

# FCC RF Test Report

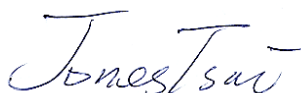
APPLICANT : TCT Mobile Limited  
EQUIPMENT : WIFI Display Receiver  
BRAND NAME : ALCATEL  
MODEL NAME : one touch V100  
FCC ID : RAD365  
STANDARD : FCC Part 15 Subpart C §15.247  
CLASSIFICATION : (DTS) Digital Transmission System

The product was received on Feb. 18, 2013 and completely tested on Jul. 16, 2013. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (SHENZHEN) INC., the test report shall not be reproduced except in full.



Reviewed by: Joseph Lin / Supervisor



Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL (SHENZHEN) INC.**

**No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C.**



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### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR321801	Rev. 01	Initial issue of report	Jul. 03, 2013
FR321801	Rev. 02	Update report for revising brand name from ALCATEL onetouch to ALCATEL.	Jul. 04, 2013
FR321801	Rev. 03	Update report for adding the data of MIMO mode.	Jul. 17, 2013

## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	6dB Bandwidth	$\geq 0.5\text{MHz}$	Pass	-
3.2	15.247(b)	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
0	15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$	Pass	-
3.4	15.247(d)	Conducted Band Edges	$\leq 20\text{dBc}$	Pass	-
		Conducted Spurious Emission		Pass	-
3.5	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 2.41 dB at 2387.040 MHz
3.6	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 12.26 dB at 0.250 MHz
3.7	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-

# 1 General Description

## 1.1 Applicant

**TCT Mobile Limited**

5F, C building, No. 232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area, Shanghai, P.R. China. 201203

## 1.2 Manufacturer

**TCL COMMUNICATION TECHNOLOGY HOLDINGS LIMITED**

70 Huifeng 4rd., ZhongKai Hi-tech Development District, Huizhou, Guangdong 516006 P.R.China

## 1.3 Feature of Equipment Under Test

Product Feature	
Equipment	WIFI Display Receiver
Brand Name	ALCATEL
Model Name	one touch V100
FCC ID	RAD365
EUT supports Radios application	WLAN 11abgn
HW Version	PCB V3.0
SW Version	V1.9.1
EUT Stage	Identical Prototype

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

### 1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard			
<b>Tx/Rx Channel Frequency Range</b>	802.11b/g/n : 2412 MHz ~ 2462 MHz 802.11a/n: 5745~5805MHz.		
<b>Maximum Output Power to Antenna</b>	<b>&lt;2412 MHz ~ 2462 MHz&gt;</b> 802.11b for Ant. Chain 0 : 20.32 dBm (0.1076 W) 802.11g for Ant. Chain 0 : 24.18 dBm (0.2618 W) 802.11n HT20 for Ant. Chain 0 : 23.36 dBm (0.2168 W) 802.11n HT40 for Ant. Chain 0 : 22.27 dBm (0.1687 W) 802.11n HT20 for Ant. Chain 0+1 : 25.09 dBm (0.3228 W) 802.11n HT40 for Ant. Chain 0+1 : 24.06 dBm (0.2457 W) <b>&lt;5745 MHz ~ 5805 MHz&gt;</b> 802.11a for Ant. Chain 0 : 20.41 dBm (0.1099 W) 802.11n HT20 for Ant. Chain 0 : 20.27 dBm (0.1064 W) 802.11n HT40 for Ant. Chain 0 : 19.38 dBm (0.0867 W) 802.11n HT20 for Ant. Chain 0+1 : 23.14 dBm (0.2061 W) 802.11n HT40 for Ant. Chain 0+1 : 22.42 dBm (0.1746 W)		
<b>Antenna Type</b>	802.11b/g/n : Chip Antenna type with gain -4.7 dBi 802.11a/n : Chip Antenna type with gain -3.10 dBi		
<b>Type of Modulation</b>	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)		
<b>Antenna Function for Transmitter</b>		Ant 0.	Ant 1.
	802.11 b	V	V
	802.11 g	V	V
	802.11 a	V	V
	802.11 n MIMO	V	V
Note: MIMO mode is uncorrelated.			

### 1.5 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.6 Testing Site

<b>Test Site</b>	SPORTON INTERNATIONAL (SHENZHEN) INC.			
<b>Test Site Location</b>	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755-3320-2398			
<b>Test Site No.</b>	<b>Sporton Site No.</b>			<b>FCC/IC Registration No.</b>
	TH01-SZ	CO01-SZ	03CH01-SZ	831040/4086F-1

**Note:** The test site complies with ANSI C63.4 2003 requirement.

## 1.7 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01
- FCC KDB 662911 D01 Multiple Transmitter Output v01r02.
- ANSI C63.10-2009

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

## 2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conducted emission (150 kHz to 30 MHz) and radiated emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

The final configuration from all the combinations and the worst-case data rates were investigated by measuring the maximum power across all the data rates and modulation modes under section 2.2.

Based on the worst configuration found above, the RF power setting is set individually to meet FCC compliance limit for the final conducted and radiated tests shown in section 2.3.

### 2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437	-	-

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4	149	5745	159	5795
	151	5755	161	5805
	157	5785	-	-



## 2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate as following table and the highest (peak) power data rates were chosen for full test in the following tables.

Ch.	Freq. (MHz)	Ant. Chain	802.11b RF Power (dBm)			
			DSSS Data Rate			
			1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412	Ant.0	20.17	20.02	19.83	19.99
CH 06	2437		20.22	20.05	20.08	20.06
CH 11	2462		<b>20.32</b>	20.18	20.21	20.10
CH 01	2412	Ant.1	19.93	19.77	19.51	19.54
CH 06	2437		20.28	19.77	20.20	19.85
CH 11	2462		20.02	19.91	19.82	20.05

Ch.	Freq. (MHz)	Ant. Chain	802.11g RF Power (dBm)							
			OFDM Data Rate							
			6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412	Ant.0	<b>24.18</b>	23.92	23.91	23.85	23.71	23.97	23.95	23.71
CH 06	2437		24.10	24.13	24.01	23.92	23.83	23.96	23.94	23.88
CH 11	2462		23.97	23.86	23.8	23.69	23.84	23.76	23.76	23.79
CH 01	2412	Ant.1	24.16	24.13	23.98	23.94	23.81	23.97	23.81	23.96
CH 06	2437		24.05	23.88	23.60	23.85	23.34	23.38	23.66	23.41
CH 11	2462		24.11	23.67	23.74	23.71	23.86	23.41	23.90	23.73



Ch.	Freq. (MHz)	Ant. Chain	WLAN 2.4GHz 802.11n HT-20 RF Power (dBm)							
			OFDM Data Rate							
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 01	2412	SISO Ant.0	22.84	22.58	21.94	21.98	22.21	21.99	21.89	22.12
CH 06	2437		22.62	22.33	22.20	21.96	22.16	22.10	22.25	22.23
CH 11	2462		<b>23.36</b>	22.72	22.75	22.68	22.59	22.51	22.64	22.62
CH 01	2412	SISO Ant.1	21.95	21.69	21.46	21.12	21.14	21.21	21.13	21.15
CH 06	2437		22.08	21.96	21.89	21.9	21.78	21.62	21.65	21.69
CH 11	2462		21.98	21.96	21.8	21.94	21.84	21.67	21.91	21.85
Ch.	Freq. (MHz)	Ant. Chain	13 Mbps	26 Mbps	39 Mbps	52 Mbps	78 Mbps	104 Mbps	117 Mbps	130 Mbps
CH 01	2412	MIMO Ant.0+1(0)	<b>22.53</b>	22.46	22.48	22.43	22.35	22.29	22.25	22.21
CH 06	2437		22.13	22.11	22.10	22.08	22.09	22.08	22.09	22.06
CH 11	2462		21.95	21.93	21.92	21.90	21.89	21.89	21.88	21.87
CH 01	2412	MIMO Ant.0+1(1)	<b>21.58</b>	21.52	21.45	21.36	21.29	21.21	21.13	20.95
CH 06	2437		21.28	21.16	21.09	21.01	20.94	20.87	20.79	20.74
CH 11	2462		20.77	20.70	20.65	20.61	20.53	20.49	20.46	20.40
CH 01	2412	MIMO Ant.0+1	<b>25.09</b>	25.03	25.01	24.94	24.86	24.79	24.74	24.64
CH 06	2437		24.74	24.67	24.63	24.59	24.56	24.53	24.50	24.46
CH 11	2462		24.41	24.37	24.34	24.31	24.27	24.26	24.24	24.21



Ch.	Freq. (MHz)	Ant. Chain	WLAN 2.4GHz 802.11n HT-40 RF Power (dBm)							
			OFDM Data Rate							
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135 Mbps
CH 03	2422	SISO Ant.0	21.85	21.67	21.75	21.67	21.78	21.57	21.79	21.77
CH 06	2437		<b>22.27</b>	22.22	22.15	22.24	22.26	22.05	22.04	21.95
CH 09	2452		22.16	22.07	22.2	22.13	22.07	22.07	22.06	22.07
CH 03	2422	SISO Ant.1	21.36	21.17	21.1	21.03	20.97	21.12	21.03	21.07
CH 06	2437		21.47	21.22	21.34	21.04	21.25	21.36	21.07	20.92
CH 09	2452		21.23	21.22	21.32	21.28	21.03	21.12	21.22	21.06
Ch.	Freq. (MHz)	Ant. Chain	27 Mbps	54 Mbps	81 Mbps	108 Mbps	162 Mbps	216 Mbps	243 Mbps	270 Mbps
CH 03	2422	MIMO Ant.0+1(0)	<b>21.20</b>	21.17	21.10	21.05	20.98	20.92	20.85	20.78
CH 06	2437		20.94	20.88	20.81	20.73	20.68	20.65	20.61	20.57
CH 09	2452		20.71	20.65	20.56	20.43	20.31	20.19	20.05	19.92
CH 03	2422	MIMO Ant.0+1(1)	<b>20.90</b>	20.83	20.67	20.53	20.48	20.42	20.40	20.35
CH 06	2437		20.46	20.38	20.31	20.25	20.19	20.14	20.10	20.07
CH 09	2452		19.92	19.85	19.78	19.75	19.69	19.64	19.56	19.45
CH 03	2422	MIMO Ant.0+1	<b>24.06</b>	24.01	23.90	23.81	23.75	23.69	23.64	23.58
CH 06	2437		23.72	23.65	23.58	23.51	23.45	23.41	23.37	23.34
CH 09	2452		23.34	23.28	23.20	23.11	23.02	22.93	22.82	22.70



Ch.	Freq. (MHz)	Ant. Chain	802.11a RF Power (dBm)							
			OFDM Data Rate							
			6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 149	5745	Ant.0	20.41	19.53	19.56	19.62	19.09	19.56	19.47	19.04
CH 157	5785		19.97	18.93	19.06	19.09	18.97	19.69	19.39	19.37
CH 161	5805		20.39	19.65	19.37	19.71	19.07	19.58	19.66	19.01
CH 149	5745	Ant.1	20.15	19.87	19.27	19.02	19.15	19.21	19.17	19.28
CH 157	5785		19.93	20.12	19.82	19.63	19.81	19.48	19.44	19.29
CH 161	5805		19.63	19.58	19.05	19.13	19.11	19.22	19.03	19.22

Ch.	Freq. (MHz)	Ant. Chain	WLAN 5.8GHz 802.11n HT-20 RF Power (dBm)							
			OFDM Data Rate							
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 149	5745	SISO Ant.0	19.77	19.29	19.53	19.09	19.26	19.01	19.33	18.79
CH 157	5785		19.31	19.25	19.01	18.91	18.69	18.93	19.07	19.13
CH 161	5805		20.27	19.97	19.56	19.68	19.62	19.37	19.42	19.62
CH 149	5745	SISO Ant.1	19.87	19.32	19.19	18.95	18.73	18.76	19.17	19.21
CH 157	5785		19.87	19.32	19.18	19.49	19.41	18.57	19.51	18.98
CH 161	5805		19.71	19.38	19.16	18.92	19.24	18.84	19.00	19.45
Ch.	Freq. (MHz)	Ant. Chain	13 Mbps	26 Mbps	39 Mbps	52 Mbps	78 Mbps	104 Mbps	117 Mbps	130 Mbps
CH 149	5745	MIMO Ant.0+1(0)	20.14	20.06	20.01	19.95	19.91	19.87	19.82	19.75
CH 157	5785		19.95	19.87	19.79	19.71	19.65	19.56	19.48	19.41
CH 161	5805		19.20	19.15	19.08	19.01	18.96	18.93	18.90	18.86
CH 149	5745	MIMO Ant.0+1(1)	20.11	20.08	20.05	19.98	19.94	19.88	19.72	19.65
CH 157	5785		19.95	19.83	19.69	19.62	19.55	19.49	19.41	19.37
CH 161	5805		19.83	19.68	19.51	19.35	19.21	19.01	18.88	18.56
CH 149	5745	MIMO Ant.0+1	23.14	23.08	23.04	22.98	22.94	22.89	22.78	22.71
CH 157	5785		22.96	22.86	22.75	22.68	22.61	22.54	22.46	22.40
CH 161	5805		22.54	22.43	22.31	22.19	22.10	21.98	21.90	21.72



Ch.	Freq. (MHz)	Ant. Chain	WLAN 5.8GHz 802.11n HT-40 RF Power (dBm)							
			OFDM Data Rate							
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135 Mbps
CH 151	5755	SISO Ant.0	19.27	18.57	18.99	18.76	18.59	19.22	18.96	18.92
CH 159	5795		19.38	19.22	18.56	19.35	19.31	18.65	19.27	18.59
CH 151	5755	SISO Ant.1	19.25	19.22	19.26	18.95	19.01	19.05	19.18	18.72
CH 159	5795		19.27	19.12	19.04	19.22	19.22	19.21	19.24	19.18
Ch.	Freq. (MHz)	Ant. Chain	27 Mbps	54 Mbps	81 Mbps	108 Mbps	162 Mbps	216 Mbps	243 Mbps	270 Mbps
CH 151	5755	MIMO Ant.0+1(0)	19.48	19.43	19.39	19.36	19.32	19.3	19.27	19.24
CH 159	5795		19.12	19.08	19.05	19.01	18.98	18.96	18.95	18.92
CH 151	5755	MIMO Ant.0+1(1)	19.34	19.30	19.27	19.23	19.21	19.19	19.17	19.15
CH 159	5795		18.97	18.95	18.93	18.92	18.9	18.91	18.89	18.87
CH 151	5755	MIMO Ant.0+1	22.42	22.38	22.34	22.31	22.28	22.26	22.23	22.21
CH 159	5795		22.06	22.03	22.00	21.98	21.95	21.95	21.93	21.91

Note: MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).



### 2.3 Test Mode

Final results of test modes, data rates and test channels are shown as following table.

<2.4GHz>

Test Cases					
Conducted TCs	Test Items	Mode	Data Rate	Test Channel	Remark
		6dB BW Power Spectral Density	802.11b	1 Mbps	1/6/11
802.11g			6 Mbps	1/6/11	Ant.0
802.11n HT20			6.5 Mbps	1/6/11	SISO Ant.0
802.11n HT20			13 Mbps	1/6/11	MIMO Ant.0+1(0)
802.11n HT20			13 Mbps	1/6/11	MIMO Ant.0+1(1)
802.11n HT40			13.5 Mbps	3/6/9	SISO Ant.0
802.11n HT40			27 Mbps	3/6/9	MIMO Ant.0+1(0)
802.11n HT40			27 Mbps	3/6/9	MIMO Ant.0+1(1)
Output Power		802.11b	1 Mbps	1/6/11	Ant.0
		802.11b	1 Mbps	1/6/11	Ant.1
		802.11g	6 Mbps	1/6/11	Ant.0
		802.11g	6 Mbps	1/6/11	Ant.1
		802.11n HT20	6.5 Mbps	1/6/11	SISO Ant.0
		802.11n HT20	6.5 Mbps	1/6/11	SISO Ant.1
		802.11n HT20	13 Mbps	1/6/11	MIMO Ant.0+1(0)
		802.11n HT20	13 Mbps	1/6/11	MIMO Ant.0+1(1)
		802.11n HT40	13.5 Mbps	3/6/9	SISO Ant.0
		802.11n HT40	13.5 Mbps	3/6/9	SISO Ant.1
Conducted Band Edge		802.11b	1 Mbps	1/11	Ant.0
		802.11g	6 Mbps	1/11	Ant.0
		802.11n HT20	6.5 Mbps	1/11	SISO Ant.0
		802.11n HT20	13 Mbps	1/11	MIMO Ant.0+1(0)
		802.11n HT20	13 Mbps	1/11	MIMO Ant.0+1(1)
		802.11n HT40	13.5 Mbps	3/9	SISO Ant.0
		802.11n HT40	27 Mbps	3/9	MIMO Ant.0+1(0)
		802.11n HT40	27 Mbps	3/9	MIMO Ant.0+1(1)
Conducted Spurious Emission		802.11b	1 Mbps	1/6/11	Ant.0
		802.11g	6 Mbps	1/6/11	Ant.0
	802.11n HT20	6.5 Mbps	1/6/11	SISO Ant.0	
	802.11n HT20	13 Mbps	1/6/11	MIMO Ant.0+1(0)	
	802.11n HT20	13 Mbps	1/6/11	MIMO Ant.0+1(1)	
	802.11n HT40	13.5 Mbps	3/6/9	SISO Ant.0	
	802.11n HT40	27 Mbps	3/6/9	MIMO Ant.0+1(0)	
	802.11n HT40	27 Mbps	3/6/9	MIMO Ant.0+1(1)	



	Test Items	Mode	Data Rate	Test Channel	Remark
Radiated TCs	Radiated Band Edge	802.11b	1 Mbps	1/11	Ant.0
		802.11g	6 Mbps	1/11	Ant.0
		802.11n HT20	6.5 Mbps	1/11	SISO Ant.0
		802.11n HT20	13 Mbps	1/11	MIMO Ant.0+1
		802.11n HT40	13.5 Mbps	3/9	SISO Ant.0
		802.11n HT40	27 Mbps	3/9	MIMO Ant.0+1
	Radiated Spurious Emission	802.11b	1 Mbps	1/6/11	Ant.0
		802.11g	6 Mbps	1/6/11	Ant.0
		802.11n HT20	6.5 Mbps	1/6/11	SISO Ant.0
		802.11n HT20	13 Mbps	1/6/11	MIMO Ant.0+1
		802.11n HT40	13.5 Mbps	3/6/9	SISO Ant.0
		802.11n HT40	27 Mbps	3/6/9	MIMO Ant.0+1



<5GHz>

		Test Cases			
	Test Items	Mode	Data Rate	Test Channel	Remark
Conducted TCs	6dB BW Power Spectral Density	802.11a	6 Mbps	149/157/161	Ant.0
		802.11n HT20	6.5 Mbps	149/157/161	SISO Ant.0
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1(0)
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1(1)
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.0
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1(0)
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1(1)
	Output Power	802.11a	6 Mbps	149/157/161	Ant.0
		802.11a	6 Mbps	149/157/161	Ant.1
		802.11n HT20	6.5 Mbps	149/157/161	SISO Ant.0
		802.11n HT20	6.5 Mbps	149/157/161	SISO Ant.1
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1(0)
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1(1)
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.0
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.1
	Conducted Band Edge	802.11a	6 Mbps	149/161	Ant.0
		802.11n HT20	6.5 Mbps	149/161	SISO Ant.0
		802.11n HT20	13 Mbps	149/161	MIMO Ant.0+1(0)
		802.11n HT20	13 Mbps	149/161	MIMO Ant.0+1(1)
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.0
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1(0)
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1(1)
	Conducted Spurious Emission	802.11a	6 Mbps	149/157/161	Ant.0
		802.11n HT20	6.5 Mbps	149/157/161	SISO Ant.0
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1(0)
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1(1)
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.0
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1(0)
802.11n HT40		27 Mbps	151/159	MIMO Ant.0+1(1)	
Radiated TCs	Radiated Band Edge	802.11a	6 Mbps	149/161	Ant.0
		802.11n HT20	6.5 Mbps	149/161	SISO Ant.0
		802.11n HT20	13 Mbps	149/161	MIMO Ant.0+1
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.0
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1
	Radiated Spurious Emission	802.11a	6 Mbps	149/157/161	Ant.0
		802.11n HT20	6.5 Mbps	149/157/161	SISO Ant.0
		802.11n HT20	13 Mbps	149/157/161	MIMO Ant.0+1
		802.11n HT40	13.5 Mbps	151/159	SISO Ant.0
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1
		802.11n HT40	27 Mbps	151/159	MIMO Ant.0+1

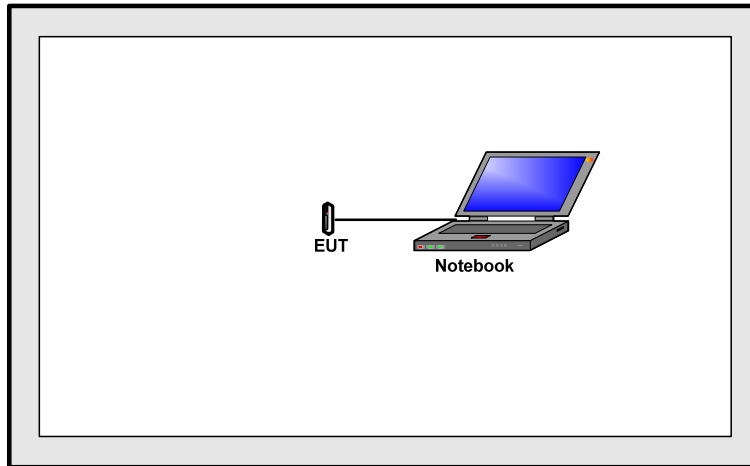




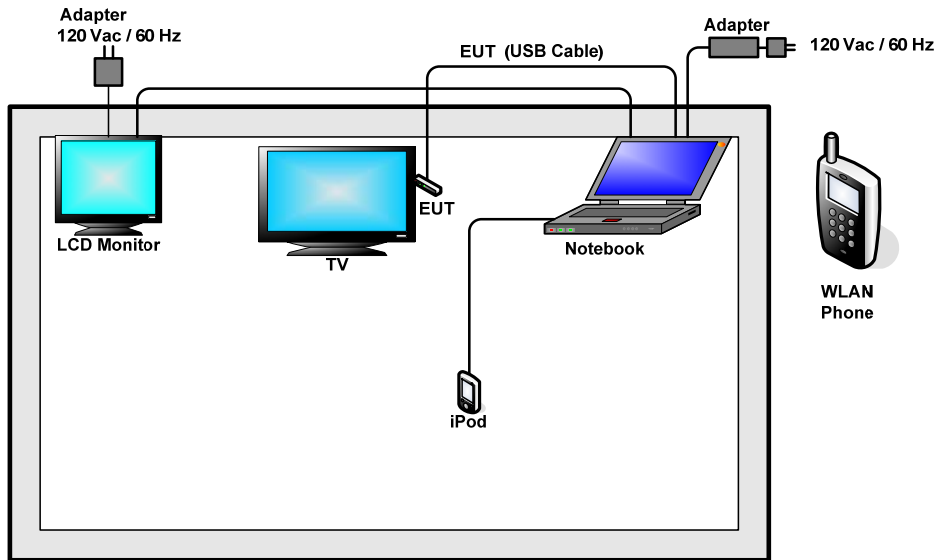
<b>Test Cases</b>	
<b>AC Conducted</b>	Mode 1 : WLAN 2.4GHz Link + HDMI port (Connected to the TV) + USB Cable (Charging from Notebook) <Fig.1>
<b>Emission</b>	Mode 2 : WLAN 5GHz Link + HDMI adapter + USB Cable (Charging from Notebook) + HDMI Cable (Connected to the TV) <Fig.2>
<b>Remark:</b> The worst case of conducted emission is mode 1; only the test data of it is reported.	

## 2.4 Connection Diagram of Test System

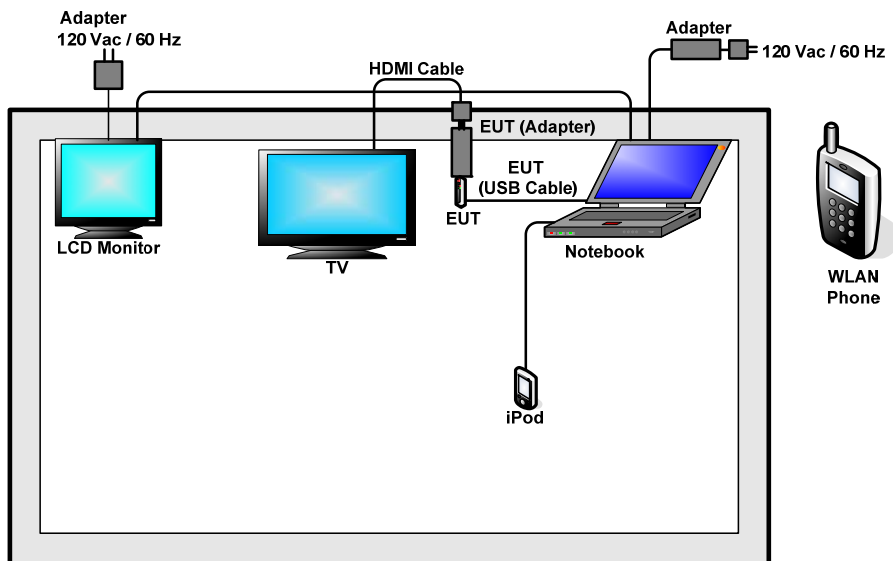
<WLAN Tx Mode>



<AC Conducted Emission Mode>



<Fig.1>



<Fig.2>

## 2.5 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	TOPWORD	3303DR	N/A	N/A	Unshielded, 1.8 m
2.	WLAN Phone	TCL	P600	N/A	N/A	N/A
3.	Notebook	DELL	P08S	QDS-BRCM1030	N/A	AC I/P: Unshielded, 0.9 m DC O/P: Shielded, 1.8 m
4.	Notebook	DELL	VOSTRO1440	FCC DoC	N/A	Shielded, 1.8 m
5.	Monitor	DELL	1707FPt	FCC DoC	Shielded, 1.2 m	Unshielded, 1.8 m
6.	iPod	Apple	MC525 ZP/A	FCC DoC	shielded, 1.0 m	N/A
7.	HDMI Cable	N/A	N/A	N/A	N/A	N/A

## 2.6 EUT Operation Test Setup

For WLAN function, turn on the software of Manual Tool to make the EUT provides functions like channel selection and power level for continuous transmitting and receiving signals.

For AC power line conducted emissions, the EUT was set to connect with the WLAN Phone under large package sizes transmission.

## 2.7 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 7.5 dB and 10dB attenuator.

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 7.5 + 10 = 17.5 \text{ (dB)} \end{aligned}$$

### 3 Test Result

#### 3.1 6dB Bandwidth Measurement

##### 3.1.1 Limit of 6dB Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

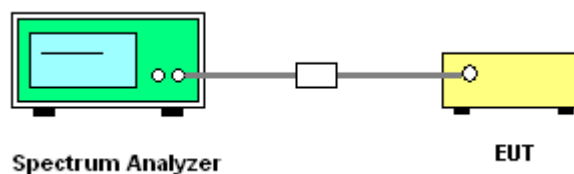
##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v03r01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
5. Measure and record the results in the test report.

##### 3.1.4 Test Setup





3.1.5 Test Result of 6dB Bandwidth

Test Mode :	802.11b	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Ant.0		
01	2412	8.08	0.5	Pass
06	2437	8.58	0.5	Pass
11	2462	8.08	0.5	Pass

Test Mode :	802.11g	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Ant.0		
01	2412	15.10	0.5	Pass
06	2437	15.10	0.5	Pass
11	2462	15.08	0.5	Pass



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 6dB Bandwidth (MHz)			6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		SISO Ant. 0	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)		
01	2412	15.08	15.08	15.08	0.5	Pass
06	2437	15.08	15.08	16.04	0.5	Pass
11	2462	15.06	15.08	15.68	0.5	Pass

Test Mode :	2.4GHz 802.11n HT40	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4GHz 802.11n HT40 6dB Bandwidth (MHz)			6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		SISO Ant. 0	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)		
03	2422	36.28	36.40	36.32	0.5	Pass
06	2437	36.24	35.68	36.28	0.5	Pass
09	2452	36.32	36.32	36.32	0.5	Pass





Test Mode :	802.11a	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11a 6dB Bandwidth (MHz)			6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Ant.0				
149	5745	15.32			0.5	Pass
157	5785	15.62			0.5	Pass
161	5805	15.62			0.5	Pass

Test Mode :	5GHz 802.11n HT20	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5GHz 802.11n HT20 6dB Bandwidth (MHz)			6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		SISO Ant. 0	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)		
149	5745	15.48	15.32	16.28	0.5	Pass
157	5785	15.16	15.46	16.28	0.5	Pass
161	5805	15.12	15.44	16.32	0.5	Pass

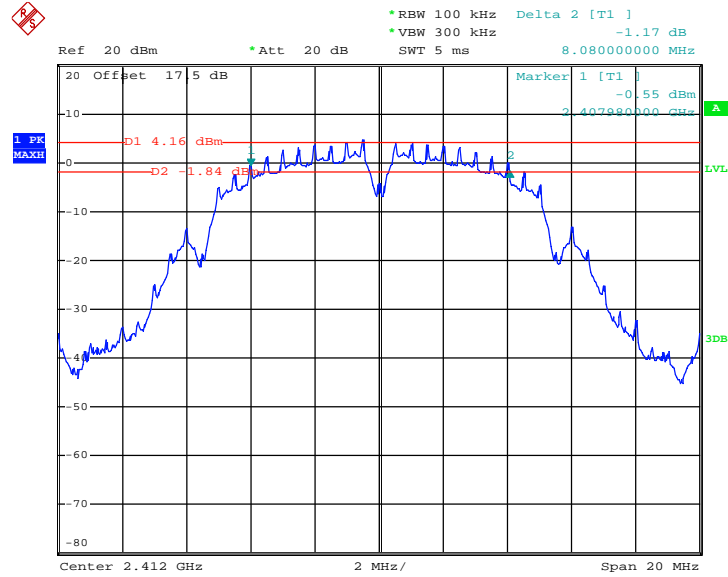
Test Mode :	5GHz 802.11n HT40	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5GHz 802.11n HT40 6dB Bandwidth (MHz)			6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		SISO Ant. 0	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)		
151	5755	36.08	35.76	36.32	0.5	Pass
159	5795	36.32	36.00	36.32	0.5	Pass

### 3.1.6 Test Result of 6dB Bandwidth Plots

802.11b - Ant.0

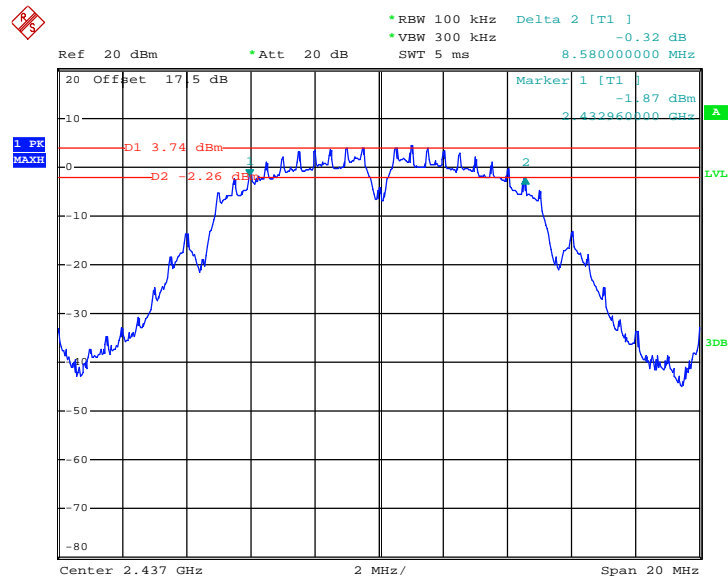
6 dB Bandwidth Plot on Channel 01



Date: 7.MAR.2013 13:56:25

802.11b - Ant.0

6 dB Bandwidth Plot on Channel 06

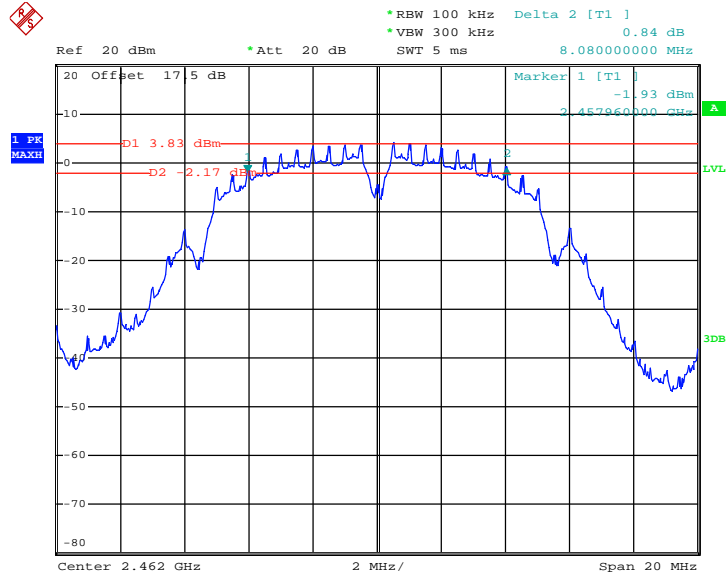


Date: 7.MAR.2013 14:00:50



802.11b - Ant.0

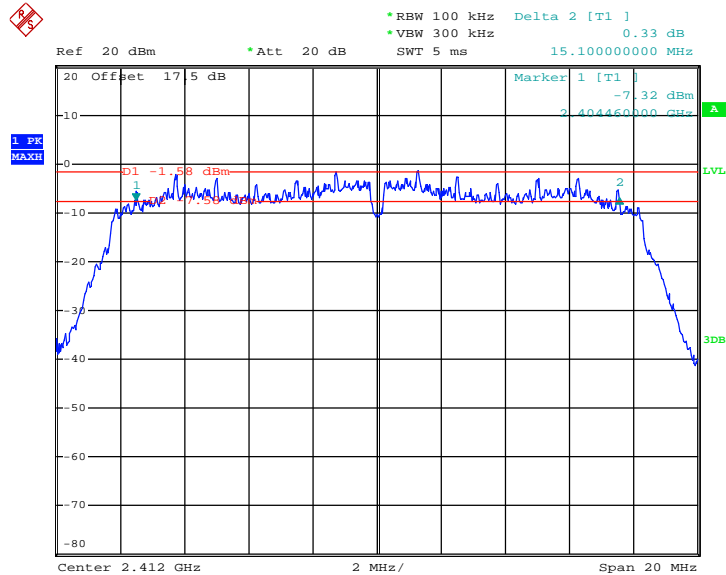
6 dB Bandwidth Plot on Channel 11



Date: 7.MAR.2013 14:03:44

802.11g - Ant.0

6 dB Bandwidth Plot on Channel 01

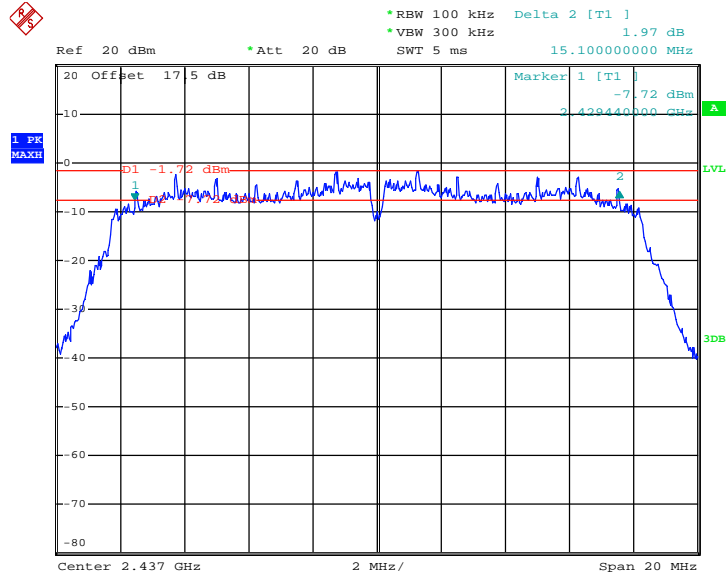


Date: 7.MAR.2013 14:09:45



802.11g - Ant.0

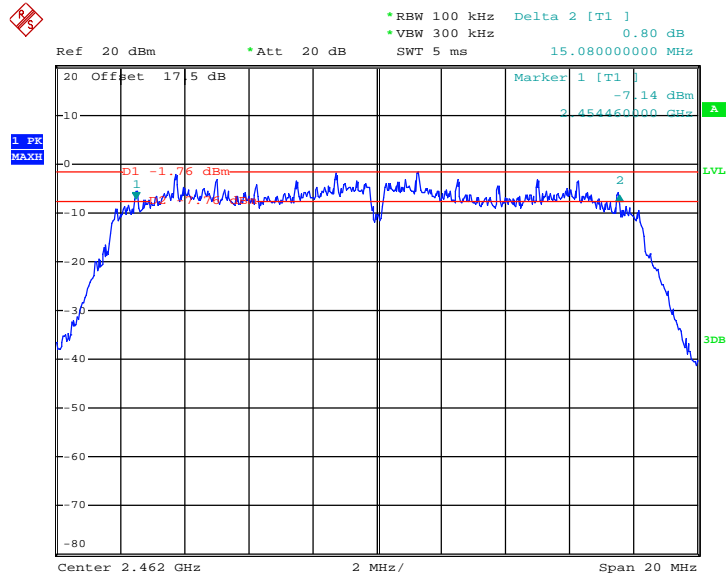
6 dB Bandwidth Plot on Channel 06



Date: 7.MAR.2013 14:12:42

802.11g - Ant.0

6 dB Bandwidth Plot on Channel 11

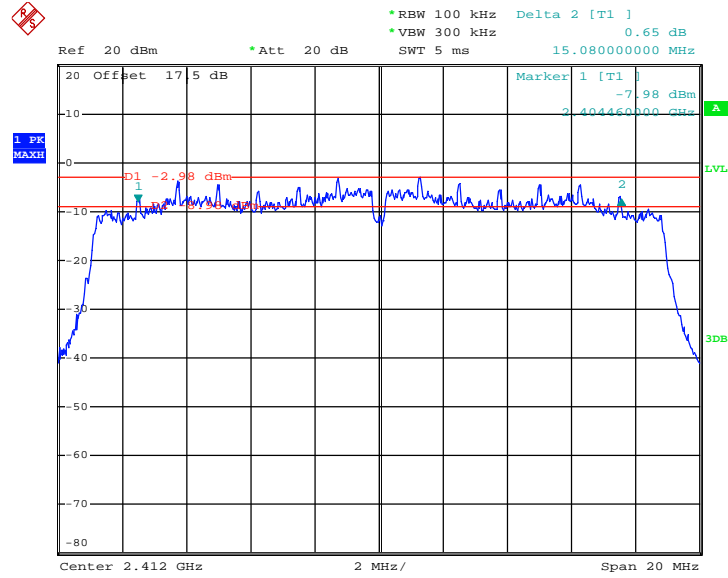


Date: 7.MAR.2013 14:15:57



2.4GHz 802.11n HT20 - SISO Ant.0

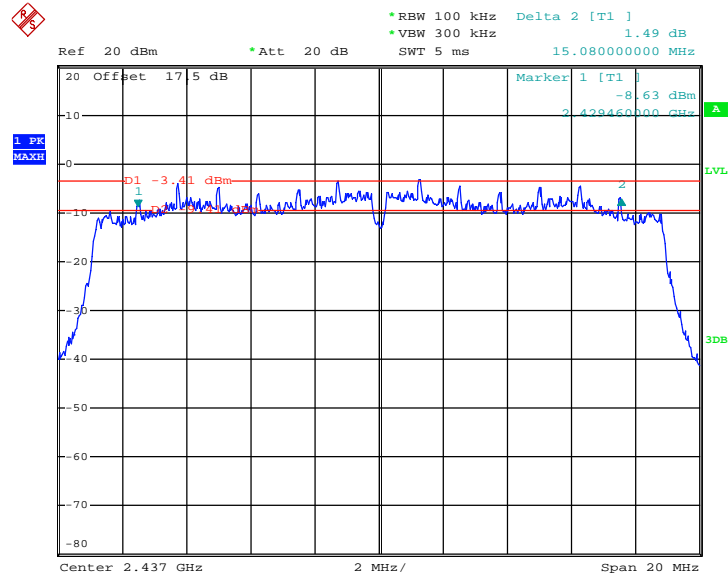
6 dB Bandwidth Plot on Channel 01



Date: 7.MAR.2013 14:20:09

2.4GHz 802.11n HT20 - SISO Ant.0

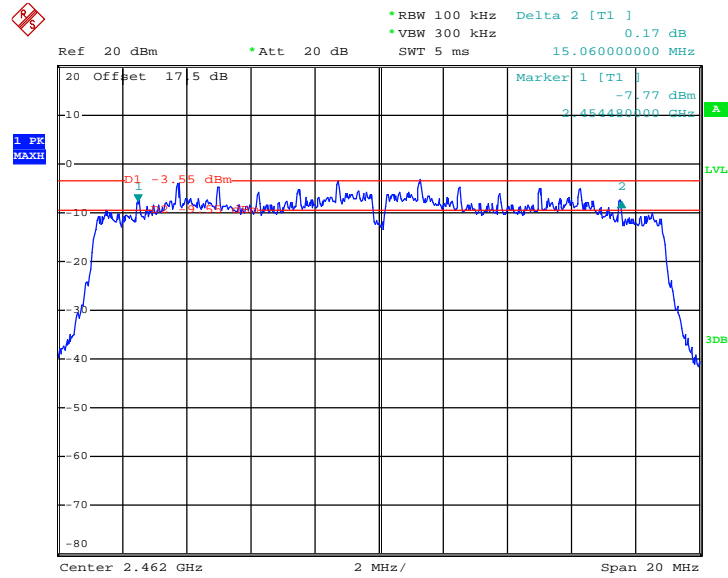
6 dB Bandwidth Plot on Channel 06



Date: 7.MAR.2013 14:23:43

2.4GHz 802.11n HT20 - SISO Ant.0

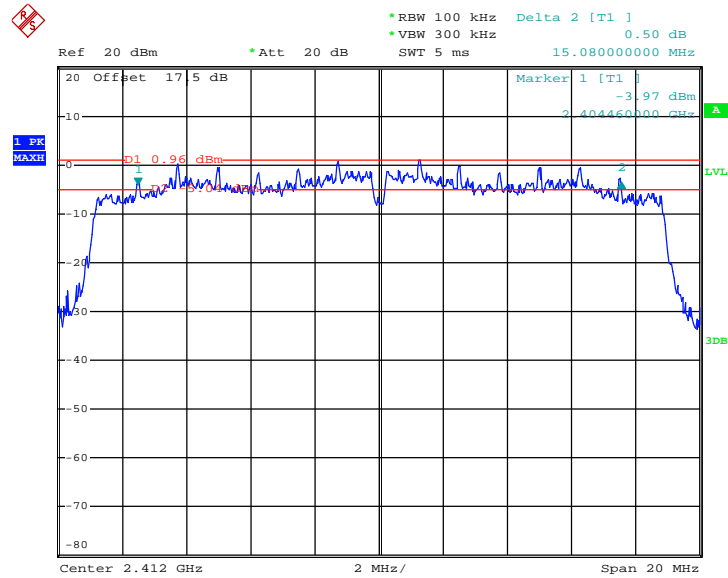
6 dB Bandwidth Plot on Channel 11



Date: 7.MAR.2013 14:26:47

2.4GHz 802.11n HT20 - MIMO Ant.0+1(0)

6 dB Bandwidth Plot on Channel 01

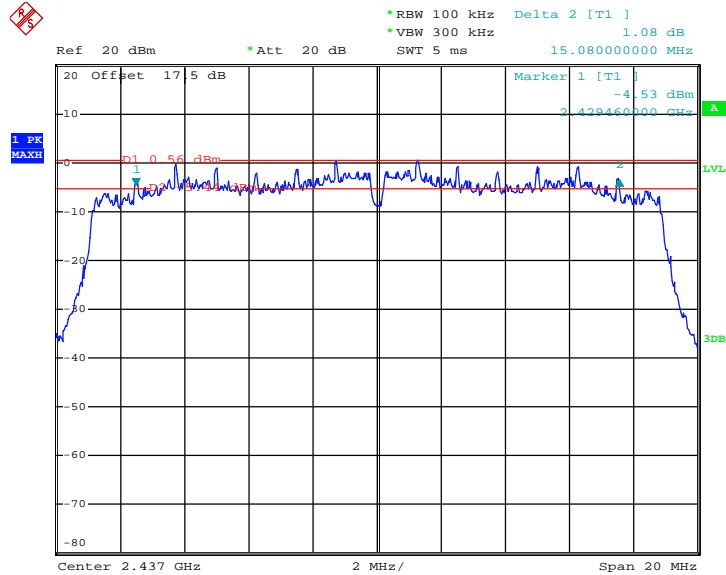


Date: 7.JUL.2013 16:29:37



2.4GHz 802.11n HT20 - MIMO Ant.0+1(0)

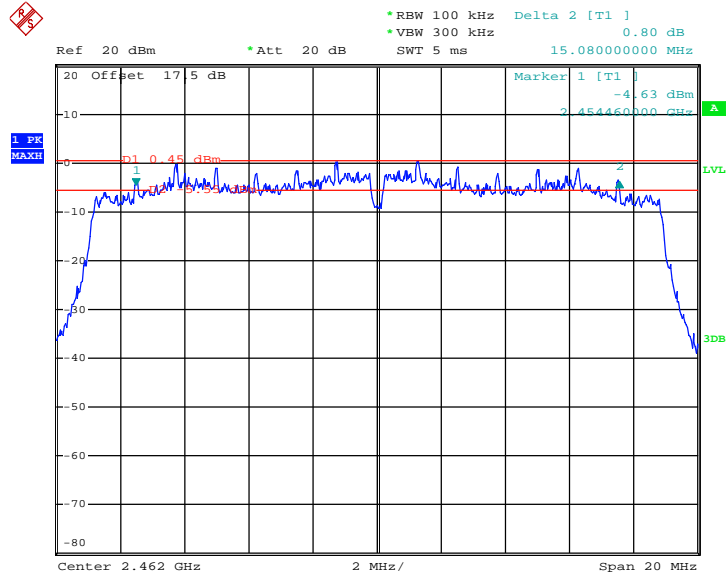
6 dB Bandwidth Plot on Channel 06



Date: 7.JUL.2013 16:40:19

2.4GHz 802.11n HT20 - MIMO Ant.0+1(0)

6 dB Bandwidth Plot on Channel 11

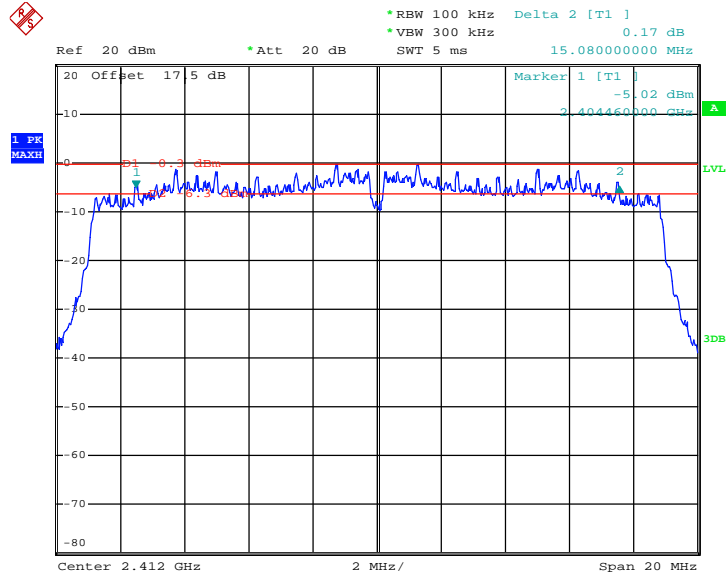


Date: 7.JUL.2013 16:45:47



2.4GHz 802.11n HT20 - MIMO Ant.0+1(1)

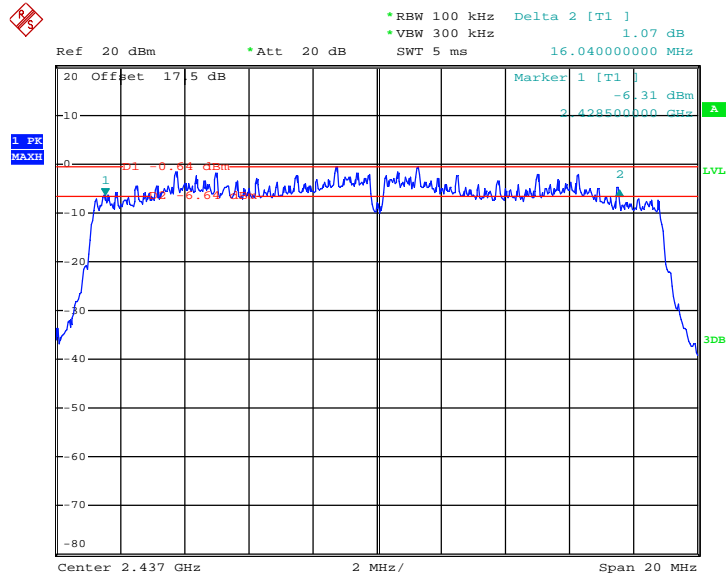
6 dB Bandwidth Plot on Channel 01



Date: 7.JUL.2013 16:53:11

2.4GHz 802.11n HT20 - MIMO Ant.0+1(1)

6 dB Bandwidth Plot on Channel 06



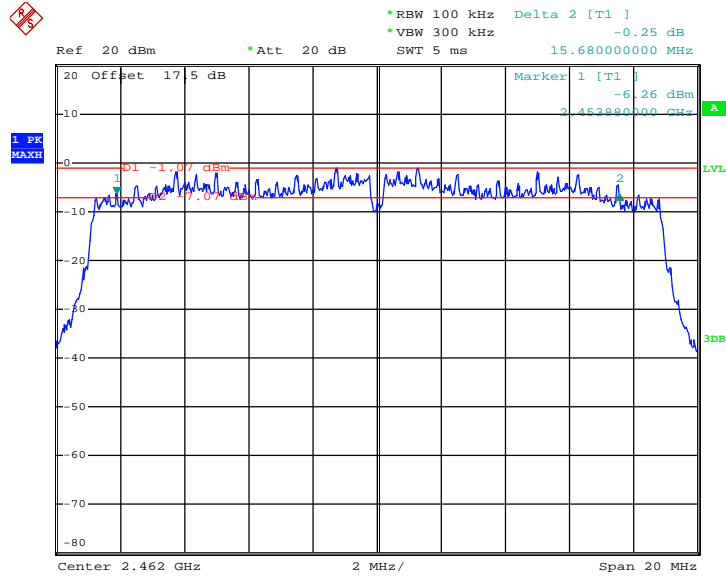
Date: 7.JUL.2013 16:58:21





2.4GHz 802.11n HT20 - MIMO Ant.0+1(1)

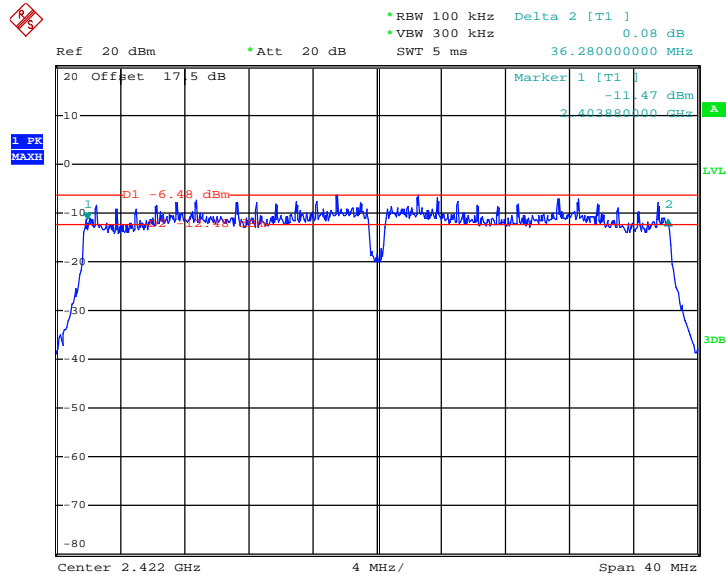
6 dB Bandwidth Plot on Channel 11



Date: 7.JUL.2013 17:02:16

2.4GHz 802.11n HT40 - SISO Ant.0

6 dB Bandwidth Plot on Channel 03

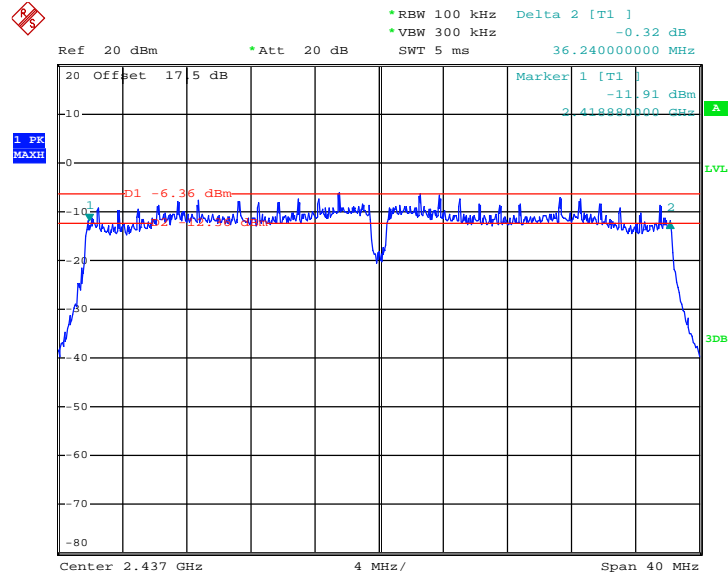


Date: 7.MAR.2013 14:42:20



2.4GHz 802.11n HT40 - SISO Ant.0

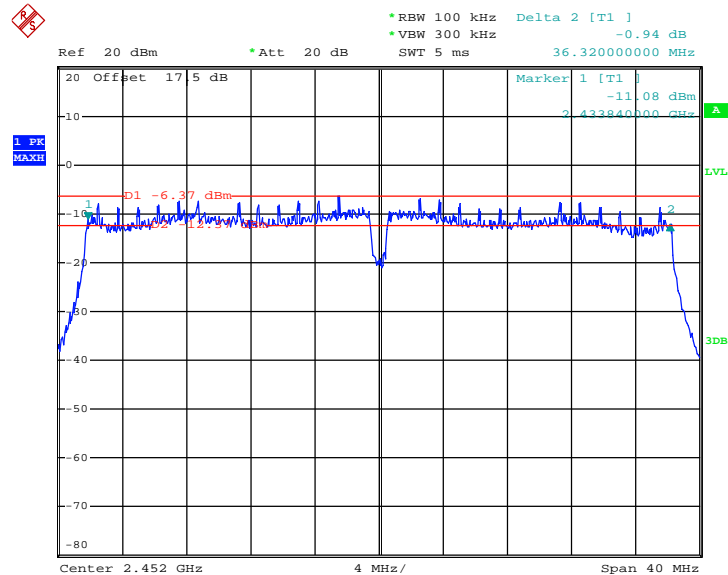
6 dB Bandwidth Plot on Channel 06



Date: 7.MAR.2013 14:49:22

2.4GHz 802.11n HT40 - SISO Ant.0

6 dB Bandwidth Plot on Channel 09

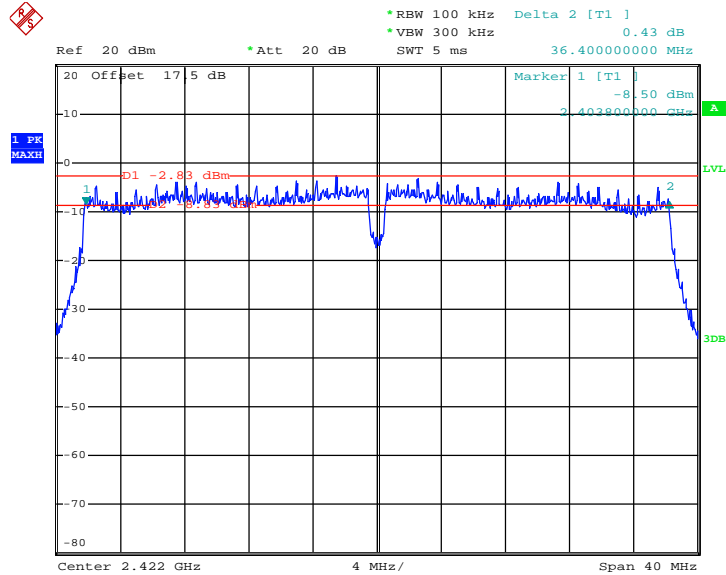


Date: 7.MAR.2013 14:54:04



2.4GHz 802.11n HT40 - MIMO Ant.0+1(0)

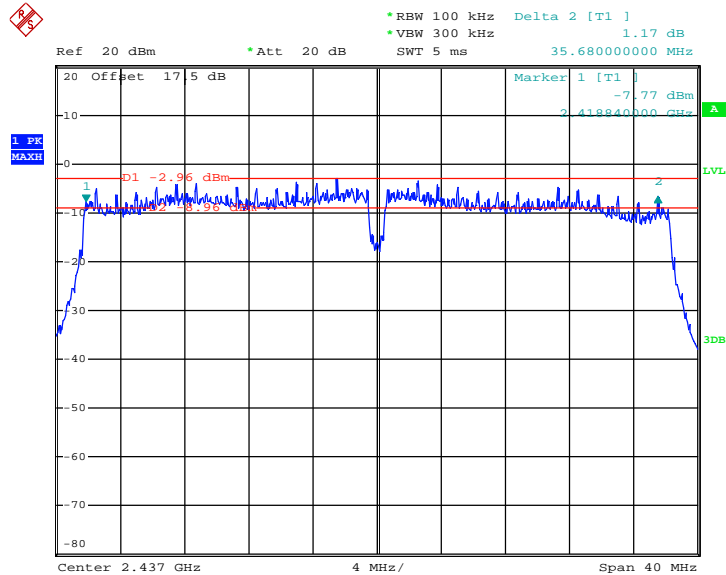
6 dB Bandwidth Plot on Channel 03



Date: 7.JUL.2013 17:08:34

2.4GHz 802.11n HT40 - MIMO Ant.0+1(0)

6 dB Bandwidth Plot on Channel 06

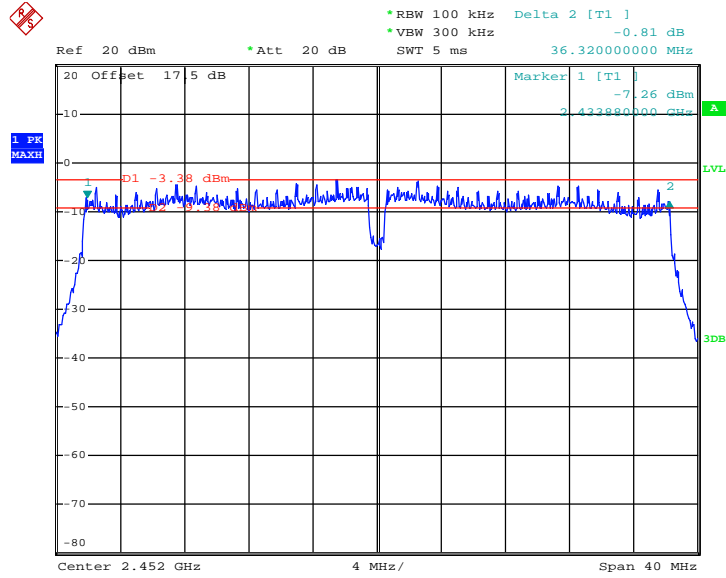


Date: 7.JUL.2013 17:12:40



2.4GHz 802.11n HT40 - MIMO Ant.0+1(0)

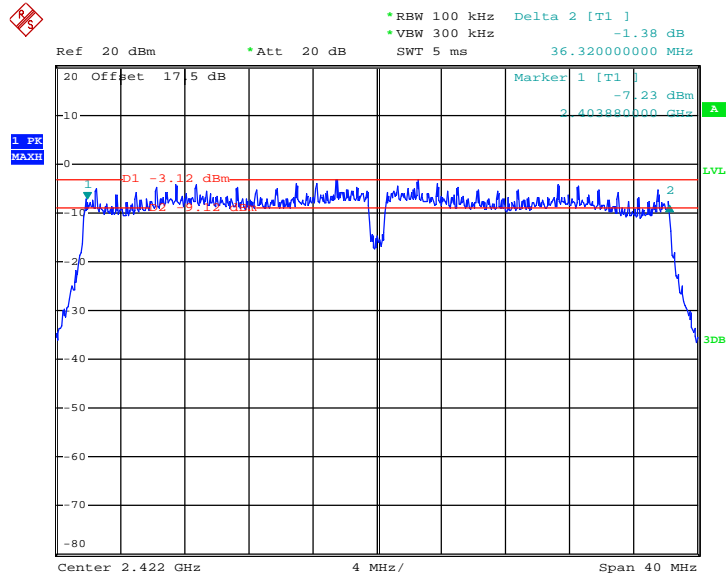
6 dB Bandwidth Plot on Channel 09



Date: 7.JUL.2013 17:17:31

2.4GHz 802.11n HT40 - MIMO Ant.0+1(1)

6 dB Bandwidth Plot on Channel 03

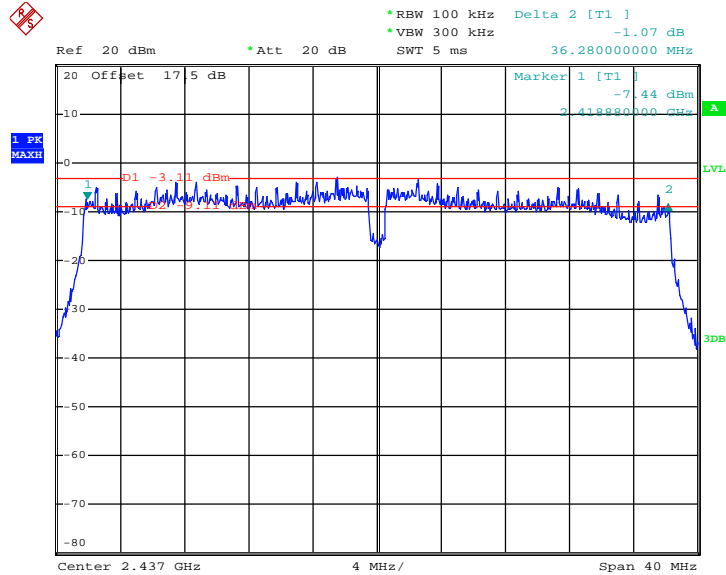


Date: 7.JUL.2013 17:23:04



2.4GHz 802.11n HT40 - MIMO Ant.0+1(1)

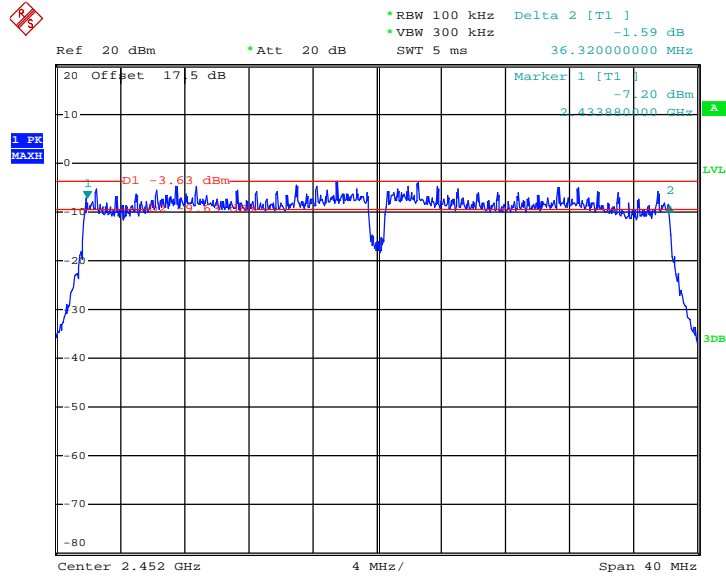
6 dB Bandwidth Plot on Channel 06



Date: 7.JUL.2013 17:26:54

2.4GHz 802.11n HT40 - MIMO Ant.0+1(1)

6 dB Bandwidth Plot on Channel 09

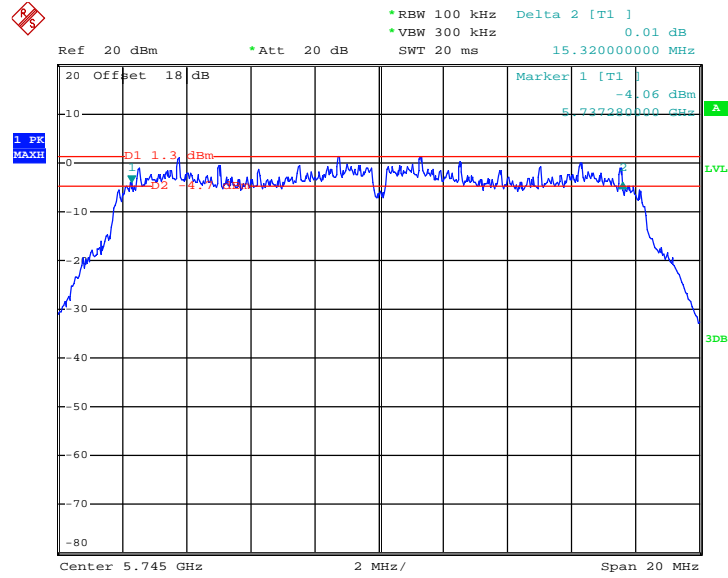


Date: 7.JUL.2013 17:32:23



802.11a - Ant.0

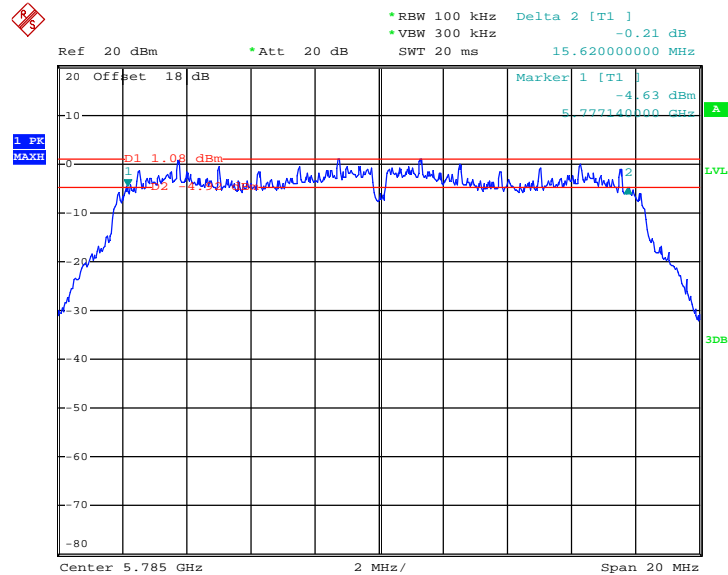
6 dB Bandwidth Plot on Channel 149



Date: 7.MAR.2013 15:06:19

802.11a - Ant.0

6 dB Bandwidth Plot on Channel 157

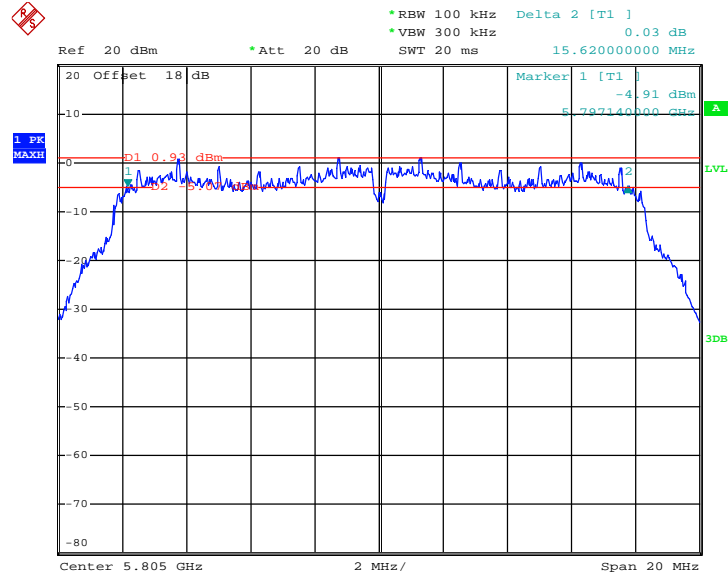


Date: 7.MAR.2013 15:09:26



802.11a - Ant.0

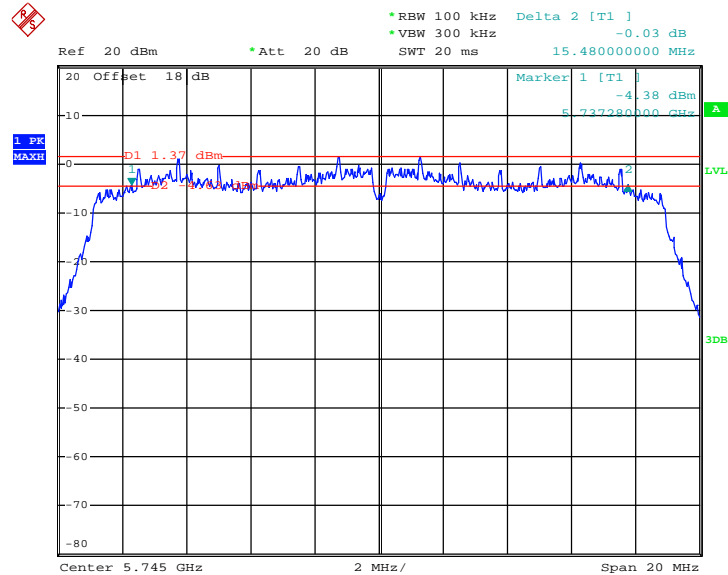
6 dB Bandwidth Plot on Channel 161



Date: 7.MAR.2013 15:12:39

5GHz 802.11n HT20 - SISO Ant.0

6 dB Bandwidth Plot on Channel 149

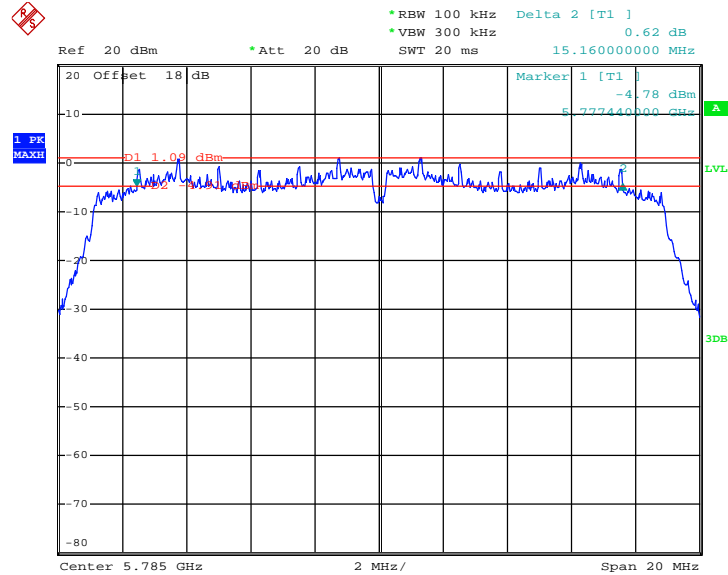


Date: 7.MAR.2013 15:15:41



5GHz 802.11n HT20 - SISO Ant.0

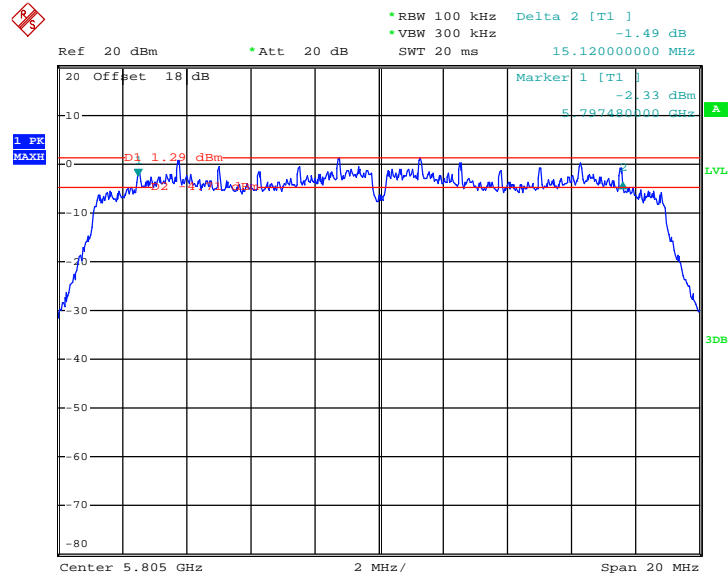
6 dB Bandwidth Plot on Channel 157



Date: 7.MAR.2013 15:17:58

5GHz 802.11n HT20 - SISO Ant.0

6 dB Bandwidth Plot on Channel 161



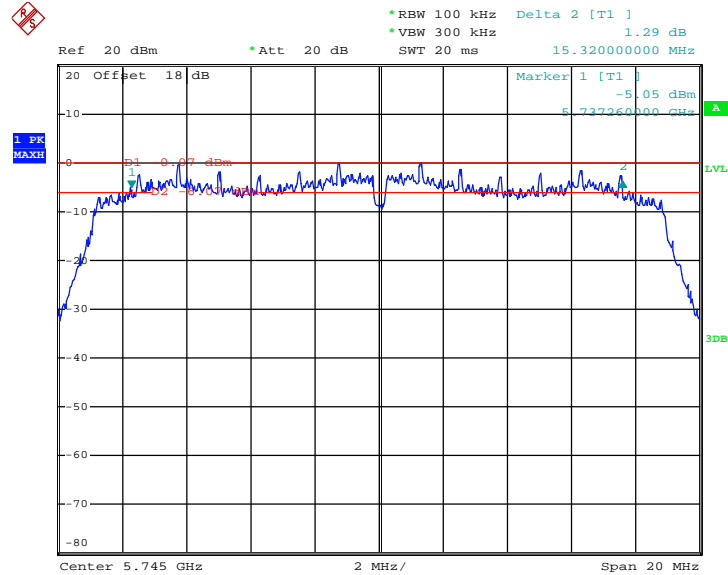
Date: 7.MAR.2013 15:20:54





5GHz 802.11n HT20 - MIMO Ant.0+1(0)

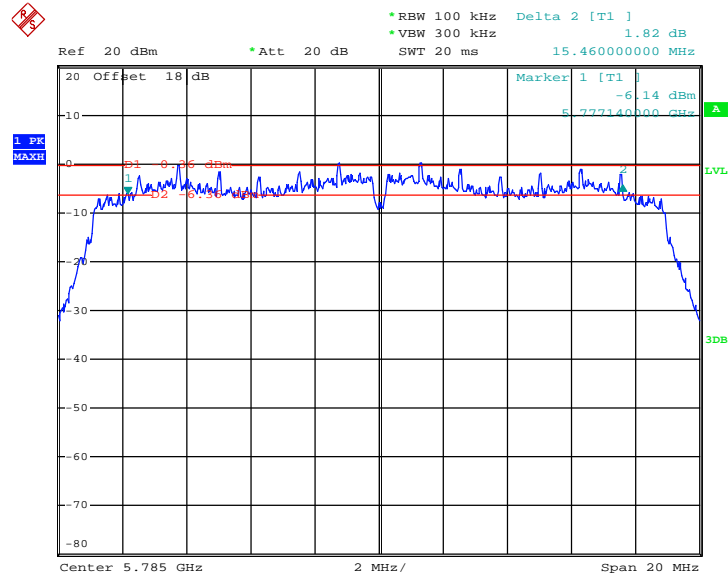
6 dB Bandwidth Plot on Channel 149



Date: 7.JUL.2013 18:16:43

5GHz 802.11n HT20 - MIMO Ant.0+1(0)

6 dB Bandwidth Plot on Channel 157

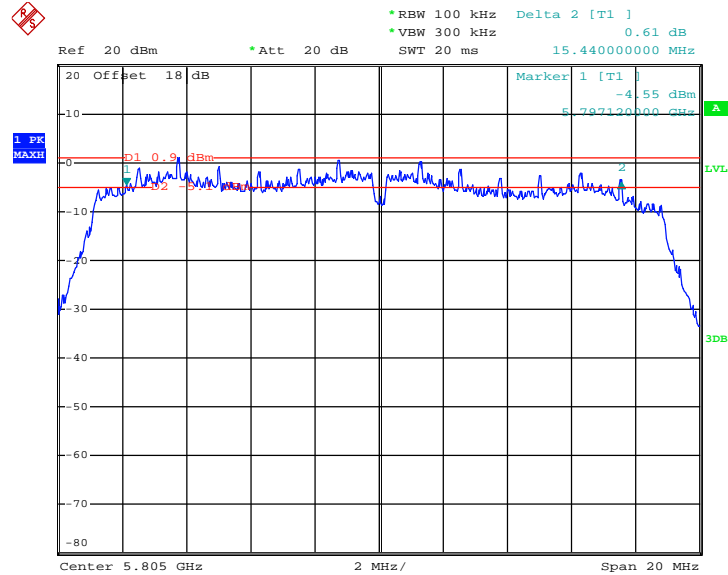


Date: 7.JUL.2013 18:20:24



5GHz 802.11n HT20 - MIMO Ant.0+1(0)

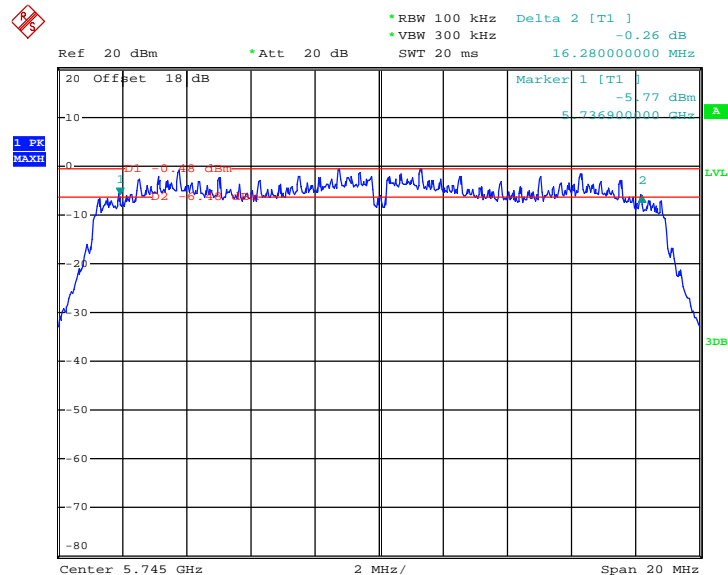
6 dB Bandwidth Plot on Channel 161



Date: 16.JUL.2013 11:49:07

5GHz 802.11n HT20 - MIMO Ant.0+1(1)

6 dB Bandwidth Plot on Channel 149

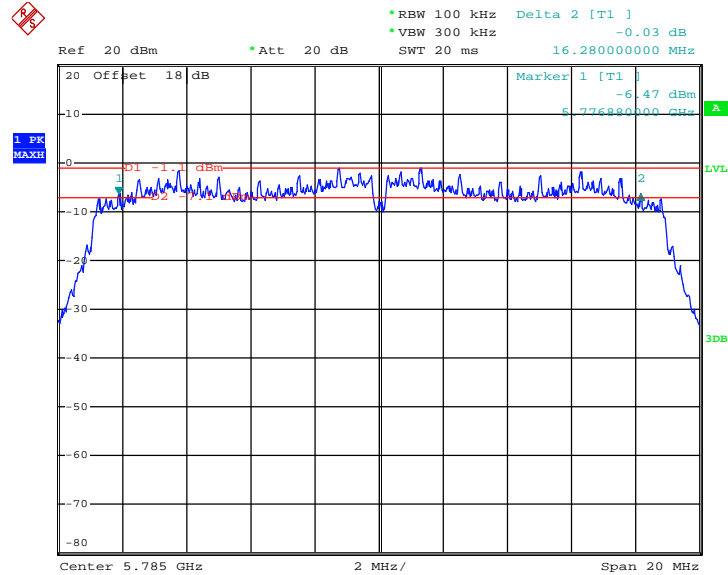


Date: 7.JUL.2013 17:48:18



5GHz 802.11n HT20 - MIMO Ant.0+1(1)

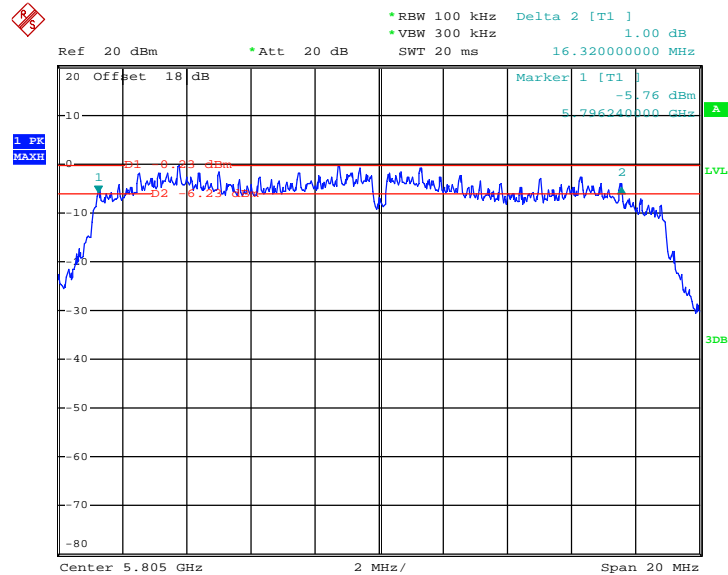
6 dB Bandwidth Plot on Channel 157



Date: 7.JUL.2013 17:52:09

5GHz 802.11n HT20 - MIMO Ant.0+1(1)

6 dB Bandwidth Plot on Channel 161

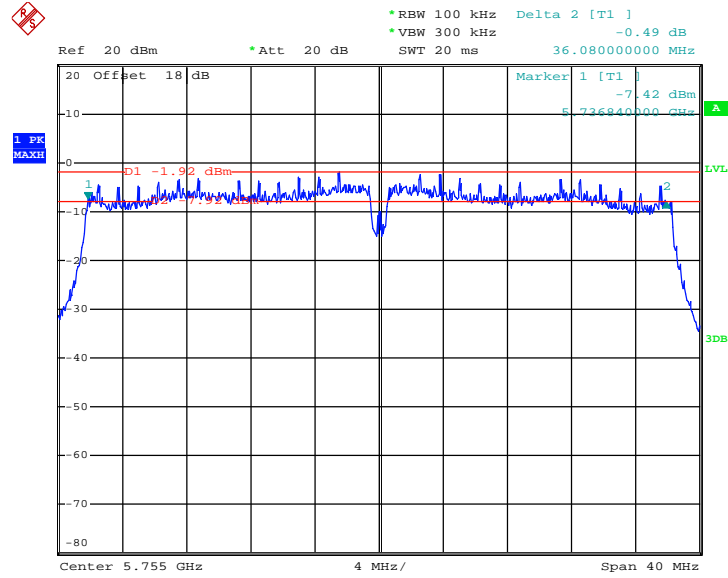


Date: 16.JUL.2013 11:52:59



5GHz 802.11n HT40 – SISO Ant.0

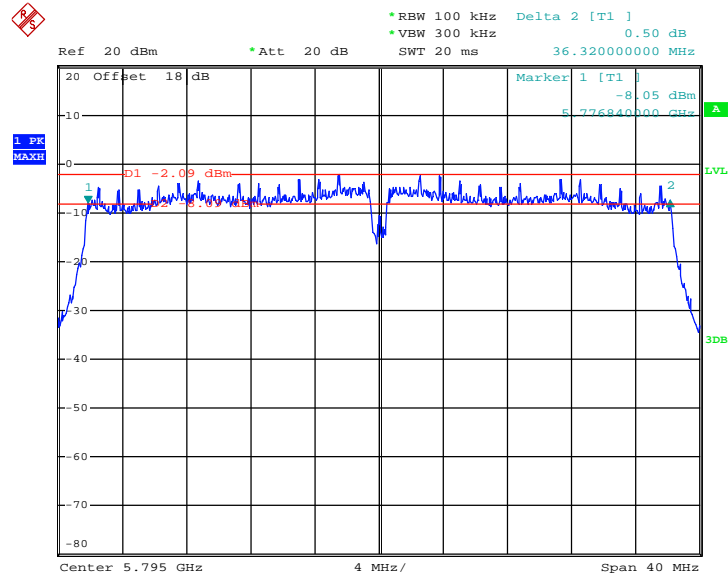
6 dB Bandwidth Plot on Channel 151



Date: 7.MAR.2013 15:24:48

5GHz 802.11n HT40 – SISO Ant.0

6 dB Bandwidth Plot on Channel 159

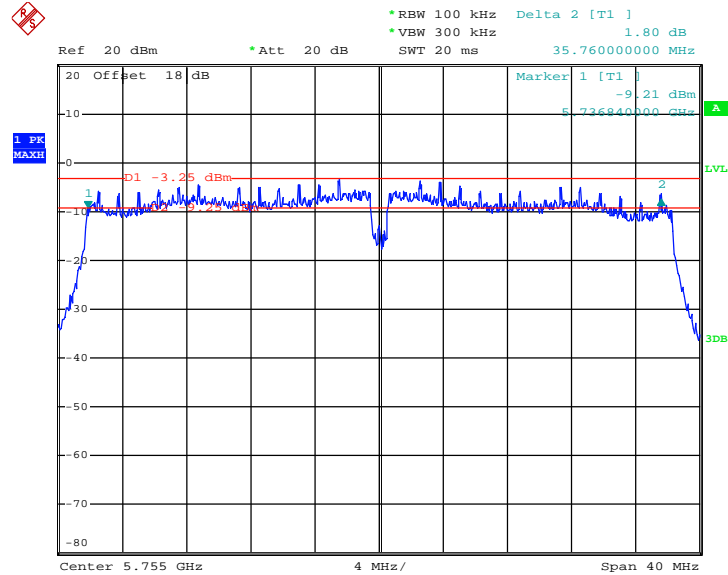


Date: 7.MAR.2013 15:28:39



5GHz 802.11n HT40 – MIMO Ant.0+1(0)

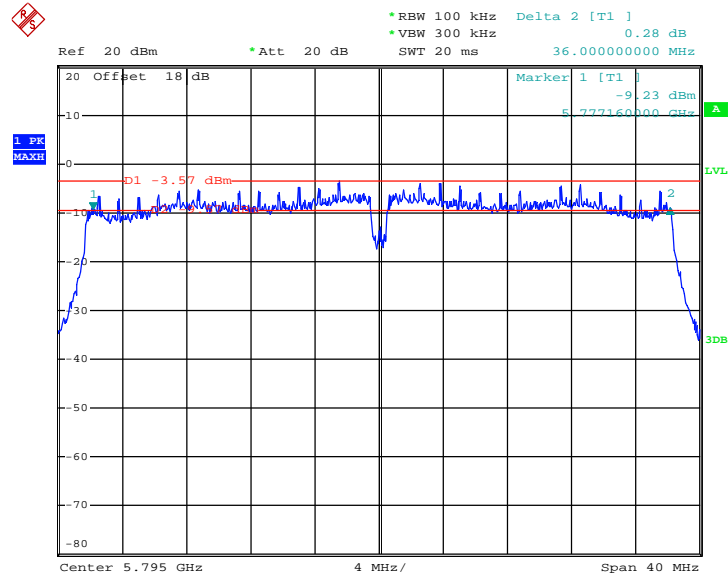
6 dB Bandwidth Plot on Channel 151



Date: 7.JUL.2013 18:13:25

5GHz 802.11n HT40 – MIMO Ant.0+1(0)

6 dB Bandwidth Plot on Channel 159

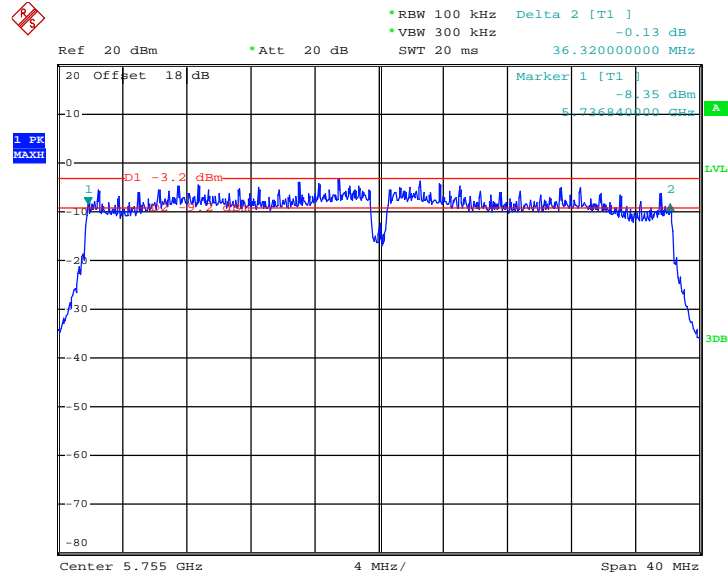


Date: 7.JUL.2013 18:09:06



5GHz 802.11n HT40 – MIMO Ant.0+1(1)

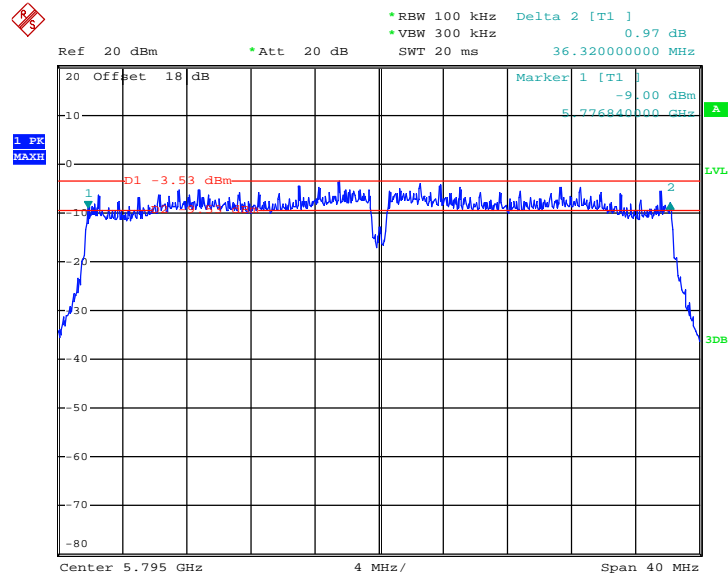
6 dB Bandwidth Plot on Channel 151



Date: 7.JUL.2013 18:00:08

5GHz 802.11n HT40 – MIMO Ant.0+1(1)

6 dB Bandwidth Plot on Channel 159



Date: 7.JUL.2013 18:03:28

## 3.2 Output Power Measurement

### 3.2.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz and 5725-5850MHz, the limit for peak output power is 30dBm. If transmitting Antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6 dBi. 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.

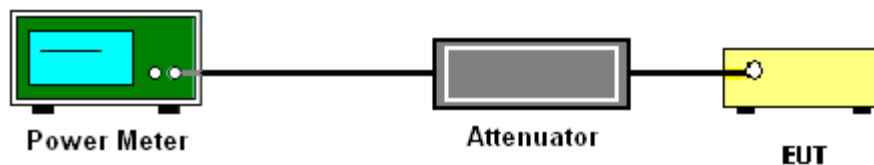
### 3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.2.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v03r01.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v01r02.

### 3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Test Mode :	802.11b	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)		Max. Limits (dBm)	Pass/Fail
		Ant.0	Ant.1		
01	2412	20.17	19.93	30	Pass
06	2437	20.22	20.28	30	Pass
11	2462	20.32	20.02	30	Pass

Test Mode :	802.11g	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)		Max. Limits (dBm)	Pass/Fail
		Ant.0	Ant.1		
01	2412	24.18	24.16	30	Pass
06	2437	24.10	24.05	30	Pass
11	2462	23.97	24.11	30	Pass





Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Peak Output Power (dBm)					Max. Limits (dBm)	Pass/Fail
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1		
01	2412	22.84	21.95	22.53	21.58	25.09	30	Pass
06	2437	22.62	22.08	22.13	21.28	24.74	30	Pass
11	2462	23.36	21.98	21.95	20.77	24.41	30	Pass

Note: MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).

Test Mode :	2.4GHz 802.11n HT40	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4GHz 802.11n HT40 Peak Output Power (dBm)					Max. Limits (dBm)	Pass/Fail
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1		
03	2422	21.85	21.36	21.20	20.90	24.06	30	Pass
06	2437	22.27	21.47	20.94	20.46	23.72	30	Pass
09	2452	22.16	21.23	20.71	19.92	23.34	30	Pass

Note: MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).



Test Mode :	802.11 a	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11a Peak Output Power (dBm)		Max. Limits (dBm)	Pass/Fail
		Ant.0	Ant.1		
149	5745	20.41	20.15	30	Pass
157	5785	19.97	19.93	30	Pass
161	5805	20.39	19.63	30	Pass

Test Mode :	5GHz 802.11n HT20	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5GHz 802.11n HT20 Peak Output Power (dBm)					Max. Limits (dBm)	Pass/Fail
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1		
149	5745	19.77	19.87	20.14	20.11	23.14	30	Pass
157	5785	19.31	19.87	19.95	19.95	22.96	30	Pass
161	5805	20.27	19.71	19.20	19.83	22.54	30	Pass

Note: MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).

Test Mode :	5GHz 802.11n HT40	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5GHz 802.11n HT20 Peak Output Power (dBm)					Max. Limits (dBm)	Pass/Fail
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1		
151	5755	19.27	19.25	19.48	19.34	22.42	30	Pass
159	5795	19.38	19.27	19.12	18.97	22.06	30	Pass

Note: MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).



3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%
Duty Cycle:	95.14% for Ant.0 95.29% for Ant.1	Duty Factor:	0.22dB for Ant.0 0.21dB for Ant.1

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)	
		Ant.0	Ant.1
01	2412	16.44	16.29
06	2437	16.49	16.46
11	2462	16.55	16.42

Test Mode :	802.11g	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%
Duty Cycle:	94.93% for Ant.0 95.02% for Ant.1	Duty Factor:	0.23dB for Ant.0 0.22dB for Ant.1

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)	
		Ant.0	Ant.1
01	2412	13.40	13.33
06	2437	13.64	13.38
11	2462	13.52	13.62



<b>Test Mode :</b>	2.4GHz 802.11n HT20	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%
<b>Duty Cycle:</b>	95.03% for SISO Ant.0 97.80% for SISO Ant.1 91.14% for MIMO Ant.0+1(0) 90.50% for MIMO Ant.0+1(1)	<b>Duty Factor:</b>	0.22dB for SISO Ant. 0 0.10dB for SISO Ant. 1 0.40dB for MIMO Ant.0+1(0) 0.43dB for MIMO Ant.0+1(1)

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Average Output Power (dBm)				
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1
01	2412	11.47	10.72	10.87	9.69	13.33
06	2437	11.71	10.62	10.62	9.56	13.14
11	2462	11.85	11.08	10.35	9.24	12.84

**Note:**

1. MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).
2. The average power is measured by power meter with average power sensor and is reporting only.

<b>Test Mode :</b>	2.4GHz 802.11n HT40	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%
<b>Duty Cycle:</b>	89.77% for SISO Ant.0 91.30% for SISO Ant.1 83.36% for MIMO Ant.0+1(0) 82.99% for MIMO Ant.0+1(1)	<b>Duty Factor:</b>	0.47dB for SISO Ant. 0 0.40dB for SISO Ant. 1 0.79dB for MIMO Ant.0+1(0) 0.81dB for MIMO Ant.0+1(1)

Channel	Frequency (MHz)	2.4GHz 802.11n HT40 Average Output Power (dBm)				
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1
03	2422	11.56	11.01	10.16	9.64	12.92
06	2437	11.54	11.08	9.94	9.46	12.72
09	2452	11.70	10.95	9.71	8.98	12.37

**Note:**

1. MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).
2. The average power is measured by power meter with average power sensor and is reporting only.



<b>Test Mode :</b>	802.11a	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%
<b>Duty Cycle:</b>	95.71% for Ant.0 95.98% for Ant.1	<b>Duty Factor:</b>	0.19dB for Ant.0 0.18dB for Ant.1

Channel	Frequency (MHz)	802.11a Average Output Power (dBm)	
		Ant.0	Ant.1
149	5745	9.54	9.83
157	5785	9.41	9.35
161	5805	9.64	9.34

<b>Test Mode :</b>	5GHz 802.11n HT20	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%
<b>Duty Cycle:</b>	95.81% for SISO Ant.0 95.41% for SISO Ant.1 90.49% for MIMO Ant.0+1(0) 91.06% for MIMO Ant.0+1(1)	<b>Duty Factor:</b>	0.19dB for SISO Ant. 0 0.20dB for SISO Ant. 1 0.43dB for MIMO Ant.0+1(0) 0.41dB for MIMO Ant.0+1(1)

Channel	Frequency (MHz)	5GHz 802.11n HT20 Average Output Power (dBm)				
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1
149	5745	9.65	9.53	9.81	9.75	12.79
157	5785	9.46	9.60	9.16	8.97	12.08
161	5805	9.86	9.26	8.68	8.45	11.58

**Note:**

1. MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).
2. The average power is measured by power meter with average power sensor and is reporting only.



Test Mode :	5GHz 802.11n HT40	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%
Duty Cycle:	91.67% for SISO Ant.0 92.03% for SISO Ant.1 83.45% for MIMO Ant.0+1(0) 82.91% for MIMO Ant.0+1(1)	Duty Factor:	0.38dB for SISO Ant. 0 0.36dB for SISO Ant. 1 0.79dB for MIMO Ant.0+1(0) 0.81dB for MIMO Ant.0+1(1)

Channel	Frequency (MHz)	5GHz 802.11n HT40 Average Output Power (dBm)				
		SISO Ant.0	SISO Ant.1	MIMO Ant.0+1(0)	MIMO Ant.0+1(1)	MIMO Ant.0+1
151	5755	9.62	9.57	9.64	9.46	12.56
159	5795	9.78	9.70	8.94	8.86	11.91

**Note:**

1. MIMO Ant.0+1 is a calculated result from sum of the power MIMO Ant.0+1(0) and MIMO Ant.0+1(1).
2. The average power is measured by power meter with average power sensor and is reporting only.

### 3.3 Power Spectral Density Measurement

#### 3.3.1 Limit of Power Spectral Density

The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.

#### 3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.3.3 Test Procedures

1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Measure and record the results in the test report.
7. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v01r02.

If measurements performed using method (2) plus  $10 \log(N)$  exceeds the emission limit, the test should choose method (1) before declaring that the device fails the emission limit.

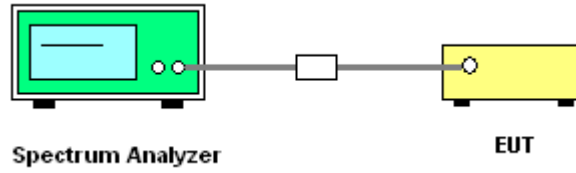
Method (1): Measure and sum the spectra across the outputs.

The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

Method (2): Measure and add  $10 \log(N)$  dB, where N is the number of outputs. (N=2)

8. The Measured power density (dBm)/ 100kHz is a reference level and used as 20dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

### 3.3.4 Test Setup







3.3.5 Test Result of Power Spectral Density

Test Mode :	802.11b	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b Power Density		Max. Limits (dBm/3kHz)	Pass/Fail
		Ant.0			
		PSD/100kHz (dBm)	PSD/3kHz (dBm)		
01	2412	4.39	-9.41	8	Pass
06	2437	4.12	-9.46	8	Pass
11	2462	3.58	-11.05	8	Pass

Test Mode :	802.11g	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11g Power Density		Max. Limits (dBm/3kHz)	Pass/Fail
		Ant.0			
		PSD/100kHz (dBm)	PSD/3kHz (dBm)		
01	2412	-1.62	-15.89	8	Pass
06	2437	-1.73	-15.95	8	Pass
11	2462	-1.71	-15.52	8	Pass



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Ch.	Freq. (MHz)	2.4GHz 802.11n HT20 Power Density								Max. Limits (dBm/3kHz)	Pass /Fail
		SISO Ant.0		MIMO Ant.0+1(0)			MIMO Ant.0+1(1)				
		PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2		
01	2412	-3.13	-16.49	0.87	-13.30	-10.29	-0.31	-14.43	-11.42	8	Pass
06	2437	-3.55	-17.53	0.39	-13.53	-10.52	-0.70	-14.46	-11.45	8	Pass
11	2462	-3.58	-16.76	0.16	-13.75	-10.74	-1.20	-15.11	-12.10	8	Pass

Test Mode :	2.4GHz 802.11n HT40	Temperature :	24~26°C
Test Engineer :	Blithe Li	Relative Humidity :	50~53%

Ch.	Freq. (MHz)	2.4GHz 802.11n HT40 Power Density								Max. Limits (dBm/3kHz)	Pass /Fail
		SISO Ant.0		MIMO Ant.0+1(0)			MIMO Ant.0+1(1)				
		PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2		
03	2422	-6.21	-19.85	-2.93	-17.57	-14.56	-3.23	-17.50	-14.49	8	Pass
06	2437	-6.20	-20.36	-2.85	-17.30	-14.29	-3.17	-17.79	-14.78	8	Pass
09	2452	-6.47	-20.21	-3.32	-18.14	-15.13	-3.80	-18.76	-15.75	8	Pass

<b>Test Mode :</b>	802.11a	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%

Channel	Frequency (MHz)	802.11a Power Density		Max. Limits (dBm/3kHz)	Pass/Fail
		Ant.0			
		PSD/100kHz (dBm)	PSD/3kHz (dBm)		
149	5745	1.12	-12.82	8	Pass
157	5785	1.01	-12.09	8	Pass
161	5805	-0.17	-13.13	8	Pass

<b>Test Mode :</b>	5GHz 802.11n HT20	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%

Ch.	Freq. (MHz)	5GHz 802.11n HT20 Power Density								Max. Limits (dBm/3kHz)	Pass /Fail
		SISO Ant.0		MIMO Ant.0+1(0)			MIMO Ant.0+1(1)				
		PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2		
149	5745	1.46	-13.18	-0.19	-13.97	-10.96	-0.58	-14.61	-11.60	8	Pass
157	5785	1.03	-12.91	0.02	-14.45	-11.44	-1.22	-15.70	-12.69	8	Pass
161	5805	1.21	-12.96	0.82	-13.01	-10.00	0.11	-14.31	-11.30	8	Pass

<b>Test Mode :</b>	5GHz 802.11n HT40	<b>Temperature :</b>	24~26°C
<b>Test Engineer :</b>	Blithe Li	<b>Relative Humidity :</b>	50~53%

Ch.	Freq. (MHz)	5GHz 802.11n HT40 Power Density								Max. Limits (dBm/3kHz)	Pass /Fail
		SISO Ant.0		MIMO Ant.0+1(0)			MIMO Ant.0+1(1)				
		PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2	PSD/100kHz (dBm)	PSD/3kHz (dBm)	PSD/3kHz (dBm) +10log2		
151	5755	-2.32	-16.38	-3.59	-18.30	-15.29	-3.44	-18.58	-15.57	8	Pass
159	5795	-2.43	-16.79	-4.11	-18.10	-15.09	-3.48	-18.67	-15.66	8	Pass

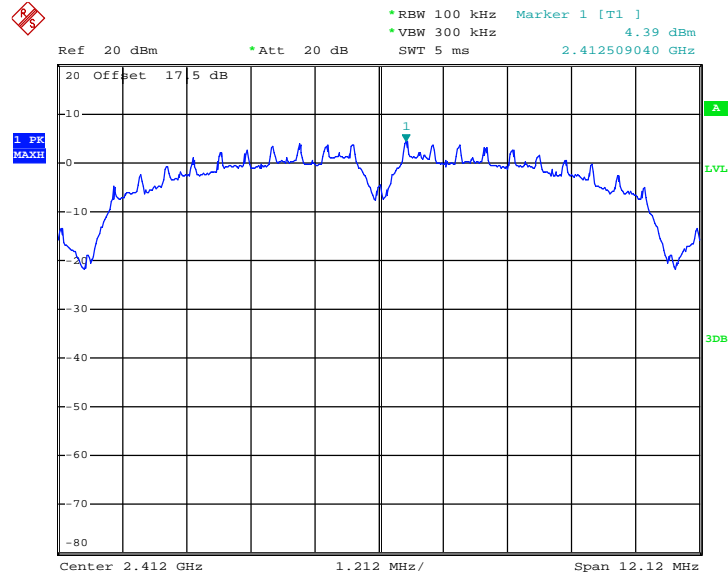
**Note:**

1. Measured power density (dBm) has offset with cable loss.
2. The Measured power density (dBm)/ 100kHz is reference level and used as 20dBc down for Conducted Band Edges and Conducted Spurious Emission limit line.

### 3.3.6 Test Result of Power Spectral Density Plots (100kHz)

802.11b – Ant.0

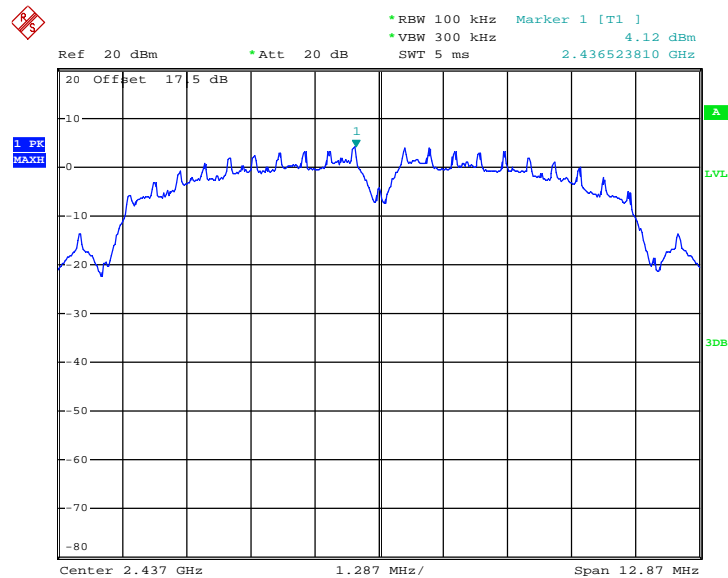
PSD 100kHz Plot on Channel 01



Date: 7.MAR.2013 13:57:02

802.11b – Ant.0

PSD 100kHz Plot on Channel 06

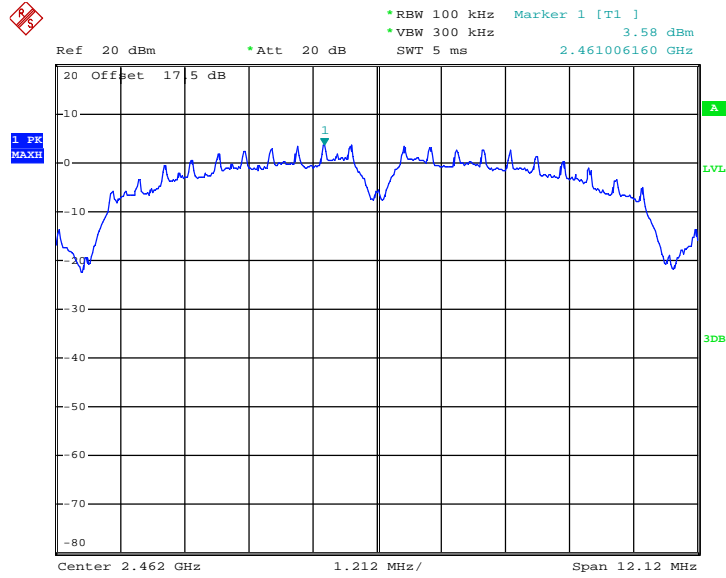


Date: 7.MAR.2013 14:01:26



802.11b – Ant.0

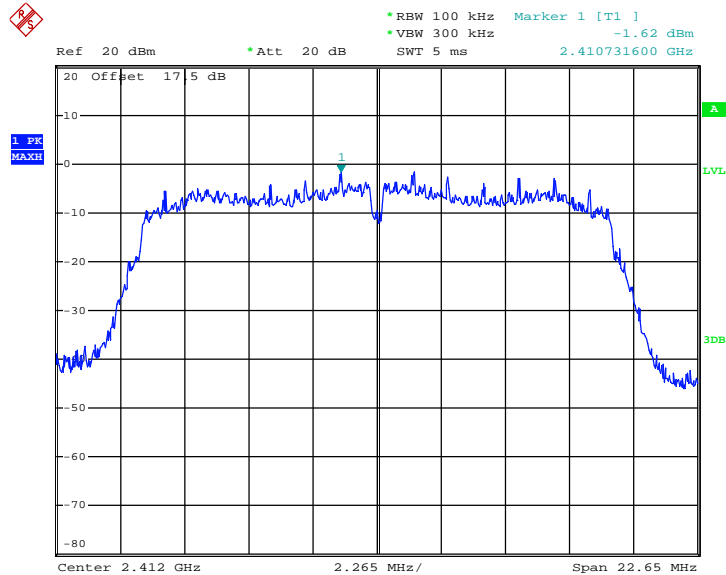
PSD 100kHz Plot on Channel 11



Date: 7.MAR.2013 14:04:24

802.11g – Ant.0

PSD 100kHz Plot on Channel 01

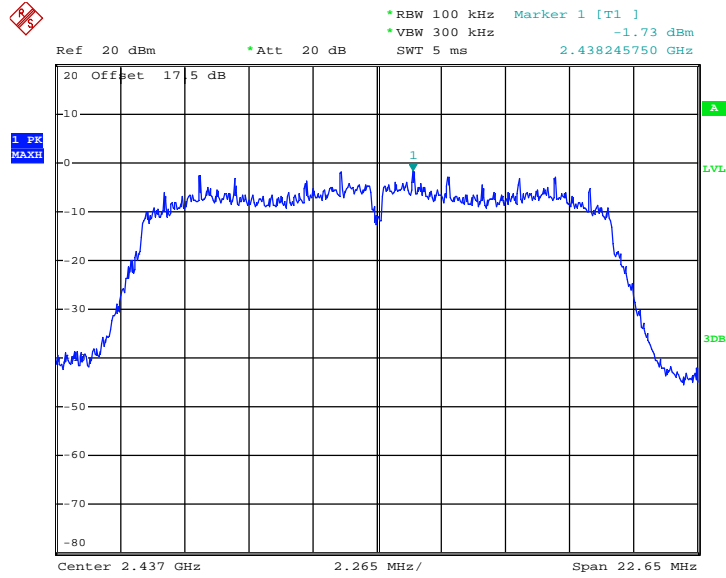


Date: 7.MAR.2013 14:10:23



802.11g – Ant.0

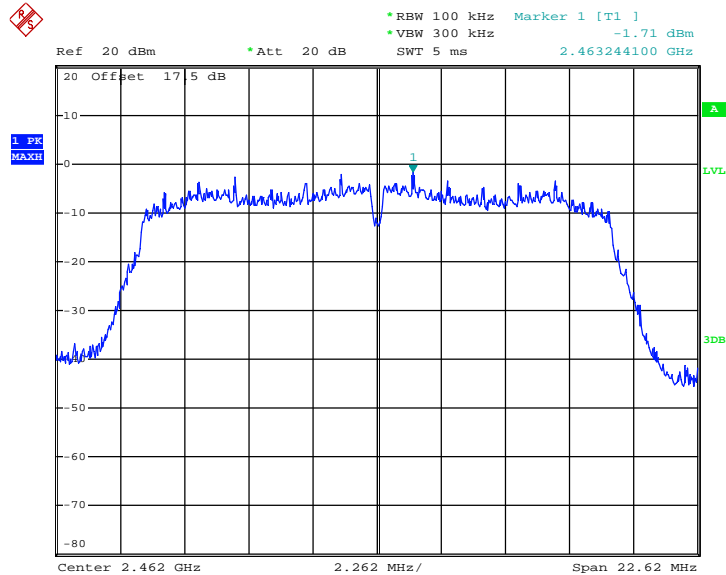
PSD 100kHz Plot on Channel 06



Date: 7.MAR.2013 14:13:20

802.11g – Ant.0

PSD 100kHz Plot on Channel 11

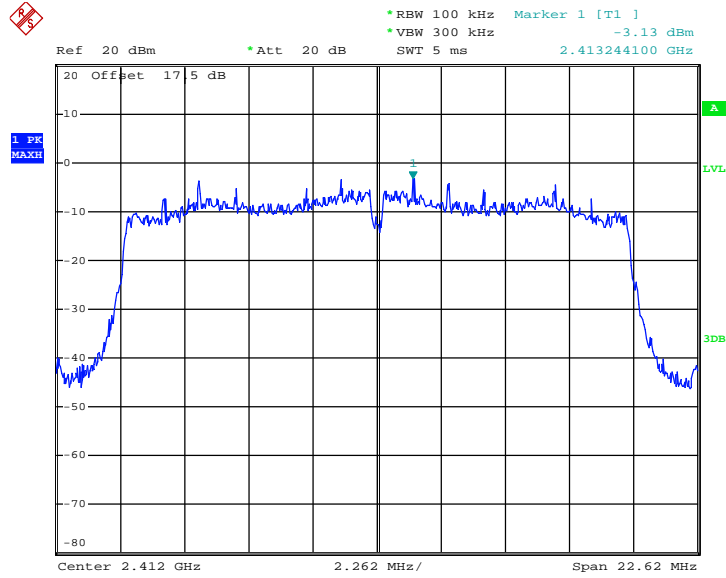


Date: 7.MAR.2013 14:16:57



2.4GHz 802.11n HT20 – SISO Ant.0

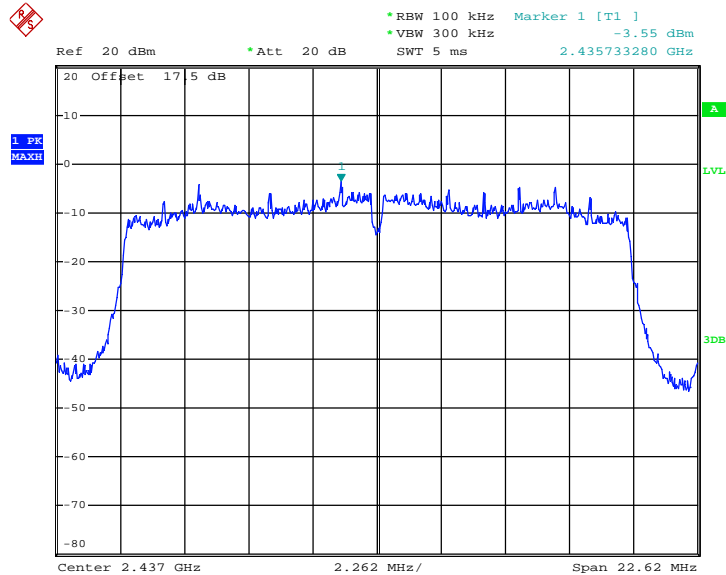
PSD 100kHz Plot on Channel 01



Date: 7.MAR.2013 14:20:45

2.4GHz 802.11n HT20 – SISO Ant.0

PSD 100kHz Plot on Channel 06

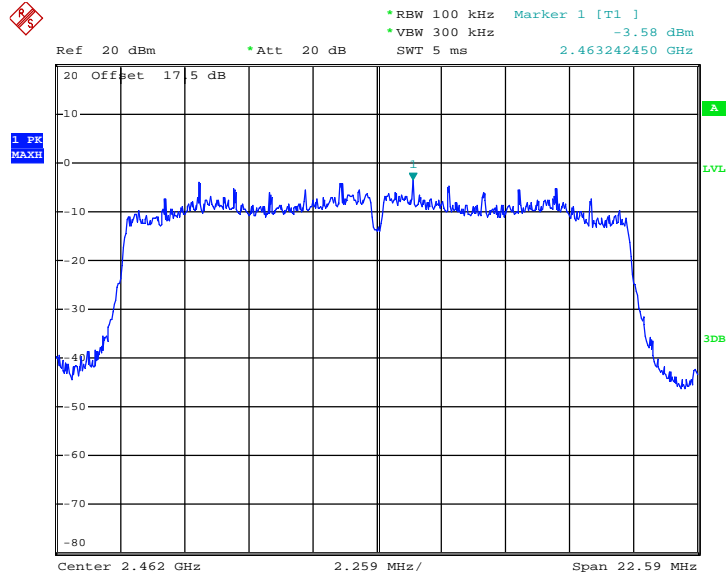


Date: 7.MAR.2013 14:24:39



2.4GHz 802.11n HT20 – SISO Ant.0

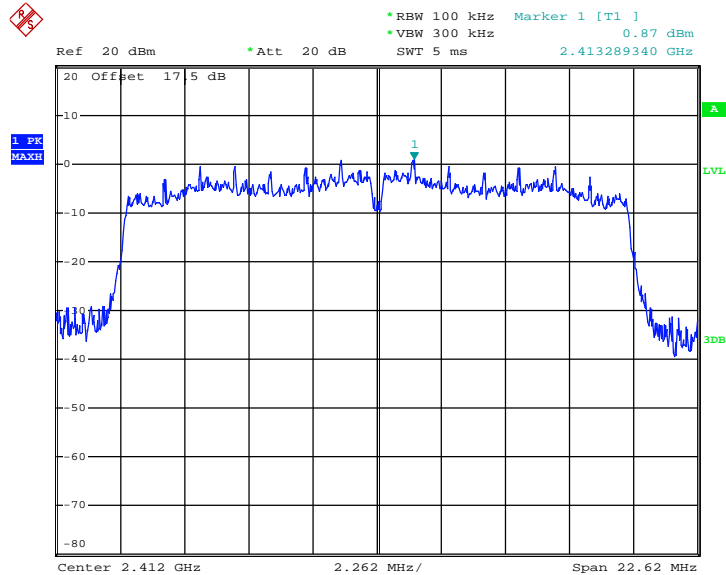
PSD 100kHz Plot on Channel 11



Date: 7.MAR.2013 14:27:44

2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 100kHz Plot on Channel 01



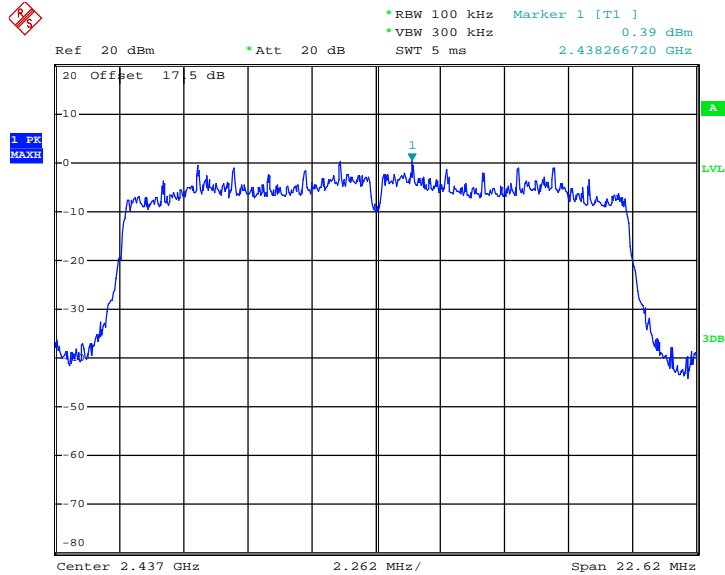
Date: 7.JUL.2013 16:30:30





2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

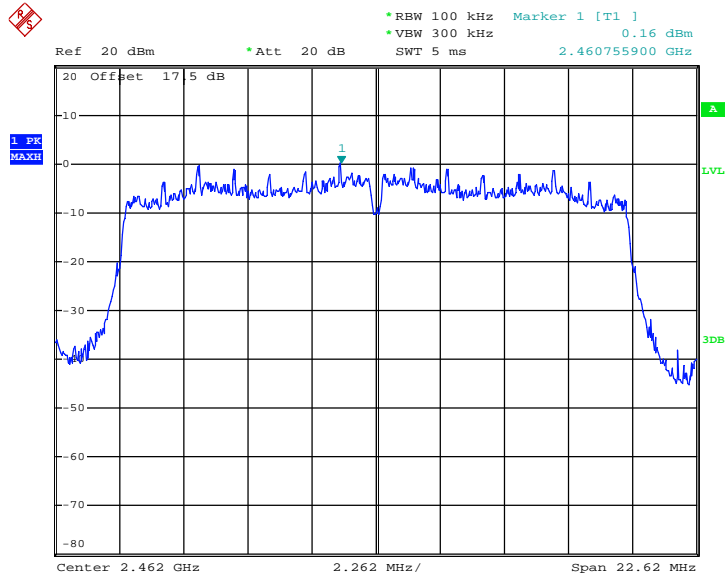
PSD 100kHz Plot on Channel 06



Date: 7.JUL.2013 16:41:11

2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 100kHz Plot on Channel 11

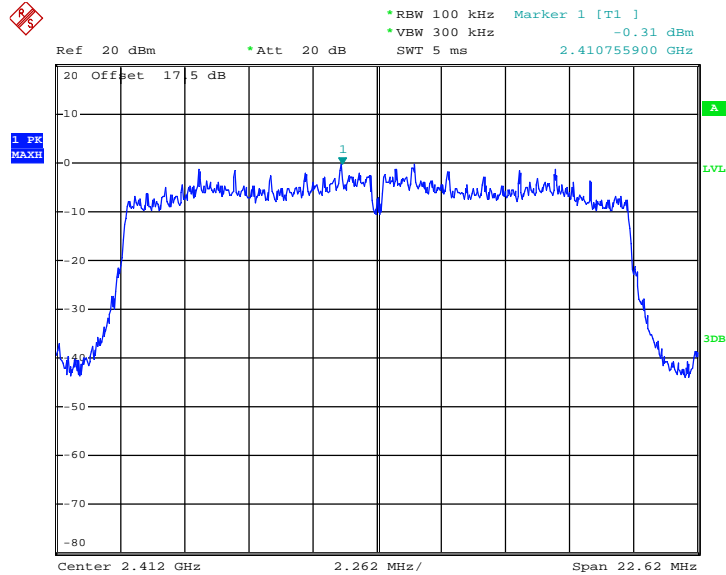


Date: 7.JUL.2013 16:46:41



2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

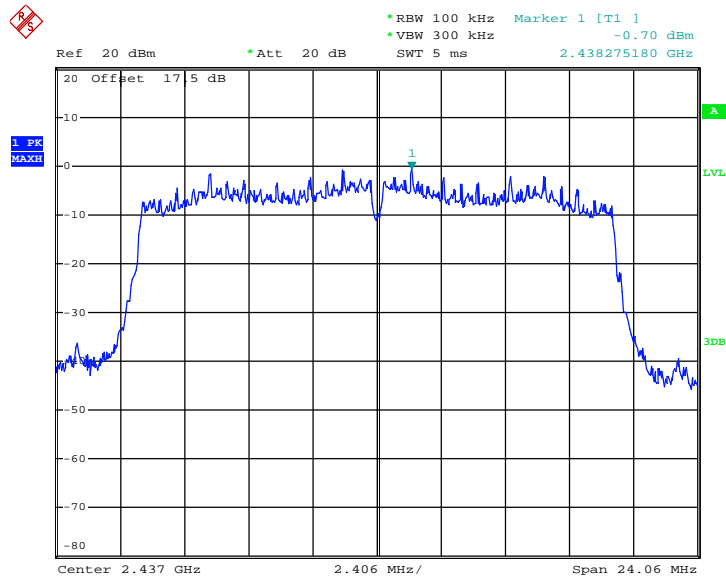
PSD 100kHz Plot on Channel 01



Date: 7.JUL.2013 16:54:03

2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

PSD 100kHz Plot on Channel 06

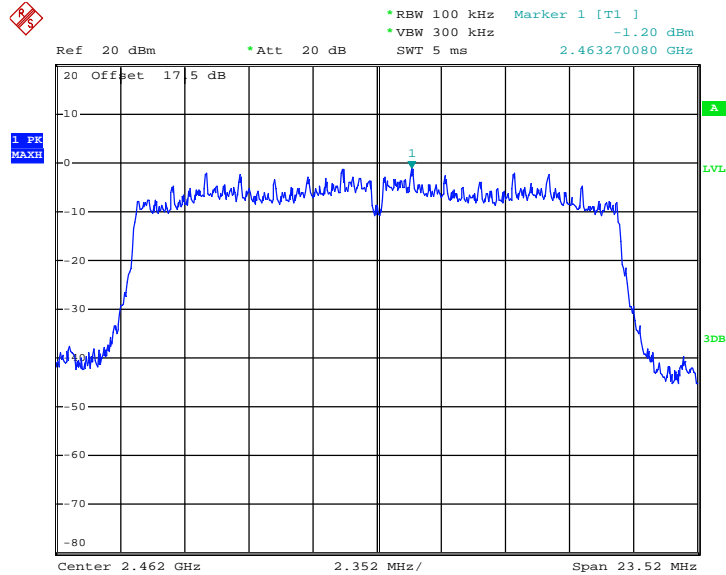


Date: 7.JUL.2013 16:59:01



2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

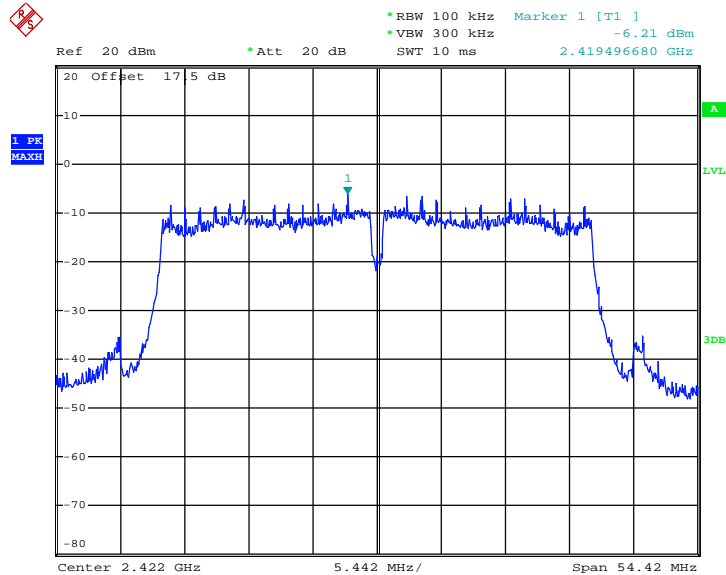
PSD 100kHz Plot on Channel 11



Date: 7.JUL.2013 17:03:01

2.4GHz 802.11n HT40 – SISO Ant.0

PSD 100kHz Plot on Channel 03

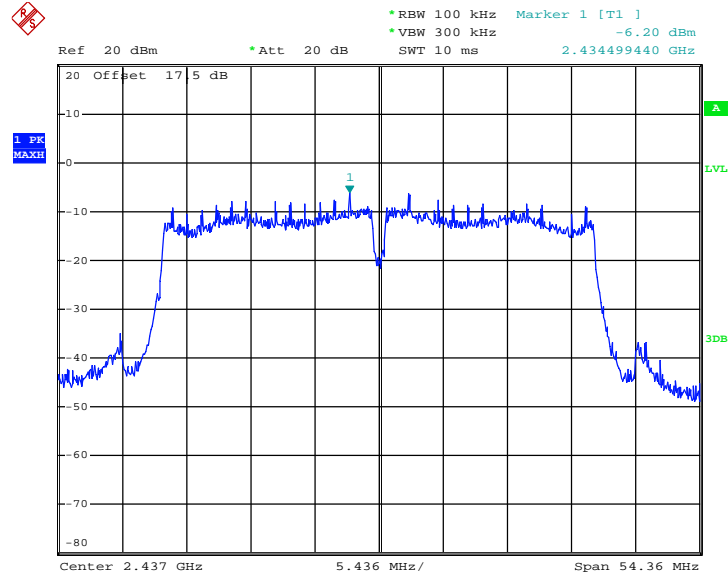


Date: 7.MAR.2013 14:43:17



2.4GHz 802.11n HT40 – SISO Ant.0

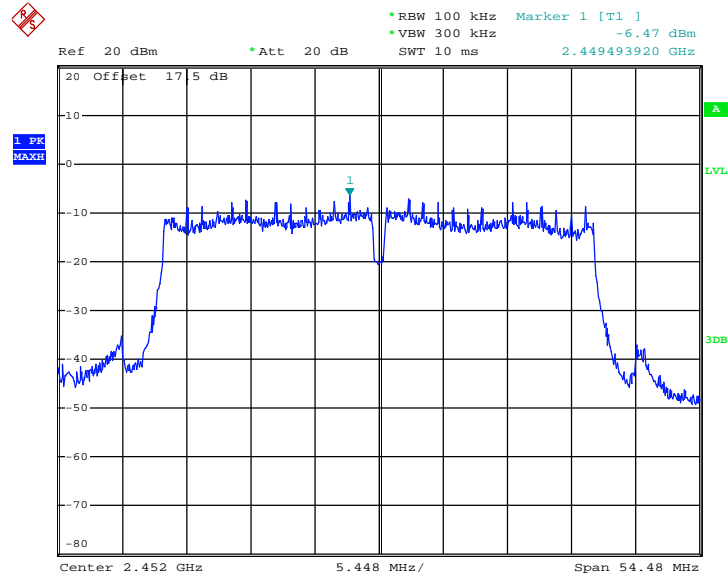
PSD 100kHz Plot on Channel 06



Date: 7.MAR.2013 14:50:14

2.4GHz 802.11n HT40 – SISO Ant.0

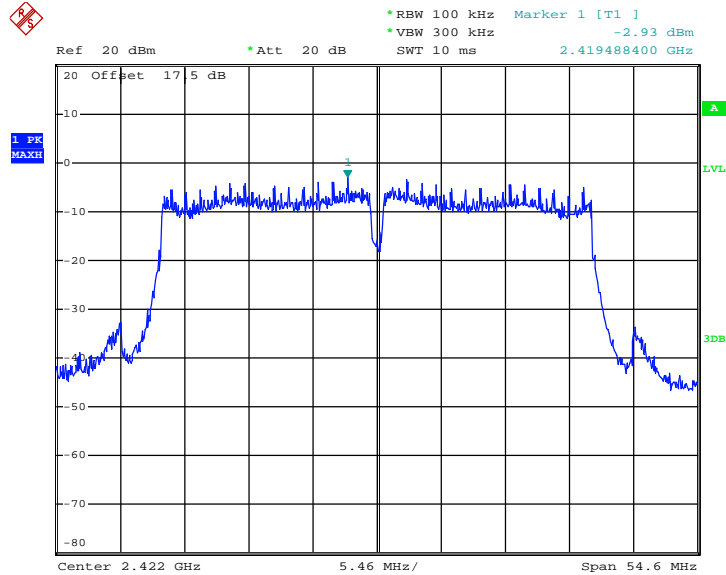
PSD 100kHz Plot on Channel 09



Date: 7.MAR.2013 14:54:59

2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

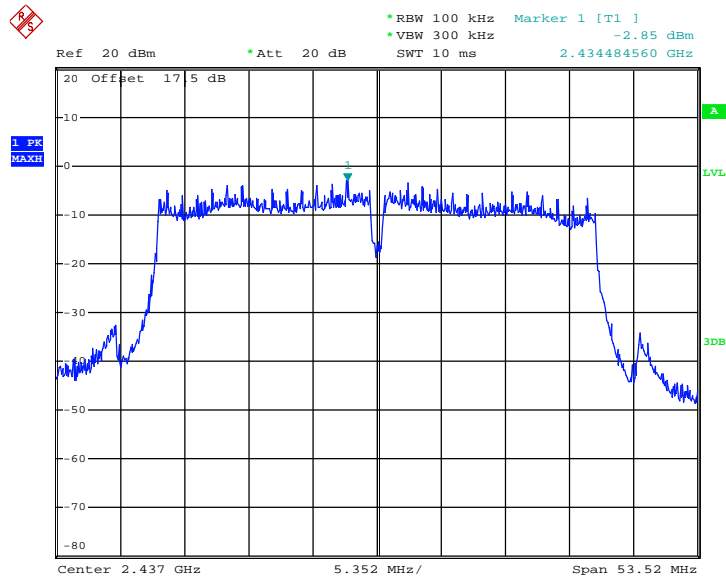
PSD 100kHz Plot on Channel 03



Date: 7.JUL.2013 17:09:46

2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

PSD 100kHz Plot on Channel 06

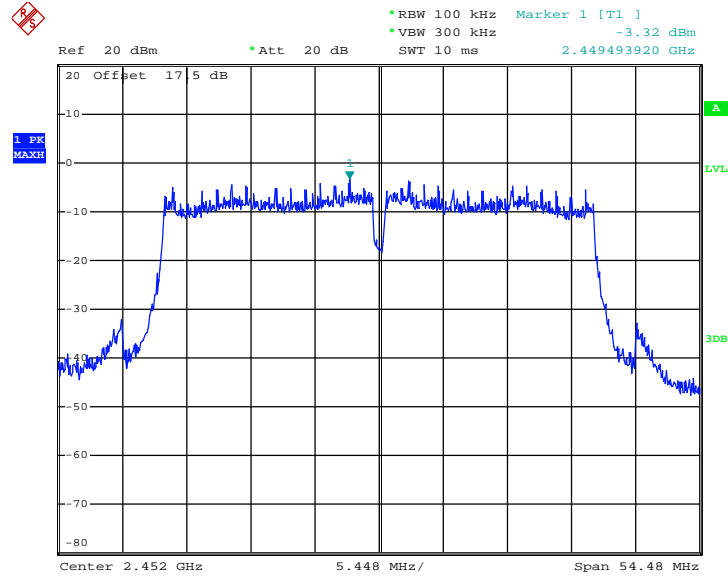


Date: 7.JUL.2013 17:13:21



2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

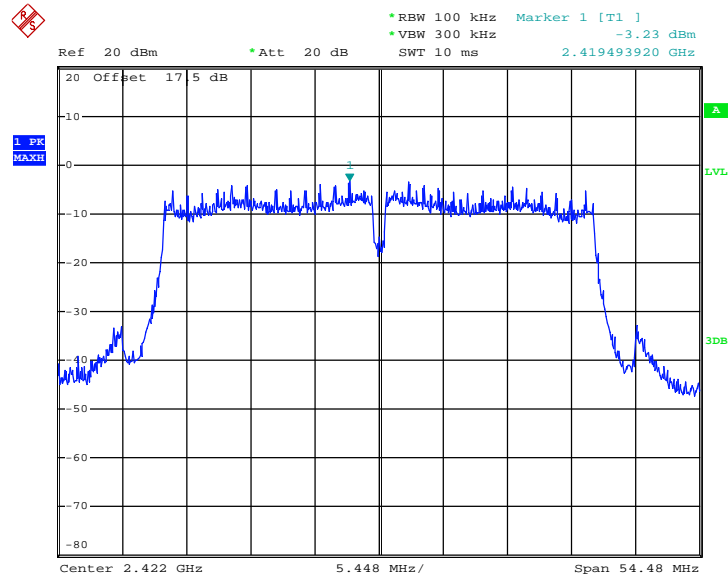
PSD 100kHz Plot on Channel 09



Date: 7.JUL.2013 17:18:28

2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

PSD 100kHz Plot on Channel 03

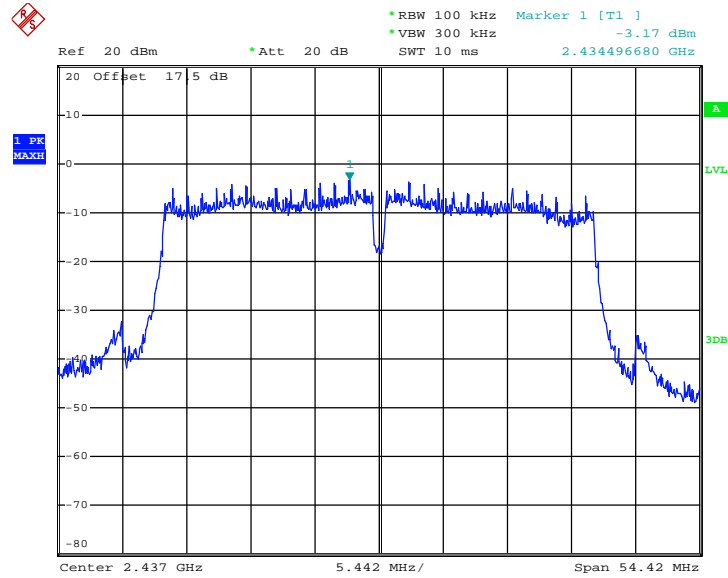


Date: 7.JUL.2013 17:23:56



2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

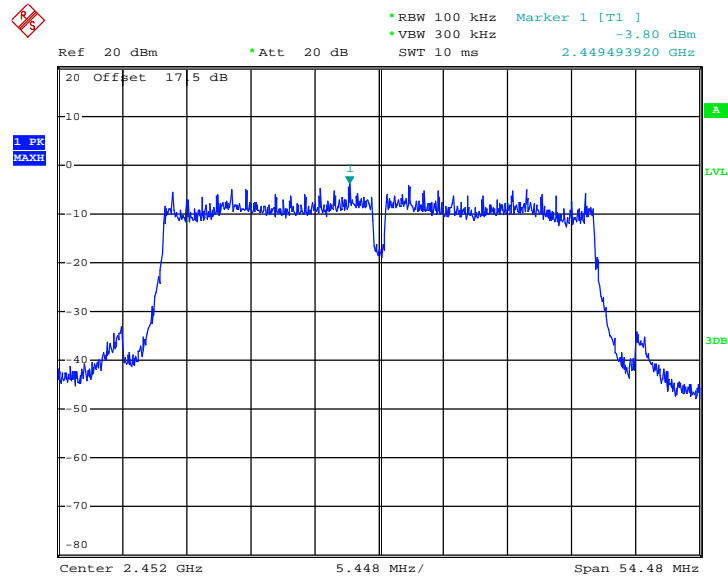
PSD 100kHz Plot on Channel 06



Date: 7.JUL.2013 17:27:38

2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

PSD 100kHz Plot on Channel 09

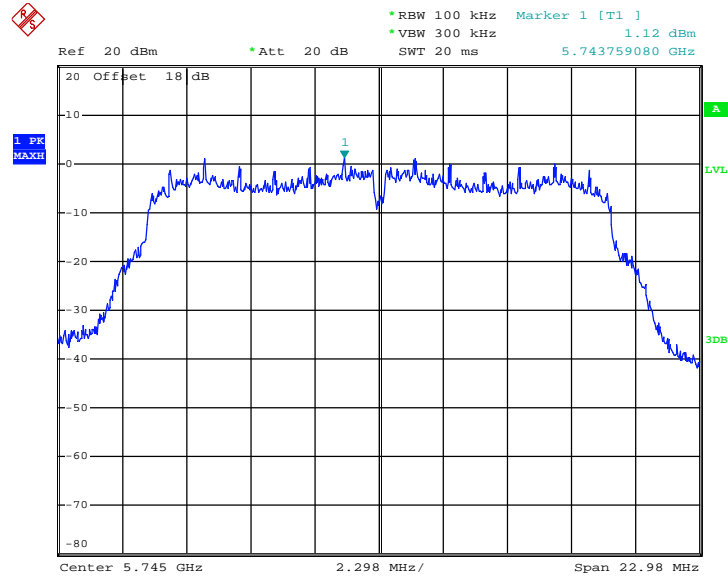


Date: 7.JUL.2013 17:33:04



802.11a – Ant.0

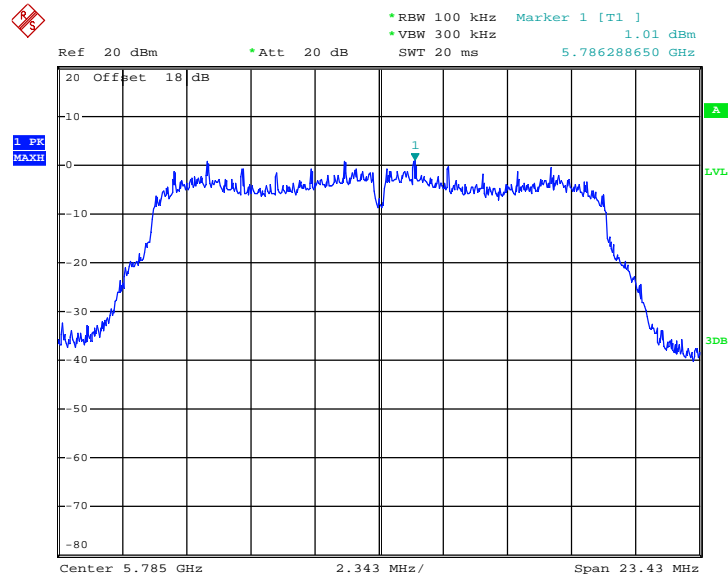
PSD 100kHz Plot on Channel 149



Date: 7.MAR.2013 15:06:57

802.11a – Ant.0

PSD 100kHz Plot on Channel 157



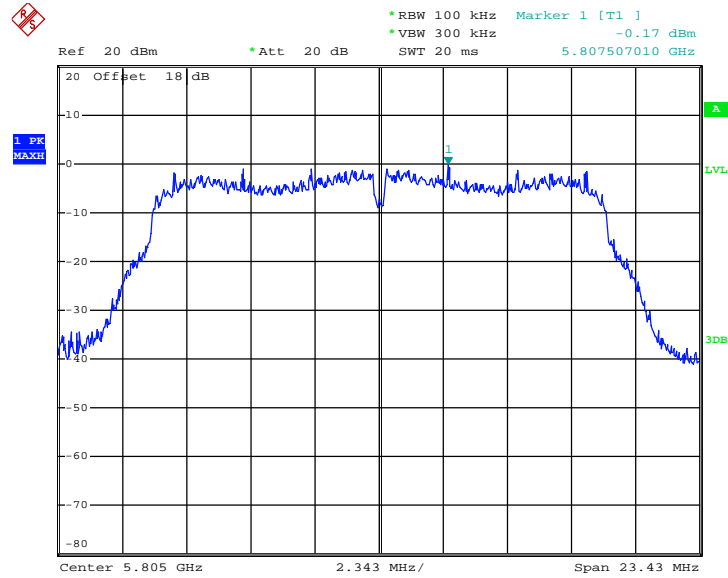
Date: 7.MAR.2013 15:10:03





802.11a – Ant.0

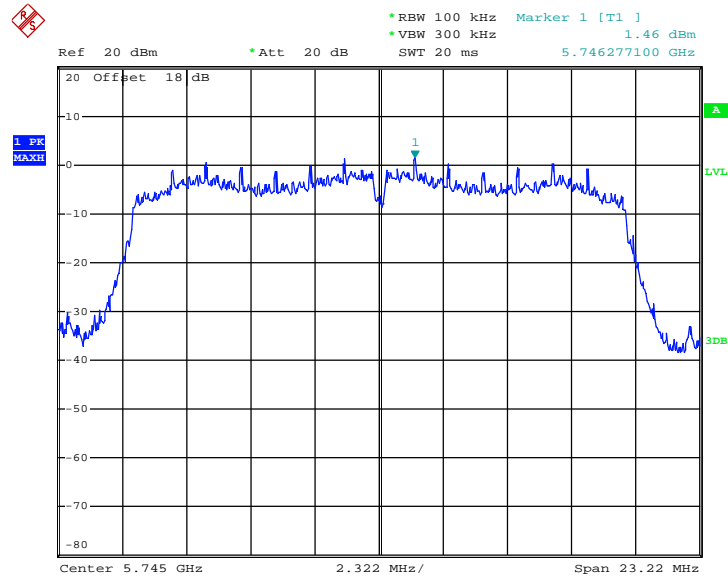
PSD 100kHz Plot on Channel 161



Date: 7.MAR.2013 15:13:15

5GHz 802.11n HT20 – SISO Ant.0

PSD 100kHz Plot on Channel 149

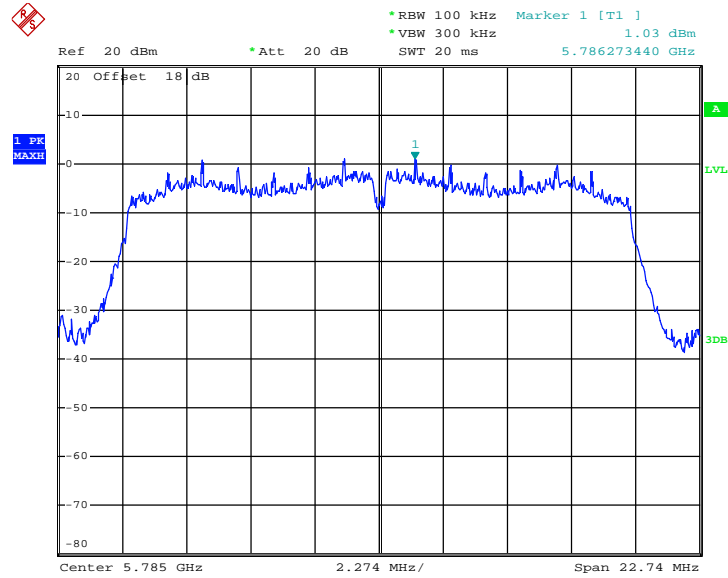


Date: 7.MAR.2013 15:16:22



5GHz 802.11n HT20 – SISO Ant.0

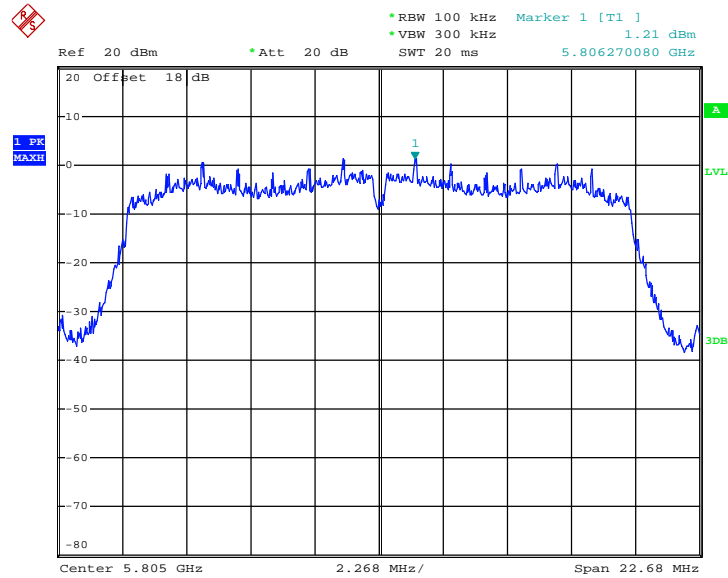
PSD 100kHz Plot on Channel 157



Date: 7.MAR.2013 15:18:45

5GHz 802.11n HT20 – SISO Ant.0

PSD 100kHz Plot on Channel 161

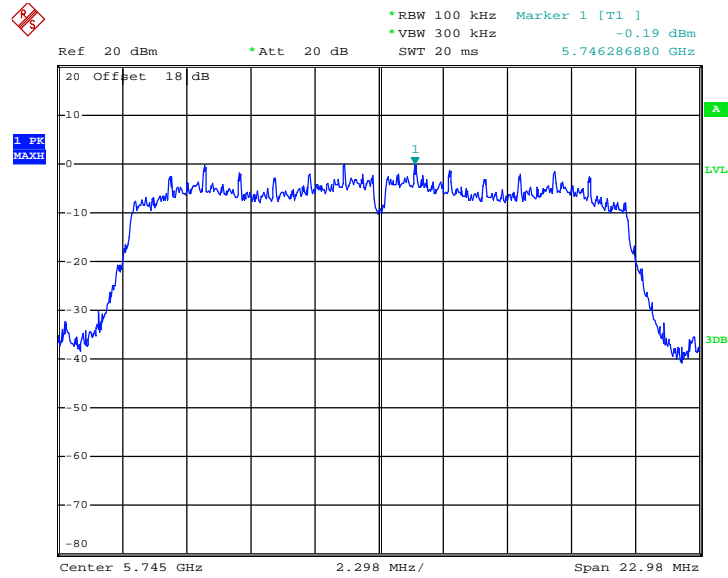


Date: 7.MAR.2013 15:21:31



5GHz 802.11n HT20 – MIMO Ant.0+1(0)

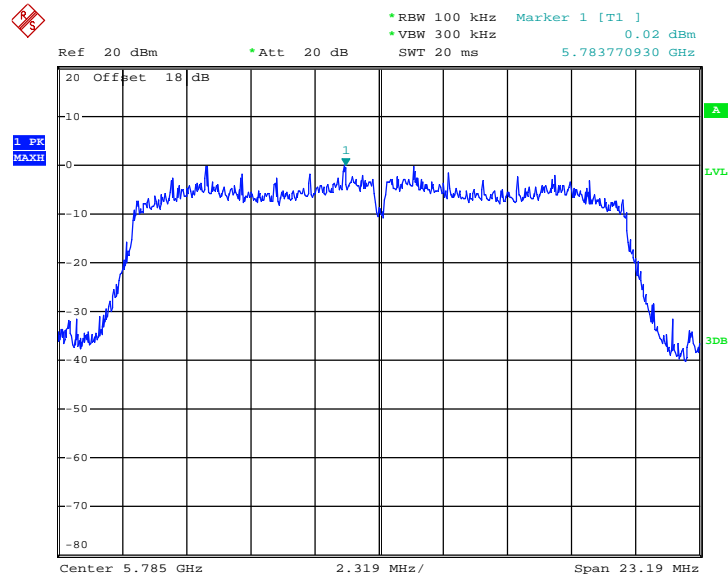
PSD 100kHz Plot on Channel 149



Date: 7.JUL.2013 18:17:23

5GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 100kHz Plot on Channel 157

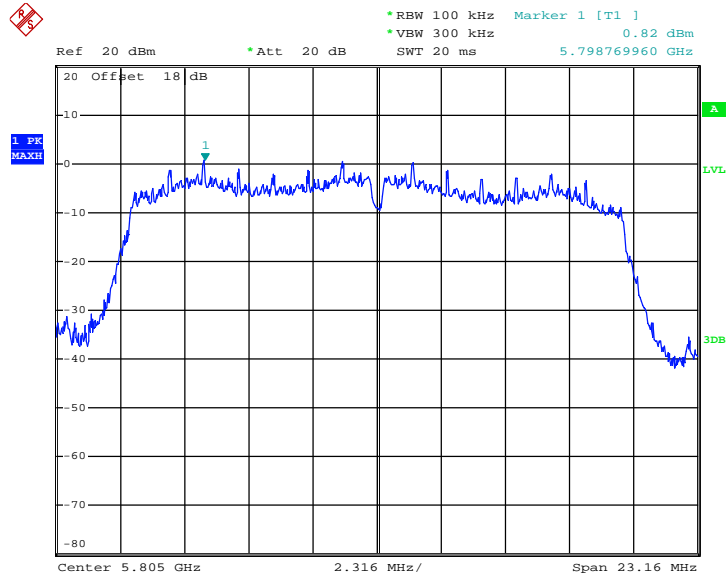


Date: 7.JUL.2013 18:21:01



5GHz 802.11n HT20 – MIMO Ant.0+1(0)

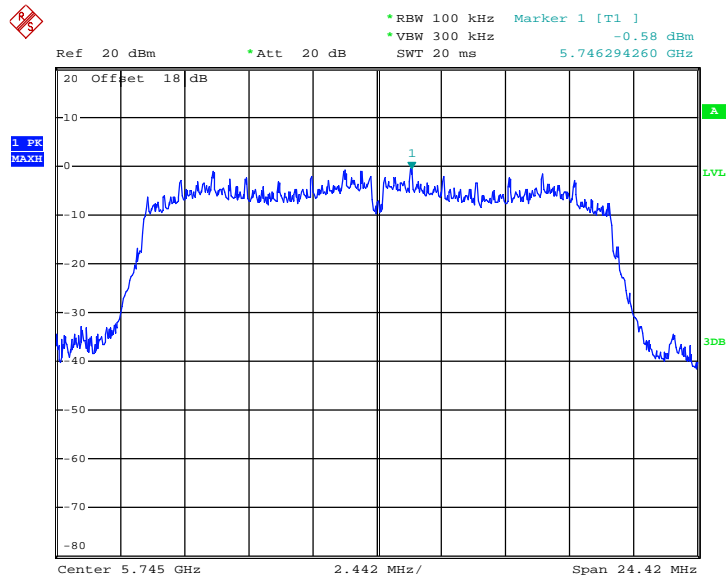
PSD 100kHz Plot on Channel 161



Date: 16.JUL.2013 11:49:38

5GHz 802.11n HT20 – MIMO Ant.0+1(1)

PSD 100kHz Plot on Channel 149

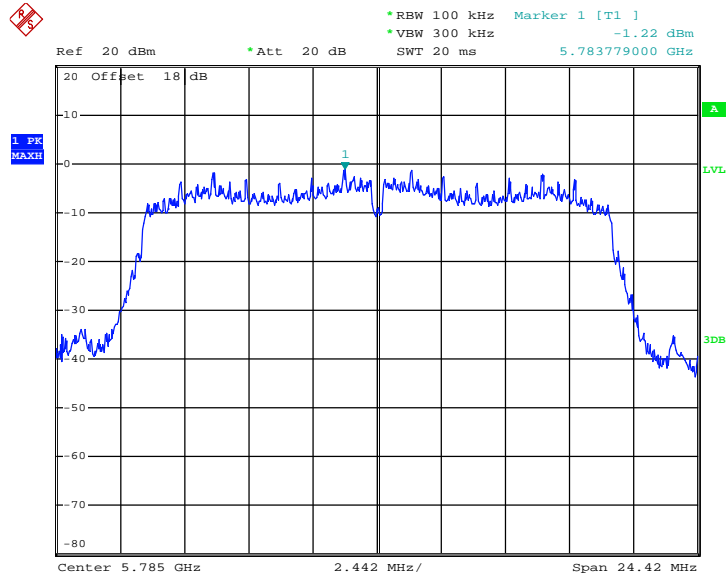


Date: 7.JUL.2013 17:49:13



5GHz 802.11n HT20 – MIMO Ant.0+1(1)

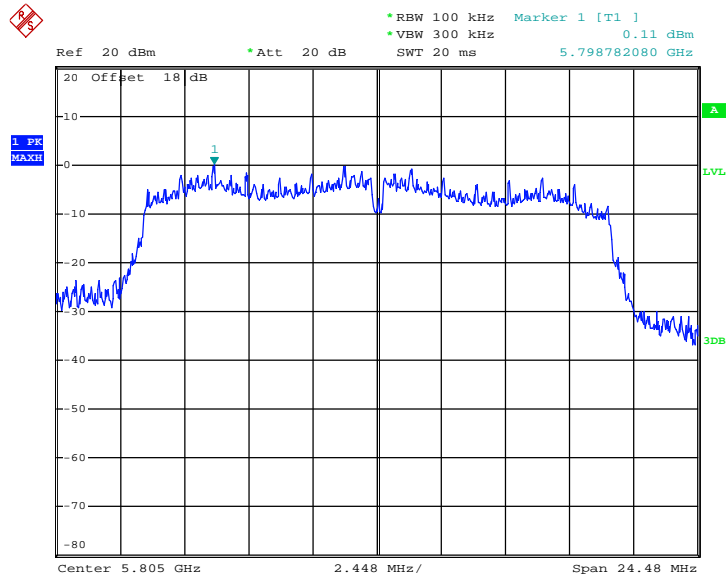
PSD 100kHz Plot on Channel 157



Date: 7.JUL.2013 17:53:12

5GHz 802.11n HT20 – MIMO Ant.0+1(1)

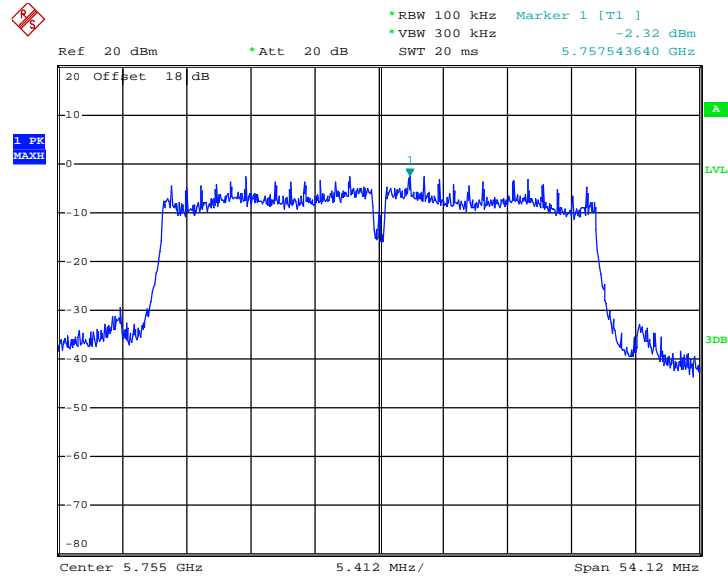
PSD 100kHz Plot on Channel 161



Date: 16.JUL.2013 11:53:30

5GHz 802.11n HT40 – SISO Ant.0

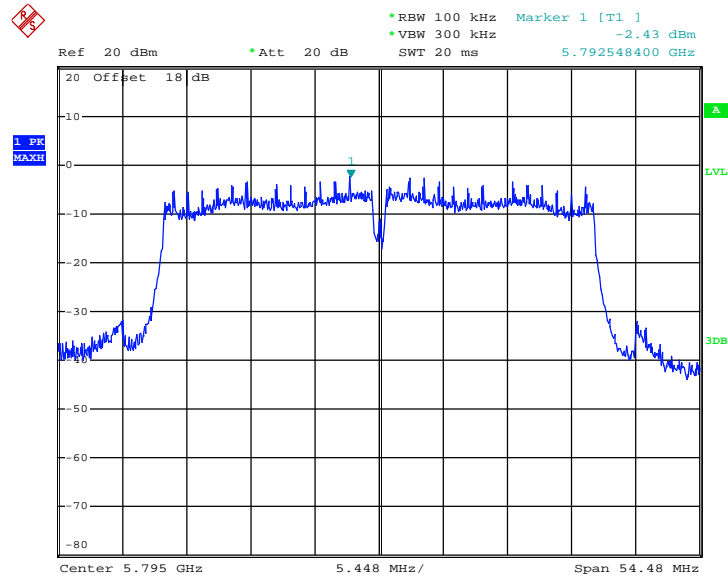
PSD 100kHz Plot on Channel 151



Date: 7.MAR.2013 15:26:17

5GHz 802.11n HT40 – SISO Ant.0

PSD 100kHz Plot on Channel 159

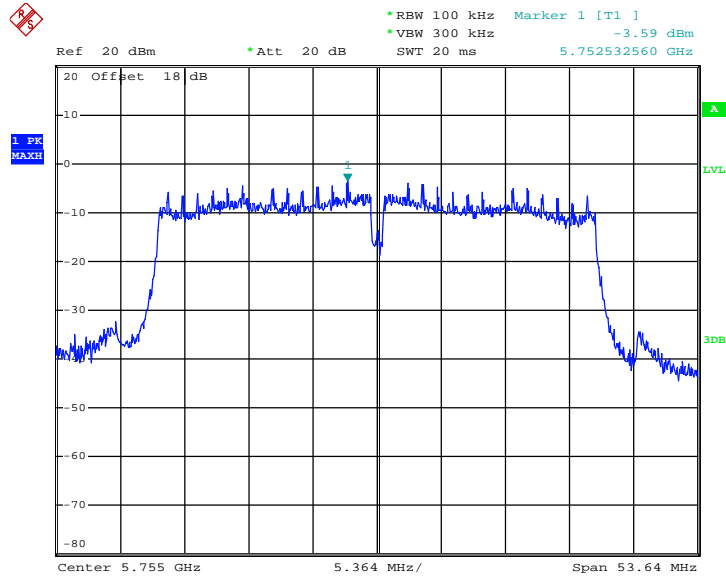


Date: 7.MAR.2013 15:29:24



5GHz 802.11n HT40 – MIMO Ant.0+1(0)

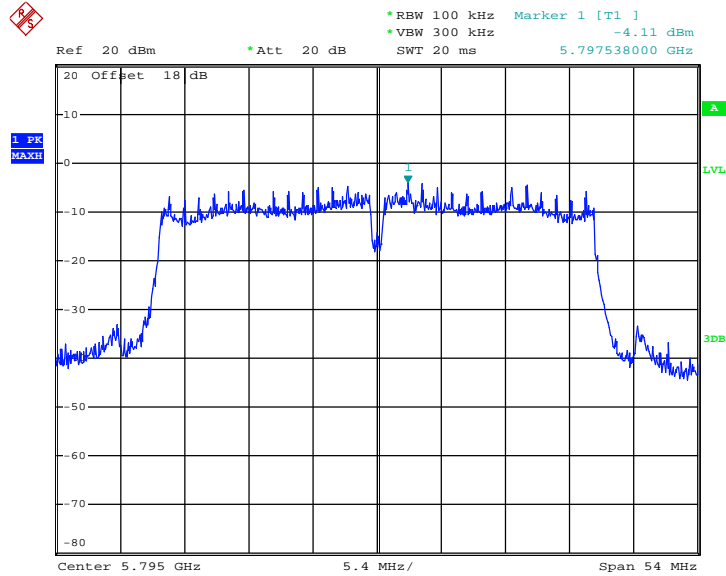
PSD 100kHz Plot on Channel 151



Date: 7.JUL.2013 18:14:20

5GHz 802.11n HT40 – MIMO Ant.0+1(0)

PSD 100kHz Plot on Channel 159

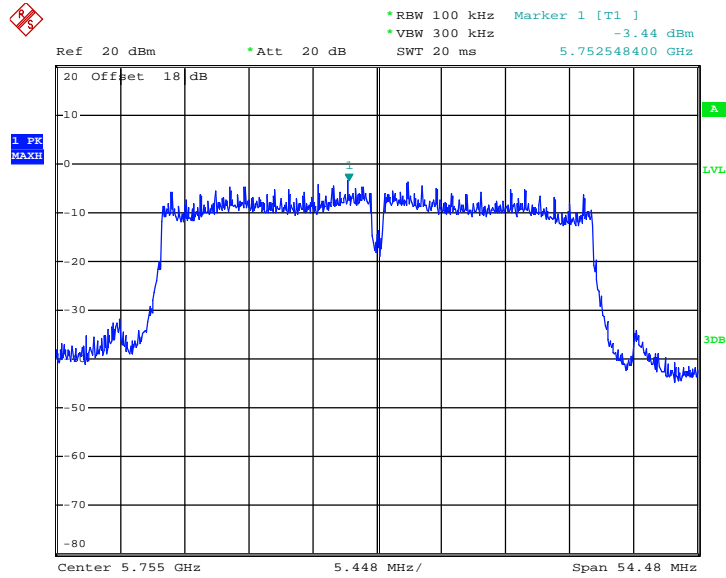


Date: 7.JUL.2013 18:10:05



5GHz 802.11n HT40 – MIMO Ant.0+1(1)

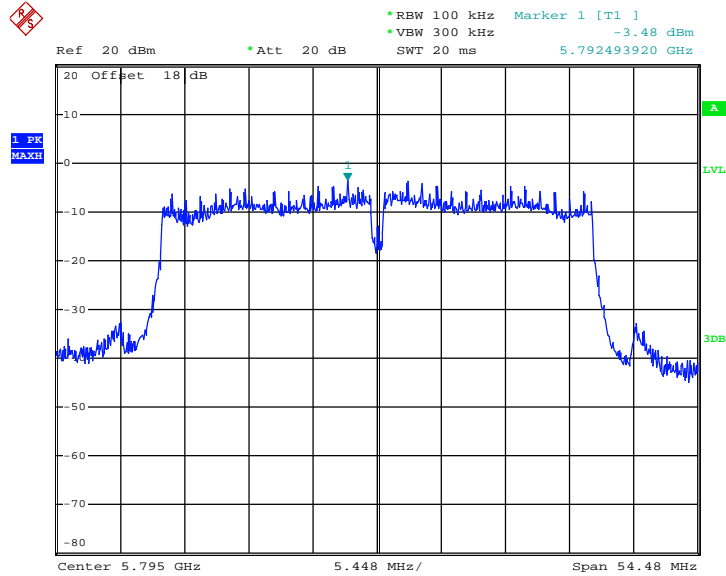
PSD 100kHz Plot on Channel 151



Date: 7.JUL.2013 18:00:51

5GHz 802.11n HT40 – MIMO Ant.0+1(1)

PSD 100kHz Plot on Channel 159



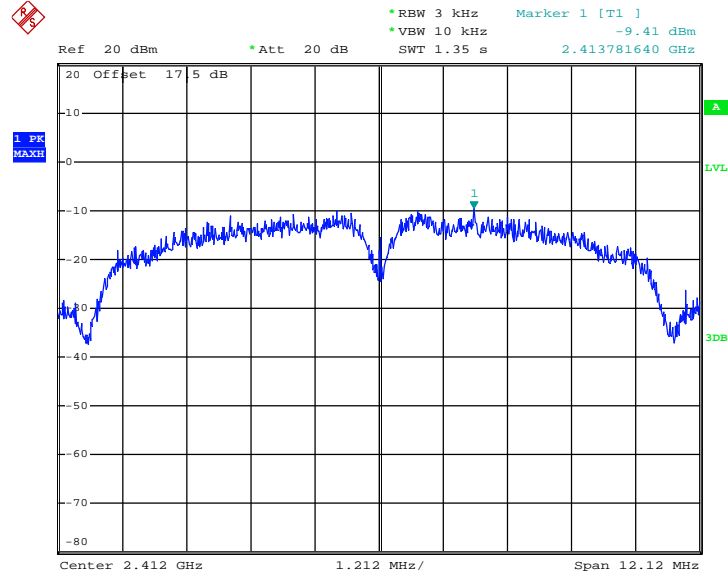
Date: 7.JUL.2013 18:04:09



### 3.3.7 Test Result of Power Spectral Density Plots (3kHz)

802.11b – Ant.0

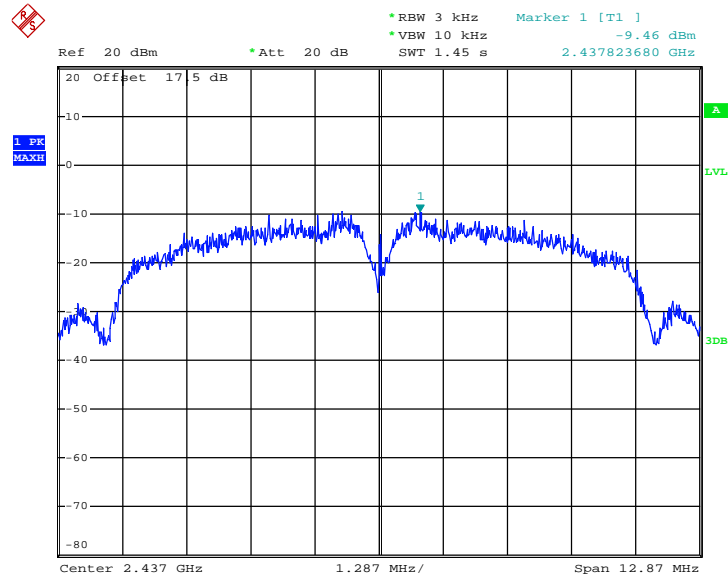
PSD 3kHz Plot on Channel 01



Date: 7.MAR.2013 13:56:50

802.11b – Ant.0

PSD 3kHz Plot on Channel 06

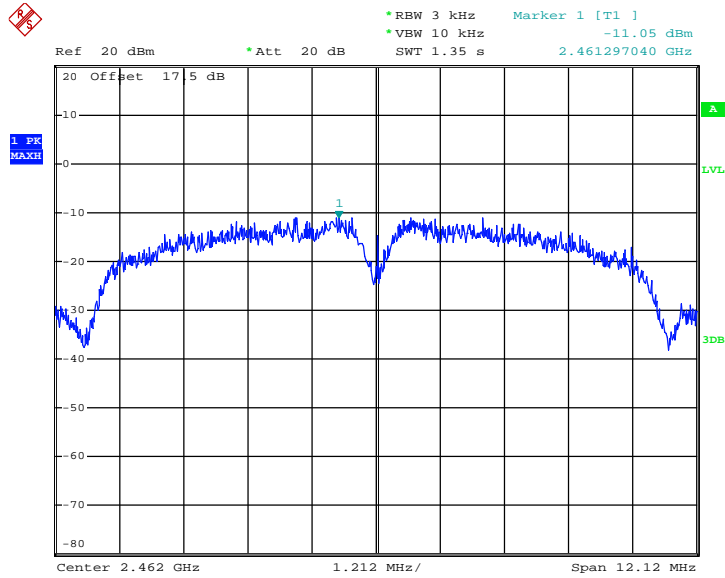


Date: 7.MAR.2013 14:01:15



802.11b – Ant.0

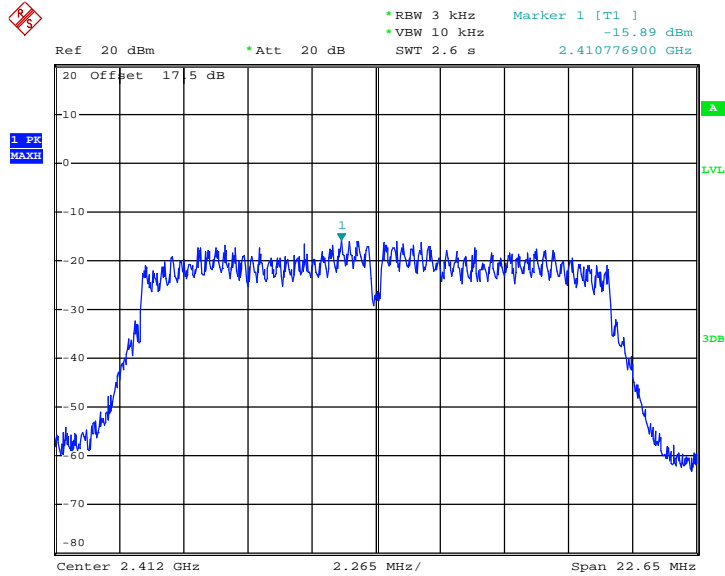
PSD 3kHz Plot on Channel 11



Date: 7.MAR.2013 14:04:09

802.11g – Ant.0

PSD 3kHz Plot on Channel 01

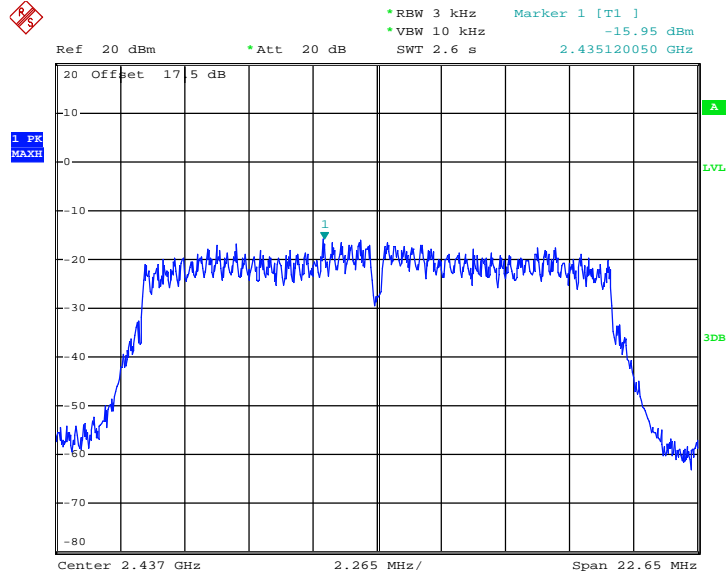


Date: 7.MAR.2013 14:10:11



802.11g – Ant.0

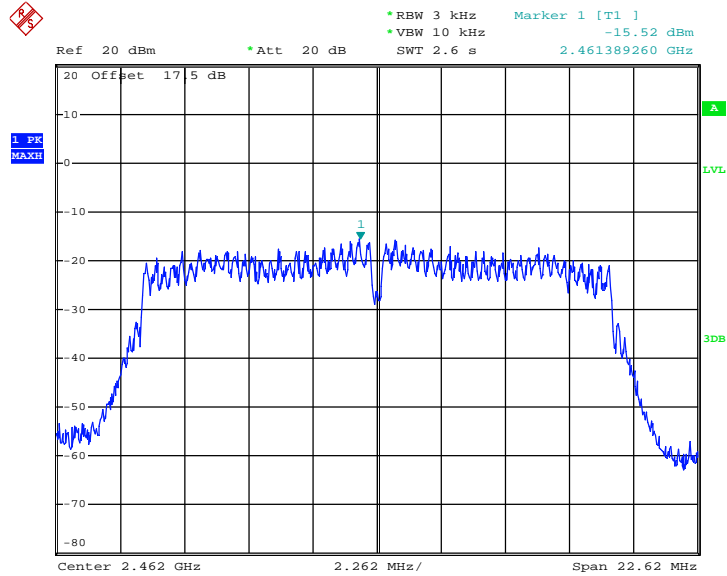
PSD 3kHz Plot on Channel 06



Date: 7.MAR.2013 14:13:08

802.11g – Ant.0

PSD 3kHz Plot on Channel 11

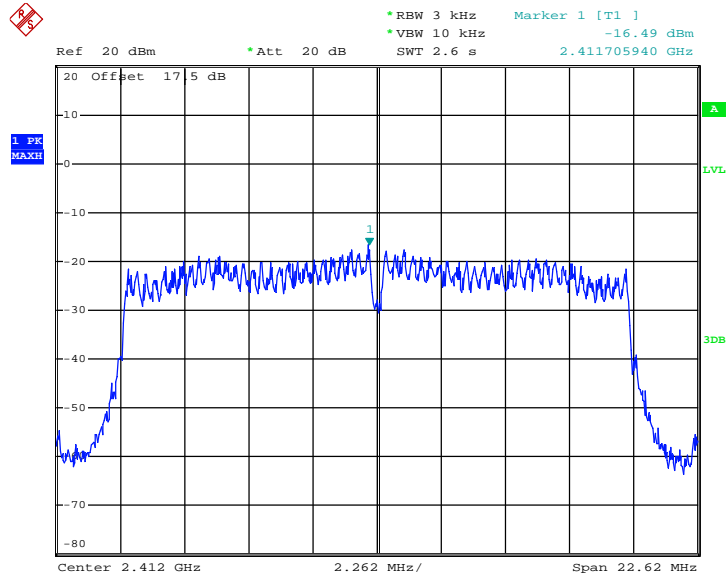


Date: 7.MAR.2013 14:16:21



2.4GHz 802.11n HT20 – SISO Ant.0

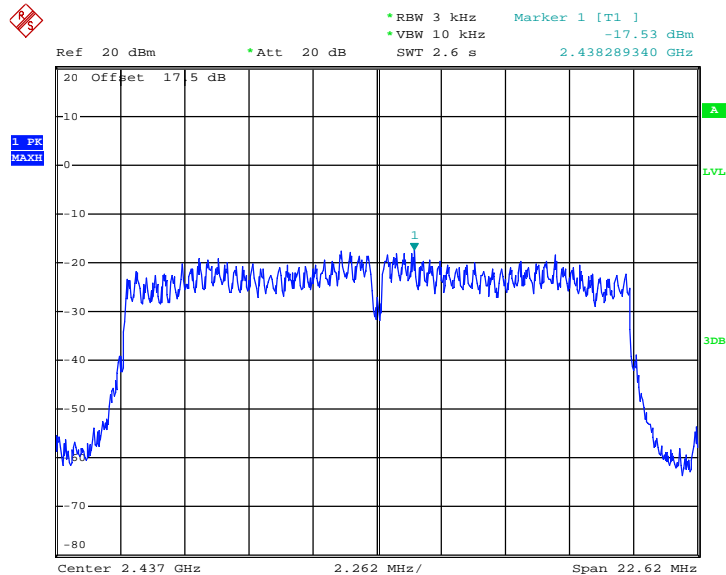
PSD 3kHz Plot on Channel 01



Date: 7.MAR.2013 14:20:34

2.4GHz 802.11n HT20 – SISO Ant.0

PSD 3kHz Plot on Channel 06

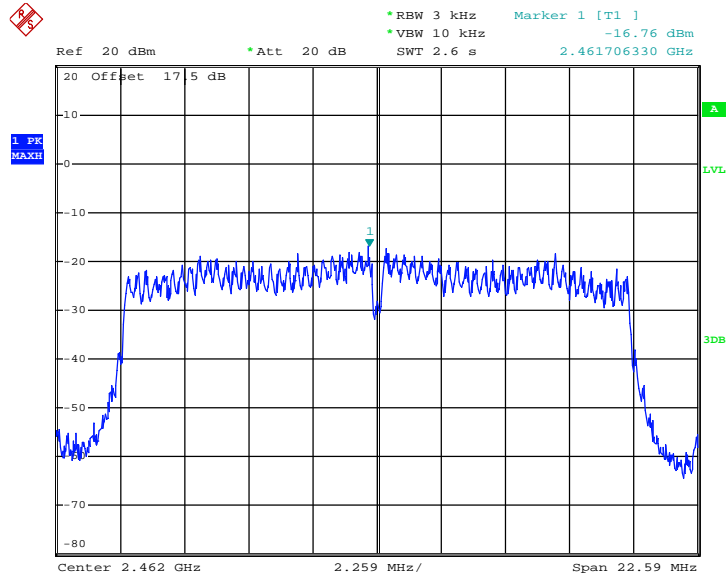


Date: 7.MAR.2013 14:24:07



2.4GHz 802.11n HT20 – SISO Ant.0

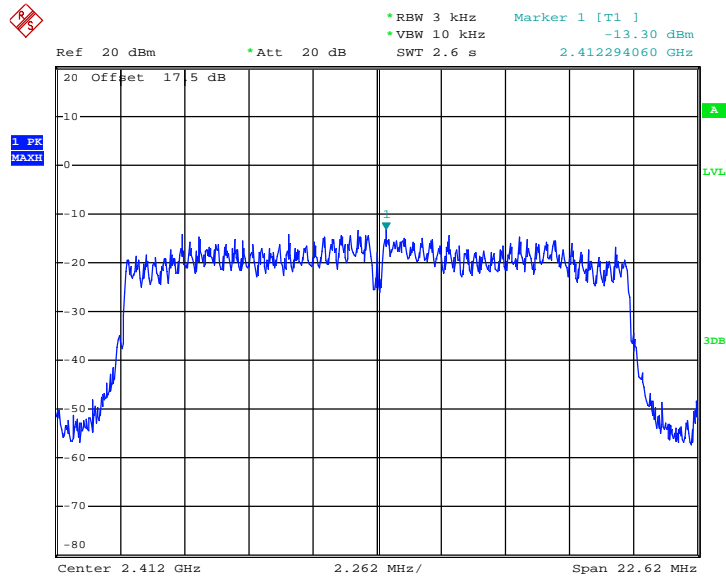
PSD 3kHz Plot on Channel 11



Date: 7.MAR.2013 14:27:26

2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 01

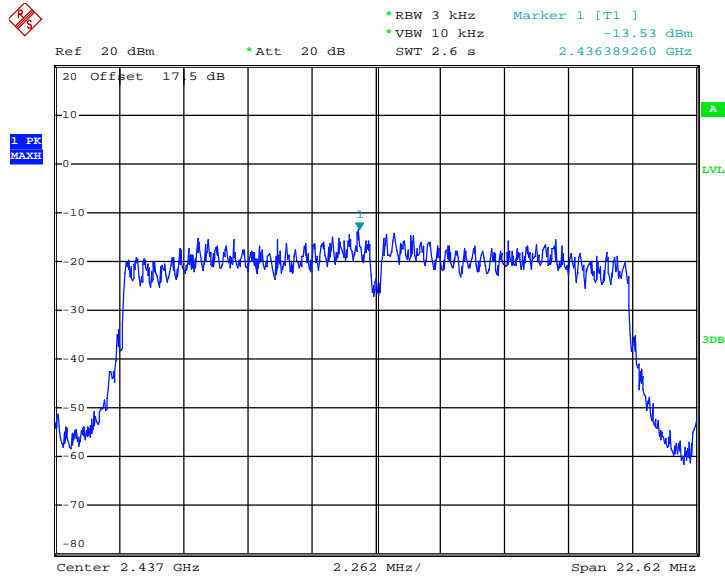


Date: 7.JUL.2013 16:30:10



2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

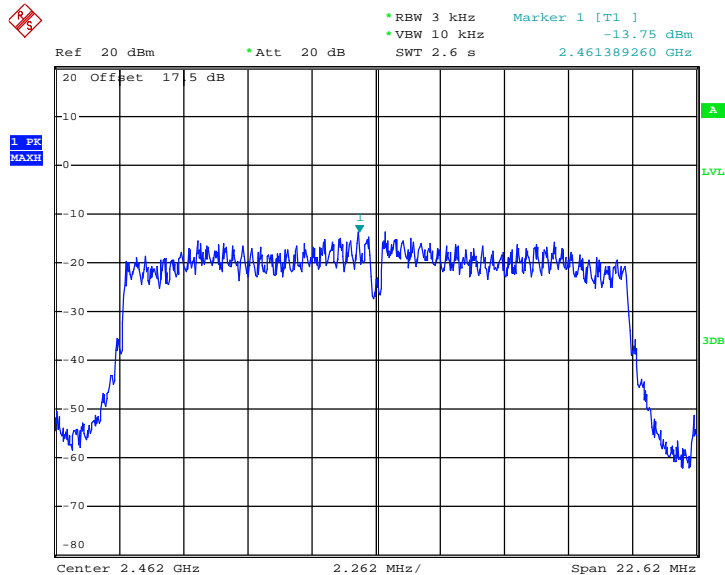
PSD 3kHz Plot on Channel 06



Date: 7.JUL.2013 16:40:46

2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 11

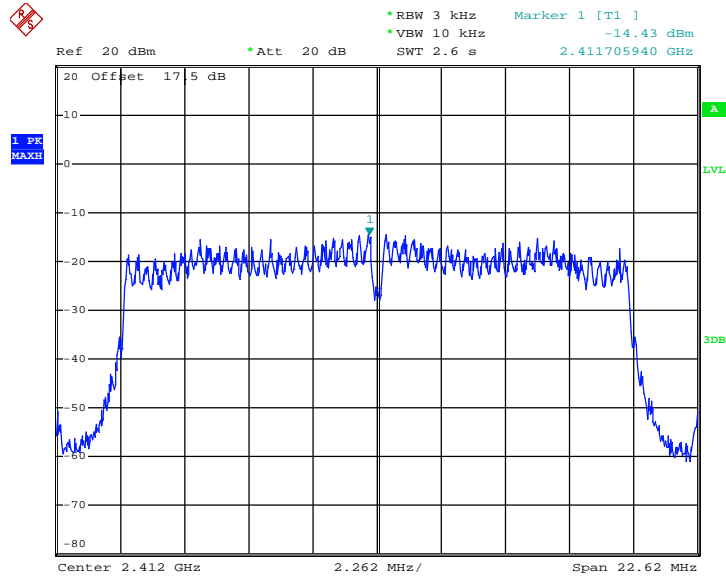


Date: 7.JUL.2013 16:46:14



2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

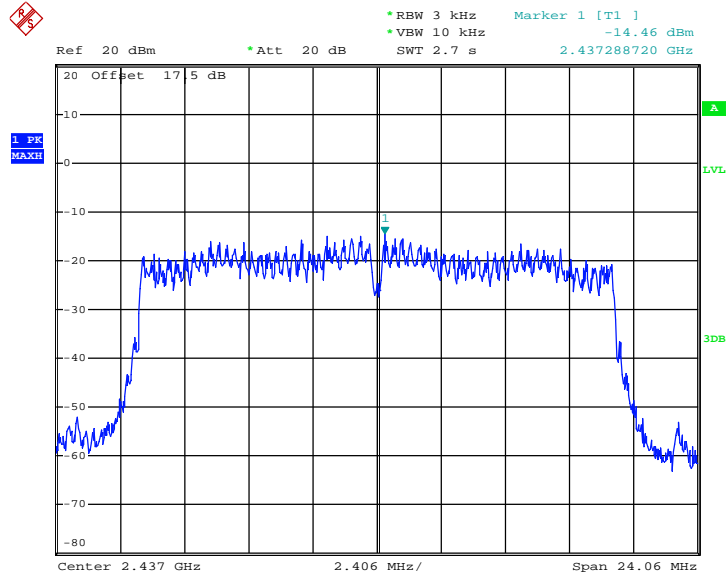
PSD 3kHz Plot on Channel 01



Date: 7.JUL.2013 16:53:42

2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

PSD 3kHz Plot on Channel 06

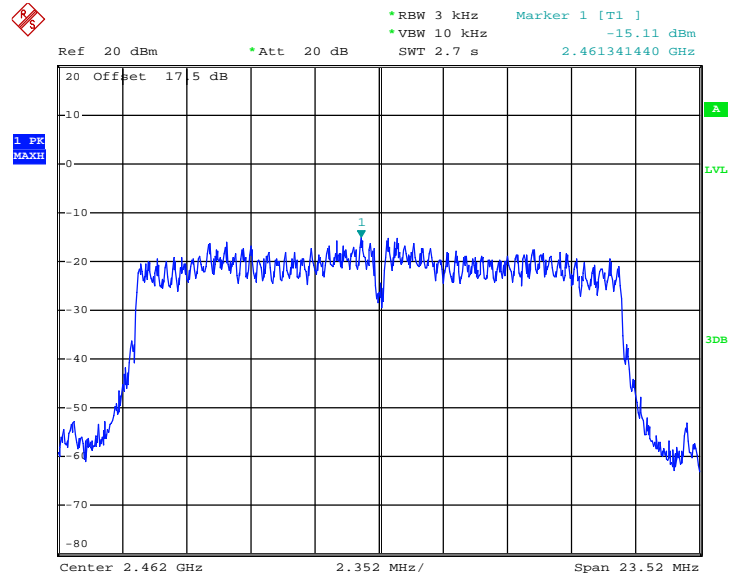


Date: 7.JUL.2013 16:58:48



2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

PSD 3kHz Plot on Channel 11



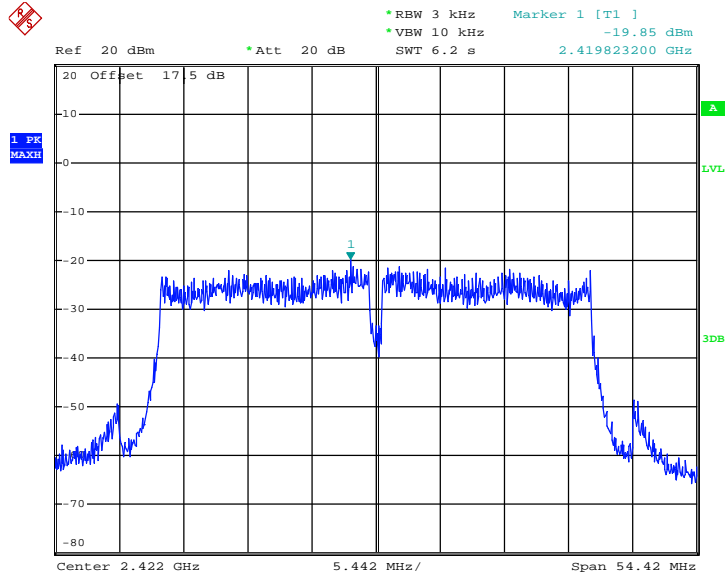
Date: 7.JUL.2013 17:02:41





2.4GHz 802.11n HT40 – SISO Ant.0

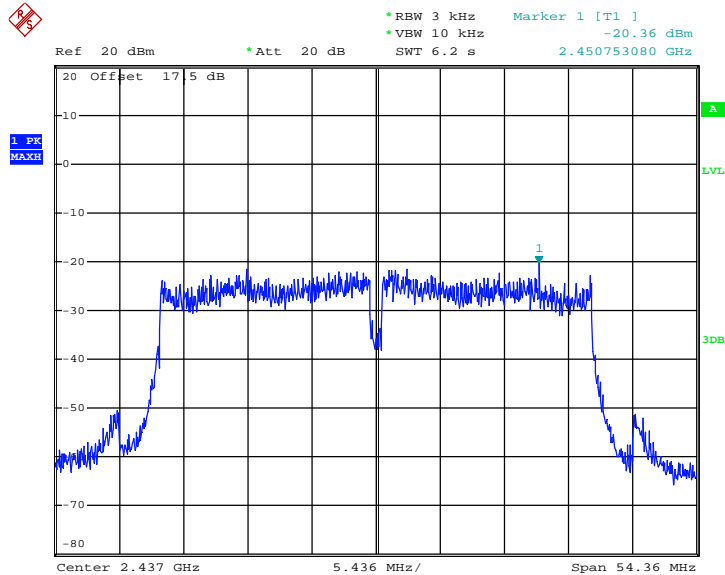
PSD 3kHz Plot on Channel 03



Date: 7.MAR.2013 14:42:48

2.4GHz 802.11n HT40 – SISO Ant.0

PSD 3kHz Plot on Channel 06

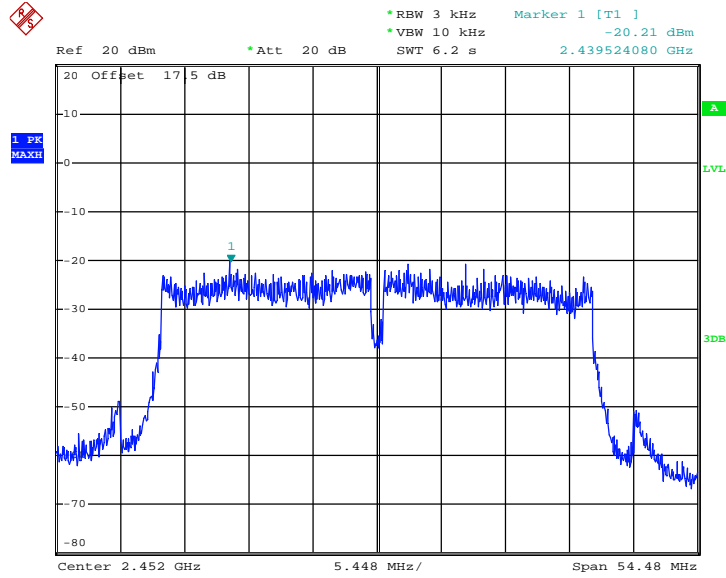


Date: 7.MAR.2013 14:49:51



2.4GHz 802.11n HT40 – SISO Ant.0

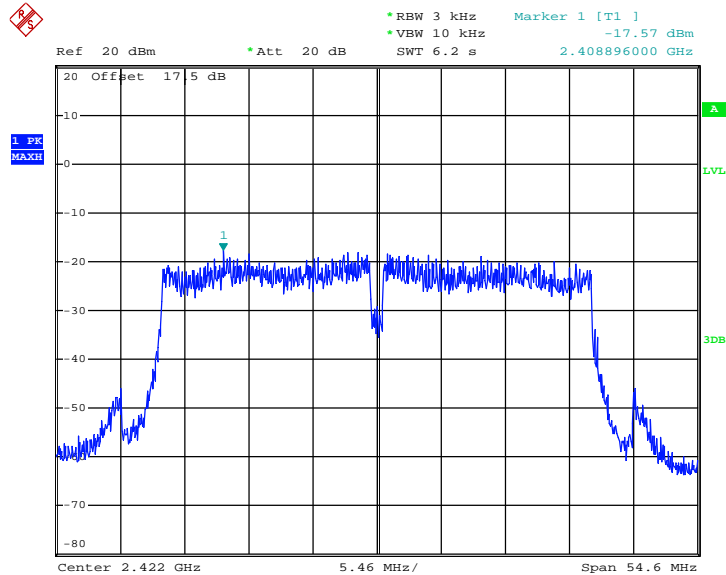
PSD 3kHz Plot on Channel 09



Date: 7.MAR.2013 14:54:34

2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 03

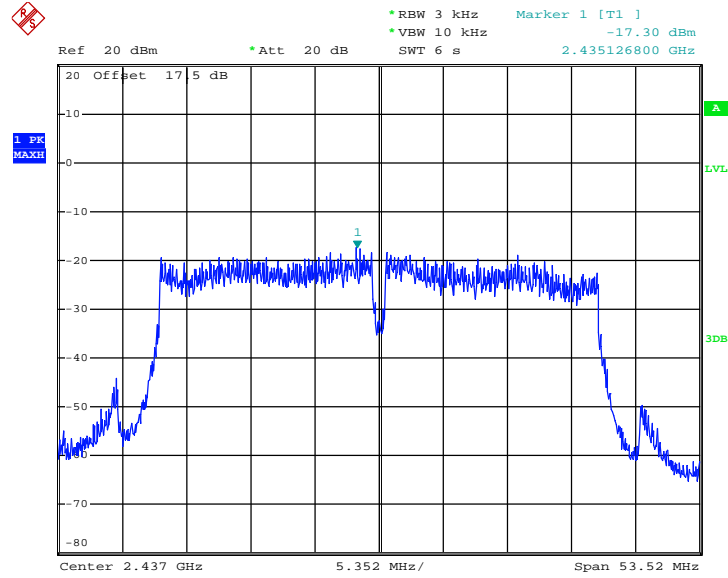


Date: 7.JUL.2013 17:09:03



2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

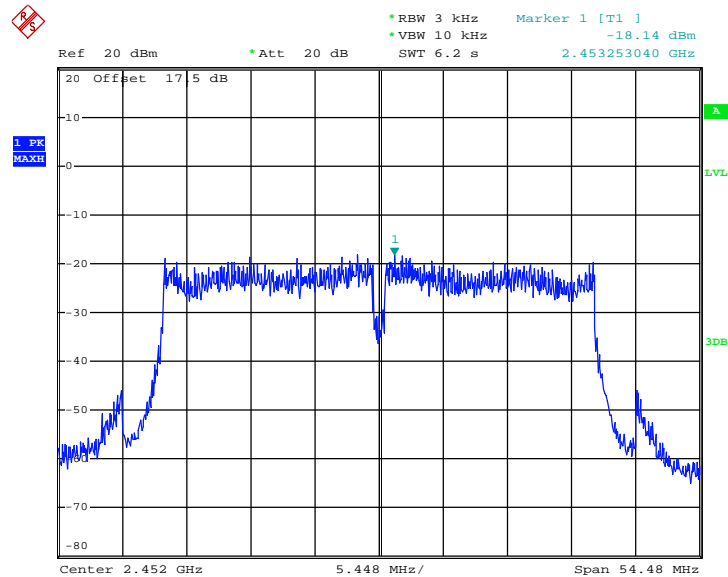
PSD 3kHz Plot on Channel 06



Date: 7.JUL.2013 17:13:09

2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 09

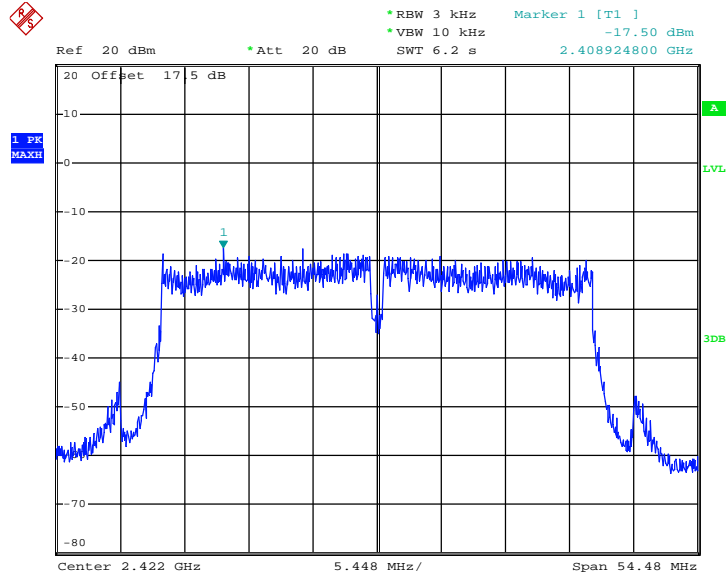


Date: 7.JUL.2013 17:17:59



2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

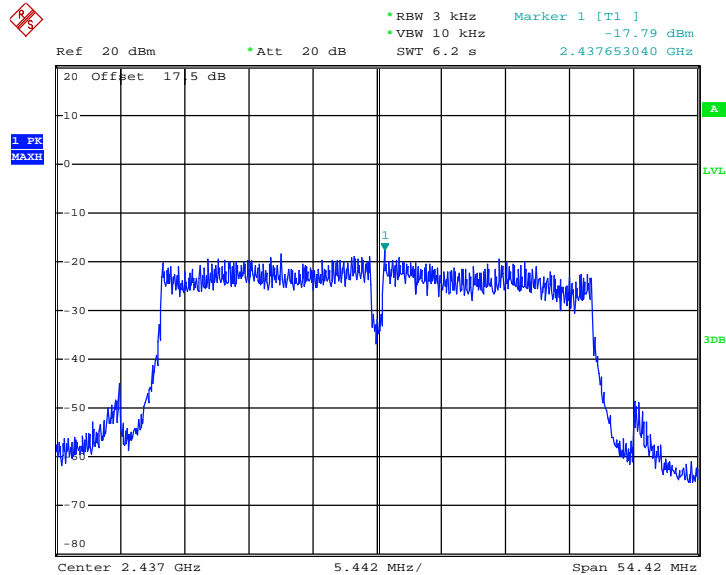
PSD 3kHz Plot on Channel 03



Date: 7.JUL.2013 17:23:34

2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

PSD 3kHz Plot on Channel 06

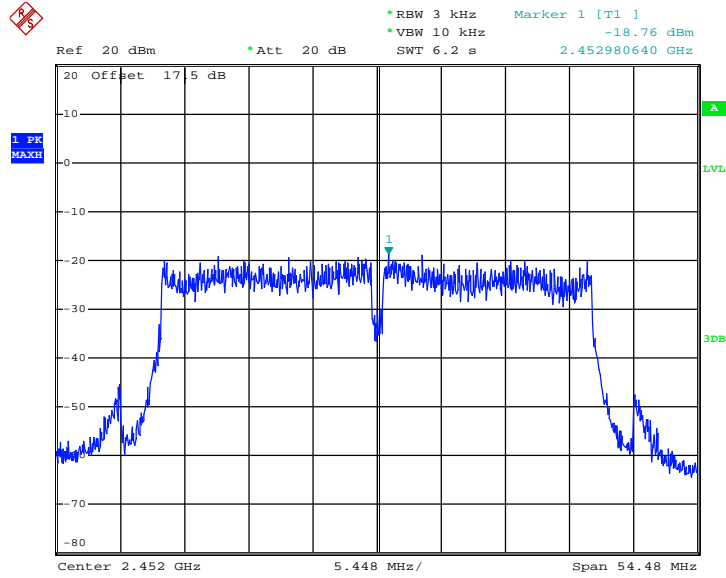


Date: 7.JUL.2013 17:27:23



2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

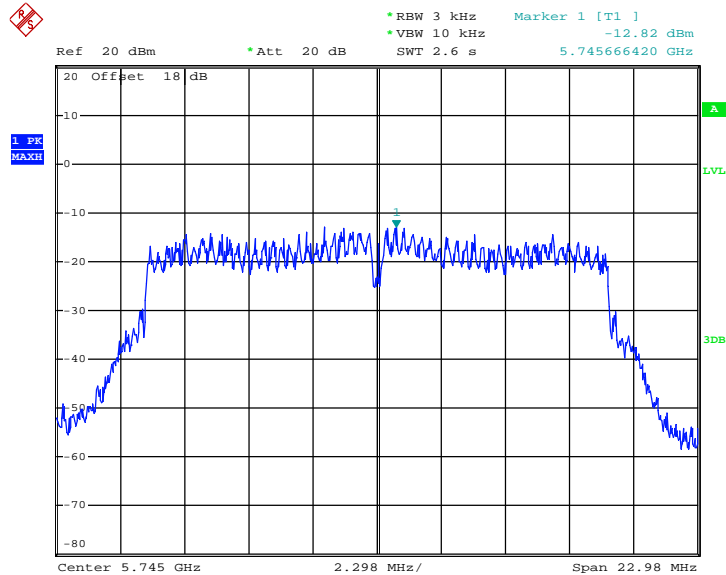
PSD 3kHz Plot on Channel 09



Date: 7.JUL.2013 17:32:52

802.11a – Ant.0

PSD 3kHz Plot on Channel 149

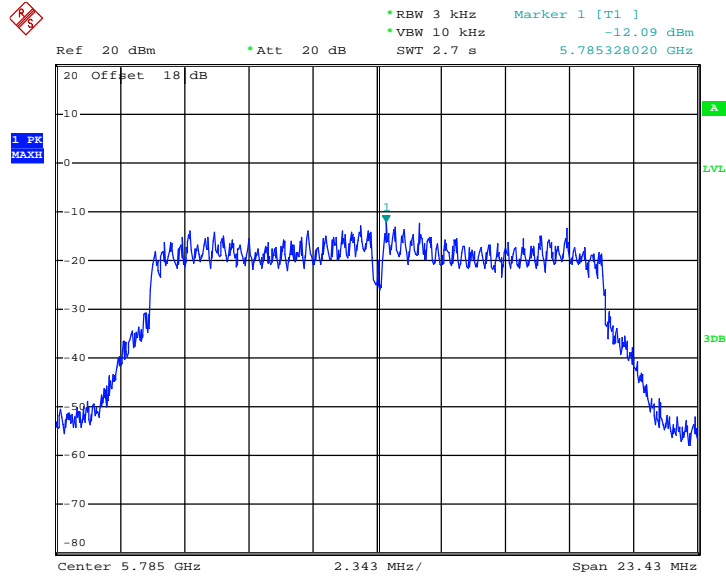


Date: 7.MAR.2013 15:06:45



802.11a – Ant.0

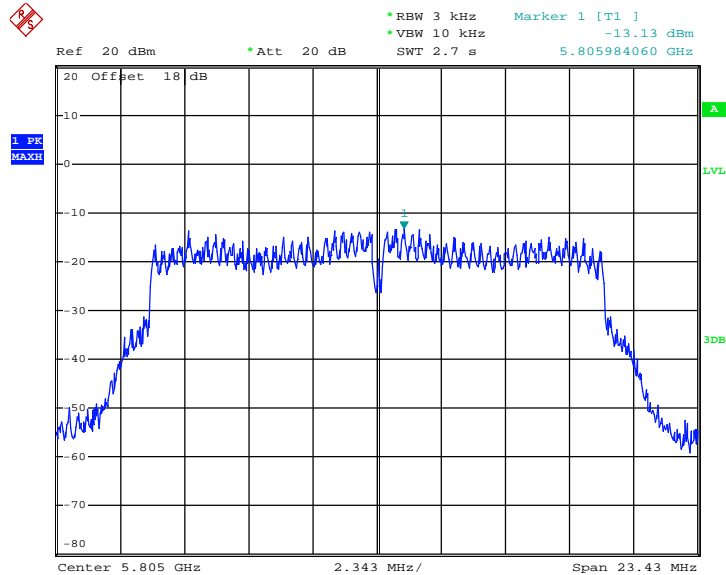
PSD 3kHz Plot on Channel 157



Date: 7.MAR.2013 15:09:51

802.11a – Ant.0

PSD 3kHz Plot on Channel 161

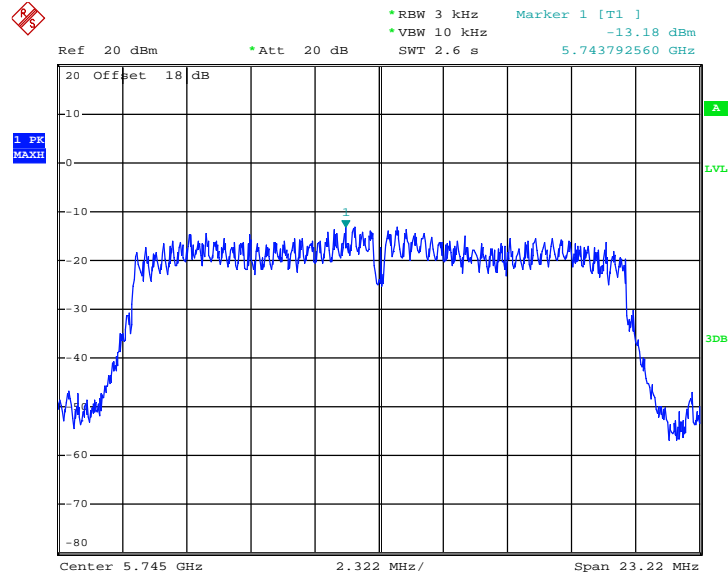


Date: 7.MAR.2013 15:13:03



5GHz 802.11n HT20 – SISO Ant.0

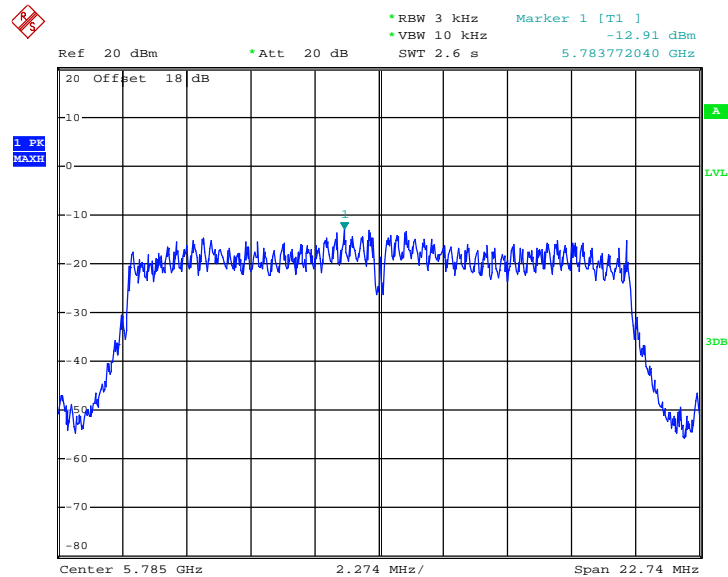
PSD 3kHz Plot on Channel 149



Date: 7.MAR.2013 15:16:08

5GHz 802.11n HT20 – SISO Ant.0

PSD 3kHz Plot on Channel 157

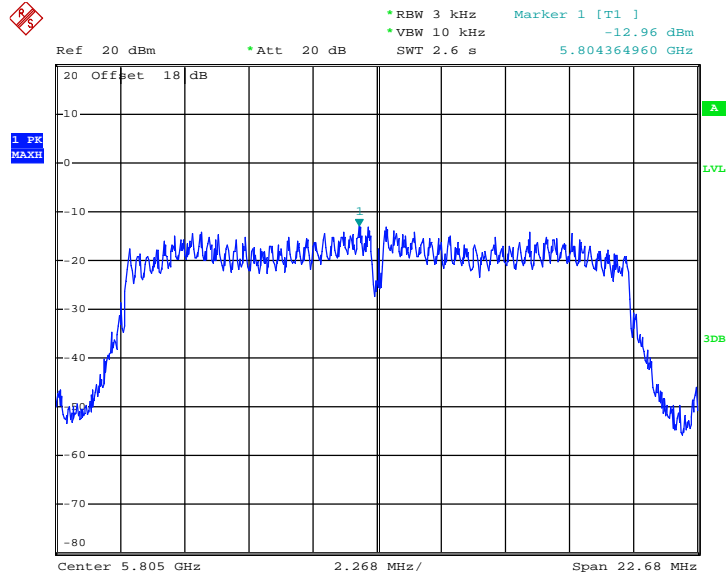


Date: 7.MAR.2013 15:18:24



5GHz 802.11n HT20 – SISO Ant.0

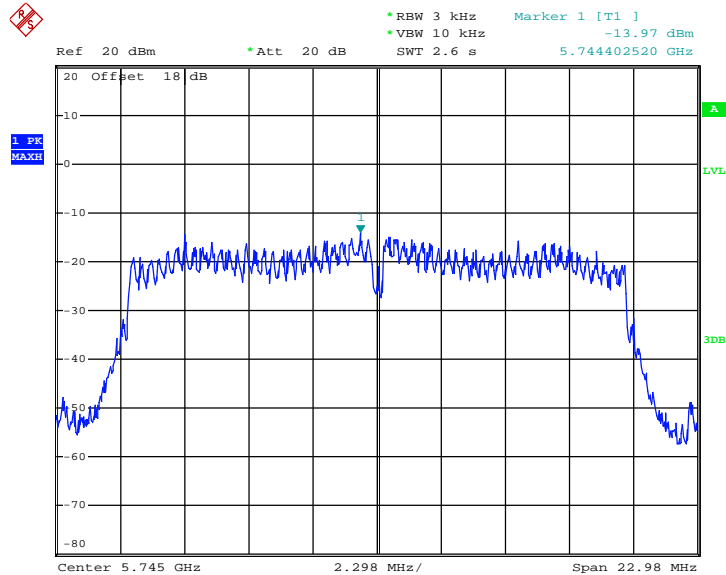
PSD 3kHz Plot on Channel 161



Date: 7.MAR.2013 15:21:18

5GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 149



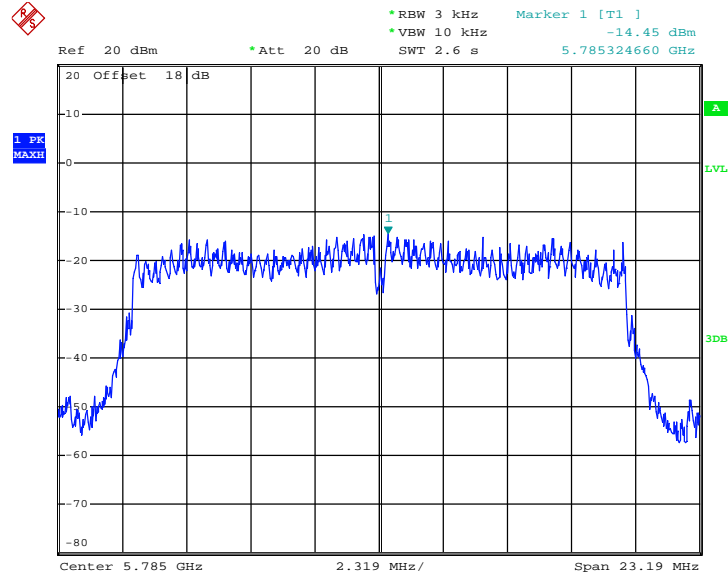
Date: 7.JUL.2013 18:17:08





5GHz 802.11n HT20 – MIMO Ant.0+1(0)

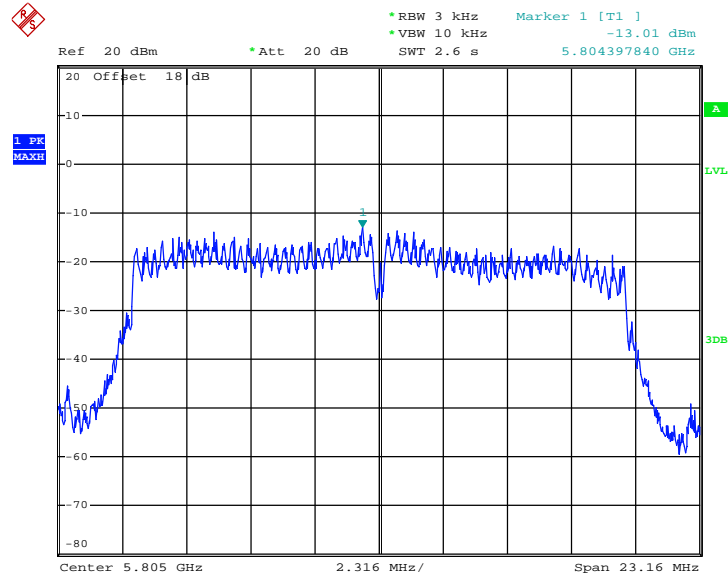
PSD 3kHz Plot on Channel 157



Date: 7.JUL.2013 18:20:49

5GHz 802.11n HT20 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 161

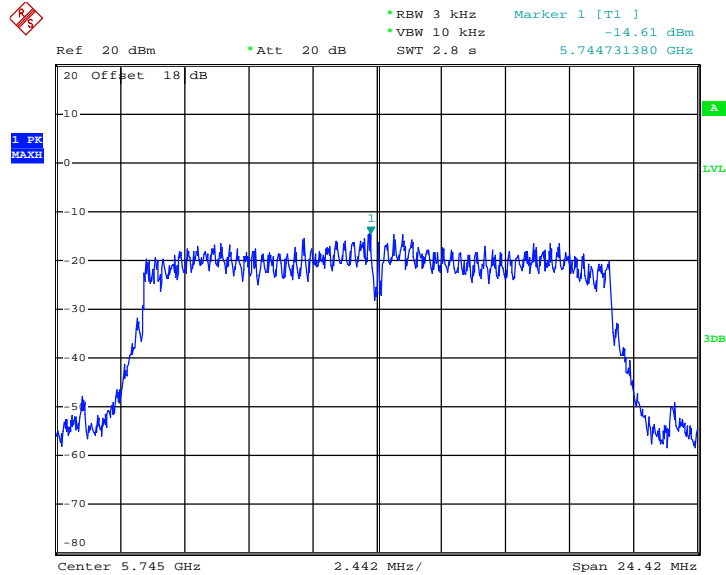


Date: 16.JUL.2013 11:49:29



5GHz 802.11n HT20 – MIMO Ant.0+1(1)

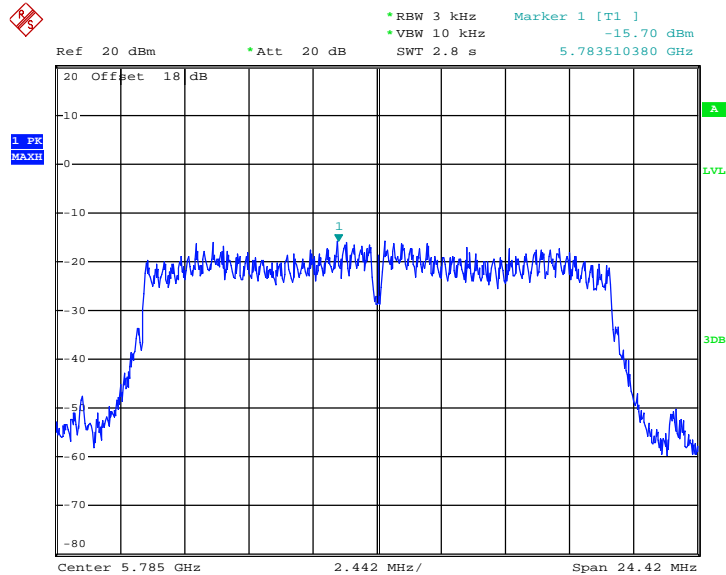
PSD 3kHz Plot on Channel 149



Date: 7.JUL.2013 17:48:44

5GHz 802.11n HT20 – MIMO Ant.0+1(1)

PSD 3kHz Plot on Channel 157

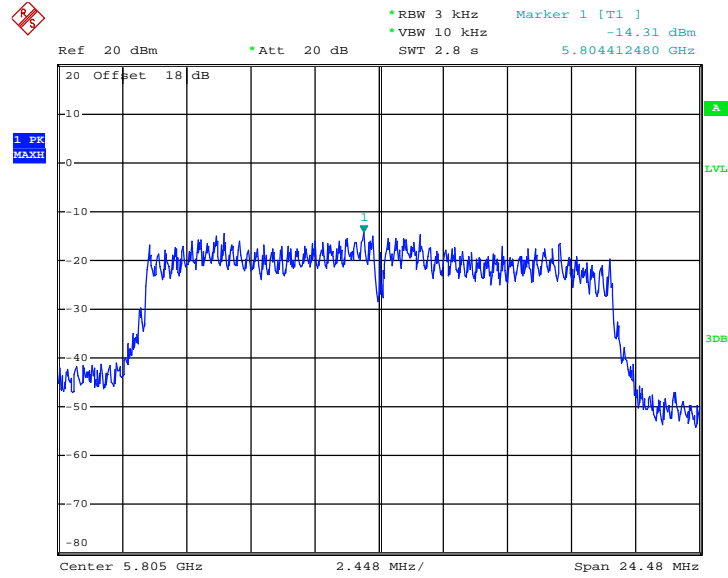


Date: 7.JUL.2013 17:52:40



5GHz 802.11n HT20 – MIMO Ant.0+1(1)

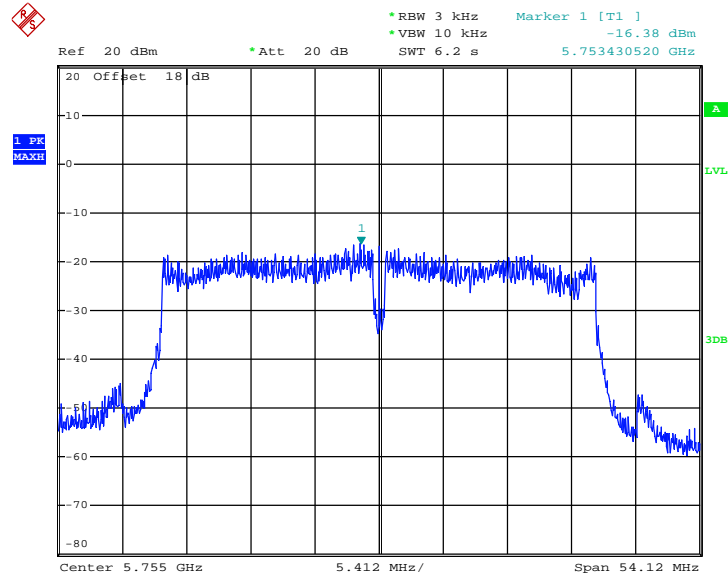
PSD 3kHz Plot on Channel 161



Date: 16.JUL.2013 11:53:21

5GHz 802.11n HT40 – SISO Ant.0

PSD 3kHz Plot on Channel 151

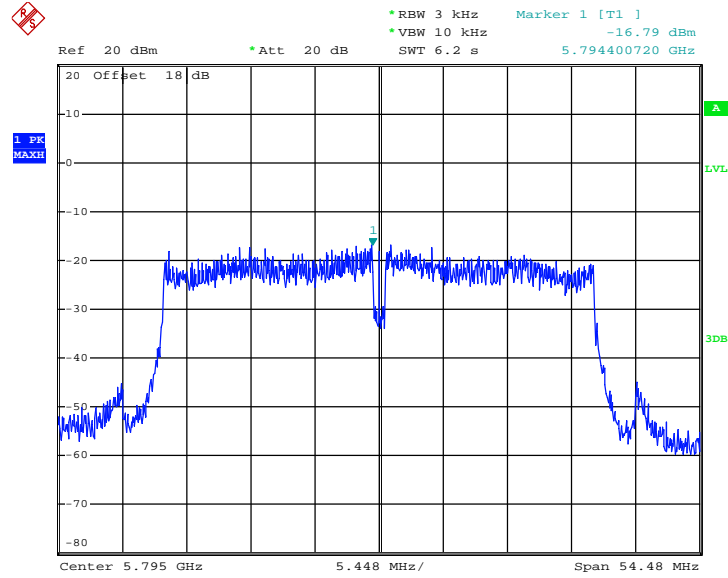


Date: 7.MAR.2013 15:25:16



5GHz 802.11n HT40 – SISO Ant.0

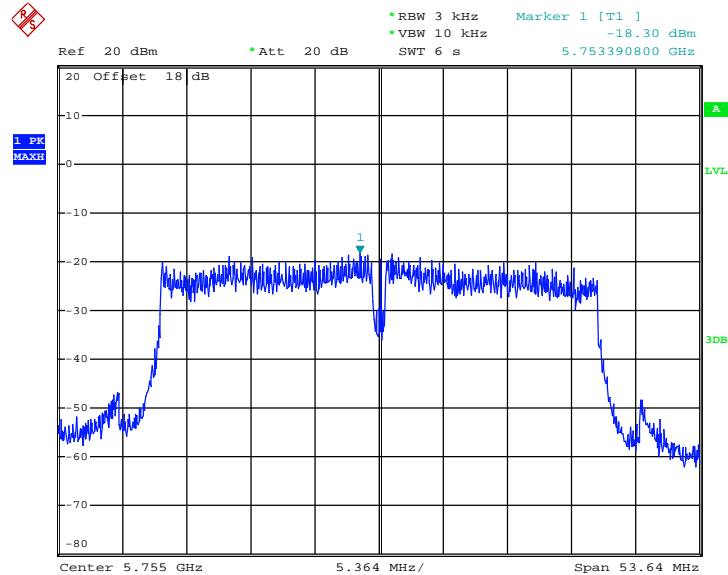
PSD 3kHz Plot on Channel 159



Date: 7.MAR.2013 15:29:10

5GHz 802.11n HT40 – MIMO Ant.0+1(0)

PSD 3kHz Plot on Channel 151

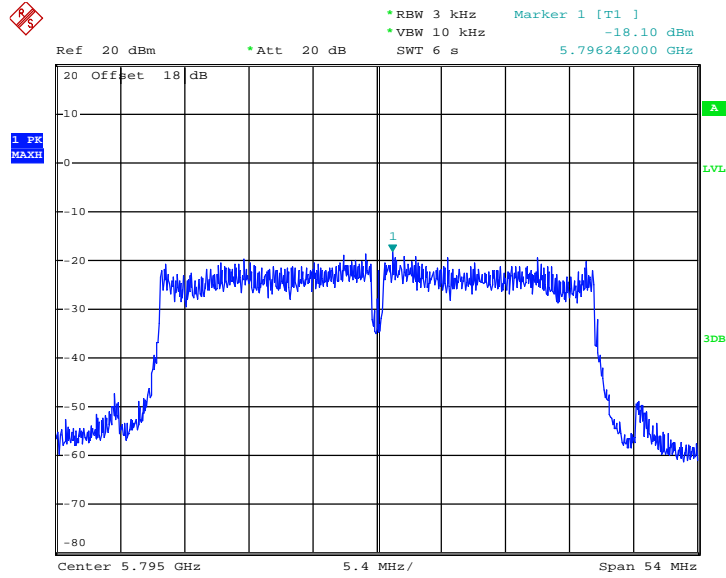


Date: 7.JUL.2013 18:13:56



5GHz 802.11n HT40 – MIMO Ant.0+1(0)

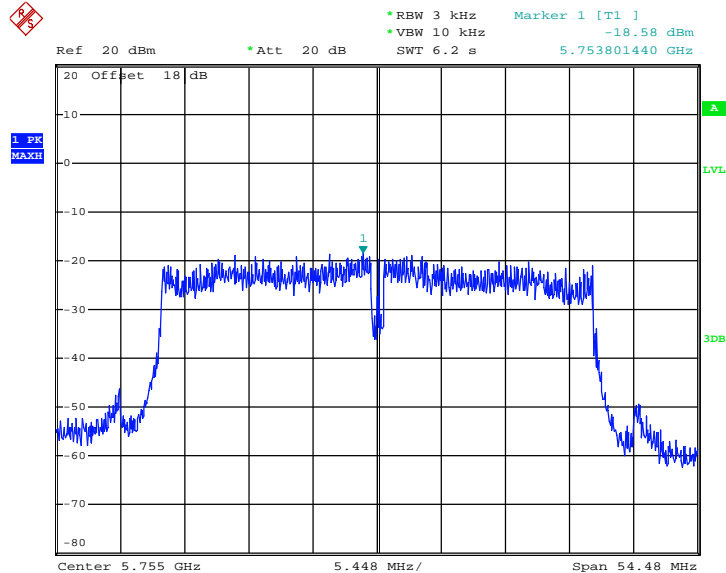
PSD 3kHz Plot on Channel 159



Date: 7.JUL.2013 18:09:40

5GHz 802.11n HT40 – MIMO Ant.0+1(1)

PSD 3kHz Plot on Channel 151

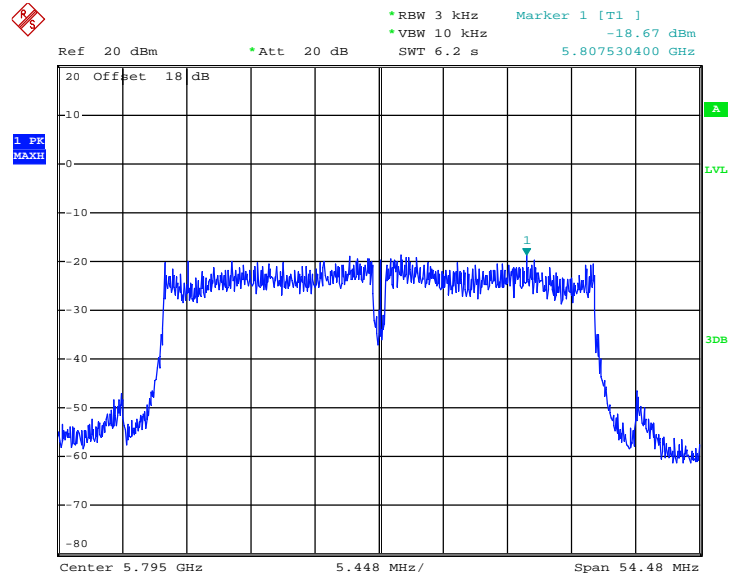


Date: 7.JUL.2013 18:00:37



5GHz 802.11n HT40 – MIMO Ant.0+1(1)

PSD 3kHz Plot on Channel 159



Date: 7.JUL.2013 18:03:56

## 3.4 Conducted Band Edges and Spurious Emission Measurement

### 3.4.1 Limit of Conducted Band Edges and Spurious Emission Measurement

In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

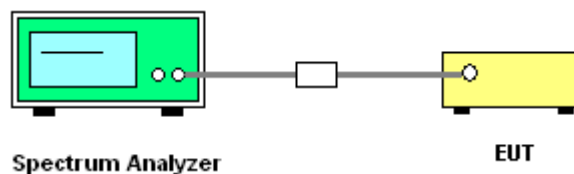
### 3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.4.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Set RBW = 100 kHz, VBW=300 kHz, Peak Detector. Unwanted Emissions measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when maximum peak conducted output power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB per 15.247(d).
5. Measure and record the results in the test report.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

### 3.4.4 Test Setup

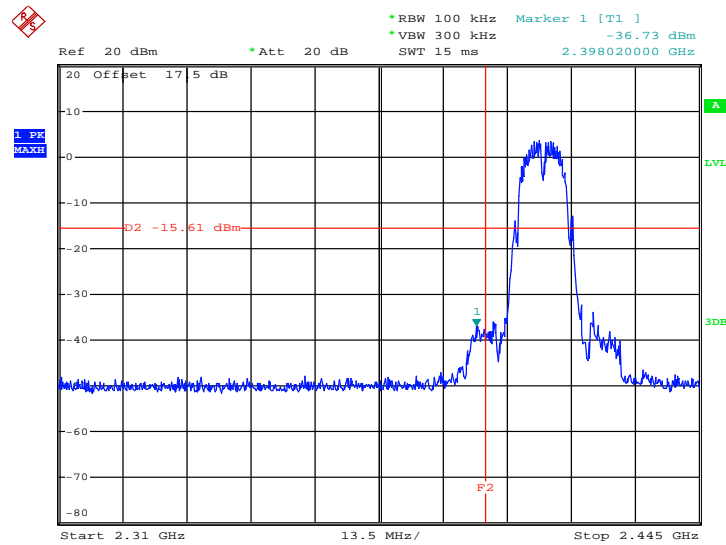


2.4.5 Test Result of Conducted Spurious at Band Edges

Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	01 and 11	Test Engineer :	Blithe Li

802.11b – Ant.0

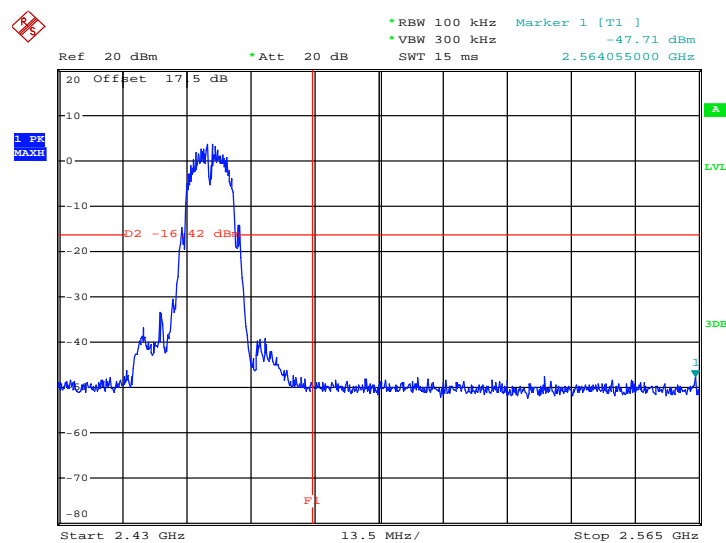
Low Band Edge Plot on Channel 01



Date: 7.MAR.2013 13:57:20

802.11b – Ant.0

High Band Edge Plot on Channel 11



Date: 7.MAR.2013 14:04:41

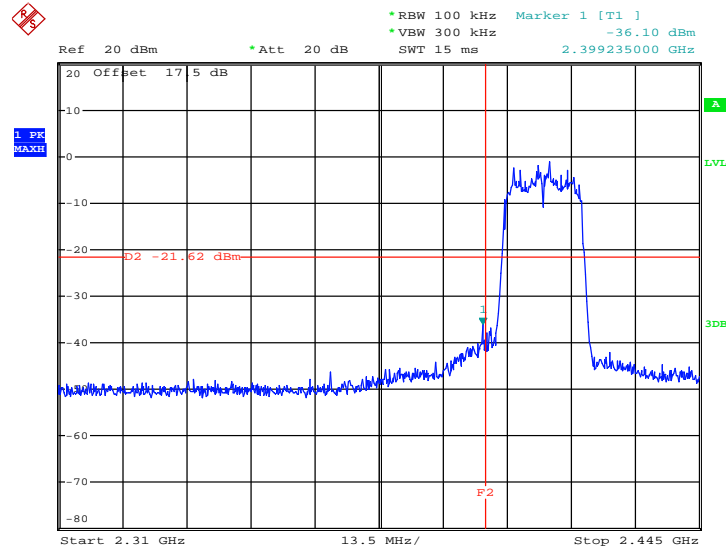




Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	01 and 11	Test Engineer :	Blithe Li

802.11g – Ant.0

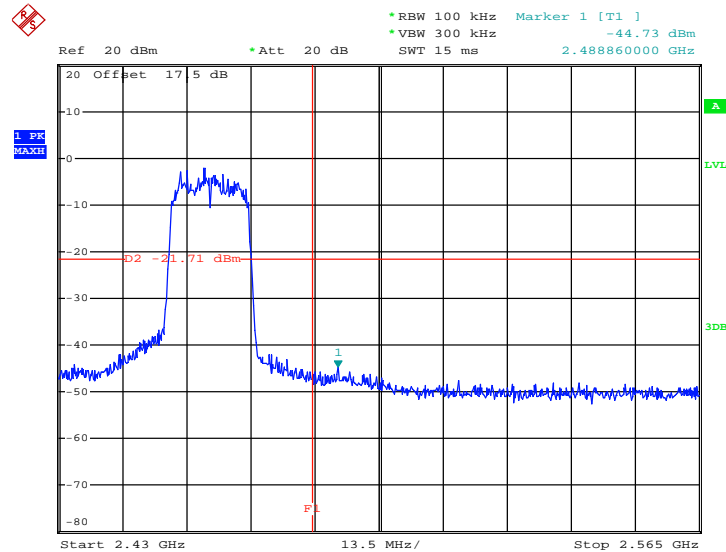
Low Band Edge Plot on Channel 01



Date: 7.MAR.2013 14:10:42

802.11g – Ant.0

High Band Edge Plot on Channel 11



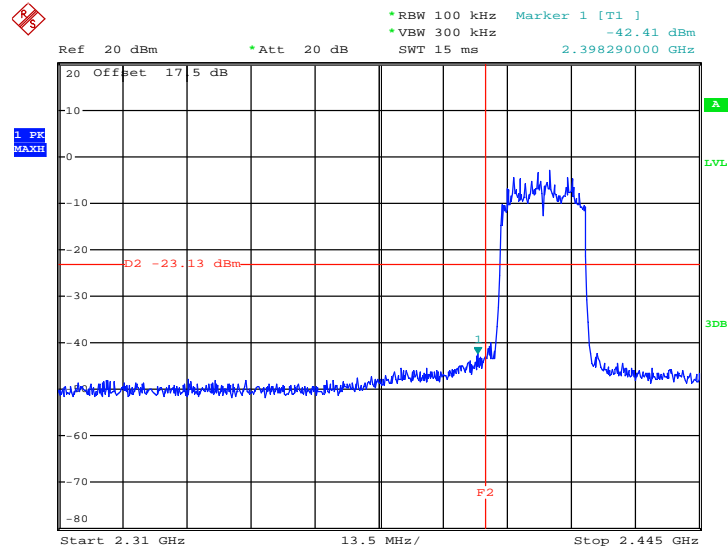
Date: 7.MAR.2013 14:17:14



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	01 and 11	Test Engineer :	Blithe Li

2.4GHz 802.11n HT20 – SISO Ant.0

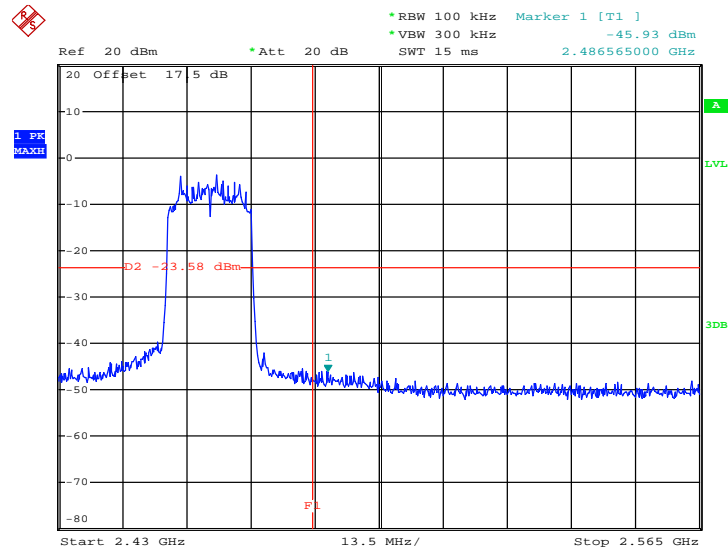
Low Band Edge Plot on Channel 01



Date: 7.MAR.2013 14:21:02

2.4GHz 802.11n HT20 – SISO Ant.0

High Band Edge Plot on Channel 11

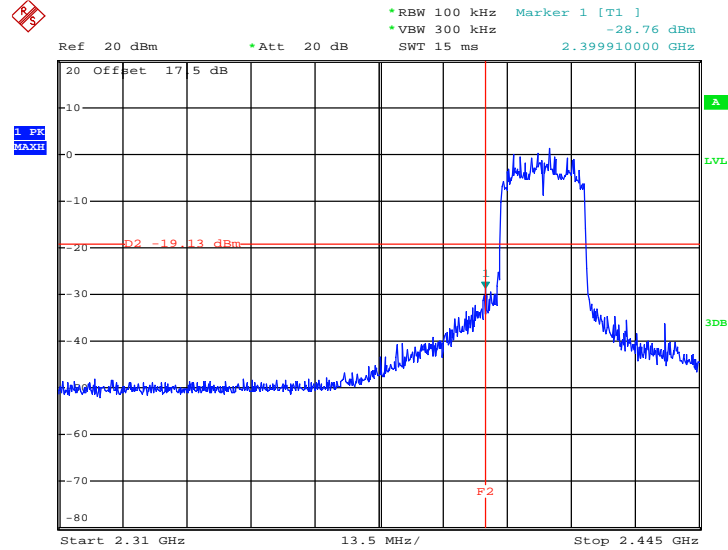


Date: 7.MAR.2013 14:28:14



2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

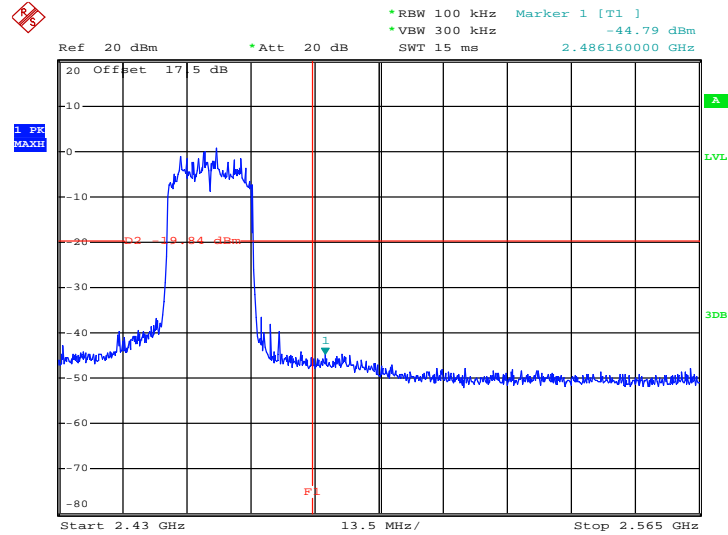
Low Band Edge Plot on Channel 01



Date: 7.JUL.2013 16:31:03

2.4GHz 802.11n HT20 – MIMO Ant.0+1(0)

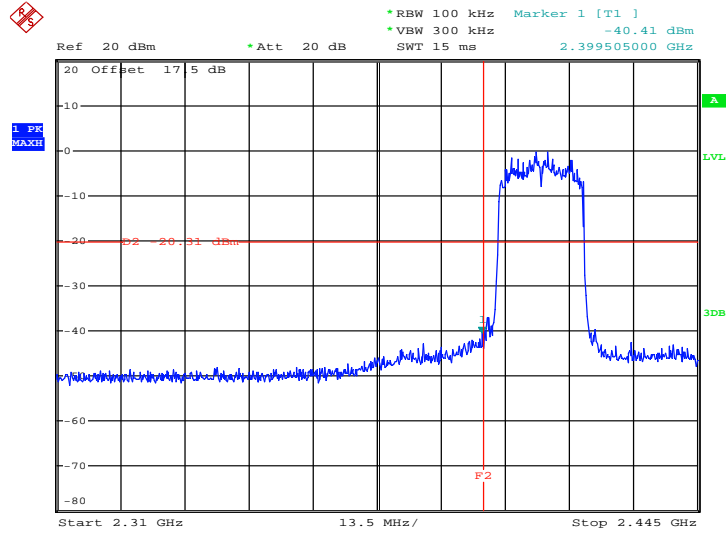
High Band Edge Plot on Channel 11



Date: 7.JUL.2013 16:47:58

2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

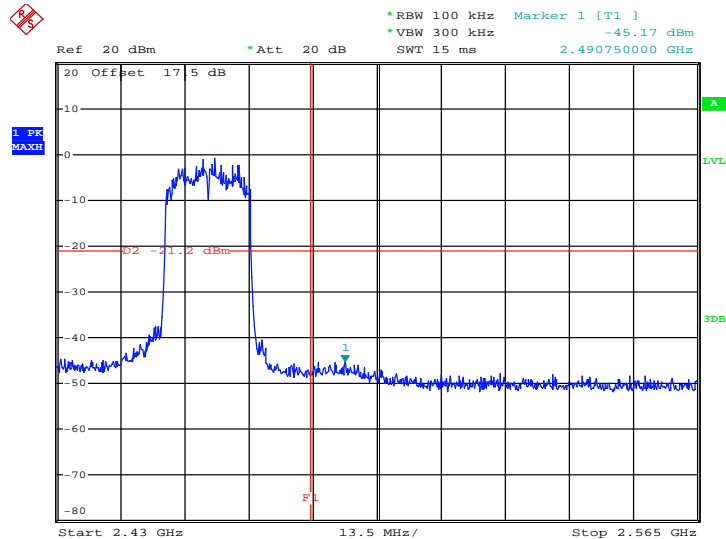
Low Band Edge Plot on Channel 01



Date: 7.JUL.2013 16:54:49

2.4GHz 802.11n HT20 – MIMO Ant.0+1(1)

High Band Edge Plot on Channel 11



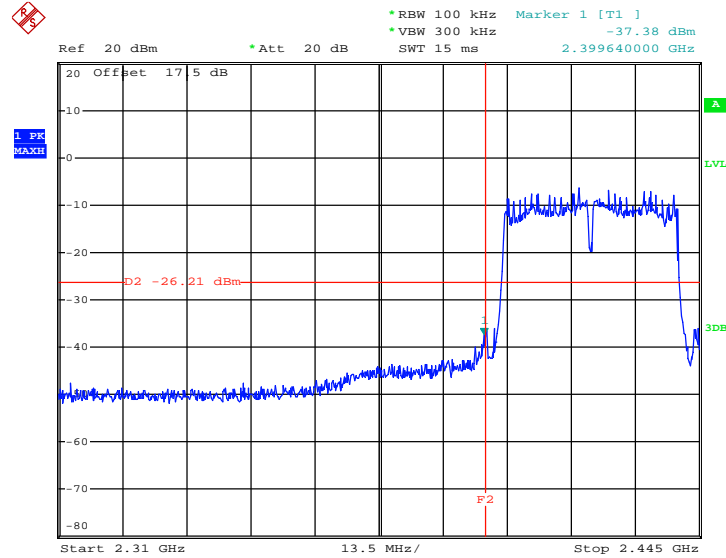
Date: 7.JUL.2013 17:03:57



Test Mode :	2.4GHz 802.11n HT40	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	03 and 09	Test Engineer :	Blithe Li

2.4GHz 802.11n HT40 – SISO Ant.0

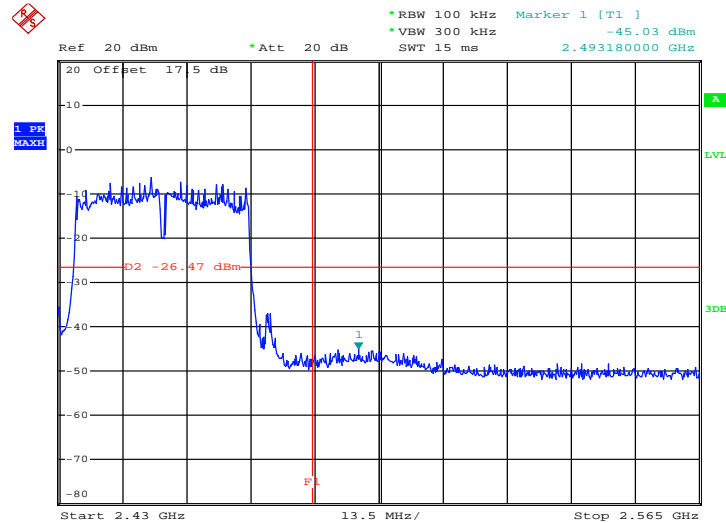
Low Band Edge Plot on Channel 03



Date: 7.MAR.2013 14:43:33

2.4GHz 802.11n HT40 – SISO Ant.0

High Band Edge Plot on Channel 09

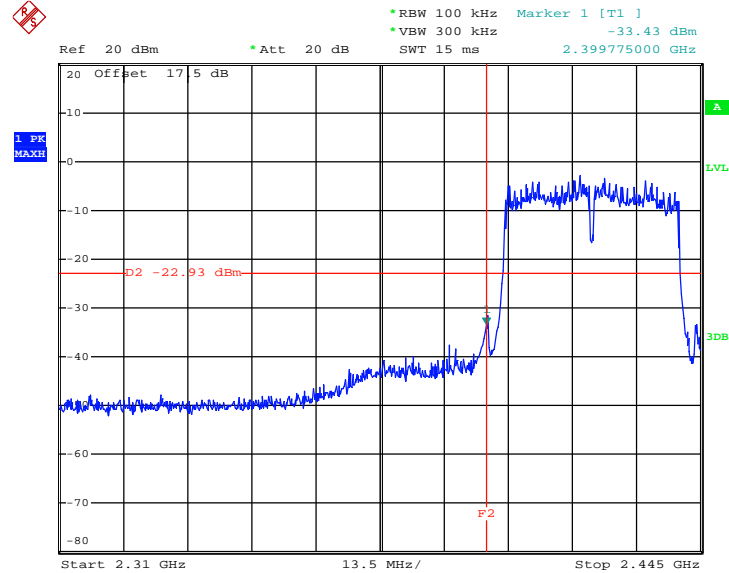


Date: 7.MAR.2013 14:55:27



2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

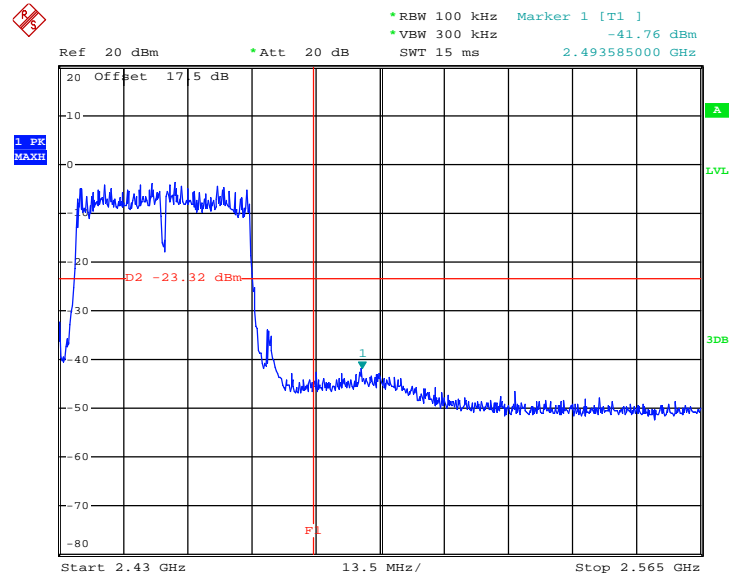
Low Band Edge Plot on Channel 03



Date: 7.JUL.2013 17:10:21

2.4GHz 802.11n HT40 – MIMO Ant.0+1(0)

High Band Edge Plot on Channel 09

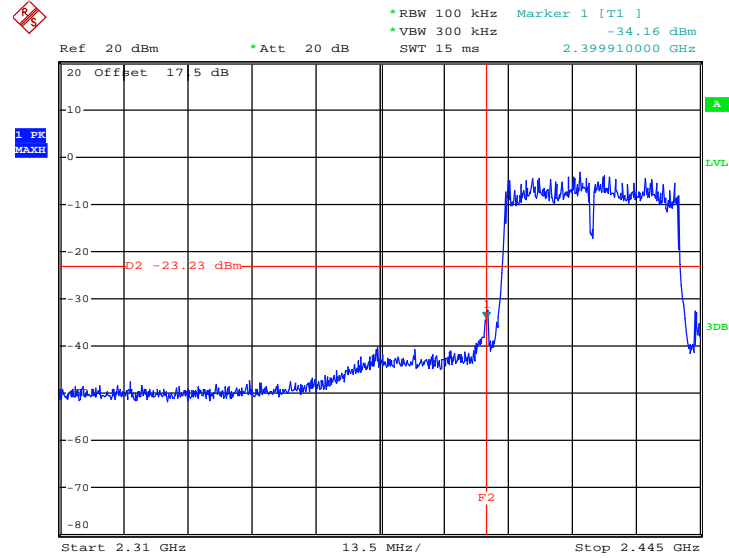


Date: 7.JUL.2013 17:19:28



2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

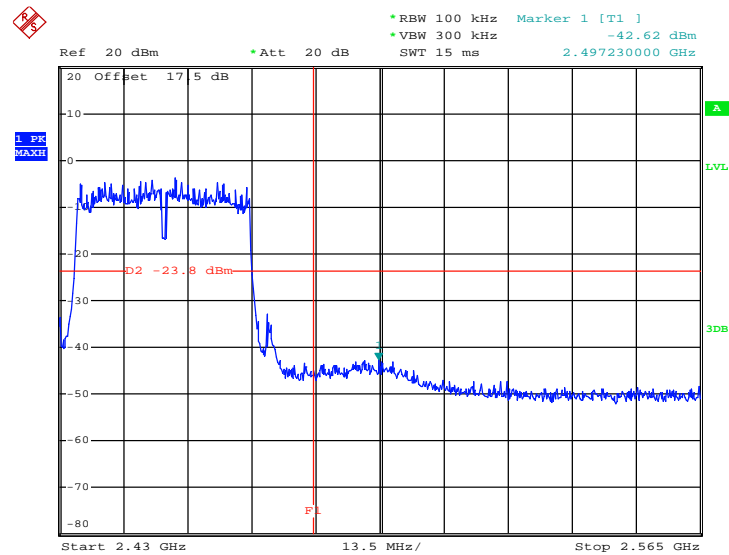
Low Band Edge Plot on Channel 03



Date: 7.JUL.2013 17:24:18

2.4GHz 802.11n HT40 – MIMO Ant.0+1(1)

High Band Edge Plot on Channel 09



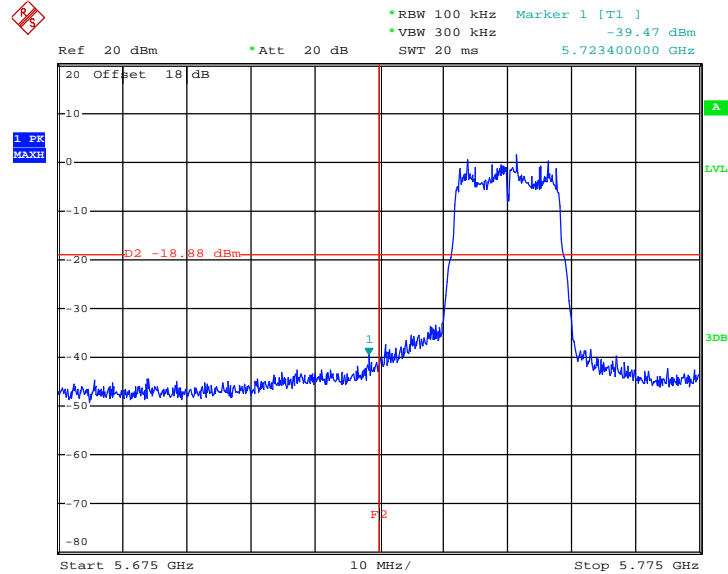
Date: 7.JUL.2013 17:34:29



Test Mode :	802.11a	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	149 and 161	Test Engineer :	Blithe Li

802.11a – Ant.0

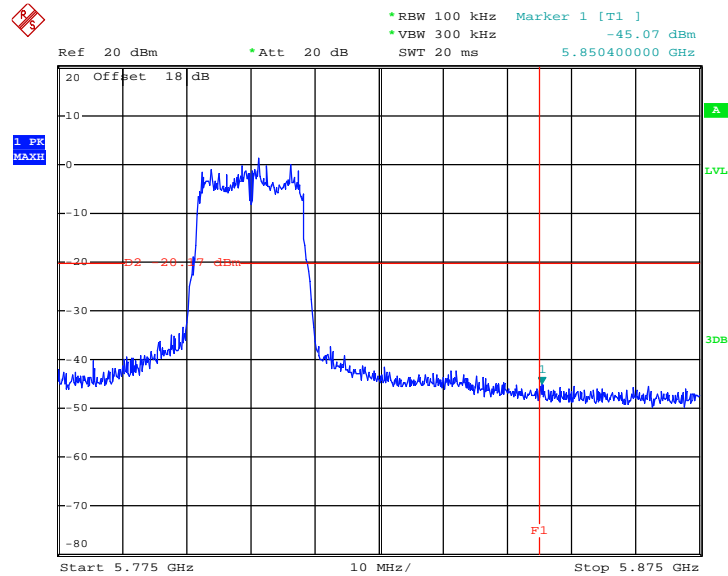
Low Band Edge Plot on Channel 149



Date: 7.MAR.2013 15:07:15

802.11a – Ant.0

High Band Edge Plot on Channel 161



Date: 7.MAR.2013 15:13:34

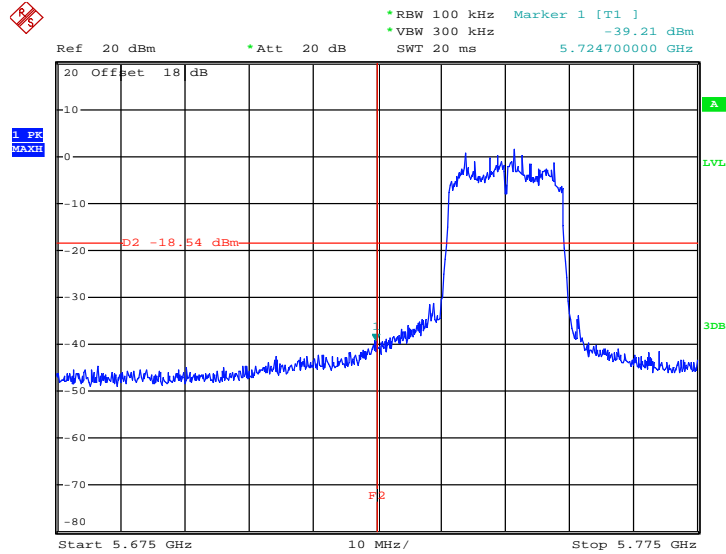




Test Mode :	5GHz 802.11n HT20	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	149 and 161	Test Engineer :	Blithe Li

5GHz 802.11n HT20 – SISO Ant.0

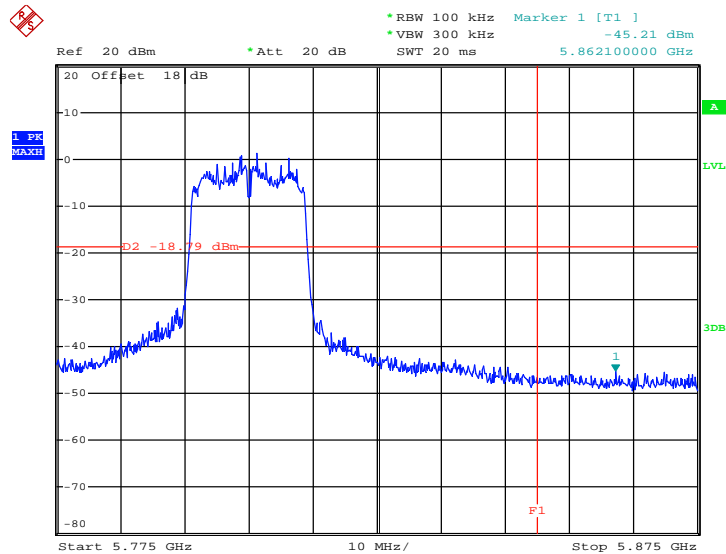
Low Band Edge Plot on Channel 149



Date: 7.MAR.2013 15:16:40

5GHz 802.11n HT20 – SISO Ant.0

High Band Edge Plot on Channel 161

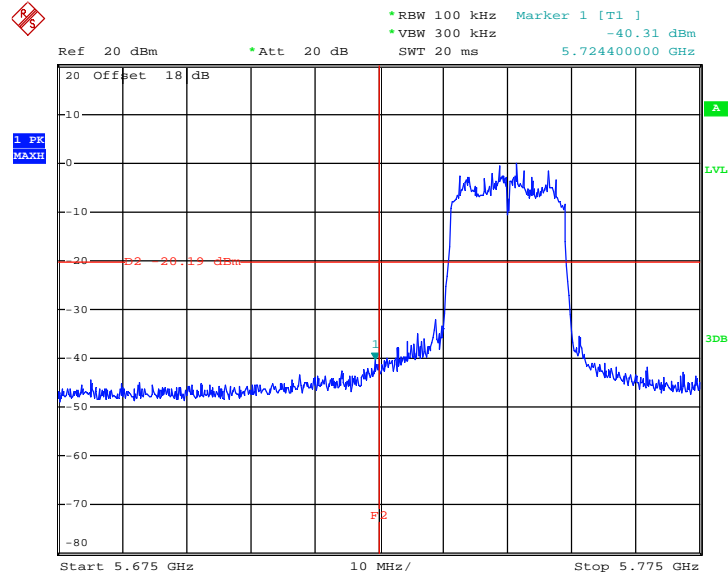


Date: 7.MAR.2013 15:21:49



5GHz 802.11n HT20 – MIMO Ant.0+1(0)

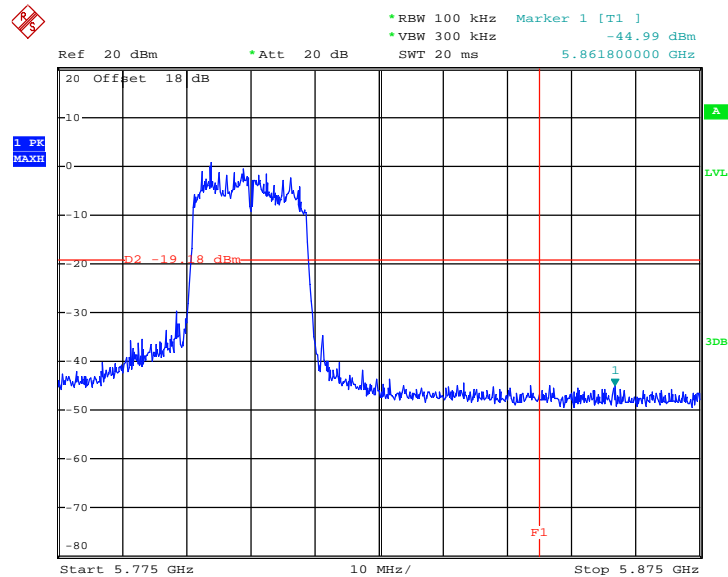
Low Band Edge Plot on Channel 149



Date: 7.JUL.2013 18:17:46

5GHz 802.11n HT20 – MIMO Ant.0+1(0)

High Band Edge Plot on Channel 161

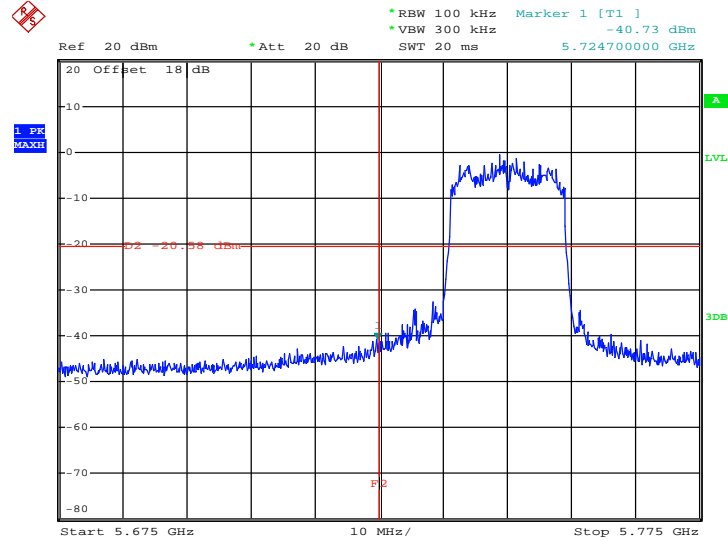


Date: 16.JUL.2013 11:49:52



5GHz 802.11n HT20 – MIMO Ant.0+1(1)

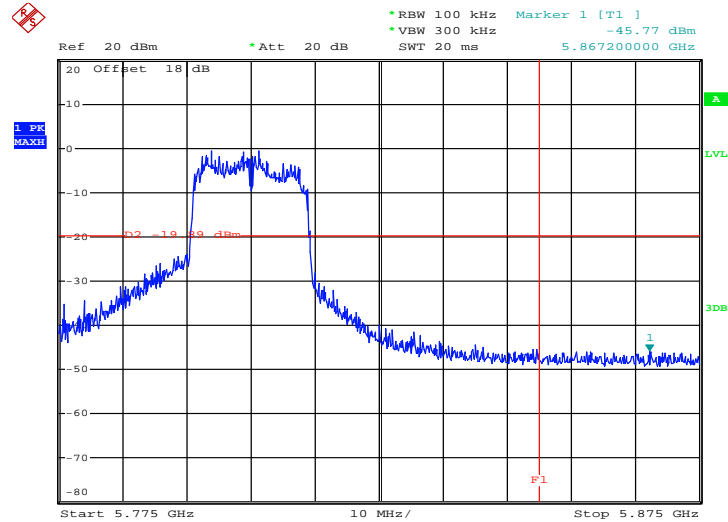
Low Band Edge Plot on Channel 149



Date: 7.JUL.2013 17:49:38

5GHz 802.11n HT20 – MIMO Ant.0+1(1)

High Band Edge Plot on Channel 161



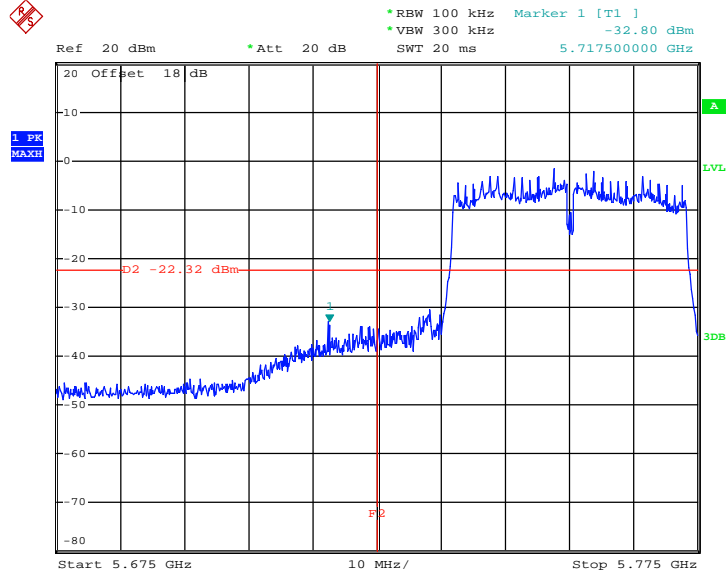
Date: 16.JUL.2013 11:53:44



Test Mode :	5GHz 802.11n HT40	Temperature :	24~26°C
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	151 and 159	Test Engineer :	Blithe Li

5GHz 802.11n HT40 – SISO Ant.0

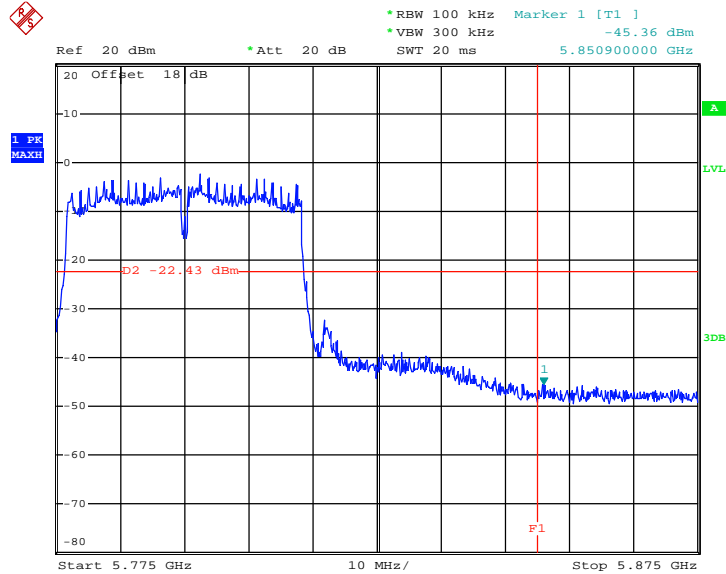
Low Band Edge Plot on Channel 151



Date: 7.MAR.2013 15:26:43

5GHz 802.11n HT40 – SISO Ant.0

High Band Edge Plot on Channel 159

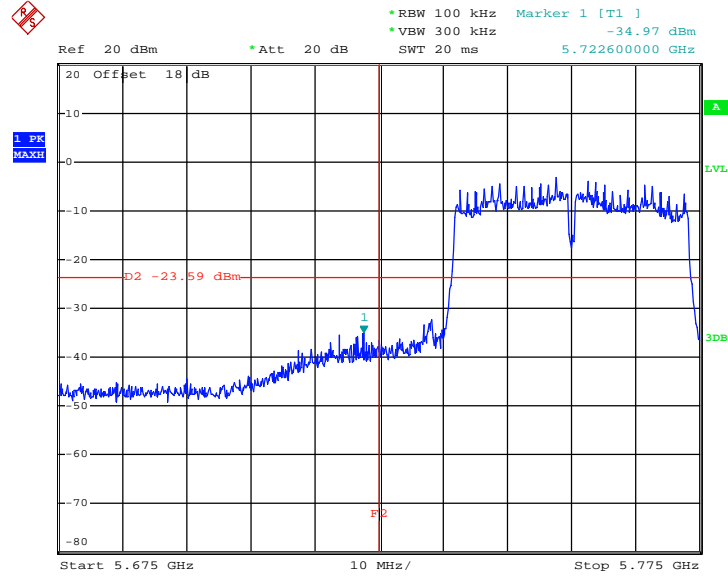


Date: 7.MAR.2013 15:29:41



5GHz 802.11n HT40 – MIMO Ant.0+1(0)

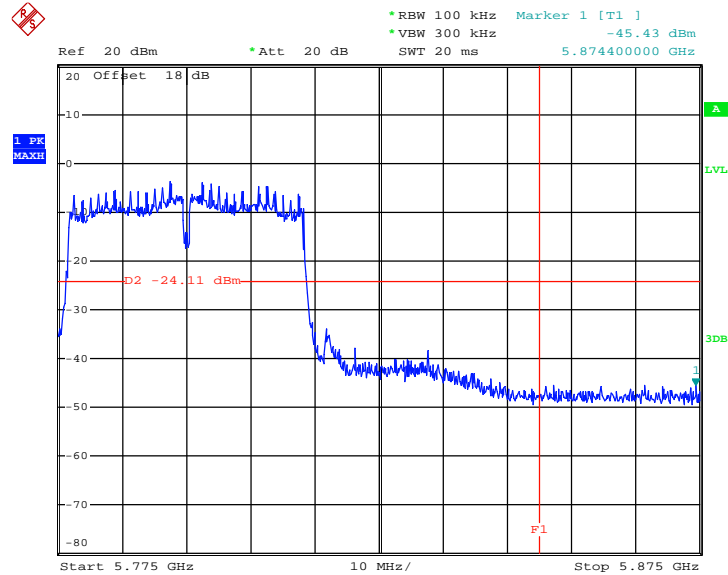
Low Band Edge Plot on Channel 151



Date: 7.JUL.2013 18:14:40

5GHz 802.11n HT40 – MIMO Ant.0+1(0)

High Band Edge Plot on Channel 159

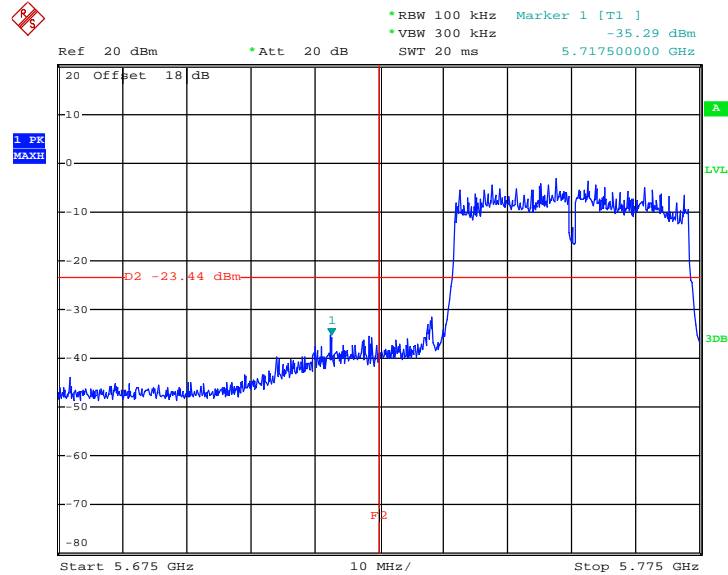


Date: 7.JUL.2013 18:10:42



5GHz 802.11n HT40 – MIMO Ant.0+1(1)

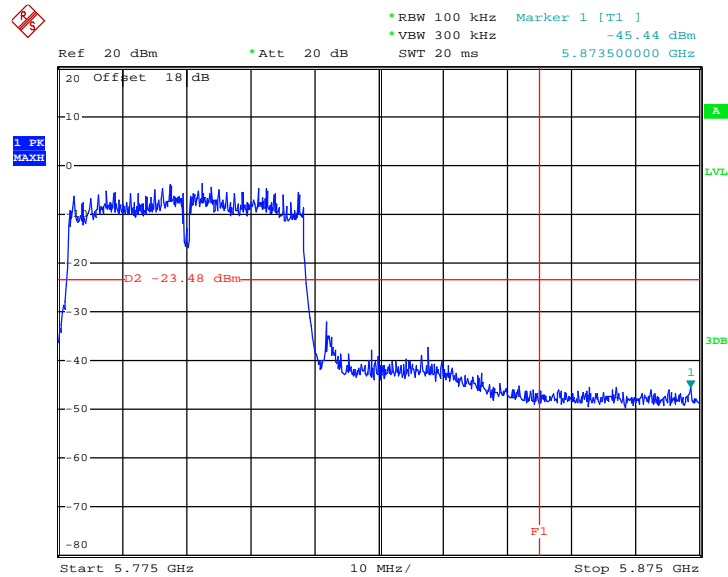
Low Band Edge Plot on Channel 151



Date: 7.JUL.2013 18:01:20

5GHz 802.11n HT40 – MIMO Ant.0+1(1)

High Band Edge Plot on Channel 159



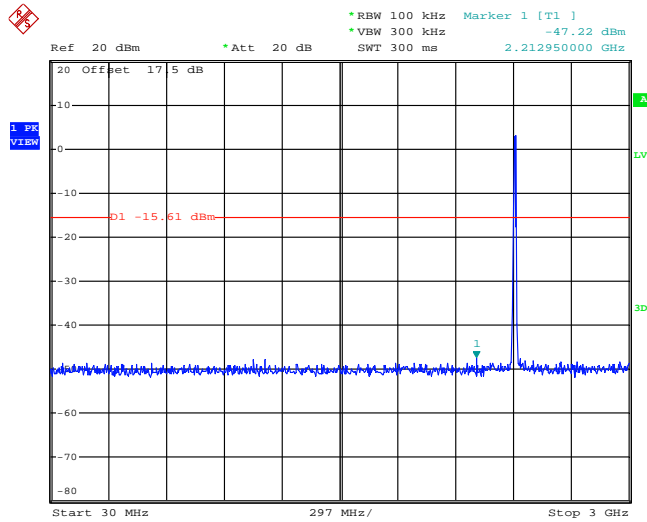
Date: 7.JUL.2013 18:05:17

### 3.4.5 Test Result of Conducted Spurious Emission

Test Mode :	802.11b	Temperature :	24~26°C
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	50~53%
Test Channel :	01, 06, 11	Test Engineer :	Blithe Li

#### 802.11b – Ant.0 (30 MHz~3 GHz)

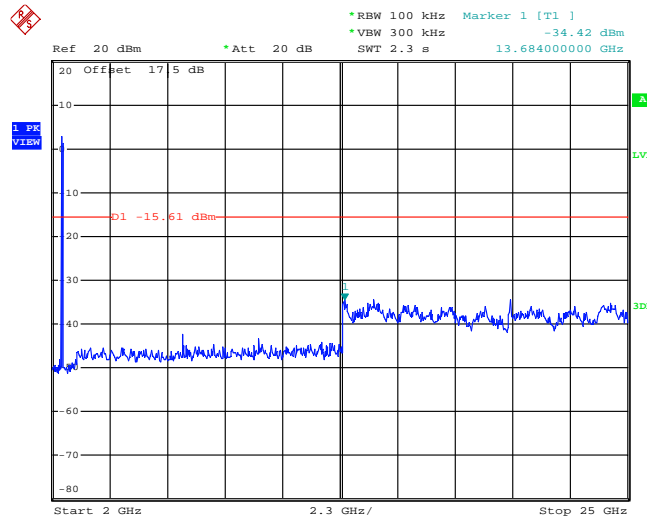
##### Conducted Spurious Emission Plot on Channel 01



Date: 7.MAR.2013 13:57:42

#### 802.11b – Ant.0 (2 GHz~25 GHz)

##### Conducted Spurious Emission Plot on Channel 01

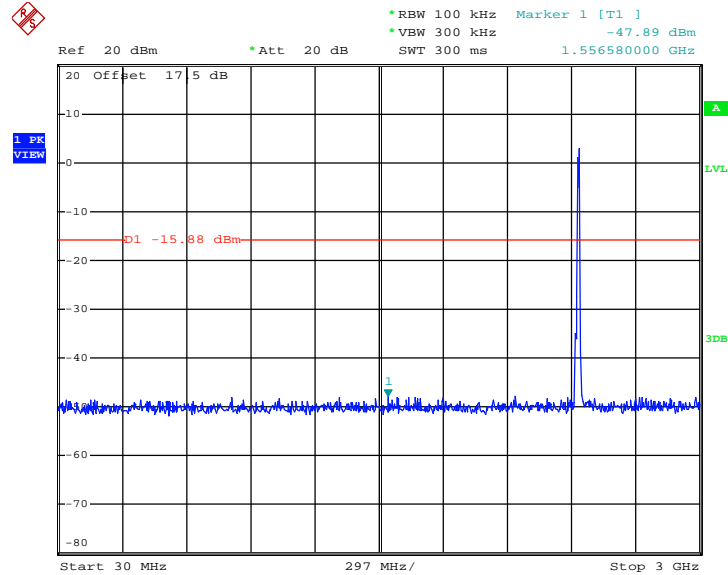


Date: 7.MAR.2013 13:58:01



802.11b – Ant.0 (30 MHz~3 GHz)

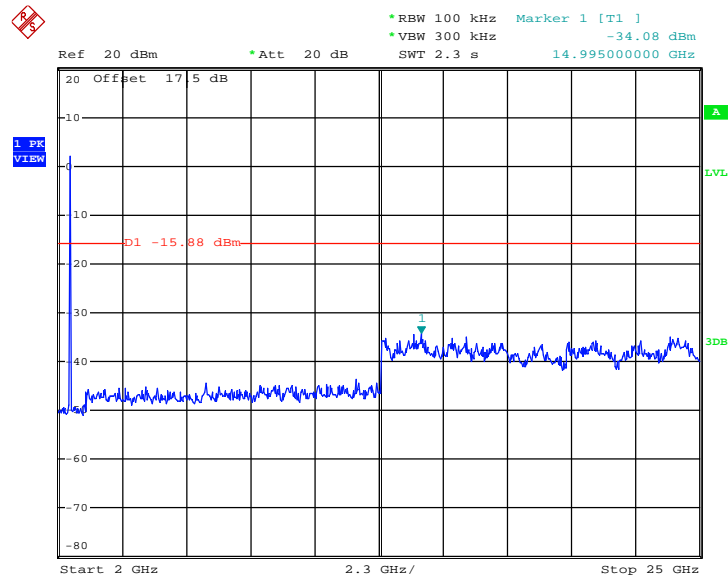
Conducted Spurious Emission Plot on Channel 06



Date: 7.MAR.2013 14:01:49

802.11b – Ant.0 (2 GHz~25 GHz)

Conducted Spurious Emission Plot on Channel 06

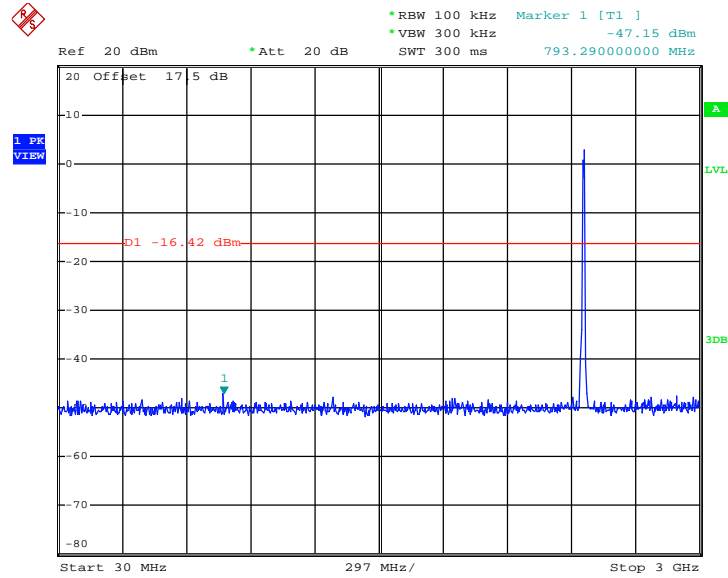


Date: 7.MAR.2013 14:02:07



802.11b – Ant.0 (30 MHz~3 GHz)

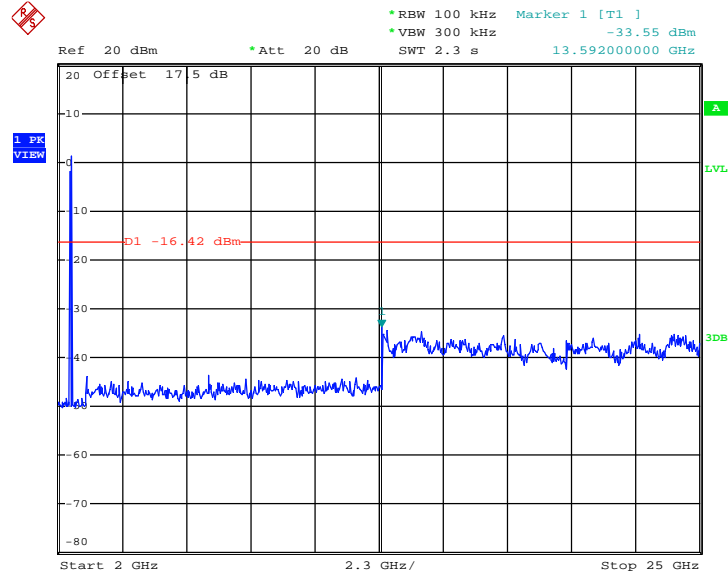
Conducted Spurious Emission Plot on Channel 11



Date: 7.MAR.2013 14:06:05

802.11b – Ant.0 (2 GHz~25 GHz)

Conducted Spurious Emission Plot on Channel 11



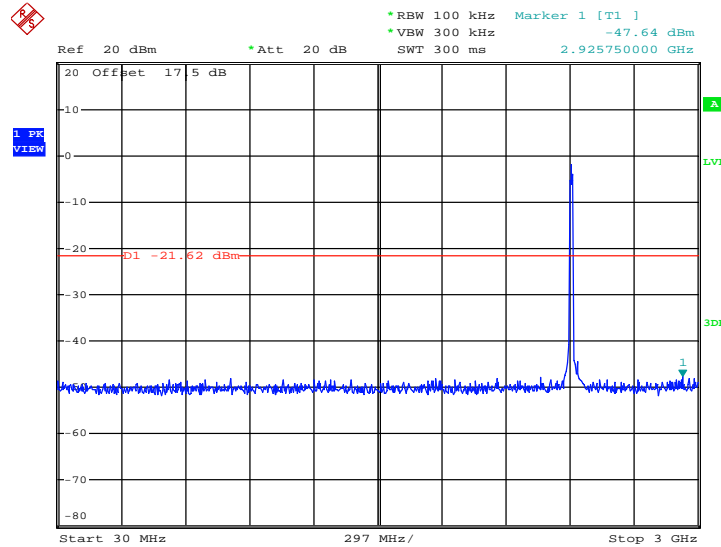
Date: 7.MAR.2013 14:06:24



Test Mode :	802.11g	Temperature :	24~26°C
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	50~53%
Test Channel :	01, 06, 11	Test Engineer :	Blithe Li

802.11g – Ant.0 (30 MHz~3 GHz)

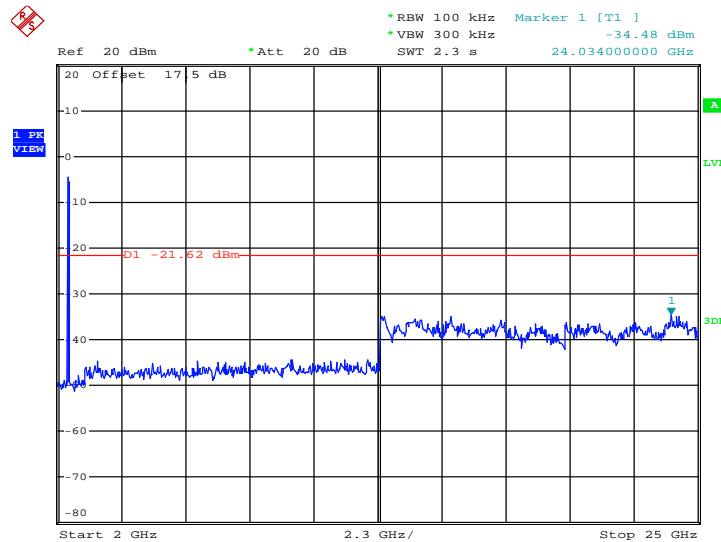
Conducted Spurious Emission Plot on Channel 01



Date: 7.MAR.2013 14:11:05

802.11g – Ant.0 (2 GHz~25 GHz)

Conducted Spurious Emission Plot on Channel 01

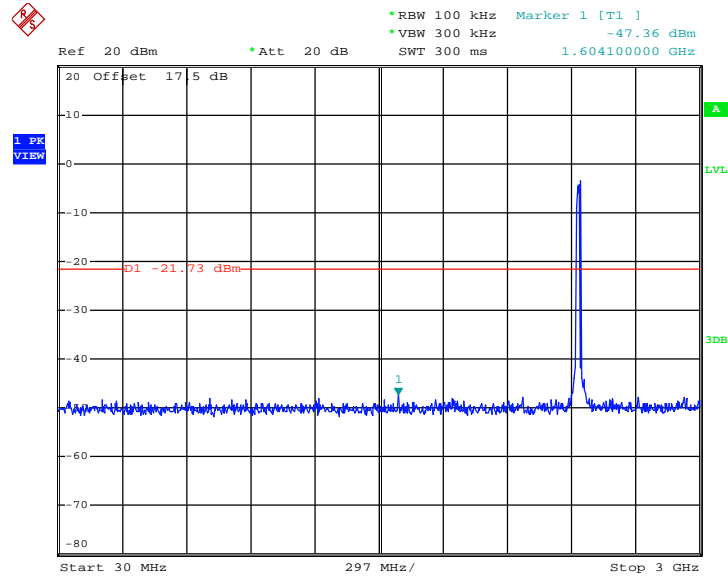


Date: 7.MAR.2013 14:11:24



802.11g – Ant.0 (30 MHz~3 GHz)

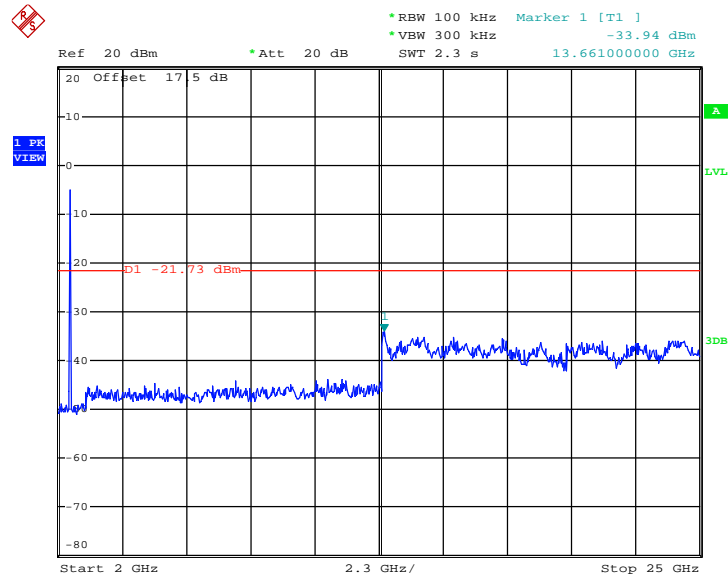
Conducted Spurious Emission Plot on Channel 06



Date: 7.MAR.2013 14:13:44

802.11g – Ant.0 (2 GHz~25 GHz)

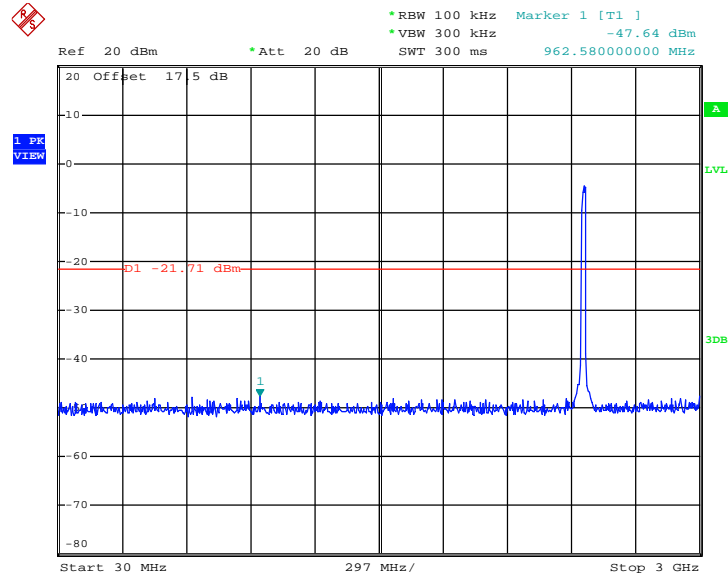
Conducted Spurious Emission Plot on Channel 06



Date: 7.MAR.2013 14:14:03

802.11g – Ant.0 (30 MHz~3 GHz)

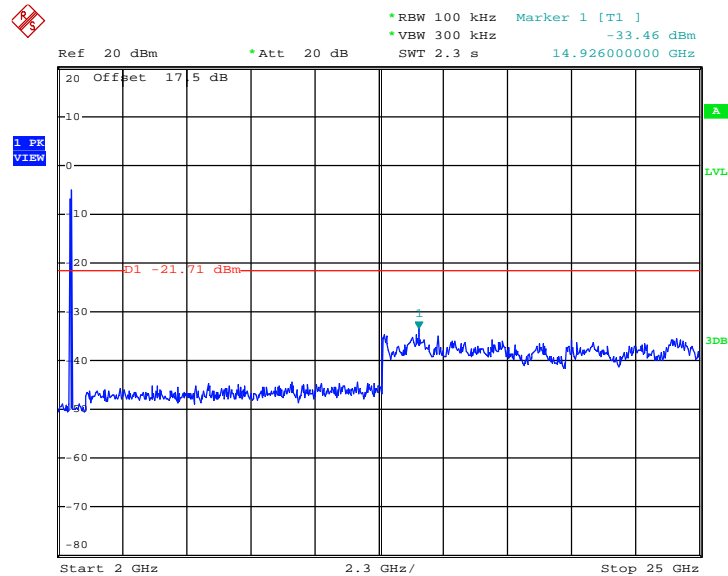
Conducted Spurious Emission Plot on Channel 11



Date: 7.MAR.2013 14:17:35

802.11g – Ant.0 (2 GHz~25 GHz)

Conducted Spurious Emission Plot on Channel 11



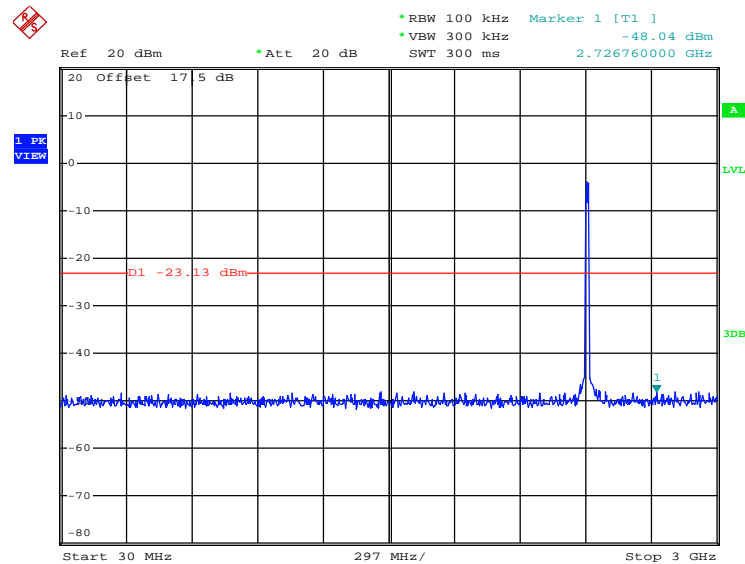
Date: 7.MAR.2013 14:17:54



Test Mode :	2.4GHz 802.11n HT20	Temperature :	24~26°C
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	50~53%
Test Channel :	01, 06, 11	Test Engineer :	Blithe Li

2.4GHz 802.11n HT20 – SISO Ant. 0 (30 MHz~3 GHz)

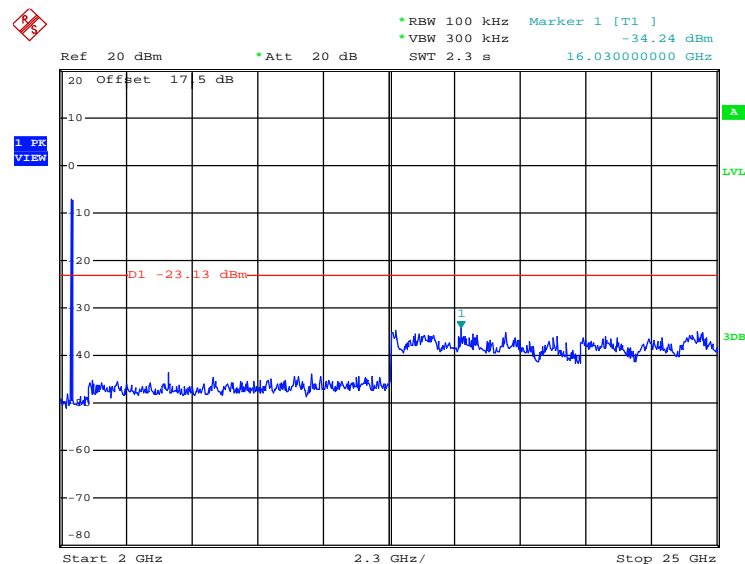
Conducted Spurious Emission Plot on Channel 01



Date: 7.MAR.2013 14:21:24

2.4GHz 802.11n HT20 – SISO Ant. 0 (2 GHz~25 GHz)

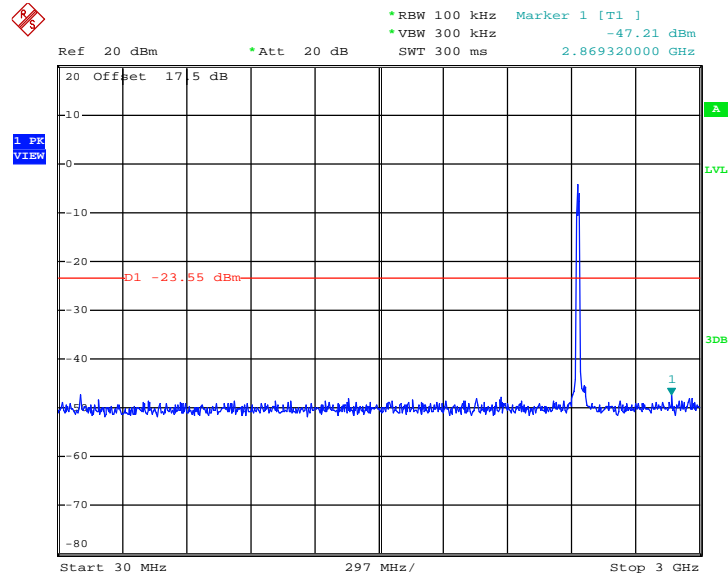
Conducted Spurious Emission Plot on Channel 01



Date: 7.MAR.2013 14:21:43

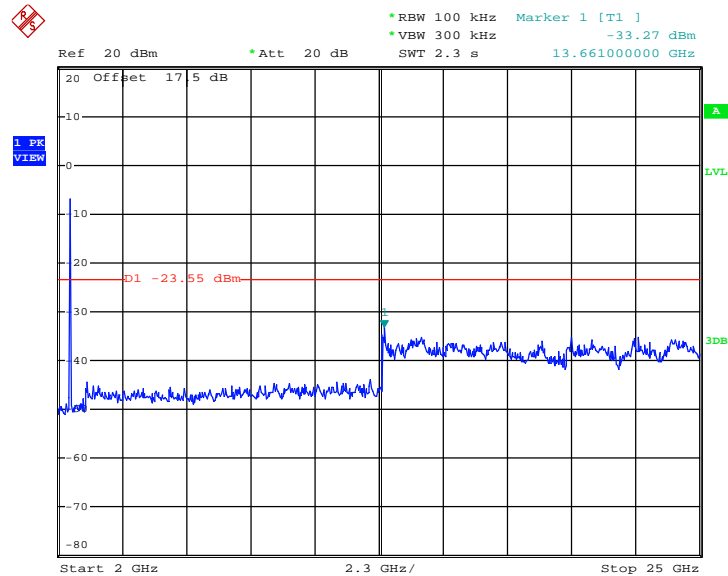


2.4GHz 802.11n HT20 – SISO Ant. 0 (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.MAR.2013 14:25:06

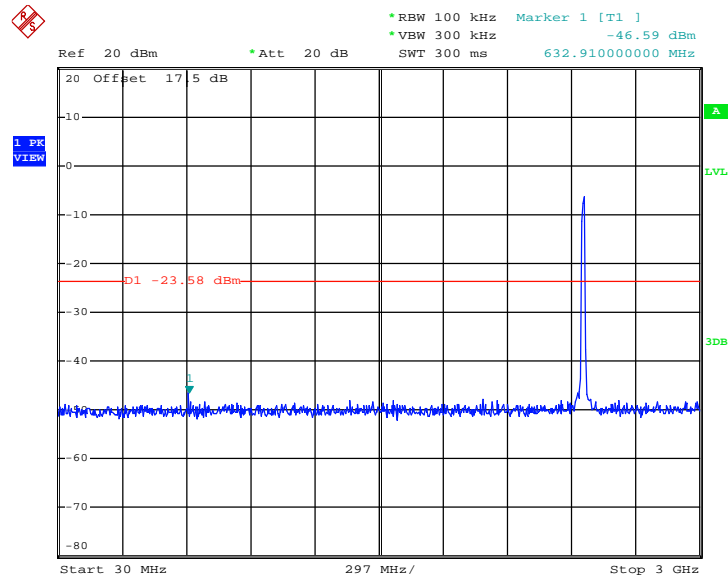
2.4GHz 802.11n HT20 – SISO Ant. 0 (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.MAR.2013 14:25:25

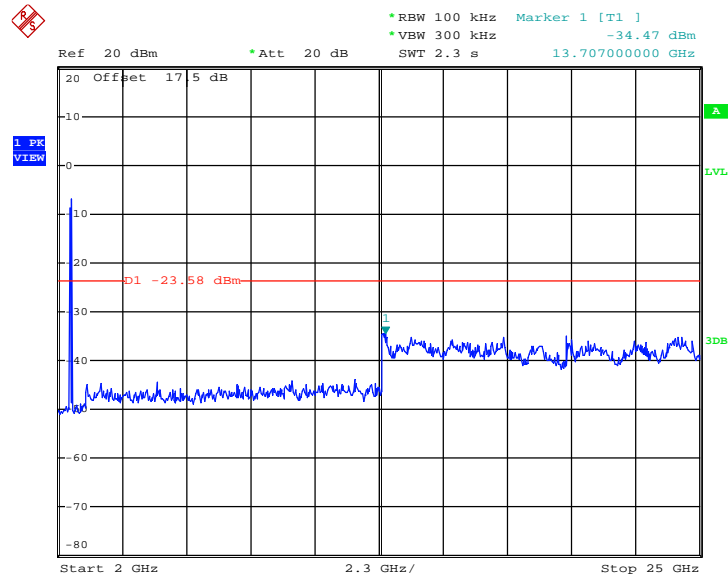


2.4GHz 802.11n HT20 – SISO Ant. 0 (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 11



Date: 7.MAR.2013 14:28:43

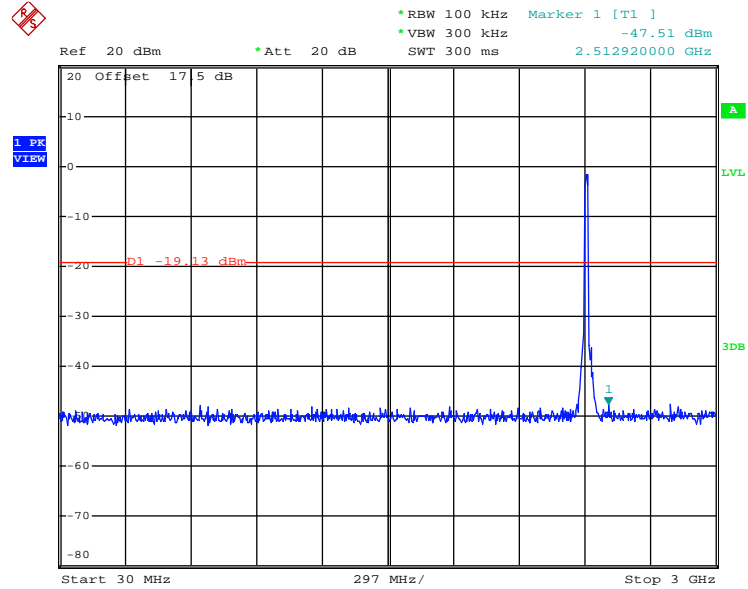
2.4GHz 802.11n HT20 – SISO Ant. 0 (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 11



Date: 7.MAR.2013 14:29:02

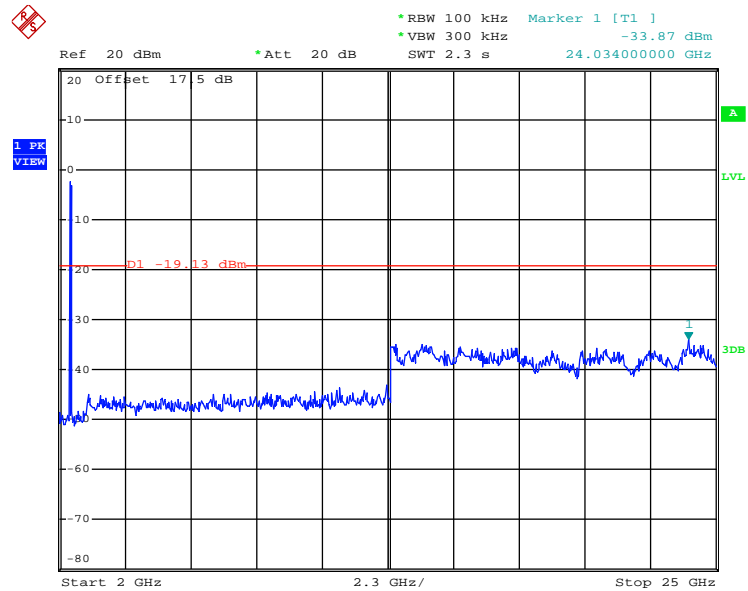


2.4GHz 802.11n HT20 – MIMO Ant. 0+1(0) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 01



Date: 7.JUL.2013 16:36:51

2.4GHz 802.11n HT20 – MIMO Ant. 0+1(0) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 01

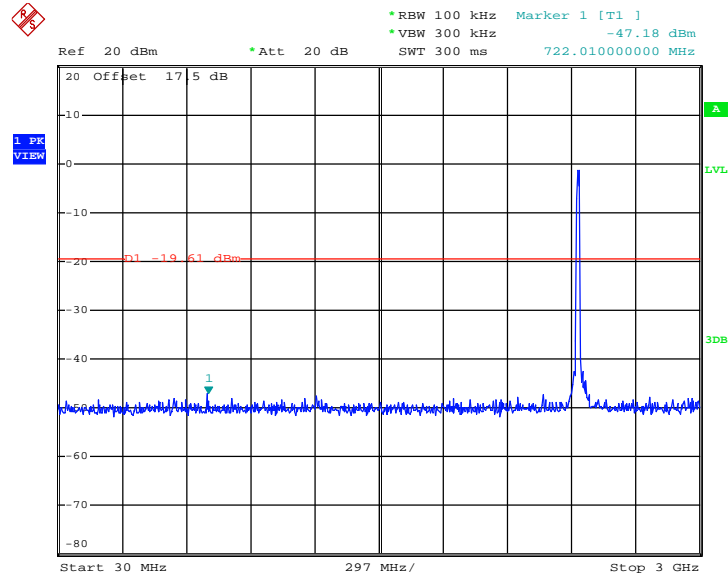


Date: 7.JUL.2013 16:37:09



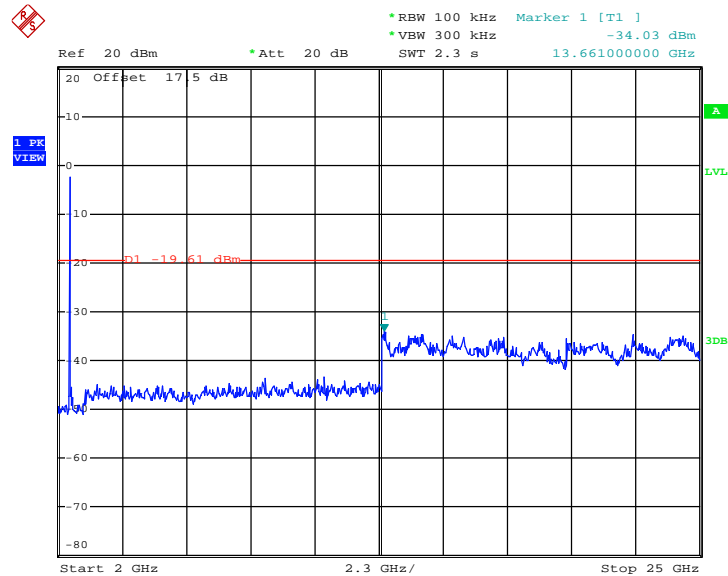


2.4GHz 802.11n HT20 – MIMO Ant. 0+1(0) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 16:42:13

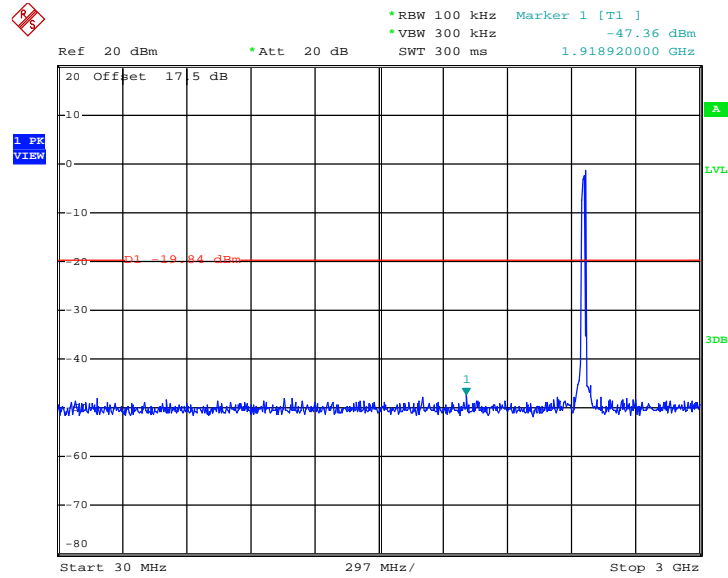
2.4GHz 802.11n HT20 – MIMO Ant. 0+1(0) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 16:42:32

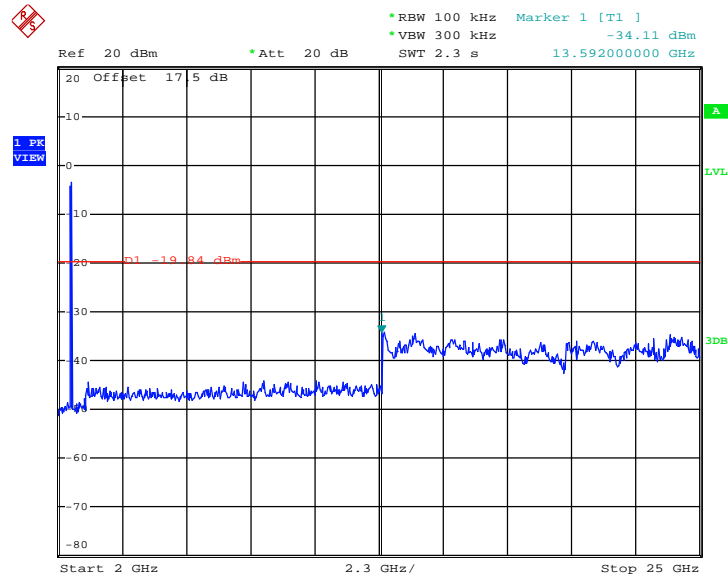


2.4GHz 802.11n HT20 – MIMO Ant. 0+1(0) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 11



Date: 7.JUL.2013 16:48:25

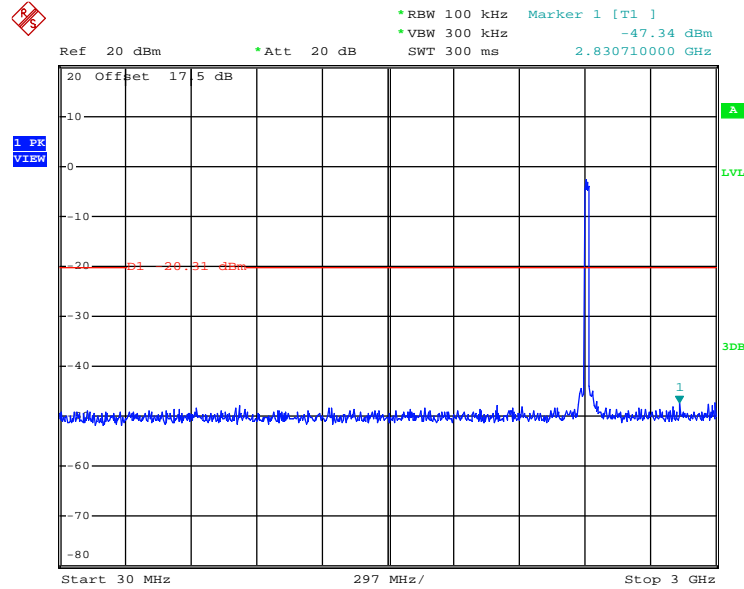
2.4GHz 802.11n HT20 – MIMO Ant. 0+1(0) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 11



Date: 7.JUL.2013 16:48:44

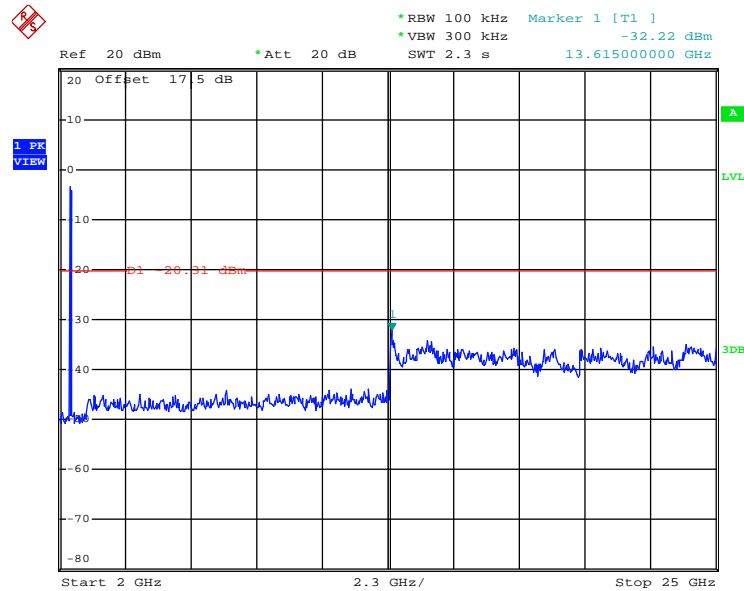


2.4GHz 802.11n HT20 – MIMO Ant. 0+1(1) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 01



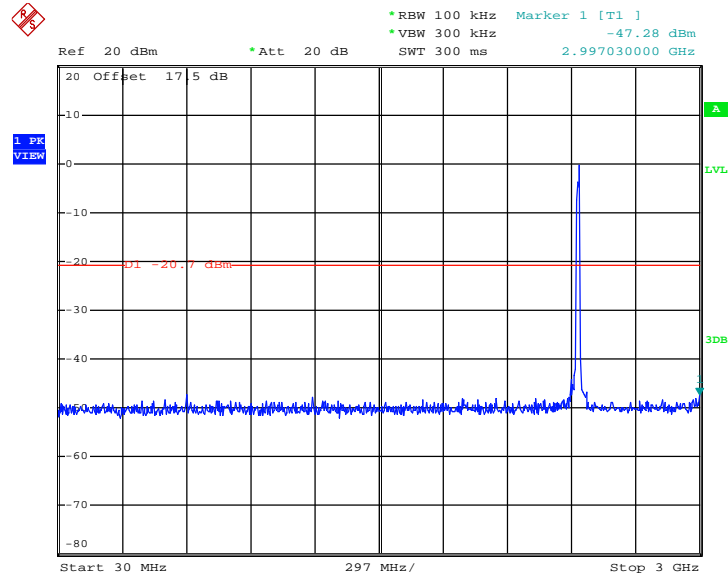
Date: 7.JUL.2013 16:55:36

2.4GHz 802.11n HT20 – MIMO Ant. 0+1(1) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 01



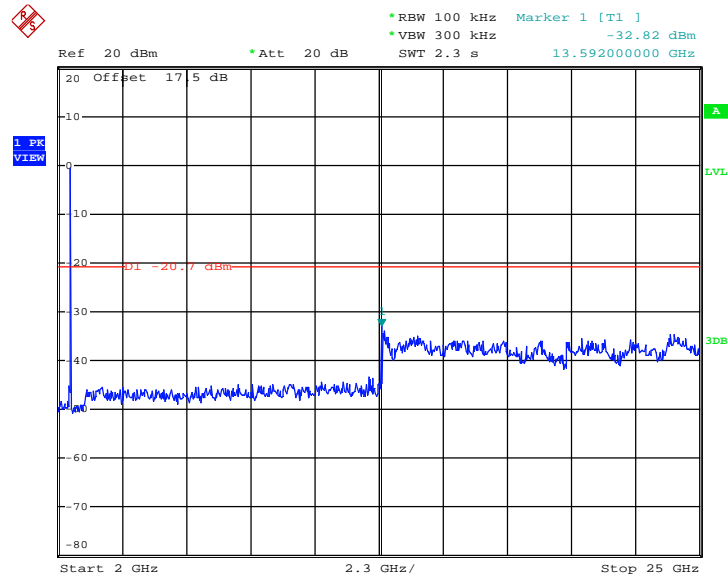
Date: 7.JUL.2013 16:55:54

2.4GHz 802.11n HT20 – MIMO Ant. 0+1(1) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 16:59:26

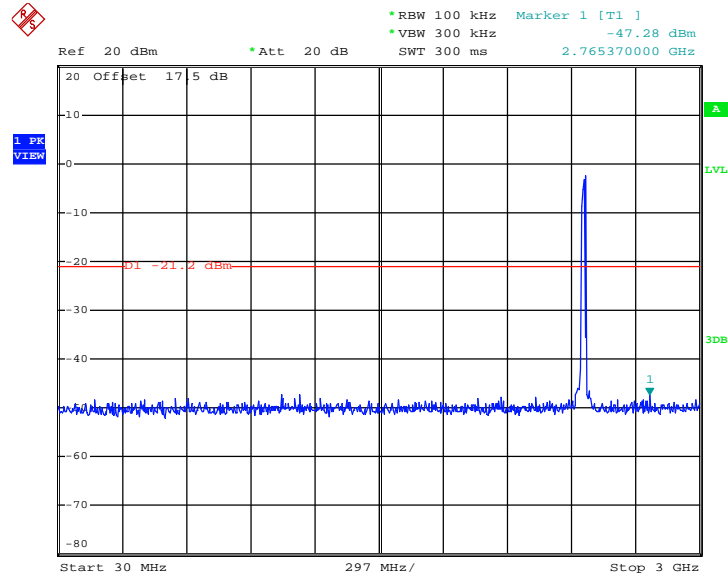
2.4GHz 802.11n HT20 – MIMO Ant. 0+1(1) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 16:59:45

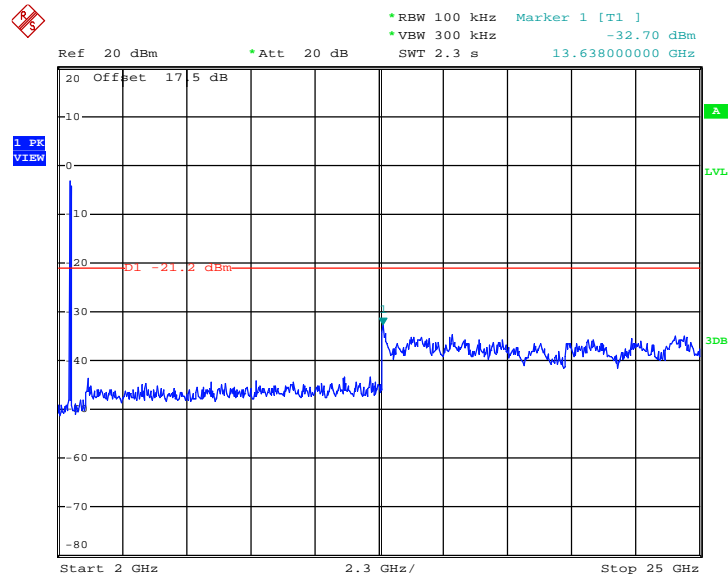


2.4GHz 802.11n HT20 – MIMO Ant. 0+1(1) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 11



Date: 7.JUL.2013 17:04:49

2.4GHz 802.11n HT20 – MIMO Ant. 0+1(1) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 11



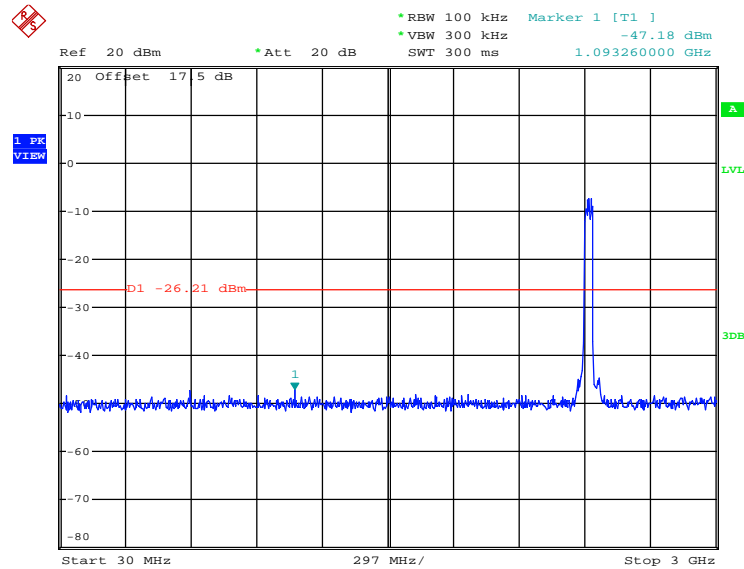
Date: 7.JUL.2013 17:05:07



Test Mode :	2.4GHz 802.11n HT40	Temperature :	24~26°C
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	50~53%
Test Channel :	03, 06, 09	Test Engineer :	Blithe Li

2.4GHz 802.11n HT40 – SISO Ant. 0 (30 MHz~3 GHz)

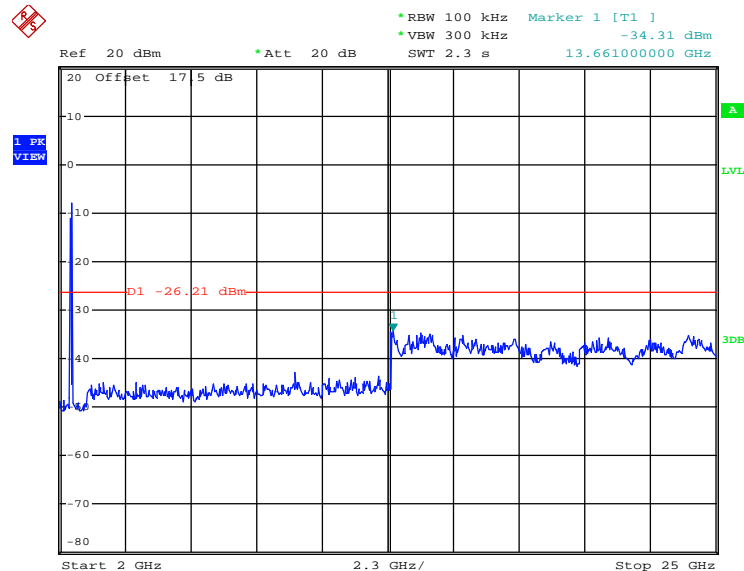
Conducted Spurious Emission Plot on Channel 03



Date: 7.MAR.2013 14:46:02

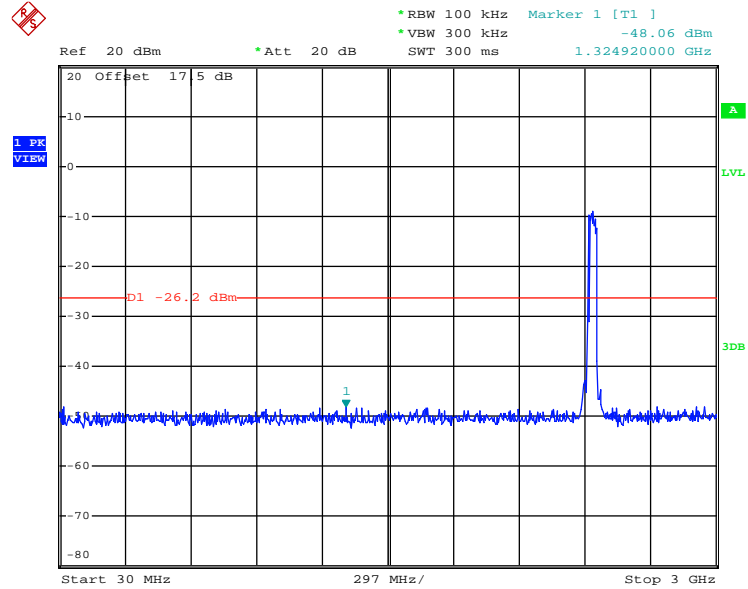
2.4GHz 802.11n HT40 – SISO Ant. 0 (2 GHz~25 GHz)

Conducted Spurious Emission Plot on Channel 03



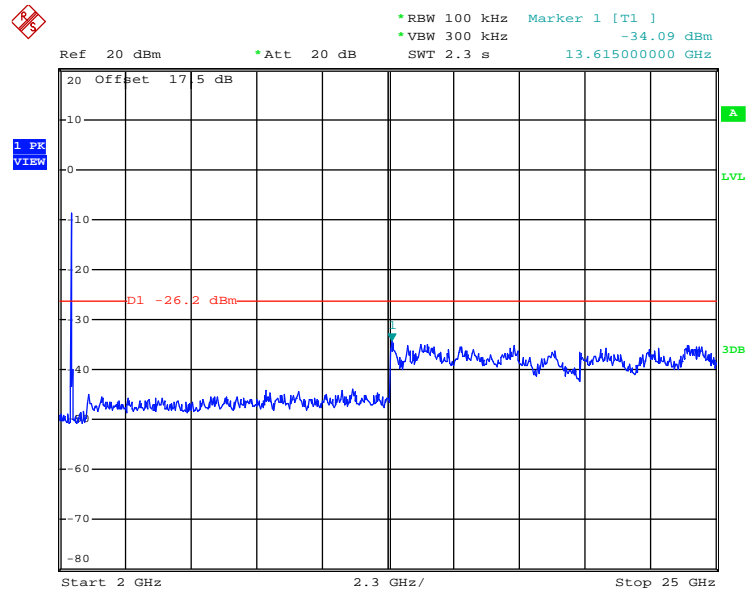
Date: 7.MAR.2013 14:44:15

**2.4GHz 802.11n HT40 – SISO Ant. 0 (30 MHz~3 GHz)**  
**Conducted Spurious Emission Plot on Channel 06**



Date: 7.MAR.2013 14:51:58

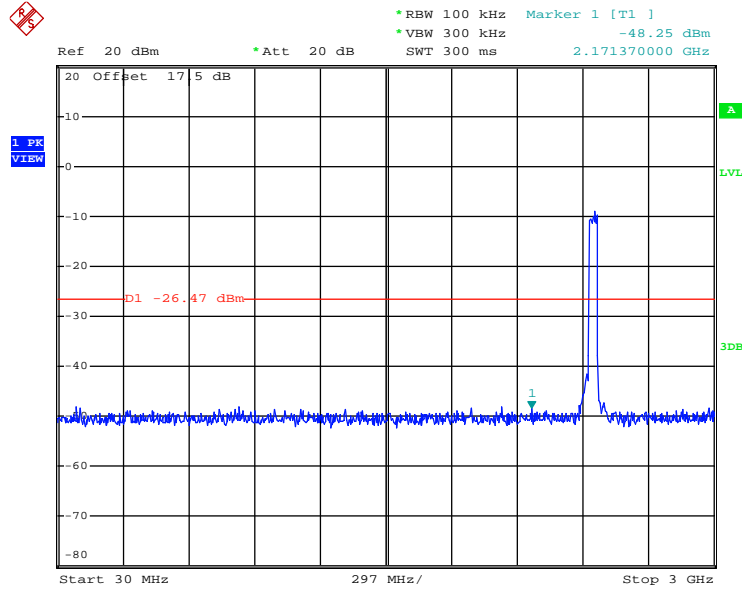
**2.4GHz 802.11n HT40 – SISO Ant. 0 (2 GHz~25 GHz)**  
**Conducted Spurious Emission Plot on Channel 06**



Date: 7.MAR.2013 14:51:16

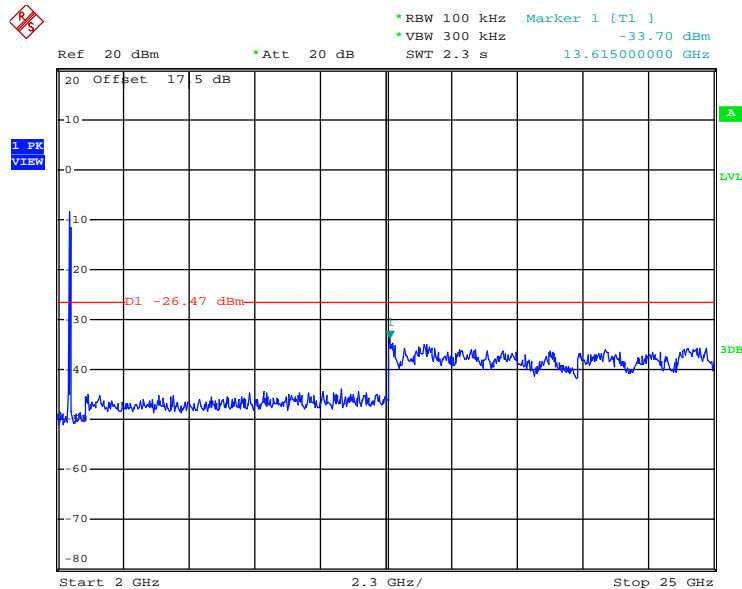


2.4GHz 802.11n HT40 – SISO Ant. 0 (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 09



Date: 7.MAR.2013 14:56:59

2.4GHz 802.11n HT40 – SISO Ant. 0 (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 09

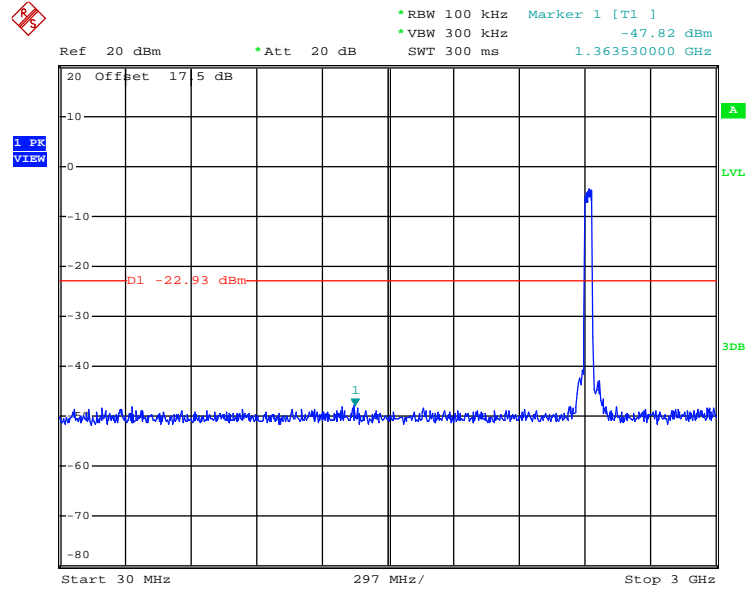


Date: 7.MAR.2013 14:56:07



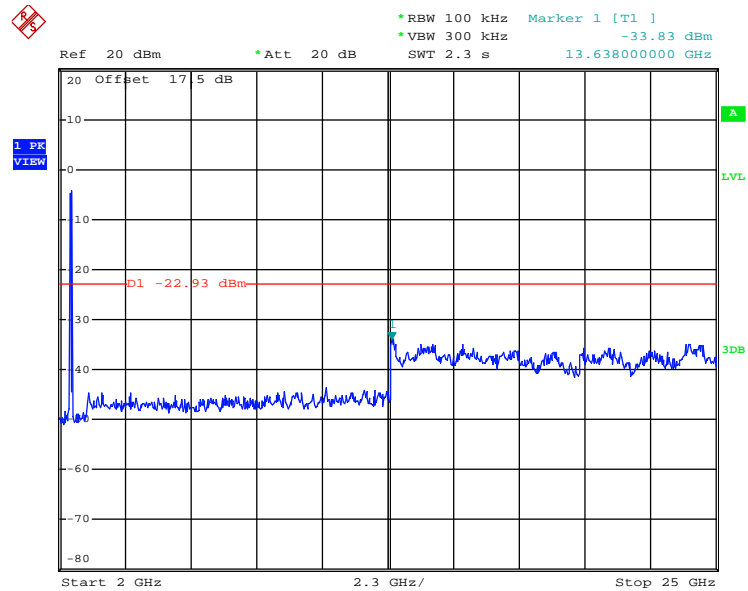


2.4GHz 802.11n HT40 – MIMO Ant. 0+1(0) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 03



Date: 7.JUL.2013 17:10:47

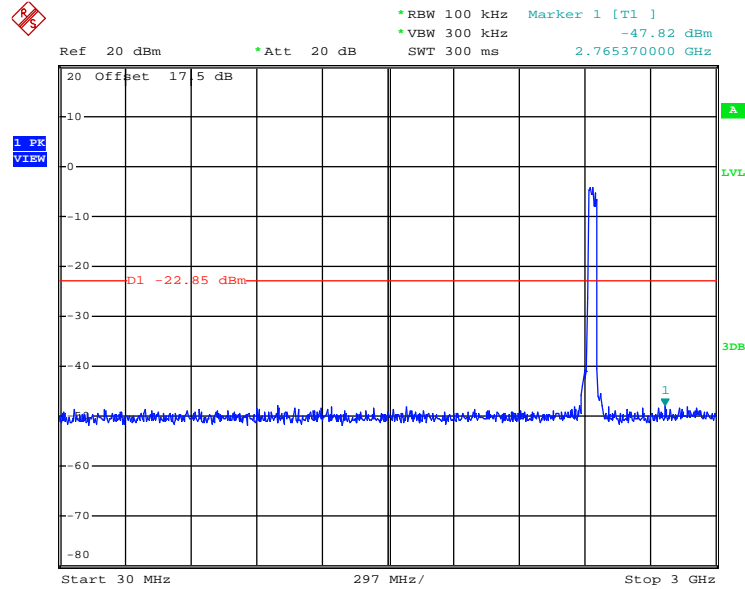
2.4GHz 802.11n HT40 – MIMO Ant. 0+1(0) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 03



Date: 7.JUL.2013 17:11:06

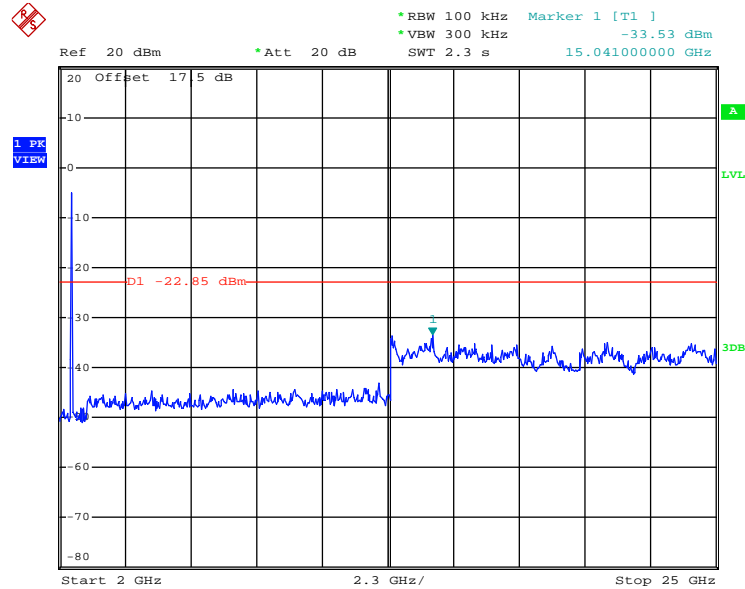


2.4GHz 802.11n HT40 – MIMO Ant. 0+1(0) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 17:15:33

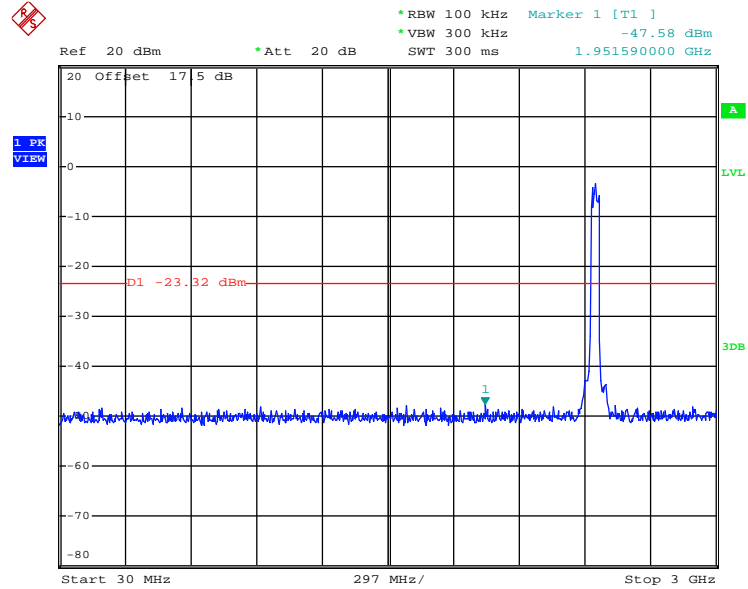
2.4GHz 802.11n HT40 – MIMO Ant. 0+1(0) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 06



Date: 7.JUL.2013 17:15:52

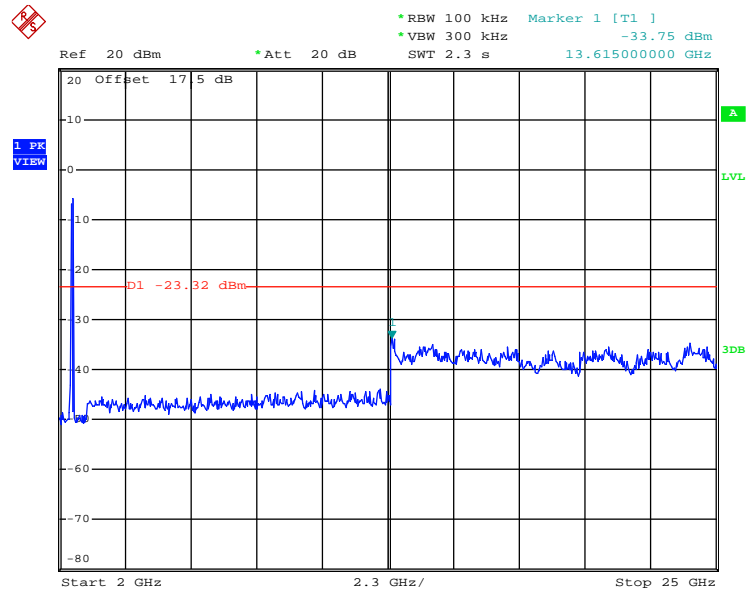


2.4GHz 802.11n HT40 – MIMO Ant. 0+1(0) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 09



Date: 7.JUL.2013 17:20:19

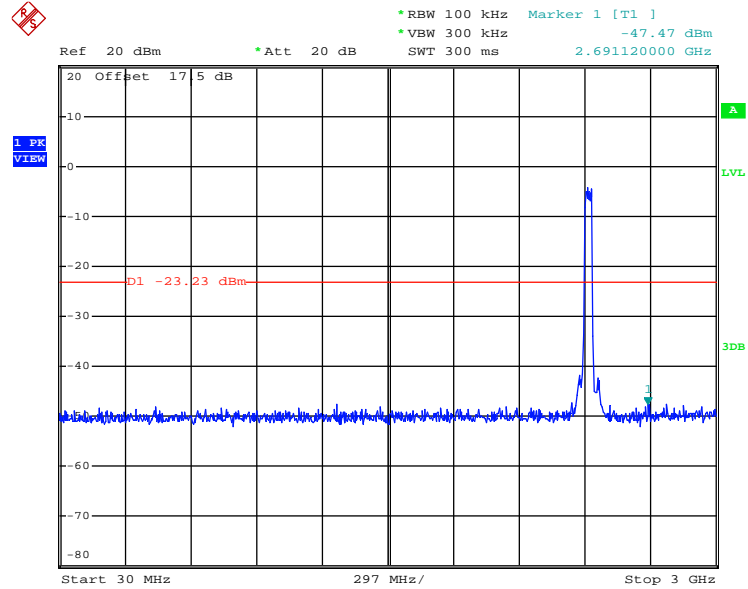
2.4GHz 802.11n HT40 – MIMO Ant. 0+1(0) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 09



Date: 7.JUL.2013 17:20:38

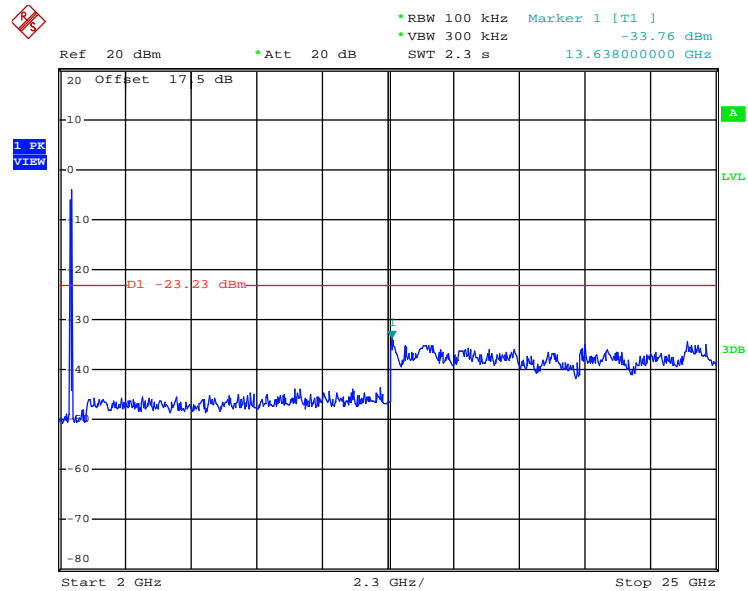


2.4GHz 802.11n HT40 – MIMO Ant. 0+1(1) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 03



Date: 7.JUL.2013 17:24:47

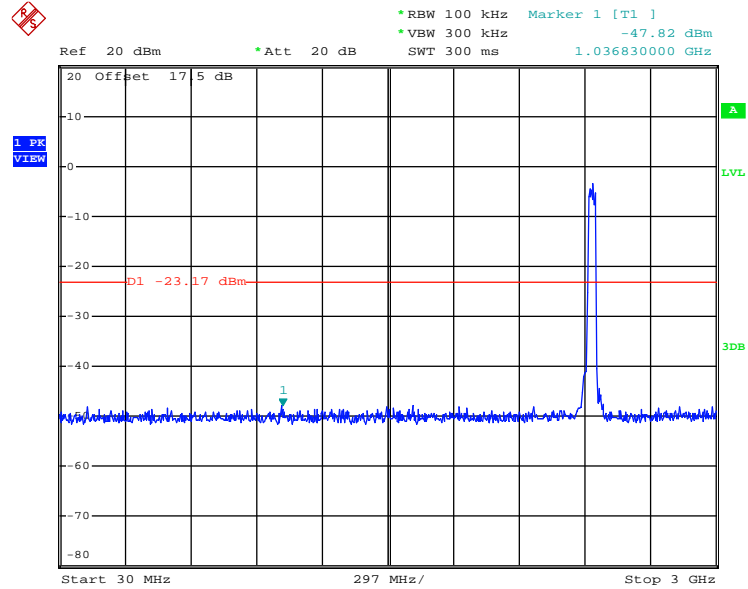
2.4GHz 802.11n HT40 – MIMO Ant. 0+1(1) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 03



Date: 7.JUL.2013 17:25:05

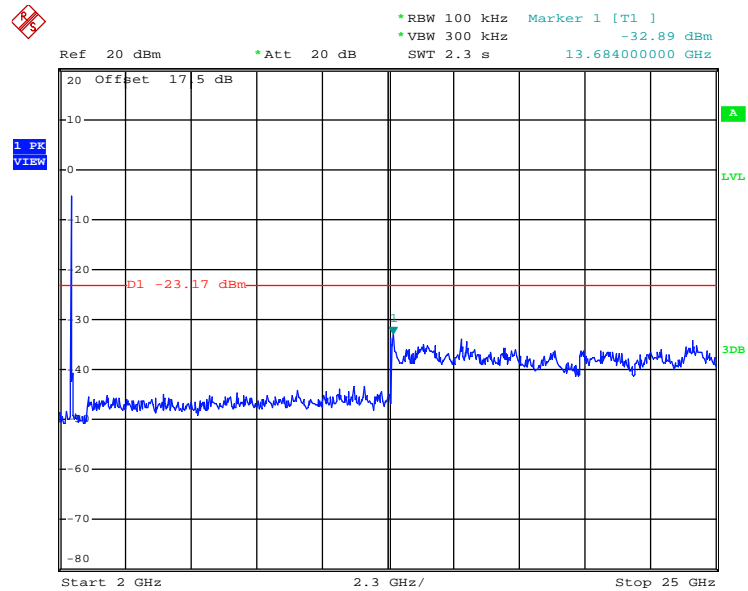


2.4GHz 802.11n HT40 – MIMO Ant. 0+1(1) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 06



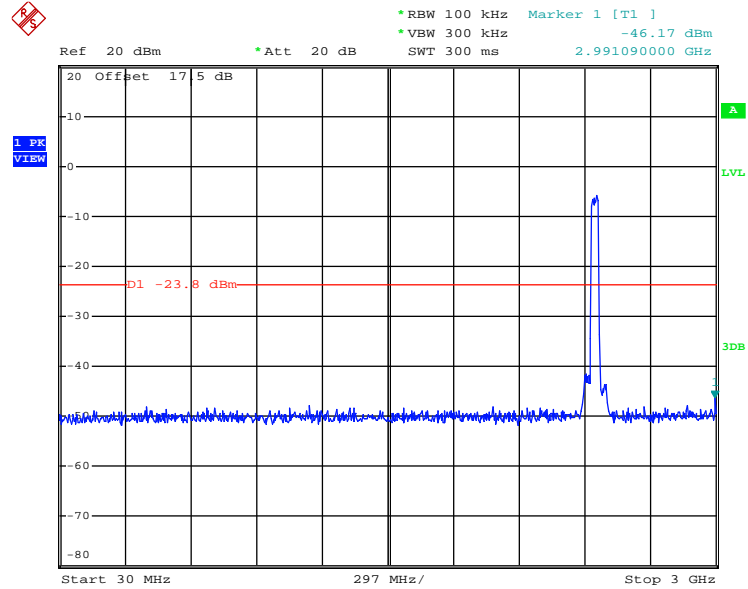
Date: 7.JUL.2013 17:29:19

2.4GHz 802.11n HT40 – MIMO Ant. 0+1(1) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 06



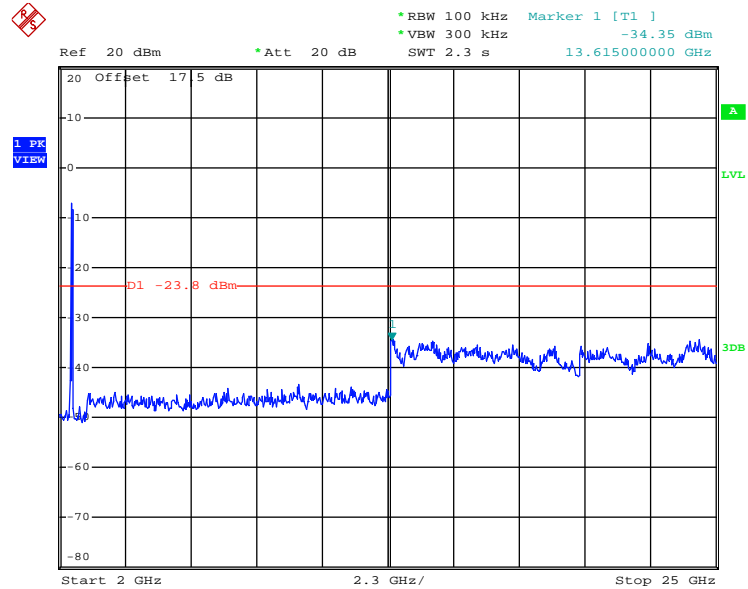
Date: 7.JUL.2013 17:29:37

**2.4GHz 802.11n HT40 – MIMO Ant. 0+1(1) (30 MHz~3 GHz)  
Conducted Spurious Emission Plot on Channel 09**



Date: 7.JUL.2013 17:35:12

**2.4GHz 802.11n HT40 – MIMO Ant. 0+1(1) (2 GHz~25 GHz)  
Conducted Spurious Emission Plot on Channel 09**



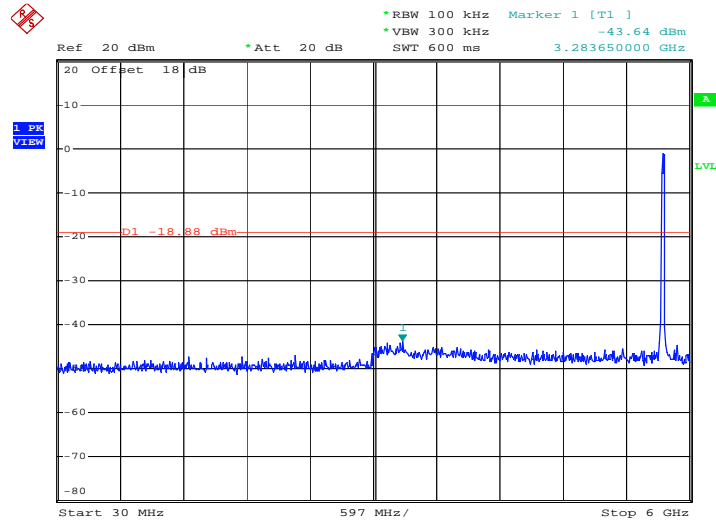
Date: 7.JUL.2013 17:35:31



Test Mode :	802.11a	Temperature :	24~26°C
Test Band :	30MHz-6GHz and 5G-40GHz	Relative Humidity :	50~53%
Test Channel :	149, 157, 161	Test Engineer :	Blithe Li

802.11a – Ant.0 (30 MHz~6 GHz)

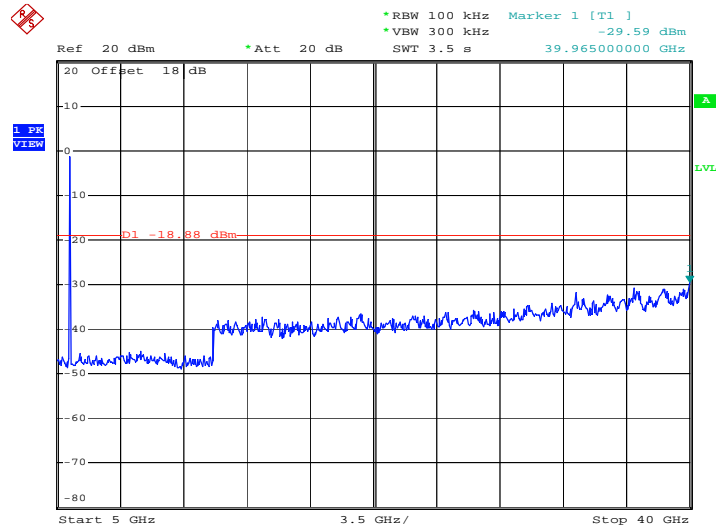
Conducted Spurious Emission Plot on Channel 149



Date: 11.MAR.2013 22:26:28

802.11a – Ant.0 (5 GHz~40 GHz)

Conducted Spurious Emission Plot on Channel 149

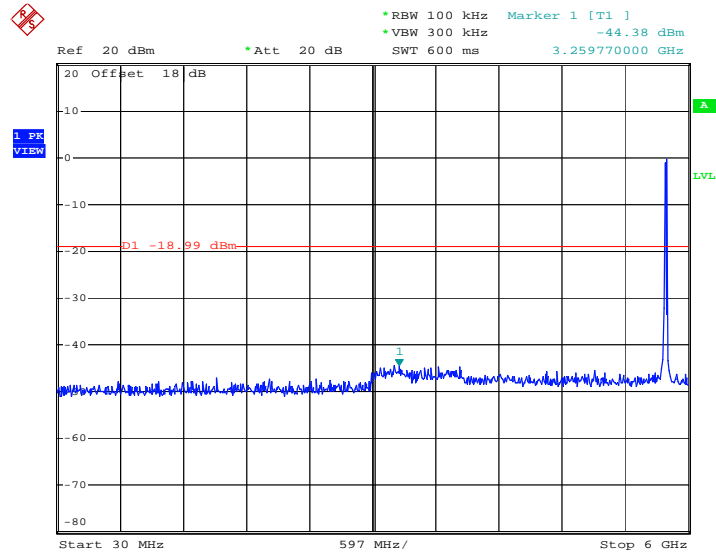


Date: 11.MAR.2013 22:26:46



802.11a – Ant.0 (30 MHz~6 GHz)

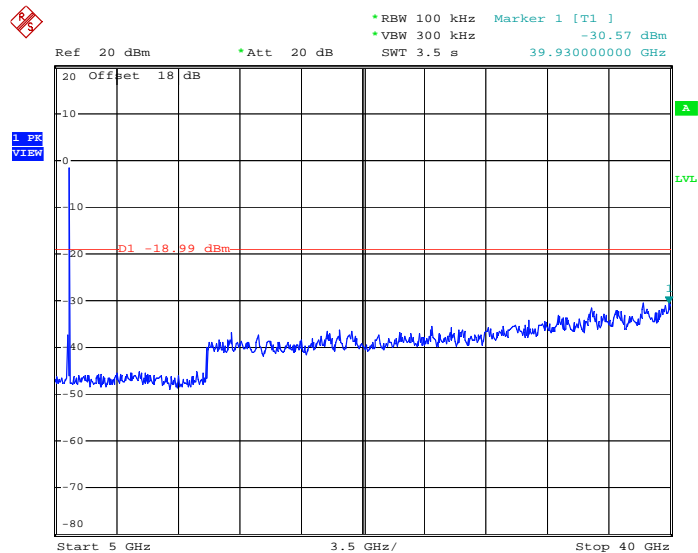
Conducted Spurious Emission Plot on Channel 157



Date: 11.MAR.2013 22:28:18

802.11a – Ant.0 (5 GHz~40 GHz)

Conducted Spurious Emission Plot on Channel 157



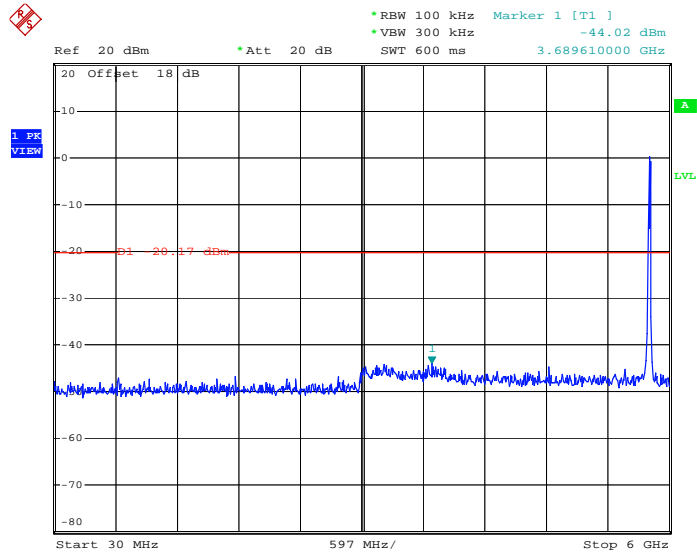
Date: 11.MAR.2013 22:28:36





802.11a – Ant.0 (30 MHz~6 GHz)

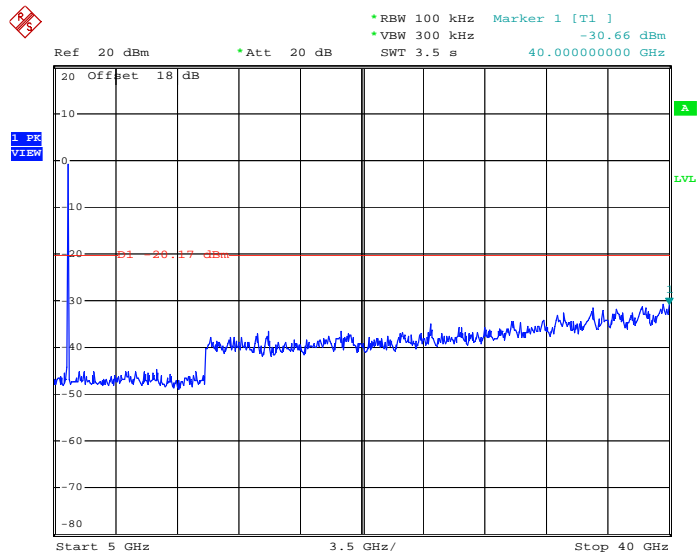
Conducted Spurious Emission Plot on Channel 161



Date: 11.MAR.2013 22:35:22

802.11a – Ant.0 (5 GHz~40 GHz)

Conducted Spurious Emission Plot on Channel 161



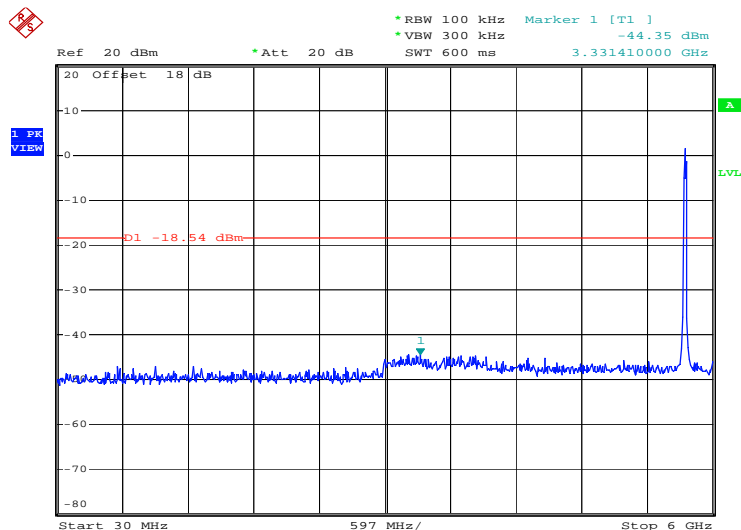
Date: 11.MAR.2013 22:35:40



Test Mode :	5GHz 802.11n HT20	Temperature :	24~26°C
Test Band :	30MHz-6GHz and 5G-40GHz	Relative Humidity :	50~53%
Test Channel :	149, 157, 161	Test Engineer :	Blithe Li

5GHz 802.11n HT20 – SISO Ant.0 (30 MHz~6 GHz)

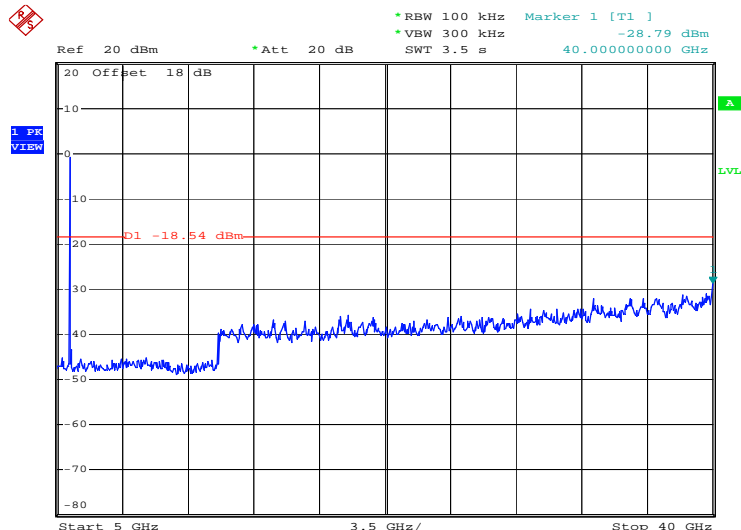
Conducted Spurious Emission Plot on Channel 149



Date: 11.MAR.2013 22:41:40

5GHz 802.11n HT20 – SISO Ant.0 (5 GHz~40 GHz)

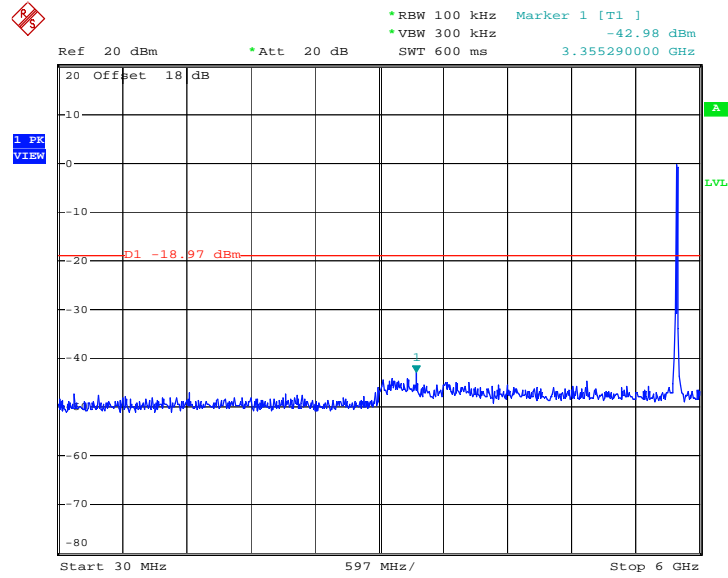
Conducted Spurious Emission Plot on Channel 149



Date: 11.MAR.2013 22:41:59

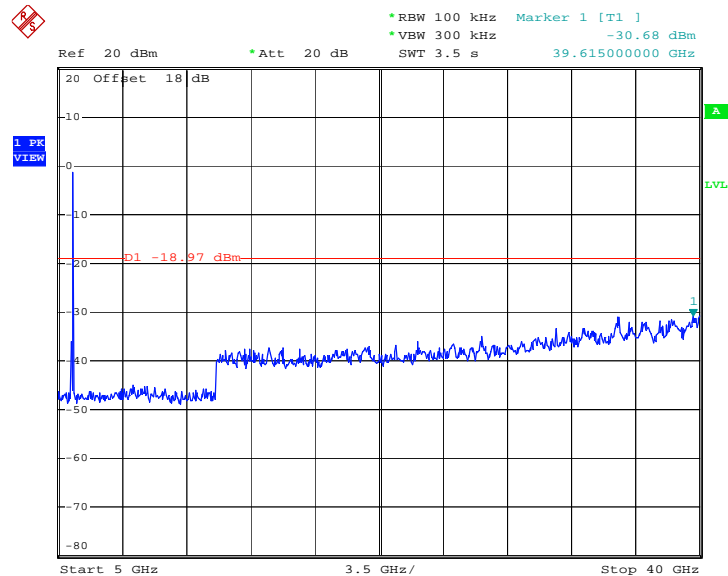


5GHz 802.11n HT20 – SISO Ant.0 (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 157



Date: 11.MAR.2013 22:42:35

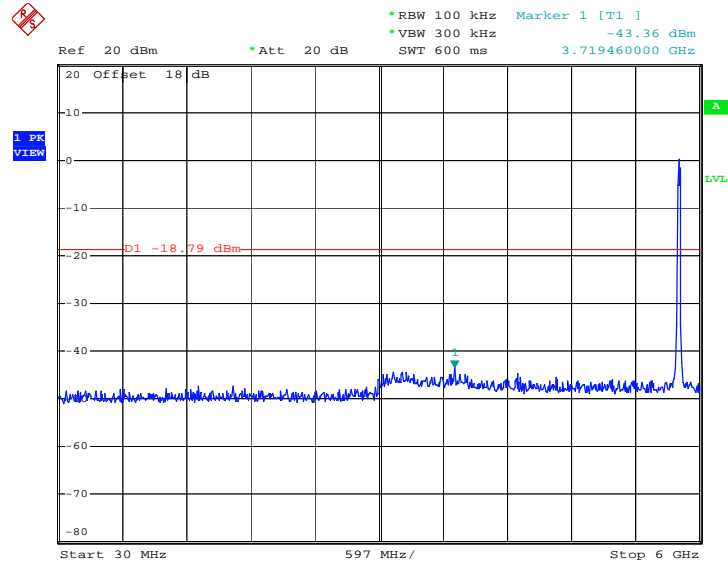
5GHz 802.11n HT20 – SISO Ant.0 (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 157



Date: 11.MAR.2013 22:42:53

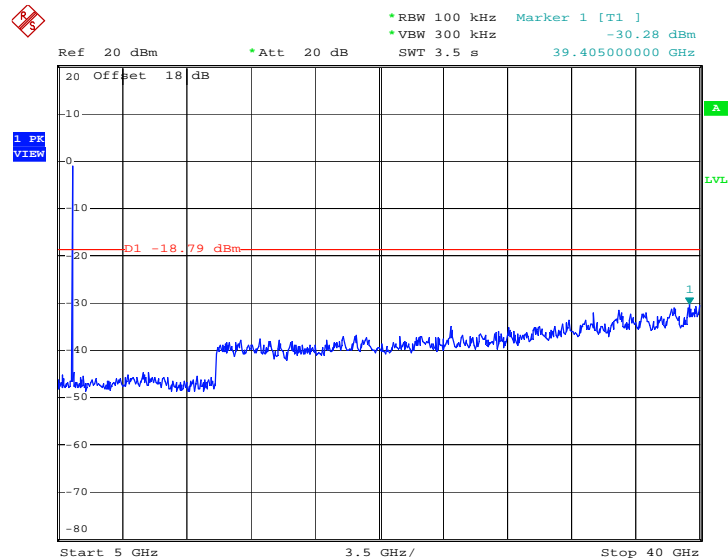


5GHz 802.11n HT20 – SISO Ant.0 (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 161



Date: 11.MAR.2013 22:43:43

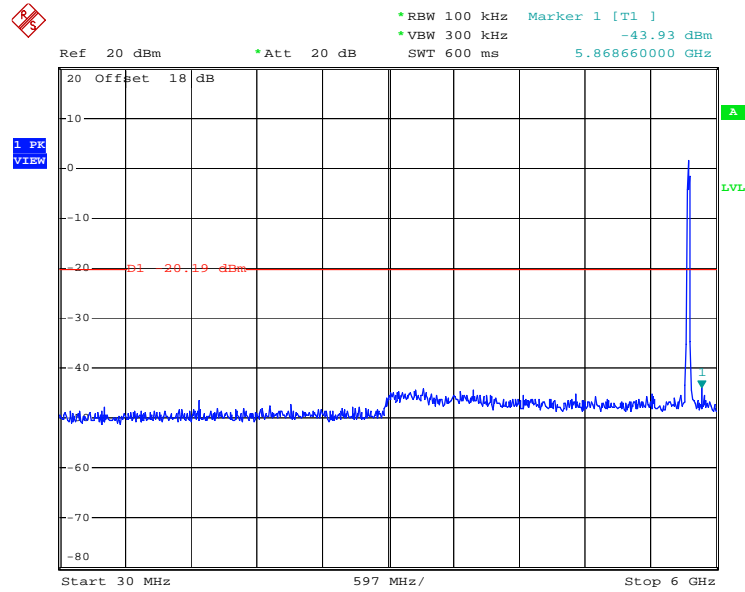
5GHz 802.11n HT20 – SISO Ant.0 (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 161



Date: 11.MAR.2013 22:44:02

5GHz 802.11n HT20 – MIMO Ant.0+1(0) (30 MHz~6 GHz)

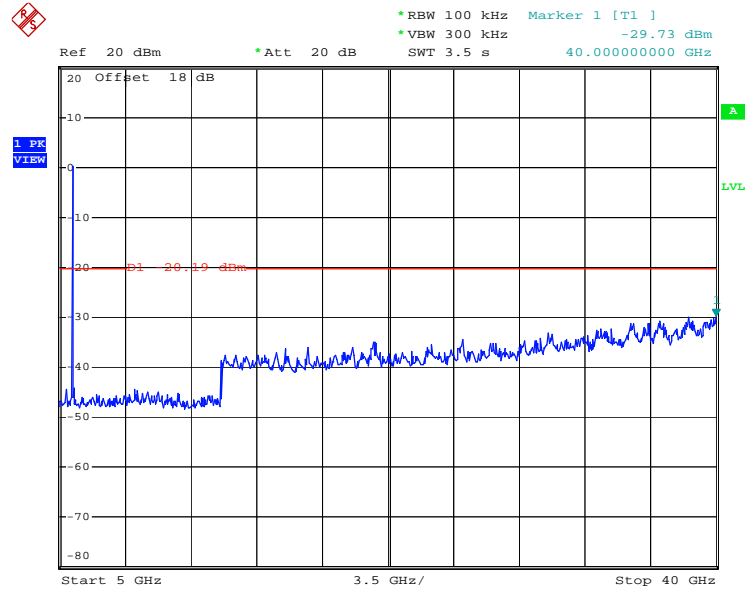
Conducted Spurious Emission Plot on Channel 149



Date: 5.JUL.2013 15:39:49

5GHz 802.11n HT20 – MIMO Ant.0+1(0) (5 GHz~40 GHz)

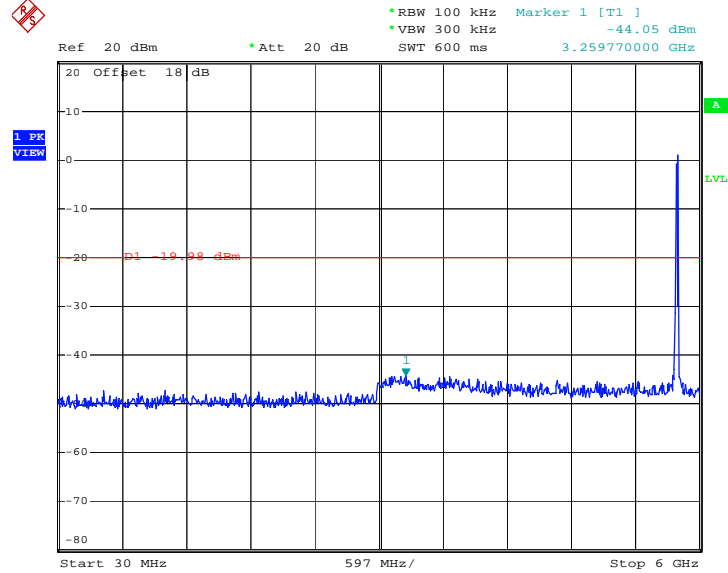
Conducted Spurious Emission Plot on Channel 149



Date: 5.JUL.2013 15:40:08

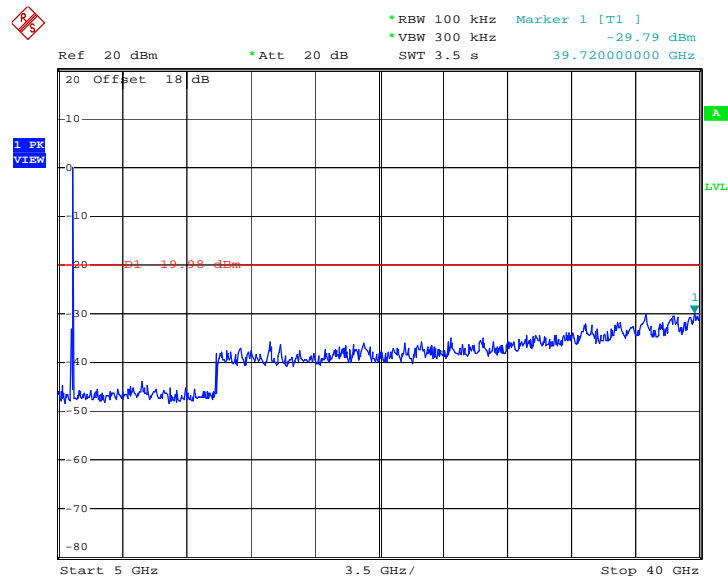


5GHz 802.11n HT20 – MIMO Ant.0+1(0) (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 157



Date: 5.JUL.2013 15:38:10

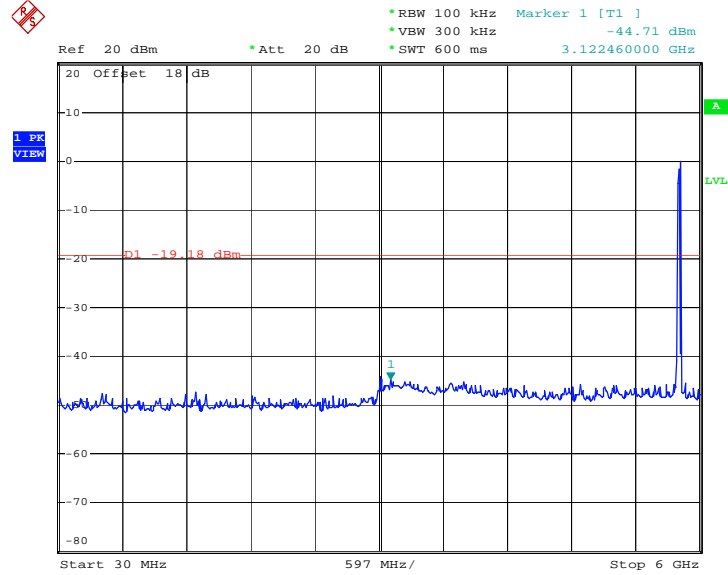
5GHz 802.11n HT20 – MIMO Ant.0+1(0) (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 157



Date: 5.JUL.2013 15:38:30

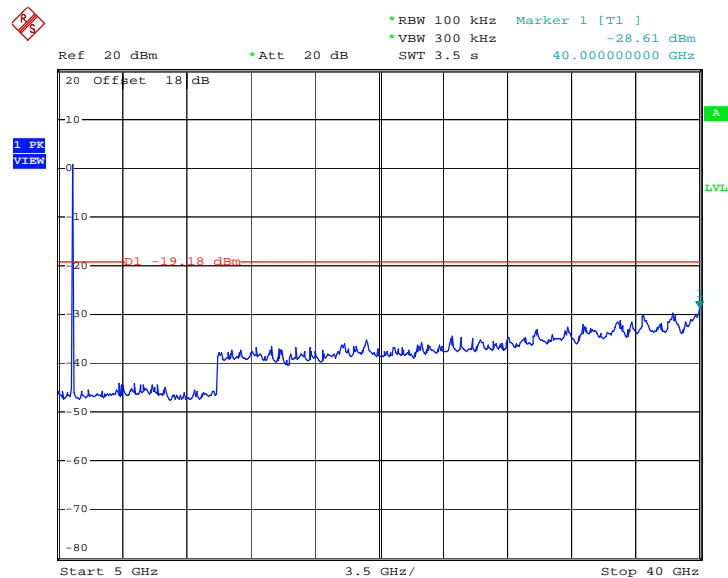


5GHz 802.11n HT20 – MIMO Ant.0+1(0) (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 161



Date: 11.JUL.2013 13:26:36

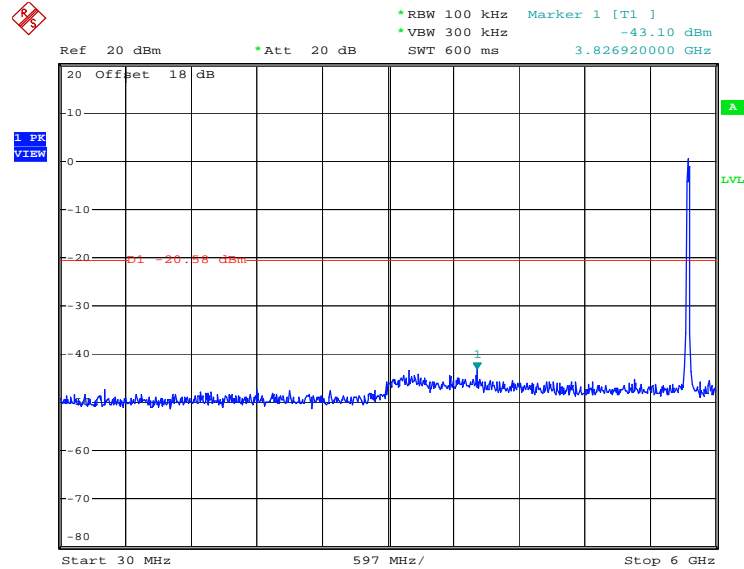
5GHz 802.11n HT20 – MIMO Ant.0+1(0) (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 161



Date: 11.JUL.2013 13:29:53

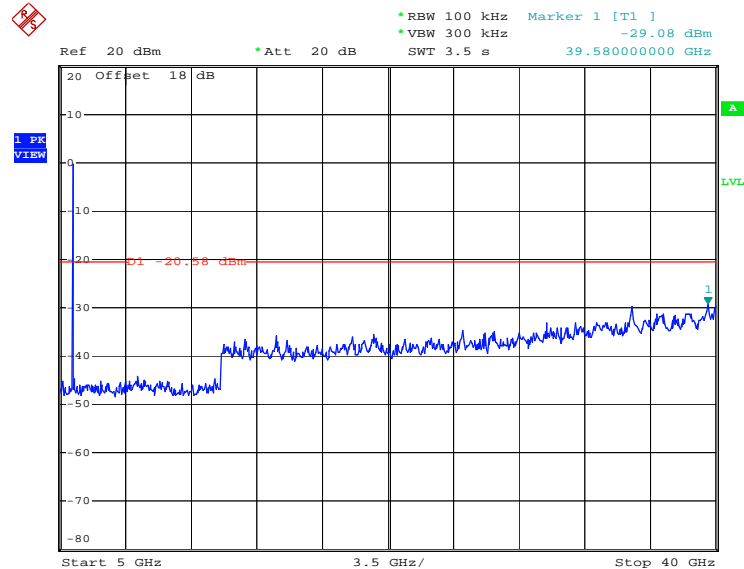


5GHz 802.11n HT20 – MIMO Ant.0+1(1) (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 149



Date: 5.JUL.2013 15:44:08

5GHz 802.11n HT20 – MIMO Ant.0+1(1) (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 149

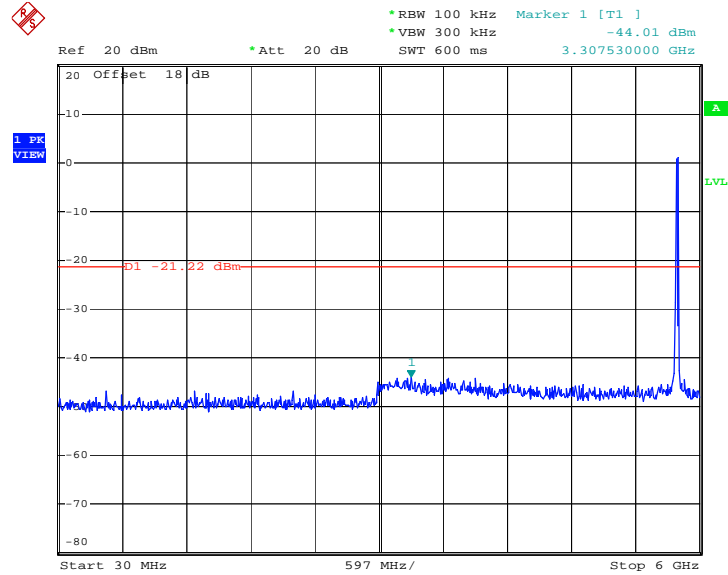


Date: 5.JUL.2013 15:44:27



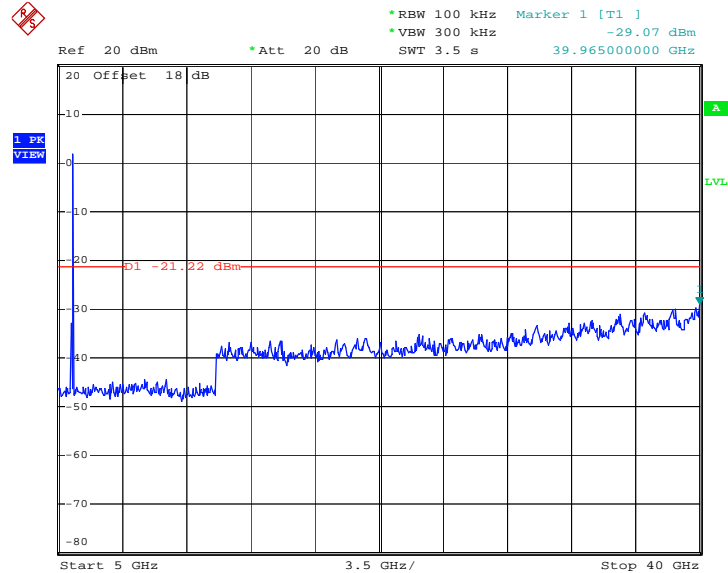


5GHz 802.11n HT20 – MIMO Ant.0+1(1) (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 157



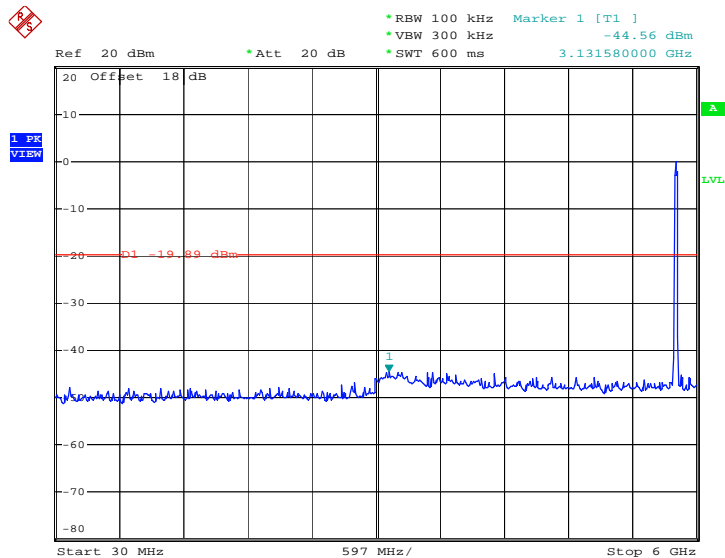
Date: 5.JUL.2013 15:45:24

5GHz 802.11n HT20 – MIMO Ant.0+1(1) (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 157



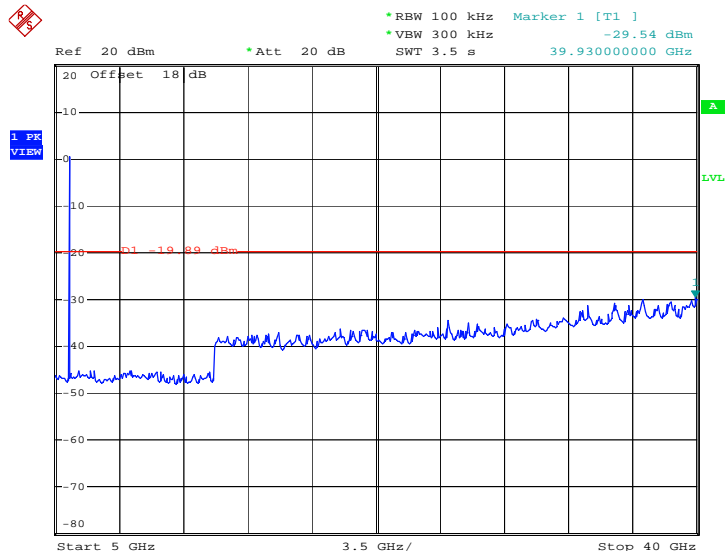
Date: 5.JUL.2013 15:45:43

5GHz 802.11n HT20 – MIMO Ant.0+1(1) (30 MHz~6 GHz)  
 Conducted Spurious Emission Plot on Channel 161



Date: 11.JUL.2013 13:35:07

5GHz 802.11n HT20 – MIMO Ant.0+1(1) (5 GHz~40 GHz)  
 Conducted Spurious Emission Plot on Channel 161

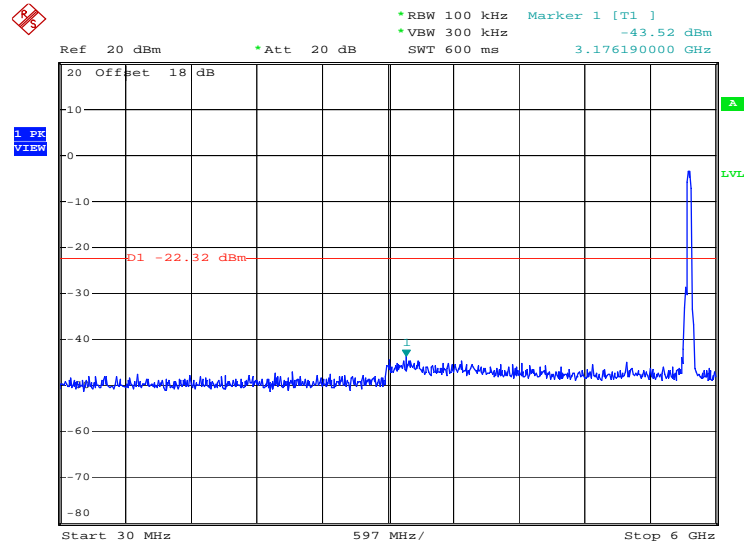


Date: 11.JUL.2013 13:35:46



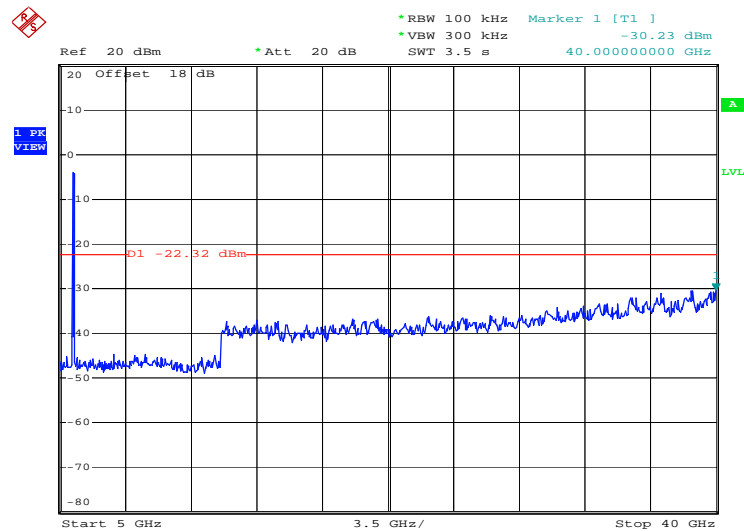
Test Mode :	5GHz 802.11n HT40	Temperature :	24~26°C
Test Band :	30MHz-6GHz and 5G-40GHz	Relative Humidity :	50~53%
Test Channel :	151 and 159	Test Engineer :	Blithe Li

**5GHz 802.11n HT40 – SISO Ant.0 (30 MHz~6 GHz)**  
**Conducted Spurious Emission Plot on Channel 151**



Date: 11.MAR.2013 22:47:42

**5GHz 802.11n HT40 – SISO Ant.0 (5 GHz~40 GHz)**  
**Conducted Spurious Emission Plot on Channel 151**

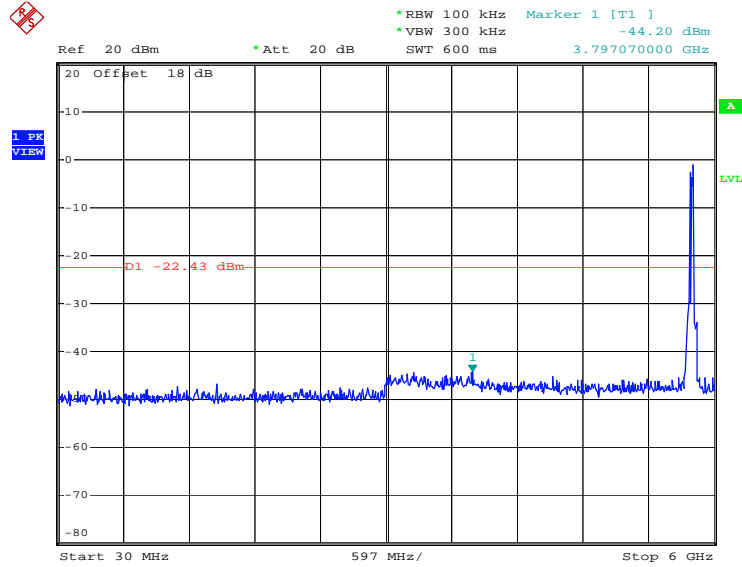


Date: 11.MAR.2013 22:48:01



5GHz 802.11n HT40 – SISO Ant.0 (30 MHz~6 GHz)

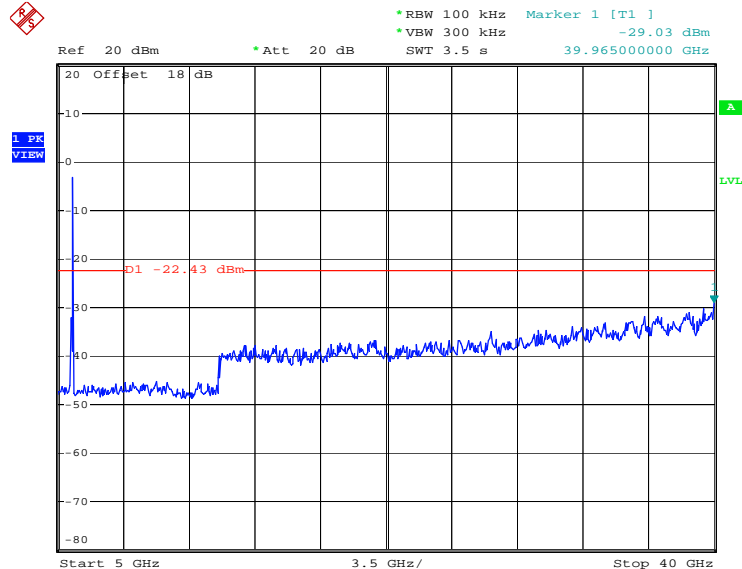
Conducted Spurious Emission Plot on Channel 159



Date: 11.MAR.2013 22:49:16

5GHz 802.11n HT40 – SISO Ant.0 (5 GHz~40 GHz)

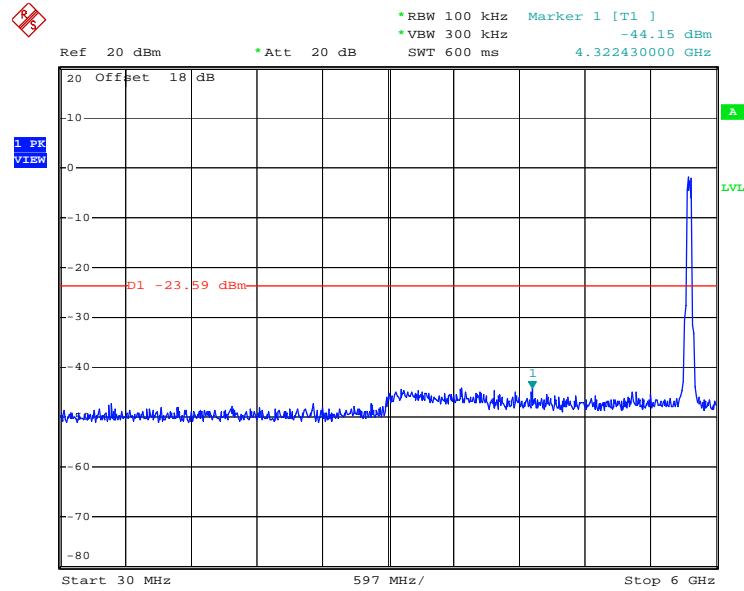
Conducted Spurious Emission Plot on Channel 159



Date: 11.MAR.2013 22:49:35

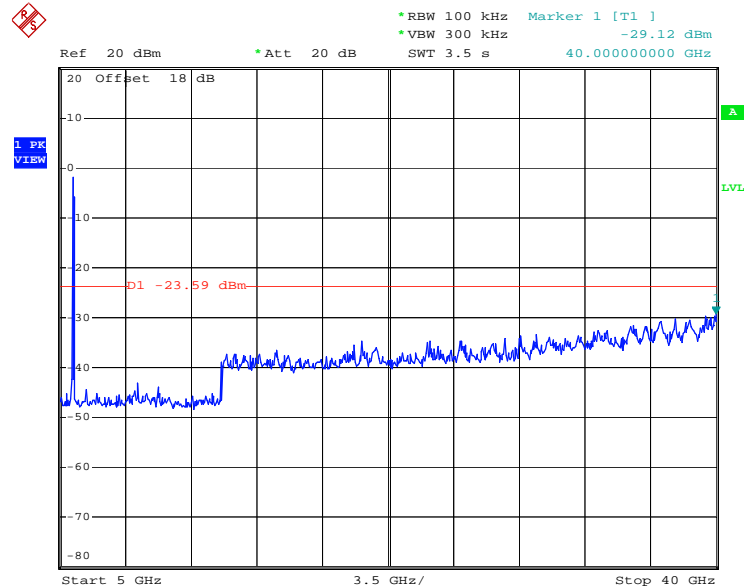


5GHz 802.11n HT40 – MIMO Ant.0+1(0) (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 151



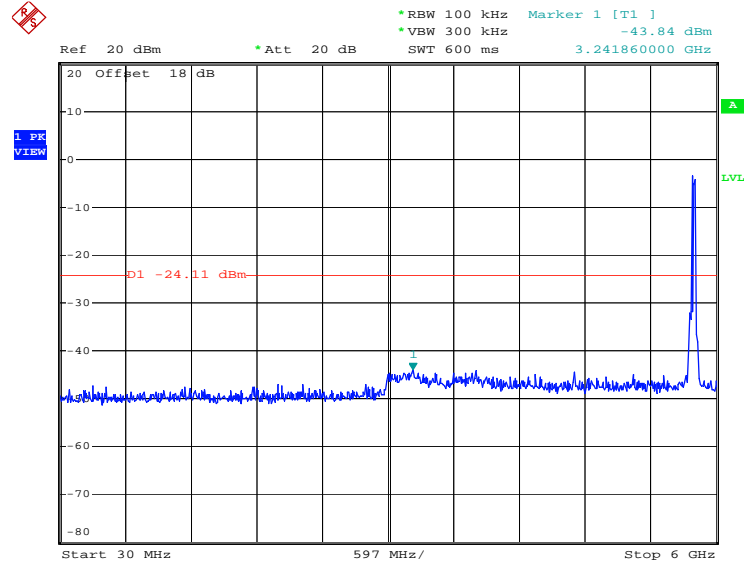
Date: 5.JUL.2013 15:58:46

5GHz 802.11n HT40 – MIMO Ant.0+1(0) (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 151



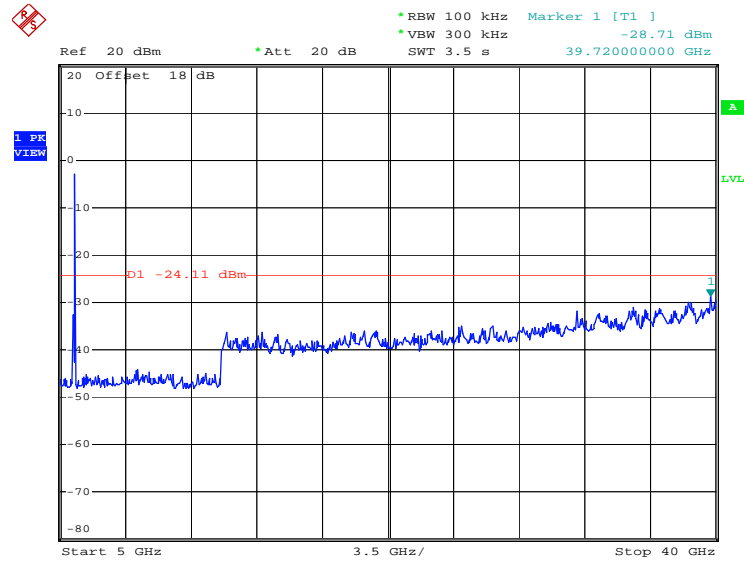
Date: 5.JUL.2013 15:59:05

5GHz 802.11n HT40 – MIMO Ant.0+1(0) (30 MHz~6 GHz)  
 Conducted Spurious Emission Plot on Channel 159



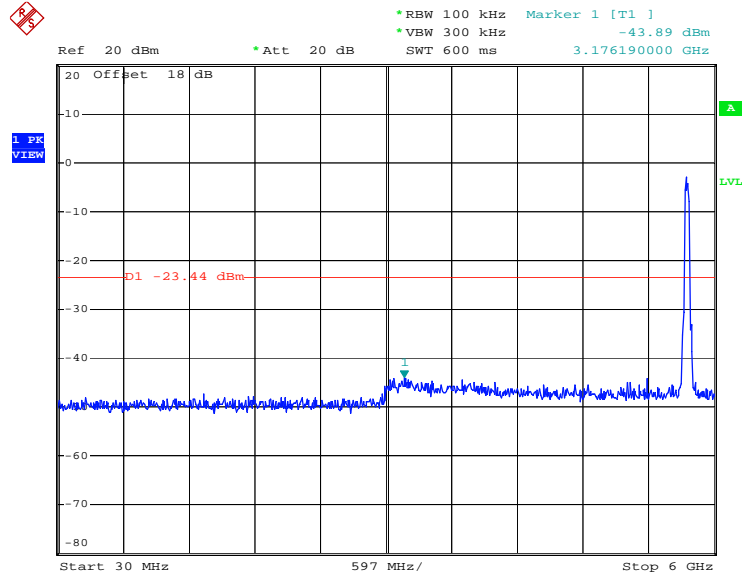
Date: 5.JUL.2013 16:05:03

5GHz 802.11n HT40 – MIMO Ant.0+1(0) (5 GHz~40 GHz)  
 Conducted Spurious Emission Plot on Channel 159



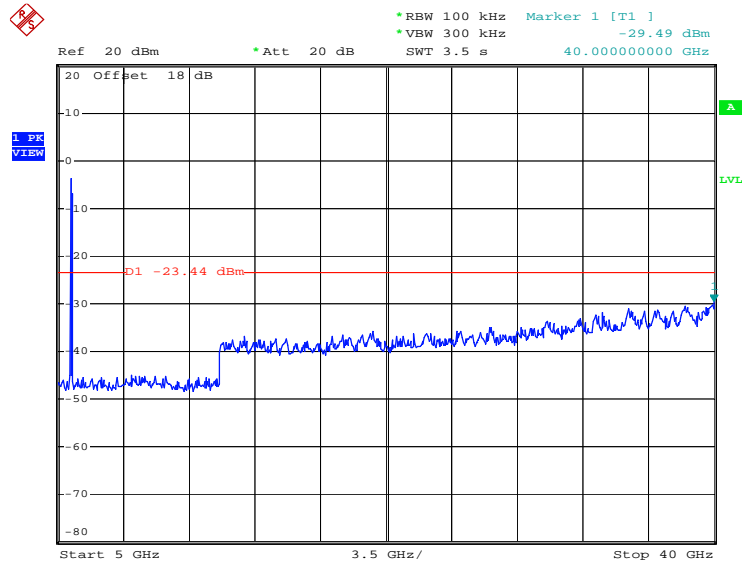
Date: 5.JUL.2013 16:05:22

5GHz 802.11n HT40 – MIMO Ant.0+1(1) (30 MHz~6 GHz)  
 Conducted Spurious Emission Plot on Channel 151



Date: 5.JUL.2013 16:10:18

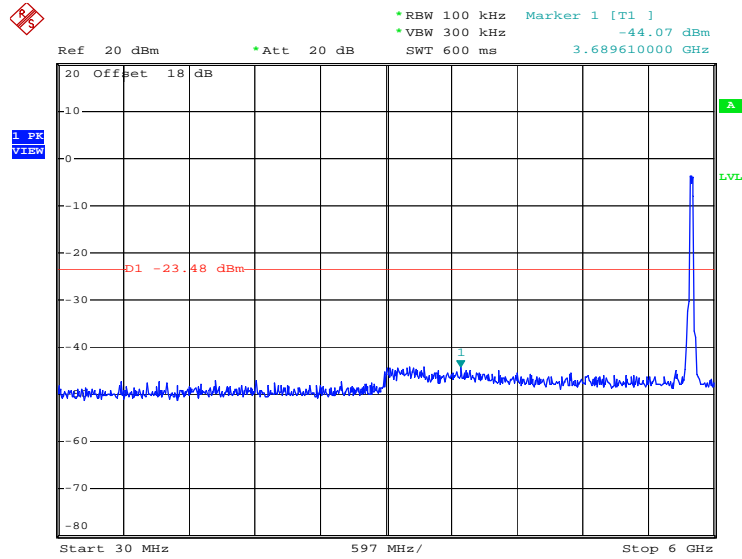
5GHz 802.11n HT40 – MIMO Ant.0+1(1) (5 GHz~40 GHz)  
 Conducted Spurious Emission Plot on Channel 151



Date: 5.JUL.2013 16:10:37

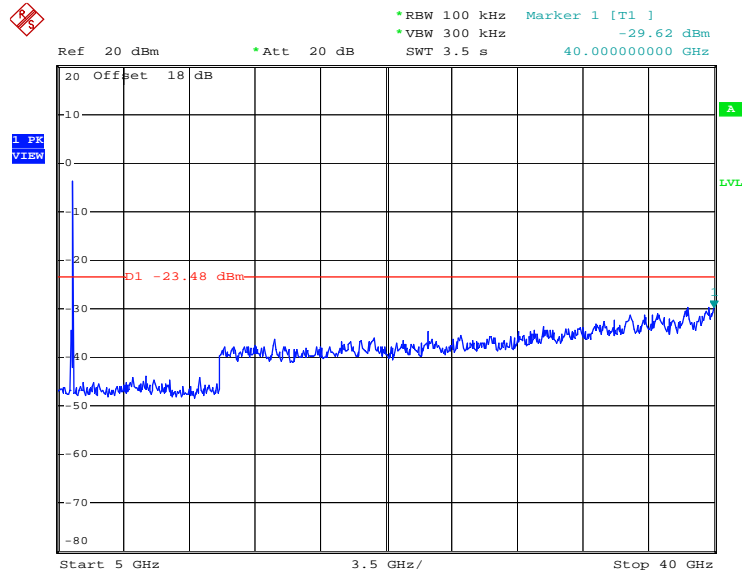


5GHz 802.11n HT40 – MIMO Ant.0+1(1) (30 MHz~6 GHz)  
Conducted Spurious Emission Plot on Channel 159



Date: 5.JUL.2013 16:07:39

5GHz 802.11n HT40 – MIMO Ant.0+1(1) (5 GHz~40 GHz)  
Conducted Spurious Emission Plot on Channel 159



Date: 5.JUL.2013 16:07:58



### 3.5 Radiated Band Edges and Spurious Emission Measurement

#### 3.5.1 Limit of Radiated band edge and Spurious Emission Measurement

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

#### 3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.5.3 Test Procedures

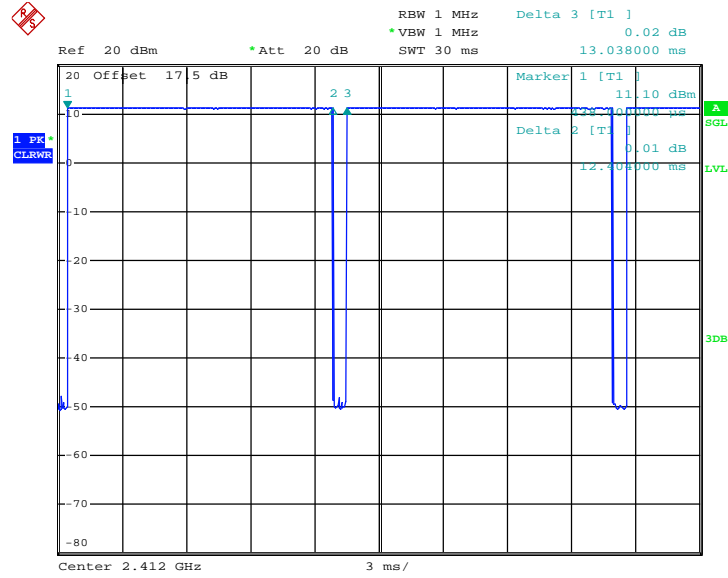
1. The testing follows the guidelines in ANSI C63.10-2009.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Set RBW=100 kHz for  $f < 1$  GHz;  $VBW \geq RBW$ ; Sweep = auto; Detector function = peak; Trace = max hold;
  - (3) Set RBW = 1 MHz, VBW= 3MHz for  $f \geq 1$  GHz for peak measurement.  
 For average measurement:
    - $VBW = 10$  Hz, when duty cycle is no less than 98 percent.
    - $VBW \geq 1/T$ , when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

Band	Duty Cycle(%)	T(ms)	1/T(kHz)	VBW Setting
802.11b - Ant.0	95.137	12.404	0.081	100 Hz
802.11g - Ant.0	94.931	2.060	0.485	1 kHz
2.4GHz 802.11n HT20 - SISO Ant.0	95.030	1.912	0.523	1 kHz
2.4GHz 802.11n HT20 - MIMO Ant.0+1	91.138	0.977	1.024	3 kHz
2.4GHz 802.11n HT40 - SISO Ant.0	89.773	0.474	2.110	3 kHz
2.4GHz 802.11n HT40 - MIMO Ant.0+1	83.362	0.491	2.037	3 kHz
802.11a - Ant.0	95.707	2.065	0.484	1 kHz
5GHz 802.11n HT20 - SISO Ant.0	95.810	0.497	2.012	3 kHz
5GHz 802.11n HT20 - MIMO Ant.0+1	91.061	0.97	1.031	3 kHz
5GHz 802.11n HT40-Ant.0	91.67	0.252	3.968	10 kHz
5GHz 802.11n HT40 - MIMO Ant.0+1	83.448	0.484	2.066	3 kHz

**Note:** For average measurement with duty cycle < 98%, use reduced VBW measurement method 4.2.3.2.3 in ANSI C63.10.



802.11b - Ant.0 Duty Cycle



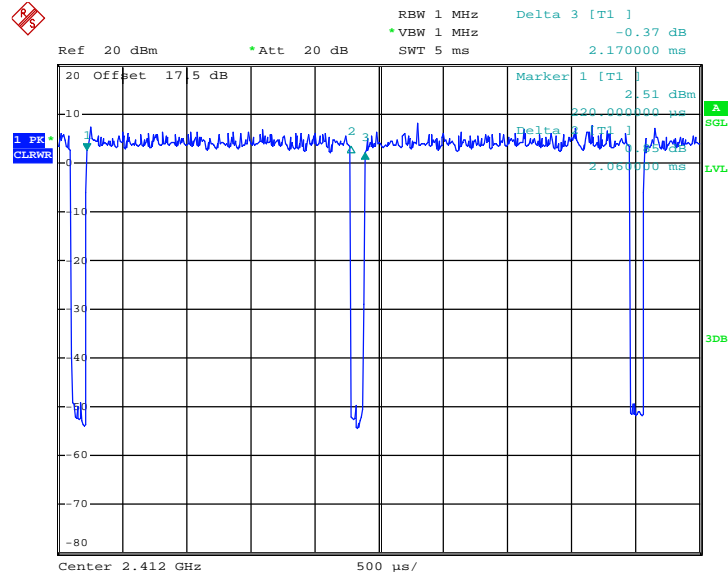
Date: 2.MAR.2013 13:08:38

**Note:**

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



802.11g - Ant.0 Duty Cycle



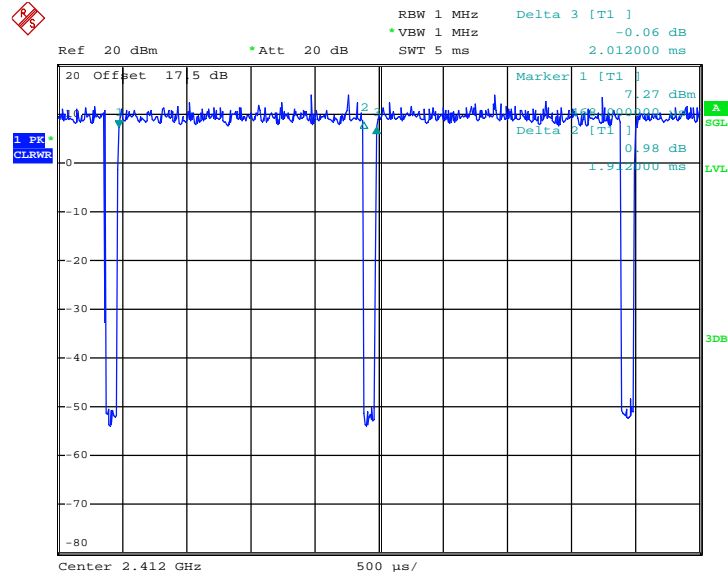
Date: 2.MAR.2013 12:26:24

**Note:**

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



2.4GHz 802.11n HT20 – SISO Ant.0 Duty Cycle



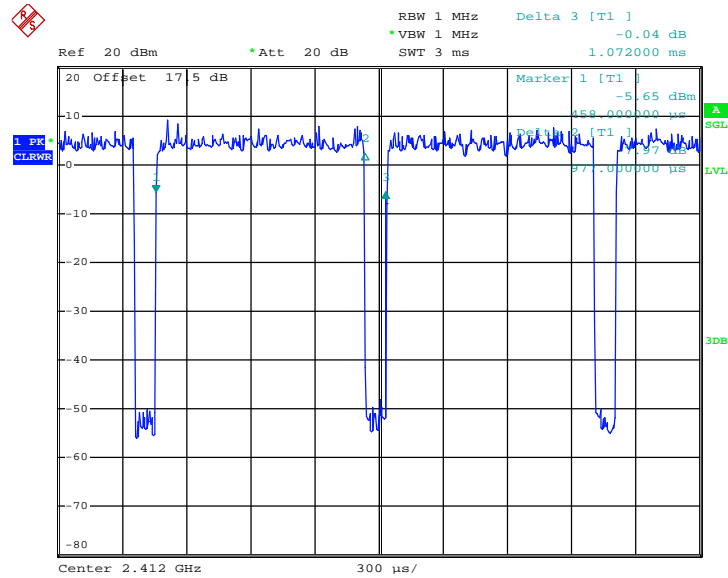
Date: 2.MAR.2013 13:10:46

**Note:**

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



2.4GHz 802.11n HT20 – MIMO Ant.0+1 Duty Cycle

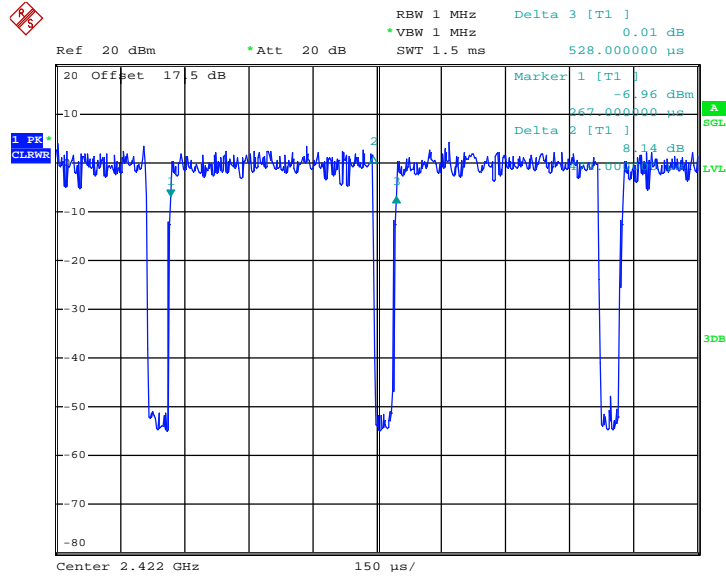


Date: 6.JUL.2013 10:37:08

**Note:**

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.

2.4GHz 802.11n HT40 – SISO Ant.0 Duty Cycle



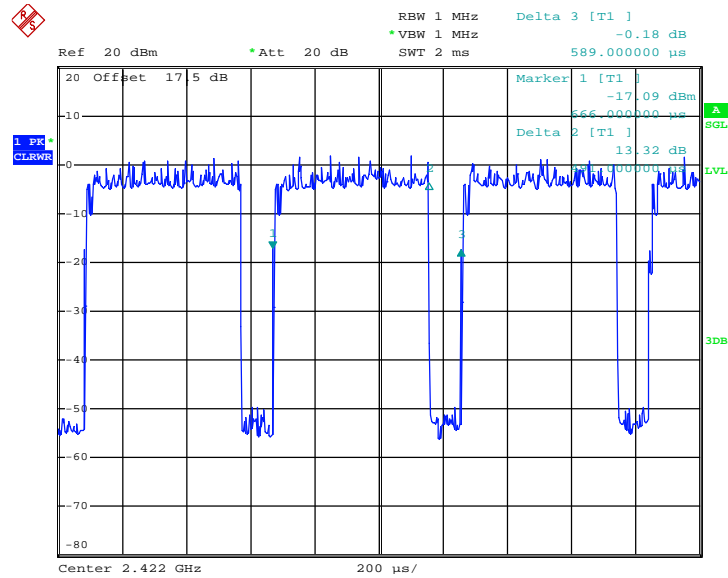
Date: 2.MAR.2013 13:21:36

**Note:**

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



2.4GHz 802.11n HT40 – MIMO Ant.0+1 Duty Cycle



Date: 6.JUL.2013 10:53:57

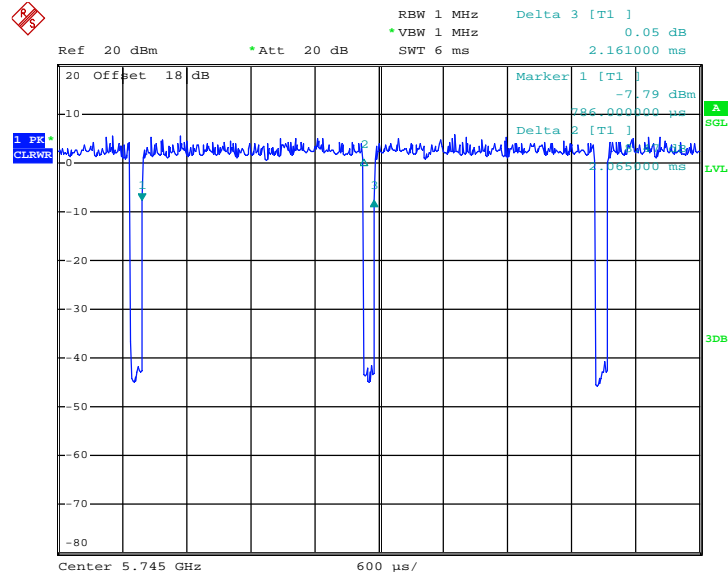
**Note:**

The total loss is 17.5dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.





802.11a - Ant.0 Duty Cycle



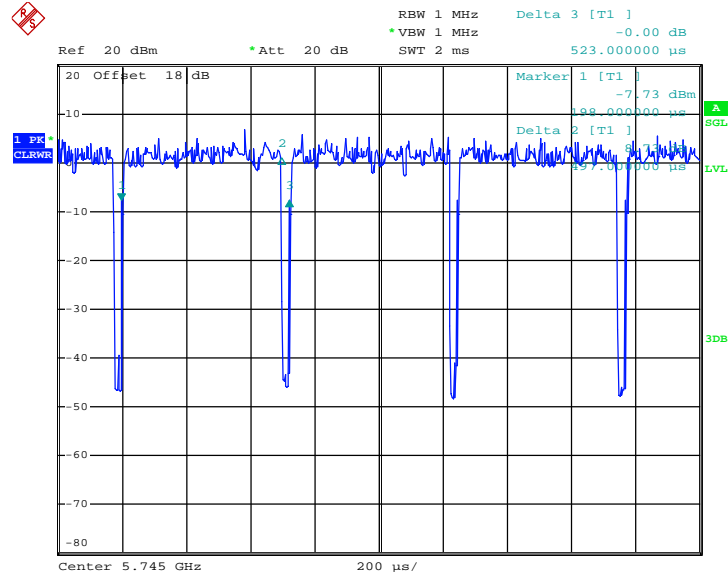
Date: 26.MAR.2013 07:15:27

**Note:**

The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



5GHz 802.11n HT20 - SISO Ant.0 Duty Cycle



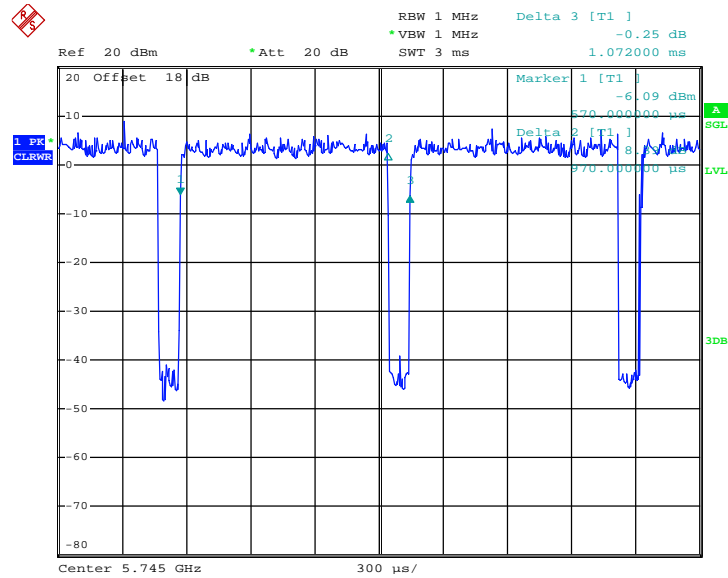
Date: 26.MAR.2013 07:11:05

**Note:**

The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



5GHz 802.11n HT20 - MIMO Ant.0+1 Duty Cycle



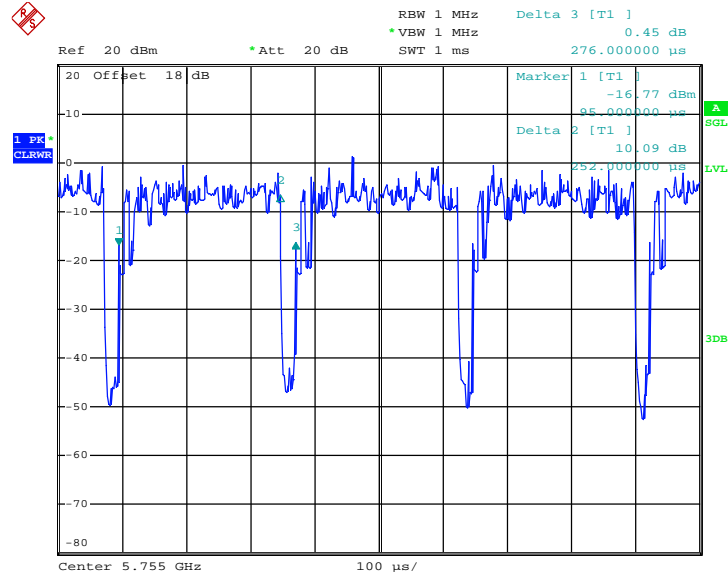
Date: 6.JUL.2013 11:49:16

**Note:**

The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



5GHz 802.11n HT40 - SISO Ant.0 Duty Cycle



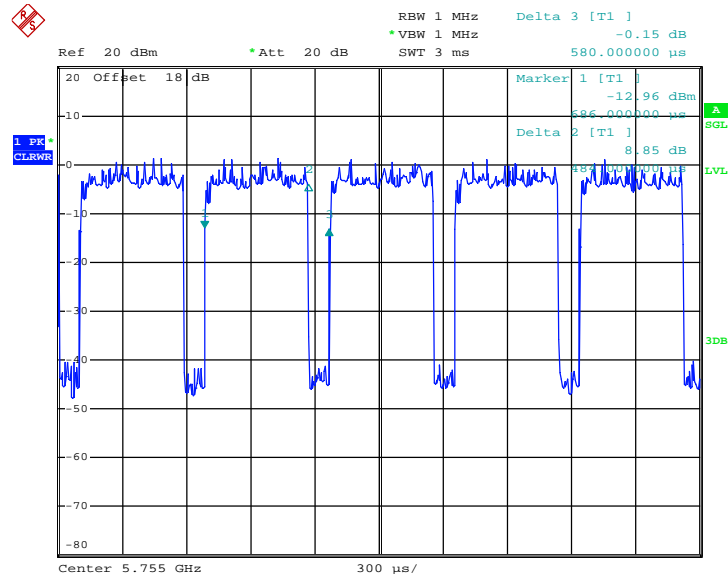
Date: 26.MAR.2013 07:03:03

Note:

The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.



5GHz 802.11n HT40 - MIMO Ant.0+1 Duty Cycle



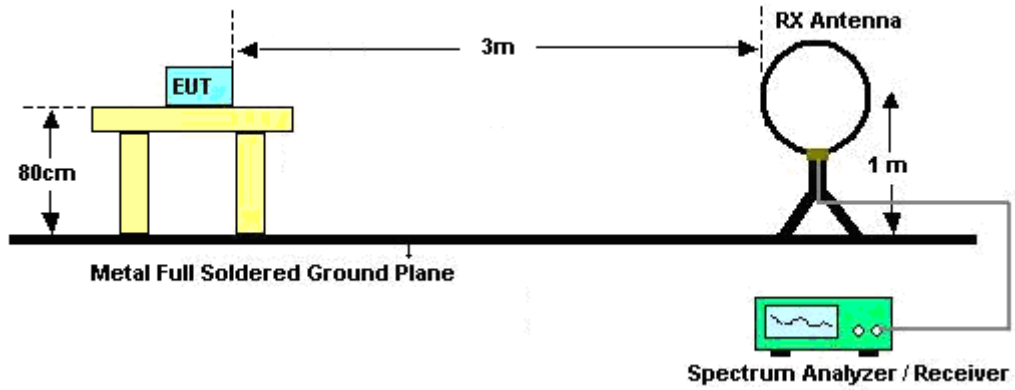
Date: 6.JUL.2013 12:04:56

**Note:**

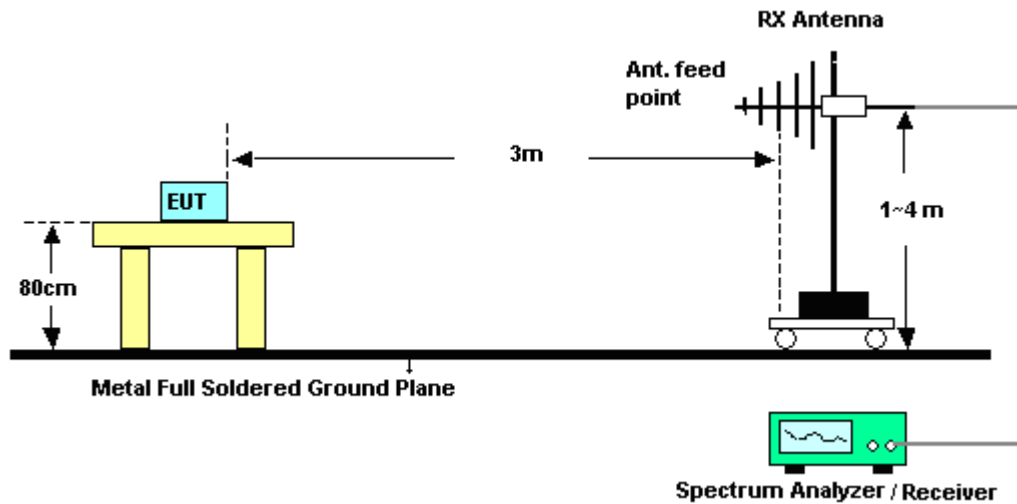
The total loss is 18dB of the RF cable and attenuator, and has been compensated to the spectrum analyzer by setting into the amplitude level offset. That means the measured result shown on the spectrum analyzer has added the total loss and been compliance with the limit line.

### 3.5.4 Test Setup

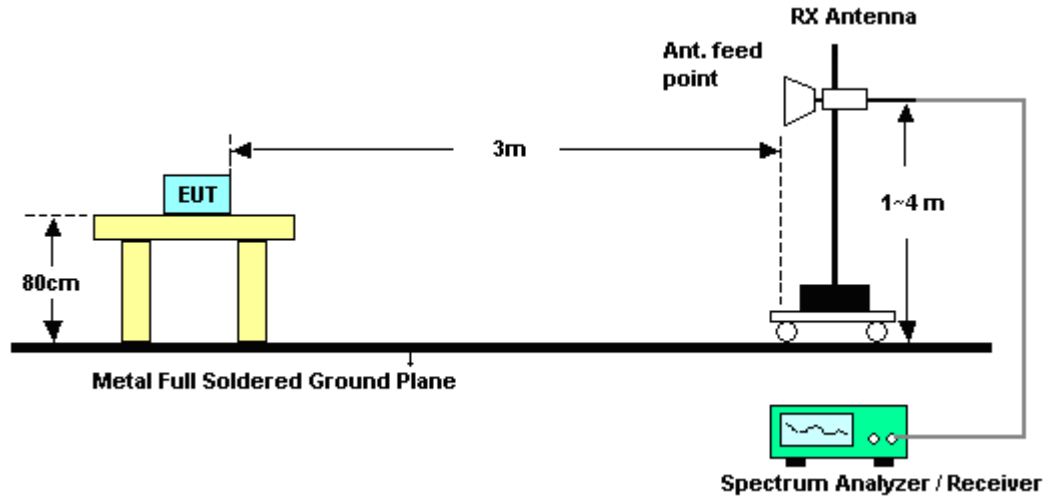
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 3.5.5 Test Results of Radiated Emissions (9kHz ~ 30MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.



3.5.6 Test Result of Radiated Band Edges

Test Mode :	802.11b - Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	01	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2389.56	53.22	-20.78	74	47.52	32.14	4.42	30.86	140	50	Peak
2389.47	40.47	-13.53	54	34.77	32.14	4.42	30.86	140	50	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2323.23	52.92	-21.08	74	47.44	32.05	4.34	30.91	110	50	Peak
2383.35	40.74	-13.26	54	35.06	32.12	4.42	30.86	110	50	Average

Test Mode :	802.11b - Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	11	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2483.62	54.7	-19.3	74	48.74	32.27	4.47	30.78	110	120	Peak
2483.5	41.03	-12.97	54	35.07	32.27	4.47	30.78	110	120	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2489.74	53.8	-20.2	74	47.79	32.29	4.49	30.77	110	270	Peak
2484.16	38.88	-15.12	54	32.92	32.27	4.47	30.78	110	270	Average





Test Mode :	802.11g - Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	01	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2389.92	65.46	-8.54	74	59.76	32.14	4.42	30.86	149	264	Peak
2390	48.01	-5.99	54	42.31	32.14	4.42	30.86	149	264	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2390	67.64	-6.36	74	61.94	32.14	4.42	30.86	149	268	Peak
2390	48.25	-5.75	54	42.55	32.14	4.42	30.86	149	268	Average

Test Mode :	802.11g - Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	11	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2487.52	63.59	-10.41	74	57.61	32.29	4.47	30.78	110	340	Peak
2488.45	46.11	-7.89	54	40.1	32.29	4.49	30.77	110	340	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2487.4	60.13	-13.87	74	54.17	32.27	4.47	30.78	180	315	Peak
2488.99	43.58	-10.42	54	37.57	32.29	4.49	30.77	180	315	Average



Test Mode :	2.4GHz 802.11n HT20 – SISO Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	01	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2389.29	65.54	-8.46	74	59.84	32.14	4.42	30.86	146	211	Peak
2389.92	50.03	-3.97	54	44.33	32.14	4.42	30.86	146	211	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2380.38	59.26	-14.74	74	53.58	32.12	4.42	30.86	151	247	Peak
2390	44.8	-9.2	54	39.1	32.14	4.42	30.86	151	247	Average

Test Mode :	2.4GHz 802.11n HT20 – SISO Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	11	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2486.8	62.63	-11.37	74	56.67	32.27	4.47	30.78	115	134	Peak
2486.62	49.64	-4.36	54	43.68	32.27	4.47	30.78	115	134	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2490.91	55.9	-18.1	74	49.89	32.29	4.49	30.77	122	341	Peak
2489.98	43.79	-10.21	54	37.78	32.29	4.49	30.77	122	341	Average



Test Mode :	2.4GHz 802.11n HT20 – MIMO Ant.0+1	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	01	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2388.12	64.26	-9.74	74	56.32	32.14	5.59	29.79	146	72	Peak
2388.75	47.15	-6.85	54	39.21	32.14	5.59	29.79	146	72	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2382.18	63.72	-10.28	74	55.8	32.12	5.59	29.79	103	353	Peak
2388.93	47.78	-6.22	54	39.84	32.14	5.59	29.79	103	353	Average

Test Mode :	2.4GHz 802.11n HT20 – MIMO Ant.0+1	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	11	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2485.21	66.99	-7.01	74	58.77	32.27	5.71	29.76	141	157	Peak
2483.5	49.64	-4.36	54	41.42	32.27	5.71	29.76	141	157	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2484.79	64.68	-9.32	74	56.46	32.27	5.71	29.76	106	353	Peak
2489.23	50.37	-3.63	54	42.13	32.29	5.71	29.76	106	353	Average



Test Mode :	2.4GHz 802.11n HT40 – SISO Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	03	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2389.47	69.26	-4.74	74	63.56	32.14	4.42	30.86	147	270	Peak
2389.29	49.02	-4.98	54	43.32	32.14	4.42	30.86	147	270	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2388.39	69.22	-4.78	74	63.52	32.14	4.42	30.86	147	269	Peak
2389.2	50	-4	54	44.3	32.14	4.42	30.86	147	269	Average

Test Mode :	2.4GHz 802.11n HT40 – SISO Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	09	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2494.99	61.62	-12.38	74	55.61	32.29	4.49	30.77	144	265	Peak
2494.96	48.72	-5.28	54	42.71	32.29	4.49	30.77	144	265	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2494.39	61.59	-12.41	74	55.58	32.29	4.49	30.77	145	267	Peak
2495.71	48.75	-5.25	54	42.74	32.29	4.49	30.77	145	267	Average



Test Mode :	2.4GHz 802.11n HT40 – MIMO Ant.0+1	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	03	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2387.04	62.55	-11.45	74	54.61	32.14	5.59	29.79	106	72	Peak
2387.04	51.59	-2.41	54	43.65	32.14	5.59	29.79	106	72	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2372.82	62.97	-11.03	74	55.05	32.12	5.59	29.79	160	78	Peak
2378.4	51.38	-2.62	54	43.46	32.12	5.59	29.79	160	78	Average

Test Mode :	2.4GHz 802.11n HT40 – MIMO Ant.0+1	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	09	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2493.43	63.23	-10.77	74	54.95	32.29	5.74	29.75	118	310	Peak
2496.1	50.39	-3.61	54	42.11	32.29	5.74	29.75	118	310	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2496.01	58.68	-15.32	74	50.4	32.29	5.74	29.75	104	10	Peak
2496.01	48.21	-5.79	54	39.93	32.29	5.74	29.75	104	10	Average



Test Mode :	802.11a - Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	149	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	69.28	-17.28	86.56	57.84	34.15	6.31	29.02	100	250	Peak
5745	106.56	-	-	95.21	34.18	6.24	29.07	100	323	Peak
5745	94.44	-	-	83.09	34.18	6.24	29.07	100	323	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	64.77	-17.25	82.02	53.33	34.15	6.31	29.02	125	250	Peak
5745	102.02	-	-	90.67	34.18	6.24	29.07	100	70	Peak
5745	91.01	-	-	79.66	34.18	6.24	29.07	100	70	Average

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. For example, 106.56 dBμV/m - 20dB = 86.56 dBμV/m.

Test Mode :	802.11a - Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	161	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	51.29	-34.88	86.17	39.92	34.34	6.24	29.21	120	45	Peak
5805	106.17	-	-	95.07	34.29	6.09	29.28	100	47	Peak
5805	94.7	-	-	83.6	34.29	6.09	29.28	100	47	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	48.59	-37.72	86.31	37.22	34.34	6.24	29.21	100	321	Peak
5805	106.31	-	-	95.21	34.29	6.09	29.28	120	330	Peak
5805	94.84	-	-	83.74	34.29	6.09	29.28	120	330	Average

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.



Test Mode :	5GHz 802.11n HT20 – SISO Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	149	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	67.84	-7.93	75.77	56.4	34.15	6.31	29.02	100	28	Peak
5745	95.77	-	-	84.42	34.18	6.24	29.07	100	28	Peak
5745	85.07	-	-	73.72	34.18	6.24	29.07	100	28	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	59.29	-10.76	70.05	47.85	34.15	6.31	29.02	137	2	Peak
5745	90.05	-	-	78.7	34.18	6.24	29.07	137	2	Peak
5745	79.15	-	-	67.8	34.18	6.24	29.07	137	2	Average

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.

Test Mode :	5GHz 802.11n HT20 – SISO Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	161	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	48.8	-29.29	78.09	37.43	34.34	6.24	29.21	109	72	Peak
5805	98.09	-	-	86.99	34.29	6.09	29.28	109	72	Peak
5805	87.04	-	-	75.94	34.29	6.09	29.28	109	72	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	44.74	-26.88	71.62	33.37	34.34	6.24	29.21	149	286	Peak
5805	91.62	-	-	80.52	34.29	6.09	29.28	149	286	Peak
5805	80.54	-	-	69.44	34.29	6.09	29.28	149	286	Average

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.



Test Mode :	5GHz 802.11n HT20 – MMO Ant.0+1	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	149	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	63.04	-24.08	87.12	49.15	34.15	9.13	29.39	103	334	Peak
5745	107.12	-	-	93.19	34.18	9.14	29.39	102	344	Peak
5745	99.63	-	-	85.7	34.18	9.14	29.39	102	344	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	55.95	-22.48	78.43	42.06	34.15	9.13	29.39	184	122	Peak
5745	98.43	-	-	84.5	34.18	9.14	29.39	184	122	Peak
5745	91.03	-	-	77.1	34.18	9.14	29.39	184	122	Average

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.

Test Mode :	5GHz 802.11n HT20 – MMO Ant.0+1	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	161	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	53.37	-33.41	86.78	39.24	34.34	9.18	29.39	124	334	Peak
5805	106.78	-	-	92.72	34.29	9.16	29.39	124	334	Peak
5805	98.2	-	-	84.14	34.29	9.16	29.39	124	334	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	49.8	-29.91	79.71	35.67	34.34	9.18	29.39	100	225	Peak
5805	99.71	-	-	85.65	34.29	9.16	29.39	100	225	Peak
5805	91.56	-	-	77.5	34.29	9.16	29.39	100	225	Average

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.





Test Mode :	5GHz 802.11n HT40 – SISO Ant.0	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	151	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	70.95	-4.37	75.32	59.51	34.15	6.31	29.02	122	320	Peak
5755	95.32	-	-	84.08	34.2	6.16	29.12	100	68	Peak
5755	85.58	-	-	74.34	34.2	6.16	29.12	100	68	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	63.38	-6.99	70.37	51.94	34.15	6.31	29.02	109	212	Peak
5755	90.37	-	-	79.13	34.2	6.16	29.12	109	212	Peak
5755	81.94	-	-	70.7	34.2	6.16	29.12	109	212	Average

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.

Test Mode :	5GHz 802.11n HT40 – SISO Ant.0	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	159	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	49.68	-24.34	74.02	38.31	34.34	6.24	29.21	100	86	Peak
5795	83.51	-	-	72.39	34.26	6.09	29.23	100	86	Average
5795	94.02	-	-	82.9	34.26	6.09	29.23	100	86	Peak

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	47.93	-22.81	70.74	36.56	34.34	6.24	29.21	194	285	Peak
5795	80.33	-	-	69.21	34.26	6.09	29.23	194	285	Average
5795	90.74	-	-	79.62	34.26	6.09	29.23	194	285	Peak

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.



Test Mode :	5GHz 802.11n HT40 – MIMO Ant.0+1	Temperature :	27~28°C
Test Band :	Low	Relative Humidity :	51~52%
Test Channel :	151	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	65.28	-18.9	84.18	51.39	34.15	9.13	29.39	100	78	Peak
5755	104.18	-	-	90.23	34.2	9.14	29.39	100	78	Peak
5755	95.17	-	-	81.22	34.2	9.14	29.39	100	78	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	58.37	-18.89	77.26	44.48	34.15	9.13	29.39	101	257	Peak
5755	97.26	-	-	83.31	34.2	9.14	29.39	101	257	Peak
5755	87.66	-	-	73.71	34.2	9.14	29.39	101	257	Average

Remark: 5725 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.

Test Mode :	5GHz 802.11n HT40 – MIMO Ant.0+1	Temperature :	27~28°C
Test Band :	High	Relative Humidity :	51~52%
Test Channel :	159	Test Engineer :	King Liu

ANTENNA POLARITY : HORIZONTAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	53.11	-31.42	84.53	38.98	34.34	9.18	29.39	100	74	Peak
5795	104.53	-	-	90.5	34.26	9.16	29.39	100	74	Peak
5795	95.29	-	-	81.26	34.26	9.16	29.39	100	74	Average

ANTENNA POLARITY : VERTICAL										
Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level ( dBμV )	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5850	48.73	-27.95	76.68	34.6	34.34	9.18	29.39	100	245	Peak
5795	96.68	-	-	82.65	34.26	9.16	29.39	100	245	Peak
5795	88.3	-	-	74.27	34.26	9.16	29.39	100	245	Average

Remark: 5850 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.

### 3.5.7 Test Result of Radiated Emission (30MHz ~ 10<sup>th</sup> Harmonic)

**Note:** Below 1GHz for radiated emission measurement, pre-scanned all test modes and only choose the worst case mode was recorded in the report.

<b>Test Mode :</b>	802.11b - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	<ol style="list-style-type: none"> <li>2412 MHz is fundamental signal which can be ignored.</li> <li>7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. For example, 101.91dBμV/m - 20dB = 81.91 dBμV/m.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	101.91	-	-	96.13	32.17	4.44	30.83	134	44	Peak
2412	96.85	-	-	91.07	32.17	4.44	30.83	134	44	Average
4824	49.03	-24.97	74	37.46	33.68	5.95	28.06	108	49	Peak
7236	47.31	-34.6	81.91	32.58	35.29	7.58	28.14	114	78	Peak



<b>Test Mode :</b>	802.11b - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	102.4	-	-	96.62	32.17	4.44	30.83	105	351	Peak
2412	97.88	-	-	92.1	32.17	4.44	30.83	105	351	Average
4824	47.55	-26.45	74	35.98	33.68	5.95	28.06	125	186	Peak
7236	47.44	-34.96	82.4	32.71	35.29	7.58	28.14	112	245	Peak



<b>Test Mode :</b>	802.11b - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	94.44	-	-	88.59	32.22	4.45	30.82	100	322	Peak
2437	88.22	-	-	82.37	32.22	4.45	30.82	100	322	Average
4874	48.9	-25.1	74	36.88	33.8	6.02	27.8	109	84	Peak
7311	47.13	-26.87	74	32.05	35.31	7.8	28.03	112	245	Peak



<b>Test Mode :</b>	802.11b - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	93.77	-	-	87.92	32.22	4.45	30.82	177	246	Peak
2437	88.27	-	-	82.42	32.22	4.45	30.82	177	246	Average
4874	47.91	-26.09	74	35.89	33.8	6.02	27.8	108	69	Peak
7311	47.99	-26.01	74	32.91	35.31	7.8	28.03	115	68	Peak



<b>Test Mode :</b>	802.11b - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	100.18	-	-	94.27	32.24	4.47	30.8	112	120	Peak
2462	95.04	-	-	89.13	32.24	4.47	30.8	112	120	Average
4924	54.26	-19.74	74	41.86	33.92	6.1	27.62	200	272	Peak
4924	50.99	-3.01	54	38.59	33.92	6.1	27.62	200	272	Average
7386	48.42	-25.58	74	32.86	35.35	8.12	27.91	145	62	Peak



<b>Test Mode :</b>	802.11b - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	93.84	-	-	87.93	32.24	4.47	30.8	106	267	Peak
2462	88.73	-	-	82.82	32.24	4.47	30.8	106	267	Average
4924	54.92	-19.08	74	42.52	33.92	6.1	27.62	200	272	Peak
4924	51.03	-2.97	54	38.63	33.92	6.1	27.62	200	272	Average
7386	48.07	-25.93	74	32.51	35.35	8.12	27.91	125	156	Peak





<b>Test Mode :</b>	802.11g - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	<ol style="list-style-type: none"> <li>2412 MHz is fundamental signal which can be ignored.</li> <li>7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	106.59	-	-	100.81	32.17	4.44	30.83	143	212	Peak
2412	95.41	-	-	89.63	32.17	4.44	30.83	143	212	Average
4824	48.06	-25.94	74	36.49	33.68	5.95	28.06	124	56	Peak
7236	47.54	-39.05	86.59	32.81	35.29	7.58	28.14	142	85	Peak



<b>Test Mode :</b>	802.11g - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	<ol style="list-style-type: none"> <li>2412 MHz is fundamental signal which can be ignored.</li> <li>7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	101.93	-	-	96.15	32.17	4.44	30.83	180	319	Peak
2412	91	-	-	85.22	32.17	4.44	30.83	180	319	Average
4824	47.12	-26.88	74	35.55	33.68	5.95	28.06	108	96	Peak
7236	47.52	-34.41	81.93	32.79	35.29	7.58	28.14	114	324	Peak



<b>Test Mode :</b>	802.11g - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	106.23	-	-	100.38	32.22	4.45	30.82	142	209	Peak
2437	95.4	-	-	89.55	32.22	4.45	30.82	142	209	Average
4874	48.43	-25.57	74	36.41	33.8	6.02	27.8	125	64	Peak
7311	47.97	-26.03	74	32.89	35.31	7.8	28.03	112	256	Peak



<b>Test Mode :</b>	802.11g - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	102.96	-	-	97.11	32.22	4.45	30.82	145	317	Peak
2437	90.73	-	-	84.88	32.22	4.45	30.82	145	317	Average
4874	47.22	-26.78	74	35.2	33.8	6.02	27.8	115	67	Peak
7311	46.94	-27.06	74	31.86	35.31	7.8	28.03	126	98	Peak



<b>Test Mode :</b>	802.11g - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	100.51	-	-	94.6	32.24	4.47	30.8	107	341	Peak
2462	90.09	-	-	84.18	32.24	4.47	30.8	107	341	Average
4924	47.97	-26.03	74	35.57	33.92	6.1	27.62	105	96	Peak
7386	47.65	-26.35	74	32.09	35.35	8.12	27.91	115	245	Peak



<b>Test Mode :</b>	802.11g - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	98.18	-	-	92.27	32.24	4.47	30.8	183	319	Peak
2462	87.63	-	-	81.72	32.24	4.47	30.8	183	319	Average
4924	48.47	-25.53	74	36.07	33.92	6.1	27.62	156	86	Peak
7386	48.15	-25.85	74	32.59	35.35	8.12	27.91	125	68	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	<ol style="list-style-type: none"> <li>2412 MHz is fundamental signal which can be ignored.</li> <li>7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	106.53	-	-	100.75	32.17	4.44	30.83	146	211	Peak
2412	94.94	-	-	89.16	32.17	4.44	30.83	146	211	Average
4824	48.17	-25.83	74	36.6	33.68	5.95	28.06	100	77	Peak
7236	50.02	-36.51	86.53	35.29	35.29	7.58	28.14	100	182	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	<ol style="list-style-type: none"> <li>2412 MHz is fundamental signal which can be ignored.</li> <li>7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	100.06	-	-	94.28	32.17	4.44	30.83	151	247	Peak
2412	89.48	-	-	83.7	32.17	4.44	30.83	151	247	Average
4824	48.75	-25.25	74	37.18	33.68	5.95	28.06	100	122	Peak
7236	49.99	-30.07	80.06	35.26	35.29	7.58	28.14	100	19	Peak





<b>Test Mode :</b>	2.4GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	105.54	-	-	99.69	32.22	4.45	30.82	145	209	Peak
2437	94.48	-	-	88.63	32.22	4.45	30.82	145	209	Average
4874	48.88	-25.12	74	36.86	33.8	6.02	27.8	100	296	Peak
7311	50.97	-23.03	74	35.89	35.31	7.8	28.03	100	285	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	101.83	-	-	95.98	32.22	4.45	30.82	174	246	Peak
2437	90.3	-	-	84.45	32.22	4.45	30.82	174	246	Average
4874	49	-25	74	36.98	33.8	6.02	27.8	100	325	Peak
7311	51.08	-22.92	74	36	35.31	7.8	28.03	100	283	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	104.81	-	-	98.9	32.24	4.47	30.8	115	134	Peak
2462	92.97	-	-	87.06	32.24	4.47	30.8	115	134	Average
4924	49.32	-24.68	74	36.92	33.92	6.1	27.62	100	125	Peak
7386	51.25	-22.75	74	35.69	35.35	8.12	27.91	100	171	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	96.74	-	-	90.83	32.24	4.47	30.8	122	341	Peak
2462	85.91	-	-	80	32.24	4.47	30.8	122	341	Average
4924	49.58	-24.42	74	37.18	33.92	6.1	27.62	100	258	Peak
7386	49.97	-24.03	74	34.41	35.35	8.12	27.91	100	358	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2412 MHz is fundamental signal which can be ignored. 2. 7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	102.92	-	-	94.91	32.17	5.62	29.78	146	72	Peak
2412	94.58	-	-	86.57	32.17	5.62	29.78	146	72	Average
4824	38.07	-35.93	74	53.29	33.68	8.36	57.26	100	320	Peak
7236	38.73	-44.19	82.92	50.71	35.29	9.97	57.24	200	321	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	01	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	<ol style="list-style-type: none"> <li>2412 MHz is fundamental signal which can be ignored.</li> <li>7236MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2412	103.78	-	-	95.77	32.17	5.62	29.78	103	353	Peak
2412	95.5	-	-	87.49	32.17	5.62	29.78	103	353	Average
4824	38.86	-35.14	74	54.08	33.68	8.36	57.26	100	325	Peak
7236	39.16	-44.62	83.78	51.14	35.29	9.97	57.24	200	321	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	106.9	-	-	98.8	32.22	5.65	29.77	145	68	Peak
2437	98.02	-	-	89.92	32.22	5.65	29.77	145	68	Average
4874	37.63	-36.37	74	52.59	33.8	8.41	57.17	200	360	Peak
7311	38.94	-35.06	74	50.8	35.31	9.99	57.16	100	360	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	106.24	-	-	98.14	32.22	5.65	29.77	100	0	Peak
2437	97.17	-	-	89.07	32.22	5.65	29.77	100	0	Average
4874	37.75	-36.25	74	52.71	33.8	8.41	57.17	100	321	Peak
7311	40.9	-33.1	74	52.76	35.31	9.99	57.16	100	200	Peak





<b>Test Mode :</b>	2.4GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	107.81	-	-	99.65	32.24	5.68	29.76	141	157	Peak
2462	99.56	-	-	91.4	32.24	5.68	29.76	141	157	Average
4924	37.54	-36.46	74	52.24	33.92	8.46	57.08	100	320	Peak
7386	39.3	-34.7	74	50.98	35.35	10.02	57.05	100	320	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	11	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2462 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2462	108.24	-	-	100.08	32.24	5.68	29.76	106	352	Peak
2462	89.6	-	-	81.44	32.24	5.68	29.76	106	352	Average
4924	37.32	-36.68	74	52.02	33.92	8.46	57.08	200	320	Peak
7386	40.27	-33.73	74	51.95	35.35	10.02	57.05	100	320	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	03	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2422 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2422	96.45	-	-	90.65	32.19	4.44	30.83	147	270	Peak
2422	86.36	-	-	80.56	32.19	4.44	30.83	147	270	Average
4844	47	-27	74	35.23	33.72	5.98	27.93	100	223	Peak
7266	51.06	-22.94	74	36.17	35.3	7.69	28.1	125	128	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	03	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2422 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2422	96.6	-	-	90.8	32.19	4.44	30.83	147	269	Peak
2422	86.35	-	-	80.55	32.19	4.44	30.83	147	269	Average
4844	45.58	-28.42	74	33.81	33.72	5.98	27.93	100	225	Peak
7266	49.93	-24.07	74	35.04	35.3	7.69	28.1	125	336	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	98.56	-	-	92.71	32.22	4.45	30.82	175	266	Peak
2437	87.15	-	-	81.3	32.22	4.45	30.82	175	266	Average
4874	46.74	-27.26	74	34.72	33.8	6.02	27.8	120	33	Peak
7311	50.19	-23.81	74	35.11	35.31	7.8	28.03	100	221	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	97.91	-	-	92.06	32.22	4.45	30.82	174	273	Peak
2437	87.95	-	-	82.1	32.22	4.45	30.82	174	273	Average
4874	46.87	-27.13	74	34.85	33.8	6.02	27.8	120	35	Peak
7311	50.99	-23.01	74	35.91	35.31	7.8	28.03	100	312	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	09	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2452 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2452	98.92	-	-	93.06	32.22	4.45	30.81	144	265	Peak
2452	87.52	-	-	81.66	32.22	4.45	30.81	144	265	Average
4904	47.22	-26.78	74	34.96	33.88	6.06	27.68	100	225	Peak
7356	50.75	-23.25	74	35.37	35.33	8.01	27.96	100	332	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	09	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2452 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2452	98.32	-	-	92.46	32.22	4.45	30.81	145	267	Peak
2452	87.36	-	-	81.5	32.22	4.45	30.81	145	267	Average
4904	47.13	-26.87	74	34.87	33.88	6.06	27.68	100	227	Peak
7356	52.07	-21.93	74	36.69	35.33	8.01	27.96	100	327	Peak





<b>Test Mode :</b>	2.4GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	03	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2422 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
58.61	26.75	-13.25	40	64.12	-7.67	0.83	30.53	100	112	Peak
66.73	20.77	-19.23	40	56.87	-6.48	0.93	30.55	-	-	Peak
79.24	23.68	-16.32	40	55.92	-2.65	1.01	30.6	-	-	Peak
104.17	30.98	-12.52	43.5	66.62	-6.16	1.17	30.65	-	-	Peak
118.6	27.97	-15.53	43.5	62.64	-5.29	1.22	30.6	-	-	Peak
139.85	23.65	-19.85	43.5	60.14	-7.2	1.24	30.53	-	-	Peak
2422	99.13	-	-	91.06	32.19	5.65	29.77	200	0	Peak
2422	88.35	-	-	80.28	32.19	5.65	29.77	102	64	Average
4844	39.92	-34.08	74	55.05	33.72	8.38	57.23	200	300	Peak
7266	39.06	-34.94	74	50.98	35.3	9.98	57.2	100	360	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	03	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2422 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
55.03	25.64	-14.36	40	67.73	-9.35	0.83	33.57	-	-	Peak
62.65	25.36	-14.64	40	64.86	-6.77	0.85	33.58	-	-	Peak
81.78	27.32	-12.68	40	59.34	0.56	1.02	33.6	-	-	Peak
104.17	31.25	-12.25	43.5	68.66	-4.97	1.17	33.61	100	225	Peak
239.99	20.67	-25.33	46	53.09	-0.6	1.63	33.45	-	-	Peak
400.43	23.39	-22.61	46	56.67	-1.89	1.91	33.3	-	-	Peak
2422	100.09	-	-	92.02	32.19	5.65	29.77	100	0	Peak
2422	91.21	-	-	83.14	32.19	5.65	29.77	157	77	Average
4844	37.85	-36.15	74	52.98	33.72	8.38	57.23	100	320	Peak
7266	40.69	-33.31	74	52.61	35.3	9.98	57.2	200	320	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	100.6	-	-	92.5	32.22	5.65	29.77	116	312	Peak
2437	91.6	-	-	83.5	32.22	5.65	29.77	116	312	Average
4874	37.63	-36.37	74	52.59	33.8	8.41	57.17	120	120	Peak
7311	38.94	-35.06	74	50.8	35.31	9.99	57.16	150	147	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	06	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2437 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2437	97.77	-	-	89.67	32.22	5.65	29.77	100	11	Peak
2437	88.64	-	-	80.54	32.22	5.65	29.77	100	11	Average
4874	37.75	-36.25	74	52.71	33.8	8.41	57.17	120	150	Peak
7311	40.9	-33.1	74	52.76	35.31	9.99	57.16	120	150	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	09	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 2452 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2452	98.66	-	-	90.52	32.22	5.68	29.76	118	310	Peak
2452	90.28	-	-	82.14	32.22	5.68	29.76	118	310	Average
4904	38.89	-35.11	74	53.68	33.88	8.44	57.11	120	140	Peak
7356	39.31	-34.69	74	51.07	35.33	10.01	57.1	120	140	Peak



<b>Test Mode :</b>	2.4GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	09	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 2452 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
2452	95.45	-	-	87.31	32.22	5.68	29.76	104	10	Peak
2452	87.03	-	-	78.89	32.22	5.68	29.76	104	10	Average
4905	37.97	-36.03	74	52.76	33.88	8.44	57.11	120	147	Peak
7356	40.47	-33.53	74	52.23	35.33	10.01	57.1	120	140	Peak



<b>Test Mode :</b>	802.11a - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	149	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz is not within a restricted band, and its limit line is 20dB below the highest emission level.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	69.28	-17.28	86.56	57.84	34.15	6.31	29.02	100	250	Peak
5745	106.56	-	-	95.21	34.18	6.24	29.07	100	323	Peak
5745	94.44	-	-	83.09	34.18	6.24	29.07	100	323	Average
11490	56.17	-17.83	74	32.74	39.11	9.7	25.38	100	253	Peak
11490	47.42	-6.58	54	23.99	39.11	9.7	25.38	100	253	Average



<b>Test Mode :</b>	802.11a - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	149	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	64.77	-17.25	82.02	53.33	34.15	6.31	29.02	125	250	Peak
5745	102.02	-	-	90.67	34.18	6.24	29.07	100	70	Peak
5745	91.01	-	-	79.66	34.18	6.24	29.07	100	70	Average
11490	50.23	-23.77	74	26.8	39.11	9.7	25.38	100	255	Peak





<b>Test Mode :</b>	802.11a - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	157	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5785	105.64	-	-	94.55	34.23	6.09	29.23	100	192	Peak
5785	94.15	-	-	83.06	34.23	6.09	29.23	100	192	Average
11570	50.62	-23.38	74	26.79	39.4	9.75	25.32	100	320	Peak



<b>Test Mode :</b>	802.11a - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	157	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5785	99.19	-	-	88.1	34.23	6.09	29.23	180	185	Peak
5785	87.64	-	-	76.55	34.23	6.09	29.23	180	185	Average
11570	50.14	-23.86	74	26.31	39.4	9.75	25.32	100	251	Peak



<b>Test Mode :</b>	802.11a - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	161	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5805	106.17	-	-	95.07	34.29	6.09	29.28	100	47	Peak
5805	94.7	-	-	83.6	34.29	6.09	29.28	100	47	Average
5850	51.29	-34.88	86.17	39.92	34.34	6.24	29.21	120	45	Peak
11610	50.8	-23.2	74	26.81	39.5	9.77	25.28	100	254	Peak



<b>Test Mode :</b>	802.11a - Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	161	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5805	106.31	-	-	95.21	34.29	6.09	29.28	120	330	Peak
5805	94.84	-	-	83.74	34.29	6.09	29.28	120	330	Average
5850	48.59	-37.72	86.31	37.22	34.34	6.24	29.21	100	321	Peak
11610	50.4	-23.6	74	26.41	39.5	9.77	25.28	120	254	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	149	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	67.84	-7.93	75.77	56.4	34.15	6.31	29.02	100	28	Peak
5745	95.77	-	-	84.42	34.18	6.24	29.07	100	28	Peak
5745	85.07	-	-	73.72	34.18	6.24	29.07	100	28	Average
11490	50.44	-23.56	74	27.01	39.11	9.7	25.38	122	133	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	149	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	59.29	-10.76	70.05	47.85	34.15	6.31	29.02	137	2	Peak
5745	90.05	-	-	78.7	34.18	6.24	29.07	137	2	Peak
5745	79.15	-	-	67.8	34.18	6.24	29.07	137	2	Average
11490	50.79	-23.21	74	27.36	39.11	9.7	25.38	100	235	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	157	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5785	97.72	-	-	86.63	34.23	6.09	29.23	100	69	Peak
5785	86.98	-	-	75.89	34.23	6.09	29.23	100	69	Average
11570	50.89	-23.11	74	27.06	39.4	9.75	25.32	100	234	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	157	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5785	91.64	-	-	80.55	34.23	6.09	29.23	162	284	Peak
5785	81.12	-	-	70.03	34.23	6.09	29.23	162	284	Average
11570	50.14	-23.86	74	26.31	39.4	9.75	25.32	100	251	Peak





<b>Test Mode :</b>	5GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	161	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5805	98.09	-	-	86.99	34.29	6.09	29.28	109	72	Peak
5805	87.04	-	-	75.94	34.29	6.09	29.28	109	72	Average
5850	48.8	-29.29	78.09	37.43	34.34	6.24	29.21	109	72	Peak
11610	50.96	-23.04	74	26.97	39.5	9.77	25.28	120	331	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	161	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5805	91.62	-	-	80.52	34.29	6.09	29.28	149	286	Peak
5805	80.54	-	-	69.44	34.29	6.09	29.28	149	286	Average
5850	44.74	-26.88	71.62	33.37	34.34	6.24	29.21	149	286	Peak
11610	50.14	-23.86	74	26.15	39.5	9.77	25.28	100	217	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	149	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz and 17235 MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	63.04	-24.08	87.12	49.15	34.15	9.13	29.39	103	334	Peak
5745	107.12	-	-	93.19	34.18	9.14	29.39	102	344	Peak
5745	99.63	-	-	85.7	34.18	9.14	29.39	102	344	Average
11490	44.47	-29.53	74	48.39	39.11	13.39	56.42	120	250	Peak
17235	37.13	-49.99	87.12	36.2	39.82	17.5	56.39	152	240	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	149	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5745 MHz is fundamental signal which can be ignored. 2. 5725MHz and 17235 MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	55.95	-22.48	78.43	42.06	34.15	9.13	29.39	184	122	Peak
5745	98.43	-	-	84.5	34.18	9.14	29.39	184	122	Peak
5745	91.03	-	-	77.1	34.18	9.14	29.39	184	122	Average
11570	43.44	-30.56	74	46.99	39.4	13.41	56.36	110	120	Peak
17235	36.89	-41.54	78.43	35.96	39.82	17.5	56.39	120	240	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	157	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5785 MHz is fundamental signal which can be ignored. 2. 17355MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5785	107.78	-	-	93.78	34.23	9.16	29.39	100	80	Peak
5785	98.39	-	-	84.39	34.23	9.16	29.39	100	80	Average
11570	44.62	-29.38	74	48.17	39.4	13.41	56.36	110	112	Peak
17355	32.17	-55.61	87.78	31.29	39.63	17.54	56.29	150	145	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	157	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5785 MHz is fundamental signal which can be ignored. 2. 17355MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5785	100.33	-	-	86.33	34.23	9.16	29.39	100	120	Peak
5785	92.07	-	-	78.07	34.23	9.16	29.39	100	120	Average
11570	43.44	-30.56	74	46.99	39.4	13.41	56.36	120	150	Peak
17355	31.08	-49.25	80.33	30.2	39.63	17.54	56.29	180	147	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	161	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17415MHz are not within restricted banda, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5805	106.78	-	-	92.72	34.29	9.16	29.39	124	334	Peak
5805	98.2	-	-	84.14	34.29	9.16	29.39	124	334	Average
5850	53.37	-33.41	86.78	39.24	34.34	9.18	29.39	124	334	Peak
11610	43.81	-30.19	74	47.24	39.5	13.41	56.34	120	111	Peak
17415	32.32	-54.46	86.78	31.45	39.52	17.58	56.23	150	120	Peak



<b>Test Mode :</b>	5GHz 802.11n HT20 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	161	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5805 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17415MHz are not within restricted banda, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5805	99.71	-	-	85.65	34.29	9.16	29.39	100	225	Peak
5805	91.56	-	-	77.5	34.29	9.16	29.39	100	225	Average
5850	49.8	-29.91	79.71	35.67	34.34	9.18	29.39	100	225	Peak
11610	44.01	-29.99	74	47.44	39.5	13.41	56.34	105	210	Peak
17415	31.94	-47.77	79.71	31.07	39.52	17.58	56.23	180	120	Peak





<b>Test Mode :</b>	5GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	151	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5755 MHz is fundamental signal which can be ignored. 2. 5725MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5755	95.32	-	-	84.08	34.2	6.16	29.12	100	68	Peak
5755	85.58	-	-	74.34	34.2	6.16	29.12	100	68	Average
5725	70.95	-4.37	75.32	59.51	34.15	6.31	29.02	122	320	Peak
11510	48.98	-25.02	74	25.45	39.19	9.71	25.37	100	119	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	151	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5755 MHz is fundamental signal which can be ignored. 2. 5725MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5755	90.37	-	-	79.13	34.2	6.16	29.12	109	212	Peak
5755	81.94	-	-	70.7	34.2	6.16	29.12	109	212	Average
5725	63.38	-6.99	70.37	51.94	34.15	6.31	29.02	109	212	Peak
11510	47.78	-26.22	74	24.25	39.19	9.71	25.37	100	132	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	159	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5795 MHz is fundamental signal which can be ignored. 2. 5850MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5795	94.02	-	-	82.9	34.26	6.09	29.23	100	86	Peak
5795	83.51	-	-	72.39	34.26	6.09	29.23	100	86	Average
5850	49.68	-24.34	74.02	38.31	34.34	6.24	29.21	100	86	Peak
11590	50.14	-23.86	74	26.25	39.45	9.75	25.31	100	123	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – SISO Ant.0	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	159	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5795 MHz is fundamental signal which can be ignored. 2. 5850MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5795	90.74	-	-	79.62	34.26	6.09	29.23	194	285	Peak
5795	80.33	-	-	69.21	34.26	6.09	29.23	194	285	Average
5850	47.93	-22.81	70.74	36.56	34.34	6.24	29.21	194	285	Peak
11590	50.5	-23.5	74	26.61	39.45	9.75	25.31	100	117	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	151	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	<ol style="list-style-type: none"> <li>5755 MHz is fundamental signal which can be ignored.</li> <li>5725MHz and 17265MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level.</li> <li>Average measurement was not performed if peak level went lower than the average limit.</li> </ol>		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	65.28	-18.9	84.18	51.39	34.15	9.13	29.39	100	78	Peak
5755	104.18	-	-	90.23	34.2	9.14	29.39	100	78	Peak
5755	95.17	-	-	81.22	34.2	9.14	29.39	100	78	Average
11510	44.6	-29.4	74	48.41	39.19	13.4	56.4	150	230	Peak
17265	36.14	-48.04	84.18	35.23	39.76	17.51	56.36	170	154	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	151	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5755 MHz is fundamental signal which can be ignored. 2. 5725MHz and 17265MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5725	58.37	-18.89	77.26	44.48	34.15	9.13	29.39	101	257	Peak
5755	97.26	-	-	83.31	34.2	9.14	29.39	101	257	Peak
5755	87.66	-	-	73.71	34.2	9.14	29.39	101	257	Average
11510	43.51	-30.49	74	47.32	39.19	13.4	56.4	150	125	Peak
17265	35.5	-41.76	77.26	34.59	39.76	17.51	56.36	100	250	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	159	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Horizontal
<b>Remark :</b>	1. 5795 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17385MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5795	104.53	-	-	90.5	34.26	9.16	29.39	100	74	Peak
5795	95.29	-	-	81.26	34.26	9.16	29.39	100	74	Average
5850	53.11	-31.42	84.53	38.98	34.34	9.18	29.39	100	74	Peak
11590	44.15	-29.85	74	47.64	39.45	13.41	56.35	120	150	Peak
17385	35.62	-48.91	84.53	34.73	39.58	17.57	56.26	150	240	Peak



<b>Test Mode :</b>	5GHz 802.11n HT40 – MIMO Ant.0+1	<b>Temperature :</b>	27~28°C
<b>Test Channel :</b>	159	<b>Relative Humidity :</b>	51~52%
<b>Test Engineer :</b>	King Liu	<b>Polarization :</b>	Vertical
<b>Remark :</b>	1. 5795 MHz is fundamental signal which can be ignored. 2. 5850MHz and 17385MHz are not within restricted bands, and their limit lines are 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency ( MHz )	Level ( dBμV/m )	Over Limit ( dB )	Limit Line ( dBμV/m )	Read Level (dBμV)	Antenna Factor ( dB )	Cable Loss ( dB )	Preamp Factor ( dB )	Ant Pos ( cm )	Table Pos ( deg )	Remark
5795	96.68	-	-	82.65	34.26	9.16	29.39	100	245	Peak
5795	88.3	-	-	74.27	34.26	9.16	29.39	100	245	Average
5850	48.73	-27.95	76.68	34.6	34.34	9.18	29.39	100	245	Peak
11590	43.76	-30.24	74	47.25	39.45	13.41	56.35	120	150	Peak
17385	34.92	-41.76	76.68	34.03	39.58	17.57	56.26	150	145	Peak



## 3.6 AC Conducted Emission Measurement

### 3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (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 the limits in the following table.

Frequency of Emission (MHz)	Conducted Limit (dB $\mu$ V)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\*Decreases with the logarithm of the frequency.

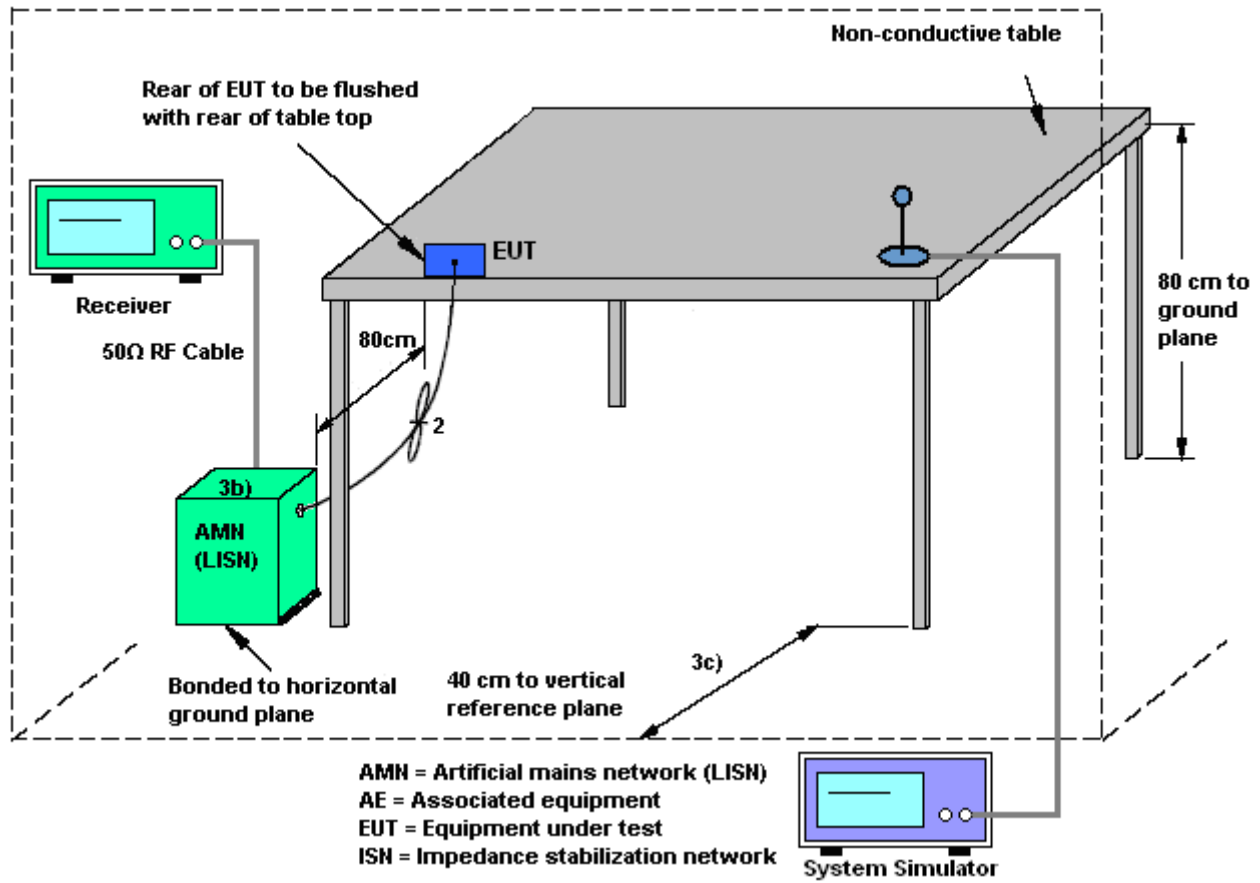
### 3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.6.3 Test Procedures

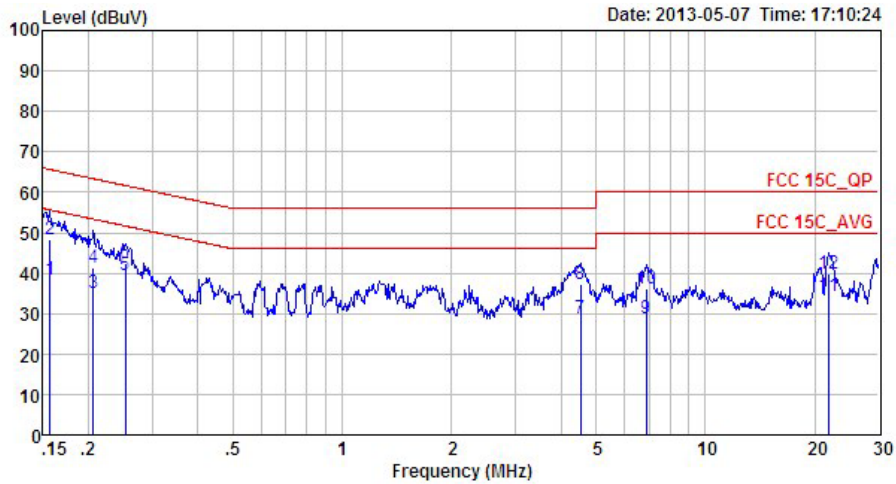
1. The testing follows the guidelines in ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

### 3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	24~25°C
Test Engineer :	Leo Liao	Relative Humidity :	48~49%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN 2.4GHz Link + HDMI port (Connected to the TV) + USB Cable (Charging from Notebook)		

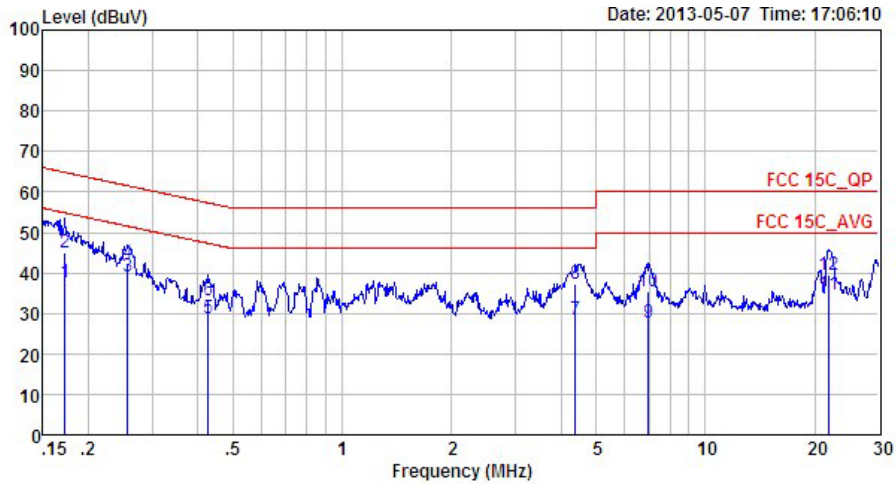


Site : CO01-SZ  
 Condition: FCC 15C\_QP LISN\_L\_2000601 LINE  
 Project : (FR) 321801  
 Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.16	38.48	-17.17	55.65	28.40	0.03	10.05	Average
2	0.16	48.18	-17.47	65.65	38.10	0.03	10.05	QP
3	0.21	34.98	-18.38	53.36	24.90	0.02	10.06	Average
4	0.21	41.28	-22.08	63.36	31.20	0.02	10.06	QP
5 *	0.25	39.38	-12.26	51.64	29.30	0.02	10.06	Average
6	0.25	42.38	-19.26	61.64	32.30	0.02	10.06	QP
7	4.53	28.76	-17.24	46.00	18.51	0.06	10.19	Average
8	4.53	37.36	-18.64	56.00	27.11	0.06	10.19	QP
9	6.88	28.60	-21.40	50.00	18.30	0.10	10.20	Average
10	6.88	36.20	-23.80	60.00	25.90	0.10	10.20	QP
11	21.95	34.49	-15.51	50.00	23.60	0.41	10.48	Average
12	21.95	39.89	-20.11	60.00	29.00	0.41	10.48	QP



Test Mode :	Mode 1	Temperature :	24~25°C
Test Engineer :	Leo Liao	Relative Humidity :	48~49%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN 2.4GHz Link + HDMI port (Connected to the TV) + USB Cable (Charging from Notebook)		



Site : CO01-SZ  
 Condition: FCC 15C\_QP LISN\_N\_2000601 NEUTRAL  
 Project : (FR) 321801  
 Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	37.68	-17.18	54.86	27.61	0.02	10.05	Average
2	0.17	44.98	-19.88	64.86	34.91	0.02	10.05	QP
3 *	0.26	39.08	-12.48	51.56	29.00	0.02	10.06	Average
4	0.26	42.38	-19.18	61.56	32.30	0.02	10.06	QP
5	0.43	28.69	-18.60	47.29	18.59	0.02	10.08	Average
6	0.43	33.09	-24.20	57.29	22.99	0.02	10.08	QP
7	4.38	28.56	-17.44	46.00	18.30	0.07	10.19	Average
8	4.38	37.36	-18.64	56.00	27.10	0.07	10.19	QP
9	6.99	27.83	-22.17	50.00	17.50	0.13	10.20	Average
10	6.99	35.53	-24.47	60.00	25.20	0.13	10.20	QP
11	21.83	34.79	-15.21	50.00	23.71	0.60	10.48	Average
12	21.83	39.59	-20.41	60.00	28.51	0.60	10.48	QP



## **3.7 Antenna Requirements**

### **3.7.1 Standard Applicable**

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

### **3.7.2 Antenna Connected Construction**

Non-standard connector used.

### **3.7.3 Antenna Gain**

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101400	9kHz~30GHz	Mar. 29, 2012 Mar. 28, 2013	Mar.7, 2013~ Jul. 16, 2013	Mar. 28, 2013 Mar. 27, 2014	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	N/A	Mar. 29, 2012 Mar. 28, 2013	Mar.7, 2013~ Jul. 16, 2013	Mar. 28, 2013 Mar. 27, 2014	Conducted (TH01-SZ)
Power Sensor	Anritsu	MA2411B	1207253	N/A	Mar. 29, 2012 Mar. 28, 2013	Mar.7, 2013~ Jul. 16, 2013	Mar. 28, 2013 Mar. 27, 2014	Conducted (TH01-SZ)
ESCI TEST Receiver	R&S	ESCI	100724	9kHz-3GHz	Mar. 28, 2013	Mar.02, 2013~ Jul. 06, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Spectrum Analyzer	R&S	FSP30	101362	9kHz~30GHz	Oct. 11, 2012	Mar.02, 2013~ Jul. 06, 2013	Oct. 10, 2013	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 12, 2012	Mar.02, 2013~ Jul. 06, 2013	Oct. 11, 2013	Radiation (03CH01-SZ)
Bilog Antenna	SCHAFFNER	CBL6112B	2614	30MHz~2GHz	Nov. 03, 2012	Mar.02, 2013~ Jul. 06, 2013	Nov. 02, 2013	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz-3000MHz GAIN 30db	Mar. 28, 2013	Mar.02, 2013~ Jul. 06, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	Mar. 28, 2013	Mar.02, 2013~ Jul. 06, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
SHF-EHF-Horn	Schwarzbeck	BBHA9170	BBHA9170249	14Ghz~40GHz	Nov. 23, 2012	Mar.02, 2013~ Jul. 06, 2013	Nov. 22, 2013	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz-30MHz	Oct. 22, 2012	Mar.02, 2013~ Jul. 06, 2013	Oct. 21, 2013	Radiation (03CH01-SZ)
ESCI TEST Receiver	R&S	ESCI	100724	9kHz-3GHz	Mar. 28, 2013	Mar.02, 2013~ Jul. 06, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Turn Table	MF	MF7802	N/A	0 ~ 360 degree	N/A	Mar.02, 2013~ Jul. 06, 2013	N/A	Radiation (03CH01-SZ)
Antenna Mast	MF	MF7802	N/A	1 m - 4 m	N/A	Mar.02, 2013~ Jul. 06, 2013	N/A	Radiation (03CH01-SZ)
ESCIO TEST Receiver	R&S	1142.8007.0 3	100724	9kHz~3GHz	Mar. 28, 2013	May 07, 2013	Mar. 27, 2014	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	ETS-LIND GREN	3816/2SH	00103912	9kHz~30MHz	Mar. 28, 2013	May 07, 2013	Mar. 27, 2014	Conduction (CO01-SZ)
AC LISN	ETS-LIND GREN	3816/2SH	00103892	9kHz~30MHz	Mar. 28, 2013	May 07, 2013	Mar. 27, 2014	Conduction (CO01-SZ)
AC Source	Chroma	61602	616020000891	N/A	Nov.20, 2012	May 07, 2013	Nov. 19, 2013	Conduction (CO01-SZ)

## 5 Uncertainty of Evaluation

### Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.26
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### Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.54
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### Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.72
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## **Appendix A. Photographs of EUT**

Please refer to Sporton report number EP321801 as below.