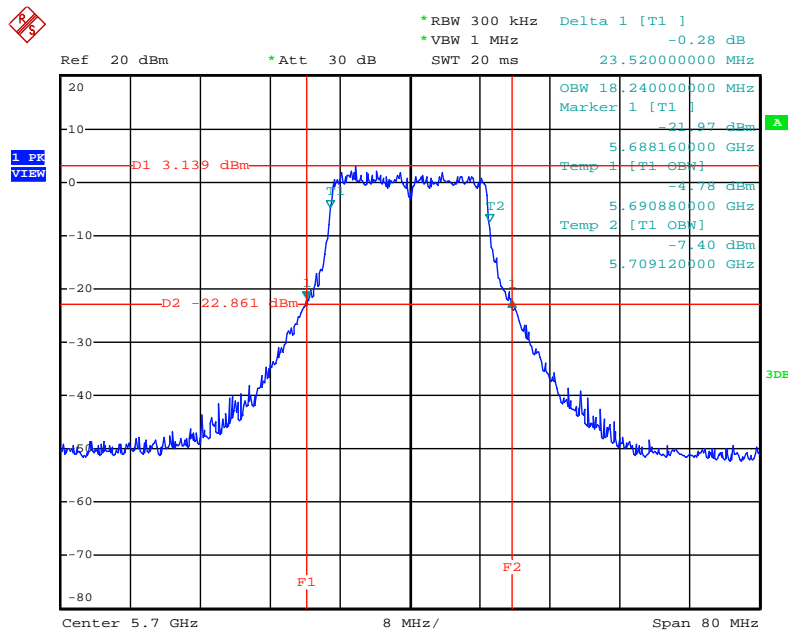
Date: 4.JUN.2012 08:53:49

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



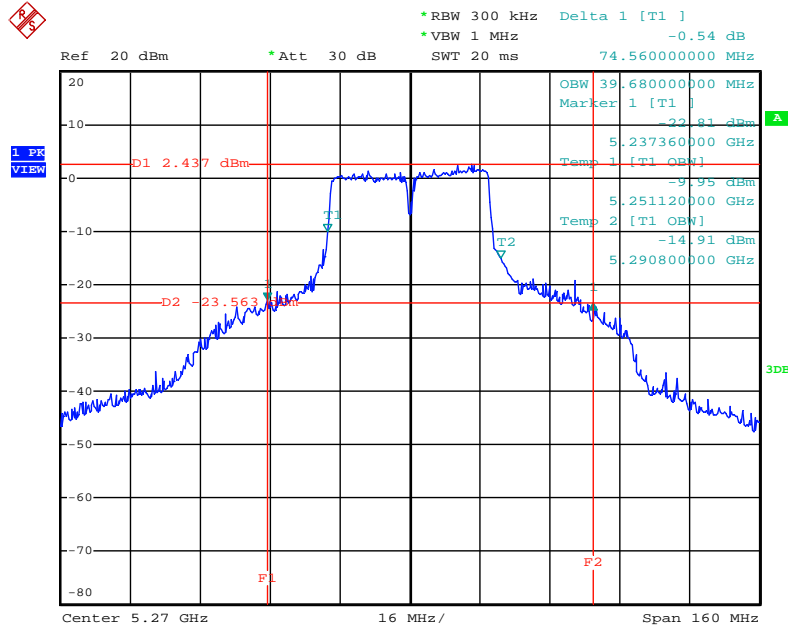
Date: 4.JUN.2012 08:53:30

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



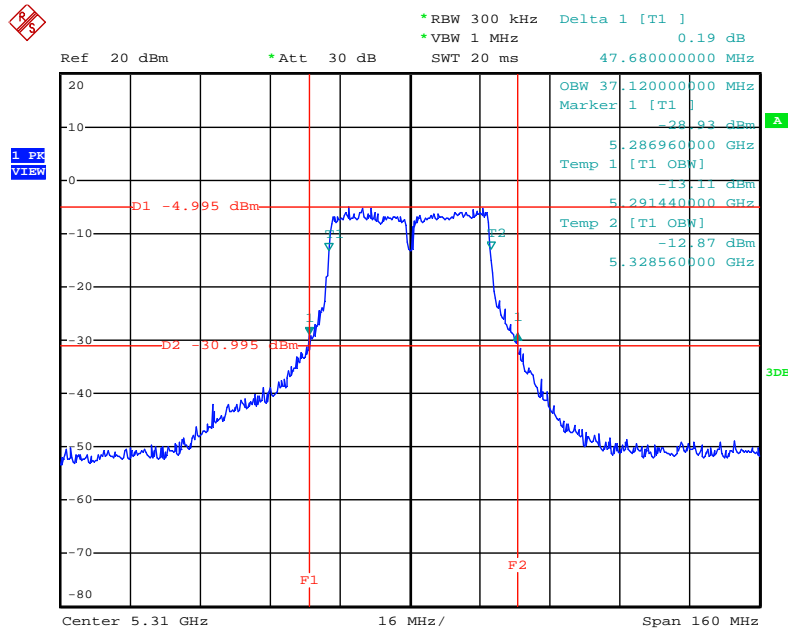
Date: 4.JUN.2012 08:53:10

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz (1TX)



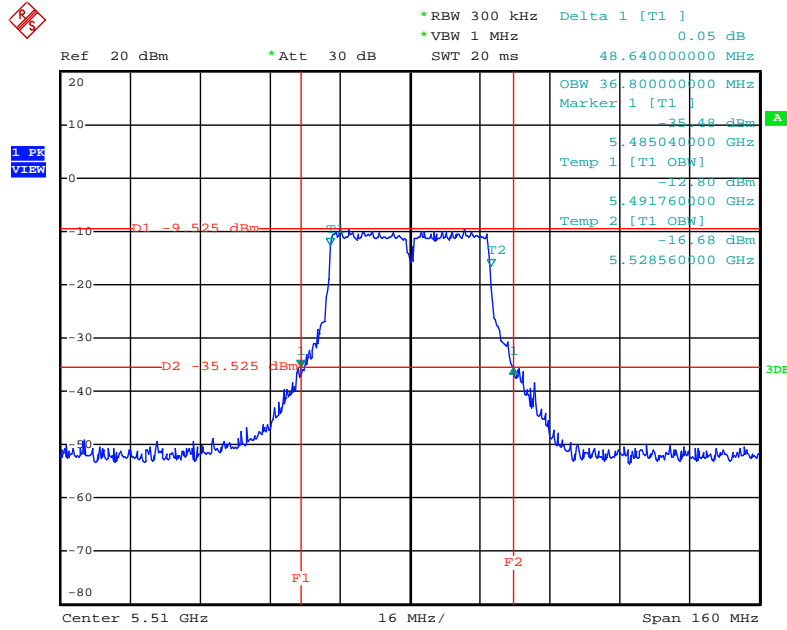
Date: 4.JUN.2012 09:17:25

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz (1TX)



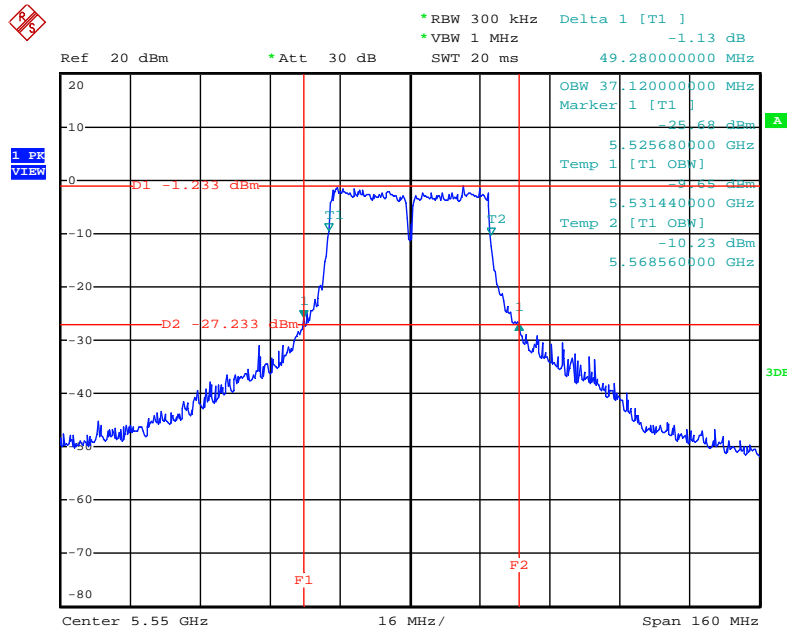
Date: 4.JUN.2012 09:17:07

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5510MHz (1TX)



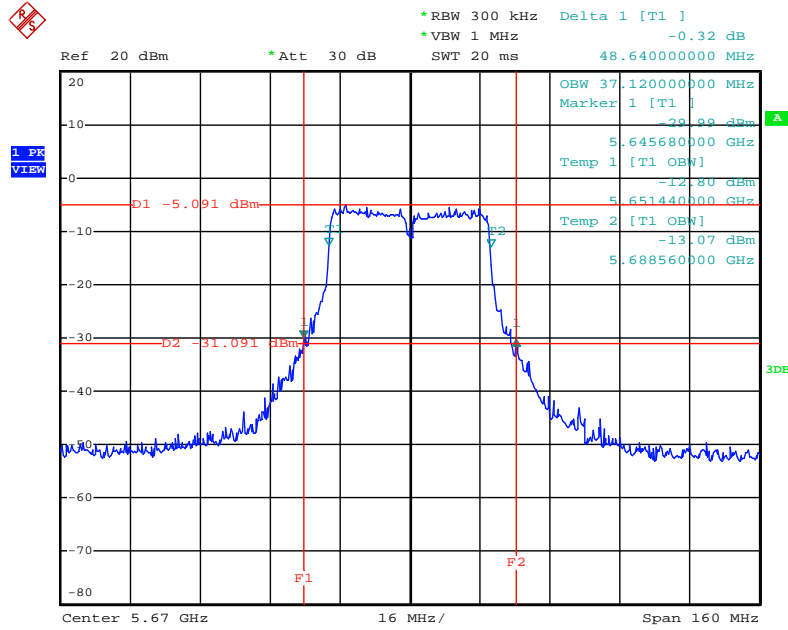
Date: 4.JUN.2012 09:16:46

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz (1TX)



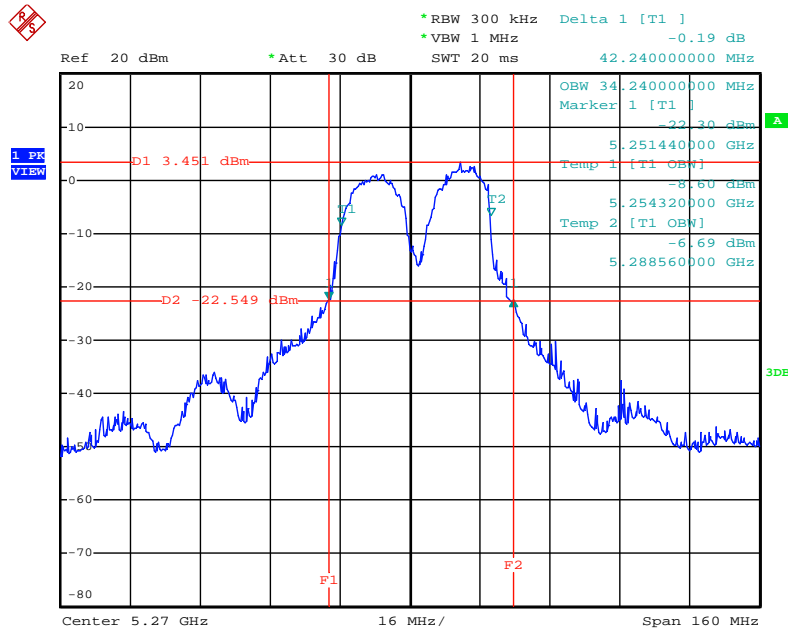
Date: 4.JUN.2012 09:16:28

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz (1TX)



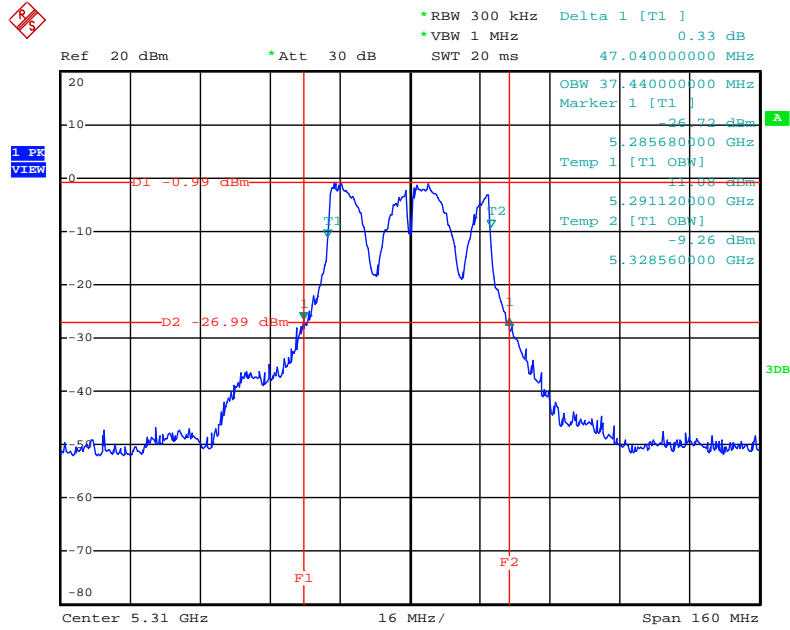
Date: 4.JUN.2012 09:16:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



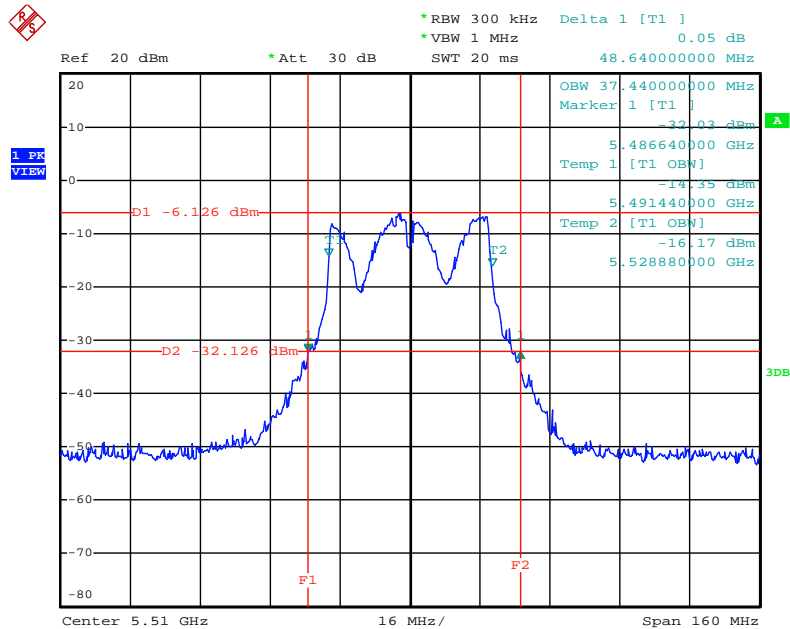
Date: 4.JUN.2012 09:09:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



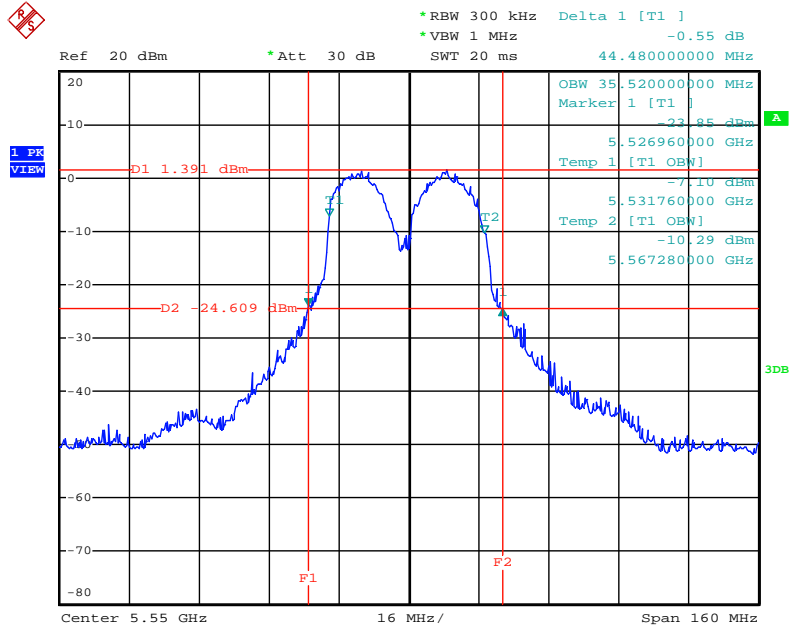
Date: 4.JUN.2012 09:09:05

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



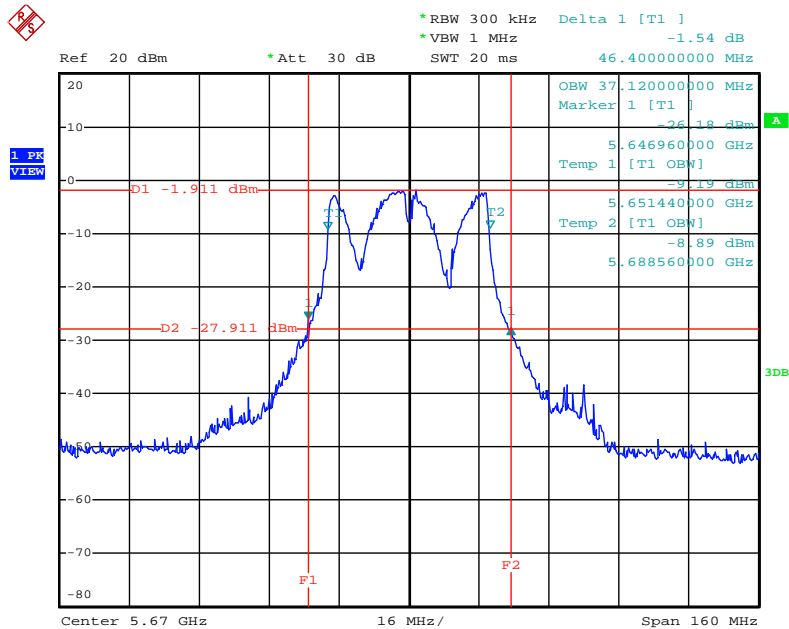
Date: 4.JUN.2012 09:08:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



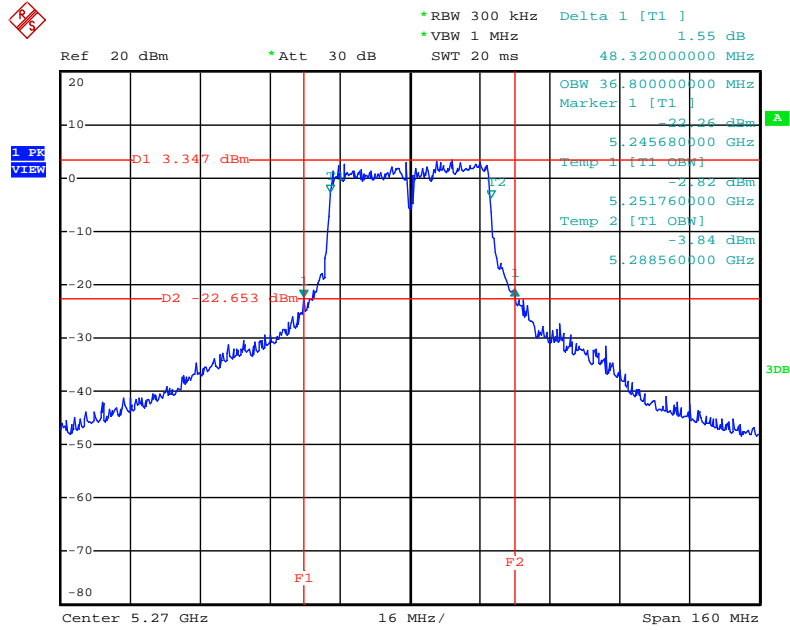
Date: 4.JUN.2012 09:08:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



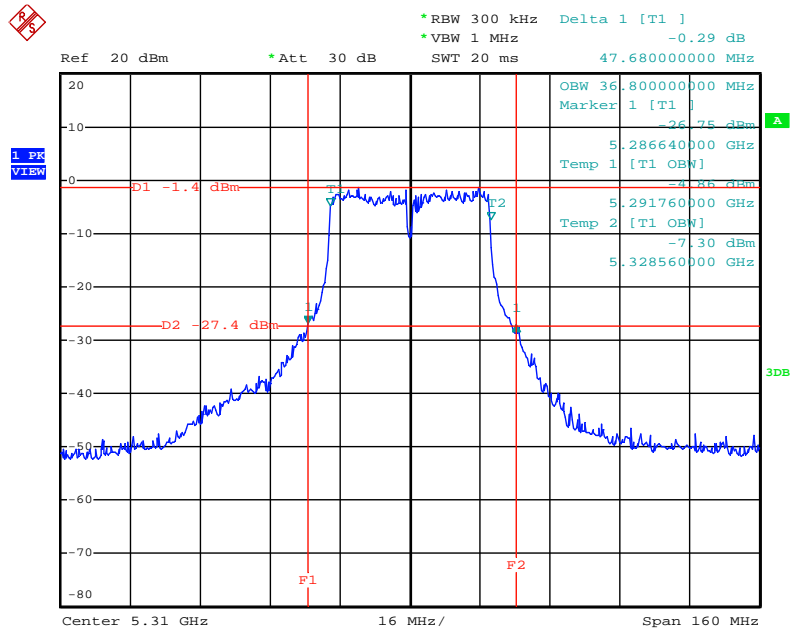
Date: 4.JUN.2012 09:08:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



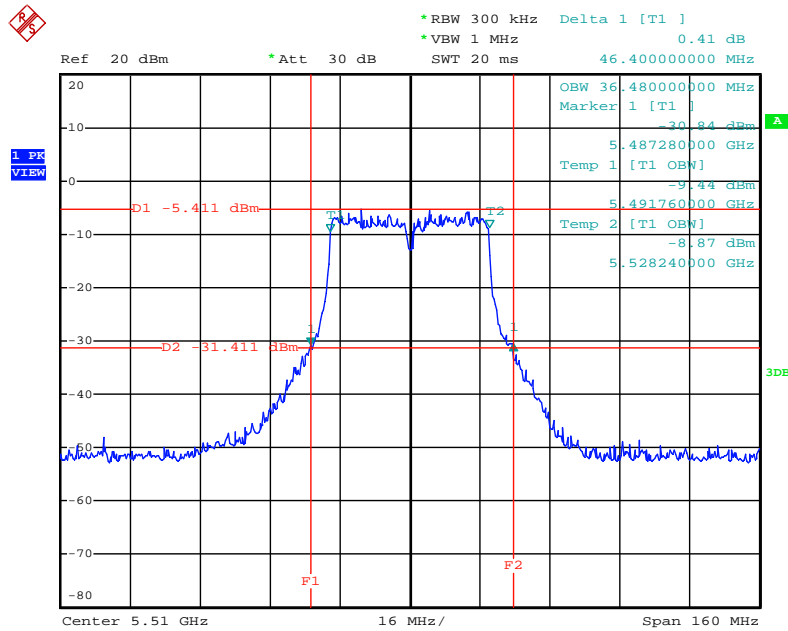
Date: 4.JUN.2012 09:06:14

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



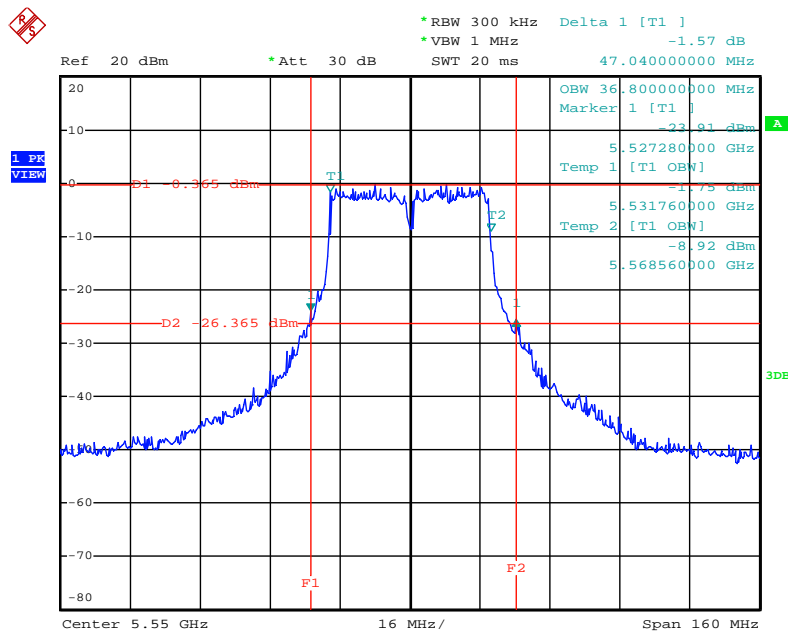
Date: 4.JUN.2012 09:06:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



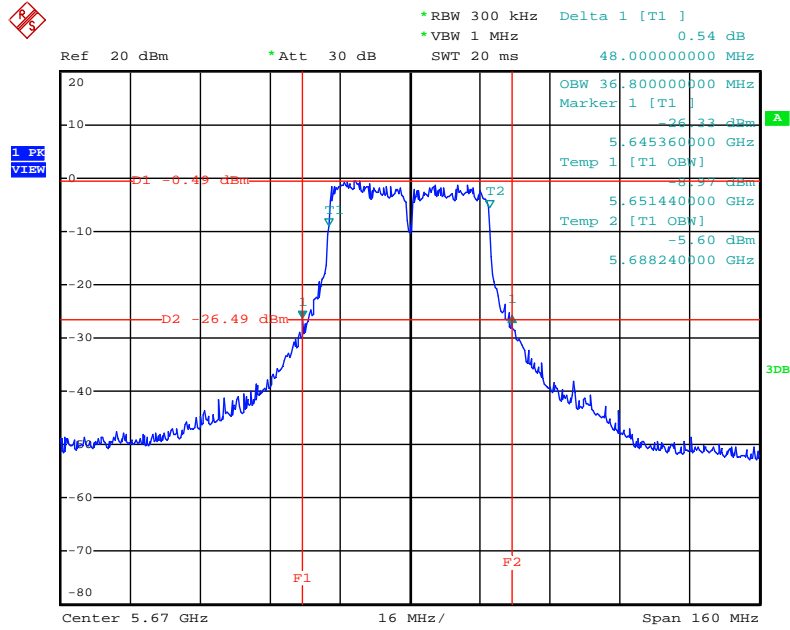
Date: 4.JUN.2012 09:06:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



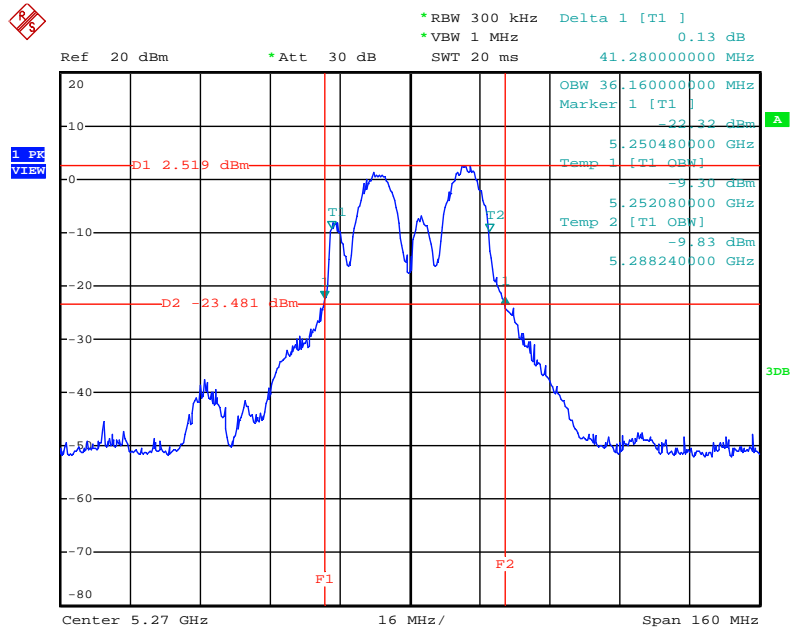
Date: 4.JUN.2012 09:07:18

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



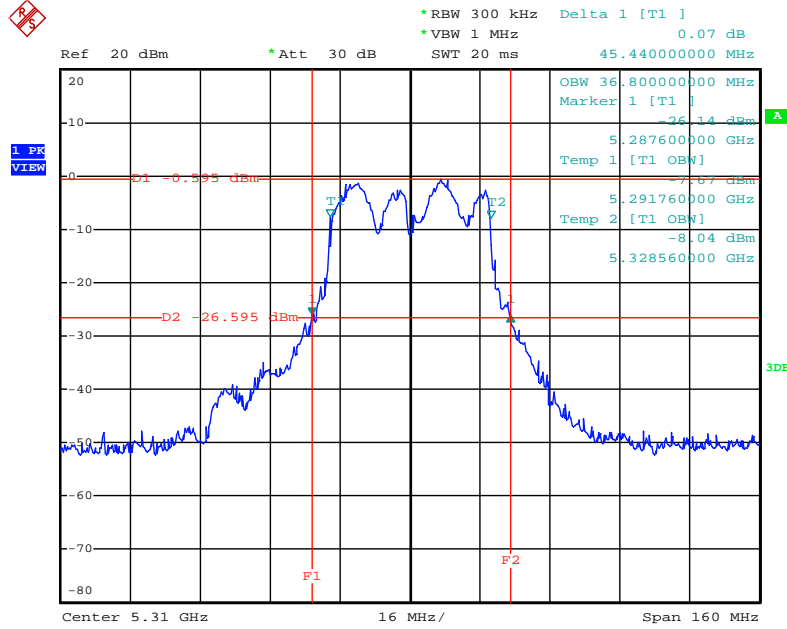
Date: 4.JUN.2012 09:07:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



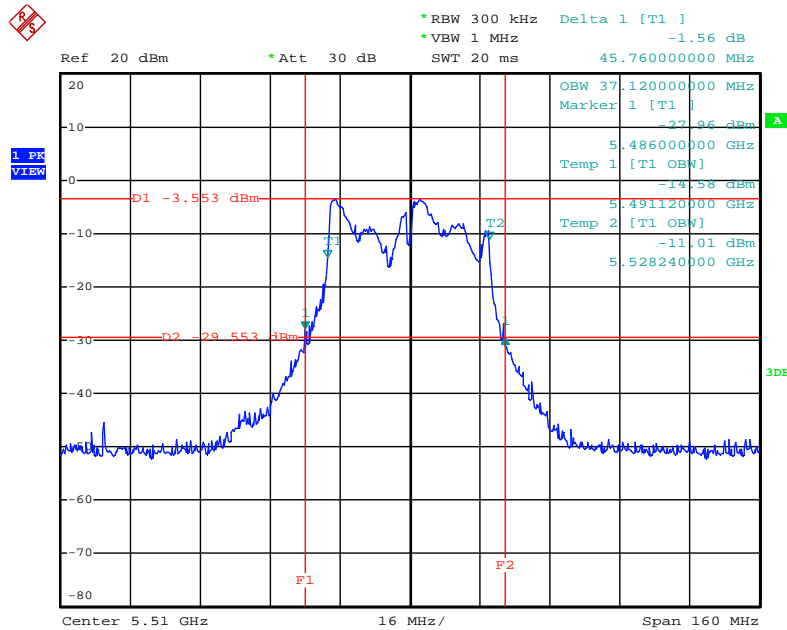
Date: 4.JUN.2012 09:02:15

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



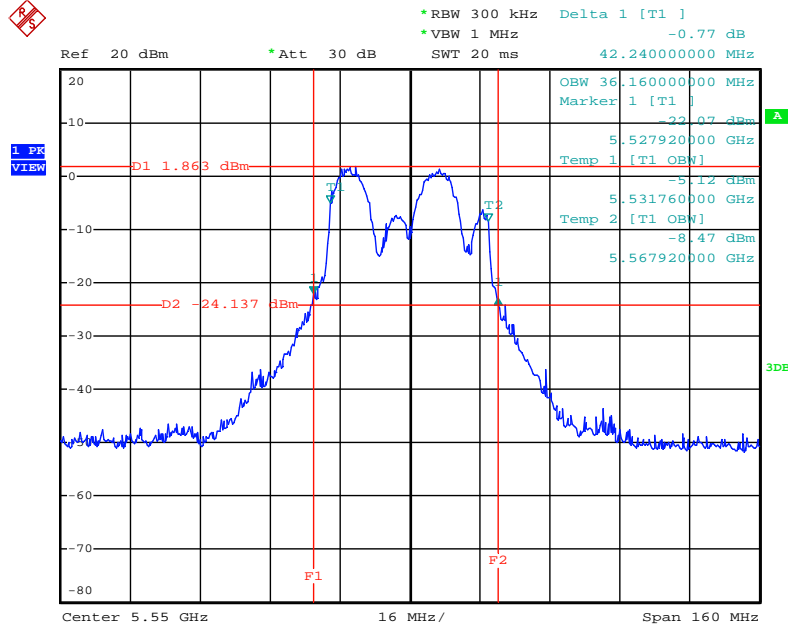
Date: 4.JUN.2012 09:02:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



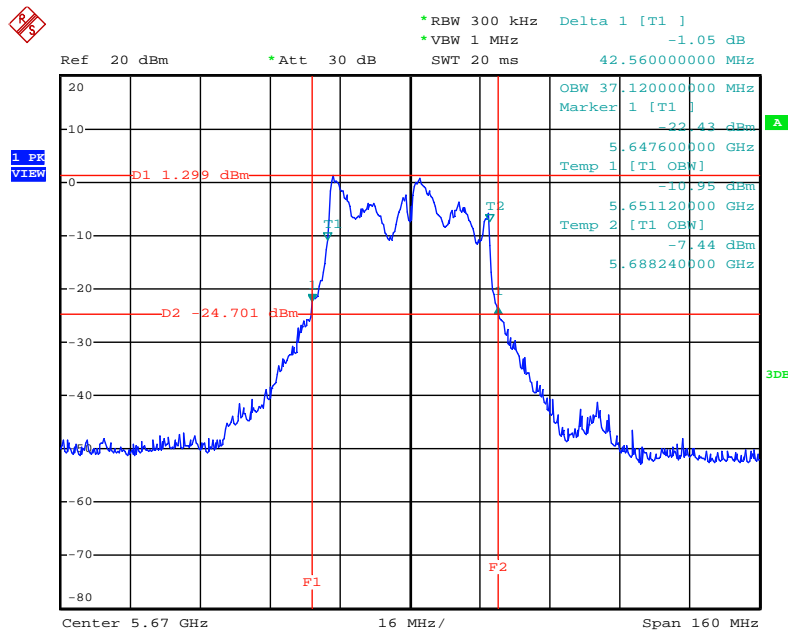
Date: 4.JUN.2012 09:03:04

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



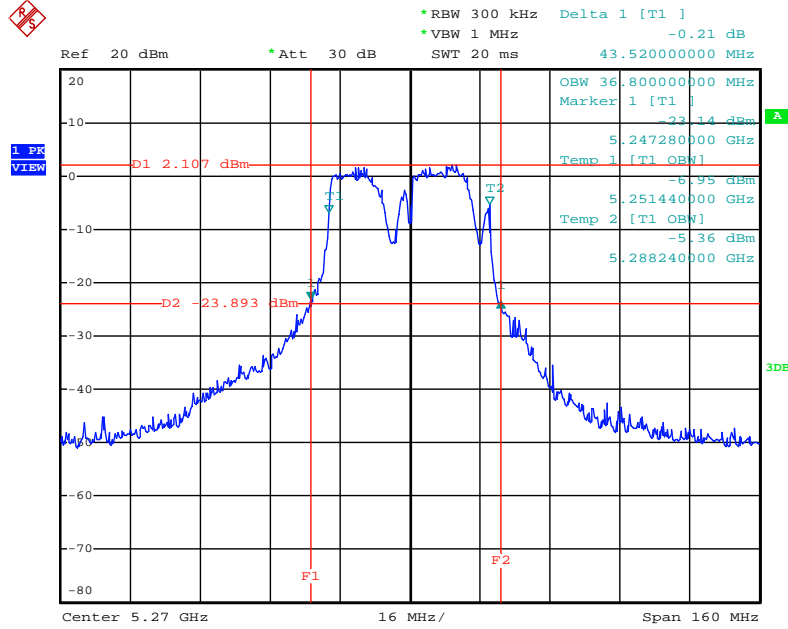
Date: 4.JUN.2012 09:03:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



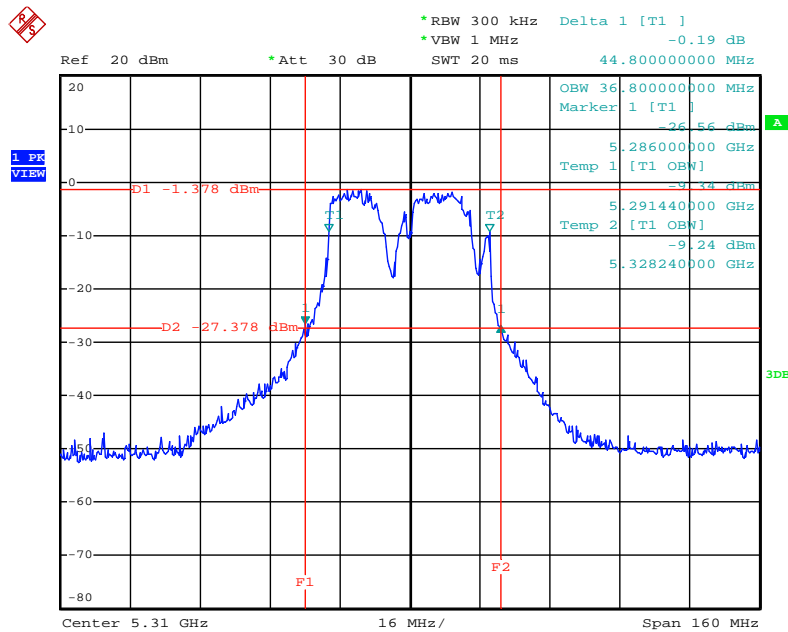
Date: 4.JUN.2012 09:03:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



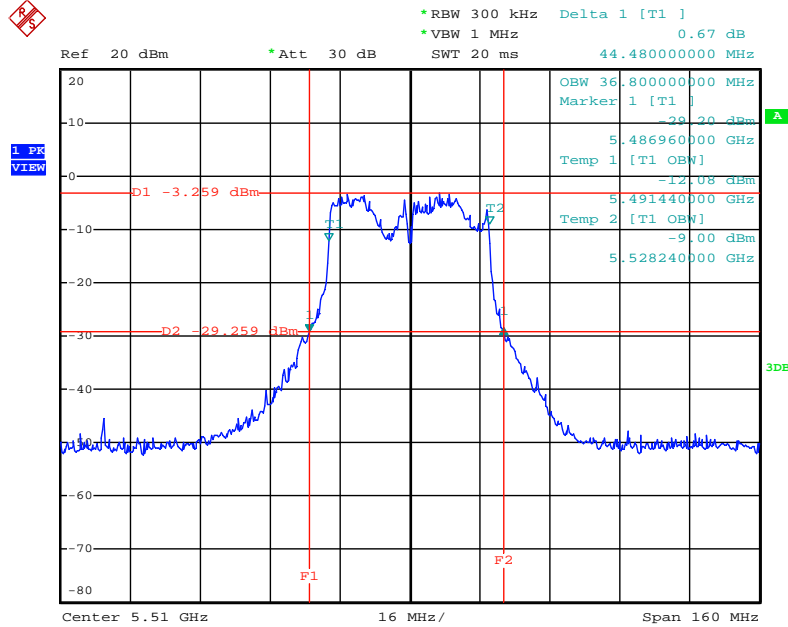
Date: 4.JUN.2012 09:05:23

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



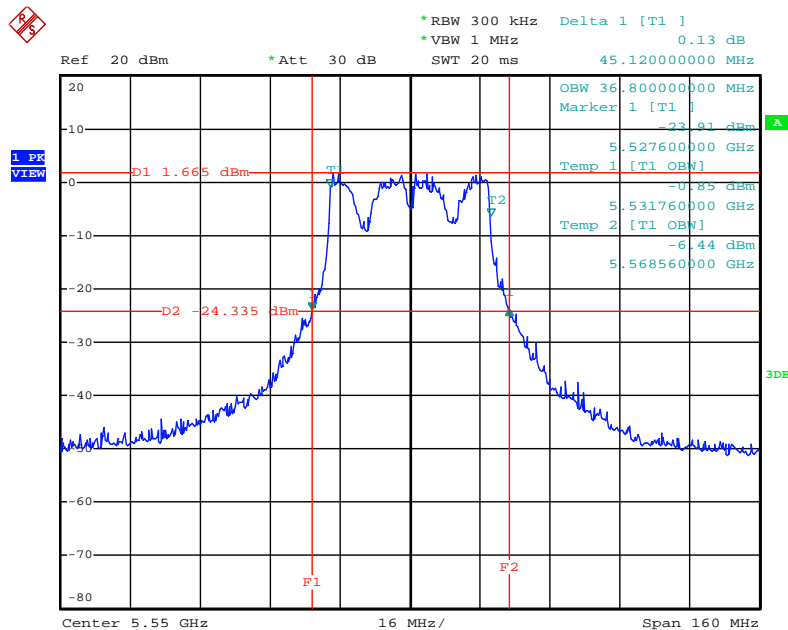
Date: 4.JUN.2012 09:05:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



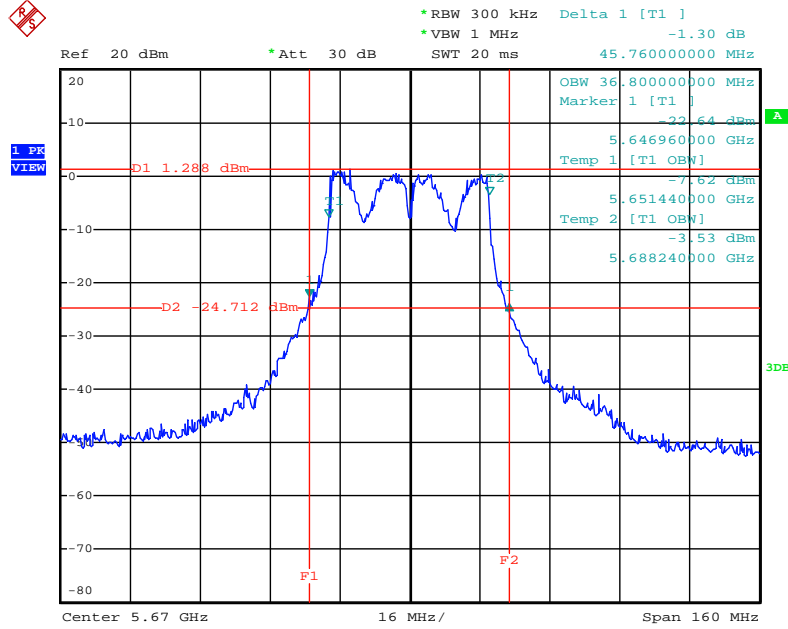
Date: 4.JUN.2012 09:04:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



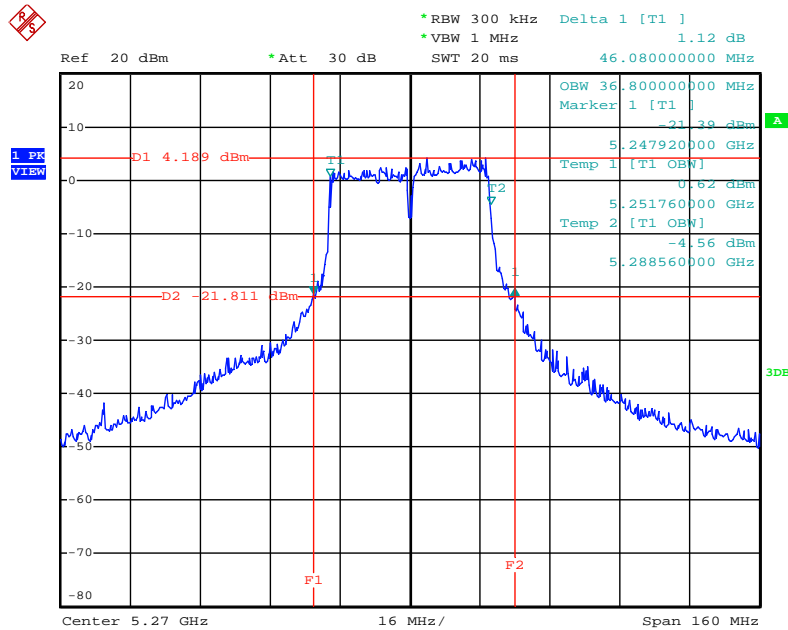
Date: 4.JUN.2012 09:04:21

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



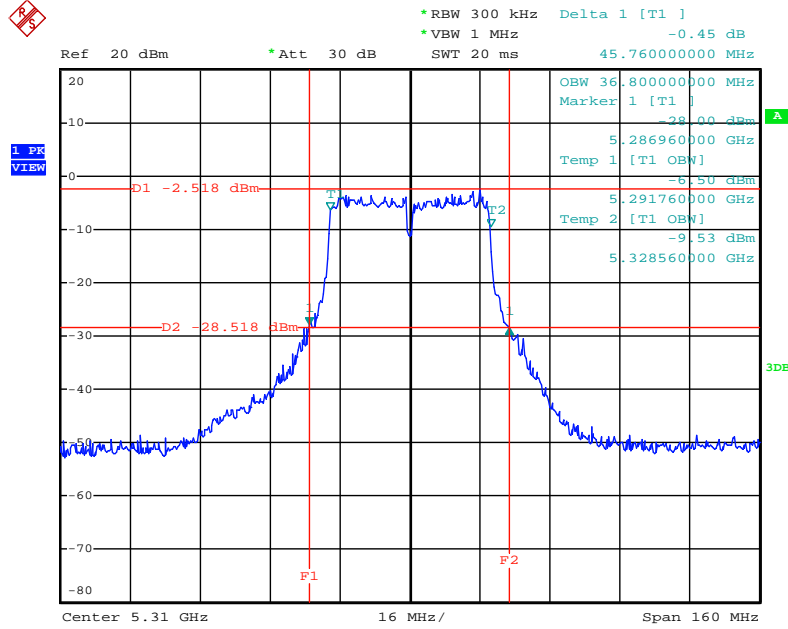
Date: 4.JUN.2012 09:04:03

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



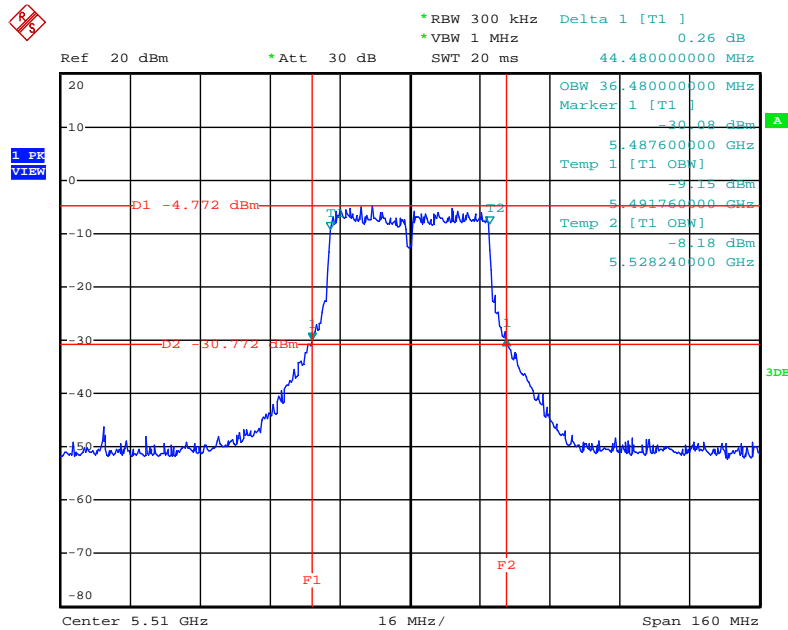
Date: 4.JUN.2012 08:51:01

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



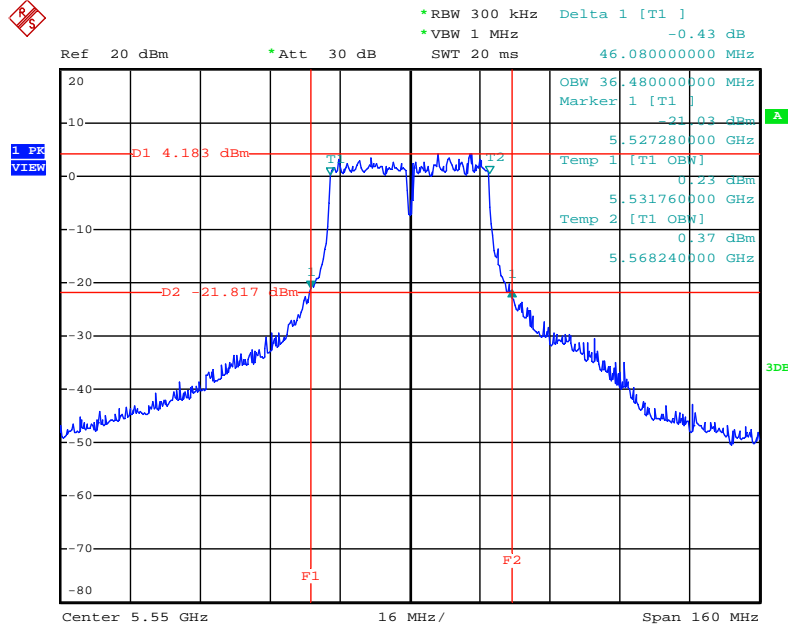
Date: 4.JUN.2012 08:51:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



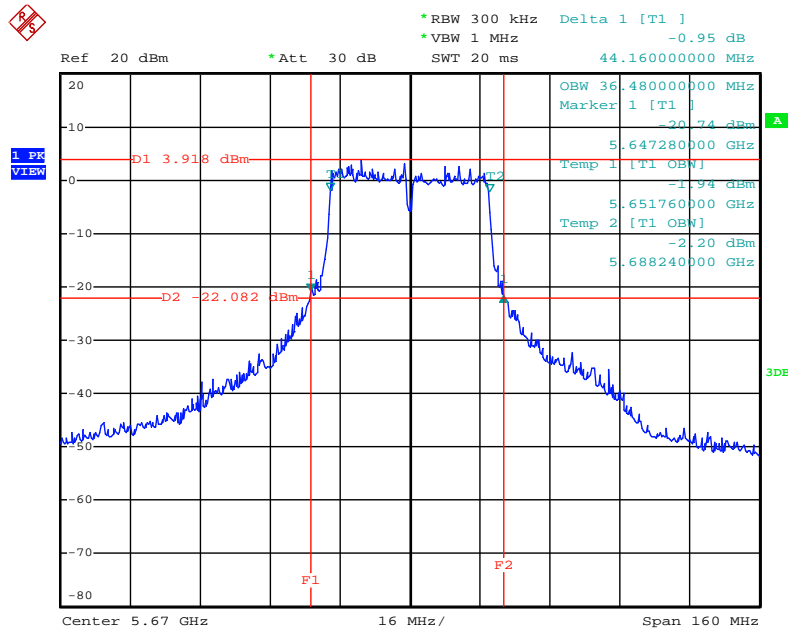
Date: 4.JUN.2012 08:51:56

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



Date: 4.JUN.2012 08:52:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



Date: 4.JUN.2012 08:52:41

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 2 (Ant. 7 Patch antenna / 2.3dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	44.16	25.92
60	5300 MHz	42.72	24.00
64	5320 MHz	32.80	19.04
100	5500 MHz	25.28	18.56
116	5580 MHz	43.36	26.24
140	5700 MHz	24.64	18.56

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	88.96	50.88
62	5310 MHz	48.96	36.80
102	5510MHz	48.32	37.12
110	5550 MHz	74.56	38.08
134	5670 MHz	50.56	37.12

2TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	30.40	21.12
60	5300 MHz	30.56	17.92
64	5320 MHz	23.36	16.48
100	5500 MHz	24.96	19.04
116	5580 MHz	40.48	19.20
140	5700 MHz	25.12	19.20

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	69.12	40.96
62	5310 MHz	45.76	37.44
102	5510MHz	47.04	37.44
110	5550 MHz	64.00	38.72
134	5670 MHz	42.24	35.20

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	36.64	20.00
60	5300 MHz	32.16	19.04
64	5320 MHz	25.44	18.24
100	5500 MHz	24.80	18.24
116	5580 MHz	32.48	19.36
140	5700 MHz	24.16	18.24

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	73.28	39.04
62	5310 MHz	46.72	36.80
102	5510MHz	46.72	36.80
110	5550 MHz	77.12	41.92
134	5670 MHz	57.28	37.12

3TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	26.08	19.68
60	5300 MHz	25.44	19.36
64	5320 MHz	23.36	19.20
100	5500 MHz	22.40	17.92
116	5580 MHz	22.88	18.08
140	5700 MHz	21.92	17.76

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	43.84	37.12
62	5310 MHz	42.24	35.84
102	5510MHz	44.16	37.12
110	5550 MHz	46.72	36.80
134	5670 MHz	44.16	36.48

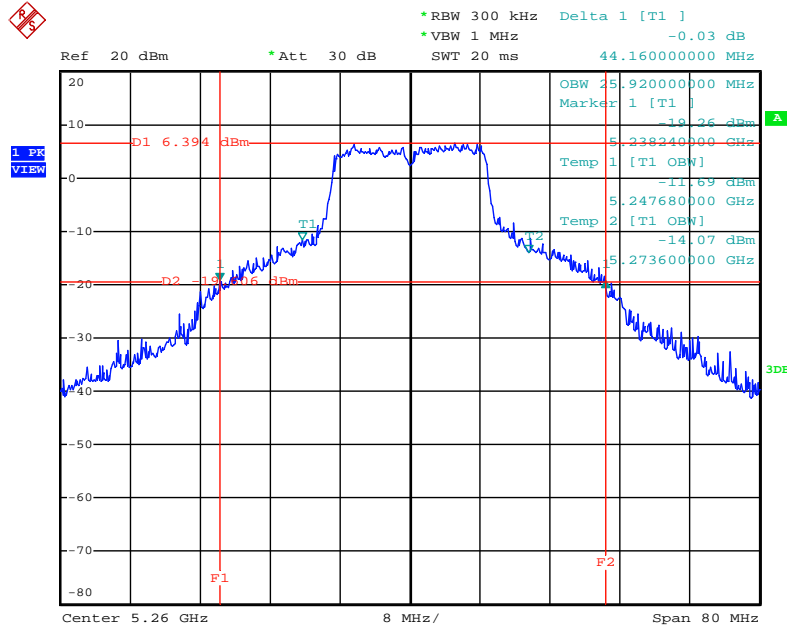
Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	25.76	18.56
60	5300 MHz	29.44	18.40
64	5320 MHz	23.52	18.40
100	5500 MHz	23.68	18.40
116	5580 MHz	30.24	18.88
140	5700 MHz	23.84	18.56

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3

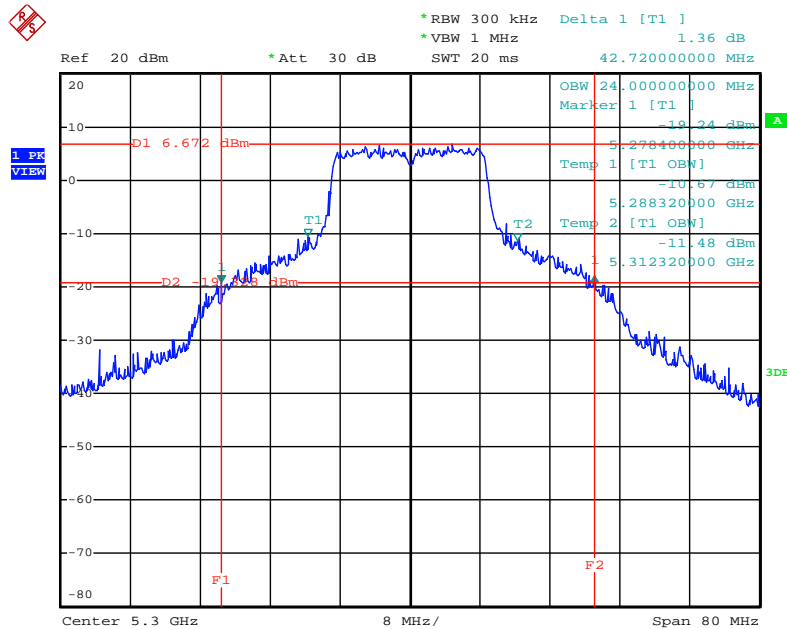
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	51.20	37.12
62	5310 MHz	45.76	36.80
102	5510MHz	43.84	36.80
110	5550 MHz	60.16	36.48
134	5670 MHz	50.56	37.12

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5260 MHz (1TX)



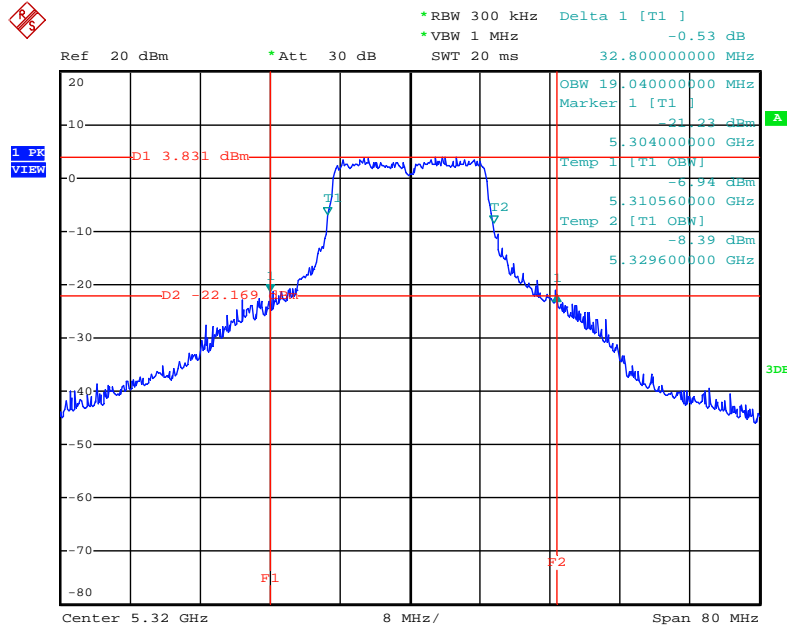
Date: 4.JUN.2012 07:51:32

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5300 MHz (1TX)



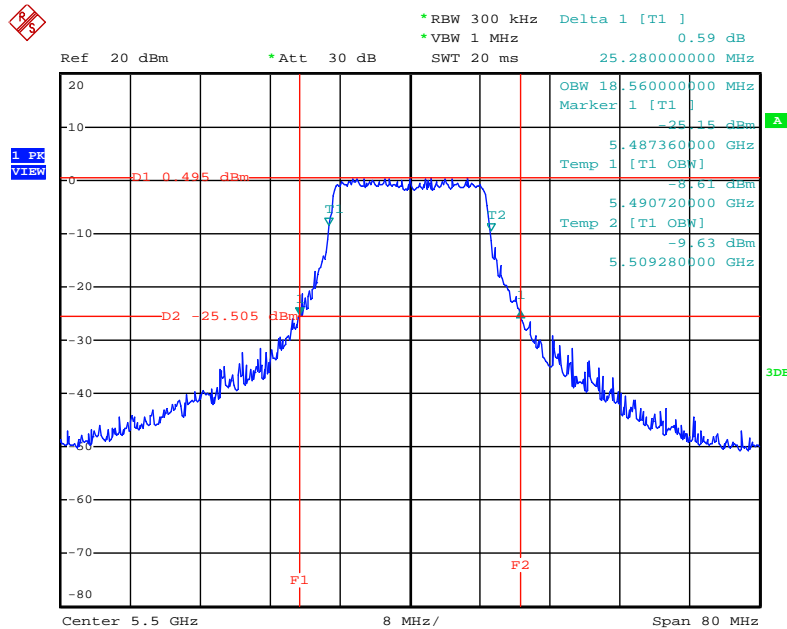
Date: 4.JUN.2012 07:51:52

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz (1TX)



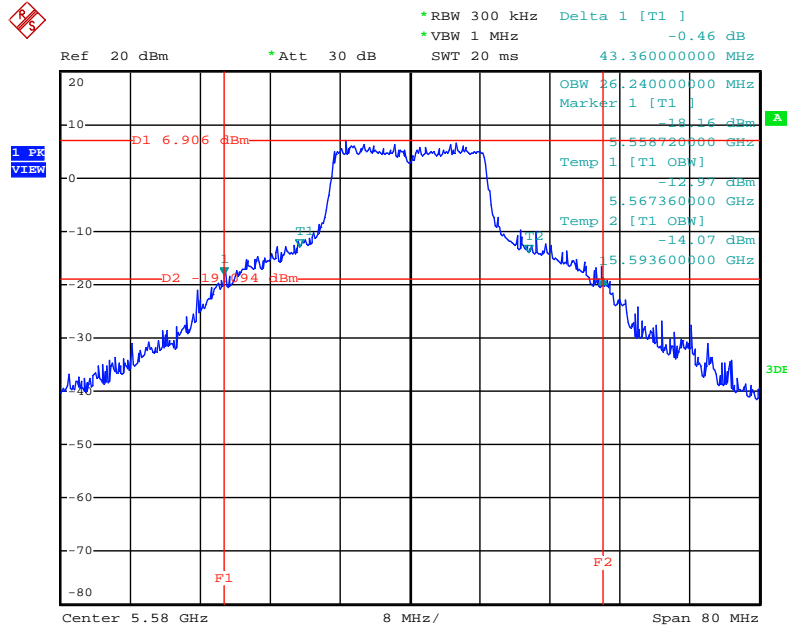
Date: 4.JUN.2012 07:52:13

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz (1TX)



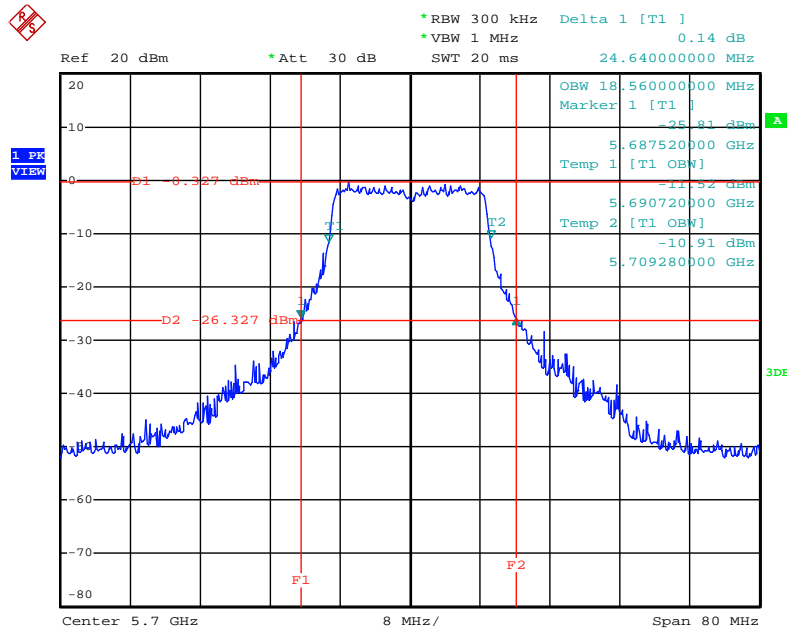
Date: 4.JUN.2012 07:52:44

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz (1TX)



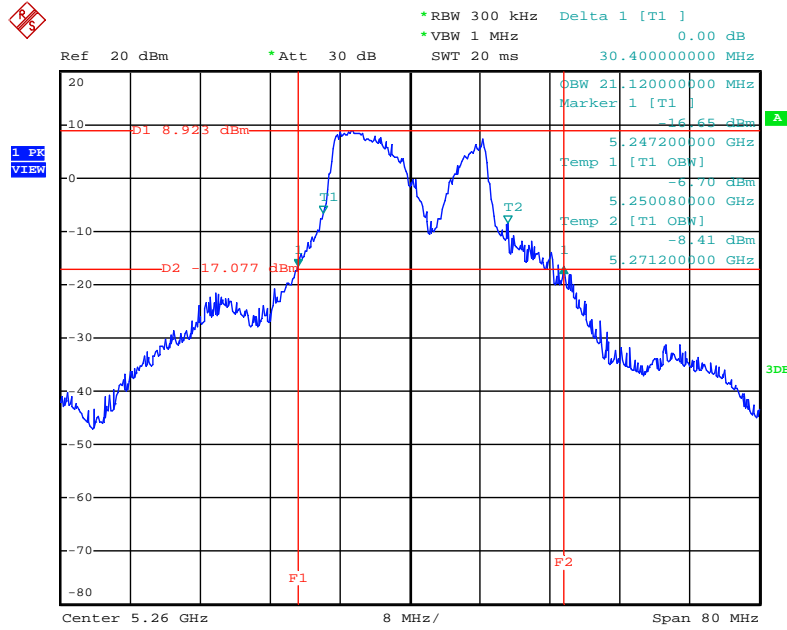
Date: 4.JUN.2012 07:53:04

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5700 MHz (1TX)



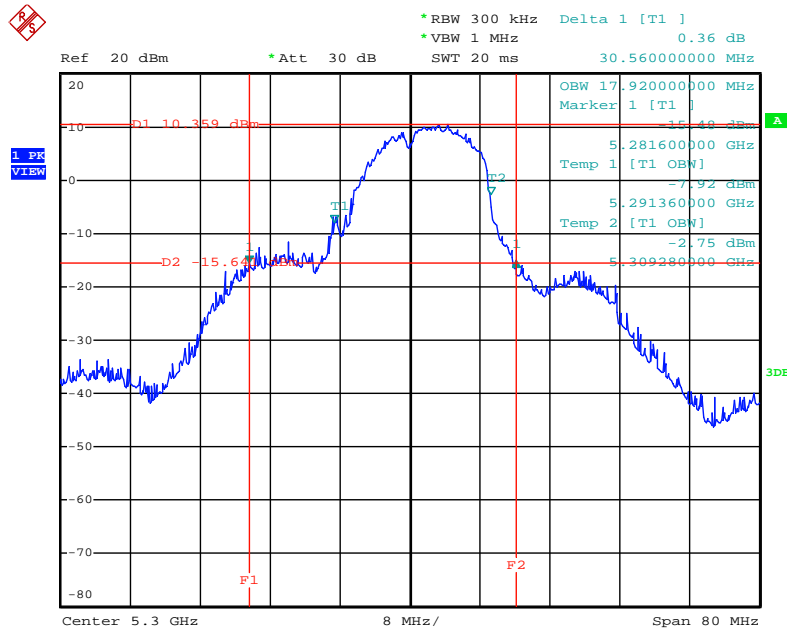
Date: 4.JUN.2012 07:53:32

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



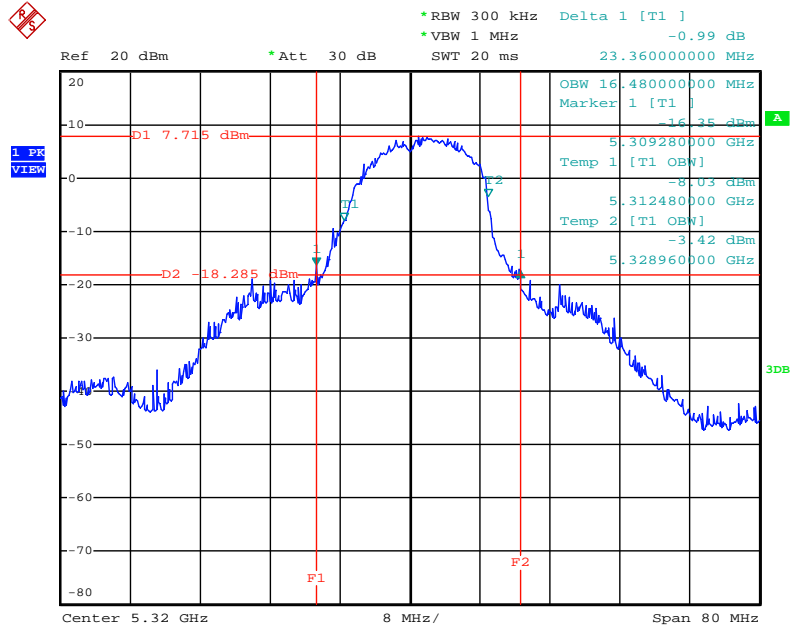
Date: 4.JUN.2012 08:05:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



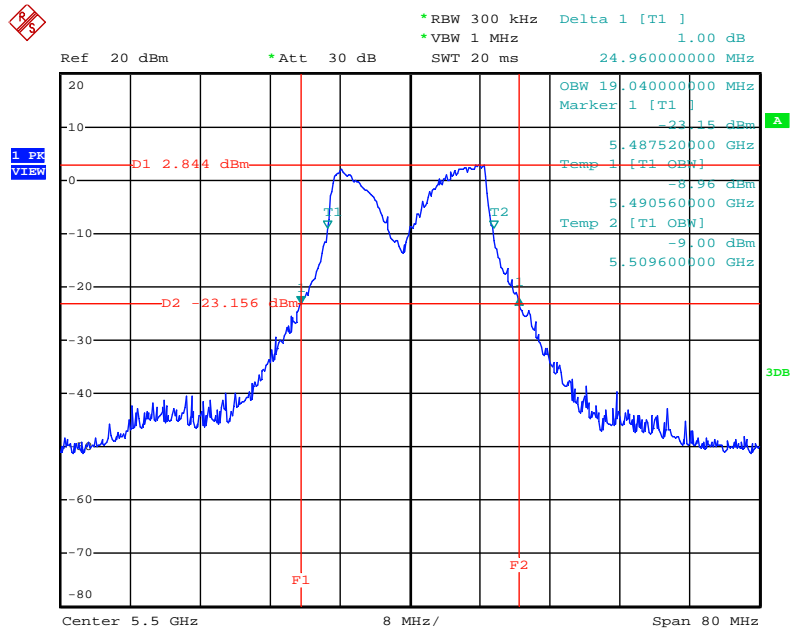
Date: 4.JUN.2012 08:05:12

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



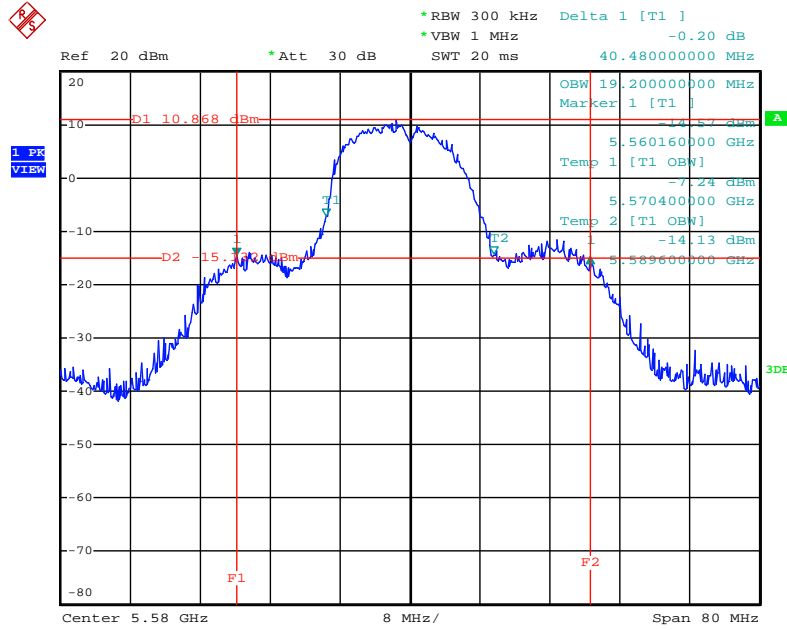
Date: 4.JUN.2012 08:04:49

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



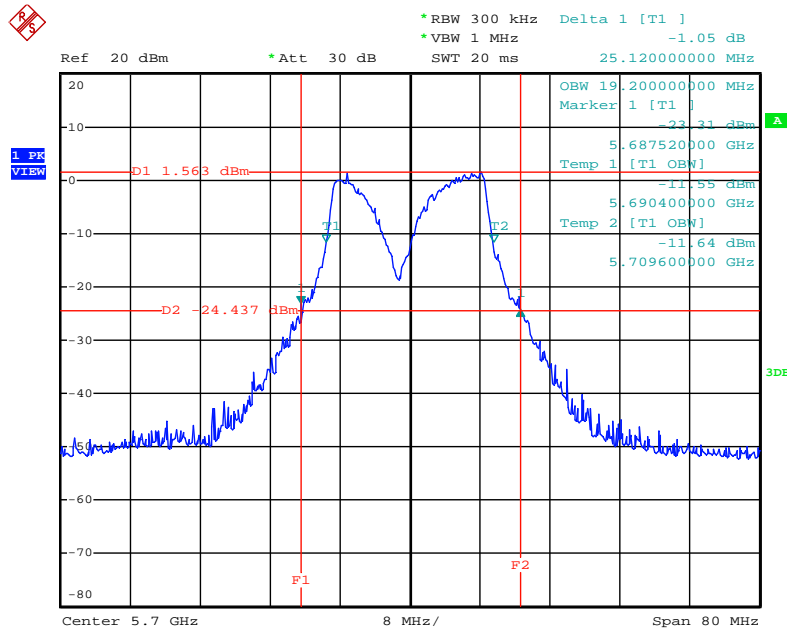
Date: 4.JUN.2012 08:04:27

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



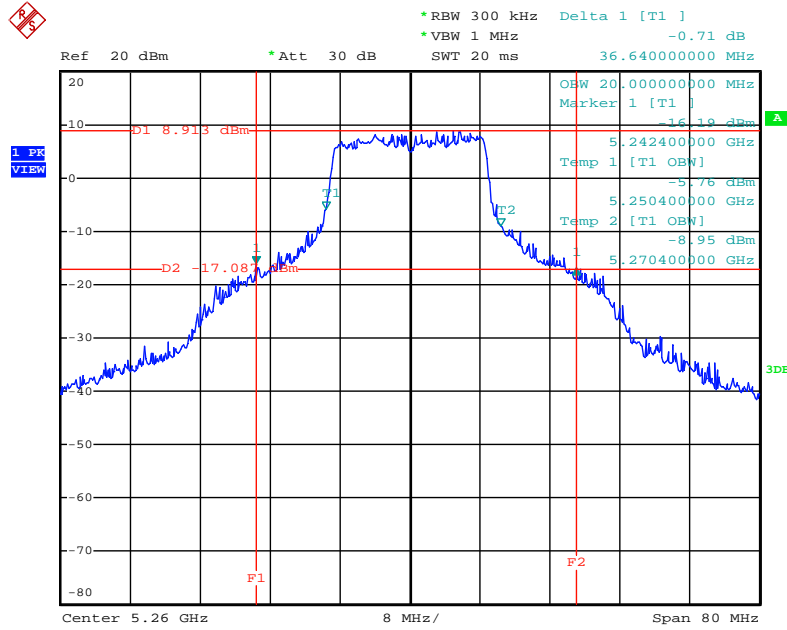
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



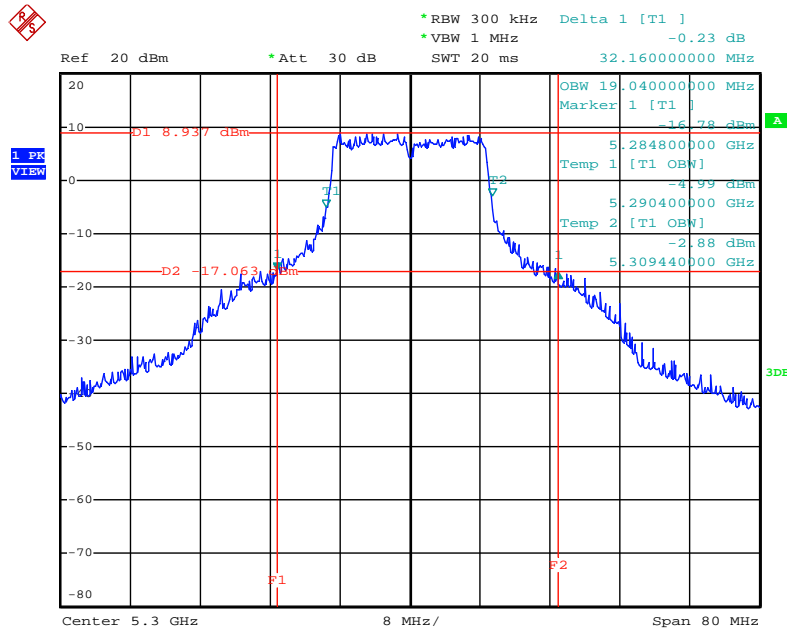
Date: 4.JUN.2012 08:03:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



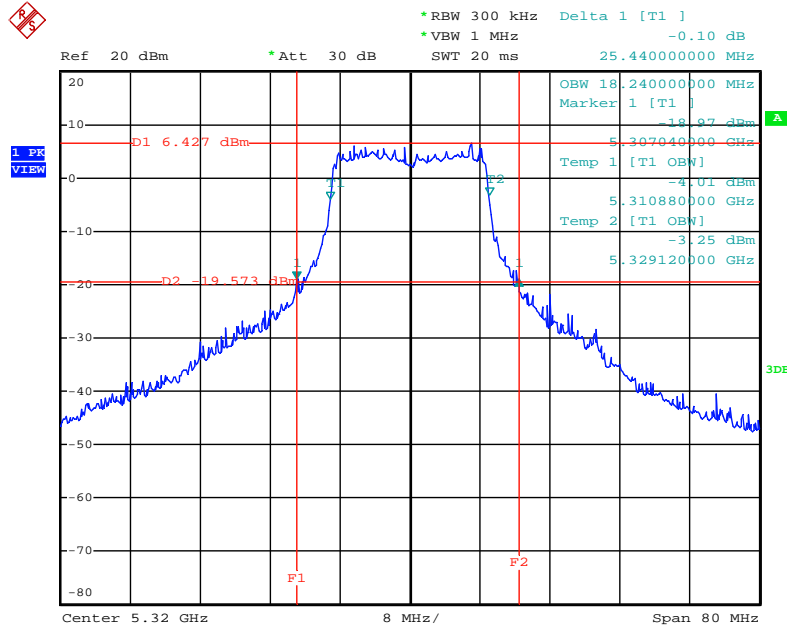
Date: 4.JUN.2012 08:01:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



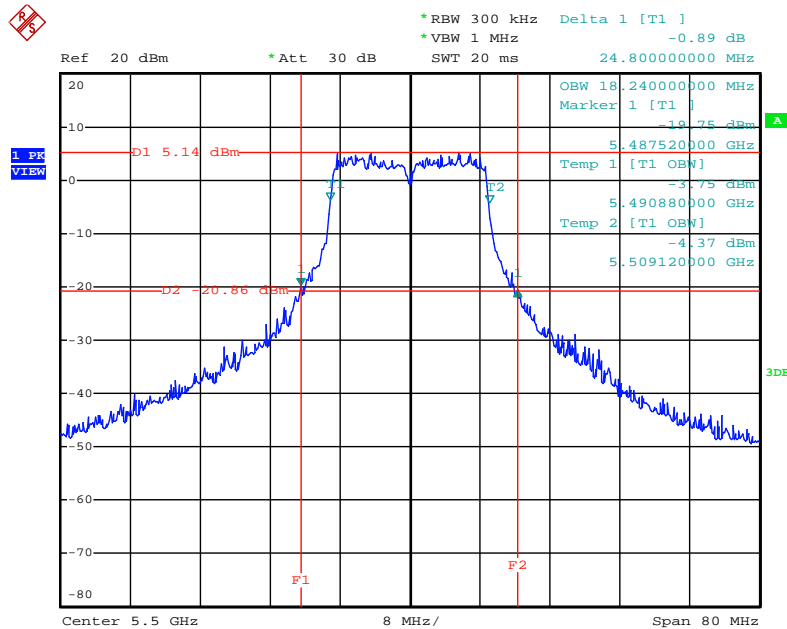
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



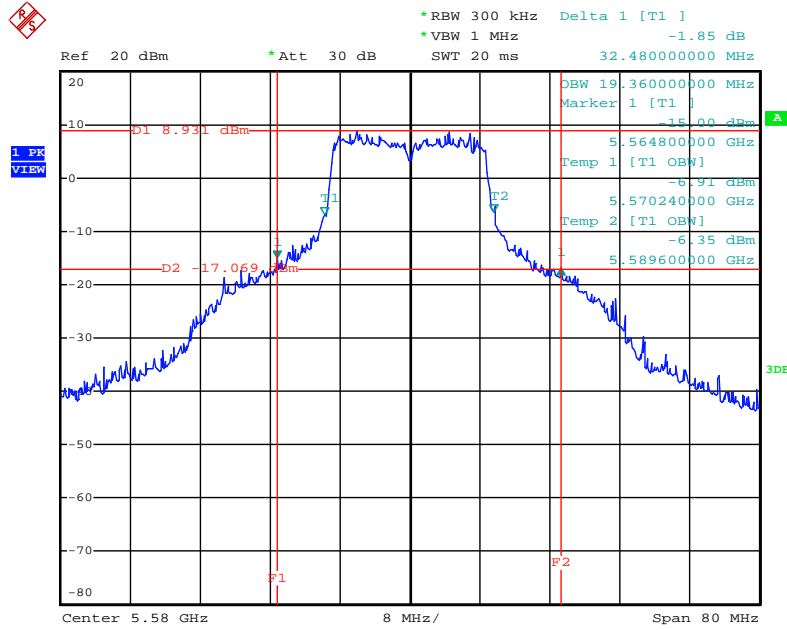
Date: 4.JUN.2012 08:02:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



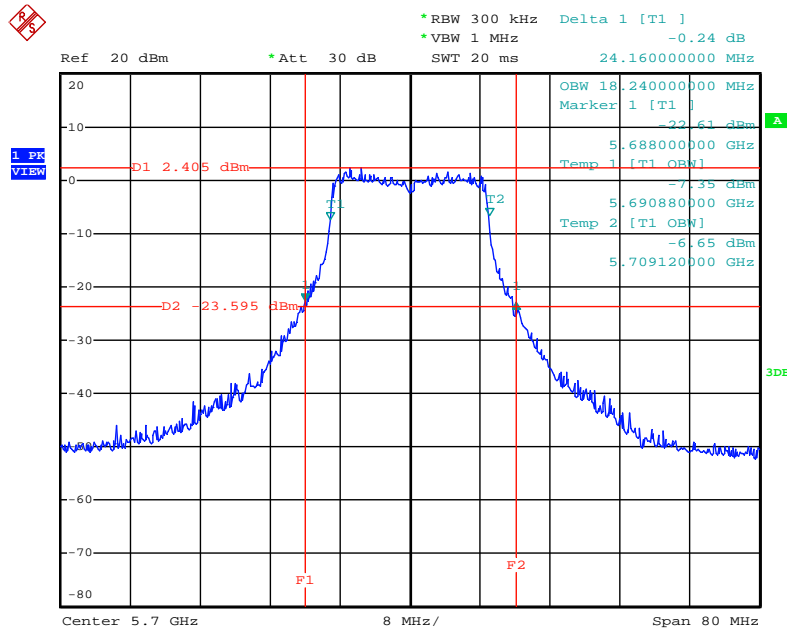
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



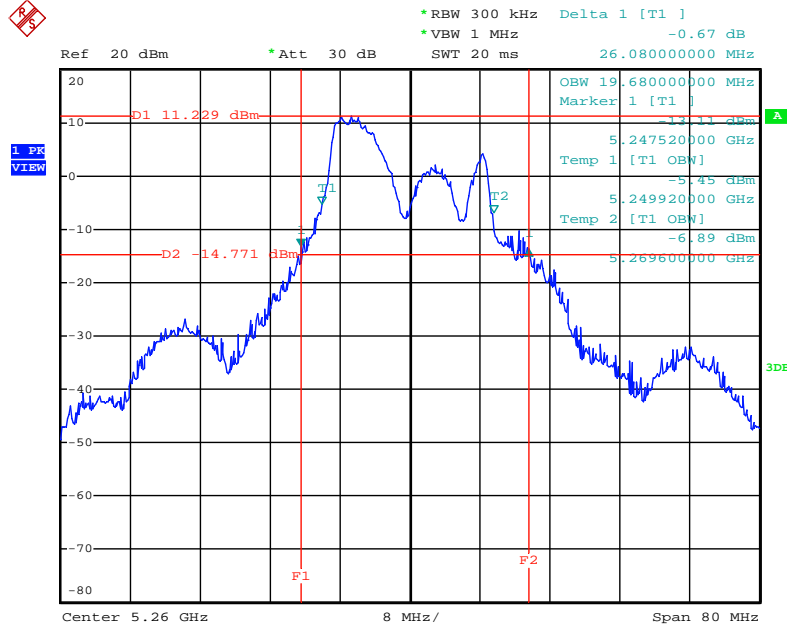
Date: 4.JUN.2012 08:02:50

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



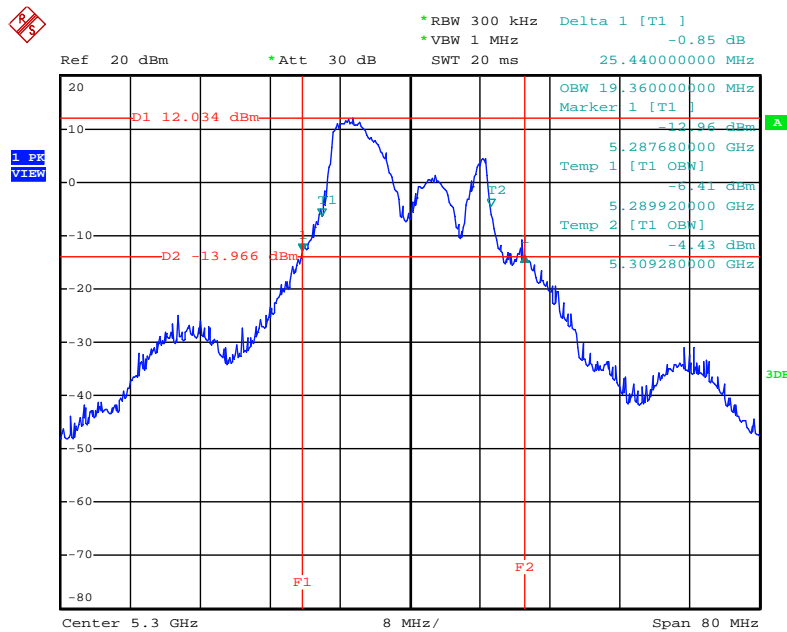
Date: 4.JUN.2012 08:03:11

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



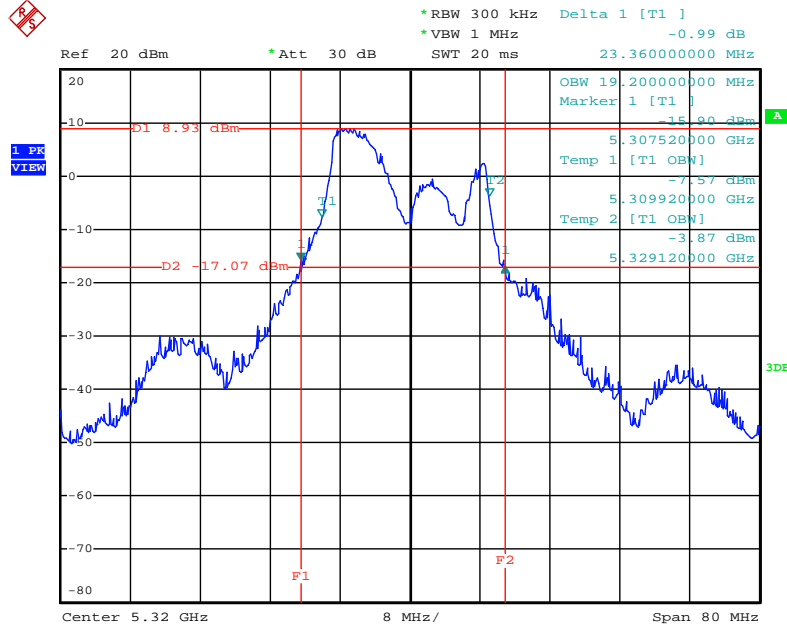
Date: 4.JUN.2012 08:06:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



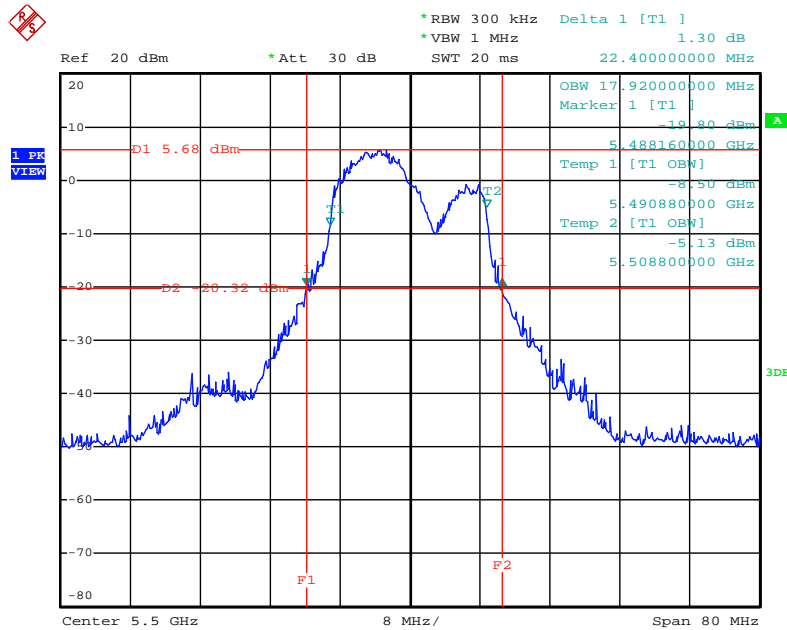
Date: 4.JUN.2012 08:07:07

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



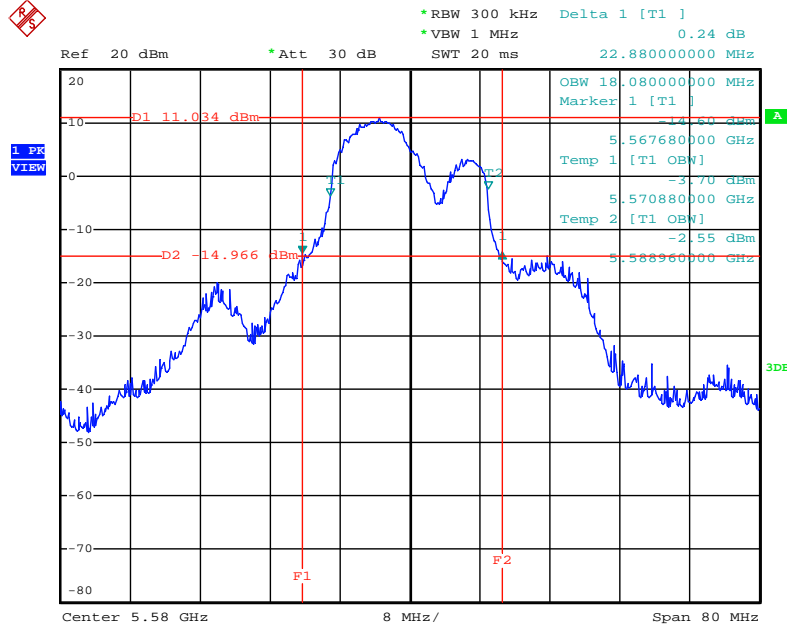
Date: 4.JUN.2012 08:07:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



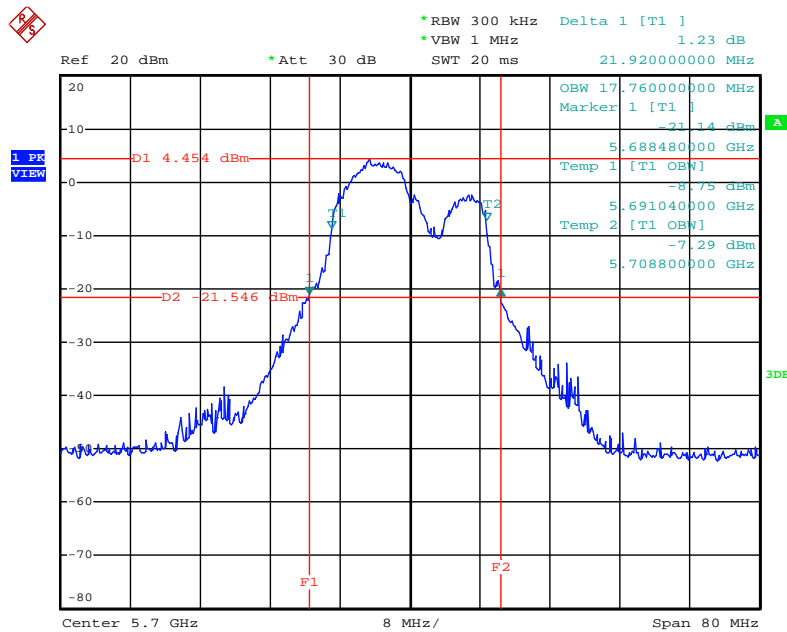
Date: 4.JUN.2012 08:08:01

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



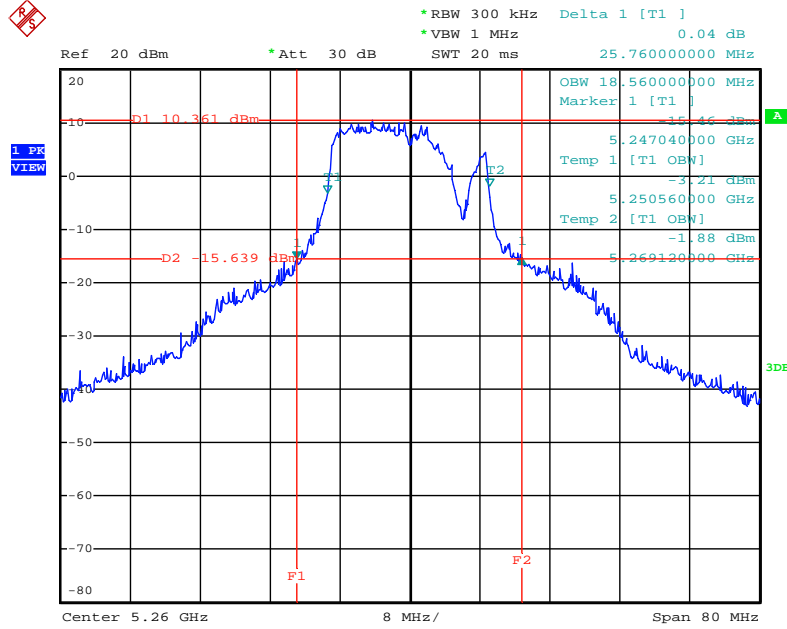
Date: 4.JUN.2012 08:08:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



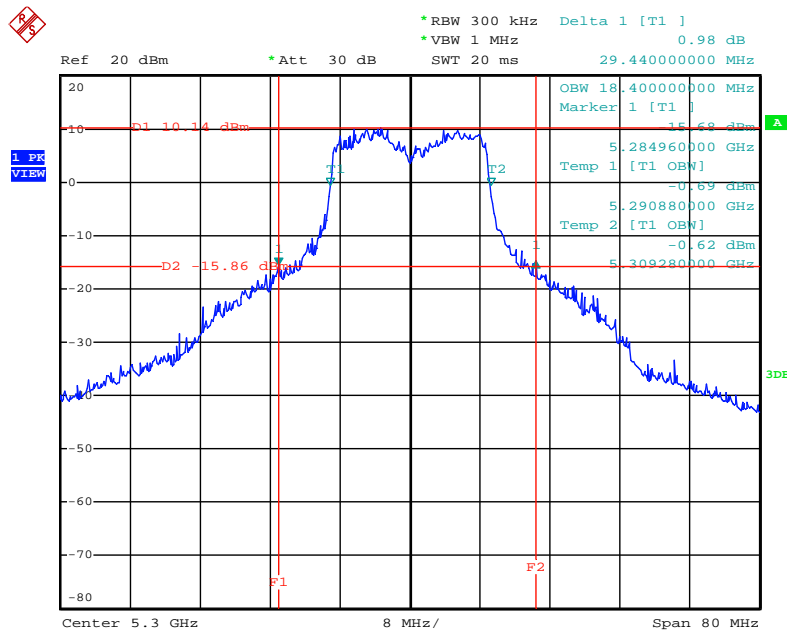
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



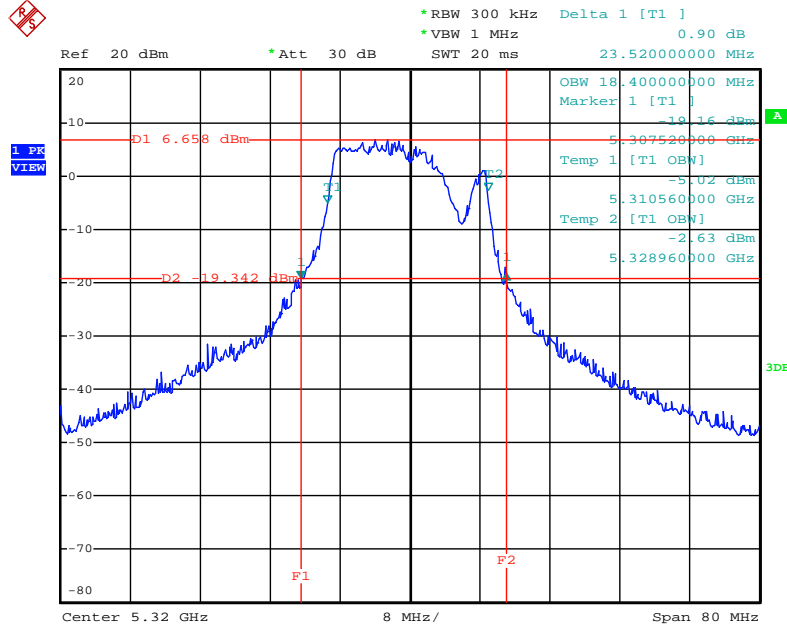
Date: 4.JUN.2012 08:11:20

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



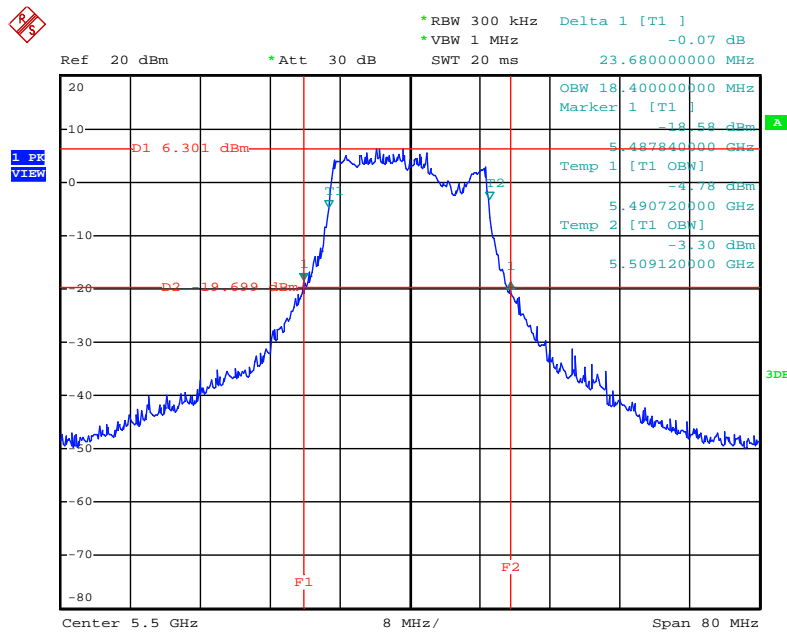
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



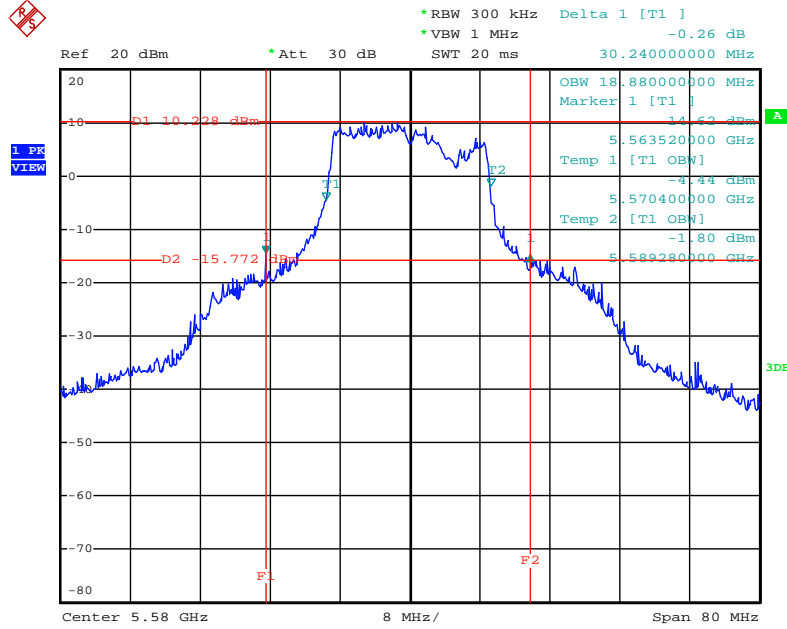
Date: 4.JUN.2012 08:10:36

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



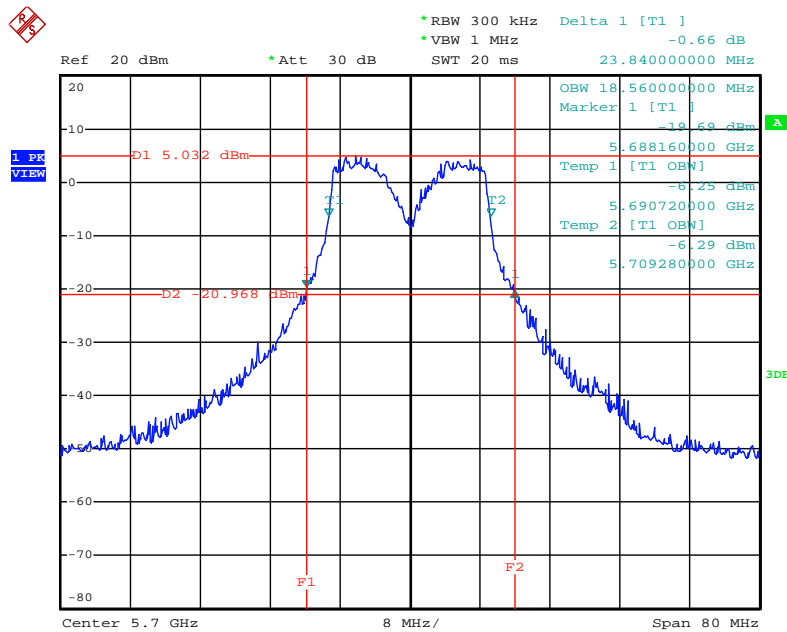
Date: 4.JUN.2012 08:10:06

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



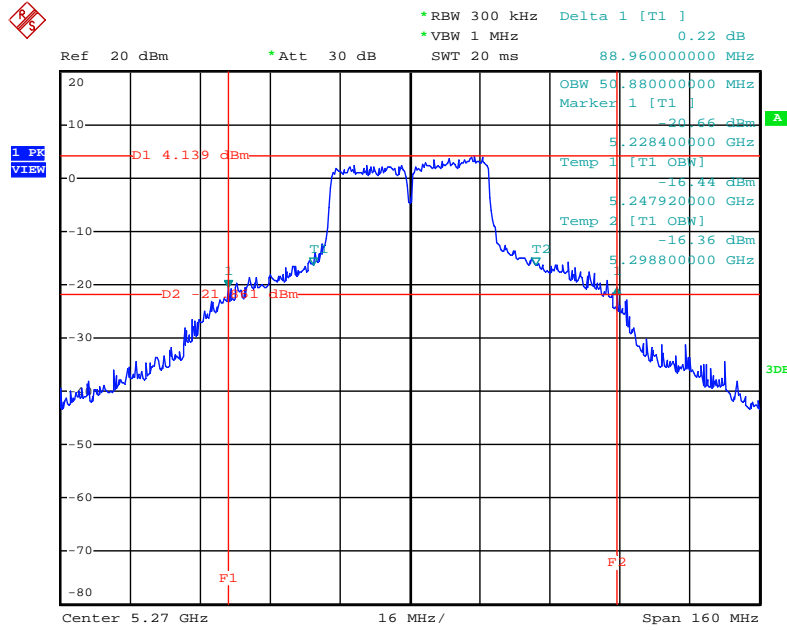
Date: 4.JUN.2012 08:09:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



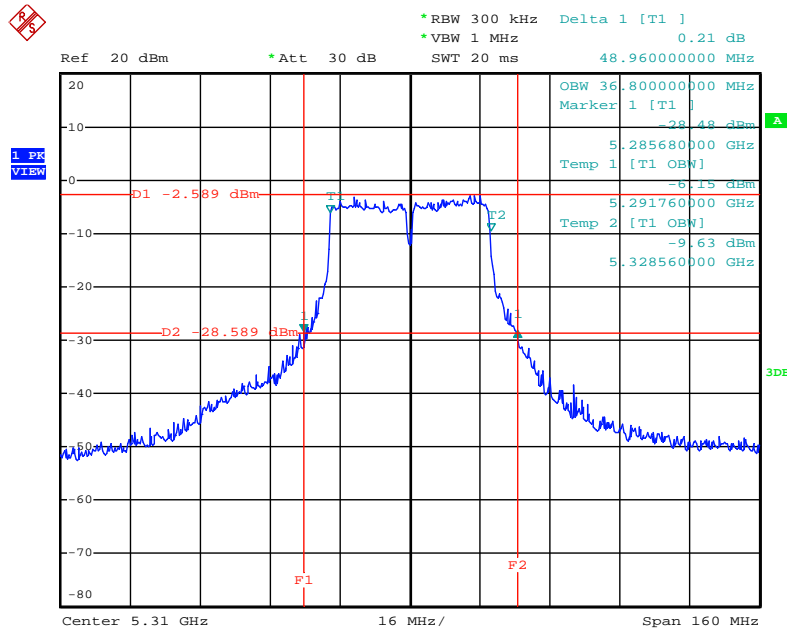
Date: 4.JUN.2012 08:09:14

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz (1TX)



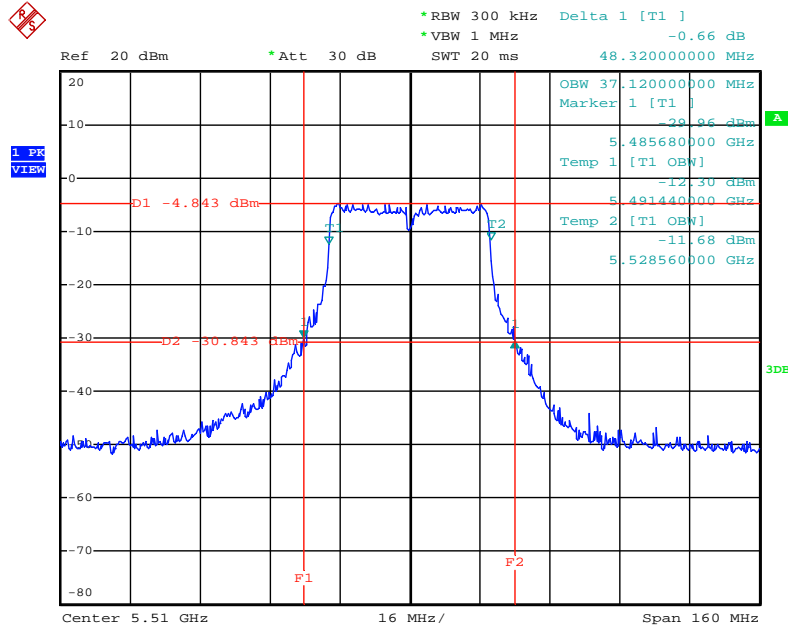
Date: 4.JUN.2012 07:56:32

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz (1TX)



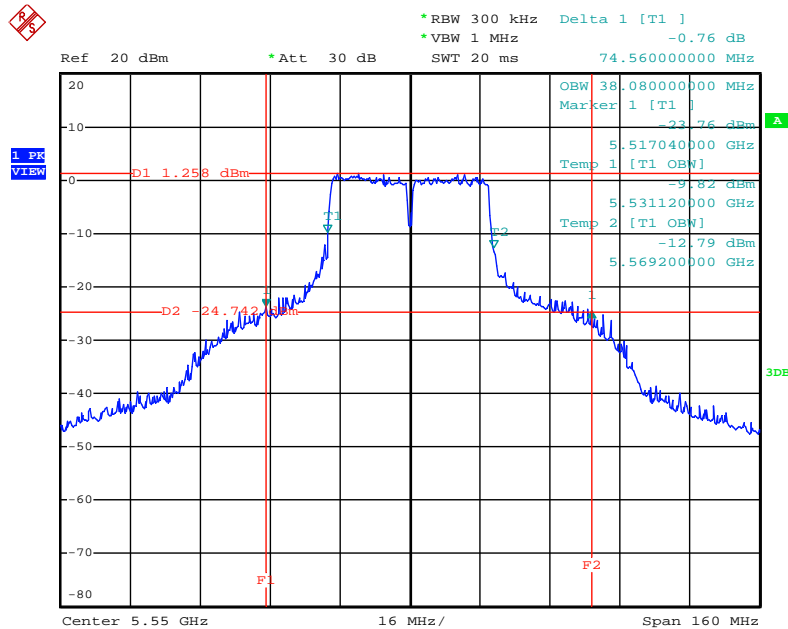
Date: 4.JUN.2012 07:56:05

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5510MHz (1TX)



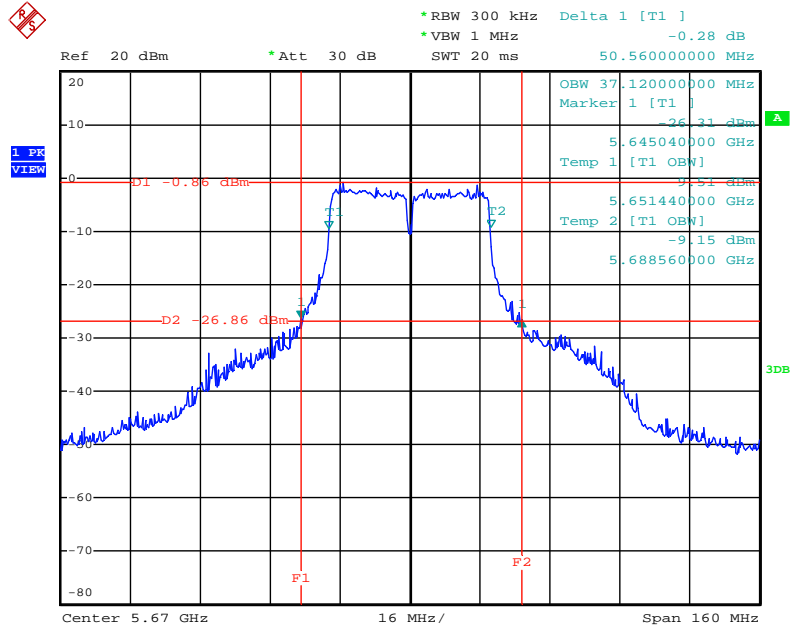
Date: 4.JUN.2012 07:55:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz (1TX)



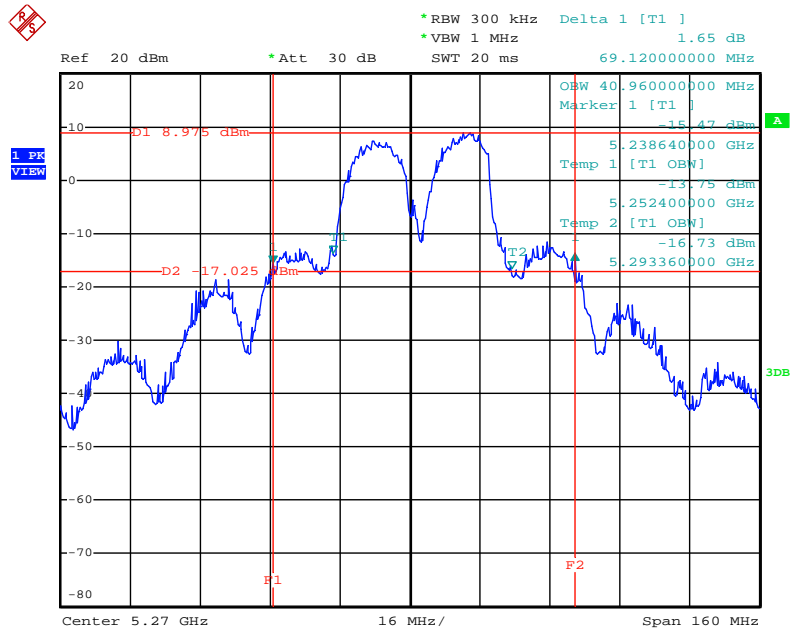
Date: 4.JUN.2012 07:54:59

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz (1TX)



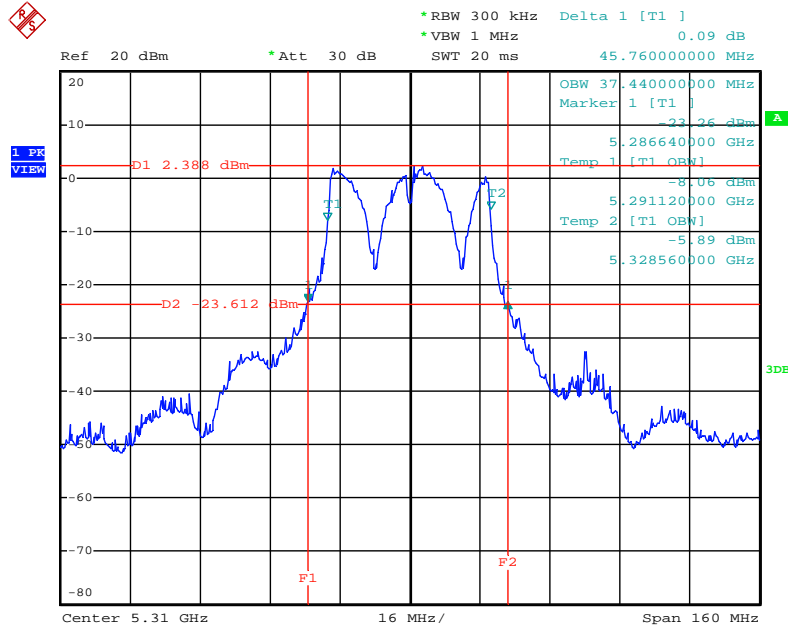
Date: 4.JUN.2012 07:54:20

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



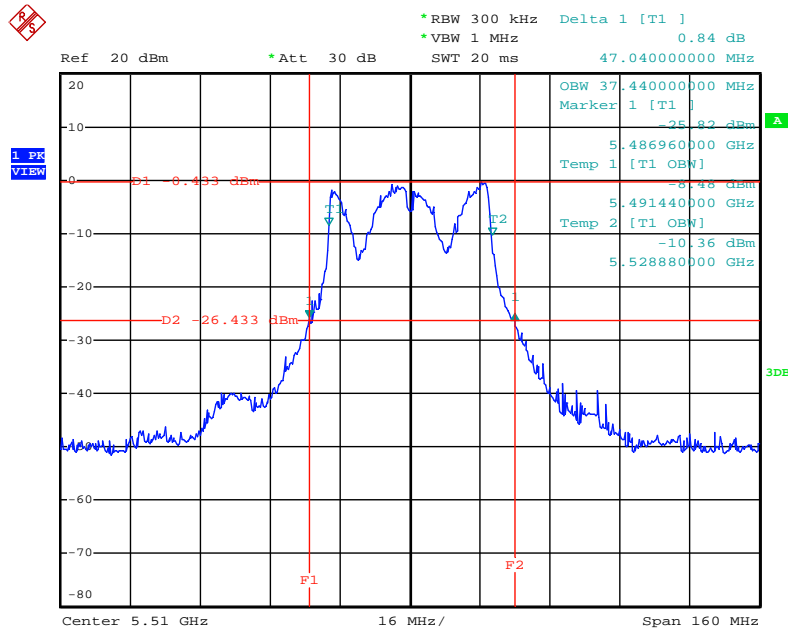
Date: 4.JUN.2012 07:57:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



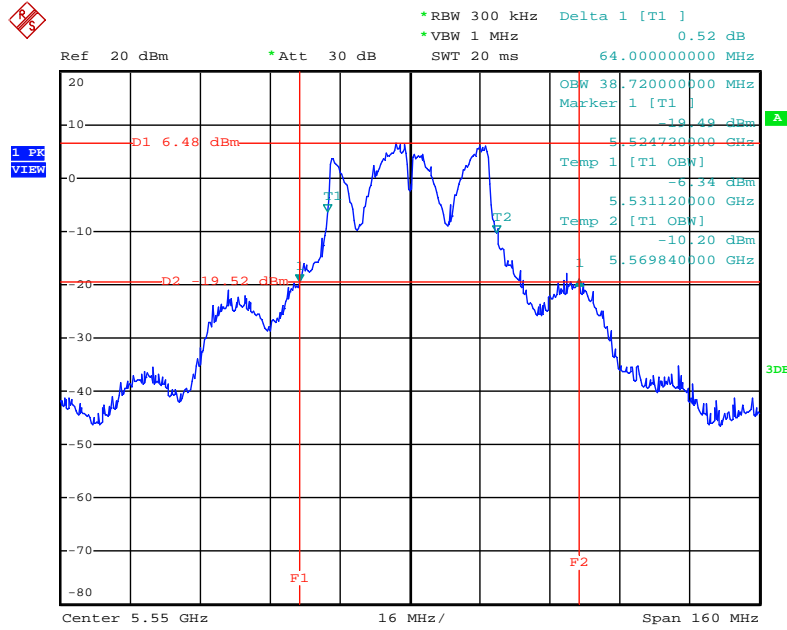
Date: 4.JUN.2012 07:57:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



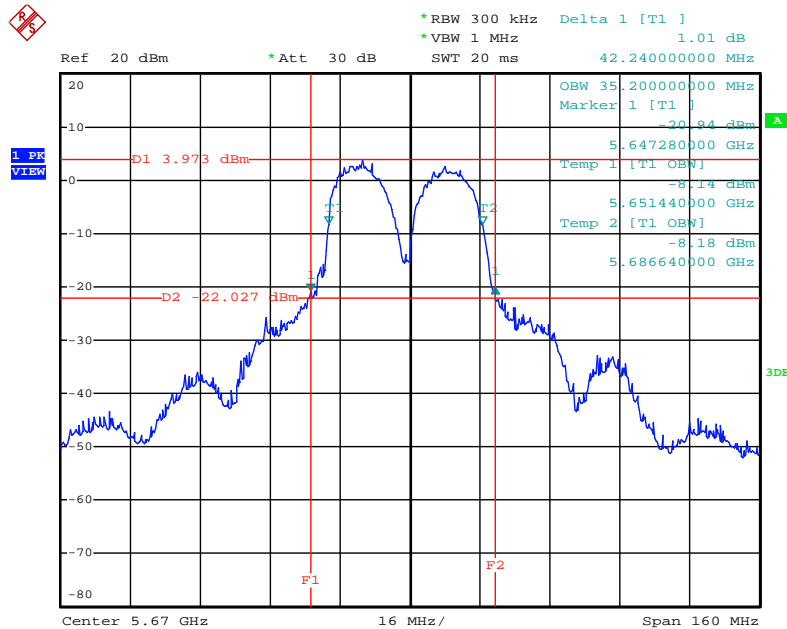
Date: 4.JUN.2012 07:58:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



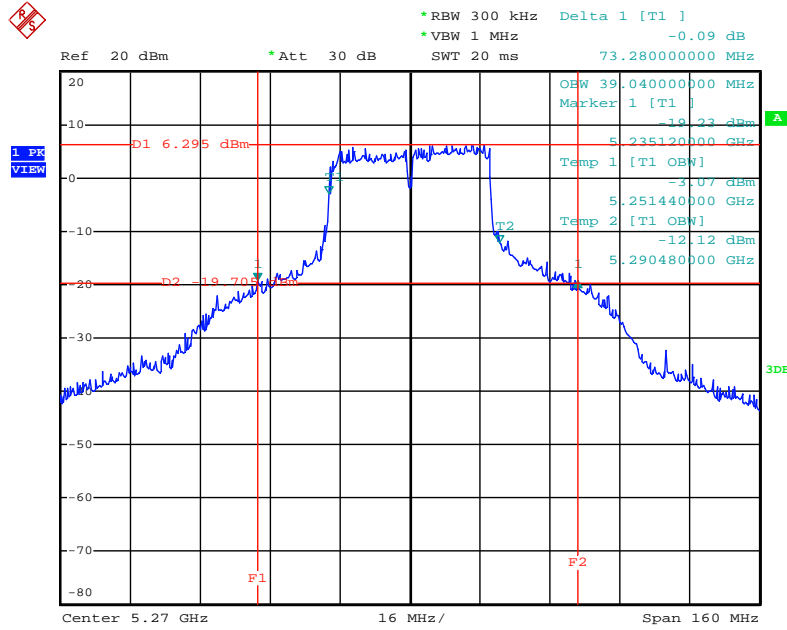
Date: 4.JUN.2012 07:58:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



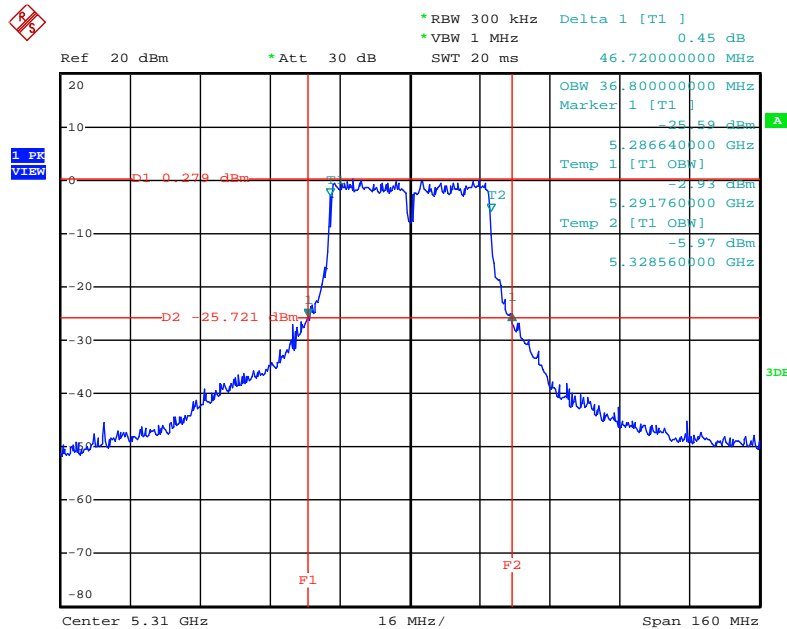
Date: 4.JUN.2012 07:58:54

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



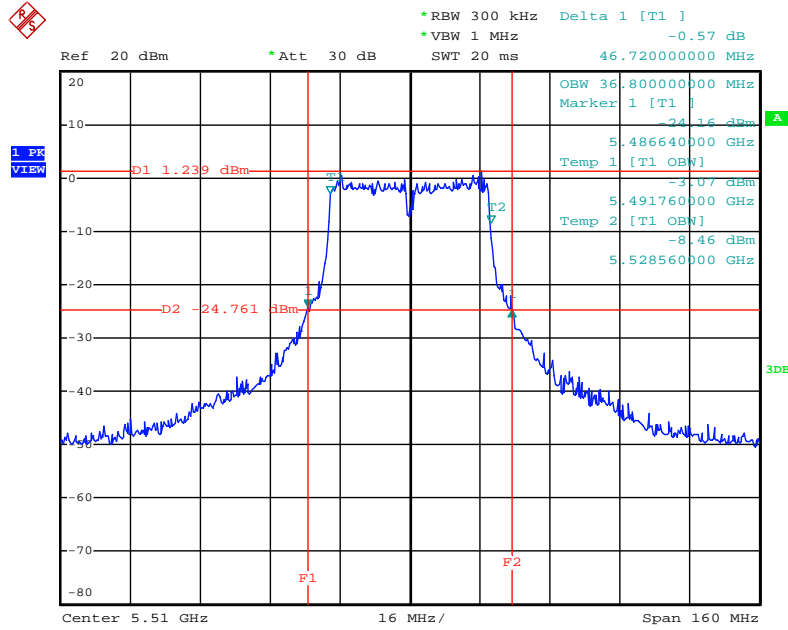
Date: 4.JUN.2012 08:00:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



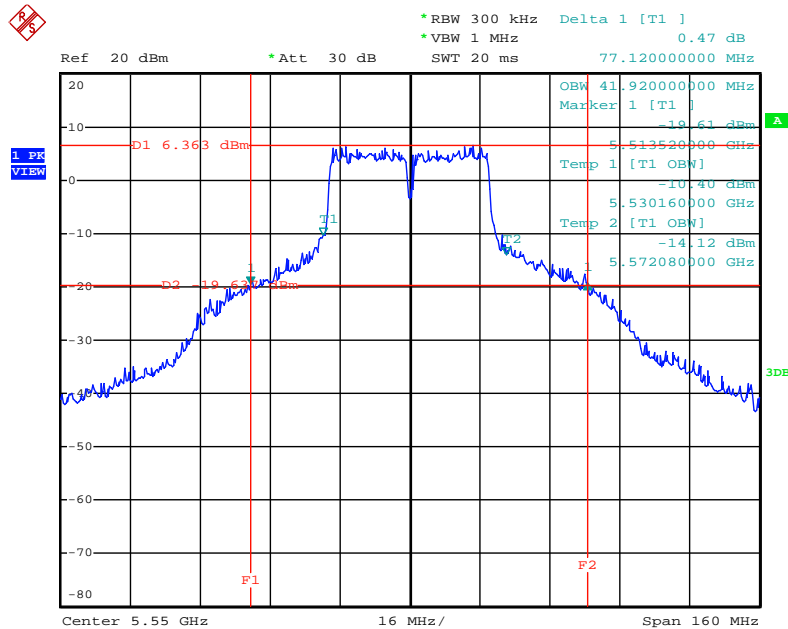
Date: 4.JUN.2012 08:00:24

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



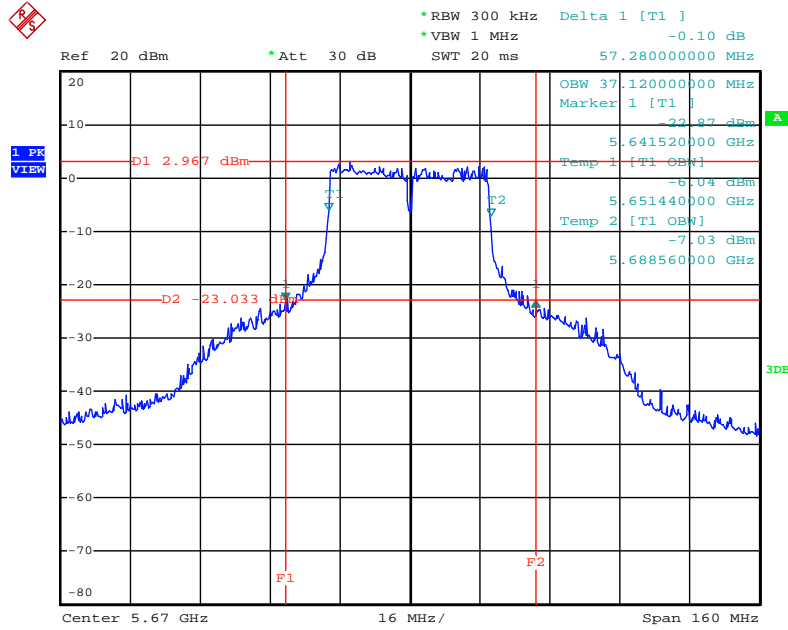
Date: 4.JUN.2012 07:59:59

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



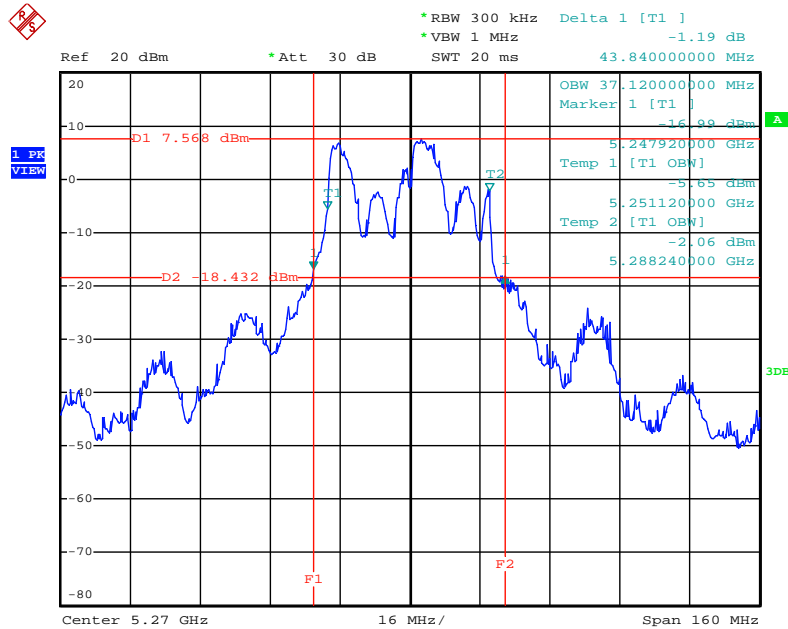
Date: 4.JUN.2012 07:59:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



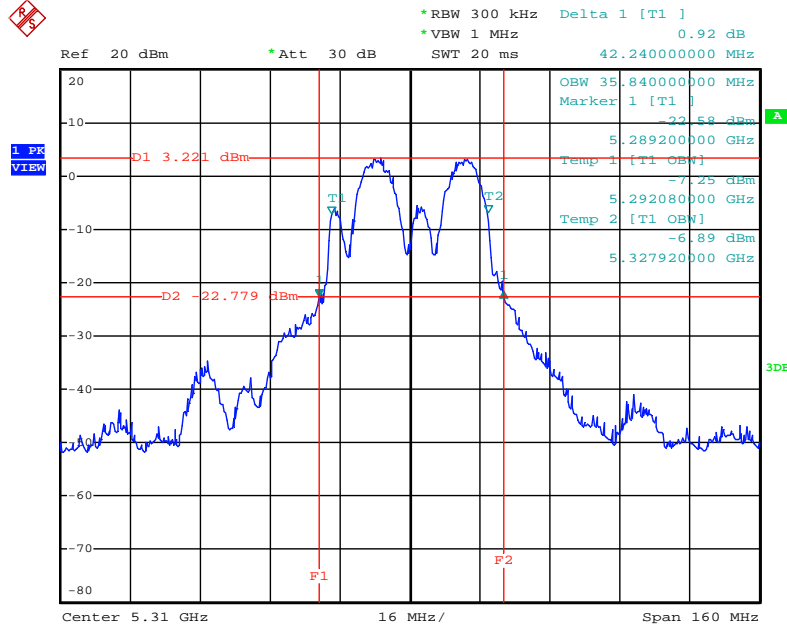
Date: 4.JUN.2012 07:59:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



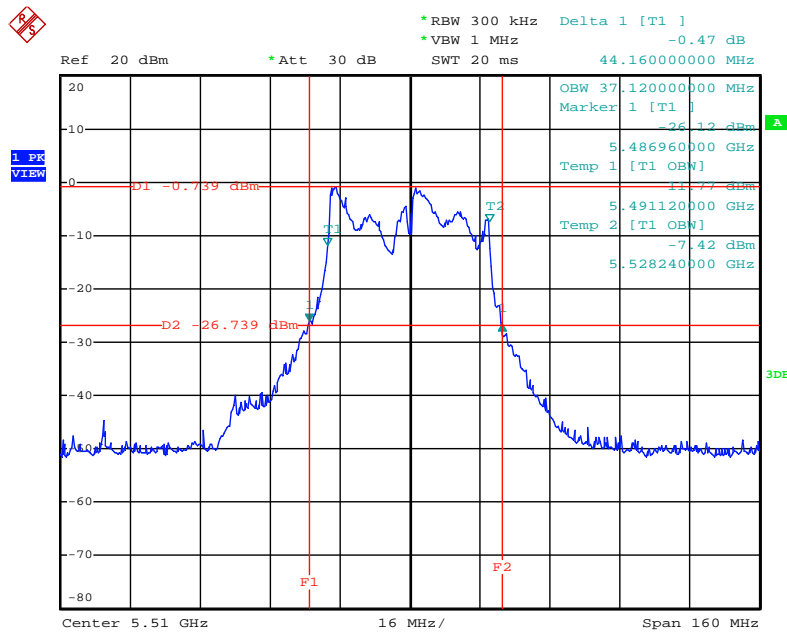
Date: 4.JUN.2012 08:15:28

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



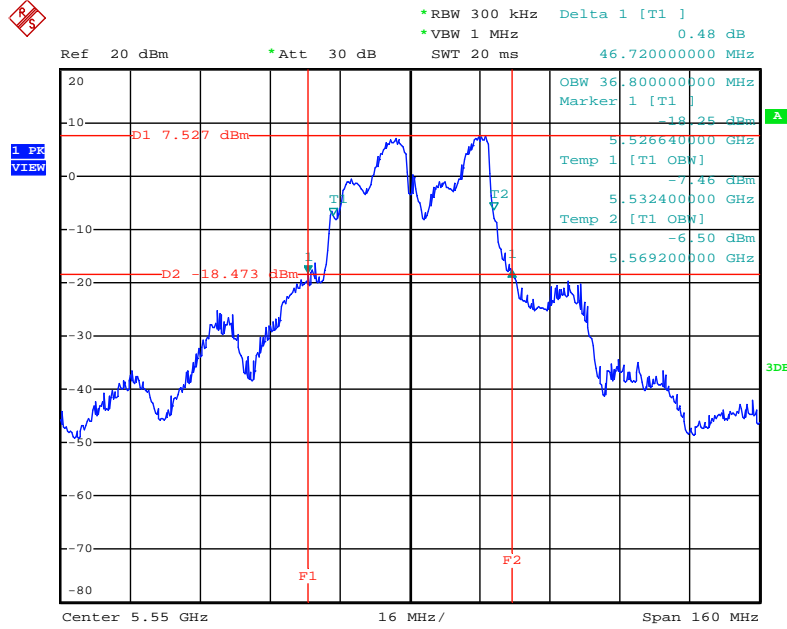
Date: 4.JUN.2012 08:15:06

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



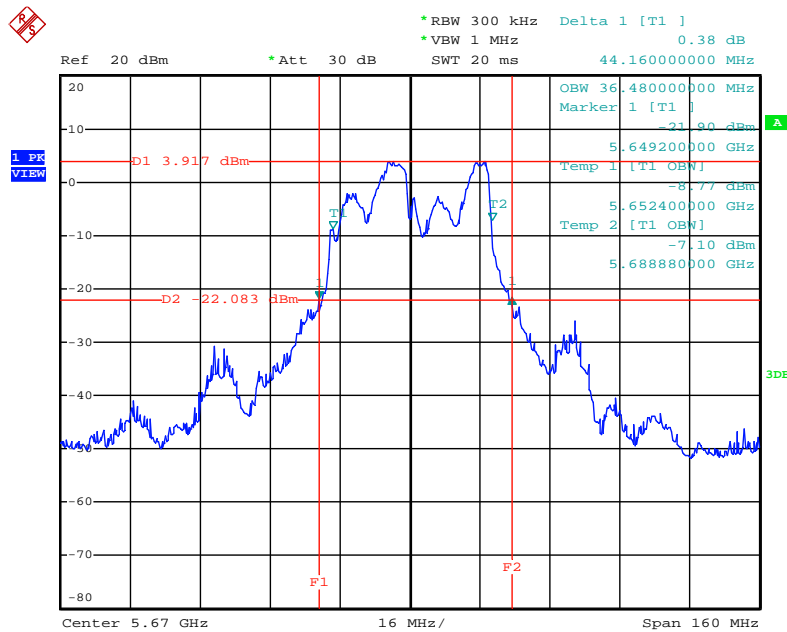
Date: 4.JUN.2012 08:14:44

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



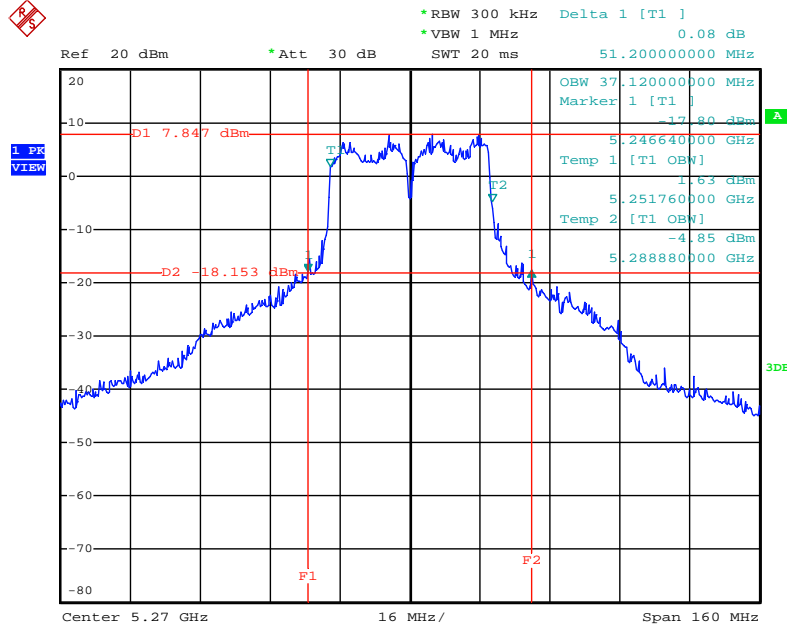
Date: 4.JUN.2012 08:14:20

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



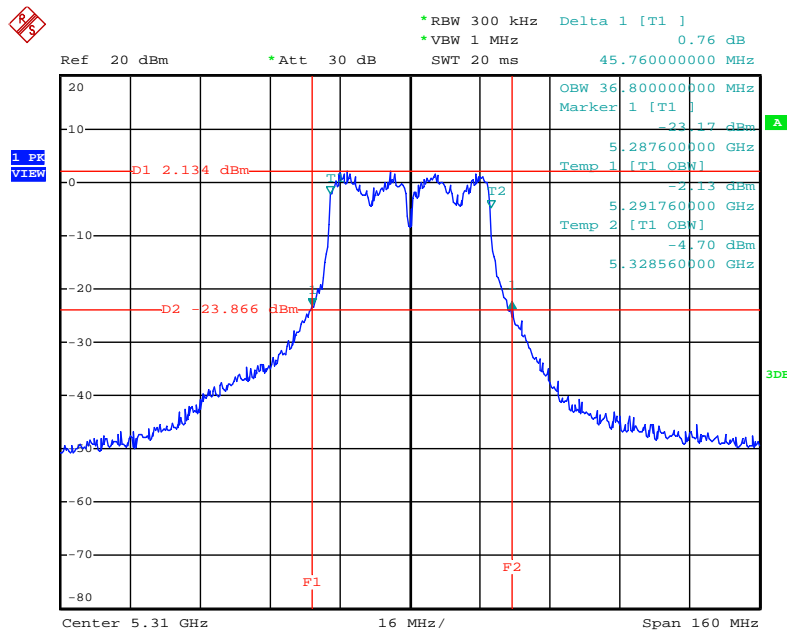
Date: 4.JUN.2012 08:13:58

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



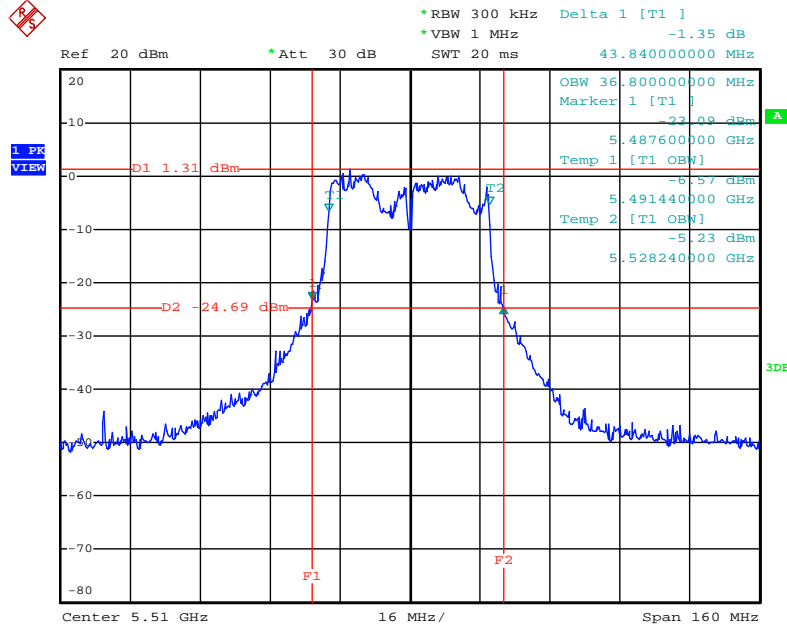
Date: 4.JUN.2012 08:11:51

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



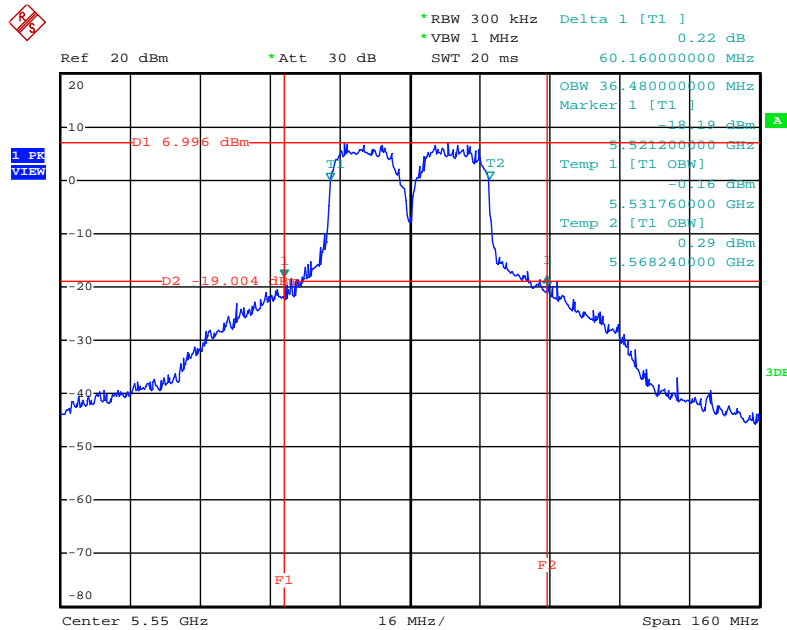
Date: 4.JUN.2012 08:12:10

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



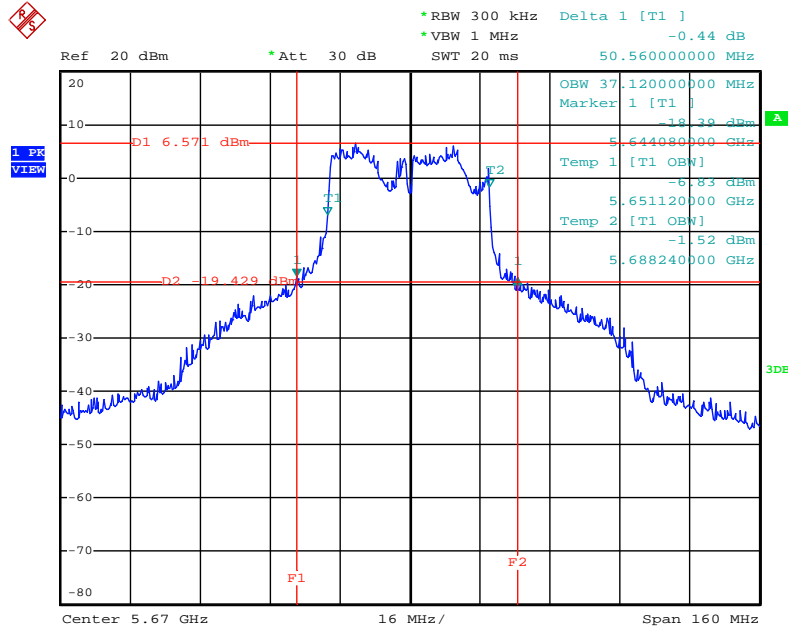
Date: 4.JUN.2012 08:12:32

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



Date: 4.JUN.2012 08:13:03

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



Date: 4.JUN.2012 08:13:24

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 3 (Ant. 8 Panel antenna / 10.5dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	39.52	20.16
60	5300 MHz	31.36	18.88
64	5320 MHz	26.56	18.56
100	5500 MHz	25.28	18.56
116	5580 MHz	41.12	22.24
140	5700 MHz	25.92	18.72

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	48.00	36.80
62	5310 MHz	49.92	36.80
102	5510MHz	49.92	37.12
110	5550 MHz	51.20	37.44
134	5670 MHz	48.96	36.80

2TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	22.40	16.32
60	5300 MHz	25.60	19.20
64	5320 MHz	22.24	16.80
100	5500 MHz	24.64	19.04
116	5580 MHz	23.84	18.88
140	5700 MHz	22.08	17.44

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	42.88	34.88
62	5310 MHz	43.52	35.52
102	5510MHz	46.40	37.44
110	5550 MHz	45.44	37.12
134	5670 MHz	41.92	34.60

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	24.64	18.24
60	5300 MHz	24.00	18.24
64	5320 MHz	24.00	18.24
100	5500 MHz	24.64	18.24
116	5580 MHz	24.96	18.24
140	5700 MHz	23.84	18.40

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	47.04	36.80
62	5310 MHz	47.04	36.80
102	5510MHz	46.40	36.48
110	5550 MHz	46.40	36.80
134	5670 MHz	46.08	36.80

3TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	20.80	16.96
60	5300 MHz	20.80	17.12
64	5320 MHz	23.04	18.08
100	5500 MHz	22.72	18.24
116	5580 MHz	21.76	16.64
140	5700 MHz	21.28	17.44

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	44.48	36.80
62	5310 MHz	44.48	36.80
102	5510MHz	42.56	36.16
110	5550 MHz	41.92	35.52
134	5670 MHz	44.48	37.44

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	23.84	18.40
60	5300 MHz	24.32	17.92
64	5320 MHz	23.52	17.92
100	5500 MHz	22.72	18.24
116	5580 MHz	24.00	18.56
140	5700 MHz	24.16	18.40

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	44.80	37.12
62	5310 MHz	45.76	37.12
102	5510MHz	46.08	36.80
110	5550 MHz	45.12	35.84
134	5670 MHz	45.12	36.48

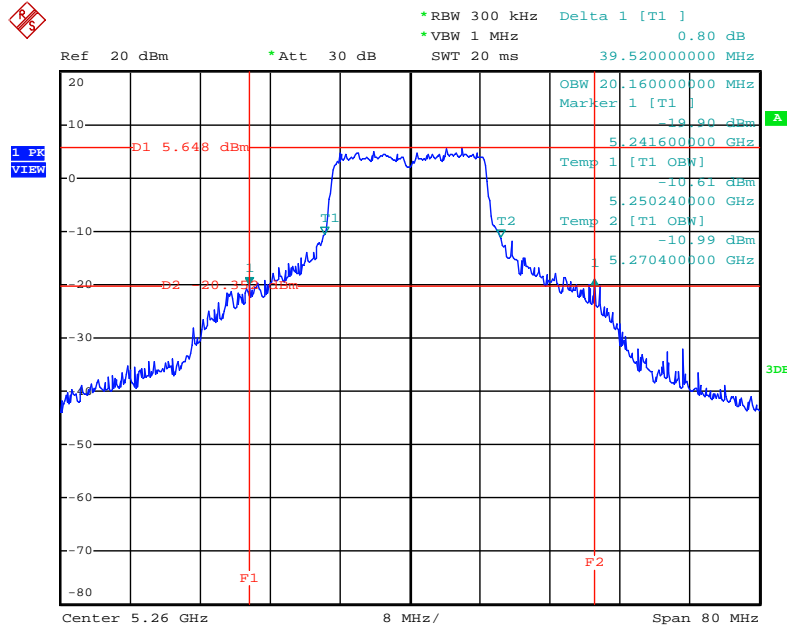
Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	23.68	18.24
60	5300 MHz	24.32	18.24
64	5320 MHz	24.48	18.40
100	5500 MHz	23.84	18.24
116	5580 MHz	23.84	18.24
140	5700 MHz	24.96	18.40

Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3

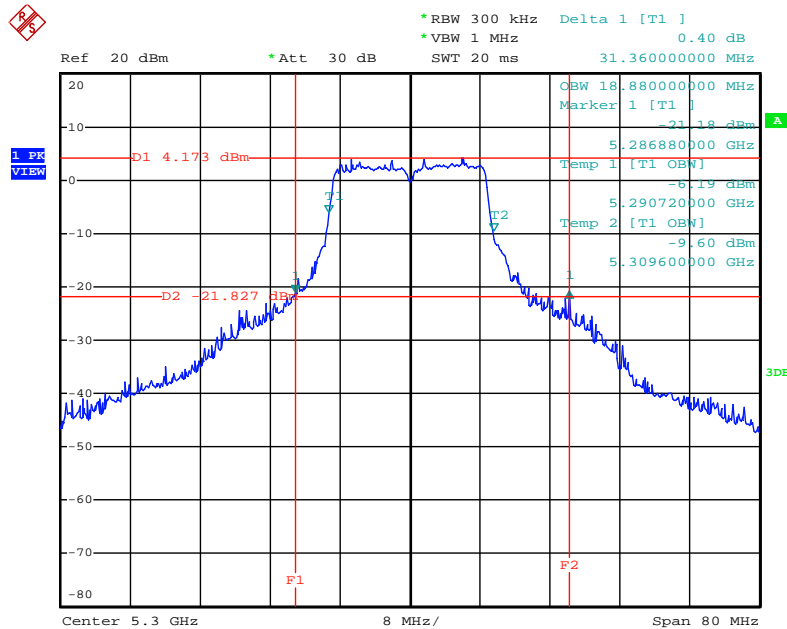
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	48.64	37.12
62	5310 MHz	47.04	37.12
102	5510MHz	46.08	36.80
110	5550 MHz	46.40	36.80
134	5670 MHz	45.40	36.80

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5260 MHz (1TX)



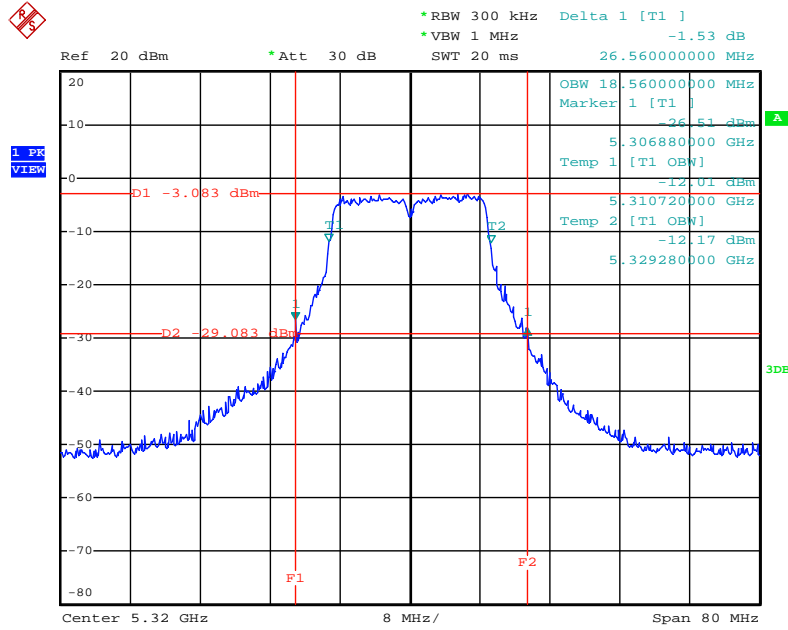
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5300 MHz (1TX)



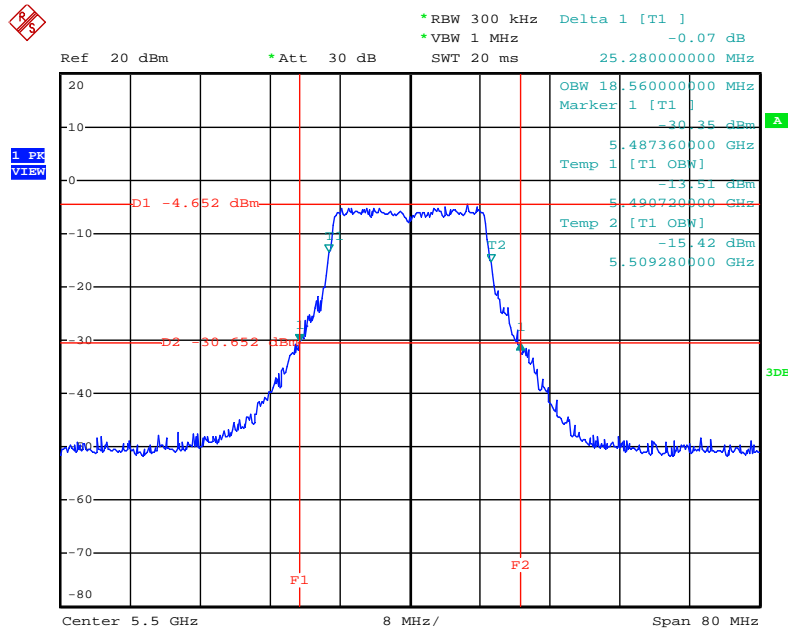
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz (1TX)



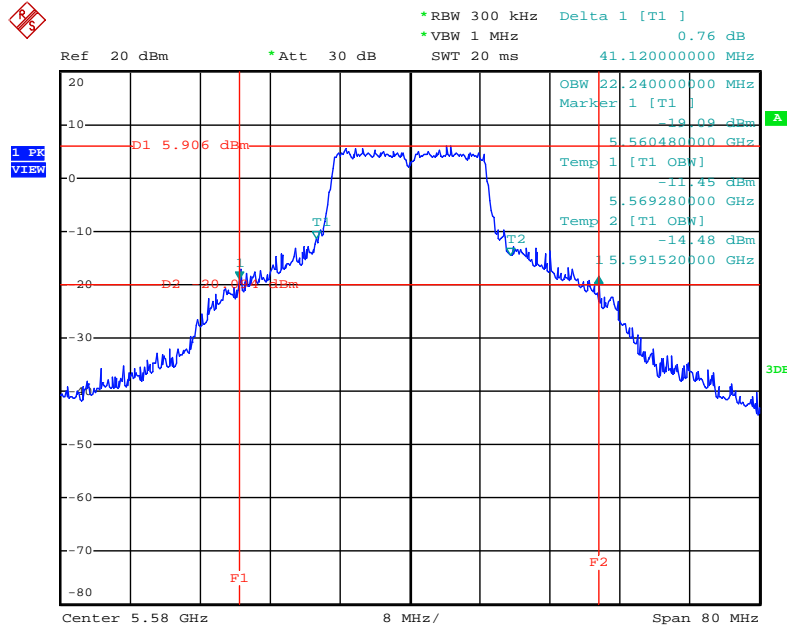
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz (1TX)



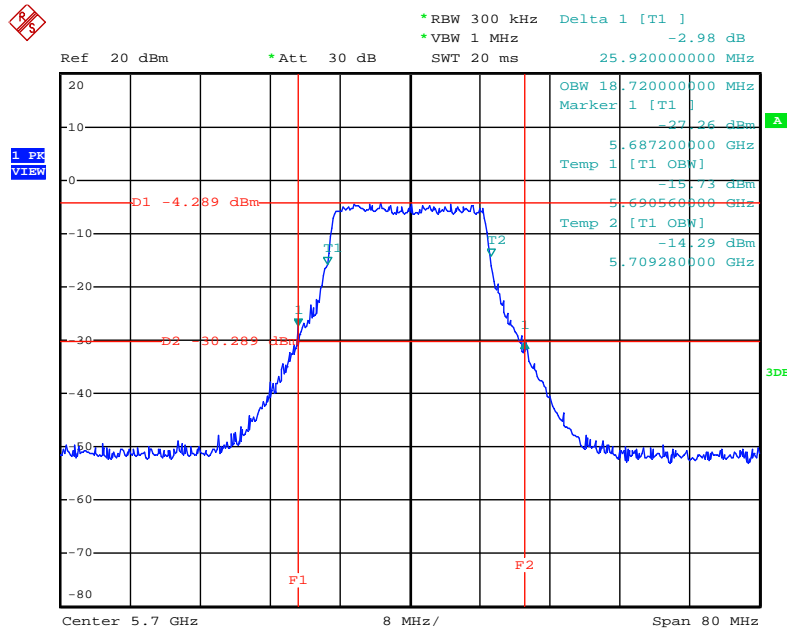
Date: 9.JUN.2012 12:38:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz (1TX)



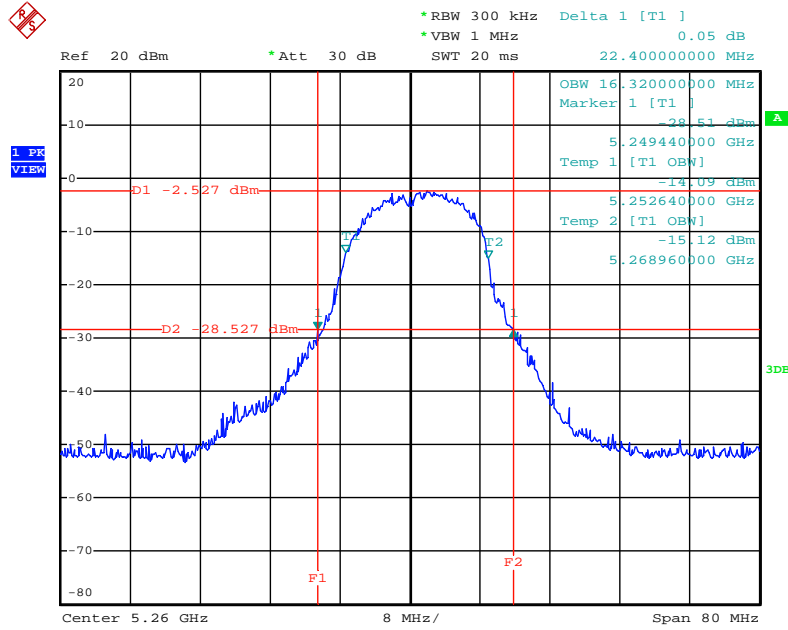
Date: 9.JUN.2012 12:38:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5700 MHz (1TX)



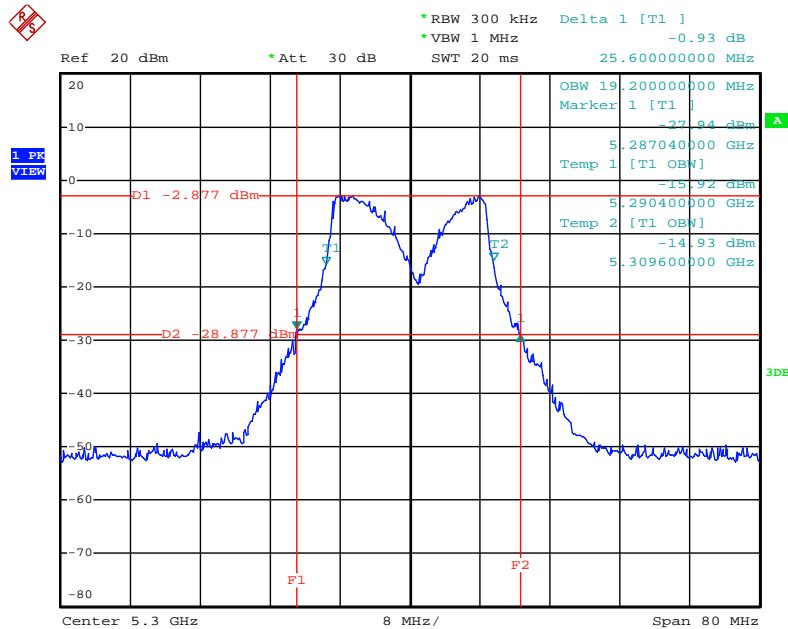
Date: 9.JUN.2012 12:37:54

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



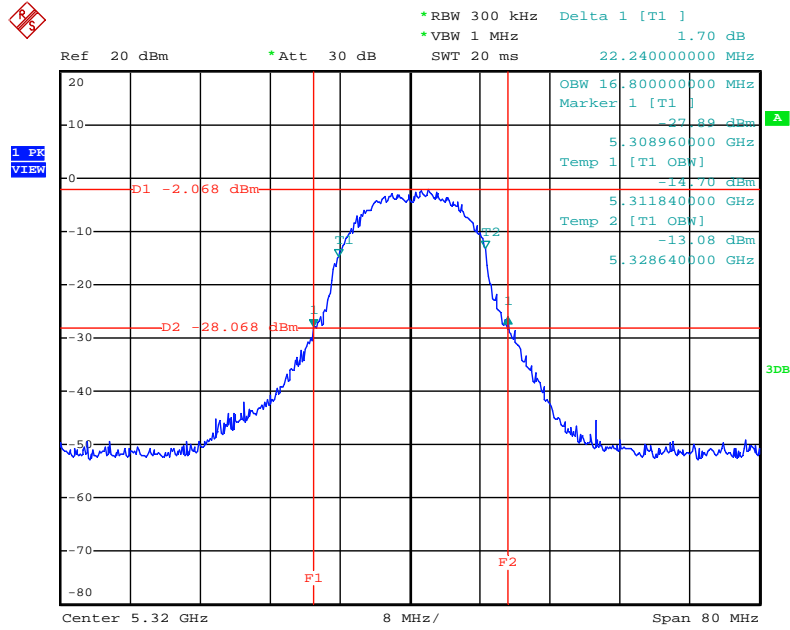
Date: 9.JUN.2012 12:26:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



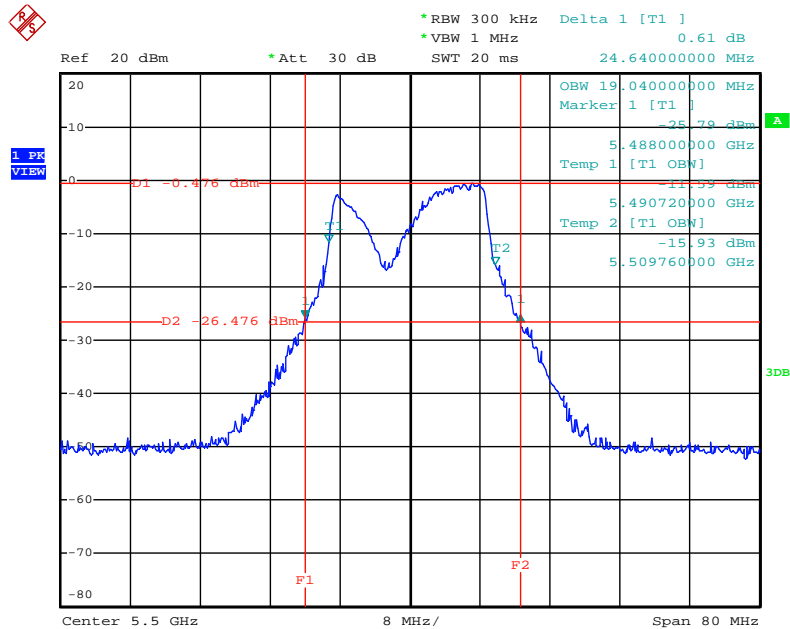
Date: 9.JUN.2012 12:26:27

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



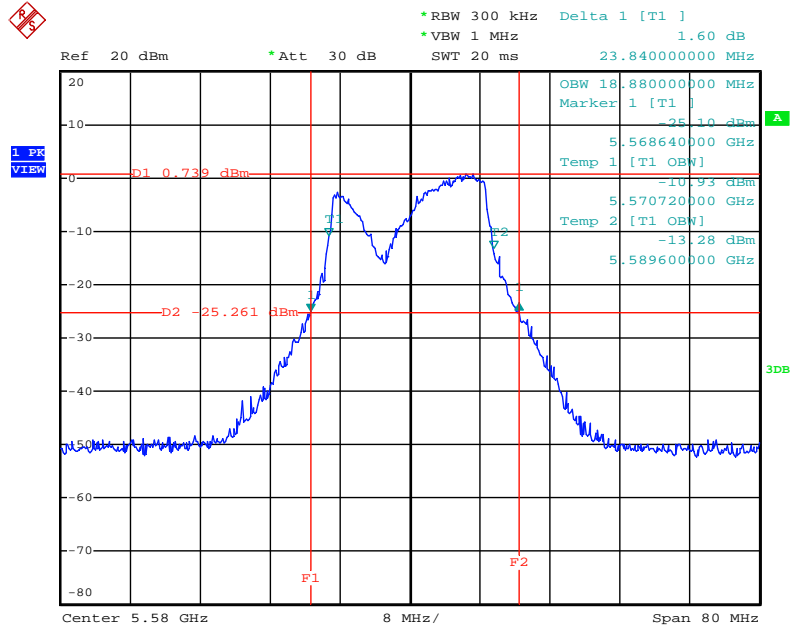
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



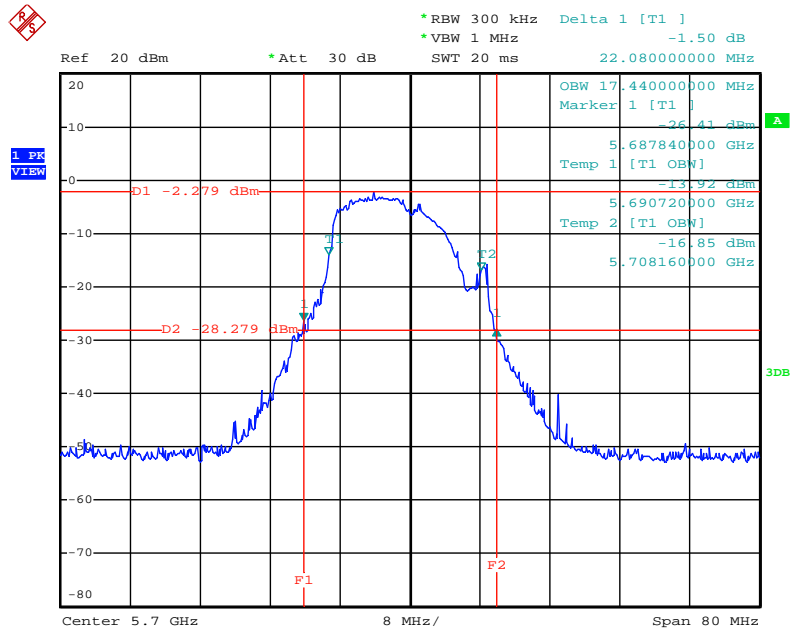
Date: 9.JUN.2012 12:25:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



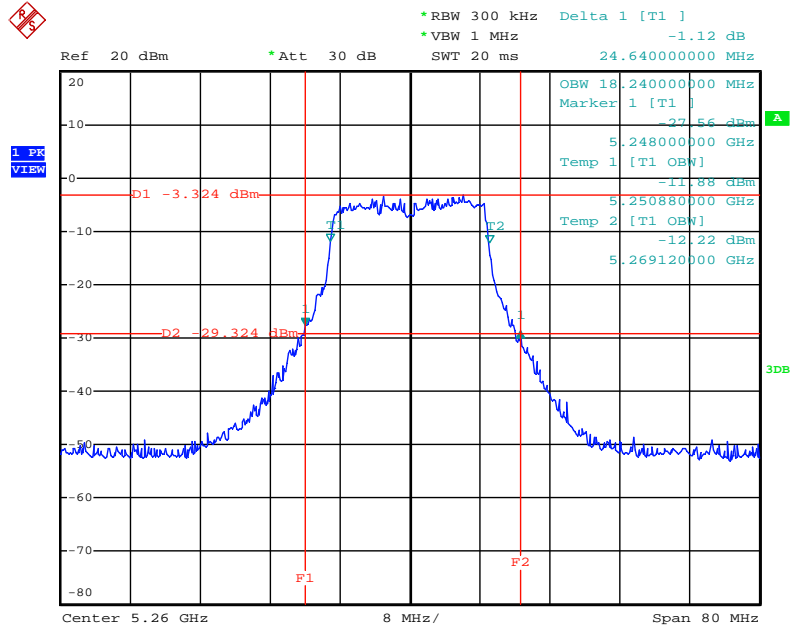
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



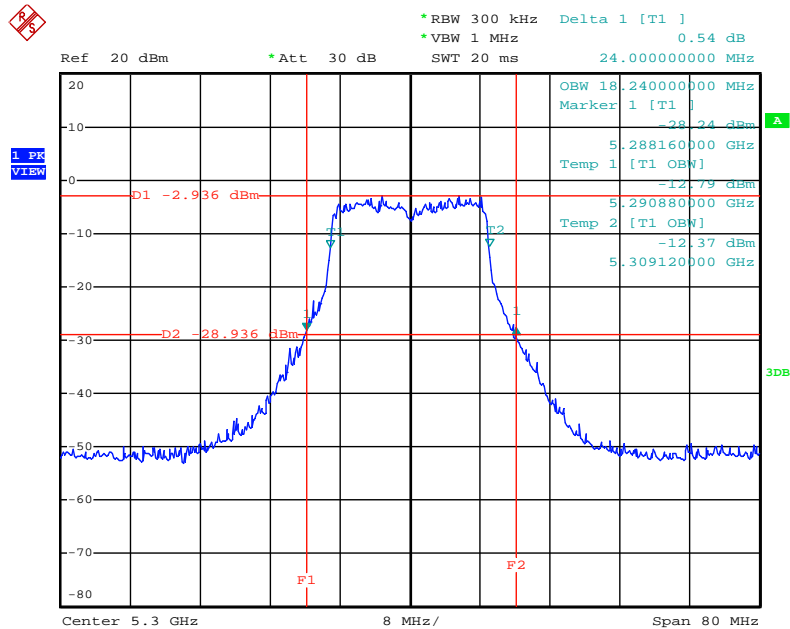
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



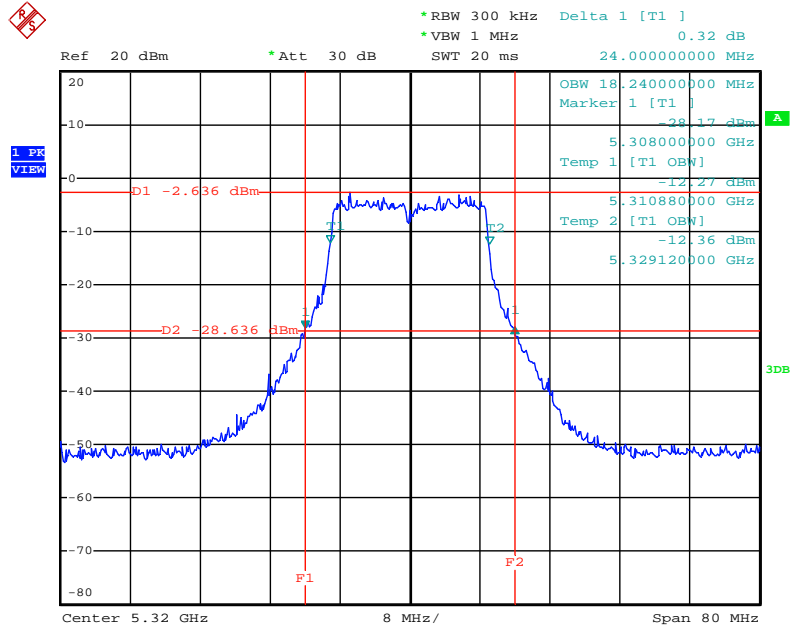
Date: 9.JUN.2012 12:27:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



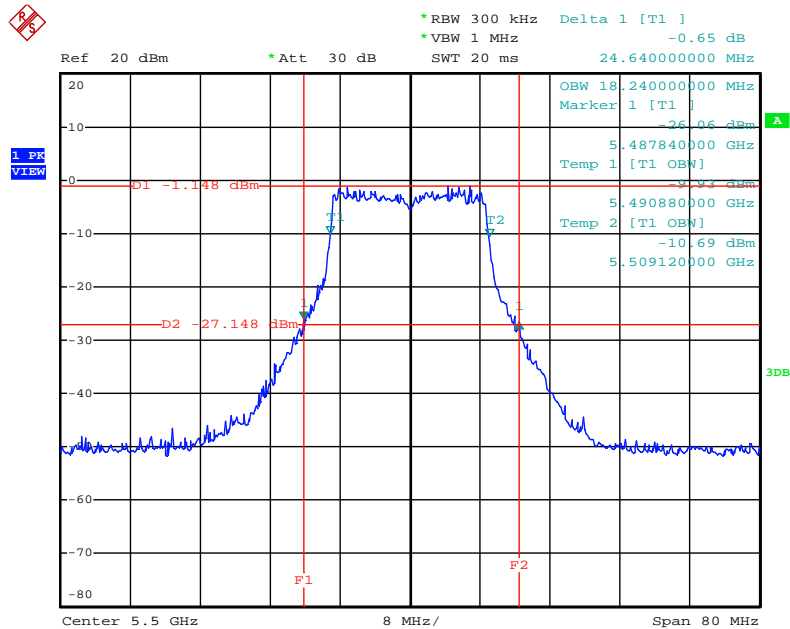
Date: 9.JUN.2012 12:27:23

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



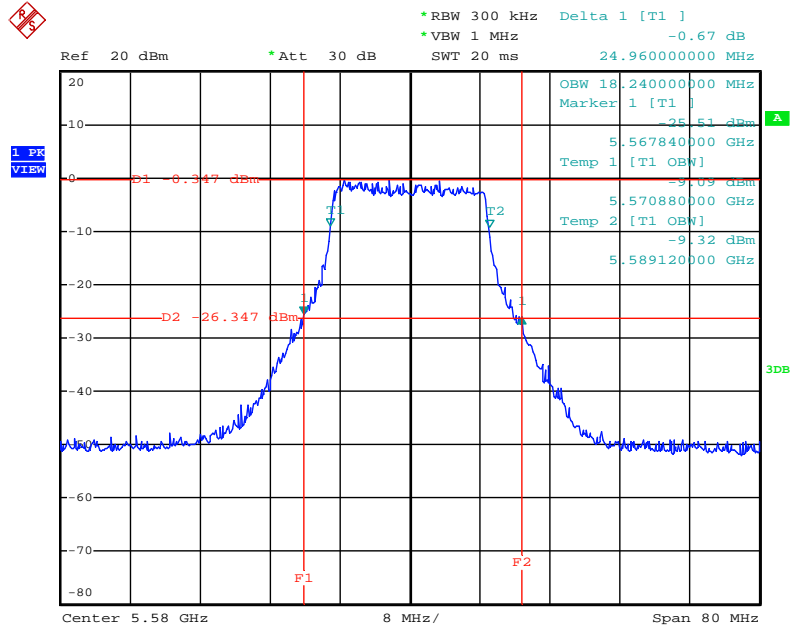
Date: 9.JUN.2012 12:27:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



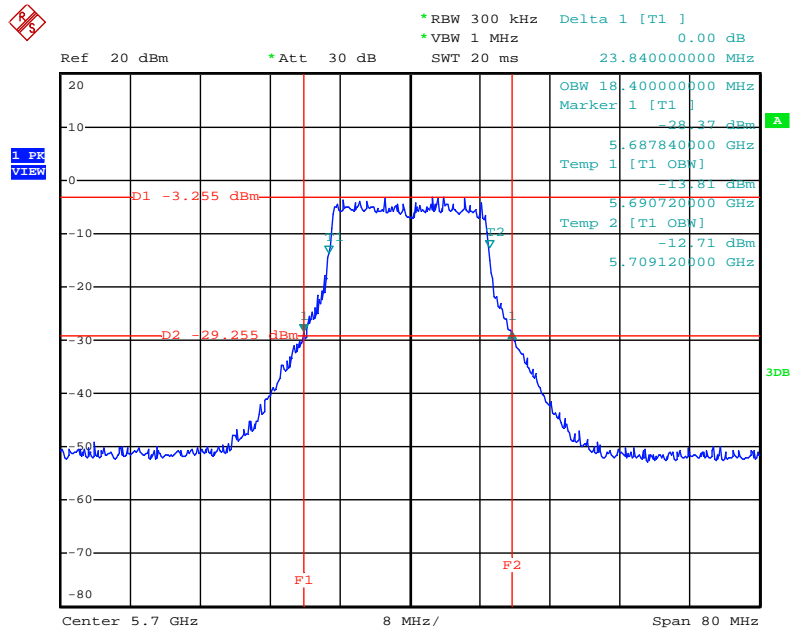
Date: 9.JUN.2012 12:28:03

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



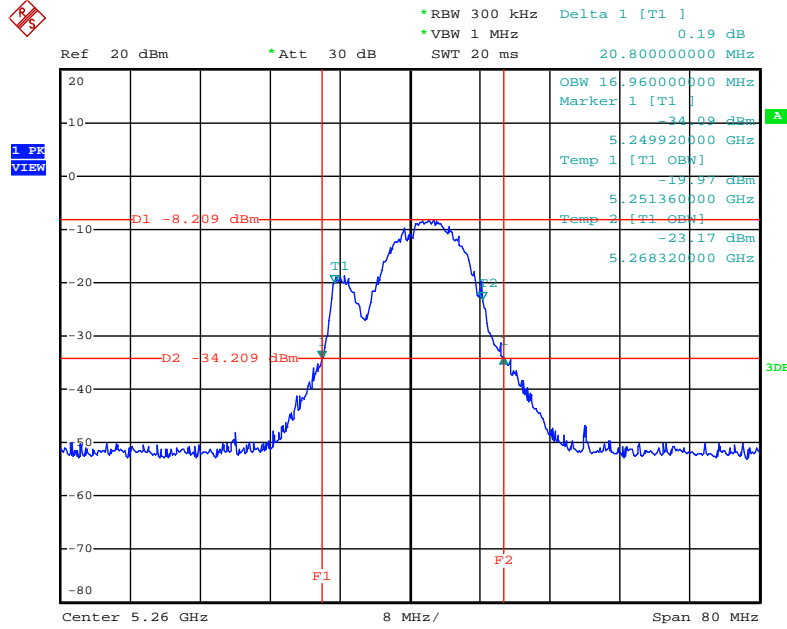
Date: 9.JUN.2012 12:28:25

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



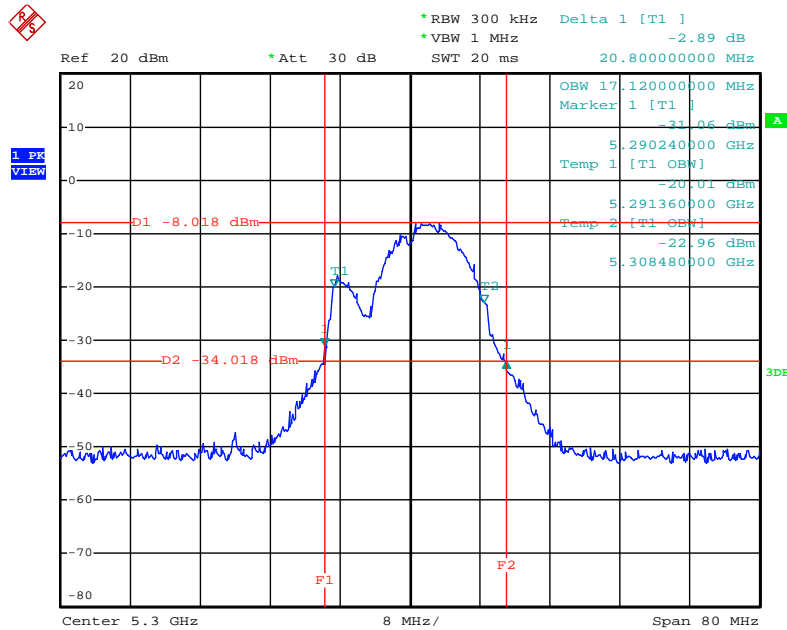
Date: 9.JUN.2012 12:28:47

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



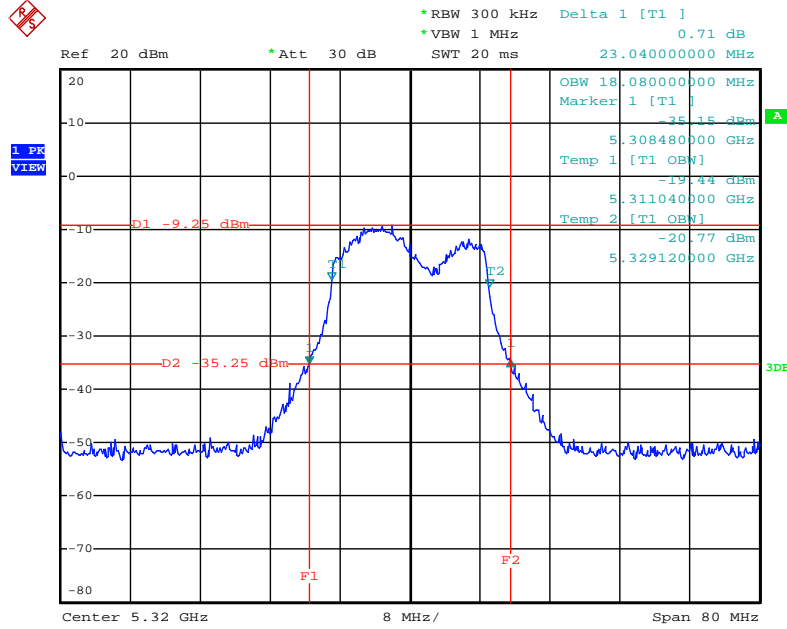
Date: 9.JUN.2012 12:18:40

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



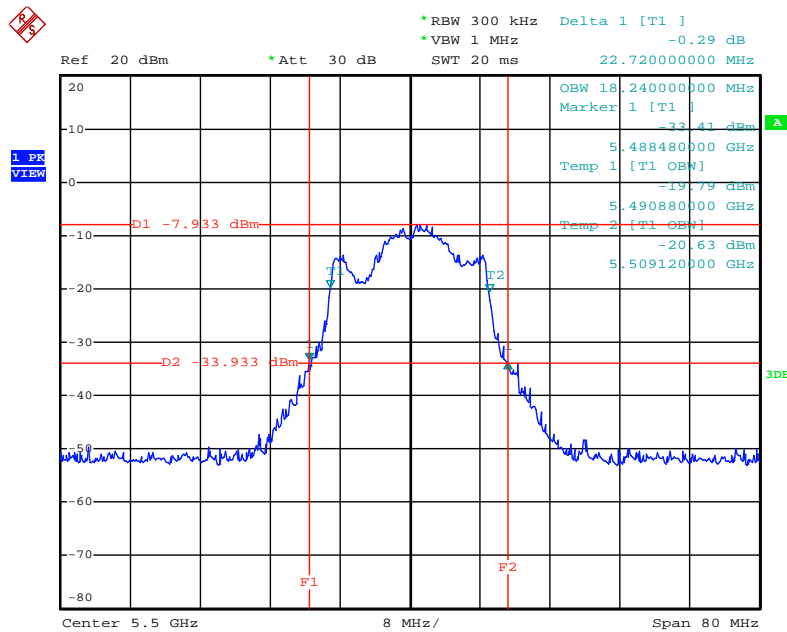
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



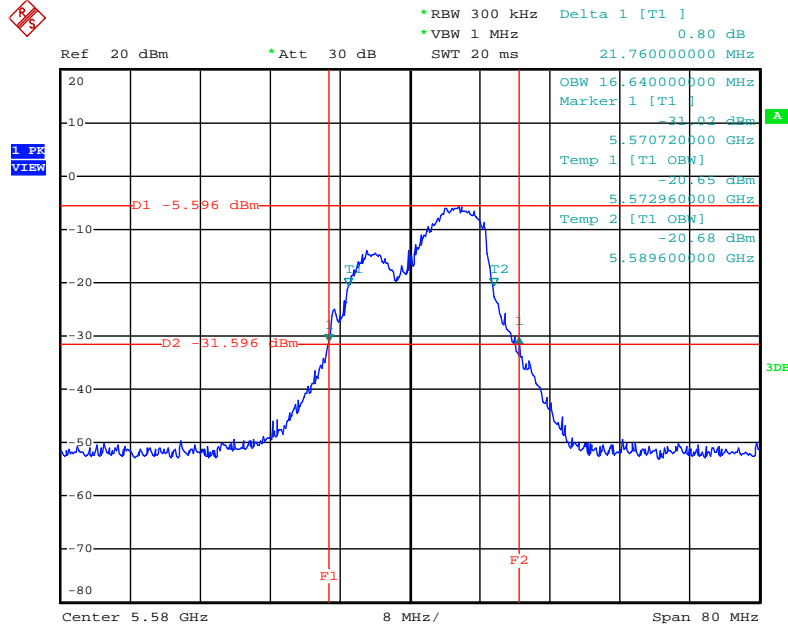
Date: 9.JUN.2012 12:19:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



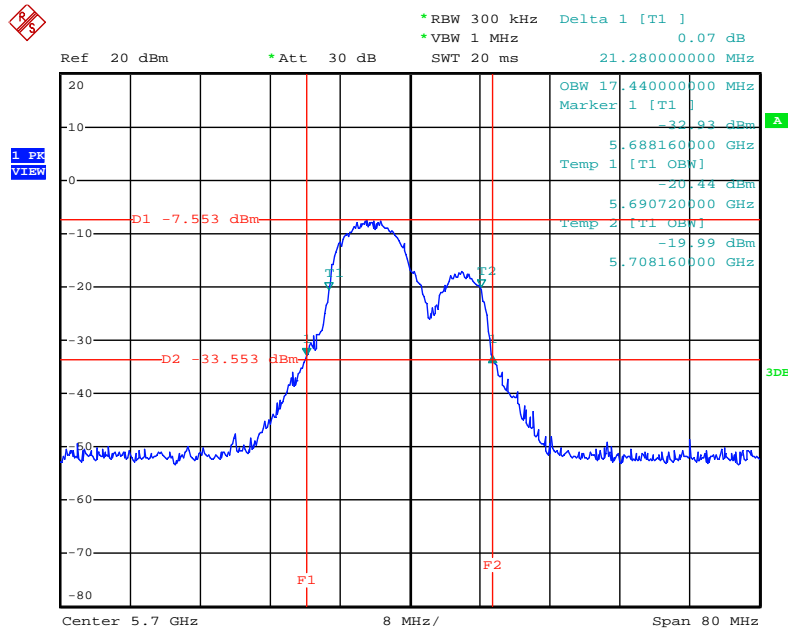
Date: 9.JUN.2012 12:19:33

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



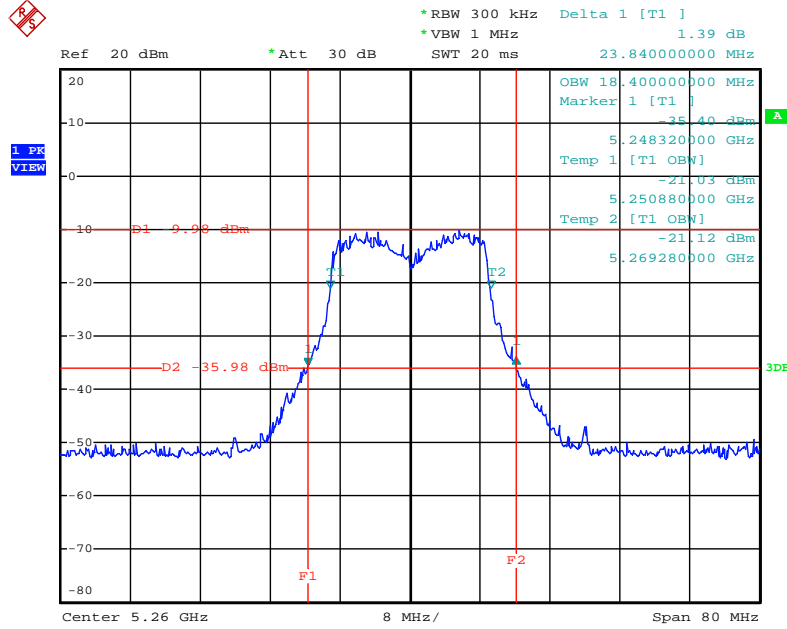
Date: 9.JUN.2012 12:19:52

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



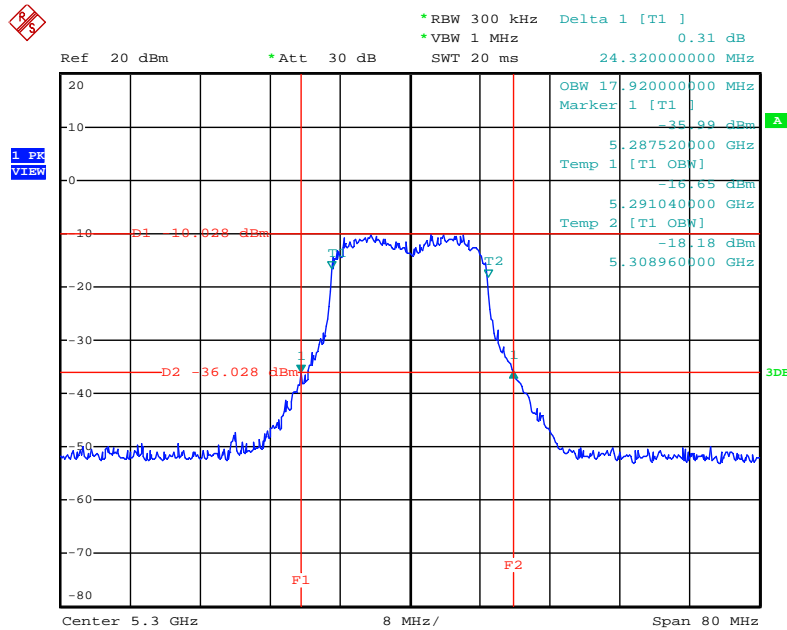
Date: 9.JUN.2012 12:20:10

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



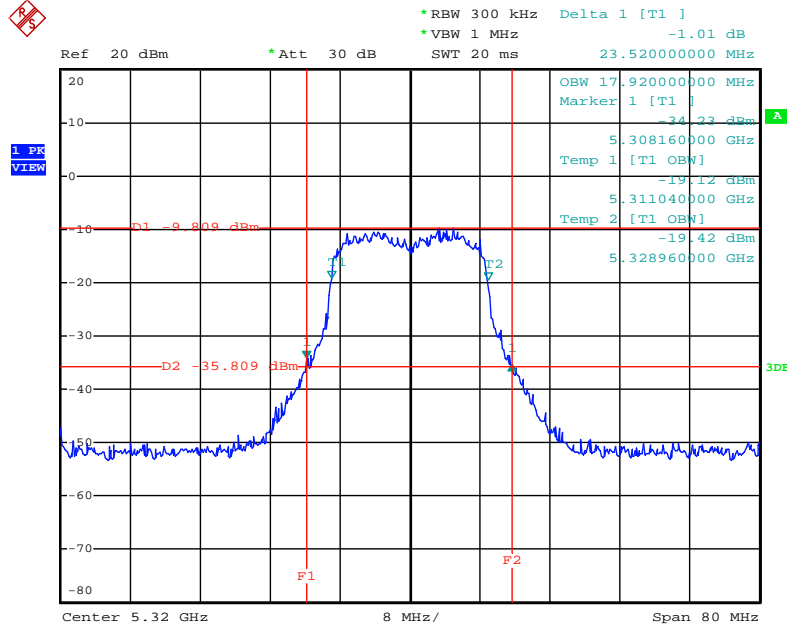
Date: 9.JUN.2012 12:22:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



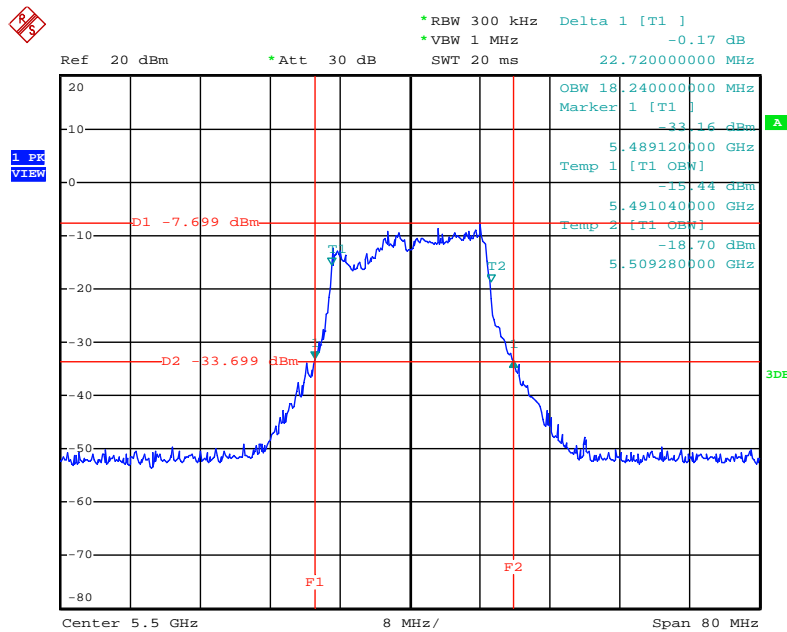
Date: 9.JUN.2012 12:21:45

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



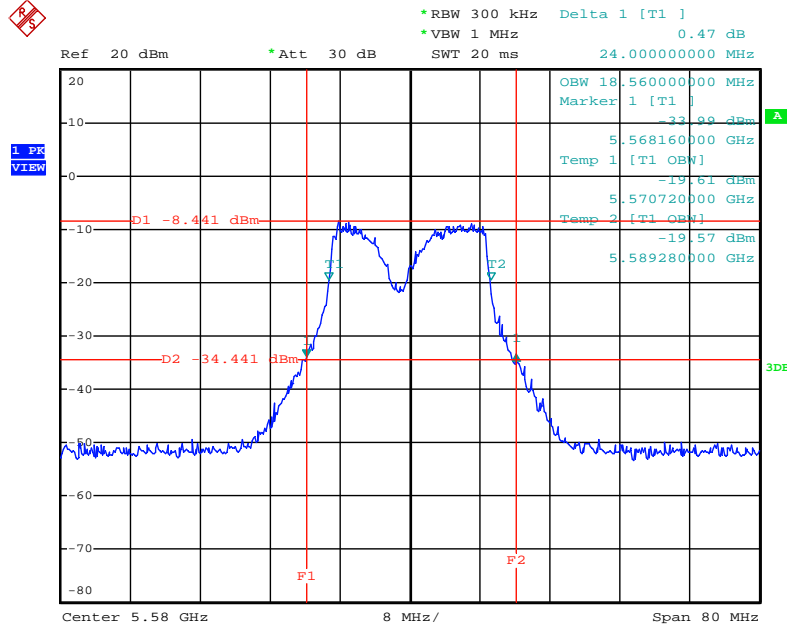
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



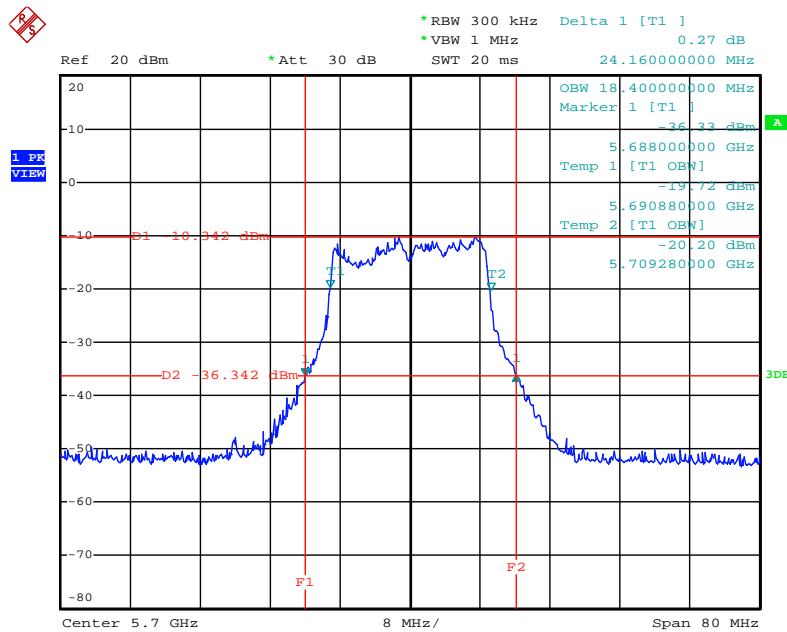
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



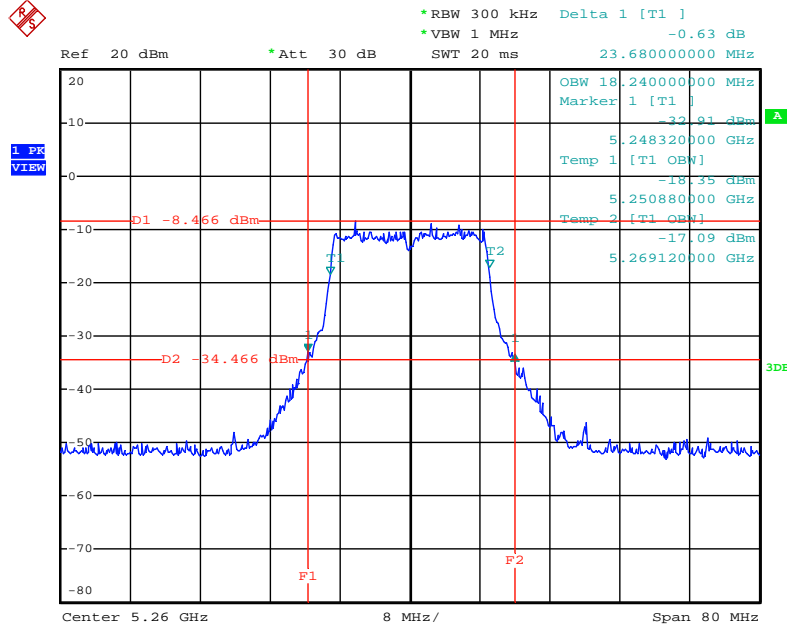
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



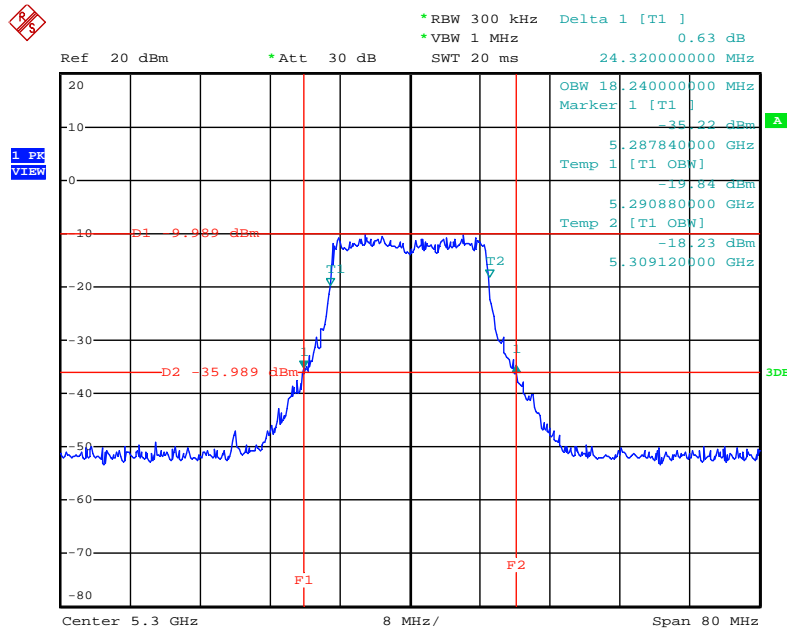
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



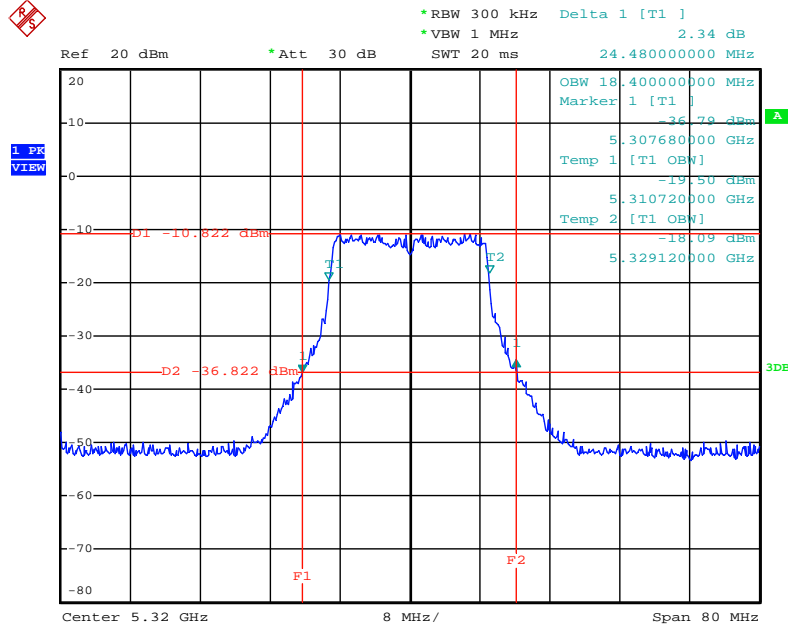
Date: 9.JUN.2012 12:22:26

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



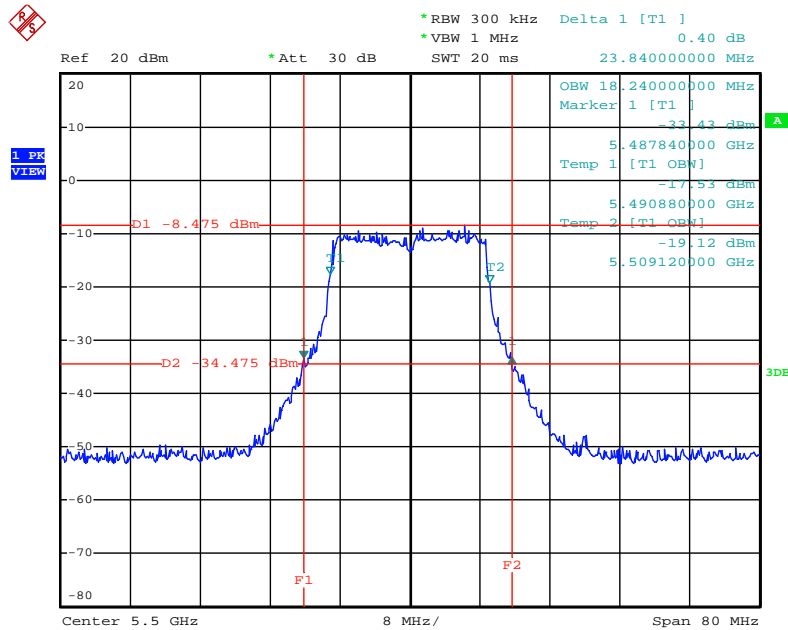
Date: 9.JUN.2012 12:22:50

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



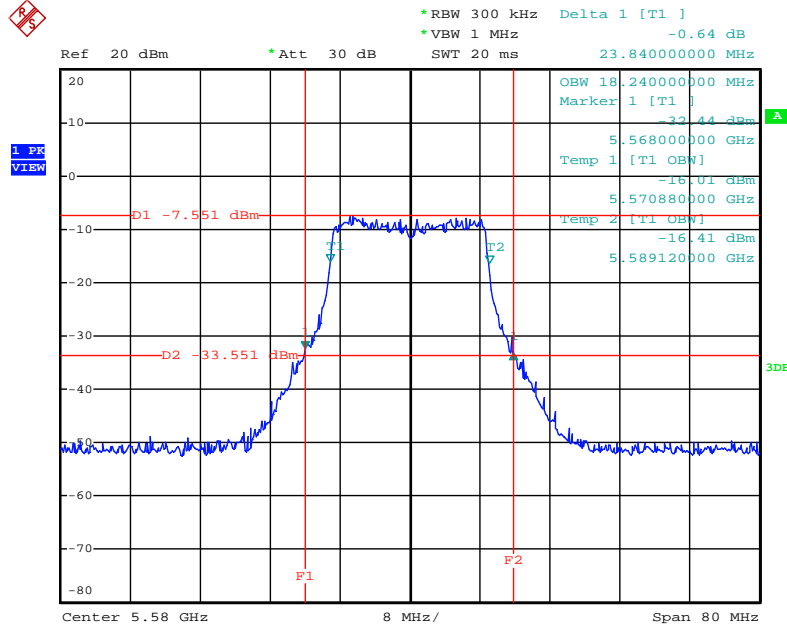
Date: 9.JUN.2012 12:23:05

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



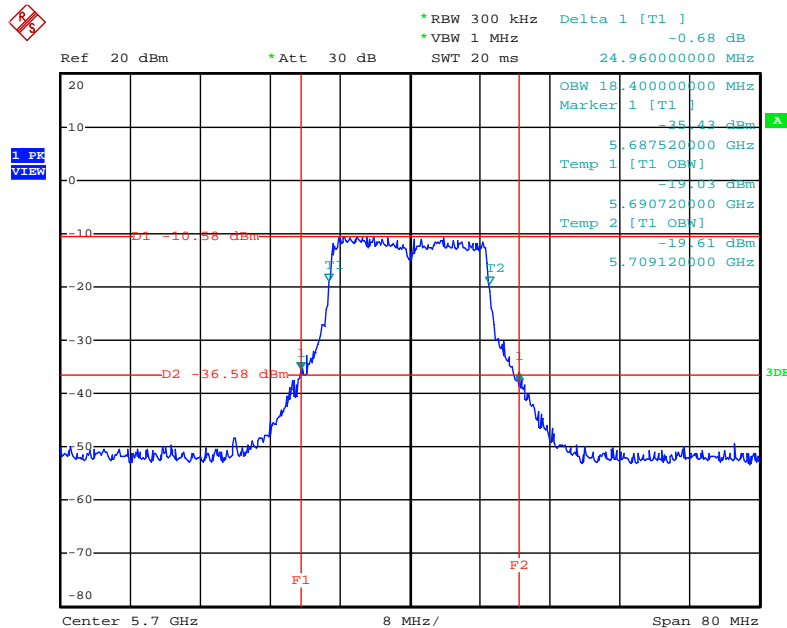
Date: 9.JUN.2012 12:23:30

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



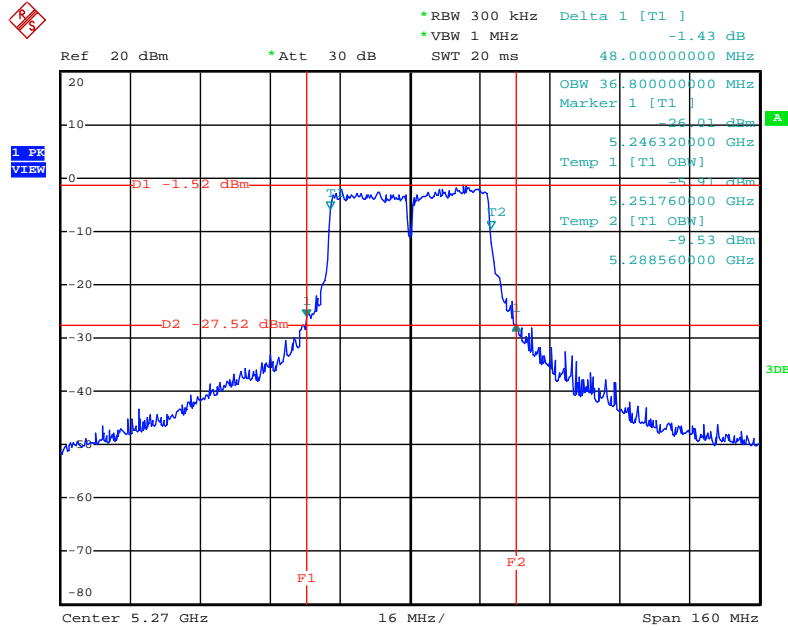
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



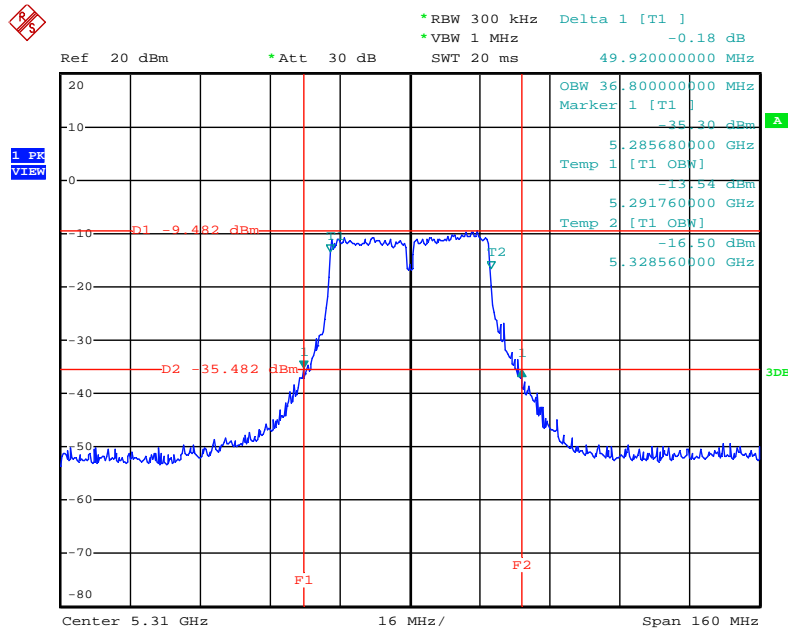
Date: 9.JUN.2012 12:24:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz (1TX)



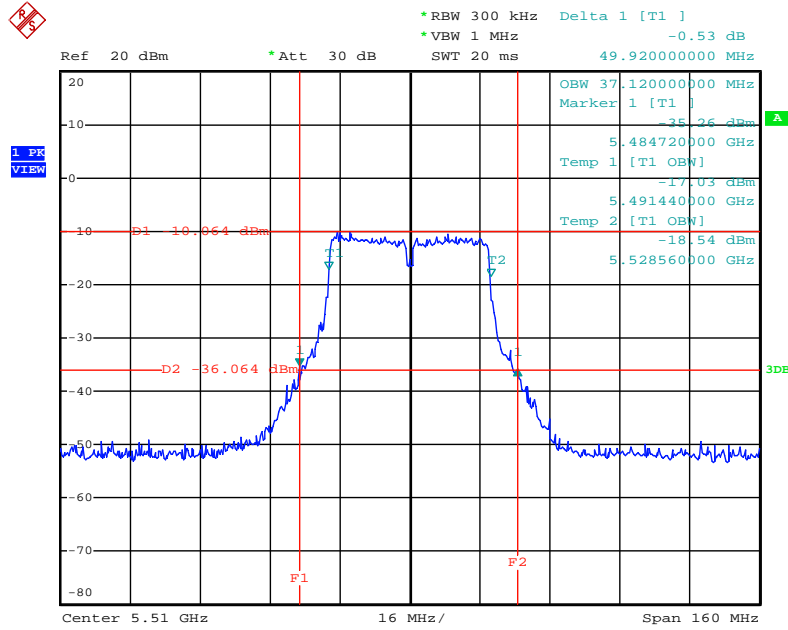
Date: 9.JUN.2012 12:35:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz (1TX)



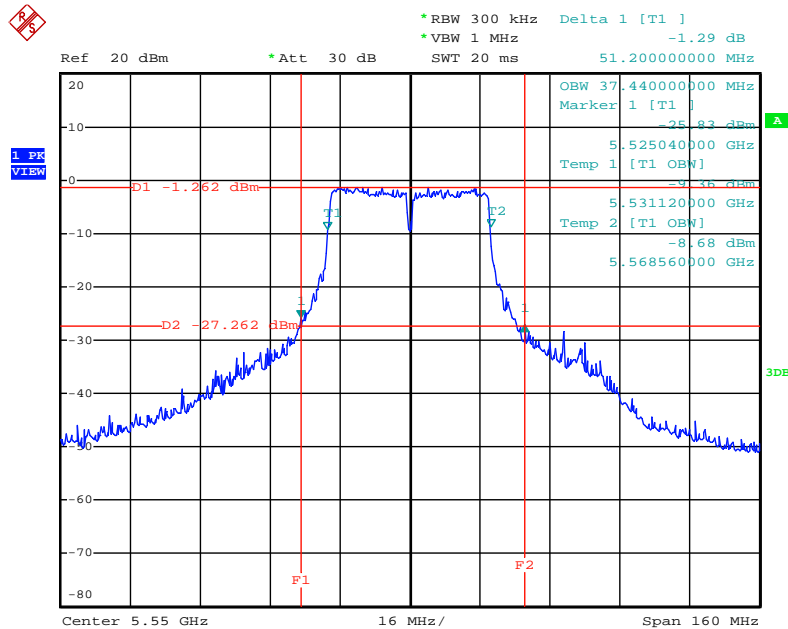
Date: 9.JUN.2012 12:35:21

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5510MHz (1TX)



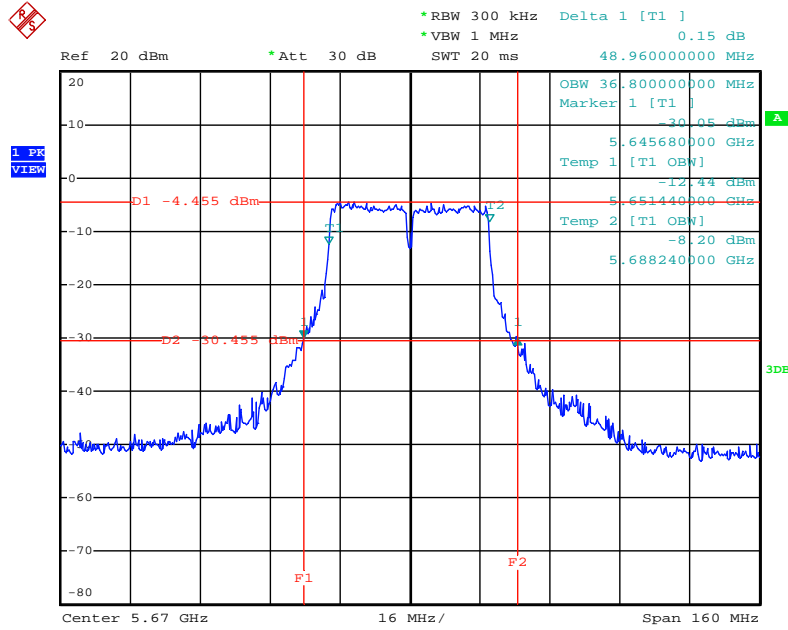
Date: 9.JUN.2012 12:36:27

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz (1TX)



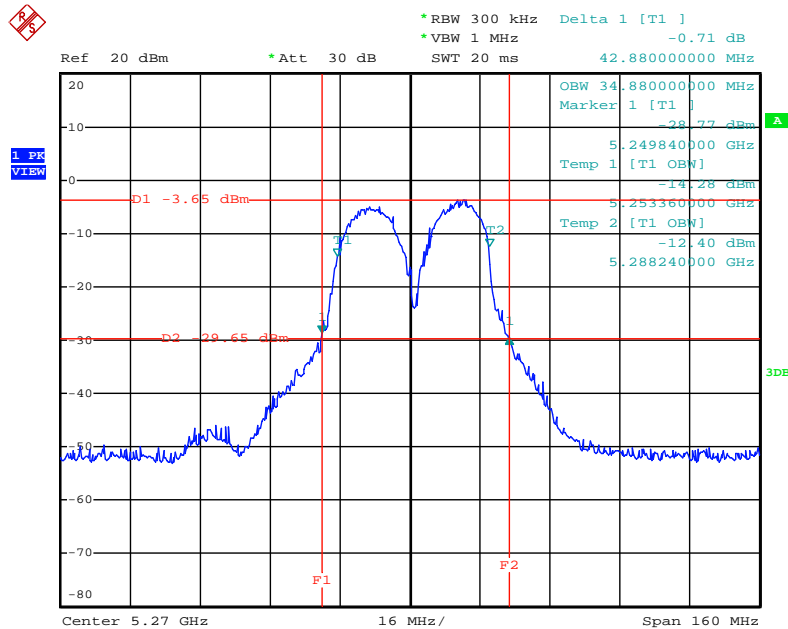
Date: 9.JUN.2012 12:36:53

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz (1TX)



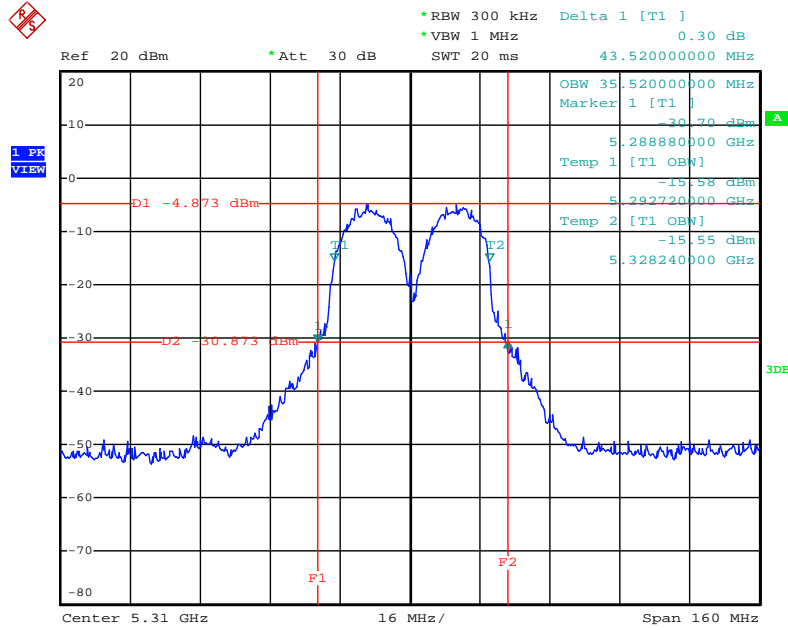
Date: 9.JUN.2012 12:37:19

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



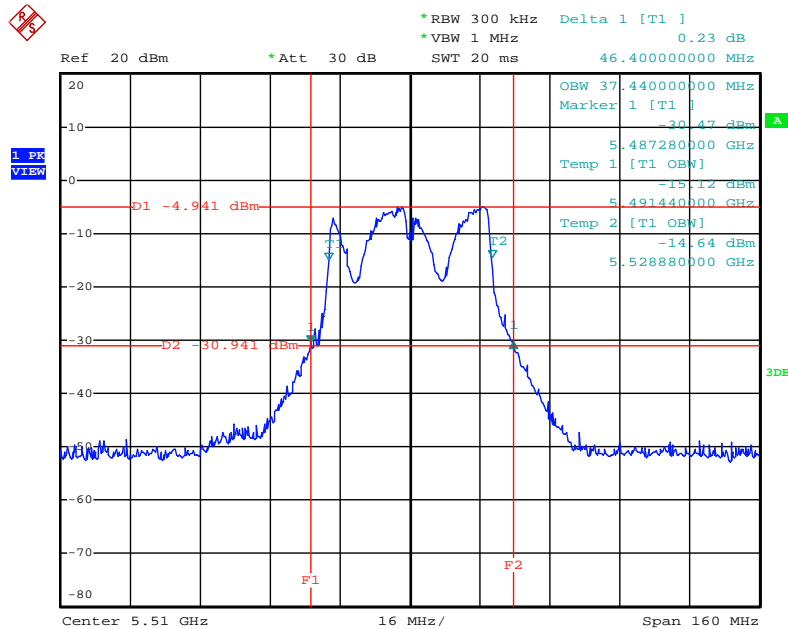
Date: 9.JUN.2012 12:32:46

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



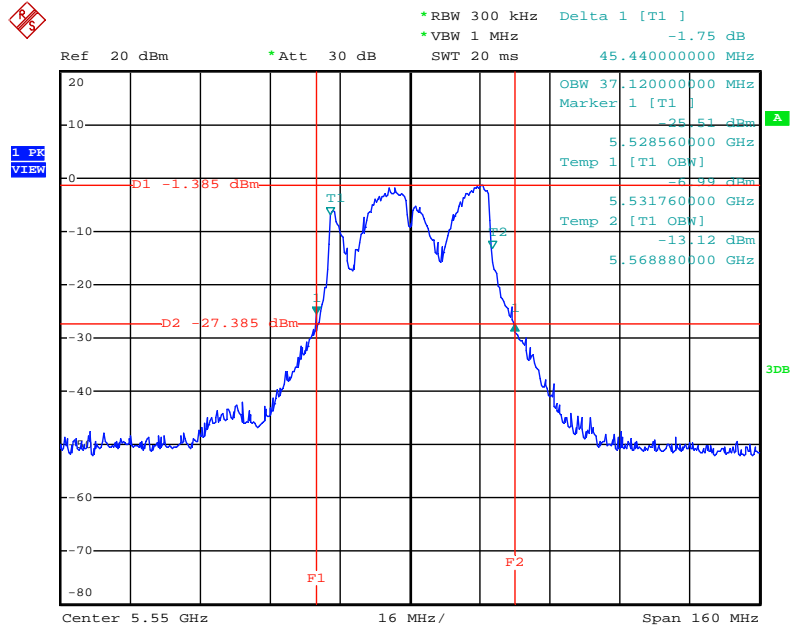
Date: 9.JUN.2012 12:32:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



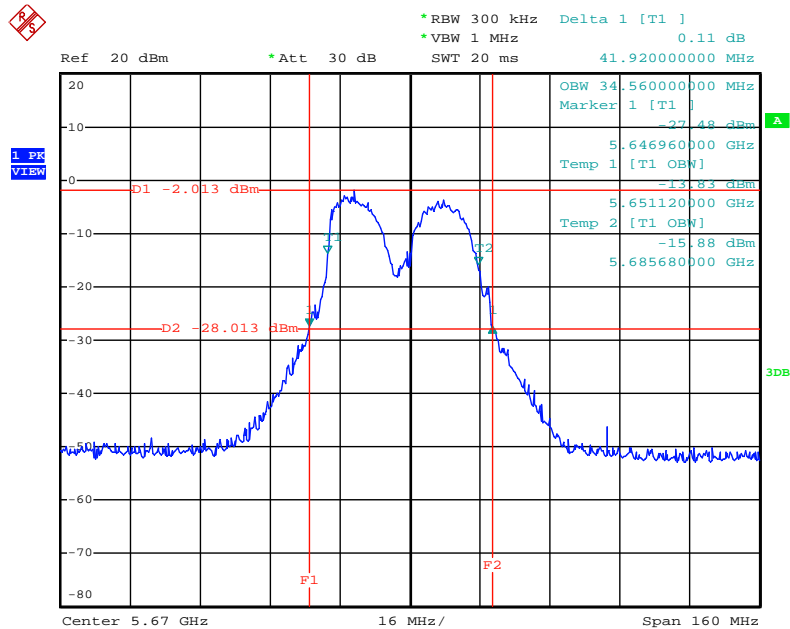
Date: 9.JUN.2012 12:33:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



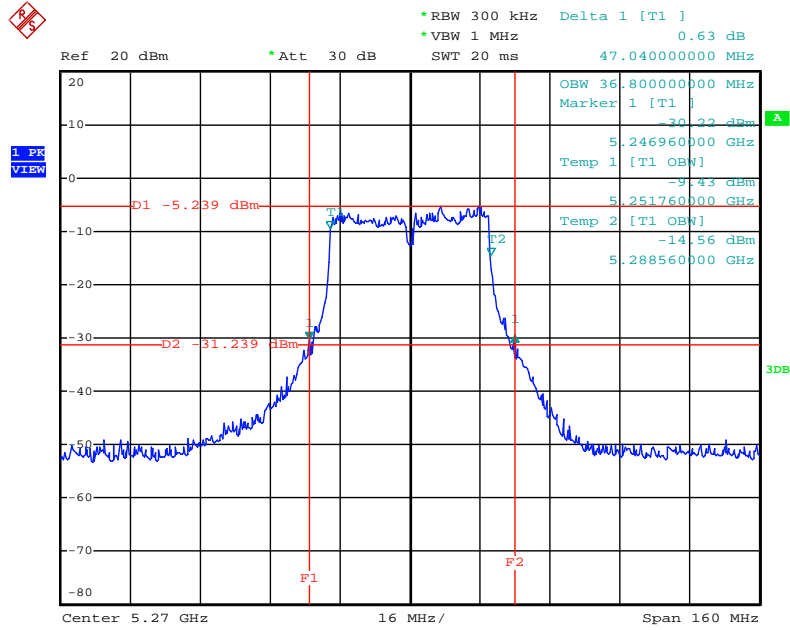
Date: 9.JUN.2012 12:33:29

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



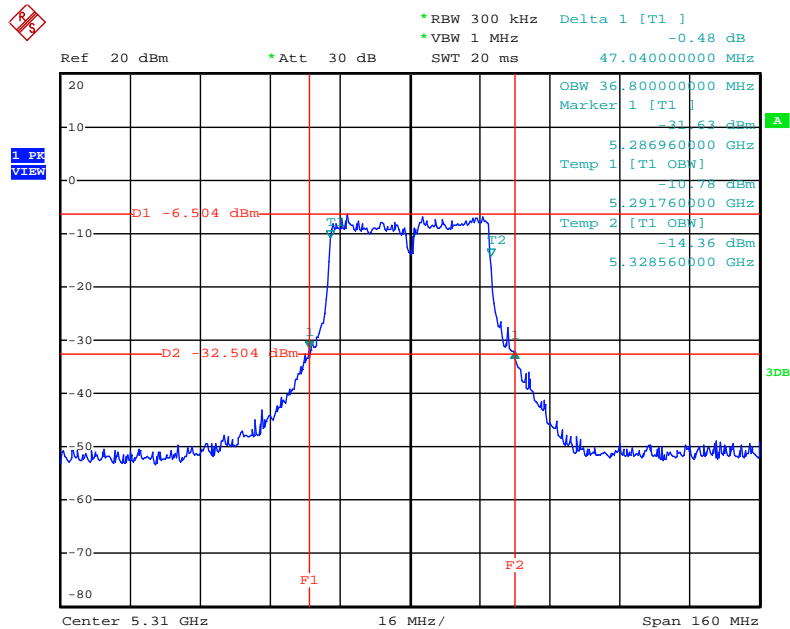
Date: 9.JUN.2012 12:33:48

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



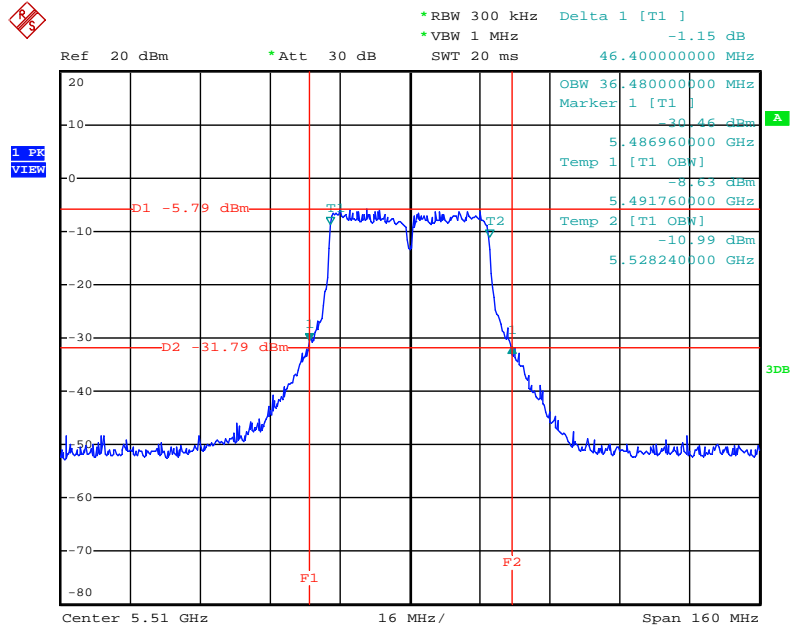
Date: 9.JUN.2012 12:31:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



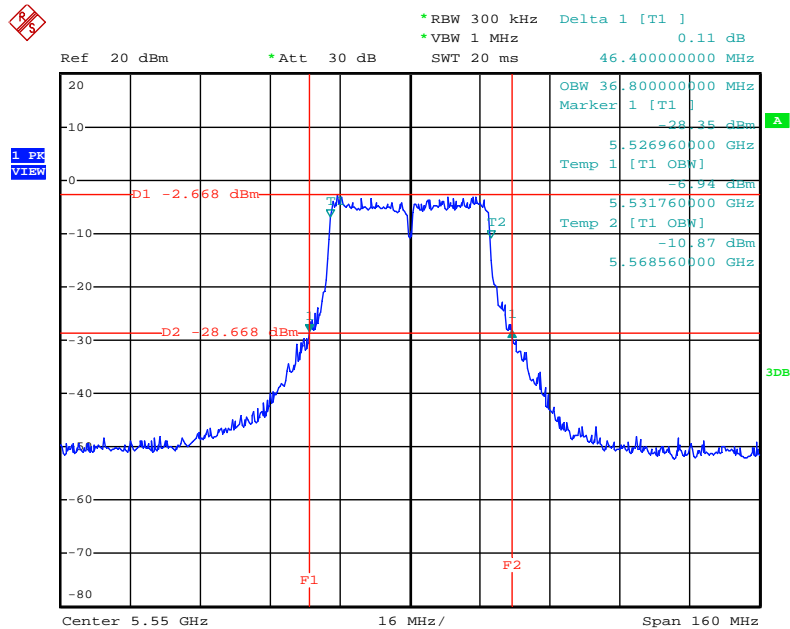
Date: 9.JUN.2012 12:31:52

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



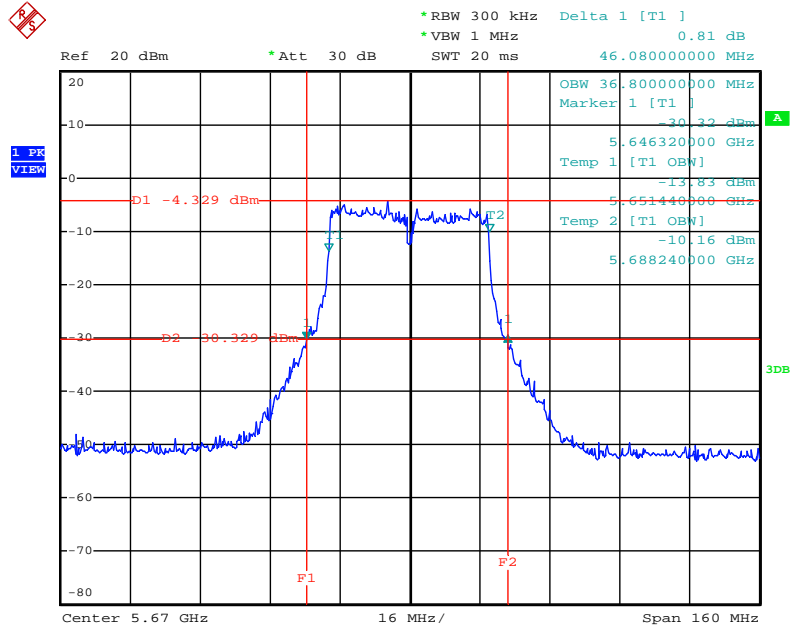
Date: 9.JUN.2012 12:30:35

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



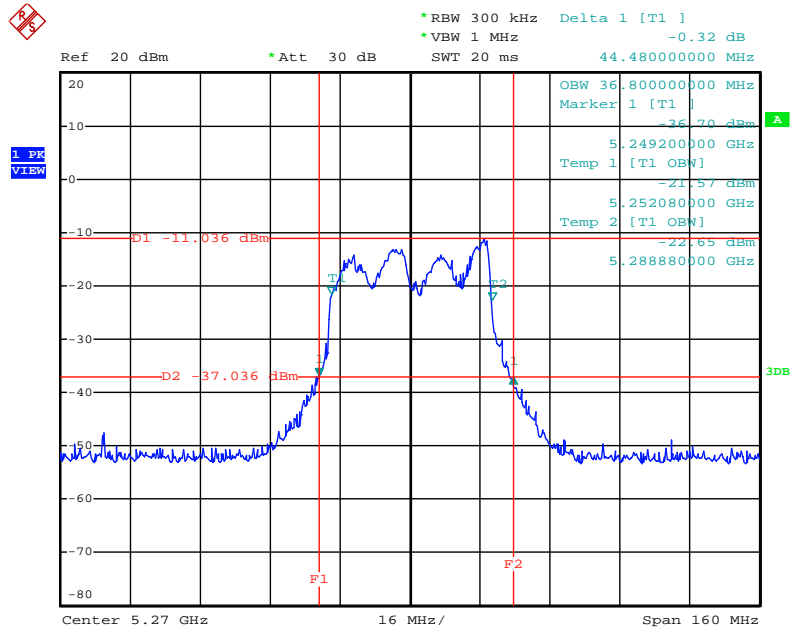
Date: 9.JUN.2012 12:30:13

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



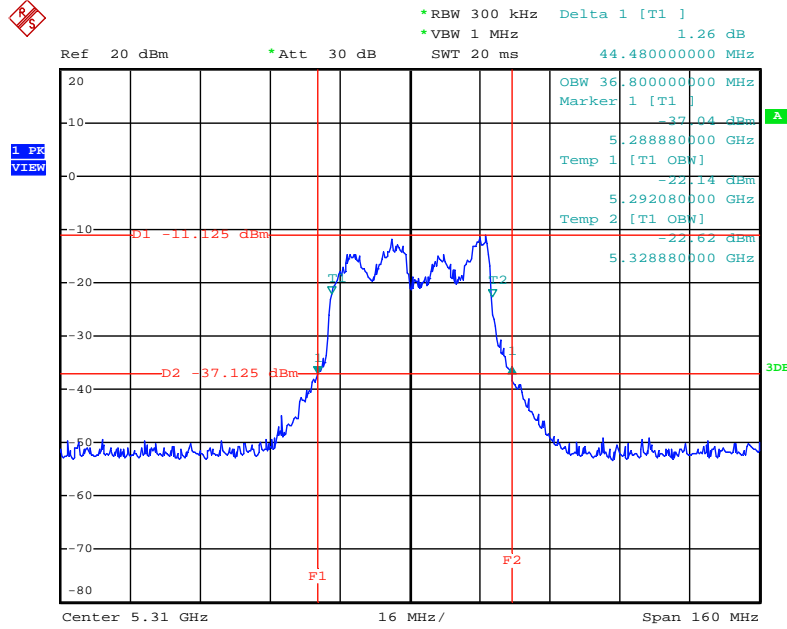
Date: 9.JUN.2012 12:29:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



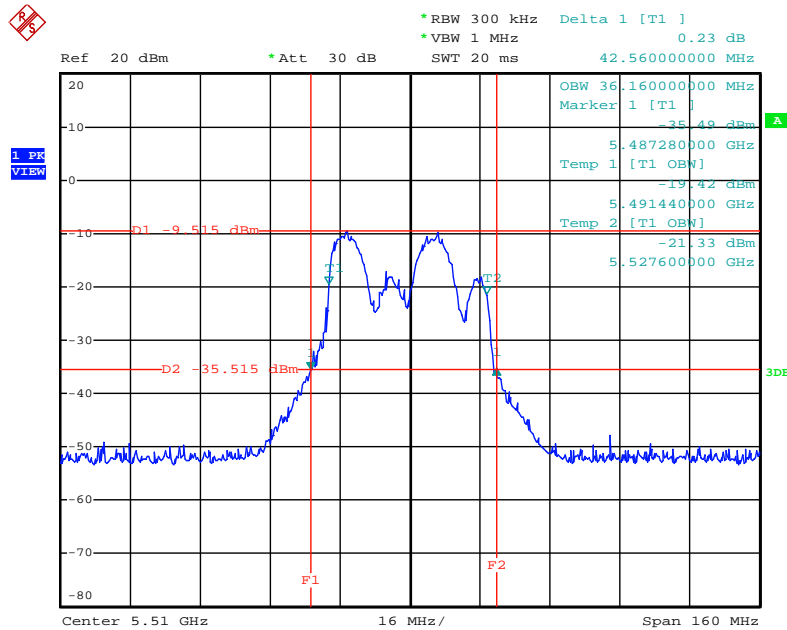
Date: 9.JUN.2012 12:18:11

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



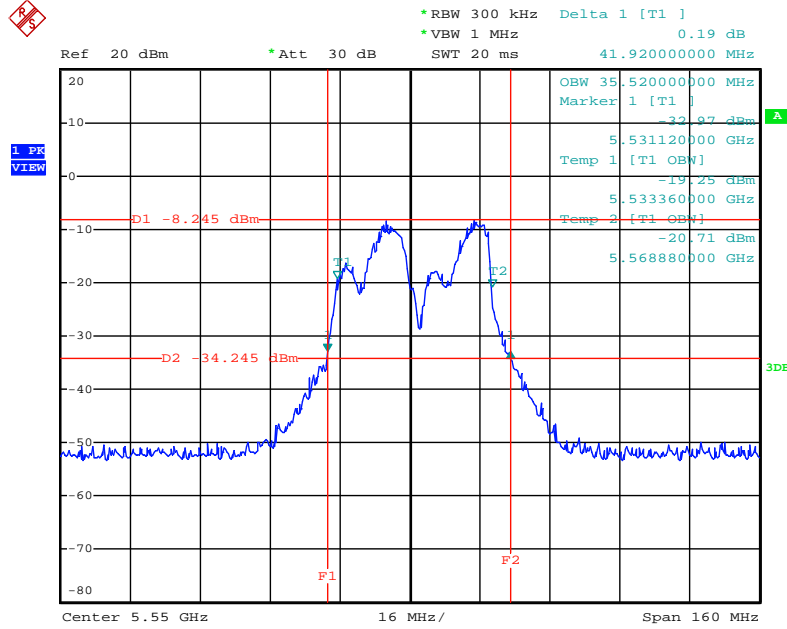
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



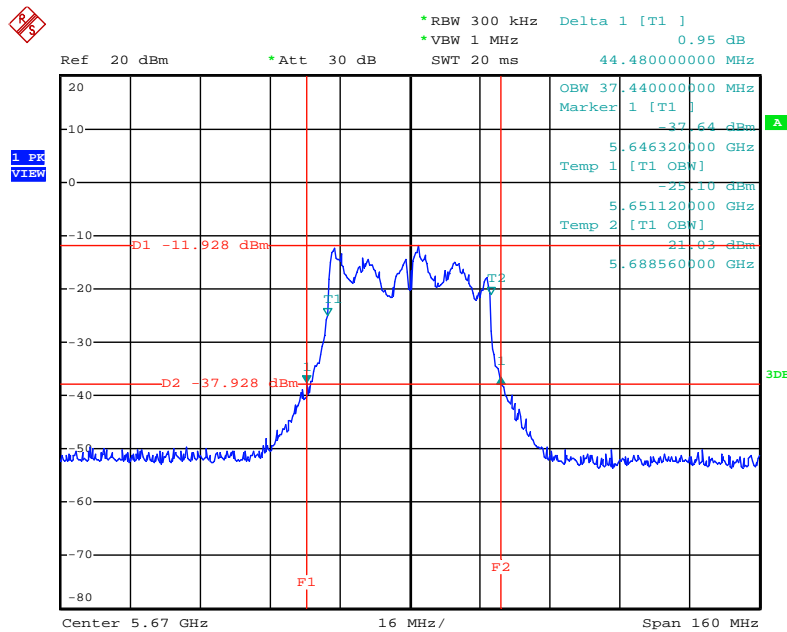
Date: 9.JUN.2012 12:17:25

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



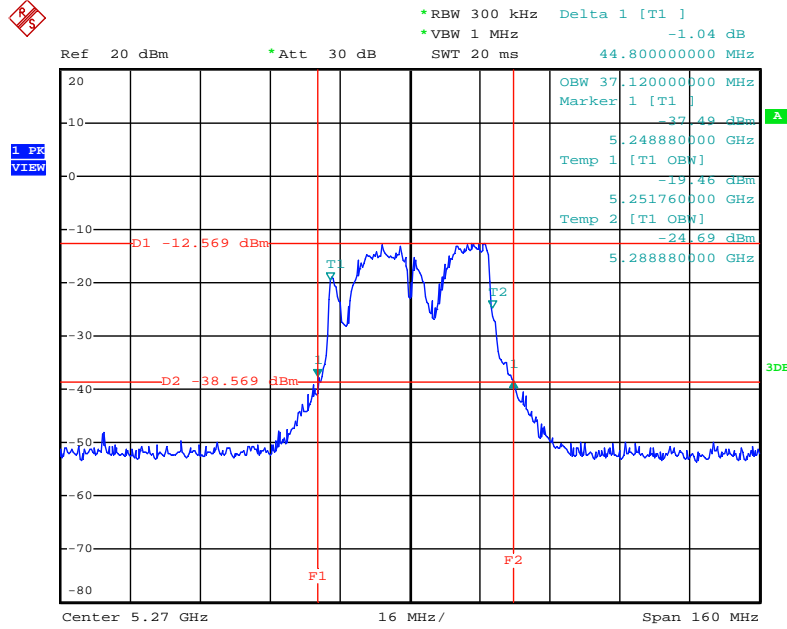
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



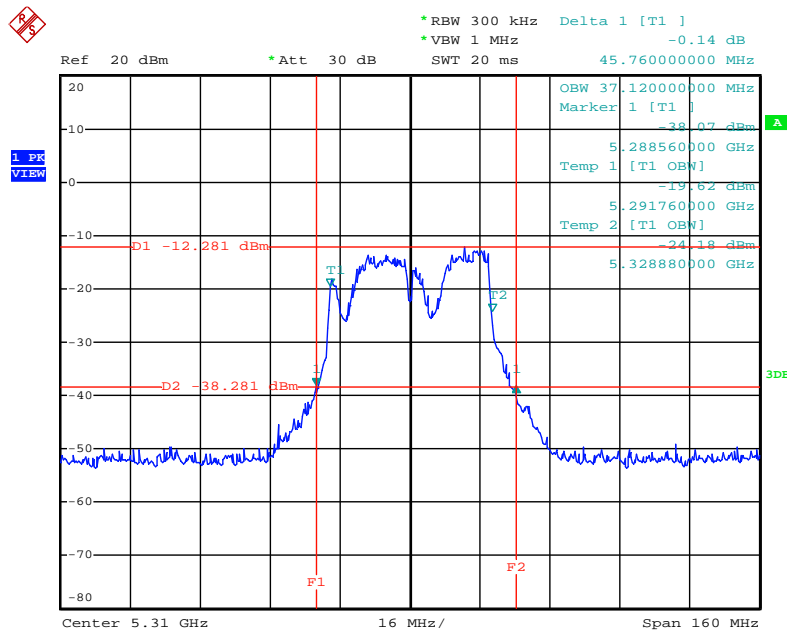
Date: 9.JUN.2012 12:16:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



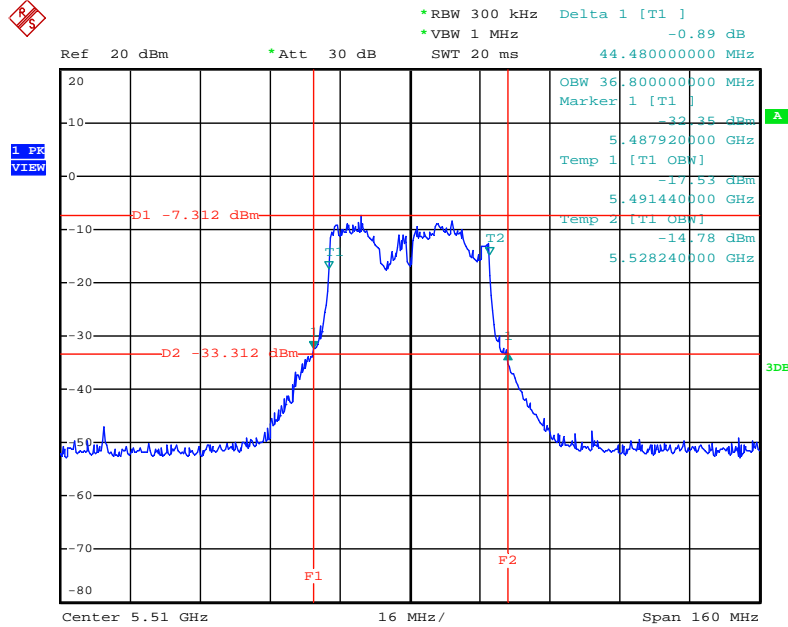
Date: 9.JUN.2012 12:14:46

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



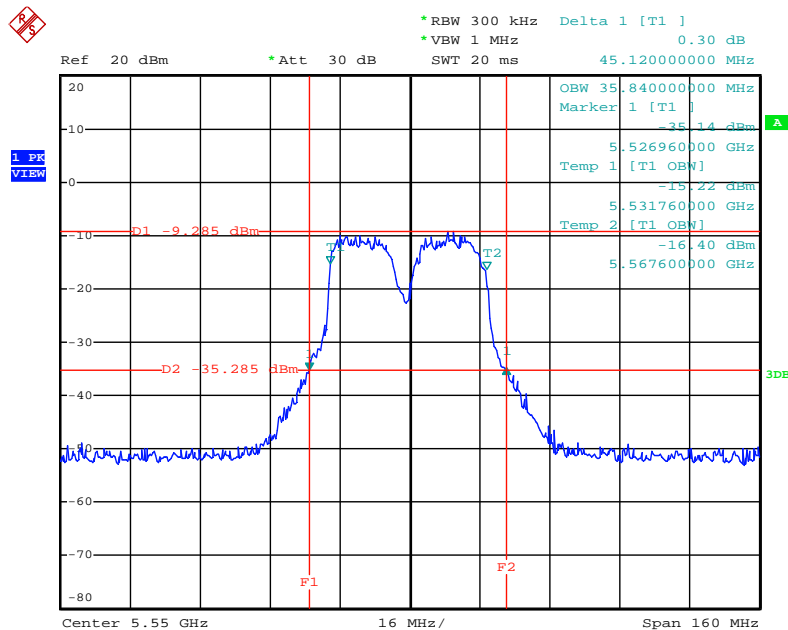
Date: 9.JUN.2012 12:14:19

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



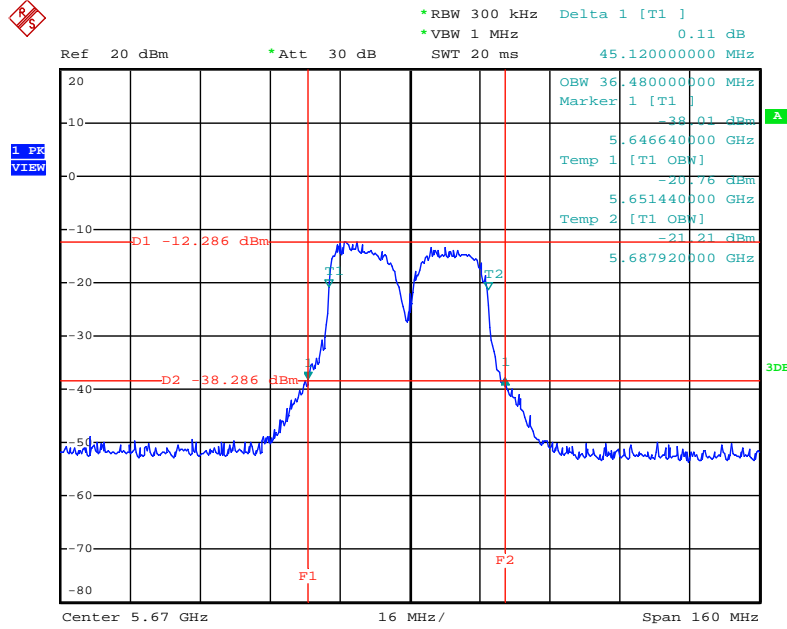
Date: 4.JUN.2012 09:40:53

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



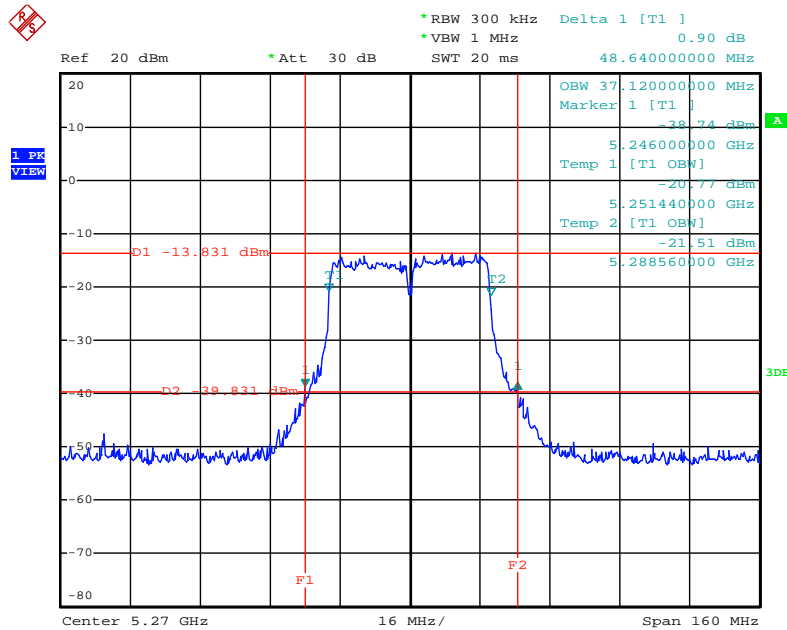
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



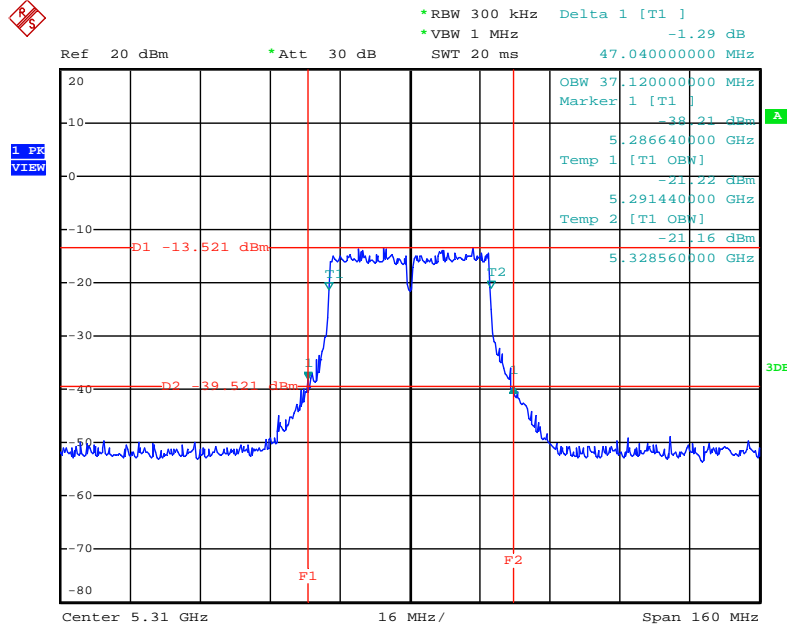
Date: 9.JUN.2012 12:16:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



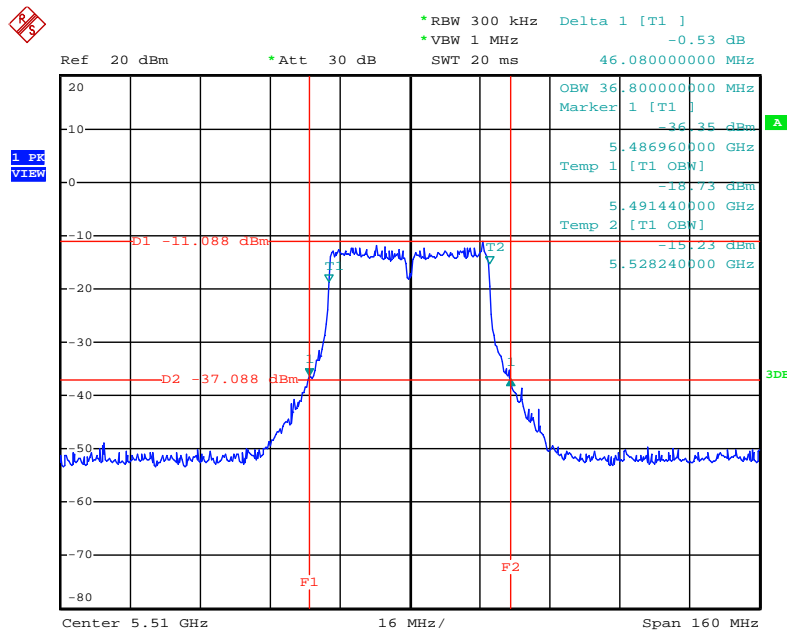
Date: 9.JUN.2012 12:13:26

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



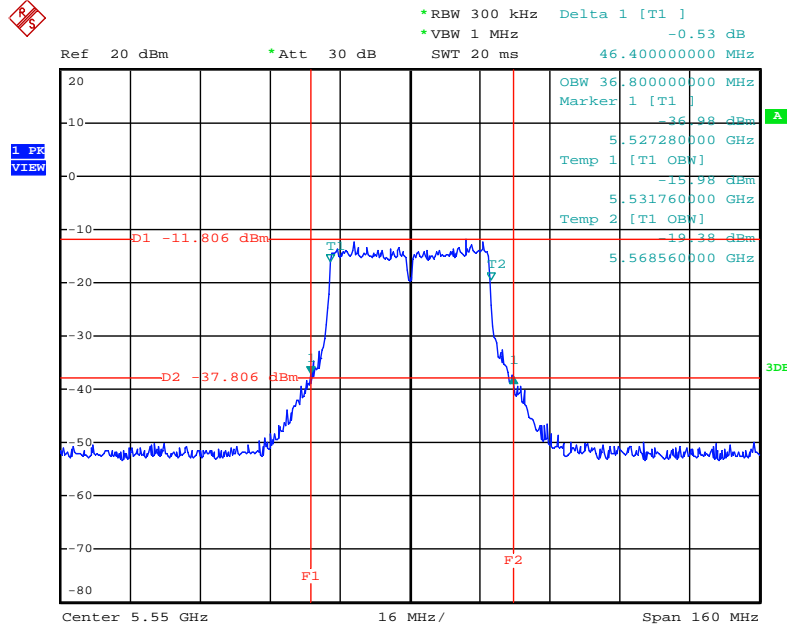
Date: 9.JUN.2012 12:13:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



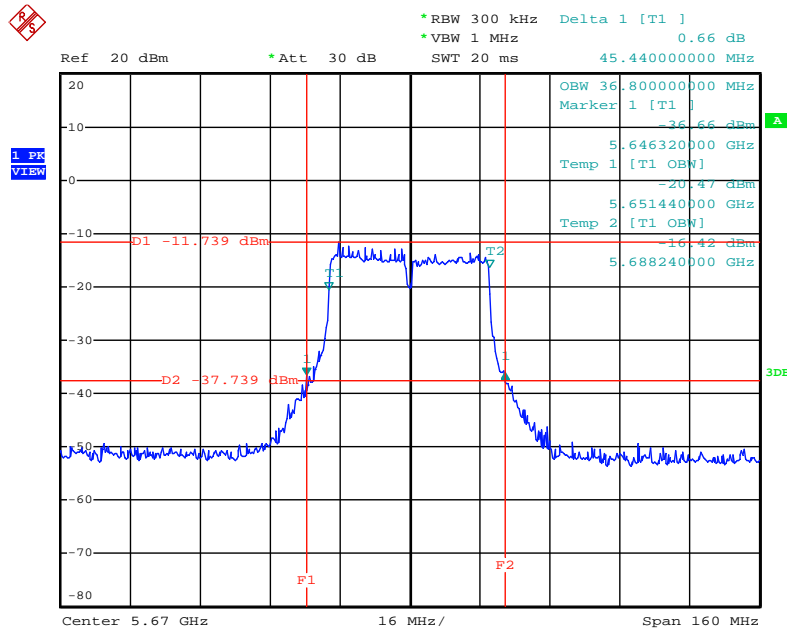
Date: 9.JUN.2012 12:13:01

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



Date: 9.JUN.2012 12:12:41

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



Date: 9.JUN.2012 12:12:16

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 4 (Ant. 9 Yagi antenna / 8dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	42.24	22.56
60	5300 MHz	25.92	18.72
64	5320 MHz	25.60	18.72
100	5500 MHz	25.92	18.56
116	5580 MHz	41.92	23.36
140	5700 MHz	25.60	18.72

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	48.00	36.80
62	5310 MHz	48.32	36.80
102	5510MHz	48.96	37.12
110	5550 MHz	49.92	37.12
134	5670 MHz	50.88	36.80

2TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	21.92	16.00
60	5300 MHz	24.80	19.04
64	5320 MHz	24.48	19.20
100	5500 MHz	24.96	19.04
116	5580 MHz	24.80	19.20
140	5700 MHz	24.64	19.20

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	42.56	33.92
62	5310 MHz	43.84	34.24
102	5510MHz	46.08	37.44
110	5550 MHz	45.76	37.44
134	5670 MHz	46.40	37.44

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	24.32	18.40
60	5300 MHz	24.48	18.24
64	5320 MHz	24.80	18.40
100	5500 MHz	24.48	18.24
116	5580 MHz	27.04	18.56
140	5700 MHz	23.68	18.40

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	47.04	36.80
62	5310 MHz	46.72	36.80
102	5510MHz	44.80	36.48
110	5550 MHz	46.40	36.80
134	5670 MHz	45.76	36.48

3TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	23.36	19.20
60	5300 MHz	22.72	19.04
64	5320 MHz	21.12	17.12
100	5500 MHz	23.20	18.40
116	5580 MHz	22.24	18.08
140	5700 MHz	22.24	17.60

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	45.12	36.80
62	5310 MHz	45.44	36.80
102	5510MHz	43.20	36.48
110	5550 MHz	43.52	36.48
134	5670 MHz	43.52	37.12

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	23.52	18.56
60	5300 MHz	23.04	18.40
64	5320 MHz	23.04	18.24
100	5500 MHz	23.52	18.40
116	5580 MHz	23.84	18.40
140	5700 MHz	24.00	18.56

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	45.12	36.80
62	5310 MHz	45.44	36.80
102	5510MHz	44.48	36.80
110	5550 MHz	46.08	36.80
134	5670 MHz	45.12	37.12

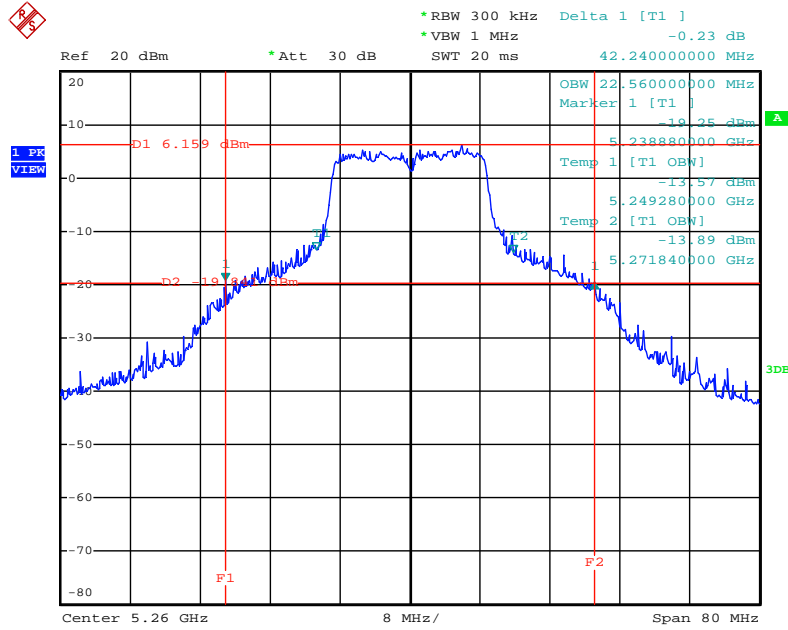
Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	24.16	18.24
60	5300 MHz	23.84	18.24
64	5320 MHz	24.32	18.40
100	5500 MHz	24.80	18.24
116	5580 MHz	27.36	18.56
140	5700 MHz	24.64	18.40

Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3

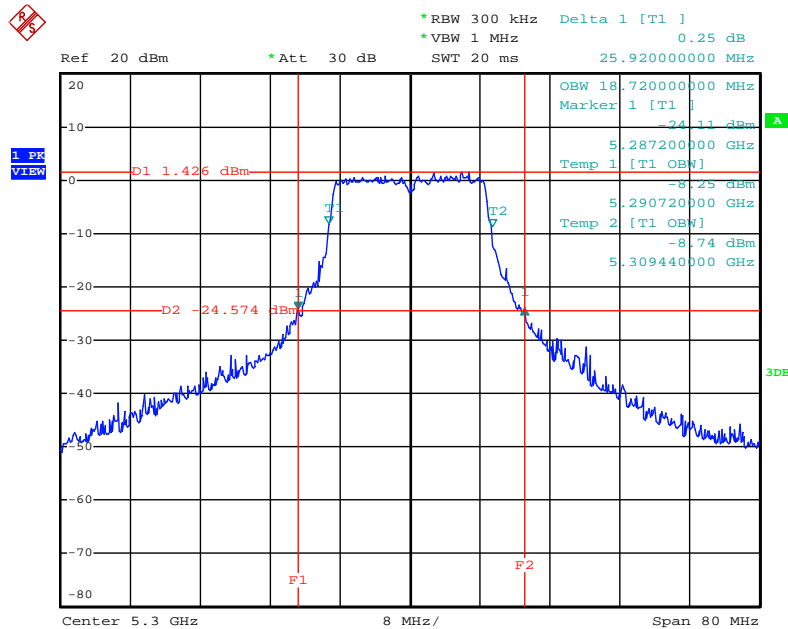
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	43.52	36.48
62	5310 MHz	44.48	36.80
102	5510MHz	46.40	36.48
110	5550 MHz	46.72	36.80
134	5670 MHz	46.72	36.48

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5260 MHz (1TX)



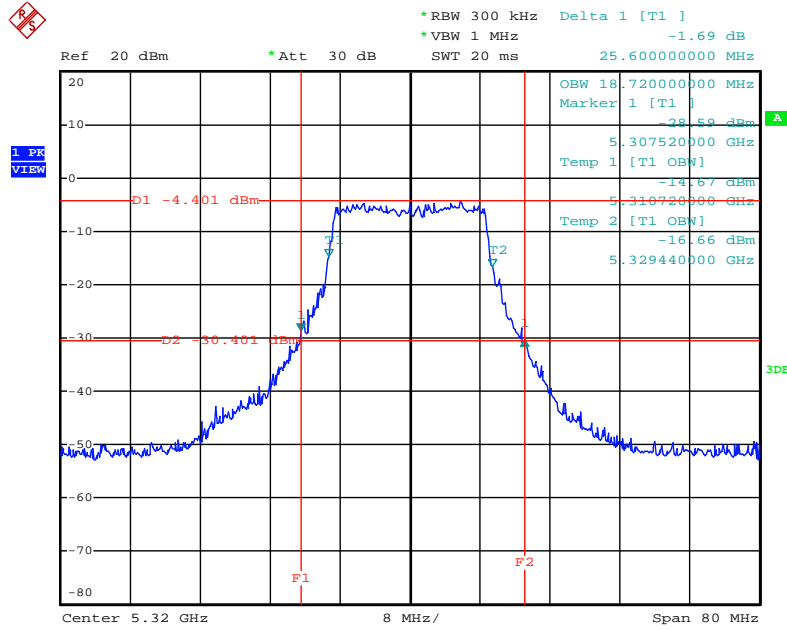
Date: 4.JUN.2012 09:26:51

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5300 MHz (1TX)



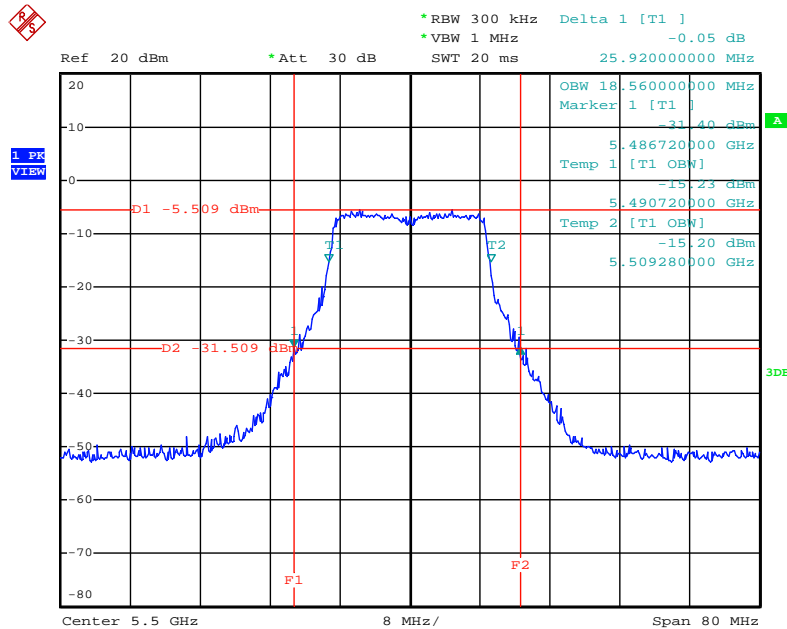
Date: 4.JUN.2012 09:26:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz (1TX)



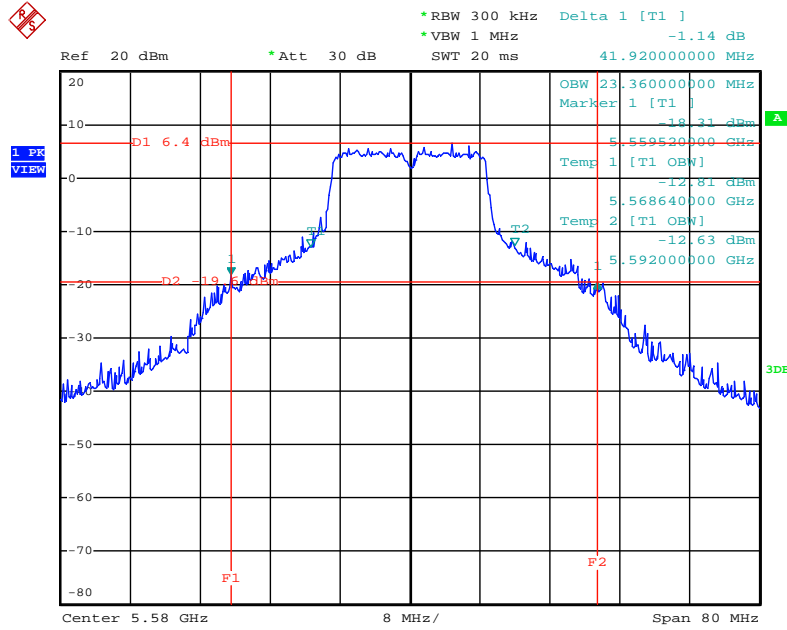
Date: 4.JUN.2012 09:26:19

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz (1TX)



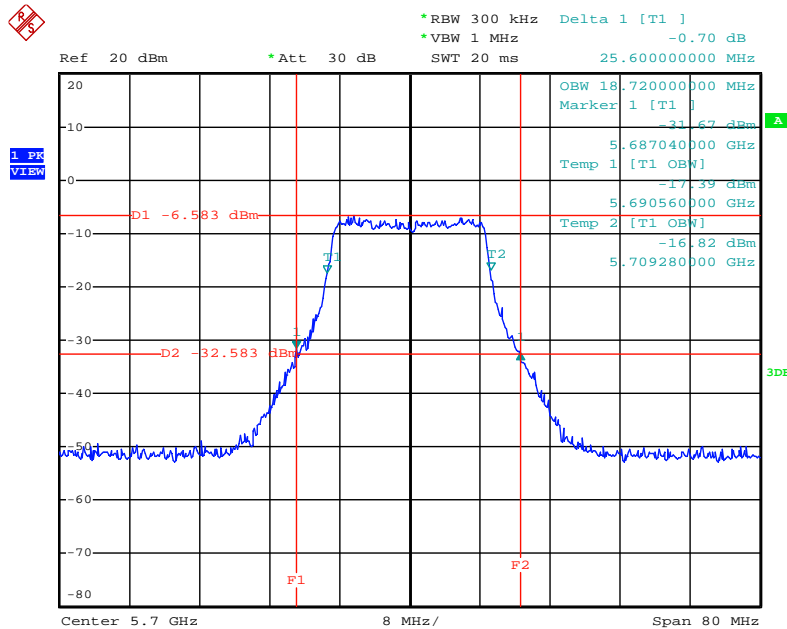
Date: 4.JUN.2012 09:25:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz (1TX)



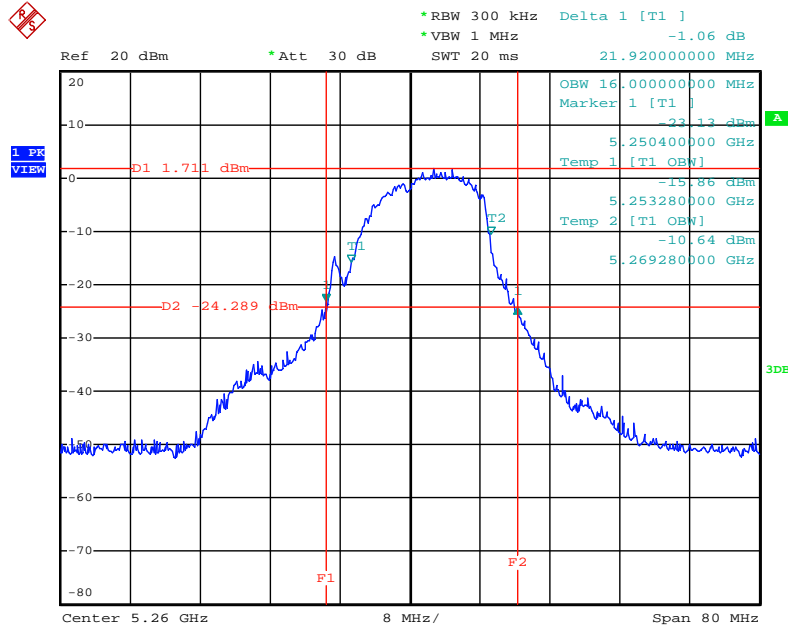
Date: 4.JUN.2012 09:25:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5700 MHz (1TX)



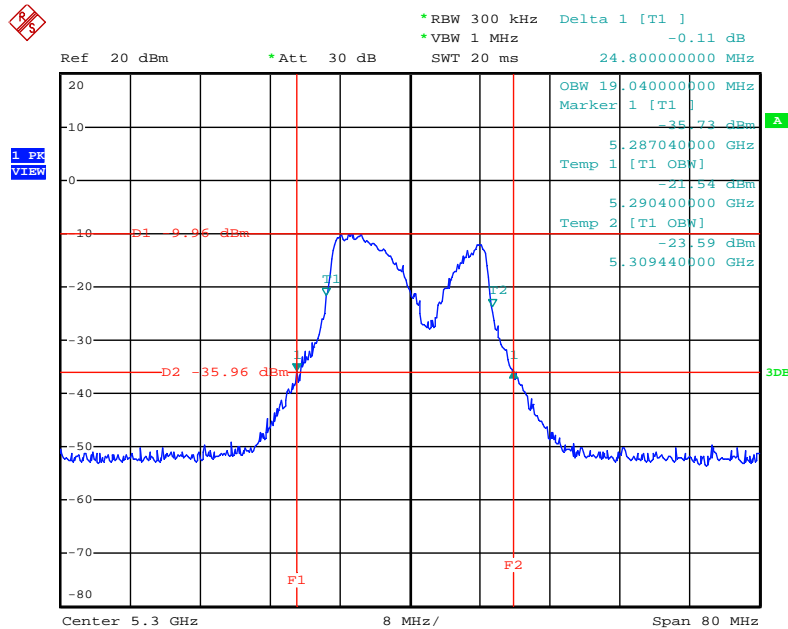
Date: 4.JUN.2012 09:25:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



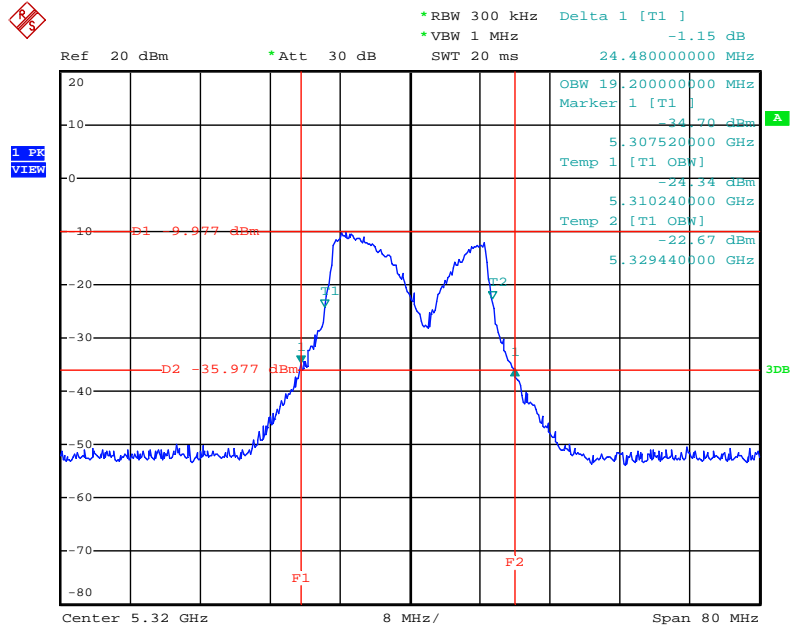
Date: 4.JUN.2012 09:27:19

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



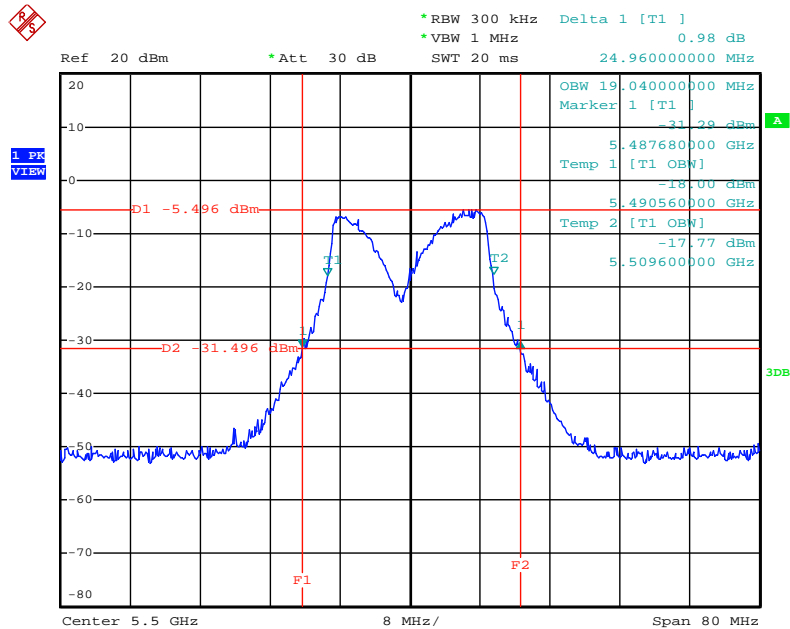
Date: 4.JUN.2012 09:27:41

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



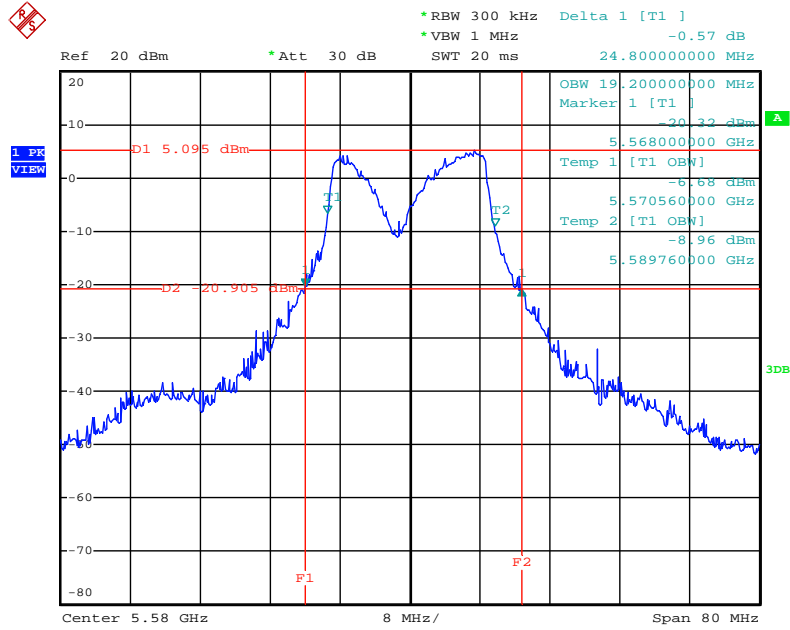
Date: 4.JUN.2012 09:27:59

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



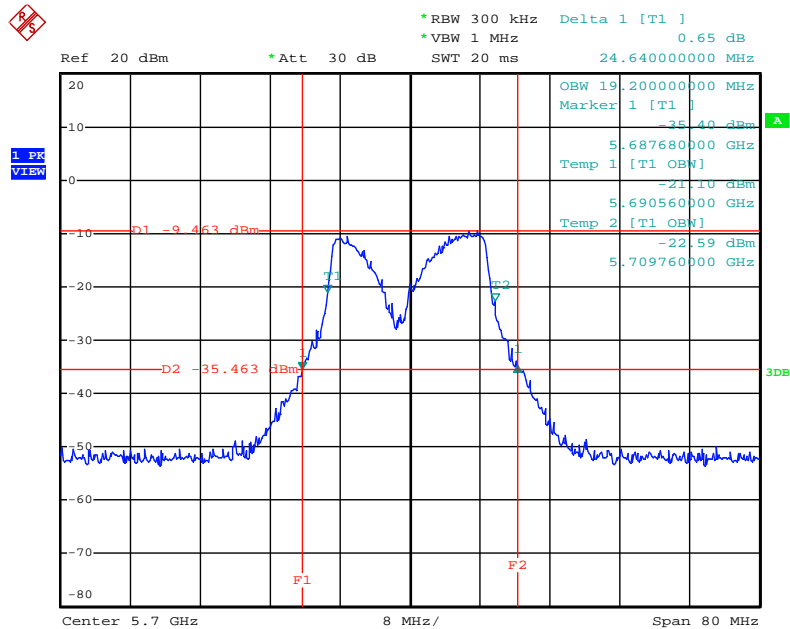
Date: 4.JUN.2012 09:28:33

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



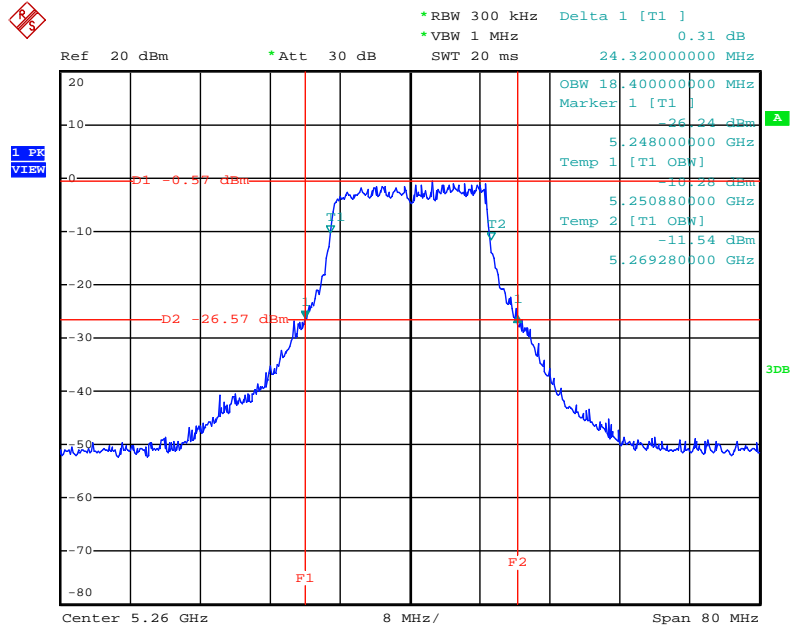
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26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



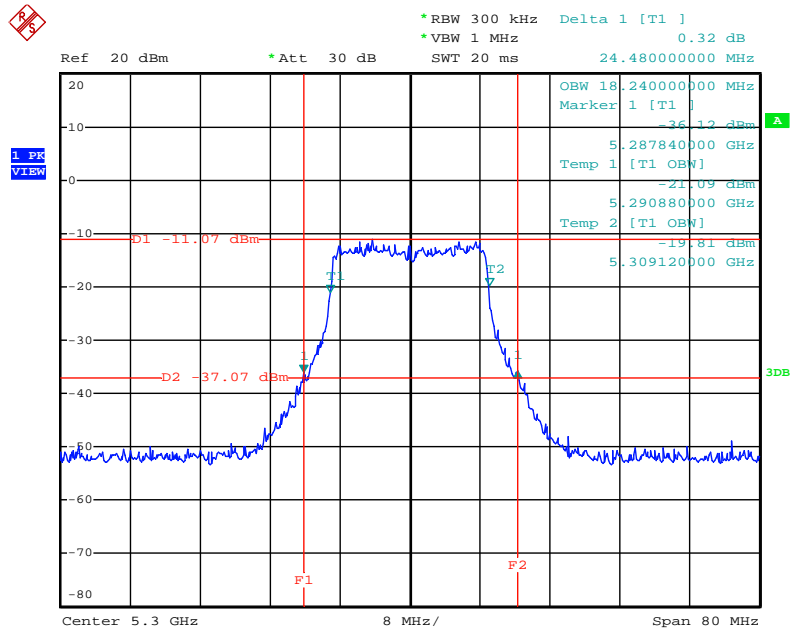
Date: 4.JUN.2012 09:29:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



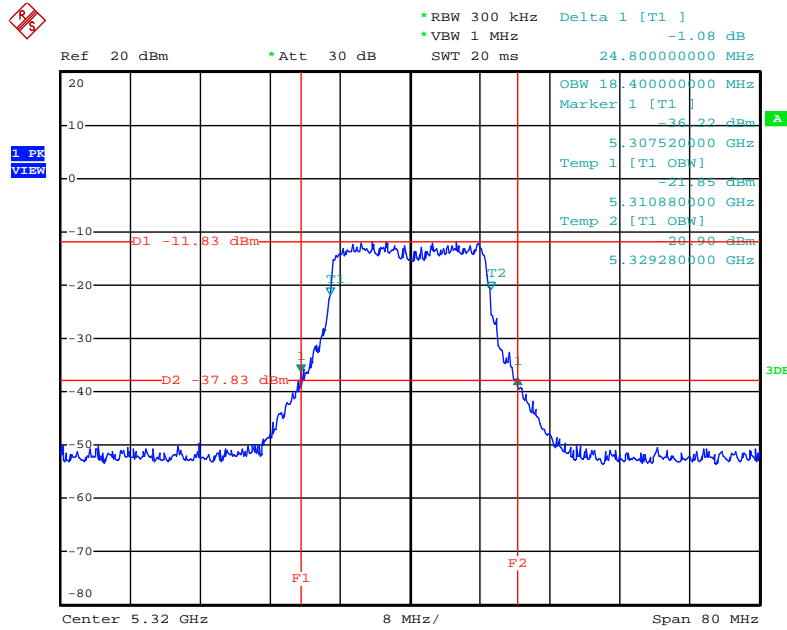
Date: 4.JUN.2012 09:31:18

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



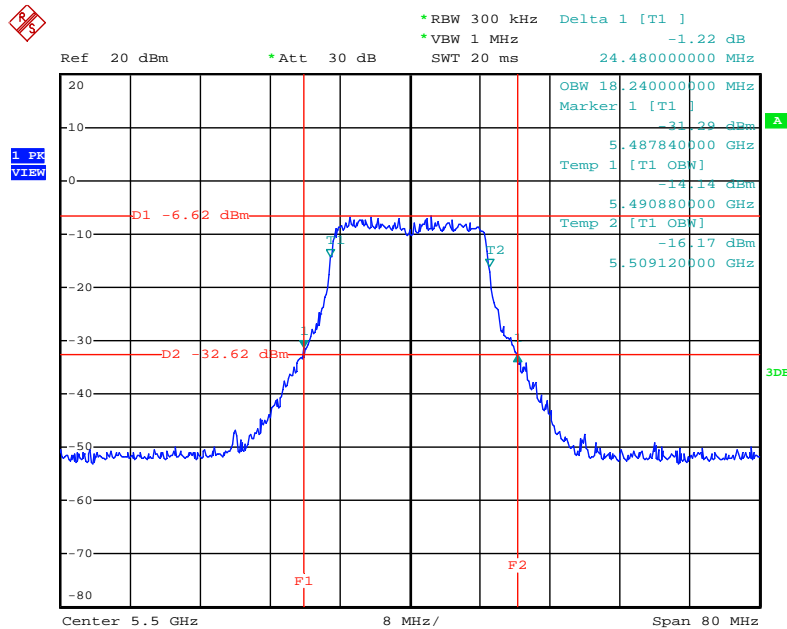
Date: 4.JUN.2012 09:31:01

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



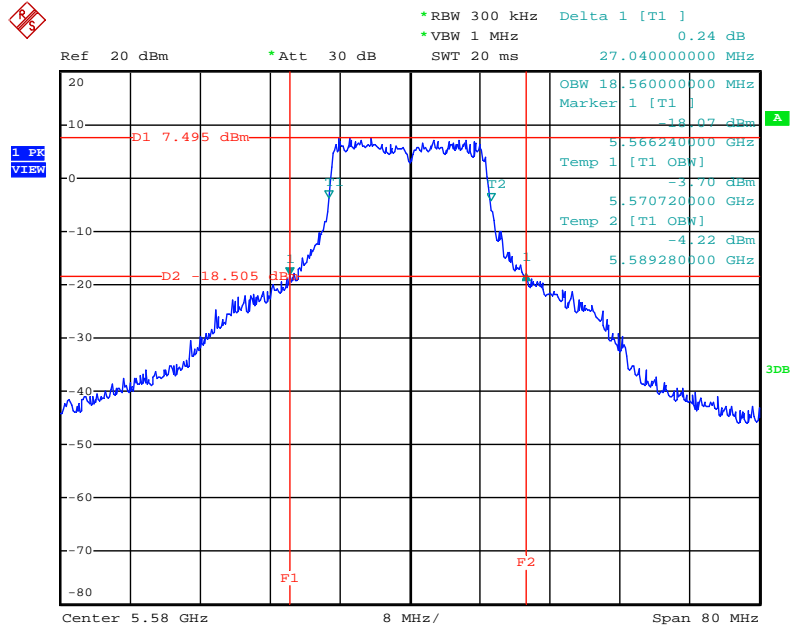
Date: 4.JUN.2012 09:30:46

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



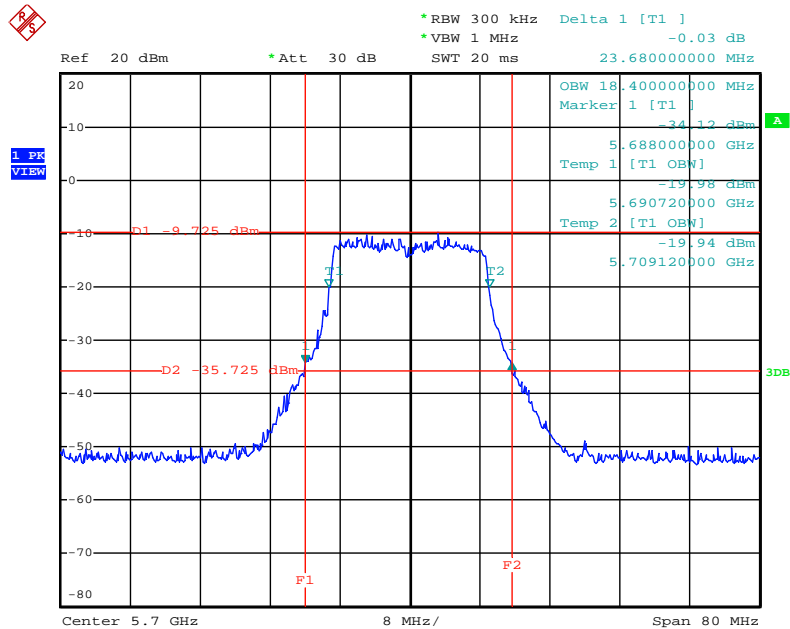
Date: 4.JUN.2012 09:30:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



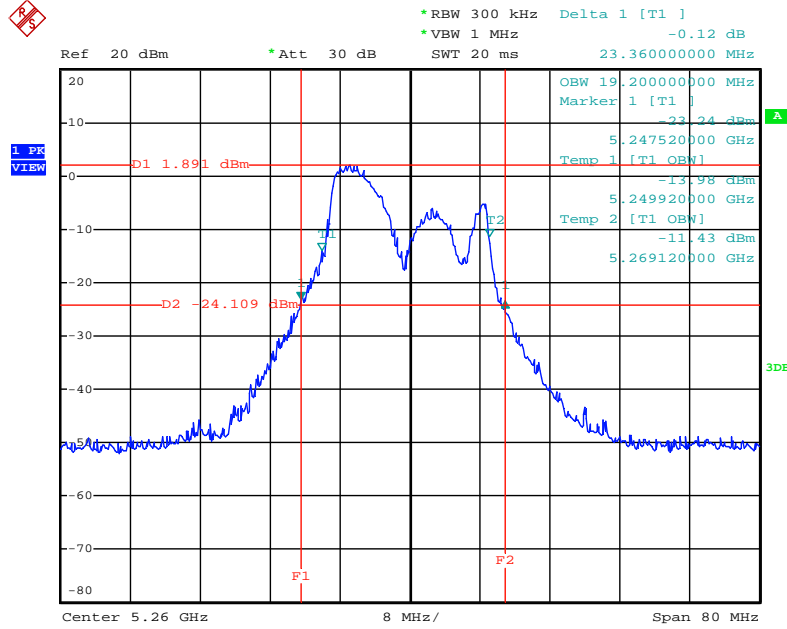
Date: 4.JUN.2012 09:29:59

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



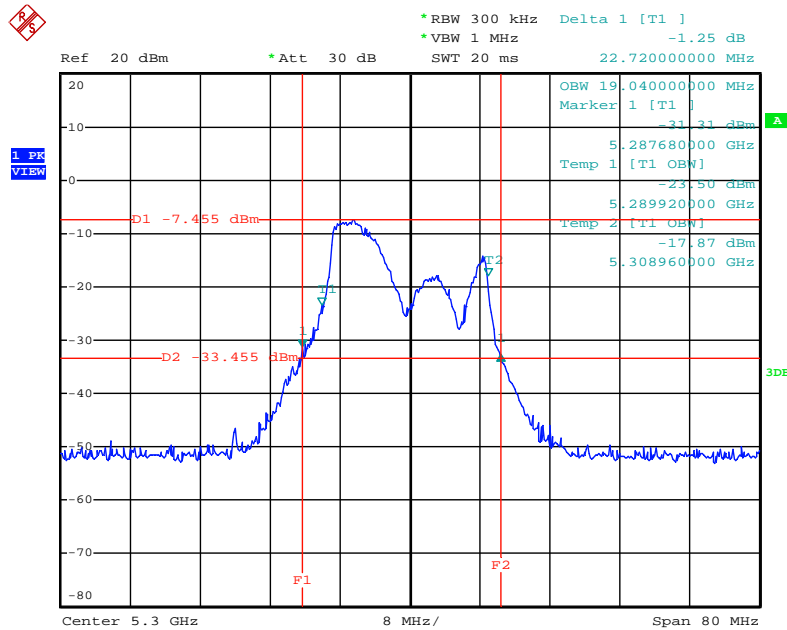
Date: 4.JUN.2012 09:29:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



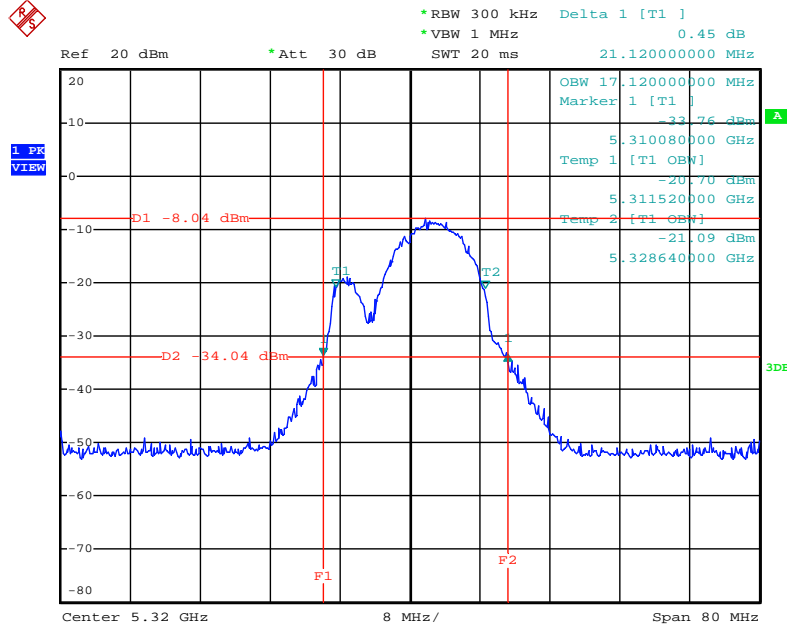
Date: 4.JUN.2012 11:49:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



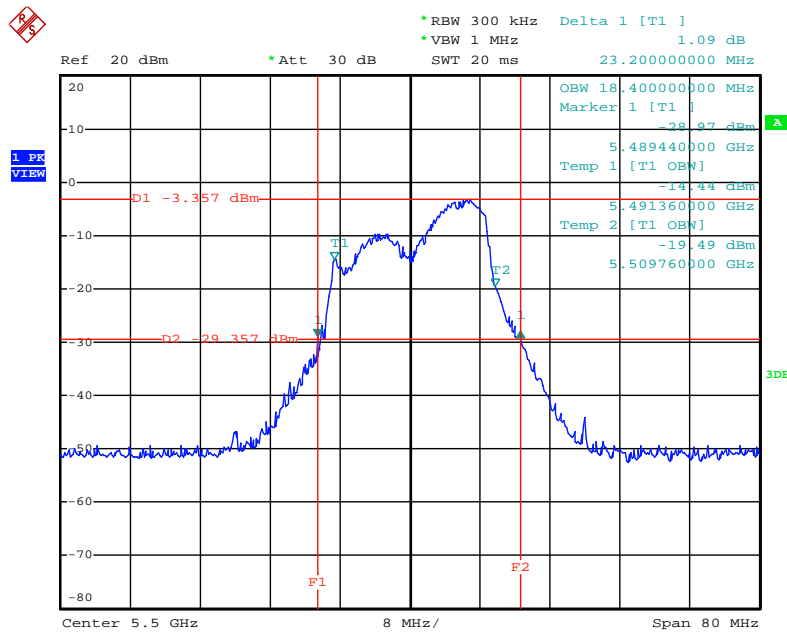
Date: 4.JUN.2012 11:49:21

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



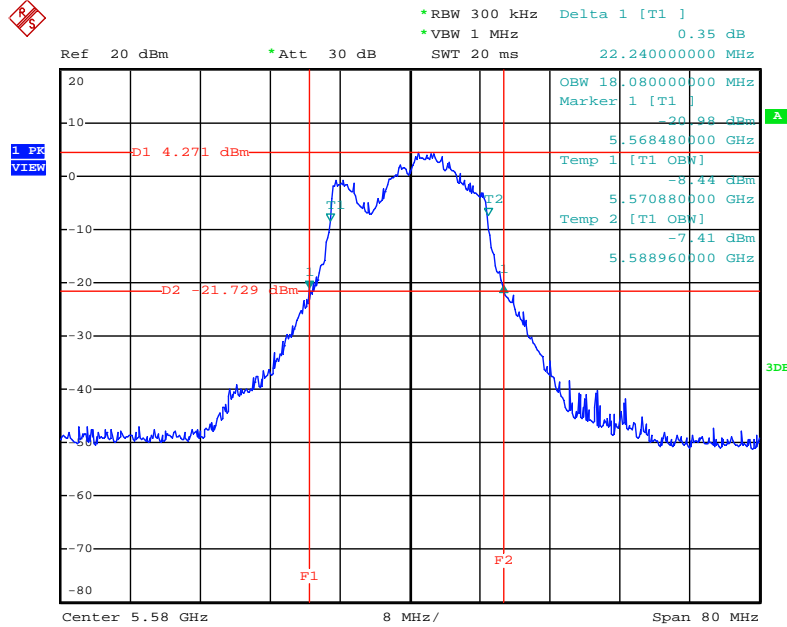
Date: 4.JUN.2012 11:49:06

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



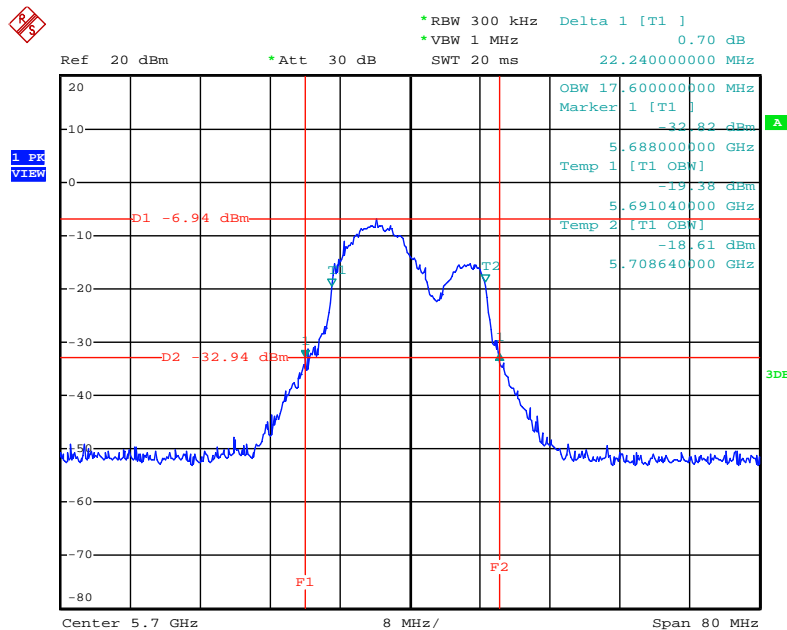
Date: 4.JUN.2012 11:48:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



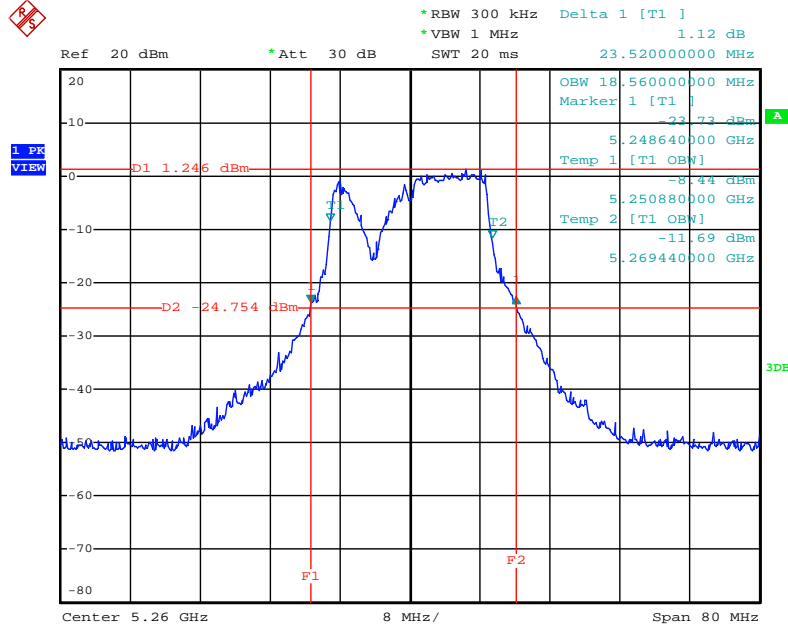
Date: 4.JUN.2012 11:48:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



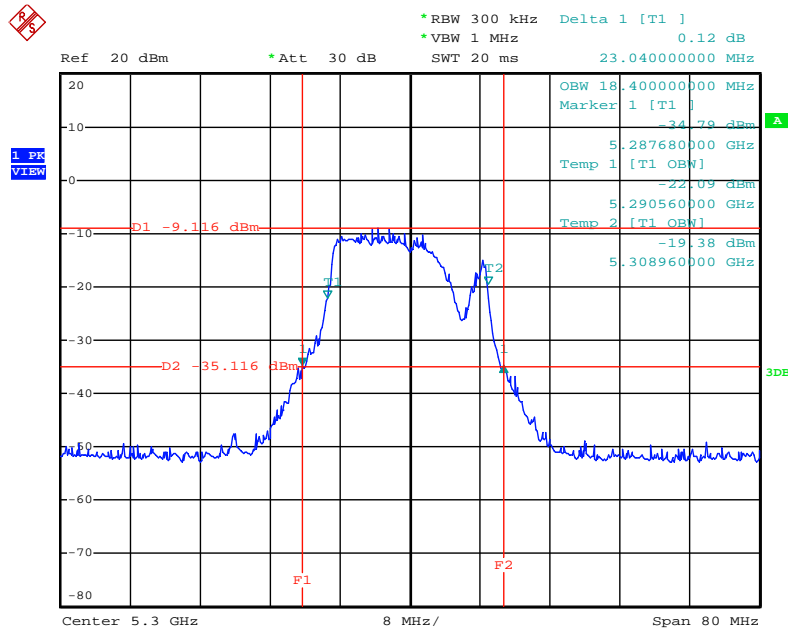
Date: 4.JUN.2012 11:47:53

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



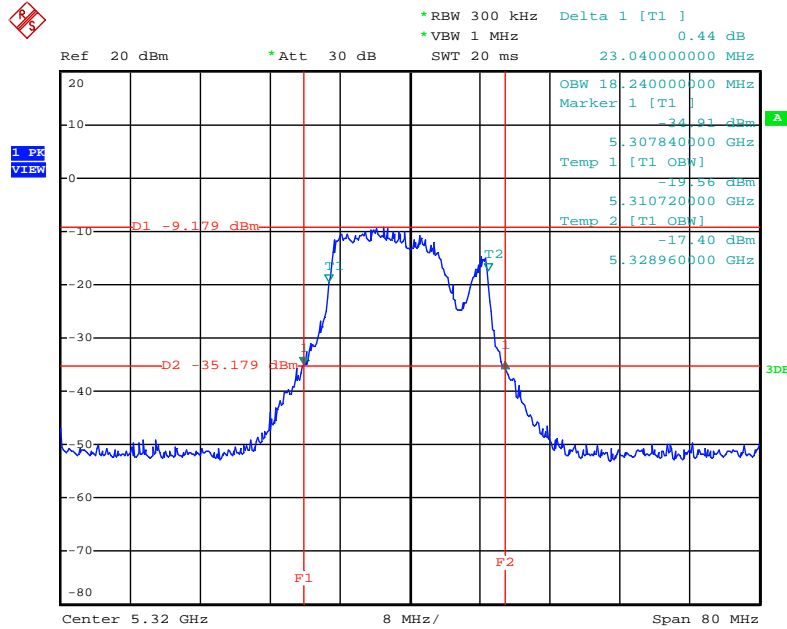
Date: 4.JUN.2012 11:45:48

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



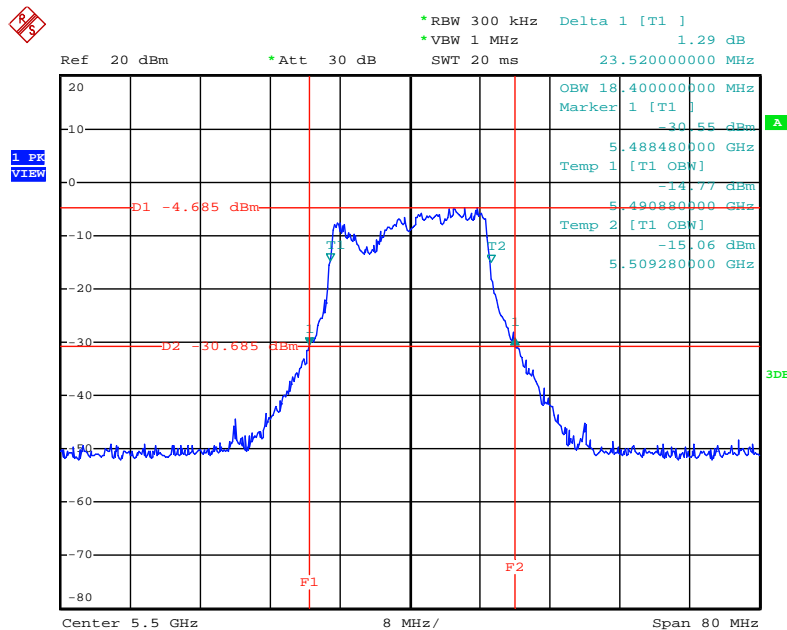
Date: 4.JUN.2012 11:46:06

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



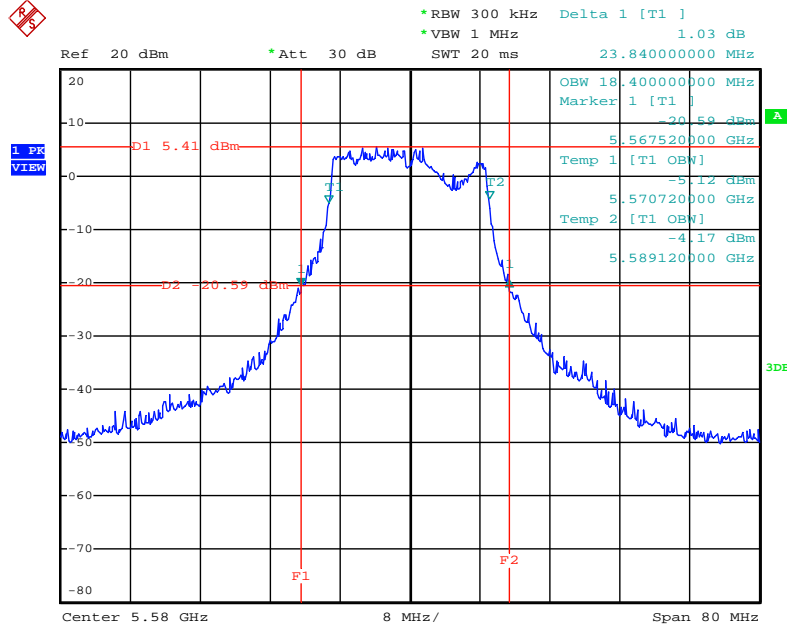
Date: 4.JUN.2012 11:46:21

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



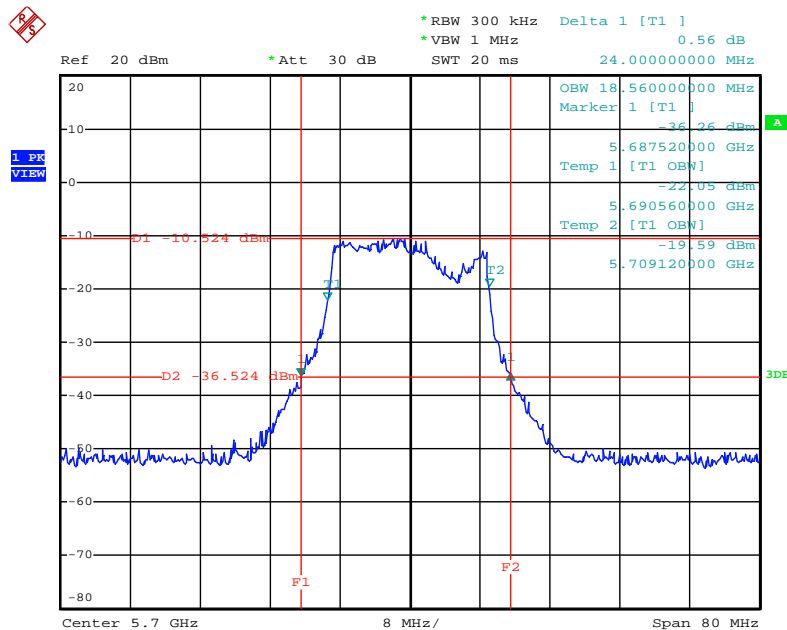
Date: 4.JUN.2012 11:46:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



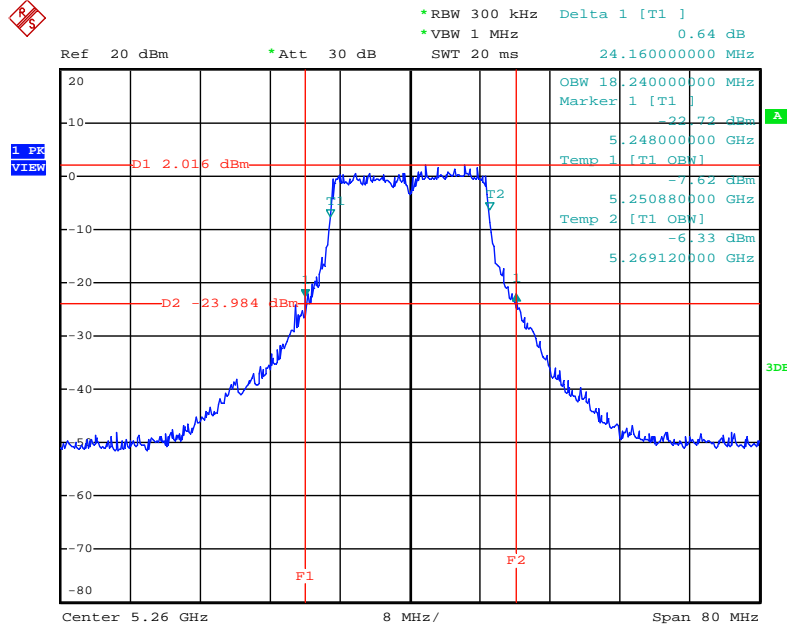
Date: 4.JUN.2012 11:47:11

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



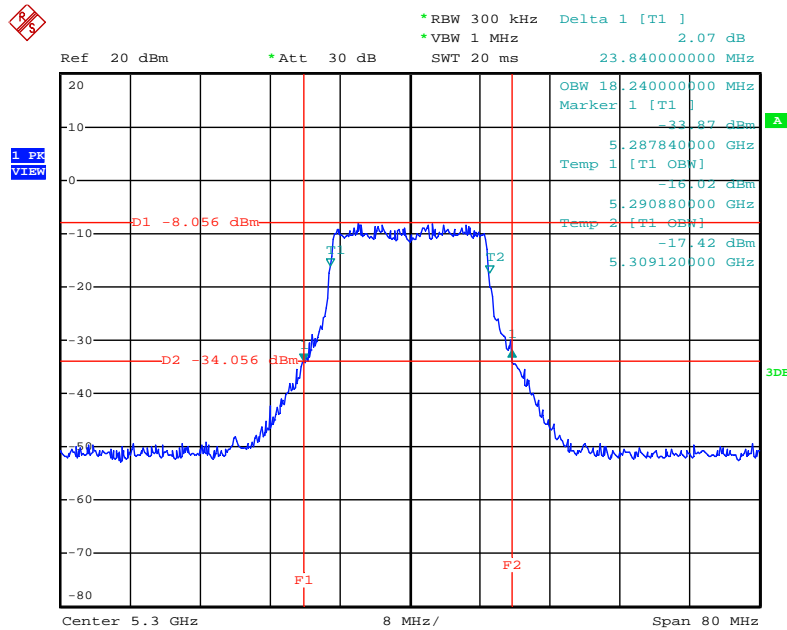
Date: 4.JUN.2012 11:47:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



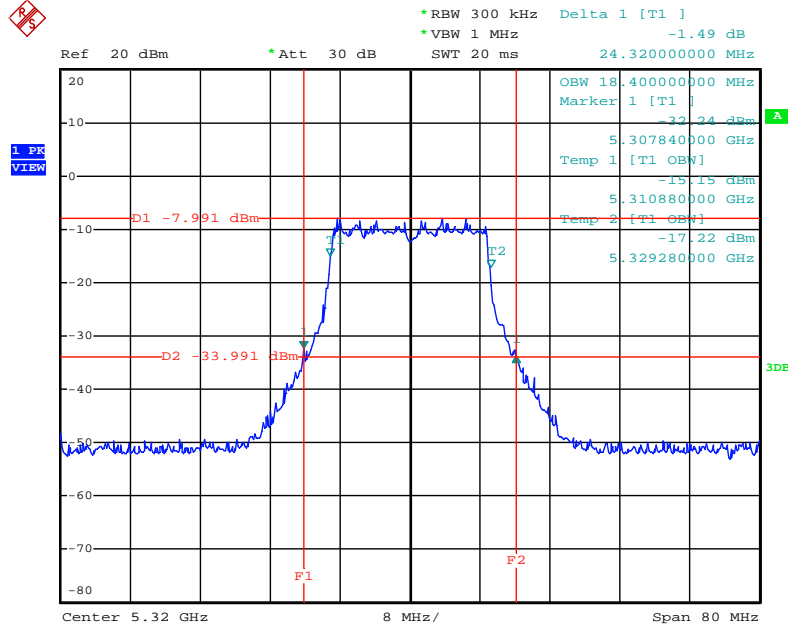
Date: 4.JUN.2012 11:45:07

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



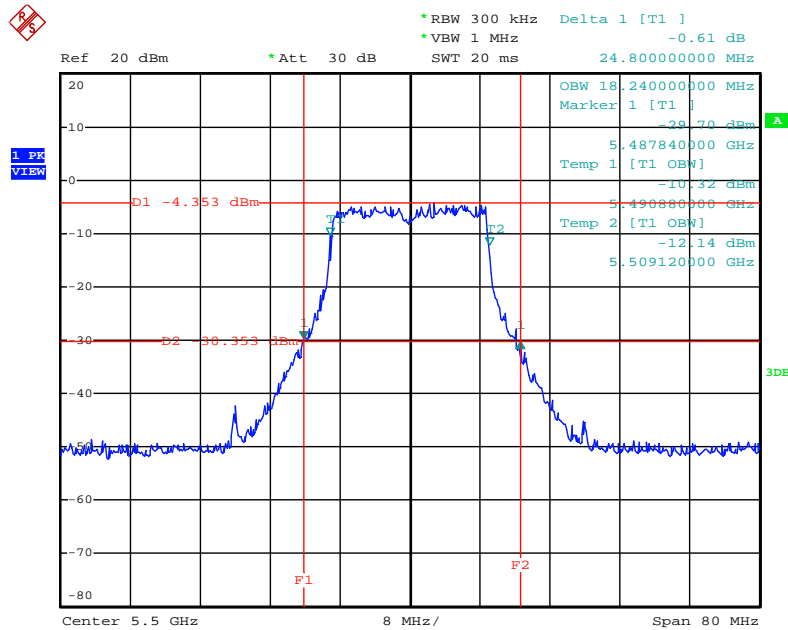
Date: 4.JUN.2012 11:44:51

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



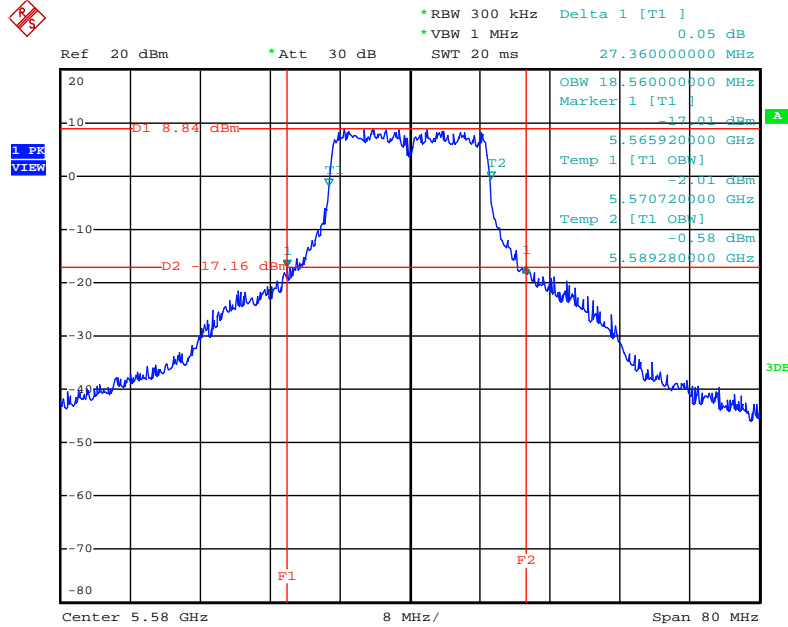
Date: 4.JUN.2012 11:44:36

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



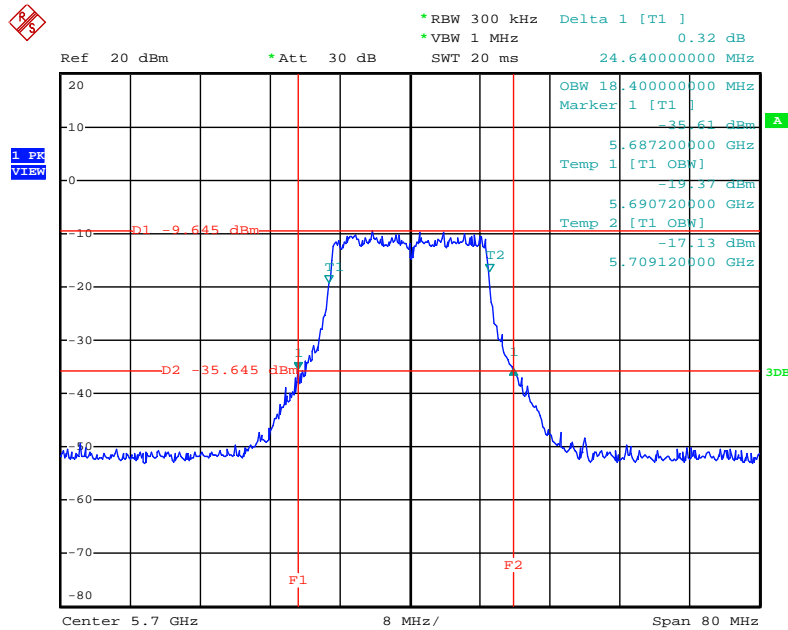
Date: 4.JUN.2012 11:44:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



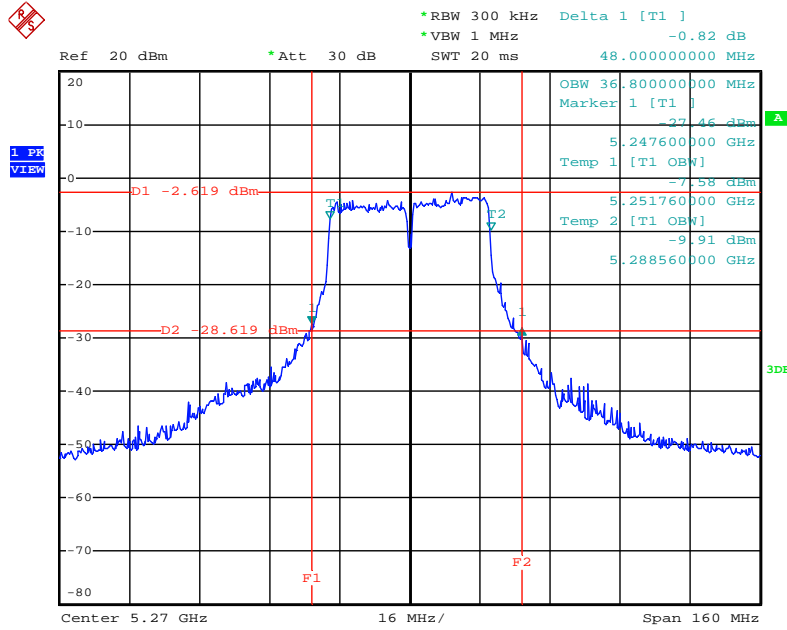
Date: 4.JUN.2012 11:43:55

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



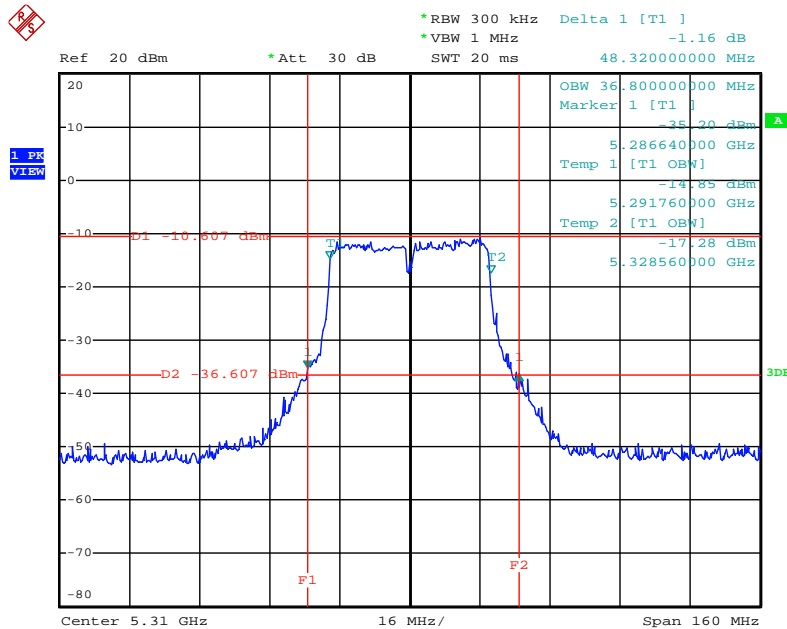
Date: 4.JUN.2012 11:43:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz (1TX)



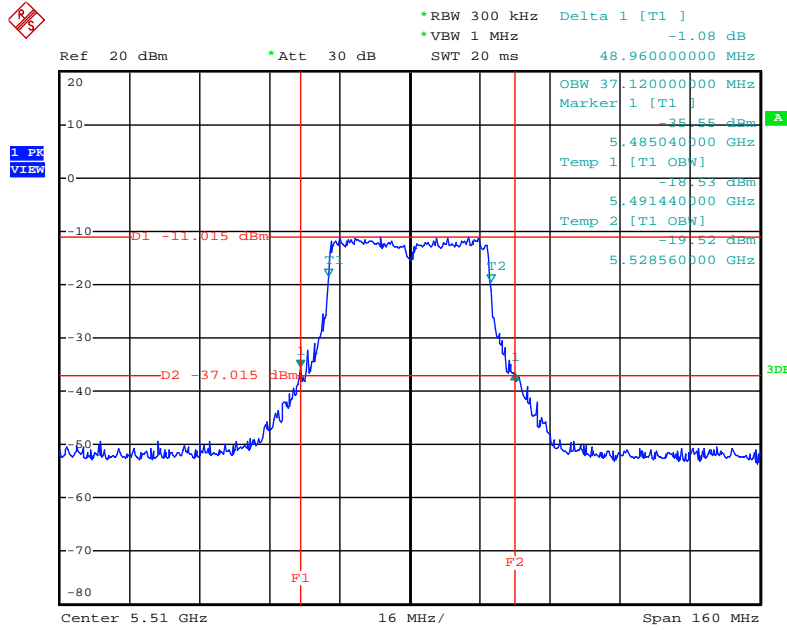
Date: 4.JUN.2012 09:23:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz (1TX)



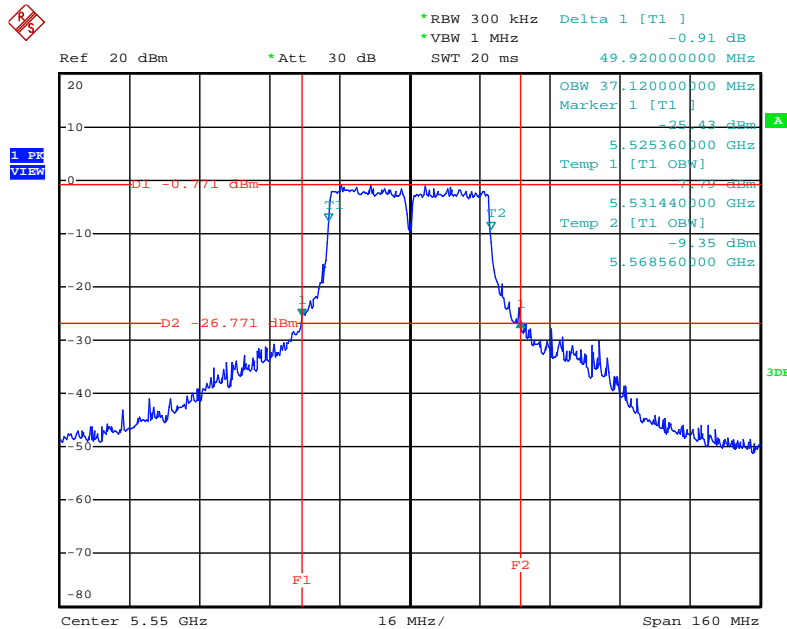
Date: 4.JUN.2012 09:23:26

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5510MHz (1TX)



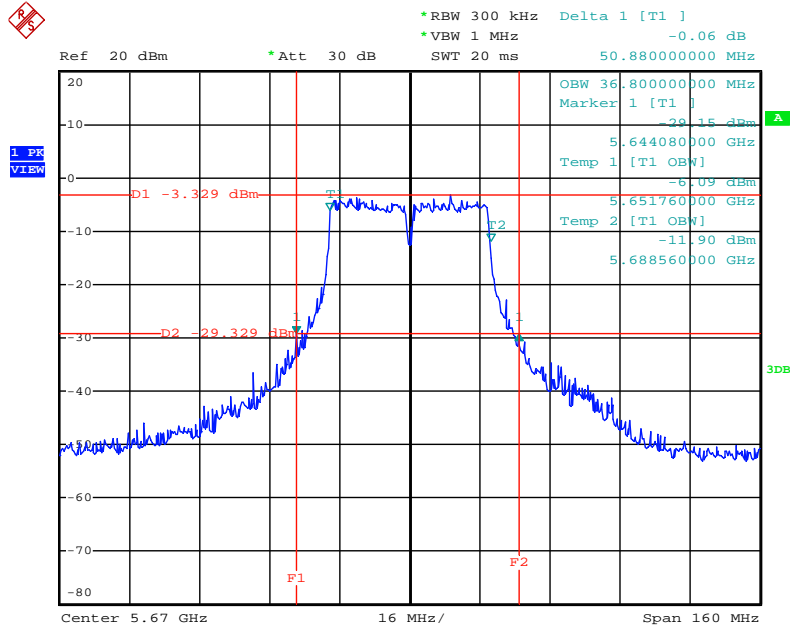
Date: 4.JUN.2012 09:23:51

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz (1TX)



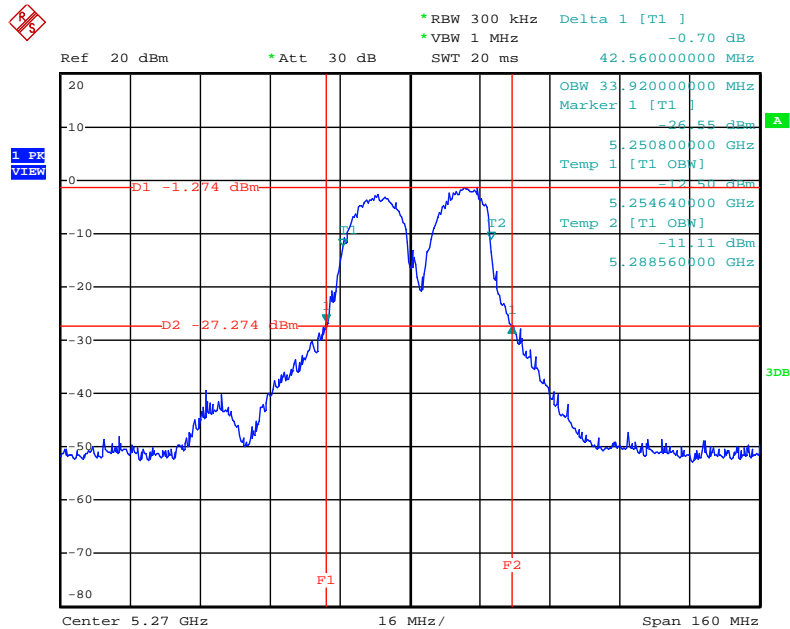
Date: 4.JUN.2012 09:24:12

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz (1TX)



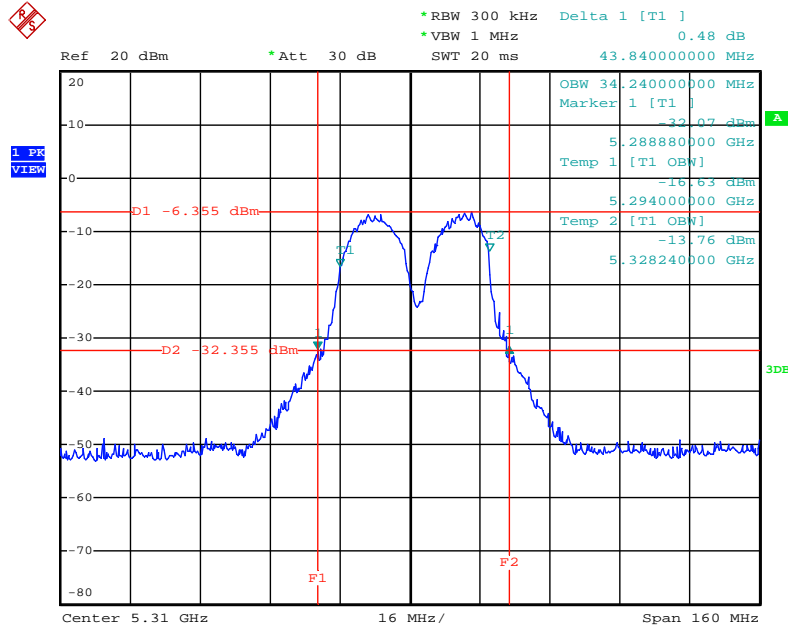
Date: 4.JUN.2012 09:24:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



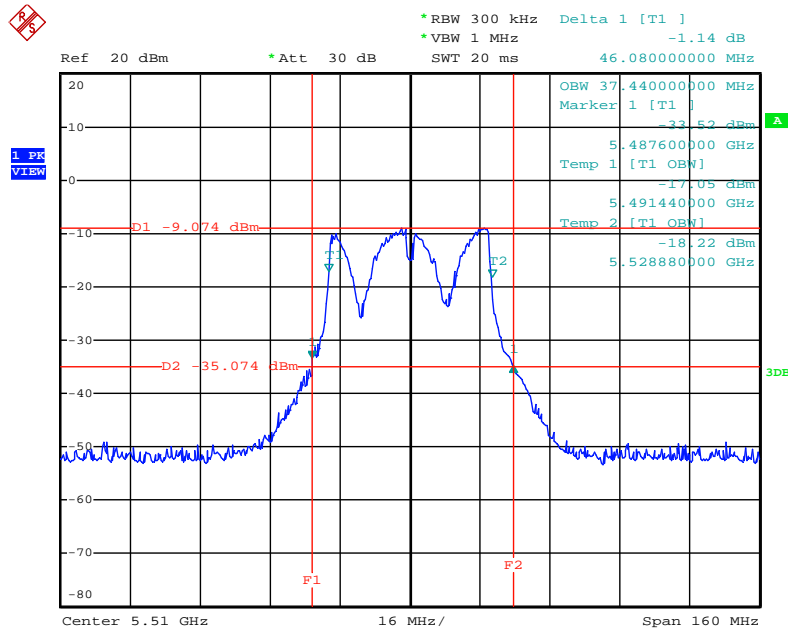
Date: 4.JUN.2012 09:34:36

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



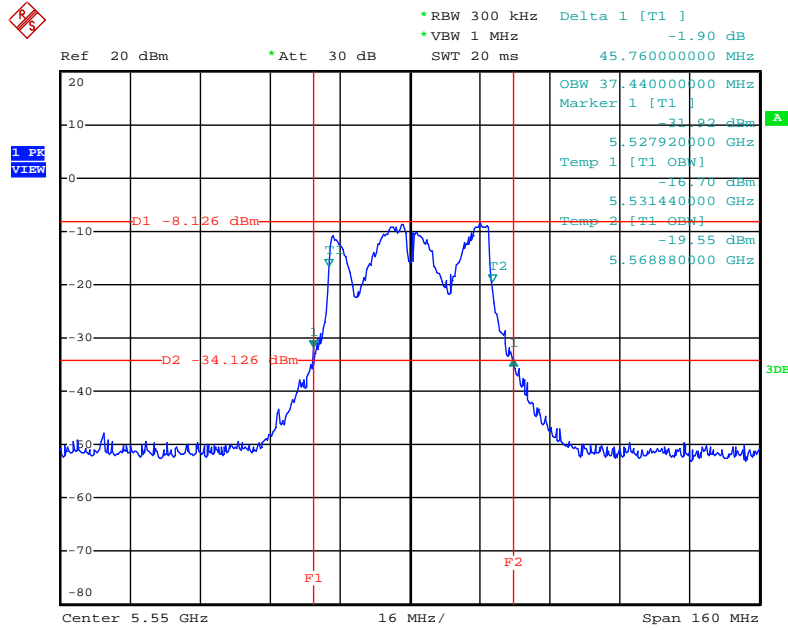
Date: 4.JUN.2012 09:34:20

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



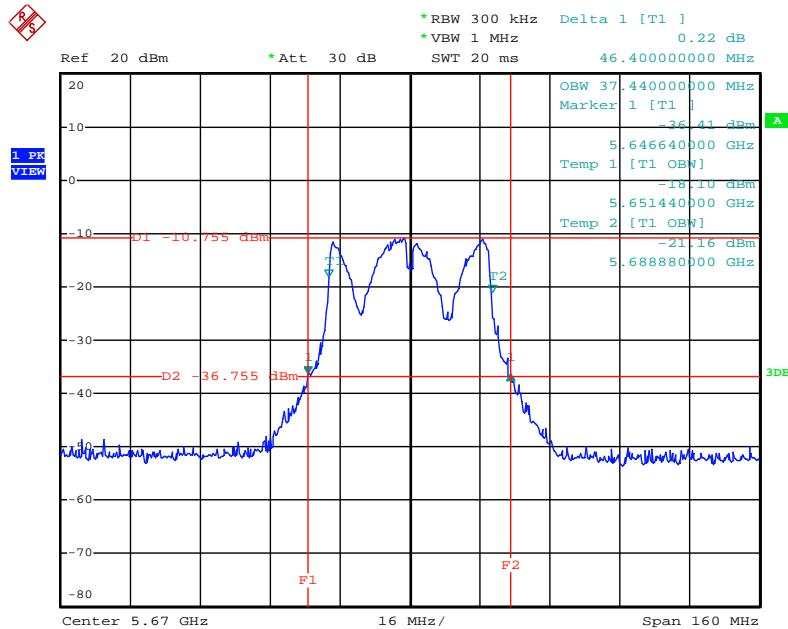
Date: 4.JUN.2012 09:33:55

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



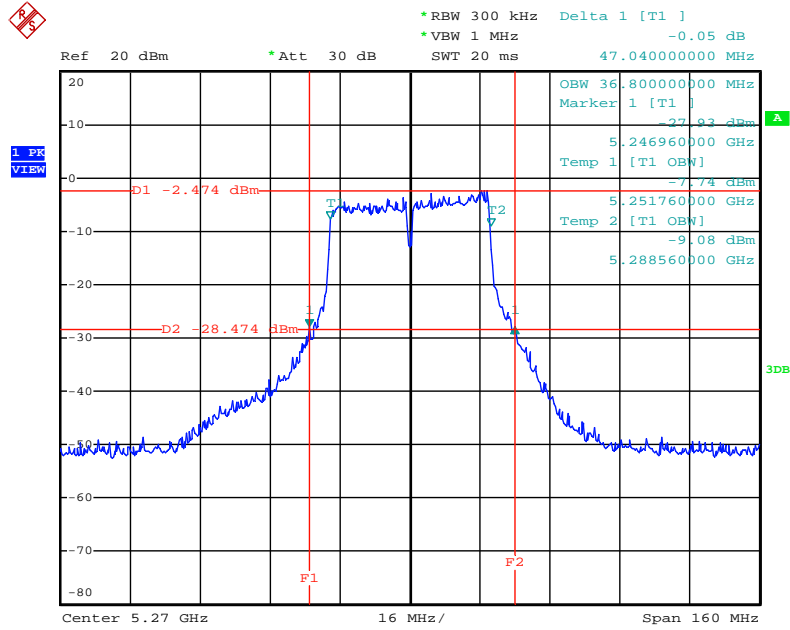
Date: 4.JUN.2012 09:33:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



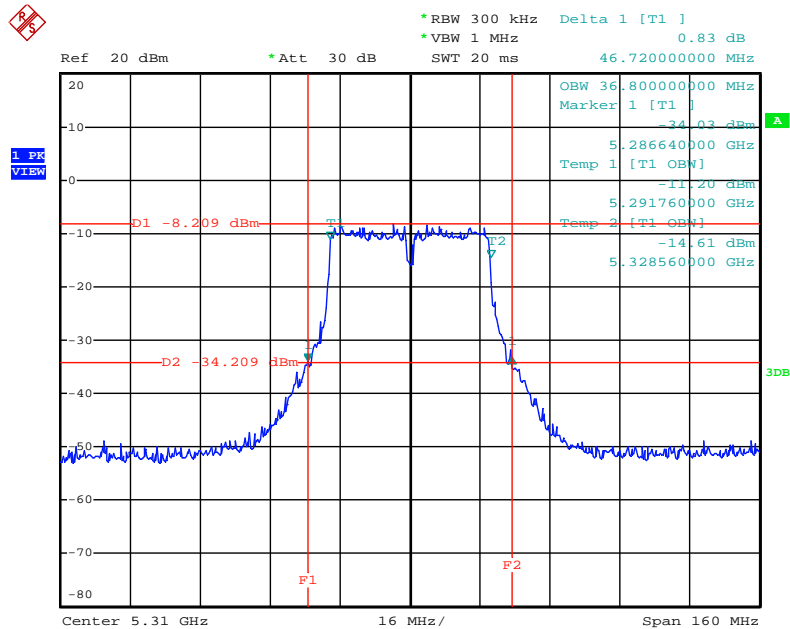
Date: 4.JUN.2012 09:33:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



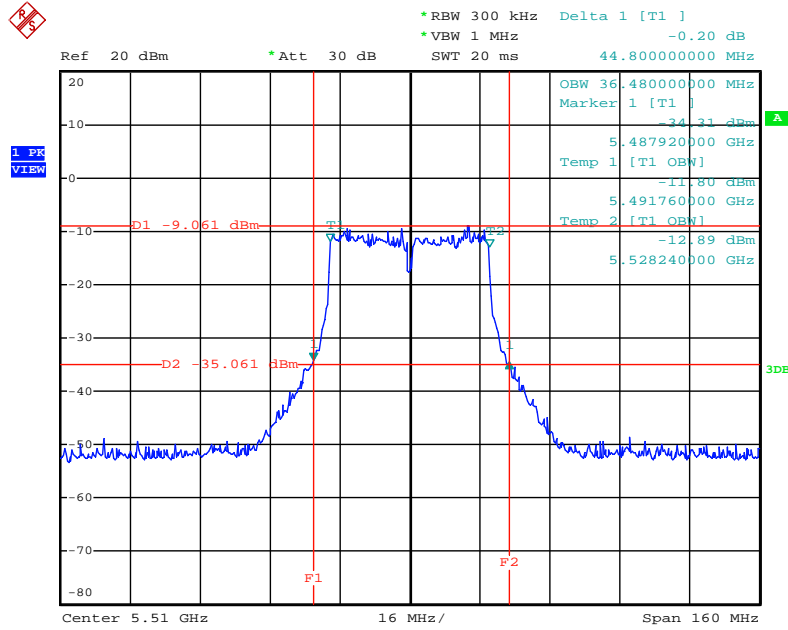
Date: 4.JUN.2012 09:31:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



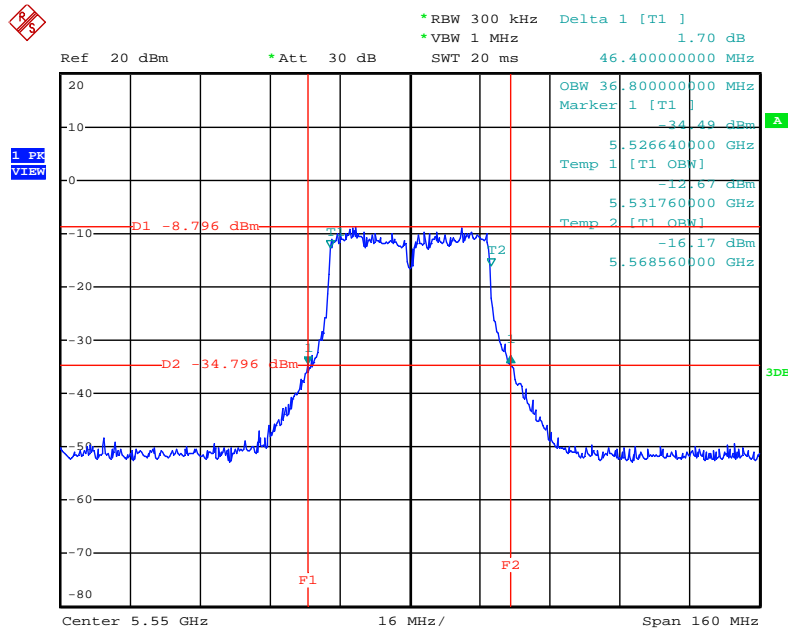
Date: 4.JUN.2012 09:32:00

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



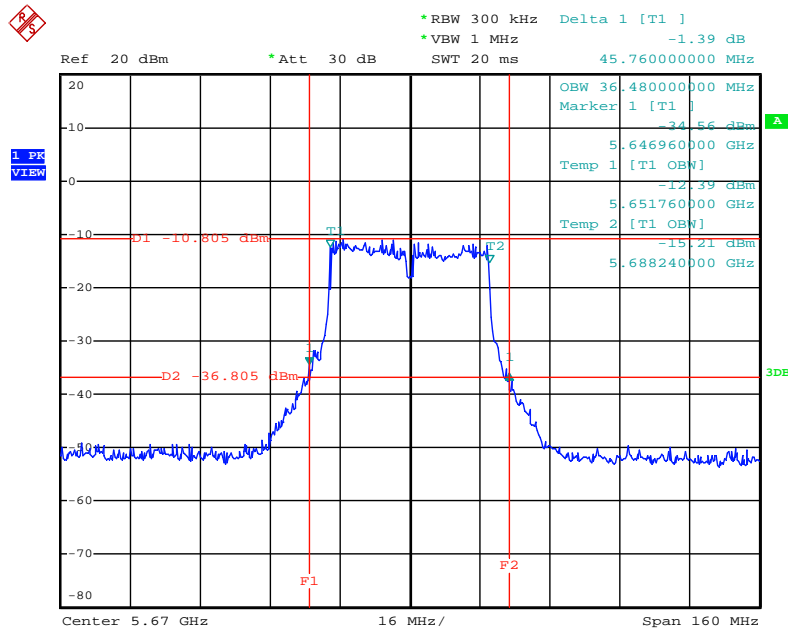
Date: 4.JUN.2012 09:32:24

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



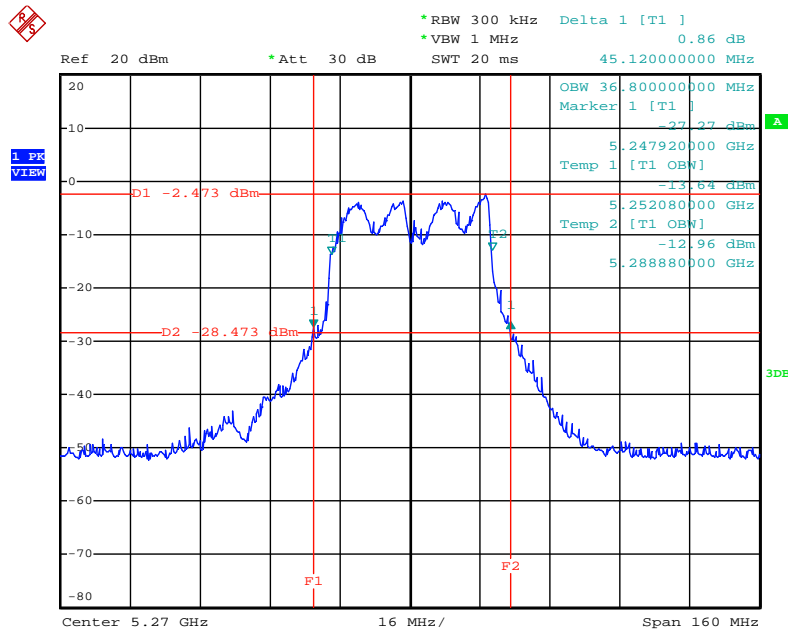
Date: 4.JUN.2012 09:32:41

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



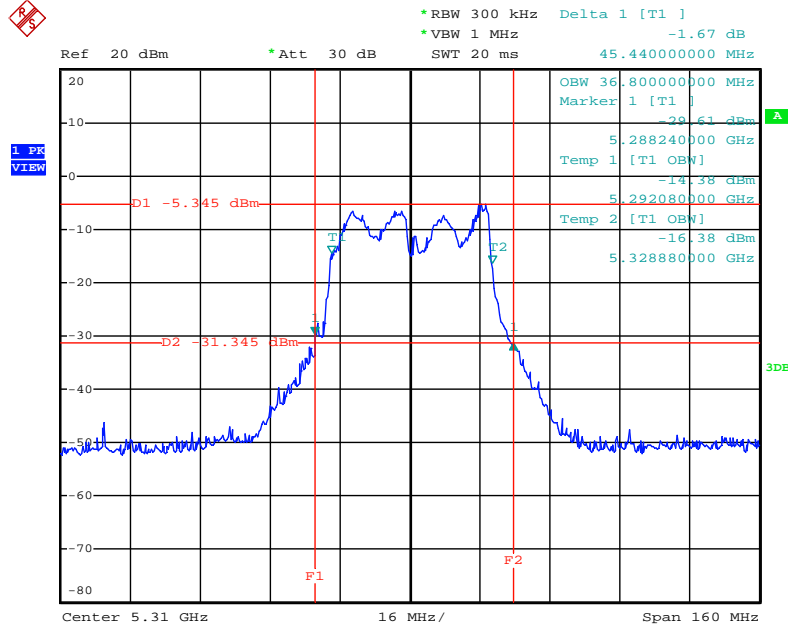
Date: 4.JUN.2012 09:32:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



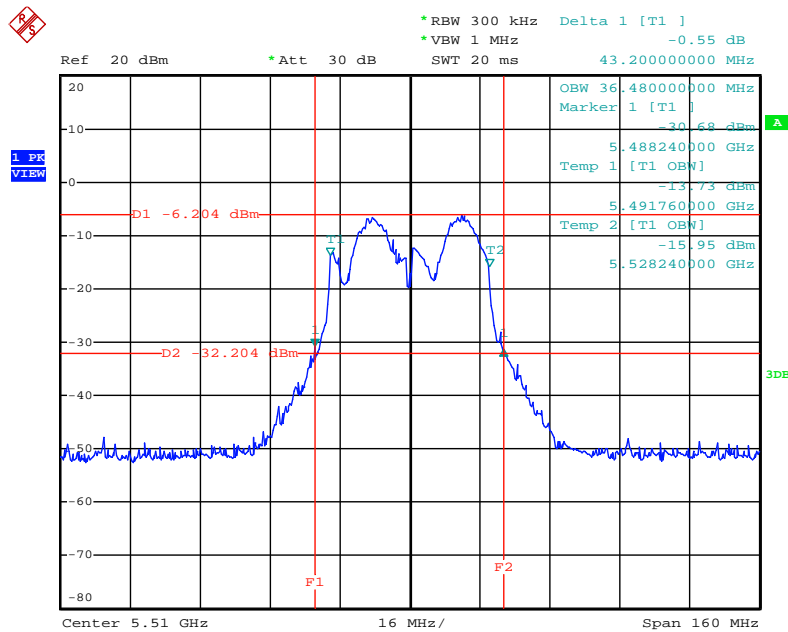
Date: 4.JUN.2012 09:35:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



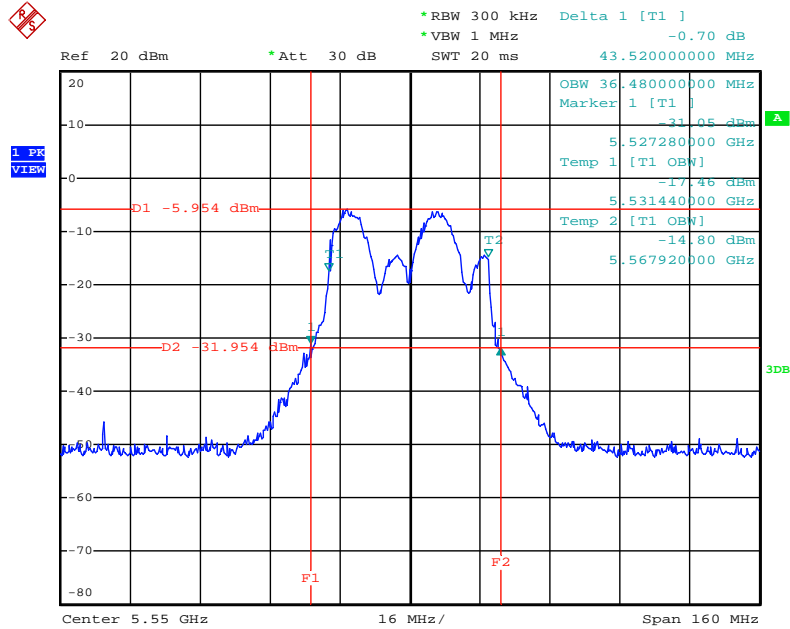
Date: 4.JUN.2012 09:35:26

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



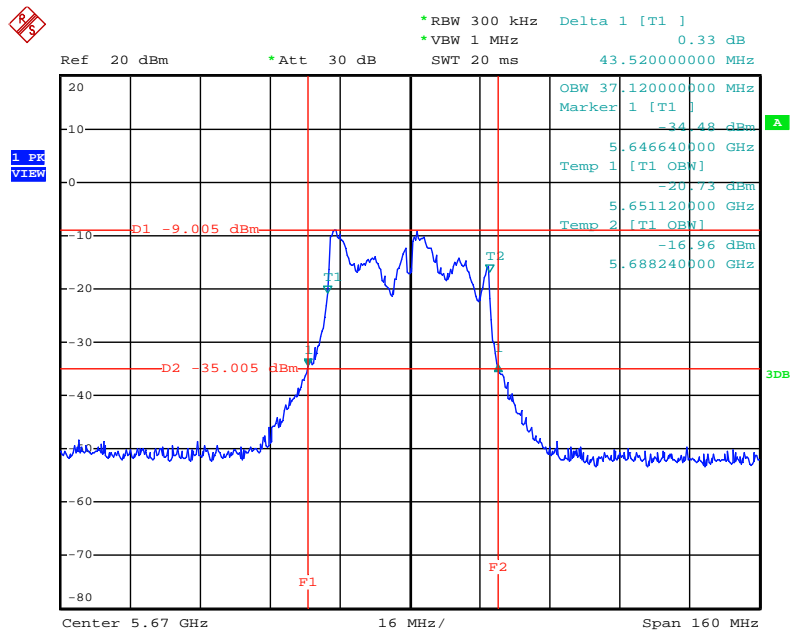
Date: 4.JUN.2012 09:35:53

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



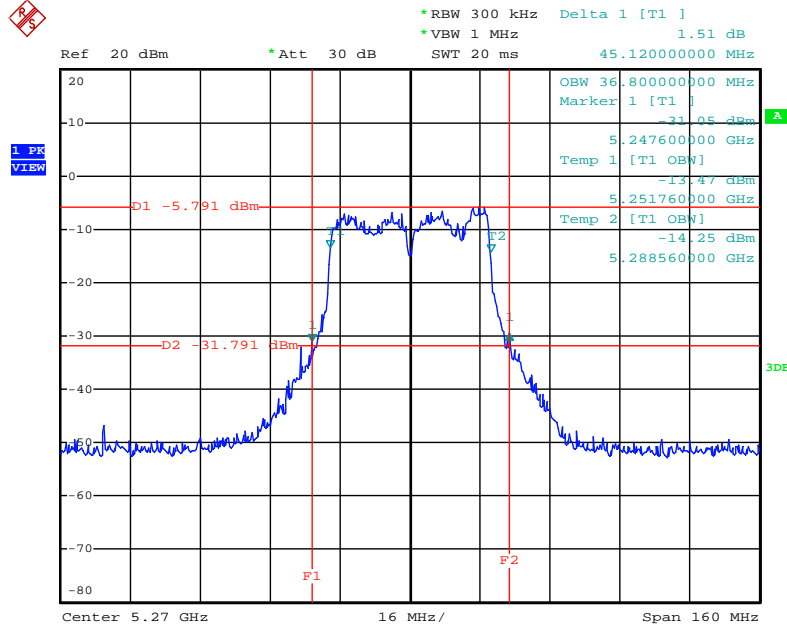
Date: 4.JUN.2012 09:36:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



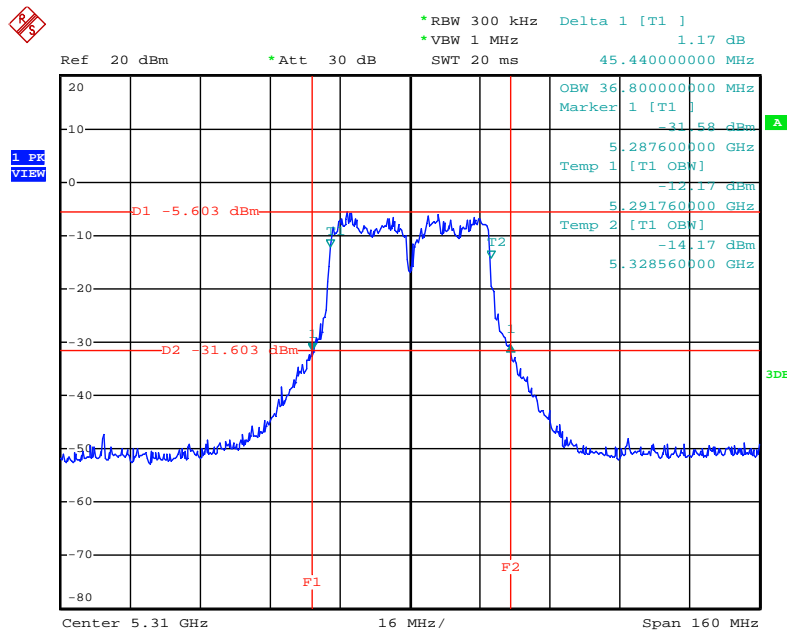
Date: 4.JUN.2012 09:36:24

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



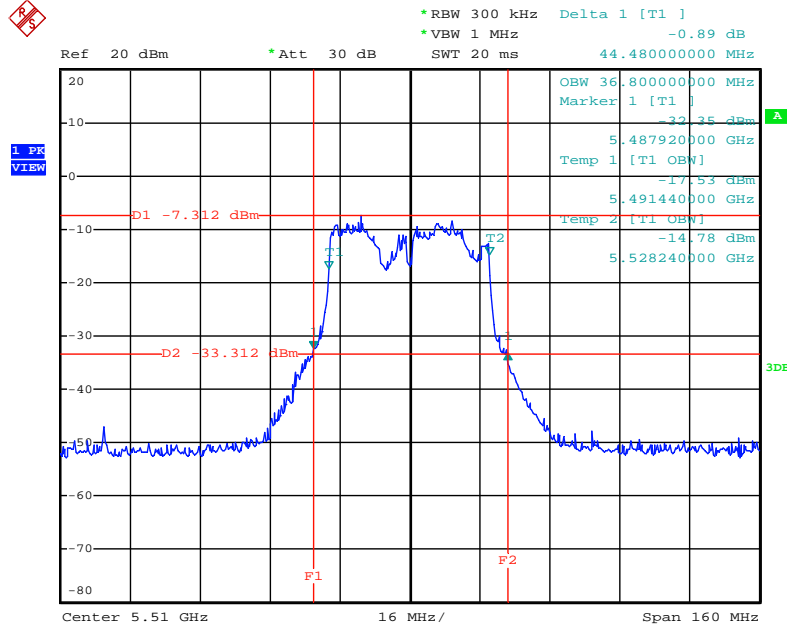
Date: 4.JUN.2012 09:41:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



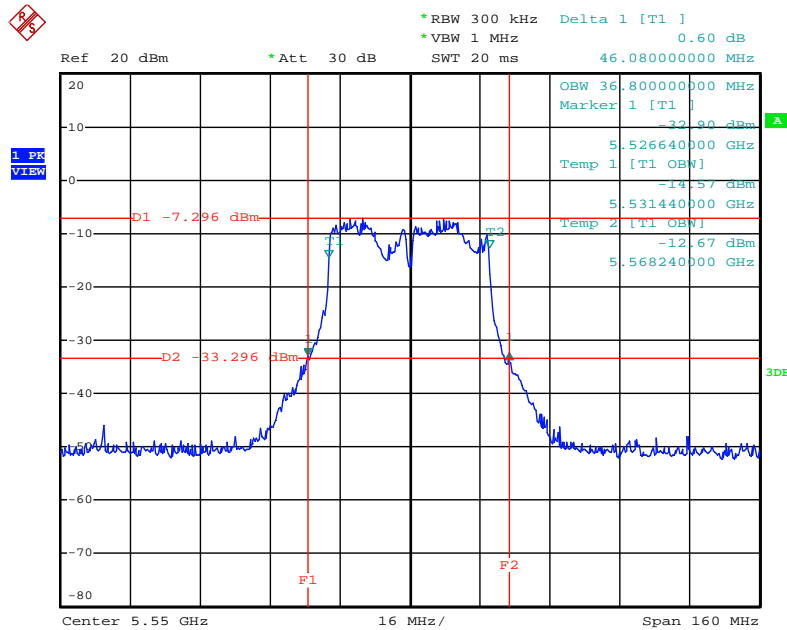
Date: 4.JUN.2012 09:41:37

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



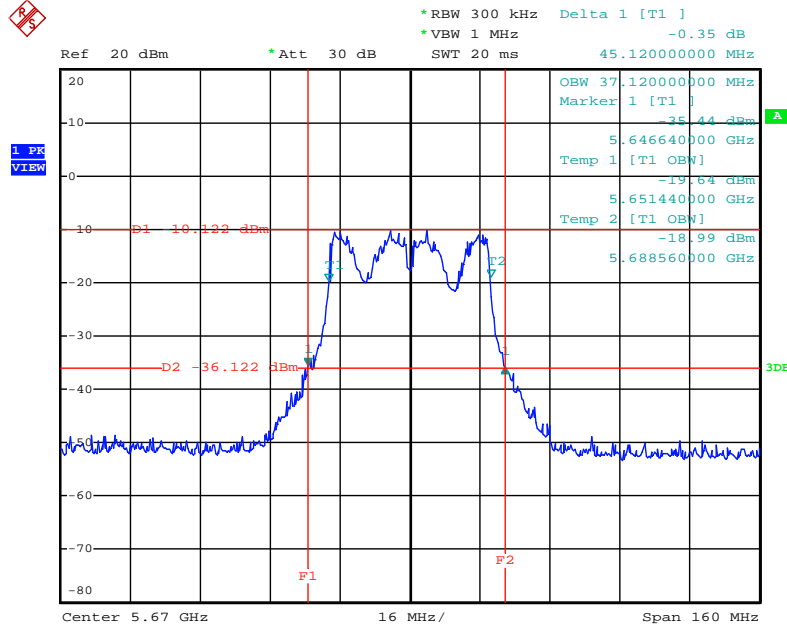
Date: 4.JUN.2012 09:40:53

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



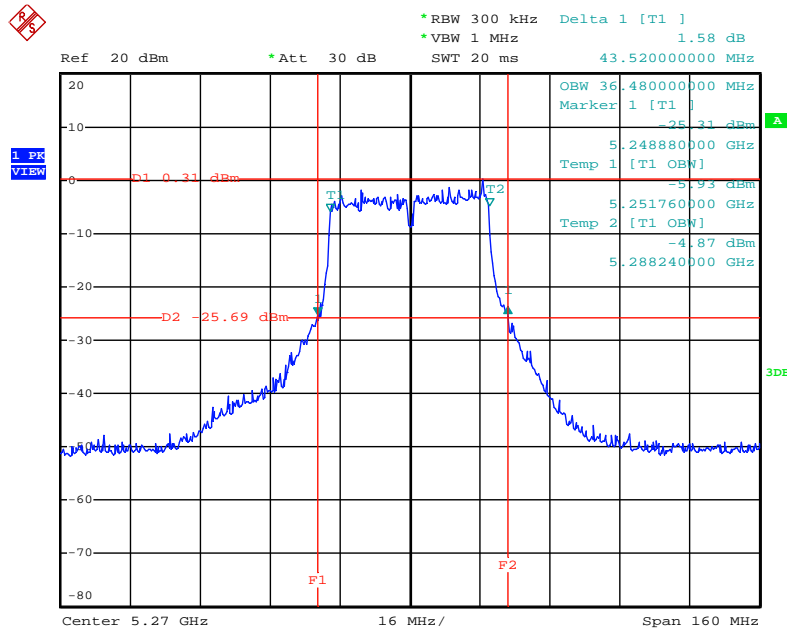
Date: 4.JUN.2012 09:37:05

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



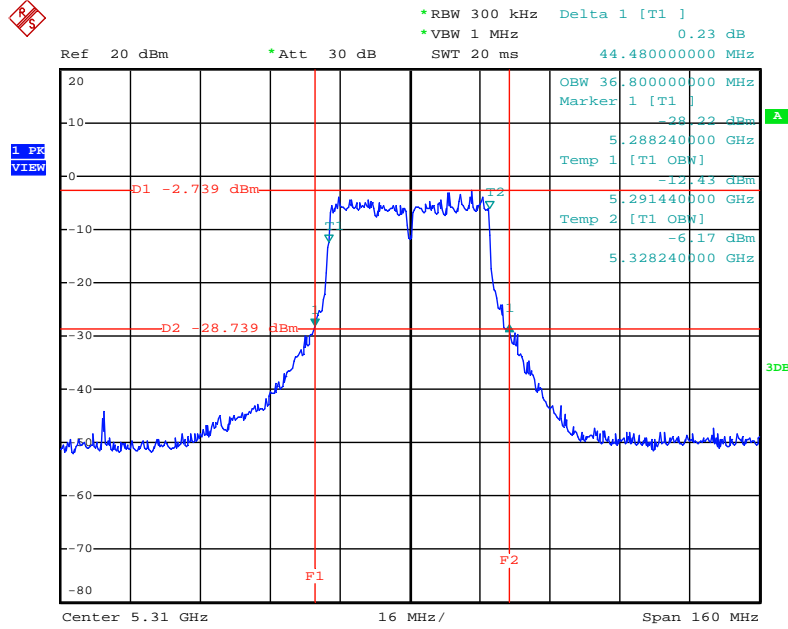
Date: 4.JUN.2012 09:36:48

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



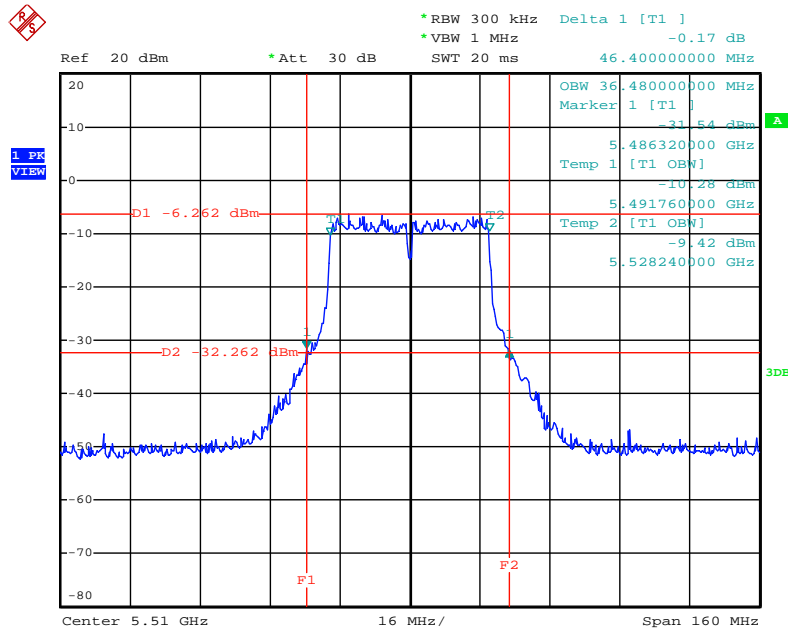
Date: 4.JUN.2012 11:41:39

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



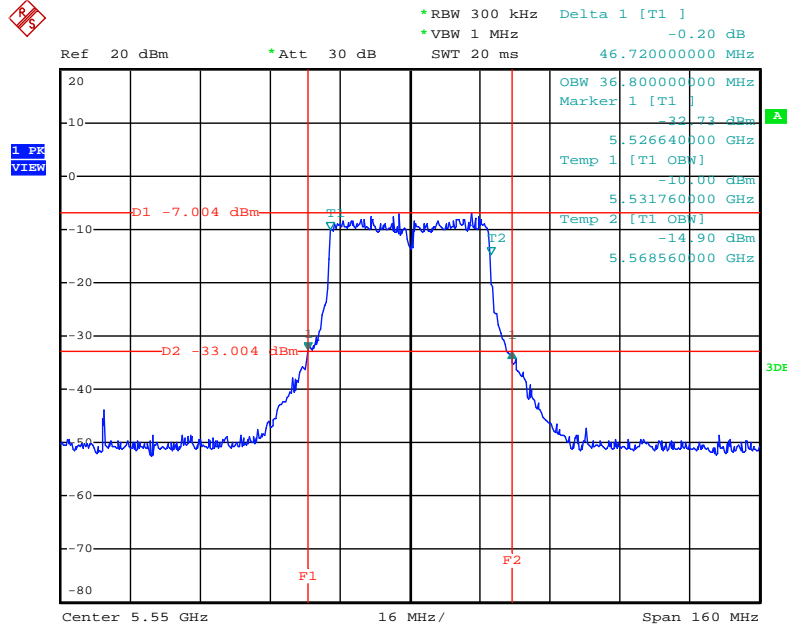
Date: 4.JUN.2012 11:42:02

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



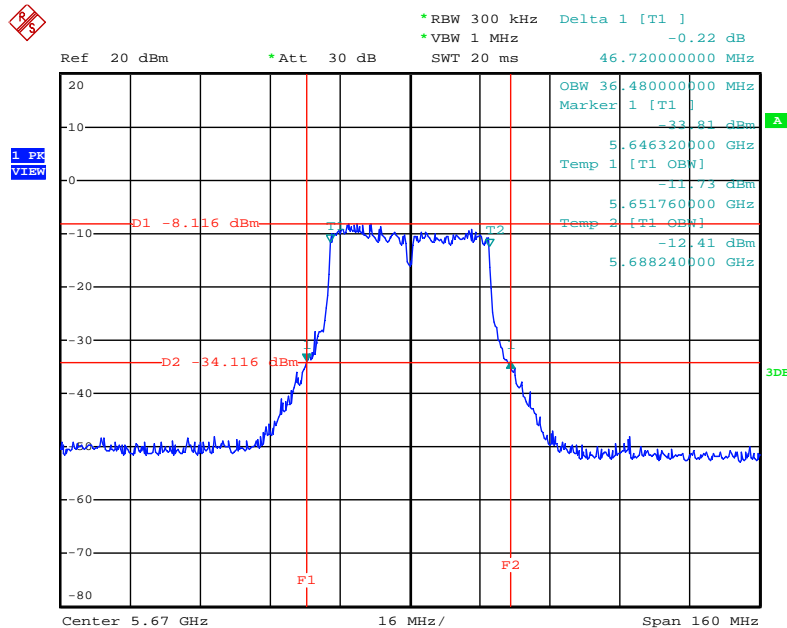
Date: 4.JUN.2012 11:42:28

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



Date: 4.JUN.2012 11:42:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS16 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



Date: 4.JUN.2012 11:42:59

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 5 (Ant. 5 Facade antenna / 2.5dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	41.44	20.80
60	5300 MHz	36.96	19.84
64	5320 MHz	25.76	18.56
100	5500 MHz	25.60	18.56
116	5580 MHz	41.28	22.24
140	5700 MHz	25.92	18.56

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	78.72	40.00
62	5310 MHz	49.28	36.80
102	5510MHz	49.60	37.12
110	5550 MHz	77.12	39.68
134	5670 MHz	50.24	37.12

2TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	27.84	16.48
60	5300 MHz	29.12	20.00
64	5320 MHz	26.24	19.36
100	5500 MHz	24.48	19.20
116	5580 MHz	27.68	19.36
140	5700 MHz	22.24	15.84

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	63.04	35.20
62	5310 MHz	48.32	37.44
102	5510MHz	46.40	37.44
110	5550 MHz	52.48	35.84
134	5670 MHz	46.40	37.44

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	30.56	18.88
60	5300 MHz	31.36	18.72
64	5320 MHz	24.96	18.56
100	5500 MHz	24.48	18.24
116	5580 MHz	28.96	18.72
140	5700 MHz	24.00	18.40

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	50.24	37.44
62	5310 MHz	46.72	36.80
102	5510MHz	46.40	36.80
110	5550 MHz	64.64	37.76
134	5670 MHz	46.08	36.80

3TX
Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	24.48	18.56
60	5300 MHz	26.72	18.40
64	5320 MHz	21.28	16.96
100	5500 MHz	22.40	17.76
116	5580 MHz	26.40	18.24
140	5700 MHz	21.92	17.76

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	48.00	36.80
62	5310 MHz	41.92	35.20
102	5510MHz	42.24	36.48
110	5550 MHz	45.44	36.80
134	5670 MHz	42.88	36.48

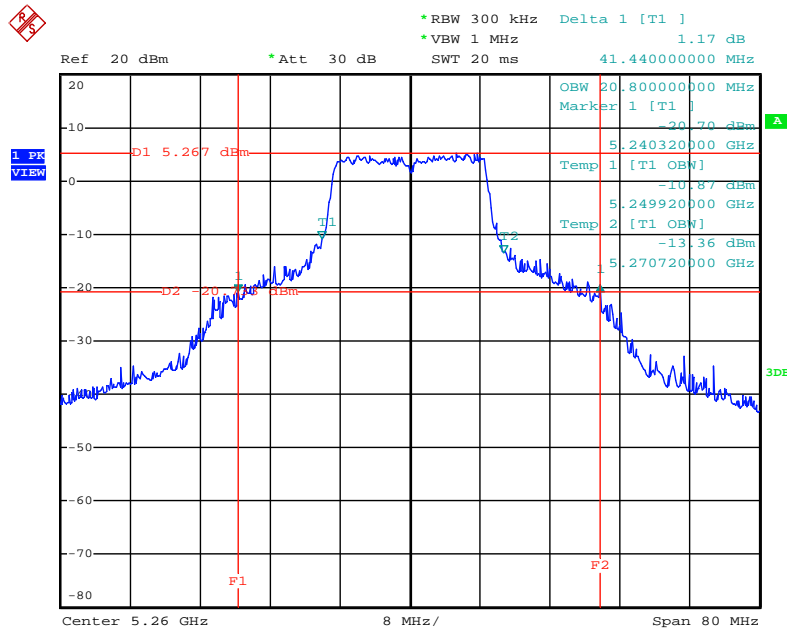
Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
52	5260 MHz	25.44	18.40
60	5300 MHz	26.24	18.24
64	5320 MHz	23.84	18.40
100	5500 MHz	23.52	18.56
116	5580 MHz	25.12	17.76
140	5700 MHz	24.48	18.56

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3

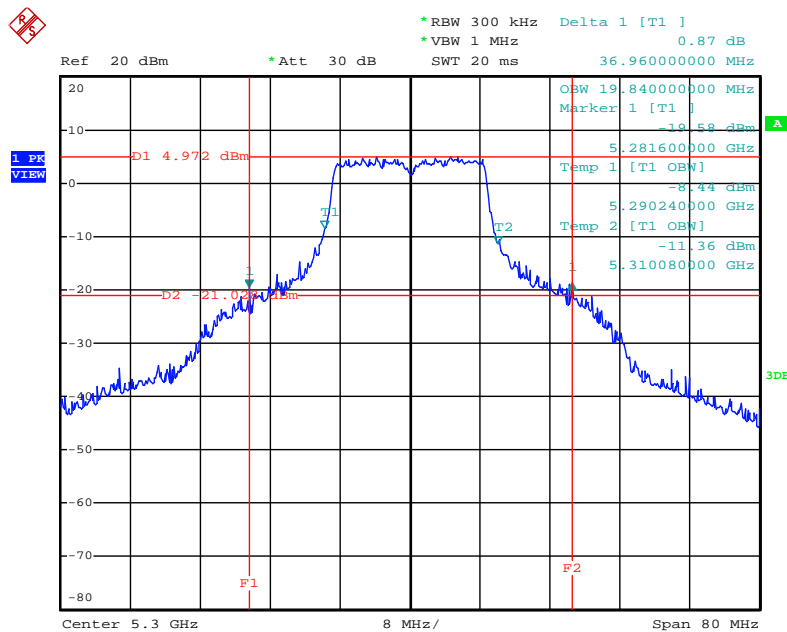
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
54	5270 MHz	47.36	36.80
62	5310 MHz	43.84	36.80
102	5510MHz	44.48	36.80
110	5550 MHz	49.92	36.80
134	5670 MHz	47.36	36.80

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5260 MHz (1TX)



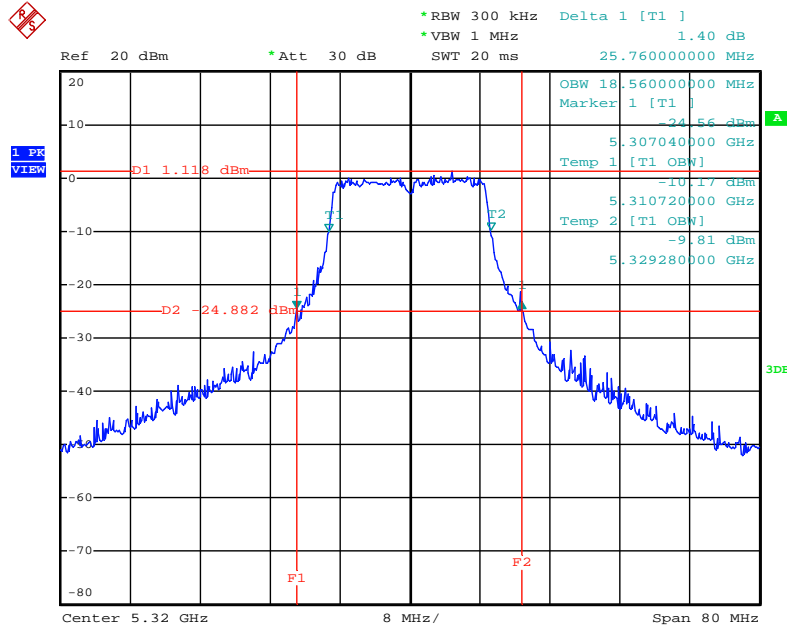
Date: 31.MAY.2012 15:58:13

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5300 MHz (1TX)



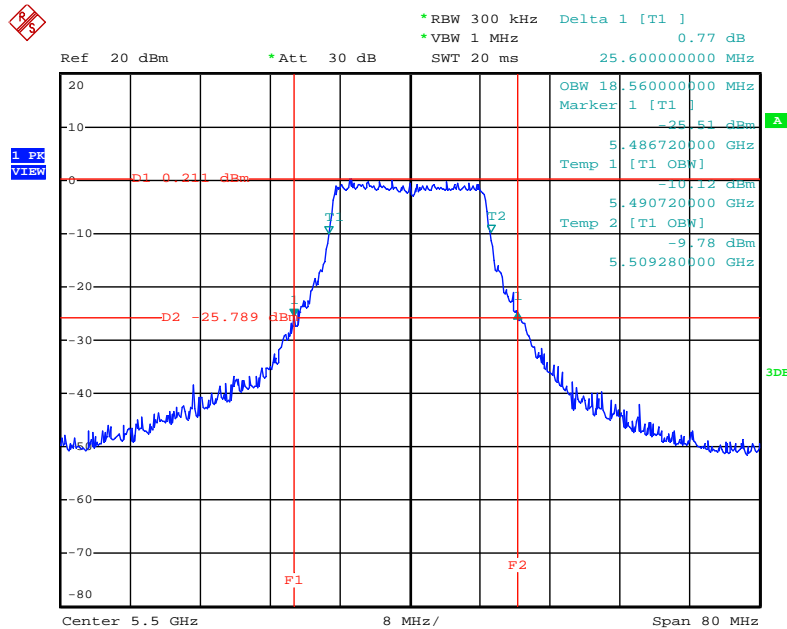
Date: 31.MAY.2012 15:58:33

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz (1TX)



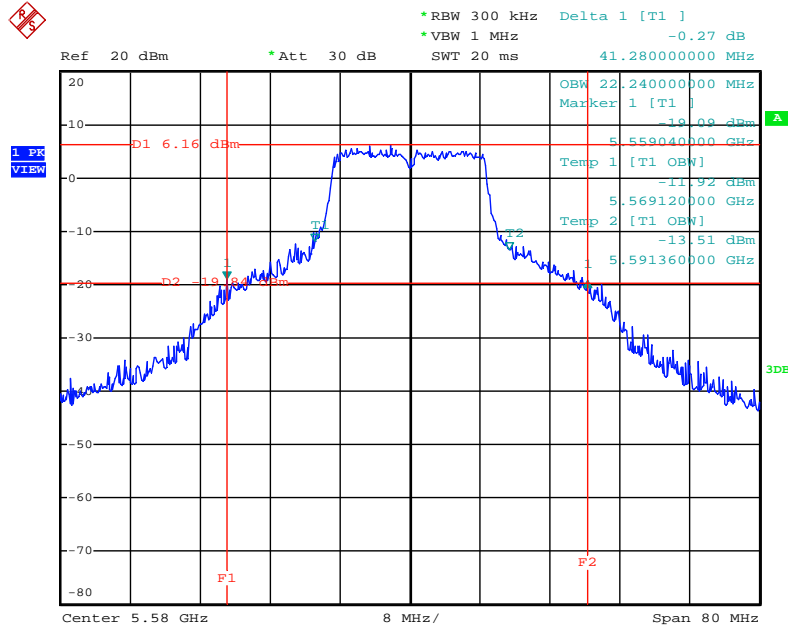
Date: 31.MAY.2012 15:58:58

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz (1TX)



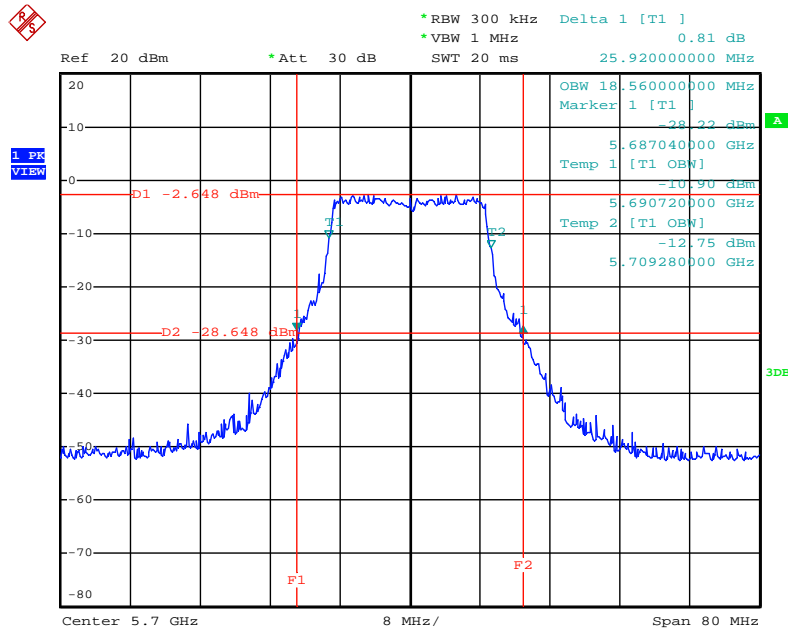
Date: 31.MAY.2012 15:59:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz (1TX)



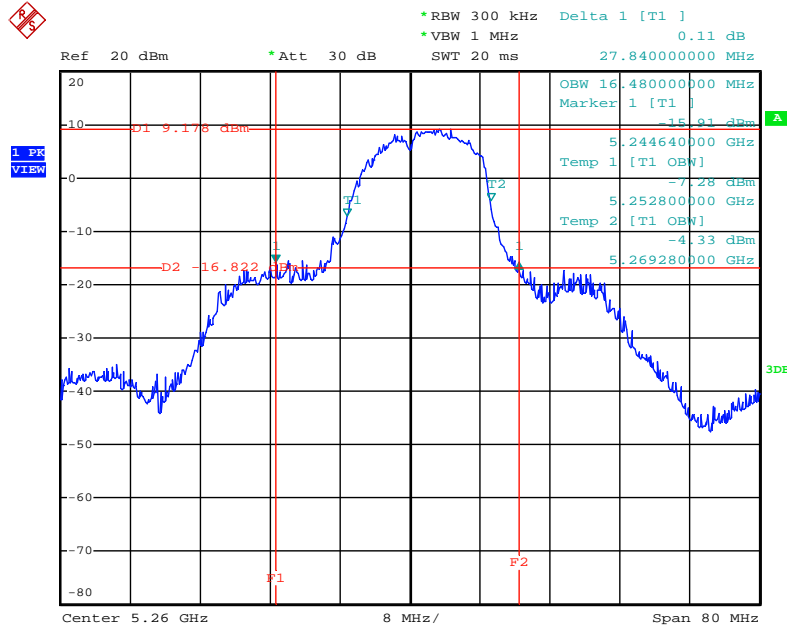
Date: 31.MAY.2012 15:59:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5700 MHz (1TX)



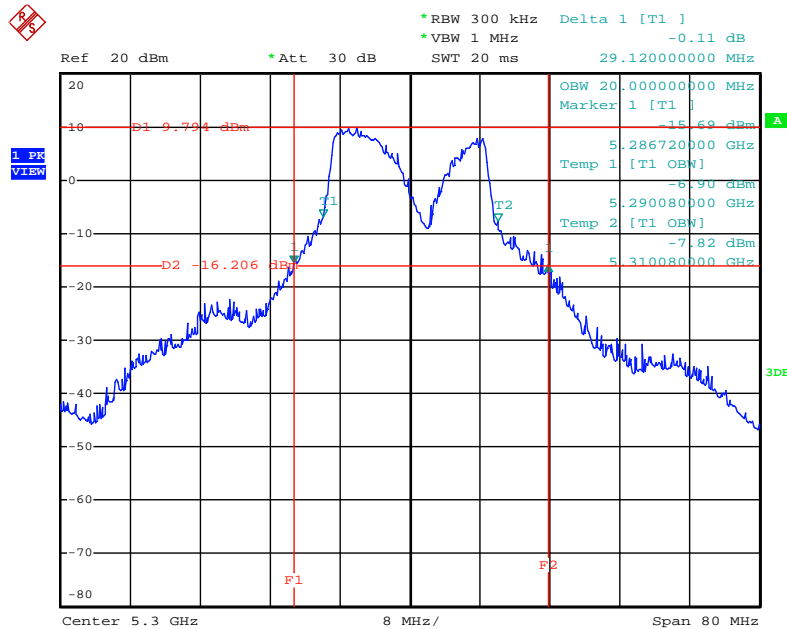
Date: 31.MAY.2012 16:00:24

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



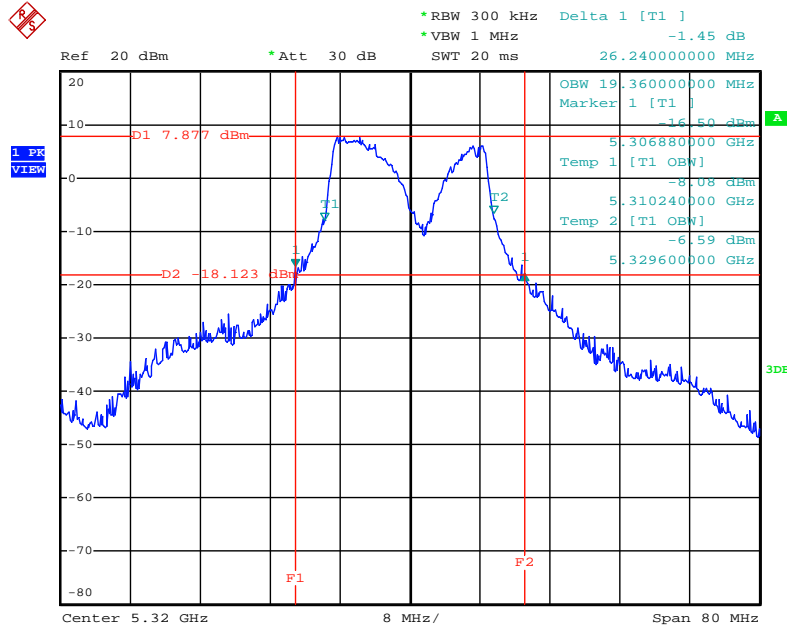
Date: 31.MAY.2012 15:37:20

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



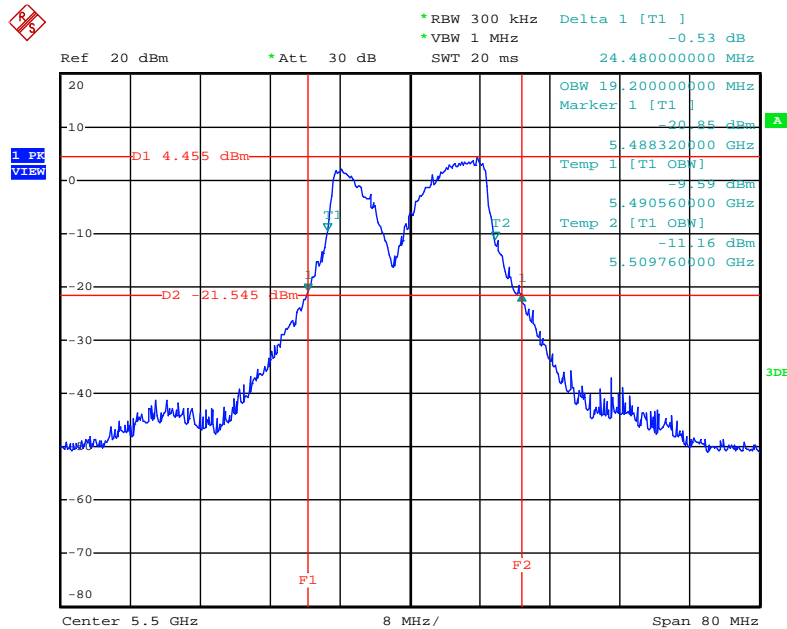
Date: 31.MAY.2012 15:37:49

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



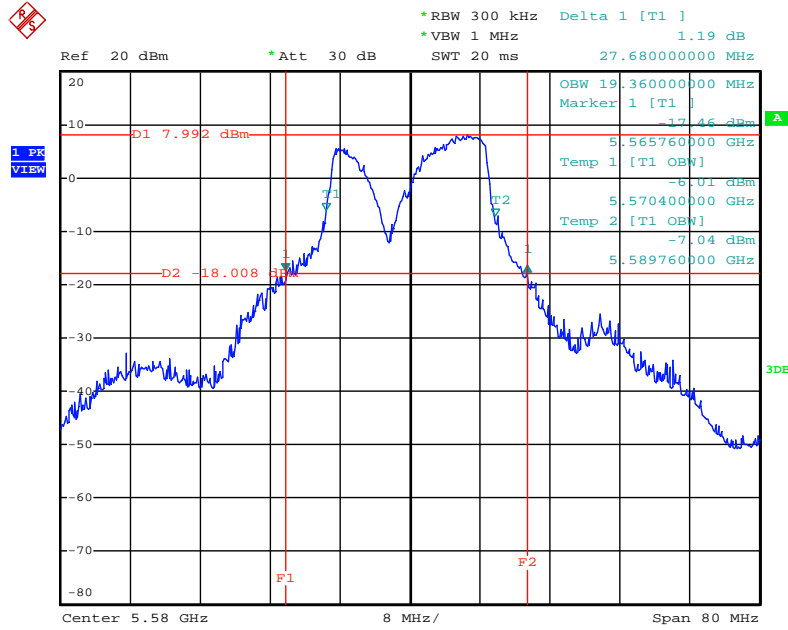
Date: 31.MAY.2012 15:40:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



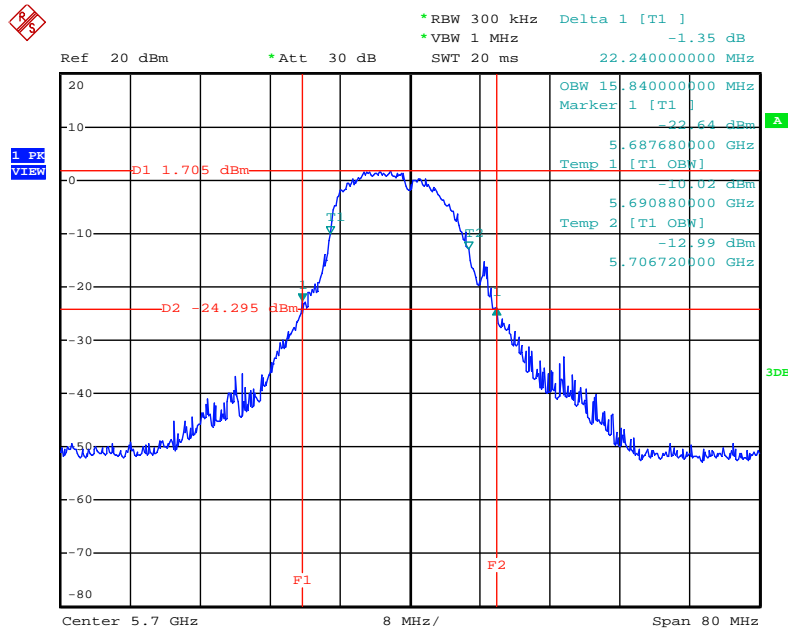
Date: 31.MAY.2012 15:40:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



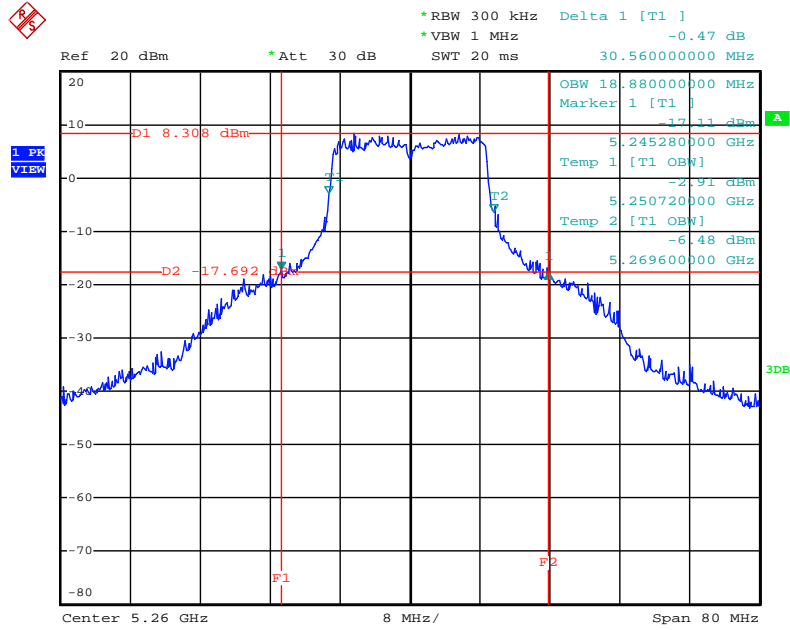
Date: 31.MAY.2012 15:41:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



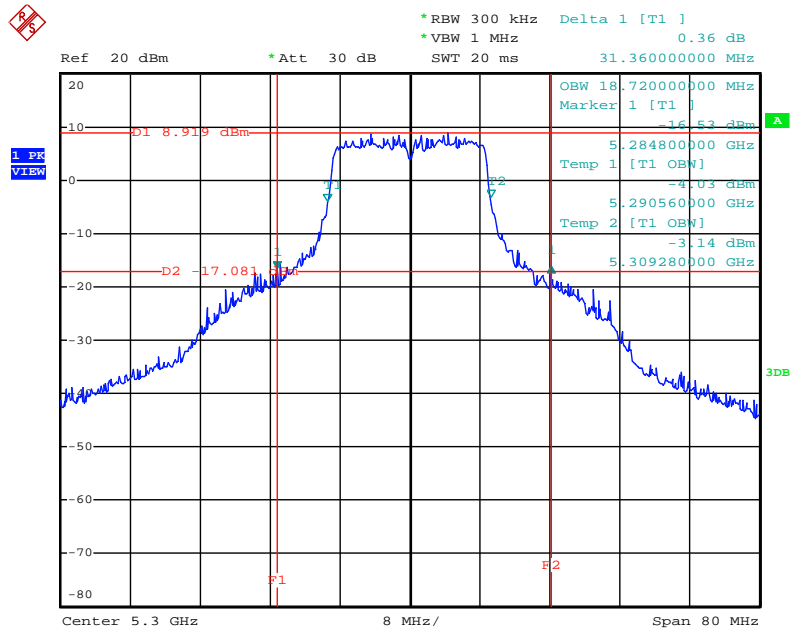
Date: 31.MAY.2012 15:41:45

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5260 MHz (2TX)



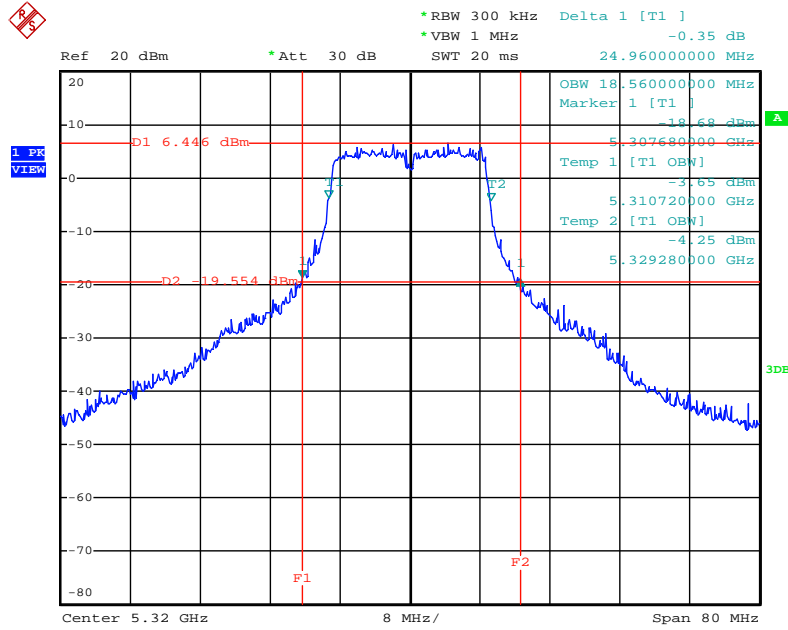
Date: 31.MAY.2012 15:44:21

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5300 MHz (2TX)



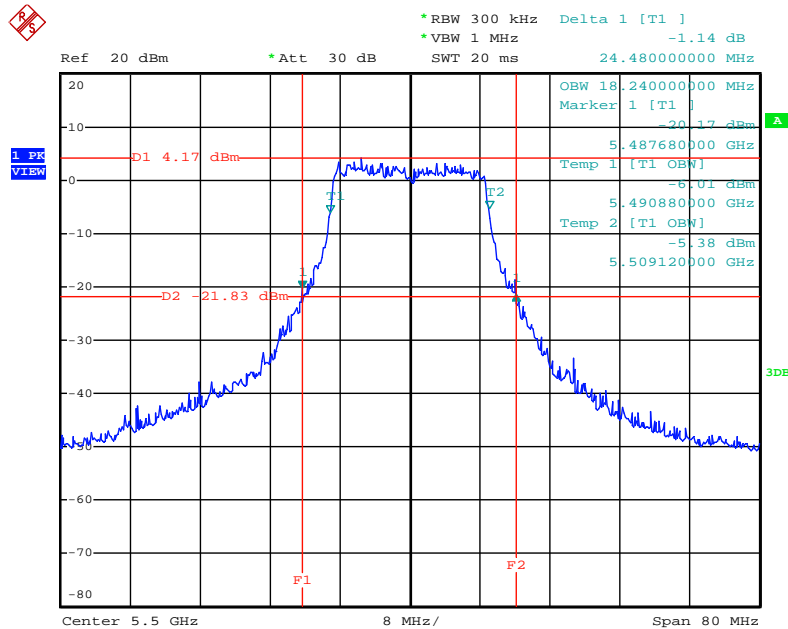
Date: 31.MAY.2012 15:43:59

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5320 MHz (2TX)



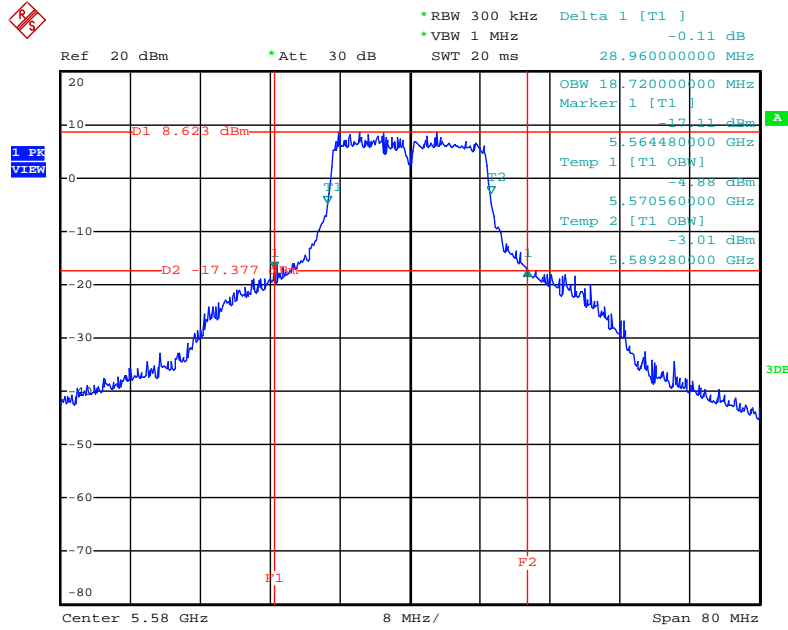
Date: 31.MAY.2012 15:43:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5500 MHz (2TX)



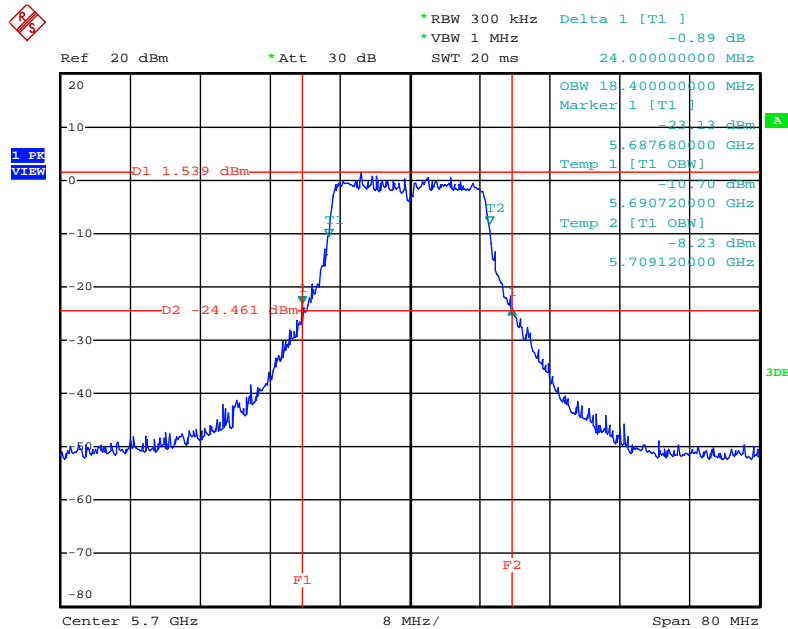
Date: 31.MAY.2012 15:43:06

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5580 MHz (2TX)



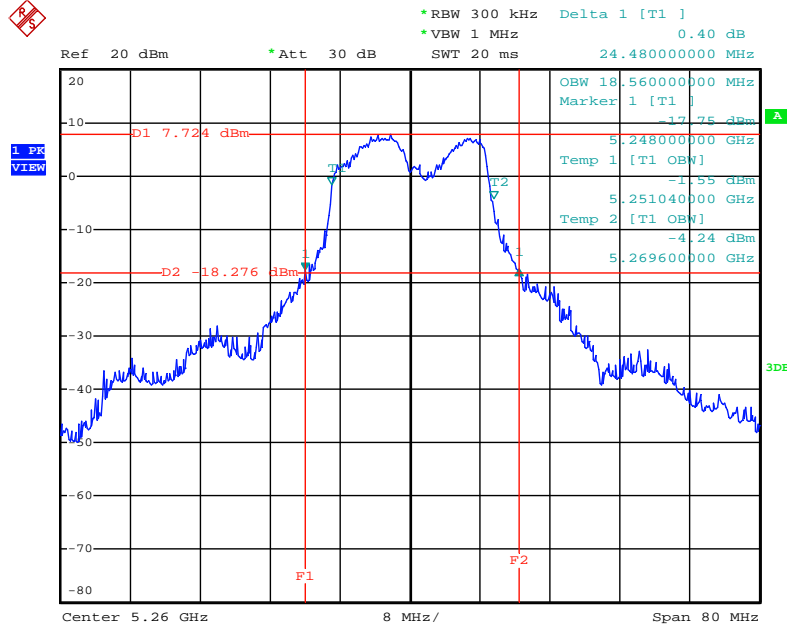
Date: 31.MAY.2012 15:42:41

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 / 5700 MHz (2TX)



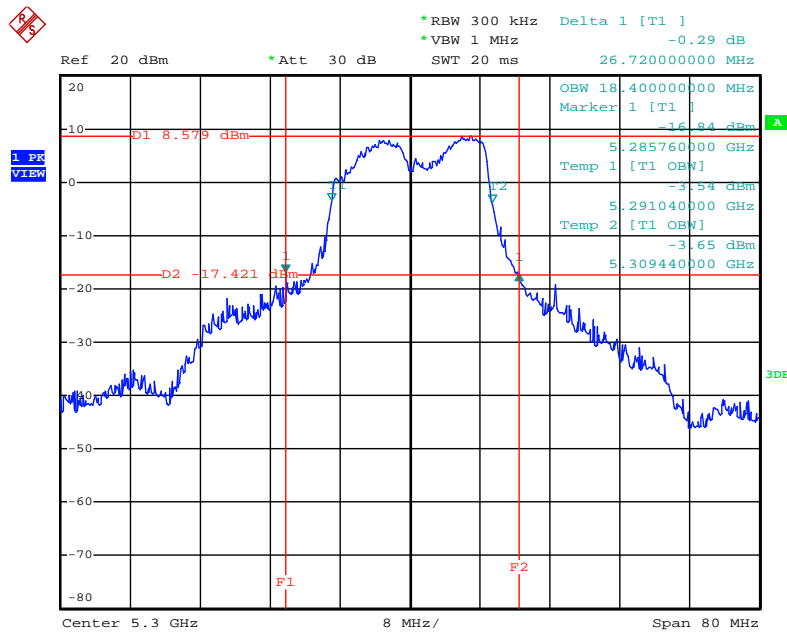
Date: 31.MAY.2012 15:42:12

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



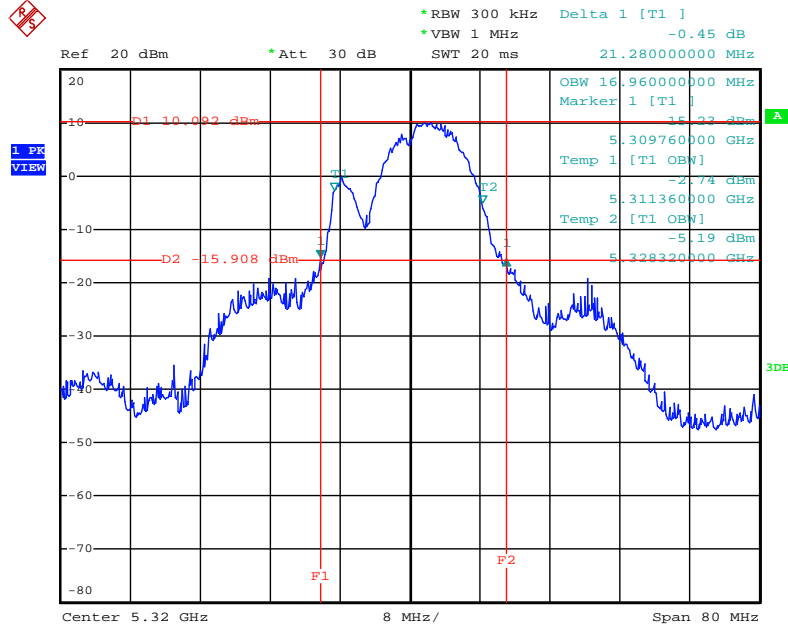
Date: 31.MAY.2012 15:36:31

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



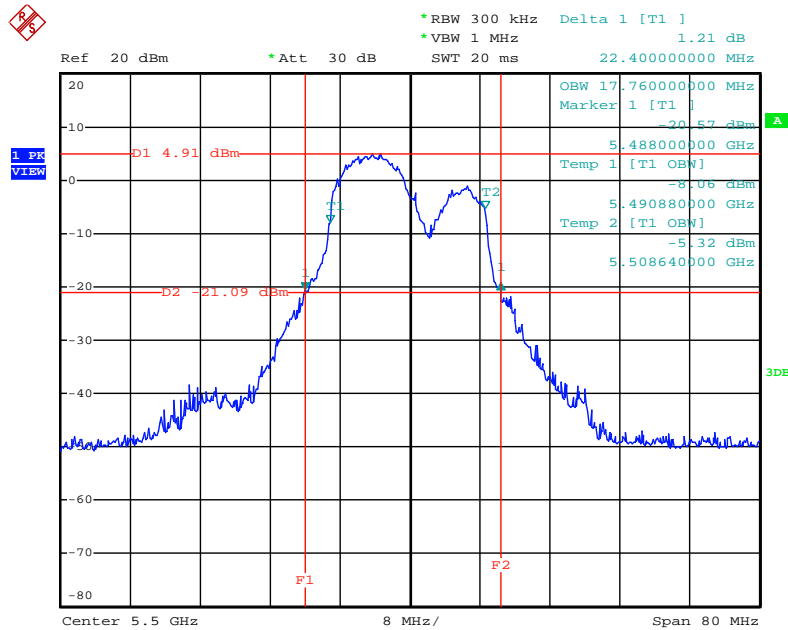
Date: 31.MAY.2012 15:36:07

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



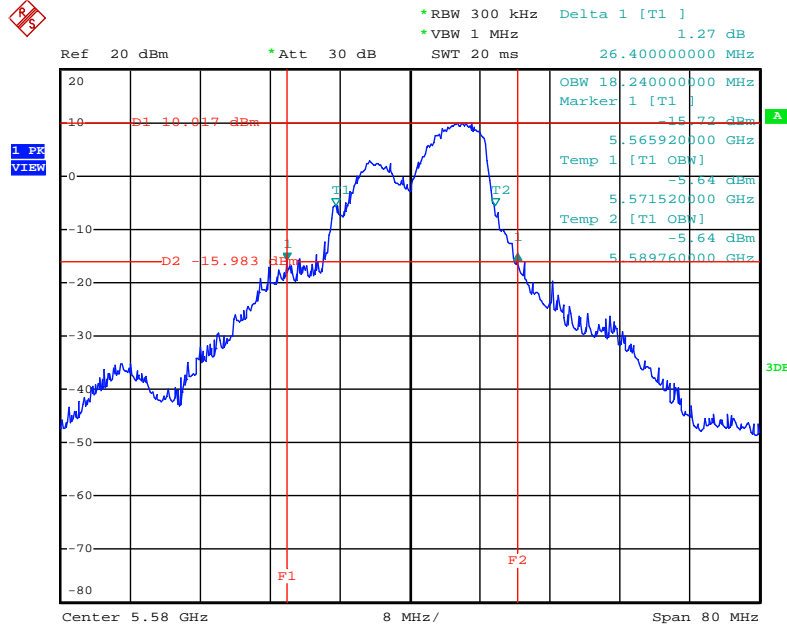
Date: 31.MAY.2012 15:35:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



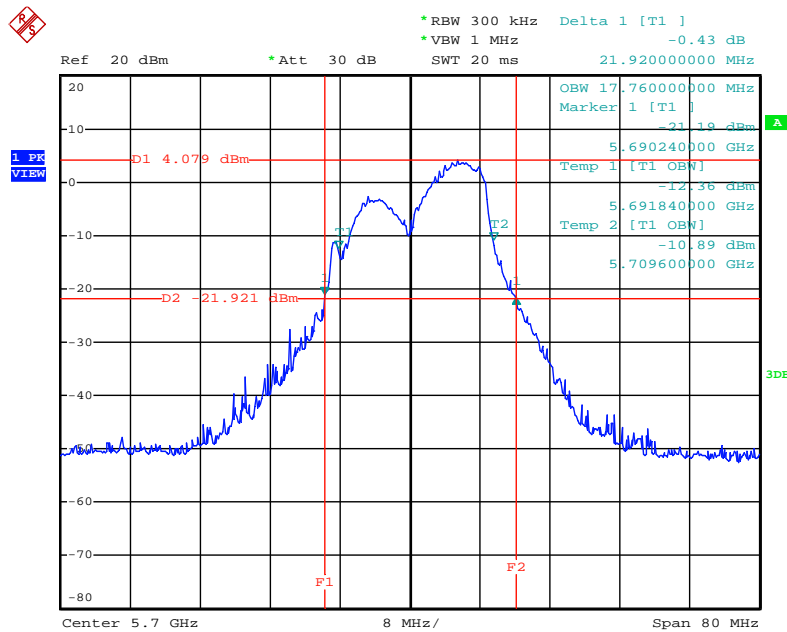
Date: 31.MAY.2012 15:35:07

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



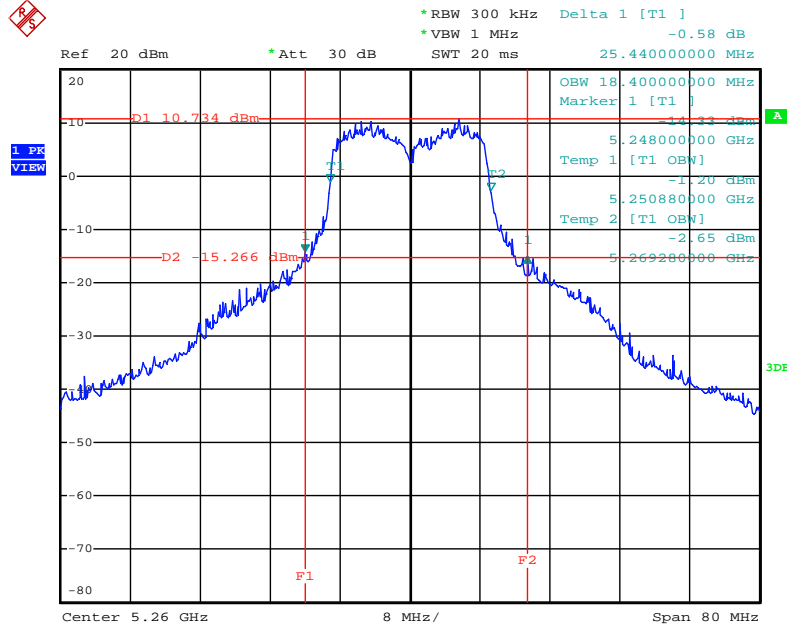
Date: 31.MAY.2012 15:34:29

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



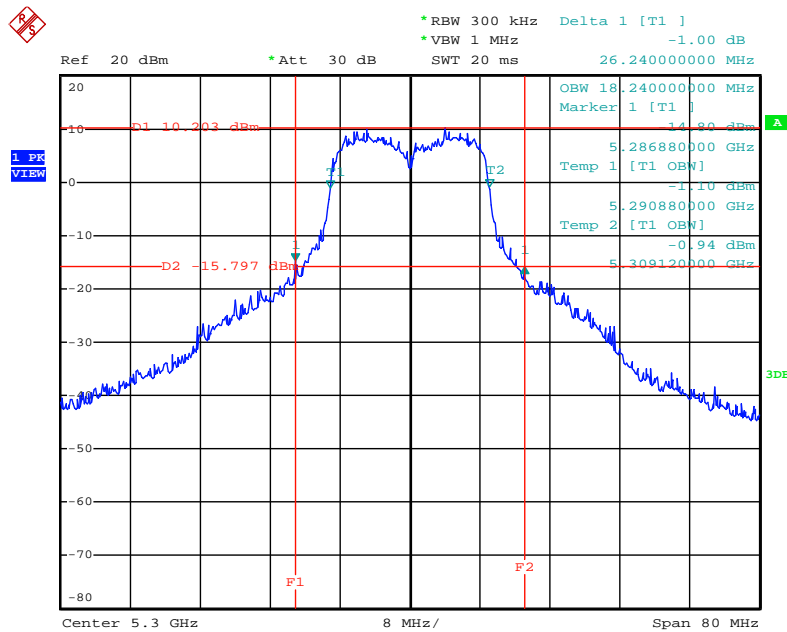
Date: 31.MAY.2012 15:34:04

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz (3TX)



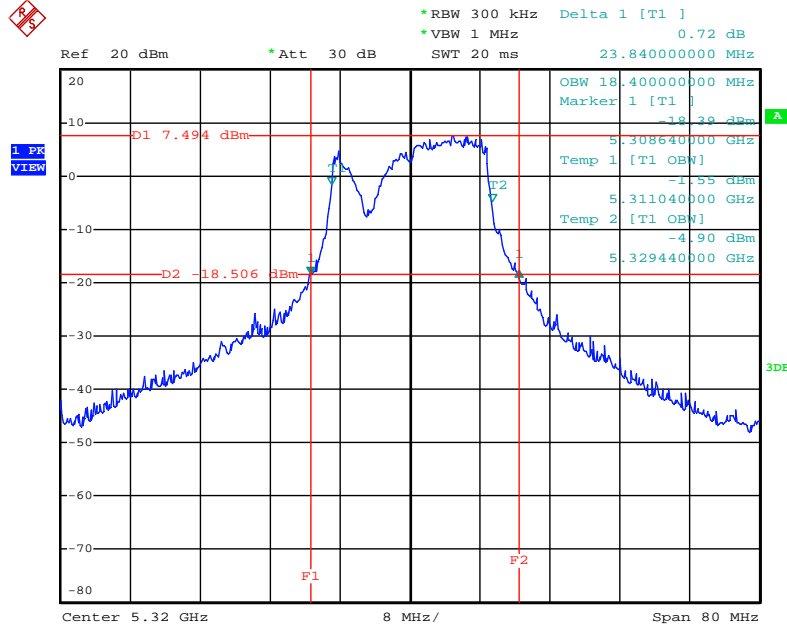
Date: 31.MAY.2012 15:31:09

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz (3TX)



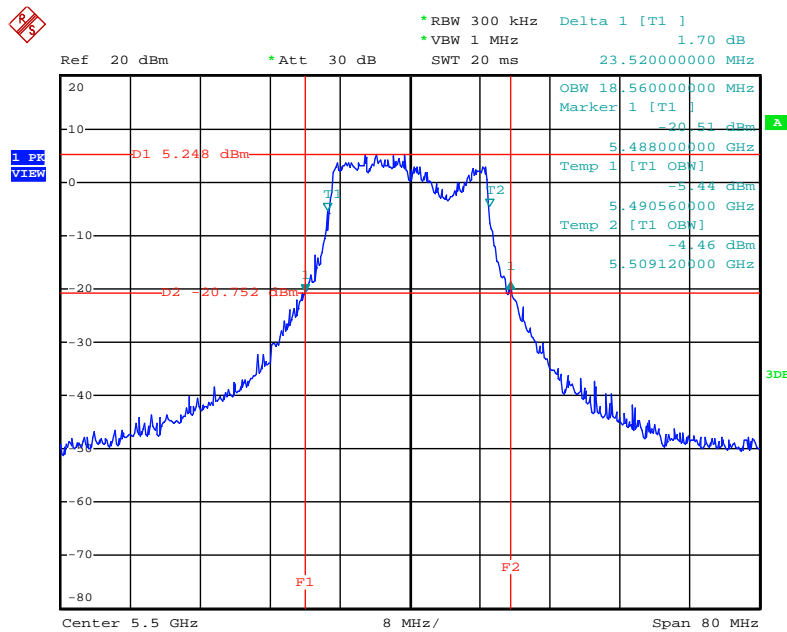
Date: 31.MAY.2012 15:31:29

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz (3TX)



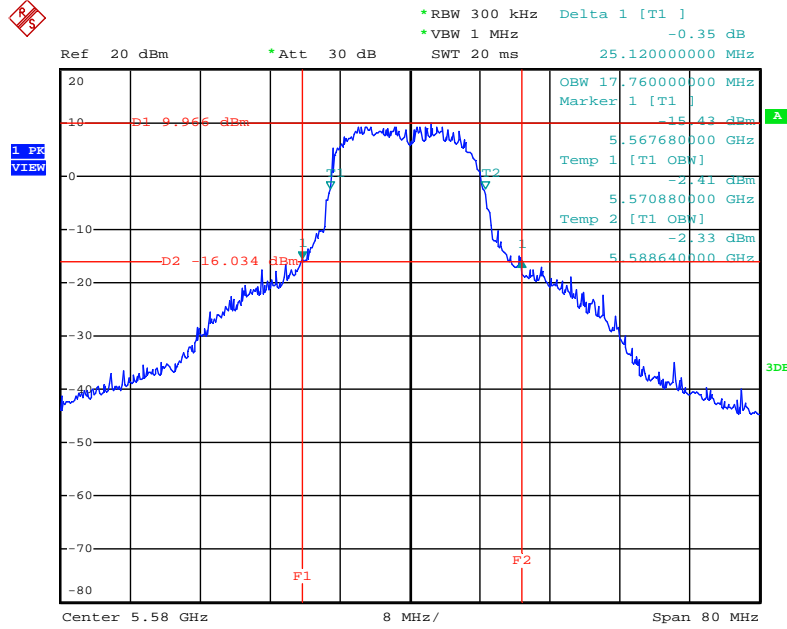
Date: 31.MAY.2012 15:31:55

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz (3TX)



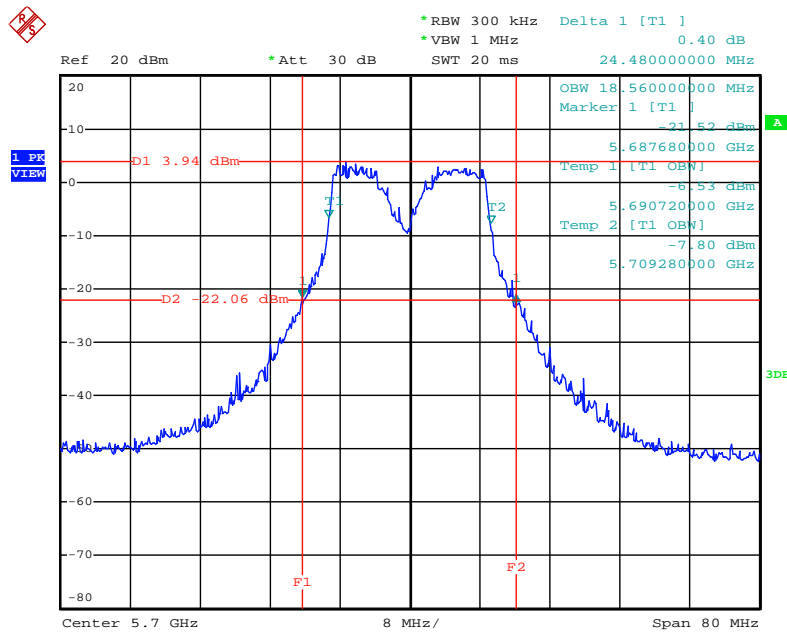
Date: 31.MAY.2012 15:32:26

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz (3TX)



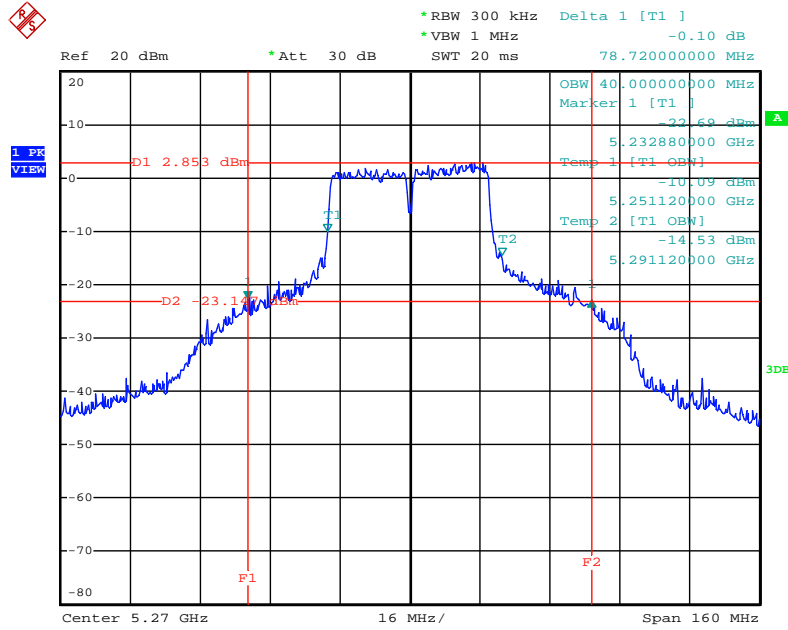
Date: 31.MAY.2012 15:32:52

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz (3TX)



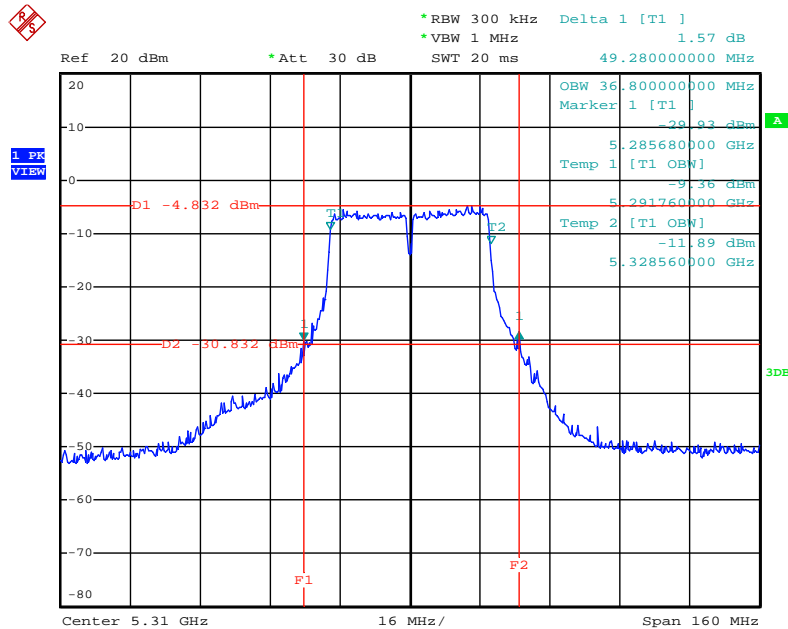
Date: 31.MAY.2012 15:33:33

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz (1TX)



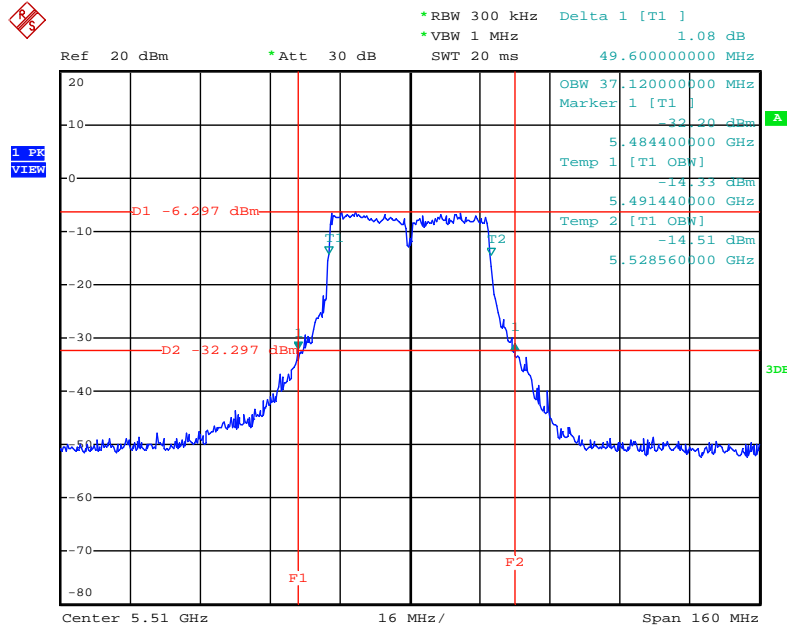
Date: 31.MAY.2012 16:02:34

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz (1TX)



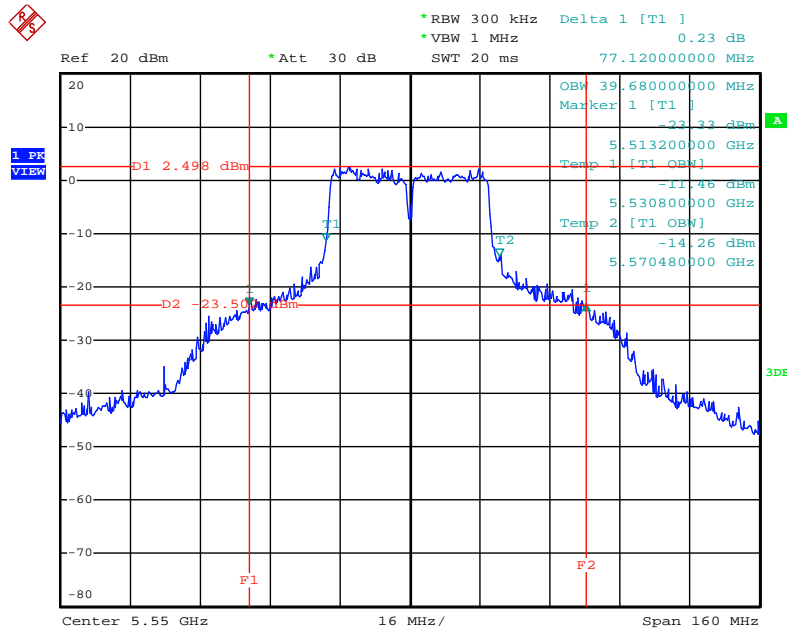
Date: 31.MAY.2012 16:03:03

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5510MHz (1TX)



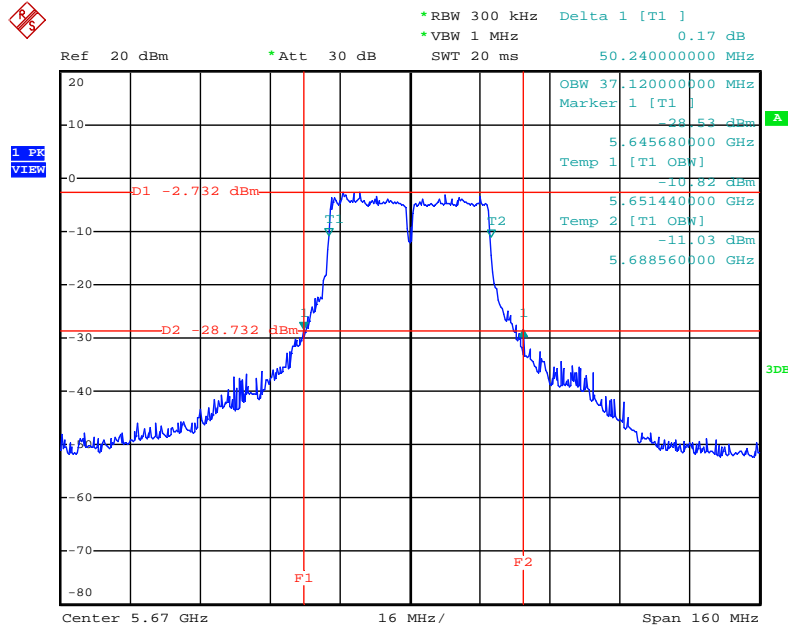
Date: 31.MAY.2012 16:02:03

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz (1TX)



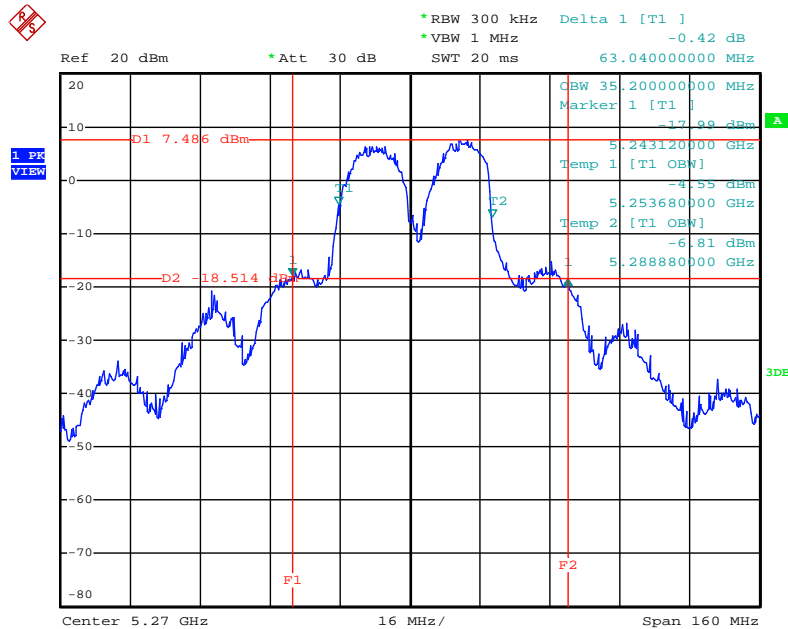
Date: 31.MAY.2012 16:01:30

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz (1TX)



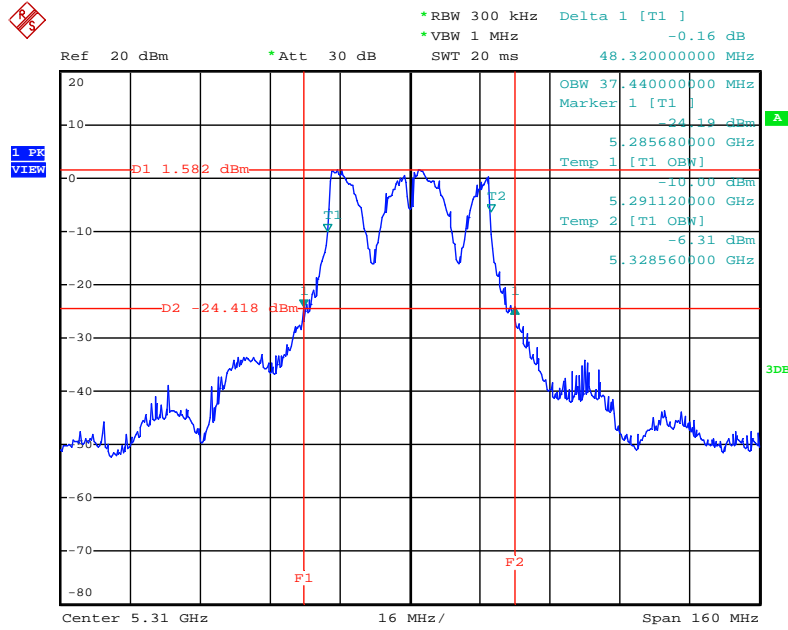
Date: 31.MAY.2012 16:01:02

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



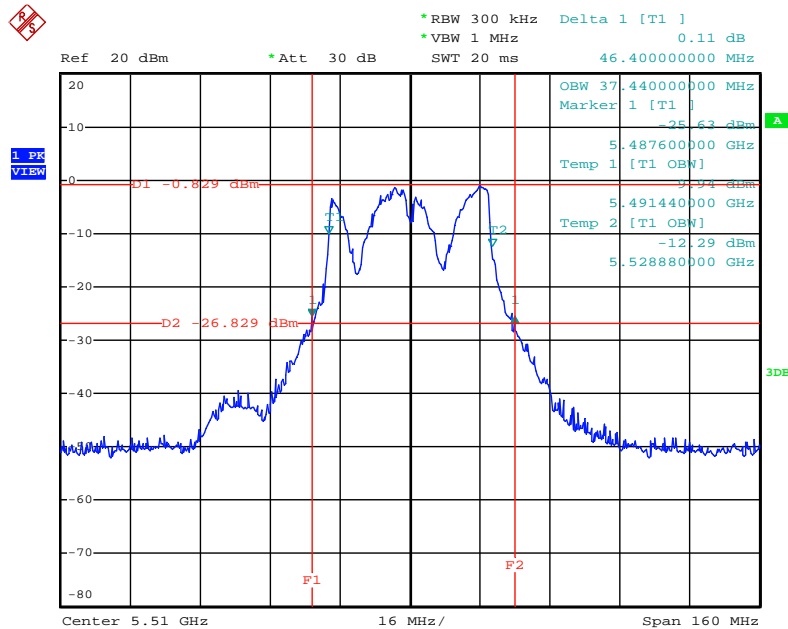
Date: 31.MAY.2012 15:56:22

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



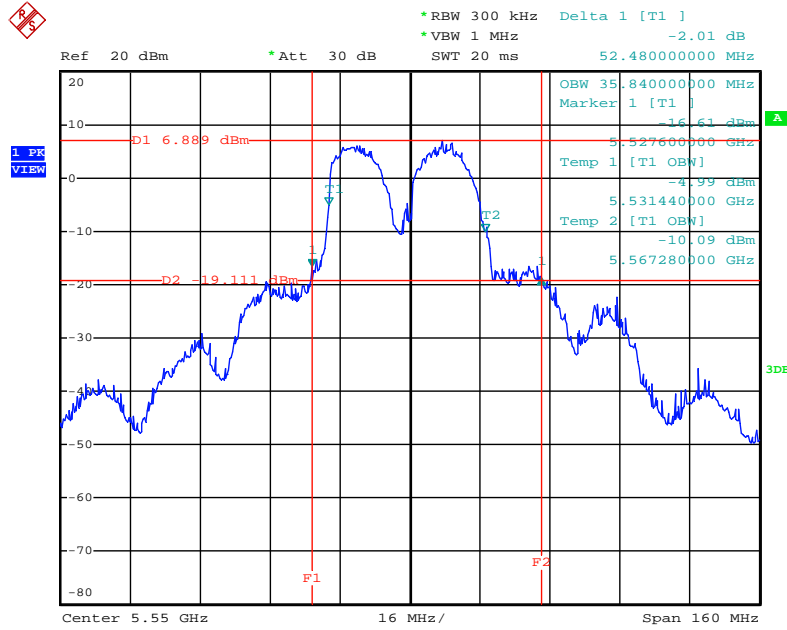
Date: 31.MAY.2012 15:55:57

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



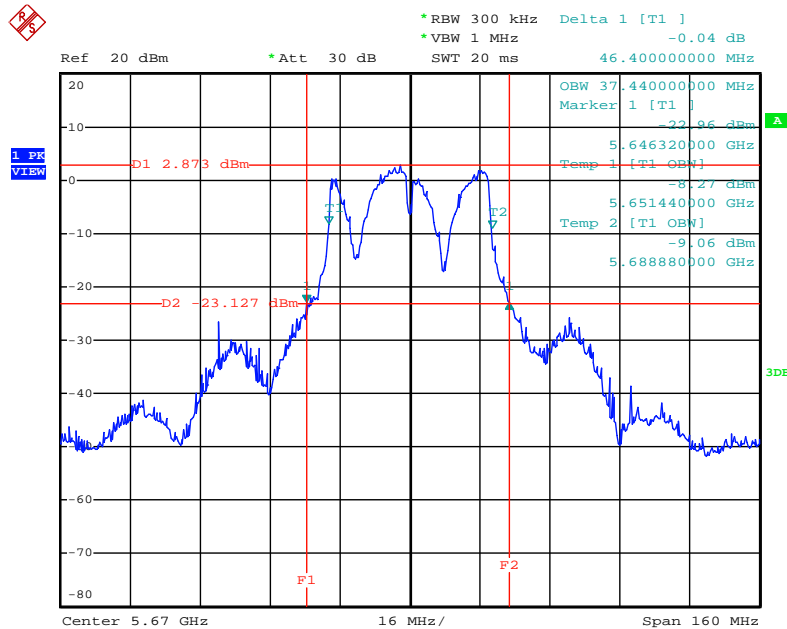
Date: 31.MAY.2012 15:55:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



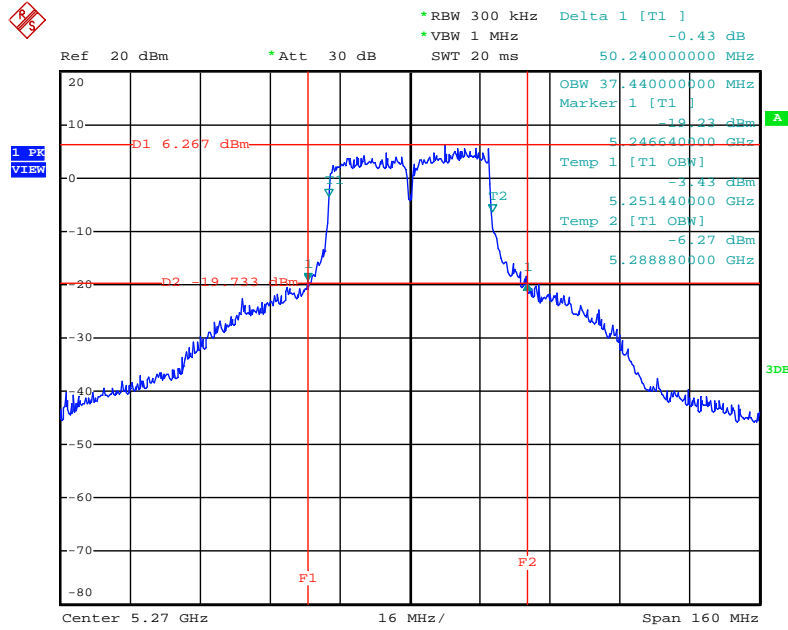
Date: 31.MAY.2012 15:54:44

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



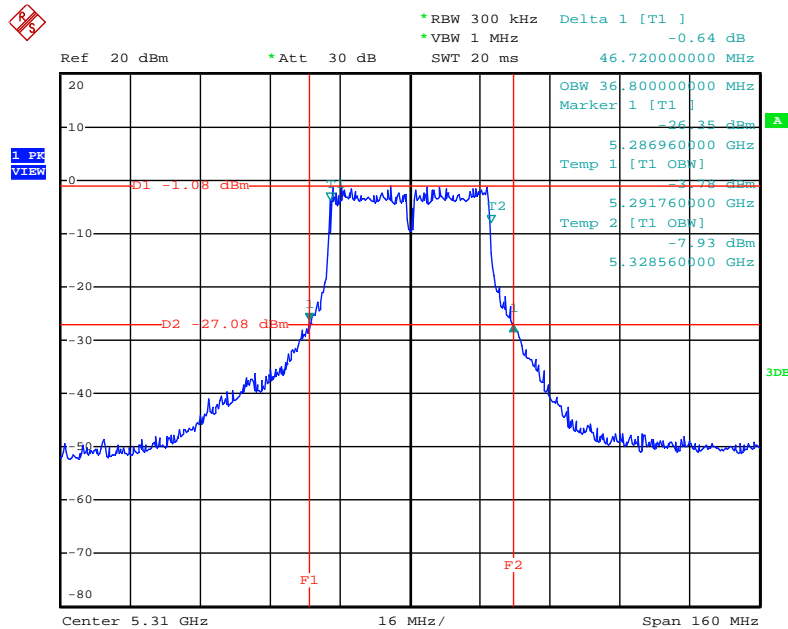
Date: 31.MAY.2012 15:54:17

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5270 MHz (2TX)



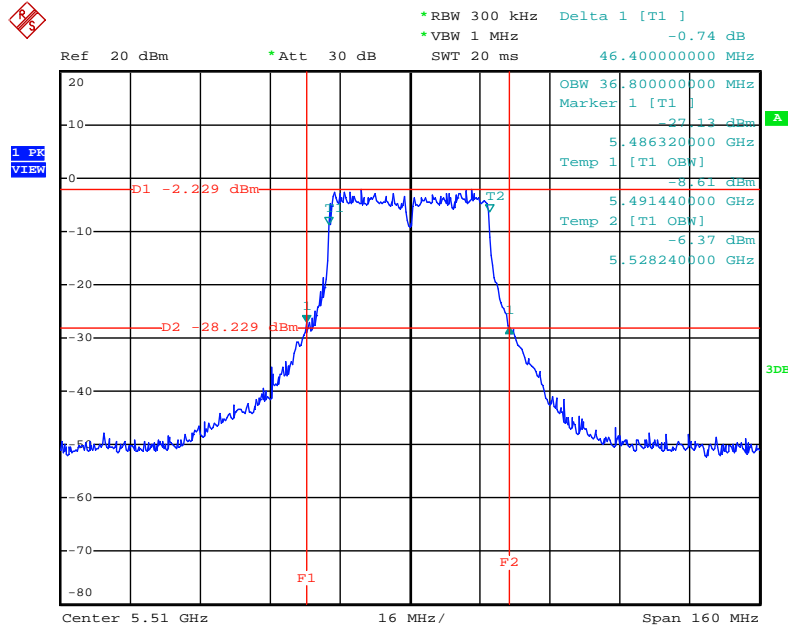
Date: 31.MAY.2012 15:51:47

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5310 MHz (2TX)



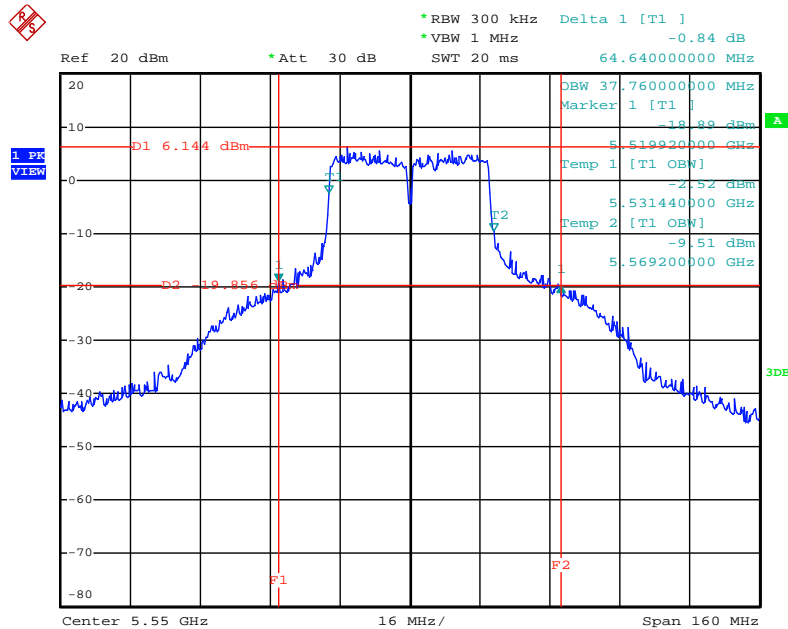
Date: 31.MAY.2012 15:52:16

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5510MHz (2TX)



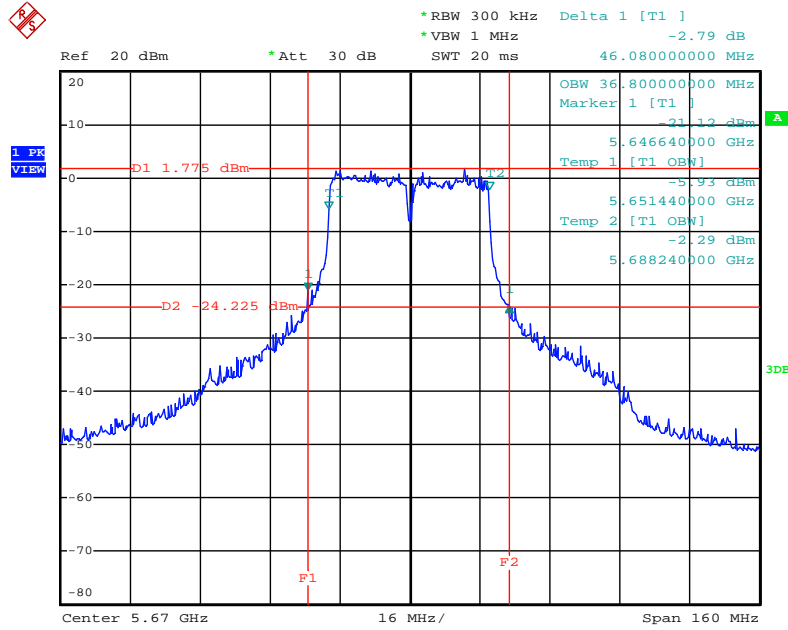
Date: 31.MAY.2012 15:52:46

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5550 MHz (2TX)



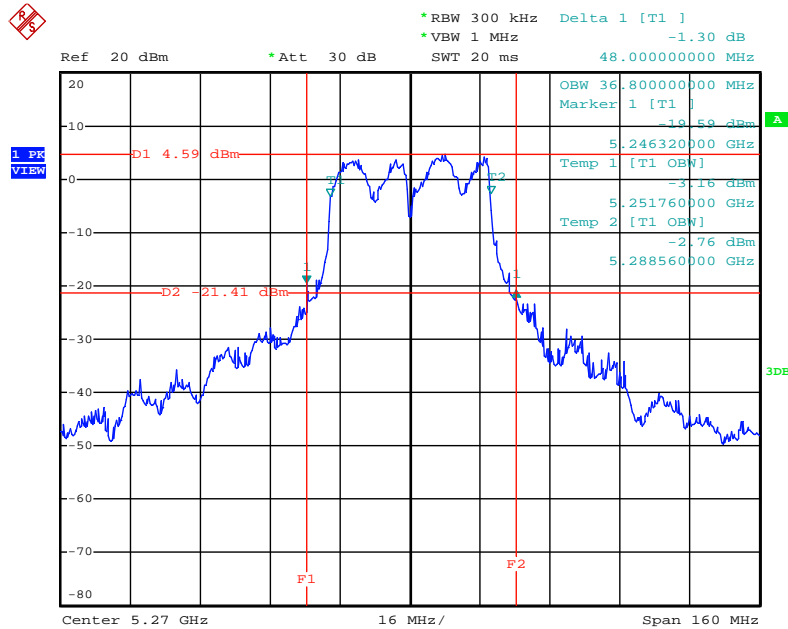
Date: 31.MAY.2012 15:53:13

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 / 5670 MHz (2TX)



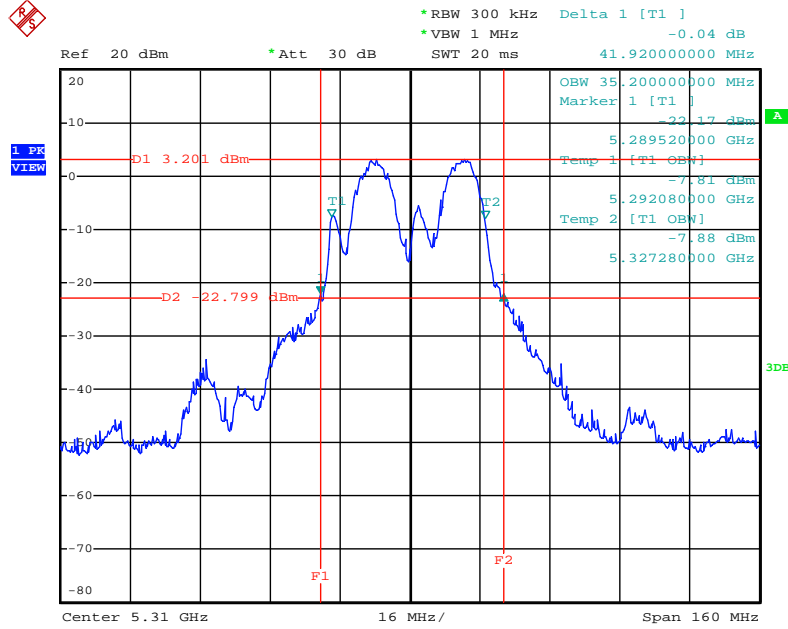
Date: 31.MAY.2012 15:53:42

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



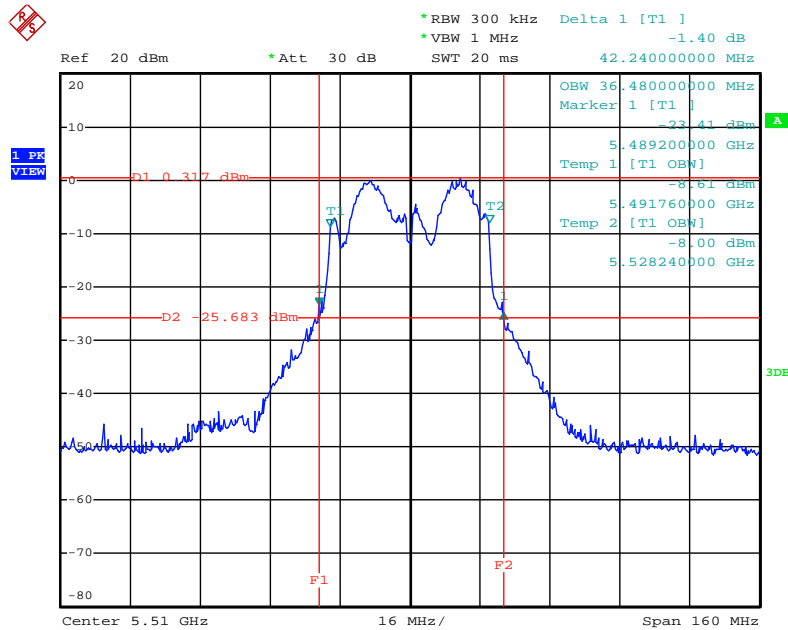
Date: 31.MAY.2012 15:24:05

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



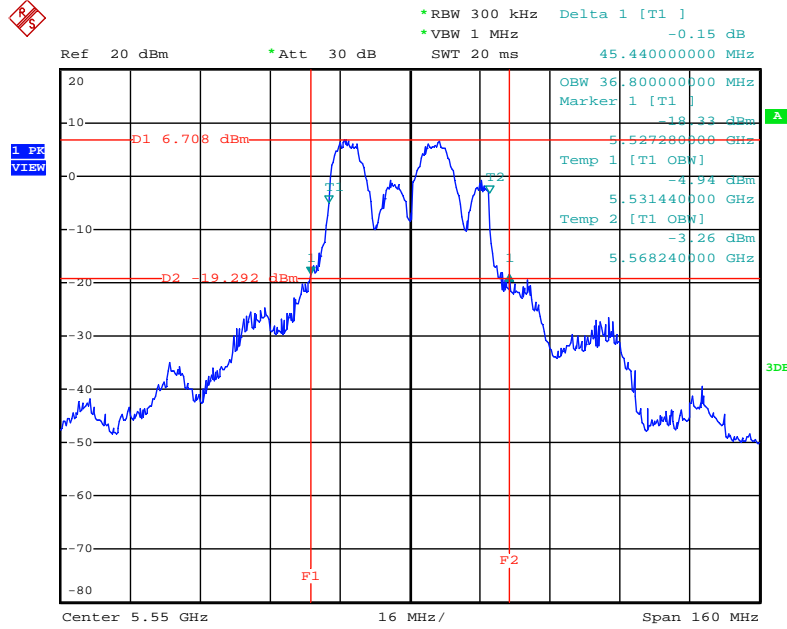
Date: 31.MAY.2012 15:24:43

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



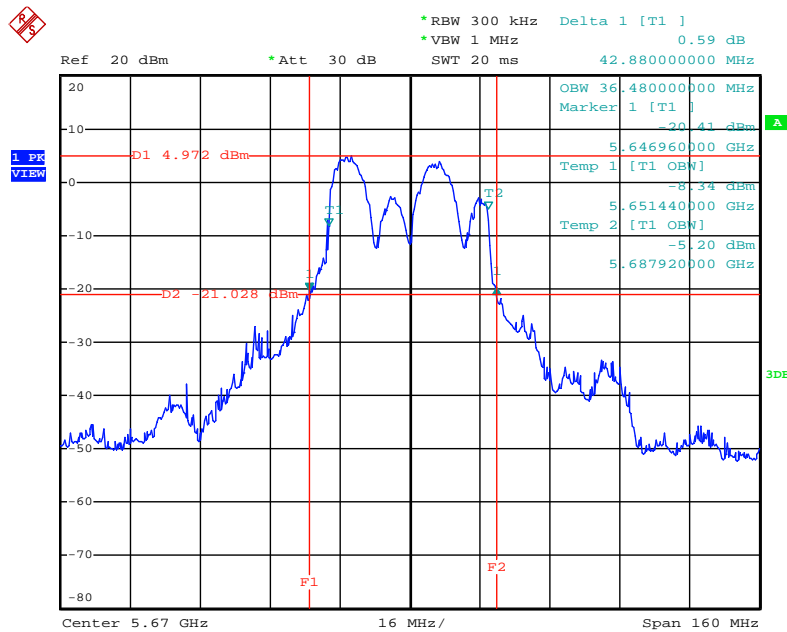
Date: 31.MAY.2012 15:26:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



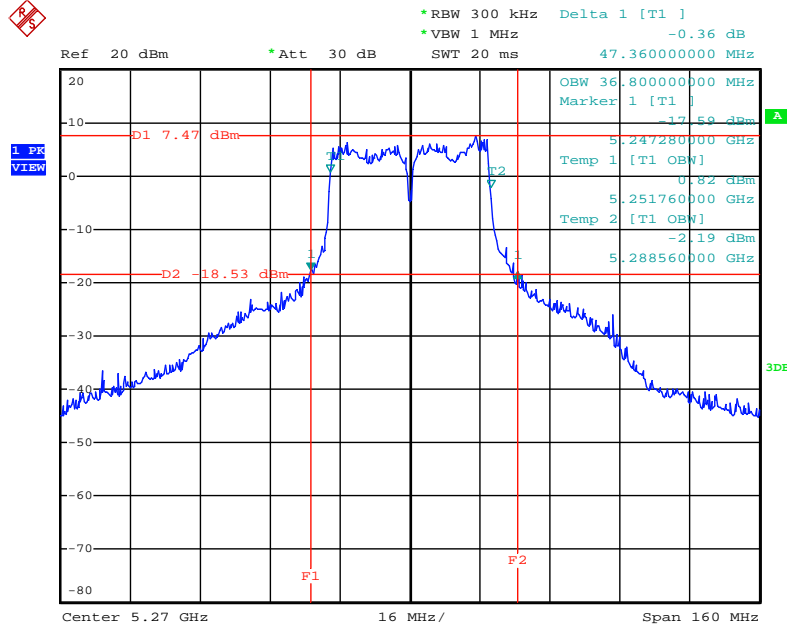
Date: 31.MAY.2012 15:27:15

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



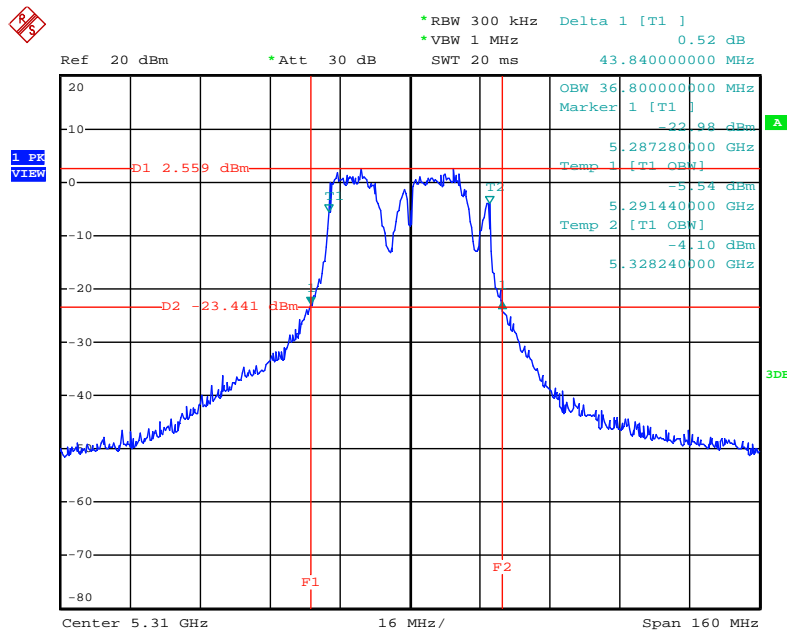
Date: 31.MAY.2012 15:27:45

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz (3TX)



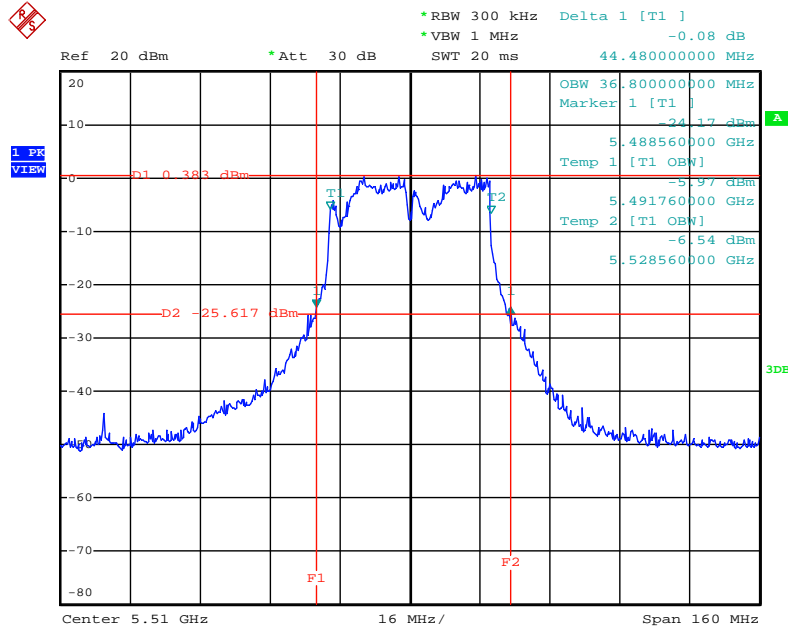
Date: 31.MAY.2012 15:30:27

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz (3TX)



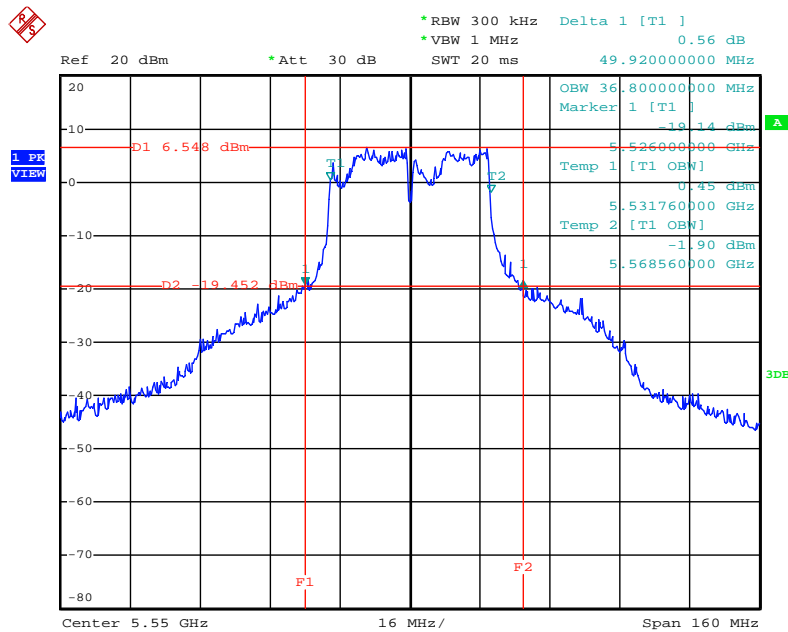
Date: 31.MAY.2012 15:29:49

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz (3TX)



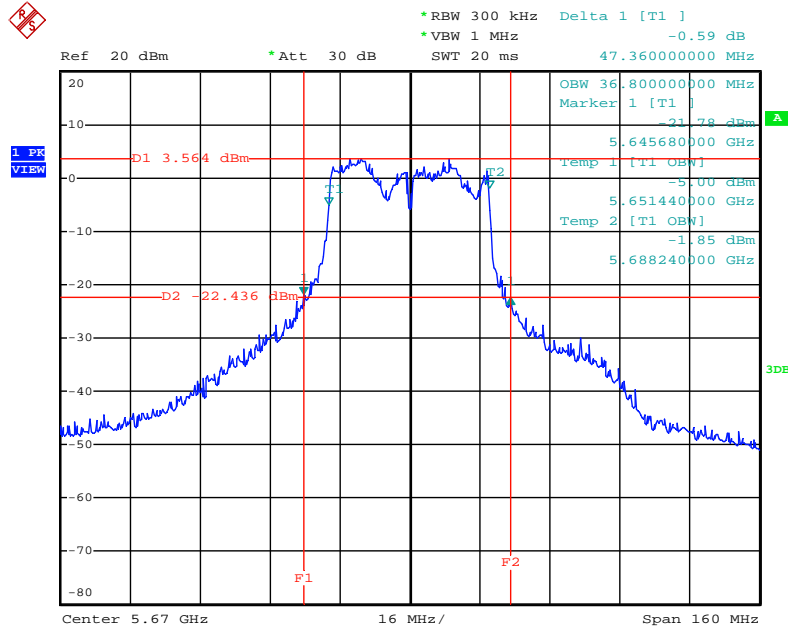
Date: 31.MAY.2012 15:29:13

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz (3TX)



Date: 31.MAY.2012 15:28:45

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz (3TX)



Date: 31.MAY.2012 15:28:17