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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 C § 15.247
Test Freq. Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Received Date	Apr. 02, 2012
Final Test Date	Jun. 05, 2012
Submission Type	Original Equipment

Statement

Test result included is only for the IEEE 802.11n, IEEE 802.11b/g part and IEEE 802.11a (5725 ~ 5850MHz) of the product.

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

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

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

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

Testing Laboratory
1190

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR240223AA	Rev. 01	Initial issue of report	Jun. 21, 2012

Certificate No.: CB10105097

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 C § 15.247**

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.

Jordan Hsiao

Jordan Hsiao

SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	Rule Section	Description of Test	Result	Under Limit
4.1	15.207	AC Power Line Conducted Emissions	Complies	9.02 dB
4.2	15.247(b)(3)	Conducted Output Power	Complies	0.01 dB
4.3	15.247(e)	Power Spectral Density	Complies	3.43 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions	Complies	0.43 dB
4.6	15.247(d)	Band Edge Emissions	Complies	1.00 dB
4.7	15.203	Antenna Requirements	Complies	-

Test Items	Uncertainty	Remark
AC Power Line Conducted Emissions	±2.3dB	Confidence levels of 95%
Maximum Conducted Output Power	±0.8dB	Confidence levels of 95%
Power Spectral Density	±0.5dB	Confidence levels of 95%
6dB Spectrum Bandwidth	$\pm 8.5\times10^{-8}$	Confidence levels of 95%
Radiated Emissions (9kHz~30MHz)	±0.8dB	Confidence levels of 95%
Radiated Emissions (30MHz~1GHz)	±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℃	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	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Channel Number	For 2.4GHz Band: 11 for 20MHz bandwidth ; 7 for 40MHz bandwidth For 5GHz Band: 5 for 20MHz bandwidth ; 2 for 40MHz bandwidth
Channel Band Width (99%)	**For 2.4GHz Band:** Mode 1 : (Ant.1 Dipole antenna / 9dBi) 1TX : MCS0(20MHz) : 17.72 MHz ; MCS0(40MHz) : 36.40 MHz 2TX : MCS0(20MHz) : 17.88 MHz ; MCS0(40MHz) : 36.72 MHz MCS8(20MHz) : 17.64 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 17.52 MHz ; MCS0(40MHz) : 36.24 MHz MCS8(20MHz) : 17.68 MHz ; MCS8(40MHz) : 36.48 MHz Mode 2 : (Ant. 2 Patch antenna / 3dBi) 1TX : MCS0(20MHz) : 17.72 MHz ; MCS0(40MHz) : 36.40 MHz 2TX : MCS0(20MHz) : 17.92 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.64 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 18.08 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.72 MHz ; MCS8(40MHz) : 36.40 MHz Mode 3 : (Ant. 3 Panel antenna / 14dBi) 1TX : MCS0(20MHz) : 17.72 MHz ; MCS0(40MHz) : 36.40 MHz 2TX : MCS0(20MHz) : 17.92 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.68 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 17.48 MHz ; MCS0(40MHz) : 36.64 MHz MCS8(20MHz) : 17.72 MHz ; MCS8(40MHz) : 36.40 MHz Mode 4 : (Ant. 4 Yagi antenna / 13.5dBi) 1TX : MCS0(20MHz) : 17.72 MHz ; MCS0(40MHz) : 36.64 MHz 2TX : MCS0(20MHz) : 17.92 MHz ; MCS0(40MHz) : 36.40 MHz

	MCS8(20MHz) : 17.64 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 18.04 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.76 MHz ; MCS8(40MHz) : 36.40 MHz Mode 5 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : MCS0(20MHz) : 17.68 MHz ; MCS0(40MHz) : 36.35 MHz 2TX : MCS0(20MHz) : 17.88 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.68 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 18.04 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.68 MHz ; MCS8(40MHz) : 36.32 MHz **For 5GHz Band:** Mode 6 : (Ant. 6 Dipole antenna / 8dBi) 1TX : MCS0(20MHz) : 17.88 MHz ; MCS0(40MHz) : 36.48 MHz 2TX : MCS0(20MHz) : 18.28 MHz ; MCS0(40MHz) : 36.80 MHz MCS8(20MHz) : 17.76 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 17.96 MHz ; MCS0(40MHz) : 36.16 MHz MCS8(20MHz) : 17.84 MHz ; MCS8(40MHz) : 36.00 MHz Mode 7 : (Ant. 7 Patch antenna / 2.3dBi) 1TX : MCS0(20MHz) : 17.80 MHz ; MCS0(40MHz) : 36.40 MHz 2TX : MCS0(20MHz) : 18.00 MHz ; MCS0(40MHz) : 36.64 MHz MCS8(20MHz) : 17.72 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 17.92 MHz ; MCS0(40MHz) : 36.08 MHz MCS8(20MHz) : 17.80 MHz ; MCS8(40MHz) : 36.00 MHz Mode 8 : (Ant. 8 Panel antenna / 10.5dBi) 1TX : MCS0(20MHz) : 21.60 MHz ; MCS0(40MHz) : 40.48 MHz 2TX : MCS0(20MHz) : 19.28 MHz ; MCS0(40MHz) : 37.12 MHz MCS8(20MHz) : 18.88 MHz ; MCS8(40MHz) : 37.12 MHz 3TX : MCS0(20MHz) : 18.16 MHz ; MCS0(40MHz) : 35.68 MHz MCS8(20MHz) : 17.92 MHz ; MCS8(40MHz) : 36.48 MHz Mode 9 : (Ant. 9 Yagi antenna / 8dBi) 1TX : MCS0(20MHz) : 17.84 MHz ; MCS0(40MHz) : 36.40 MHz 2TX : MCS0(20MHz) : 18.16 MHz ; MCS0(40MHz) : 36.56 MHz MCS8(20MHz) : 17.72 MHz ; MCS8(40MHz) : 36.40 MHz 3TX : MCS0(20MHz) : 18.00 MHz ; MCS0(40MHz) : 36.48 MHz MCS8(20MHz) : 17.80 MHz ; MCS8(40MHz) : 36.40 MHz Mode 10 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : MCS0(20MHz) : 17.80 MHz ; MCS0(40MHz) : 36.40 MHz 2TX : MCS0(20MHz) : 18.12 MHz ; MCS0(40MHz) : 35.20 MHz MCS8(20MHz) : 17.72 MHz ; MCS8(40MHz) : 36.40 MHz

	3TX : MCS0(20MHz) : 17.96 MHz ; MCS0(40MHz) : 36.48 MHz MCS8(20MHz) : 17.80 MHz ; MCS8(40MHz) : 36.40 MHz
Conducted Output Power	**For 2.4GHz Band:** Mode 1 : (Ant.1 Dipole antenna / 9dBi) 1TX : MCS0(20MHz) : 22.27 dBm ; MCS0(40MHz) : 16.60 dBm 2TX : MCS0(20MHz) : 18.58 dBm ; MCS0(40MHz) : 16.75 dBm MCS8(20MHz) : 19.30 dBm ; MCS8(40MHz) : 18.37 dBm 3TX : MCS0(20MHz) : 21.37 dBm ; MCS0(40MHz) : 19.43 dBm MCS8(20MHz) : 22.48 dBm ; MCS8(40MHz) : 19.26 dBm Mode 2 : (Ant. 2 Patch antenna / 3dBi) 1TX : MCS0(20MHz) : 26.02 dBm ; MCS0(40MHz) : 21.73 dBm 2TX : MCS0(20MHz) : 27.26 dBm ; MCS0(40MHz) : 22.50 dBm MCS8(20MHz) : 27.85 dBm ; MCS8(40MHz) : 22.60 dBm 3TX : MCS0(20MHz) : 27.29 dBm ; MCS0(40MHz) : 21.90 dBm MCS8(20MHz) : 28.43 dBm ; MCS8(40MHz) : 22.52 dBm Mode 3 : (Ant. 3 Panel antenna / 14dBi) 1TX : MCS0(20MHz) : 20.57 dBm ; MCS0(40MHz) : 15.59 dBm 2TX : MCS0(20MHz) : 17.16 dBm ; MCS0(40MHz) : 14.73 dBm MCS8(20MHz) : 17.91 dBm ; MCS8(40MHz) : 15.95 dBm 3TX : MCS0(20MHz) : 17.08 dBm ; MCS0(40MHz) : 14.19 dBm MCS8(20MHz) : 17.10 dBm ; MCS8(40MHz) : 14.57 dBm Mode 4 : (Ant. 4 Yagi antenna / 13.5dBi) 1TX : MCS0(20MHz) : 18.25 dBm ; MCS0(40MHz) : 15.66 dBm 2TX : MCS0(20MHz) : 15.15 dBm ; MCS0(40MHz) : 13.77 dBm MCS8(20MHz) : 16.52 dBm ; MCS8(40MHz) : 12.95 dBm 3TX : MCS0(20MHz) : 13.05 dBm ; MCS0(40MHz) : 12.36 dBm MCS8(20MHz) : 13.50 dBm ; MCS8(40MHz) : 13.91 dBm Mode 5 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : MCS0(20MHz) : 26.22 dBm ; MCS0(40MHz) : 20.56 dBm 2TX : MCS0(20MHz) : 24.83 dBm ; MCS0(40MHz) : 21.21 dBm MCS8(20MHz) : 26.84 dBm ; MCS8(40MHz) : 27.42 dBm 3TX : MCS0(20MHz) : 27.25 dBm ; MCS0(40MHz) : 21.69 dBm MCS8(20MHz) : 27.32 dBm ; MCS8(40MHz) : 21.94 dBm **For 5GHz Band:** Mode 6 : (Ant. 6 Dipole antenna / 8dBi) 1TX : MCS0(20MHz) : 21.53 dBm ; MCS0(40MHz) : 21.40 dBm 2TX : MCS0(20MHz) : 23.74 dBm ; MCS0(40MHz) : 23.97 dBm MCS8(20MHz) : 23.37 dBm ; MCS8(40MHz) : 23.10 dBm

	3TX : MCS0(20MHz) : 23.22 dBm ; MCS0(40MHz) : 22.80 dBm MCS8(20MHz) : 24.12 dBm ; MCS8(40MHz) : 23.31 dBm Mode 7 : (Ant. 7 Patch antenna / 2.3dBi) 1TX : MCS0(20MHz) : 21.53 dBm ; MCS0(40MHz) : 21.40 dBm 2TX : MCS0(20MHz) : 23.74 dBm ; MCS0(40MHz) : 23.97 dBm MCS8(20MHz) : 23.37 dBm ; MCS8(40MHz) : 23.10 dBm 3TX : MCS0(20MHz) : 23.67 dBm ; MCS0(40MHz) : 23.25 dBm MCS8(20MHz) : 23.39 dBm ; MCS8(40MHz) : 23.31 dBm Mode 8 : (Ant. 8 Panel antenna / 10.5dBi) 1TX : MCS0(20MHz) : 21.29 dBm ; MCS0(40MHz) : 21.15 dBm 2TX : MCS0(20MHz) : 22.10 dBm ; MCS0(40MHz) : 21.90 dBm MCS8(20MHz) : 23.45 dBm ; MCS8(40MHz) : 23.34 dBm 3TX : MCS0(20MHz) : 20.28 dBm ; MCS0(40MHz) : 20.35 dBm MCS8(20MHz) : 22.08 dBm ; MCS8(40MHz) : 22.30 dBm Mode 9 : (Ant. 9 Yagi antenna / 8dBi) 1TX : MCS0(20MHz) : 21.53 dBm ; MCS0(40MHz) : 21.40 dBm 2TX : MCS0(20MHz) : 23.74 dBm ; MCS0(40MHz) : 23.97 dBm MCS8(20MHz) : 23.37 dBm ; MCS8(40MHz) : 23.10 dBm 3TX : MCS0(20MHz) : 23.22 dBm ; MCS0(40MHz) : 22.80 dBm MCS8(20MHz) : 23.39 dBm ; MCS8(40MHz) : 23.31 dBm Mode 10 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : MCS0(20MHz) : 21.53 dBm ; MCS0(40MHz) : 20.77 dBm 2TX : MCS0(20MHz) : 23.74 dBm ; MCS0(40MHz) : 23.97 dBm MCS8(20MHz) : 23.37 dBm ; MCS8(40MHz) : 23.10 dBm 3TX : MCS0(20MHz) : 23.67 dBm ; MCS0(40MHz) : 23.25 dBm MCS8(20MHz) : 24.12 dBm ; MCS8(40MHz) : 23.66 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

802.11a/b/g

Items	Description
Product Type	WLAN (1/2/3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	powered by PC and DC power supply
Modulation	DSSS for IEEE 802.11b ; OFDM for IEEE 802.11a/g
Data Modulation	DSSS (BPSK / QPSK / CCK) ; OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	DSSS (1/ 2/ 5.5/11) ; OFDM (6/9/12/18/24/36/48/54)
Frequency Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Channel Number	11b/g: 11 ; 11a: 5
Channel Band Width (99%)	Mode 1 : (Ant.1 Dipole antenna / 9dBi) 1TX : 11b : 13.92 MHz 2TX : 11b : 15.36 MHz 3TX : 11b : 15.56 MHz Mode 2 : (Ant. 2 Patch antenna / 3dBi) 1TX : 11b : 14.00 MHz 2TX : 11b : 15.32 MHz 3TX : 11b : 15.40 MHz Mode 3 : (Ant. 3 Panel antenna / 14dBi) 1TX : 11b : 13.96 MHz 2TX : 11b : 15.40 MHz 3TX : 11b : 14.00 MHz Mode 4 : (Ant. 4 Yagi antenna / 13.5dBi) 1TX : 11b : 13.96 MHz 2TX : 11b : 12.48 MHz 3TX : 11b : 15.48 MHz Mode 5 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : 11b : 14.50 MHz 2TX : 11b : 11.88 MHz 3TX : 11b : 13.92 MHz
Conducted Output Power	Mode 1 : (Ant.1 Dipole antenna / 9dBi) 1TX : 11b : 23.83 dBm ; 11g : 22.27 dBm 2TX : 11b : 23.67 dBm ; 11g : 19.75 dBm 3TX : 11b : 21.66 dBm ; 11g : 21.79 dBm Mode 2 : (Ant. 2 Patch antenna / 3dBi) 1TX : 11b : 29.37 dBm ; 11g : 26.53 dBm 2TX : 11b : 29.82 dBm ; 11g : 26.94 dBm 3TX : 11b : 28.04 dBm ; 11g : 27.66 dBm

	Mode 3 : (Ant. 3 Panel antenna / 14dBi) 1TX : 11b : 15.18 dBm ; 11g : 20.80 dBm 2TX : 11b : 18.82 dBm ; 11g : 16.84 dBm 3TX : 11b : 17.12 dBm ; 11g : 16.58 dBm Mode 4 : (Ant. 4 Yagi antenna / 13.5dBi) 1TX : 11b : 21.68 dBm ; 11g : 19.09 dBm 2TX : 11b : 19.16 dBm ; 11g : 16.16 dBm 3TX : 11b : 17.53 dBm ; 11g : 13.24 dBm Mode 5 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : 11b : 28.33 dBm ; 11g : 26.46 dBm 2TX : 11b : 27.55 dBm ; 11g : 25.87 dBm 3TX : 11b : 25.12 dBm ; 11g : 27.15 dBm Mode 6 : (Ant. 6 Dipole antenna / 8dBi) 1TX : 11a : 21.70 dBm 2TX : 11a : 23.19 dBm 3TX : 11a : 23.13 dBm Mode 7 : (Ant. 7 Patch antenna / 2.3dBi) 1TX : 11a : 21.70 dBm 2TX : 11a : 23.19 dBm 3TX : 11a : 24.01 dBm Mode 8 : (Ant. 8 Panel antenna / 10.5dBi) 1TX : 11a : 20.97 dBm 2TX : 11a : 22.24 dBm 3TX : 11a : 20.61 dBm Mode 9 : (Ant. 9 Yagi antenna / 8dBi) 1TX : 11a : 21.70 dBm 2TX : 11a : 23.19 dBm 3TX : 11a : 23.13 dBm Mode 10 : (Ant. 5 Facade antenna / 2.5dBi) 1TX : 11a : 21.70 dBm 2TX : 11a : 23.19 dBm 3TX : 11a : 24.01 dBm
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)	
Band width Mode	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz
IEEE 802.11a	V	X	V	X	V	X
IEEE 802.11b	V	X	V	X	V	X
IEEE 802.11g	V	X	V	X	V	X
IEEE 802.11n	V	V	V	V	V	V

IEEE 802.11n spec

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

3.2. Accessories

N/A

3.3. Table for Filed Antenna

Ant.	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 1 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:

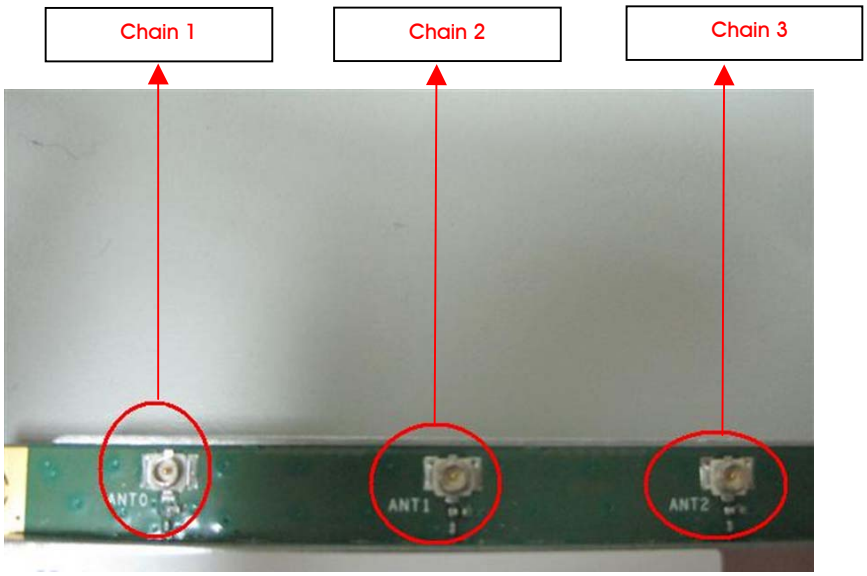
Item			Module					
			Chain 1		Chain 2		Chain 3	
			TX	RX	TX	RX	TX	RX
Ant. 1	2.4GHz	11b	V	V	V	V	V	V
		11g	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant. 2	2.4GHz	11b	V	V	V	V	V	V
		11g	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant.3	2.4GHz	11b	V	V	V	V	V	V
		11g	V	V	V	V	V	V
		11n	V	V	V	V	V	V
Ant.4	2.4GHz	11b	V	V	V	V	V	V
		11g	V	V	V	V	V	V
		11n	V	V	V	V	V	V
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 2.4GHz Band:

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

There are two bandwidth systems for IEEE 802.11n.

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

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

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

For 5GHz Band:

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

There are two bandwidth systems for IEEE 802.11n.

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

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

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5725~5850 MHz Band 4	149	5745 MHz	159	5795 MHz
	151	5755 MHz	161	5805 MHz
	153	5765 MHz	165	5825 MHz
	157	5785 MHz	-	-

3.5. Table for Test Modes

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

For 2.4GHz Band

Test Items	Mode	Data Rate	Channel	Chain
AC Power Line Conducted Emissions	Normal Link	Auto	-	-
Conducted Output Power Power Spectral Density	MCS0/20MHz	6.5 Mbps	1/6/11	1 1+2 1+2+3
	MCS0/40MHz	13.5 Mbps	3/6/9	1 1+2 1+2+3
	MCS8/20MHz	13 Mbps	1/6/11	1 1+2 1+2+3
	MCS8/40MHz	27 Mbps	3/6/9	1 1+2 1+2+3
	11b/CCK	1 Mbps	1/6/11	1 1+2 1+2+3
	11g/BPSK	6 Mbps	1/6/11	1 1+2 1+2+3
6dB Spectrum Bandwidth	MCS0/20MHz	6.5 Mbps	1/6/11	1+2+3
	MCS0/40MHz	13.5 Mbps	3/6/9	1+2+3
	MCS8/20MHz	13 Mbps	1/6/11	1+2+3
	MCS8/40MHz	27 Mbps	3/6/9	1+2+3
	11b/CCK	1 Mbps	1/6/11	1+2+3
	11g/BPSK	6 Mbps	1/6/11	1+2+3
Radiated Emissions Below 1GHz	Normal Link	Auto	-	-
Radiated Emissions Above 1GHz	MCS0/20MHz	6.5 Mbps	1/6/11	1+2+3
	MCS0/40MHz	13.5 Mbps	3/6/9	1+2+3
	MCS8/20MHz	13 Mbps	1/6/11	1+2+3
	MCS8/40MHz	27 Mbps	3/6/9	1+2+3

	11b/CCK	1 Mbps	1/6/11	1+2+3
	11g/BPSK	6 Mbps	1/6/11	1+2+3
Band Edge Emissions	MCS0/20MHz	6.5 Mbps	1/11	1+2+3
	MCS0/40MHz	13.5 Mbps	3/9	1+2+3
	MCS8/20MHz	13 Mbps	1/6/11	1+2+3
	MCS8/40MHz	27 Mbps	3/6/9	1+2+3
	11b/CCK	1 Mbps	1/11	1+2+3
	11g/BPSK	6 Mbps	1/11	1+2+3

For 5GHz Band

Test Items	Mode	Data Rate	Channel	Chain
AC Power Line Conducted Emissions	Normal Link	Auto	-	-
Conducted Output Power Power Spectral Density	MCS0/20MHz	6.5 Mbps	149/157/165	1 1+2 1+2+3
	MCS0/40MHz	13.5 Mbps	151/159	1 1+2 1+2+3
	MCS8/20MHz	13 Mbps	149/157/165	1 1+2 1+2+3
	MCS8/40MHz	27 Mbps	151/159	1 1+2 1+2+3
	11a/BPSK	6 Mbps	149/157/165	1 1+2 1+2+3
6dB Spectrum Bandwidth	MCS0/20MHz	6.5 Mbps	149/157/165	1+2+3
	MCS0/40MHz	13.5 Mbps	151/159	1+2+3
	MCS8/20MHz	13 Mbps	149/157/165	1+2+3
	MCS8/40MHz	27 Mbps	151/159	1+2+3
	11a/BPSK	6 Mbps	149/157/165	1+2+3
Radiated Emissions Below 1GHz	Normal Link	Auto	-	-
Radiated Emissions Above 1GHz	MCS0/20MHz	6.5 Mbps	149/157/165	1+2+3
	MCS0/40MHz	13.5 Mbps	151/159	1+2+3
	MCS8/20MHz	13 Mbps	149/157/165	1+2+3
	MCS8/40MHz	27 Mbps	151/159	1+2+3
	11a/BPSK	6 Mbps	149/157/165	1+2+3
Band Edge Emissions	MCS0/20MHz	6.5 Mbps	149/157/165	1+2+3
	MCS0/40MHz	13.5 Mbps	151/159	1+2+3
	MCS8/20MHz	13 Mbps	149/157/165	1+2+3
	MCS8/40MHz	27 Mbps	151/159	1+2+3
	11a/BPSK	6 Mbps	149/157/165	1+2+3

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		11b 1TX	11b 2TX	11b 3TX	11a/g 1TX	11a/g 2TX	11a/g 3TX	H20/40 1TX (MCS0)	H20/40 2TX (MCS0)	H20/40 3TX (MCS0)	H20/40 2TX (MCS8)	H20/40 3TX (MCS8)	H20/40 3TX (MCS16)
Mode 1	Dipole-2.4G, Antenna 1	v	v	v	v	v	v	v	v	v	v	v	v
Mode 2	Patch-2.4G, Antenna 2	v	v	v	v	v	v	v	v	v	v	v	v
Mode 3	Panel -2.4G, Antenna 3	v	v	v	v	v	v	v	v	v	v	v	v
Mode 4	Yagi -2.4G, Antenna 4	v	v	v	v	v	v	v	v	v	v	v	v
Mode 5	Facade - 2.4G, Antenna 5	v	v	v	v	v	v	v	v	v	v	v	v
Mode 6	Dipole-5G, Antenna 6	v	v	v	v	v	v	v	v	v	v	v	v
Mode 7	Patch-5G, Antenna 7	v	v	v	v	v	v	v	v	v	v	v	v
Mode 8	Panel -5G Antenna 8	v	v	v	v	v	v	v	v	v	v	v	v
Mode 9	Yagi -5G, Antenna 9	v	v	v	v	v	v	v	v	v	v	v	v
Mode 10	Facade-5G, Antenna 5	v	v	v	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: only the MCS8 3TX was tested and written in the report, because the limit is 30dBm and bandedge were measured by radiation which the array gain was already included.

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%.

<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.

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.

For 2.4GHz Band

Test Mode: Mode 1 (Ant.1 Dipole antenna / 9dBi)

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	14.5	21	14.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	10.5	15	9.5

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	13	15.5	13
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	9	13	7

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	13	17.5	14
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	9.5	15	6

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	13.5	16	13
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	10	14.5	10

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	14.5	19	14
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	10	15	11

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	13.5	22.5	16.5
IEEE 802.11g	15.0	21.0	16.0

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	15.0	21.5	15.0
IEEE 802.11g	14.0	17.0	13.0

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	17.5	18.5	18.0
IEEE 802.11g	14.0	18.0	14.0

Test Mode: Mode 2 (Ant. 2 Patch antenna / 3dBi)

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	17.5	24.5	18
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	15	19.5	15

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	17.5	24.5	18
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	14	19	14.5

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	17	24	18
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	13.5	18	14

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	17.5	25	19
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	16.5	19	15.5

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	19	25	19.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	15	18.5	15.5

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	21.5	28.0	19.5
IEEE 802.11g	18.5	25.0	19.0

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	19.5	27.0	19.5
IEEE 802.11g	17.5	24.0	18.5

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	20.5	25.0	19.0
IEEE 802.11g	17.5	24.5	17.5

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

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	12.5	19.5	12.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	8.5	13.5	5

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	11	14	10.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	7.5	11	3

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	8.5	12.5	11
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	5.5	9.5	2.5

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	11	14.5	11
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	8.5	12	5.5

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	8.5	13	10
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	7	10	4

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	9.0	14.0	12.0
IEEE 802.11g	13.5	19.5	12.5

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	9.5	16.0	14.5
IEEE 802.11g	11.0	14.0	11.0

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	9.0	13.5	13.5
IEEE 802.11g	7.0	12.5	11.0

Test Mode: Mode 4 (Ant. 4 Yagi antenna / 13.5dBi)

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	10	17	11
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	8.5	13	3.5

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	7	12	9.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	7	10	2.5

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	6.5	9	9
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	5.5	8	2

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	7	13	9.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	7	9	3.5

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	7	9	9.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	7	8.5	3.5

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	6.5	20.5	14.5
IEEE 802.11g	10	17.5	12.5

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	7	16.5	13.5
IEEE 802.11g	7.0	13.0	10.0

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	6	14	13
IEEE 802.11g	6.0	9.0	9.5

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

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	19	26	20
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	15	19	15.5

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	17	22.5	18.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	14.5	18.5	17

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS0	17.5	25	18.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS0	14.5	18.5	14.5

Power Parameters of 802.11n / Chain 1+ Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	18.5	25	20.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	15	19	17.5

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

Test Software Version:	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
20MHz MCS8	18	25	19.5
Frequency	2422 MHz	2437MHz	2452 MHz
40MHz MCS8	15.5	19	16

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	22.5	29.0	23.0
IEEE 802.11g	19.0	26.5	20.5

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	20.0	25.0	20.5
IEEE 802.11g	17.5	24.0	19.0

Power Parameters of IEEE 802.11b/g / Chain 1 + Chain 2 + Chain 3

Test Software Version	ART2-GUI 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	20.5	23.0	20.5
IEEE 802.11g	18.5	25.0	19.0

For 5GHz Band

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

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	22.5	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS0	19.5		25

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	24	25	23.5
Frequency	5755 MHz		5795 MHz
40MHz MCS0	21.5		25

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	24.5	24	25
Frequency	5755 MHz		5795 MHz
40MHz MCS0	22.5		24

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	24.5	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS8	22		25

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	25	25	24
Frequency	5755 MHz		5795 MHz
40MHz MCS8	22.5		25

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24.50	24.50	24.50

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

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	22	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS0	18.5		25

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	25	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS0	20		25

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	25	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS0	21.5		25

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	25	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS8	20		25

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	24	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS8	21.5		25

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	23	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	20	25	24
Frequency	5755 MHz		5795 MHz
40MHz MCS0	18		25

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	20.5	23	23.5
Frequency	5755 MHz		5795 MHz
40MHz MCS0	18		23

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	20	20	20.5
Frequency	5755 MHz		5795 MHz
40MHz MCS0	18		21

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	21	25	24
Frequency	5755 MHz		5795 MHz
40MHz MCS8	18.5		25

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	20	22.5	23
Frequency	5755 MHz		5795 MHz
40MHz MCS8	18.5		23

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24	23.5	23.5

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	20	20	21

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

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	22.5	25	25
Frequency	5755 MHz	5795 MHz	
40MHz MCS0	19.5	25	

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	24	25	23.5
Frequency	5755 MHz	5795 MHz	
40MHz MCS0	21.5	25	

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	24.5	24	25
Frequency	5755 MHz	5795 MHz	
40MHz MCS0	22.5	24	

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	24.5	25	25
Frequency	5755 MHz	5795 MHz	
40MHz MCS8	22	25	

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	25	25	24
Frequency	5755 MHz	5795 MHz	
40MHz MCS8	22.5	25	

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24.50	24.50	24.50

Test Mode 10 (Ant. 5 Facade antenna / 2.5dBi)

Power Parameters of 802.11n / Chain 1

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	24	25	24
Frequency	5755 MHz	5795 MHz	
40MHz MCS0	21	24	

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	25	25	25
Frequency	5755 MHz	5795 MHz	
40MHz MCS0	23	25	

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS0	25	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS0	23		25

Power Parameters of 802.11n / Chain 1 + Chain 2

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	25	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS8	23		25

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

Test Software Version:	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
20MHz MCS8	25	25	25
Frequency	5755 MHz		5795 MHz
40MHz MCS8	23.5		25

Power Parameters of IEEE 802.11a / Chain 1

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

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

Test Software Version	ART2-GUI 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	25	25	25

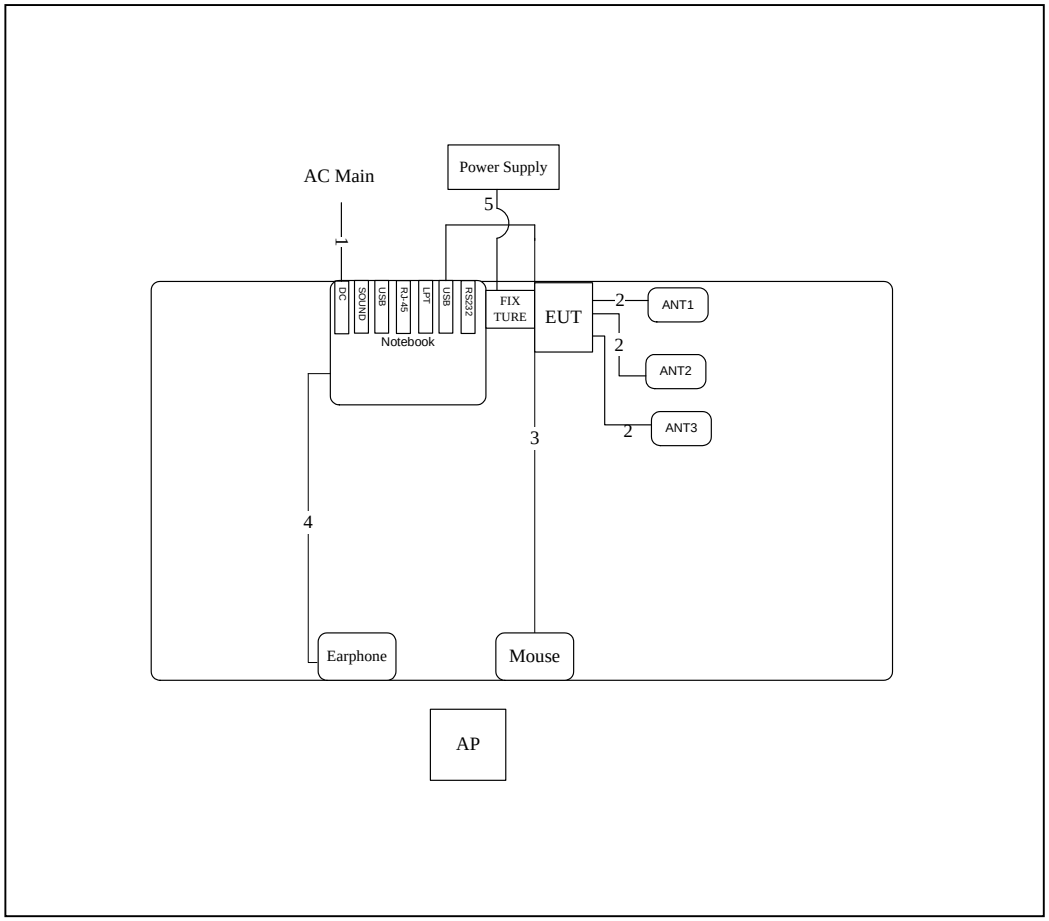
During the test, "ART2-GUI 2.3" under WIN XP was executed the test program to control the EUT continuously transmit RF signal.

3.9. Test Configurations

3.9.1. Radiation Emissions Test Configuration

Test Configuration: 30MHz~1GHz

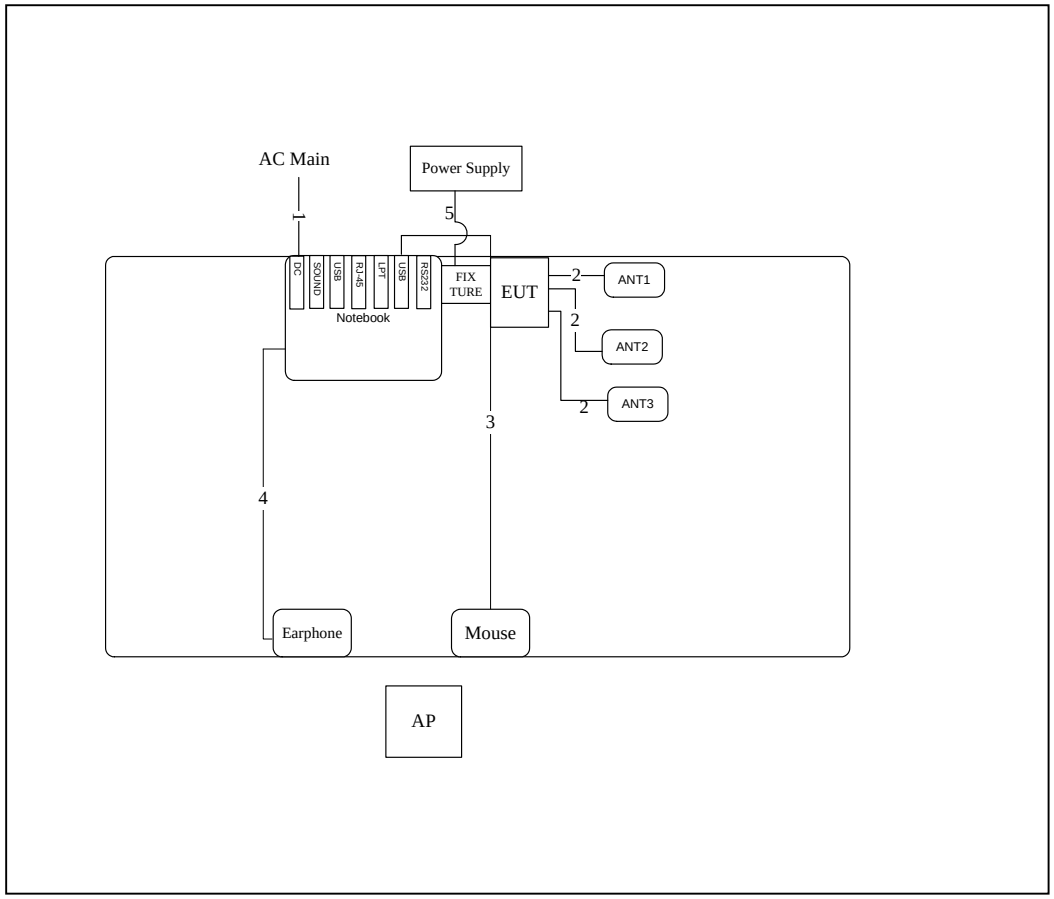
Test Mode : Mode 1 (Module + Ant. 3 Panel antenna / 14dBi)



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

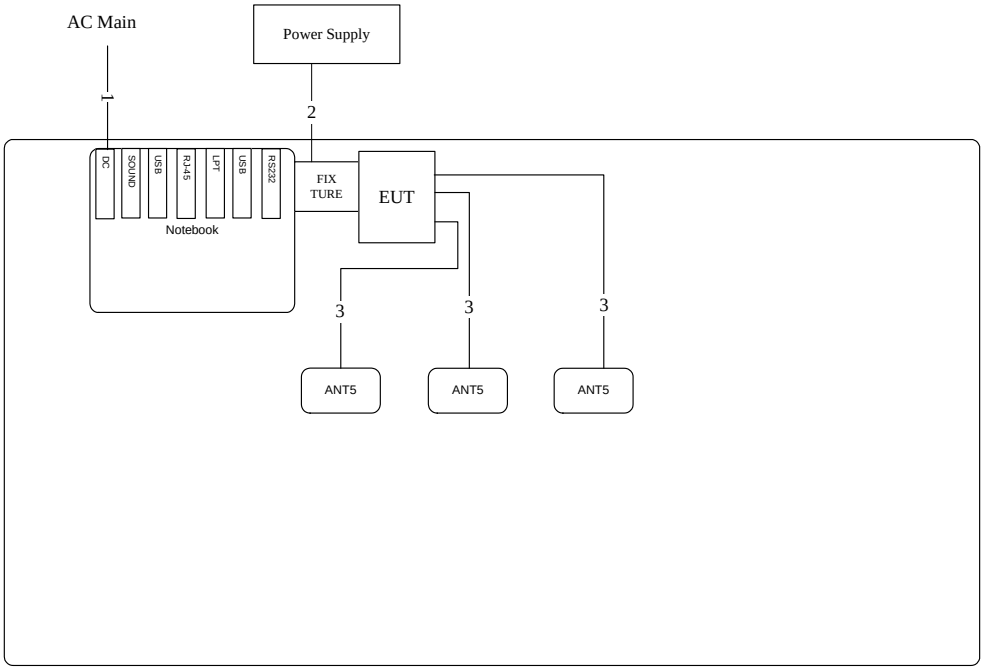
Test Mode : Mode 2 (Module + Ant. 8 Panel antenna / 10.5dBi)



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

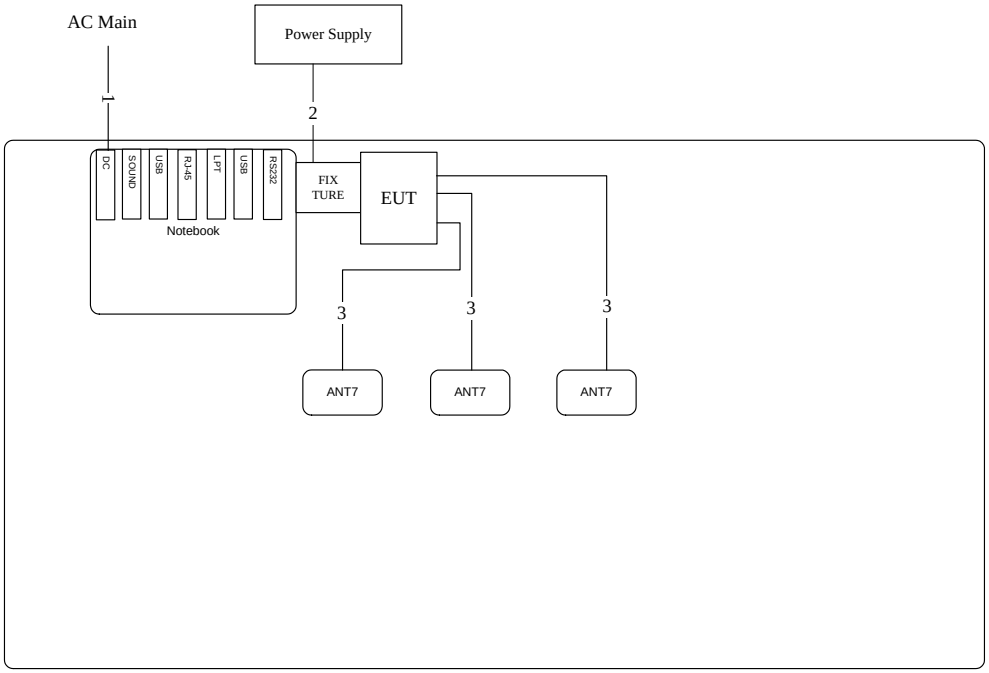
Test Configuration: above 1GHz

Test Mode: Mode 1 (Ant. 1 Dipole antenna / 9dBi)



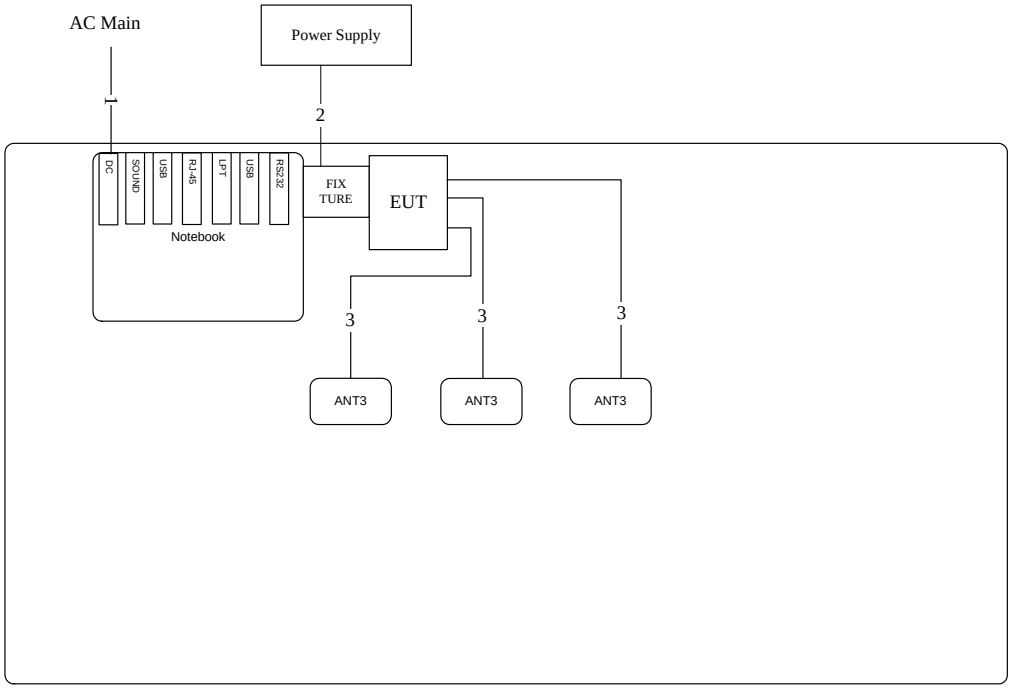
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.2M

Test Mode: Mode 2 (Ant. 2 Patch antenna / 3dBi)



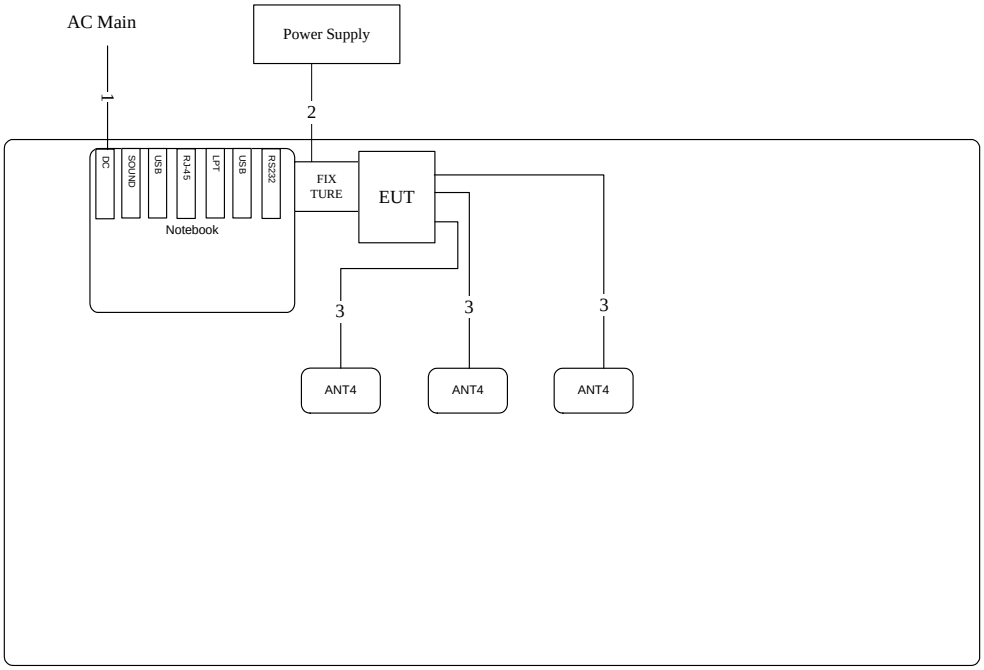
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.5M

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



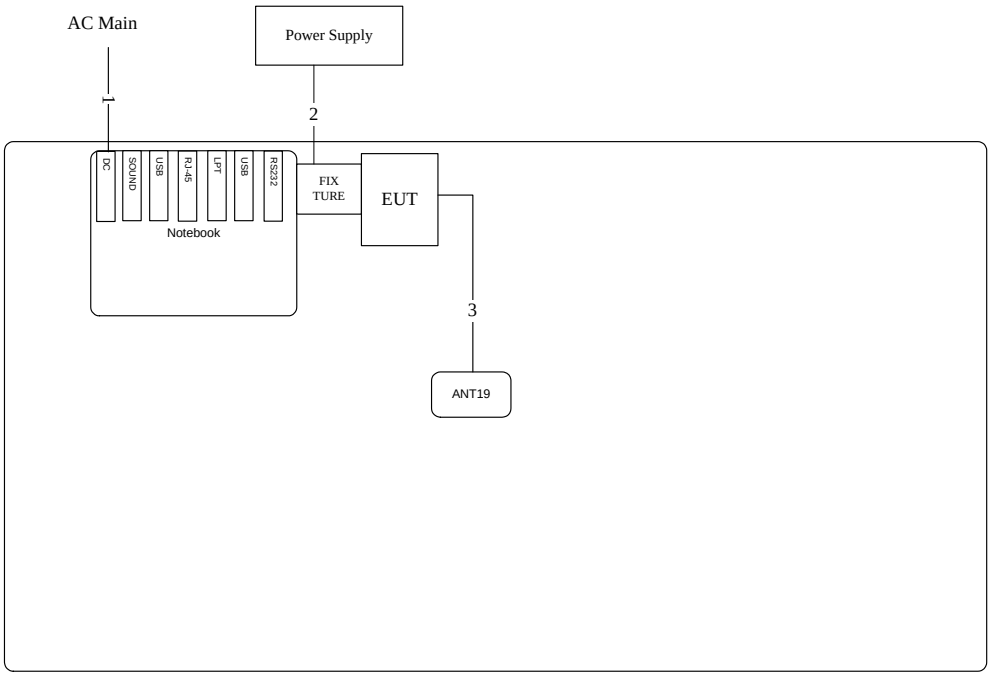
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	0.48M

Test Mode: Mode 4 (Ant. 4 Yagi antenna / 13.5dBi)



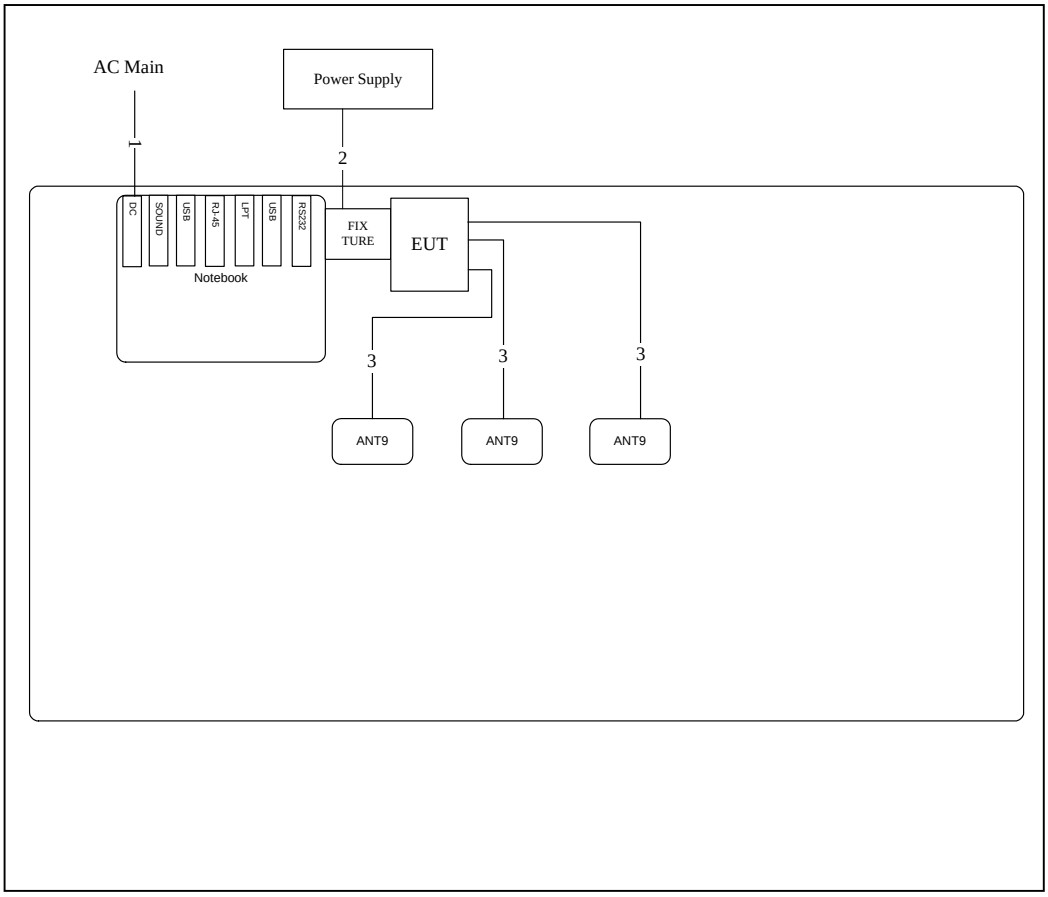
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable *3	Yes	0.48M

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



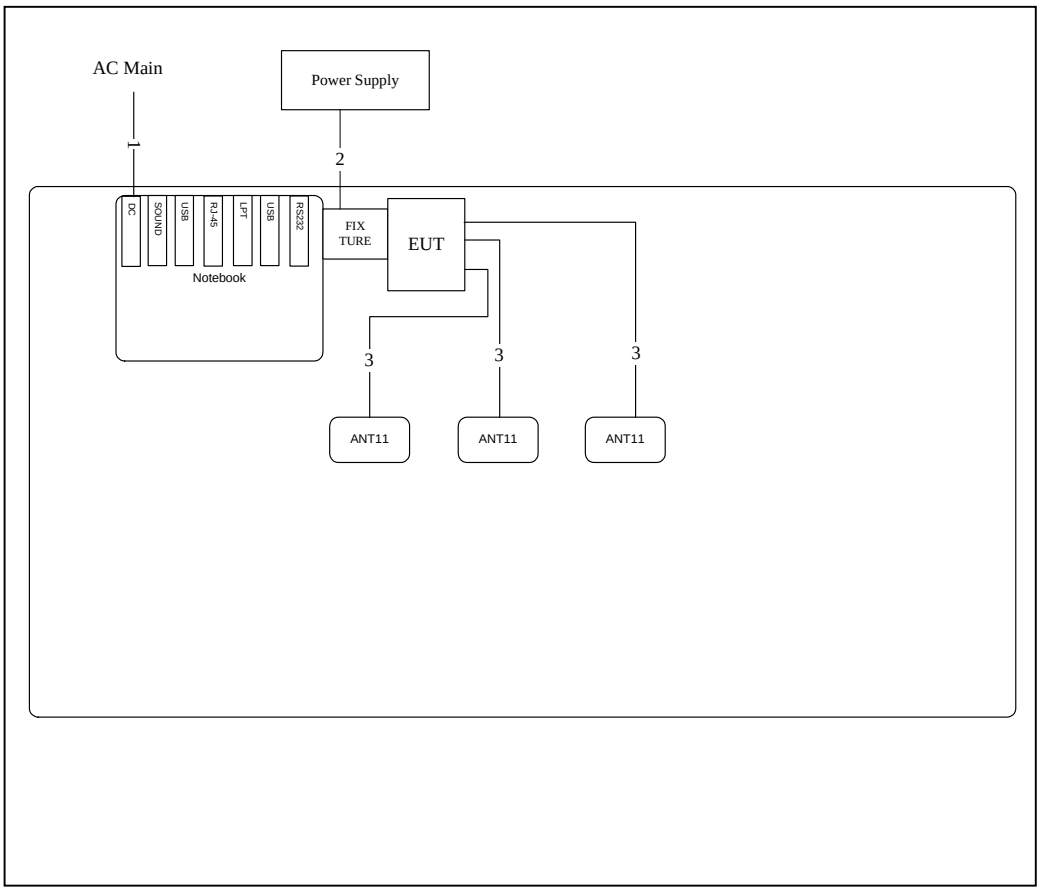
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable *3	Yes	0.25M

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



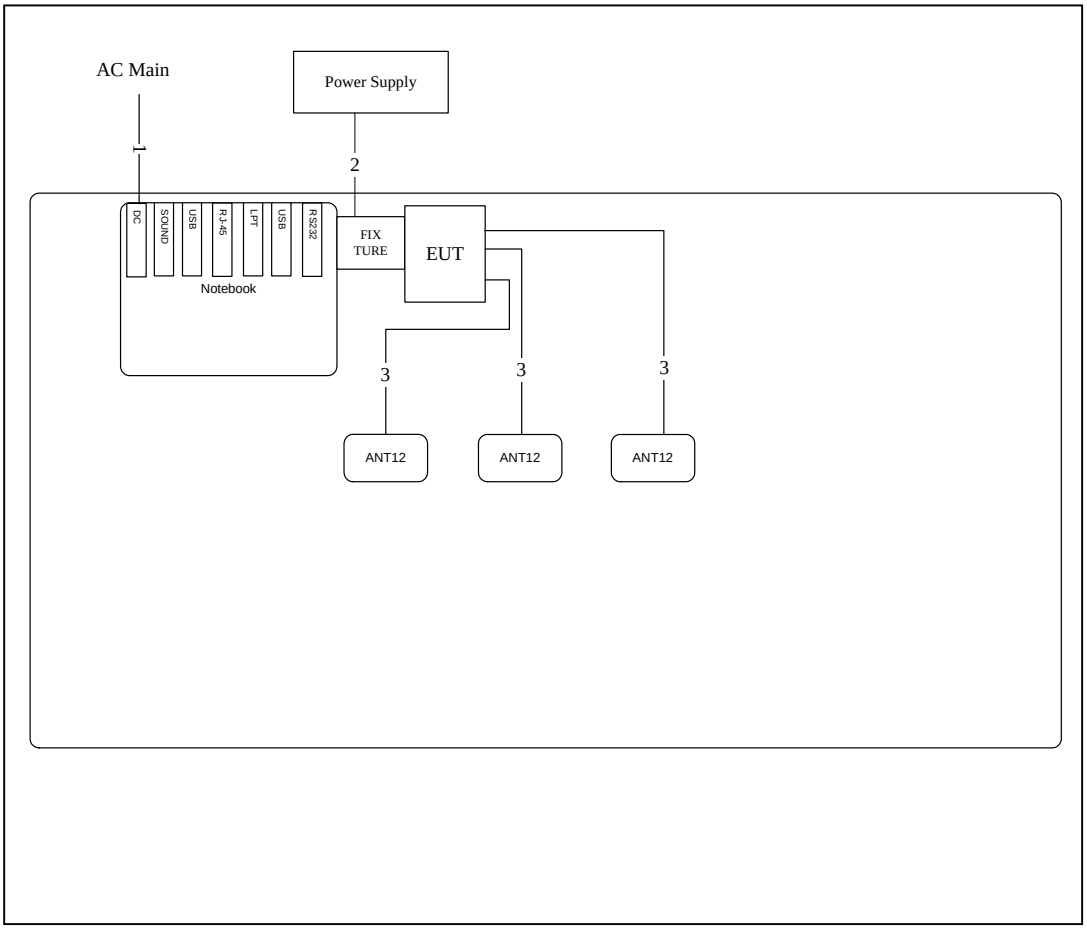
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.2M

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



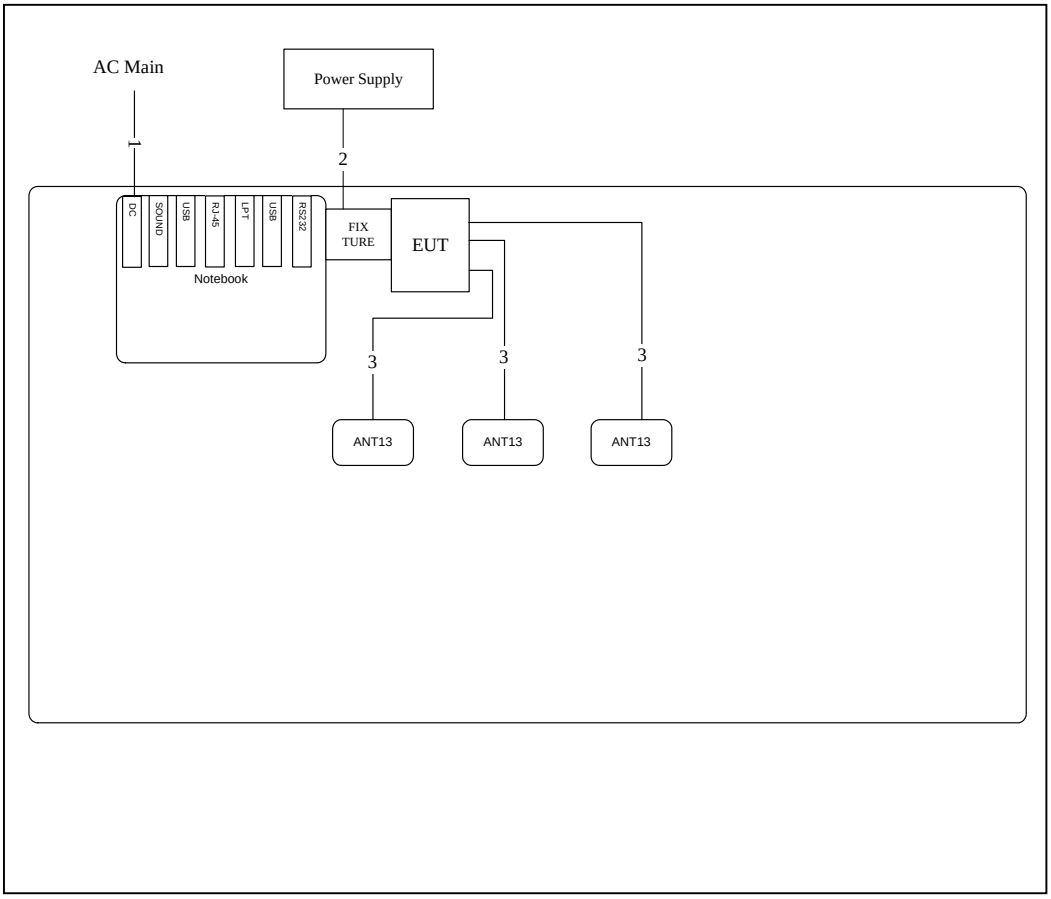
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.1M

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



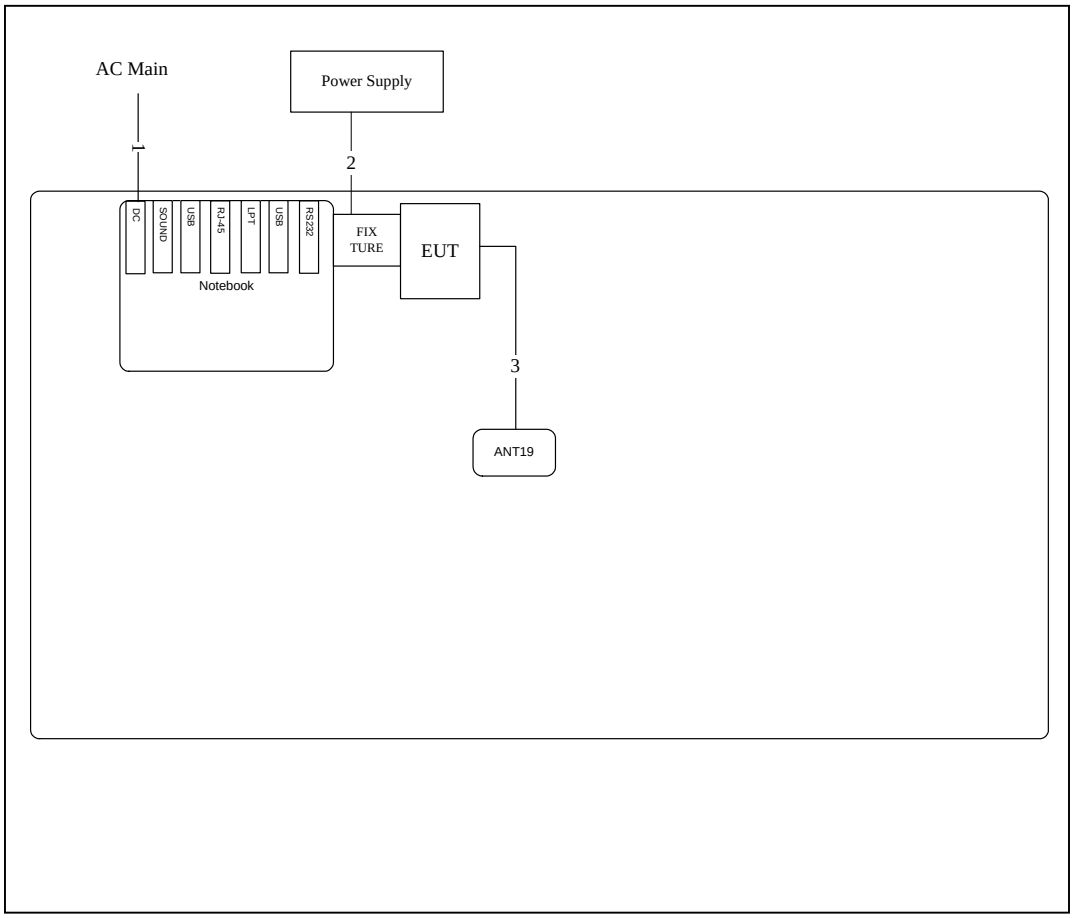
Item	Connection	Shield	Length
1	Power cable	No	1.8M
2	Power cable	No	1M
3	ANT cable*3	Yes	1.1M

Test Mode: Mode 9 (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

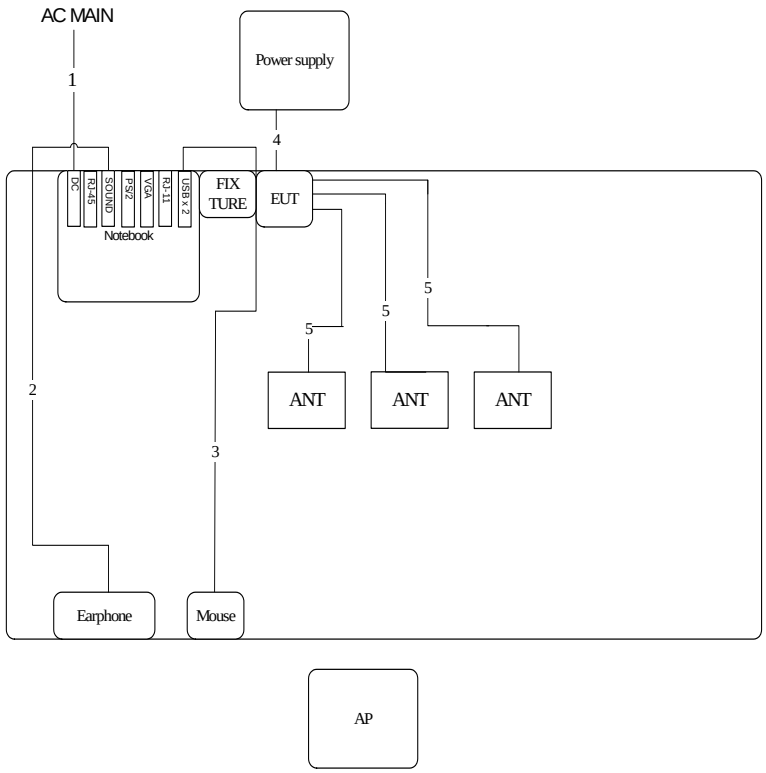
Test Mode: Mode 10 (Ant. 5 Facade antenna / 2.5dBi)



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

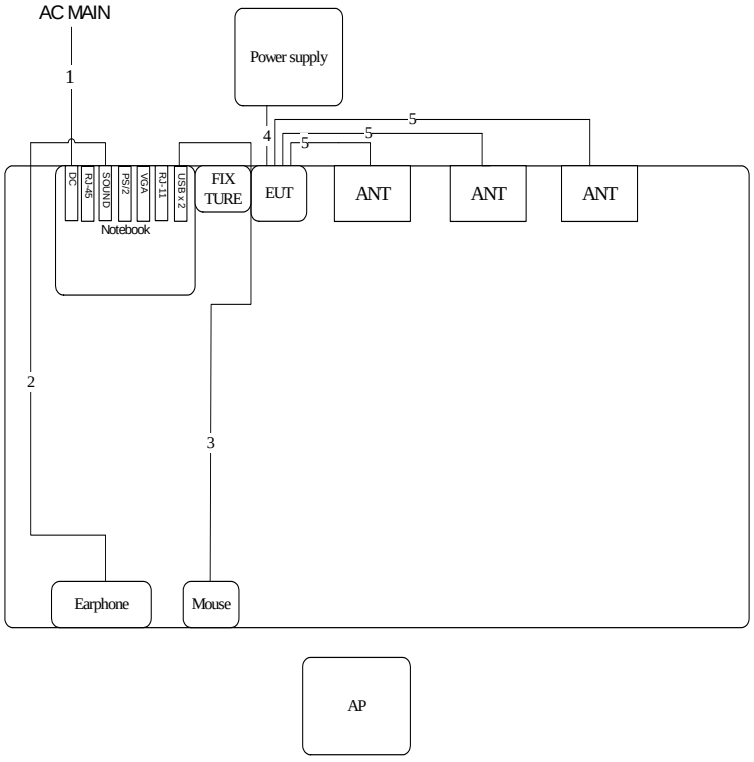
3.9.2. AC Power Line Conduction Emissions Test Configuration

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



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

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

4.1.2. Measuring Instruments and Setting

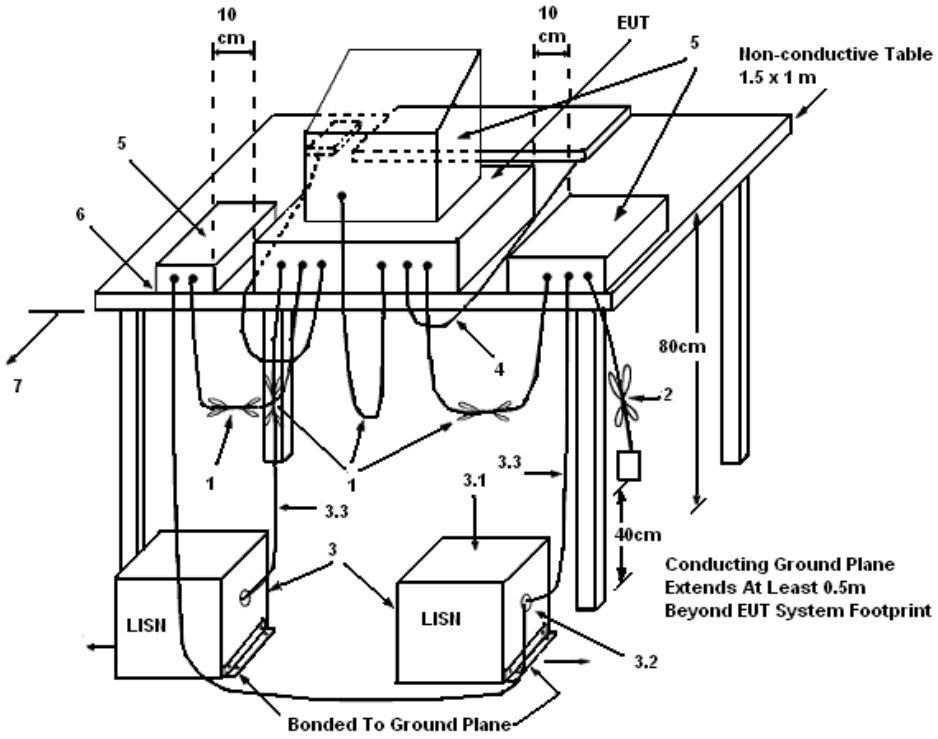
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

4.1.3. Test Procedures

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

4.1.4. Test Setup Layout



LEGEND:

(1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

(2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

(3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference ground plane.

(3.1) All other equipment powered from additional LISN(s).

(3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

(3.3) LISN at least 80 cm from nearest part of EUT chassis.

(4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.

(5) Non-EUT components of EUT system being tested.

(6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

(7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

4.1.5. Test Deviation

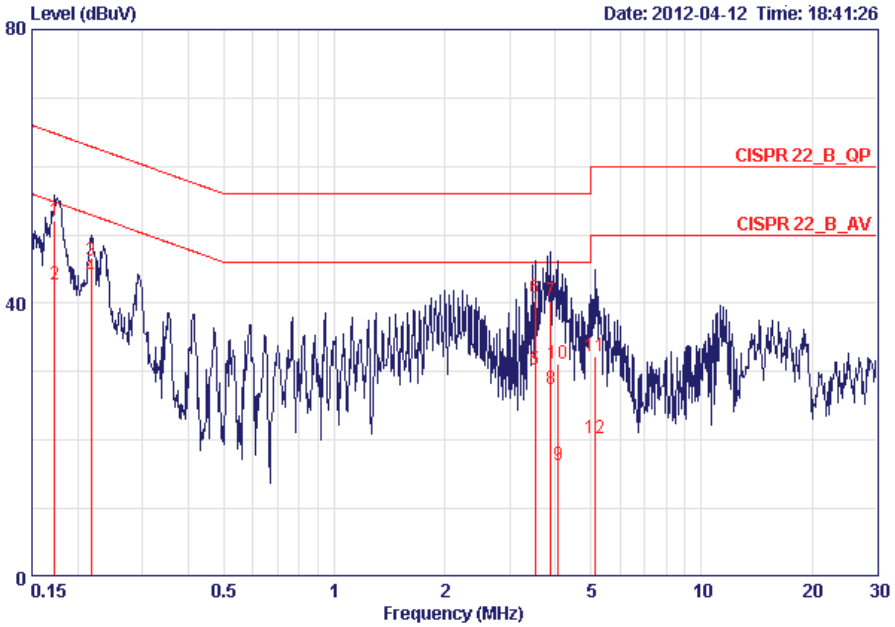
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

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

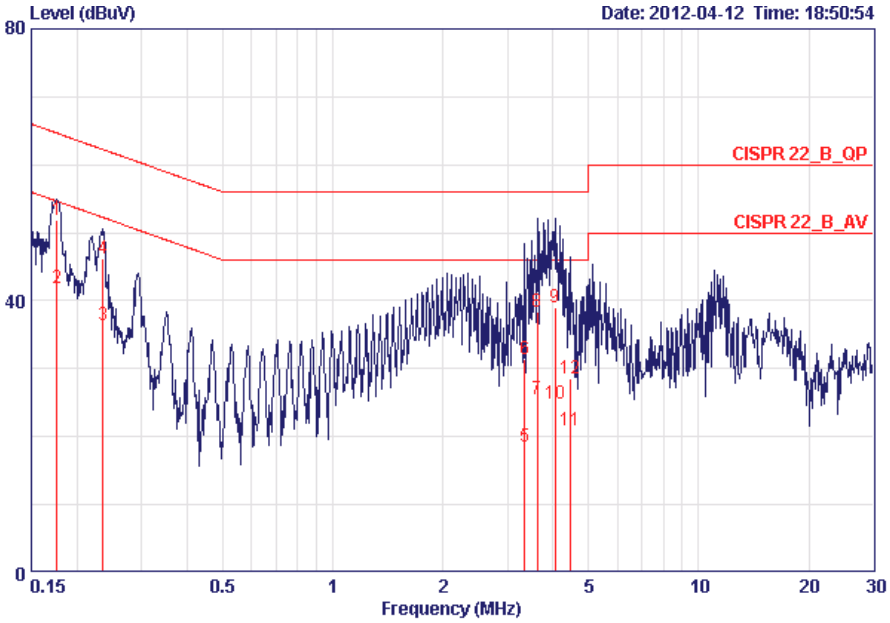
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	25°C	Humidity	65%
Test Engineer	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)		

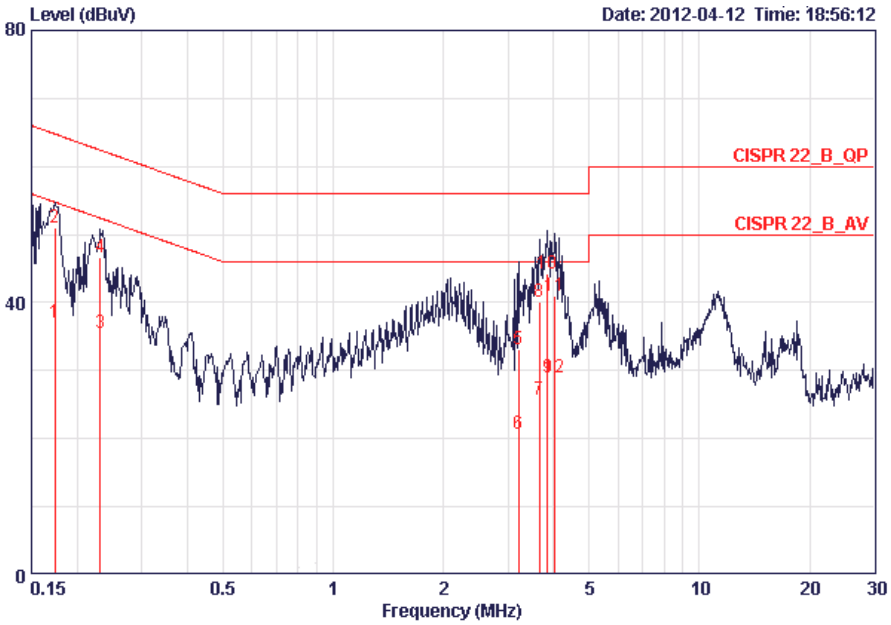


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 @	0.17584	51.98	-12.70	64.68	51.72	0.06	0.20	QP
2 @	0.17584	41.91	-12.77	54.68	41.65	0.06	0.20	AVERAGE
3	0.23533	36.39	-15.87	52.26	36.14	0.05	0.20	AVERAGE
4	0.23533	46.29	-15.97	62.26	46.04	0.05	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:

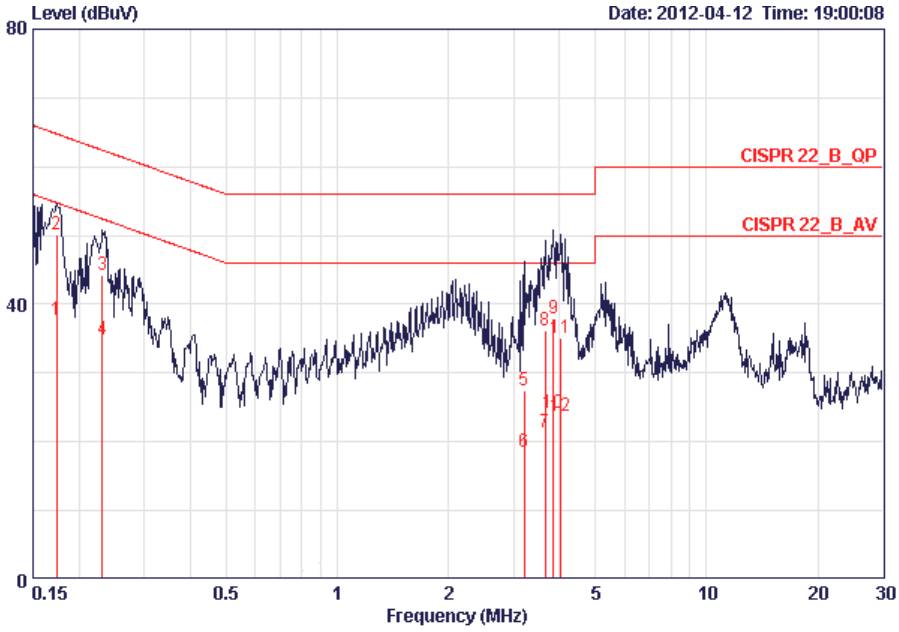
Level = Read Level + LISN Factor + Cable Loss

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. Conducted Output Power Measurement

4.2.1. Limit

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

4.2.2. Measuring Instruments and Setting

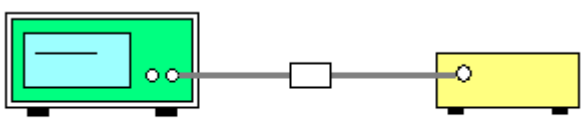
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

1. Set the analyzer span to 5-30% greater than the EBW.
2. Set the RBW = 1 MHz.
3. Set the VBW ≥ 3 MHz.
4. Ensure that the number of measurement points in the sweep ≥ 2 x (span/RBW).
5. Sweep time = auto couple.
6. Detector = power averaging (RMS) or sample.
7. Employ trace averaging in power averaging (RMS) mode over a minimum of 100 traces.
8. Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges to determine the maximum conducted output power of the EUT over the EBW. If the analyzer does not have a band power function, sum the spectral levels (in linear power units) at 1 MHz intervals extending across the entire EBW.

4.2.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Test was performed in accordance with KDB 558074 Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS)Operating Under §15.247 section 5.2.2.2. Multiple antenna systems was performed in accordance with KDB 662911 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
3. When measuring maximum conducted output power with multiple antenna systems, add every result of the values by mathematic formula.

4.2.4. Test Setup Layout



4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of Conducted Output Power

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 1 (Ant. 1 Dipole antenna / 9dBi)		

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.43	27.00	Complies
6	2437 MHz	22.27	27.00	Complies
11	2462 MHz	15.77	27.00	Complies

Note: 9dBi > 6dBi, so the conducted power limit =30-(9-6)=27dBm

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	11.46	27.00	Complies
6	2437 MHz	16.60	27.00	Complies
9	2452 MHz	11.28	27.00	Complies

Note: 9dBi > 6dBi, so the conducted power limit =30-(9-6)=27dBm

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	12.85	12.51	15.69	23.99	Complies
6	2437 MHz	16.07	15.01	18.58	23.99	Complies
11	2462 MHz	13.44	11.96	15.77	23.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the conducted power limit =30-(12.01-6)=23.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	9.27	8.95	12.12	23.99	Complies
6	2437 MHz	14.08	13.38	16.75	23.99	Complies
9	2452 MHz	8.14	6.95	10.60	23.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the conducted power limit =30-(12.01-6)=23.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	13.69	13.42	16.57	27.00	Complies
6	2437 MHz	16.74	15.78	19.30	27.00	Complies
11	2462 MHz	13.62	12.35	16.04	27.00	Complies

Note: 9dBi > 6dBi, so the conducted power limit =30-(9-6)=27dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	10.46	10.09	13.29	27.00	Complies
6	2437 MHz	15.68	15.01	18.37	27.00	Complies
9	2452 MHz	11.55	10.10	13.90	27.00	Complies

Note: 9dBi > 6dBi, so the conducted power limit =30-(9-6)=27dBm.

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	12.19	11.81	12.07	16.80	22.23	Complies
6	2437 MHz	17.31	16.17	16.21	21.37	22.23	Complies
11	2462 MHz	13.61	12.32	12.74	17.69	22.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the conducted power limit =30-(13.77-6)=22.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	8.83	8.38	8.67	13.40	22.23	Complies
6	2437 MHz	15.19	14.36	14.37	19.43	22.23	Complies
9	2452 MHz	6.14	4.71	4.81	10.04	22.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the conducted power limit =30-(13.77-6)=22.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	13.16	13.04	13.19	17.90	24.00	Complies
6	2437 MHz	18.45	17.16	17.42	22.48	24.00	Complies
11	2462 MHz	13.22	11.79	12.19	17.21	24.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12dBi > 6dBi, so the conducted power limit =30-(12-6)=24dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	9.21	8.65	9.29	13.83	24.00	Complies
6	2437 MHz	14.98	14.21	14.23	19.26	24.00	Complies
9	2452 MHz	11.21	9.51	9.47	14.91	24.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12dBi > 6dB , so the conducted power limit =30-(12-6)=24dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 1 (Ant. 1 Dipole antenna / 9dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	14.38	27.00	Complies
6	2437 MHz	23.83	27.00	Complies
11	2462 MHz	17.69	27.00	Complies

Note:9dBi > 6dBi , so the conducted power limit =30-(9-6)=27dBm.

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.12	27.00	Complies
6	2437 MHz	22.27	27.00	Complies
11	2462 MHz	17.39	27.00	Complies

Note:9dBi > 6dBi , so the conducted power limit =30-(9-6)=27dBm.

2TX

Configuration IEEE 802.11b / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	13.84	13.59	16.73	23.99	Complies
6	2437 MHz	21.10	20.16	23.67	23.99	Complies
11	2462 MHz	14.53	13.36	16.99	23.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the conducted power limit =30-(12.01-6)=23.99dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	13.79	13.49	16.65	23.99	Complies
6	2437 MHz	17.24	16.17	19.75	23.99	Complies
11	2462 MHz	13.06	11.45	15.34	23.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the conducted power limit =30-(12.01-6)=23.99dBm.

3TX

Configuration IEEE 802.11b / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	16.31	16.08	16.25	20.99	22.23	Complies
6	2437 MHz	17.68	16.25	16.62	21.66	22.23	Complies
11	2462 MHz	17.05	15.58	16.07	21.05	22.23	Complies

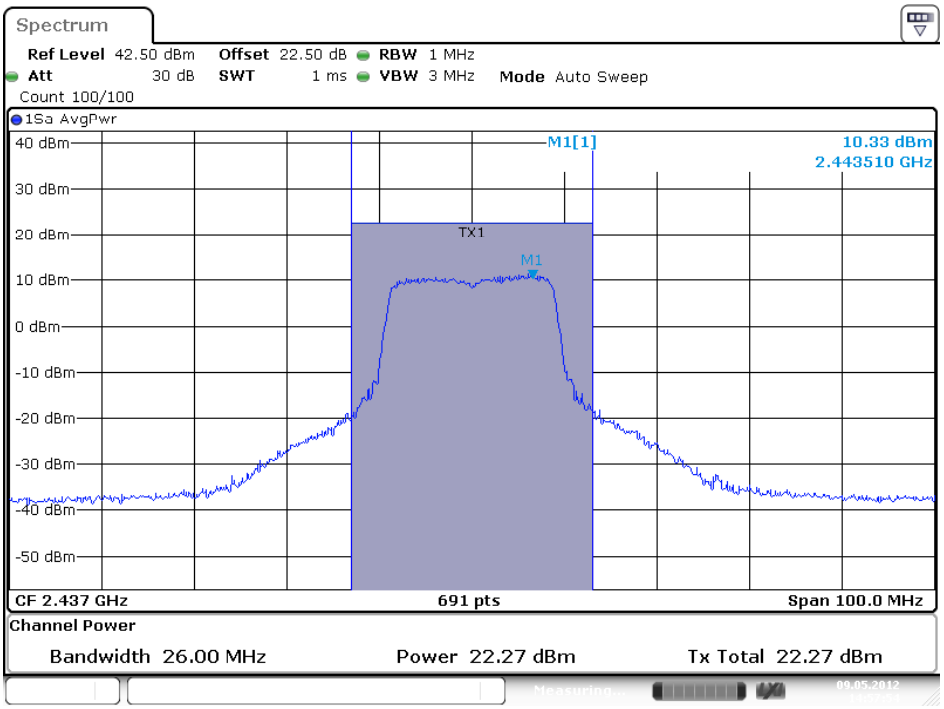
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the conducted power limit =30-(13.77-6)=22.23dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	13.02	12.86	12.99	17.73	22.23	Complies
6	2437 MHz	17.67	16.46	16.83	21.79	22.23	Complies
11	2462 MHz	13.62	12.35	12.72	17.70	22.23	Complies

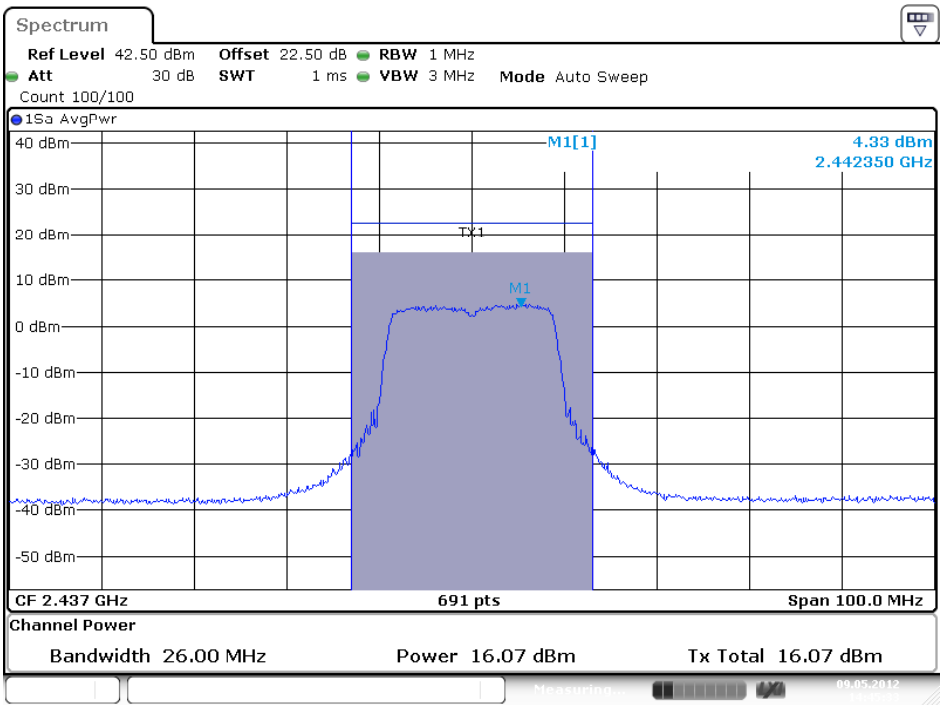
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the conducted power limit =30-(13.77-6)=22.23dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz / Chain 1 (1TX)



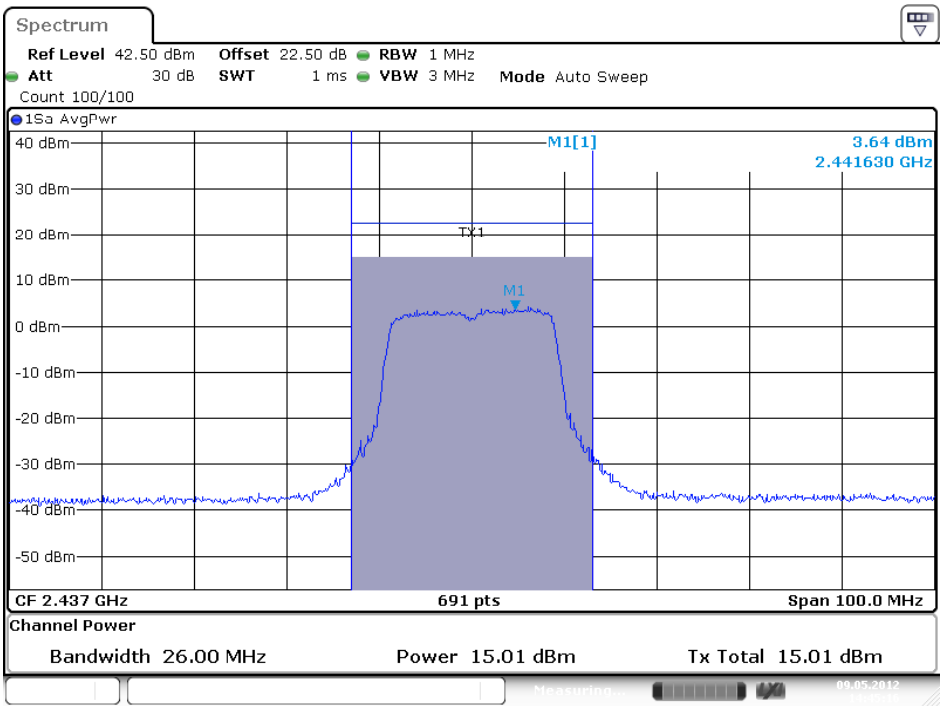
Date: 9.MAY.2012 14:57:54

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (2TX)



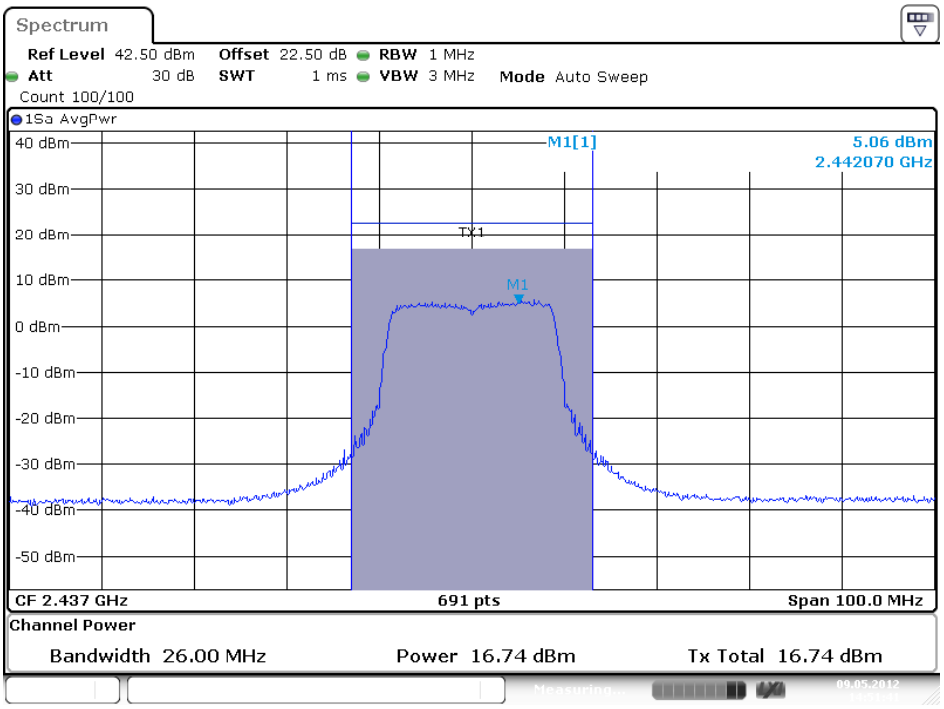
Date: 9.MAY.2012 14:45:33

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (2TX)



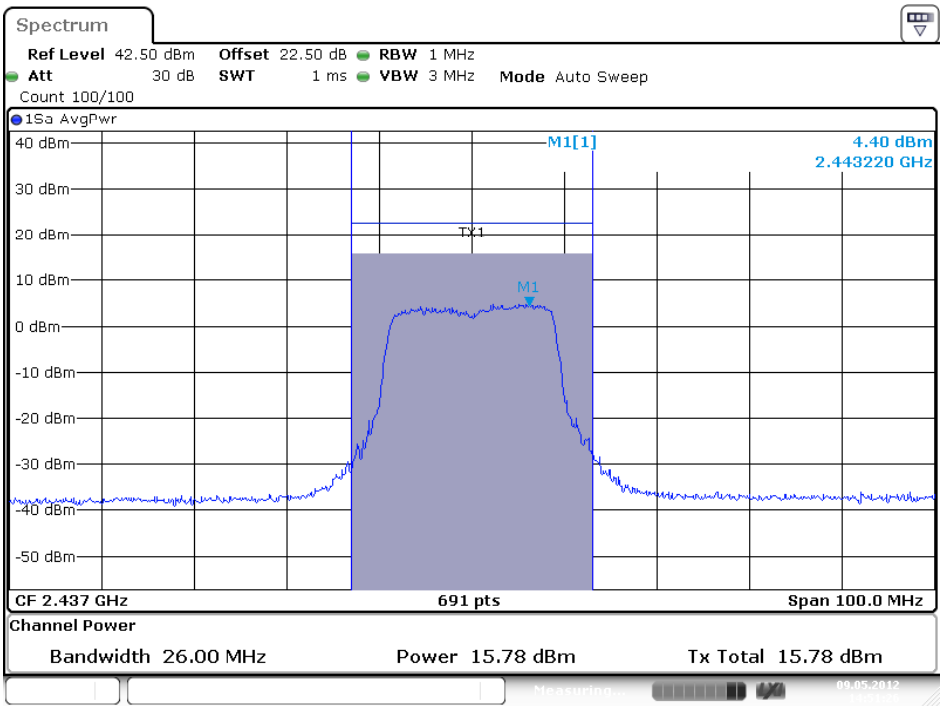
Date: 9.MAY.2012 14:45:16

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (2TX)



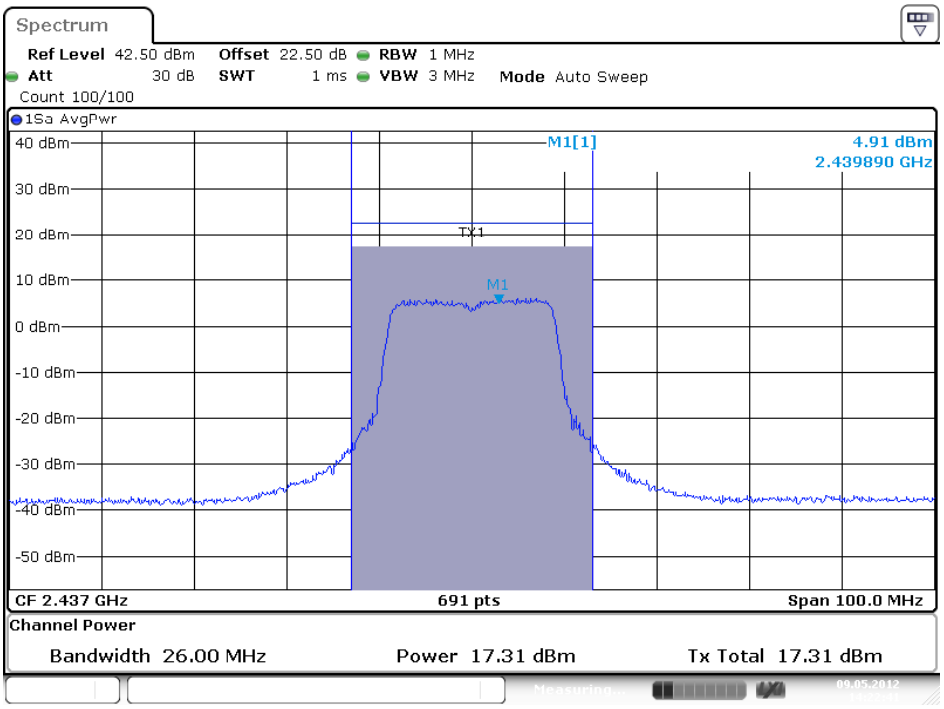
Date: 9.MAY.2012 14:51:41

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (2TX)



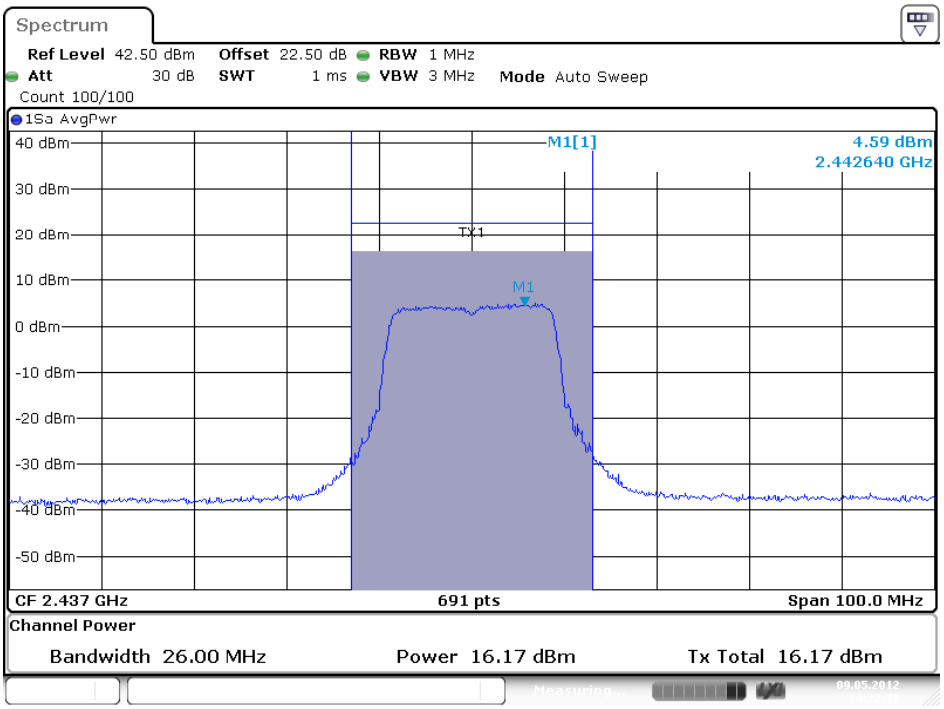
Date: 9.MAY.2012 14:51:27

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (3TX)



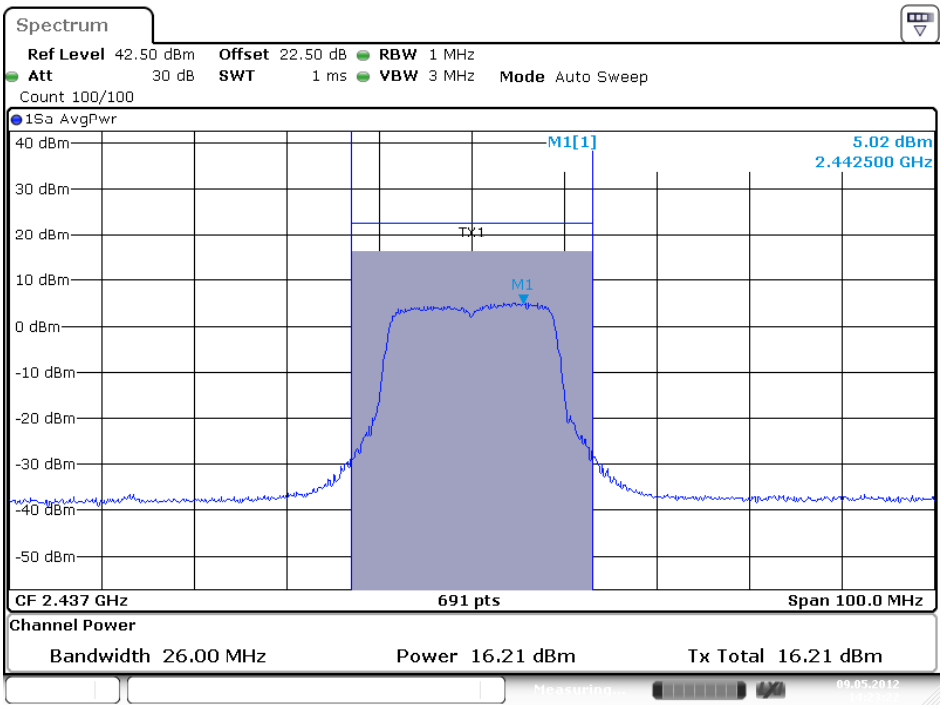
Date: 9.MAY.2012 14:22:42

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (3TX)



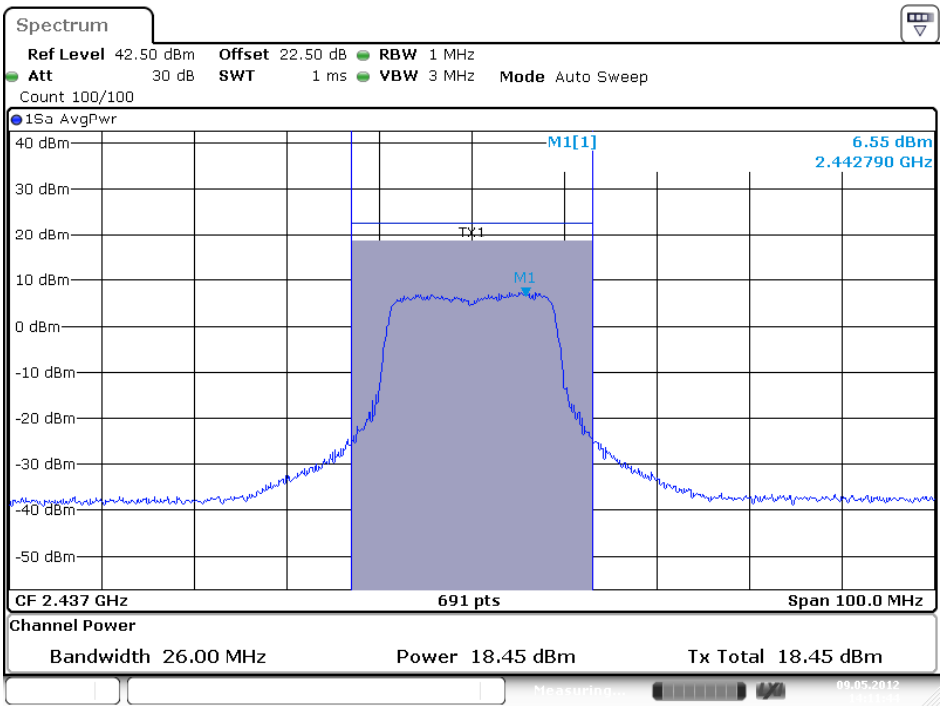
Date: 9.MAY.2012 14:22:59

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 3 (3TX)



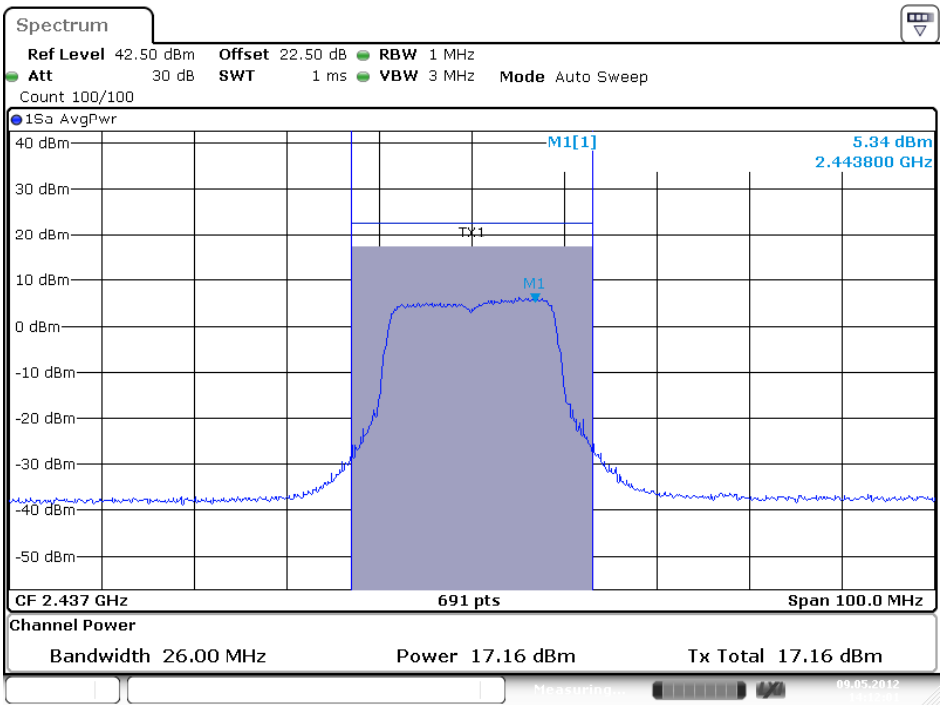
Date: 9.MAY.2012 14:23:22

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (3TX)



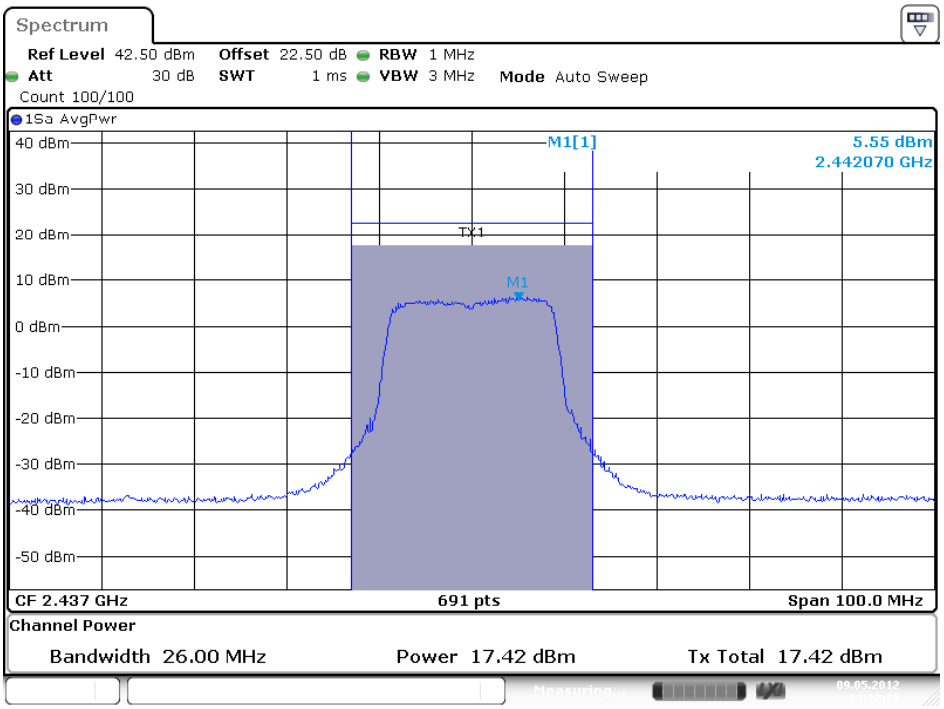
Date: 9.MAY.2012 14:11:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (3TX)



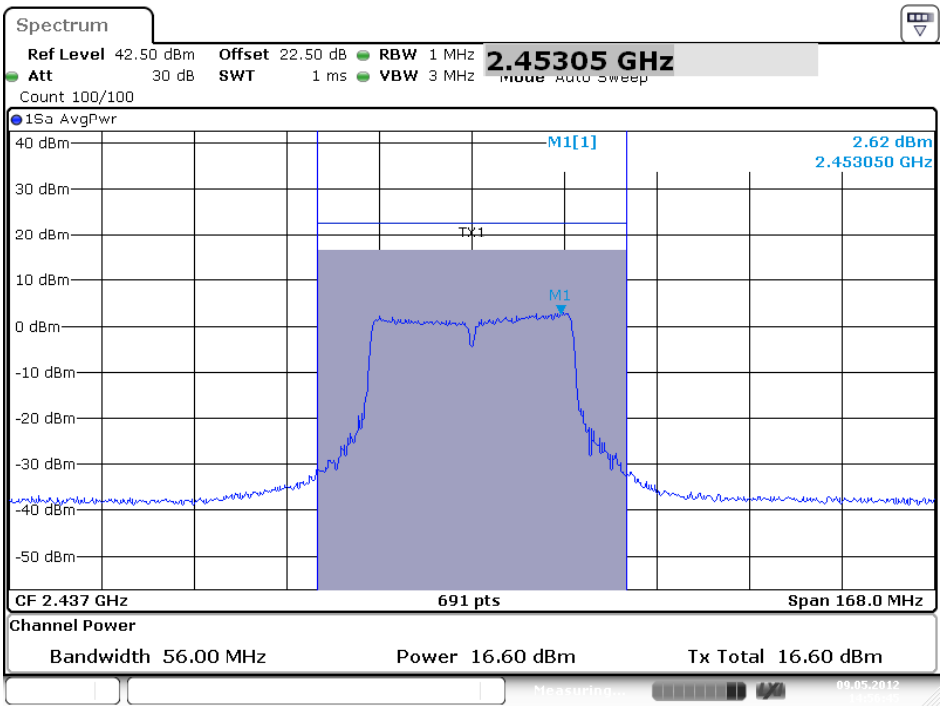
Date: 9.MAY.2012 14:12:01

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 3 (3TX)



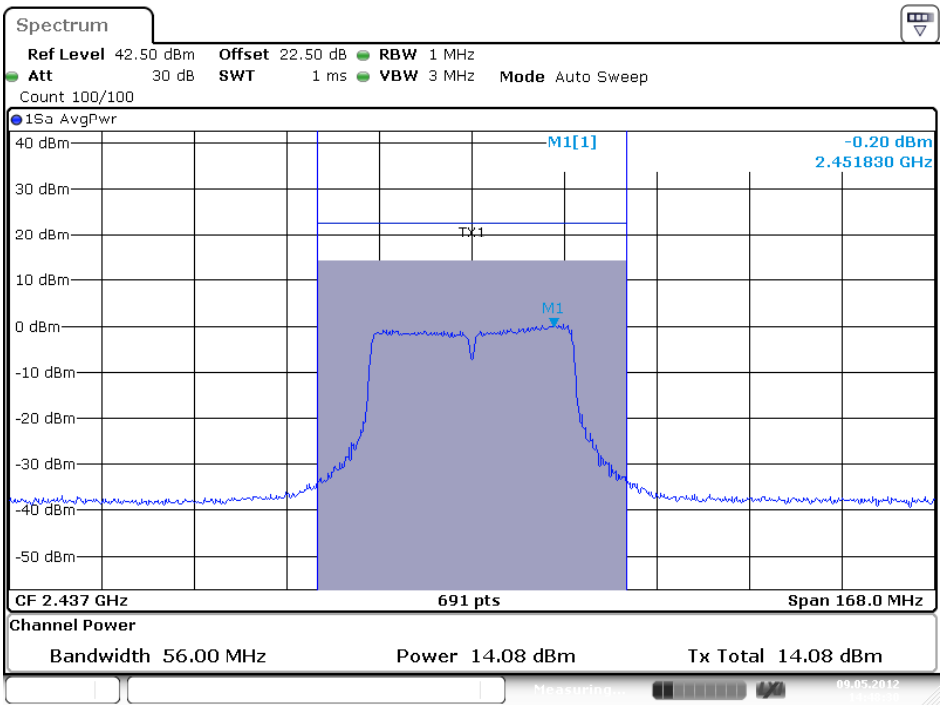
Date: 9.MAY.2012 14:12:15

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (1TX)



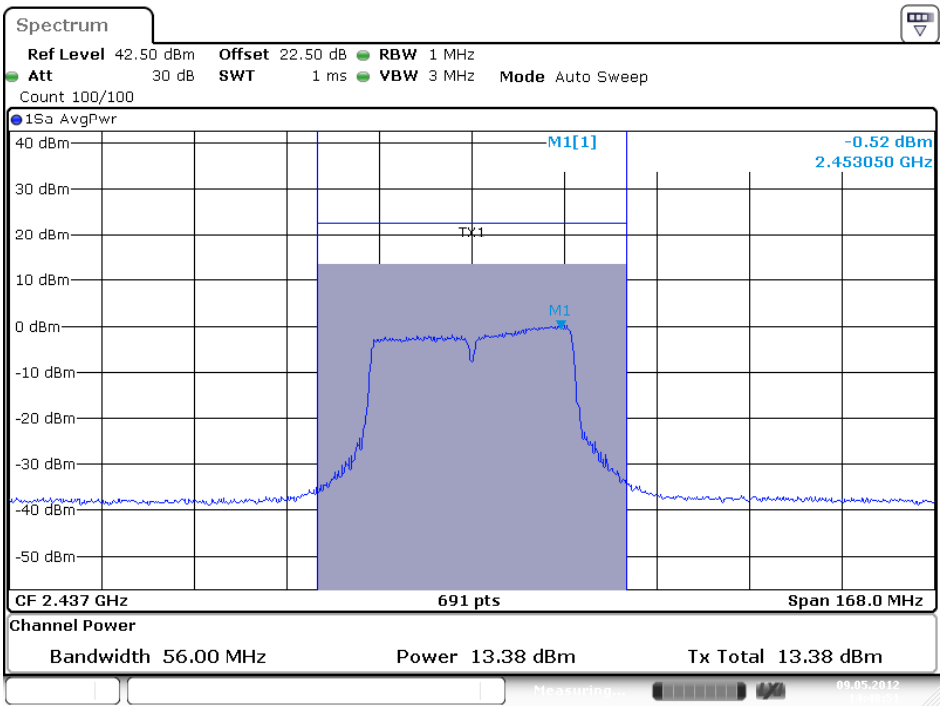
Date: 9.MAY.2012 14:56:46

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (2TX)



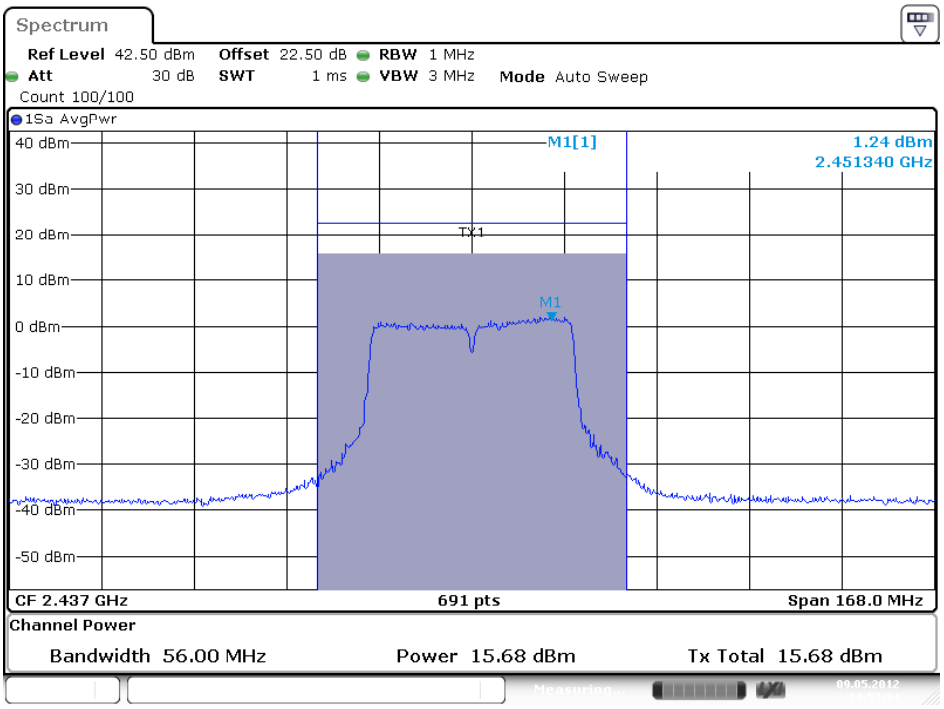
Date: 9.MAY.2012 14:48:31

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (2TX)



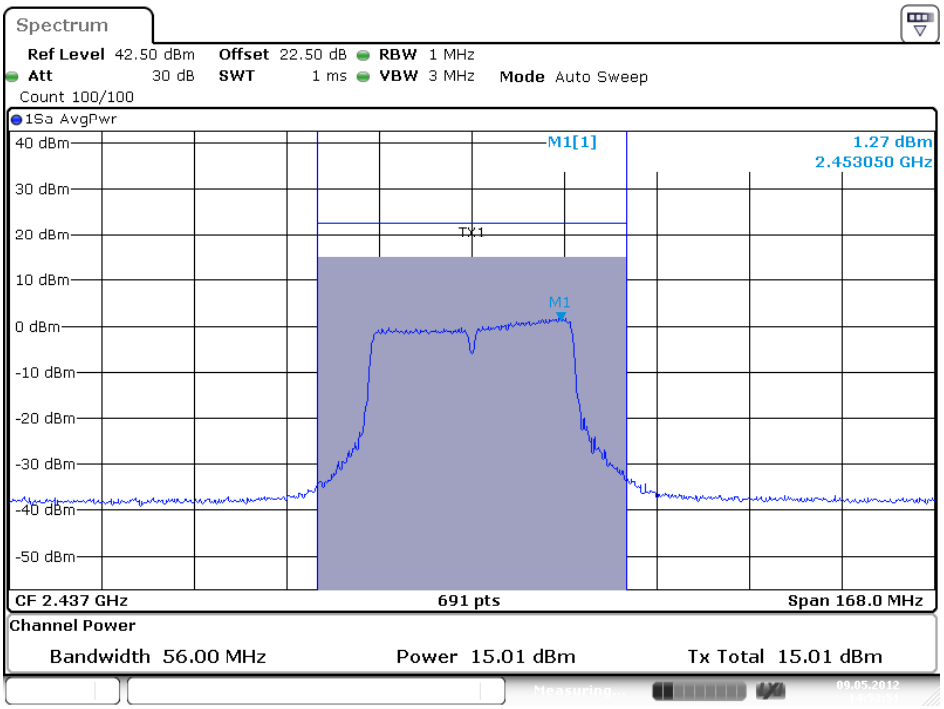
Date: 9.MAY.2012 14:48:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (2TX)



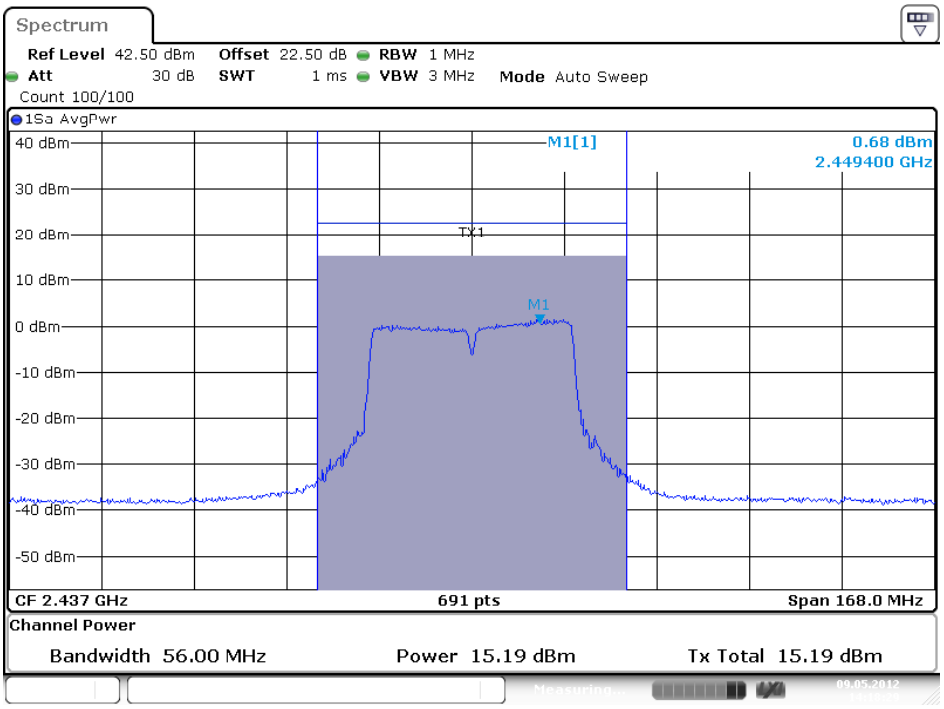
Date: 9.MAY.2012 14:53:34

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (2TX)



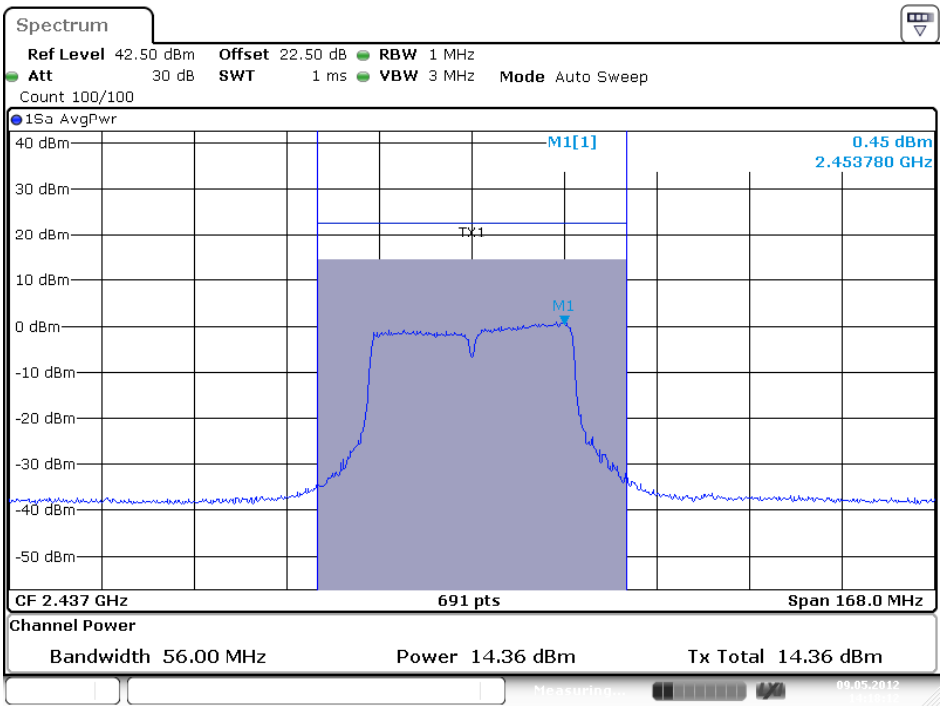
Date: 9.MAY.2012 14:53:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (3TX)



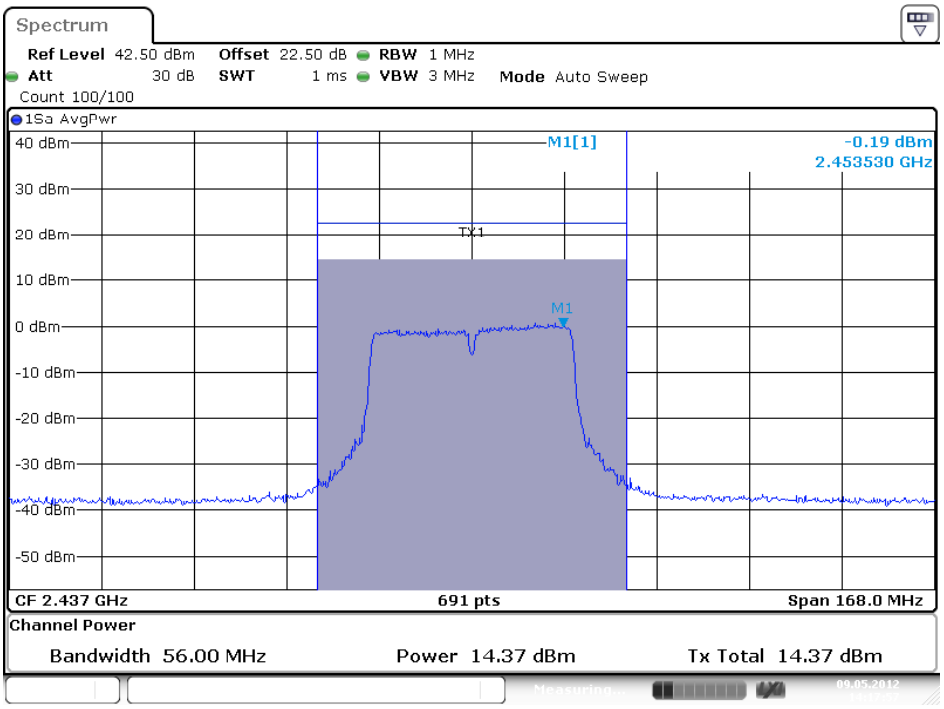
Date: 9.MAY.2012 14:18:29

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (3TX)



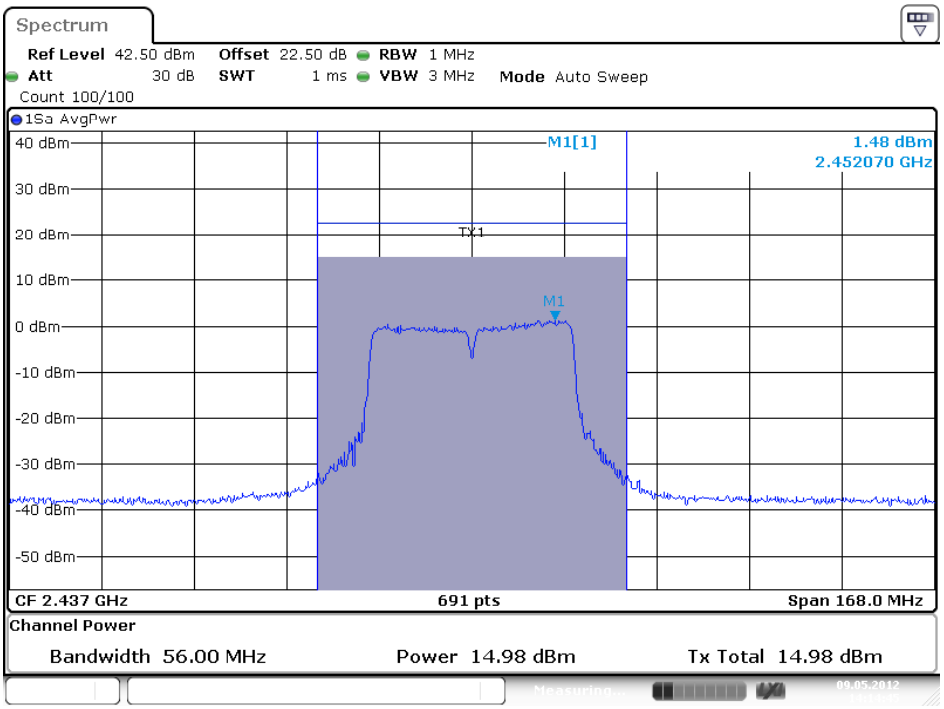
Date: 9.MAY.2012 14:18:13

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 3 (3TX)



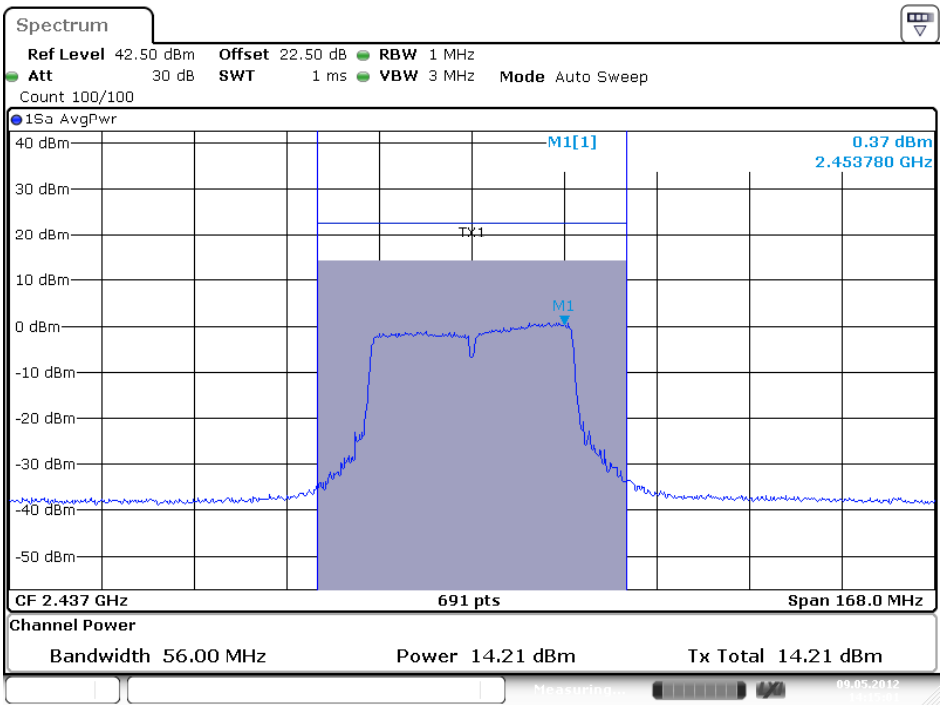
Date: 9.MAY.2012 14:17:57

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (3TX)



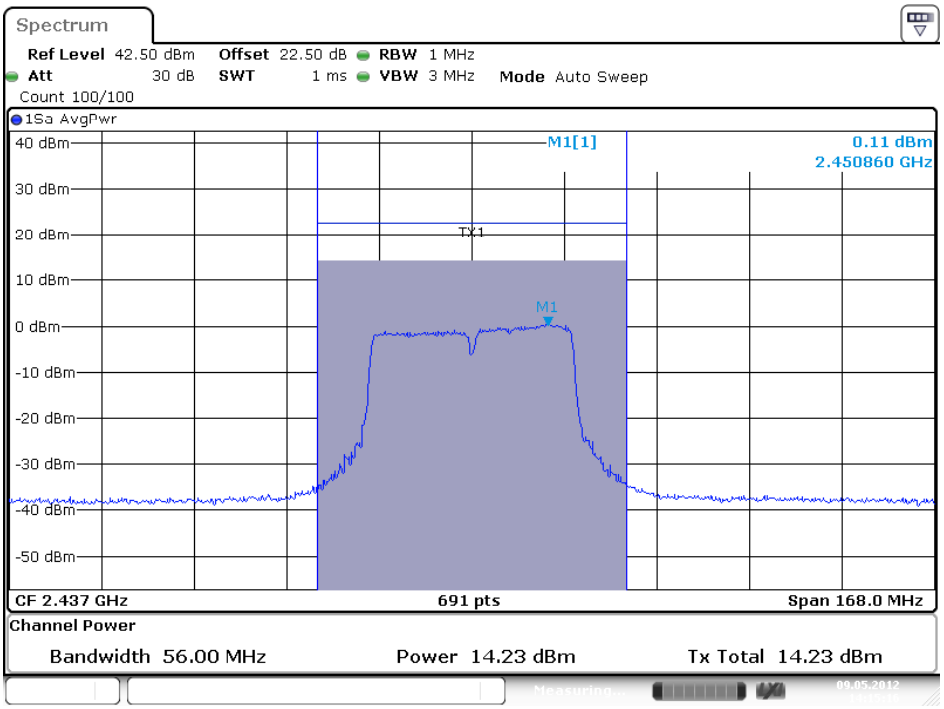
Date: 9.MAY.2012 14:14:46

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (3TX)



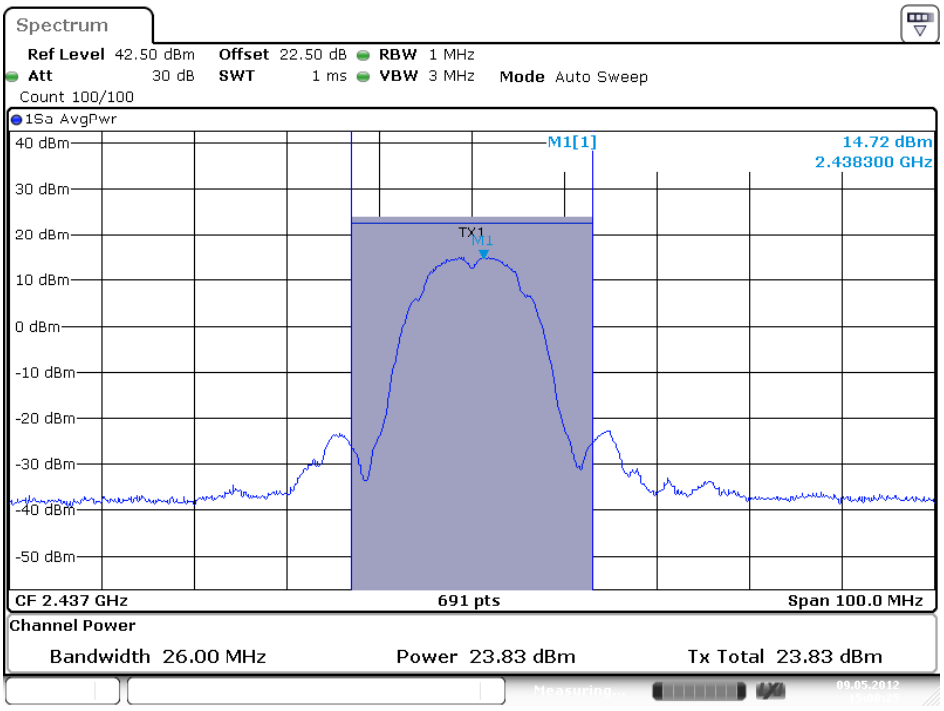
Date: 9.MAY.2012 14:15:02

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 3 (3TX)



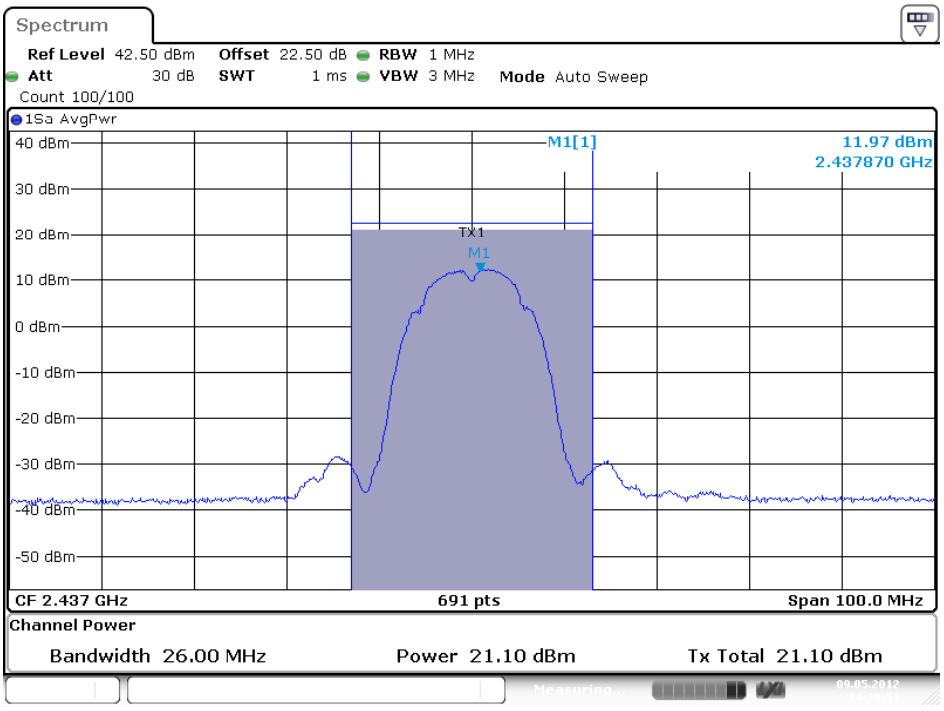
Date: 9.MAY.2012 14:15:17

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (1TX)



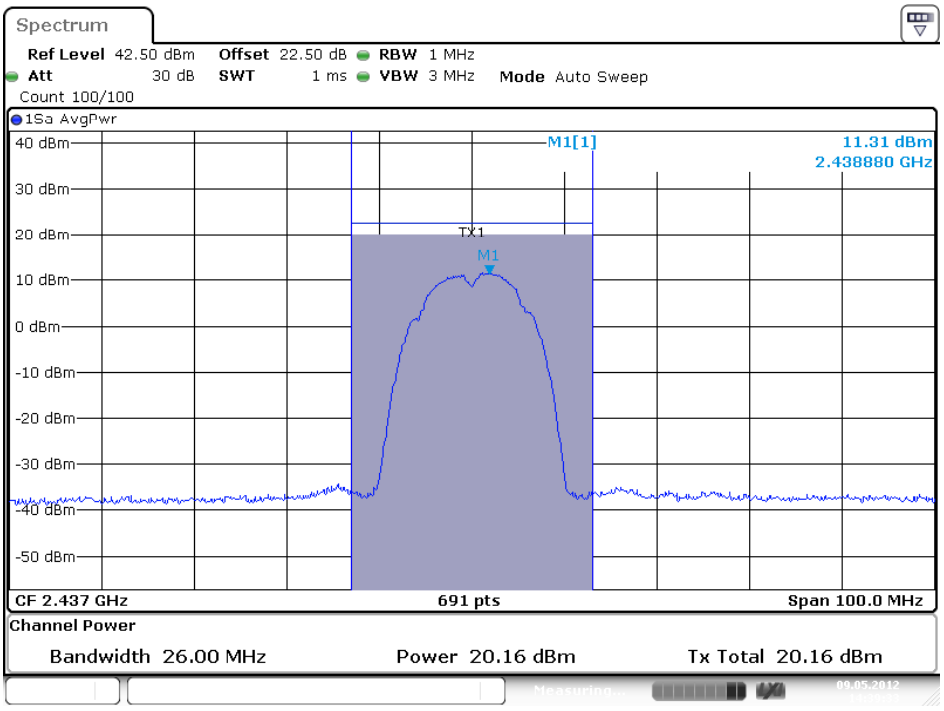
Date: 9.MAY.2012 15:00:26

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (2TX)



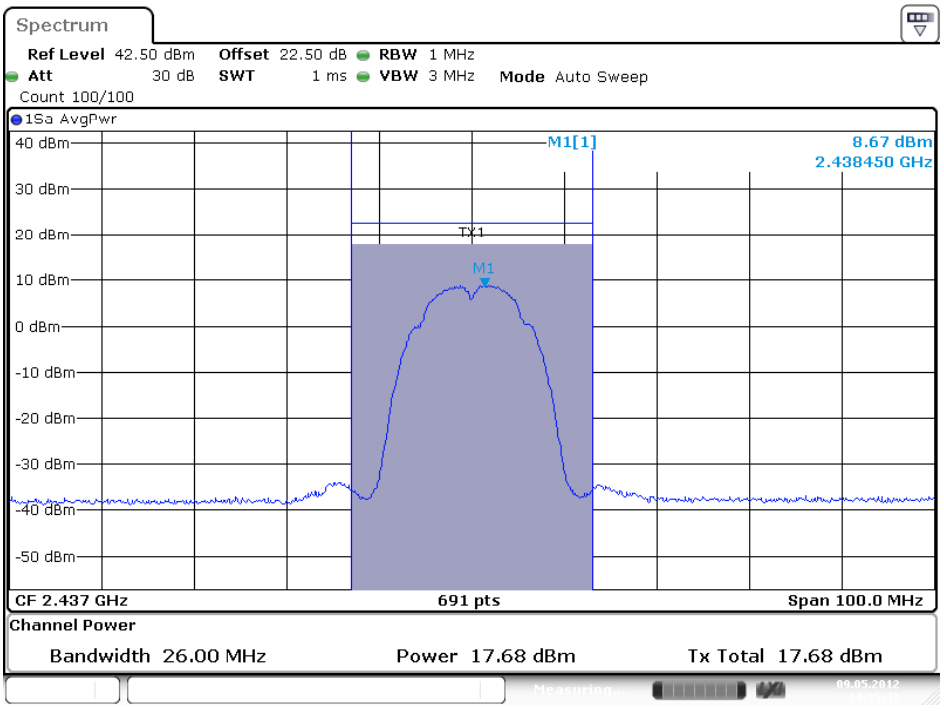
Date: 9.MAY.2012 14:39:52

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (2TX)



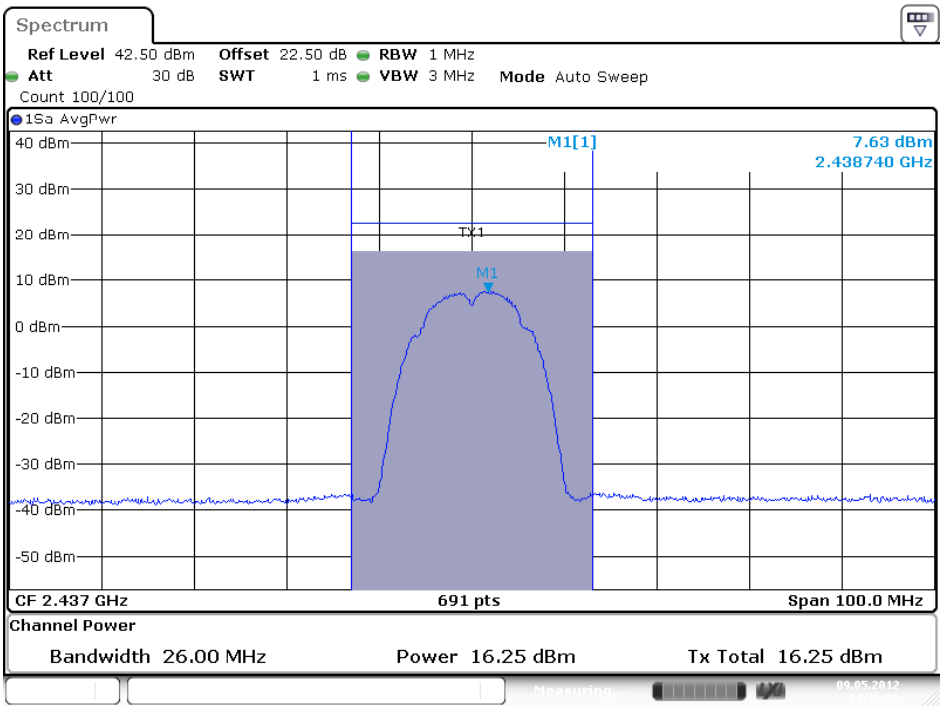
Date: 9.MAY.2012 14:39:34

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (3TX)



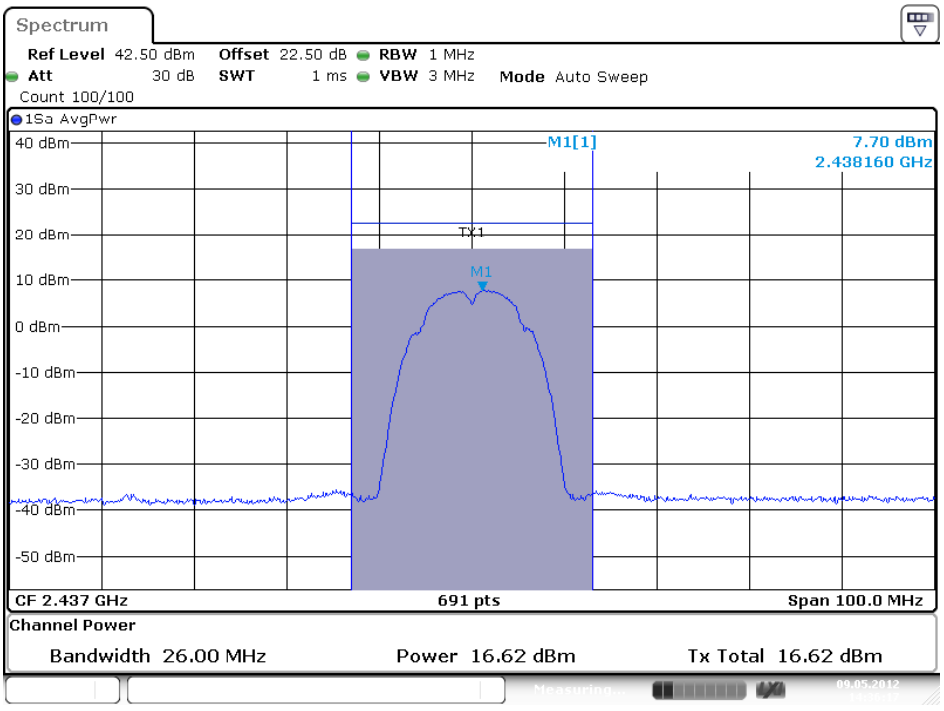
Date: 9.MAY.2012 14:35:43

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (3TX)



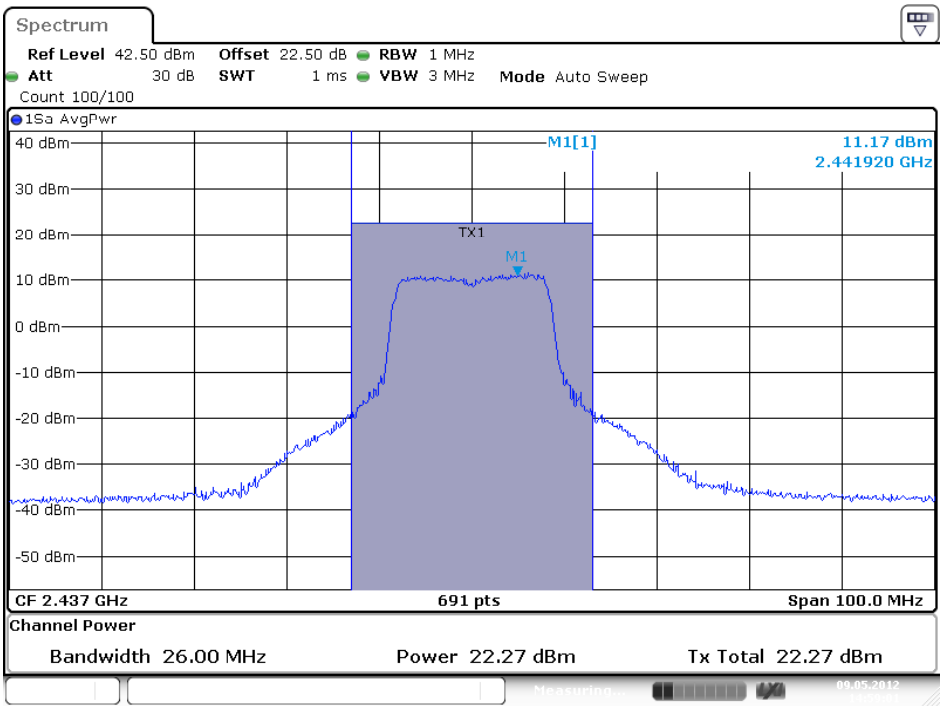
Date: 9.MAY.2012 14:36:03

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 3 (3TX)



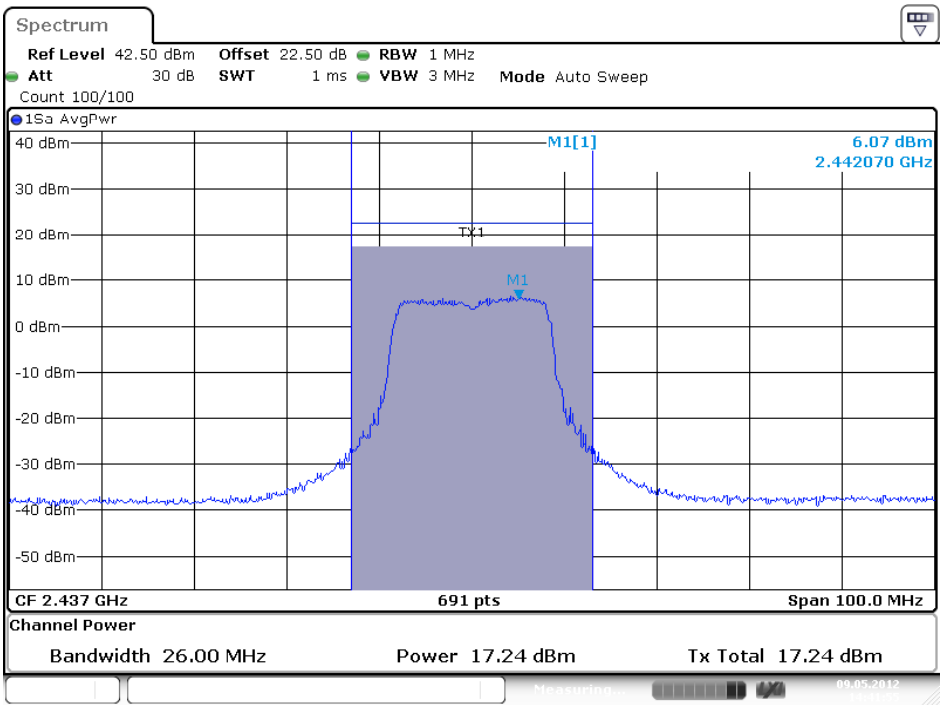
Date: 9.MAY.2012 14:36:18

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (1TX)



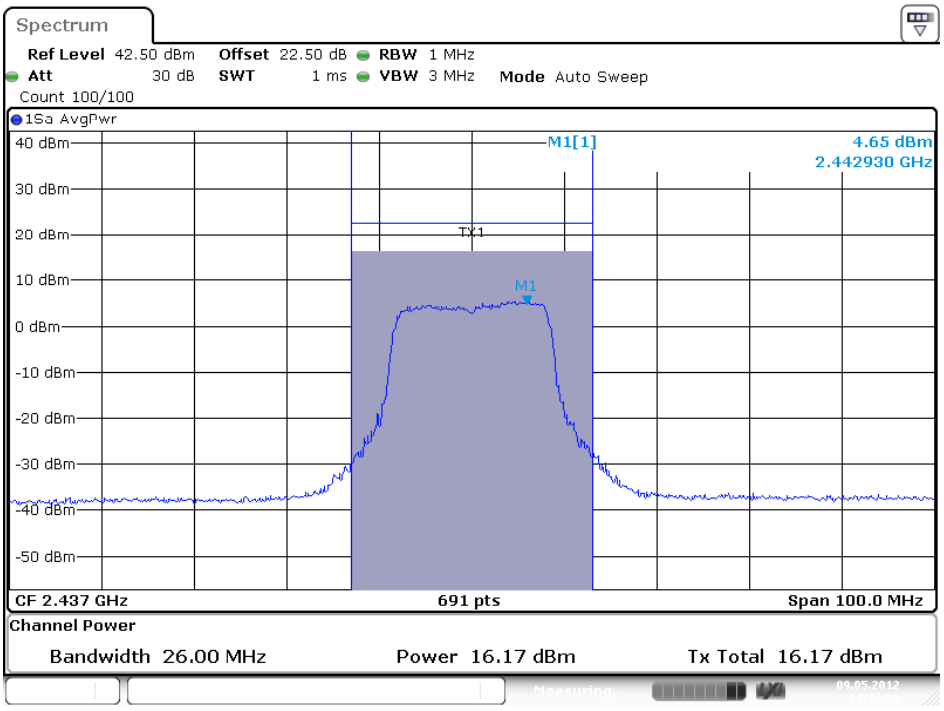
Date: 9.MAY.2012 14:59:01

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (2TX)



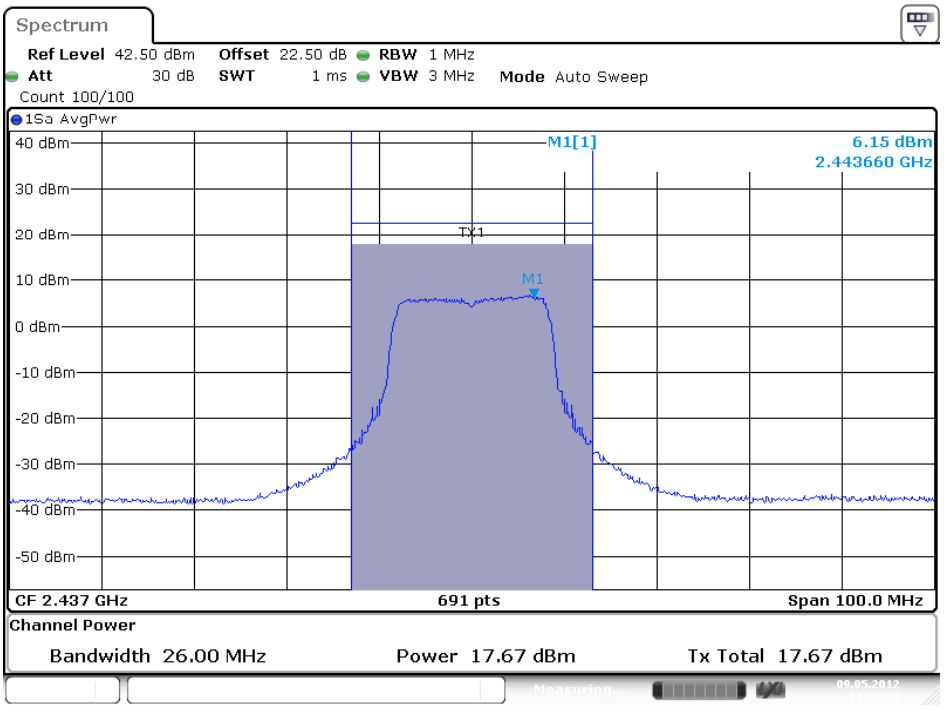
Date: 9.MAY.2012 14:41:56

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (2TX)



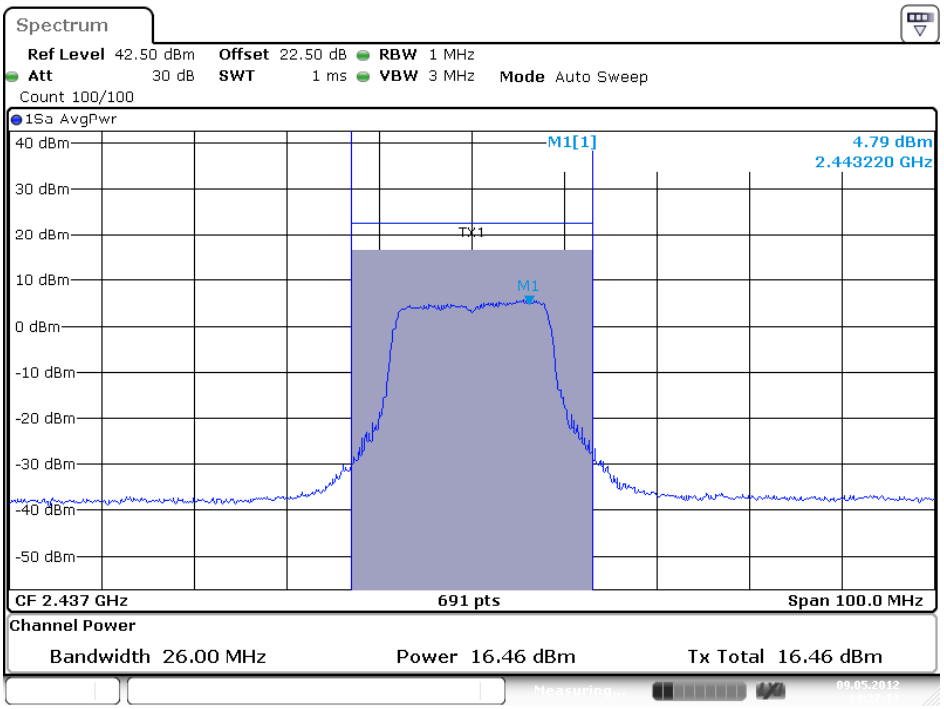
Date: 9.MAY.2012 14:42:20

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (3TX)



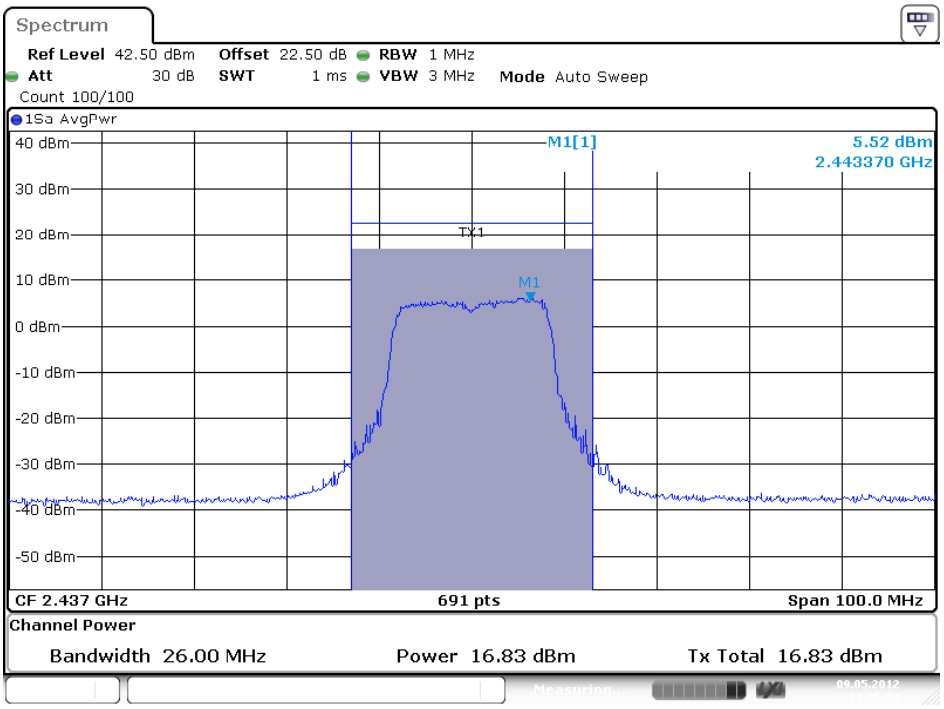
Date: 9.MAY.2012 14:27:29

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (3TX)



Date: 9.MAY.2012 14:27:13

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 3 (3TX)



Date: 9.MAY.2012 14:26:54

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 2 (Ant. 2 Patch antenna / 3dBi)		

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.13	30.00	Complies
6	2437 MHz	26.02	30.00	Complies
11	2462 MHz	19.85	30.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	16.70	30.00	Complies
6	2437 MHz	21.73	30.00	Complies
9	2452 MHz	17.69	30.00	Complies

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	17.26	17.04	20.16	29.99	Complies
6	2437 MHz	24.35	24.15	27.26	29.99	Complies
11	2462 MHz	18.18	17.32	20.78	29.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the conducted power limit =30-(6.01-6)=29.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	13.97	14.25	17.12	29.99	Complies
6	2437 MHz	19.77	19.18	22.50	29.99	Complies
9	2452 MHz	15.54	14.50	18.06	29.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the conducted power limit =30-(6.01-6)=29.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	17.43	17.19	20.32	30.00	Complies
6	2437 MHz	25.06	24.61	27.85	30.00	Complies
11	2462 MHz	19.20	18.39	21.82	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	16.53	16.82	19.69	30.00	Complies
6	2437 MHz	19.83	19.33	22.60	30.00	Complies
9	2452 MHz	16.67	15.59	19.17	30.00	Complies

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	15.45	15.13	15.32	20.07	28.23	Complies
6	2437 MHz	22.80	22.27	22.48	27.29	28.23	Complies
11	2462 MHz	16.81	15.76	15.82	20.93	28.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the conducted power limit =30-(7.77-6)=28.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	12.33	12.39	12.71	17.25	28.23	Complies
6	2437 MHz	17.58	16.87	16.89	21.90	28.23	Complies
9	2452 MHz	13.93	12.68	12.63	17.89	28.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the conducted power limit =30-(7.77-6)=28.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	17.74	17.52	18.10	22.56	30.00	Complies
6	2437 MHz	23.80	23.56	23.60	28.43	30.00	Complies
11	2462 MHz	18.51	17.24	17.52	22.56	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	13.99	14.13	14.37	18.94	30.00	Complies
6	2437 MHz	18.15	17.53	17.53	22.52	30.00	Complies
9	2452 MHz	15.57	14.24	14.25	19.50	30.00	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 2 (Ant. 2 Patch antenna / 3dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	23.53	30.00	Complies
6	2437 MHz	29.37	30.00	Complies
11	2462 MHz	21.42	30.00	Complies

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	20.15	30.00	Complies
6	2437 MHz	26.53	30.00	Complies
11	2462 MHz	21.14	30.00	Complies

2TX

Configuration IEEE 802.11b / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	20.48	20.28	23.39	29.99	Complies
6	2437 MHz	27.07	26.53	29.82	29.99	Complies
11	2462 MHz	19.51	18.62	22.10	29.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the conducted power limit =30-(6.01-6)=29.99dBm

Configuration IEEE 802.11g / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	17.18	16.96	20.08	29.99	Complies
6	2437 MHz	24.11	23.74	26.94	29.99	Complies
11	2462 MHz	18.83	18.05	21.47	29.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the conducted power limit =30-(6.01-6)=29.99dBm

3TX

Configuration IEEE 802.11b / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	21.81	21.37	21.25	26.25	28.23	Complies
6	2437 MHz	23.65	23.04	23.09	28.04	28.23	Complies
11	2462 MHz	17.46	16.30	16.42	21.53	28.23	Complies

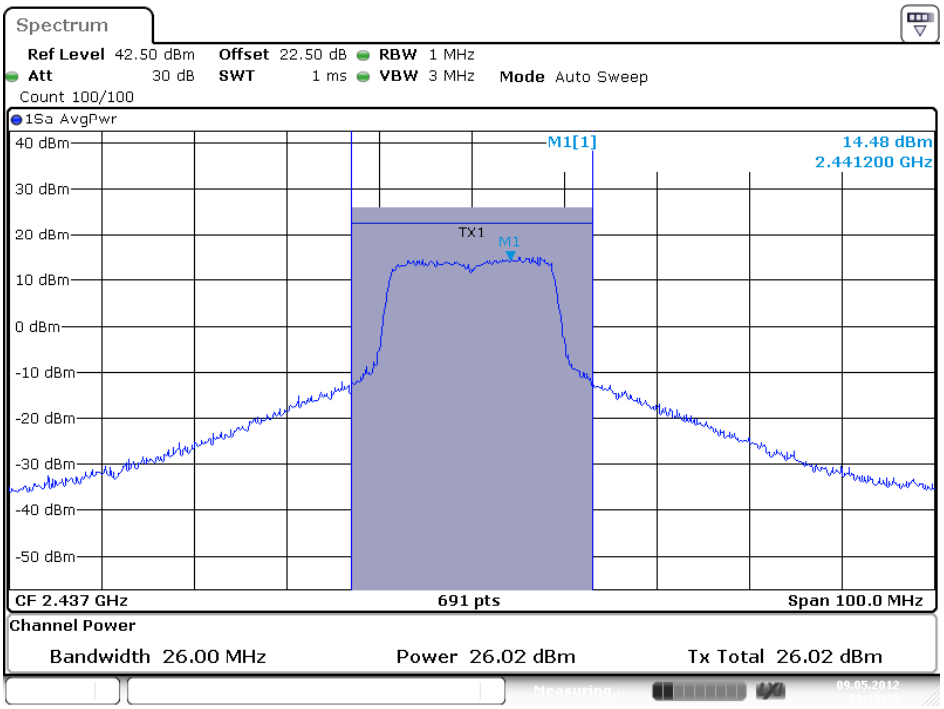
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the conducted power limit =30-(7.77-6)=28.23dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	15.81	15.55	15.77	20.48	28.23	Complies
6	2437 MHz	23.11	22.66	22.89	27.66	28.23	Complies
11	2462 MHz	16.35	15.18	15.39	20.44	28.23	Complies

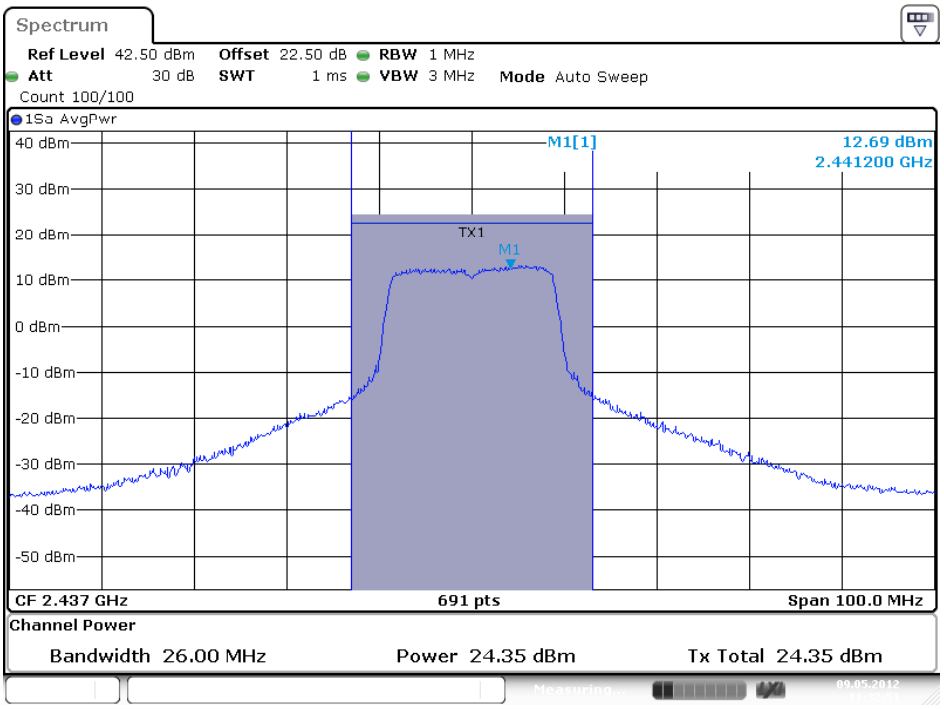
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the conducted power limit =30-(7.77-6)=28.23dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz / Chain. 1 (1TX)



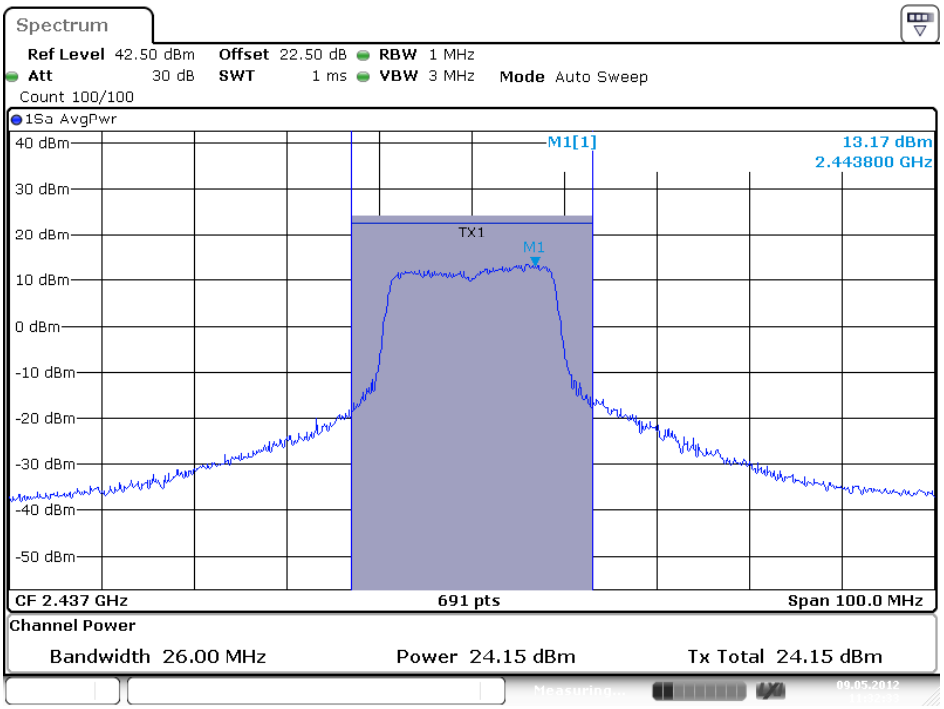
Date: 9.MAY.2012 11:18:38

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (2TX)



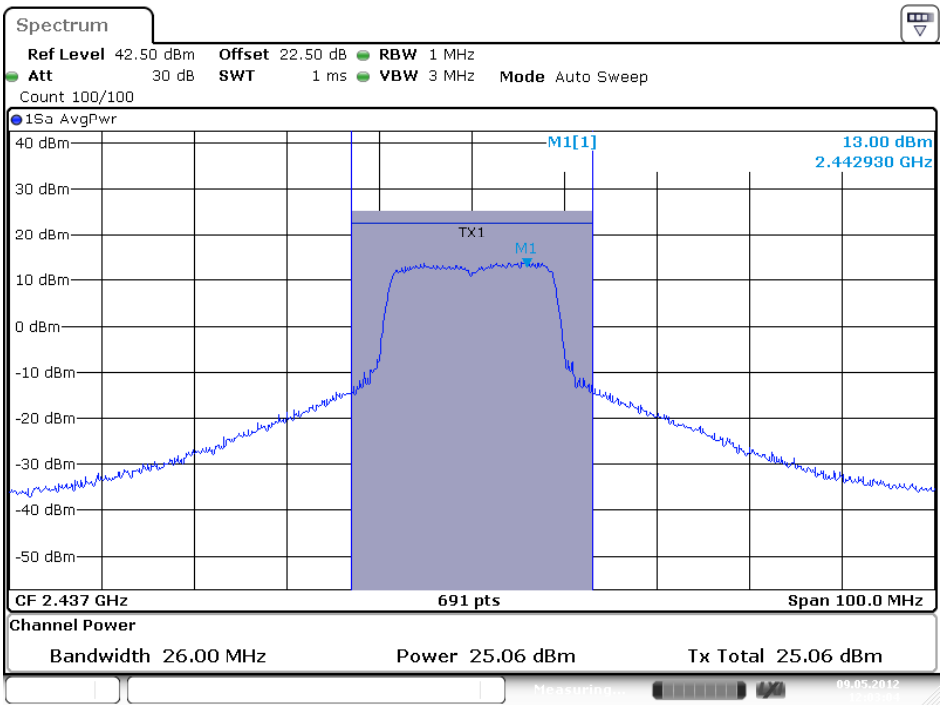
Date: 9.MAY.2012 11:32:52

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (2TX)



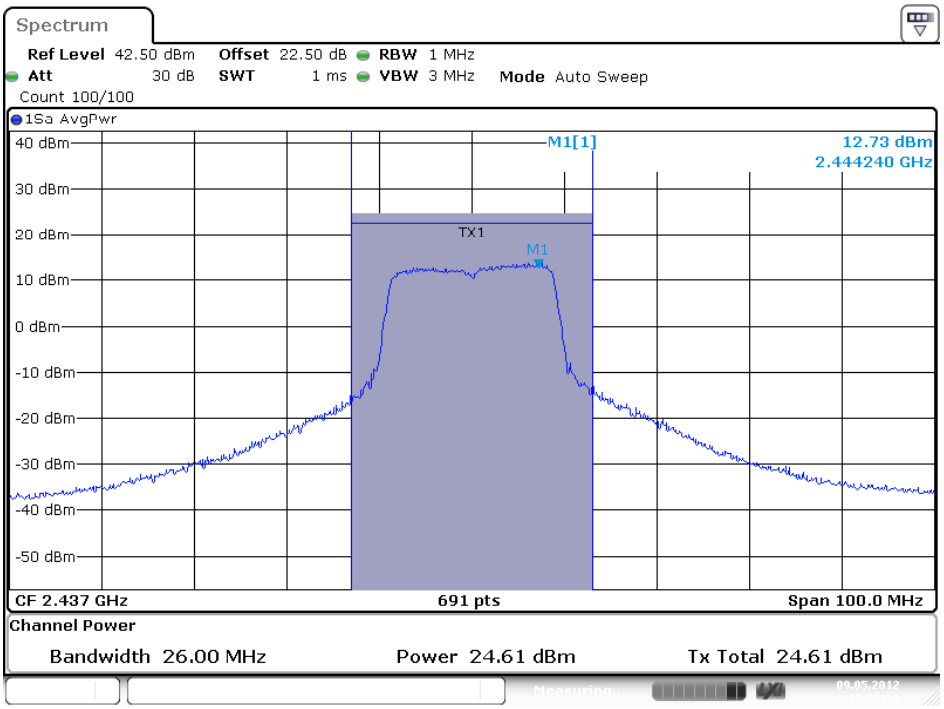
Date: 9.MAY.2012 11:32:33

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (2TX)



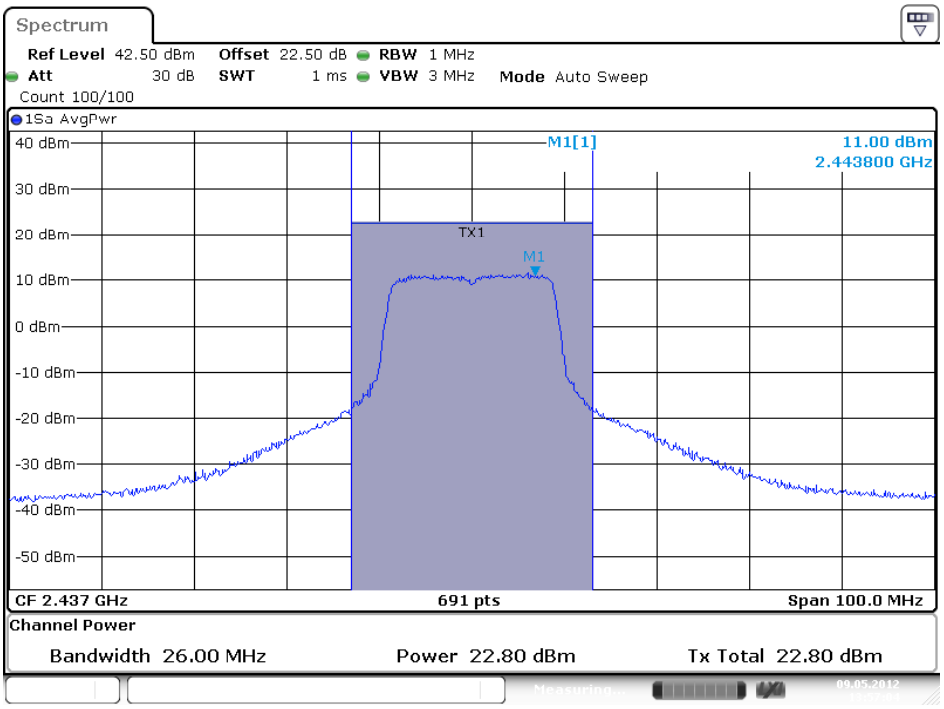
Date: 9.MAY.2012 12:03:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (2TX)



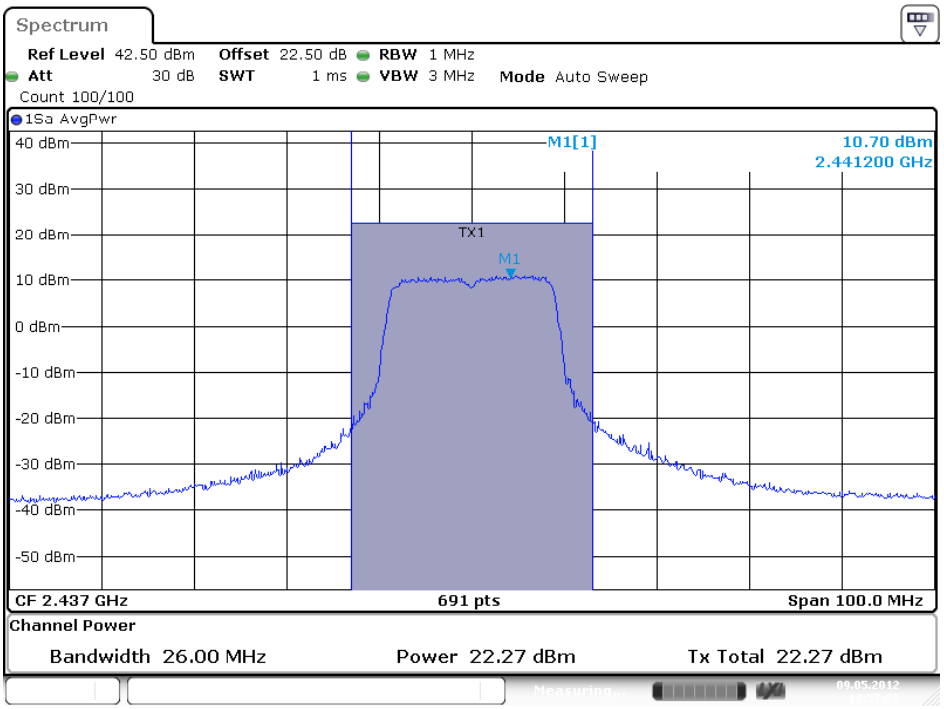
Date: 9.MAY.2012 12:03:32

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (3TX)



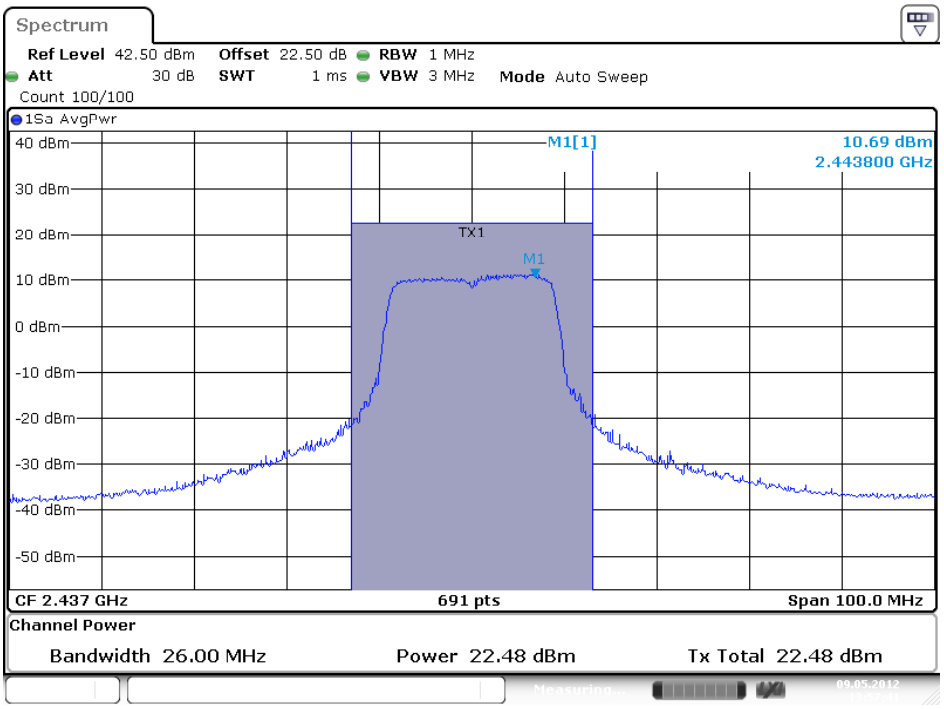
Date: 9.MAY.2012 13:57:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (3TX)



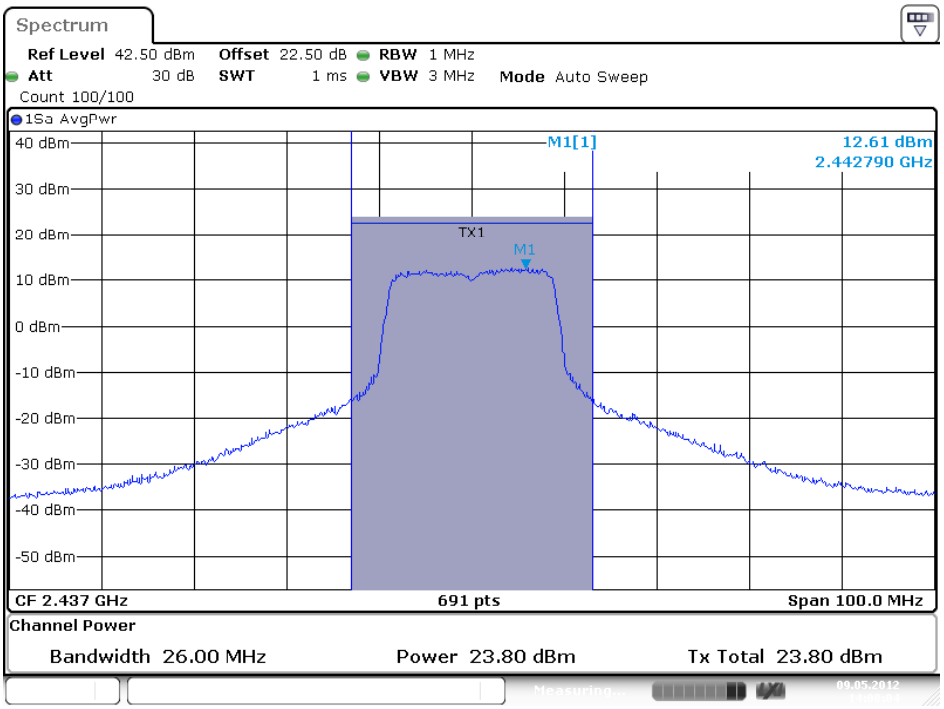
Date: 9.MAY.2012 13:57:27

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 3 (3TX)



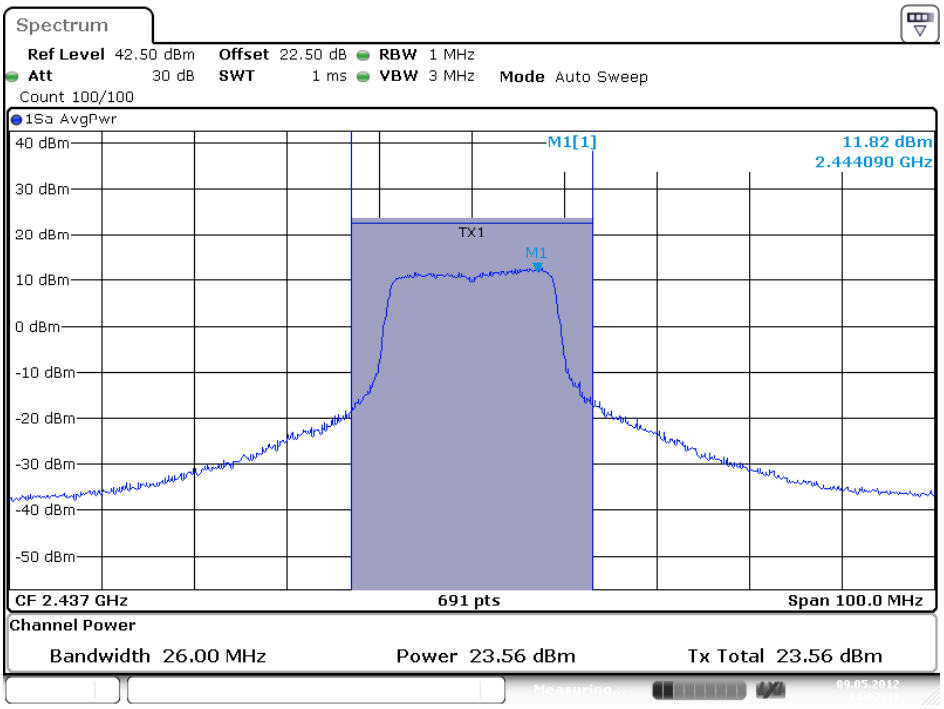
Date: 9.MAY.2012 13:57:42

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (3TX)



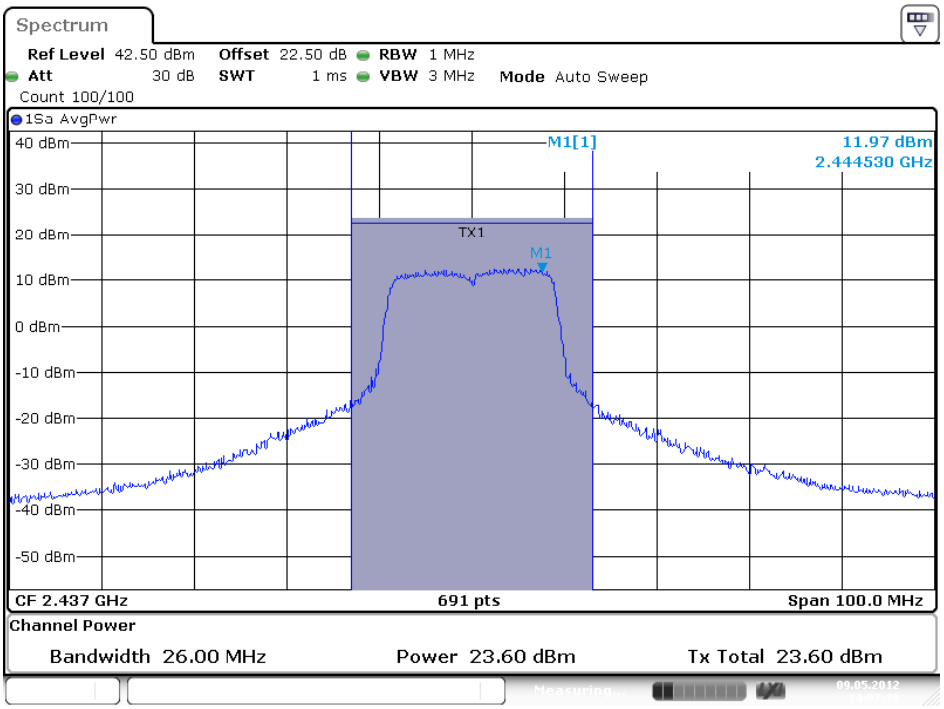
Date: 9.MAY.2012 14:08:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (3TX)



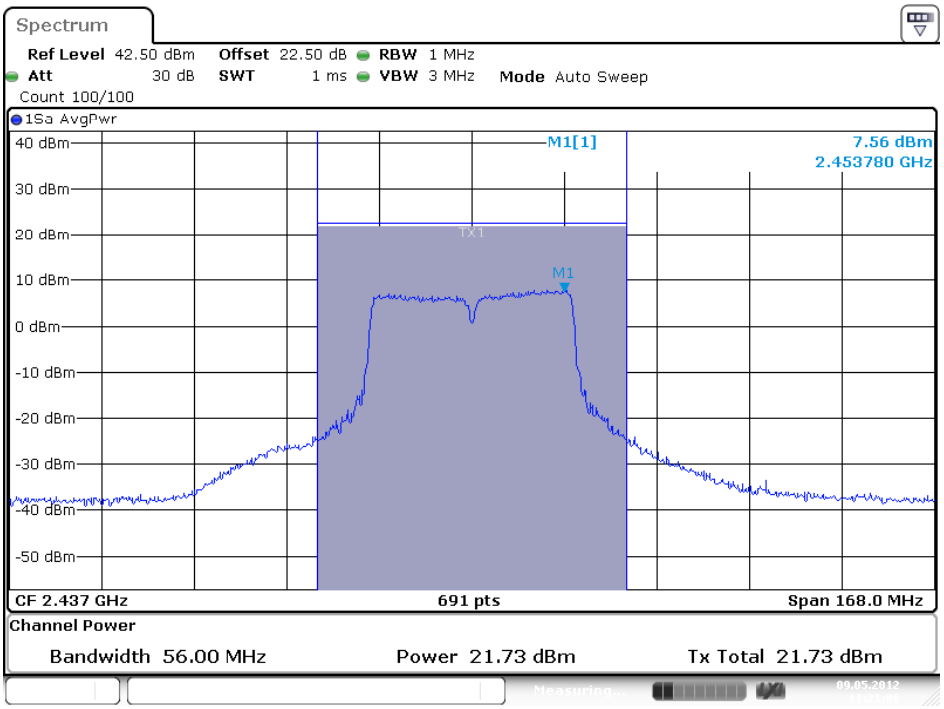
Date: 9.MAY.2012 14:07:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 3 (3TX)



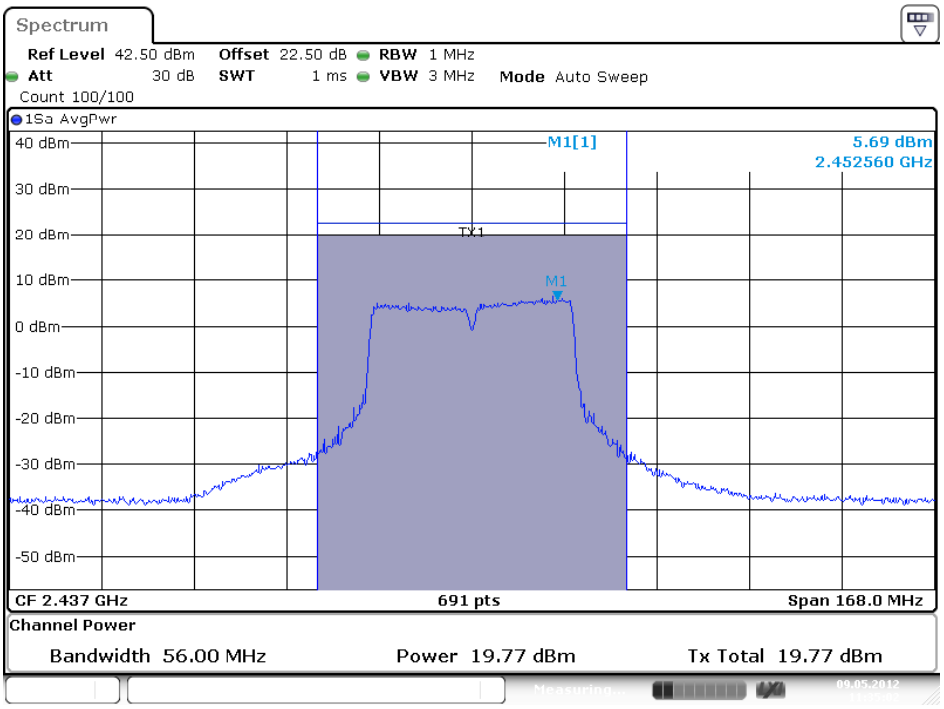
Date: 9.MAY.2012 14:07:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (1TX)



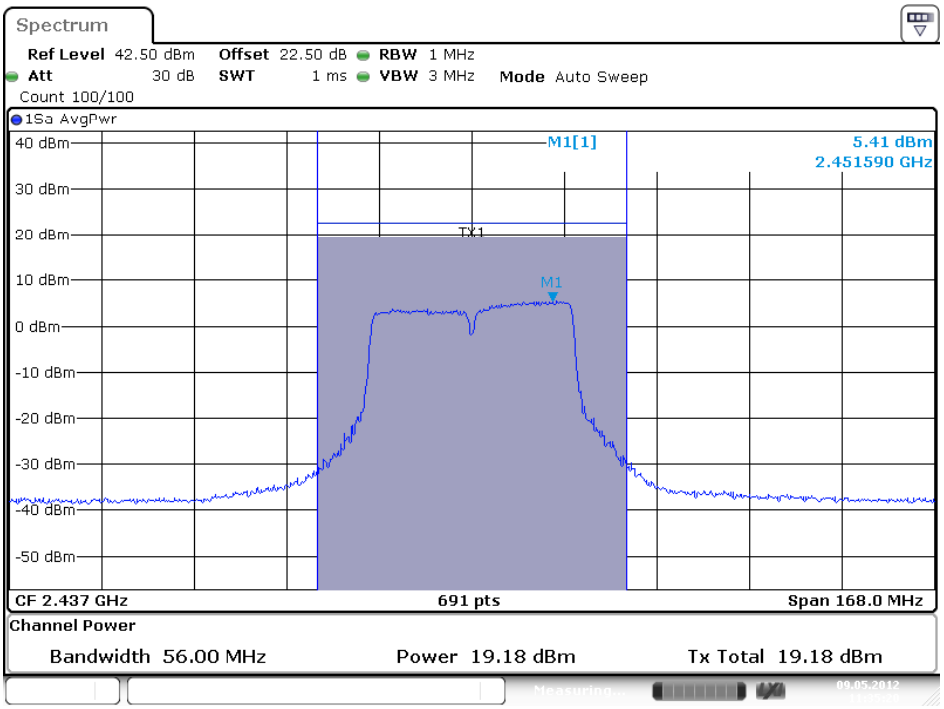
Date: 9.MAY.2012 11:21:06

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (2TX)



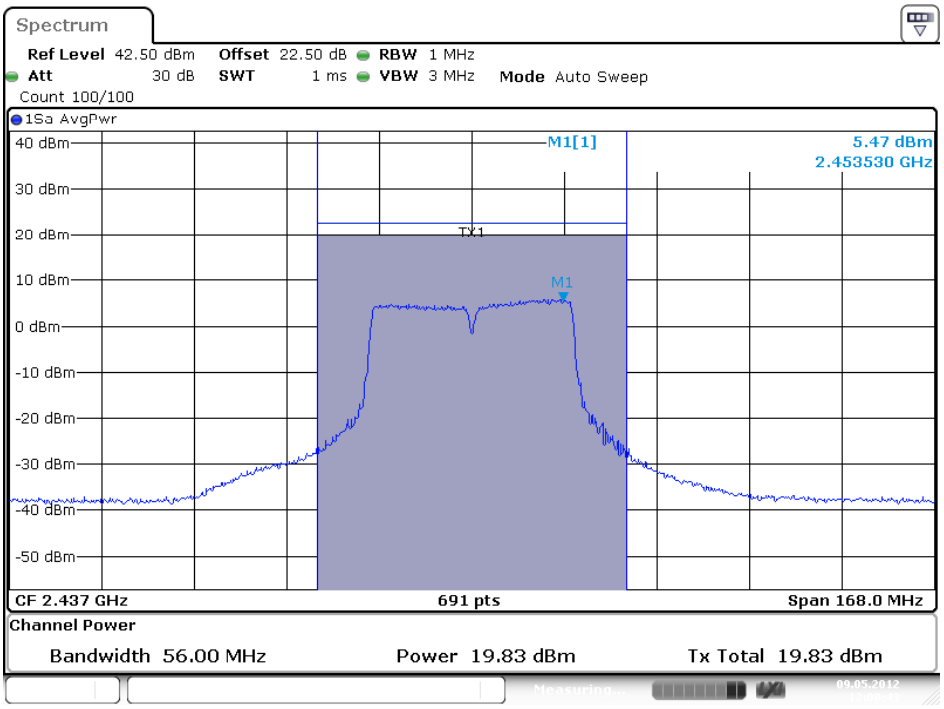
Date: 9.MAY.2012 11:35:02

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (2TX)



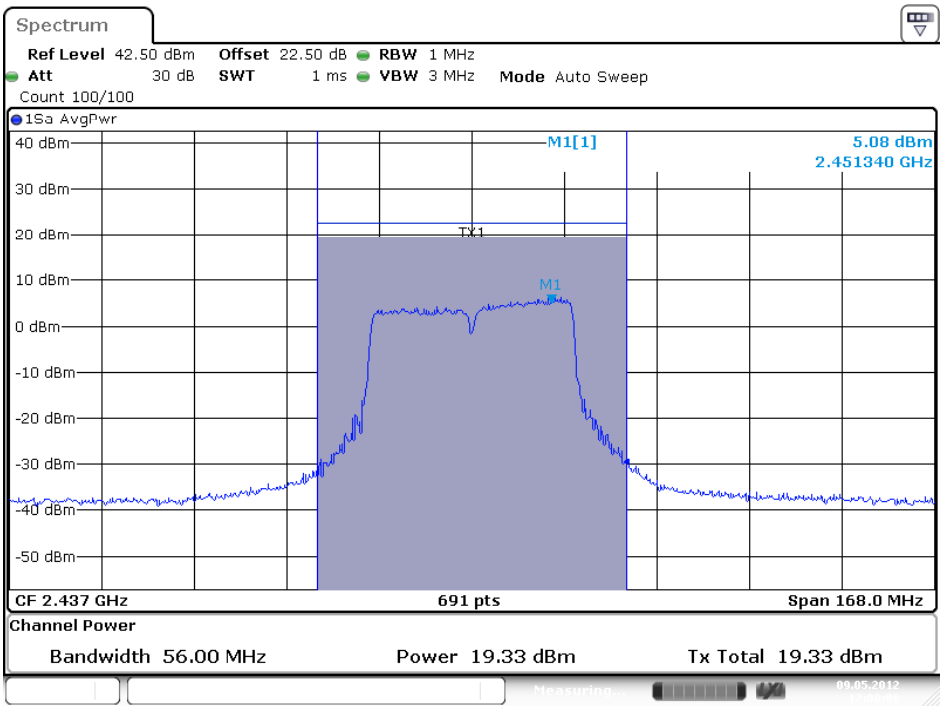
Date: 9.MAY.2012 11:35:21

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (2TX)



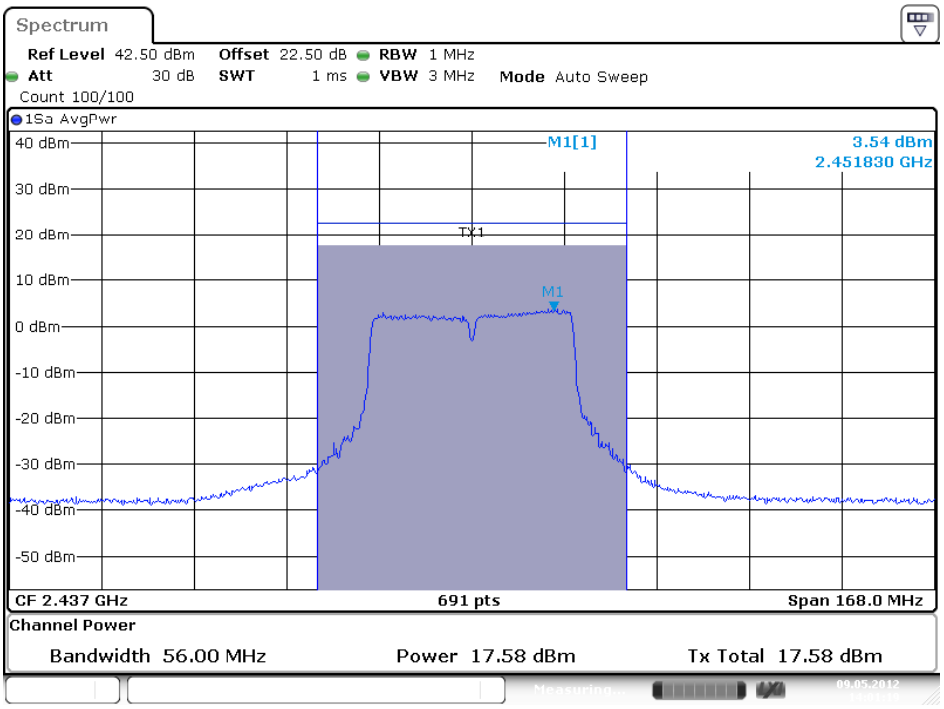
Date: 9.MAY.2012 12:00:43

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (2TX)



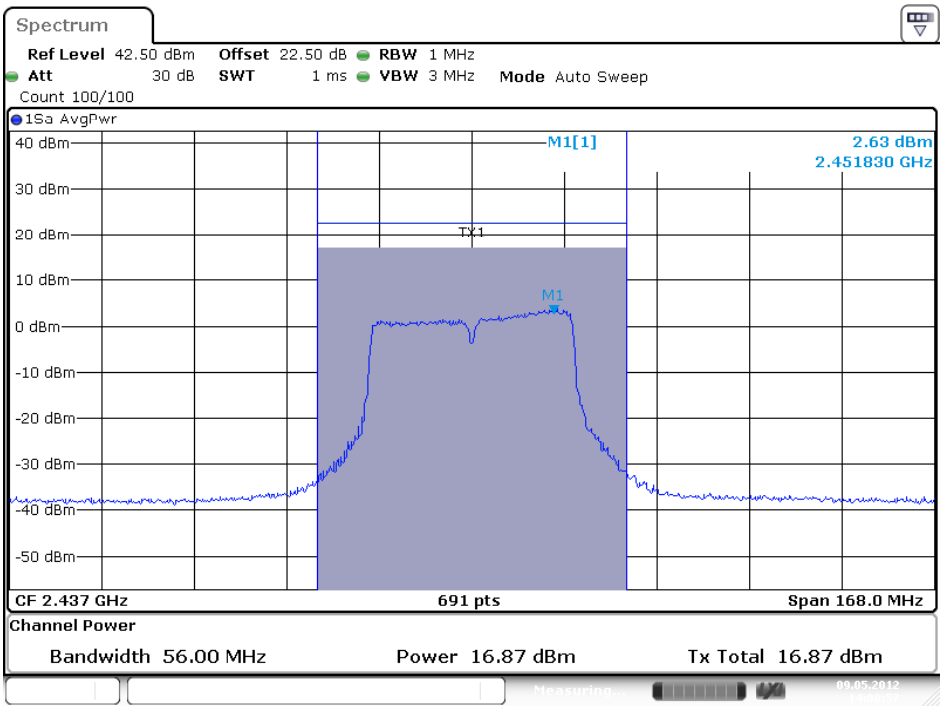
Date: 9.MAY.2012 12:00:07

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (3TX)



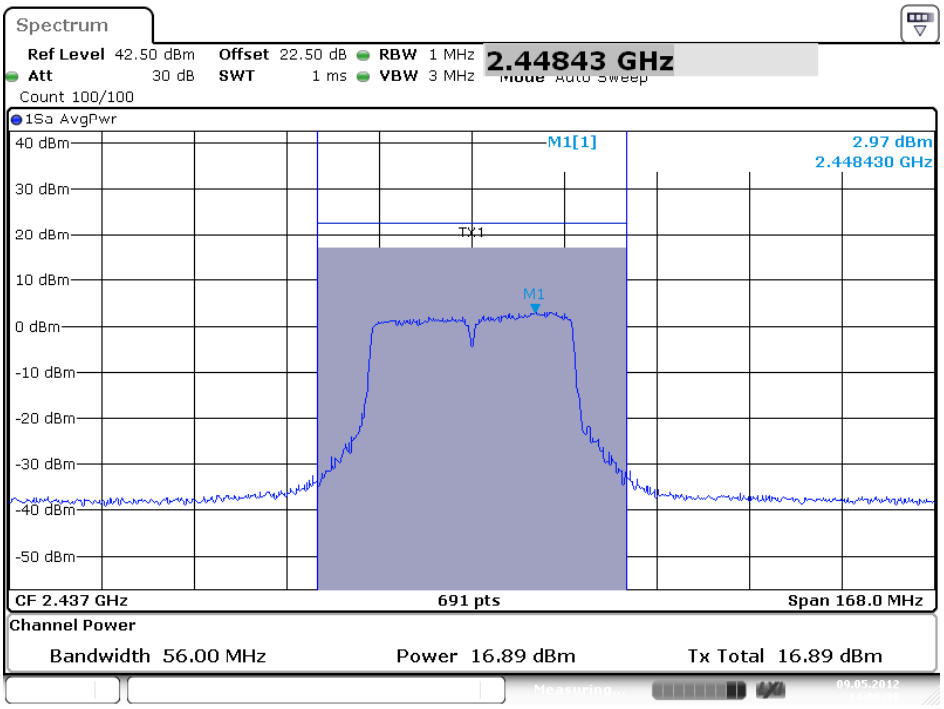
Date: 9.MAY.2012 14:01:20

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (3TX)



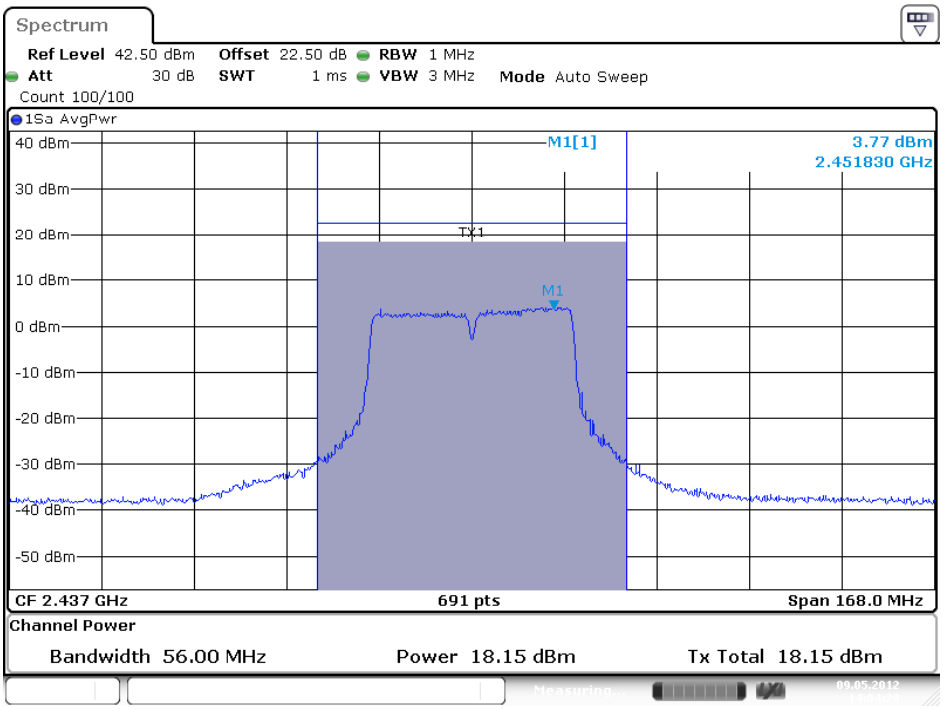
Date: 9.MAY.2012 14:00:58

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 3 (3TX)



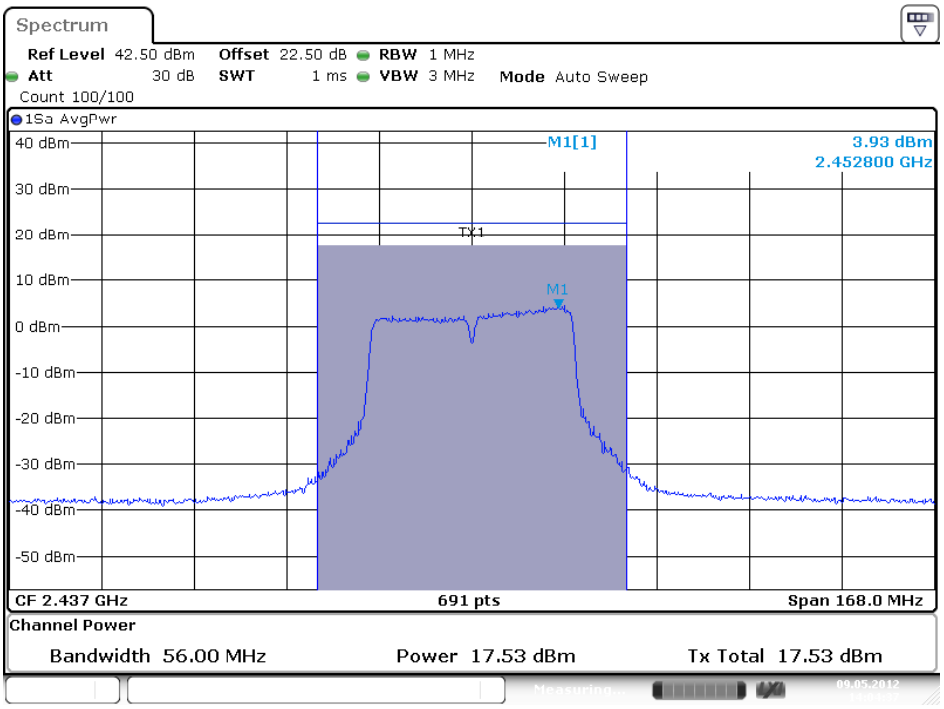
Date: 9.MAY.2012 14:00:39

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (3TX)



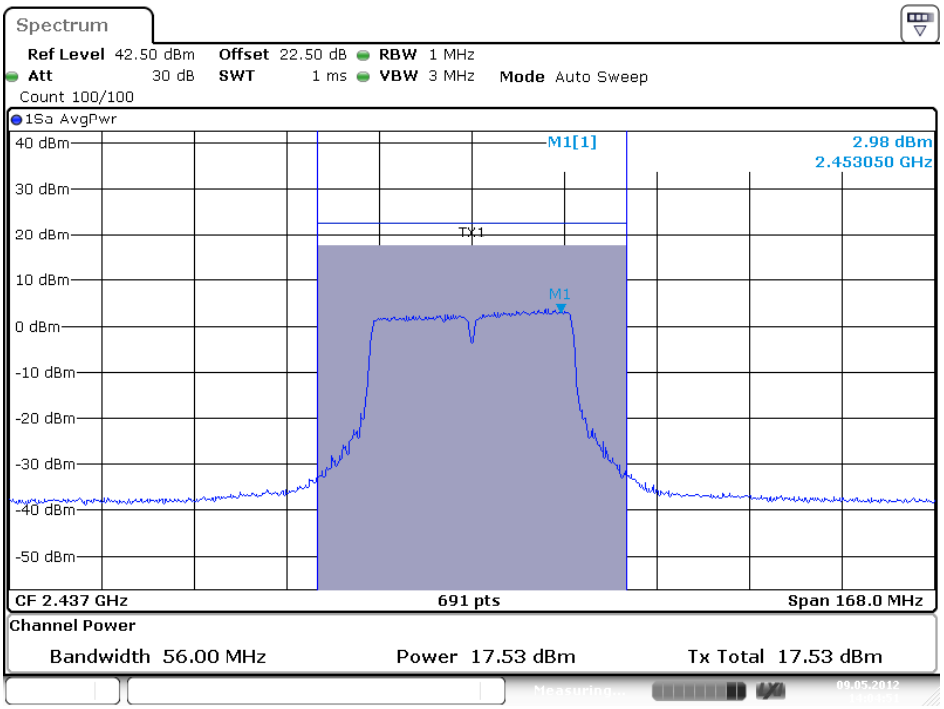
Date: 9.MAY.2012 14:04:21

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (3TX)



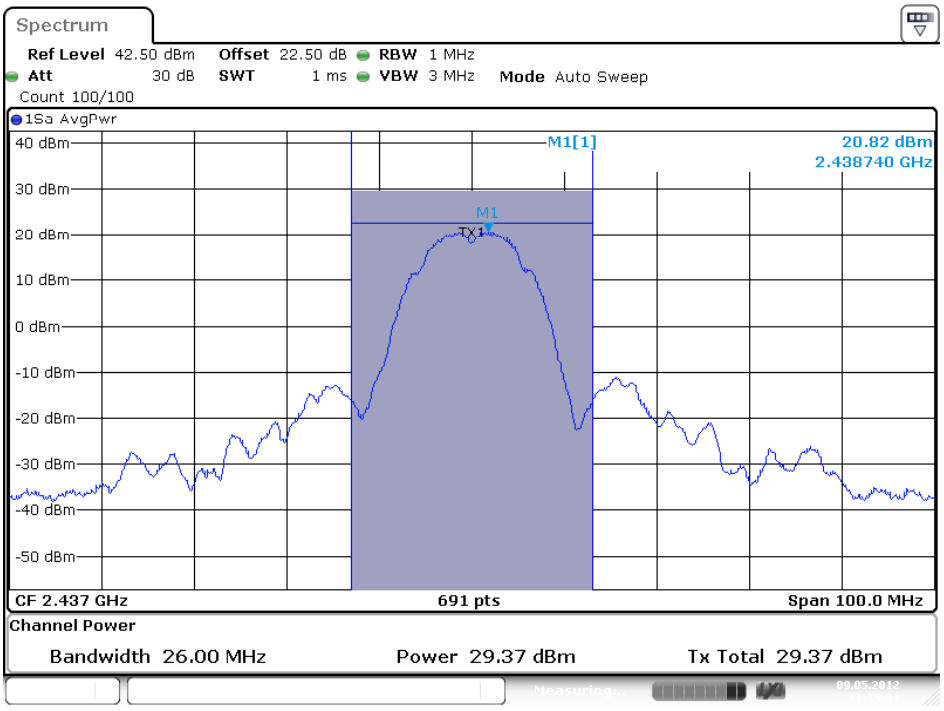
Date: 9.MAY.2012 14:04:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 3 (3TX)



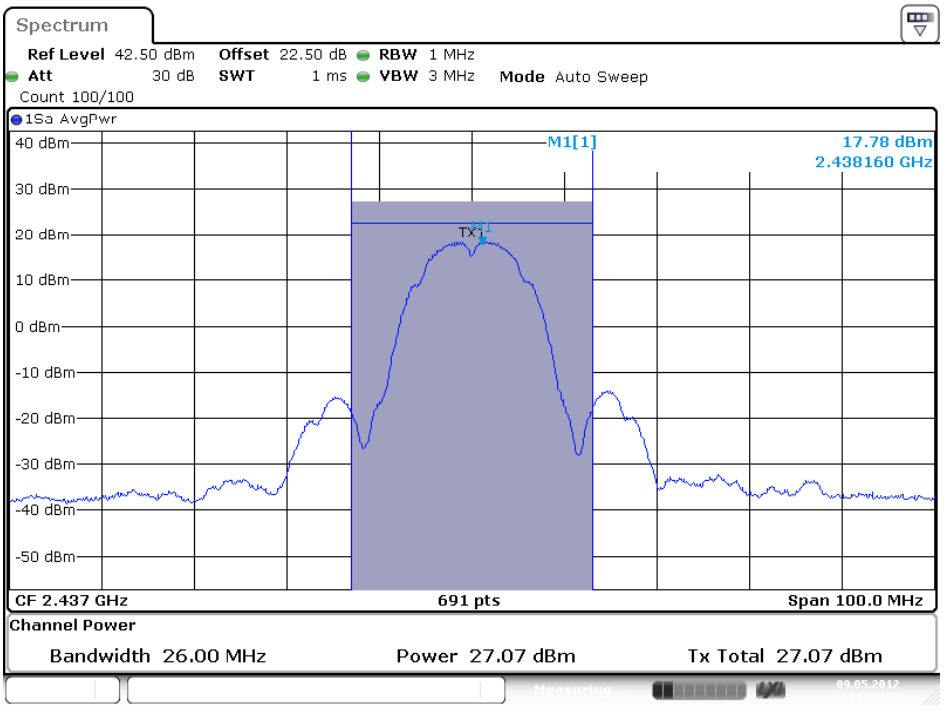
Date: 9.MAY.2012 14:04:51

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (1TX)



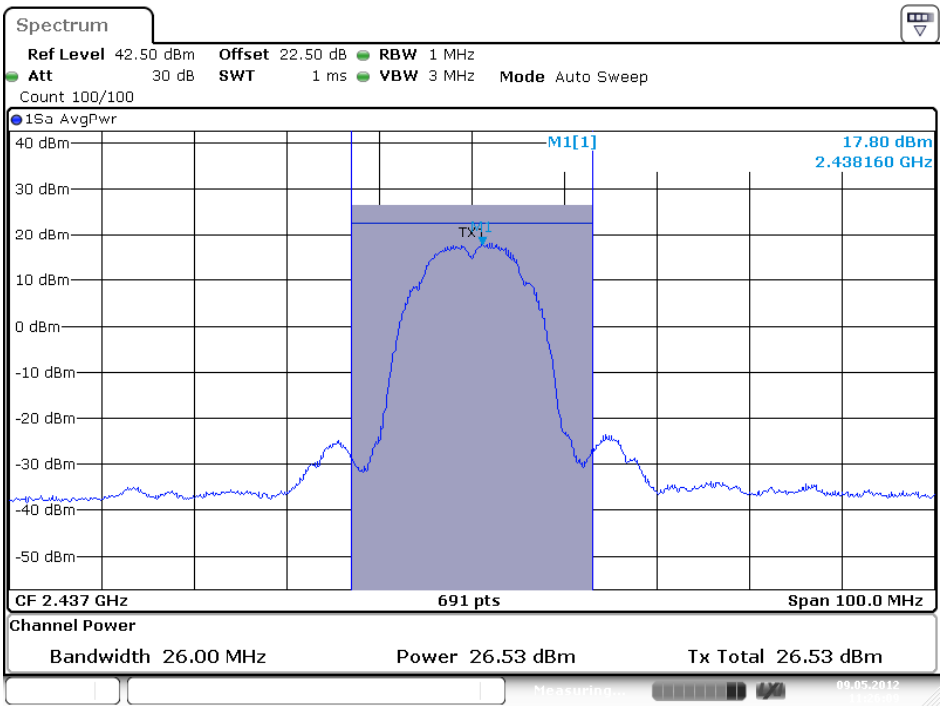
Date: 9.MAY.2012 11:15:31

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (2TX)



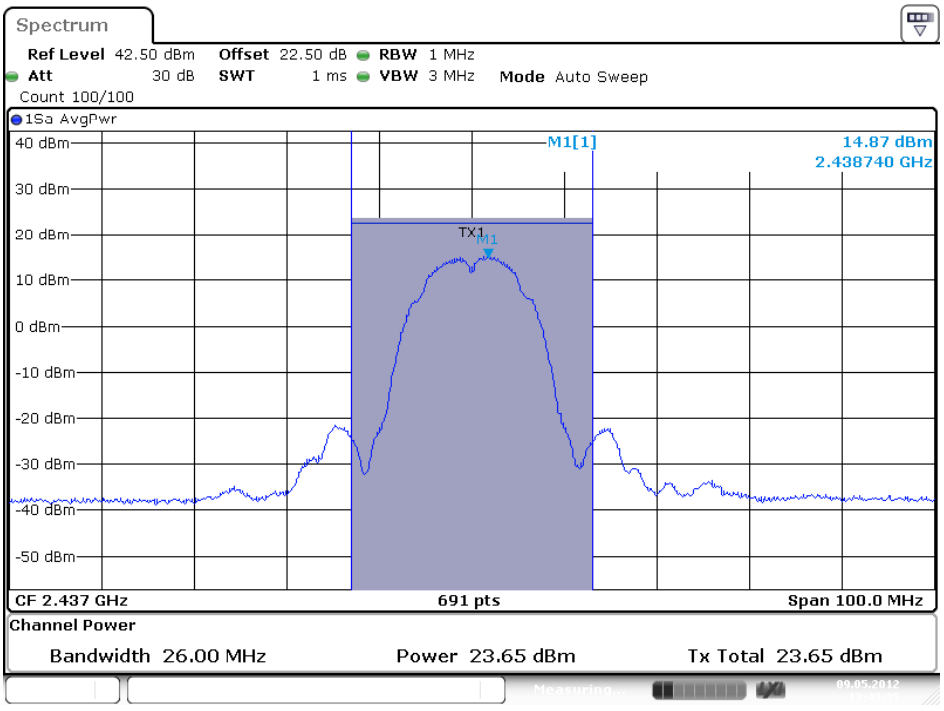
Date: 9.MAY.2012 11:26:29

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (2TX)



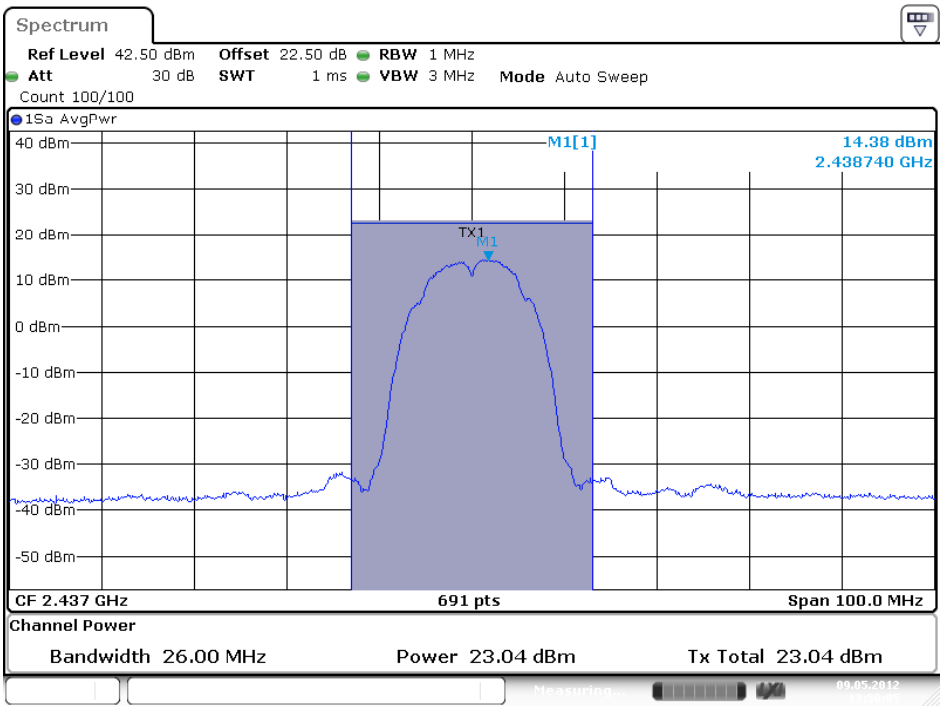
Date: 9.MAY.2012 11:26:10

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (3TX)



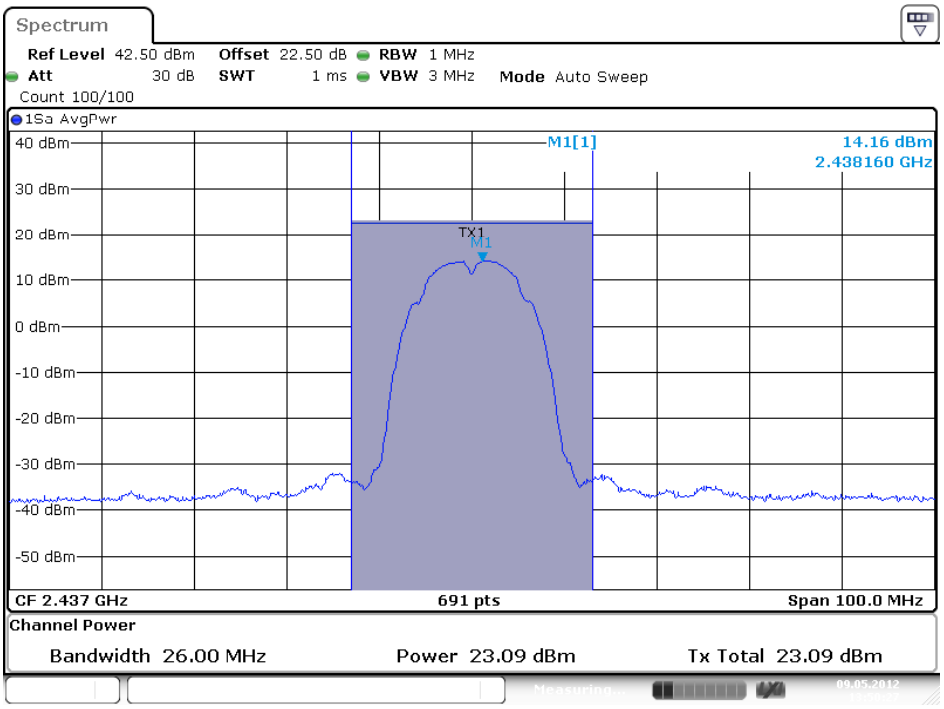
Date: 9.MAY.2012 13:49:35

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (3TX)



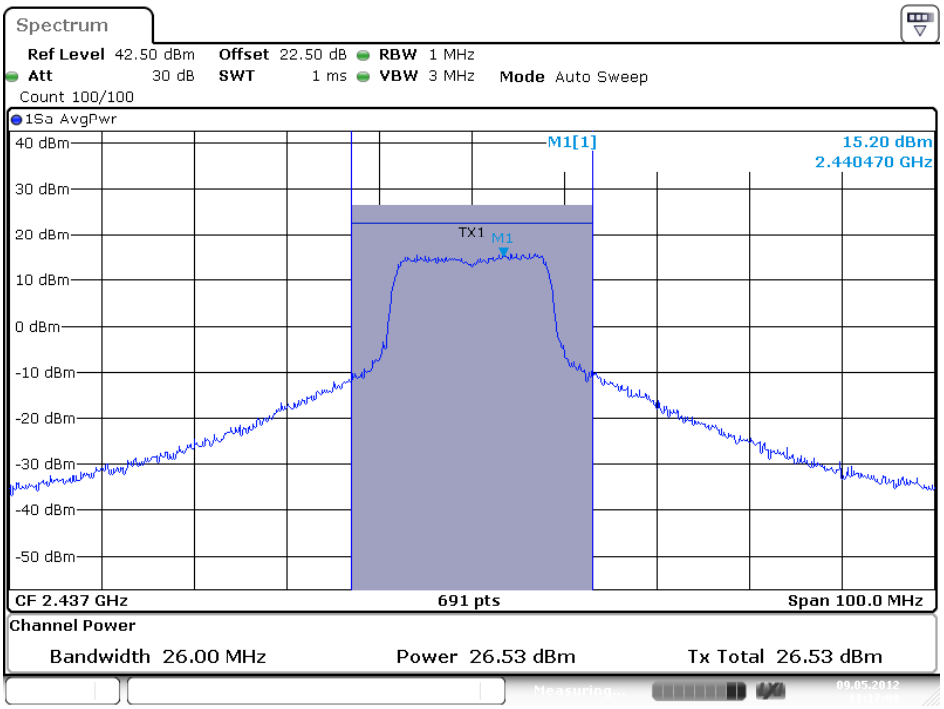
Date: 9.MAY.2012 13:50:05

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 3 (3TX)



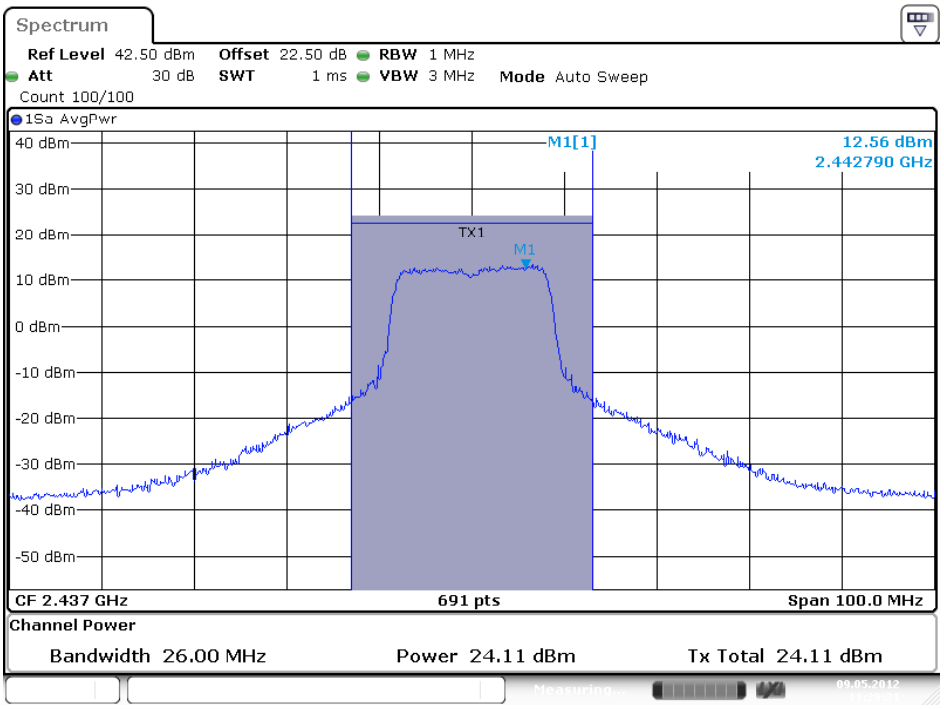
Date: 9.MAY.2012 13:50:27

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (1TX)



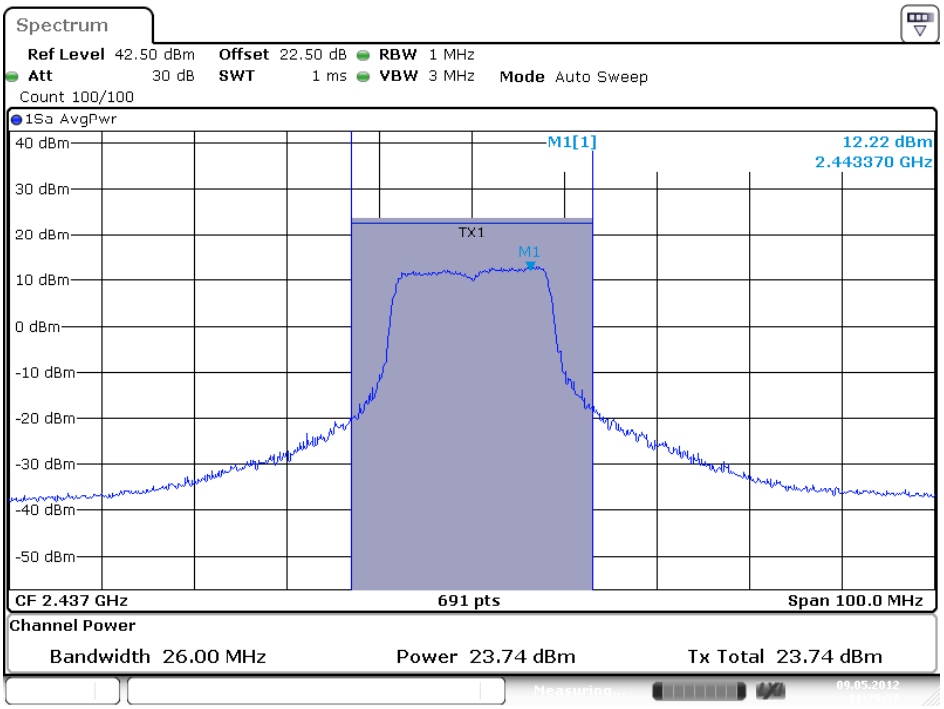
Date: 9.MAY.2012 11:17:00

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (2TX)



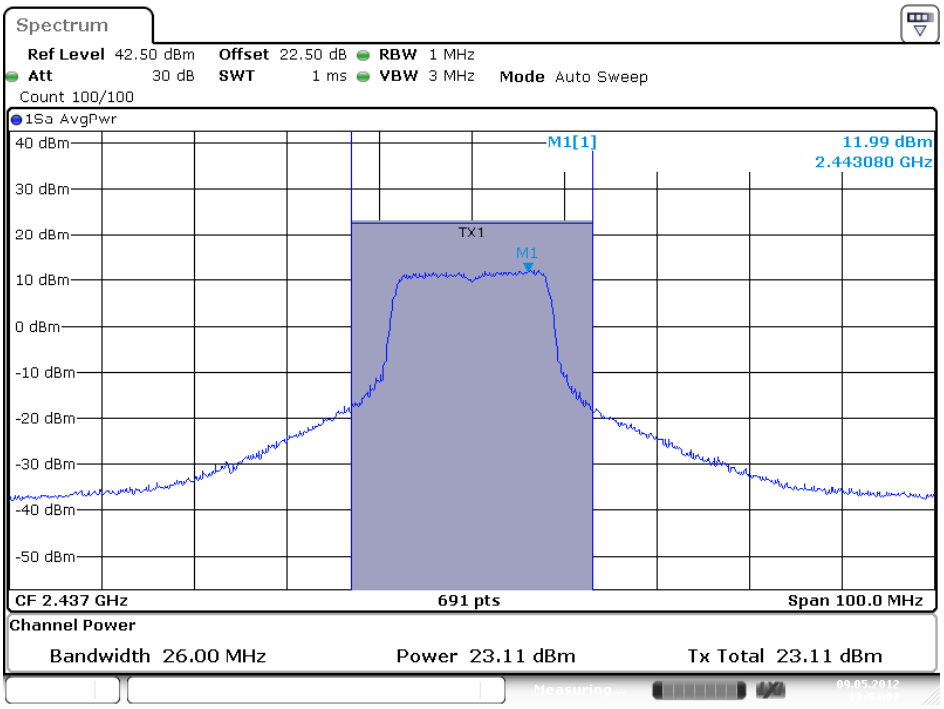
Date: 9.MAY.2012 11:29:22

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (2TX)



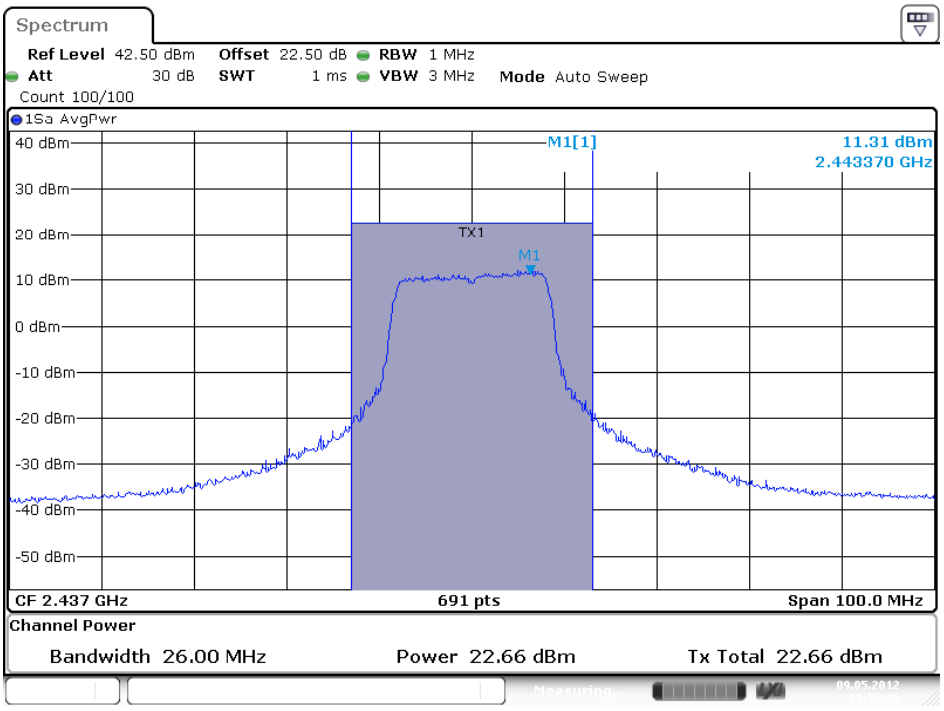
Date: 9.MAY.2012 11:29:57

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (3TX)



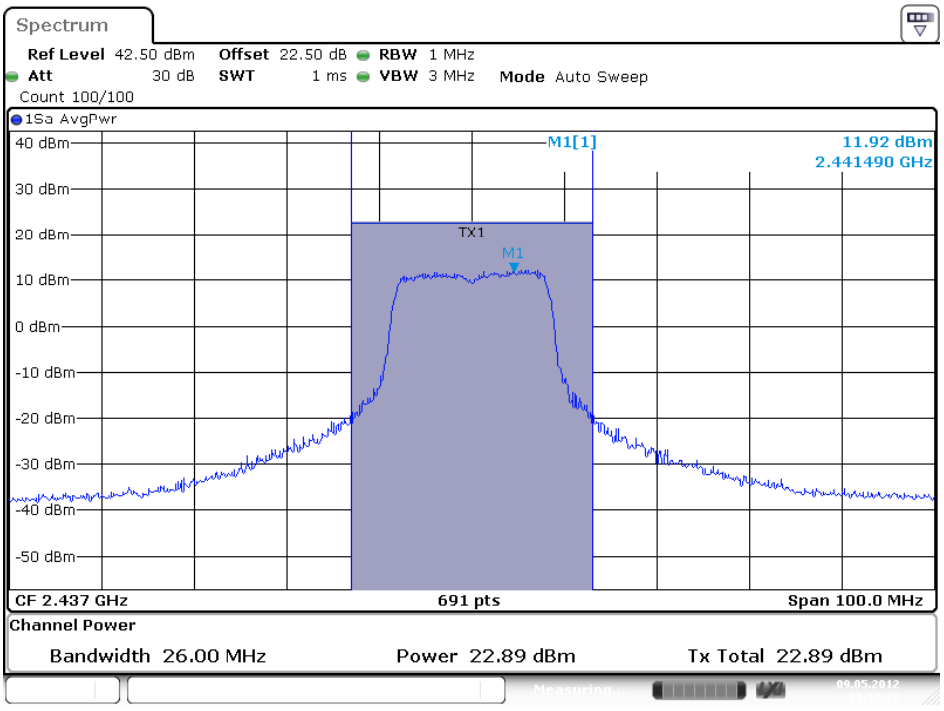
Date: 9.MAY.2012 13:54:08

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (3TX)



Date: 9.MAY.2012 13:53:47

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 3 (3TX)



Date: 9.MAY.2012 13:53:27

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 3 (Ant. 3 Panel antenna / 14dBi)		

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	13.27	22.00	Complies
6	2437 MHz	20.57	22.00	Complies
11	2462 MHz	13.62	22.00	Complies

Note: 14dBi > 6dBi, so the conducted power limit =30-(14-6)=22dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	9.45	22.00	Complies
6	2437 MHz	15.59	22.00	Complies
9	2452 MHz	7.16	22.00	Complies

Note: 14dBi > 6dBi, so the conducted power limit =30-(14-6)=22dBm.

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	11.11	10.72	13.93	18.99	Complies
6	2437 MHz	14.73	13.49	17.16	18.99	Complies
11	2462 MHz	11.21	9.85	13.59	18.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the conducted power limit =30-(17.01-6)=18.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	7.55	7.71	10.64	18.99	Complies
6	2437 MHz	12.30	11.05	14.73	18.99	Complies
9	2452 MHz	4.38	2.65	6.61	18.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the conducted power limit =30-(17.01-6)=18.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	11.42	10.99	14.22	22.00	Complies
6	2437 MHz	15.45	14.28	17.91	22.00	Complies
11	2462 MHz	11.90	10.55	14.29	22.00	Complies

Note: 14dBi > 6dBi, so the conducted power limit =30-(14-6)=22dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	8.66	8.85	11.77	22.00	Complies
6	2437 MHz	13.36	12.48	15.95	22.00	Complies
9	2452 MHz	6.82	5.08	9.05	22.00	Complies

Note: 14dBi > 6dBi, so the conducted power limit =30-(14-6)=22dBm

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	9.53	8.81	8.85	13.85	17.23	Complies
6	2437 MHz	13.14	11.65	11.99	17.08	17.23	Complies
11	2462 MHz	11.30	9.75	10.14	15.22	17.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi, so the conducted power limit =30-(18.77-6)=17.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	5.25	5.00	5.42	10.00	17.23	Complies
6	2437 MHz	10.20	9.00	8.92	14.19	17.23	Complies
9	2452 MHz	2.94	1.33	1.22	6.68	17.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi, so the conducted power limit =30-(18.77-6)=17.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	7.62	7.24	7.45	12.21	19.00	Complies
6	2437 MHz	13.14	11.69	12.03	17.10	19.00	Complies
11	2462 MHz	10.05	8.25	8.66	13.83	19.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17dBi > 6dBi, so the conducted power limit =30-(17-6)=19dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	6.34	6.38	6.72	11.25	19.00	Complies
6	2437 MHz	10.70	9.25	9.30	14.57	19.00	Complies
9	2452 MHz	4.73	2.65	2.76	8.26	19.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17dBi > 6dBi, so the conducted power limit =30-(17-6)=19dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 3 (Ant. 3 Panel antenna / 14dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	9.44	22.00	Complies
6	2437 MHz	15.18	22.00	Complies
11	2462 MHz	12.92	22.00	Complies

Note: 14dBi > 6dBi, so the conducted power limit =30-(14-6)=22dBm.

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	14.57	22.00	Complies
6	2437 MHz	20.80	22.00	Complies
11	2462 MHz	13.93	22.00	Complies

Note: 14dBi > 6dBi, so the conducted power limit =30-(14-6)=22dBm.

2TX

Configuration IEEE 802.11b / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	9.07	8.54	11.82	18.99	Complies
6	2437 MHz	16.37	15.17	18.82	18.99	Complies
11	2462 MHz	14.97	13.39	17.26	18.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the conducted power limit =30-(17.01-6)=18.99dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	10.83	10.58	13.72	18.99	Complies
6	2437 MHz	13.10	14.45	16.84	18.99	Complies
11	2462 MHz	9.69	11.03	13.42	18.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the conducted power limit =30-(17.01-6)=18.99dBm.

3TX

Configuration IEEE 802.11b / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	7.97	7.39	7.68	12.46	17.23	Complies
6	2437 MHz	13.34	11.63	11.87	17.12	17.23	Complies
11	2462 MHz	13.10	11.57	11.74	16.96	17.23	Complies

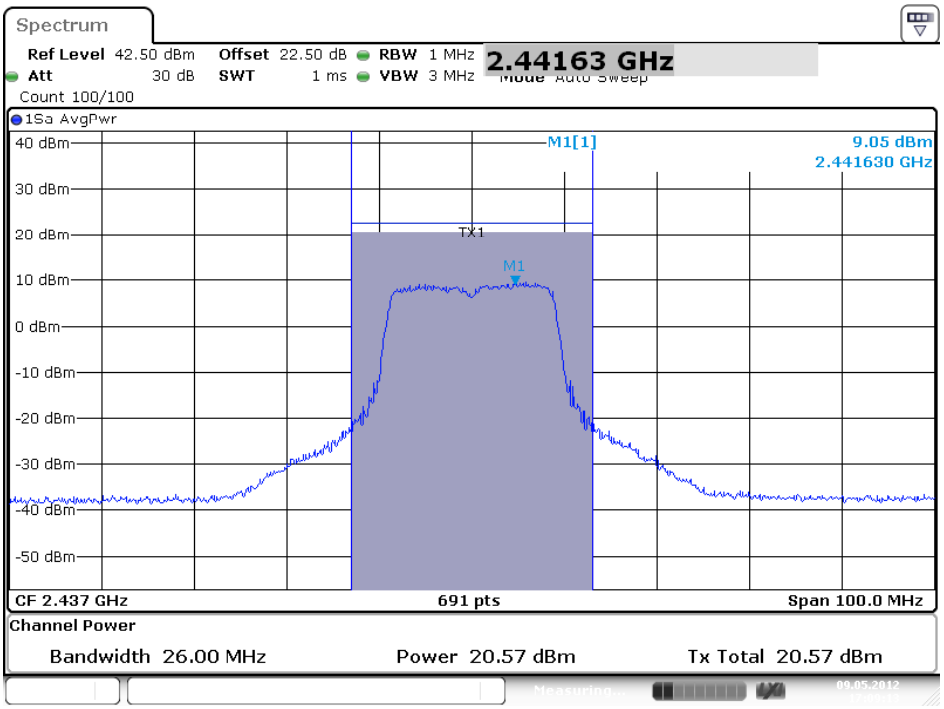
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi, so the conducted power limit =30-(18.77-6)=17.23dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	5.97	5.54	5.75	10.53	17.23	Complies
6	2437 MHz	12.55	11.30	11.48	16.58	17.23	Complies
11	2462 MHz	10.97	9.22	9.56	14.76	17.23	Complies

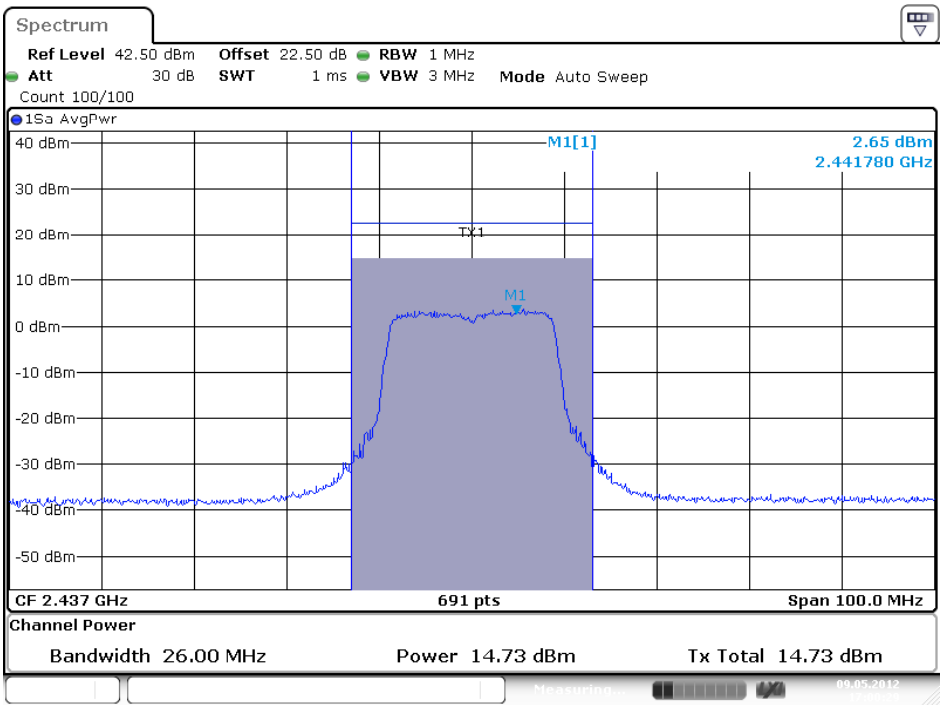
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi, so the conducted power limit =30-(18.77-6)=17.23dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz / Chain. 1 (1TX)



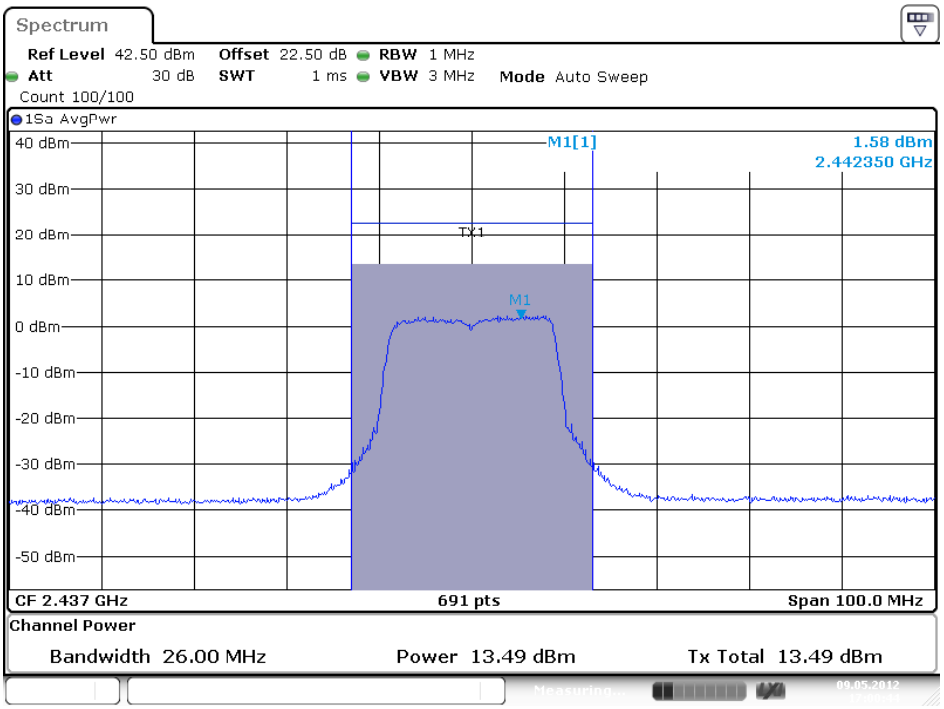
Date: 9.MAY.2012 17:09:13

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (2TX)



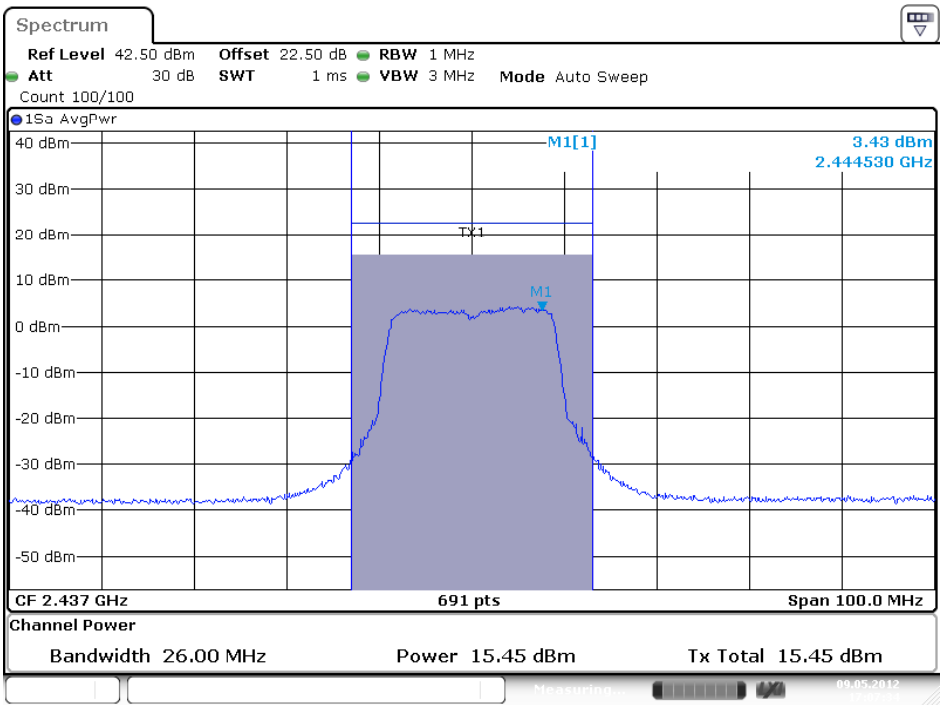
Date: 9.MAY.2012 17:00:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (2TX)



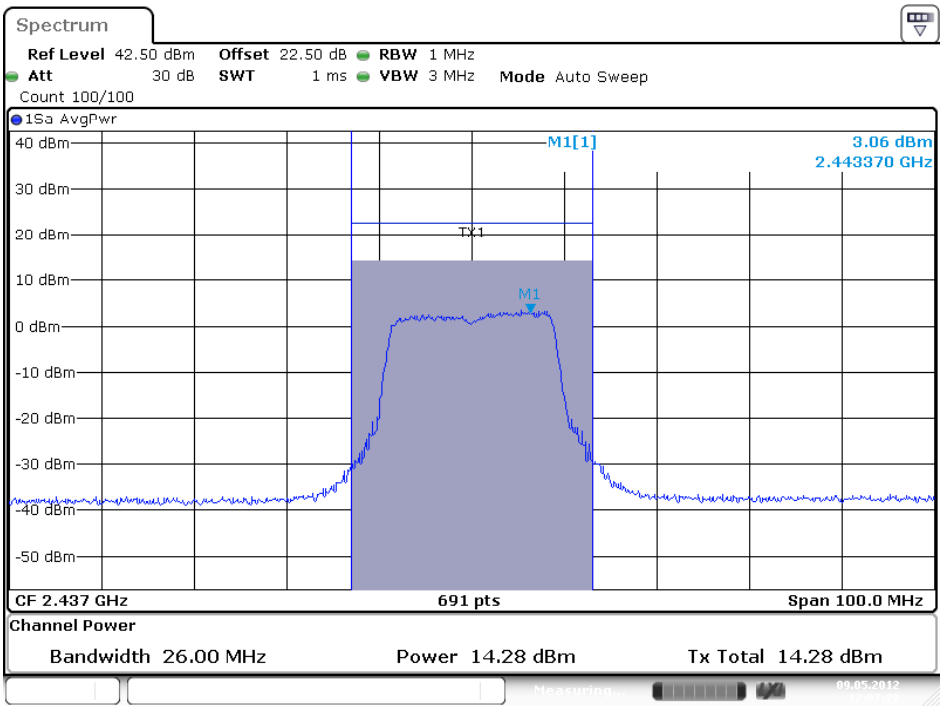
Date: 9.MAY.2012 17:00:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (2TX)



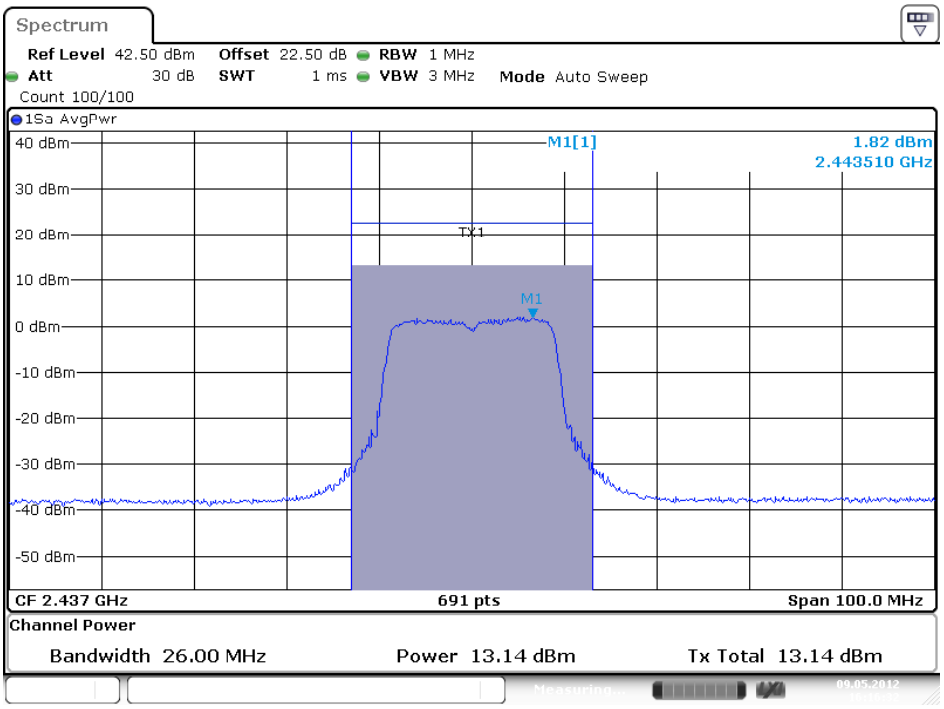
Date: 9.MAY.2012 17:07:35

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (2TX)



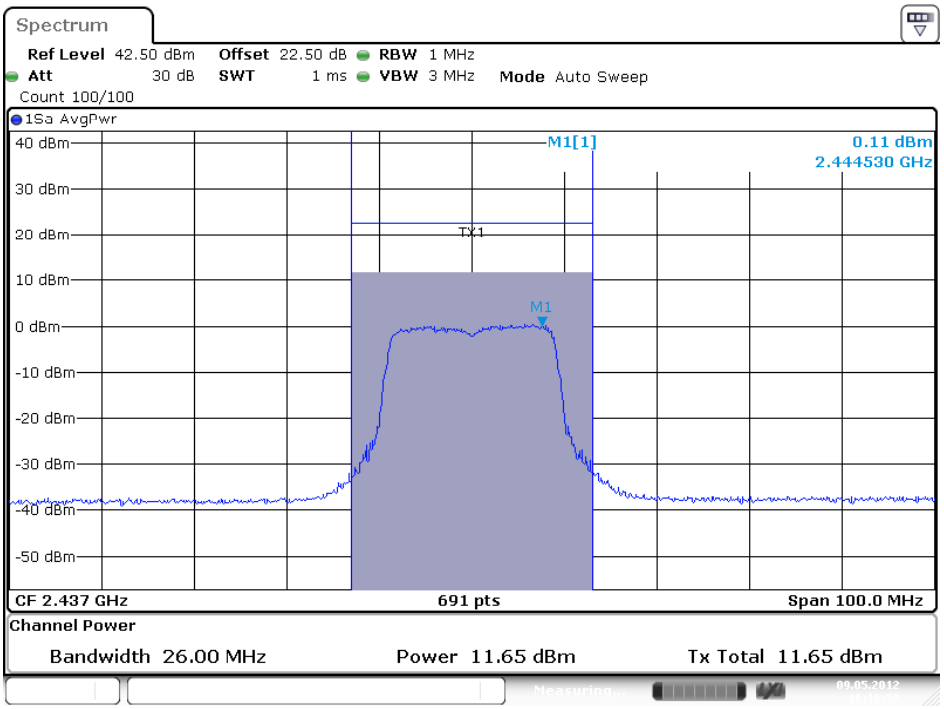
Date: 9.MAY.2012 17:07:20

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (3TX)



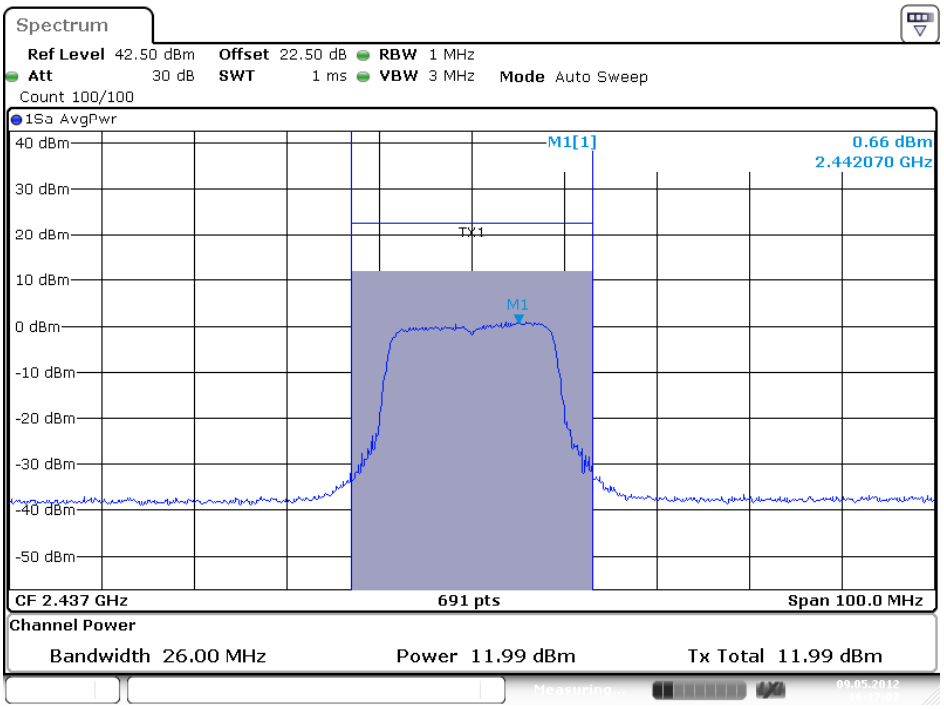
Date: 9.MAY.2012 16:16:33

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (3TX)



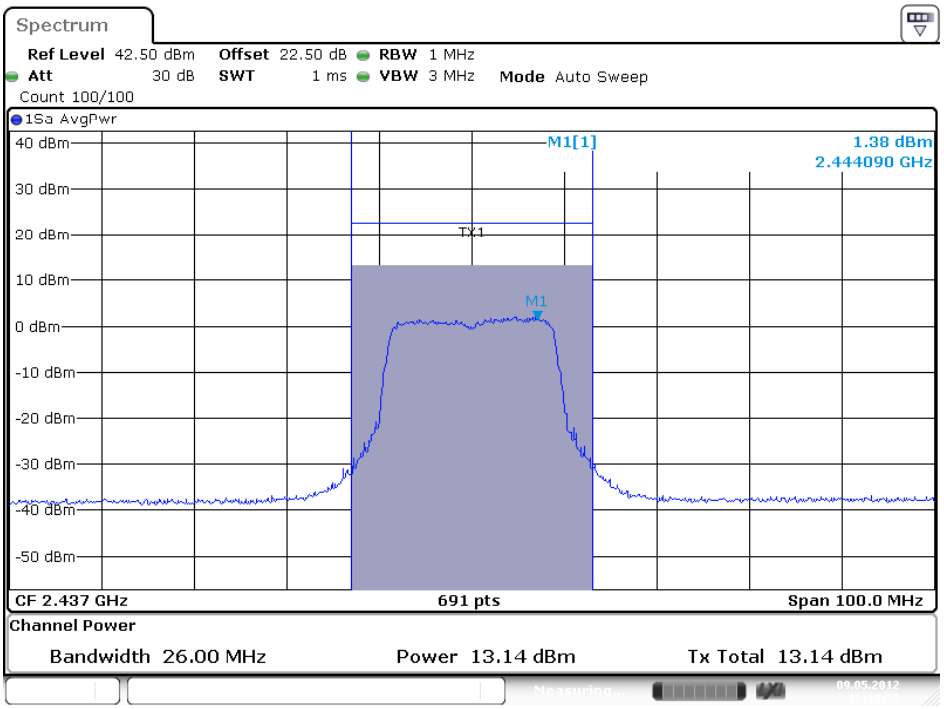
Date: 9.MAY.2012 16:16:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 3 (3TX)



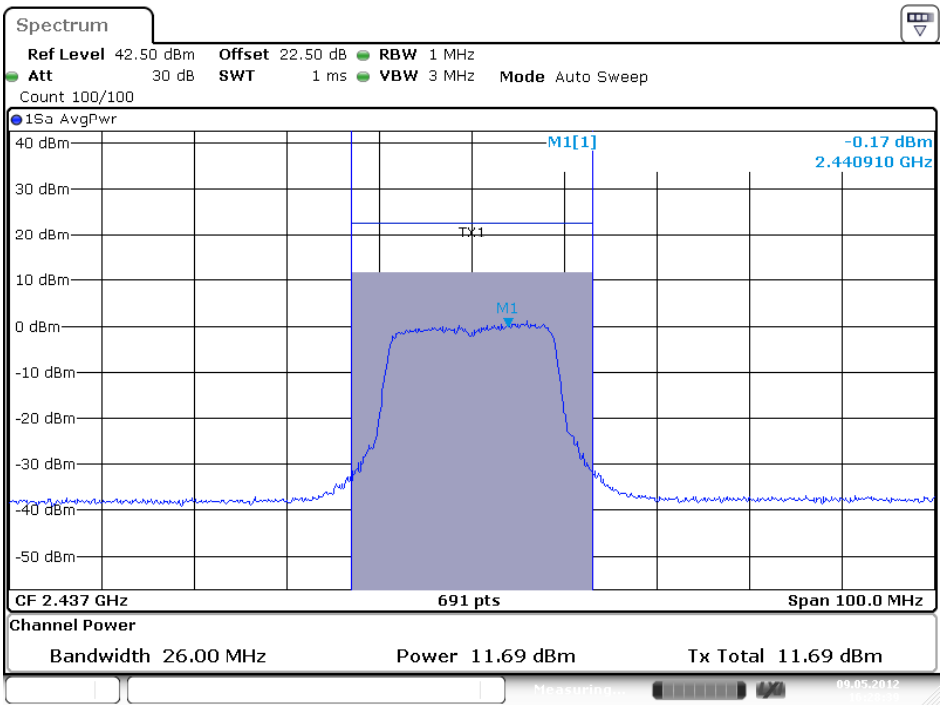
Date: 9.MAY.2012 16:17:08

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (3TX)



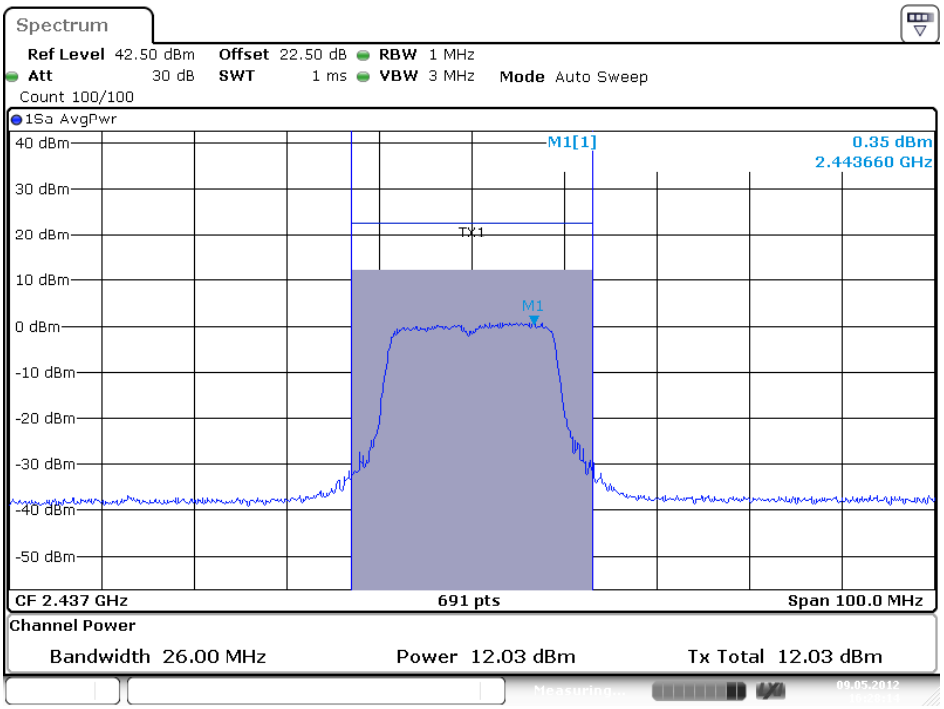
Date: 9.MAY.2012 16:28:56

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (3TX)



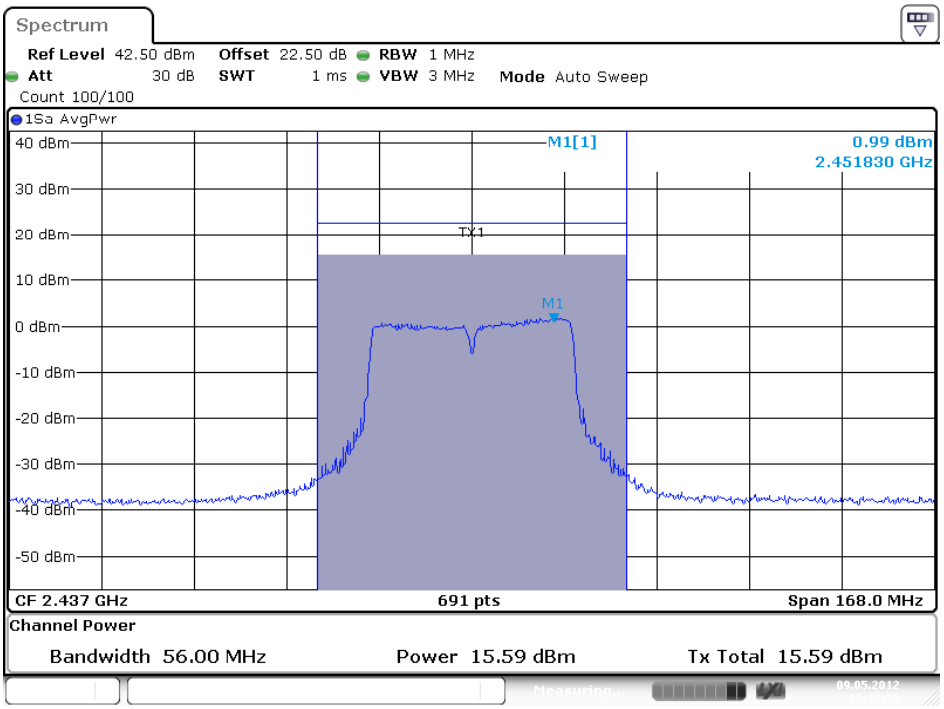
Date: 9.MAY.2012 16:28:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 3 (3TX)



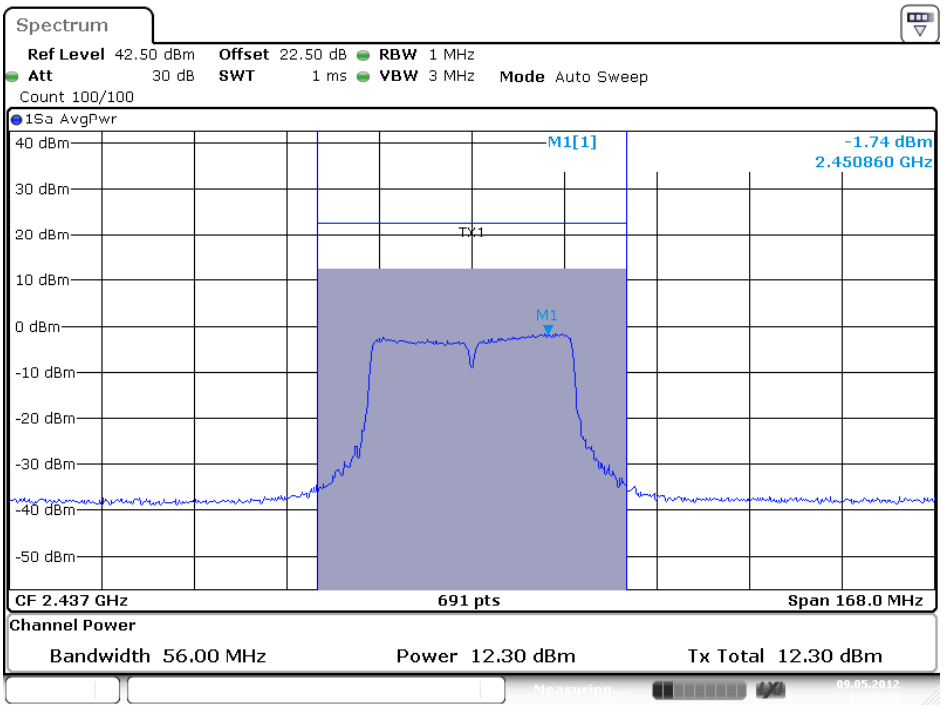
Date: 9.MAY.2012 16:28:15

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (1TX)



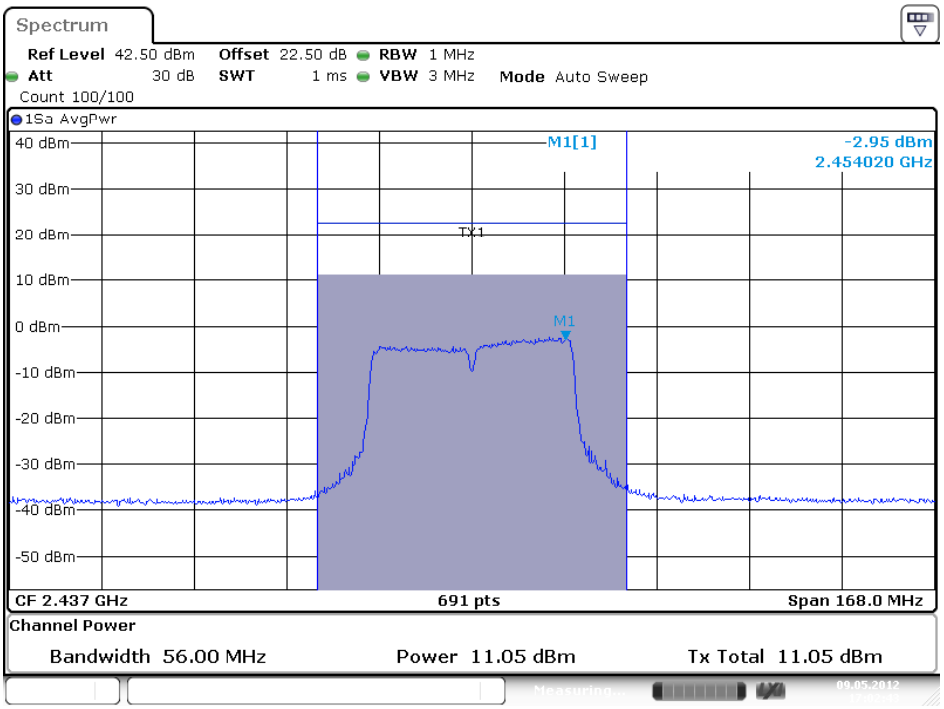
Date: 9.MAY.2012 17:12:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (2TX)



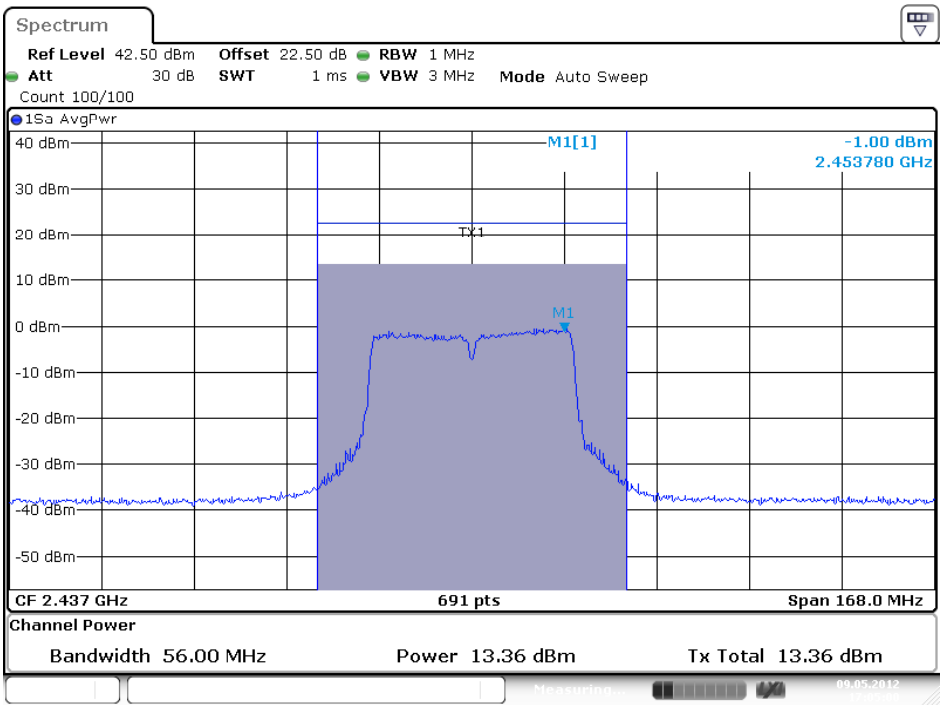
Date: 9.MAY.2012 17:03:02

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (2TX)



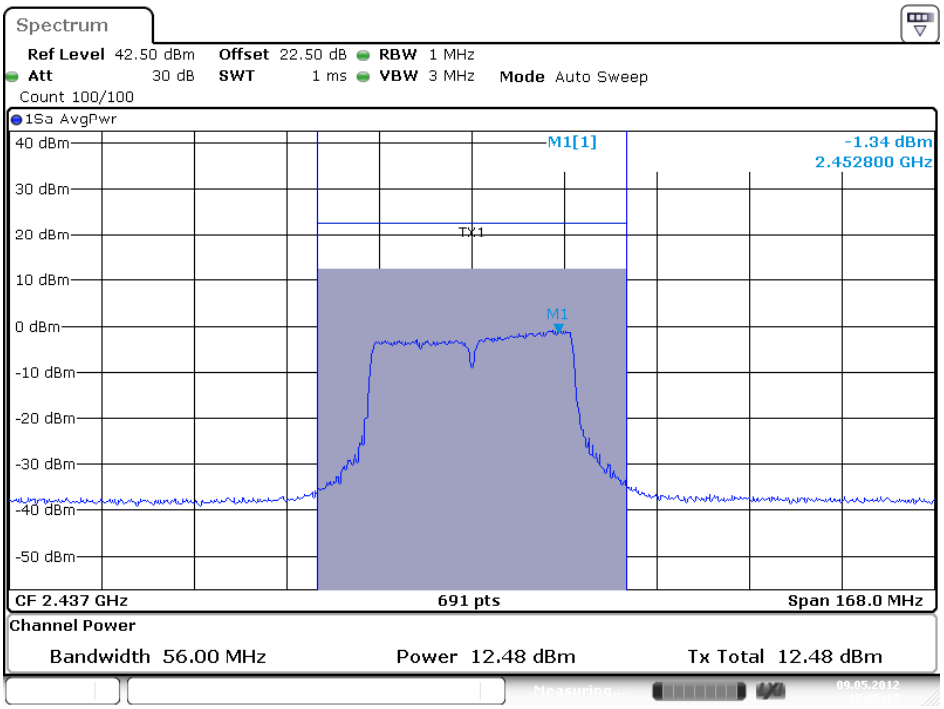
Date: 9.MAY.2012 17:02:44

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (2TX)



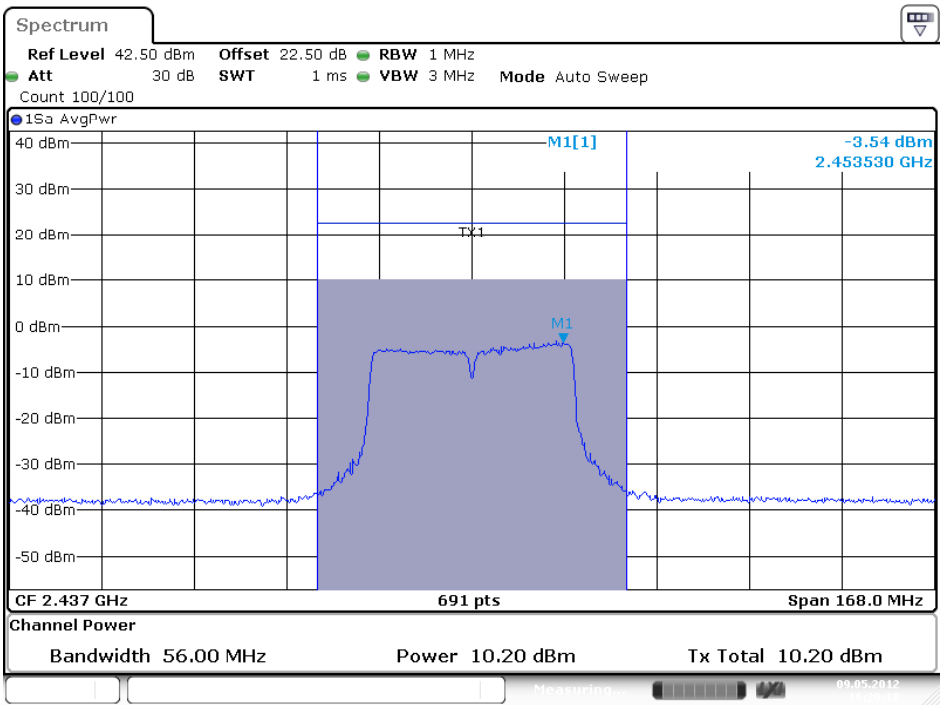
Date: 9.MAY.2012 17:05:01

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (2TX)



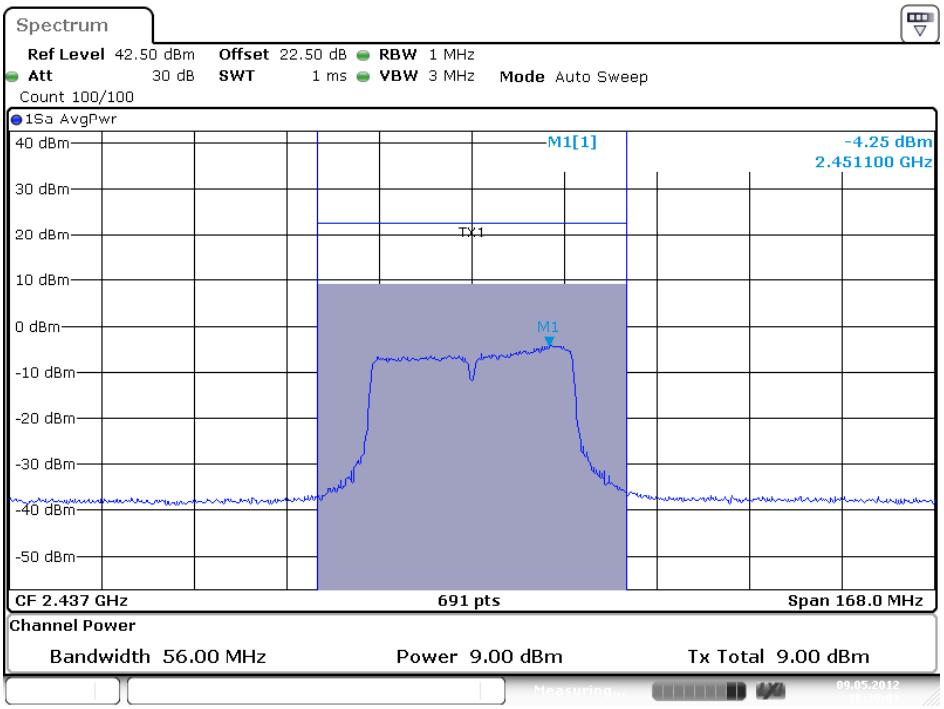
Date: 9.MAY.2012 17:05:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (3TX)



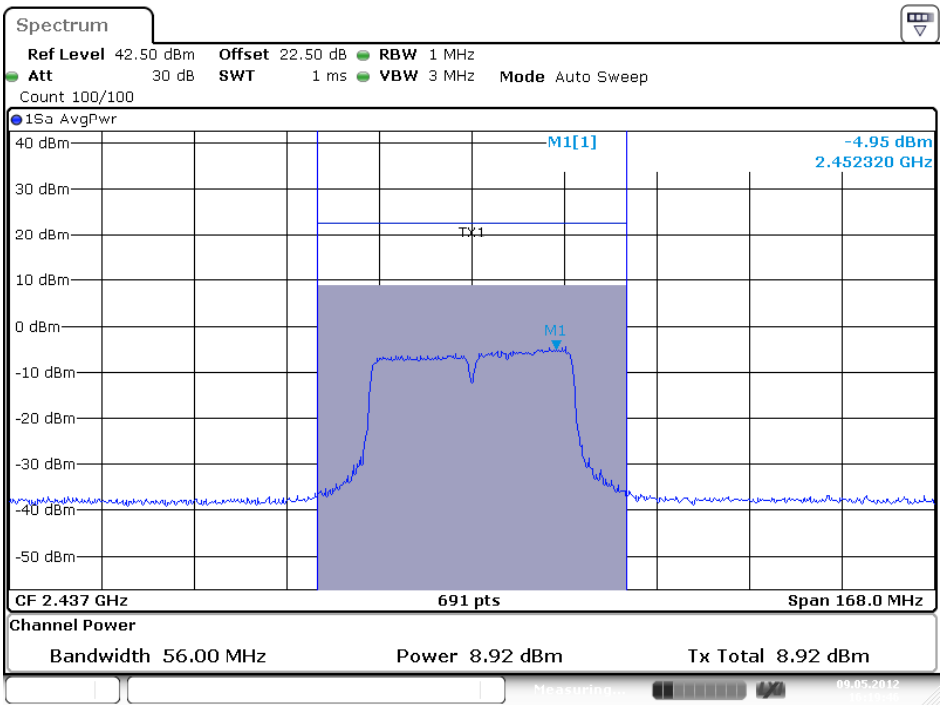
Date: 9.MAY.2012 16:20:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (3TX)



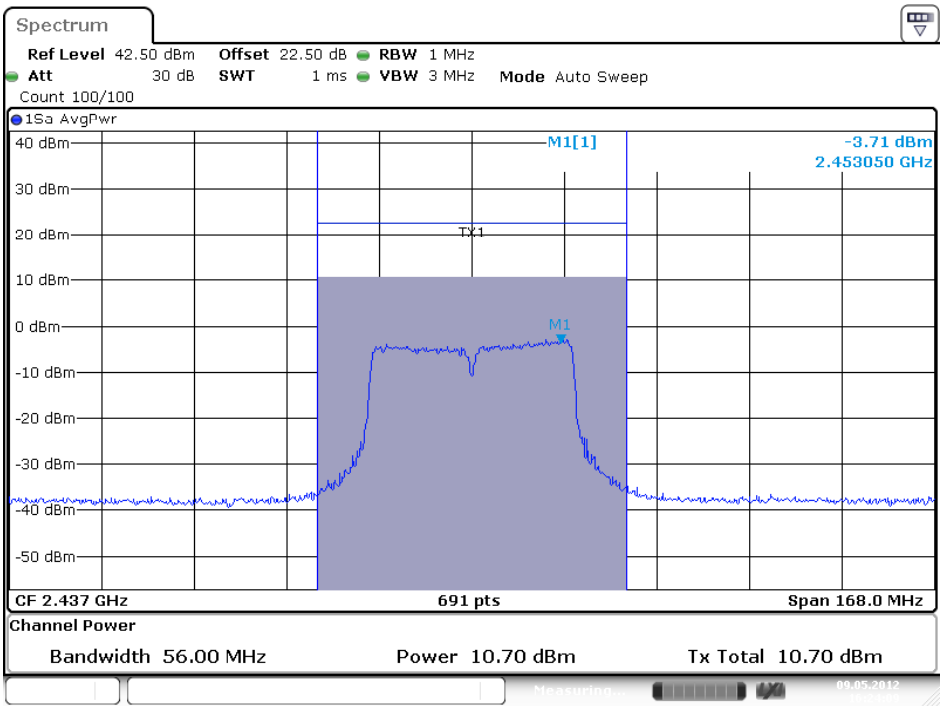
Date: 9.MAY.2012 16:20:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 3 (3TX)



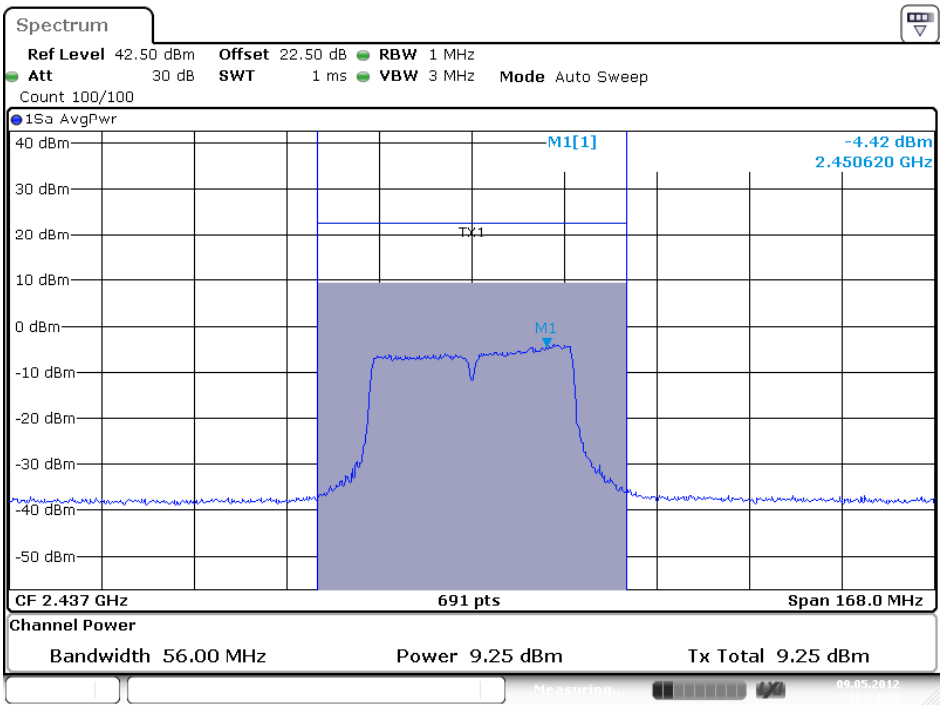
Date: 9.MAY.2012 16:19:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (3TX)



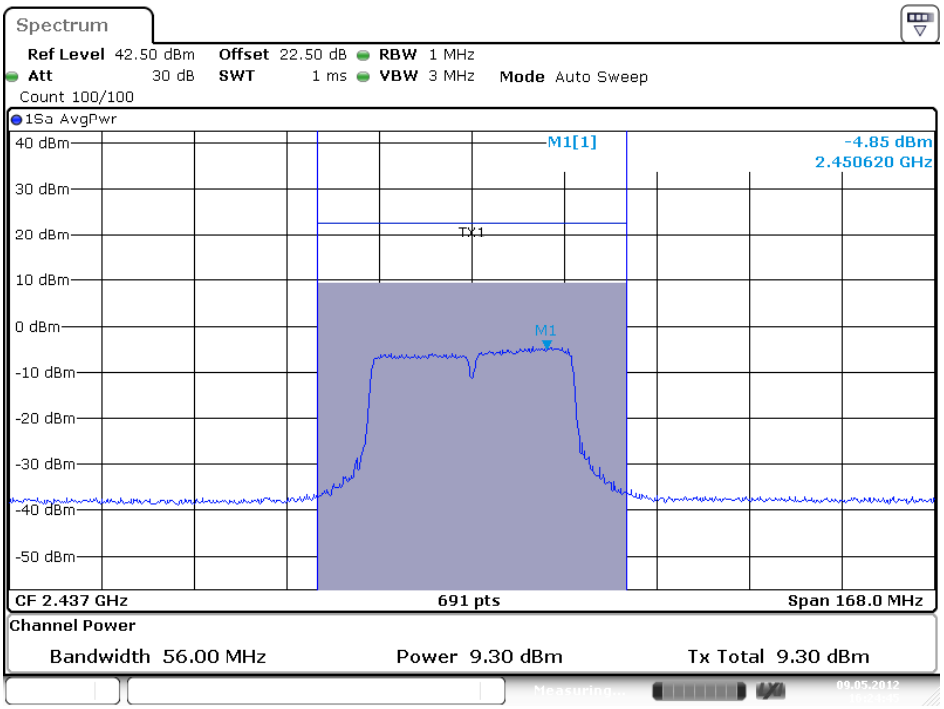
Date: 9.MAY.2012 16:24:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (3TX)



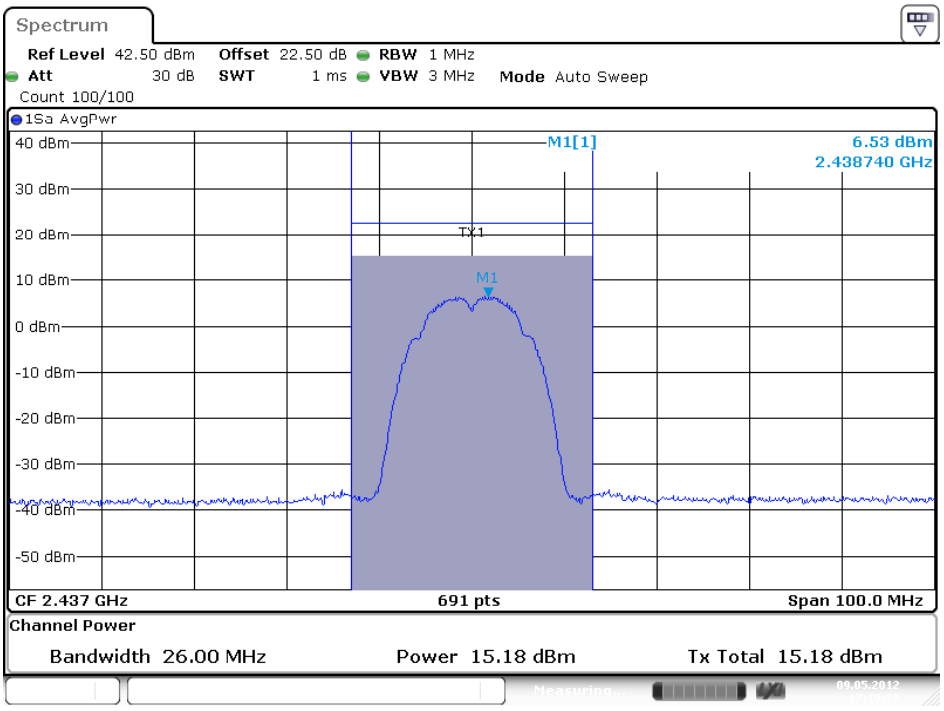
Date: 9.MAY.2012 16:24:25

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 3 (3TX)



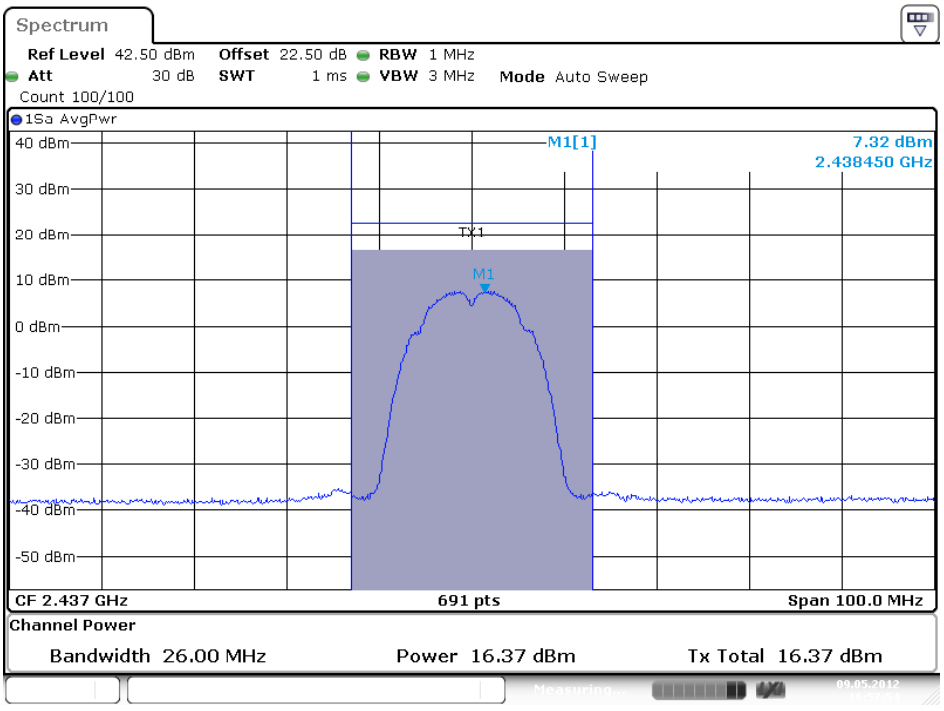
Date: 9.MAY.2012 16:24:46

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (1TX)



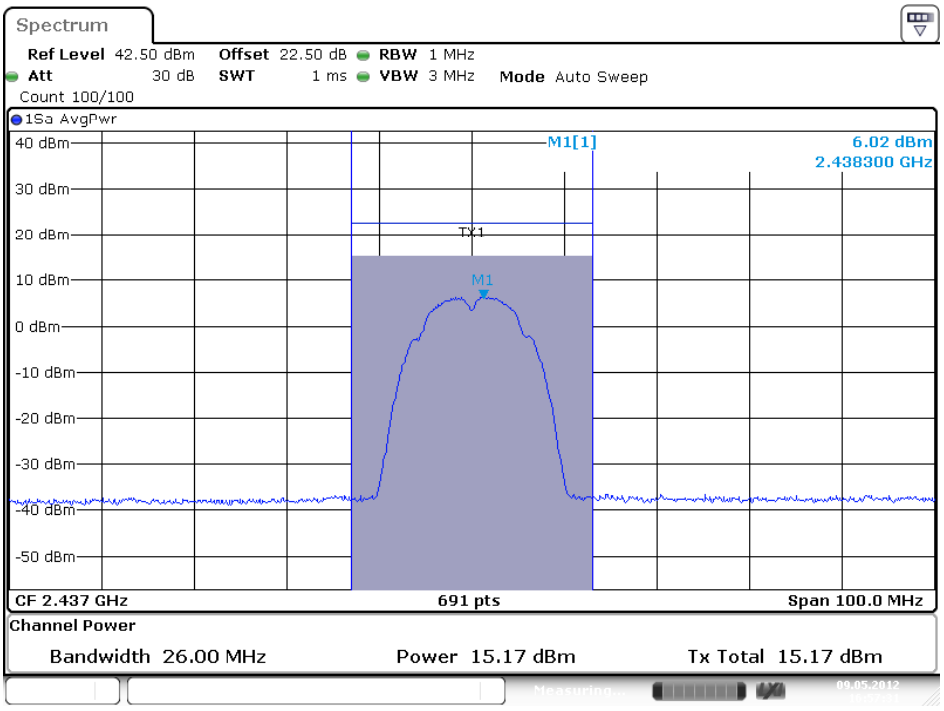
Date: 9.MAY.2012 17:10:21

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (2TX)



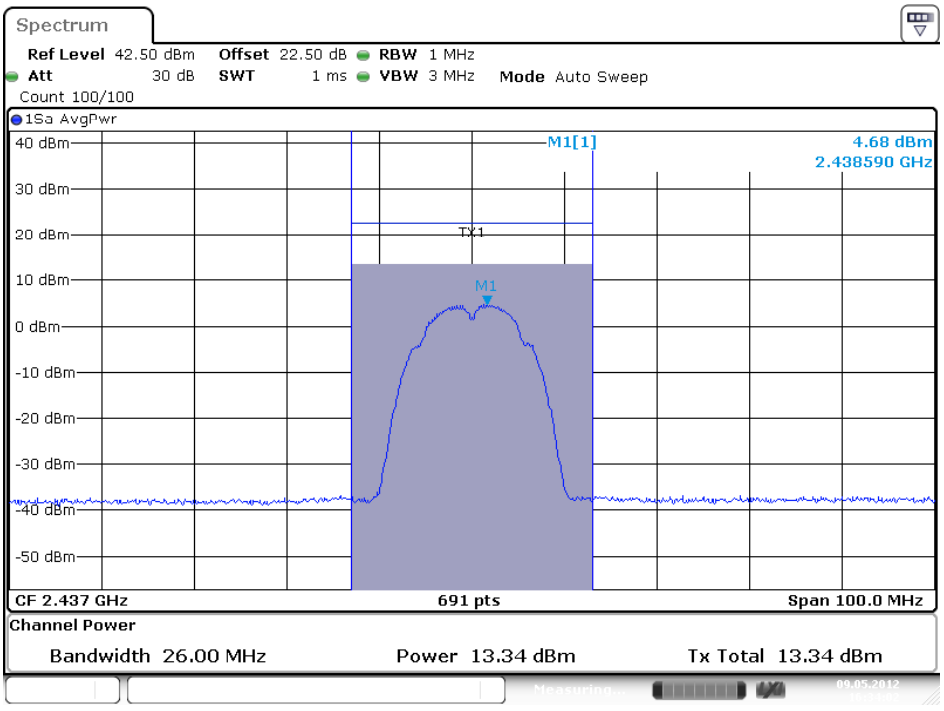
Date: 9.MAY.2012 16:57:55

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (2TX)



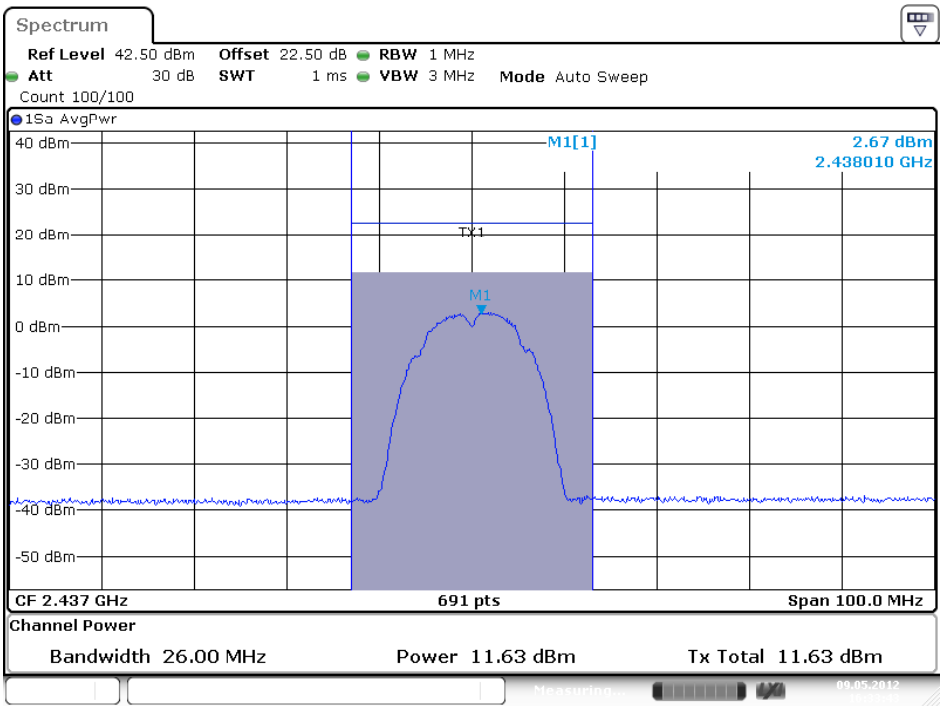
Date: 9.MAY.2012 16:57:31

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (3TX)



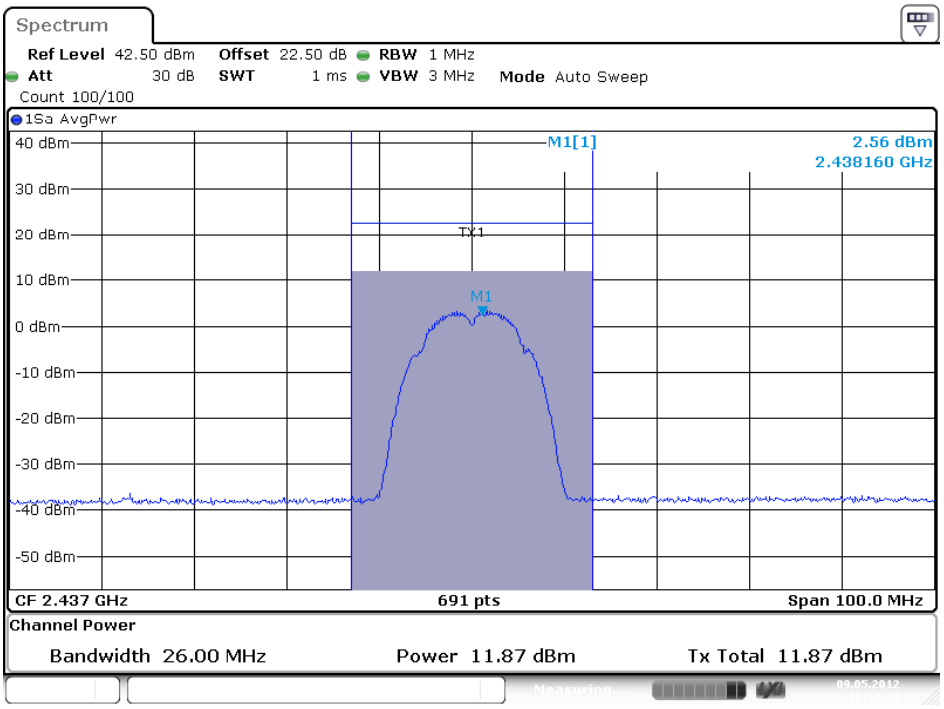
Date: 9.MAY.2012 16:34:02

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (3TX)



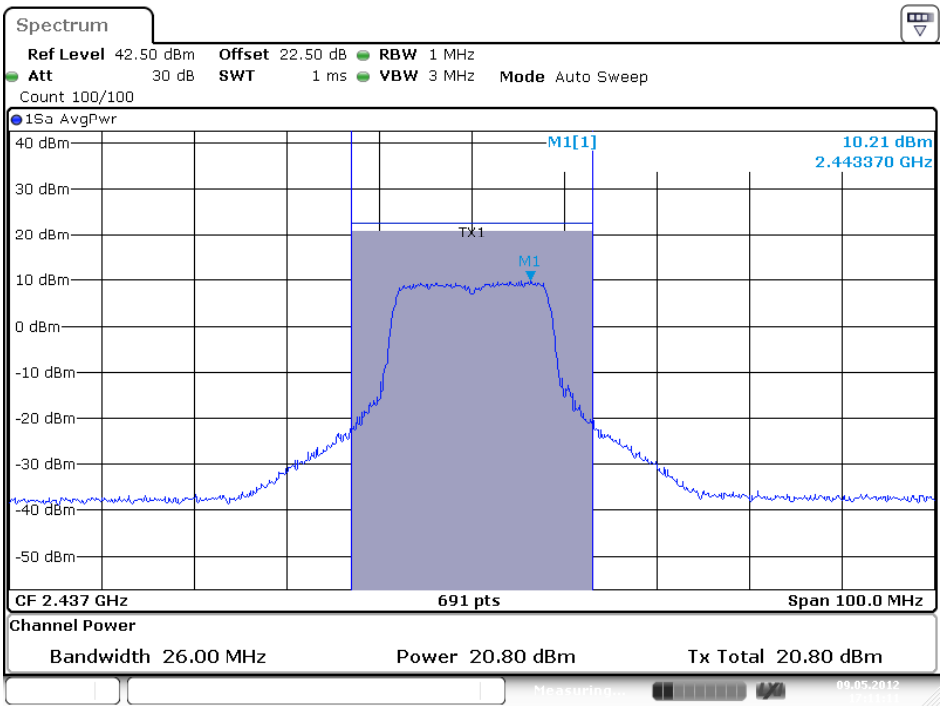
Date: 9.MAY.2012 16:33:44

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 3 (3TX)



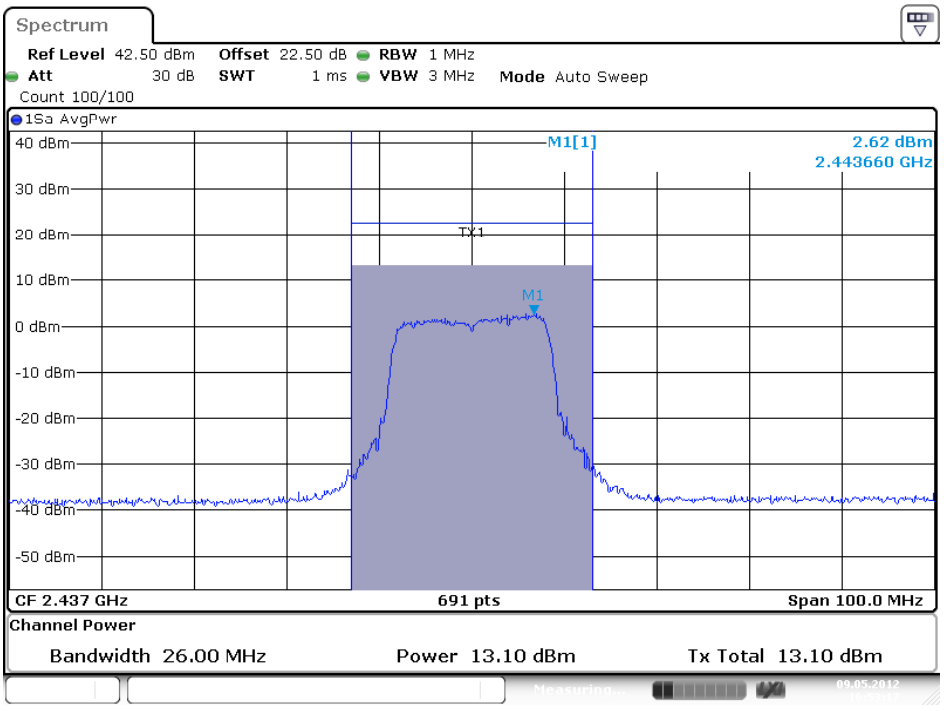
Date: 9.MAY.2012 16:33:13

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (1TX)



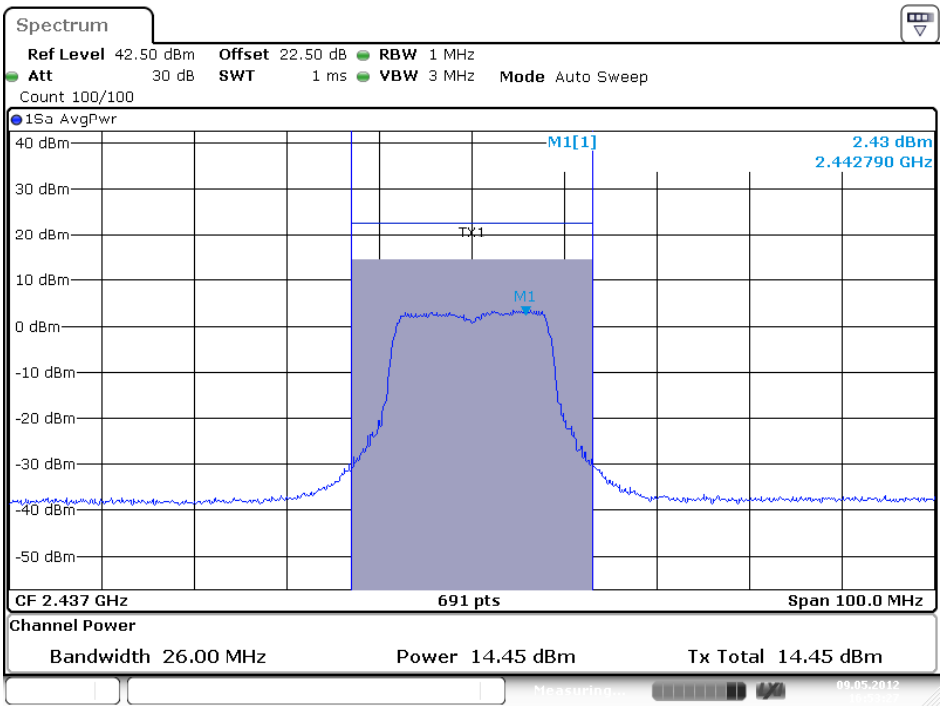
Date: 9.MAY.2012 17:11:11

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (2TX)



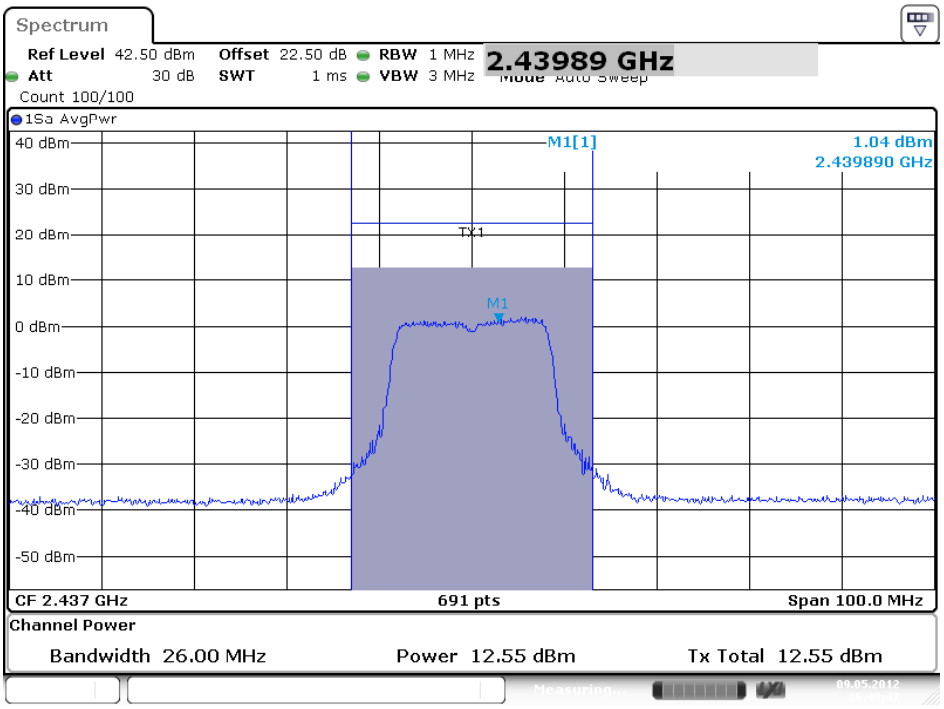
Date: 9.MAY.2012 16:53:17

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (2TX)



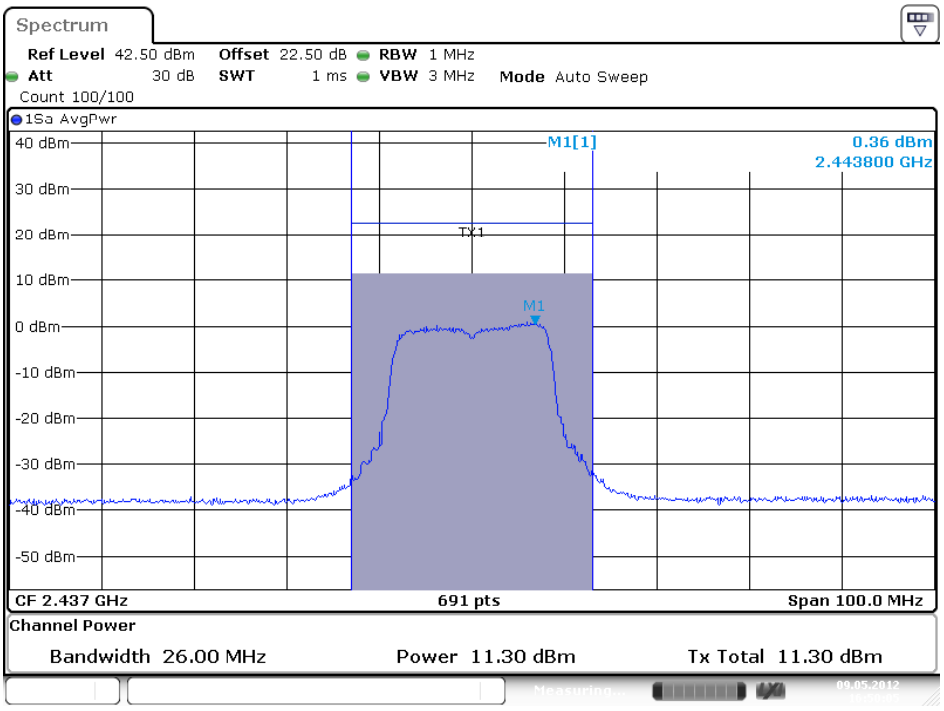
Date: 9.MAY.2012 16:53:27

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (3TX)



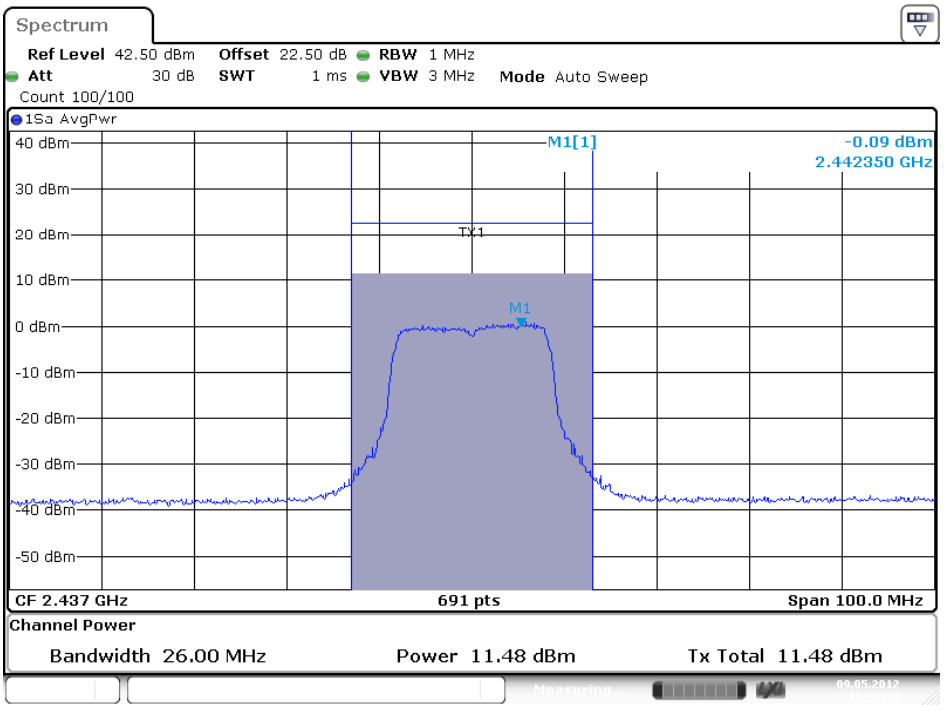
Date: 9.MAY.2012 16:49:48

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (3TX)



Date: 9.MAY.2012 16:50:05

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 3 (3TX)



Date: 9.MAY.2012 16:50:20

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 4 (Ant. 4 Yagi antenna / 13.5dBi)		

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	10.84	22.50	Complies
6	2437 MHz	18.25	22.50	Complies
11	2462 MHz	12.13	22.50	Complies

Note: 13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	9.51	22.50	Complies
6	2437 MHz	15.66	22.50	Complies
9	2452 MHz	5.77	22.50	Complies

Note:13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	6.81	6.45	9.64	19.49	Complies
6	2437 MHz	12.87	11.25	15.15	19.49	Complies
11	2462 MHz	9.94	8.80	12.42	19.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the conducted power limit =30-(16.51-6)=19.49dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	7.09	7.11	10.11	19.49	Complies
6	2437 MHz	11.35	10.08	13.77	19.49	Complies
9	2452 MHz	3.66	2.07	5.95	19.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the conducted power limit =30-(16.51-6)=19.49dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	7.13	6.69	9.93	22.50	Complies
6	2437 MHz	14.08	12.85	16.52	22.50	Complies
11	2462 MHz	10.20	9.05	12.67	22.50	Complies

Note: 13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	7.30	7.28	10.30	22.50	Complies
6	2437 MHz	10.49	9.32	12.95	22.50	Complies
9	2452 MHz	5.03	3.20	7.22	22.50	Complies

Note: 13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	5.80	5.27	5.50	10.30	17.73	Complies
6	2437 MHz	9.29	7.51	7.82	13.05	17.73	Complies
11	2462 MHz	8.75	7.44	7.93	12.85	17.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the conducted power limit =30-(18.27-6)=17.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	4.84	4.68	5.29	9.72	17.73	Complies
6	2437 MHz	8.21	7.14	7.35	12.36	17.73	Complies
9	2452 MHz	2.31	0.53	0.71	6.03	17.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the conducted power limit =30-(18.27-6)=17.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	6.54	6.13	6.37	11.12	19.50	Complies
6	2437 MHz	9.55	7.86	8.06	13.33	19.50	Complies
11	2462 MHz	9.42	8.12	8.54	13.50	19.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.5dBi > 6dBi, so the conducted power limit =30-(16.5-6)=19.50dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	7.51	7.43	7.72	12.33	19.50	Complies
6	2437 MHz	9.84	8.67	8.80	13.91	19.50	Complies
9	2452 MHz	4.73	2.81	2.73	8.30	19.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.5dBi > 6dBi, so the conducted power limit =30-(16.5-6)=19.50dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 4 (Ant. 4 Yagi antenna / 13.5dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	7.10	22.50	Complies
6	2437 MHz	21.68	22.50	Complies
11	2462 MHz	15.71	22.50	Complies

Note: 13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	11.23	22.50	Complies
6	2437 MHz	19.09	22.50	Complies
11	2462 MHz	13.97	22.50	Complies

Note: 13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

2TX

Configuration IEEE 802.11b / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	6.27	5.26	8.80	19.49	Complies
6	2437 MHz	16.73	15.48	19.16	19.49	Complies
11	2462 MHz	13.79	12.14	16.05	19.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the conducted power limit =30-(16.51-6)=19.49dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	6.88	6.46	9.69	19.49	Complies
6	2437 MHz	13.73	12.47	16.16	19.49	Complies
11	2462 MHz	10.59	9.14	12.94	19.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the conducted power limit =30-(16.51-6)=19.49dBm.

3TX

Configuration IEEE 802.11b / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	4.61	3.80	4.13	8.96	17.73	Complies
6	2437 MHz	13.75	11.99	12.33	17.53	17.73	Complies
11	2462 MHz	12.51	10.80	11.42	16.41	17.73	Complies

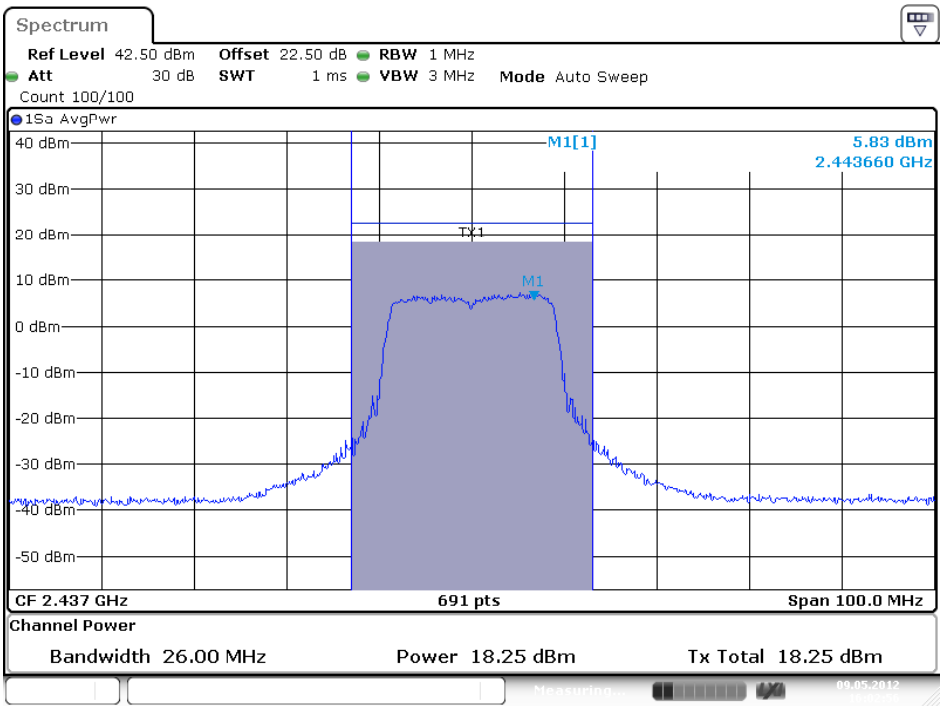
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the conducted power limit =30-(18.27-6)=17.73dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	5.20	4.63	5.08	9.75	17.73	Complies
6	2437 MHz	9.25	7.41	7.79	13.00	17.73	Complies
11	2462 MHz	9.25	7.78	8.25	13.24	17.73	Complies

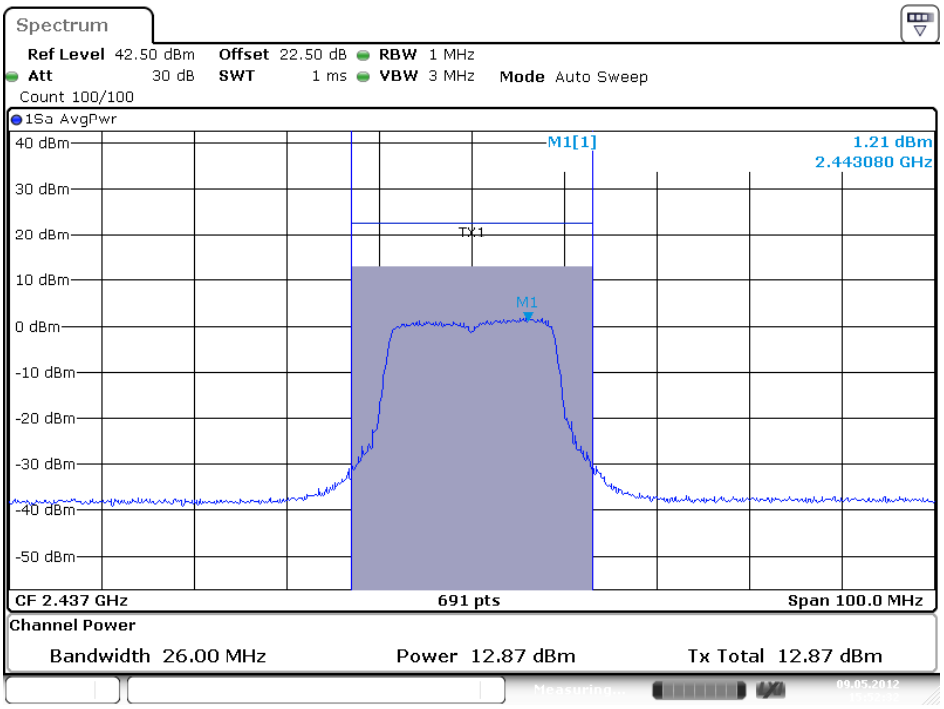
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the conducted power limit =30-(18.27-6)=17.73dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz / Chain. 1 (1TX)



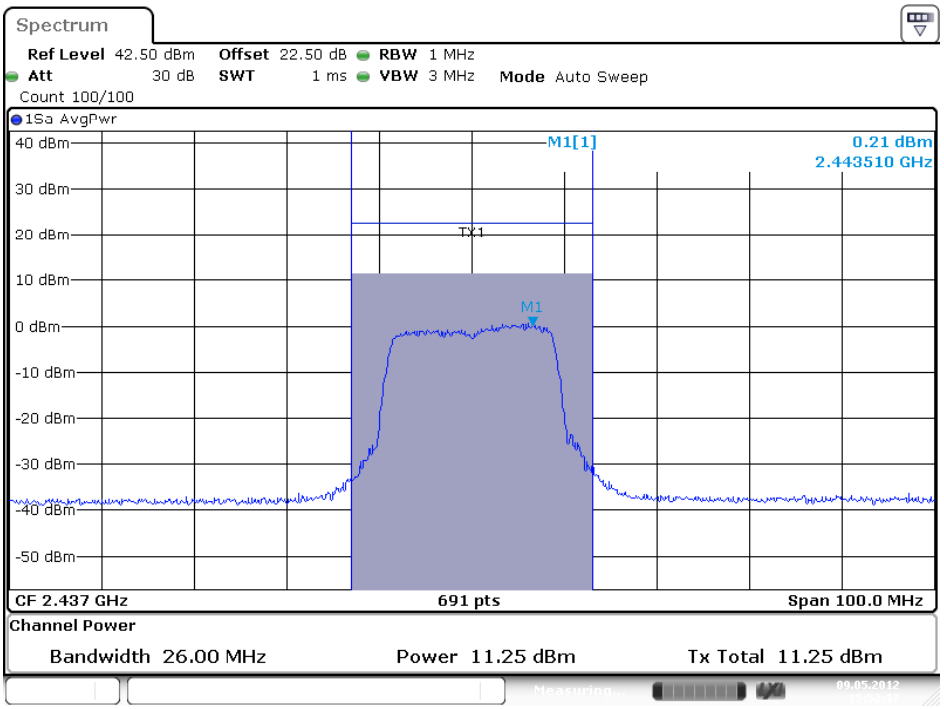
Date: 9.MAY.2012 16:02:56

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (2TX)



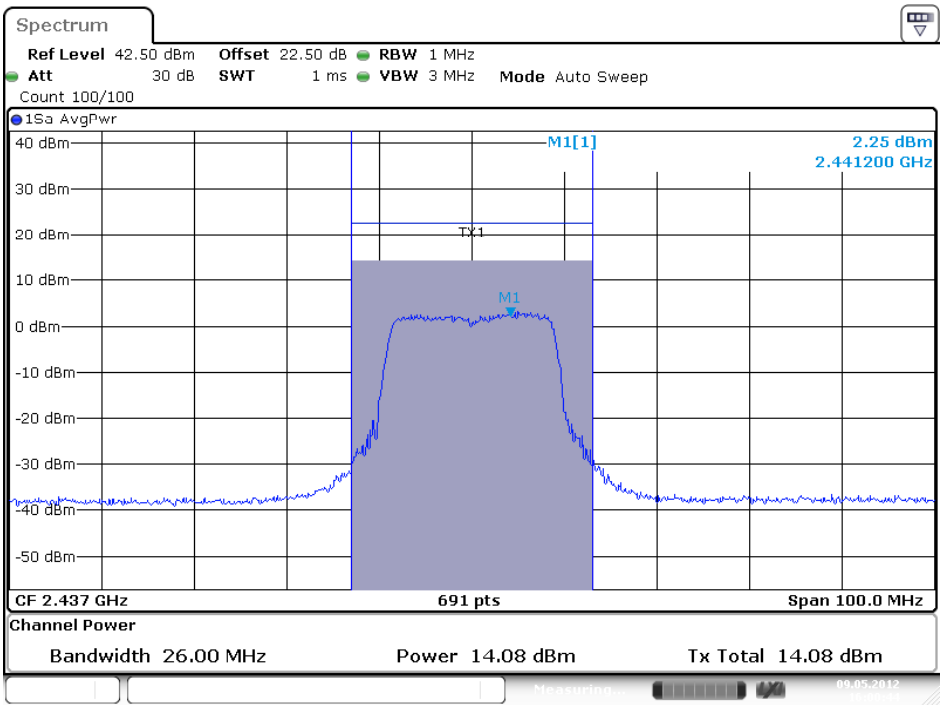
Date: 9.MAY.2012 15:52:32

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (2TX)



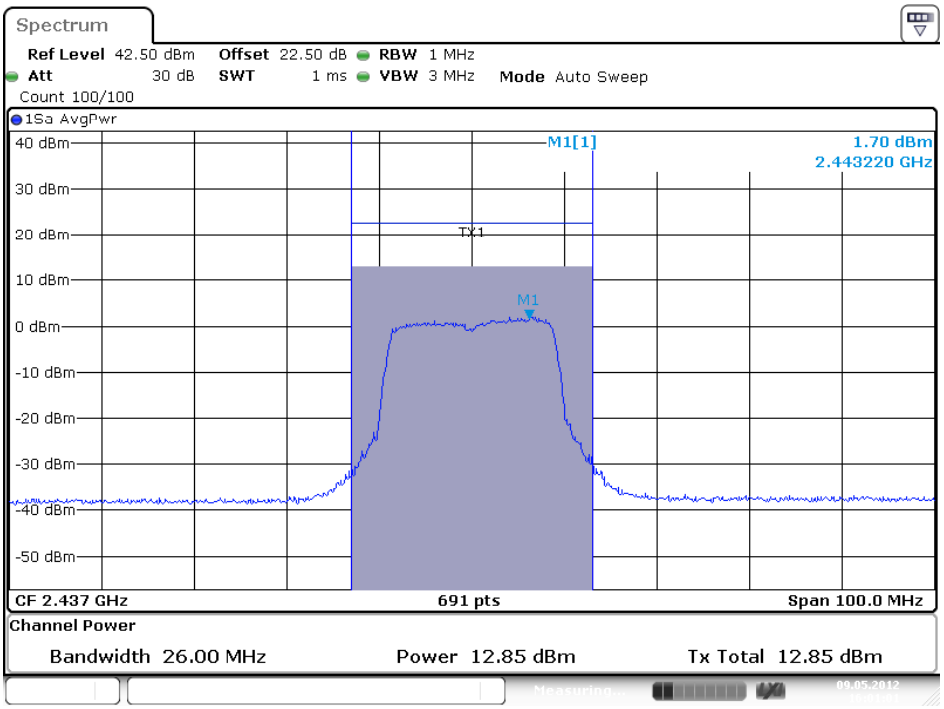
Date: 9.MAY.2012 15:52:17

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (2TX)



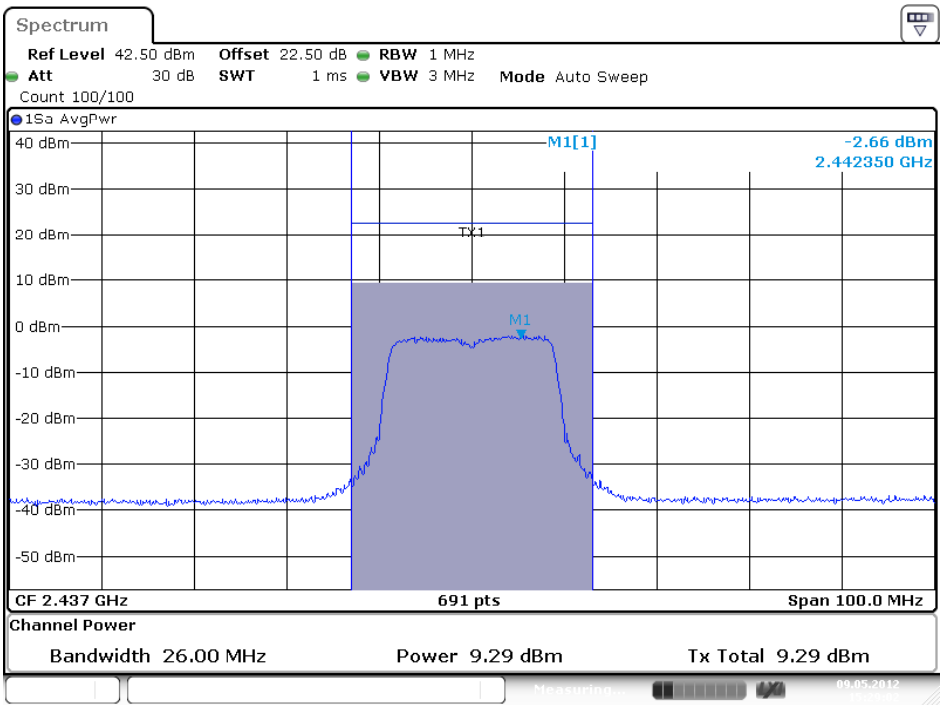
Date: 9.MAY.2012 16:00:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (2TX)



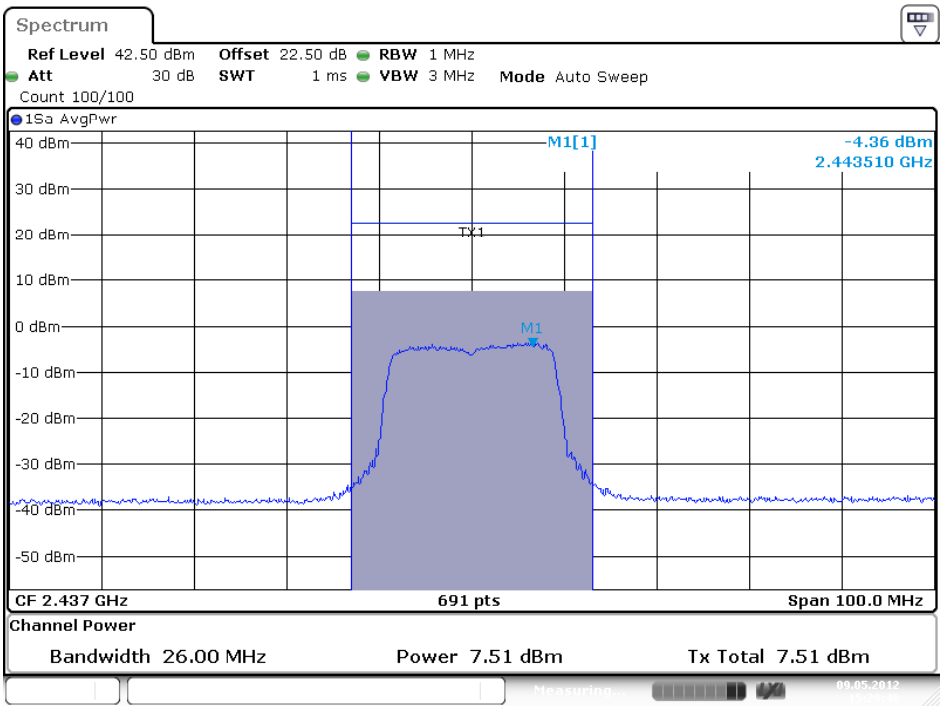
Date: 9.MAY.2012 16:01:02

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (3TX)



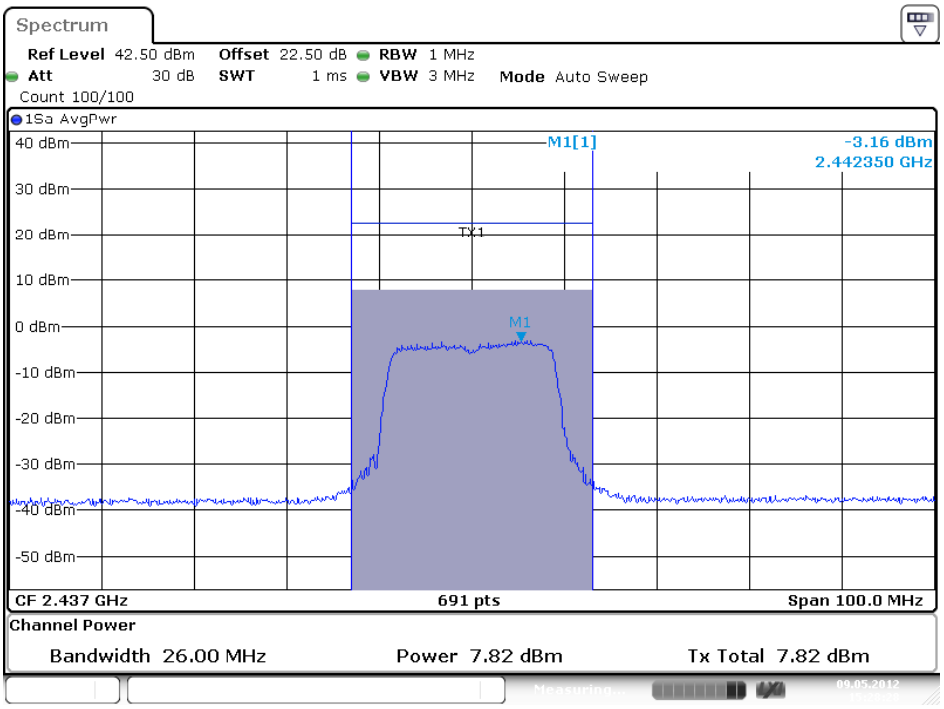
Date: 9.MAY.2012 15:29:02

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (3TX)



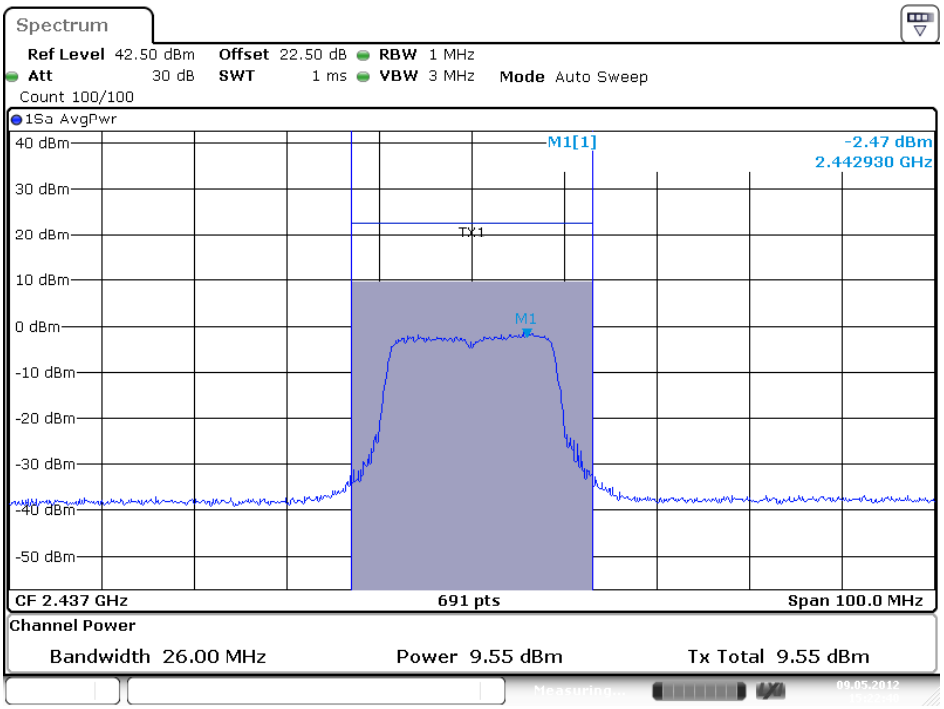
Date: 9.MAY.2012 15:28:46

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 3 (3TX)



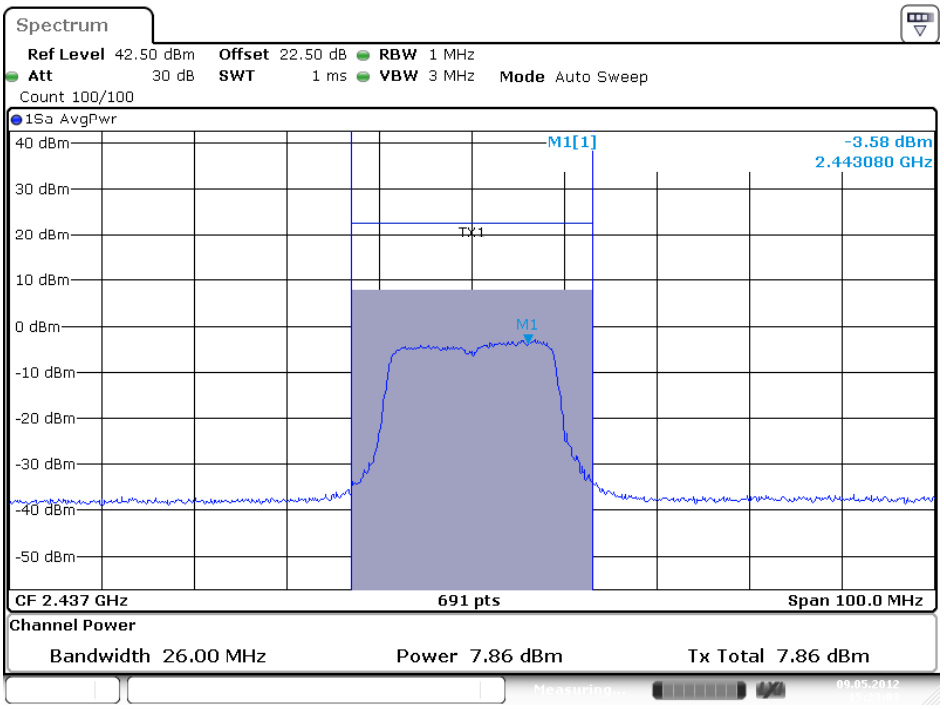
Date: 9.MAY.2012 15:28:29

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (3TX)



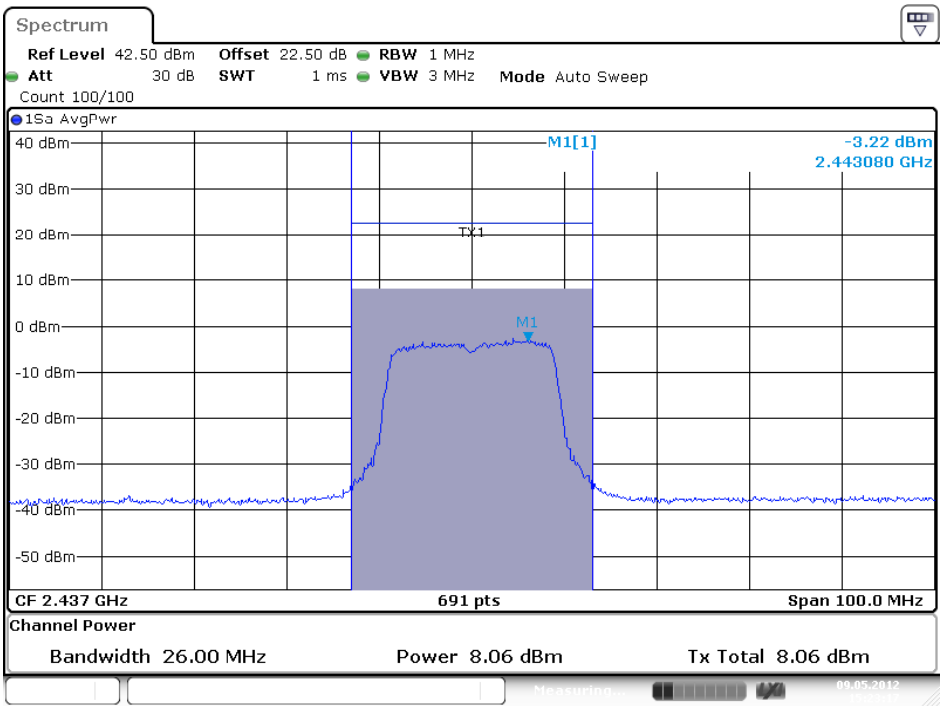
Date: 9.MAY.2012 15:22:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (3TX)



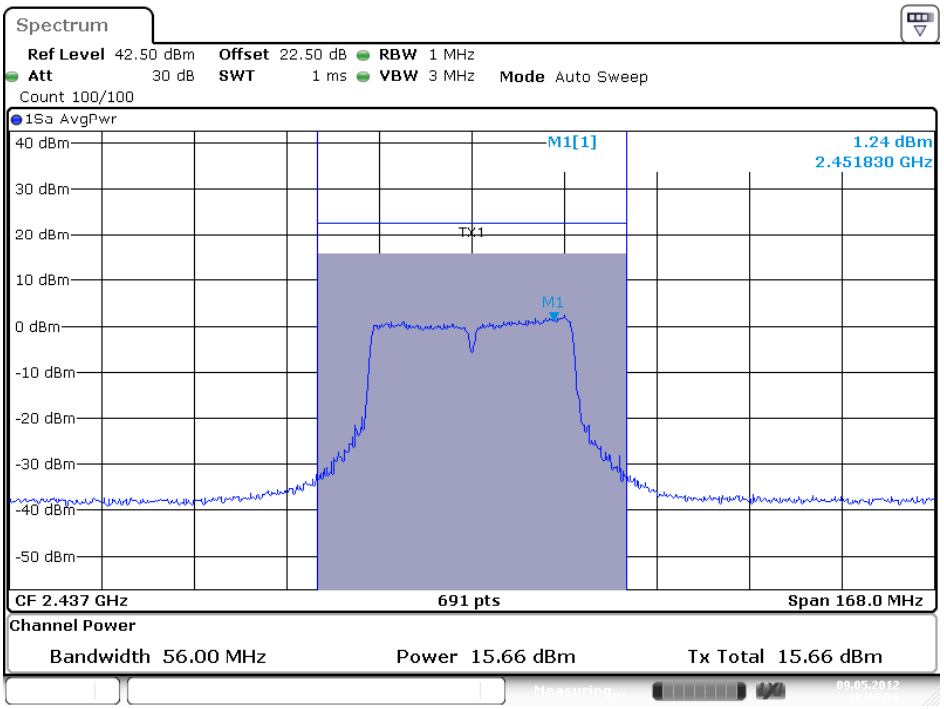
Date: 9.MAY.2012 15:23:03

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 3 (3TX)



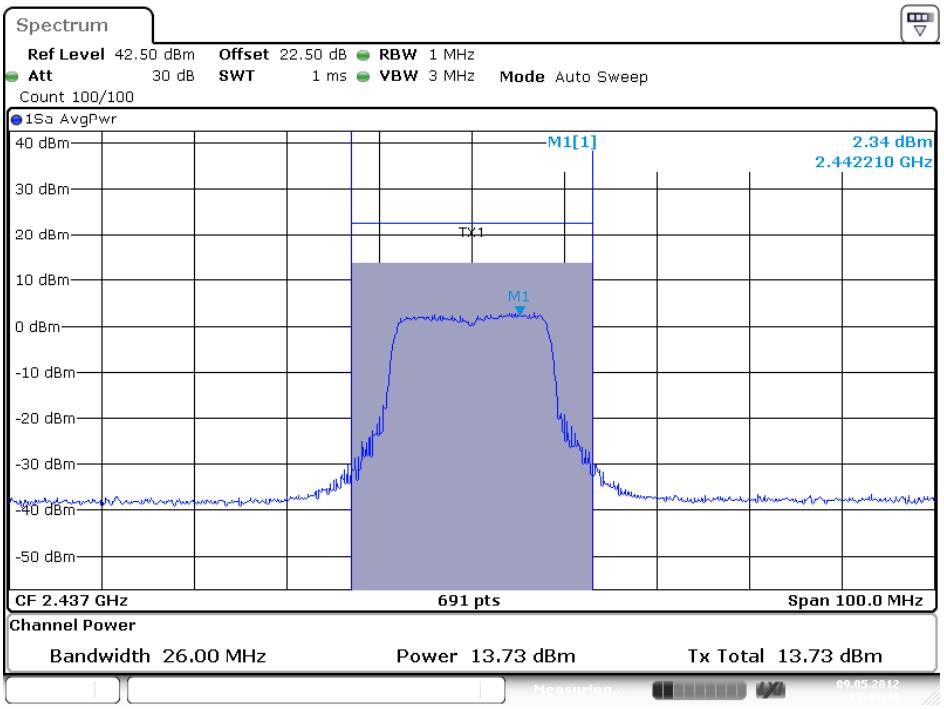
Date: 9.MAY.2012 15:23:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (1TX)



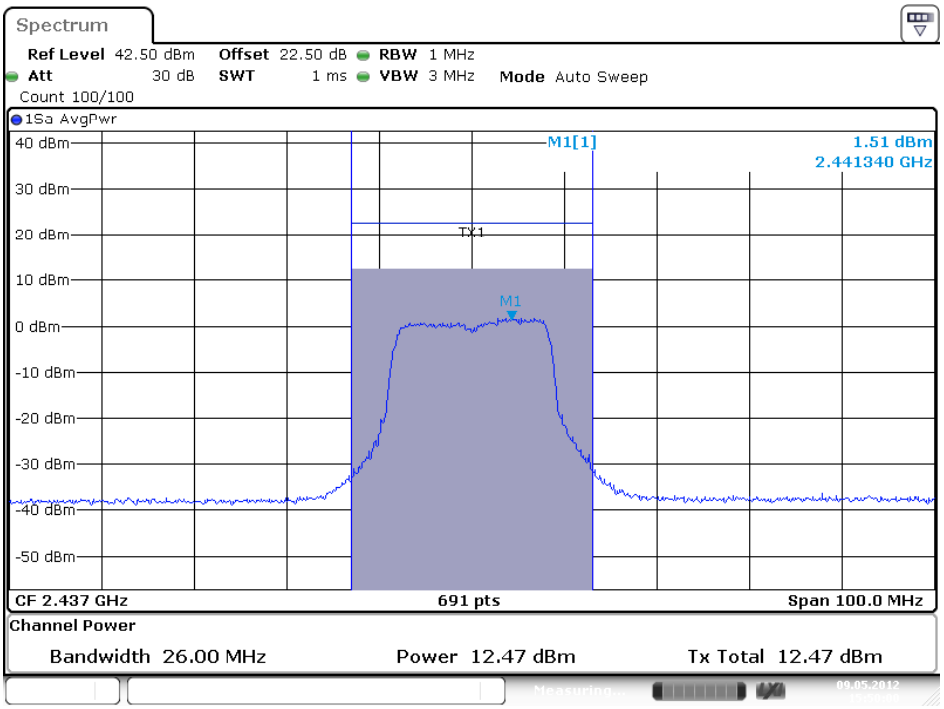
Date: 9.MAY.2012 16:06:50

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (2TX)



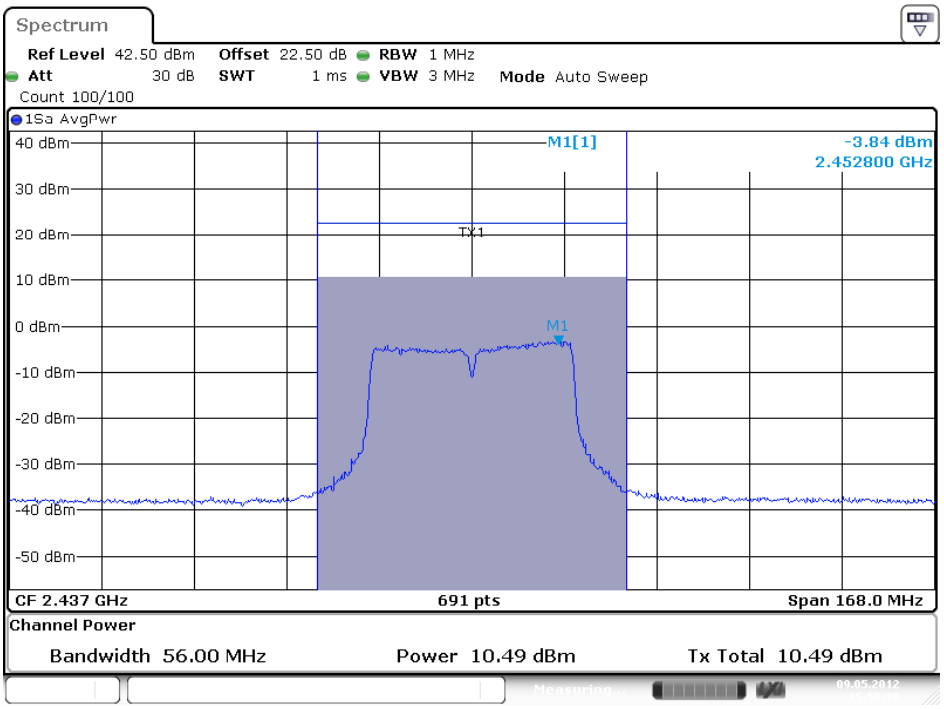
Date: 9.MAY.2012 15:49:41

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (2TX)



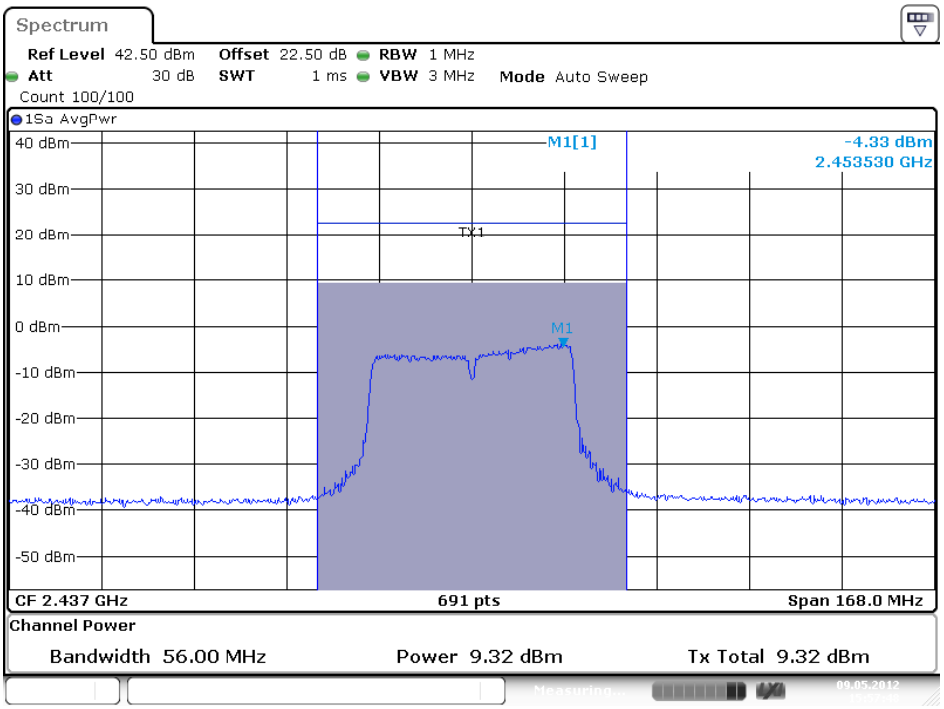
Date: 9.MAY.2012 15:50:00

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (2TX)



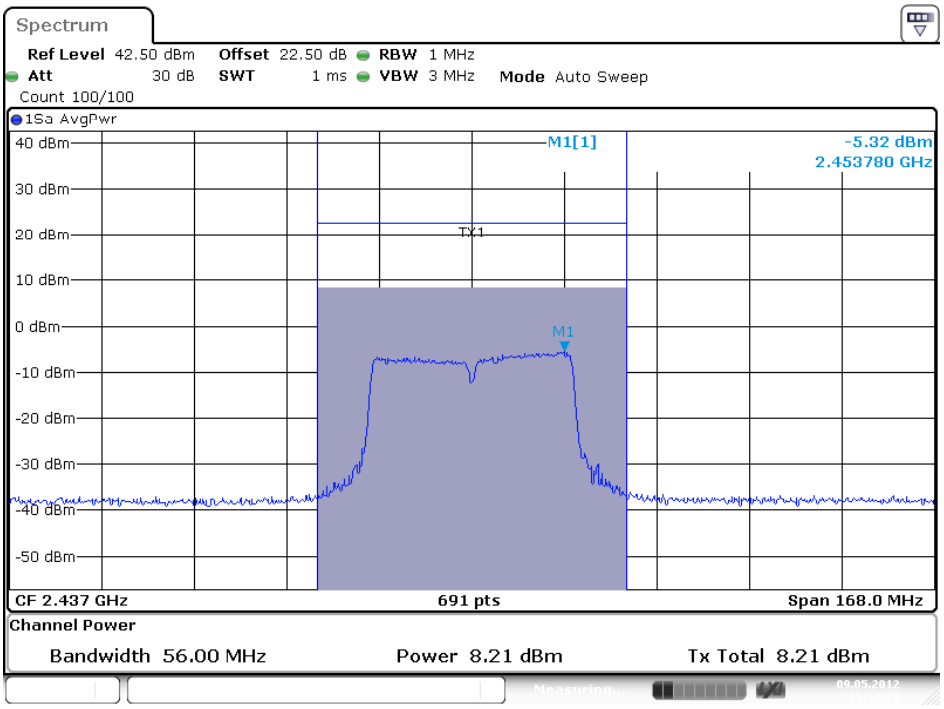
Date: 9.MAY.2012 15:58:19

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (2TX)



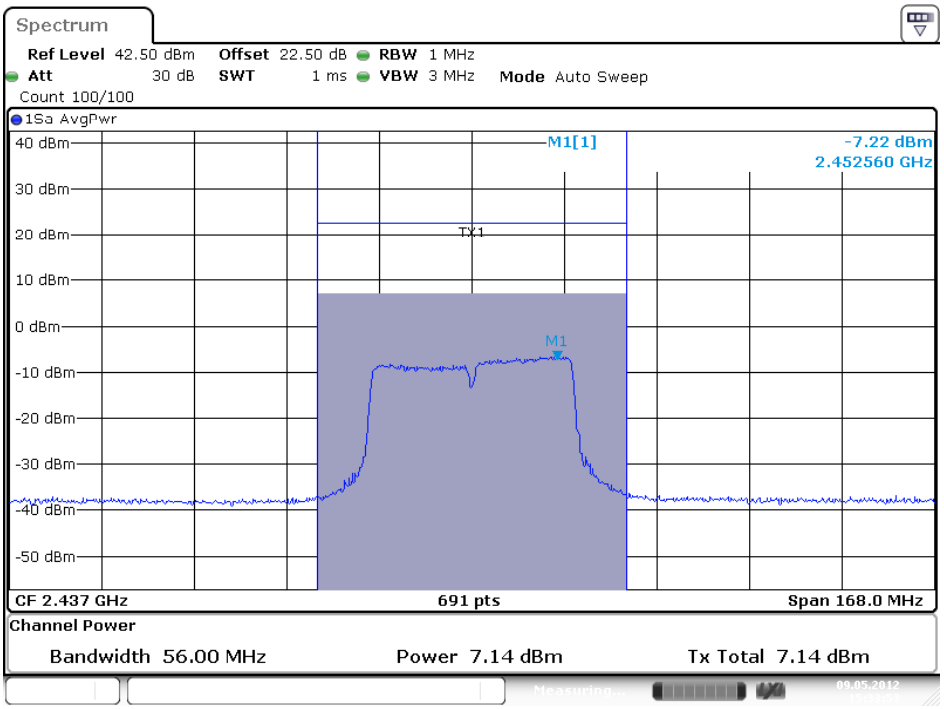
Date: 9.MAY.2012 15:57:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (3TX)



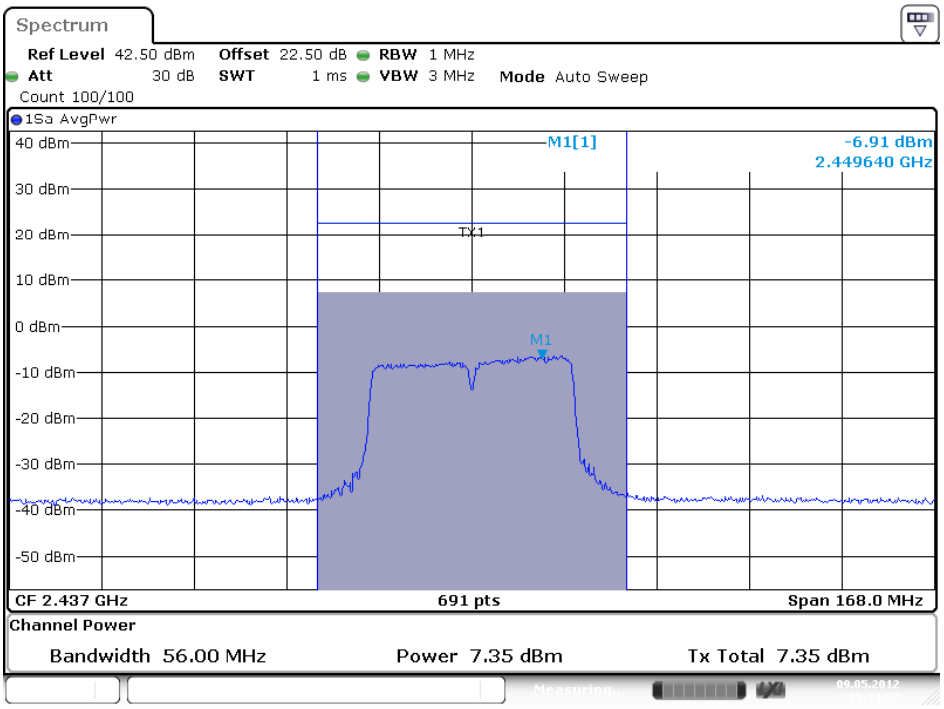
Date: 9.MAY.2012 15:33:26

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (3TX)



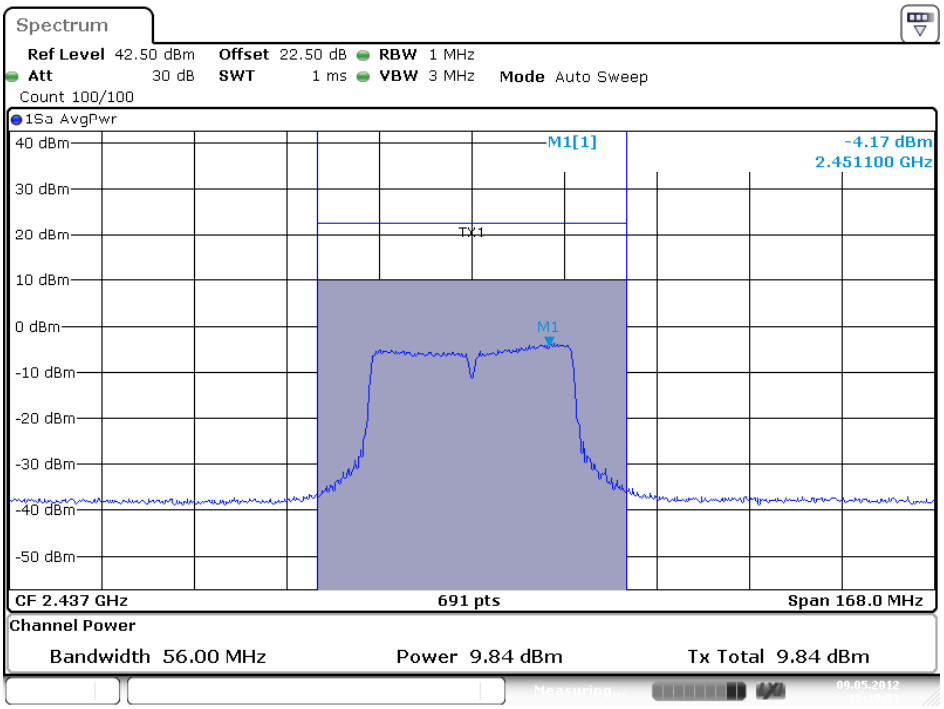
Date: 9.MAY.2012 15:33:53

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 3 (3TX)



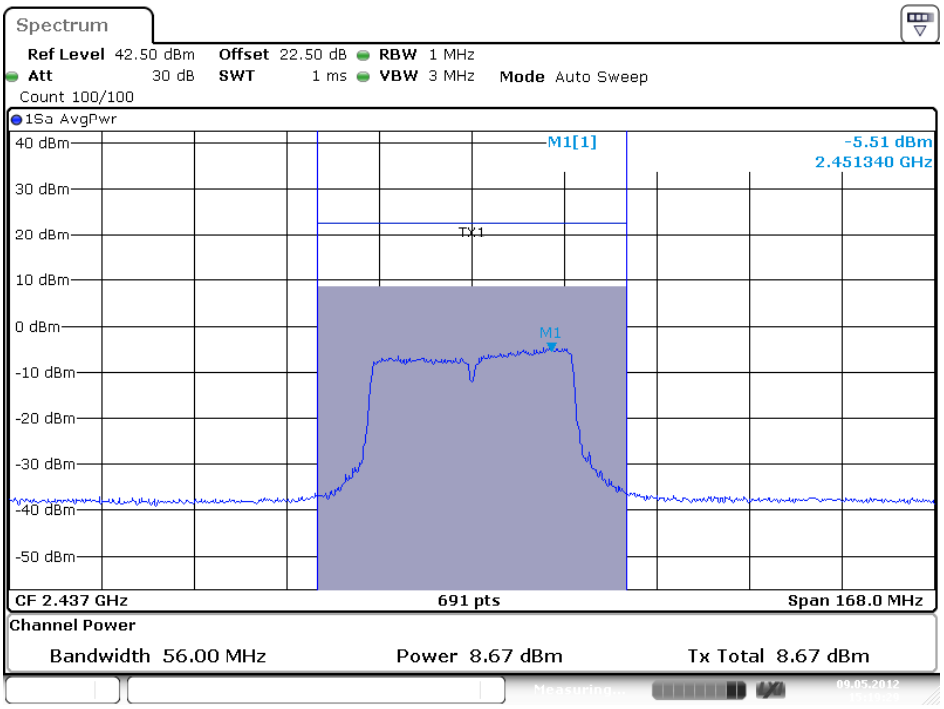
Date: 9.MAY.2012 15:34:07

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (3TX)



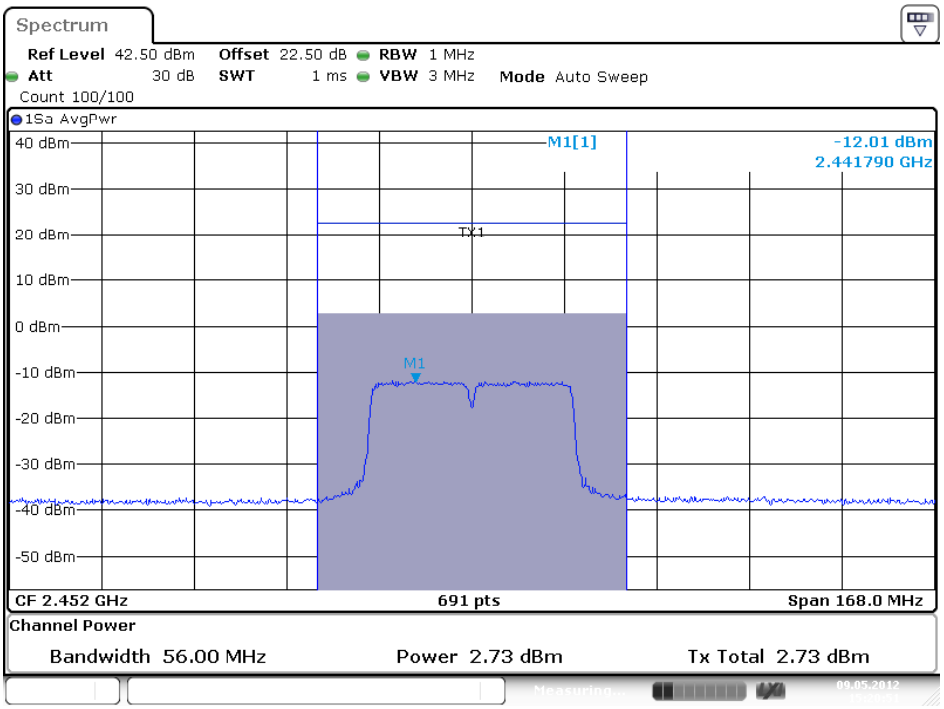
Date: 9.MAY.2012 15:19:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (3TX)



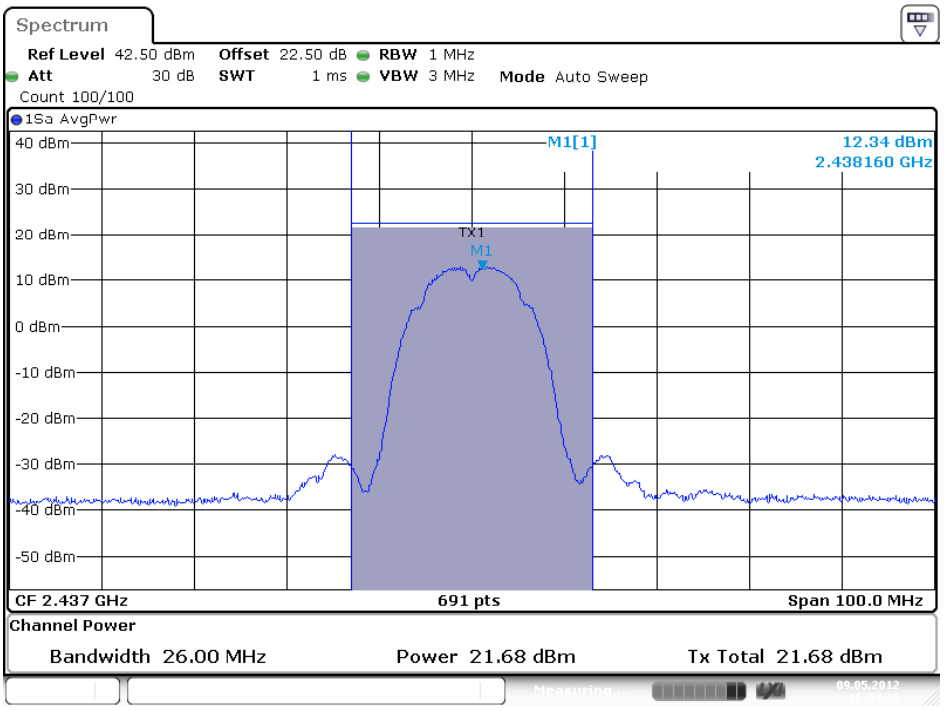
Date: 9.MAY.2012 15:19:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2452 MHz/ Chain 3 (3TX)



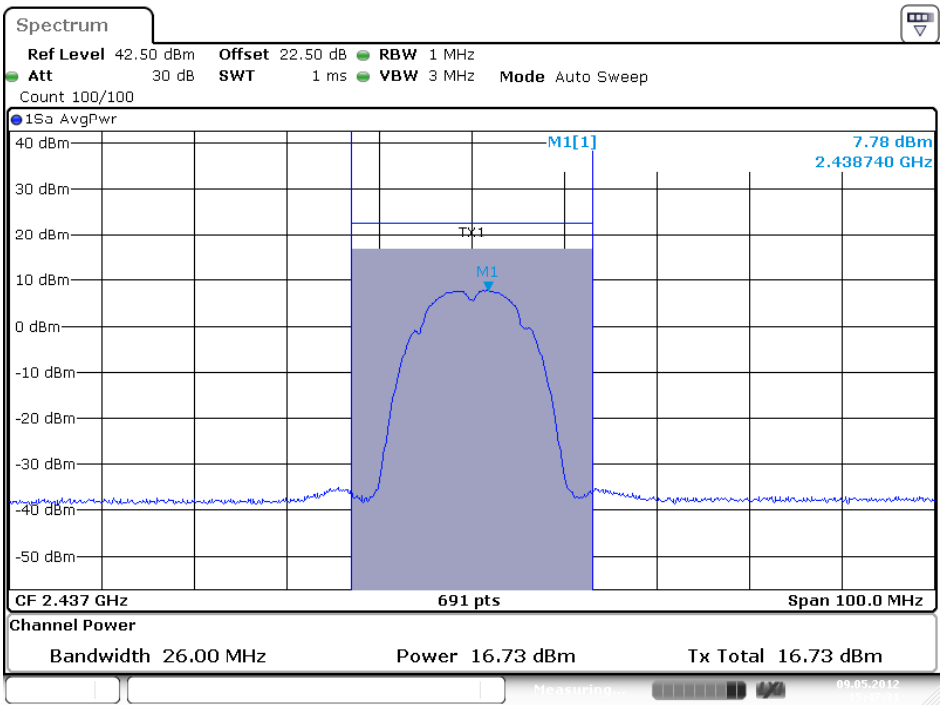
Date: 9.MAY.2012 15:20:51

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (1TX)



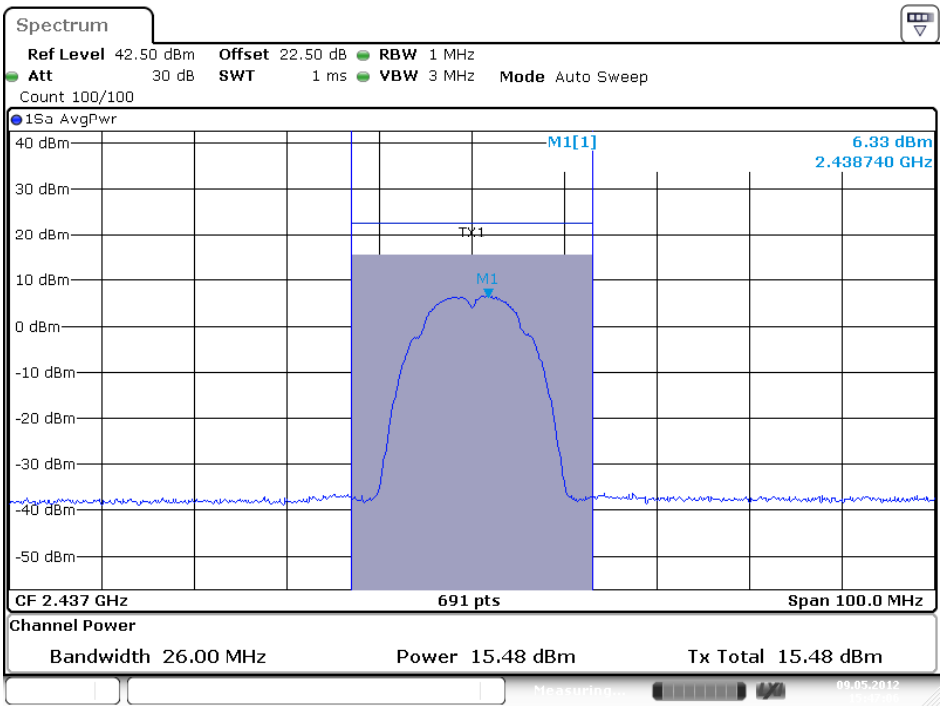
Date: 9.MAY.2012 16:04:25

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (2TX)



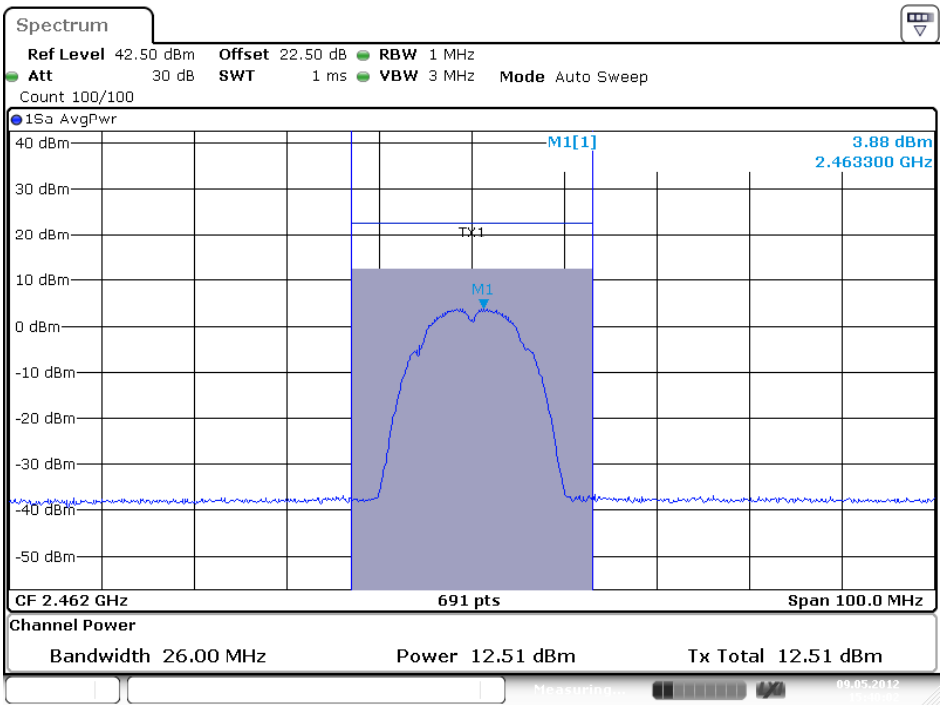
Date: 9.MAY.2012 15:47:32

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (2TX)



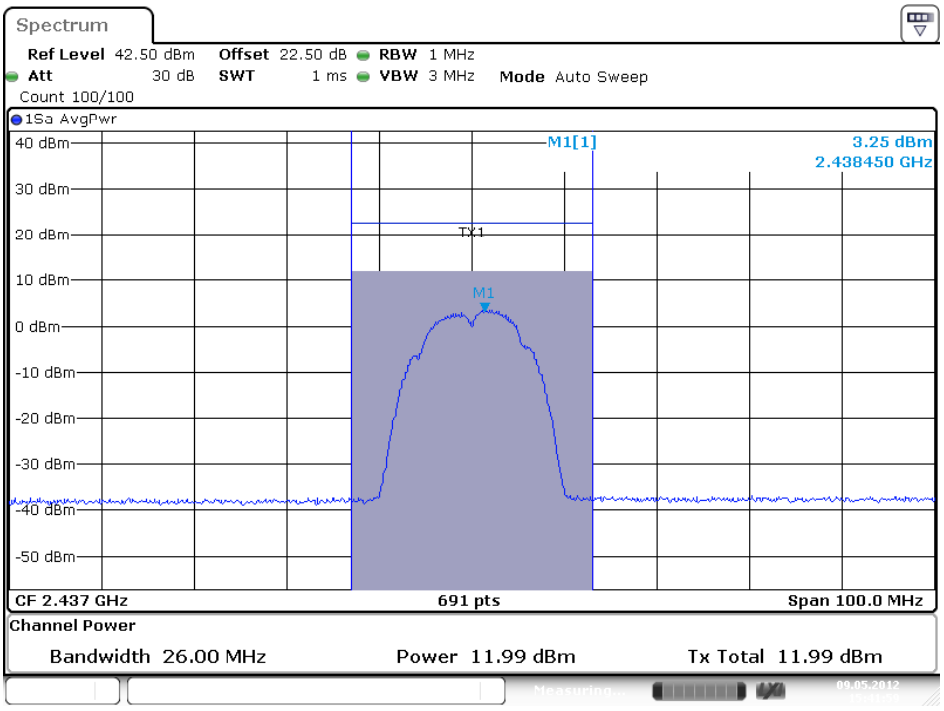
Date: 9.MAY.2012 15:47:06

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (3TX)



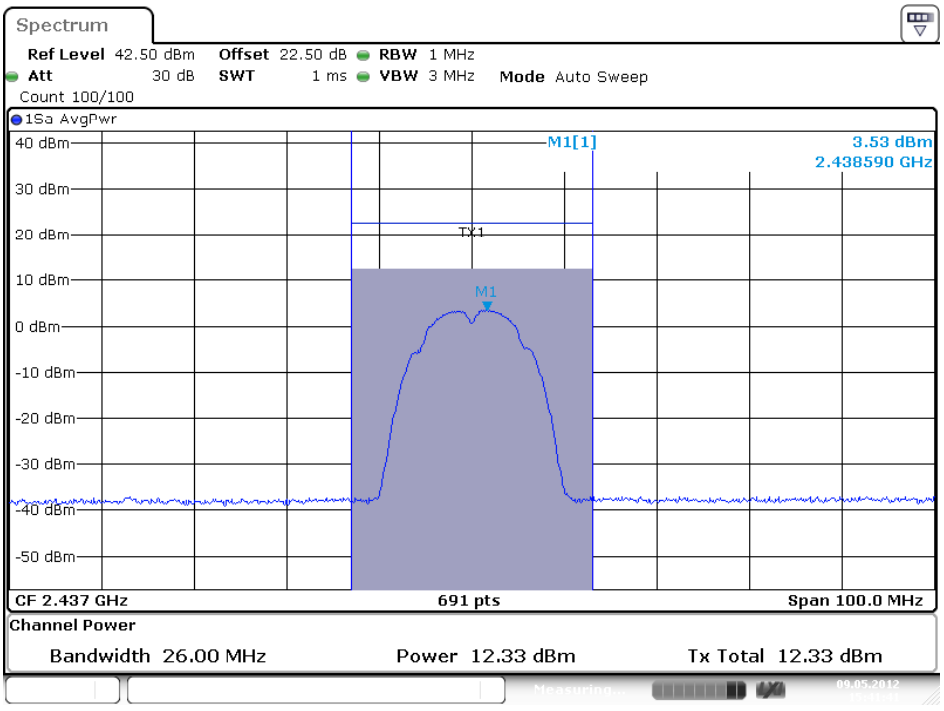
Date: 9.MAY.2012 15:40:03

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (3TX)



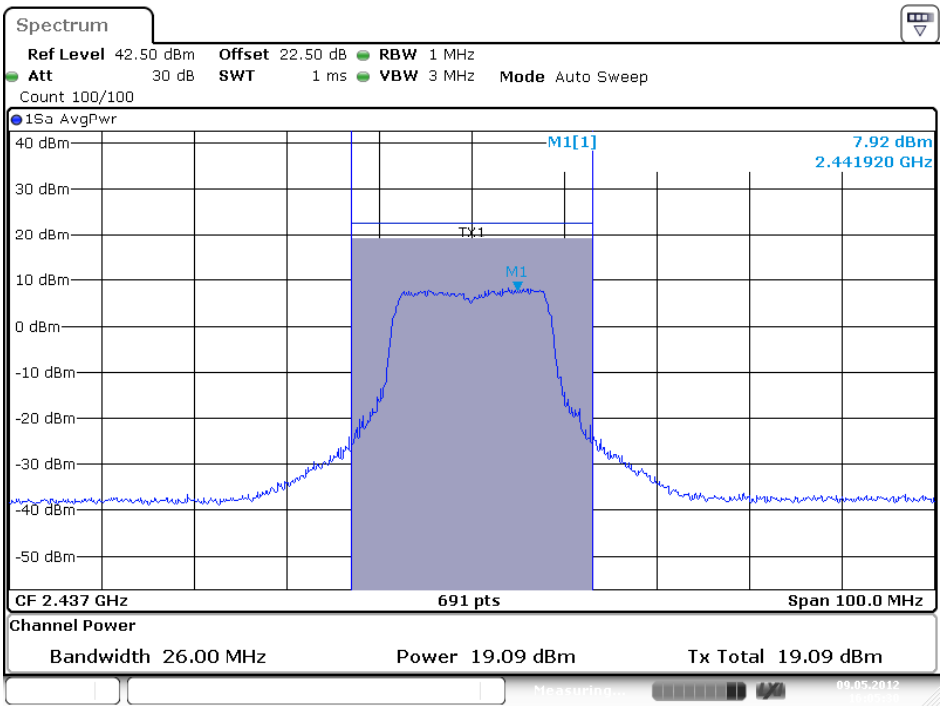
Date: 9.MAY.2012 15:41:59

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 3 (3TX)



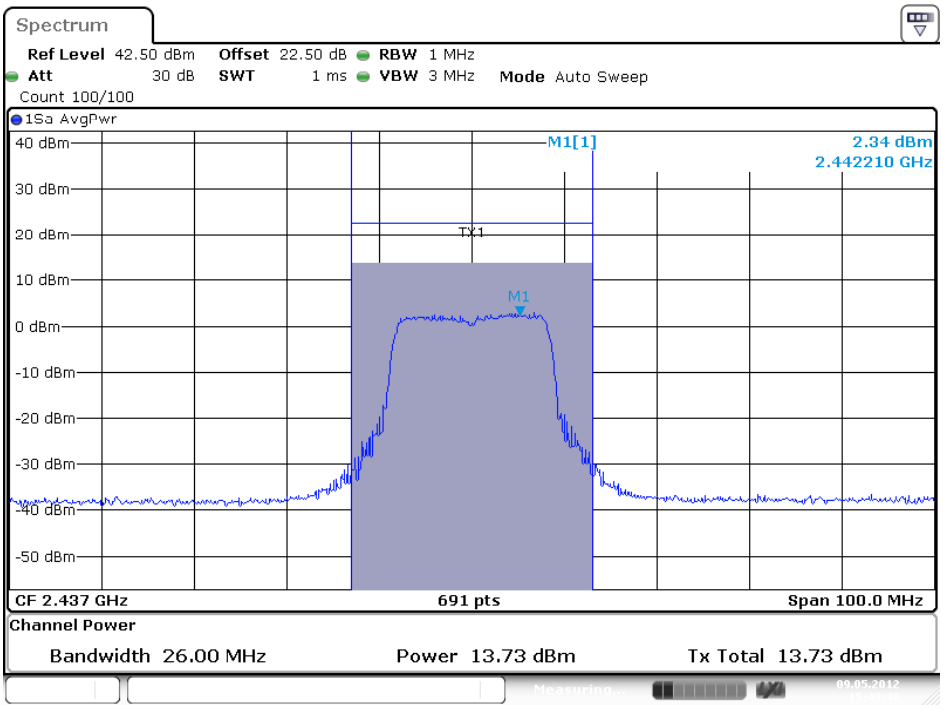
Date: 9.MAY.2012 15:41:41

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (1TX)



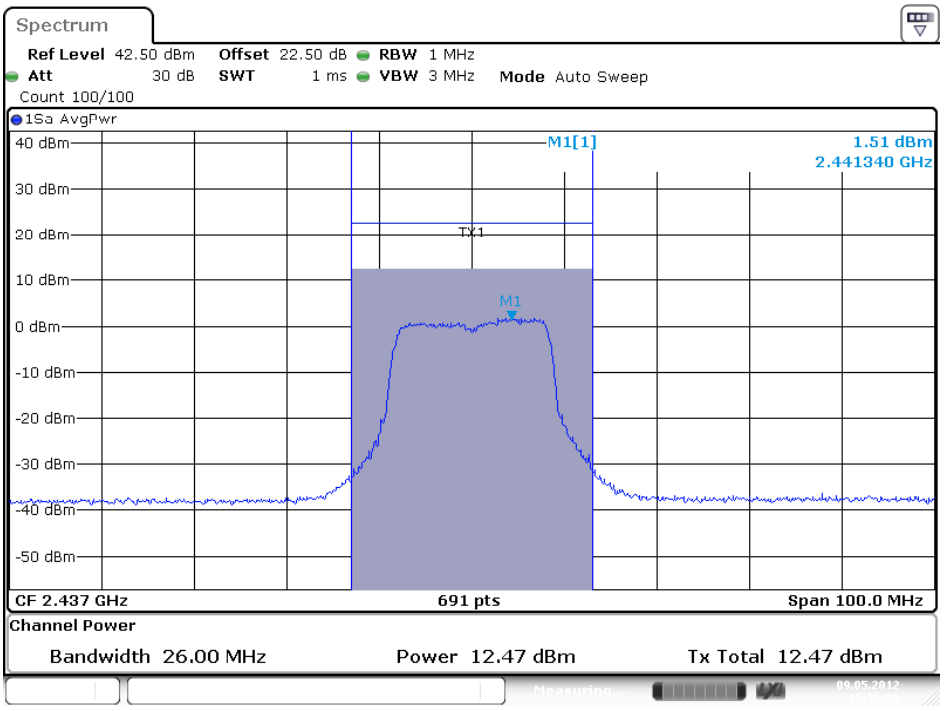
Date: 9.MAY.2012 16:05:31

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (2TX)



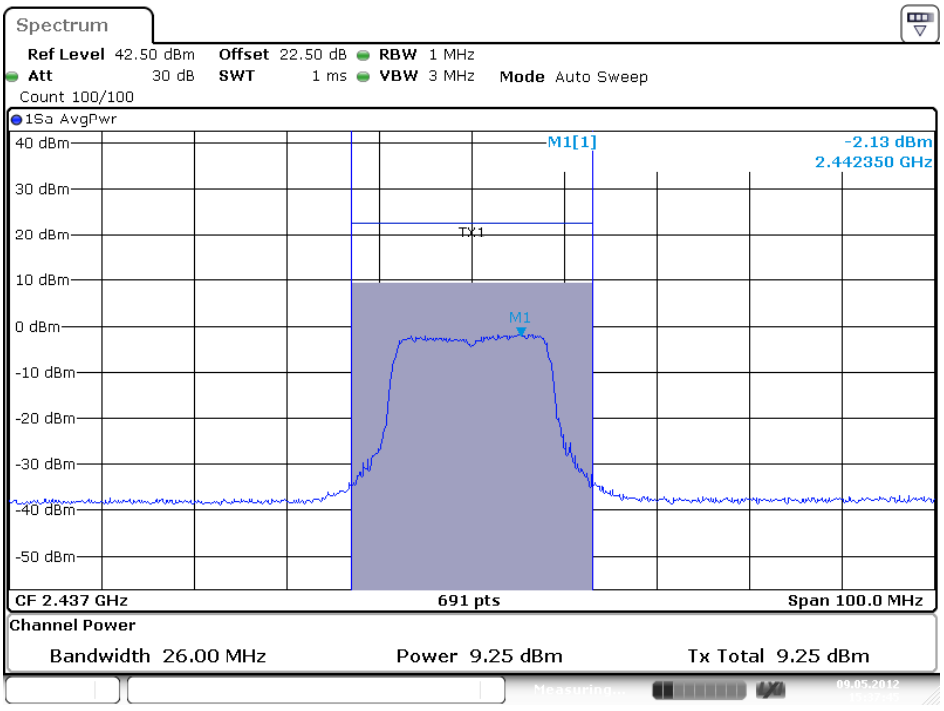
Date: 9.MAY.2012 15:49:41

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (2TX)



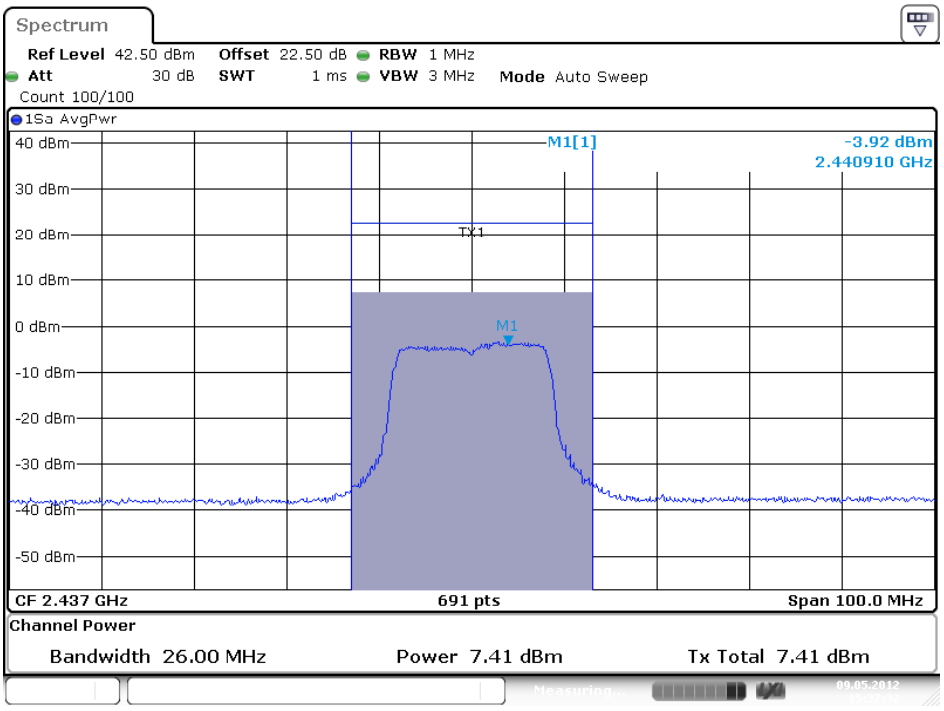
Date: 9.MAY.2012 15:50:00

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (3TX)



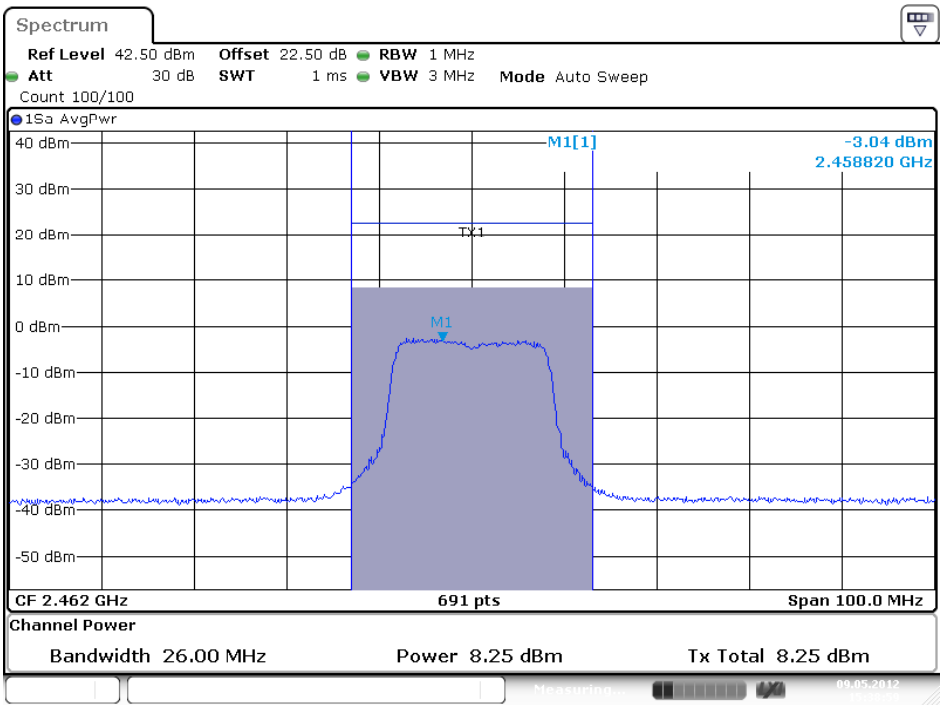
Date: 9.MAY.2012 15:37:45

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (3TX)



Date: 9.MAY.2012 15:37:32

Conducted Output Power Plot on Configuration IEEE 802.11g / 2462 MHz/ Chain 3 (3TX)



Date: 9.MAY.2012 15:39:00

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 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.66	30.00	Complies
6	2437 MHz	26.22	30.00	Complies
11	2462 MHz	21.17	30.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
3	2422 MHz	15.90	30.00	Complies
6	2437 MHz	20.56	30.00	Complies
9	2452 MHz	17.61	30.00	Complies

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	15.65	16.12	18.90	30.00	Complies
6	2437 MHz	21.60	22.03	24.83	30.00	Complies
11	2462 MHz	17.89	17.15	20.55	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	13.45	14.29	16.90	30.00	Complies
6	2437 MHz	18.23	18.16	21.21	30.00	Complies
9	2452 MHz	17.09	16.65	19.89	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	17.14	17.61	20.39	30.00	Complies
6	2437 MHz	23.67	23.98	26.84	30.00	Complies
11	2462 MHz	19.44	18.71	22.10	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
3	2422 MHz	14.08	14.76	17.44	30.00	Complies
6	2437 MHz	24.02	24.76	27.42	30.00	Complies
9	2452 MHz	17.18	16.72	19.97	30.00	Complies

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	15.12	15.22	15.21	19.95	28.73	Complies
6	2437 MHz	22.28	22.51	22.64	27.25	28.73	Complies
11	2462 MHz	15.77	14.80	14.93	19.96	28.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	12.52	13.02	12.88	17.58	28.73	Complies
6	2437 MHz	17.35	16.76	16.62	21.69	28.73	Complies
9	2452 MHz	13.79	12.51	12.73	17.82	28.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	16.05	16.18	15.98	20.84	30.00	Complies
6	2437 MHz	22.44	22.50	22.71	27.32	30.00	Complies
11	2462 MHz	17.04	16.01	16.12	21.19	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	13.08	13.69	13.65	18.25	30.00	Complies
6	2437 MHz	17.69	16.96	16.82	21.94	30.00	Complies
9	2452 MHz	15.08	14.09	13.93	19.17	30.00	Complies

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

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	22.40	30.00	Complies
6	2437 MHz	28.33	30.00	Complies
11	2462 MHz	23.72	30.00	Complies

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.59	30.00	Complies
6	2437 MHz	26.46	30.00	Complies
11	2462 MHz	21.58	30.00	Complies

2TX

Configuration IEEE 802.11b / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	19.40	19.46	22.44	30.00	Complies
6	2437 MHz	24.22	24.84	27.55	30.00	Complies
11	2462 MHz	18.93	18.27	21.62	30.00	Complies

Configuration IEEE 802.11g / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
1	2412 MHz	16.31	16.17	19.25	30.00	Complies
6	2437 MHz	22.87	22.84	25.87	30.00	Complies
11	2462 MHz	18.02	17.36	20.71	30.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the conducted power limit =30-(16.51-6)=19.49dBm.

3TX

Configuration IEEE 802.11b / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	18.61	18.70	18.22	23.29	28.73	Complies
6	2437 MHz	20.57	20.00	20.46	25.12	28.73	Complies
11	2462 MHz	18.31	17.12	17.15	22.33	28.73	Complies

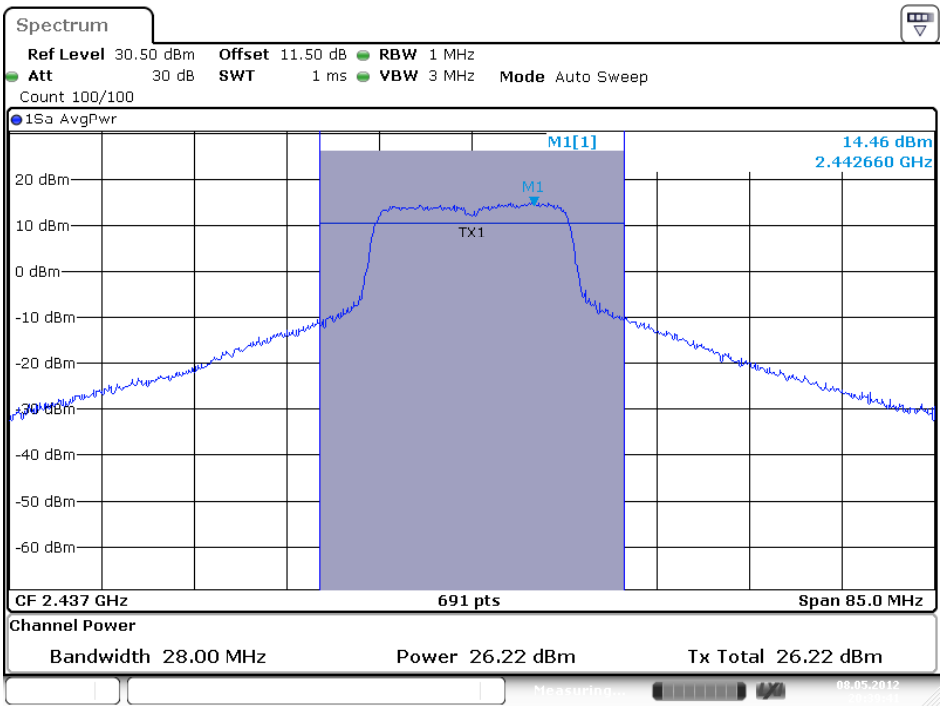
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

Configuration IEEE 802.11g / Chain 1 + Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	15.98	16.17	16.13	20.87	28.73	Complies
6	2437 MHz	22.76	22.39	21.94	27.15	28.73	Complies
11	2462 MHz	16.96	15.84	16.00	21.07	28.73	Complies

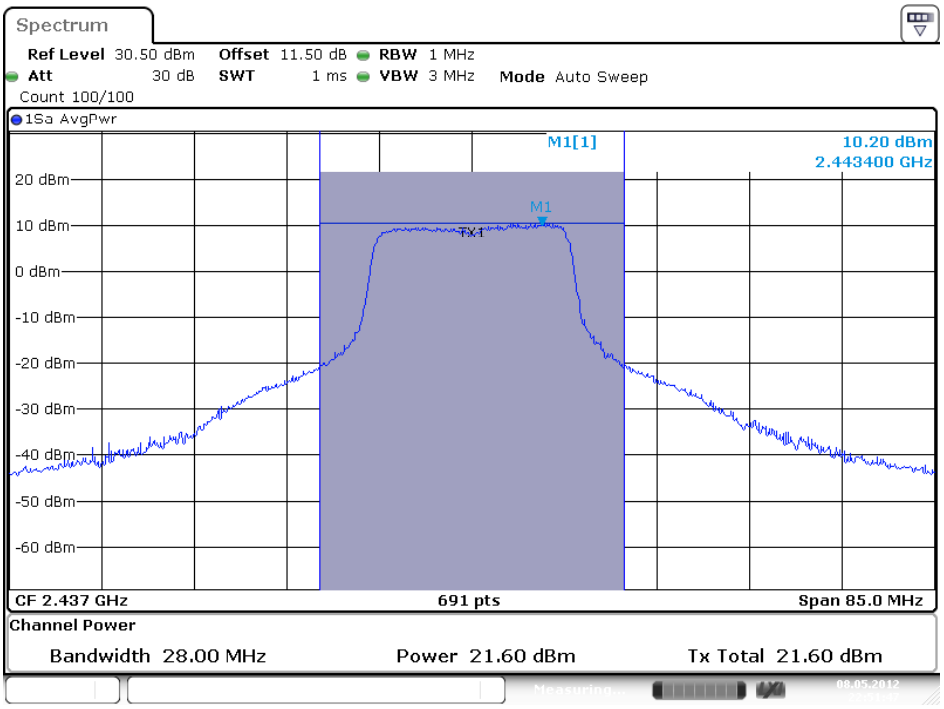
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz / Chain. 1 (1TX)



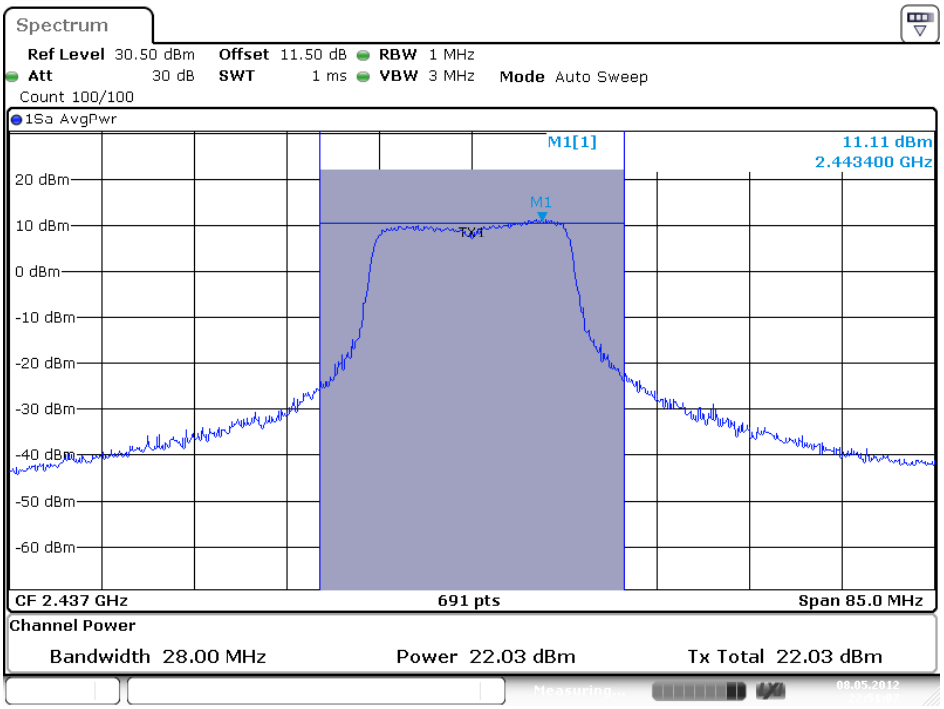
Date: 8.MAY.2012 20:39:41

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (2TX)



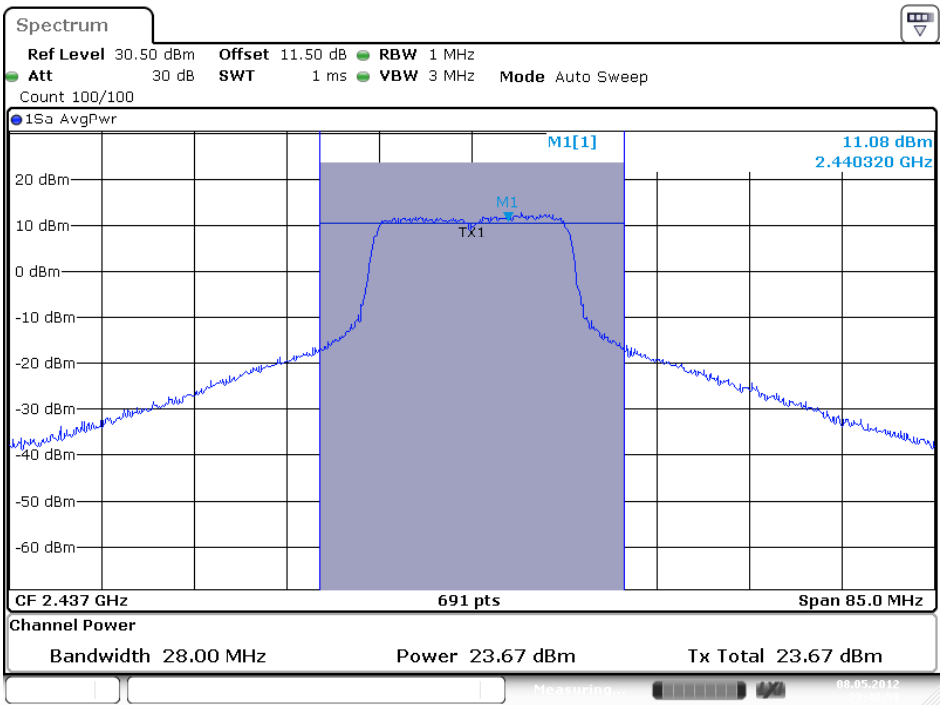
Date: 8.MAY.2012 22:51:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (2TX)



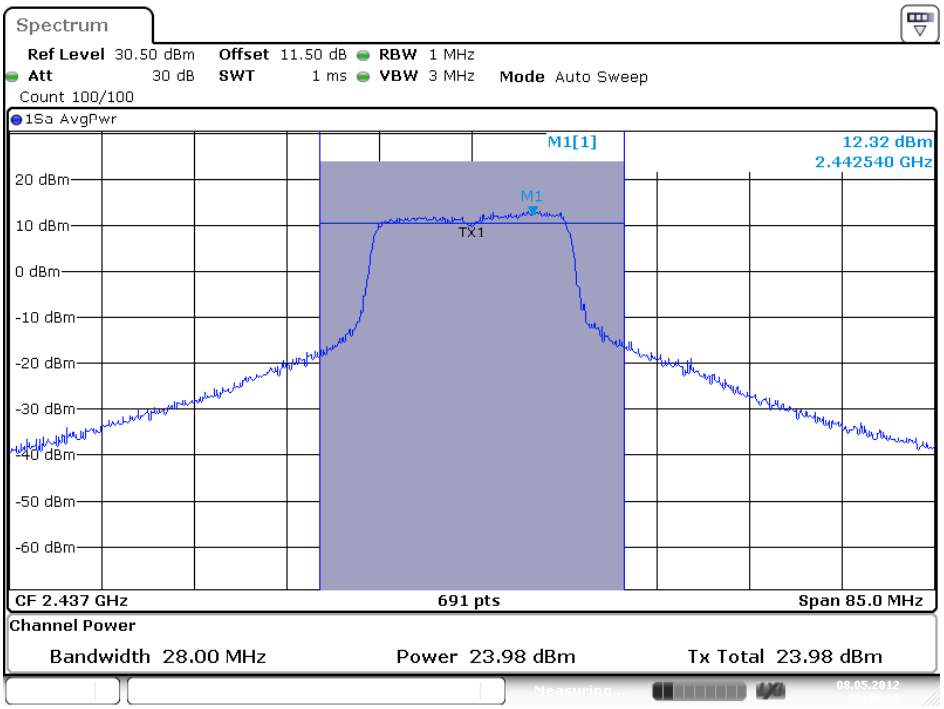
Date: 8.MAY.2012 22:51:06

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (2TX)



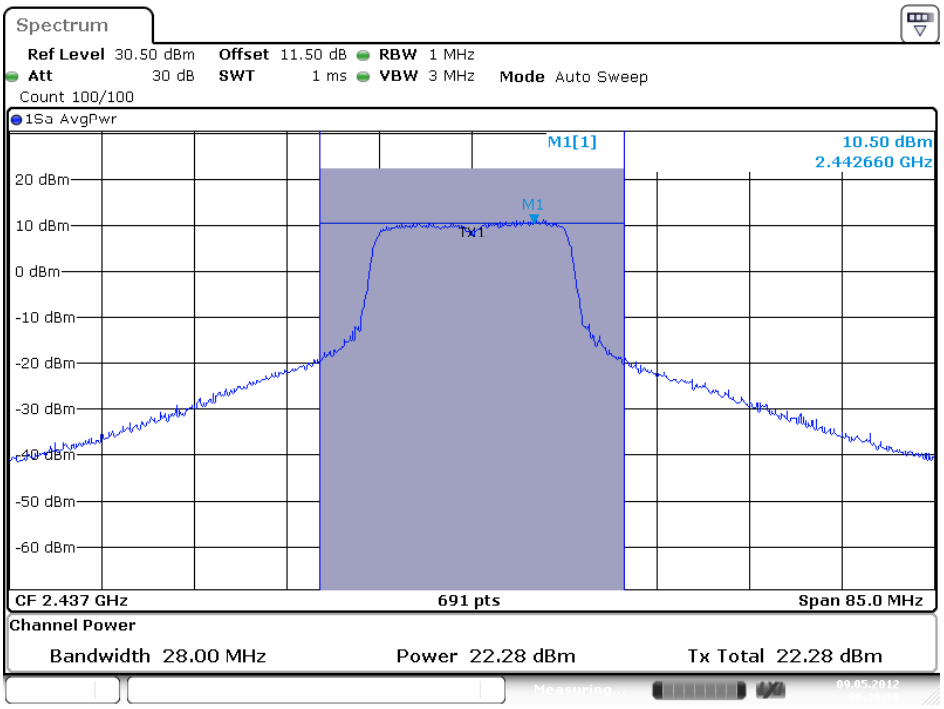
Date: 8.MAY.2012 23:48:59

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (2TX)



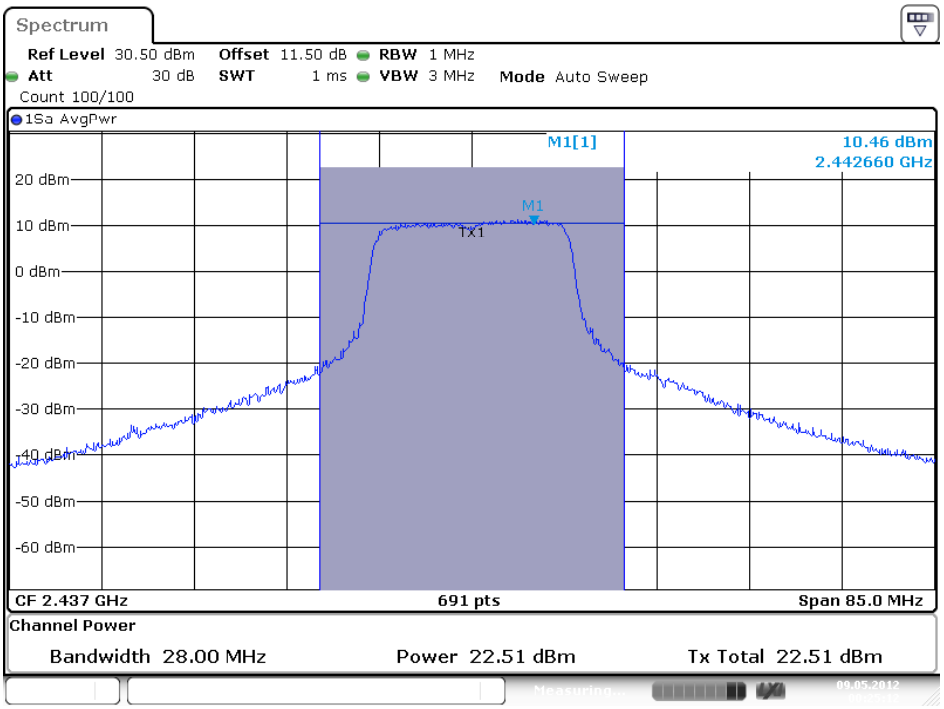
Date: 8.MAY.2012 23:48:22

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 1 (3TX)



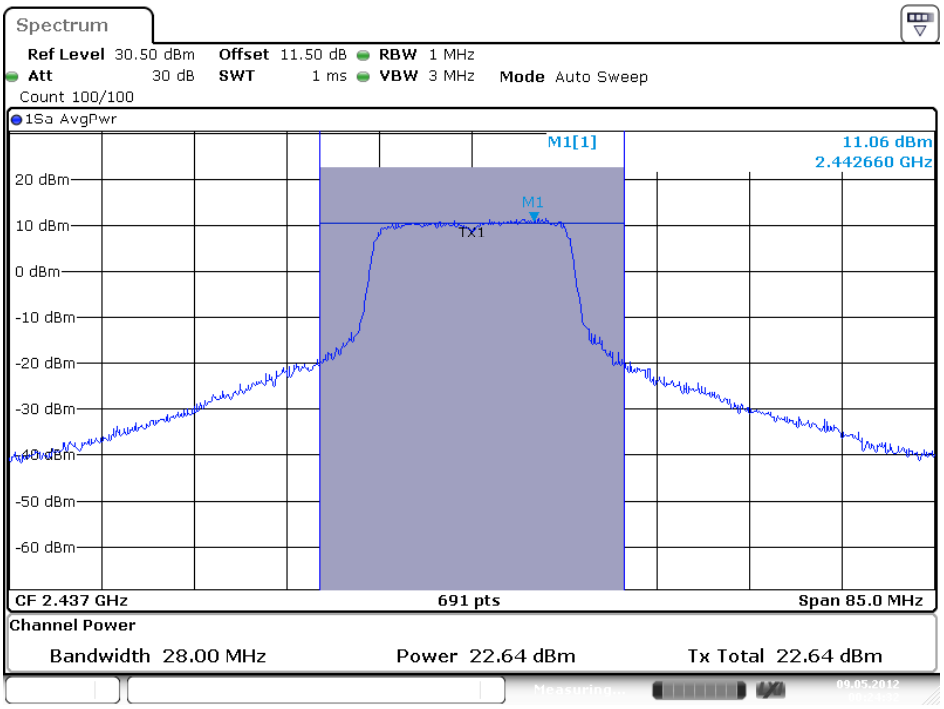
Date: 9.MAY.2012 00:26:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 2 (3TX)



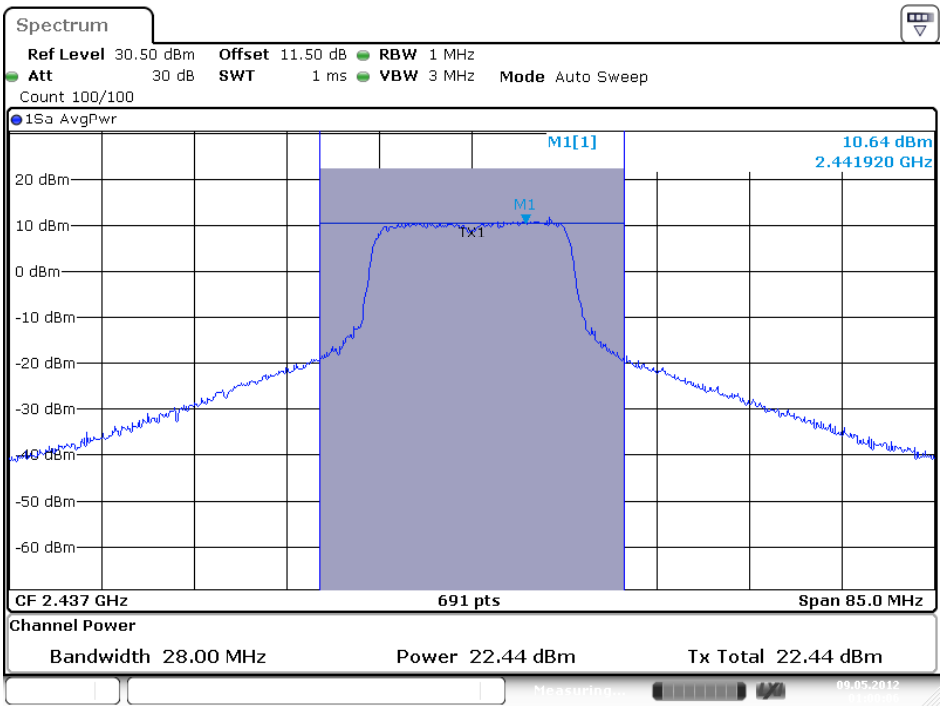
Date: 9.MAY.2012 00:25:12

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 2437 MHz/ Chain 3 (3TX)



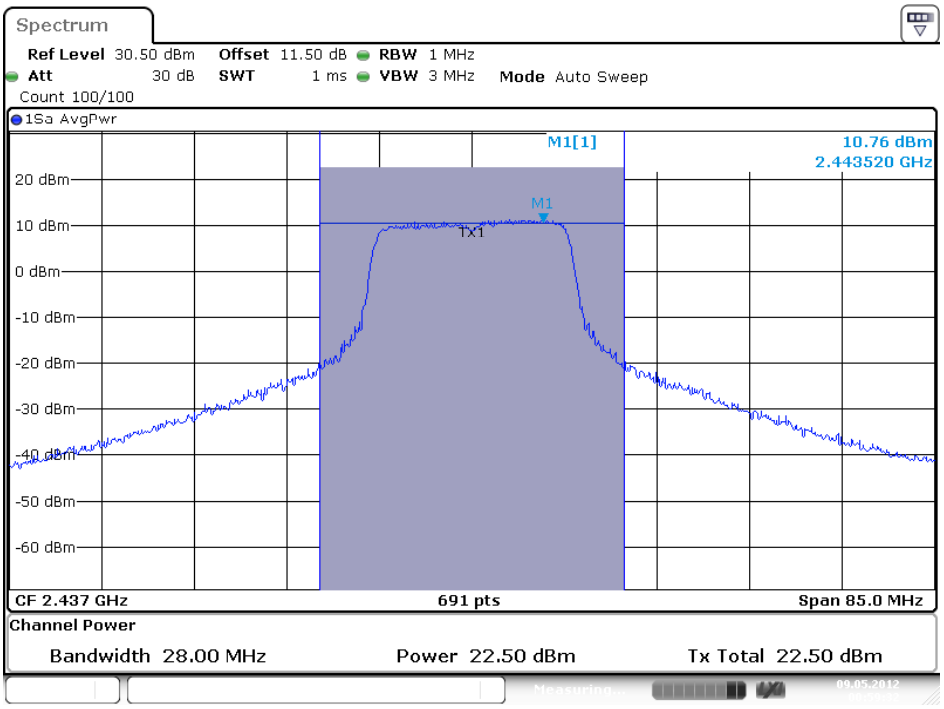
Date: 9.MAY.2012 00:24:32

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 1 (3TX)



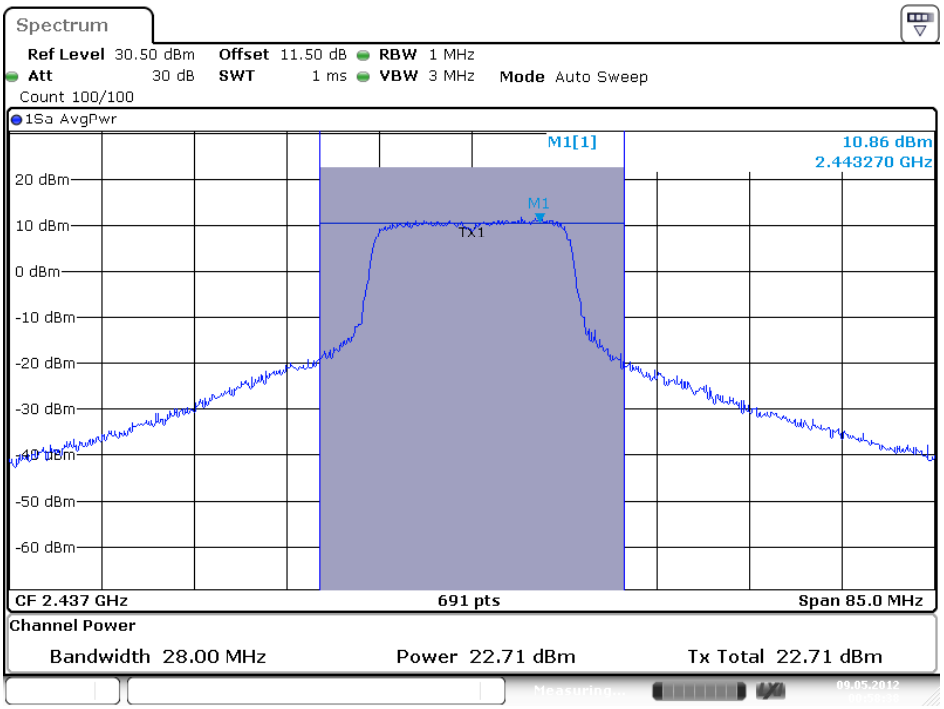
Date: 9.MAY.2012 01:00:06

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 2 (3TX)



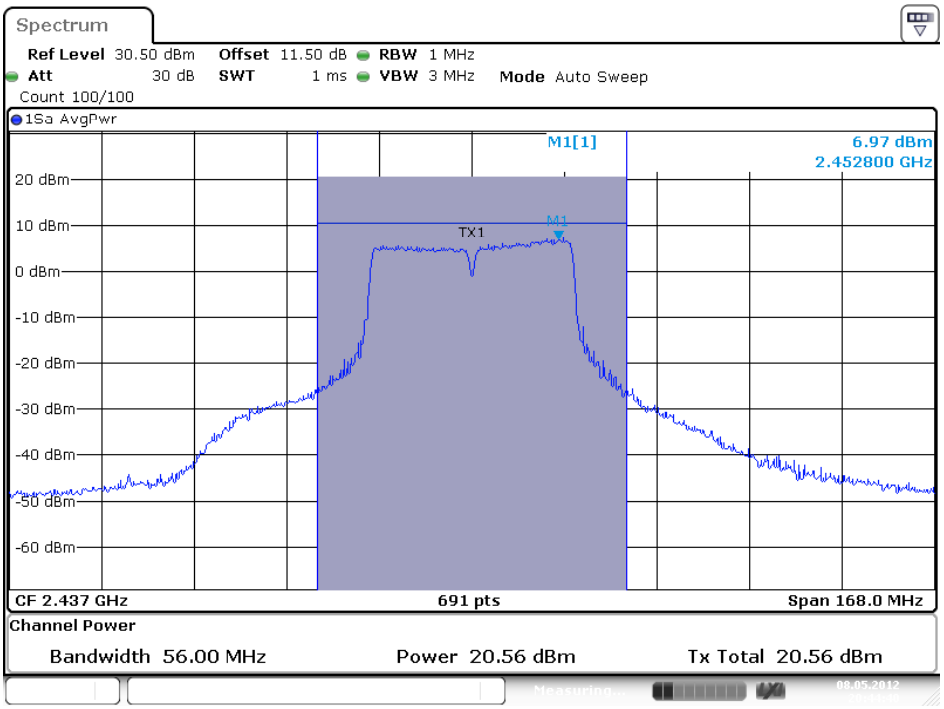
Date: 9.MAY.2012 00:59:32

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 2437 MHz/ Chain 3 (3TX)



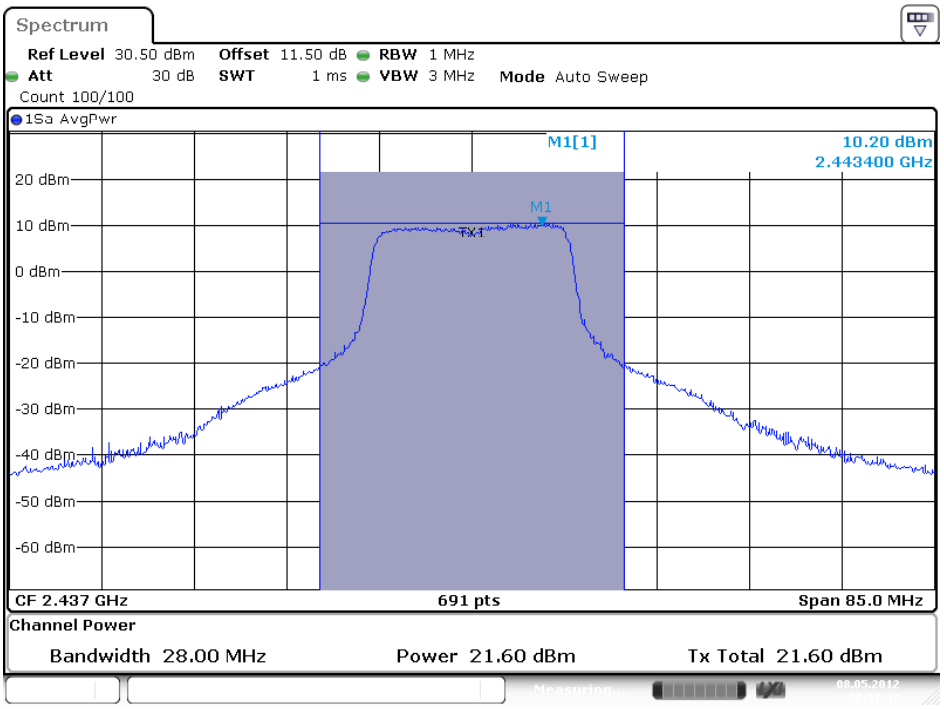
Date: 9.MAY.2012 00:58:38

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (1TX)



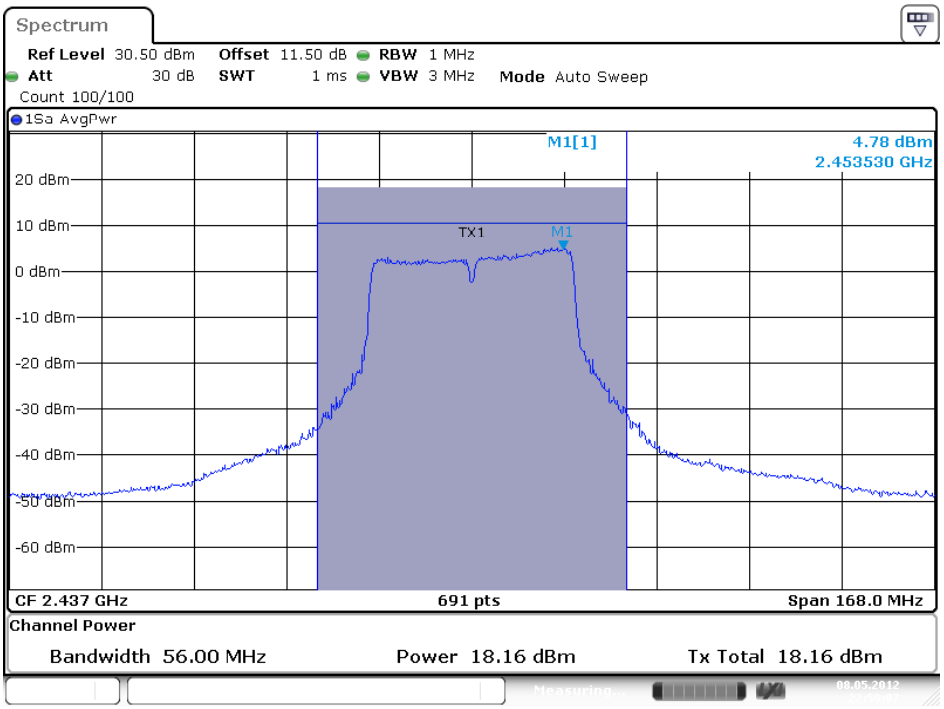
Date: 8.MAY.2012 20:44:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (2TX)



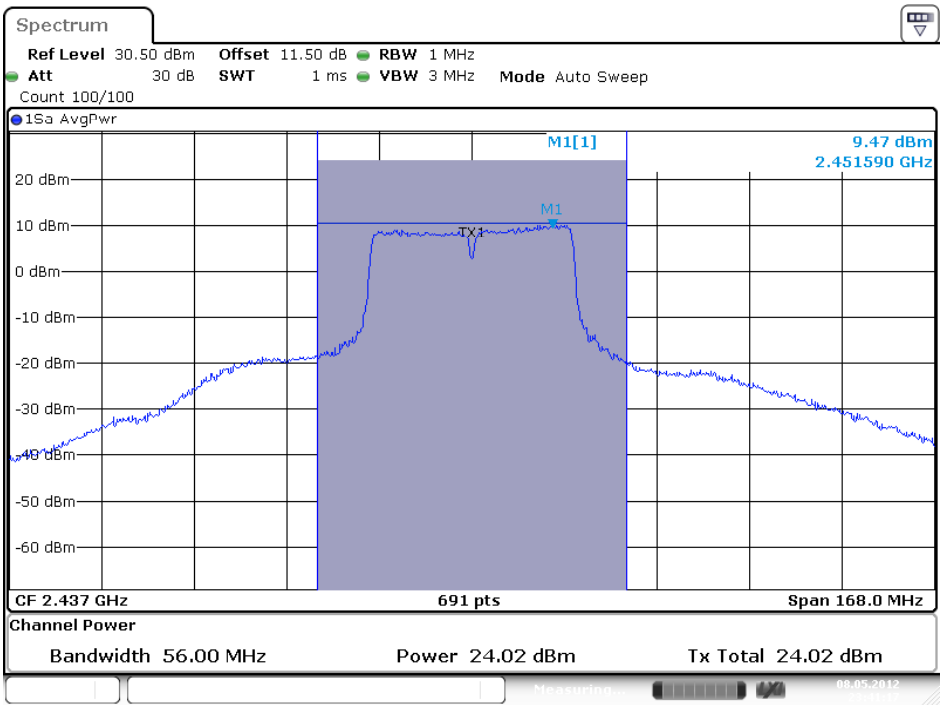
Date: 8.MAY.2012 22:51:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (2TX)



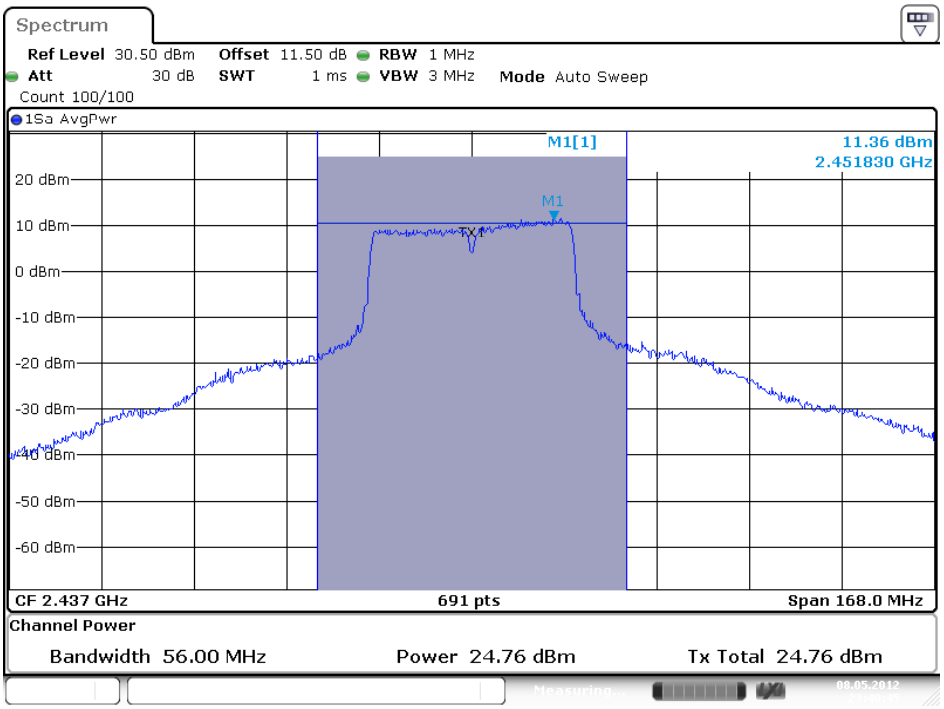
Date: 8.MAY.2012 22:59:07

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (2TX)



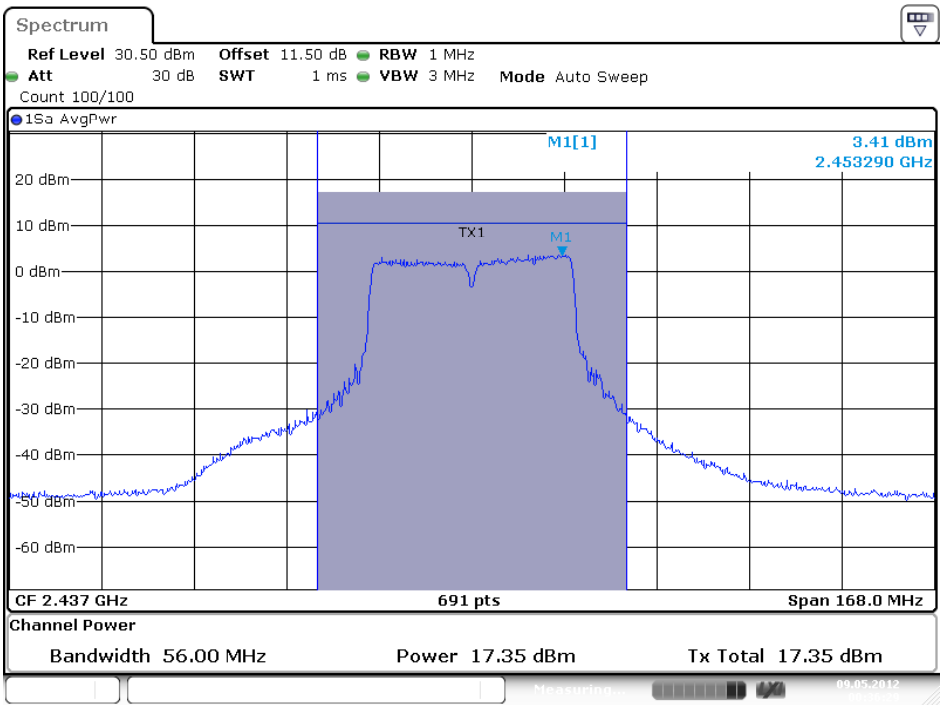
Date: 8.MAY.2012 23:41:17

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (2TX)



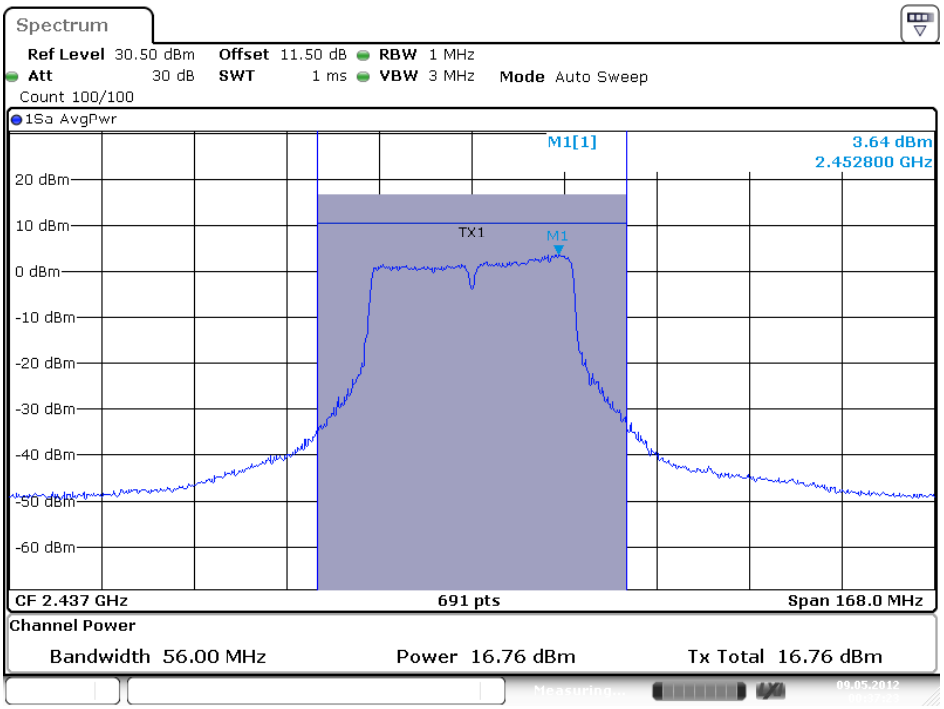
Date: 8.MAY.2012 23:40:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 1 (3TX)



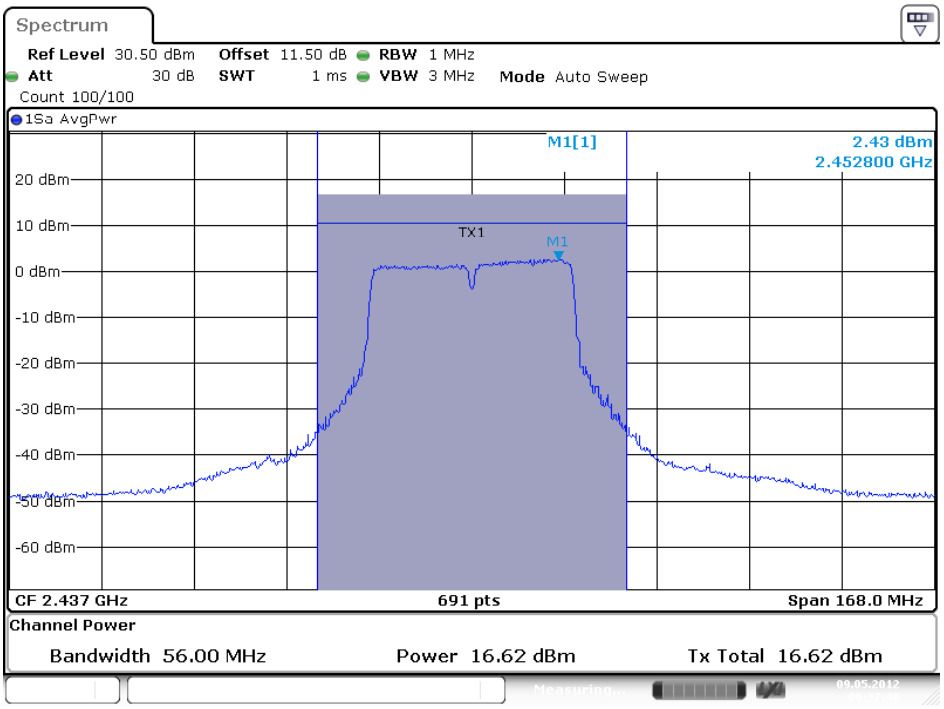
Date: 9.MAY.2012 00:36:29

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 2 (3TX)



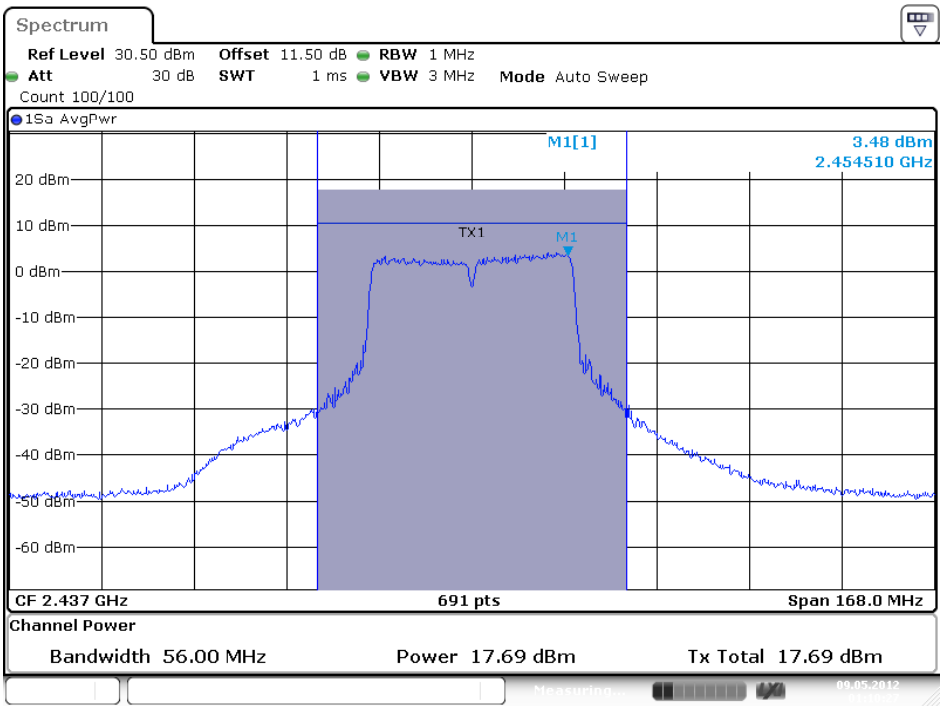
Date: 9.MAY.2012 00:37:23

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 2437 MHz/ Chain 3 (3TX)



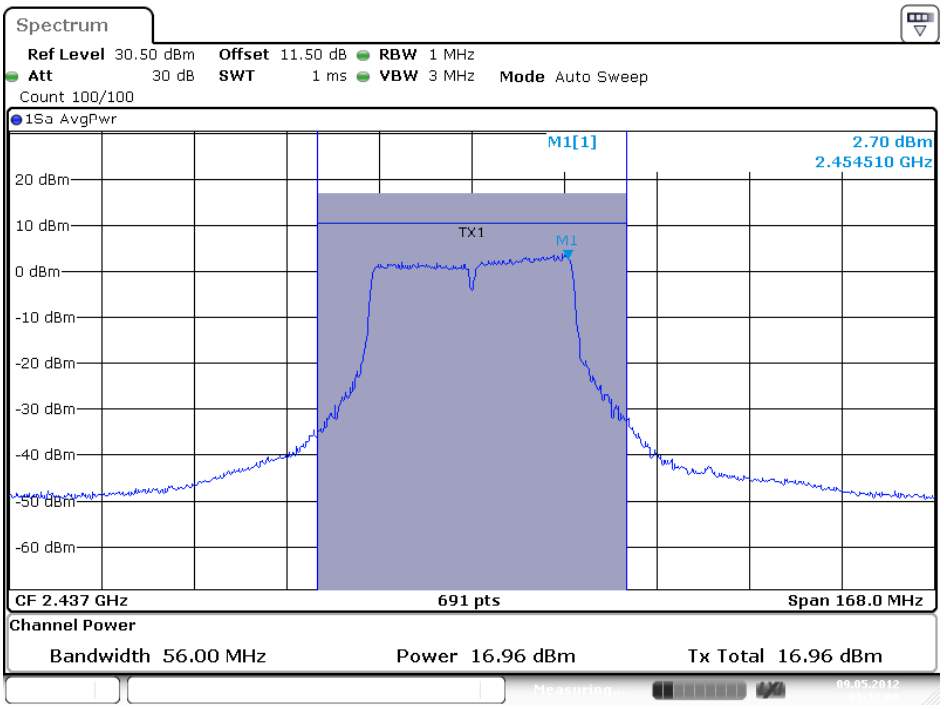
Date: 9.MAY.2012 00:37:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 1 (3TX)



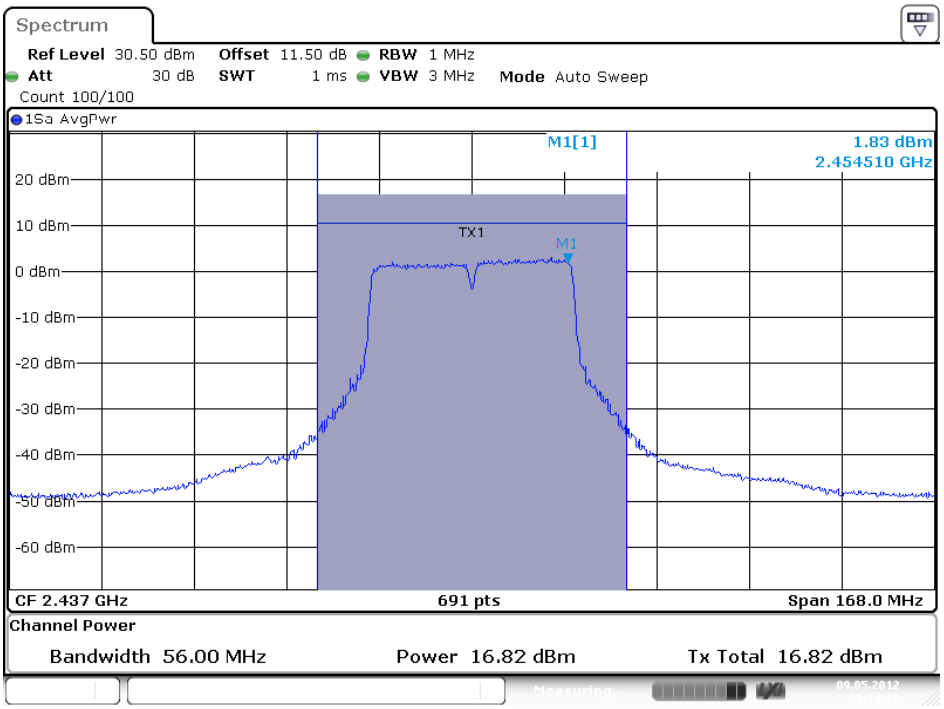
Date: 9.MAY.2012 01:10:27

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 2 (3TX)



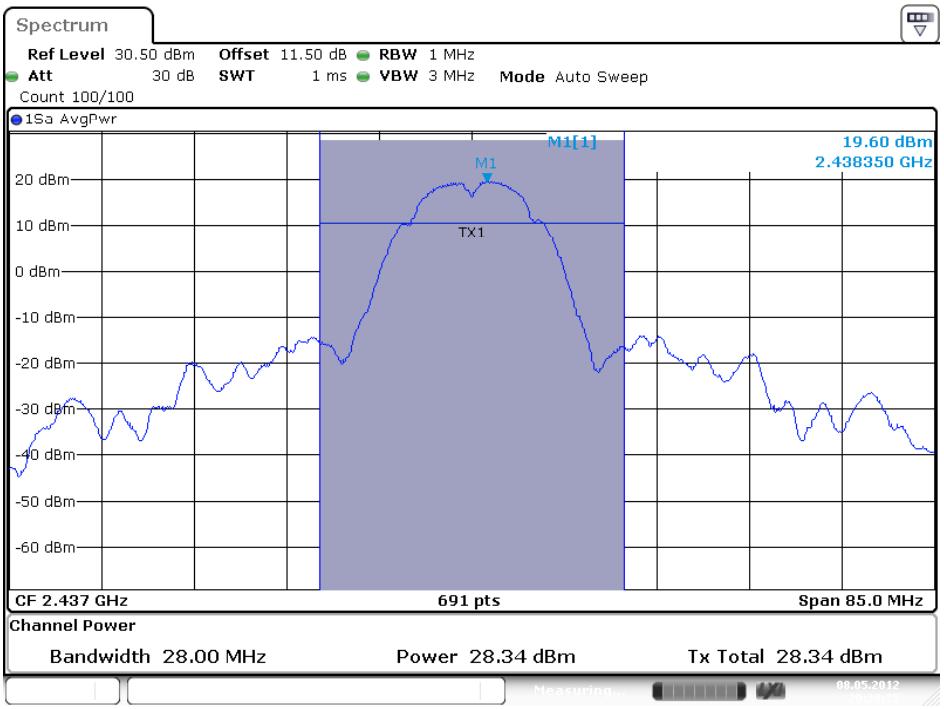
Date: 9.MAY.2012 01:12:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 2437 MHz/ Chain 3 (3TX)



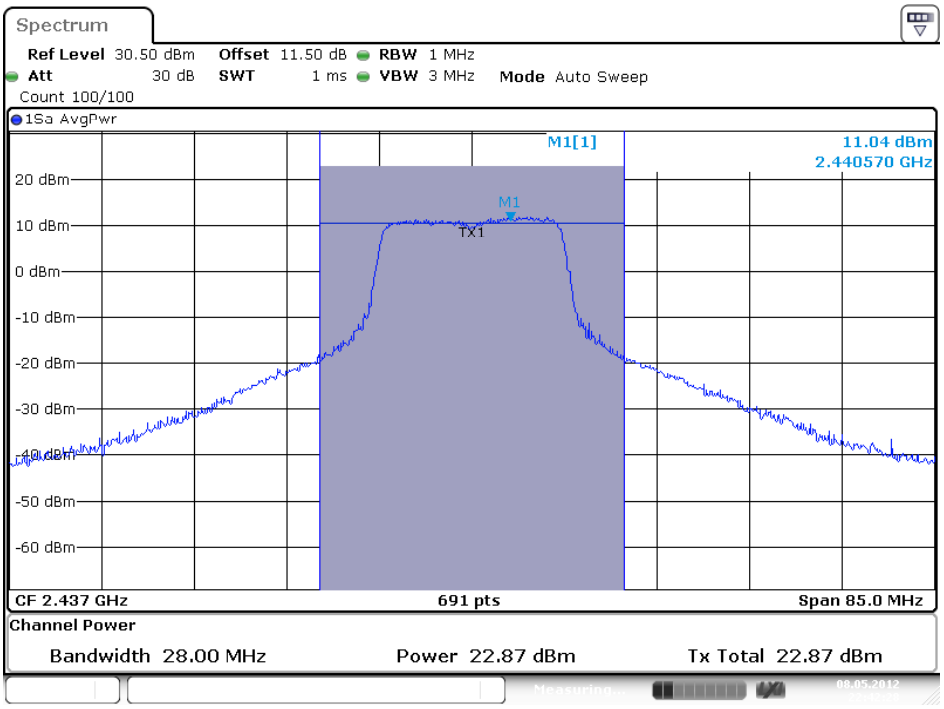
Date: 9.MAY.2012 01:14:12

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (1TX)



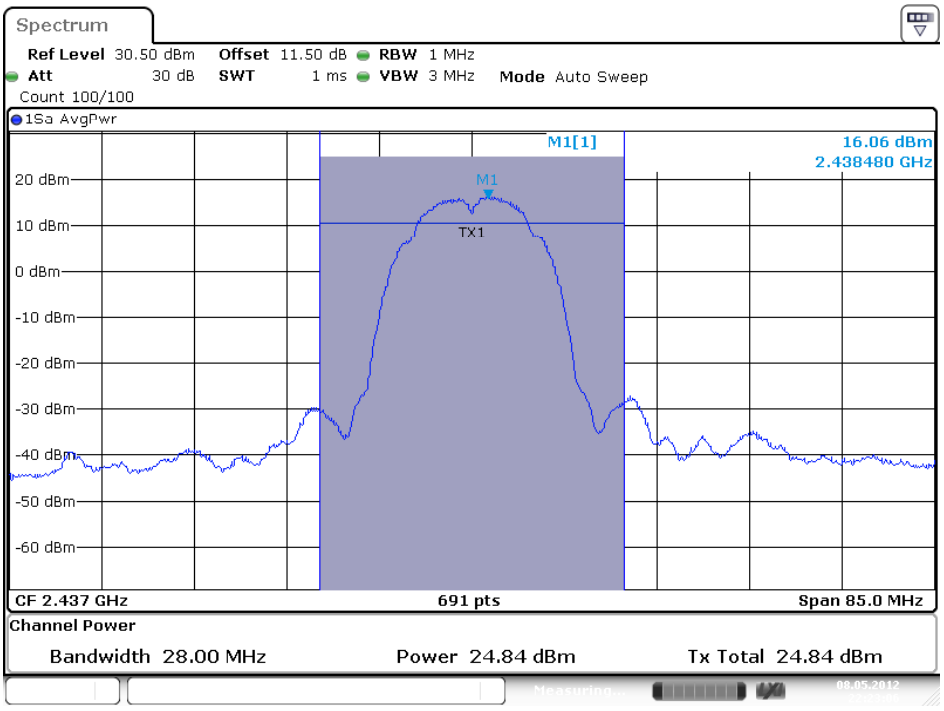
Date: 8.MAY.2012 20:28:25

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (2TX)



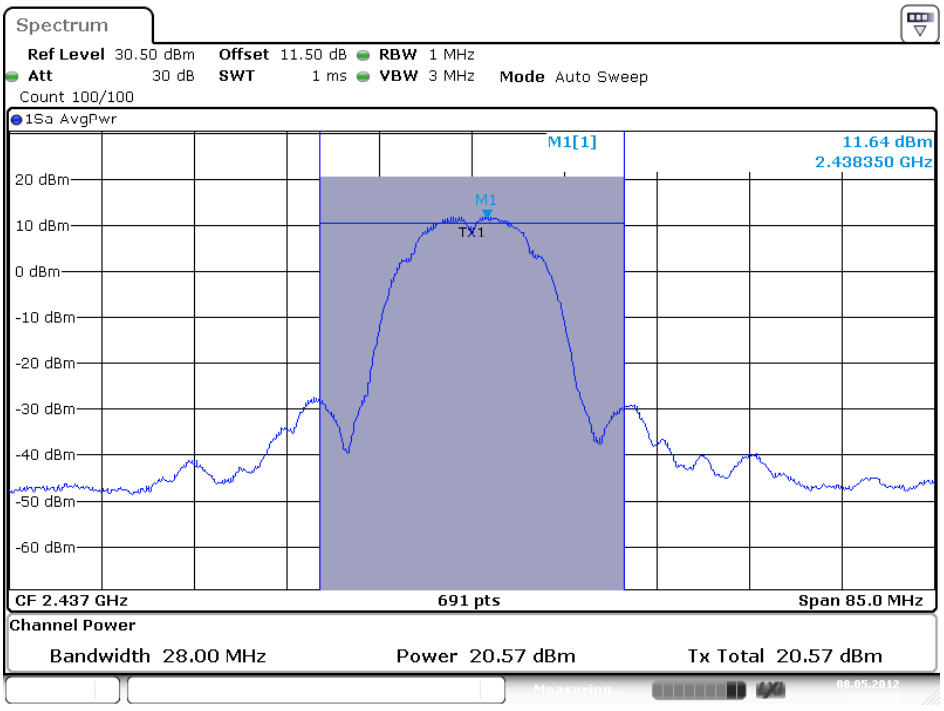
Date: 8.MAY.2012 22:42:27

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (2TX)



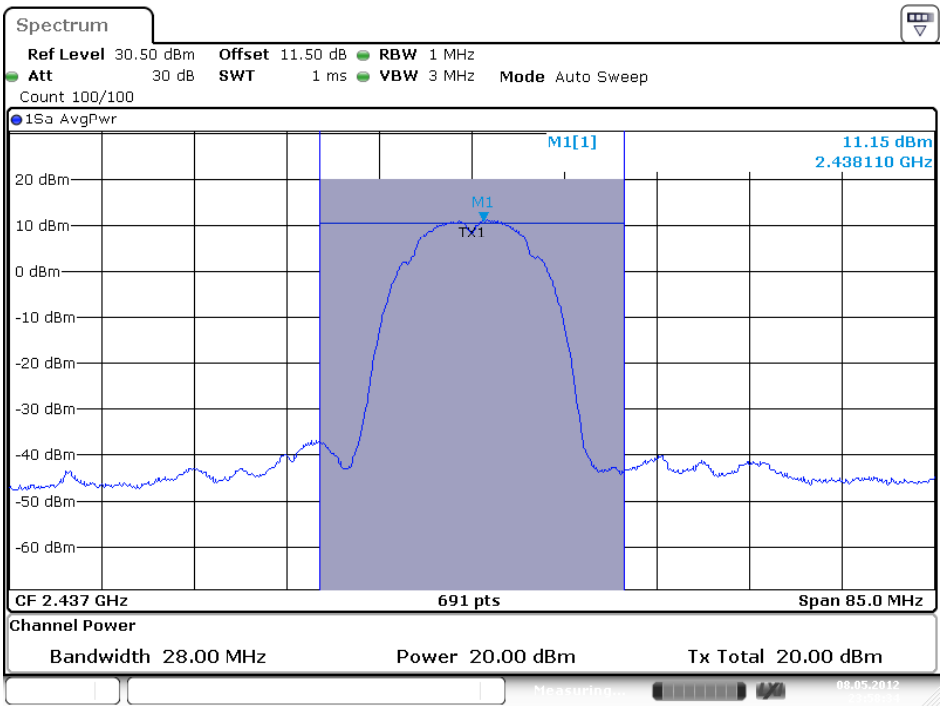
Date: 8.MAY.2012 22:23:06

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 1 (3TX)



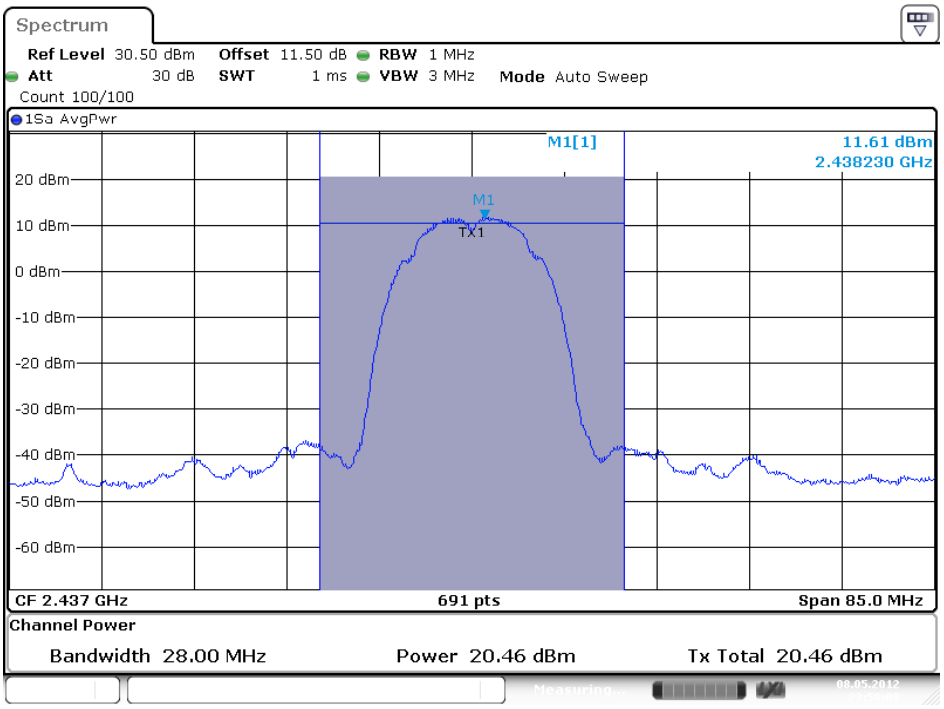
Date: 8.MAY.2012 23:59:29

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 2 (3TX)



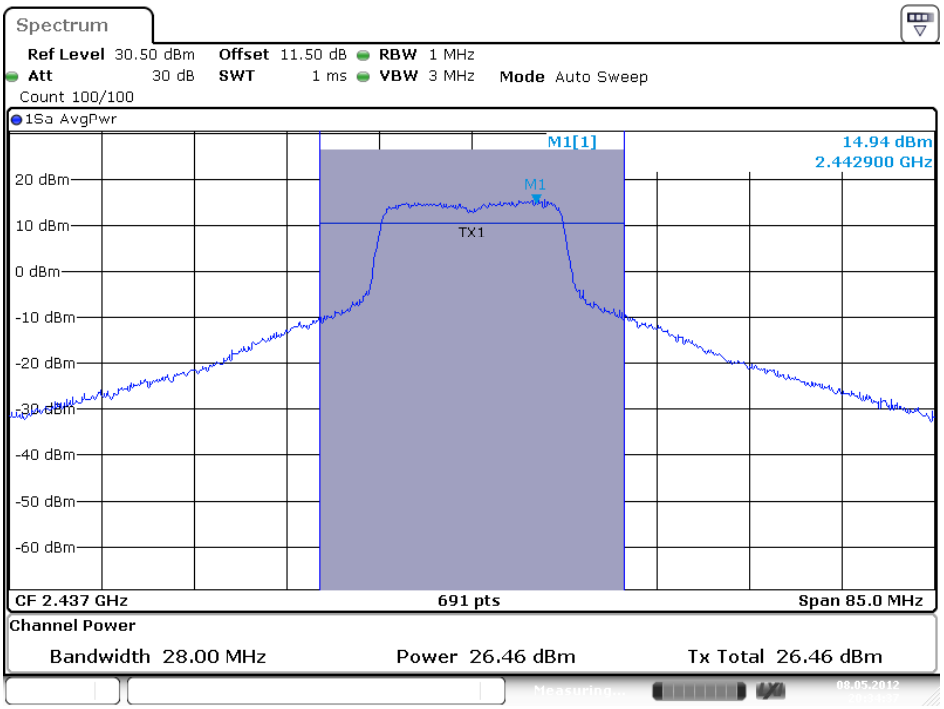
Date: 8.MAY.2012 23:58:34

Conducted Output Power Plot on Configuration IEEE 802.11b / 2437 MHz/ Chain 3 (3TX)



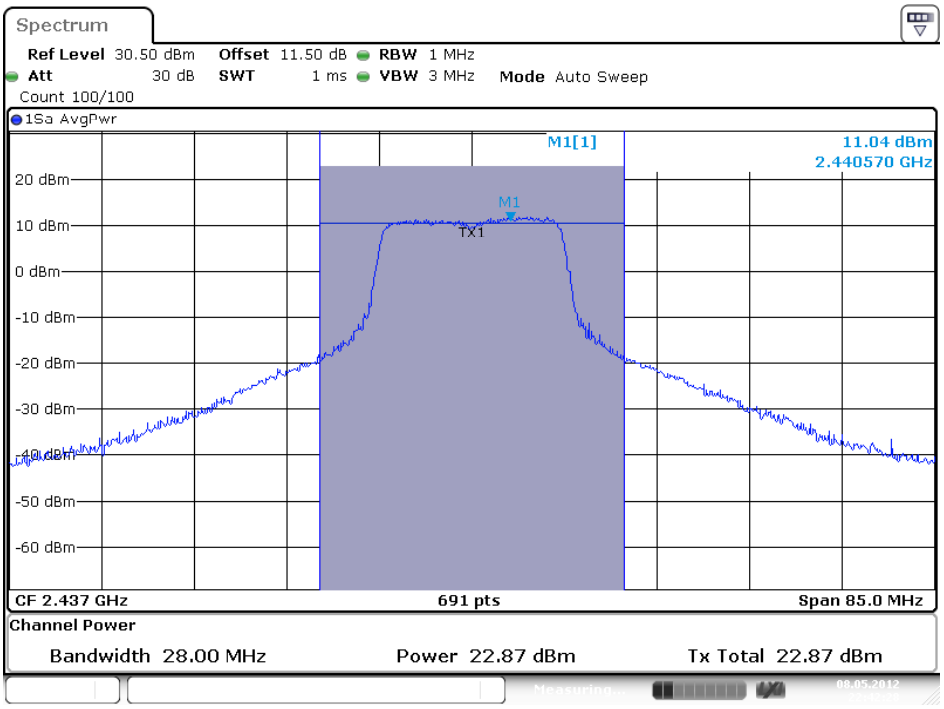
Date: 8.MAY.2012 23:57:59

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (1TX)



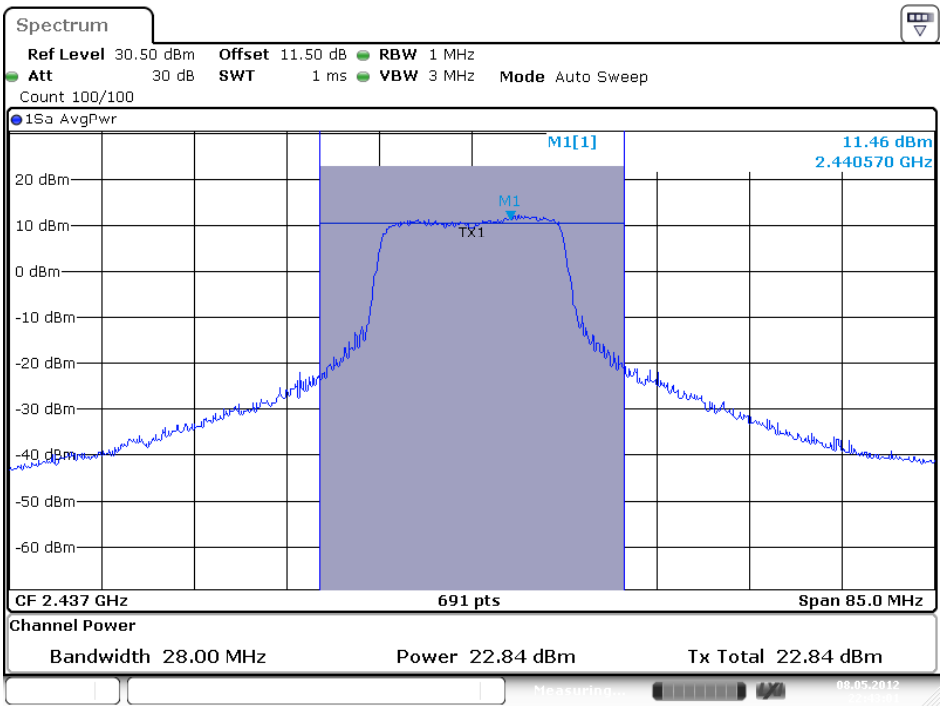
Date: 8.MAY.2012 20:34:37

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (2TX)



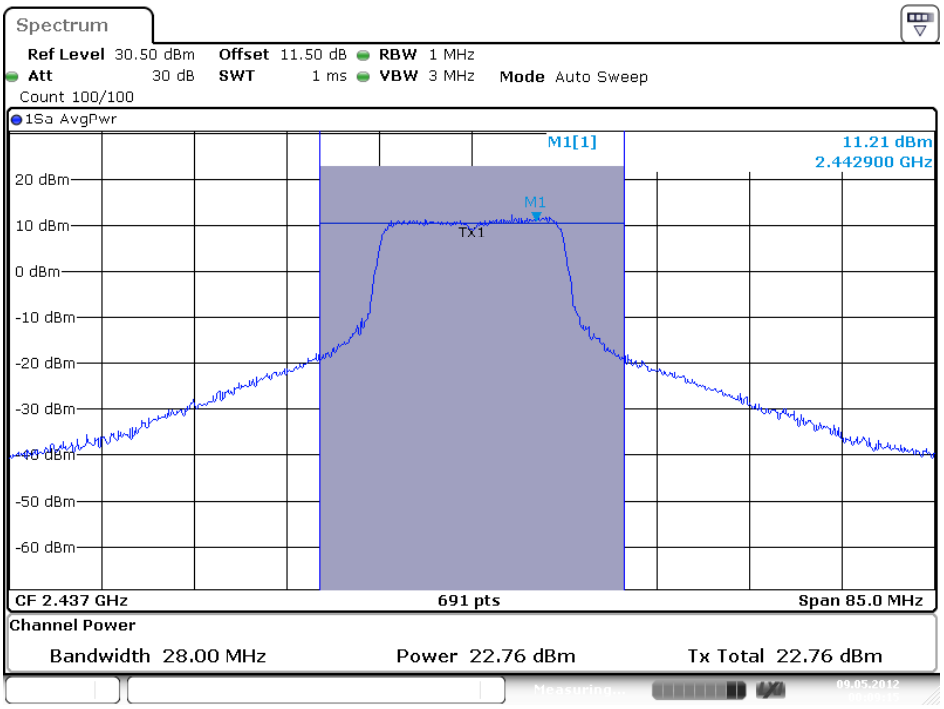
Date: 8.MAY.2012 22:42:27

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (2TX)



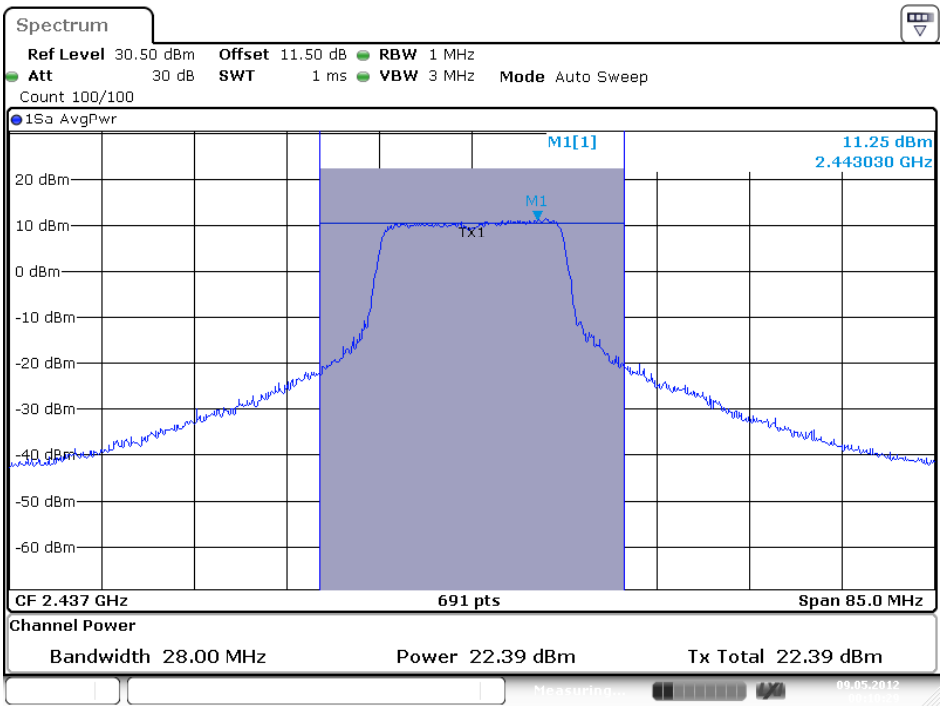
Date: 8.MAY.2012 22:43:01

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 1 (3TX)



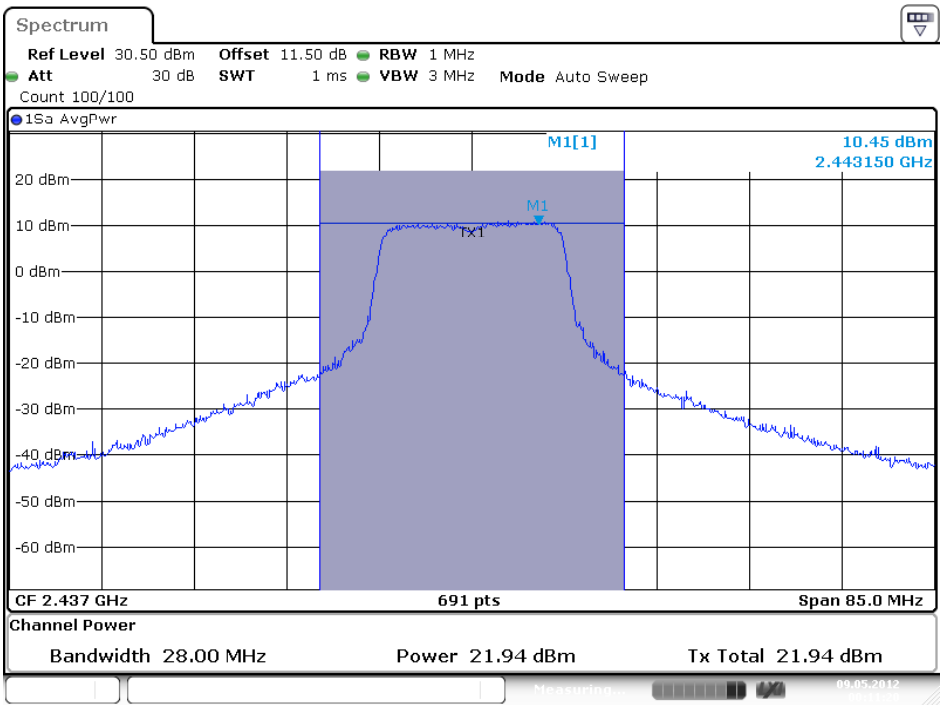
Date: 9.MAY.2012 00:09:15

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 2 (3TX)



Date: 9.MAY.2012 00:10:29

Conducted Output Power Plot on Configuration IEEE 802.11g / 2437 MHz/ Chain 3 (3TX)



Date: 9.MAY.2012 00:11:20

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

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	18.14	28.00	Complies
157	5785 MHz	21.53	28.00	Complies
165	5825 MHz	21.37	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	16.52	28.00	Complies
159	5795 MHz	21.40	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	17.45	19.13	21.38	24.99	Complies
157	5785 MHz	20.17	21.23	23.74	24.99	Complies
165	5825 MHz	17.65	18.56	21.14	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	16.30	17.84	20.15	24.99	Complies
159	5795 MHz	20.64	21.26	23.97	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	18.40	19.90	22.22	28.00	Complies
157	5785 MHz	19.84	20.82	23.37	28.00	Complies
165	5825 MHz	19.61	20.45	23.06	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	16.59	18.11	20.43	28.00	Complies
159	5795 MHz	19.67	20.48	23.10	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	17.23	18.86	19.04	23.22	23.23	Complies
157	5785 MHz	17.26	18.30	18.38	22.78	23.23	Complies
165	5825 MHz	17.67	18.56	18.67	23.09	23.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the conducted power limit =30-(12.77-6)=23.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	15.53	17.16	17.25	21.49	23.23	Complies
159	5795 MHz	17.61	18.09	18.36	22.80	23.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the conducted power limit =30-(12.77-6)=23.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	18.36	19.77	19.78	24.12	25.00	Complies
157	5785 MHz	17.82	18.98	18.96	23.39	25.00	Complies
165	5825 MHz	16.85	17.97	18.14	22.46	25.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11dBi > 6dBi, so the conducted power limit =30-(11-6)=25dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	15.62	17.10	17.06	21.42	25.00	Complies
159	5795 MHz	18.04	18.72	18.82	23.31	25.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11dBi > 6dBi, so the conducted power limit =30-(11-6)=25dBm.

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

1TX

Configuration IEEE 802.11a / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.98	28.00	Complies
157	5785 MHz	21.70	28.00	Complies
165	5825 MHz	21.47	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

2TX

Configuration IEEE 802.11a / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	19.39	20.84	23.19	24.99	Complies
157	5785 MHz	19.64	20.66	23.19	24.99	Complies
165	5825 MHz	19.41	20.08	22.77	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

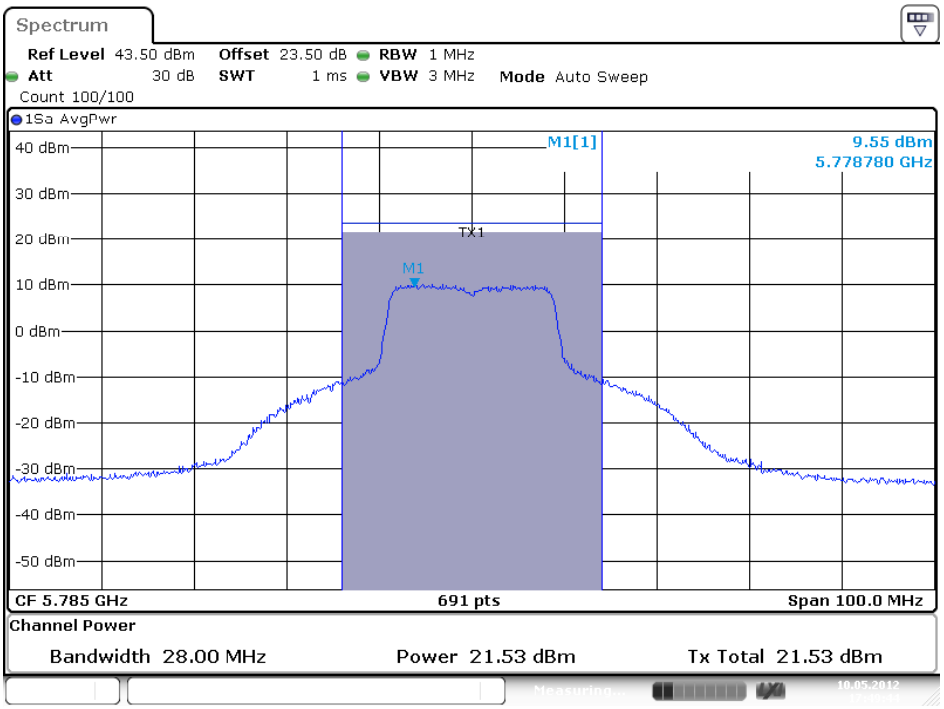
3TX

Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	17.25	18.79	18.85	23.13	23.23	Complies
157	5785 MHz	17.56	18.63	18.60	23.06	23.23	Complies
165	5825 MHz	17.25	18.11	18.53	22.77	23.23	Complies

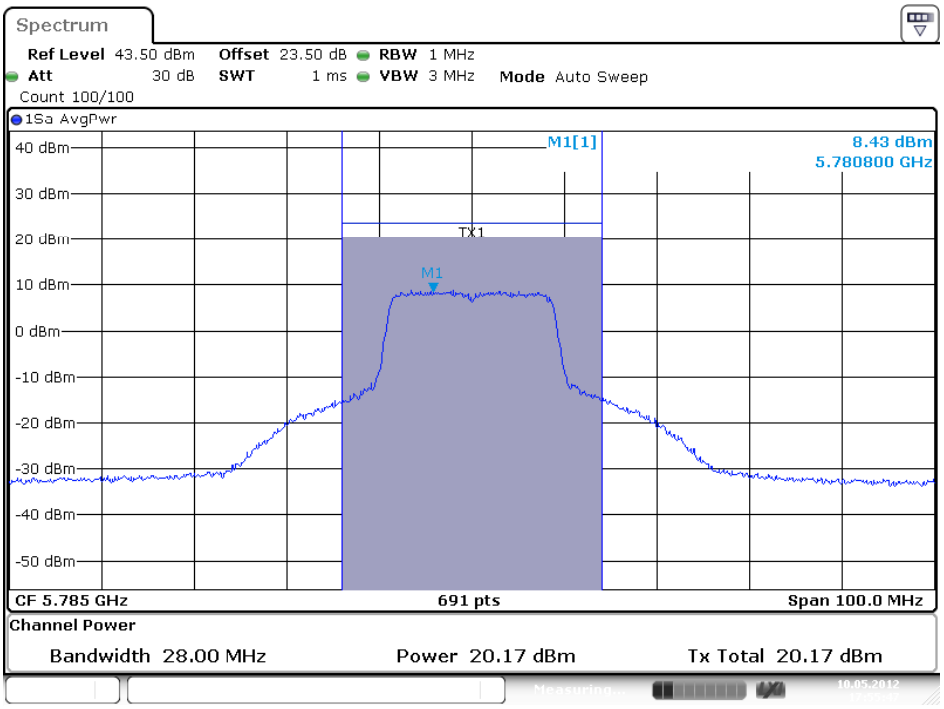
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the conducted power limit =30-(12.77-6)=23.23dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz / Chain. 1 (1TX)



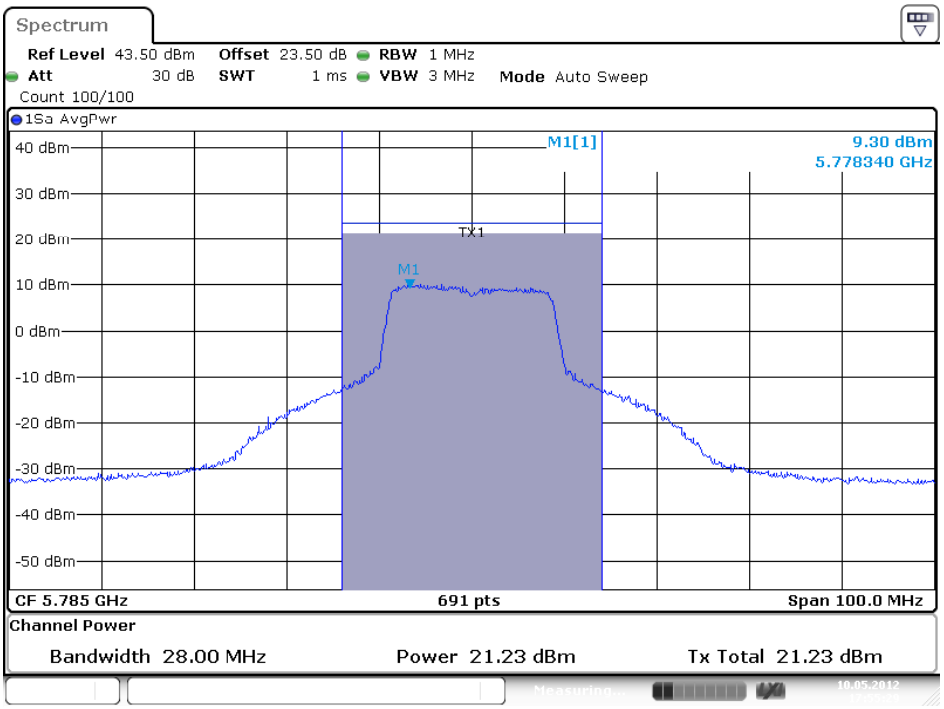
Date: 10.MAY.2012 17:49:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 1 (2TX)



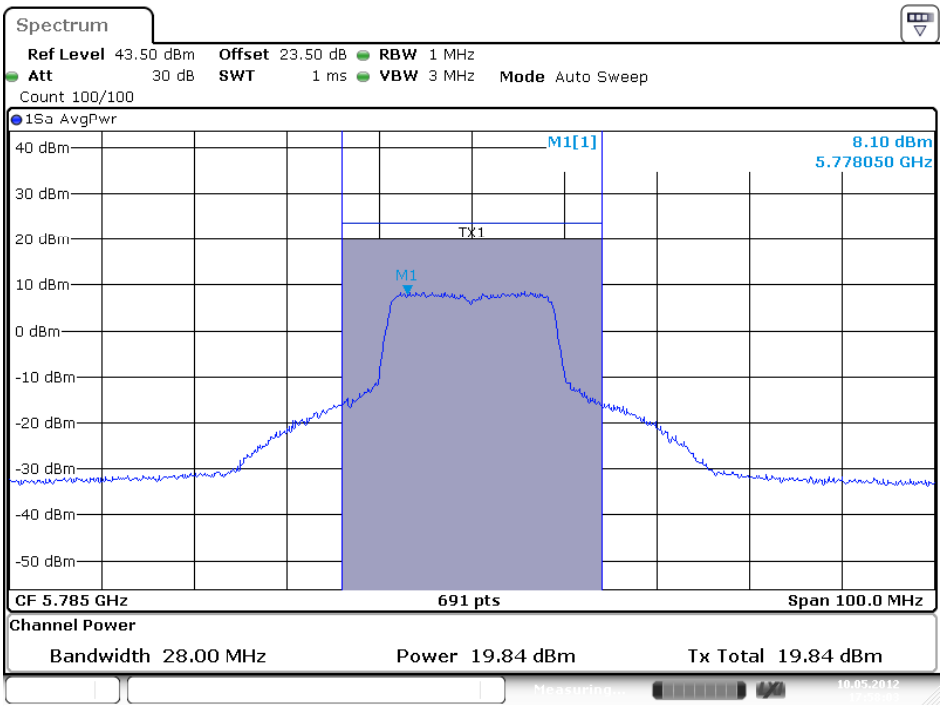
Date: 10.MAY.2012 17:55:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 2 (2TX)



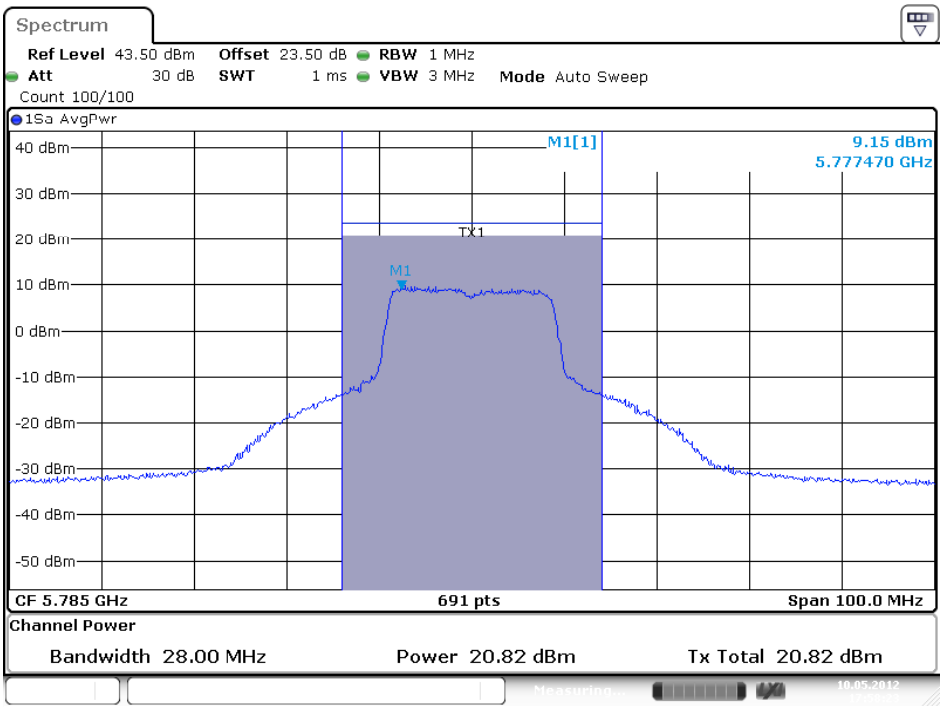
Date: 10.MAY.2012 17:55:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (2TX)



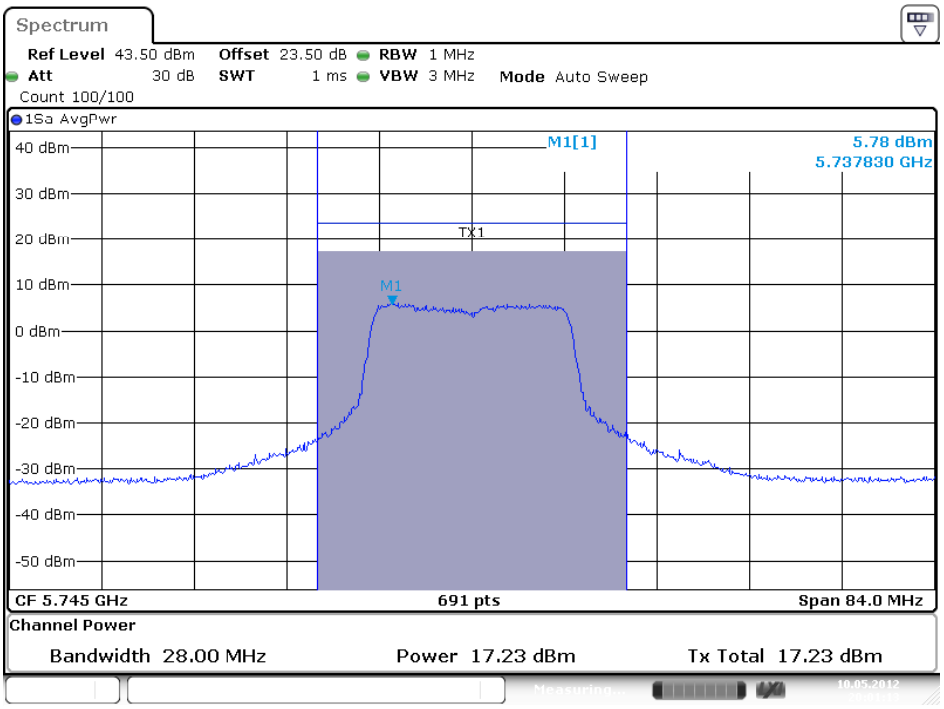
Date: 10.MAY.2012 17:58:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (2TX)



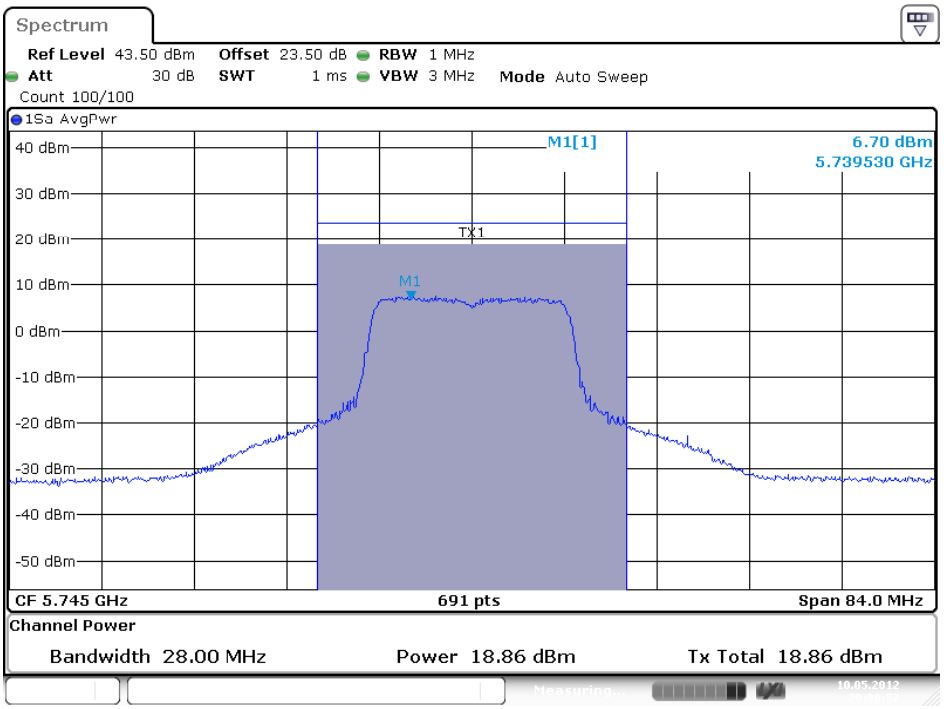
Date: 10.MAY.2012 17:58:23

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 1 (3TX)



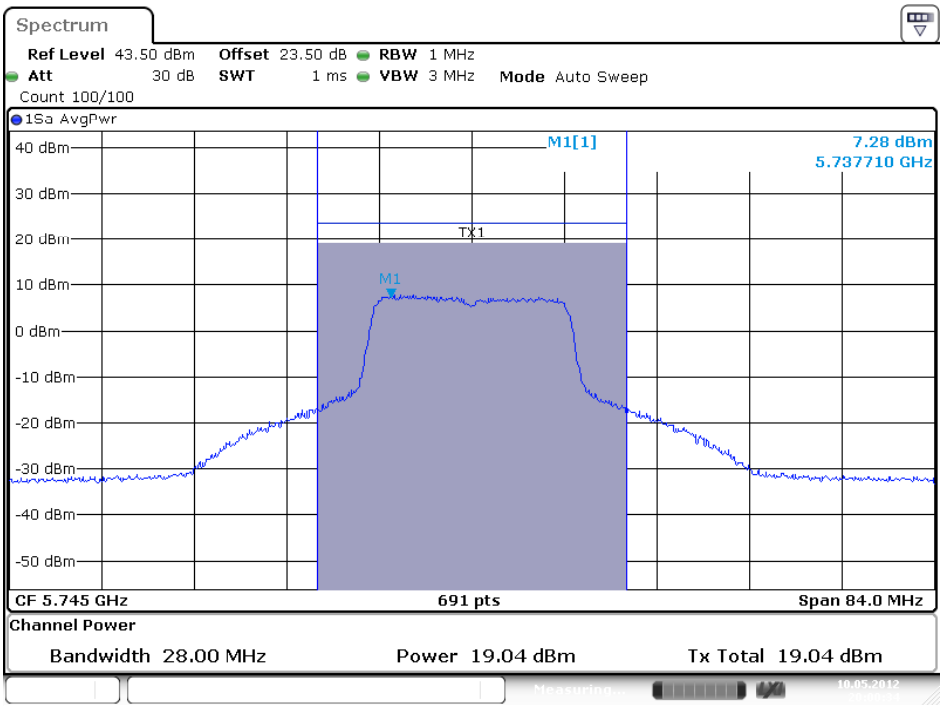
Date: 10.MAY.2012 20:01:13

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 2 (3TX)



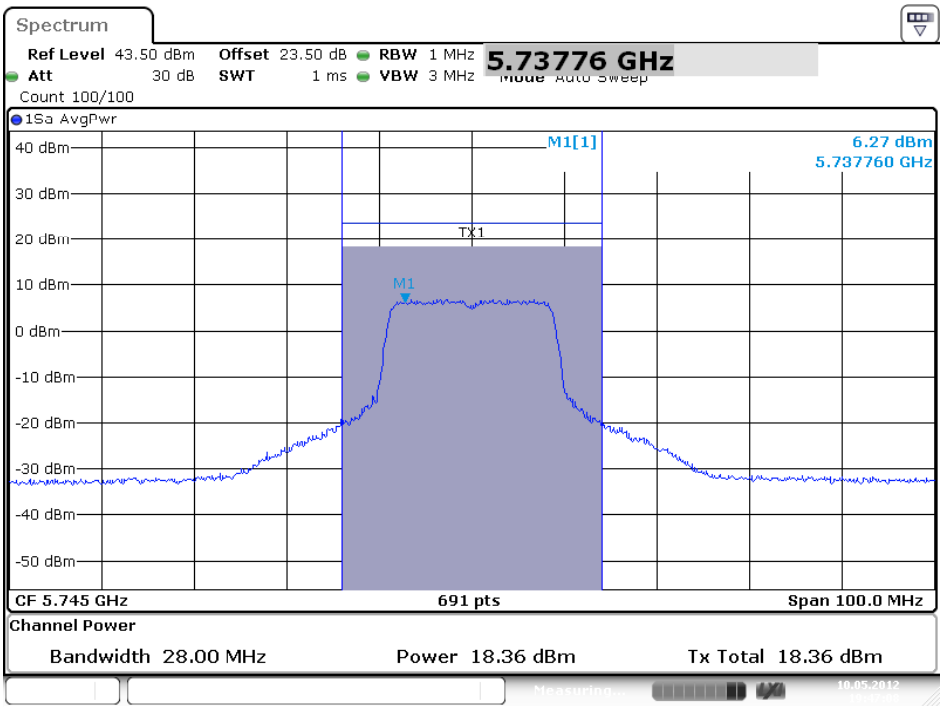
Date: 10.MAY.2012 20:00:58

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 3 (3TX)



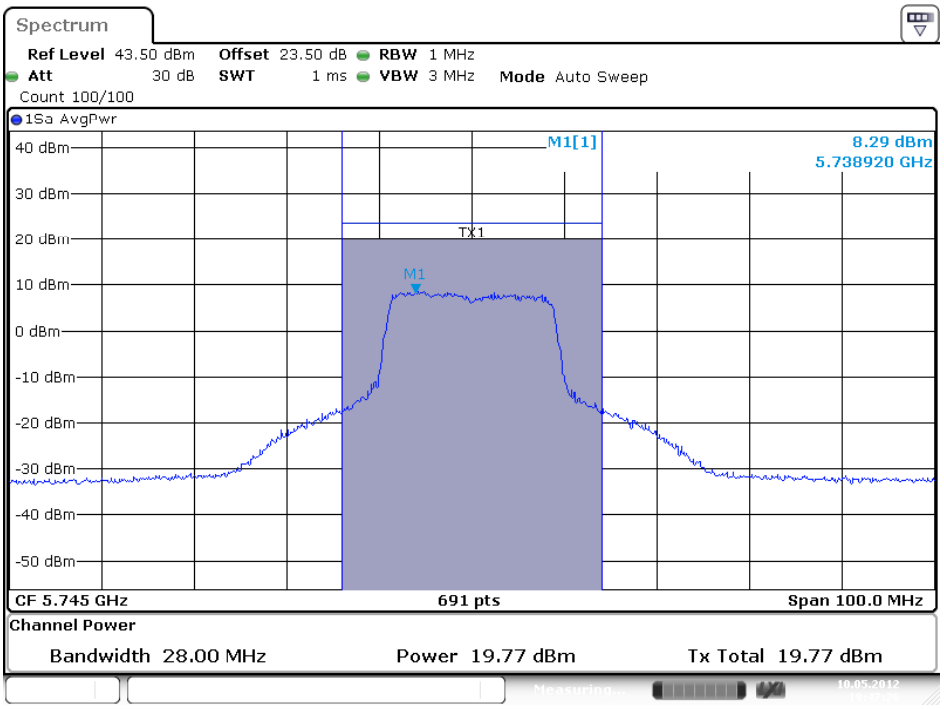
Date: 10.MAY.2012 20:00:34

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 1 (3TX)



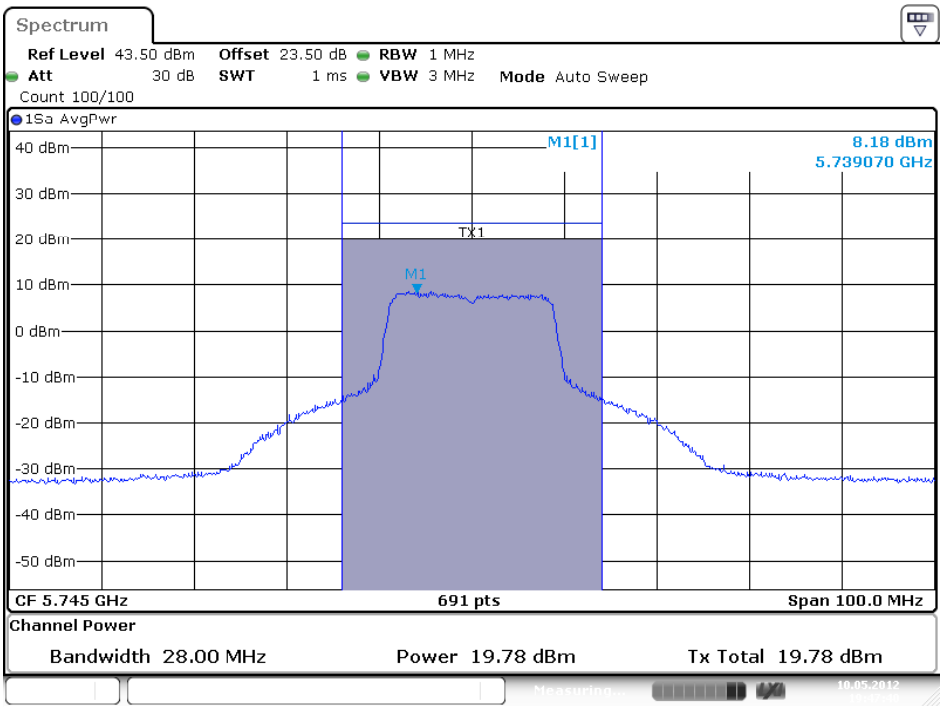
Date: 10.MAY.2012 19:47:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 2 (3TX)



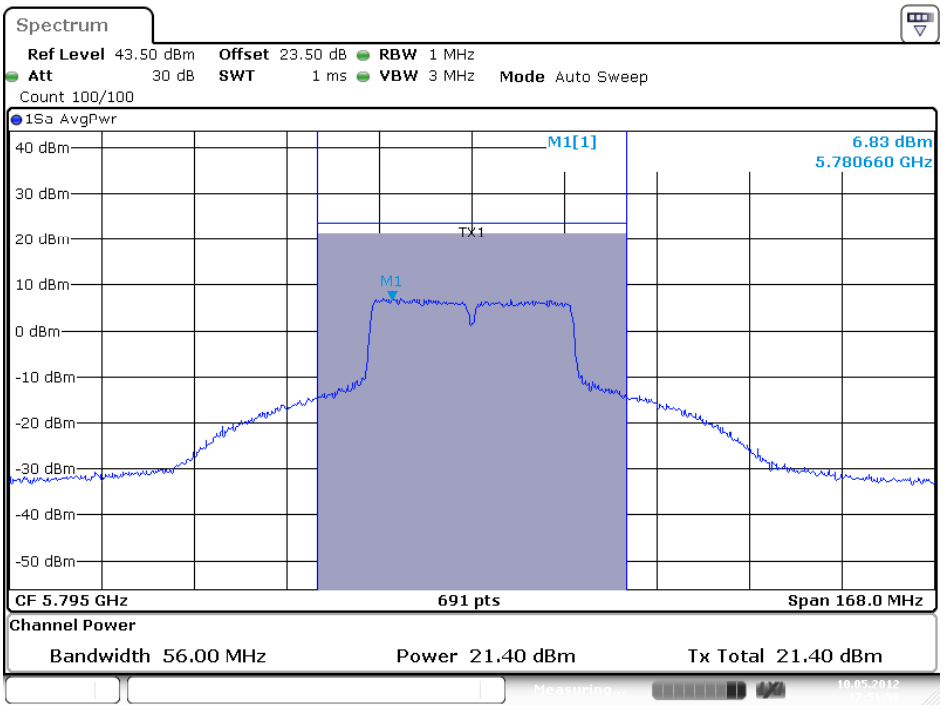
Date: 10.MAY.2012 19:47:27

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 3 (3TX)



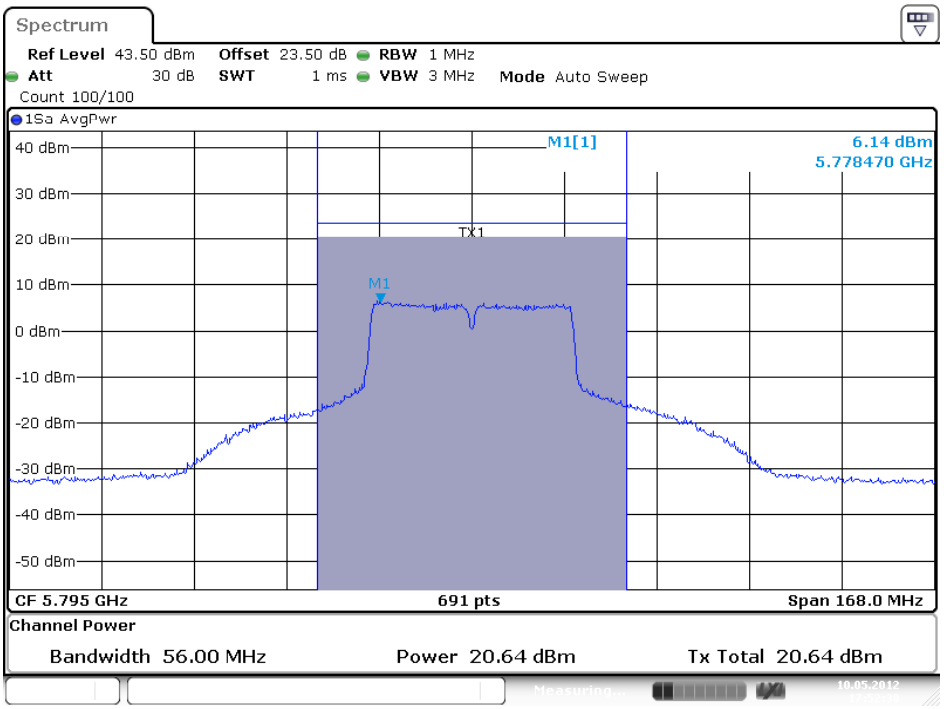
Date: 10.MAY.2012 19:47:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (1TX)



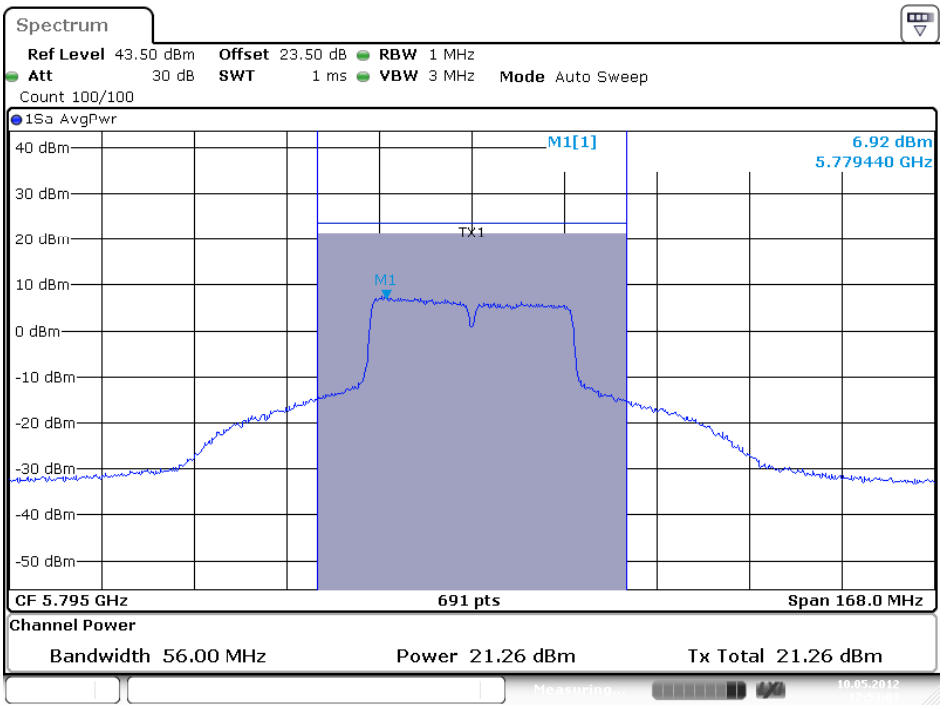
Date: 10.MAY.2012 17:51:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (2TX)



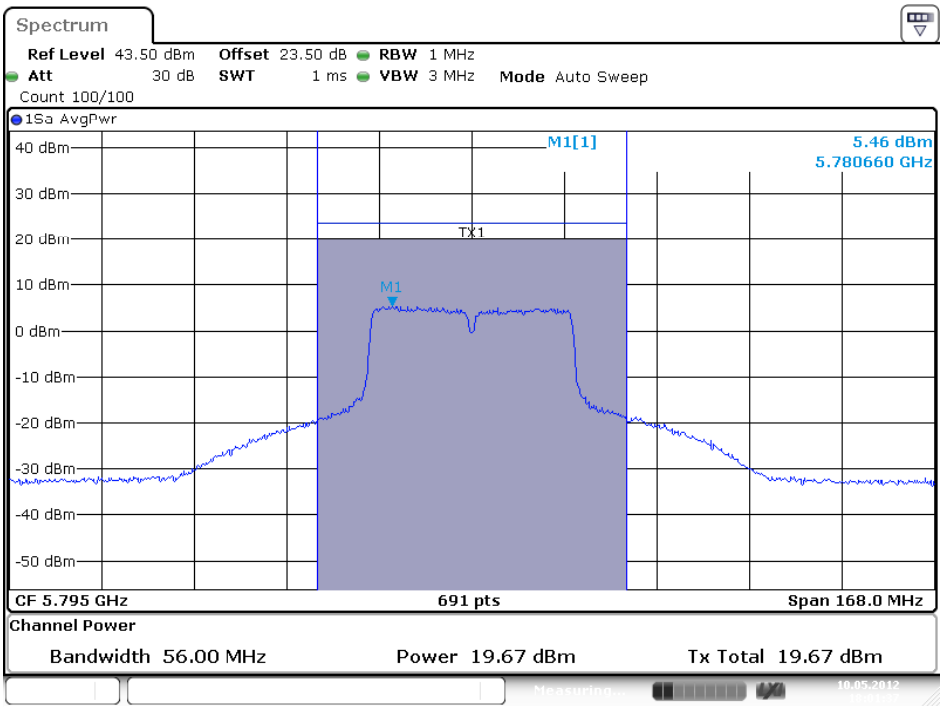
Date: 10.MAY.2012 17:52:39

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (2TX)



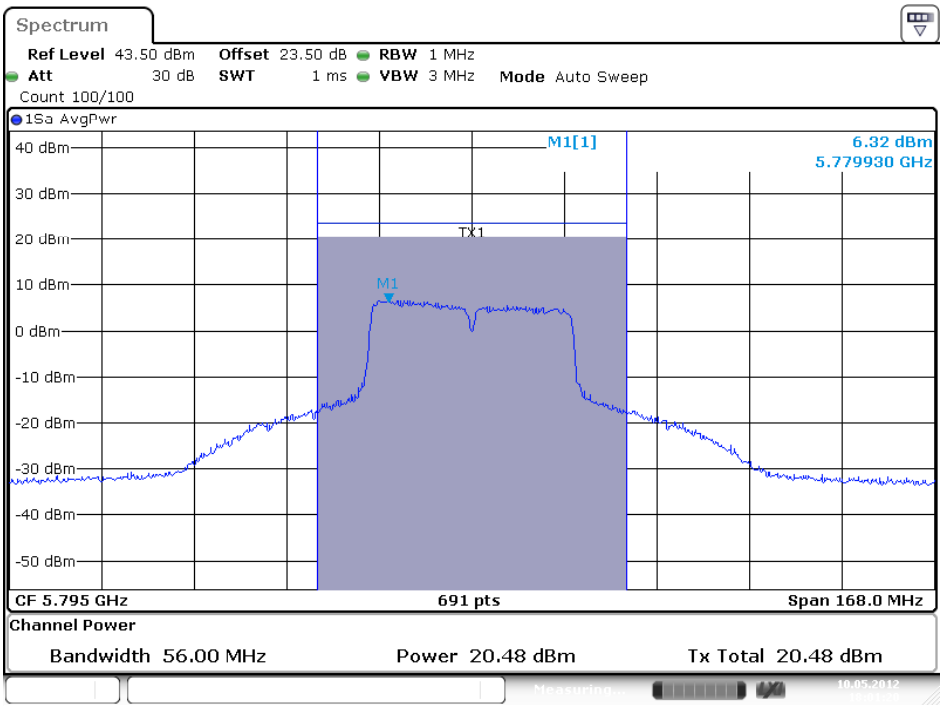
Date: 10.MAY.2012 17:53:01

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (2TX)



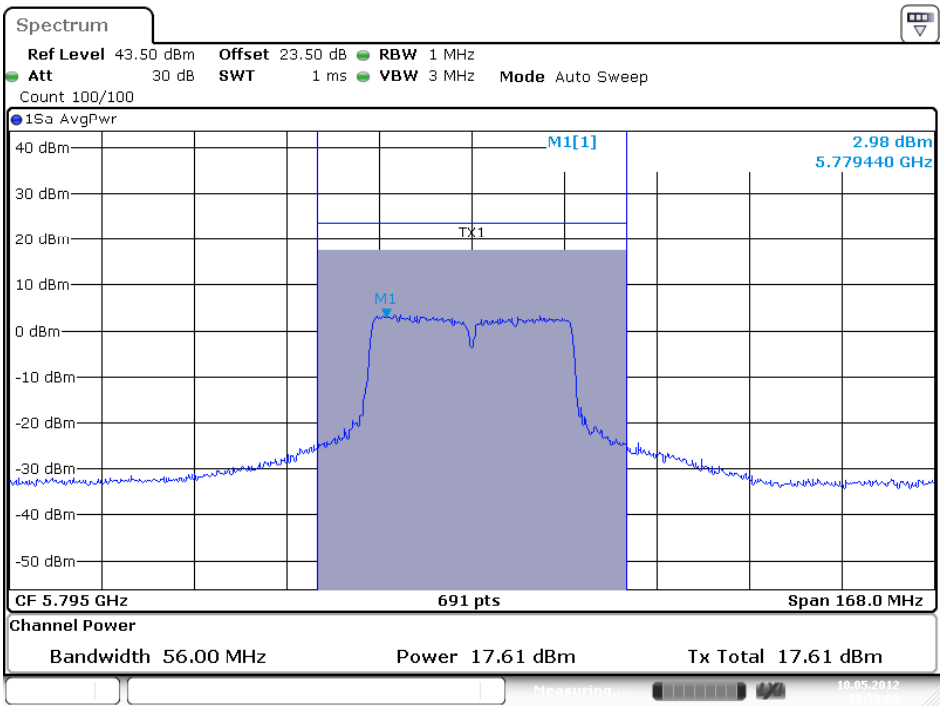
Date: 10.MAY.2012 18:01:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (2TX)



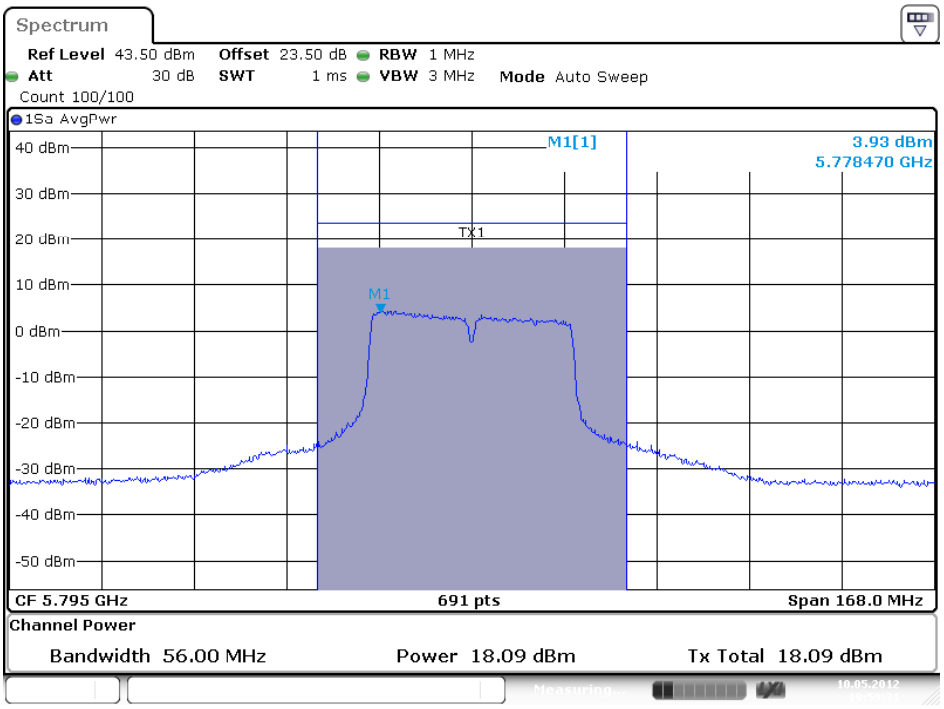
Date: 10.MAY.2012 18:01:20

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (3TX)



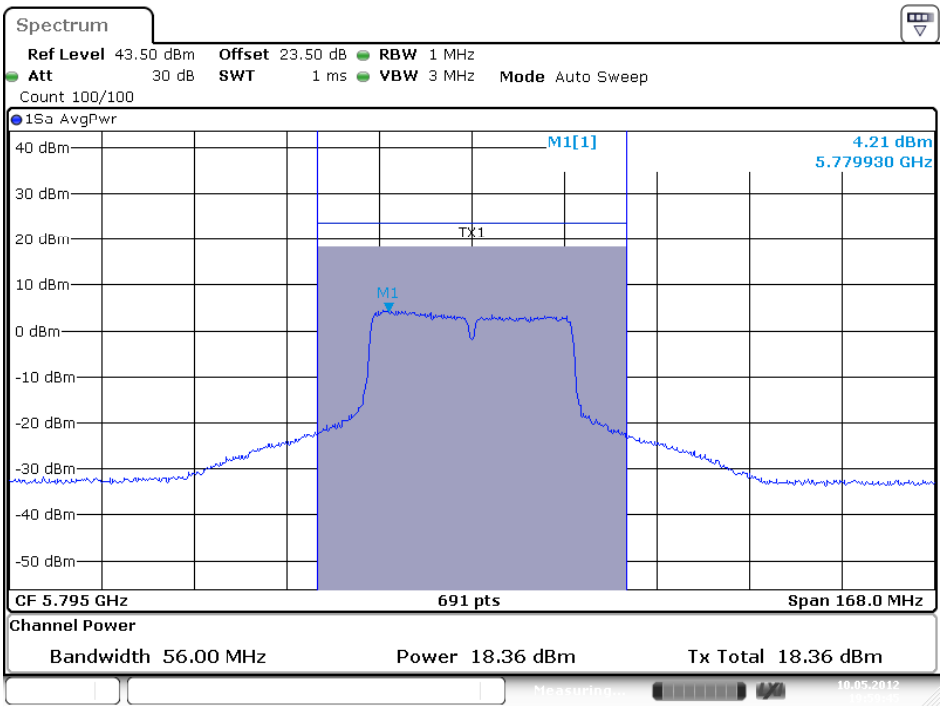
Date: 10.MAY.2012 19:59:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (3TX)



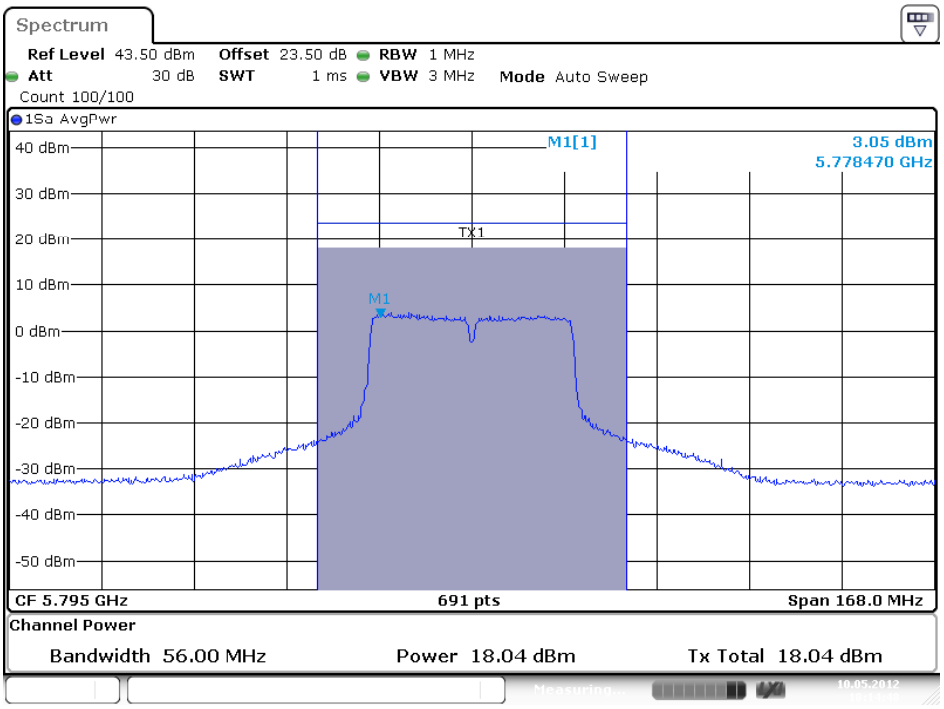
Date: 10.MAY.2012 19:59:31

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 3 (3TX)



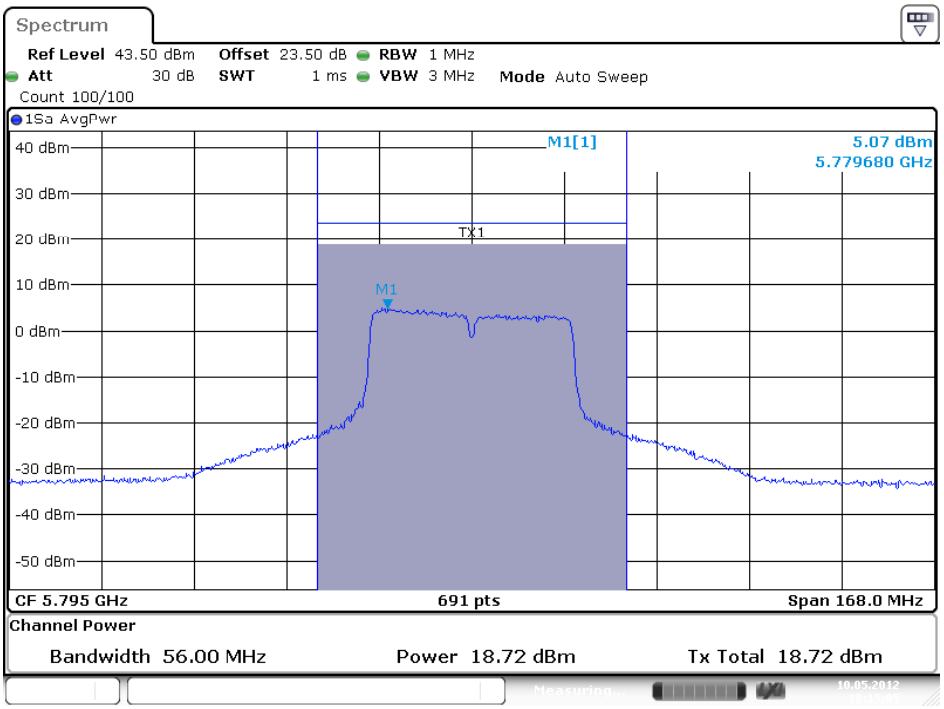
Date: 10.MAY.2012 19:59:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (3TX)



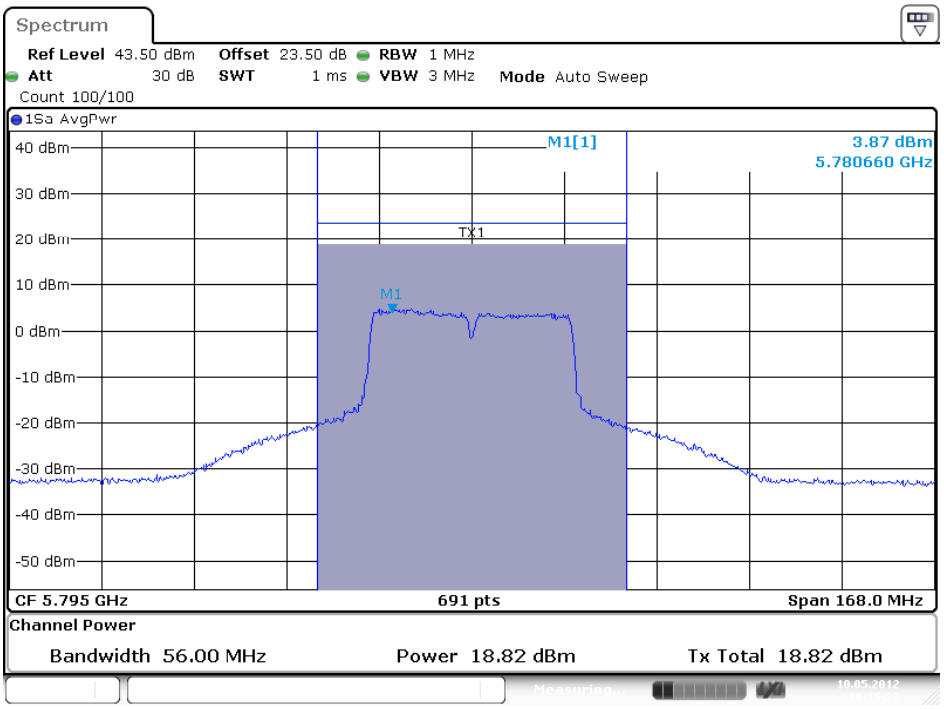
Date: 10.MAY.2012 18:14:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (3TX)



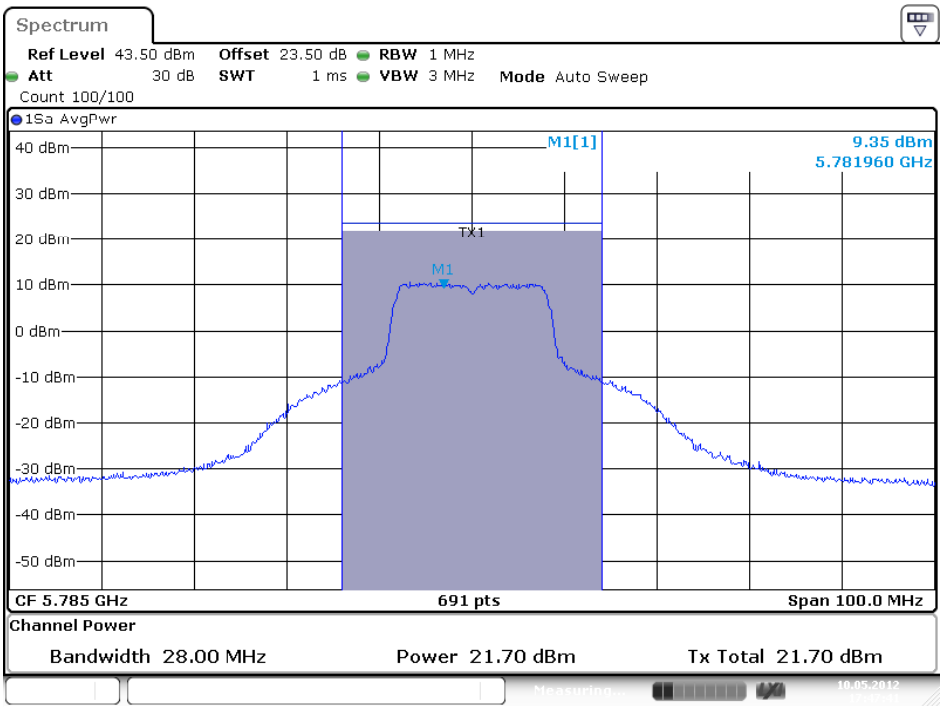
Date: 10.MAY.2012 18:15:05

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 3 (3TX)



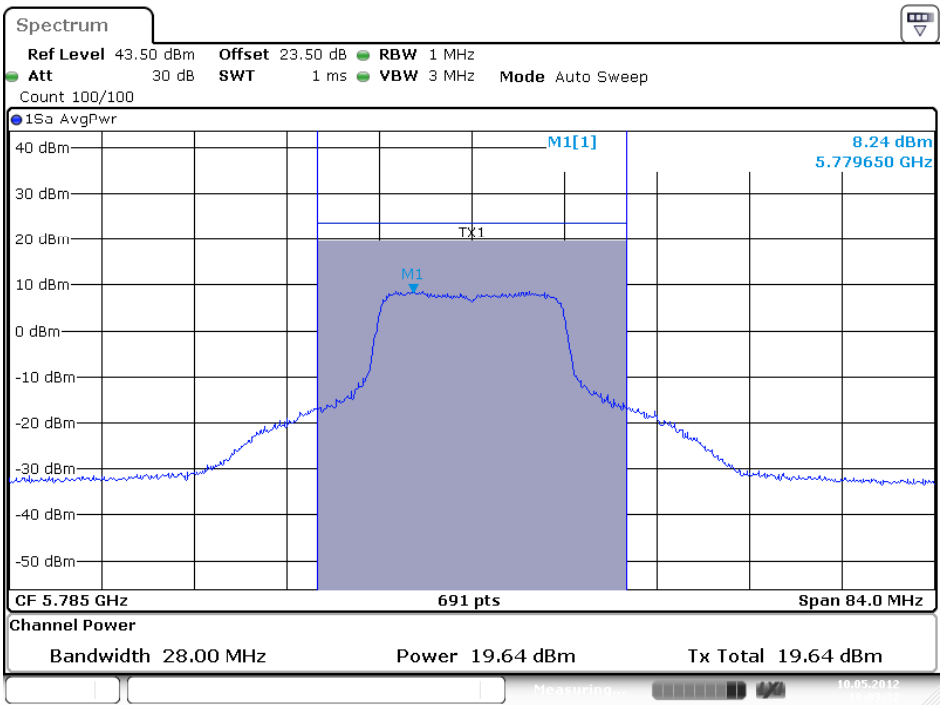
Date: 10.MAY.2012 18:15:22

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (1TX)



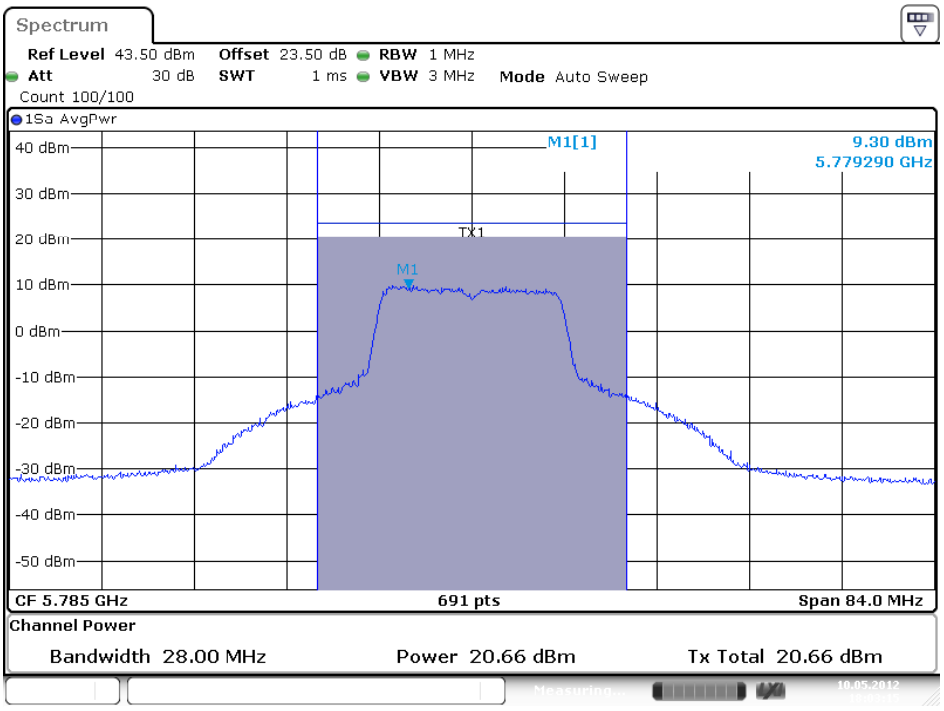
Date: 10.MAY.2012 17:47:41

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (2TX)



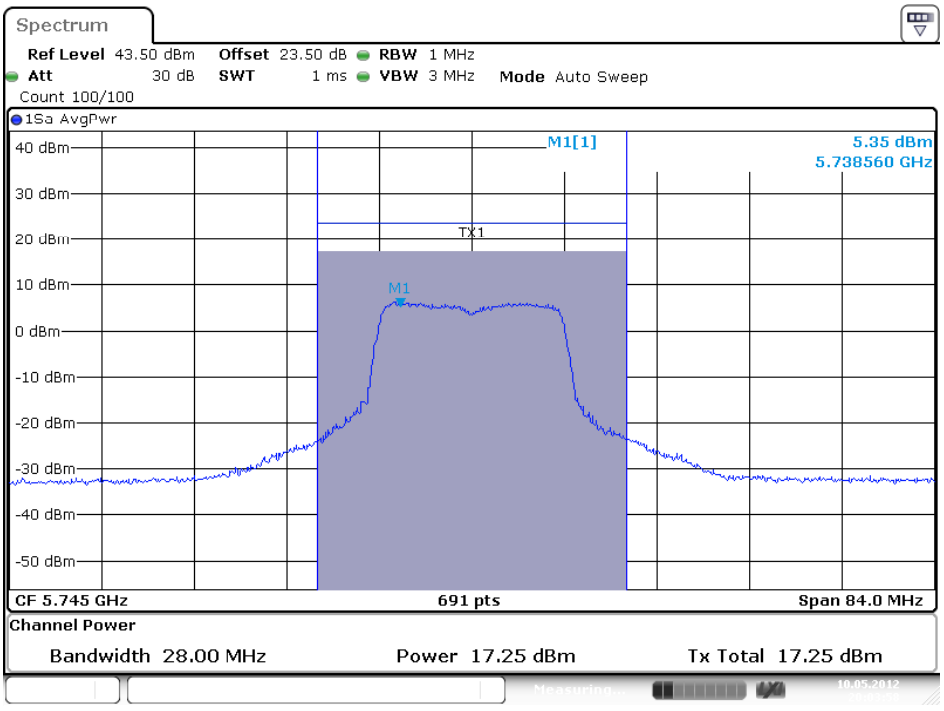
Date: 10.MAY.2012 18:03:33

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (2TX)



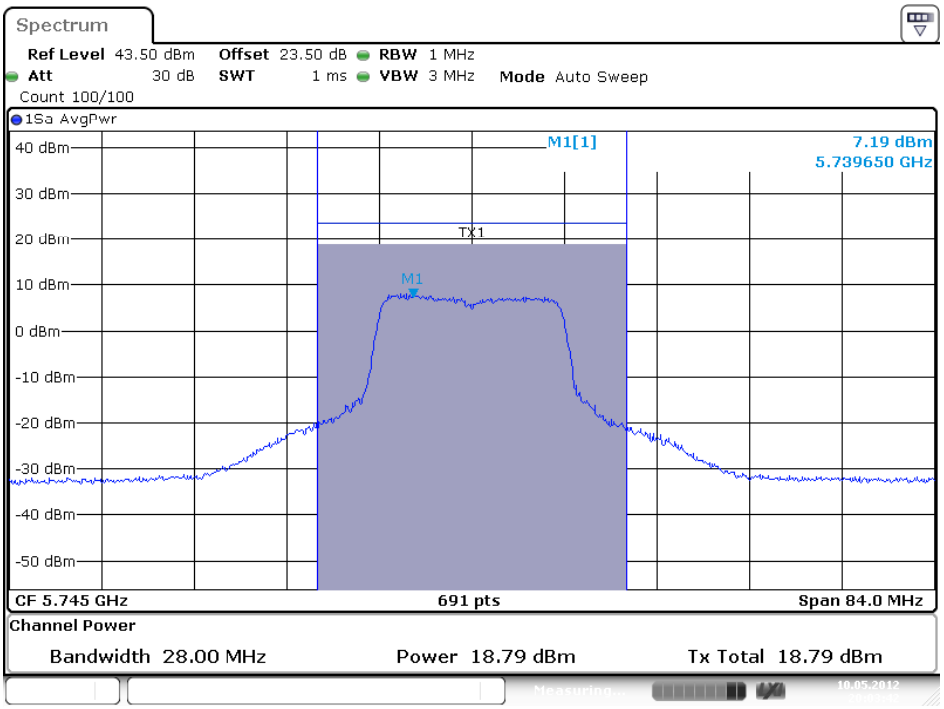
Date: 10.MAY.2012 18:03:15

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 1 (3TX)



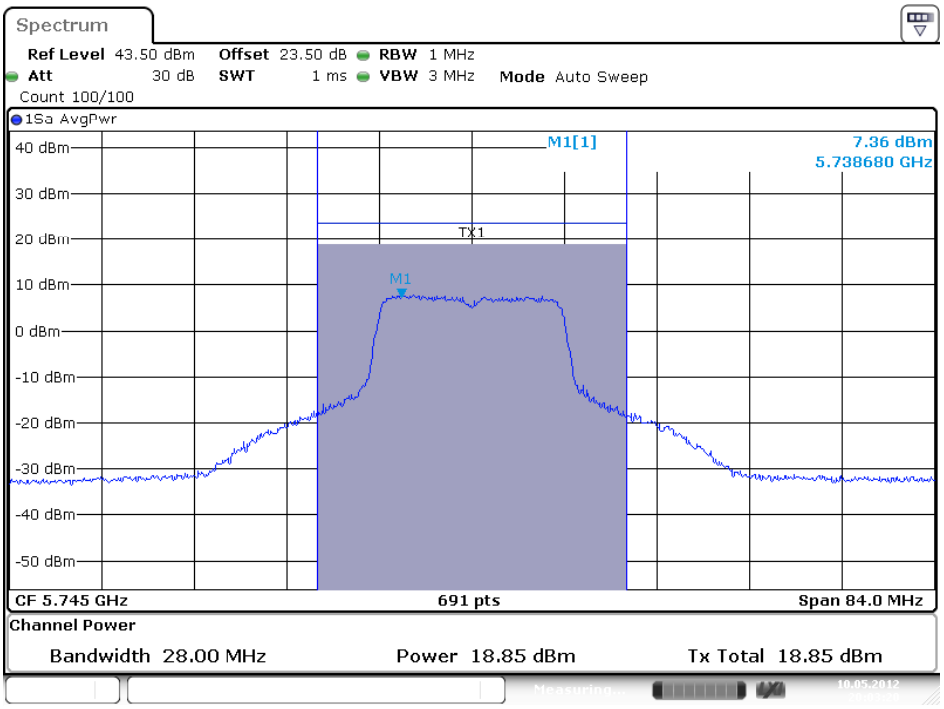
Date: 10.MAY.2012 20:03:59

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 2 (3TX)



Date: 10.MAY.2012 20:03:43

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 3 (3TX)



Date: 10.MAY.2012 20:03:21

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

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	19.37	30.00	Complies
157	5785 MHz	21.53	30.00	Complies
165	5825 MHz	21.37	30.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	17.28	30.00	Complies
159	5795 MHz	21.40	30.00	Complies

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	20.05	21.32	23.74	30.00	Complies
157	5785 MHz	20.17	21.23	23.74	30.00	Complies
165	5825 MHz	19.85	20.56	23.23	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	17.31	18.36	20.88	30.00	Complies
159	5795 MHz	20.64	21.26	23.97	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	19.42	20.86	23.21	30.00	Complies
157	5785 MHz	19.84	20.82	23.37	30.00	Complies
165	5825 MHz	19.61	20.45	23.06	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	16.36	17.13	19.77	30.00	Complies
159	5795 MHz	19.67	20.48	23.10	30.00	Complies

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	17.77	19.31	19.42	23.67	28.93	Complies
157	5785 MHz	18.09	19.16	19.02	23.55	28.93	Complies
165	5825 MHz	17.67	18.56	18.67	23.09	28.93	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.07dBi > 6dBi, so the conducted power limit =30-(7.07-6)=28.93dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	14.76	16.29	16.47	20.68	28.93	Complies
159	5795 MHz	17.88	18.71	18.80	23.25	28.93	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.07dBi > 6dBi, so the conducted power limit =30-(7.07-6)=28.93dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	16.70	18.40	18.52	22.72	30.00	Complies
157	5785 MHz	17.82	18.98	18.96	23.39	30.00	Complies
165	5825 MHz	17.56	18.38	18.43	22.91	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	14.69	16.30	16.43	20.65	30.00	Complies
159	5795 MHz	18.04	18.72	18.82	23.31	30.00	Complies

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

1TX

Configuration IEEE 802.11a / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.47	30.00	Complies
157	5785 MHz	21.70	30.00	Complies
165	5825 MHz	21.47	30.00	Complies

2TX

Configuration IEEE 802.11a / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	19.39	20.84	23.19	30.00	Complies
157	5785 MHz	19.64	20.66	23.19	30.00	Complies
165	5825 MHz	19.41	20.08	22.77	30.00	Complies

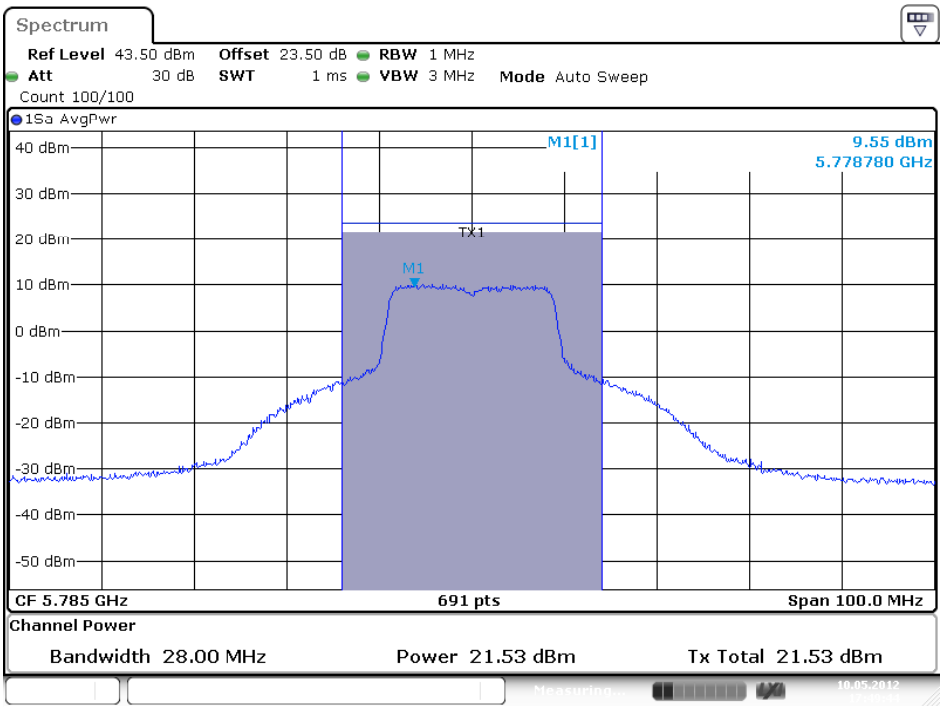
3TX

Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	18.01	19.58	19.52	23.87	28.93	Complies
157	5785 MHz	18.40	19.63	19.57	24.01	28.93	Complies
165	5825 MHz	18.59	19.36	19.29	23.86	28.93	Complies

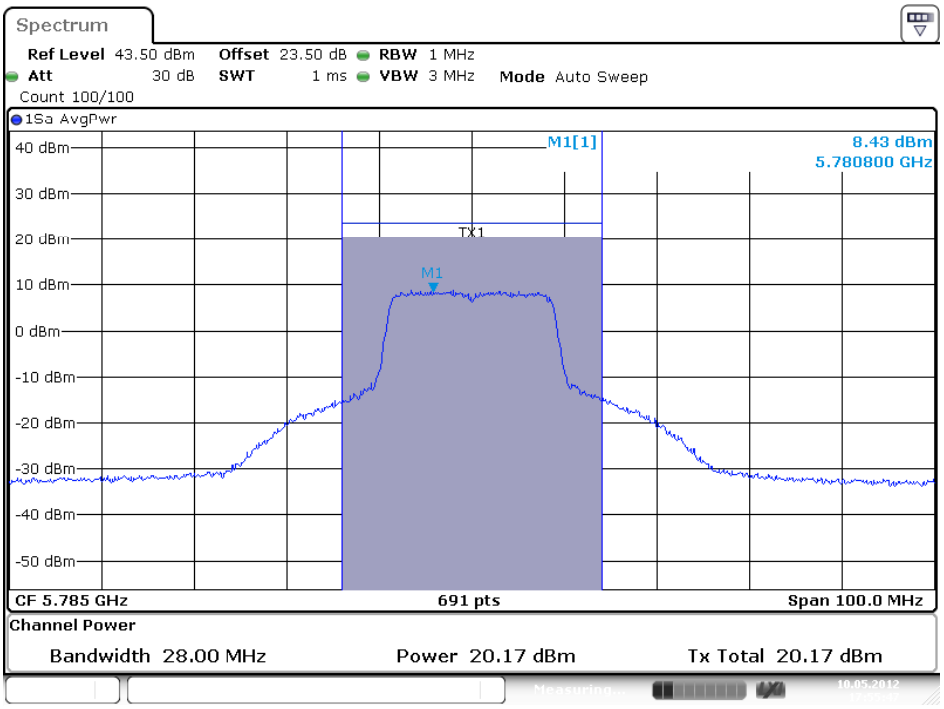
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.07dBi > 6dBi, so the conducted power limit =30-(7.07-6)=28.93dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz / Chain. 1 (1TX)



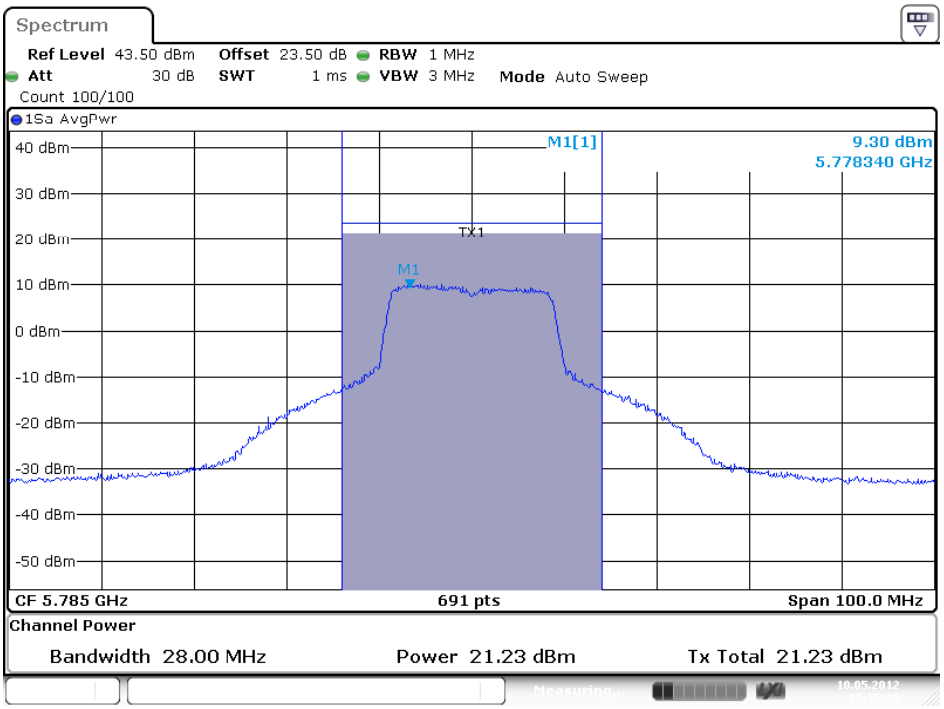
Date: 10.MAY.2012 17:49:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 1 (2TX)



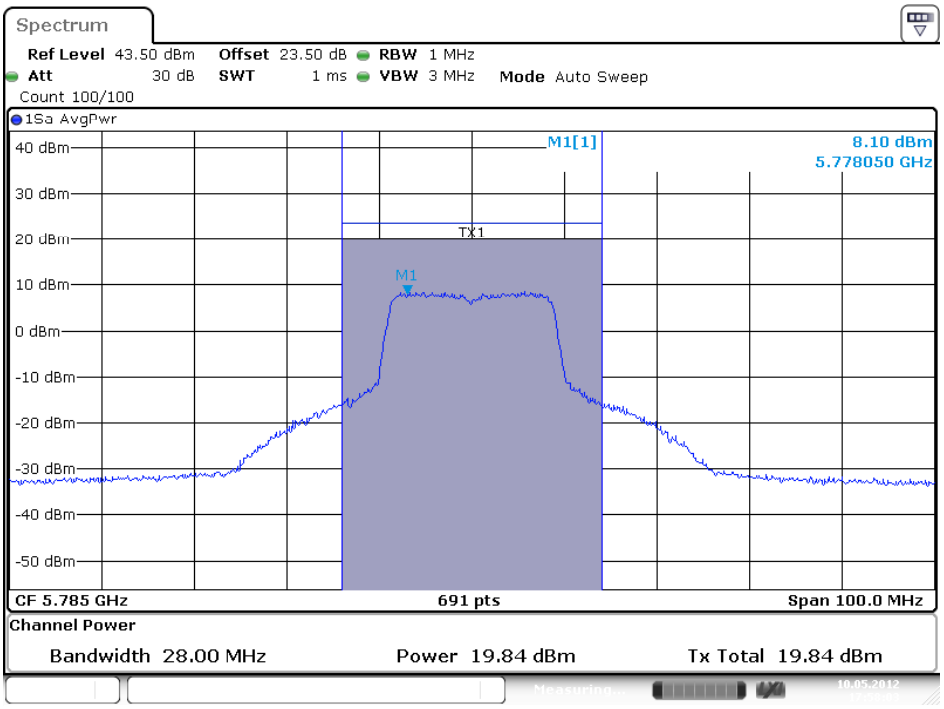
Date: 10.MAY.2012 17:55:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 2 (2TX)



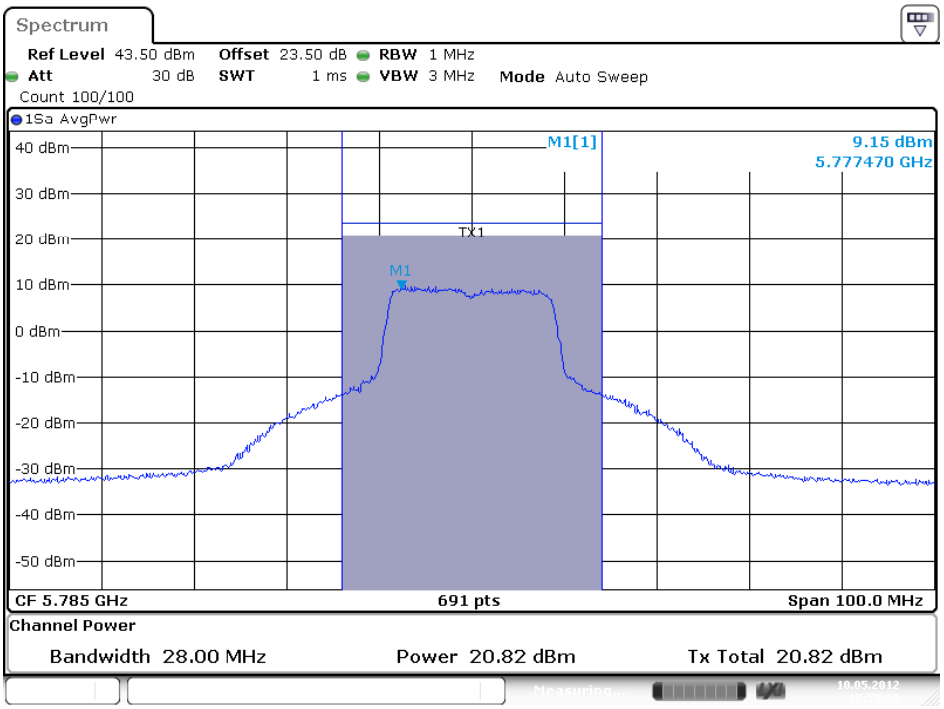
Date: 10.MAY.2012 17:55:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (2TX)



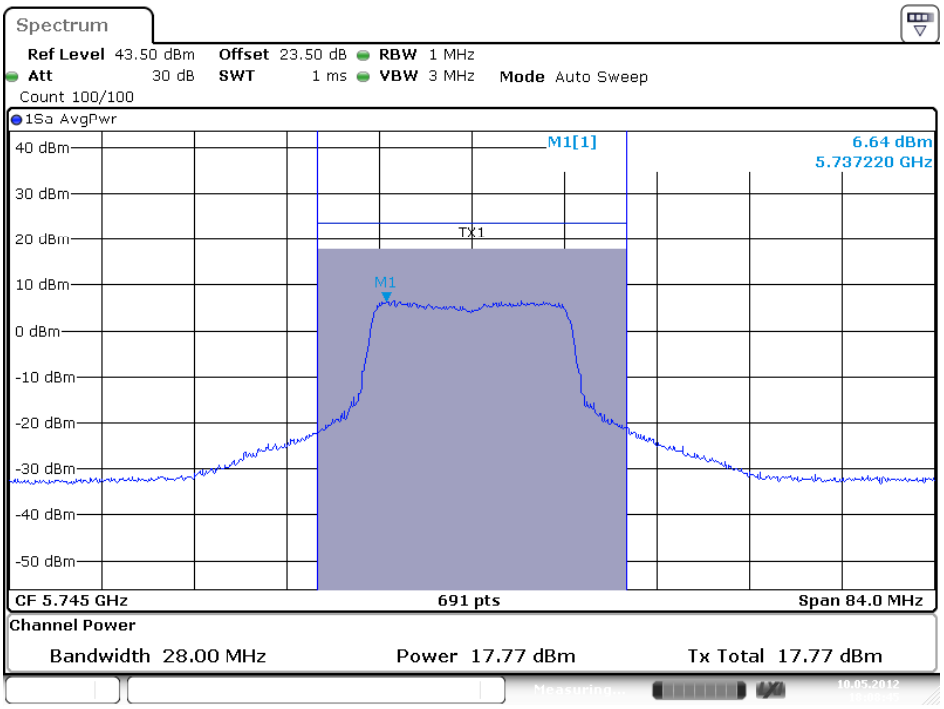
Date: 10.MAY.2012 17:58:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (2TX)



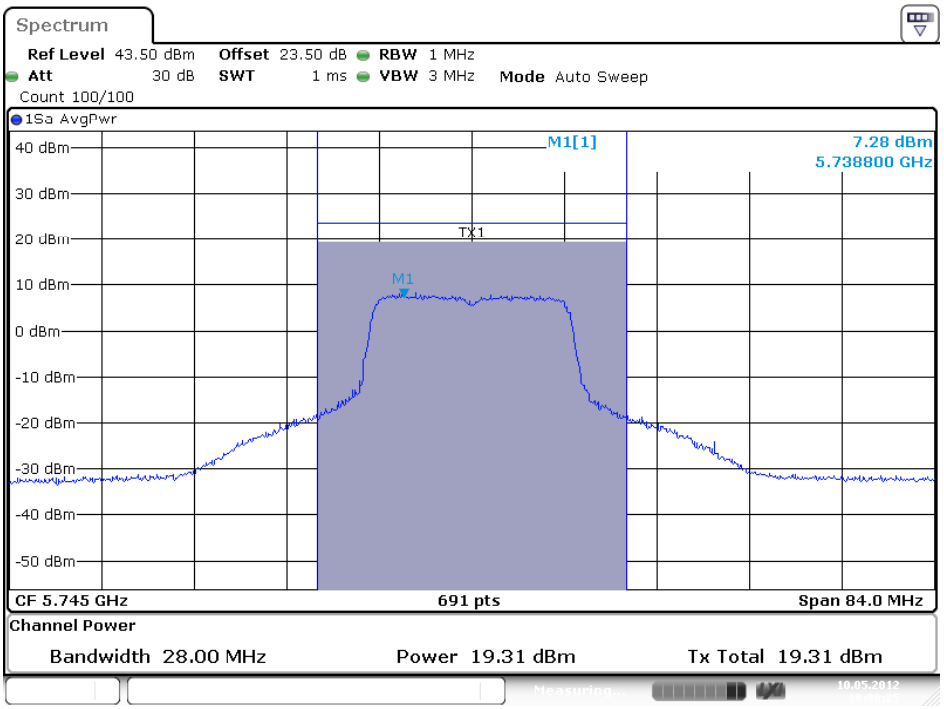
Date: 10.MAY.2012 17:58:23

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 1 (3TX)



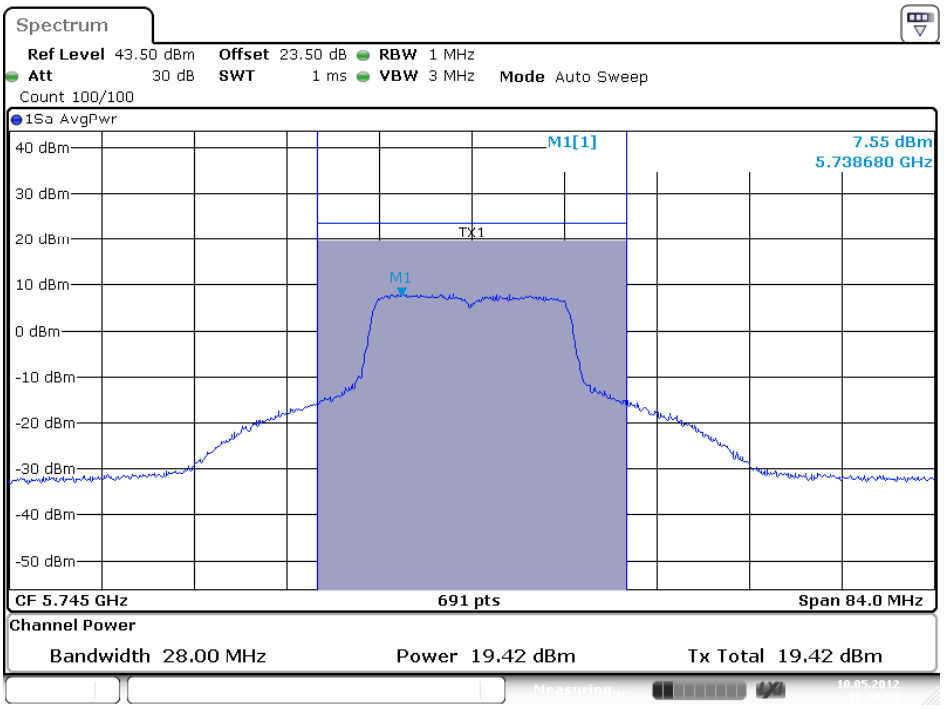
Date: 10.MAY.2012 18:08:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 2 (3TX)



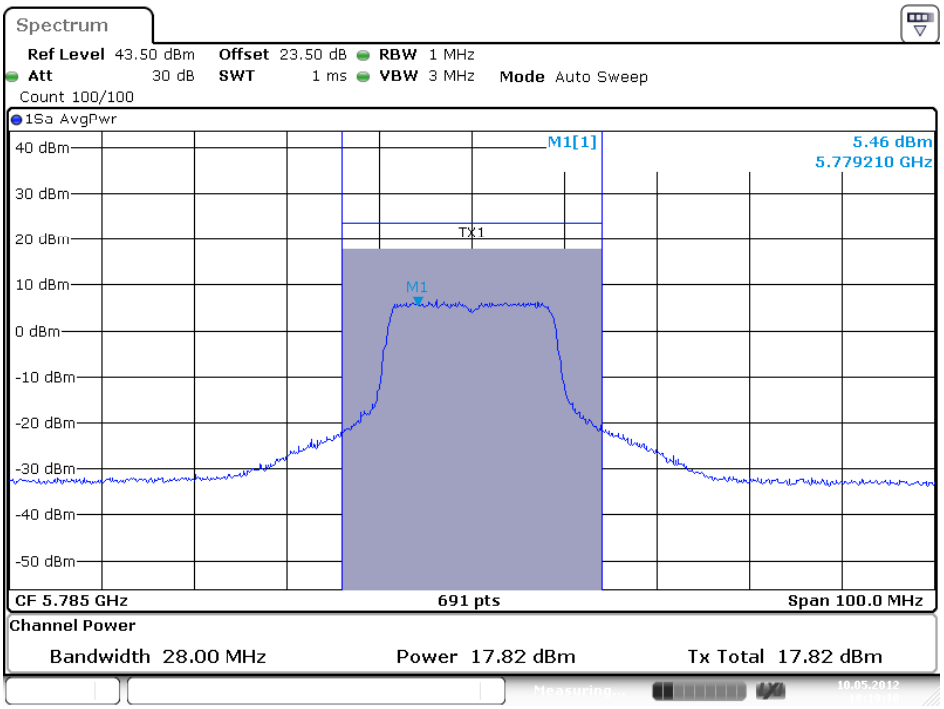
Date: 10.MAY.2012 18:08:25

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 3 (3TX)



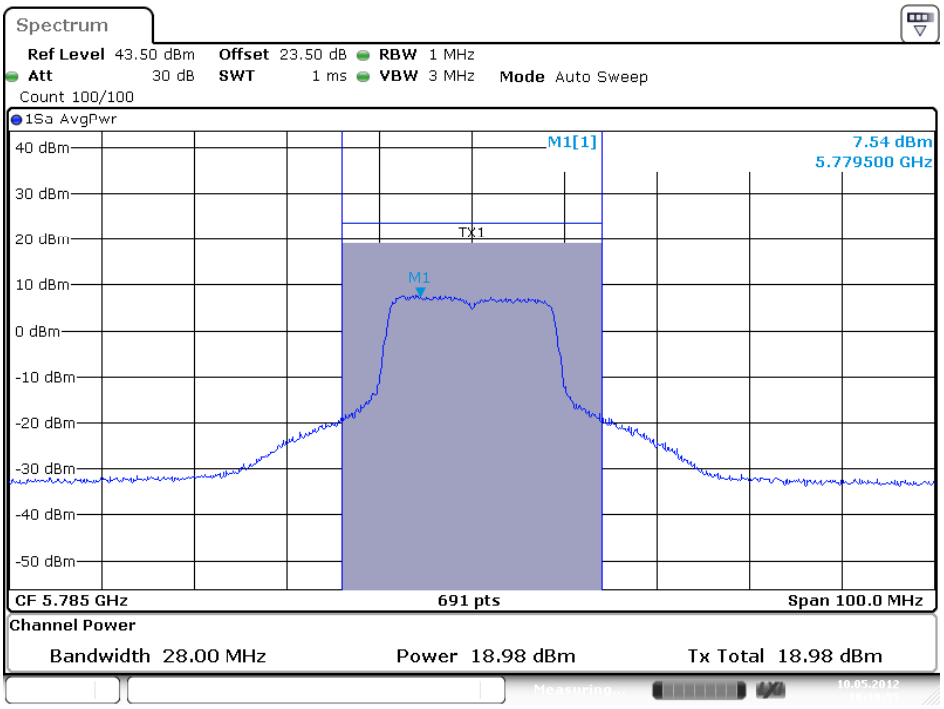
Date: 10.MAY.2012 18:08:06

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (3TX)



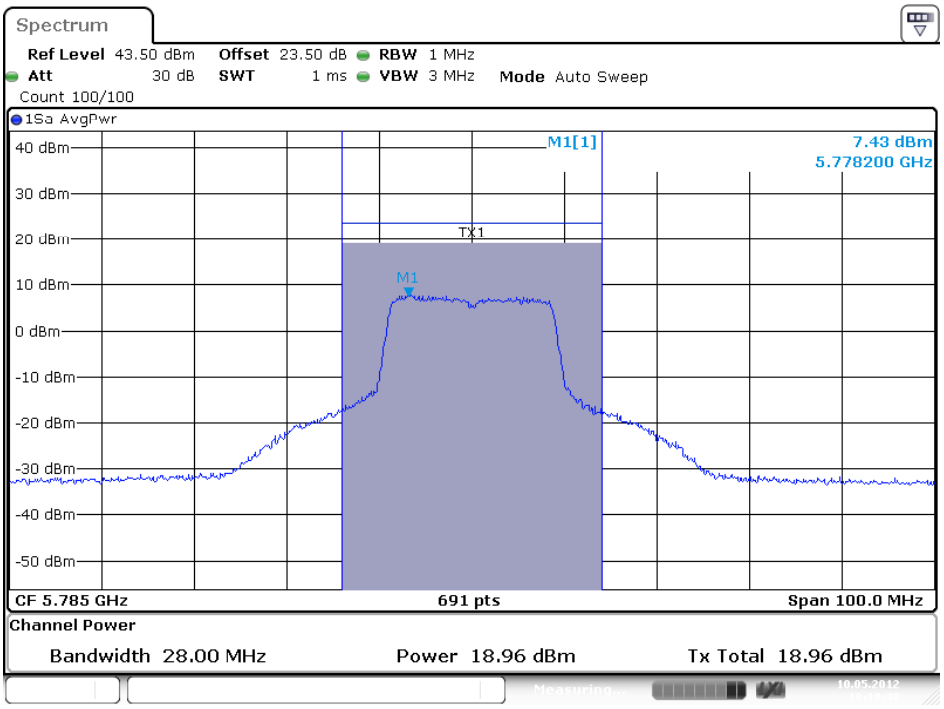
Date: 10.MAY.2012 18:19:11

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (3TX)



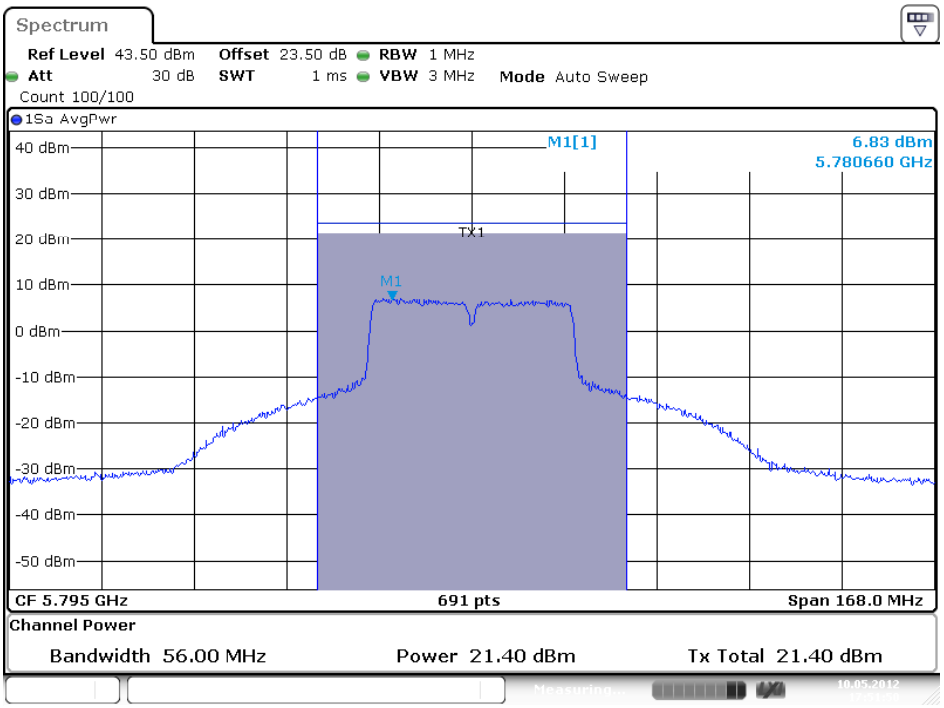
Date: 10.MAY.2012 18:18:55

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 3 (3TX)



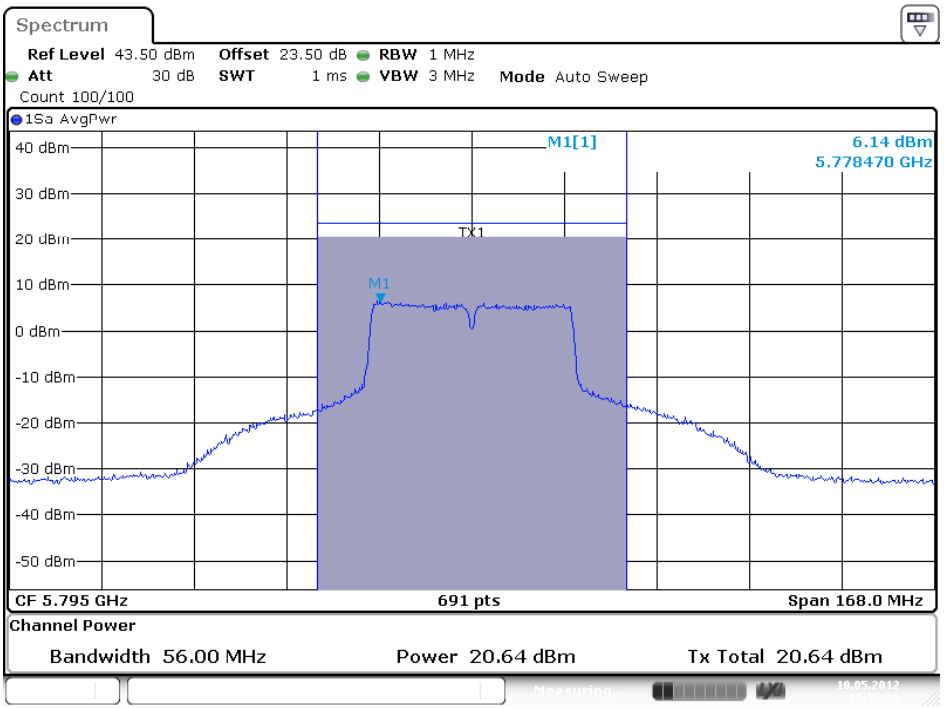
Date: 10.MAY.2012 18:18:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (1TX)



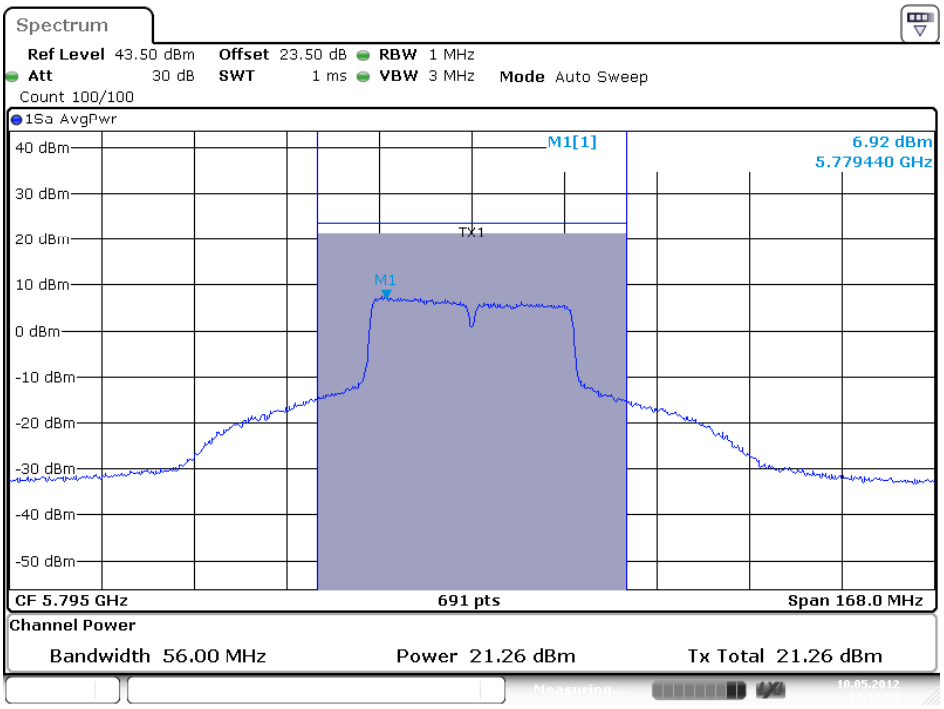
Date: 10.MAY.2012 17:51:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (2TX)



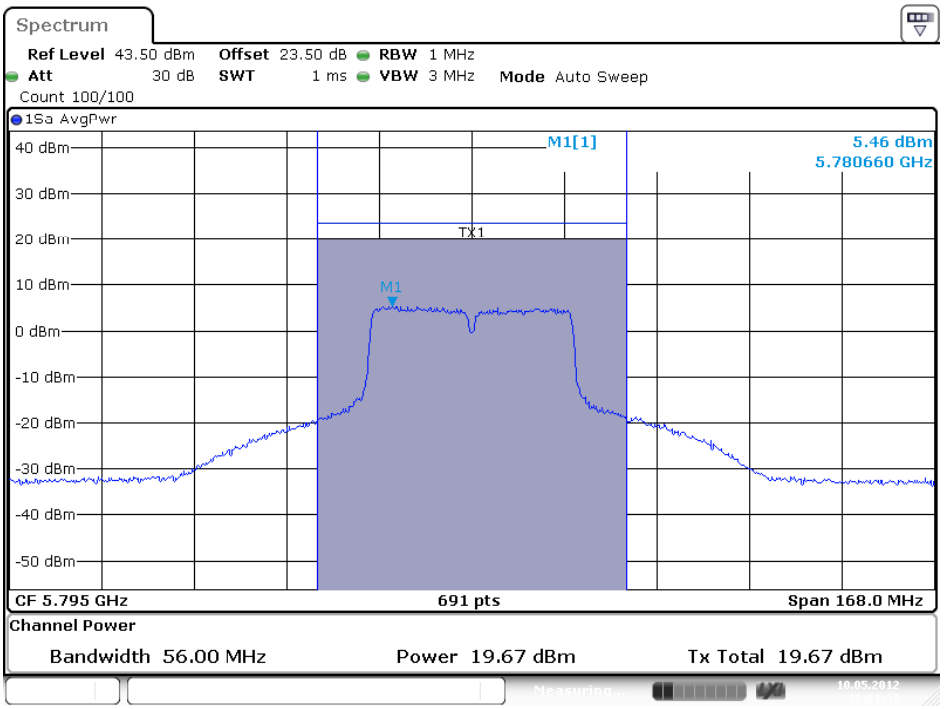
Date: 10.MAY.2012 17:52:39

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (2TX)



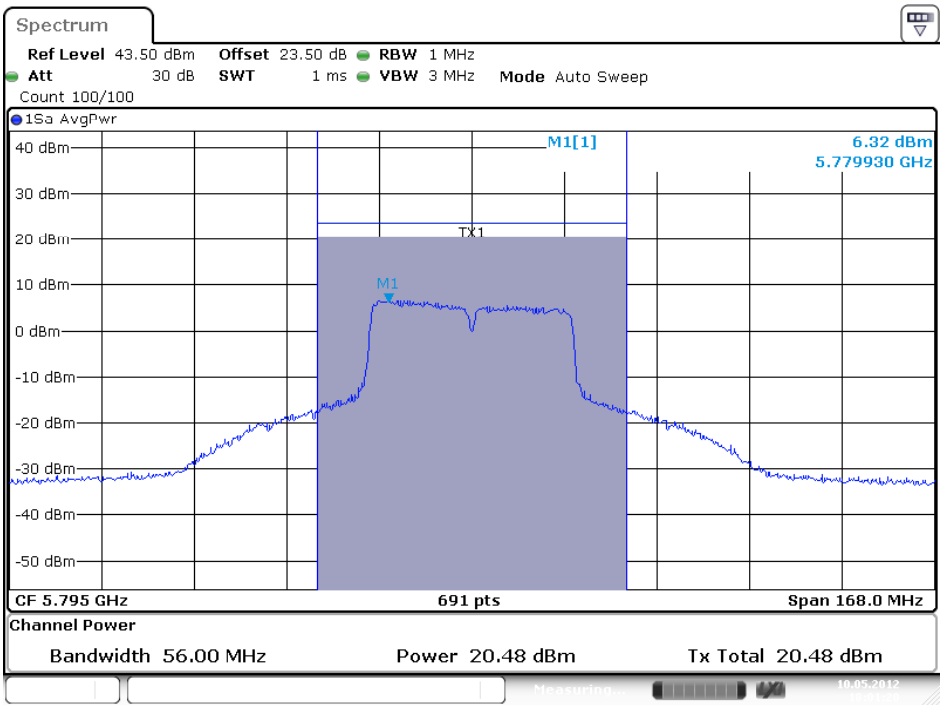
Date: 10.MAY.2012 17:53:01

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (2TX)



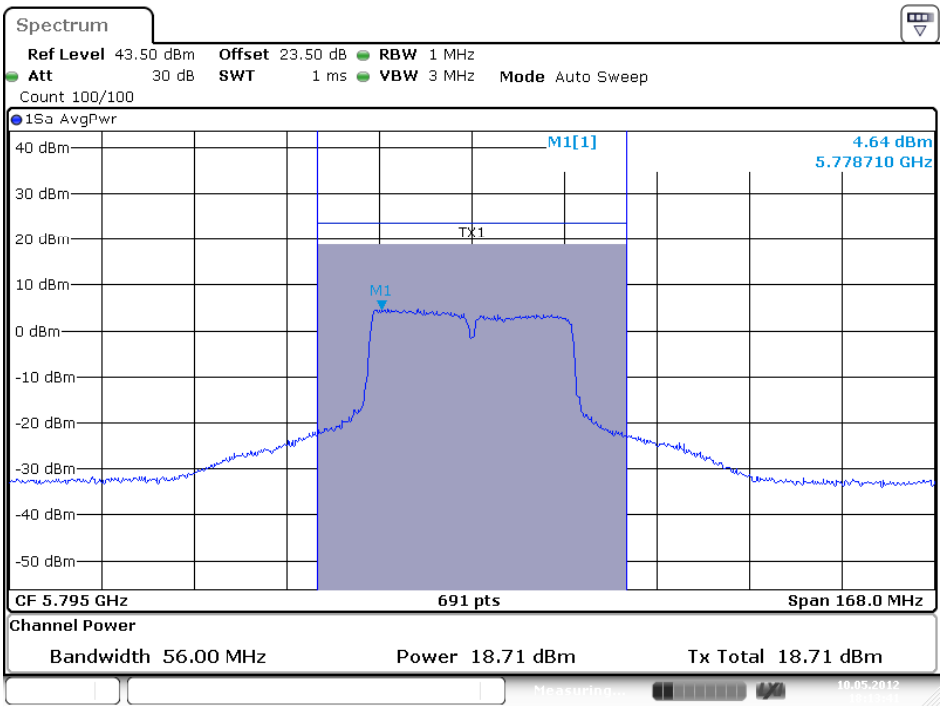
Date: 10.MAY.2012 18:01:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (2TX)



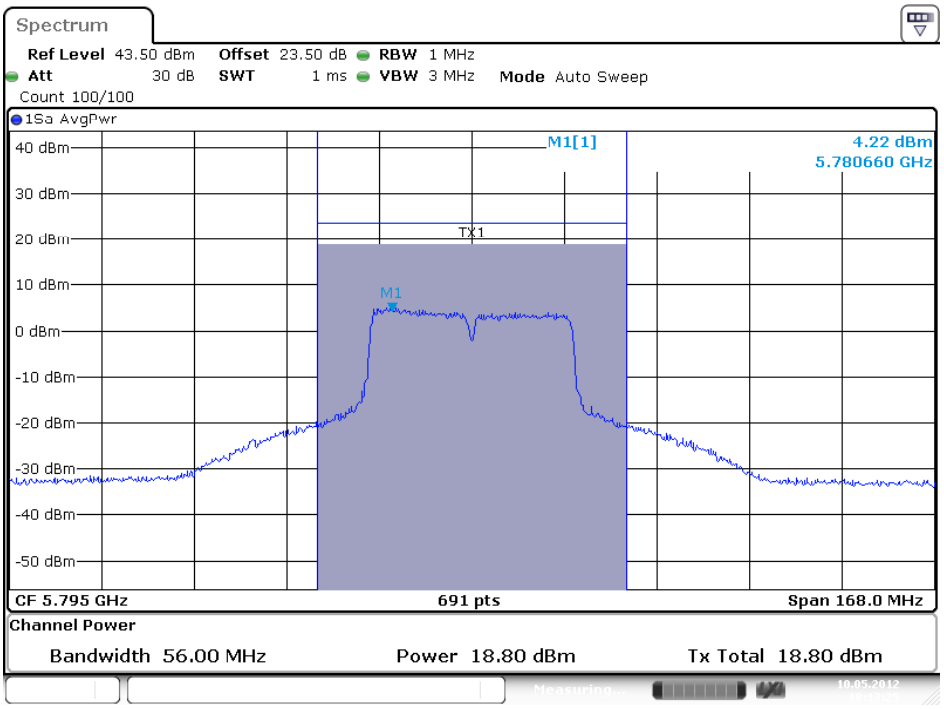
Date: 10.MAY.2012 18:01:20

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (3TX)



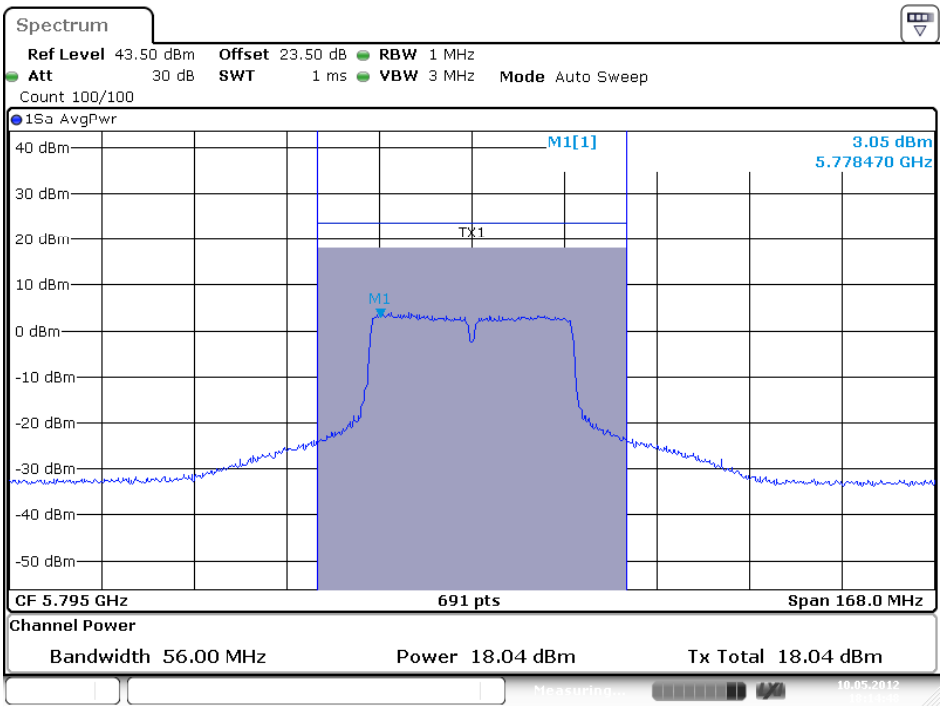
Date: 10.MAY.2012 18:13:41

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (3TX)



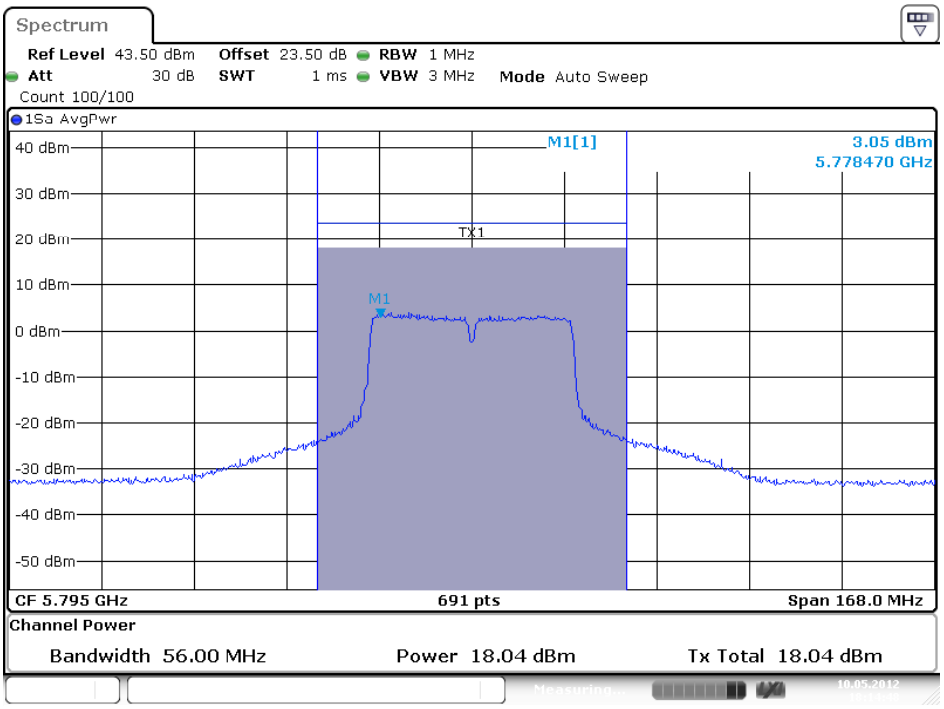
Date: 10.MAY.2012 18:13:26

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 3 (3TX)



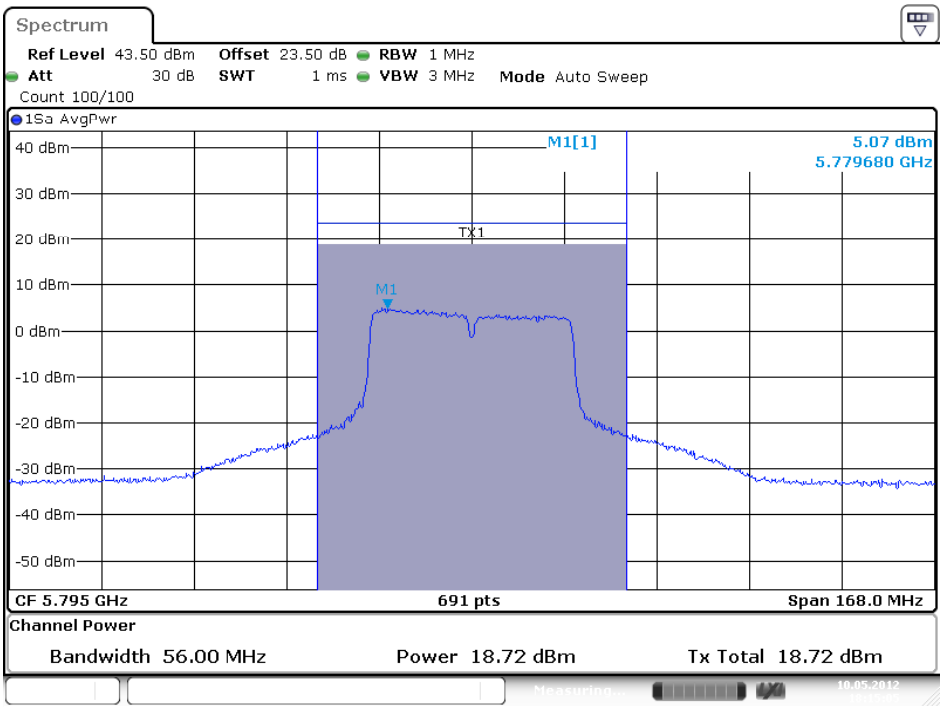
Date: 10.MAY.2012 18:14:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (3TX)



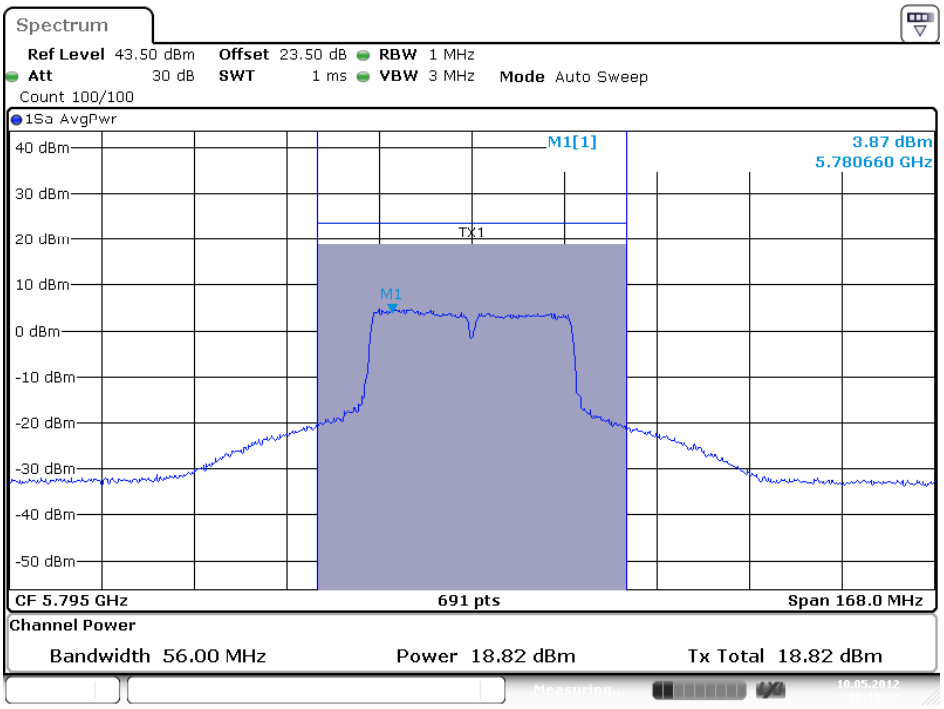
Date: 10.MAY.2012 18:14:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (3TX)



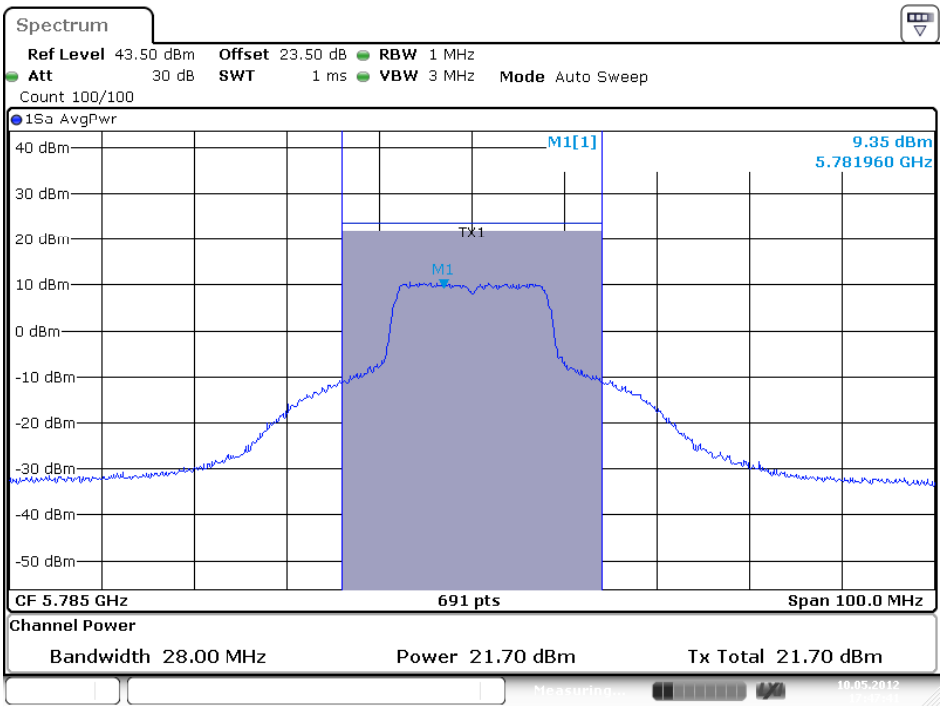
Date: 10.MAY.2012 18:15:05

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 3 (3TX)



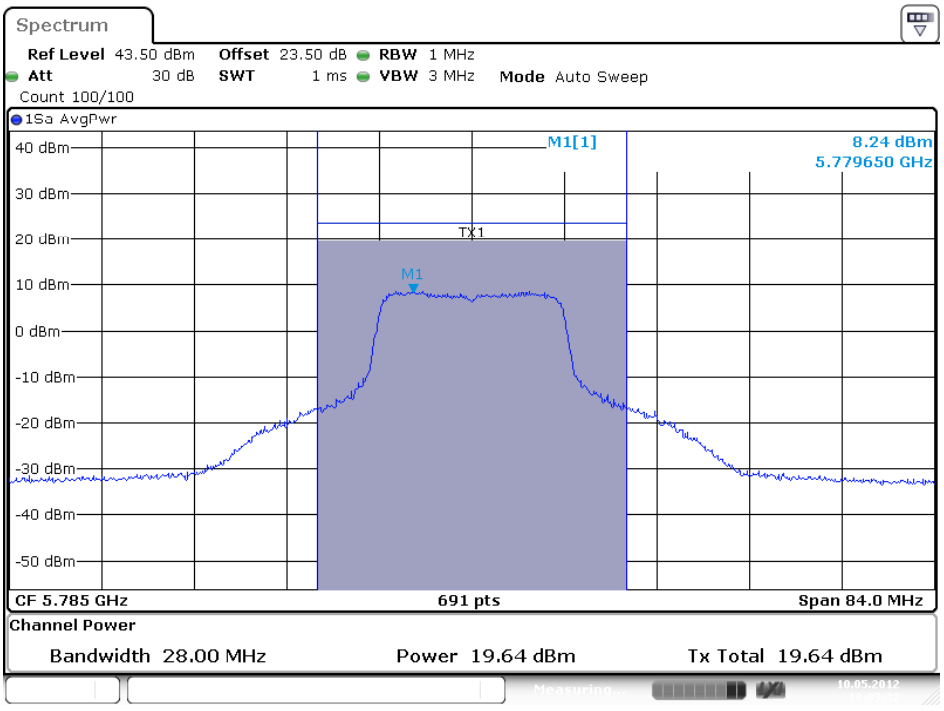
Date: 10.MAY.2012 18:15:22

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (1TX)



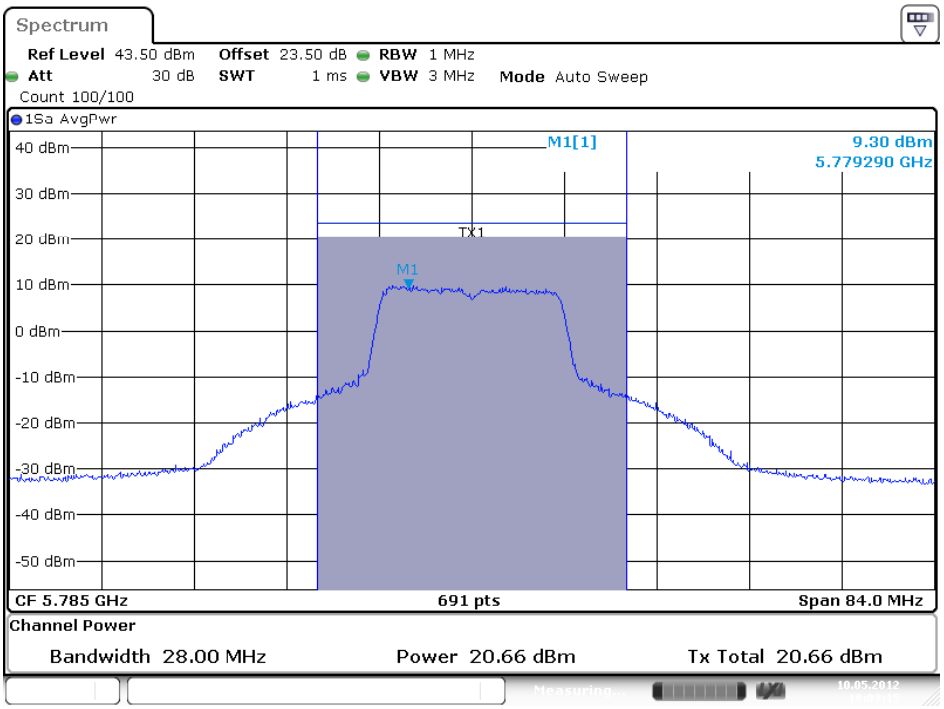
Date: 10.MAY.2012 17:47:41

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (2TX)



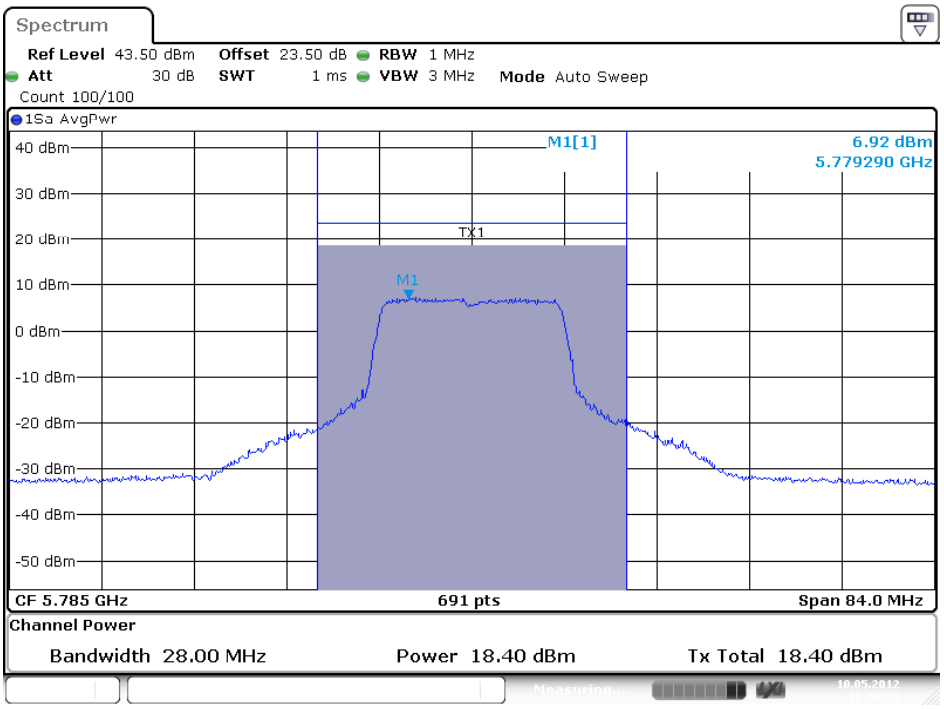
Date: 10.MAY.2012 18:03:33

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (2TX)



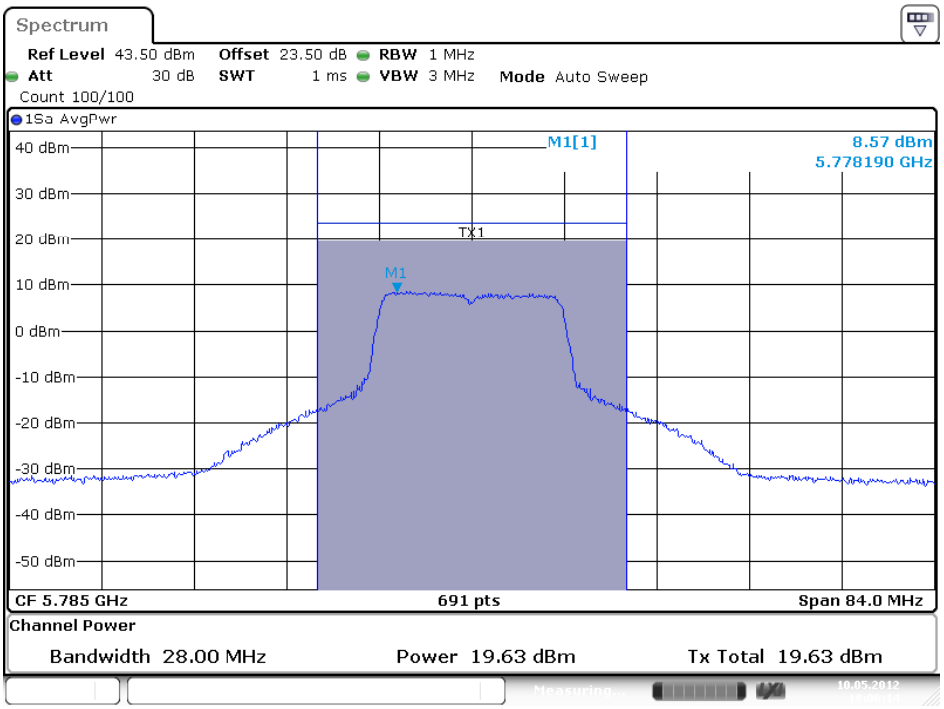
Date: 10.MAY.2012 18:03:15

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (3TX)



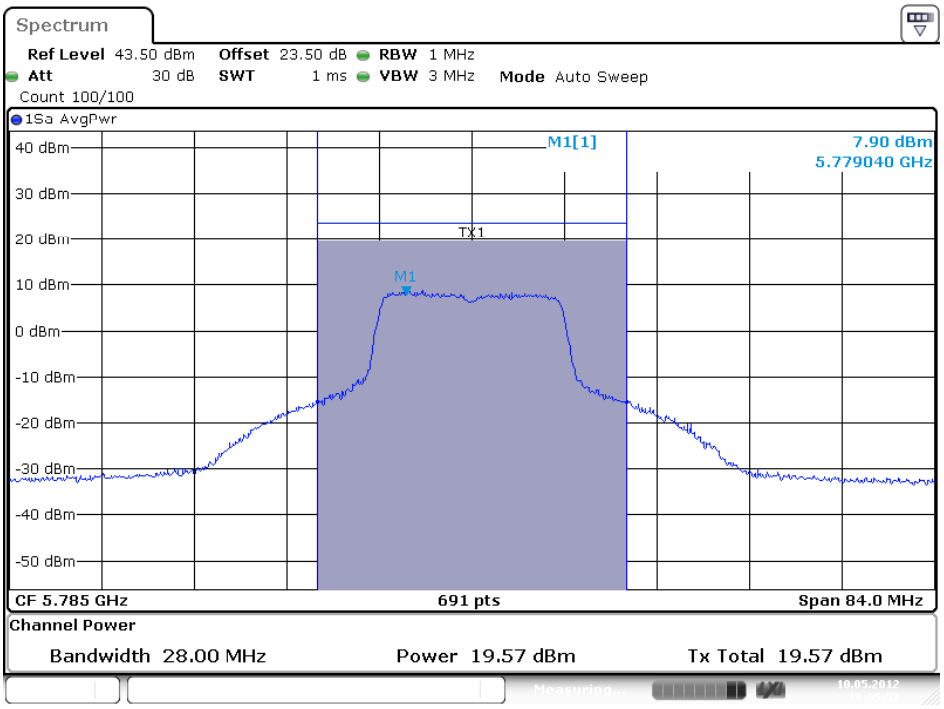
Date: 10.MAY.2012 18:06:36

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (3TX)



Date: 10.MAY.2012 18:06:14

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 3 (3TX)



Date: 10.MAY.2012 18:05:57

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

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	17.93	25.50	Complies
157	5785 MHz	21.29	25.50	Complies
165	5825 MHz	20.12	25.50	Complies

Note: 10.5dBi > 6dBi, so the conducted power limit =30-(10.5-6)=25.5dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	16.56	25.50	Complies
159	5795 MHz	21.15	25.50	Complies

Note: 10.5dBi > 6dBi, so the conducted power limit =30-(10.5-6)=25.5dBm.

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	16.78	18.13	20.52	22.49	Complies
157	5785 MHz	18.68	19.46	22.10	22.49	Complies
165	5825 MHz	18.31	19.45	21.93	22.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.51dBi > 6dBi, so the conducted power limit =30-(13.51-6)=22.49dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	14.28	15.36	17.86	22.49	Complies
159	5795 MHz	18.50	19.24	21.90	22.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.51dBi > 6dBi, so the conducted power limit =30-(13.51-6)=22.49dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	16.17	18.30	20.37	25.50	Complies
157	5785 MHz	19.86	20.95	23.45	25.50	Complies
165	5825 MHz	18.74	20.06	22.46	25.50	Complies

Note:10.5dBi > 6dBi, so the conducted power limit =30-(10.5-6)=25.5dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	15.37	16.32	18.88	25.50	Complies
159	5795 MHz	19.81	20.79	23.34	25.50	Complies

Note:10.5dBi > 6dBi, so the conducted power limit =30-(10.5-6)=25.5dBm.

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	14.53	15.93	15.92	20.28	20.73	Complies
157	5785 MHz	14.36	15.86	15.81	20.17	20.73	Complies
165	5825 MHz	14.54	15.74	15.93	20.22	20.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =15.27dBi > 6dBi, so the conducted power limit =30-(15.27-6)=20.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	12.55	13.49	13.76	18.07	20.73	Complies
159	5795 MHz	14.91	15.72	16.04	20.35	20.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =15.27dBi > 6dBi, so the conducted power limit =30-(15.27-6)=20.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	14.56	16.10	16.27	20.48	22.50	Complies
157	5785 MHz	16.34	17.58	17.85	22.08	22.50	Complies
165	5825 MHz	16.16	17.77	17.62	22.01	22.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	13.65	14.64	14.75	19.15	22.50	Complies
159	5795 MHz	16.74	17.78	17.97	22.30	22.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.5dBi > 6dBi, so the conducted power limit =30-(13.5-6)=22.5dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a
Test Mode	Mode 8 (Ant. 8 Panel antenna / 10.5dBi)		

1TX

Configuration IEEE 802.11a / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.97	25.50	Complies
157	5785 MHz	20.90	25.50	Complies
165	5825 MHz	20.65	25.50	Complies

Note: 10.5dBi > 6dBi, so the conducted power limit =30-(10.5-6)=25.5dBm.

2TX

Configuration IEEE 802.11a / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	18.38	19.92	22.23	22.49	Complies
157	5785 MHz	18.68	19.71	22.24	22.49	Complies
165	5825 MHz	18.36	19.71	22.10	22.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.51dBi > 6dBi, so the conducted power limit =30-(13.51-6)=22.49dBm.

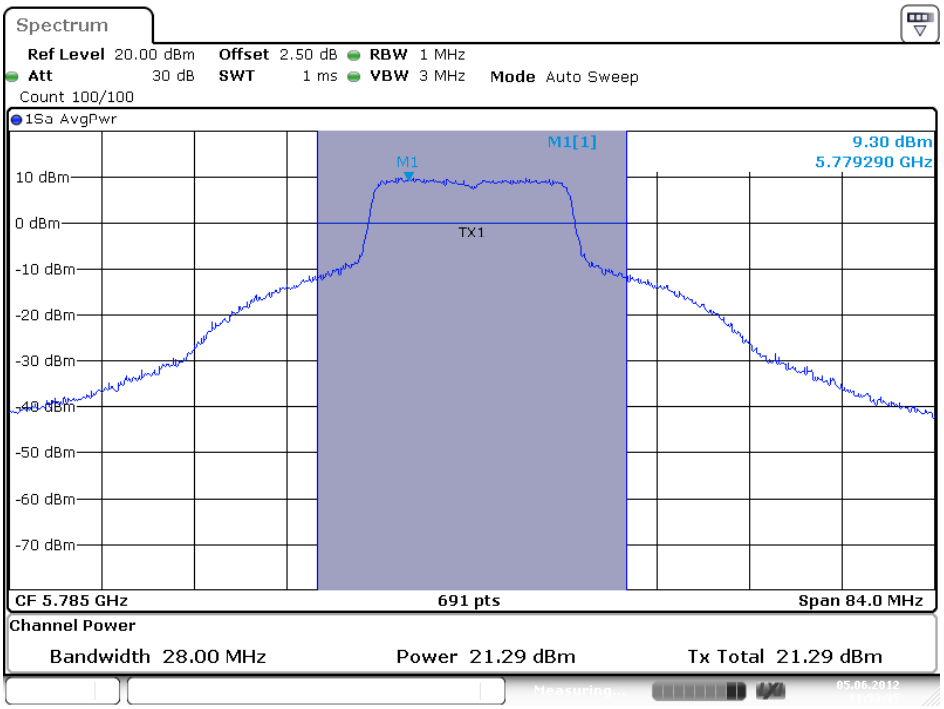
3TX

Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	14.89	16.21	16.27	20.61	20.73	Complies
157	5785 MHz	14.34	15.89	15.82	20.18	20.73	Complies
165	5825 MHz	14.68	16.00	16.25	20.47	20.73	Complies

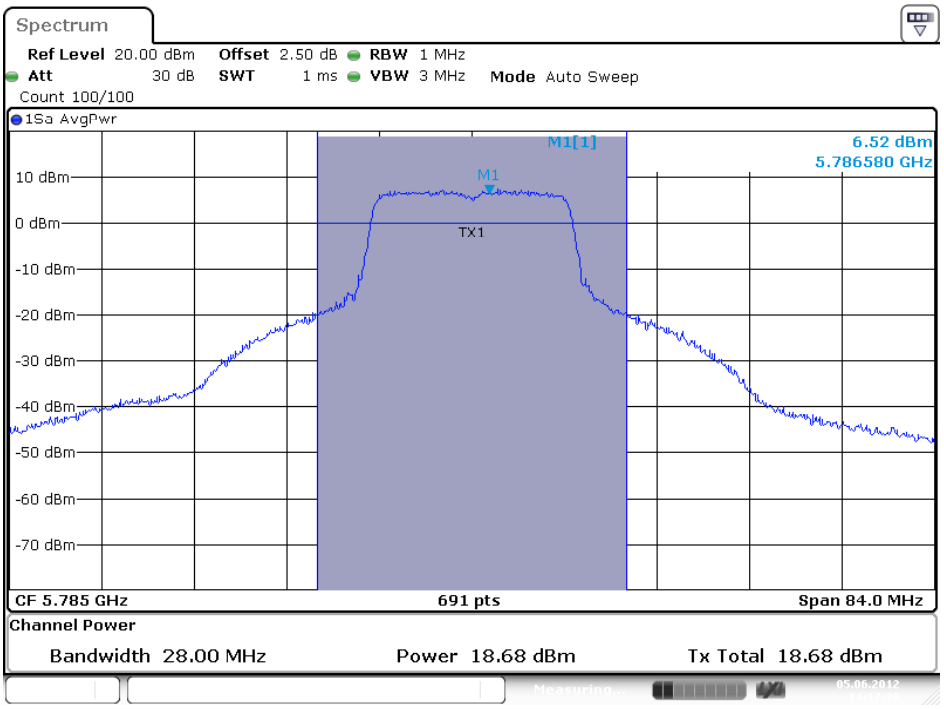
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =15.27dBi > 6dBi, so the conducted power limit =30-(15.27-6)=20.73dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz / Chain. 1 (1TX)



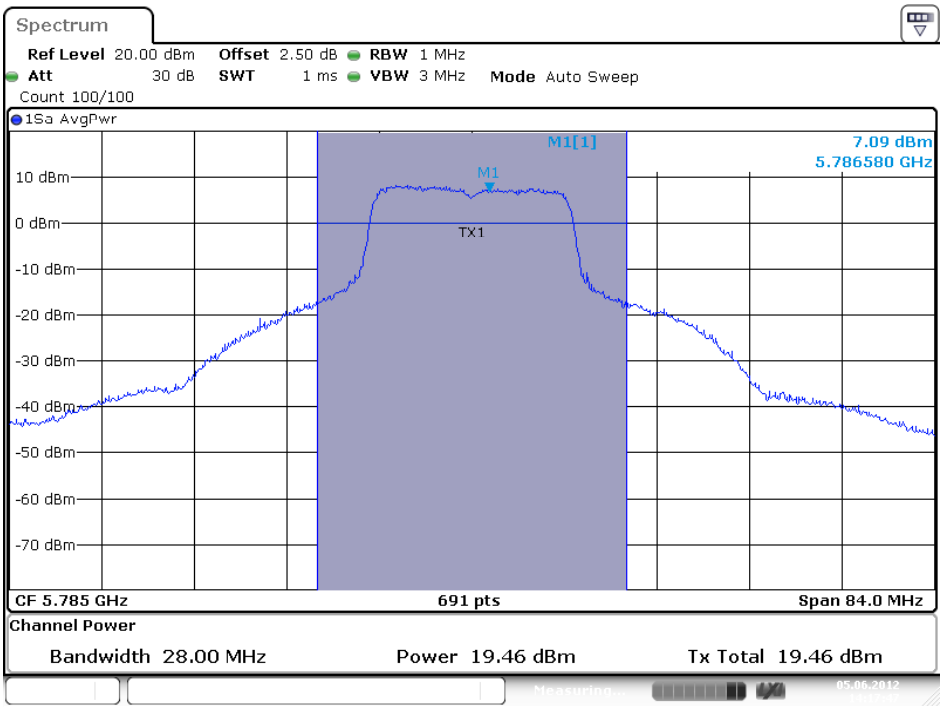
Date: 5.JUN.2012 11:53:35

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 1 (2TX)



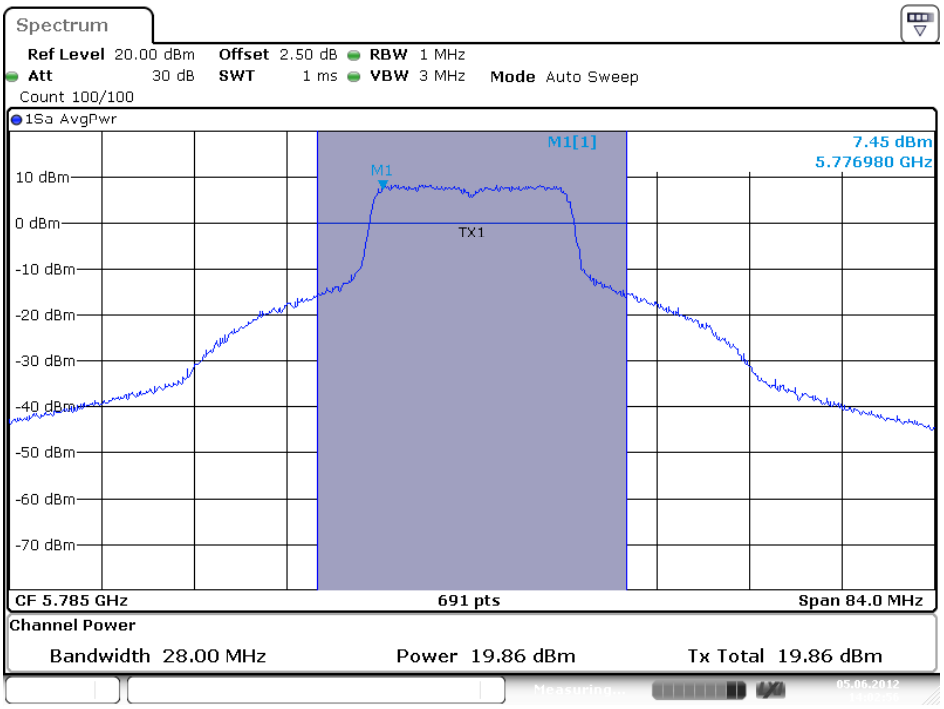
Date: 5.JUN.2012 14:17:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 2 (2TX)



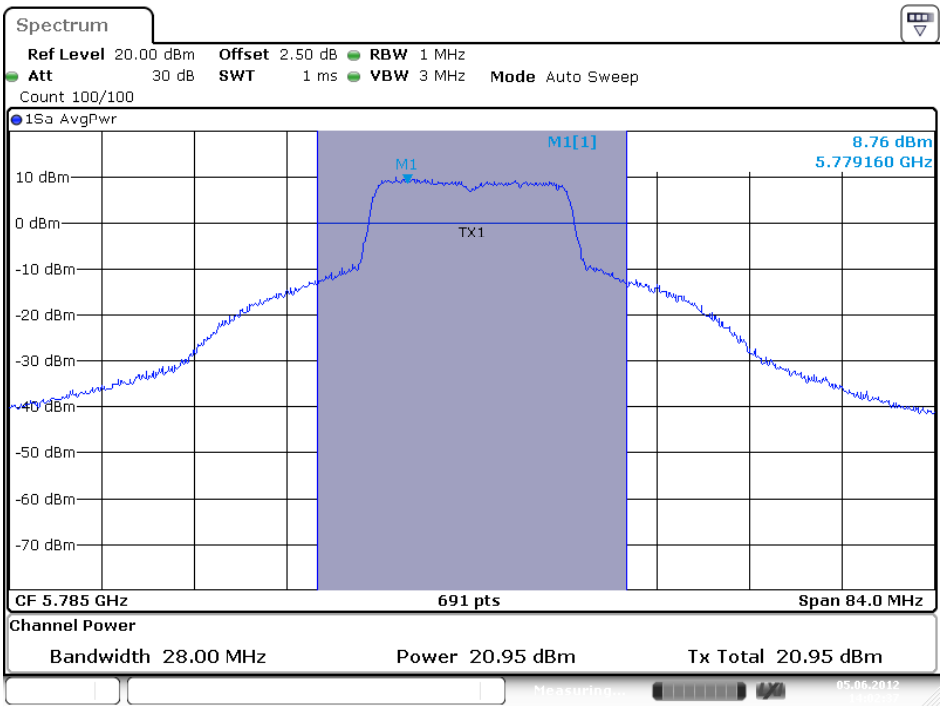
Date: 5.JUN.2012 14:17:46

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (2TX)



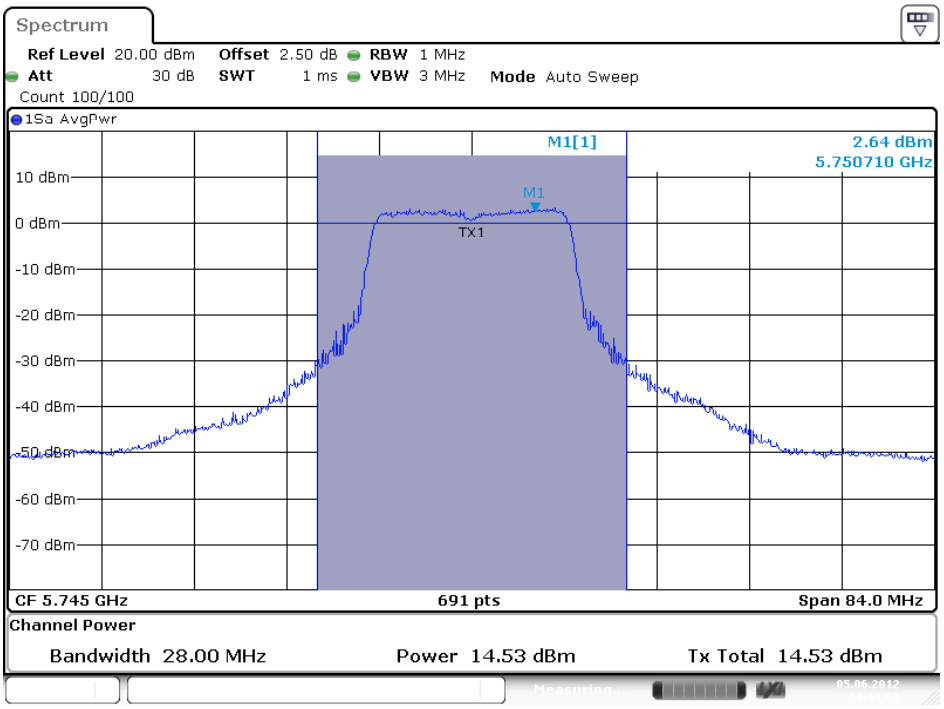
Date: 5.JUN.2012 14:02:56

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (2TX)



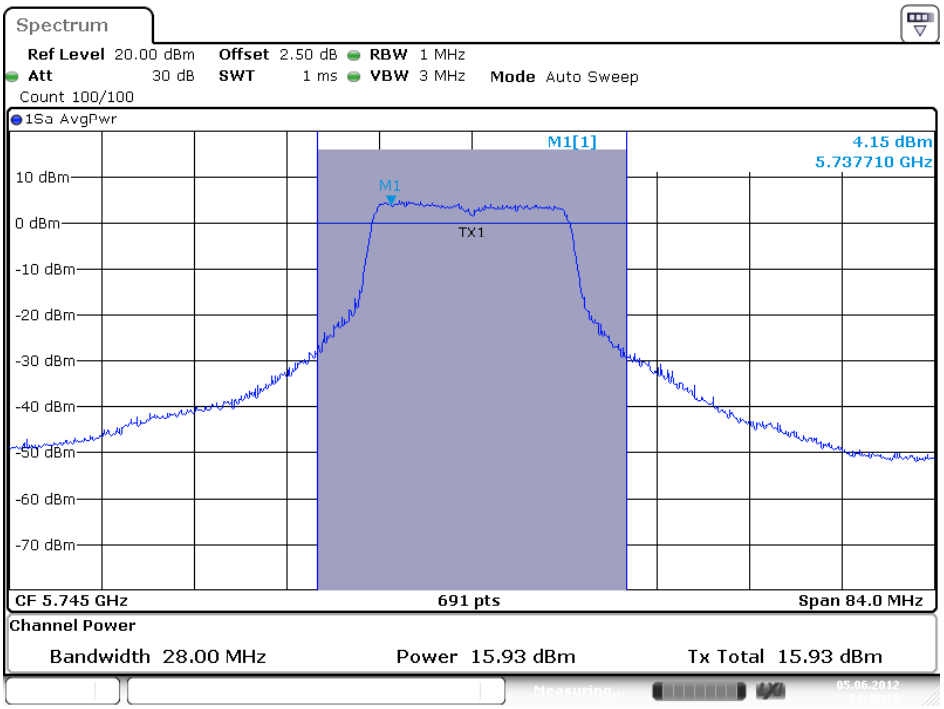
Date: 5.JUN.2012 14:02:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 1 (3TX)



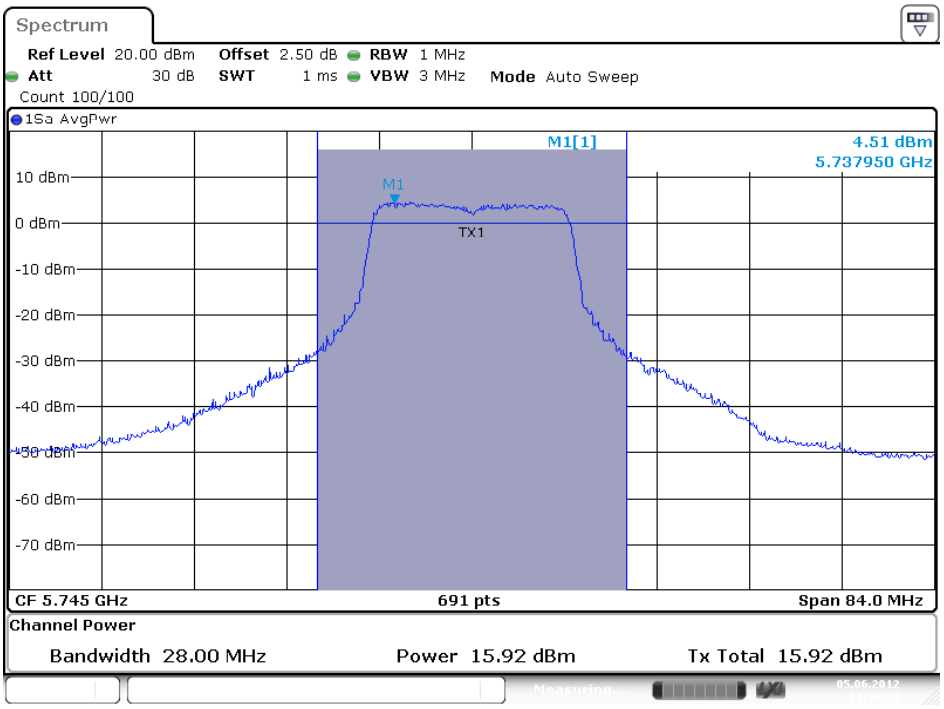
Date: 5.JUN.2012 14:49:02

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 2 (3TX)



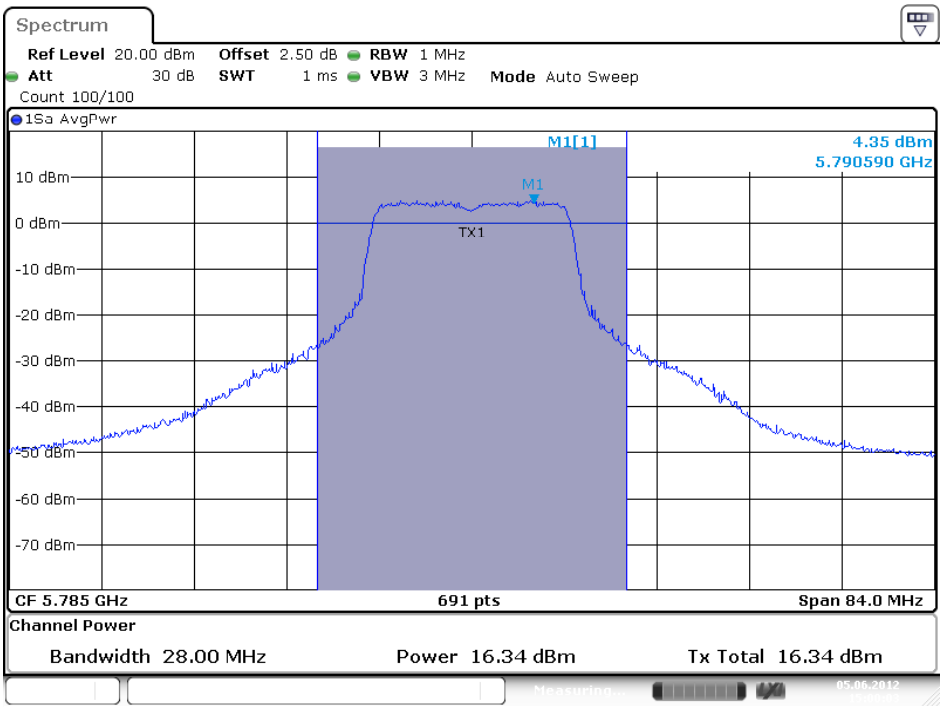
Date: 5.JUN.2012 14:49:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 3 (3TX)



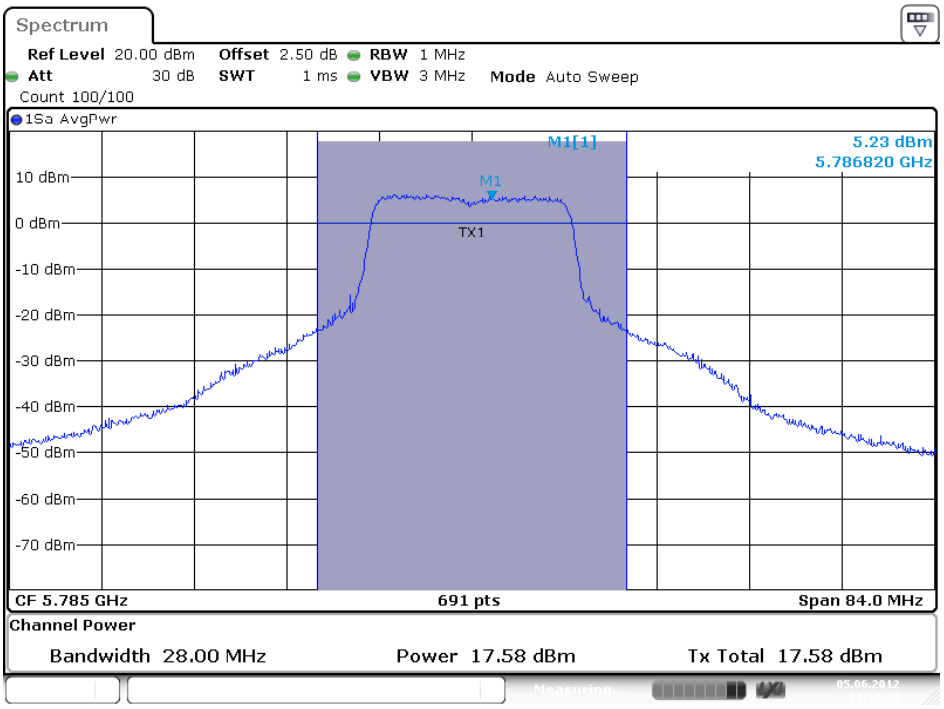
Date: 5.JUN.2012 14:49:38

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (3TX)



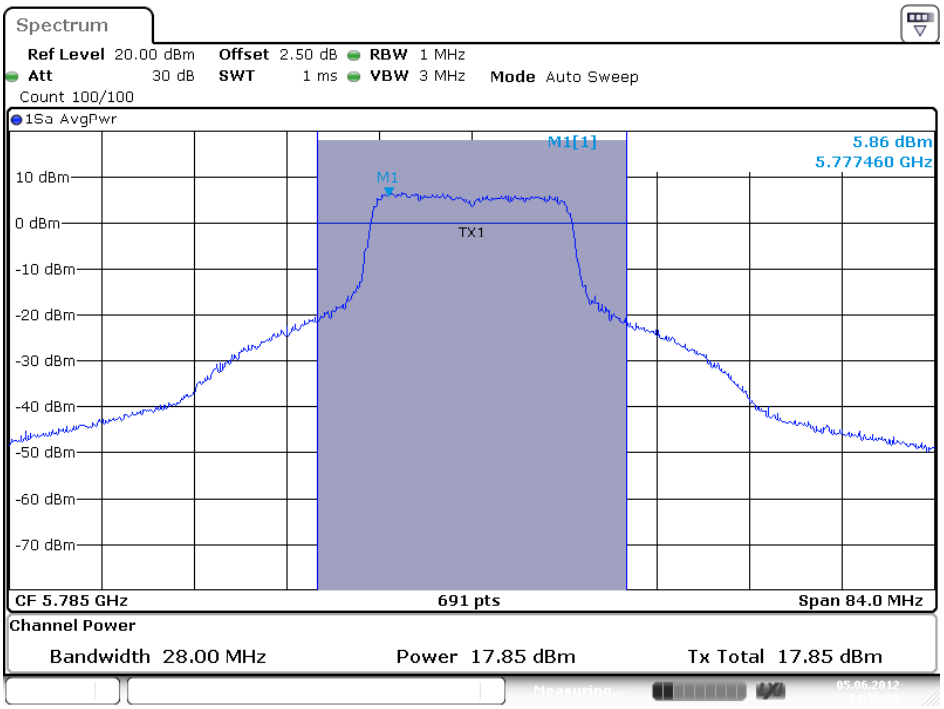
Date: 5.JUN.2012 15:00:03

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (3TX)



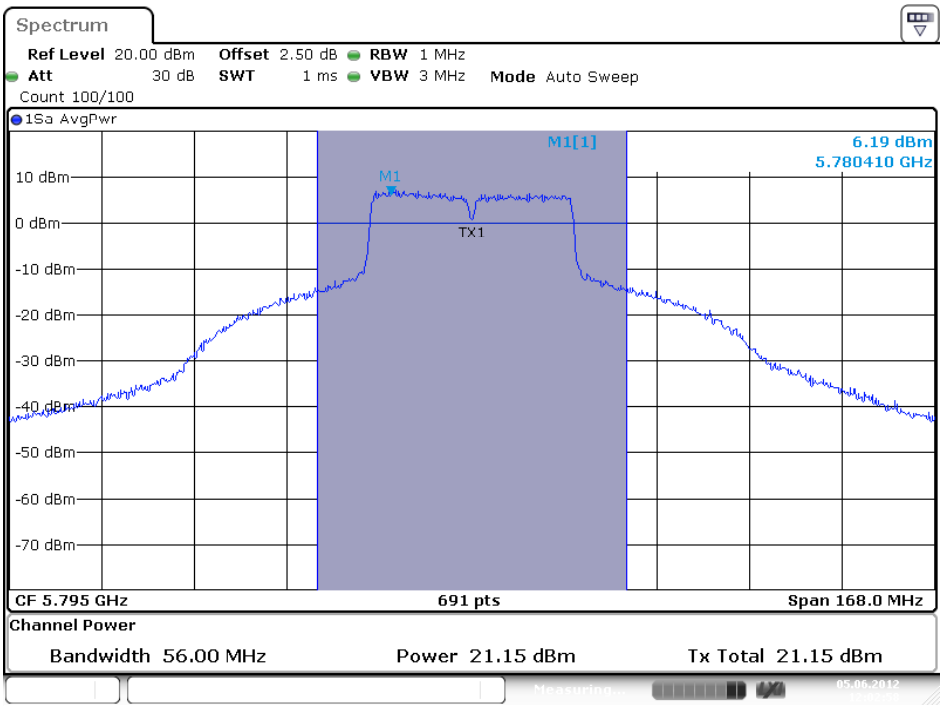
Date: 5.JUN.2012 14:59:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 3 (3TX)



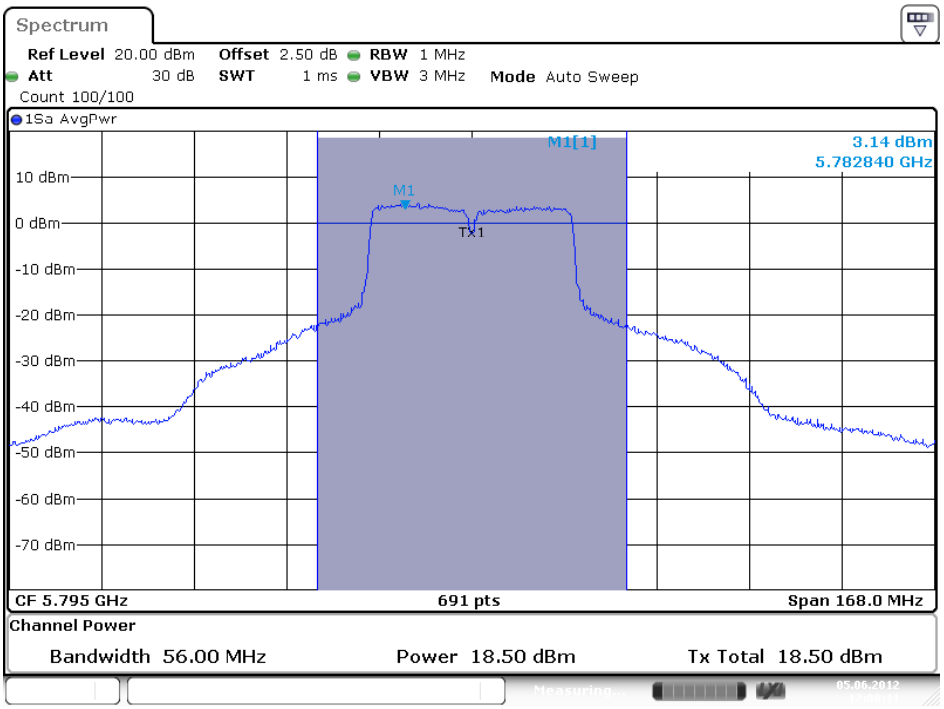
Date: 5.JUN.2012 14:59:22

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (1TX)



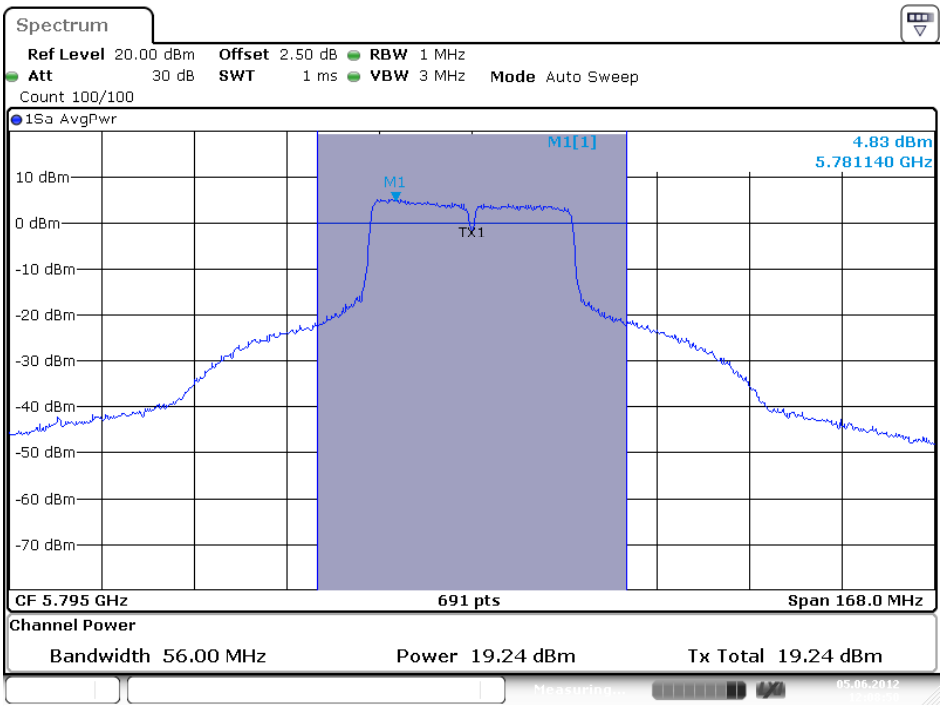
Date: 5.JUN.2012 12:02:58

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (2TX)



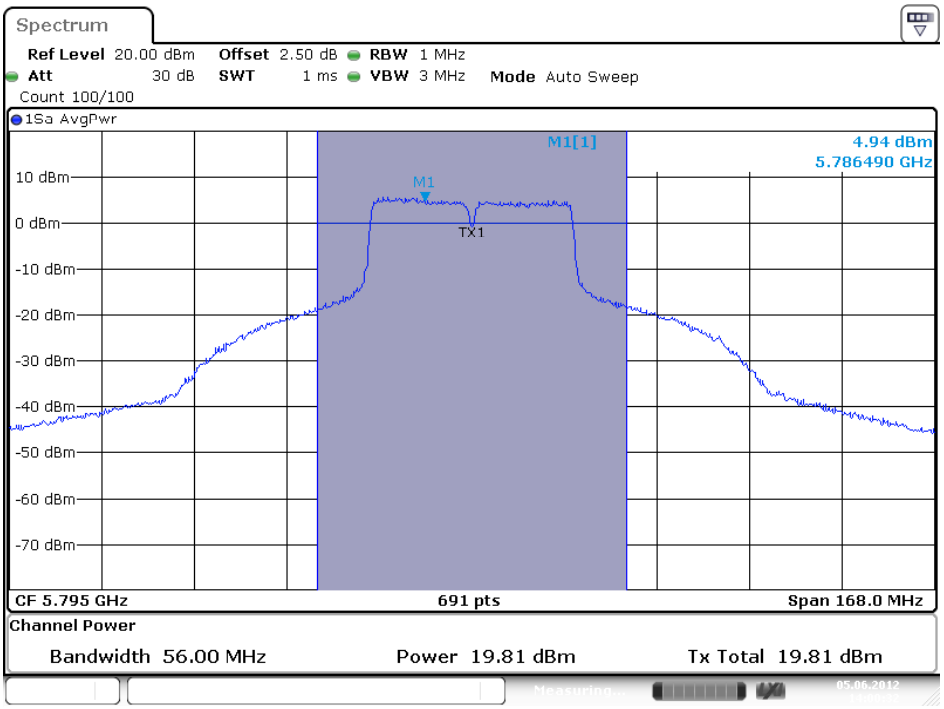
Date: 5.JUN.2012 12:08:11

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (2TX)



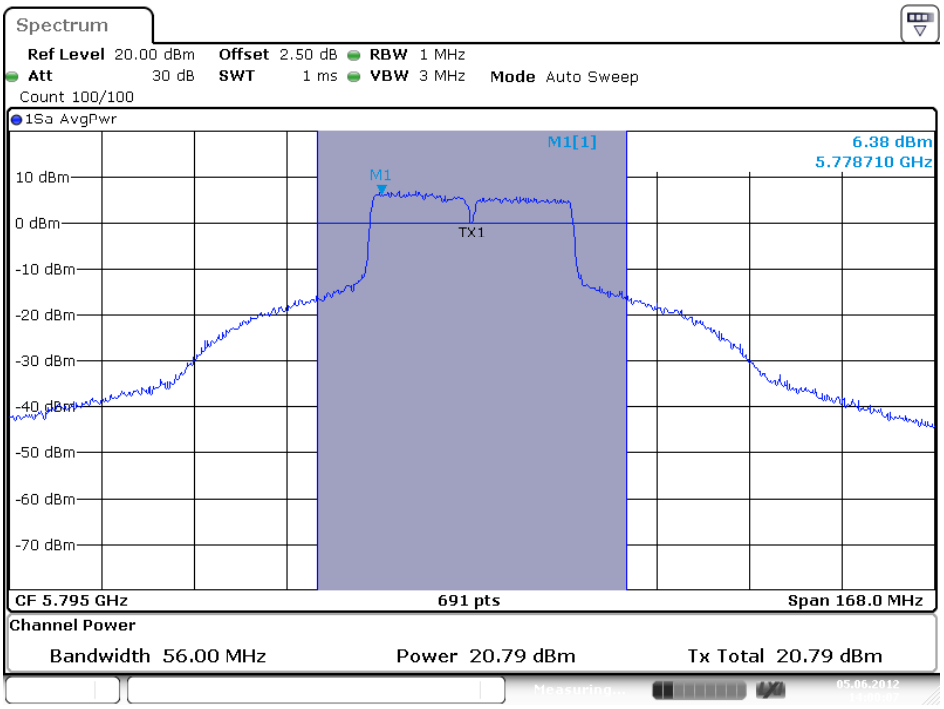
Date: 5.JUN.2012 12:08:50

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (2TX)



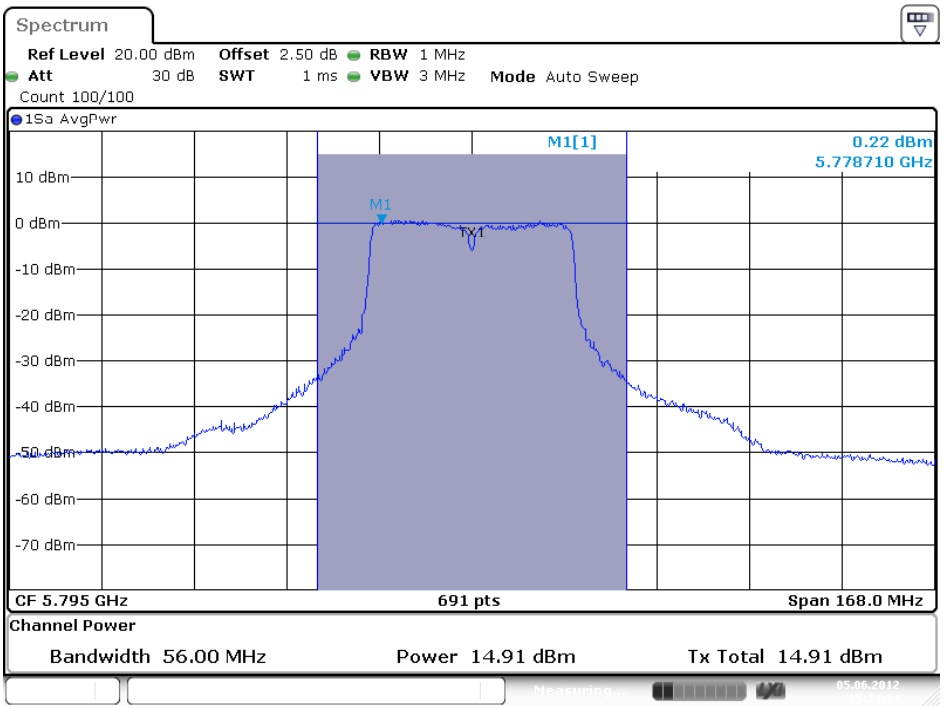
Date: 5.JUN.2012 14:00:32

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (2TX)



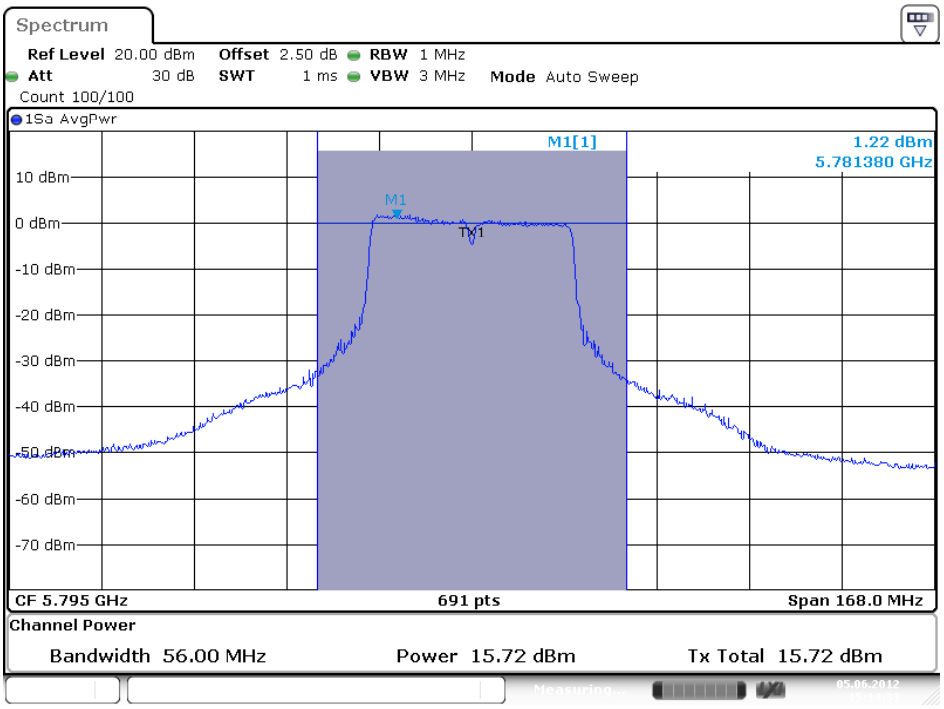
Date: 5.JUN.2012 14:00:06

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (3TX)



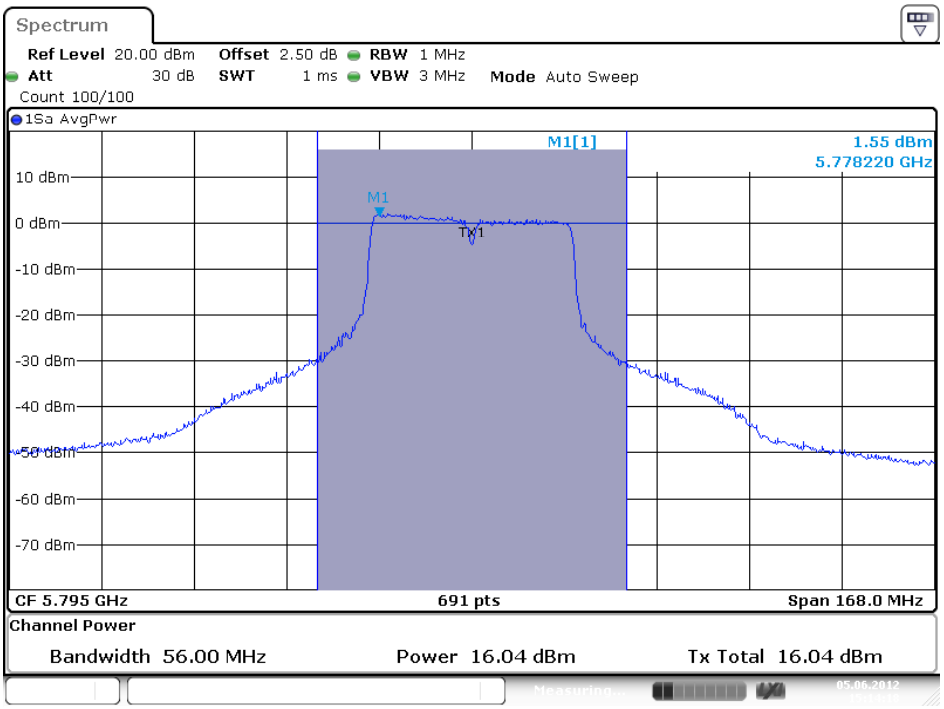
Date: 5.JUN.2012 15:14:54

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (3TX)



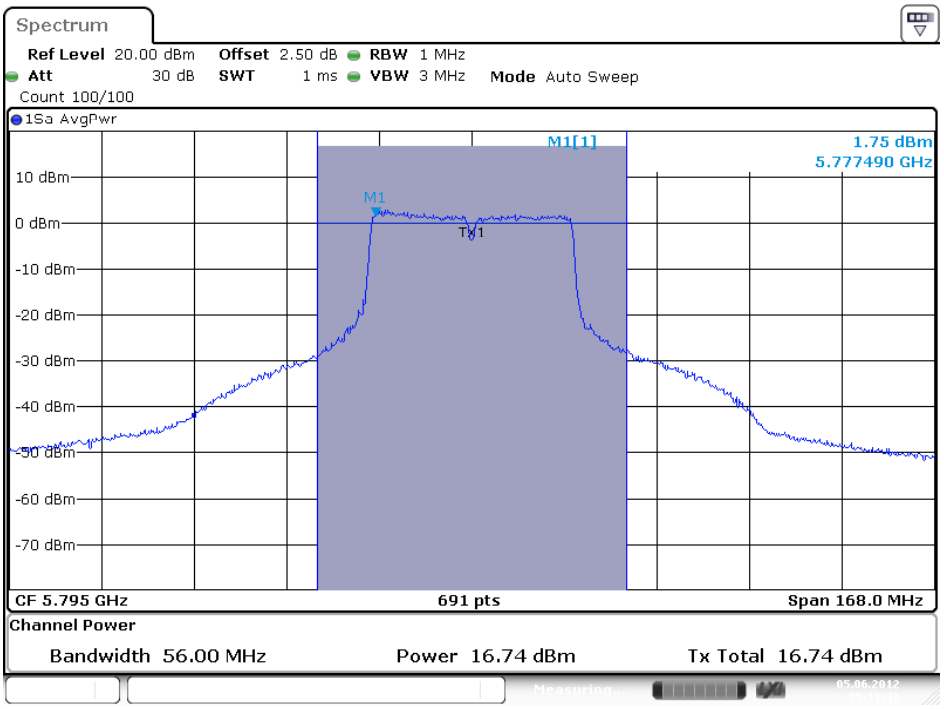
Date: 5.JUN.2012 15:14:33

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 3 (3TX)



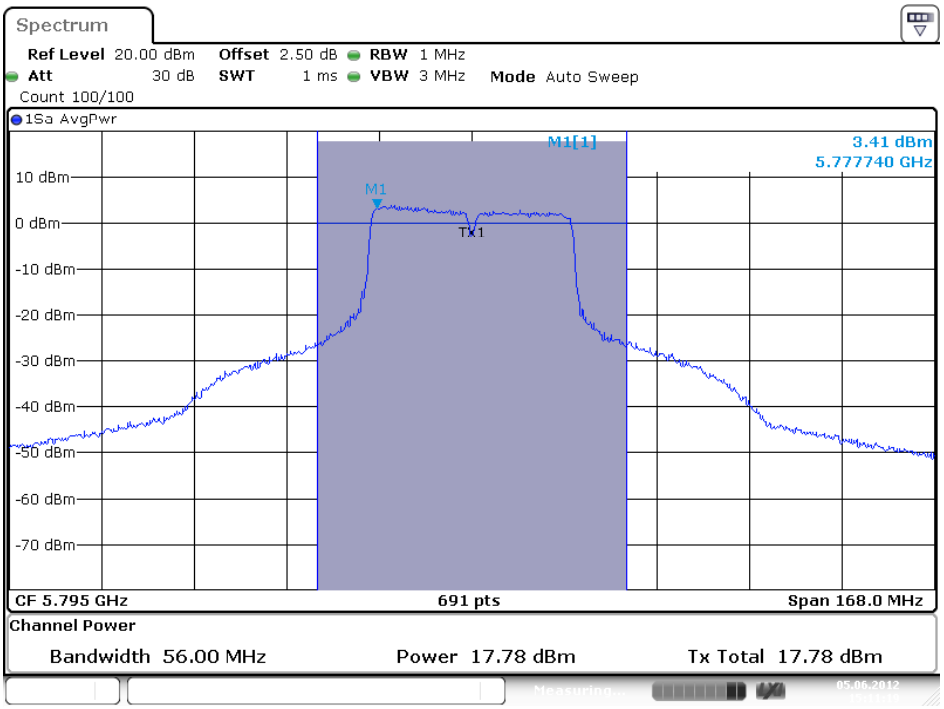
Date: 5.JUN.2012 15:14:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (3TX)



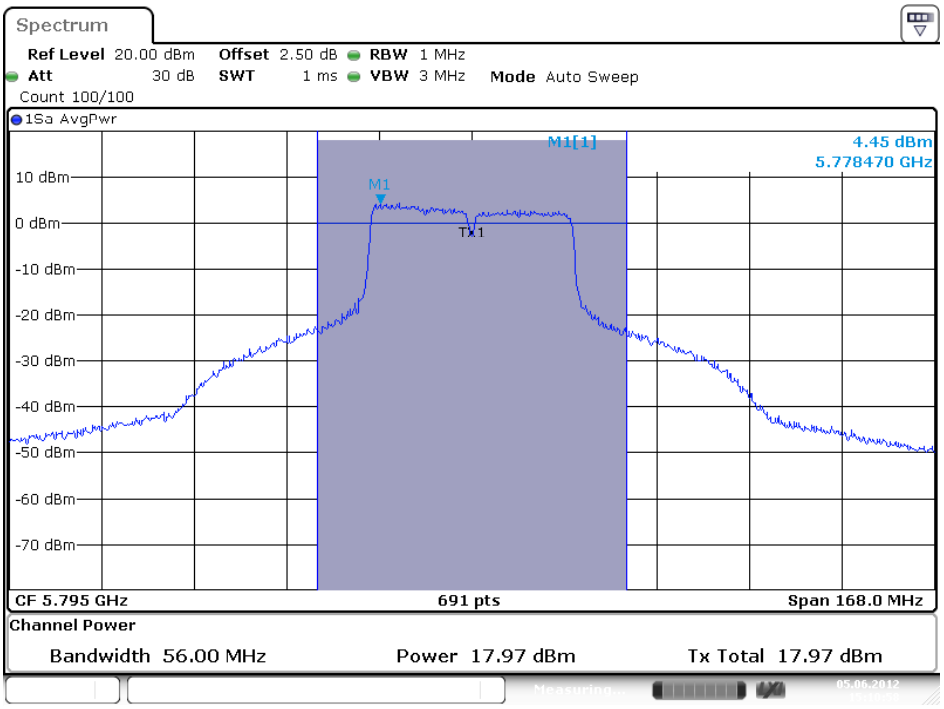
Date: 5.JUN.2012 15:11:42

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (3TX)



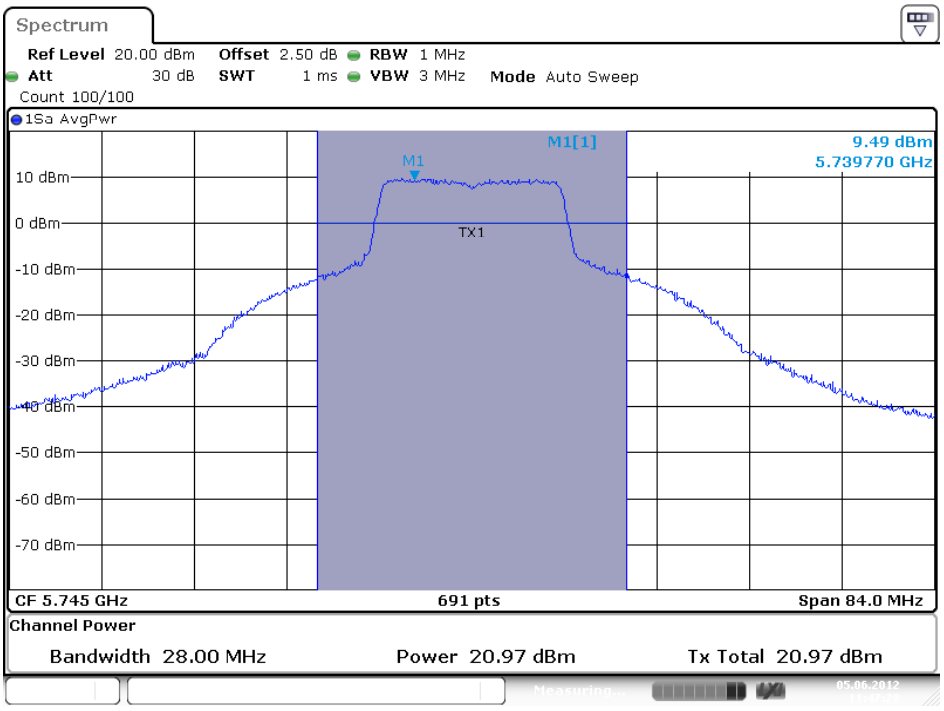
Date: 5.JUN.2012 15:11:18

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 3 (3TX)



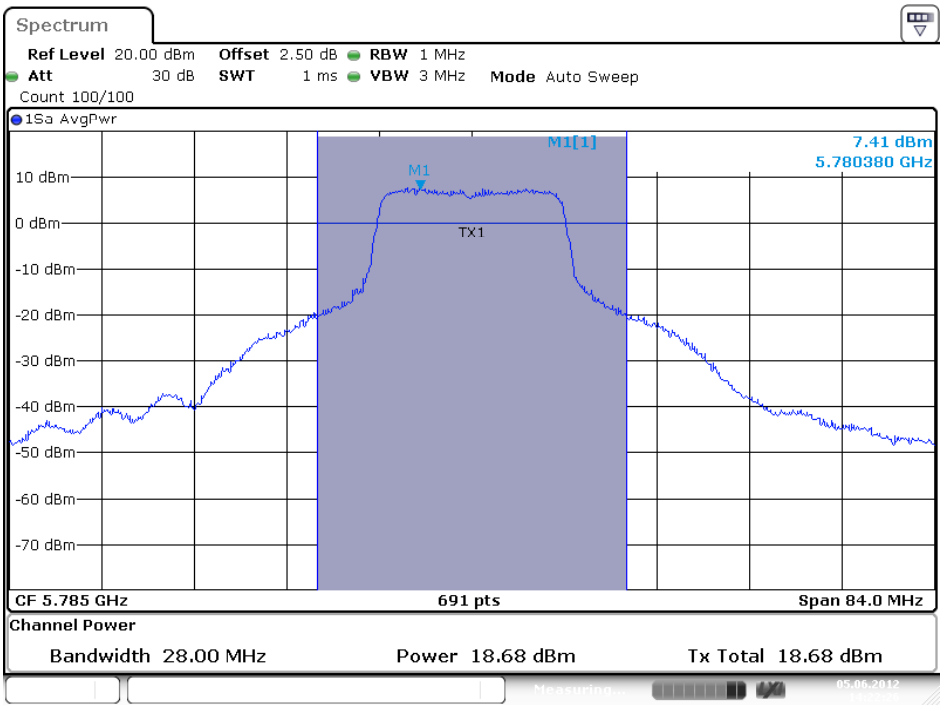
Date: 5.JUN.2012 15:10:58

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 1 (1TX)



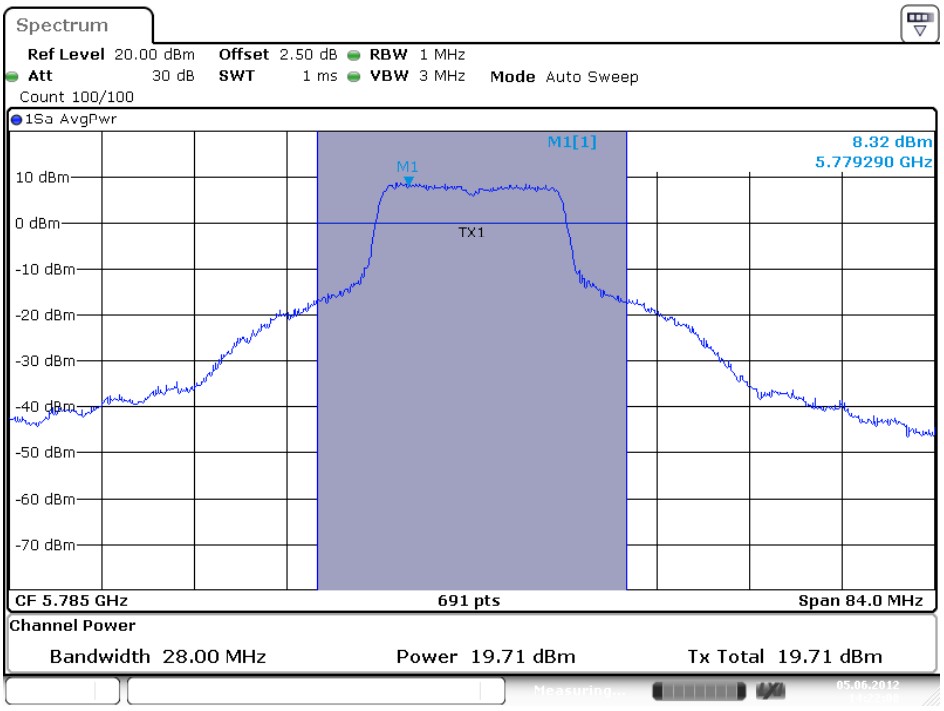
Date: 5.JUN.2012 11:47:28

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (2TX)



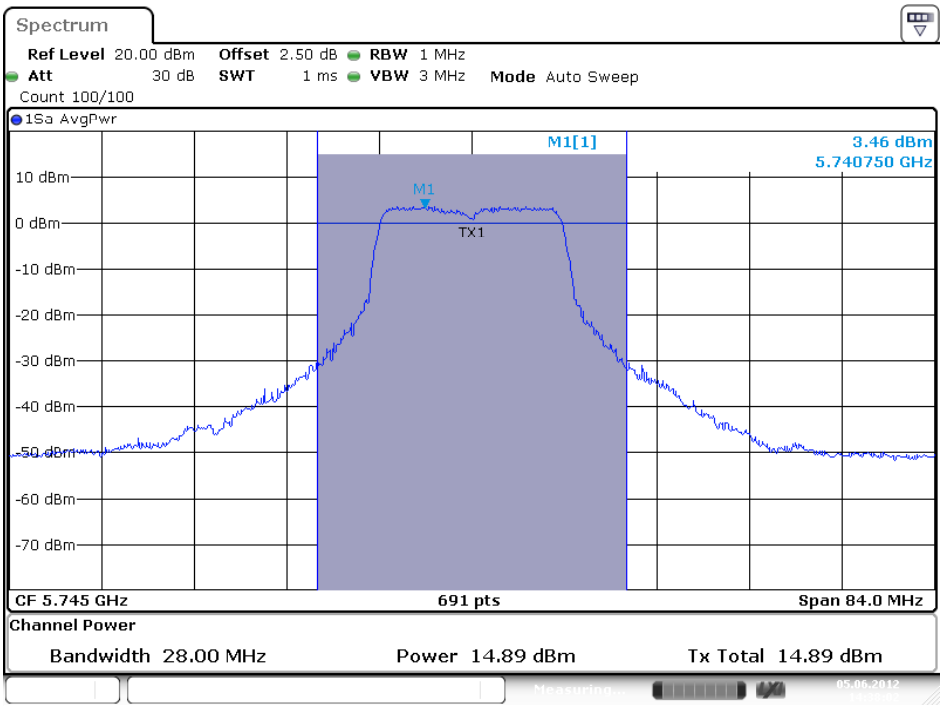
Date: 5.JUN.2012 14:22:26

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (2TX)



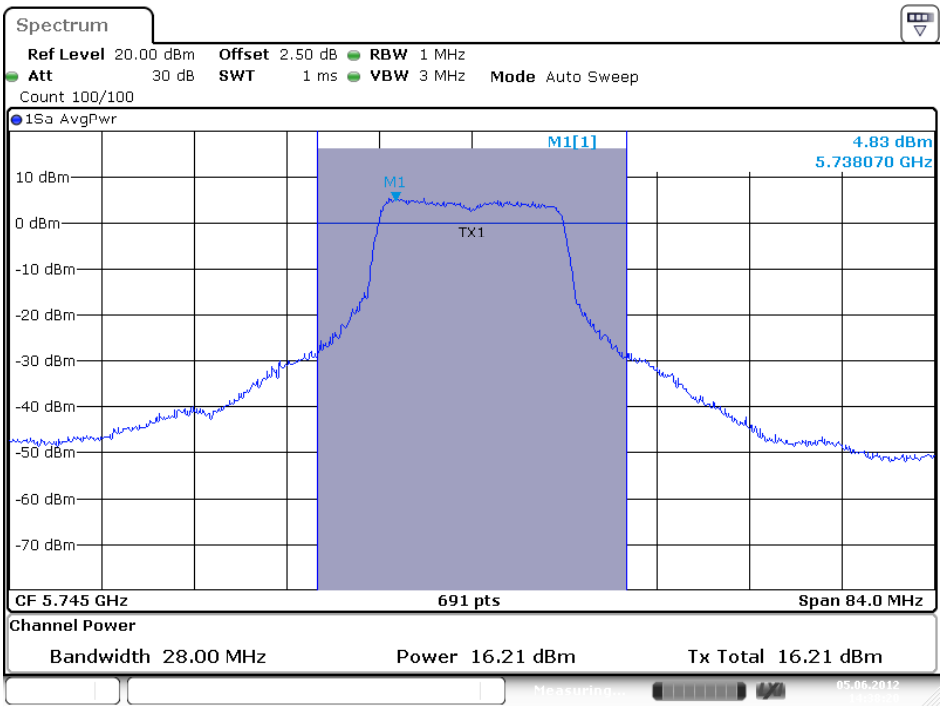
Date: 5.JUN.2012 14:22:08

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 1 (3TX)



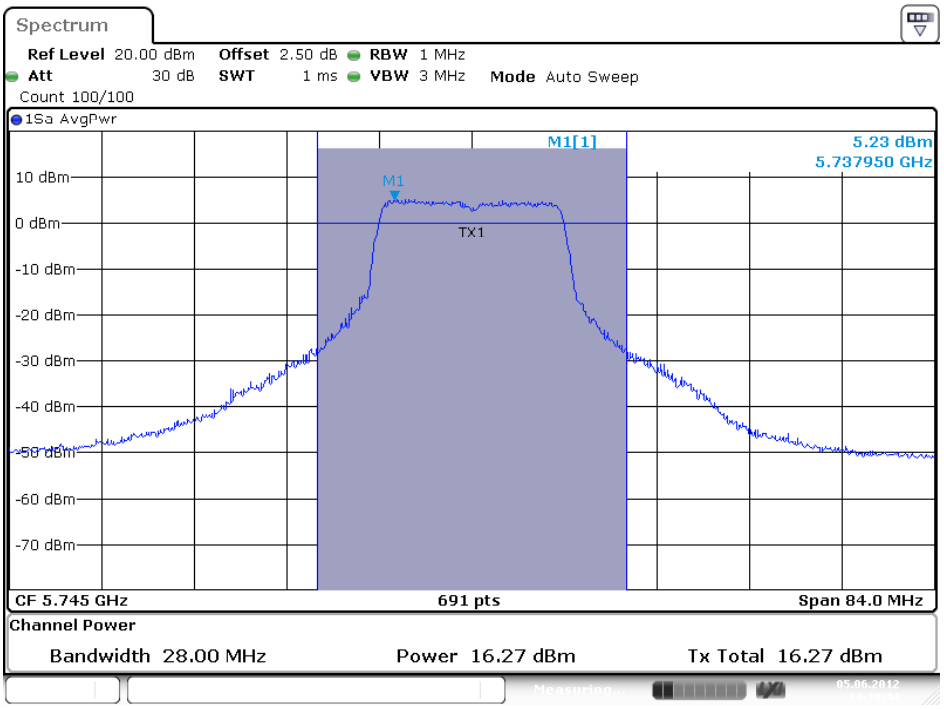
Date: 5.JUN.2012 14:38:02

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 2 (3TX)



Date: 5.JUN.2012 14:38:20

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 3 (3TX)



Date: 5.JUN.2012 14:38:44

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

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	18.14	28.00	Complies
157	5785 MHz	21.53	28.00	Complies
165	5825 MHz	21.37	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	16.52	28.00	Complies
159	5795 MHz	21.40	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	17.45	19.13	21.38	24.99	Complies
157	5785 MHz	20.17	21.23	23.74	24.99	Complies
165	5825 MHz	17.65	18.56	21.14	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	16.30	17.84	20.15	24.99	Complies
159	5795 MHz	20.64	21.26	23.97	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	18.40	19.90	22.22	28.00	Complies
157	5785 MHz	19.84	20.82	23.37	28.00	Complies
165	5825 MHz	19.61	20.45	23.06	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	16.59	18.11	20.43	28.00	Complies
159	5795 MHz	19.67	20.48	23.10	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	17.23	18.86	19.04	23.22	23.23	Complies
157	5785 MHz	17.26	18.30	18.38	22.78	23.23	Complies
165	5825 MHz	17.67	18.56	18.67	23.09	23.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the conducted power limit =30-(12.77-6)=23.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	15.53	17.16	17.25	21.49	23.23	Complies
159	5795 MHz	17.61	18.09	18.36	22.80	23.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the conducted power limit =30-(12.77-6)=23.23dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	18.36	19.77	19.78	24.12	24.99	Complies
157	5785 MHz	17.82	18.98	18.96	23.39	24.99	Complies
165	5825 MHz	16.85	17.97	18.14	22.46	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	15.62	17.10	17.06	21.42	24.99	Complies
159	5795 MHz	18.04	18.72	18.82	23.31	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

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

1TX

Configuration IEEE 802.11a / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.98	28.00	Complies
157	5785 MHz	21.70	28.00	Complies
165	5825 MHz	21.47	28.00	Complies

Note:8dBi > 6dBi, so the conducted power limit =30-(8-6)=28dBm.

2TX

Configuration IEEE 802.11a / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	19.39	20.84	23.19	24.99	Complies
157	5785 MHz	19.64	20.66	23.19	24.99	Complies
165	5825 MHz	19.41	20.08	22.77	24.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the conducted power limit =30-(11.01-6)=24.99dBm.

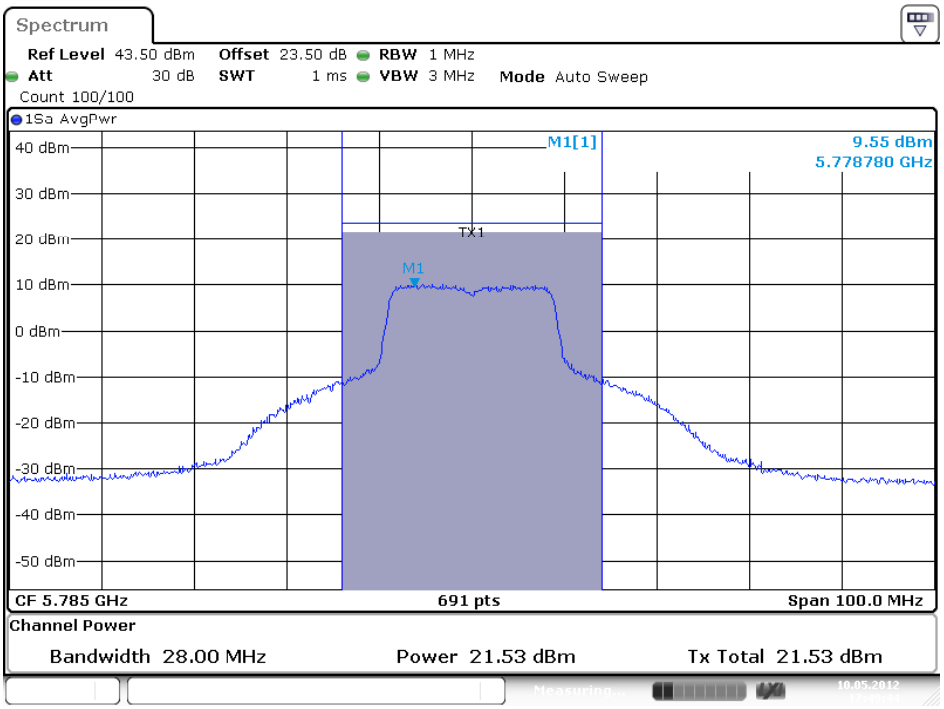
3TX

Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	17.25	18.79	18.85	23.13	23.23	Complies
157	5785 MHz	17.56	18.63	18.60	23.06	23.23	Complies
165	5825 MHz	17.25	18.11	18.53	22.77	23.23	Complies

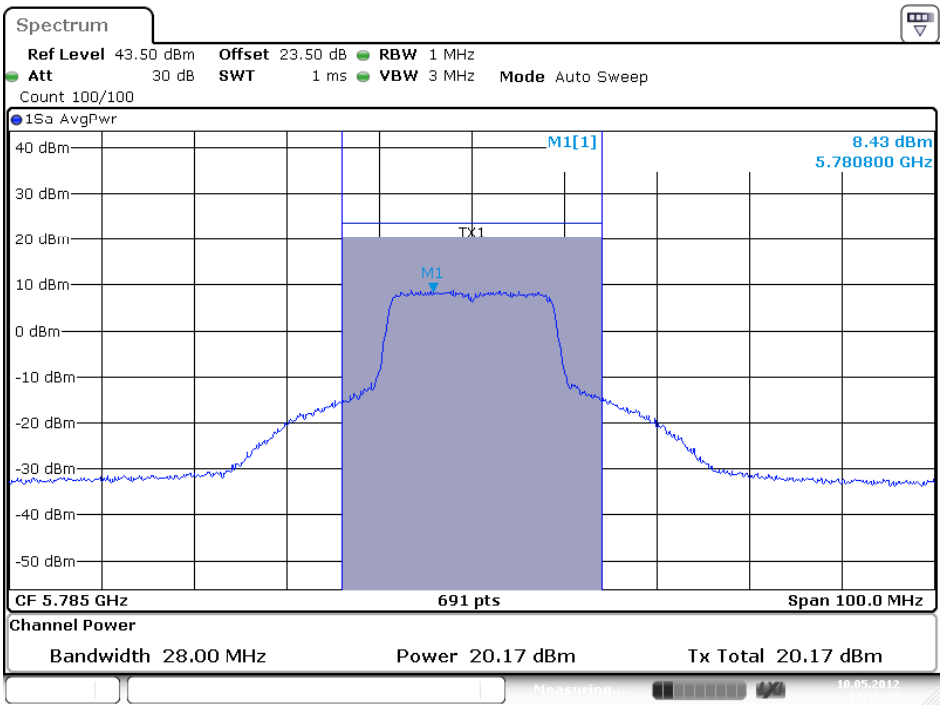
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the conducted power limit =30-(12.77-6)=23.23dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz / Chain. 1 (1TX)



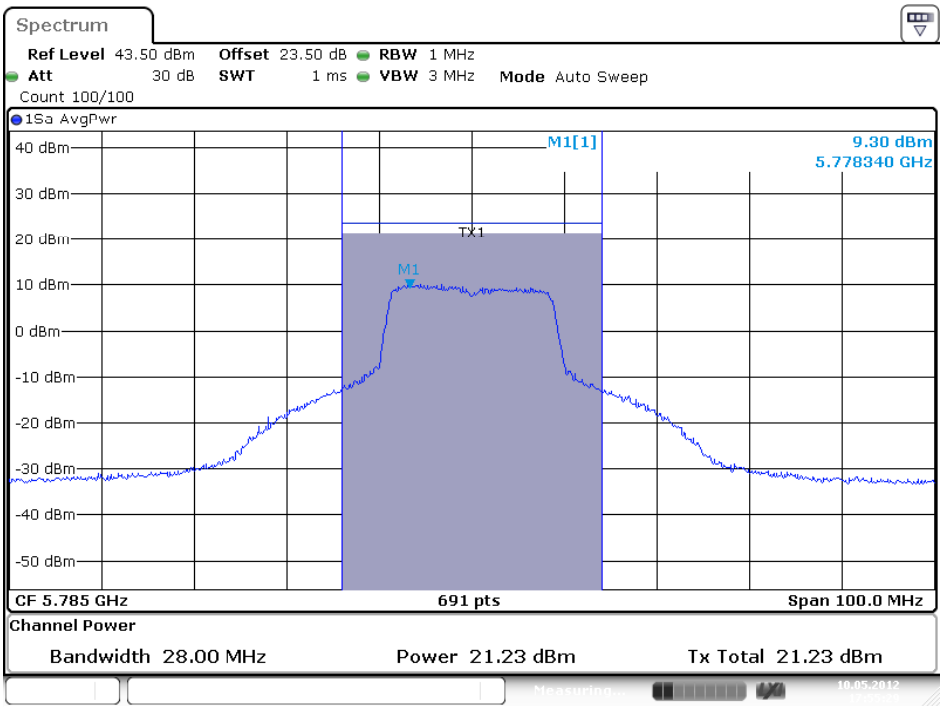
Date: 10.MAY.2012 17:49:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 1 (2TX)



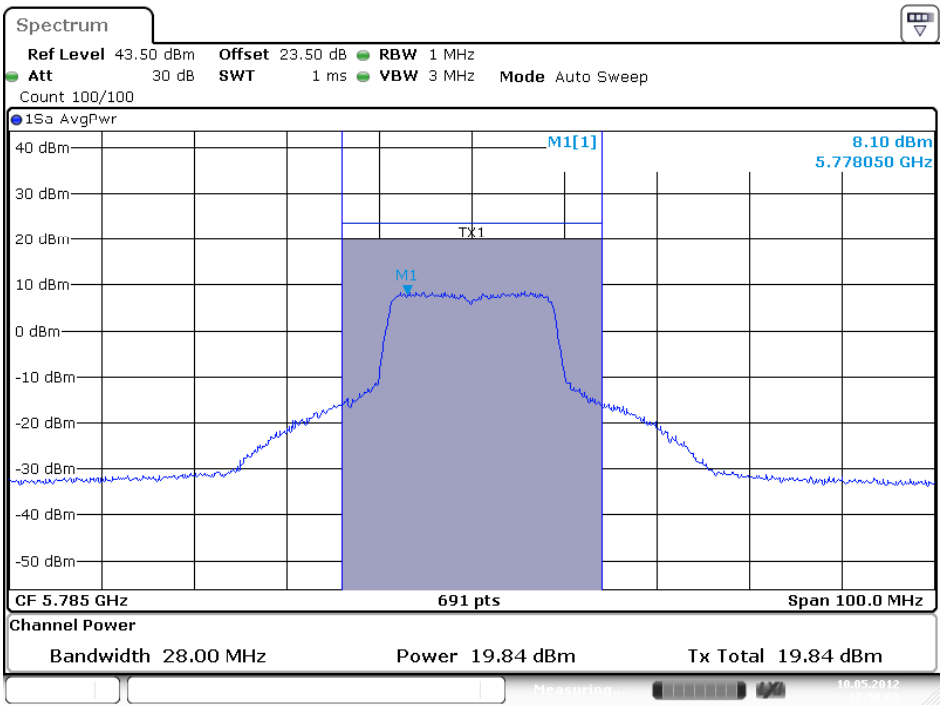
Date: 10.MAY.2012 17:55:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 2 (2TX)



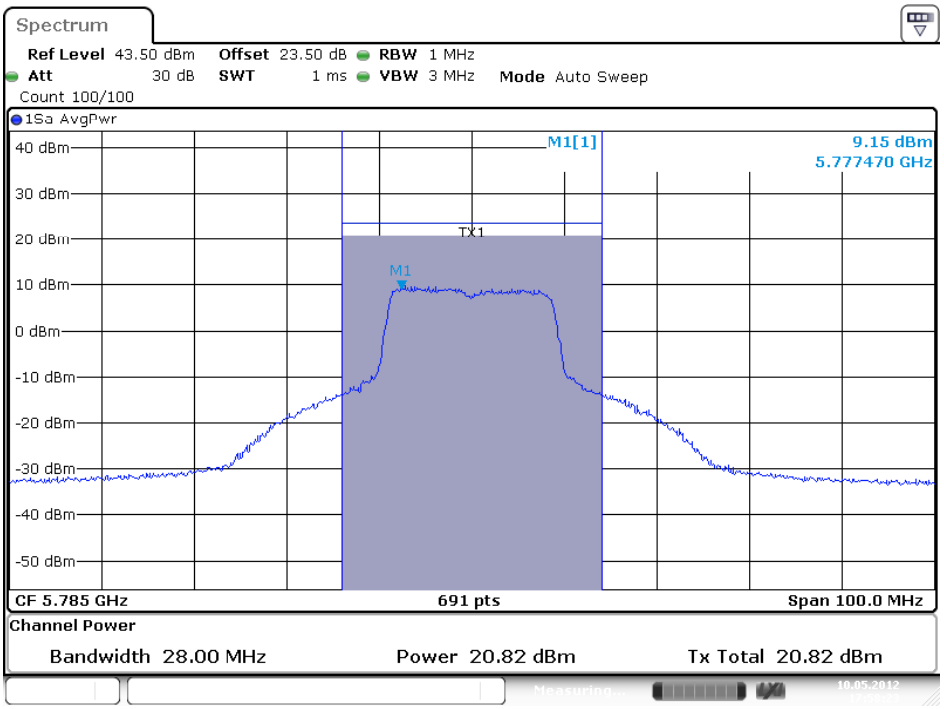
Date: 10.MAY.2012 17:55:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (2TX)



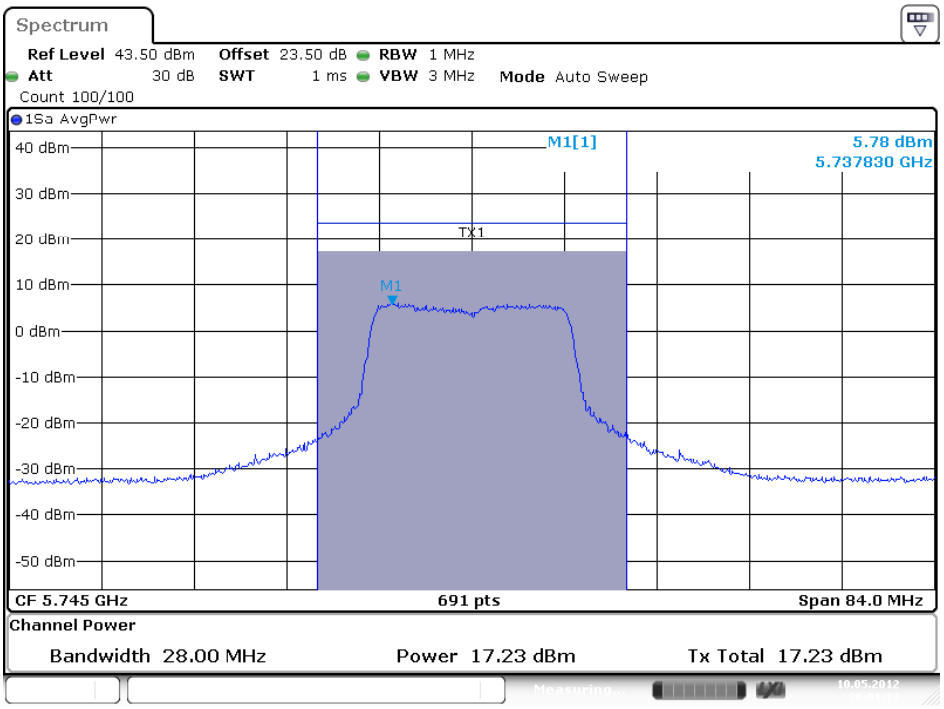
Date: 10.MAY.2012 17:58:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (2TX)



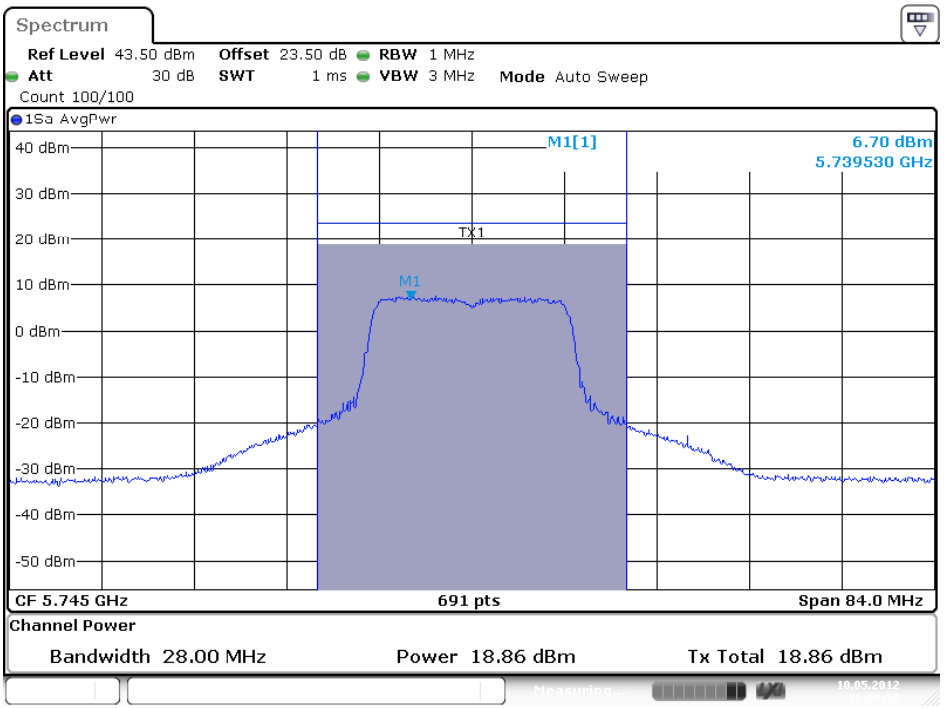
Date: 10.MAY.2012 17:58:23

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 1 (3TX)



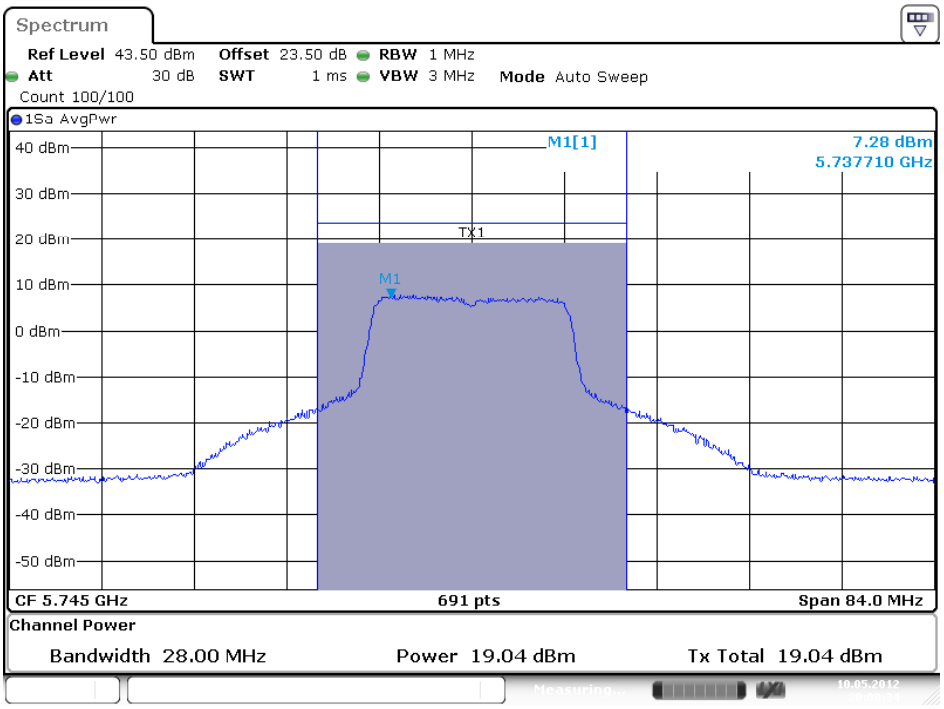
Date: 10.MAY.2012 20:01:13

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 2 (3TX)



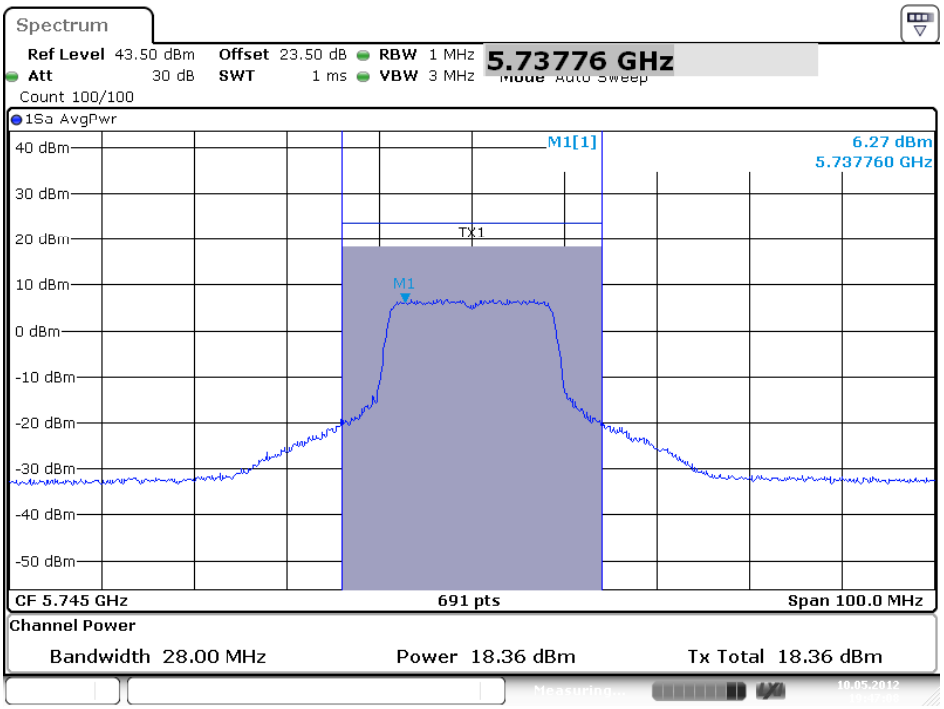
Date: 10.MAY.2012 20:00:58

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 3 (3TX)



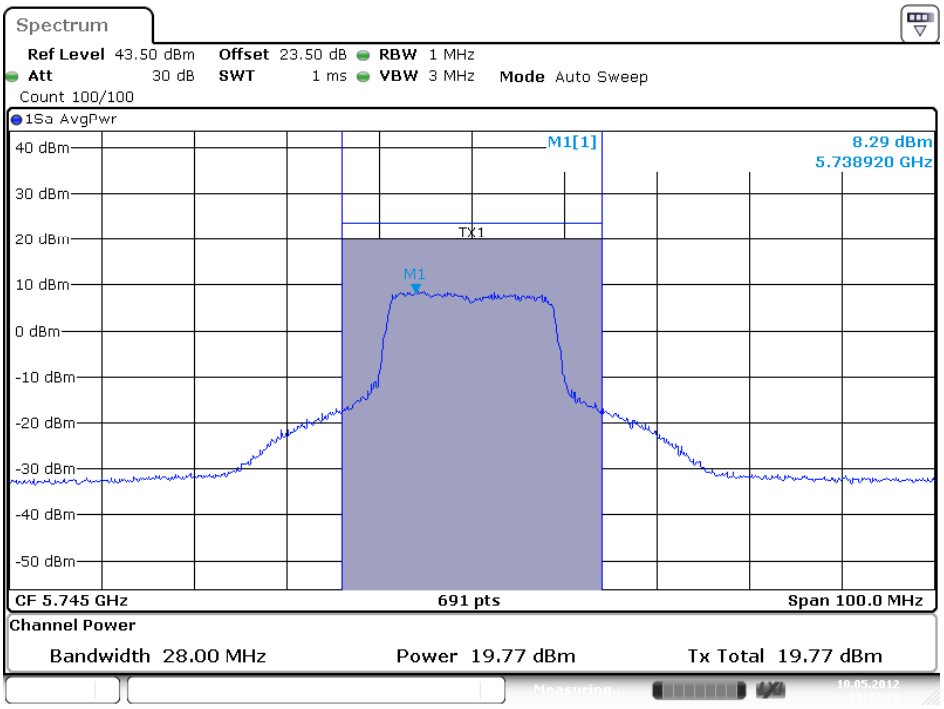
Date: 10.MAY.2012 20:00:34

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 1 (3TX)



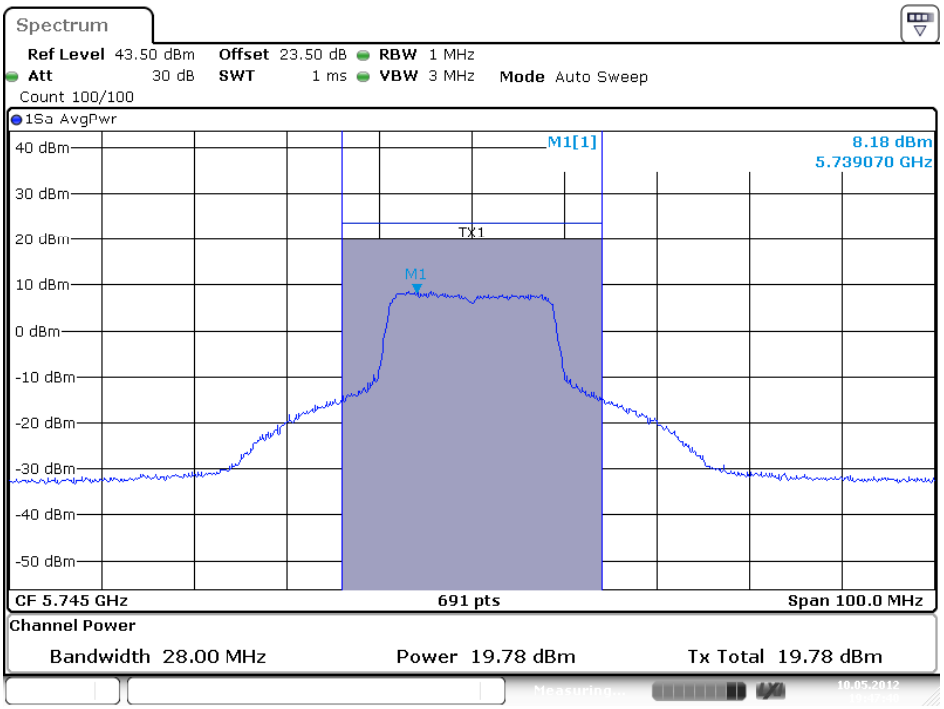
Date: 10.MAY.2012 19:47:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 2 (3TX)



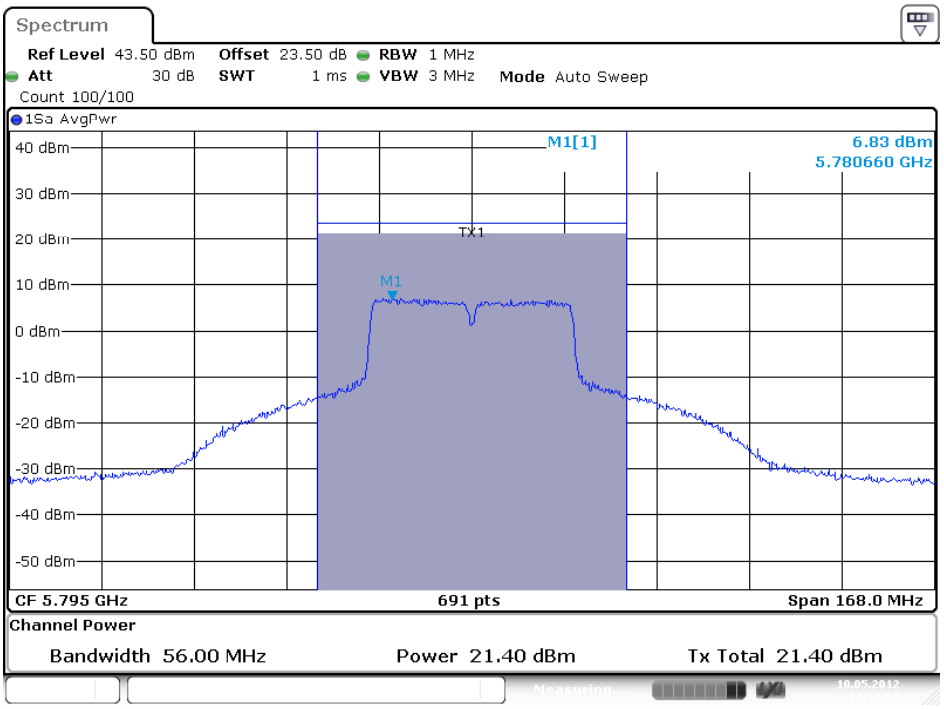
Date: 10.MAY.2012 19:47:27

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 3 (3TX)



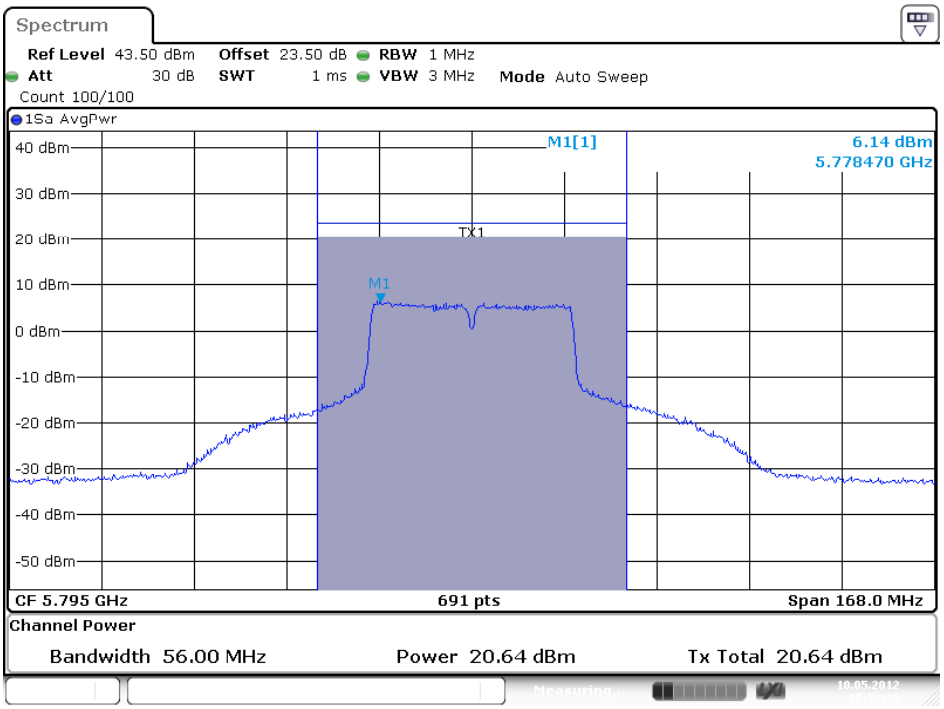
Date: 10.MAY.2012 19:47:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (1TX)



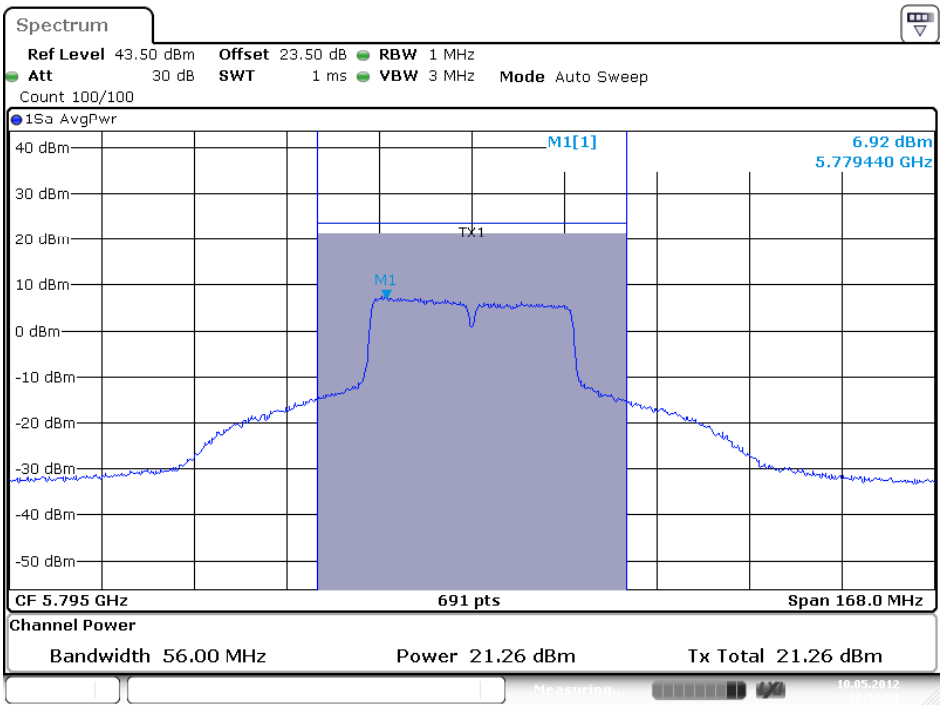
Date: 10.MAY.2012 17:51:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (2TX)



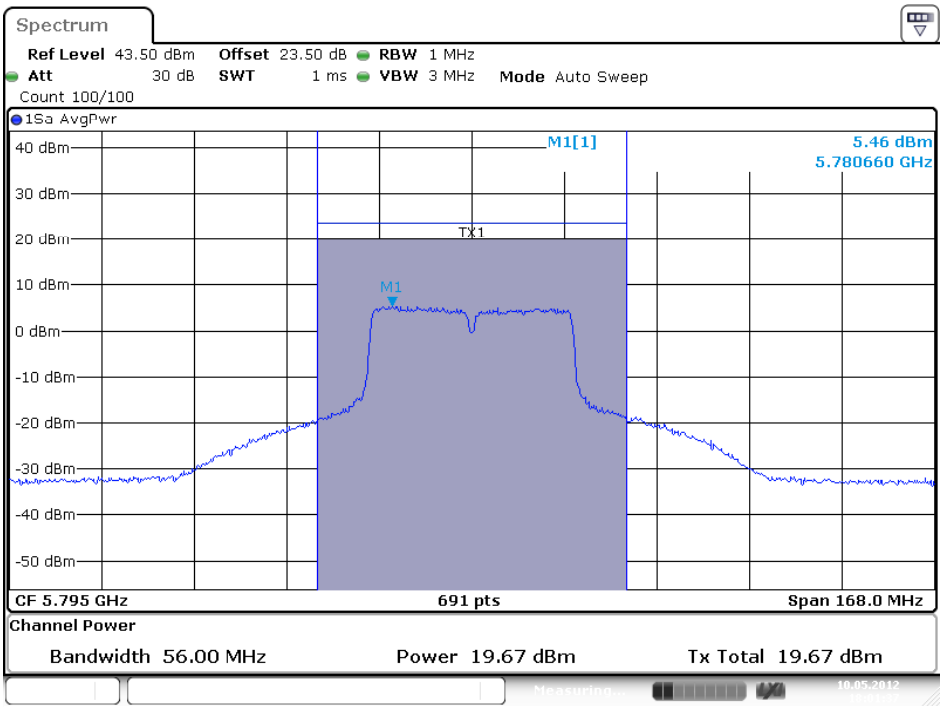
Date: 10.MAY.2012 17:52:39

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (2TX)



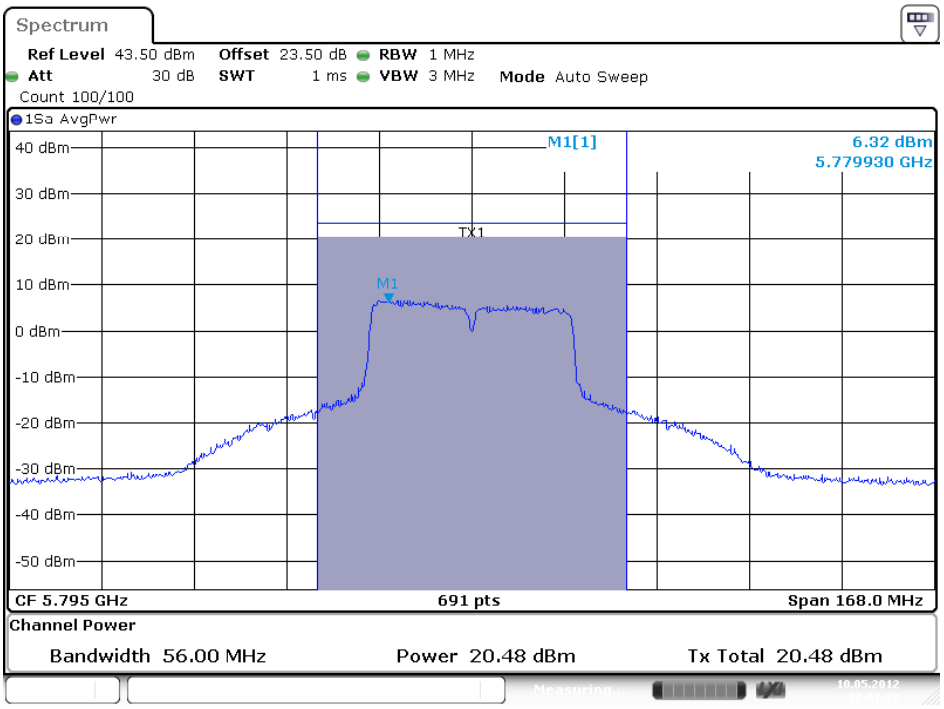
Date: 10.MAY.2012 17:53:01

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (2TX)



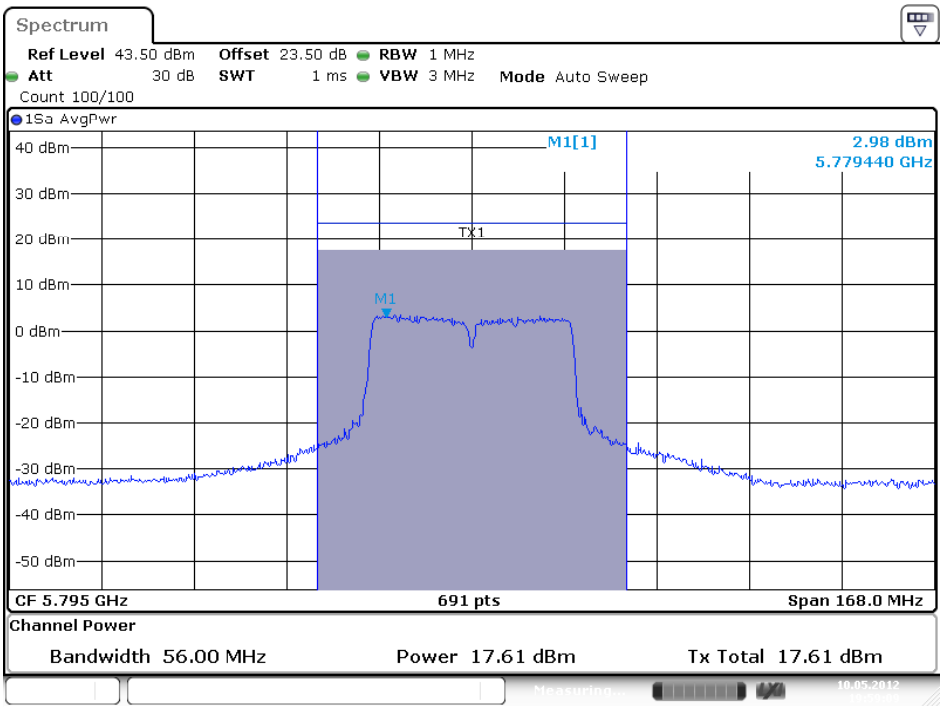
Date: 10.MAY.2012 18:01:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (2TX)



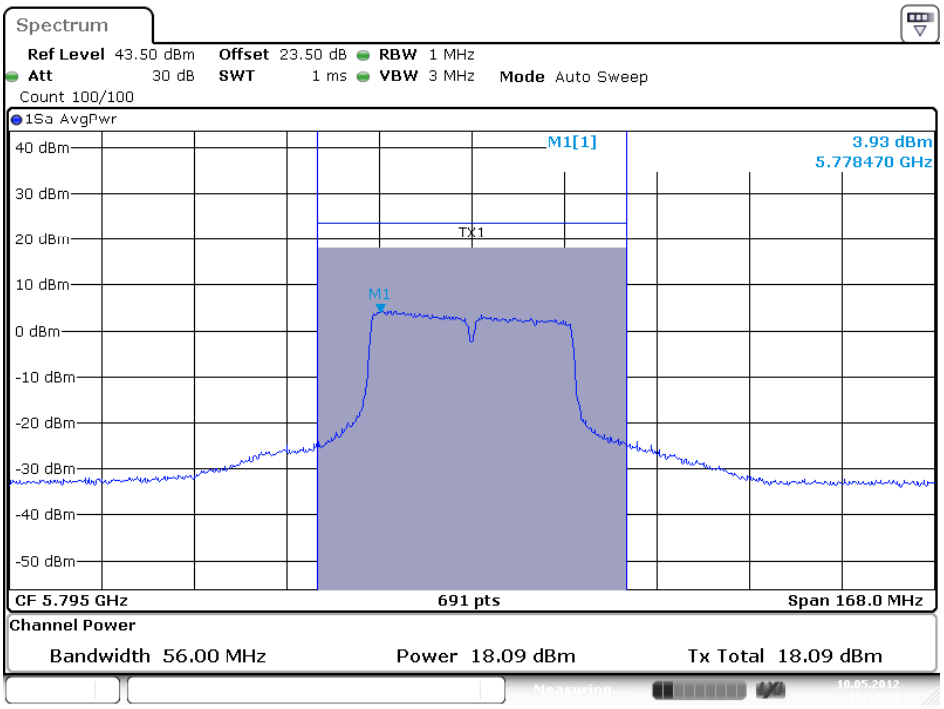
Date: 10.MAY.2012 18:01:20

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (3TX)



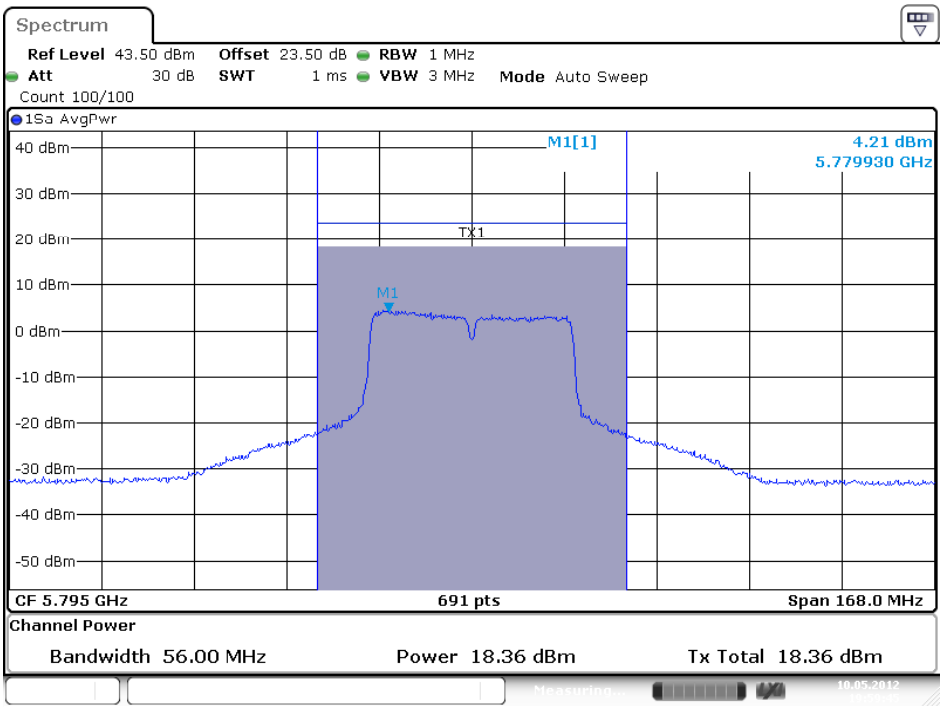
Date: 10.MAY.2012 19:59:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (3TX)



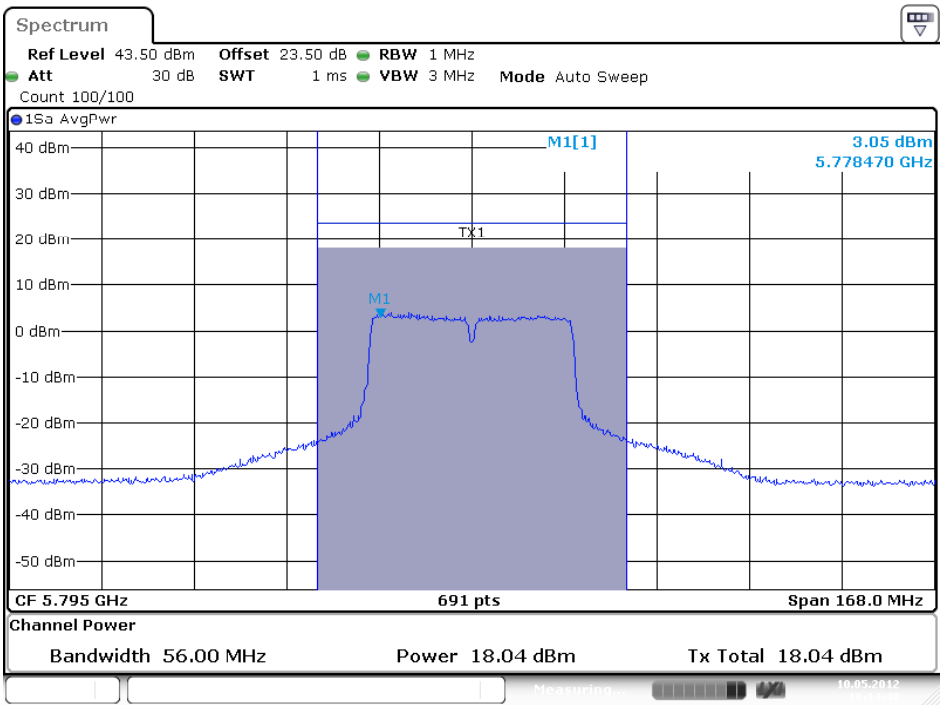
Date: 10.MAY.2012 19:59:31

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 3 (3TX)



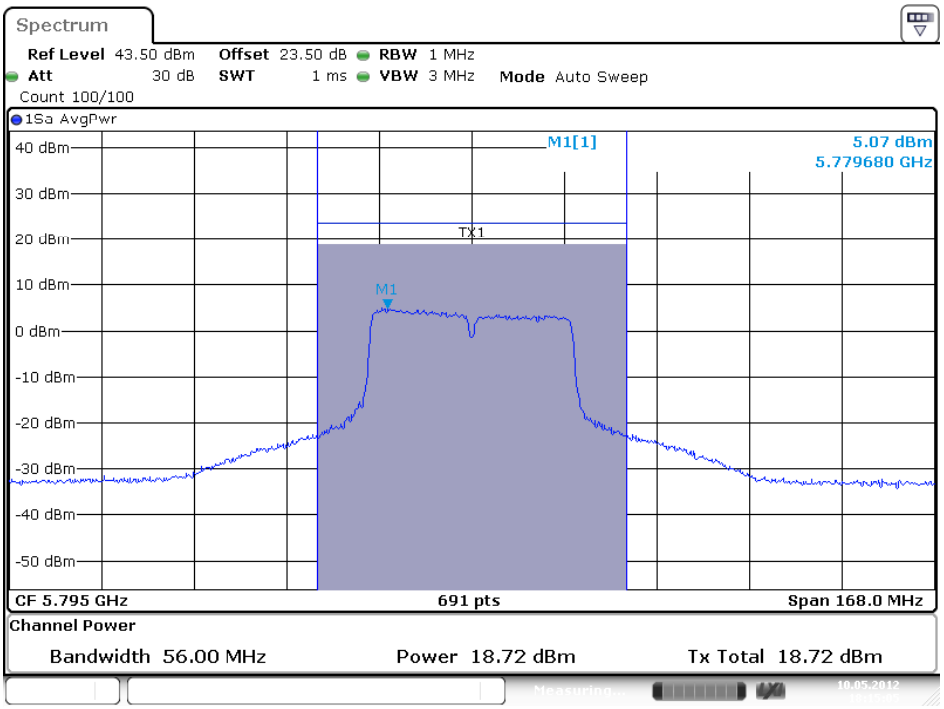
Date: 10.MAY.2012 19:59:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (3TX)



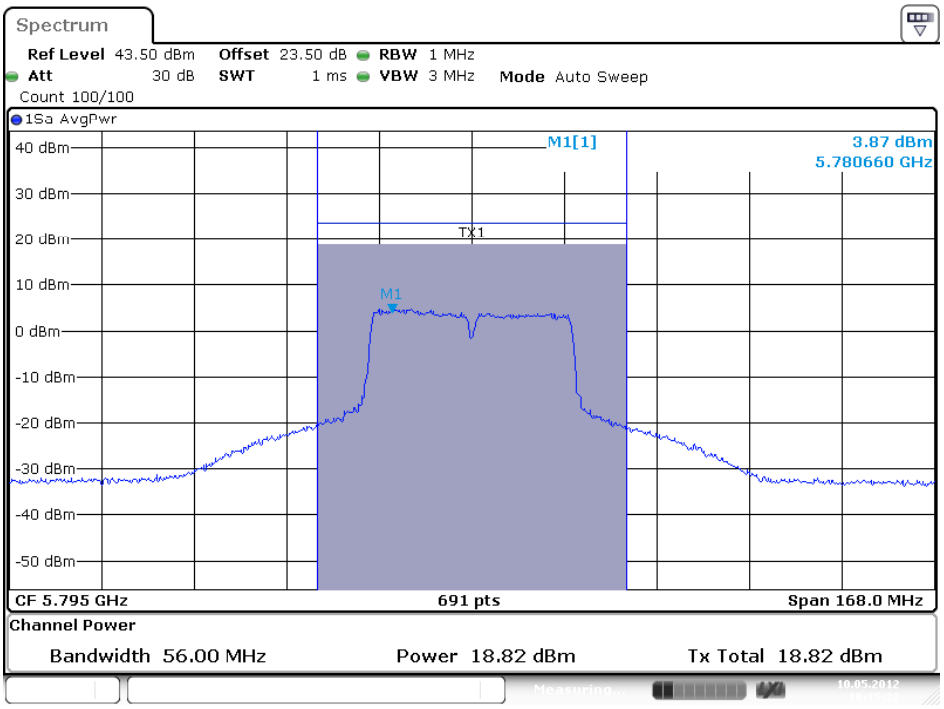
Date: 10.MAY.2012 18:14:48

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (3TX)



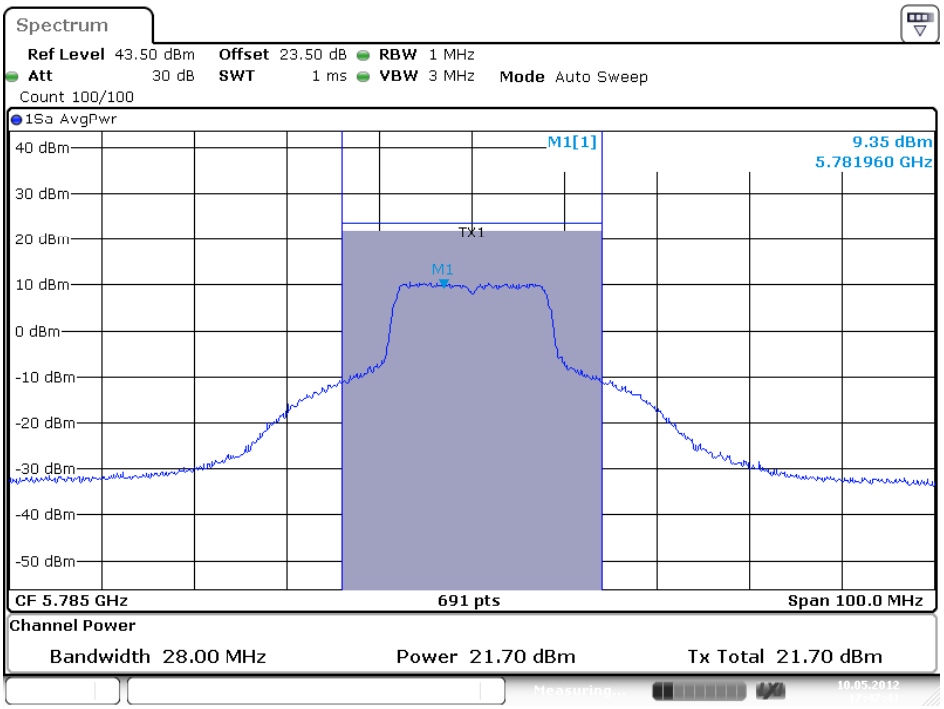
Date: 10.MAY.2012 18:15:05

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 3 (3TX)



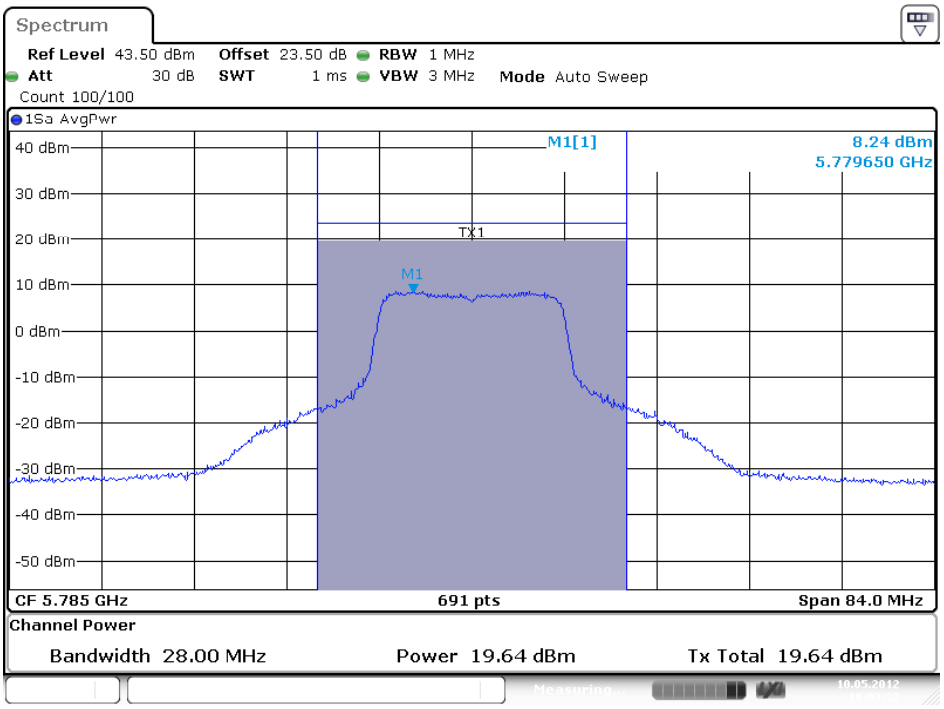
Date: 10.MAY.2012 18:15:22

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (1TX)



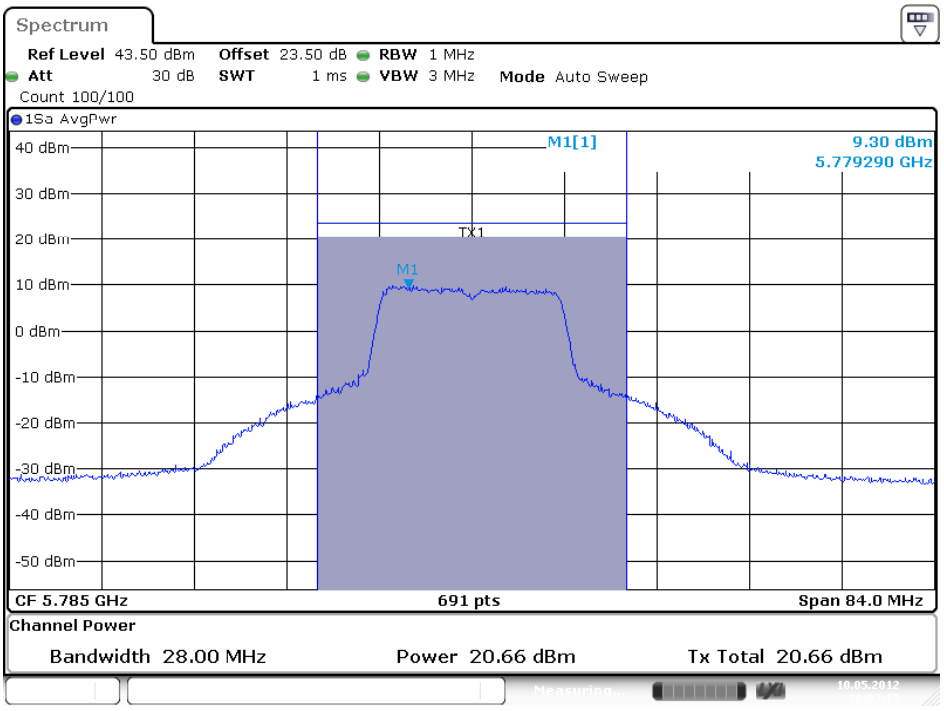
Date: 10.MAY.2012 17:47:41

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (2TX)



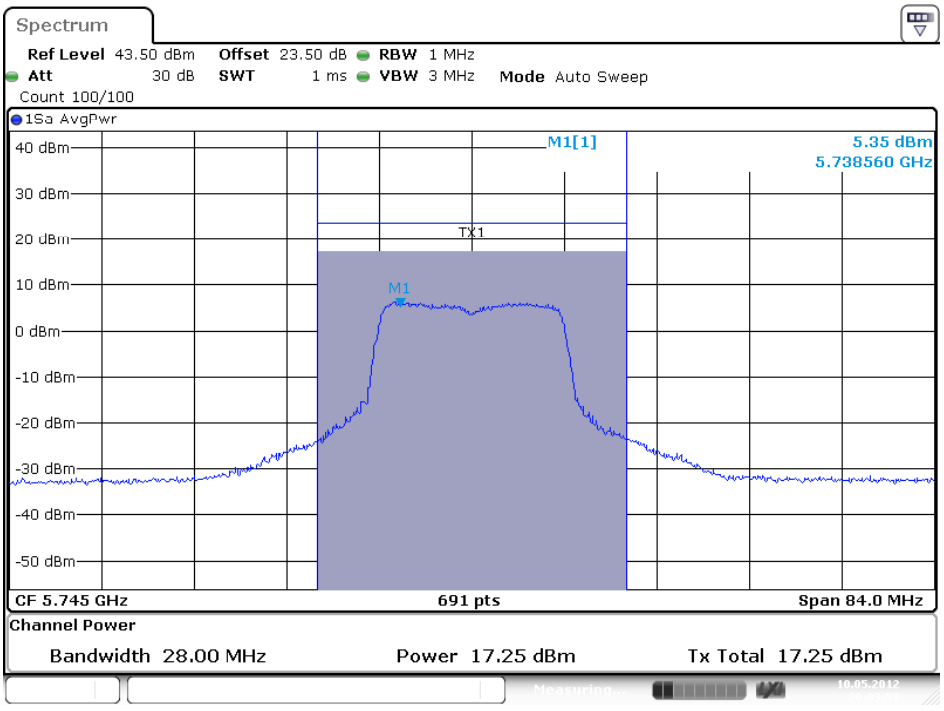
Date: 10.MAY.2012 18:03:33

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (2TX)



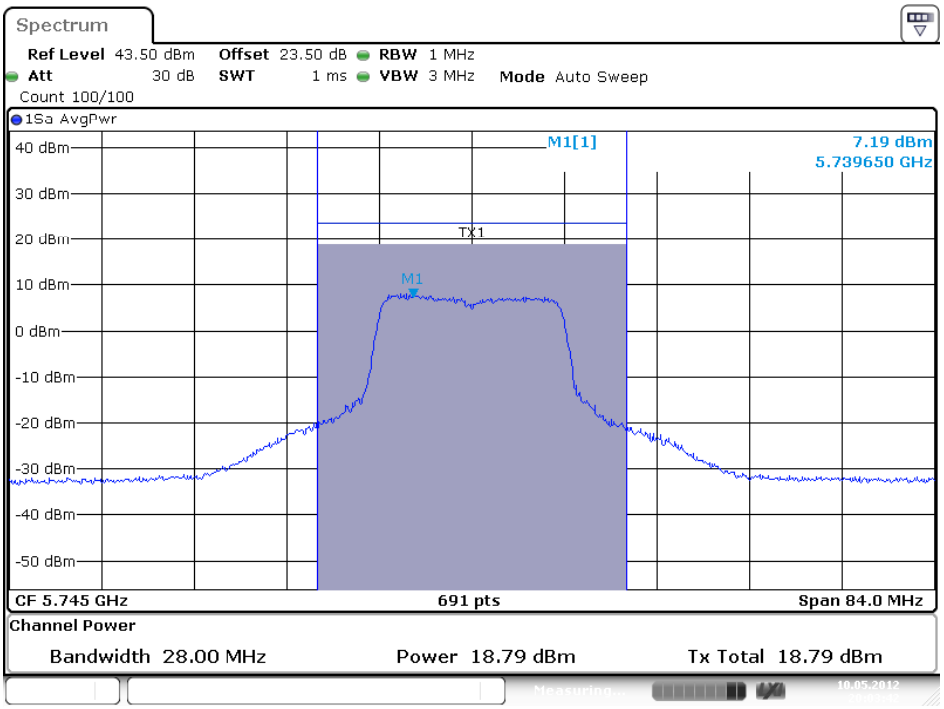
Date: 10.MAY.2012 18:03:15

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 1 (3TX)



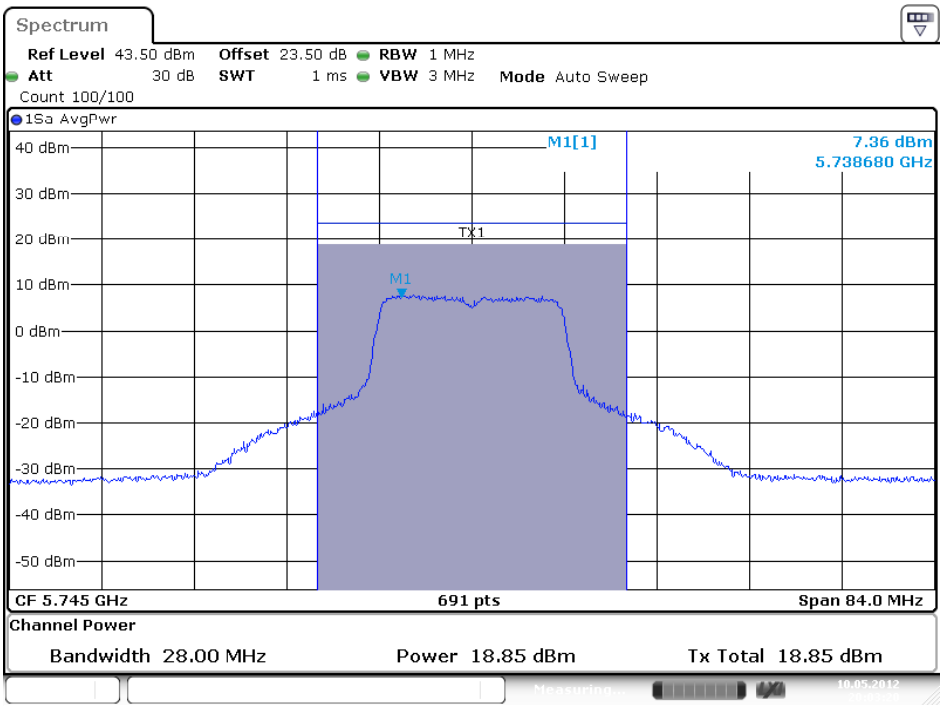
Date: 10.MAY.2012 20:03:59

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 2 (3TX)



Date: 10.MAY.2012 20:03:43

Conducted Output Power Plot on Configuration IEEE 802.11a / 5745 MHz/ Chain 3 (3TX)



Date: 10.MAY.2012 20:03:21

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 10 (Ant. 5 Facade antenna / 2.5dBi)		

1TX

Configuration 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.33	30.00	Complies
157	5785 MHz	21.53	30.00	Complies
165	5825 MHz	20.48	30.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	18.24	30.00	Complies
159	5795 MHz	20.77	30.00	Complies

2TX

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	20.05	21.32	23.74	30.00	Complies
157	5785 MHz	20.17	21.23	23.74	30.00	Complies
165	5825 MHz	19.85	20.56	23.23	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	18.84	20.06	22.50	30.00	Complies
159	5795 MHz	20.64	21.26	23.97	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	19.42	20.86	23.21	30.00	Complies
157	5785 MHz	19.84	20.82	23.37	30.00	Complies
165	5825 MHz	19.61	20.45	23.06	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)		Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
151	5755 MHz	18.63	19.92	22.33	30.00	Complies
159	5795 MHz	19.67	20.48	23.10	30.00	Complies

3TX

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	17.77	19.31	19.42	23.67	28.73	Complies
157	5785 MHz	18.09	19.16	19.02	23.55	28.73	Complies
165	5825 MHz	17.67	18.56	18.67	23.09	28.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	16.90	18.33	18.79	22.85	28.73	Complies
159	5795 MHz	17.88	18.71	18.80	23.25	28.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	18.36	19.77	19.78	24.12	30.00	Complies
157	5785 MHz	17.82	18.98	18.96	23.39	30.00	Complies
165	5825 MHz	17.56	18.38	18.43	22.91	30.00	Complies

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

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
151	5755 MHz	18.08	19.26	19.22	23.66	30.00	Complies
159	5795 MHz	18.04	18.72	18.82	23.31	30.00	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a
Test Mode	Mode 10 (Ant. 5 Facade antenna / 2.5dBi)		

1TX

Configuration IEEE 802.11a / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	20.98	30.00	Complies
157	5785 MHz	21.70	30.00	Complies
165	5825 MHz	21.47	30.00	Complies

2TX

Configuration IEEE 802.11a / Chain 1 + Chain 2

Channel	Frequency	Conducted Power (dBm)		Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
149	5745 MHz	19.39	20.84	23.19	30.00	Complies
157	5785 MHz	19.64	20.66	23.19	30.00	Complies
165	5825 MHz	19.41	20.08	22.77	30.00	Complies

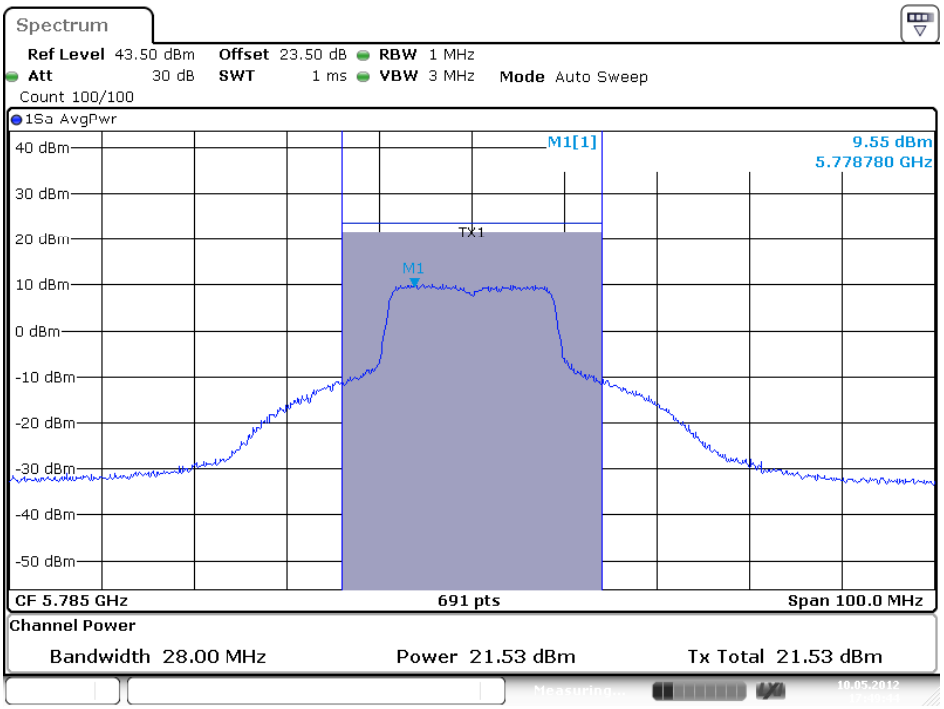
3TX

Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Channel Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
149	5745 MHz	18.01	19.58	19.52	23.87	28.73	Complies
157	5785 MHz	18.40	19.63	19.57	24.01	28.73	Complies
165	5825 MHz	18.59	19.36	19.29	23.86	28.73	Complies

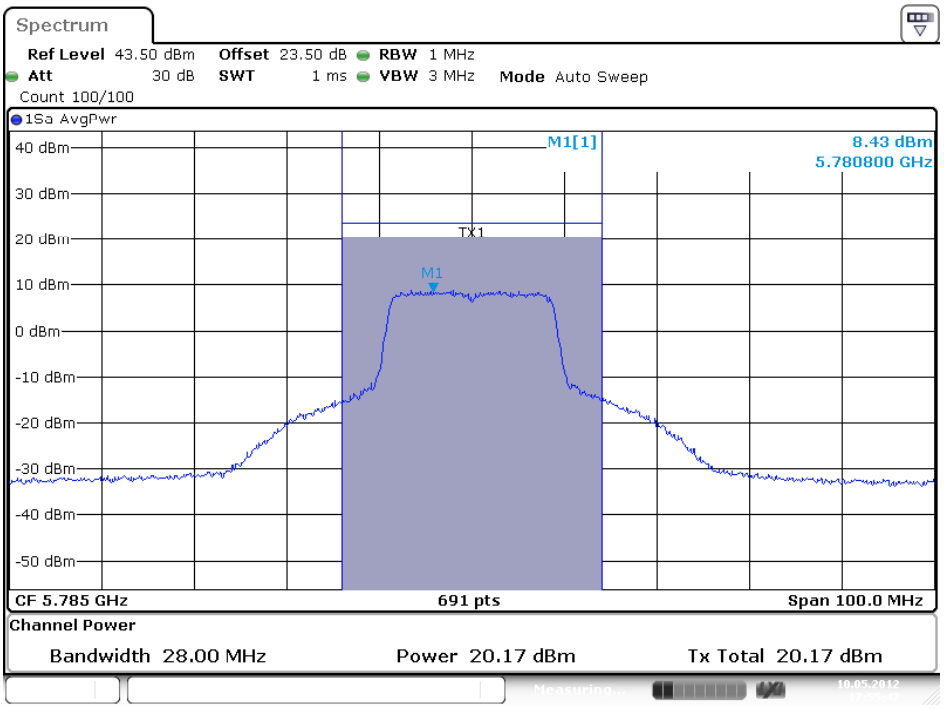
Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the conducted power limit =30-(7.27-6)=28.73dBm.

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz / Chain. 1 (1TX)



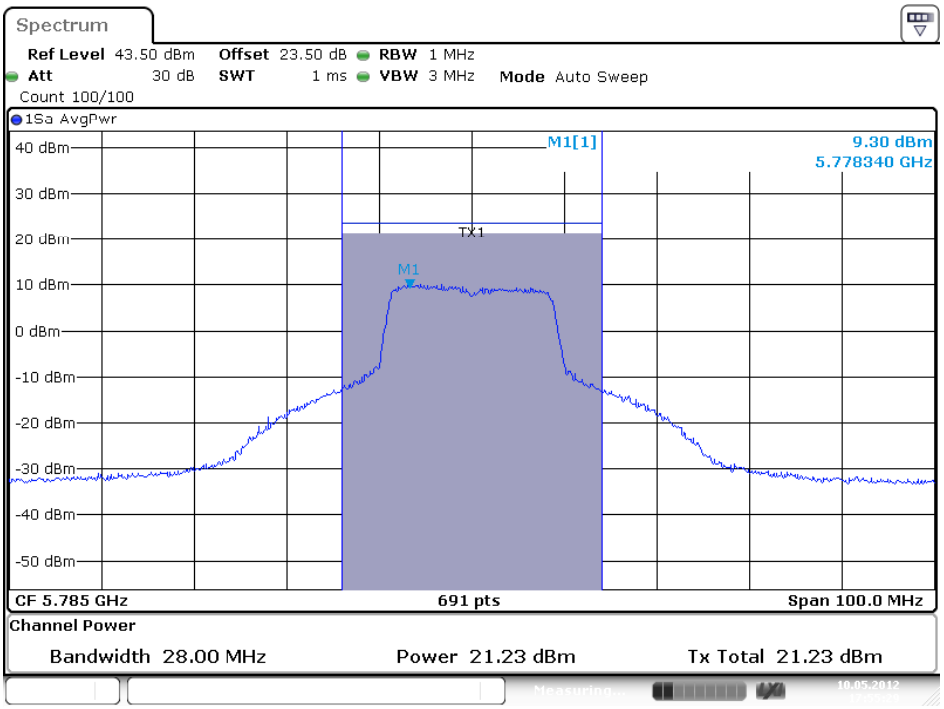
Date: 10.MAY.2012 17:49:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 1 (2TX)



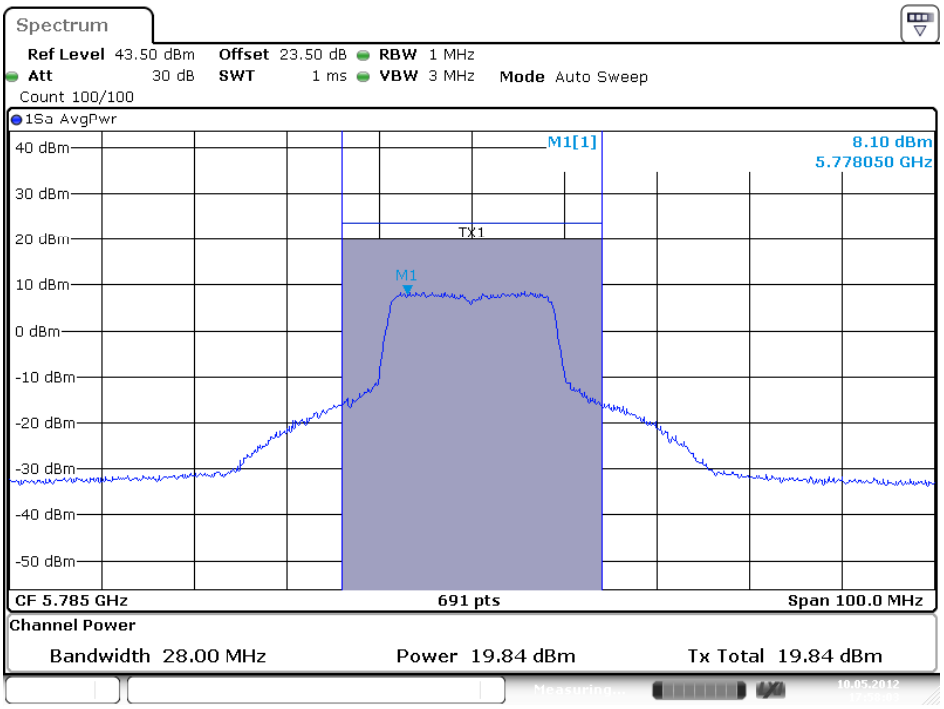
Date: 10.MAY.2012 17:55:47

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5785 MHz/ Chain 2 (2TX)



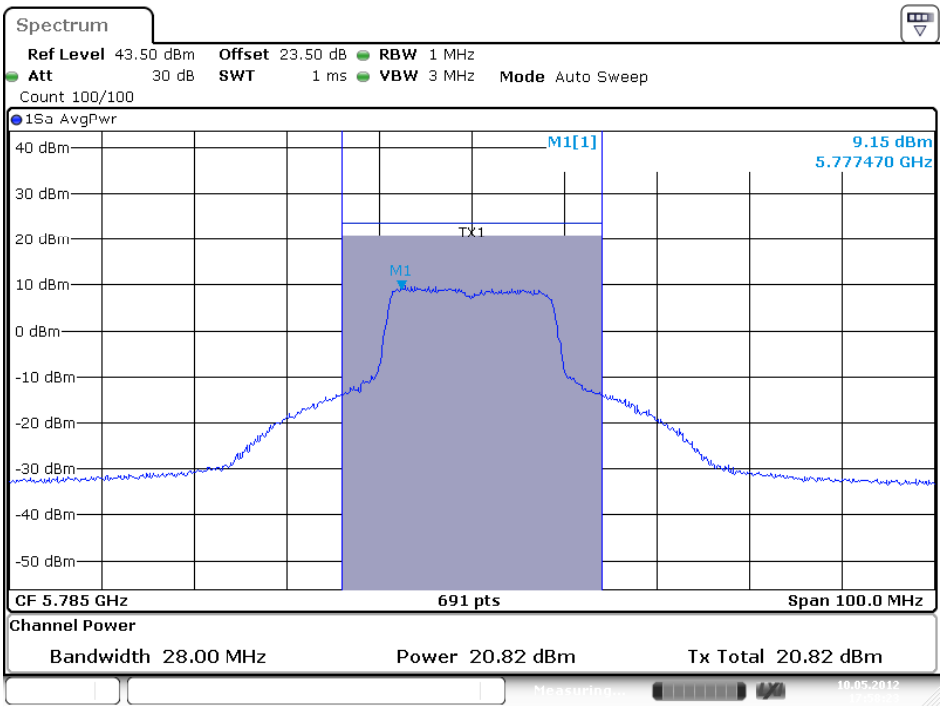
Date: 10.MAY.2012 17:55:30

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 1 (2TX)



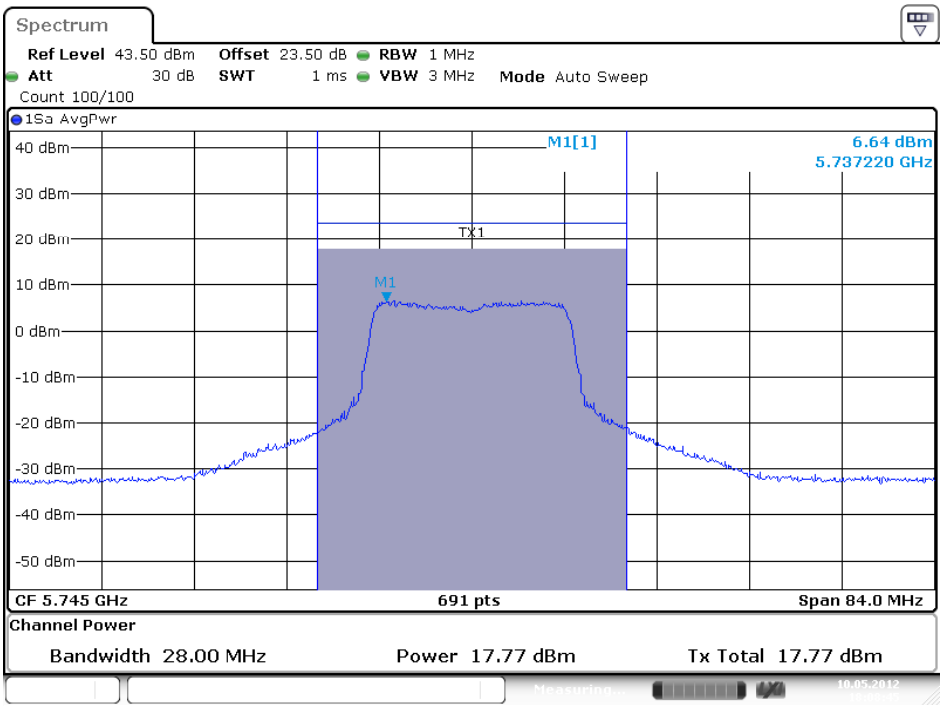
Date: 10.MAY.2012 17:58:04

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5785 MHz/ Chain 2 (2TX)



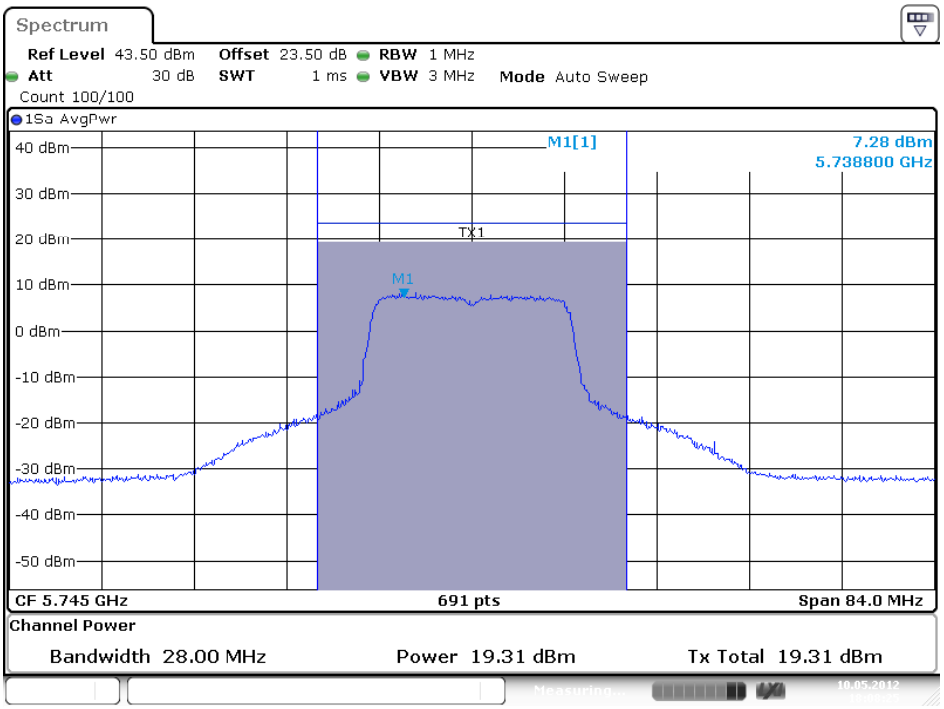
Date: 10.MAY.2012 17:58:23

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 1 (3TX)



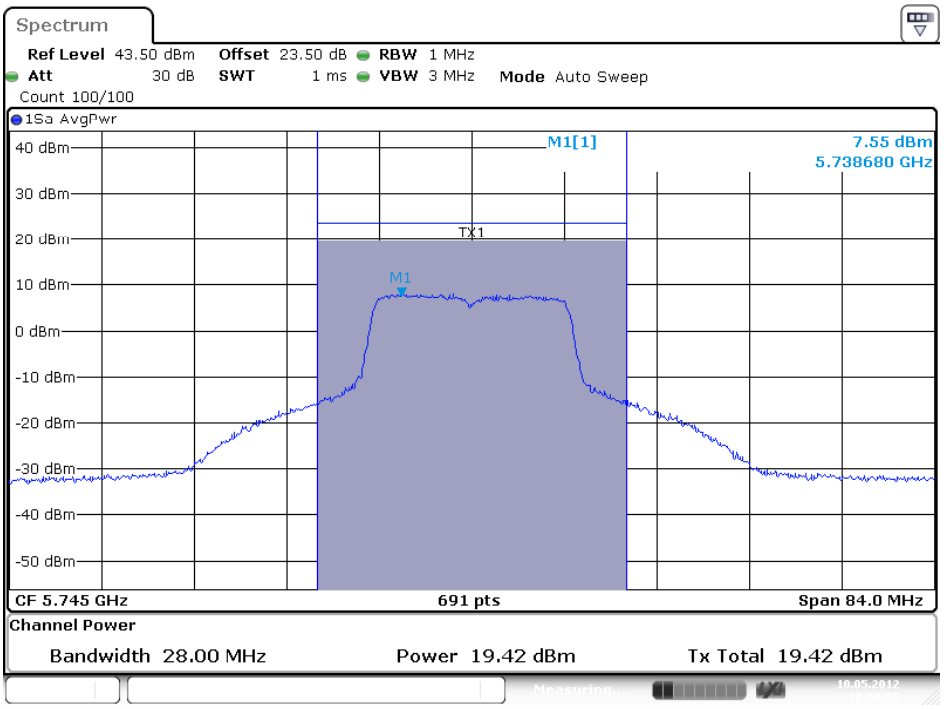
Date: 10.MAY.2012 18:08:45

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 2 (3TX)



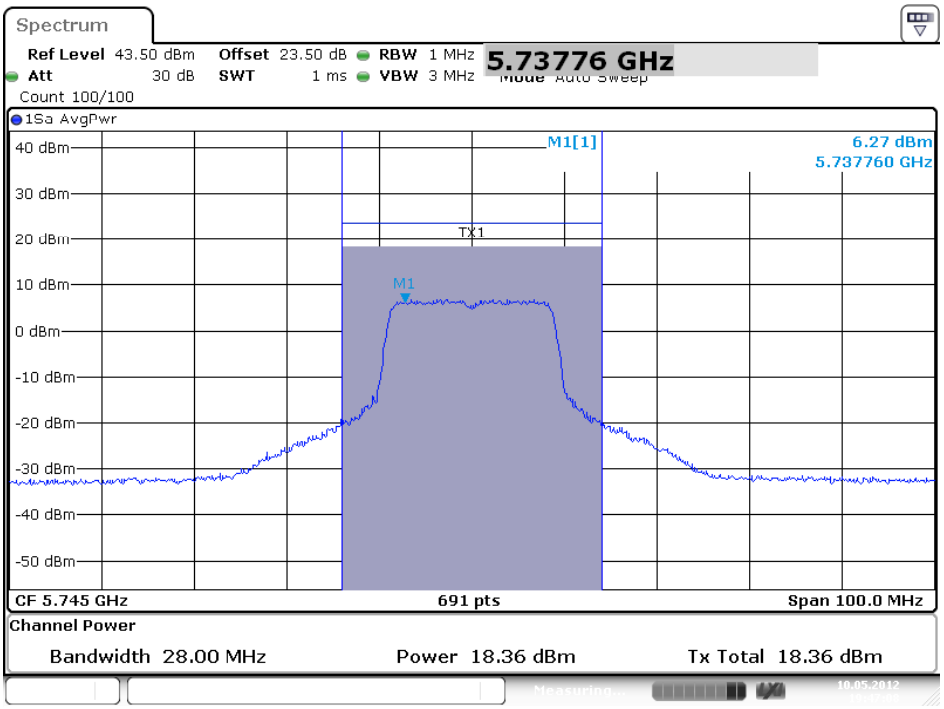
Date: 10.MAY.2012 18:08:25

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 20MHz / 5745 MHz/ Chain 3 (3TX)



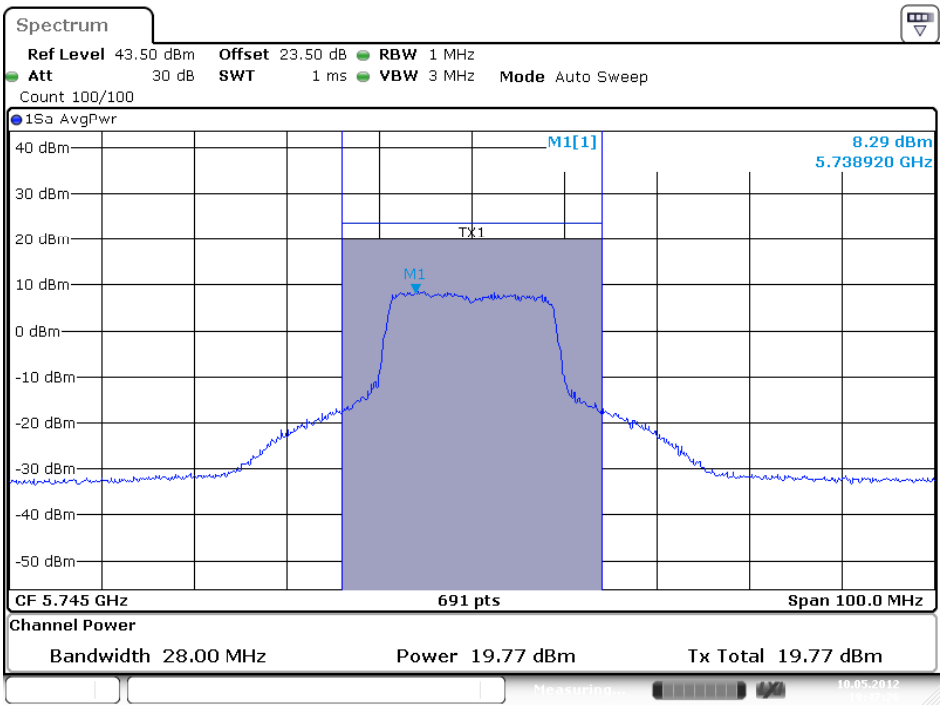
Date: 10.MAY.2012 18:08:06

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 1 (3TX)



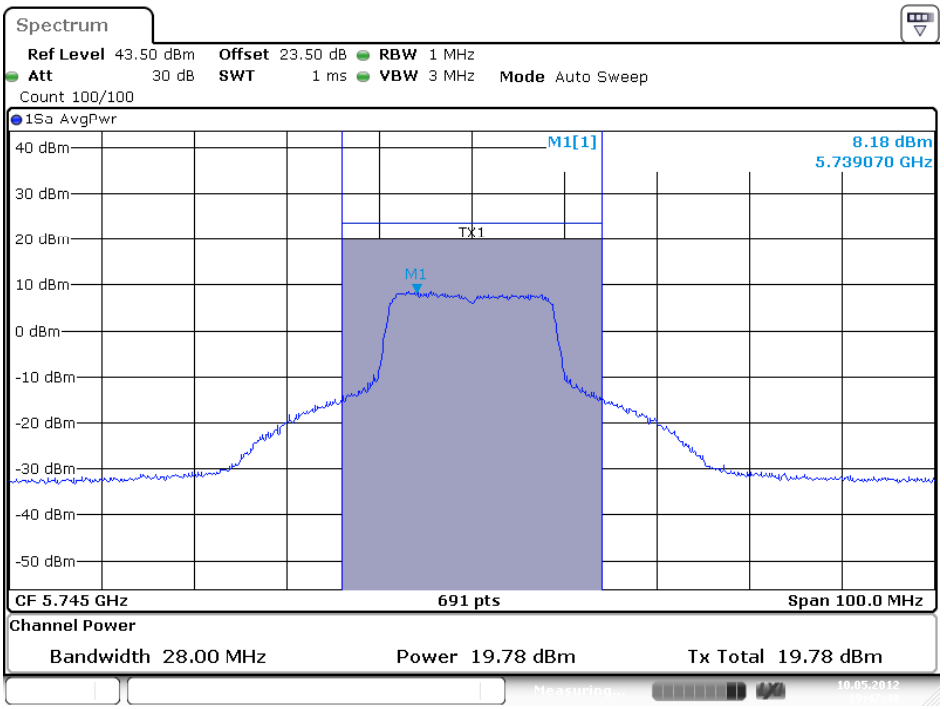
Date: 10.MAY.2012 19:47:09

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 2 (3TX)



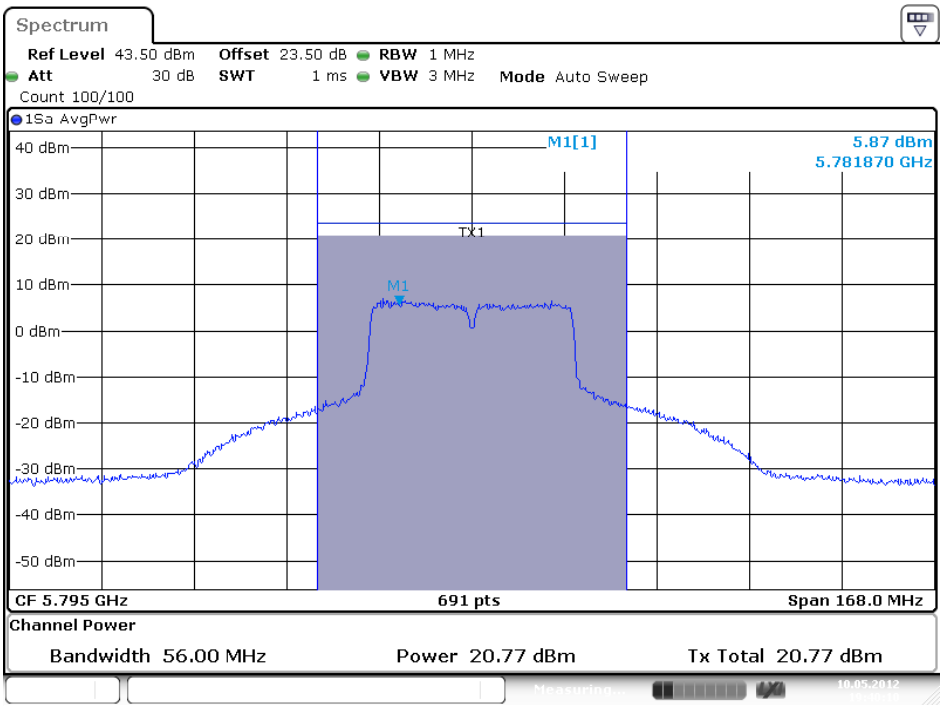
Date: 10.MAY.2012 19:47:27

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 20MHz / 5745 MHz/ Chain 3 (3TX)



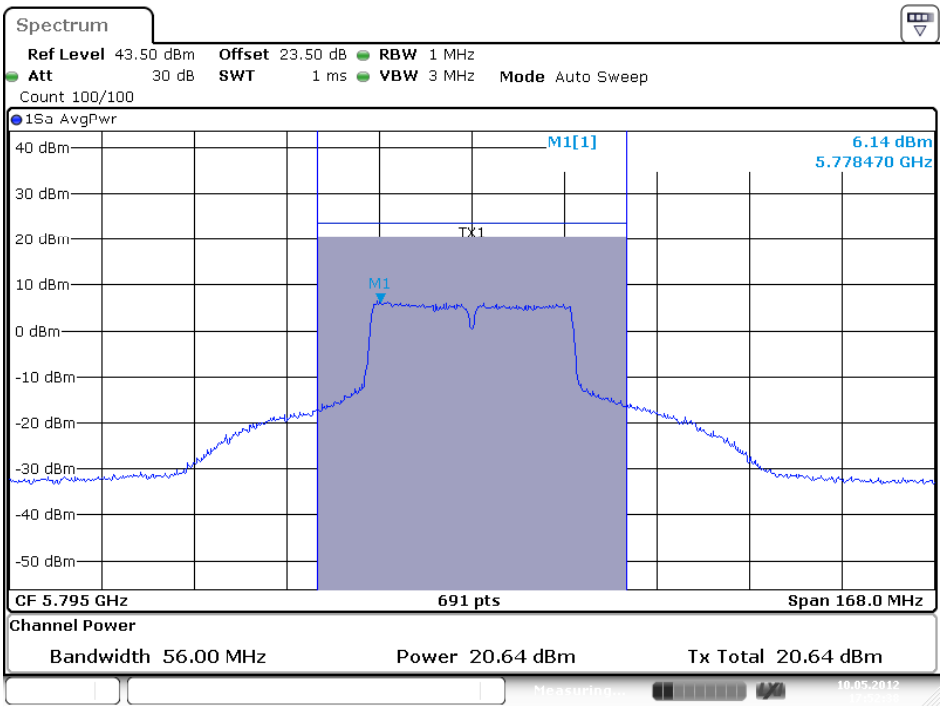
Date: 10.MAY.2012 19:47:40

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (1TX)



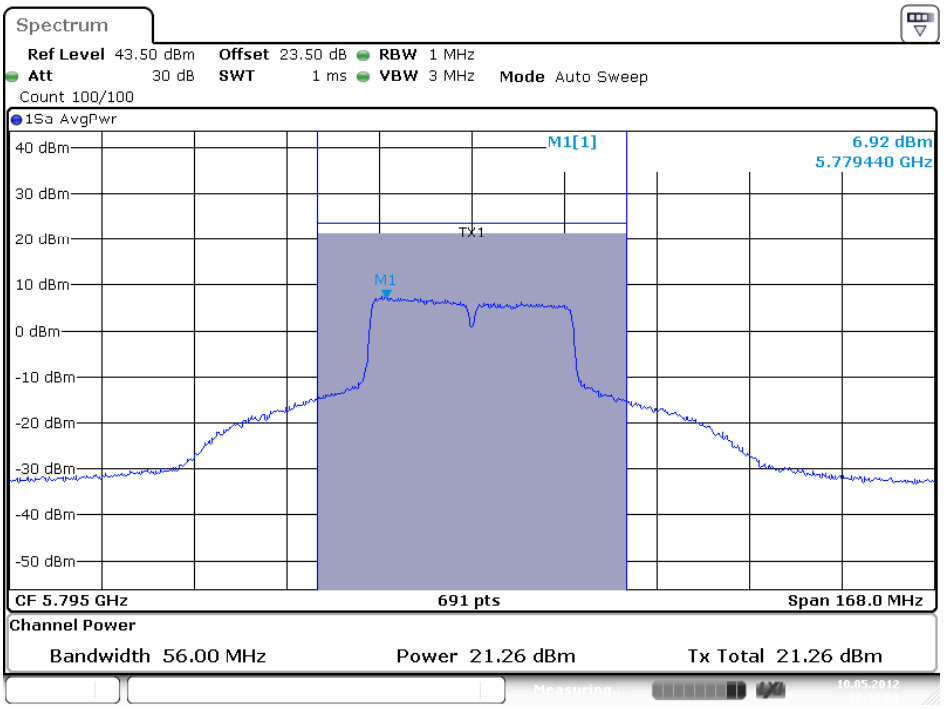
Date: 10.MAY.2012 19:40:10

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (2TX)



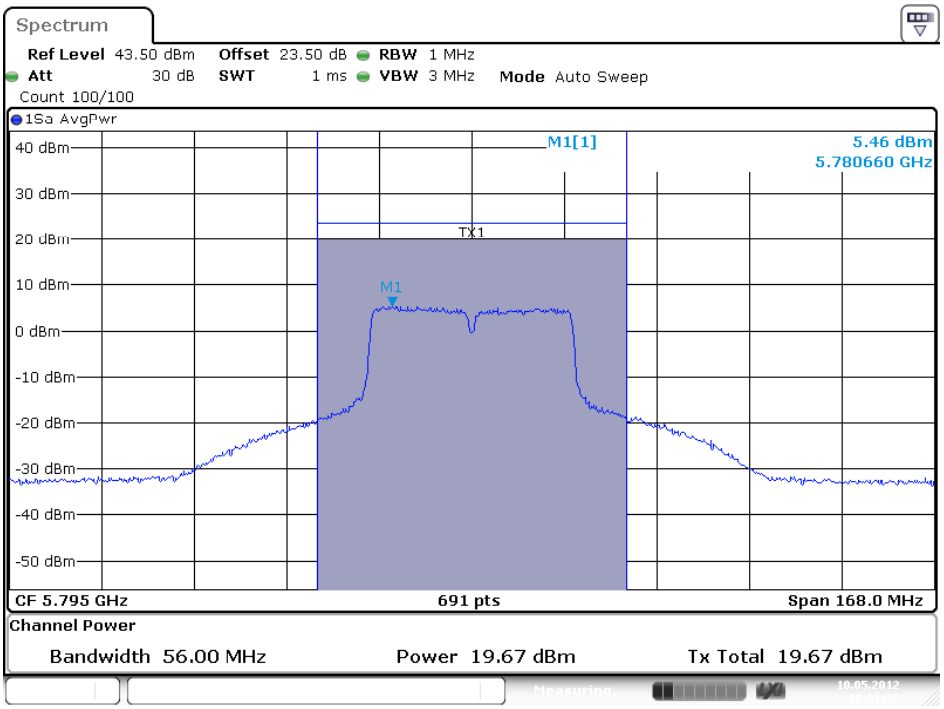
Date: 10.MAY.2012 17:52:39

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (2TX)



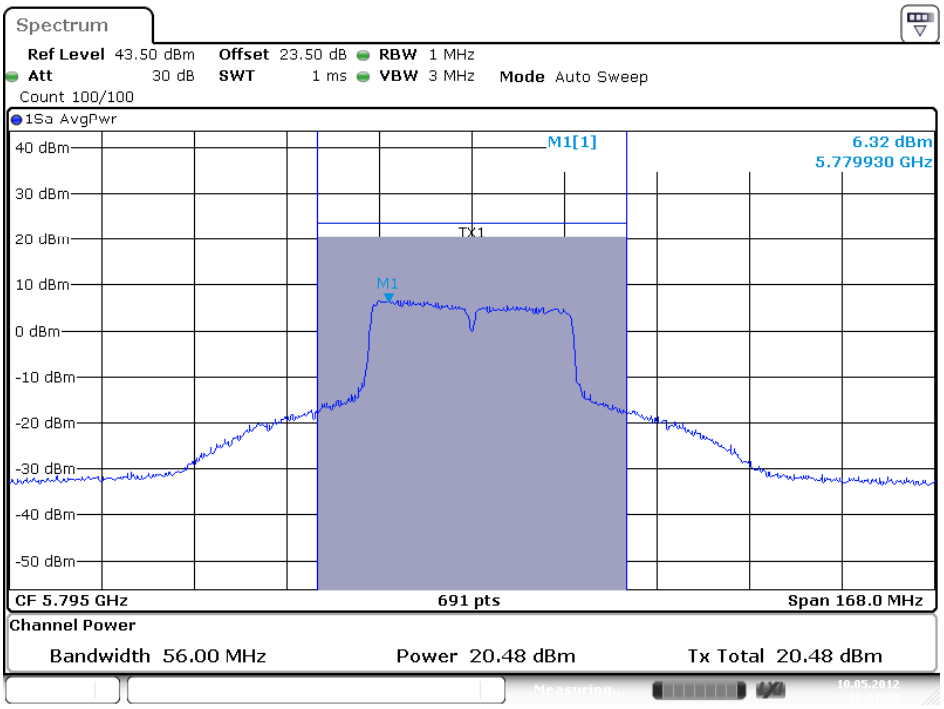
Date: 10.MAY.2012 17:53:01

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 1 (2TX)



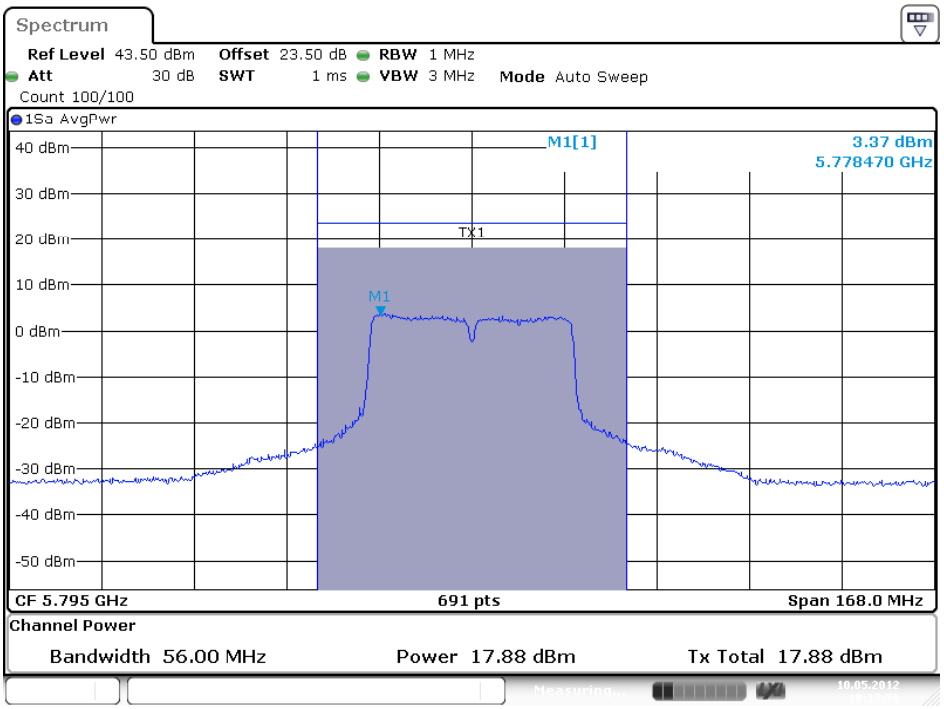
Date: 10.MAY.2012 18:01:37

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5795 MHz/ Chain 2 (2TX)



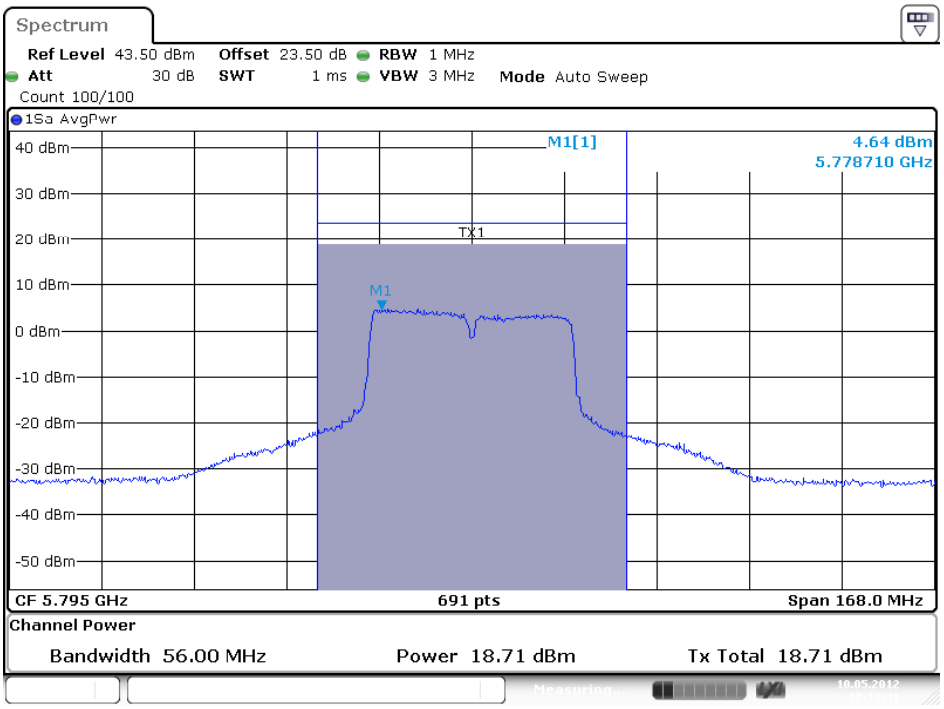
Date: 10.MAY.2012 18:01:20

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 1 (3TX)



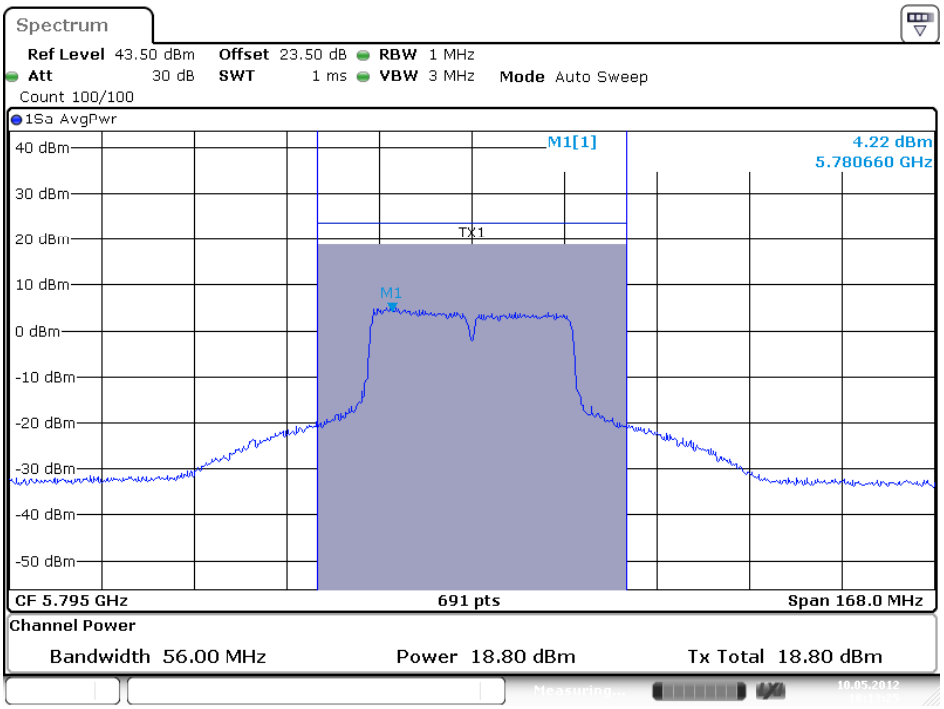
Date: 10.MAY.2012 18:13:56

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 2 (3TX)



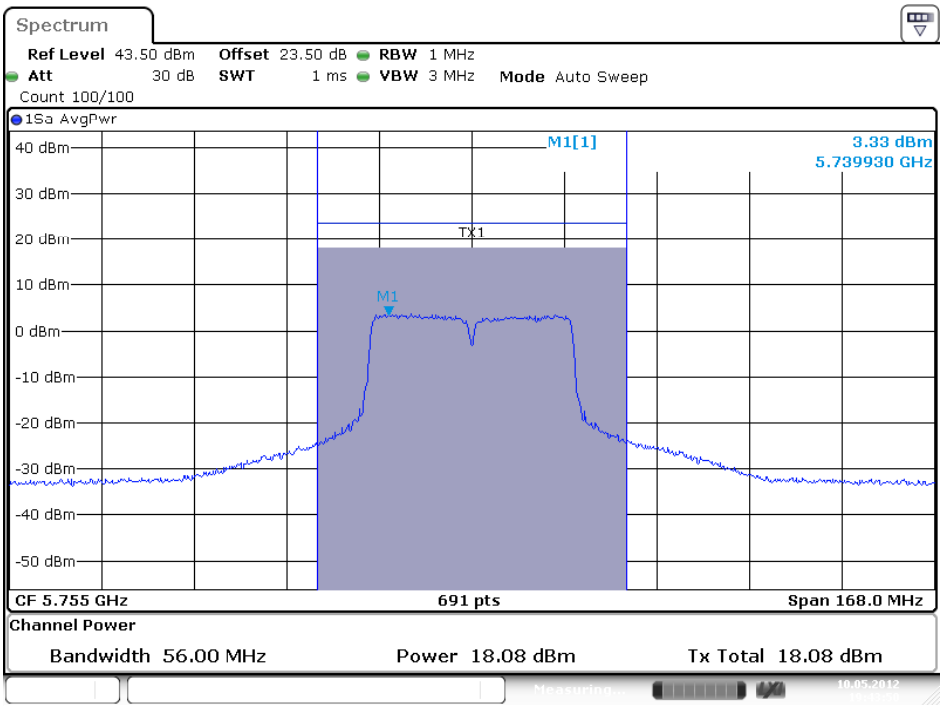
Date: 10.MAY.2012 18:13:41

Conducted Output Power Plot on Configuration IEEE 802.11n MCS0 40MHz / 5795 MHz/ Chain 3 (3TX)



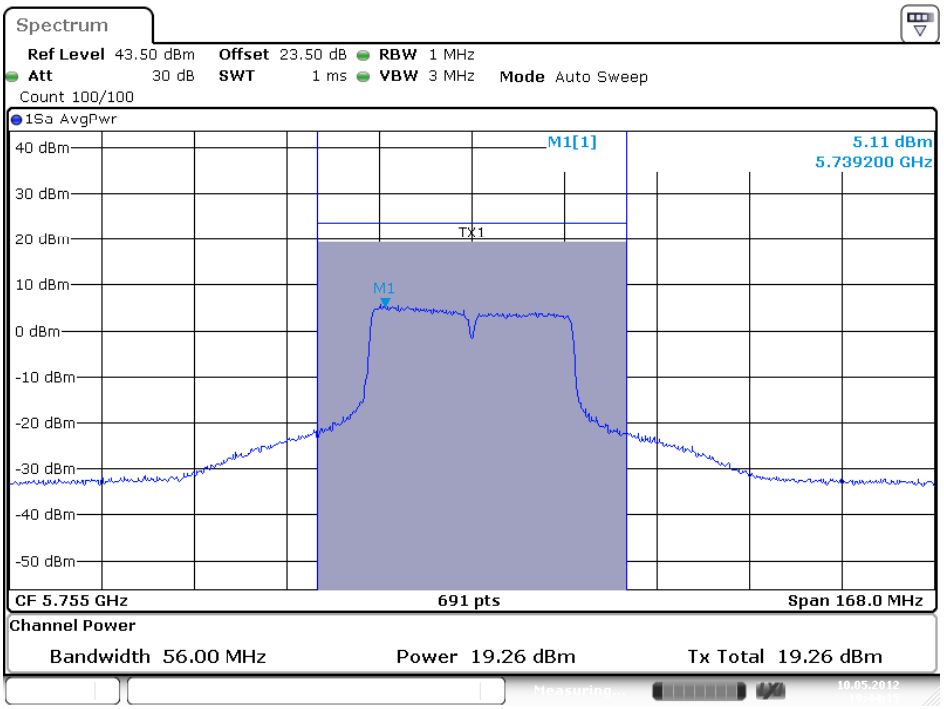
Date: 10.MAY.2012 18:13:26

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5755 MHz/ Chain 1 (3TX)



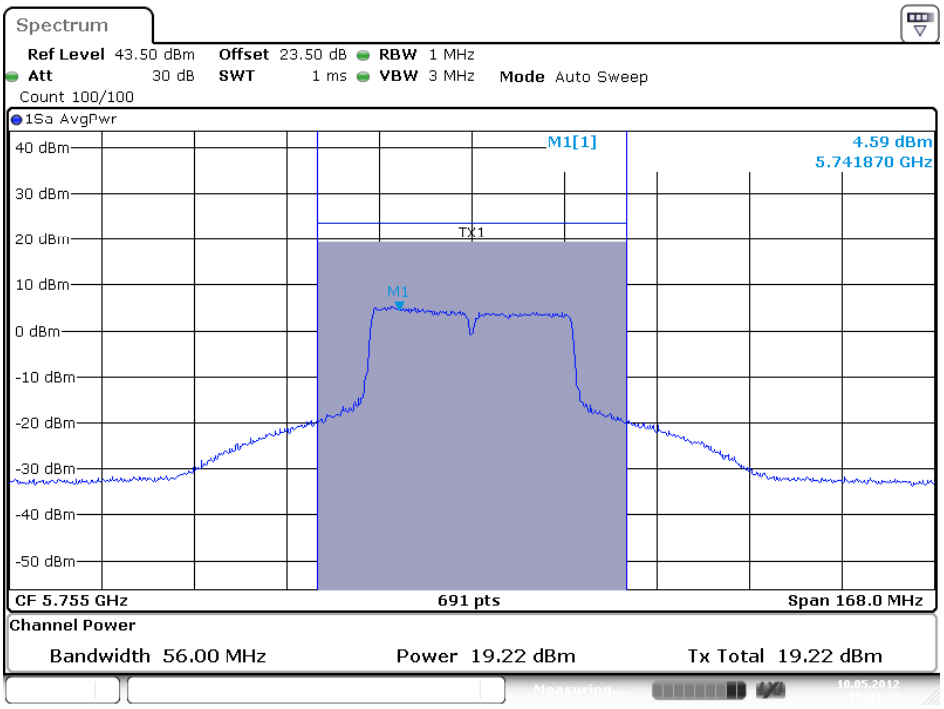
Date: 10.MAY.2012 19:43:51

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5755 MHz/ Chain 2 (3TX)



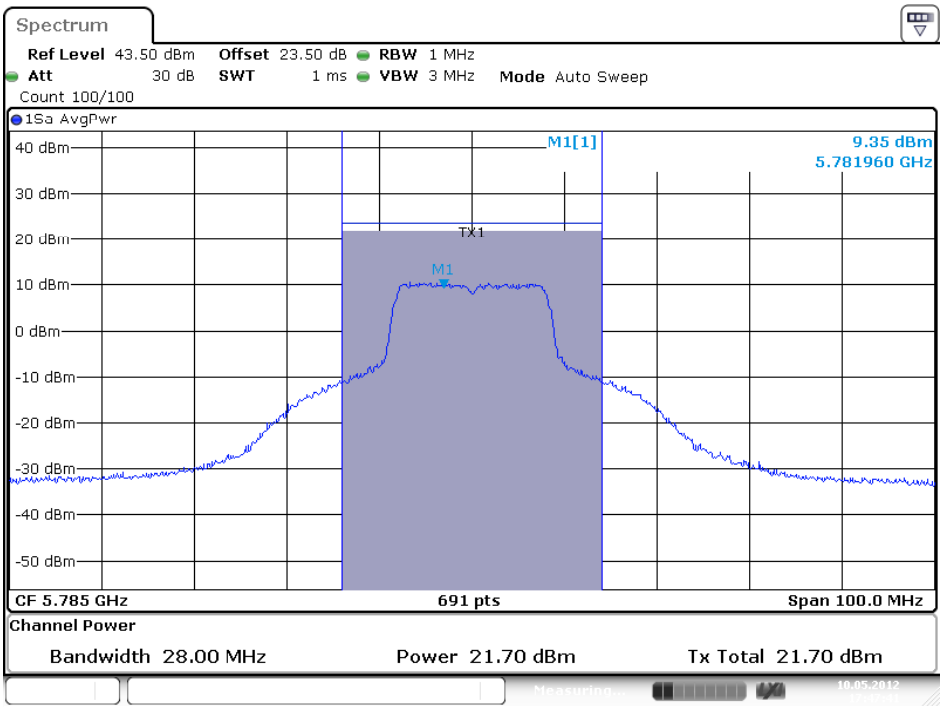
Date: 10.MAY.2012 19:44:15

Conducted Output Power Plot on Configuration IEEE 802.11n MCS8 40MHz / 5755 MHz/ Chain 3 (3TX)



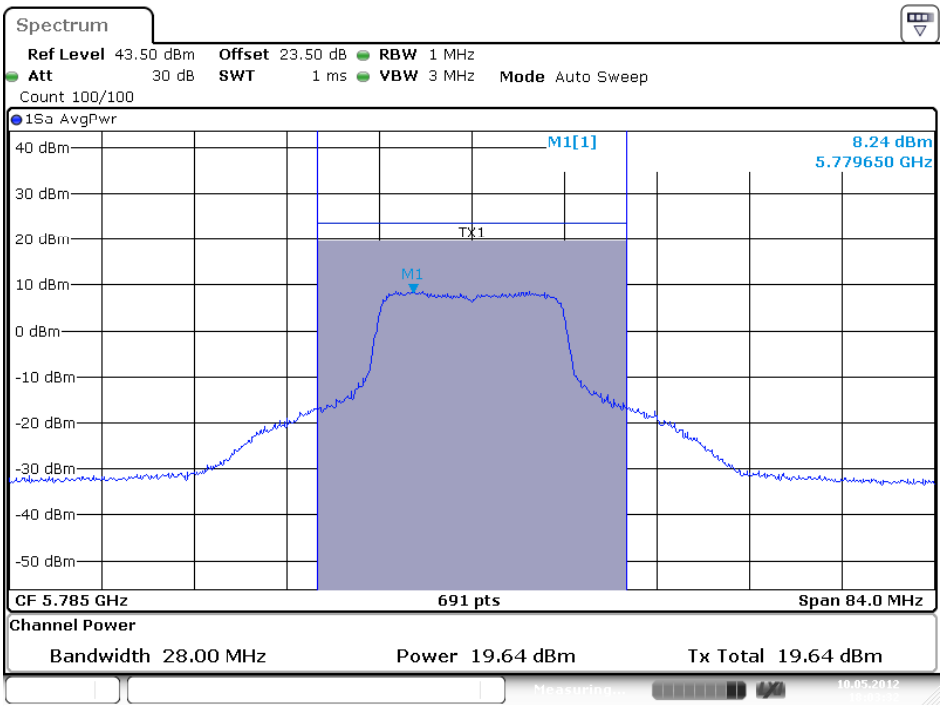
Date: 10.MAY.2012 19:44:34

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (1TX)



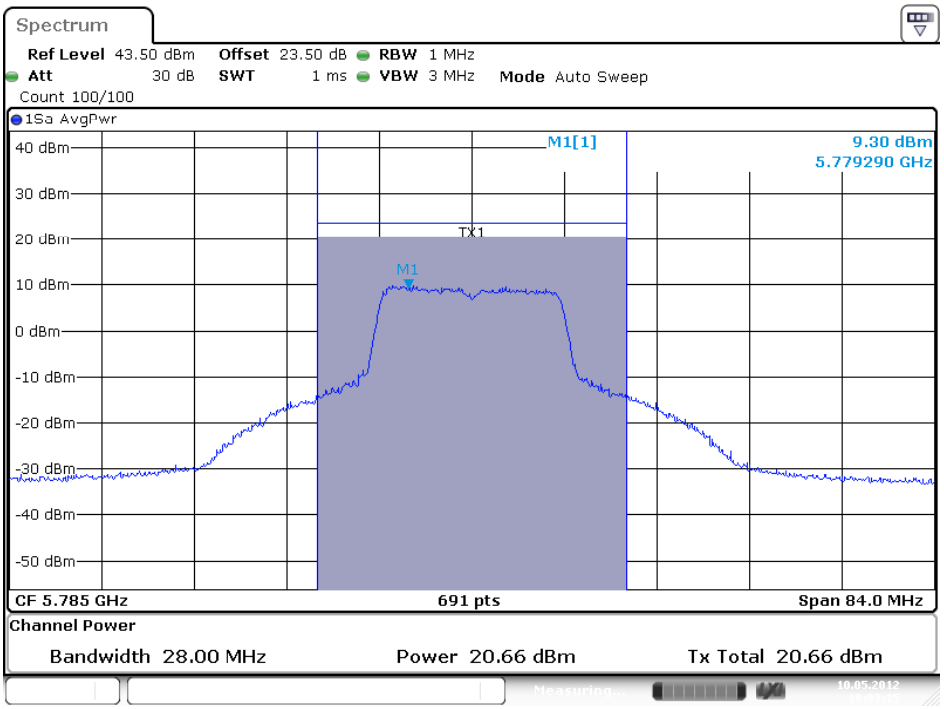
Date: 10.MAY.2012 17:47:41

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (2TX)



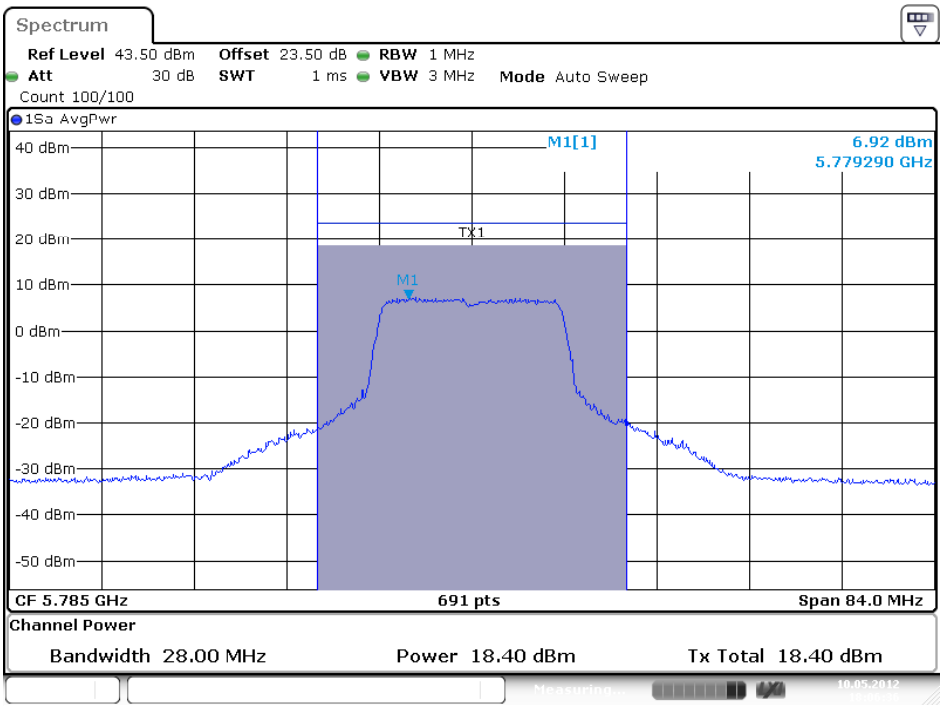
Date: 10.MAY.2012 18:03:33

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (2TX)



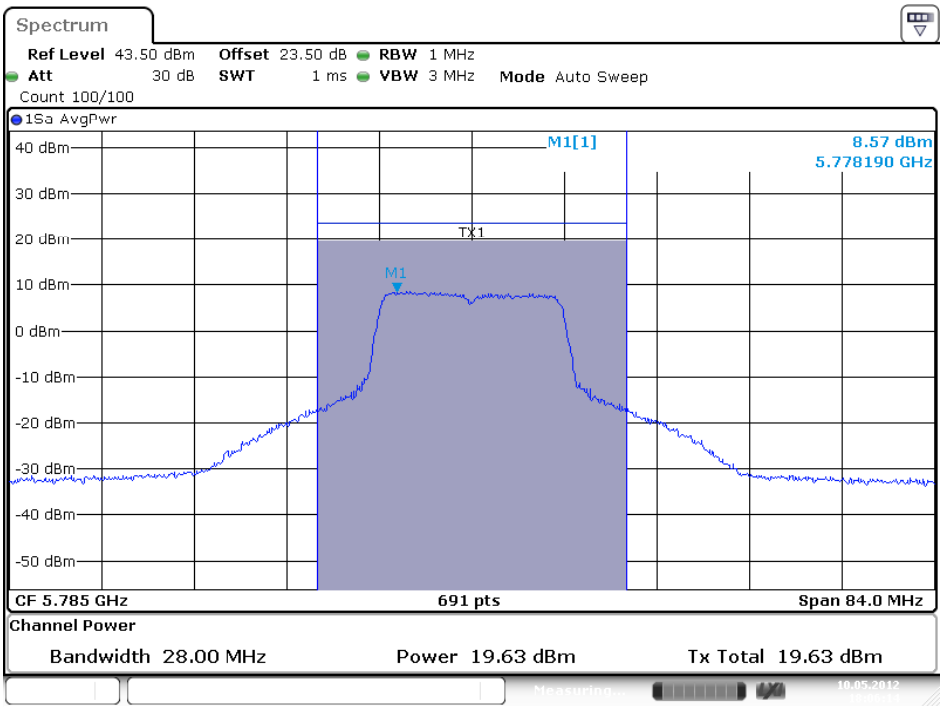
Date: 10.MAY.2012 18:03:15

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 1 (3TX)



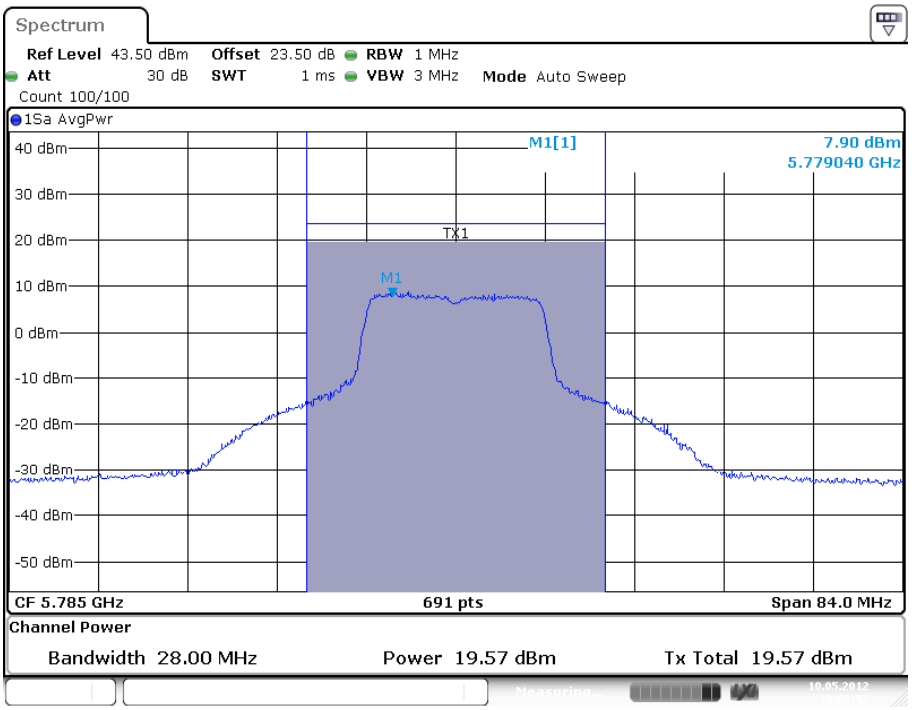
Date: 10.MAY.2012 18:06:36

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 2 (3TX)



Date: 10.MAY.2012 18:06:14

Conducted Output Power Plot on Configuration IEEE 802.11a / 5785 MHz/ Chain 3 (3TX)



Date: 10.MAY.2012 18:05:57

4.3. Power Spectral Density Measurement

4.3.1. Limit

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

4.3.2. Measuring Instruments and Setting

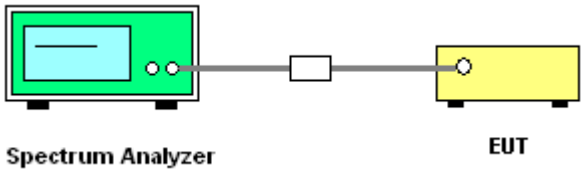
Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Set the analyzer span to 5-30% greater than the EBW.
RB	100 kHz
VB	300 kHz
Detector	RMS
Trace	Single Sweep
Sweep Time	≥ 10 x (number of measurement points in sweep) x (transmission symbol period).

4.3.3. Test Procedures

1. Test was performed in accordance with KDB 558074 Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 5.3.2 Multiple antenna systems was performed in accordance with KDB 662911 in-Band Power Spectral Density (PSD) Measurements(2) Measure and add 10 log(N) dB (as described in the preceding section).
2. Use this procedure when the maximum conducted output power in the fundamental emission is used to demonstrate compliance. The EUT must be configured to transmit continuously at full power over the measurement duration.
3. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW (use of a greater number of measurement points than this minimum requirement is recommended).
4. Use the peak marker function to determine the maximum level in any 100 kHz band segment within the fundamental EBW.
5. Scale the observed power level to an equivalent level in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where: BWCF = 10log (3 kHz/100 kHz = -15.2 dB).
6. The resulting PSD level must be ≤ 8 dBm.
7. When measuring power spectral density with multiple antenna systems, add every result of the values by mathematic formula.

4.3.4. Test Setup Layout



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of Power Spectral Density

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 1 (Ant. 1 Dipole antenna / 9dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-3.71	-15.23	-18.94	5.00	Complies
6	2437 MHz	2.47	-15.23	-12.76	5.00	Complies
11	2462 MHz	-4.04	-15.23	-19.27	5.00	Complies

Note: 9dBi > 6dBi, so the power density limit =8-(9-6)=5dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-11.36	-15.23	-26.59	5.00	Complies
6	2437 MHz	-5.77	-15.23	-21.00	5.00	Complies
9	2452 MHz	-10.76	-15.23	-25.99	5.00	Complies

Note:9dBi > 6dBi, so the power density limit =8-(9-6)=5dBm.

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-7.55	-7.54	-4.53	-15.23	-19.76	1.99	Complies
6	2437 MHz	-3.93	-4.55	-1.22	-15.23	-16.45	1.99	Complies
11	2462 MHz	-7.24	-8.10	-4.64	-15.23	-19.87	1.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the power density limit =8-(12.01-6)=1.99dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-13.79	-13.72	-10.74	-15.23	-25.97	1.99	Complies
6	2437 MHz	-8.71	-9.08	-5.88	-15.23	-21.11	1.99	Complies
9	2452 MHz	-15.15	-16.39	-12.72	-15.23	-27.94	1.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the power density limit =8-(12.01-6)=1.99dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-6.71	-7.11	-3.90	-15.23	-19.12	8.00	Complies
6	2437 MHz	-3.60	-4.29	-0.92	-15.23	-16.15	8.00	Complies
11	2462 MHz	-7.05	-8.44	-4.68	-15.23	-19.91	8.00	Complies

Note:9dBi > 6dBi, so the power density limit =8-(9-6)=5dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-13.46	-12.86	-10.14	-15.23	-25.37	8.00	Complies
6	2437 MHz	-7.50	-7.62	-4.55	-15.23	-19.78	8.00	Complies
9	2452 MHz	-11.73	-13.27	-9.42	-15.23	-24.65	8.00	Complies

Note:9dBi > 6dBi, so the power density limit =8-(9-6)=5dBm.

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-8.88	-9.03	-8.53	-4.04	-15.23	-19.27	0.23	Complies
6	2437 MHz	-3.44	-4.66	-4.41	0.63	-15.23	-14.60	0.23	Complies
11	2462 MHz	-7.58	-8.13	-8.09	-3.15	-15.23	-18.38	0.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the power density limit =8-(13.77-6)=0.23dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-14.66	-14.37	-14.49	-9.73	-15.23	-24.96	0.23	Complies
6	2437 MHz	-8.15	-8.63	-9.04	-3.82	-15.23	-19.05	0.23	Complies
9	2452 MHz	-17.12	-18.79	-19.17	-13.49	-15.23	-28.72	0.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the power density limit =8-(13.77-6)=0.23dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-7.25	-6.94	-7.20	-2.36	-15.23	-17.59	2.00	Complies
6	2437 MHz	-1.18	-2.15	-1.95	3.03	-15.23	-12.20	2.00	Complies
11	2462 MHz	-6.22	-7.42	-6.99	-2.08	-15.23	-17.31	2.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12dBi > 6dBi, so the power density limit =8-(12-6)=2dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-14.10	-13.81	-13.35	-8.97	-15.23	-24.20	2.00	Complies
6	2437 MHz	-7.83	-8.16	-9.07	-3.55	-15.23	-18.78	2.00	Complies
9	2452 MHz	-11.73	-14.00	-14.17	-8.38	-15.23	-23.61	2.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12dBi > 6dBi, so the power density limit =8-(12-6)=2dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 1 (Ant. 1 Dipole antenna / 9dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-2.88	-15.23	-18.11	5.00	Complies
6	2437 MHz	9.33	-15.23	-5.90	5.00	Complies
11	2462 MHz	0.17	-15.23	-15.06	5.00	Complies

Note:9dBi > 6dBi, so the power density limit =8-(9-6)=5dBm.

2TX

Configuration IEEE 802.11b / Chain 1+ Chain 2

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-2.25	-2.33	0.72	-15.23	-14.51	1.99	Complies
6	2437 MHz	4.59	3.72	7.19	-15.23	-8.04	1.99	Complies
11	2462 MHz	-2.07	-2.98	0.51	-15.23	-14.72	1.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.01dBi > 6dBi, so the power density limit =8-(12.01-6)=1.99dBm.

3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2 + Chain 3

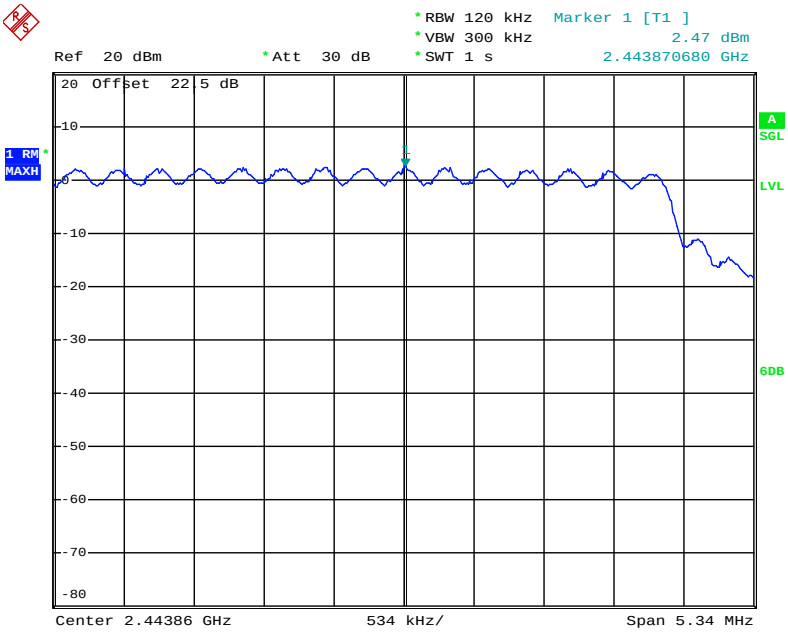
Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-2.30	-2.18	-2.47	2.46	-15.23	-12.77	0.23	Complies
6	2437 MHz	-0.63	-1.78	-1.43	3.52	-15.23	-11.71	0.23	Complies
11	2462 MHz	-1.14	-2.81	-2.05	2.83	-15.23	-12.40	0.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.77dBi > 6dBi, so the power density limit =8-(13.77-6)=0.23dBm.

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

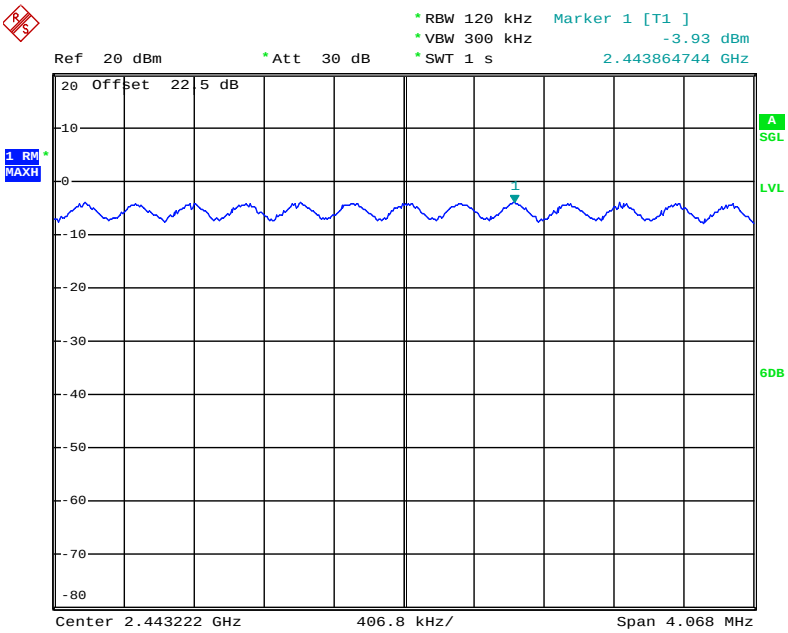
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz / (1TX)



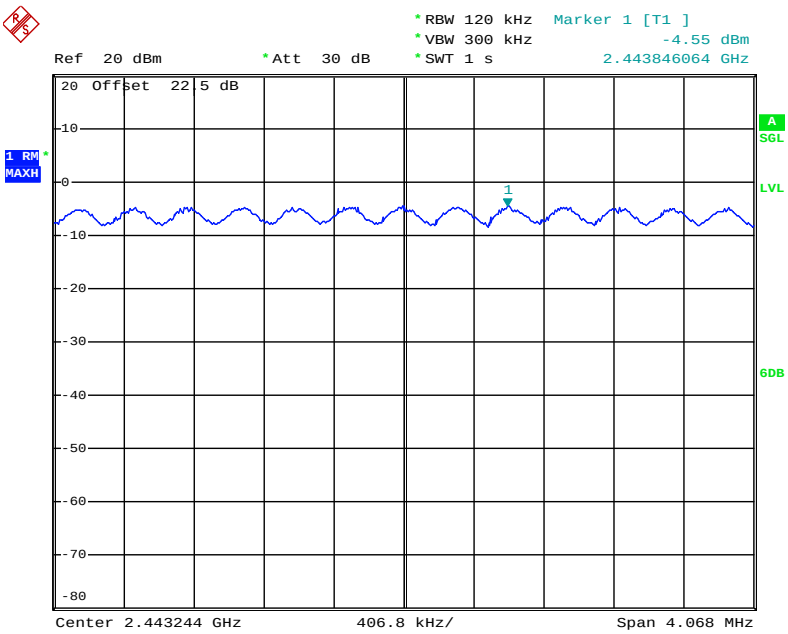
Date: 10.MAY.2012 08:31:20

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (2TX)



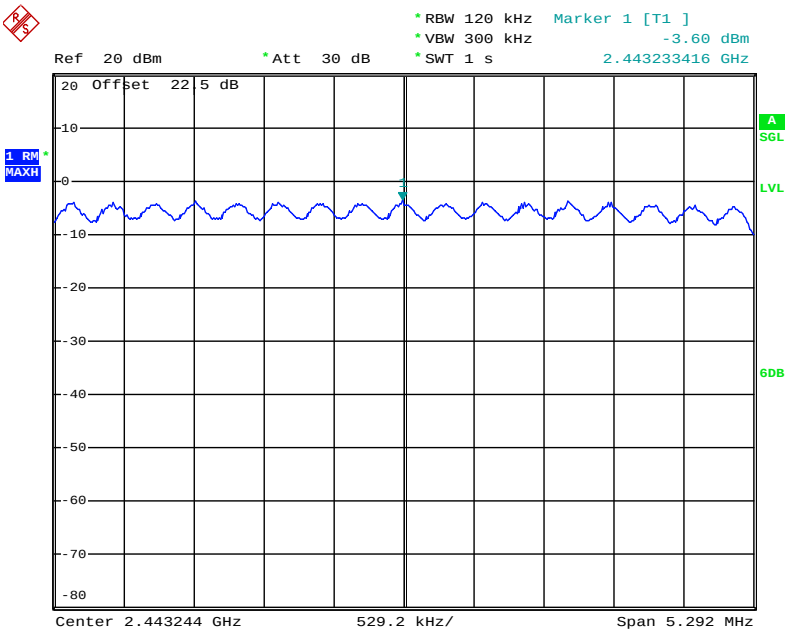
Date: 10.MAY.2012 08:39:34

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (2TX)



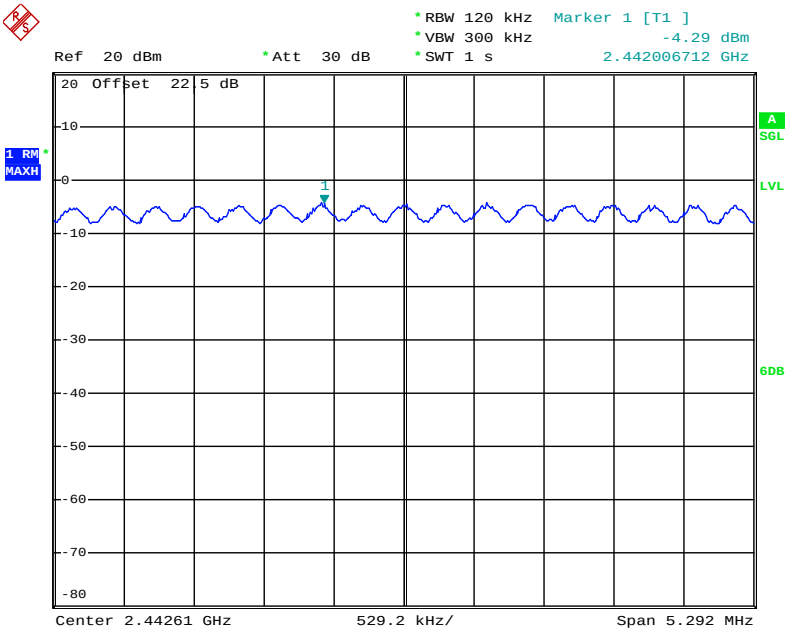
Date: 10.MAY.2012 08:40:01

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (2TX)



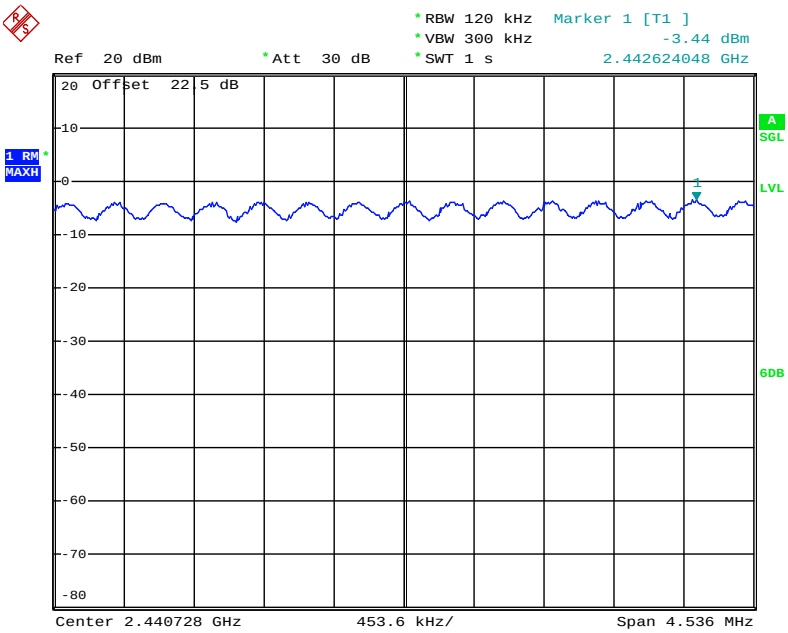
Date: 10.MAY.2012 08:50:59

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (2TX)



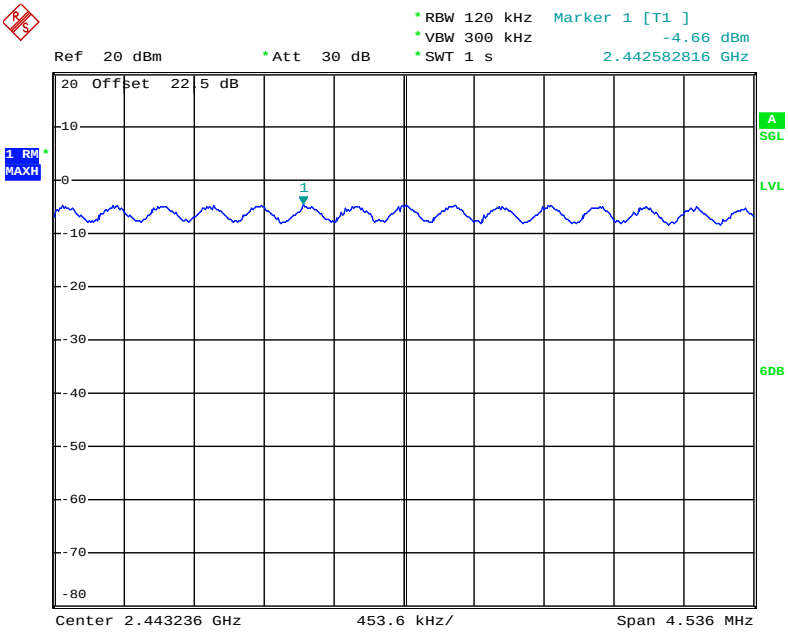
Date: 10.MAY.2012 08:50:35

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (3TX)



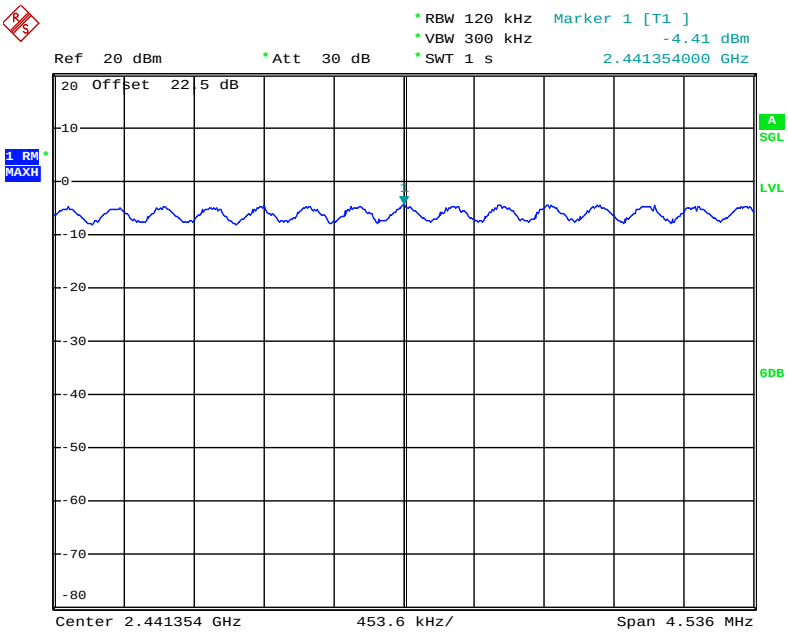
Date: 10.MAY.2012 09:11:39

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (3TX)



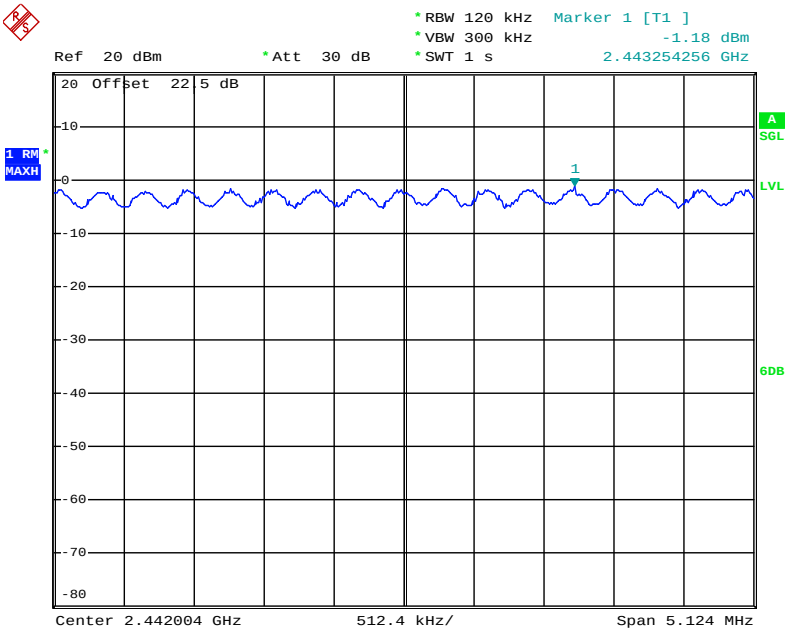
Date: 10.MAY.2012 09:12:13

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 2437 MHz (3TX)



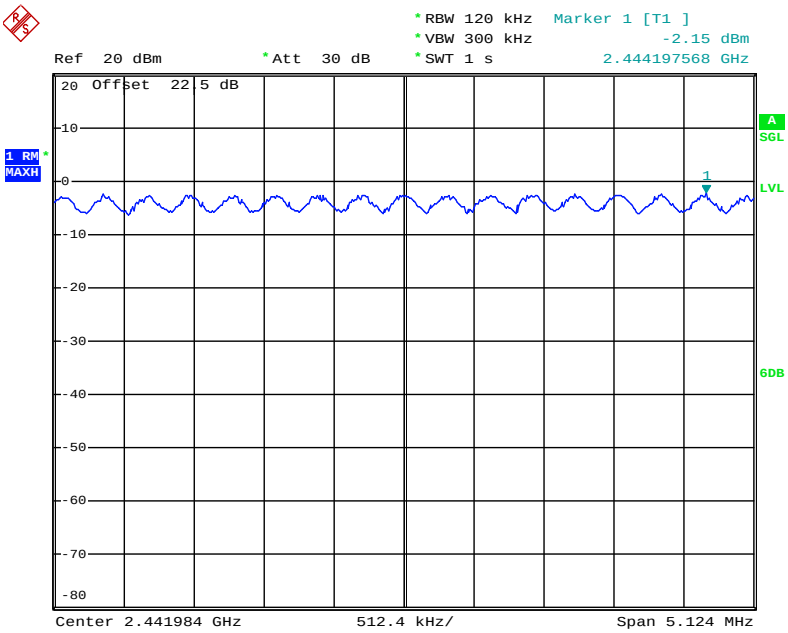
Date: 10.MAY.2012 09:12:42

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (3TX)



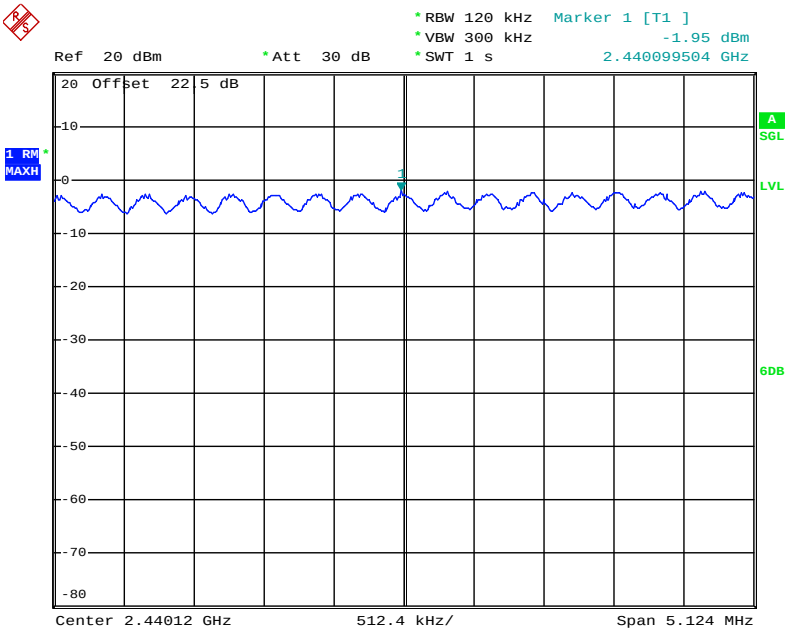
Date: 10.MAY.2012 08:56:21

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (3TX)



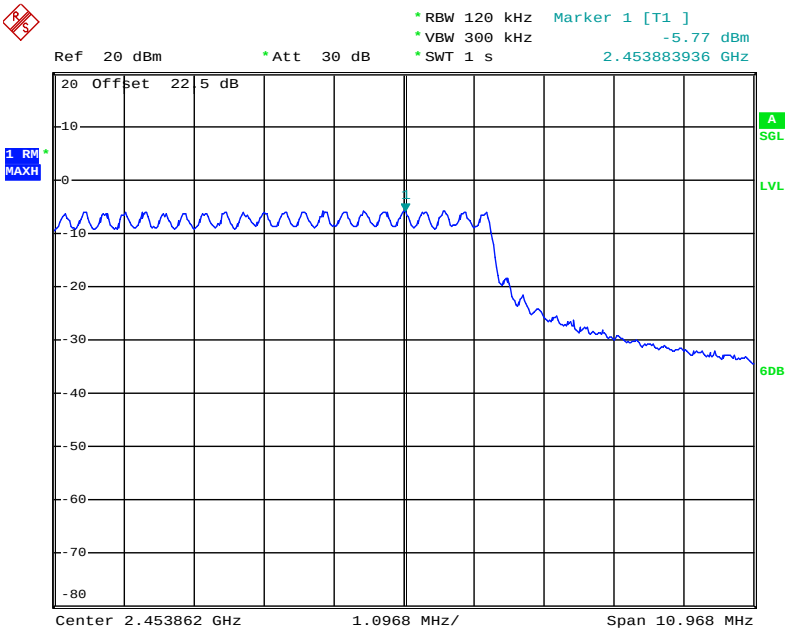
Date: 10.MAY.2012 08:55:43

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 2437 MHz (3TX)



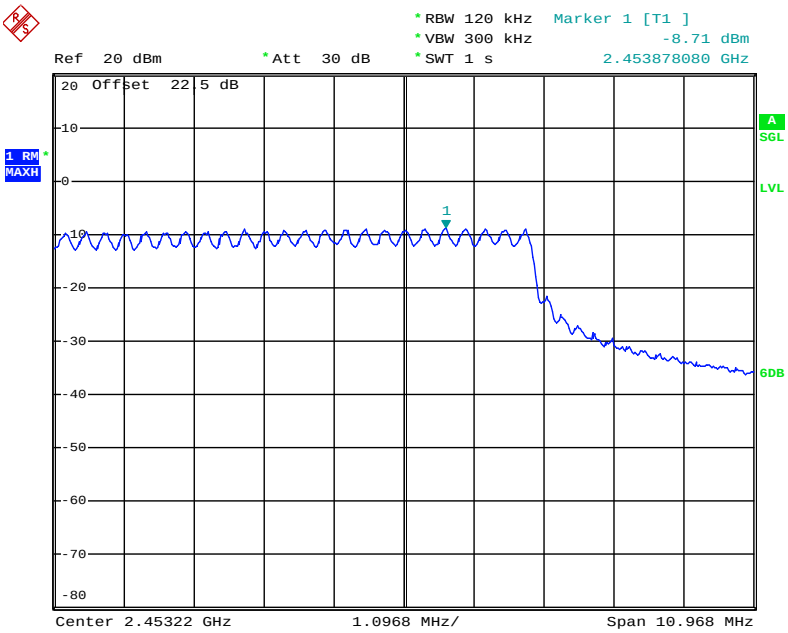
Date: 10.MAY.2012 08:55:20

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz / (1TX)



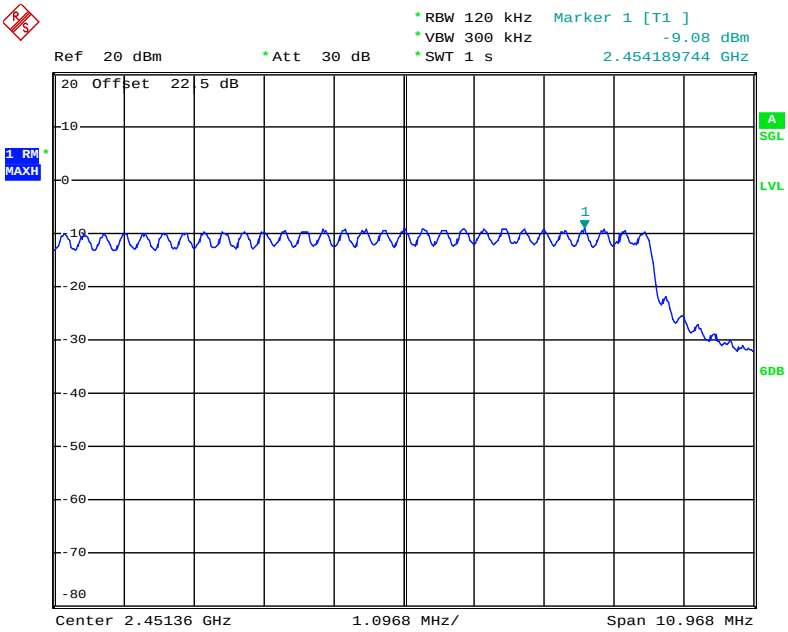
Date: 10.MAY.2012 08:33:34

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (2TX)



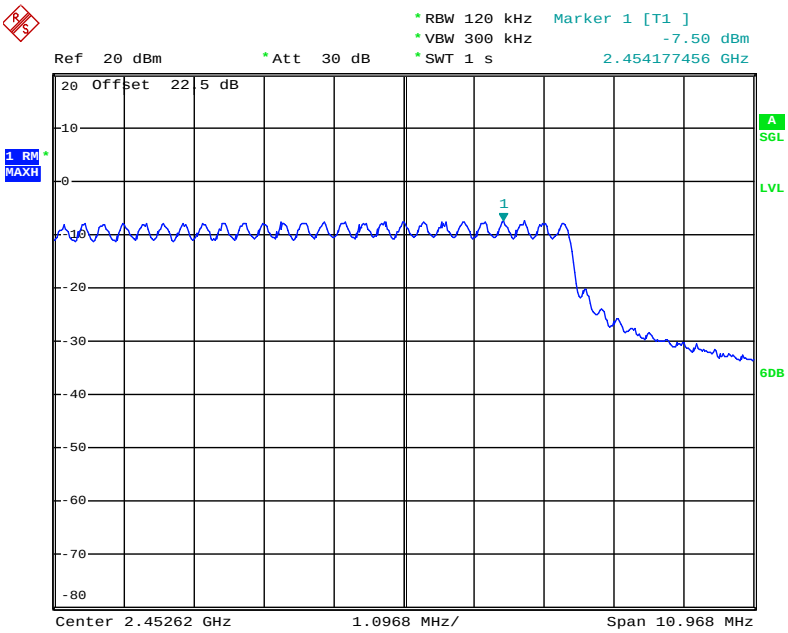
Date: 10.MAY.2012 08:43:37

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (2TX)



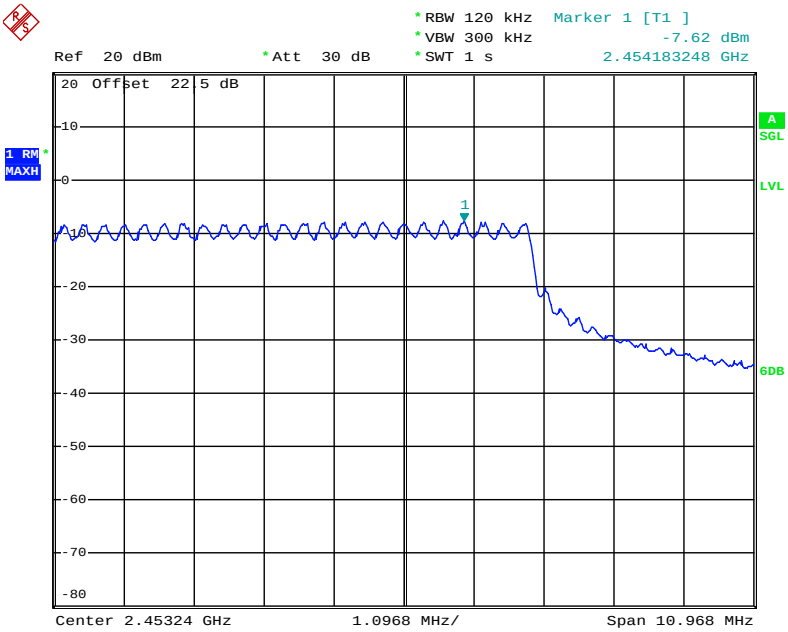
Date: 10.MAY.2012 08:43:00

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (2TX)



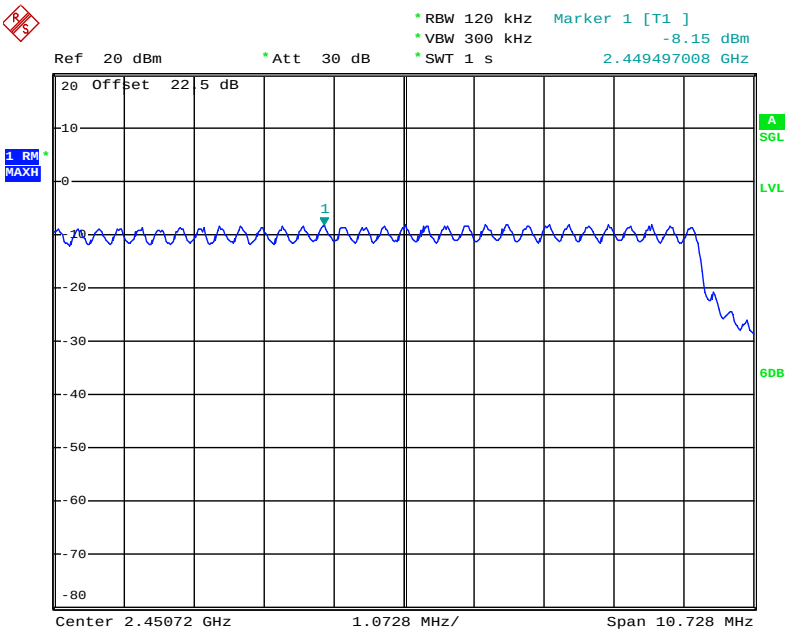
Date: 10.MAY.2012 08:46:59

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (2TX)



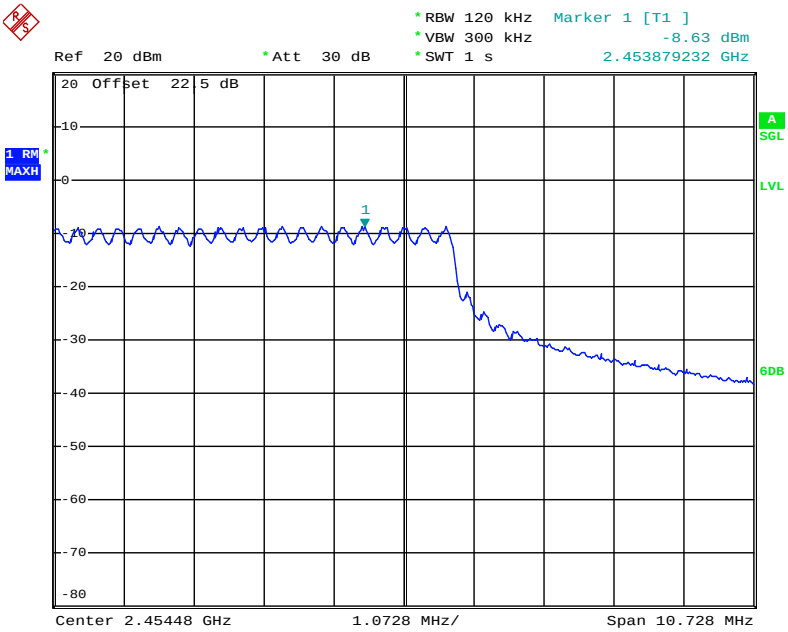
Date: 10.MAY.2012 08:47:25

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (3TX)



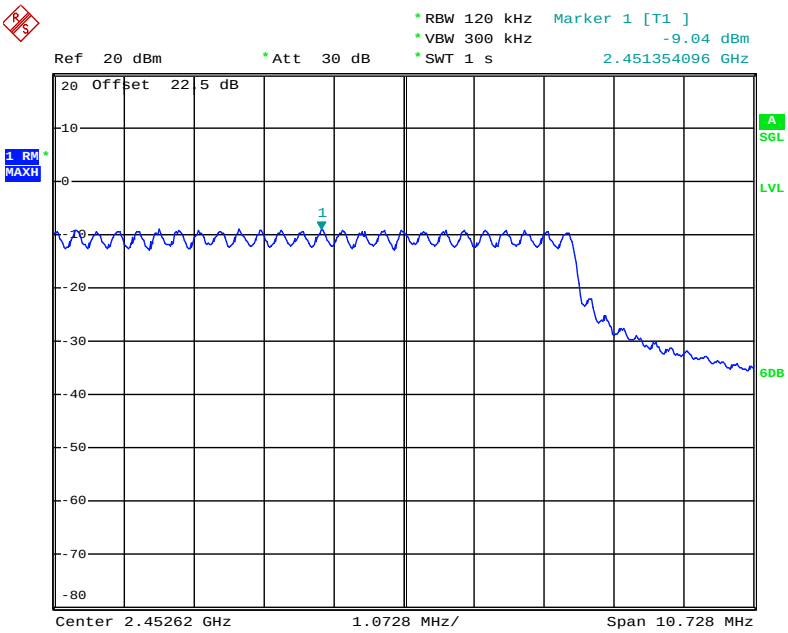
Date: 10.MAY.2012 09:07:42

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (3TX)



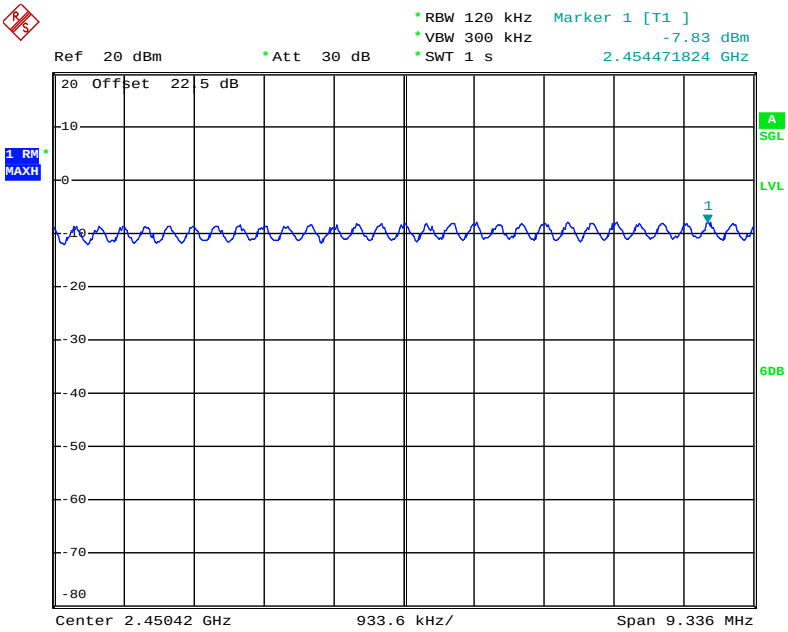
Date: 10.MAY.2012 09:07:18

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 2437 MHz (3TX)



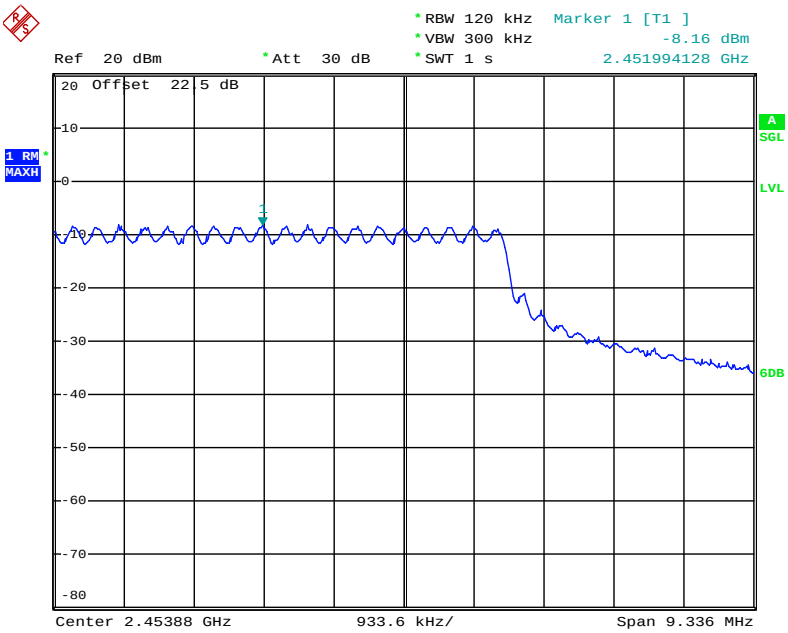
Date: 10.MAY.2012 09:06:57

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (3TX)



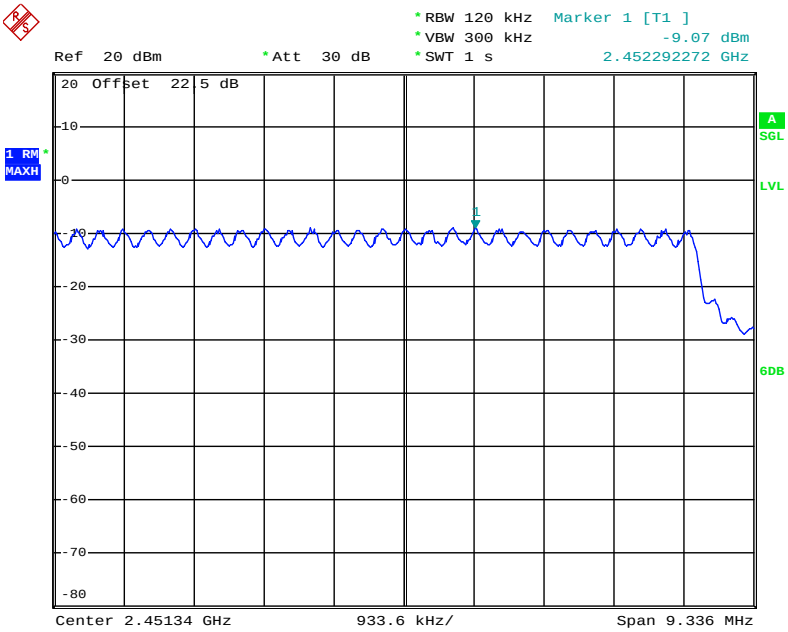
Date: 10.MAY.2012 09:00:23

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (3TX)



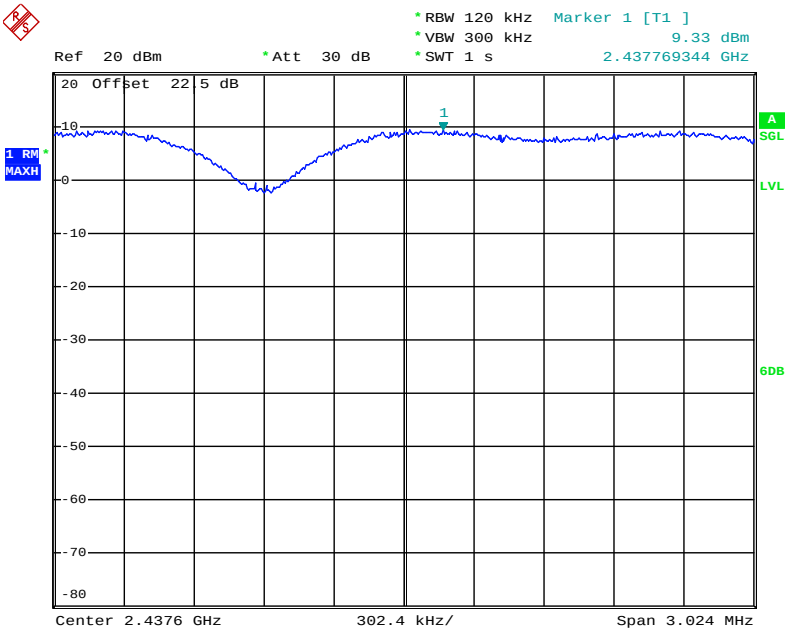
Date: 10.MAY.2012 09:00:59

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 2437 MHz (3TX)



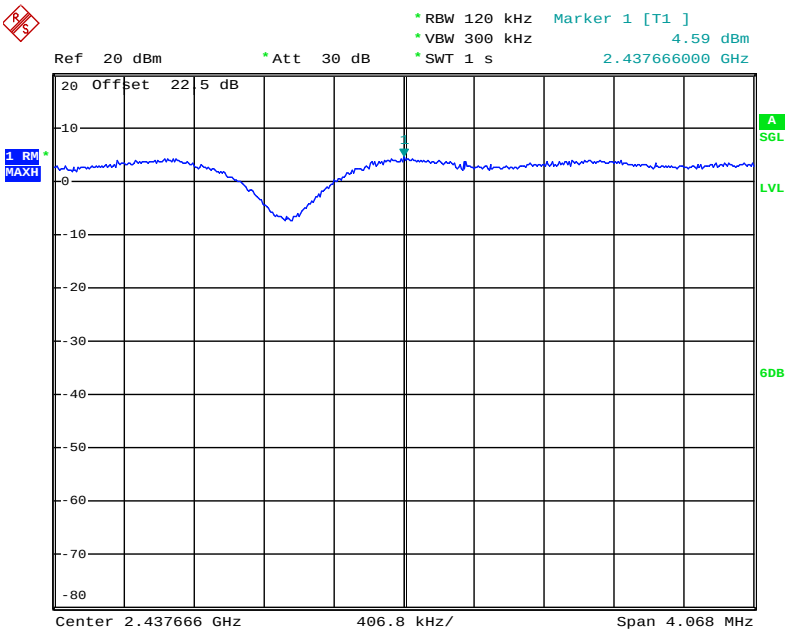
Date: 10.MAY.2012 09:01:24

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



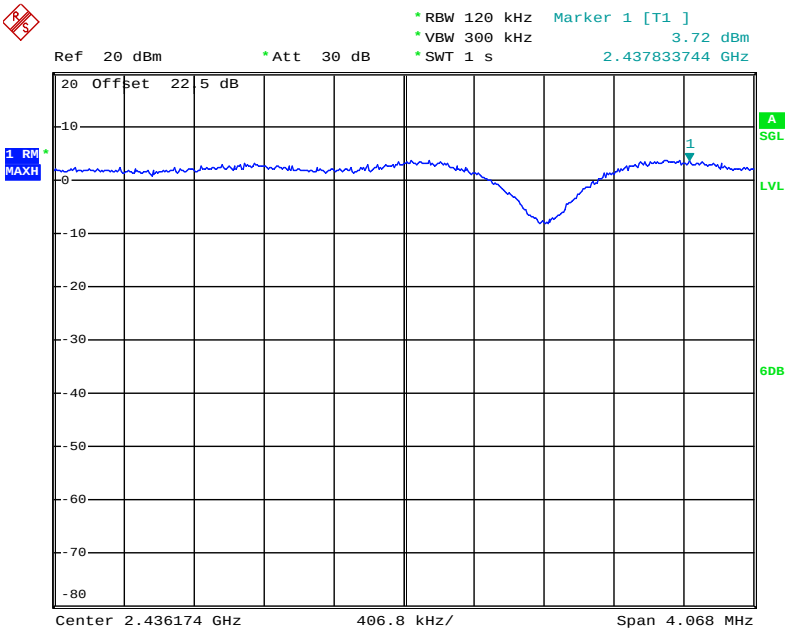
Date: 10.MAY.2012 08:29:19

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (2TX)



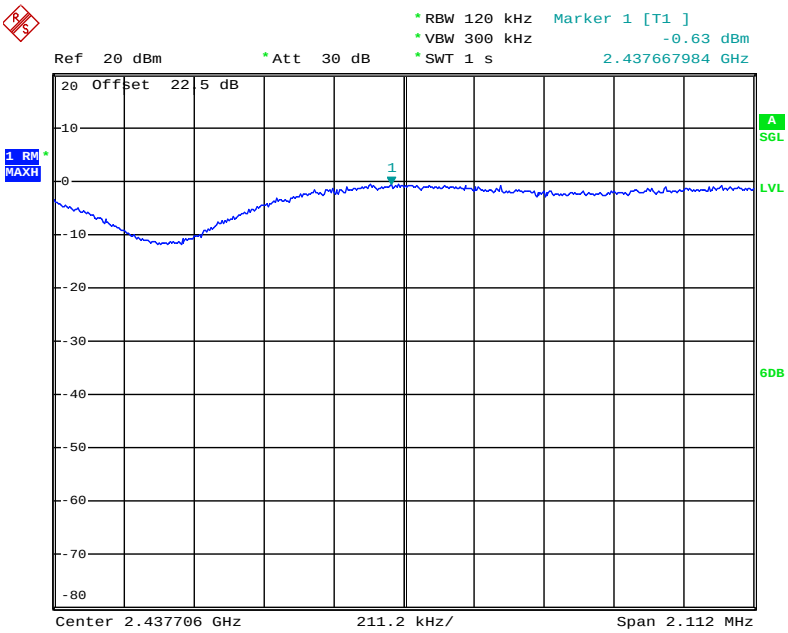
Date: 10.MAY.2012 08:36:30

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (2TX)



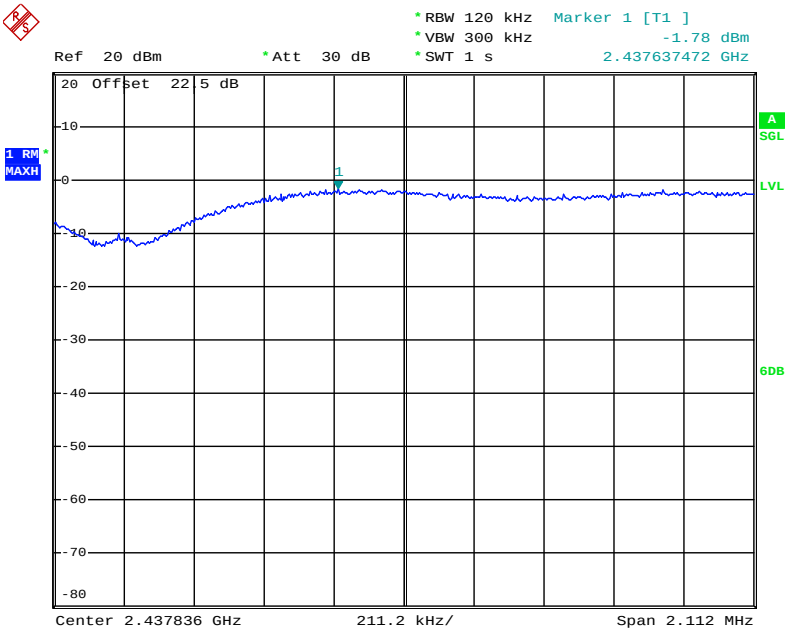
Date: 10.MAY.2012 08:36:04

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (3TX)



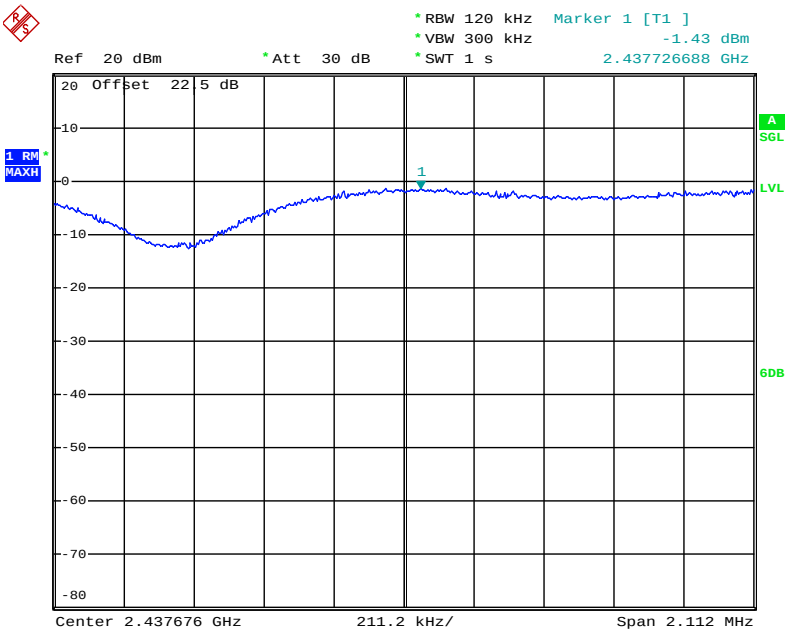
Date: 10.MAY.2012 09:22:41

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (3TX)



Date: 10.MAY.2012 09:22:09

Power Density Plot on Configuration IEEE 802.11b / Chain 3 / 2437 MHz (3TX)



Date: 10.MAY.2012 09:21:39

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 2 (Ant. 2 Patch antenna / 3dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-1.59	-15.23	-16.82	8.00	Complies
6	2437 MHz	5.44	-15.23	-9.79	8.00	Complies
11	2462 MHz	-0.66	-15.23	-15.89	8.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-6.87	-15.23	-22.10	8.00	Complies
6	2437 MHz	-1.77	-15.23	-17.00	8.00	Complies
9	2452 MHz	-5.55	-15.23	-20.78	8.00	Complies

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-4.02	-3.89	-0.94	-15.23	-16.17	7.99	Complies
6	2437 MHz	3.72	4.47	7.12	-15.23	-8.11	7.99	Complies
11	2462 MHz	-3.07	-3.40	-0.22	-15.23	-15.45	7.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the power density limit =8-(6.01-6)=7.99dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-9.96	-8.47	-6.14	-15.23	-21.37	7.99	Complies
6	2437 MHz	-3.47	-3.65	-0.55	-15.23	-15.78	7.99	Complies
9	2452 MHz	-7.79	-8.88	-5.29	-15.23	-20.52	7.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the power density limit =8-(6.01-6)=7.99dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-3.59	-3.46	-0.51	-15.23	-15.74	8.00	Complies
6	2437 MHz	4.30	4.27	7.30	-15.23	-7.93	8.00	Complies
11	2462 MHz	-1.90	-2.55	0.80	-15.23	-14.43	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-7.35	-5.82	-3.51	-15.23	-18.74	8.00	Complies
6	2437 MHz	-3.41	-3.71	-0.55	-15.23	-15.78	8.00	Complies
9	2452 MHz	-6.81	-7.69	-4.22	-15.23	-19.45	8.00	Complies

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-5.04	-5.14	-5.43	-0.43	-15.23	-15.66	6.23	Complies
6	2437 MHz	1.96	2.08	1.90	6.75	-15.23	-8.48	6.23	Complies
11	2462 MHz	-4.31	-4.93	-4.57	0.18	-15.23	-15.05	6.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the power density limit =8-(7.77-6)=6.23dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-10.78	-10.62	-10.48	-5.85	-15.23	-21.08	6.23	Complies
6	2437 MHz	-5.46	-5.89	-6.43	-1.14	-15.23	-16.37	6.23	Complies
9	2452 MHz	-9.52	-10.74	-11.03	-5.61	-15.23	-20.84	6.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the power density limit =8-(7.77-6)=6.23dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-3.35	-3.40	-3.15	1.47	-15.23	-13.76	8.00	Complies
6	2437 MHz	3.29	3.16	2.94	7.90	-15.23	-7.33	8.00	Complies
11	2462 MHz	-1.81	-2.84	-2.38	2.45	-15.23	-12.78	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-9.84	-8.87	-8.81	-4.38	-15.23	-19.61	8.00	Complies
6	2437 MHz	-5.31	-5.18	-6.07	-0.73	-15.23	-15.96	8.00	Complies
9	2452 MHz	-7.92	-9.72	-9.56	-4.22	-15.23	-19.45	8.00	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 2 (Ant. 2 Patch antenna / 3dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	5.52	-15.23	-9.71	8.00	Complies
6	2437 MHz	10.92	-15.23	-4.31	8.00	Complies
11	2462 MHz	3.45	-15.23	-11.78	8.00	Complies

2TX

Configuration IEEE 802.11b / Chain 1+ Chain 2

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	2.15	1.47	4.83	-15.23	-10.40	7.99	Complies
6	2437 MHz	9.19	9.13	12.17	-15.23	-3.06	7.99	Complies
11	2462 MHz	1.55	1.03	4.31	-15.23	-10.92	7.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =6.01dBi > 6dBi, so the power density limit =8-(6.01-6)=7.99dBm.

3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2 + Chain 3

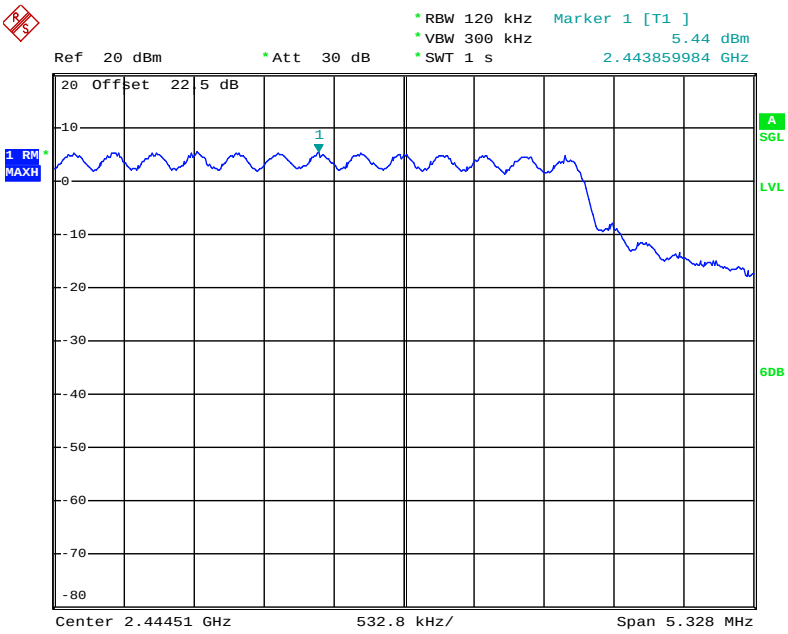
Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	0.10	0.21	-0.17	4.82	-15.23	-10.41	6.23	Complies
6	2437 MHz	5.56	4.83	4.85	9.86	-15.23	-5.36	6.23	Complies
11	2462 MHz	-0.68	-1.48	-1.28	3.64	-15.23	-11.59	6.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.77dBi > 6dBi, so the power density limit =8-(7.77-6)=6.23dBm.

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

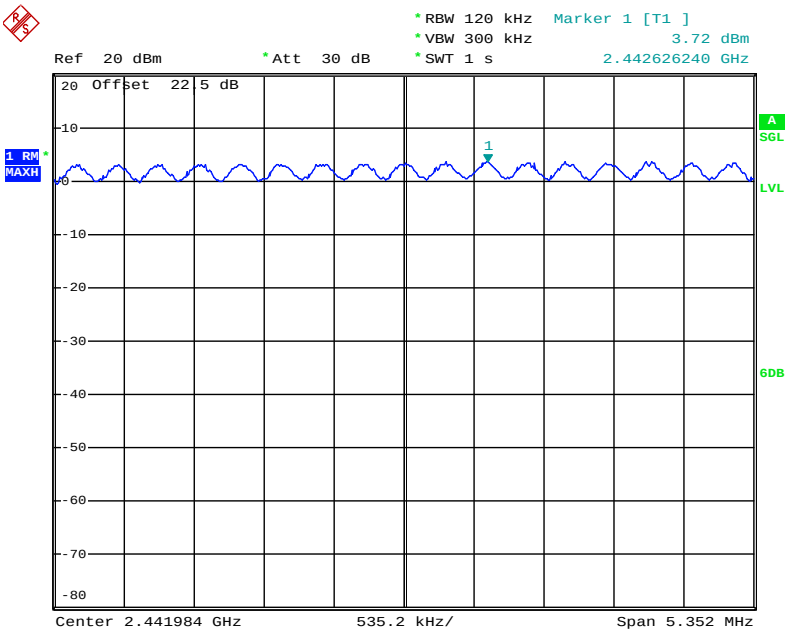
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (1TX)



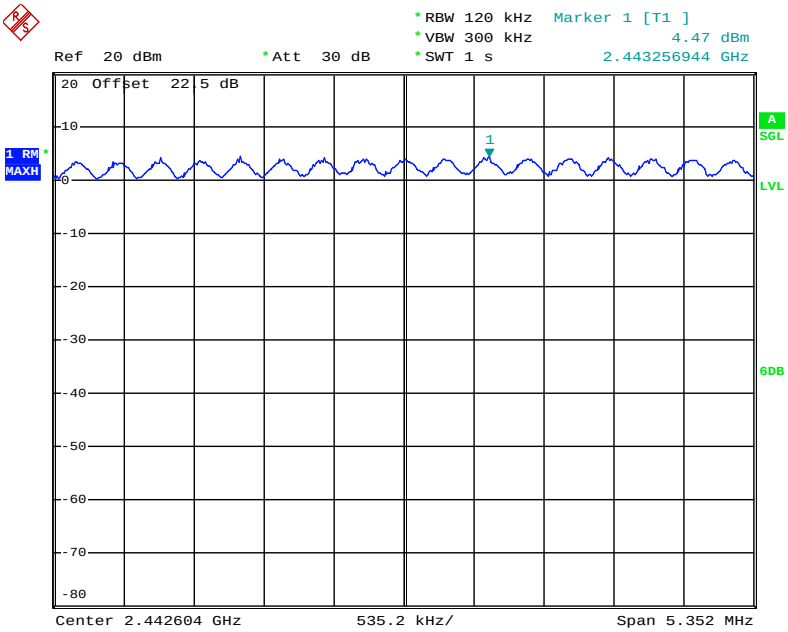
Date: 10.MAY.2012 05:31:27

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (2TX)



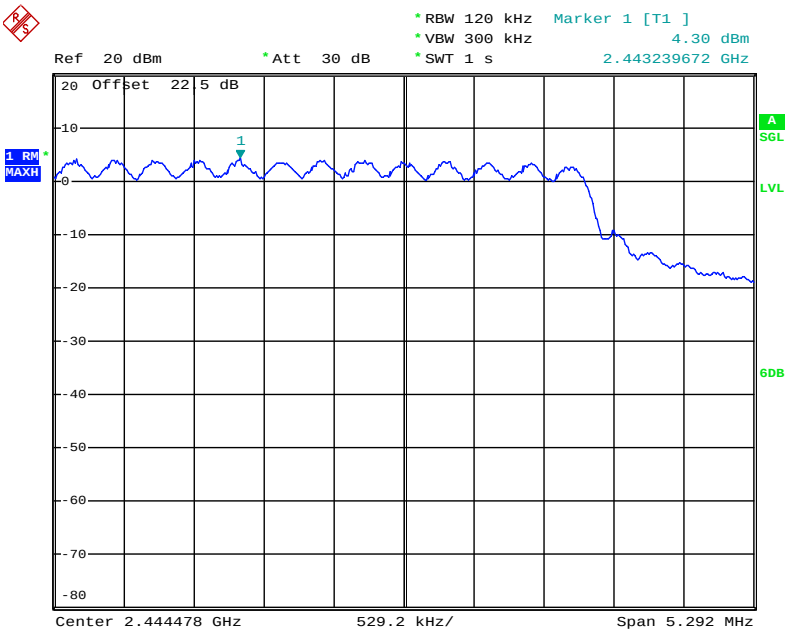
Date: 10.MAY.2012 05:42:50

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (2TX)



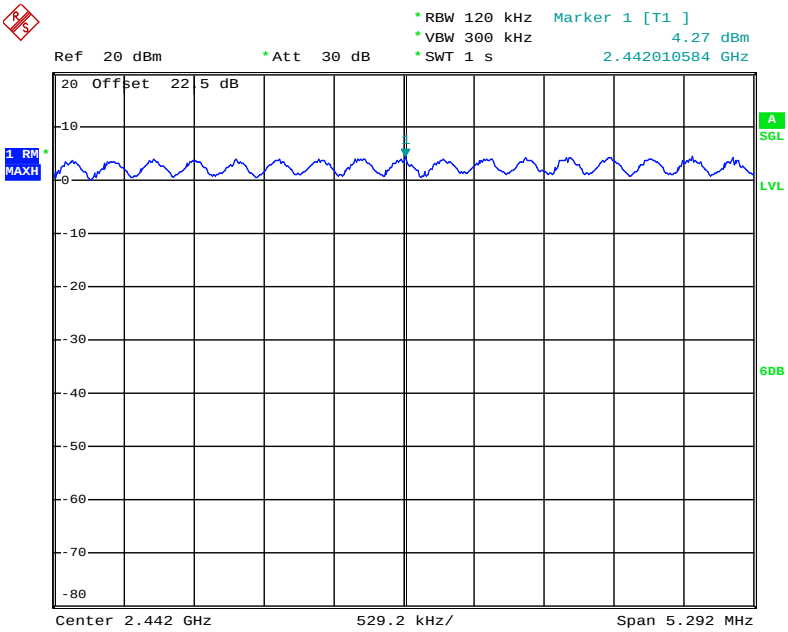
Date: 10.MAY.2012 05:42:06

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (2TX)



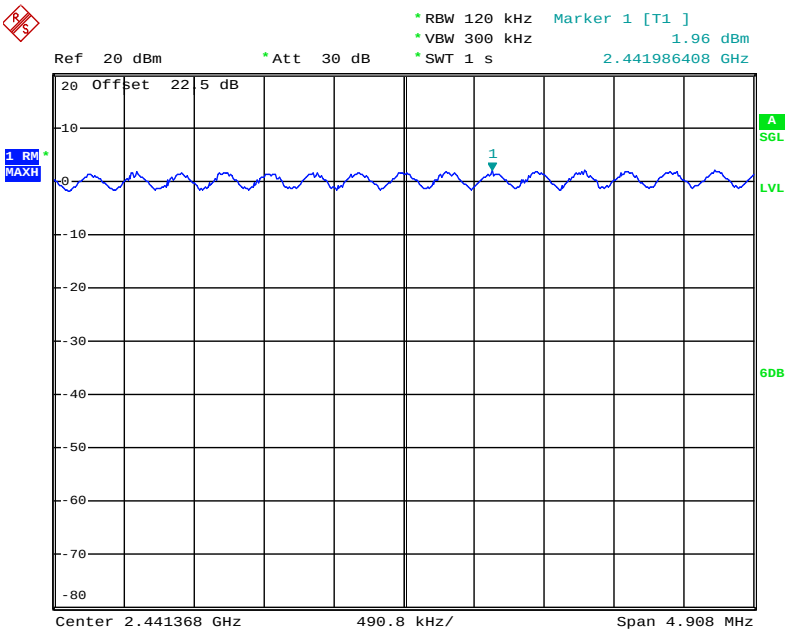
Date: 10.MAY.2012 05:56:36

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (2TX)



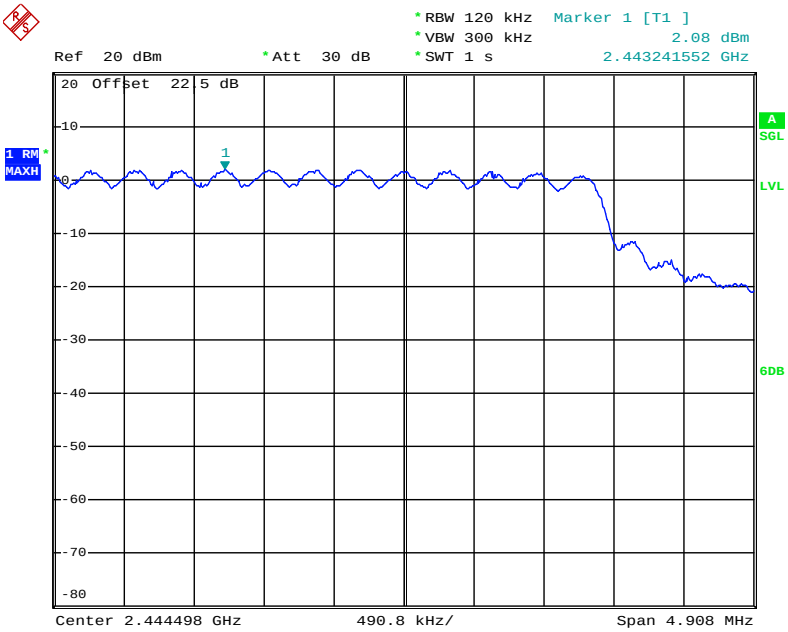
Date: 10.MAY.2012 05:56:04

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (3TX)



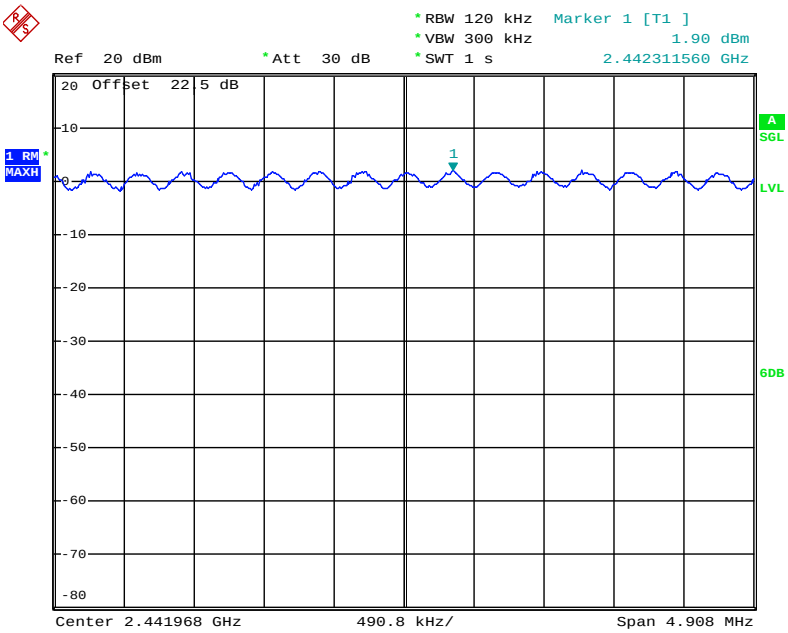
Date: 10.MAY.2012 06:18:50

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (3TX)



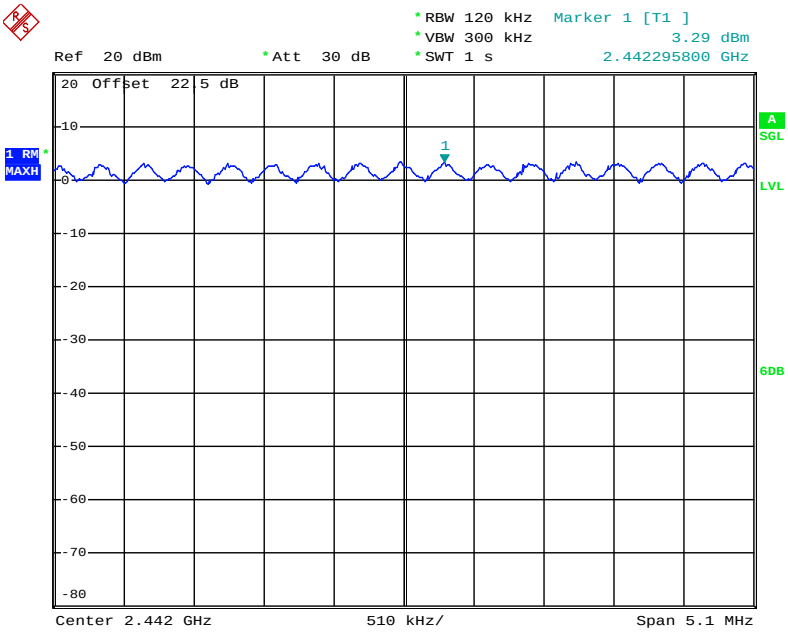
Date: 10.MAY.2012 06:18:22

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 2437 MHz (3TX)



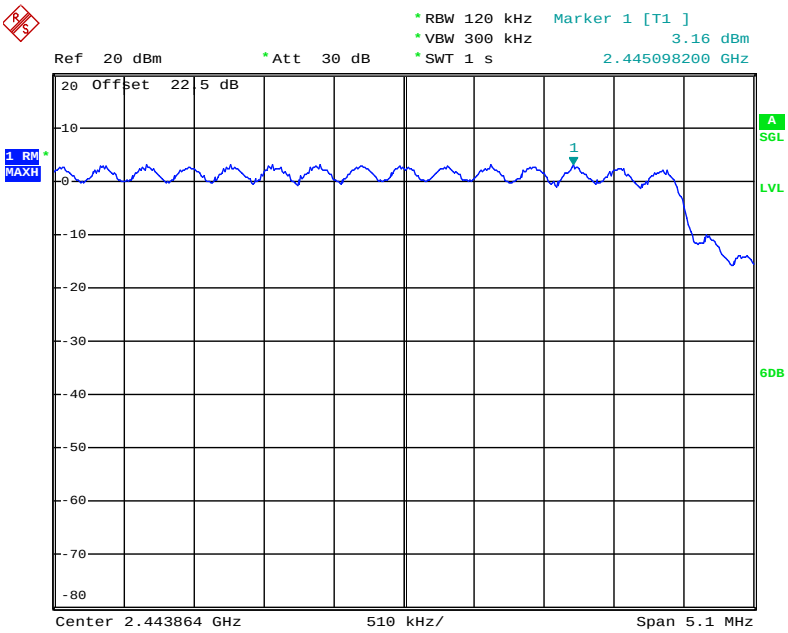
Date: 10.MAY.2012 06:17:52

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (3TX)



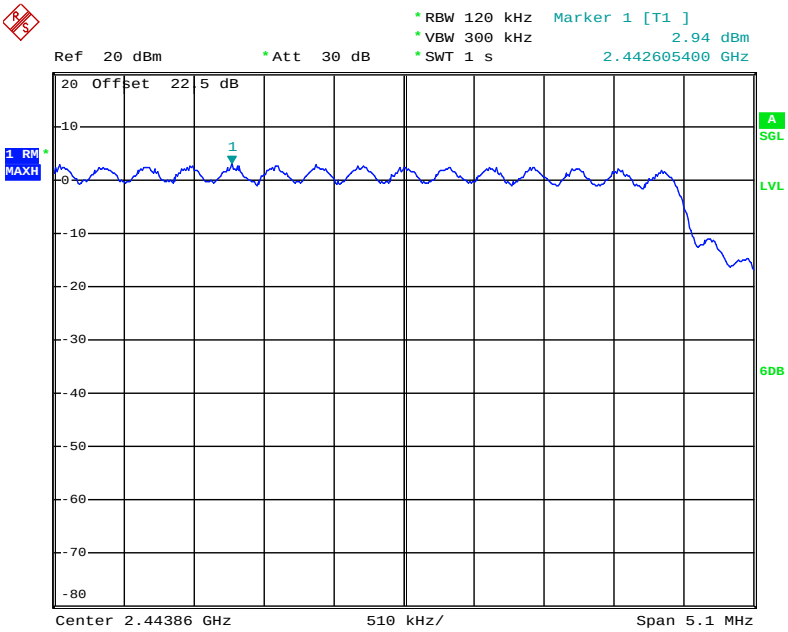
Date: 10.MAY.2012 06:01:35

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (3TX)



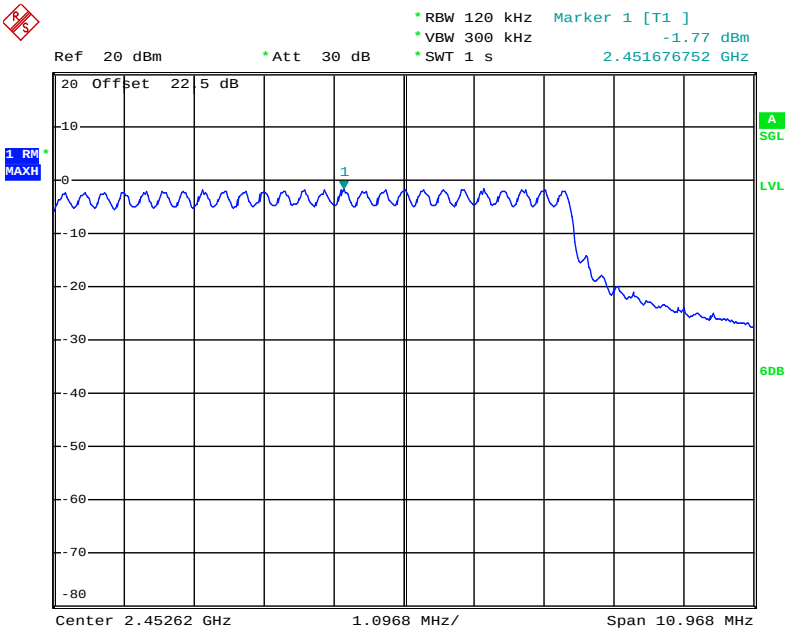
Date: 10.MAY.2012 06:02:04

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 2437 MHz (3TX)



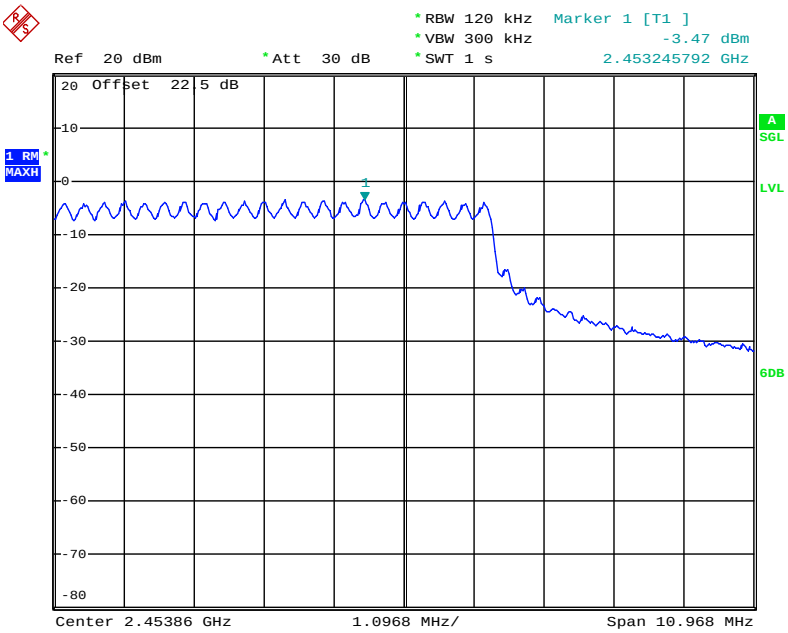
Date: 10.MAY.2012 06:02:32

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz / (1TX)



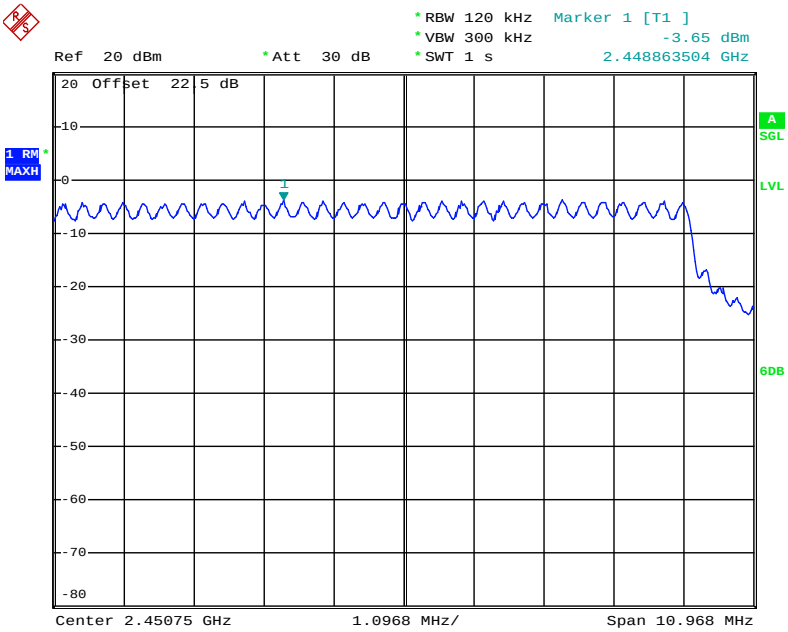
Date: 10.MAY.2012 05:33:57

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (2TX)



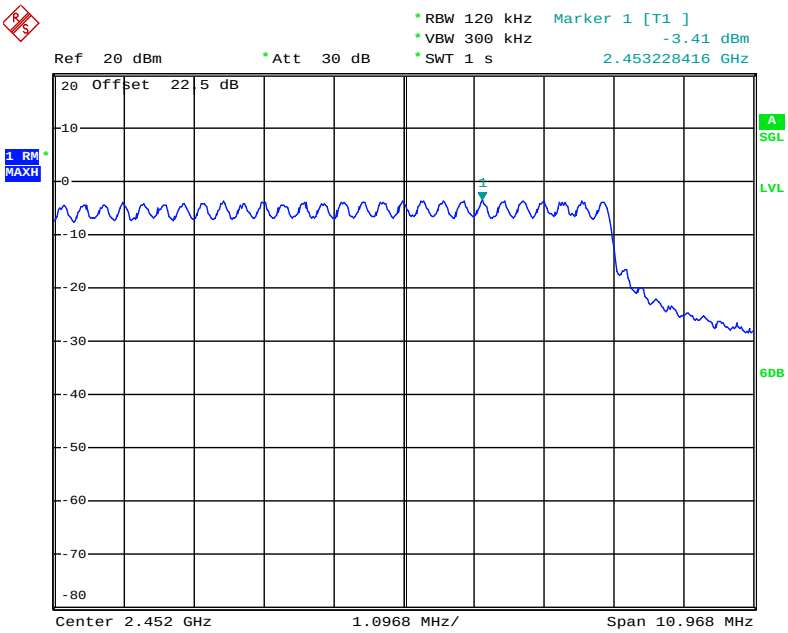
Date: 10.MAY.2012 05:48:27

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (2TX)



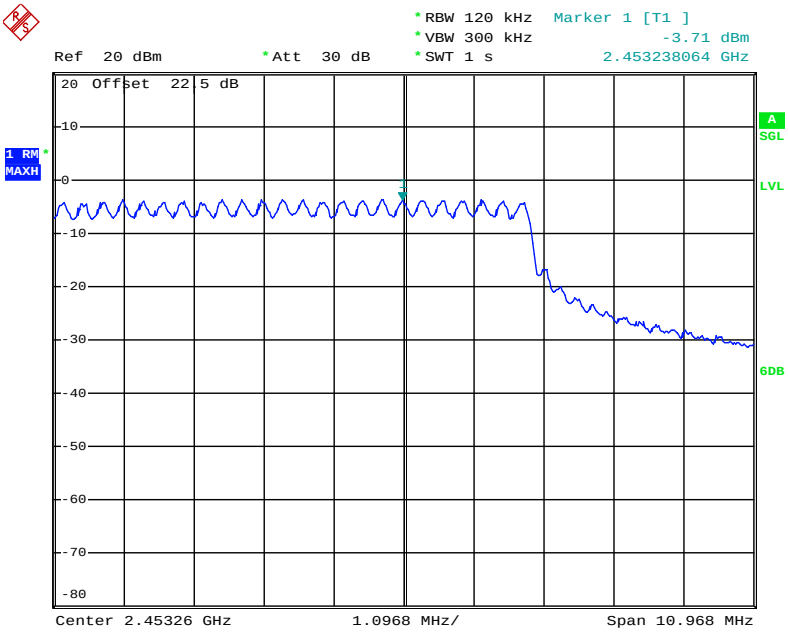
Date: 10.MAY.2012 05:47:30

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (2TX)



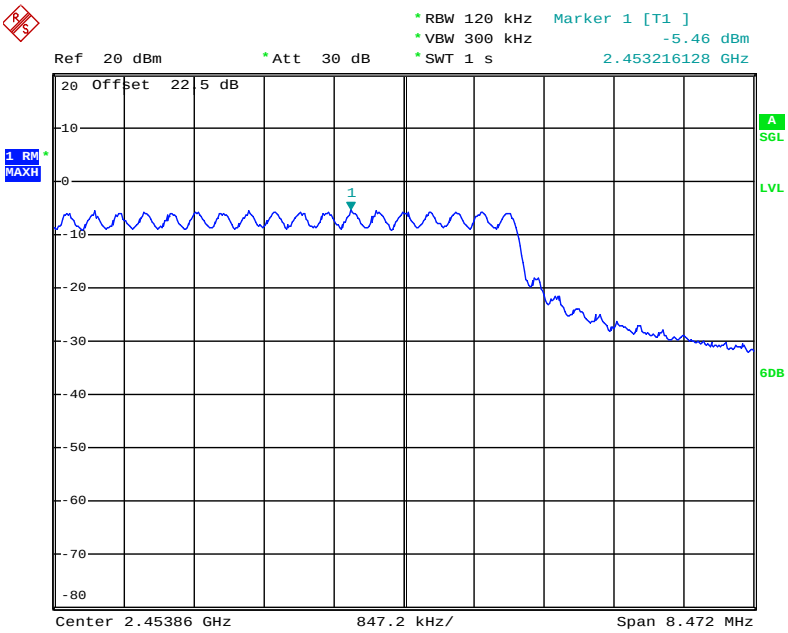
Date: 10.MAY.2012 05:52:16

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (2TX)



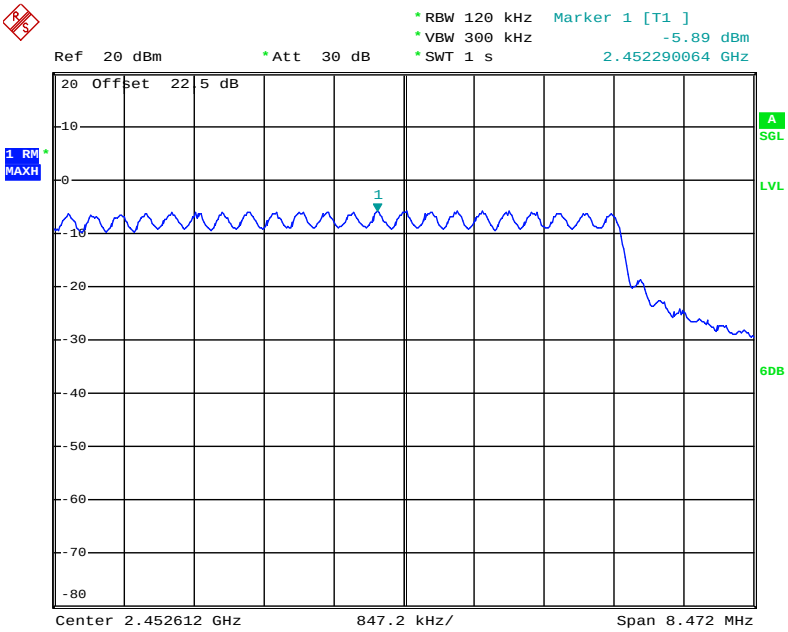
Date: 10.MAY.2012 05:52:43

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (3TX)



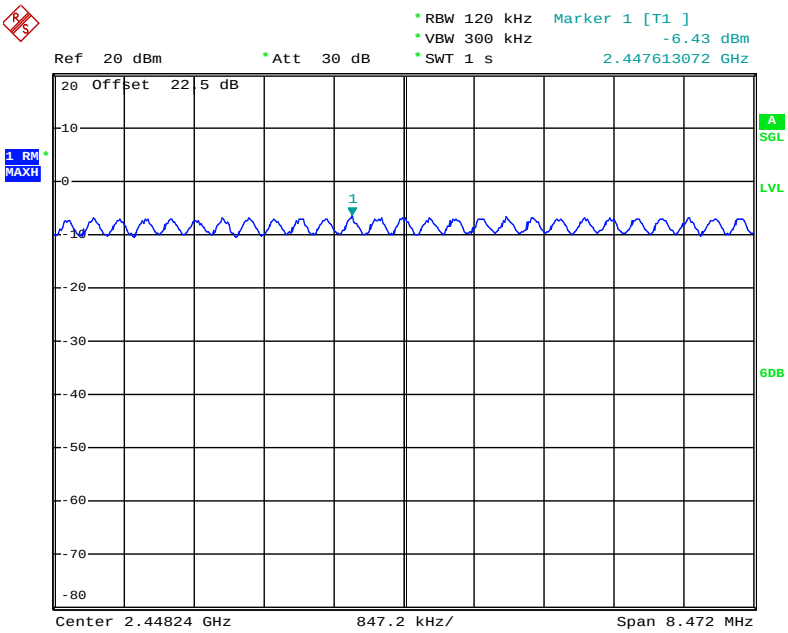
Date: 10.MAY.2012 06:12:31

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (3TX)



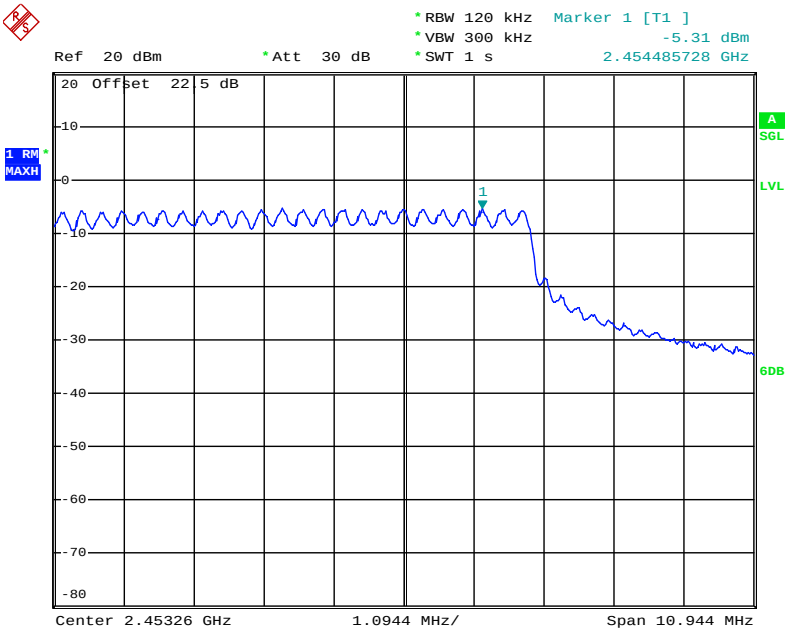
Date: 10.MAY.2012 06:12:59

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 2437 MHz (3TX)



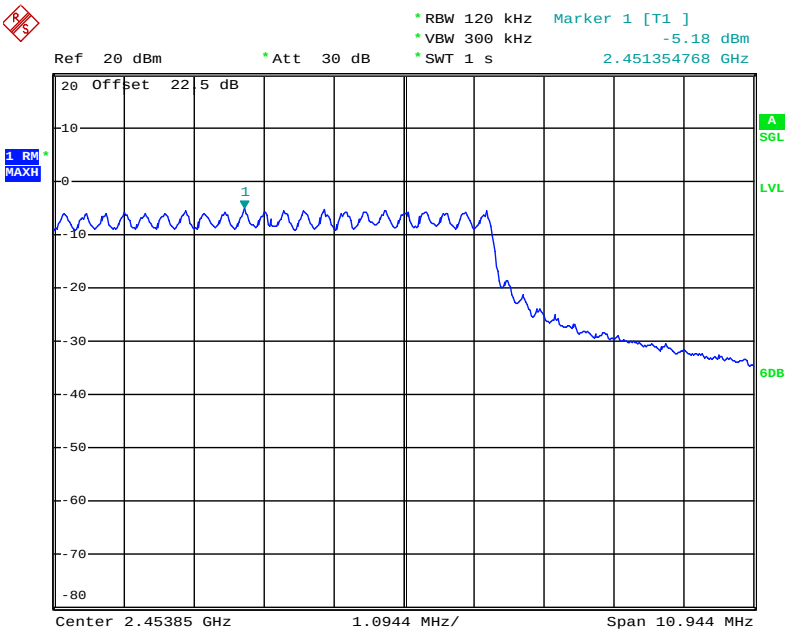
Date: 10.MAY.2012 06:13:30

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (3TX)



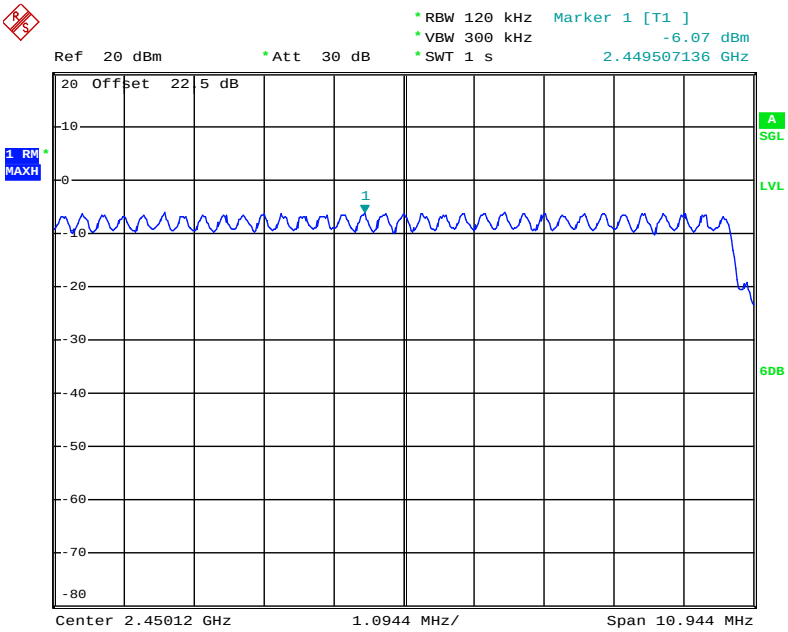
Date: 10.MAY.2012 06:08:08

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (3TX)



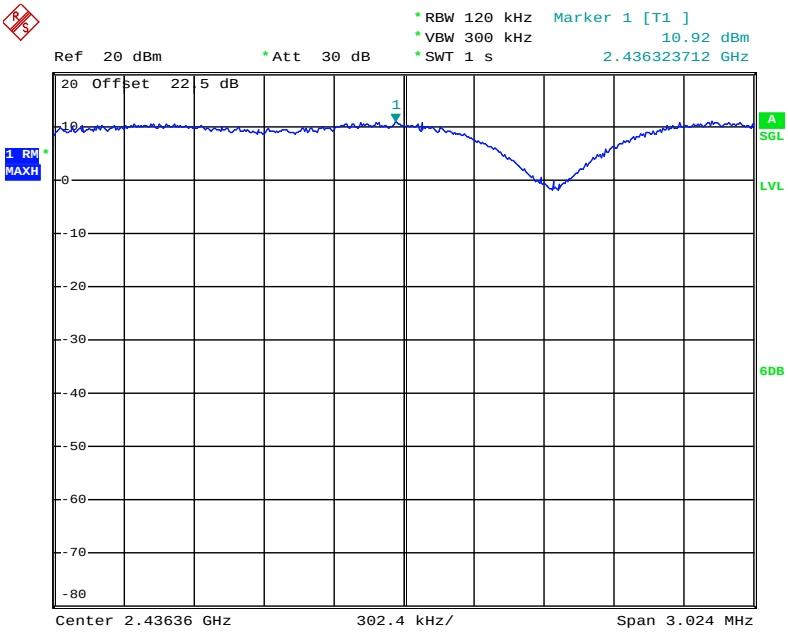
Date: 10.MAY.2012 06:07:33

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 2437 MHz (3TX)



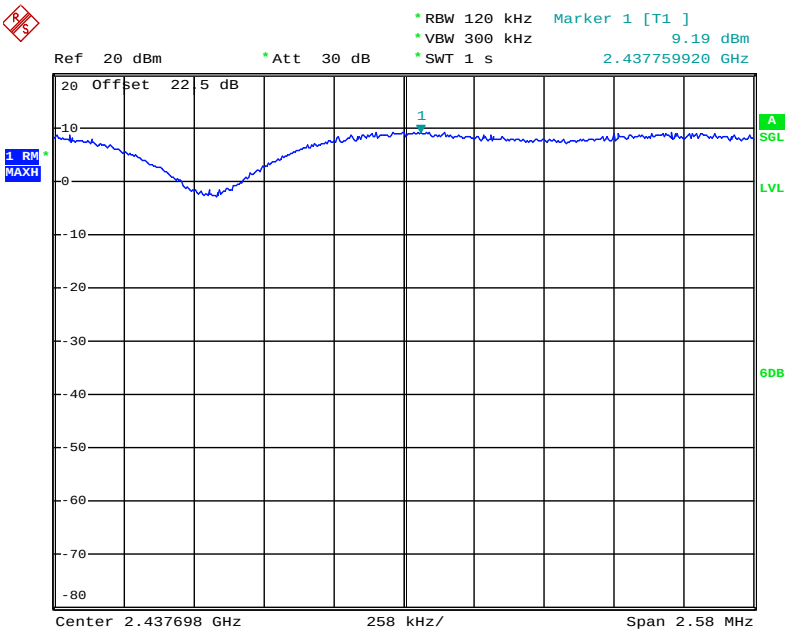
Date: 10.MAY.2012 06:07:03

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



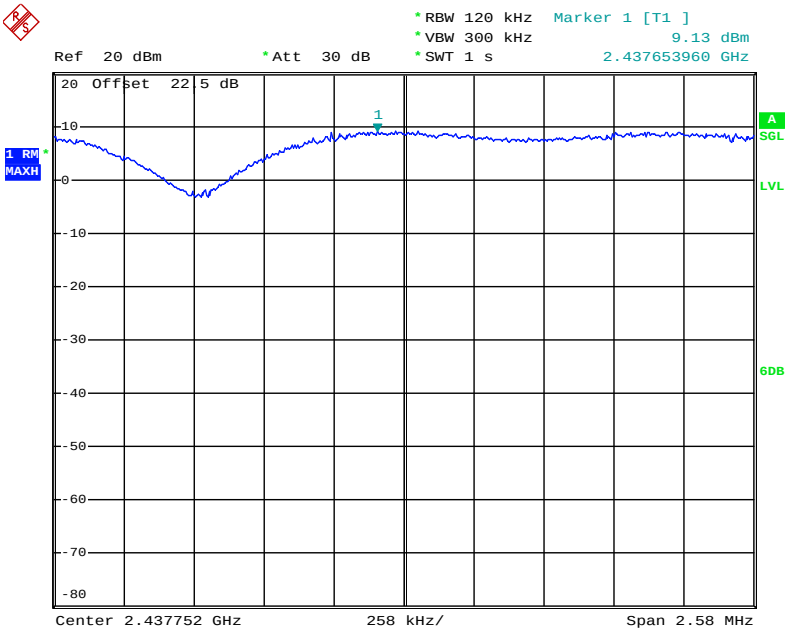
Date: 10.MAY.2012 05:29:08

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (2TX)



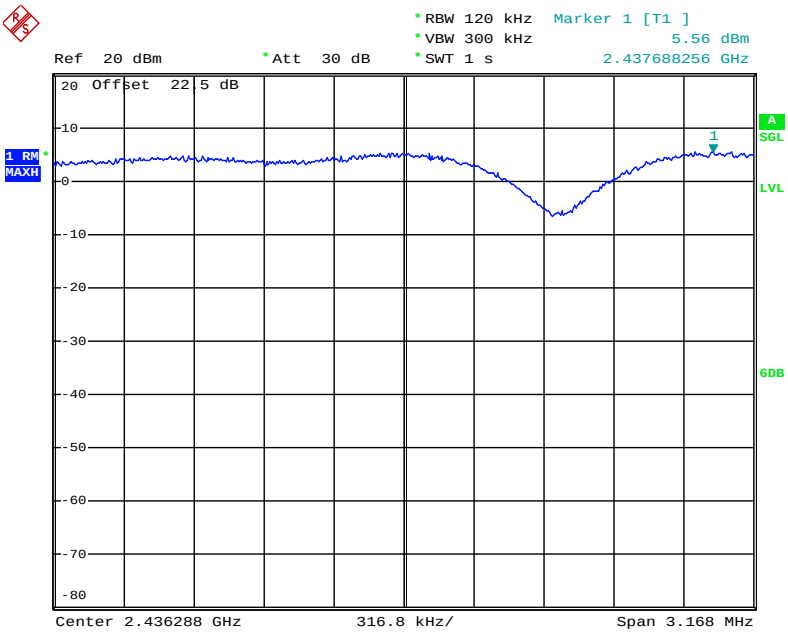
Date: 10.MAY.2012 05:37:33

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (2TX)



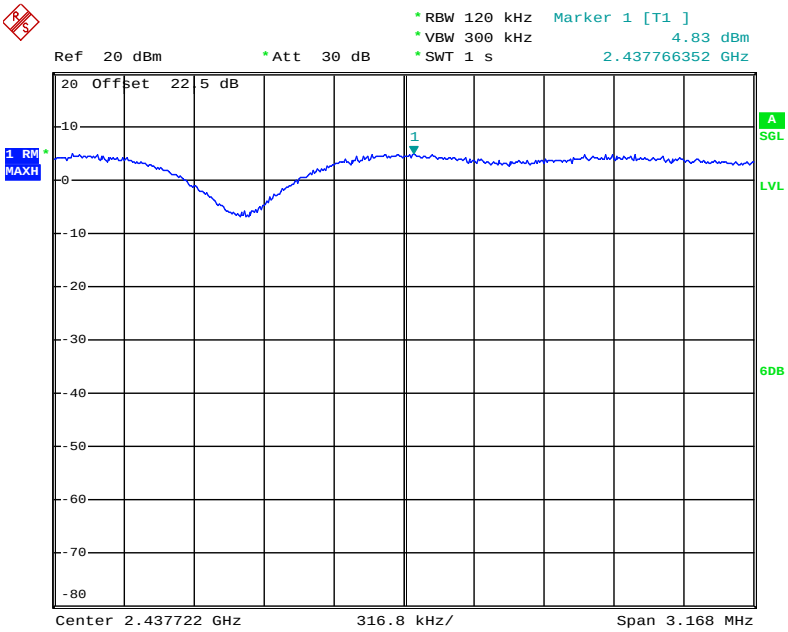
Date: 10.MAY.2012 05:37:07

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (3TX)



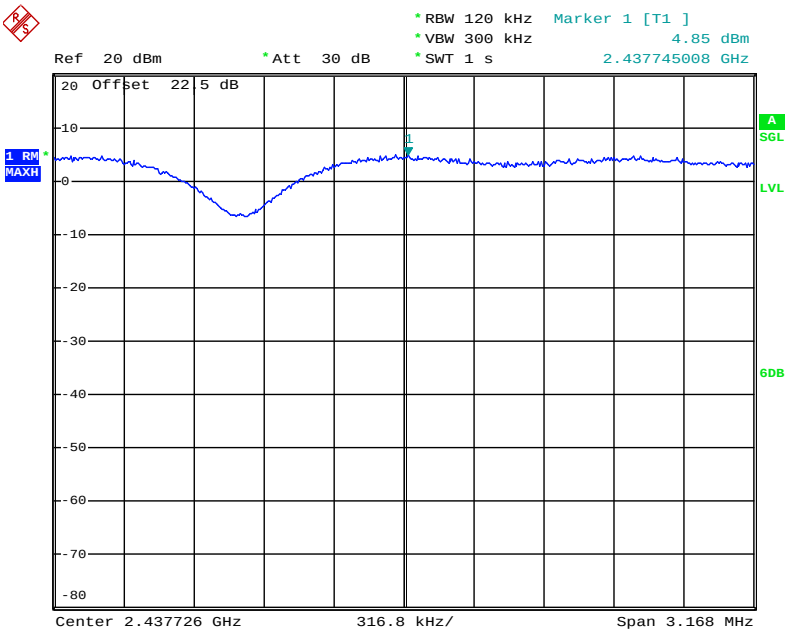
Date: 10.MAY.2012 06:24:27

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (3TX)



Date: 10.MAY.2012 06:24:54

Power Density Plot on Configuration IEEE 802.11b / Chain 3 / 2437 MHz (3TX)



Date: 10.MAY.2012 06:25:22

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 3 (Ant. 3 Panel antenna / 14dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-7.52	-15.23	-22.75	0.00	Complies
6	2437 MHz	0.25	-15.23	-14.98	0.00	Complies
11	2462 MHz	-6.64	-15.23	-21.87	0.00	Complies

Note:14dBi > 6dBi, so the power density limit =8-(14-6)=0dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-14.12	-15.23	-29.35	0.00	Complies
6	2437 MHz	-7.48	-15.23	-22.71	0.00	Complies
9	2452 MHz	-16.09	-15.23	-31.32	0.00	Complies

Note: 14dBi > 6dBi, so the power density limit =8-(14-6)=0dBm.

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-9.72	-10.19	-6.94	-15.23	-22.17	-3.01	Complies
6	2437 MHz	-5.74	-7.07	-3.34	-15.23	-18.57	-3.01	Complies
11	2462 MHz	-9.53	-10.87	-7.14	-15.23	-22.37	-3.01	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the power density limit =8-(17.01-6)=-3.01dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-16.44	-15.41	-12.88	-15.23	-28.11	-3.01	Complies
6	2437 MHz	-10.87	-11.87	-8.33	-15.23	-23.56	-3.01	Complies
9	2452 MHz	-19.02	-20.39	-16.64	-15.23	-31.87	-3.01	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the power density limit =8-(17.01-6)=-3.01dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-9.40	-9.59	-6.48	-15.23	-21.71	0	Complies
6	2437 MHz	-5.12	-5.76	-2.42	-15.23	-17.65	0	Complies
11	2462 MHz	-8.67	-10.36	-6.42	-15.23	-21.65	0	Complies

Note:14dBi > 6dBi, so the power density limit =8-(14-6)=0dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-14.75	-14.06	-11.38	-15.23	-26.61	0	Complies
6	2437 MHz	-9.79	-10.23	-6.99	-15.23	-22.22	0	Complies
9	2452 MHz	-16.24	-18.04	-14.04	-15.23	-29.27	0	Complies

Note:14dBi > 6dBi, so the power density limit =8-(14-6)=0dBm.

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-12.89	-13.00	-13.34	-8.30	-15.23	-23.53	-4.77	Complies
6	2437 MHz	-7.88	-8.98	-8.80	-3.75	-15.23	-18.98	-4.77	Complies
11	2462 MHz	-9.48	-11.16	-10.48	-5.55	-15.23	-20.78	-4.77	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi so the power density limit =8-(18.77-6)=-4.77dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-19.61	-18.98	-18.63	-14.28	-15.23	-29.51	-4.77	Complies
6	2437 MHz	-13.17	-14.08	-14.81	-9.20	-15.23	-24.43	-4.77	Complies
9	2452 MHz	-20.74	-21.84	-22.95	-16.98	-15.23	-32.21	-4.77	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi, so the power density limit =8-(18.77-6)=-4.77dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-12.80	-12.96	-12.99	-8.14	-15.23	-23.37	-3.00	Complies
6	2437 MHz	-7.20	-7.93	-8.11	-2.96	-15.23	-18.19	-3.00	Complies
11	2462 MHz	-10.36	-12.21	-11.44	-6.50	-15.23	-21.73	-3.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17dBi > 6dBi, so the power density limit =8-(17-6)=-3dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-16.30	-15.83	-15.39	-11.05	-15.23	-26.28	-3.00	Complies
6	2437 MHz	-11.80	-12.93	-13.12	-7.81	-15.23	-23.03	-3.00	Complies
9	2452 MHz	-17.92	-19.96	-20.76	-14.61	-15.23	-29.83	-3.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(\text{N})\ \text{dBi}$ =17dBi > 6dBi, so the power density limit =8-(17-6)=-3dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 3 (Ant. 3 Panel antenna / 14dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-8.89	-15.23	-24.12	0.00	Complies
6	2437 MHz	-3.12	-15.23	-18.35	0.00	Complies
11	2462 MHz	-5.28	-15.23	-20.51	0.00	Complies

Note: 14dBi > 6dBi, so the power density limit =8-(14-6)=0dBm

2TX

Configuration IEEE 802.11b / Chain 1+ Chain 2

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-9.72	-9.88	-6.79	-15.23	-22.02	-3.01	Complies
6	2437 MHz	-1.86	-3.33	0.48	-15.23	-14.75	-3.01	Complies
11	2462 MHz	-3.84	-5.18	-1.45	-15.23	-16.68	-3.01	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =17.01dBi > 6dBi, so the power density limit =8-(17.01-6)=-3.01dBm.

3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2 + Chain 3

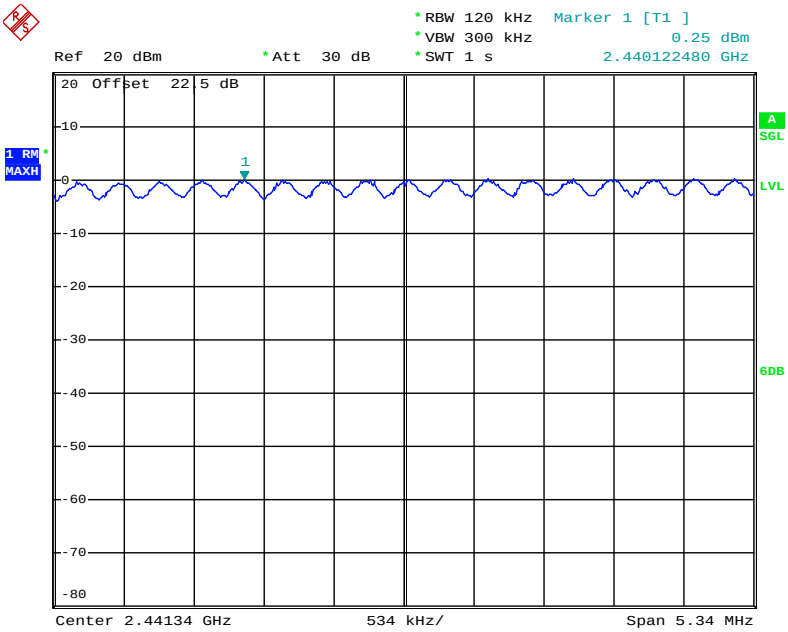
Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-10.07	-10.78	-10.29	-5.60	-15.23	-20.83	-4.77	Complies
6	2437 MHz	-4.80	-6.54	-6.40	-1.07	-15.23	-16.30	-4.77	Complies
11	2462 MHz	-5.37	-6.64	-6.55	-1.38	-15.23	-16.60	-4.77	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.77dBi > 6dBi, so the power density limit =8-(18.77-6)=-4.77dBm.

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

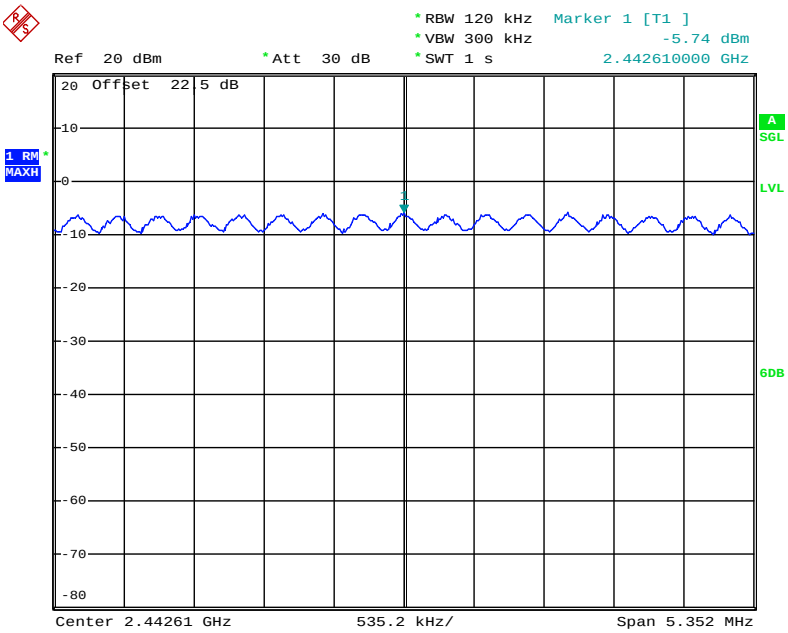
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (1TX)



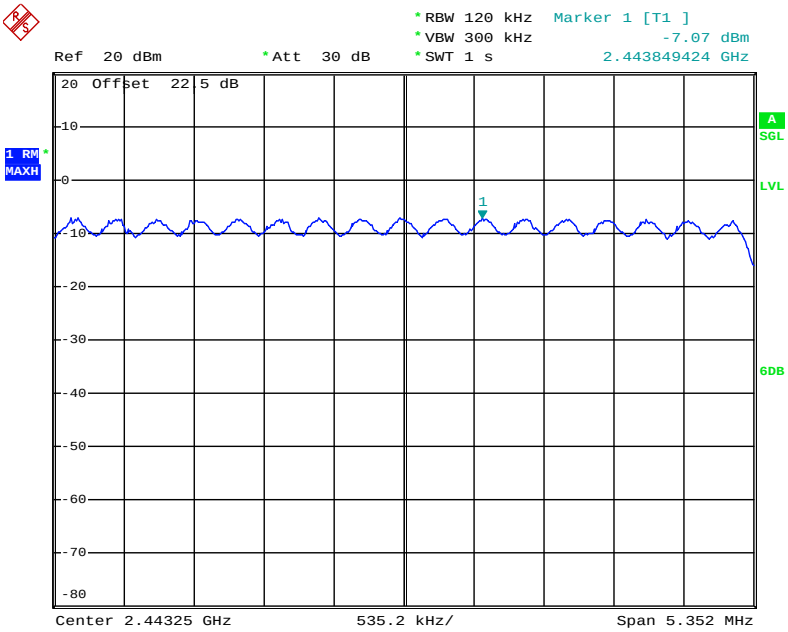
Date: 10.MAY.2012 11:41:23

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (2TX)



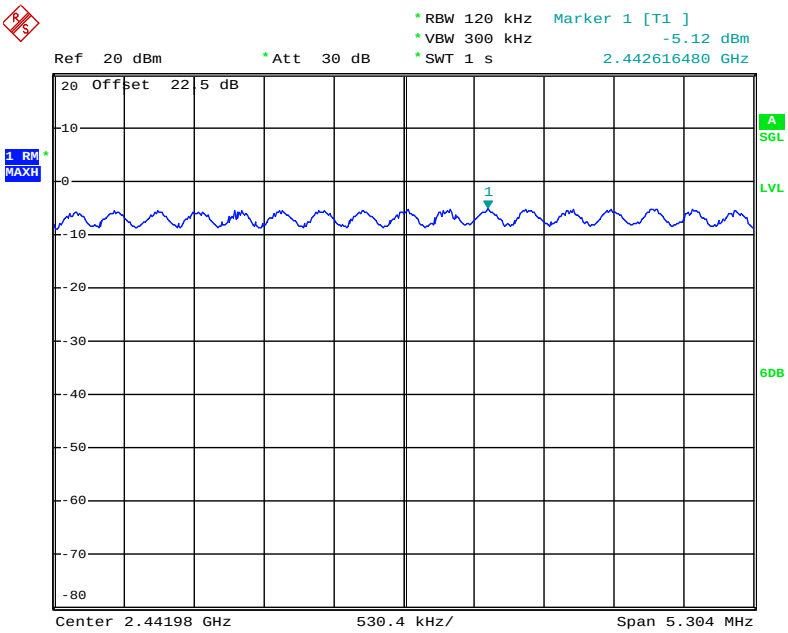
Date: 10.MAY.2012 11:24:11

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (2TX)



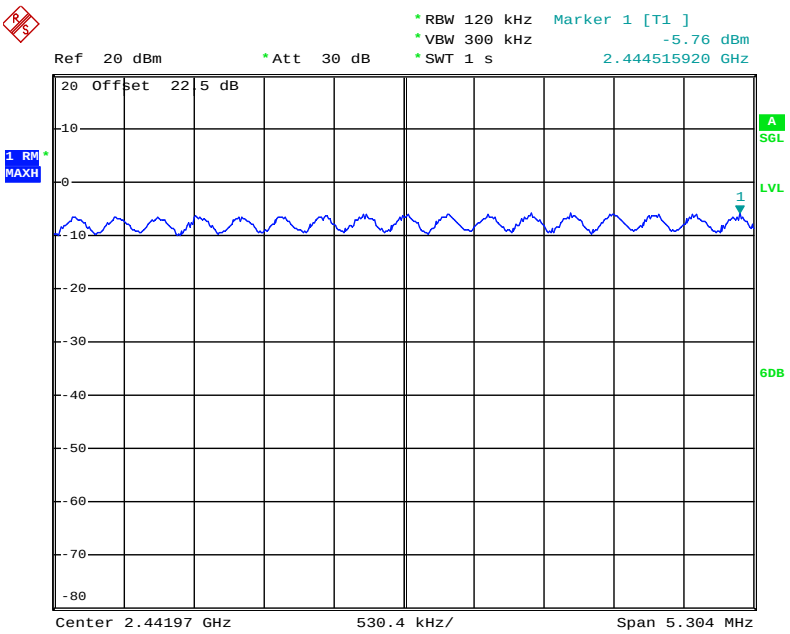
Date: 10.MAY.2012 11:24:34

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (2TX)



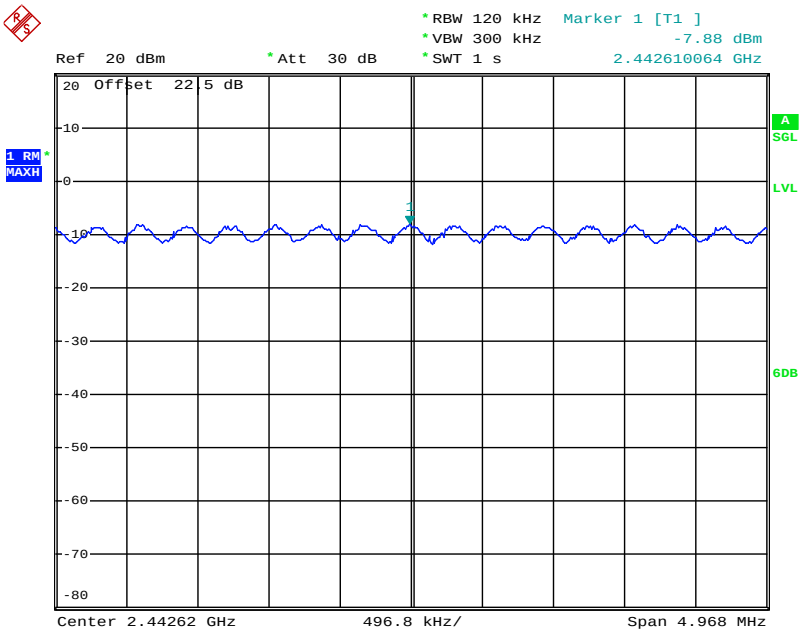
Date: 10.MAY.2012 11:35:06

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (2TX)



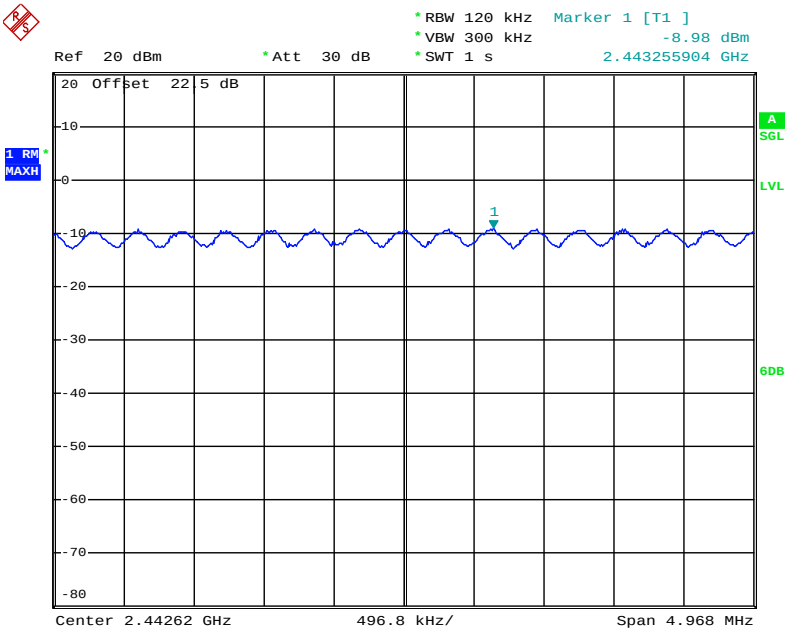
Date: 10.MAY.2012 11:34:32

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (3TX)



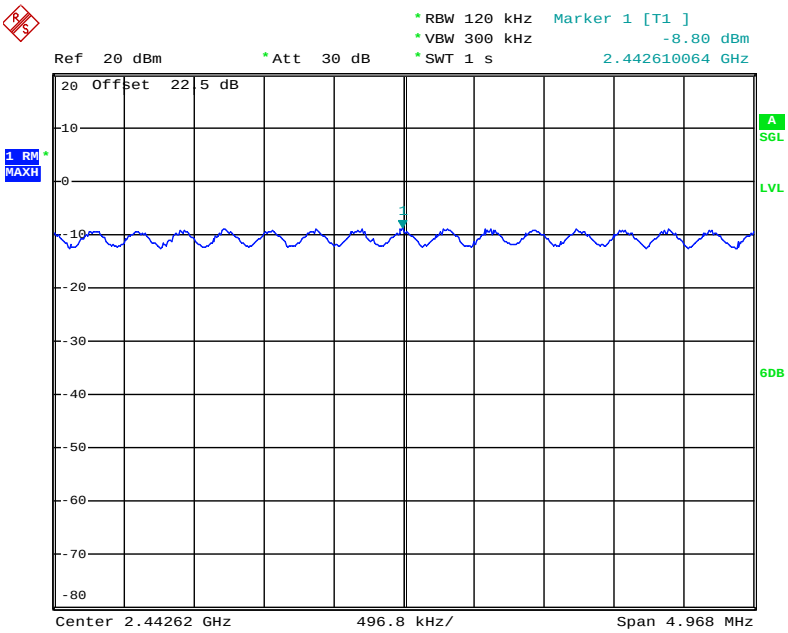
Date: 10.MAY.2012 11:06:41

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (3TX)



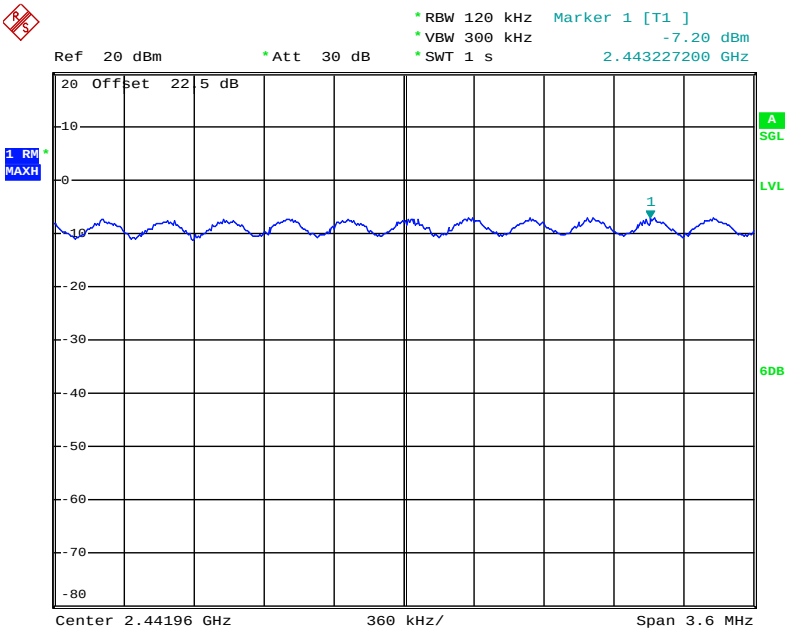
Date: 10.MAY.2012 11:06:21

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 2437 MHz (3TX)



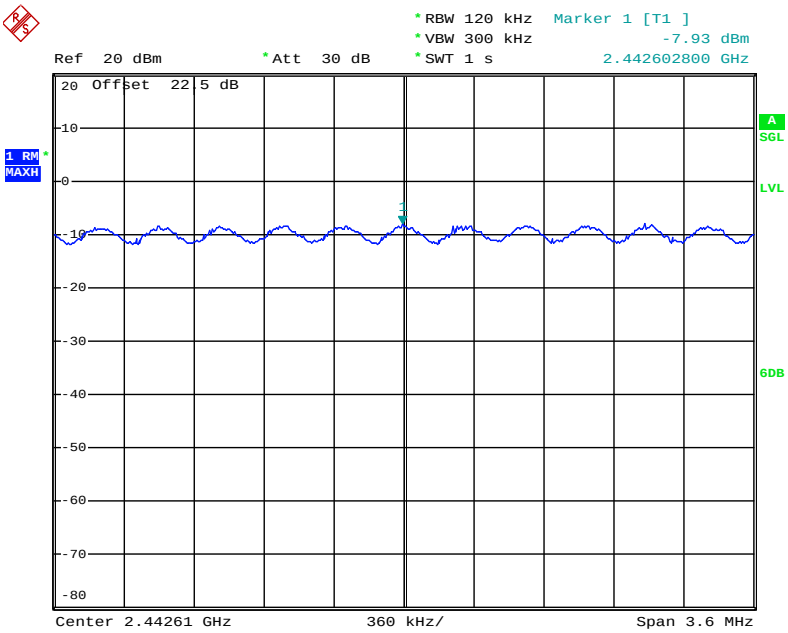
Date: 10.MAY.2012 11:05:59

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (3TX)



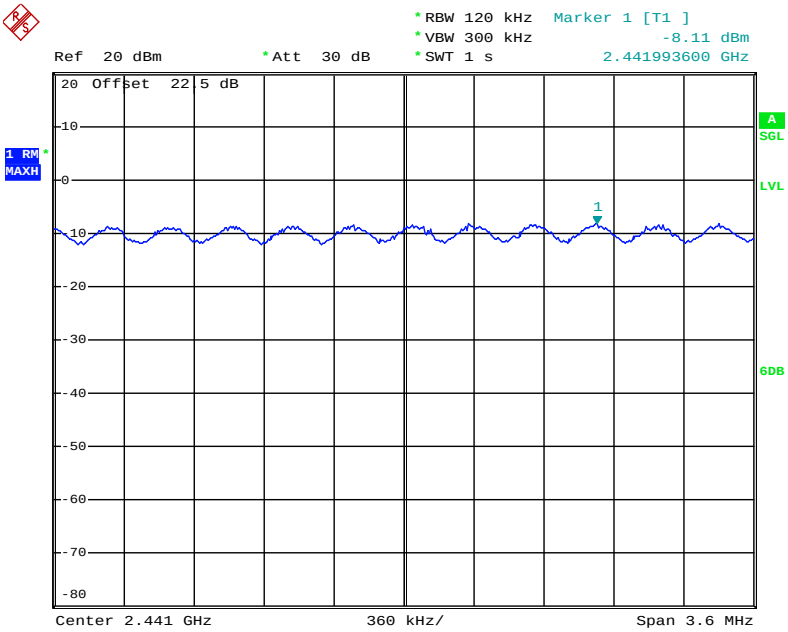
Date: 10.MAY.2012 11:01:01

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (3TX)



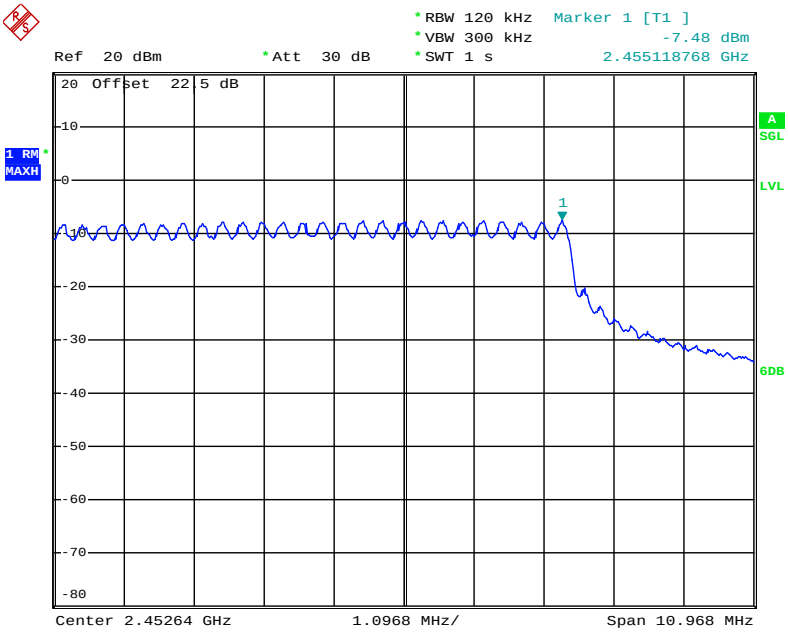
Date: 10.MAY.2012 11:01:39

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 2437 MHz (3TX)



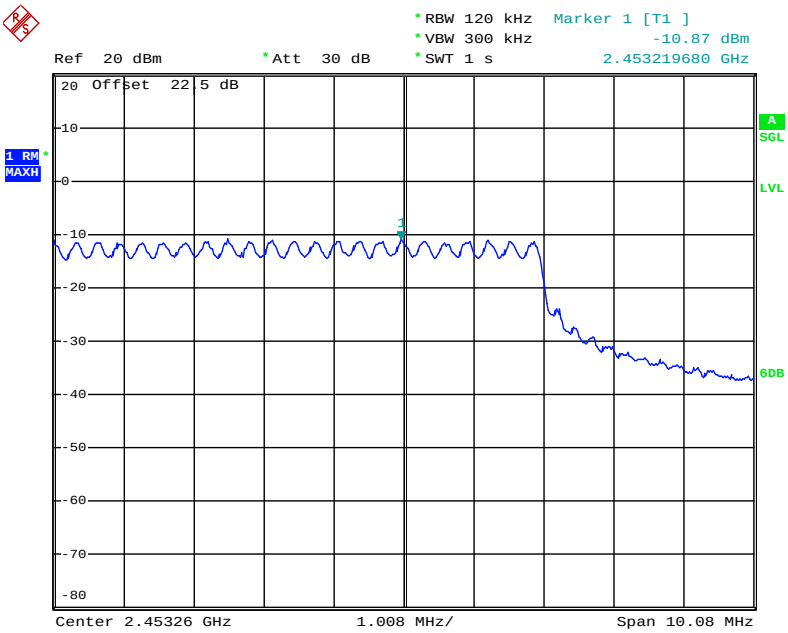
Date: 10.MAY.2012 11:02:01

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz / (1TX)



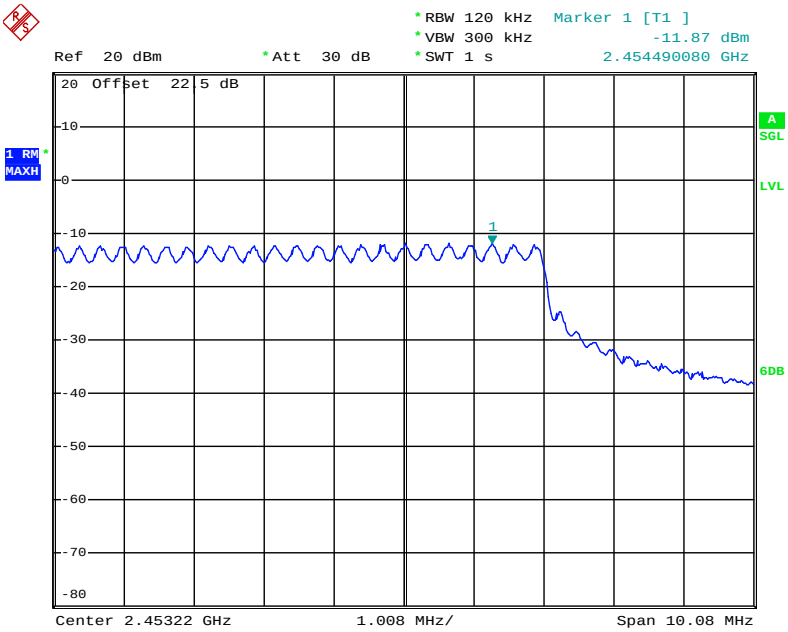
Date: 10.MAY.2012 11:43:14

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (2TX)



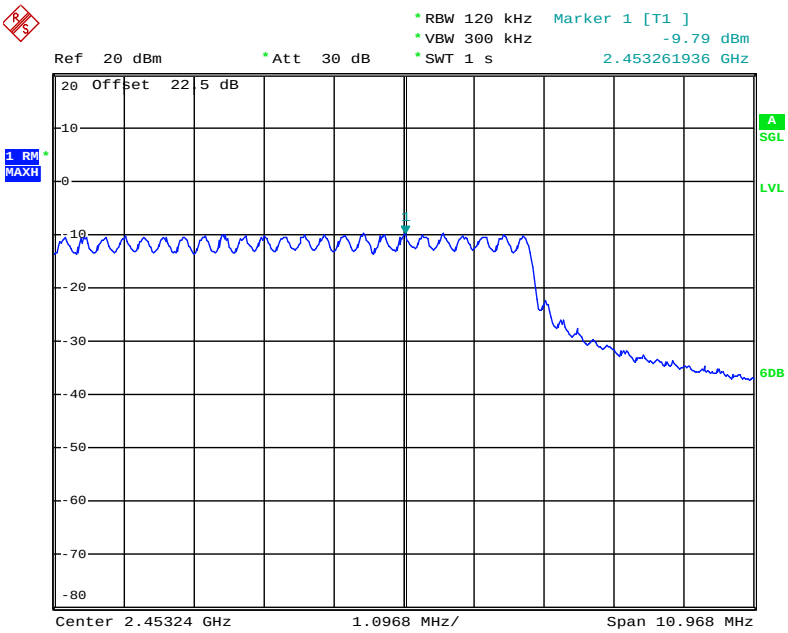
Date: 10.MAY.2012 11:27:44

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (2TX)



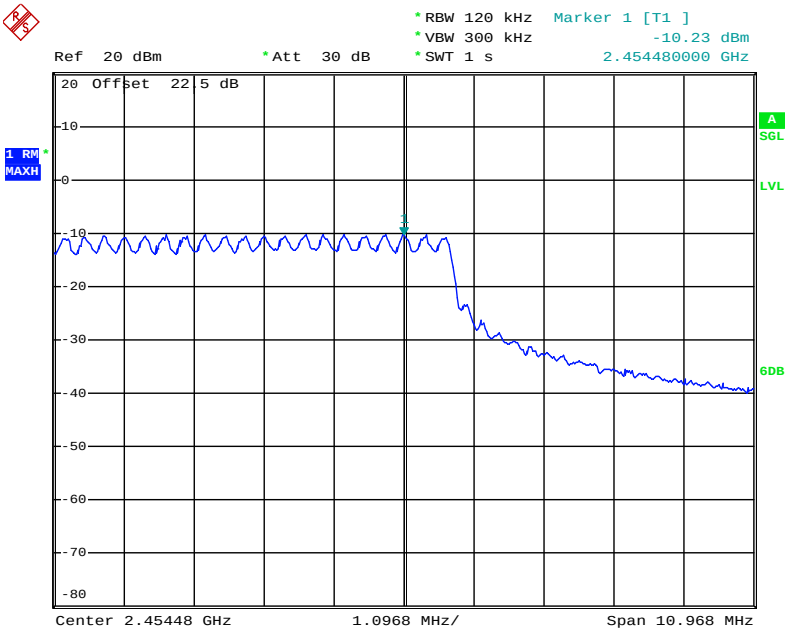
Date: 10.MAY.2012 11:27:20

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (2TX)



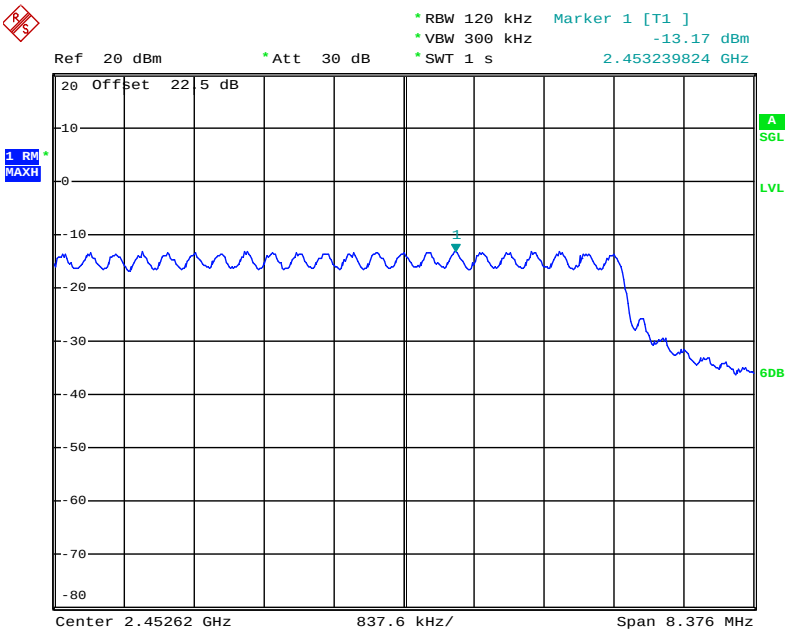
Date: 10.MAY.2012 11:31:08

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (2TX)



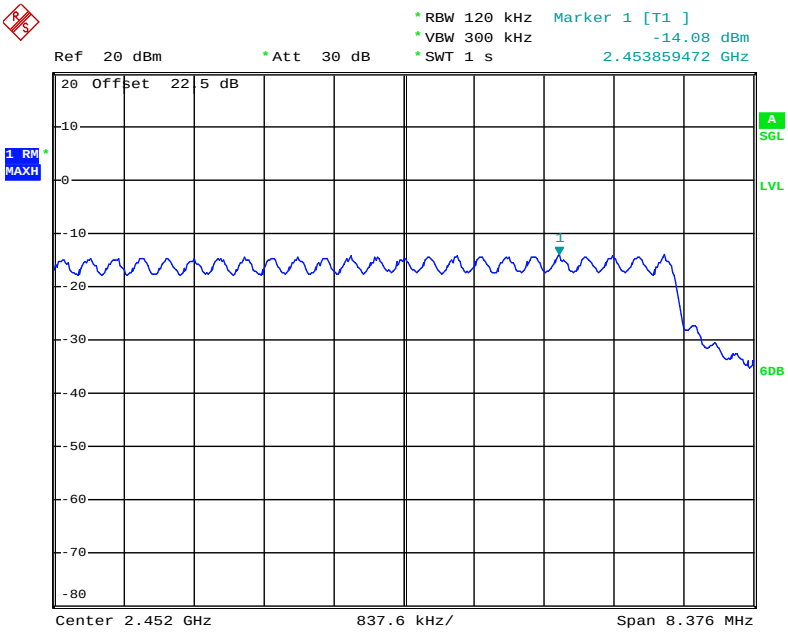
Date: 10.MAY.2012 11:31:33

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (3TX)



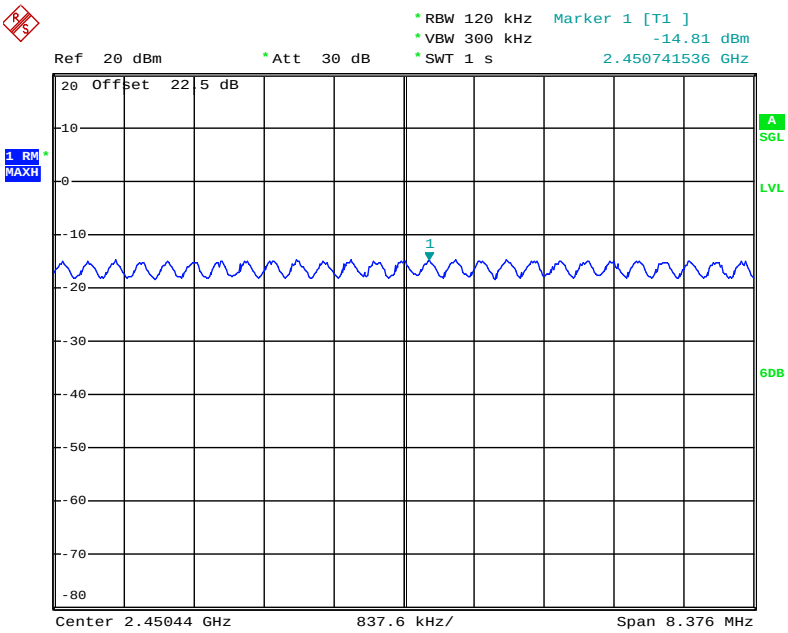
Date: 10.MAY.2012 11:10:37

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (3TX)



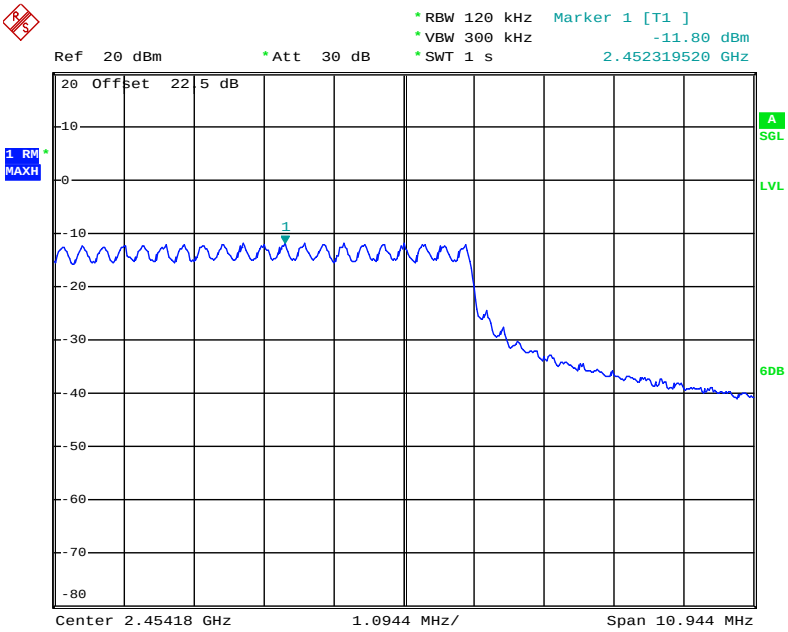
Date: 10.MAY.2012 11:10:57

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 2437 MHz (3TX)



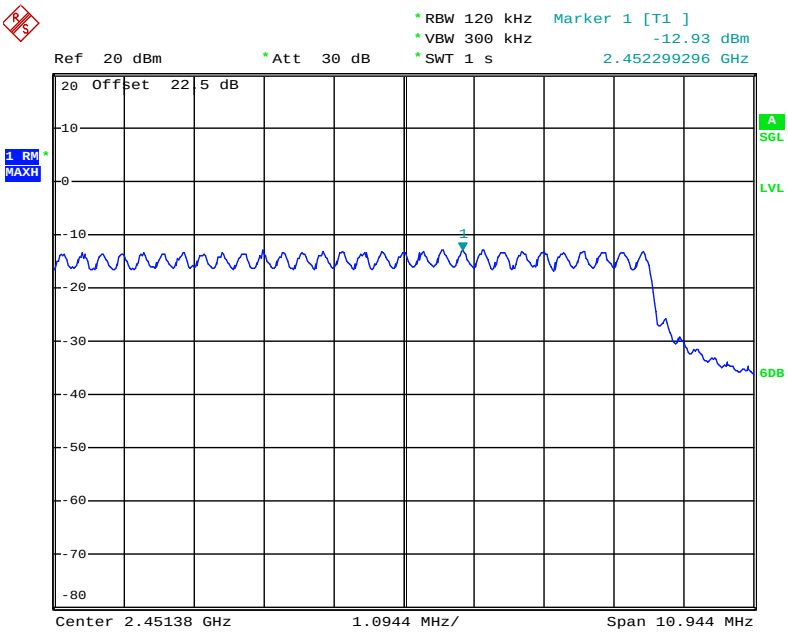
Date: 10.MAY.2012 11:11:18

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (3TX)



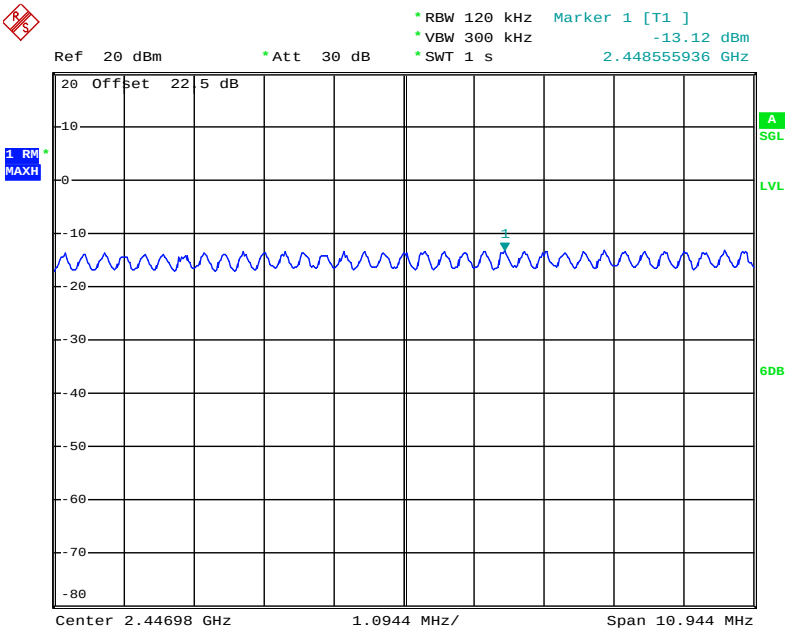
Date: 10.MAY.2012 10:57:41

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (3TX)



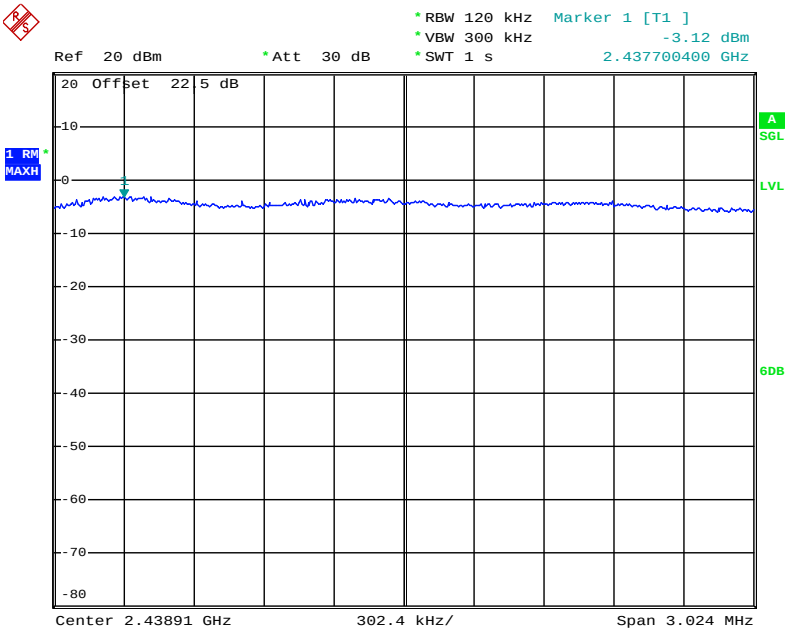
Date: 10.MAY.2012 10:57:16

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 2437 MHz (3TX)



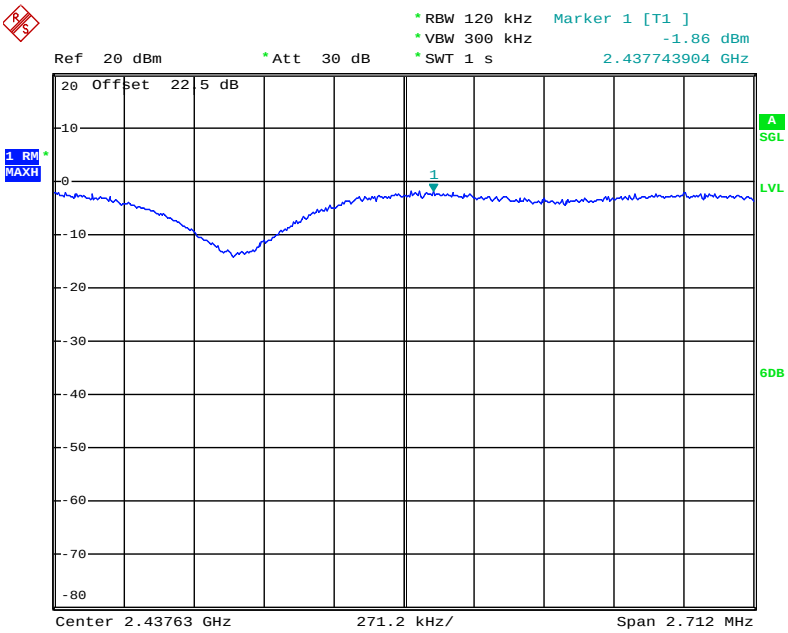
Date: 10.MAY.2012 10:56:52

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



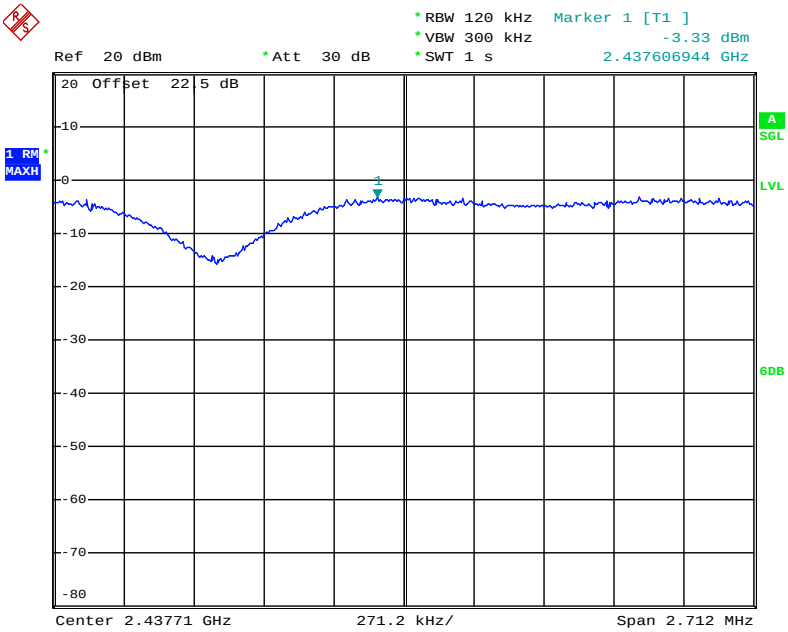
Date: 10.MAY.2012 11:39:26

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (2TX)



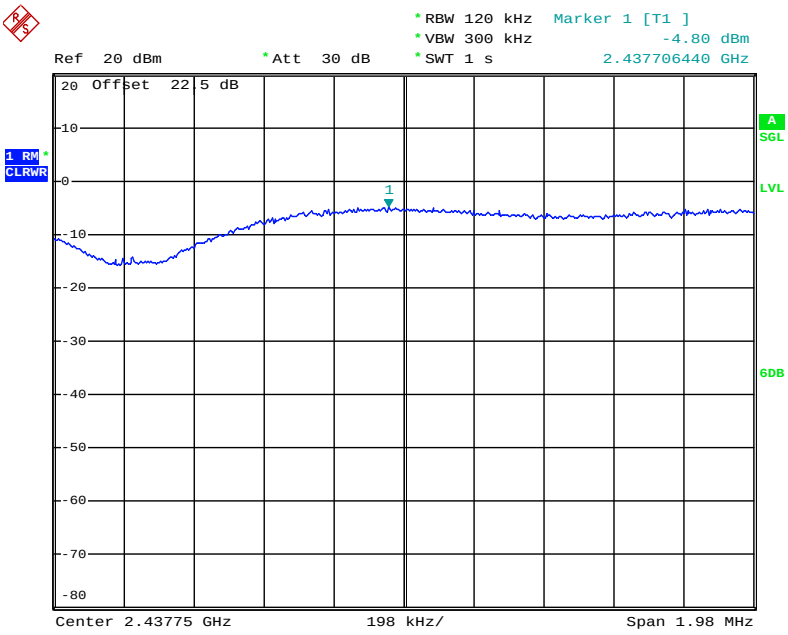
Date: 10.MAY.2012 11:21:19

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (2TX)



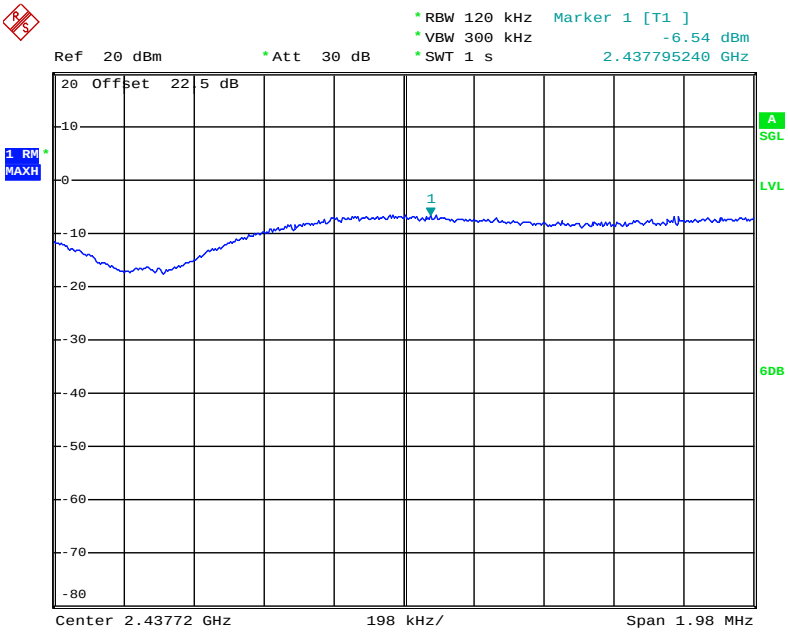
Date: 10.MAY.2012 11:20:53

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (3TX)



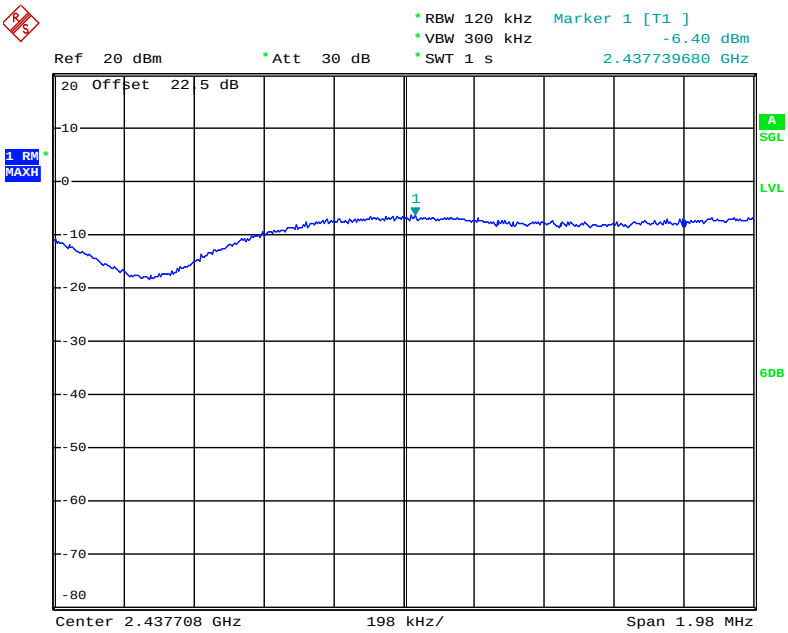
Date: 10.MAY.2012 11:16:55

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (3TX)



Date: 10.MAY.2012 11:17:14

Power Density Plot on Configuration IEEE 802.11b / Chain 3 / 2437 MHz (3TX)



Date: 10.MAY.2012 11:17:34

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Mode	Mode 4 (Ant. 4 Yagi antenna / 13.5dBi)		

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-10.69	-15.23	-25.92	0.50	Complies
6	2437 MHz	-2.84	-15.23	-18.07	0.50	Complies
11	2462 MHz	-8.73	-15.23	-23.96	0.50	Complies

Note:13.5dBi > 6dBi, so the power density limit =8-(13.5-6)=0.5dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-14.66	-15.23	-29.89	0.50	Complies
6	2437 MHz	-8.38	-15.23	-23.61	0.50	Complies
9	2452 MHz	-17.61	-15.23	-32.84	0.50	Complies

Note: 13.5dBi > 6dBi, so the power density limit =8-(13.5-6)=0.5dBm.

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-10.27	-10.83	-7.53	-15.23	-22.76	-2.51	Complies
6	2437 MHz	-7.71	-9.14	-5.36	-15.23	-20.58	-2.51	Complies
11	2462 MHz	-10.60	-11.41	-7.98	-15.23	-23.20	-2.51	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the power density limit =8-(16.51-6)=-2.51dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-16.55	-15.75	-13.12	-15.23	-28.35	-2.51	Complies
6	2437 MHz	-11.78	-12.59	-9.16	-15.23	-24.38	-2.51	Complies
9	2452 MHz	-19.55	-20.53	-17.00	-15.23	-32.23	-2.51	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the power density limit =8-(16.51-6)=-2.51dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-13.58	-14.25	-10.89	-15.23	-26.12	0.50	Complies
6	2437 MHz	-6.34	-6.83	-3.57	-15.23	-18.80	0.50	Complies
11	2462 MHz	-10.48	-11.57	-7.98	-15.23	-23.21	0.50	Complies

Note:13.5dBi > 6dBi, so the power density limit =8-(13.5-6)=0.5dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-16.32	-15.62	-12.95	-15.23	-28.17	0.50	Complies
6	2437 MHz	-12.58	-13.20	-9.87	-15.23	-25.10	0.50	Complies
9	2452 MHz	-17.64	-19.63	-15.51	-15.23	-30.74	0.50	Complies

Note:13.5dBi > 6dBi, so the power density limit =8-(13.5-6)=0.5dBm.

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-15.03	-15.28	-15.04	-10.34	-15.23	-25.57	-4.27	Complies
6	2437 MHz	-11.15	-12.60	-12.25	-7.18	-15.23	-22.41	-4.27	Complies
11	2462 MHz	-11.92	-13.18	-12.72	-7.80	-15.23	-23.03	-4.27	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the power density limit =8-(18.27-6)=-4.27dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-18.73	-17.88	-17.82	-13.35	-15.23	-28.58	-4.27	Complies
6	2437 MHz	-15.10	-15.36	-15.81	-10.64	-15.23	-25.87	-4.27	Complies
9	2452 MHz	-20.83	-23.04	-23.27	-17.46	-15.23	-32.69	-4.27	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the power density limit =8-(18.27-6)=-4.27dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-14.78	-14.87	-14.72	-10.02	-15.23	-25.25	-2.50	Complies
6	2437 MHz	-11.24	-12.86	-12.76	-7.45	-15.23	-22.68	-2.50	Complies
11	2462 MHz	-11.65	-12.88	-12.43	-7.52	-15.23	-22.75	-2.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.5dBi > 6dBi, so the power density limit =8-(16.5-6)=-2.5dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-17.20	-16.38	-16.03	-11.74	-15.23	-26.97	-2.50	Complies
6	2437 MHz	-14.13	-14.69	-15.52	-9.97	-15.23	-25.20	-2.50	Complies
9	2452 MHz	-18.65	-21.19	-21.65	-15.51	-15.23	-30.74	-2.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(\text{N})\ \text{dBi}$ =16.5dBi > 6dBi, so the power density limit =8-(16.5-6)=-2.5dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11b/g
Test Mode	Mode 4 (Ant. 4 Yagi antenna / 13.5dBi)		

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-12.59	-15.23	-27.82	0.50	Complies
6	2437 MHz	2.18	-15.23	-13.05	0.50	Complies
11	2462 MHz	-3.47	-15.23	-18.70	0.50	Complies

Note: 13.5dBi > 6dBi, so the power density limit =8-(13.5-6)=0.5dBm.

2TX

Configuration IEEE 802.11b / Chain 1+ Chain 2

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-10.76	-11.88	-8.27	-15.23	-23.50	-2.51	Complies
6	2437 MHz	-0.90	-1.95	1.62	-15.23	-13.61	-2.51	Complies
11	2462 MHz	-4.10	-4.75	-1.40	-15.23	-16.63	-2.51	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =16.51dBi > 6dBi, so the power density limit =8-(16.51-6)=-2.51dBm.

3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2 + Chain 3

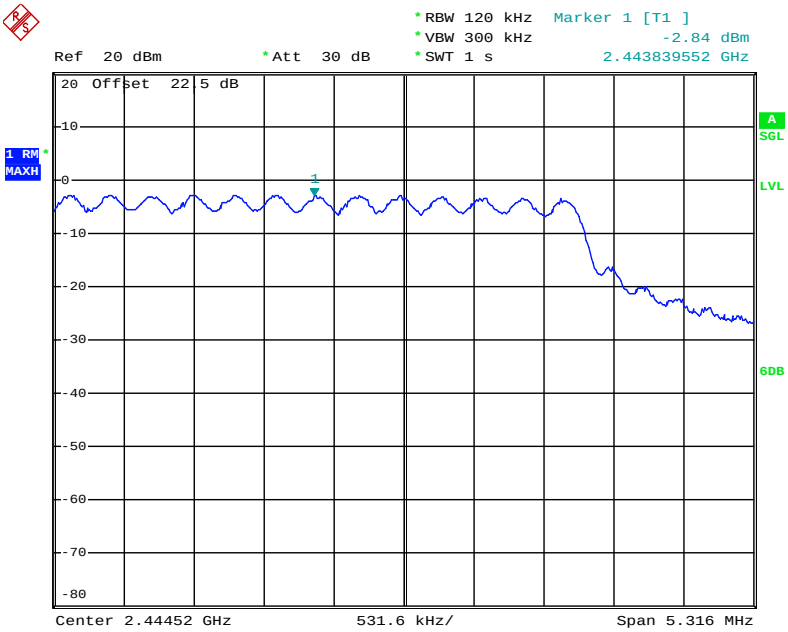
Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-12.82	-13.62	-13.49	-8.52	-15.23	-23.75	-4.27	Complies
6	2437 MHz	-4.26	-5.79	-5.43	-0.34	-15.23	-15.57	-4.27	Complies
11	2462 MHz	-5.60	-6.74	-6.45	-1.46	-15.23	-16.69	-4.27	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =18.27dBi > 6dBi, so the power density limit =8-(18.27-6)=-4.27dBm.

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

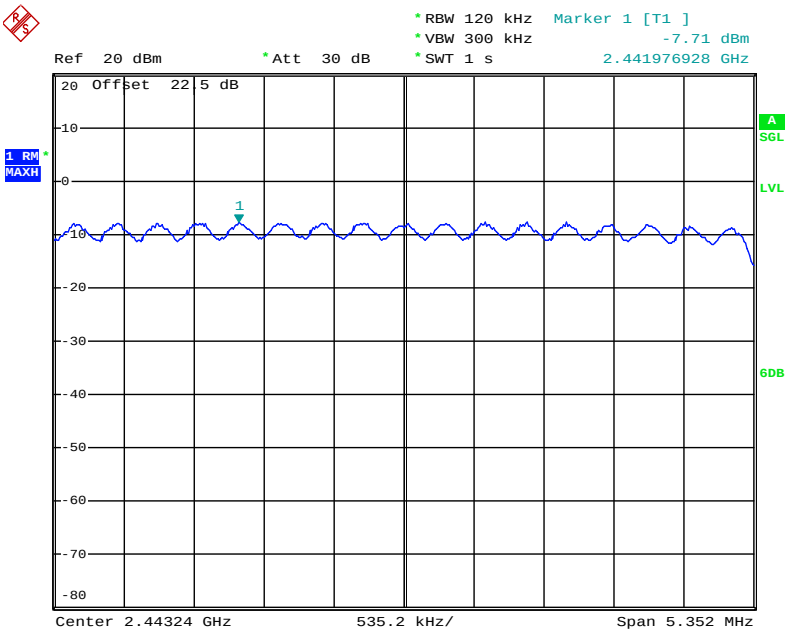
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (1TX)



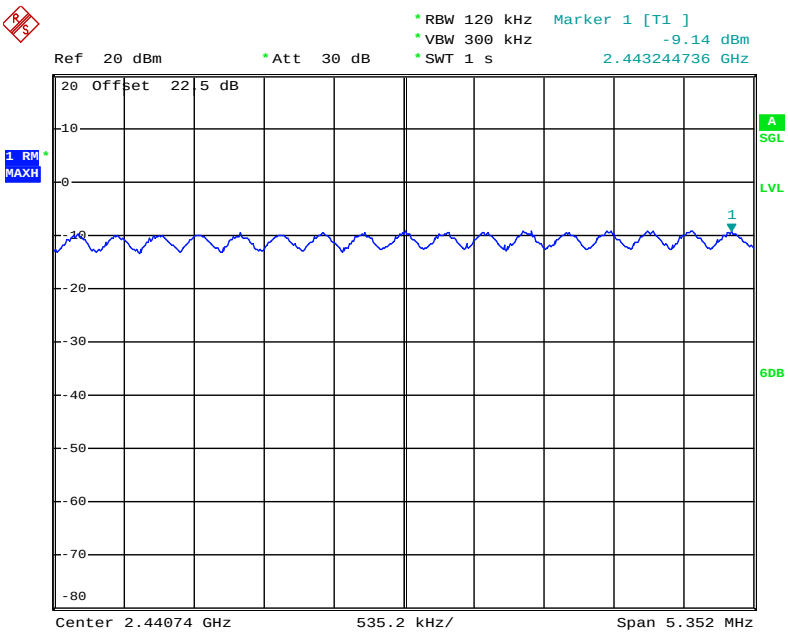
Date: 10.MAY.2012 09:58:33

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (2TX)



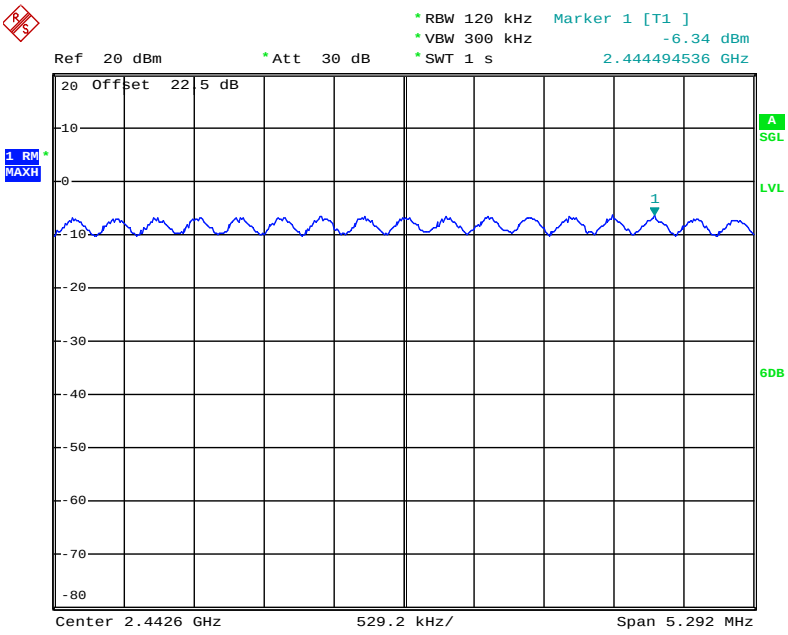
Date: 10.MAY.2012 10:10:50

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (2TX)



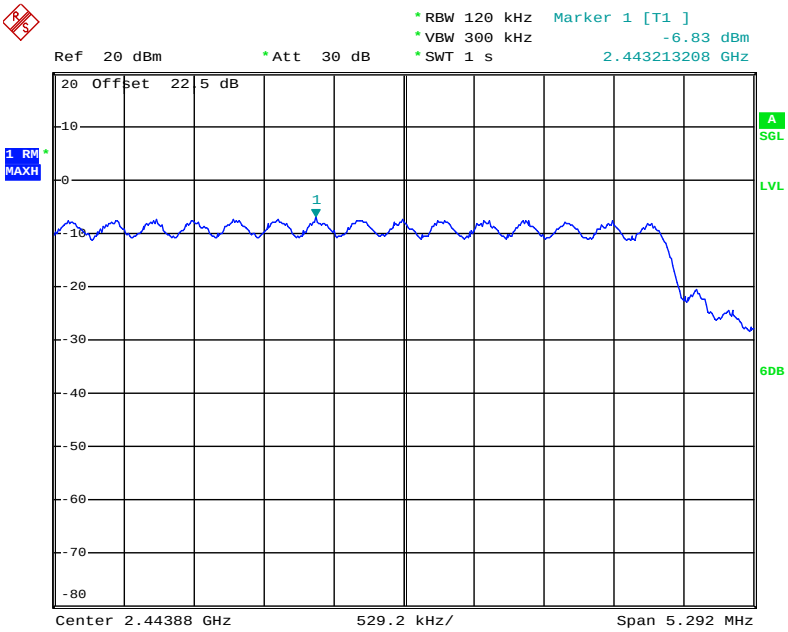
Date: 10.MAY.2012 10:11:19

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (2TX)



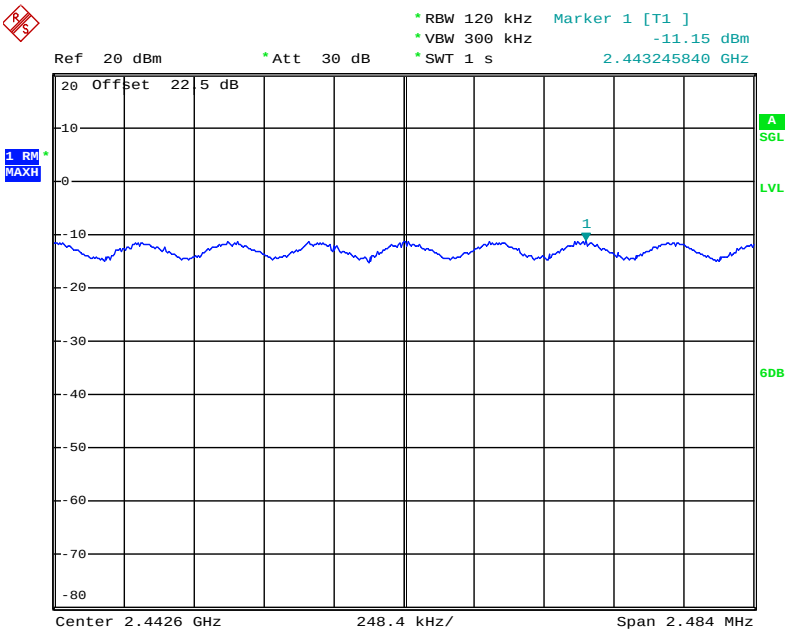
Date: 10.MAY.2012 10:22:27

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (2TX)



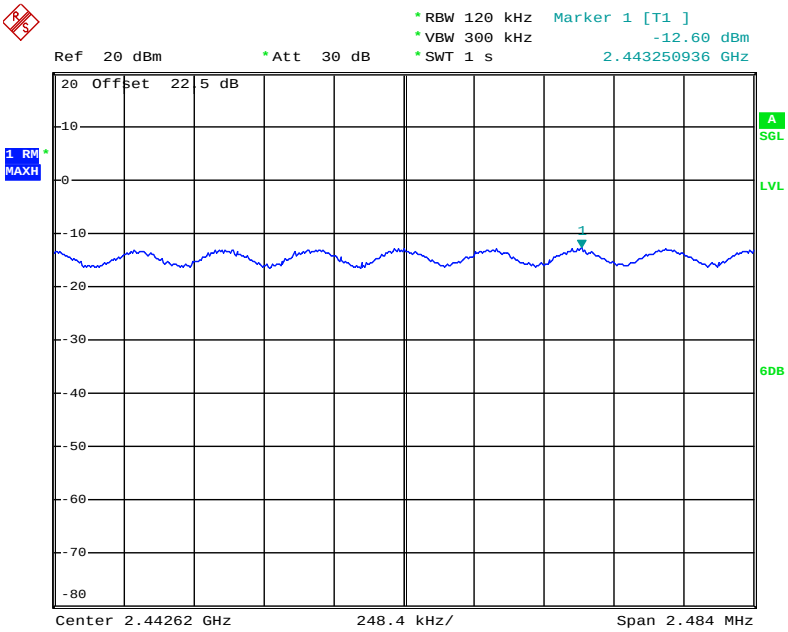
Date: 10.MAY.2012 10:21:59

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (3TX)



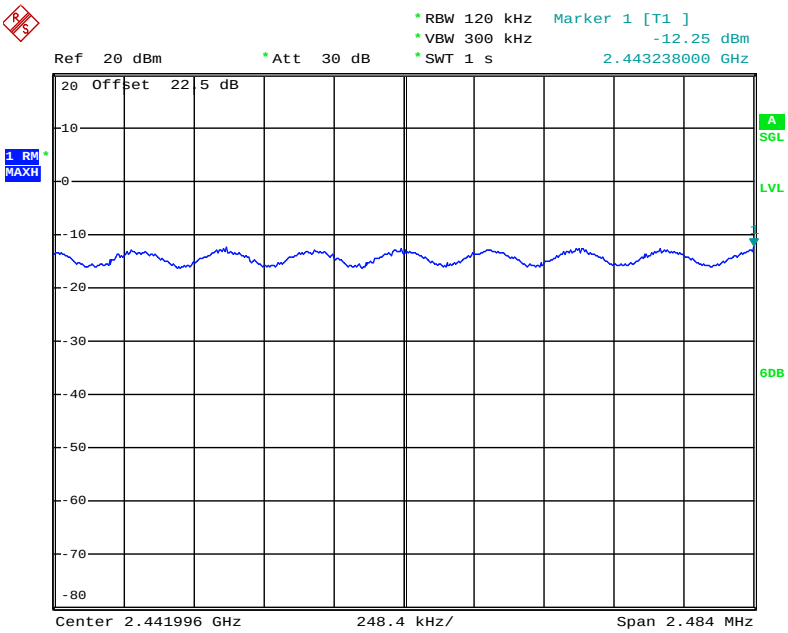
Date: 10.MAY.2012 10:31:37

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (3TX)



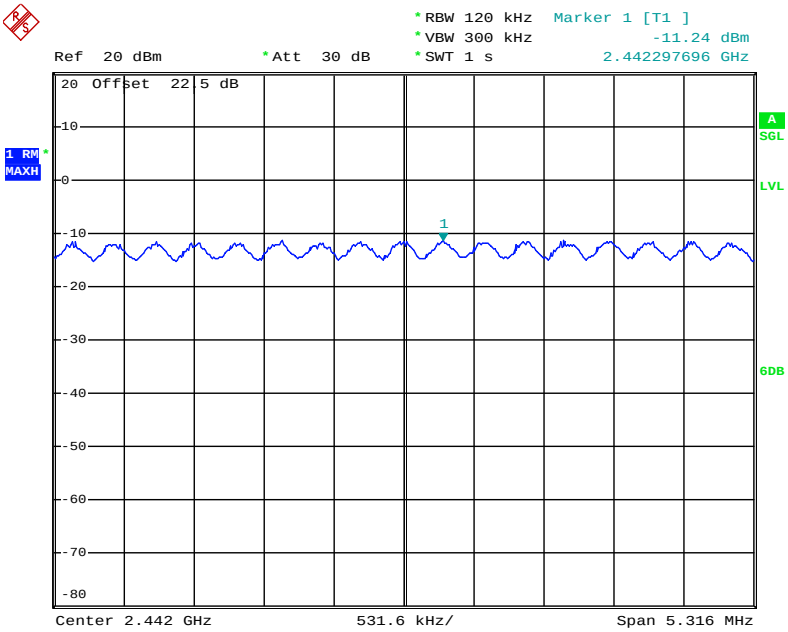
Date: 10.MAY.2012 10:31:59

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 2437 MHz (3TX)



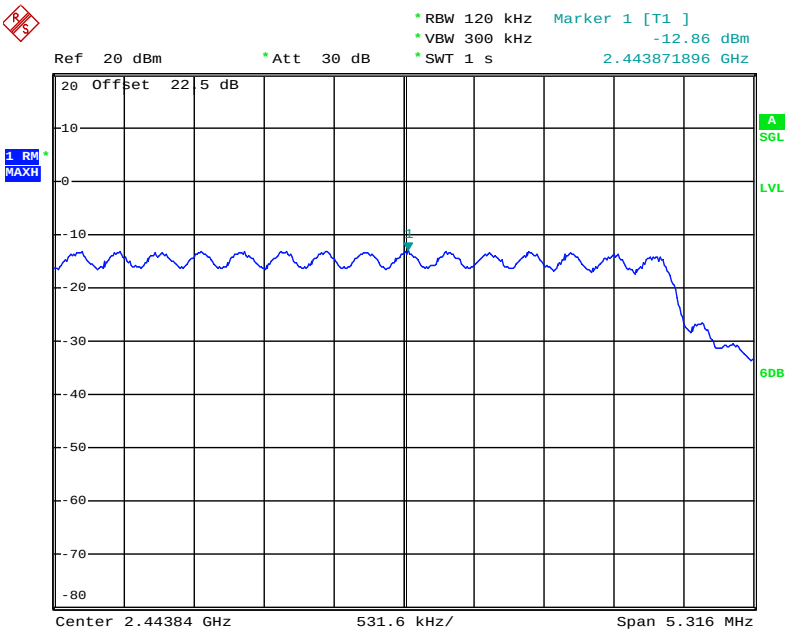
Date: 10.MAY.2012 10:32:17

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (3TX)



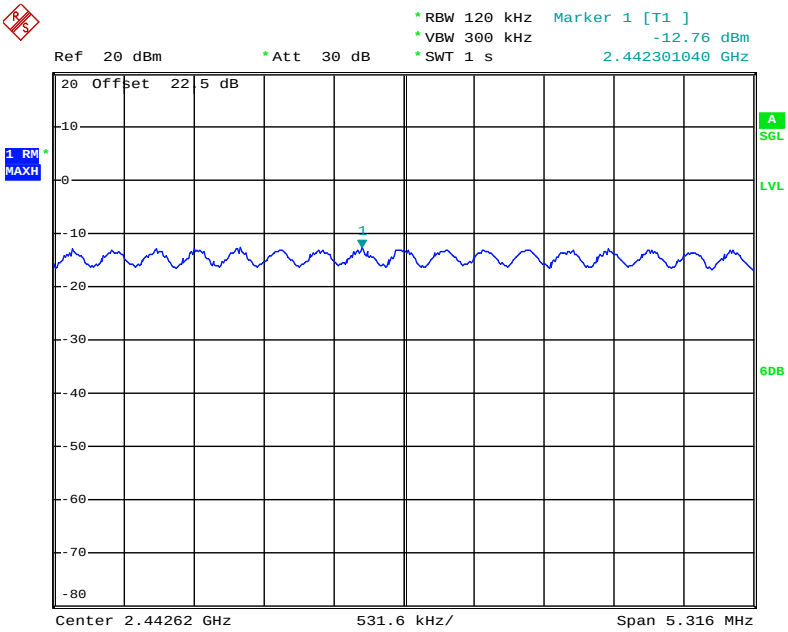
Date: 10.MAY.2012 10:48:50

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (3TX)



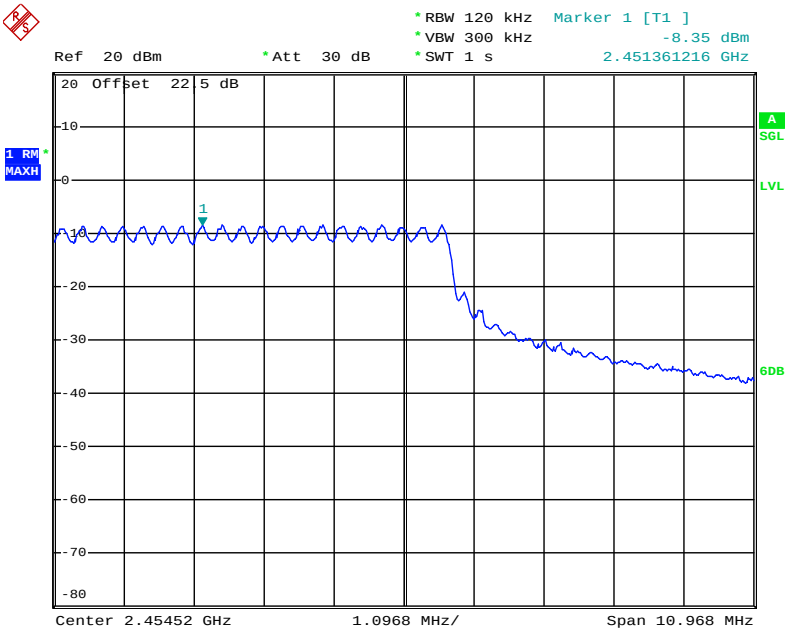
Date: 10.MAY.2012 10:49:16

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 2437 MHz (3TX)



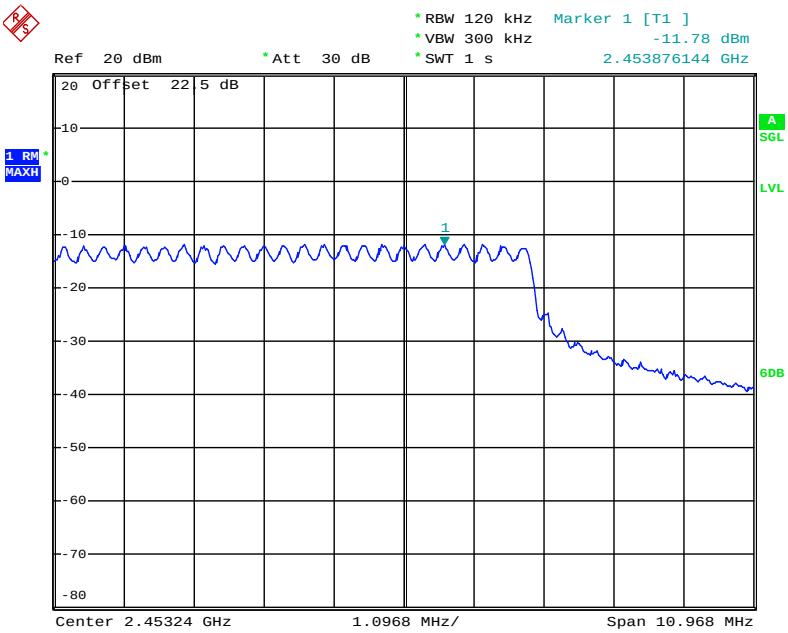
Date: 10.MAY.2012 10:49:37

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz / (1TX)



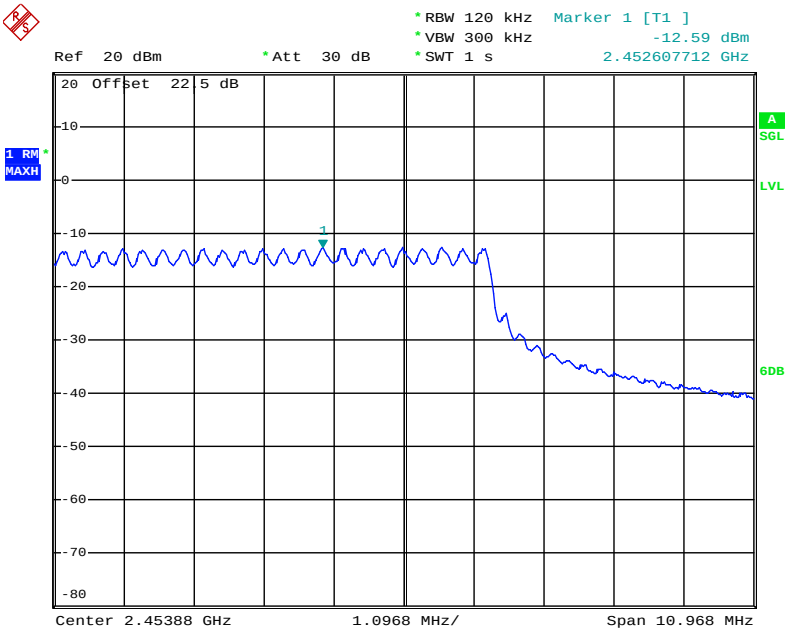
Date: 10.MAY.2012 10:01:12

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (2TX)



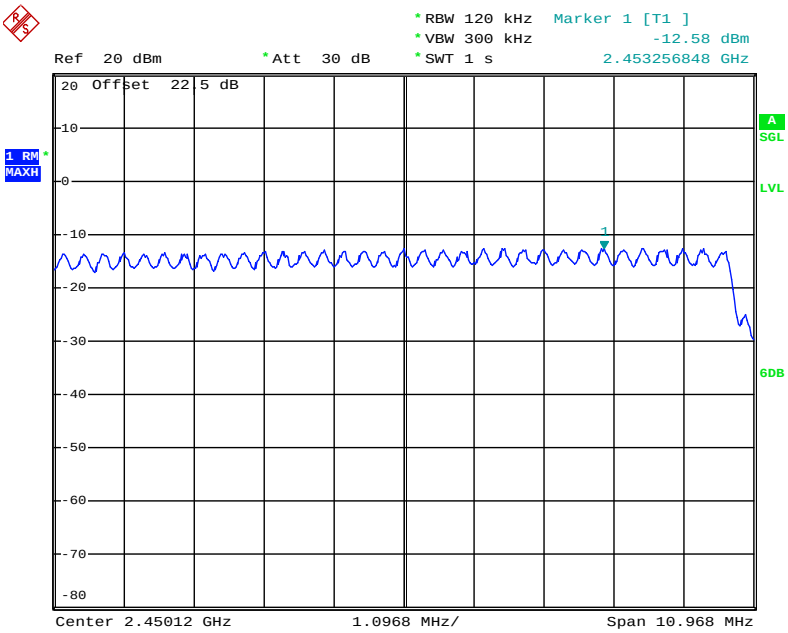
Date: 10.MAY.2012 10:14:47

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (2TX)



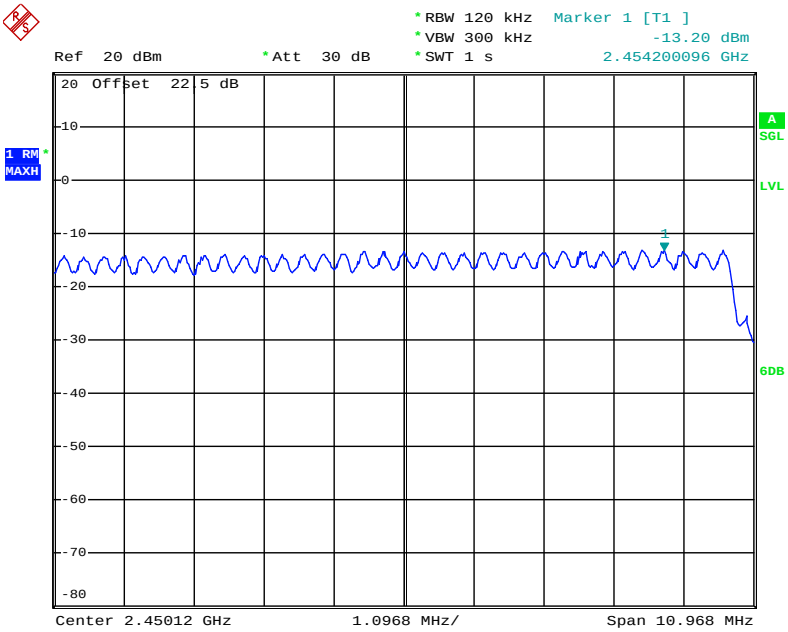
Date: 10.MAY.2012 10:14:26

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (2TX)



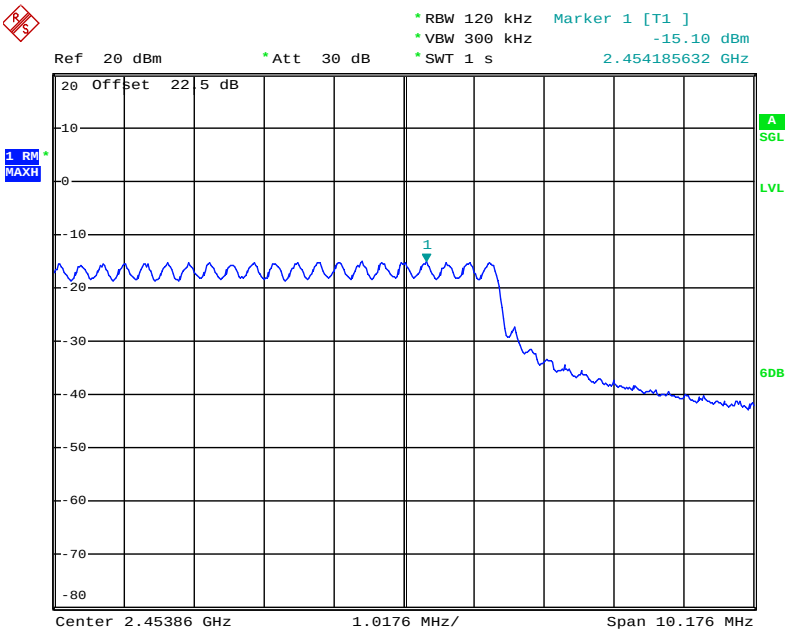
Date: 10.MAY.2012 10:19:05

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (2TX)



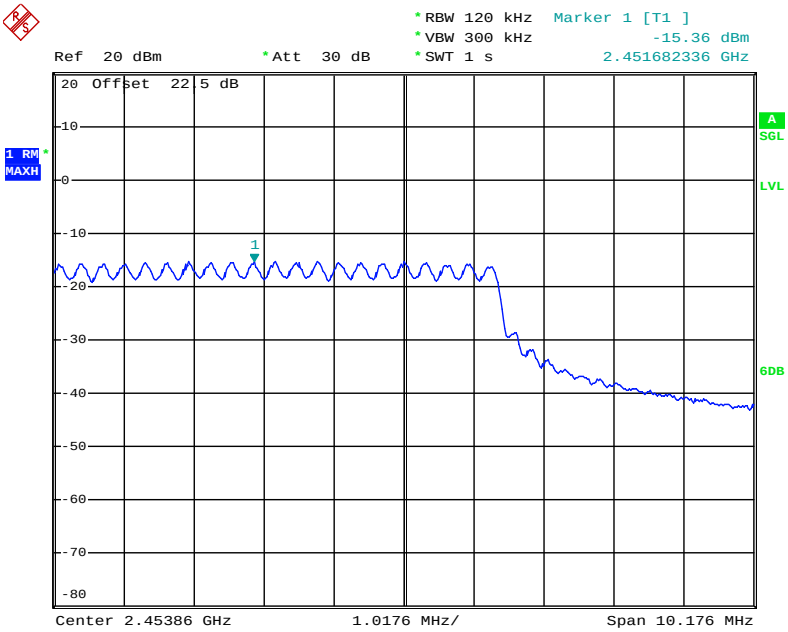
Date: 10.MAY.2012 10:19:26

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (3TX)



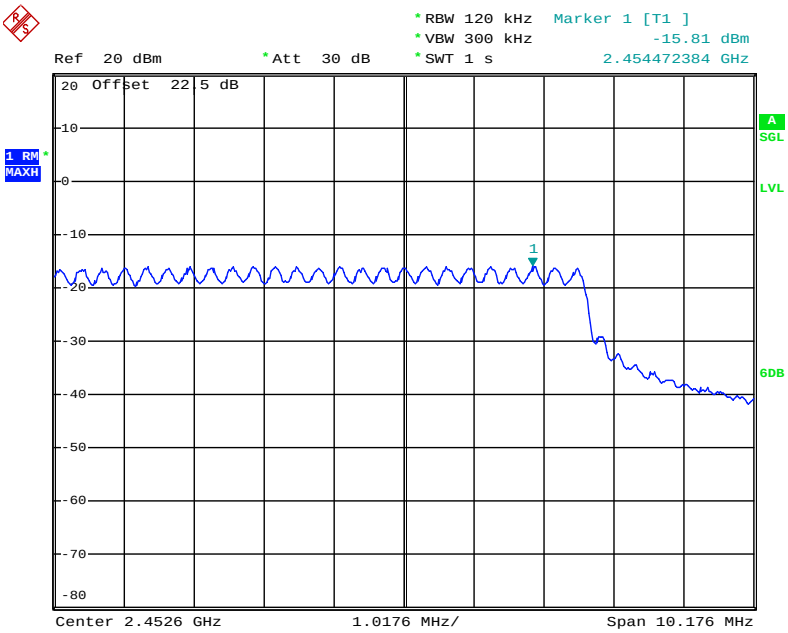
Date: 10.MAY.2012 10:36:52

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (3TX)



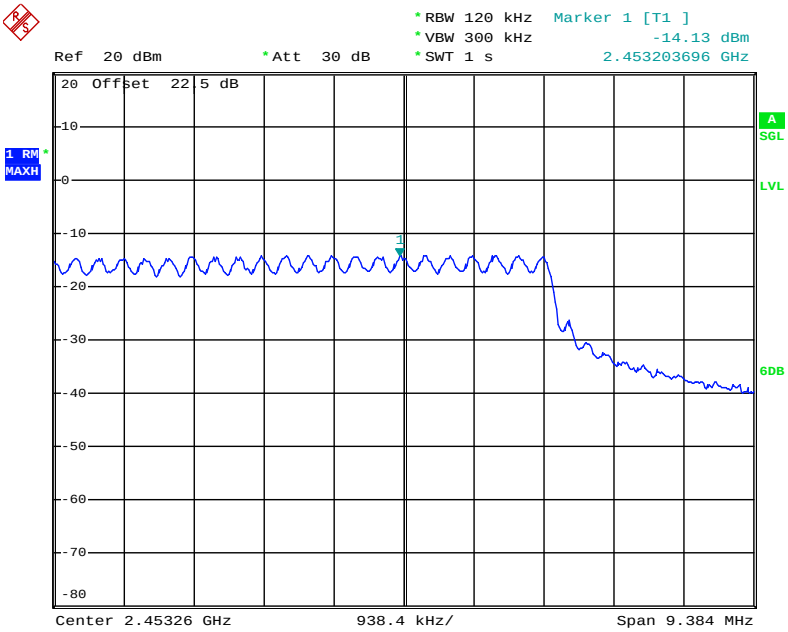
Date: 10.MAY.2012 10:36:33

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 2437 MHz (3TX)



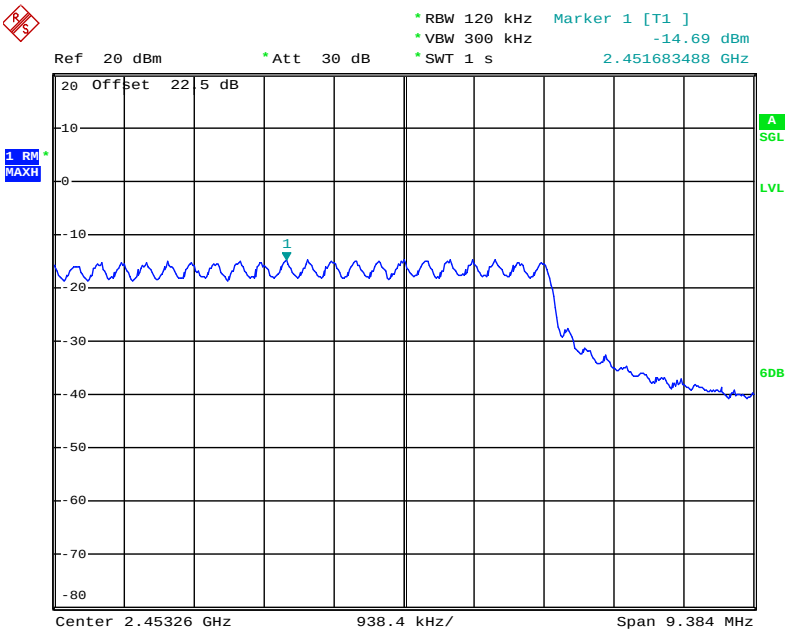
Date: 10.MAY.2012 10:36:11

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (3TX)



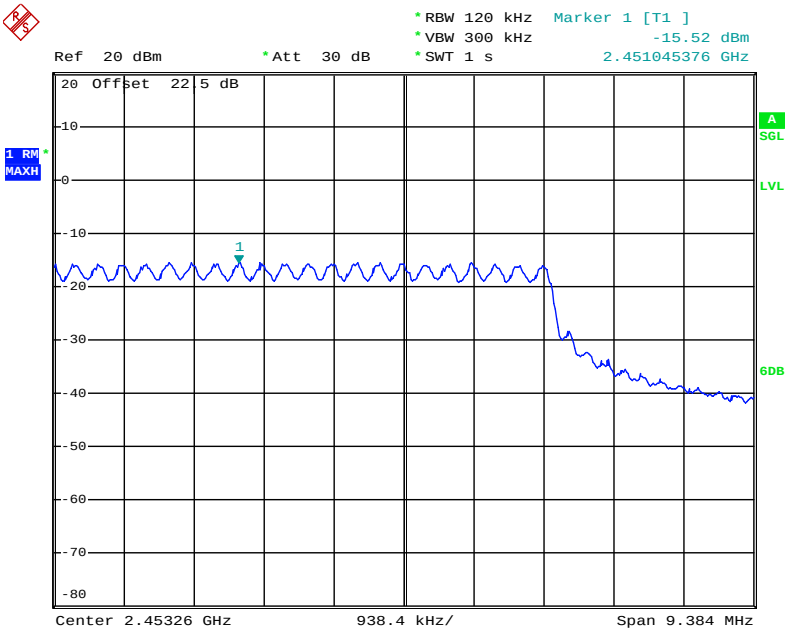
Date: 10.MAY.2012 10:41:32

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (3TX)



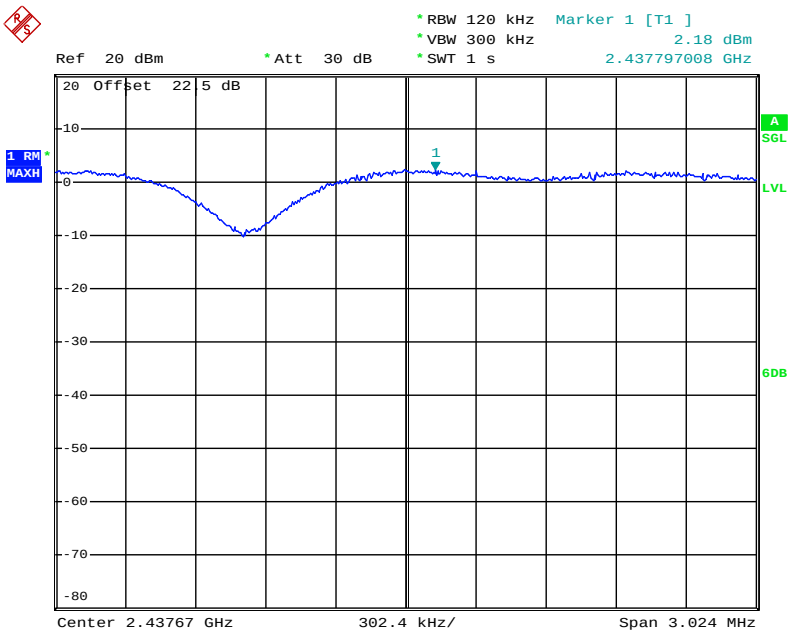
Date: 10.MAY.2012 10:41:52

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 2437 MHz (3TX)



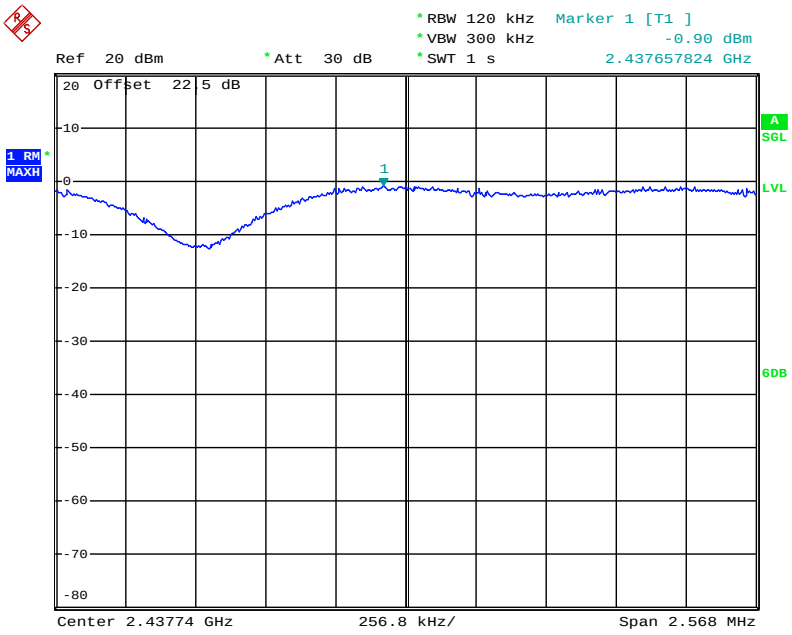
Date: 10.MAY.2012 10:42:41

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



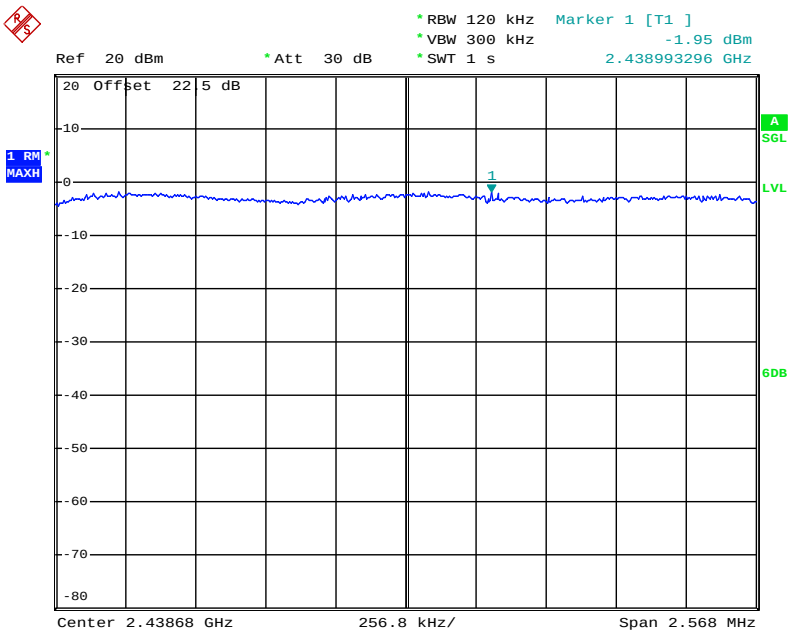
Date: 10.MAY.2012 09:55:59

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (2TX)



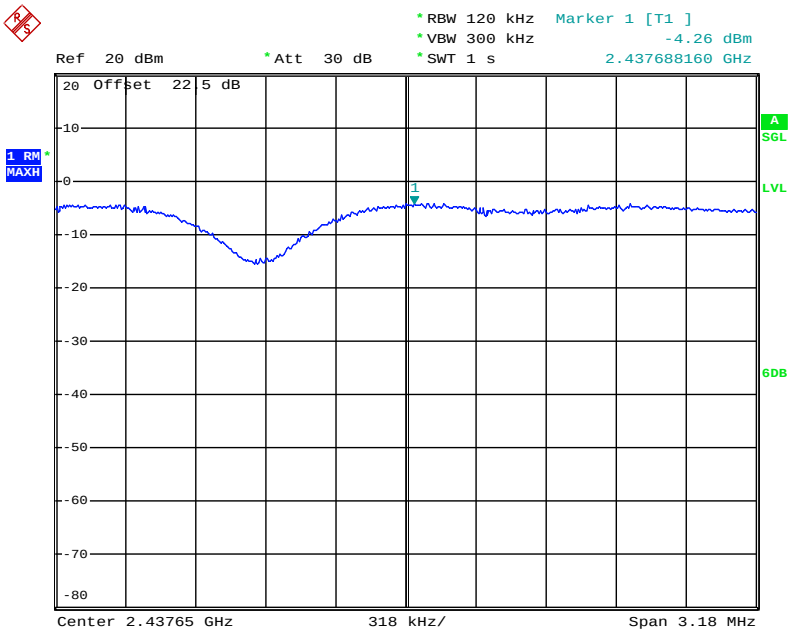
Date: 10.MAY.2012 10:06:20

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (2TX)



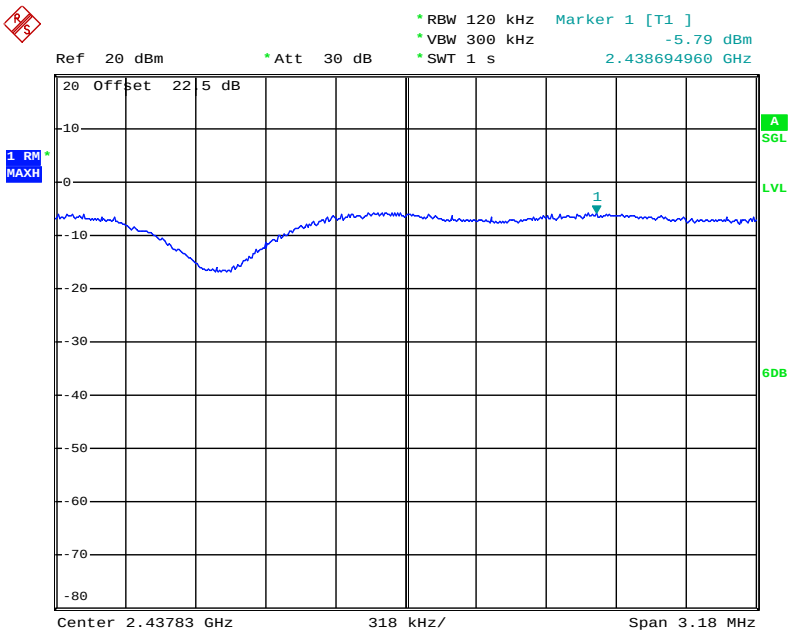
Date: 10.MAY.2012 10:05:56

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (3TX)



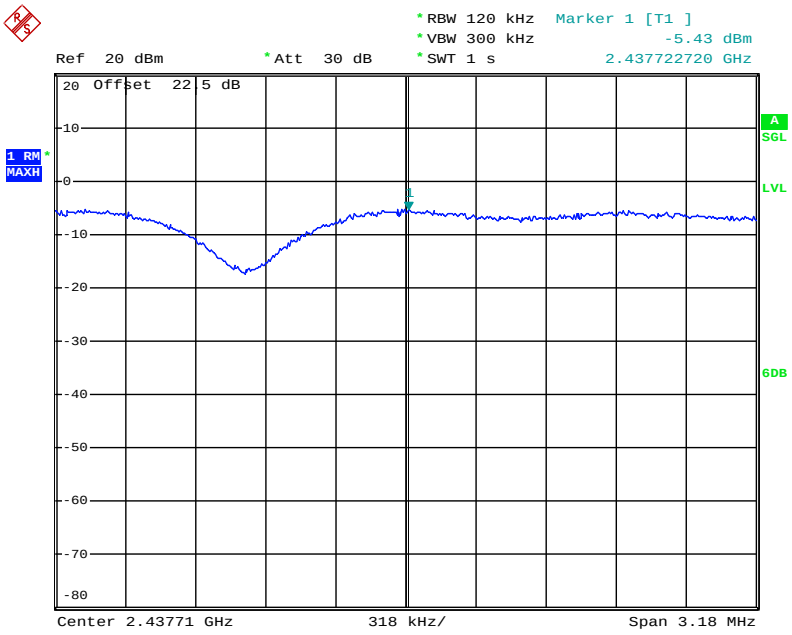
Date: 10.MAY.2012 10:28:09

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (3TX)



Date: 10.MAY.2012 10:27:46

Power Density Plot on Configuration IEEE 802.11b / Chain 3 / 2437 MHz (3TX)



Date: 10.MAY.2012 10:27:19

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	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	4.76	-15.23	-10.47	8.00	Complies
6	2437 MHz	12.53	-15.23	-2.70	8.00	Complies
11	2462 MHz	5.53	-15.23	-9.70	8.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
3	2422 MHz	-1.14	-15.23	-16.37	8.00	Complies
6	2437 MHz	3.05	-15.23	-12.18	8.00	Complies
9	2452 MHz	0.17	-15.23	-15.06	8.00	Complies

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-5.27	-5.47	-2.36	-15.23	-17.59	8.00	Complies
6	2437 MHz	1.03	0.90	3.98	-15.23	-11.25	8.00	Complies
11	2462 MHz	-3.06	-4.09	-0.53	-15.23	-15.76	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-9.90	-9.20	-6.53	-15.23	-21.75	8.00	Complies
6	2437 MHz	-4.66	-5.00	-1.82	-15.23	-17.05	8.00	Complies
9	2452 MHz	-6.25	-7.13	-3.66	-15.23	-18.89	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	-3.36	-3.47	-0.40	-15.23	-15.63	8.00	Complies
6	2437 MHz	3.93	3.74	6.85	-15.23	-8.38	8.00	Complies
11	2462 MHz	-1.05	-2.21	1.42	-15.23	-13.81	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
3	2422 MHz	-9.66	-8.71	-6.15	-15.23	-21.38	8.00	Complies
6	2437 MHz	-4.42	-6.64	-2.38	-15.23	-17.61	8.00	Complies
9	2452 MHz	-5.64	-6.71	-3.13	-15.23	-18.36	8.00	Complies

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-5.43	-5.84	-5.84	-0.93	-15.23	-16.16	6.73	Complies
6	2437 MHz	2.56	2.37	1.81	7.03	-15.23	-8.20	6.73	Complies
11	2462 MHz	-4.35	-5.25	-5.12	-0.12	-15.23	-15.35	6.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the power density limit =8-(7.27-6)=6.73dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-11.40	-10.58	-10.09	-5.89	-15.23	-21.11	6.73	Complies
6	2437 MHz	-5.75	-6.43	-6.87	-1.55	-15.23	-16.78	6.73	Complies
9	2452 MHz	-9.79	-10.94	-11.44	-5.90	-15.23	-21.12	6.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the power density limit =8-(7.27-6)=6.73dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	-4.88	-5.16	-5.01	-0.24	-15.23	-15.47	8.00	Complies
6	2437 MHz	3.07	2.20	2.00	7.22	-15.23	-8.01	8.00	Complies
11	2462 MHz	-3.17	-4.41	-3.97	0.95	-15.23	-14.28	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
3	2422 MHz	-10.28	-9.47	-8.87	-4.73	-15.23	-19.96	8.00	Complies
6	2437 MHz	-5.41	-5.62	-6.10	-0.93	-15.23	-16.16	8.00	Complies
9	2452 MHz	-7.98	-9.68	-10.06	-4.37	-15.23	-19.60	8.00	Complies

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

1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	13.29	-15.23	-1.94	8.00	Complies
6	2437 MHz	19.80	-15.23	4.57	8.00	Complies
11	2462 MHz	14.77	-15.23	-0.46	8.00	Complies

2TX

Configuration IEEE 802.11b / Chain 1+ Chain 2

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
1	2412 MHz	1.19	0.91	4.06	-15.23	-11.17	8.00	Complies
6	2437 MHz	5.33	5.19	8.27	-15.23	-6.96	8.00	Complies
11	2462 MHz	1.08	-0.09	3.54	-15.23	-11.68	8.00	Complies

3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2 + Chain 3

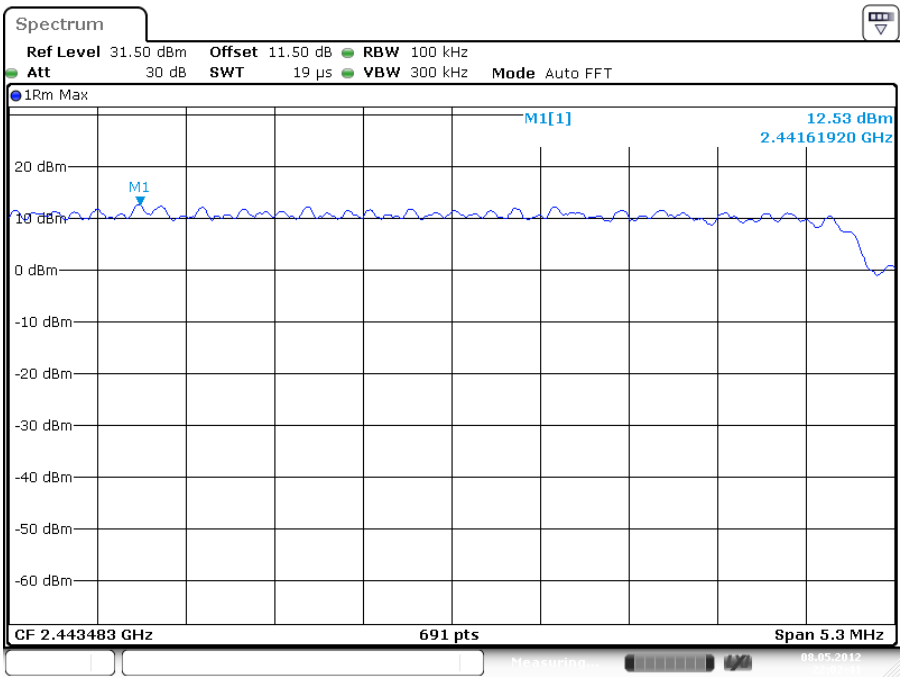
Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
1	2412 MHz	0.42	0.02	0.30	5.02	-15.23	-10.21	6.73	Complies
6	2437 MHz	3.11	1.81	2.46	7.26	-15.23	-7.97	6.73	Complies
11	2462 MHz	0.54	-0.84	-0.76	4.47	-15.23	-10.76	6.73	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.27dBi > 6dBi, so the power density limit =8-(7.27-6)=6.73dBm.

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

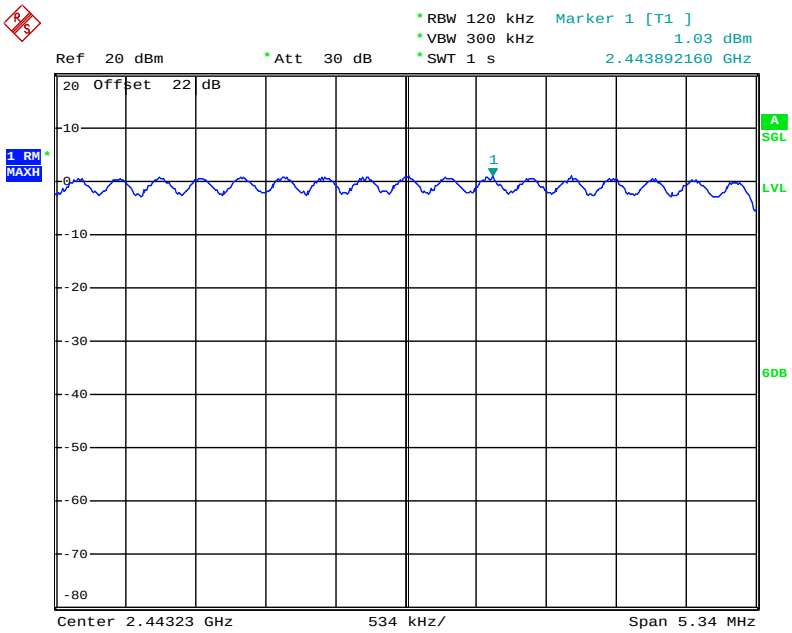
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (1TX)



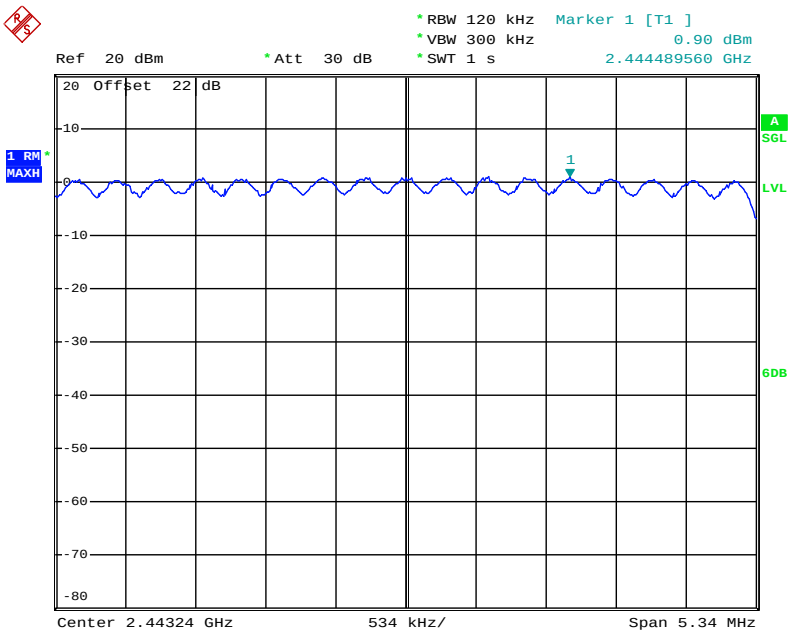
Date: 8.MAY.2012 22:02:41

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (2TX)



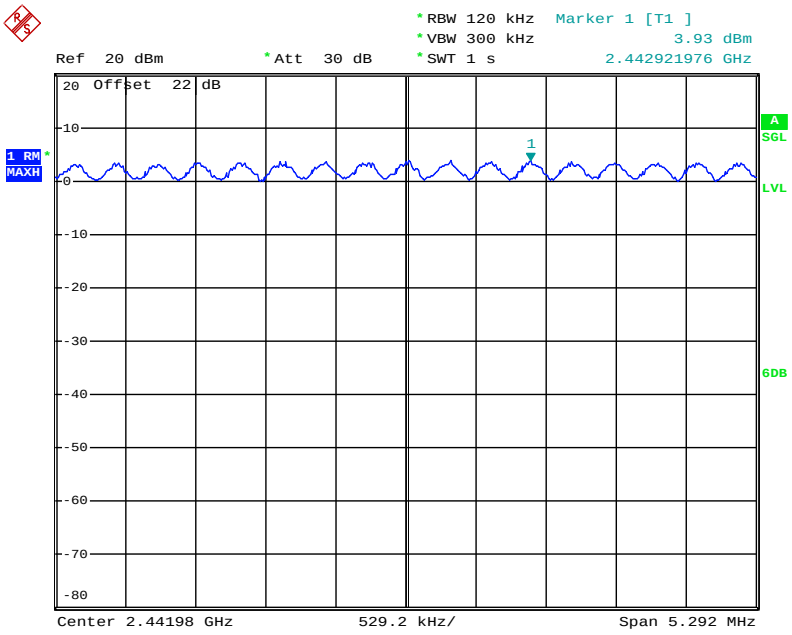
Date: 9.MAY.2012 04:54:55

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (2TX)



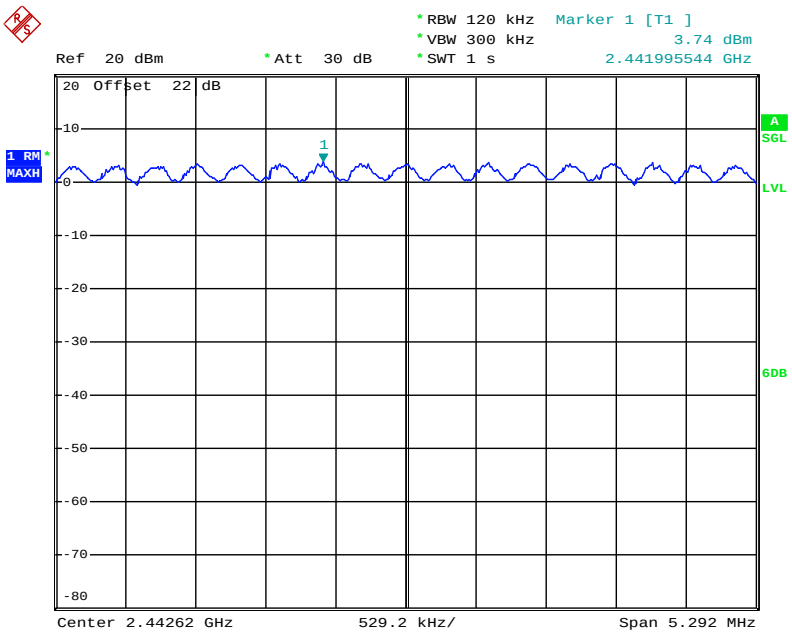
Date: 9.MAY.2012 04:55:35

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (2TX)



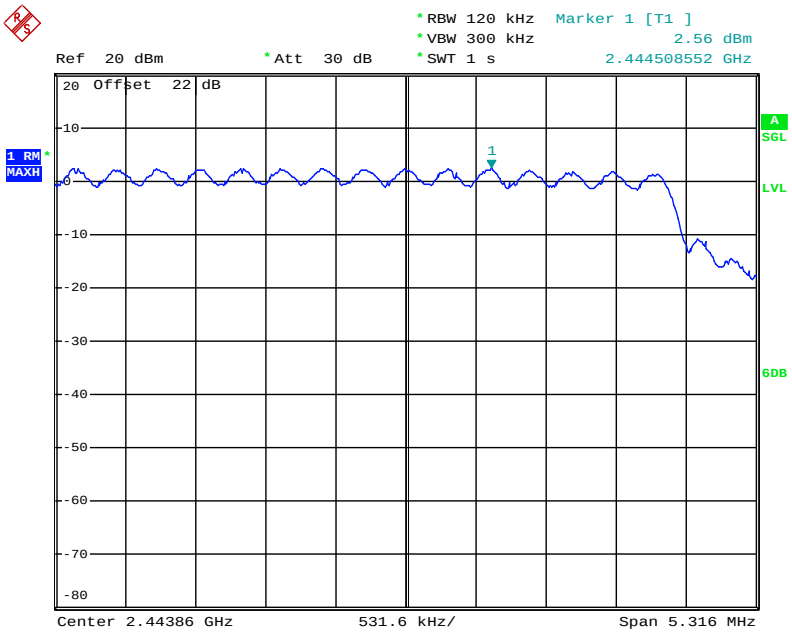
Date: 9.MAY.2012 05:04:24

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (2TX)



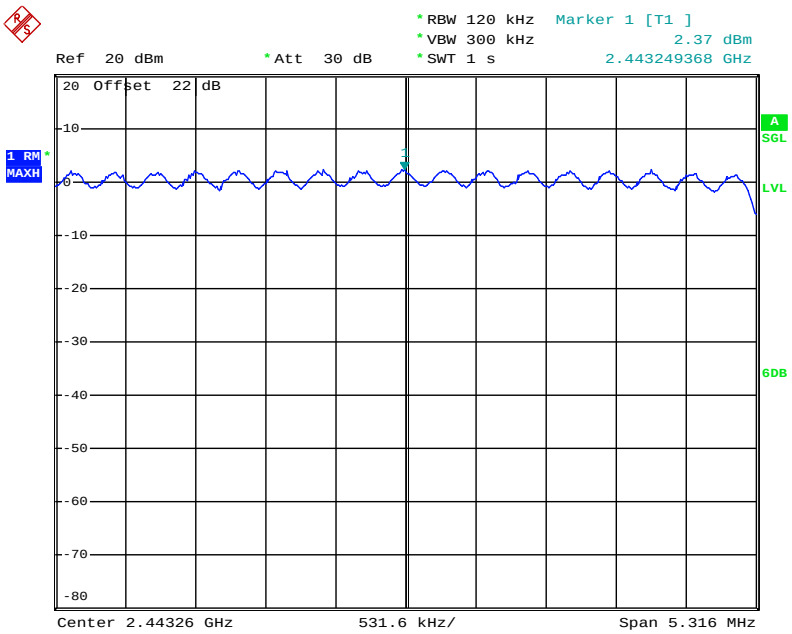
Date: 9.MAY.2012 05:04:54

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 2437 MHz (3TX)



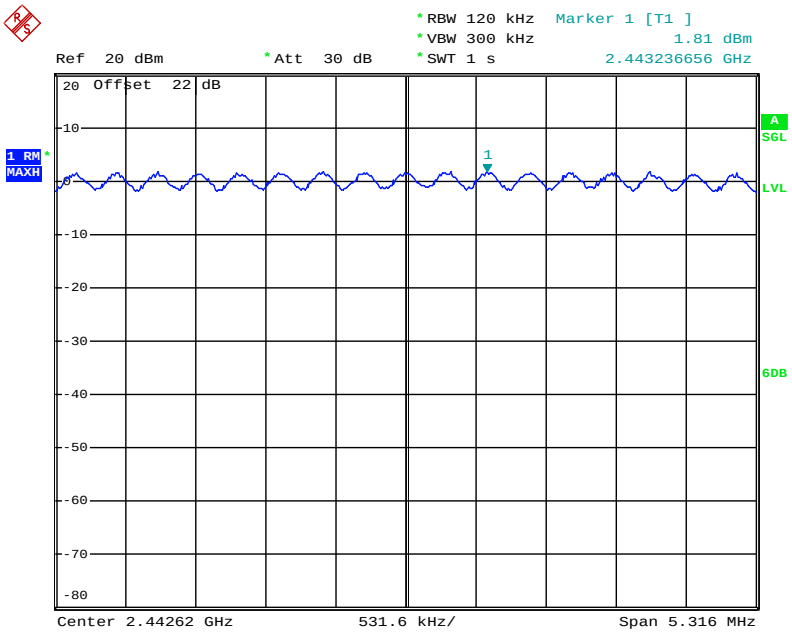
Date: 9.MAY.2012 05:17:25

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 2437 MHz (3TX)



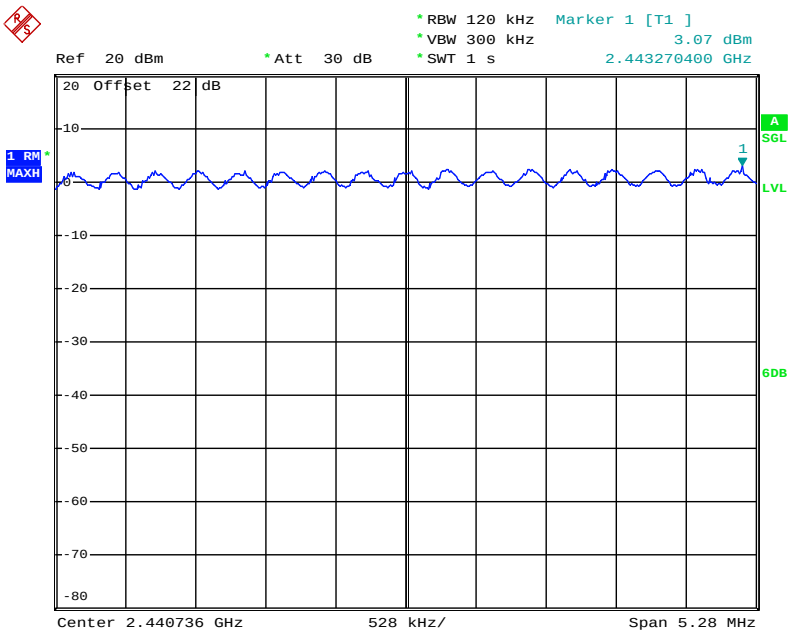
Date: 9.MAY.2012 05:17:51

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 2437 MHz (3TX)



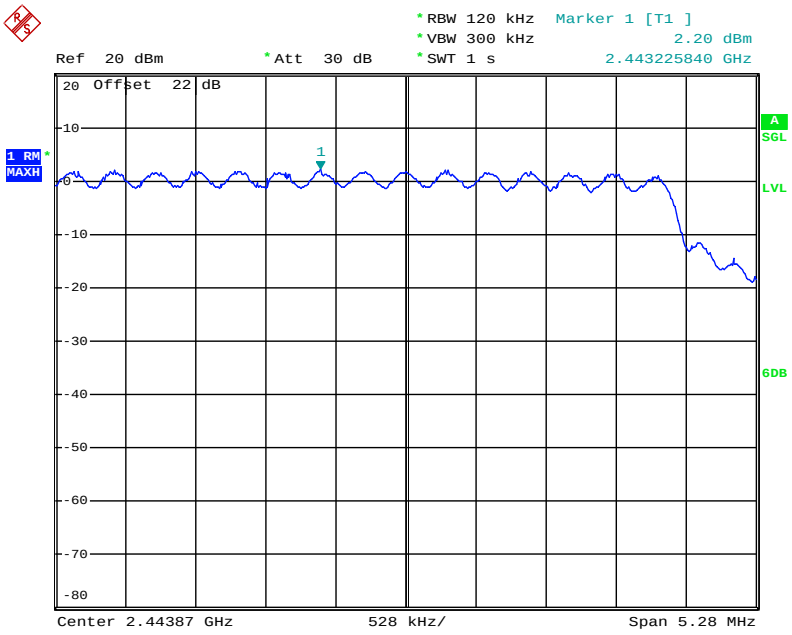
Date: 9.MAY.2012 05:18:18

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 2437 MHz (3TX)



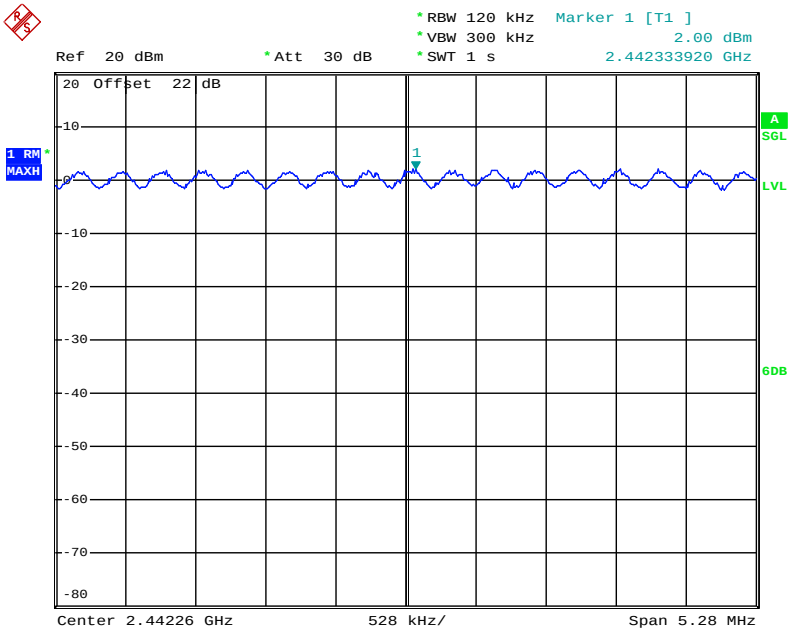
Date: 9.MAY.2012 05:28:04

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 2437 MHz (3TX)



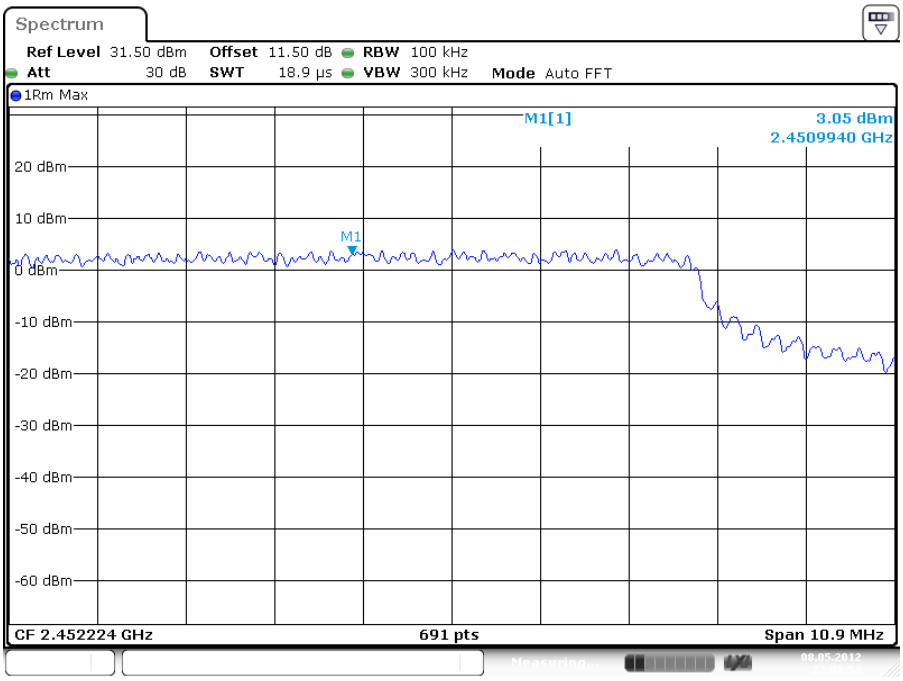
Date: 9.MAY.2012 05:28:29

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 2437 MHz (3TX)



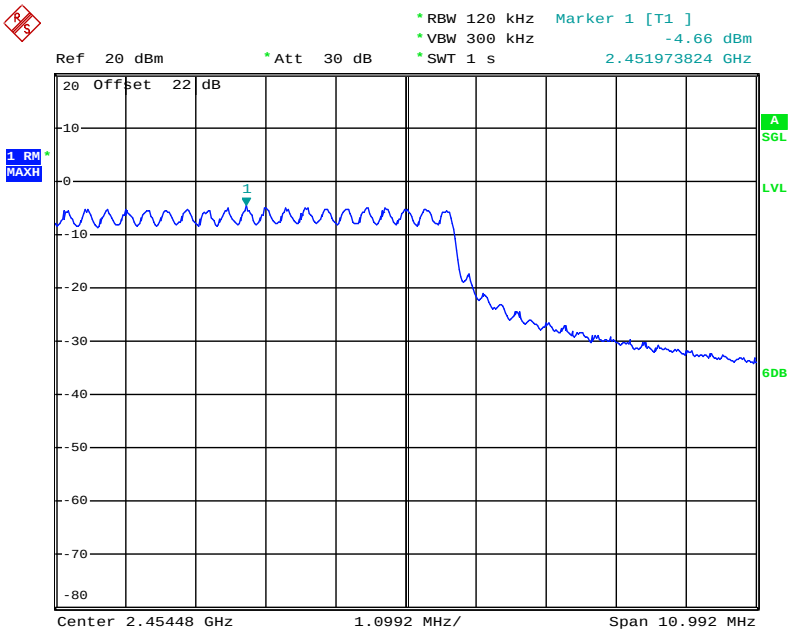
Date: 9.MAY.2012 05:28:53

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz / (1TX)



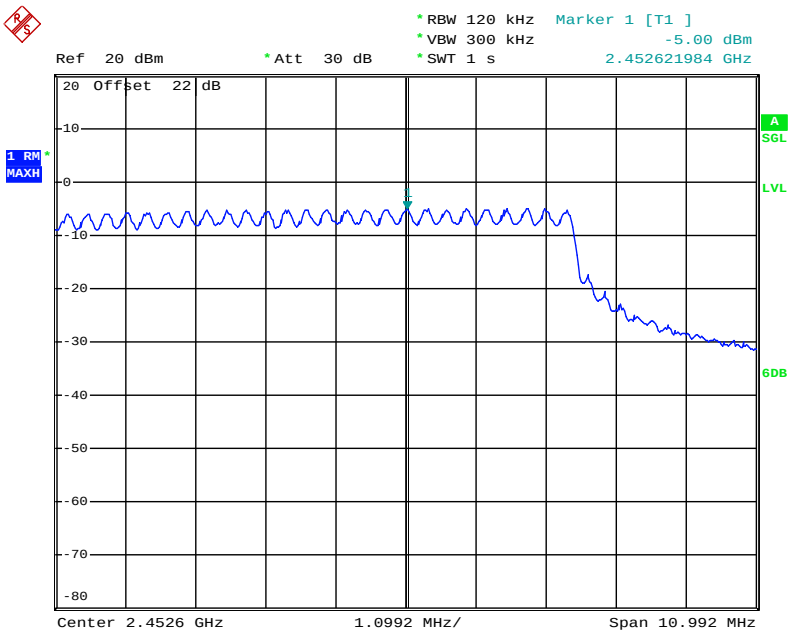
Date: 8.MAY.2012 22:09:54

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (2TX)



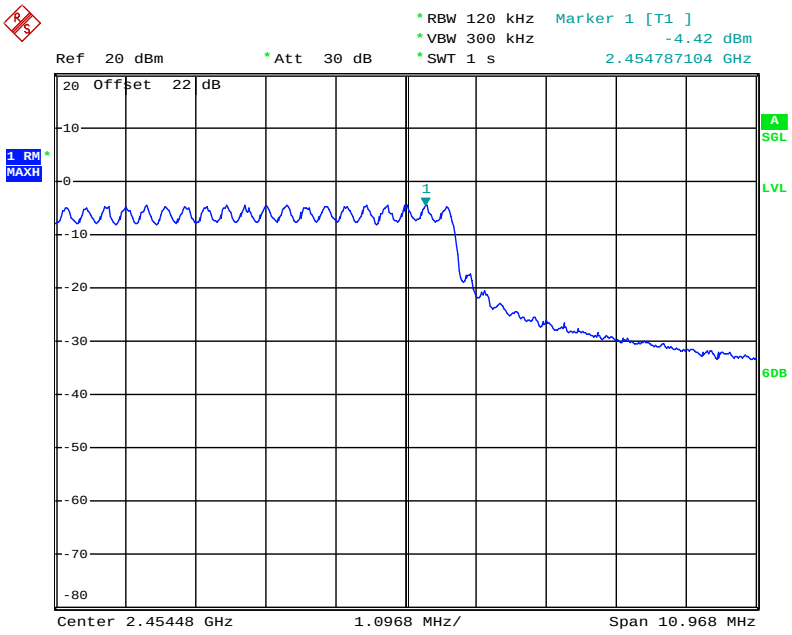
Date: 9.MAY.2012 05:00:16

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (2TX)



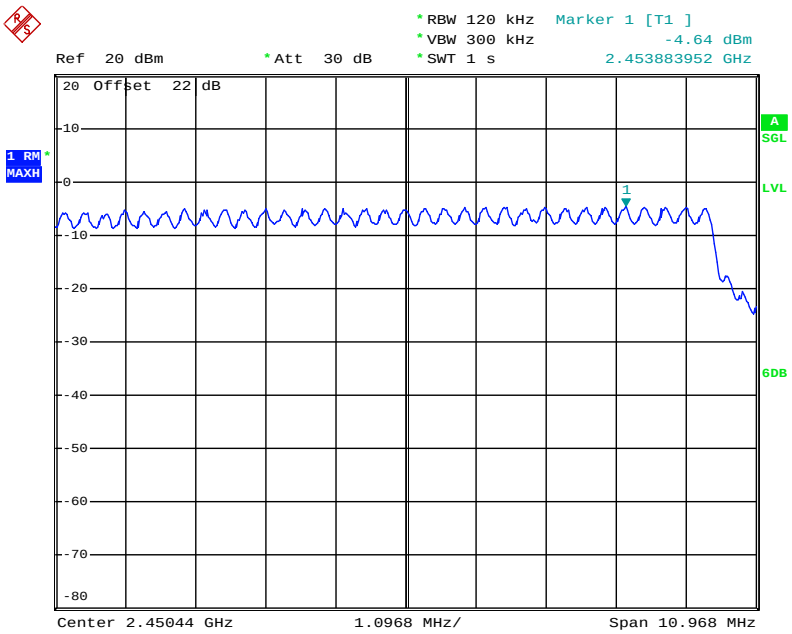
Date: 9.MAY.2012 04:59:48

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (2TX)



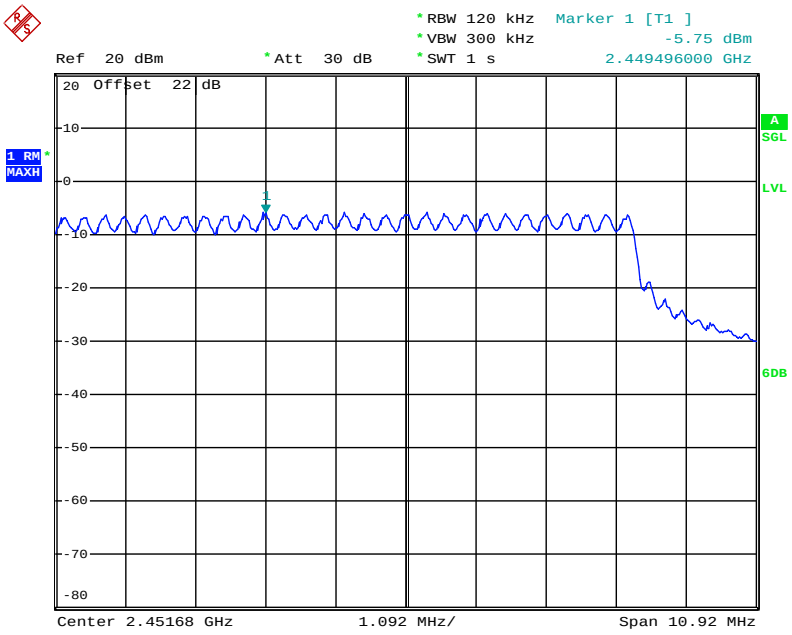
Date: 9.MAY.2012 05:08:21

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (2TX)



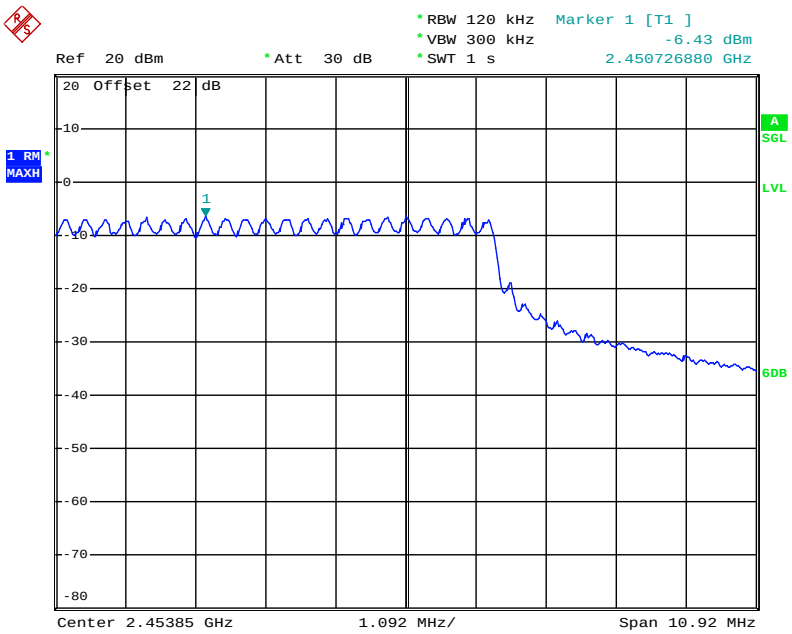
Date: 9.MAY.2012 05:08:00

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 2437 MHz (3TX)



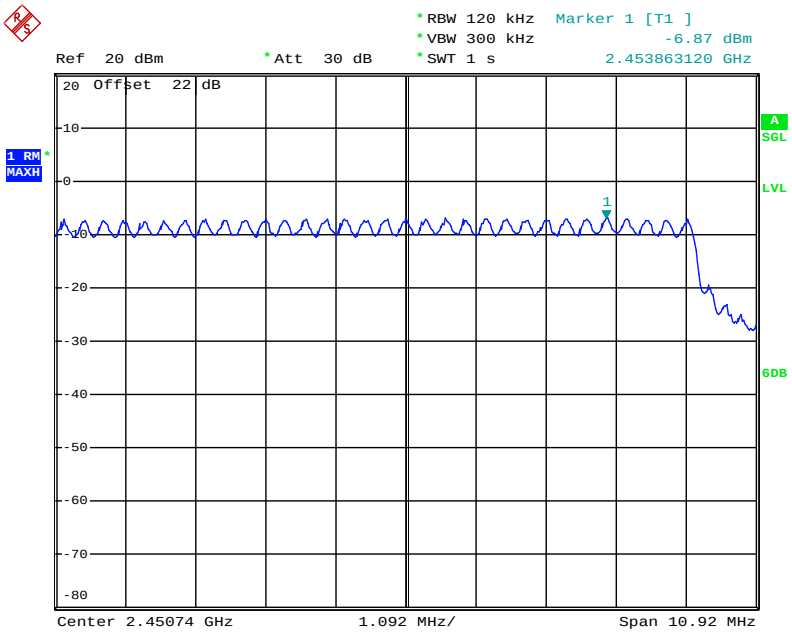
Date: 9.MAY.2012 05:24:06

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 2437 MHz (3TX)



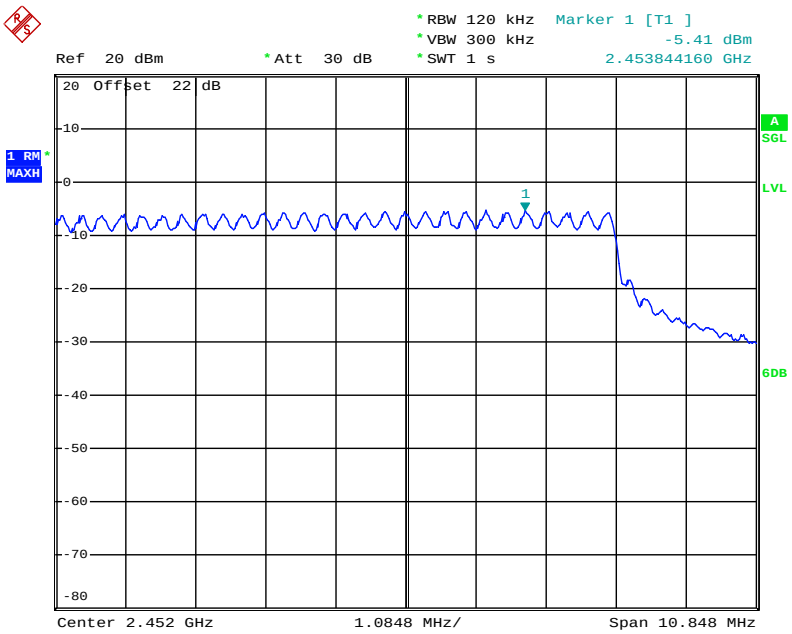
Date: 9.MAY.2012 05:23:35

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 2437 MHz (3TX)



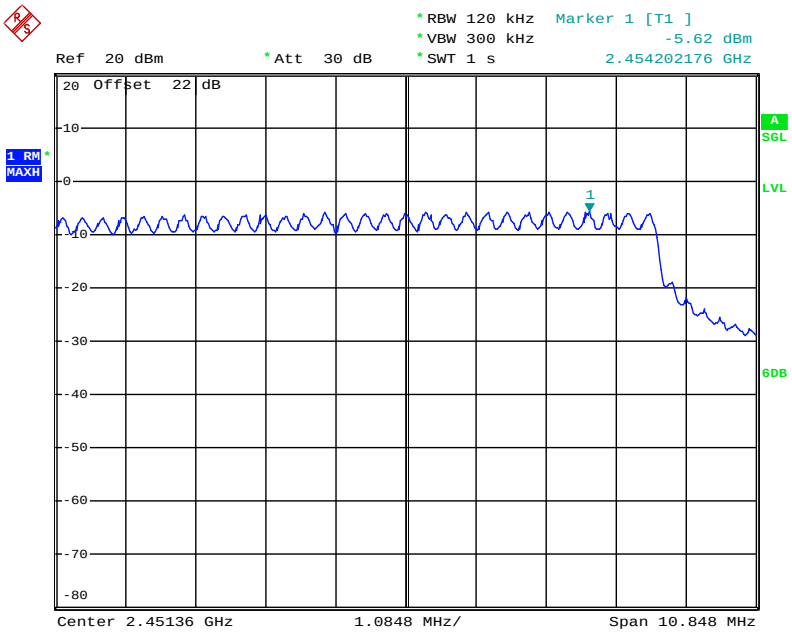
Date: 9.MAY.2012 05:23:00

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 2437 MHz (3TX)



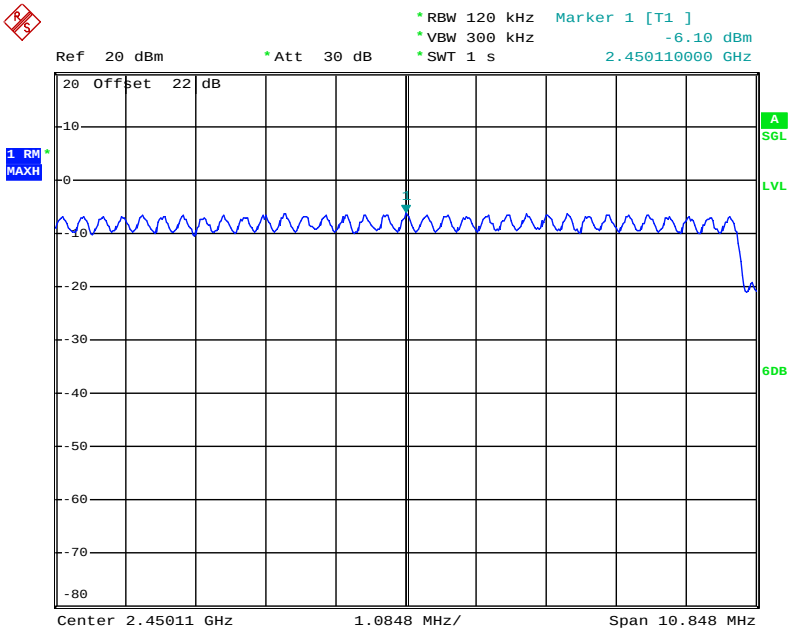
Date: 9.MAY.2012 05:35:29

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 2437 MHz (3TX)



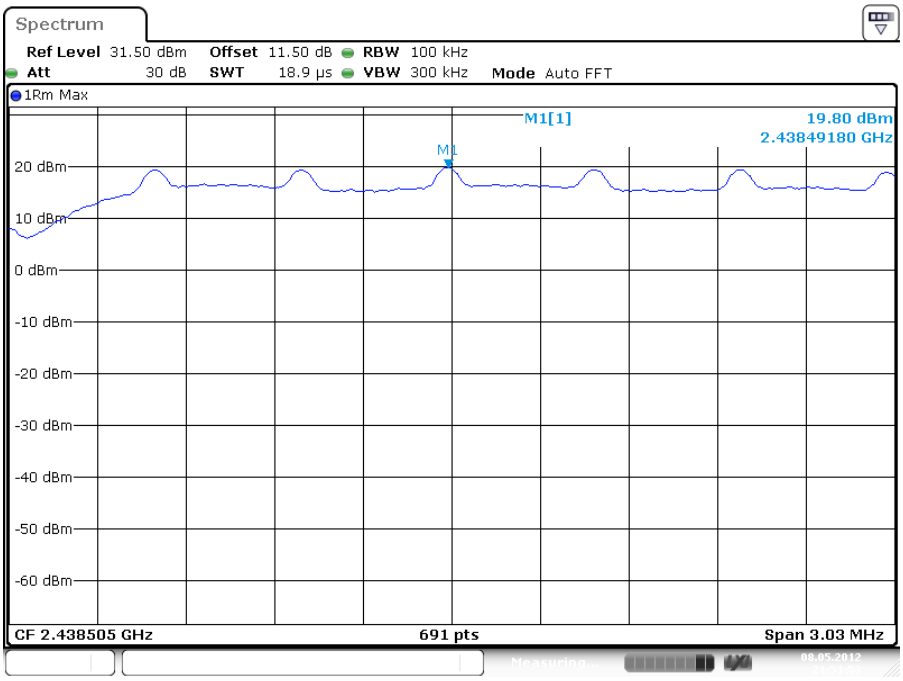
Date: 9.MAY.2012 05:34:06

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 2437 MHz (3TX)



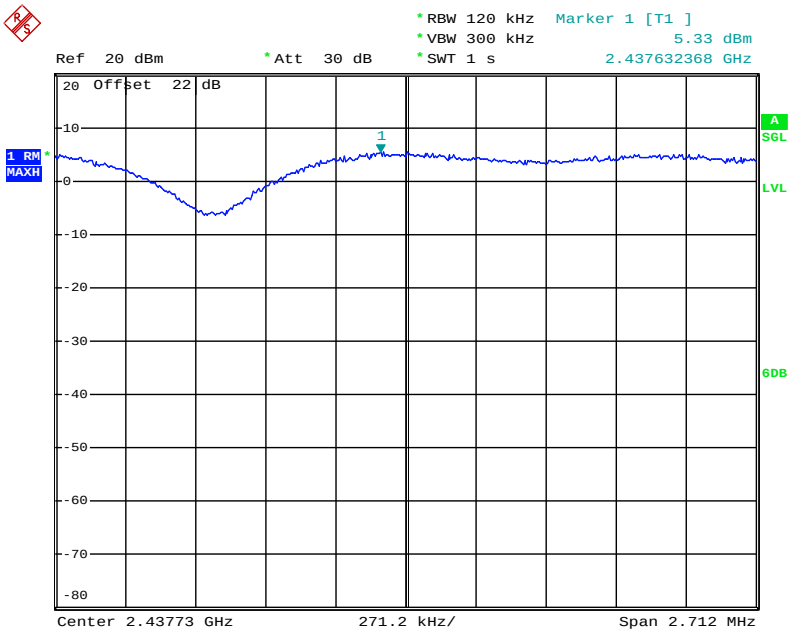
Date: 9.MAY.2012 05:34:52

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



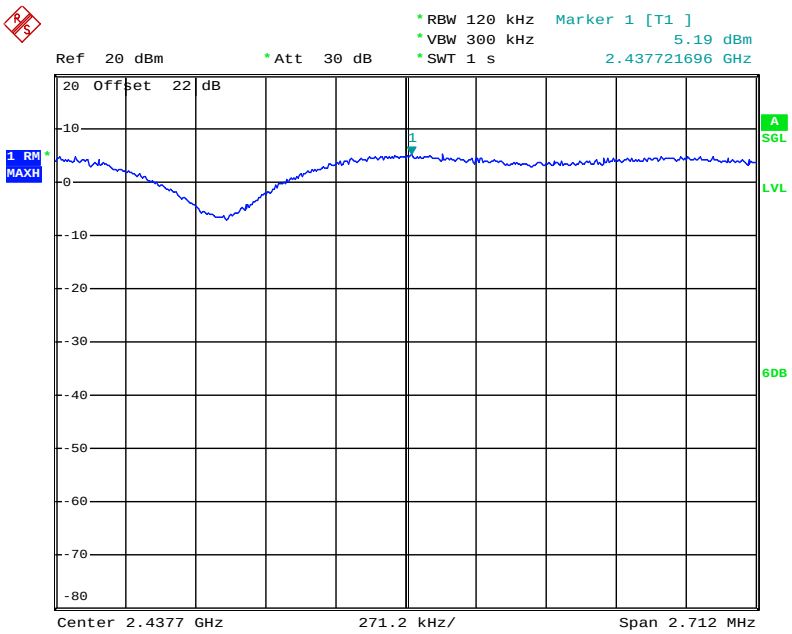
Date: 8.MAY.2012 21:51:53

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (2TX)



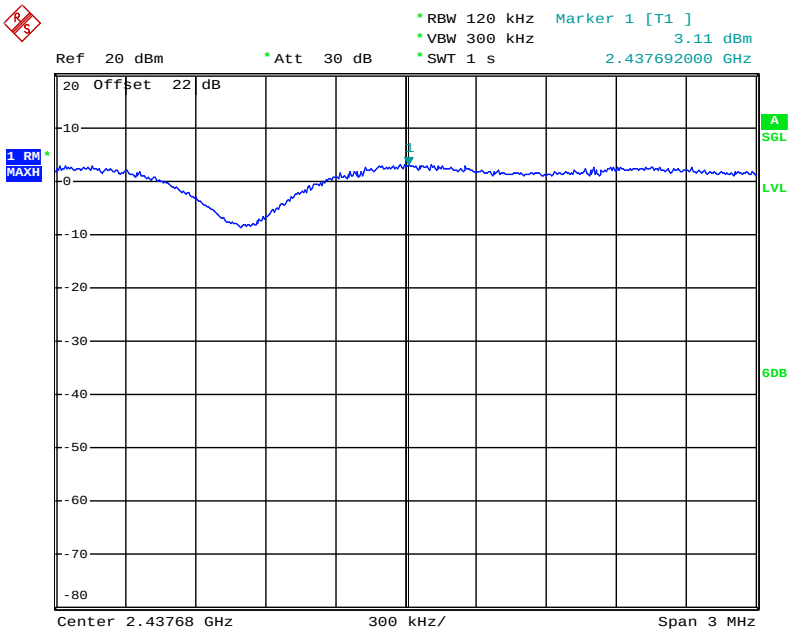
Date: 9.MAY.2012 04:48:08

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (2TX)



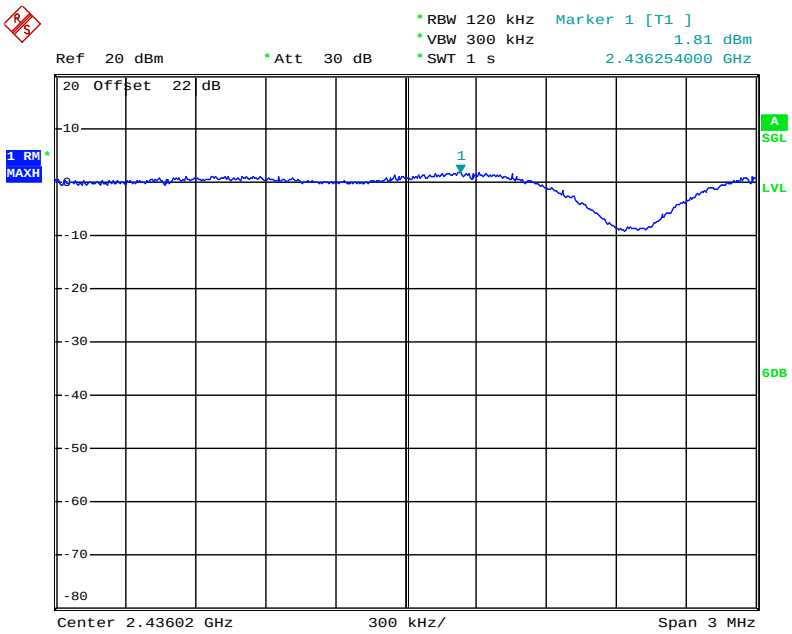
Date: 9.MAY.2012 04:48:45

Power Density Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz (3TX)



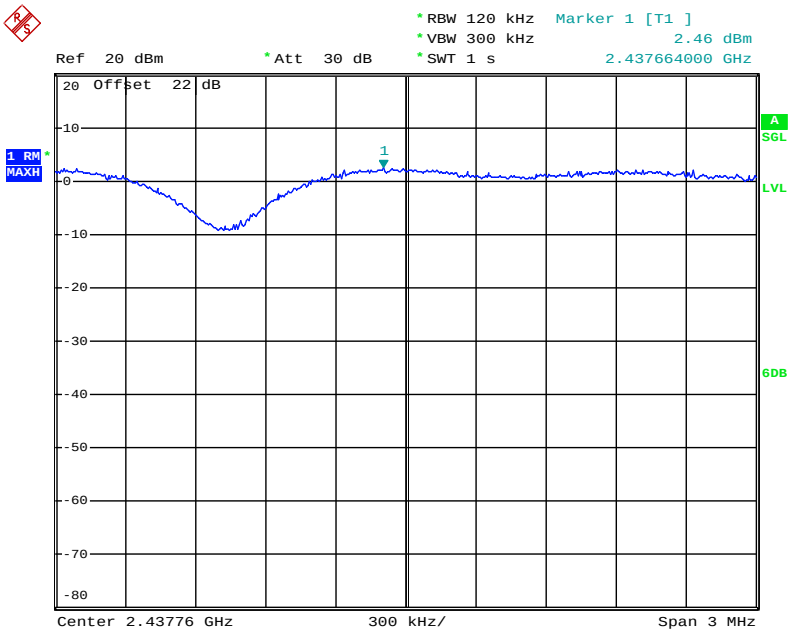
Date: 9.MAY.2012 05:12:52

Power Density Plot on Configuration IEEE 802.11b / Chain 2 / 2437 MHz (3TX)



Date: 9.MAY.2012 05:12:26

Power Density Plot on Configuration IEEE 802.11b / Chain 3 / 2437 MHz (3TX)



Date: 9.MAY.2012 05:11:58

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

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-1.94	-15.23	-17.17	6.00	Complies
157	5785 MHz	-0.04	-15.23	-15.27	6.00	Complies
165	5825 MHz	-0.82	-15.23	-16.05	6.00	Complies

Note:8dBi > 6dBi, so the power density limit =8-(8-6)=6dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-6.56	-15.23	-21.79	6.00	Complies
159	5795 MHz	-3.84	-15.23	-19.07	6.00	Complies

Note:8dBi > 6dBi, so the power density limit =8-(8-6)=6dBm.

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
149	5745 MHz	-3.84	-2.18	0.08	-15.23	-15.15	2.99	Complies
157	5785 MHz	-3.31	-2.15	0.32	-15.23	-14.91	2.99	Complies
165	5825 MHz	-4.96	-3.46	-1.14	-15.23	-16.36	2.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the power density limit =8-(11.01-6)=2.99dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
151	5755 MHz	-7.78	-5.97	-3.77	-15.23	-19.00	2.99	Complies
159	5795 MHz	-4.83	-3.74	-1.24	-15.23	-16.47	2.99	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11.01dBi > 6dBi, so the power density limit =8-(11.01-6)=2.99dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
149	5745 MHz	-3.49	-1.74	0.48	-15.23	-14.75	6.00	Complies
157	5785 MHz	-3.21	-2.04	0.42	-15.23	-14.80	6.00	Complies
165	5825 MHz	-3.52	-2.83	-0.15	-15.23	-15.38	6.00	Complies

Note:8dBi > 6dBi, so the power density limit =8-(8-6)=6dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
151	5755 MHz	-7.89	-6.07	-3.88	-15.23	-19.10	6.00	Complies
159	5795 MHz	-4.42	-4.81	-1.60	-15.23	-16.83	6.00	Complies

Note:8dBi > 6dBi, so the power density limit =8-(8-6)=6dBm.

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
149	5745 MHz	-5.44	-3.63	-3.76	0.57	-15.23	-14.66	1.23	Complies
157	5785 MHz	-5.37	-4.57	-4.28	0.06	-15.23	-15.17	1.23	Complies
165	5825 MHz	-5.08	-4.53	-4.57	0.05	-15.23	-15.18	1.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the power density limit =8-(12.77-6)=1.23dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
151	5755 MHz	-9.85	-8.00	-8.11	-3.80	-15.23	-19.03	1.23	Complies
159	5795 MHz	-8.37	-7.43	-7.13	-2.84	-15.23	-18.07	1.23	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =12.77dBi > 6dBi, so the power density limit =8-(12.77-6)=1.23dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
149	5745 MHz	-5.07	-3.20	-3.15	1.05	-15.23	-14.18	3.00	Complies
157	5785 MHz	-4.72	-3.63	-3.95	0.69	-15.23	-14.53	3.00	Complies
165	5825 MHz	-6.10	-4.82	-4.81	-0.43	-15.23	-15.66	3.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =11dBi > 6dBi, so the power density limit =8-(11-6)=3dBm.

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

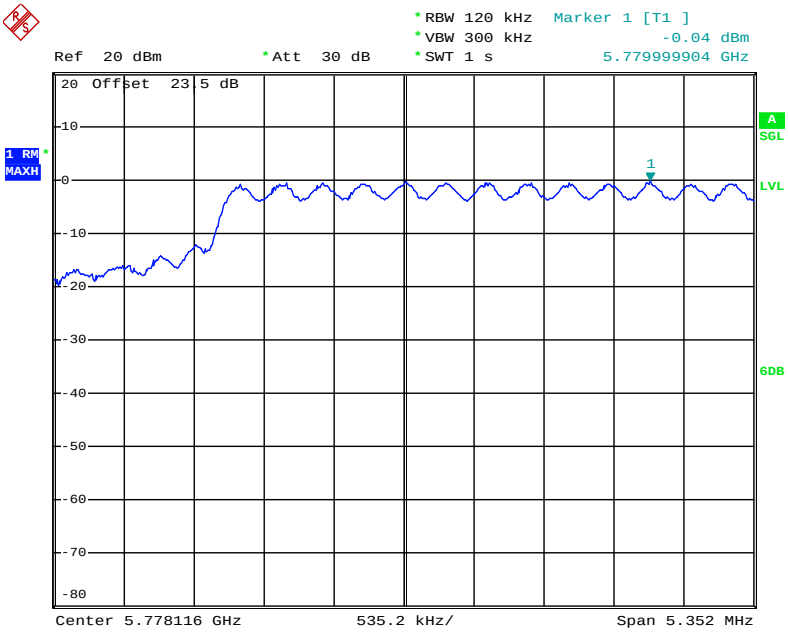
Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
151	5755 MHz	-9.85	-7.79	-7.88	-3.64	-15.23	-18.87	3.00	Complies
159	5795 MHz	-7.52	-6.09	-6.55	-1.91	-15.23	-17.14	3.00	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(\text{N})\ \text{dBi}$ =11dBi > 6dBi, so the power density limit =8-(11-6)=3dBm.

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

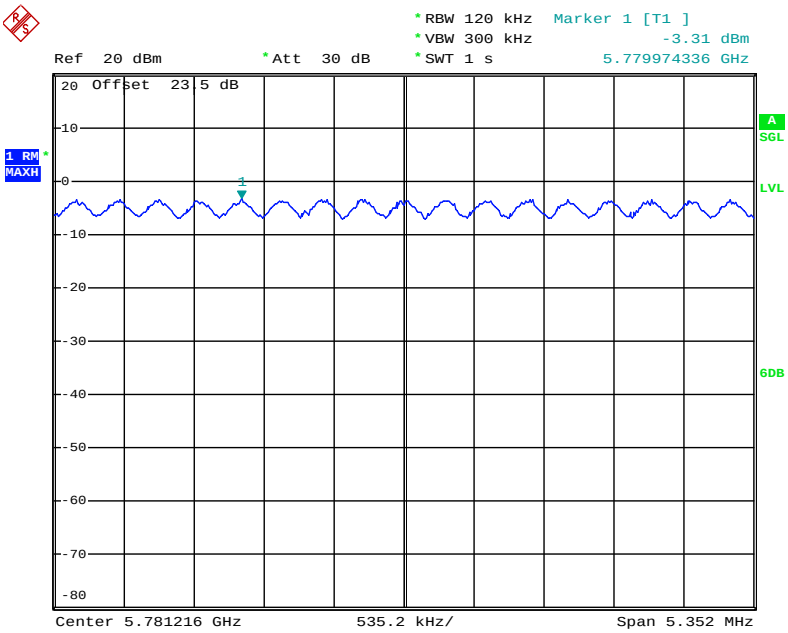
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5785 MHz (1TX)



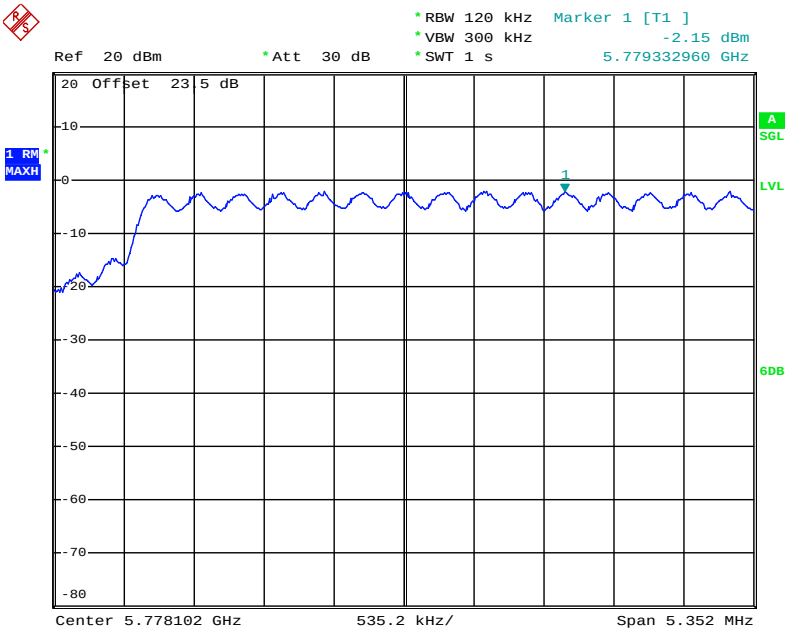
Date: 11.MAY.2012 04:10:35

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5785 MHz (2TX)



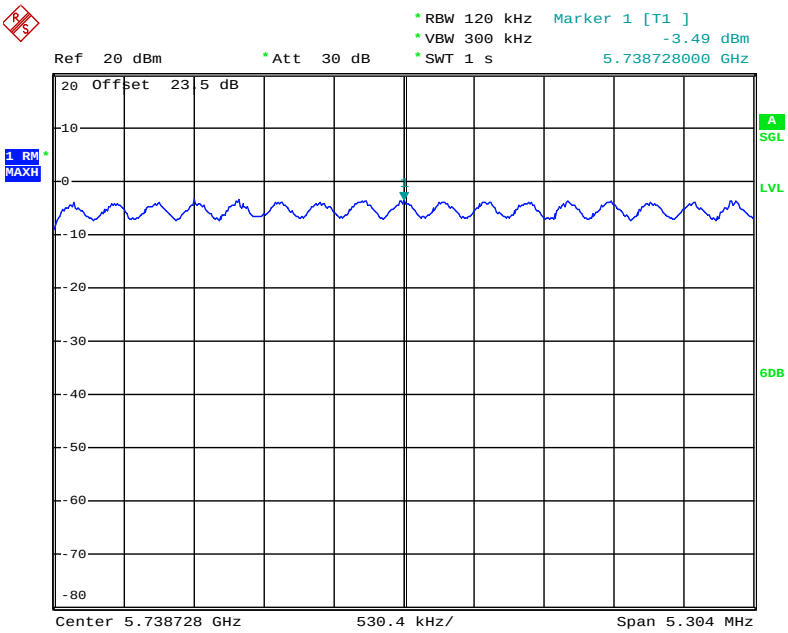
Date: 11.MAY.2012 04:37:44

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5785 MHz (2TX)



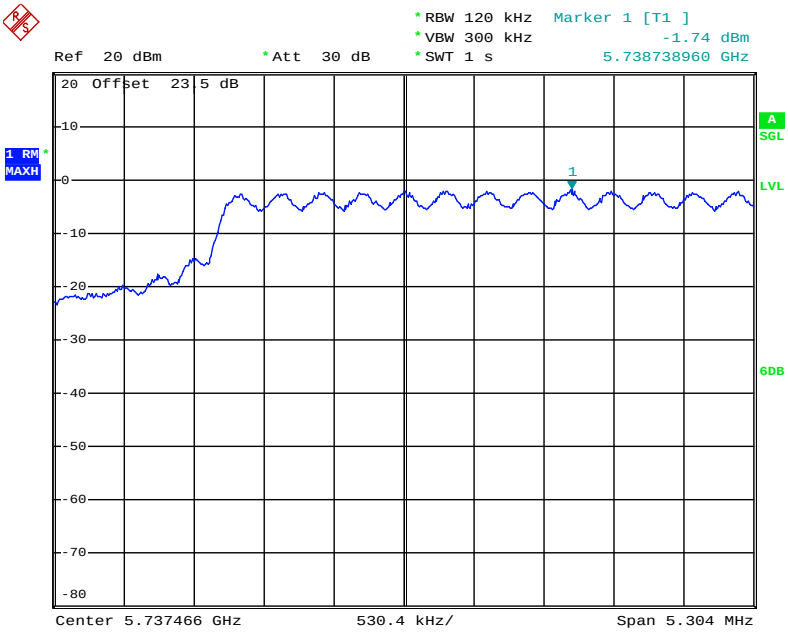
Date: 11.MAY.2012 04:37:05

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 5745 MHz (2TX)



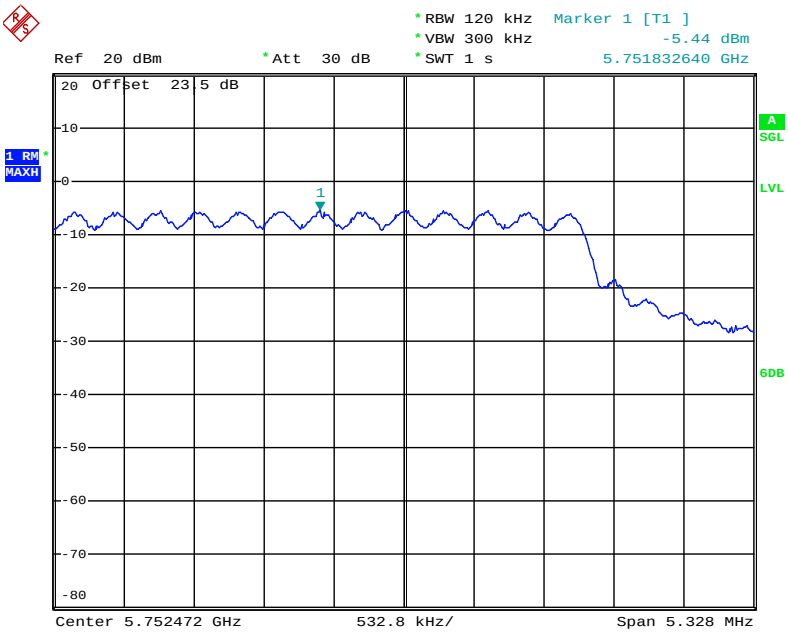
Date: 11.MAY.2012 04:26:42

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 5745 MHz (2TX)



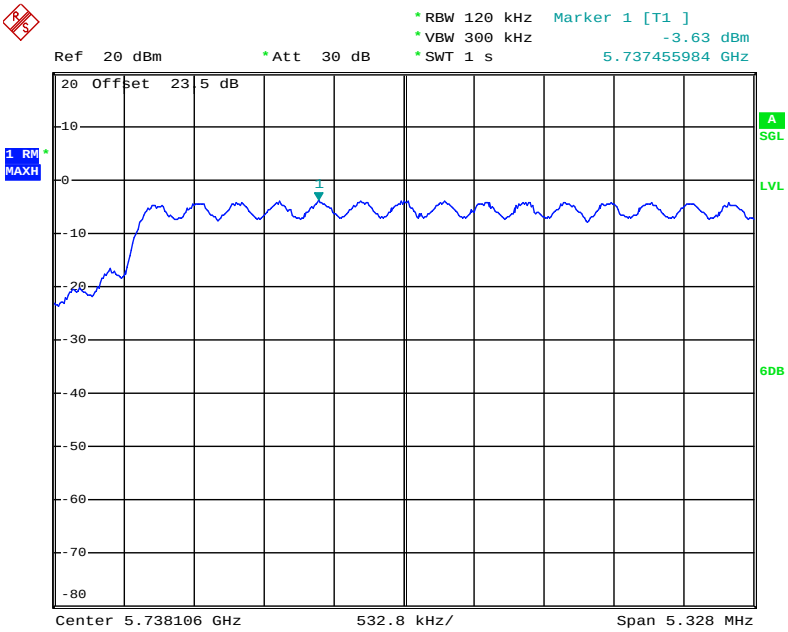
Date: 11.MAY.2012 04:25:25

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5745 MHz (3TX)



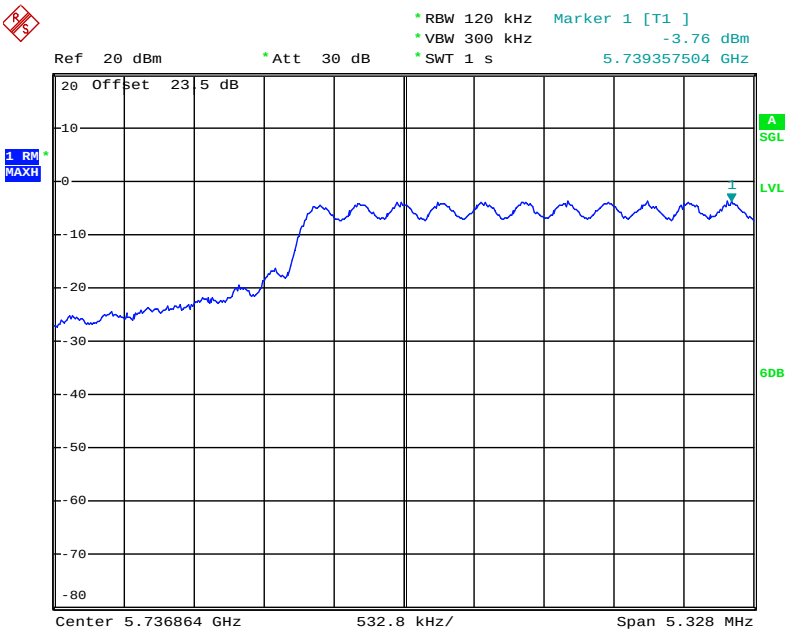
Date: 11.MAY.2012 04:50:36

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5745 MHz (3TX)



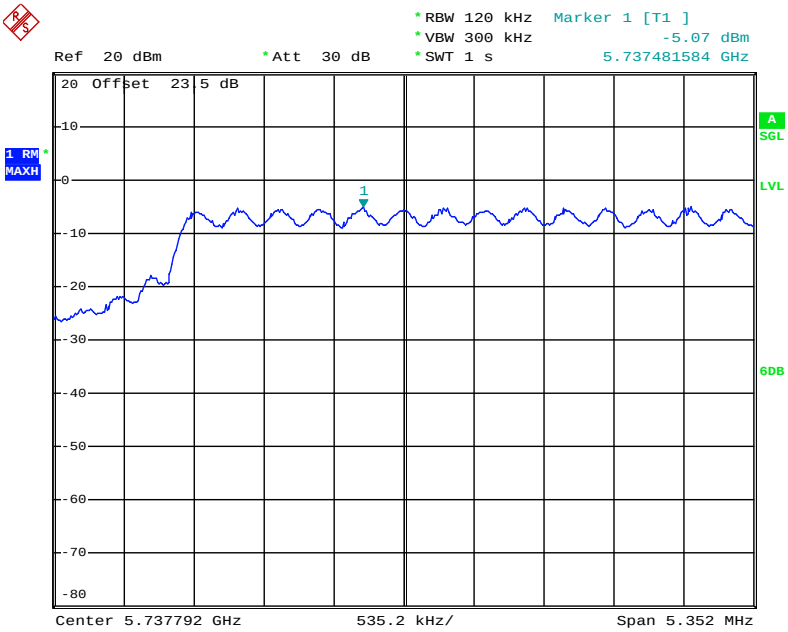
Date: 11.MAY.2012 04:51:09

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 5745 MHz (3TX)



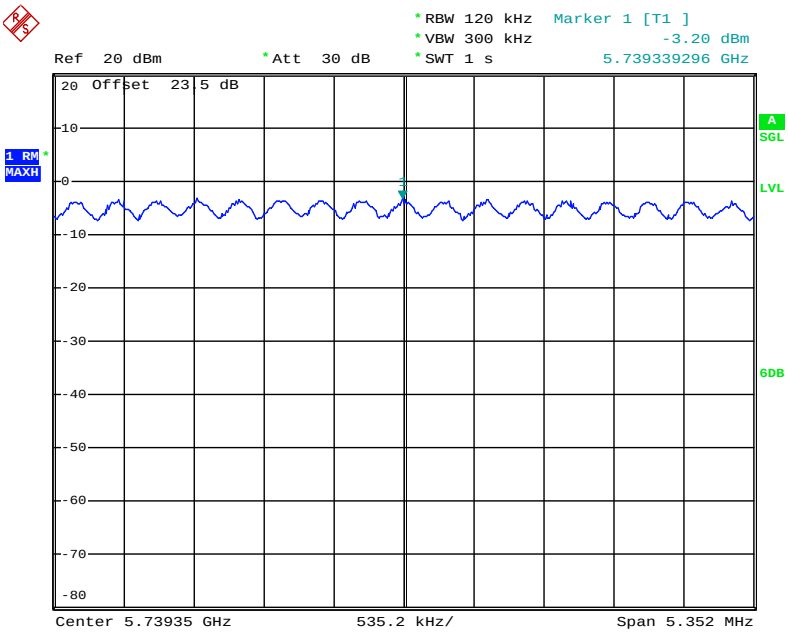
Date: 11.MAY.2012 04:51:57

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 5745 MHz (3TX)



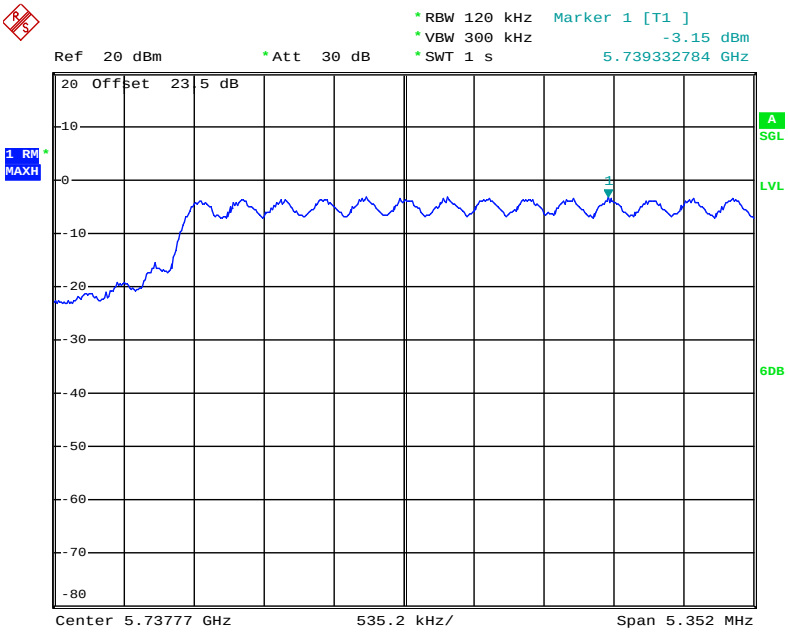
Date: 11.MAY.2012 05:02:17

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 5745 MHz (3TX)



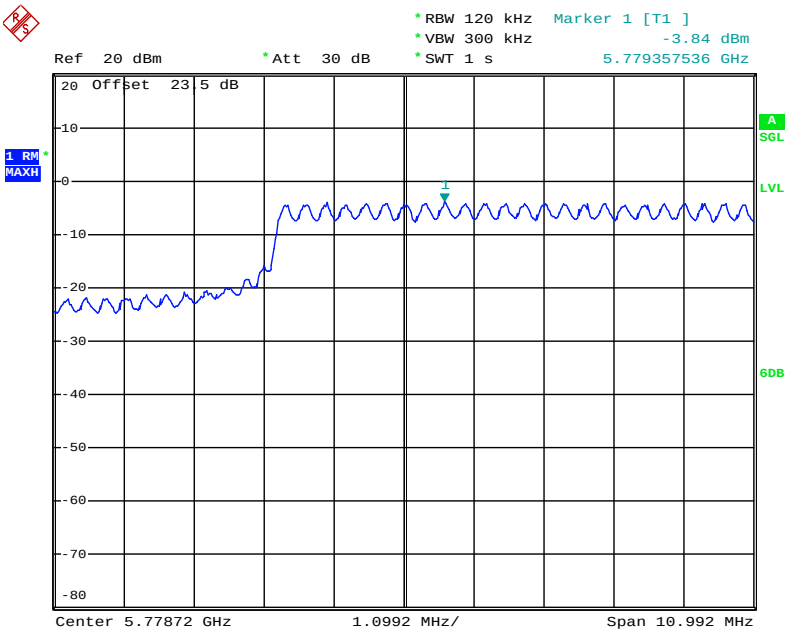
Date: 11.MAY.2012 05:01:52

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 5745 MHz (3TX)



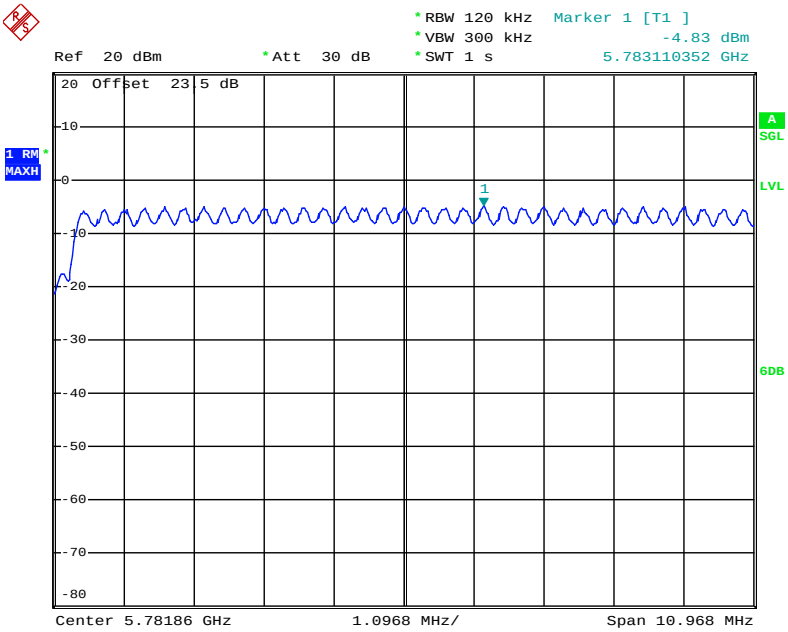
Date: 11.MAY.2012 05:01:28

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5795 MHz / (1TX)



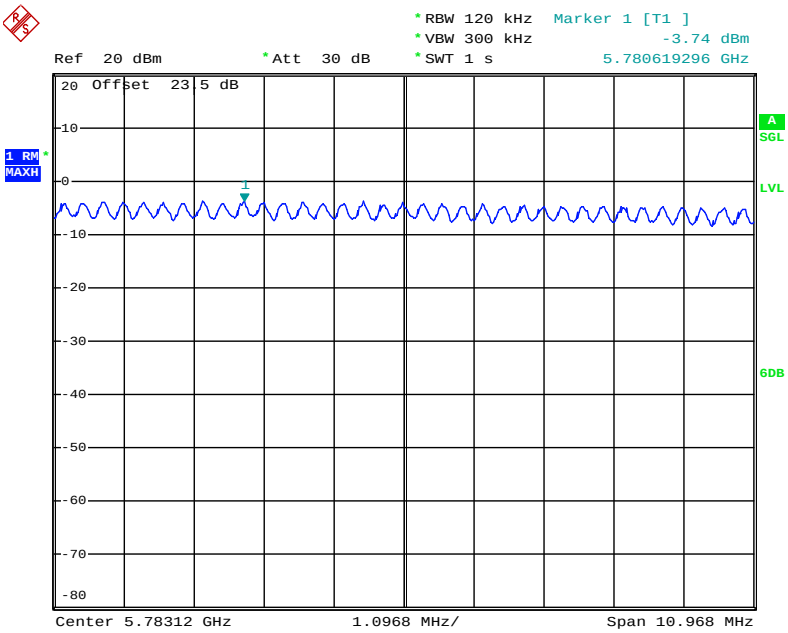
Date: 11.MAY.2012 04:13:22

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5795 MHz (2TX)



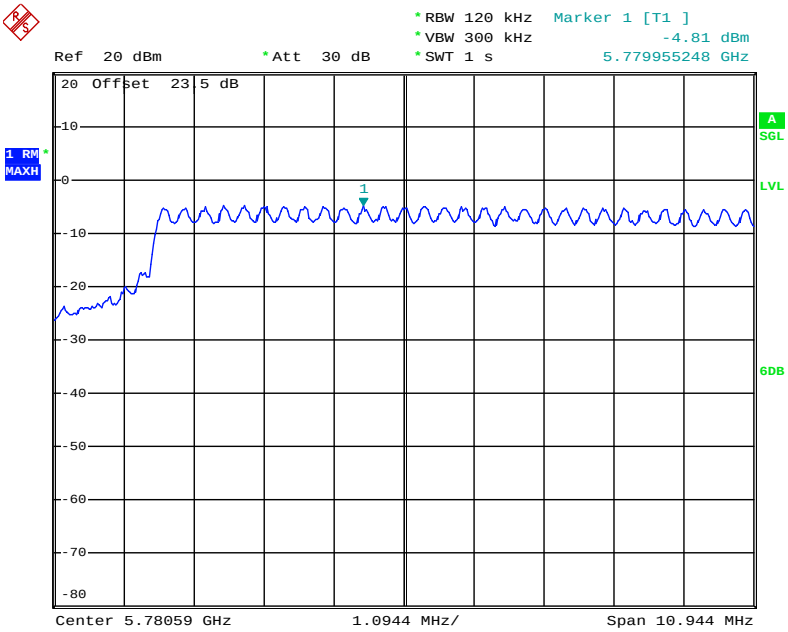
Date: 11.MAY.2012 04:14:38

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5795 MHz (2TX)



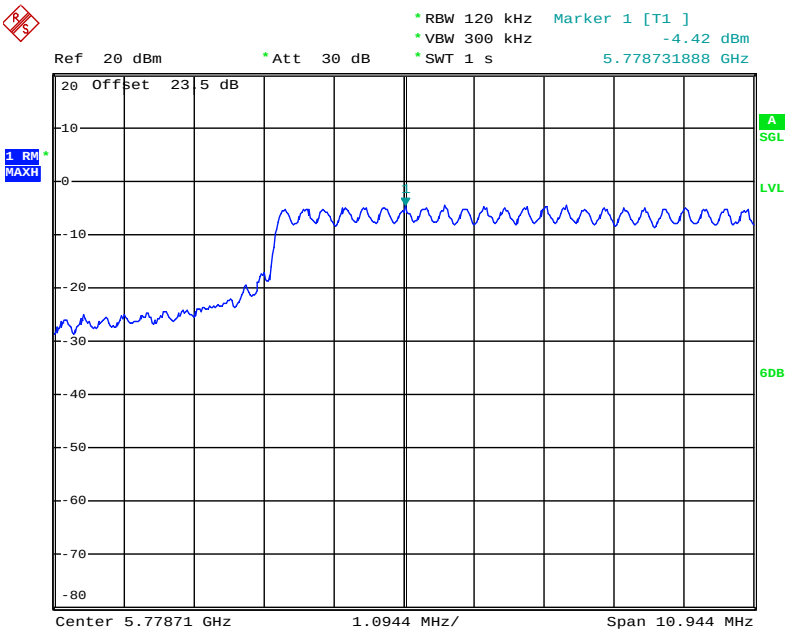
Date: 11.MAY.2012 04:15:16

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 5795 MHz (2TX)



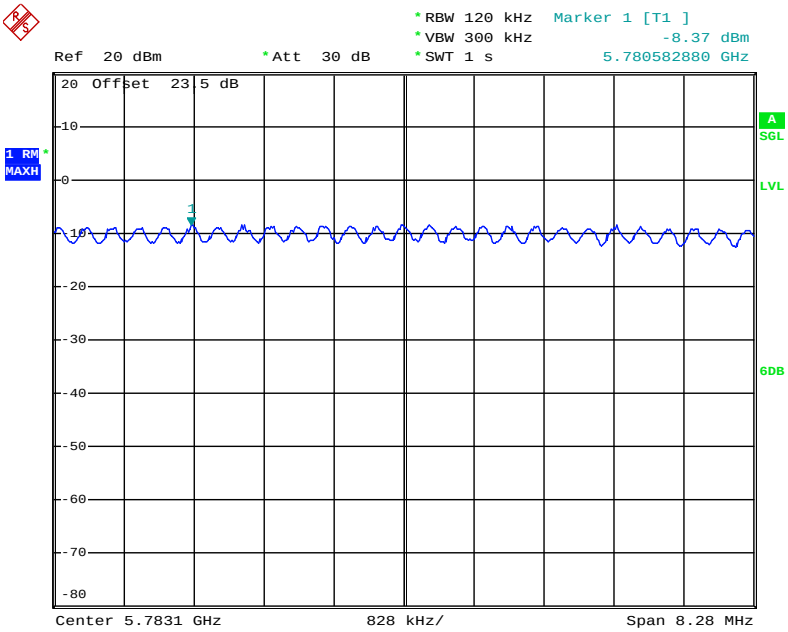
Date: 11.MAY.2012 04:23:42

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 5795 MHz (2TX)



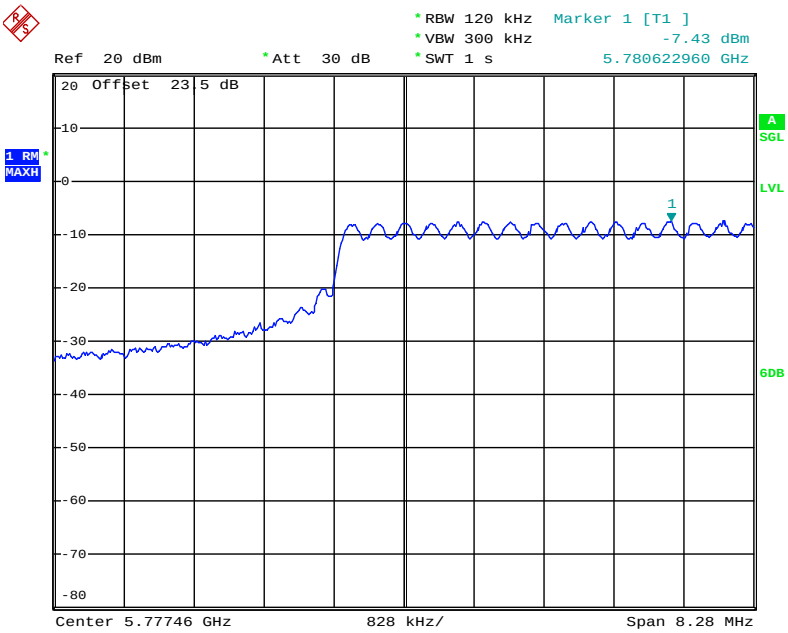
Date: 11.MAY.2012 04:22:55

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5795 MHz (3TX)



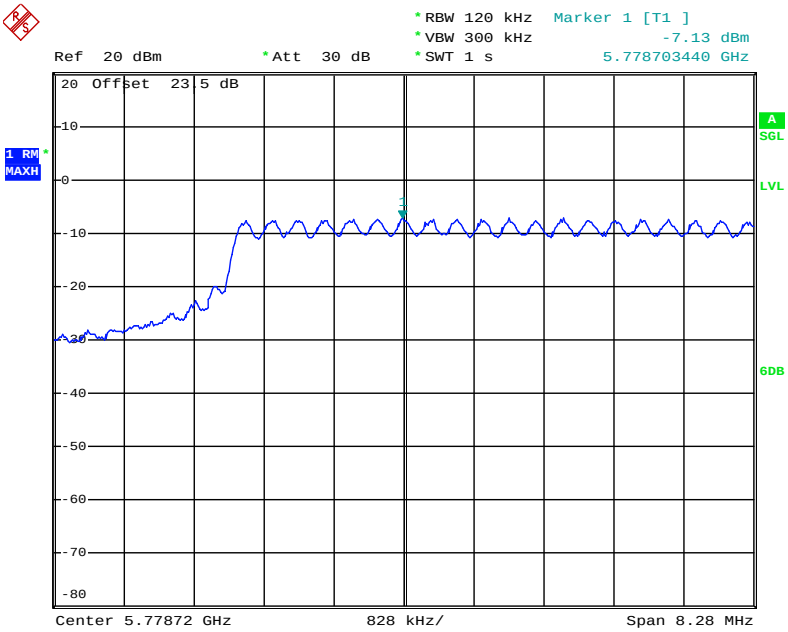
Date: 11.MAY.2012 05:07:33

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5795 MHz (3TX)



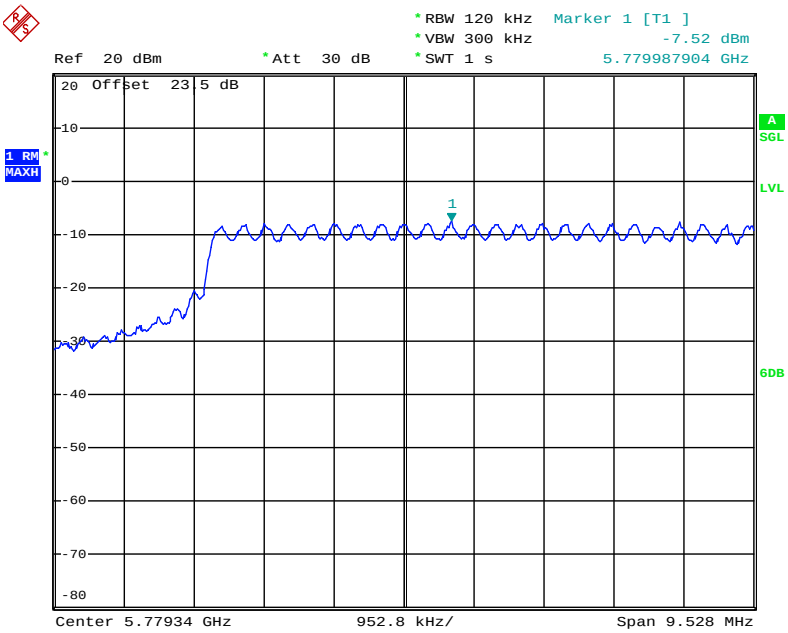
Date: 11.MAY.2012 05:08:02

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 5795 MHz (3TX)



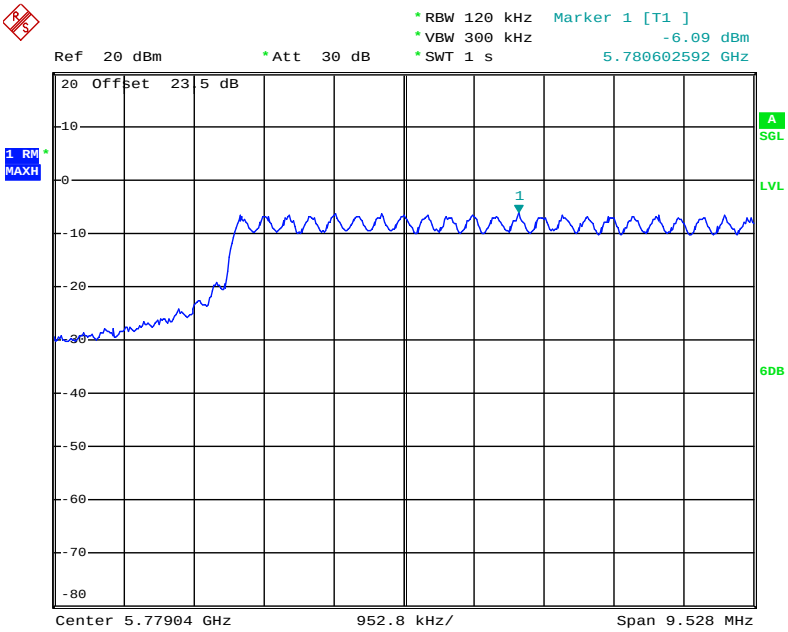
Date: 11.MAY.2012 05:08:25

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 5795 MHz (3TX)



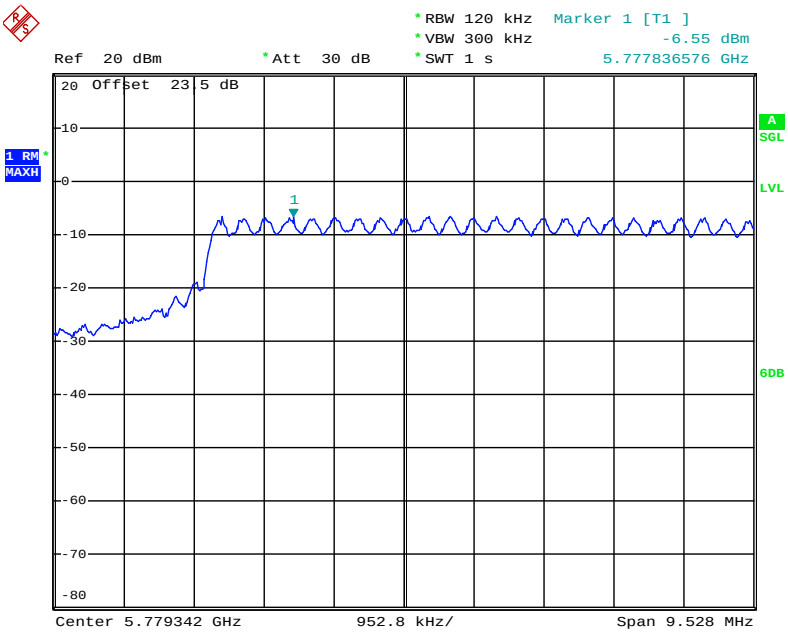
Date: 11.MAY.2012 05:06:33

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 5795 MHz (3TX)



Date: 11.MAY.2012 05:06:07

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 5795 MHz (3TX)



Date: 11.MAY.2012 05:05:40

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

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-3.37	-15.23	-18.60	8.00	Complies
157	5785 MHz	-1.22	-15.23	-16.45	8.00	Complies
165	5825 MHz	-1.80	-15.23	-17.03	8.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-8.28	-15.23	-23.51	8.00	Complies
159	5795 MHz	-4.44	-15.23	-19.67	8.00	Complies

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
149	5745 MHz	-1.98	-0.91	1.60	-15.23	-13.63	8.00	Complies
157	5785 MHz	-2.75	-1.13	1.15	-15.23	-14.08	8.00	Complies
165	5825 MHz	-2.79	-2.42	0.41	-15.23	-14.82	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
151	5755 MHz	-9.75	-8.06	-5.81	-15.23	-21.04	8.00	Complies
159	5795 MHz	-6.01	-4.90	-2.41	-15.23	-17.64	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
149	5745 MHz	-3.09	-1.62	0.72	-15.23	-14.51	8.00	Complies
157	5785 MHz	-3.05	-1.77	0.65	-15.23	-14.58	8.00	Complies
165	5825 MHz	-3.29	-1.95	0.44	-15.23	-14.79	8.00	Complies

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
151	5755 MHz	-8.84	-7.93	-5.35	-15.23	-20.58	8.00	Complies
159	5795 MHz	-6.22	-4.79	-2.44	-15.23	-17.66	8.00	Complies

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
149	5745 MHz	-3.94	-2.47	-2.72	1.77	-15.23	-13.46	6.93	Complies
157	5785 MHz	-4.48	-3.22	-3.13	1.20	-15.23	-14.03	6.93	Complies
165	5825 MHz	-4.79	-3.79	-4.38	0.47	-15.23	-14.76	6.93	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.07dBi > 6dBi, so the power density limit =8-(7.07-6)=6.93dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
151	5755 MHz	-10.82	-8.96	-8.70	-4.62	-15.23	-19.85	6.93	Complies
159	5795 MHz	-8.03	-6.50	-6.58	-2.21	-15.23	-17.44	6.93	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =7.07dBi > 6dBi, so the power density limit =8-(7.07-6)=6.93dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
149	5745 MHz	-5.89	-4.09	-4.11	0.15	-15.23	-15.08	8.00	Complies
157	5785 MHz	-5.08	-3.56	-4.01	0.60	-15.23	-14.63	8.00	Complies
165	5825 MHz	-5.50	-4.27	-4.09	0.19	-15.23	-15.03	8.00	Complies

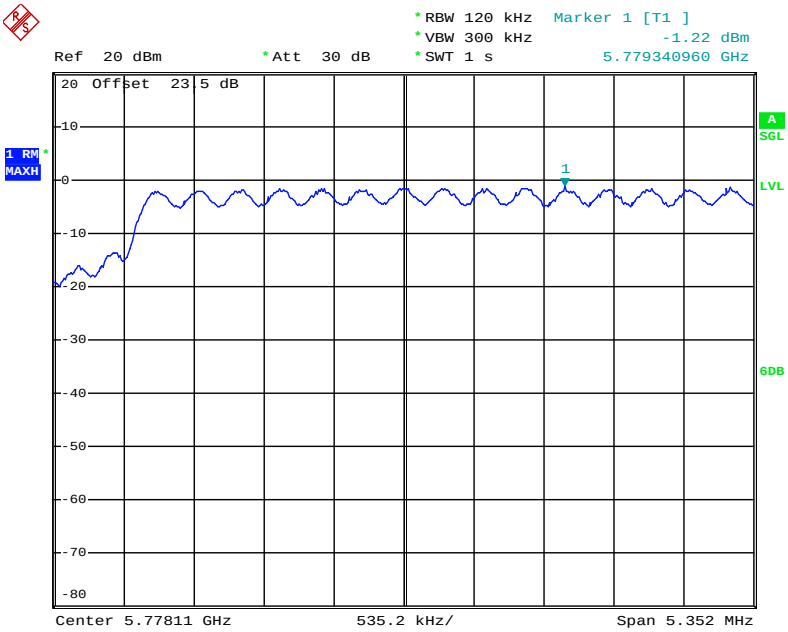
Configuration IEEE 802.11n MCS8 40MHz / Chain 1+ Chain 2 + Chain 3

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
151	5755 MHz	-10.77	-8.91	-8.21	-4.40	-15.23	-19.63	8.00	Complies
159	5795 MHz	-7.97	-6.33	-6.75	-2.19	-15.23	-17.42	8.00	Complies

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

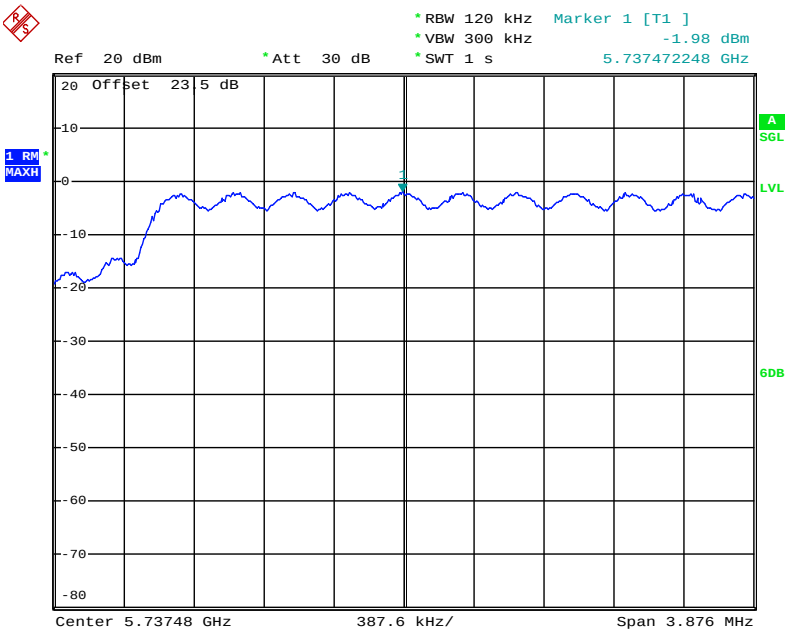
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5785 MHz (1TX)



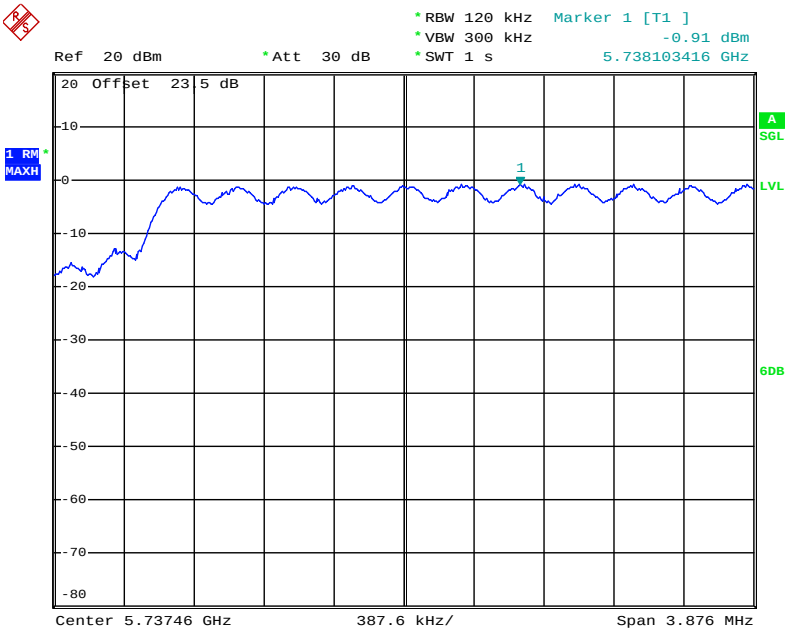
Date: 11.MAY.2012 06:00:23

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5745 MHz (2TX)



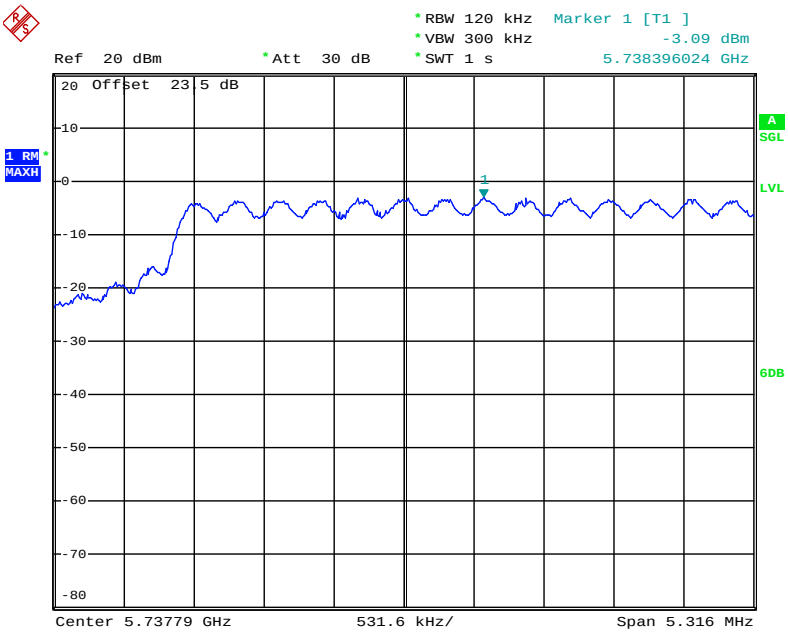
Date: 11.MAY.2012 06:04:33

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5745 MHz (2TX)



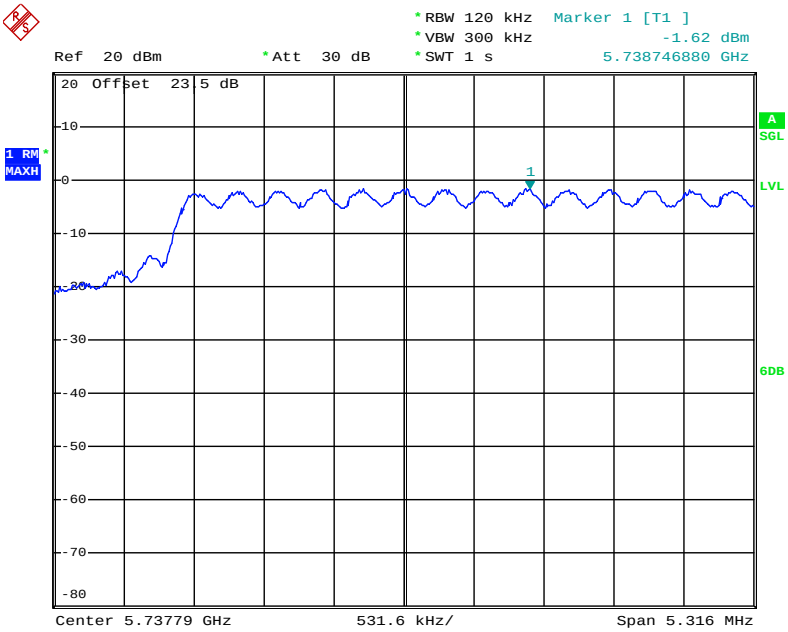
Date: 11.MAY.2012 06:05:31

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 5745 MHz (2TX)



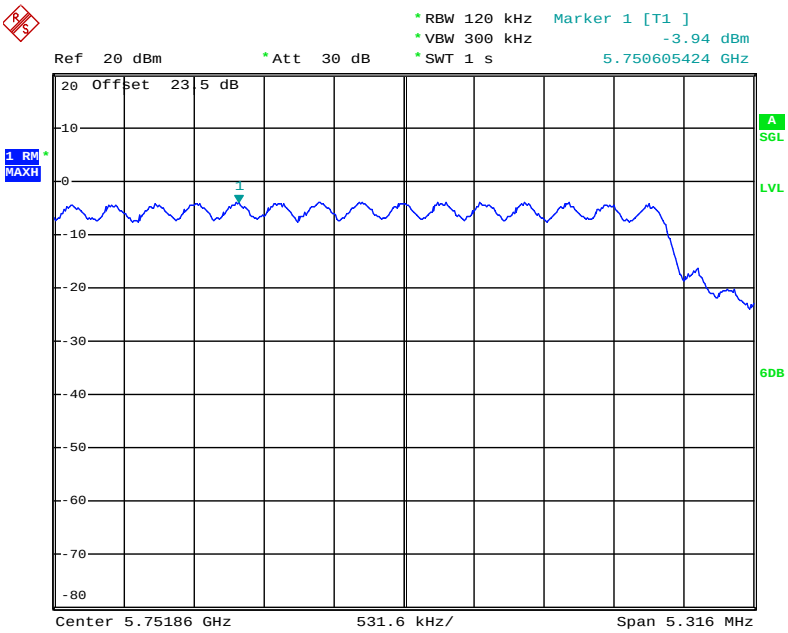
Date: 11.MAY.2012 06:12:16

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 5745 MHz (2TX)



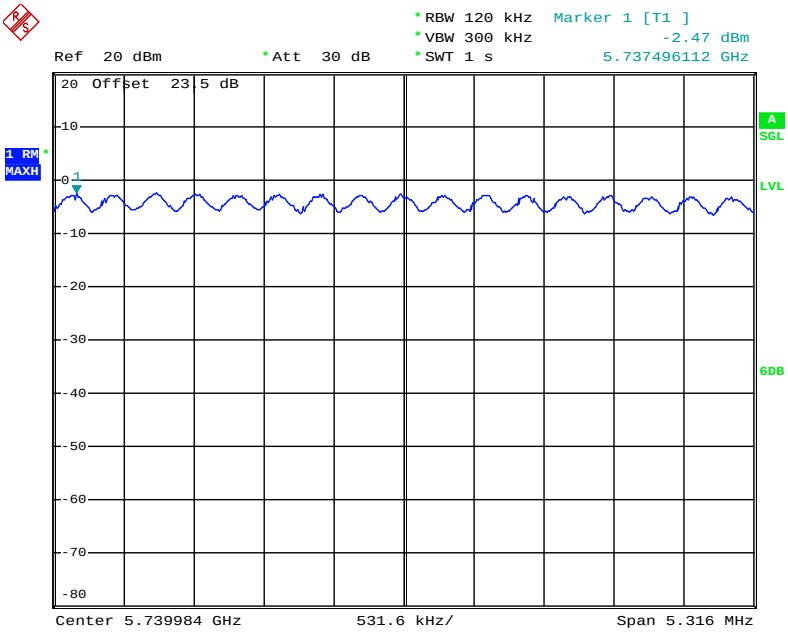
Date: 11.MAY.2012 06:11:50

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5745 MHz (3TX)



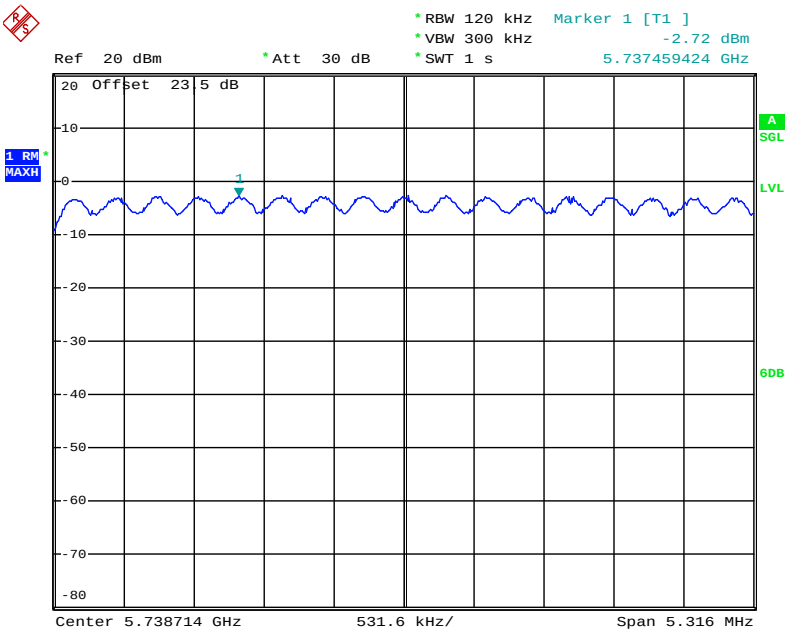
Date: 11.MAY.2012 06:19:38

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5745 MHz (3TX)



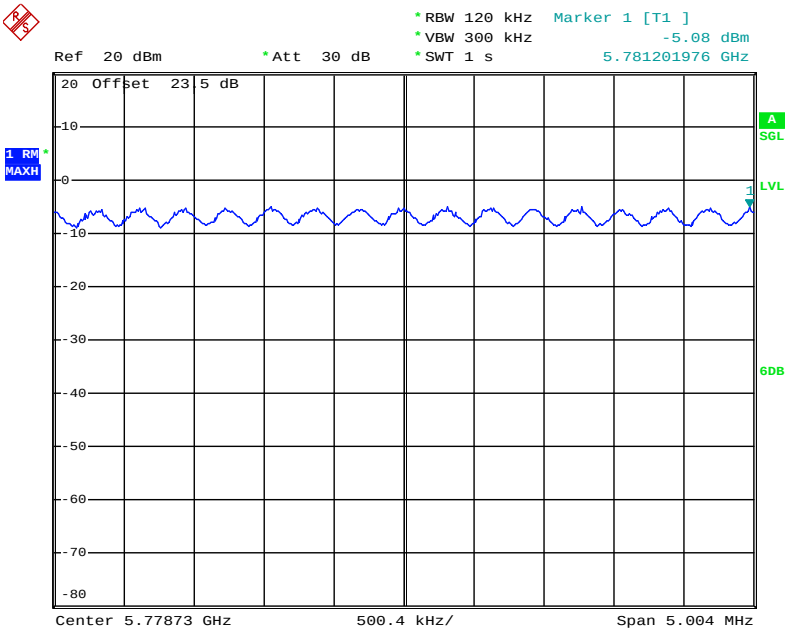
Date: 11.MAY.2012 06:20:07

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 3 / 5745 MHz (3TX)



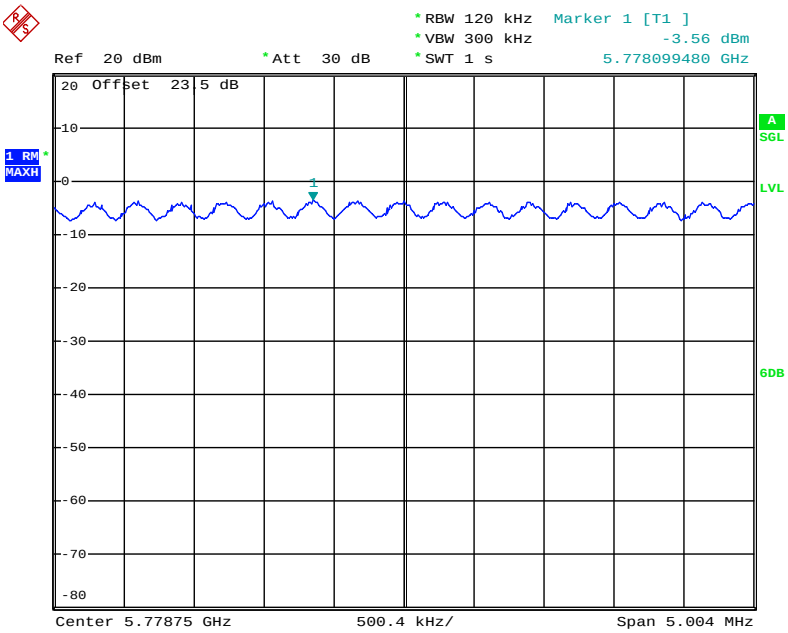
Date: 11.MAY.2012 06:20:40

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 5785 MHz (3TX)



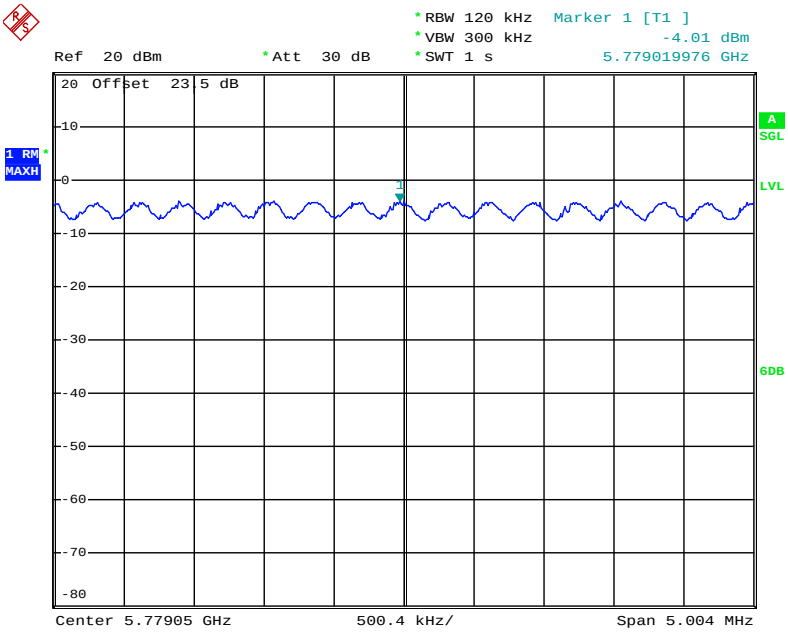
Date: 11.MAY.2012 06:26:22

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 5785 MHz (3TX)



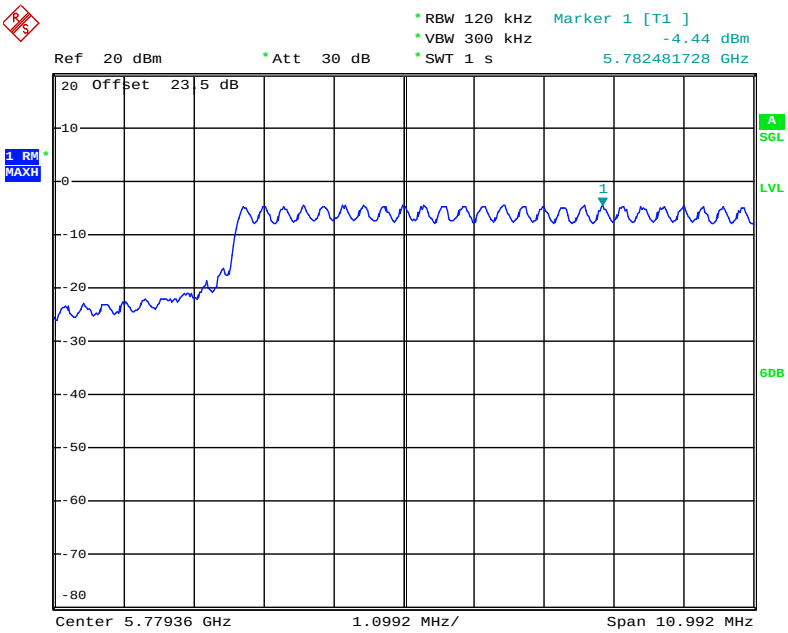
Date: 11.MAY.2012 06:26:54

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 3 / 5785 MHz (3TX)



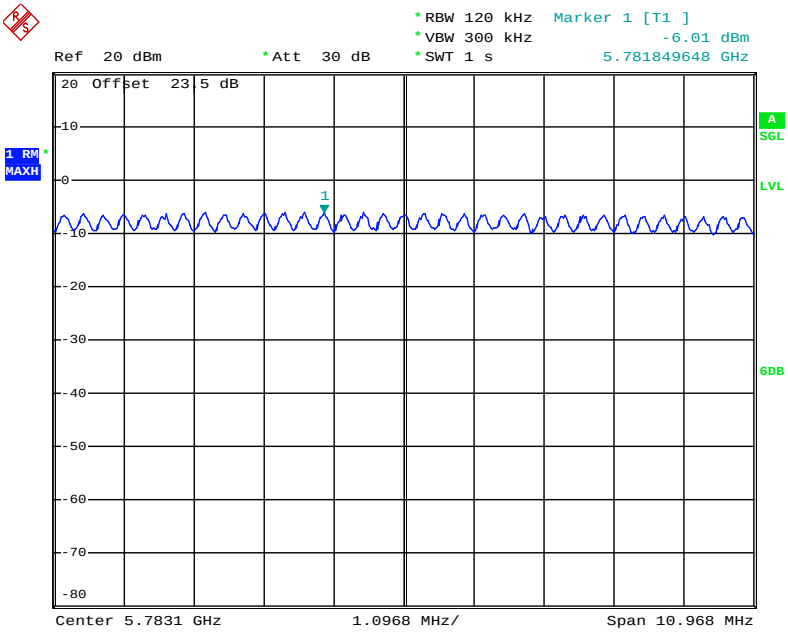
Date: 11.MAY.2012 06:27:20

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5795 MHz / (1TX)



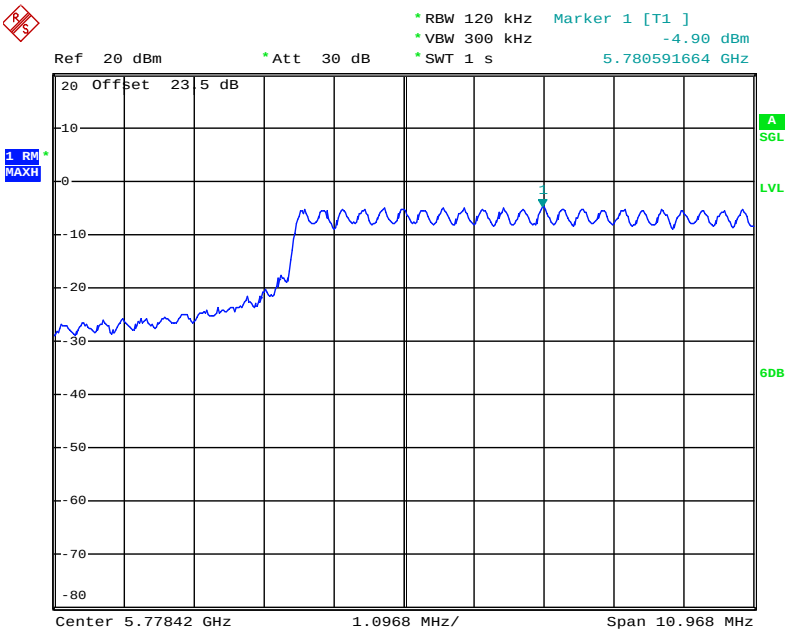
Date: 11.MAY.2012 06:02:37

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5795 MHz (2TX)



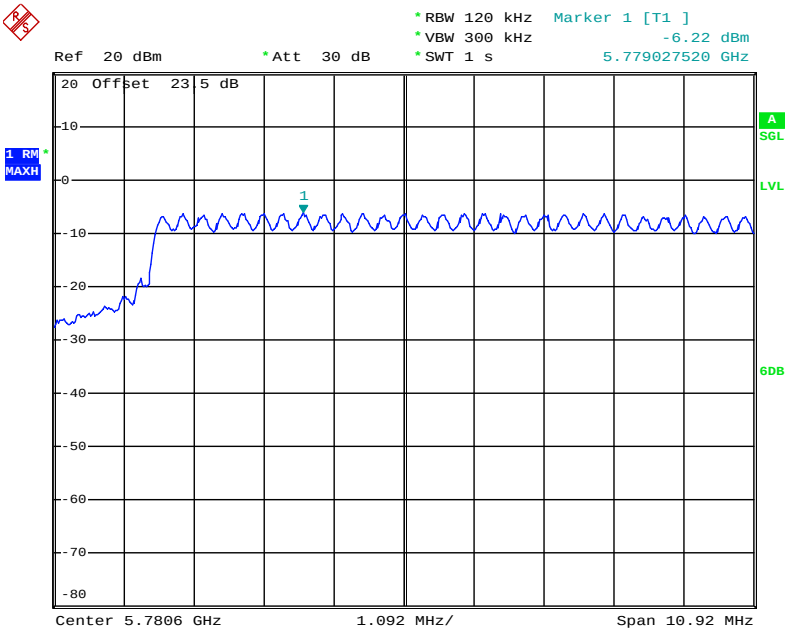
Date: 11.MAY.2012 06:16:42

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5795 MHz (2TX)



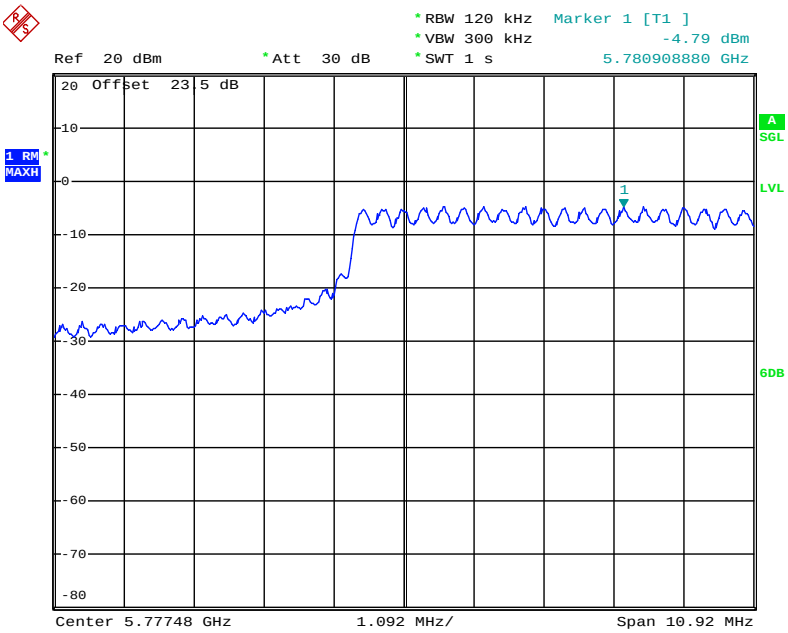
Date: 11.MAY.2012 06:17:20

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 5795 MHz (2TX)



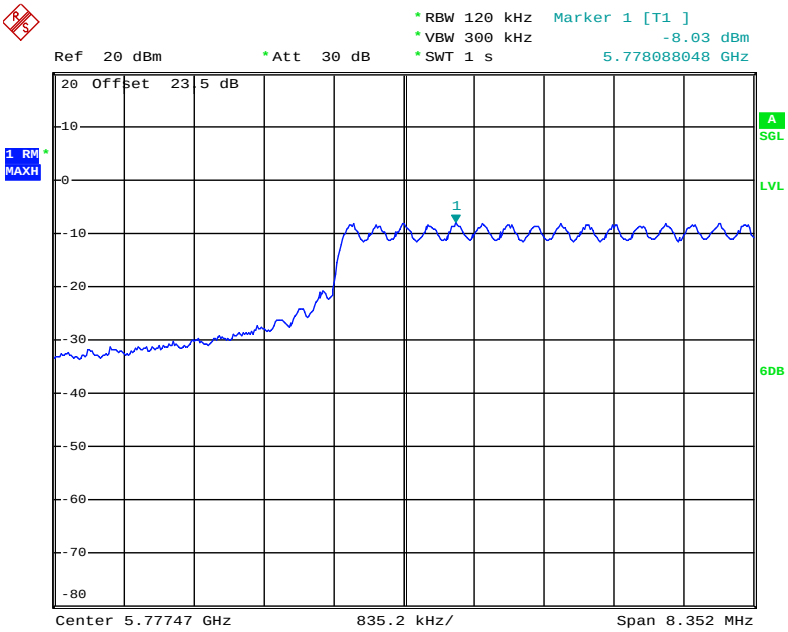
Date: 11.MAY.2012 06:15:52

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 5795 MHz (2TX)



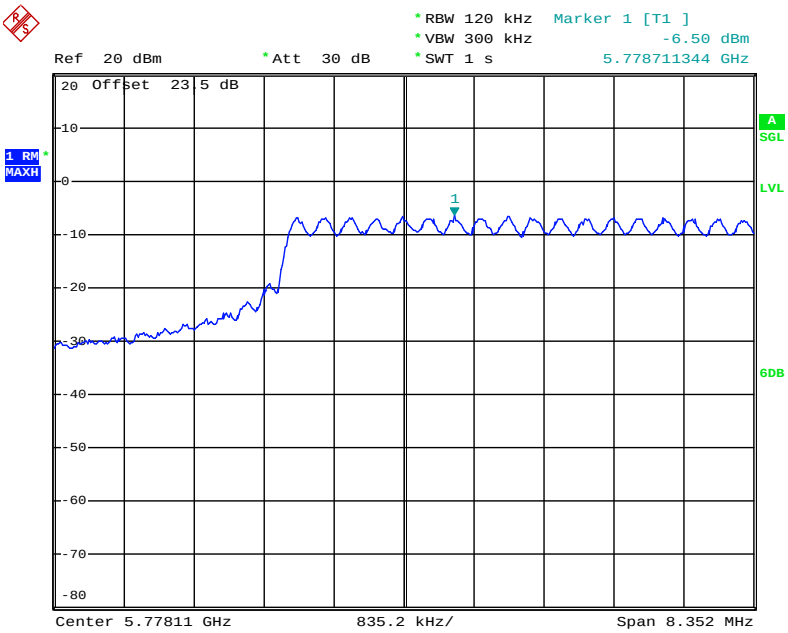
Date: 11.MAY.2012 06:15:14

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5795 MHz (3TX)



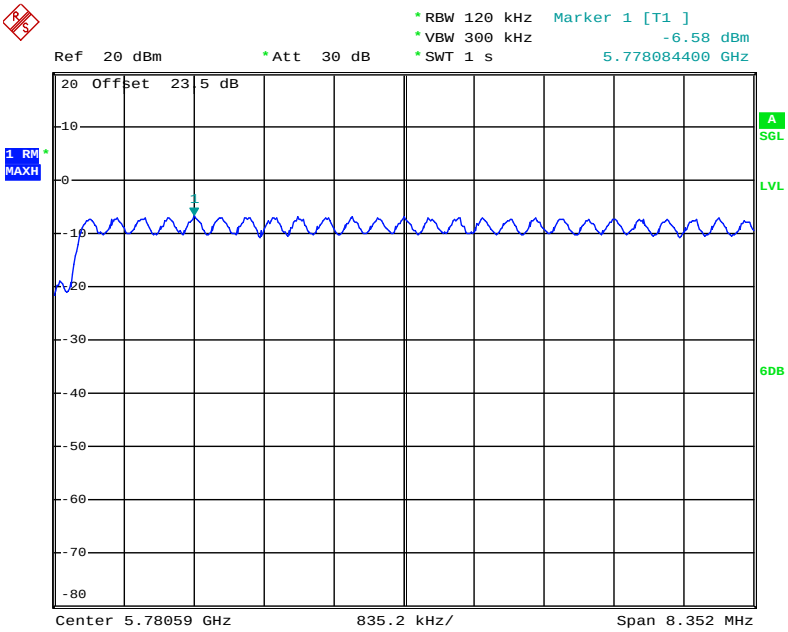
Date: 11.MAY.2012 06:35:02

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5795 MHz (3TX)



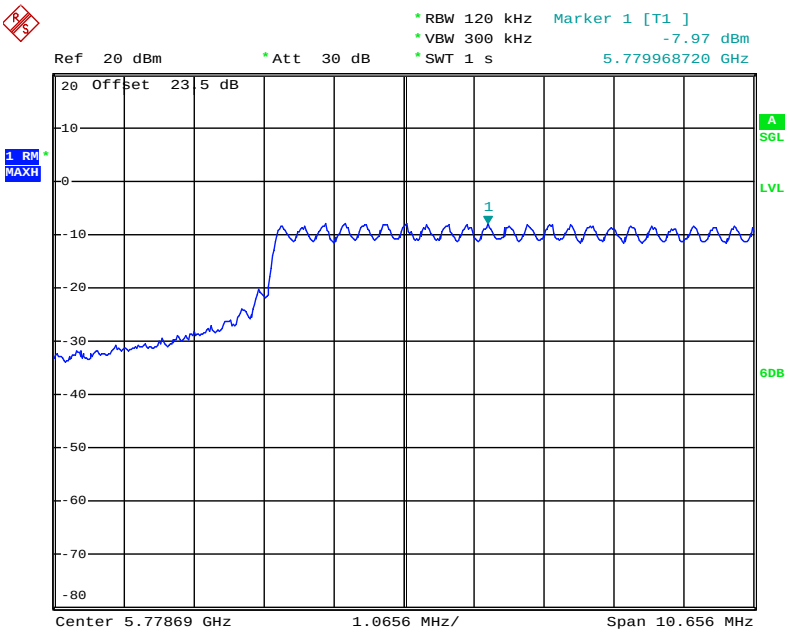
Date: 11.MAY.2012 06:35:28

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 3 / 5795 MHz (3TX)



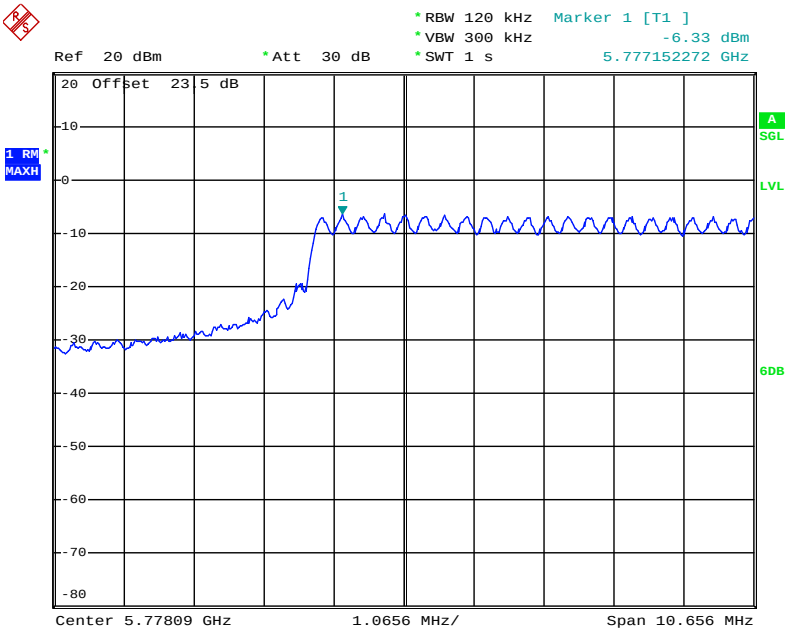
Date: 11.MAY.2012 06:35:53

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 5795 MHz (3TX)



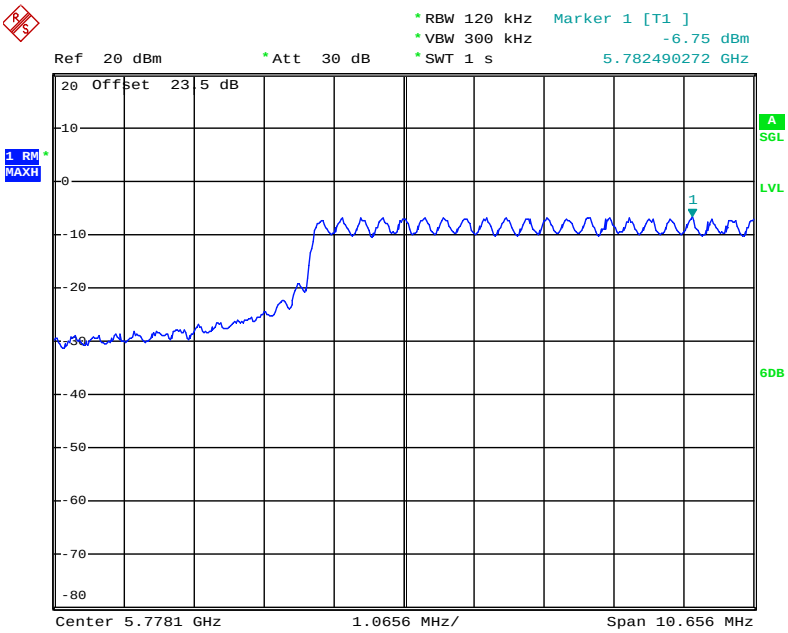
Date: 11.MAY.2012 06:34:07

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 5795 MHz (3TX)



Date: 11.MAY.2012 06:33:43

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 3 / 5795 MHz (3TX)



Date: 11.MAY.2012 06:33:19

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

1TX

Configuration IEEE 802.11n MCS0 20MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-5.14	-15.23	-20.37	3.50	Complies
157	5785 MHz	-2.03	-15.23	-17.26	3.50	Complies
165	5825 MHz	-2.60	-15.23	-17.83	3.50	Complies

Note: 10.5dBi > 6dBi, so the conducted power limit =8-(10.5-6)=3.5dBm.

Configuration IEEE 802.11n MCS0 40MHz / Chain 1

Channel	Frequency	Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-9.49	-15.23	-24.72	3.50	Complies
159	5795 MHz	-4.99	-15.23	-20.22	3.50	Complies

Note: 10.5dBi > 6dBi, so the conducted power limit =8-(10.5-6)=3.5dBm.

2TX

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
149	5745 MHz	-6.90	-5.58	-3.18	-15.23	-18.41	0.49	Complies
157	5785 MHz	-5.30	-3.64	-1.38	-15.23	-16.61	0.49	Complies
165	5825 MHz	-4.50	-3.49	-0.96	-15.23	-16.18	0.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.51dBi > 6dBi, so the power density limit =8-(13.51-6)=0.49dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
151	5755 MHz	-10.89	-9.26	-6.99	-15.23	-22.22	0.49	Complies
159	5795 MHz	-7.20	-5.62	-3.33	-15.23	-18.56	0.49	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.51dBi > 6dBi, so the power density limit =8-(13.51-6)=0.49dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
149	5745 MHz	-6.79	-4.72	-2.62	-15.23	-17.85	3.50	Complies
157	5785 MHz	-3.36	-1.96	0.41	-15.23	-14.82	3.50	Complies
165	5825 MHz	-4.19	-3.01	-0.55	-15.23	-15.78	3.50	Complies

Note:10.5dBi > 6dBi, so the power density limit =8-(10.5-6)=3.5dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)		Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2					
151	5755 MHz	-10.89	-9.17	-6.94	-15.23	-22.16	3.50	Complies
159	5795 MHz	-6.23	-4.31	-2.15	-15.23	-17.38	3.50	Complies

Note:10.5dBi > 6dBi, so the power density limit =8-(10.5-6)=3.5dBm.

3TX

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
149	5745 MHz	-7.26	-6.17	-6.25	-1.76	-15.23	-16.99	-1.27	Complies
157	5785 MHz	-8.68	-6.50	-6.89	-2.49	-15.23	-17.72	-1.27	Complies
165	5825 MHz	-7.87	-7.40	-6.80	-2.56	-15.23	-17.79	-1.27	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =15.27dBi > 6dBi, so the power density limit =8-(15.27-6)=-1.27dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
151	5755 MHz	-14.11	-12.46	-12.36	-8.13	-15.23	-23.36	-1.27	Complies
159	5795 MHz	-11.28	-9.94	-9.78	-5.51	-15.23	-20.74	-1.27	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =15.27dBi > 6dBi, so the power density limit =8-(15.27-6)=-1.27dBm.

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

Channel	Frequency	Power Density (dBm/100kHz)			Total Power Density (dBm/100kHz)	BWCF factor (100KHz to 3KHz	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3					
149	5745 MHz	-9.11	-7.67	-7.66	-3.32	-15.23	-18.55	0.50	Complies
157	5785 MHz	-7.48	-5.56	-5.89	-1.46	-15.23	-16.69	0.50	Complies
165	5825 MHz	-7.02	-5.36	-5.14	-0.99	-15.23	-16.22	0.50	Complies

Note: $\text{Directional gain} = G_{ANT} + 10\log(N)\ \text{dBi}$ =13.5dBi > 6dBi, so the power density limit =8-(13.5-6)=0.5dBm.