FCC RF Test Report

APPLICANT	:	SAMSUNG Electronics Co., LTD.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	Samsung
MODEL NAME	:	SC-03E
MARKETING NAME	:	GQ DCM
FCC ID	:	A3LSWDSC03E
STANDARD	:	FCC Part 15 Subpart C §15.247
CLASSIFICATION	:	(DTS) Digital Transmission System

The product was received on Oct. 15, 2012 and completely tested on Oct. 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.

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR2O1541B	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	-
0	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 0.32 dB at 2390.000 MHz
3.6	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 7.20 dB at 0.430 MHz
3.7	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

SAMSUNG Electronics Co., LTD.
IT center, 416, Maetan-3dong, Yeongtong-gu, Suwon-city, Gyeonggi-do, Korea

1.2 Manufacturer

SAMSUNG Electronics Co., LTD.
IT center, 416, Maetan-3dong, Yeongtong-gu, Suwon-city, Gyeonggi-do, Korea

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Samsung
Model Name	SC-03E
Marketing Name	GQ DCM
FCC ID	A3LSWDSC03E
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/ WLAN 11abgn / Bluetooth
HW Version	REV0.1
SW Version	SC03E.001
EUT Stage	Identical Prototype

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

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 : 19.12 dBm (0.0817 W) 802.11g : 22.68 dBm (0.1854 W) 802.11n HT20 : 22.39 dBm (0.1734 W) **<5745 MHz ~ 5825 MHz>** 802.11a : 23.87 dBm (0.2438 W) 802.11n HT20 : 22.95 dBm (0.1972 W) 802.11n HT40 : 22.84 dBm (0.1923 W)
Antenna Type	PIFA Antenna type with gain -6.58 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 v02
- 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-825	KA2DIR825A1	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 (X plane for 2.4GHz & Z plane for 5GHz) 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	161	5805
	157	5785	165	5825

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)	19.12	19.08	19	18.98

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)	22.68	22.60	22.53	22.65	22.52	22.58	22.59	22.66

2.4GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	22.39	22.15	22.06	22.29	22.22	22.12	22.2	22.16

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)	23.87	23.76	23.53	23.25	23.34	23.32	23.14	23.25

5GHz 802.11n HT20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	22.95	22.75	22.61	22.79	22.77	22.85	22.72	22.65

5GHz 802.11n HT40 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	22.84	22.57	22.75	22.78	22.59	22.77	22.46	22.65

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 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
	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
	Conducted Band Edge	802.11b	1 Mbps	1/11
		802.11g	6 Mbps	1/11
		802.11n HT20	6.5 Mbps	1/11
	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
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
	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

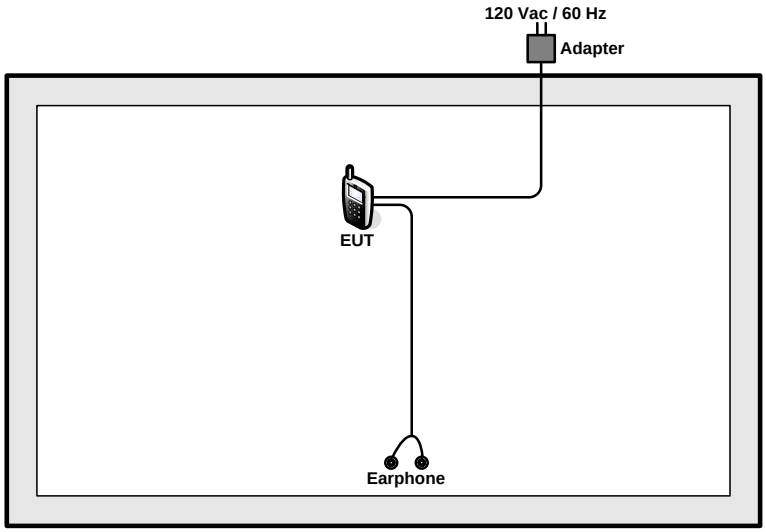
<5GHz>

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

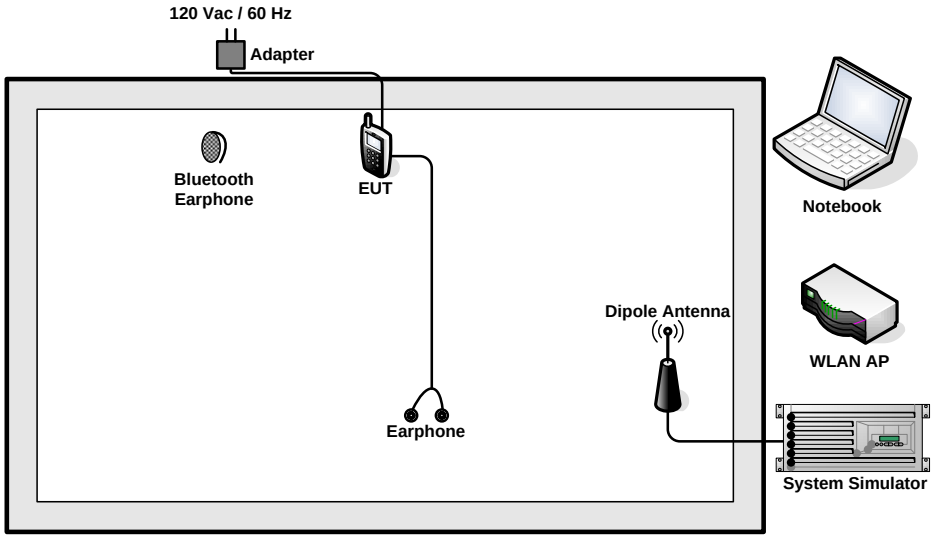
Test Cases	
AC Conducted Emission	Mode 1 : GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 RF Utility

For WLAN function, key in "＊＃232339＃" on the EUT directly. Then, the EUT will get into the engineering modes to contact with WLAN AP for continuous transmitting and receiving signals.

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.

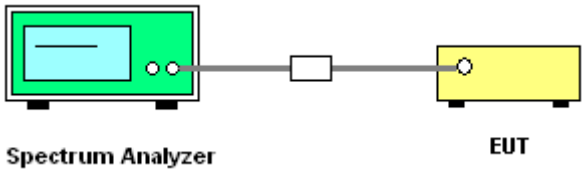
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v02.
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 :	Book Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	9.04	0.5	Pass
06	2437	8.60	0.5	Pass
11	2462	8.64	0.5	Pass

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

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
01	2412	15.92	0.5	Pass
06	2437	15.64	0.5	Pass
11	2462	15.92	0.5	Pass

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Book 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	17.24	0.5	Pass
06	2437	17.20	0.5	Pass
11	2462	17.20	0.5	Pass

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

Channel	Frequency (MHz)	802.11a 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
149	5745	16.60	0.5	Pass
157	5785	16.60	0.5	Pass
165	5825	16.68	0.5	Pass

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

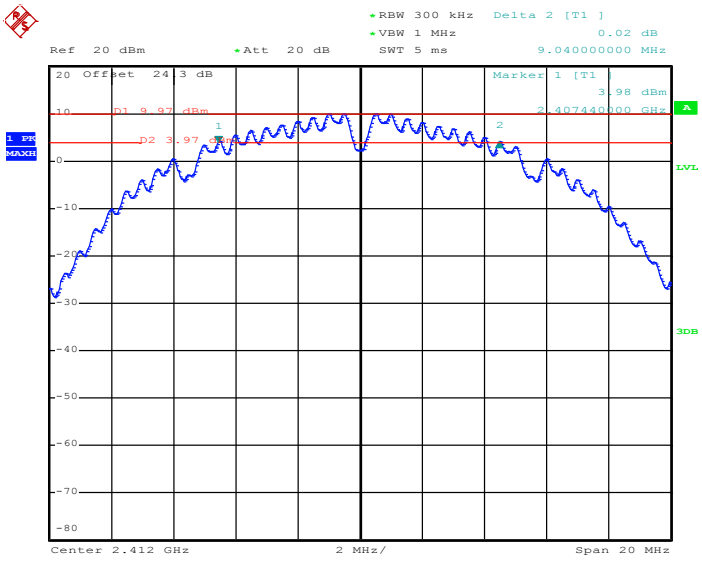
Channel	Frequency (MHz)	5GHz 802.11n HT20 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
149	5745	17.80	0.5	Pass
157	5785	17.72	0.5	Pass
165	5825	17.98	0.5	Pass

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

Channel	Frequency (MHz)	5GHz 802.11n HT40 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
151	5755	35.16	0.5	Pass
159	5795	35.28	0.5	Pass

3.1.6 Test Result of 6dB Bandwidth Plots

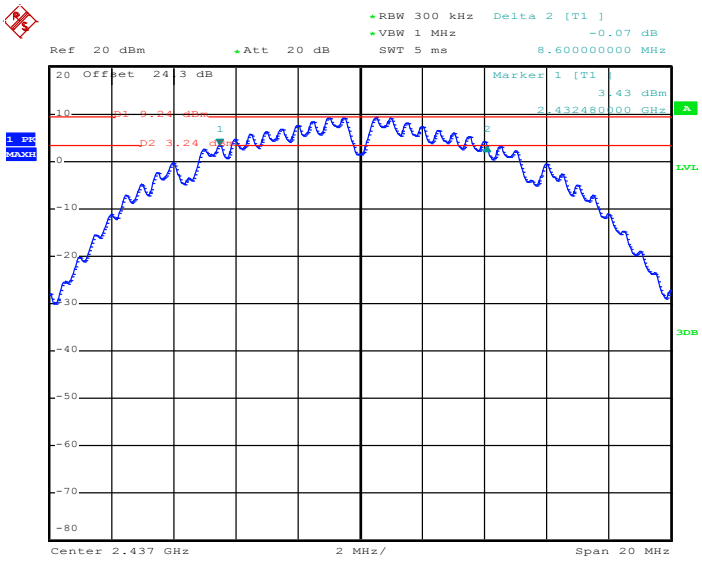
6 dB Bandwidth Plot on 802.11b Channel 01



201541 15C 6dB.11b 2412 (ch01)

Date: 17.OCT.2012 21:21:12

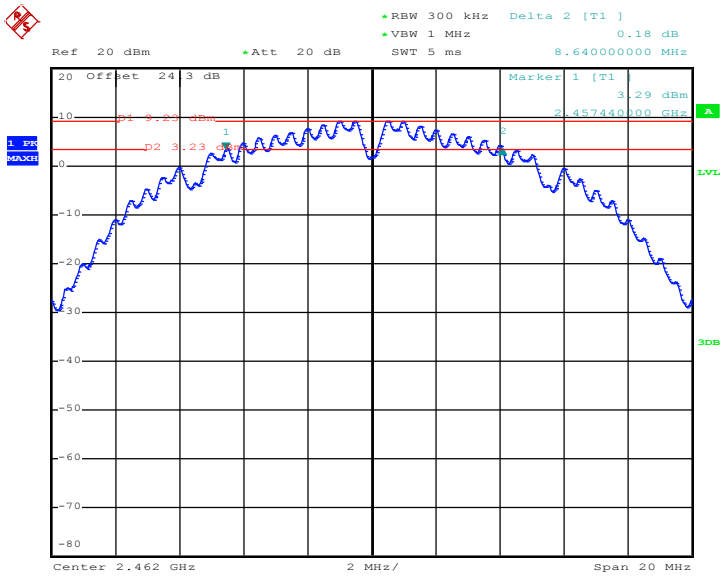
6 dB Bandwidth Plot on 802.11b Channel 06



201541 15C 6dB.11b 2437 (ch06)

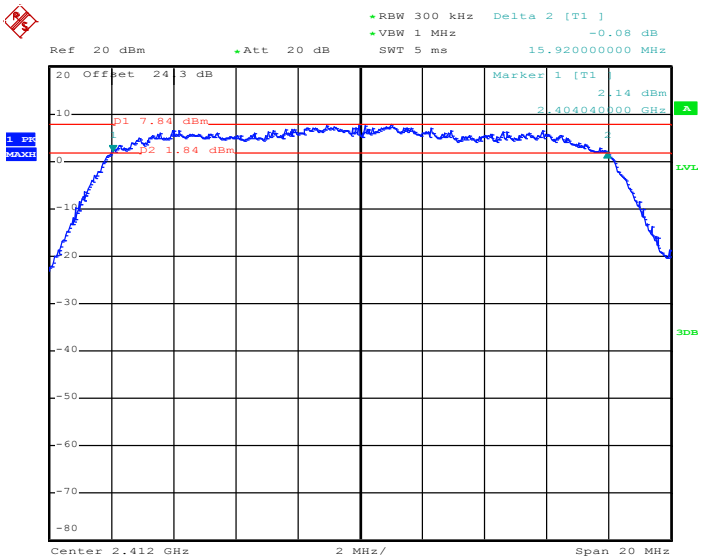
Date: 17.OCT.2012 21:25:36

6 dB Bandwidth Plot on 802.11b Channel 11



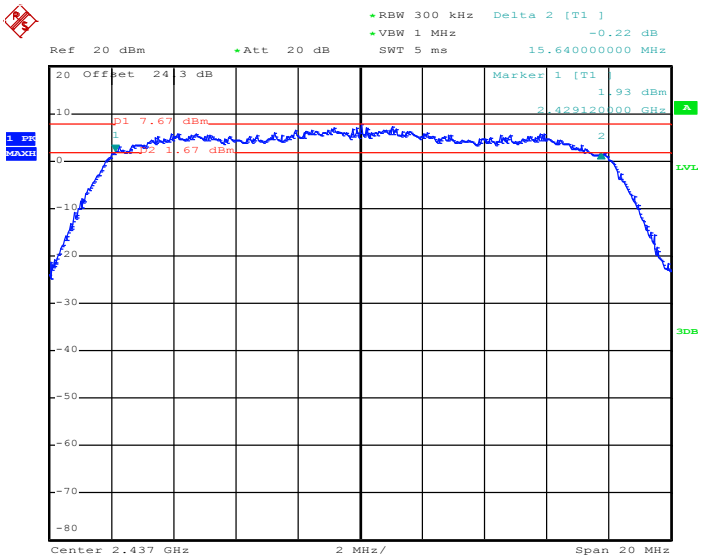
2O1541 15C 6dB.11b 2462 (ch11)
Date: 17.OCT.2012 21:29:23

6 dB Bandwidth Plot on 802.11g Channel 01



2O1541 15C 6dB.11g 2412 (ch01)
Date: 17.OCT.2012 21:35:26

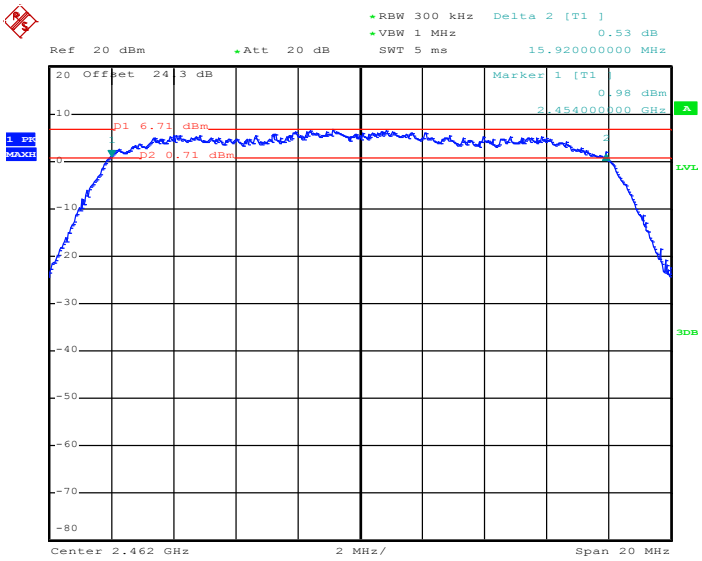
6 dB Bandwidth Plot on 802.11g Channel 06



201541 15C 6dB.11g 2437 (ch06)

Date: 17.OCT.2012 21:43:23

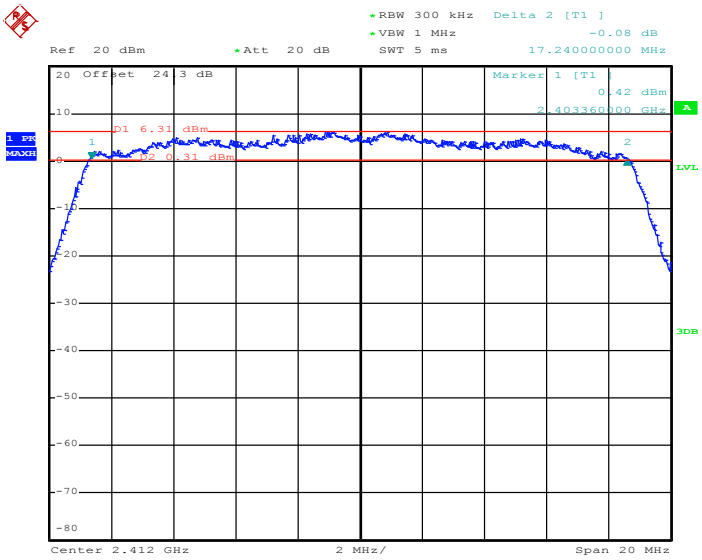
6 dB Bandwidth Plot on 802.11g Channel 11



201541 15C 6dB.11g 2462 (ch11)

Date: 17.OCT.2012 21:46:19

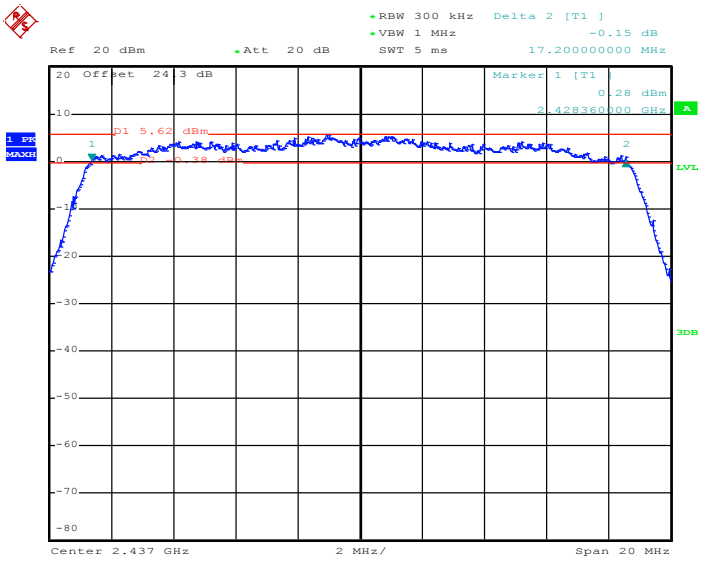
6 dB Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 01



2O1541 15C 6dB.11g_N20 2412 (ch01)

Date: 17.OCT.2012 21:49:43

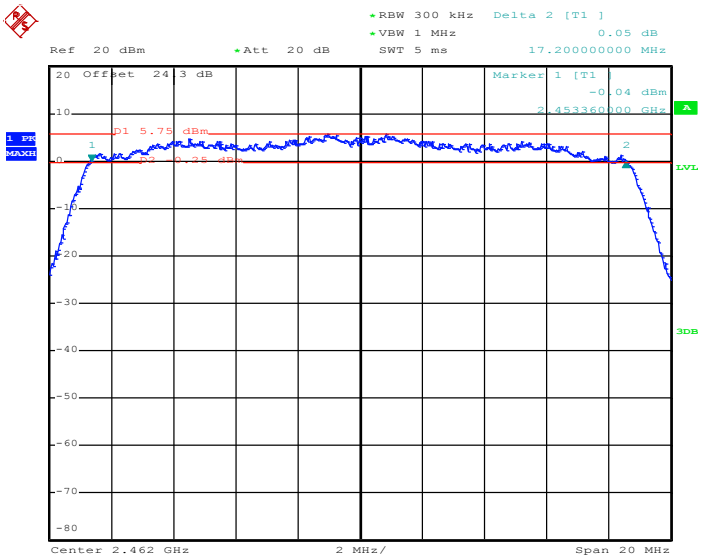
6 dB Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 06



2O1541 15C 6dB.11g_N20 2437 (ch06)

Date: 17.OCT.2012 21:55:47

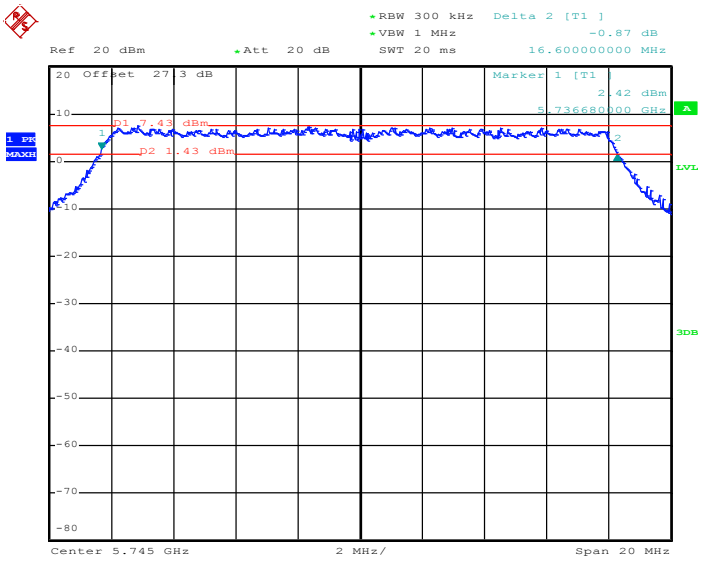
6 dB Bandwidth Plot on 2.4GHz 802.11n HT20 Channel 11



2O1541 15C 6dB.11g_N20 2462 (ch11)

Date: 17.OCT.2012 22:02:07

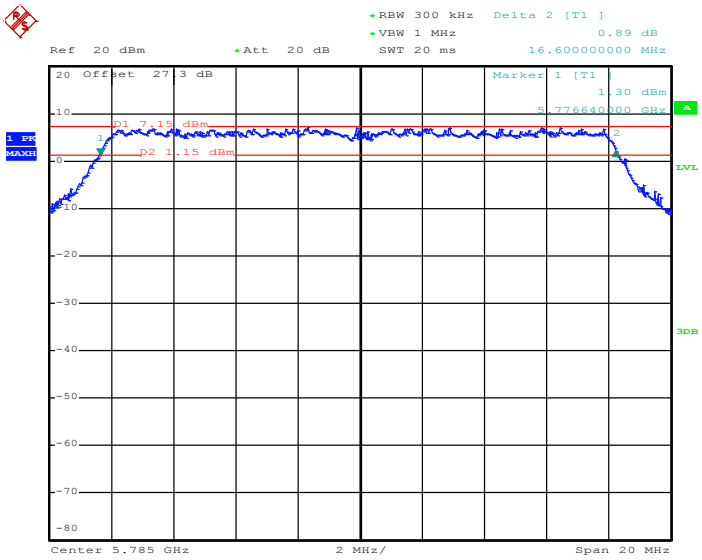
6 dB Bandwidth Plot on 802.11a Channel 149



2O1541 15C 6dB.11a 5745 (ch149)

Date: 17.OCT.2012 22:08:01

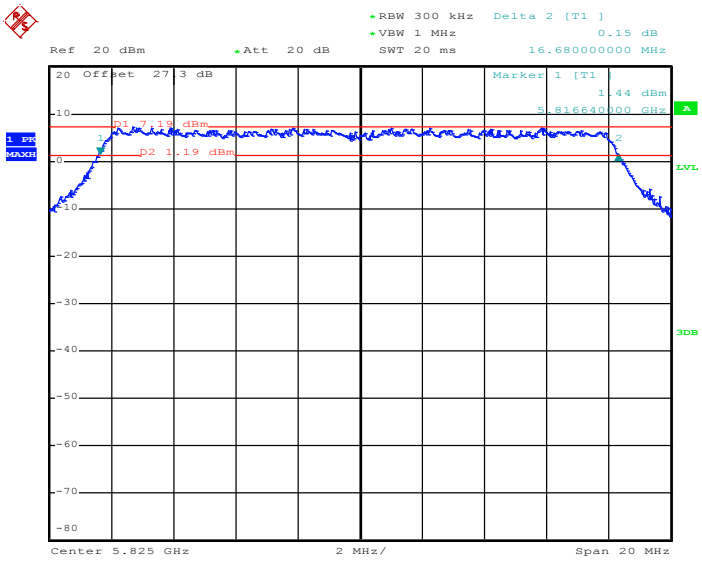
6 dB Bandwidth Plot on 802.11a Channel 157



201541 15C 6dB.11a 5785 (ch157)

Date: 17.OCT.2012 22:12:35

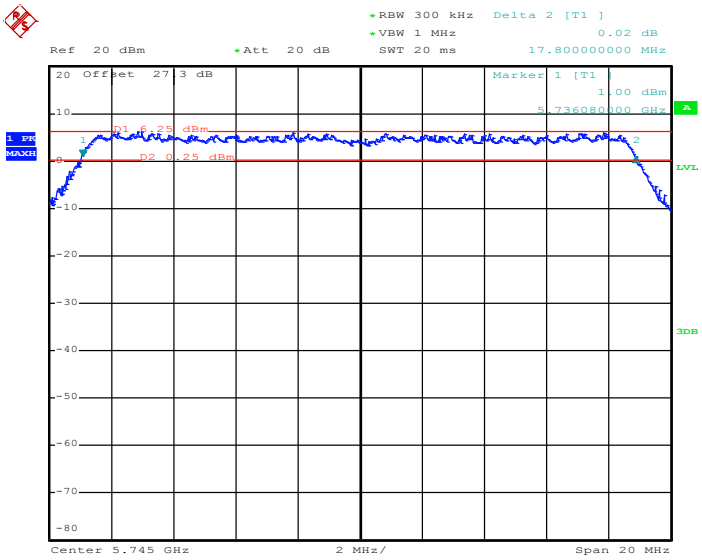
6 dB Bandwidth Plot on 802.11a Channel 165



201541 15C 6dB.11a 5825 (ch165)

Date: 17.OCT.2012 22:16:31

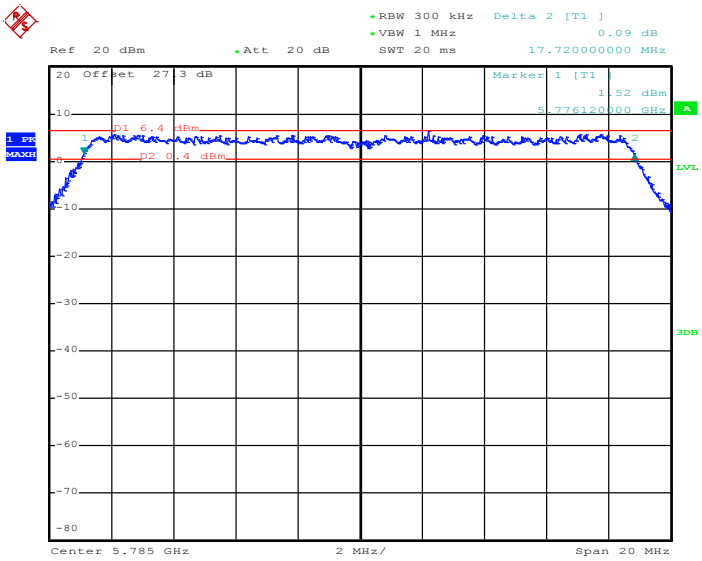
6 dB Bandwidth Plot on 5GHz 802.11n HT20 Channel 149



2O1541 15C 6dB.11a_N20 5745 (ch149)

Date: 17.OCT.2012 22:54:33

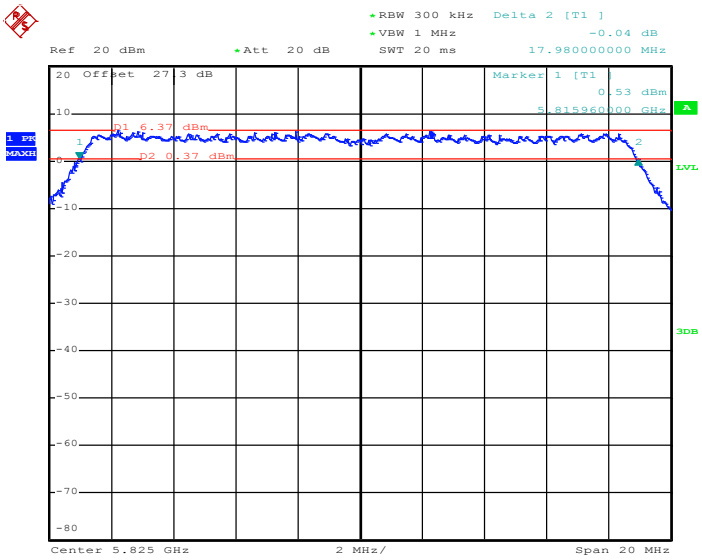
6 dB Bandwidth Plot on 5GHz 802.11n HT20 Channel 157



2O1541 15C 6dB.11a_N20 5785 (ch157)

Date: 17.OCT.2012 22:51:13

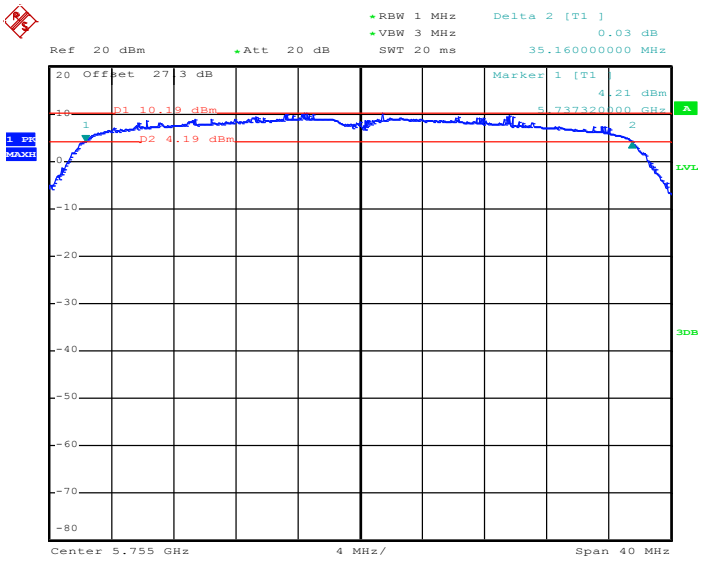
6 dB Bandwidth Plot on 5GHz 802.11n HT20 Channel 165



2O1541 15C 6dB.11a_N20 5825 (ch165)

Date: 17.OCT.2012 22:47:20

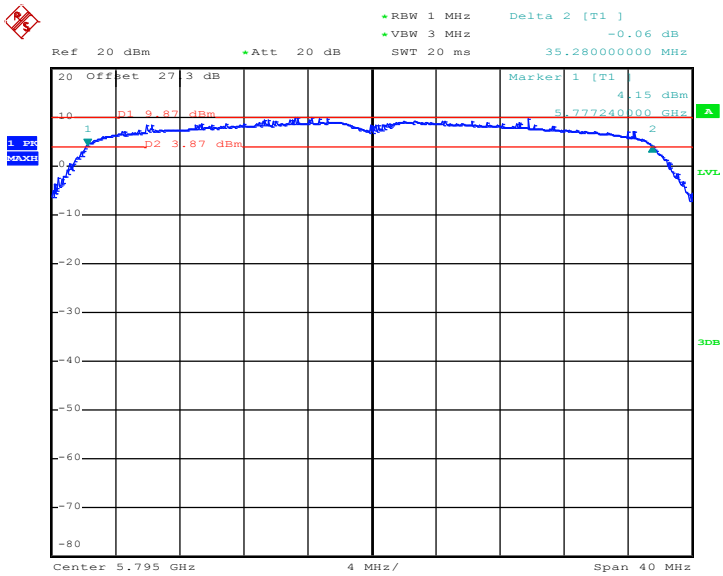
6 dB Bandwidth Plot on 5GHz 802.11n HT40 Channel 151



2O1541 15C 6dB.11a_N40 5755

Date: 17.OCT.2012 22:58:28

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



2O1541 15C 6dB.11a_N40 5795
Date: 17.OCT.2012 23:02:34

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.

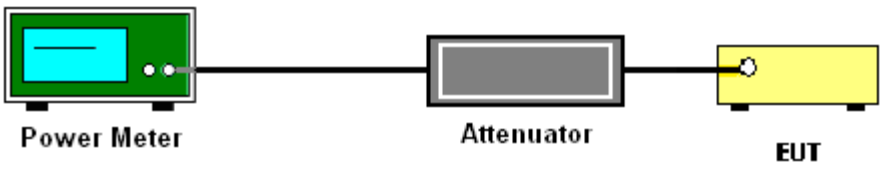
3.2.2 Measuring Instruments

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 v02.
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 :	Book Lin	Relative Humidity :	50~53%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	19.12	30	Pass
06	2437	18.47	30	Pass
11	2462	17.52	30	Pass

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

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	22.68	30	Pass
06	2437	22.32	30	Pass
11	2462	22.42	30	Pass

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

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	22.39	30	Pass
06	2437	22.17	30	Pass
11	2462	22.12	30	Pass

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

Channel	Frequency (MHz)	802.11a Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
149	5745	23.63	30	Pass
157	5785	23.42	30	Pass
165	5825	23.87	30	Pass

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

Channel	Frequency (MHz)	5GHz 802.11n HT20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
149	5745	22.71	30	Pass
157	5785	22.66	30	Pass
165	5825	22.95	30	Pass

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

Channel	Frequency (MHz)	5GHz 802.11n HT40 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
151	5755	22.84	30	Pass
159	5795	22.78	30	Pass

3.2.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	24~26℃
Test Engineer :	Book Lin	Relative Humidity :	50~53%
Duty Cycle:	98.03%	Duty Factor:	0.06dB

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)
01	2412	16.57
06	2437	15.79
11	2462	14.52

Test Mode :	802.11g	Temperature :	24~26℃
Test Engineer :	Book Lin	Relative Humidity :	50~53%
Duty Cycle:	93.72%	Duty Factor:	0.28dB

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)
01	2412	14.20
06	2437	13.65
11	2462	13.76

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Book Lin	Relative Humidity :	50~53%
Duty Cycle:	93.33%	Duty Factor:	0.30dB

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Average Output Power (dBm)
01	2412	13.15
06	2437	12.75
11	2462	12.38

Test Mode :	802.11a	Temperature :	24~26℃
Test Engineer :	Book Lin	Relative Humidity :	50~53%
Duty Cycle:	93.23%	Duty Factor:	0.30dB

Channel	Frequency (MHz)	802.11a Average Output Power (dBm)
149	5745	13.99
157	5785	13.63
165	5825	14.04

Test Mode :	802.11n HT20	Temperature :	24~26℃
Test Engineer :	Book Lin	Relative Humidity :	50~53%
Duty Cycle:	93.33%	Duty Factor:	0.30dB

Channel	Frequency (MHz)	5GHz 802.11n HT20 Average Output Power (dBm)
149	5745	12.99
157	5785	12.61
165	5825	13.09

Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Engineer :	Book Lin	Relative Humidity :	50~53%
Duty Cycle:	86.98%	Duty Factor:	0.61dB

Channel	Frequency (MHz)	5GHz 802.11n HT40 Average Output Power (dBm)
151	5755	12.99
159	5795	12.86

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.

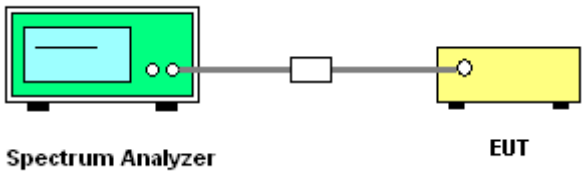
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. The testing follows Measurement Procedure 9.1 Option 1 of FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v02
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) = 3 kHz. Video bandwidth VBW = 10 kHz In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
6. Record the measurement data derived from spectrum analyzer.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

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

Channel	Frequency (MHz)	802.11b Power Density		Max. Limits (dBm/3KHz)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	7.26	-5.98	8	Pass
06	2437	6.63	-7.20	8	Pass
11	2462	5.53	-8.41	8	Pass

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

Channel	Frequency (MHz)	802.11g Power Density		Max. Limits (dBm/3KHz)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	3.23	-10.16	8	Pass
06	2437	1.33	-10.54	8	Pass
11	2462	2.01	-11.00	8	Pass

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

Channel	Frequency (MHz)	2.4GHz 802.11n HT20 Power Density		Max. Limits (dBm/3KHz)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
01	2412	2.38	-11.62	8	Pass
06	2437	0.27	-12.69	8	Pass
11	2462	0.95	-10.26	8	Pass

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

Channel	Frequency (MHz)	802.11a Power Density		Max. Limits (dBm/3KHz)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
149	5745	3.35	-9.63	8	Pass
157	5785	3.44	-11.19	8	Pass
165	5825	3.75	-10.54	8	Pass

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

Channel	Frequency (MHz)	5GHz 802.11n HT20 Power Density		Max. Limits (dBm/3KHz)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
149	5745	2.79	-11.39	8	Pass
157	5785	1.90	-11.20	8	Pass
165	5825	2.28	-11.20	8	Pass

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

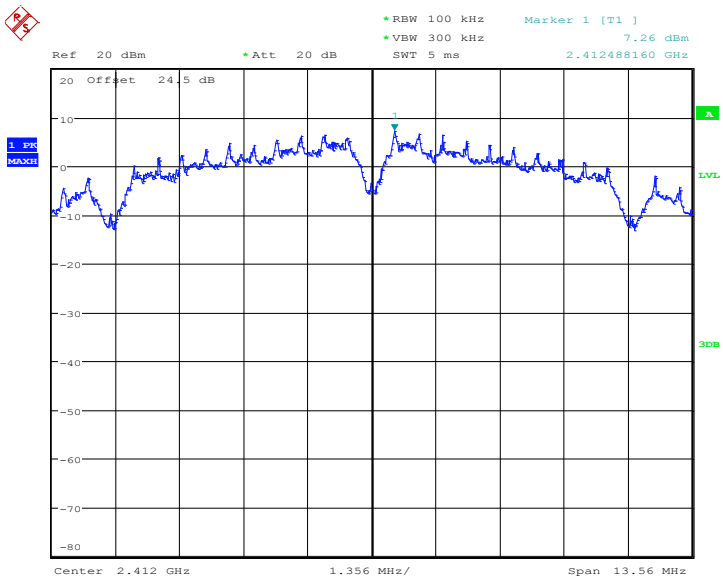
Channel	Frequency (MHz)	5GHz 802.11n HT40 Power Density		Max. Limits (dBm/3KHz)	Pass/Fail
		PSD/100KHz (dBm)	PSD/3KHz (dBm)		
151	5755	0.56	-11.70	8	Pass
159	5795	0.42	-10.79	8	Pass

Note:

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

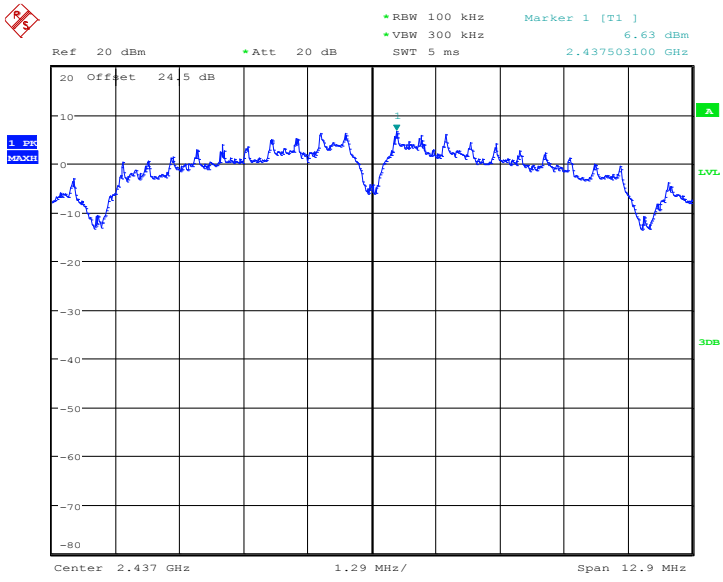
3.3.6 Test Result of Power Spectral Density Plots (100kHz)

PSD 100kHz Plot on 802.11b Channel 01



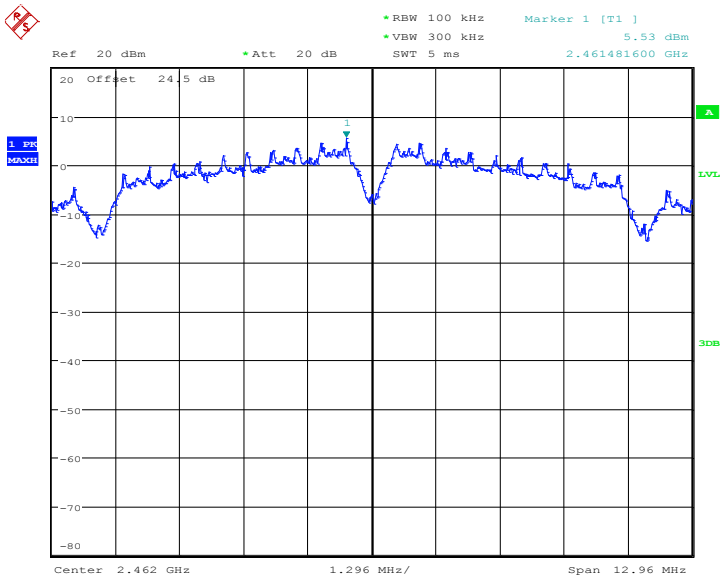
Date: 29.OCT.2012 09:28:38

PSD 100kHz Plot on 802.11b Channel 06



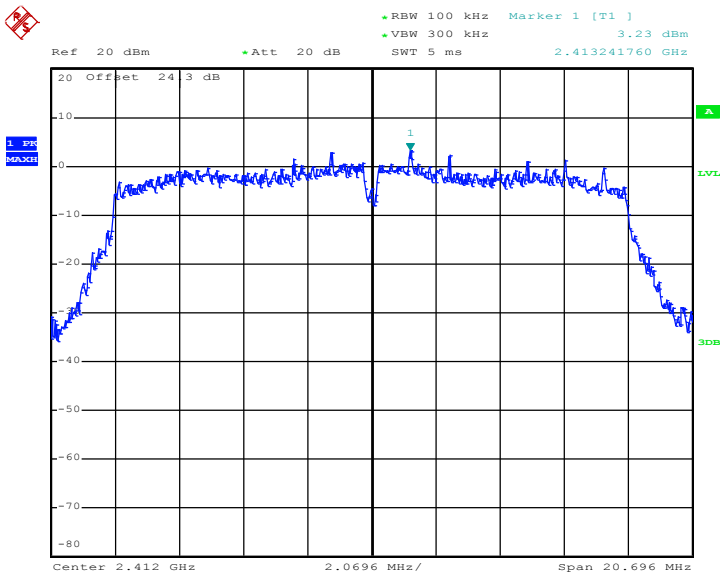
Date: 29.OCT.2012 09:32:10

PSD 100kHz Plot on 802.11b Channel 11



Date: 29.OCT.2012 09:33:47

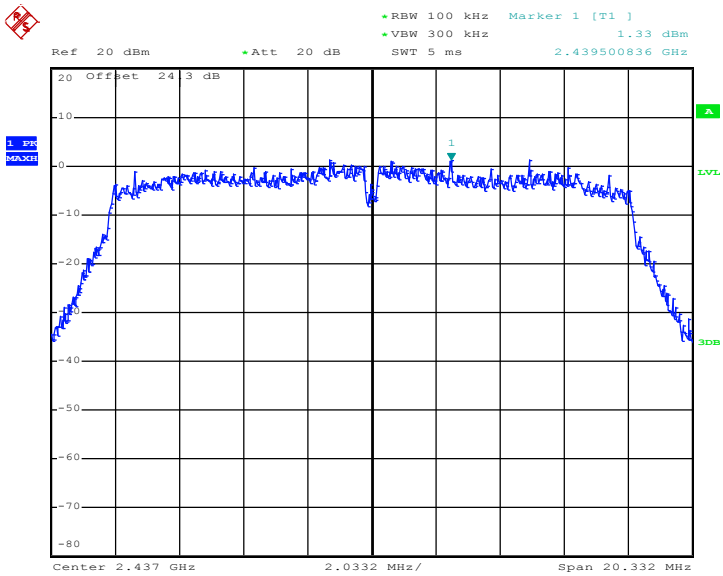
PSD 100kHz Plot on 802.11g Channel 01



2O1541 15C PSD (100K) 802.11g 2412 (ch01)

Date: 17.OCT.2012 21:39:34

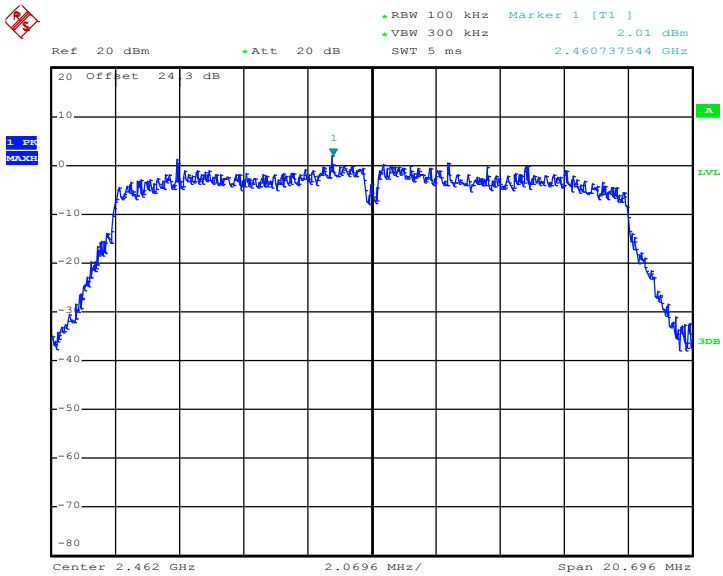
PSD 100kHz Plot 802.11g Channel 06



2O1541 15C PSD (100K) 802.11g 2437 (ch06)

Date: 17.OCT.2012 21:43:48

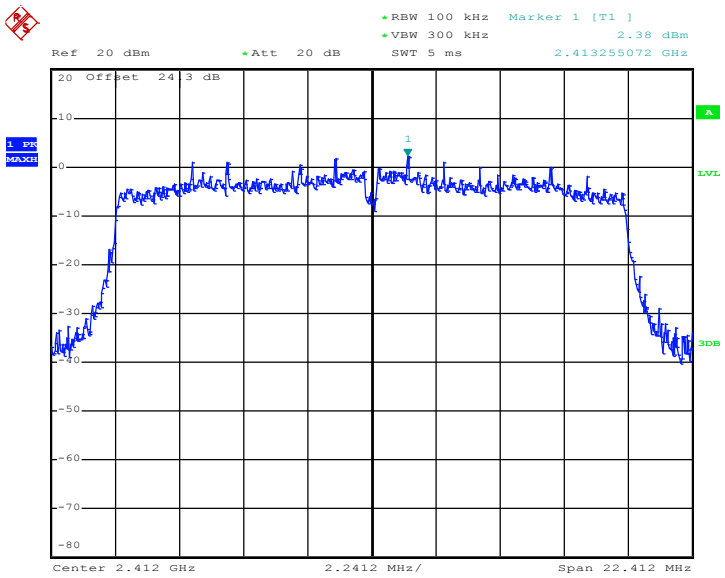
PSD 100kHz Plot 802.11g Channel 11



2O1541 15C PSD (100K) 802.11g 2462 (ch11)

Date: 17.OCT.2012 21:46:44

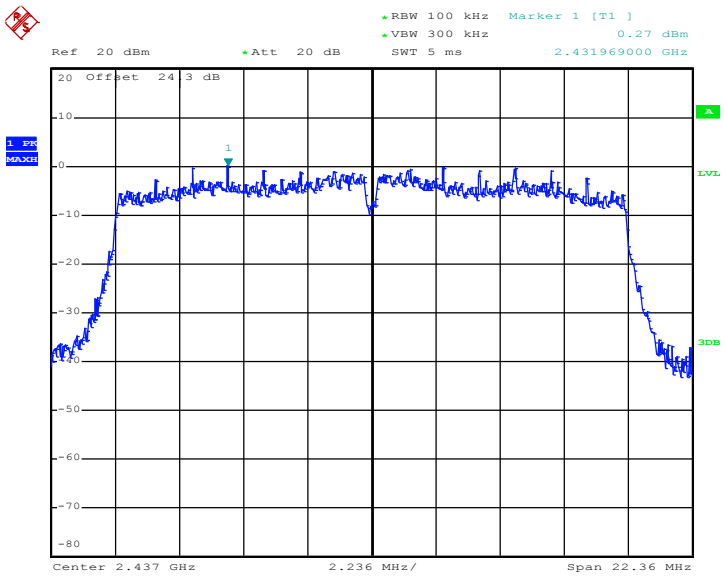
PSD 100kHz Plot on 2.4GHz 802.11n HT20 Channel 01



2O1541 15C PSD (100K) 802.11g_N20 2412 (ch01)

Date: 17.OCT.2012 21:50:22

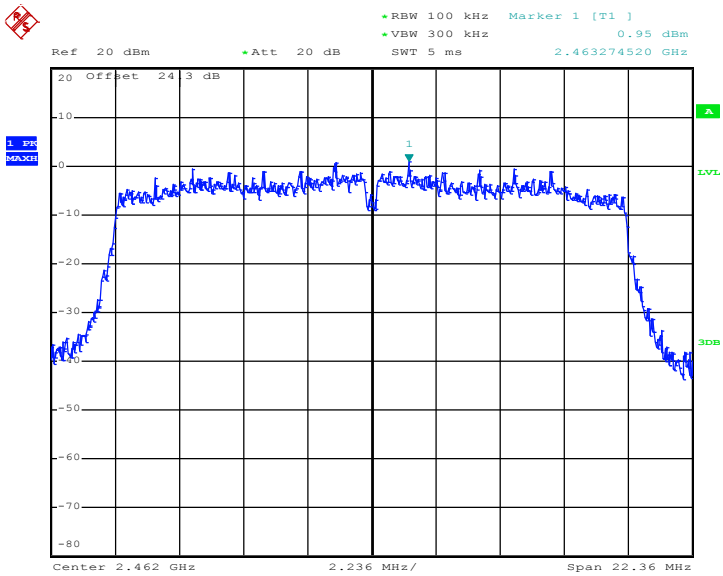
PSD 100kHz Plot on 2.4GHz 802.11n HT20 Channel 06



2O1541 15C PSD (100K) 802.11g_N20 2437 (ch06)

Date: 17.OCT.2012 21:59:07

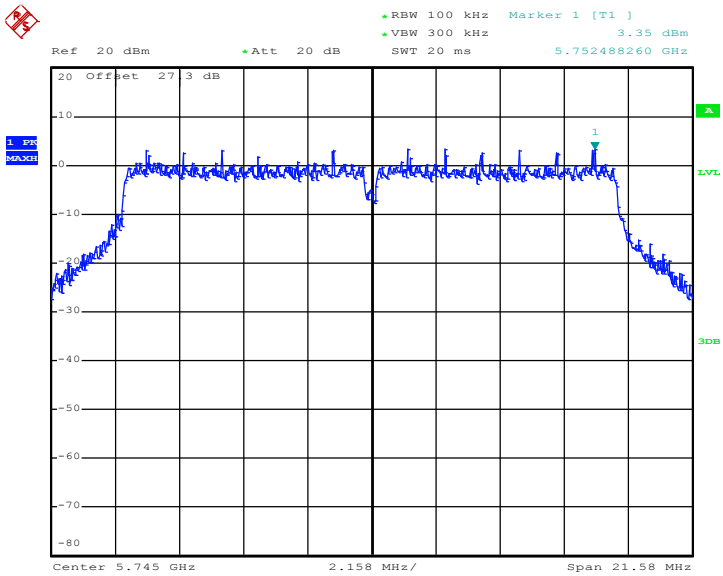
PSD 100kHz Plot on 2.4GHz 802.11n HT20 Channel 11



2O1541 15C PSD (100K) 802.11g_N20 2462 (ch11)

Date: 17.OCT.2012 22:02:46

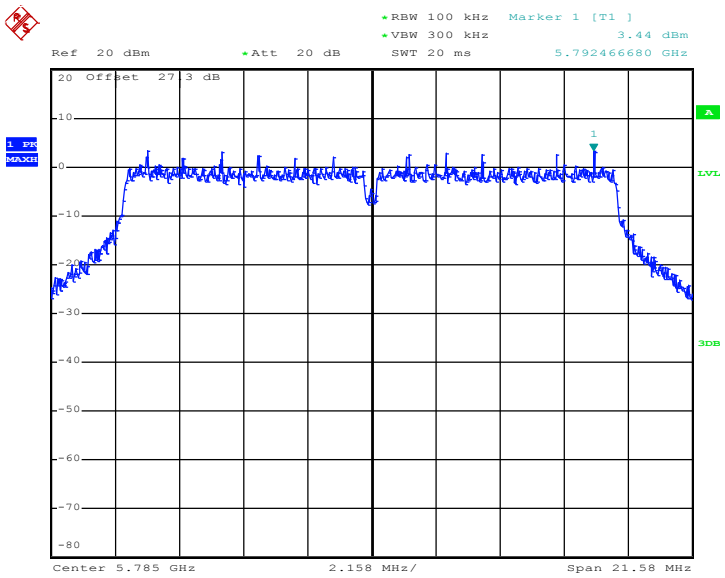
PSD 100kHz Plot on 802.11a Channel 149



2O1541 15C PSD (100K) 802.11a 5745 (ch149)

Date: 17.OCT.2012 22:08:47

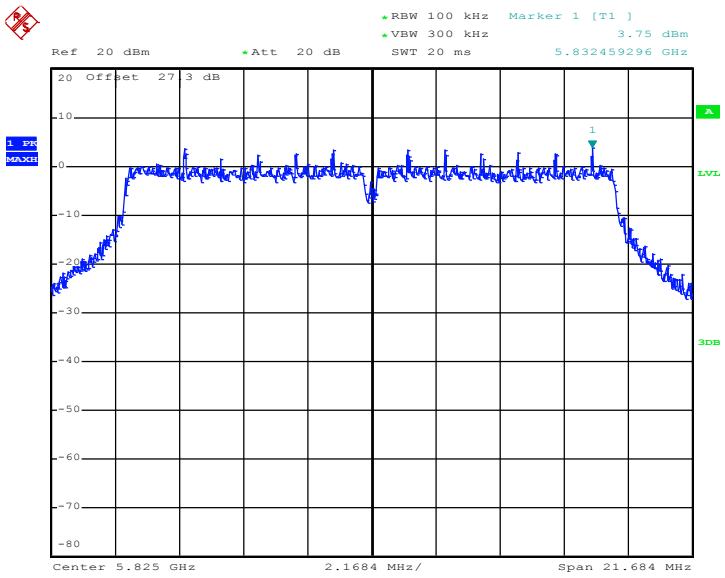
PSD 100kHz Plot on 802.11a Channel 157



2O1541 15C PSD (100K) 802.11a 5785 (ch157)

Date: 17.OCT.2012 22:13:11

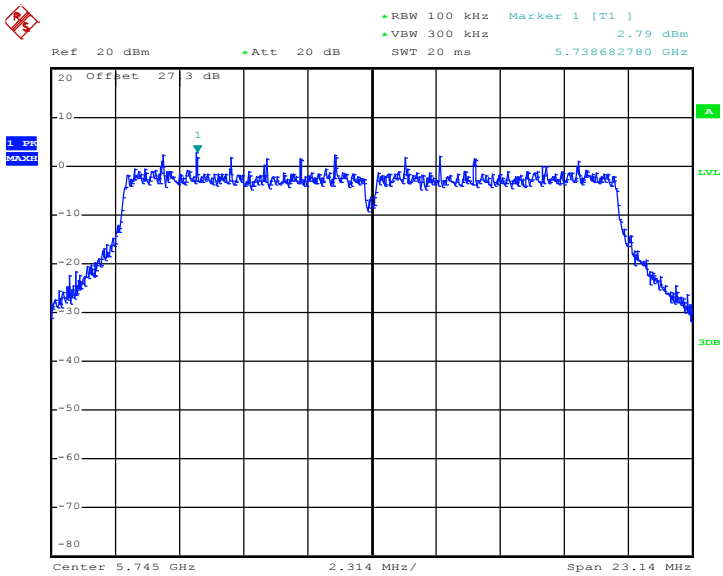
PSD 100kHz Plot on 802.11a Channel 165



2O1541 15C PSD (100K) 802.11a 5825 (ch165)

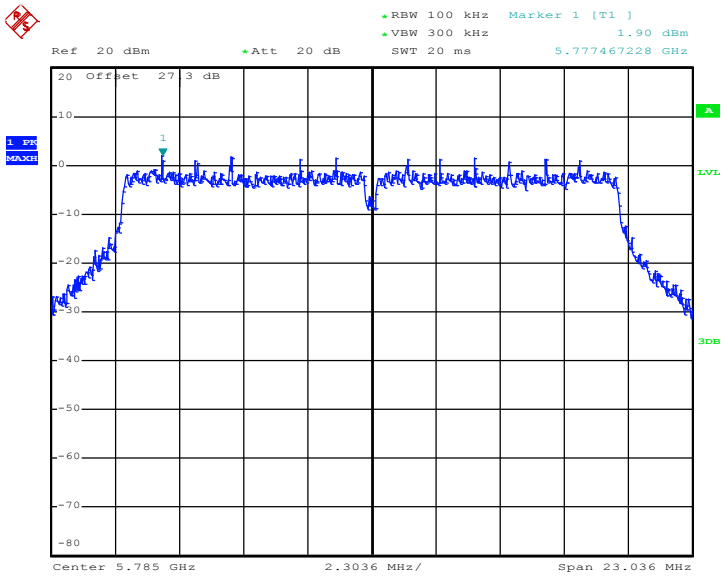
Date: 17.OCT.2012 22:17:05

PSD 100kHz Plot on 5GHz 802.11n HT20 Channel 149



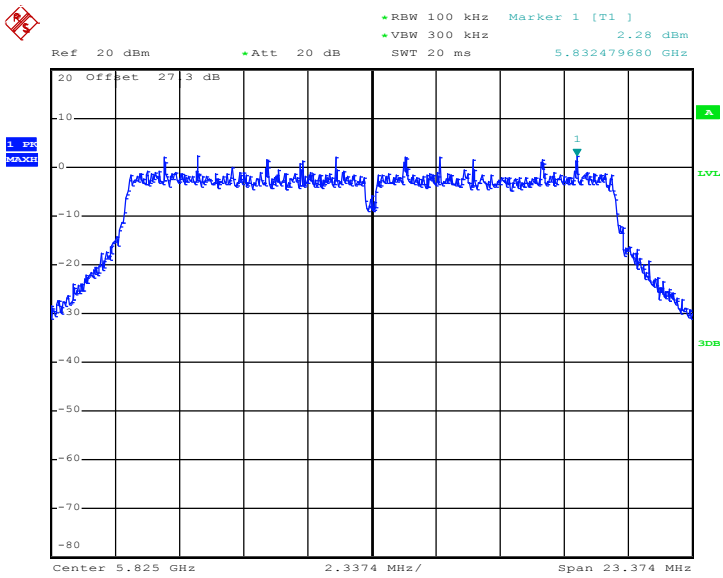
2O1541 15C PSD (100K) 802.11a_N20 5745 (ch149)
Date: 17.OCT.2012 22:55:10

PSD 100kHz Plot on 5GHz 802.11n HT20 Channel 157



2O1541 15C PSD (100K) 802.11a_N20 5785 (ch157)
Date: 17.OCT.2012 22:52:02

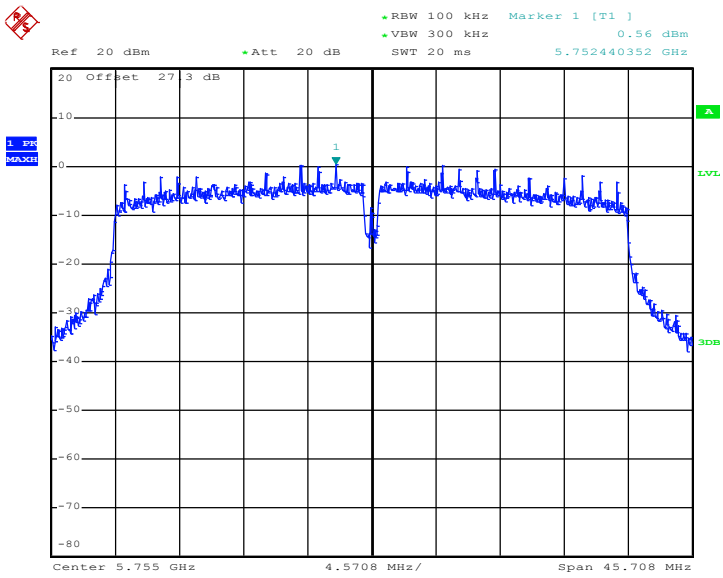
PSD 100kHz Plot on 5GHz 802.11n HT20 Channel 165



2O1541 15C PSD (100K) 802.11a_N20 5825 (ch165)

Date: 17.OCT.2012 22:47:52

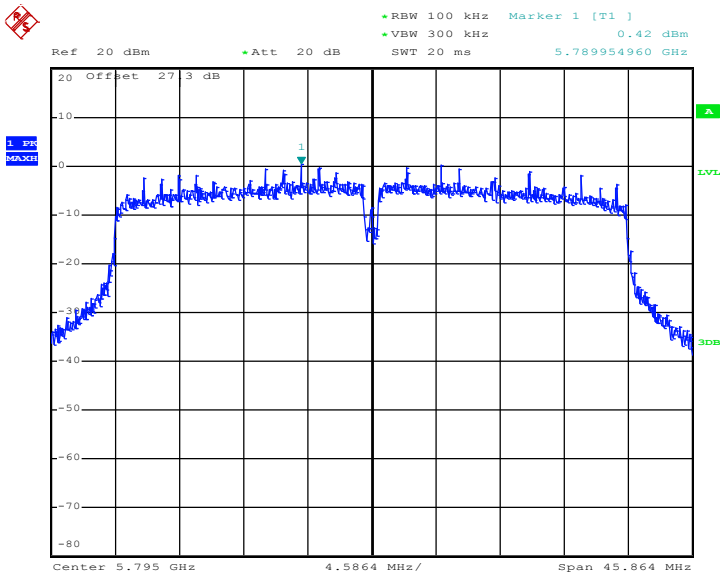
PSD 100kHz Plot on 5GHz 802.11n HT40 Channel 151



2O1541 15C PSD (100K) 802.11a_N40 5755

Date: 17.OCT.2012 22:59:01

PSD 100kHz Plot on 5GHz 802.11n HT40 Channel 159

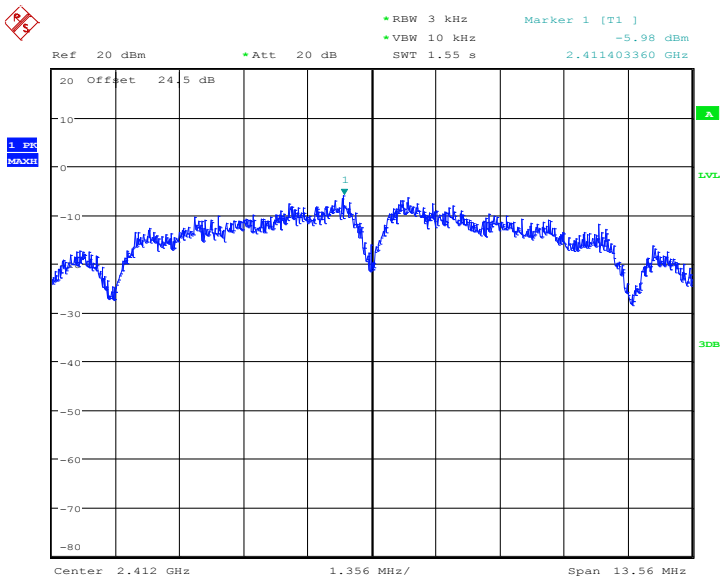


2O1541 15C PSD (100K) 802.11a_N40 5795

Date: 17.OCT.2012 23:03:06

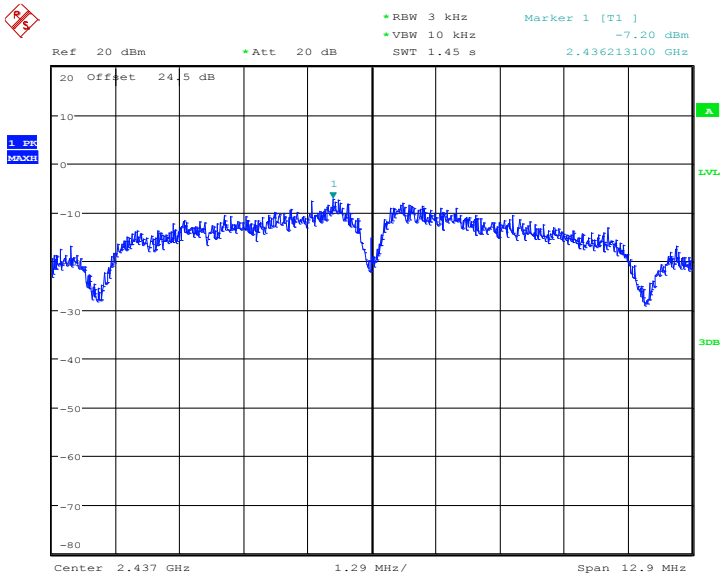
3.3.7 Test Result of Power Spectral Density Plots (3kHz)

PSD 3kHz Plot on 802.11b Channel 01



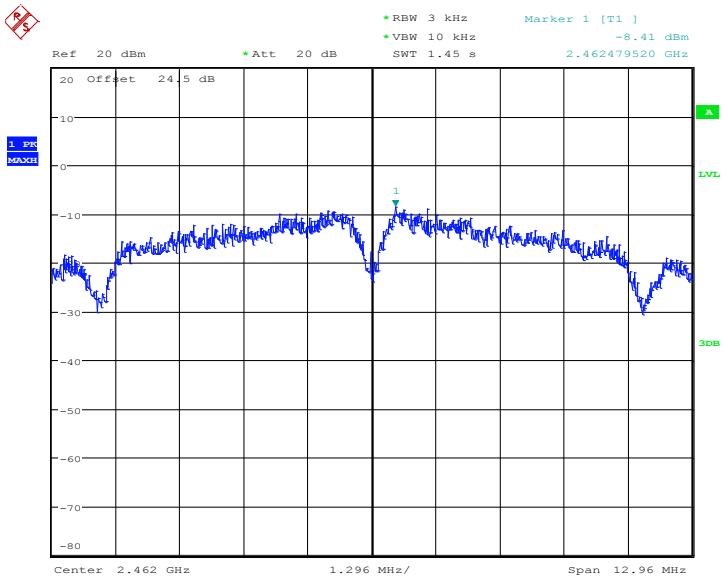
Date: 29.OCT.2012 09:28:26

PSD3kHz Plot on 802.11b Channel 06



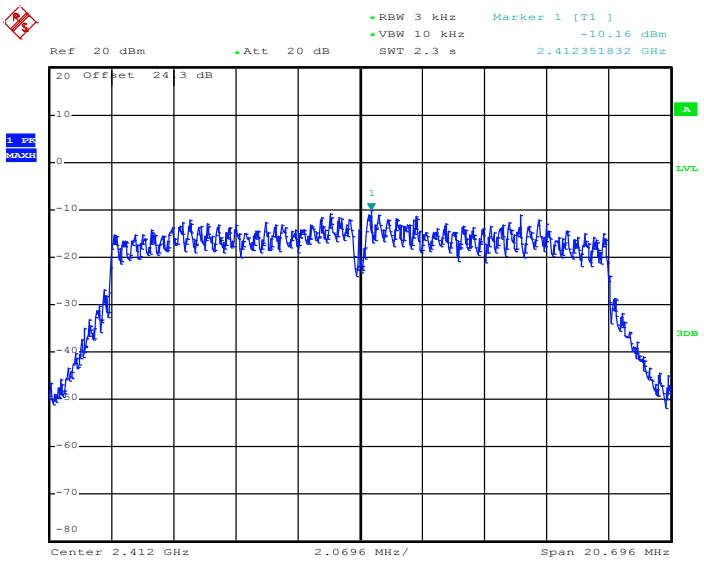
Date: 29.OCT.2012 09:31:52

PSD 3kHz Plot on 802.11b Channel 11



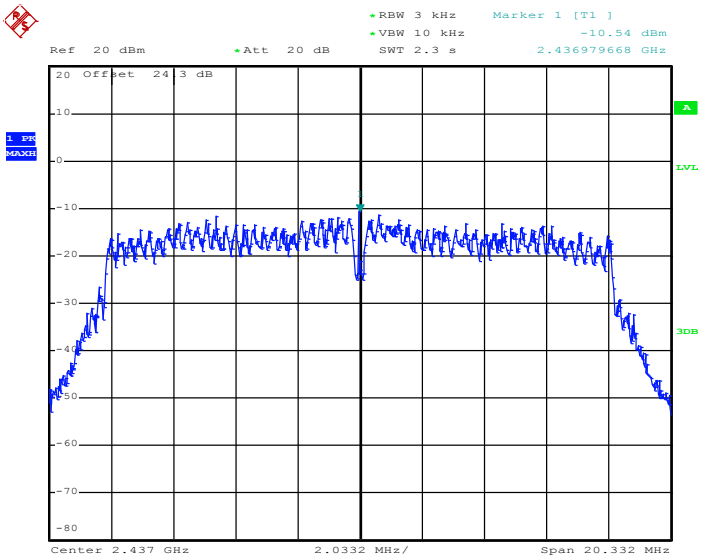
Date: 29.OCT.2012 09:33:35

PSD 3kHz Plot on 802.11g Channel 01



2O1541 15C PSD 802.11g 2412 (ch01)
Date: 17.OCT.2012 21:36:17

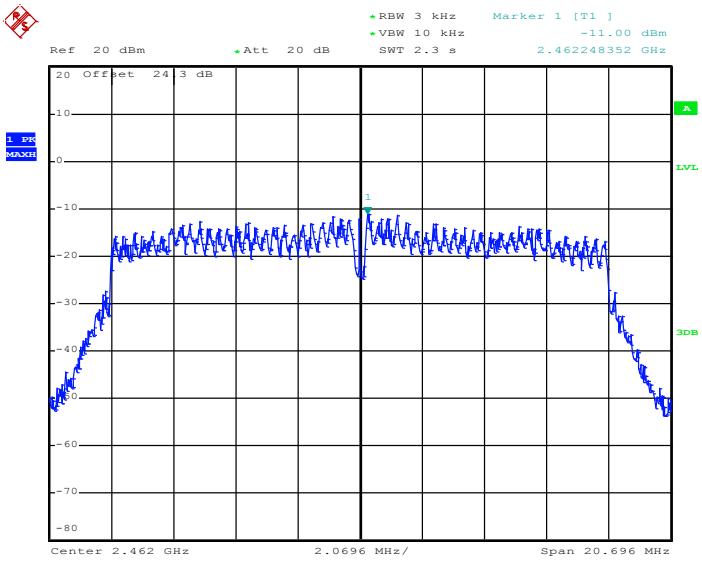
PSD 3kHz Plot 802.11g Channel 06



2O1541 15C PSD 802.11g 2437 (ch06)

Date: 17.OCT.2012 21:43:43

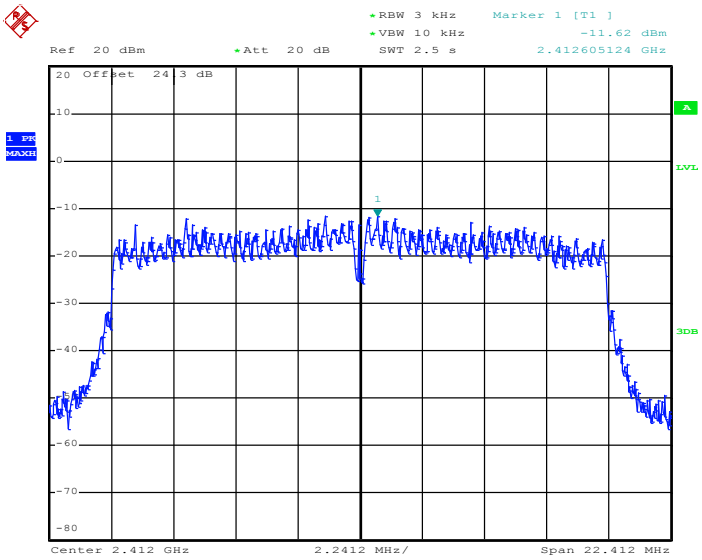
PSD 3kHz Plot 802.11g Channel 11



2O1541 15C PSD 802.11g 2462 (ch11)

Date: 17.OCT.2012 21:46:38

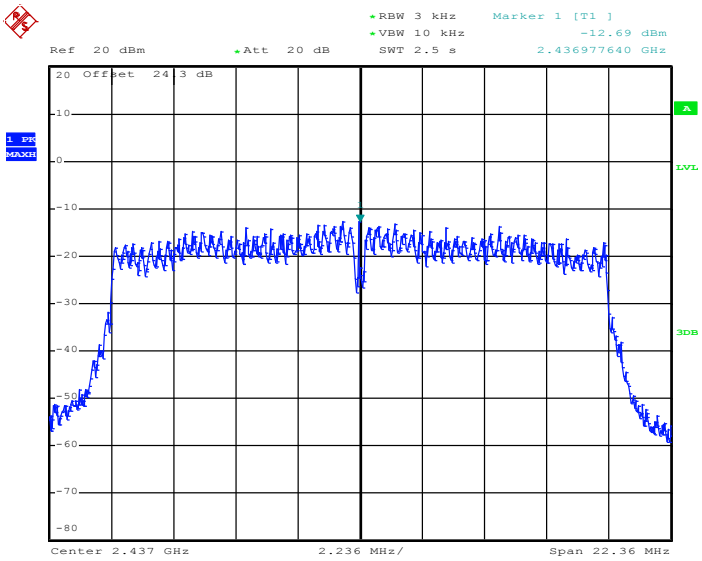
PSD 3kHz Plot on 2.4GHz 802.11n HT20 Channel 01



2O1541 15C PSD 802.11g_N20 2412 (ch01)

Date: 17.OCT.2012 21:50:15

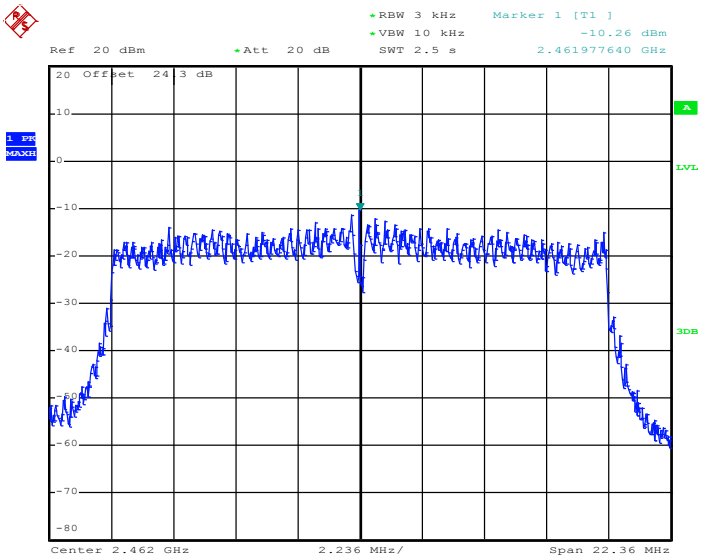
PSD 3kHz Plot on 2.4GHz 802.11n HT20 Channel 06



2O1541 15C PSD 802.11g_N20 2437 (ch06)

Date: 17.OCT.2012 21:56:19

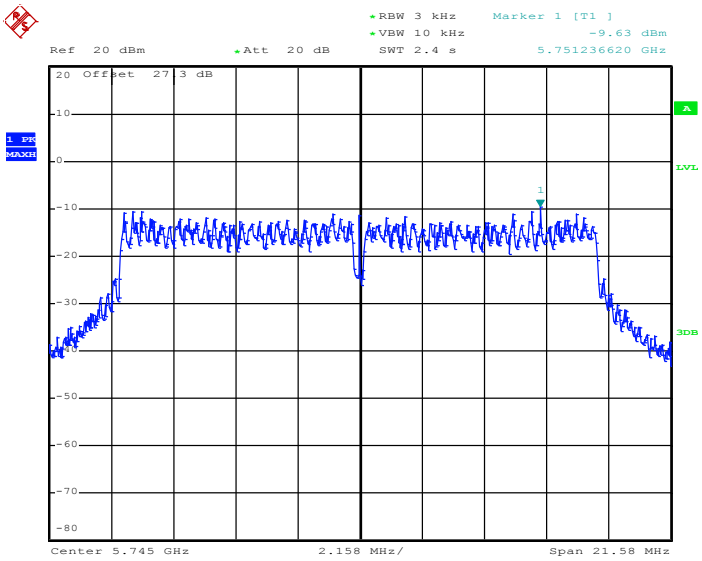
PSD 3kHz Plot on 2.4GHz 802.11n HT20 Channel 11



2O1541 15C PSD 802.11g_N20 2462 (ch11)

Date: 17.OCT.2012 22:02:36

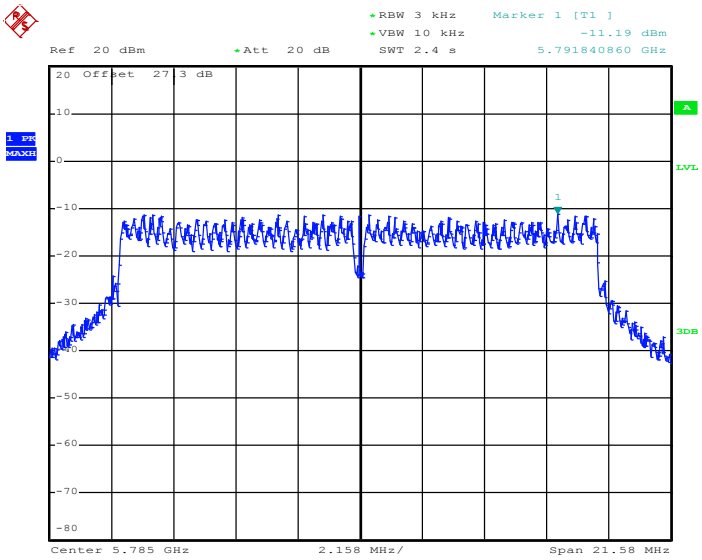
PSD 3kHz Plot on 802.11a Channel 149



2O1541 15C PSD 802.11a 5745 (ch149)

Date: 17.OCT.2012 22:08:20

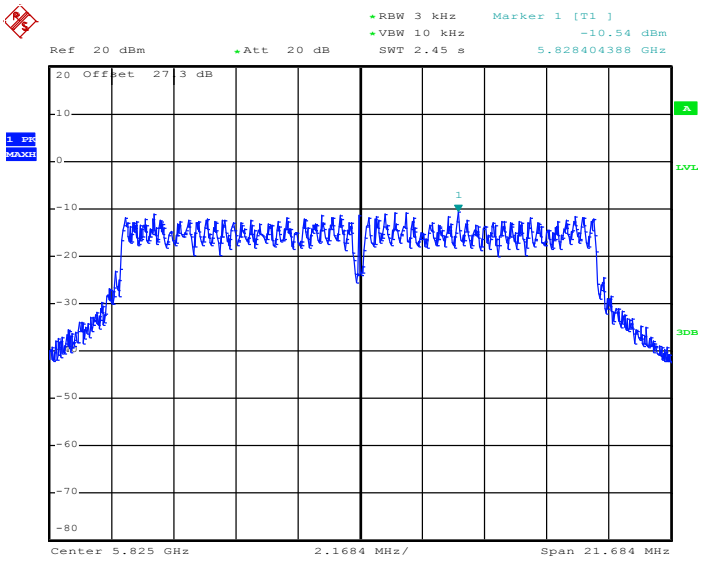
PSD 3kHz Plot on 802.11a Channel 157



2O1541 15C PSD 802.11a 5785 (ch157)

Date: 17.OCT.2012 22:13:04

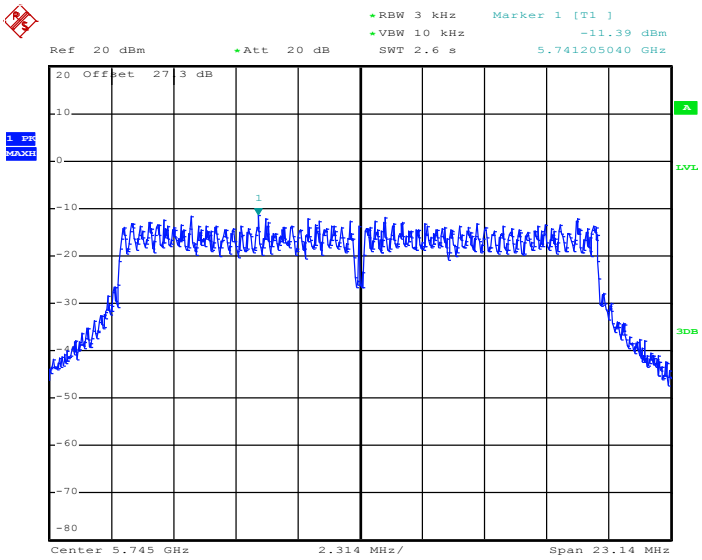
PSD 3kHz Plot on 802.11a Channel 165



2O1541 15C PSD 802.11a 5825 (ch165)

Date: 17.OCT.2012 22:16:59

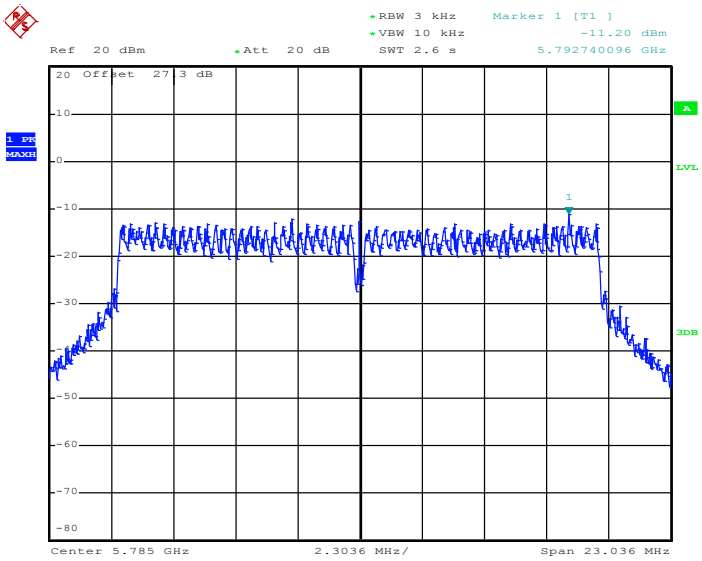
PSD 3kHz Plot on 5GHz 802.11n HT20 Channel 149



2O1541 15C PSD 802.11a_N20 5745 (ch149)

Date: 17.OCT.2012 22:55:00

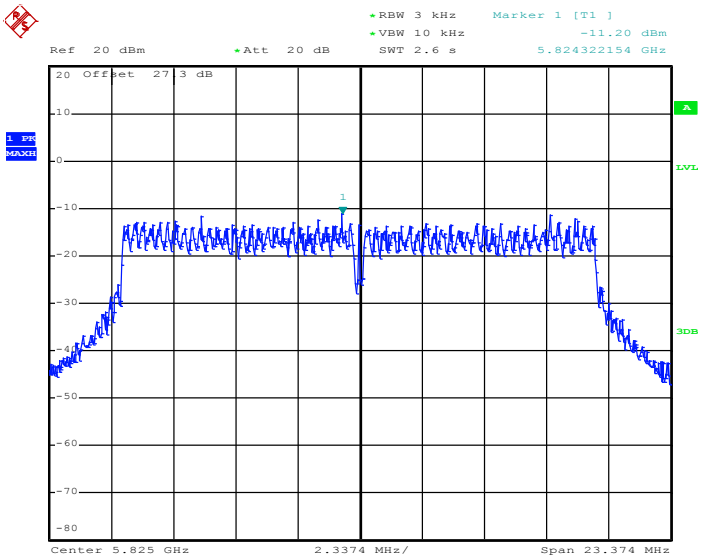
PSD 3kHz Plot on 5GHz 802.11n HT20 Channel 157



2O1541 15C PSD 802.11a_N20 5785 (ch157)

Date: 17.OCT.2012 22:51:43

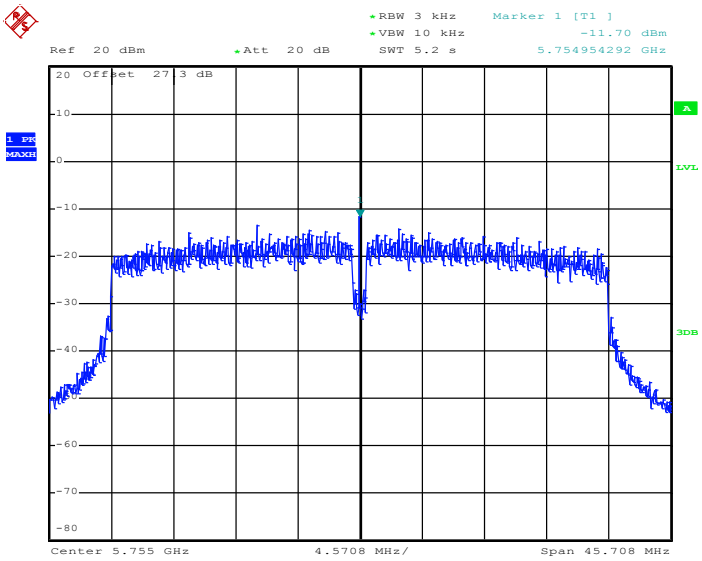
PSD 3kHz Plot on 5GHz 802.11n HT20 Channel 165



2O1541 15C PSD 802.11a_N20 5825 (ch165)

Date: 17.OCT.2012 22:47:45

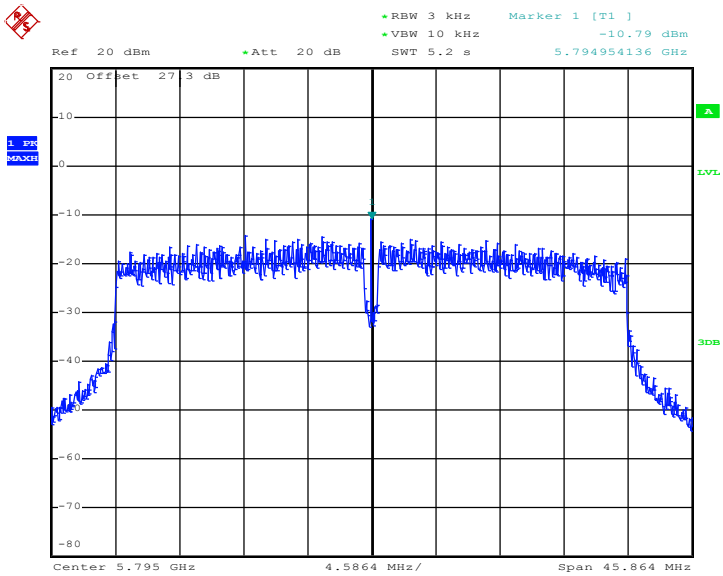
PSD 3kHz Plot on 5GHz 802.11n HT40 Channel 151



2O1541 15C PSD 802.11a_N40 5755

Date: 17.OCT.2012 22:58:55

PSD 3kHz Plot on 5GHz 802.11n HT40 Channel 159



2O1541 15C PSD 802.11a_N40 5795

Date: 17.OCT.2012 23:03:00

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).

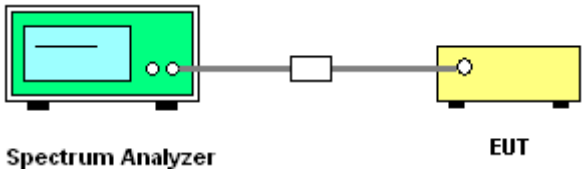
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v02.
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.

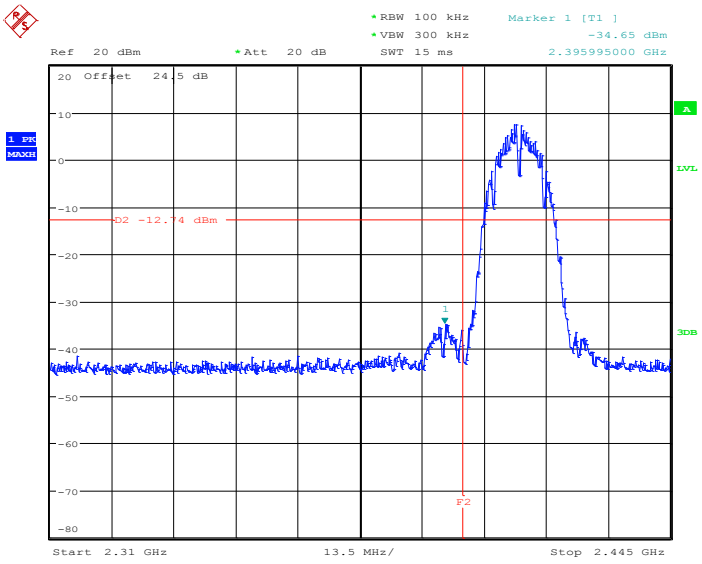
3.4.4 Test Setup



3.4.6 Test Result of Conducted Spurious at Band Edges

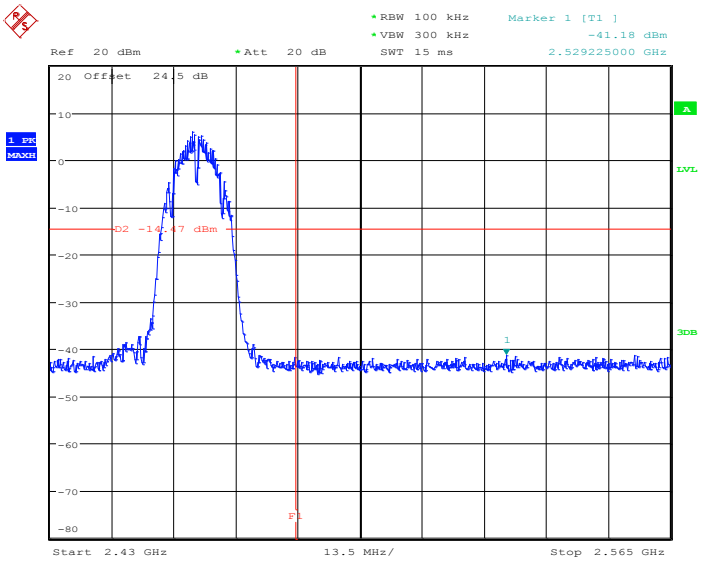
Test Mode :	802.11b	**Temperature :**	24~26℃
Test Band :	Low and High	**Relative Humidity :**	50~53%
Test Channel :	01 and 11	**Test Engineer :**	Book Lin

Low Band Edge Plot on 802.11b Channel 01



Date: 29.OCT.2012 09:29:17

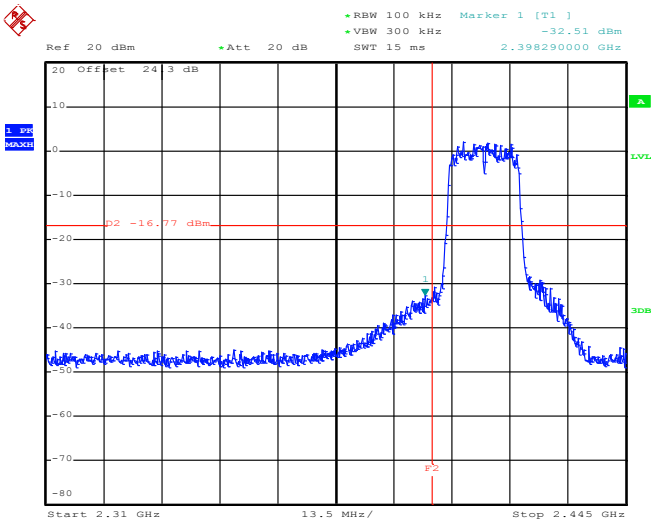
High Band Edge Plot on 802.11b Channel 11



Date: 29.OCT.2012 09:34:21

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

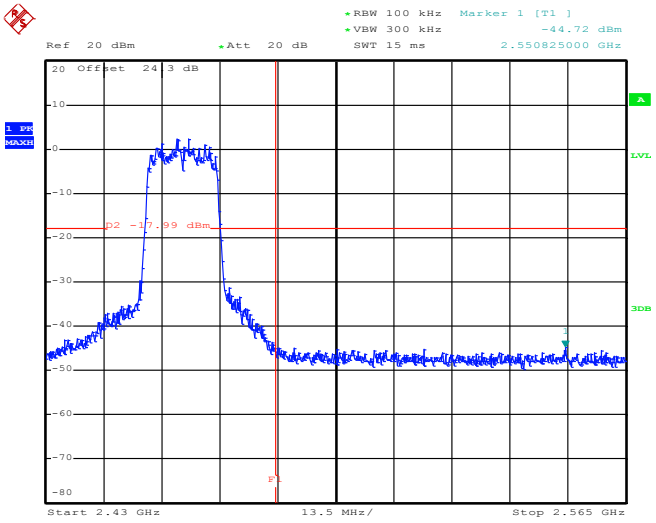
Low Band Edge Plot on 802.11g Channel 01



2O1541 15C BandEdge 802.11g 2412 (ch01)

Date: 17.OCT.2012 21:40:10

High Band Edge Plot on 802.11g Channel 11

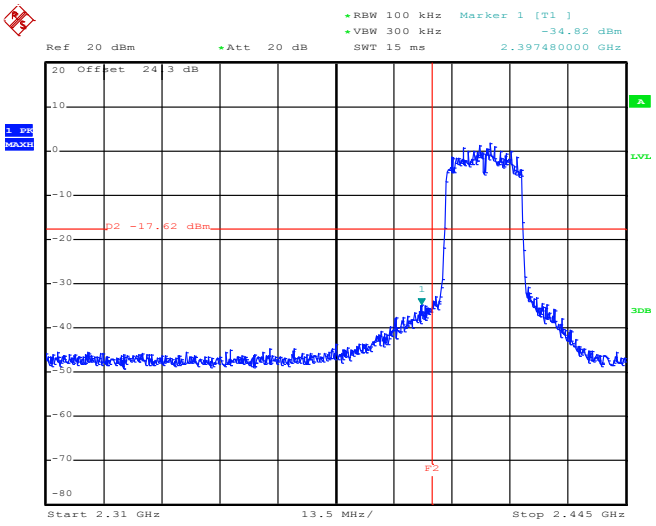


2O1541 15C BandEdge 802.11g 2462 (ch11)

Date: 17.OCT.2012 21:47:01

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

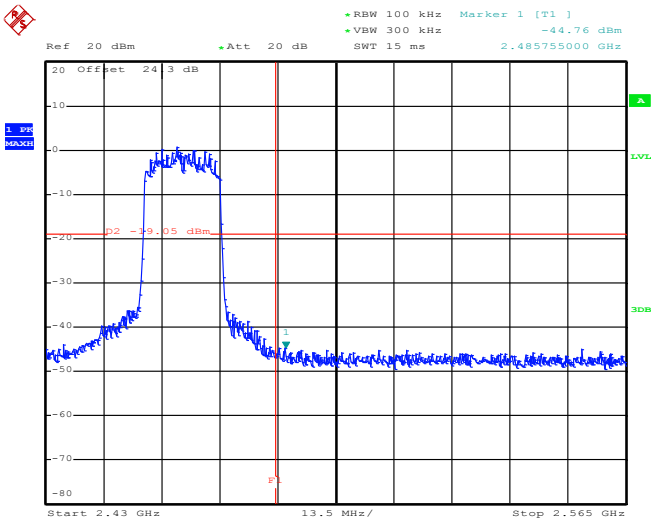
Low Band Edge Plot on 2.4GHz 802.11n HT20 Channel 01



2O1541 15C BandEdge 802.11g_N20 2412 (ch01)

Date: 17.OCT.2012 21:50:36

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

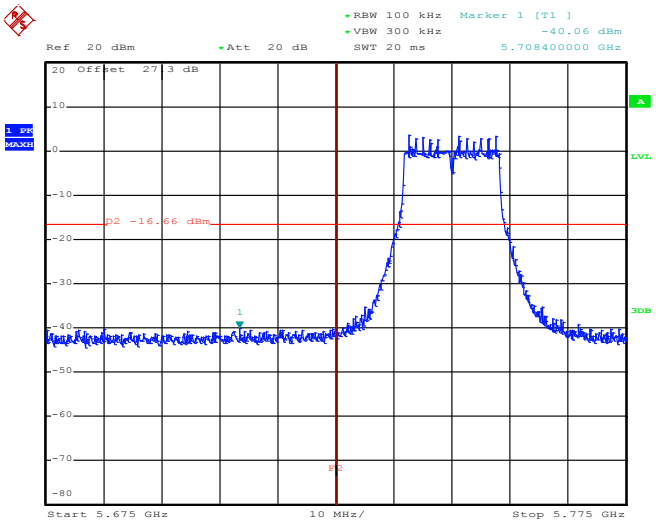


2O1541 15C BandEdge 802.11g_N20 2462 (ch11)

Date: 17.OCT.2012 22:03:01

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

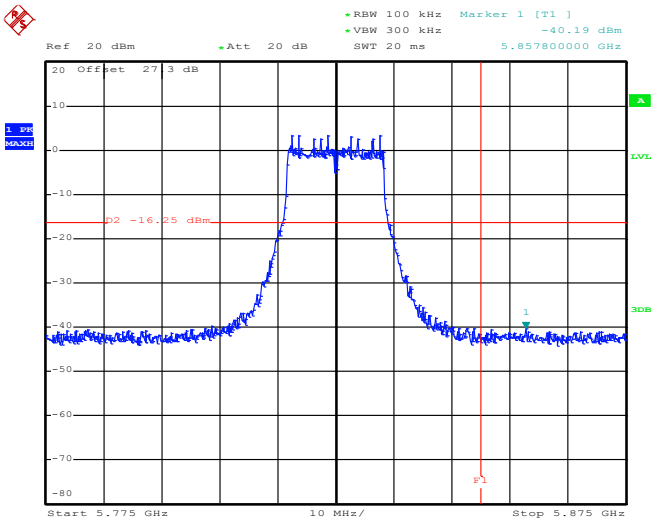
Low Band Edge Plot on 802.11a Channel 149



2O1541 15C BandEdge 802.11a 5745 (ch149)

Date: 17.OCT.2012 22:09:03

High Band Edge Plot on 802.11a Channel 165

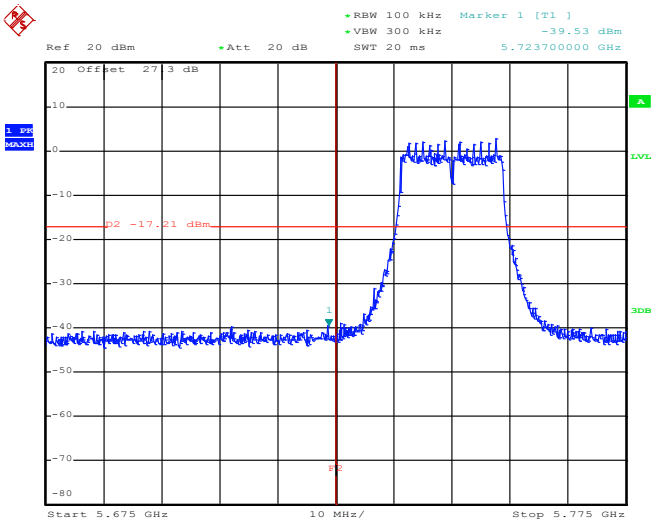


2O1541 15C BandEdge 802.11a 5825 (ch165)

Date: 17.OCT.2012 22:21:09

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

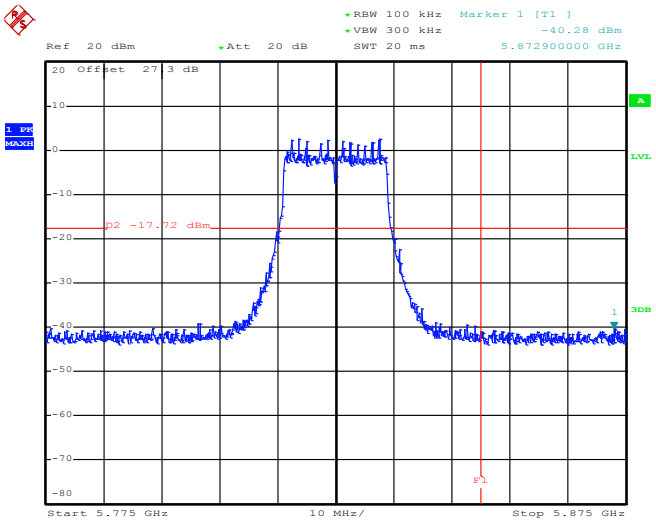
Low Band Edge Plot on 5GHz 802.11n HT20 Channel 149



2O1541 15C BandEdge 802.11a_N20 5745 (ch149)

Date: 17.OCT.2012 22:55:26

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

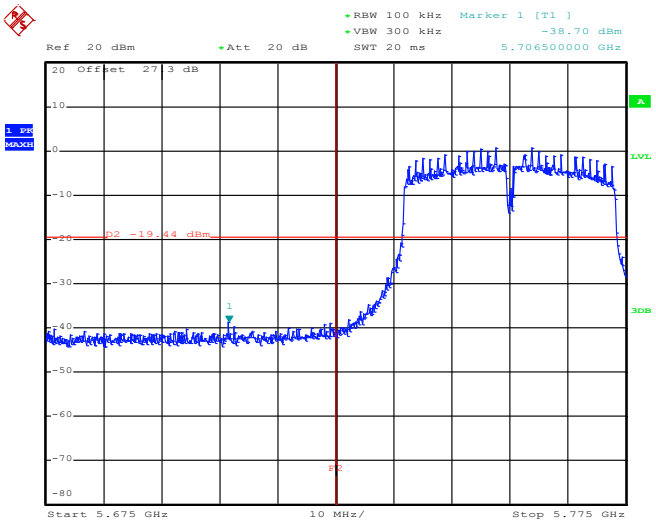


2O1541 15C BandEdge 802.11a_N20 5825 (ch165)

Date: 17.OCT.2012 22:48:25

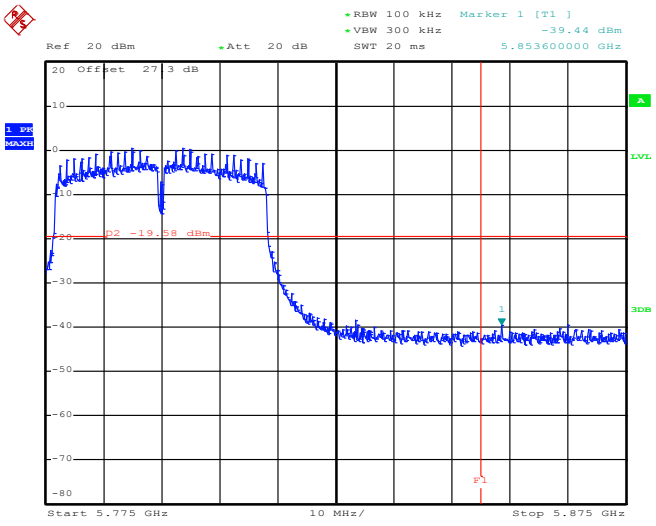
Test Mode :	802.11n HT40	Temperature :	24~26℃
Test Band :	Low and High	Relative Humidity :	50~53%
Test Channel :	151 and 159	Test Engineer :	Book Lin

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



2O1541 15C BandEdge 802.11a_N40 5755
Date: 17.OCT.2012 22:59:18

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



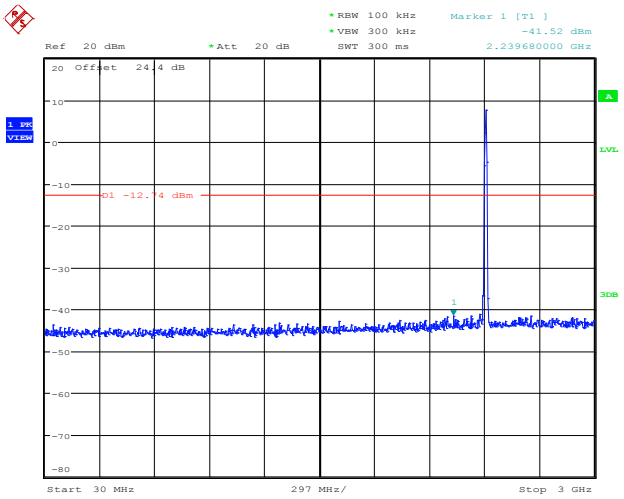
2O1541 15C BandEdge 802.11a_N40 5795
Date: 17.OCT.2012 23:03:25

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 :**	Book Lin

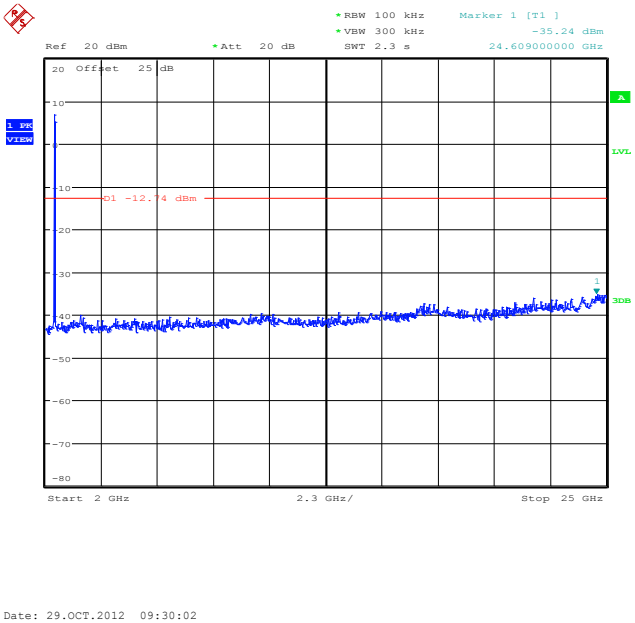
802.11b 30 MHz~3 GHz

Conducted Spurious Emission Plot on Channel 01



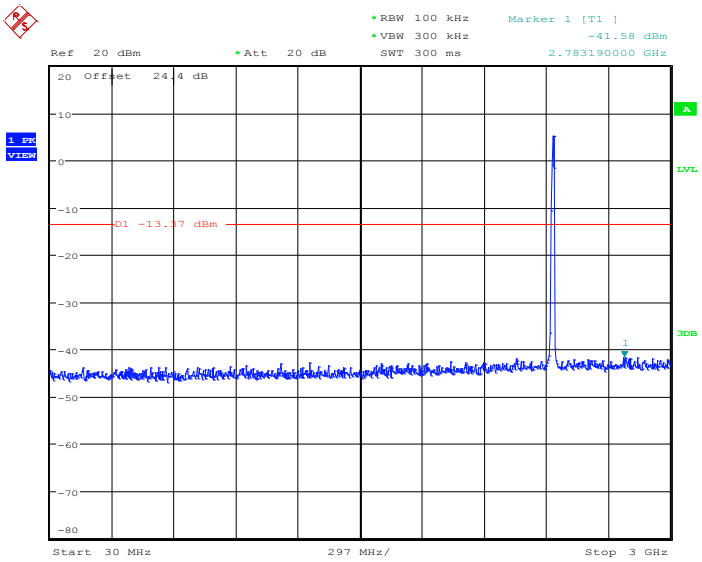
802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 01



802.11b 30 MHz~3 GHz

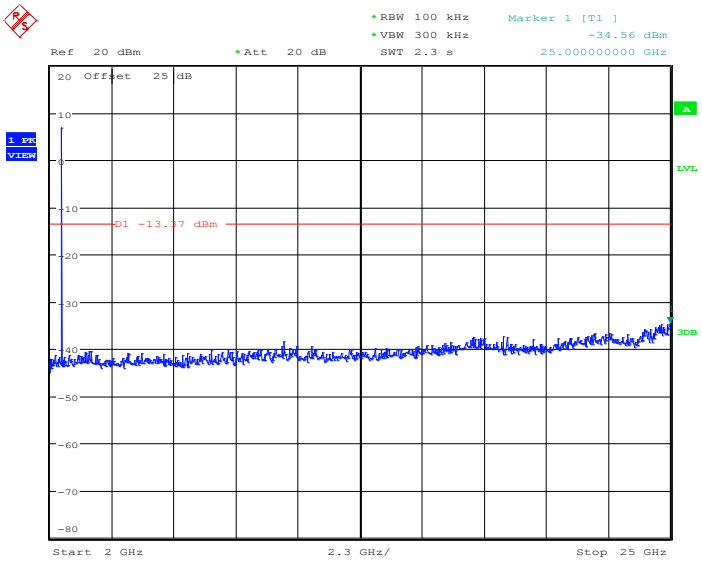
Conducted Spurious Emission Plot on Channel 06



Date: 29.OCT.2012 09:32:34

802.11b 2 GHz~25 GHz

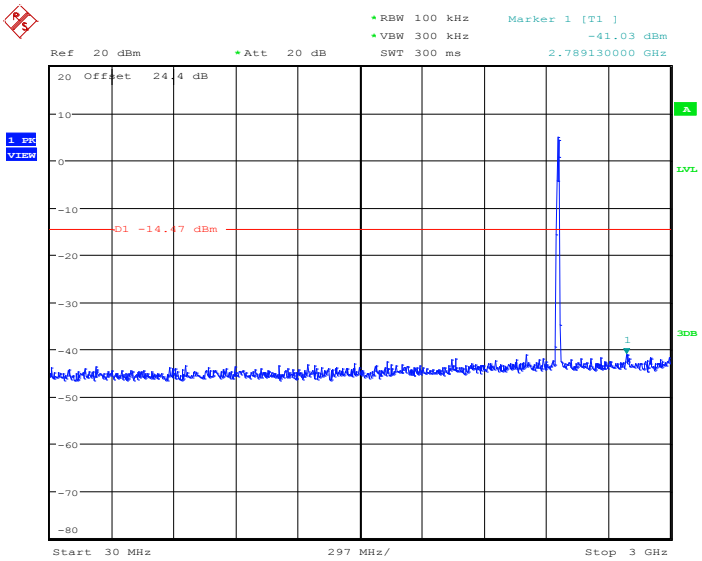
Conducted Spurious Emission Plot on Channel 06



Date: 29.OCT.2012 09:32:51

802.11b 30 MHz~3 GHz

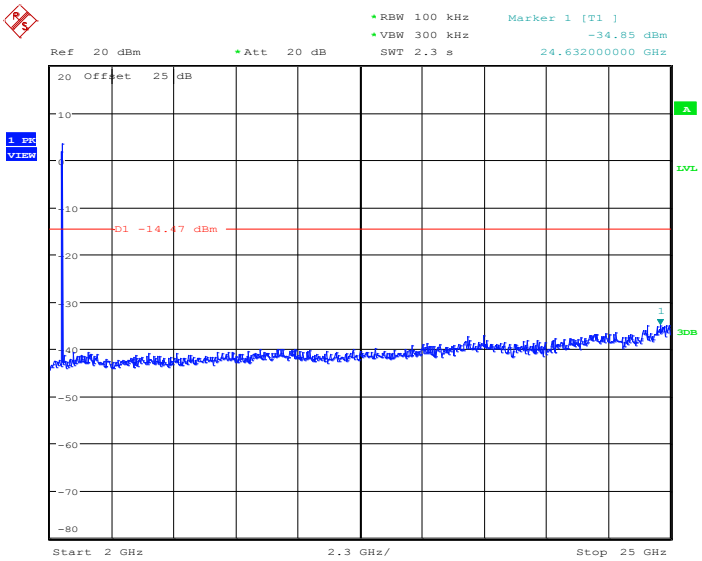
Conducted Spurious Emission Plot on Channel 11



Date: 29.OCT.2012 09:35:29

802.11b 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11

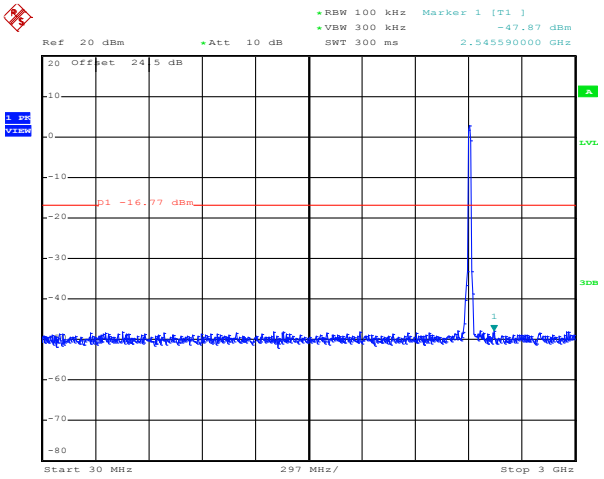


Date: 29.OCT.2012 09:35:46

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 :	Book Lin

802.11g 30 MHz~3 GHz

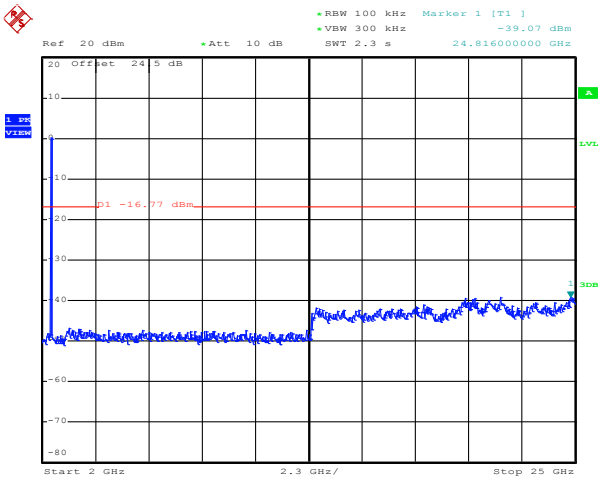
Conducted Spurious Emission Plot on Channel 01



2O1541 15C Spurious 802.11g 2412 (ch01)
Date: 17.OCT.2012 23:15:16

802.11g 2 GHz~25 GHz

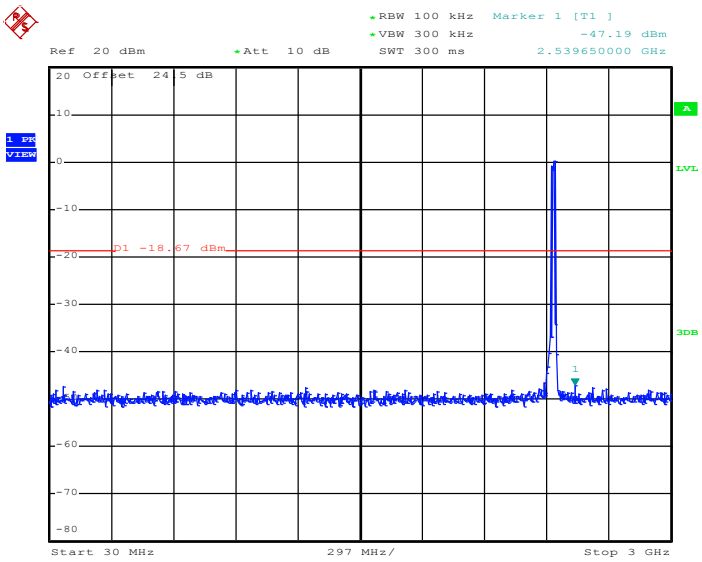
Conducted Spurious Emission Plot on Channel 01



2O1541 15C Spurious 802.11g 2412 (ch01)
Date: 17.OCT.2012 23:15:34

802.11g 30 MHz~3 GHz

Conducted Spurious Emission Plot on Channel 06

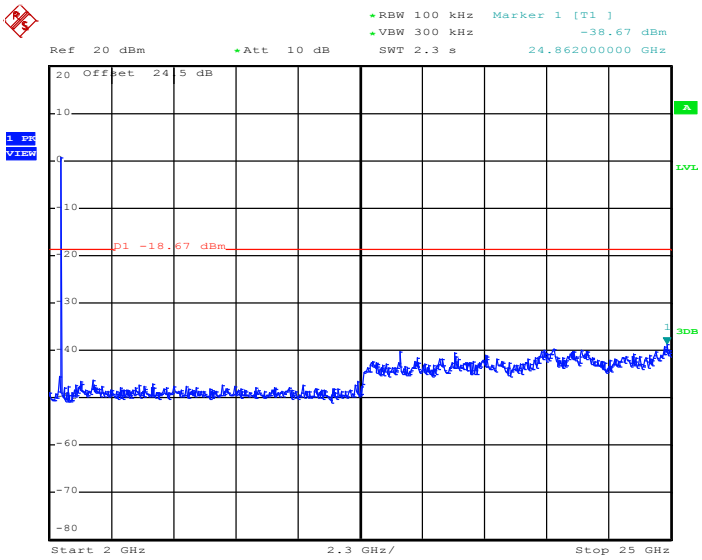


2O1541 15C Spurious 802.11g 2437 (ch06)

Date: 17.OCT.2012 23:16:09

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 06

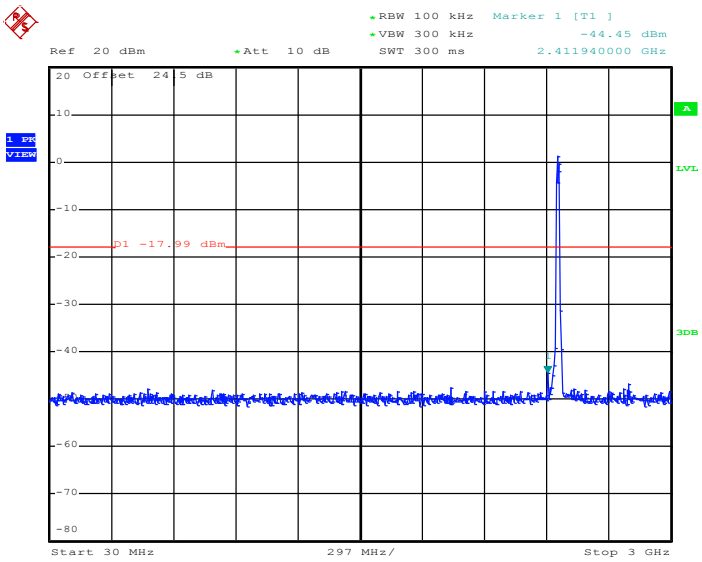


2O1541 15C Spurious 802.11g 2437 (ch06)

Date: 17.OCT.2012 23:16:26

802.11g 30 MHz~3 GHz

Conducted Spurious Emission Plot on Channel 11

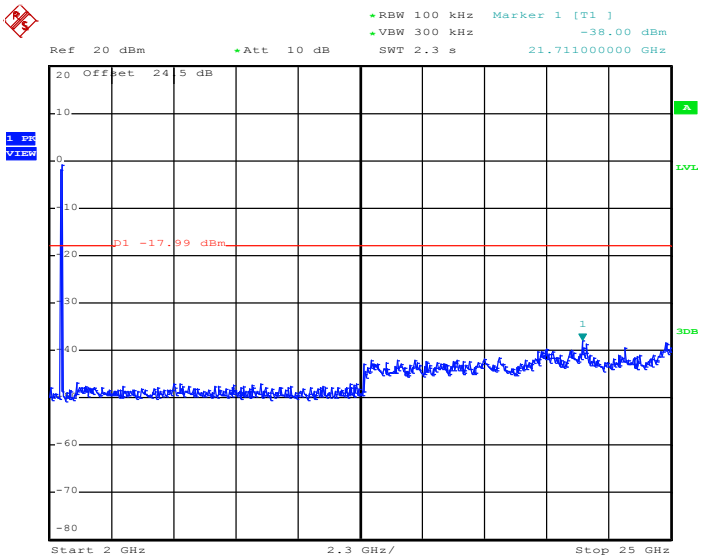


2O1541 15C Spurious 802.11g 2462 (ch11)

Date: 17.OCT.2012 23:17:35

802.11g 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



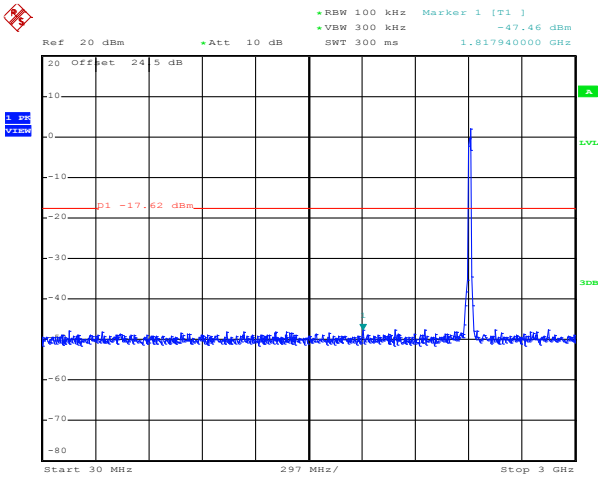
2O1541 15C Spurious 802.11g 2462 (ch11)

Date: 17.OCT.2012 23:17:53

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 :	Book Lin

2.4GHz 802.11n HT20 30 MHz~3 GHz

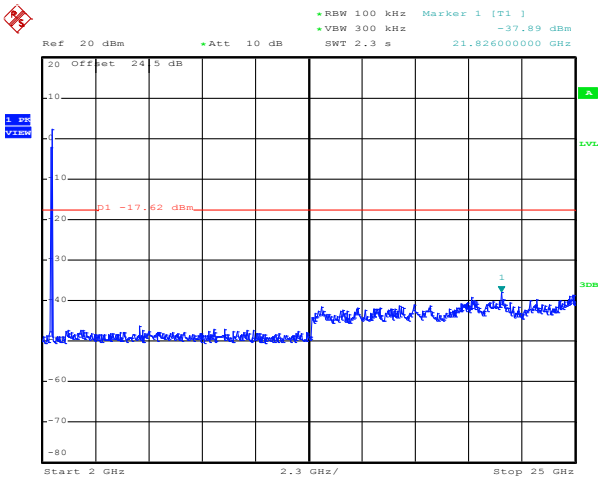
Conducted Spurious Emission Plot on Channel 01



2O1541 15C Spurious 802.11g_N20 2412 (ch01)
Date: 17.OCT.2012 23:20:47

2.4GHz 802.11n HT20 2 GHz~25 GHz

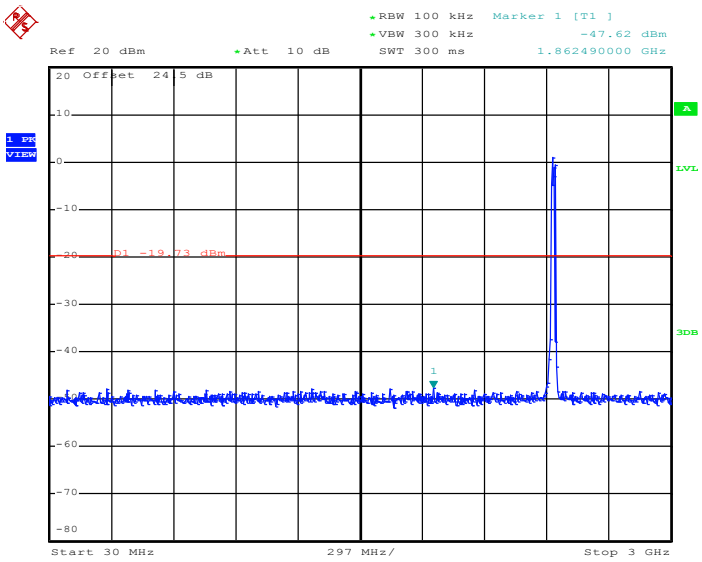
Conducted Spurious Emission Plot on Channel 01



2O1541 15C Spurious 802.11g_N20 2412 (ch01)
Date: 17.OCT.2012 23:21:05

2.4GHz 802.11n HT20 30 MHz~3 GHz

Conducted Spurious Emission Plot on Channel 06

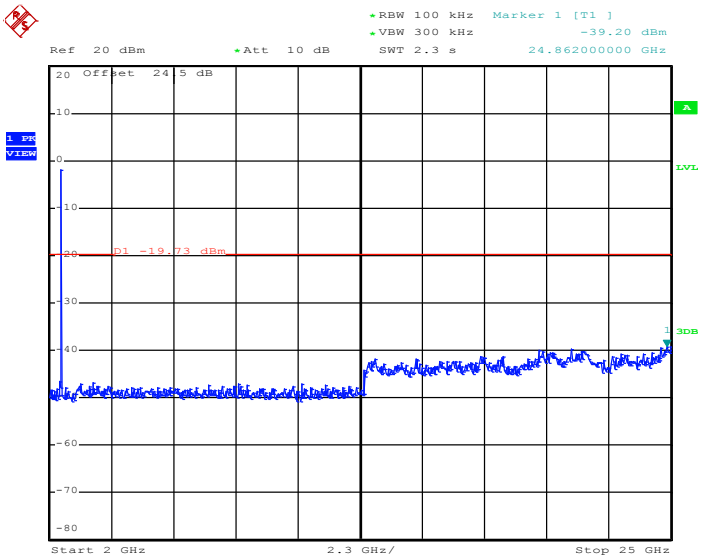


2O1541 15C Spurious 802.11g_N20 2437 (ch06)

Date: 17.OCT.2012 23:19:49

2.4GHz 802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 06

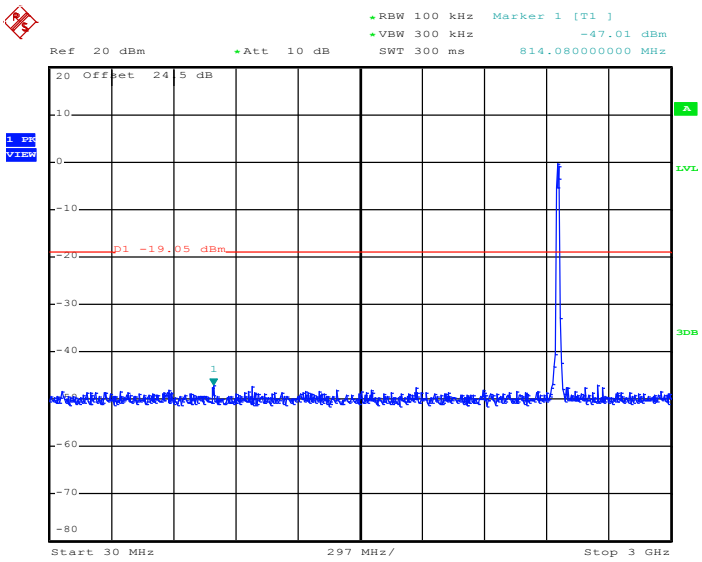


2O1541 15C Spurious 802.11g_N20 2437 (ch06)

Date: 17.OCT.2012 23:20:06

2.4GHz 802.11n HT20 30 MHz~3 GHz

Conducted Spurious Emission Plot on Channel 11

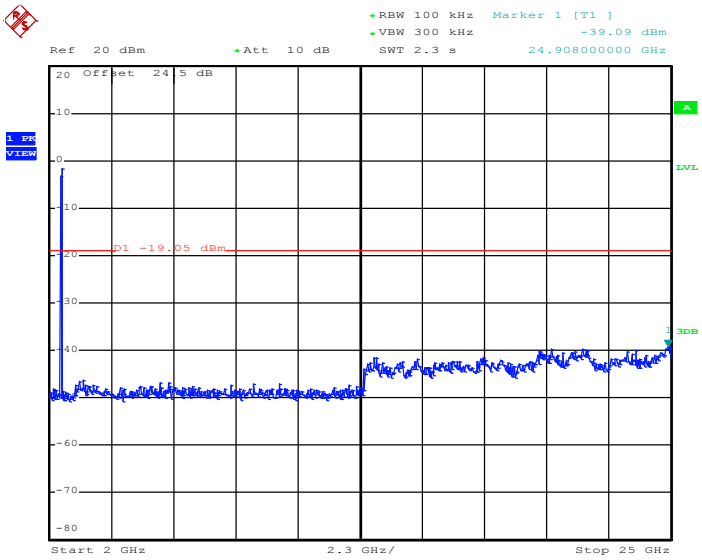


2O1541 15C Spurious 802.11g_N20 2462 (ch11)

Date: 17.OCT.2012 23:18:56

2.4GHz 802.11n HT20 2 GHz~25 GHz

Conducted Spurious Emission Plot on Channel 11



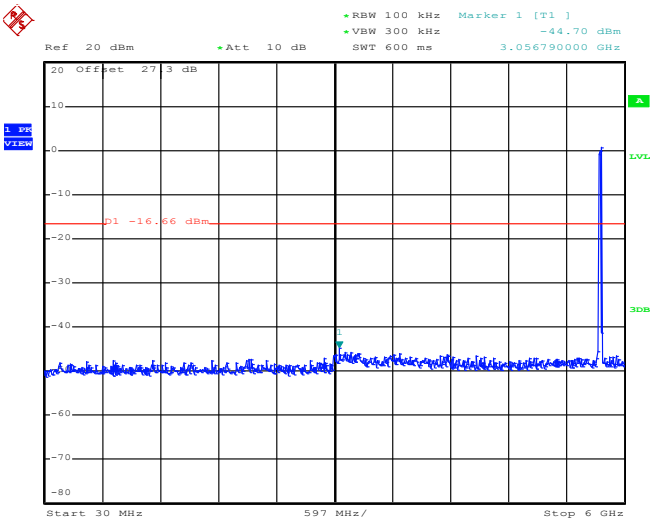
2O1541 15C Spurious 802.11g_N20 2462 (ch11)

Date: 17.OCT.2012 23:19:14

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 :	Book Lin

802.11a 30 MHz~6 GHz

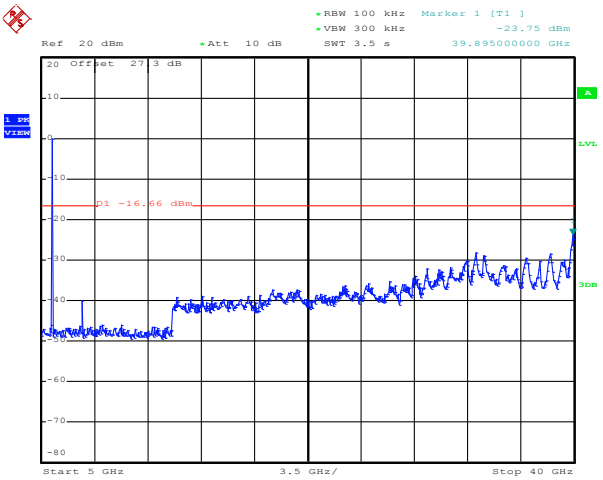
Conducted Spurious Emission Plot on Channel 149



2O1541 15C Spurious 802.11a 5745 (ch149)
Date: 17.OCT.2012 22:11:02

802.11a 5 GHz~40 GHz

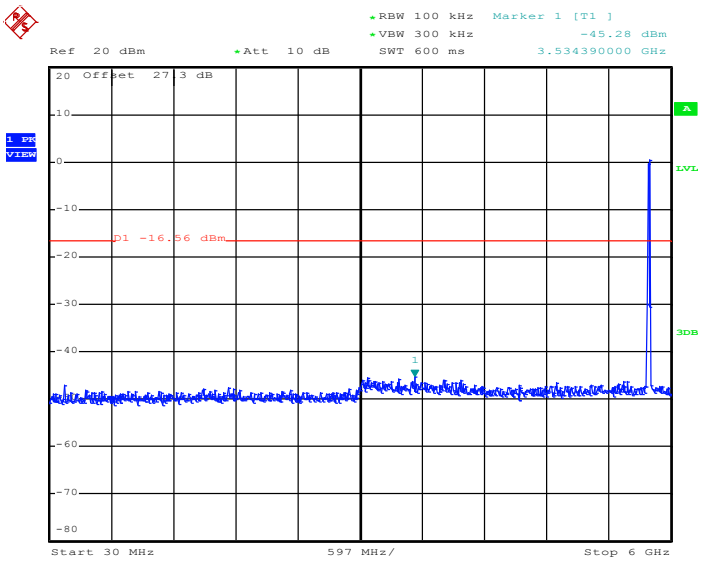
Conducted Spurious Emission Plot on Channel 149



2O1541 15C Spurious 802.11a 5745 (ch149)
Date: 17.OCT.2012 22:11:19

802.11a 30 MHz~6 GHz

Conducted Spurious Emission Plot on Channel 157

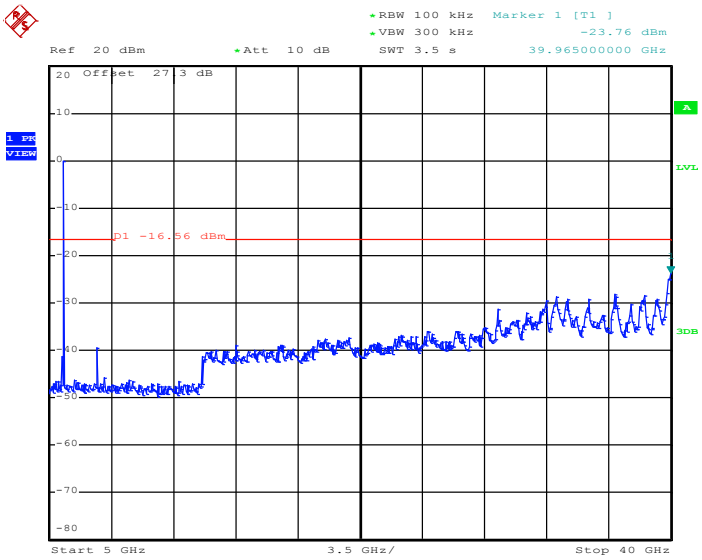


2O1541 15C Spurious 802.11a 5785 (ch157)

Date: 17.OCT.2012 22:13:40

802.11a 5 GHz~40 GHz

Conducted Spurious Emission Plot on Channel 157

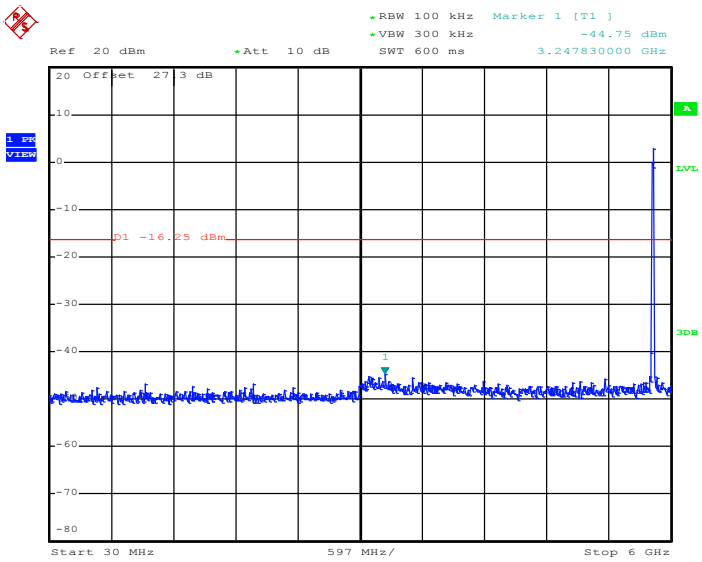


2O1541 15C Spurious 802.11a 5785 (ch157)

Date: 17.OCT.2012 22:13:57

802.11a 30 MHz~6 GHz

Conducted Spurious Emission Plot on Channel 165

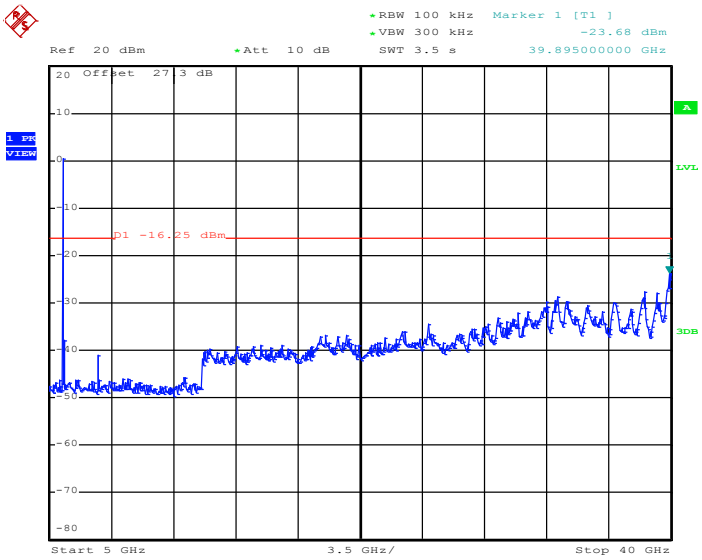


2O1541 15C Spurious 802.11a 5825 (ch165)

Date: 17.OCT.2012 22:22:41

802.11a 5 GHz~40 GHz

Conducted Spurious Emission Plot on Channel 165



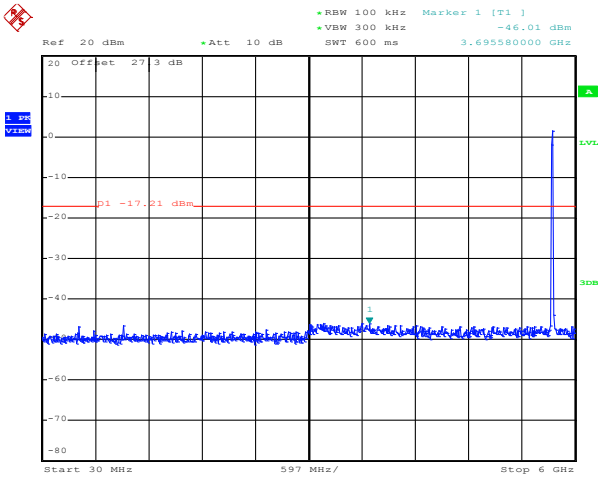
2O1541 15C Spurious 802.11a 5825 (ch165)

Date: 17.OCT.2012 22:22:58

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 :	Book Lin

5GHz 802.11n HT20 30 MHz~6 GHz

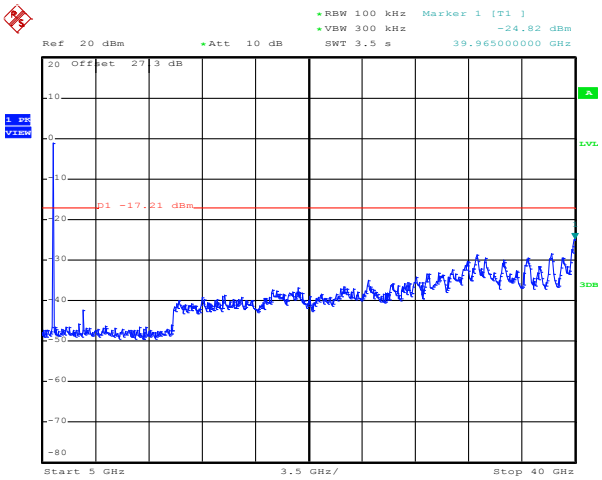
Conducted Spurious Emission Plot on Channel 149



2O1541 15C Spurious 802.11a_N20 5745 (ch149)
Date: 17.OCT.2012 22:55:46

5GHz 802.11n HT20 5 GHz~40 GHz

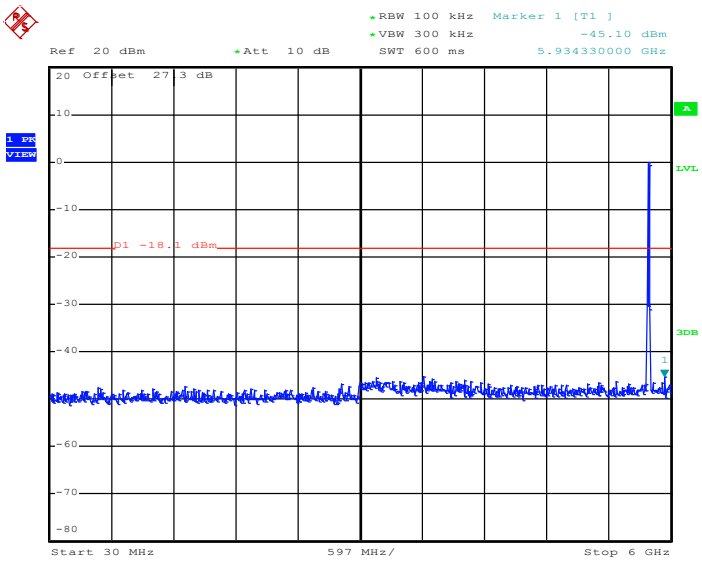
Conducted Spurious Emission Plot on Channel 149



2O1541 15C Spurious 802.11a_N20 5745 (ch149)
Date: 17.OCT.2012 22:56:04

5GHz 802.11n HT20 30 MHz~6 GHz

Conducted Spurious Emission Plot on Channel 157

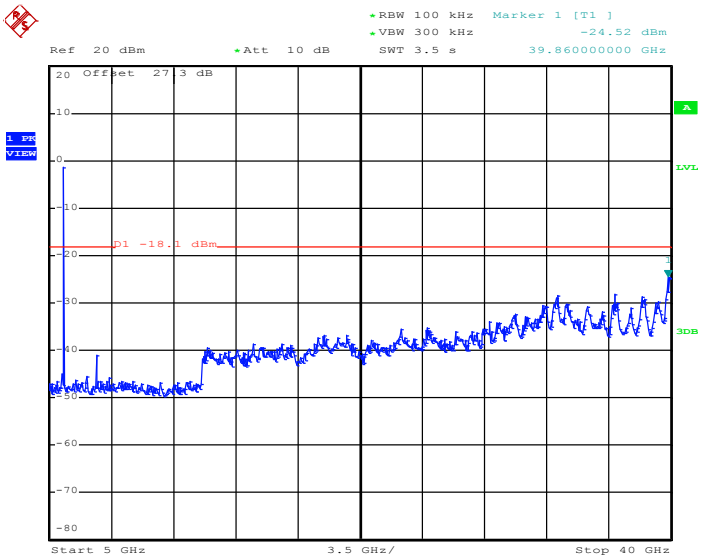


2O1541 15C Spurious 802.11a_N20 5785 (ch157)

Date: 17.OCT.2012 22:52:31

5GHz 802.11n HT20 5 GHz~40 GHz

Conducted Spurious Emission Plot on Channel 157

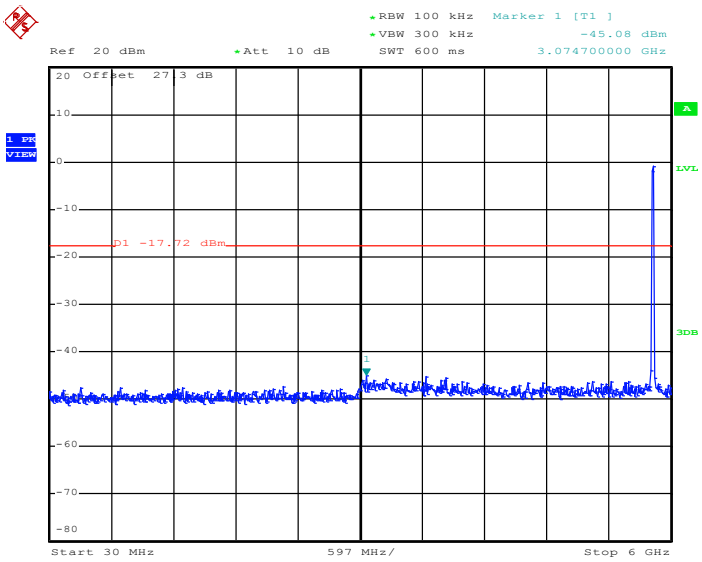


2O1541 15C Spurious 802.11a_N20 5785 (ch157)

Date: 17.OCT.2012 22:52:49

5GHz 802.11n HT20 30 MHz~6 GHz

Conducted Spurious Emission Plot on Channel 165

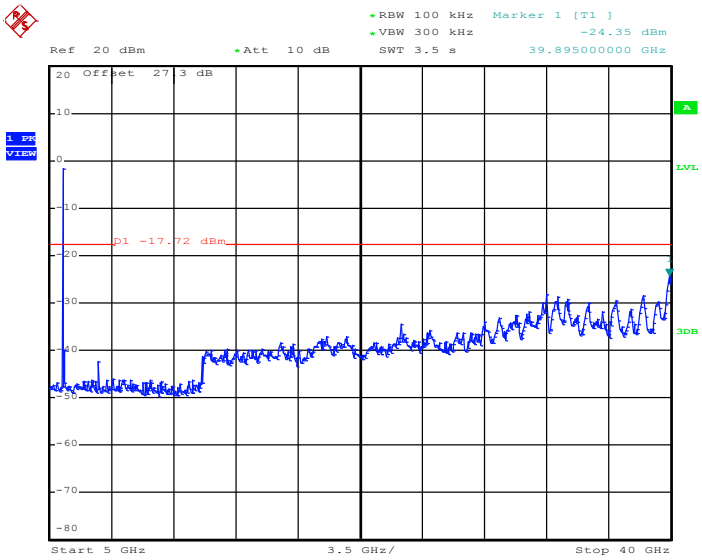


2O1541 15C Spurious 802.11a_N20 5825 (ch165)

Date: 17.OCT.2012 22:48:49

5GHz 802.11n HT20 5 GHz~40 GHz

Conducted Spurious Emission Plot on Channel 165



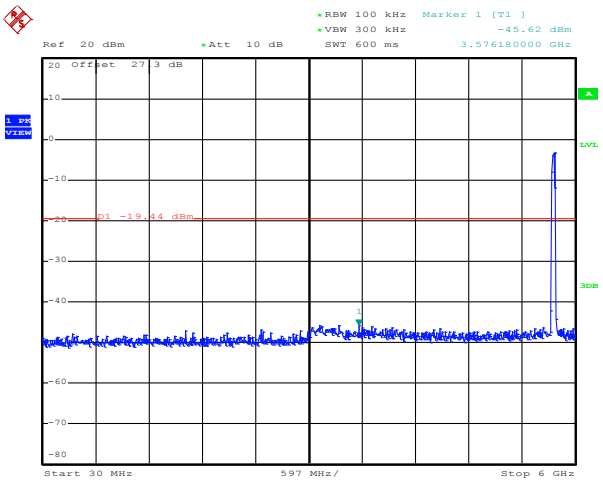
2O1541 15C Spurious 802.11a_N20 5825 (ch165)

Date: 17.OCT.2012 22:49:06

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 :	Book Lin

5GHz 802.11n HT40 30 MHz~6 GHz

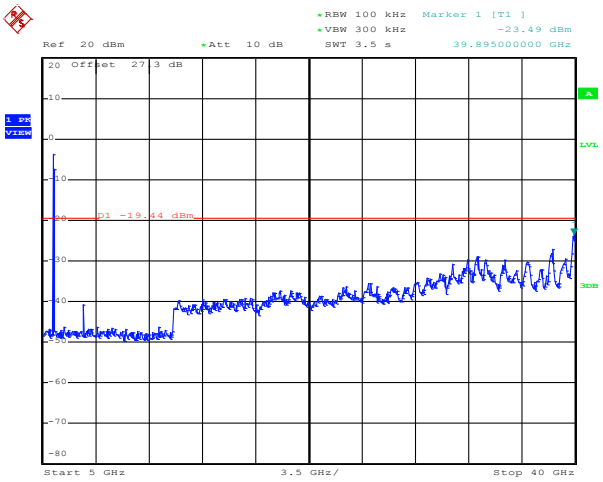
Conducted Spurious Emission Plot on Channel 151



2O1541 15C Spurious 802.11a_N40 5755
Date: 17.OCT.2012 22:59:40

5GHz 802.11n HT40 5 GHz~40 GHz

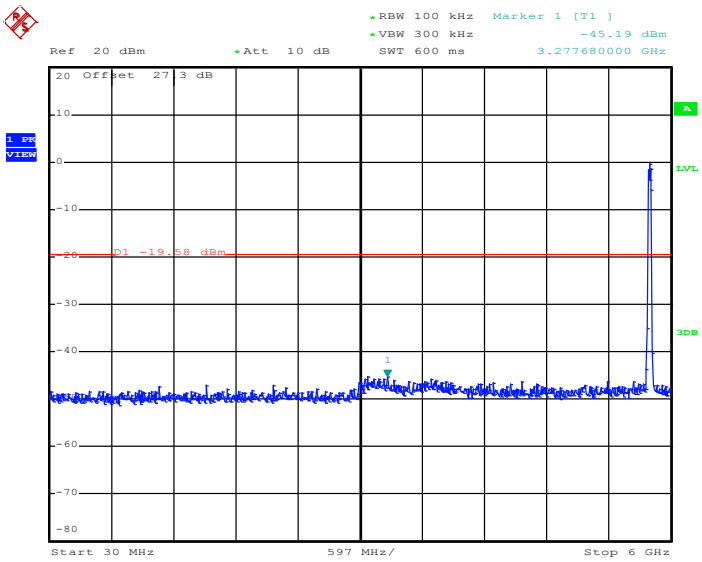
Conducted Spurious Emission Plot on Channel 151



2O1541 15C Spurious 802.11a_N40 5755
Date: 17.OCT.2012 22:59:58

5GHz 802.11n HT40 30 MHz~6 GHz

Conducted Spurious Emission Plot on Channel 159

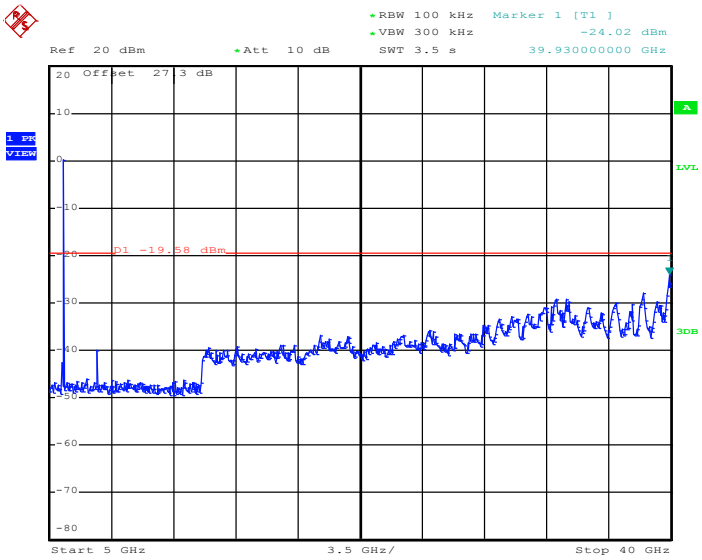


2O1541 15C Spurious 802.11a_N40 5795

Date: 17.OCT.2012 23:03:45

5GHz 802.11n HT40 5GHz~6 GHz

Conducted Spurious Emission Plot on Channel 159



2O1541 15C Spurious 802.11a_N40 5795

Date: 17.OCT.2012 23:04:03

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

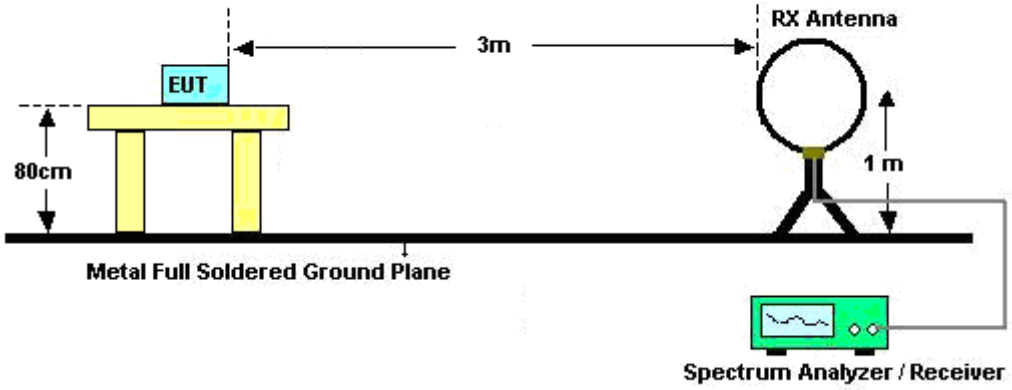
1. The testing follows the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in 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	98.63	-	-	10Hz
802.11g	93.72	1.432	0.70	1kHz
2.4GHz 802.11n HT20	93.33	1.344	0.74	1kHz
802.11a	93.23	1.336	0.75	1kHz
5GHz 802.11n HT20	93.33	1.344	0.74	1kHz
5GHz 802.11n HT40	86.98	0.668	1.50	3kHz

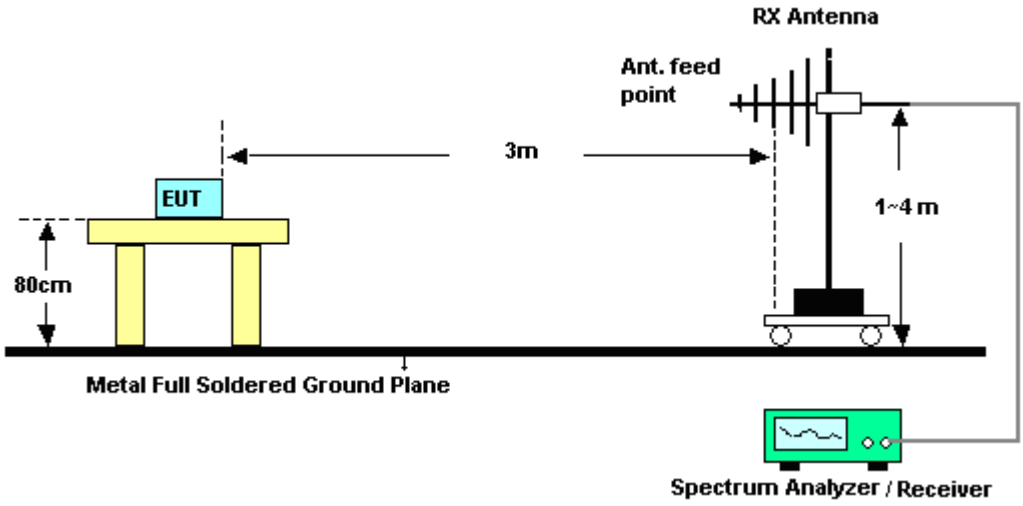
Note: For average measurement with duty cycle < 98%, use reduced VBW measurement method 4.2.3.2.3 in ANSI C63.10.

3.5.4 Test Setup

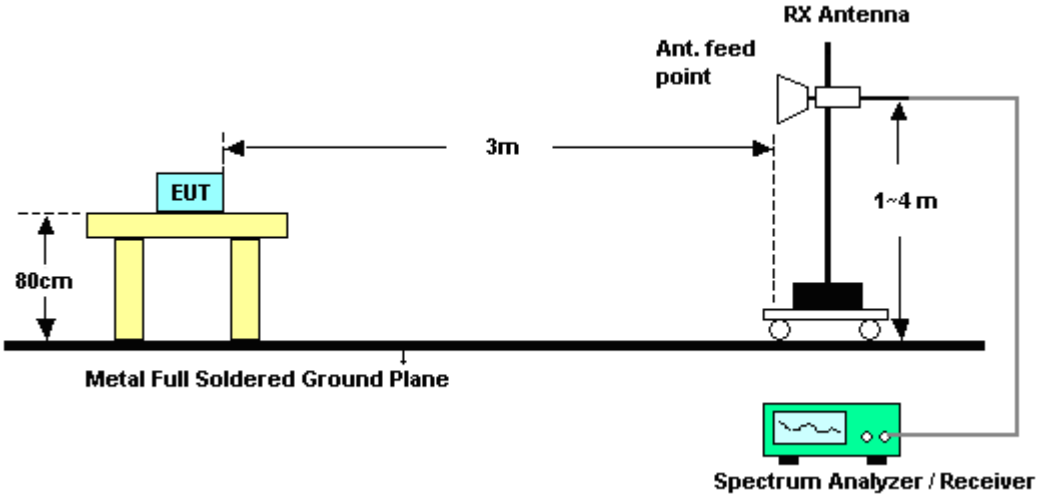
For radiated emissions below 30MHz



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

Test Mode :	802.11b	**Temperature :**	23~24°C
Test Band :	Low	**Relative Humidity :**	42~43%
Test Channel :	01	**Test Engineer :**	Kai Wang, Ivan Chiang, and Timberland Lin

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**
2386.14	57.85	-16.15	74	53.6	32.36	6.45	34.56	109	25	Peak
2385.42	48.93	-5.07	54	44.71	32.33	6.45	34.56	109	25	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**
2384.97	50.97	-23.03	74	46.75	32.33	6.45	34.56	100	108	Peak
2385.42	40.42	-13.58	54	36.2	32.33	6.45	34.56	100	108	Average

Test Mode :	802.11b	**Temperature :**	23~24°C
Test Band :	High	**Relative Humidity :**	42~43%
Test Channel :	11	**Test Engineer :**	Kai Wang, Ivan Chiang, and Timberland Lin

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**
2485.22	51.21	-22.79	74	46.69	32.48	6.59	34.55	200	79	Peak
2488.6	38.16	-15.84	54	33.62	32.5	6.59	34.55	200	79	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**
2484.24	48.32	-25.68	74	43.8	32.48	6.59	34.55	100	71	Peak
2490.04	34.23	-19.77	54	29.69	32.5	6.59	34.55	100	71	Average

Test Mode :	802.11g	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	01	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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	71.54	-2.46	74	67.29	32.36	6.45	34.56	200	57	Peak
2390.00	53.25	-0.75	54	49	32.36	6.45	34.56	200	57	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
2389.56	65.74	-8.26	74	61.49	32.36	6.45	34.56	200	120	Peak
2389.92	46.38	-7.62	54	42.13	32.36	6.45	34.56	200	120	Average

Test Mode :	802.11g	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	11	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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
2483.52	64.24	-9.76	74	59.72	32.48	6.59	34.55	198	72	Peak
2483.54	42.29	-11.71	54	37.77	32.48	6.59	34.55	198	72	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.22	57.79	-16.21	74	53.27	32.48	6.59	34.55	100	57	Peak
2483.96	37.64	-16.36	54	33.12	32.48	6.59	34.55	100	57	Average

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	01	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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
2389.11	72.66	-1.34	74	68.41	32.36	6.45	34.56	108	78	Peak
2390.00	53.68	-0.32	54	49.43	32.36	6.45	34.56	108	78	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.00	63.84	-10.16	74	59.59	32.36	6.45	34.56	140	123	Peak
2390.00	45.29	-8.71	54	41.04	32.36	6.45	34.56	140	123	Average

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	11	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2486.00	59.89	-14.11	74	55.37	32.48	6.59	34.55	200	77	Peak
2483.50	40.19	-13.81	54	35.67	32.48	6.59	34.55	200	77	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
2483.98	50.36	-23.64	74	45.84	32.48	6.59	34.55	100	334	Peak
2483.78	35.19	-18.81	54	30.67	32.48	6.59	34.55	100	334	Average

Test Mode :	802.11a	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	149	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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	93.9	-	-	80.91	35.44	11.39	33.84	100	300	Average
5745	104.49	-	-	91.5	35.44	11.39	33.84	100	300	Peak
5725	62.54	-21.95	84.49	49.63	35.41	11.34	33.84	100	300	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	102.56	-	-	89.57	35.44	11.39	33.84	103	311	Average
5745	112.83	-	-	99.84	35.44	11.39	33.84	103	311	Peak
5725	70.14	-22.69	92.83	57.23	35.41	11.34	33.84	103	311	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	165	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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	95.18	-	-	81.95	35.56	11.51	33.84	103	350	Average
5825	106.12	-	-	92.89	35.56	11.51	33.84	103	350	Peak
5850	56.09	-30.03	86.12	42.79	35.58	11.56	33.84	103	350	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	101.36	-	-	88.13	35.56	11.51	33.84	102	296	Average
5825	111.25	-	-	98.02	35.56	11.51	33.84	102	296	Peak
5850	69.69	-21.56	91.25	56.39	35.58	11.56	33.84	102	296	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	149	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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	95.16	-	-	82.17	35.44	11.39	33.84	180	360	Average
5745	105.89	-	-	92.95	35.44	11.34	33.84	180	360	Peak
5725	62.78	-23.11	85.89	49.87	35.41	11.34	33.84	180	360	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	100.9	-	-	87.91	35.44	11.39	33.84	103	289	Average
5745	111.18	-	-	98.17	35.46	11.39	33.84	103	289	Peak
5725	68.22	-22.96	91.18	55.31	35.41	11.34	33.84	103	289	Peak

Test Mode :	5GGz 802.11n HT20	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	165	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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	94.19	-	-	80.96	35.56	11.51	33.84	103	349	Average
5825	103.92	-	-	90.72	35.53	11.51	33.84	103	349	Peak
5850	57.45	-26.47	83.92	44.15	35.58	11.56	33.84	103	349	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	99.48	-	-	86.25	35.56	11.51	33.84	102	297	Average
5825	109.64	-	-	96.41	35.56	11.51	33.84	102	297	Peak
5850	64.09	-25.55	89.64	50.79	35.58	11.56	33.84	102	297	Peak

Test Mode :	5GHz 802.11n HT40	Temperature :	23~24°C
Test Band :	Low	Relative Humidity :	42~43%
Test Channel :	151	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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
5755	91.75	-	-	78.76	35.44	11.39	33.84	105	350	Average
5755	101.56	-	-	88.57	35.44	11.39	33.84	105	350	Peak
5725	63.67	-17.89	81.56	50.76	35.41	11.34	33.84	105	350	Peak
5850	52.79	-28.77	81.56	39.49	35.58	11.56	33.84	105	350	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
5755	99.54	-	-	86.53	35.46	11.39	33.84	104	313	Average
5755	109	-	-	95.99	35.46	11.39	33.84	104	313	Peak
5725	71.78	-17.22	89	58.87	35.41	11.34	33.84	104	313	Peak
5850	54.48	-34.52	89	41.18	35.58	11.56	33.84	104	313	Peak

Test Mode :	5GHz 802.11n HT40	Temperature :	23~24°C
Test Band :	High	Relative Humidity :	42~43%
Test Channel :	159	Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin

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
5795	90.57	-	-	77.43	35.51	11.47	33.84	104	350	Average
5795	100.48	-	-	87.34	35.51	11.47	33.84	104	350	Peak
5725	52.63	-27.85	80.48	39.72	35.41	11.34	33.84	104	350	Peak
5850	52.26	-28.22	80.48	38.96	35.58	11.56	33.84	104	350	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
5795	97.62	-	-	84.48	35.51	11.47	33.84	103	311	Average
5795	107.44	-	-	94.3	35.51	11.47	33.84	103	311	Peak
5725	58.24	-29.2	87.44	45.33	35.41	11.34	33.84	103	311	Peak
5850	58.83	-28.61	87.44	45.53	35.58	11.56	33.84	103	311	Peak

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

Test Mode :	802.11b	**Temperature :**	23~24°C
Test Channel :	01	**Relative Humidity :**	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	**Polarization :**	Horizontal
Remark :	1. 2412 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
39.45	19.18	-20.82	40	37.67	12.7	0.51	31.7	-	-	Peak
98.85	19.55	-23.95	43.5	39.24	10.96	1.03	31.68	-	-	Peak
290.55	28.2	-17.8	46	44.62	13.02	2.19	31.63	100	127	Peak
308.4	22.9	-23.1	46	38.72	13.45	2.37	31.64	-	-	Peak
328	22.82	-23.18	46	38.38	13.68	2.35	31.59	-	-	Peak
980.4	26.06	-27.94	54	31.88	21.2	3.92	30.94	-	-	Peak
2412	101.88	-	-	97.57	32.38	6.49	34.56	109	25	Average
2412	107.08	-	-	102.77	32.38	6.49	34.56	109	25	Peak

Test Mode :	802.11b	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2412 MHz is fundamental signal which can be ignored.		

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	26.14	-13.86	40	47.91	9.33	0.6	31.7	100	137	Peak
254.1	20.3	-25.7	46	36.82	12.92	2.24	31.68	-	-	Peak
291.36	19.88	-26.12	46	36.3	13.02	2.19	31.63	-	-	Peak
499.5	23.48	-22.52	46	34.74	17.6	2.92	31.78	-	-	Peak
772.5	23.66	-22.34	46	32.3	19.9	3.51	32.05	-	-	Peak
982.5	25.63	-28.37	54	31.43	21.2	3.93	30.93	-	-	Peak
2412	93.72	-	-	89.41	32.38	6.49	34.56	100	108	Average
2412	98.64	-	-	94.33	32.38	6.49	34.56	100	108	Peak
12057	53.34	-0.66	54	56.19	39.24	11.34	53.43	102	309	Average
12057	57.57	-16.43	74	60.42	39.24	11.34	53.43	102	309	Peak

Test Mode :	802.11b	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	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	100.01	-	-	95.62	32.43	6.52	34.56	109	26	Average
2437	105.21	-	-	100.82	32.43	6.52	34.56	109	26	Peak

Test Mode :	802.11b	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2437 MHz is fundamental signal which can be ignored.		

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	90.82	-	-	86.43	32.43	6.52	34.56	100	234	Average
2437	95.68	-	-	91.29	32.43	6.52	34.56	100	234	Peak
12183	52.04	-1.96	54	54.57	39.35	11.35	53.23	100	302	Average
12183	60.54	-13.46	74	63.07	39.35	11.35	53.23	100	302	Peak

Test Mode :	802.11b	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 2462 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
2462	100.19	-	-	95.74	32.45	6.56	34.56	200	79	Average
2462	105.31	-	-	100.86	32.45	6.56	34.56	200	79	Peak

Test Mode :	802.11b	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2462 MHz is fundamental signal which can be ignored.		

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	91.01	-	-	86.56	32.45	6.56	34.56	100	71	Average
2462	96.01	-	-	91.56	32.45	6.56	34.56	100	71	Peak
12309	52.41	-1.59	54	54.67	39.45	11.36	53.07	111	308	Average
12309	60.52	-13.48	74	62.78	39.45	11.36	53.07	111	308	Peak

Test Mode :	802.11g	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 2412 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
2412	98.1	-	-	93.79	32.38	6.49	34.56	200	57	Average
2412	107.71	-	-	103.4	32.38	6.49	34.56	200	57	Peak

Test Mode :	802.11g	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2412 MHz is fundamental signal which can be ignored.		

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	91.33	-	-	87.02	32.38	6.49	34.56	200	120	Average
2412	101.73	-	-	97.42	32.38	6.49	34.56	200	120	Peak
12051	44.25	-9.75	54	47.1	39.24	11.34	53.43	119	312	Average
12051	55.61	-18.39	74	58.46	39.24	11.34	53.43	119	312	Peak

Test Mode :	802.11g	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	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	98.06	-	-	93.67	32.43	6.52	34.56	200	78	Average
2437	107.98	-	-	103.59	32.43	6.52	34.56	200	78	Peak

Test Mode :	802.11g	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2437 MHz is fundamental signal which can be ignored.		

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	87.74	-	-	83.35	32.43	6.52	34.56	100	216	Average
2437	97.87	-	-	93.48	32.43	6.52	34.56	100	216	Peak
12183	43.88	-10.12	54	46.41	39.35	11.35	53.23	100	302	Average
12183	57.85	-16.15	74	60.38	39.35	11.35	53.23	100	302	Peak

Test Mode :	802.11g	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 2462 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
2462	98.76	-	-	94.31	32.45	6.56	34.56	198	72	Average
2462	108.1	-	-	103.65	32.45	6.56	34.56	198	72	Peak

Test Mode :	802.11g	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2462 MHz is fundamental signal which can be ignored.		

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	90.45	-	-	86	32.45	6.56	34.56	100	57	Average
2462	100.5	-	-	96.05	32.45	6.56	34.56	100	57	Peak
12303	45.05	-8.95	54	47.31	39.45	11.36	53.07	100	308	Average
12303	57.41	-16.59	74	59.67	39.45	11.36	53.07	100	308	Peak

Test Mode :	2.4GHz 802.11n HT20	**Temperature :**	23~24°C
Test Channel :	01	**Relative Humidity :**	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	**Polarization :**	Horizontal
Remark :	1. 2412 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
39.45	19.18	-20.82	40	37.67	12.7	0.51	31.7	-	-	Peak
98.85	19.55	-23.95	43.5	39.24	10.96	1.03	31.68	-	-	Peak
290.55	28.2	-17.8	46	44.62	13.02	2.19	31.63	100	127	Peak
308.4	22.9	-23.1	46	38.72	13.45	2.37	31.64	-	-	Peak
328	22.82	-23.18	46	38.38	13.68	2.35	31.59	-	-	Peak
980.4	26.06	-27.94	54	31.88	21.2	3.92	30.94	-	-	Peak
2412	97.4	-	-	93.09	32.38	6.49	34.56	108	78	Average
2412	107.15	-	-	102.84	32.38	6.49	34.56	108	78	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	01	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 2412 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
46.2	26.14	-13.86	40	47.91	9.33	0.6	31.7	100	137	Peak
254.1	20.3	-25.7	46	36.82	12.92	2.24	31.68	-	-	Peak
291.36	19.88	-26.12	46	36.3	13.02	2.19	31.63	-	-	Peak
499.5	23.48	-22.52	46	34.74	17.6	2.92	31.78	-	-	Peak
772.5	23.66	-22.34	46	32.3	19.9	3.51	32.05	-	-	Peak
982.5	25.63	-28.37	54	31.43	21.2	3.93	30.93	-	-	Peak
2412	88.96	-	-	84.65	32.38	6.49	34.56	140	123	Average
2412	99.56	-	-	95.25	32.38	6.49	34.56	140	123	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	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	96.27	-	-	91.88	32.43	6.52	34.56	200	77	Average
2437	106.44	-	-	102.05	32.43	6.52	34.56	200	77	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	06	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2437 MHz is fundamental signal which can be ignored.		

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	85.62	-	-	81.23	32.43	6.52	34.56	100	213	Average
2437	95.42	-	-	91.03	32.43	6.52	34.56	100	213	Peak
12177	42.42	-11.58	54	44.99	39.34	11.35	53.26	100	300	Average
12177	55.99	-18.01	74	58.56	39.34	11.35	53.26	100	300	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	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	96.1	-	-	91.65	32.45	6.56	34.56	200	77	Average
2462	105.74	-	-	101.29	32.45	6.56	34.56	200	77	Peak
4924	47.21	-26.79	74	57.96	34.83	10.2	55.78	100	0	Peak

Test Mode :	2.4GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	11	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	2462 MHz is fundamental signal which can be ignored.		

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	85.61	-	-	81.16	32.45	6.56	34.56	100	334	Average
2462	95.47	-	-	91.02	32.45	6.56	34.56	100	334	Peak
12310	43.9	-10.1	54	46.16	39.45	11.36	53.07	111	310	Average
12310	56.03	-17.97	74	58.29	39.45	11.36	53.07	111	310	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5745 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
39.45	19.18	-20.82	40	37.67	12.7	0.51	31.7	-	-	Peak
98.85	19.55	-23.95	43.5	39.24	10.96	1.03	31.68	-	-	Peak
290.55	28.2	-17.8	46	44.62	13.02	2.19	31.63	100	127	Peak
308.4	22.9	-23.1	46	38.72	13.45	2.37	31.64	-	-	Peak
328	22.82	-23.18	46	38.38	13.68	2.35	31.59	-	-	Peak
980.4	26.06	-27.94	54	31.88	21.2	3.92	30.94	-	-	Peak
5745	93.9	-	-	80.91	35.44	11.39	33.84	100	300	Average
5745	104.49	-	-	91.5	35.44	11.39	33.84	100	300	Peak
11490	51.3	-22.7	74	55.7	38.39	11.04	53.83	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5745 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	26.14	-13.86	40	47.91	9.33	0.6	31.7	100	137	Peak
254.1	20.3	-25.7	46	36.82	12.92	2.24	31.68	-	-	Peak
291.36	19.88	-26.12	46	36.3	13.02	2.19	31.63	-	-	Peak
499.5	23.48	-22.52	46	34.74	17.6	2.92	31.78	-	-	Peak
772.5	23.66	-22.34	46	32.3	19.9	3.51	32.05	-	-	Peak
982.5	25.63	-28.37	54	31.43	21.2	3.93	30.93	-	-	Peak
5745	102.56	-	-	89.57	35.44	11.39	33.84	103	311	Average
5745	112.83	-	-	99.84	35.44	11.39	33.84	103	311	Peak
7660	51.09	-2.91	54	59.9	36.1	10.92	55.83	101	353	Average
7660	53.25	-20.75	74	62.06	36.1	10.92	55.83	101	353	Peak
11490	51.58	-22.42	74	55.98	38.39	11.04	53.83	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5785	93.66	-	-	80.58	35.49	11.43	33.84	101	345	Average
5785	103.79	-	-	90.65	35.51	11.47	33.84	101	345	Peak
11570	50.64	-23.36	74	54.8	38.51	11.09	53.76	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5785	102.31	-	-	89.23	35.49	11.43	33.84	103	311	Average
5785	112.71	-	-	99.63	35.49	11.43	33.84	103	311	Peak
7712	50.69	-3.31	54	59.47	36.1	10.93	55.81	100	353	Average
7712	53.69	-20.31	74	62.47	36.1	10.93	55.81	100	353	Peak
11570	50.71	-23.29	74	54.87	38.51	11.09	53.76	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5825 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
5825	95.18	-	-	81.95	35.56	11.51	33.84	103	350	Average
5825	106.12	-	-	92.89	35.56	11.51	33.84	103	350	Peak
11650	51.12	-22.88	74	55.08	38.62	11.14	53.72	100	0	Peak

Test Mode :	802.11a	Temperature :	23~24°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5825 MHz is fundamental signal which can be ignored. 2. 7766 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5825	101.36	-	-	88.13	35.56	11.51	33.84	102	296	Average
5825	111.25	-	-	98.02	35.56	11.51	33.84	102	296	Peak
7766	52.71	-38.54	91.25	61.46	36.1	10.94	55.79	100	0	Peak
11650	52.04	-21.96	74	56	38.62	11.14	53.72	100	0	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5745 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
5745	95.16	-	-	82.17	35.44	11.39	33.84	180	360	Average
5745	105.89	-	-	92.95	35.44	11.34	33.84	180	360	Peak
11490	51.1	-22.9	74	55.5	38.39	11.04	53.83	100	0	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	149	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5745 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
5745	100.9	-	-	87.91	35.44	11.39	33.84	103	289	Average
5745	111.18	-	-	98.17	35.46	11.39	33.84	103	289	Peak
7660	49.04	-4.96	54	57.85	36.1	10.92	55.83	101	353	Average
7660	52.67	-21.33	74	61.48	36.1	10.92	55.83	101	353	Peak
11490	50.97	-23.03	74	55.37	38.39	11.04	53.83	100	0	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5785	94.22	-	-	81.14	35.49	11.43	33.84	104	350	Average
5785	104.38	-	-	91.3	35.49	11.43	33.84	104	350	Peak
11570	50.84	-23.16	74	55	38.51	11.09	53.76	100	0	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	157	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5785 MHz is fundamental signal which can be ignored. 2. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5785	100.73	-	-	87.65	35.49	11.43	33.84	102	290	Average
5785	110.6	-	-	97.46	35.51	11.47	33.84	102	290	Peak
7712	49.79	-4.21	54	58.57	36.1	10.93	55.81	100	353	Average
7712	53.09	-20.91	74	61.87	36.1	10.93	55.81	100	353	Peak
11570	51.27	-22.73	74	55.43	38.51	11.09	53.76	100	0	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5825 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
5825	94.19	-	-	80.96	35.56	11.51	33.84	103	349	Average
5825	103.92	-	-	90.72	35.53	11.51	33.84	103	349	Peak
11650	51.01	-22.99	74	54.97	38.62	11.14	53.72	100	0	Peak

Test Mode :	5GHz 802.11n HT20	Temperature :	23~24°C
Test Channel :	165	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5825 MHz is fundamental signal which can be ignored. 2. 7766 MHz is not within a restricted band, and its limit line is 20dB below the highest emission level. 3. Average measurement was not performed if peak level went lower than the average limit.		

Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5825	99.48	-	-	86.25	35.56	11.51	33.84	102	297	Average
5825	109.64	-	-	96.41	35.56	11.51	33.84	102	297	Peak
7766	52.19	-37.45	89.64	60.94	36.1	10.94	55.79	100	0	Peak
11650	51.68	-22.32	74	55.64	38.62	11.14	53.72	100	0	Peak

Test Mode :	5GHz 802.11n HT40	Temperature :	23~24°C
Test Channel :	151	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5755 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
39.45	19.18	-20.82	40	37.67	12.7	0.51	31.7	-	-	Peak
98.85	19.55	-23.95	43.5	39.24	10.96	1.03	31.68	-	-	Peak
290.55	28.2	-17.8	46	44.62	13.02	2.19	31.63	100	127	Peak
308.4	22.9	-23.1	46	38.72	13.45	2.37	31.64	-	-	Peak
328	22.82	-23.18	46	38.38	13.68	2.35	31.59	-	-	Peak
980.4	26.06	-27.94	54	31.88	21.2	3.92	30.94	-	-	Peak
5755	91.75	-	-	78.76	35.44	11.39	33.84	105	350	Average
5755	101.56	-	-	88.57	35.44	11.39	33.84	105	350	Peak
11510	52.11	-21.89	74	56.45	38.4	11.06	53.8	100	0	Peak

Test Mode :	5GHz 802.11n HT40	Temperature :	23~24°C
Test Channel :	151	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5755 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	26.14	-13.86	40	47.91	9.33	0.6	31.7	100	137	Peak
254.1	20.3	-25.7	46	36.82	12.92	2.24	31.68	-	-	Peak
291.36	19.88	-26.12	46	36.3	13.02	2.19	31.63	-	-	Peak
499.5	23.48	-22.52	46	34.74	17.6	2.92	31.78	-	-	Peak
772.5	23.66	-22.34	46	32.3	19.9	3.51	32.05	-	-	Peak
982.5	25.63	-28.37	54	31.43	21.2	3.93	30.93	-	-	Peak
5755	99.54	-	-	86.53	35.46	11.39	33.84	104	313	Average
5755	109	-	-	95.99	35.46	11.39	33.84	104	313	Peak
7672	50.84	-3.16	54	59.65	36.1	10.92	55.83	100	344	Average
7672	53.24	-20.76	74	62.05	36.1	10.92	55.83	100	344	Peak
11510	51.7	-22.3	74	56.04	38.4	11.06	53.8	100	0	Peak

Test Mode :	5GHz 802.11n HT40	Temperature :	23~24°C
Test Channel :	159	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Horizontal
Remark :	1. 5795 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
5795	90.57	-	-	77.43	35.51	11.47	33.84	104	350	Average
5795	100.48	-	-	87.34	35.51	11.47	33.84	104	350	Peak
11590	51.15	-22.85	74	55.26	38.54	11.1	53.75	100	0	Peak

Test Mode :	5GHz 802.11n HT40	Temperature :	23~24°C
Test Channel :	159	Relative Humidity :	42~43%
Test Engineer :	Kai Wang, Ivan Chiang, and Timberland Lin	Polarization :	Vertical
Remark :	1. 5795 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
5795	97.62	-	-	84.48	35.51	11.47	33.84	103	311	Average
5795	107.44	-	-	94.3	35.51	11.47	33.84	103	311	Peak
7726	50.45	-3.55	54	59.23	36.1	10.93	55.81	200	0	Average
7726	53.23	-20.77	74	62.01	36.1	10.93	55.81	200	0	Peak
11590	51.58	-22.42	74	55.69	38.54	11.1	53.75	100	0	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.

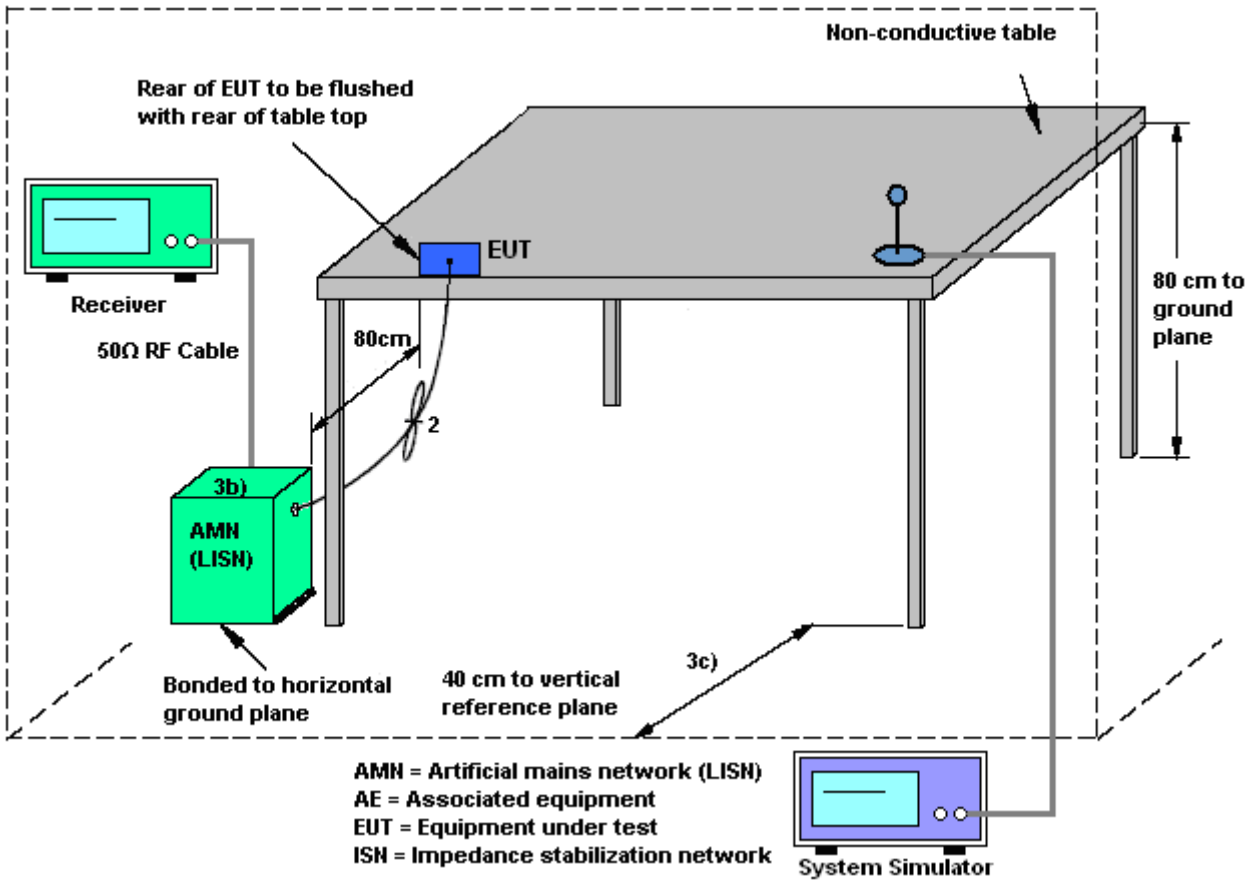
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

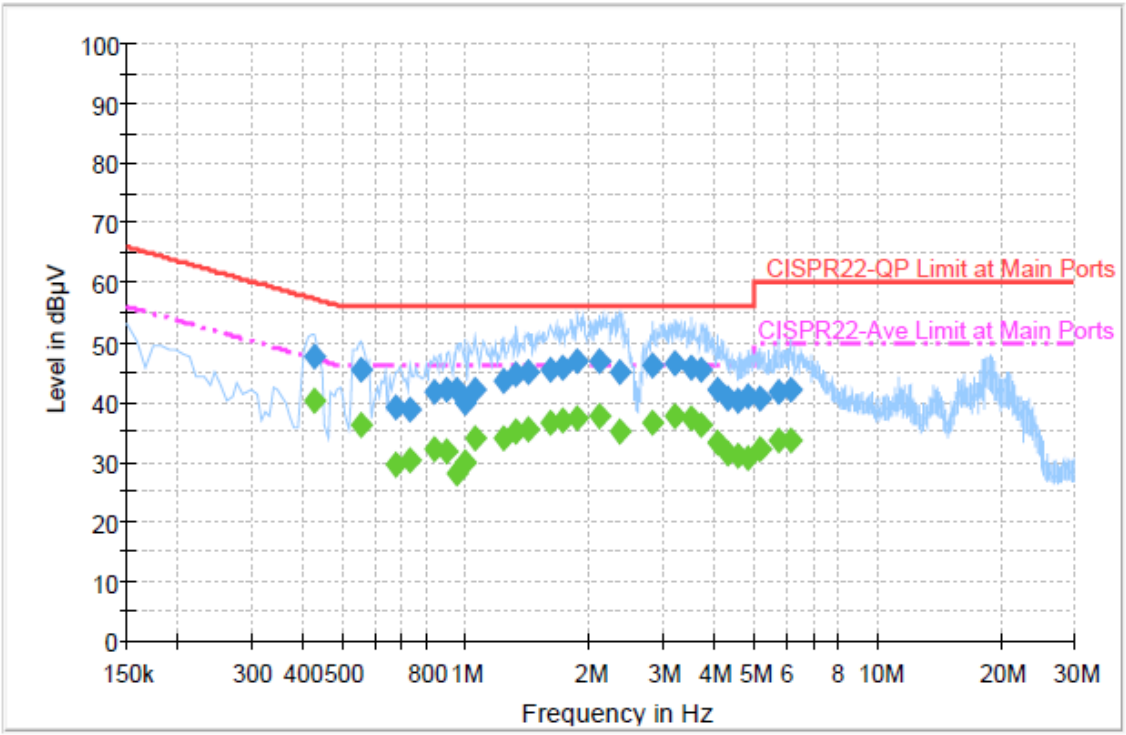
1. The testing follows the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance 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

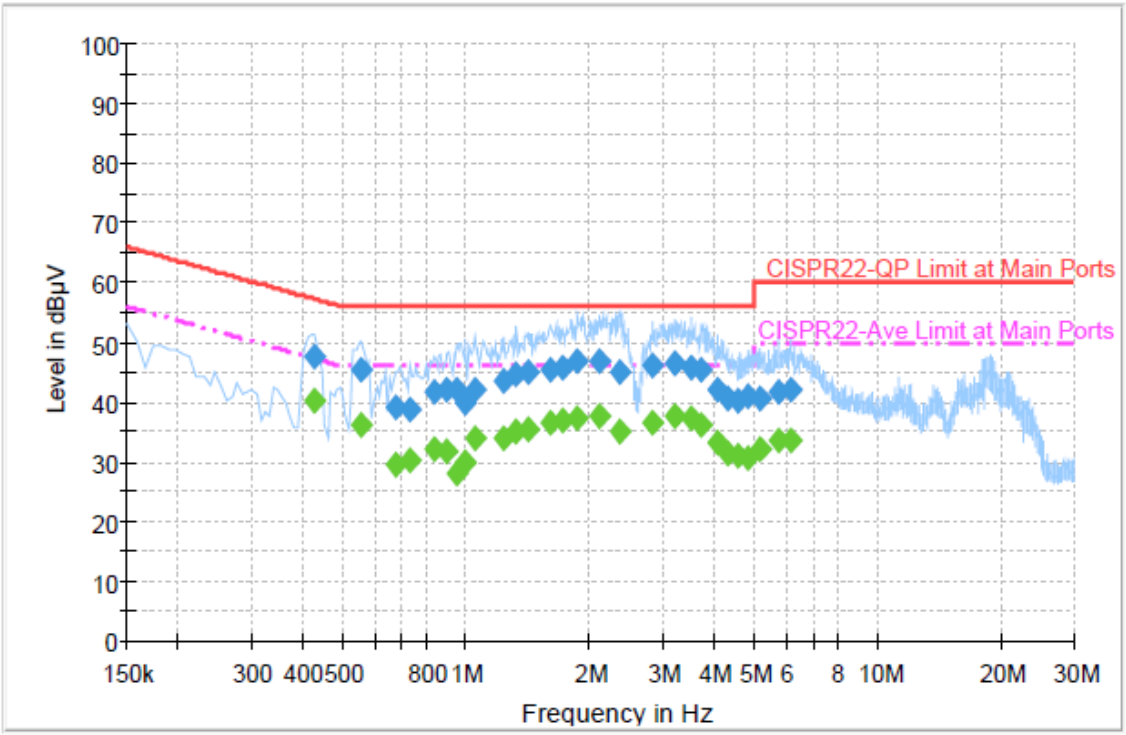
Test Mode :	Mode 1	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	47.5	Off	L1	19.4	9.8	57.3
0.558000	45.5	Off	L1	19.4	10.5	56.0
0.678000	39.0	Off	L1	19.5	17.0	56.0
0.734000	38.8	Off	L1	19.4	17.2	56.0
0.838000	41.6	Off	L1	19.5	14.4	56.0
0.902000	41.9	Off	L1	19.4	14.1	56.0
0.950000	41.9	Off	L1	19.4	14.1	56.0
0.998000	39.8	Off	L1	19.4	16.2	56.0
1.054000	42.1	Off	L1	19.4	13.9	56.0
1.238000	43.7	Off	L1	19.5	12.3	56.0
1.326000	44.5	Off	L1	19.5	11.5	56.0
1.422000	45.0	Off	L1	19.4	11.0	56.0
1.598000	45.3	Off	L1	19.5	10.7	56.0
1.710000	45.9	Off	L1	19.5	10.1	56.0
1.870000	46.8	Off	L1	19.5	9.2	56.0

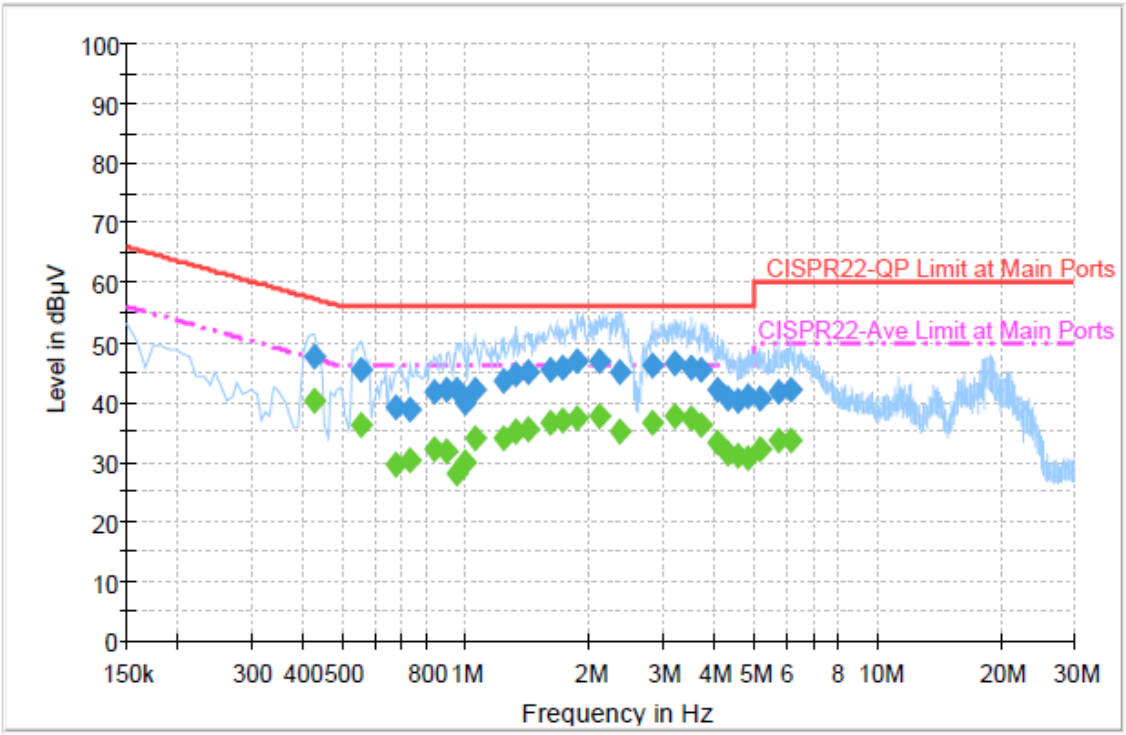
Test Mode :	Mode 1	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.110000	46.8	Off	L1	19.5	9.2	56.0
2.358000	44.9	Off	L1	19.6	11.1	56.0
2.838000	46.0	Off	L1	19.6	10.0	56.0
3.206000	46.5	Off	L1	19.6	9.5	56.0
3.534000	45.7	Off	L1	19.6	10.3	56.0
3.718000	45.4	Off	L1	19.6	10.6	56.0
4.094000	42.1	Off	L1	19.6	13.9	56.0
4.326000	40.6	Off	L1	19.6	15.4	56.0
4.582000	40.3	Off	L1	19.7	15.7	56.0
4.838000	40.9	Off	L1	19.6	15.1	56.0
5.198000	40.6	Off	L1	19.5	19.4	60.0
5.758000	41.7	Off	L1	19.6	18.3	60.0
6.182000	42.0	Off	L1	19.6	18.0	60.0

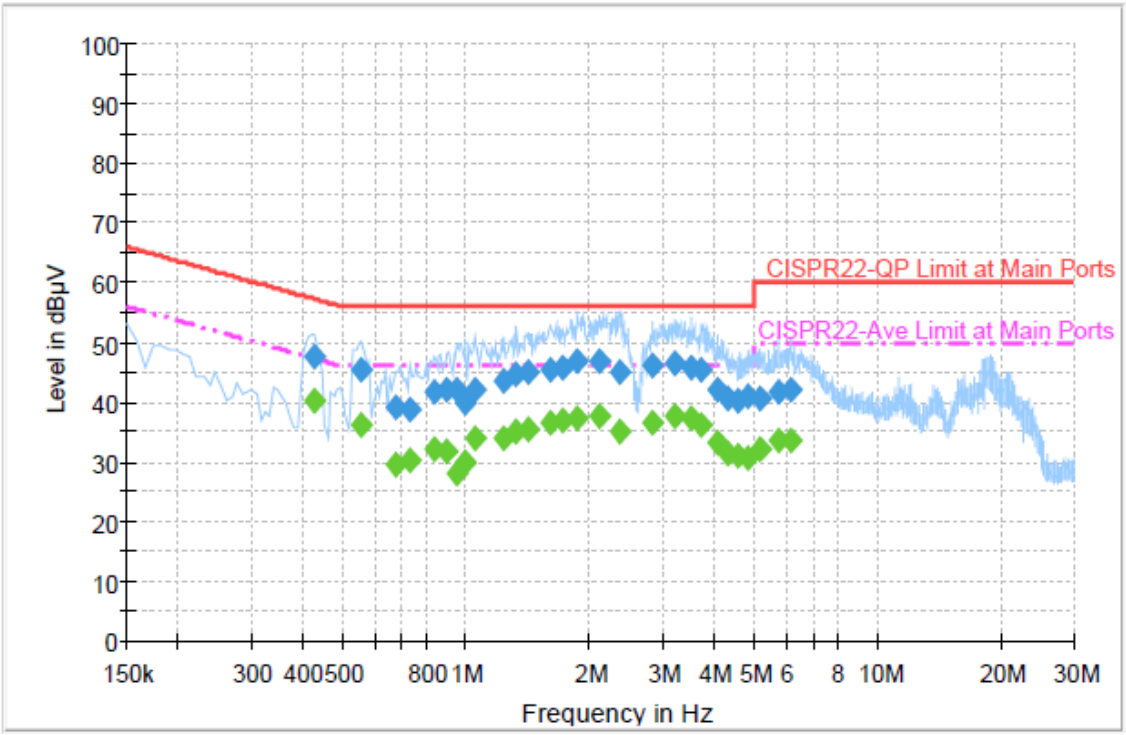
Test Mode :	Mode 1	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	40.1	Off	L1	19.4	7.2	47.3
0.558000	36.2	Off	L1	19.4	9.8	46.0
0.678000	29.4	Off	L1	19.5	16.6	46.0
0.734000	30.2	Off	L1	19.4	15.8	46.0
0.838000	32.0	Off	L1	19.5	14.0	46.0
0.902000	31.7	Off	L1	19.4	14.3	46.0
0.950000	28.1	Off	L1	19.4	17.9	46.0
0.998000	29.8	Off	L1	19.4	16.2	46.0
1.054000	33.9	Off	L1	19.4	12.1	46.0
1.238000	34.0	Off	L1	19.5	12.0	46.0
1.326000	35.1	Off	L1	19.5	10.9	46.0
1.422000	35.3	Off	L1	19.4	10.7	46.0
1.598000	36.5	Off	L1	19.5	9.5	46.0
1.710000	36.9	Off	L1	19.5	9.1	46.0
1.870000	37.2	Off	L1	19.5	8.8	46.0

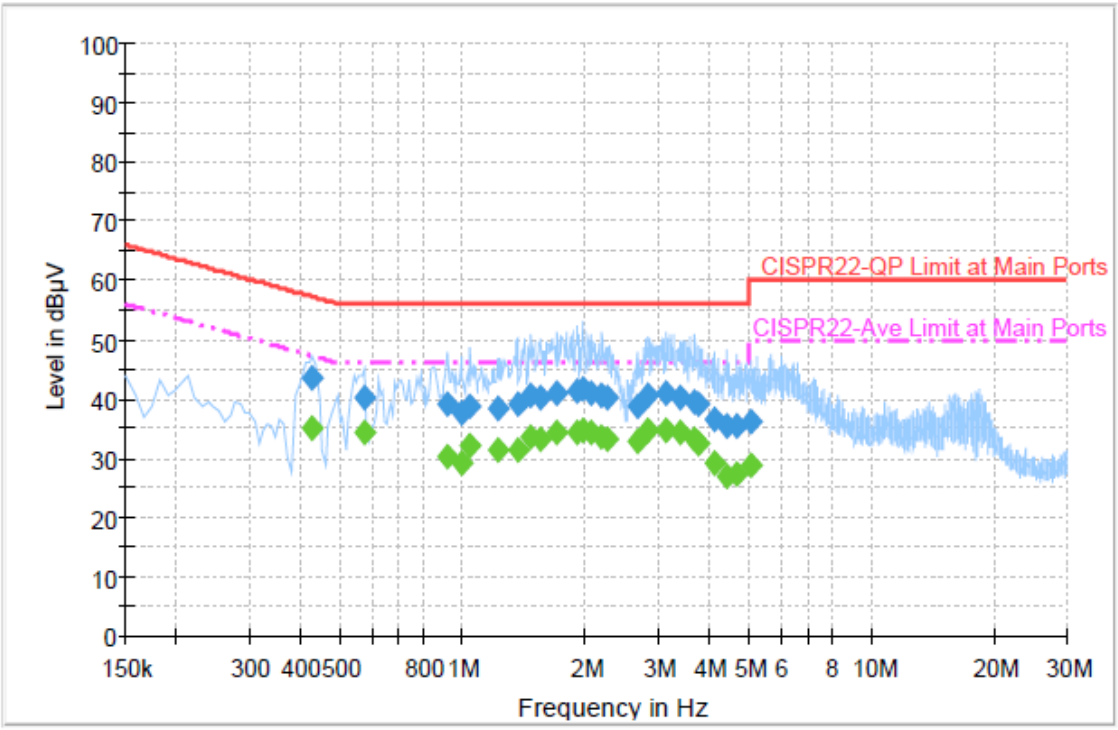
Test Mode :	Mode 1	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.110000	37.6	Off	L1	19.5	8.4	46.0
2.358000	35.2	Off	L1	19.6	10.8	46.0
2.838000	36.6	Off	L1	19.6	9.4	46.0
3.206000	37.5	Off	L1	19.6	8.5	46.0
3.534000	37.1	Off	L1	19.6	8.9	46.0
3.718000	36.1	Off	L1	19.6	9.9	46.0
4.094000	33.3	Off	L1	19.6	12.7	46.0
4.326000	31.2	Off	L1	19.6	14.8	46.0
4.582000	30.8	Off	L1	19.7	15.2	46.0
4.838000	30.7	Off	L1	19.6	15.3	46.0
5.198000	32.0	Off	L1	19.5	18.0	50.0
5.758000	33.5	Off	L1	19.6	16.5	50.0
6.182000	33.7	Off	L1	19.6	16.3	50.0

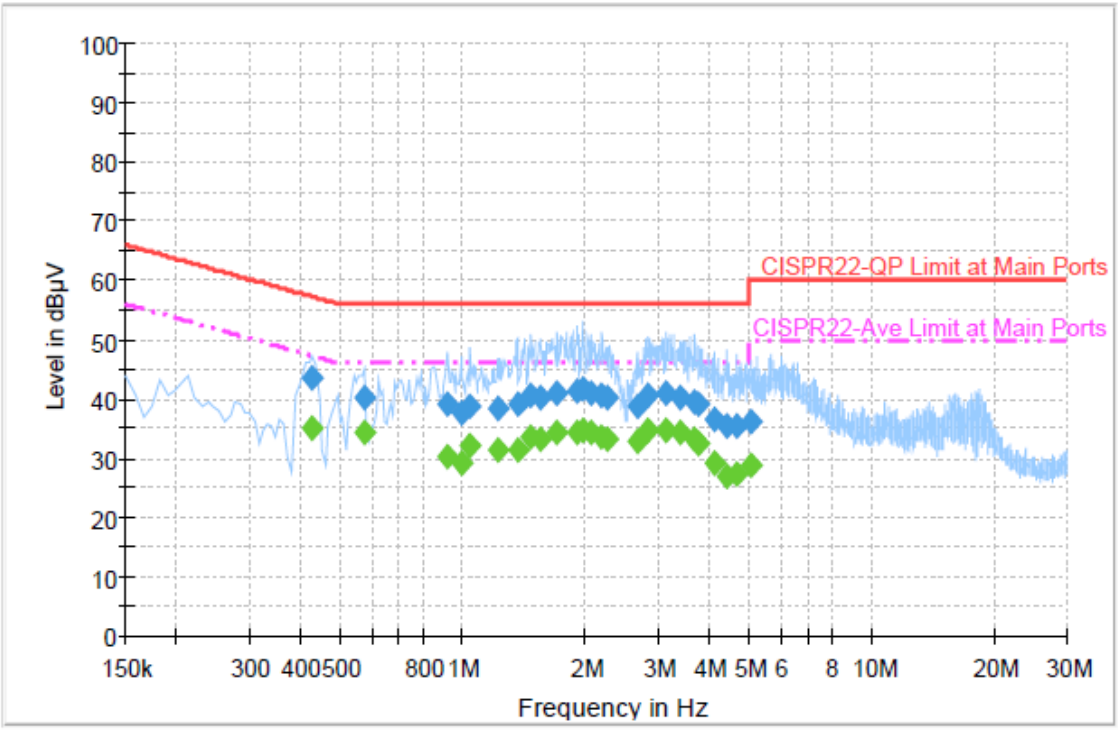
Test Mode :	Mode 1	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	43.6	Off	N	19.4	13.7	57.3
0.574000	40.4	Off	N	19.4	15.6	56.0
0.918000	39.0	Off	N	19.4	17.0	56.0
0.990000	37.8	Off	N	19.4	18.2	56.0
1.046000	38.9	Off	N	19.5	17.1	56.0
1.214000	38.5	Off	N	19.5	17.5	56.0
1.366000	39.0	Off	N	19.5	17.0	56.0
1.470000	40.6	Off	N	19.5	15.4	56.0
1.550000	40.4	Off	N	19.4	15.6	56.0
1.702000	40.9	Off	N	19.5	15.1	56.0
1.902000	41.5	Off	N	19.5	14.5	56.0
1.966000	41.8	Off	N	19.5	14.2	56.0

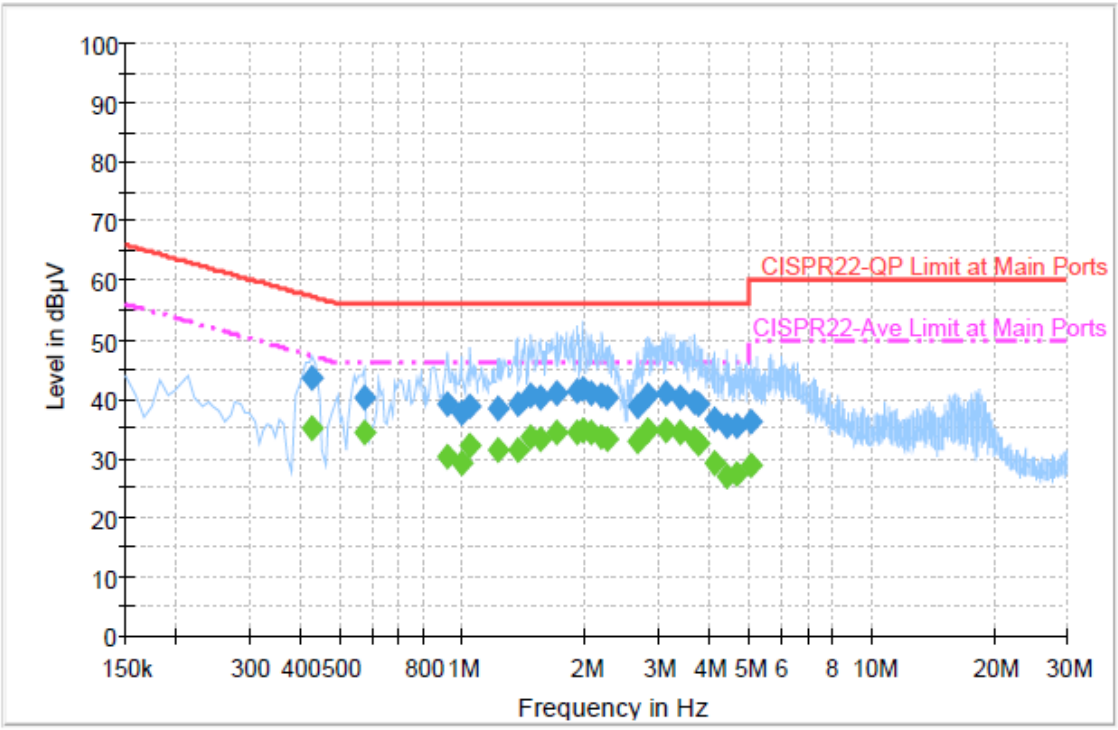
Test Mode :	Mode 1	Temperature :	20~22℃
Test Engineer :	Slash Huang	Relative Humidity :	45~47%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.054000	41.1	Off	N	19.6	14.9	56.0
2.190000	40.5	Off	N	19.6	15.5	56.0
2.270000	40.2	Off	N	19.6	15.8	56.0
2.670000	38.8	Off	N	19.6	17.2	56.0
2.830000	40.6	Off	N	19.6	15.4	56.0
3.158000	40.8	Off	N	19.6	15.2	56.0
3.414000	40.3	Off	N	19.6	15.7	56.0
3.702000	39.6	Off	N	19.6	16.4	56.0
3.782000	39.0	Off	N	19.6	17.0	56.0
4.110000	36.6	Off	N	19.6	19.4	56.0
4.430000	35.6	Off	N	19.6	20.4	56.0
4.670000	35.4	Off	N	19.6	20.6	56.0
5.086000	36.1	Off	N	19.6	23.9	60.0

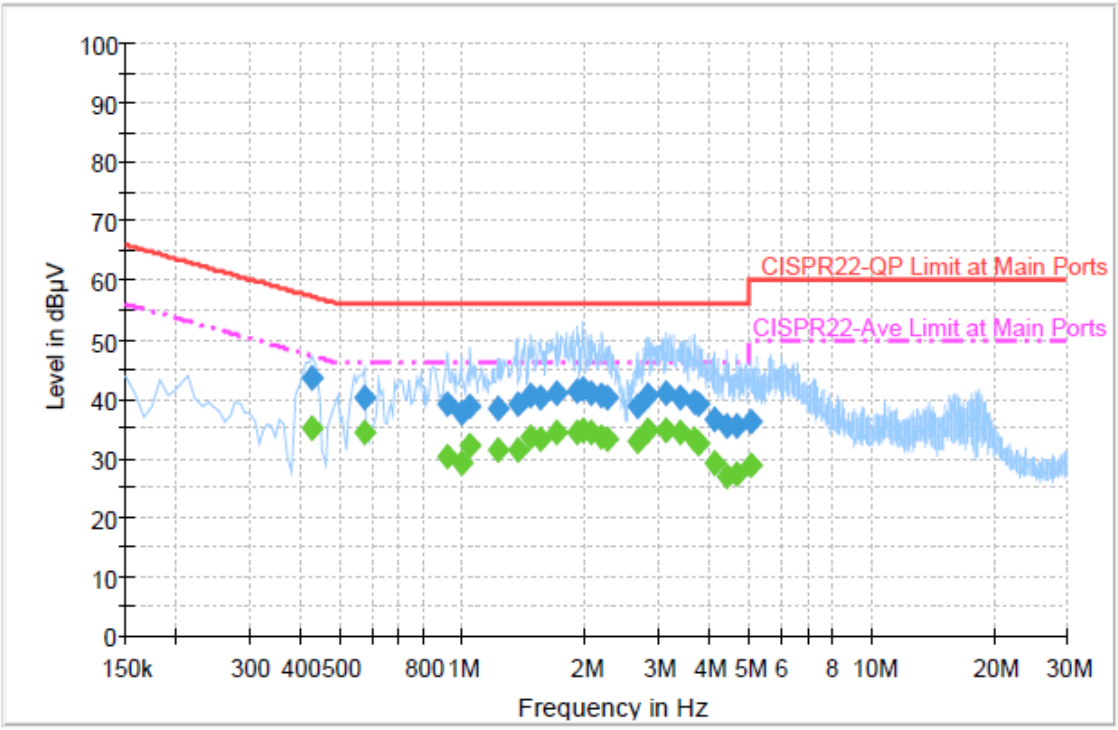
Test Mode :	Mode 1	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	35.1	Off	N	19.4	12.2	47.3
0.574000	34.2	Off	N	19.4	11.8	46.0
0.918000	30.1	Off	N	19.4	15.9	46.0
0.990000	29.0	Off	N	19.4	17.0	46.0
1.046000	32.2	Off	N	19.5	13.8	46.0
1.214000	31.2	Off	N	19.5	14.8	46.0
1.366000	31.3	Off	N	19.5	14.7	46.0
1.470000	33.6	Off	N	19.5	12.4	46.0
1.550000	33.3	Off	N	19.4	12.7	46.0
1.702000	34.3	Off	N	19.5	11.7	46.0
1.902000	34.5	Off	N	19.5	11.5	46.0
1.966000	34.8	Off	N	19.5	11.2	46.0

Test Mode :	Mode 1	**Temperature :**	20~22℃
Test Engineer :	Slash Huang	**Relative Humidity :**	45~47%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral
Function Type :	GSM850 Idle + Bluetooth Link + WLAN (2.4) Link + Earphone + MP3 + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.054000	34.4	Off	N	19.6	11.6	46.0
2.190000	33.6	Off	N	19.6	12.4	46.0
2.270000	33.2	Off	N	19.6	12.8	46.0
2.670000	32.8	Off	N	19.6	13.2	46.0
2.830000	34.6	Off	N	19.6	11.4	46.0
3.158000	34.7	Off	N	19.6	11.3	46.0
3.414000	34.4	Off	N	19.6	11.6	46.0
3.702000	33.0	Off	N	19.6	13.0	46.0
3.782000	32.3	Off	N	19.6	13.7	46.0
4.110000	29.0	Off	N	19.6	17.0	46.0
4.430000	27.1	Off	N	19.6	18.9	46.0
4.670000	27.2	Off	N	19.6	18.8	46.0
5.086000	28.8	Off	N	19.6	21.2	50.0

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	Oct. 17, 2012	Jun. 05, 2013	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	1036004	300MHz~40GHz	Sep. 08, 2012	Oct. 17, 2012	Sep. 07, 2013	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	1027253	300MHz~40GHz	Sep. 08, 2012	Oct. 17, 2012	Sep. 07, 2013	Conducted (TH02-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9KHz ~ 26.5GHz	Nov. 23, 2011	Oct. 25, 2012~ Oct. 27, 2012	Nov. 22, 2012	Radiation (03CH06-HY)
Spectrum Analyzer	R&S	FSP30	101352	9KHz-30GHz	Nov. 03, 2011	Oct. 25, 2012~ Oct. 27, 2012	Nov. 02, 2012	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz ~ 1000MHz	May 04, 2012	Oct. 25, 2012~ Oct. 27, 2012	May. 03, 2013	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz ~ 2GHz	Oct. 06, 2012	Oct. 25, 2012~ Oct. 27, 2012	Oct. 05, 2013	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Aug. 01, 2012	Oct. 25, 2012~ Oct. 27, 2012	Jul. 31, 2013	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz ~ 40GHz	Sep. 28, 2012	Oct. 25, 2012~ Oct. 27, 2012	Sep. 27, 2013	Radiation (03CH06-HY)
Preamplifier	Agilent	8449B	3008A01917	1GHz ~ 26.5GHz	Apr. 13, 2012	Oct. 25, 2012~ Oct. 27, 2012	Apr. 12, 2013	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9KHz ~ 1GHz	Apr. 11, 2012	Oct. 25, 2012~ Oct. 27, 2012	Apr. 10, 2013	Radiation (03CH06-HY)
Pre Amplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 21, 2012	Oct. 25, 2012~ Oct. 27, 2012	Jul. 20, 2013	Radiation (03CH06-HY)
Pre Amplifier	MITEQ	AMF-7D-00101800-30-10P	159087	1GHz~18GHz	Feb. 27, 2012	Oct. 25, 2012~ Oct. 27, 2012	Feb. 26, 2013	Radiation (03CH06-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9KHz ~ 30MHz	Jul. 03, 2012	Oct. 25, 2012~ Oct. 27, 2012	Jul. 02, 2014	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESCS 30	100356	9KHz ~ 2.75GHz	Oct. 27, 2011	Oct. 17, 2012	Oct. 26, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9KHz ~ 30MHz	Dec. 09, 2011	Oct. 17, 2012	Dec. 08, 2012	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9KHz ~ 30MHz	Dec. 06, 2011	Oct. 17, 2012	Dec. 05, 2012	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	Oct. 17, 2012	N/A	Conduction (CO05-HY)
System Simulator	R&S	CMU200	117591	N/A	Oct. 21, 2011	Oct. 17, 2012	Oct. 20, 2013	Conduction (CO05-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**