

FCC RF Test Report

APPLICANT : Meru Networks Inc.
EQUIPMENT : Multi Radio 802.11a/b/g/n Wireless LAN Access Point
BRAND NAME : Meru Networks Inc.
MODEL NAME : AP302, AP310, AP311, AP320
FCC ID : RE7-AP300
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : Digital Transmission System (DTS)

The product was received on Jul. 12, 2010 and completely tested on Sep. 09, 2010. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 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:



Anderson Chiu / Deputy Manager



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	3
SUMMARY OF TEST RESULT IC RSS-210 ISSUE 7	4
1 GENERAL DESCRIPTION	5
1.1 Applicant	5
1.2 Manufacturer	5
1.3 Feature of Equipment Under Test	6
1.4 Testing Site	7
1.5 Applied Standards	7
1.6 Ancillary Equipment List	7
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	8
2.1 RF Power	8
2.2 Test Mode	12
2.3 Connection Diagram of Test System	14
2.4 RF Utility	15
3 TEST RESULT	16
3.1 6dB and 99% Bandwidth Measurement	16
3.2 Output Power Measurement	51
3.3 Band Edges Measurement	55
3.4 Spurious Emission Measurement	83
3.5 Power Spectral Density Measurement	107
3.6 AC Conducted Emission Measurement	140
3.7 Radiated Emission Measurement	144
3.8 Antenna Requirements	217
4 LIST OF MEASURING EQUIPMENT	218
5 UNCERTAINTY OF EVALUATION	219
APPENDIX A. PHOTOGRAPHS OF EUT	
APPENDIX B. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR9D2415-02A	Rev. 01	Initial issue of report	Sep. 09, 2010

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	$\geq 0.5\text{MHz}$	Pass	-
3.1	-	Gen 4.4.1	99% Bandwidth	-	Pass	-
3.2	15.247(b)	A8.4	Power Output Measurement	$\leq 30\text{dBm}$	Pass	-
3.3	15.247(d)	A8.5	Frequency Band Edges	$\leq 20\text{dBc}$	Pass	-
3.4	15.247(d)	A8.5	Spurious Emission	$< 20\text{ dBc}$	Pass	-
3.5	15.247(e)	A8.2(b)	Power Spectral Density	$\leq 8\text{dBm}$	Pass	-
3.6	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 3.4 dB at 0.478 MHz
3.7	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	Under limit 0.55 dB at 2483.66 MHz
3.8	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

Meru Networks Inc.

894 Ross Drive Sunnyvale, CA 94089 USA

1.2 Manufacturer

Universal Scientific Industrial (Shanghai)

No. 1558, Zhang Dong Road, Zhangjiang Hi-Tech Park, Shanghai 201203, P.R. China

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Multi Radio 802.11a/b/g/n Wireless LAN Access Point
Brand Name	Meru Networks Inc.
Model Name	AP302, AP310, AP311, AP320
FCC ID	RE7-AP300
Tx/Rx Frequency Range	802.11b/g/n : 2400 MHz ~ 2483.5 MHz 802.11a/n : 5725 MHz ~ 5850 MHz
Channel Spacing	802.11b/g : 5 MHz 802.11a : 20 MHz
Maximum Output Power to Antenna	<2400 MHz ~ 2483.5 MHz> 802.11b : 16.76 dBm (0.047 W) 802.11g : 21.82 dBm (0.152 W) 802.11n (BW 20MHz) : 25.24 dBm (0.334 W) 802.11n (BW 40MHz) : 20.02 dBm (0.100 W) <5725 MHz ~ 5850 MHz> 802.11a : 21.92 dBm (0.156 W) 802.11n (BW 20MHz) : 22.35 dBm (0.172 W) 802.11n (BW 40MHz) : 21.99 dBm (0.158 W)
HW Version	AP300
SW Version	3.6.1-41
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Production Unit

Antenna Information		
Antenna 1	Model Name	S245112PT
	Antenna Type	Panel Antenna
	Antenna Gain	10.9 dBi for WLAN (2.4G) ; 13.5 dBi for WLAN (5G)
Antenna 2	Model Name	S24517PT
	Antenna Type	Panel Antenna
	Antenna Gain	8 dBi for WLAN (2.4G) ; 10.7 dBi for WLAN (5G)
Antenna 3	Model Name	T24130P10006GT
	Antenna Type	Panel Antenna
	Antenna Gain	13 dBi for WLAN (2.4G)

Remark:

1. For other wireless features of this EUT, test report will be issued separately.
2. This test report recorded only product characteristics and test results of Digital Transmission System (DTS).
3. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1 st 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.
	CO05-HY	03CH07HY	TW1022/4086B-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 (Measurement Guidelines of DTS)
- ♦ ANSI C63.4-2003
- ♦ IC RSS-210 Issue 7

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 (DoC), recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	AC Adapter	UMEC	UP0251P-05PA	N/A	N/A	Unshielded, 1.8 m
2.	POE	PHIHONG	POE20U-560(G)	N/A	N/A	N/A
3.	Notebook	DELL	Vostro 1510	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2 Test Configuration of Equipment Under Test

2.1 RF Power

Preliminary tests were performed in different data rate and the EUT with different antenna has different RF power recorded in the following table:

For 2.4GHz Band

<Antenna 1 / Antenna 2 / Antenna 3>

Channel	Frequency	Chain	802.11b RF Power (dBm)			
			Data Rate			
			1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	A	16.56	16.48	16.42	16.46
CH 06	2437 MHz	A	16.76	16.72	16.61	16.61
CH 11	2462 MHz	A	16.4	16.34	16.5	16.37
CH 01	2412 MHz	B	16.55	16.45	16.44	16.43
CH 06	2437 MHz	B	16.15	16.14	16.05	16.12
CH 11	2462 MHz	B	16.48	16.41	16.4	16.37
CH 01	2412 MHz	C	16.06	16	16	16.43
CH 06	2437 MHz	C	16.08	16.01	16.16	16.01
CH 11	2462 MHz	C	16.26	16.1	16.05	16.08

Channel	Frequency	Chain	802.11g RF Power (dBm)							
			Data Rate							
			6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	A	18.15	18.48	18.23	18.22	18.33	18.22	18.28	18.36
CH 06	2437 MHz	A	21.82	21.76	21.69	21.67	21.79	21.64	21.78	21.80
CH 11	2462 MHz	A	17.43	17.21	17.71	17.88	17.74	17.81	17.49	18.30
CH 01	2412 MHz	B	20.60	20.87	20.81	20.83	20.99	20.71	20.43	20.78
CH 06	2437 MHz	B	20.13	20.04	20.28	20.66	21.02	20.08	19.92	20.53
CH 11	2462 MHz	B	20.65	20.60	20.59	20.83	20.85	20.66	20.38	20.65
CH 01	2412 MHz	C	20.53	20.98	20.71	20.83	21.06	20.73	20.43	20.83
CH 06	2437 MHz	C	20.58	20.73	20.62	20.74	21.00	20.75	20.76	20.79
CH 11	2462 MHz	C	20.86	20.86	20.76	20.80	20.89	20.97	20.62	20.96

<Antenna 1 / Antenna 2>

Channel	Frequency	Chain	802.11n (BW 20MHz) RF Power (dBm)							
			Data Rate							
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 01	2412 MHz	A+B+C	20.97	20.96	21.01	20.99	21.05	21.00	21.03	21.02
CH 06	2437 MHz	A+B+C	25.09	24.94	25.07	24.87	25.07	25.06	25.24	25.07
CH 11	2462 MHz	A+B+C	21.78	21.89	21.91	21.89	21.83	21.76	21.69	21.76
Channel	Frequency	Chain	13 Mbps	26 Mbps	39 Mbps	52 Mbps	78 Mbps	104 Mbps	117 Mbps	130 Mbps
CH 01	2412 MHz	A+B+C	21.12	21.14	21.03	20.93	20.99	21.00	20.90	20.93
CH 06	2437 MHz	A+B+C	25.03	24.98	25.03	24.97	25.00	25.03	25.02	25.01
CH 11	2462 MHz	A+B+C	22.08	21.91	21.75	21.73	21.70	21.70	21.60	21.64

<Antenna 1 / Antenna 2>

Channel	Frequency	Chain	802.11n (BW 40MHz) RF Power (dBm)							
			Data Rate							
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135 Mbps
CH 03	2422 MHz	A+B+C	19.4	17.9	17.9	17.9	18.1	18.6	18.0	17.9
CH 09	2452 MHz	A+B+C	20.0	18.4	18.6	18.7	18.7	19.3	18.8	18.6
Channel	Frequency	Chain	27 Mbps	54 Mbps	81 Mbps	108 Mbps	162 Mbps	216 Mbps	243 Mbps	270 Mbps
CH 03	2422 MHz	A+B+C	18.0	17.8	17.9	17.9	17.8	17.8	17.9	17.7
CH 09	2452 MHz	A+B+C	18.4	18.4	18.5	18.4	18.4	18.3	18.3	18.3

<Antenna 3>

Channel	Frequency	Chain	802.11n (BW 20MHz) RF Power (dBm)							
			Data Rate							
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 01	2412 MHz	A+B+C	20.04	19.98	19.95	19.95	20.10	20.07	20.03	19.91
CH 06	2437 MHz	A+B+C	24.65	24.42	24.50	24.37	24.36	24.64	24.57	24.64
CH 11	2462 MHz	A+B+C	21.78	21.89	21.91	21.89	21.83	21.76	21.69	21.76
Channel	Frequency	Chain	13 Mbps	26 Mbps	39 Mbps	52 Mbps	78 Mbps	104 Mbps	117 Mbps	130 Mbps
CH 01	2412 MHz	A+B+C	20.05	19.97	20.02	19.95	20.12	20.01	19.77	18.26
CH 06	2437 MHz	A+B+C	24.44	24.37	24.49	24.38	24.64	24.49	24.48	24.61
CH 11	2462 MHz	A+B+C	22.08	21.91	21.75	21.73	21.70	21.70	21.60	21.64

<Antenna 3>

Channel	Frequency	Chain	802.11n (BW 40MHz) RF Power (dBm)							
			Data Rate							
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135 Mbps
CH 03	2422 MHz	A+B+C	16.29	13.99	14.69	14.06	14.47	15.34	14.89	14.47
CH 09	2452 MHz	A+B+C	20.02	18.44	18.60	18.67	18.66	19.31	18.80	18.62
Channel	Frequency	Chain	27 Mbps	54 Mbps	81 Mbps	108 Mbps	162 Mbps	216 Mbps	243 Mbps	270 Mbps
CH 03	2422 MHz	A+B+C	14.17	14.34	15.00	14.37	14.41	14.16	14.16	14.30
CH 09	2452 MHz	A+B+C	18.44	18.37	18.55	18.39	18.36	18.32	18.33	18.35

For 5GHz Band
<Antenna 1 / Antenna 2>

Channel	Frequency	Chain	802.11a RF Power (dBm)							
			Data Rate							
			6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 149	5745 MHz	A	21.91	21.72	21.46	21.29	21.43	21.71	21.42	21.37
CH 157	5785 MHz	A	21.92	21.21	21.18	21.00	21.51	21.55	21.47	21.34
CH 165	5825 MHz	A	21.88	21.40	21.57	21.34	21.65	21.26	21.31	21.26
CH 149	5745 MHz	B	21.62	21.30	21.17	21.31	21.42	21.37	21.20	21.11
CH 157	5785 MHz	B	21.80	21.88	21.77	21.47	21.47	21.65	21.83	21.71
CH 165	5825 MHz	B	21.65	21.74	21.77	21.83	21.83	21.71	21.82	21.71
CH 149	5745 MHz	C	21.66	21.87	21.57	21.34	21.39	21.71	21.42	21.71
CH 157	5785 MHz	C	21.52	21.61	21.17	21.31	21.19	21.55	21.47	21.71
CH 165	5825 MHz	C	21.60	21.88	21.77	21.47	21.51	21.65	21.83	21.71

<Antenna 1 / Antenna 2>

Channel	Frequency	Chain	802.11n (BW 20MHz) RF Power (dBm)							
			Data Rate							
			6.5 Mbps	13 Mbps	19.5 Mbps	26 Mbps	39 Mbps	52 Mbps	58.5 Mbps	65 Mbps
CH 149	5745 MHz	A+B+C	21.76	21.60	21.64	21.55	21.65	21.58	21.46	21.49
CH 157	5785 MHz	A+B+C	22.20	22.13	22.08	22.07	22.05	22.04	21.96	22.01
CH 165	5825 MHz	A+B+C	22.35	22.17	22.12	22.16	22.20	22.09	22.06	22.16
Channel	Frequency	Chain	13 Mbps	26 Mbps	39 Mbps	52 Mbps	78 Mbps	104 Mbps	117 Mbps	130 Mbps
CH 149	5745 MHz	A+B+C	21.59	21.62	21.50	21.50	21.53	21.55	21.44	21.44
CH 157	5785 MHz	A+B+C	22.05	22.10	22.07	22.03	22.11	22.05	21.96	22.04
CH 165	5825 MHz	A+B+C	22.29	22.25	22.14	22.31	22.15	22.16	22.31	22.27

<Antenna 1 / Antenna 2>

Channel	Frequency	Chain	802.11n (BW 40MHz) RF Power (dBm)							
			Data Rate							
			13.5 Mbps	27 Mbps	40.5 Mbps	54 Mbps	81 Mbps	108 Mbps	121.5 Mbps	135.0 Mbps
CH 151	5755 MHz	A+B+C	21.25	20.19	20.54	20.42	20.25	20.81	20.38	20.36
CH 159	5795 MHz	A+B+C	21.99	20.68	20.87	20.46	20.89	21.05	20.95	20.58
Channel	Frequency	Chain	27 Mbps	54 Mbps	81 Mbps	108 Mbps	162 Mbps	216 Mbps	243 Mbps	270 Mbps
CH 151	5755 MHz	A+B+C	20.44	20.40	20.45	20.31	20.19	20.30	20.58	20.42
CH 159	5795 MHz	A+B+C	20.83	20.70	20.62	20.77	20.68	20.53	20.96	20.64

Remark:

1. Chain A+B+C was tested by combiner, and the chain A, B and C was tested individually and calculated with the formula of $10 \cdot \log(10^{\frac{A}{10}} + 10^{\frac{B}{10}} + 10^{\frac{C}{10}})$.
2. The data rates of WLAN 802.11a/b/g/n were set in 1Mbps for 802.11b, 6Mbps for 802.11g, 58.5Mbps for 2.4G 802.11n (BW 20MHz), 13.5Mbps for 2.4G 802.11n (BW 40MHz), 6Mbps for 802.11a, 6.5Mbps for 5G 802.11n (BW 20MHz), 13.5Mbps for 5G 802.11n (BW 40MHz) for all the test cases due to the highest RF output power.
3. Only antenna 1 and Antenna 3 were used for all tests due to the highest antenna gain.
4. The EUT is programmed to transmit signal continuously for all testing.

2.2 Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 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), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

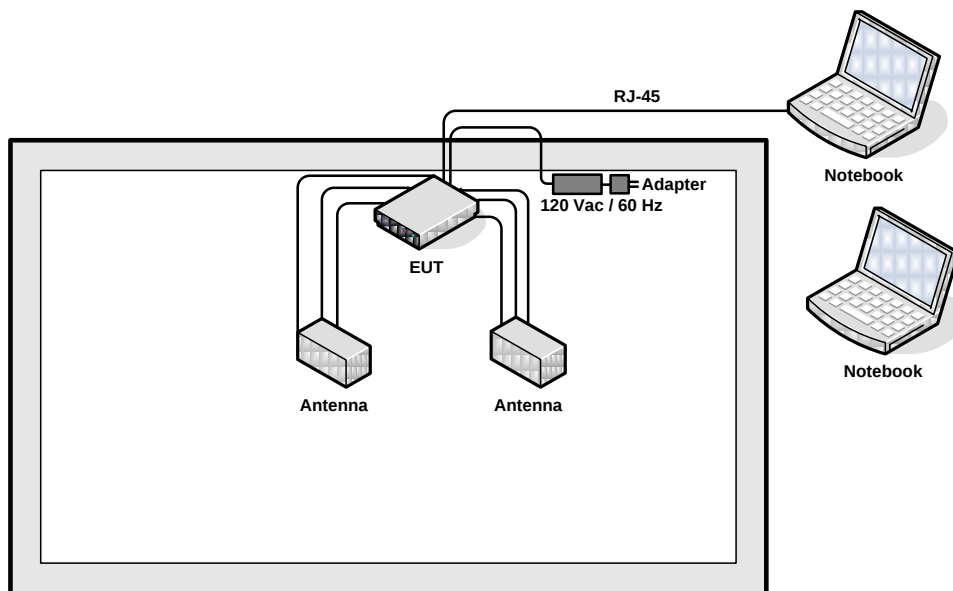
Test Cases	
Test Item	802.11b (Modulation : DSSS) 802.11a/g/n (Modulation : OFDM)
Conducted TCs	Mode 1: 802.11b_CH01_2412 MHz Mode 2: 802.11b_CH06_2437 MHz Mode 3: 802.11b_CH11_2462 MHz Mode 4: 802.11g_CH01_2412 MHz Mode 5: 802.11g_CH06_2437 MHz Mode 6: 802.11g_CH11_2462 MHz Mode 7: 802.11n_CH01_2412 MHz (BW 20M) Mode 8: 802.11n_CH06_2437 MHz (BW 20M) Mode 9: 802.11n_CH11_2462 MHz (BW 20M) Mode 10: 802.11n_CH03_2422 MHz (BW 40M) Mode 11: 802.11n_CH09_2452 MHz (BW 40M) Mode 12: 802.11a_CH149_5745 MHz Mode 13: 802.11a_CH157_5785 MHz Mode 14: 802.11a_CH165_5825 MHz Mode 15: 802.11n_CH149_5745 MHz (BW 20M) Mode 16: 802.11n_CH157_5785 MHz (BW 20M) Mode 17: 802.11n_CH165_5825 MHz (BW 20M) Mode 18: 802.11n_CH151_5755 MHz (BW 40M) Mode 19: 802.11n_CH159_5795 MHz (BW 40M)

Test Cases	
Radiated TCs	Mode 1: 802.11b_CH01_2412 MHz + WLAN 1 + Antenna 1 Mode 2: 802.11b_CH06_2437 MHz + WLAN 1 + Antenna 1 Mode 3: 802.11b_CH11_2462 MHz + WLAN 1 + Antenna 1 Mode 4: 802.11g_CH01_2412 MHz + WLAN 1 + Antenna 1 Mode 5: 802.11g_CH06_2437 MHz + WLAN 1 + Antenna 1 Mode 6: 802.11g_CH11_2462 MHz + WLAN 1 + Antenna 1 Mode 7: 802.11n(g)_CH01_2412 MHz (BW 20MHz) + WLAN 1 + Antenna 1 Mode 8: 802.11n(g)_CH06_2437 MHz (BW 20MHz) + WLAN 1 + Antenna 1 Mode 9: 802.11n(g)_CH11_2462 MHz (BW 20MHz) + WLAN 1 + Antenna 1 Mode 10: 802.11n(g)_CH03_2422 MHz (BW 40MHz) + WLAN 1 + Antenna 1 Mode 11: 802.11n(g)_CH09_2452 MHz (BW 40MHz) + WLAN 1 + Antenna 1 Mode 12: 802.11n(g)_CH09_2452 MHz (BW 40MHz) + WLAN 2 + Antenna 1 Mode 13: 802.11a_CH149_5745 MHz + WLAN 1 + Antenna 1 Mode 14: 802.11a_CH157_5785 MHz + WLAN 1 + Antenna 1 Mode 15: 802.11a_CH165_5825 MHz + WLAN 1 + Antenna 1 Mode 16: 802.11n(a)_CH149_5745 MHz (BW 20MHz) + WLAN 1 + Antenna 1 Mode 17: 802.11n(a)_CH157_5785 MHz (BW 20MHz) + WLAN 1 + Antenna 1 Mode 18: 802.11n(a)_CH165_5825 MHz (BW 20MHz) + WLAN 1 + Antenna 1 Mode 19: 802.11n(a)_CH151_5755 MHz (BW 40MHz) + WLAN 1 + Antenna 1 Mode 20: 802.11n(a)_CH159_5795 MHz (BW 40MHz) + WLAN 1 + Antenna 1 Mode 21: 802.11n(a)_CH151_5755 MHz (BW 40MHz) + WLAN 2 + Antenna 1 Mode 22: 802.11n(g)_CH09_2452 MHz (BW 40MHz) + WLAN 1 + WLAN 2 + Antenna 1 Mode 23: 802.11n(a)_CH151_5755 MHz (BW 40MHz) + WLAN 1 + WLAN 2 + Antenna 1 Mode 24: 802.11b_CH01_2412 MHz + WLAN 1 + Antenna 3 Mode 25: 802.11b_CH06_2437 MHz + WLAN 1 + Antenna 3 Mode 26: 802.11b_CH11_2462 MHz + WLAN 1 + Antenna 3 Mode 27: 802.11g_CH01_2412 MHz + WLAN 1 + Antenna 3 Mode 28: 802.11g_CH06_2437 MHz + WLAN 1 + Antenna 3 Mode 29: 802.11g_CH11_2462 MHz + WLAN 1 + Antenna 3 Mode 30: 802.11n(g)_CH01_2412 MHz (BW 20MHz) + WLAN 1 + Antenna 3 Mode 31: 802.11n(g)_CH06_2437 MHz (BW 20MHz) + WLAN 1 + Antenna 3 Mode 32: 802.11n(g)_CH11_2462 MHz (BW 20MHz) + WLAN 1 + Antenna 3 Mode 33: 802.11n(g)_CH03_2422 MHz (BW 40MHz) + WLAN 1 + Antenna 3 Mode 34: 802.11n(g)_CH09_2452 MHz (BW 40MHz) + WLAN 1 + Antenna 3 Mode 35: 802.11n(g)_CH03_2422 MHz (BW 40MHz) + WLAN 2 + Antenna 3
AC Conducted Emission	Mode 1 : WLAN 1 (2.4G) Link + WLAN 2 (2.4G) Link + LAN Link + Adapter Mode 2 : WLAN 1 (5G) Link + WLAN 2 (5G) Link + POE + LAN Link + Adapter
Remark: - The worst case of AC conducted emission is mode 1; only the test data of it was reported. - The EUT has two modules which have the same design, and they can transmit simultaneously.	

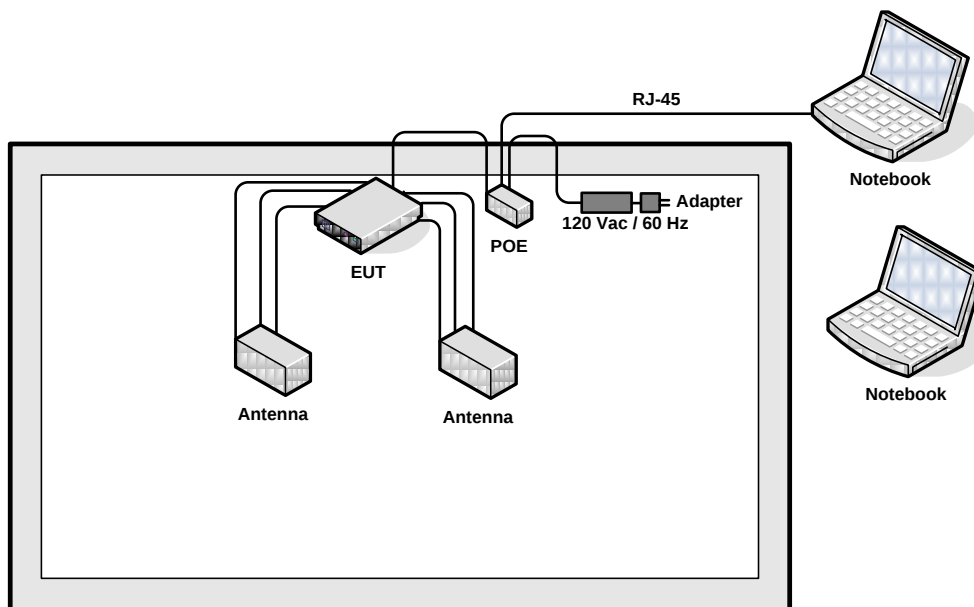
2.3 Connection Diagram of Test System

<Conduction Test>

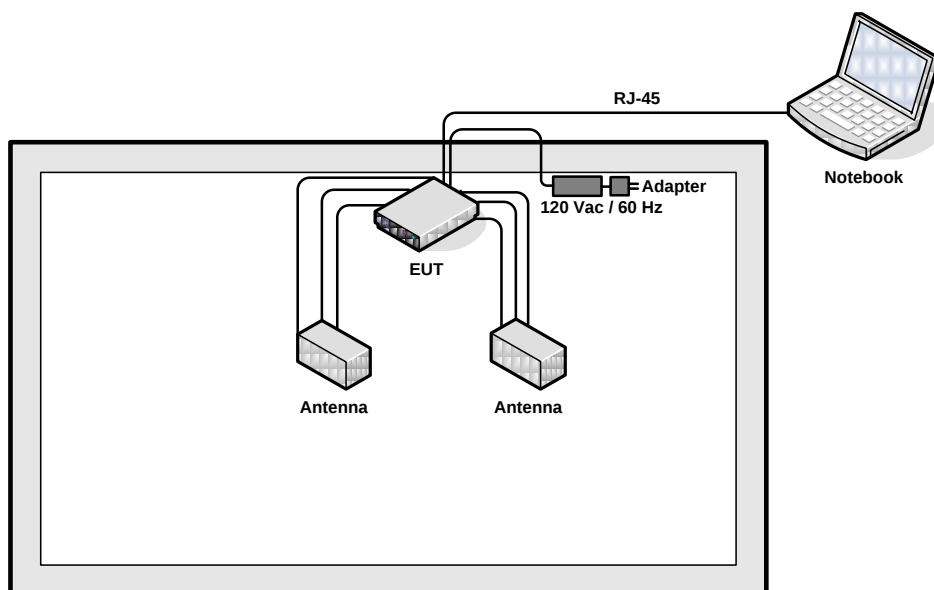
EUT with Adapter Mode



EUT with POE and Adapter Mode



<Radiation Test>



2.4 RF Utility

The programmed RF utility is installed in notebook to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3 Test Result

3.1 6dB and 99% Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

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

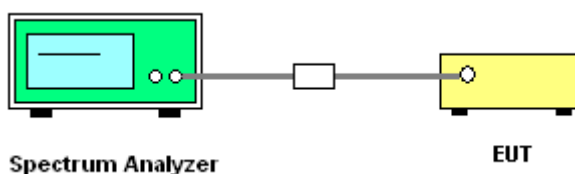
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW. The 6 dB bandwidth must be greater than 500 kHz.
4. The marker-delta reading at this point is the 6 dB bandwidth of the emission.

3.1.4 Test Setup

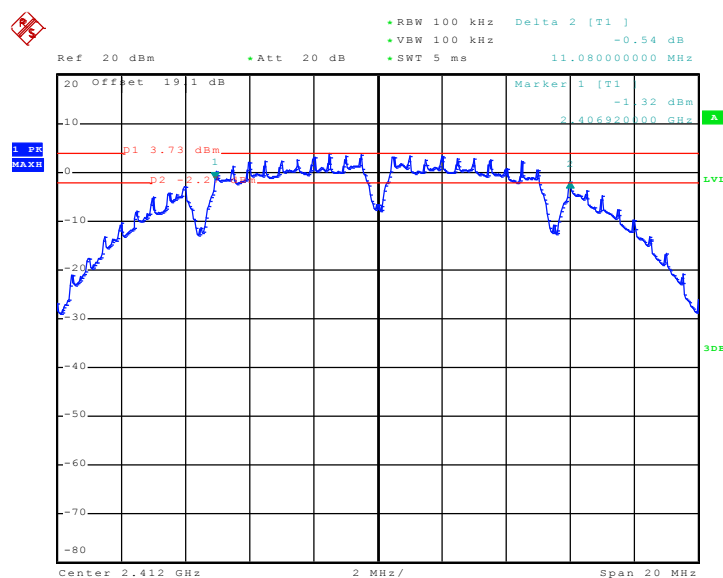


3.1.5 Test Result of 6dB Bandwidth

Test Mode :	Mode 1, 2, 3	Temperature :	25~27℃
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

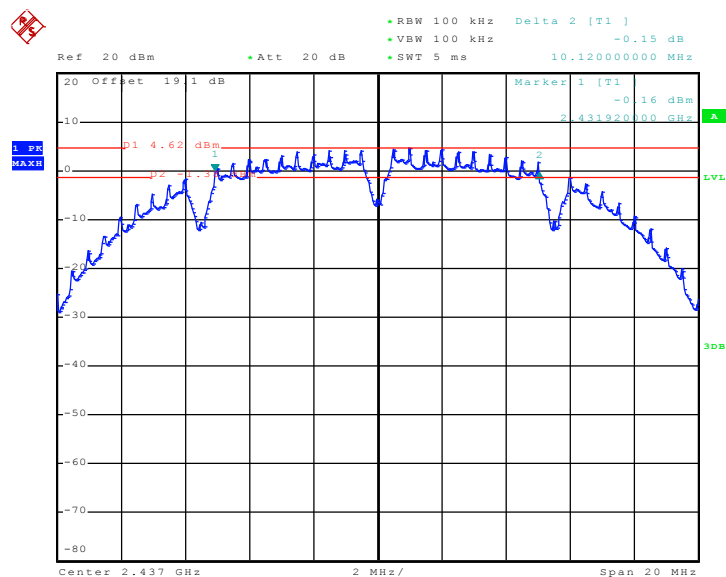
Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	11.08	0.5	Pass
06	2437	10.12	0.5	Pass
11	2462	10.12	0.5	Pass

Mode 1 : 6 dB Bandwidth Plot on 802.11b Channel 01 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



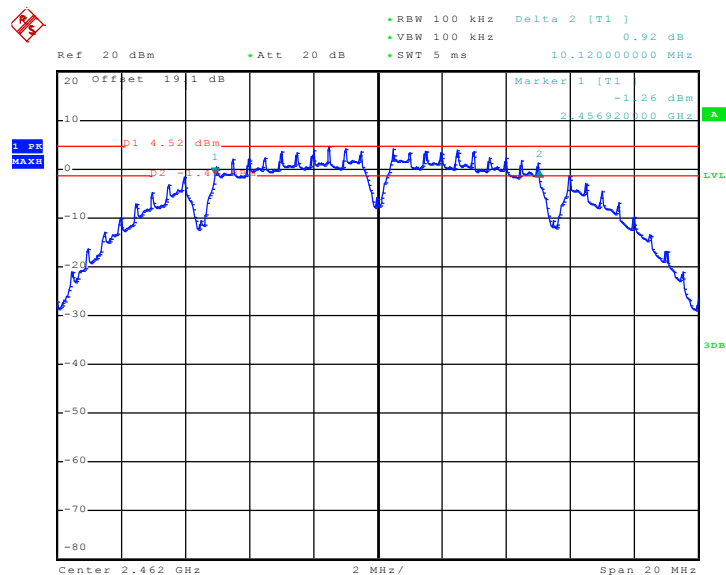
Date: 16.AUG.2010 10:12:59

Mode 2 : 6 dB Bandwidth Plot on 802.11b Channel 06 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 10:13:58

Mode 3 : 6 dB Bandwidth Plot on 802.11b Channel 11 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



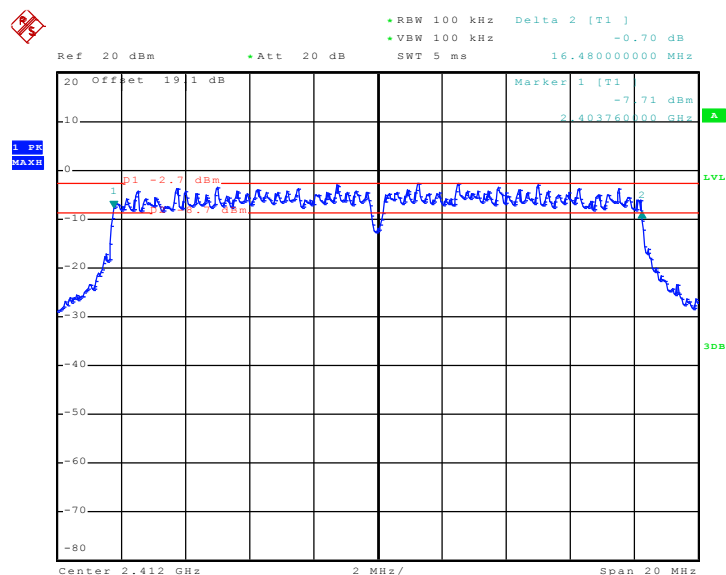
Date: 16.AUG.2010 10:14:54



Test Mode :	Mode 4, 5, 6	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

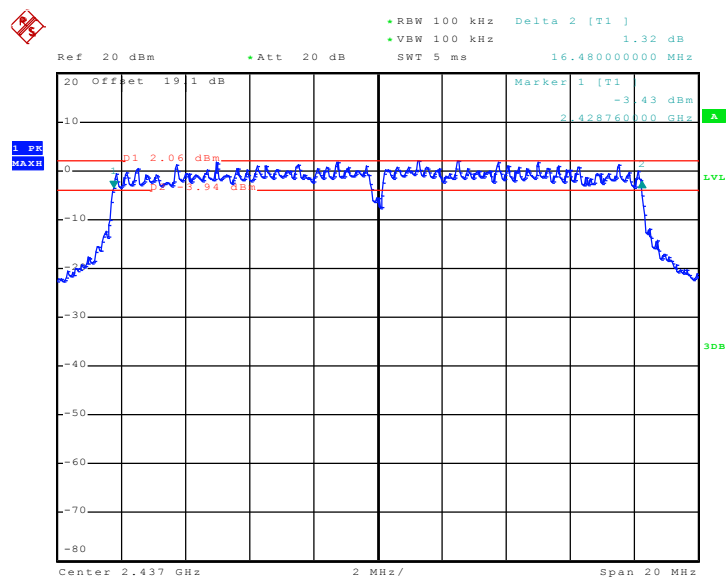
Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	16.48	0.5	Pass
06	2437	16.48	0.5	Pass
11	2462	16.48	0.5	Pass

Mode 4 : 6 dB Bandwidth Plot on 802.11g Channel 01 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



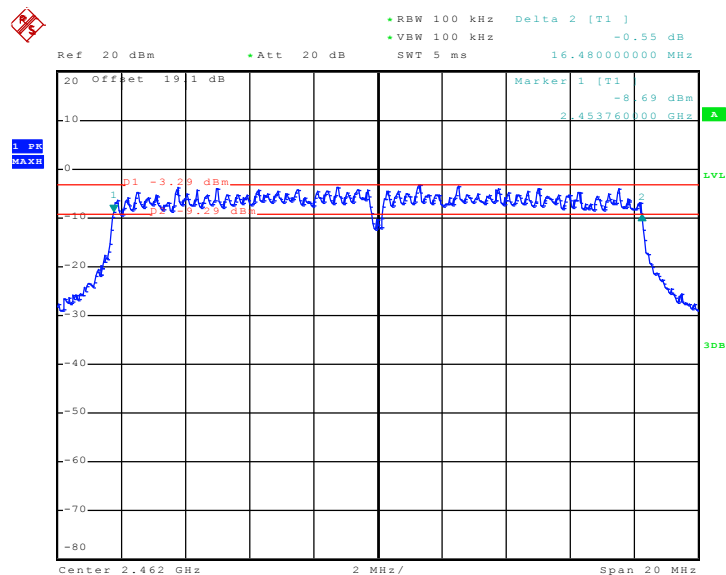
Date: 16.AUG.2010 12:20:21

Mode 5 : 6 dB Bandwidth Plot on 802.11g Channel 06 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 12:21:39

Mode 6 : 6 dB Bandwidth Plot on 802.11g Channel 11 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



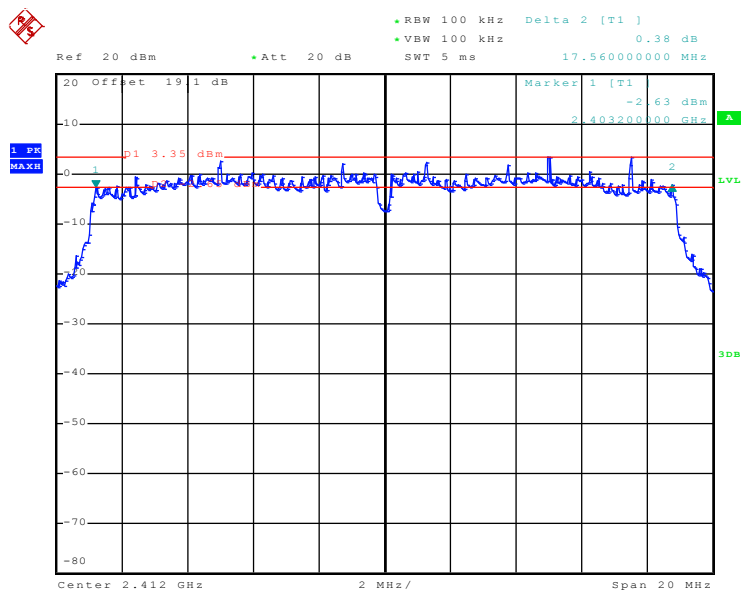
Date: 16.AUG.2010 12:22:42



Test Mode :	Mode 7, 8, 9	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

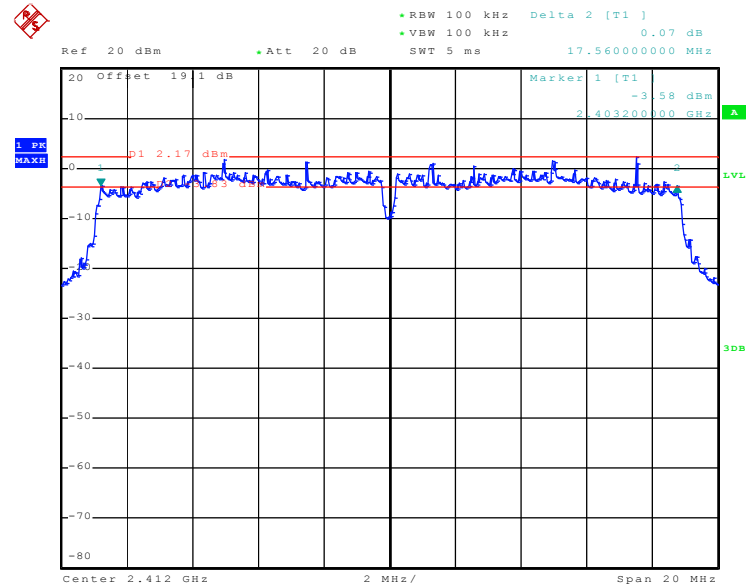
Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 6dB Bandwidth (MHz)		6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C			
		Antenna 1 / Antenna 2	Antenna 3		
01	2412	17.56	17.56	0.5	Pass
06	2437	15.44	17.56	0.5	Pass
11	2462	16.04	16.04	0.5	Pass

**Mode 7 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 01 -
Chain A+B+C (Antenna 1 / Antenna 2)**



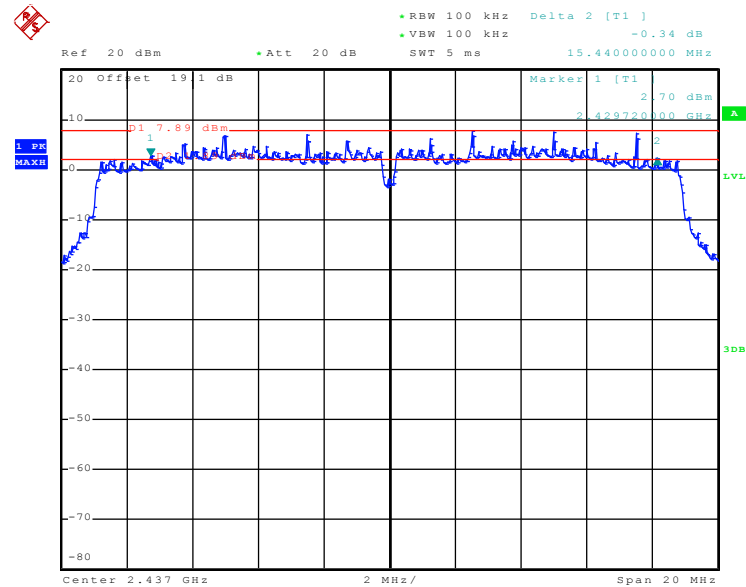
Date: 16.AUG.2010 18:36:37

**Mode 7 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 01 -
Chain A+B+C (Antenna 3)**



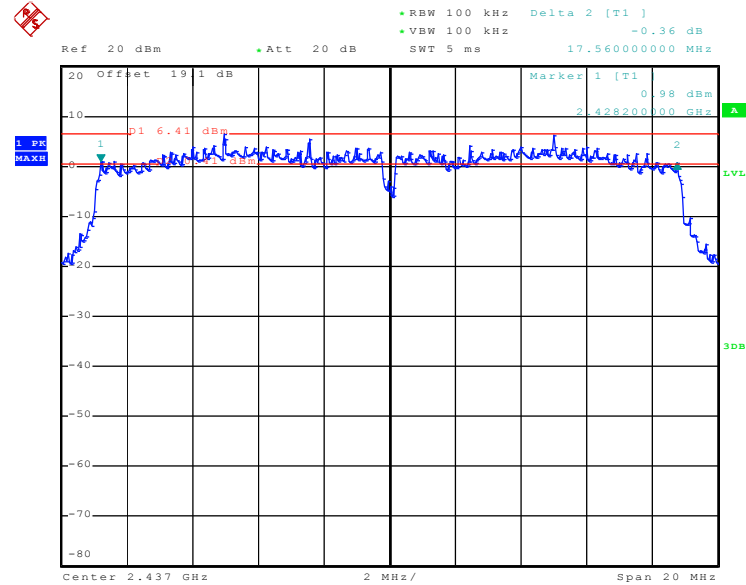
Date: 3.SEP.2010 16:55:55

**Mode 8 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 06 -
Chain A+B+C (Antenna 1 / Antenna 2)**



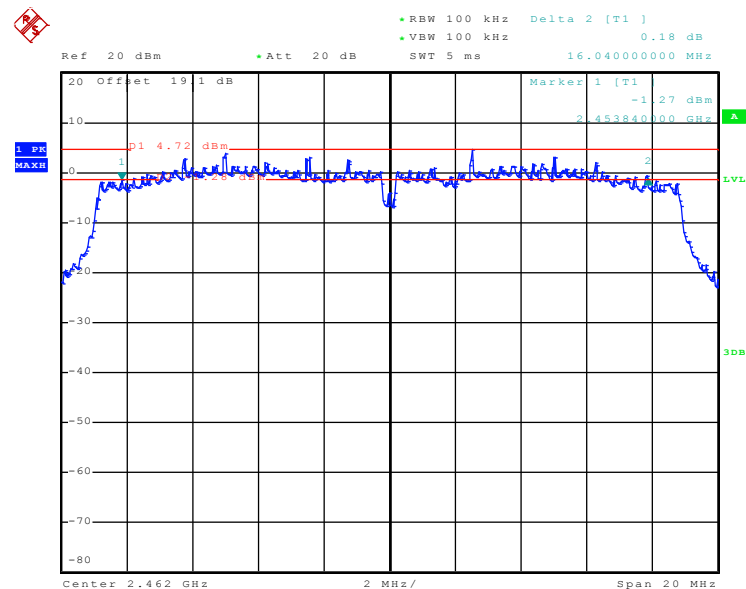
Date: 16.AUG.2010 18:38:07

**Mode 8 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 06 -
Chain A+B+C (Antenna 3)**



Date: 3.SEP.2010 17:03:17

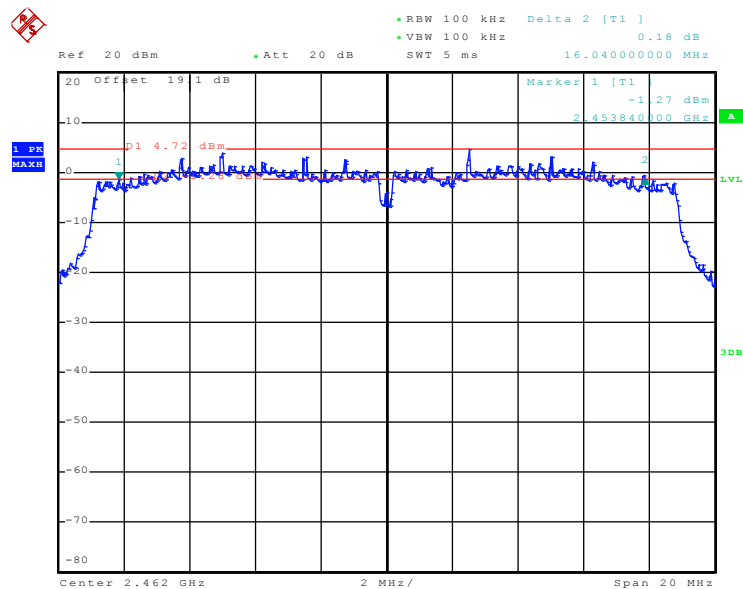
**Mode 9 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 11 -
Chain A+B+C (Antenna 1 / Antenna 2)**



Date: 16.AUG.2010 18:39:35



Mode 9 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 11 -
Chain A+B+C (Antenna 3)

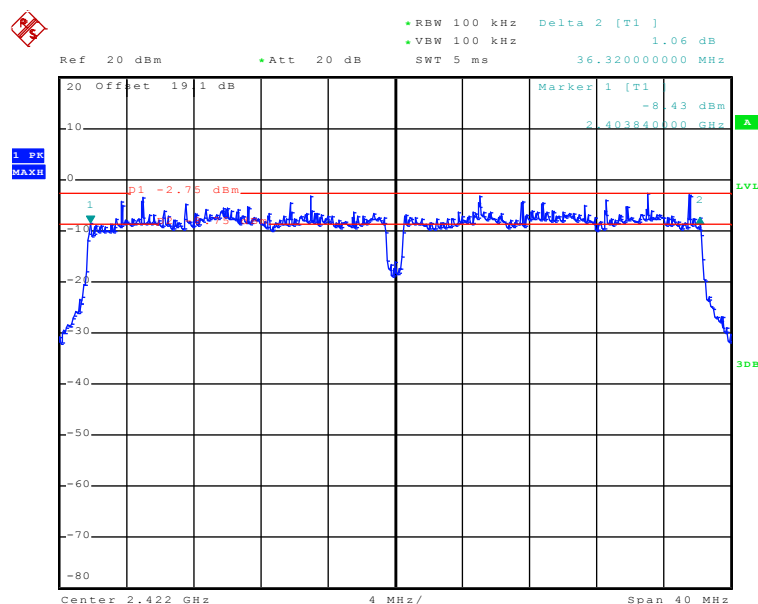


Date: 16.AUG.2010 18:39:35

Test Mode :	Mode 10, 11	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

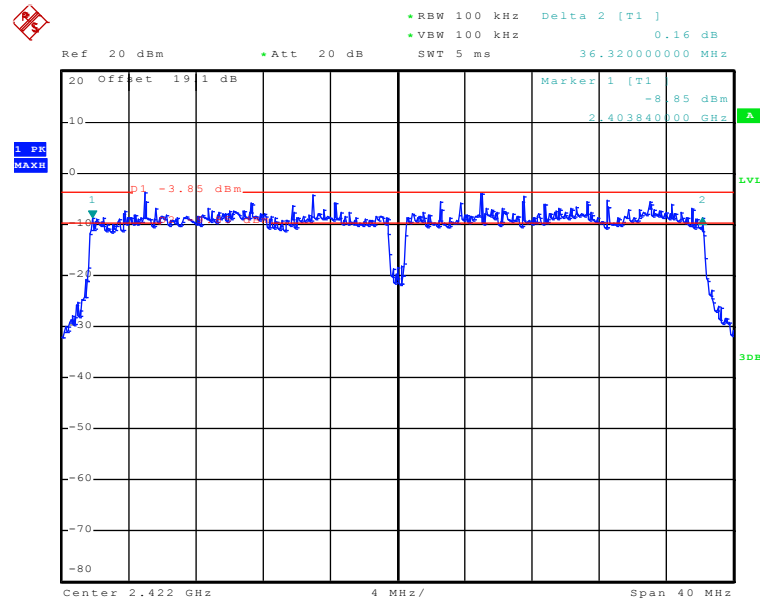
Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) 6dB Bandwidth (MHz)		6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C			
		Antenna 1 / Antenna 2	Antenna 3		
03	2422	36.32	36.32	0.5	Pass
09	2452	36.32	36.32	0.5	Pass

**Mode 10 : 6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 03 -
Chain A+B+C (Antenna 1 / Antenna 2)**



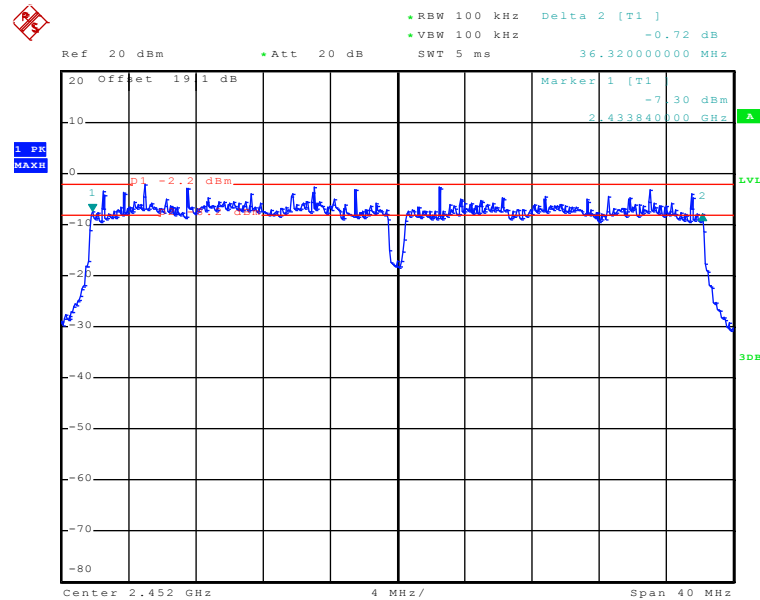
Date: 16.AUG.2010 21:52:37

**Mode 10 : 6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 03 -
Chain A+B+C (Antenna 3)**



Date: 3.SEP.2010 14:54:17

**Mode 11 : 6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 09 -
Chain A+B+C (Antenna 1 / Antenna 2)**



Date: 16.AUG.2010 21:54:16



Ref 20 dBm • Att 20 dB • RBW 100 kHz Delta 2 [T1] -0.72 dB
 • VBW 100 kHz SWT 5 ms 36.320000000 MHz

20 Offset 191 dB Marker 1 [T1] -7.30 dBm
 2 433840000 GHz

1. PK MAX 30 dB

Center 2.452 GHz Span 40 MHz

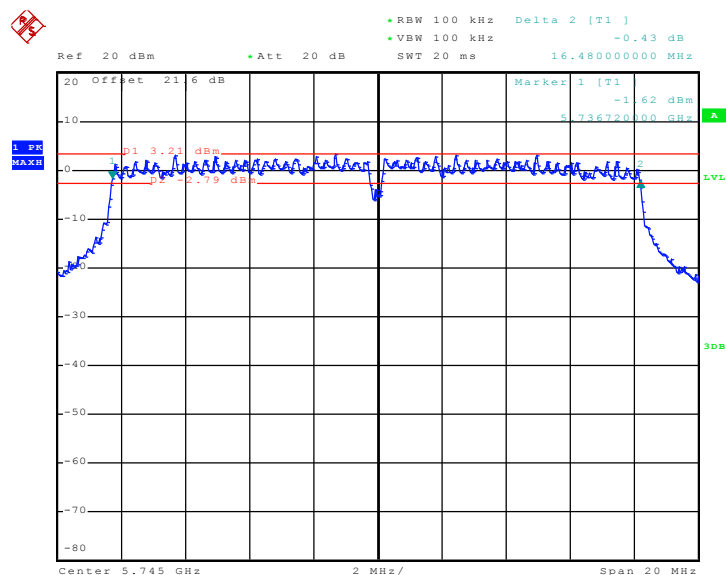
Date: 16.AUG.2010 21:54:16



Test Mode :	Mode 12, 13, 14	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

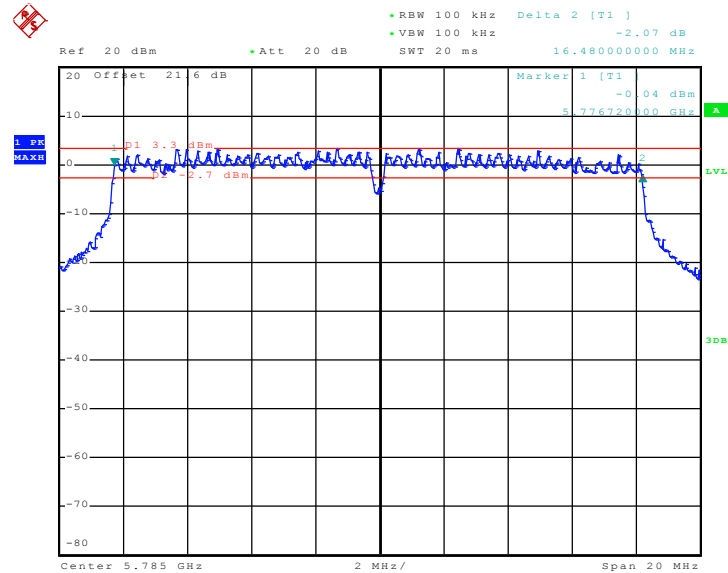
Channel	Frequency (MHz)	802.11a 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2		
149	5745	16.48	0.5	Pass
157	5785	16.48	0.5	Pass
165	5825	16.52	0.5	Pass

**Mode 12 : 6 dB Bandwidth Plot on 802.11a Channel 149 - Chain A
(Antenna 1 / Antenna 2)**



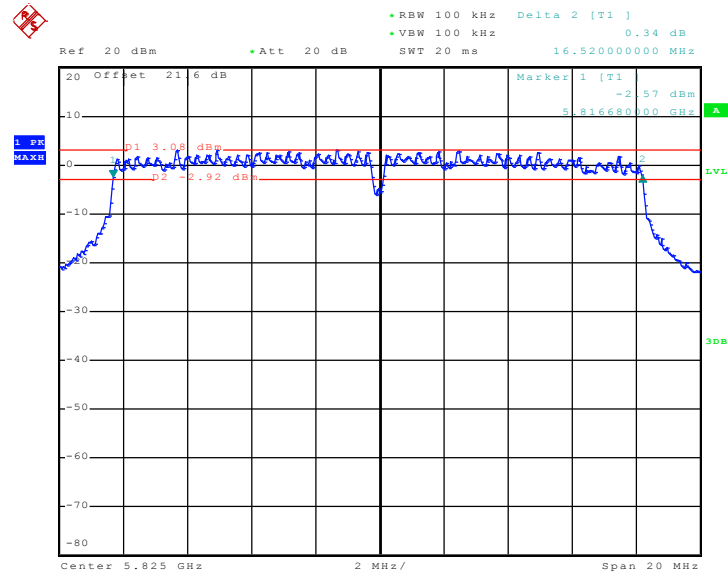
Date: 16.AUG.2010 14:58:05

Mode 13 : 6 dB Bandwidth Plot on 802.11a Channel 157 - Chain A
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 14:56:43

Mode 14 : 6 dB Bandwidth Plot on 802.11a Channel 165 - Chain A
(Antenna 1 / Antenna 2)



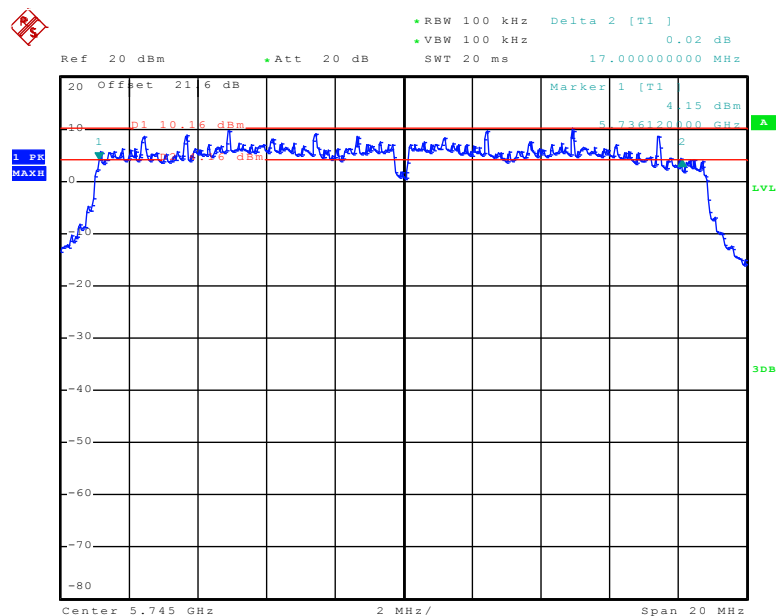
Date: 16.AUG.2010 14:55:32



Test Mode :	Mode 15, 16, 17	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
		Antenna 1 / Antenna 2		
149	5745	17.00	0.5	Pass
157	5785	17.56	0.5	Pass
165	5825	17.56	0.5	Pass

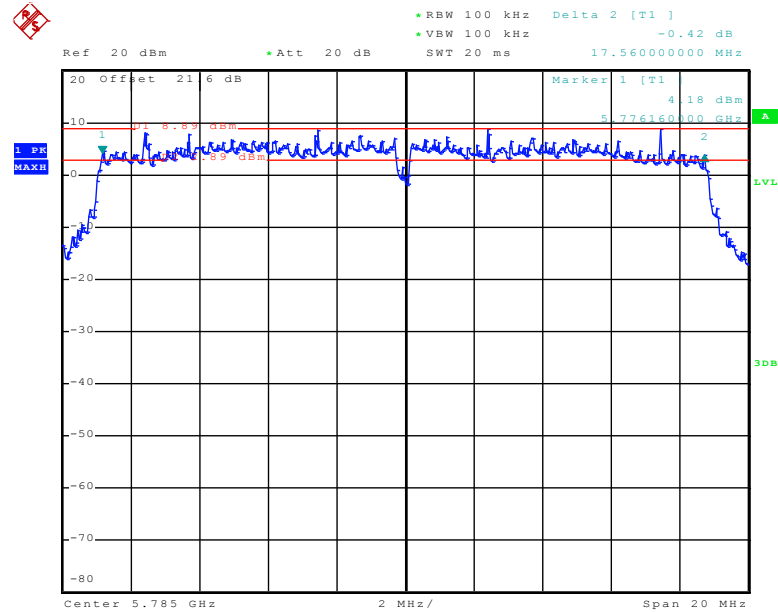
Mode 15 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 149 -
Chain A+B+C (Antenna 1 / Antenna 2)



Date: 16.AUG.2010 16:06:01

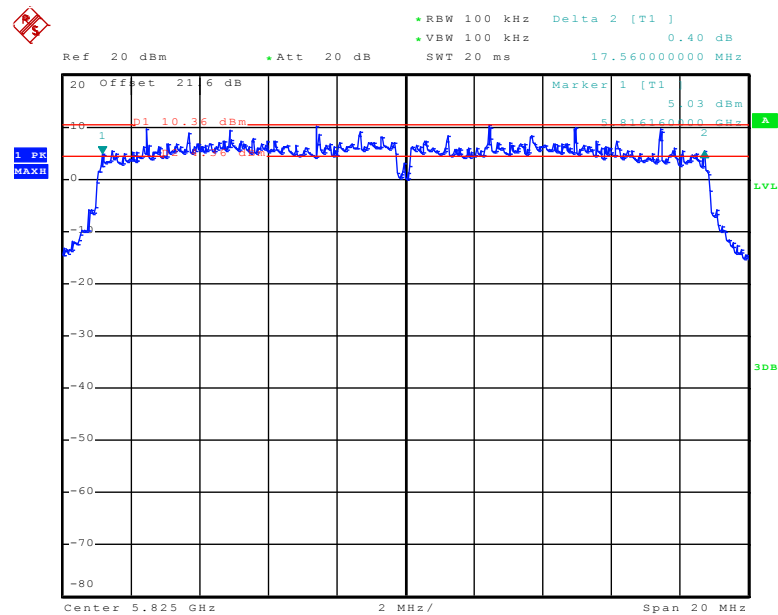


Mode 16 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 157 -
Chain A+B+C (Antenna 1 / Antenna 2)



Date: 16.AUG.2010 16:09:48

Mode 17 : 6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 165 -
Chain A+B+C (Antenna 1 / Antenna 2)

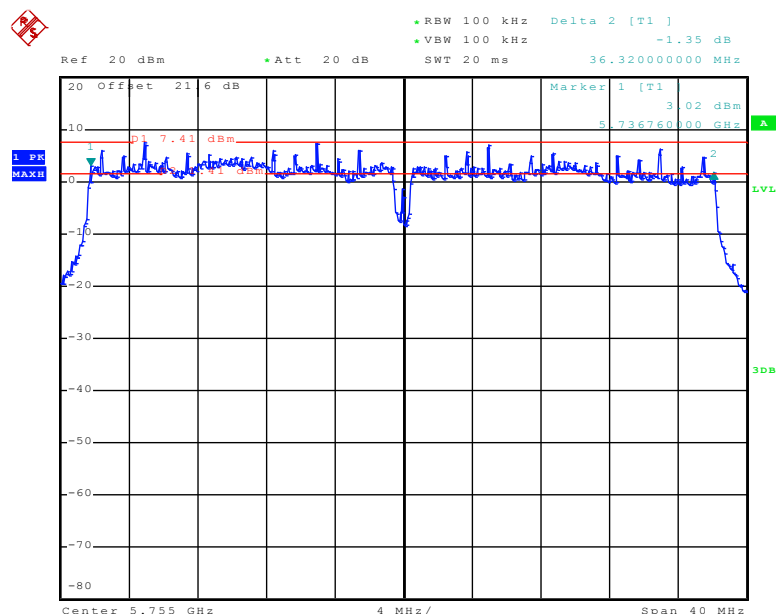


Date: 16.AUG.2010 16:11:11

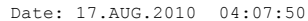
Test Mode :	Mode 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
		Antenna 1 / Antenna 2		
151	5755	36.32	0.5	Pass
159	5795	36.40	0.5	Pass

**Mode 18 : 6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 151 -
Chain A+B+C (Antenna 1 / Antenna 2)**



Date: 17.AUG.2010 04:09:42

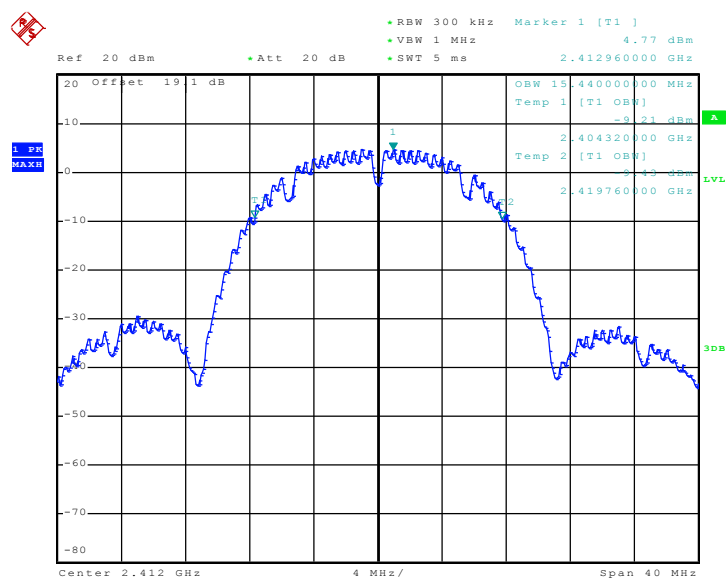


3.1.6 Test Result of 99% Occupied Bandwidth

Test Mode :	Mode 1, 2, 3	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

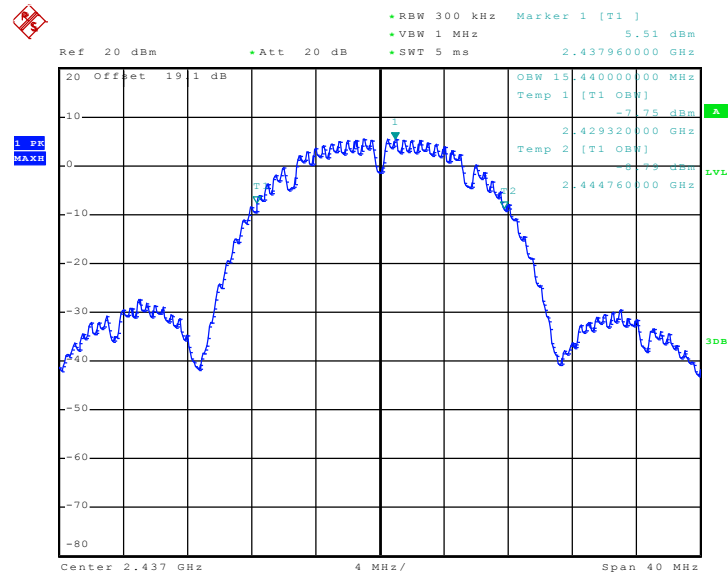
Channel	Frequency (MHz)	802.11b 99% Occupied Bandwidth (MHz)	Pass/Fail
		Chain A	
		Antenna 1 / Antenna 2 / Antenna 3	
01	2412	15.44	Pass
06	2437	15.44	Pass
11	2462	15.36	Pass

**Mode 1 : 99% Occupied Bandwidth Plot on 802.11b Channel 01 -
Chain A (Antenna 1 / Antenna 2 / Antenna 3)**



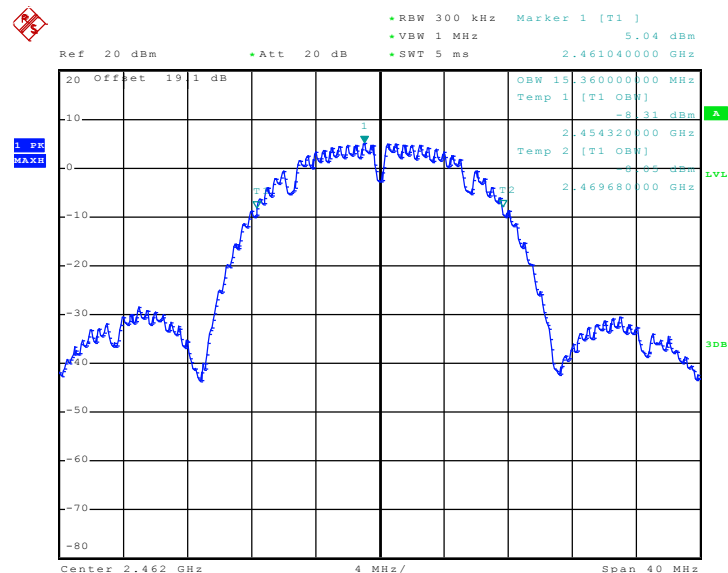
Date: 16.AUG.2010 10:11:19

**Mode 2 : 99% Occupied Bandwidth Plot on 802.11b Channel 06 -
Chain A (Antenna 1 / Antenna 2 / Antenna 3)**



Date: 16.AUG.2010 10:10:36

**Mode 3 : 99% Occupied Bandwidth Plot on 802.11b Channel 11 -
Chain A (Antenna 1 / Antenna 2 / Antenna 3)**



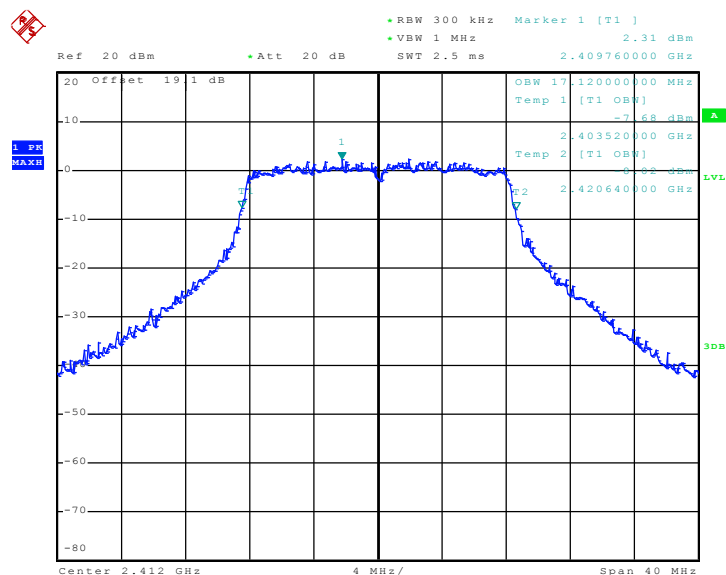
Date: 16.AUG.2010 10:10:56



Test Mode :	Mode 4, 5, 6	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

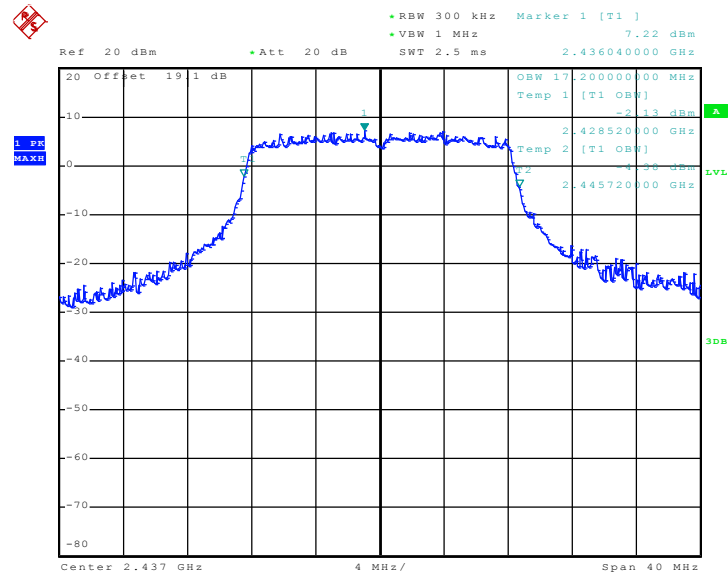
Channel	Frequency (MHz)	802.11g 99% Occupied Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	17.12	0.5	Pass
06	2437	17.20	0.5	Pass
11	2462	17.04	0.5	Pass

Mode 4 : 99% Occupied Bandwidth Plot on 802.11g Channel 01 -
Chain A (Antenna 1 / Antenna 2 / Antenna 3)



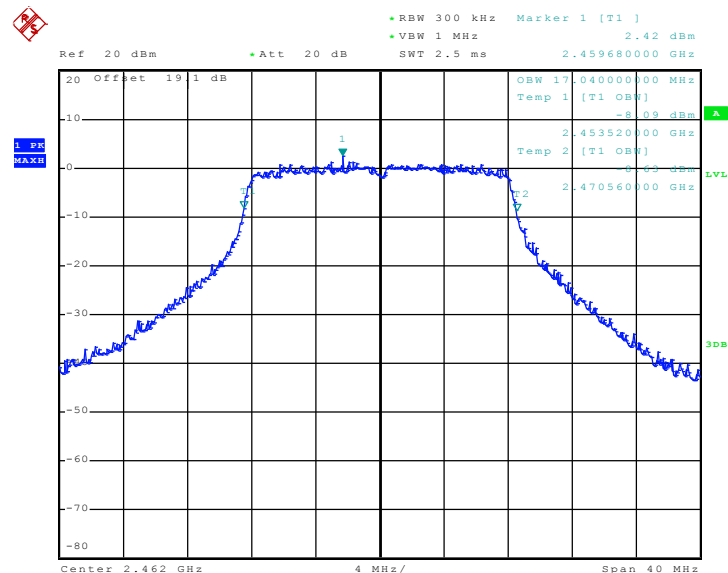
Date: 16.AUG.2010 12:25:04

**Mode 5 : 99% Occupied Bandwidth Plot on 802.11g Channel 06 -
Chain A (Antenna 1 / Antenna 2 / Antenna 3)**



Date: 16.AUG.2010 12:24:20

**Mode 6 : 99% Occupied Bandwidth Plot on 802.11g Channel 11 -
Chain A (Antenna 1 / Antenna 2 / Antenna 3)**



Date: 16.AUG.2010 12:23:35

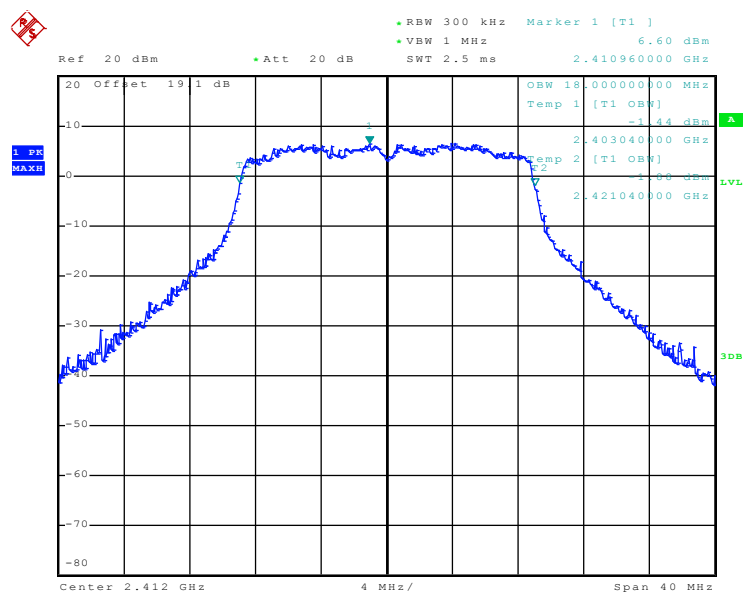


Test Mode :	Mode 7, 8, 9	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

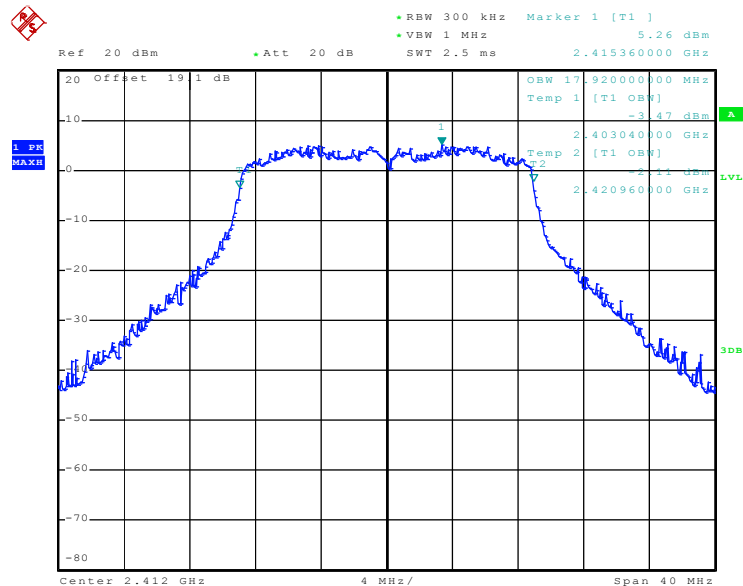
Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 99% Occupied Bandwidth (MHz)		6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C			
		Antenna 1 / Antenna 2	Antenna 3		
01	2412	18.00	17.92	0.5	Pass
06	2437	18.00	17.92	0.5	Pass
11	2462	17.92	17.92	0.5	Pass

Mode 7 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)

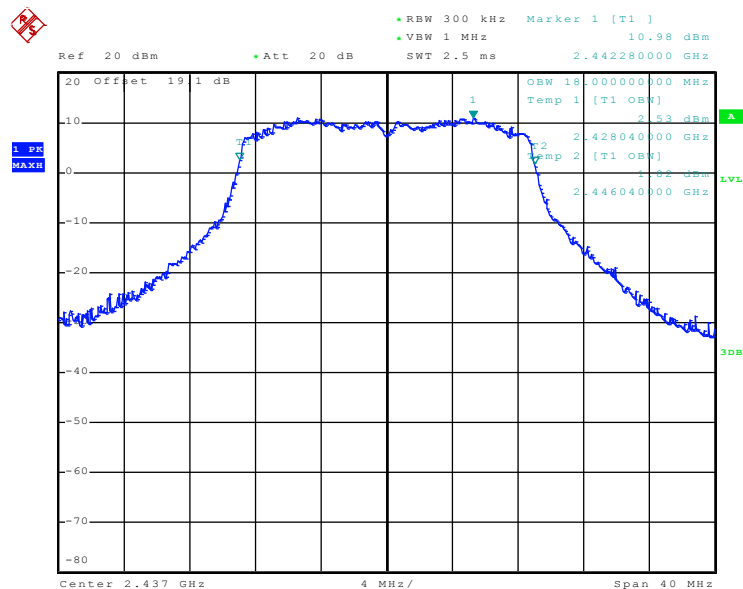
Channel 01 - Chain A+B+C (Antenna 1 / Antenna 2)



Date: 16.AUG.2010 18:43:45

Mode 7 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)
Channel 01 - Chain A+B+C (Antenna 3)


Date: 3.SEP.2010 16:49:53

Mode 8 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)
Channel 06 - Chain A+B+C (Antenna 1 / Antenna 2)


Date: 16.AUG.2010 18:42:19



Channel 06 - Chain A+B+C (Antenna 3)



Mode 9 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)

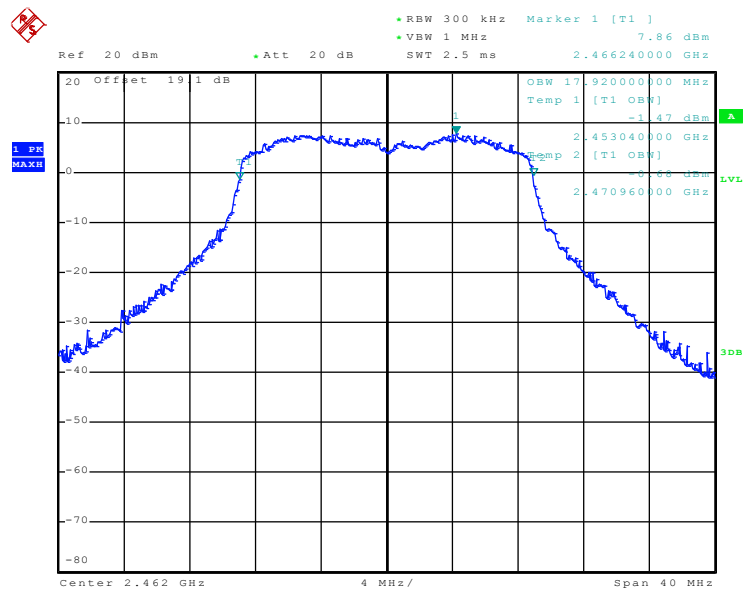
Channel 11 - Chain A+B+C (Antenna 1 / Antenna 2)





Mode 9 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)

Channel 11 - Chain A+B+C (Antenna 3)

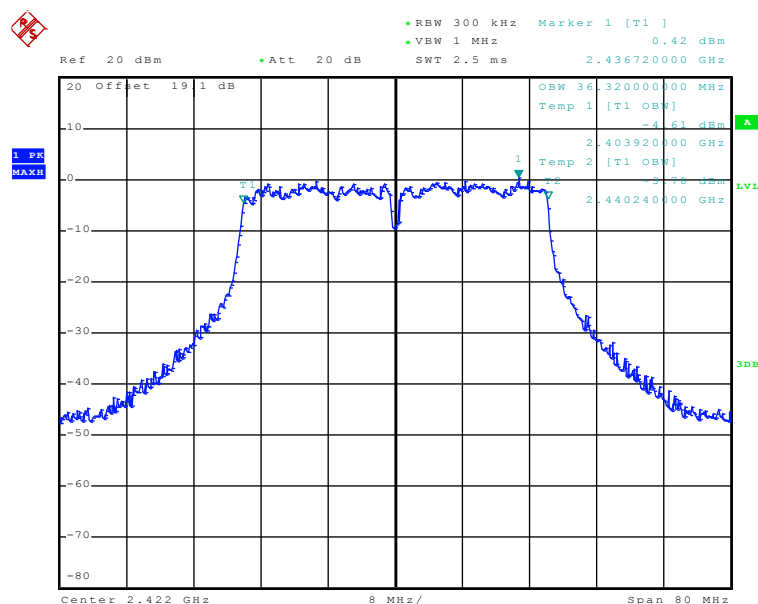


Date: 16.AUG.2010 18:41:10

Test Mode :	Mode 10, 11	Temperature :	25~27℃
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) 99% Occupied Bandwidth (MHz)		6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C			
		Antenna 1 / Antenna 2	Antenna 3		
03	2422	36.32	36.48	0.5	Pass
09	2452	36.32	36.32	0.5	Pass

Mode 10 : 99% Occupied Bandwidth Plot on 802.11n (BW 40MHz)
Channel 03 - Chain A+B+C (Antenna 1 / Antenna 2)

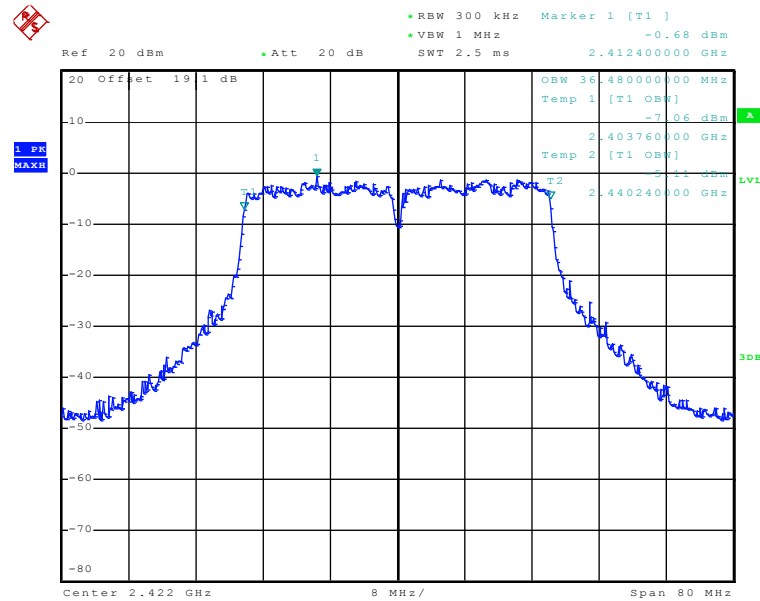


Date: 16.AUG.2010 21:56:16



Mode 10 : 99% Occupied Bandwidth Plot on 802.11n (BW 40MHz)

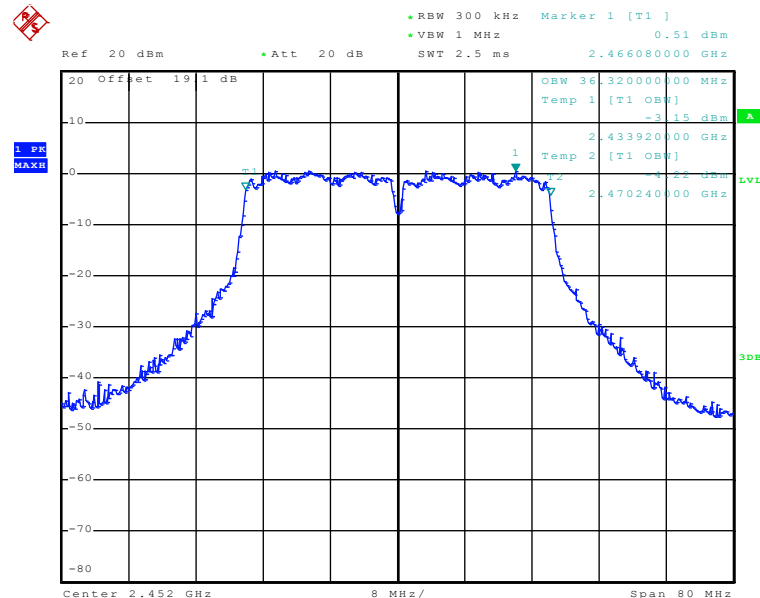
Channel 03 - Chain A+B+C (Antenna 3)



Date: 3.SEP.2010 15:01:37

Mode 11 : 99% Occupied Bandwidth Plot on 802.11n (BW 40MHz)

Channel 09 - Chain A+B+C (Antenna 1 / Antenna 2)

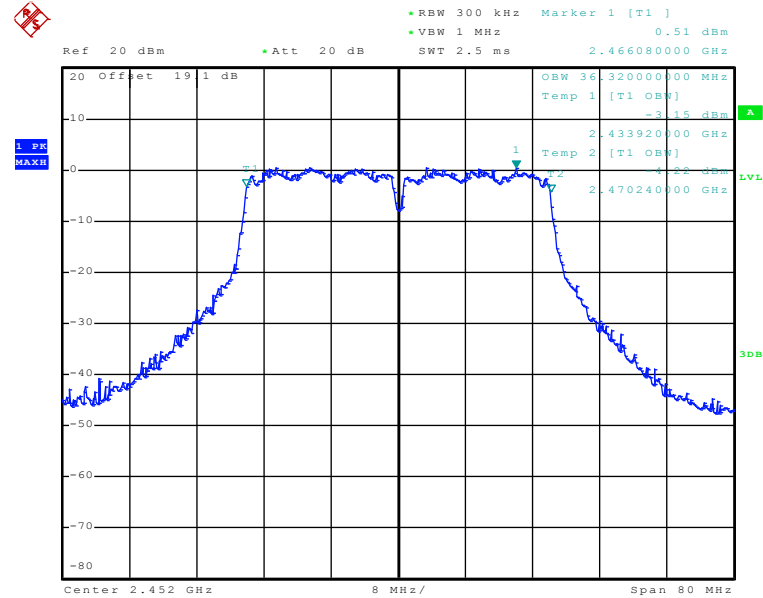


Date: 16.AUG.2010 21:55:39



Mode 11 : 99% Occupied Bandwidth Plot on 802.11n (BW 40MHz)

Channel 09 - Chain A+B+C (Antenna 3)



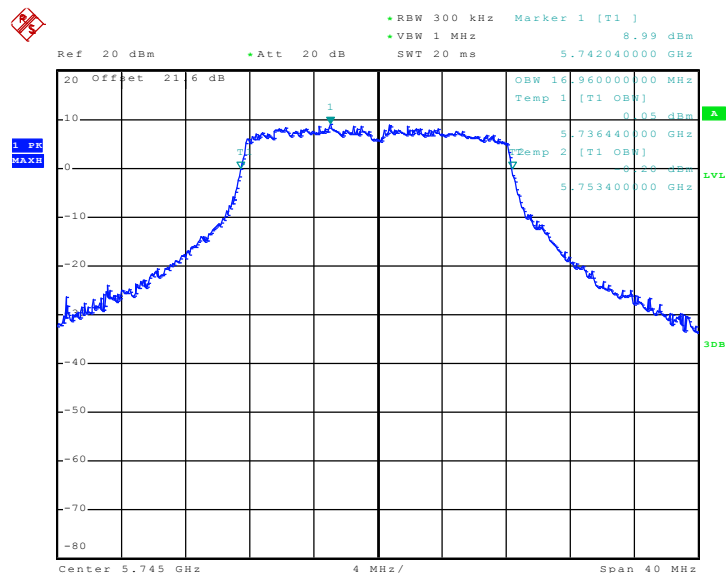
Date: 16.AUG.2010 21:55:39



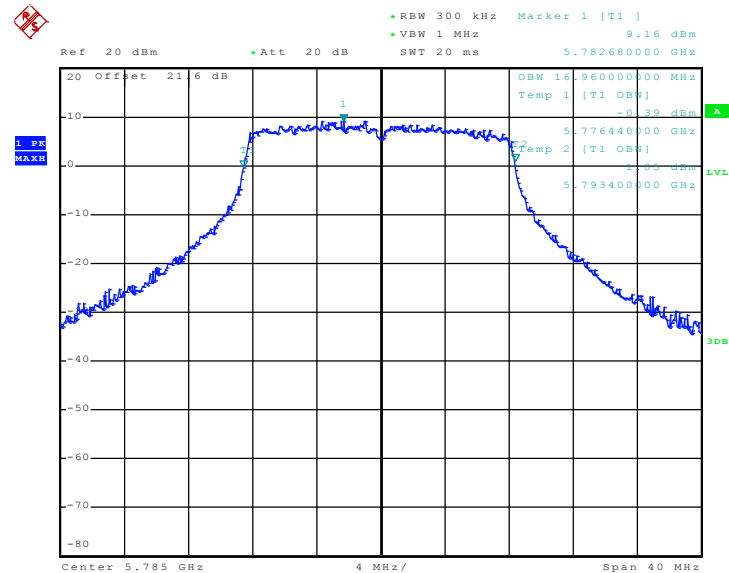
Test Mode :	Mode 12, 13, 14	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11a 99% Occupied Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2		
149	5745	16.96	0.5	Pass
157	5785	16.96	0.5	Pass
165	5825	17.04	0.5	Pass

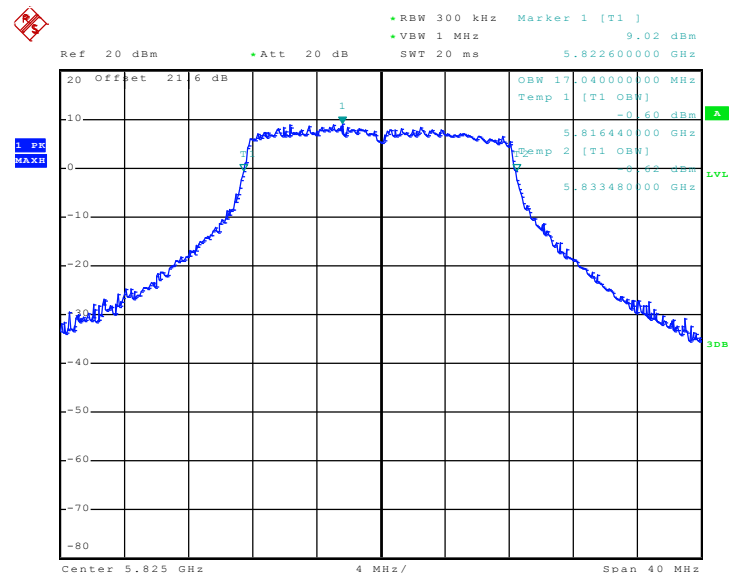
**Mode 12 : 99% Occupied Bandwidth Plot on 802.11a Channel 149
- Chain A (Antenna 1 / Antenna 2)**



Date: 16.AUG.2010 14:59:30

Mode 13 : 99% Occupied Bandwidth Plot on 802.11a Channel 157
- Chain A (Antenna 1 / Antenna 2)


Date: 16.AUG.2010 15:00:27

Mode 14 : 99% Occupied Bandwidth Plot on 802.11a Channel 165
- Chain A (Antenna 1 / Antenna 2)


Date: 16.AUG.2010 15:01:09

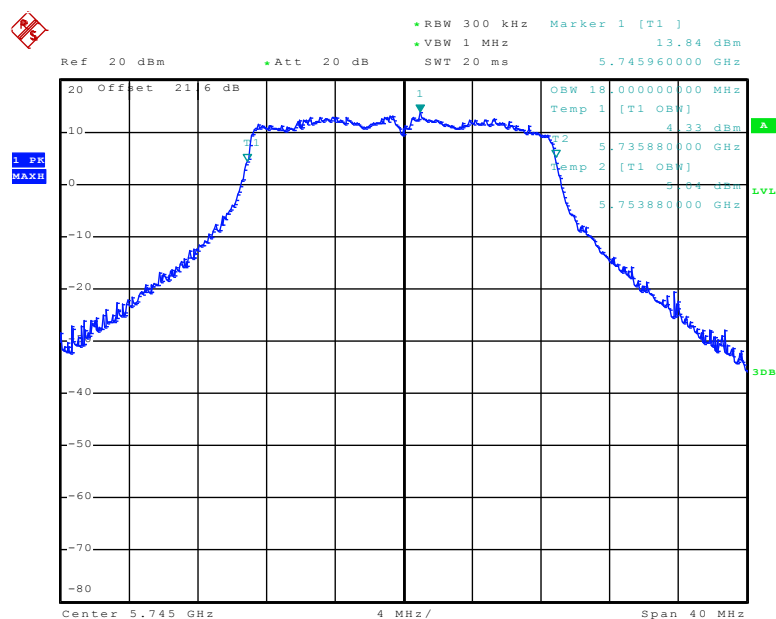


Test Mode :	Mode 15, 16, 17	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

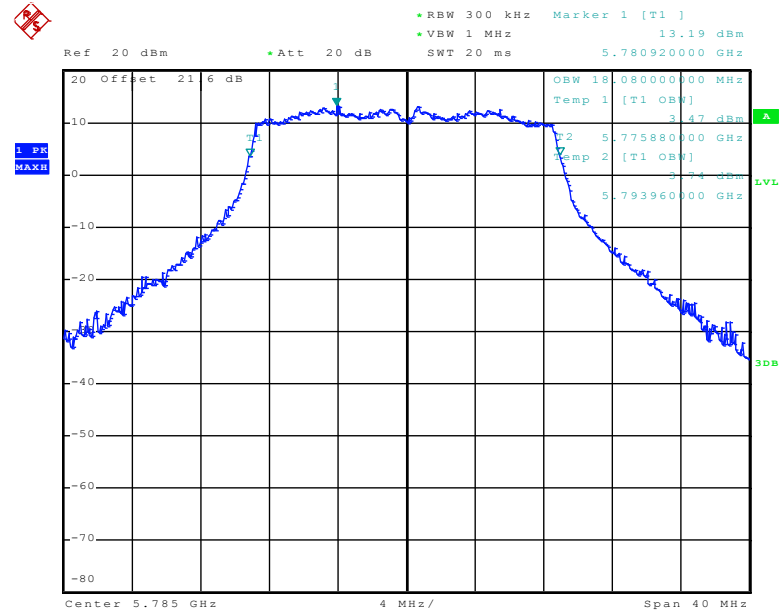
Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 99% Occupied Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
		Antenna 1 / Antenna 2		
149	5745	18.00	0.5	Pass
157	5785	18.08	0.5	Pass
165	5825	18.08	0.5	Pass

Mode 15 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)

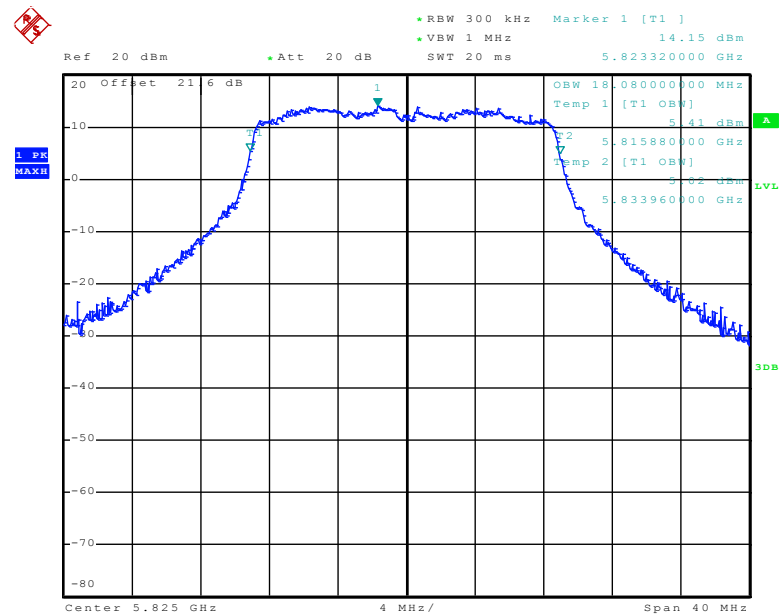
Channel 149 - Chain A+B+C (Antenna 1 / Antenna 2)



Date: 16.AUG.2010 16:16:34

Mode 16 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)
Channel 157 - Chain A+B+C (Antenna 1 / Antenna 2)


Date: 16.AUG.2010 16:15:14

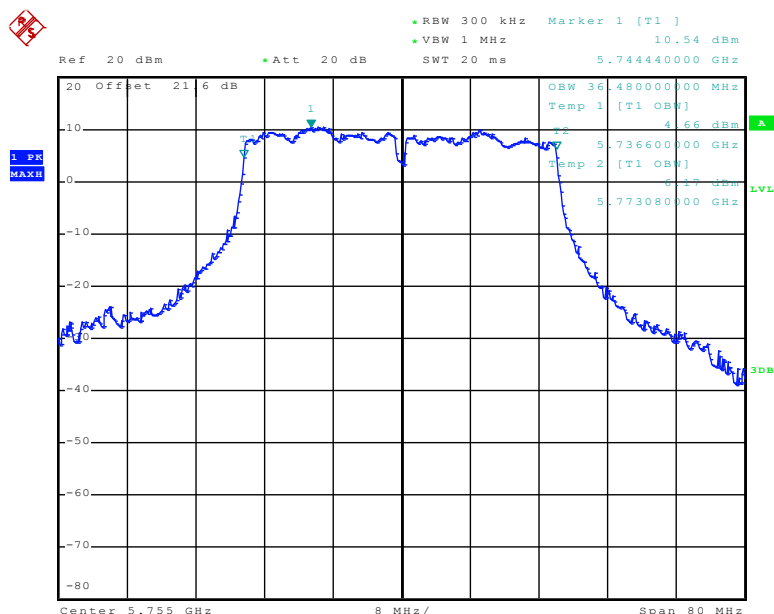
Mode 17 : 99% Occupied Bandwidth Plot on 802.11n (BW 20MHz)
Channel 165 - Chain A+B+C (Antenna 1 / Antenna 2)


Date: 16.AUG.2010 16:14:30

Test Mode :	Mode 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) 99% Occupied Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
		Antenna 1 / Antenna 2		
151	5755	36.48	0.5	Pass
159	5795	36.48	0.5	Pass

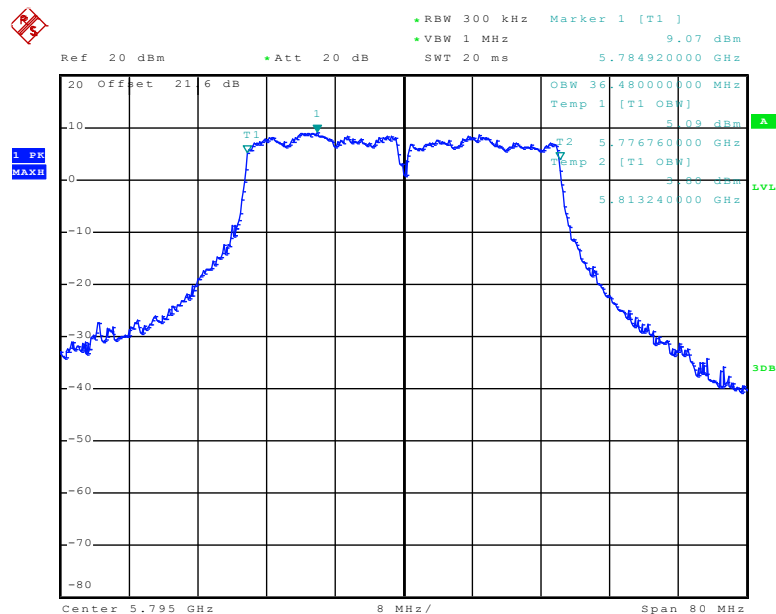
Mode 18 : 99% Occupied Bandwidth Plot on 802.11n (BW 40MHz)
Channel 151 - Chain A+B+C (Antenna 1 / Antenna 2)



Date: 17.AUG.2010 04:02:14



Channel 159 - Chain A+B+C (Antenna 1 / Antenna 2)



Date: 17.AUG.2010 04:03:10

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.

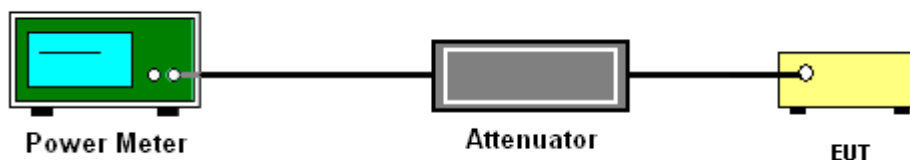
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the power meter by a low loss cable.
3. Measure the power by power meter.

3.2.4 Test Setup



3.2.5 Test Result of Output Power

Test Mode :	Mode 1, 2, 3	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11b Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	16.56	27	Pass
06	2437	16.76	27	Pass
11	2462	16.40	27	Pass

Note: The maximum antenna gain is 13 dBi; therefore the limits are 27 dBm.

Test Mode :	Mode 4, 5, 6	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11g Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	18.15	27	Pass
06	2437	21.82	27	Pass
11	2462	17.43	27	Pass

Note: The maximum antenna gain is 13 dBi; therefore the limits are 27 dBm.

Test Mode :	Mode 7, 8, 9	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured Output Power (dBm)		Max. Limits (dBm)	Pass/Fail
		Chain A+B+C			
		Antenna 1 / Antenna 2	Antenna 3		
01	2412	21.03	20.04	28 / 27	Pass
06	2437	25.24	24.65	28 / 27	Pass
11	2462	21.69	21.78	28 / 27	Pass

Note: The maximum antenna gains are 10.9 dBi for antenna 1 and 13 dBi for Antenna 3; therefore the limits are 28 dBm for antenna 1, 27 dBm for antenna 3.

Test Mode :	Mode 10, 11	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured Output Power (dBm)		Max. Limits (dBm)	Pass/Fail
		Chain A+B+C			
		Antenna 1 / Antenna 2	Antenna 3		
03	2422	19.42	16.29	27	Pass
09	2452	20.02	20.02	27	Pass

Note: The maximum antenna gain is 13 dBi; therefore the limits are 27 dBm.

Test Mode :	Mode 12, 13, 14	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11a Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2		
149	5745	21.91	30	Pass
157	5785	21.92	30	Pass
165	5825	21.88	30	Pass

Test Mode :	Mode 15, 16, 17	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A+B+C		
		Antenna 1 / Antenna 2		
149	5745	21.76	30	Pass
157	5785	22.20	30	Pass
165	5825	22.35	30	Pass



Test Mode :	Mode 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A+B+C		
		Antenna 1 / Antenna 2		
151	5755	21.25	30	Pass
159	5795	21.99	30	Pass

3.3 Band Edges Measurement

3.3.1 Limit of Band Edges

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. 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.

3.3.2 Measuring Instruments

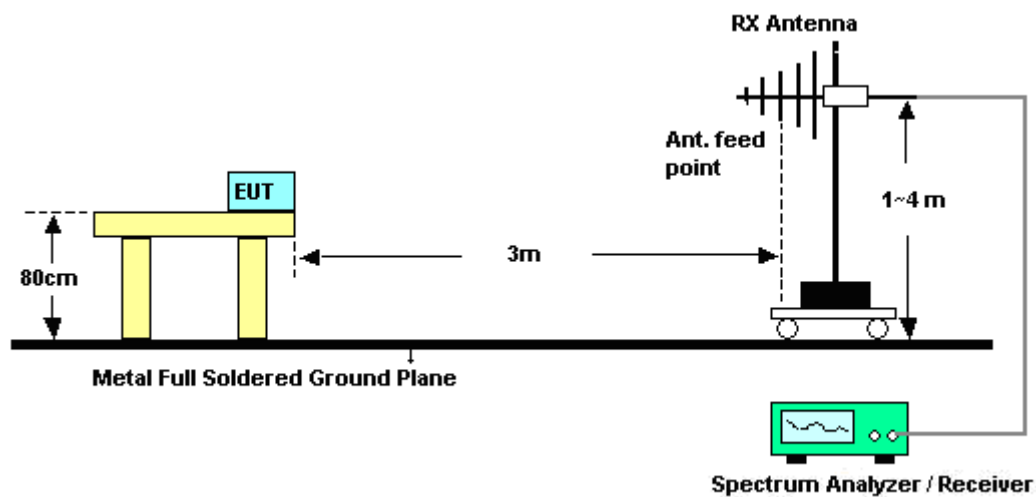
See list of measuring instruments of this test report.

3.3.3 Test Procedures

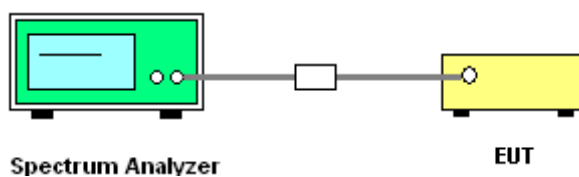
1. The testing follows the guidelines in ANSI C63.4-2003 and FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Conducted emission test: Set RBW = 100 kHz, Video bandwidth (VBW) > RBW. Band edge emissions must be at least 20 dB below the highest emission level within the authorized band as measured with a 100 kHz RBW. Note: If the output power of this device was measured by power meter, the attenuation under this paragraph shall be 30 dB instead of 20 dB.
3. Radiated emission test: Apply to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep=Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation as in FCC Section 15.35(b) and (c).

3.3.4 Test Setup

<Radiated Band Edges>



<Conducted Band Edges>



3.3.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	Temperature :	23~25°C
Test Band :	802.11b	Relative Humidity :	45~50%
Test Channel :	01	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	61.66	-12.34	74	57.03	32.13	6.03	33.53	106	360	Peak
2390	51.57	-2.43	54	46.94	32.13	6.03	33.53	106	360	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.62	47.74	-26.26	74	43.11	32.13	6.03	33.53	100	327	Peak
2385.62	34.58	-19.42	54	29.95	32.13	6.03	33.53	100	327	Average

Test Mode :	Mode 3	Temperature :	23~25°C
Test Band :	802.11b	Relative Humidity :	45~50%
Test Channel :	11	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	61.27	-12.73	74	56.38	32.27	6.18	33.56	123	0	Peak
2483.5	49.86	-4.14	54	44.97	32.27	6.18	33.56	123	0	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2500	47	-27	74	42.09	32.3	6.18	33.57	153	4	Peak
2500	34.01	-19.99	54	29.1	32.3	6.18	33.57	153	4	Average



Test Mode :	Mode 4	Temperature :	23~25°C
Test Band :	802.11g	Relative Humidity :	45~50%
Test Channel :	01	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	71.37	-2.63	74	66.74	32.13	6.03	33.53	105	360	Peak
2390	52.76	-1.24	54	48.13	32.13	6.03	33.53	105	360	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2383.53	46.79	-27.21	74	42.18	32.11	6.03	33.53	100	327	Peak
2383.53	34.45	-19.55	54	29.84	32.11	6.03	33.53	100	327	Average

Test Mode :	Mode 6	Temperature :	23~25°C
Test Band :	802.11g	Relative Humidity :	45~50%
Test Channel :	11	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	71.43	-2.57	74	66.54	32.27	6.18	33.56	122	360	Peak
2483.5	52.03	-1.97	54	47.14	32.27	6.18	33.56	122	360	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	48.33	-25.67	74	43.44	32.27	6.18	33.56	126	4	Peak
2483.5	35.3	-18.7	54	30.41	32.27	6.18	33.56	126	4	Average



Test Mode :	Mode 7	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 20MHz)	Relative Humidity :	45~50%
Test Channel :	01	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	71.12	-2.88	74	66.49	32.13	6.03	33.53	106	0	Peak
2390	52.8	-1.2	54	48.17	32.13	6.03	33.53	106	0	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	68.98	-5.02	74	64.35	32.13	6.03	33.53	104	0	Peak
2390	49.43	-4.57	54	44.8	32.13	6.03	33.53	104	0	Average

Test Mode :	Mode 9	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 20MHz)	Relative Humidity :	45~50%
Test Channel :	11	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	72.57	-1.43	74	67.68	32.27	6.18	33.56	100	3	Peak
2483.5	51.67	-2.33	54	46.78	32.27	6.18	33.56	100	3	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	71.74	-2.26	74	66.85	32.27	6.18	33.56	102	360	Peak
2483.5	50.65	-3.35	54	45.76	32.27	6.18	33.56	102	360	Average



Test Mode :	Mode 10	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	03	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	72.67	-1.33	74	68.04	32.13	6.03	33.53	102	360	Peak
2390	52.54	-1.46	54	47.91	32.13	6.03	33.53	102	360	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390	69.93	-4.07	74	65.3	32.13	6.03	33.53	104	0	Peak
2390	48.97	-5.03	54	44.34	32.13	6.03	33.53	104	0	Average

Test Mode :	Mode 11	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	09	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.61	71.17	-2.83	74	66.28	32.27	6.18	33.56	102	360	Peak
2484.61	52.97	-1.03	54	48.08	32.27	6.18	33.56	102	360	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.66	64.18	-9.82	74	59.29	32.27	6.18	33.56	100	360	Peak
2483.66	45.78	-8.22	54	40.89	32.27	6.18	33.56	100	360	Average



Test Mode :	Mode 12	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	09	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.66	71.91	-2.09	74	67.02	32.27	6.18	33.56	102	360	Peak
2483.66	53.45	-0.55	54	48.56	32.27	6.18	33.56	102	360	Average

ANTENNA POLARITY : HORIZONTAL										
ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	67.77	-6.23	74	62.88	32.27	6.18	33.56	102	0	Peak
2483.5	49.64	-4.36	54	44.75	32.27	6.18	33.56	102	0	Average

Test Mode :	Mode 22	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	09	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	71.67	-2.33	74	66.78	32.27	6.18	33.56	103	0	Peak
2483.5	53.43	-0.57	54	48.54	32.27	6.18	33.56	103	0	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	67.95	-6.05	74	63.06	32.27	6.18	33.56	102	359	Peak
2483.5	51.08	-2.92	54	46.19	32.27	6.18	33.56	102	359	Average



Test Mode :	Mode 24	Temperature :	23~25°C
Test Band :	802.11b	Relative Humidity :	45~50%
Test Channel :	01	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.42	47.17	-26.83	74	42.49	32.18	6.03	33.53	120	242	Peak
2389.42	34.92	-19.08	54	30.24	32.18	6.03	33.53	120	242	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	59.96	-14.04	74	55.28	32.18	6.03	33.53	116	195	Peak
2389.61	47.51	-6.49	54	42.83	32.18	6.03	33.53	116	195	Average

Test Mode :	Mode 26	Temperature :	23~25°C
Test Band :	802.11b	Relative Humidity :	45~50%
Test Channel :	11	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2497.34	47.71	-26.29	74	42.8	32.3	6.18	33.57	186	223	2497.34
2497.34	35.11	-18.89	54	30.2	32.3	6.18	33.57	186	223	2497.34

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	61.64	-12.36	74	56.74	32.28	6.18	33.56	114	195	Peak
2483.85	48.89	-5.11	54	43.99	32.28	6.18	33.56	114	195	Average



Test Mode :	Mode 27	Temperature :	23~25°C
Test Band :	802.11g	Relative Humidity :	45~50%
Test Channel :	01	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	57.75	-16.25	74	53.07	32.18	6.03	33.53	120	242	Peak
2389.99	39.71	-14.29	54	35.03	32.18	6.03	33.53	120	242	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	69.92	-4.08	74	65.24	32.18	6.03	33.53	106	199	Peak
2389.99	50.13	-3.87	54	45.45	32.18	6.03	33.53	106	199	Average

Test Mode :	Mode 29	Temperature :	23~25°C
Test Band :	802.11g	Relative Humidity :	45~50%
Test Channel :	11	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.66	50.79	-23.21	74	45.89	32.28	6.18	33.56	147	238	Peak
2483.66	35.97	-18.03	54	31.07	32.28	6.18	33.56	147	238	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	69.89	-4.11	74	64.99	32.28	6.18	33.56	114	196	Peak
2483.5	50.15	-3.85	54	45.25	32.28	6.18	33.56	114	196	Average

Test Mode :	Mode 30	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 20MHz)	Relative Humidity :	45~50%
Test Channel :	01	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	50.49	-23.51	74	45.81	32.18	6.03	33.53	173	251	Peak
2389.99	35.85	-18.15	54	31.17	32.18	6.03	33.53	173	251	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	72.78	-1.22	74	68.1	32.18	6.03	33.53	177	188	Peak
2389.99	51.43	-2.57	54	46.75	32.18	6.03	33.53	177	188	Average

Test Mode :	Mode 32	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 20MHz)	Relative Humidity :	45~50%
Test Channel :	11	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	55.7	-18.3	74	50.8	32.28	6.18	33.56	160	252	Peak
2483.85	36.82	-17.18	54	31.92	32.28	6.18	33.56	160	252	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	70.7	-3.3	74	65.8	32.28	6.18	33.56	160	208	Peak
2483.85	49.88	-4.12	54	44.98	32.28	6.18	33.56	160	208	Average



Test Mode :	Mode 33	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	03	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	50.78	-23.22	74	46.1	32.18	6.03	33.53	171	251	Peak
2389.61	35.17	-18.83	54	30.49	32.18	6.03	33.53	171	251	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.99	72.86	-1.14	74	68.18	32.18	6.03	33.53	175	193	Peak
2389.99	52.52	-1.48	54	47.84	32.18	6.03	33.53	175	193	Average

Test Mode :	Mode 34	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	09	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.66	55.99	-18.01	74	51.09	32.28	6.18	33.56	142	249	Peak
2483.66	37.44	-16.56	54	32.54	32.28	6.18	33.56	142	249	Average

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.5	70.65	-3.35	74	65.75	32.28	6.18	33.56	164	207	Peak
2483.5	51.07	-2.93	54	46.17	32.28	6.18	33.56	164	207	Average



Test Mode :	Mode 35	Temperature :	23~25°C
Test Band :	802.11n(g) (BW 40MHz)	Relative Humidity :	45~50%
Test Channel :	03	Test Engineer :	Ivan Jiang

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2385.81	51.98	-22.02	74	47.3	32.18	6.03	33.53	121	242	Peak
2385.81	34.87	-19.13	54	30.19	32.18	6.03	33.53	121	242	Average

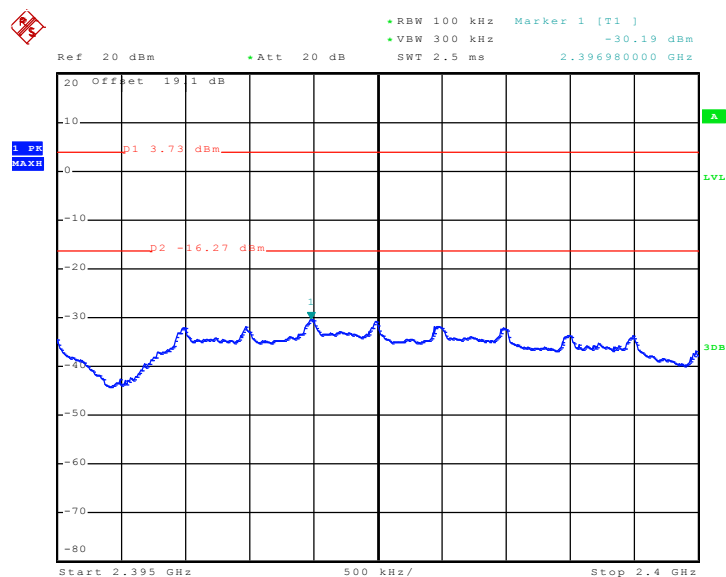
ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2388.66	72.7	-1.3	74	68.02	32.18	6.03	33.53	170	193	Peak
2388.66	51.47	-2.53	54	46.79	32.18	6.03	33.53	170	193	Average

3.3.6 Test Result of Conducted Band Edges

Test Mode :	Mode 1 and 3	Temperature :	25~27°C
Test Band :	802.11b	Relative Humidity :	48~51%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11b Channel 01

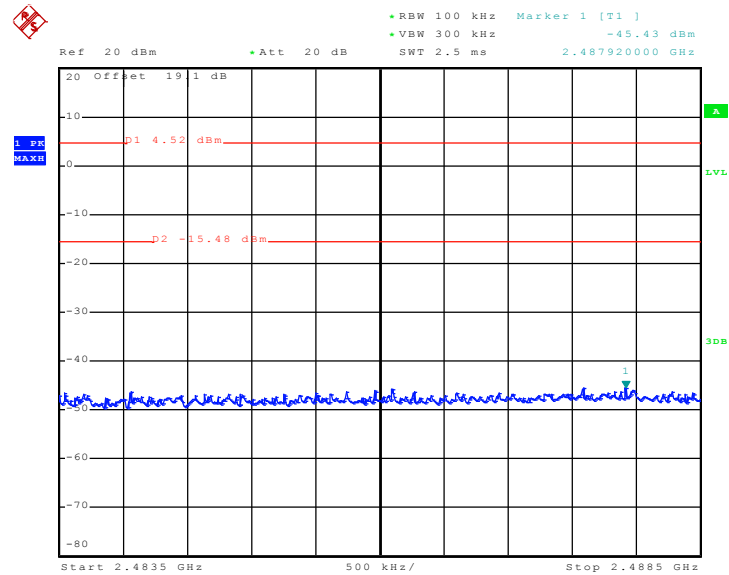
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 10:20:53

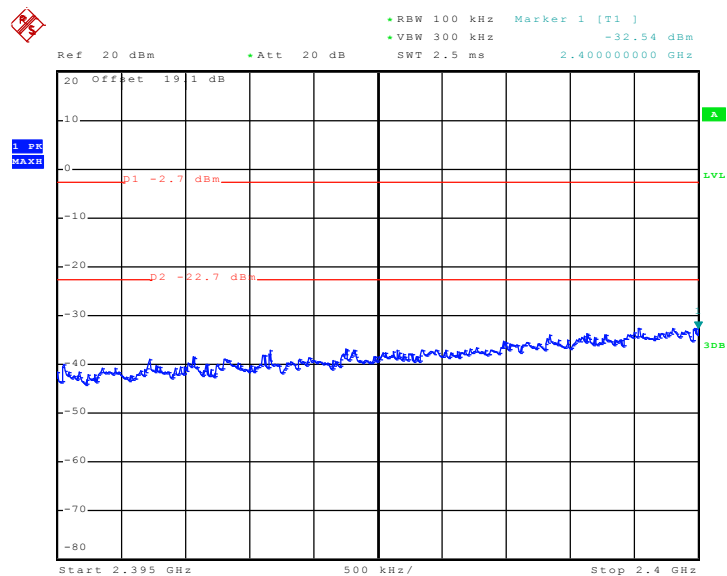


High Band Edge Plot on 802.11b Channel 11
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 10:24:42

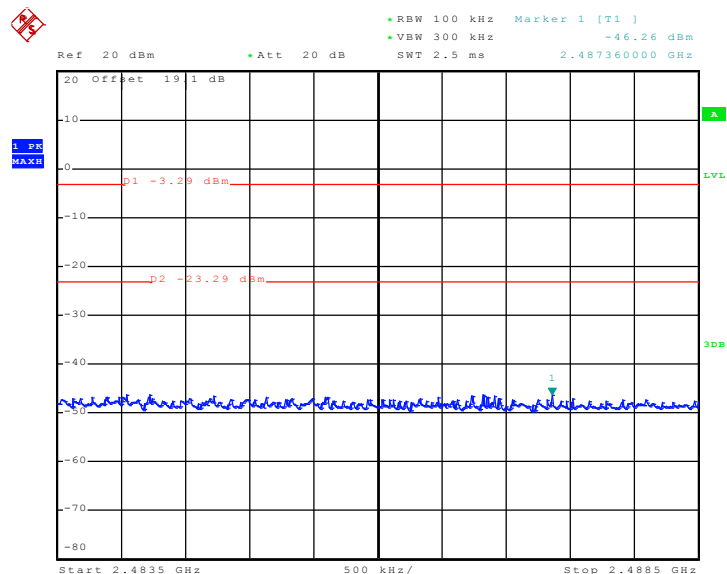
Test Mode :	Mode 4 and 6	Temperature :	25~27°C
Test Band :	802.11g	Relative Humidity :	48~51%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11g Channel 01
(Antenna 1 / Antenna 2 / Antenna 3)


Date: 16.AUG.2010 12:32:00



High Band Edge Plot on 802.11g Channel 11
(Antenna 1 / Antenna 2 / Antenna 3)

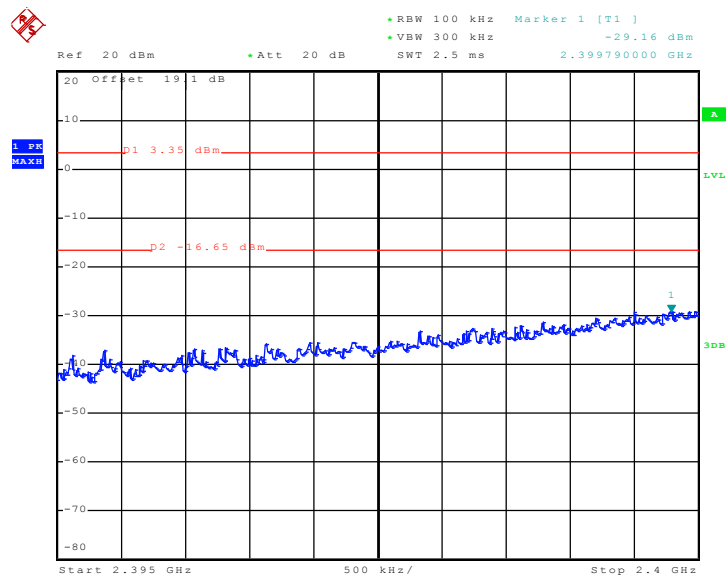


Date: 16.AUG.2010 12:33:08



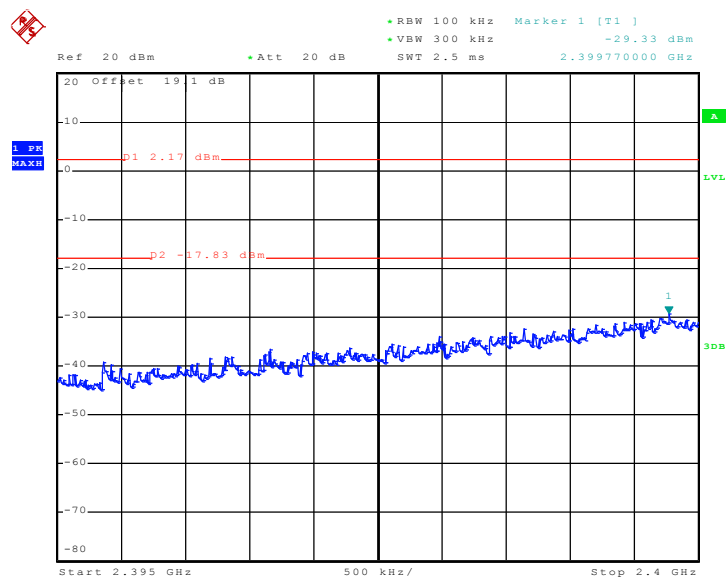
Test Mode :	Mode 7 and 9	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz)	Relative Humidity :	48~51%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11n (BW 20MHz) Channel 01
(Antenna 1 / Antenna 2)



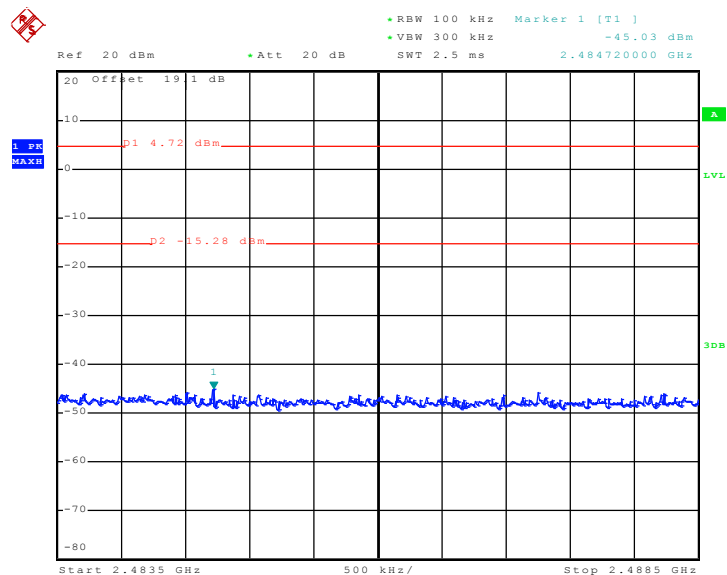
Date: 16.AUG.2010 18:50:23

(Antenna 3)



Date: 3.SEP.2010 17:09:33

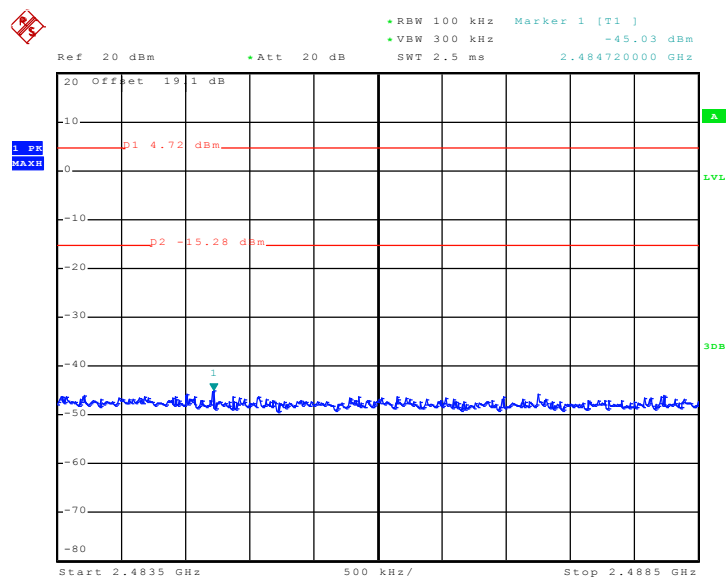
High Band Edge Plot on 802.11n (BW 20MHz) Channel 11 (Antenna 1 / Antenna 2)



Date: 16.AUG.2010 18:51:27



(Antenna 3)

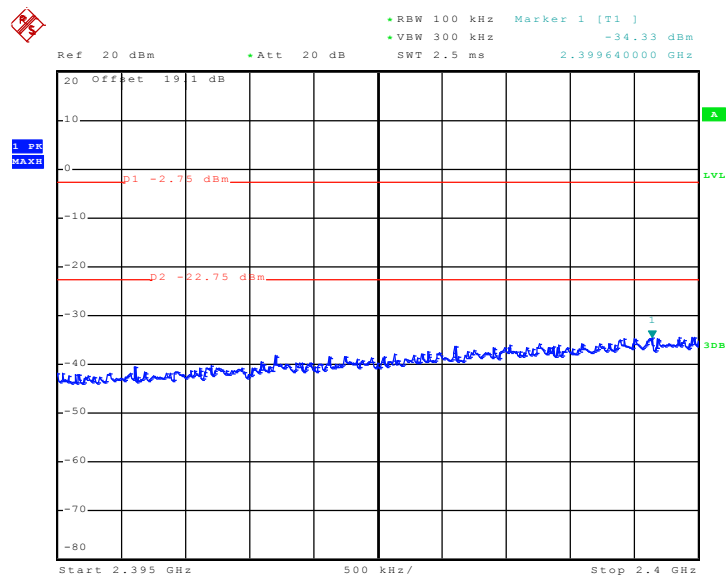


Date: 16.AUG.2010 18:51:27



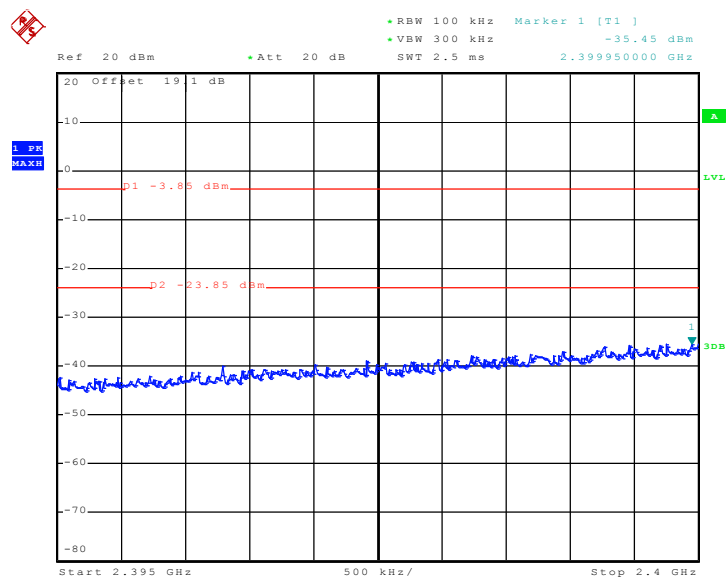
Test Mode :	Mode 10 and 11	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz)	Relative Humidity :	48~51%
Test Channel :	03 and 09	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11n (BW 40MHz) Channel 03
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 21:58:44

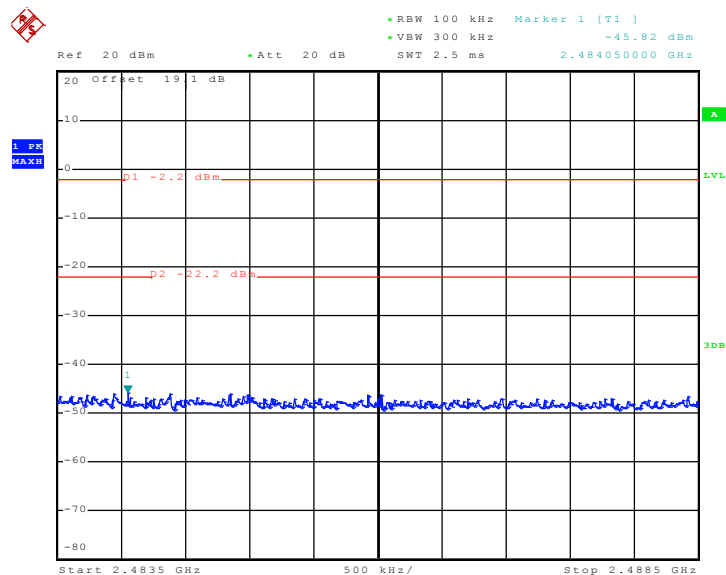
(Antenna 3)



Date: 3.SEP.2010 14:58:35

High Band Edge Plot on 802.11n (BW 40MHz) Channel 09

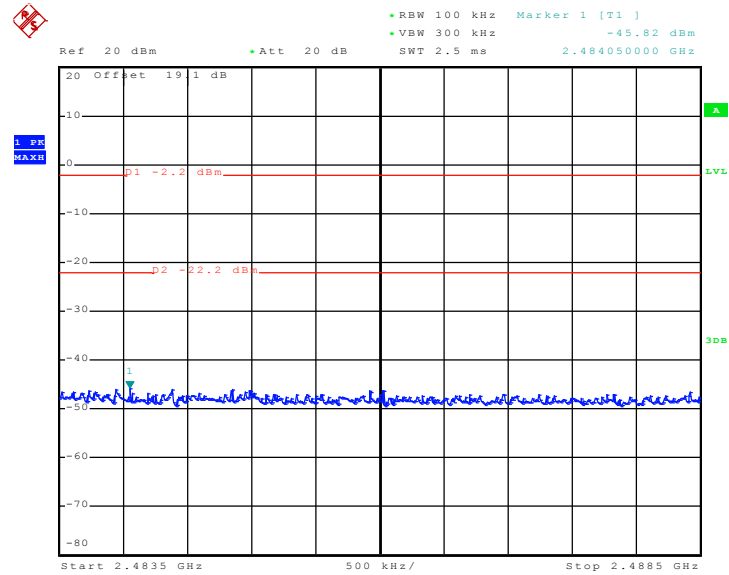
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 22:00:23



(Antenna 3)



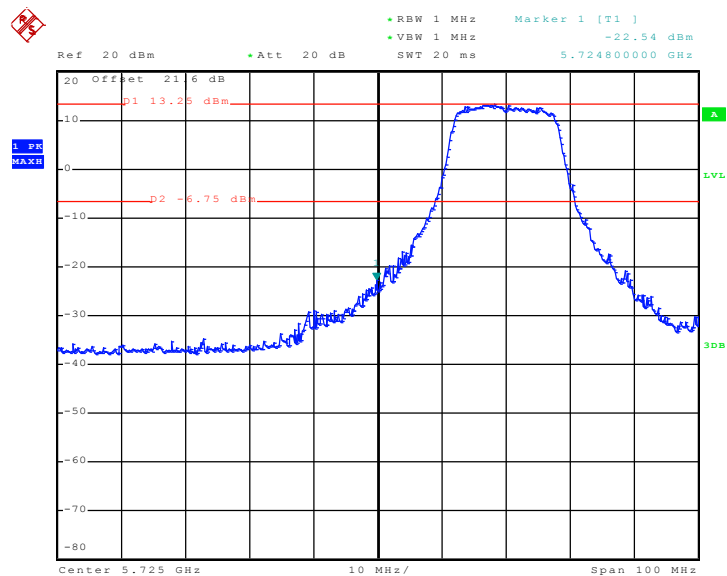
Date: 16.AUG.2010 22:00:23



Test Mode :	Mode 12 and 14	Temperature :	25~27°C
Test Band :	802.11a	Relative Humidity :	48~51%
Test Channel :	149 and 165	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11a Channel 149

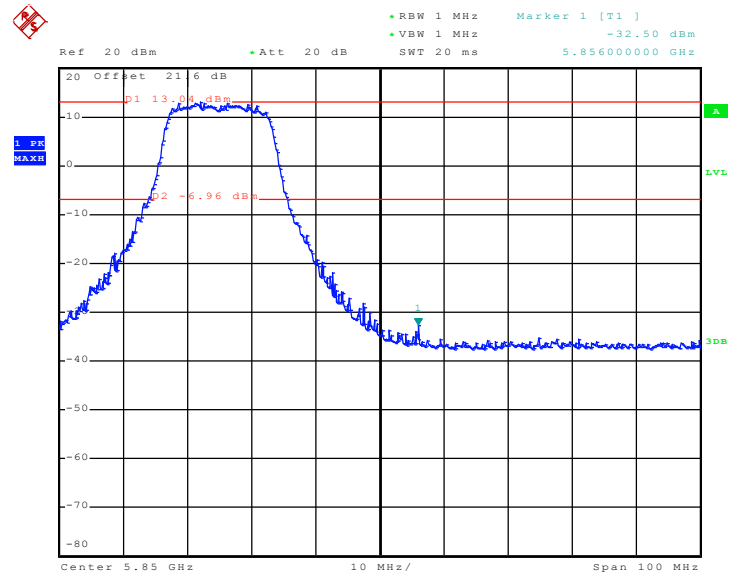
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 15:05:57



High Band Edge Plot on 802.11a Channel 165
(Antenna 1 / Antenna 2)

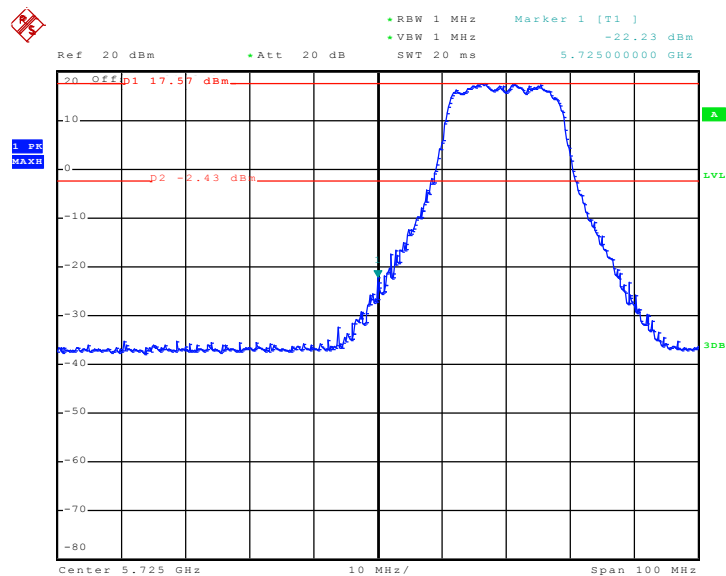


Date: 16.AUG.2010 15:04:19



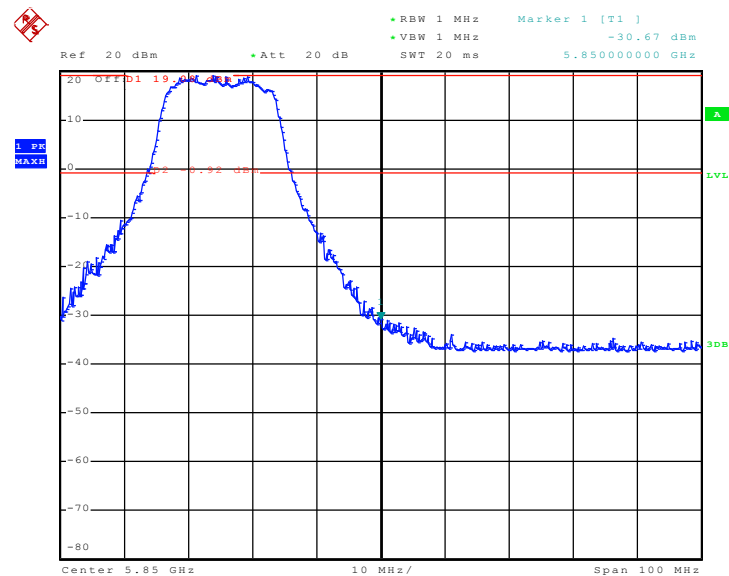
Test Mode :	Mode 15 and 17	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz)	Relative Humidity :	48~51%
Test Channel :	149 and 165	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11n (BW 20MHz) Channel 149
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 16:17:42

High Band Edge Plot on 802.11n (BW 20MHz) Channel 165 (Antenna 1 / Antenna 2)



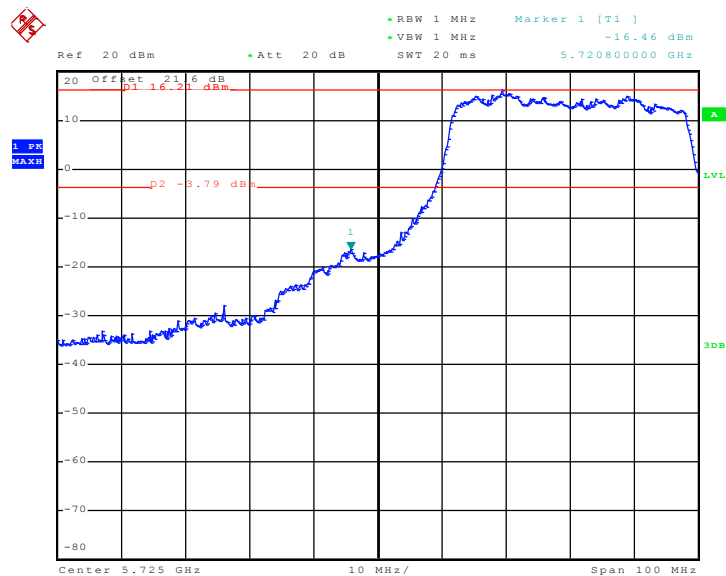
Date: 16.AUG.2010 16:19:10



Test Mode :	Mode 18 and 19	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz)	Relative Humidity :	48~51%
Test Channel :	151 and 159	Test Engineer :	Ken Hsu and Mac Lin

Low Band Edge Plot on 802.11n Channel 151

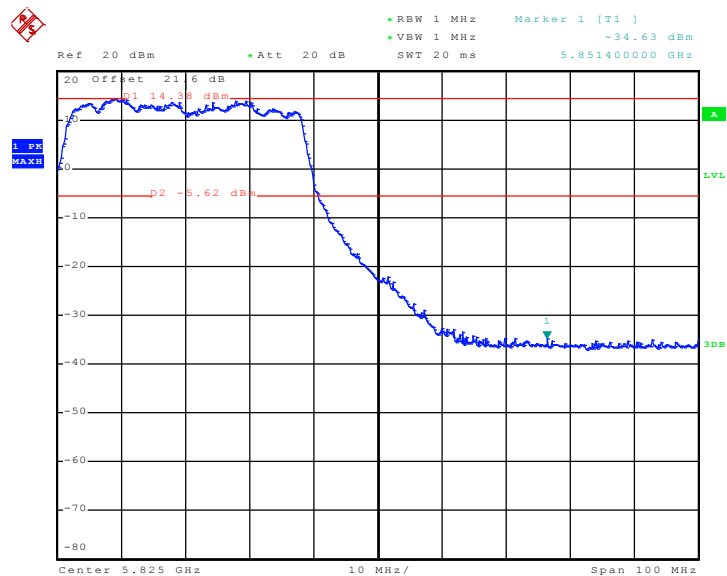
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 04:12:43



High Band Edge Plot on 802.11n Channel 159
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 04:22:43

3.4 Spurious Emission Measurement

3.4.1 Limit of Spurious Emission Measurement

All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band.

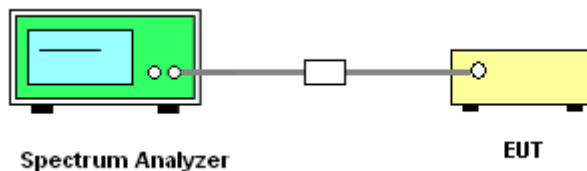
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedure

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set RBW = 100 kHz, Video bandwidth (VBW) > RBW, scan up through 10th harmonic. All harmonics/spurs must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW.

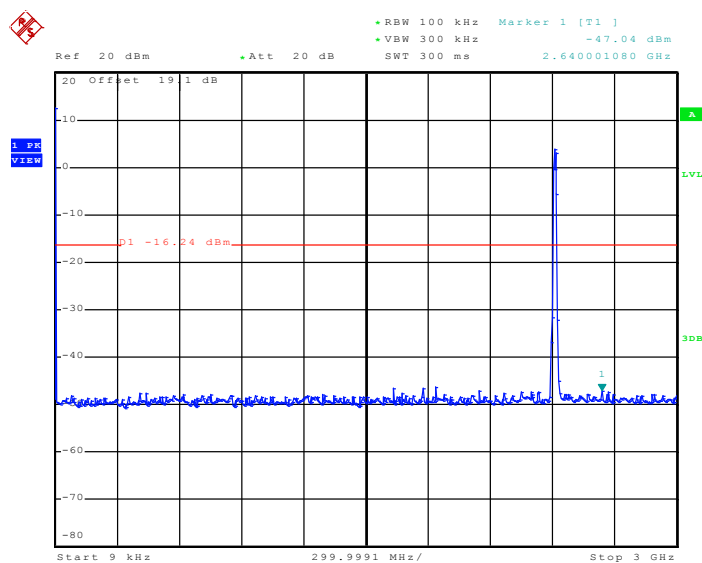
3.4.4 Test Setup





Test Mode :	Mode 1, 2, 3	Temperature :	25~27℃
Test Band :	802.11b	Relative Humidity :	48~51%
Test Channel :	01, 06, 11	Test Engineer :	Ken Hsu and Mac Lin

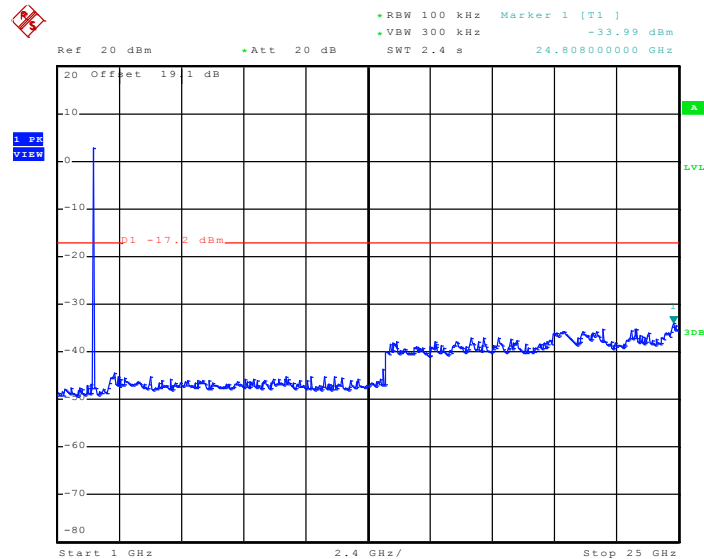
Mode 1: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 11:36:31

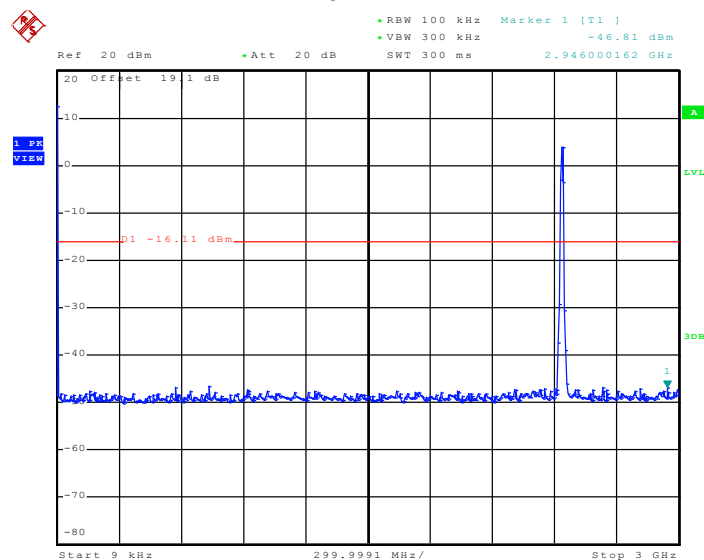


Mode 1: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



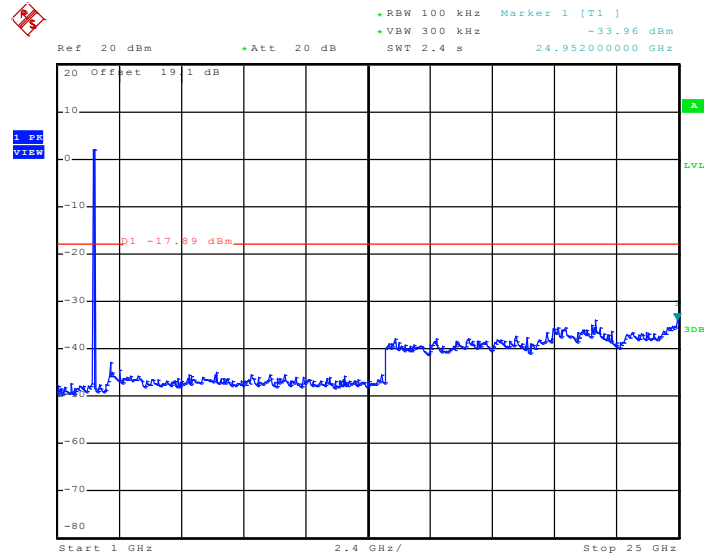
Date: 16.AUG.2010 11:36:52

Mode 2: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



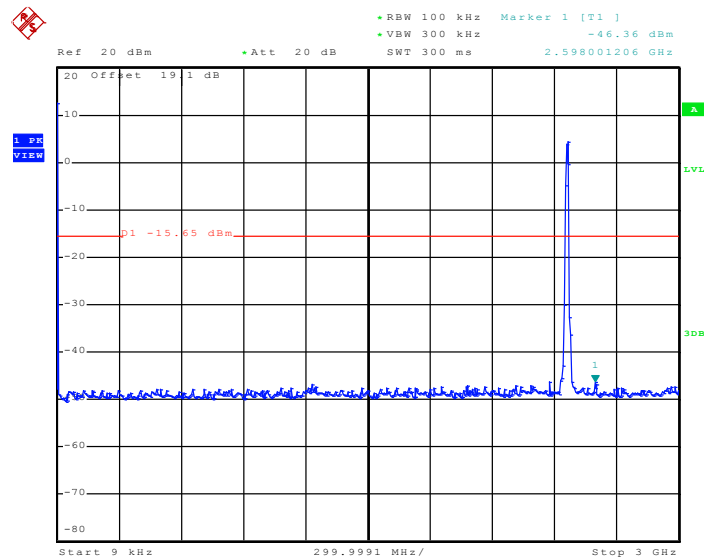
Date: 16.AUG.2010 11:37:47

Mode 2: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



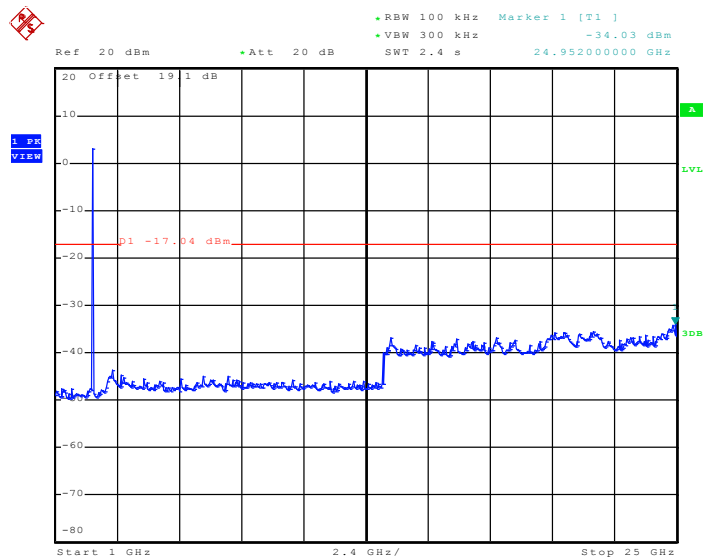
Date: 16.AUG.2010 11:38:10

Mode 3: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 11:38:45

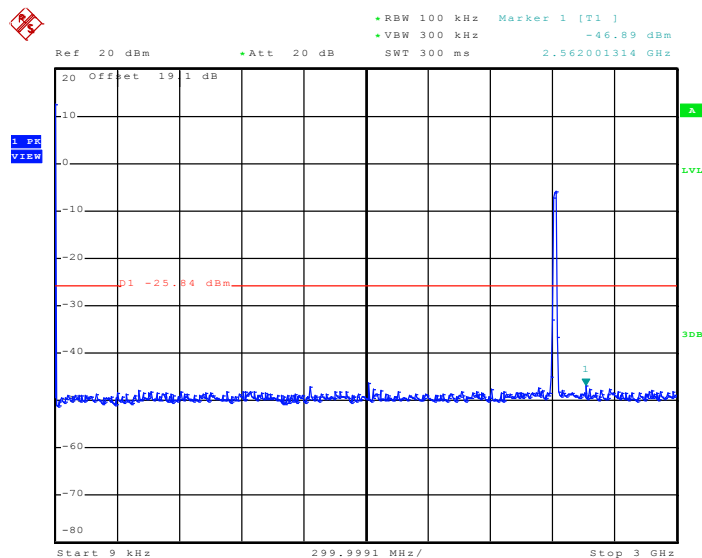
Mode 3: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 11:39:06

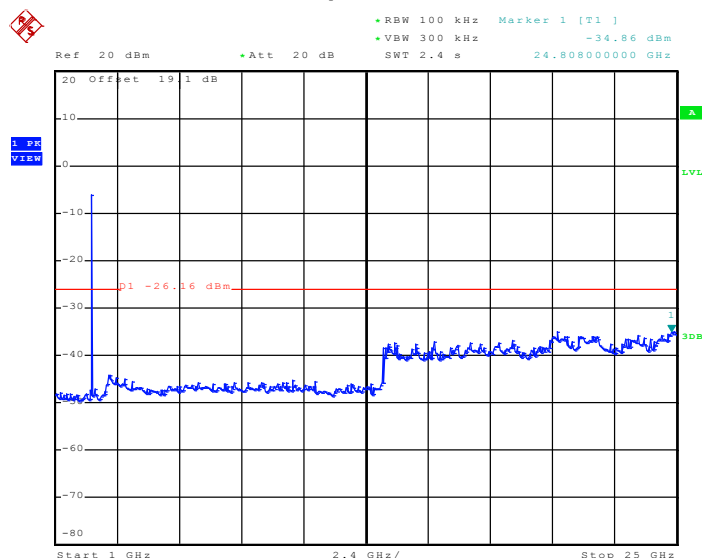
Test Mode :	Mode 4, 5, 6	Temperature :	25~27°C
Test Band :	802.11g	Relative Humidity :	48~51%
Test Channel :	01, 06, 11	Test Engineer :	Ken Hsu and Mac Lin

Mode 4: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



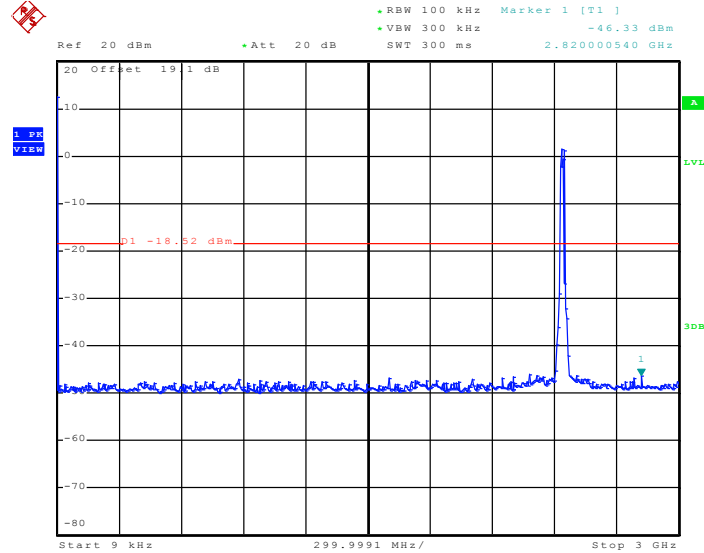
Date: 16.AUG.2010 13:13:36

Mode 4: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz – Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



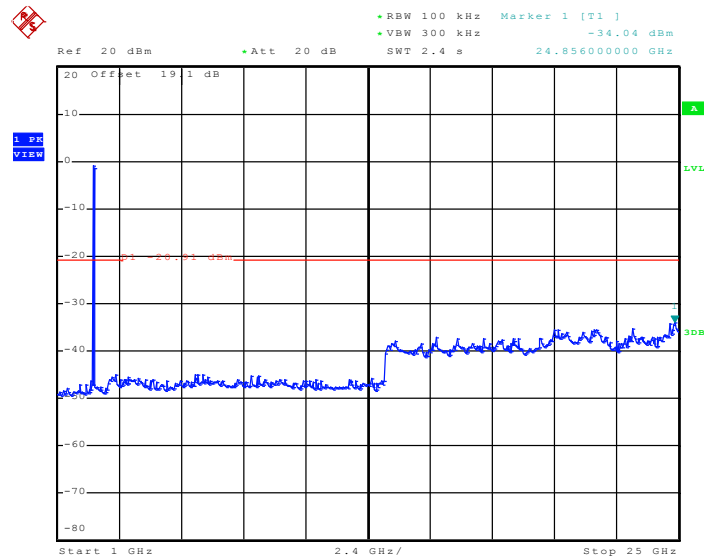
Date: 16.AUG.2010 13:13:54

Mode 5: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



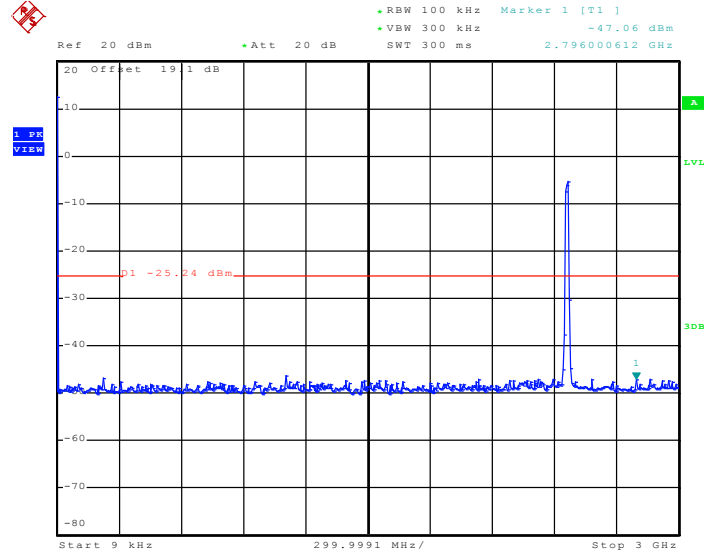
Date: 16.AUG.2010 13:14:35

Mode 5: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz – Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



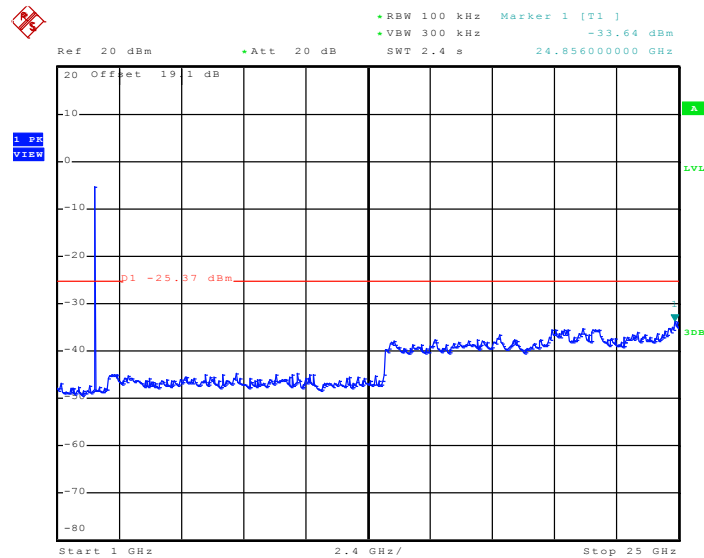
Date: 16.AUG.2010 13:14:53

Mode 6: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz – Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 13:16:48

Mode 6: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz – Chain A
(Antenna 1 / Antenna 2 / Antenna 3)

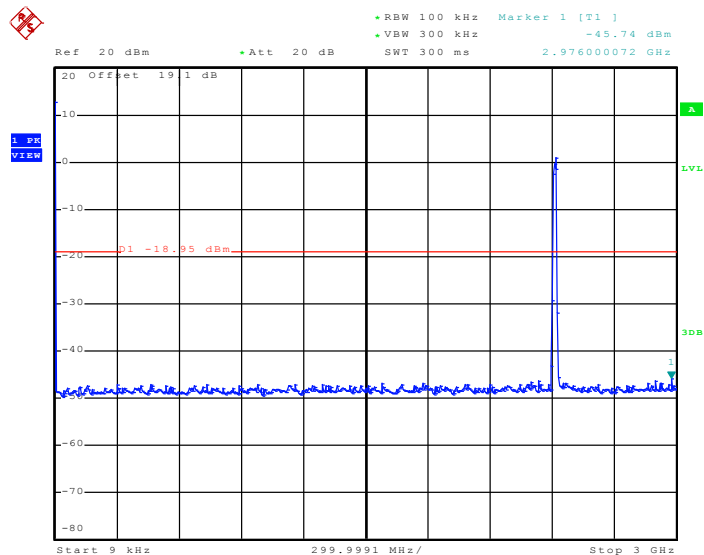


Date: 16.AUG.2010 13:17:15

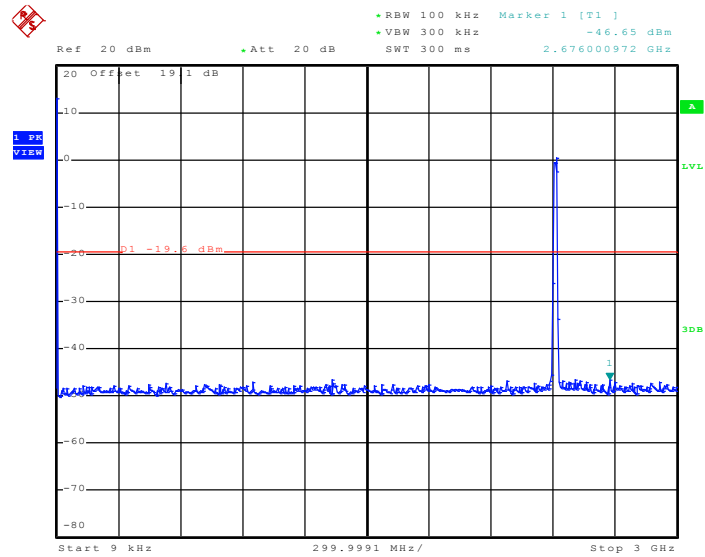


Test Mode :	Mode 7, 8, 9	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	48~51%
Test Channel :	01, 06, 11	Test Engineer :	Ken Hsu and Mac Lin

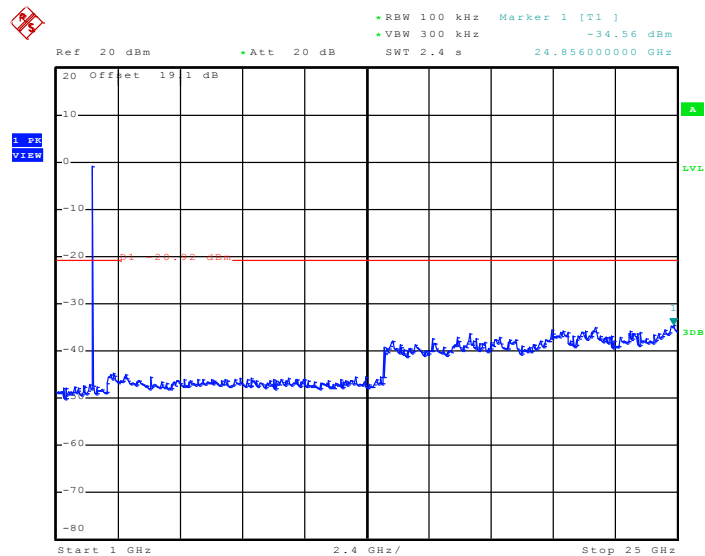
Mode 7: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz – Chain A+B+C
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 20:57:03

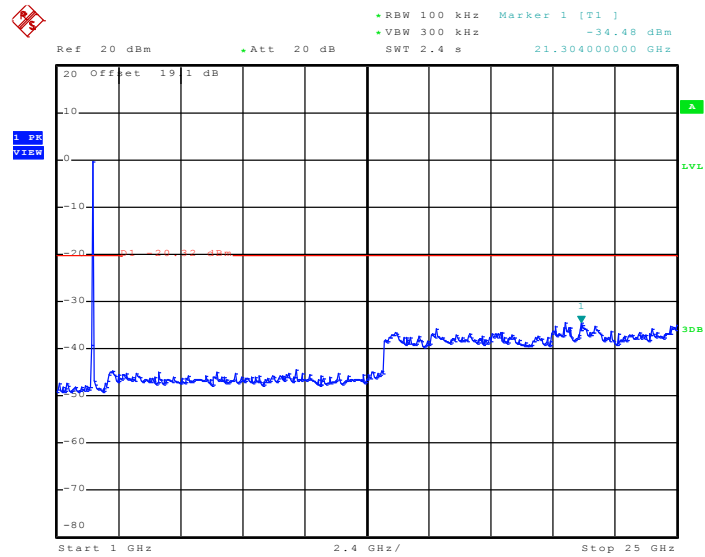
(Antenna 3)


Date: 3.SEP.2010 16:40:32

Mode 7: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 20:58:17

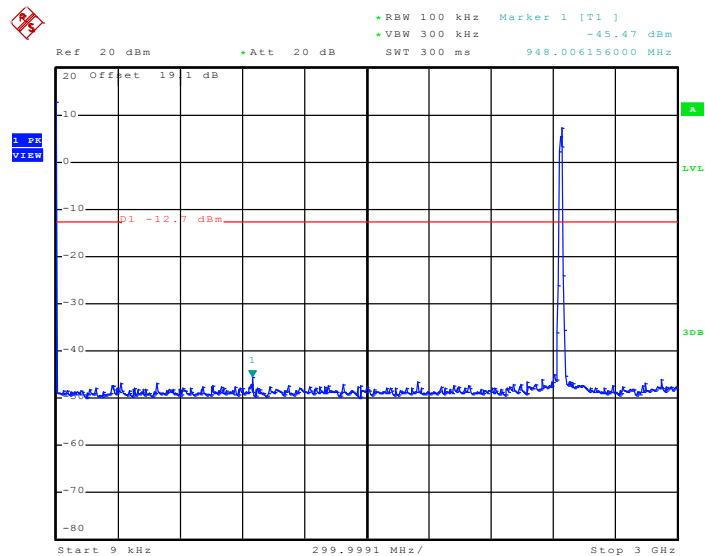
(Antenna 3)



Date: 3.SEP.2010 15:38:55

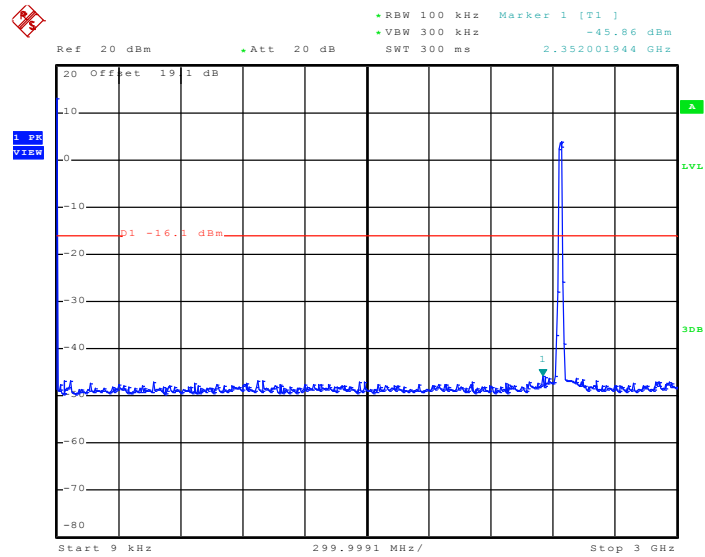
Mode 8: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A+B+C

(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 21:00:19

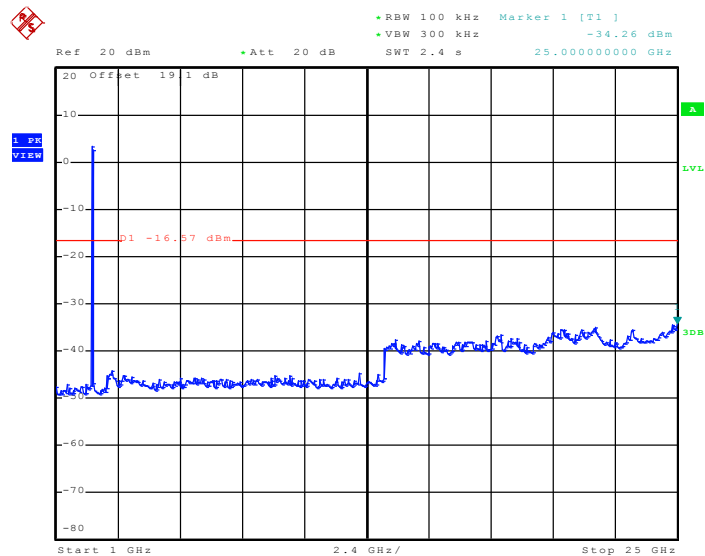
(Antenna 3)



Date: 3.SEP.2010 16:37:43

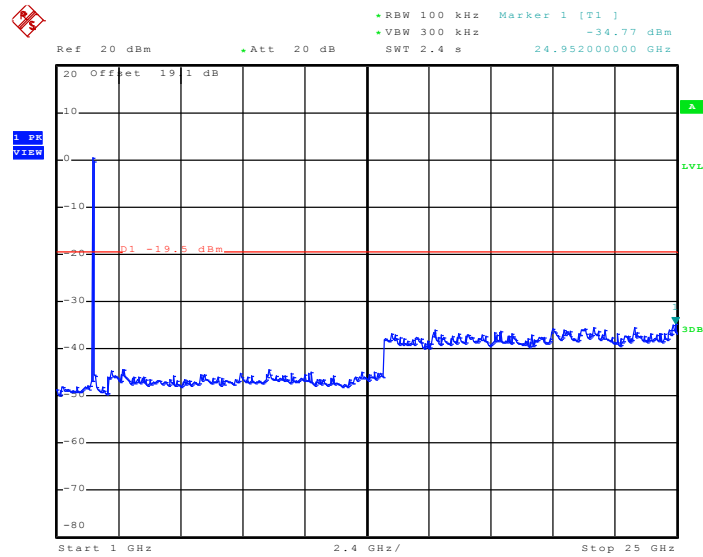
Mode 8: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz - Chain A+B+C

(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 20:59:13

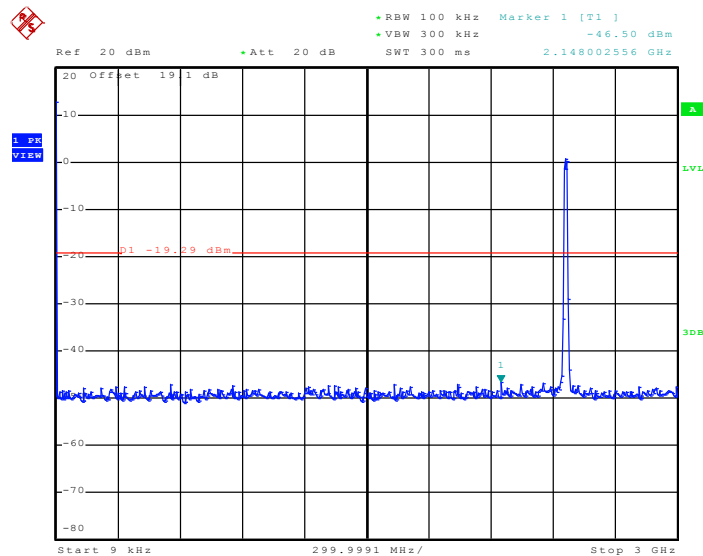
(Antenna 3)



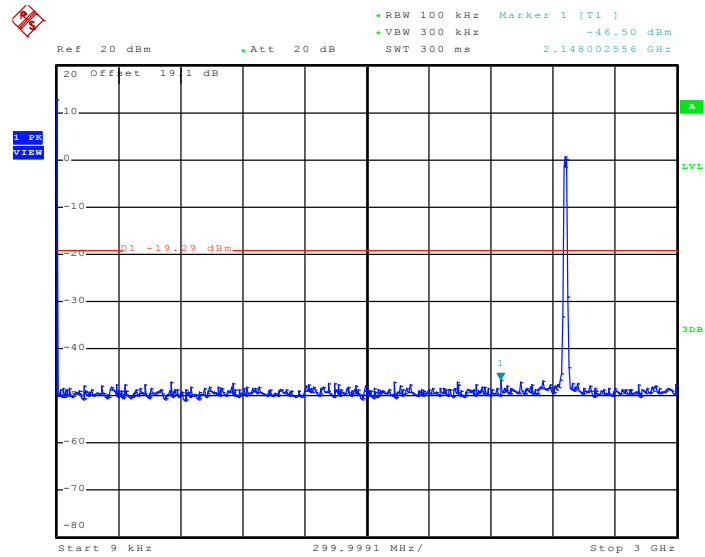
Date: 3.SEP.2010 15:37:35

Mode 9: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A+B+C

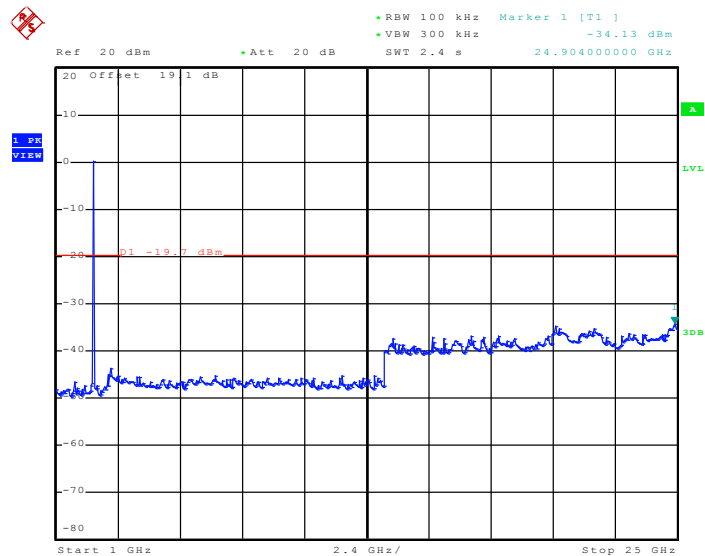
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 21:01:09

(Antenna 3)


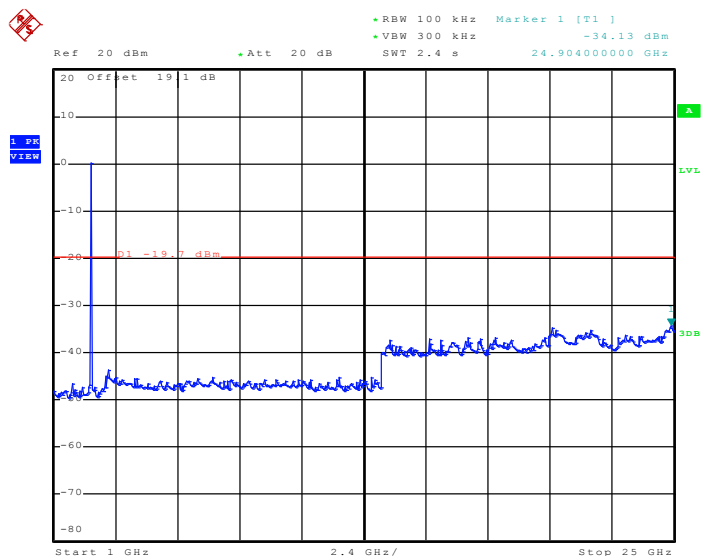
Date: 16.AUG.2010 21:01:09

Mode 9: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 21:01:57



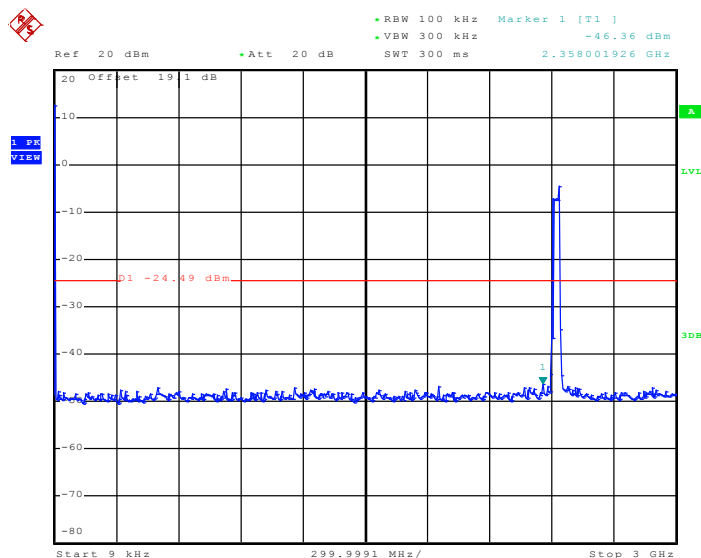
(Antenna 3)



Date: 16.AUG.2010 21:01:57

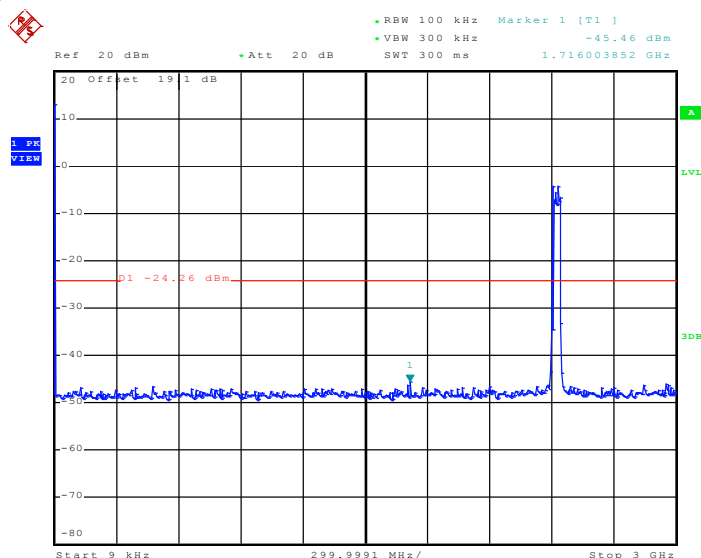
Test Mode :	Mode 10, 11	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	48~51%
Test Channel :	03, 09	Test Engineer :	Ken Hsu and Mac Lin

Mode 10: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)



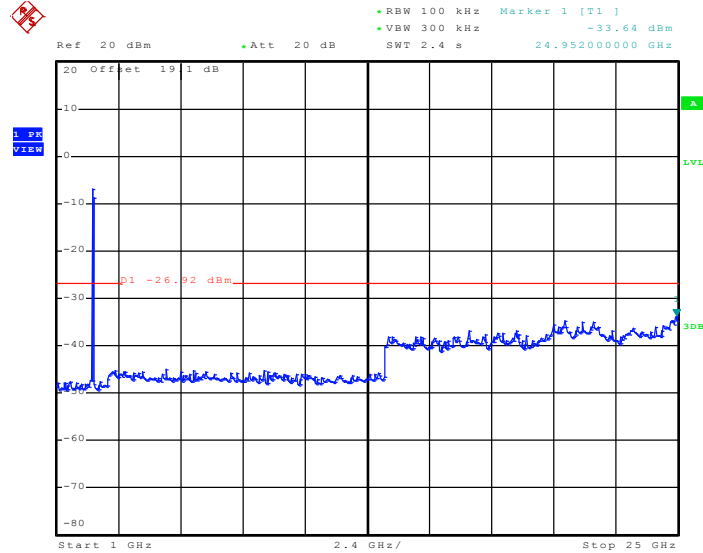
Date: 16.AUG.2010 22:10:11

(Antenna 3)



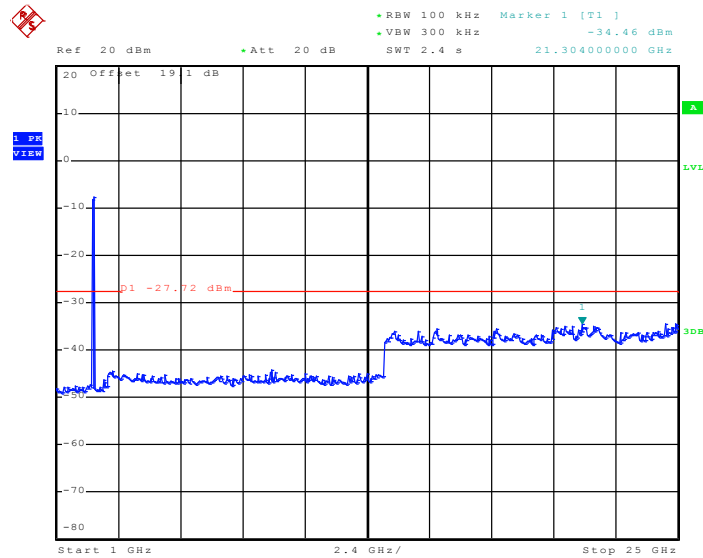
Date: 3.SEP.2010 16:30:12

Mode 10: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz – Chain A+B+C
(Antenna 1 / Antenna 2)



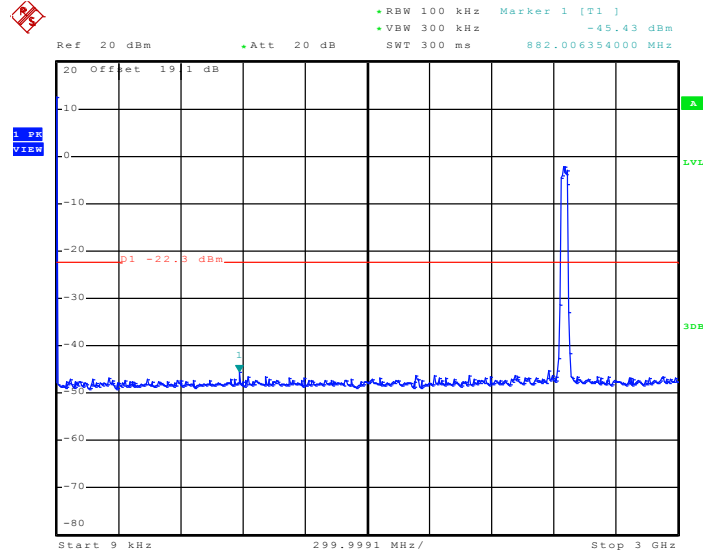
Date: 16.AUG.2010 22:08:56

(Antenna 3)



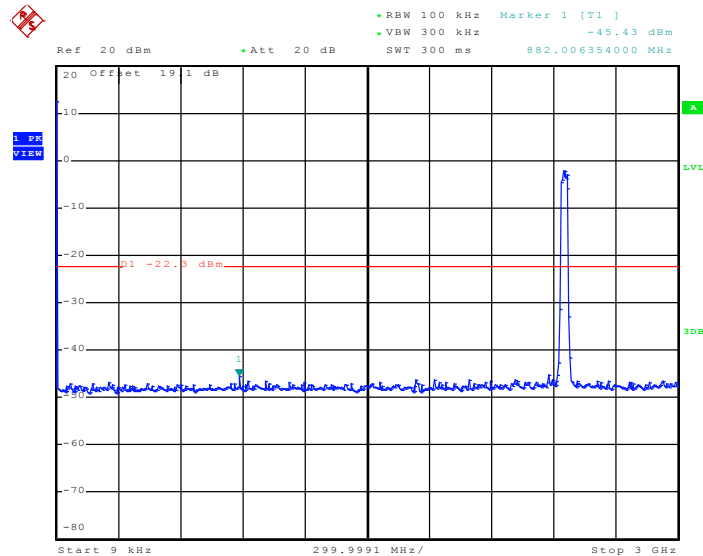
Date: 3.SEP.2010 15:21:23

Mode 11: Conducted Spurious Emission Plot between 9 kHz ~ 3 GHz – Chain A+B+C
(Antenna 1 / Antenna 2)



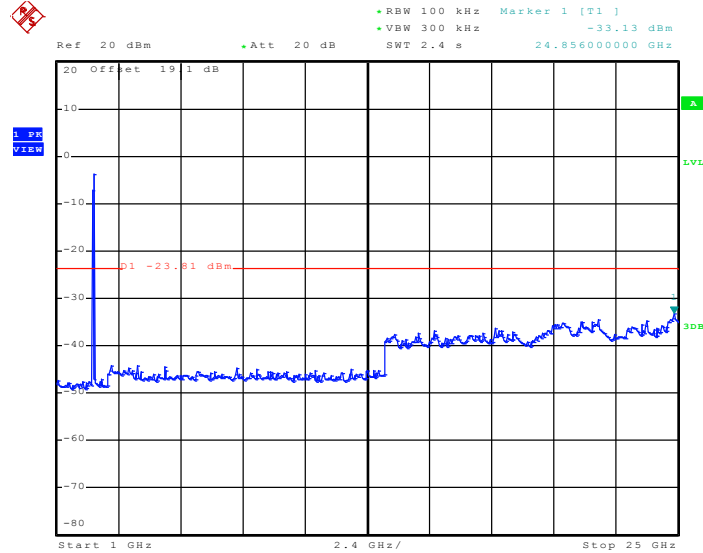
Date: 16.AUG.2010 22:06:57

(Antenna 3)



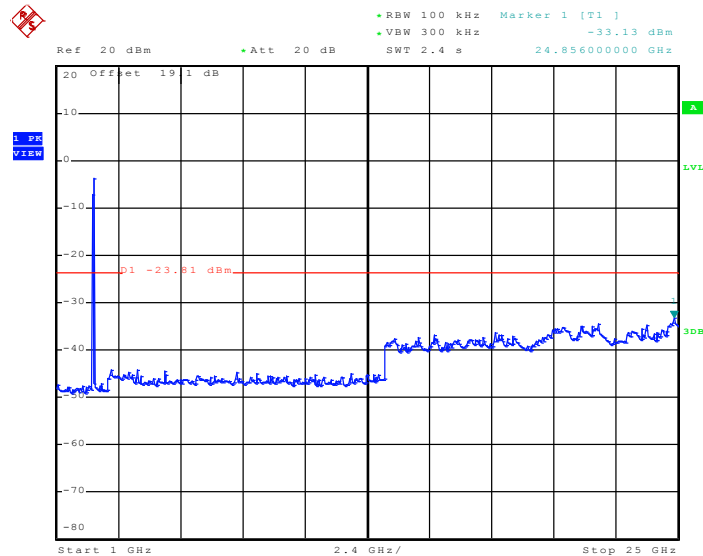
Date: 16.AUG.2010 22:06:57

Mode 11: Conducted Spurious Emission Plot between 1 GHz ~ 25 GHz – Chain A+B+C
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 22:08:12

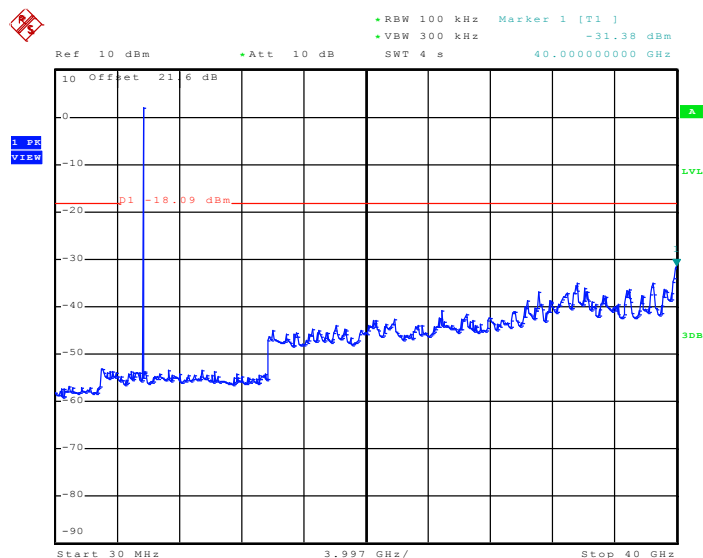
(Antenna 3)



Date: 16.AUG.2010 22:08:12

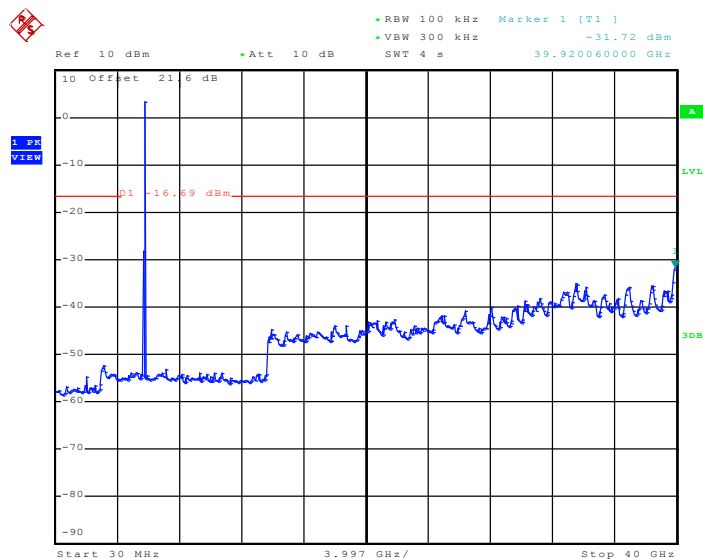
Test Mode :	Mode 12, 13, 14	Temperature :	25~27°C
Test Band :	802.11a	Relative Humidity :	48~51%
Test Channel :	149, 157, 165	Test Engineer :	Ken Hsu and Mac Lin

**Mode 12: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz – Chain A
(Antenna 1 / Antenna 2)**



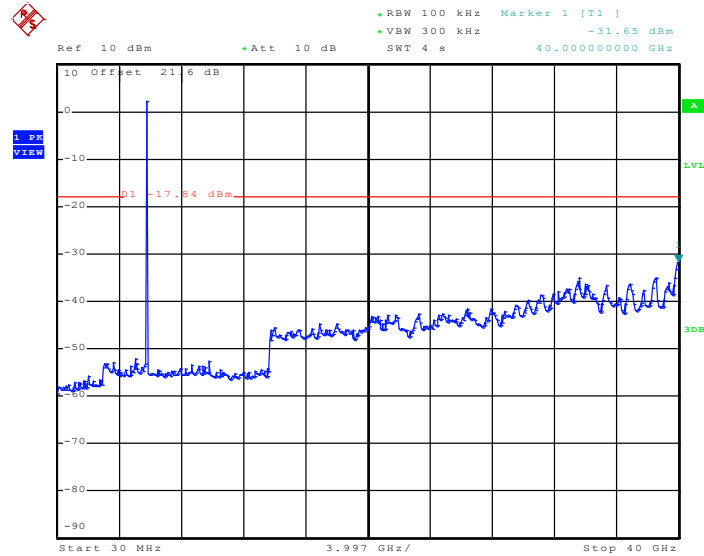
Date: 16.AUG.2010 15:19:41

**Mode 13: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A
(Antenna 1 / Antenna 2)**



Date: 16.AUG.2010 15:20:50

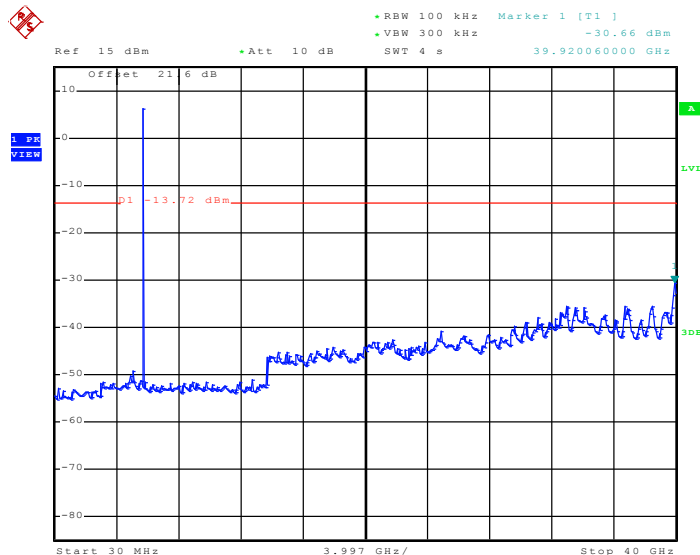
Mode 14: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 15:22:06

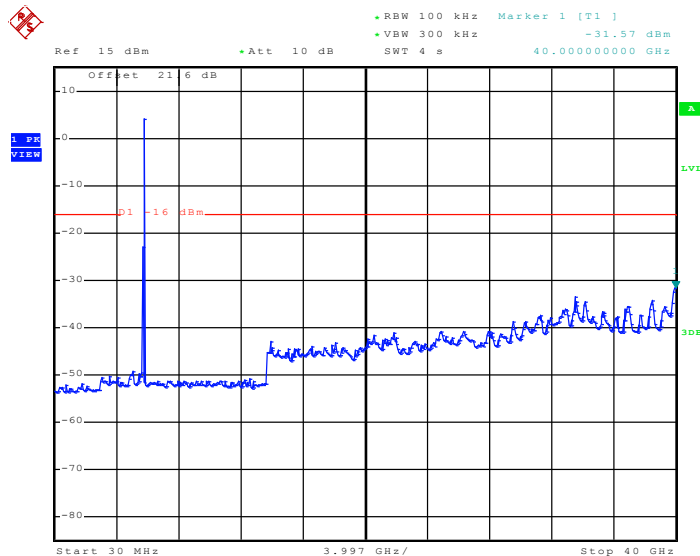
Test Mode :	Mode 15, 16, 17	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	48~51%
Test Channel :	149, 157, 165	Test Engineer :	Ken Hsu and Mac Lin

Mode 15: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 15:40:14

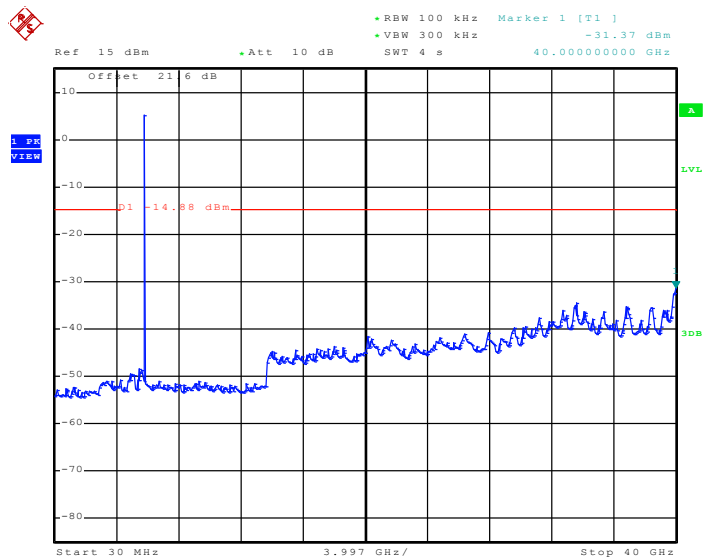
Mode 16: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 15:39:12



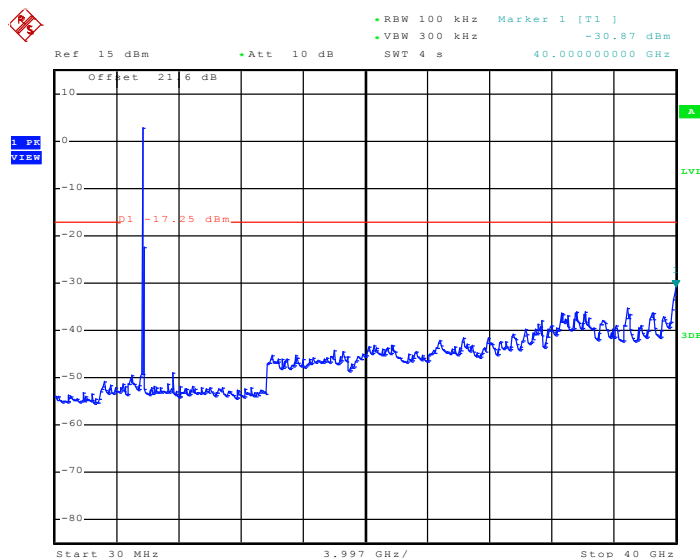
Mode 17: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 15:34:14

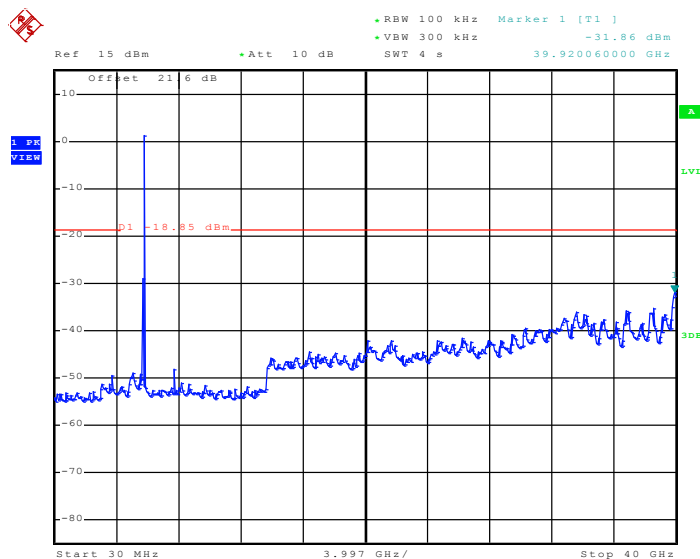
Test Mode :	Mode 18, 19	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	48~51%
Test Channel :	151 and 159	Test Engineer :	Ken Hsu and Mac Lin

**Mode 18: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)**



Date: 17.AUG.2010 03:57:10

**Mode 19: Conducted Spurious Emission Plot between 30 MHz ~ 40 GHz - Chain A+B+C
(Antenna 1 / Antenna 2)**



Date: 17.AUG.2010 03:56:06

3.5 Power Spectral Density Measurement

3.5.1 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.

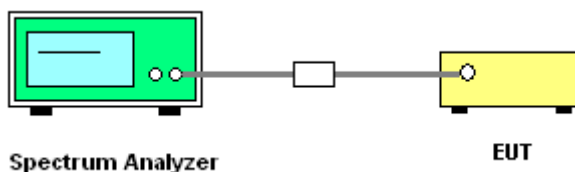
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The test follows FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Take the measured data from spectrum analyzer.

3.5.4 Test Setup



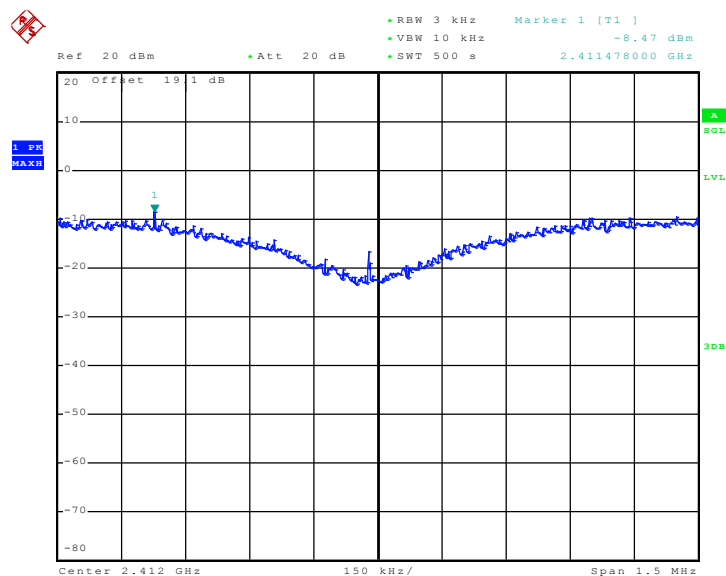
3.5.5 Test Result of Power Spectral Density

Test Mode :	Mode 1, 2, 3	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11b Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	-8.47	5	Pass
06	2437	-8.23	5	Pass
11	2462	-8.91	5	Pass

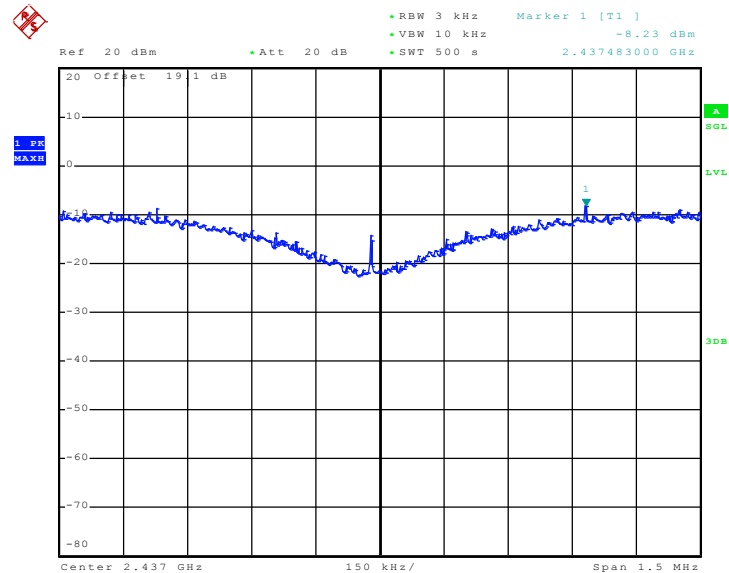
Note: The maximum antenna gain is 13.9 dBi; therefore the limits are 5 dBm.

Mode 1 : PSD Plot on 802.11b Channel 01 - Chain A (Antenna 1 / Antenna 2 / Antenna 3)



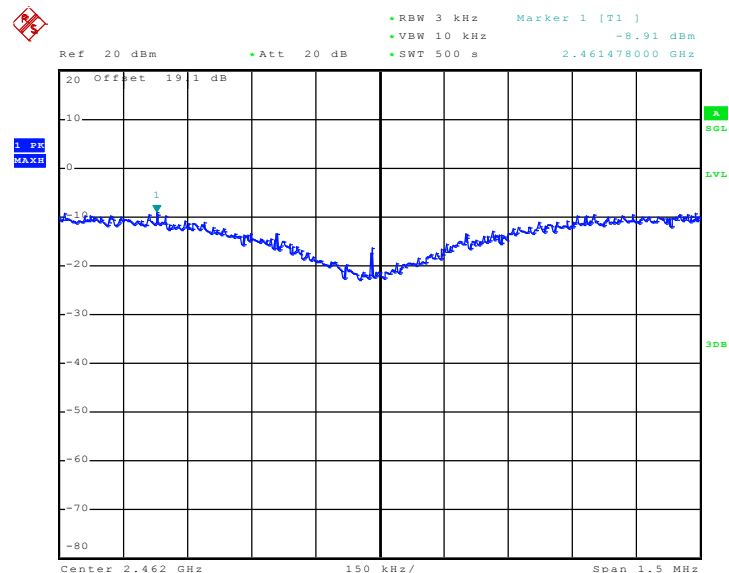
Date: 16.AUG.2010 11:58:09

Mode 2 : PSD Plot on 802.11b Channel 06 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 12:06:59

Mode 3 : PSD Plot on 802.11b Channel 11 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



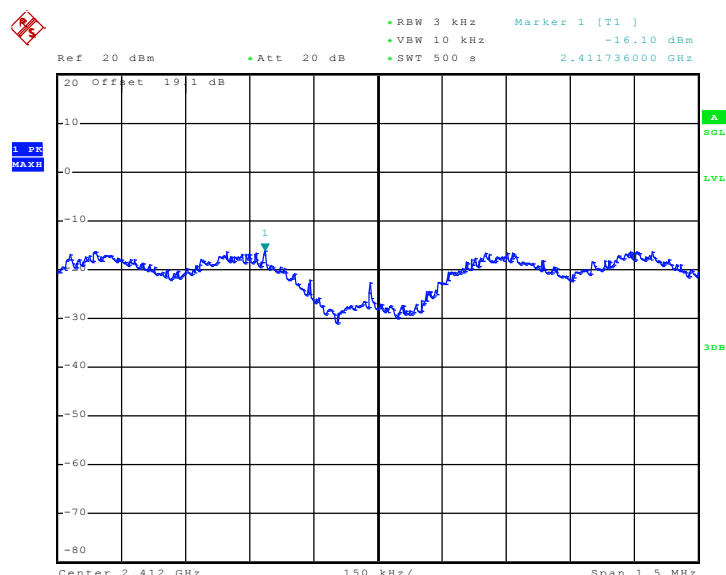
Date: 16.AUG.2010 12:15:48

Test Mode :	Mode 4, 5, 6	Temperature :	25~27℃
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11g Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2 / Antenna 3		
01	2412	-16.10	5	Pass
06	2437	-11.00	5	Pass
11	2462	-16.56	5	Pass

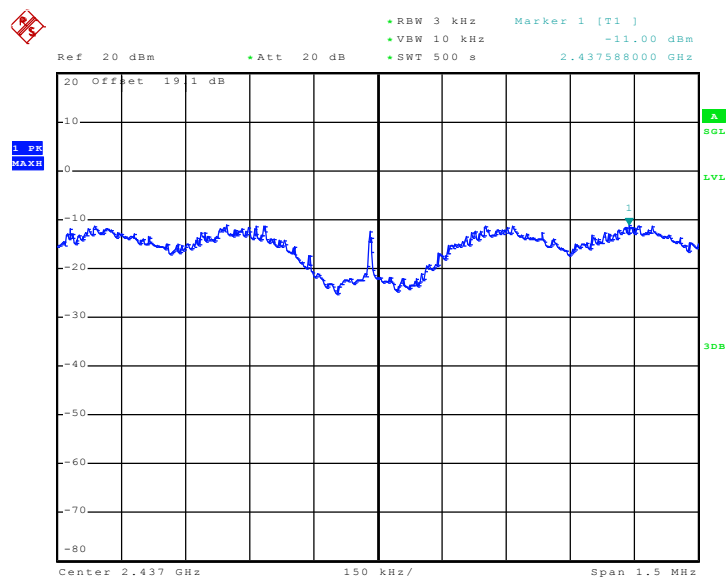
Note: The maximum antenna gain is 13.9 dBi; therefore the limits are 5 dBm.

Mode 4 : PSD Plot on 802.11g Channel 01 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



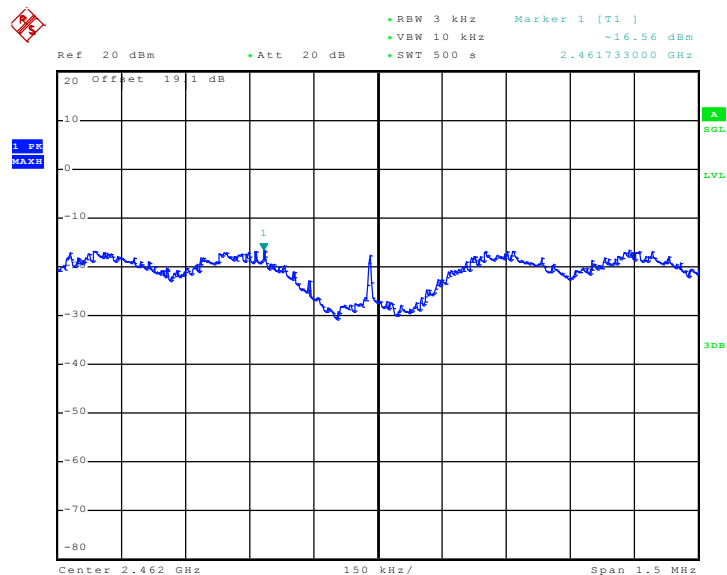
Date: 16.AUG.2010 12:43:05

Mode 5 : PSD Plot on 802.11g Channel 06 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



Date: 16.AUG.2010 12:52:19

Mode 6 : PSD Plot on 802.11g Channel 11 - Chain A
(Antenna 1 / Antenna 2 / Antenna 3)



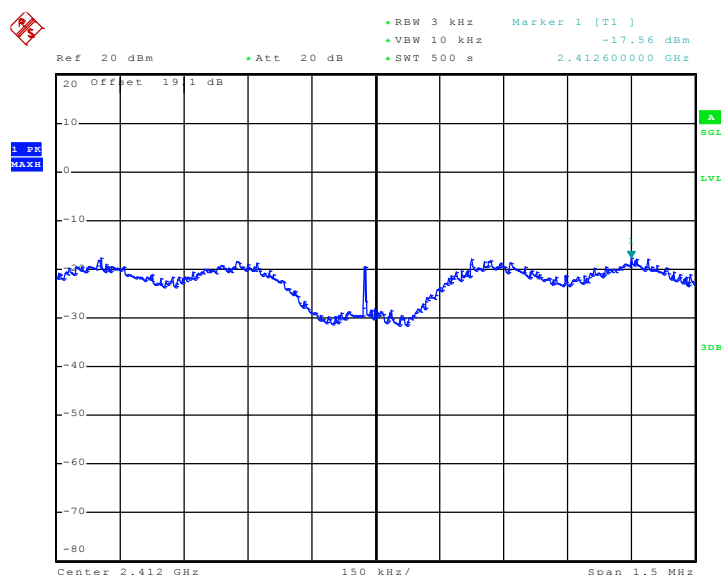
Date: 16.AUG.2010 13:01:16

Test Mode :	Mode 7, 8, 9	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

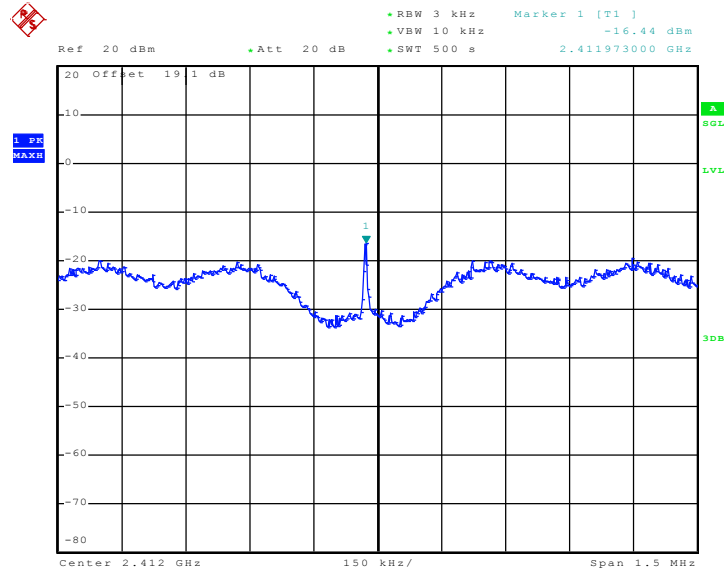
Antenna	Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
			Chain A+B+C(A)	Chain A+B+C(B)	Chain A+B+C(C)	Chain A+B+C		
1	01	2412	-17.56	-17.16	-16.74	-12.37	6	Pass
	06	2437	-12.09	-13.12	-12.73	-7.85	6	Pass
	11	2462	-16.7	-15.93	-14.28	-10.75	6	Pass
3	01	2412	-16.44	-18.82	-18.59	-13.04	5	Pass
	06	2437	-14.63	-12.66	-13.59	-8.78	5	Pass
	11	2462	-16.7	-15.93	-14.28	-10.75	5	Pass

Note:

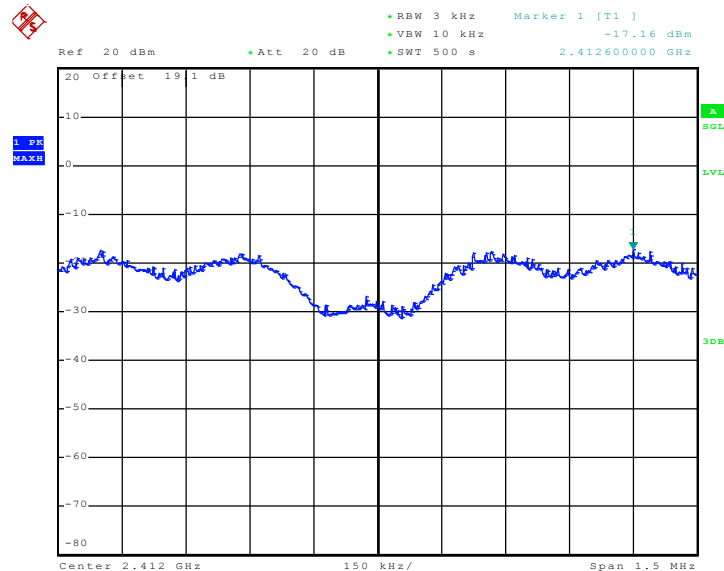
1. Chain A+B+C was tested by combiner, and the chain A, B and C was tested individually and calculated with the formula of $10 \cdot \log(10^{(chain\ A/10)} + 10^{(chain\ B/10)} + 10^{(chain\ C/10)})$.
2. The maximum antenna gains are 10.9 dBi for antenna 1 and 13 dBi for Antenna 3; therefore the limits are 6 dBm for antenna 1 and 5 dBm for antenna 3.

**Mode 7 : PSD Plot on 802.11n (BW 20MHz) Channel 01 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)**


Date: 16.AUG.2010 20:26:20

(Antenna 3)


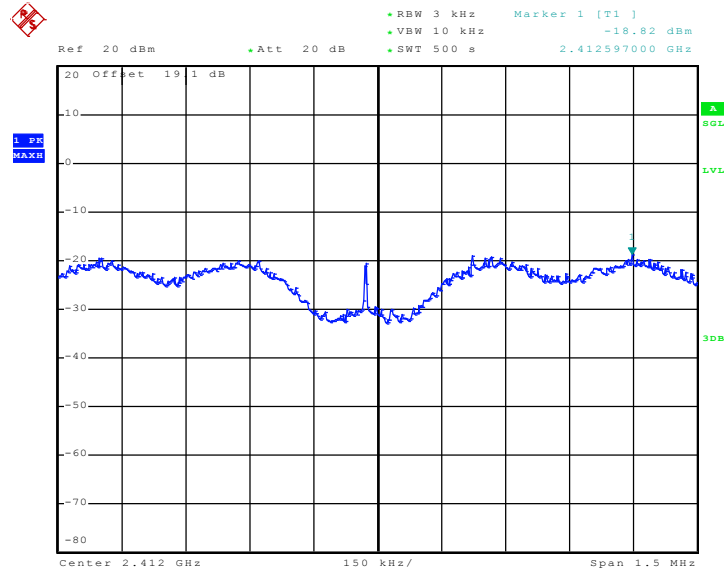
Date: 3.SEP.2010 06:25:14

Mode 7 : PSD Plot on 802.11n (BW 20MHz) Channel 01 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 20:35:44



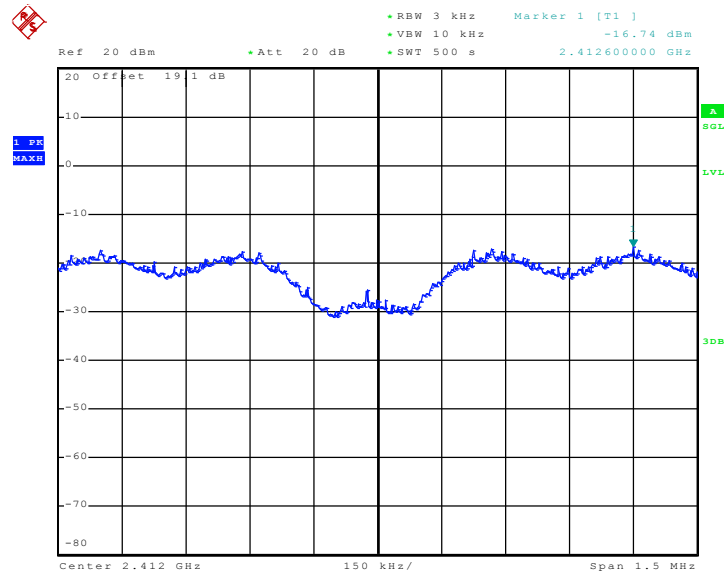
(Antenna 3)



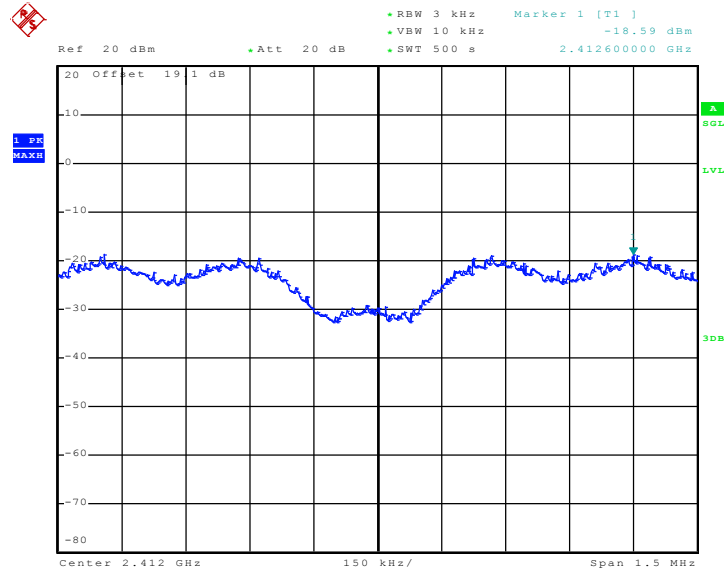
Date: 3.SEP.2010 06:15:50

Mode 7 : PSD Plot on 802.11n (BW 20MHz) Channel 01 - Chain A+B+C(C)

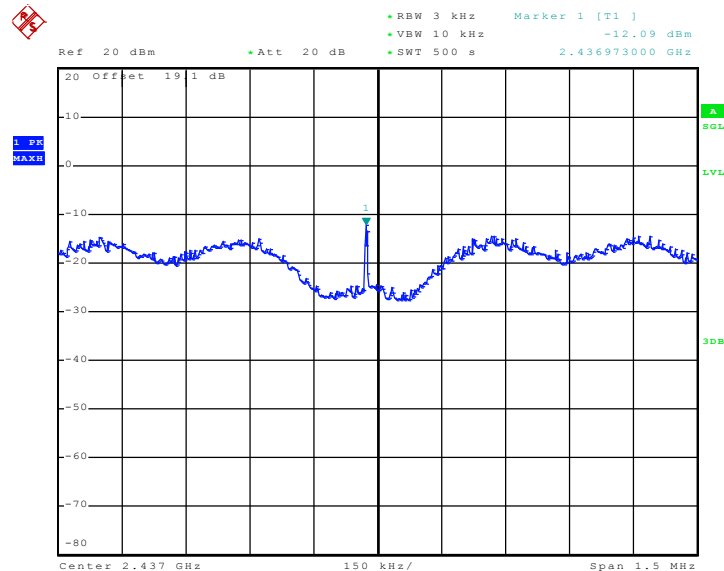
(Antenna 1 / Antenna 2)



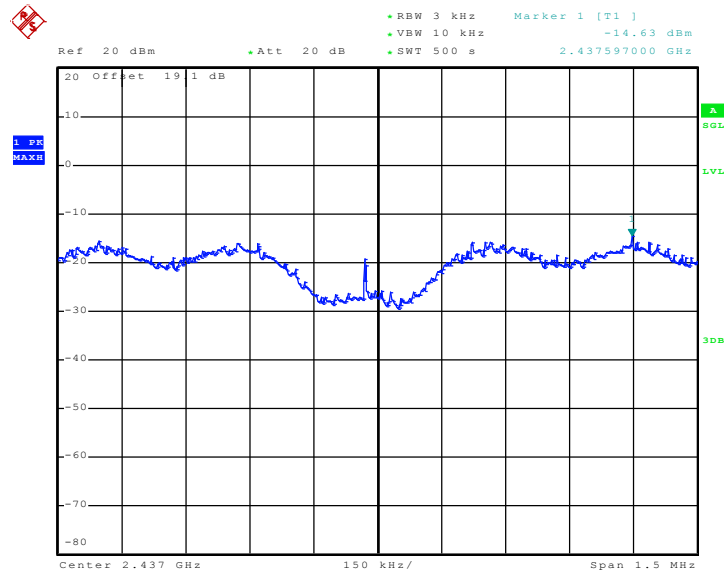
Date: 16.AUG.2010 20:45:04

(Antenna 3)


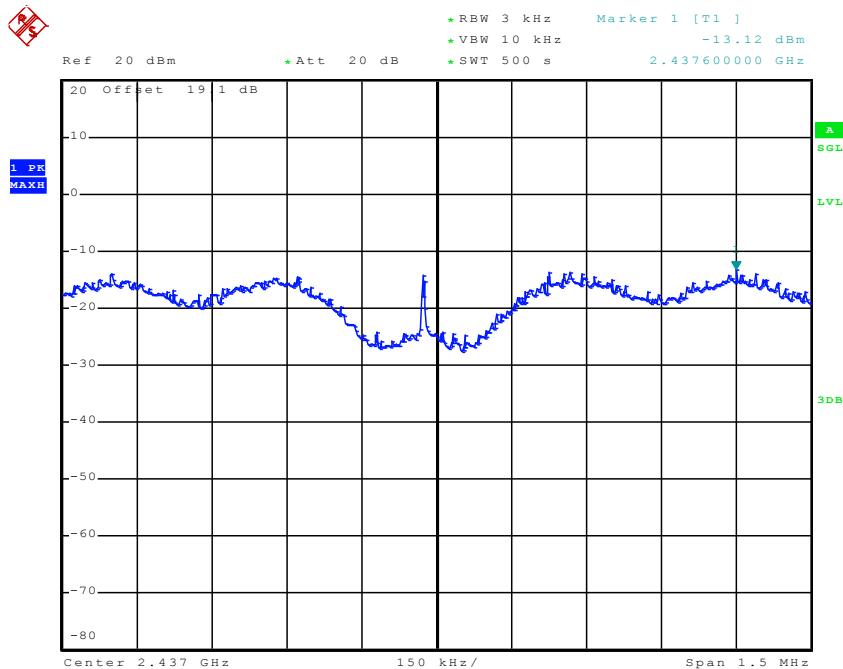
Date: 3.SEP.2010 06:06:46

Mode 8 : PSD Plot on 802.11n (BW 20MHz) Channel 06 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)


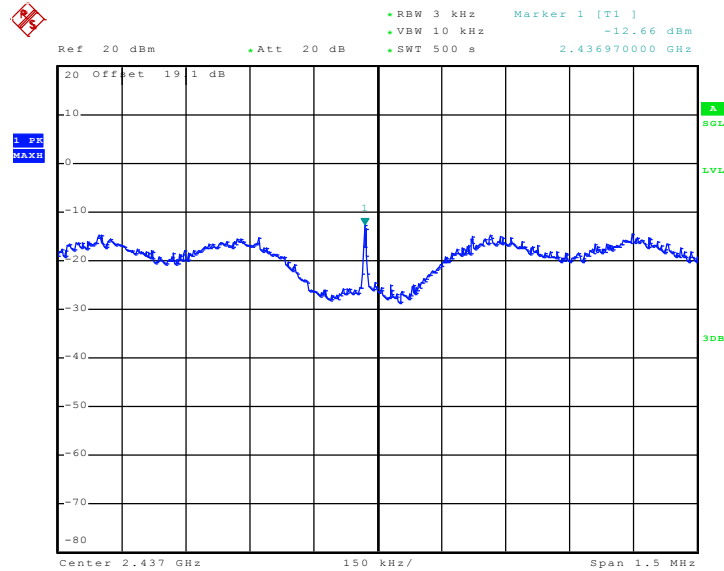
Date: 16.AUG.2010 19:54:30

(Antenna 3)


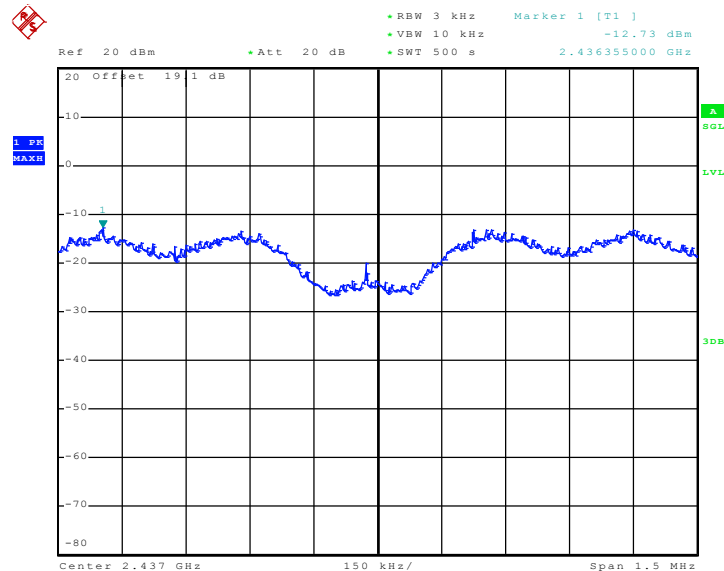
Date: 3.SEP.2010 07:27:39

Mode 8 : PSD Plot on 802.11n (BW 20MHz) Channel 06 – Chain A+B+C(B)
(Antenna 1 / Antenna 2)


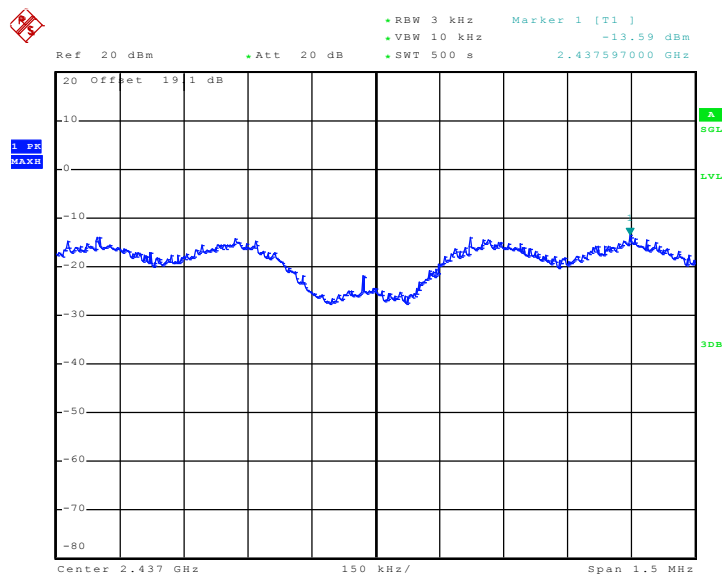
Date: 16.AUG.2010 19:45:24

(Antenna 3)


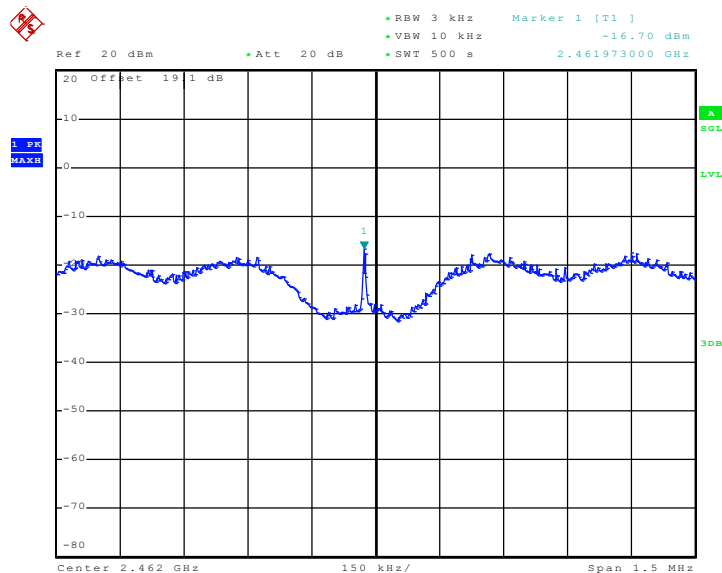
Date: 3.SEP.2010 07:59:56

Mode 8 : PSD Plot on 802.11n (BW 20MHz) Channel 06 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 19:33:32

(Antenna 3)


Date: 3.SEP.2010 08:09:57

Mode 9 : PSD Plot on 802.11n (BW 20MHz) Channel 11 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 19:04:37



Ref 20 dBm Att 20 dB RBW 3 kHz VBW 10 kHz Marker 1 [T1] -16.70 dBm
 Span 1.5 MHz Center 2.462 GHz 150 kHz/ 2.461973000 GHz 30 dB

1. PR
 MARK

20 OffSet 19.1 dB
 -10
 0
 -10
 -30
 -40
 -50
 -60
 -70
 -80

1
 2.461973000 GHz

30 dB

Center 2.462 GHz 150 kHz/ Span 1.5 MHz

Date: 16.AUG.2010 19:04:37

Ref 20 dBm Att 20 dB RBW 3 kHz VBW 10 kHz SWT 500 s Marker 1 [T1] -15.93 dBm 2.46260000 GHz

20 Offset 19.1 dB

10

0

-10

-20

-30

-40

-50

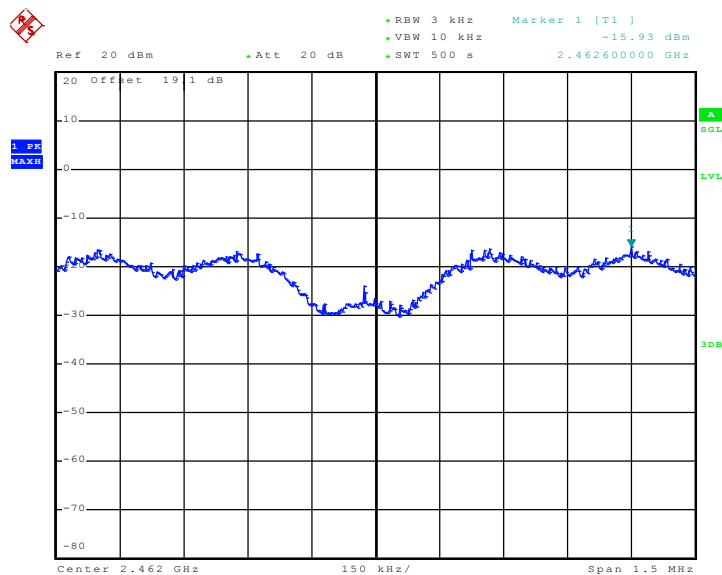
-60

-70

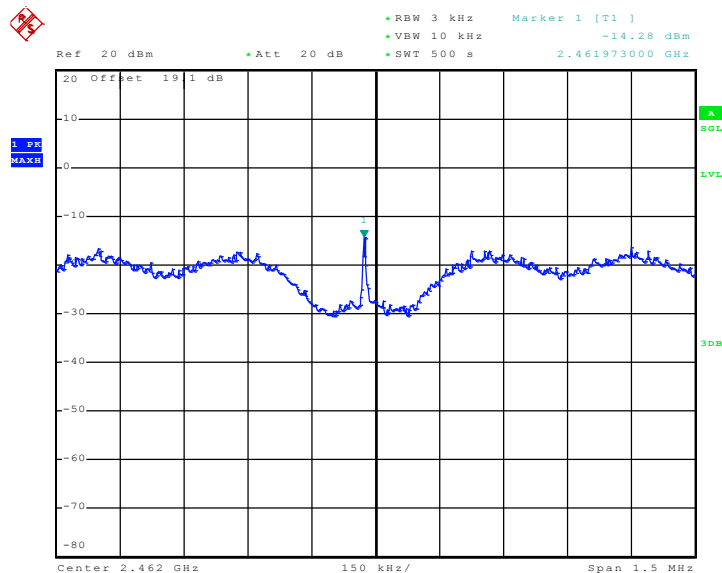
-80

Center 2.462 GHz Span 1.5 MHz 150 kHz/

Date: 16.AUG.2010 19:14:18

(Antenna 3)


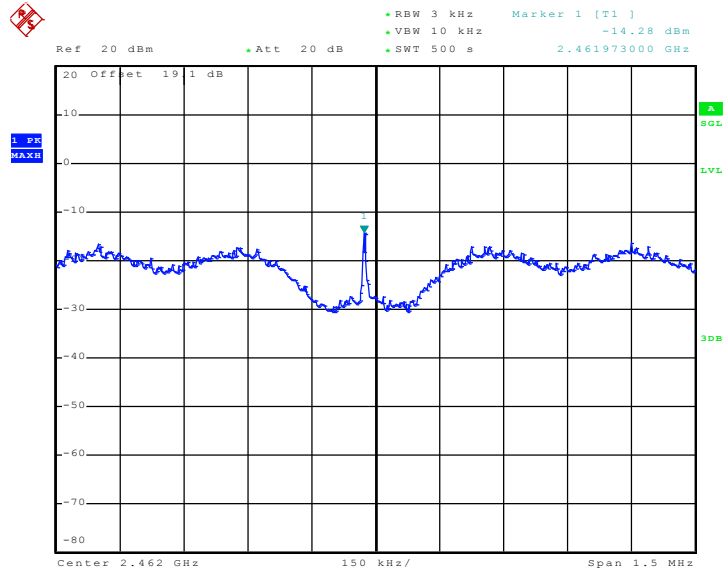
Date: 16.AUG.2010 19:14:18

Mode 9 : PSD Plot on 802.11n (BW 20MHz) Channel 11 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 19:23:46



(Antenna 3)



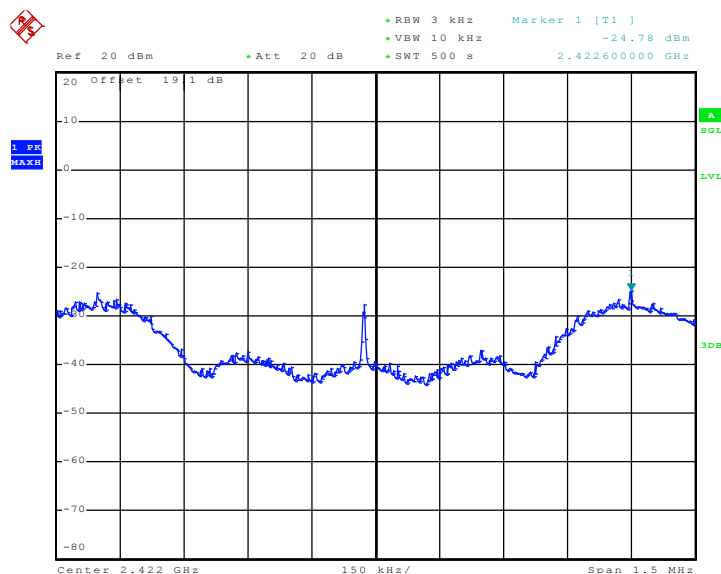
Date: 16.AUG.2010 19:23:46

Test Mode :	Mode 10, 11	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Antenna	Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
			Chain A+B+C(A)	Chain A+B+C(B)	Chain A+B+C(C)	Chain A+B+C		
1	03	2422	-24.78	-23.48	-23.57	-19.13	6	Pass
	09	2452	-23.89	-22.64	-22.69	-18.26	6	Pass
3	03	2422	-16.44	-18.82	-18.59	-13.04	5	Pass
	09	2452	-23.89	-22.64	-22.69	-18.26	5	Pass

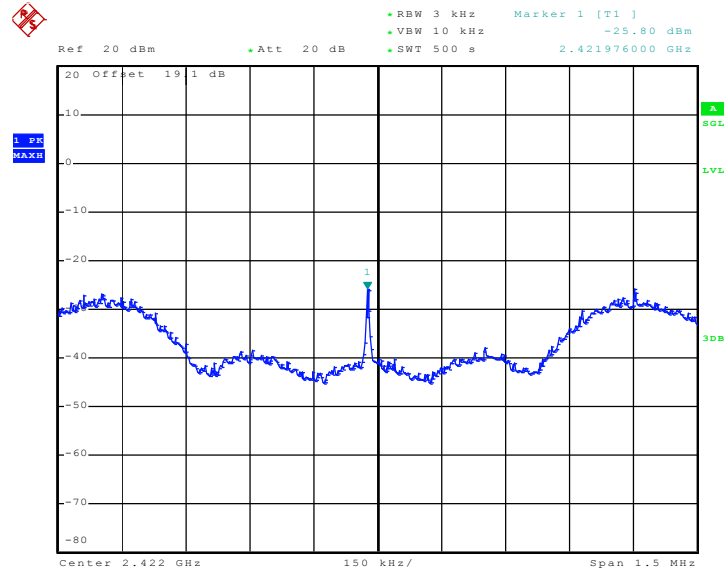
Note:

1. Chain A+B+C was tested by combiner, and the chain A, B and C was tested individually and calculated with the formula of $10 \cdot \log(10^{(chain A/10)} + 10^{(chain B/10)} + 10^{(chain C/10)})$.
2. The maximum antenna gains are 10.9 dBi for antenna 1 and 13 dBi for Antenna 3; therefore the limits are 6 dBm for antenna 1 and 5 dBm for antenna 3.

**Mode 10 : PSD Plot on 802.11n (BW 20MHz) Channel 03 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)**


Date: 16.AUG.2010 22:23:50

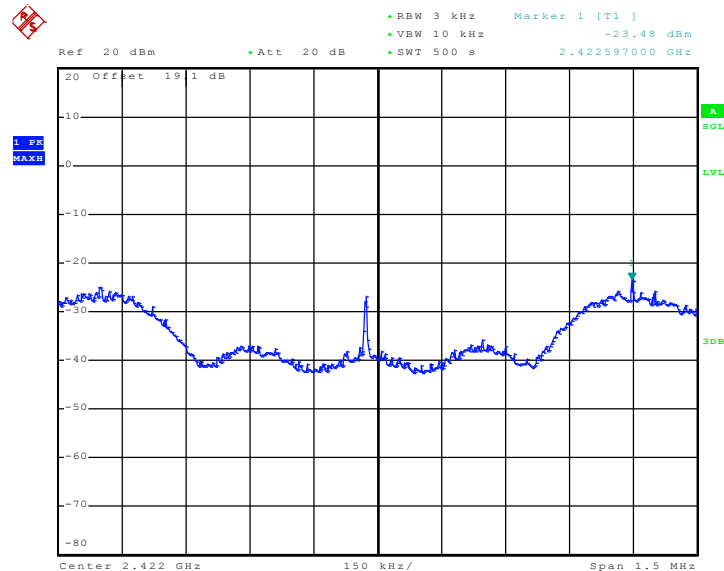
(Antenna 3)



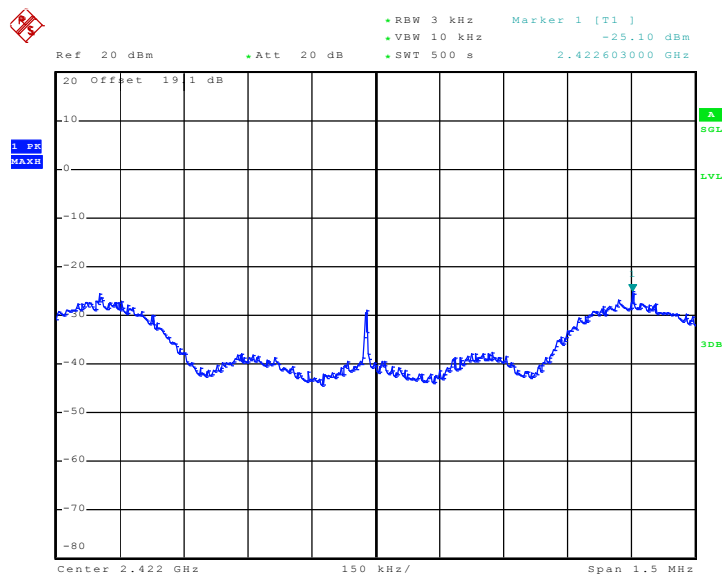
Date: 3.SEP.2010 16:02:00

Mode 10 : PSD Plot on 802.11n (BW 20MHz) Channel 03 – Chain A+B+C(B)

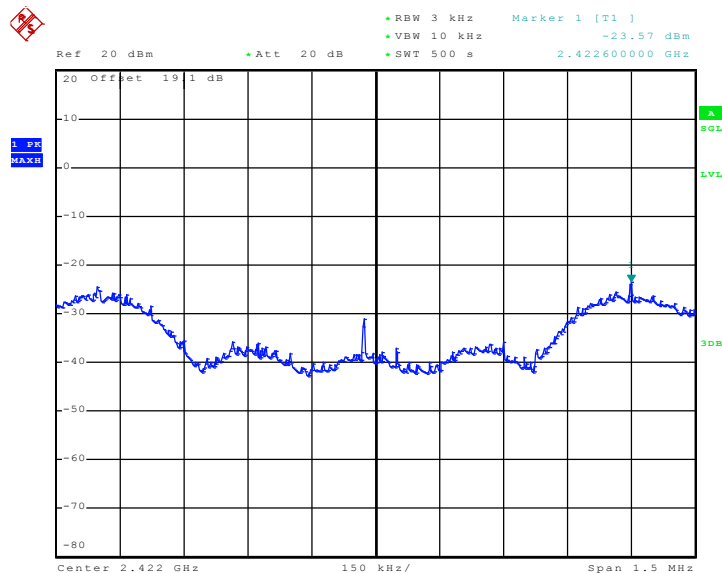
(Antenna 1 / Antenna 2)



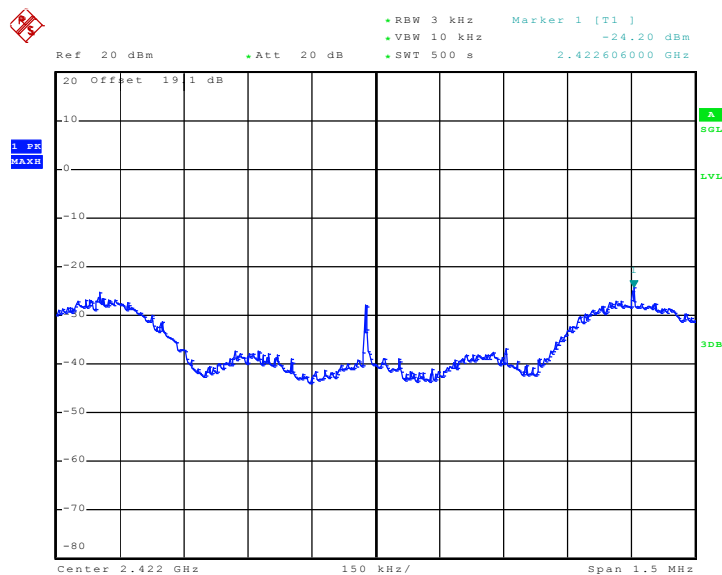
Date: 16.AUG.2010 22:36:18

(Antenna 3)


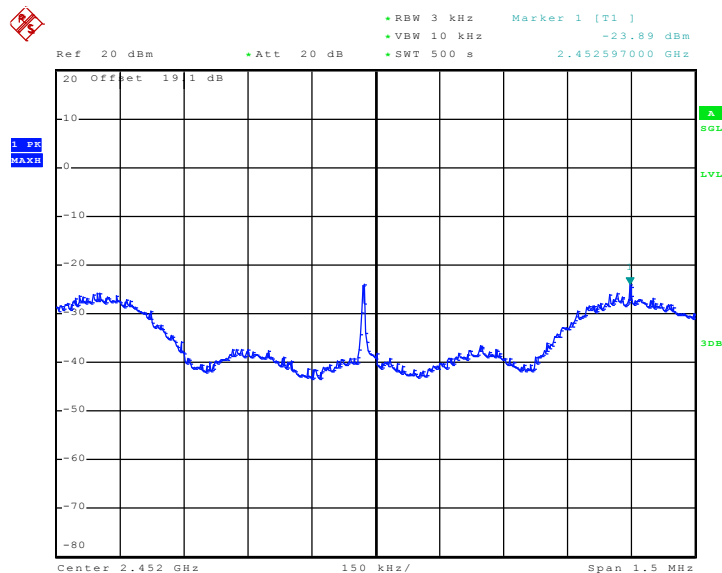
Date: 3.SEP.2010 16:11:27

Mode 10 : PSD Plot on 802.11n (BW 20MHz) Channel 03 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)


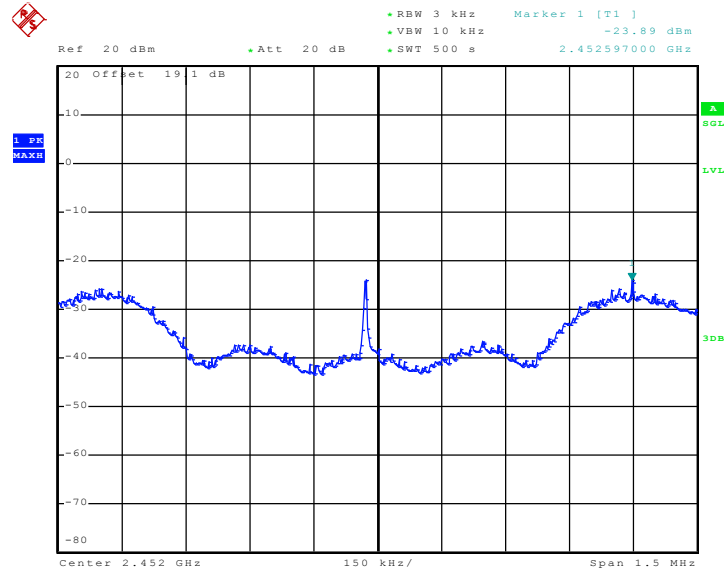
Date: 16.AUG.2010 22:53:17

(Antenna 3)


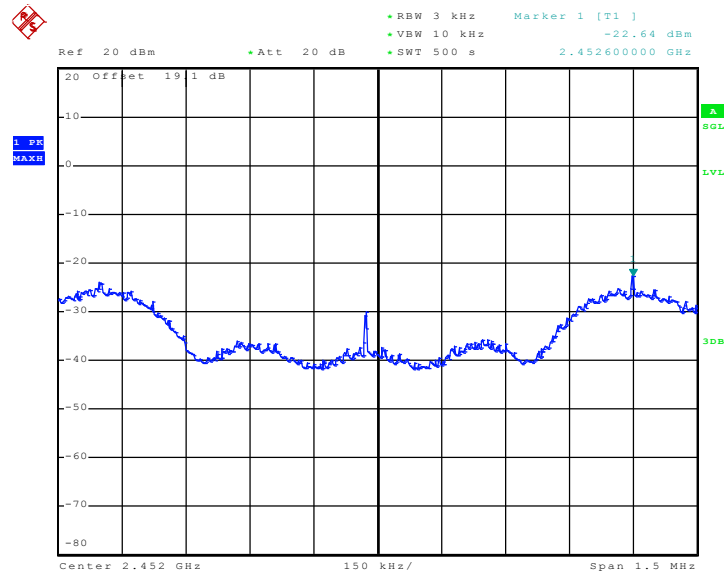
Date: 3.SEP.2010 16:21:52

Mode 11 : PSD Plot on 802.11n (BW 20MHz) Channel 09 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)


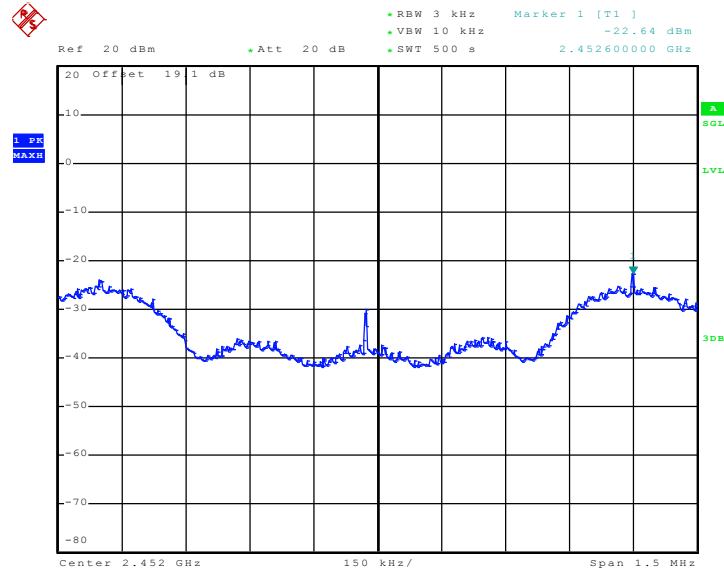
Date: 17.AUG.2010 00:32:14

(Antenna 3)


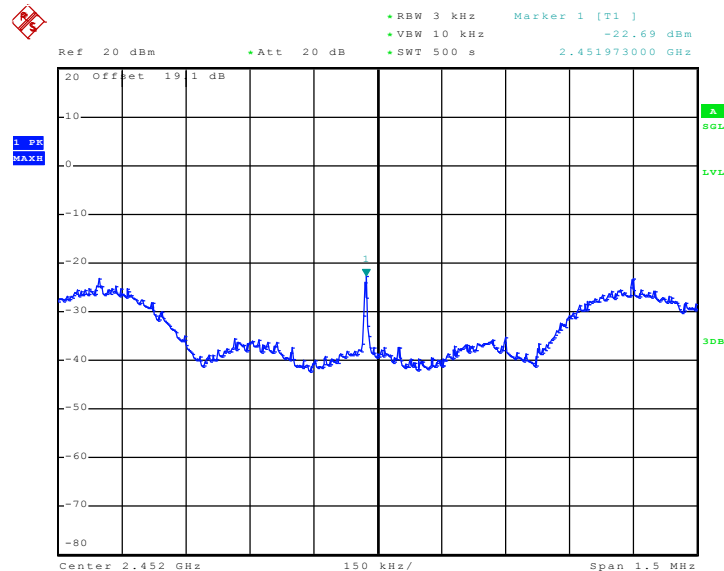
Date: 17.AUG.2010 00:32:14

Mode 11 : PSD Plot on 802.11n (BW 20MHz) Channel 09 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 23:35:48

(Antenna 3)


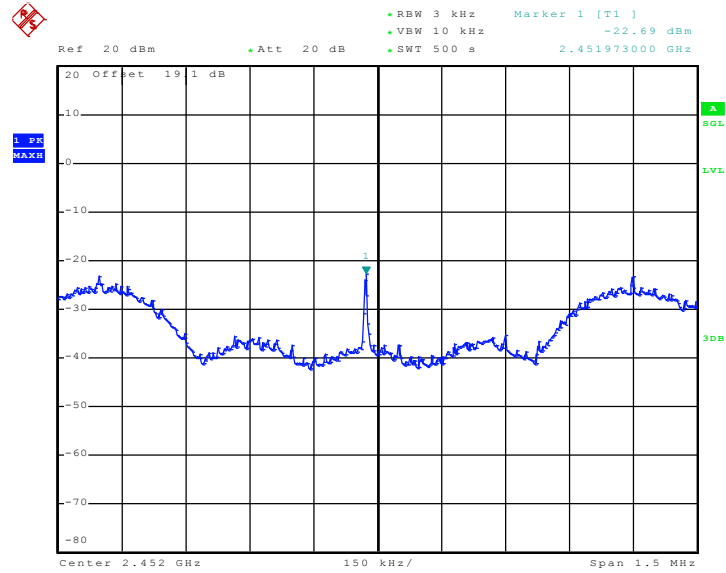
Date: 16.AUG.2010 23:35:48

Mode 11 : PSD Plot on 802.11n (BW 20MHz) Channel 09 – Chain A+B+C(C)
(Antenna 1 / Antenna 2)


Date: 16.AUG.2010 23:14:57



(Antenna 3)



Date: 16.AUG.2010 23:14:57

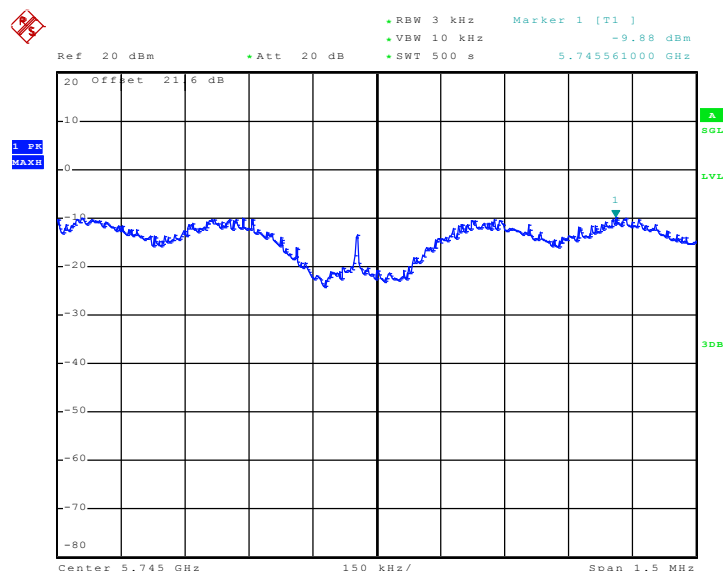


Test Mode :	Mode 12, 13, 14	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11a Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
		Antenna 1 / Antenna 2		
149	5745	-9.88	0.5	Pass
157	5785	-9.32	0.5	Pass
165	5825	-9.54	0.5	Pass

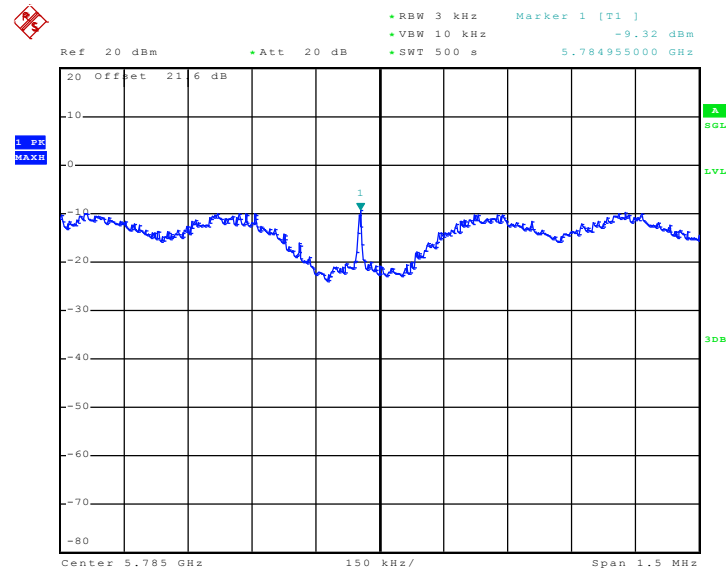
Note: The maximum antenna gain is 13.5 dBi; therefore the limits are 0.5 dBm.

Mode 12 : PSD Plot on 802.11a Channel 149 - Chain A (Antenna 1)



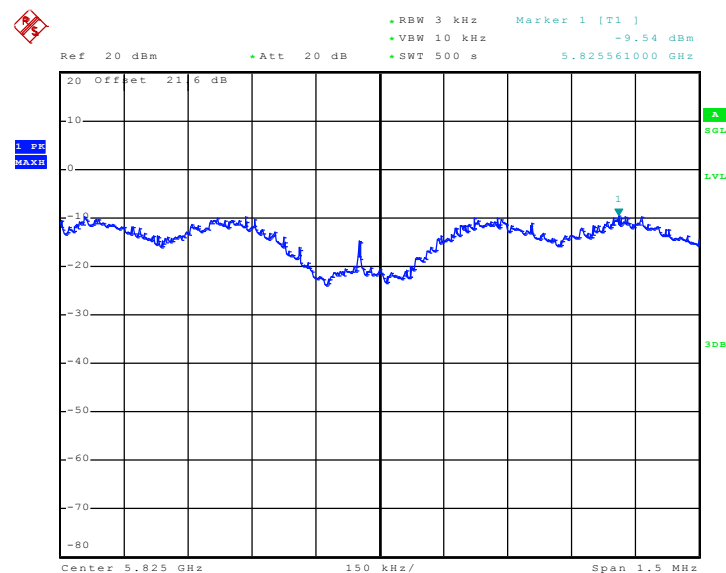
Date: 16.AUG.2010 13:51:09

Mode 13 : PSD Plot on 802.11a Channel 157 - Chain A
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 14:00:25

Mode 14 : PSD Plot on 802.11a Channel 165 - Chain A
(Antenna 1 / Antenna 2)



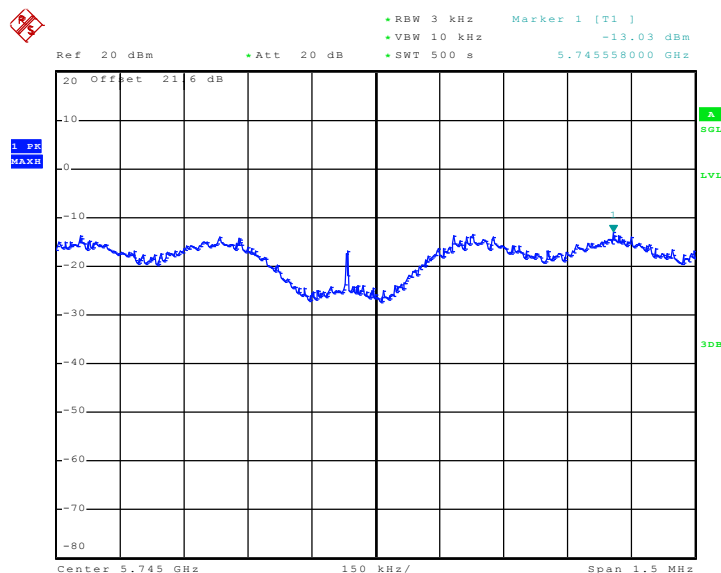
Date: 16.AUG.2010 14:52:21

Test Mode :	Mode 15, 16, 17	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Antenna 1 / Antenna 2					
		Chain A+B+C(A)	Chain A+B+C(B)	Chain A+B+C(C)	Chain A+B+C		
149	5745	-13.09	-9.50	-11.59	-6.36	0.5	Pass
157	5785	-12.95	-9.17	-10.75	-5.92	0.5	Pass
165	5825	-12.10	-7.61	-10.08	-4.77	0.5	Pass

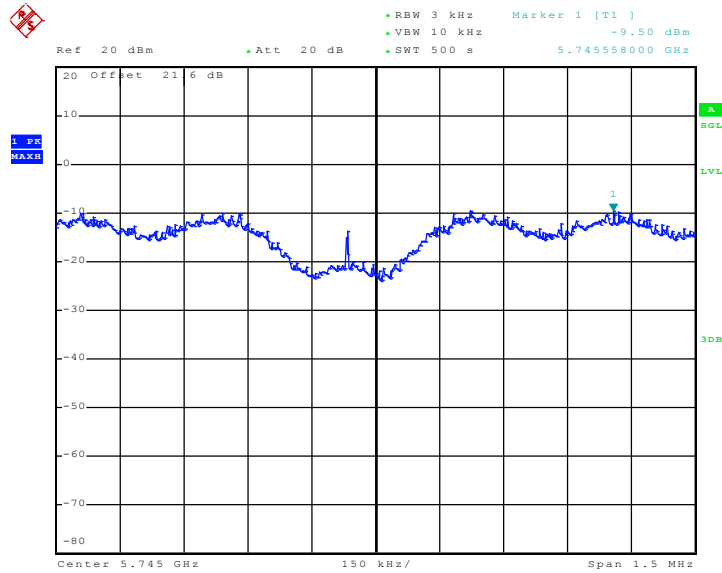
Note:

- Chain A+B+C was tested by combiner, and the chain A, B and C was tested individually and calculated with the formula of $10 \cdot \text{LOG} (10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}} + 10^{\text{(chain C/10)}})$.
- The maximum antenna gain is 13.5 dBi; therefore the limits are 0.5 dBm.

**Mode 15 : PSD Plot on 802.11n (BW 20MHz) Channel 149 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)**


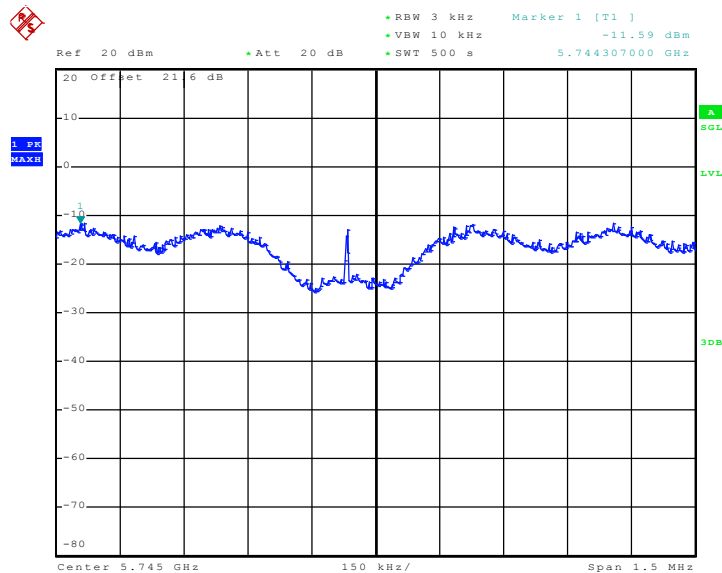
Date: 16.AUG.2010 17:32:24

Mode 15 : PSD Plot on 802.11n (BW 20MHz) Channel 149 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 17:41:57

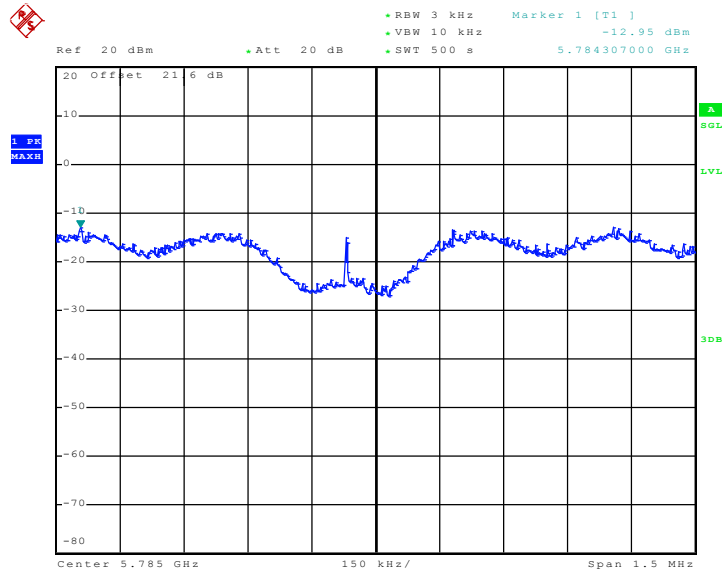
Mode 15 : PSD Plot on 802.11n (BW 20MHz) Channel 149 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 17:51:37

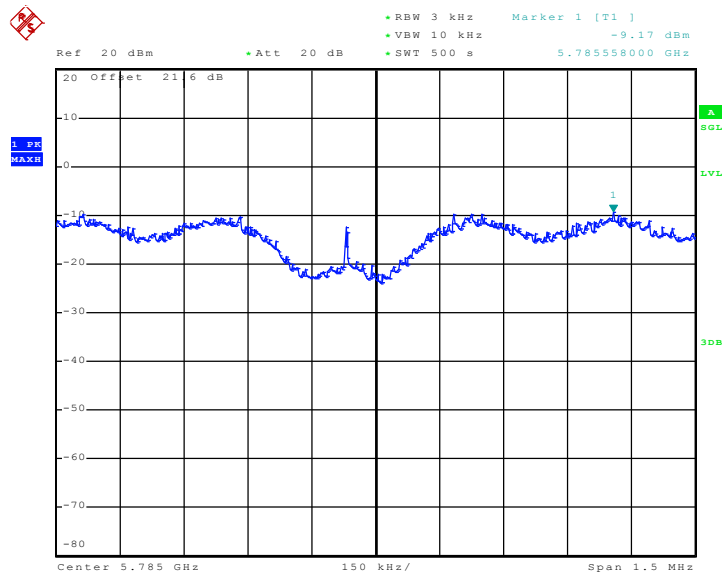


Mode 16 : PSD Plot on 802.11n (BW 20MHz) Channel 157 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 17:22:34

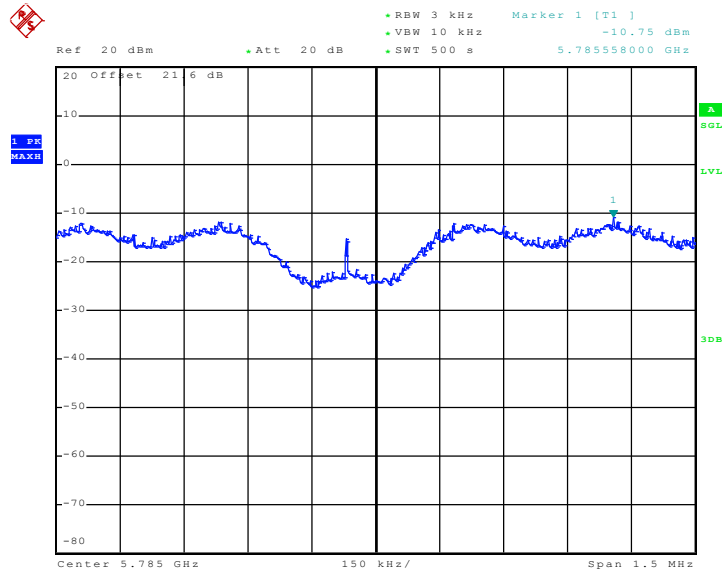
Mode 16 : PSD Plot on 802.11n (BW 20MHz) Channel 157 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 17:12:27

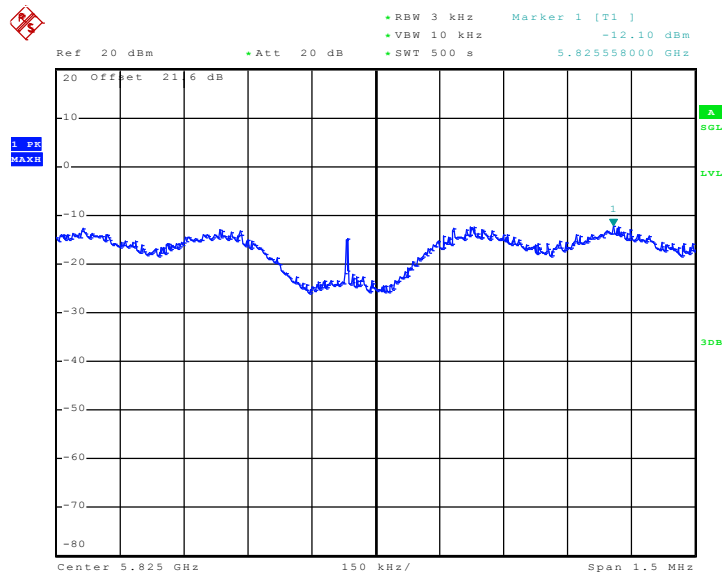


Mode 16 : PSD Plot on 802.11n (BW 20MHz) Channel 157 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 17:02:41

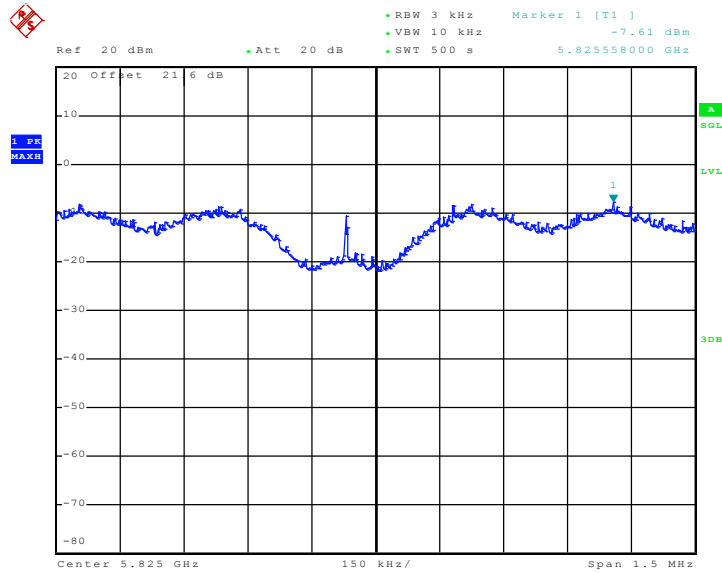
Mode 17 : PSD Plot on 802.11n (BW 20MHz) Channel 165 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 16:33:03

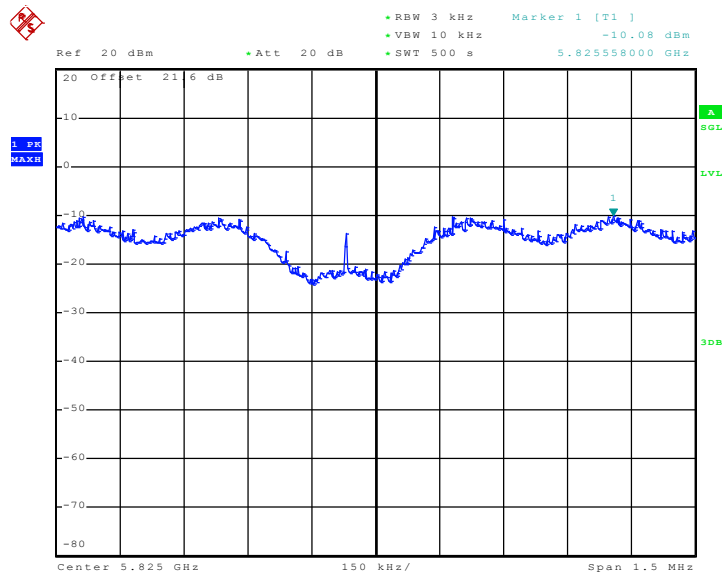


Mode 17 : PSD Plot on 802.11n (BW 20MHz) Channel 165 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)



Date: 16.AUG.2010 16:42:24

Mode 17 : PSD Plot on 802.11n (BW 20MHz) Channel 165 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)



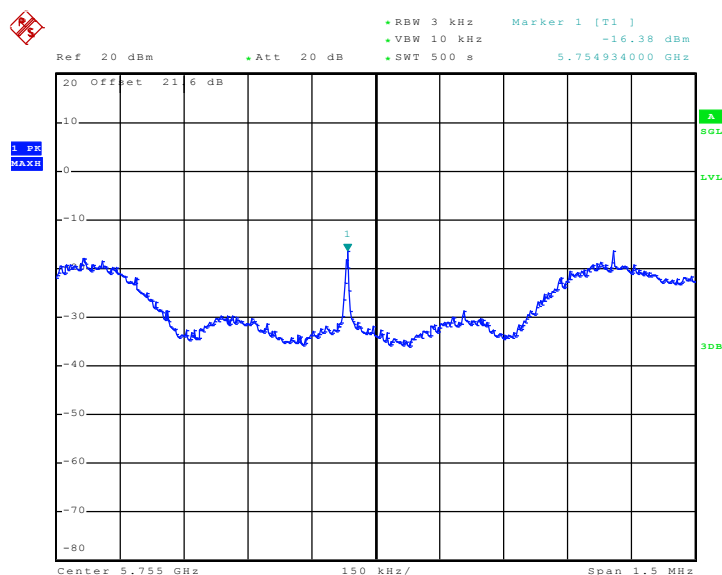
Date: 16.AUG.2010 16:52:36

Test Mode :	Mode 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu and Mac Lin	Relative Humidity :	48~51%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Antenna 1 / Antenna 2					
		Chain A+B+C(A)	Chain A+B+C(B)	Chain A+B+C(C)	Chain A+B+C		
151	5755	-16.38	-11.07	-14.88	-8.74	0.5	Pass
159	5795	-17.60	-13.66	-15.86	-10.64		

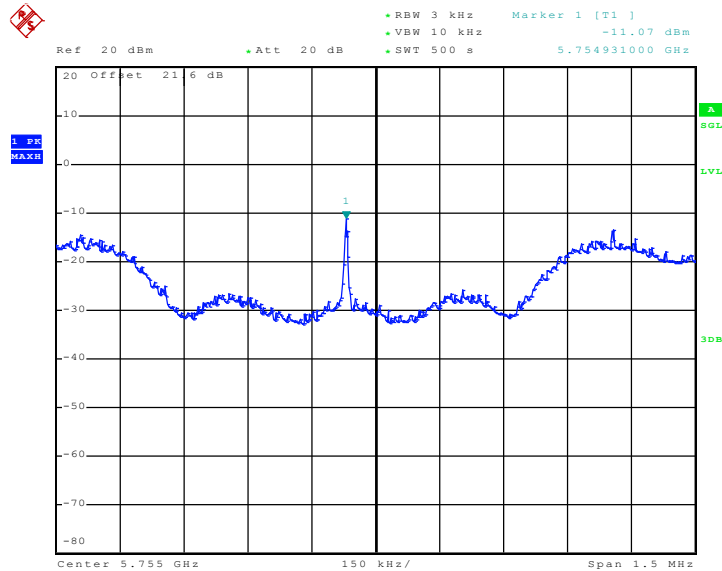
Note:

- Chain A+B+C was tested by combiner, and the chain A, B and C was tested individually and calculated with the formula of $10 \cdot \text{LOG} (10^{\text{(chain A/10)}} + 10^{\text{(chain B/10)}} + 10^{\text{(chain C/10)}})$.
- The maximum antenna gain is 13.5 dBi; therefore the limits are 0.5 dBm.

**Mode 18 : PSD Plot on 802.11n (BW 20MHz) Channel 151 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)**


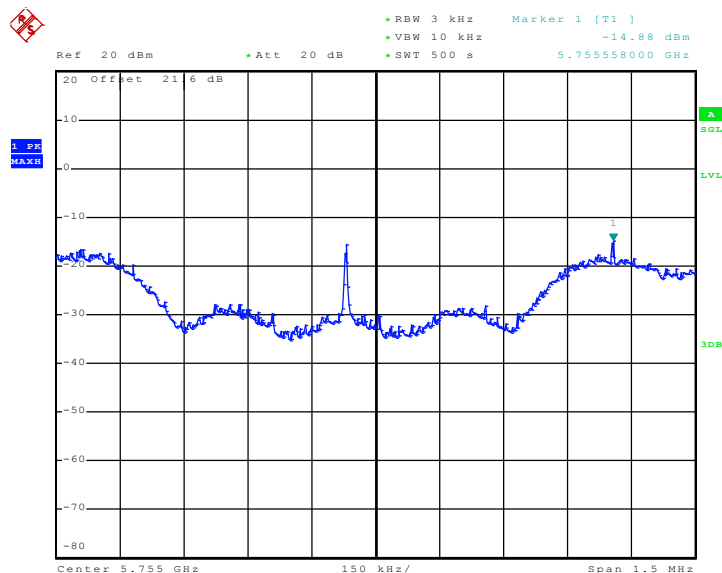
Date: 17.AUG.2010 02:28:48

Mode 18 : PSD Plot on 802.11n (BW 20MHz) Channel 151 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 02:50:46

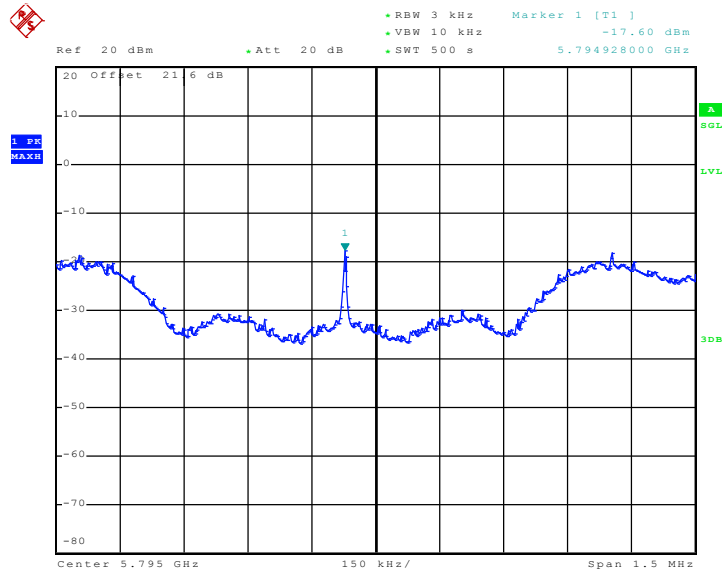
Mode 18 : PSD Plot on 802.11n (BW 20MHz) Channel 151 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 03:00:28

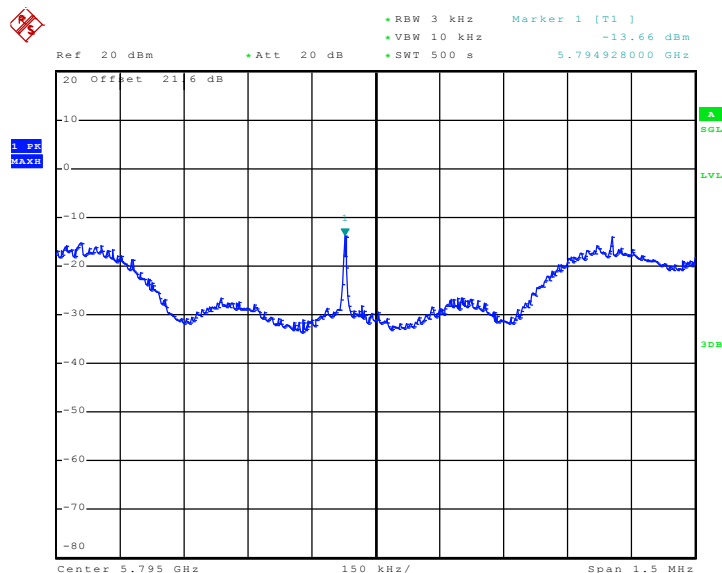


Mode 19 : PSD Plot on 802.11n (BW 20MHz) Channel 159 - Chain A+B+C(A)
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 03:33:29

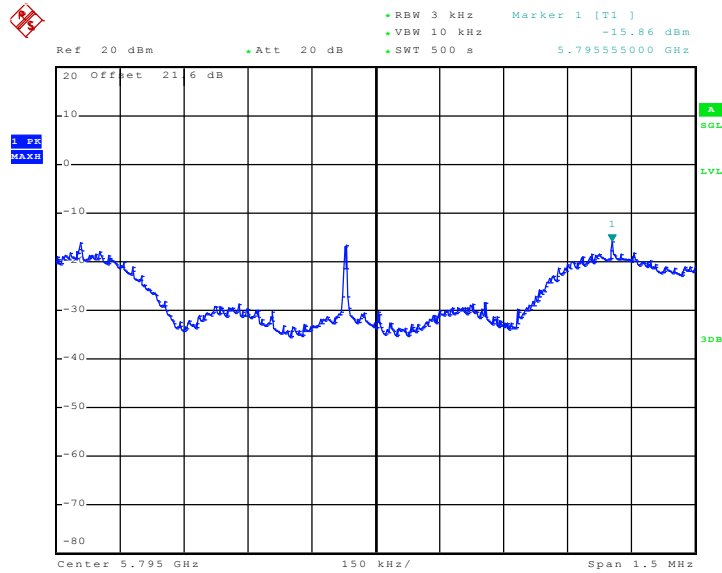
Mode 19 : PSD Plot on 802.11n (BW 20MHz) Channel 159 - Chain A+B+C(B)
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 03:23:53



Mode 19 : PSD Plot on 802.11n (BW 20MHz) Channel 159 - Chain A+B+C(C)
(Antenna 1 / Antenna 2)



Date: 17.AUG.2010 03:14:10

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.

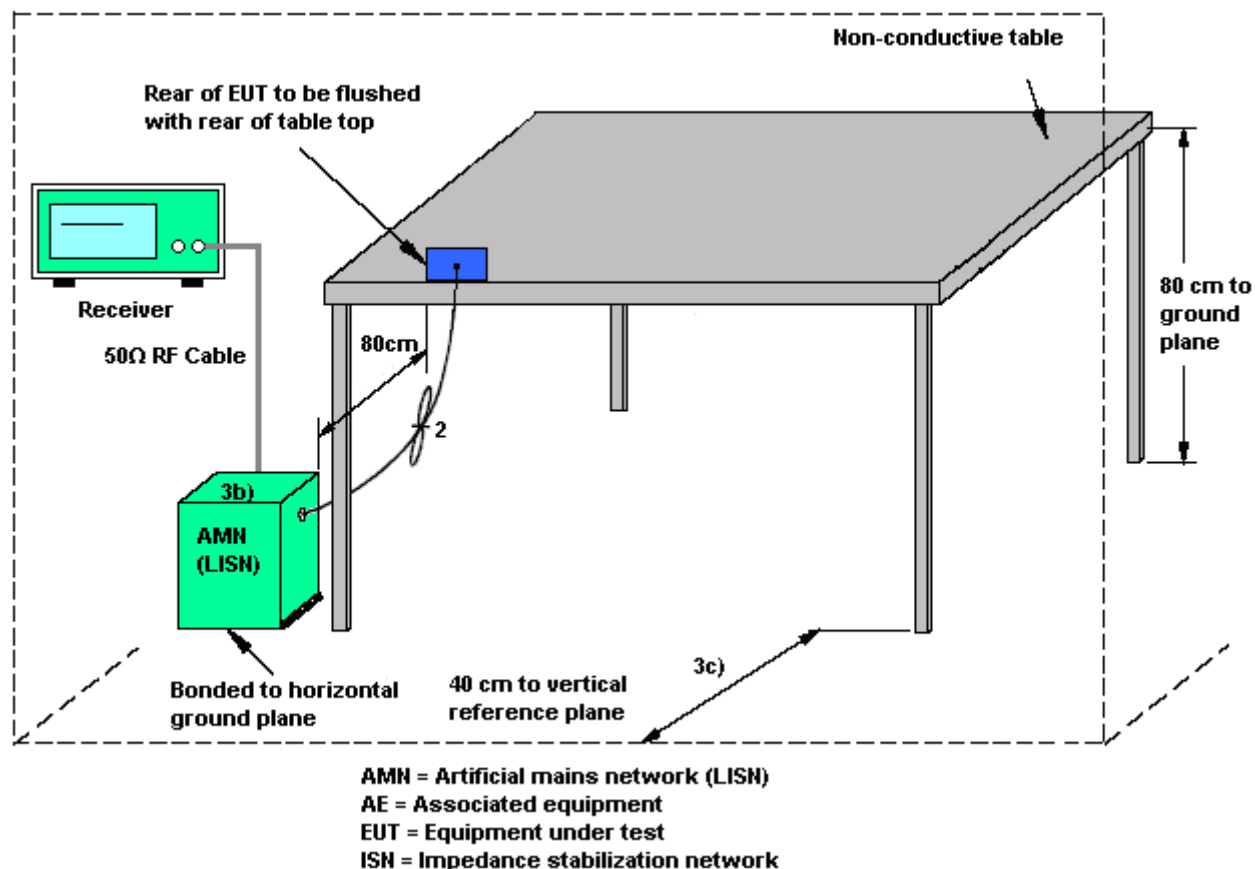
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

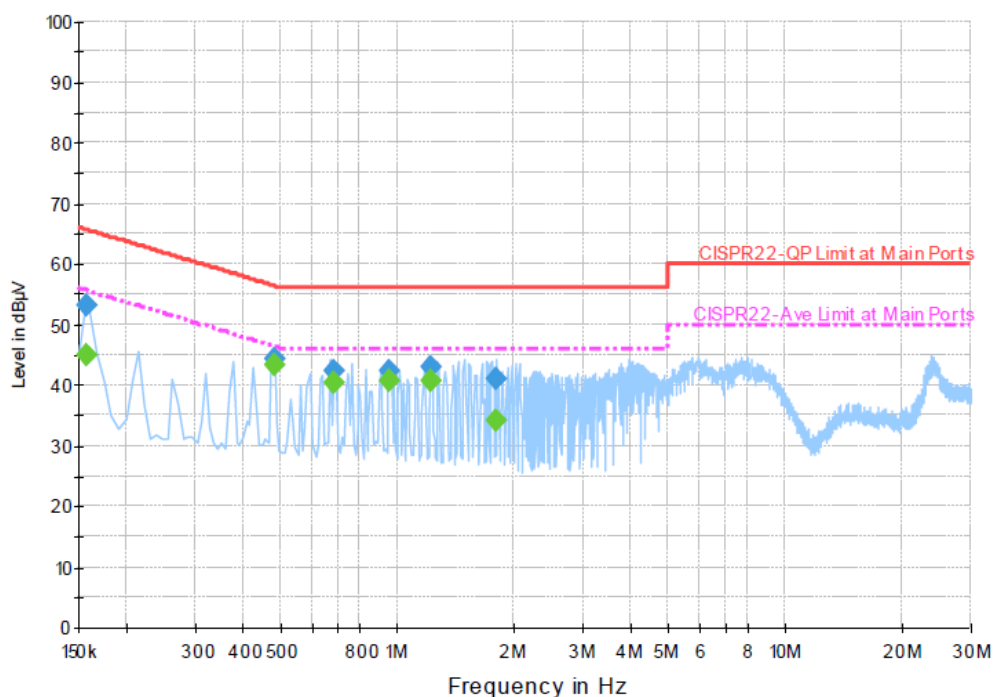
4. The testing follows the guidelines in ANSI C63.4-2003.
5. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
6. Connect EUT to the power mains through a line impedance stabilization network (LISN).
7. All the support units are connecting to the other LISN.
8. The LISN provides 50 ohm coupling impedance for the measuring instrument.
9. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
10. Both sides of AC line were checked for maximum conducted interference.
11. The frequency range from 150 kHz to 30 MHz was searched.
12. 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 :	Novic Jiang	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WLAN 1 (2.4G) Link + WLAN 2 (2.4G) Link + LAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



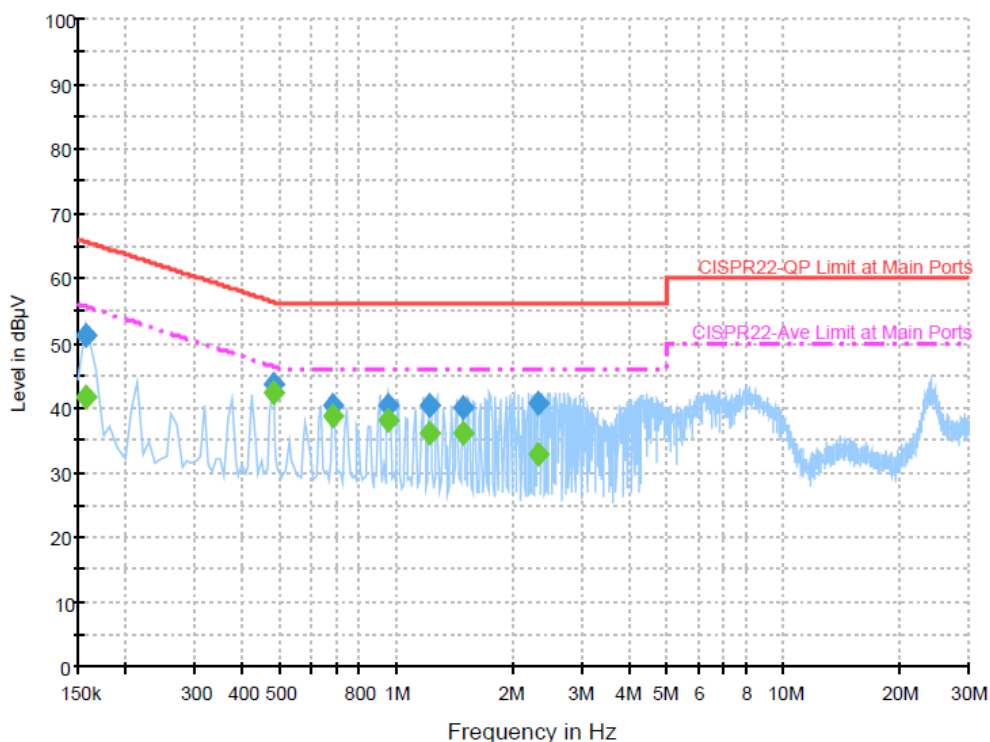
Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	53.1	Off	L1	19.3	12.5	65.6
0.478000	44.3	Off	L1	19.4	12.1	56.4
0.686000	42.1	Off	L1	19.5	13.9	56.0
0.950000	42.4	Off	L1	19.4	13.6	56.0
1.214000	42.8	Off	L1	19.4	13.2	56.0
1.790000	40.9	Off	L1	19.4	15.1	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	44.9	Off	L1	19.3	10.7	55.6
0.478000	43.0	Off	L1	19.4	3.4	46.4
0.686000	40.3	Off	L1	19.5	5.7	46.0
0.950000	40.8	Off	L1	19.4	5.2	46.0
1.214000	40.6	Off	L1	19.4	5.4	46.0
1.790000	34.0	Off	L1	19.4	12.0	46.0

Test Mode :	Mode 1	Temperature :	20~22℃
Test Engineer :	Novic Jiang	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN 1 (2.4G) Link + WLAN 2 (2.4G) Link + LAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		


Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	51.3	Off	N	19.4	14.3	65.6
0.478000	43.7	Off	N	19.4	12.7	56.4
0.686000	40.5	Off	N	19.5	15.5	56.0
0.950000	40.4	Off	N	19.4	15.6	56.0
1.214000	40.2	Off	N	19.5	15.8	56.0
1.478000	39.9	Off	N	19.4	16.1	56.0
2.326000	40.6	Off	N	19.5	15.4	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.158000	41.6	Off	N	19.4	14.0	55.6
0.478000	42.2	Off	N	19.4	4.2	46.4
0.686000	38.5	Off	N	19.5	7.5	46.0
0.950000	38.2	Off	N	19.4	7.8	46.0
1.214000	36.2	Off	N	19.5	9.8	46.0
1.478000	36.0	Off	N	19.4	10.0	46.0
2.326000	32.9	Off	N	19.5	13.1	46.0

3.7 Radiated Emission Measurement

3.7.1 Limit of Radiated Emission

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

3.7.2 Measuring Instruments

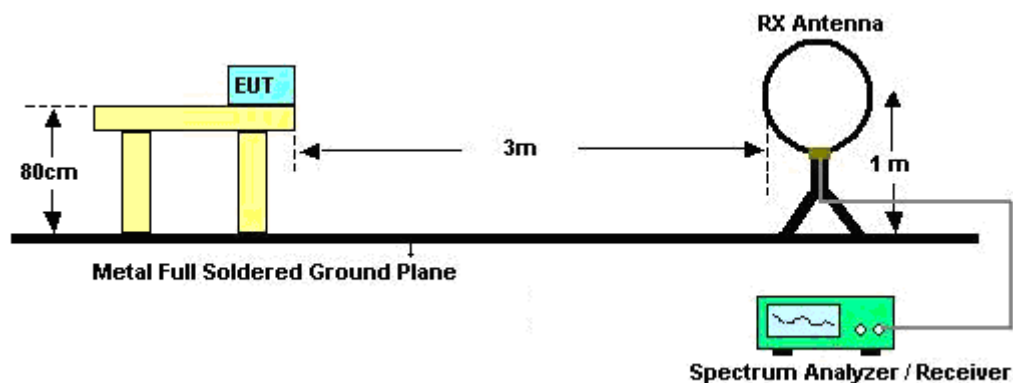
See list of measuring instruments of this test report.

3.7.3 Test Procedures

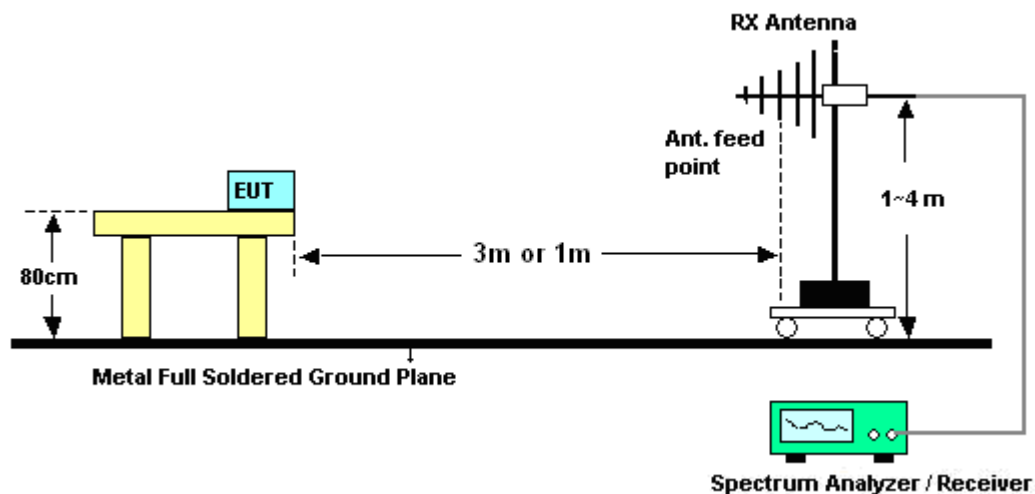
- The testing follows the guidelines in FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
- Use the following spectrum analyzer settings:
 - Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
 - Above 18 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1m]})$ (dB)
- Follow the guidelines in ANSI C63.4-2003 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.

3.7.4 Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



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

Test Engineer :	Ivan Jiang	Temperature :	23~25℃	
		Relative Humidity :	45~50%	

Frequency (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = $40 \log (\text{specific distance} / \text{test distance})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

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

Test Mode :	Mode 1	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1878 MHz is not within a restricted band. 2. 2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	38.24	-1.76	40	60.13	8.96	0.68	31.53	161	302	Peak
125.85	28.53	-14.97	43.5	47.17	11.8	1.13	31.57	-	-	Peak
265.17	23.07	-22.93	46	39.88	12.97	1.62	31.4	-	-	Peak
374.2	26.13	-19.87	46	39.85	15.44	2.09	31.25	-	-	Peak
612.9	26.89	-19.11	46	34.9	20.17	2.73	30.91	-	-	Peak
828.5	25.2	-20.8	46	30.21	22.49	3.21	30.71	-	-	Peak
1878	57.17	-38.34	95.51	54.68	30.66	5.24	33.41	100	0	Peak
2390	61.66	-12.34	74	57.03	32.13	6.03	33.53	106	360	Peak
2390	51.57	-2.43	54	46.94	32.13	6.03	33.53	106	360	Average
2412	115.51	-	-	110.82	32.16	6.07	33.54	106	360	Peak
2412	111.19	-	-	106.5	32.16	6.07	33.54	106	360	Average
2484	45.25	-8.75	54	40.36	32.27	6.18	33.56	106	360	Average
2484	58.27	-15.73	74	53.38	32.27	6.18	33.56	106	360	Peak
4824	54.97	-19.03	74	45.68	34.2	9.12	34.03	115	0	Peak
4824	51.66	-2.34	54	42.37	34.2	9.12	34.03	115	0	Average
8226	53.74	-20.26	74	40.95	36	10.9	34.11	100	216	Peak
8226	40.3	-13.7	54	27.51	36	10.9	34.11	100	216	Average



Test Mode :	Mode 1	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.06	-3.94	40	47.48	19.51	0.53	31.46	105	89	Peak
92.37	26.72	-16.78	43.5	48.11	9.17	0.96	31.52	-	-	Peak
136.65	31.25	-12.25	43.5	49.9	11.72	1.19	31.56	-	-	Peak
310.5	20.14	-25.86	46	35.93	13.74	1.79	31.32	-	-	Peak
590.5	29.2	-16.8	46	37.58	19.89	2.66	30.93	-	-	Peak
763.4	24.51	-21.49	46	30.41	21.71	3.08	30.69	-	-	Peak
2385.62	47.74	-26.26	74	43.11	32.13	6.03	33.53	100	327	Peak
2385.62	34.58	-19.42	54	29.95	32.13	6.03	33.53	100	327	Average
2412	94.47	-	-	89.78	32.16	6.07	33.54	100	327	Peak
2412	90.65	-	-	85.96	32.16	6.07	33.54	100	327	Average
2492	33.67	-20.33	54	28.76	32.3	6.18	33.57	100	327	Average
2492	45.69	-28.31	74	40.78	32.3	6.18	33.57	100	327	Peak
8235	54.16	-19.84	74	41.37	36	10.9	34.11	100	106	Peak
8235	40.54	-13.46	54	27.75	36	10.9	34.11	100	106	Average

Test Mode :	Mode 2	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1916 MHz is not within a restricted band. 2. 2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	39.12	-0.88	40	61.01	8.96	0.68	31.53	126	177	Peak
126.66	28.24	-15.26	43.5	46.88	11.8	1.13	31.57	-	-	Peak
260.58	24.27	-21.73	46	41.17	12.92	1.6	31.42	-	-	Peak
486.2	19.17	-26.83	46	29.95	17.88	2.4	31.06	-	-	Peak
595.4	25.91	-20.09	46	34.18	19.98	2.68	30.93	-	-	Peak
982.5	30.82	-23.18	54	33.48	24.43	3.49	30.58	-	-	Peak
1916	59.57	-36.53	96.1	56.8	30.9	5.28	33.41	100	0	Peak
2366	45.2	-8.8	54	40.65	32.08	5.99	33.52	103	360	Average
2366	57.61	-16.39	74	53.06	32.08	5.99	33.52	103	360	Peak
2437	111.69	-	-	106.91	32.22	6.11	33.55	103	360	Average
2437	116.1	-	-	111.32	32.22	6.11	33.55	103	360	Peak
2494	59.19	-14.81	74	54.28	32.3	6.18	33.57	103	360	Peak
2494	46.62	-7.38	54	41.71	32.3	6.18	33.57	103	360	Average
4874	55.82	-18.18	74	46.53	34.2	9.13	34.04	113	0	Peak
4874	52.1	-1.9	54	42.81	34.2	9.13	34.04	113	0	Average
8181	54.59	-19.41	74	41.82	36	10.88	34.11	100	105	Peak
8181	40.31	-13.69	54	27.54	36	10.88	34.11	100	105	Average



Test Mode :	Mode 2	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	36.2	-3.8	40	58.09	8.96	0.68	31.53	107	93	Peak
92.37	26.61	-16.89	43.5	48	9.17	0.96	31.52	-	-	Peak
161.49	30.06	-13.44	43.5	50.12	10.24	1.22	31.52	-	-	Peak
374.2	20.04	-25.96	46	33.76	15.44	2.09	31.25	-	-	Peak
500.2	29.4	-16.6	46	39.84	18.18	2.45	31.07	-	-	Peak
624.1	33.14	-12.86	46	41.03	20.25	2.76	30.9	-	-	Peak
2388	46.91	-27.09	74	42.28	32.13	6.03	33.53	200	360	Peak
2388	34.76	-19.24	54	30.13	32.13	6.03	33.53	200	360	Average
2437	94.68	-	-	89.9	32.22	6.11	33.55	200	360	Peak
2437	90.19	-	-	85.41	32.22	6.11	33.55	200	360	Average
2486	45.71	-28.29	74	40.82	32.27	6.18	33.56	200	360	Peak
2486	34	-20	54	29.11	32.27	6.18	33.56	200	360	Average
8208	53.98	-20.02	74	41.2	36	10.89	34.11	100	213	Peak
8208	40.08	-13.92	54	27.3	36	10.89	34.11	100	213	Average

Test Mode :	Mode 3	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1956 MHz is not within a restricted band. 2. 2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	38.57	-1.43	40	60.46	8.96	0.68	31.53	151	300	Peak
122.61	28.12	-15.38	43.5	46.51	12.06	1.11	31.56	-	-	Peak
183.9	21.36	-22.14	43.5	42.63	8.99	1.26	31.52	-	-	Peak
430.2	18.85	-27.15	46	30.98	16.75	2.25	31.13	-	-	Peak
596.1	25.64	-20.36	46	33.88	20	2.68	30.92	-	-	Peak
761.3	24.41	-21.59	46	30.35	21.68	3.08	30.7	-	-	Peak
1956	57.79	-38.64	96.43	54.7	31.14	5.35	33.4	100	0	Peak
2388	44.64	-9.36	54	40.01	32.13	6.03	33.53	123	0	Average
2388	55.92	-18.08	74	51.29	32.13	6.03	33.53	123	0	Peak
2462	116.43	-	-	111.61	32.24	6.14	33.56	123	0	Peak
2462	111.91	-	-	107.09	32.24	6.14	33.56	123	0	Average
2483.5	61.27	-12.73	74	56.38	32.27	6.18	33.56	123	0	Peak
2483.5	49.86	-4.14	54	44.97	32.27	6.18	33.56	123	0	Average
4924	57.7	-16.3	74	48.41	34.2	9.15	34.06	102	0	Peak
4924	52.8	-1.2	54	43.51	34.2	9.15	34.06	102	0	Average
8139	54.14	-19.86	74	41.4	36	10.86	34.12	100	192	Peak
8139	40.08	-13.92	54	27.34	36	10.86	34.12	100	192	Average



Test Mode :	Mode 3	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.62	35.42	-4.58	40	47.93	18.4	0.55	31.46	106	95	Peak
122.61	29.97	-13.53	43.5	48.36	12.06	1.11	31.56	-	-	Peak
182.01	25.6	-17.9	43.5	46.85	9.02	1.26	31.53	-	-	Peak
312.6	21.02	-24.98	46	36.76	13.79	1.79	31.32	-	-	Peak
500.2	28.16	-17.84	46	38.6	18.18	2.45	31.07	-	-	Peak
897.8	32.15	-13.85	46	36.35	23.16	3.34	30.7	-	-	Peak
2390	34.58	-19.42	54	29.95	32.13	6.03	33.53	153	4	Average
2390	46.34	-27.66	74	41.71	32.13	6.03	33.53	153	4	Peak
2462	91.48	-	-	86.66	32.24	6.14	33.56	153	4	Average
2462	95.69	-	-	90.87	32.24	6.14	33.56	153	4	Peak
2500	47	-27	74	42.09	32.3	6.18	33.57	153	4	Peak
2500	34.01	-19.99	54	29.1	32.3	6.18	33.57	153	4	Average
8238	54.36	-19.64	74	41.56	36	10.91	34.11	100	120	Peak
8238	40.06	-13.94	54	27.26	36	10.91	34.11	100	120	Average

Test Mode :	Mode 4	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1878 MHz is not within a restricted band. 2. 2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	39.43	-0.57	40	61.32	8.96	0.68	31.53	131	186	Peak
127.74	31.55	-11.95	43.5	50.19	11.79	1.14	31.57	-	-	Peak
250.05	30.56	-15.44	46	47.67	12.77	1.53	31.41	-	-	Peak
374.2	26.5	-19.5	46	40.22	15.44	2.09	31.25	-	-	Peak
458.9	19.37	-26.63	46	30.81	17.32	2.32	31.08	-	-	Peak
827.8	26.2	-19.8	46	31.22	22.48	3.21	30.71	-	-	Peak
1878	52.99	-40.58	93.57	50.5	30.66	5.24	33.41	100	0	Peak
2390	71.37	-2.63	74	66.74	32.13	6.03	33.53	105	360	Peak
2390	52.76	-1.24	54	48.13	32.13	6.03	33.53	105	360	Average
2412	101.55	-	-	96.86	32.16	6.07	33.54	105	360	Average
2412	113.57	-	-	108.88	32.16	6.07	33.54	105	360	Peak
2492	58.8	-15.2	74	53.89	32.3	6.18	33.57	105	360	Peak
2492	47.39	-6.61	54	42.48	32.3	6.18	33.57	105	360	Average
8160	53.98	-20.02	74	41.22	36	10.87	34.11	100	190	Peak
8160	40.04	-13.96	54	27.28	36	10.87	34.11	100	190	Average

Test Mode :	Mode 4	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	37.18	-2.82	40	48.6	19.51	0.53	31.46	102	88	Peak
121.53	29.41	-14.09	43.5	47.71	12.15	1.11	31.56	-	-	Peak
169.05	29.74	-13.76	43.5	50.29	9.74	1.23	31.52	-	-	Peak
413.4	19.53	-26.47	46	32.11	16.39	2.19	31.16	-	-	Peak
598.9	30.77	-15.23	46	38.98	20.03	2.68	30.92	-	-	Peak
752.9	25.93	-20.07	46	32.01	21.56	3.06	30.7	-	-	Peak
2383.53	34.45	-19.55	54	29.84	32.11	6.03	33.53	100	327	Average
2383.53	46.79	-27.21	74	42.18	32.11	6.03	33.53	100	327	Peak
2412	81.06	-	-	76.37	32.16	6.07	33.54	100	327	Average
2412	92.71	-	-	88.02	32.16	6.07	33.54	100	327	Peak
2500	45.13	-28.87	74	40.22	32.3	6.18	33.57	100	327	Peak
2500	33.88	-20.12	54	28.97	32.3	6.18	33.57	100	327	Average
8148	53.83	-20.17	74	41.08	36	10.87	34.12	100	122	Peak
8148	40.11	-13.89	54	27.36	36	10.87	34.12	100	122	Average

Test Mode :	Mode 5	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1916 MHz is not within a restricted band. 2. 2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	33.27	-6.73	40	55.16	8.96	0.68	31.53	133	203	Peak
92.37	25.96	-17.54	43.5	47.35	9.17	0.96	31.52	-	-	Peak
130.44	31.31	-12.19	43.5	49.96	11.77	1.15	31.57	-	-	Peak
310.5	22.21	-23.79	46	38	13.74	1.79	31.32	-	-	Peak
590.5	30.29	-15.71	46	38.67	19.89	2.66	30.93	-	-	Peak
960.1	32.63	-21.37	54	35.64	24.09	3.47	30.57	-	-	Peak
1916	64.19	-32.81	97	61.42	30.9	5.28	33.41	100	0	Peak
2390	65.33	-8.67	74	60.7	32.13	6.03	33.53	102	0	Peak
2390	51.56	-2.44	54	46.93	32.13	6.03	33.53	102	0	Average
2437	117	-	-	112.25	32.19	6.11	33.55	102	0	Peak
2437	105.64	-	-	100.86	32.22	6.11	33.55	102	0	Average
2484	66.07	-7.93	74	61.18	32.27	6.18	33.56	102	0	Peak
2484	52.48	-1.52	54	47.59	32.27	6.18	33.56	102	0	Average
8154	53.59	-20.41	74	40.83	36	10.87	34.11	100	163	Peak
8154	40.07	-13.93	54	27.31	36	10.87	34.11	100	163	Average

Test Mode :	Mode 5	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.3	-3.7	40	47.72	19.51	0.53	31.46	100	77	Peak
137.73	32.09	-11.41	43.5	50.74	11.71	1.19	31.55	-	-	Peak
182.01	26.05	-17.45	43.5	47.3	9.02	1.26	31.53	-	-	Peak
307	21	-25	46	36.87	13.67	1.79	31.33	-	-	Peak
576.5	24.49	-21.51	46	33.21	19.61	2.62	30.95	-	-	Peak
624.1	33.14	-12.86	46	41.03	20.25	2.76	30.9	-	-	Peak
2358	47.06	-26.94	74	42.51	32.08	5.99	33.52	114	322	Peak
2358	35.49	-18.51	54	30.94	32.08	5.99	33.52	114	322	Average
2437	85.63	-	-	80.85	32.22	6.11	33.55	114	322	Average
2437	98.29	-	-	93.51	32.22	6.11	33.55	114	322	Peak
2500	47.67	-26.33	74	42.76	32.3	6.18	33.57	114	322	Peak
2500	35.36	-18.64	54	30.45	32.3	6.18	33.57	114	322	Average
8169	53.79	-20.21	74	41.02	36	10.88	34.11	100	207	Peak
8169	40.22	-13.78	54	27.45	36	10.88	34.11	100	207	Average

Test Mode :	Mode 6	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1956 MHz is not within a restricted band. 2. 2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.33	33.04	-6.96	40	56.1	7.77	0.71	31.54	133	176	Peak
121.8	26.87	-16.63	43.5	45.26	12.06	1.11	31.56	-	-	Peak
192.54	19.49	-24.01	43.5	40.82	8.88	1.29	31.5	-	-	Peak
374.2	26.55	-19.45	46	40.27	15.44	2.09	31.25	-	-	Peak
486.2	19.81	-26.19	46	30.59	17.88	2.4	31.06	-	-	Peak
624.1	26.6	-19.4	46	34.49	20.25	2.76	30.9	-	-	Peak
1956	52.19	-42.63	94.82	49.1	31.14	5.35	33.4	100	0	Peak
2388	45.48	-8.52	54	40.85	32.13	6.03	33.53	122	360	Average
2388	57.56	-16.44	74	52.93	32.13	6.03	33.53	122	360	Peak
2462	114.82	-	-	110	32.24	6.14	33.56	122	360	Peak
2462	101.49	-	-	96.67	32.24	6.14	33.56	122	360	Average
2483.5	71.43	-2.57	74	66.54	32.27	6.18	33.56	122	360	Peak
2483.5	52.03	-1.97	54	47.14	32.27	6.18	33.56	122	360	Average
8193	54.26	-19.74	74	41.48	36	10.89	34.11	100	140	Peak
8193	40.55	-13.45	54	27.77	36	10.89	34.11	100	140	Average

Test Mode :	Mode 6	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.75	-3.25	40	48.17	19.51	0.53	31.46	111	99	Peak
136.38	31.74	-11.76	43.5	50.39	11.72	1.19	31.56	-	-	Peak
182.28	25.8	-17.7	43.5	47.05	9.02	1.26	31.53	-	-	Peak
374.2	19.53	-26.47	46	33.25	15.44	2.09	31.25	-	-	Peak
579.3	26.41	-19.59	46	35.06	19.67	2.63	30.95	-	-	Peak
624.1	31.64	-14.36	46	39.53	20.25	2.76	30.9	-	-	Peak
2374	46.9	-27.1	74	42.33	32.11	5.99	33.53	126	4	Peak
2374	34.73	-19.27	54	30.16	32.11	5.99	33.53	126	4	Average
2462	80.47	-	-	75.65	32.24	6.14	33.56	126	4	Average
2462	93.12	-	-	88.3	32.24	6.14	33.56	126	4	Peak
2483.5	35.3	-18.7	54	30.41	32.27	6.18	33.56	126	4	Average
2483.5	48.33	-25.67	74	43.44	32.27	6.18	33.56	126	4	Peak
8181	54.02	-19.98	74	41.25	36	10.88	34.11	100	110	Peak
8181	39.9	-14.1	54	27.13	36	10.88	34.11	100	110	Average

Test Mode :	Mode 7	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1878 MHz is not within a restricted band. 2. 2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	32.94	-7.06	40	54.83	8.96	0.68	31.53	125	98	Peak
126.66	28.4	-15.1	43.5	47.04	11.8	1.13	31.57	-	-	Peak
187.41	20.3	-23.2	43.5	41.59	8.96	1.27	31.52	-	-	Peak
374.2	26.22	-19.78	46	39.94	15.44	2.09	31.25	-	-	Peak
624.1	28.98	-17.02	46	36.87	20.25	2.76	30.9	-	-	Peak
890.1	32.25	-13.75	46	36.54	23.09	3.33	30.71	-	-	Peak
1878	55.22	-39.36	94.58	52.73	30.66	5.24	33.41	106	0	Peak
2390	71.12	-2.88	74	66.49	32.13	6.03	33.53	106	0	Peak
2390	52.8	-1.2	54	48.17	32.13	6.03	33.53	106	0	Average
2412	102.15	-	-	97.46	32.16	6.07	33.54	106	0	Average
2412	114.58	-	-	109.89	32.16	6.07	33.54	106	0	Peak
2486	60.71	-13.29	74	55.82	32.27	6.18	33.56	106	0	Peak
2486	47.56	-6.44	54	42.67	32.27	6.18	33.56	106	0	Average
8187	53.71	-20.29	74	40.94	36	10.88	34.11	100	311	Peak
8187	41.1	-12.9	54	28.33	36	10.88	34.11	100	311	Average



Test Mode :	Mode 7	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.51	-3.49	40	47.93	19.51	0.53	31.46	105	130	Peak
118.29	30.73	-12.77	43.5	49.15	12.05	1.09	31.56	-	-	Peak
167.7	29.36	-14.14	43.5	49.84	9.81	1.23	31.52	-	-	Peak
374.2	20	-26	46	33.72	15.44	2.09	31.25	-	-	Peak
598.2	29.25	-16.75	46	37.46	20.03	2.68	30.92	-	-	Peak
808.2	25.39	-20.61	46	30.63	22.29	3.16	30.69	-	-	Peak
2390	49.43	-4.57	54	44.8	32.13	6.03	33.53	104	0	Average
2390	68.98	-5.02	74	64.35	32.13	6.03	33.53	104	0	Peak
2412	96.35	-	-	91.66	32.16	6.07	33.54	104	0	Average
2412	109.17	-	-	104.46	32.19	6.07	33.55	104	0	Peak
2486	54.76	-19.24	74	49.87	32.27	6.18	33.56	104	0	Peak
2486	42.63	-11.37	54	37.74	32.27	6.18	33.56	104	0	Average
8214	53.68	-20.32	74	40.89	36	10.9	34.11	100	67	Peak
8214	40.16	-13.84	54	27.37	36	10.9	34.11	100	67	Average

Test Mode :	Mode 8	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1916 MHz is not within a restricted band. 2. 2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.06	36.86	-3.14	40	59.92	7.77	0.71	31.54	130	277	Peak
101.82	21.02	-22.48	43.5	41.04	10.52	1	31.54	-	-	Peak
250.05	30.09	-15.91	46	47.2	12.77	1.53	31.41	-	-	Peak
310.5	21.16	-24.84	46	36.95	13.74	1.79	31.32	-	-	Peak
458.2	18.41	-27.59	46	29.87	17.3	2.32	31.08	-	-	Peak
802.6	24.09	-21.91	46	29.38	22.24	3.15	30.68	-	-	Peak
1916	63.51	-33.43	96.94	60.74	30.9	5.28	33.41	100	0	Peak
2364	51.73	-2.27	54	47.18	32.08	5.99	33.52	105	2	Average
2364	64.19	-9.81	74	59.64	32.08	5.99	33.52	105	2	Peak
2437	116.94	-	-	112.16	32.22	6.11	33.55	105	2	Peak
2437	104	-	-	99.22	32.22	6.11	33.55	105	2	Average
2492	64.35	-9.65	74	59.44	32.3	6.18	33.57	105	2	Peak
2492	51.95	-2.05	54	47.04	32.3	6.18	33.57	105	2	Average
8160	53.81	-20.19	74	41.05	36	10.87	34.11	100	199	Peak
8160	40.26	-13.74	54	27.5	36	10.87	34.11	100	199	Average

Test Mode :	Mode 8	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 1916 MHz is not within a restricted band. 2. 2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
39.45	30.18	-9.82	40	47.01	14.06	0.62	31.51	109	114	Peak
92.37	25.53	-17.97	43.5	46.92	9.17	0.96	31.52	-	-	Peak
170.94	29.65	-13.85	43.5	50.34	9.6	1.23	31.52	-	-	Peak
419.7	18	-28	46	30.41	16.53	2.21	31.15	-	-	Peak
547.8	22.46	-23.54	46	31.81	19.08	2.55	30.98	-	-	Peak
814.5	25.2	-20.8	46	30.35	22.36	3.18	30.69	-	-	Peak
1916	56.05	-37.84	93.89	53.28	30.9	5.28	33.41	100	0	Peak
2388	48.83	-5.17	54	44.2	32.13	6.03	33.53	103	360	Average
2388	60.45	-13.55	74	55.82	32.13	6.03	33.53	103	360	Peak
2437	113.89	-	-	109.11	32.22	6.11	33.55	103	360	Peak
2437	100.9	-	-	96.12	32.22	6.11	33.55	103	360	Average
2494	59.87	-14.13	74	54.96	32.3	6.18	33.57	103	360	Peak
2494	46.99	-7.01	54	42.08	32.3	6.18	33.57	103	360	Average
8220	53.78	-20.22	74	40.99	36	10.9	34.11	100	123	Peak
8220	40.44	-13.56	54	27.65	36	10.9	34.11	100	123	Average

Test Mode :	Mode 9	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 1956 MHz is not within a restricted band. 2. 2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	36.5	-3.5	40	58.39	8.96	0.68	31.53	105	78	Peak
92.37	21.82	-21.68	43.5	43.21	9.17	0.96	31.52	-	-	Peak
263.82	22.25	-23.75	46	39.08	12.96	1.61	31.4	-	-	Peak
430.2	18.56	-27.44	46	30.69	16.75	2.25	31.13	-	-	Peak
624.1	28.17	-17.83	46	36.06	20.25	2.76	30.9	-	-	Peak
802.6	25.41	-20.59	46	30.7	22.24	3.15	30.68	-	-	Peak
1956	52.93	-42.22	95.15	49.84	31.14	5.35	33.4	100	0	Peak
2390	45.58	-8.42	54	40.95	32.13	6.03	33.53	100	3	Average
2390	56.44	-17.56	74	51.81	32.13	6.03	33.53	100	3	Peak
2462	115.15	-	-	110.33	32.24	6.14	33.56	100	3	Peak
2462	103.24	-	-	98.42	32.24	6.14	33.56	100	3	Average
2483.5	51.67	-2.33	54	46.78	32.27	6.18	33.56	100	3	Average
2483.5	72.57	-1.43	74	67.68	32.27	6.18	33.56	100	3	Peak
8199	54.18	-19.82	74	41.4	36	10.89	34.11	100	251	Peak
8199	40.36	-13.64	54	27.58	36	10.89	34.11	100	251	Average



Test Mode :	Mode 9	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.85	-4.15	40	47.27	19.51	0.53	31.46	110	146	Peak
92.37	25.86	-17.64	43.5	47.25	9.17	0.96	31.52	-	-	Peak
186.06	25.18	-18.32	43.5	46.46	8.97	1.27	31.52	-	-	Peak
313.3	19.97	-26.03	46	35.67	13.82	1.8	31.32	-	-	Peak
590.5	29.94	-16.06	46	38.32	19.89	2.66	30.93	-	-	Peak
797	24.55	-21.45	46	29.91	22.18	3.14	30.68	-	-	Peak
2390	59.87	-14.13	74	55.24	32.13	6.03	33.53	102	360	Peak
2390	47.79	-6.21	54	43.16	32.13	6.03	33.53	102	360	Average
2462	99.97	-	-	95.15	32.24	6.14	33.56	102	360	Average
2462	111.13	-	-	106.31	32.24	6.14	33.56	102	360	Peak
2483.5	71.74	-2.26	74	66.85	32.27	6.18	33.56	102	360	Peak
2483.5	50.65	-3.35	54	45.76	32.27	6.18	33.56	102	360	Average
8202	53.99	-20.01	74	41.21	36	10.89	34.11	100	178	Peak
8202	40.25	-13.75	54	27.47	36	10.89	34.11	100	178	Average

Test Mode :	Mode 10	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2422 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.09	28.43	-11.57	40	50.32	8.96	0.68	31.53	-	-	Peak
79.41	34.72	-5.28	40	57.89	7.48	0.88	31.53	121	194	Peak
227.37	17.64	-28.36	46	37.66	9.97	1.46	31.45	-	-	Peak
304.9	22.3	-23.7	46	38.26	13.59	1.78	31.33	-	-	Peak
530.3	20.02	-25.98	46	29.78	18.75	2.51	31.02	-	-	Peak
962.9	31.52	-22.48	54	34.49	24.13	3.47	30.57	-	-	Peak
2390	52.54	-1.46	54	47.91	32.13	6.03	33.53	102	360	Average
2390	72.67	-1.33	74	68.04	32.13	6.03	33.53	102	360	Peak
2422	95.02	-	-	90.31	32.19	6.07	33.55	102	360	Average
2422	108.84	-	-	104.15	32.16	6.07	33.54	102	360	Peak
2484	60.17	-13.83	74	55.28	32.27	6.18	33.56	102	360	Peak
2484	47.36	-6.64	54	42.47	32.27	6.18	33.56	102	360	Average
8157	53.98	-20.02	74	41.22	36	10.87	34.11	101	124	Peak
8157	40.21	-13.79	54	27.45	36	10.87	34.11	101	124	Average



Test Mode :	Mode 10	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2422 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.29	-3.71	40	47.71	19.51	0.53	31.46	107	122	Peak
121.26	30.42	-13.08	43.5	48.72	12.15	1.11	31.56	-	-	Peak
167.7	30.11	-13.39	43.5	50.59	9.81	1.23	31.52	-	-	Peak
374.2	20.31	-25.69	46	34.03	15.44	2.09	31.25	-	-	Peak
593.3	30.46	-15.54	46	38.78	19.94	2.67	30.93	-	-	Peak
825	25.93	-20.07	46	30.97	22.46	3.21	30.71	-	-	Peak
2390	48.97	-5.03	54	44.34	32.13	6.03	33.53	104	0	Average
2390	69.93	-4.07	74	65.3	32.13	6.03	33.53	104	0	Peak
2422	91.9	-	-	87.19	32.19	6.07	33.55	104	0	Average
2422	103.43	-	-	98.72	32.19	6.07	33.55	104	0	Peak
2500	53.17	-20.83	74	48.26	32.3	6.18	33.57	104	0	Peak
2500	42.04	-11.96	54	37.13	32.3	6.18	33.57	104	0	Average
8247	54.68	-19.32	74	41.88	36	10.91	34.11	100	129	Peak
8247	40.03	-13.97	54	27.23	36	10.91	34.11	100	129	Average



Test Mode :	Mode 11	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.92	-13.08	40	45.6	12.18	0.64	31.5	121	190	Peak
127.74	27.99	-15.51	43.5	46.63	11.79	1.14	31.57	-	-	Peak
257.34	23.45	-22.55	46	40.44	12.86	1.57	31.42	-	-	Peak
307.7	23.37	-22.63	46	39.24	13.67	1.79	31.33	-	-	Peak
467.3	18.84	-27.16	46	30.07	17.5	2.34	31.07	-	-	Peak
758.5	24.37	-21.63	46	30.36	21.64	3.07	30.7	-	-	Peak
2390	58.34	-15.66	74	53.71	32.13	6.03	33.53	102	360	Peak
2390	48.06	-5.94	54	43.43	32.13	6.03	33.53	102	360	Average
2452	107.57	-	-	102.75	32.24	6.14	33.56	102	360	Peak
2452	95.9	-	-	91.12	32.22	6.11	33.55	102	360	Average
2484.61	71.17	-2.83	74	66.28	32.27	6.18	33.56	102	360	Peak
2484.61	52.97	-1.03	54	48.08	32.27	6.18	33.56	102	360	Average
8169	54.16	-19.84	74	41.39	36	10.88	34.11	100	152	Peak
8169	40.12	-13.88	54	27.35	36	10.88	34.11	100	152	Average

Test Mode :	Mode 11	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.06	34.42	-5.58	40	57.48	7.77	0.71	31.54	103	178	Peak
86.97	33.4	-6.6	40	55.52	8.49	0.92	31.53	-	-	Peak
169.86	29.48	-14.02	43.5	50.1	9.67	1.23	31.52	-	-	Peak
441.4	18.66	-27.34	46	30.53	16.97	2.28	31.12	-	-	Peak
554.1	24.91	-21.09	46	34.14	19.19	2.56	30.98	-	-	Peak
624.1	32.21	-13.79	46	40.1	20.25	2.76	30.9	-	-	Peak
2390	55.09	-18.91	74	50.46	32.13	6.03	33.53	100	360	Peak
2390	42.56	-11.44	54	37.93	32.13	6.03	33.53	100	360	Average
2452	102	-	-	97.18	32.24	6.14	33.56	100	360	Peak
2452	90.58	-	-	85.8	32.22	6.11	33.55	100	360	Average
2483.66	64.18	-9.82	74	59.29	32.27	6.18	33.56	100	360	Peak
2483.66	45.78	-8.22	54	40.89	32.27	6.18	33.56	100	360	Average
8211	54.45	-19.55	74	41.67	36	10.89	34.11	100	126	Peak
8211	40.1	-13.9	54	27.32	36	10.89	34.11	100	126	Average



Test Mode :	Mode 12	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	27.92	-12.08	40	46.6	12.18	0.64	31.5	133	274	Peak
125.85	28.28	-15.22	43.5	46.92	11.8	1.13	31.57	-	-	Peak
170.94	22.62	-20.88	43.5	43.31	9.6	1.23	31.52	-	-	Peak
455.4	18.61	-27.39	46	30.13	17.26	2.31	31.09	-	-	Peak
607.3	26.26	-19.74	46	34.34	20.12	2.71	30.91	-	-	Peak
808.2	25.53	-20.47	46	30.77	22.29	3.16	30.69	-	-	Peak
2390	60.21	-13.79	74	55.58	32.13	6.03	33.53	102	360	Peak
2390	48.18	-5.82	54	43.55	32.13	6.03	33.53	102	360	Average
2452	108.86	-	-	104.04	32.24	6.14	33.56	102	360	Peak
2452	96.31	-	-	91.53	32.22	6.11	33.55	102	360	Average
2483.66	53.45	-0.55	54	48.56	32.27	6.18	33.56	102	360	Average
2483.66	71.91	-2.09	74	67.02	32.27	6.18	33.56	102	360	Peak
8478	55.96	-18.04	74	43.04	36	11	34.08	336	105	Peak
8478	42.25	-11.75	54	29.33	36	11	34.08	336	105	Average

Test Mode :	Mode 12	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	34.52	-5.48	40	56.41	8.96	0.68	31.53	110	141	Peak
119.1	30.69	-12.81	43.5	49.01	12.14	1.1	31.56	-	-	Peak
149.34	28.61	-14.89	43.5	47.71	11.25	1.21	31.56	-	-	Peak
419	18.74	-27.26	46	31.17	16.51	2.21	31.15	-	-	Peak
578.6	25.56	-20.44	46	34.21	19.67	2.63	30.95	-	-	Peak
741.7	23.8	-22.2	46	30.06	21.42	3.04	30.72	-	-	Peak
2372	58.79	-15.21	74	54.22	32.11	5.99	33.53	102	0	Peak
2372	47.1	-6.9	54	42.53	32.11	5.99	33.53	102	0	Average
2452	105.39	-	-	100.57	32.24	6.14	33.56	102	0	Peak
2452	94.11	-	-	89.33	32.22	6.11	33.55	102	0	Average
2483.5	67.77	-6.23	74	62.88	32.27	6.18	33.56	102	0	Peak
2483.5	49.64	-4.36	54	44.75	32.27	6.18	33.56	102	0	Average
8298	56.1	-17.9	74	43.27	36	10.93	34.1	102	182	Peak
8298	41.36	-12.64	54	28.53	36	10.93	34.1	102	182	Average

Test Mode :	Mode 13	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17235 MHz are not within a restricted band. 2. 5745 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.33	34.98	-5.02	40	58.04	7.77	0.71	31.54	134	221	Peak
92.37	25.18	-18.32	43.5	46.57	9.17	0.96	31.52	-	-	Peak
127.74	31.75	-11.75	43.5	50.39	11.79	1.14	31.57	-	-	Peak
310.5	22	-24	46	37.79	13.74	1.79	31.32	-	-	Peak
593.3	28.92	-17.08	46	37.24	19.94	2.67	30.93	-	-	Peak
959.4	33.47	-12.53	46	36.5	24.07	3.47	30.57	-	-	Peak
5725	77.48	-18.67	96.15	68.39	35.01	9.92	35.84	113	2	Peak
5745	116.15	-	-	107.03	35.04	9.91	35.83	113	2	Peak
5745	105.44	-	-	96.32	35.04	9.91	35.83	113	2	Average
5850	53.02	-43.13	96.15	43.74	35.18	9.87	35.77	113	2	Peak
8302	54.93	-19.07	74	42.1	36	10.93	34.1	100	331	Peak
8302	41.78	-12.22	54	28.95	36	10.93	34.1	100	331	Average
11490	55.24	-18.76	74	85.36	-9.7	13.14	33.56	120	2	Peak
11490	40.55	-13.45	54	70.67	-9.7	13.14	33.56	120	2	Average
17235	41.91	-54.24	96.15	68.51	-8.65	14.38	32.33	100	0	Peak

Test Mode :	Mode 13	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5745 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.81	-4.19	40	47.23	19.51	0.53	31.46	100	163	Peak
120.45	30.22	-13.28	43.5	48.45	12.23	1.1	31.56	-	-	Peak
180.66	26.38	-17.12	43.5	47.62	9.04	1.25	31.53	-	-	Peak
453.3	18.28	-27.72	46	29.86	17.2	2.31	31.09	-	-	Peak
596.1	29.39	-16.61	46	37.63	20	2.68	30.92	-	-	Peak
965	31.8	-22.2	54	34.73	24.16	3.48	30.57	-	-	Peak
5725	61.66	-21.07	82.73	52.57	35.01	9.92	35.84	164	58	Peak
5745	102.73	-	-	93.61	35.04	9.91	35.83	164	58	Peak
5745	92.9	-	-	83.78	35.04	9.91	35.83	164	58	Average
5850	50.33	-32.4	82.73	41.05	35.18	9.87	35.77	164	58	Peak
8354	55.27	-18.73	74	42.41	36	10.95	34.09	100	211	Peak
8354	42.03	-11.97	54	29.17	36	10.95	34.09	100	211	Average

Test Mode :	Mode 14	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17355 MHz are not within a restricted band. 2. 5785 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
43.5	28.02	-11.98	40	47.33	11.55	0.64	31.5	122	170	43.5
92.37	24.83	-18.67	43.5	46.22	9.17	0.96	31.52	-	-	92.37
127.47	31.45	-12.05	43.5	50.09	11.8	1.13	31.57	-	-	127.47
374.2	26.3	-19.7	46	40.02	15.44	2.09	31.25	-	-	374.2
500.2	27.58	-18.42	46	38.02	18.18	2.45	31.07	-	-	500.2
612.9	31.07	-14.93	46	39.08	20.17	2.73	30.91	-	-	612.9
5725	57.89	-39.67	97.56	48.8	35.01	9.92	35.84	111	0	5725
5785	117.56	-	-	108.38	35.09	9.9	35.81	111	0	5785
5785	105.42	-	-	96.24	35.09	9.9	35.81	111	0	5785
5850	53.45	-44.11	97.56	44.17	35.18	9.87	35.77	111	0	5850
8418	55.35	-18.65	74	42.47	36	10.97	34.09	100	244	8418
8418	41.99	-12.01	54	29.11	36	10.97	34.09	100	244	8418
11570	53.95	-20.05	74	84.18	-9.8	13.18	33.61	124	360	11570
11570	39.96	-14.04	54	70.2	-9.8	13.17	33.61	124	360	11570
17355	41.98	-55.58	97.56	68.56	-8.67	14.41	32.32	100	0	17355

Test Mode :	Mode 14	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5785 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.58	-3.42	40	48	19.51	0.53	31.46	104	266	Peak
108.3	29.4	-14.1	43.5	48.76	11.15	1.04	31.55	-	-	Peak
167.7	29.5	-14	43.5	49.98	9.81	1.23	31.52	-	-	Peak
452.6	18.87	-27.13	46	30.45	17.2	2.31	31.09	-	-	Peak
598.2	33.41	-12.59	46	41.62	20.03	2.68	30.92	-	-	Peak
743.8	25.7	-20.3	46	31.92	21.44	3.05	30.71	-	-	Peak
5725	51.59	-31.41	83	42.5	35.01	9.92	35.84	163	57	Peak
5785	103	-	-	93.82	35.09	9.9	35.81	163	57	Peak
5785	90.03	-	-	80.85	35.09	9.9	35.81	163	57	Average
5850	50.59	-32.41	83	41.31	35.18	9.87	35.77	163	57	Peak
8400	54.73	-19.27	74	41.86	36	10.96	34.09	100	194	Peak
8400	42.1	-11.9	54	29.23	36	10.96	34.09	100	194	Average

Test Mode :	Mode 15	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17475 MHz are not within a restricted band. 2. 5825 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.87	35.27	-4.73	40	58.53	7.57	0.71	31.54	129	220	Peak
128.01	31.34	-12.16	43.5	49.98	11.79	1.14	31.57	-	-	Peak
186.06	21.11	-22.39	43.5	42.39	8.97	1.27	31.52	-	-	Peak
396.6	33.8	-12.2	46	46.83	16.03	2.13	31.19	-	-	Peak
607.3	31.13	-14.87	46	39.21	20.12	2.71	30.91	-	-	Peak
875.4	31.45	-14.55	46	35.9	22.95	3.31	30.71	-	-	Peak
5725	61.34	-36.44	97.78	52.25	35.01	9.92	35.84	110	2	Peak
5825	117.78	-	-	108.52	35.16	9.88	35.78	110	2	Peak
5825	105.95	-	-	96.69	35.16	9.88	35.78	110	2	Average
5850	70.08	-27.7	97.78	60.8	35.18	9.87	35.77	110	2	Peak
8274	54.78	-19.22	74	41.96	36	10.92	34.1	100	319	Peak
8274	41.21	-12.79	54	28.39	36	10.92	34.1	100	319	Average
11650	59.74	-14.26	74	90.08	-9.91	13.22	33.65	120	2	Peak
11650	43.41	-10.59	54	73.75	-9.91	13.22	33.65	120	2	Average
17475	46.73	-51.05	97.78	73.27	-8.7	14.46	32.3	100	0	Peak

Test Mode :	Mode 15	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5825 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.81	35.24	-4.76	40	47.21	18.95	0.54	31.46	103	114	Peak
92.37	26.92	-16.58	43.5	48.31	9.17	0.96	31.52	-	-	Peak
167.97	29.77	-13.73	43.5	50.25	9.81	1.23	31.52	-	-	Peak
500.2	28.21	-17.79	46	38.65	18.18	2.45	31.07	-	-	Peak
624.1	32.85	-13.15	46	40.74	20.25	2.76	30.9	-	-	Peak
805.4	26.08	-19.92	46	31.34	22.27	3.15	30.68	-	-	Peak
5725	51.19	-31.66	82.85	42.1	35.01	9.92	35.84	151	58	Peak
5825	102.85	-	-	93.59	35.16	9.88	35.78	151	58	Peak
5825	90.34	-	-	81.08	35.16	9.88	35.78	151	58	Average
5850	55.01	-27.84	82.85	45.73	35.18	9.87	35.77	151	58	Peak
8328	54.85	-19.15	74	42.01	36	10.94	34.1	100	168	Peak
8328	41.75	-12.25	54	28.91	36	10.94	34.1	100	168	Average

Test Mode :	Mode 16	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17235 MHz are not within a restricted band. 2. 5745 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.06	35.4	-4.6	40	58.46	7.77	0.71	31.54	113	158	Peak
92.37	25.57	-17.93	43.5	46.96	9.17	0.96	31.52	-	-	Peak
126.93	31.05	-12.45	43.5	49.69	11.8	1.13	31.57	-	-	Peak
374.2	25.88	-20.12	46	39.6	15.44	2.09	31.25	-	-	Peak
500.2	29.33	-16.67	46	39.77	18.18	2.45	31.07	-	-	Peak
590.5	29.85	-16.15	46	38.23	19.89	2.66	30.93	-	-	Peak
5725	77.22	-19.43	96.65	68.13	35.01	9.92	35.84	107	0	Peak
5745	116.65	-	-	107.53	35.04	9.91	35.83	107	0	Peak
5745	105.79	-	-	96.67	35.04	9.91	35.83	107	0	Average
5850	52.49	-44.16	96.65	43.21	35.18	9.87	35.77	107	0	Peak
8266	54.86	-19.14	74	42.04	36	10.92	34.1	100	278	Peak
8266	41.88	-12.12	54	29.06	36	10.92	34.1	100	278	Average
11490	52.99	-21.01	74	83.11	-9.7	13.14	33.56	103	2	Peak
11490	38.69	-15.31	54	68.81	-9.7	13.14	33.56	103	2	Average
17235	42.71	-53.94	96.65	69.31	-8.65	14.38	32.33	100	0	Peak

Test Mode :	Mode 16	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5745 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.79	-3.21	40	48.21	19.51	0.53	31.46	106	224	Peak
101.82	29.38	-14.12	43.5	49.4	10.52	1	31.54	-	-	Peak
250.05	27.28	-18.72	46	44.39	12.77	1.53	31.41	-	-	Peak
374.2	21.61	-24.39	46	35.33	15.44	2.09	31.25	-	-	Peak
464.5	19.29	-26.71	46	30.6	17.44	2.33	31.08	-	-	Peak
624.1	32.72	-13.28	46	40.61	20.25	2.76	30.9	-	-	Peak
5725	74.53	-19.01	93.54	65.44	35.01	9.92	35.84	120	0	Peak
5745	113.54	-	-	104.42	35.04	9.91	35.83	120	0	Peak
5745	102.53	-	-	93.41	35.04	9.91	35.83	120	0	Average
5850	51.44	-42.1	93.54	42.16	35.18	9.87	35.77	120	0	Peak
8380	55.06	-18.94	74	42.19	36	10.96	34.09	100	182	Peak
8380	42.03	-11.97	54	29.16	36	10.96	34.09	100	182	Average
11490	47.31	-26.69	74	77.43	-9.7	13.14	33.56	100	0	Peak

Test Mode :	Mode 17	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17355 MHz are not within a restricted band. 2. 5785 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	28.31	-11.69	40	46.99	12.18	0.64	31.5	-	-	Peak
48.9	36.81	-3.19	40	58.7	8.96	0.68	31.53	100	221	Peak
126.93	31.28	-12.22	43.5	49.92	11.8	1.13	31.57	-	-	Peak
596.1	29.64	-16.36	46	37.88	20	2.68	30.92	-	-	Peak
780.9	24.69	-21.31	46	30.32	21.95	3.11	30.69	-	-	Peak
900.6	33.13	-12.87	46	37.3	23.19	3.34	30.7	-	-	Peak
5725	56.14	-39.72	95.86	47.05	35.01	9.92	35.84	101	3	Peak
5785	115.86	-	-	106.68	35.09	9.9	35.81	101	3	Peak
5785	105.51	-	-	96.33	35.09	9.9	35.81	101	3	Average
5850	53.52	-42.34	95.86	44.24	35.18	9.87	35.77	101	3	Peak
8336	54.98	-19.02	74	42.13	36	10.95	34.1	102	172	Peak
8336	41.91	-12.09	54	29.06	36	10.95	34.1	102	172	Average
11570	54.06	-19.94	74	84.26	-9.78	13.17	33.59	119	3	Peak
11570	37.65	-16.35	54	67.89	-9.8	13.17	33.61	119	3	Average
17355	43.9	-51.96	95.86	70.47	-8.67	14.42	32.32	100	0	Peak

Test Mode :	Mode 17	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5785 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.64	-3.36	40	48.06	19.51	0.53	31.46	103	138	Peak
48.9	34.34	-5.66	40	56.23	8.96	0.68	31.53	-	-	Peak
136.38	31.05	-12.45	43.5	49.7	11.72	1.19	31.56	-	-	Peak
559	24.6	-21.4	46	33.72	19.28	2.57	30.97	-	-	Peak
612.9	32.7	-13.3	46	40.71	20.17	2.73	30.91	-	-	Peak
892.9	31.46	-14.54	46	35.72	23.11	3.33	30.7	-	-	Peak
5725	55.72	-36.57	92.29	46.63	35.01	9.92	35.84	100	0	Peak
5785	112.29	-	-	103.11	35.09	9.9	35.81	100	0	Peak
5785	101.86	-	-	92.68	35.09	9.9	35.81	100	0	Average
5850	51.69	-40.6	92.29	42.41	35.18	9.87	35.77	100	0	Peak
8300	54.99	-19.01	74	42.16	36	10.93	34.1	100	108	Peak
8300	42.28	-11.72	54	29.45	36	10.93	34.1	100	108	Average
11570	46.49	-27.51	74	76.72	-9.8	13.18	33.61	100	0	Peak

Test Mode :	Mode 18	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17475 MHz are not within a restricted band. 2. 5825 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	27.05	-12.95	40	45.73	12.18	0.64	31.5	-	-	Peak
51.33	35.65	-4.35	40	58.71	7.77	0.71	31.54	100	188	Peak
126.66	31.4	-12.1	43.5	50.04	11.8	1.13	31.57	-	-	Peak
598.2	30.18	-15.82	46	38.39	20.03	2.68	30.92	-	-	Peak
875.4	31.39	-14.61	46	35.84	22.95	3.31	30.71	-	-	Peak
932.1	32.34	-13.66	46	35.88	23.66	3.42	30.62	-	-	Peak
5725	60.73	-36.69	97.42	51.64	35.01	9.92	35.84	105	0	Peak
5825	106.46	-	-	97.2	35.16	9.88	35.78	105	0	Average
5825	117.42	-	-	108.16	35.16	9.88	35.78	105	0	Peak
5850	63.92	-33.5	97.42	54.64	35.18	9.87	35.77	105	0	Peak
8276	54.5	-19.5	74	41.68	36	10.92	34.1	100	116	Peak
8276	41.51	-12.49	54	28.69	36	10.92	34.1	100	116	Average
11650	59.9	-14.1	74	90.24	-9.91	13.22	33.65	122	4	Peak
11650	42.62	-11.38	54	72.96	-9.91	13.22	33.65	122	4	Average
17475	48.52	-48.9	97.42	75.06	-8.69	14.45	32.3	100	0	Peak

Test Mode :	Mode 18	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5825 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.05	-3.95	40	47.47	19.51	0.53	31.46	100	169	Peak
48.9	35.31	-4.69	40	57.2	8.96	0.68	31.53	-	-	Peak
138.81	31.62	-11.88	43.5	50.26	11.71	1.2	31.55	-	-	Peak
374.2	20.28	-25.72	46	34	15.44	2.09	31.25	-	-	Peak
598.2	31.56	-14.44	46	39.77	20.03	2.68	30.92	-	-	Peak
831.3	26.59	-19.41	46	31.56	22.52	3.22	30.71	-	-	Peak
5725	56.96	-36.7	93.66	47.87	35.01	9.92	35.84	100	0	Peak
5825	113.66	-	-	104.4	35.16	9.88	35.78	100	0	Peak
5825	102.88	-	-	93.62	35.16	9.88	35.78	100	0	Average
5850	61.94	-31.72	93.66	52.66	35.18	9.87	35.77	100	0	Peak
8318	55.17	-18.83	74	42.33	36	10.94	34.1	100	266	Peak
8318	42.09	-11.91	54	29.25	36	10.94	34.1	100	266	Average
11650	53.53	-20.47	74	83.89	-9.92	13.22	33.66	102	360	Peak
11650	33.25	-20.75	54	63.59	-9.91	13.22	33.65	102	360	Average

Test Mode :	Mode 19	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17265 MHz are not within a restricted band. 2. 5755 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	36.2	-3.8	40	58.09	8.96	0.68	31.53	100	307	Peak
129.9	31.2	-12.3	43.5	49.85	11.77	1.15	31.57	-	-	Peak
170.13	28.77	-14.73	43.5	49.39	9.67	1.23	31.52	-	-	Peak
609.4	31.55	-14.45	46	39.6	20.14	2.72	30.91	-	-	Peak
892.2	32.91	-13.09	46	37.17	23.11	3.33	30.7	-	-	Peak
931.4	33.74	-12.26	46	37.29	23.65	3.42	30.62	-	-	Peak
5725	82.66	-11.19	93.85	73.57	35.01	9.92	35.84	105	0	Peak
5755	113.85	-	-	104.7	35.06	9.91	35.82	105	0	Peak
5755	102.34	-	-	93.19	35.06	9.91	35.82	105	0	Average
5850	54.2	-39.65	93.85	44.92	35.18	9.87	35.77	105	0	Peak
8196	54.04	-19.96	74	41.26	36	10.89	34.11	100	258	Peak
8196	40.67	-13.33	54	27.89	36	10.89	34.11	100	258	Average
11510	52.63	-21.37	74	82.75	-9.7	13.14	33.56	121	3	Peak
11510	36.02	-17.98	54	66.15	-9.71	13.14	33.56	121	3	Average
17265	40.92	-52.93	93.85	67.51	-8.65	14.39	32.33	100	0	Peak

Test Mode :	Mode 19	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5755 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30.54	35.56	-4.44	40	47.53	18.95	0.54	31.46	100	277	Peak
48.9	33.76	-6.24	40	55.65	8.96	0.68	31.53	-	-	Peak
139.89	31.05	-12.45	43.5	49.7	11.7	1.2	31.55	-	-	Peak
598.2	29.48	-16.52	46	37.69	20.03	2.68	30.92	-	-	Peak
624.1	33.74	-12.26	46	41.63	20.25	2.76	30.9	-	-	Peak
951.7	31.85	-14.15	46	35	23.96	3.46	30.57	-	-	Peak
5725	79.07	-10.98	90.05	69.98	35.01	9.92	35.84	100	0	Peak
5755	110.05	-	-	100.9	35.06	9.91	35.82	100	0	Peak
5755	98.31	-	-	89.16	35.06	9.91	35.82	100	0	Average
5850	52.27	-37.78	90.05	42.99	35.18	9.87	35.77	100	0	Peak
8256	54.07	-19.93	74	41.26	36	10.91	34.1	100	334	Peak
8256	41.37	-12.63	54	28.56	36	10.91	34.1	100	334	Average
11510	44.6	-29.4	74	74.72	-9.7	13.14	33.56	100	0	Peak

Test Mode :	Mode 20	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5795 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.89	26.68	-13.32	40	39.19	18.4	0.55	31.46	-	-	Peak
48.9	36.85	-3.15	40	58.74	8.96	0.68	31.53	100	262	Peak
127.74	31.39	-12.11	43.5	50.03	11.79	1.14	31.57	-	-	Peak
374.2	26.62	-19.38	46	40.34	15.44	2.09	31.25	-	-	Peak
610.1	33.17	-12.83	46	41.22	20.14	2.72	30.91	-	-	Peak
895	32.11	-13.89	46	36.35	23.13	3.33	30.7	-	-	Peak
5725	58.53	-33.66	92.19	49.44	35.01	9.92	35.84	103	0	Peak
5795	112.19	-	-	102.99	35.11	9.89	35.8	103	0	Peak
5795	100.59	-	-	91.39	35.11	9.89	35.8	103	0	Average
5850	54.57	-37.62	92.19	45.29	35.18	9.87	35.77	103	0	Peak
8374	54.56	-19.44	74	41.7	36	10.95	34.09	100	84	Peak
8374	41.15	-12.85	54	28.29	36	10.95	34.09	100	84	Average
11590	49.85	-24.15	74	80.12	-9.83	13.18	33.62	100	0	Peak

Test Mode :	Mode 20	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5795 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.1	-3.9	40	47.52	19.51	0.53	31.46	102	78	Peak
48.9	33.7	-6.3	40	55.59	8.96	0.68	31.53	-	-	Peak
119.37	30.24	-13.26	43.5	48.56	12.14	1.1	31.56	-	-	Peak
500.2	29.71	-16.29	46	40.15	18.18	2.45	31.07	-	-	Peak
624.1	33.28	-12.72	46	41.17	20.25	2.76	30.9	-	-	Peak
897.8	31.29	-14.71	46	35.49	23.16	3.34	30.7	-	-	Peak
5725	56.4	-32.76	89.16	47.31	35.01	9.92	35.84	119	0	Peak
5795	109.16	-	-	99.96	35.11	9.89	35.8	119	0	Peak
5795	98.75	-	-	89.55	35.11	9.89	35.8	119	0	Average
5850	53.21	-35.95	89.16	43.93	35.18	9.87	35.77	119	0	Peak
8354	55.51	-18.49	74	42.65	36	10.95	34.09	100	62	Peak
8354	42.02	-11.98	54	29.16	36	10.95	34.09	100	62	Average
11590	43.63	-30.37	74	73.9	-9.83	13.18	33.62	100	0	Peak

Test Mode :	Mode 21	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17265 MHz are not within a restricted band. 2. 5755 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
48.9	35.76	-4.24	40	57.65	8.96	0.68	31.53	-	-	Peak
52.14	36.4	-3.6	40	59.66	7.57	0.71	31.54	100	294	Peak
132.06	31.21	-12.29	43.5	49.86	11.76	1.16	31.57	-	-	Peak
598.2	31.34	-14.66	46	39.55	20.03	2.68	30.92	-	-	Peak
612.9	30.07	-15.93	46	38.08	20.17	2.73	30.91	-	-	Peak
895	32.34	-13.66	46	36.58	23.13	3.33	30.7	-	-	Peak
5725	86.31	-9.63	95.94	77.22	35.01	9.92	35.84	133	360	Peak
5755	106.35	-	-	97.2	35.06	9.91	35.82	133	360	Average
5755	115.94	-	-	106.82	35.04	9.91	35.83	133	360	Peak
5850	56.36	-39.58	95.94	47.08	35.18	9.87	35.77	133	360	Peak
8458	54.75	-19.25	74	41.84	36	10.99	34.08	100	151	Peak
8458	41.24	-12.76	54	28.33	36	10.99	34.08	100	151	Average
11510	57.41	-16.59	74	87.53	-9.7	13.14	33.56	125	360	Peak
11510	39.03	-14.97	54	69.16	-9.71	13.14	33.56	125	360	Average
17265	46.17	-49.77	95.94	72.77	-8.66	14.39	32.33	100	0	Peak

Test Mode :	Mode 21	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5755 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.56	-4.44	40	46.98	19.51	0.53	31.46	100	331	Peak
48.9	34.26	-5.74	40	56.15	8.96	0.68	31.53	-	-	Peak
133.14	31.46	-12.04	43.5	50.11	11.75	1.16	31.56	-	-	Peak
545	23.56	-22.44	46	32.99	19.02	2.54	30.99	-	-	Peak
624.1	32.54	-13.46	46	40.43	20.25	2.76	30.9	-	-	Peak
934.9	30.89	-15.11	46	34.37	23.71	3.42	30.61	-	-	Peak
5725	82.89	-9.4	92.29	73.8	35.01	9.92	35.84	132	360	Peak
5755	101.26	-	-	92.11	35.06	9.91	35.82	132	360	Average
5755	112.29	-	-	103.17	35.04	9.91	35.83	132	360	Peak
5850	53.11	-39.18	92.29	43.83	35.18	9.87	35.77	132	360	Peak
8364	54.39	-19.61	74	41.53	36	10.95	34.09	100	144	Peak
8364	41.46	-12.54	54	28.6	36	10.95	34.09	100	144	Average
11510	49.9	-24.1	74	80.06	-9.73	13.14	33.57	100	0	Peak



Test Mode :	Mode 22	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
51.33	35.86	-4.14	40	58.92	7.77	0.71	31.54	100	264	Peak
126.93	30.98	-12.52	43.5	49.62	11.8	1.13	31.57	-	-	Peak
250.05	29.27	-16.73	46	46.38	12.77	1.53	31.41	-	-	Peak
500.2	28	-18	46	38.44	18.18	2.45	31.07	-	-	Peak
609.4	31.3	-14.7	46	39.35	20.14	2.72	30.91	-	-	Peak
875.4	32.21	-13.79	46	36.66	22.95	3.31	30.71	-	-	Peak
2374	61.82	-12.18	74	57.25	32.11	5.99	33.53	103	0	Peak
2374	48.81	-5.19	54	44.24	32.11	5.99	33.53	103	0	Average
2452	98.75	-	-	93.97	32.22	6.11	33.55	103	0	Average
2452	112.08	-	-	107.3	32.22	6.11	33.55	103	0	Peak
2483.5	71.67	-2.33	74	66.78	32.27	6.18	33.56	103	0	Peak
2483.5	53.43	-0.57	54	48.54	32.27	6.18	33.56	103	0	Average
8301	55.76	-18.24	74	42.93	36	10.93	34.1	100	108	Peak
8301	40.93	-13.07	54	28.1	36	10.93	34.1	100	108	Average

Test Mode :	Mode 22	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.79	-4.21	40	47.21	19.51	0.53	31.46	100	146	Peak
52.41	29.55	-10.45	40	52.81	7.57	0.71	31.54	-	-	Peak
137.46	31.71	-11.79	43.5	50.36	11.71	1.19	31.55	-	-	Peak
587.7	30.96	-15.04	46	39.41	19.83	2.65	30.93	-	-	Peak
615	32.55	-13.45	46	40.55	20.18	2.73	30.91	-	-	Peak
959.4	32.42	-13.58	46	35.45	24.07	3.47	30.57	-	-	Peak
2374	60.72	-13.28	74	56.15	32.11	5.99	33.53	102	359	Peak
2374	48.52	-5.48	54	43.95	32.11	5.99	33.53	102	359	Average
2452	107.79	-	-	103.01	32.22	6.11	33.55	102	359	Peak
2452	96.65	-	-	91.87	32.22	6.11	33.55	102	359	Average
2483.5	67.95	-6.05	74	63.06	32.27	6.18	33.56	102	359	Peak
2483.5	51.08	-2.92	54	46.19	32.27	6.18	33.56	102	359	Average
8436	55.23	-18.77	74	42.34	36	10.98	34.09	100	58	Peak
8436	41.64	-12.36	54	28.75	36	10.98	34.09	100	58	Average

Test Mode :	Mode 23	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	1. 5725 MHz, 5850 MHz and 17265 MHz are not within a restricted band. 2. 5755 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
50.25	35.27	-4.73	40	58.13	7.98	0.7	31.54	100	135	Peak
128.82	31.01	-12.49	43.5	49.66	11.78	1.14	31.57	-	-	Peak
250.05	29.55	-16.45	46	46.66	12.77	1.53	31.41	-	-	Peak
607.3	32.2	-13.8	46	40.28	20.12	2.71	30.91	-	-	Peak
898.5	33.08	-12.92	46	37.28	23.16	3.34	30.7	-	-	Peak
934.2	31.6	-14.4	46	35.1	23.69	3.42	30.61	-	-	Peak
5725	88.42	-10.46	98.88	79.33	35.01	9.92	35.84	123	0	Peak
5755	118.88	-	-	109.73	35.06	9.91	35.82	123	0	Peak
5755	106.73	-	-	97.58	35.06	9.91	35.82	123	0	Average
5850	62.27	-36.61	98.88	52.99	35.18	9.87	35.77	123	0	Peak
8298	55.46	-18.54	74	42.63	36	10.93	34.1	100	267	Peak
8298	41.82	-12.18	54	28.99	36	10.93	34.1	100	267	Average
11510	56.41	-17.59	74	86.54	-9.71	13.14	33.56	128	0	Peak
11510	42.03	-11.97	54	72.16	-9.71	13.14	33.56	128	0	Average
17265	48.75	-50.13	98.88	75.34	-8.65	14.39	32.33	100	0	Peak

Test Mode :	Mode 23	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	1. 5725 MHz and 5850 MHz are not within a restricted band. 2. 5755 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	34.74	-5.26	40	46.16	19.51	0.53	31.46	102	115	Peak
52.14	29.48	-10.52	40	52.74	7.57	0.71	31.54	-	-	Peak
138.54	30.03	-13.47	43.5	48.67	11.71	1.2	31.55	-	-	Peak
624.1	32.12	-13.88	46	40.01	20.25	2.76	30.9	-	-	Peak
898.5	32.51	-13.49	46	36.71	23.16	3.34	30.7	-	-	Peak
954.5	32.96	-13.04	46	36.07	24	3.46	30.57	-	-	Peak
5725	84.39	-10.37	94.76	75.3	35.01	9.92	35.84	138	351	Peak
5755	114.76	-	-	105.61	35.06	9.91	35.82	138	351	Peak
5755	102.81	-	-	93.66	35.06	9.91	35.82	138	351	Average
5850	61.56	-33.2	94.76	52.28	35.18	9.87	35.77	138	351	Peak
8362	55.59	-18.41	74	42.73	36	10.95	34.09	100	263	Peak
8362	42.32	-11.68	54	29.46	36	10.95	34.09	100	263	Average
11510	47.96	-26.04	74	78.09	-9.71	13.14	33.56	100	0	Peak



Test Mode :	Mode 24	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.62	24.8	-15.2	40	37.31	18.4	0.55	31.46	-	-	Peak
42.69	26.6	-13.4	40	45.28	12.18	0.64	31.5	-	-	Peak
119.37	28.15	-15.35	43.5	46.47	12.14	1.1	31.56	-	-	Peak
609.4	27.57	-18.43	46	35.62	20.14	2.72	30.91	-	-	Peak
764.1	25.8	-20.2	46	31.69	21.72	3.08	30.69	-	-	Peak
897.8	33.54	-12.46	46	37.74	23.16	3.34	30.7	100	148	Peak
2389.42	34.92	-19.08	54	30.24	32.18	6.03	33.53	120	242	Average
2389.42	47.17	-26.83	74	42.49	32.18	6.03	33.53	120	242	Peak
2412	99.45	-	-	94.72	32.2	6.07	33.54	120	242	Peak
2412	98.27	-	-	93.54	32.2	6.07	33.54	120	242	Average
2492	35.74	-18.26	54	30.83	32.3	6.18	33.57	120	242	Average
2492	47.86	-26.14	74	42.95	32.3	6.18	33.57	120	242	Peak
8097	55.48	-18.52	74	43.22	35.52	10.86	34.12	100	288	Peak
8097	40.48	-13.52	54	28.22	35.52	10.86	34.12	100	288	Average



Test Mode :	Mode 24	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.51	-4.49	40	46.93	19.51	0.53	31.46	144	314	Peak
119.1	33.3	-10.2	43.5	51.62	12.14	1.1	31.56	-	-	Peak
139.89	28.15	-15.35	43.5	46.8	11.7	1.2	31.55	-	-	Peak
609.4	28.74	-17.26	46	36.79	20.14	2.72	30.91	-	-	Peak
749.4	23.91	-22.09	46	30.03	21.52	3.06	30.7	-	-	Peak
931.4	30.18	-15.82	46	33.73	23.65	3.42	30.62	-	-	Peak
2389.61	59.96	-14.04	74	55.28	32.18	6.03	33.53	116	195	Peak
2389.61	47.51	-6.49	54	42.83	32.18	6.03	33.53	116	195	Average
2412	112.05	-	-	107.32	32.2	6.07	33.54	116	195	Peak
2412	111.22	-	-	106.49	32.2	6.07	33.54	116	195	Average
2484	46.98	-7.02	54	42.08	32.28	6.18	33.56	116	195	Average
2484	56.03	-17.97	74	51.13	32.28	6.18	33.56	116	195	Peak
8262	55.4	-18.6	74	43.03	35.55	10.92	34.1	105	84	Peak
8262	40.82	-13.18	54	28.45	35.55	10.92	34.1	105	84	Average

Test Mode :	Mode 25	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.38	-13.62	40	45.06	12.18	0.64	31.5	124	351	Peak
128.82	29.14	-14.36	43.5	47.79	11.78	1.14	31.57	-	-	Peak
170.13	19.19	-24.31	43.5	39.81	9.67	1.23	31.52	-	-	Peak
623.4	27.07	-18.93	46	34.96	20.25	2.76	30.9	-	-	Peak
898.5	32.01	-13.99	46	36.21	23.16	3.34	30.7	-	-	Peak
931.4	32.15	-13.85	46	35.7	23.65	3.42	30.62	-	-	Peak
2332	46.99	-27.01	74	42.46	32.09	5.95	33.51	100	224	Peak
2332	39.53	-14.47	54	35	32.09	5.95	33.51	100	224	Average
2437	97.97	-	-	93.17	32.24	6.11	33.55	100	224	Peak
2437	96.18	-	-	91.38	32.24	6.11	33.55	100	224	Average
2486	47.57	-26.43	74	42.67	32.28	6.18	33.56	100	224	Peak
2486	39.6	-14.4	54	34.7	32.28	6.18	33.56	100	224	Average
8241	55.36	-18.64	74	43.01	35.55	10.91	34.11	100	114	Peak
8241	40.23	-13.77	54	27.88	35.55	10.91	34.11	100	114	Average

Test Mode :	Mode 25	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.78	-4.22	40	47.2	19.51	0.53	31.46	100	275	Peak
119.1	33.7	-9.8	43.5	52.02	12.14	1.1	31.56	-	-	Peak
140.7	27.82	-15.68	43.5	46.52	11.65	1.2	31.55	-	-	Peak
609.4	28.81	-17.19	46	36.86	20.14	2.72	30.91	-	-	Peak
690.6	23.77	-22.23	46	30.91	20.77	2.92	30.83	-	-	Peak
931.4	29.96	-16.04	46	33.51	23.65	3.42	30.62	-	-	Peak
2382	55.58	-18.42	74	50.92	32.16	6.03	33.53	114	197	Peak
2382	46.04	-7.96	54	41.38	32.16	6.03	33.53	114	197	Average
2437	113.34	-	-	108.54	32.24	6.11	33.55	114	197	Peak
2437	112.67	-	-	107.87	32.24	6.11	33.55	114	197	Average
2492	56.79	-17.21	74	51.88	32.3	6.18	33.57	114	197	Peak
2492	46.62	-7.38	54	41.71	32.3	6.18	33.57	114	197	Average
8277	55.64	-18.36	74	43.26	35.56	10.92	34.1	100	206	Peak
8277	40.52	-13.48	54	28.14	35.56	10.92	34.1	100	206	Average

Test Mode :	Mode 26	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.63	-13.37	40	45.31	12.18	0.64	31.5	-	-	Peak
130.17	28.9	-14.6	43.5	47.55	11.77	1.15	31.57	-	-	Peak
266.25	18.92	-27.08	46	35.69	13	1.62	31.39	-	-	Peak
615	26.36	-19.64	46	34.36	20.18	2.73	30.91	-	-	Peak
820.1	26.31	-19.69	46	31.4	22.42	3.19	30.7	-	-	Peak
931.4	33.49	-12.51	46	37.04	23.65	3.42	30.62	110	289	Peak
2372	34.06	-19.94	54	29.44	32.16	5.99	33.53	186	223	Average
2372	47.22	-26.78	74	42.6	32.16	5.99	33.53	186	223	Peak
2462	98.7	-	-	93.86	32.26	6.14	33.56	186	223	Peak
2462	97.17	-	-	92.33	32.26	6.14	33.56	186	223	Average
2497.34	47.71	-26.29	74	42.8	32.3	6.18	33.57	186	223	Peak
2497.34	35.11	-18.89	54	30.2	32.3	6.18	33.57	186	223	Average
8190	54.92	-19.08	74	42.6	35.54	10.89	34.11	112	217	Peak
8190	39.93	-14.07	54	27.61	35.54	10.89	34.11	112	217	Average



Test Mode :	Mode 26	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.41	-4.59	40	46.83	19.51	0.53	31.46	113	260	Peak
119.1	33.2	-10.3	43.5	51.52	12.14	1.1	31.56	-	-	Peak
141.78	27.54	-15.96	43.5	46.28	11.61	1.2	31.55	-	-	Peak
598.2	28.77	-17.23	46	36.98	20.03	2.68	30.92	-	-	Peak
738.2	24.44	-21.56	46	30.78	21.36	3.03	30.73	-	-	Peak
942.6	30.78	-15.22	46	34.1	23.83	3.44	30.59	-	-	Peak
2390	56.36	-17.64	74	51.68	32.18	6.03	33.53	114	195	Peak
2390	45.7	-8.3	54	41.02	32.18	6.03	33.53	114	195	Average
2462	113.88	-	-	109.04	32.26	6.14	33.56	114	195	Peak
2462	112.26	-	-	107.42	32.26	6.14	33.56	114	195	Average
2483.85	61.64	-12.36	74	56.74	32.28	6.18	33.56	114	195	Peak
2483.85	48.89	-5.11	54	43.99	32.28	6.18	33.56	114	195	Average
8253	55.79	-18.21	74	43.43	35.55	10.91	34.1	100	94	Peak
8253	40.8	-13.2	54	28.44	35.55	10.91	34.1	100	94	Average

Test Mode :	Mode 27	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.23	-13.77	40	44.91	12.18	0.64	31.5	-	-	Peak
93.18	23.41	-20.09	43.5	44.66	9.32	0.96	31.53	-	-	Peak
120.45	28.05	-15.45	43.5	46.28	12.23	1.1	31.56	-	-	Peak
612.2	27.14	-18.86	46	35.16	20.16	2.73	30.91	-	-	Peak
803.3	26.39	-19.61	46	31.67	22.25	3.15	30.68	-	-	Peak
897.8	33.8	-12.2	46	38	23.16	3.34	30.7	102	194	Peak
2389.99	57.75	-16.25	74	53.07	32.18	6.03	33.53	120	242	Peak
2389.99	39.71	-14.29	54	35.03	32.18	6.03	33.53	120	242	Average
2412	102.21	-	-	97.48	32.2	6.07	33.54	120	242	Peak
2412	89.45	-	-	84.72	32.2	6.07	33.54	120	242	Average
2484	36.24	-17.76	54	31.34	32.28	6.18	33.56	120	242	Average
2484	49.23	-24.77	74	44.33	32.28	6.18	33.56	120	242	Peak
8058	55.35	-18.65	74	43.12	35.51	10.84	34.12	100	129	Peak
8058	40.58	-13.42	54	28.35	35.51	10.84	34.12	100	129	Average



Test Mode :	Mode 27	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.58	-4.42	40	47	19.51	0.53	31.46	116	338	Peak
40.53	30.91	-9.09	40	48.36	13.43	0.63	31.51	-	-	Peak
113.7	30.67	-12.83	43.5	49.55	11.6	1.07	31.55	-	-	Peak
609.4	30.23	-15.77	46	38.28	20.14	2.72	30.91	-	-	Peak
808.9	24.66	-21.34	46	29.89	22.3	3.16	30.69	-	-	Peak
940.5	30.1	-15.9	46	33.45	23.8	3.44	30.59	-	-	Peak
2389.99	69.92	-4.08	74	65.24	32.18	6.03	33.53	106	199	Peak
2389.99	50.13	-3.87	54	45.45	32.18	6.03	33.53	106	199	Average
2412	99.18	-	-	94.45	32.2	6.07	33.54	106	199	Average
2412	112.39	-	-	107.66	32.2	6.07	33.54	106	199	Peak
2486	47.9	-6.1	54	43	32.28	6.18	33.56	106	199	Average
2486	57.35	-16.65	74	52.45	32.28	6.18	33.56	106	199	Peak
8301	55.59	-18.41	74	43.2	35.56	10.93	34.1	101	124	Peak
8301	41.01	-12.99	54	28.62	35.56	10.93	34.1	101	124	Average

Test Mode :	Mode 28	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.41	-13.59	40	45.09	12.18	0.64	31.5	-	-	Peak
101.82	23.68	-19.82	43.5	43.7	10.52	1	31.54	-	-	Peak
129.9	28.59	-14.91	43.5	47.24	11.77	1.15	31.57	-	-	Peak
610.1	26.36	-19.64	46	34.41	20.14	2.72	30.91	-	-	Peak
895.7	32.06	-13.94	46	36.3	23.13	3.33	30.7	-	-	Peak
928.6	32.89	-13.11	46	36.5	23.61	3.41	30.63	109	200	Peak
2380	48.94	-25.06	74	44.28	32.16	6.03	33.53	100	158	Peak
2380	37.16	-16.84	54	32.5	32.16	6.03	33.53	100	158	Average
2437	101.35	-	-	96.55	32.24	6.11	33.55	100	158	Peak
2437	89.9	-	-	85.1	32.24	6.11	33.55	100	158	Average
2494	48.88	-25.12	74	43.97	32.3	6.18	33.57	100	158	Peak
2494	36.35	-17.65	54	31.44	32.3	6.18	33.57	100	158	Average
8238	55.2	-18.8	74	42.85	35.55	10.91	34.11	100	251	Peak
8238	39.94	-14.06	54	27.59	35.55	10.91	34.11	100	251	Average

Test Mode :	Mode 28	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	36.3	-3.7	40	47.72	19.51	0.53	31.46	126	280	Peak
40.53	32	-8	40	49.45	13.43	0.63	31.51	-	-	Peak
119.1	32.92	-10.58	43.5	51.24	12.14	1.1	31.56	-	-	Peak
592.6	28.53	-17.47	46	36.87	19.92	2.67	30.93	-	-	Peak
609.4	28.67	-17.33	46	36.72	20.14	2.72	30.91	-	-	Peak
962.9	31.45	-22.55	54	34.42	24.13	3.47	30.57	-	-	Peak
2374	63.96	-10.04	74	59.34	32.16	5.99	33.53	162	208	Peak
2374	50.16	-3.84	54	45.54	32.16	5.99	33.53	162	208	Average
2437	117.02	-	-	112.22	32.24	6.11	33.55	162	208	Peak
2437	104.8	-	-	100	32.24	6.11	33.55	162	208	Average
2484	64.44	-9.56	74	59.54	32.28	6.18	33.56	162	208	Peak
2484	50.59	-3.41	54	45.69	32.28	6.18	33.56	162	208	Average
8310	55.42	-18.58	74	43.02	35.56	10.94	34.1	100	188	Peak
8310	41.06	-12.94	54	28.66	35.56	10.94	34.1	100	188	Average

Test Mode :	Mode 29	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
31.62	24.87	-15.13	40	37.38	18.4	0.55	31.46	-	-	Peak
42.42	26.24	-13.76	40	44.92	12.18	0.64	31.5	-	-	Peak
129.09	29.05	-14.45	43.5	47.7	11.78	1.14	31.57	-	-	Peak
609.4	27.3	-18.7	46	35.35	20.14	2.72	30.91	-	-	Peak
897.8	31.4	-14.6	46	35.6	23.16	3.34	30.7	-	-	Peak
931.4	33.73	-12.27	46	37.28	23.65	3.42	30.62	100	299	Peak
2374	47.36	-26.64	74	42.74	32.16	5.99	33.53	147	238	Peak
2374	34.07	-19.93	54	29.45	32.16	5.99	33.53	147	238	Average
2462	95.94	-	-	91.1	32.26	6.14	33.56	147	238	Peak
2462	86.48	-	-	81.64	32.26	6.14	33.56	147	238	Average
2483.66	50.79	-23.21	74	45.89	32.28	6.18	33.56	147	238	Peak
2483.66	35.97	-18.03	54	31.07	32.28	6.18	33.56	147	238	Average
8214	55.07	-18.93	74	42.74	35.54	10.9	34.11	100	169	Peak
8214	40.33	-13.67	54	28	35.54	10.9	34.11	100	169	Average

Test Mode :	Mode 29	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.85	-4.15	40	47.27	19.51	0.53	31.46	133	211	Peak
40.53	30.95	-9.05	40	48.4	13.43	0.63	31.51	-	-	Peak
119.37	33.17	-10.33	43.5	51.49	12.14	1.1	31.56	-	-	Peak
598.2	29.18	-16.82	46	37.39	20.03	2.68	30.92	-	-	Peak
931.4	30.9	-15.1	46	34.45	23.65	3.42	30.62	-	-	Peak
965	31.03	-22.97	54	33.96	24.16	3.48	30.57	-	-	Peak
2316	55.8	-18.2	74	51.32	32.07	5.92	33.51	114	196	Peak
2316	44.02	-9.98	54	39.54	32.07	5.92	33.51	114	196	Average
2462	112.32	-	-	107.48	32.26	6.14	33.56	114	196	Peak
2462	101.97	-	-	97.13	32.26	6.14	33.56	114	196	Average
2483.5	69.89	-4.11	74	64.99	32.28	6.18	33.56	114	196	Peak
2483.5	50.15	-3.85	54	45.25	32.28	6.18	33.56	114	196	Average
8298	55.04	-18.96	74	42.65	35.56	10.93	34.1	100	277	Peak
8298	40.5	-13.5	54	28.11	35.56	10.93	34.1	100	277	Average



Test Mode :	Mode 30	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	24.64	-15.36	40	36.06	19.51	0.53	31.46	-	-	Peak
42.69	26.63	-13.37	40	45.31	12.18	0.64	31.5	106	327	Peak
126.66	28.77	-14.73	43.5	47.41	11.8	1.13	31.57	-	-	Peak
615.7	28.04	-17.96	46	36.01	20.19	2.74	30.9	-	-	Peak
764.1	26.11	-19.89	46	32	21.72	3.08	30.69	-	-	Peak
960.1	32.43	-21.57	54	35.44	24.09	3.47	30.57	-	-	Peak
2389.99	50.49	-23.51	74	45.81	32.18	6.03	33.53	173	251	Peak
2389.99	35.85	-18.15	54	31.17	32.18	6.03	33.53	173	251	Average
2412	100.07	-	-	95.34	32.2	6.07	33.54	173	251	Peak
2412	87.82	-	-	83.09	32.2	6.07	33.54	173	251	Average
2484	35.52	-18.48	54	30.62	32.28	6.18	33.56	173	251	Average
2484	47.12	-26.88	74	42.22	32.28	6.18	33.56	173	251	Peak
8229	54.47	-19.53	74	42.14	35.54	10.9	34.11	106	195	Peak
8229	40.24	-13.76	54	27.91	35.54	10.9	34.11	106	195	Average



Test Mode :	Mode 30	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2412 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.64	-4.36	40	47.06	19.51	0.53	31.46	100	263	Peak
40.53	32.03	-7.97	40	49.48	13.43	0.63	31.51	-	-	Peak
119.1	33.42	-10.08	43.5	51.74	12.14	1.1	31.56	-	-	Peak
610.1	28.83	-17.17	46	36.88	20.14	2.72	30.91	-	-	Peak
766.2	24.34	-21.66	46	30.19	21.75	3.09	30.69	-	-	Peak
931.4	30.91	-15.09	46	34.46	23.65	3.42	30.62	-	-	Peak
2389.99	72.78	-1.22	74	68.1	32.18	6.03	33.53	177	188	Peak
2389.99	51.43	-2.57	54	46.75	32.18	6.03	33.53	177	188	Average
2412	103.3	-	-	98.57	32.2	6.07	33.54	177	188	Average
2412	116.65	-	-	111.92	32.2	6.07	33.54	177	188	Peak
2484	47.66	-6.34	54	42.76	32.28	6.18	33.56	177	188	Average
2484	60.46	-13.54	74	55.56	32.28	6.18	33.56	177	188	Peak
8325	56.12	-17.88	74	43.71	35.57	10.94	34.1	105	223	Peak
8325	40.73	-13.27	54	28.32	35.57	10.94	34.1	105	223	Average

Test Mode :	Mode 31	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.63	-13.37	40	45.31	12.18	0.64	31.5	100	96	Peak
101.01	23.01	-20.49	43.5	43.12	10.43	1	31.54	-	-	Peak
126.66	28.74	-14.76	43.5	47.38	11.8	1.13	31.57	-	-	Peak
475	20.66	-25.34	46	31.69	17.66	2.37	31.06	-	-	Peak
617.8	26.28	-19.72	46	34.24	20.2	2.74	30.9	-	-	Peak
912.5	32.05	-13.95	46	35.98	23.37	3.37	30.67	-	-	Peak
2364	47.64	-26.36	74	43.04	32.13	5.99	33.52	164	250	Peak
2364	35.31	-18.69	54	30.71	32.13	5.99	33.52	164	250	Average
2437	104.35	-	-	99.55	32.24	6.11	33.55	164	250	Peak
2437	91.7	-	-	86.9	32.24	6.11	33.55	164	250	Average
2484	50.46	-23.54	74	45.56	32.28	6.18	33.56	164	250	Peak
2484	38.24	-15.76	54	33.34	32.28	6.18	33.56	164	250	Average
8265	54.7	-19.3	74	42.33	35.55	10.92	34.1	100	291	Peak
8265	39.92	-14.08	54	27.55	35.55	10.92	34.1	100	291	Average

Test Mode :	Mode 31	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2437 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.61	-4.39	40	47.03	19.51	0.53	31.46	121	137	Peak
46.74	30.5	-9.5	40	51.4	9.94	0.67	31.51	-	-	Peak
119.1	33.12	-10.38	43.5	51.44	12.14	1.1	31.56	-	-	Peak
561.8	23.24	-22.76	46	32.29	19.34	2.58	30.97	-	-	Peak
598.2	28.54	-17.46	46	36.75	20.03	2.68	30.92	-	-	Peak
895	29.78	-16.22	46	34.02	23.13	3.33	30.7	-	-	Peak
2390	64.65	-9.35	74	59.97	32.18	6.03	33.53	172	193	Peak
2390	52.31	-1.69	54	47.63	32.18	6.03	33.53	172	193	Average
2437	121.42	-	-	116.62	32.24	6.11	33.55	172	193	Peak
2437	109.59	-	-	104.79	32.24	6.11	33.55	172	193	Average
2492	62.83	-11.17	74	57.92	32.3	6.18	33.57	172	193	Peak
2492	50.96	-3.04	54	46.05	32.3	6.18	33.57	172	193	Average
8334	55.6	-18.4	74	43.18	35.57	10.95	34.1	100	118	Peak
8334	40.84	-13.16	54	28.42	35.57	10.95	34.1	100	118	Average

Test Mode :	Mode 32	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.25	-13.75	40	44.93	12.18	0.64	31.5	-	-	Peak
129.9	28.97	-14.53	43.5	47.62	11.77	1.15	31.57	-	-	Peak
257.34	18.97	-27.03	46	35.96	12.86	1.57	31.42	-	-	Peak
500.2	22.05	-23.95	46	32.49	18.18	2.45	31.07	-	-	Peak
620.6	27.69	-18.31	46	35.61	20.23	2.75	30.9	-	-	Peak
898.5	32.63	-13.37	46	36.83	23.16	3.34	30.7	107	182	Peak
2350	49.19	-24.81	74	44.65	32.11	5.95	33.52	160	252	Peak
2350	34.24	-19.76	54	29.7	32.11	5.95	33.52	160	252	Average
2462	102.47	-	-	97.63	32.26	6.14	33.56	160	252	Peak
2462	89.18	-	-	84.34	32.26	6.14	33.56	160	252	Average
2483.85	55.7	-18.3	74	50.8	32.28	6.18	33.56	160	252	Peak
2483.85	36.82	-17.18	54	31.92	32.28	6.18	33.56	160	252	Average
8289	56.04	-17.96	74	43.65	35.56	10.93	34.1	100	318	Peak
8289	41.27	-12.73	54	28.88	35.56	10.93	34.1	100	318	Average

Test Mode :	Mode 32	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2462 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.68	-4.32	40	47.1	19.51	0.53	31.46	112	229	Peak
119.1	32.02	-11.48	43.5	50.34	12.14	1.1	31.56	-	-	Peak
166.89	27.38	-16.12	43.5	47.78	9.89	1.23	31.52	-	-	Peak
607.3	29.19	-16.81	46	37.27	20.12	2.71	30.91	-	-	Peak
785.8	24.37	-21.63	46	29.92	22.02	3.12	30.69	-	-	Peak
965.7	30.34	-23.66	54	33.25	24.18	3.48	30.57	-	-	Peak
2390	58.81	-15.19	74	54.13	32.18	6.03	33.53	160	208	Peak
2390	46.25	-7.75	54	41.57	32.18	6.03	33.53	160	208	Average
2462	115.25	-	-	110.41	32.26	6.14	33.56	160	208	Peak
2462	103.29	-	-	98.45	32.26	6.14	33.56	160	208	Average
2483.85	70.7	-3.3	74	65.8	32.28	6.18	33.56	160	208	Peak
2483.85	49.88	-4.12	54	44.98	32.28	6.18	33.56	160	208	Average
8250	55.87	-18.13	74	43.52	35.55	10.91	34.11	100	278	Peak
8250	41.19	-12.81	54	28.84	35.55	10.91	34.11	100	278	Average



Test Mode :	Mode 33	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2422 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.3	-13.7	40	44.98	12.18	0.64	31.5	-	-	Peak
93.18	23.78	-19.72	43.5	45.03	9.32	0.96	31.53	-	-	Peak
129.9	28.95	-14.55	43.5	47.6	11.77	1.15	31.57	-	-	Peak
500.2	21.28	-24.72	46	31.72	18.18	2.45	31.07	-	-	Peak
598.2	27.87	-18.13	46	36.08	20.03	2.68	30.92	-	-	Peak
897.8	32.85	-13.15	46	37.05	23.16	3.34	30.7	100	315	Peak
2389.61	50.78	-23.22	74	46.1	32.18	6.03	33.53	171	251	Peak
2389.61	35.17	-18.83	54	30.49	32.18	6.03	33.53	171	251	Average
2422	93.31	-	-	88.57	32.22	6.07	33.55	171	251	Peak
2422	80.51	-	-	75.77	32.22	6.07	33.55	171	251	Average
2484	35.83	-18.17	54	30.93	32.28	6.18	33.56	171	251	Average
2484	48.7	-25.3	74	43.8	32.28	6.18	33.56	171	251	Peak
8217	54.52	-19.48	74	42.19	35.54	10.9	34.11	100	120	Peak
8217	39.85	-14.15	54	27.52	35.54	10.9	34.11	100	120	Average

Test Mode :	Mode 33	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2422 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.75	-4.25	40	47.17	19.51	0.53	31.46	101	304	Peak
40.53	31.3	-8.7	40	48.75	13.43	0.63	31.51	-	-	Peak
119.1	32.93	-10.57	43.5	51.25	12.14	1.1	31.56	-	-	Peak
623.4	27.49	-18.51	46	35.38	20.25	2.76	30.9	-	-	Peak
799.8	24.54	-21.46	46	29.86	22.22	3.14	30.68	-	-	Peak
925.8	30.84	-15.16	46	34.49	23.58	3.4	30.63	-	-	Peak
2389.99	72.86	-1.14	74	68.18	32.18	6.03	33.53	175	193	Peak
2389.99	52.52	-1.48	54	47.84	32.18	6.03	33.53	175	193	Average
2422	110.27	-	-	105.53	32.22	6.07	33.55	175	193	Peak
2422	96.21	-	-	91.47	32.22	6.07	33.55	175	193	Average
2484	46.44	-7.56	54	41.54	32.28	6.18	33.56	175	193	Average
2484	58.3	-15.7	74	53.4	32.28	6.18	33.56	175	193	Peak
8286	55.75	-18.25	74	43.36	35.56	10.93	34.1	100	321	Peak
8286	40.91	-13.09	54	28.52	35.56	10.93	34.1	100	321	Average

Test Mode :	Mode 34	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	27.25	-12.75	40	45.93	12.18	0.64	31.5	100	166	Peak
93.18	23.5	-20	43.5	44.75	9.32	0.96	31.53	-	-	Peak
126.66	28.72	-14.78	43.5	47.36	11.8	1.13	31.57	-	-	Peak
618.5	28.22	-17.78	46	36.16	20.21	2.75	30.9	-	-	Peak
797.7	26.69	-19.31	46	32.05	22.18	3.14	30.68	-	-	Peak
892.9	32.77	-13.23	46	37.03	23.11	3.33	30.7	-	-	Peak
2372	47.3	-26.7	74	42.68	32.16	5.99	33.53	142	249	Peak
2372	34.85	-19.15	54	30.23	32.16	5.99	33.53	142	249	Average
2452	96.06	-	-	91.26	32.24	6.11	33.55	142	249	Peak
2452	84.82	-	-	80.02	32.24	6.11	33.55	142	249	Average
2483.66	55.99	-18.01	74	51.09	32.28	6.18	33.56	142	249	Peak
2483.66	37.44	-16.56	54	32.54	32.28	6.18	33.56	142	249	Average
8385	55.46	-18.54	74	43.01	35.58	10.96	34.09	100	157	Peak
8385	40.6	-13.4	54	28.15	35.58	10.96	34.09	100	157	Average

Test Mode :	Mode 34	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2452 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.61	-4.39	40	47.03	19.51	0.53	31.46	110	244	Peak
40.53	31.13	-8.87	40	48.58	13.43	0.63	31.51	-	-	Peak
119.37	33.26	-10.24	43.5	51.58	12.14	1.1	31.56	-	-	Peak
609.4	30.9	-15.1	46	38.95	20.14	2.72	30.91	-	-	Peak
716.5	24.19	-21.81	46	30.92	21.07	2.98	30.78	-	-	Peak
943.3	31.16	-14.84	46	34.46	23.84	3.45	30.59	-	-	Peak
2390	59.15	-14.85	74	54.47	32.18	6.03	33.53	164	207	Peak
2390	46.59	-7.41	54	41.91	32.18	6.03	33.53	164	207	Average
2452	108.8	-	-	104	32.24	6.11	33.55	164	207	Peak
2452	96.46	-	-	91.66	32.24	6.11	33.55	164	207	Average
2483.5	70.65	-3.35	74	65.75	32.28	6.18	33.56	164	207	Peak
2483.5	51.07	-2.93	54	46.17	32.28	6.18	33.56	164	207	Average
8265	55.31	-18.69	74	42.94	35.55	10.92	34.1	106	247	Peak
8265	41.11	-12.89	54	28.74	35.55	10.92	34.1	106	247	Average

Test Mode :	Mode 35	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Horizontal
Remark :	2422 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
42.69	26.54	-13.46	40	45.22	12.18	0.64	31.5	-	-	Peak
121.26	28.12	-15.38	43.5	46.42	12.15	1.11	31.56	-	-	Peak
129.09	28.82	-14.68	43.5	47.47	11.78	1.14	31.57	-	-	Peak
610.1	29.01	-16.99	46	37.06	20.14	2.72	30.91	-	-	Peak
897.8	33.22	-12.78	46	37.42	23.16	3.34	30.7	-	-	Peak
931.4	33.25	-12.75	46	36.8	23.65	3.42	30.62	100	119	Peak
2385.81	34.87	-19.13	54	30.19	32.18	6.03	33.53	121	242	Average
2385.81	51.98	-22.02	74	47.3	32.18	6.03	33.53	121	242	Peak
2422	81.03	-	-	76.29	32.22	6.07	33.55	121	242	Average
2422	92.47	-	-	87.73	32.22	6.07	33.55	121	242	Peak
2484	48.3	-25.7	74	43.4	32.28	6.18	33.56	121	242	Peak
2484	35.98	-18.02	54	31.08	32.28	6.18	33.56	121	242	Average
8205	54.48	-19.52	74	42.16	35.54	10.89	34.11	100	61	Peak
8205	39.91	-14.09	54	27.59	35.54	10.89	34.11	100	61	Average

Test Mode :	Mode 35	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	45~50%
Test Engineer :	Ivan Jiang	Polarization :	Vertical
Remark :	2422 MHz is Fundamental Signals which can be ignored.		

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
30	35.08	-4.92	40	46.5	19.51	0.53	31.46	106	179	Peak
40.53	31.78	-8.22	40	49.23	13.43	0.63	31.51	-	-	Peak
119.37	33.27	-10.23	43.5	51.59	12.14	1.1	31.56	-	-	Peak
612.2	27.6	-18.4	46	35.62	20.16	2.73	30.91	-	-	Peak
783.7	24.04	-21.96	46	29.63	21.99	3.11	30.69	-	-	Peak
897.8	30.45	-15.55	46	34.65	23.16	3.34	30.7	-	-	Peak
2388.66	72.7	-1.3	74	68.02	32.18	6.03	33.53	170	193	Peak
2388.66	51.47	-2.53	54	46.79	32.18	6.03	33.53	170	193	Average
2422	109.8	-	-	105.06	32.22	6.07	33.55	170	193	Peak
2422	96.26	-	-	91.52	32.22	6.07	33.55	170	193	Average
2494	47.2	-6.8	54	42.29	32.3	6.18	33.57	170	193	Average
2494	60.29	-13.71	74	55.38	32.3	6.18	33.57	170	193	Peak
8274	55.1	-18.9	74	42.72	35.56	10.92	34.1	100	125	Peak
8274	40.79	-13.21	54	28.41	35.56	10.92	34.1	100	125	Average

3.8 Antenna Requirements

3.8.1 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.

3.8.2 Antenna Connected Construction

The antennas type used in this product is Panel Antenna without connector and it is considered to meet antenna requirement.

3.8.3 Antenna Gain

The antenna peak gain of EUT is more than 6 dBi. Therefore, it is must to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP30	101329	9kHz~30GHz	Apr. 26, 2010	Apr. 25, 2011	Conducted (TH02-HY)
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 17, 2009	Sep. 16, 2010	Conducted (TH02-HY)
Power Sensor	Anritsu	MA2411B	0846202	N/A	Sep. 10, 2009	Sep. 09, 2010	Conducted (TH02-HY)
EMI Test Receive	R&S	ESU	100211	9KHz – 2.75GHz	May 28, 2010	May 27, 2011	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9kHz~30MHz	Nov. 30, 2009	Nov. 29, 2010	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9kHz~30MHz	Nov. 23, 2009	Nov. 22, 2010	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
Bilog Antenna	SCHAFFNER	CBL6111C	2726	30MHz ~ 1GHz	Oct. 31, 2009	Oct. 30, 2010	Radiation (03CH07-HY)
Spectrum Analyzer	R&S	FSP	101067	9KHz ~ 30GHz	Dec. 04, 2009	Dec. 03, 2010	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 19, 2010	Aug. 18, 2011	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz- 40GHz	Oct. 14, 2009	Oct. 13, 2010	Radiation (03CH07-HY)
Pre Amplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Dec.09,2009	Dec. 08, 2010	Radiation (03CH07-HY)
Pre Amplifier	COM-POWER	PA-103A	161241	10-1000MHz.32dB.GAIN	Mar. 27, 2010	Mar. 26, 2011	Radiation (03CH07-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz~30 MHz	Jul. 29, 2010	Jul. 28, 2011	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

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

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.10	Normal (k=2)	0.05
Cable Loss	0.10	Normal (k=2)	0.05
AMN Insertion Loss	2.50	Rectangular	0.63
Receiver Specification	1.50	Rectangular	0.43
Site Imperfection	1.39	Rectangular	0.80
Mismatch	+0.34 / -0.35	U-Shape	0.24
Combined Standard Uncertainty $U_c(y)$	1.13		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.26		

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

Contribution	Uncertainty of X_i		$u(X_i)$
	dB	Probability Distribution	
Receiver Reading	0.41	Normal (k=2)	0.21
Antenna Factor Calibration	0.83	Normal (k=2)	0.42
Cable Loss Calibration	0.25	Normal (k=2)	0.13
Pre-Amplifier Gain Calibration	0.27	Normal (k=2)	0.14
RCV/SPA Specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site Imperfection	1.43	Rectangular	0.83
Mismatch	+0.39 / -0.41	U-Shape	0.28
Combined Standard Uncertainty $U_c(y)$	1.27		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54		

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

Contribution	Uncertainty of X_i		$u(X_i)$	C_i	$C_i * u(X_i)$
	dB	Probability Distribution			
Receiver Reading	± 0.10	Normal (k=2)	0.10	1	0.10
Antenna Factor Calibration	± 1.70	Normal (k=2)	0.85	1	0.85
Cable Loss Calibration	± 0.50	Normal (k=2)	0.25	1	0.25
Receiver Correction	± 2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	± 1.50	Rectangular	0.87	1	0.87
Site Imperfection	± 2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\text{Log}(1-\Gamma_1*\Gamma_2)$	+0.34 / -0.35	U-Shape	0.244	1	0.244
Combined Standard Uncertainty $U_c(y)$	2.36				
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.72				



Appendix A. Photographs of EUT

Please refer to Sporton report number EP9D2415-02 as below.