



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 : AP310-M
FCC ID : RE7-AP310M
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : Digital Transmission System (DTS)

The product was received on Aug. 20, 2010 and completely tested on Aug. 28, 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.



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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	-
3.1.7	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 4.4 dB at 0.422 MHz
3.7	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	Under limit 1.16 dB at 2389.99 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	AP310-M
FCC ID	RE7-AP310M
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	<p><2400 MHz ~ 2483.5 MHz> 802.11b : 20.34 dBm (0.108 W) 802.11g : 24.61 dBm (0.289 W) 802.11n (BW 20MHz) : 27.05 dBm (0.507 W) 802.11n (BW 40MHz) : 26.07 dBm (0.405 W)</p> <p><5725 MHz ~ 5850 MHz> 802.11a : 24.68 dBm (0.294 W) 802.11n (BW 20MHz) : 26.55 dBm (0.452 W) 802.11n (BW 40MHz) : 27.06 dBm (0.508 W)</p>
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	Model Name	AS123-F
	Antenna Type	Dipole Antenna
	Antenna Gain	2.0 dBi for WLAN (2.4G) ; 3.0 dBi for WLAN (5G)

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.	Notebook	DELL	Vostro 1510	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
2.	POE	PHIHONG	POE20U-560(G)	N/A	N/A	N/A

2 Test Configuration of Equipment Under Test

2.1 RF Power

Preliminary tests were performed in different data rate and recorded the RF power output in the following table:

Channel	Frequency	Chain	2.4GHz 802.11b RF Power (dBm)			
			Data Rate			
			1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	A	19.82	19.64	19.79	19.83
CH 02	2417 MHz	A	19.72	20.09	19.91	19.71
CH 06	2437 MHz	A	19.84	19.83	20.02	20.18
CH 10	2457 MHz	A	20.25	19.77	20.26	19.77
CH 11	2462 MHz	A	19.69	19.81	19.61	19.73
CH 01	2412 MHz	B	19.64	19.72	19.65	19.83
CH 02	2417 MHz	B	19.74	19.71	19.84	19.98
CH 06	2437 MHz	B	19.74	19.47	19.47	19.84
CH 10	2457 MHz	B	19.42	19.63	19.61	19.60
CH 11	2462 MHz	B	19.43	19.42	19.39	19.29
CH 01	2412 MHz	C	19.81	19.89	19.85	19.89
CH 02	2417 MHz	C	19.92	20.00	19.91	20.07
CH 06	2437 MHz	C	19.83	19.79	19.71	20.34
CH 10	2457 MHz	C	20.11	19.96	20.03	20.26
CH 11	2462 MHz	C	19.65	19.87	19.95	19.90



Channel	Frequency	Chain	2.4GHz 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	23.21	23.36	23.32	23.35	23.50	23.32	23.14	23.57
CH 02	2417 MHz	A	24.14	24.21	24.34	24.42	24.55	24.37	24.20	24.50
CH 06	2437 MHz	A	24.37	24.43	24.52	24.50	24.60	24.48	24.37	24.61
CH 10	2457 MHz	A	23.71	23.88	24.01	24.02	24.03	24.00	23.80	24.05
CH 11	2462 MHz	A	22.82	23.10	23.02	23.11	23.35	22.91	22.98	23.21
CH 01	2412 MHz	B	23.25	23.20	23.34	23.68	23.79	23.71	23.42	23.45
CH 02	2417 MHz	B	24.35	24.44	24.33	24.45	24.46	24.30	24.29	24.43
CH 06	2437 MHz	B	24.31	24.41	24.27	24.51	24.48	24.34	24.25	24.38
CH 10	2457 MHz	B	23.64	23.78	23.80	23.84	23.80	23.77	23.59	23.85
CH 11	2462 MHz	B	22.57	22.60	22.63	22.94	22.65	22.55	22.36	22.36
CH 01	2412 MHz	C	23.43	23.51	23.50	23.59	23.88	23.43	23.60	23.75
CH 02	2417 MHz	C	24.26	24.33	24.22	24.38	24.40	24.21	24.12	24.32
CH 06	2437 MHz	C	24.20	24.23	24.25	24.18	24.25	24.24	24.22	24.21
CH 10	2457 MHz	C	23.80	23.92	24.00	24.02	24.09	23.90	23.82	23.97
CH 11	2462 MHz	C	22.63	22.77	22.90	22.69	22.92	22.69	22.52	22.70

Channel	Frequency	Chain	2.4GHz 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	26.42	26.81	26.87	26.77	26.92	26.83	26.82	27.05
CH 02	2417 MHz	A+B+C	25.80	25.78	25.81	25.75	25.95	26.15	26.16	26.09
CH 06	2437 MHz	A+B+C	25.78	25.97	25.89	25.95	26.28	25.88	25.87	26.17
CH 10	2457 MHz	A+B+C	25.61	25.73	25.61	25.69	25.91	25.78	25.77	26.21
CH 11	2462 MHz	A+B+C	24.69	24.79	24.65	24.76	24.77	24.73	24.64	25.76
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	26.99	26.89	26.80	26.86	26.84	26.72	26.80	26.81
CH 02	2417 MHz	A+B+C	26.05	25.92	25.92	25.80	25.95	25.90	25.84	25.79
CH 06	2437 MHz	A+B+C	26.12	25.99	25.90	25.87	25.89	25.95	25.88	26.16
CH 10	2457 MHz	A+B+C	25.79	25.84	25.73	25.70	25.75	25.90	25.73	25.95
CH 11	2462 MHz	A+B+C	24.79	24.76	24.72	24.68	24.85	24.81	24.52	24.56



Channel	Frequency	Chain	2.4GHz 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	23.93	22.87	22.99	22.83	22.96	23.39	23.23	22.78
CH 04	2427 MHz	A+B+C	26.07	24.47	24.77	24.57	24.68	25.30	24.70	24.59
CH 08	2447 MHz	A+B+C	25.84	24.83	24.90	25.00	24.85	25.14	25.10	24.90
CH 09	2452 MHz	A+B+C	25.28	23.72	24.02	24.03	24.34	24.81	24.24	23.99
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	23.19	22.55	22.72	22.68	22.62	22.41	22.63	22.70
CH 04	2427 MHz	A+B+C	24.69	24.84	24.70	24.23	24.38	24.31	24.46	24.43
CH 08	2447 MHz	A+B+C	25.02	24.70	24.78	24.63	24.79	24.77	24.76	24.60
CH 09	2452 MHz	A+B+C	23.76	23.77	23.97	23.94	24.07	23.67	23.60	23.80

Channel	Frequency	Chain	5GHz 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	22.66	22.75	22.70	22.88	22.82	22.78	22.61	22.78
CH 157	5785 MHz	A	22.88	22.76	22.93	23.08	22.93	22.86	22.73	22.99
CH 165	5825 MHz	A	23.15	23.36	23.24	23.29	23.43	23.12	23.12	23.06
CH 149	5745 MHz	B	24.25	24.17	23.92	23.78	23.91	23.99	23.80	24.04
CH 157	5785 MHz	B	24.26	24.21	24.38	24.28	24.56	24.34	24.05	24.56
CH 165	5825 MHz	B	24.21	24.07	24.20	24.38	24.23	24.23	23.97	24.45
CH 149	5745 MHz	C	24.13	24.18	24.26	24.31	24.40	24.24	24.00	24.35
CH 157	5785 MHz	C	24.59	24.51	24.59	24.68	24.67	24.51	24.37	24.41
CH 165	5825 MHz	C	24.48	24.35	24.40	24.41	24.57	24.62	24.56	24.52



Channel	Frequency	Chain	5GHz 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	25.61	25.64	25.78	25.68	25.62	25.71	25.75	25.68
CH 157	5785 MHz	A+B+C	25.37	25.91	25.73	25.75	25.72	25.91	25.79	25.75
CH 165	5825 MHz	A+B+C	26.05	26.16	26.13	26.23	26.13	26.27	26.55	26.16
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	25.81	25.78	25.64	25.59	25.69	25.49	25.34	25.39
CH 157	5785 MHz	A+B+C	25.61	25.62	26.01	25.62	25.76	25.73	25.43	25.68
CH 165	5825 MHz	A+B+C	26.48	26.04	26.09	26.12	26.21	26.37	26.24	26.30

Channel	Frequency	Chain	5GHz 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	25.96	24.86	25.53	25.24	24.93	25.73	25.48	25.07
CH 159	5795 MHz	A+B+C	27.06	26.24	26.21	25.94	26.00	26.35	26.29	25.92
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	24.84	25.00	24.88	25.07	25.41	24.68	24.91	24.80
CH 159	5795 MHz	A+B+C	26.01	25.96	25.99	26.09	26.04	25.80	25.89	25.98

Remark:

- 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 data rates of WLAN 802.11b were set in 11Mbps, 54Mbps for 802.11g, 65Mbps for 2.4GHz 802.11n (BW 20MHz), 13.5Mbps for 2.4GHz 802.11n (BW 40MHz), 18Mbps for 802.11a, 58.5Mbps for 5GHz 802.11n (BW 20MHz), 13.5Mbps for 5GHz 802.11n (BW 40MHz) for all the test cases due to the highest RF output power.
- The EUT is programmed to transmit signals continuously for all testing.
- SISO stands for single input and single output. It means that only one chain transmits signals at a time.
- 3Tx is one type of MIMO, which means that three chains transmit signals at the same time.



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).

The following table is showing the total pre-scanned test modes, and the worst modes are recorded in this report only.

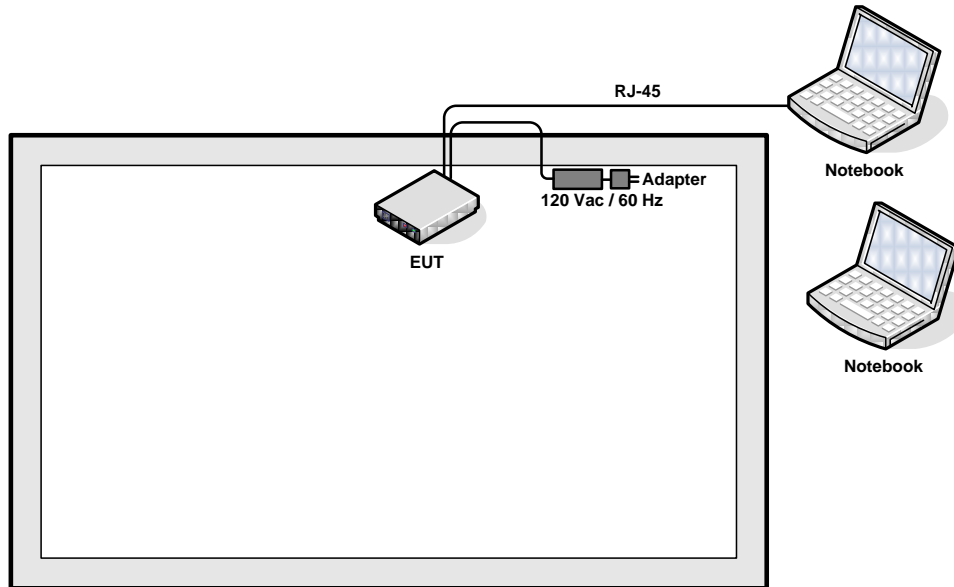
Test Cases	
Test Item	802.11b (Modulation : DSSS) 802.11a/g/n (Modulation : OFDM)
Conducted TCS	Mode 1: 802.11b_CH01_2412 MHz
	Mode 2: 802.11b_CH02_2417 MHz
	Mode 3: 802.11b_CH06_2437 MHz
	Mode 4: 802.11b_CH10_2457 MHz
	Mode 5: 802.11b_CH11_2462 MHz
	Mode 6: 802.11g_CH01_2412 MHz
	Mode 7: 802.11g_CH02_2417 MHz
	Mode 8: 802.11g_CH06_2437 MHz
	Mode 9: 802.11g_CH10_2457 MHz
	Mode 10: 802.11g_CH11_2462 MHz
	Mode 11: 802.11n_CH01_2412 MHz (BW 20M)
	Mode 12: 802.11n_CH02_2417 MHz (BW 20M)
	Mode 13: 802.11n_CH06_2437 MHz (BW 20M)
	Mode 14: 802.11n_CH10_2457 MHz (BW 20M)
	Mode 15: 802.11n_CH11_2462 MHz (BW 20M)
	Mode 16: 802.11n_CH03_2422 MHz (BW 40M)
	Mode 17: 802.11n_CH04_2427 MHz (BW 40M)
	Mode 18: 802.11n_CH08_2447 MHz (BW 40M)
	Mode 19: 802.11n_CH09_2452 MHz (BW 40M)
	Mode 20: 802.11a_CH149_5745 MHz
	Mode 21: 802.11a_CH157_5785 MHz
	Mode 22: 802.11a_CH165_5825 MHz
	Mode 23: 802.11n_CH149_5745 MHz (BW 20M)
	Mode 24: 802.11n_CH157_5785 MHz (BW 20M)
	Mode 25: 802.11n_CH165_5825 MHz (BW 20M)
	Mode 26: 802.11n_CH151_5755 MHz (BW 40M)
	Mode 27: 802.11n_CH159_5795 MHz (BW 40M)



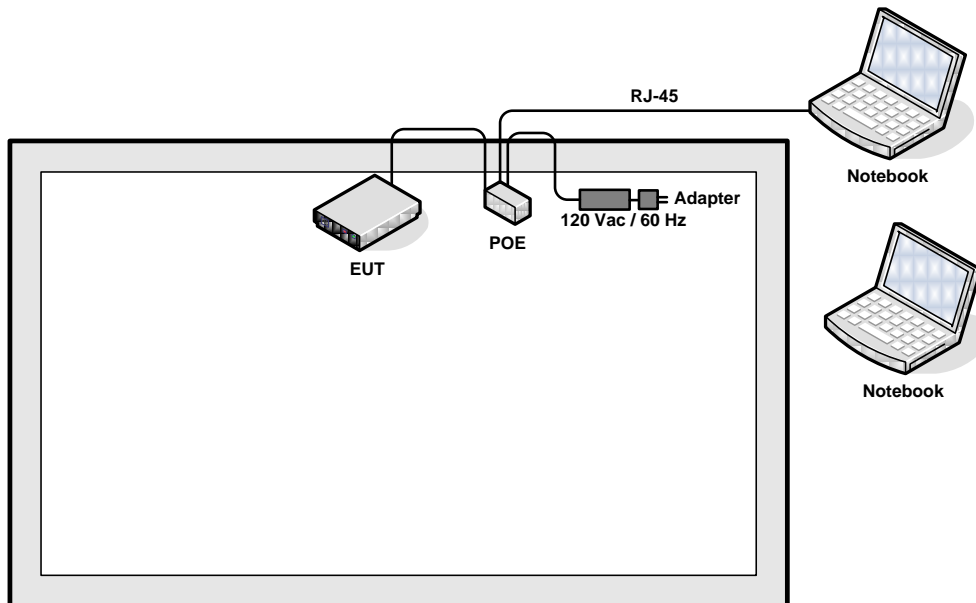
Test Cases	
Radiated TCs	Mode 1: 802.11b_CH01_2412 MHz Mode 2: 802.11b_CH02_2417 MHz Mode 3: 802.11b_CH06_2437 MHz Mode 4: 802.11b_CH10_2457 MHz Mode 5: 802.11b_CH11_2462 MHz Mode 6: 802.11g_CH01_2412 MHz Mode 7: 802.11g_CH02_2417 MHz Mode 8: 802.11g_CH06_2437 MHz Mode 9: 802.11g_CH10_2457 MHz Mode 10: 802.11g_CH11_2462 MHz Mode 11: 802.11n_CH01_2412 MHz (BW 20M) Mode 12: 802.11n_CH02_2417 MHz (BW 20M) Mode 13: 802.11n_CH06_2437 MHz (BW 20M) Mode 14: 802.11n_CH10_2457 MHz (BW 20M) Mode 15: 802.11n_CH11_2462 MHz (BW 20M) Mode 16: 802.11n_CH03_2422 MHz (BW 40M) Mode 17: 802.11n_CH04_2427 MHz (BW 40M) Mode 18: 802.11n_CH08_2447 MHz (BW 40M) Mode 19: 802.11n_CH09_2452 MHz (BW 40M) Mode 20: 802.11a_CH149_5745 MHz Mode 21: 802.11a_CH157_5785 MHz Mode 22: 802.11a_CH165_5825 MHz Mode 23: 802.11n_CH149_5745 MHz (BW 20M) Mode 24: 802.11n_CH157_5785 MHz (BW 20M) Mode 25: 802.11n_CH165_5825 MHz (BW 20M) Mode 26: 802.11n_CH151_5755 MHz (BW 40M) Mode 27: 802.11n_CH159_5795 MHz (BW 40M)
AC Conducted Emission	Mode 1 : WLAN (2.4G) Link + LAN Link + Adapter Mode 2 : WLAN (5G) Link + LAN Link + Adapter + POE
Remark: The worst case of AC conducted emission is mode 1; only the test data of it was reported.	

2.3 Connection Diagram of Test System

<EUT with Adapter Mode>



<EUT with POE and Adapter Mode>





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 Bandwidth Measurement

3.1.1 Limit of 6dB Bandwidth

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

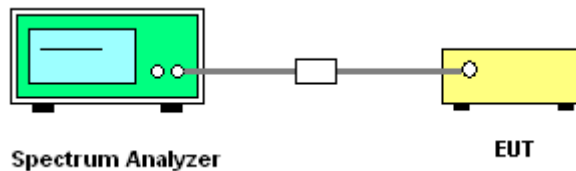
3.1.2 Measuring Instruments

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, 4, 5	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11b 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain C		
01	2412	11.04	0.5	Pass
02	2417	11.56	0.5	Pass
06	2437	11.00	0.5	Pass
10	2457	11.28	0.5	Pass
11	2462	11.16	0.5	Pass

Test Mode :	Mode 6, 7, 8, 9, 10	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11g 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A		
01	2412	16.48	0.5	Pass
02	2417	16.48	0.5	Pass
06	2437	16.48	0.5	Pass
10	2457	16.52	0.5	Pass
11	2462	16.48	0.5	Pass



Test Mode :	Mode 11, 12, 13, 14, 15	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
01	2412	17.64	0.5	Pass
02	2417	17.68	0.5	Pass
06	2437	17.68	0.5	Pass
10	2457	17.60	0.5	Pass
11	2462	17.40	0.5	Pass

Test Mode :	Mode 16, 17, 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
03	2422	36.32	0.5	Pass
04	2427	36.40	0.5	Pass
08	2447	36.40	0.5	Pass
09	2452	36.48	0.5	Pass



Test Mode :	Mode 20, 21, 22	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11a 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain C		
149	5745	16.44	0.5	Pass
157	5785	16.40	0.5	Pass
165	5825	16.44	0.5	Pass

Test Mode :	Mode 23, 24, 25	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
149	5745	17.68	0.5	Pass
157	5785	17.68	0.5	Pass
165	5825	17.68	0.5	Pass

Test Mode :	Mode 26, 27	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

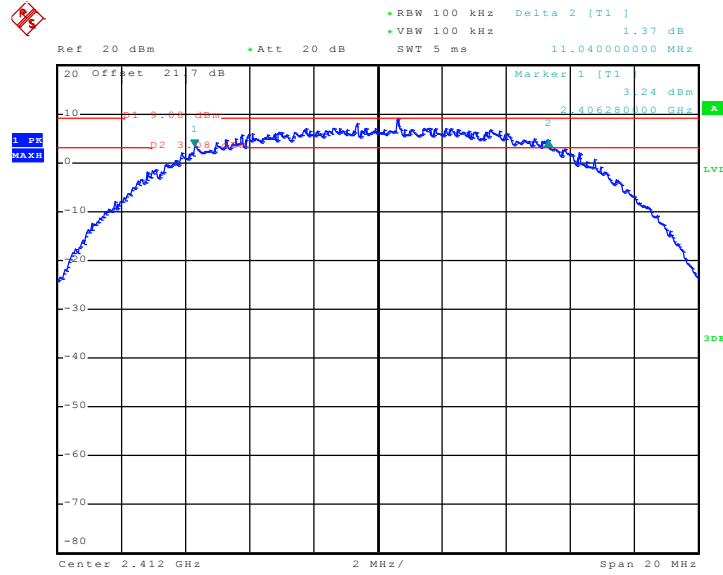
Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) 6dB Bandwidth (MHz)	6dB Bandwidth Min. Limit (MHz)	Pass/Fail
		Chain A+B+C		
151	5755	36.40	0.5	Pass
159	5795	36.40	0.5	Pass



3.1.6 Test Result of 6dB Bandwidth Plots

Mode 1 :

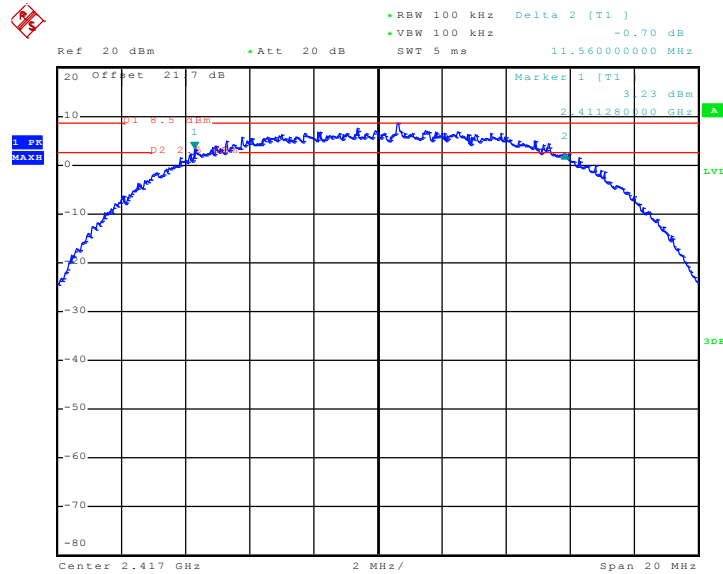
6 dB Bandwidth Plot on 802.11b Channel 01 – Chain C



Date: 24.AUG.2010 09:16:34

Mode 2 :

6 dB Bandwidth Plot on 802.11b Channel 02 – Chain C

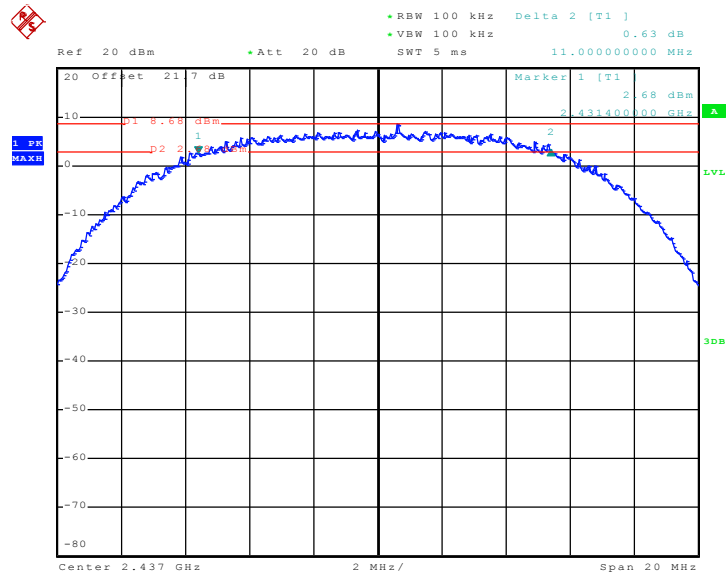


Date: 24.AUG.2010 10:54:26



Mode 3 :

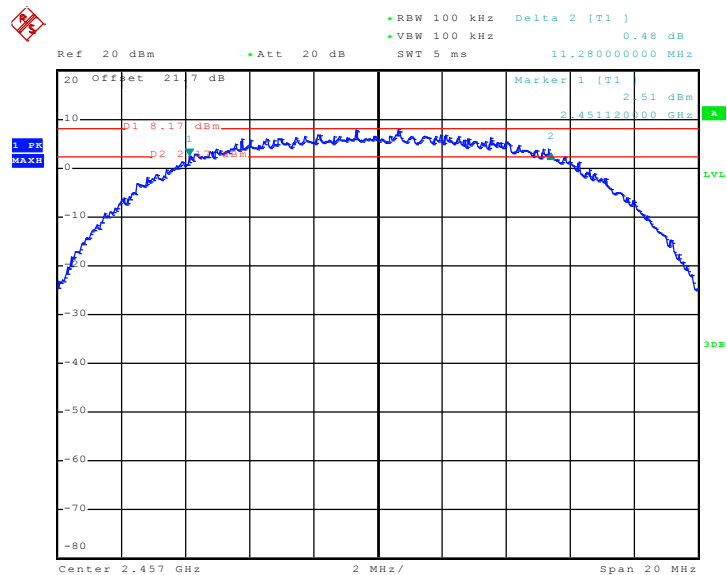
6 dB Bandwidth Plot on 802.11b Channel 06 – Chain C



Date: 24.AUG.2010 09:19:21

Mode 4 :

6 dB Bandwidth Plot on 802.11b Channel 10 – Chain C

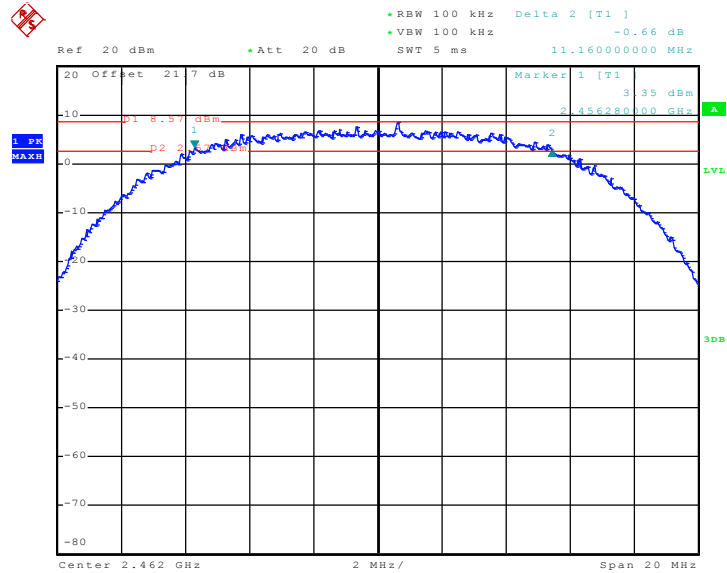


Date: 24.AUG.2010 10:52:45



Mode 5 :

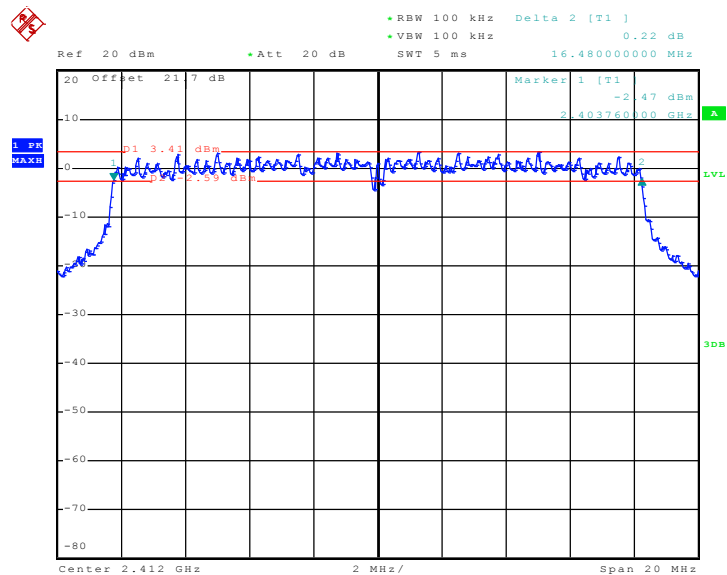
6 dB Bandwidth Plot on 802.11b Channel 11 – Chain C



Date: 24.AUG.2010 09:22:35

Mode 6 :

6 dB Bandwidth Plot on 802.11g Channel 01 – Chain A

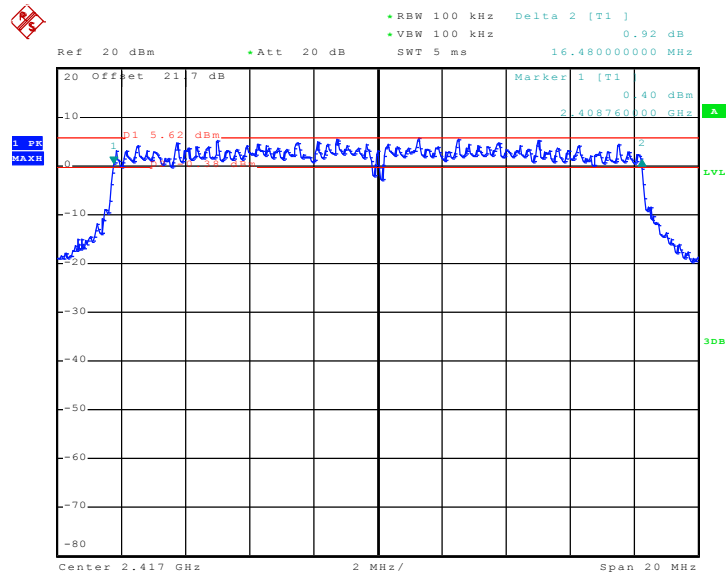


Date: 26.AUG.2010 07:46:28



Mode 7 :

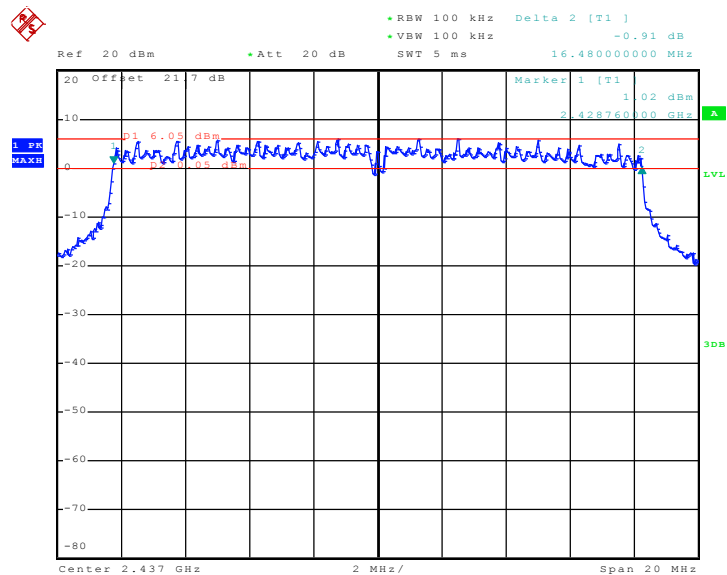
6 dB Bandwidth Plot on 802.11g Channel 02 – Chain A



Date: 26.AUG.2010 08:40:43

Mode 8 :

6 dB Bandwidth Plot on 802.11g Channel 06 – Chain A

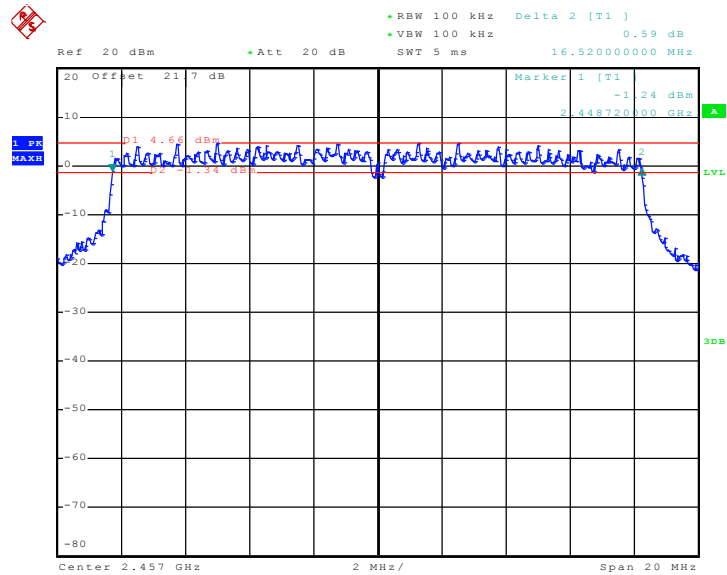


Date: 26.AUG.2010 08:07:33



Mode 9 :

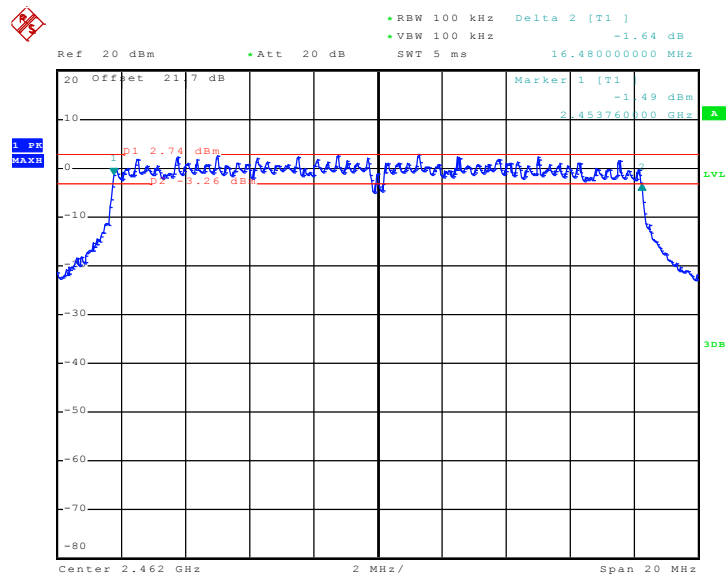
6 dB Bandwidth Plot on 802.11g Channel 10 – Chain A



Date: 26.AUG.2010 08:10:05

Mode 10 :

6 dB Bandwidth Plot on 802.11g Channel 11 – Chain A



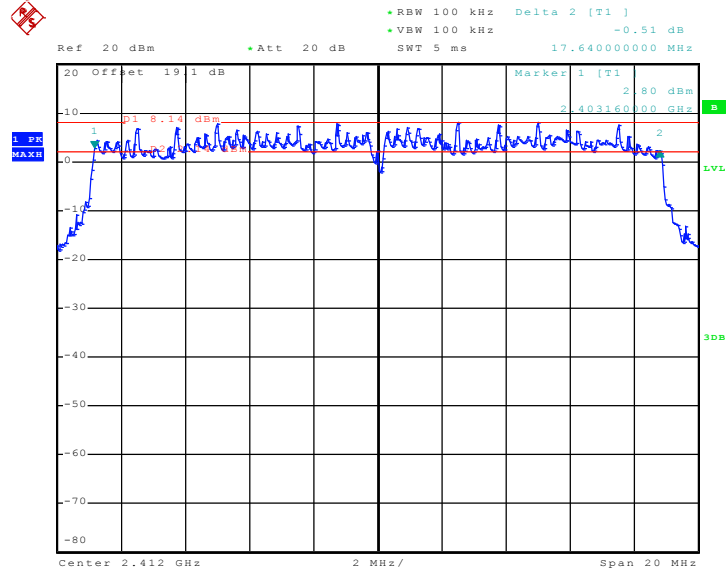
Date: 26.AUG.2010 08:11:48



Mode 11 :

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 01 - Chain

A+B+C

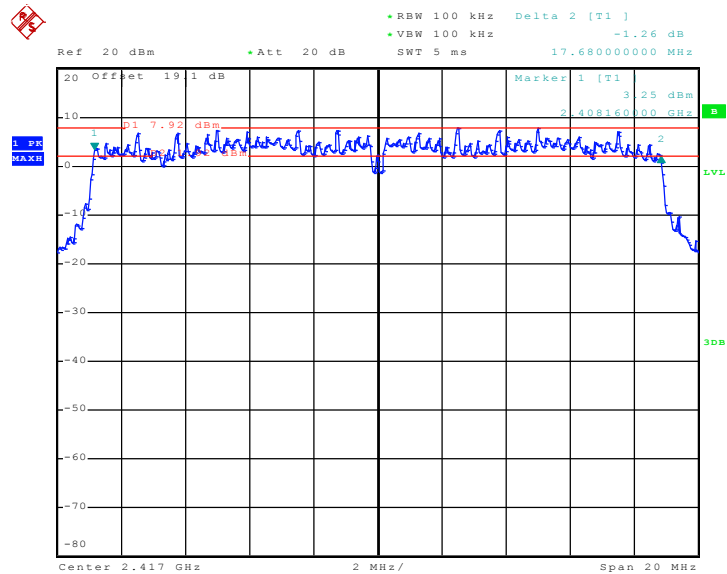


Date: 27.AUG.2010 07:06:13

Mode 12 :

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 02 - Chain

A+B+C



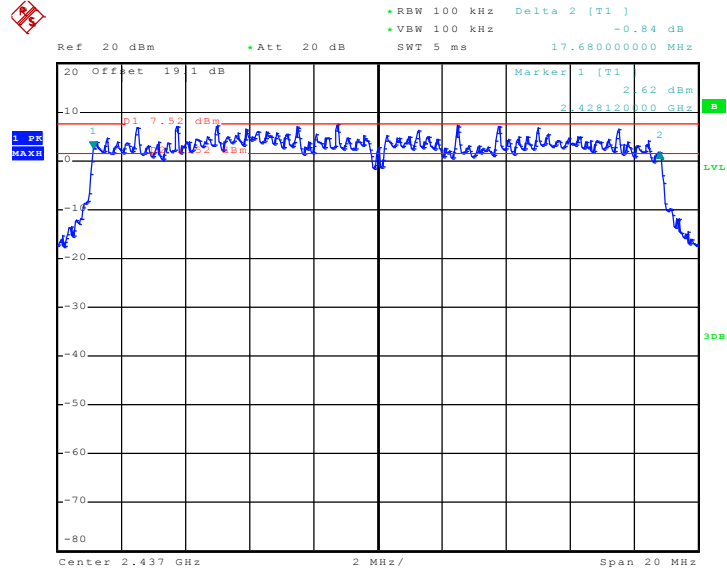
Date: 27.AUG.2010 07:19:50



Mode 13 :

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 06 - Chain

A+B+C

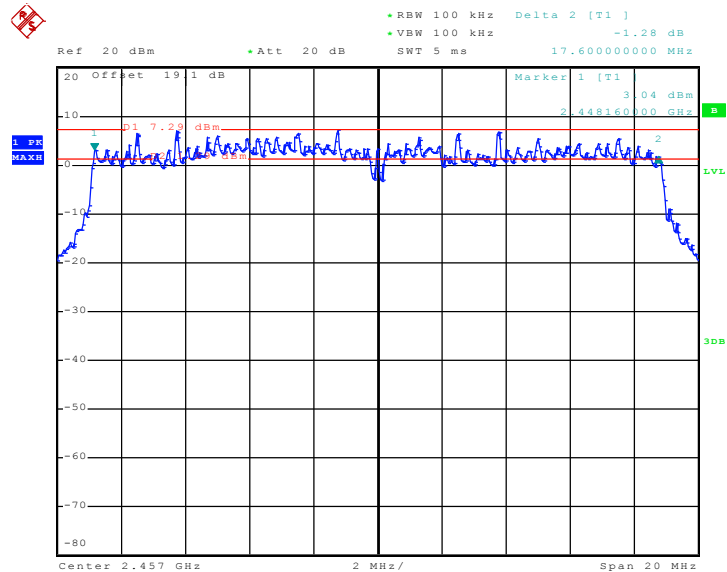


Date: 27.AUG.2010 07:21:10

Mode 14 :

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 10 - Chain

A+B+C



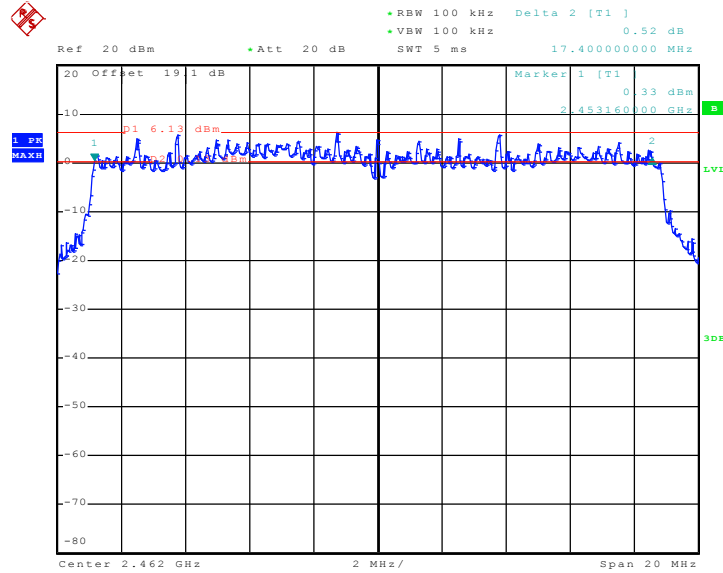
Date: 27.AUG.2010 07:22:16



Mode 15 :

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 11 - Chain

A+B+C

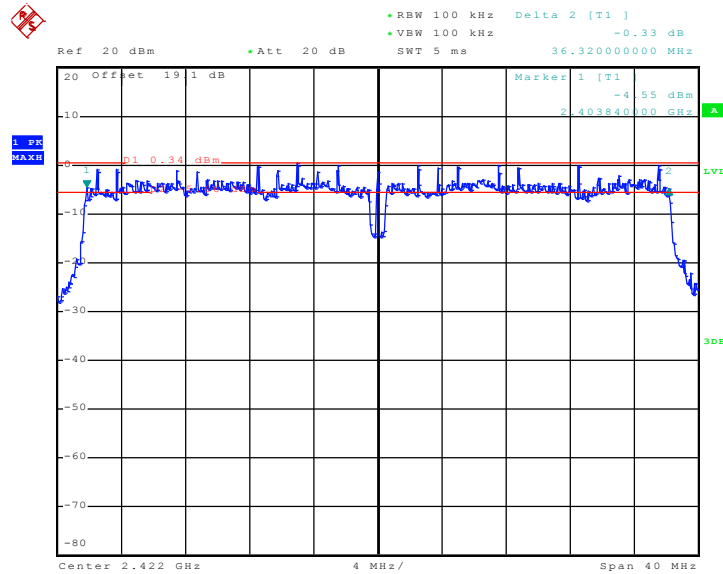


Date: 27.AUG.2010 07:23:33

Mode 16 :

6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 03 - Chain

A+B+C



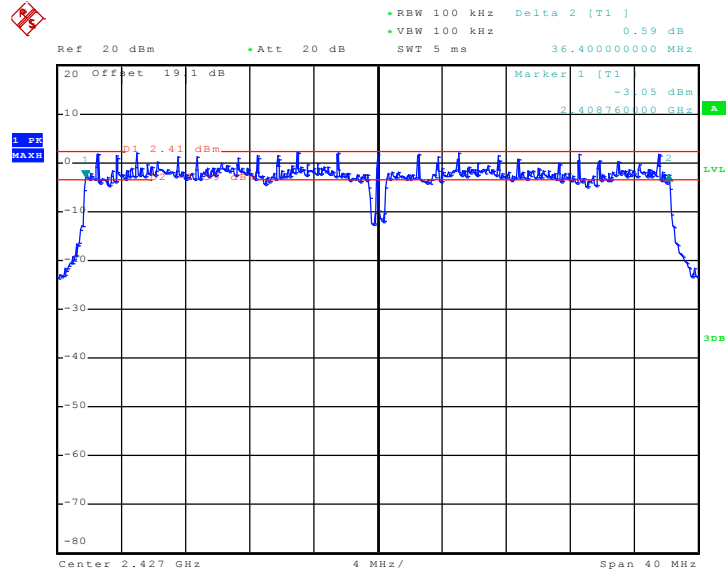
Date: 27.AUG.2010 09:47:47



Mode 17 :

6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 04 - Chain

A+B+C

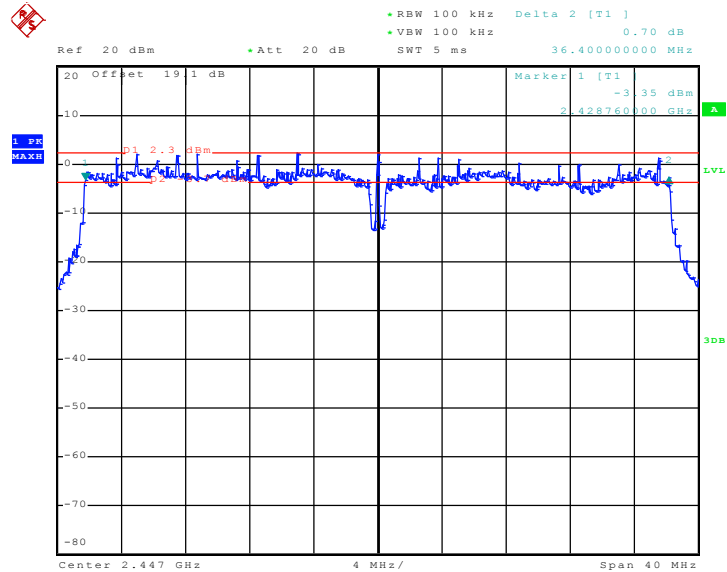


Date: 27.AUG.2010 09:50:58

Mode 18:

6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 08 - Chain

A+B+C



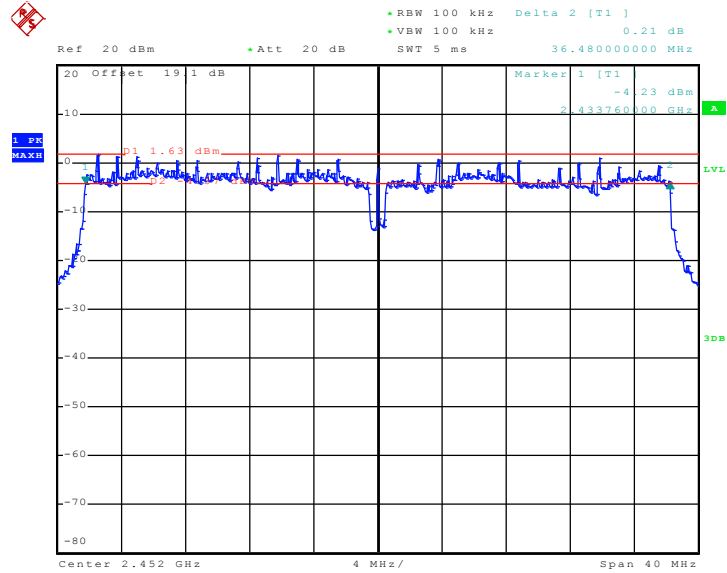
Date: 27.AUG.2010 09:52:35



Mode 19:

6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 09 - Chain

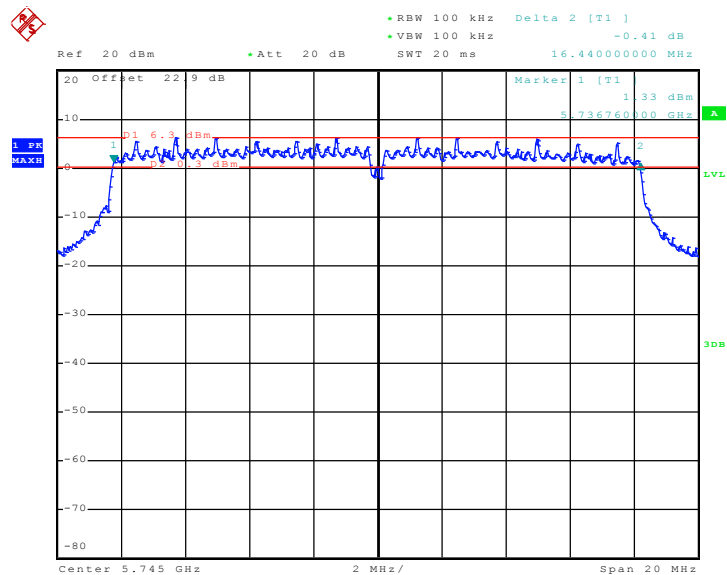
A+B+C



Date: 27.AUG.2010 09:54:24

Mode 20:

6 dB Bandwidth Plot on 802.11a Channel 149 - Chain C

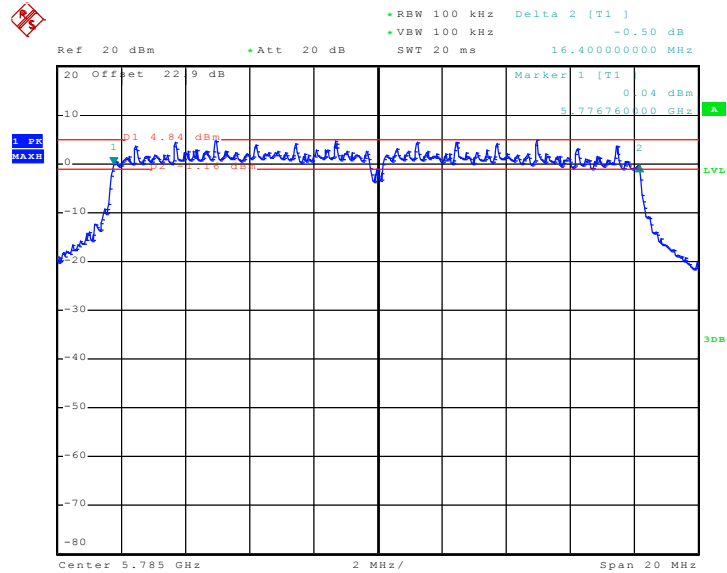


Date: 26.AUG.2010 09:08:15



Mode 21:

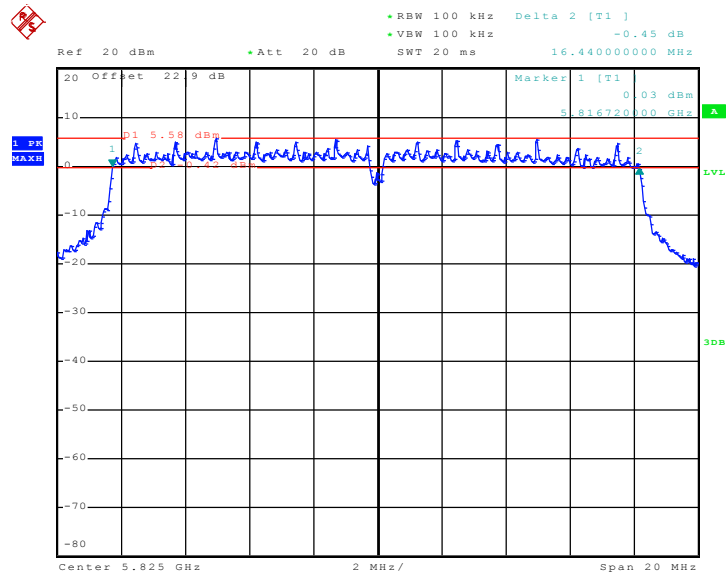
6 dB Bandwidth Plot on 802.11a Channel 157 - Chain C



Date: 26.AUG.2010 09:14:43

Mode 22:

6 dB Bandwidth Plot on 802.11a Channel 165 - Chain C



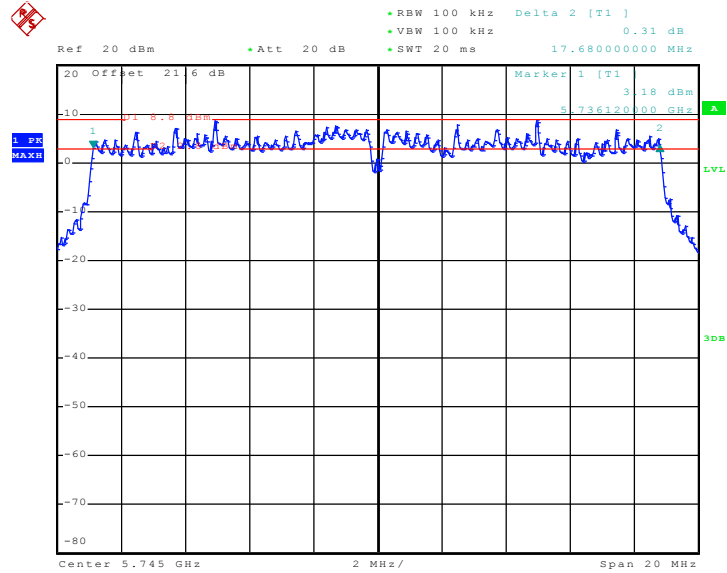
Date: 26.AUG.2010 09:16:33



Mode 23:

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 149 - Chain

A+B+C

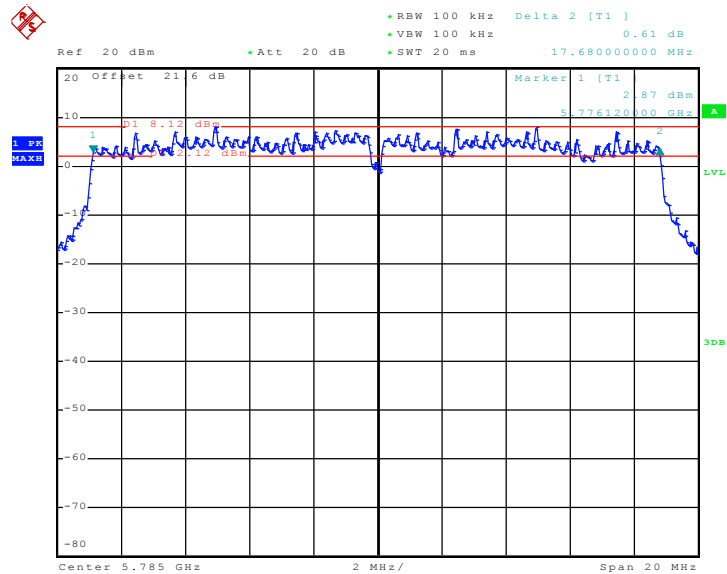


Date: 26.AUG.2010 14:04:08

Mode 24:

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 157 - Chain

A+B+C



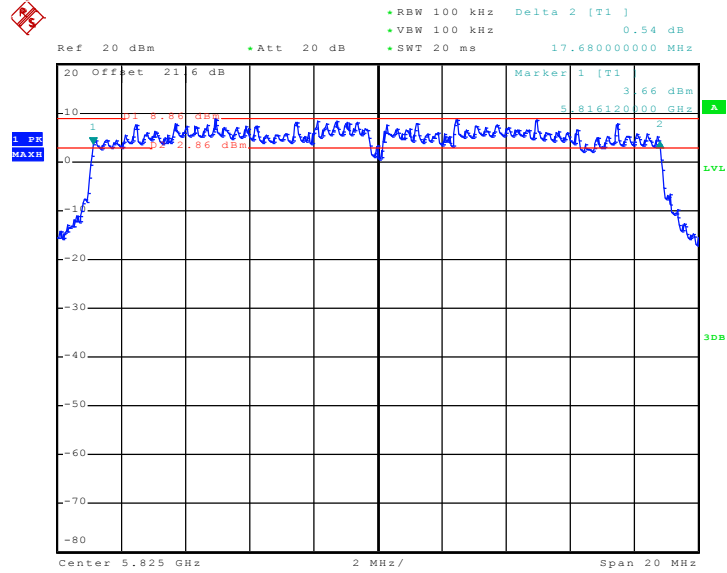
Date: 26.AUG.2010 14:02:27



Mode 25:

6 dB Bandwidth Plot on 802.11n (BW 20MHz) Channel 165 - Chain

A+B+C

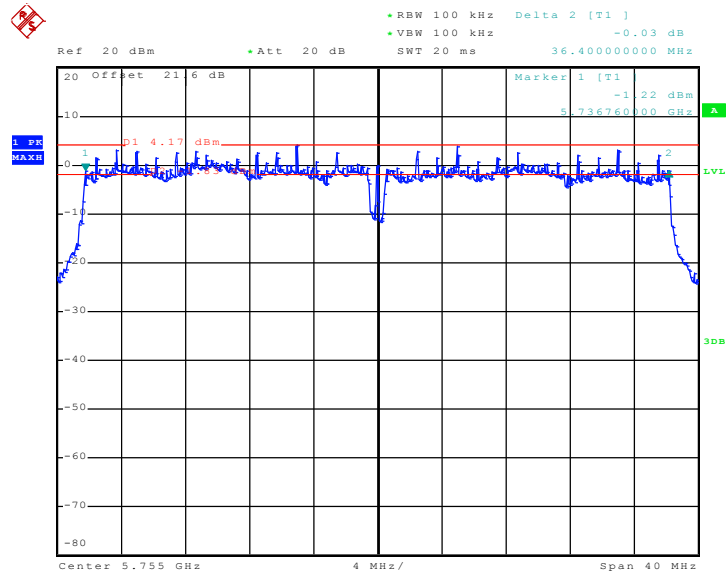


Date: 26.AUG.2010 13:58:42

Mode 26:

6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 151 - Chain

A+B+C



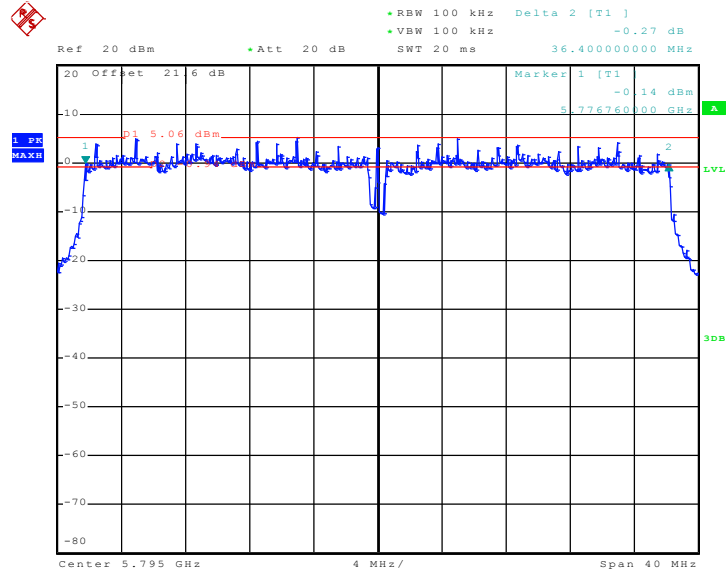
Date: 26.AUG.2010 13:34:56



Mode 27:

6 dB Bandwidth Plot on 802.11n (BW 40MHz) Channel 159 - Chain

A+B+C



Date: 26.AUG.2010 13:37:10

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.

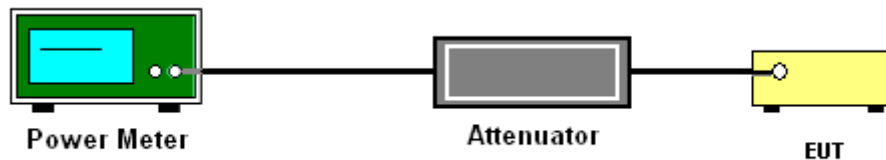
3.2.2 Measuring Instruments

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, 4, 5	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11b Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain C		
01	2412	19.89	30	Pass
02	2417	20.07	30	Pass
06	2437	20.34	30	Pass
10	2457	20.26	30	Pass
11	2462	19.90	30	Pass

Test Mode :	Mode 6,7, 8, 9, 10	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11g Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A		
01	2412	23.57	30	Pass
02	2417	24.50	30	Pass
06	2437	24.61	30	Pass
10	2457	24.05	30	Pass
11	2462	23.21	30	Pass

Test Mode :	Mode 11, 12, 13, 14, 15	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A+B+C		
01	2412	27.05	30	Pass
02	2417	26.09	30	Pass
06	2437	26.17	30	Pass
10	2457	26.21	30	Pass
11	2462	25.76	30	Pass



Test Mode :	Mode 16, 17, 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A+B+C		
03	2422	23.93	30	Pass
04	2427	26.07	30	Pass
08	2447	25.84	30	Pass
09	2452	25.28	30	Pass

Test Mode :	Mode 20, 21,22	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11a Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain C		
149	5745	24.31	30	Pass
157	5785	24.68	30	Pass
165	5825	24.41	30	Pass

Test Mode :	Mode 23, 24,25	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A+B+C		
149	5745	25.75	30	Pass
157	5785	25.79	30	Pass
165	5825	26.55	30	Pass

Test Mode :	Mode 26, 27	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain A+B+C		
151	5755	25.96	30	Pass
159	5795	27.06	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

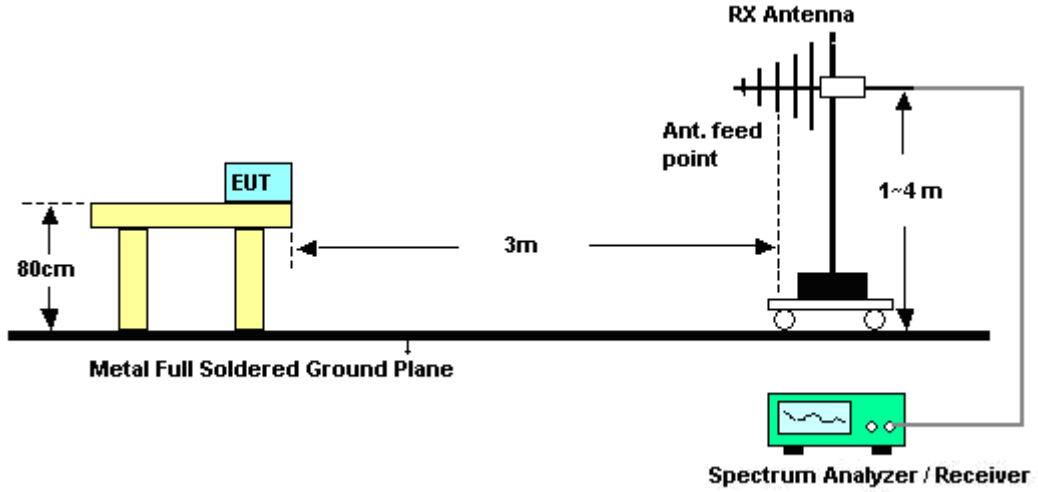
See list of measuring instruments of this test report.

3.3.3 Test Procedures

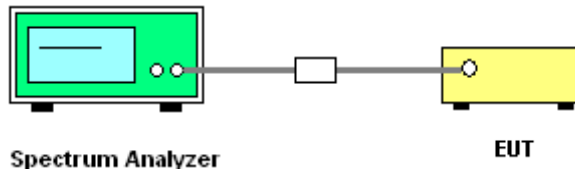
1. The testing follows the guidelines in ANSI C63.4-2003 and FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
2. Conducted emission test: Set RBW = 100 kHz, Video bandwidth (VBW) > RBW. Band edge emissions must be at least 20 dB below the highest emission level within the authorized band 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 :	48~50%
Test Channel :	01	Test Engineer :	Ivan Chiang

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
2385.62	46.41	-27.59	74	42.21	31.7	6.03	33.53	100	342	Peak
2385.62	34.04	-19.96	54	29.84	31.7	6.03	33.53	100	342	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	53.8	-20.2	74	49.6	31.7	6.03	33.53	100	334	Peak
2390	41.55	-12.45	54	37.35	31.7	6.03	33.53	100	334	Average

Test Mode :	Mode 5	Temperature :	23~25°C
Test Band :	802.11b	Relative Humidity :	48~50%
Test Channel :	11	Test Engineer :	Ivan Chiang

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
2486.89	47.61	-26.39	74	43.21	31.78	6.18	33.56	102	288	Peak
2486.89	35.28	-18.72	54	30.88	31.78	6.18	33.56	102	288	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	54.46	-19.54	74	50.06	31.78	6.18	33.56	100	327	Peak
2483.5	42.79	-11.21	54	38.39	31.78	6.18	33.56	100	327	Average



Test Mode :	Mode 6	Temperature :	23~25°C
Test Band :	802.11g	Relative Humidity :	48~50%
Test Channel :	01	Test Engineer :	Ivan Chiang

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
2388.85	59.87	-14.13	74	55.67	31.7	6.03	33.53	102	322	Peak
2388.85	42.26	-11.74	54	38.06	31.7	6.03	33.53	102	322	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	70.56	-3.44	74	66.36	31.7	6.03	33.53	100	336	Peak
2389.99	52.39	-1.61	54	48.19	31.7	6.03	33.53	100	336	Average

Test Mode :	Mode 10	Temperature :	23~25°C
Test Band :	802.11g	Relative Humidity :	48~50%
Test Channel :	11	Test Engineer :	Ivan Chiang

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
2484.42	63.92	-10.08	74	59.52	31.78	6.18	33.56	100	324	Peak
2484.42	42.41	-11.59	54	38.01	31.78	6.18	33.56	100	324	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	72.19	-1.81	74	67.79	31.78	6.18	33.56	100	326	Peak
2483.66	51.55	-2.45	54	47.15	31.78	6.18	33.56	100	326	Average



Test Mode :	Mode 11	Temperature :	23~25°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	01	Test Engineer :	Ivan Chiang

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	56.93	-17.07	74	52.73	31.7	6.03	33.53	100	327	Peak
2389.42	38.72	-15.28	54	34.52	31.7	6.03	33.53	100	327	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	67.89	-6.11	74	63.69	31.7	6.03	33.53	100	336	Peak
2389.99	49.41	-4.59	54	45.21	31.7	6.03	33.53	100	336	Average

Test Mode :	Mode 15	Temperature :	23~25°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	11	Test Engineer :	Ivan Chiang

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
2484.42	56.52	-17.48	74	52.12	31.78	6.18	33.56	100	326	Peak
2484.42	38.4	-15.6	54	34	31.78	6.18	33.56	100	326	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
2485.37	72.09	-1.91	74	67.69	31.78	6.18	33.56	100	343	Peak
2485.37	47.63	-6.37	54	43.23	31.78	6.18	33.56	100	343	Average



Test Mode :	Mode 16	Temperature :	23~25°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	03	Test Engineer :	Ivan Chiang

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
2386.38	60.14	-13.86	74	55.94	31.7	6.03	33.53	100	327	Peak
2386.38	39.02	-14.98	54	34.82	31.7	6.03	33.53	100	327	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
2387.9	72.61	-1.39	74	68.41	31.7	6.03	33.53	129	350	Peak
2387.9	49.16	-4.84	54	44.96	31.7	6.03	33.53	129	350	Average

Test Mode :	Mode 19	Temperature :	23~25°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	09	Test Engineer :	Ivan Chiang

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	60.18	-13.82	74	55.78	31.78	6.18	33.56	100	327	Peak
2483.66	40.82	-13.18	54	36.42	31.78	6.18	33.56	100	327	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
2487.65	72.3	-1.7	74	67.89	31.8	6.18	33.57	100	344	Peak
2487.65	50.91	-3.09	54	46.5	31.8	6.18	33.57	100	344	Average



Test Mode :	Mode 20	Temperature :	23~25°C
Test Band :	802.11a	Relative Humidity :	48~50%
Test Channel :	149	Test Engineer :	Ivan Chiang

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
5725	73.8	-10	83.8	65.21	34.51	9.92	35.84	122	297	Peak

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
5725	80.76	-9.88	90.64	72.17	34.51	9.92	35.84	110	30	Peak

Test Mode :	Mode 22	Temperature :	23~25°C
Test Band :	802.11a	Relative Humidity :	48~50%
Test Channel :	165	Test Engineer :	Ivan Chiang

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
5850	57.27	-23.4	80.67	48.49	34.68	9.87	35.77	174	309	Peak

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
5850	63.74	-24.07	87.81	54.96	34.68	9.87	35.77	104	347	Peak



Test Mode :	Mode 23	Temperature :	23~25°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	149	Test Engineer :	Ivan Chiang

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
5725	57.27	-23.13	80.4	48.68	34.51	9.92	35.84	142	296	Peak

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
5725	66.04	-23.72	89.76	57.45	34.51	9.92	35.84	100	305	Peak

Test Mode :	Mode 25	Temperature :	23~25°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	165	Test Engineer :	Ivan Chiang

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
5850	49.67	-31.63	81.3	40.89	34.68	9.87	35.77	103	313	Peak

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
5850	56.36	-34.93	91.29	47.58	34.68	9.87	35.77	100	65	Peak



Test Mode :	Mode 26	Temperature :	23~25°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	151	Test Engineer :	Ivan Chiang

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
5725	65.7	-11.13	76.83	57.11	34.51	9.92	35.84	187	298	Peak

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
5725	74.49	-11.7	86.19	65.9	34.51	9.92	35.84	100	305	Peak

Test Mode :	Mode 27	Temperature :	23~25°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	48~50%
Test Channel :	159	Test Engineer :	Ivan Chiang

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
5850	48.99	-27.65	76.64	40.21	34.68	9.87	35.77	187	68	Peak

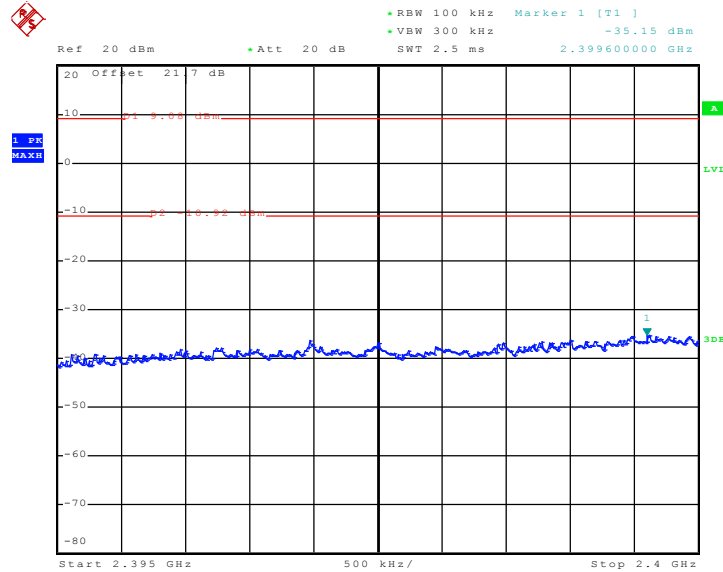
ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5850	52	-33.74	85.74	43.22	34.68	9.87	35.77	100	304	Peak



3.3.6 Test Result of Conducted Band Edges

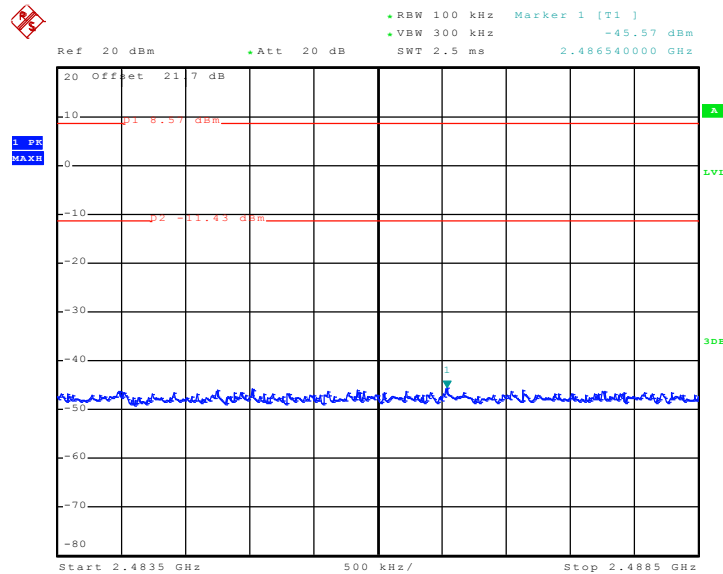
Test Mode :	Mode 1 and 5	Temperature :	25~27°C
Test Band :	802.11b	Relative Humidity :	45~48%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11b Channel 01



Date: 25.AUG.2010 19:17:23

High Band Edge Plot on 802.11b Channel 11

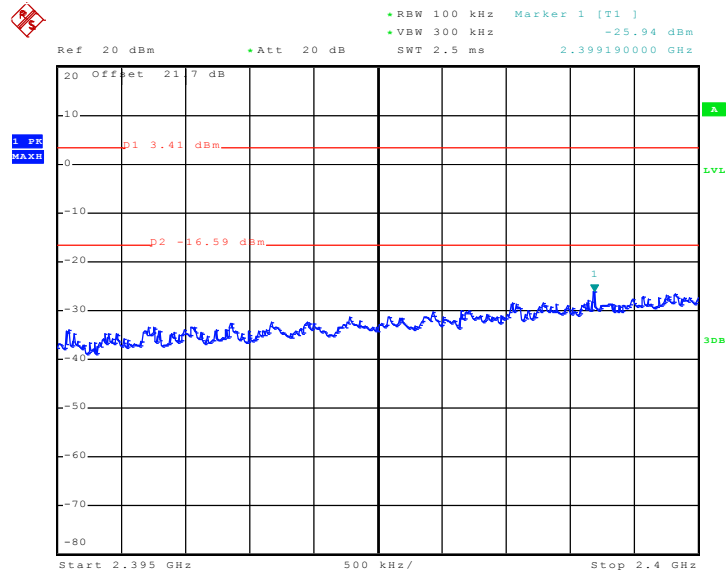


Date: 25.AUG.2010 19:14:58



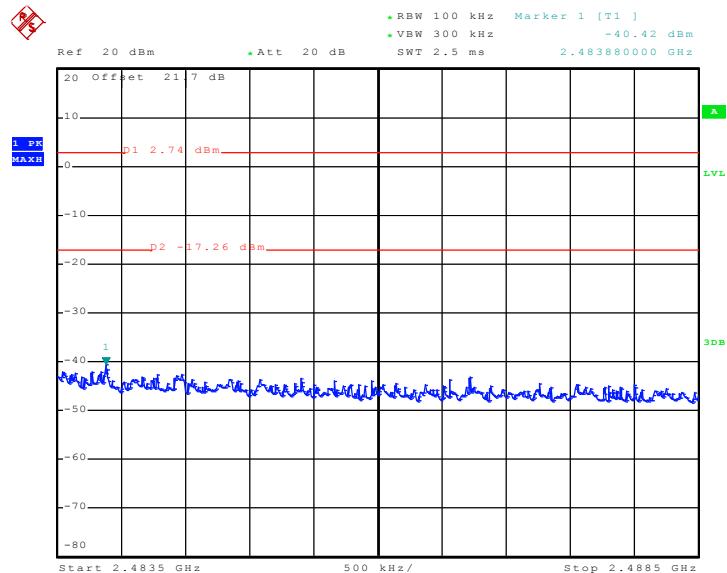
Test Mode :	Mode 6 and 10	Temperature :	25~27°C
Test Band :	802.11g	Relative Humidity :	45~48%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11g Channel 01



Date: 26.AUG.2010 08:52:47

High Band Edge Plot on 802.11g Channel 11

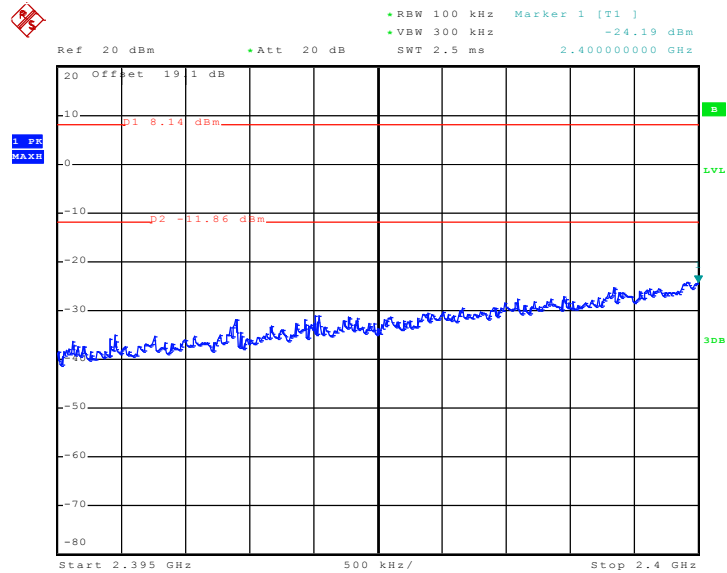


Date: 31.AUG.2010 11:13:12



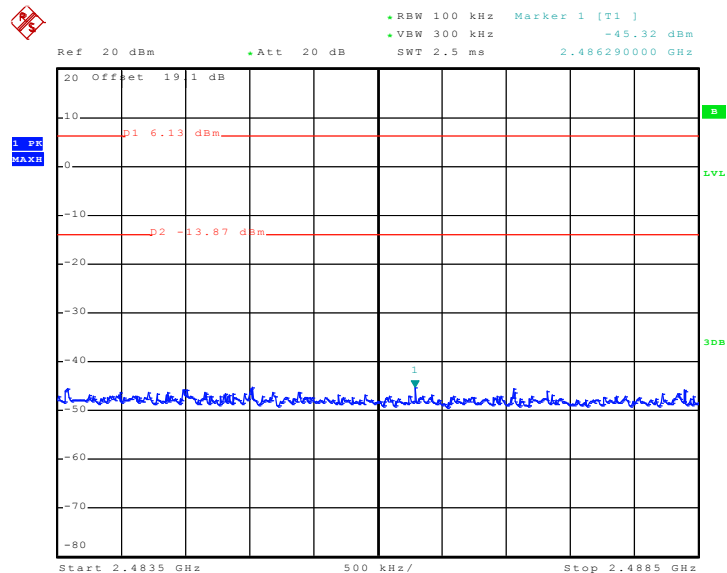
Test Mode :	Mode 11 and 15	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz)	Relative Humidity :	45~48%
Test Channel :	01 and 11	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11n (BW 20MHz) Channel 01



Date: 27.AUG.2010 07:50:00

High Band Edge Plot on 802.11n (BW 20MHz) Channel 11

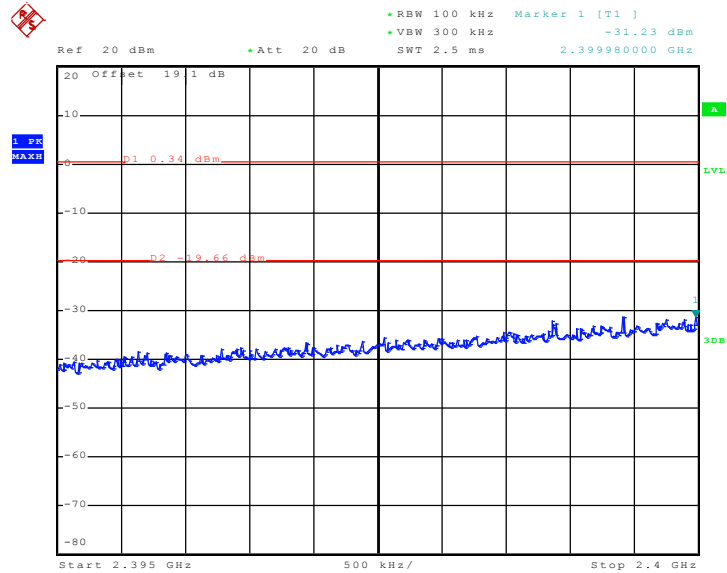


Date: 27.AUG.2010 07:43:13



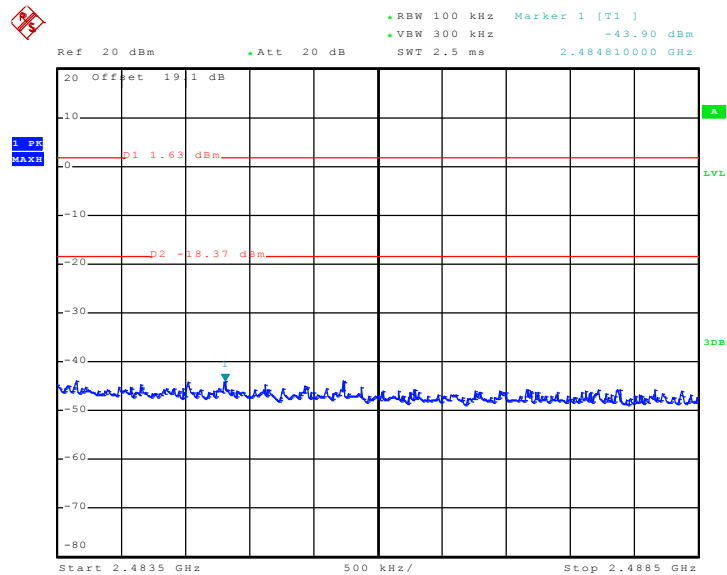
Test Mode :	Mode 16 and 19	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz)	Relative Humidity :	45~48%
Test Channel :	03 and 09	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11n (BW 40MHz) Channel 03



Date: 27.AUG.2010 10:09:25

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

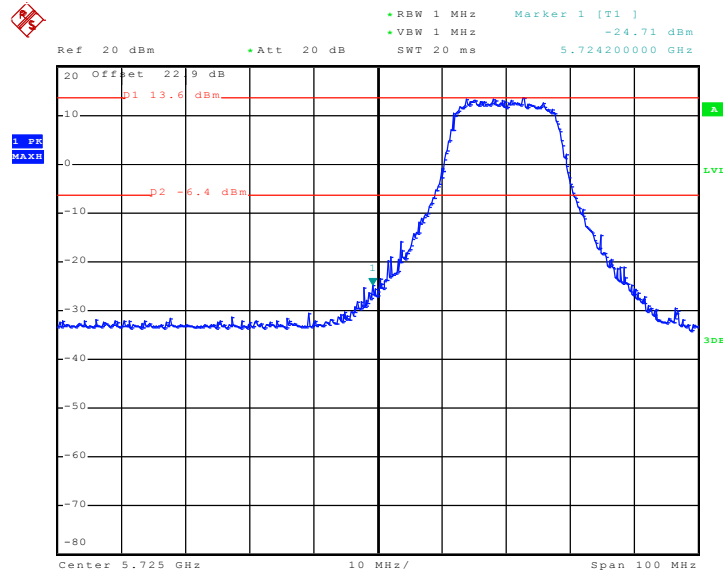


Date: 27.AUG.2010 10:12:51



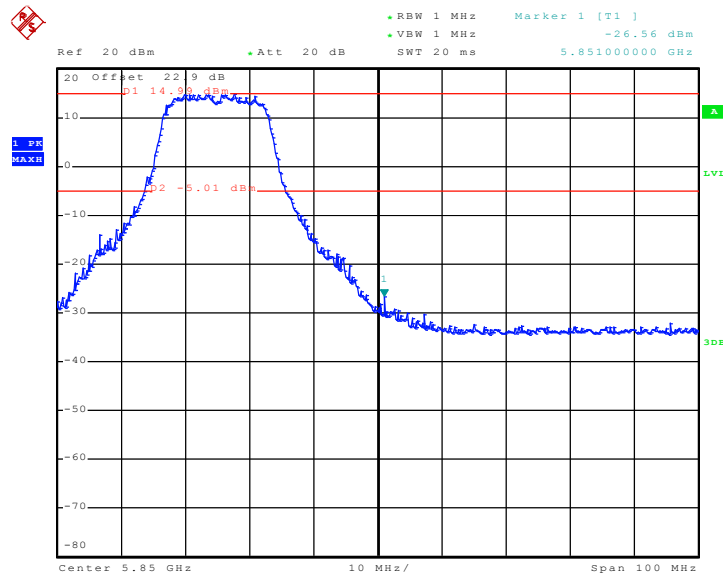
Test Mode :	Mode 20 and 22	Temperature :	25~27°C
Test Band :	802.11a	Relative Humidity :	45~48%
Test Channel :	149 and 165	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11a Channel 149



Date: 26.AUG.2010 11:44:38

High Band Edge Plot on 802.11a Channel 165

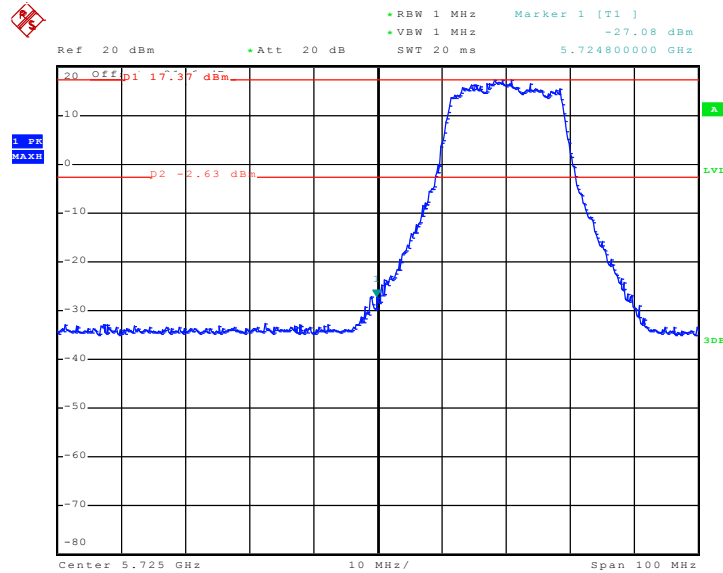


Date: 26.AUG.2010 11:42:55



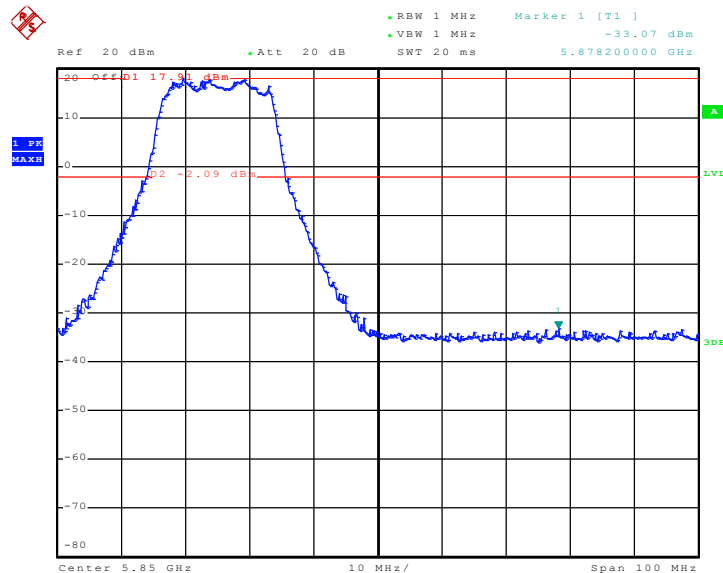
Test Mode :	Mode 23 and 25	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz)	Relative Humidity :	45~48%
Test Channel :	149 and 165	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11n (BW 20MHz) Channel 149



Date: 26.AUG.2010 13:55:12

High Band Edge Plot on 802.11n (BW 20MHz) Channel 165

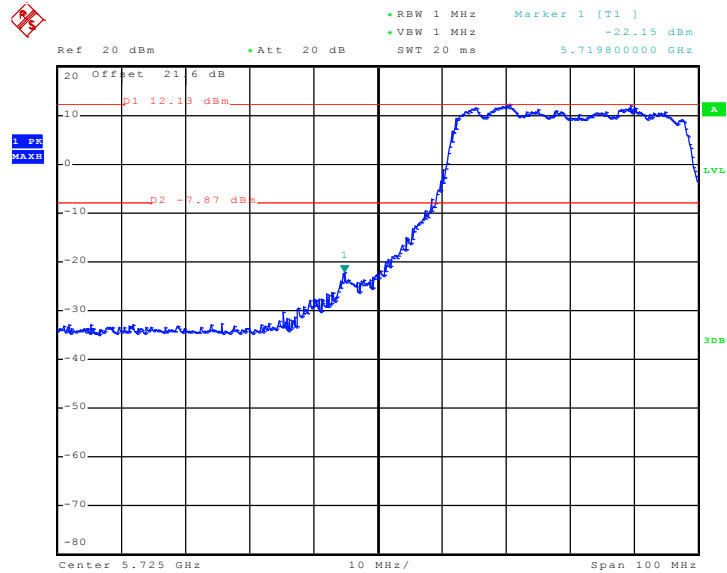


Date: 26.AUG.2010 13:56:56



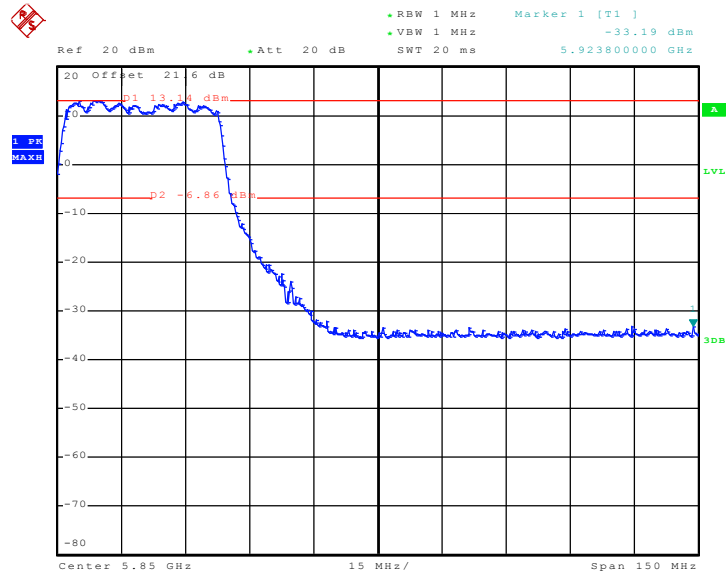
Test Mode :	Mode 26 and 27	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz)	Relative Humidity :	45~48%
Test Channel :	151 and 159	Test Engineer :	Ken Hsu

Low Band Edge Plot on 802.11n (BW 40MHz) Channel 151



Date: 26.AUG.2010 13:41:57

High Band Edge Plot on 802.11n (BW 40MHz) Channel 159



Date: 26.AUG.2010 13:44:39

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.

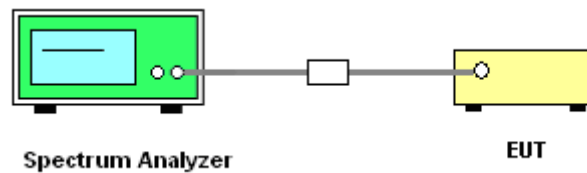
3.4.2 Measuring Instruments

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

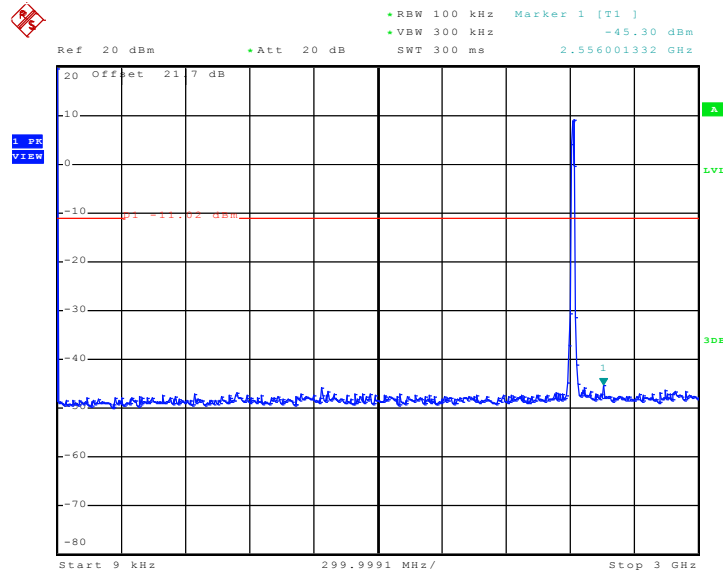




3.4.5 Test Result

Test Mode :	Mode 1, 2, 3, 4, 5	Temperature :	25~27°C
Test Band :	802.11b	Relative Humidity :	45~48%
Test Channel :	01, 02, 06, 10, 11	Test Engineer :	Ken Hsu

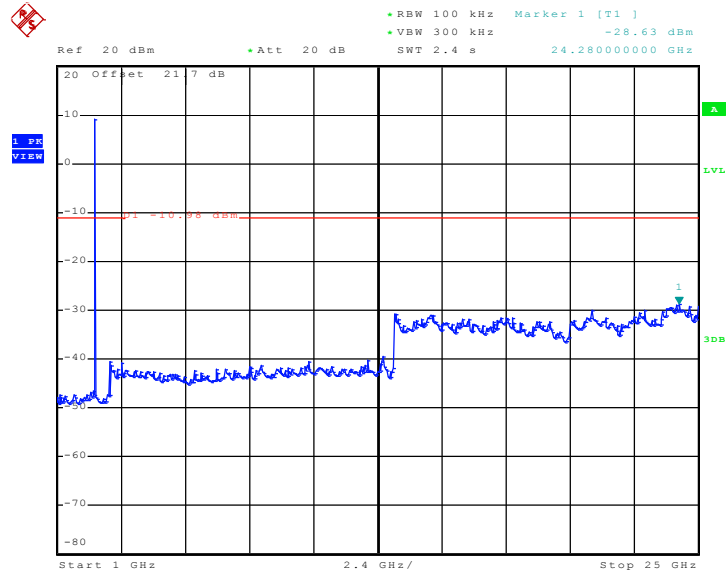
Mode 1: Conducted Spurious Emission Plot on 802.11b between 9 kHz ~ 3 GHz - Chain C



Date: 26.AUG.2010 06:52:32

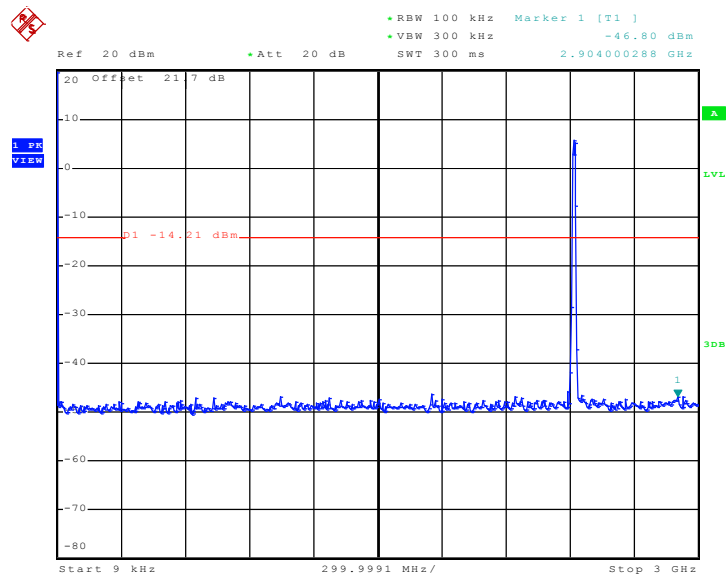


Mode 1: Conducted Spurious Emission Plot on 802.11b between
1 GHz ~ 25 GHz - Chain C



Date: 26.AUG.2010 06:52:50

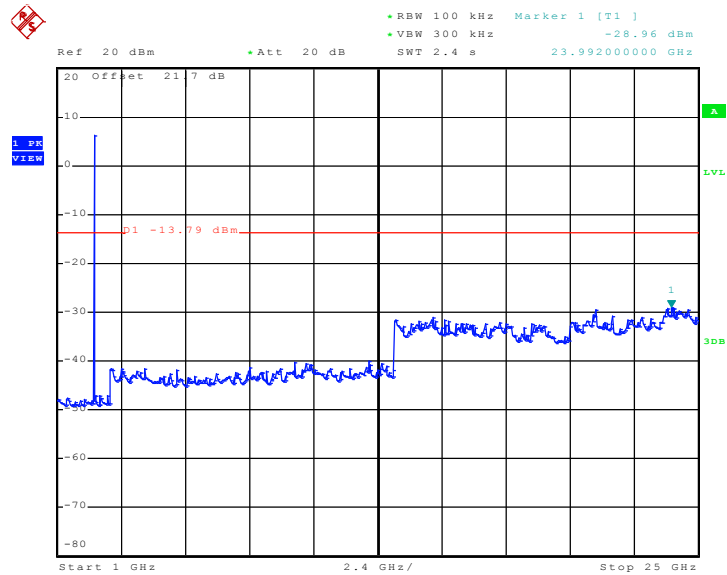
Mode 2: Conducted Spurious Emission Plot on 802.11b between
9 kHz ~ 3 GHz - Chain C



Date: 26.AUG.2010 07:32:50

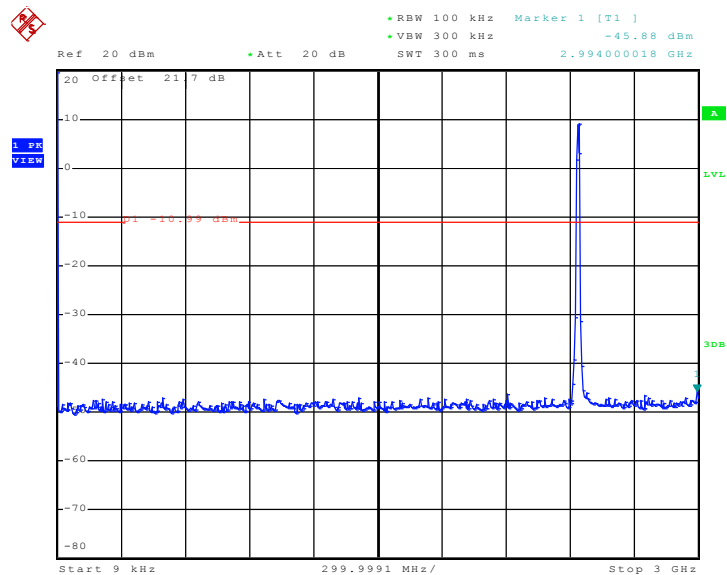


**Mode 2: Conducted Spurious Emission Plot on 802.11b between
1 GHz ~ 25 GHz - Chain C**



Date: 26.AUG.2010 07:33:06

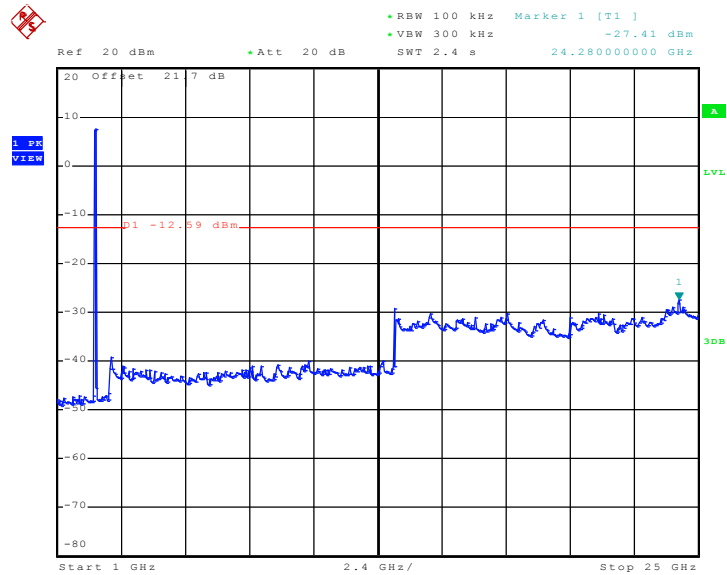
**Mode 3: Conducted Spurious Emission Plot on 802.11b between
9 kHz ~ 3 GHz - Chain C**



Date: 26.AUG.2010 06:53:14

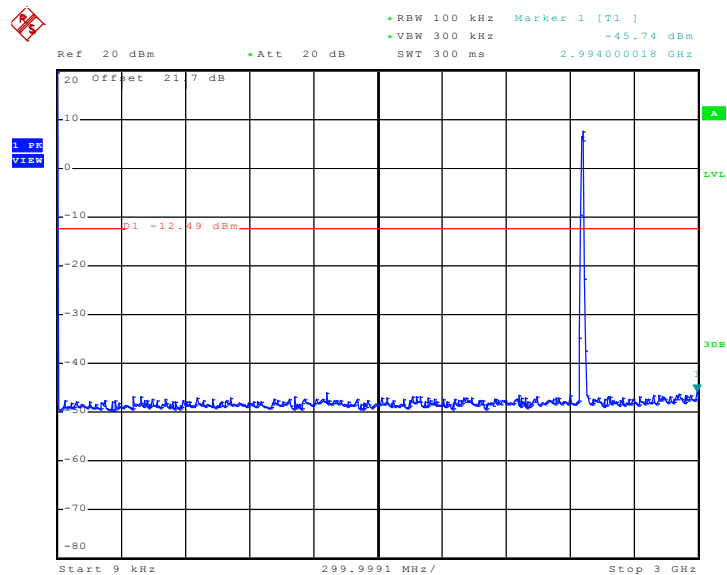


Mode 3: Conducted Spurious Emission Plot on 802.11b between
1 GHz ~ 25 GHz - Chain C



Date: 26.AUG.2010 06:53:50

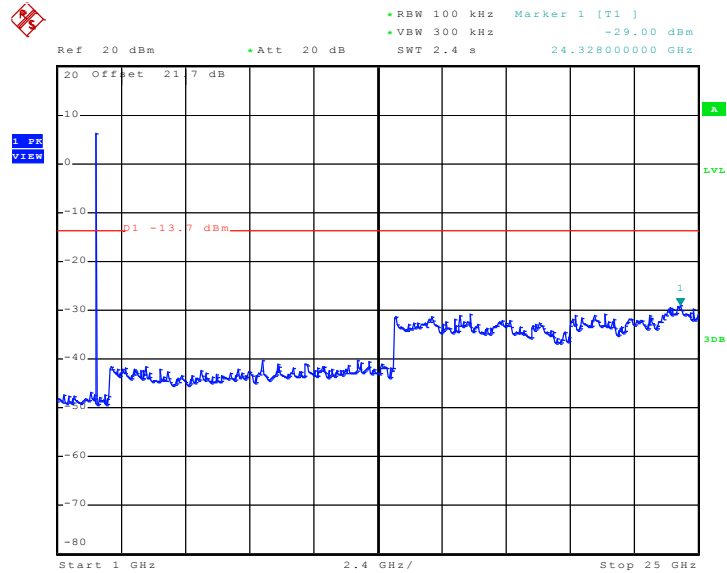
Mode 4: Conducted Spurious Emission Plot on 802.11b between
9 kHz ~ 3 GHz - Chain C



Date: 26.AUG.2010 07:33:58

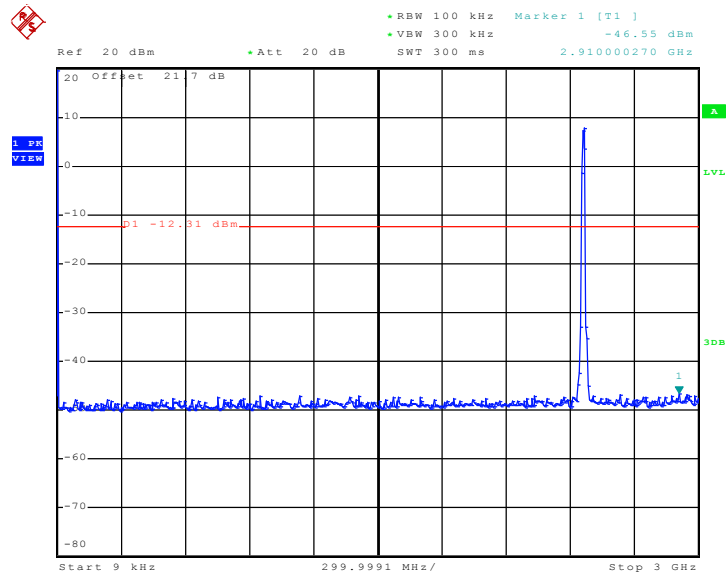


**Mode 4: Conducted Spurious Emission Plot on 802.11b between
1 GHz ~ 25 GHz - Chain C**



Date: 26.AUG.2010 07:34:11

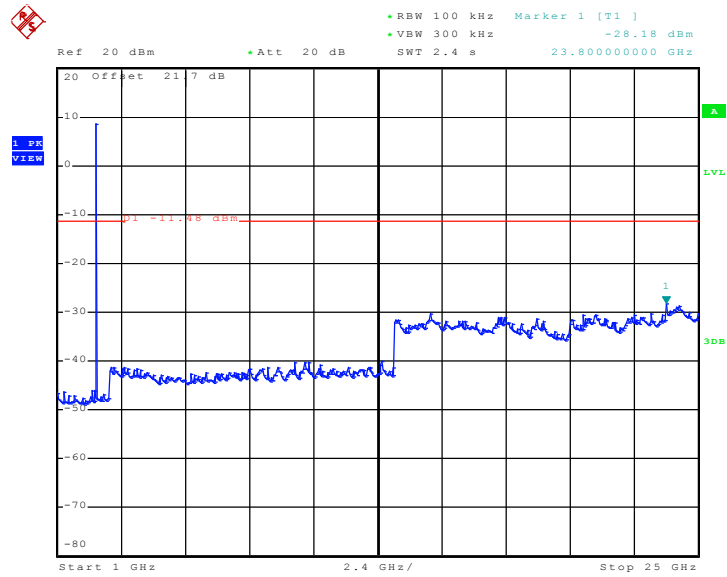
**Mode 5: Conducted Spurious Emission Plot on 802.11b between
9 kHz ~ 3 GHz - Chain C**



Date: 26.AUG.2010 06:54:10



Mode 5: Conducted Spurious Emission Plot on 802.11b between
1 GHz ~ 25 GHz - Chain C

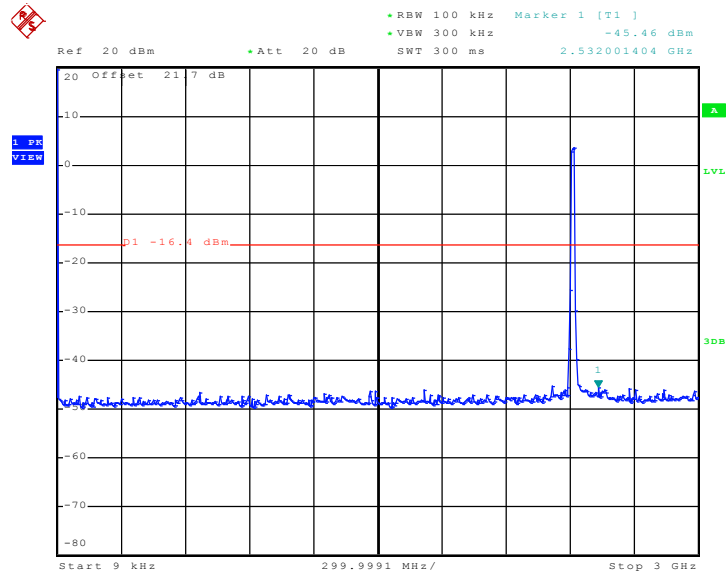


Date: 26.AUG.2010 06:54:35



Test Mode :	Mode 6, 7, 8, 9, 10	Temperature :	25~27°C
Test Band :	802.11g	Relative Humidity :	45~48%
Test Channel :	01, 02, 06, 10, 11	Test Engineer :	Ken Hsu

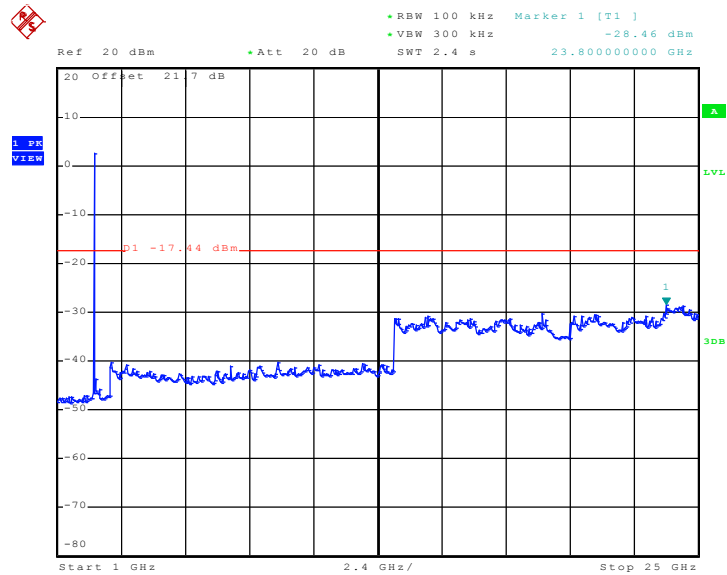
Mode 6: Conducted Spurious Emission Plot on 802.11g between 9 kHz ~ 3 GHz - Chain A



Date: 26.AUG.2010 06:58:25

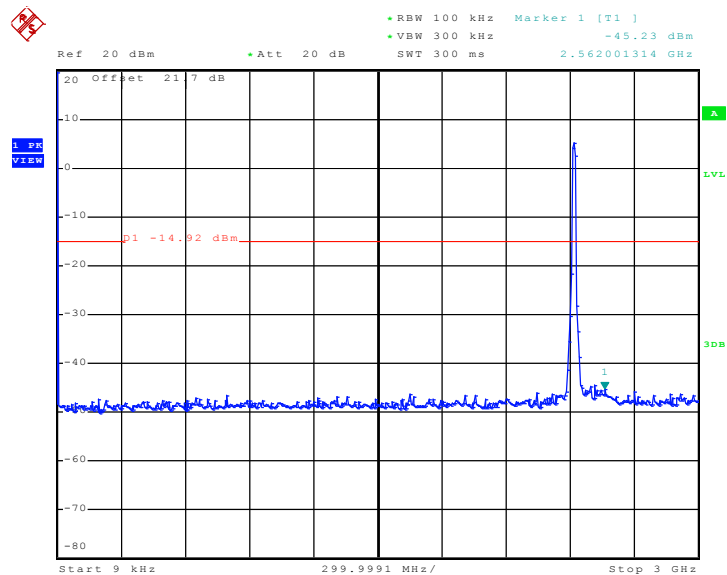


**Mode 6: Conducted Spurious Emission Plot on 802.11g between
1 GHz ~ 25 GHz - Chain A**



Date: 26.AUG.2010 06:59:09

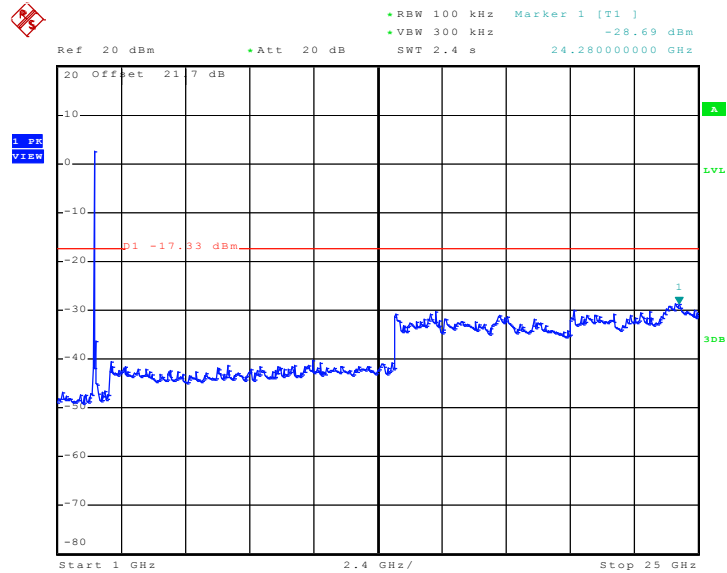
**Mode 7: Conducted Spurious Emission Plot on 802.11g between
9 kHz ~ 3 GHz - Chain A**



Date: 26.AUG.2010 07:35:56

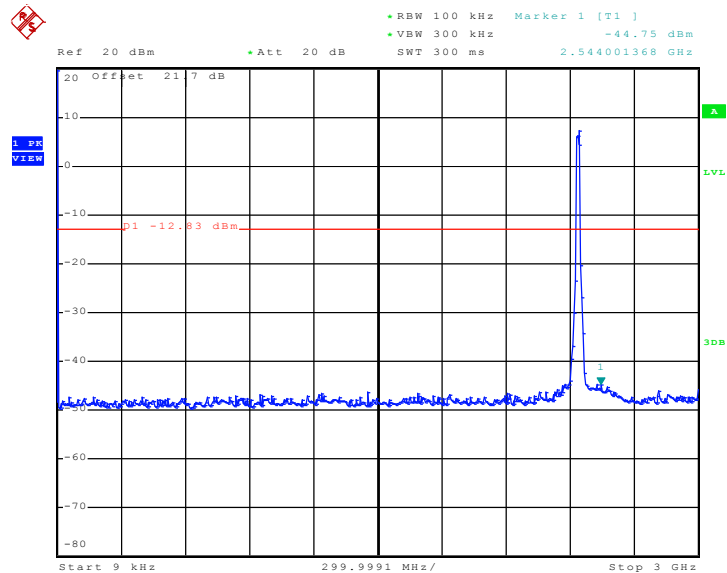


**Mode 7: Conducted Spurious Emission Plot on 802.11g between
1 GHz ~ 25 GHz - Chain A**



Date: 26.AUG.2010 07:36:19

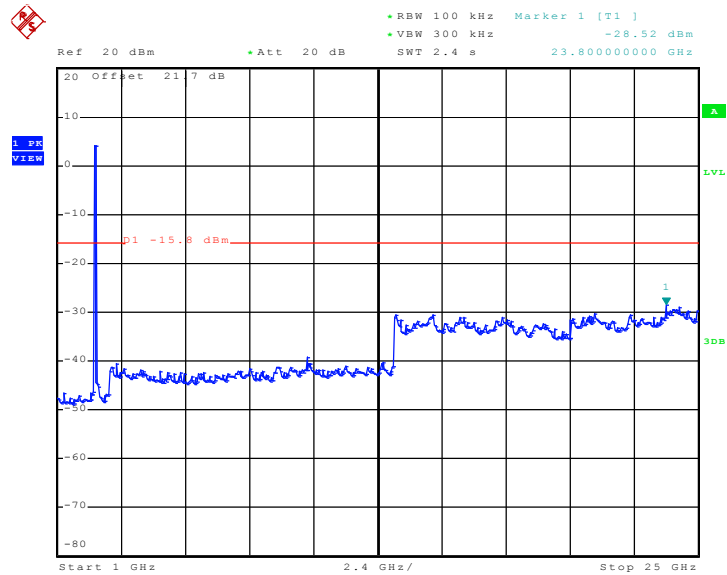
**Mode 8: Conducted Spurious Emission Plot on 802.11g between
9 kHz ~ 3 GHz - Chain A**



Date: 26.AUG.2010 07:01:09

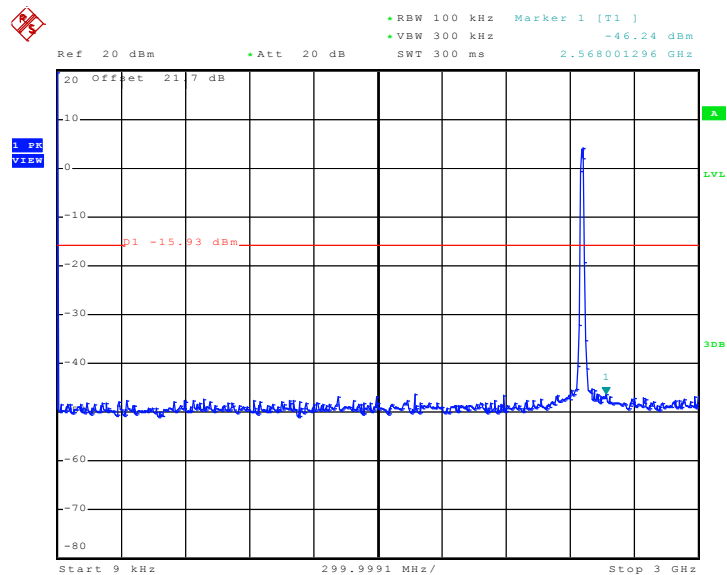


**Mode 8: Conducted Spurious Emission Plot on 802.11g between
1 GHz ~ 25 GHz - Chain A**



Date: 26.AUG.2010 07:01:36

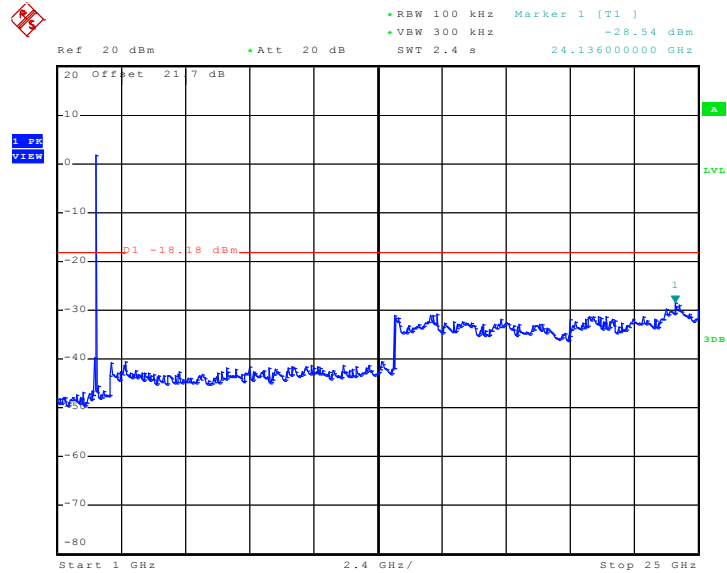
**Mode 9: Conducted Spurious Emission Plot on 802.11g between
9 kHz ~ 3 GHz - Chain A**



Date: 26.AUG.2010 07:37:10

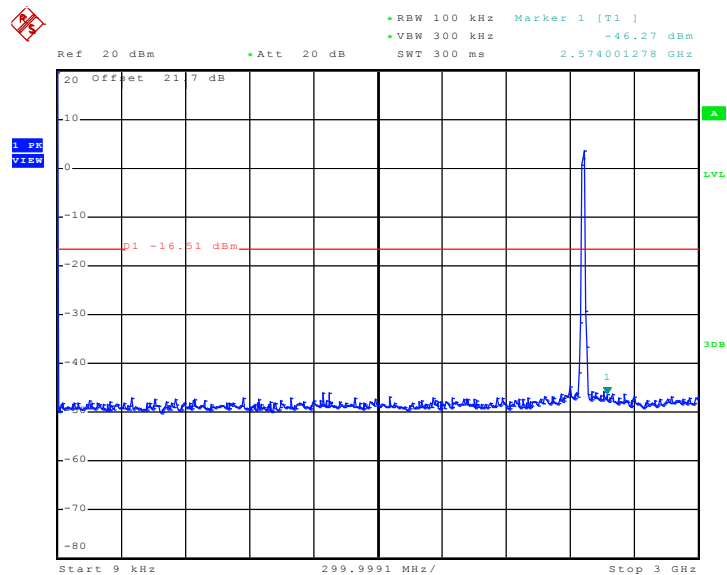


Mode 9: Conducted Spurious Emission Plot on 802.11g between 1 GHz ~ 25 GHz - Chain A



Date: 26.AUG.2010 07:37:23

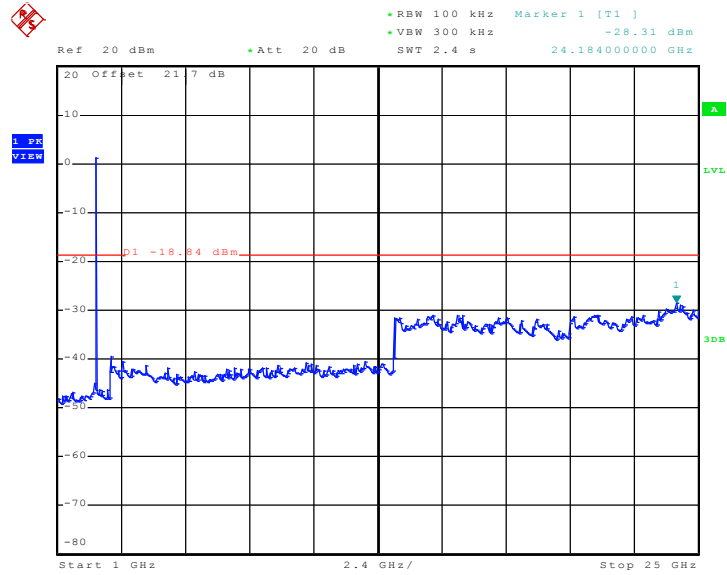
Mode10: Conducted Spurious Emission Plot on 802.11g between 9 kHz ~ 3 GHz - Chain A



Date: 26.AUG.2010 07:02:12



Mode 10: Conducted Spurious Emission Plot on 802.11g
between 1 GHz ~ 25 GHz - Chain A

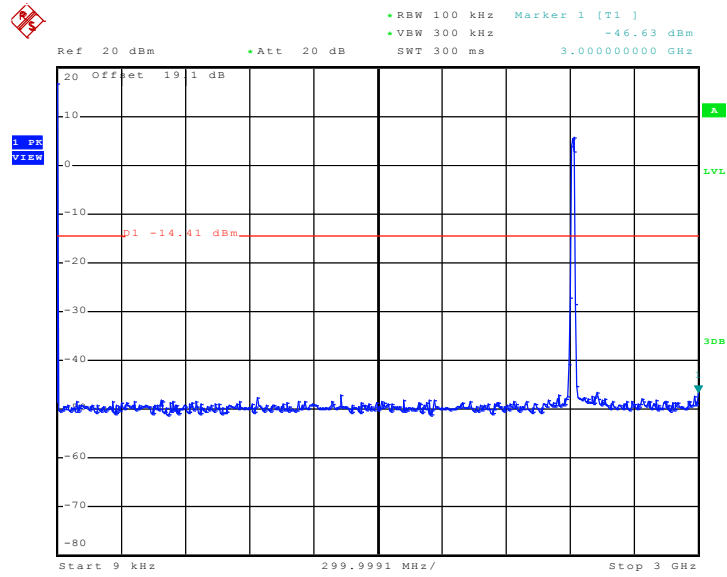


Date: 26.AUG.2010 07:02:33



Test Mode :	Mode 11, 12, 13, 14, 15	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	45~48%
Test Channel :	01, 02, 06, 10, 11	Test Engineer :	Ken Hsu

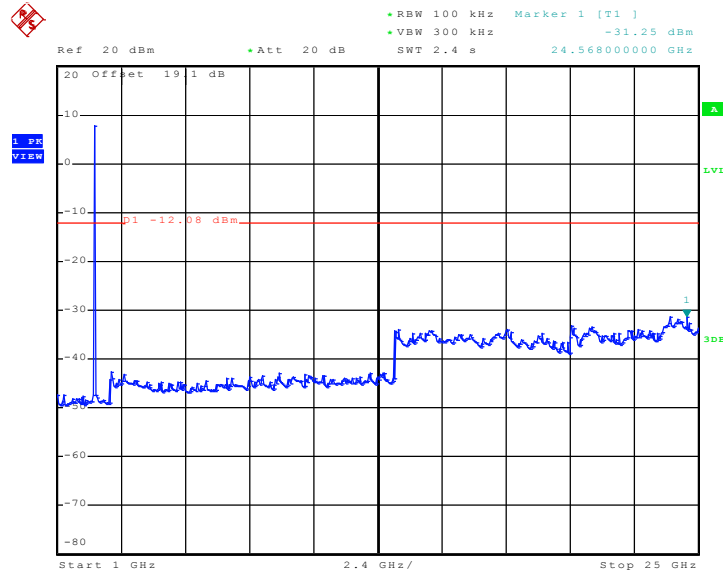
Mode11: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 07:53:25

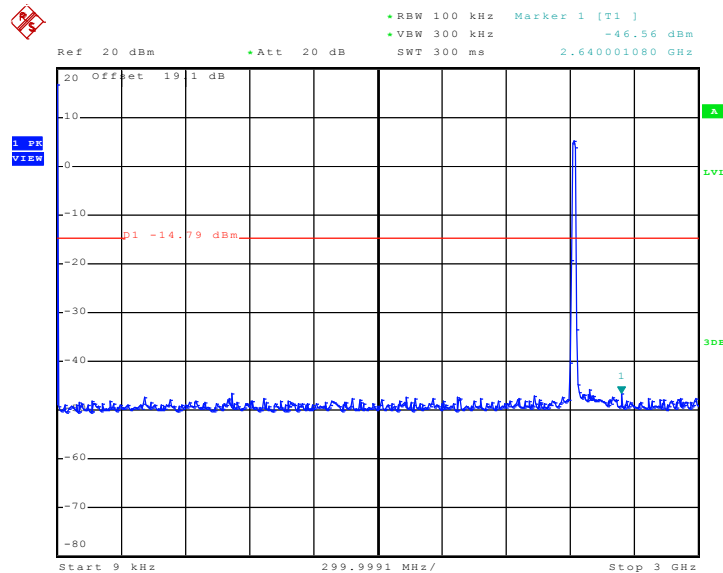


Mode 11: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 07:53:42

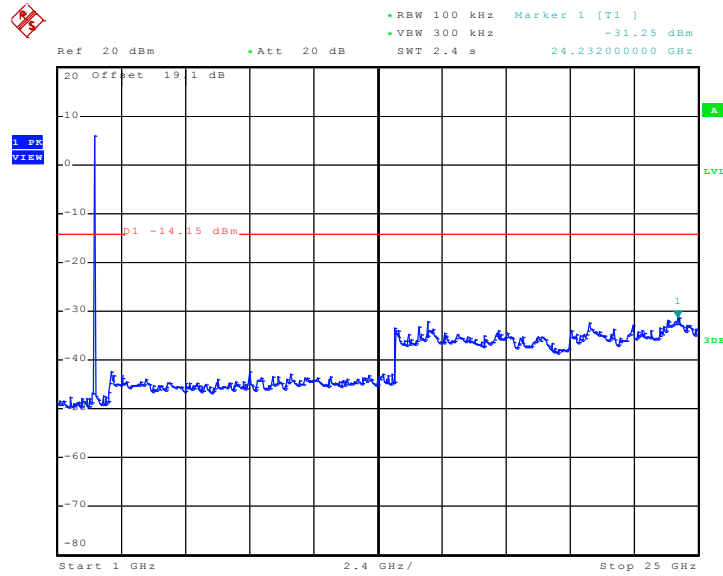
Mode 12: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 07:54:04

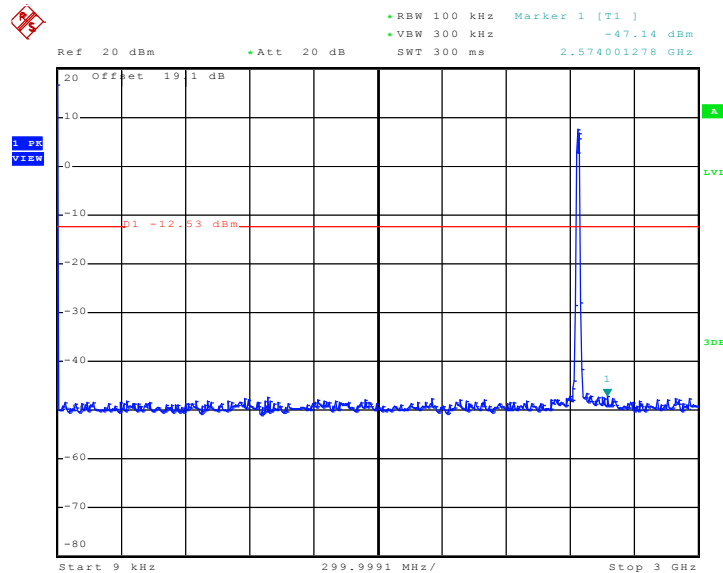


Mode 12: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 07:54:35

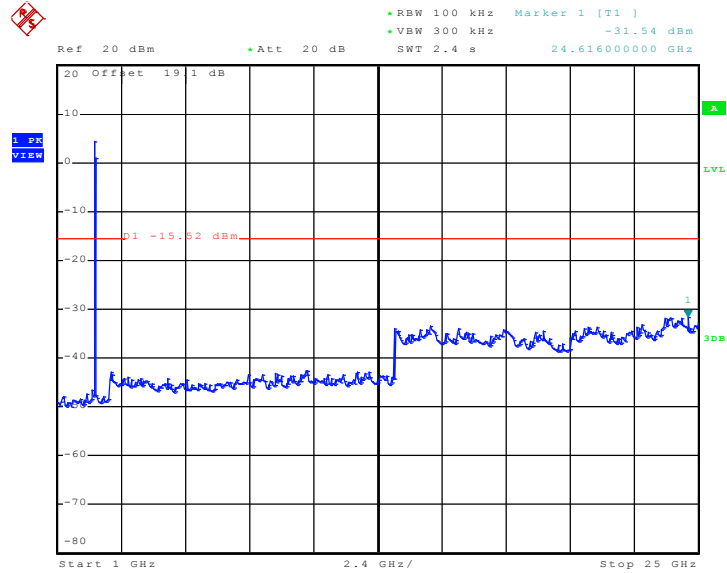
Mode 13: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 07:55:04

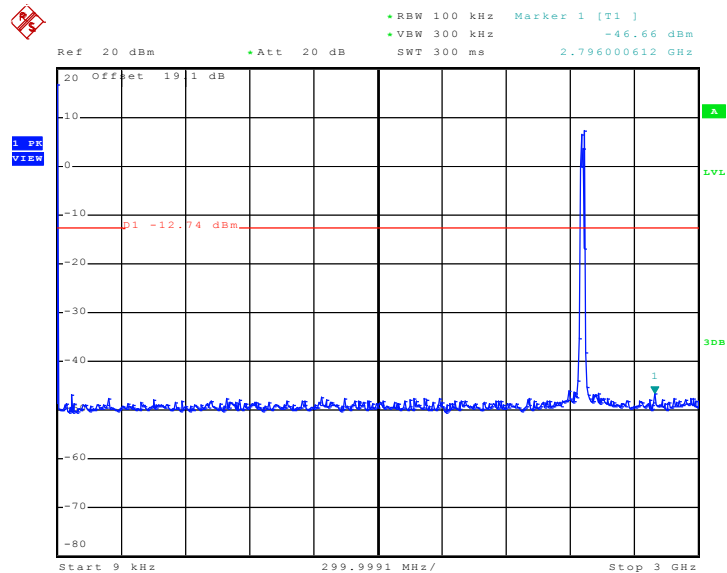


Mode 13: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 07:55:25

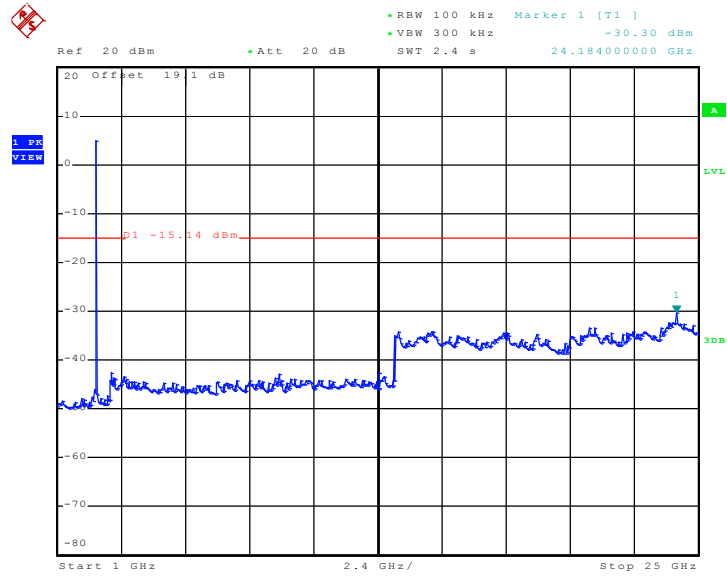
Mode 14: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 07:55:52

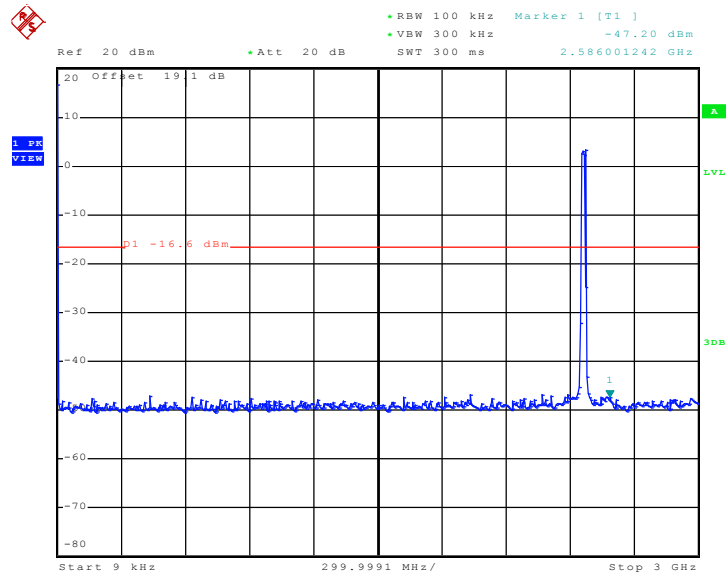


Mode 14: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 07:56:09

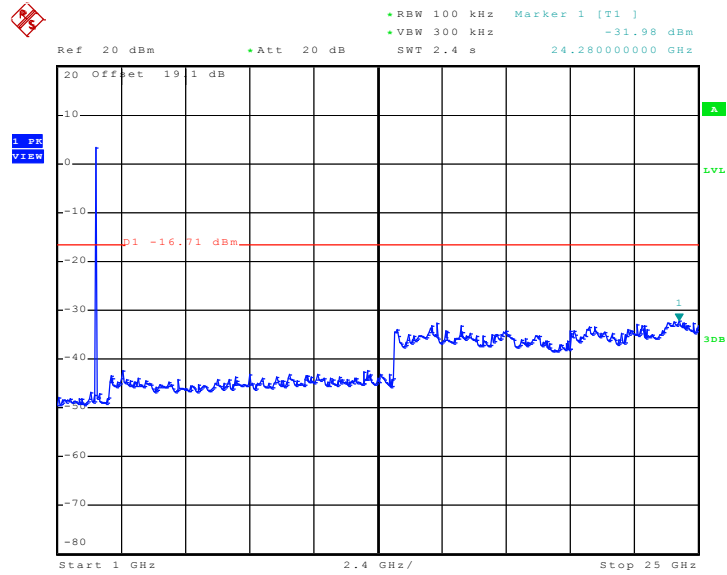
Mode 15: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 07:56:35



Mode 15: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 1 GHz ~ 25 GHz - Chain A+B+C

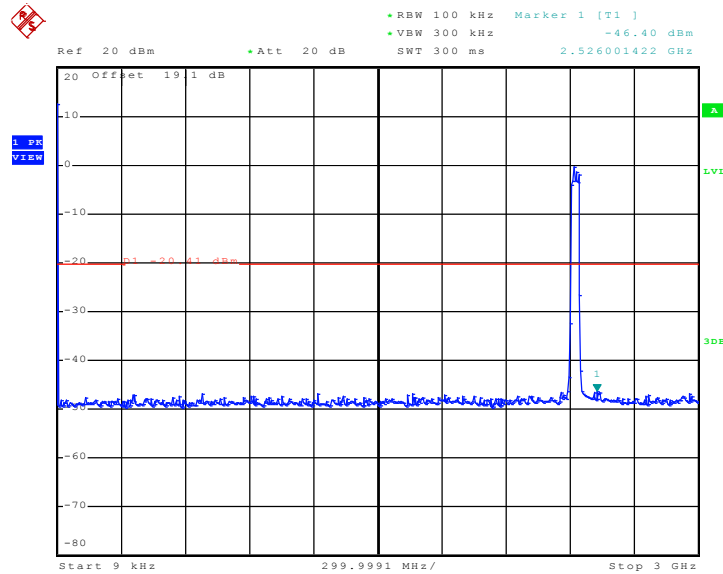


Date: 27.AUG.2010 07:56:58



Test Mode :	Mode 16, 17, 18, 19	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	45~48%
Test Channel :	03, 04, 08, 09	Test Engineer :	Ken Hsu

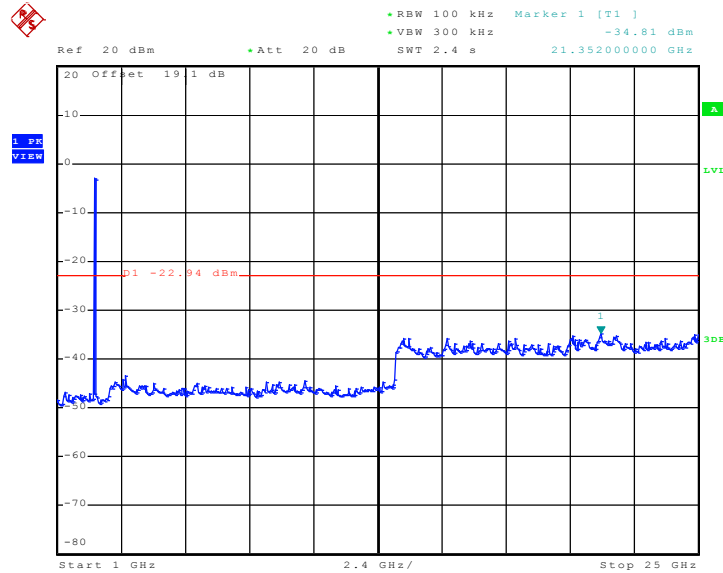
Mode 16: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 21:09:03

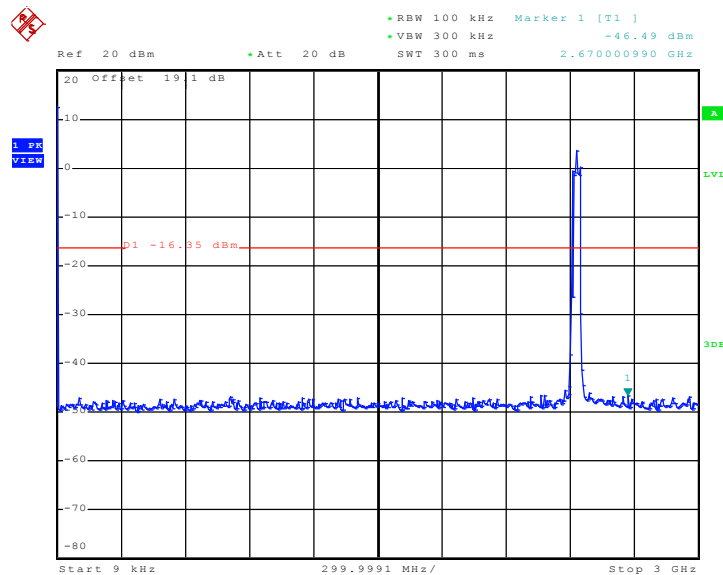


Mode 16: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 21:09:36

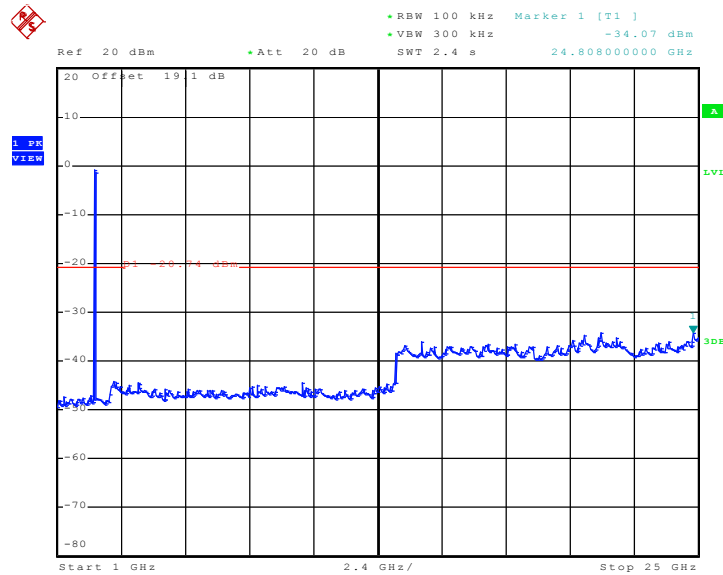
Mode 17: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 21:10:22

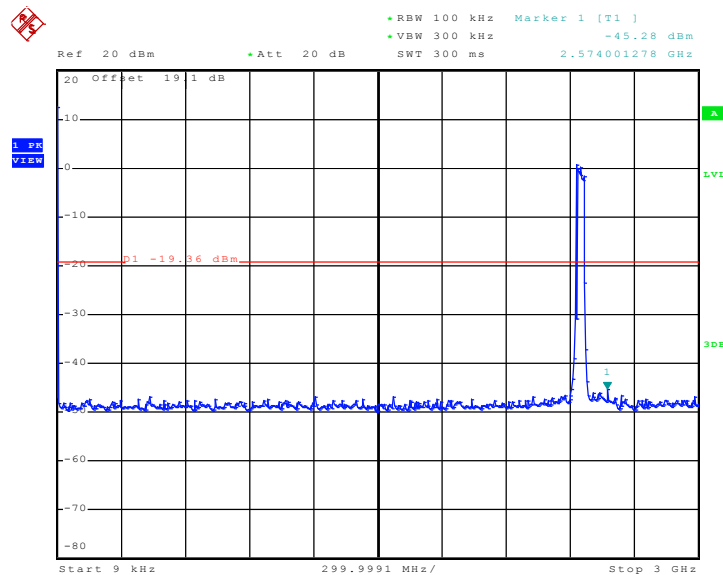


Mode 17: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 21:10:50

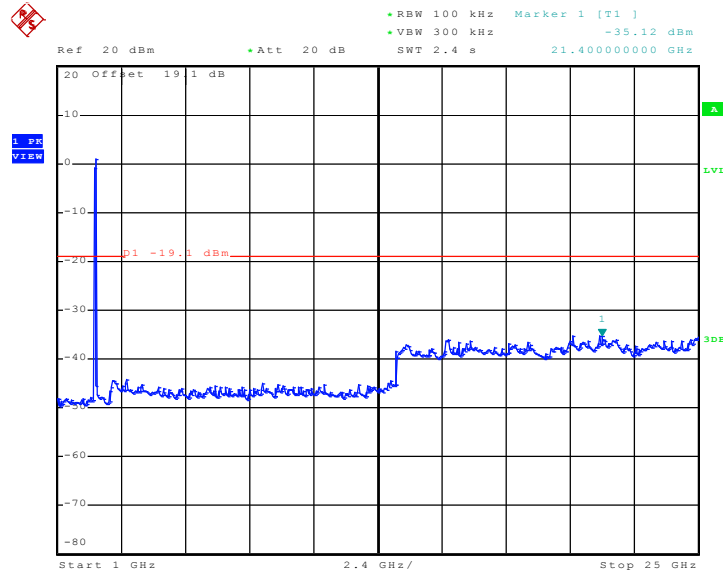
Mode 18: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 21:11:37

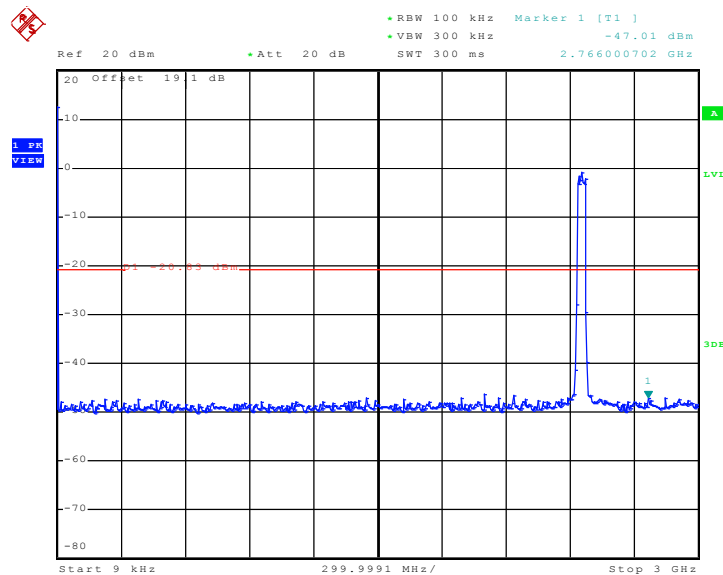


Mode 18: Conducted Spurious Emission Plot on 802.11n(BW 40MHz) between 1 GHz ~ 25 GHz - Chain A+B+C



Date: 27.AUG.2010 21:11:56

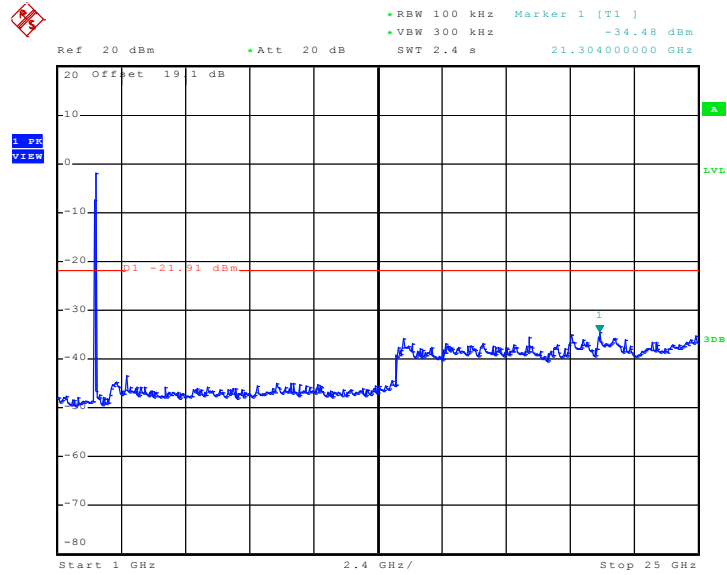
Mode 19: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 9 kHz ~ 3 GHz - Chain A+B+C



Date: 27.AUG.2010 21:12:26



Mode 19: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 1 GHz ~ 25 GHz - Chain A+B+C

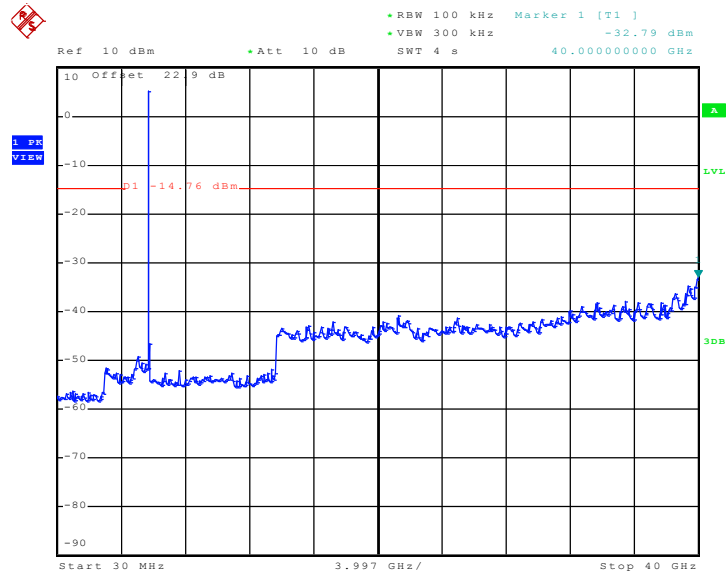


Date: 27.AUG.2010 21:12:42



Test Mode :	Mode 20, 21, 22	Temperature :	25~27°C
Test Band :	802.11a	Relative Humidity :	45~48%
Test Channel :	149, 157, 165	Test Engineer :	Ken Hsu

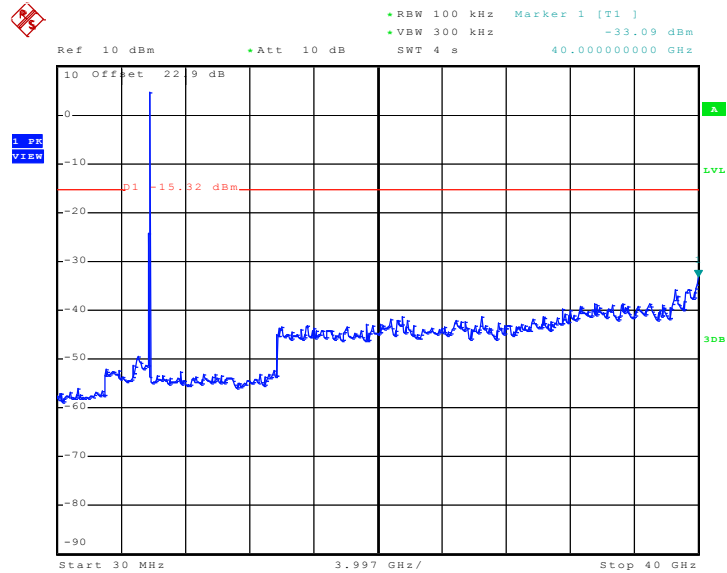
Mode 20:Conducted Spurious Emission Plot on 802.11a between
30 MHz~40 GHz Chain C



Date: 27.AUG.2010 20:38:19

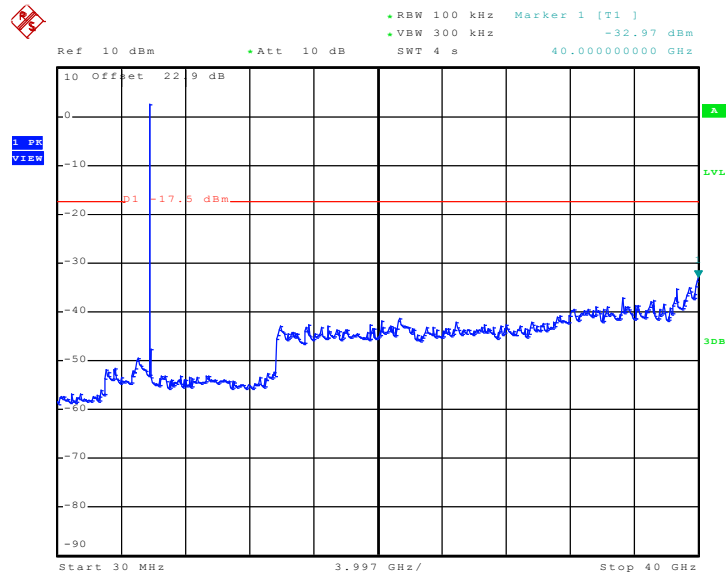


Mode 21:Conducted Spurious Emission Plot on 802.11a between
30 MHz~40 GHz Chain C



Date: 27.AUG.2010 20:42:34

Mode 22:Conducted Spurious Emission Plot on 802.11a between
30 MHz~40 GHz Chain C

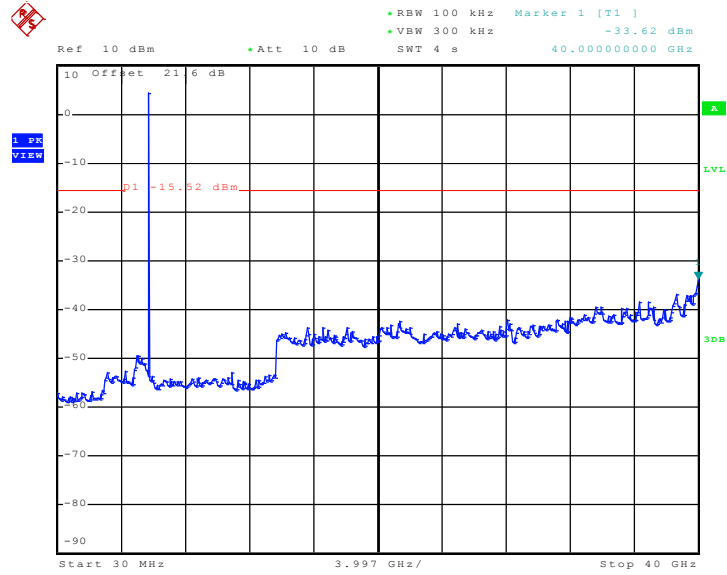


Date: 27.AUG.2010 20:40:59



Test Mode :	Mode 23, 24, 25	Temperature :	25~27°C
Test Band :	802.11n (BW 20MHz, 3Tx)	Relative Humidity :	45~48%
Test Channel :	149, 157, 165	Test Engineer :	Ken Hsu

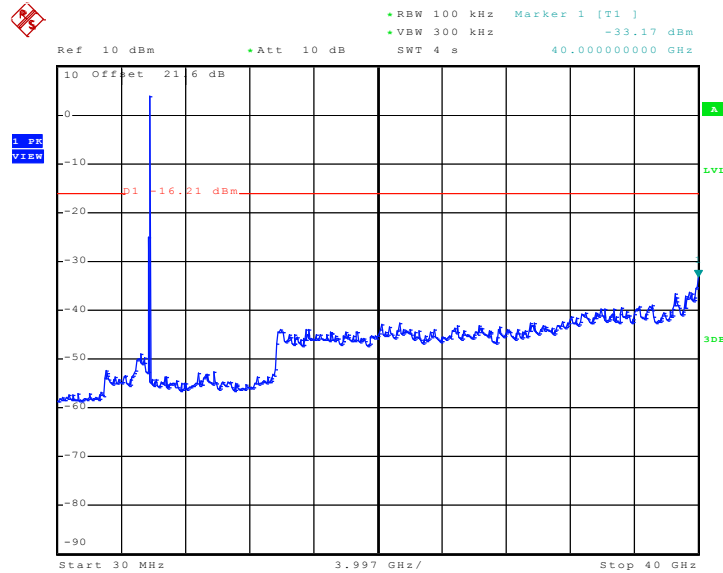
Mode 23:Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 30 MHz~40 GHz Chain A+B+C



Date: 27.AUG.2010 21:01:19

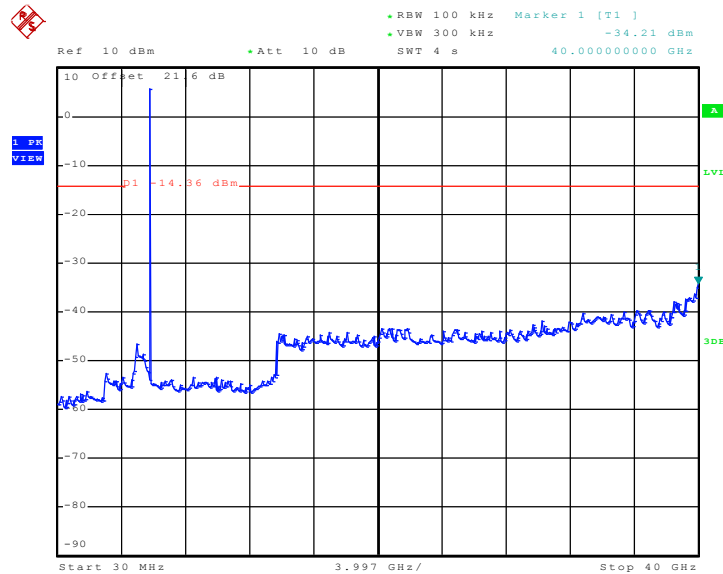


Mode 24: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 30 MHz~40 GHz Chain A+B+C



Date: 27.AUG.2010 21:02:13

Mode 25: Conducted Spurious Emission Plot on 802.11n (BW 20MHz) between 30 MHz~40 GHz Chain A+B+C

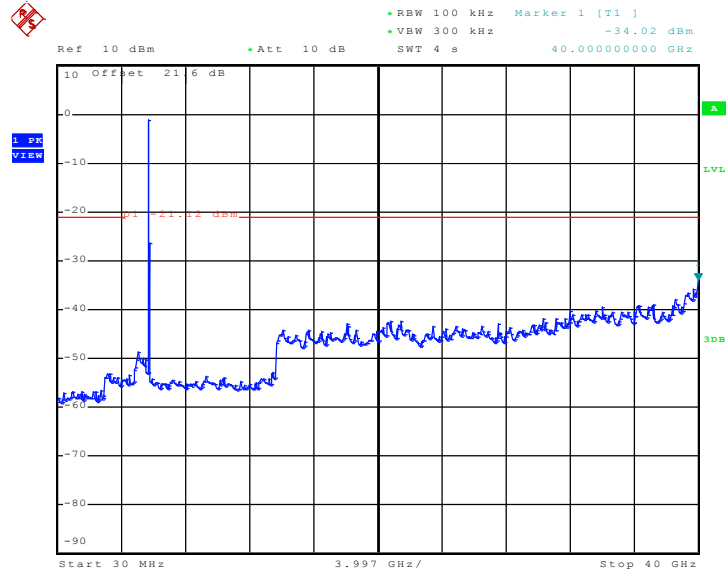


Date: 27.AUG.2010 21:03:01



Test Mode :	Mode 26, 27	Temperature :	25~27°C
Test Band :	802.11n (BW 40MHz, 3Tx)	Relative Humidity :	45~48%
Test Channel :	151 and 159	Test Engineer :	Ken Hsu

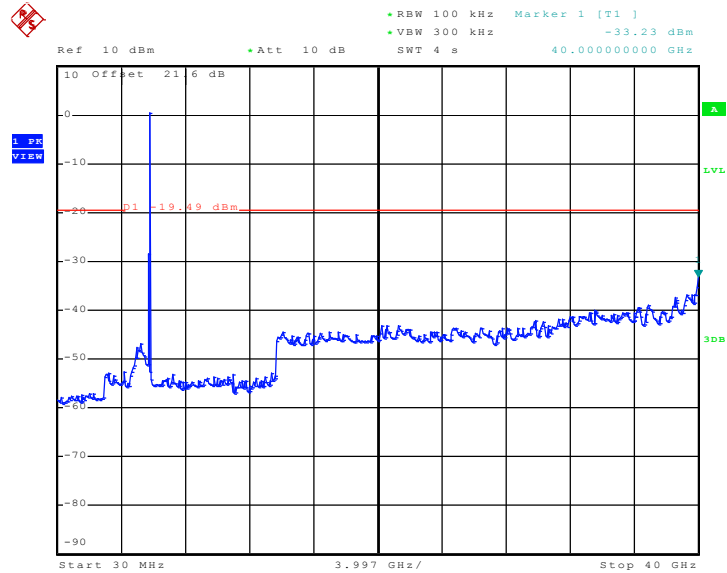
Mode 26:Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 30 MHz~40 GHz Chain A+B+C



Date: 27.AUG.2010 20:58:24



Mode 27: Conducted Spurious Emission Plot on 802.11n (BW 40MHz) between 30 MHz~40 GHz Chain A+B+C



Date: 27.AUG.2010 20:59:18

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.

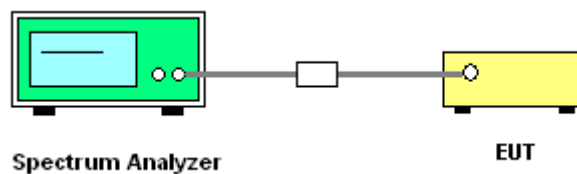
3.5.2 Measuring Instruments

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, 4, 5	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11b Measured PSD (dBm)		Max. Limits (dBm)	Pass/Fail
		Chain C			
01	2412	-2.25		8	Pass
02	2417	-2.37		8	Pass
06	2437	-0.99		8	Pass
10	2457	-0.64		8	Pass
11	2462	-0.26		8	Pass

Test Mode :	Mode 6, 7, 8, 9, 10	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11g Measured PSD (dBm)		Max. Limits (dBm)	Pass/Fail
		Chain A			
01	2412	-3.26		8	Pass
02	2417	-1.92		8	Pass
06	2437	0.25		8	Pass
10	2457	-2.65		8	Pass
11	2462	-4.89		8	Pass

Test Mode :	Mode 11, 12, 13, 14, 15	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain A	Chain B	Chain C	Chain A+B+C		
01	2412	-10.55	-7.42	-4.05	-1.79	8	Pass
02	2417	-4.63	-6.49	-4.99	-0.53	8	Pass
06	2437	-13.54	-7.79	-4.91	-2.73	8	Pass
10	2457	-7.05	-3.90	-3.66	0.15	8	Pass
11	2462	-15.49	-4.46	-4.76	-1.42	8	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 $10 \cdot \text{LOG} (10^{\text{chain A}/10} + 10^{\text{chain B}/10} + 10^{\text{chain C}/10})$.



Test Mode :	Mode 16, 17, 18, 19	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain A	Chain B	Chain C	Chain A+B+C		
03	2422	-6.47	-6.43	-16.66	-3.24	8	Pass
04	2427	-7.77	-5.12	-5.63	-1.26	8	Pass
08	2447	-8.77	-6.09	-8.47	-2.83	8	Pass
09	2452	-4.81	-6.54	-9.36	-1.75	8	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 $10 \cdot \text{LOG} (10^{\text{chain A}/10} + 10^{\text{chain B}/10} + 10^{\text{chain C}/10})$.

Test Mode :	Mode 20, 21, 22	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11a Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
		Chain C		
149	5745	-8.53	8	Pass
157	5785	-5.17	8	Pass
165	5825	-6.82	8	Pass

Test Mode :	Mode 23, 24, 25	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 20MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain A	Chain B	Chain C	Chain A+B+C		
149	5745	-13.99	-12.22	-12.39	-8.03	8	Pass
157	5785	-12.05	-13.16	-12.12	-7.64	8	Pass
165	5825	-9.16	-12.27	-9.51	-5.34	8	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 $10 \cdot \text{LOG} (10^{\text{chain A}/10} + 10^{\text{chain B}/10} + 10^{\text{chain C}/10})$.



Test Mode :	Mode 26, 27	Temperature :	25~27°C
Test Engineer :	Ken Hsu	Relative Humidity :	45~48%

Channel	Frequency (MHz)	802.11n (BW 40MHz, 3Tx) Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		Chain A	Chain B	Chain C	Chain A+B+C		
151	5755	-9.63	-7.00	-10.28	-3.96	0.5	Pass
159	5795	-4.12	-7.50	-7.64	-1.32		

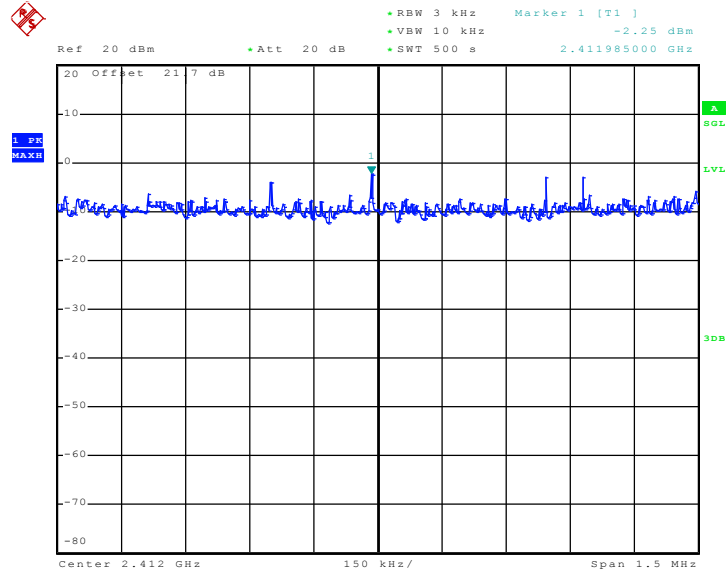
Note: Chain A+B+C was tested by combiner, and the chain A, B and C was tested individually and calculated with the formula of $10 \cdot \text{LOG} (10^{\text{chain A}/10} + 10^{\text{chain B}/10} + 10^{\text{chain C}/10})$.



3.5.6 Test Result of Power Spectral Density Plots

Mode 1 :

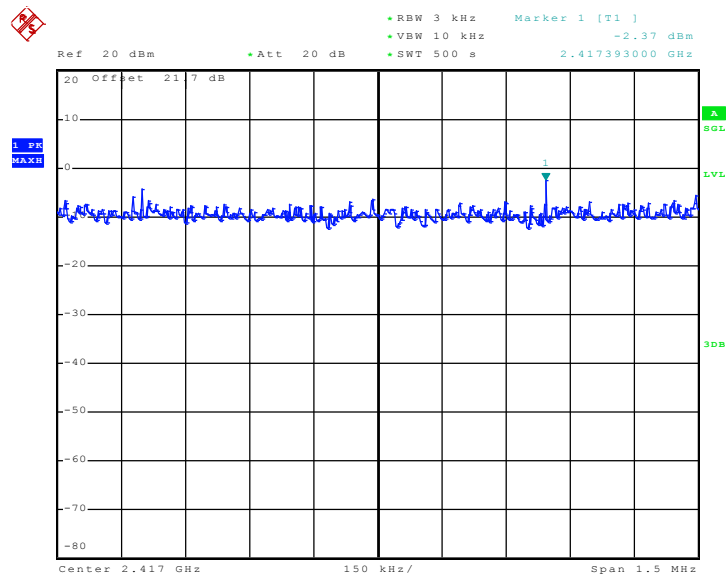
PSD Plot on 802.11b Channel 01 – Chain C



Date: 24.AUG.2010 09:34:10

Mode 2 :

PSD Plot on 802.11b Channel 02 – Chain C

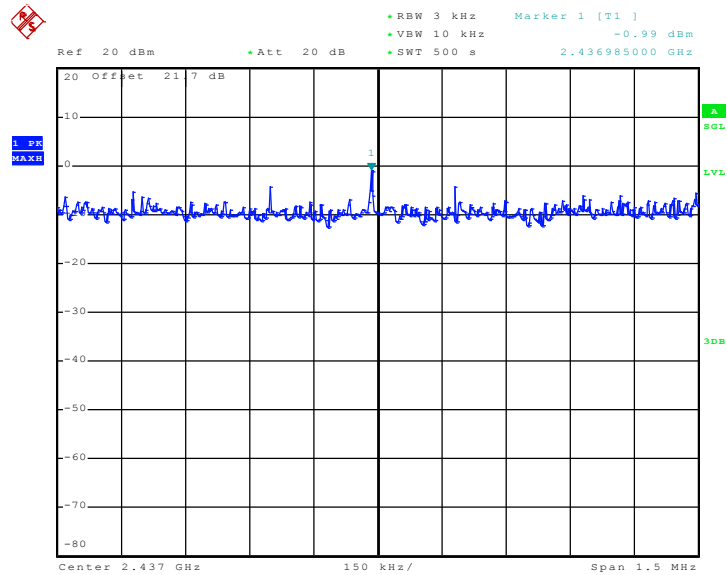


Date: 24.AUG.2010 11:03:56



Mode 3 :

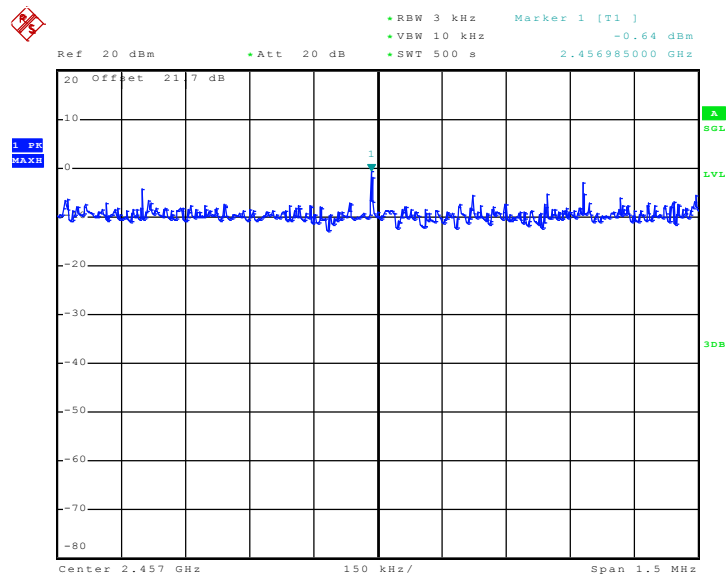
PSD Plot on 802.11b Channel 06 – Chain C



Date: 24.AUG.2010 09:42:58

Mode 4 :

PSD Plot on 802.11b Channel 10 – Chain C

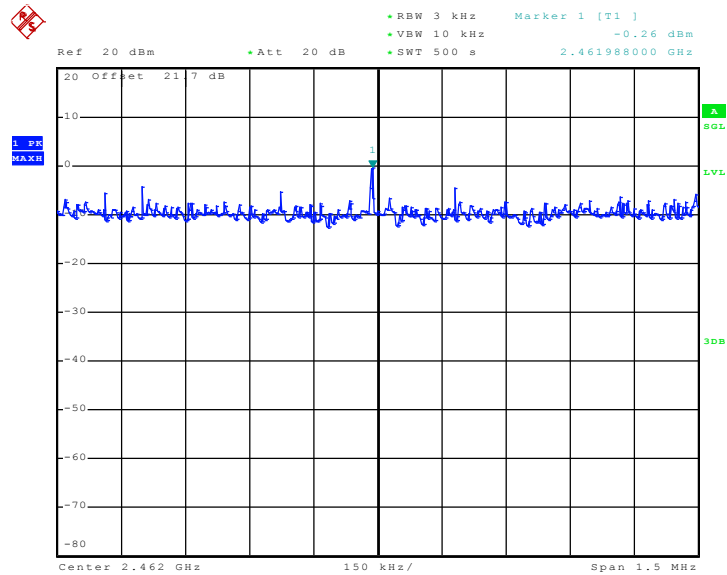


Date: 24.AUG.2010 11:19:02



Mode 5 :

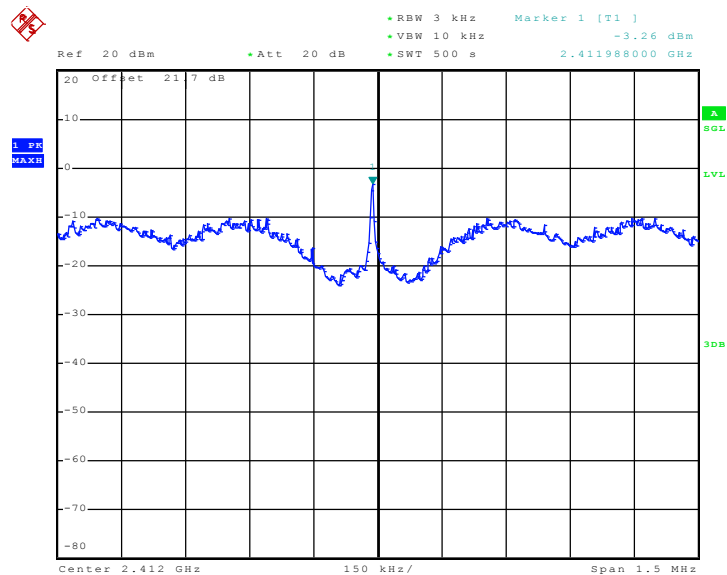
PSD Plot on 802.11b Channel 11 – Chain C



Date: 24.AUG.2010 10:34:05

Mode 6 :

PSD Plot on 802.11g Channel 01 – Chain A

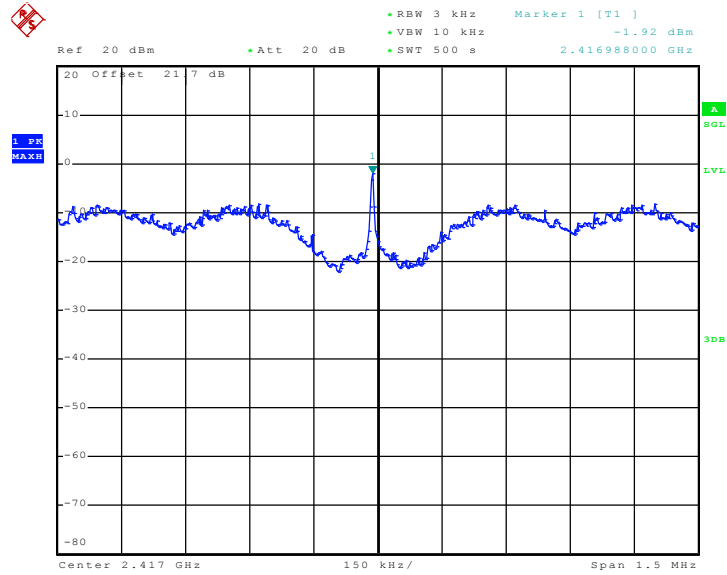


Date: 25.AUG.2010 10:53:35



Mode 7 :

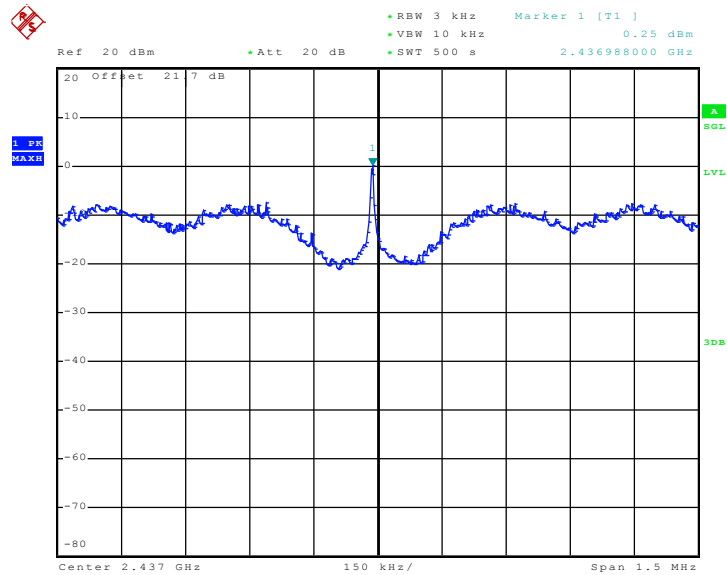
PSD Plot on 802.11g Channel 02 – Chain A



Date: 25.AUG.2010 10:44:02

Mode 8 :

PSD Plot on 802.11g Channel 06 – Chain A

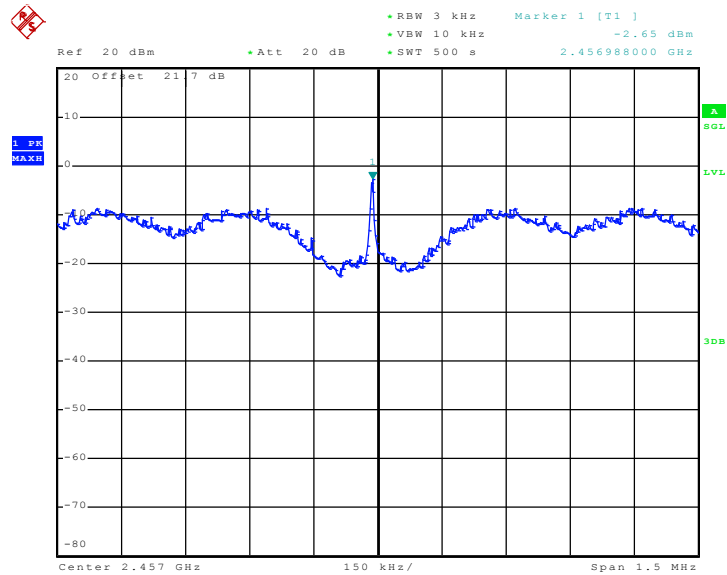


Date: 25.AUG.2010 11:03:24



Mode 9 :

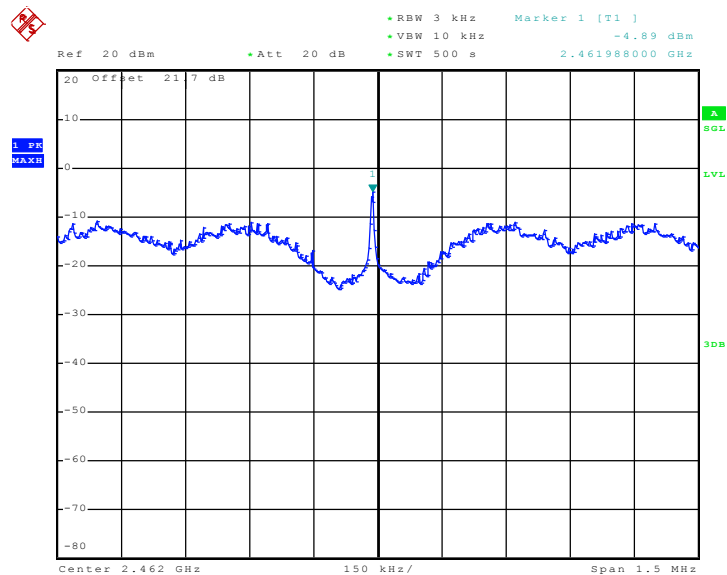
PSD Plot on 802.11g Channel 10 – Chain A



Date: 25.AUG.2010 11:32:00

Mode 10 :

PSD Plot on 802.11g Channel 11 – Chain A

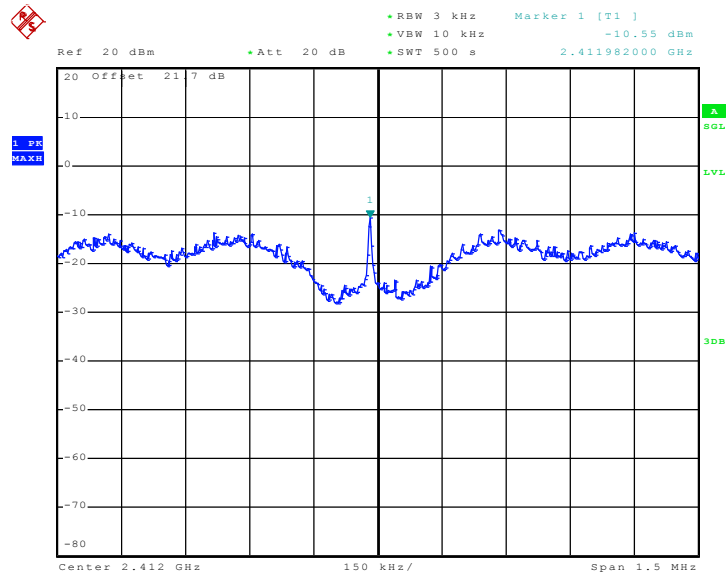


Date: 25.AUG.2010 11:41:50



Mode 11 :

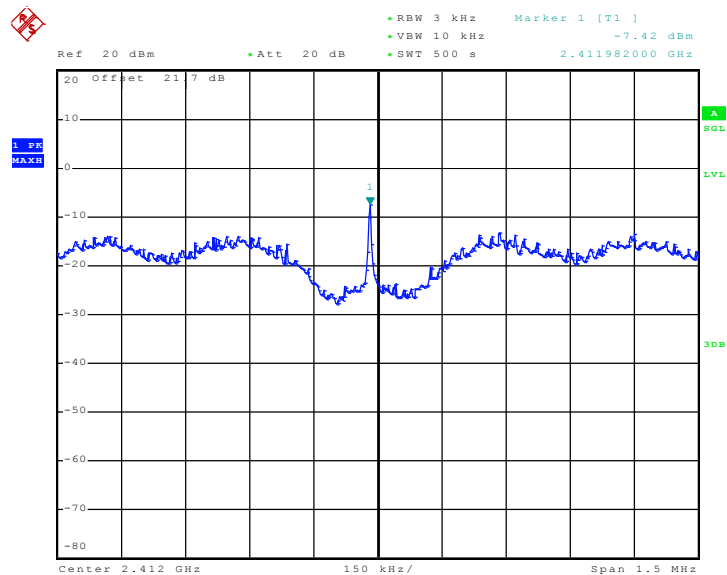
PSD Plot on 802.11n (BW 20MHz) Channel 01 – Chain A



Date: 26.AUG.2010 23:50:39

Mode 11 :

PSD Plot on 802.11n (BW 20MHz) Channel 01 – Chain B

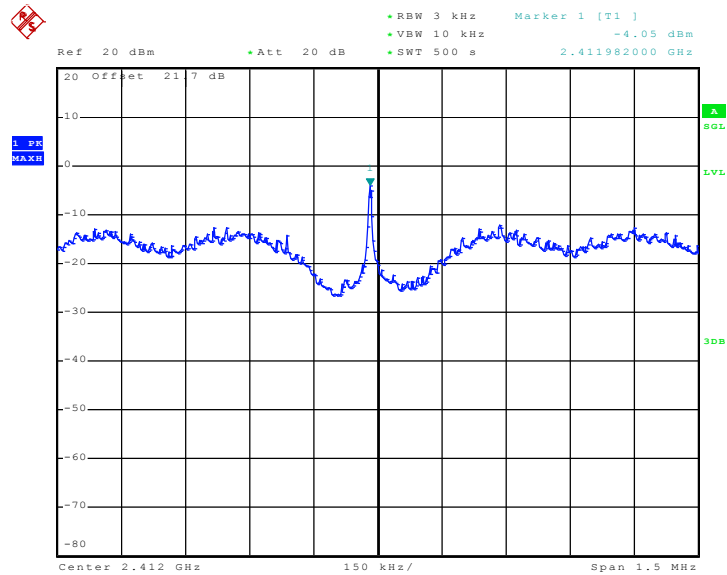


Date: 26.AUG.2010 23:40:14



Mode 11 :

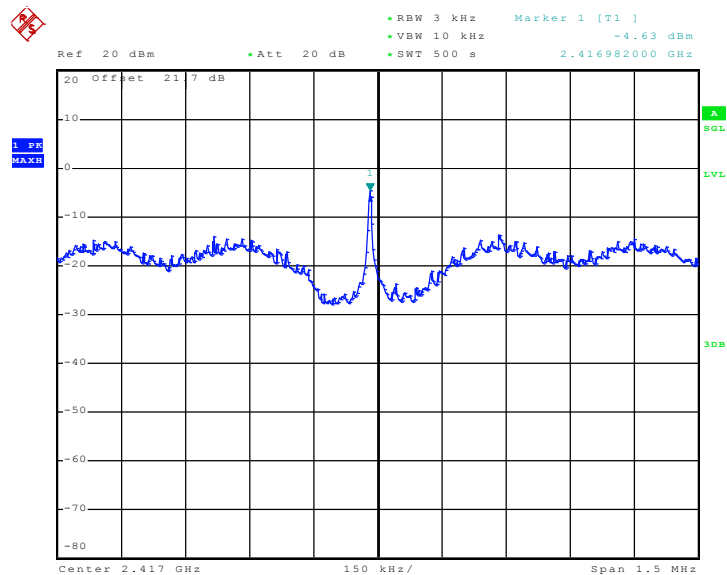
PSD Plot on 802.11n (BW 20MHz) Channel 01 – Chain C



Date: 26.AUG.2010 23:29:30

Mode 12 :

PSD Plot on 802.11n (BW 20MHz) Channel 02 – Chain A

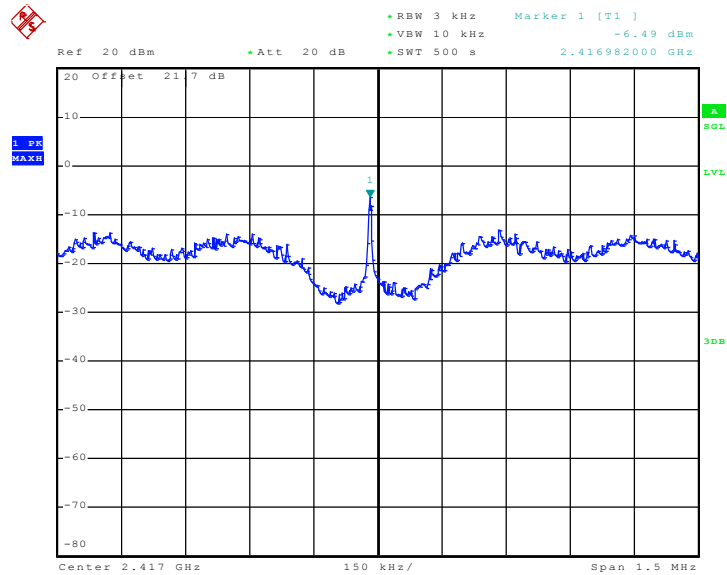


Date: 27.AUG.2010 00:00:54



Mode 12 :

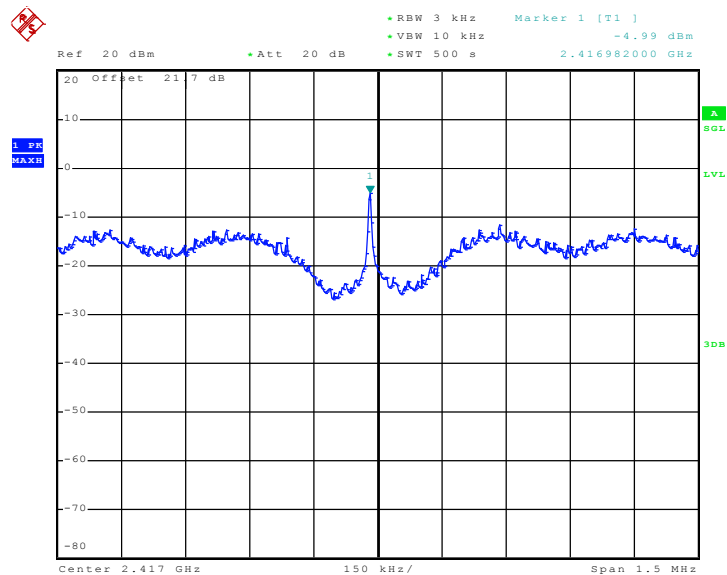
PSD Plot on 802.11n (BW 20MHz) Channel 02 – Chain B



Date: 27.AUG.2010 00:10:35

Mode 12 :

PSD Plot on 802.11n (BW 20MHz) Channel 02 – Chain C

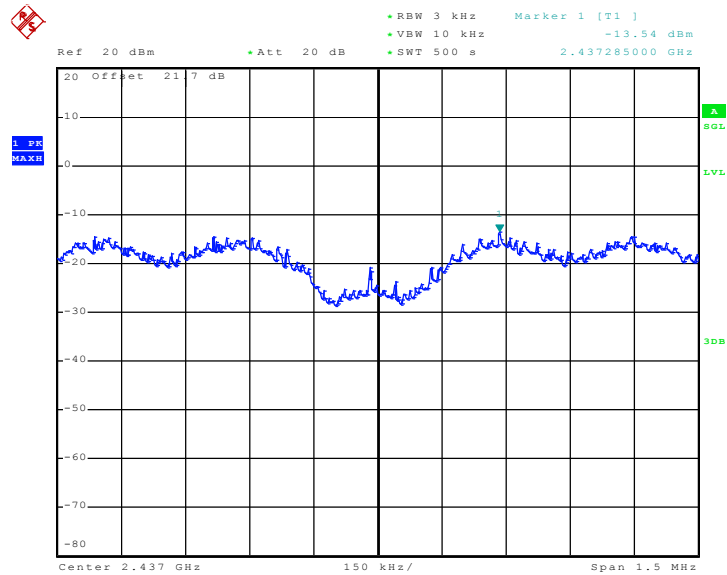


Date: 27.AUG.2010 00:20:22



Mode 13 :

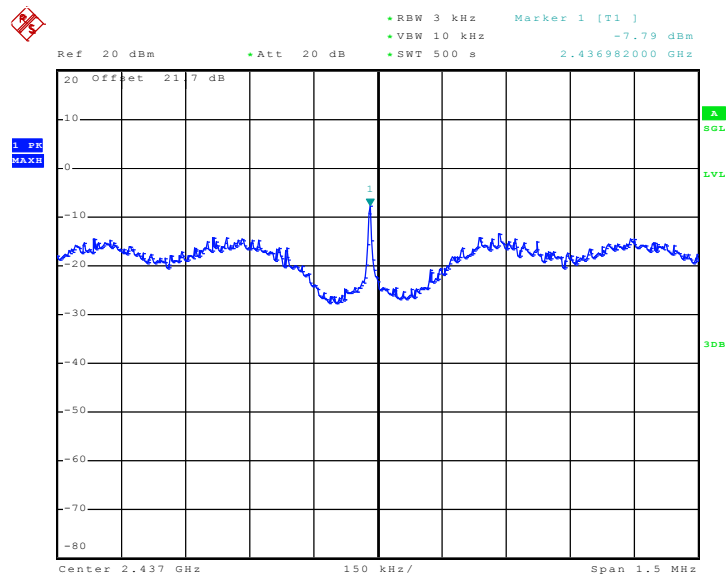
PSD Plot on 802.11n (BW 20MHz) Channel 06 – Chain A



Date: 27.AUG.2010 00:35:13

Mode 13 :

PSD Plot on 802.11n (BW 20MHz) Channel 06 – Chain B

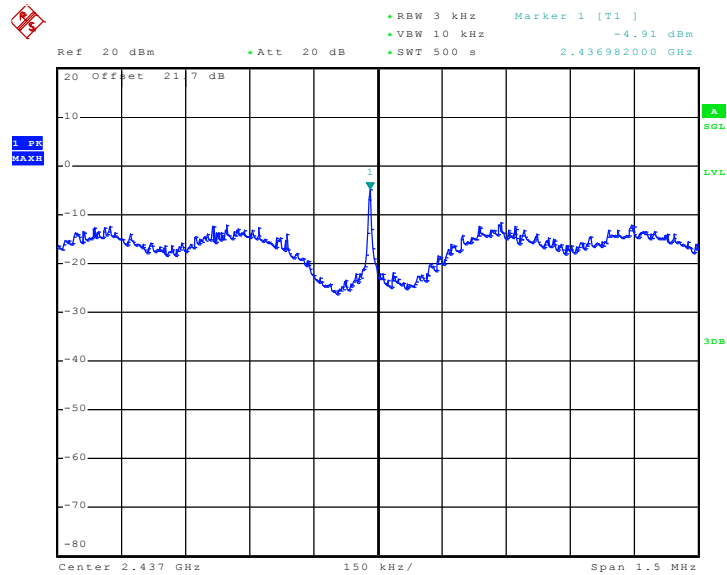


Date: 27.AUG.2010 00:44:46



Mode 13 :

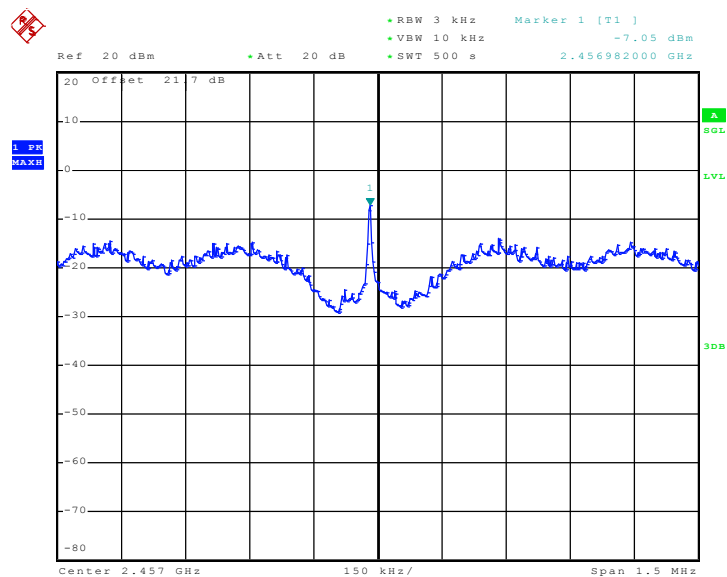
PSD Plot on 802.11n (BW 20MHz) Channel 06 – Chain C



Date: 27.AUG.2010 00:54:20

Mode 14 :

PSD Plot on 802.11n (BW 20MHz) Channel 10 – Chain A

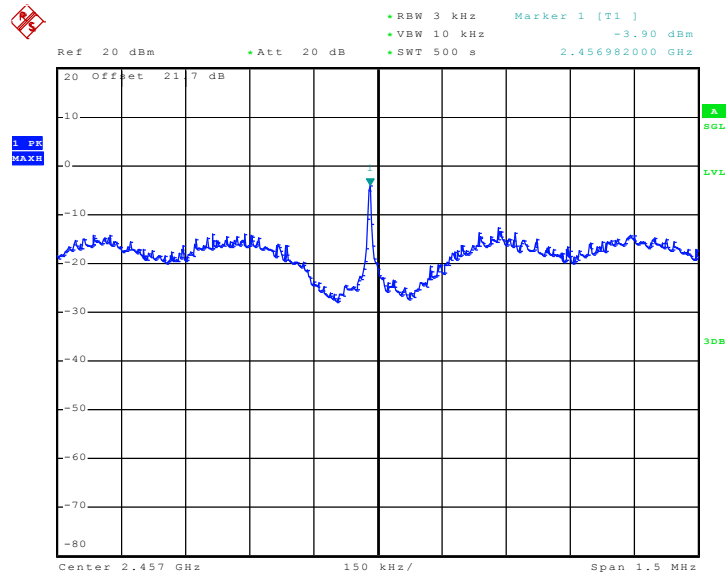


Date: 27.AUG.2010 01:23:12



Mode 14 :

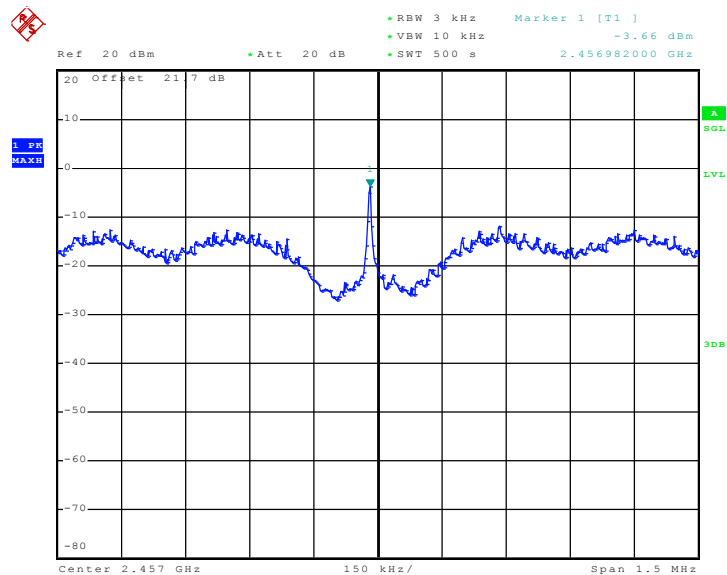
PSD Plot on 802.11n (BW 20MHz) Channel 10 – Chain B



Date: 27.AUG.2010 01:13:25

Mode 14 :

PSD Plot on 802.11n (BW 20MHz) Channel 10 – Chain C

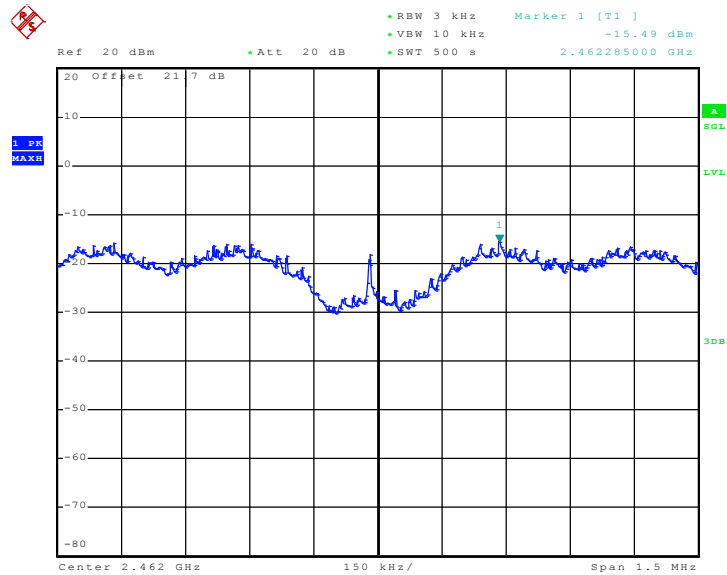


Date: 27.AUG.2010 01:03:54



Mode 15 :

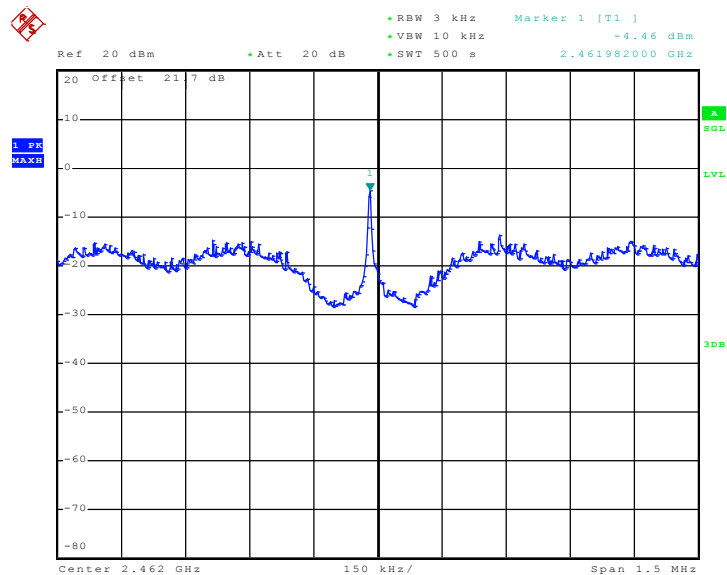
PSD Plot on 802.11n (BW 20MHz) Channel 11 – Chain A



Date: 27.AUG.2010 01:32:47

Mode 15 :

PSD Plot on 802.11n (BW 20MHz) Channel 11 – Chain B

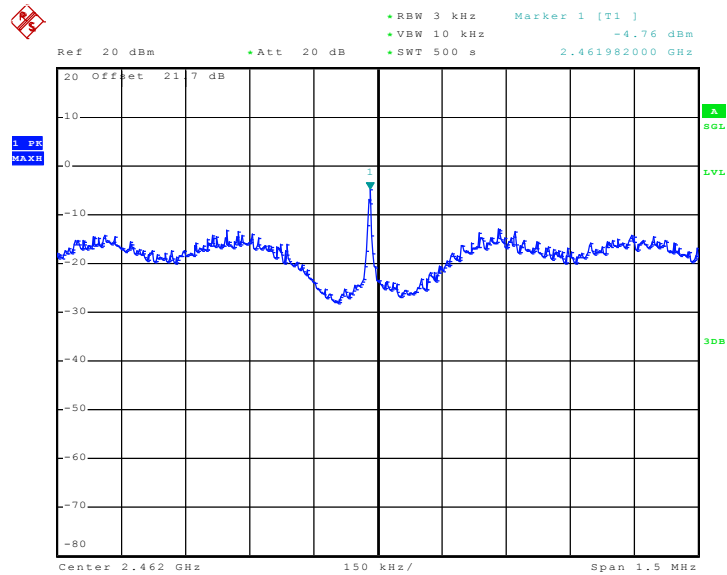


Date: 27.AUG.2010 01:42:26



Mode 15 :

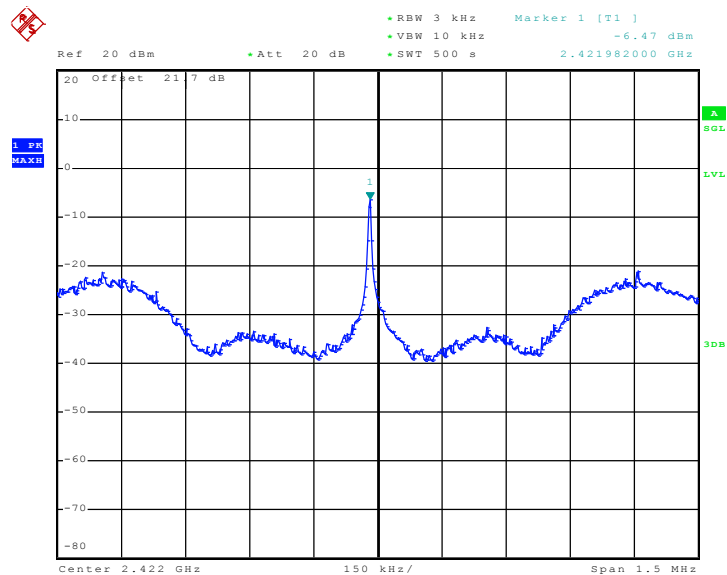
PSD Plot on 802.11n (BW 20MHz) Channel 11 – Chain C



Date: 27.AUG.2010 01:51:57

Mode 16 :

PSD Plot on 802.11n (BW 40MHz) Channel 03 – Chain A

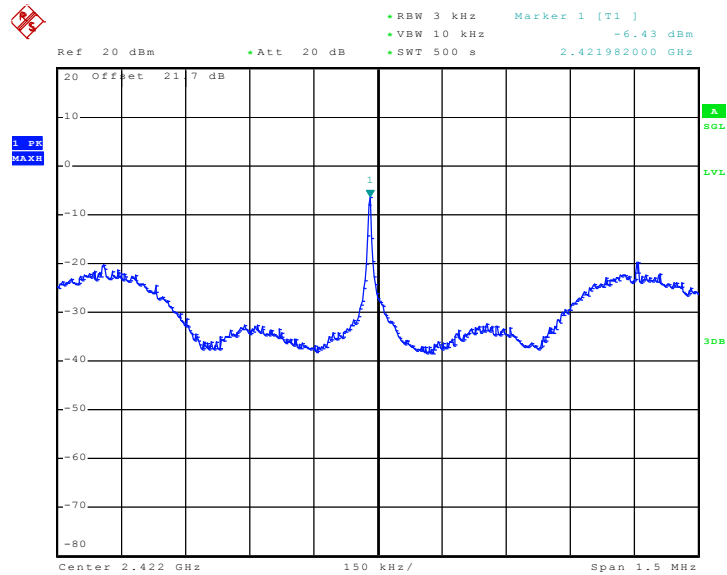


Date: 27.AUG.2010 02:23:12



Mode 16 :

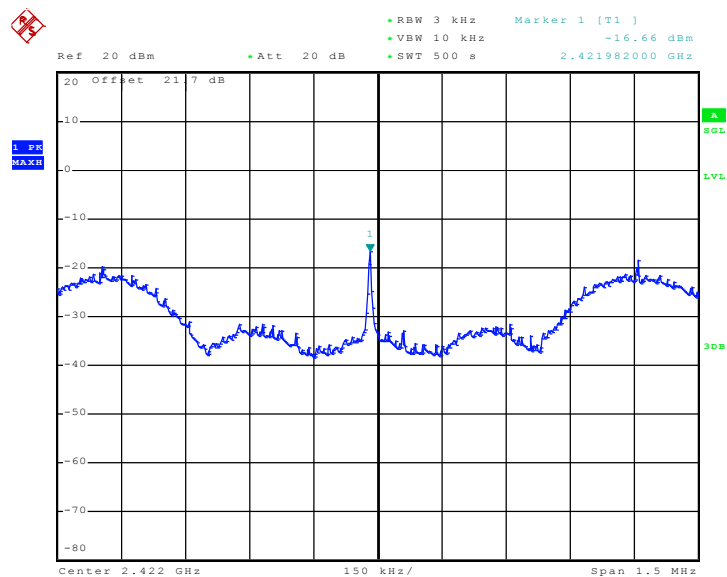
PSD Plot on 802.11n (BW 40MHz) Channel 03 – Chain B



Date: 27.AUG.2010 02:13:32

Mode 16 :

PSD Plot on 802.11n (BW 40MHz) Channel 03 – Chain C

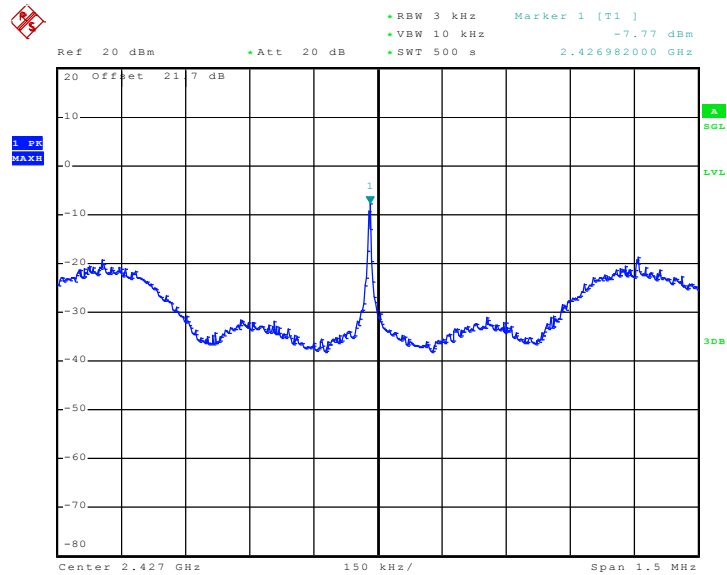


Date: 27.AUG.2010 02:03:59



Mode 17 :

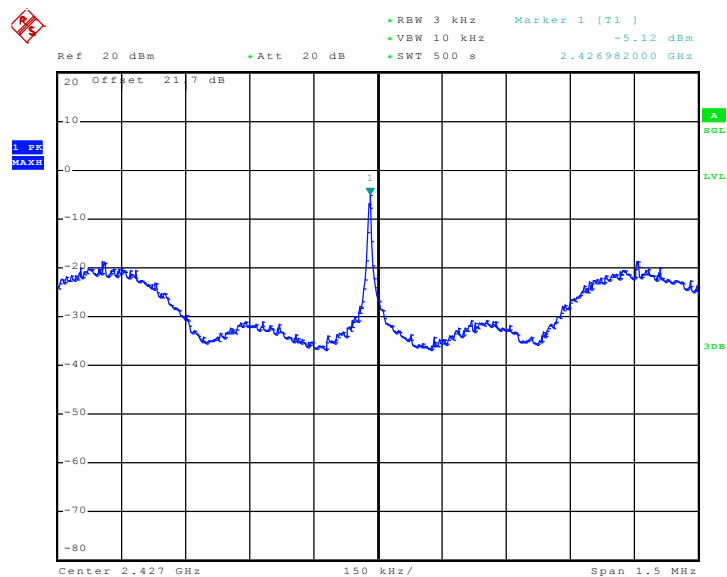
PSD Plot on 802.11n (BW 40MHz) Channel 04 – Chain A



Date: 27.AUG.2010 02:32:56

Mode 17 :

PSD Plot on 802.11n (BW 40MHz) Channel 04 – Chain B

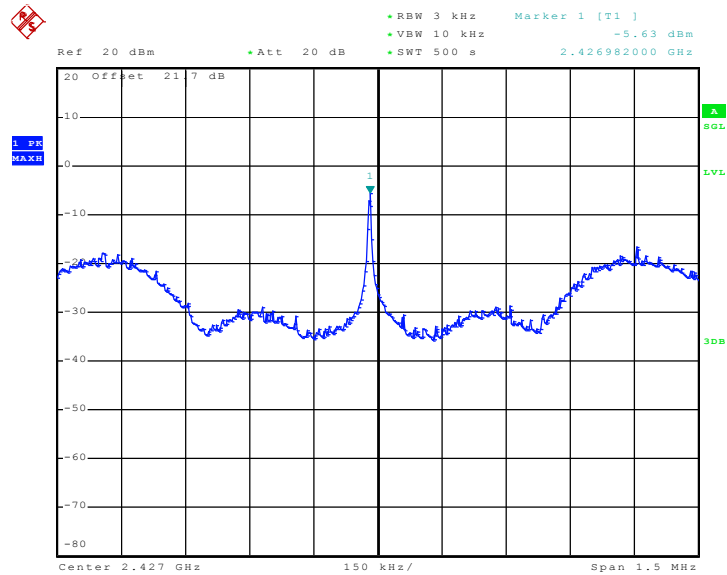


Date: 27.AUG.2010 02:42:24



Mode 17 :

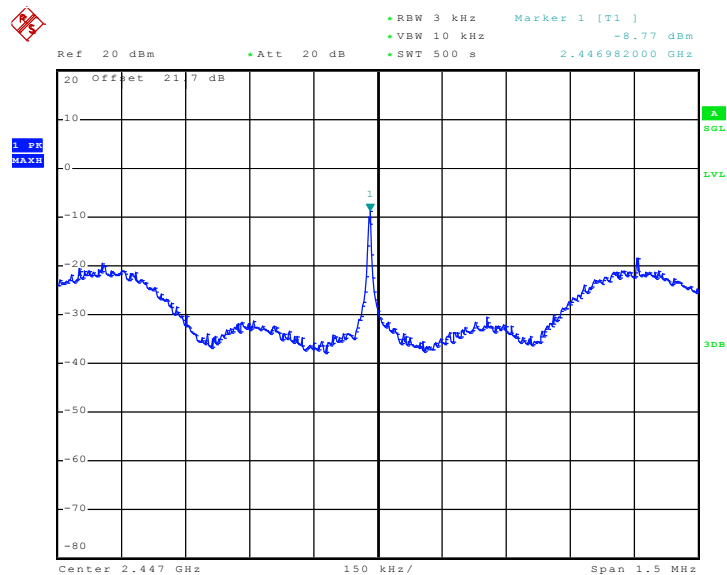
PSD Plot on 802.11n (BW 40MHz) Channel 04 – Chain C



Date: 27.AUG.2010 02:51:52

Mode 18 :

PSD Plot on 802.11n (BW 40MHz) Channel 08 – Chain A

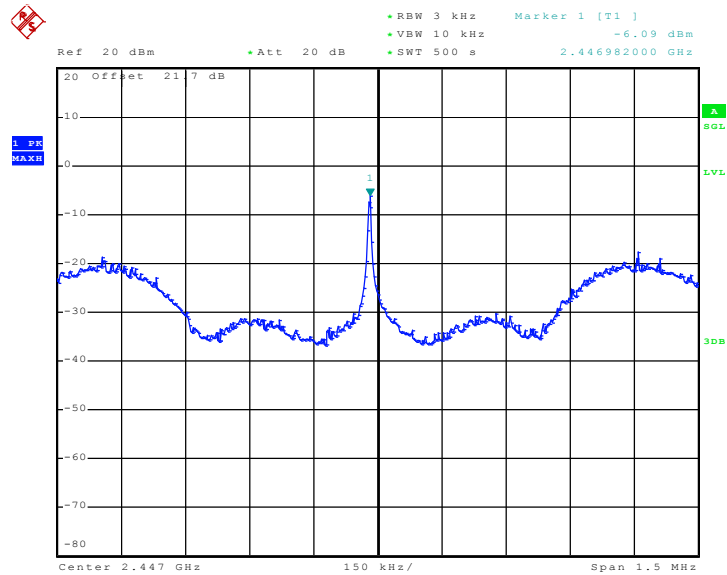


Date: 27.AUG.2010 03:20:07



Mode 18 :

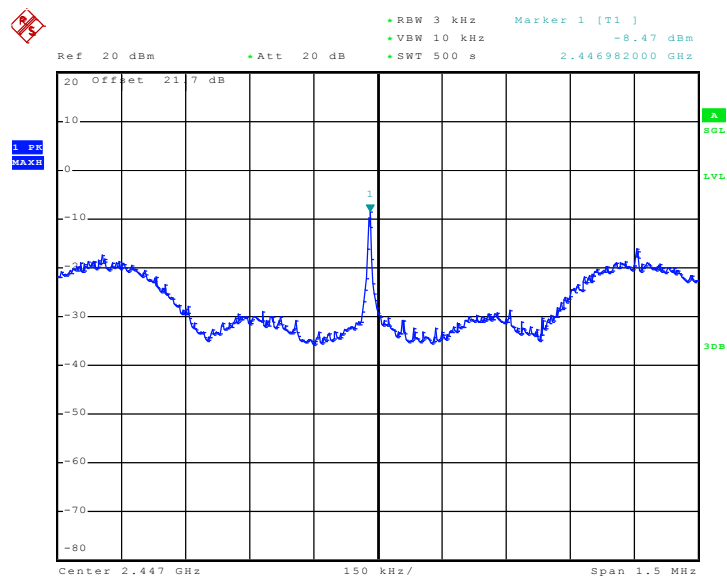
PSD Plot on 802.11n (BW 40MHz) Channel 08 – Chain B



Date: 27.AUG.2010 03:10:40

Mode 18 :

PSD Plot on 802.11n (BW 40MHz) Channel 08 – Chain C

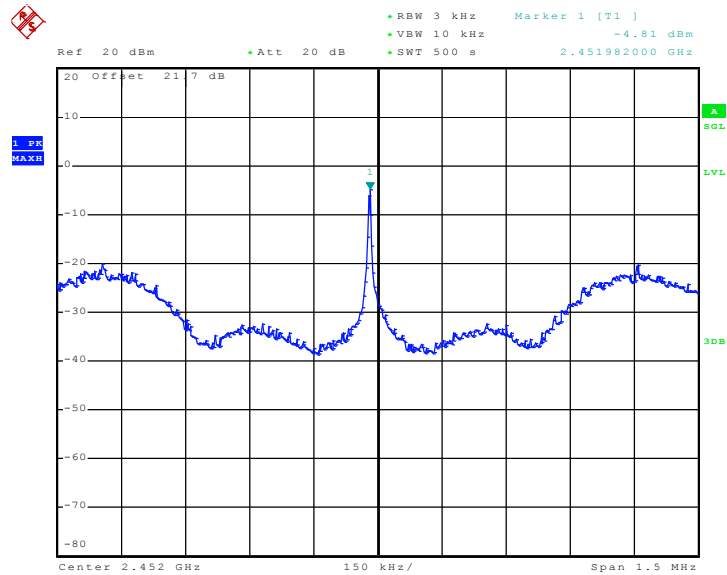


Date: 27.AUG.2010 03:01:23



Mode 19 :

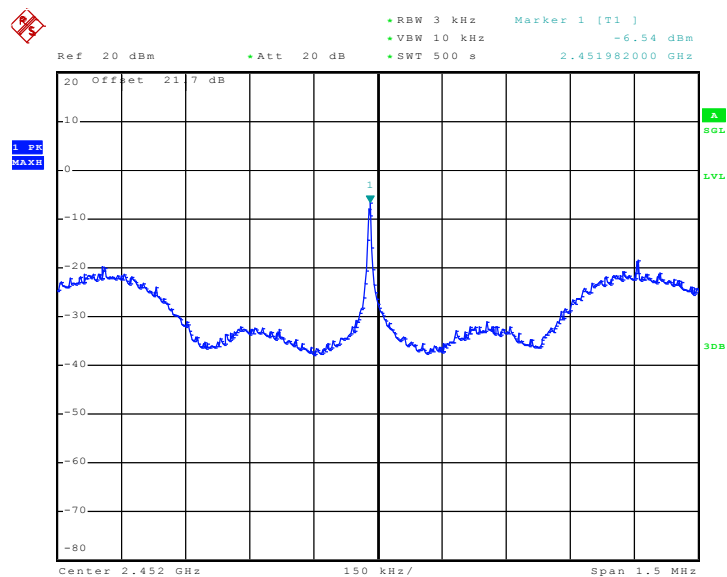
PSD Plot on 802.11n (BW 40MHz) Channel 09 – Chain A



Date: 27.AUG.2010 03:48:49

Mode 19 :

PSD Plot on 802.11n (BW 40MHz) Channel 09 – Chain B

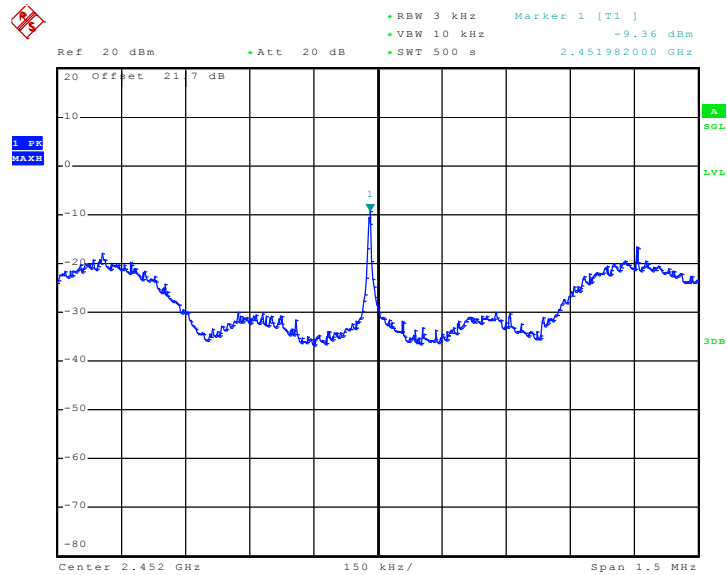


Date: 27.AUG.2010 03:39:26



Mode 19 :

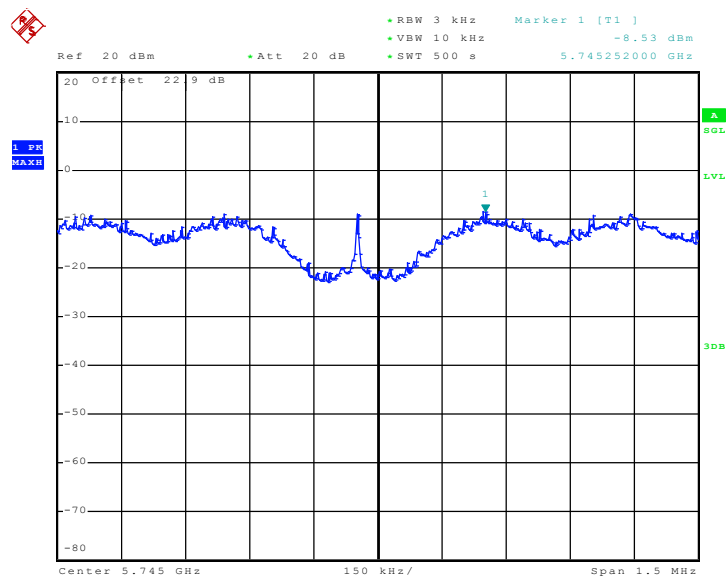
PSD Plot on 802.11n (BW 40MHz) Channel 09 – Chain C



Date: 27.AUG.2010 03:58:02

Mode 20:

PSD Plot on 802.11a Channel 149 – Chain C

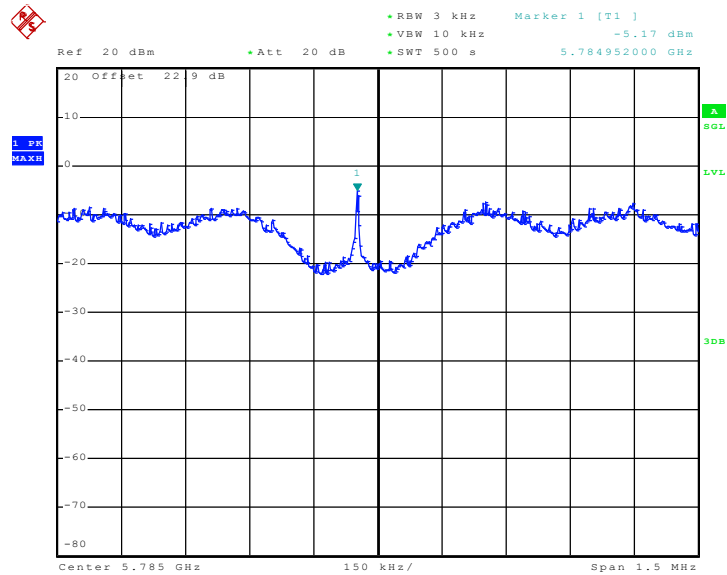


Date: 26.AUG.2010 11:02:33



Mode 21:

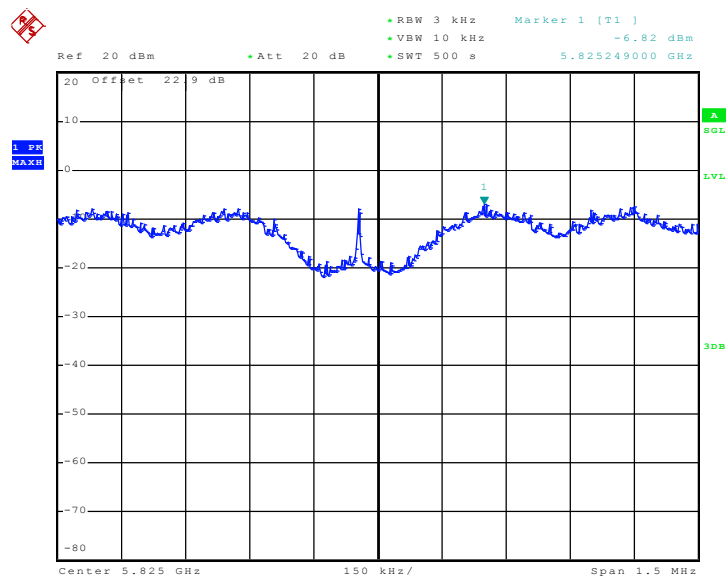
PSD Plot on 802.11a Channel 157 – Chain C



Date: 26.AUG.2010 10:48:16

Mode 22:

PSD Plot on 802.11a Channel 165 – Chain C

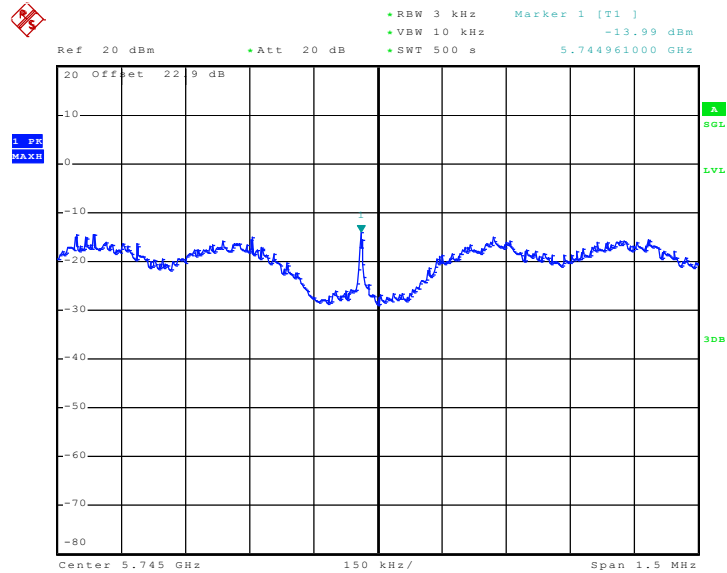


Date: 26.AUG.2010 09:45:07



Mode 23 :

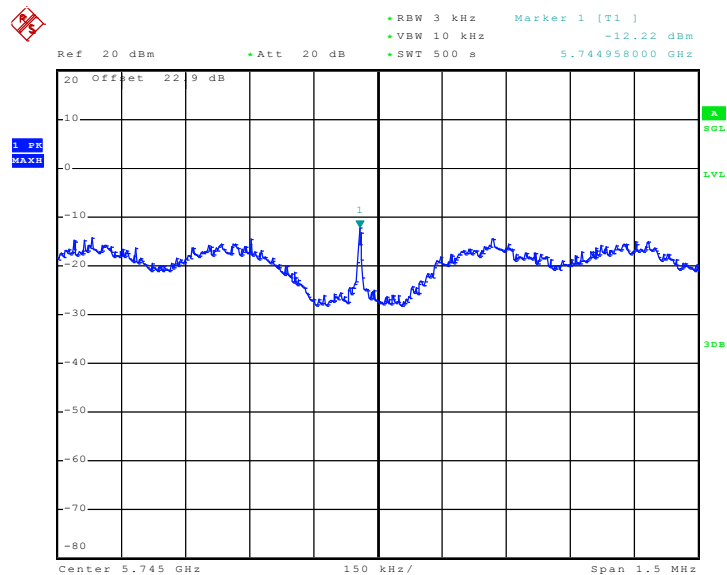
PSD Plot on 802.11n (BW 20MHz) Channel 149 – Chain A



Date: 27.AUG.2010 09:42:59

Mode 23 :

PSD Plot on 802.11n (BW 20MHz) Channel 149 – Chain B

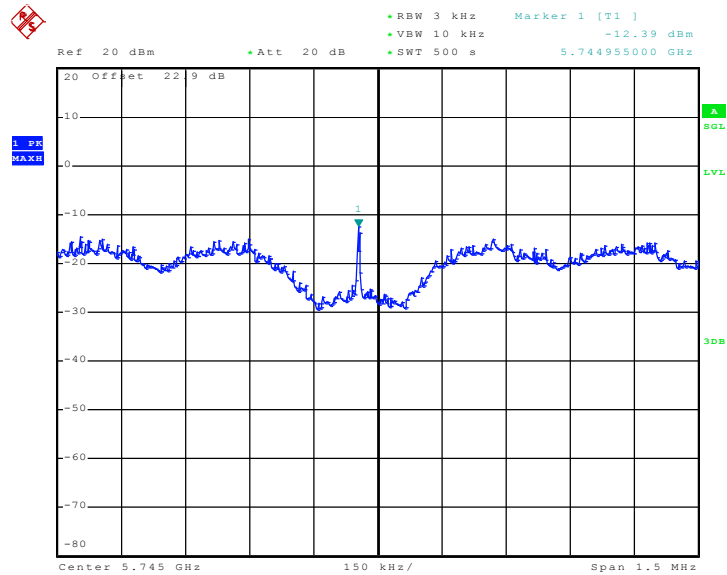


Date: 27.AUG.2010 09:56:41



Mode 23 :

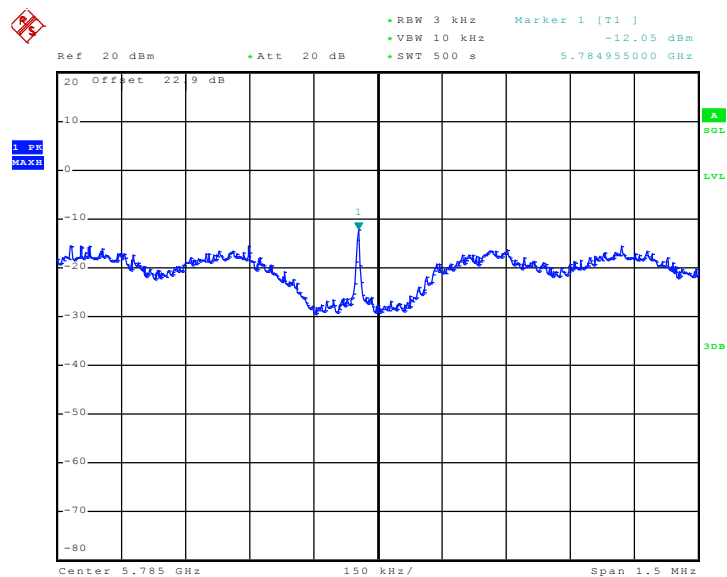
PSD Plot on 802.11n (BW 20MHz) Channel 149 – Chain C



Date: 27.AUG.2010 10:47:55

Mode 24 :

PSD Plot on 802.11n (BW 20MHz) Channel 157 – Chain A

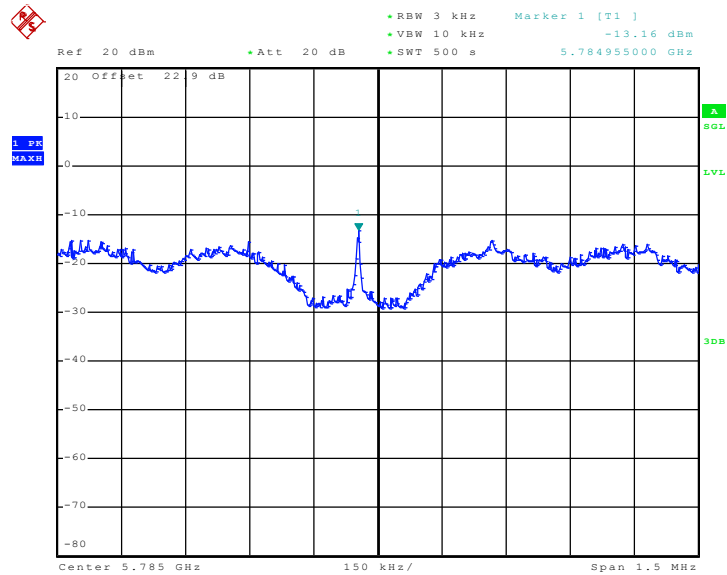


Date: 27.AUG.2010 08:55:22



Mode 24 :

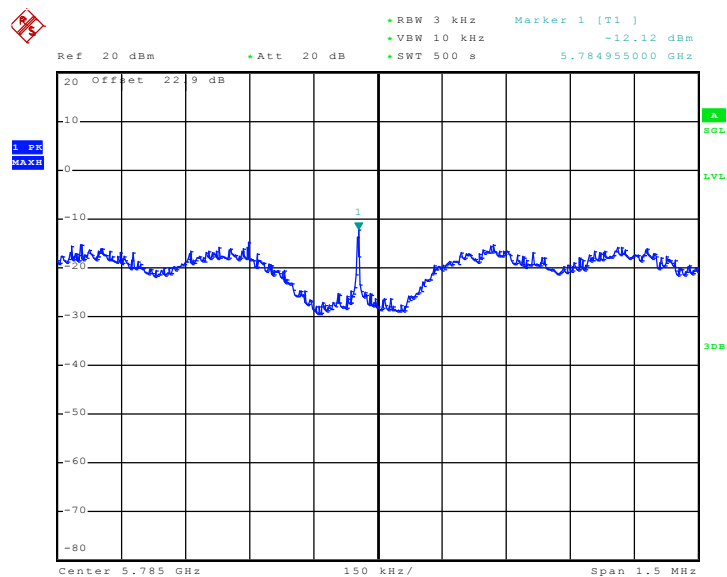
PSD Plot on 802.11n (BW 20MHz) Channel 157 – Chain B



Date: 27.AUG.2010 08:45:08

Mode 24 :

PSD Plot on 802.11n (BW 20MHz) Channel 157 – Chain C

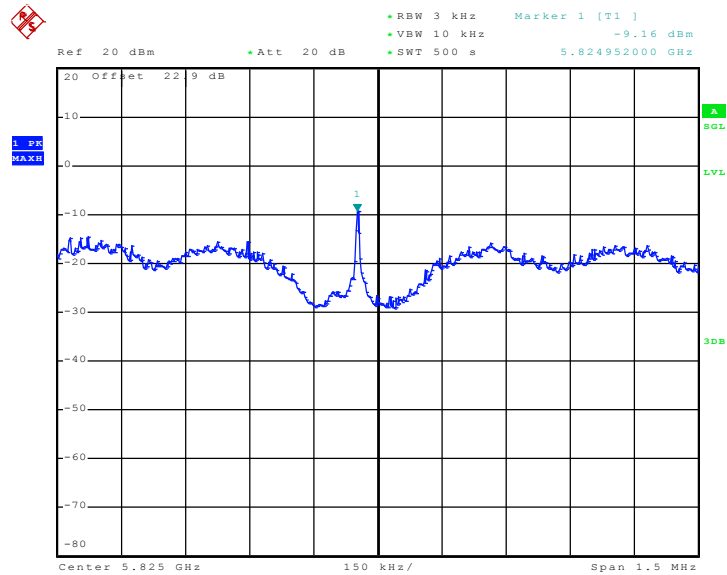


Date: 27.AUG.2010 09:35:53



Mode 25 :

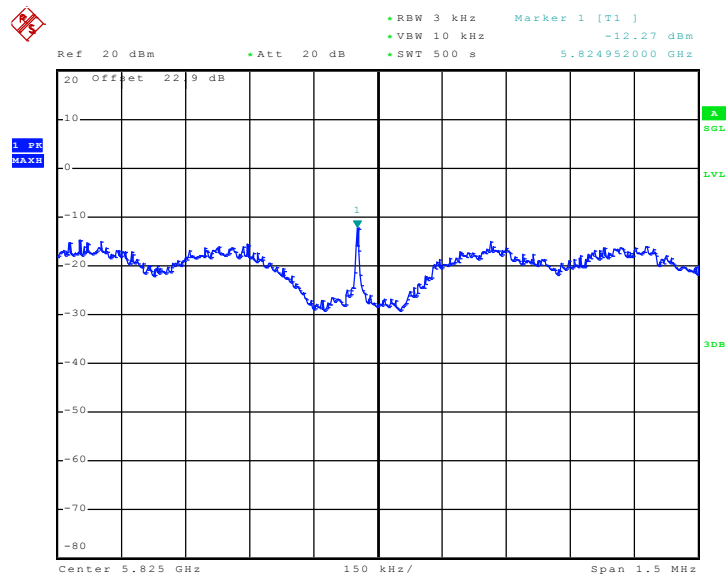
PSD Plot on 802.11n (BW 20MHz) Channel 165 – Chain A



Date: 27.AUG.2010 09:25:38

Mode 25 :

PSD Plot on 802.11n (BW 20MHz) Channel 165 – Chain B

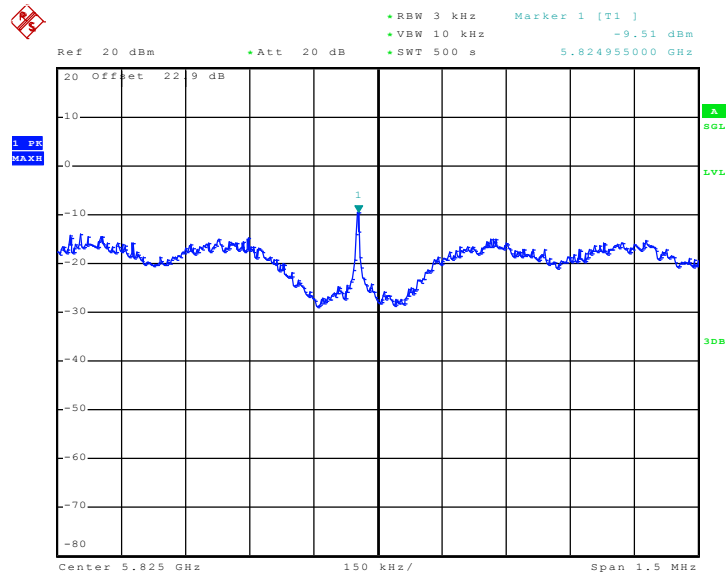


Date: 27.AUG.2010 09:16:07



Mode 25:

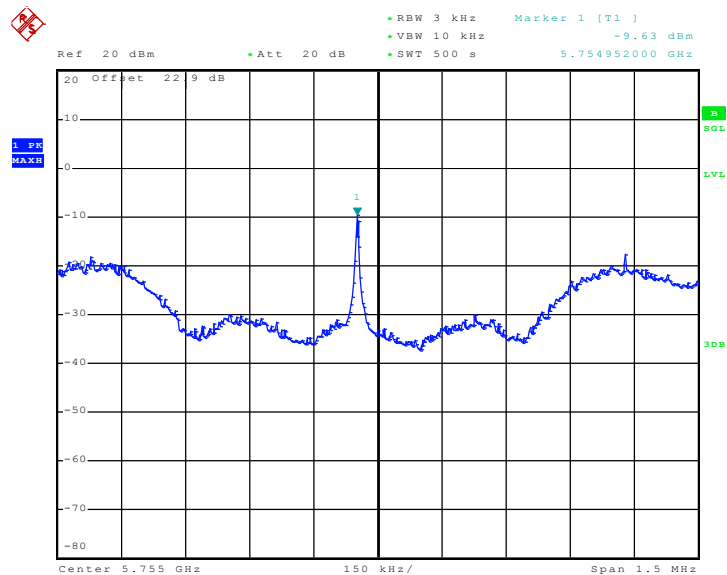
PSD Plot on 802.11n (BW 20MHz) Channel 165 – Chain C



Date: 27.AUG.2010 09:06:02

Mode 26 :

PSD Plot on 802.11n (BW 40MHz) Channel 151 – Chain A

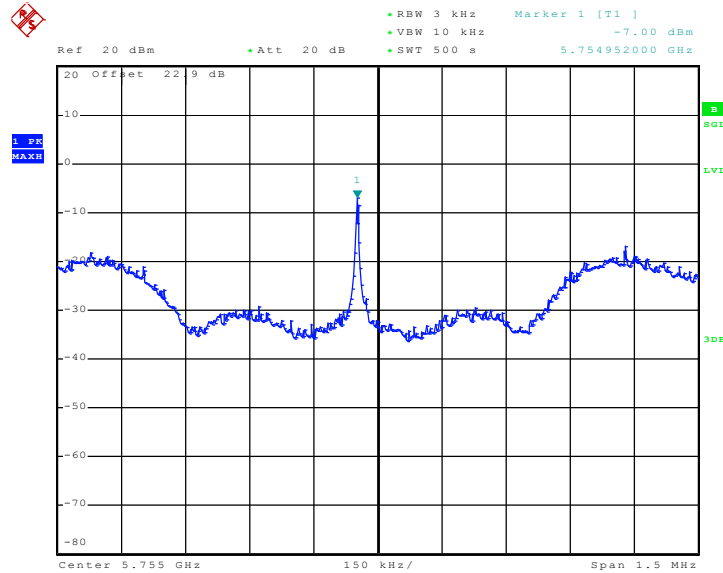


Date: 27.AUG.2010 04:48:20



Mode 26 :

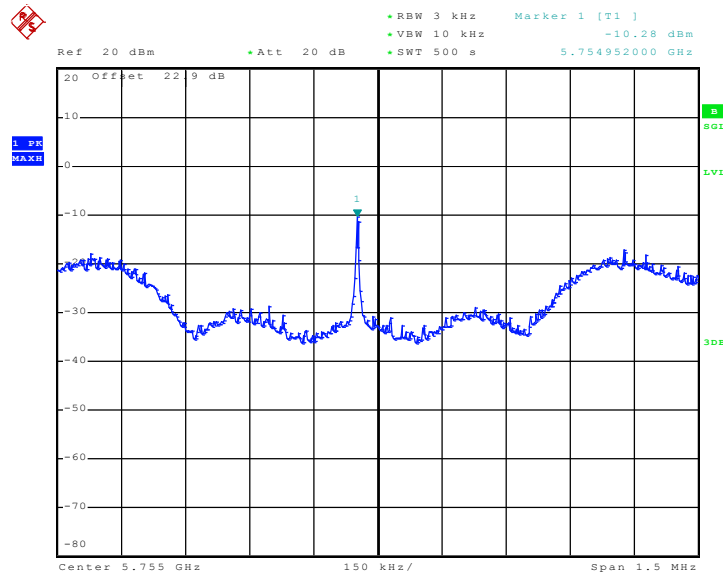
PSD Plot on 802.11n (BW 40MHz) Channel 151 – Chain B



Date: 27.AUG.2010 04:27:01

Mode 26:

PSD Plot on 802.11n (BW 40MHz) Channel 151 – Chain C

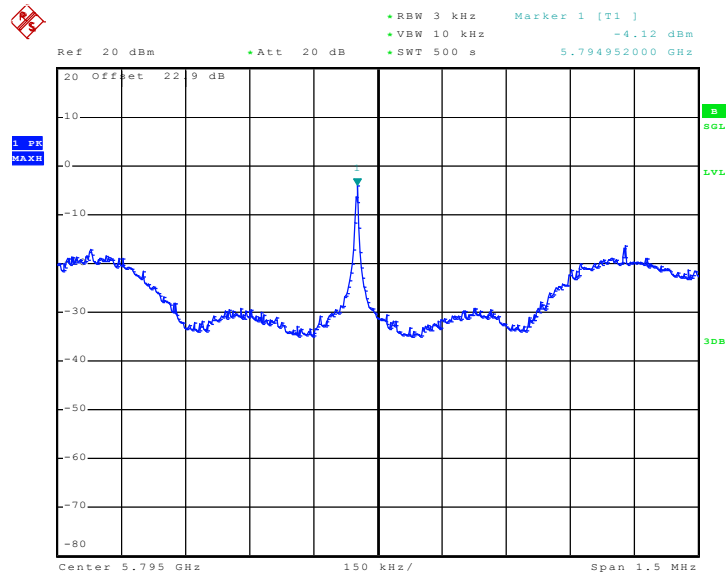


Date: 27.AUG.2010 04:36:54



Mode 27 :

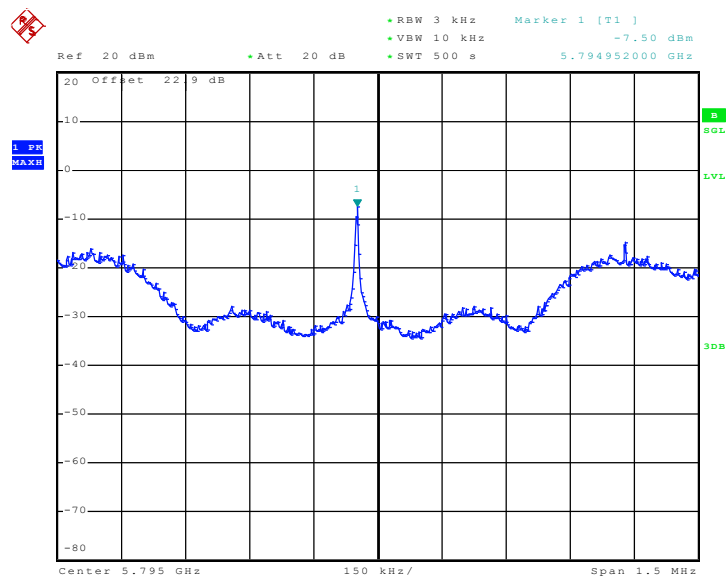
PSD Plot on 802.11n (BW 40MHz) Channel 159 – Chain A



Date: 27.AUG.2010 04:57:49

Mode 27 :

PSD Plot on 802.11n (BW 40MHz) Channel 159 – Chain B

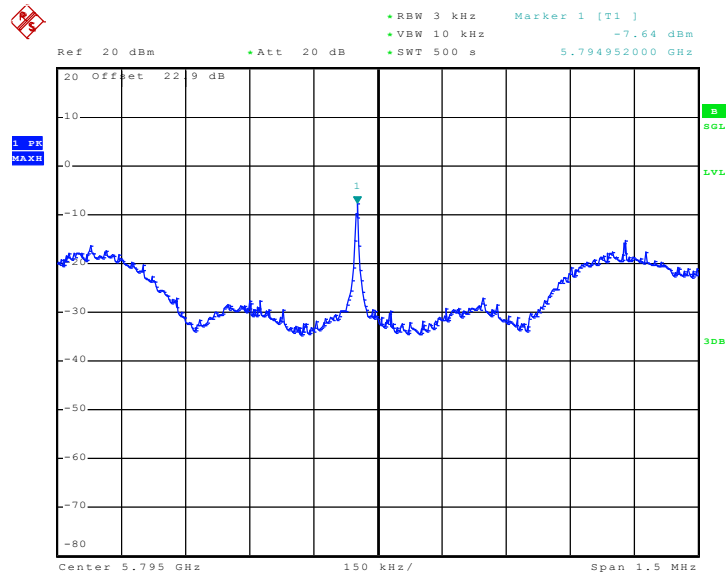


Date: 27.AUG.2010 05:07:08



Mode 27:

PSD Plot on 802.11n (BW 40MHz) Channel 159- Chain C



Date: 27.AUG.2010 05:16:38

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.

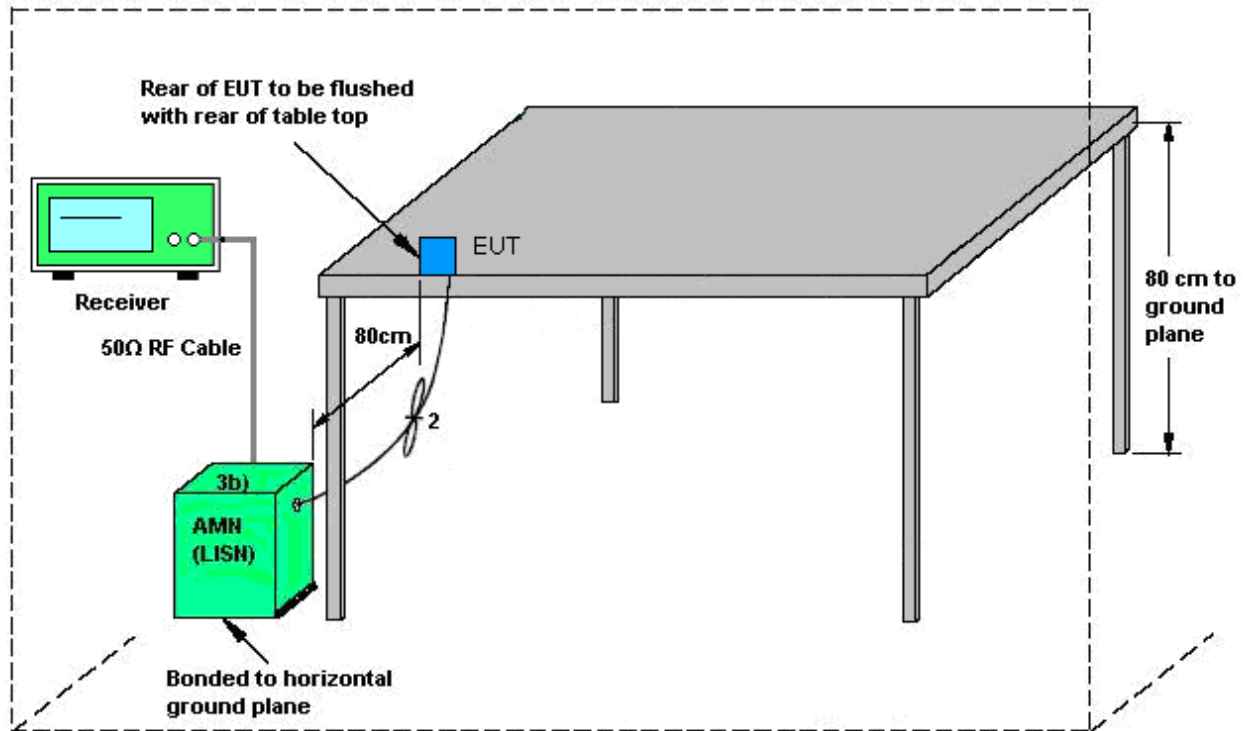
3.6.2 Measuring Instruments

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.

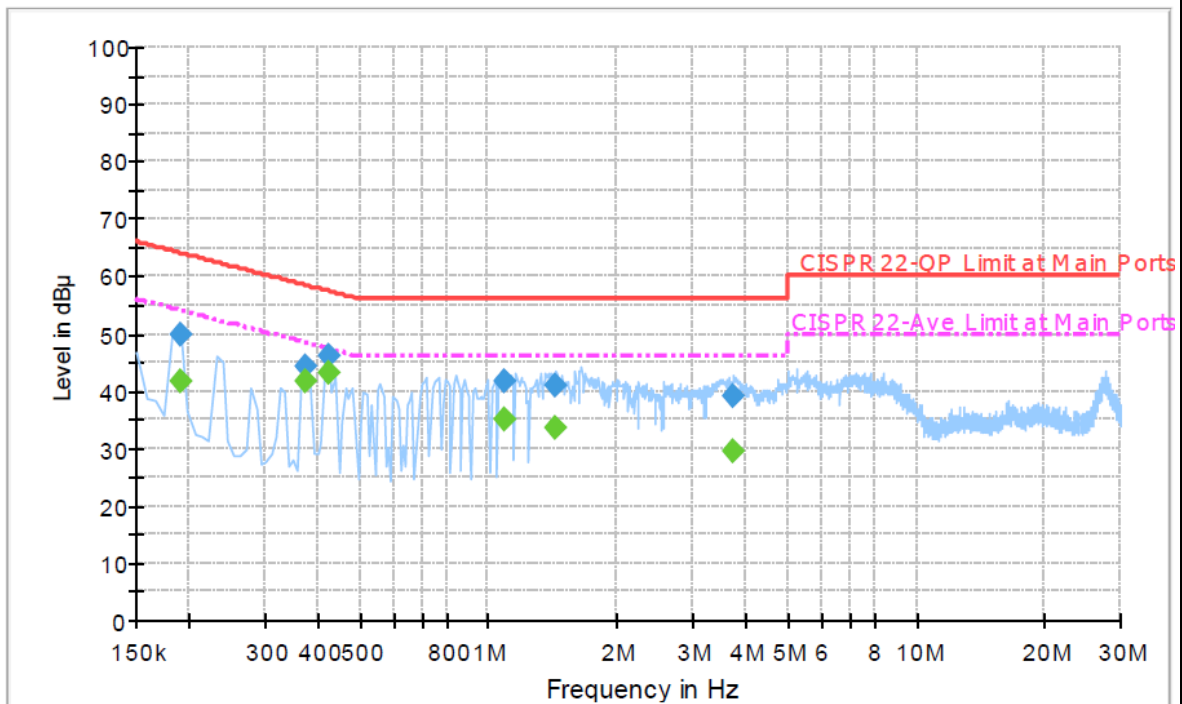
3.6.4 Test Setup



AMN = Artificial mains network (LISN)
 AE = Associated equipment
 EUT = Equipment under test
 ISN = Impedance stabilization network

3.6.5 Test Result of AC Conducted Emission

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



Final Result 1

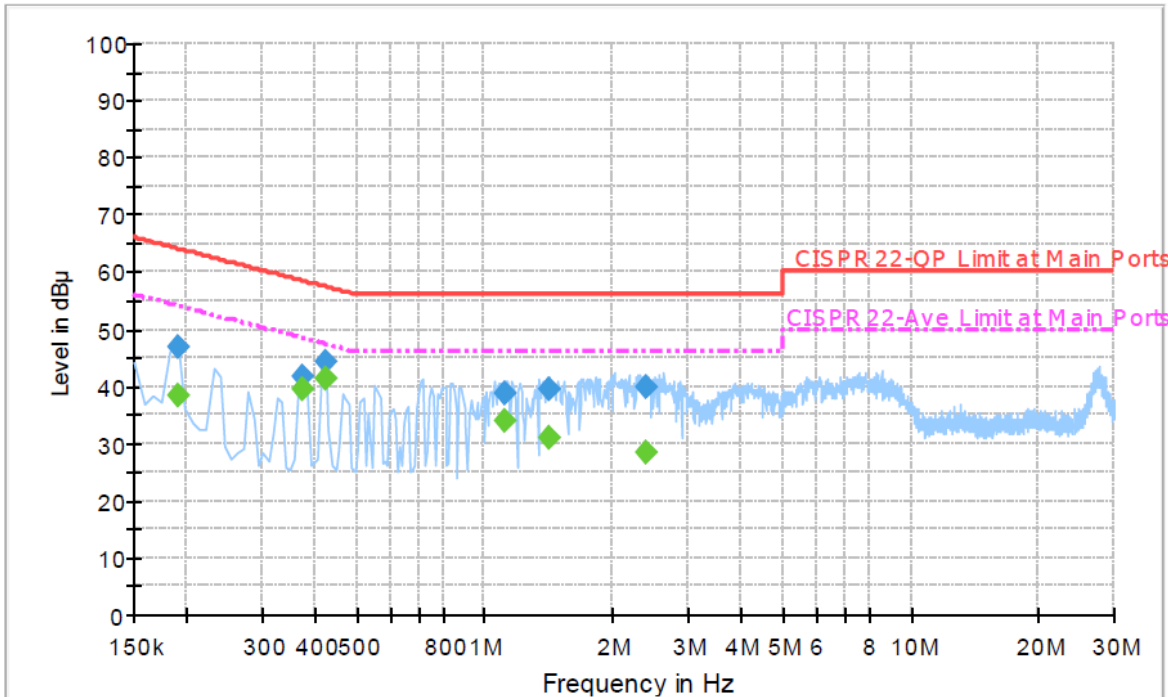
Frequency (MHz)	QuasiPeak (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.190000	49.7	Off	L1	19.4	14.3	64.0
0.374000	44.4	Off	L1	19.4	14.0	58.4
0.422000	46.2	Off	L1	19.4	11.2	57.4
1.086000	41.7	Off	L1	19.4	14.3	56.0
1.438000	40.9	Off	L1	19.4	15.1	56.0
3.734000	39.1	Off	L1	19.5	16.9	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.190000	41.7	Off	L1	19.4	12.3	54.0
0.374000	41.6	Off	L1	19.4	6.8	48.4
0.422000	43.0	Off	L1	19.4	4.4	47.4
1.086000	35.2	Off	L1	19.4	10.8	46.0
1.438000	33.5	Off	L1	19.4	12.5	46.0
3.734000	29.6	Off	L1	19.5	16.4	46.0



Test Mode :	Mode 1	Temperature :	20~22°C
Test Engineer :	Novic Chiang	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WLAN (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)
0.190000	47.0	Off	N	19.4	17.0	64.0
0.374000	41.6	Off	N	19.4	16.8	58.4
0.422000	44.4	Off	N	19.4	13.0	57.4
1.118000	38.7	Off	N	19.4	17.3	56.0
1.414000	39.4	Off	N	19.4	16.6	56.0
2.382000	39.7	Off	N	19.6	16.3	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190000	38.3	Off	N	19.4	15.7	54.0
0.374000	39.4	Off	N	19.4	9.0	48.4
0.422000	41.4	Off	N	19.4	6.0	47.4
1.118000	33.9	Off	N	19.4	12.1	46.0
1.414000	31.1	Off	N	19.4	14.9	46.0
2.382000	28.5	Off	N	19.6	17.5	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

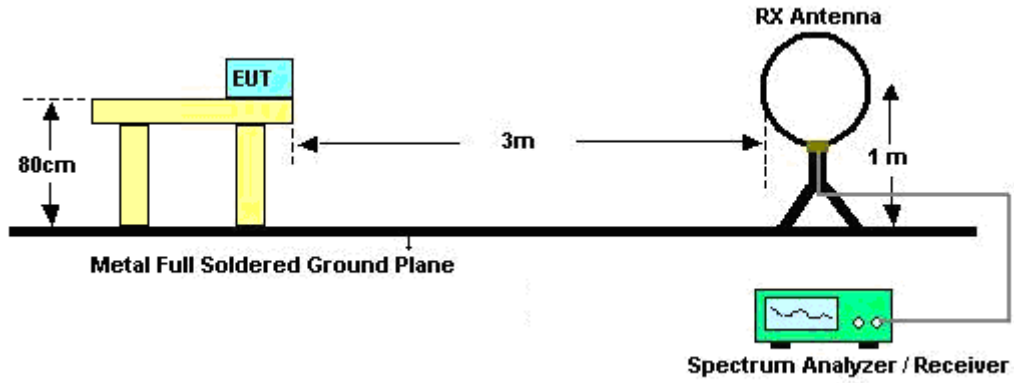
See list of measuring instruments of this test report.

3.7.3 Test Procedures

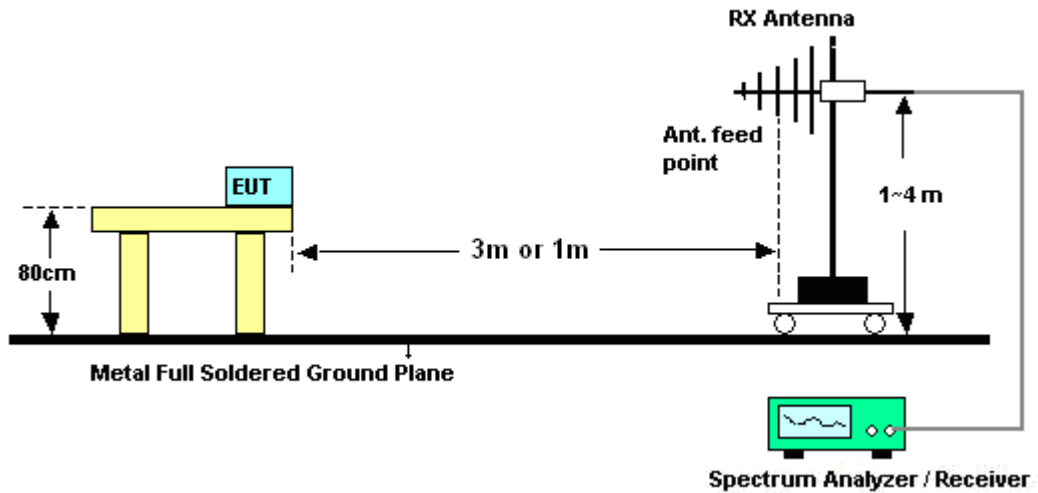
- The testing follows the guidelines in FCC KDB Publication No. 558074 (Measurement Guidelines of DTS).
- Use the following spectrum analyzer settings:
 - Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; 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 Chiang	Temperature :	23~25°C
		Relative Humidity :	48~50%

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 ~ 25GHz)

Test Mode :	Mode 1	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
32.97	26.93	-13.07	40	40	17.84	0.56	31.47	-	-	Peak
125.85	27.31	-16.19	43.5	45.95	11.8	1.13	31.57	-	-	Peak
250.05	35.49	-10.51	46	52.6	12.77	1.53	31.41	119	200	Peak
624.1	33.21	-12.79	46	41.1	20.25	2.76	30.9	-	-	Peak
811	30.85	-15.15	46	36.05	22.32	3.17	30.69	-	-	Peak
864.2	30.69	-15.31	46	35.28	22.84	3.29	30.72	-	-	Peak
2385.62	34.04	-19.96	54	29.84	31.7	6.03	33.53	100	342	Average
2385.62	46.41	-27.59	74	42.21	31.7	6.03	33.53	100	342	Peak
2412	97.3	-	-	93.06	31.71	6.07	33.54	100	342	Average
2412	105.82	-	-	101.58	31.71	6.07	33.54	100	342	Peak
2492	44.09	-29.91	74	39.68	31.8	6.18	33.57	100	342	Peak
2492	32.33	-21.67	54	27.92	31.8	6.18	33.57	100	342	Average
8214	52.35	-21.65	74	40.3	35.26	10.9	34.11	100	289	Peak
8214	40.3	-13.7	54	28.25	35.26	10.9	34.11	100	289	Average



Test Mode :	Mode 1	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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	36.62	-3.38	40	48.04	19.51	0.53	31.46	100	180	Peak
47.01	32.1	-7.9	40	53.5	9.45	0.67	31.52	-	-	Peak
250.05	34.24	-11.76	46	51.35	12.77	1.53	31.41	-	-	Peak
624.1	34.27	-11.73	46	42.16	20.25	2.76	30.9	-	-	Peak
707.4	33.74	-12.26	46	40.65	20.93	2.96	30.8	-	-	Peak
803.3	34.88	-11.12	46	40.16	22.25	3.15	30.68	-	-	Peak
2390	41.55	-12.45	54	37.35	31.7	6.03	33.53	100	334	Average
2390	53.8	-20.2	74	49.6	31.7	6.03	33.53	100	334	Peak
2412	105.35	-	-	101.11	31.71	6.07	33.54	100	334	Average
2412	114.05	-	-	109.81	31.71	6.07	33.54	100	334	Peak
2486	52.18	-21.82	74	47.78	31.78	6.18	33.56	100	334	Peak
2486	40.19	-13.81	54	35.79	31.78	6.18	33.56	100	334	Average
8379	52.72	-21.28	74	40.64	35.22	10.95	34.09	100	158	Peak
8379	40.63	-13.37	54	28.55	35.22	10.95	34.09	100	158	Average



Test Mode :	Mode 2	Temperature :	23~25°C
Test Channel :	02	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2417 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
32.97	25.49	-14.51	40	38.56	17.84	0.56	31.47	-	-	Peak
119.37	27.87	-15.63	43.5	46.19	12.14	1.1	31.56	-	-	Peak
250.05	35.06	-10.94	46	52.17	12.77	1.53	31.41	100	280	Peak
624.1	33.48	-12.52	46	41.37	20.25	2.76	30.9	-	-	Peak
808.2	31.8	-14.2	46	37.04	22.29	3.16	30.69	-	-	Peak
875.4	30.69	-15.31	46	35.14	22.95	3.31	30.71	-	-	Peak
2390	45.3	-28.7	74	41.1	31.7	6.03	33.53	101	292	Peak
2390	33.78	-20.22	54	29.58	31.7	6.03	33.53	101	292	Average
2417	105.97	-	-	101.72	31.73	6.07	33.55	101	292	Peak
2417	96.88	-	-	92.64	31.71	6.07	33.54	101	292	Average
2484	46.65	-27.35	74	42.25	31.78	6.18	33.56	101	292	Peak
2484	34.47	-19.53	54	30.07	31.78	6.18	33.56	101	292	Average
8181	51.6	-22.4	74	39.56	35.27	10.88	34.11	100	287	Peak
8181	39.56	-14.44	54	27.52	35.27	10.88	34.11	100	287	Average



Test Mode :	Mode 2	Temperature :	23~25°C
Test Channel :	02	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	2417 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	107	314	Peak
47.82	30.34	-9.66	40	51.74	9.45	0.67	31.52	-	-	Peak
250.05	34.33	-11.67	46	51.44	12.77	1.53	31.41	-	-	Peak
624.1	34.64	-11.36	46	42.53	20.25	2.76	30.9	-	-	Peak
710.2	34.66	-11.34	46	41.53	20.97	2.96	30.8	-	-	Peak
802.6	33.74	-12.26	46	39.03	22.24	3.15	30.68	-	-	Peak
2390	52.86	-21.14	74	48.66	31.7	6.03	33.53	100	358	Peak
2390	39.7	-14.3	54	35.5	31.7	6.03	33.53	100	358	Average
2417	114.78	-	-	110.53	31.73	6.07	33.55	100	358	Peak
2417	106.01	-	-	101.77	31.71	6.07	33.54	100	358	Average
2492	50.65	-23.35	74	46.24	31.8	6.18	33.57	100	358	Peak
2492	38.55	-15.45	54	34.14	31.8	6.18	33.57	100	358	Average
8244	52.66	-21.34	74	40.61	35.25	10.91	34.11	100	326	Peak
8244	40.6	-13.4	54	28.55	35.25	10.91	34.11	100	326	Average



Test Mode :	Mode 3	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30	25.31	-14.69	40	36.73	19.51	0.53	31.46	-	-	Peak
128.01	27.29	-16.21	43.5	45.93	11.79	1.14	31.57	-	-	Peak
250.05	35.76	-10.24	46	52.87	12.77	1.53	31.41	100	214	Peak
624.1	34.14	-11.86	46	42.03	20.25	2.76	30.9	-	-	Peak
738.2	29.39	-16.61	46	35.73	21.36	3.03	30.73	-	-	Peak
890.1	34.04	-11.96	46	38.33	23.09	3.33	30.71	-	-	Peak
2382	45.4	-28.6	74	41.22	31.68	6.03	33.53	100	297	Peak
2382	31.96	-22.04	54	27.78	31.68	6.03	33.53	100	297	Average
2437	96.61	-	-	92.3	31.75	6.11	33.55	100	297	Average
2437	105.52	-	-	101.21	31.75	6.11	33.55	100	297	Peak
2492	46.91	-27.09	74	42.5	31.8	6.18	33.57	100	297	Peak
2492	34.08	-19.92	54	29.67	31.8	6.18	33.57	100	297	Average
8139	52.02	-21.98	74	40.01	35.27	10.86	34.12	100	106	Peak
8139	39.99	-14.01	54	27.98	35.27	10.86	34.12	100	106	Average



Test Mode :	Mode 3	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30.54	36.38	-3.62	40	48.35	18.95	0.54	31.46	125	326	Peak
49.98	31.23	-8.77	40	54.09	7.98	0.7	31.54	-	-	Peak
250.05	33.99	-12.01	46	51.1	12.77	1.53	31.41	-	-	Peak
624.1	35.26	-10.74	46	43.15	20.25	2.76	30.9	-	-	Peak
708.1	33.52	-12.48	46	40.41	20.95	2.96	30.8	-	-	Peak
808.9	34.84	-11.16	46	40.07	22.3	3.16	30.69	-	-	Peak
2388	50.87	-23.13	74	46.67	31.7	6.03	33.53	100	329	Peak
2388	38.52	-15.48	54	34.32	31.7	6.03	33.53	100	329	Average
2437	115.45	-	-	111.14	31.75	6.11	33.55	100	329	Peak
2437	106.62	-	-	102.31	31.75	6.11	33.55	100	329	Average
2484	52.15	-21.85	74	47.75	31.78	6.18	33.56	100	329	Peak
2484	40.3	-13.7	54	35.9	31.78	6.18	33.56	100	329	Average
8187	52.09	-21.91	74	40.06	35.26	10.88	34.11	100	136	Peak
8187	40.05	-13.95	54	28.02	35.26	10.88	34.11	100	136	Average



Test Mode :	Mode 4	Temperature :	23~25°C
Test Channel :	10	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2457 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
32.97	28.16	-11.84	40	41.23	17.84	0.56	31.47	-	-	Peak
126.66	27.61	-15.89	43.5	46.25	11.8	1.13	31.57	-	-	Peak
250.05	35.7	-10.3	46	52.81	12.77	1.53	31.41	138	157	Peak
624.1	33.21	-12.79	46	41.1	20.25	2.76	30.9	-	-	Peak
811.7	32.29	-13.71	46	37.48	22.33	3.17	30.69	-	-	Peak
890.1	33.2	-12.8	46	37.49	23.09	3.33	30.71	-	-	Peak
2366	44.3	-29.7	74	40.17	31.66	5.99	33.52	101	290	Peak
2366	32.02	-21.98	54	27.89	31.66	5.99	33.52	101	290	Average
2457	106.98	-	-	102.63	31.77	6.14	33.56	101	290	Peak
2457	98.44	-	-	94.09	31.77	6.14	33.56	101	290	Average
2484	47.69	-26.31	74	43.29	31.78	6.18	33.56	101	290	Peak
2484	36.02	-17.98	54	31.62	31.78	6.18	33.56	101	290	Average
8211	52.12	-21.88	74	40.08	35.26	10.89	34.11	100	169	Peak
8211	40.08	-13.92	54	28.04	35.26	10.89	34.11	100	169	Average



Test Mode :	Mode 4	Temperature :	23~25°C
Test Channel :	10	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	2457 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	36.32	-3.68	40	47.74	19.51	0.53	31.46	122	305	Peak
98.85	30.35	-13.15	43.5	50.71	10.19	0.99	31.54	-	-	Peak
250.05	34.3	-11.7	46	51.41	12.77	1.53	31.41	-	-	Peak
624.1	34.65	-11.35	46	42.54	20.25	2.76	30.9	-	-	Peak
719.3	34.63	-11.37	46	41.3	21.11	2.99	30.77	-	-	Peak
799.8	34.92	-11.08	46	40.24	22.22	3.14	30.68	-	-	Peak
2390	38.09	-15.91	54	33.89	31.7	6.03	33.53	100	328	Average
2390	50.75	-23.25	74	46.4	31.77	6.14	33.56	100	328	Peak
2457	105.88	-	-	101.53	31.77	6.14	33.56	100	328	Average
2457	115.64	-	-	111.29	31.77	6.14	33.56	100	328	Peak
2484	52.55	-21.45	74	48.15	31.78	6.18	33.56	100	328	Peak
2484	40.95	-13.05	54	36.55	31.78	6.18	33.56	100	328	Average
8238	52.35	-21.65	74	40.3	35.25	10.91	34.11	100	154	Peak
8238	40.29	-13.71	54	28.24	35.25	10.91	34.11	100	154	Average



Test Mode :	Mode 5	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
32.97	24.43	-15.57	40	37.5	17.84	0.56	31.47	-	-	Peak
128.01	27.68	-15.82	43.5	46.32	11.79	1.14	31.57	-	-	Peak
250.05	35.87	-10.13	46	52.98	12.77	1.53	31.41	100	210	Peak
624.1	33.46	-12.54	46	41.35	20.25	2.76	30.9	-	-	Peak
811	30.97	-15.03	46	36.17	22.32	3.17	30.69	-	-	Peak
892.9	31.17	-14.83	46	35.43	23.11	3.33	30.7	-	-	Peak
2374	43.95	-30.05	74	39.81	31.68	5.99	33.53	102	288	Peak
2374	32.58	-21.42	54	28.44	31.68	5.99	33.53	102	288	Average
2462	105.21	-	-	100.86	31.77	6.14	33.56	102	288	Peak
2462	96.65	-	-	92.3	31.77	6.14	33.56	102	288	Average
2486.89	35.28	-18.72	54	30.88	31.78	6.18	33.56	102	288	Average
2486.89	47.61	-26.39	74	43.21	31.78	6.18	33.56	102	288	Peak
8235	52.48	-21.52	74	40.44	35.25	10.9	34.11	100	134	Peak
8235	40.44	-13.56	54	28.4	35.25	10.9	34.11	100	134	Average



Test Mode :	Mode 5	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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	36.41	-3.59	40	47.83	19.51	0.53	31.46	100	106	Peak
47.82	31.07	-8.93	40	52.47	9.45	0.67	31.52	-	-	Peak
250.05	34.46	-11.54	46	51.57	12.77	1.53	31.41	-	-	Peak
624.1	34.7	-11.3	46	42.59	20.25	2.76	30.9	-	-	Peak
797	33.97	-12.03	46	39.33	22.18	3.14	30.68	-	-	Peak
890.1	29.94	-16.06	46	34.23	23.09	3.33	30.71	-	-	Peak
2388	50.27	-23.73	74	46.07	31.7	6.03	33.53	100	327	Peak
2388	37.76	-16.24	54	33.56	31.7	6.03	33.53	100	327	Average
2462	114.68	-	-	110.33	31.77	6.14	33.56	100	327	Peak
2462	105.9	-	-	101.55	31.77	6.14	33.56	100	327	Average
2483.5	42.79	-11.21	54	38.39	31.78	6.18	33.56	100	327	Average
2483.5	54.46	-19.54	74	50.06	31.78	6.18	33.56	100	327	Peak
8136	52.26	-21.74	74	40.25	35.27	10.86	34.12	100	224	Peak
8136	40.23	-13.77	54	28.22	35.27	10.86	34.12	100	224	Average



Test Mode :	Mode 6	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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	27.15	-12.85	40	38.57	19.51	0.53	31.46	-	-	Peak
120.45	27.31	-16.19	43.5	45.54	12.23	1.1	31.56	-	-	Peak
250.05	35.84	-10.16	46	52.95	12.77	1.53	31.41	109	268	Peak
624.1	33.97	-12.03	46	41.86	20.25	2.76	30.9	-	-	Peak
802.6	32.51	-13.49	46	37.8	22.24	3.15	30.68	-	-	Peak
875.4	30.6	-15.4	46	35.05	22.95	3.31	30.71	-	-	Peak
2388.85	59.87	-14.13	74	55.67	31.7	6.03	33.53	102	322	Peak
2388.85	42.26	-11.74	54	38.06	31.7	6.03	33.53	102	322	Average
2412	106.93	-	-	102.69	31.71	6.07	33.54	102	322	Peak
2412	99.89	-	-	95.65	31.71	6.07	33.54	102	322	Average
2486	38.79	-15.21	54	34.39	31.78	6.18	33.56	102	322	Average
2486	51.09	-22.91	74	46.69	31.78	6.18	33.56	102	322	Peak
8229	52.33	-21.67	74	40.28	35.26	10.9	34.11	108	115	Peak
8229	39.8	-14.2	54	27.75	35.26	10.9	34.11	108	115	Average



Test Mode :	Mode 6	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2412 MHz is Fundamental Signals which can be ignored. 2. 3213 MHz is not within a restricted band.		

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	36.68	-3.32	40	48.1	19.51	0.53	31.46	100	299	Peak
99.93	30.28	-13.22	43.5	50.49	10.34	0.99	31.54	-	-	Peak
250.05	34.2	-11.8	46	51.31	12.77	1.53	31.41	-	-	Peak
624.1	35.35	-10.65	46	43.24	20.25	2.76	30.9	-	-	Peak
716.5	33.79	-12.21	46	40.52	21.07	2.98	30.78	-	-	Peak
802.6	36.03	-9.97	46	41.32	22.24	3.15	30.68	-	-	Peak
2389.99	70.56	-3.44	74	66.36	31.7	6.03	33.53	100	336	Peak
2389.99	52.39	-1.61	54	48.19	31.7	6.03	33.53	100	336	Average
2412	113.16	-	-	108.92	31.71	6.07	33.54	100	336	Peak
2412	106.41	-	-	102.17	31.71	6.07	33.54	100	336	Average
2486	45.46	-8.54	54	41.06	31.78	6.18	33.56	100	336	Average
2486	57.73	-16.27	74	53.33	31.78	6.18	33.56	100	336	Peak
3213	53.59	-39.57	93.16	47.72	32.43	7.19	33.75	100	0	Peak
8241	53.05	-20.95	74	41	35.25	10.91	34.11	100	237	Peak



Test Mode :	Mode 7	Temperature :	23~25°C
Test Channel :	02	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2417 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
32.97	27.39	-12.61	40	40.46	17.84	0.56	31.47	-	-	Peak
127.74	27.45	-16.05	43.5	46.09	11.79	1.14	31.57	-	-	Peak
250.05	35.7	-10.3	46	52.81	12.77	1.53	31.41	135	245	Peak
624.1	33.45	-12.55	46	41.34	20.25	2.76	30.9	-	-	Peak
803.3	31.42	-14.58	46	36.7	22.25	3.15	30.68	-	-	Peak
890.1	30.79	-15.21	46	35.08	23.09	3.33	30.71	-	-	Peak
2388.85	63.56	-10.44	74	59.36	31.7	6.03	33.53	100	320	Peak
2388.85	43.64	-10.36	54	39.44	31.7	6.03	33.53	100	320	Average
2417	107.06	-	-	102.82	31.71	6.07	33.54	100	320	Peak
2417	98.54	-	-	94.3	31.71	6.07	33.54	100	320	Average
2500	41.22	-12.78	54	36.81	31.8	6.18	33.57	100	320	Average
2500	53.91	-20.09	74	49.5	31.8	6.18	33.57	100	320	Peak
8310	53.84	-20.16	74	41.76	35.24	10.94	34.1	122	100	Peak
8310	40.38	-13.62	54	28.3	35.24	10.94	34.1	122	100	Average



Test Mode :	Mode 7	Temperature :	23~25°C
Test Channel :	02	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2417 MHz is Fundamental Signals which can be ignored. 2. 3222 MHz is not within a restricted band.		

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	36.08	-3.92	40	47.5	19.51	0.53	31.46	100	166	Peak
49.17	30.9	-9.1	40	53.27	8.47	0.69	31.53	-	-	Peak
250.05	34.32	-11.68	46	51.43	12.77	1.53	31.41	-	-	Peak
624.1	35.04	-10.96	46	42.93	20.25	2.76	30.9	-	-	Peak
708.1	32.92	-13.08	46	39.81	20.95	2.96	30.8	-	-	Peak
802.6	36.21	-9.79	46	41.5	22.24	3.15	30.68	-	-	Peak
2388.85	51.13	-2.87	54	46.93	31.7	6.03	33.53	100	14	Average
2388.85	71.09	-2.91	74	66.89	31.7	6.03	33.53	100	14	Peak
2417	115.45	-	-	111.21	31.71	6.07	33.54	100	14	Peak
2417	107.1	-	-	102.86	31.71	6.07	33.54	100	14	Average
2484	60.73	-13.27	74	56.33	31.78	6.18	33.56	100	14	Peak
2484	48.62	-5.38	54	44.22	31.78	6.18	33.56	100	14	Average
3222	55.58	-39.87	95.45	49.67	32.42	7.24	33.75	100	0	Peak
8250	53.21	-20.79	74	41.16	35.25	10.91	34.11	100	319	Peak



Test Mode :	Mode 8	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30	30.76	-9.24	40	42.18	19.51	0.53	31.46	100	239	Peak
119.37	27.15	-16.35	43.5	45.47	12.14	1.1	31.56	-	-	Peak
250.05	36	-10	46	53.11	12.77	1.53	31.41	-	-	Peak
624.1	33.11	-12.89	46	41	20.25	2.76	30.9	-	-	Peak
802.6	32.51	-13.49	46	37.8	22.24	3.15	30.68	-	-	Peak
875.4	31.56	-14.44	46	36.01	22.95	3.31	30.71	-	-	Peak
2390	55.61	-18.39	74	51.41	31.7	6.03	33.53	100	327	Peak
2390	41.37	-12.63	54	37.17	31.7	6.03	33.53	100	327	Average
2437	107.72	-	-	103.41	31.75	6.11	33.55	100	327	Peak
2437	95.71	-	-	91.4	31.75	6.11	33.55	100	327	Average
2484	55.51	-18.49	74	51.11	31.78	6.18	33.56	100	327	Peak
2484	40.91	-13.09	54	36.51	31.78	6.18	33.56	100	327	Average
8247	52.63	-21.37	74	40.58	35.25	10.91	34.11	110	162	Peak
8247	39.24	-14.76	54	27.19	35.25	10.91	34.11	110	162	Average



Test Mode :	Mode 8	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2437 MHz is Fundamental Signals which can be ignored. 2. 3246 MHz is not within a restricted band.		

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	36.61	-3.39	40	48.58	18.95	0.54	31.46	112	83	Peak
47.82	31.47	-8.53	40	52.87	9.45	0.67	31.52	-	-	Peak
250.05	34.33	-11.67	46	51.44	12.77	1.53	31.41	-	-	Peak
624.1	33.97	-12.03	46	41.86	20.25	2.76	30.9	-	-	Peak
719.3	34.07	-11.93	46	40.74	21.11	2.99	30.77	-	-	Peak
808.9	34.96	-11.04	46	40.19	22.3	3.16	30.69	-	-	Peak
1916	53.26	-20.74	74	50.64	30.75	5.28	33.41	-	-	Peak
2390	48.7	-5.3	54	44.5	31.7	6.03	33.53	100	351	Average
2390	62.25	-11.75	74	58.05	31.7	6.03	33.53	100	351	Peak
2437	113.47	-	-	109.16	31.75	6.11	33.55	100	351	Peak
2437	102.05	-	-	97.74	31.75	6.11	33.55	100	351	Average
2492	62.21	-11.79	74	57.8	31.8	6.18	33.57	100	351	Peak
2492	47.25	-6.75	54	42.84	31.8	6.18	33.57	100	351	Average
3246	55.73	-37.74	93.47	49.79	32.41	7.29	33.76	100	0	Peak
8277	53.92	-20.08	74	41.86	35.24	10.92	34.1	124	250	Peak
8277	40.21	-13.79	54	28.15	35.24	10.92	34.1	124	250	Average



Test Mode :	Mode 9	Temperature :	23~25°C
Test Channel :	10	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2457 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
128.01	27.7	-15.8	43.5	46.34	11.79	1.14	31.57	-	-	Peak
250.05	35.68	-10.32	46	52.79	12.77	1.53	31.41	109	287	Peak
257.34	27.93	-18.07	46	44.92	12.86	1.57	31.42	-	-	Peak
374.2	26.64	-19.36	46	40.36	15.44	2.09	31.25	-	-	Peak
624.1	33.91	-12.09	46	41.8	20.25	2.76	30.9	-	-	Peak
819.4	32.02	-13.98	46	37.12	22.41	3.19	30.7	-	-	Peak
2382	53.36	-20.64	74	49.18	31.68	6.03	33.53	100	326	Peak
2382	40.34	-13.66	54	36.16	31.68	6.03	33.53	100	326	Average
2457	108.5	-	-	104.15	31.77	6.14	33.56	100	326	Peak
2457	96.15	-	-	91.8	31.77	6.14	33.56	100	326	Average
2483.66	64.57	-9.43	74	60.17	31.78	6.18	33.56	100	326	Peak
2483.66	44.51	-9.49	54	40.11	31.78	6.18	33.56	100	326	Average
8238	52.52	-21.48	74	40.47	35.25	10.91	34.11	100	277	Peak
8238	39.72	-14.28	54	27.67	35.25	10.91	34.11	100	277	Average



Test Mode :	Mode 9	Temperature :	23~25°C
Test Channel :	10	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2457 MHz is Fundamental Signals which can be ignored. 2. 1948 MHz and 3273 MHz are not within a restricted band.		

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	36.74	-3.26	40	48.16	19.51	0.53	31.46	117	202	Peak
47.82	31.16	-8.84	40	52.56	9.45	0.67	31.52	-	-	Peak
250.05	34.45	-11.55	46	51.56	12.77	1.53	31.41	-	-	Peak
624.1	34.56	-11.44	46	42.45	20.25	2.76	30.9	-	-	Peak
718.6	33.85	-12.15	46	40.56	21.09	2.98	30.78	-	-	Peak
802.6	34.42	-11.58	46	39.71	22.24	3.15	30.68	-	-	Peak
1948	51.98	-41.71	93.69	49.06	30.97	5.35	33.4	100	0	Peak
2390	45.95	-8.05	54	41.75	31.7	6.03	33.53	100	327	Average
2390	57.87	-16.13	74	53.67	31.7	6.03	33.53	100	327	Peak
2457	113.69	-	-	109.34	31.77	6.14	33.56	100	327	Peak
2457	101.8	-	-	97.45	31.77	6.14	33.56	100	327	Average
2486.61	72.13	-1.87	74	67.73	31.78	6.18	33.56	100	327	Peak
2486.61	50.82	-3.18	54	46.42	31.78	6.18	33.56	100	327	Average
3273	56.31	-37.38	93.69	50.36	32.38	7.34	33.77	100	0	Peak
8274	53.71	-20.29	74	41.65	35.24	10.92	34.1	117	345	Peak
8274	40.28	-13.72	54	28.22	35.24	10.92	34.1	117	345	Average



Test Mode :	Mode 10	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30	27.45	-12.55	40	38.87	19.51	0.53	31.46	-	-	Peak
120.18	27.92	-15.58	43.5	46.15	12.23	1.1	31.56	-	-	Peak
250.05	35.91	-10.09	46	53.02	12.77	1.53	31.41	100	231	Peak
624.1	33.09	-12.91	46	40.98	20.25	2.76	30.9	-	-	Peak
738.9	28.92	-17.08	46	35.24	21.38	3.03	30.73	-	-	Peak
813.8	31.03	-14.97	46	36.19	22.35	3.18	30.69	-	-	Peak
2382	52.26	-21.74	74	48.08	31.68	6.03	33.53	100	324	Peak
2382	39.15	-14.85	54	34.97	31.68	6.03	33.53	100	324	Average
2462	106.29	-	-	101.94	31.77	6.14	33.56	100	324	Peak
2462	94.63	-	-	90.28	31.77	6.14	33.56	100	324	Average
2484.42	63.92	-10.08	74	59.52	31.78	6.18	33.56	100	324	Peak
2484.42	42.41	-11.59	54	38.01	31.78	6.18	33.56	100	324	Average
8169	53.08	-20.92	74	41.04	35.27	10.88	34.11	105	124	Peak
8169	39.3	-14.7	54	27.26	35.27	10.88	34.11	105	124	Average



Test Mode :	Mode 10	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2462 MHz is Fundamental Signals which can be ignored. 2. 3282 MHz is not within a restricted band.		

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	36.94	-3.06	40	48.36	19.51	0.53	31.46	120	195	Peak
47.82	30.96	-9.04	40	52.36	9.45	0.67	31.52	-	-	Peak
250.05	34.46	-11.54	46	51.57	12.77	1.53	31.41	-	-	Peak
624.1	34.63	-11.37	46	42.52	20.25	2.76	30.9	-	-	Peak
707.4	33.68	-12.32	46	40.59	20.93	2.96	30.8	-	-	Peak
799.8	35.87	-10.13	46	41.19	22.22	3.14	30.68	-	-	Peak
2390	55.86	-18.14	74	51.66	31.7	6.03	33.53	100	326	Peak
2390	42.58	-11.42	54	38.38	31.7	6.03	33.53	100	326	Average
2462	112.74	-	-	108.39	31.77	6.14	33.56	100	326	Peak
2462	100.99	-	-	96.64	31.77	6.14	33.56	100	326	Average
2483.66	72.19	-1.81	74	67.79	31.78	6.18	33.56	100	326	Peak
2483.66	51.55	-2.45	54	47.15	31.78	6.18	33.56	100	326	Average
3282	54.4	-38.34	92.74	48.45	32.38	7.34	33.77	100	0	Peak
8253	53.54	-20.46	74	41.48	35.25	10.91	34.1	100	281	Peak
8253	40.03	-13.97	54	27.97	35.25	10.91	34.1	100	281	Average



Test Mode :	Mode 11	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
31.89	26.6	-13.4	40	39.11	18.4	0.55	31.46	-	-	Peak
119.37	28.35	-15.15	43.5	46.67	12.14	1.1	31.56	-	-	Peak
250.05	35.62	-10.38	46	52.73	12.77	1.53	31.41	100	140	Peak
624.1	33.97	-12.03	46	41.86	20.25	2.76	30.9	-	-	Peak
817.3	31.82	-14.18	46	36.94	22.39	3.19	30.7	-	-	Peak
875.4	30.7	-15.3	46	35.15	22.95	3.31	30.71	-	-	Peak
2389.42	56.93	-17.07	74	52.73	31.7	6.03	33.53	100	327	Peak
2389.42	38.72	-15.28	54	34.52	31.7	6.03	33.53	100	327	Average
2412	105.72	-	-	101.48	31.71	6.07	33.54	100	327	Peak
2412	91.84	-	-	87.6	31.71	6.07	33.54	100	327	Average
2486	36.06	-17.94	54	31.66	31.78	6.18	33.56	100	327	Average
2486	50.07	-23.93	74	45.67	31.78	6.18	33.56	100	327	Peak
8250	53.58	-20.42	74	41.53	35.25	10.91	34.11	100	136	Peak
8250	40.12	-13.88	54	28.07	35.25	10.91	34.11	100	136	Average



Test Mode :	Mode 11	Temperature :	23~25°C
Test Channel :	01	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2412 MHz is Fundamental Signals which can be ignored. 2. 1878 MHz is not within a restricted band.		

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	36.41	-3.59	40	47.83	19.51	0.53	31.46	129	313	Peak
101.82	30.47	-13.03	43.5	50.49	10.52	1	31.54	-	-	Peak
250.05	34.35	-11.65	46	51.46	12.77	1.53	31.41	-	-	Peak
624.1	34.68	-11.32	46	42.57	20.25	2.76	30.9	-	-	Peak
758.5	32.59	-13.41	46	38.58	21.64	3.07	30.7	-	-	Peak
797.7	34.99	-11.01	46	40.35	22.18	3.14	30.68	-	-	Peak
1878	55.88	-39.72	95.6	53.52	30.53	5.24	33.41	100	0	Peak
2389.99	49.41	-4.59	54	45.21	31.7	6.03	33.53	100	336	Average
2389.99	67.89	-6.11	74	63.69	31.7	6.03	33.53	100	336	Peak
2412	115.6	-	-	111.36	31.71	6.07	33.54	100	336	Peak
2412	100.01	-	-	95.77	31.71	6.07	33.54	100	336	Average
2500	43.27	-10.73	54	38.86	31.8	6.18	33.57	100	336	Average
2500	57.45	-16.55	74	53.04	31.8	6.18	33.57	100	336	Peak
8298	54.05	-19.95	74	41.98	35.24	10.93	34.1	112	101	Peak
8298	40.78	-13.22	54	28.71	35.24	10.93	34.1	112	101	Average



Test Mode :	Mode 12	Temperature :	23~25°C
Test Channel :	02	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2417 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
32.97	27.33	-12.67	40	40.4	17.84	0.56	31.47	-	-	Peak
127.74	27.44	-16.06	43.5	46.08	11.79	1.14	31.57	-	-	Peak
250.05	35.98	-10.02	46	53.09	12.77	1.53	31.41	105	116	Peak
624.1	33.29	-12.71	46	41.18	20.25	2.76	30.9	-	-	Peak
797.7	30.56	-15.44	46	35.92	22.18	3.14	30.68	-	-	Peak
873.3	30.24	-15.76	46	34.74	22.92	3.3	30.72	-	-	Peak
2381.06	50.9	-23.1	74	46.72	31.68	6.03	33.53	100	328	Peak
2381.06	36.75	-17.25	54	32.57	31.68	6.03	33.53	100	328	Average
2417	105.78	-	-	101.54	31.71	6.07	33.54	100	328	Peak
2417	91.36	-	-	87.12	31.71	6.07	33.54	100	328	Average
2500	38.82	-15.18	54	34.41	31.8	6.18	33.57	100	328	Average
2500	50.85	-23.15	74	46.44	31.8	6.18	33.57	100	328	Peak
8310	53.77	-20.23	74	41.69	35.24	10.94	34.1	105	111	Peak
8310	40.63	-13.37	54	28.55	35.24	10.94	34.1	105	111	Average



Test Mode :	Mode 12	Temperature :	23~25°C
Test Channel :	02	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	2417 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	36.6	-3.4	40	48.02	19.51	0.53	31.46	100	94	Peak
101.82	30.36	-13.14	43.5	50.38	10.52	1	31.54	-	-	Peak
250.05	33.74	-12.26	46	50.85	12.77	1.53	31.41	-	-	Peak
624.1	34.45	-11.55	46	42.34	20.25	2.76	30.9	-	-	Peak
729.8	34.5	-11.5	46	41	21.24	3.01	30.75	-	-	Peak
797.7	35.28	-10.72	46	40.64	22.18	3.14	30.68	-	-	Peak
2389.99	60.33	-13.67	74	56.13	31.7	6.03	33.53	100	353	Peak
2389.99	45.5	-8.5	54	41.3	31.7	6.03	33.53	100	353	Average
2417	116.33	-	-	112.09	31.71	6.07	33.54	100	353	Peak
2417	100.49	-	-	96.25	31.71	6.07	33.54	100	353	Average
2500	47.96	-6.04	54	43.55	31.8	6.18	33.57	100	353	Average
2500	57.86	-16.14	74	53.45	31.8	6.18	33.57	100	353	Peak
8445	54.35	-19.65	74	42.25	35.21	10.98	34.09	100	201	Peak
8445	41.18	-12.82	54	29.08	35.21	10.98	34.09	100	201	Average



Test Mode :	Mode 13	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30.81	26.82	-13.18	40	38.79	18.95	0.54	31.46	-	-	Peak
122.61	27.08	-16.42	43.5	45.47	12.06	1.11	31.56	-	-	Peak
250.05	36	-10	46	53.11	12.77	1.53	31.41	102	213	Peak
500.2	23.87	-22.13	46	34.31	18.18	2.45	31.07	-	-	Peak
624.1	33.24	-12.76	46	41.13	20.25	2.76	30.9	-	-	Peak
814.5	30.98	-15.02	46	36.13	22.36	3.18	30.69	-	-	Peak
2372	49.09	-24.91	74	44.95	31.68	5.99	33.53	100	327	Peak
2372	39.31	-14.69	54	35.17	31.68	5.99	33.53	100	327	Average
2437	106.36	-	-	102.05	31.75	6.11	33.55	100	327	Peak
2437	92.04	-	-	87.73	31.75	6.11	33.55	100	327	Average
2492	49.56	-24.44	74	45.15	31.8	6.18	33.57	100	327	Peak
2492	38.67	-15.33	54	34.26	31.8	6.18	33.57	100	327	Average
8286	52.81	-21.19	74	40.74	35.24	10.93	34.1	100	89	Peak
8286	39.56	-14.44	54	27.49	35.24	10.93	34.1	100	89	Average



Test Mode :	Mode 13	Temperature :	23~25°C
Test Channel :	06	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2437 MHz is Fundamental Signals which can be ignored. 2. 1916 MHz and 3246 MHz are not within a restricted band.		

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	36.07	-3.93	40	48.04	18.95	0.54	31.46	137	262	Peak
49.17	31.13	-8.87	40	53.5	8.47	0.69	31.53	-	-	Peak
250.05	33.89	-12.11	46	51	12.77	1.53	31.41	-	-	Peak
624.1	34.11	-11.89	46	42	20.25	2.76	30.9	-	-	Peak
710.9	33.53	-12.47	46	40.36	20.99	2.97	30.79	-	-	Peak
802.6	35.68	-10.32	46	40.97	22.24	3.15	30.68	-	-	Peak
1916	56.64	-37.94	94.58	54.02	30.75	5.28	33.41	-	-	Peak
2390	43.18	-10.82	54	38.98	31.7	6.03	33.53	126	334	Average
2390	58.5	-15.5	74	54.3	31.7	6.03	33.53	126	334	Peak
2437	114.58	-	-	110.27	31.75	6.11	33.55	126	334	Peak
2437	100.52	-	-	96.21	31.75	6.11	33.55	126	334	Average
2494	57.76	-16.24	74	53.35	31.8	6.18	33.57	126	334	Peak
2494	43.24	-10.76	54	38.83	31.8	6.18	33.57	126	334	Average
3246	52.91	-41.67	94.58	46.97	32.41	7.29	33.76	100	0	Peak
8397	54	-20	74	41.91	35.22	10.96	34.09	121	302	Peak
8397	40.42	-13.58	54	28.33	35.22	10.96	34.09	121	302	Average



Test Mode :	Mode 14	Temperature :	23~25°C
Test Channel :	10	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2457 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	25	-15	40	36.97	18.95	0.54	31.46	-	-	Peak
128.01	27.48	-16.02	43.5	46.12	11.79	1.14	31.57	-	-	Peak
250.05	35.83	-10.17	46	52.94	12.77	1.53	31.41	100	277	Peak
624.1	34	-12	46	41.89	20.25	2.76	30.9	-	-	Peak
808.2	32.42	-13.58	46	37.66	22.29	3.16	30.69	-	-	Peak
878.2	30.58	-15.42	46	35.01	22.97	3.31	30.71	-	-	Peak
2350	49.88	-24.12	74	45.81	31.64	5.95	33.52	129	326	Peak
2350	34.09	-19.91	54	30.02	31.64	5.95	33.52	129	326	Average
2457	106.68	-	-	102.33	31.77	6.14	33.56	129	326	Peak
2457	92.35	-	-	88	31.77	6.14	33.56	129	326	Average
2484.42	53.34	-20.66	74	48.94	31.78	6.18	33.56	129	326	Peak
2484.42	38.02	-15.98	54	33.62	31.78	6.18	33.56	129	326	Average
8322	53.13	-20.87	74	41.06	35.23	10.94	34.1	100	256	Peak
8322	40.18	-13.82	54	28.11	35.23	10.94	34.1	100	256	Average



Test Mode :	Mode 14	Temperature :	23~25°C
Test Channel :	10	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2457 MHz is Fundamental Signals which can be ignored. 2. 3273 MHz is not within a restricted band.		

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	36.56	-3.44	40	47.98	19.51	0.53	31.46	123	142	Peak
49.17	31.62	-8.38	40	53.99	8.47	0.69	31.53	-	-	Peak
250.05	34.19	-11.81	46	51.3	12.77	1.53	31.41	-	-	Peak
624.1	34.73	-11.27	46	42.62	20.25	2.76	30.9	-	-	Peak
710.2	34.31	-11.69	46	41.18	20.97	2.96	30.8	-	-	Peak
808.2	34.86	-11.14	46	40.1	22.29	3.16	30.69	-	-	Peak
2390	60.8	-13.2	74	56.6	31.7	6.03	33.53	125	342	Peak
2390	45.49	-8.51	54	41.29	31.7	6.03	33.53	125	342	Average
2457	115.89	-	-	111.54	31.77	6.14	33.56	125	342	Peak
2457	100.53	-	-	96.18	31.77	6.14	33.56	125	342	Average
2483.5	61.93	-12.07	74	57.53	31.78	6.18	33.56	125	342	Peak
2483.5	46.49	-7.51	54	42.09	31.78	6.18	33.56	125	342	Average
3273	54.06	-41.83	95.89	48.11	32.38	7.34	33.77	115	67	Peak
8337	53.82	-20.18	74	41.74	35.23	10.95	34.1	101	331	Peak
8337	40.98	-13.02	54	28.9	35.23	10.95	34.1	101	331	Average



Test Mode :	Mode 15	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
33.78	26.35	-13.65	40	39.96	17.29	0.57	31.47	-	-	Peak
127.74	27.41	-16.09	43.5	46.05	11.79	1.14	31.57	-	-	Peak
250.05	35.85	-10.15	46	52.96	12.77	1.53	31.41	100	192	Peak
624.1	33.41	-12.59	46	41.3	20.25	2.76	30.9	-	-	Peak
799.8	31.38	-14.62	46	36.7	22.22	3.14	30.68	-	-	Peak
892.2	30.46	-15.54	46	34.72	23.11	3.33	30.7	-	-	Peak
2382	48.81	-25.19	74	44.63	31.68	6.03	33.53	100	326	Peak
2382	36.49	-17.51	54	32.31	31.68	6.03	33.53	100	326	Average
2462	107.69	-	-	103.34	31.77	6.14	33.56	100	326	Peak
2462	91.61	-	-	87.26	31.77	6.14	33.56	100	326	Average
2484.42	56.52	-17.48	74	52.12	31.78	6.18	33.56	100	326	Peak
2484.42	38.4	-15.6	54	34	31.78	6.18	33.56	100	326	Average
8133	52.86	-21.14	74	40.85	35.27	10.86	34.12	106	162	Peak
8133	39.47	-14.53	54	27.46	35.27	10.86	34.12	106	162	Average



Test Mode :	Mode 15	Temperature :	23~25°C
Test Channel :	11	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 2462 MHz is Fundamental Signals which can be ignored. 2. 3282 MHz is not within a restricted band.		

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	36.27	-3.73	40	47.69	19.51	0.53	31.46	141	224	Peak
101.82	30.5	-13	43.5	50.52	10.52	1	31.54	-	-	Peak
250.05	34.08	-11.92	46	51.19	12.77	1.53	31.41	-	-	Peak
576.5	25.22	-20.78	46	33.94	19.61	2.62	30.95	-	-	Peak
624.1	34.76	-11.24	46	42.65	20.25	2.76	30.9	-	-	Peak
799.8	35.06	-10.94	46	40.38	22.22	3.14	30.68	-	-	Peak
2390	55.54	-18.46	74	51.34	31.7	6.03	33.53	100	343	Peak
2390	43.62	-10.38	54	39.42	31.7	6.03	33.53	100	343	Average
2462	115.2	-	-	110.85	31.77	6.14	33.56	100	343	Peak
2462	100.87	-	-	96.52	31.77	6.14	33.56	100	343	Average
2485.37	72.09	-1.91	74	67.69	31.78	6.18	33.56	100	343	Peak
2485.37	47.63	-6.37	54	43.23	31.78	6.18	33.56	100	343	Average
3282	52.61	-42.59	95.2	46.66	32.38	7.34	33.77	112	68	Peak
8394	54.8	-19.2	74	42.71	35.22	10.96	34.09	114	182	Peak
8394	40.88	-13.12	54	28.79	35.22	10.96	34.09	114	182	Average



Test Mode :	Mode 16	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30	29.84	-10.16	40	41.26	19.51	0.53	31.46	119	310	Peak
128.01	27.24	-16.26	43.5	45.88	11.79	1.14	31.57	-	-	Peak
250.05	35.65	-10.35	46	52.76	12.77	1.53	31.41	-	-	Peak
624.1	33.77	-12.23	46	41.66	20.25	2.76	30.9	-	-	Peak
802.6	32.43	-13.57	46	37.72	22.24	3.15	30.68	-	-	Peak
864.2	30.06	-15.94	46	34.65	22.84	3.29	30.72	-	-	Peak
2386.38	60.14	-13.86	74	55.94	31.7	6.03	33.53	100	327	Peak
2386.38	39.02	-14.98	54	34.82	31.7	6.03	33.53	100	327	Average
2422	99.92	-	-	95.67	31.73	6.07	33.55	100	327	Peak
2422	86.74	-	-	82.49	31.73	6.07	33.55	100	327	Average
2500	40.17	-13.83	54	35.76	31.8	6.18	33.57	100	327	Average
2500	50.05	-23.95	74	45.64	31.8	6.18	33.57	100	327	Peak
8238	52.94	-21.06	74	40.89	35.25	10.91	34.11	100	147	Peak
8238	39.72	-14.28	54	27.67	35.25	10.91	34.11	100	147	Average



Test Mode :	Mode 16	Temperature :	23~25°C
Test Channel :	03	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30.54	36.89	-3.11	40	48.86	18.95	0.54	31.46	106	189	Peak
47.01	31.74	-8.26	40	53.14	9.45	0.67	31.52	-	-	Peak
250.05	33.79	-12.21	46	50.9	12.77	1.53	31.41	-	-	Peak
624.1	34.43	-11.57	46	42.32	20.25	2.76	30.9	-	-	Peak
713.7	34.29	-11.71	46	41.08	21.03	2.97	30.79	-	-	Peak
813.8	34.88	-11.12	46	40.04	22.35	3.18	30.69	-	-	Peak
2387.9	72.61	-1.39	74	68.41	31.7	6.03	33.53	129	350	Peak
2387.9	49.16	-4.84	54	44.96	31.7	6.03	33.53	129	350	Average
2422	108.6	-	-	104.35	31.73	6.07	33.55	129	350	Peak
2422	94.85	-	-	90.6	31.73	6.07	33.55	129	350	Average
2484	42.02	-11.98	54	37.62	31.78	6.18	33.56	129	350	Average
2484	55.47	-18.53	74	51.07	31.78	6.18	33.56	129	350	Peak
8364	53.44	-20.56	74	41.35	35.23	10.95	34.09	103	219	Peak
8364	40.26	-13.74	54	28.17	35.23	10.95	34.09	103	219	Average



Test Mode :	Mode 17	Temperature :	23~25°C
Test Channel :	04	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2427 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	24.13	-15.87	40	35.55	19.51	0.53	31.46	-	-	Peak
127.74	26.94	-16.56	43.5	45.58	11.79	1.14	31.57	-	-	Peak
250.05	35.57	-10.43	46	52.68	12.77	1.53	31.41	110	249	Peak
578.6	23.18	-22.82	46	31.83	19.67	2.63	30.95	-	-	Peak
624.1	33.68	-12.32	46	41.57	20.25	2.76	30.9	-	-	Peak
808.9	30.35	-15.65	46	35.58	22.3	3.16	30.69	-	-	Peak
2389.99	62.08	-11.92	74	57.88	31.7	6.03	33.53	103	326	Peak
2389.99	39.89	-14.11	54	35.69	31.7	6.03	33.53	103	326	Average
2427	101.17	-	-	96.92	31.73	6.07	33.55	103	326	Peak
2427	87.39	-	-	83.14	31.73	6.07	33.55	103	326	Average
2484	37.39	-16.61	54	32.99	31.78	6.18	33.56	103	326	Average
2484	50.56	-23.44	74	46.16	31.78	6.18	33.56	103	326	Peak
8286	53.4	-20.6	74	41.33	35.24	10.93	34.1	105	221	Peak
8286	39.58	-14.42	54	27.51	35.24	10.93	34.1	105	221	Average



Test Mode :	Mode 17	Temperature :	23~25°C
Test Channel :	04	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	2427 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	105	192	Peak
48.9	30.87	-9.13	40	52.76	8.96	0.68	31.53	-	-	Peak
250.05	34.19	-11.81	46	51.3	12.77	1.53	31.41	-	-	Peak
624.1	34.46	-11.54	46	42.35	20.25	2.76	30.9	-	-	Peak
721.4	33.64	-12.36	46	40.29	21.13	2.99	30.77	-	-	Peak
802.6	34.72	-11.28	46	40.01	22.24	3.15	30.68	-	-	Peak
2389.99	72.84	-1.16	74	68.64	31.7	6.03	33.53	100	349	Peak
2389.99	51.88	-2.12	54	47.68	31.7	6.03	33.53	100	349	Average
2427	110.76	-	-	106.51	31.73	6.07	33.55	100	349	Peak
2427	96.57	-	-	92.32	31.73	6.07	33.55	100	349	Average
2486	44.32	-9.68	54	39.92	31.78	6.18	33.56	100	349	Average
2486	57.83	-16.17	74	53.43	31.78	6.18	33.56	100	349	Peak
8406	53.56	-20.44	74	41.46	35.22	10.97	34.09	100	168	Peak
8406	40.29	-13.71	54	28.19	35.22	10.97	34.09	100	168	Average



Test Mode :	Mode 18	Temperature :	23~25°C
Test Channel :	08	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	2447 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
33.78	25.35	-14.65	40	38.96	17.29	0.57	31.47	-	-	Peak
121.53	27.95	-15.55	43.5	46.25	12.15	1.11	31.56	-	-	Peak
250.05	35.71	-10.29	46	52.82	12.77	1.53	31.41	100	318	Peak
624.1	33.51	-12.49	46	41.4	20.25	2.76	30.9	-	-	Peak
802.6	31.48	-14.52	46	36.77	22.24	3.15	30.68	-	-	Peak
900.6	29.76	-16.24	46	33.93	23.19	3.34	30.7	-	-	Peak
2380	51.61	-22.39	74	47.43	31.68	6.03	33.53	100	326	Peak
2380	38.74	-15.26	54	34.56	31.68	6.03	33.53	100	326	Average
2447	102.73	-	-	98.42	31.75	6.11	33.55	100	326	Peak
2447	88.89	-	-	84.58	31.75	6.11	33.55	100	326	Average
2483.85	58.21	-15.79	74	53.81	31.78	6.18	33.56	100	326	Peak
2483.85	40.68	-13.32	54	36.28	31.78	6.18	33.56	100	326	Average
3260	53.25	-20.75	74	47.33	32.39	7.29	33.76	163	102	Peak
3260	37.83	-16.17	54	31.91	32.39	7.29	33.76	163	102	Average
8166	52.5	-21.5	74	40.46	35.27	10.88	34.11	107	119	Peak
8166	39.4	-14.6	54	27.36	35.27	10.88	34.11	107	119	Average



Test Mode :	Mode 18	Temperature :	23~25°C
Test Channel :	08	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	2447 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	36.99	-3.01	40	48.41	19.51	0.53	31.46	132	250	Peak
49.17	31.19	-8.81	40	53.56	8.47	0.69	31.53	-	-	Peak
250.05	34.07	-11.93	46	51.18	12.77	1.53	31.41	-	-	Peak
624.1	34.9	-11.1	46	42.79	20.25	2.76	30.9	-	-	Peak
738.2	33.77	-12.23	46	40.11	21.36	3.03	30.73	-	-	Peak
802.6	34.25	-11.75	46	39.54	22.24	3.15	30.68	-	-	Peak
2390	58.96	-15.04	74	54.76	31.7	6.03	33.53	100	343	Peak
2390	46.88	-7.12	54	42.68	31.7	6.03	33.53	100	343	Average
2447	112.31	-	-	108	31.75	6.11	33.55	100	343	Peak
2447	98.29	-	-	93.98	31.75	6.11	33.55	100	343	Average
2484.61	72.32	-1.68	74	67.92	31.78	6.18	33.56	100	343	Peak
2484.61	51.79	-2.21	54	47.39	31.78	6.18	33.56	100	343	Average
3260	53.72	-20.28	74	47.8	32.39	7.29	33.76	100	72	Peak
3260	51.71	-2.29	54	45.79	32.39	7.29	33.76	100	72	Average
8265	53.07	-20.93	74	41	35.25	10.92	34.1	100	138	Peak
8265	40.16	-13.84	54	28.09	35.25	10.92	34.1	100	138	Average



Test Mode :	Mode 19	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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
30.81	26.84	-13.16	40	38.81	18.95	0.54	31.46	-	-	Peak
119.37	28.75	-14.75	43.5	47.07	12.14	1.1	31.56	-	-	Peak
250.05	35.45	-10.55	46	52.56	12.77	1.53	31.41	100	351	Peak
624.1	33.73	-12.27	46	41.62	20.25	2.76	30.9	-	-	Peak
727.7	30.32	-15.68	46	36.84	21.22	3.01	30.75	-	-	Peak
898.5	29.98	-16.02	46	34.18	23.16	3.34	30.7	-	-	Peak
2372	51.24	-22.76	74	47.1	31.68	5.99	33.53	100	327	Peak
2372	38.21	-15.79	54	34.07	31.68	5.99	33.53	100	327	Average
2452	101.54	-	-	97.23	31.75	6.11	33.55	100	327	Peak
2452	88.6	-	-	84.29	31.75	6.11	33.55	100	327	Average
2483.66	60.18	-13.82	74	55.78	31.78	6.18	33.56	100	327	Peak
2483.66	40.82	-13.18	54	36.42	31.78	6.18	33.56	100	327	Average
8253	52.88	-21.12	74	40.82	35.25	10.91	34.1	100	67	Peak
8253	39.45	-14.55	54	27.39	35.25	10.91	34.1	100	67	Average



Test Mode :	Mode 19	Temperature :	23~25°C
Test Channel :	09	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	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	36.73	-3.27	40	48.15	19.51	0.53	31.46	122	293	Peak
101.82	30.86	-12.64	43.5	50.88	10.52	1	31.54	-	-	Peak
250.05	34.28	-11.72	46	51.39	12.77	1.53	31.41	-	-	Peak
624.1	34.48	-11.52	46	42.37	20.25	2.76	30.9	-	-	Peak
708.1	34.11	-11.89	46	41	20.95	2.96	30.8	-	-	Peak
808.2	34.59	-11.41	46	39.83	22.29	3.16	30.69	-	-	Peak
2390	58.39	-15.61	74	54.19	31.7	6.03	33.53	100	344	Peak
2390	44.86	-9.14	54	40.66	31.7	6.03	33.53	100	344	Average
2452	97.47	-	-	93.16	31.75	6.11	33.55	100	344	Average
2452	110.39	-	-	106.08	31.75	6.11	33.55	100	344	Peak
2487.65	72.3	-1.7	74	67.89	31.8	6.18	33.57	100	344	Peak
2487.65	50.91	-3.09	54	46.5	31.8	6.18	33.57	100	344	Average
3261	51.78	-22.22	74	45.86	32.39	7.29	33.76	120	67	Peak
3261	50.08	-3.92	54	44.16	32.39	7.29	33.76	120	67	Average
8313	53.86	-20.14	74	41.78	35.24	10.94	34.1	121	174	Peak
8313	40.16	-13.84	54	28.08	35.24	10.94	34.1	121	174	Average



Test Mode :	Mode 20	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5745 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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
32.97	26.21	-13.79	40	39.28	17.84	0.56	31.47	-	-	Peak
121.53	27.34	-16.16	43.5	45.64	12.15	1.11	31.56	-	-	Peak
250.05	35.64	-10.36	46	52.75	12.77	1.53	31.41	129	101	Peak
624.1	33.88	-12.12	46	41.77	20.25	2.76	30.9	-	-	Peak
802.6	30.82	-15.18	46	36.11	22.24	3.15	30.68	-	-	Peak
875.4	30.43	-15.57	46	34.88	22.95	3.31	30.71	-	-	Peak
5725	73.8	-10	83.8	65.21	34.51	9.92	35.84	122	297	Peak
5745	92.38	-	-	83.76	34.54	9.91	35.83	122	297	Average
5745	103.8	-	-	95.18	34.54	9.91	35.83	122	297	Peak
5850	48.75	-35.05	83.8	39.97	34.68	9.87	35.77	122	297	Peak
8302	54.71	-19.29	74	42.64	35.24	10.93	34.1	137	296	Peak
8302	41.39	-12.61	54	29.32	35.24	10.93	34.1	137	296	Average



Test Mode :	Mode 20	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5745 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.38	-3.62	40	48.35	18.95	0.54	31.46	100	278	Peak
47.01	31.76	-8.24	40	53.16	9.45	0.67	31.52	-	-	Peak
250.05	34.37	-11.63	46	51.48	12.77	1.53	31.41	-	-	Peak
624.1	34.68	-11.32	46	42.57	20.25	2.76	30.9	-	-	Peak
736.1	32.57	-13.43	46	38.93	21.34	3.03	30.73	-	-	Peak
802.6	33.91	-12.09	46	39.2	22.24	3.15	30.68	-	-	Peak
5725	80.76	-9.88	90.64	72.17	34.51	9.92	35.84	110	30	Peak
5745	99.66	-	-	91.04	34.54	9.91	35.83	110	30	Average
5745	110.64	-	-	102.02	34.54	9.91	35.83	110	30	Peak
5850	48.97	-41.67	90.64	40.19	34.68	9.87	35.77	110	30	Peak
8388	54.35	-19.65	74	42.26	35.22	10.96	34.09	104	91	Peak
8388	42.01	-11.99	54	29.92	35.22	10.96	34.09	104	91	Average
11490	41.97	-32.03	74	72.09	-9.7	13.14	33.56	100	0	Peak



Test Mode :	Mode 21	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5785 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	24.97	-15.03	40	36.39	19.51	0.53	31.46	-	-	Peak
119.37	28.02	-15.48	43.5	46.34	12.14	1.1	31.56	-	-	Peak
250.05	35.73	-10.27	46	52.84	12.77	1.53	31.41	100	152	Peak
624.1	34.31	-11.69	46	42.2	20.25	2.76	30.9	-	-	Peak
719.3	29.21	-16.79	46	35.88	21.11	2.99	30.77	-	-	Peak
803.3	31.1	-14.9	46	36.38	22.25	3.15	30.68	-	-	Peak
5725	49.77	-31.38	81.15	41.18	34.51	9.92	35.84	100	70	Peak
5785	90.91	-	-	82.23	34.59	9.9	35.81	100	70	Average
5785	101.15	-	-	92.47	34.59	9.9	35.81	100	70	Peak
5850	49.21	-31.94	81.15	40.43	34.68	9.87	35.77	100	70	Peak
8326	54.41	-19.59	74	42.34	35.23	10.94	34.1	148	342	Peak
8326	41.26	-12.74	54	29.19	35.23	10.94	34.1	148	342	Average



Test Mode :	Mode 21	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5785 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.7	-3.3	40	48.12	19.51	0.53	31.46	113	337	Peak
47.01	32.22	-7.78	40	53.62	9.45	0.67	31.52	-	-	Peak
250.05	34.35	-11.65	46	51.46	12.77	1.53	31.41	-	-	Peak
624.1	34.75	-11.25	46	42.64	20.25	2.76	30.9	-	-	Peak
715.8	34.44	-11.56	46	41.19	21.05	2.98	30.78	-	-	Peak
808.2	33.6	-12.4	46	38.84	22.29	3.16	30.69	-	-	Peak
5725	51.75	-35.88	87.63	43.16	34.51	9.92	35.84	109	304	Peak
5785	107.63	-	-	98.95	34.59	9.9	35.81	109	304	Peak
5785	98.23	-	-	89.55	34.59	9.9	35.81	109	304	Average
5850	49.17	-38.46	87.63	40.39	34.68	9.87	35.77	109	304	Peak
8390	54.42	-19.58	74	42.33	35.22	10.96	34.09	100	323	Peak
8390	41.96	-12.04	54	29.87	35.22	10.96	34.09	100	323	Average
11570	38.81	-35.19	74	69.05	-9.8	13.17	33.61	100	0	Peak



Test Mode :	Mode 22	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5825 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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
126.93	26.85	-16.65	43.5	45.49	11.8	1.13	31.57	-	-	Peak
250.05	35.95	-10.05	46	53.06	12.77	1.53	31.41	106	258	Peak
256.53	28.67	-17.33	46	45.66	12.86	1.57	31.42	-	-	Peak
500.2	23.79	-22.21	46	34.23	18.18	2.45	31.07	-	-	Peak
624.1	33.16	-12.84	46	41.05	20.25	2.76	30.9	-	-	Peak
808.9	30.87	-15.13	46	36.1	22.3	3.16	30.69	-	-	Peak
5725	49.93	-30.74	80.67	41.34	34.51	9.92	35.84	174	309	Peak
5825	100.67	-	-	91.91	34.66	9.88	35.78	174	309	Peak
5825	89.16	-	-	80.4	34.66	9.88	35.78	174	309	Average
5850	57.27	-23.4	80.67	48.49	34.68	9.87	35.77	174	309	Peak
8350	54.68	-19.32	74	42.6	35.23	10.95	34.1	157	306	Peak
8350	41.4	-12.6	54	29.32	35.23	10.95	34.1	157	306	Average



Test Mode :	Mode 22	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5825 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.94	-3.06	40	48.36	19.51	0.53	31.46	116	76	Peak
47.82	31.56	-8.44	40	52.96	9.45	0.67	31.52	-	-	Peak
250.05	33.87	-12.13	46	50.98	12.77	1.53	31.41	-	-	Peak
624.1	34.77	-11.23	46	42.66	20.25	2.76	30.9	-	-	Peak
715.8	32.69	-13.31	46	39.44	21.05	2.98	30.78	-	-	Peak
799.8	34.71	-11.29	46	40.03	22.22	3.14	30.68	-	-	Peak
5725	53.38	-34.43	87.81	44.79	34.51	9.92	35.84	104	347	Peak
5825	107.81	-	-	99.05	34.66	9.88	35.78	104	347	Peak
5825	97.69	-	-	88.93	34.66	9.88	35.78	104	347	Average
5850	63.74	-24.07	87.81	54.96	34.68	9.87	35.77	104	347	Peak
8380	54.66	-19.34	74	42.57	35.22	10.96	34.09	107	339	Peak
8380	41.98	-12.02	54	29.89	35.22	10.96	34.09	107	339	Average
11650	42.78	-31.22	74	73.12	-9.91	13.22	33.65	100	0	Peak



Test Mode :	Mode 23	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5745 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	29.41	-10.59	40	40.83	19.51	0.53	31.46	-	-	Peak
127.74	27.64	-15.86	43.5	46.28	11.79	1.14	31.57	-	-	Peak
250.05	35.62	-10.38	46	52.73	12.77	1.53	31.41	101	208	Peak
624.1	33.15	-12.85	46	41.04	20.25	2.76	30.9	-	-	Peak
802.6	33.48	-12.52	46	38.77	22.24	3.15	30.68	-	-	Peak
898.5	30.35	-15.65	46	34.55	23.16	3.34	30.7	-	-	Peak
5725	57.27	-23.13	80.4	48.68	34.51	9.92	35.84	142	296	Peak
5745	100.4	-	-	91.78	34.54	9.91	35.83	142	296	Peak
5745	85.62	-	-	77	34.54	9.91	35.83	142	296	Average
5850	48.68	-31.72	80.4	39.9	34.68	9.87	35.77	142	296	Peak
8308	54.46	-19.54	74	42.39	35.24	10.93	34.1	162	311	Peak
8308	41	-13	54	28.93	35.24	10.93	34.1	162	311	Average



Test Mode :	Mode 23	Temperature :	23~25°C
Test Channel :	149	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5745 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.81	-3.19	40	48.23	19.51	0.53	31.46	120	100	Peak
47.82	31.7	-8.3	40	53.1	9.45	0.67	31.52	-	-	Peak
250.05	34.17	-11.83	46	51.28	12.77	1.53	31.41	-	-	Peak
624.1	34.32	-11.68	46	42.21	20.25	2.76	30.9	-	-	Peak
713.7	33.22	-12.78	46	40.01	21.03	2.97	30.79	-	-	Peak
802.6	34.89	-11.11	46	40.18	22.24	3.15	30.68	-	-	Peak
5725	66.04	-23.72	89.76	57.45	34.51	9.92	35.84	100	305	Peak
5745	109.76	-	-	101.14	34.54	9.91	35.83	100	305	Peak
5745	94.17	-	-	85.55	34.54	9.91	35.83	100	305	Average
5850	49.27	-40.49	89.76	40.49	34.68	9.87	35.77	100	305	Peak
8292	54.27	-19.73	74	42.2	35.24	10.93	34.1	103	95	Peak
8292	41.83	-12.17	54	29.76	35.24	10.93	34.1	103	95	Average



Test Mode :	Mode 24	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5785 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	24.43	-15.57	40	36.4	18.95	0.54	31.46	-	-	Peak
120.45	28.71	-14.79	43.5	46.94	12.23	1.1	31.56	-	-	Peak
250.05	35.22	-10.78	46	52.33	12.77	1.53	31.41	100	166	Peak
624.1	32.99	-13.01	46	40.88	20.25	2.76	30.9	-	-	Peak
802.6	31.96	-14.04	46	37.25	22.24	3.15	30.68	-	-	Peak
867.7	30.02	-15.98	46	34.57	22.87	3.3	30.72	-	-	Peak
5725	50.2	-30.06	80.26	41.61	34.51	9.92	35.84	140	71	Peak
5785	100.26	-	-	91.58	34.59	9.9	35.81	140	71	Peak
5785	86.62	-	-	77.94	34.59	9.9	35.81	140	71	Average
5850	49	-31.26	80.26	40.22	34.68	9.87	35.77	140	71	Peak
8318	53.82	-20.18	74	41.74	35.24	10.94	34.1	148	320	Peak
8318	40.89	-13.11	54	28.81	35.24	10.94	34.1	148	320	Average



Test Mode :	Mode 24	Temperature :	23~25°C
Test Channel :	157	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5785 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.28	-3.72	40	48.25	18.95	0.54	31.46	105	126	Peak
48.09	30.91	-9.09	40	52.8	8.96	0.68	31.53	-	-	Peak
250.05	34.05	-11.95	46	51.16	12.77	1.53	31.41	-	-	Peak
624.1	34.06	-11.94	46	41.95	20.25	2.76	30.9	-	-	Peak
713.7	33.42	-12.58	46	40.21	21.03	2.97	30.79	-	-	Peak
797.7	34.94	-11.06	46	40.3	22.18	3.14	30.68	-	-	Peak
5725	51.91	-37.1	89.01	43.32	34.51	9.92	35.84	100	64	Peak
5785	109.01	-	-	100.33	34.59	9.9	35.81	100	64	Peak
5785	94.01	-	-	85.33	34.59	9.9	35.81	100	64	Average
5850	49.41	-39.6	89.01	40.63	34.68	9.87	35.77	100	64	Peak
8374	54.28	-19.72	74	42.2	35.22	10.95	34.09	109	112	Peak
8374	41.63	-12.37	54	29.55	35.22	10.95	34.09	109	112	Average
11570	39.49	-34.51	74	69.73	-9.8	13.17	33.61	100	0	Peak



Test Mode :	Mode 25	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5825 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	27.67	-12.33	40	39.09	19.51	0.53	31.46	-	-	Peak
128.01	27.32	-16.18	43.5	45.96	11.79	1.14	31.57	-	-	Peak
250.05	35.57	-10.43	46	52.68	12.77	1.53	31.41	106	255	Peak
624.1	33.31	-12.69	46	41.2	20.25	2.76	30.9	-	-	Peak
738.9	29.95	-16.05	46	36.27	21.38	3.03	30.73	-	-	Peak
802.6	31.24	-14.76	46	36.53	22.24	3.15	30.68	-	-	Peak
5725	49.34	-31.96	81.3	40.75	34.51	9.92	35.84	103	313	Peak
5825	101.3	-	-	92.54	34.66	9.88	35.78	103	313	Peak
5825	85.58	-	-	76.82	34.66	9.88	35.78	103	313	Average
5850	49.67	-31.63	81.3	40.89	34.68	9.87	35.77	103	313	Peak
8308	54.35	-19.65	74	42.28	35.24	10.93	34.1	162	298	Peak
8308	41.39	-12.61	54	29.32	35.24	10.93	34.1	162	298	Average



Test Mode :	Mode 25	Temperature :	23~25°C
Test Channel :	165	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5825 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.18	-3.82	40	47.6	19.51	0.53	31.46	100	137	Peak
47.82	31.91	-8.09	40	53.31	9.45	0.67	31.52	-	-	Peak
101.82	30.06	-13.44	43.5	50.08	10.52	1	31.54	-	-	Peak
624.1	34.51	-11.49	46	42.4	20.25	2.76	30.9	-	-	Peak
727.7	32.96	-13.04	46	39.48	21.22	3.01	30.75	-	-	Peak
797.7	34.48	-11.52	46	39.84	22.18	3.14	30.68	-	-	Peak
5725	51.68	-39.61	91.29	43.09	34.51	9.92	35.84	100	65	Peak
5825	111.29	-	-	102.53	34.66	9.88	35.78	100	65	Peak
5825	96.67	-	-	87.91	34.66	9.88	35.78	100	65	Average
5850	56.36	-34.93	91.29	47.58	34.68	9.87	35.77	100	65	Peak
8350	54.47	-19.53	74	42.39	35.23	10.95	34.1	105	93	Peak
8350	41.95	-12.05	54	29.87	35.23	10.95	34.1	105	93	Average
11650	42.11	-31.89	74	72.45	-9.91	13.22	33.65	100	0	Peak



Test Mode :	Mode 26	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5755 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	29.18	-10.82	40	40.6	19.51	0.53	31.46	-	-	Peak
128.01	27.38	-16.12	43.5	46.02	11.79	1.14	31.57	-	-	Peak
250.05	35.41	-10.59	46	52.52	12.77	1.53	31.41	108	115	Peak
624.1	33.01	-12.99	46	40.9	20.25	2.76	30.9	-	-	Peak
718.6	29.53	-16.47	46	36.24	21.09	2.98	30.78	-	-	Peak
822.2	31.31	-14.69	46	36.38	22.43	3.2	30.7	-	-	Peak
5725	65.7	-11.13	76.83	57.11	34.51	9.92	35.84	187	298	Peak
5755	96.83	-	-	88.18	34.56	9.91	35.82	187	298	Peak
5755	85.15	-	-	76.5	34.56	9.91	35.82	187	298	Average
5850	49.32	-27.51	76.83	40.54	34.68	9.87	35.77	187	298	Peak
8420	53.99	-20.01	74	41.89	35.22	10.97	34.09	132	288	Peak
8420	41.06	-12.94	54	28.96	35.22	10.97	34.09	132	288	Average



Test Mode :	Mode 26	Temperature :	23~25°C
Test Channel :	151	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5755 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.52	-3.48	40	48.49	18.95	0.54	31.46	100	182	Peak
48.09	30.97	-9.03	40	52.86	8.96	0.68	31.53	-	-	Peak
250.05	34.12	-11.88	46	51.23	12.77	1.53	31.41	-	-	Peak
624.1	34.74	-11.26	46	42.63	20.25	2.76	30.9	-	-	Peak
710.2	33.37	-12.63	46	40.24	20.97	2.96	30.8	-	-	Peak
799.8	35.39	-10.61	46	40.71	22.22	3.14	30.68	-	-	Peak
5725	74.49	-11.7	86.19	65.9	34.51	9.92	35.84	100	305	Peak
5755	106.19	-	-	97.54	34.56	9.91	35.82	100	305	Peak
5755	92.49	-	-	83.84	34.56	9.91	35.82	100	305	Average
5850	49.48	-36.71	86.19	40.7	34.68	9.87	35.77	100	305	Peak
8316	54.06	-19.94	74	41.98	35.24	10.94	34.1	100	86	Peak
8316	41.73	-12.27	54	29.65	35.24	10.94	34.1	100	86	Average



Test Mode :	Mode 27	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Horizontal
Remark :	1. 5795 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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
119.91	27.53	-15.97	43.5	45.76	12.23	1.1	31.56	-	-	Peak
250.05	35.7	-10.3	46	52.81	12.77	1.53	31.41	110	202	Peak
257.34	27.96	-18.04	46	44.95	12.86	1.57	31.42	-	-	Peak
624.1	33.56	-12.44	46	41.45	20.25	2.76	30.9	-	-	Peak
814.5	30.28	-15.72	46	35.43	22.36	3.18	30.69	-	-	Peak
867	29.64	-16.36	46	34.21	22.86	3.29	30.72	-	-	Peak
5725	49.15	-27.49	76.64	40.56	34.51	9.92	35.84	187	68	Peak
5795	83.65	-	-	74.95	34.61	9.89	35.8	187	68	Average
5795	96.64	-	-	87.96	34.59	9.9	35.81	187	68	Peak
5850	48.99	-27.65	76.64	40.21	34.68	9.87	35.77	187	68	Peak
8284	53.65	-20.35	74	41.58	35.24	10.93	34.1	152	314	Peak
8284	41	-13	54	28.93	35.24	10.93	34.1	152	314	Average



Test Mode :	Mode 27	Temperature :	23~25°C
Test Channel :	159	Relative Humidity :	48~50%
Test Engineer :	Ivan Chiang	Polarization :	Vertical
Remark :	1. 5795 MHz is Fundamental Signals which can be ignored. 2. 5725 MHz and 5850 MHz are not within a restricted band.		

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	36.28	-3.72	40	47.7	19.51	0.53	31.46	100	323	Peak
47.01	30.79	-9.21	40	52.19	9.45	0.67	31.52	-	-	Peak
250.05	33.95	-12.05	46	51.06	12.77	1.53	31.41	-	-	Peak
624.1	34.25	-11.75	46	42.14	20.25	2.76	30.9	-	-	Peak
729.8	34.26	-11.74	46	40.76	21.24	3.01	30.75	-	-	Peak
816.6	34.23	-11.77	46	39.37	22.38	3.18	30.7	-	-	Peak
5725	55.09	-30.65	85.74	46.5	34.51	9.92	35.84	100	304	Peak
5795	92.09	-	-	83.39	34.61	9.89	35.8	100	304	Average
5795	105.74	-	-	97.04	34.61	9.89	35.8	100	304	Peak
5850	52	-33.74	85.74	43.22	34.68	9.87	35.77	100	304	Peak
8342	54.32	-19.68	74	42.24	35.23	10.95	34.1	103	106	Peak
8342	41.99	-12.01	54	29.91	35.23	10.95	34.1	103	106	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 Dipole Antenna with reverse SMA connector and it is considered to meet antenna requirement.

3.8.3 Antenna Gain

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



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	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.32 dB.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 Uc(y)	2.36				
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.72				



Appendix A. Photographs of EUT

Please refer to Sporton report number EP082031 as below.