FCC RF Test Report

APPLICANT	:	HTC Corporation
EQUIPMENT	:	Smartphone
MODEL NAME	:	PL80120
FCC ID	:	NM8PL80120
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Aug. 16, 2012 and completely tested on Sep. 27, 2012. We, SPORTON INTERNATIONAL 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 INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR281609C	Rev. 01	Initial issue of report	Oct. 31, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(a)(2)	A8.2(a)	6dB Bandwidth	≥ 0.5MHz	Pass	-
3.2	15.247(b)	A8.4	Power Output Measurement	≤ 30dBm	Pass	-
3.3	15.247(e)	A8.2(b)	Power Spectral Density	≤ 8dBm/3kHz	Pass	-
3.4	15.247(d)	A8.5	Conducted Band Edges	≤ 20dBc	Pass	-
			Conducted Spurious Emission		Pass	-
3.5	15.247(d)	A8.5	Radiated Band Edges	15.209(a) & 15.247(d)	Pass	-
			Radiated Spurious Emission		Pass	Under limit 0.89 dB at 2483.500 MHz
3.6	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 12.50 dB at 0.566 MHz
3.7	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

HTC Corporation

No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan.

1.2 Manufacturer

HTC Corporation

No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan.

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Smartphone
Model Name	PL80120
FCC ID	NM8PL80120
Sample 1	EUT with LCM 1 and Main Camera 1
Sample 2	EUT with LCM 2 and Main Camera 2
EUT supports Radios application	CDMA/EV-DO/LTE/ WLAN 11abgn / Bluetooth / NFC
EUT Stage	Production Unit

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

Product Specification subjective to this standard	
Tx/Rx Channel Frequency Range	802.11b/g/n : 2412 MHz ~ 2462 MHz 802.11a/n: 5745~5825MHz.
Maximum Output Power to Antenna	**<2412 MHz ~ 2462 MHz>** 802.11b : 21.15 dBm (0.1303 W) 802.11g : 22.37 dBm (0.1726 W) 802.11n HT20 : 21.68 dBm (0.1472 W) 802.11n HT40 : 21.63 dBm (0.1455 W) **<5745 MHz ~ 5825 MHz>** 802.11a : 22.68 dBm (0.1854 W) 802.11n HT20 : 22.78 dBm (0.1897 W) 802.11n HT40 : 22.96 dBm (0.1977 W)
Antenna Type	802.11b/g/n : PIFA Antenna type with gain -0.20 dBi 802.11a/n : PIFA Antenna type with gain -0.40 dBi
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.			
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-3273456 / FAX: +886-3-3284978			
Test Site No.	Sporton Site No.			FCC/IC Registration No.
	TH02-HY	CO05-HY	03CH06-HY	722060/4086B-1

1.5 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 v01
- FCC TCB Workshop 2012, April
- ANSI C63.4-2003 and ANSI C63.10-2009
- IC RSS-210 Issue 8
- IC RSS-Gen Issue 3

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.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
3.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A

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). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

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	165	5825
	157	5785		

2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and antenna configurations as following table and the highest power data rates were chosen for full test in the following tables. Final Output Power equals to Measured Output Power adds the duty factor.

2.4GHz 802.11b mode				
Data Rate (MHz)	1M bps	2M bps	5.5M bps	11M bps
Peak Power (dBm)	21.15	21.13	21.11	21.14

2.4GHz 802.11g mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	22.37	22.31	22.27	22.18	22.31	22.29	22.27	22.24

2.4GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	21.68	21.51	21.45	21.56	21.6	21.56	21.61	21.57

2.4GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	21.63	21.54	21.37	21.47	21.53	21.5	21.51	21.56

5GHz 802.11a mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	22.68	22.66	22.43	22.51	22.58	22.56	22.52	22.55

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	22.78	22.58	22.63	22.61	22.64	22.6	22.63	22.61

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	22.96	22.62	22.55	22.88	22.58	22.62	22.54	22.49

2.3 Test Mode

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

<2.4GHz>

Test Cases				
	Test Items	Mode	Data Rate	Test Channel
Conducted TCs	6dB and 99% BW Power Spectral Density	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
		802.11n HT40	13.5 Mbps	3/6/9
	Output Power	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
		802.11n HT40	13.5 Mbps	3/6/9
	Conducted Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	6.5 Mbps	1/11
		802.11n HT40	13.5 Mbps	3/9
	Conducted Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
		802.11n HT40	13.5 Mbps	3/6/9
Radiated TCs	Radiated Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	6.5 Mbps	1/11
		802.11n HT40	13.5 Mbps	3/9
	Radiated Spurious Emission	802.11b	1 Mbps	1/6/11
		802.11g	6 Mbps	1/6/11
		802.11n HT20	6.5 Mbps	1/6/11
		802.11n HT40	13.5 Mbps	3/6/9

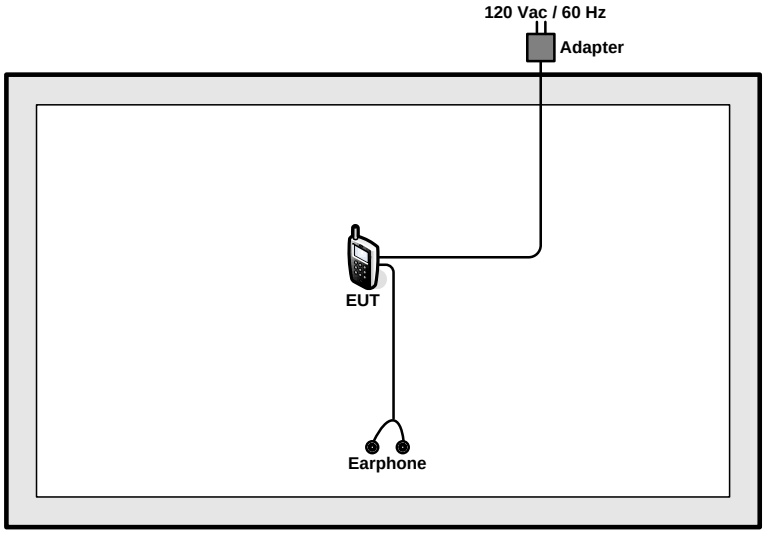
<5GHz>

Test Cases				
	Test Items	Mode	Data Rate	Test Channel
Conducted TCs	6dB and 99% BW Power Spectral Density	802.11a	6 Mbps	149/157/165
		802.11n HT20	6.5 Mbps	149/157/165
		802.11n HT40	13.5 Mbps	151/159
	Output Power	802.11a	6 Mbps	149/157/165
		802.11n HT20	6.5 Mbps	149/157/165
		802.11n HT40	13.5 Mbps	151/159
	Conducted Band Edge	802.11a	6 Mbps	149/165
		802.11n HT20	6.5 Mbps	149/165
		802.11n HT40	13.5 Mbps	151/159
	Conducted Spurious Emission	802.11a	6 Mbps	149/157/165
		802.11n HT20	6.5 Mbps	149/157/165
		802.11n HT40	13.5 Mbps	151/159
Radiated TCs	Radiated Band Edge	802.11a	6 Mbps	149/165
		802.11n HT20	6.5 Mbps	149/165
		802.11n HT40	13.5 Mbps	151/159
	Radiated Spurious Emission	802.11a	6 Mbps	149/157/165
		802.11n HT20	6.5 Mbps	149/157/165
		802.11n HT40	13.5 Mbps	151/159

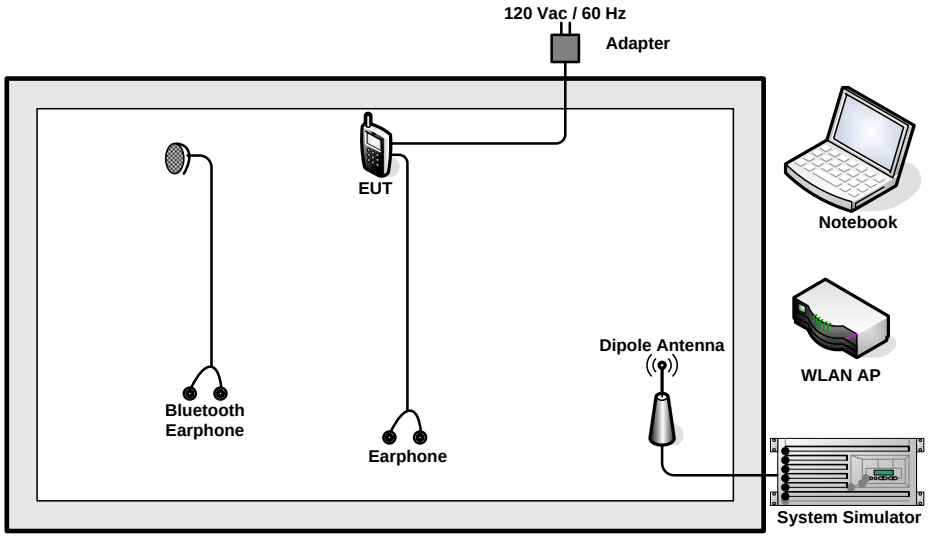
Test Cases	
AC Conducted Emission	Mode 1 : CDMA2000 BC15 Idle + Bluetooth Link + WLAN (2.4G) Link + MPEG4 + Earphone 1 + Battery 1 + USB Cable 1 (Charging from Adapter 1) for Sample 1 Mode 2 CDMA2000 BC15 Idle + Bluetooth Link + WLAN (2.4G) Link + MPEG4 + Earphone 1 + Battery 1 + USB Cable 1 (Charging from Adapter 1) for Sample 2
Remark: The worst case of conducted emission is mode 2; only the test data of it was reported.	

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 RF Utility

The programmed RF utility “Command and Remote 432X controller (P2.01)” are installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

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.

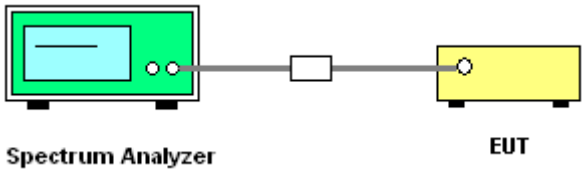
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance and TCB Workshop 2012, April.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable. 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) = 1-5% of the emission bandwidth (EBW).Set the Video bandwidth (VBW) ≥ 3 * RBW. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 KHz.

3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Test Mode :	802.11b	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	8.16	0.5	Pass
06	2437	8.14	0.5	Pass
11	2462	8.12	0.5	Pass

Test Mode :	802.11g	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	16.68	0.5	Pass
06	2437	16.60	0.5	Pass
11	2462	16.72	0.5	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	18.00	0.5	Pass
06	2437	17.84	0.5	Pass
11	2462	17.92	0.5	Pass

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4GHz 802.11n HT40 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
03	2422	36.80	0.5	Pass
06	2437	37.36	0.5	Pass
09	2452	37.36	0.5	Pass

Test Mode :	802.11a	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11a 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
149	5745	16.64	0.5	Pass
157	5785	16.68	0.5	Pass
165	5825	16.68	0.5	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

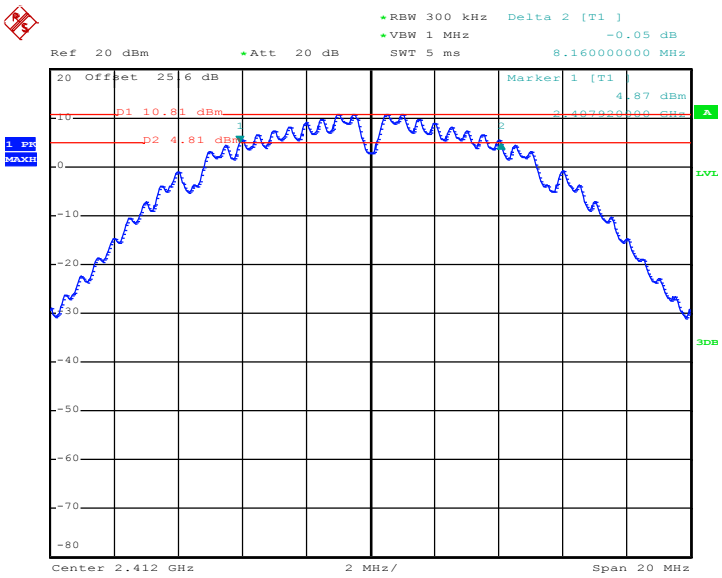
Channel	Frequency (MHz)	5GHz 802.11n HT20 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
149	5745	17.88	0.5	Pass
157	5785	17.86	0.5	Pass
165	5825	17.80	0.5	Pass

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5GHz 802.11n HT40 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
151	5755	37.28	0.5	Pass
159	5795	37.68	0.5	Pass

3.1.6 Test Result of 6dB Bandwidth Plots

6 dB Bandwidth Plot on 802.11b Channel 01



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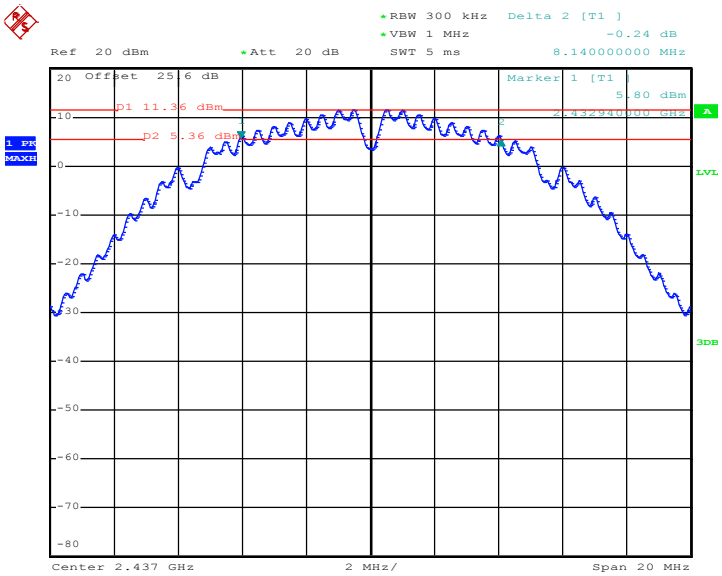
6 dB Bandwidth Plot on 802.11b Channel 06



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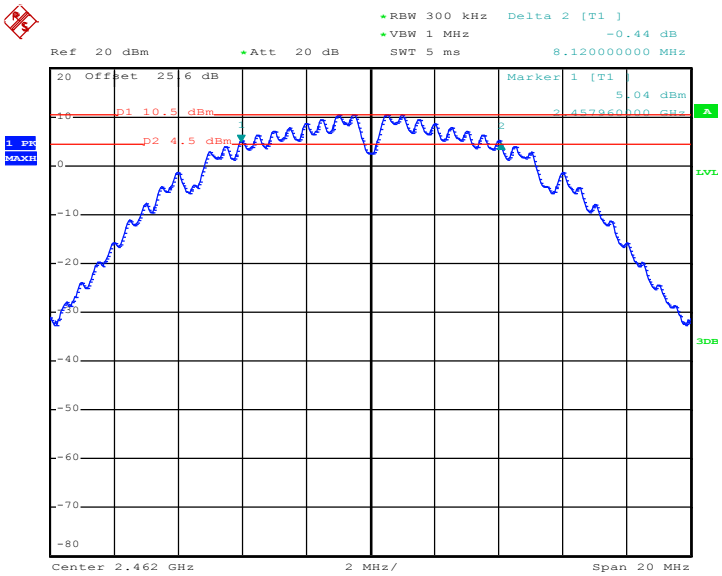
6 dB Bandwidth Plot on 802.11b Channel 11



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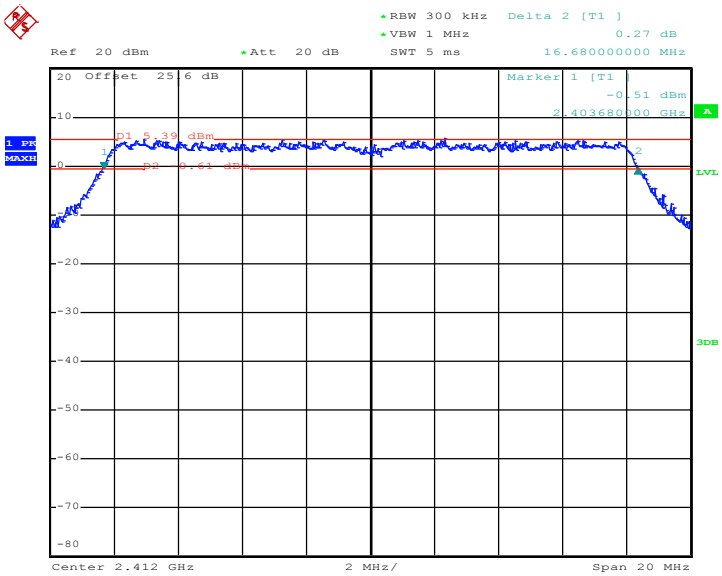
6 dB Bandwidth Plot on 802.11g Channel 01



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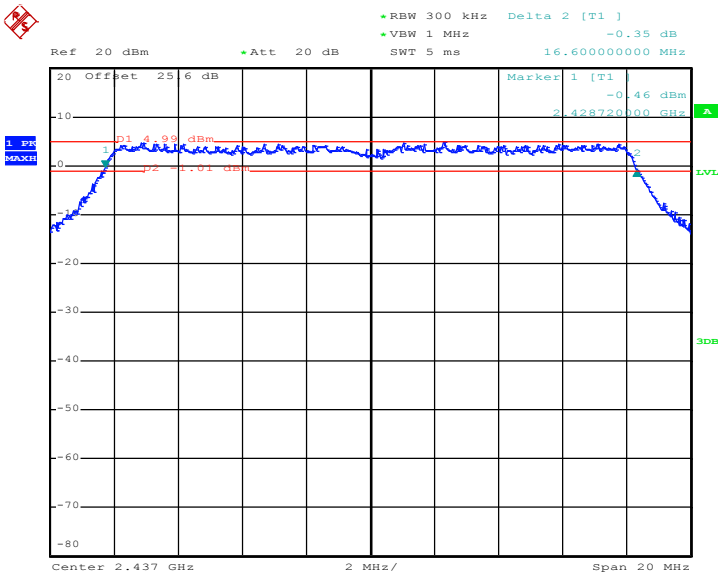
6 dB Bandwidth Plot on 802.11g Channel 06



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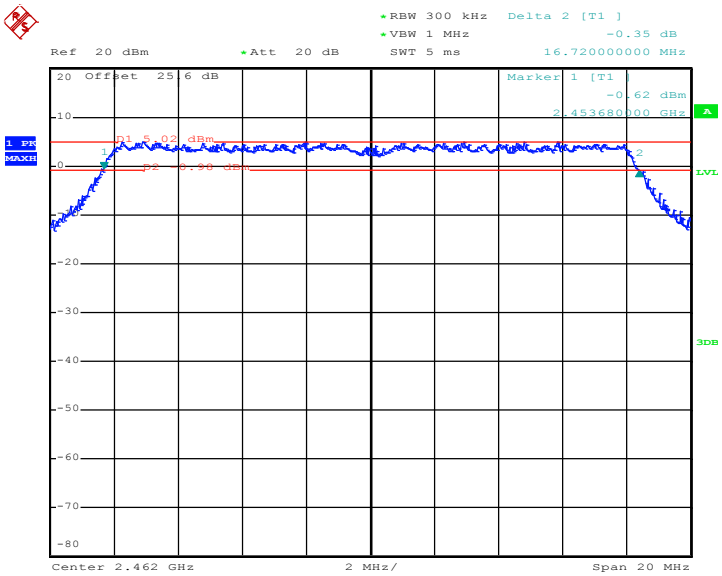

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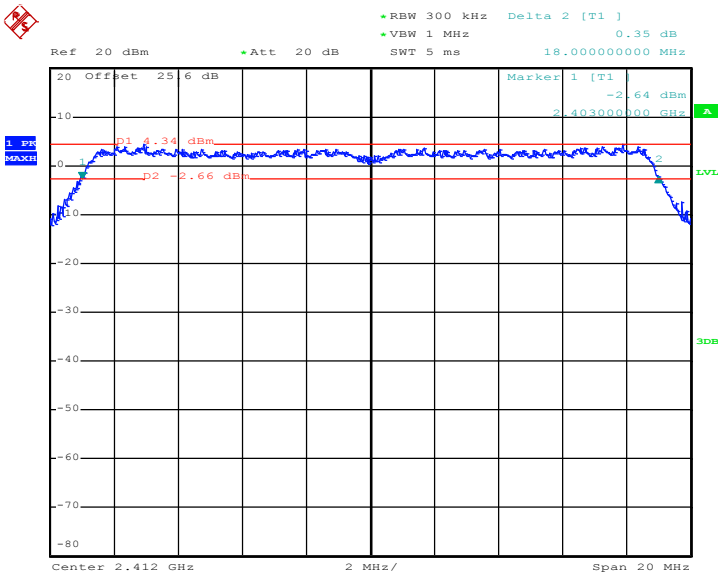
6 dB Bandwidth Plot on 2.4G 802.11n HT20 Channel 01



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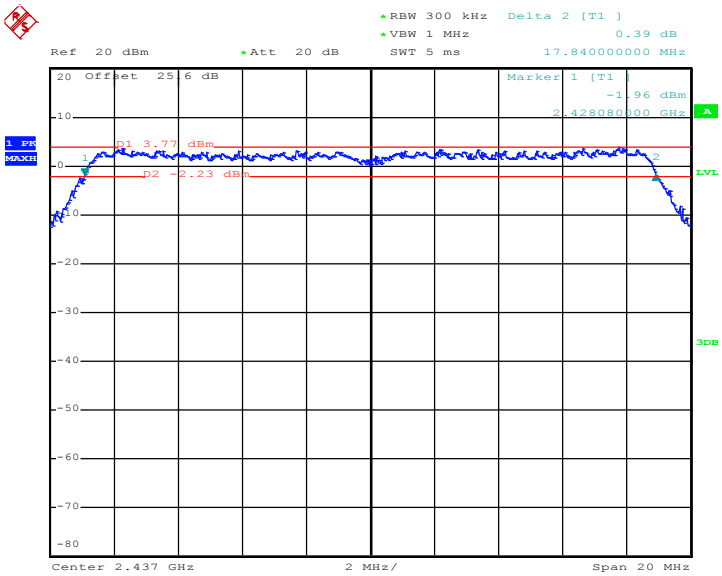
6 dB Bandwidth Plot on 2.4G 802.11n HT20 Channel 06



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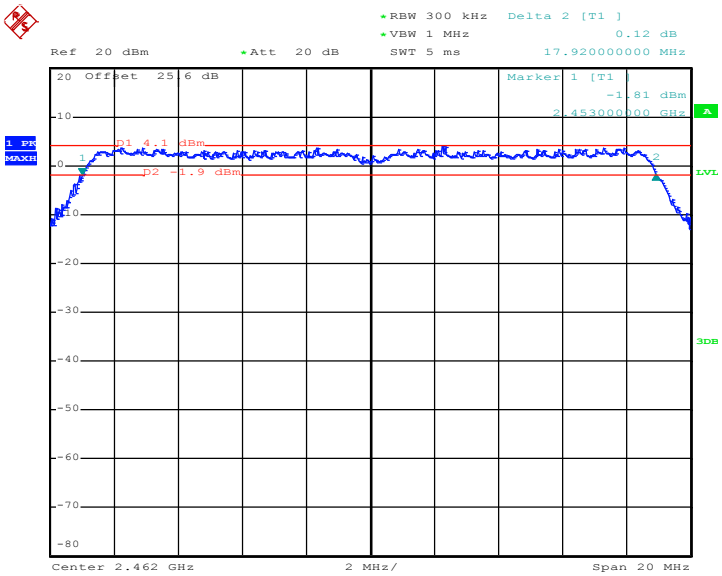
6 dB Bandwidth Plot on 2.4G 802.11n HT20 Channel 11



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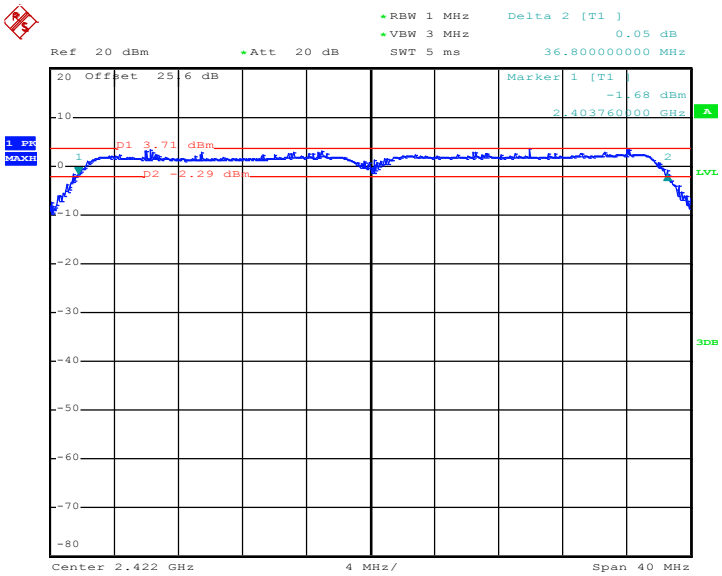
6 dB Bandwidth Plot on 2.4G 802.11n HT40 Channel 03



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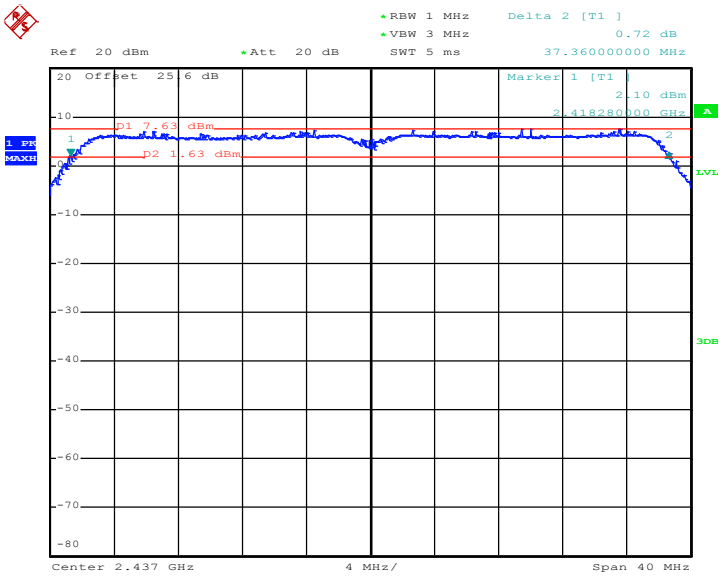
6 dB Bandwidth Plot on 2.4G 802.11n HT40 Channel 06



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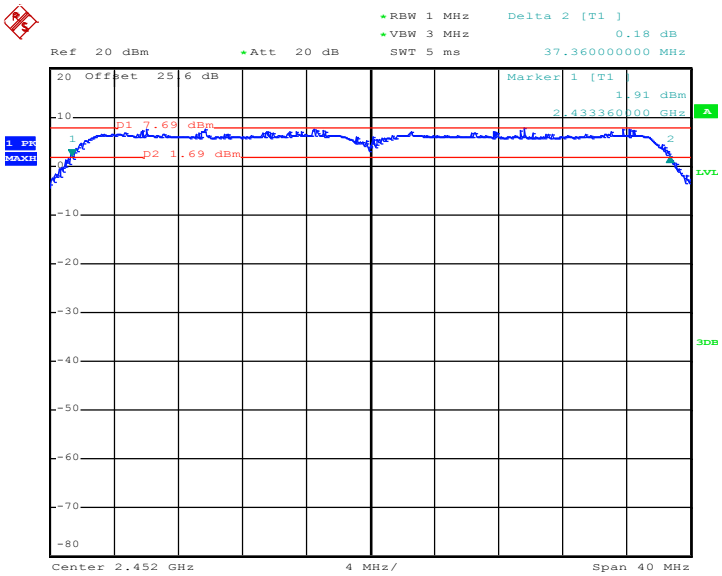
6 dB Bandwidth Plot on 2.4G 802.11n HT40 Channel 09



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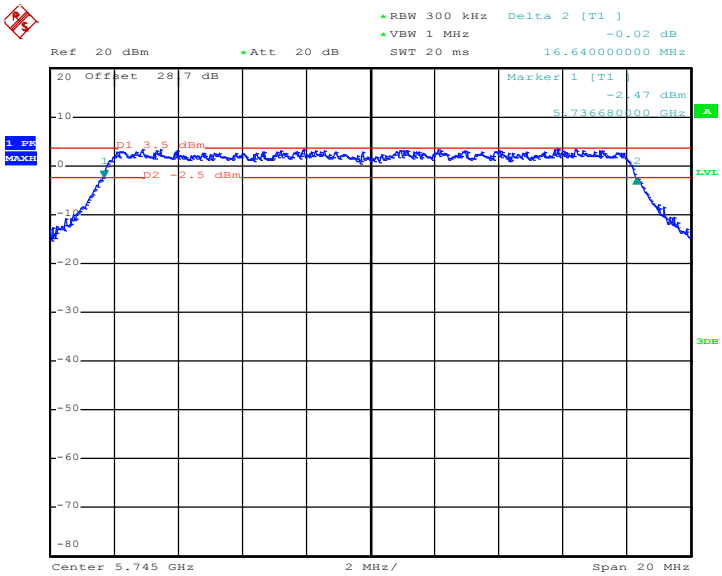
6 dB Bandwidth Plot on 802.11a Channel 149



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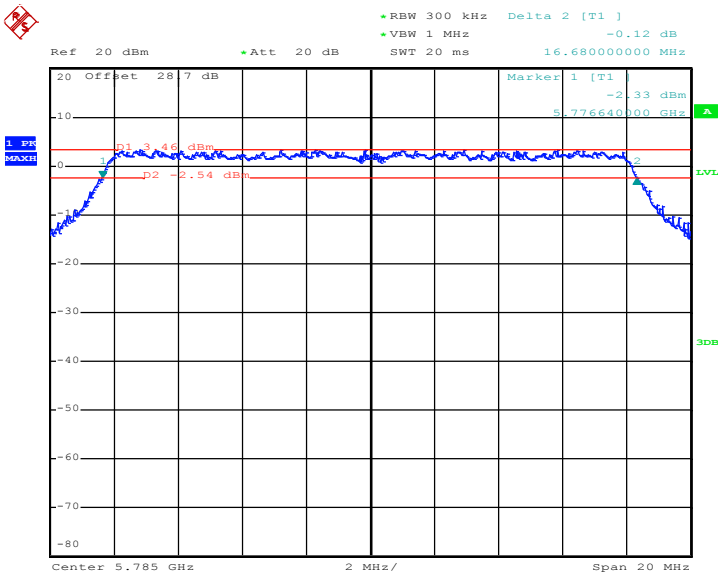
6 dB Bandwidth Plot on 802.11a Channel 157



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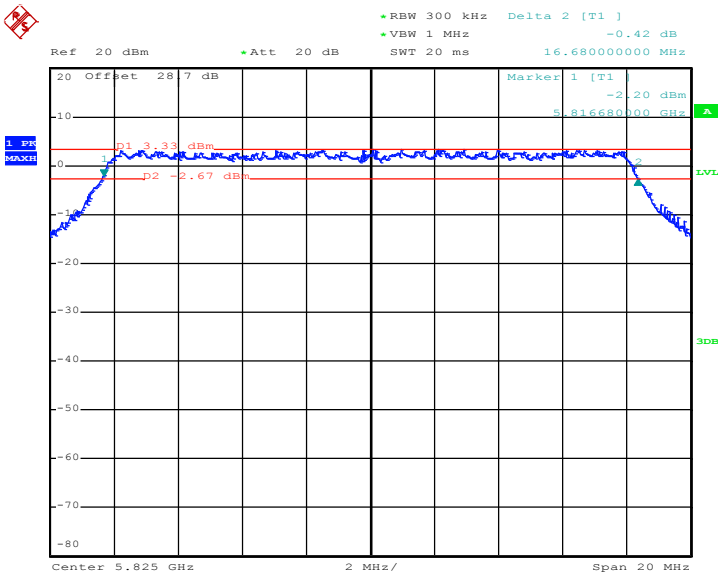
6 dB Bandwidth Plot on 802.11a Channel 165



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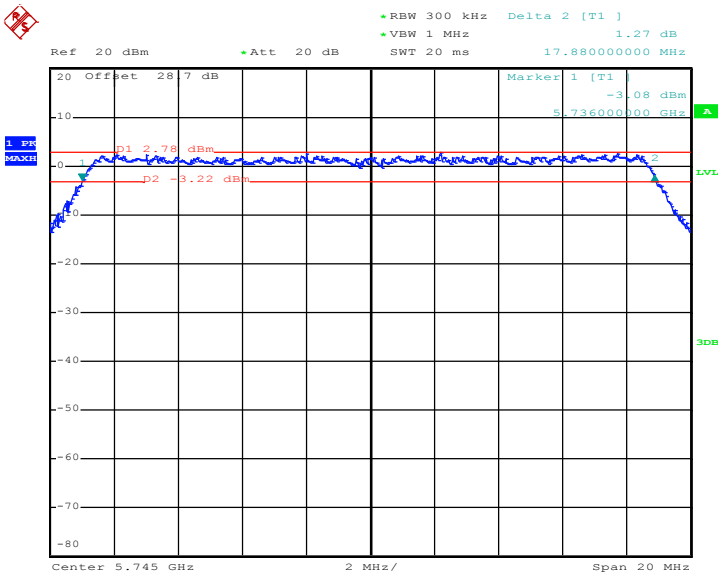
6 dB Bandwidth Plot on 5G 802.11n HT20 Channel 149



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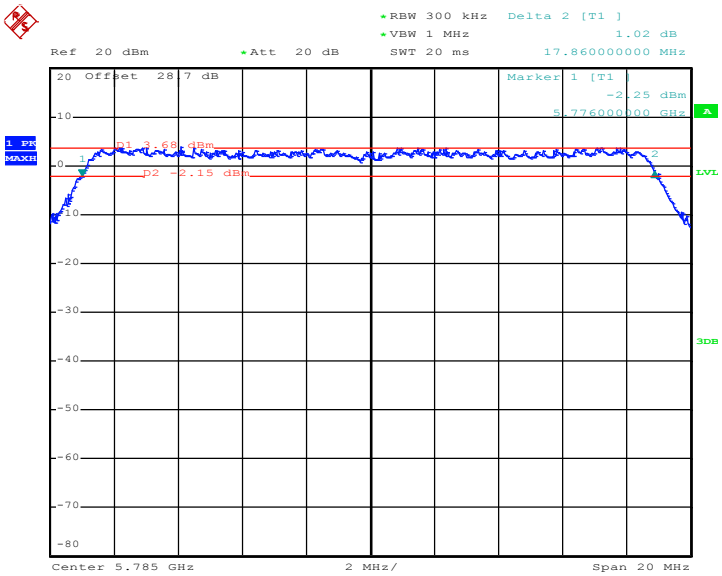
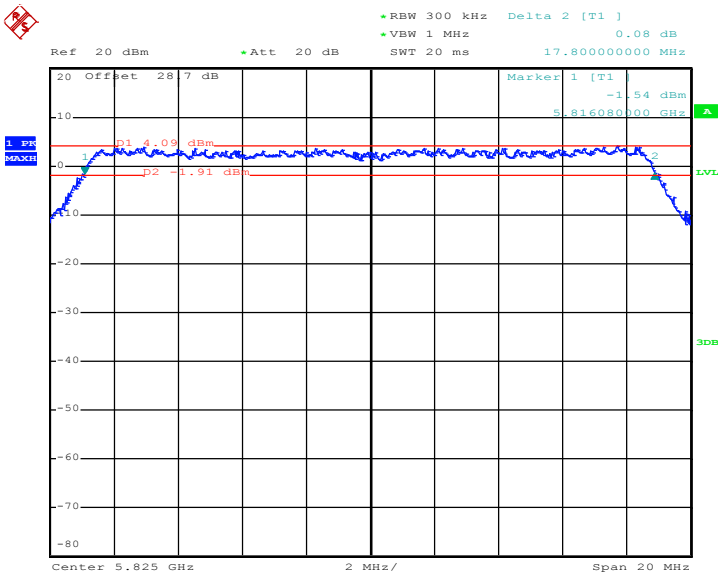
6 dB Bandwidth Plot on 5G 802.11n HT20 Channel 157



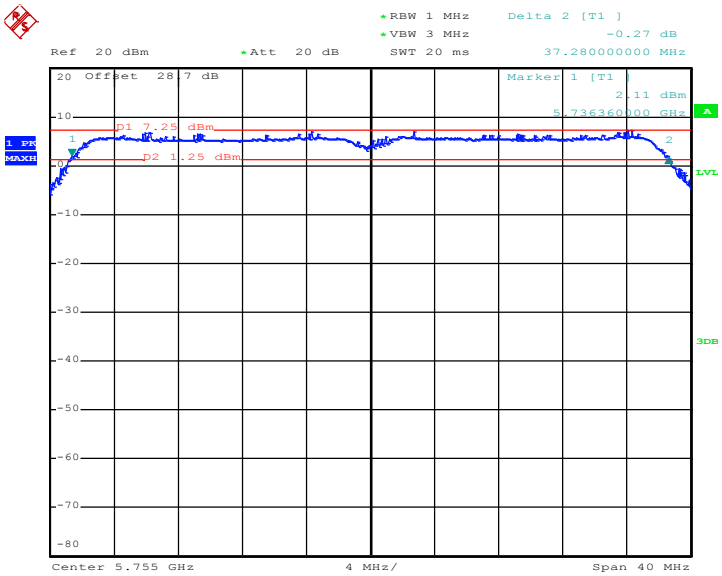
Date: 20.SEP.2012 15:03:33

6 dB Bandwidth Plot on 5G 802.11n HT20 Channel 165



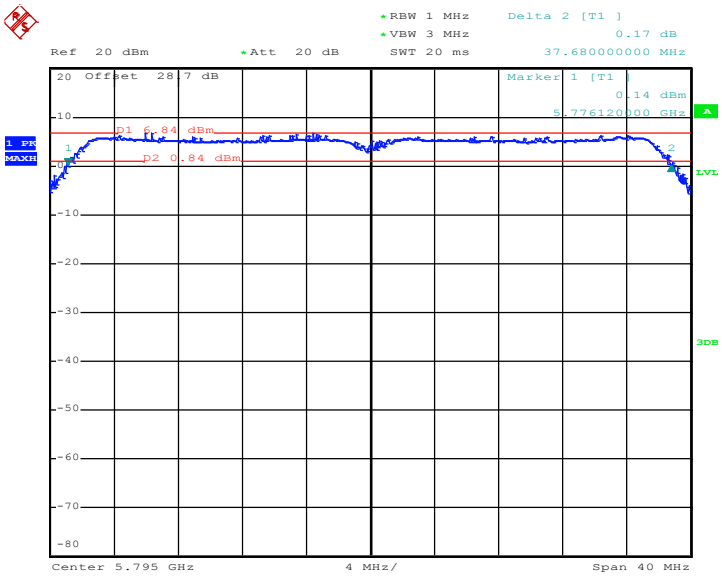
Date: 20.SEP.2012 15:06:56

6 dB Bandwidth Plot on 5G 802.11n HT40 Channel 151



Date: 20.SEP.2012 15:35:51

6 dB Bandwidth Plot on 5G 802.11n HT40 Channel 159



Date: 20.SEP.2012 16:02:44

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.

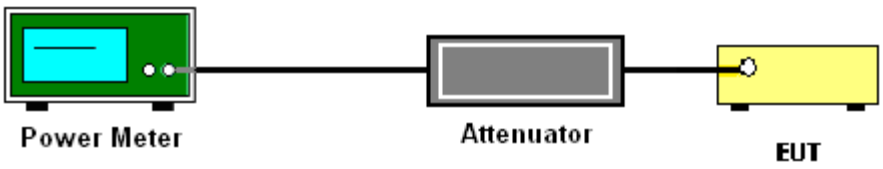
3.2.2 Measuring Instruments

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 and TCB Workshop 2012, April.
2. The RF output of EUT was connected to the power meter by a low loss cable
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.

3.2.4 Test Setup



3.2.5 Test Result of Peak Output Power

Test Mode :	802.11b	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	20.56	30	Pass
06	2437	21.15	30	Pass
11	2462	20.47	30	Pass

Test Mode :	802.11g	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	22.15	30	Pass
06	2437	22.19	30	Pass
11	2462	22.37	30	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4G 802.11n HT20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	21.63	30	Pass
06	2437	21.35	30	Pass
11	2462	21.68	30	Pass

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4G 802.11n HT40 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
03	2422	20.87	30	Pass
06	2437	21.44	30	Pass
09	2452	21.63	30	Pass

Test Mode :	802.11 a	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11a Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
149	5745	22.43	30	Pass
157	5785	22.68	30	Pass
165	5825	22.12	30	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5G 802.11n HT20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
149	5745	22.67	30	Pass
157	5785	22.62	30	Pass
165	5825	22.78	30	Pass

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5G 802.11n HT40 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
151	5755	22.92	30	Pass
159	5795	22.96	30	Pass

3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	99.04%	Duty Factor:	0.04dB

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)
01	2412	17.94
06	2437	18.52
11	2462	17.76

Test Mode :	802.11g	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	95.39%	Duty Factor:	0.20dB

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)
01	2412	13.20
06	2437	12.72
11	2462	13.05

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	95.05%	Duty Factor:	0.22dB

Channel	Frequency (MHz)	2.4G 802.11n HT20 Average Output Power (dBm)
01	2412	12.28
06	2437	11.76
11	2462	12.04

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	86.72%	Duty Factor:	0.62dB

Channel	Frequency (MHz)	2.4G 802.11n HT40 Average Output Power (dBm)
03	2422	11.65
06	2437	12.16
09	2452	12.42

Test Mode :	802.11a	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	95.37%	Duty Factor:	0.21dB

Channel	Frequency (MHz)	802.11a Average Output Power (dBm)
149	5745	12.38
157	5785	12.44
165	5825	11.69

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	95.07%	Duty Factor:	0.22dB

Channel	Frequency (MHz)	5G 802.11n HT20 Average Output Power (dBm)
149	5745	12.53
157	5785	12.49
165	5825	12.58

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%
Duty Cycle:	87.40%	Duty Factor:	0.58dB

Channel	Frequency (MHz)	5G 802.11n HT40 Average Output Power (dBm)
151	5755	12.26
159	5795	12.24

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.

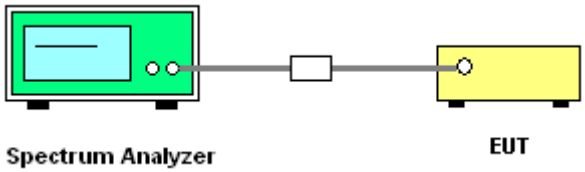
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 5.3.1 (Peak PSD) of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance and TCB Workshop 2012, April.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable. 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. Video bandwidth (VBW) >= 300 KHz In order to make an accurate measurement, set the span to 5-30% greater than Emission Bandwidth (EBW)
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 in any 100 kHz band segment within the fundamental EBW.
6. Record the measurement data derived from spectrum analyzer.
7. Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (3 kHz/100 kHz = -15.2 dB).

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Test Mode :	802.11b	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	10.21	-4.99	8	Pass
06	2437	10.94	-4.26	8	Pass
11	2462	9.79	-5.41	8	Pass

Test Mode :	802.11g	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11g Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	2.00	-13.20	8	Pass
06	2437	1.39	-13.81	8	Pass
11	2462	1.31	-13.89	8	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4G 802.11n HT20 Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	0.78	-14.42	8	Pass
06	2437	0.38	-14.82	8	Pass
11	2462	0.37	-14.83	8	Pass

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	2.4G 802.11n HT40 Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
03	2422	-2.39	-17.59	8	Pass
06	2437	-2.10	-17.30	8	Pass
09	2452	-2.05	-17.25	8	Pass

Test Mode :	802.11a	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11a Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
149	5745	0.33	-14.87	8	Pass
157	5785	0.07	-15.13	8	Pass
165	5825	0.20	-15.00	8	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	5G 802.11n HT20 Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
149	5745	-0.31	-15.51	8	Pass
157	5785	0.55	-14.65	8	Pass
165	5825	0.66	-14.54	8	Pass

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Coyote Lin	Relative Humidity :	50~53%

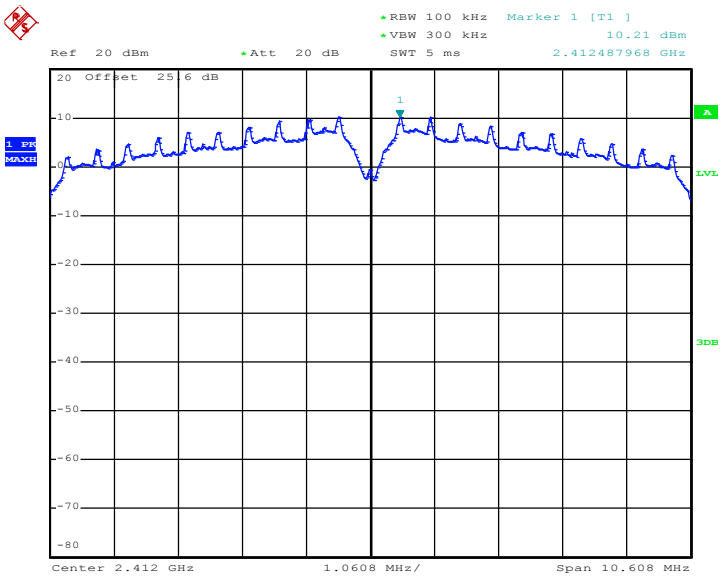
Channel	Frequency (MHz)	5G 802.11n HT40 Power Density		Max. Limits (dBm)	Pass/Fail
		Measured PSD/100KHz (dBm)	PSD/3KHz (dBm)		
151	5755	-2.53	-17.73	8	Pass
159	5795	-2.50	-17.70	8	Pass

Note:

1. *Measured power density (dBm) has offset with cable loss.*
2. *BWCF (dB) = 10 log (3k/100k) = -15.2 dB*
3. *Power Density/ 3kHz (dBm)= Measured power density/ 100KHz (dBm) + BWCF (dB)*

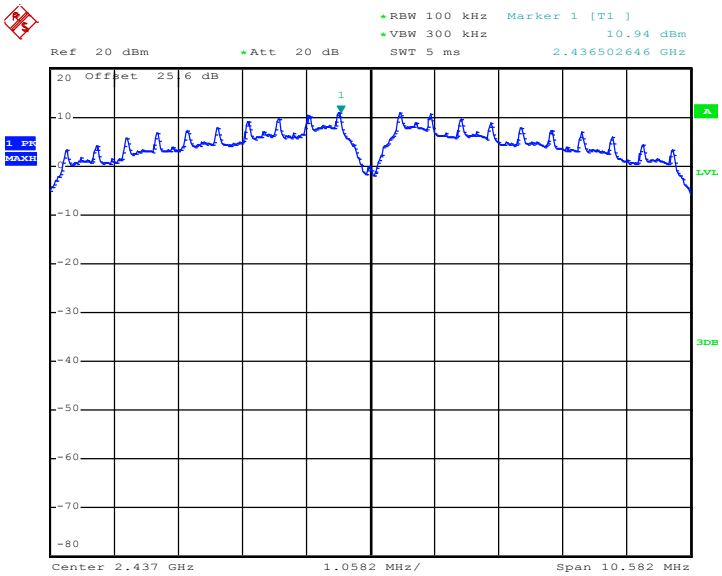
3.3.6 Test Result of Power Spectral Density Plots

PSD Plot on 802.11b Channel 01



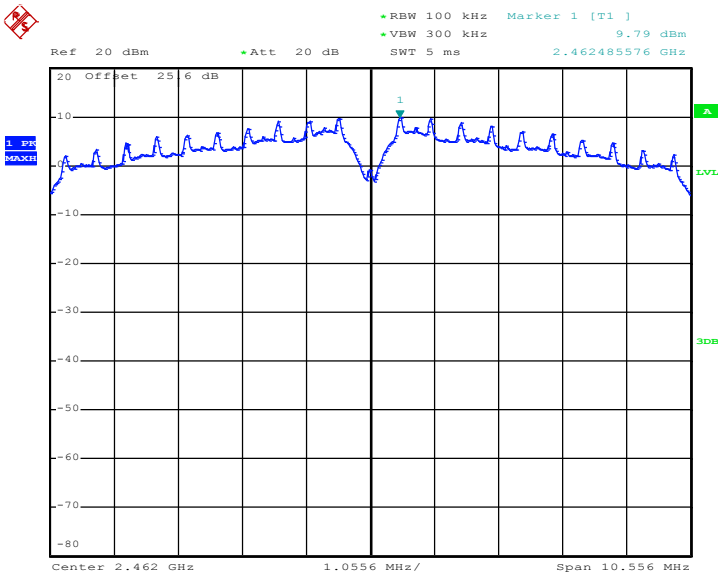
Date: 20.SEP.2012 14:21:07

PSD Plot on 802.11b Channel 06



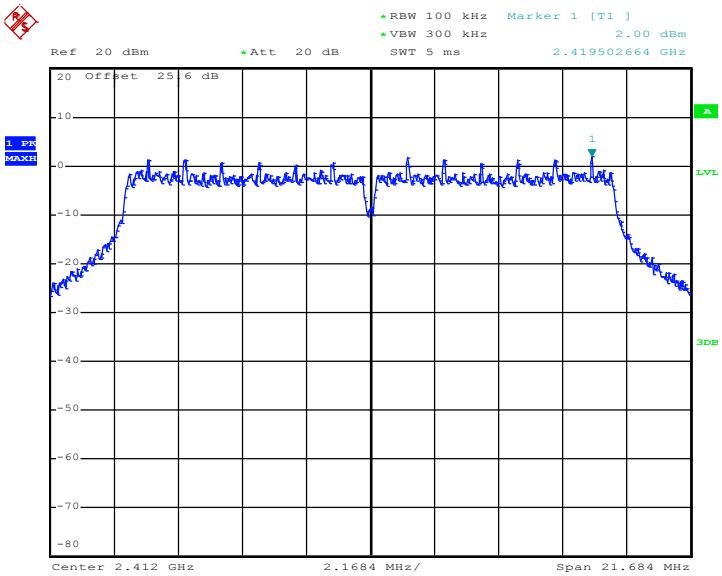
Date: 20.SEP.2012 14:16:58

PSD Plot on 802.11b Channel 11



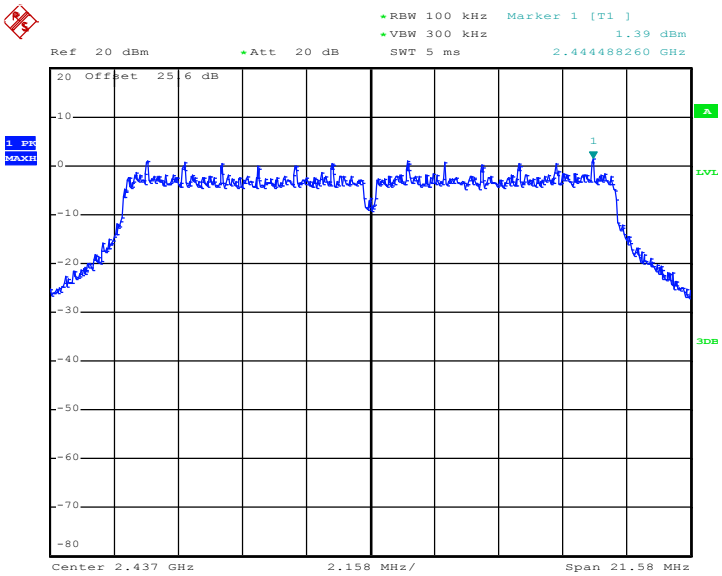
Date: 20.SEP.2012 14:24:54

PSD Plot on 802.11g Channel 01



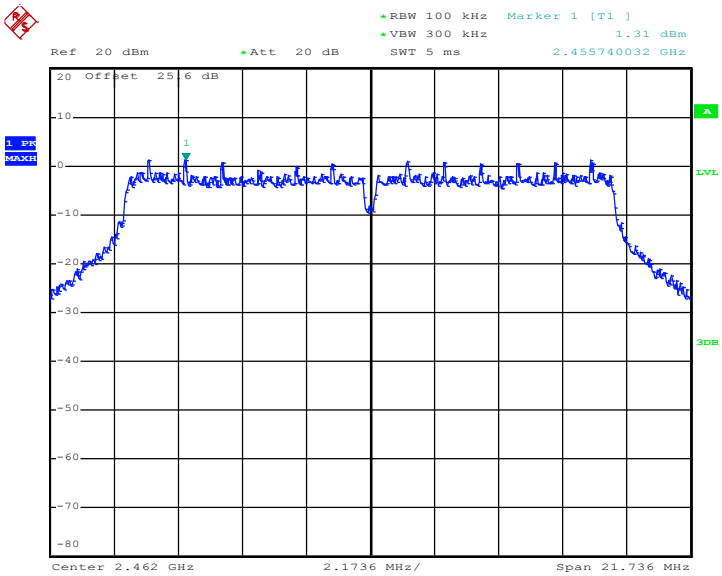
Date: 20.SEP.2012 14:29:20

PSD Plot on 802.11g Channel 06



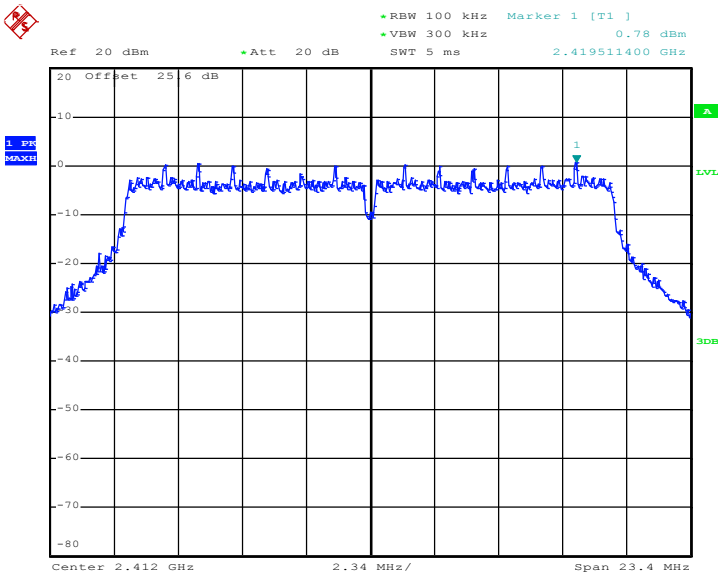
Date: 20.SEP.2012 14:32:37

PSD Plot on 802.11g Channel 11



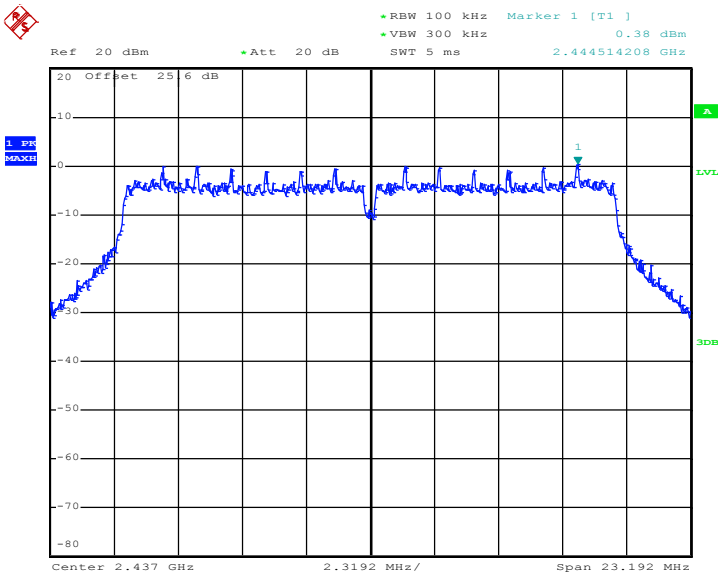
Date: 20.SEP.2012 14:36:54

PSD Plot on 2.4G 802.11n HT20 Channel 01



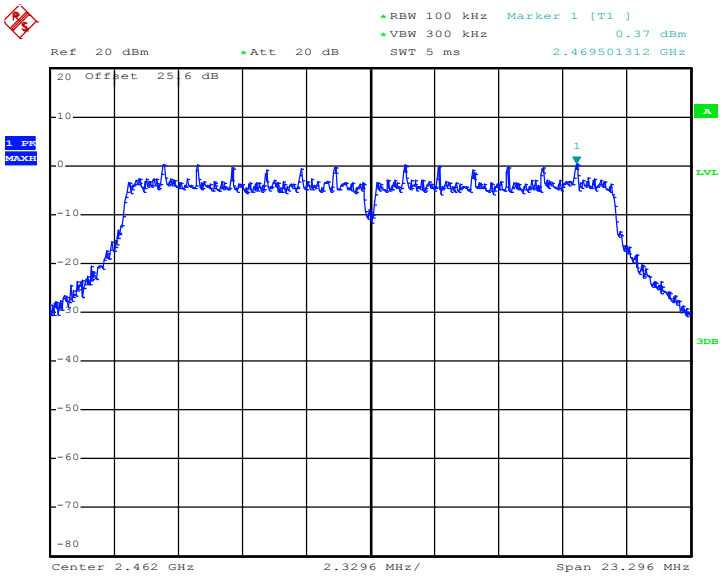
Date: 20.SEP.2012 14:52:10

PSD Plot on 2.4G 802.11n HT20 Channel 06



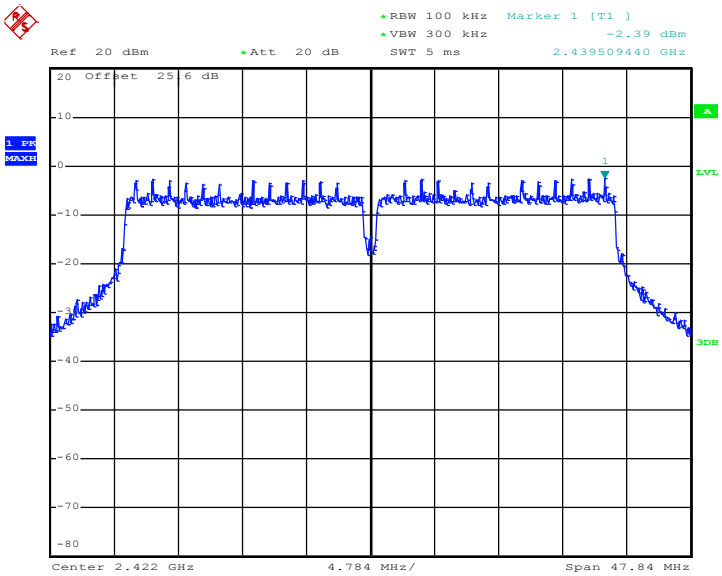
Date: 20.SEP.2012 14:48:52

PSD Plot on 2.4G 802.11n HT20 Channel 11



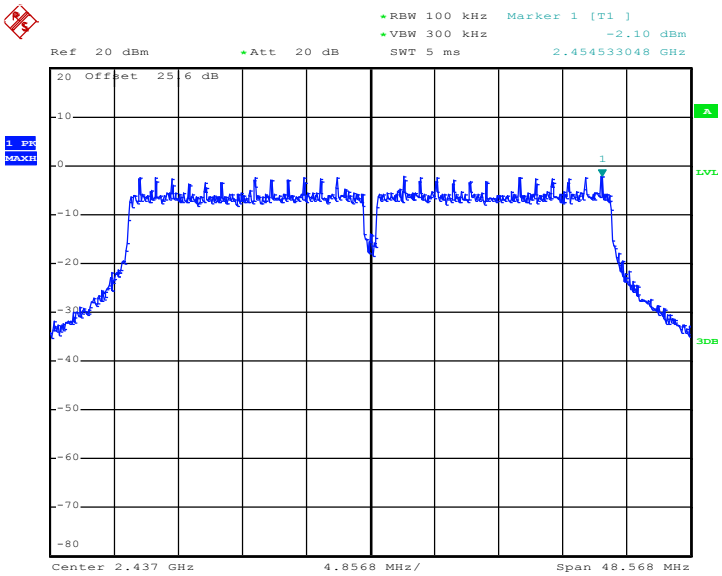
Date: 20.SEP.2012 14:41:20

PSD Plot on 2.4G 802.11n HT40 Channel 03



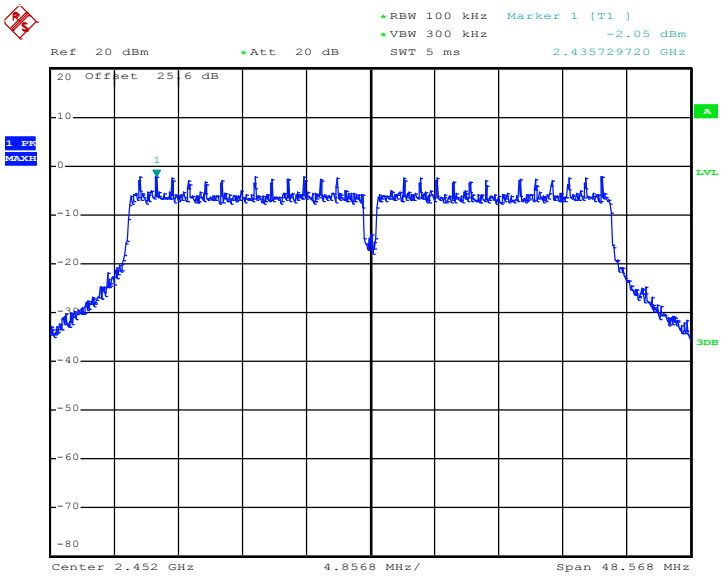
Date: 20.SEP.2012 16:08:36

PSD Plot on 2.4G 802.11n HT40 Channel 06



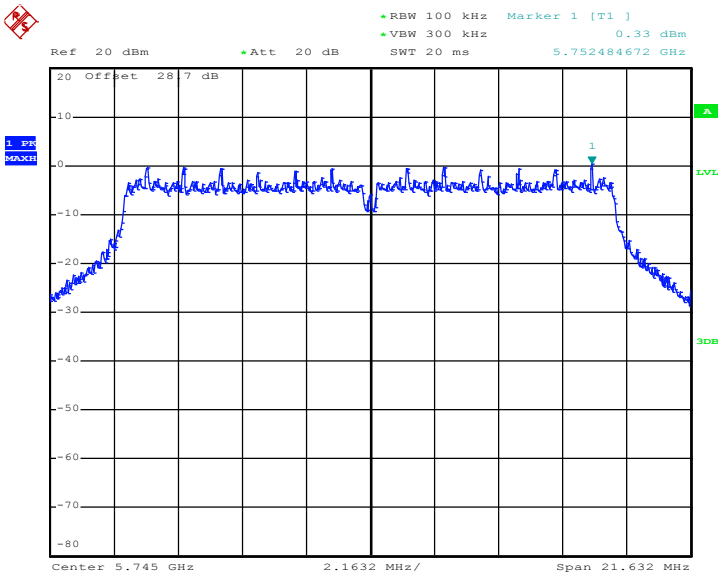
Date: 20.SEP.2012 16:14:53

PSD Plot on 2.4G 802.11n HT40 Channel 09



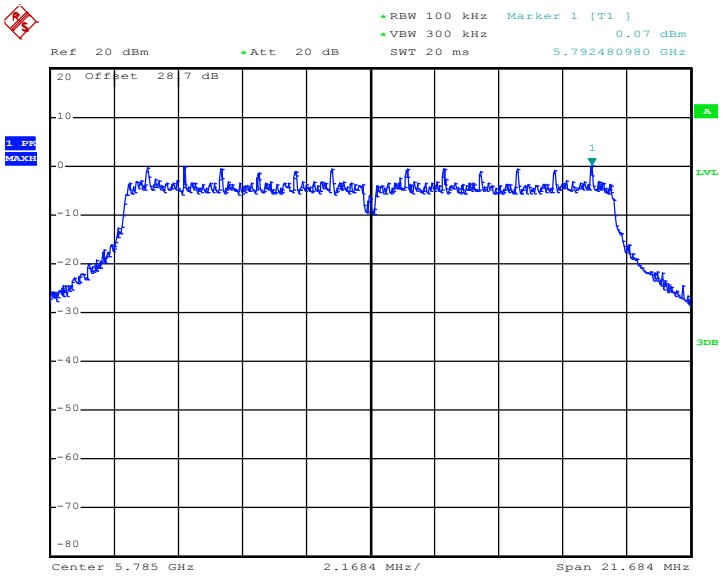
Date: 20.SEP.2012 16:20:16

PSD Plot on 802.11a Channel 149



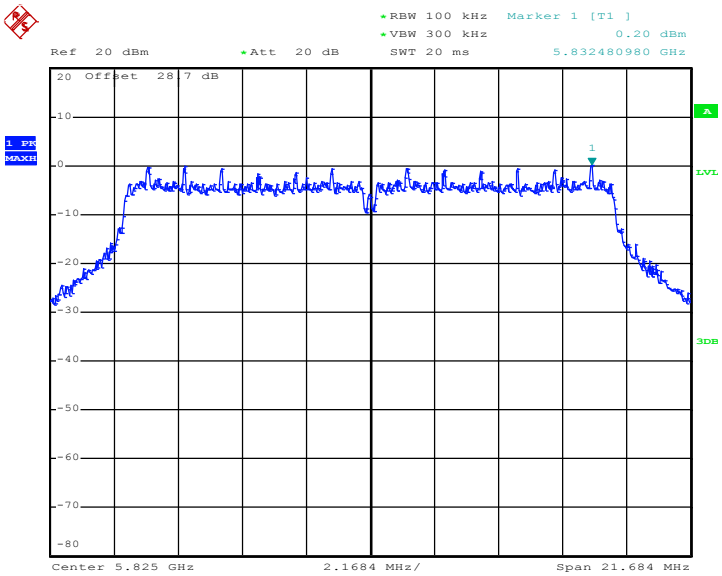
Date: 20.SEP.2012 15:21:37

PSD Plot on 802.11a Channel 157



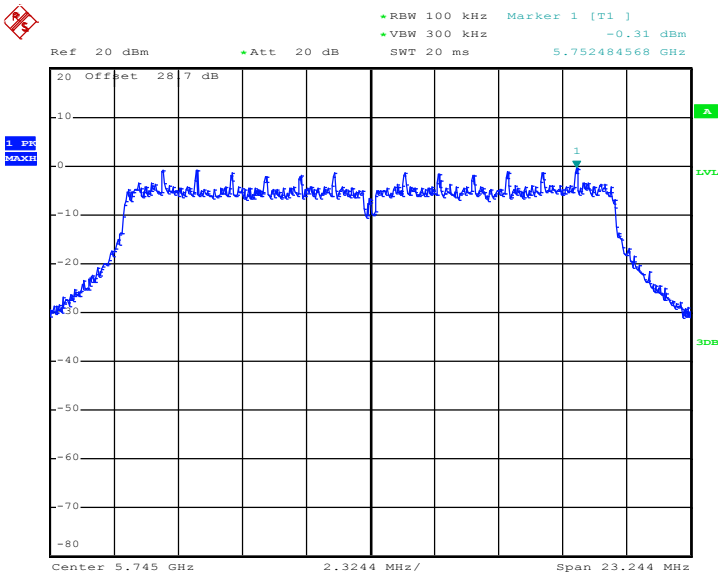
Date: 20.SEP.2012 15:25:15

PSD Plot on 802.11a Channel 165



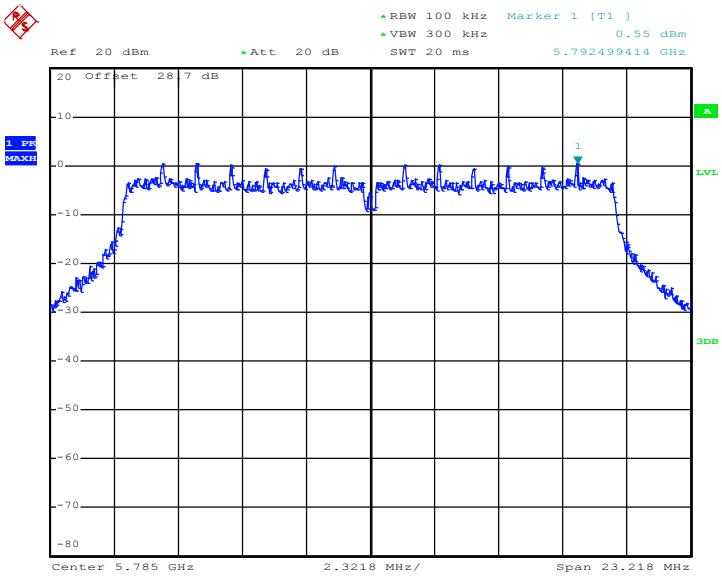
Date: 20.SEP.2012 16:51:23

PSD Plot on 5G 802.11n HT20 Channel 149



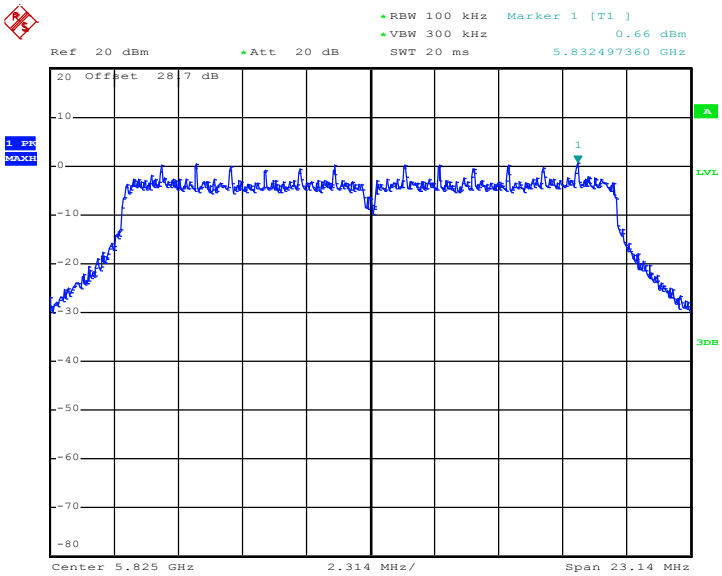
Date: 20.SEP.2012 14:58:25

PSD Plot on 5G 802.11n HT20 Channel 157



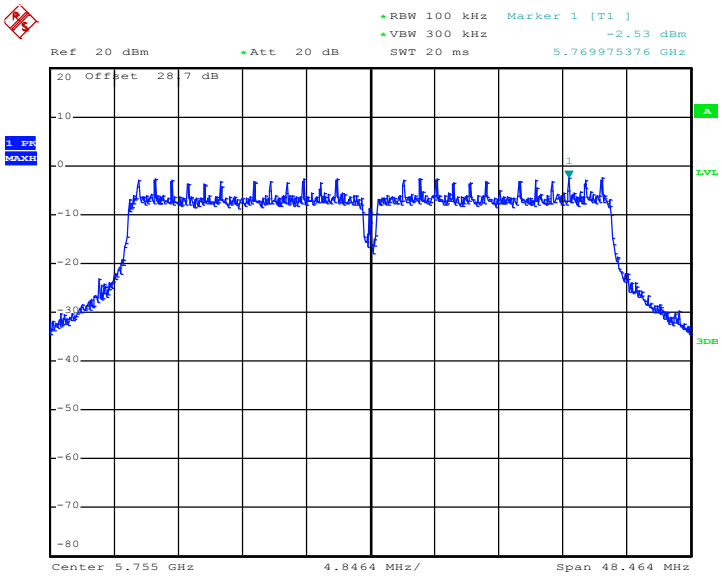
Date: 20.SEP.2012 15:04:15

PSD Plot on 5G 802.11n HT20 Channel 165



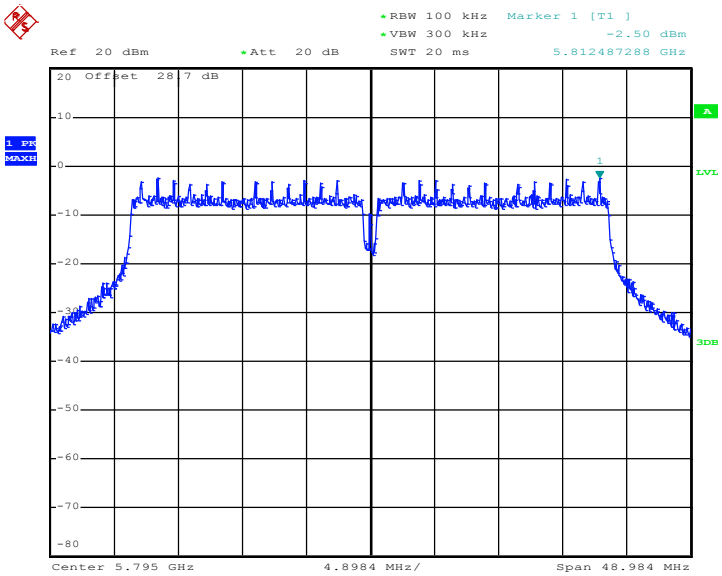
Date: 20.SEP.2012 15:07:37

PSD Plot on 5G 802.11n HT40 Channel 151



Date: 20.SEP.2012 15:36:33

PSD Plot on 5G 802.11n HT40 Channel 159



Date: 20.SEP.2012 16:03:23

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).

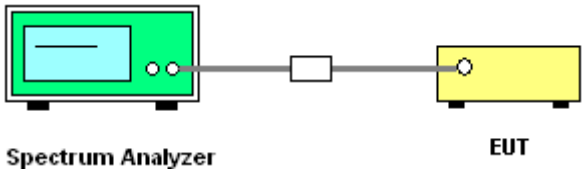
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The testing follows the guidelines in the Measurement Procedure of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance and TCB Workshop 2012, April.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. 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. The attenuation is set to 30dB, when maximum conducted output power procedure is used.
4. Measure and record the results in the test report.

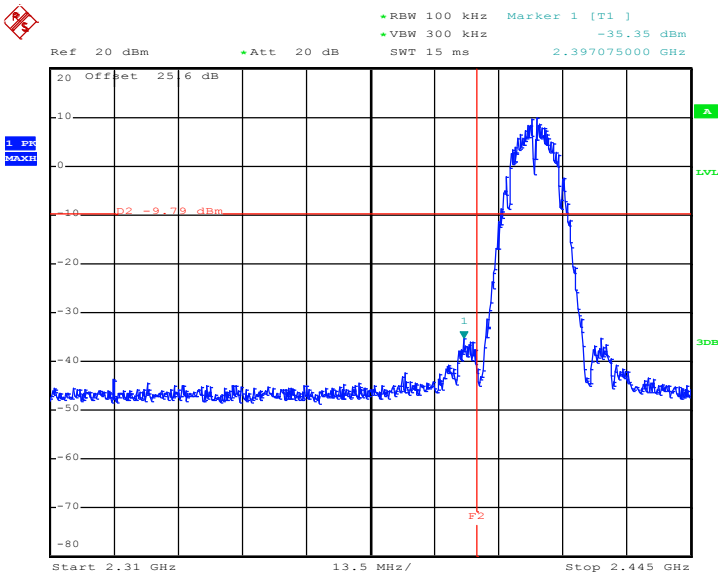
3.4.4 Test Setup



3.4.6 Test Result of Conducted Spurious at Band Edges

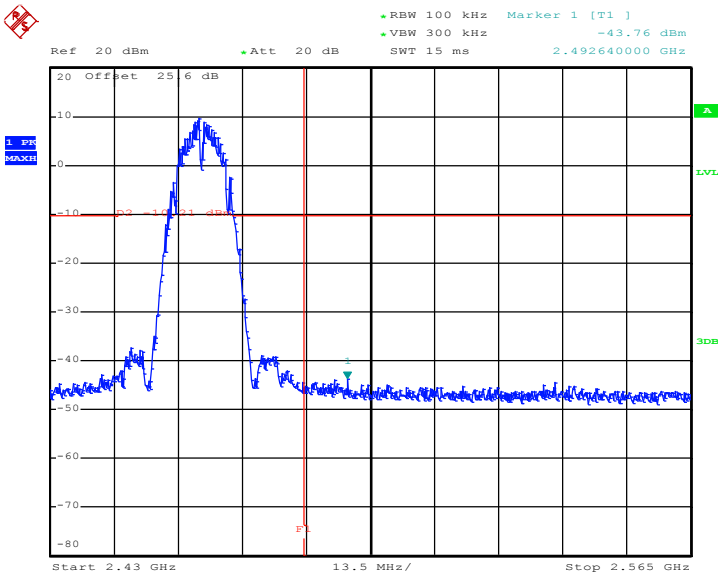
Test Mode :	802.11b	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	01 and 11	Test Engineer :	Coyote Lin

Low Band Edge Plot on 802.11b Channel 01



Date: 20.SEP.2012 14:21:42

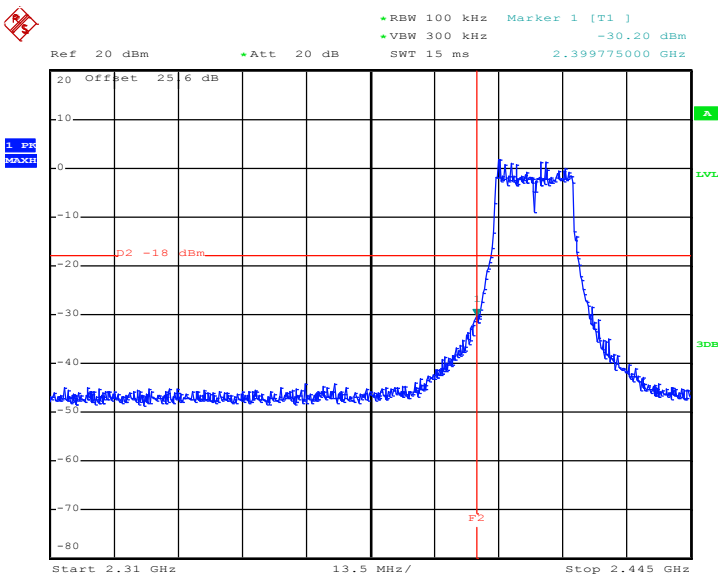
High Band Edge Plot on 802.11b Channel 11



Date: 20.SEP.2012 14:25:10

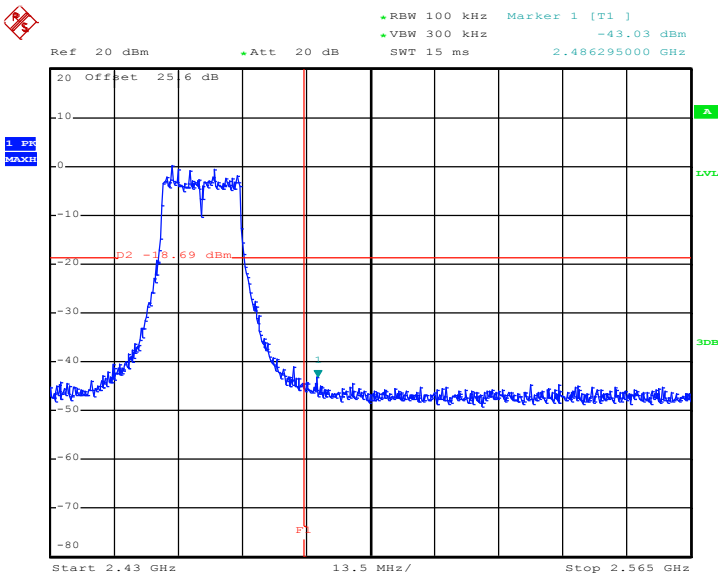
Test Mode :	802.11g	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	01 and 11	Test Engineer :	Coyote Lin

Low Band Edge Plot on 802.11g Channel 01



Date: 20.SEP.2012 14:29:45

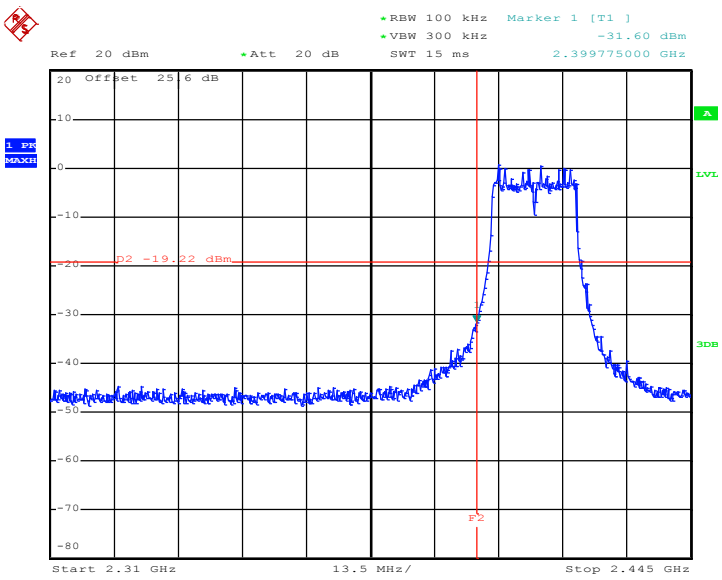
High Band Edge Plot on 802.11g Channel 11



Date: 20.SEP.2012 14:46:04

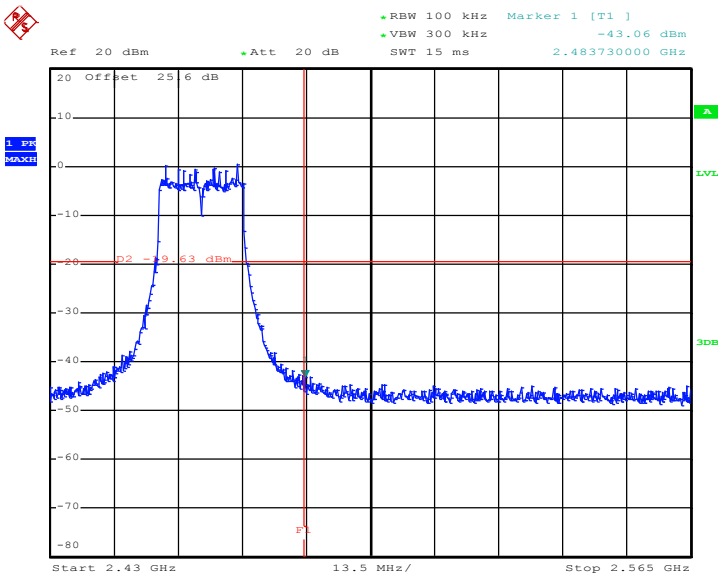
Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	01 and 11	Test Engineer :	Coyote Lin

Low Band Edge Plot on 2.4G 802.11n HT20 Channel 01



Date: 20.SEP.2012 14:52:49

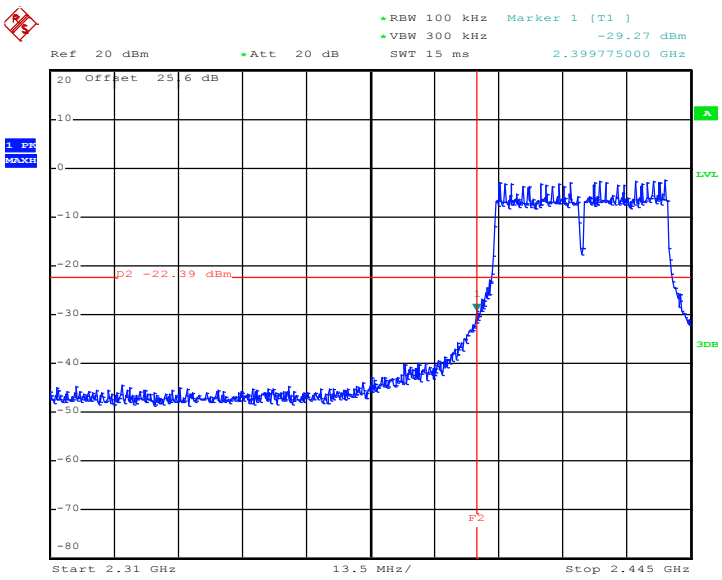
High Band Edge Plot on 2.4G 802.11n HT20 Channel 11



Date: 20.SEP.2012 14:43:13

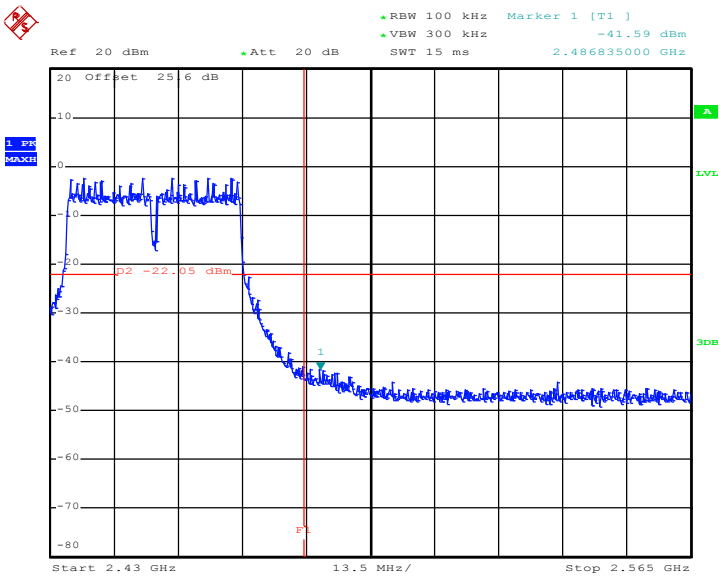
Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	03 and 09	Test Engineer :	Coyote Lin

Low Band Edge Plot on 2.4G 802.11n HT40 Channel 01



Date: 20.SEP.2012 16:10:01

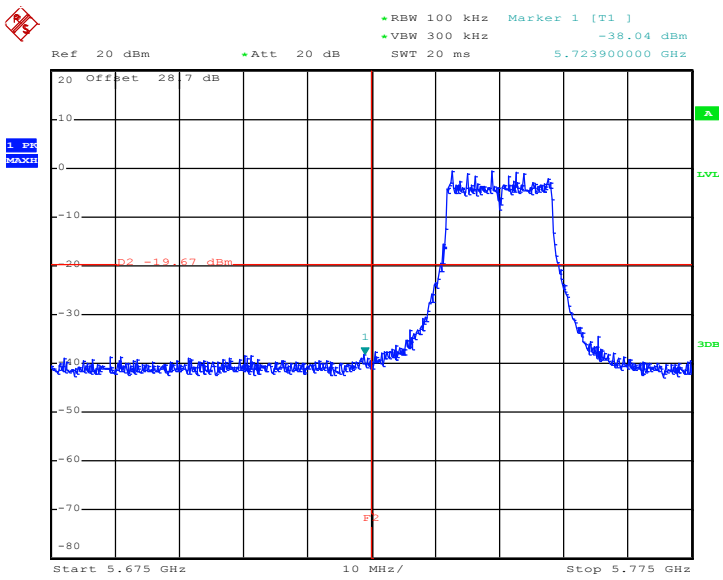
High Band Edge Plot on 2.4G 802.11n HT40 Channel 11



Date: 20.SEP.2012 16:20:31

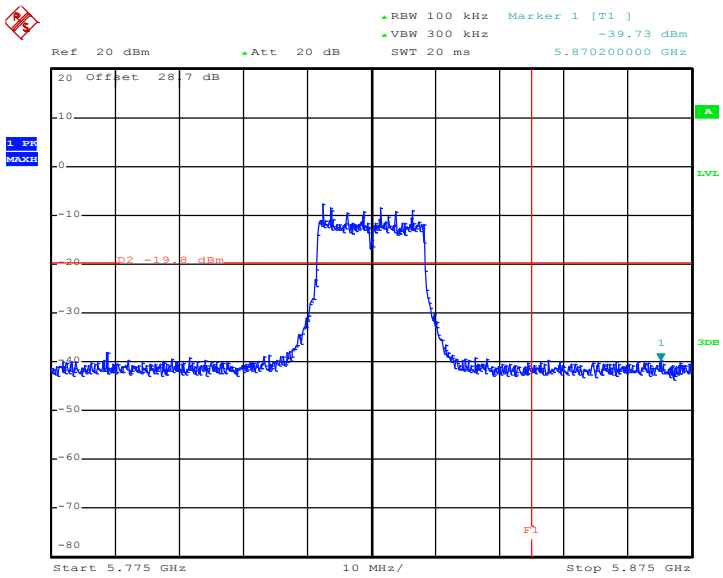
Test Mode :	802.11a	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	149 and 165	Test Engineer :	Coyote Lin

Low Band Edge Plot on 802.11a Channel 149



Date: 20.SEP.2012 15:23:06

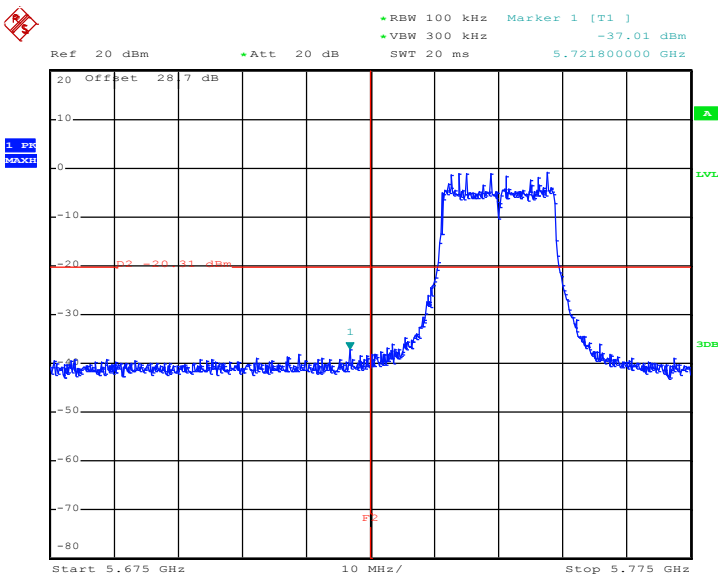
High Band Edge Plot on 802.11a Channel 165



Date: 20.SEP.2012 16:51:39

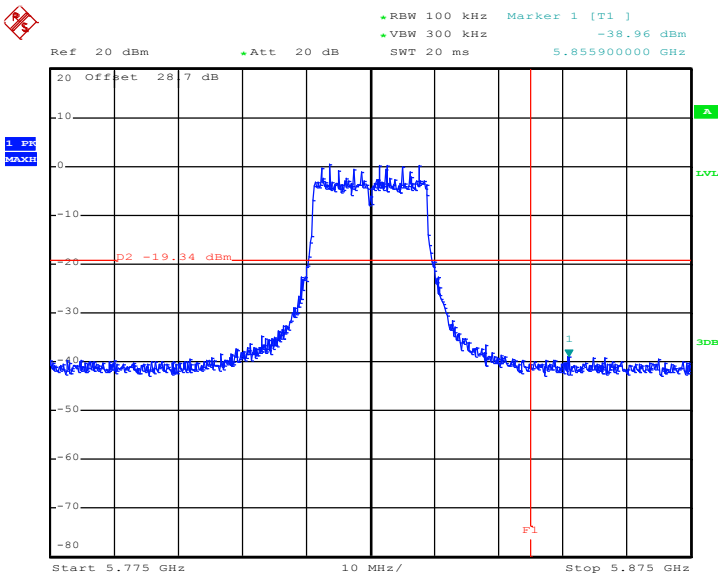
Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	149 and 165	Test Engineer :	Coyote Lin

Low Band Edge Plot on 5G 802.11n HT20 Channel 149



Date: 20.SEP.2012 14:58:43

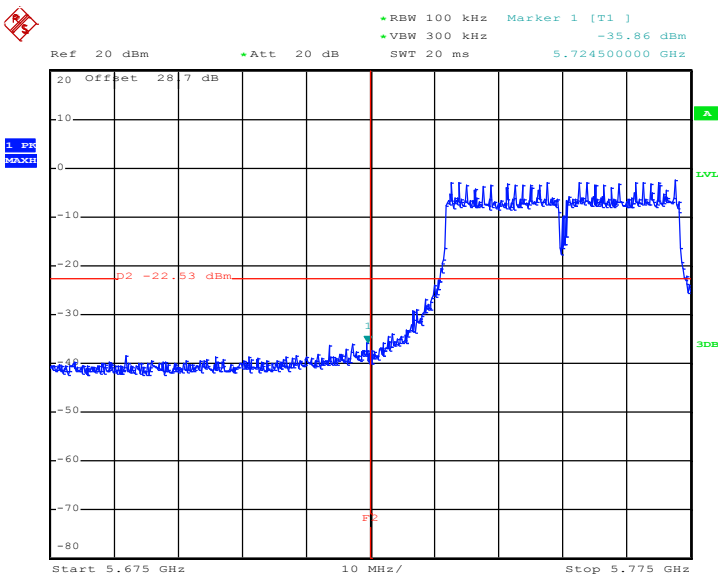
High Band Edge Plot on 5G 802.11n HT20 Channel 165



Date: 20.SEP.2012 15:07:56

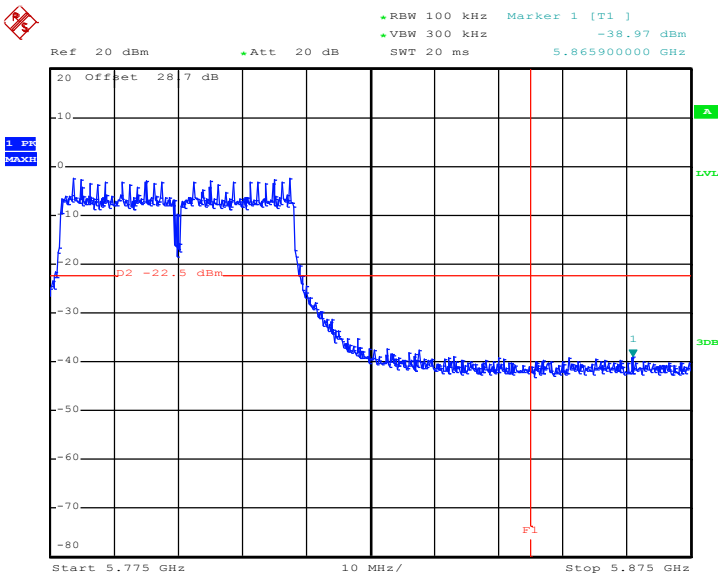
Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	151 and 159	Test Engineer :	Coyote Lin

Low Band Edge Plot on 5G 802.11n HT40 Channel 151



Date: 20.SEP.2012 15:36:52

High Band Edge Plot on 5G 802.11n HT40 Channel 159



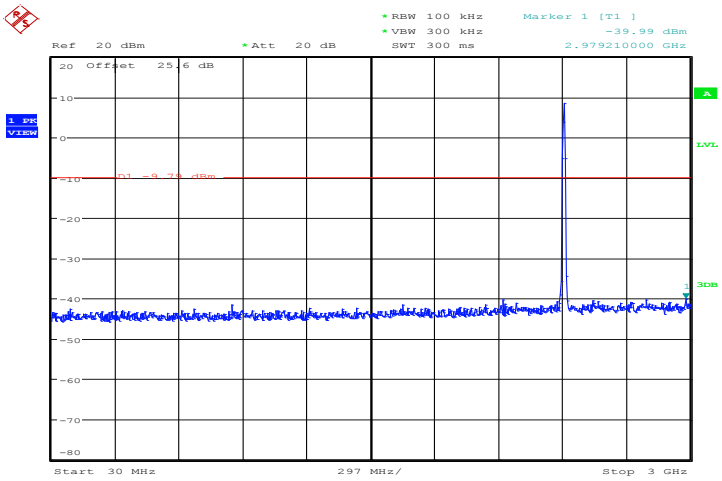
Date: 20.SEP.2012 16:03:41

3.4.7 Test Result of Conducted Spurious Emission

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

802.11b 30 MHz~3 GHz

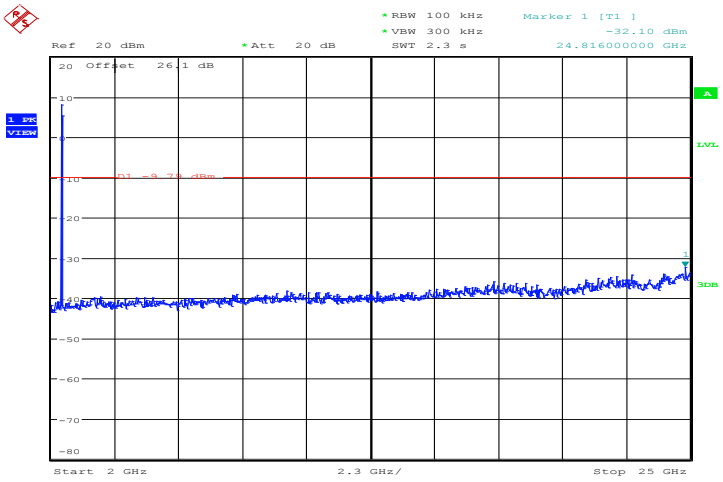
Conducted Spurious Emission Plot on Channel 01



281609-925 15C Spurious 802.11b 2412 (ch01)
Date: 25.SEP.2012 16:39:50

802.11b 2 GHz~25 GHz

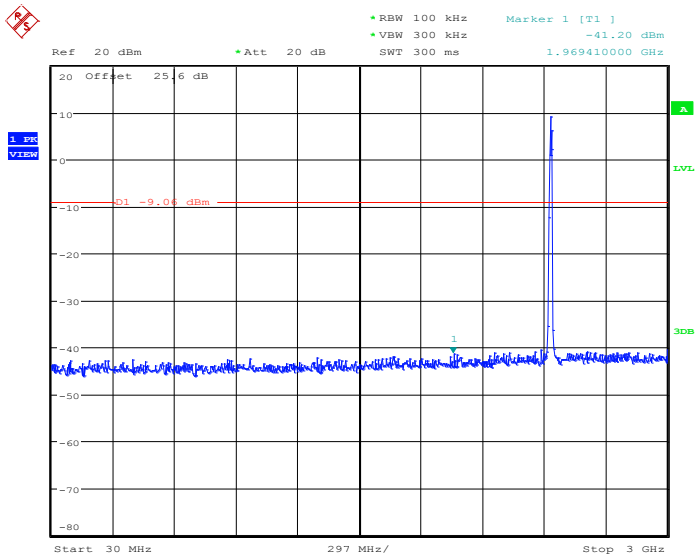
Conducted Spurious Emission Plot on Channel 01



281609-925 15C Spurious 802.11b 2412 (ch01)
Date: 25.SEP.2012 16:40:07

802.11b 30 MHz~3 GHz

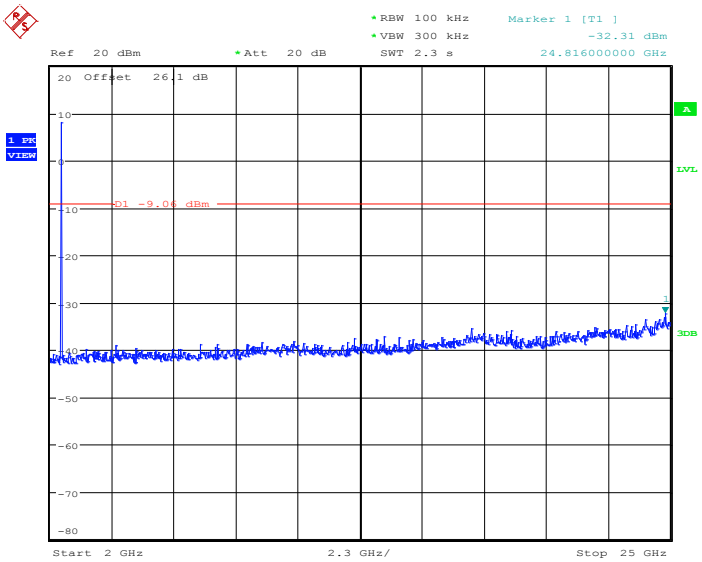
Conducted Spurious Emission Plot on Channel 06



281609-925 15C Spurious 802.11b 2437 (ch06)
Date: 25.SEP.2012 16:41:07

802.11b 2 GHz~25 GHz

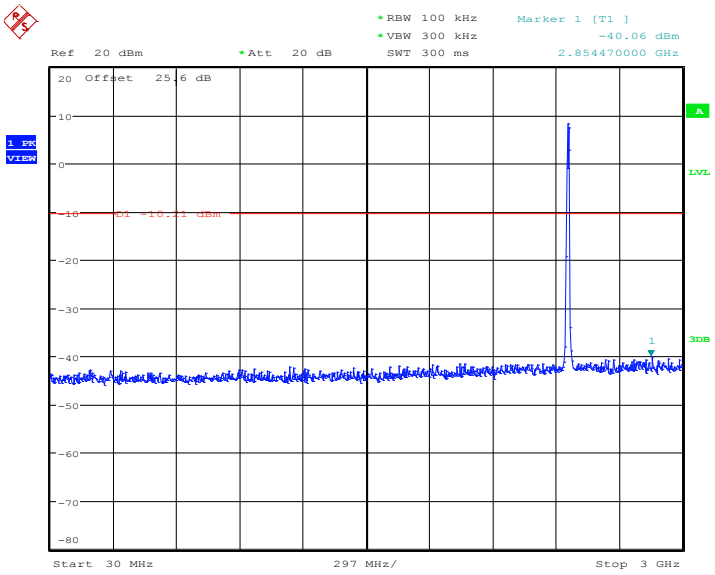
Conducted Spurious Emission Plot on Channel 06



281609-925 15C Spurious 802.11b 2437 (ch06)
Date: 25.SEP.2012 16:41:24

802.11b 30 MHz~3 GHz

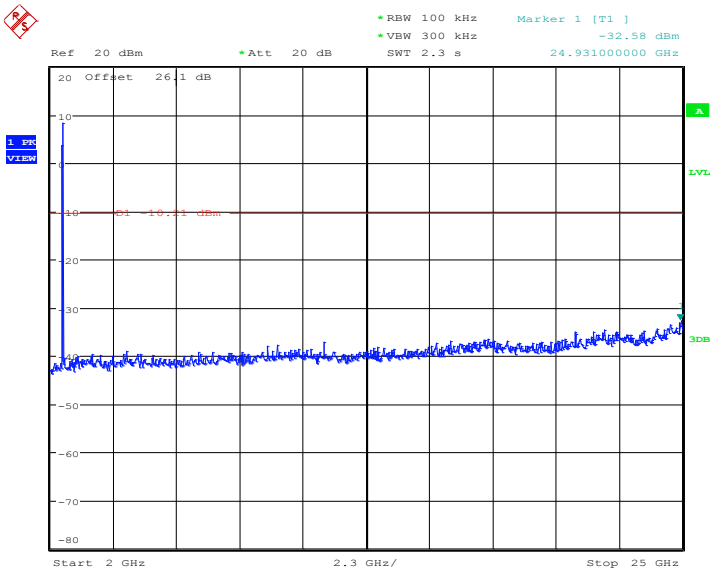
Conducted Spurious Emission Plot on Channel 11



281609-925 15C Spurious 802.11b 2462 (ch11)
Date: 25.SEP.2012 16:42:13

802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

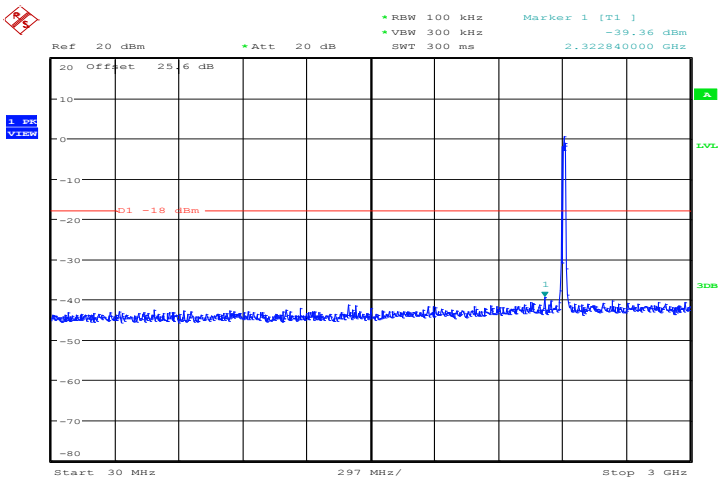


281609-925 15C Spurious 802.11b 2462 (ch11)
Date: 25.SEP.2012 16:42:30

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

802.11g 30 MHz~3 GHz

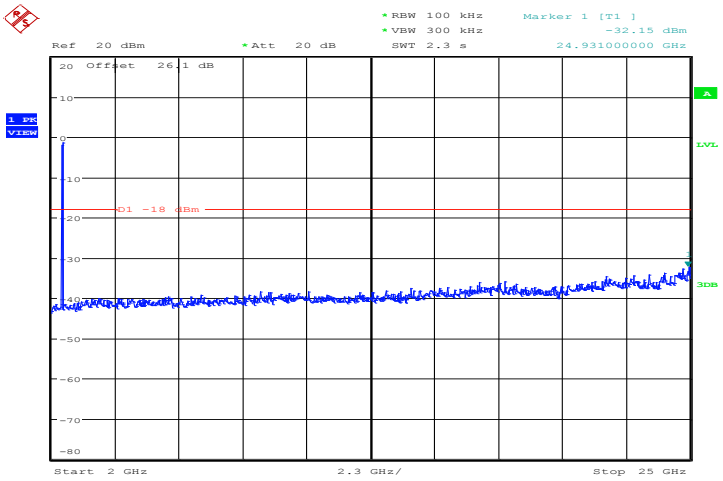
Conducted Spurious Emission Plot on Channel 01



281609-925 15C Spurious 802.11g 2412 (ch01)
Date: 25.SEP.2012 16:49:47

802.11g 2 GHz~25 GHz

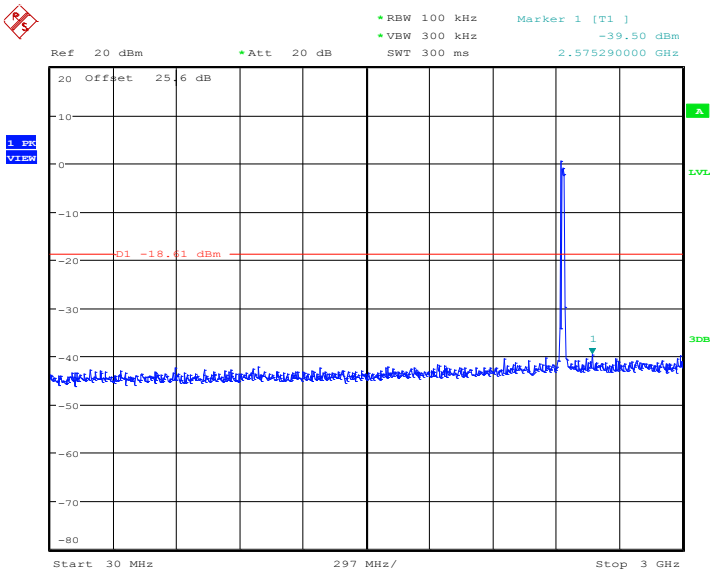
Conducted Spurious Emission Plot on Channel 01



281609-925 15C Spurious 802.11g 2412 (ch01)
Date: 25.SEP.2012 16:50:04

802.11g 30 MHz~3 GHz

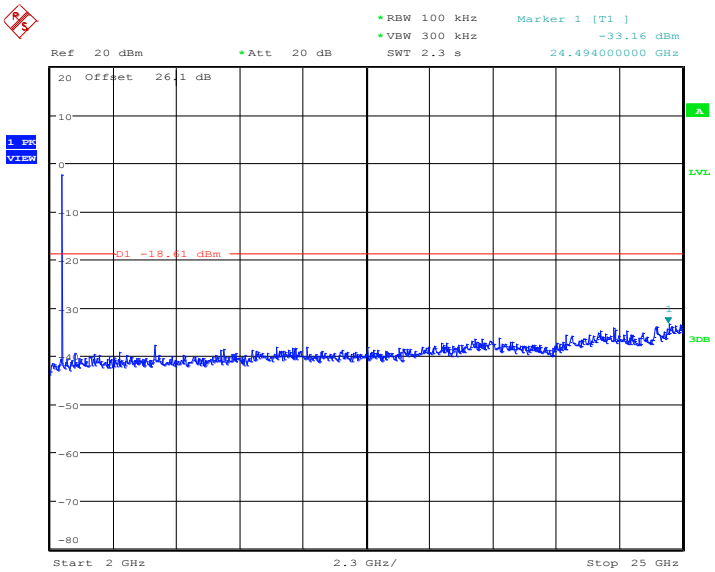
Conducted Spurious Emission Plot on Channel 06



281609-925 15C Spurious 802.11g 2437 (ch06)
Date: 25.SEP.2012 16:47:44

802.11g 2 GHz~25 GHz

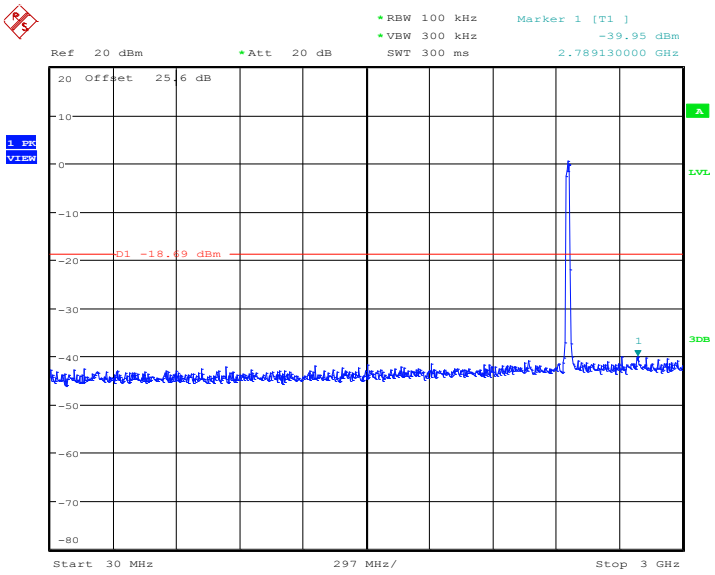
Conducted Spurious Emission Plot on Channel 06



281609-925 15C Spurious 802.11g 2437 (ch06)
Date: 25.SEP.2012 16:48:01

802.11g 30 MHz~3 GHz

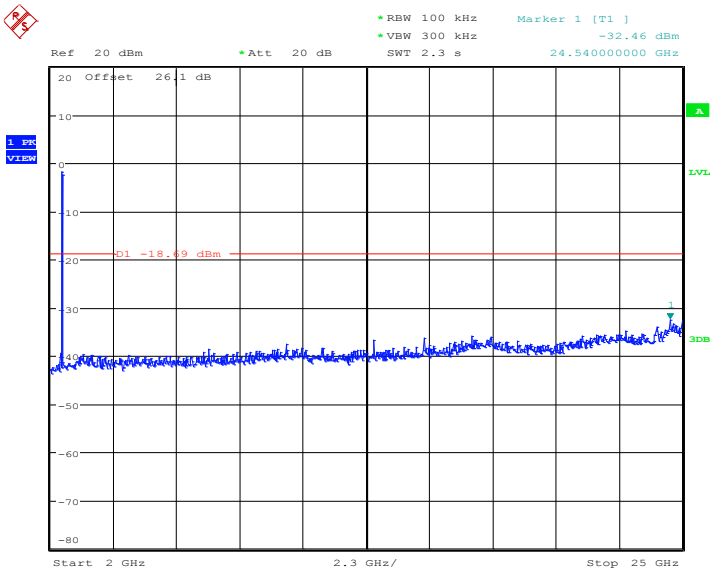
Conducted Spurious Emission Plot on Channel 11



281609-925 15C Spurious 802.11g 2462 (ch11)
Date: 25.SEP.2012 16:46:48

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

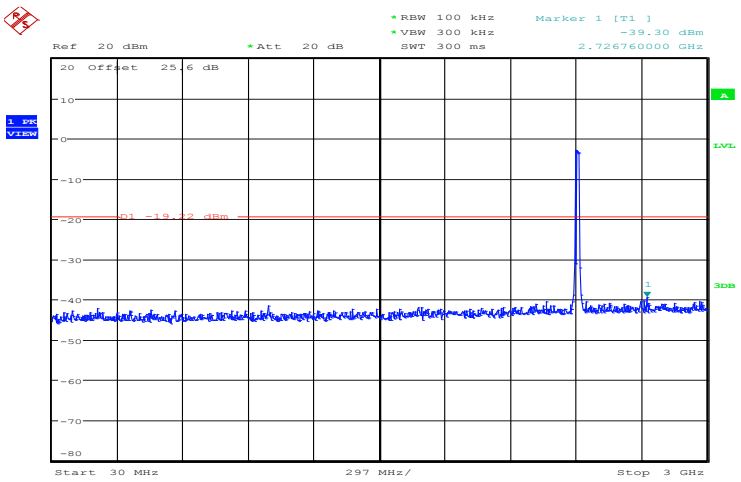


281609-925 15C Spurious 802.11g 2462 (ch11)
Date: 25.SEP.2012 16:47:05

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Band :	30MHz-3GHz and 2G-25GHz	Relative Humidity :	50~53%
Test Channel :	01, 06, 11	Test Engineer :	Coyote Lin

2.4G 802.11n HT20 30 MHz~3 GHz

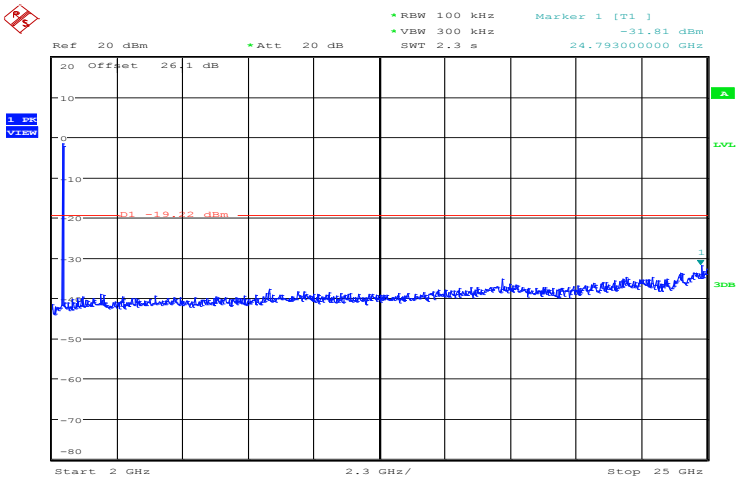
Conducted Spurious Emission Plot on Channel 01



281609-925 15C Spurious 802.11g_N20 2412 (ch01)
Date: 25.SEP.2012 16:52:18

2.4G 802.11n HT20 2 GHz~25 GHz

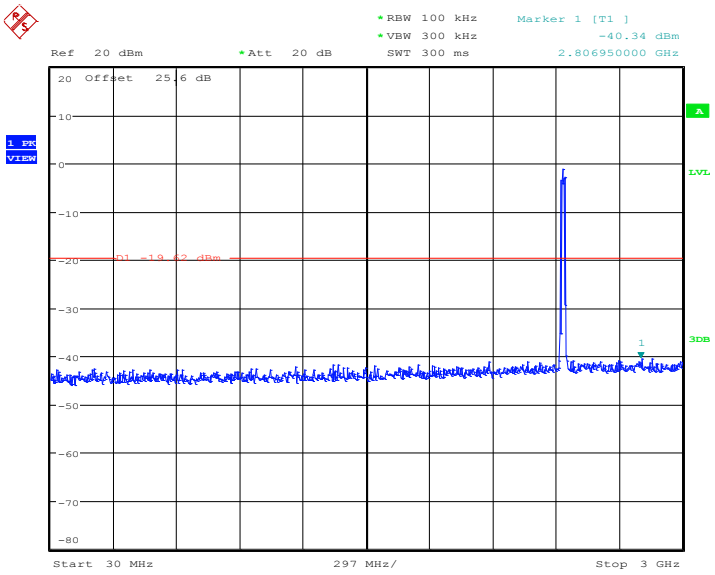
Conducted Spurious Emission Plot on Channel 01



281609-925 15C Spurious 802.11g_N20 2412 (ch01)
Date: 25.SEP.2012 16:52:35

2.4G 802.11n HT20 30 MHz~3 GHz

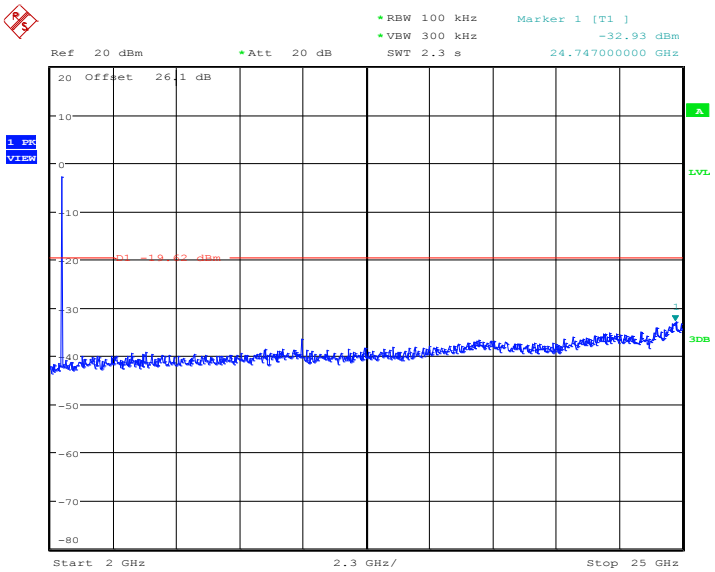
Conducted Spurious Emission Plot on Channel 06



281609-925 15C Spurious 802.11g_N20 2437 (ch06)
Date: 25.SEP.2012 16:54:00

2.4G 802.11n HT20 2 GHz~25 GHz

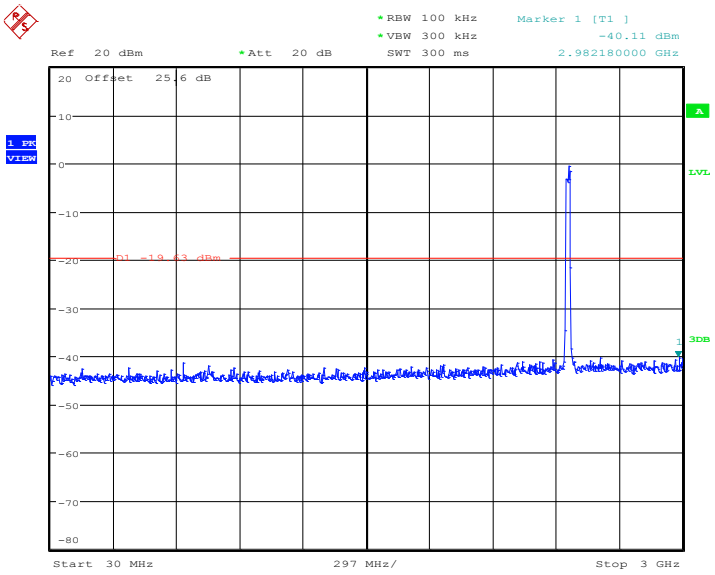
Conducted Spurious Emission Plot on Channel 06



281609-925 15C Spurious 802.11g_N20 2437 (ch06)
Date: 25.SEP.2012 16:54:17

2.4G 802.11n HT20 30 MHz~3 GHz

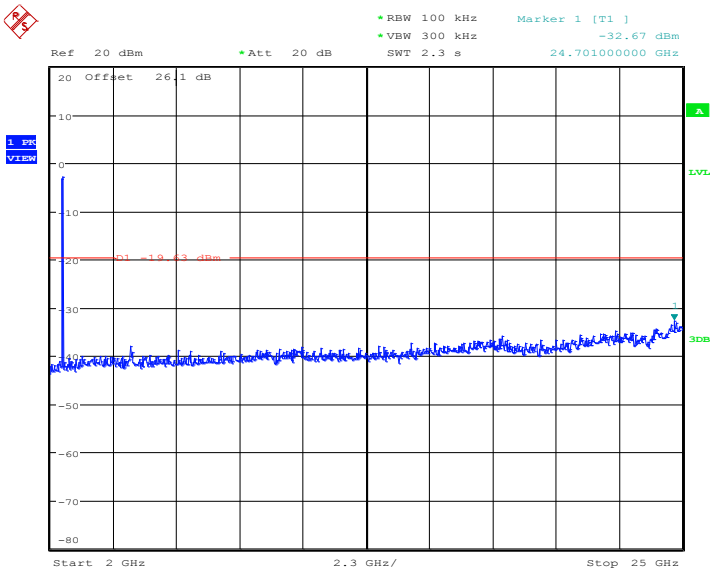
Conducted Spurious Emission Plot on Channel 11



281609-925 15C Spurious 802.11g_N20 2462 (ch11)
Date: 25.SEP.2012 16:54:51

2.4G 802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

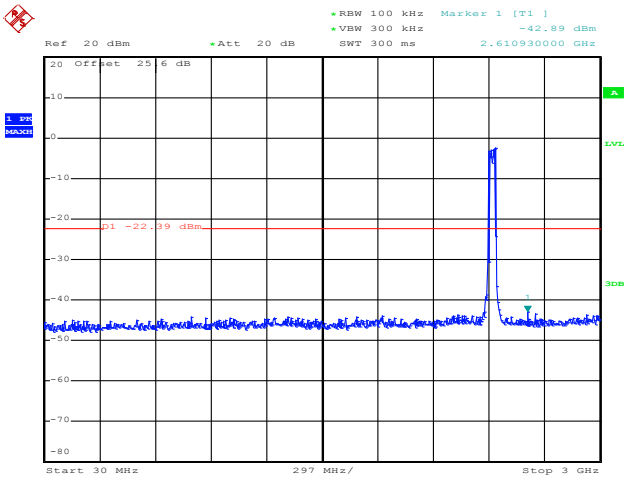


281609-925 15C Spurious 802.11g_N20 2462 (ch11)
Date: 25.SEP.2012 16:55:08

Test Mode :	802.11n HT40	**Temperature :**	24~26℃
Test Band :	30MHz-3GHz and 2G-25GHz	**Relative Humidity :**	50~53%
Test Channel :	03, 06, 09	**Test Engineer :**	Coyote Lin

2.4G 802.11n HT40 30 MHz~3 GHz

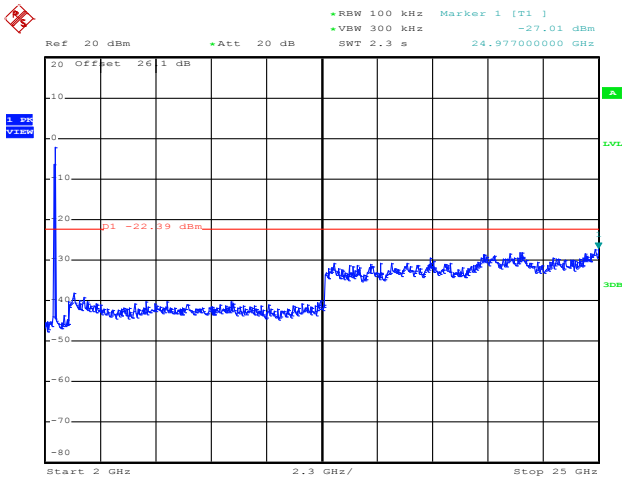
Conducted Spurious Emission Plot on Channel 03



Date: 28.SEP.2012 19:31:48

2.4G 802.11n HT40 2 GHz~25 GHz

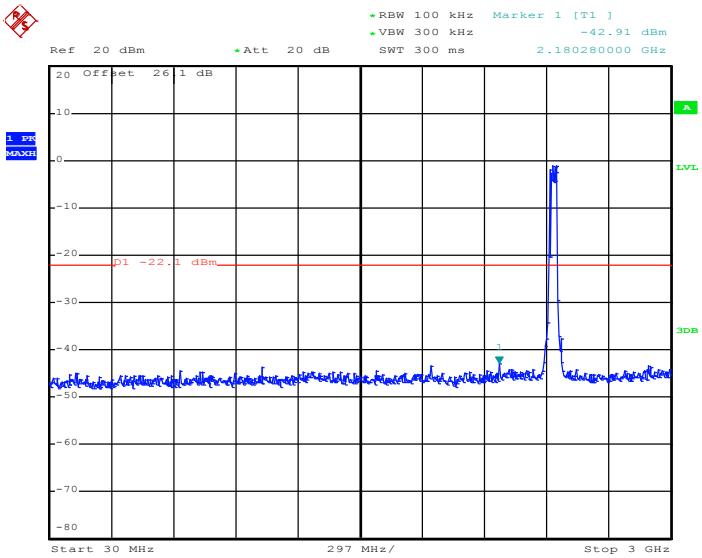
Conducted Spurious Emission Plot on Channel 03



11 15C Spurious 802.11g_N40 2422 (ch03)
Date: 28.SEP.2012 19:26:16

2.4G 802.11n HT40 30 MHz~3 GHz

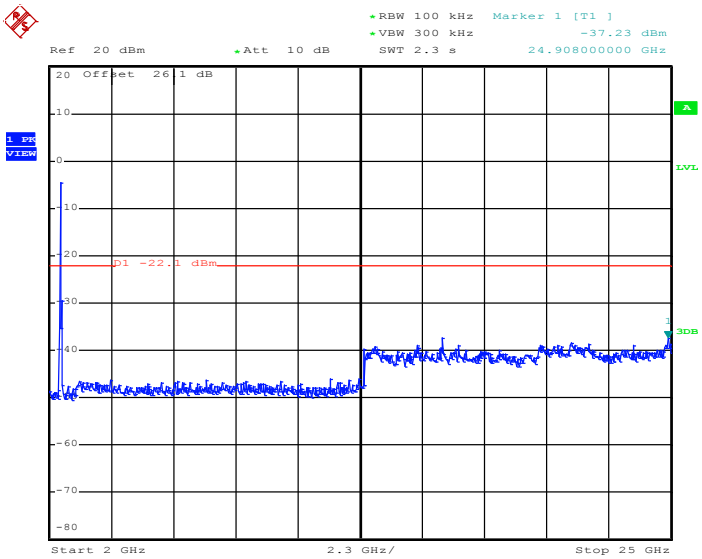
Conducted Spurious Emission Plot on Channel 06



Date: 28.SEP.2012 19:40:01

2.4G 802.11n HT40 2 GHz~25 GHz

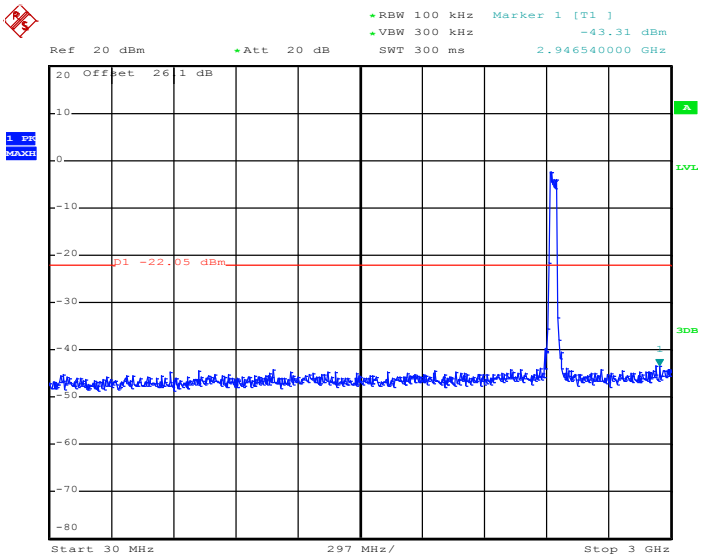
Conducted Spurious Emission Plot on Channel 06



Date: 20.SEP.2012 16:15:32

2.4G 802.11n HT40 30 MHz~3 GHz

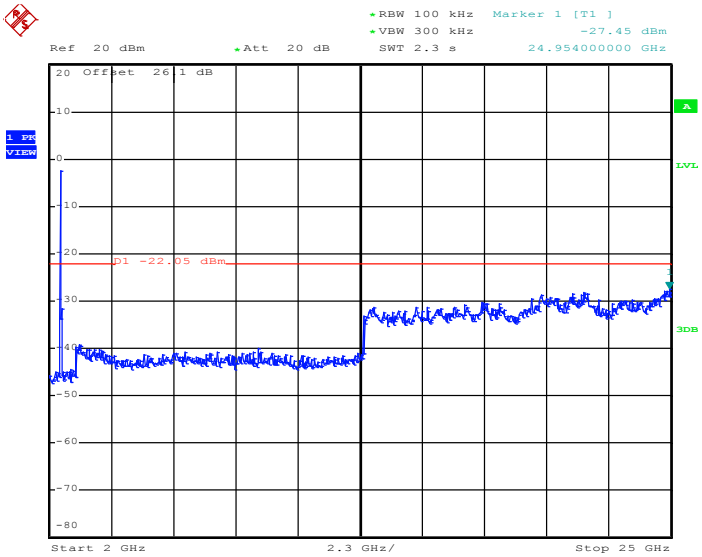
Conducted Spurious Emission Plot on Channel 09



Date: 28.SEP.2012 19:38:22

2.4G 802.11n HT40 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 09



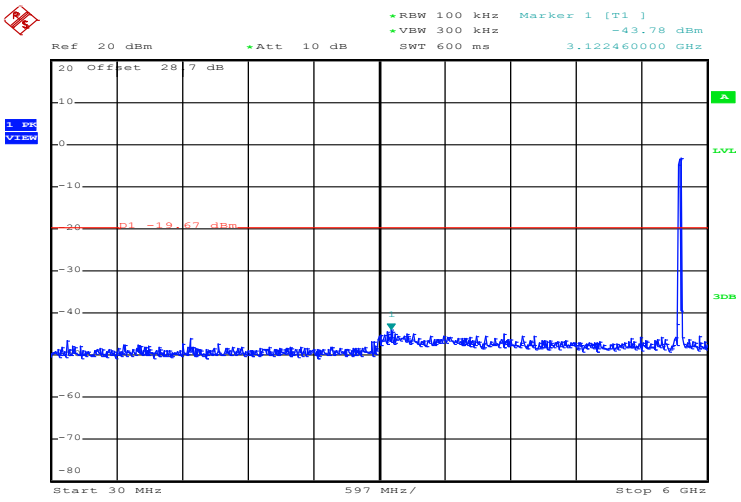
11 15C Spurious 802.11g_N40 2452 (ch09)

Date: 28.SEP.2012 19:37:56

Test Mode :	802.11a	Temperature :	24~26℃
Test Band :	30MHz-6GHz and 5G-40GHz	Relative Humidity :	50~53%
Test Channel :	149, 157, 165	Test Engineer :	Coyote Lin

802.11a 30 MHz~6 GHz

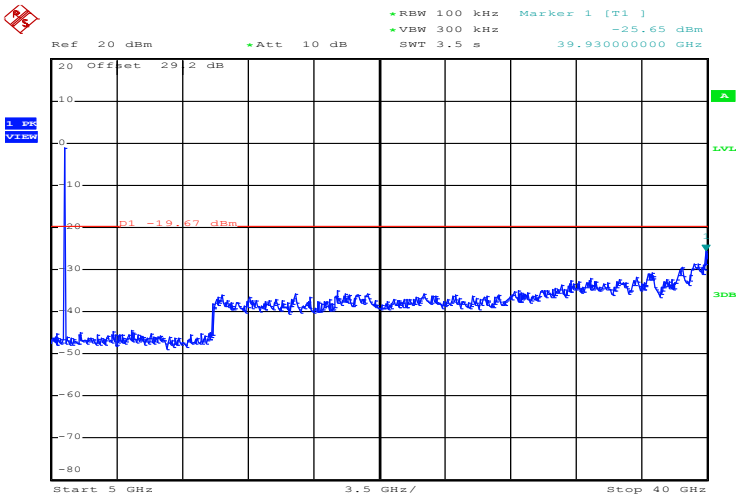
Conducted Spurious Emission Plot on Channel 149



Date: 20.SEP.2012 15:22:32

802.11a 5 GHz~40 GHz

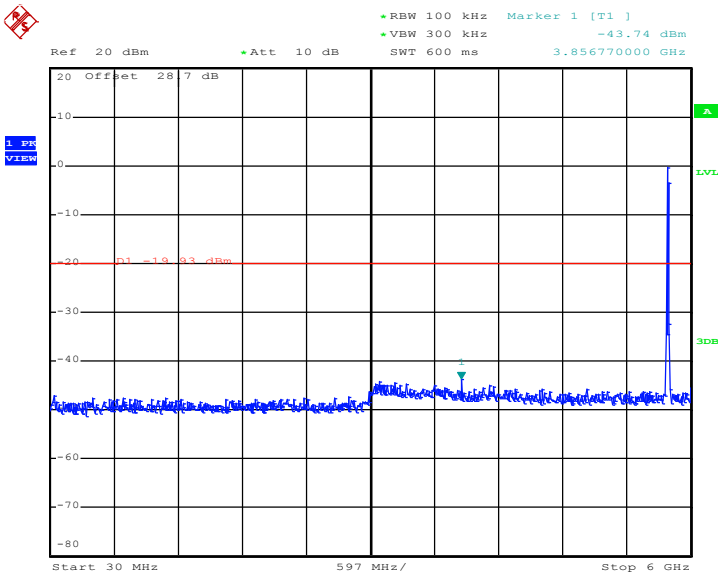
Conducted Spurious Emission Plot on Channel 149



Date: 20.SEP.2012 15:22:49

802.11a 30 MHz~6 GHz

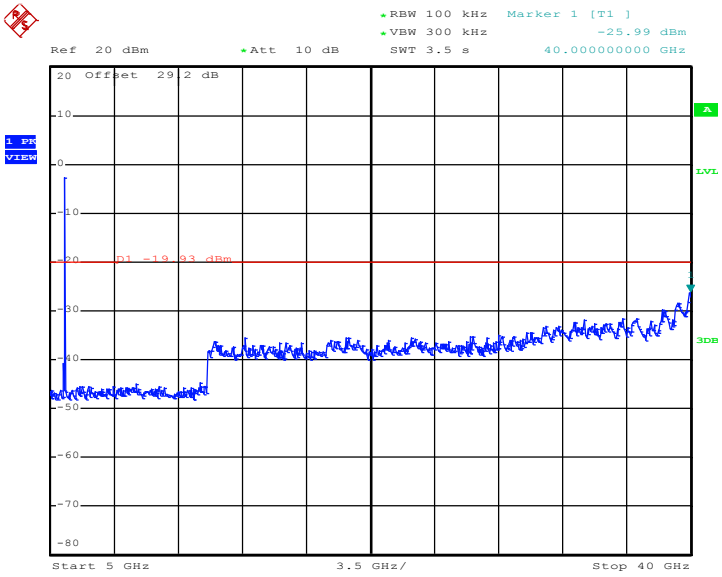
Conducted Spurious Emission Plot on Channel 157



Date: 20.SEP.2012 15:25:38

802.11a 5 GHz~40 GHz

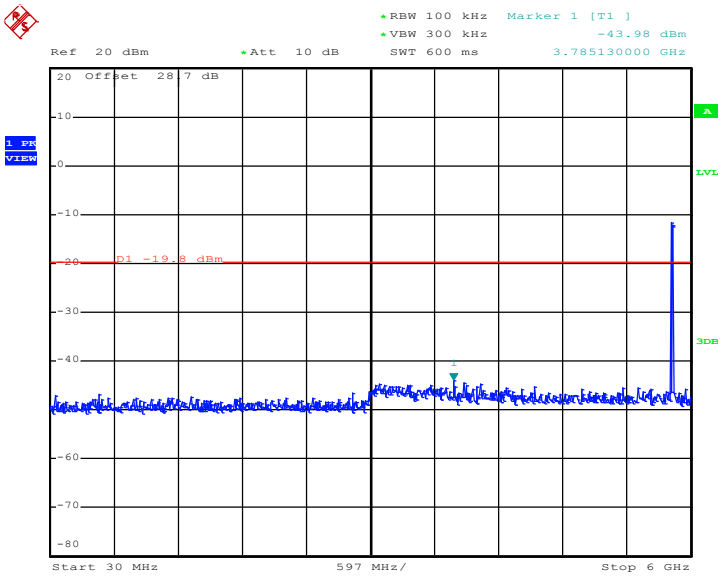
Conducted Spurious Emission Plot on Channel 157



Date: 20.SEP.2012 15:25:56

802.11a 30 MHz~6 GHz

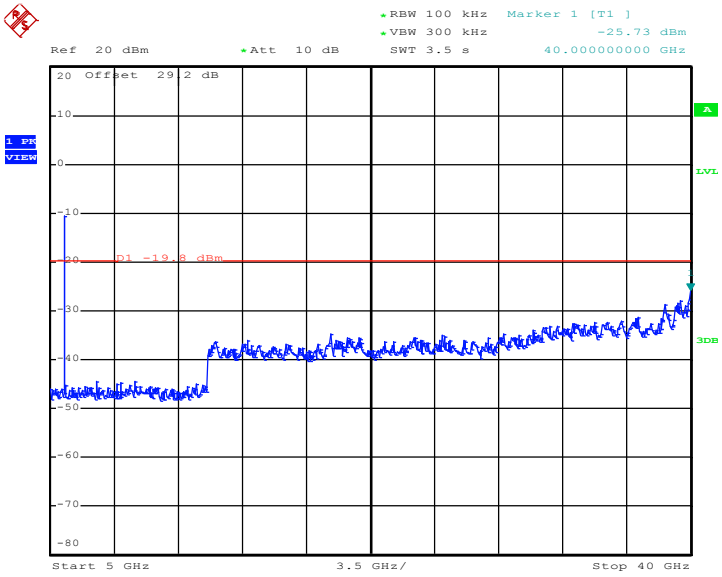
Conducted Spurious Emission Plot on Channel 165



Date: 20.SEP.2012 16:52:14

802.11a 5 GHz~40 GHz

Conducted Spurious Emission Plot on Channel 165

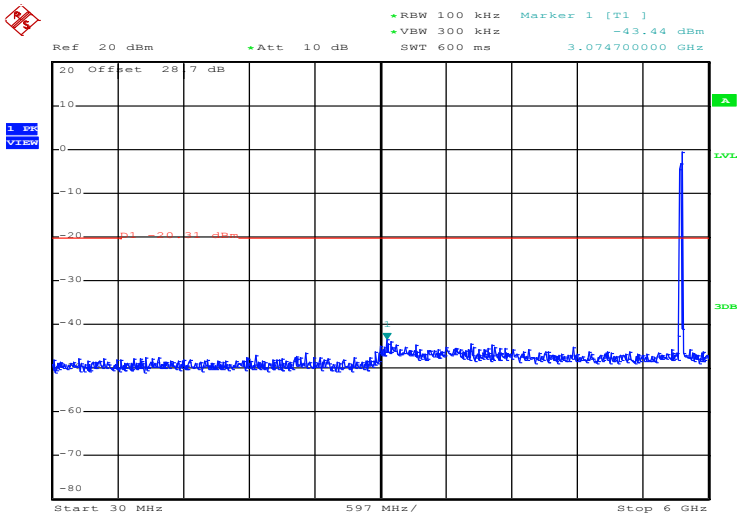


Date: 20.SEP.2012 16:52:33

Test Mode :	802.11n HT20	**Temperature :**	24~26℃
Test Band :	30MHz-6GHz and 5G-40GHz	**Relative Humidity :**	50~53%
Test Channel :	149, 157, 165	**Test Engineer :**	Coyote Lin

5G 802.11n HT20 30 MHz~6 GHz

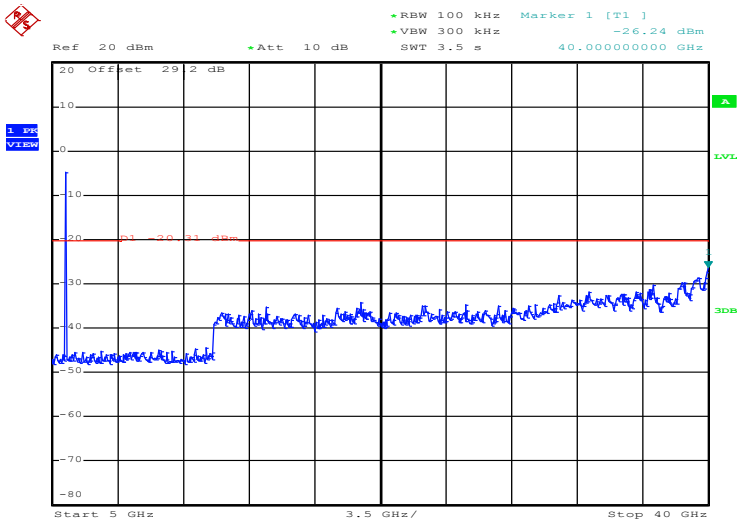
Conducted Spurious Emission Plot on Channel 149



Date: 20.SEP.2012 14:59:09

5G 802.11n HT20 5 GHz~40 GHz

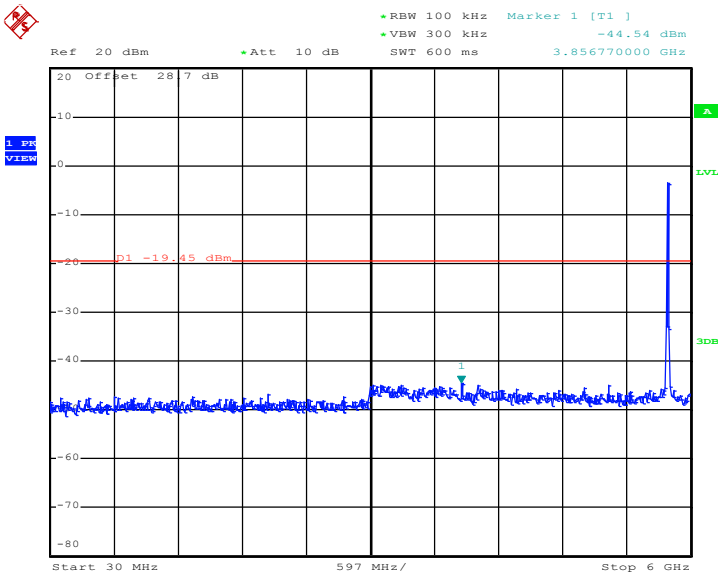
Conducted Spurious Emission Plot on Channel 149



Date: 20.SEP.2012 14:59:29

5G 802.11n HT20 30 MHz~6 GHz

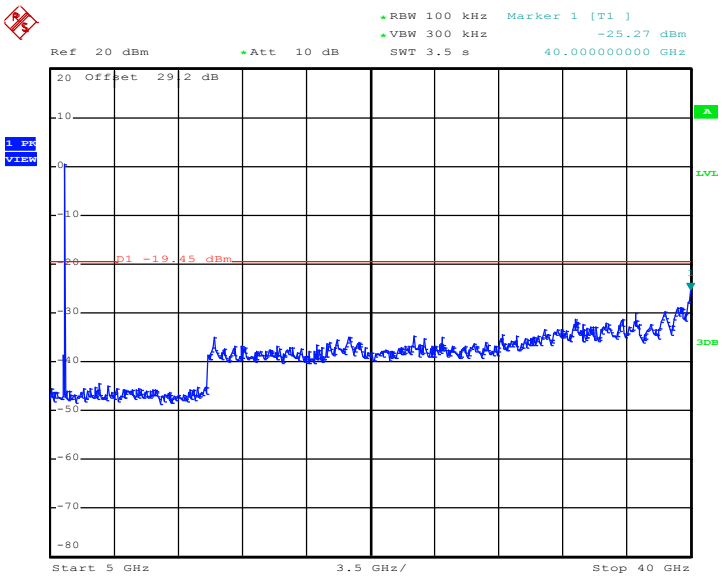
Conducted Spurious Emission Plot on Channel 157



Date: 20.SEP.2012 15:04:48

5G 802.11n HT20 5 GHz~40 GHz

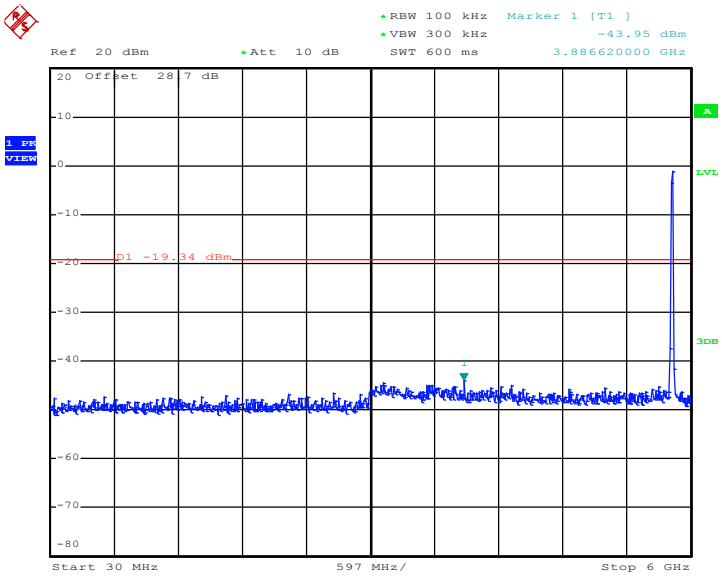
Conducted Spurious Emission Plot on Channel 157



Date: 20.SEP.2012 15:05:05

5G 802.11n HT20 30 MHz~6 GHz

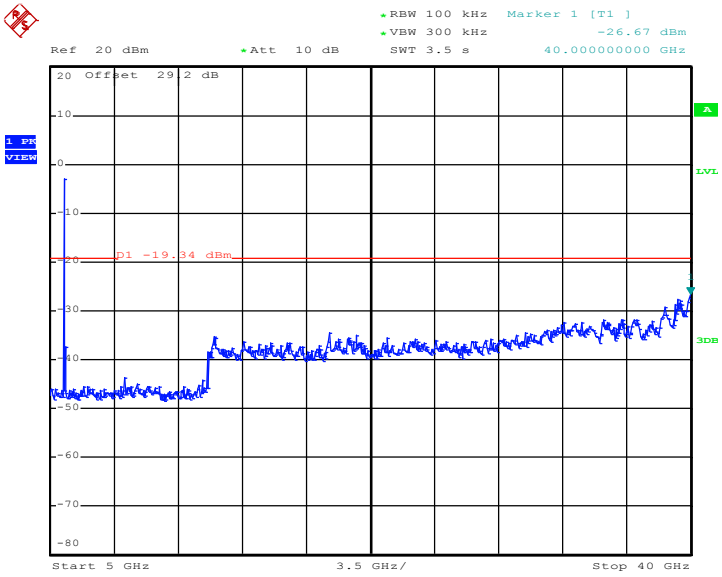
Conducted Spurious Emission Plot on Channel 165



Date: 20.SEP.2012 15:08:22

5G 802.11n HT20 5 GHz~40 GHz

Conducted Spurious Emission Plot on Channel 165

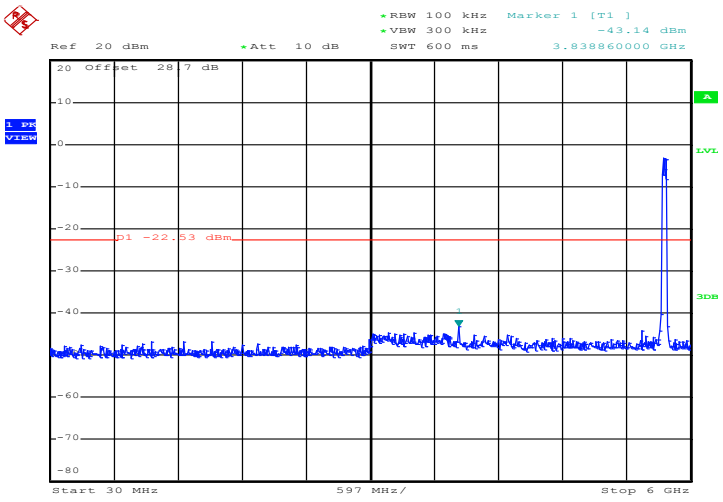


Date: 20.SEP.2012 15:08:40

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

5G 802.11n HT40 30 MHz~6 GHz

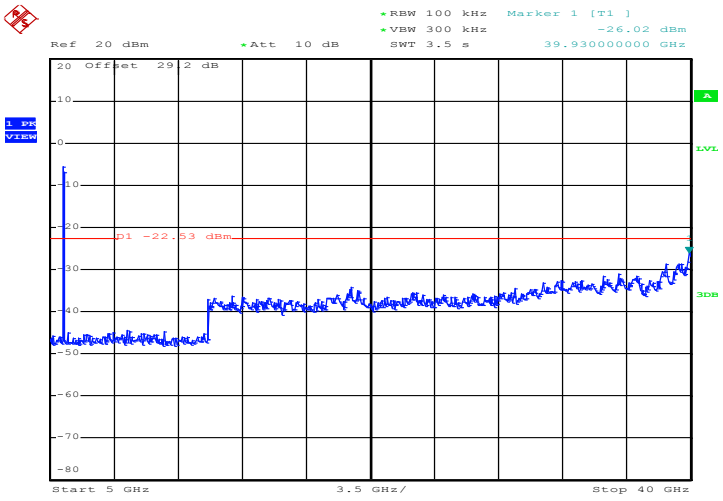
Conducted Spurious Emission Plot on Channel 151



Date: 20.SEP.2012 15:37:15

5G 802.11n HT40 5 GHz~40 GHz

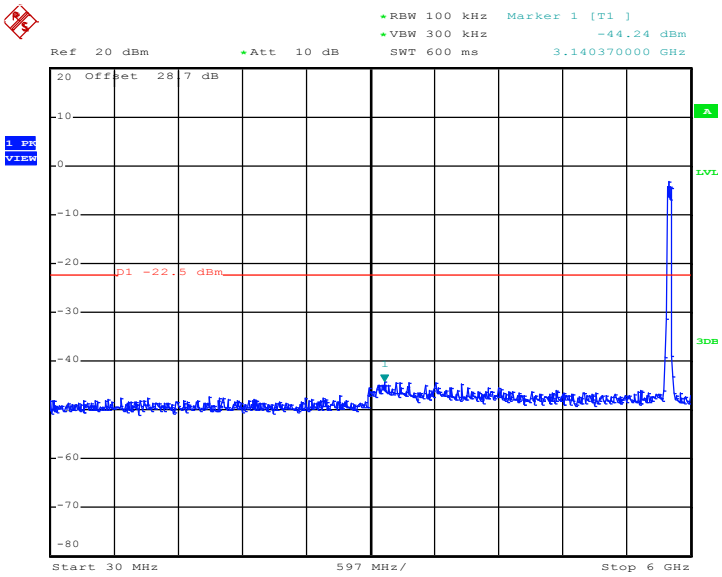
Conducted Spurious Emission Plot on Channel 151



Date: 20.SEP.2012 15:37:33

5G 802.11n HT40 30 MHz~6 GHz

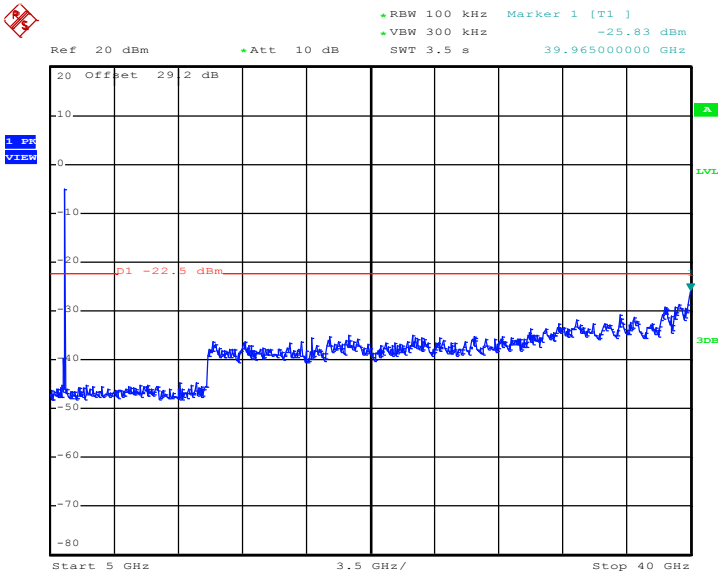
Conducted Spurious Emission Plot on Channel 159



Date: 20.SEP.2012 16:04:02

5G 802.11n HT40 5 MHz~40 GHz

Conducted Spurious Emission Plot on Channel 159



Date: 20.SEP.2012 16:04:20

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

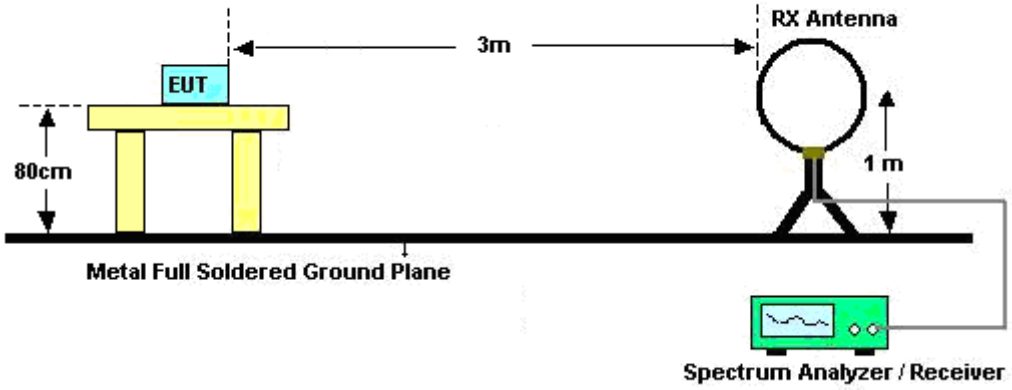
1. The testing follows the guidelines in ANSI C63. 10-2009
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better 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 ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 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(us)	1/T(KHz)	VBW Setting
802.11b	99.04	-	-	10Hz
802.11g	95.39	2.07	0.483	1KHz
2.4G 802.11n HT20	95.05	1.92	0.521	1KHz
2.4G 802.11n HT40	86.72	0.67	1.493	3KHz
802.11a	95.37	2.06	0.485	1KHz
5G 802.11n HT20	95.07	1.93	0.518	1KHz
5G 802.11n HT40	86.72	0.67	1.493	3KHz

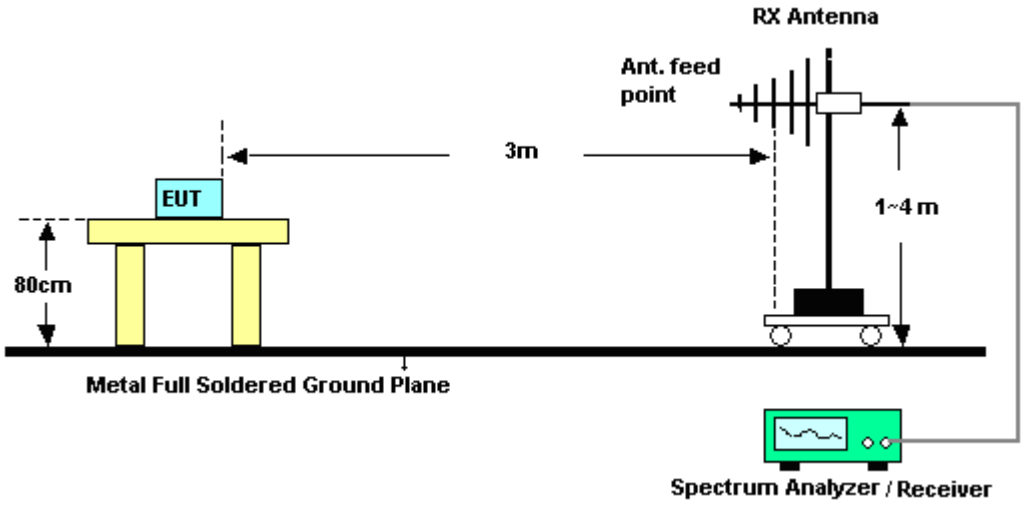
Note: For average measurement with duty cycle < 98%, use reduced VBW measurement method 4.2.3.2.3 in ANSI C63.10.

3.5.4 Test Setup

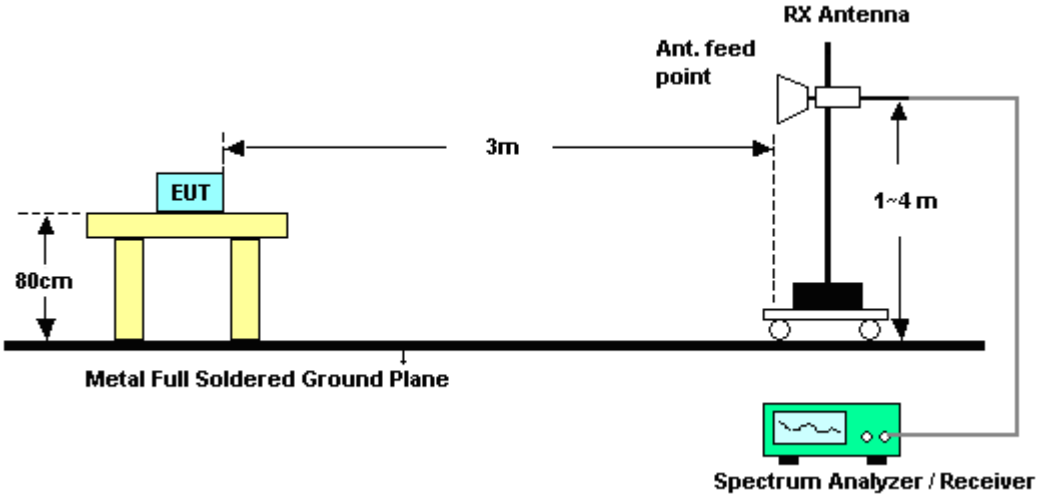
For radiated emissions below 30MHz



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

<Sample 1>

Test Mode :	802.11b	**Temperature :**	30~31°C
Test Band :	Low	**Relative Humidity :**	42~43%
Test Channel :	01	**Test Engineer :**	Kai Wang, Timberland Lin and Ivan Chiang

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
2386.86	59.3	-14.7	74	55.05	32.36	6.45	34.56	103	31	Peak
2388.57	46.65	-7.35	54	42.4	32.36	6.45	34.56	103	31	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
2388.12	55.5	-18.5	74	51.25	32.36	6.45	34.56	119	81	Peak
2388.66	44.58	-9.42	54	40.33	32.36	6.45	34.56	119	81	Average

Test Mode :	802.11b	**Temperature :**	30~31°C
Test Band :	High	**Relative Humidity :**	42~43%
Test Channel :	11	**Test Engineer :**	Kai Wang, Timberland Lin and Ivan Chiang

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
2485.02	58.94	-15.06	74	54.42	32.48	6.59	34.55	188	24	Peak
2485.4	46.78	-7.22	54	42.26	32.48	6.59	34.55	188	24	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
2487.52	54.91	-19.09	74	50.37	32.5	6.59	34.55	163	266	Peak
2487.6	41.4	-12.6	54	36.86	32.5	6.59	34.55	163	266	Average

Test Mode :	802.11g	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	01	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
2390	69.24	-4.76	74	64.99	32.36	6.45	34.56	100	32	Peak
2390	50.82	-3.18	54	46.57	32.36	6.45	34.56	100	32	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	62.17	-11.83	74	57.92	32.36	6.45	34.56	120	94	Peak
2390	47.32	-6.68	54	43.07	32.36	6.45	34.56	120	94	Average

Test Mode :	802.11g	Temperature :	30~31°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	11	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
2483.66	62.89	-11.11	74	58.37	32.48	6.59	34.55	189	17	Peak
2483.5	51.46	-2.54	54	46.94	32.48	6.59	34.55	189	17	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
2484.28	61.95	-12.05	74	57.43	32.48	6.59	34.55	113	71	Peak
2483.5	46.92	-7.08	54	42.4	32.48	6.59	34.55	113	71	Average

Test Mode :	802.11n HT20	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	01	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
2390	63.77	-10.23	74	59.52	32.36	6.45	34.56	104	64	Peak
2390	50.82	-3.18	54	46.57	32.36	6.45	34.56	104	64	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
2389.38	61.65	-12.35	74	57.4	32.36	6.45	34.56	100	52	Peak
2390	49.6	-4.4	54	45.35	32.36	6.45	34.56	100	52	Average

Test Mode :	802.11n HT20	Temperature :	30~31°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	11	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
2483.5	62.97	-11.03	74	58.45	32.48	6.59	34.55	100	62	Peak
2483.5	49.67	-4.33	54	45.15	32.48	6.59	34.55	100	62	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
2483.5	58.34	-15.66	74	53.82	32.48	6.59	34.55	114	120	Peak
2483.5	46.77	-7.23	54	42.25	32.48	6.59	34.55	114	120	Average

Test Mode :	802.11n HT40	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	03	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
2390.01	65.81	-8.19	74	61.56	32.36	6.45	34.56	131	40	Peak
2389.2	52.72	-1.28	54	48.47	32.36	6.45	34.56	131	40	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
2389.83	58.05	-15.95	74	53.8	32.36	6.45	34.56	119	47	Peak
2388.39	47.86	-6.14	54	43.61	32.36	6.45	34.56	119	47	Average

Test Mode :	802.11n HT40	Temperature :	30~31°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	09	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
2484.02	65.65	-8.35	74	61.13	32.48	6.59	34.55	188	34	Peak
2483.5	53.11	-0.89	54	48.59	32.48	6.59	34.55	188	34	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
2483.5	58.93	-15.07	74	54.41	32.48	6.59	34.55	100	59	Peak
2483.5	44.87	-9.13	54	40.35	32.48	6.59	34.55	100	59	Average

Test Mode :	802.11a	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	149	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
5745	95.22	-	-	82.23	35.44	11.39	33.84	101	307	Average
5745	104.58	-	-	91.64	35.44	11.34	33.84	101	307	Peak
5725	61.58	-23	84.58	48.67	35.41	11.34	33.84	101	307	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
5745	91.81	-	-	78.82	35.44	11.39	33.84	116	87	Average
5745	101.08	-	-	88.09	35.44	11.39	33.84	116	87	Peak
5725	58.46	-22.62	81.08	45.55	35.41	11.34	33.84	116	87	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	165	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
5825	93.58	-	-	80.35	35.56	11.51	33.84	100	37	Average
5825	103.31	-	-	90.08	35.56	11.51	33.84	100	37	Peak
5850	56.27	-27.04	83.31	42.97	35.58	11.56	33.84	100	37	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
5825	89.58	-	-	76.35	35.56	11.51	33.84	124	267	Average
5825	99.12	-	-	85.89	35.56	11.51	33.84	124	267	Peak
5850	53.32	-25.8	79.12	40.02	35.58	11.56	33.84	124	267	Peak

Test Mode :	802.11n HT20	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	149	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
5745	95.12	-	-	82.13	35.44	11.39	33.84	102	38	Average
5745	104.37	-	-	91.36	35.46	11.39	33.84	102	38	Peak
5725	63.49	-20.88	84.37	50.58	35.41	11.34	33.84	102	38	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
5745	91.33	-	-	78.34	35.44	11.39	33.84	114	274	Average
5745	100.37	-	-	87.36	35.46	11.39	33.84	114	274	Peak
5725	59.46	-20.91	80.37	46.55	35.41	11.34	33.84	114	274	Peak

Test Mode :	802.11n HT20	Temperature :	30~31°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	165	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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
5825	94.32	-	-	81.09	35.56	11.51	33.84	100	307	Average
5825	103.46	-	-	90.23	35.56	11.51	33.84	100	307	Peak
5850	57.86	-25.6	83.46	44.56	35.58	11.56	33.84	100	307	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
5825	91.21	-	-	77.98	35.56	11.51	33.84	198	272	Average
5825	100.3	-	-	87.07	35.56	11.51	33.84	198	272	Peak
5850	54.96	-25.34	80.3	41.66	35.58	11.56	33.84	198	272	Peak

Test Mode :	802.11n HT40	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	151	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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	65.8	-14.34	80.14	52.89	35.41	11.34	33.84	110	304	Peak
5755	91.66	-	-	78.65	35.46	11.39	33.84	110	304	Average
5755	100.14	-	-	87.13	35.46	11.39	33.84	110	304	Peak
5850	50.73	-29.41	80.14	37.43	35.58	11.56	33.84	110	304	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
5725	58.8	-16.55	75.35	45.89	35.41	11.34	33.84	100	281	Peak
5755	86.57	-	-	73.56	35.46	11.39	33.84	100	281	Average
5755	95.35	-	-	82.34	35.46	11.39	33.84	100	281	Peak
5850	50.67	-24.68	75.35	37.37	35.58	11.56	33.84	100	281	Peak

Test Mode :	802.11n HT40	Temperature :	30~31°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	159	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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	52.55	-27.28	79.83	39.64	35.41	11.34	33.84	100	306	Peak
5795	91.01	-	-	77.87	35.51	11.47	33.84	100	306	Average
5795	99.83	-	-	86.69	35.51	11.47	33.84	100	306	Peak
5850	51.61	-28.22	79.83	38.31	35.58	11.56	33.84	100	306	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
5725	54.72	-22.13	76.85	41.81	35.41	11.34	33.84	112	276	Peak
5795	87.94	-	-	74.8	35.51	11.47	33.84	112	276	Average
5795	96.85	-	-	83.71	35.51	11.47	33.84	112	276	Peak
5850	50.35	-26.5	76.85	37.05	35.58	11.56	33.84	112	276	Peak

<Sample 2>

Test Mode :	802.11n HT40	**Temperature :**	30~31°C
Test Band :	High	**Relative Humidity :**	42~43%
Test Channel :	09	**Test Engineer :**	Kai Wang, Timberland Lin and Ivan Chiang

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
2483.68	69.07	-4.93	74	64.55	32.48	6.59	34.55	191	16	Peak
2483.5	52.68	-1.32	54	48.16	32.48	6.59	34.55	191	16	Average

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	53.94	-20.06	74	49.69	32.36	6.45	34.56	191	16	Peak
2389.83	43.29	-10.71	54	39.04	32.36	6.45	34.56	191	16	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
2487.98	60.74	-13.26	74	56.2	32.5	6.59	34.55	169	107	Peak
2483.5	44.61	-9.39	54	40.09	32.48	6.59	34.55	169	107	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
2381.64	51.72	-22.28	74	47.5	32.33	6.45	34.56	169	107	Peak
2389.38	40.57	-13.43	54	36.32	32.36	6.45	34.56	169	107	Average

Test Mode :	802.11n HT40	Temperature :	30~31°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	151	Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang

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	70.97	-13.37	84.34	58.06	35.41	11.34	33.84	100	35	Peak
5755	95.14	-	-	82.13	35.46	11.39	33.84	100	35	Average
5755	104.34	-	-	91.4	35.44	11.34	33.84	100	35	Peak
5850	54.51	-29.83	84.34	41.21	35.58	11.56	33.84	100	35	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
5725	66.05	-12.74	78.79	53.14	35.41	11.34	33.84	102	106	Peak
5755	89.06	-	-	76.05	35.46	11.39	33.84	102	106	Average
5755	98.79	-	-	85.8	35.44	11.39	33.84	102	106	Peak
5850	53.39	-25.4	78.79	40.09	35.58	11.56	33.84	102	106	Peak

3.5.7 Test Result of Radiated Emission (30MHz ~ 10th Harmonic)

<Sample 1>

Test Mode :	802.11b	**Temperature :**	30~31°C
Test Channel :	01	**Relative Humidity :**	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	**Polarization :**	Horizontal
Remark :	1. 2412 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
2412	108.01	-	-	103.7	32.38	6.49	34.56	103	31	Average
2412	112.15	-	-	107.84	32.38	6.49	34.56	103	31	Peak
3618	49.23	-24.77	74	62.01	33.27	8.24	54.29	200	0	Peak
4524	49.92	-24.08	74	59.89	34.99	10.07	55.03	200	0	Peak

Test Mode :	802.11b	**Temperature :**	30~31°C
Test Channel :	01	**Relative Humidity :**	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	**Polarization :**	Vertical
Remark :	1. 2412 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
2412	108.95	-	-	104.64	32.38	6.49	34.56	119	81	Peak
2412	106.16	-	-	101.85	32.38	6.49	34.56	119	81	Average
3618	47.21	-26.79	74	59.99	33.27	8.24	54.29	100	0	Peak

Test Mode :	802.11b	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	111.04	-	-	106.65	32.43	6.52	34.56	102	20	Average
2437	114.44	-	-	110.05	32.43	6.52	34.56	102	20	Peak
3654	49.99	-24.01	74	62.69	33.32	8.33	54.35	100	360	Peak
4857	50.01	-23.99	74	60.62	34.86	10.18	55.65	100	360	Peak

Test Mode :	802.11b	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	106.16	-	-	101.77	32.43	6.52	34.56	100	105	Average
2437	109.45	-	-	105.06	32.43	6.52	34.56	100	105	Peak
3654	48	-26	74	60.7	33.32	8.33	54.35	100	0	Peak

Test Mode :	802.11b	Temperature :	30~31°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	108.05	-	-	103.6	32.45	6.56	34.56	188	24	Average
2462	112.45	-	-	108	32.45	6.56	34.56	188	24	Peak
3693	49.41	-24.59	74	62.07	33.37	8.37	54.4	100	360	Peak
4392	49.77	-24.23	74	60.2	34.76	9.79	54.98	100	360	Peak

Test Mode :	802.11b	Temperature :	30~31°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	105.33	-	-	100.88	32.45	6.56	34.56	163	266	Average
2462	108.67	-	-	104.22	32.45	6.56	34.56	163	266	Peak
3693	47.76	-26.24	74	60.42	33.37	8.37	54.4	100	0	Peak

Test Mode :	802.11g	Temperature :	30~31°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 2412 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
2412	99.06	-	-	94.75	32.38	6.49	34.56	100	32	Average
2412	108.51	-	-	104.2	32.38	6.49	34.56	100	32	Peak
3618	48.39	-25.61	74	61.17	33.27	8.24	54.29	100	360	Peak
4263	49.45	-24.55	74	60.44	34.44	9.52	54.95	100	360	Peak

Test Mode :	802.11g	Temperature :	30~31°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 2412 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
2412	96.08	-	-	91.77	32.38	6.49	34.56	120	94	Average
2412	105.09	-	-	100.78	32.38	6.49	34.56	120	94	Peak
3618	47.87	-26.13	74	60.65	33.27	8.24	54.29	100	0	Peak

Test Mode :	802.11g	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31		

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	98.88	-	-	94.49	32.43	6.52	34.56	100	31	Average
2437	108.35	-	-	103.96	32.43	6.52	34.56	100	31	Peak

Test Mode :	802.11g	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 2437 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31		

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	95.41	-	-	91.02	32.43	6.52	34.56	100	44	Average
2437	105.24	-	-	100.85	32.43	6.52	34.56	100	44	Peak

Test Mode :	802.11g	Temperature :	30~31°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	100.56	-	-	96.11	32.45	6.56	34.56	189	17	Average
2462	109.52	-	-	105.07	32.45	6.56	34.56	189	17	Peak
3693	49.5	-24.5	74	62.16	33.37	8.37	54.4	-	-	Peak
4924	48.18	-25.82	74	58.92	34.83	10.21	55.78	100	0	Peak

Test Mode :	802.11g	Temperature :	30~31°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	97.54	-	-	93.09	32.45	6.56	34.56	113	71	Average
2462	106.73	-	-	102.27	32.45	6.56	34.55	113	71	Peak
3693	47.37	-26.63	74	60.03	33.37	8.37	54.4	100	0	Peak
4924	47.7	-26.3	74	58.44	34.83	10.21	55.78	100	0	Peak

Test Mode :	2.4G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 2412 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
2412	96.51	-	-	92.2	32.38	6.49	34.56	104	64	Average
2412	106.08	-	-	101.77	32.38	6.49	34.56	104	64	Peak
3618	48.68	-25.32	74	61.46	33.27	8.24	54.29	100	0	Peak

Test Mode :	2.4G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 2412 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
2412	94.05	-	-	89.72	32.4	6.49	34.56	100	52	Average
2412	103.31	-	-	98.98	32.4	6.49	34.56	100	52	Peak
3618	47.21	-26.79	74	59.99	33.27	8.24	54.29	100	0	Peak

Test Mode :	2.4G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	96.43	-	-	92.04	32.43	6.52	34.56	103	56	Average
2437	105.77	-	-	101.38	32.43	6.52	34.56	103	56	Peak
3654	50.43	-23.57	74	63.13	33.32	8.33	54.35	100	0	Peak

Test Mode :	2.4G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	93.42	-	-	89.03	32.43	6.52	34.56	100	107	Average
2437	103.58	-	-	99.19	32.43	6.52	34.56	100	107	Peak
3654	47.17	-26.83	74	59.87	33.32	8.33	54.35	100	0	Peak

Test Mode :	2.4G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	96.96	-	-	92.51	32.45	6.56	34.56	100	62	Average
2462	105.89	-	-	101.44	32.45	6.56	34.56	100	62	Peak
3693	50.17	-23.83	74	62.83	33.37	8.37	54.4	100	0	Peak

Test Mode :	2.4G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	94.18	-	-	89.72	32.45	6.56	34.55	114	120	Average
2462	103.4	-	-	98.94	32.45	6.56	34.55	114	120	Peak
3693	47.48	-26.52	74	60.14	33.37	8.37	54.4	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	03	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	96.32	-	-	91.93	32.43	6.52	34.56	102	12	Average
2422	105.73	-	-	101.34	32.43	6.52	34.56	102	12	Peak
3633	49.21	-24.79	74	61.95	33.29	8.29	54.32	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	03	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	92.53	-	-	88.14	32.43	6.52	34.56	116	47	Average
2422	101.06	-	-	96.67	32.43	6.52	34.56	116	47	Peak
3633	47.72	-26.28	74	60.46	33.29	8.29	54.32	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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	97.31	-	-	92.92	32.43	6.52	34.56	196	24	Average
2437	106.18	-	-	101.82	32.4	6.52	34.56	196	24	Peak
3654	48.78	-25.22	74	61.48	33.32	8.33	54.35	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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	93.74	-	-	89.35	32.43	6.52	34.56	116	62	Average
2437	102.7	-	-	98.31	32.43	6.52	34.56	116	62	Peak
3654	47.69	-26.31	74	60.39	33.32	8.33	54.35	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	09	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	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
40.26	21.83	-18.17	40	40.47	12.12	0.74	31.5	-	-	Peak
138.54	26.93	-16.57	43.5	45.73	11.18	1.31	31.29	-	-	Peak
215.76	26.98	-16.52	43.5	47.47	9.02	1.61	31.12	100	113	Peak
562.5	22.16	-23.84	46	31.99	18.87	2.6	31.3	-	-	Peak
707.4	23.44	-22.56	46	33.27	19.07	2.91	31.81	-	-	Peak
919.5	25.22	-20.78	46	32.1	20.7	3.36	30.94	-	-	Peak
2452	96.89	-	-	92.5	32.43	6.52	34.56	131	52	Average
2452	105.77	-	-	101.41	32.4	6.52	34.56	131	52	Peak
3678	49.49	-24.51	74	62.15	33.37	8.37	54.4	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	09	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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
30	32.83	-7.17	40	44.94	18.8	0.64	31.55	104	263	Peak
51.6	32.57	-7.43	40	55.39	8.1	0.81	31.73	-	-	Peak
115.86	25.52	-17.98	43.5	43.78	11.82	1.19	31.27	-	-	Peak
569.5	22.09	-23.91	46	32.08	18.81	2.63	31.43	-	-	Peak
727	22.81	-23.19	46	31.67	19.52	2.98	31.36	-	-	Peak
877.5	24.36	-21.64	46	31.59	20.58	3.31	31.12	-	-	Peak
2452	92.74	-	-	88.35	32.43	6.52	34.56	100	51	Average
2452	101.97	-	-	97.58	32.43	6.52	34.56	100	51	Peak
3678	47.72	-26.28	74	60.38	33.37	8.37	54.4	100	0	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5745 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5745	95.22	-	-	82.23	35.44	11.39	33.84	101	307	Average
5745	104.58	-	-	91.64	35.44	11.34	33.84	101	307	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5745 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5745	91.81	-	-	78.82	35.44	11.39	33.84	116	87	Average
5745	101.08	-	-	88.09	35.44	11.39	33.84	116	87	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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	94.36	-	-	81.28	35.49	11.43	33.84	101	36	Average
5785	104.29	-	-	91.21	35.49	11.43	33.84	101	36	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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	90.72	-	-	77.64	35.49	11.43	33.84	121	248	Average
5785	100.27	-	-	87.13	35.51	11.47	33.84	121	248	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5825 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5825	93.58	-	-	80.35	35.56	11.51	33.84	100	37	Average
5825	103.31	-	-	90.08	35.56	11.51	33.84	100	37	Peak

Test Mode :	802.11a	Temperature :	30~31°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5825 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5825	89.58	-	-	76.35	35.56	11.51	33.84	124	267	Average
5825	99.12	-	-	85.89	35.56	11.51	33.84	124	267	Peak

Test Mode :	5G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5745 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5745	95.12	-	-	82.13	35.44	11.39	33.84	102	38	Average
5745	104.37	-	-	91.36	35.46	11.39	33.84	102	38	Peak

Test Mode :	5G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5745 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5745	91.33	-	-	78.34	35.44	11.39	33.84	114	274	Average
5745	100.37	-	-	87.36	35.46	11.39	33.84	114	274	Peak

Test Mode :	5G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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	94.41	-	-	81.33	35.49	11.43	33.84	112	297	Average
5785	103.65	-	-	90.57	35.49	11.43	33.84	112	297	Peak

Test Mode :	5G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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	91.24	-	-	78.16	35.49	11.43	33.84	200	271	Average
5785	100.3	-	-	87.22	35.49	11.43	33.84	200	271	Peak

Test Mode :	5G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5825 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5825	94.32	-	-	81.09	35.56	11.51	33.84	100	307	Average
5825	103.46	-	-	90.23	35.56	11.51	33.84	100	307	Peak

Test Mode :	5G 802.11n-HT20	Temperature :	30~31°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5825 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
5825	91.21	-	-	77.98	35.56	11.51	33.84	198	272	Average
5825	100.3	-	-	87.07	35.56	11.51	33.84	198	272	Peak

Test Mode :	5G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	151	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5755 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
52.95	24.14	-15.86	40	47.51	7.5	0.82	31.69	-	-	Peak
121.8	29.43	-14.07	43.5	48.05	11.86	1.23	31.71	-	-	Peak
211.44	30.48	-13.02	43.5	51.61	8.92	1.58	31.63	100	132	Peak
359.5	17.55	-28.45	46	32.41	14.6	2.1	31.56	-	-	Peak
616.4	21.93	-24.07	46	32.19	19.04	2.78	32.08	-	-	Peak
888	24	-22	46	31.65	20.68	3.34	31.67	-	-	Peak
5755	91.66	-	-	78.65	35.46	11.39	33.84	110	304	Average
5755	100.14	-	-	87.13	35.46	11.39	33.84	110	304	Peak

Test Mode :	5G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	151	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5755 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
30.27	34.35	-5.65	40	46.63	18.8	0.64	31.72	100	139	Peak
48.36	33.74	-6.26	40	55.79	8.87	0.79	31.71	-	-	Peak
97.23	29.03	-14.47	43.5	49.13	10.48	1.09	31.67	-	-	Peak
427.4	18.96	-27.04	46	32.03	16.5	2.26	31.83	-	-	Peak
650	22.43	-23.57	46	32.4	19.2	2.8	31.97	-	-	Peak
877.5	24.36	-21.64	46	32.21	20.58	3.31	31.74	-	-	Peak
5755	86.57	-	-	73.56	35.46	11.39	33.84	100	281	Average
5755	95.35	-	-	82.34	35.46	11.39	33.84	100	281	Peak

Test Mode :	5G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	159	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5795 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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	91.01	-	-	77.87	35.51	11.47	33.84	100	306	Average
5795	99.83	-	-	86.69	35.51	11.47	33.84	100	306	Peak

Test Mode :	5G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	159	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5795 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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	87.94	-	-	74.8	35.51	11.47	33.84	112	276	Average
5795	96.85	-	-	83.71	35.51	11.47	33.84	112	276	Peak

<Sample 2>

Test Mode :	2.4G 802.11n-HT40	**Temperature :**	30~31°C
Test Channel :	09	**Relative Humidity :**	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	**Polarization :**	Horizontal
Remark :	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
40.26	29.83	-10.17	40	48.47	12.12	0.74	31.5	-	-	Peak
137.73	36.87	-6.63	43.5	55.6	11.26	1.3	31.29	100	245	Peak
208.2	36.69	-6.81	43.5	57.43	8.97	1.56	31.27	-	-	Peak
311.9	17.56	-28.44	46	33.37	13.52	1.94	31.27	-	-	Peak
675.9	21.64	-24.36	46	31.22	19.1	2.85	31.53	-	-	Peak
957.3	24.68	-21.32	46	30.45	20.97	3.35	30.09	-	-	Peak
2452	96.76	-	-	92.37	32.43	6.52	34.56	191	16	Average
2452	105.59	-	-	101.23	32.4	6.52	34.56	191	16	Peak
3678	50.29	-23.71	74	62.95	33.37	8.37	54.4	100	0	Peak

Test Mode :	2.4G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	09	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	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
46.2	33.58	-6.42	40	55.04	9.33	0.77	31.56	100	134	Peak
71.85	33.39	-6.61	40	57.35	6.48	0.95	31.39	-	-	Peak
108.84	27.75	-15.75	43.5	46.13	11.76	1.14	31.28	-	-	Peak
306.3	14.79	-31.21	46	30.94	13.39	1.93	31.47	-	-	Peak
617.8	21.04	-24.96	46	30.88	19.06	2.78	31.68	-	-	Peak
927.2	23.89	-22.11	46	30.53	20.7	3.36	30.7	-	-	Peak
2452	92.12	-	-	87.73	32.43	6.52	34.56	169	107	Average
2452	101.34	-	-	96.98	32.4	6.52	34.56	169	107	Peak
3678	48.3	-25.7	74	60.96	33.37	8.37	54.4	100	0	Peak

Test Mode :	5G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	151	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5755 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
43.5	30.52	-9.48	40	50.88	10.38	0.76	31.5	100	128	Peak
144.75	30.88	-12.62	43.5	50.06	10.77	1.32	31.27	-	-	Peak
215.76	32.98	-10.52	43.5	53.47	9.02	1.61	31.12	-	-	Peak
323.1	16.22	-29.78	46	31.55	13.63	1.97	30.93	-	-	Peak
510	19	-27	46	30.61	17.7	2.5	31.81	-	-	Peak
871.2	23.33	-22.67	46	30.54	20.51	3.29	31.01	-	-	Peak
5755	95.14	-	-	82.13	35.46	11.39	33.84	100	35	Average
5755	104.34	-	-	91.4	35.44	11.34	33.84	100	35	Peak

Test Mode :	5G 802.11n-HT40	Temperature :	30~31°C
Test Channel :	151	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Timberland Lin and Ivan Chiang	Polarization :	Vertical
Remark :	1. 5755 MHz is fundamental signal which can be ignored. 2. Test result of emissions which are 20 dB lower than the limit is not reported per15.31.		

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
32.16	32.58	-7.42	40	46.21	17.24	0.66	31.53	-	-	Peak
48.63	33.21	-6.79	40	55.22	8.87	0.79	31.67	100	214	Peak
118.56	28.6	-14.9	43.5	46.81	11.86	1.21	31.28	-	-	Peak
401.5	17.25	-28.75	46	30.9	15.97	2.19	31.81	-	-	Peak
624.1	20.89	-25.11	46	30.53	19.14	2.78	31.56	-	-	Peak
823.6	23.26	-22.74	46	31.32	20.14	3.14	31.34	-	-	Peak
5755	89.06	-	-	76.05	35.46	11.39	33.84	102	106	Average
5755	98.79	-	-	85.8	35.44	11.39	33.84	102	106	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 (dBuV)	
	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.

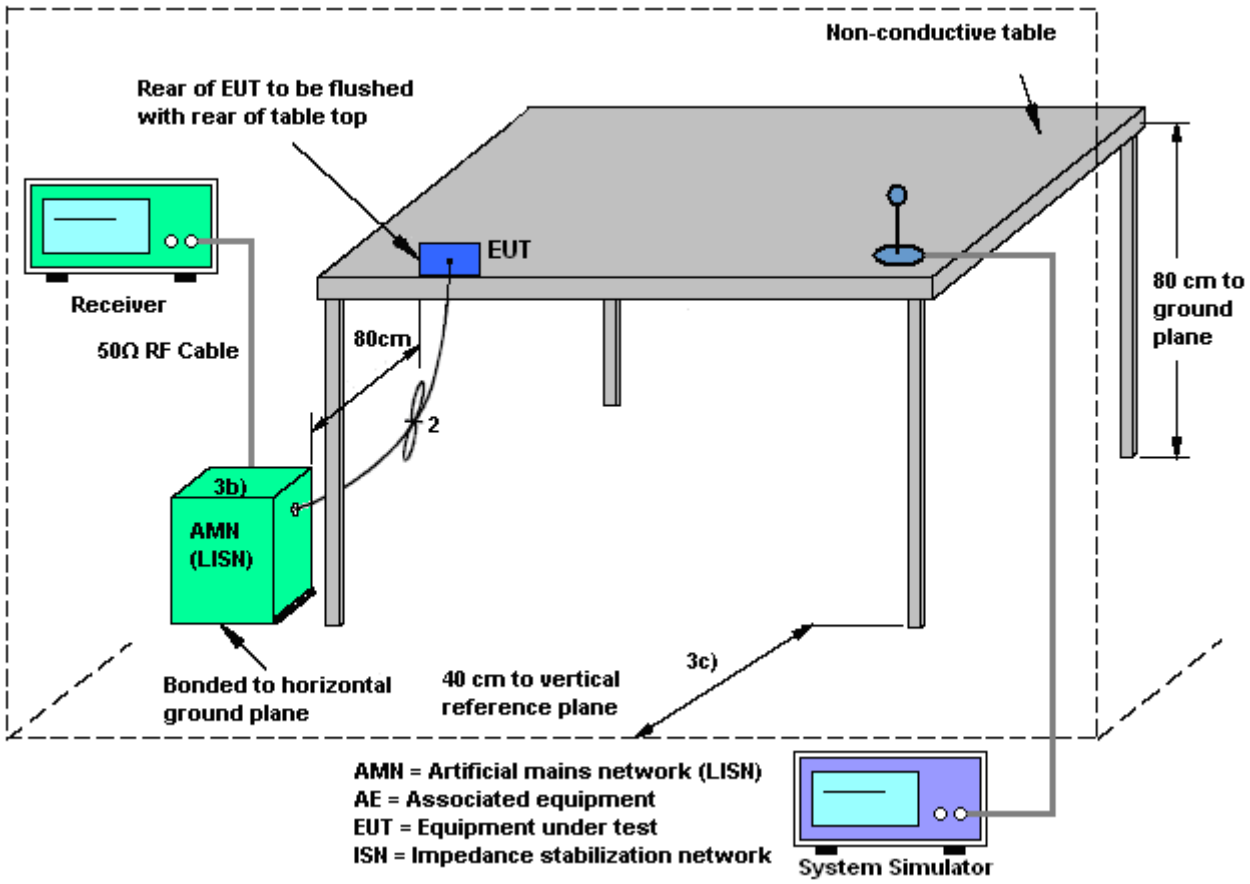
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

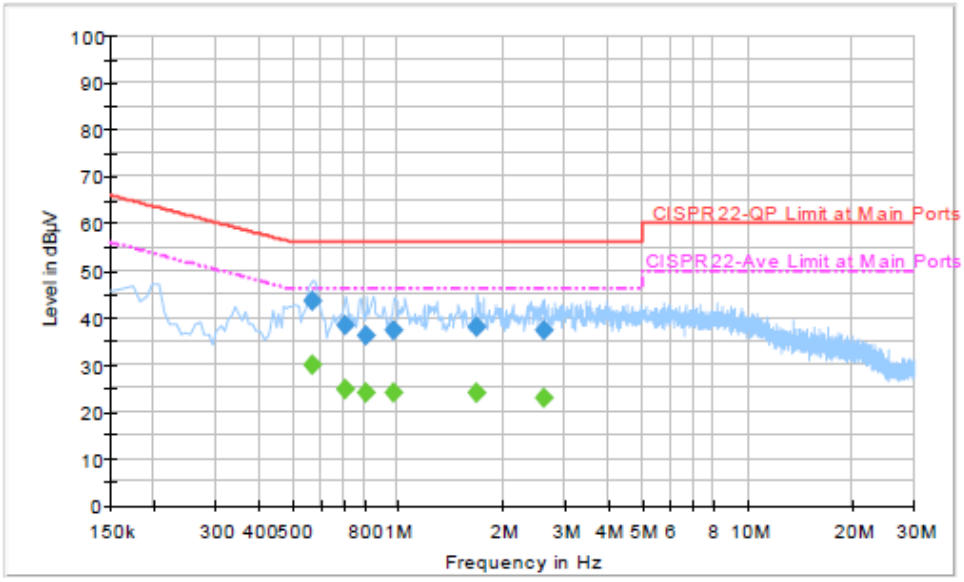
1. The testing follows the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance 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 2	**Temperature :**	20~21℃
Test Engineer :	Kai-Chun Chu	**Relative Humidity :**	46~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	CDMA2000 BC15 Idle + Bluetooth Link + WLAN (2.4G) Link + MPEG4 + Earphone 1 + Battery 1 + USB Cable 1 (Charging from Adapter 1) for Sample 2		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



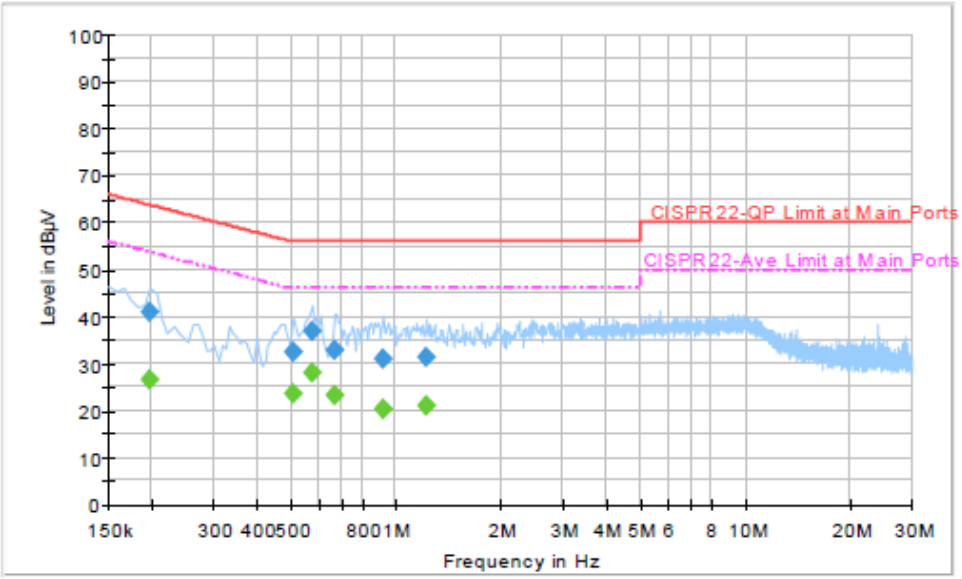
Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.566000	43.5	Off	L1	19.4	12.5	56.0
0.710000	38.4	Off	L1	19.5	17.6	56.0
0.814000	36.3	Off	L1	19.5	19.7	56.0
0.974000	37.2	Off	L1	19.4	18.8	56.0
1.686000	37.9	Off	L1	19.5	18.1	56.0
2.606000	37.1	Off	L1	19.6	18.9	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.566000	29.7	Off	L1	19.4	16.3	46.0
0.710000	24.6	Off	L1	19.5	21.4	46.0
0.814000	23.8	Off	L1	19.5	22.2	46.0
0.974000	23.9	Off	L1	19.4	22.1	46.0
1.686000	23.9	Off	L1	19.5	22.1	46.0
2.606000	22.8	Off	L1	19.6	23.2	46.0

Test Mode :	Mode 2	**Temperature :**	20~21℃
Test Engineer :	Kai-Chun Chu	**Relative Humidity :**	46~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	CDMA2000 BC15 Idle + Bluetooth Link + WLAN (2.4G) Link + MPEG4 + Earphone 1 + Battery 1 + USB Cable 1 (Charging from Adapter 1) for Sample 2		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198000	40.8	Off	N	19.3	22.9	63.7
0.510000	32.6	Off	N	19.4	23.4	56.0
0.574000	36.8	Off	N	19.4	19.2	56.0
0.670000	32.9	Off	N	19.5	23.1	56.0
0.918000	30.9	Off	N	19.4	25.1	56.0
1.222000	31.5	Off	N	19.5	24.5	56.0

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198000	26.7	Off	N	19.3	27.0	53.7
0.510000	23.6	Off	N	19.4	22.4	46.0
0.574000	27.9	Off	N	19.4	18.1	46.0
0.670000	23.1	Off	N	19.5	22.9	46.0
0.918000	20.2	Off	N	19.4	25.8	46.0
1.222000	20.9	Off	N	19.5	25.1	46.0

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	FSP40	100055	9kHz~40GHz	Jun. 06, 2012	Sep. 01, 2012 ~ Sep. 20, 2012	Jun. 05, 2013	Conducted (TH02-HY)
Power Meter	Agilent	E4416A	GB41292344	300MHz~40GHz	Feb. 21, 2012	Sep. 01, 2012 ~ Sep. 20, 2012	Feb. 20, 2013	Conducted (TH02-HY)
Power Sensor	Agilent	E9327A	US40441548	300MHz~40GHz	Feb. 21, 2012	Sep. 01, 2012 ~ Sep. 20, 2012	Feb. 20, 2013	Conducted (TH02-HY)
EMI Test Receiver	R&S	ESCS 30	100356	9KHz ~ 2.75GHz	Oct. 27, 2011	Sep. 18, 2012	Oct. 26, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz ~ 30MHz	Dec. 09, 2011	Sep. 18, 2012	Dec. 08, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz ~ 30MHz	Dec. 06, 2011	Sep. 18, 2012	Dec. 05, 2012	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Sep. 18, 2012	N/A	Conduction (CO05-HY)
System Simulator	R&S	CMU200	117995	N/A	Jul. 28, 2011	Sep. 18, 2012-	Jul. 27, 2013	Conduction (CO05-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9KHz ~ 26.5GHz	Nov. 23, 2011	Sep. 19, 2012 ~ Sep. 27, 202	Nov. 22, 2012	Radiation (03CH06-HY)
Spectrum Analyzer	R&S	FSP30	101352	9KHz-30GHz	Nov. 03, 2011	Sep. 19, 2012 ~ Sep. 27, 202	Nov. 02, 2012	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz ~ 1000MHz	May 04, 2012	Sep. 19, 2012 ~ Sep. 27, 202	May. 03, 2013	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz ~ 2GHz	Oct. 22, 2011	Sep. 19, 2012 ~ Sep. 27, 202	Oct. 21, 2012	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 01, 2012	Sep. 19, 2012 ~ Sep. 27, 202	Jul. 31, 2013	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Oct. 20, 2011	Sep. 19, 2012 ~ Sep. 27, 202	Oct. 19, 2012	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 13, 2012	Sep. 19, 2012 ~ Sep. 27, 202	Apr. 12, 2013	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9KHz ~ 1GHz	Apr. 11, 2012	Sep. 19, 2012 ~ Sep. 27, 202	Apr. 10, 2013	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 21, 2012	Sep. 19, 2012 ~ Sep. 27, 202	Jul. 20, 2013	Radiation (03CH06-HY)
Pre Amplifier	MITEQ	AMF-7D-00101800-30-10P	159087	1GHz~18GHz	Feb. 27, 2012	Sep. 19, 2012 ~ Sep. 27, 202	Feb. 26, 2013	Radiation (03CH06-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9KHz ~ 30MHz	Jul. 03, 2012	Sep. 19, 2012 ~ Sep. 27, 202	Jul. 02, 2014	Radiation (03CH06-HY)

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**

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.54**

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.72**