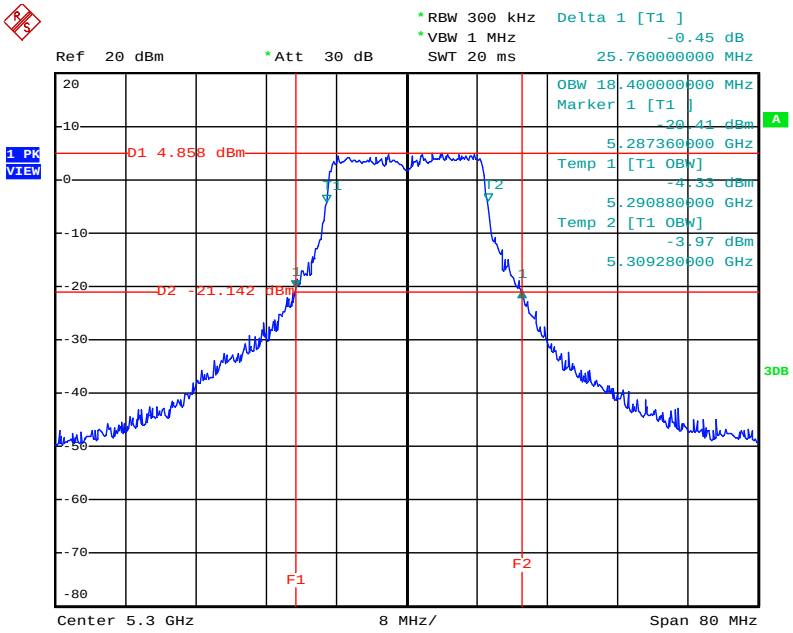
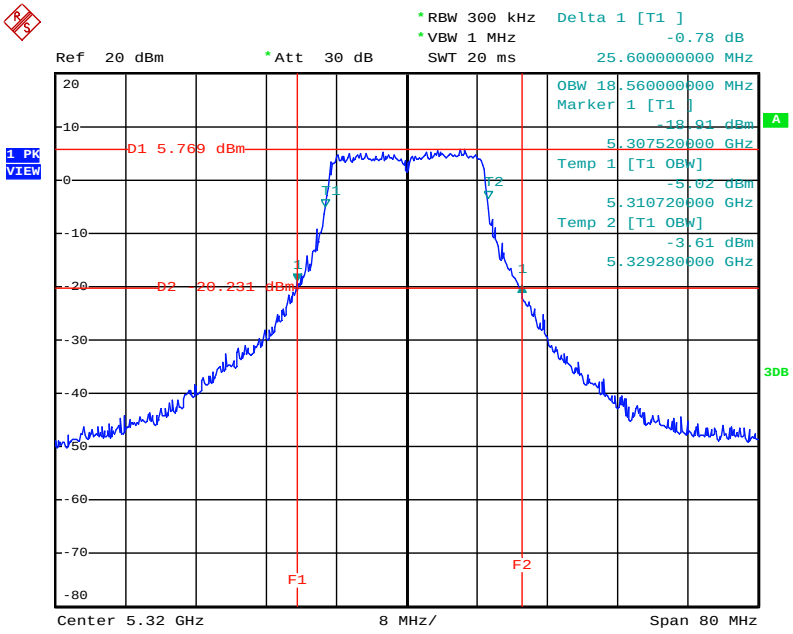
26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5300 MHz / Mode 15 (1TX, 2RX)



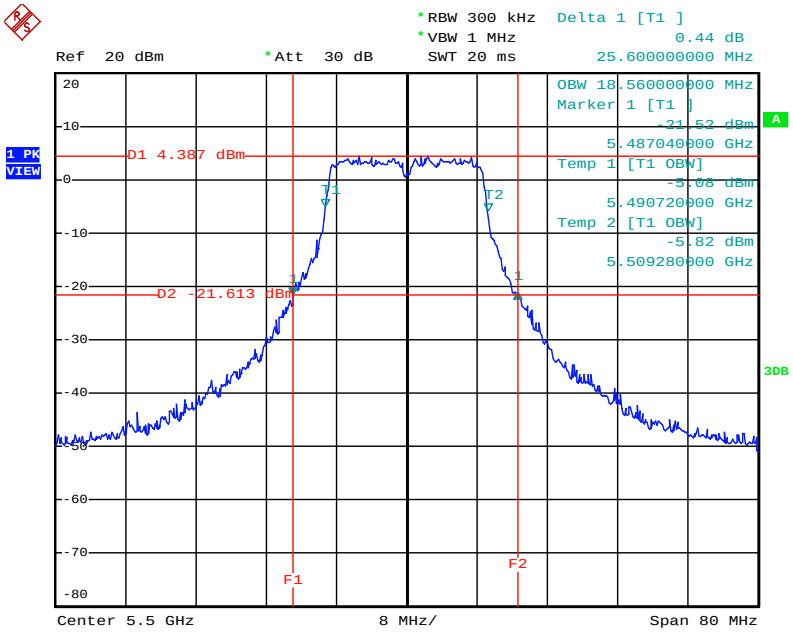
Date: 9.FEB.2012 22:23:36

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz / Mode 15 (1TX, 2RX)



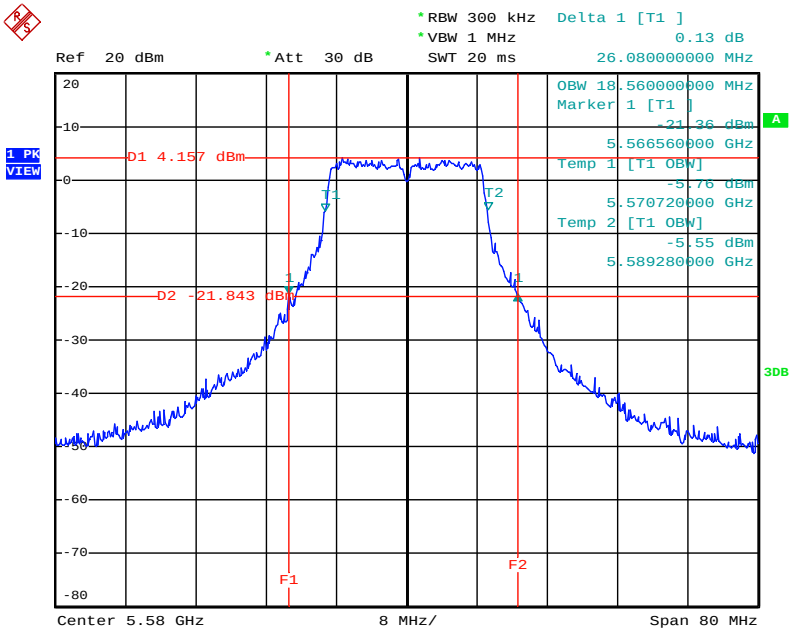
Date: 9.FEB.2012 22:24:04

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz / Mode 15 (1TX, 2RX)



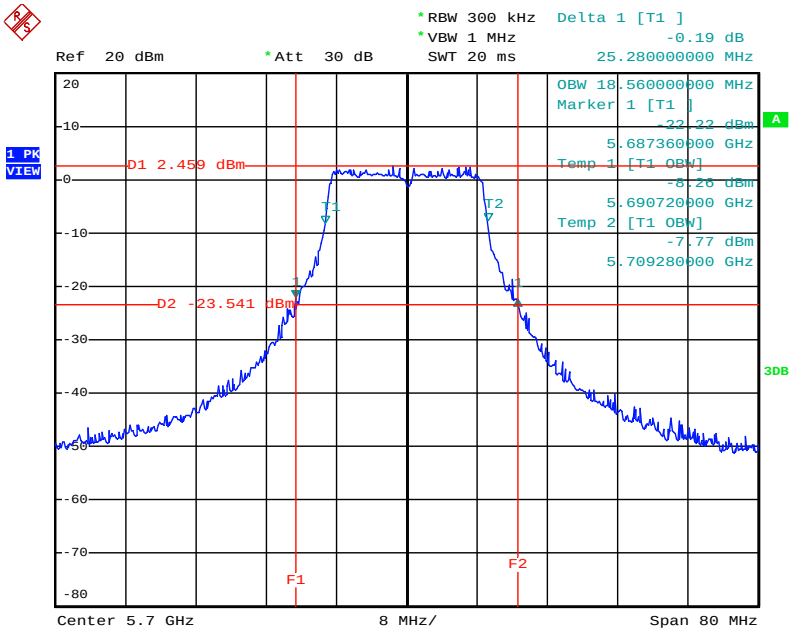
Date: 9.FEB.2012 22:24:59

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz / Mode 12 (1TX, 2RX)



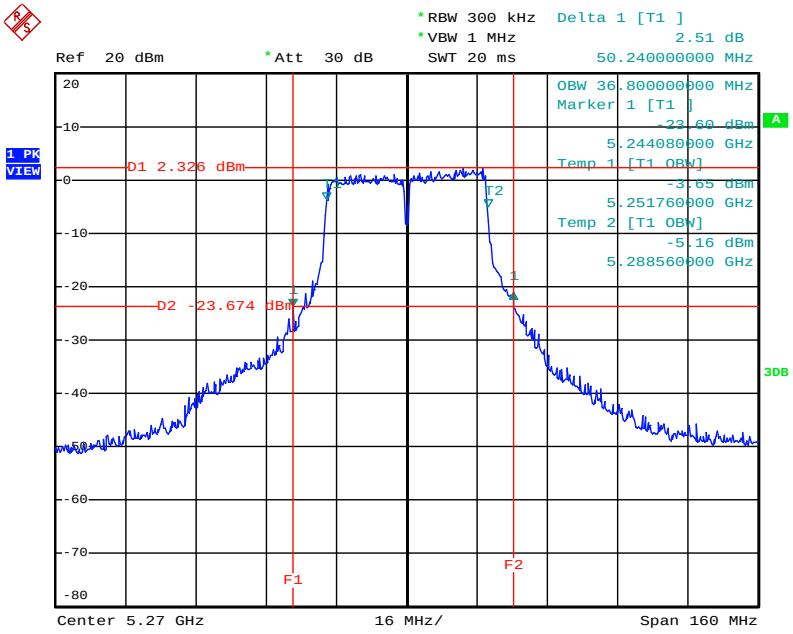
Date: 9.FEB.2012 22:25:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5700 MHz / Mode 15 (1TX, 2RX)



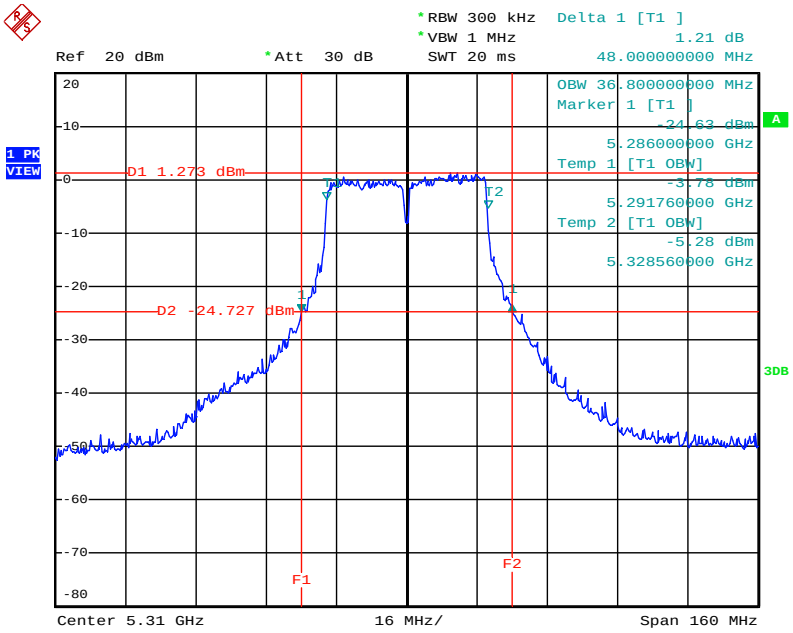
Date: 9.FEB.2012 22:26:15

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz / Mode 15 (1TX, 2RX)



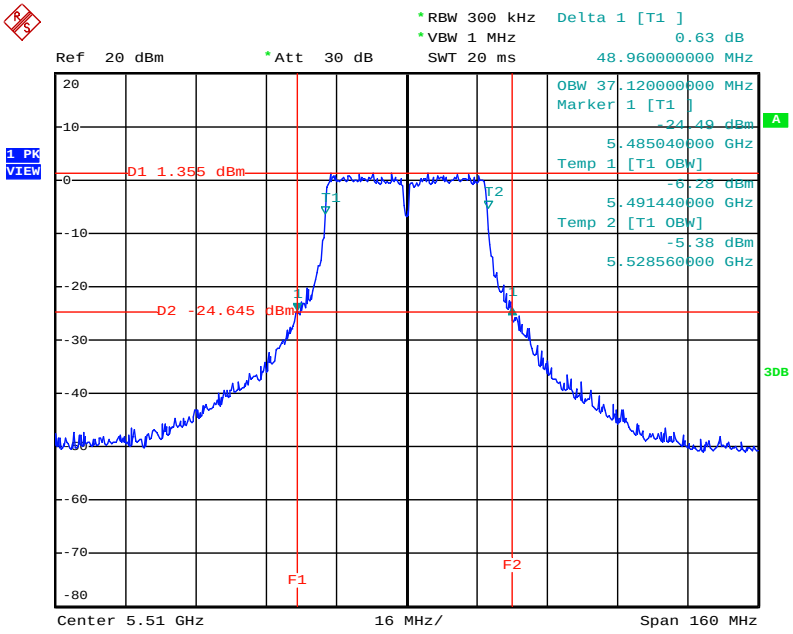
Date: 9.FEB.2012 22:27:12

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1/ 5310 MHz / Mode 15 (1TX, 2RX)



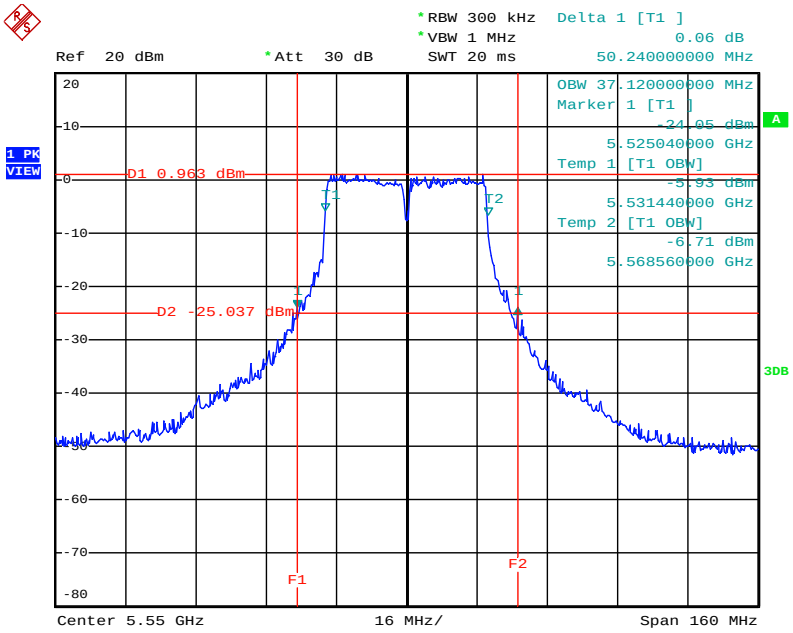
Date: 9.FEB.2012 22:27:38

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1/ 5510MHz / Mode 15 (1TX, 2RX)



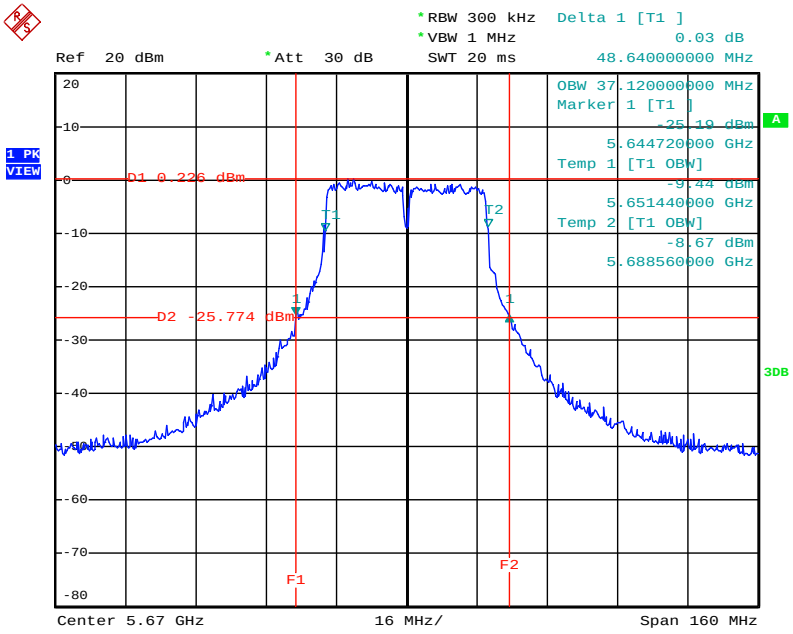
Date: 9.FEB.2012 22:28:08

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz / Mode 15 (1TX, 2RX)



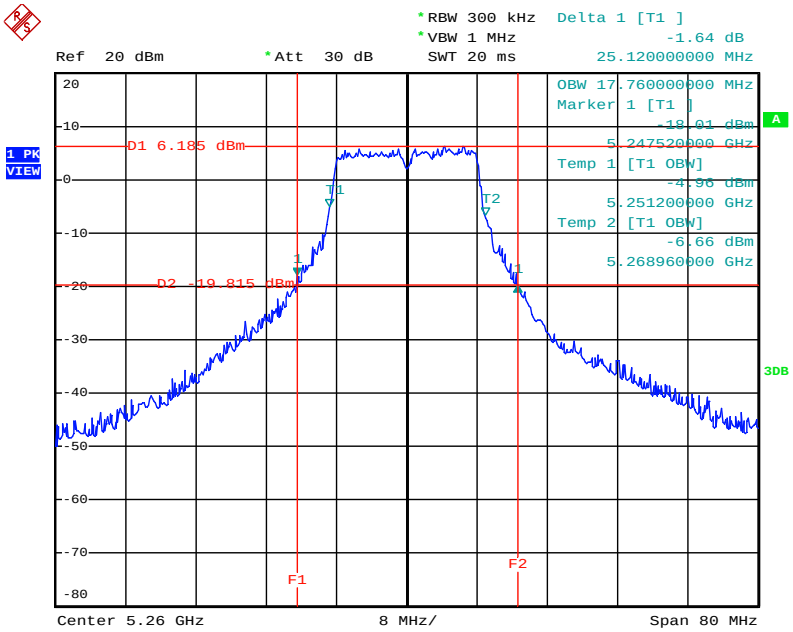
Date: 9.FEB.2012 22:28:32

26 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz / Mode 15 (1TX, 2RX)



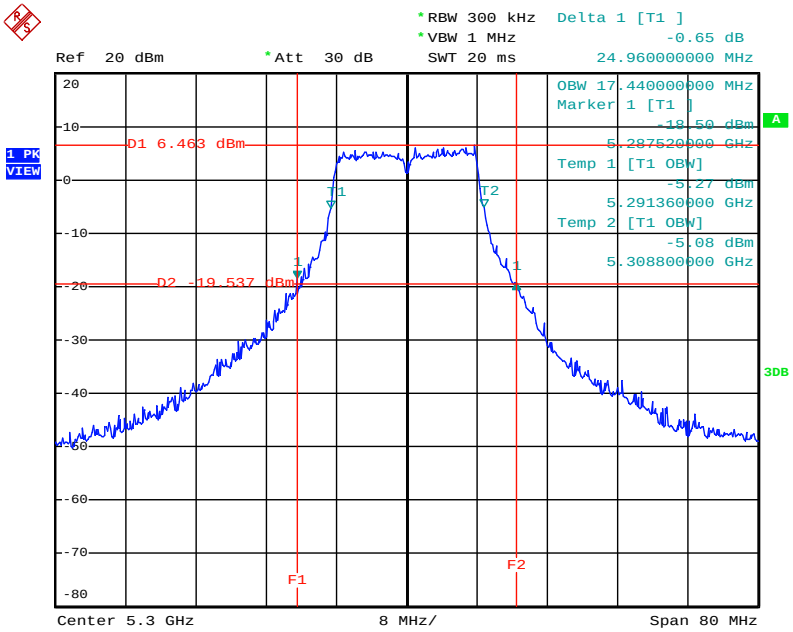
Date: 9.FEB.2012 22:29:00

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5260 MHz / Mode 15 (1TX, 2RX)



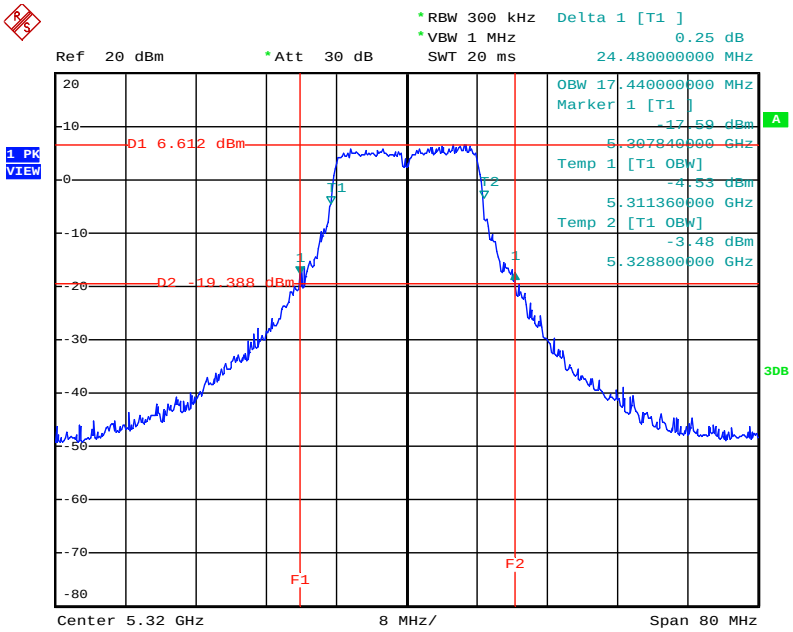
Date: 9.FEB.2012 22:19:07

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5300 MHz / Mode 15 (1TX, 2RX)



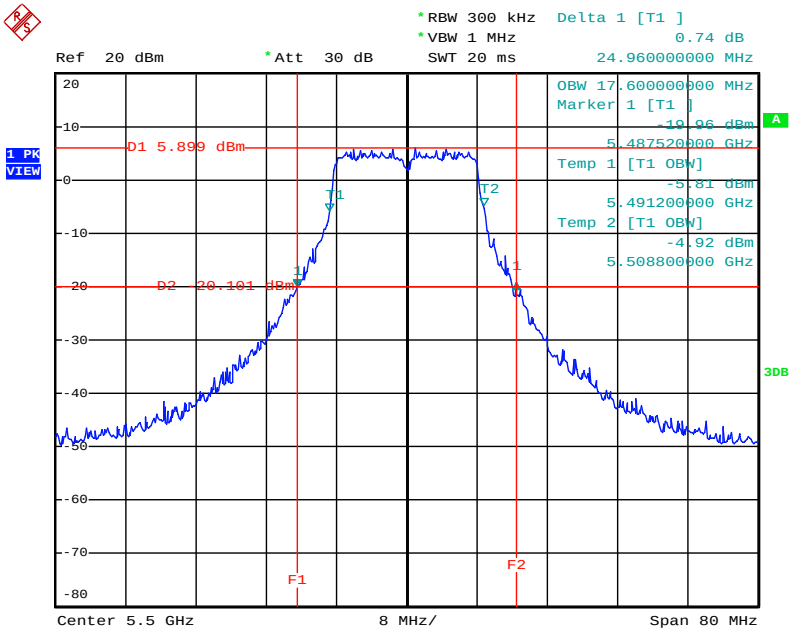
Date: 9.FEB.2012 22:19:42

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5320 MHz / Mode 15 (1TX, 2RX)



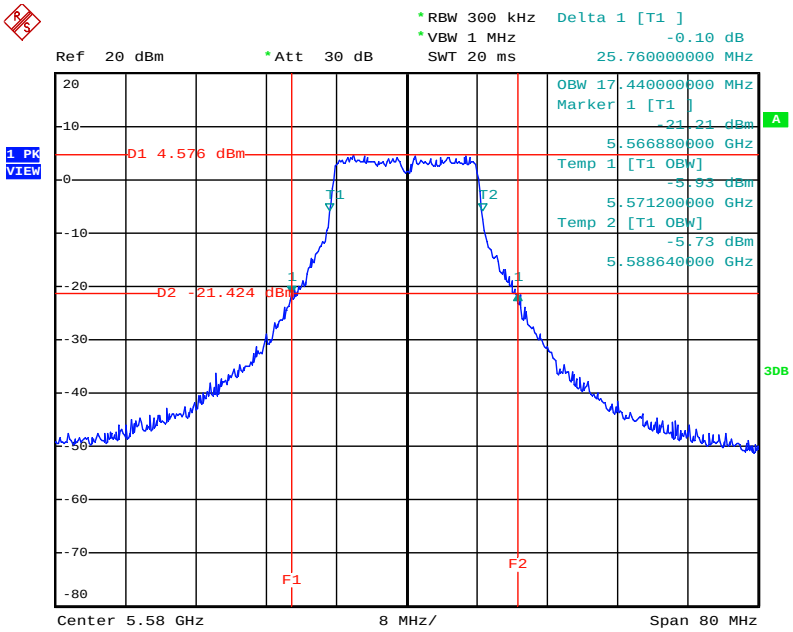
Date: 9.FEB.2012 22:20:11

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5500 MHz / Mode 15 (1TX, 2RX)



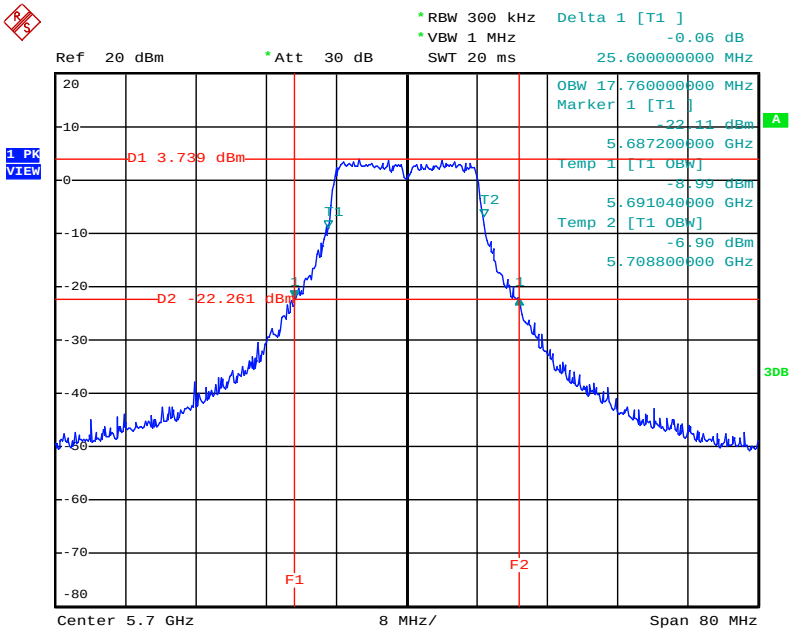
Date: 9.FEB.2012 22:20:41

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5580 MHz / Mode 15 (1TX, 2RX)



Date: 9.FEB.2012 22:21:28

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 / 5700 MHz / Mode 15 (1TX, 2RX)



Date: 9.FEB.2012 22:21:53

4.3. Maximum Conducted Output Power Measurement

4.3.1. Limit

For the 5.25-5.35 GHz and 5.470-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725~5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W or 17 dBm + 10 log B, where B is the 26-dB emission bandwidth in MHz. In addition, the peak power spectral density shall not exceed 17 dBm in any 1ŔMHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain up to 23 dBi without any corresponding reduction in the transmitter peak output power or peak power spectral density. For fixed, point-to-point U-NII transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in peak transmitter power and peak power spectral density for each 1 dB of antenna gain in excess of 23 dBi would be required.

4.3.2. Measuring Instruments and Setting

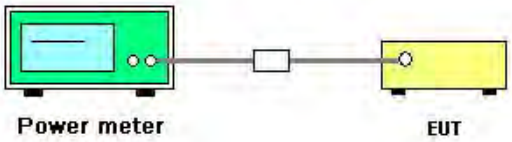
The following table is the setting of the Average.

Power Meter Parameter	Setting
Bandwidth	50MHz bandwidth is greater than the EUT emission bandwidth
Detector	AVERAGE

4.3.3. Test Procedures

Spectrum Parameter	Setting
RF Output Power Method	☒ ANSI C63.10 clause 6.10.2.1 (a) power meter method
RF Output Power Method	☐ ANSI C63.10 clause 6.10.2.1 (b) channel integration method
RF Output Power Method	☐ ANSI C63.10 clause 6.10.3.1 Method 1 - spectral trace averaging
RF Output Power Method	☐ ANSI C63.10 clause 6.10.3.2 Method 2 - zero-span mode with trace averaging

4.3.4. Test Setup Layout



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of Maximum Conducted Output Power

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Date	Jan 17, 2012	Test Mode	Mode 3

Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	14.08	14.10	17.10	20.42	Complies
60	5300 MHz	14.03	14.13	17.09	20.42	Complies
64	5320 MHz	14.00	14.50	17.27	20.42	Complies
100	5500 MHz	14.02	14.52	17.29	20.42	Complies
116	5580 MHz	13.92	14.84	17.41	20.42	Complies
140	5700 MHz	13.82	14.20	17.02	20.42	Complies

NOTE: Directional gain $=10\log(10^{7.60/20}+10^{5.62/20})^2/2=9.58$dBi > 6dBi , so the conducted power limit =24-(9.58-6)=20.42dBm.

Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
54	5270 MHz	14.12	14.18	17.16	20.42	Complies
62	5310 MHz	14.07	14.24	17.17	20.42	Complies
102	5510MHz	14.12	14.35	17.25	20.42	Complies
110	5550 MHz	14.00	14.27	17.15	20.42	Complies
134	5670 MHz	13.92	14.45	17.20	20.42	Complies

NOTE: Directional gain $=10\log(10^{7.60/20}+10^{5.62/20})^2/2=9.58$dBi > 6dBi , so the conducted power limit =24-(9.58-6)=20.42dBm.

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a
Test Date	Jan 17, 2012	Test Mode	Mode 3

Configuration IEEE 802.11a / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	14.11	14.15	17.14	20.42	Complies
60	5300 MHz	13.84	14.05	16.96	20.42	Complies
64	5320 MHz	13.92	14.39	17.17	20.42	Complies
100	5500 MHz	14.15	14.58	17.38	20.42	Complies
116	5580 MHz	13.88	14.86	17.41	20.42	Complies
140	5700 MHz	14.20	14.51	17.37	20.42	Complies

NOTE: Directional gain $=10\log(10^{7.80/20} + 10^{5.82/20})^2/2=9.58$dBi > 6dBi , so the conducted power limit =24-(9.58-6)=20.42dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Satoshi Yang	Configurations	IEEE 802.11n
Test Date	Feb. 09, 2012	Test Mode	Mode 6

Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Output Power (dBm)	Max. Limit (dBm)	Result
52	5260 MHz	17.78	21.00	Complies
60	5300 MHz	17.96	21.00	Complies
64	5320 MHz	17.73	21.00	Complies
100	5500 MHz	17.51	21.00	Complies
116	5580 MHz	17.68	21.00	Complies
140	5700 MHz	16.18	21.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
54	5270 MHz	17.91	21.00	Complies
62	5310 MHz	16.63	21.00	Complies
102	5510MHz	16.28	21.00	Complies
110	5550 MHz	17.81	21.00	Complies
134	5670 MHz	17.94	21.00	Complies

Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	11.41	12.10	14.78	17.99	Complies
60	5300 MHz	11.52	11.90	14.72	17.99	Complies
64	5320 MHz	11.82	11.98	14.91	17.99	Complies
100	5500 MHz	11.71	12.12	14.93	17.99	Complies
116	5580 MHz	11.66	12.26	14.98	17.99	Complies
140	5700 MHz	11.60	11.82	14.72	17.99	Complies

NOTE: Directional gain =9 dBi + 10log(2)=12.01dBi > 6dBi, so the conducted power limit =(24 or 11+10log B)-Directional gain-6 = 24-(12.01-6)=17.99

Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
54	5270 MHz	11.58	11.98	14.79	17.99	Complies
62	5310 MHz	11.66	11.96	14.82	17.99	Complies
102	5510MHz	11.61	11.72	14.68	17.99	Complies
110	5550 MHz	11.46	12.10	14.80	17.99	Complies
134	5670 MHz	11.66	12.25	14.98	17.99	Complies

NOTE: Directional gain =9 dBi + 10log(2)=12.01dBi > 6dBi, so the conducted power limit =(24 or 11+10log B)-Directional gain-6 = 24-(12.01-6)=17.99

Configuration IEEE 802.11n MCS8 20MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	14.42	15.42	17.96	21.00	Complies
60	5300 MHz	14.60	14.88	17.75	21.00	Complies
64	5320 MHz	14.66	14.82	17.75	21.00	Complies
100	5500 MHz	14.22	15.33	17.82	21.00	Complies
116	5580 MHz	14.31	15.21	17.79	21.00	Complies
140	5700 MHz	14.44	15.04	17.76	21.00	Complies

Configuration IEEE 802.11n MCS8 40MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
54	5270 MHz	14.45	14.77	17.62	21.00	Complies
62	5310 MHz	12.86	13.12	16.00	21.00	Complies
102	5510MHz	14.10	14.93	17.55	21.00	Complies
110	5550 MHz	14.14	15.08	17.65	21.00	Complies
134	5670 MHz	14.24	15.48	17.91	21.00	Complies

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a
Test Date	Jan 17, 2012	Test Mode	Mode 6

Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
52	5260 MHz	17.65	21.00	Complies
60	5300 MHz	17.76	21.00	Complies
64	5320 MHz	17.92	21.00	Complies
100	5500 MHz	17.69	21.00	Complies
116	5580 MHz	17.89	21.00	Complies
140	5700 MHz	17.95	21.00	Complies

Configuration IEEE 802.11a / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	11.42	11.96	14.71	17.99	Complies
60	5300 MHz	11.51	11.88	14.71	17.99	Complies
64	5320 MHz	11.73	11.92	14.84	17.99	Complies
100	5500 MHz	11.66	12.12	14.91	17.99	Complies
116	5580 MHz	11.74	12.19	14.98	17.99	Complies
140	5700 MHz	11.52	11.92	14.73	17.99	Complies

NOTE: Directional gain =9 dBi + 10log(2)=12.01dBi > 6dBi, so the conducted power limit =(24 or 11+10log B)-Directional gain-6 = 24-(12.01-6)=17.99

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Date	Jan 17, 2012	Test Mode	Mode 9

Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	15.72	16.74	19.27	22.39	Complies
60	5300 MHz	15.85	16.49	19.19	22.39	Complies
64	5320 MHz	16.10	16.12	19.12	22.39	Complies
100	5500 MHz	15.32	15.93	18.65	22.39	Complies
116	5580 MHz	15.82	16.69	19.29	22.39	Complies
140	5700 MHz	12.31	13.04	15.70	22.39	Complies

NOTE: Directional gain =4.6dBi + 10log(2)=7.61dBi > 6dBi, so the conducted power limit =(24 or 11+10log B)-Directional gain-6=24-(7.61-6)=22.39dBm.

Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
54	5270 MHz	15.83	16.80	19.35	22.39	Complies
62	5310 MHz	13.94	13.92	16.94	22.39	Complies
102	5510MHz	11.95	12.02	15.00	22.39	Complies
110	5550 MHz	15.90	16.67	19.31	22.39	Complies
134	5670 MHz	15.46	16.90	19.25	22.39	Complies

NOTE: Directional gain =4.6dBi + 10log(2)=7.61dBi > 6dBi, so the conducted power limit =(24 or 11+10log B)-Directional gain-6=24-(7.61-6)=22.39dBm.

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a
Test Date	Jan 17, 2012	Test Mode	Mode 9

Configuration IEEE 802.11a / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Conducted Power (dBm)		Total Conducted Output Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2			
52	5260 MHz	15.66	16.50	19.11	22.39	Complies
60	5300 MHz	16.09	16.60	19.36	22.39	Complies
64	5320 MHz	16.30	16.10	19.21	22.39	Complies
100	5500 MHz	15.73	16.46	19.12	22.39	Complies
116	5580 MHz	15.70	16.57	19.17	22.39	Complies
140	5700 MHz	14.70	15.72	18.25	22.39	Complies

NOTE: Directional gain =4.6dBi + 10log(2)=7.61dBi > 6dBi, so the conducted power limit =(24 or 11+10log B)-Directional gain-6=24-(7.61-6)=22.39dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Date	Jan 17, 2012	Test Mode	Mode 12

Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
52	5260 MHz	14.30	17.50	Complies
60	5300 MHz	14.39	17.50	Complies
64	5320 MHz	14.20	17.50	Complies
100	5500 MHz	14.28	17.50	Complies
116	5580 MHz	14.10	17.50	Complies
140	5700 MHz	11.00	17.50	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
54	5270 MHz	14.48	17.50	Complies
62	5310 MHz	9.50	17.50	Complies
102	5510MHz	8.50	17.50	Complies
110	5550 MHz	14.21	17.50	Complies
134	5670 MHz	14.33	17.50	Complies

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a
Test Date	Jan 17, 2012	Test Mode	Mode 12

Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
52	5260 MHz	14.07	17.50	Complies
60	5300 MHz	14.13	17.50	Complies
64	5320 MHz	14.35	17.50	Complies
100	5500 MHz	14.34	17.50	Complies
116	5580 MHz	14.10	17.50	Complies
140	5700 MHz	12.00	17.50	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n
Test Date	Jan 17, 2012	Test Mode	Mode 15

Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
52	5260 MHz	15.98	19.00	Complies
60	5300 MHz	15.85	19.00	Complies
64	5320 MHz	15.71	19.00	Complies
100	5500 MHz	15.72	19.00	Complies
116	5580 MHz	15.66	19.00	Complies
140	5700 MHz	15.81	19.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
54	5270 MHz	15.54	19.00	Complies
62	5310 MHz	14.71	19.00	Complies
102	5510MHz	15.61	19.00	Complies
110	5550 MHz	15.81	19.00	Complies
134	5670 MHz	15.99	19.00	Complies

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a
Test Date	Jan 17, 2012	Test Mode	Mode 15

Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
52	5260 MHz	15.98	19.00	Complies
60	5300 MHz	15.77	19.00	Complies
64	5320 MHz	15.99	19.00	Complies
100	5500 MHz	15.91	19.00	Complies
116	5580 MHz	15.58	19.00	Complies
140	5700 MHz	15.74	19.00	Complies

4.4. Power Spectral Density Measurement

4.4.1. Limit

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

Frequency Range	Power Spectral Density limit (dBm/MHz)
5.15~5.25 GHz	4

4.4.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1MHz
VB	3MHz
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times

4.4.3. Test Procedures

1. The test procedure is the same as section 4.6.3.
2. Trace A, Set RBW =1MHz, VBW = 3MHz, Span >26dB bandwidth, Max. hold.
3. Delta Mark trace A Maximum frequency and trace B same frequency.
4. Repeat the above procedure until measurements for all frequencies were complete.

4.4.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.6.4.

4.4.5. Test Deviation

There is no deviation with the original standard.

4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.7. Test Result of Power Spectral Density

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n / Mode 3

Configuration IEEE 802.11n MCS0 20MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	-0.11	-0.16	2.88	7.42	Complies
60	5300 MHz	0.40	0.10	3.26	7.42	Complies
64	5320 MHz	0.69	0.05	3.39	7.42	Complies
100	5500 MHz	0.53	1.02	3.79	7.42	Complies
116	5580 MHz	0.39	1.36	3.91	7.42	Complies
140	5700 MHz	-0.57	-0.39	2.53	7.42	Complies

NOTE: Directional gain =7.5 dBi + 10log(2)=9.58dBi > 6dBi, so the Power Spectral Density limit =11-(9.58-6)=7.42dBm.

Configuration IEEE 802.11n MCS0 40MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
54	5270 MHz	-1.04	-1.15	1.92	7.42	Complies
62	5310 MHz	-0.20	-0.70	2.57	7.42	Complies
102	5510MHz	-0.32	0.17	2.94	7.42	Complies
110	5550 MHz	-0.26	-0.02	2.87	7.42	Complies
134	5670 MHz	-0.76	-0.55	2.36	7.42	Complies

NOTE: Directional gain =7.5 dBi + 10log(2)=9.58dBi > 6dBi, so the Power Spectral Density limit =11-(9.58-6)=7.42dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a / Mode 3

Configuration IEEE 802.11a / Chain 1 + Chain 2 (2TX, 2RX)

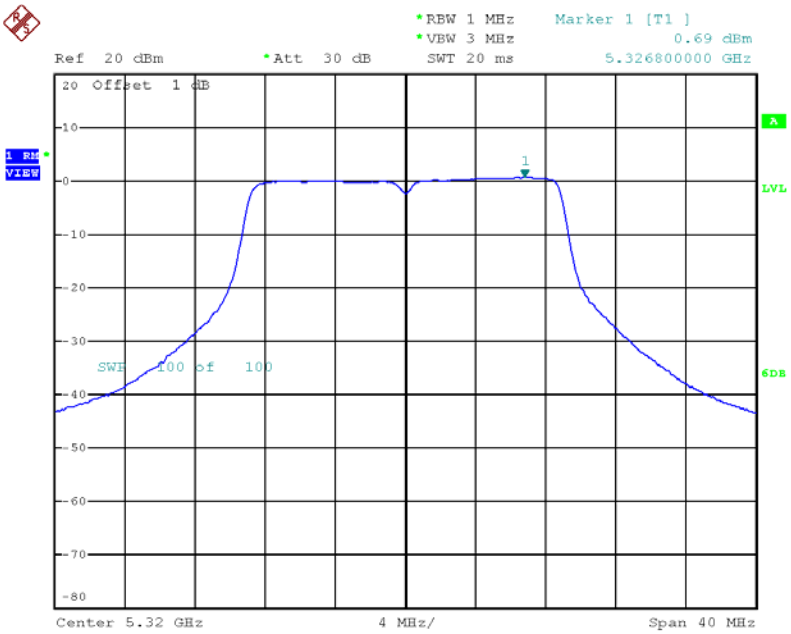
Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	-1.00	-0.77	2.13	7.42	Complies
60	5300 MHz	0.11	-0.22	2.96	7.42	Complies
64	5320 MHz	0.61	0.05	3.35	7.42	Complies
100	5500 MHz	0.72	1.06	3.90	7.42	Complies
116	5580 MHz	1.01	1.93	4.50	7.42	Complies
140	5700 MHz	0.96	1.62	4.31	7.42	Complies

NOTE 1: Directional gain =7.5 dBi + 10log(2)=9.58dBi > 6dBi, so the Power Spectral Density limit =11-(9.58-6)=7.42dBm.

NOTE 2: All the test values were listed in the report.

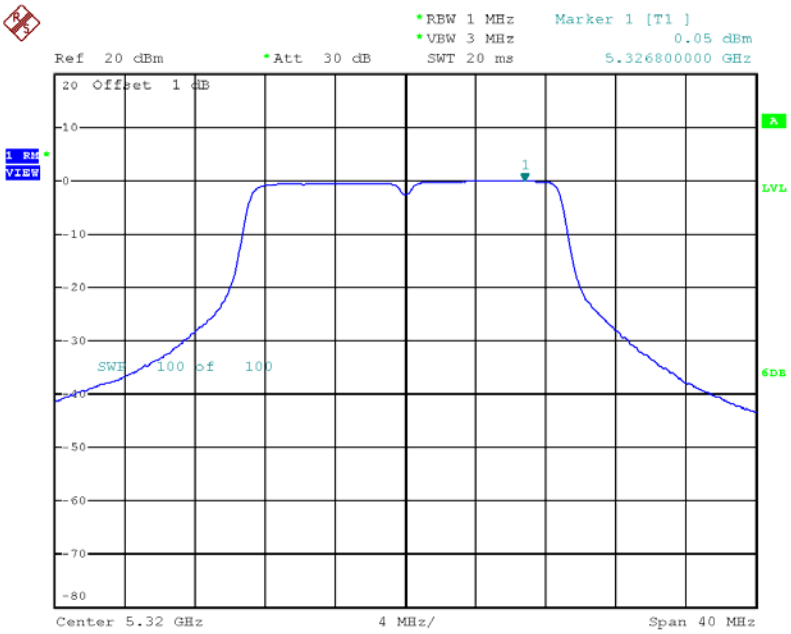
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz / Mode 3 (2TX, 2RX)



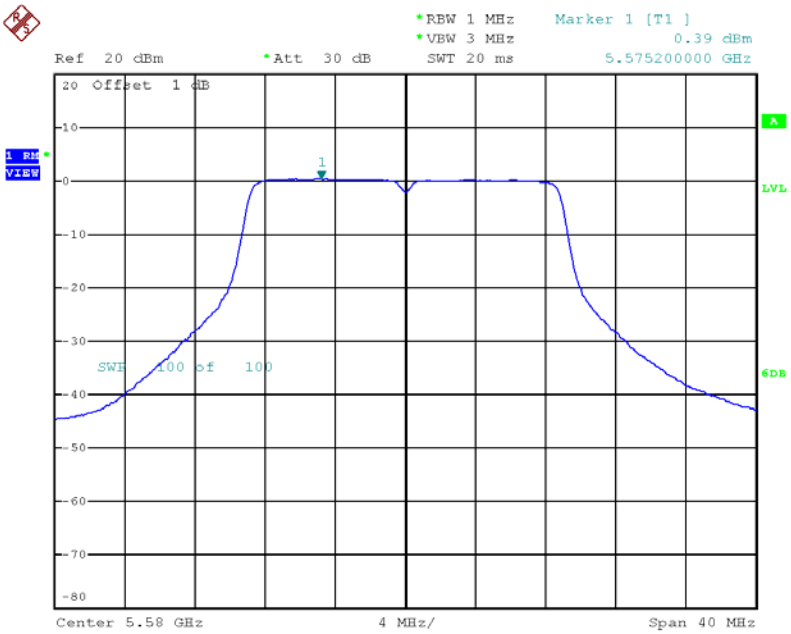
Date: 13.FEB.2012 17:24:30

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5320 MHz / Mode 3 (2TX, 2RX)



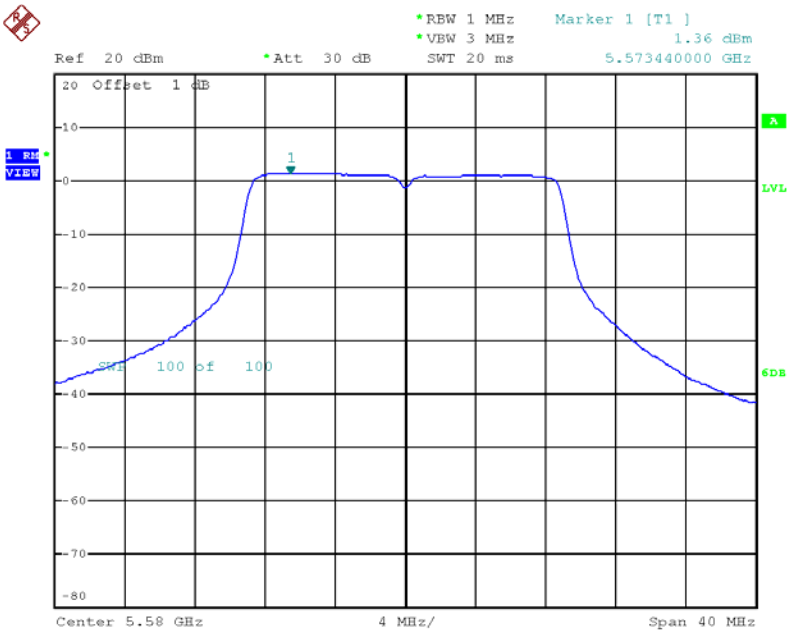
Date: 13.FEB.2012 17:24:12

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz / Mode 3 (2TX, 2RX)



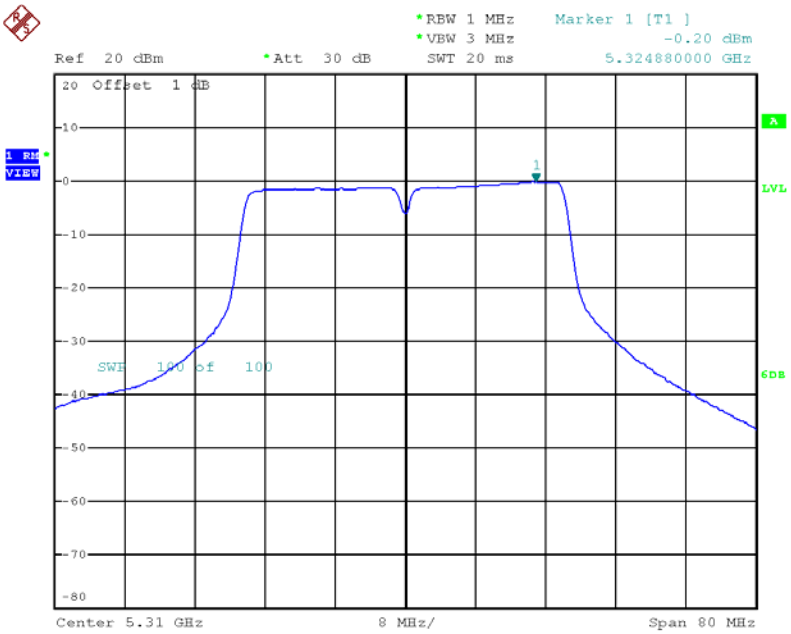
Date: 13.FEB.2012 17:26:29

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5580 MHz / Mode 3 (2TX, 2RX)



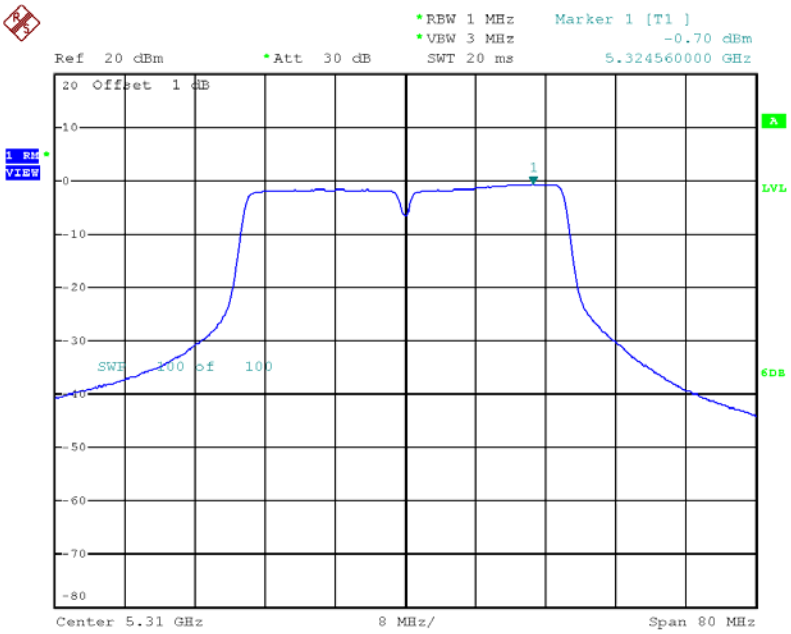
Date: 13.FEB.2012 17:26:05

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz / Mode 3 (2TX, 2RX)



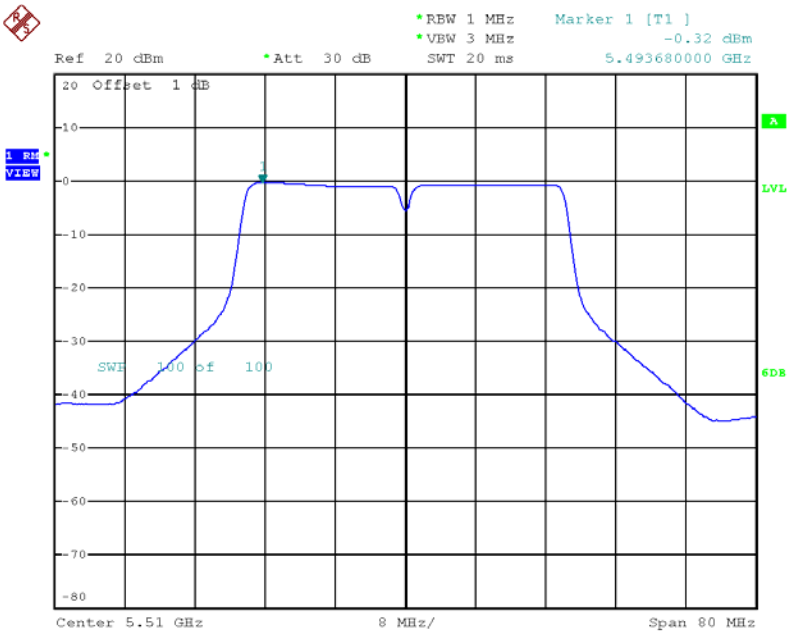
Date: 13.FEB.2012 17:19:28

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5310 MHz / Mode 3 (2TX, 2RX)



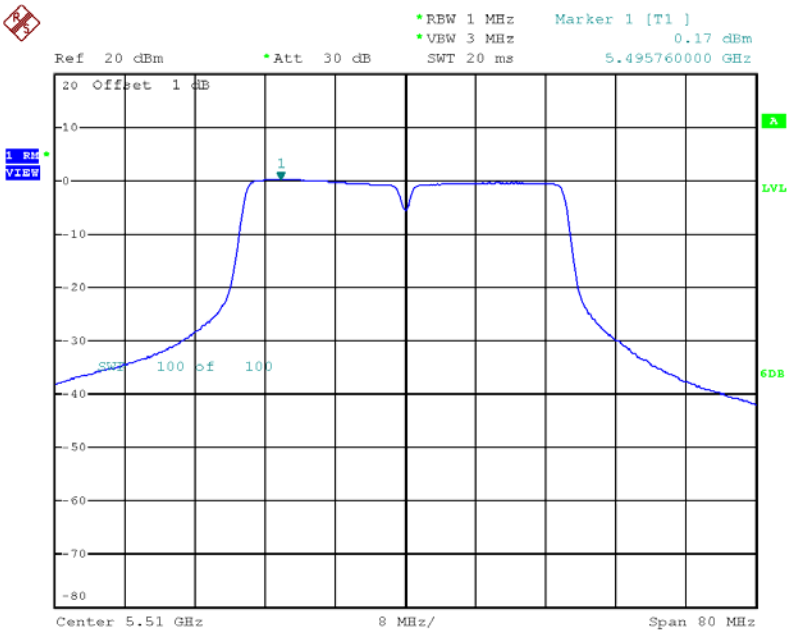
Date: 13.FEB.2012 17:19:51

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5510 MHz / Mode 3 (2TX, 2RX)



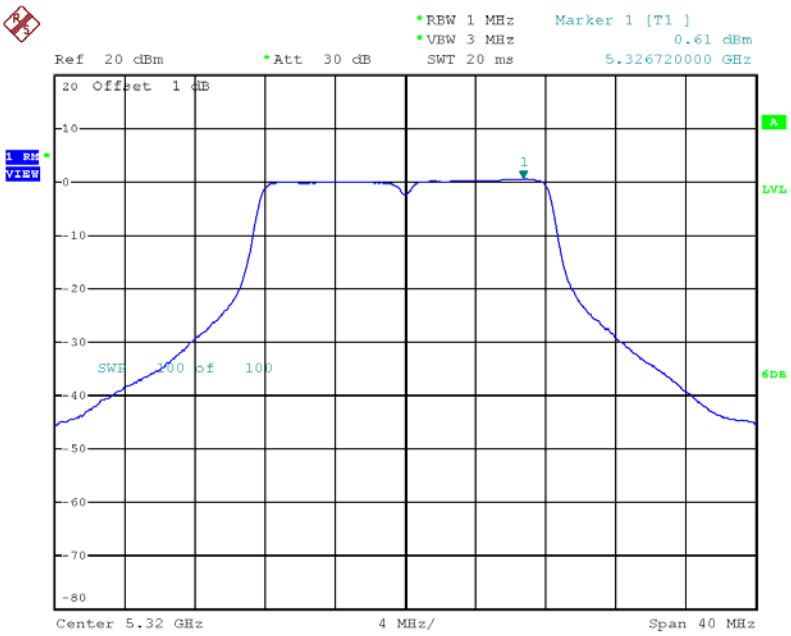
Date: 13.FEB.2012 17:18:54

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5510 MHz / Mode 3 (2TX, 2RX)



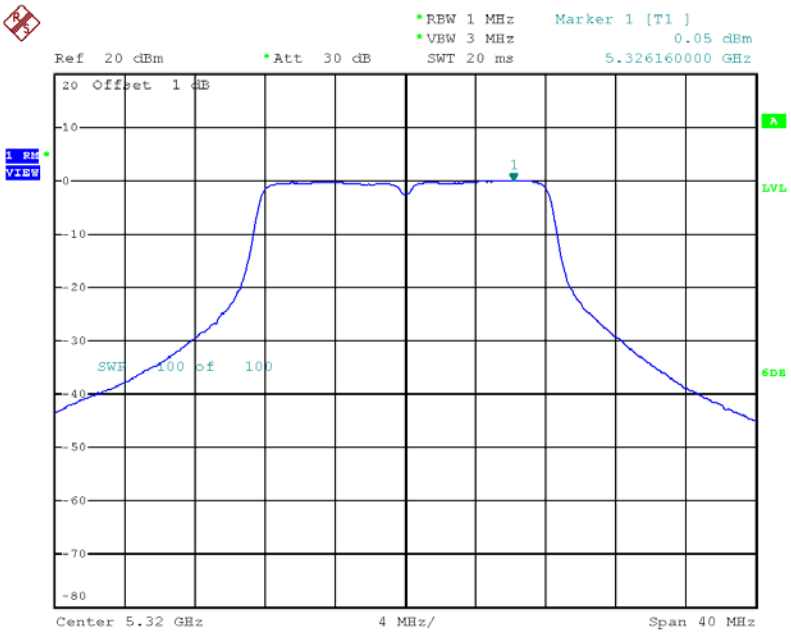
Date: 13.FEB.2012 17:18:34

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5320 MHz / Mode 3 (2TX, 2RX)



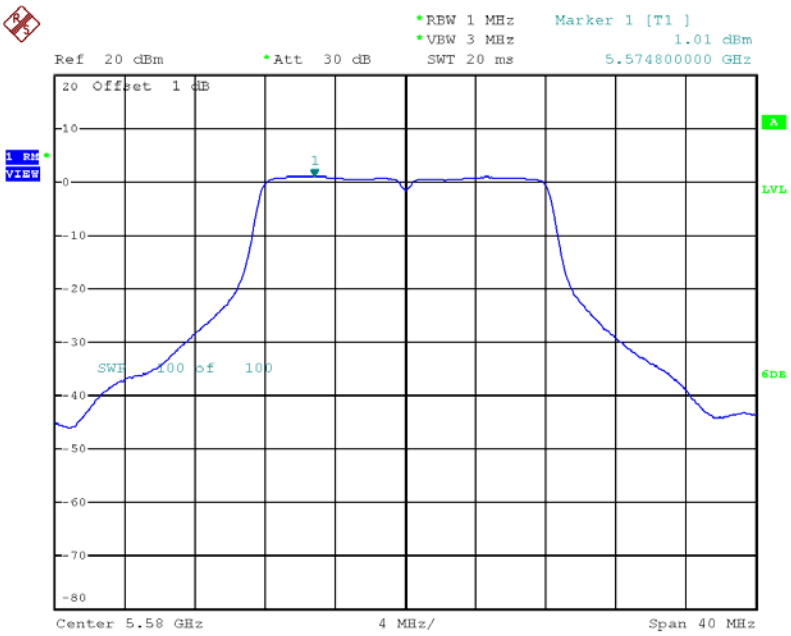
Date: 13.FEB.2012 17:30:36

Power Density Plot on Configuration IEEE 802.11a / Chain 2 / 5320 MHz / Mode 3 (2TX, 2RX)



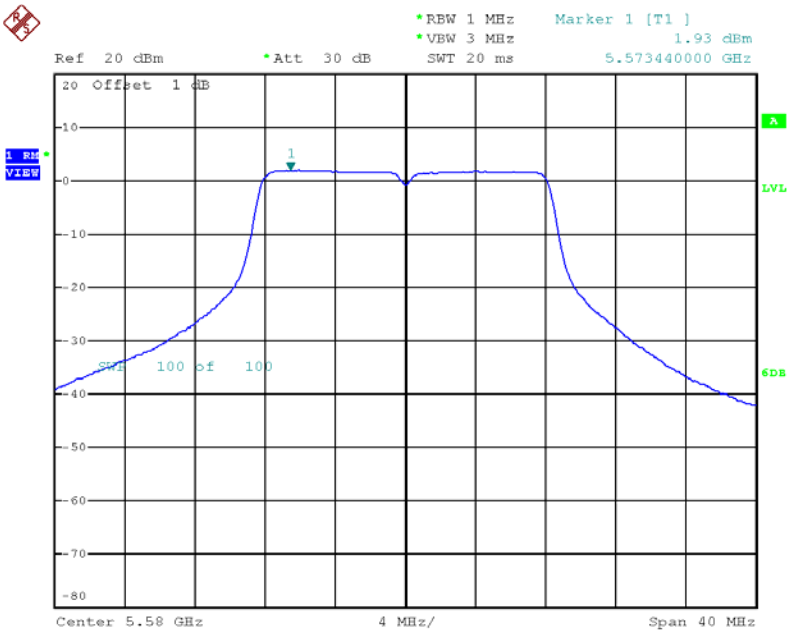
Date: 13.FEB.2012 17:30:57

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5580 MHz / Mode 3 (2TX, 2RX)



Date: 13.FEB.2012 17:28:37

Power Density Plot on Configuration IEEE 802.11a / Chain 2 / 5580 MHz / Mode 3 (2TX, 2RX)



Date: 13.FEB.2012 17:29:01

Temperature	25°C	Humidity	57%
Test Engineer	Satoshi Yang	Configurations	IEEE 802.11n / Mode 6

Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
52	5260 MHz	2.51	8.00	Complies
60	5300 MHz	3.05	8.00	Complies
64	5320 MHz	3.11	8.00	Complies
100	5500 MHz	2.71	8.00	Complies
116	5580 MHz	2.39	8.00	Complies
140	5700 MHz	0.48	8.00	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
54	5270 MHz	-0.15	8.00	Complies
62	5310 MHz	-1.03	8.00	Complies
102	5510MHz	-1.57	8.00	Complies
110	5550 MHz	-0.86	8.00	Complies
134	5670 MHz	-1.21	8.00	Complies

Configuration IEEE 802.11n MCS0 20MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	-3.88	-3.15	-0.49	4.99	Complies
60	5300 MHz	-3.23	-2.80	0.00	4.99	Complies
64	5320 MHz	-2.71	-2.75	0.28	4.99	Complies
100	5500 MHz	-2.99	-2.22	0.42	4.99	Complies
116	5580 MHz	-3.34	-2.76	-0.03	4.99	Complies
140	5700 MHz	-4.95	-4.05	-1.47	4.99	Complies

NOTE: Directional gain =9dBi + 10log(2)=12.01dBi > 6dBi, so the Power Spectral Density limit =11-(12.01-6)=4.99dBm.

Configuration IEEE 802.11n MCS0 40MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
54	5270 MHz	-6.14	-5.58	-2.84	4.99	Complies
62	5310 MHz	-5.94	-5.67	-2.79	4.99	Complies
102	5510MHz	-5.06	-5.02	-2.03	4.99	Complies
110	5550 MHz	-6.47	-5.78	4.80	4.99	Complies
134	5670 MHz	-6.91	-5.98	-3.41	4.99	Complies

NOTE: Directional gain =9dBi + 10log(2)=12.01dBi > 6dBi, so the Power Spectral Density limit =11-(12.01-6)=4.99dBm.

Configuration IEEE 802.11n MCS8 20MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	-0.32	0.61	3.18	8.00	Complies
60	5300 MHz	-0.24	0.43	3.12	8.00	Complies
64	5320 MHz	-0.06	0.09	3.03	8.00	Complies
100	5500 MHz	-0.38	1.11	3.44	8.00	Complies
116	5580 MHz	-0.67	0.70	3.08	8.00	Complies
140	5700 MHz	-1.30	0.09	2.46	8.00	Complies

Configuration IEEE 802.11n MCS8 40MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
54	5270 MHz	-2.48	-1.39	1.11	8.00	Complies
62	5310 MHz	-4.02	-4.17	-1.08	8.00	Complies
102	5510MHz	-1.99	-1.36	1.35	8.00	Complies
110	5550 MHz	-3.00	-1.84	0.63	8.00	Complies
134	5670 MHz	-3.66	-2.28	0.09	8.00	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Satoshi Yang	Configurations	IEEE 802.11a / Mode 6

Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
52	5260 MHz	2.01	8.00	Complies
60	5300 MHz	3.08	8.00	Complies
64	5320 MHz	2.54	8.00	Complies
100	5500 MHz	3.15	8.00	Complies
116	5580 MHz	2.82	8.00	Complies
140	5700 MHz	1.66	8.00	Complies

Configuration IEEE 802.11a / Chain 1 (2TX, 2RX)

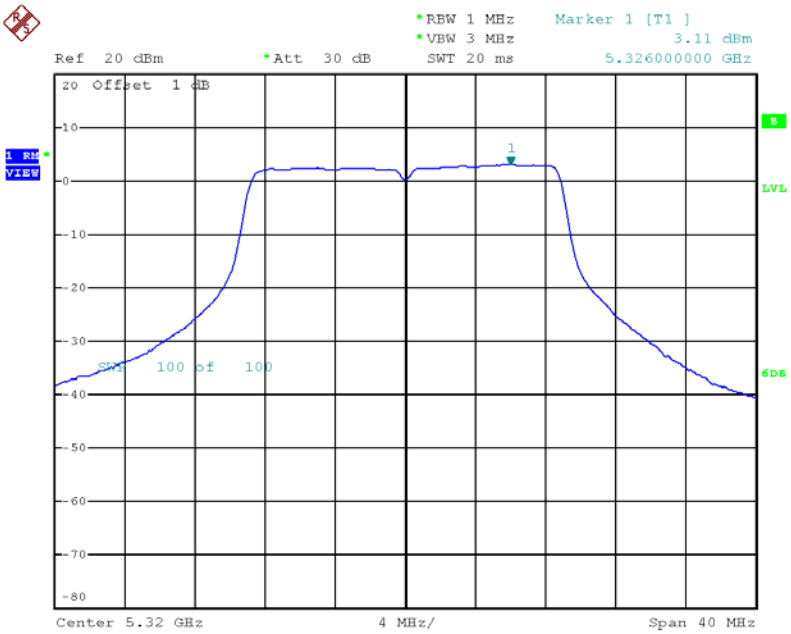
Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	-3.38	-2.86	-0.10	4.99	Complies
60	5300 MHz	-2.86	-2.40	0.39	4.99	Complies
64	5320 MHz	-2.45	-2.27	0.65	4.99	Complies
100	5500 MHz	-1.19	-0.82	2.01	4.99	Complies
116	5580 MHz	-1.84	-1.10	1.56	4.99	Complies
140	5700 MHz	-3.18	-2.45	0.21	4.99	Complies

NOTE 1: Directional gain =9dBi + 10log(2)=12.01dBi > 6dBi, so the Power Spectral Density limit =11-(12.01-6)=4.99dBm.

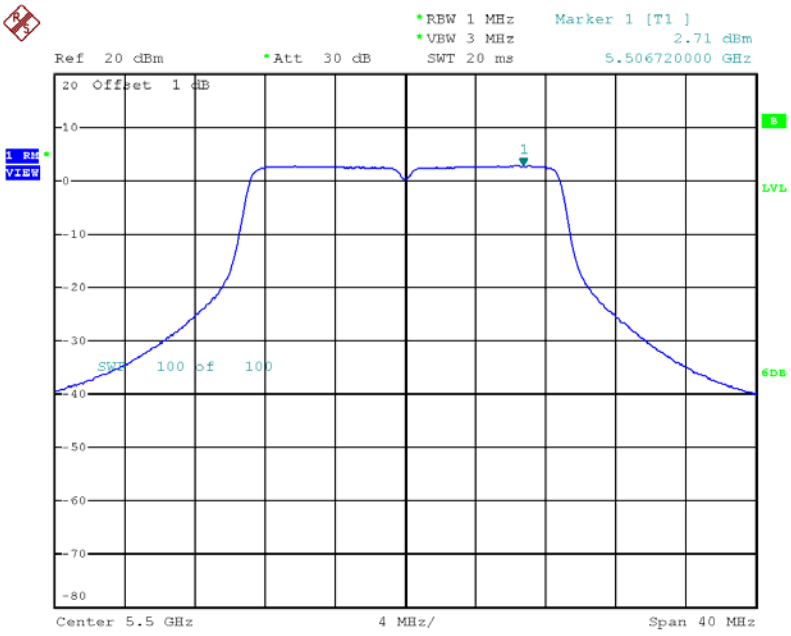
NOTE 2: All the test values were listed in the report.

For plots, only the channel with maximum results was shown.

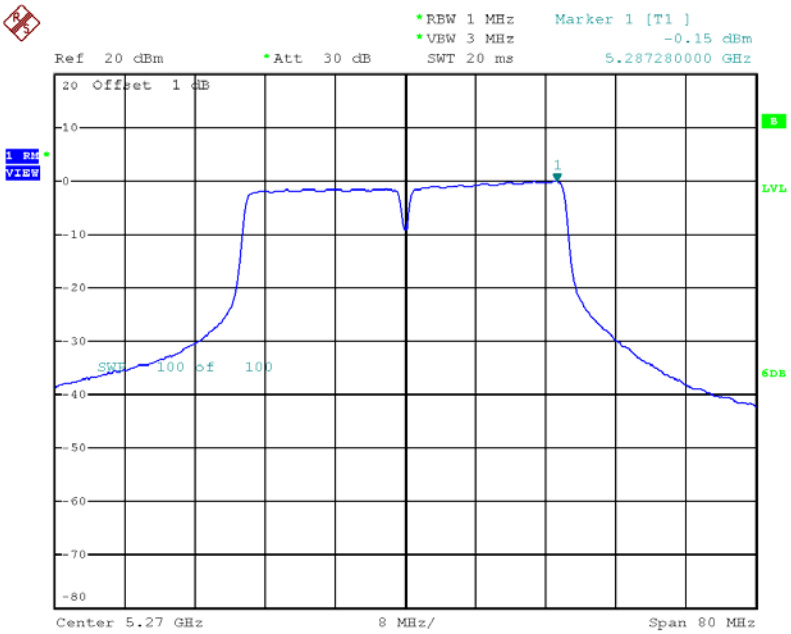
Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz / Mode 6 (1TX, 2RX)



Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz / Mode 6 (1TX, 2RX)

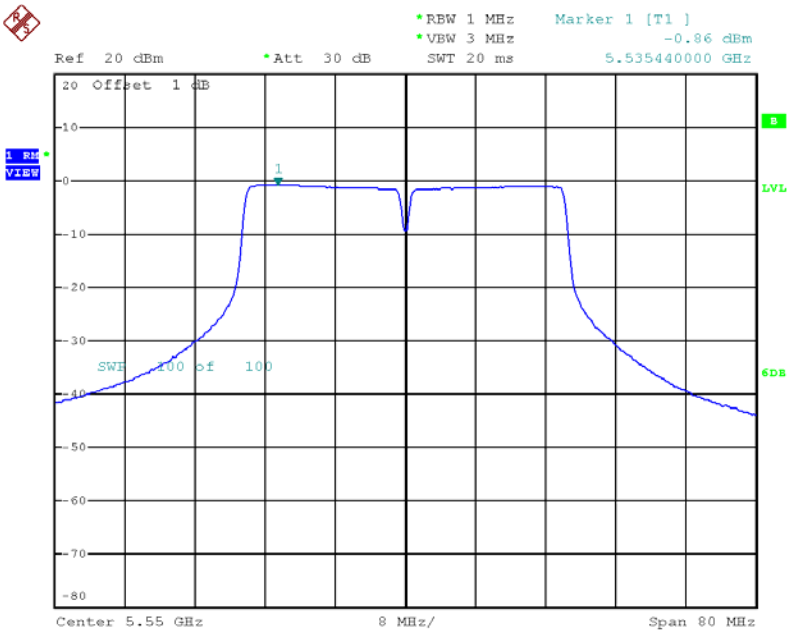


Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz / Mode 6 (1TX, 2RX)



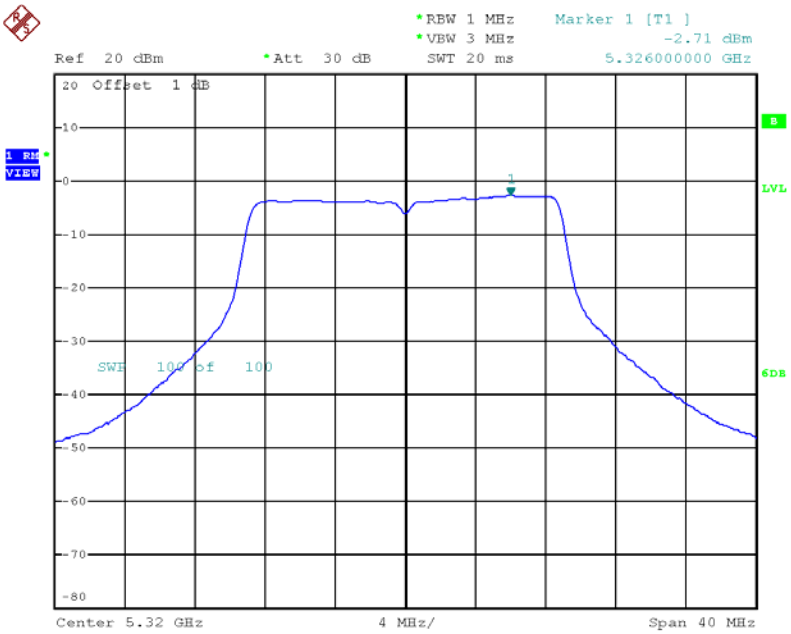
Date: 10.FEB.2012 20:38:21

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz / Mode 6 (1TX, 2RX)



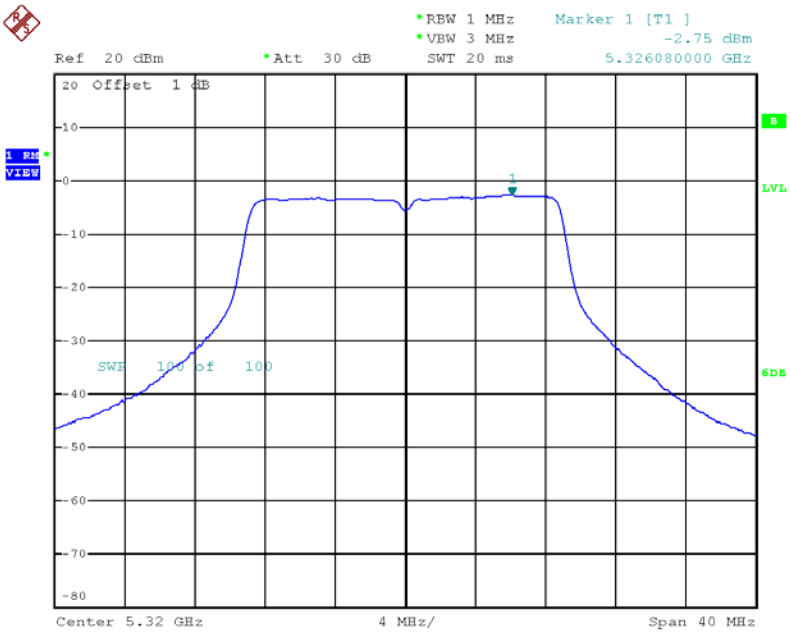
Date: 10.FEB.2012 20:37:38

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz / Mode 6 (2TX, 2RX



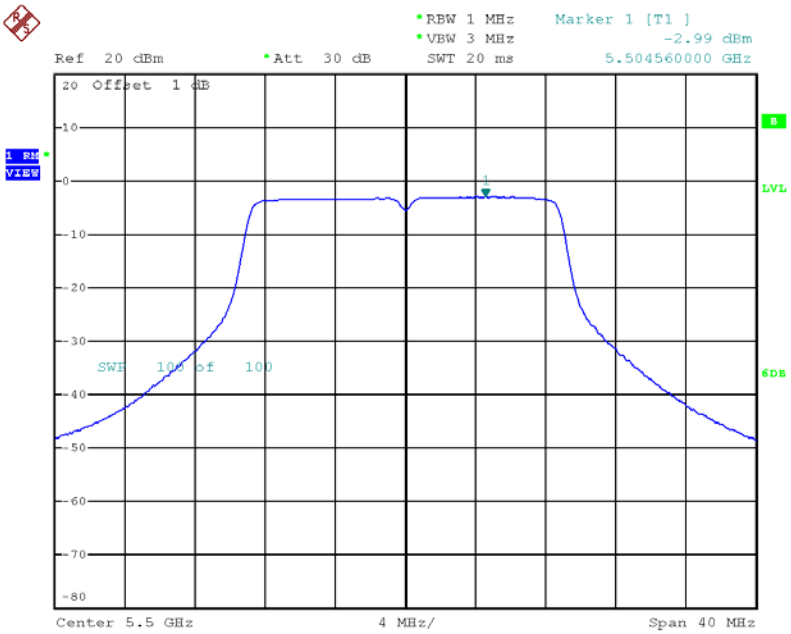
Date: 10.FEB.2012 19:26:32

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5320 MHz / Mode 6 (2TX, 2RX



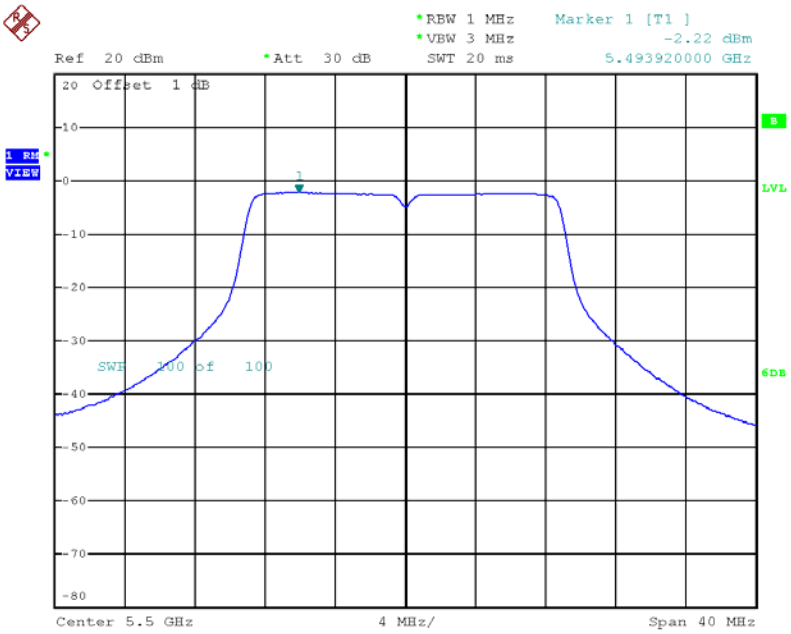
Date: 10.FEB.2012 19:27:15

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz / Mode 6 (2TX, 2RX)



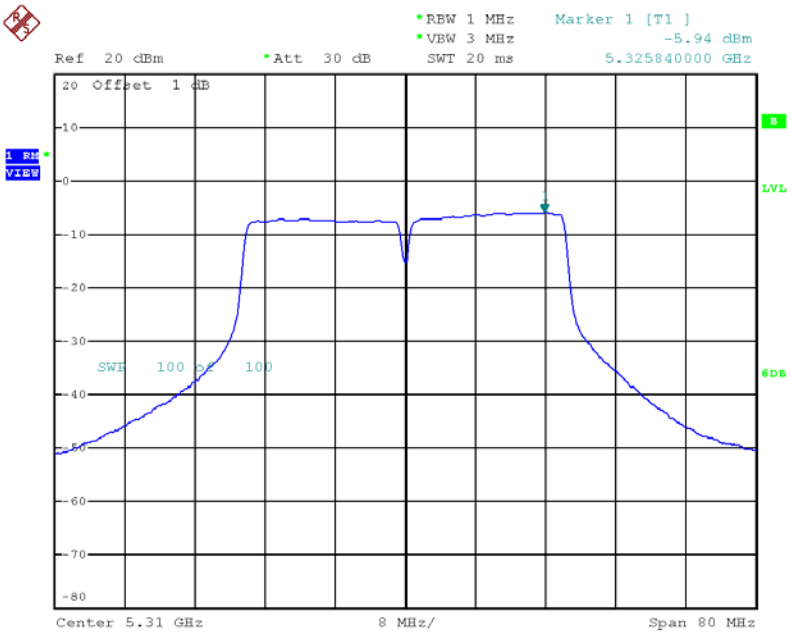
Date: 10.FEB.2012 19:24:49

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5500 MHz / Mode 6 (2TX, 2RX)



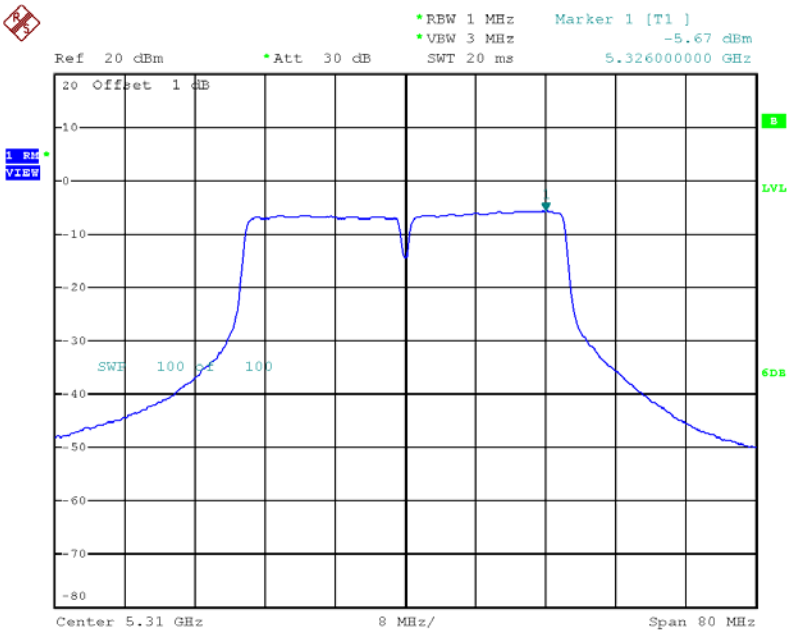
Date: 10.FEB.2012 19:24:12

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz / Mode 6 (2TX, 2RX)



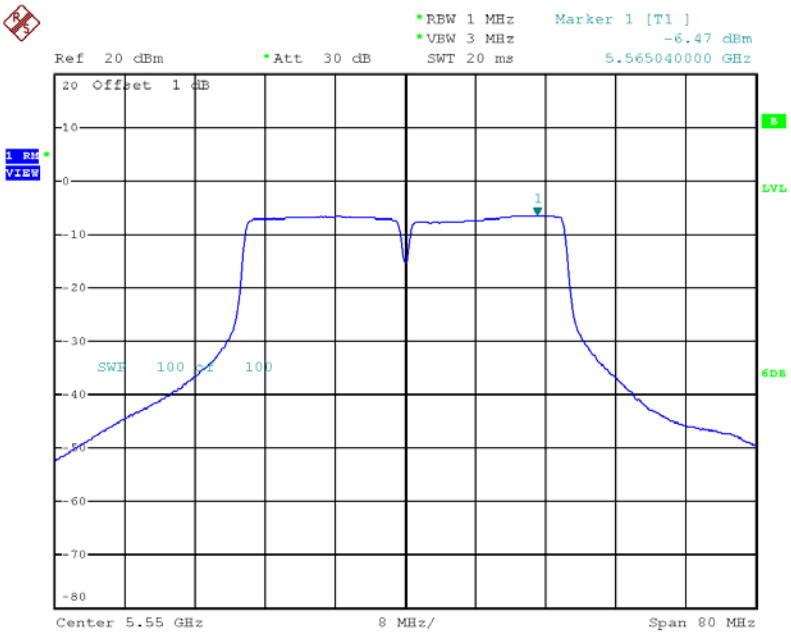
Date: 10.FEB.2012 19:31:48

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5310 MHz / Mode 6 (2TX, 2RX)



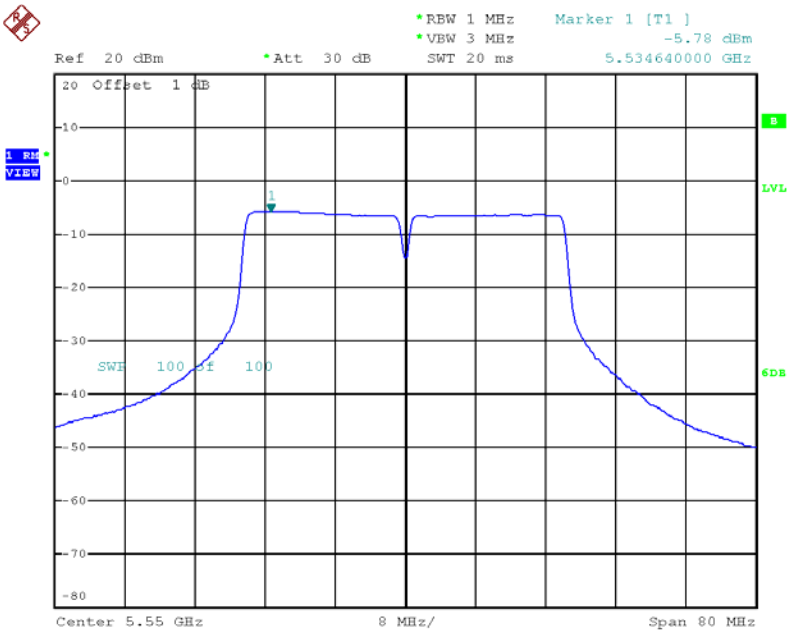
Date: 10.FEB.2012 19:32:50

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz / Mode 6 (2TX, 2RX)



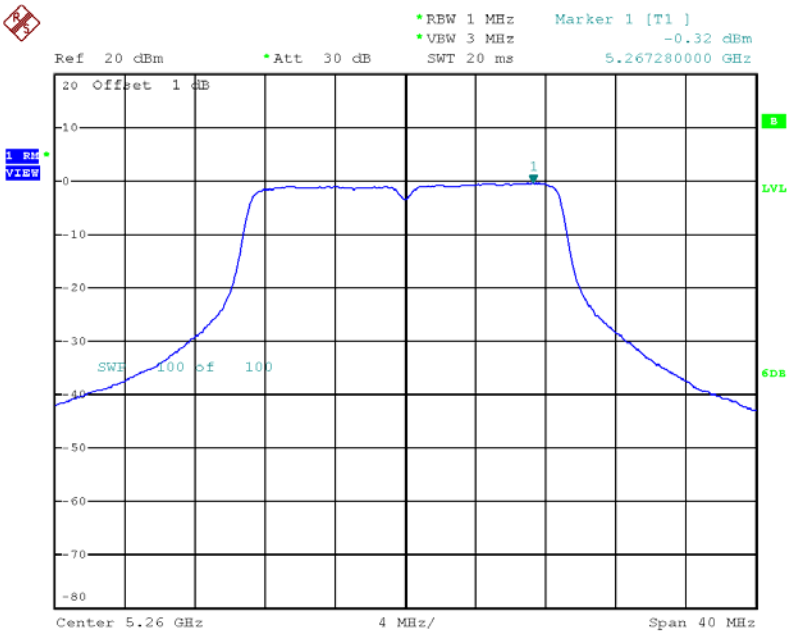
Date: 10.FEB.2012 19:34:03

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5550 MHz / Mode 6 (2TX, 2RX)



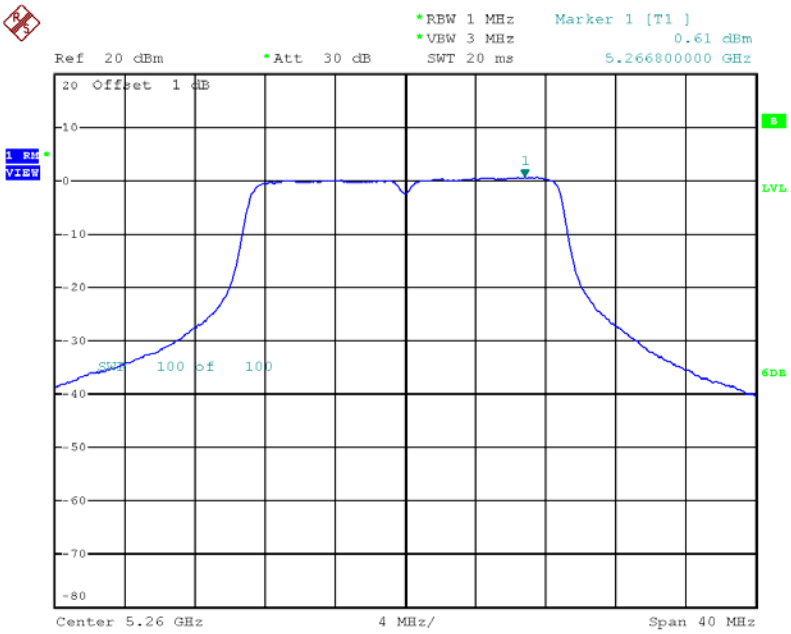
Date: 10.FEB.2012 19:33:35

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 5260 MHz / Mode 6 (2TX, 2RX)



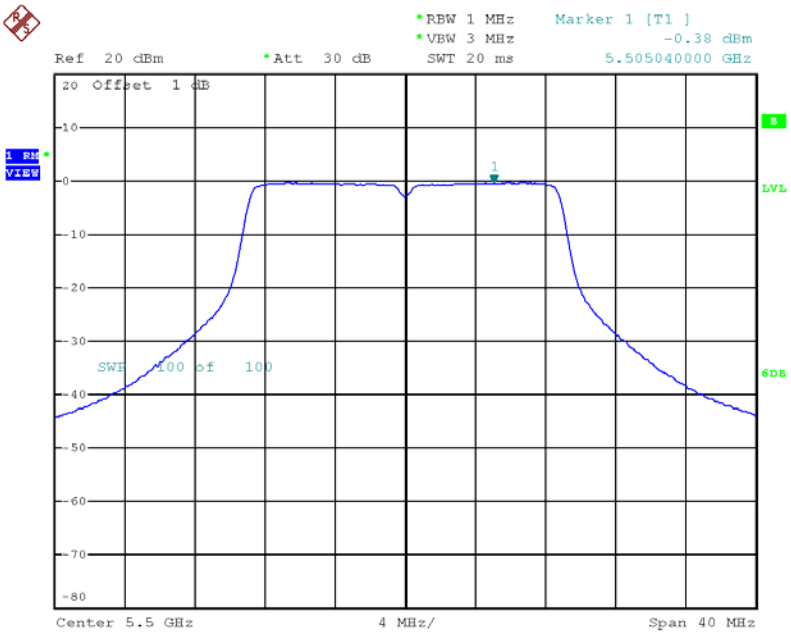
Date: 10.FEB.2012 20:29:43

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 5260 MHz / Mode 6 (2TX, 2RX)



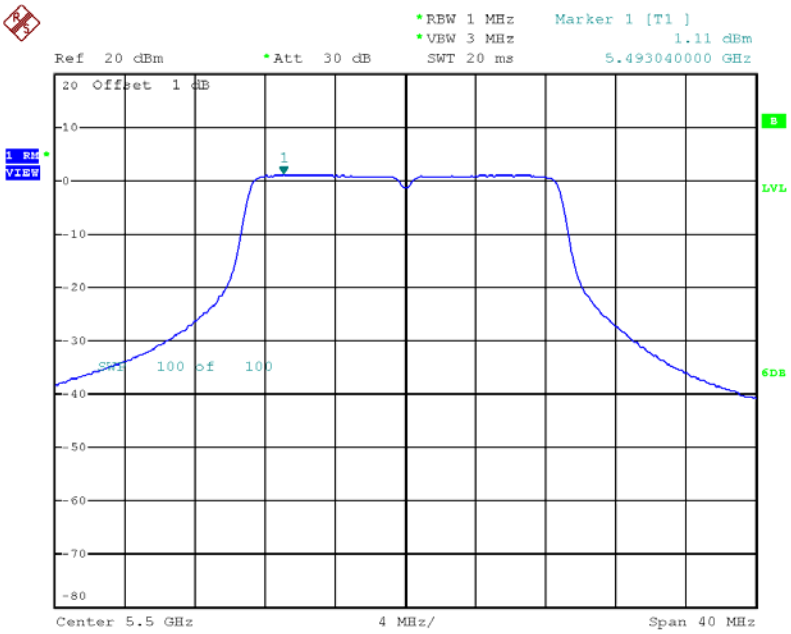
Date: 10.FEB.2012 20:30:10

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1 / 5500 MHz / Mode 6 (2TX, 2RX)



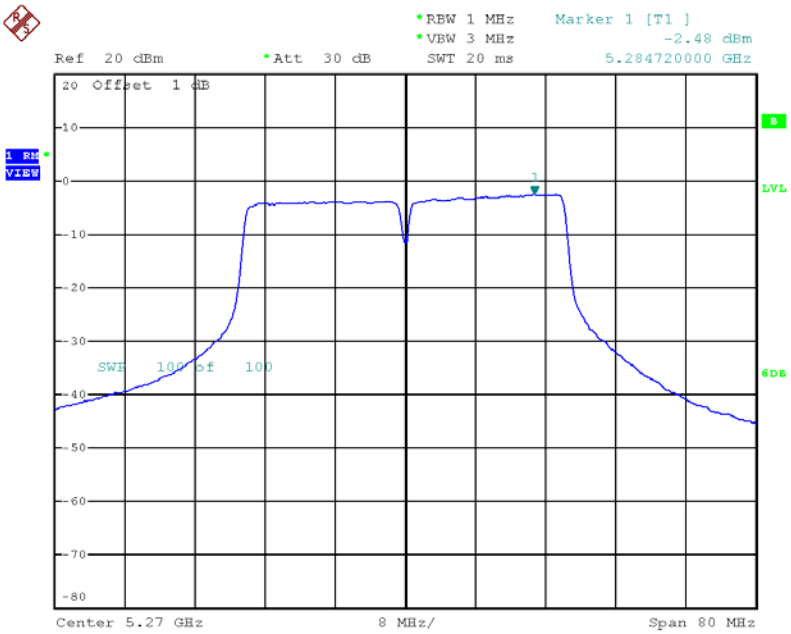
Date: 10.FEB.2012 20:26:51

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 2 / 5500 MHz / Mode 6 (2TX, 2RX)



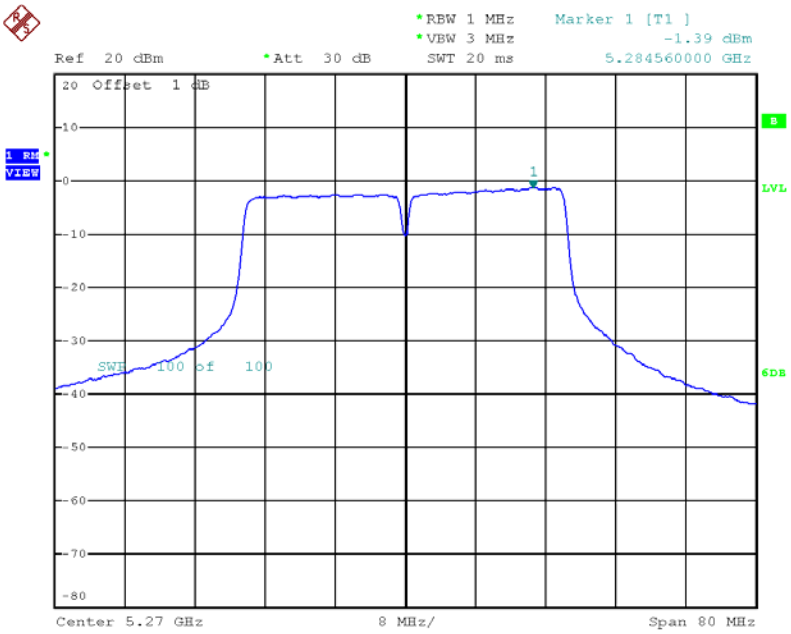
Date: 10.FEB.2012 20:26:25

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 5270 MHz / Mode 6 (2TX, 2RX)



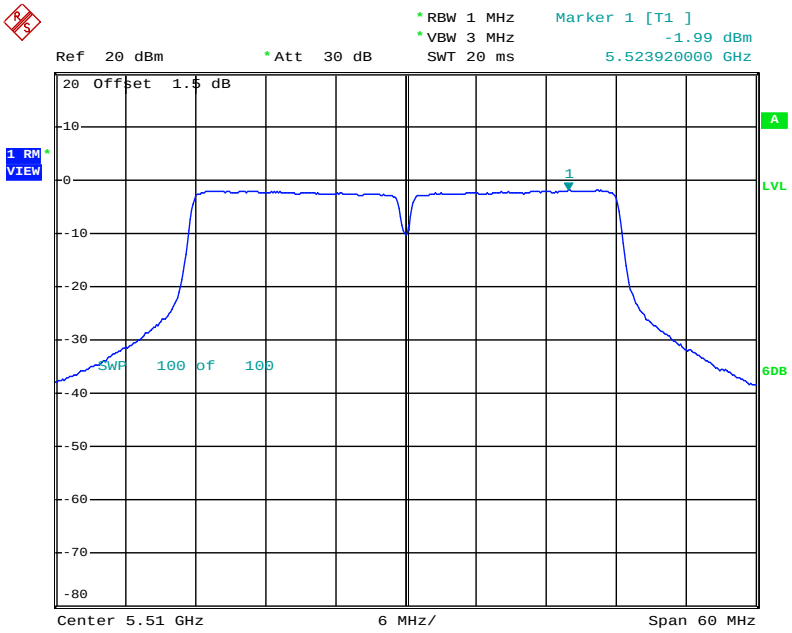
Date: 10.FEB.2012 20:31:19

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 5270 MHz / Mode 6 (2TX, 2RX)



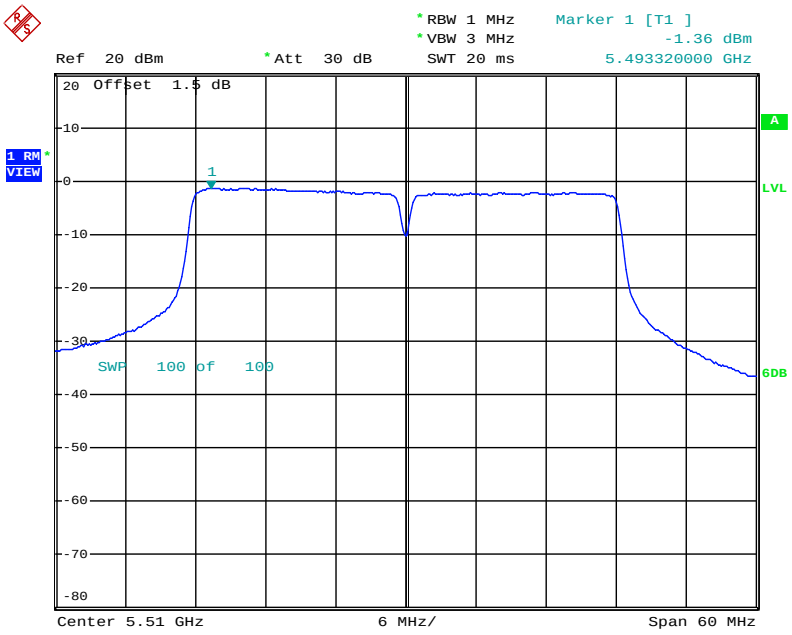
Date: 10.FEB.2012 20:30:48

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1 / 5510 MHz / Mode 6 (2TX, 2RX)



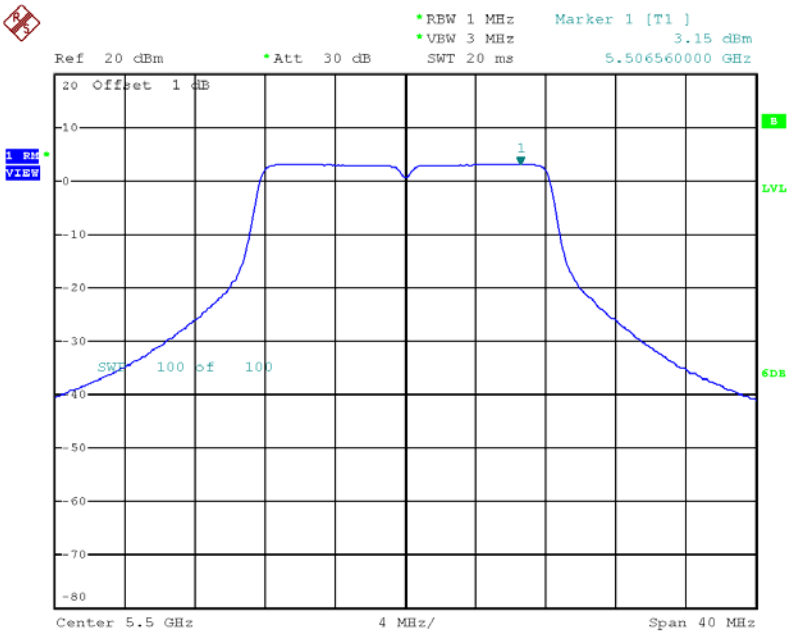
Date: 16.DEC.2011 16:08:40

Power Density Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 2 / 5510 MHz / Mode 6 (2TX, 2RX)



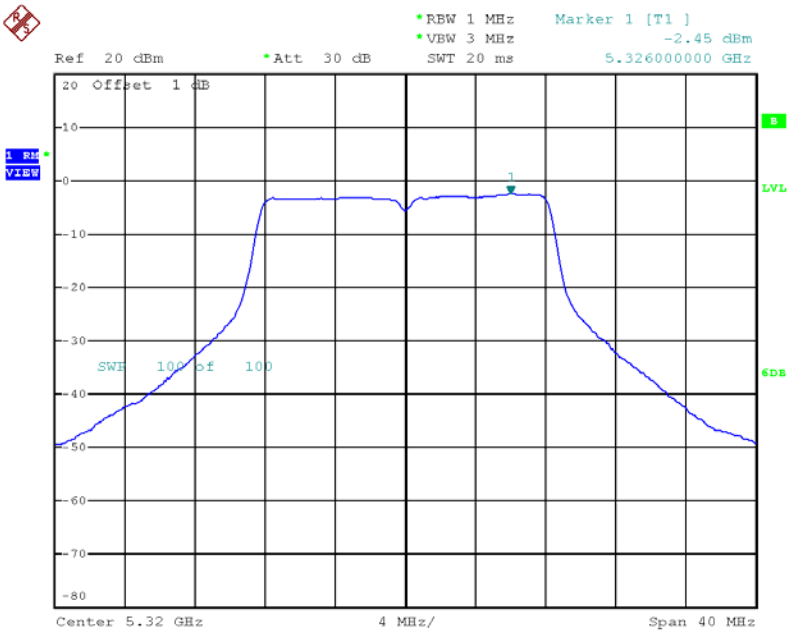
Date: 16.DEC.2011 16:09:10

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5500 MHz / Mode 6 (1TX, 2RX)



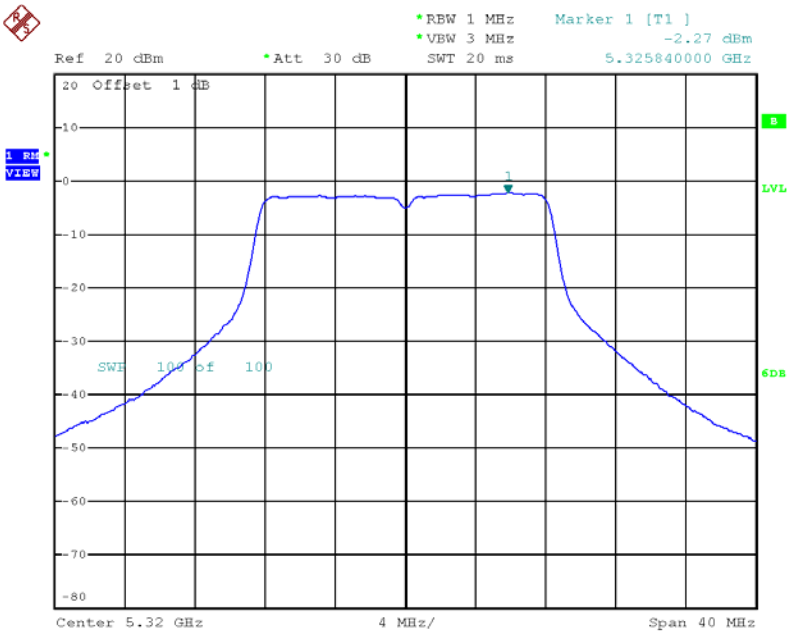
Date: 10.FEB.2012 20:41:59

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5320 MHz / Mode 6 (2TX, 2RX)



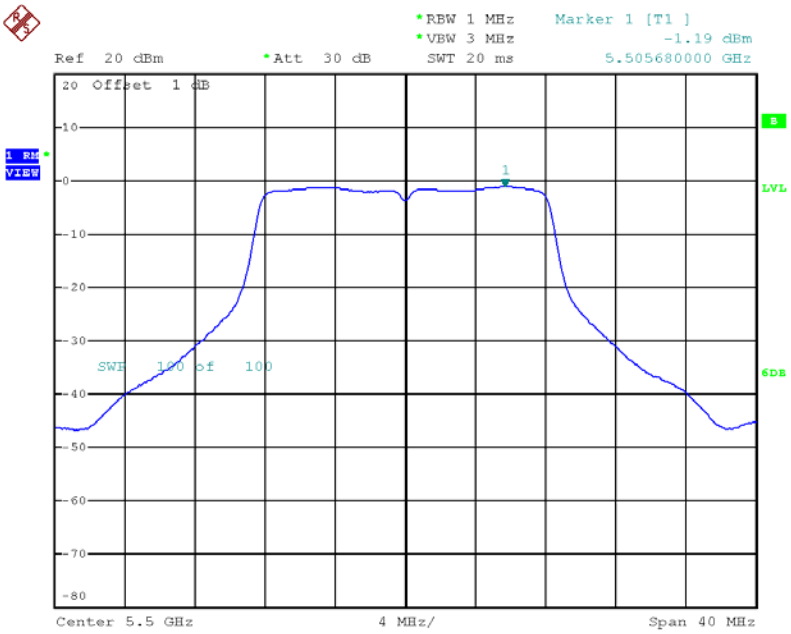
Date: 10.FEB.2012 19:39:05

Power Density Plot on Configuration IEEE 802.11a / Chain 2 / 5320 MHz / Mode 6 (2TX, 2RX)



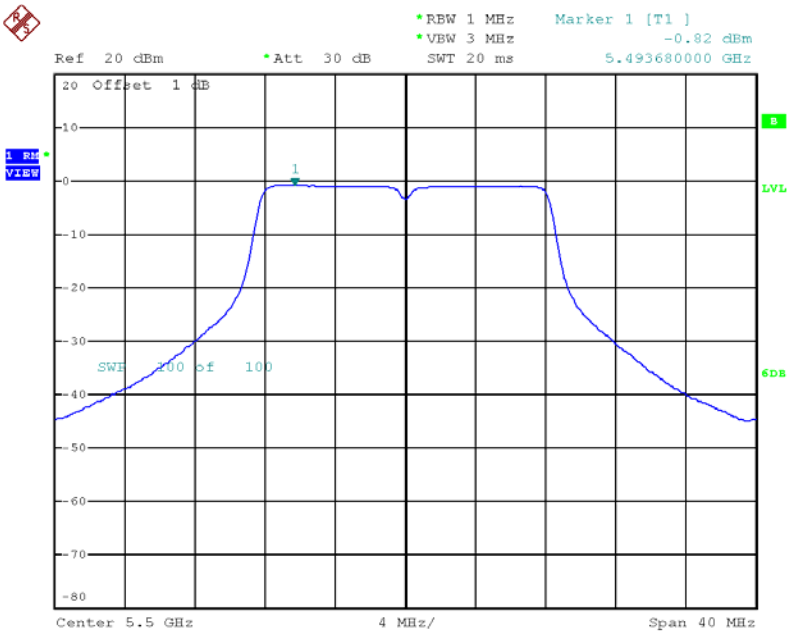
Date: 10.FEB.2012 19:38:37

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5500 MHz / Mode 6 (2TX, 2RX)



Date: 10.FEB.2012 20:19:25

Power Density Plot on Configuration IEEE 802.11a / Chain 2 / 5500 MHz / Mode 6 (2TX, 2RX)



Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n / Mode 9

Configuration IEEE 802.11n MCS0 20MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	-0.30	0.30	3.02	9.39	Complies
60	5300 MHz	-0.38	0.49	3.09	9.39	Complies
64	5320 MHz	0.74	0.56	3.66	9.39	Complies
100	5500 MHz	2.20	2.50	5.36	9.39	Complies
116	5580 MHz	2.07	3.56	5.89	9.39	Complies
140	5700 MHz	-2.33	-1.67	1.02	9.39	Complies

NOTE: Directional gain =4.6dBi + 10log(2)=7.61dBi > 6dBi, so the Power Spectral Density limit =11-(7.61-6)=9.39dBm.

Configuration IEEE 802.11n MCS0 40MHz (2TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
54	5270 MHz	-3.61	-2.45	0.02	9.39	Complies
62	5310 MHz	-2.40	-2.59	0.52	9.39	Complies
102	5510MHz	-5.13	-5.31	-2.21	9.39	Complies
110	5550 MHz	0.83	2.57	4.80	9.39	Complies
134	5670 MHz	0.02	1.20	3.66	9.39	Complies

NOTE: Directional gain =4.6dBi + 10log(2)=7.61dBi > 6dBi, so the Power Spectral Density limit =11-(7.61-6)=9.39dBm.

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a / Mode 9

Configuration IEEE 802.11a / Chain 1 + Chain 2 (2TX, 2RX)

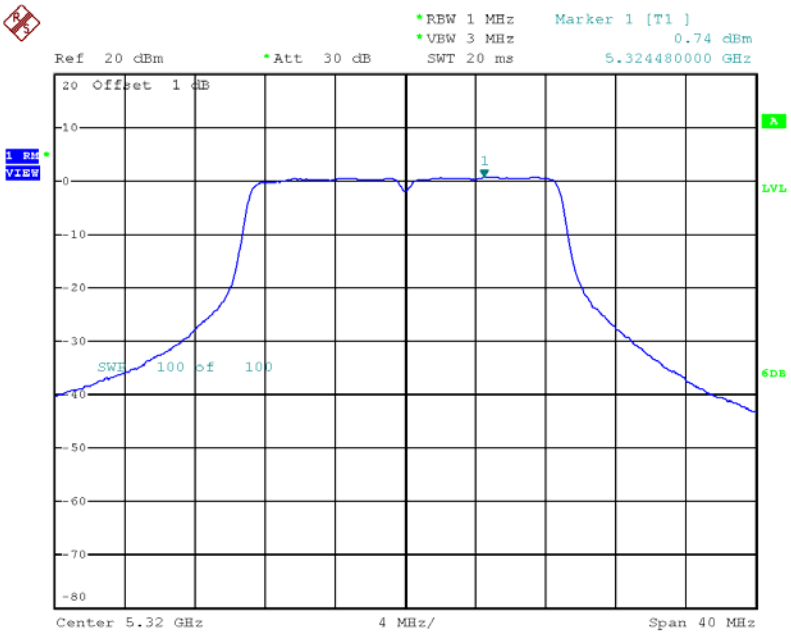
Channel	Frequency	Power Density (dBm/1MHz)		Total Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
		Chain 1	Chain 2			
52	5260 MHz	1.62	2.28	4.97	9.39	Complies
60	5300 MHz	1.01	2.19	4.65	9.39	Complies
64	5320 MHz	1.42	1.25	4.35	9.39	Complies
100	5500 MHz	-0.74	0.34	2.84	9.39	Complies
116	5580 MHz	-1.61	-1.00	1.72	9.39	Complies
140	5700 MHz	0.84	2.05	4.50	9.39	Complies

NOTE 1:Directional gain =4.6dBi + 10log(2)=7.61dBi > 6dBi, so the Power Spectral Density limit =11-(7.61-6)=9.39dBm.

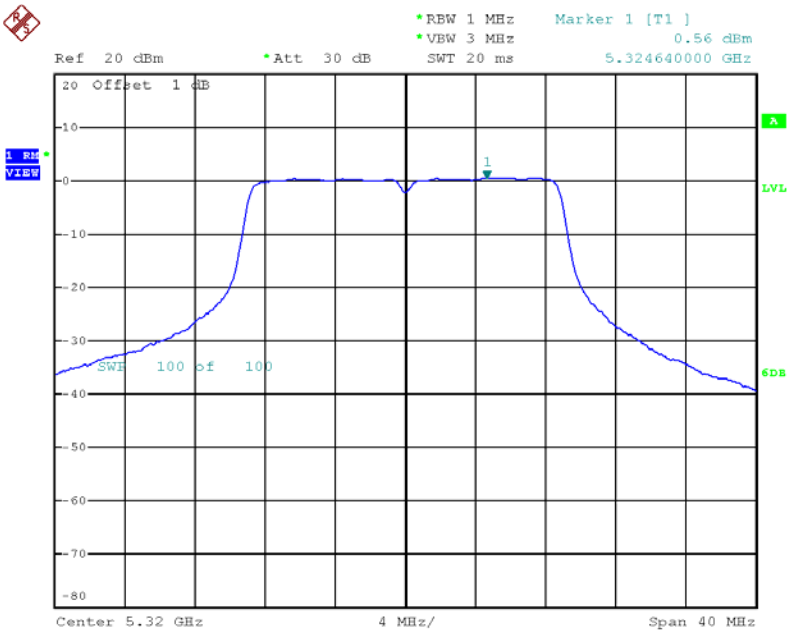
NOTE 2: All the test values were listed in the report.

For plots, only the channel with maximum results was shown.

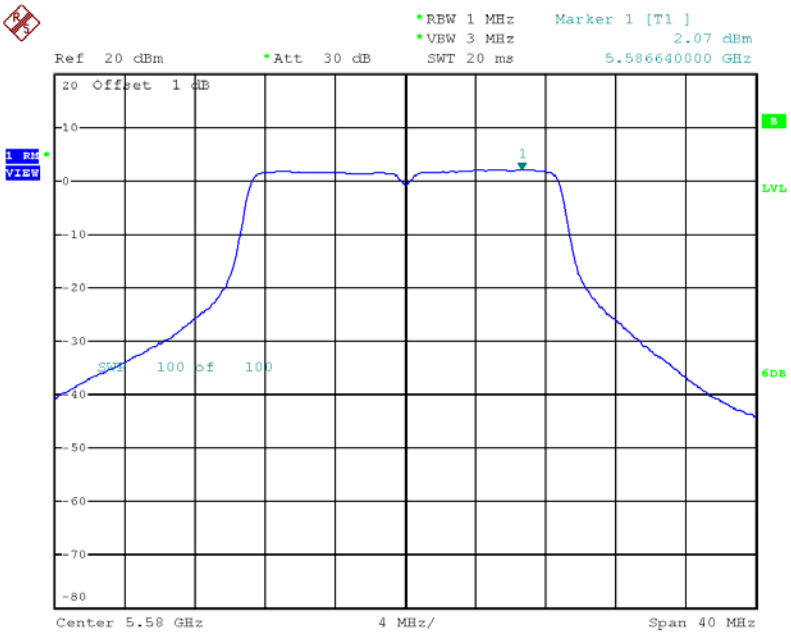
Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz / Mode 9 (2TX, 2RX)



Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5320 MHz / Mode 9 (2TX, 2RX)

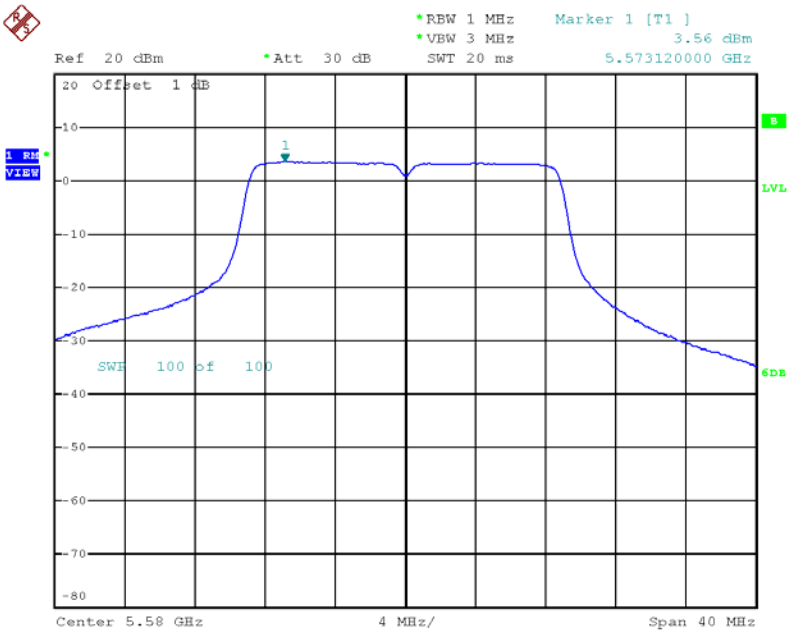


Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5580 MHz / Mode 9 (2TX, 2RX)



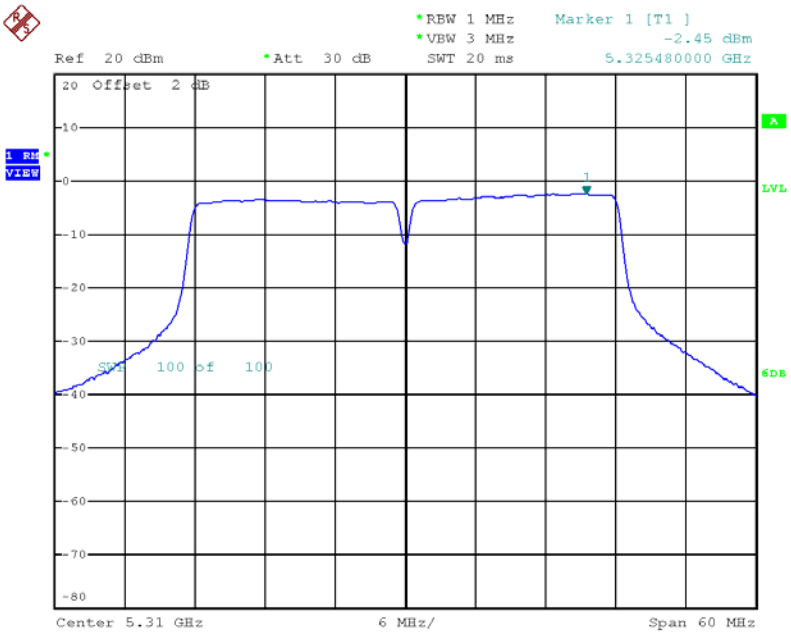
Date: 10.FEB.2012 19:17:46

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 2 / 5580 MHz / Mode 9 (2TX, 2RX)



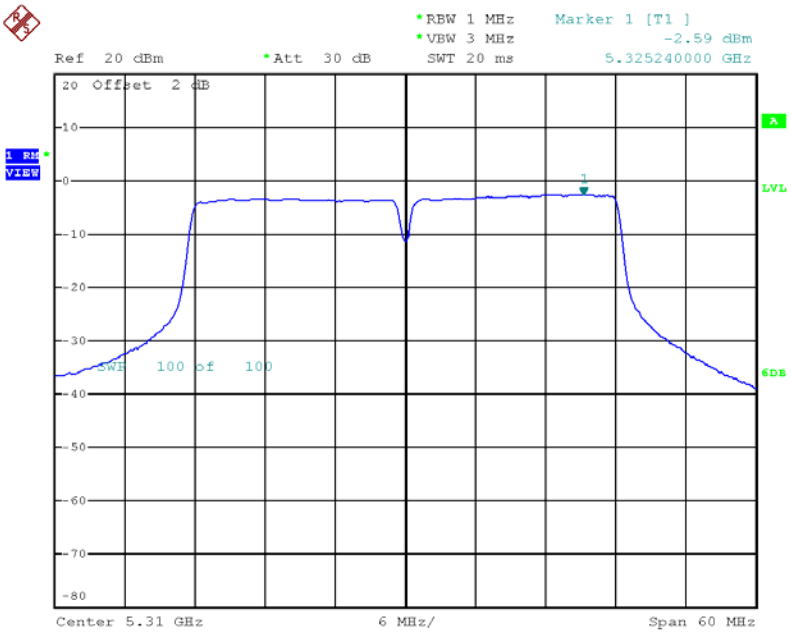
Date: 10.FEB.2012 19:18:23

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5310 MHz / Mode 9 (2TX, 2RX)



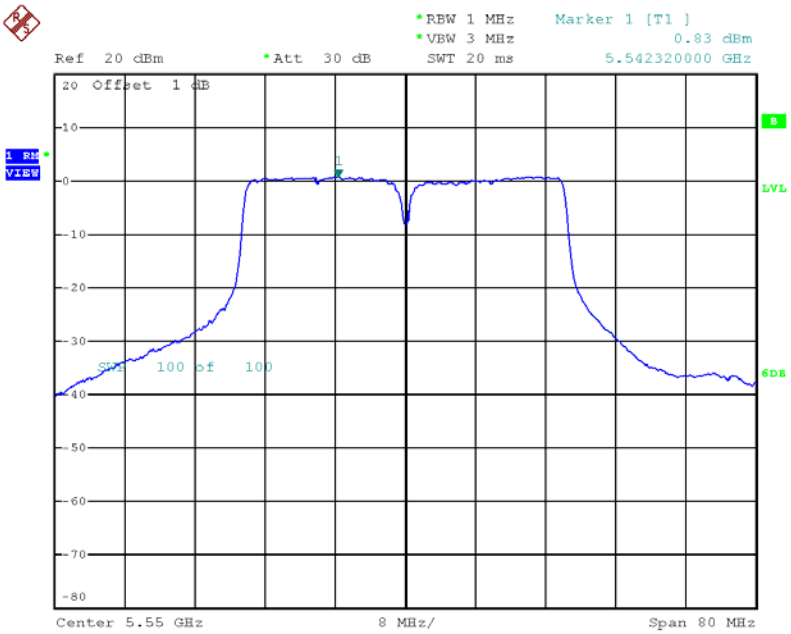
Date: 2.FEB.2012 11:32:11

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5310 MHz / Mode 9 (2TX, 2RX)



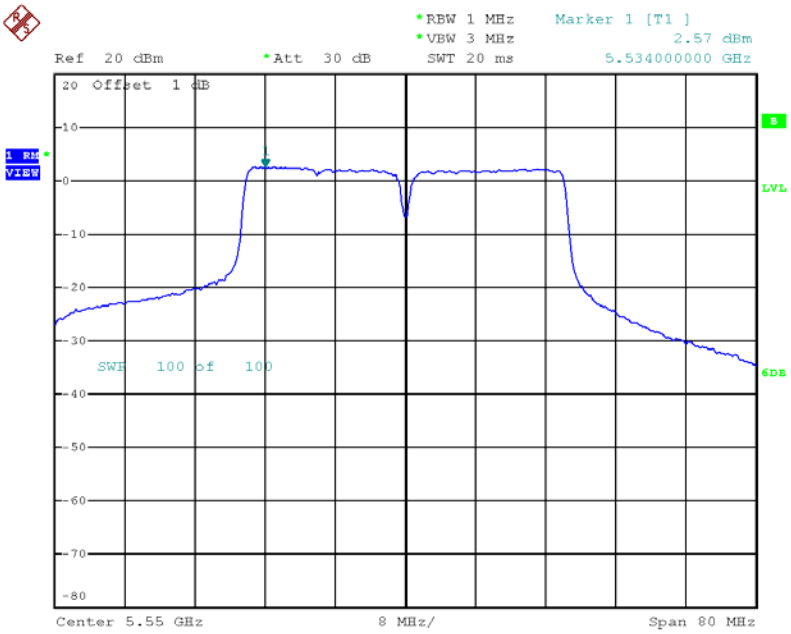
Date: 2.FEB.2012 11:32:26

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz / Mode 9 (2TX, 2RX)



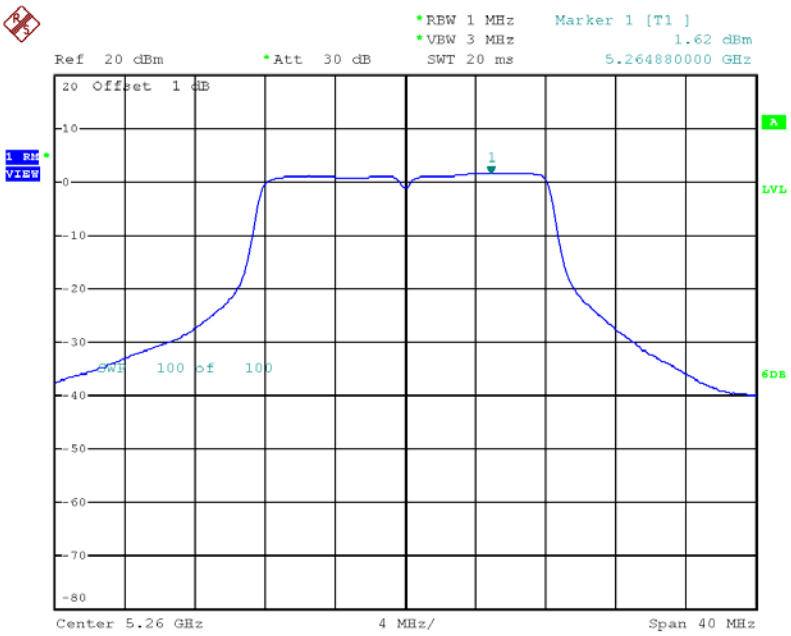
Date: 10.FEB.2012 19:13:23

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 2 / 5550 MHz / Mode 9 (2TX, 2RX)



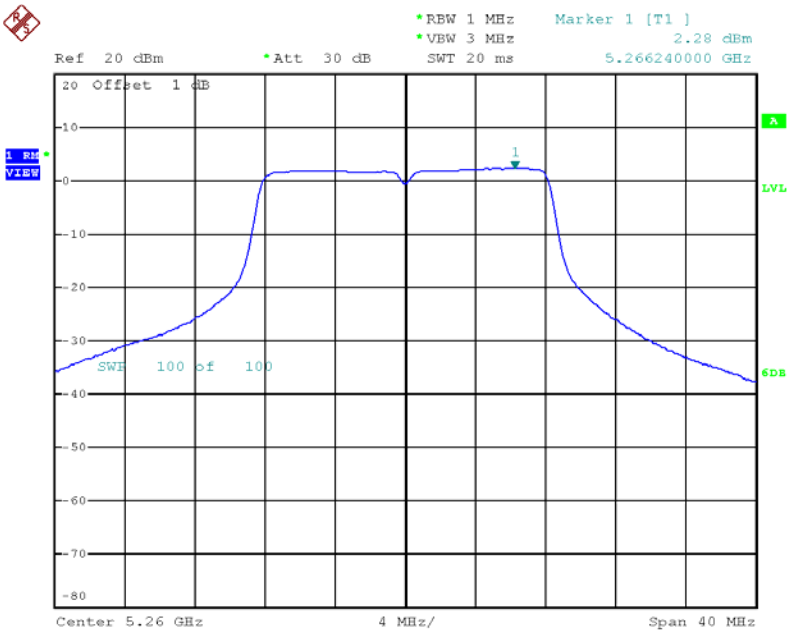
Date: 10.FEB.2012 19:14:03

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5260 MHz / Mode 9 (2TX, 2RX)



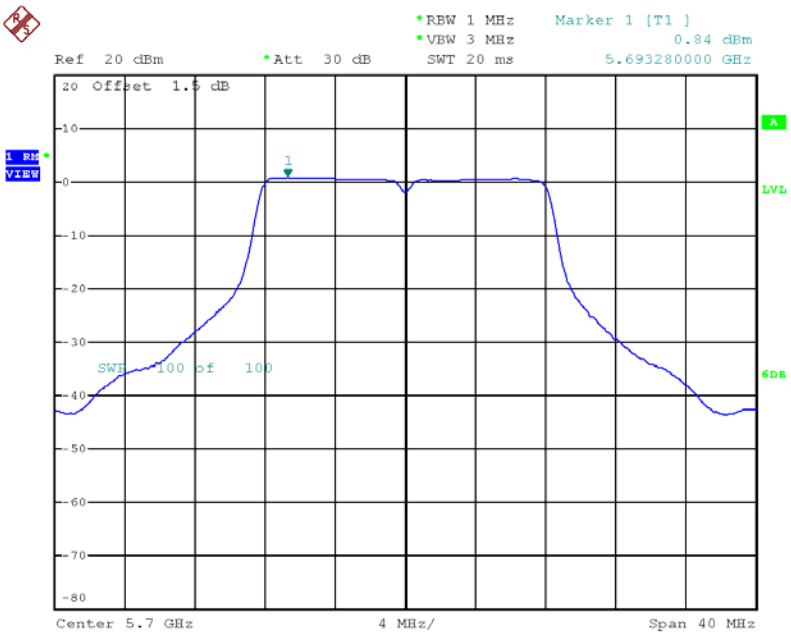
Date: 10.FEB.2012 11:12:10

Power Density Plot on Configuration IEEE 802.11a / Chain 2 / 5260 MHz / Mode 9 (2TX, 2RX)



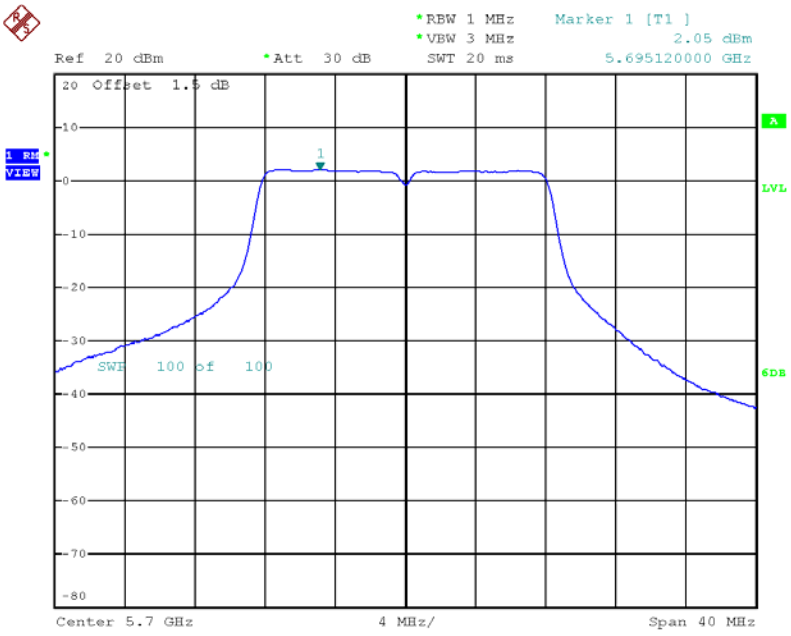
Date: 10.FEB.2012 11:13:16

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5700 MHz / Mode 9 (2TX, 2RX)



Date: 11.JAN.2012 14:55:05

Power Density Plot on Configuration IEEE 802.11a / Chain 2 / 5700 MHz / Mode 9 (2TX, 2RX)



Date: 11.JAN.2012 14:55:42

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n / Mode 12

Configuration IEEE 802.11n MCS0 20MHz (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
52	5260 MHz	0.22	4.50	Complies
60	5300 MHz	-0.01	4.50	Complies
64	5320 MHz	0.13	4.50	Complies
100	5500 MHz	-0.57	4.50	Complies
116	5580 MHz	-1.06	4.50	Complies
140	5700 MHz	-5.38	4.50	Complies

Configuration IEEE 802.11n MCS0 40MHz (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
54	5270 MHz	-2.87	4.50	Complies
62	5310 MHz	-7.66	4.50	Complies
102	5510MHz	-9.42	4.50	Complies
110	5550 MHz	-3.14	4.50	Complies
134	5670 MHz	-4.08	4.50	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a / Mode 12

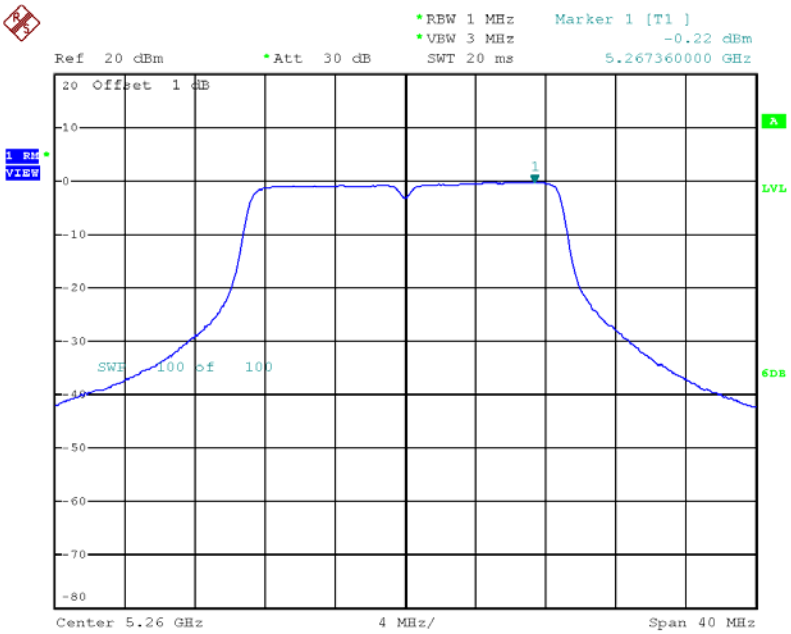
Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
52	5260 MHz	0.07	4.50	Complies
60	5300 MHz	-0.07	4.50	Complies
64	5320 MHz	0.66	4.50	Complies
100	5500 MHz	-0.11	4.50	Complies
116	5580 MHz	-1.27	4.50	Complies
140	5700 MHz	-4.52	4.50	Complies

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

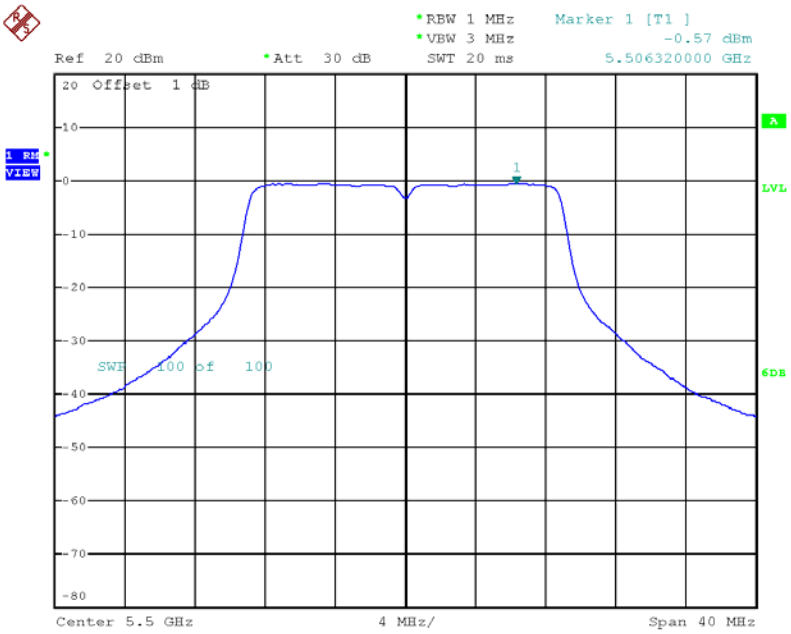
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5260 MHz / Mode 12 (1TX, 2RX)



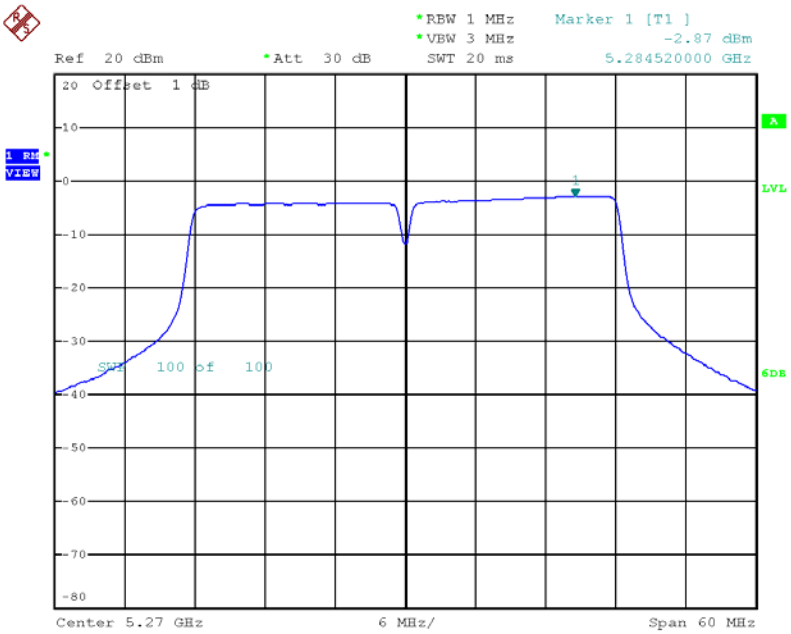
Date: 9.FEB.2012 20:52:04

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz / Mode 12 (1TX, 2RX)



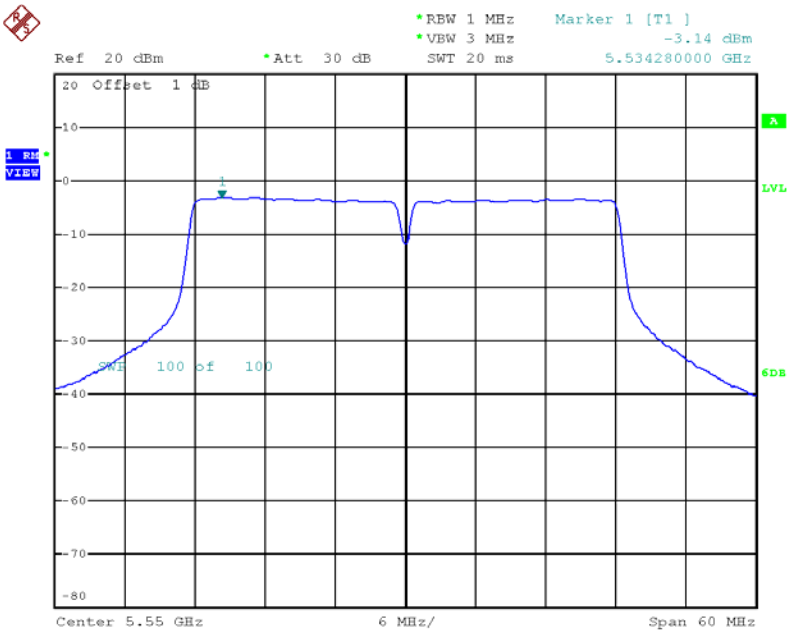
Date: 9.FEB.2012 20:49:49

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz / Mode 12 (1TX, 2RX)



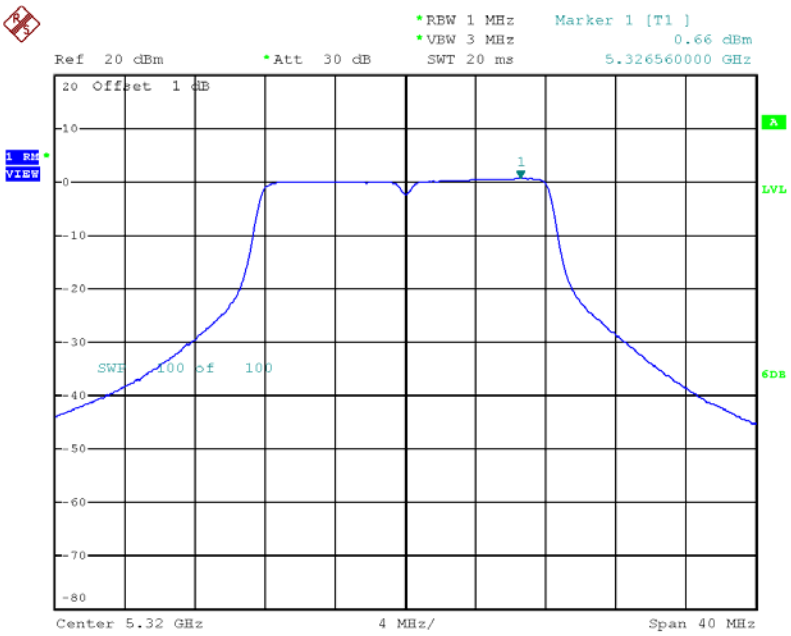
Date: 9.FEB.2012 20:53:26

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz / Mode 12 (1TX, 2RX)



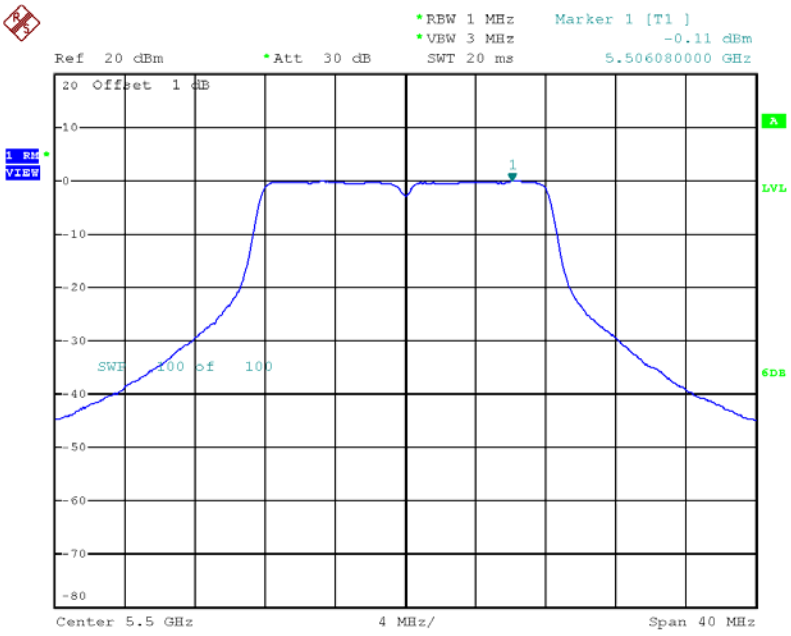
Date: 9.FEB.2012 21:02:19

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5320 MHz / Mode 12 (1TX, 2RX)



Date: 9.FEB.2012 20:44:11

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5500 MHz / Mode 12 (1TX, 2RX)



Date: 9.FEB.2012 20:44:59

Temperature	25°C	Humidity	57%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n / Mode 15

Configuration IEEE 802.11n MCS0 20MHz (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
52	5260 MHz	0.73	6.00	Complies
60	5300 MHz	0.87	6.00	Complies
64	5320 MHz	0.95	6.00	Complies
100	5500 MHz	0.42	6.00	Complies
116	5580 MHz	-0.09	6.00	Complies
140	5700 MHz	-0.88	6.00	Complies

Configuration IEEE 802.11n MCS0 40MHz (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
54	5270 MHz	-1.92	6.00	Complies
62	5310 MHz	-2.49	6.00	Complies
102	5510MHz	-2.49	6.00	Complies
110	5550 MHz	-0.52	6.00	Complies
134	5670 MHz	-1.36	6.00	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a / Mode 15

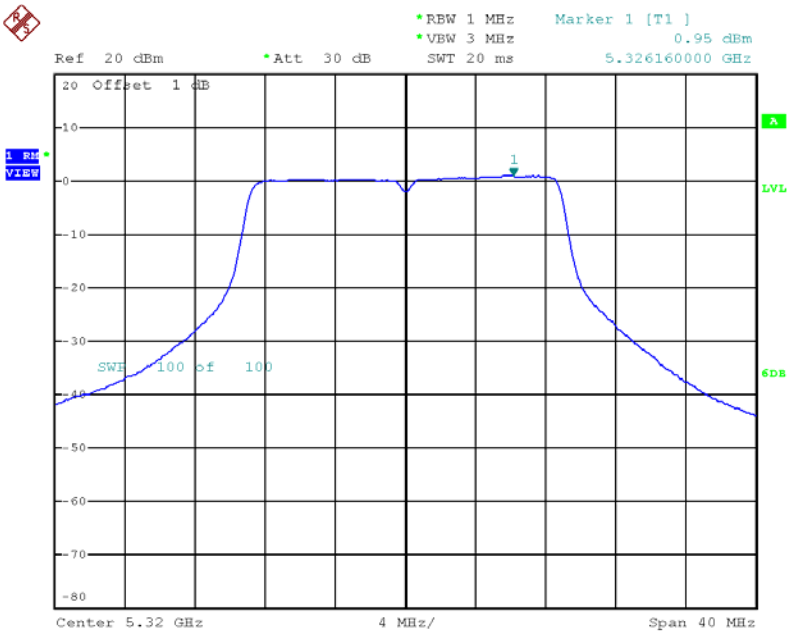
Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Power Density (dBm/1MHz)	Max. Limit (dBm/1MHz)	Result
52	5260 MHz	1.04	6.00	Complies
60	5300 MHz	1.14	6.00	Complies
64	5320 MHz	2.22	6.00	Complies
100	5500 MHz	1.27	6.00	Complies
116	5580 MHz	0.22	6.00	Complies
140	5700 MHz	-0.57	6.00	Complies

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

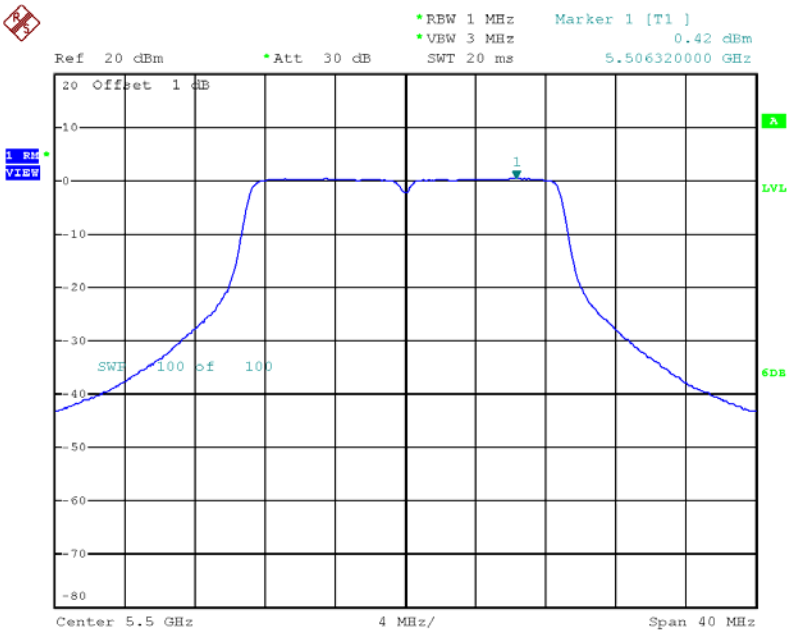
For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5320 MHz / Mode 15 (1TX, 2RX)



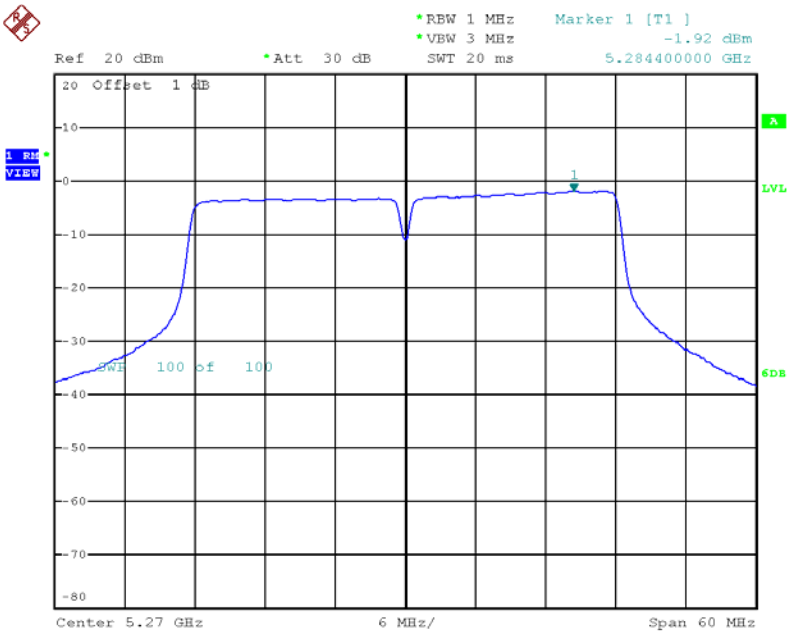
Date: 9.FEB.2012 22:40:14

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz / Mode 15 (1TX, 2RX)



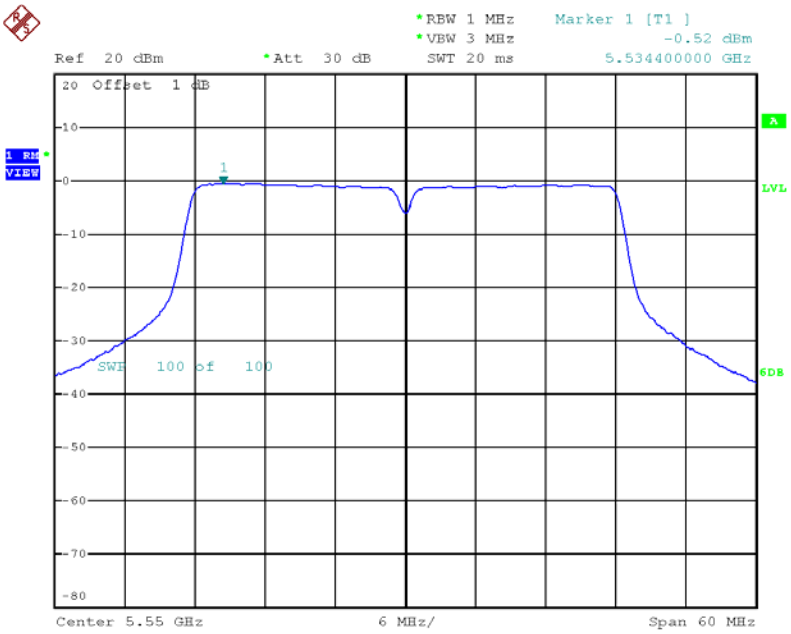
Date: 9.FEB.2012 22:41:18

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz / Mode 15 (1TX, 2RX)



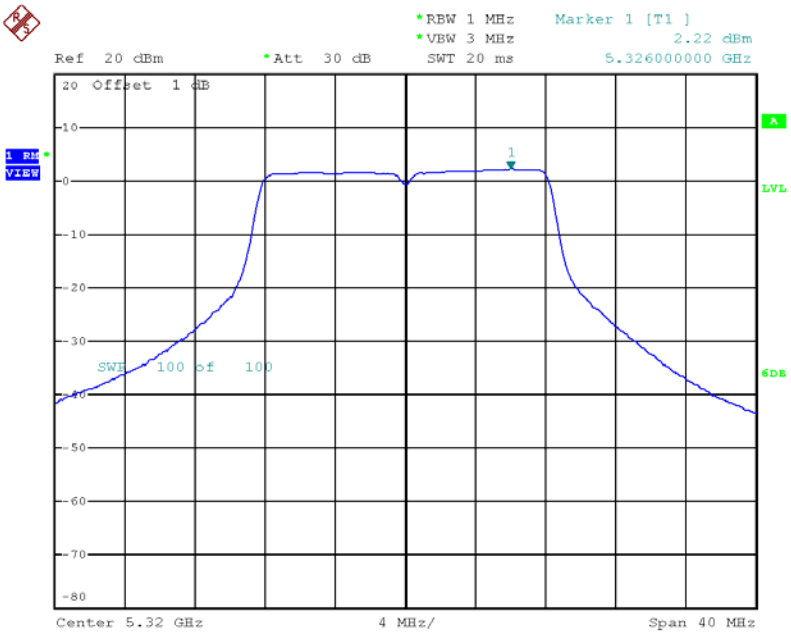
Date: 9.FEB.2012 22:38:14

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5550 MHz / Mode 15 (1TX, 2RX)



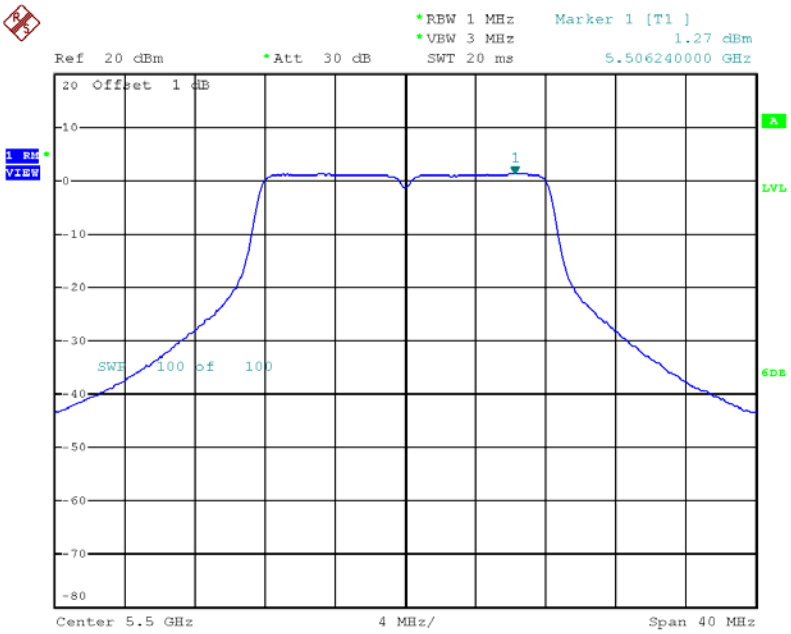
Date: 9.FEB.2012 22:34:38

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5320 MHz / Mode 15 (1TX, 2RX)



Date: 9.FEB.2012 22:44:39

Power Density Plot on Configuration IEEE 802.11a / Chain 1 / 5500 MHz / Mode 15 (1TX, 2RX)



Date: 9.FEB.2012 22:45:51

4.5. Peak Excursion Measurement

4.5.1. Limit

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

4.5.2. Measuring Instruments and Setting

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

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1MHz (Peak Trace) / 1MHz (Average Trace)
VB	3MHz (Peak Trace) / 300 kHz (Average Trace)
Detector	Peak (Peak Trace) / Sample (Average Trace)
Trace	Max Hold
Sweep Time	AUTO

4.5.3. Test Procedures

1. The test procedure is the same as section 4.6.3.
2. Trace A, Set RBW =1MHz, VBW = 3MHz, Span >26dB bandwidth, Max. hold.
3. Delta Mark trace A Maximum frequency and trace B same frequency.
4. Repeat the above procedure until measurements for all frequencies were complete.

4.5.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.6.4.

4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.5.7. Test Result of Peak Excursion

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n / Mode 3

Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	5.34	13	Complies
60	5300 MHz	5.12	13	Complies
64	5320 MHz	5.44	13	Complies
100	5500 MHz	4.33	13	Complies
116	5580 MHz	5.51	13	Complies
140	5700 MHz	3.98	13	Complies

Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
54	5270 MHz	5.06	13	Complies
62	5310 MHz	5.74	13	Complies
102	5510MHz	5.44	13	Complies
110	5550 MHz	5.28	13	Complies
134	5670 MHz	5.51	13	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a / Mode 3

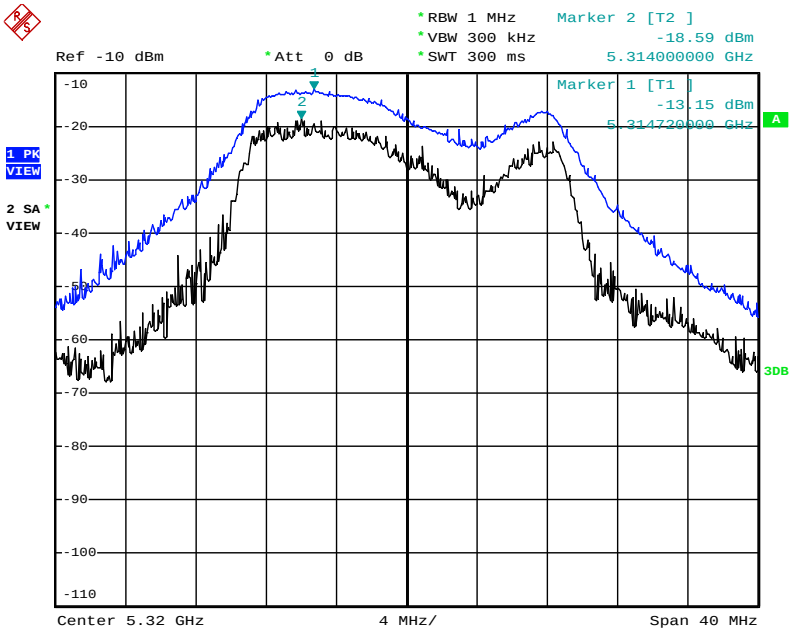
Configuration IEEE 802.11a / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	4.89	13	Complies
60	5300 MHz	5.15	13	Complies
64	5320 MHz	5.21	13	Complies
100	5500 MHz	5.60	13	Complies
116	5580 MHz	4.21	13	Complies
140	5700 MHz	5.50	13	Complies

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

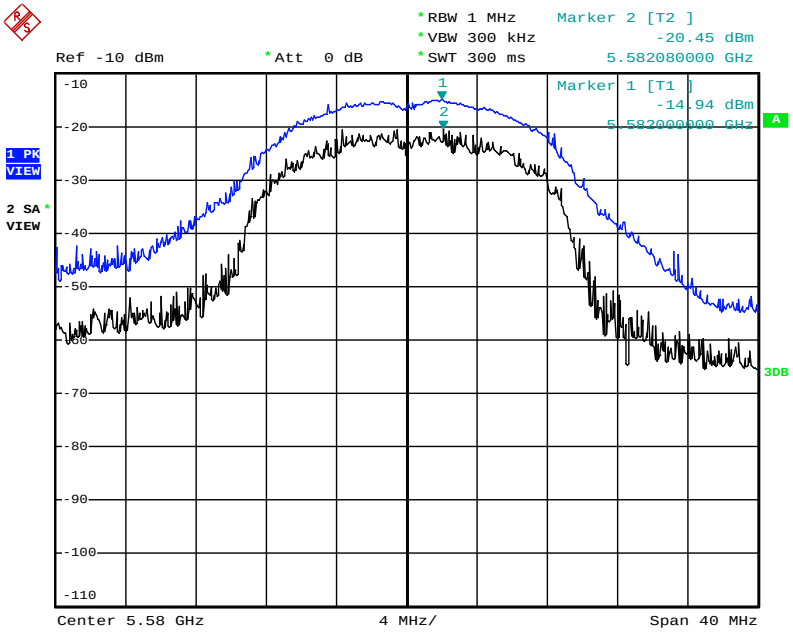
For plots, only the channel with maximum results was shown.

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 / 5320 MHz / Mode 3 (2TX, 2RX)



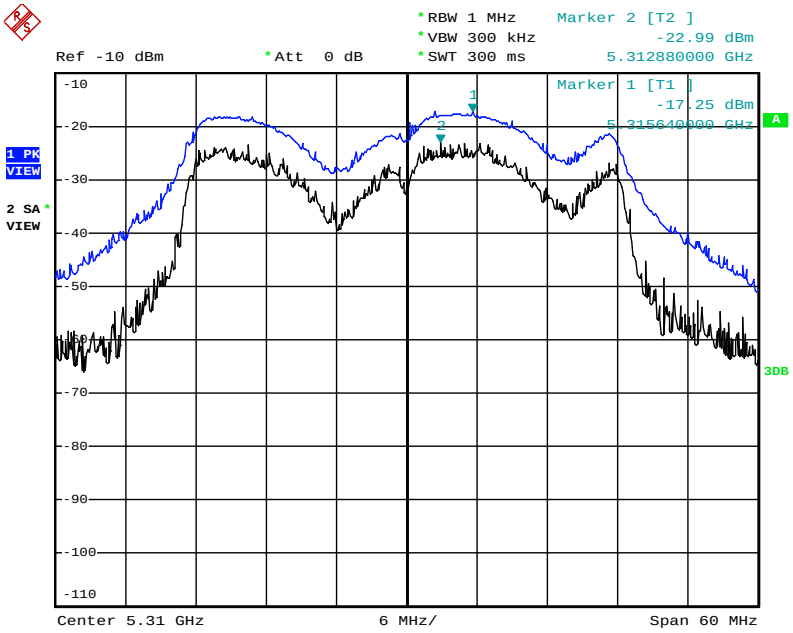
Date: 18.JAN.2012 15:36:49

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 / 5580 MHz / Mode 3 (2TX, 2RX)



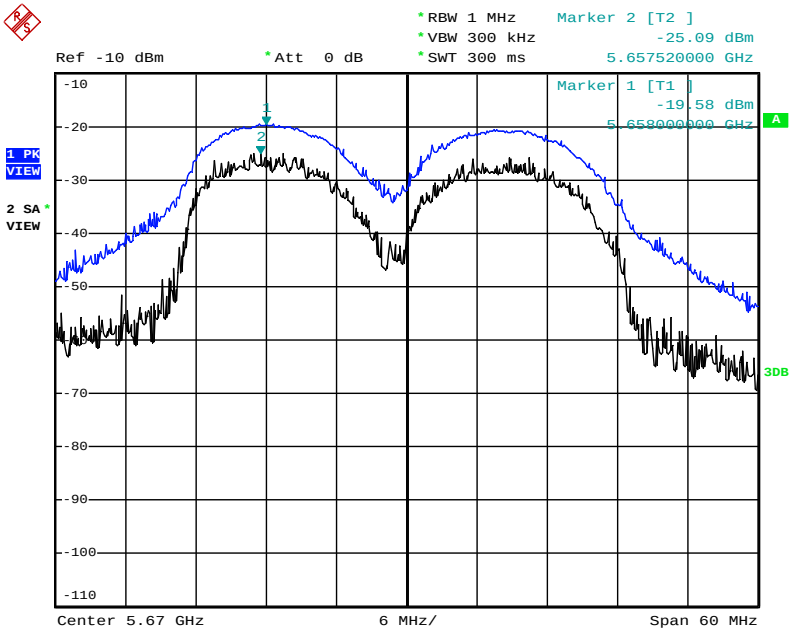
Date: 18.JAN.2012 15:38:04

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 / 5310 MHz / Mode 3 (2TX, 2RX)



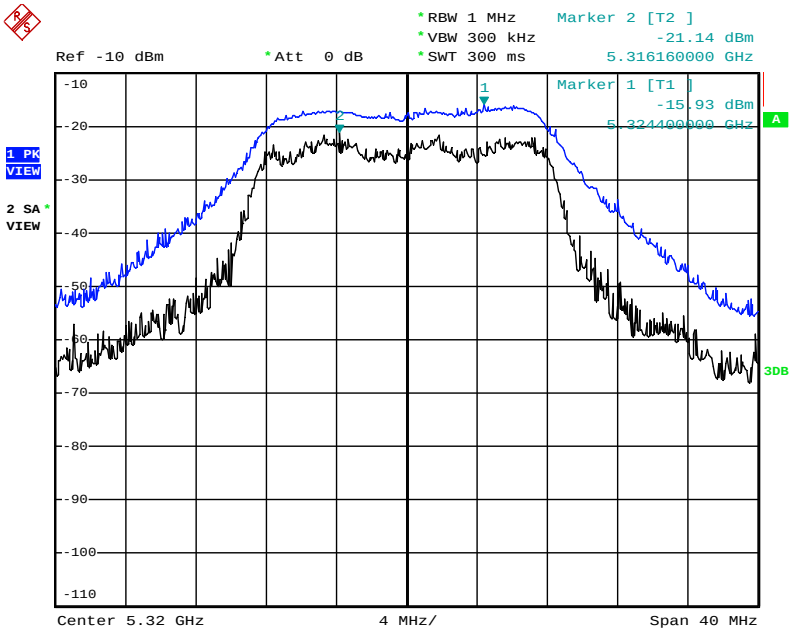
Date: 18.JAN.2012 15:41:43

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 / 5670 MHz / Mode 3 (2TX, 2RX)



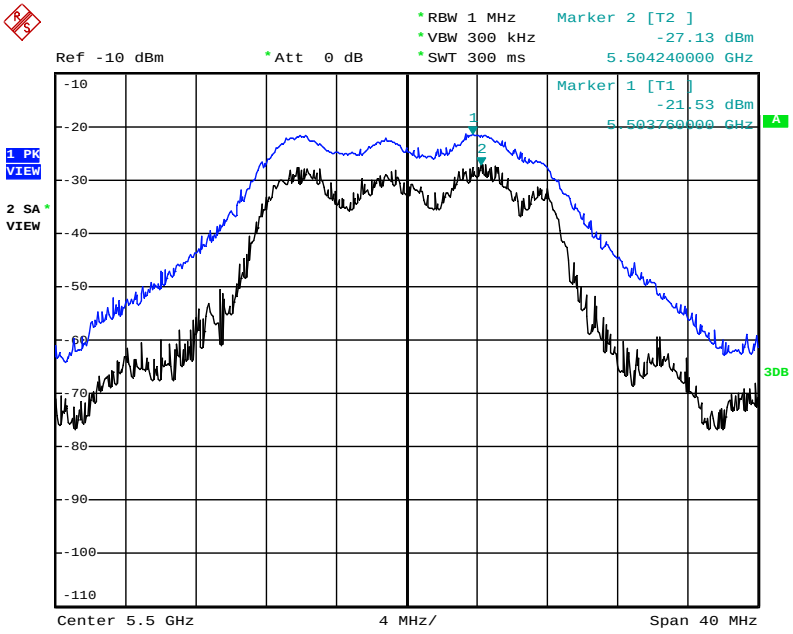
Date: 18.JAN.2012 15:43:38

Peak Excursion Plot on Configuration IEEE 802.11a / Port 1 + Port 2 / 5320MHz / Mode 3 (2TX, 2RX)



Date: 10.JAN.2012 16:45:07

Peak Excursion Plot on Configuration IEEE 802.11a / Port 1 + Port 2 / 5500 MHz / Mode 3 (2TX, 2RX)



Date: 10.JAN.2012 16:46:03

Temperature	25°C	Humidity	56%
Test Engineer	Satoshi Yang	Configurations	IEEE 802.11n / Mode 6

Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	6.25	13	Complies
60	5300 MHz	5.27	13	Complies
64	5320 MHz	4.79	13	Complies
100	5500 MHz	5.60	13	Complies
116	5580 MHz	5.56	13	Complies
140	5700 MHz	4.36	13	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (1TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
54	5270 MHz	5.69	13	Complies
62	5310 MHz	4.94	13	Complies
102	5510MHz	5.28	13	Complies
110	5550 MHz	5.11	13	Complies
134	5670 MHz	5.38	13	Complies

Configuration IEEE 802.11n MCS0 20MHz / Chain 1 + Chain 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	5.24	13	Complies
60	5300 MHz	5.50	13	Complies
64	5320 MHz	5.65	13	Complies
100	5500 MHz	4.86	13	Complies
116	5580 MHz	5.81	13	Complies
140	5700 MHz	6.57	13	Complies

Configuration IEEE 802.11n MCS0 40MHz / Chain 1 + Chain 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
54	5270 MHz	5.67	13	Complies
62	5310 MHz	5.80	13	Complies
102	5510MHz	6.37	13	Complies
110	5550 MHz	5.41	13	Complies
134	5670 MHz	6.33	13	Complies

Configuration IEEE 802.11n MCS8 20MHz / Chain 1 + Chain 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	5.24	13	Complies
60	5300 MHz	5.50	13	Complies
64	5320 MHz	5.65	13	Complies
100	5500 MHz	4.86	13	Complies
116	5580 MHz	5.81	13	Complies
140	5700 MHz	6.57	13	Complies

Configuration IEEE 802.11n MCS8 40MHz / Chain 1 + Chain 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
54	5270 MHz	5.67	13	Complies
62	5310 MHz	5.80	13	Complies
102	5510MHz	6.37	13	Complies
110	5550 MHz	5.41	13	Complies
134	5670 MHz	6.33	13	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Satoshi Yang	Configurations	IEEE 802.11a / Mode 6

Configuration IEEE 802.11a / Chain 1 (1TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	5.77	13	Complies
60	5300 MHz	5.02	13	Complies
64	5320 MHz	4.29	13	Complies
100	5500 MHz	5.76	13	Complies
116	5580 MHz	4.58	13	Complies
140	5700 MHz	5.22	13	Complies

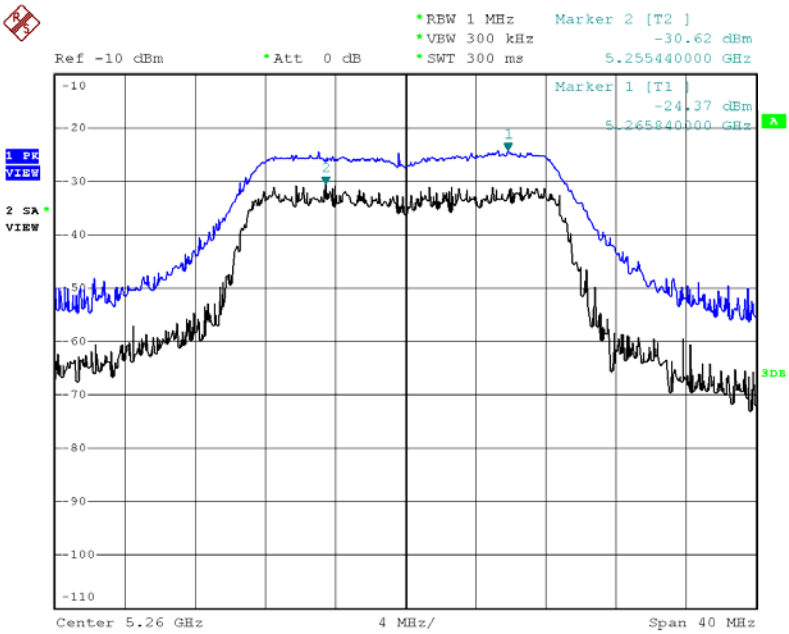
Configuration IEEE 802.11a / Chain 1 + Chain 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	5.86	13	Complies
60	5300 MHz	4.58	13	Complies
64	5320 MHz	5.13	13	Complies
100	5500 MHz	5.35	13	Complies
116	5580 MHz	6.02	13	Complies
140	5700 MHz	5.30	13	Complies

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

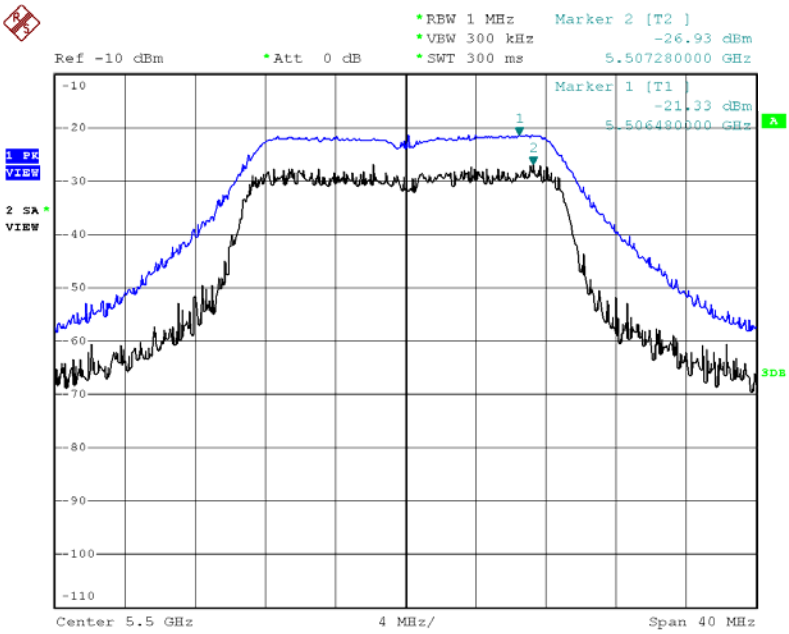
For plots, only the channel with maximum results was shown.

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1/ 5260 MHz / Mode 6 (1TX, 2RX)



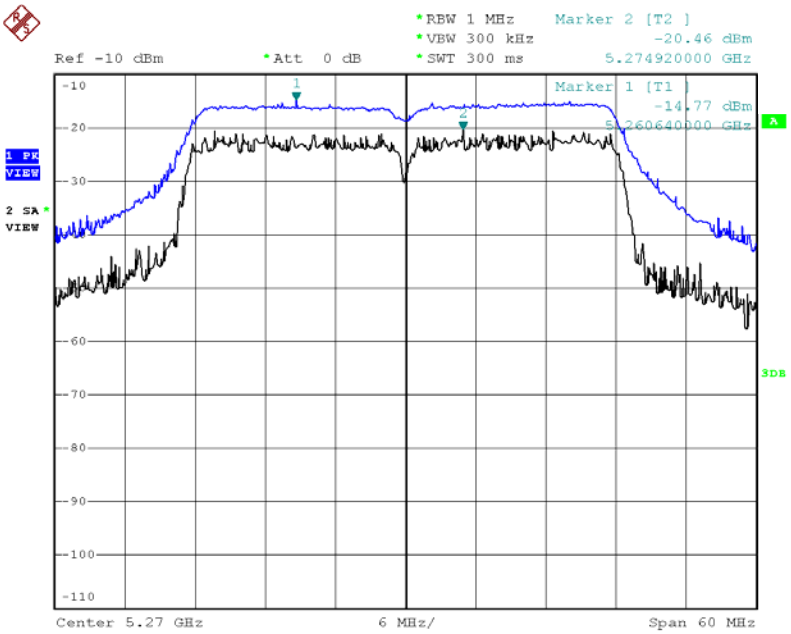
Date: 15.DEC.2011 18:10:31

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 / 5500 MHz / Mode 6 (1TX, 2RX)



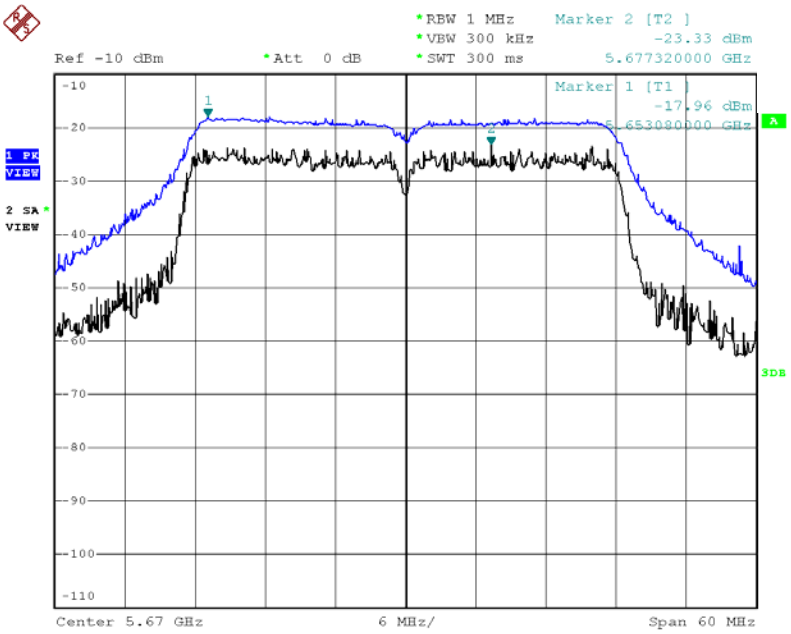
Date: 15.DEC.2011 18:09:14

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5270 MHz / Mode 6 (1TX, 2RX)



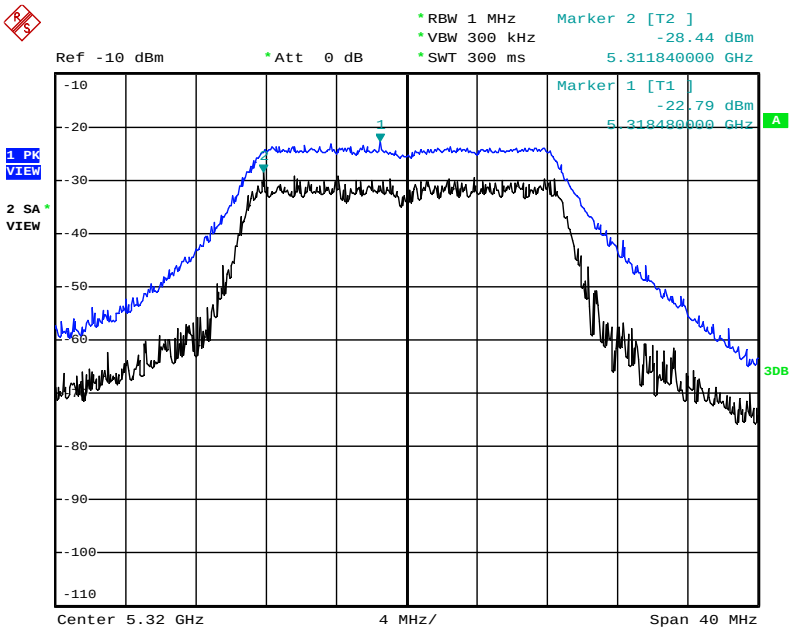
Date: 15.DEC.2011 18:03:26

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 / 5670 MHz / Mode 6 (1TX, 2RX)



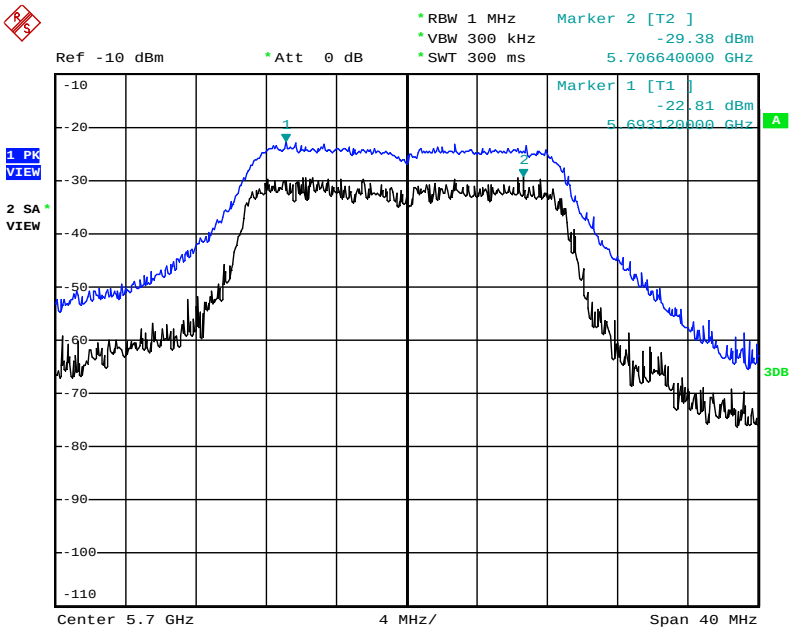
Date: 15.DEC.2011 18:06:46

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2 / 5320 MHz / Mode 6 (2TX, 2RX)



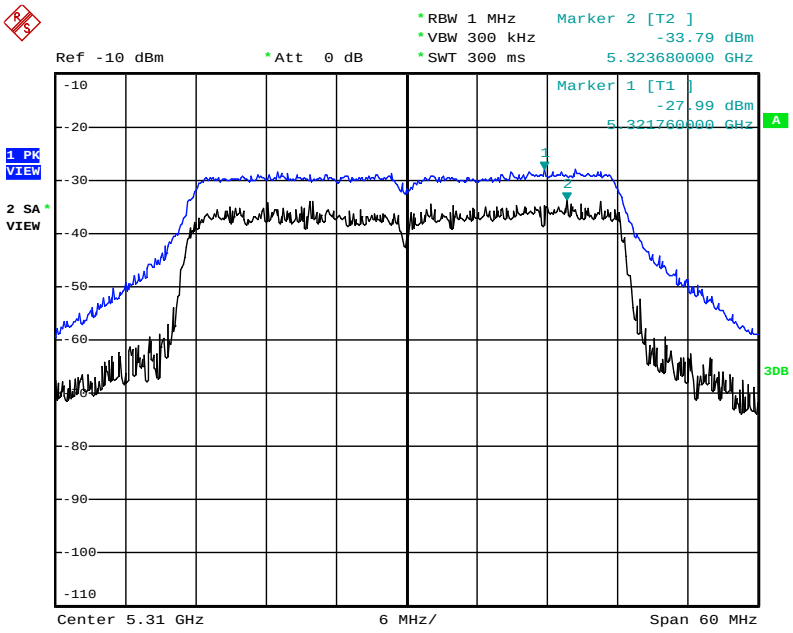
Date: 16.DEC.2011 16:54:03

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1+Chain 2 / 5700 MHz / Mode 6 (2TX, 2RX)



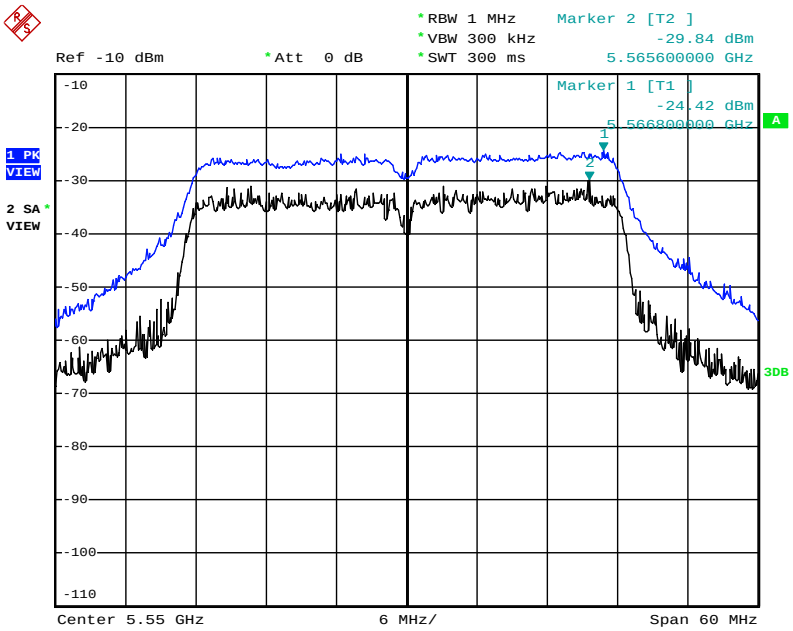
Date: 16.DEC.2011 16:55:55

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1+Chain 2 / 5310 MHz / Mode 6 (2TX, 2RX)



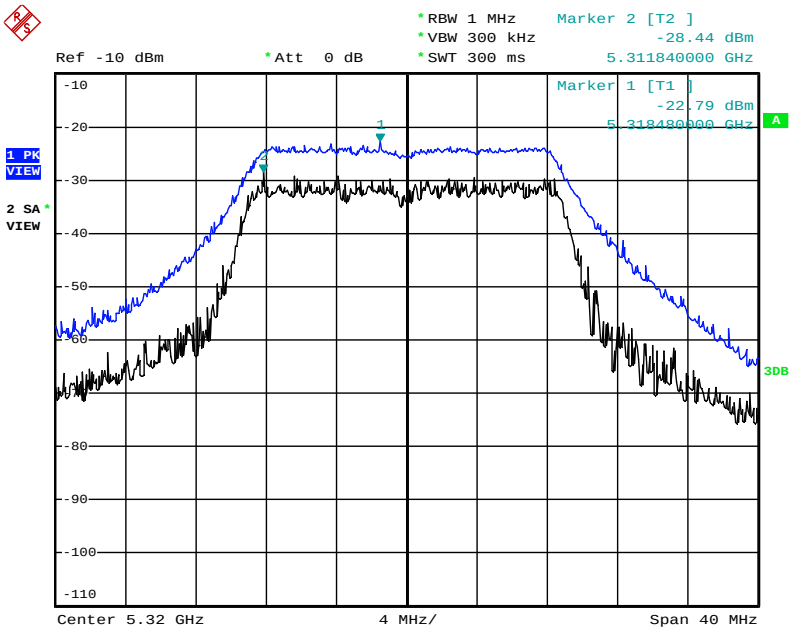
Date: 16.DEC.2011 17:00:30

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1+Chain 2 / 5510 MHz / Mode 6 (2TX, 2RX)



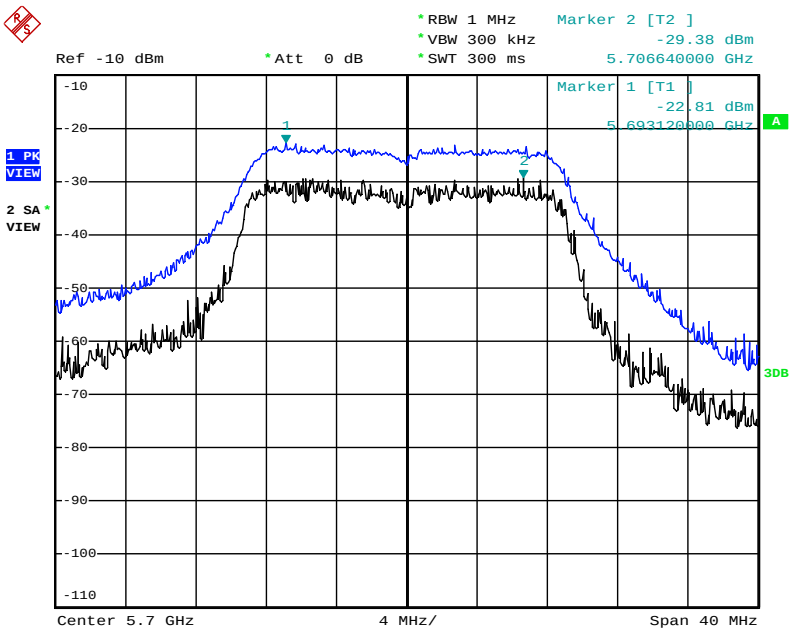
Date: 16.DEC.2011 17:01:37

Peak Excursion Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1+Chain 2 / 5320 MHz / Mode 6 (2TX, 2RX)



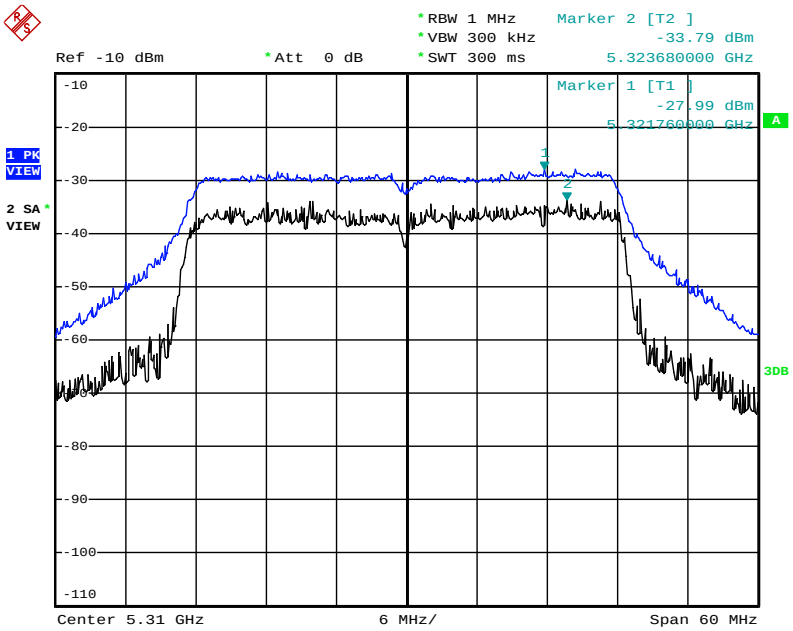
Date: 16.DEC.2011 16:54:03

Peak Excursion Plot on Configuration IEEE 802.11n MCS8 20MHz / Chain 1+Chain 2 / 5700 MHz / Mode 6 (2TX, 2RX)



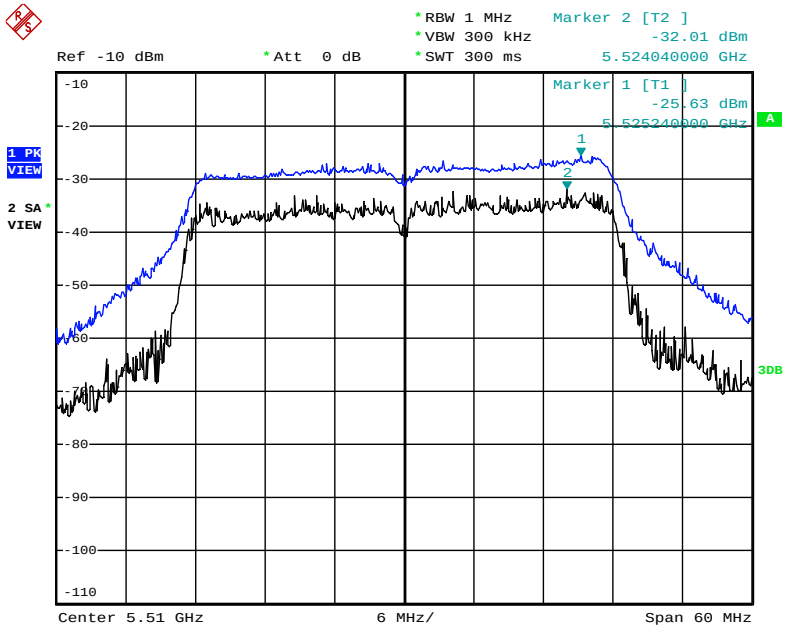
Date: 16.DEC.2011 16:55:55

Peak Excursion Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1+Chain 2 / 5310 MHz / Mode 6 (2TX, 2RX)



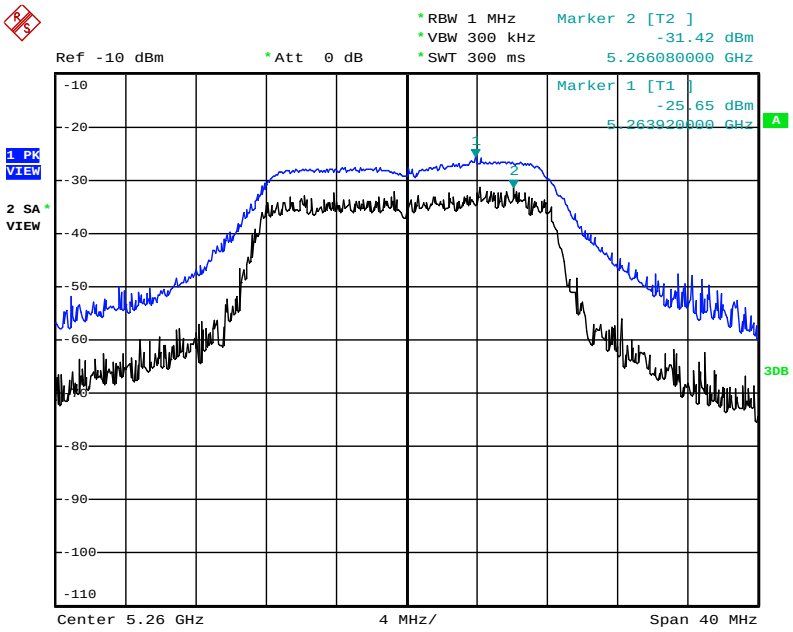
Date: 16.DEC.2011 17:00:30

Peak Excursion Plot on Configuration IEEE 802.11n MCS8 40MHz / Chain 1+Chain 2 / 5510 MHz / Mode 6 (2TX, 2RX)



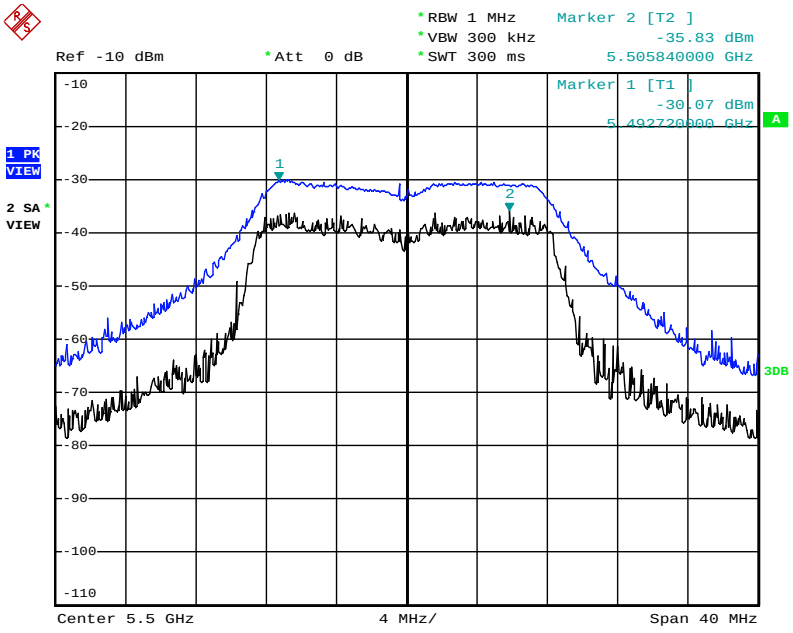
Date: 16.DEC.2011 17:01:03

Peak Excursion Plot on Configuration IEEE 802.11a / Chain 1 / 5260MHz / Mode 6 (1TX, 2RX)



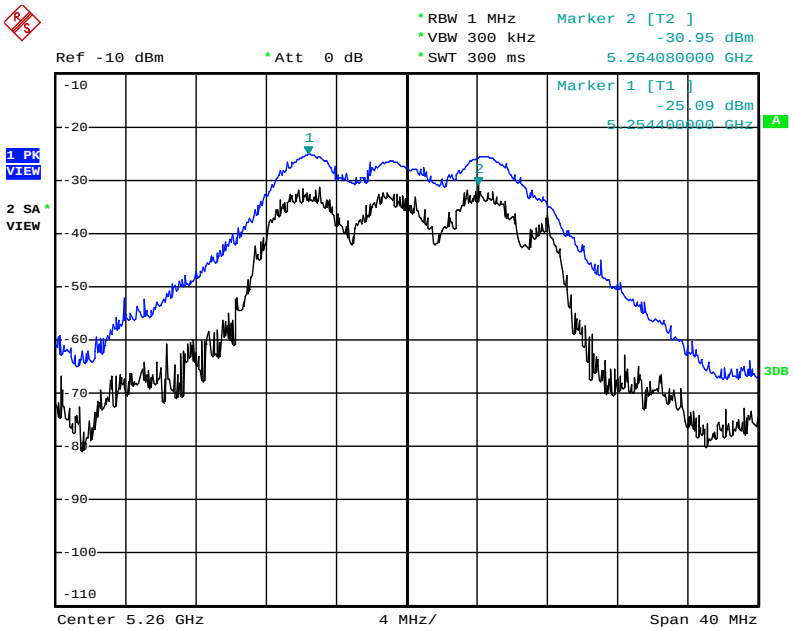
Date: 16.DEC.2011 16:38:37

Peak Excursion Plot on Configuration IEEE 802.11a / Chain 1 / 5500MHz / Mode 6 (1TX, 2RX)



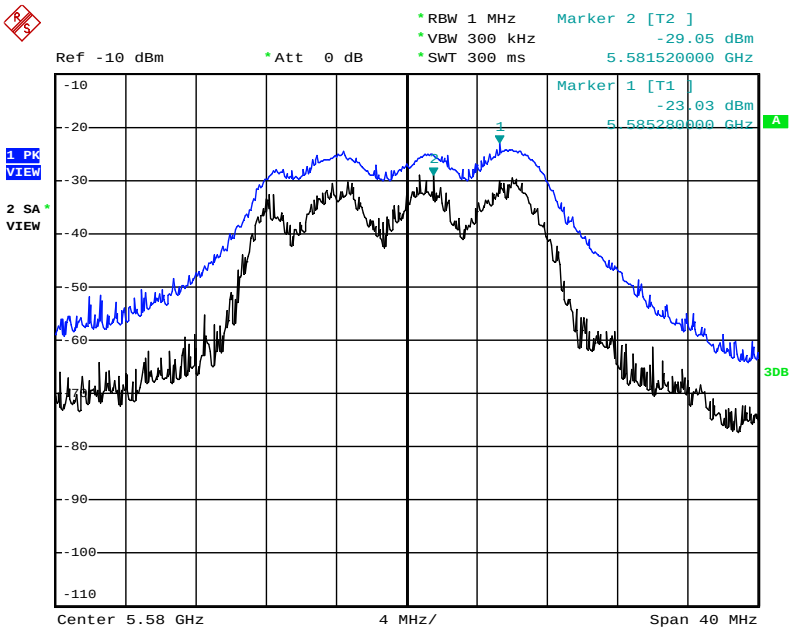
Date: 16.DEC.2011 16:40:32

Peak Excursion Plot on Configuration IEEE 802.11a / Port 1 + Port 2 / 5260 MHz / Mode 6 (2TX, 2RX)



Date: 11.JAN.2012 17:54:21

Peak Excursion Plot on Configuration IEEE 802.11a / Port 1 + Port 2 / 5580 MHz / Mode 6 (2TX, 2RX)



Date: 11.JAN.2012 17:52:32

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11n / Mode 9

Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	5.42	13	Complies
60	5300 MHz	5.01	13	Complies
64	5320 MHz	4.85	13	Complies
100	5500 MHz	5.99	13	Complies
116	5580 MHz	5.28	13	Complies
140	5700 MHz	5.19	13	Complies

Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
54	5270 MHz	5.87	13	Complies
62	5310 MHz	6.17	13	Complies
102	5510MHz	5.56	13	Complies
110	5550 MHz	6.26	13	Complies
134	5670 MHz	5.85	13	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a / Mode 9

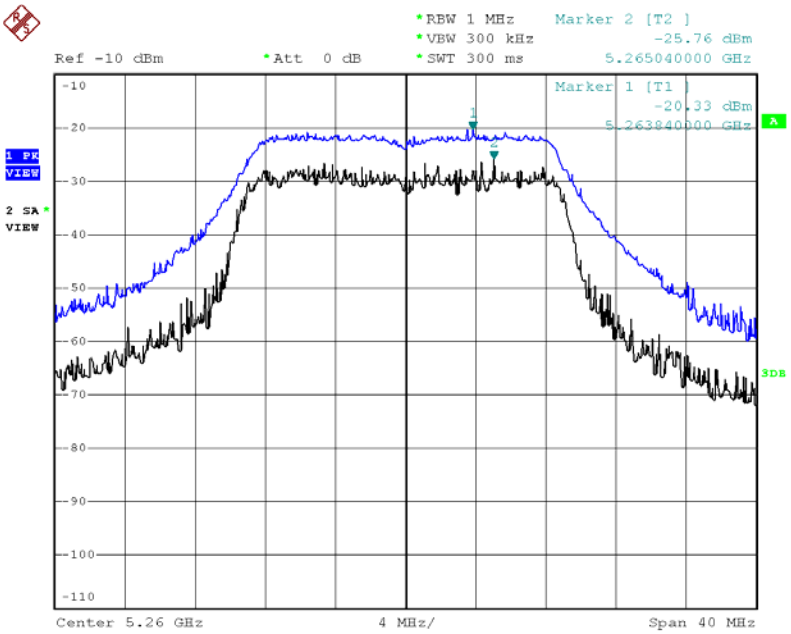
Configuration IEEE 802.11a / Port 1 + Port 2 (2TX, 2RX)

Channel	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
52	5260 MHz	4.58	13	Complies
60	5300 MHz	5.26	13	Complies
64	5320 MHz	4.80	13	Complies
100	5500 MHz	4.06	13	Complies
116	5580 MHz	5.88	13	Complies
140	5700 MHz	5.23	13	Complies

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

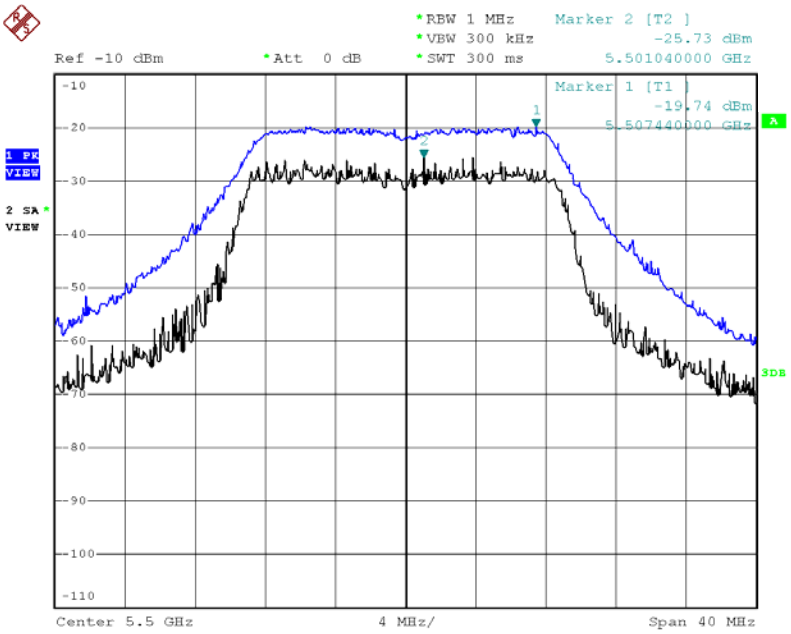
For plots, only the channel with maximum results was shown.

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 / 5260 MHz / Mode 9 (2TX, 2RX)



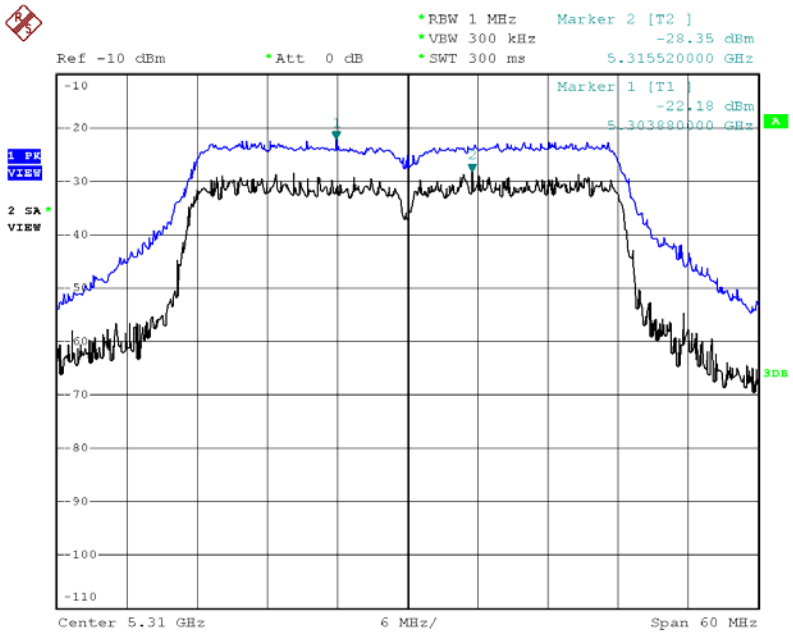
Date: 15.DEC.2011 14:44:16

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 20MHz / Port 1 + Port 2 / 5500 MHz / Mode 9 (2TX, 2RX)



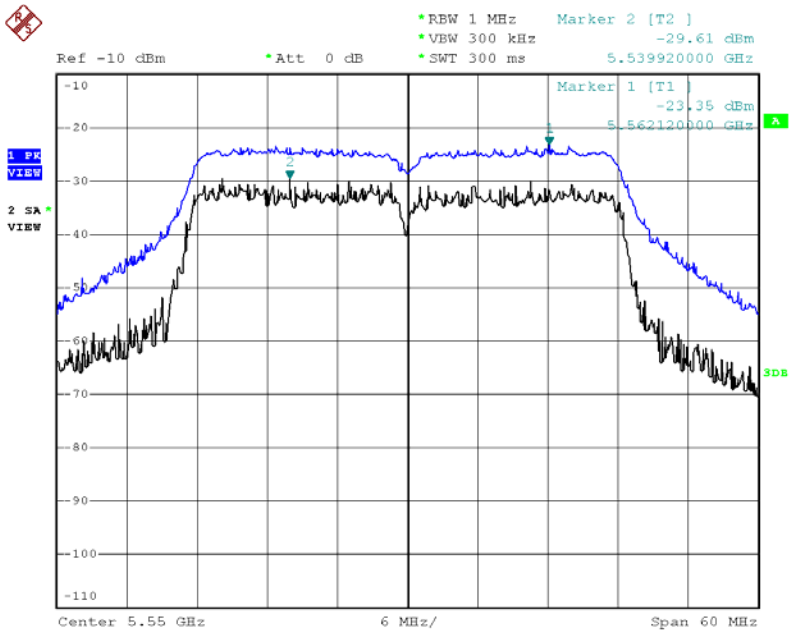
Date: 15.DEC.2011 14:42:45

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 / 5310 MHz / Mode 9 (2TX, 2RX)



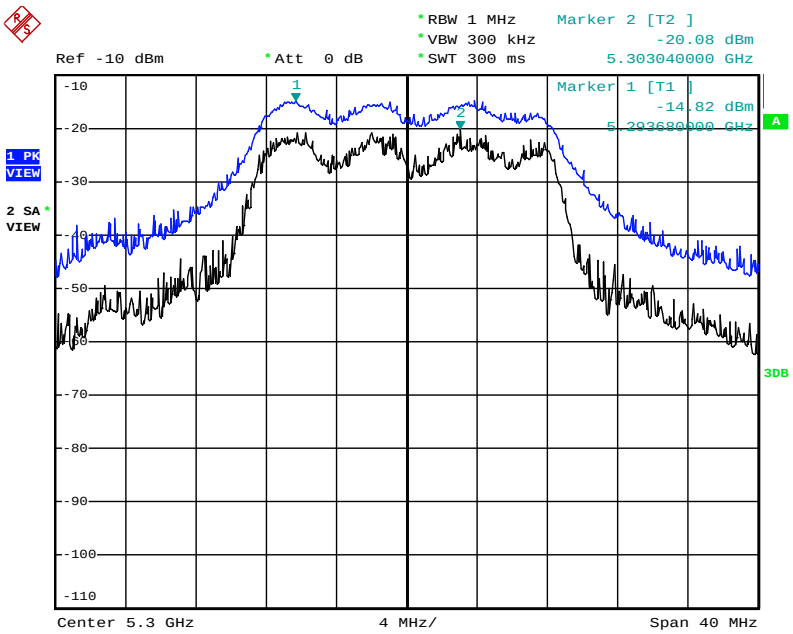
Date: 15.DEC.2011 14:39:06

Peak Excursion Plot on Configuration IEEE 802.11n MCS0 40MHz / Port 1 + Port 2 / 5550 MHz / Mode 3



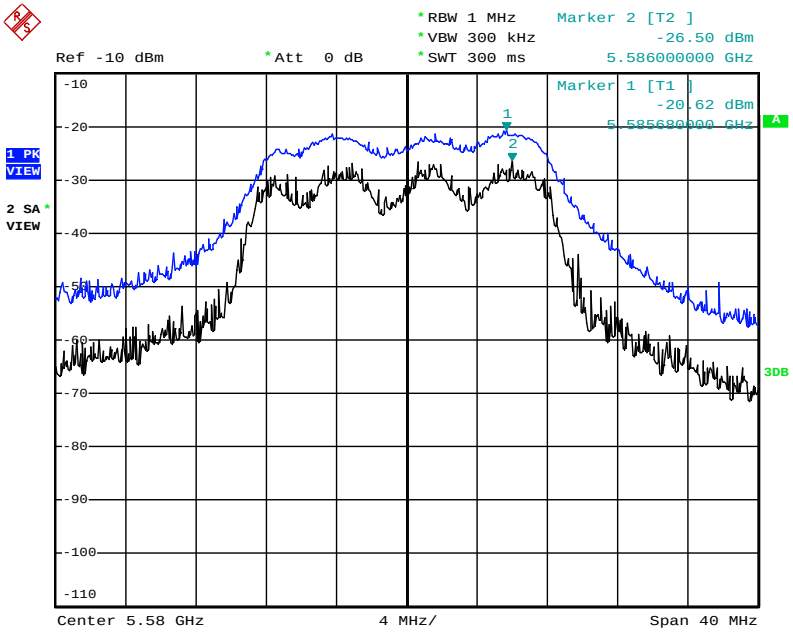
Date: 15.DEC.2011 14:40:03

Peak Excursion Plot on Configuration IEEE 802.11a / Port 1 + Port 2 / 5300MHz / Mode 9 (2TX, 2RX)



Date: 11.JAN.2012 17:49:21

Peak Excursion Plot on Configuration IEEE 802.11a / Port 1 + Port 2 / 5580 MHz / Mode 9 (2TX, 2RX)



Date: 11.JAN.2012 17:50:45