FCC Test Report

EQUIPMENT	:	**WLAN Module**
BRAND NAME	:	**Getac**
MODEL NAME	:	**WiFi Link 5300**
FCC ID	:	**MAU035**
STANDARD	:	**FCC Part 15 Subpart E**
CLASSIFICATION	:	**Unlicensed National Information Infrastructure (UNII)**
APPLICANT	:	**Mitac Technology Corp** No. 1, R&D 2nd RD., HsinChu Science-Based Industrial Park, HsinChu, Taiwan, R.O.C.

The product sample received on Nov. 21, 2008 and completely tested on Jan. 04, 2009. 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 compliance with the applicable technical standards.
The EUT was installed into GETAC laptop PC, brand name: GETAC / model name : V100, during test.

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: Roy Wu / Manager

Testing Laboratory 1190

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.403(i)	A9.2	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	A9.2	Maximum Conducted Output Power	≤ 17, 24, 30 dBm (depend on band)	Pass	-
3.3	15.407(a)	A9.2	Power Spectral Density	≤ 4, 11, 17 dBm (depend on band)	Pass	-
3.4	15.407(b)	A9.3	Frequency Band Edges	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	-
3.5	15.407(b)	A9.3	Spurious Emission	< 20 dBc	Pass	-
3.6	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 15.7 dB at 0.286 MHz
3.7	15.407(b)	A9.3	Transmitter Radiated Emission	≤ -17, -27 dBm (depend on band)&15.209(a)	Pass	Under limit 10.78 dB at 153.39 MHz
3.8	15.407(b)	A9.3	Peak Excursion Ratio	≤ 13dB	Pass	-
3.9	15.407(c)	A9.5	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.10	15.407(g)	A9.5	Frequency Stability	Within Operation Band	Pass	-
3.11	15.203 & 15.407(a)	A9.2	Antenna Requirement	N/A	Pass	-

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR8N2104B	Rev. 01	Initial issue of report	Jan. 17, 2009

1 General Description

1.1 Applicant

Mitac Technology Corp
No. 1, R&D 2nd RD., HsinChu Science-Based Industrial Park, HsinChu, Taiwan, R.O.C.

1.2 Manufacturer

1. **Mitac Technology Corp**
   No. 1, R&D 2nd RD., HsinChu Science-Based Industrial Park, HsinChu, Taiwan, R.O.C.
2. **Getac Technology (Kunshan) Co., Ltd**
   No. 269, 2nd Road, Export Processing Zone, Changjiang South Road, Kunshan, Jiangsu, P.R.C. 215300

1.3 Feature of Equipment Under

Product Feature & Specification	
Equipment	WLAN Module
Brand Name	Getac
Model Name	WiFi Link 5300
Tx/Rx Frequency Range	802.11a : 5150 MHz ~ 5250 MHz 5250 MHz ~ 5350 MHz 5470 MHz ~ 5725 MHz
Maximum Output Power to Antenna	**<5150 MHz ~ 5250 MHz>** 802.11a : 16.45 dBm 802.11n : 16.80 dBm (BW 20M, 3Tx) 802.11n : 16.93 dBm (BW 40M, 2Tx) **<5250 MHz ~ 5350 MHz>** 802.11a : 16.79 dBm 802.11n : 22.10 dBm (BW 20M, 3Tx) 802.11n : 19.51 dBm (BW 40M, 2Tx) **<5470 MHz ~ 5725 MHz>** 802.11a : 17.51 dBm 802.11n : 22.30 dBm (BW 20M, 3Tx) 802.11n : 19.41 dBm (BW 40M, 2Tx)
Antenna Type	PIFA Antenna with gain 2.79 dBi
Type of Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
EUT Stage	Identical Prototype

The specification of laptop PC, V100 :

Parts		Specifications
CPU		Intel® SU9400 Core 2 Duo ULV 1.4 GHz processor 800 MHz FSB (Front Side Bus), Thermal specifications 10 W
Cache Memory		3 MB L2 cache
Chipset	NorthBridge	Intel® GS45
	SouthBridge	ICH9M (small form factor)
BIOS		4 MB EEPROM, system and VGA BIOS, G-sensor support, Plug-and-Play, ACPI 2.0 capability, boot from SATA/LAN/USB devices (e.g., DVD Combo / DVD Dual / Flash / floppy drives), light sensor for LCD panel and keyboard backlight brightness control support, computrace

The more details information, please find the user manual.

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C TEL: +886-3-3273456 / FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	CO05-HY	03CH06HY	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 E
- FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
- ANSI C63.4-2003
- IC RSS-210 Issued 7

Remark:

3.1 All test items were verified and recorded according to the standards and without any deviation during the test.

3.2 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.	WLAN AP	D-Link	DWL-7100AP	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	SMC	SMC-100	HEDWG4005ACC	N/A	Unshielded, 1.8 m
3.	i-pod	Apple	A1199	FCC DoC	Unshielded, 1.2 m	N/A
4.	Exchange	Sun Moon Star	SMS-4 PLUS	FCC DoC	Shielded, 1.6 m	N/A
5.	(RS-232) Mouse	State	MS-303	FCC DoC	Shielded, 1.3 m	N/A

2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

802.11a							
Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
36	5180	40	5200	44	5220	48	5240
52	5260	56	5280	60	5300	64	5320
100	5500	104	5520	108	5540	112	5560
116	5580	120	5600	124	5620	128	5640
132	5660	136	5680	140	5700	-	-

802.11n (BW 20M)							
Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
36	5180	40	5200	44	5220	48	5240
52	5260	56	5280	60	5300	64	5320
100	5500	104	5520	108	5540	112	5560
116	5580	120	5600	124	5620	128	5640
132	5660	136	5680	140	5700	-	-

802.11n (BW 40M)							
Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
38	5190	46	5230	54	5270	62	5310
102	5510	110	5550	118	5590	126	5630
134	5670	-	-	-	-	-	-

2.2 Pre-Scanned RF Power

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

802.11a

Channel	Frequency (MHz)	RF Power (dBm)		
		6 Mbps		
		Chain A	Chain B	Chain C
36	5180	15.22	15.30	13.12
48	5240	**16.45**	15.59	14.39
52	5260	16.24	16.14	**16.79**
64	5320	14.98	15.15	15.23
100	5500	16.71	16.25	16.50
120	5600	17.09	16.70	17.49
140	5700	**17.51**	17.29	16.84

802.11n (BW 20M, SISO)

Channel	Frequency (MHz)	RF Power (dBm)		
		HT0		
		Chain A	Chain B	Chain C
36	5180	13.82	13.95	14.55
48	5240	14.06	14.19	14.85
52	5260	14.68	14.48	15.09
64	5320	14.35	14.79	14.98
100	5500	12.86	13.55	14.21
120	5600	12.92	13.29	13.74
140	5700	13.43	15.46	15.22

802.11n (BW 20M, 2Tx)

Channel	Frequency (MHz)	RF Power (dBm)				
		HT8				
		Combination	Chain A	Chain B	Chain C	Total
36	5180	A+B	13.35	13.32	-	16.35
48	5240	A+B	14.03	13.74	-	16.79
52	5260	A+B	16.86	16.83	-	19.86
64	5320	A+B	12.83	13.24	-	16.05
100	5500	A+B	13.00	13.39	-	16.21
120	5600	A+B	16.25	16.48	-	19.38
140	5700	A+B	16.98	17.07	-	20.04
36	5180	A+C	13.80	-	13.66	16.74
48	5240	A+C	13.56	-	13.86	16.72
52	5260	A+C	15.76	-	15.48	18.63
64	5320	A+C	12.69	-	13.68	16.22
100	5500	A+C	12.44	-	13.06	15.77
120	5600	A+C	15.53	-	16.25	18.92
140	5700	A+C	16.09	-	15.98	19.05
36	5180	B+C	-	12.94	14.31	16.69
48	5240	B+C	-	13.03	13.02	16.04
52	5260	B+C	-	15.93	16.54	19.26
64	5320	B+C	-	12.53	13.39	15.99
100	5500	B+C	-	12.61	12.91	15.77
120	5600	B+C	-	15.65	16.78	19.26
140	5700	B+C	-	16.16	16.21	19.20

802.11n (BW 20M, 3Tx)

Channel	Frequency (MHz)	RF Power (dBm)				
		HT16				
		Combination	Chain A	Chain B	Chain C	Total
36	5180	A+B+C	11.60	11.74	12.19	16.62
48	5240	A+B+C	11.87	12.00	12.20	**16.80**
52	5260	A+B+C	16.83	17.16	17.92	**22.10**
64	5320	A+B+C	11.79	12.03	13.01	17.08
100	5500	A+B+C	12.81	12.64	13.88	17.92
120	5600	A+B+C	15.15	15.41	15.85	20.25
140	5700	A+B+C	17.27	17.06	18.17	**22.30**

802.11n (BW 40M, SISO)

Channel	Frequency (MHz)	RF Power (dBm)		
		HT0		
		Chain A	Chain B	Chain C
38	5190	11.63	11.08	10.01
46	5230	12.70	12.48	12.48
54	5270	13.33	14.07	13.67
62	5310	12.77	11.63	12.41
102	5510	13.24	13.18	13.77
118	5590	13.02	12.90	13.38
134	5670	13.03	13.34	13.30

802.11n (BW 40M, 2Tx)

Channel	Frequency (MHz)	RF Power (dBm)				
		HT8				
		Combination	Chain A	Chain B	Chain C	Total
38	5190	A+B	13.63	13.32	-	16.49
46	5230	A+B	13.79	13.35	-	16.59
54	5270	A+B	13.35	13.19	-	16.28
62	5310	A+B	12.87	12.81	-	15.85
102	5510	A+B	12.17	12.64	-	15.42
118	5590	A+B	13.14	12.65	-	15.91
134	5670	A+B	12.09	12.09	-	15.10
38	5190	A+C	13.45	-	13.26	16.37
46	5230	A+C	13.09	-	13.35	16.23
54	5270	A+C	16.55	-	16.44	**19.51**
62	5310	A+C	12.27	-	11.03	14.70
102	5510	A+C	12.32	-	12.13	15.24
118	5590	A+C	15.44	-	15.71	18.59
134	5670	A+C	16.39	-	16.40	**19.41**
38	5190	B+C	-	11.76	11.48	14.63
46	5230	B+C	-	14.09	13.75	**16.93**
54	5270	B+C	-	14.21	14.46	17.35
62	5310	B+C	-	10.97	11.25	14.12
102	5510	B+C	-	11.72	11.95	14.85
118	5590	B+C	-	12.31	12.24	15.29
134	5670	B+C	-	13.40	12.69	16.07

802.11n (BW 40M, 3Tx)

Channel	Frequency (MHz)	RF Power (dBm)				
		HT16				
		Combination	Chain A	Chain B	Chain C	Total
38	5190	A+B+C	10.38	10.22	9.70	14.88
46	5230	A+B+C	11.98	11.94	11.89	16.71
54	5270	A+B+C	14.13	14.45	14.37	19.09
62	5310	A+B+C	9.23	9.14	10.00	14.25
102	5510	A+B+C	9.54	9.46	9.84	14.39
118	5590	A+B+C	12.53	12.57	13.03	17.49
134	5670	A+B+C	13.49	12.99	13.02	17.94

Remark:

1. The highest RF output power chain was chosen to completely test for all test cases, and was marked in bold word as shown above table, meanwhile, the highest RF output power of 11n modes also used a combiner for PSD, Spurious, and bandwidth measurement.
2. The EUT is programmed to transmit signal continuously for all testing.
3. SISO stands for only one chain transmit signals.
   2Tx stands for two chains transmit signals at the same time.
   3Tx stands for three chains transmit signals at the same time.

2.3 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: conduction (150 kHz to 30 MHz), radiation (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). Pre-scanned tests, X,Y,Z in three orthogonal panels, were conducted to determine the final configuration from all possible combinations, laptop / tablet modes. Radiated band edge measurements were chosen from the highest RF output power of each chain individually and, for the n (HT-20/HT-40) modes, 2Tx (chain A+B, chain A+C, chain B+C) and 3Tx (chain A+B+C) active. The worst case modes for legacy mode, and n modes, were chosen from the highest RF output power chain, and the signal level of fundamental carrier for full radiated test measurements. The following table are showing the total pre-scanned test modes, and the worst case modes which are only recorded in this report.

For conducted test cases, the high, middle, low channels of legacy modes (802.11a), and 802.11n mode (SISO, MIMO) were tested respectively by choosing the highest RF output power chain, and data rate from preliminary testing as shown in section 2.2.

For the 26dB bandwidth at MIMO mode, test modes 8 to 14 were tested on individual chain A, B, and C, and additionally tested with a combiner due to the maximum output power choosing from preliminary testing.

For the power spectral density and conducted spurious emissions, the individual chain A, B, and C was tested at the test mode 8,9,14 due to the maximum output power choosing from preliminary testing.

	Modulation
Test Cases	**802.11a OFDM**
Conducted TCs	■ Mode 1: 802.11a _CH36_5180 MHz ■ Mode 2: 802.11a _CH48_5240 MHz ■ Mode 3: 802.11a _CH52_5260 MHz ■ Mode 4: 802.11a _CH64_5320 MHz ■ Mode 5: 802.11a _CH100_5500 MHz ■ Mode 6: 802.11a _CH120_5600 MHz ■ Mode 7: 802.11a _CH140_5700 MHz ■ Mode 8: 802.11n (20M, 3Tx) _CH36_5180 MHz ■ Mode 9: 802.11n (20M, 3Tx) _CH48_5240 MHz ■ Mode 10: 802.11n (20M, 3Tx) _CH52_5260 MHz ■ Mode 11: 802.11n (20M, 3Tx) _CH64_5320 MHz ■ Mode 12: 802.11n (20M, 3Tx) _CH100_5500 MHz ■ Mode 13: 802.11n (20M, 3Tx) _CH120_5600 MHz ■ Mode 14: 802.11n (20M, 3Tx) _CH140_5700 MHz ■ Mode 15: 802.11n (40M, 2Tx) _CH38_5190 MHz ■ Mode 16: 802.11n (40M, 2Tx) _CH46_5230 MHz ■ Mode 17: 802.11n (40M, 2Tx) _CH54_5270 MHz ■ Mode 18: 802.11n (40M, 2Tx) _CH62_5310 MHz ■ Mode 19: 802.11n (40M, 2Tx) _CH102_5510 MHz ■ Mode 20: 802.11n (40M, 2Tx) _CH118_5590 MHz ■ Mode 21: 802.11n (40M, 2Tx) _CH134_5670 MHz

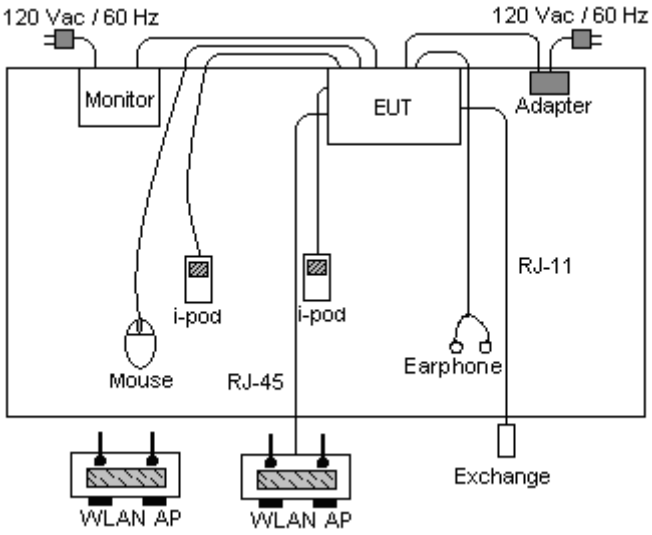
Radiated TCs	■ Mode 1: 802.11a _CH36_5180 MHz ■ Mode 2: 802.11a _CH48_5240 MHz ■ Mode 3: 802.11a _CH52_5260 MHz ■ Mode 4: 802.11a _CH64_5320 MHz ■ Mode 5: 802.11a _CH100_5500 MHz ■ Mode 6: 802.11a _CH120_5600 MHz ■ Mode 7: 802.11a _CH140_5700 MHz ■ Mode 8: 802.11n (20M, SISO) _CH36_5180 MHz ■ Mode 9: 802.11n (20M, SISO) _CH48_5240 MHz ■ Mode 10: 802.11n (20M, SISO) _CH52_5260 MHz ■ Mode 11: 802.11n (20M, SISO) _CH64_5320 MHz ■ Mode 12: 802.11n (20M, SISO) _CH100_5500 MHz ■ Mode 13: 802.11n (20M, SISO) _CH120_5600 MHz ■ Mode 14: 802.11n (20M, SISO) _CH140_5700 MHz ■ Mode 15: 802.11n (20M, 2Tx) _CH36_5180 MHz ■ Mode 16: 802.11n (20M, 2Tx) _CH48_5240 MHz ■ Mode 17: 802.11n (20M, 2Tx) _CH52_5260 MHz ■ Mode 18: 802.11n (20M, 2Tx) _CH64_5320 MHz ■ Mode 19: 802.11n (20M, 2Tx) _CH100_5500 MHz ■ Mode 20: 802.11n (20M, 2Tx) _CH120_5600 MHz ■ Mode 21: 802.11n (20M, 2Tx) _CH140_5700 MHz ■ Mode 22: 802.11n (20M, 3Tx) _CH36_5180 MHz ■ Mode 23: 802.11n (20M, 3Tx) _CH48_5240 MHz ■ Mode 24: 802.11n (20M, 3Tx) _CH52_5260 MHz ■ Mode 25: 802.11n (20M, 3Tx) _CH64_5320 MHz ■ Mode 26: 802.11n (20M, 3Tx) _CH100_5500 MHz ■ Mode 27: 802.11n (20M, 3Tx) _CH120_5600 MHz ■ Mode 28: 802.11n (20M, 3Tx) _CH140_5700 MHz ■ Mode 29: 802.11n (40M, SISO) _CH38_5190 MHz ■ Mode 30: 802.11n (40M, SISO) _CH46_5230 MHz ■ Mode 31: 802.11n (40M, SISO) _CH62_5310 MHz ■ Mode 32: 802.11n (40M, SISO) _CH102_5510 MHz ■ Mode 33: 802.11n (40M, SISO) _CH118_5590 MHz ■ Mode 34: 802.11n (40M, SISO) _CH134_5670 MHz ■ Mode 35: 802.11n (40M, 2Tx) _CH38_5190 MHz ■ Mode 36: 802.11n (40M, 2Tx) _CH46_5230 MHz ■ Mode 37: 802.11n (40M, 2Tx) _CH62_5310 MHz ■ Mode 38: 802.11n (40M, 2Tx) _CH102_5510 MHz ■ Mode 39: 802.11n (40M, 2Tx) _CH118_5590 MHz ■ Mode 40: 802.11n (40M, 2Tx) _CH134_5670 MHz ■ Mode 41: 802.11n (40M, 3Tx) _CH38_5190 MHz ■ Mode 42: 802.11n (40M, 3Tx) _CH46_5230 MHz ■ Mode 43: 802.11n (40M, 3Tx) _CH62_5310 MHz ■ Mode 44: 802.11n (40M, 3Tx) _CH102_5510 MHz ■ Mode 45: 802.11n (40M, 3Tx) _CH118_5590 MHz ■ Mode 46: 802.11n (40M, 3Tx) _CH134_5670 MHz
AC Conducted Emission	Mode 1 : WLAN Link + Adapter

Remark:

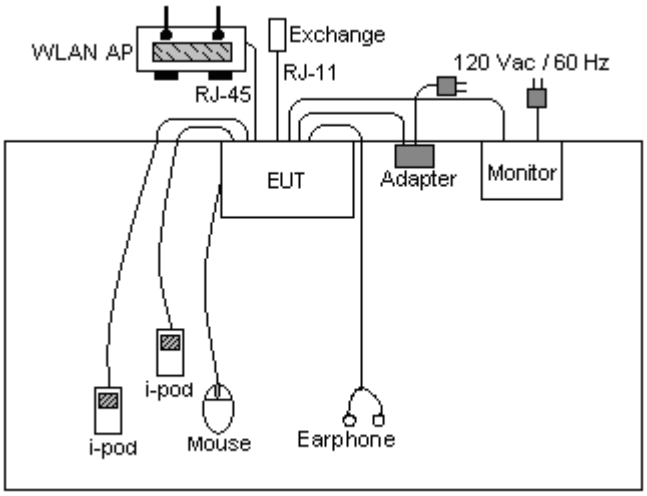
1. Test modes 22 ~ 28 were tested for radiated emission < 1GHz, because those modes were the worst cases of radiated spurious emission above 1 GHz.
2. SISO stands for only one chain transmit signals.
   2Tx stands for two chains transmit signals at the same time.
   3Tx stands for three chains transmit signals at the same time.

2.4 Connection Diagram of Test System

<Conducted Emission>



<Radiated Emission>



2.5 RF Utility

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

3 Test Result

3.1 26dB & 99% Bandwidth Measurement

3.1.1 Limit of 26dB & 99% Bandwidth

There is no restriction limits for bandwidth. The maximum conducted output power can be limited by measured emission bandwidth (B). For the band 5.15~5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B. For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B. For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1 W (30dBm) or 17 dBm + 10log B.

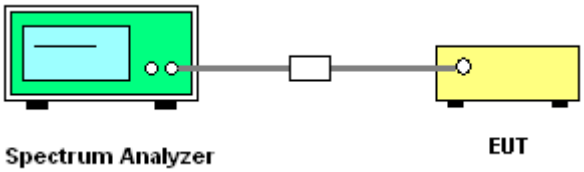
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC Public Notice DA 02-2138 (Measurement Guidelines of UNII).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Read RBW and repeat measurement as needed until the RBW/BW ratio is approximately 1%.
4. Use a RBW = approximately 1% of the emission bandwidth; Set the VBW > RBW; Use a peak detector.
5. Measure the maximum width of the emission that is 26 dB relative to the peak of the emission and 99% occupied bandwidth.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Bandwidth

Test Mode :	Mode 1~7 (Chain A)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
36	5180	22.74	Pass
48	5240	22.92	Pass
52	5260	22.80	Pass
64	5320	22.80	Pass
100	5500	22.62	Pass
120	5600	22.92	Pass
140	5700	23.04	Pass

Test Mode :	Mode 8~14 (Chain A+B+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	26dB Bandwidth (MHz)				Pass/Fail
		A+B+C	A	B	C	
36	5180	22.80	22.92	23.04	23.10	Pass
48	5240	22.92	23.04	23.04	23.04	Pass
52	5260	22.74	22.92	23.10	23.28	Pass
64	5320	22.80	23.04	23.22	23.22	Pass
100	5500	22.80	23.10	23.22	23.22	Pass
120	5600	22.80	22.98	23.10	23.10	Pass
140	5700	22.68	22.86	22.98	23.16	Pass

Note: Chain A+B+C was tested by combiner, and the chain A, B, and C was tested individually.

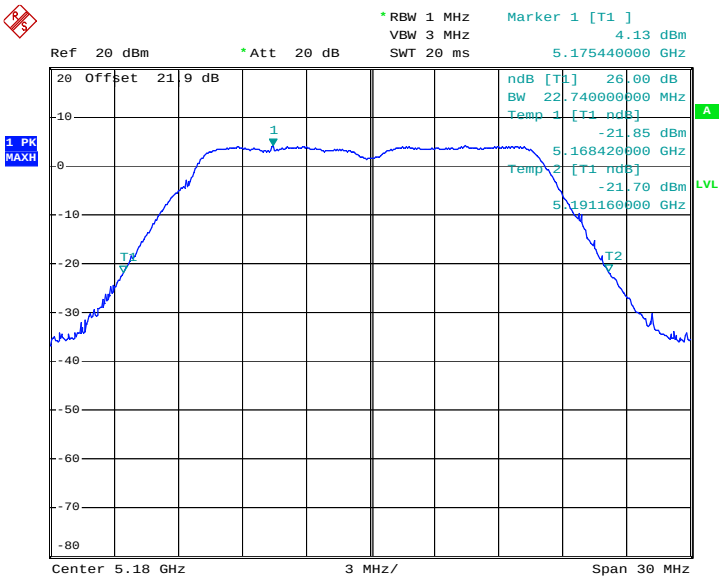
Test Mode :	Mode 15~21 (Chain A+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Pass/Fail
38	5190	41.04	Pass
46	5230	41.04	Pass
54	5270	40.92	Pass
62	5310	41.04	Pass
102	5510	41.04	Pass
118	5590	40.92	Pass
134	5670	40.92	Pass

3.1.6 Test Result of 26dB Bandwidth Plots

Mode 1 : 26 dB Bandwidth Plot on 802.11a Channel 36

Chain A

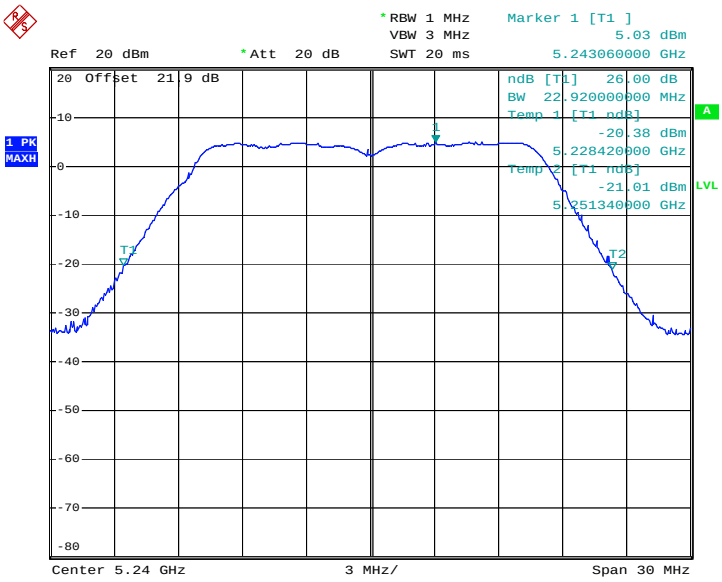


2nd comment ...

Date: 29.NOV.2008 00:58:04

Mode 2 : 26 dB Bandwidth Plot on 802.11a Channel 48

Chain A

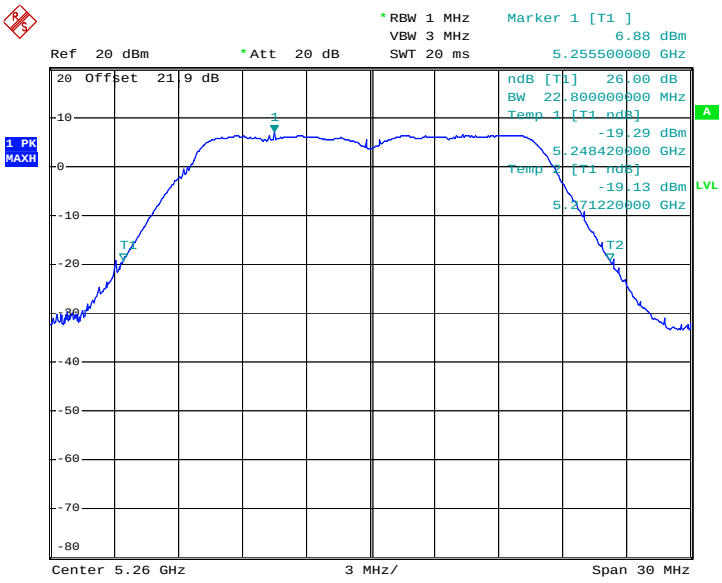


2nd comment ...

Date: 29.NOV.2008 01:03:24

Mode 3 : 26 dB Bandwidth Plot on 802.11a Channel 52

Chain A

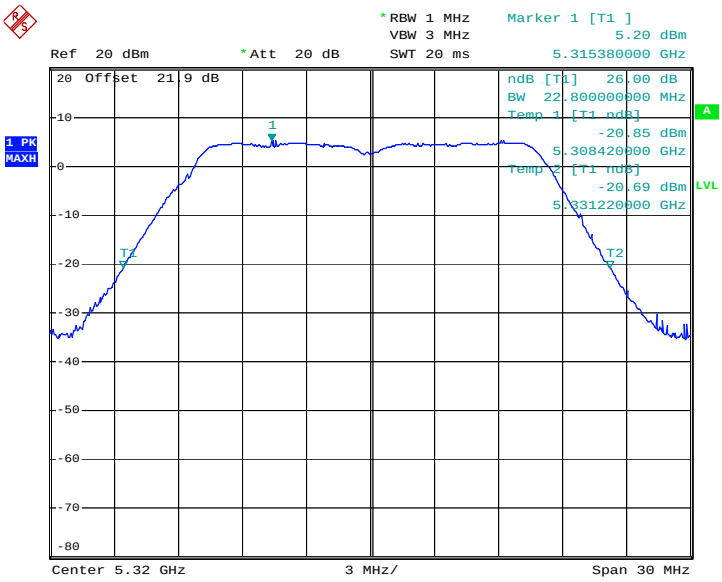


2nd comment ...

Date: 29.NOV.2008 01:04:04

Mode 4 : 26 dB Bandwidth Plot on 802.11a Channel 64

Chain A

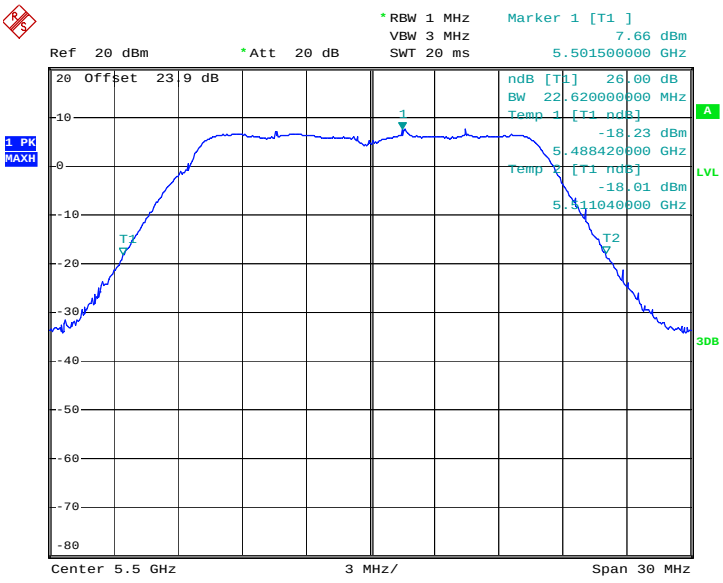


2nd comment ...

Date: 29.NOV.2008 01:08:24

Mode 5 : 26 dB Bandwidth Plot on 802.11a Channel 100

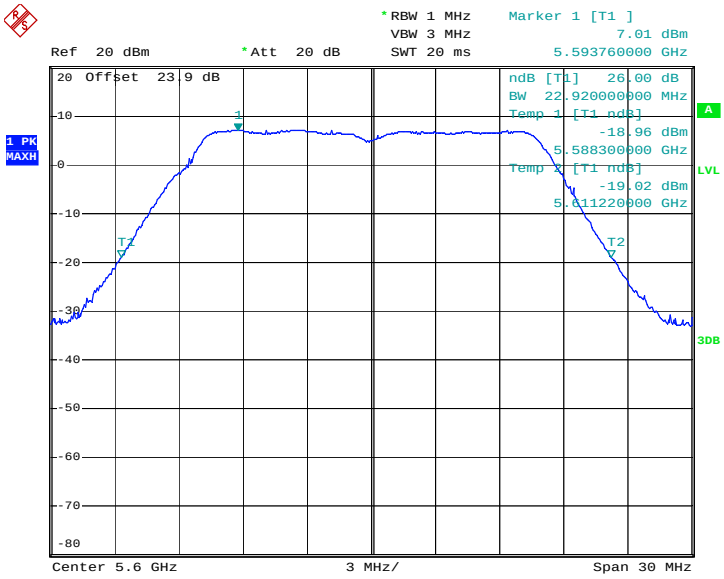
Chain A



Date: 29.NOV.2008 09:04:08

Mode 6 : 26 dB Bandwidth Plot on 802.11a Channel 120

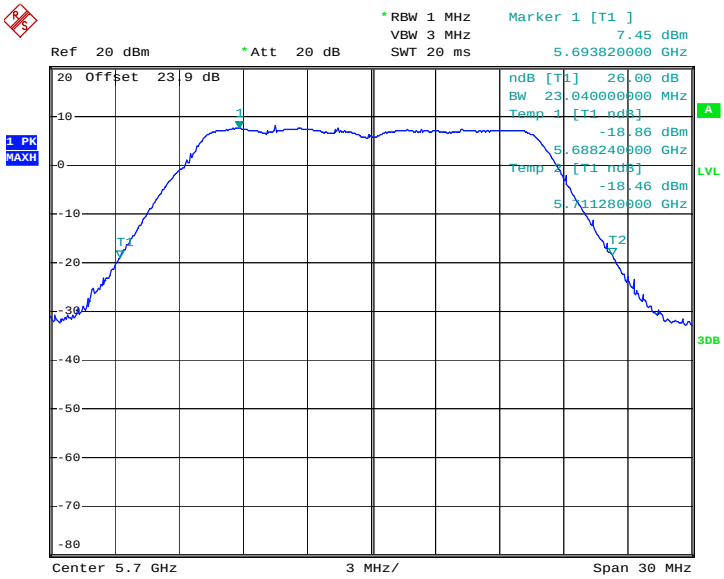
Chain A



Date: 29.NOV.2008 09:06:49

Mode 7 : 26 dB Bandwidth Plot on 802.11a Channel 140

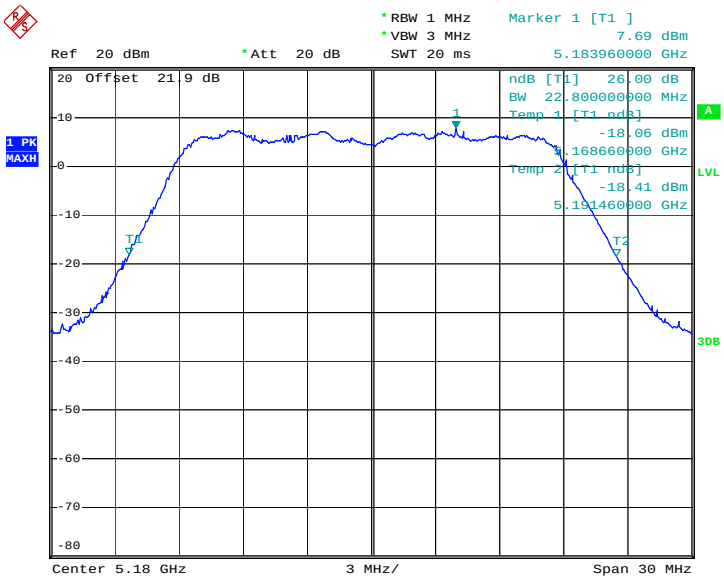
Chain A



Date: 29.NOV.2008 09:08:51

Mode 8 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 36

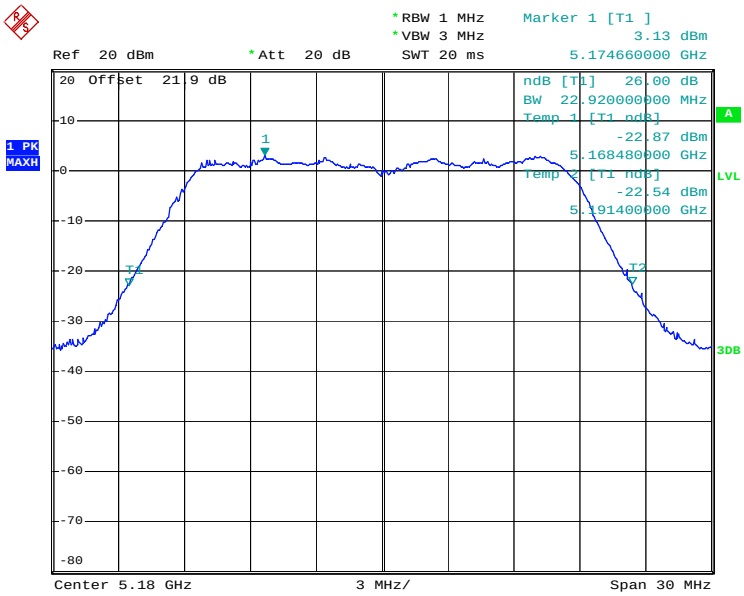
Chain A+B+C



Date: 29.NOV.2008 14:16:20

Mode 8 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 36

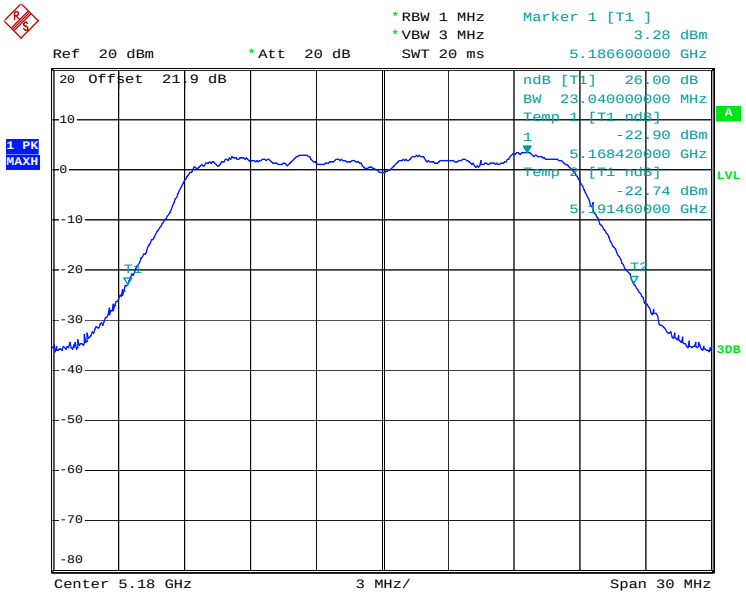
Chain A of Chain A+B+C



Date: 16.JAN.2009 15:07:08

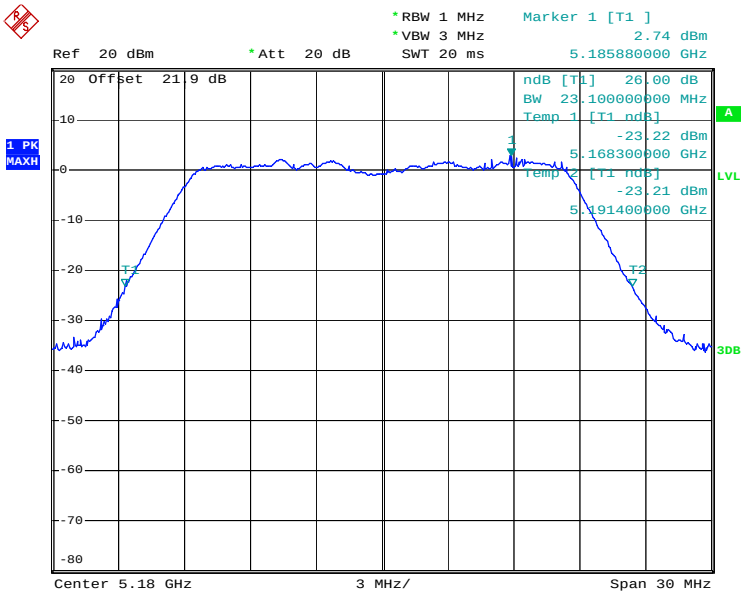
Mode 8 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 36

Chain B of Chain A+B+C



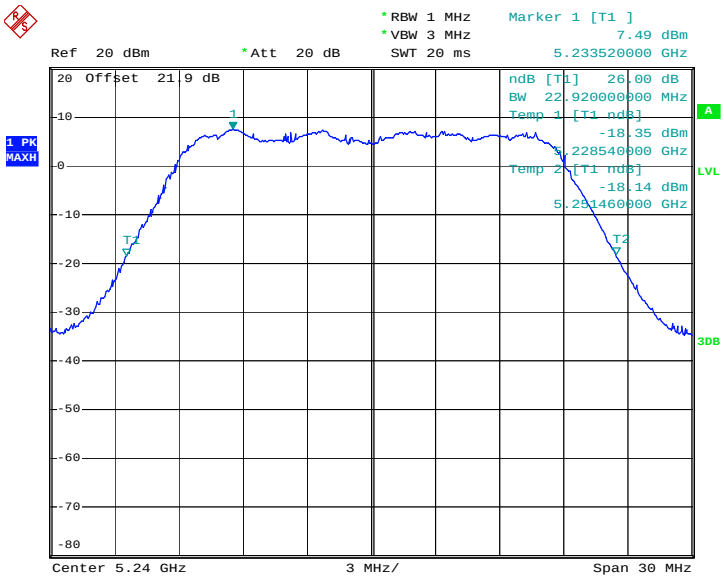
Mode 8 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 36

Chain C of Chain A+B+C



Mode 9 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 48

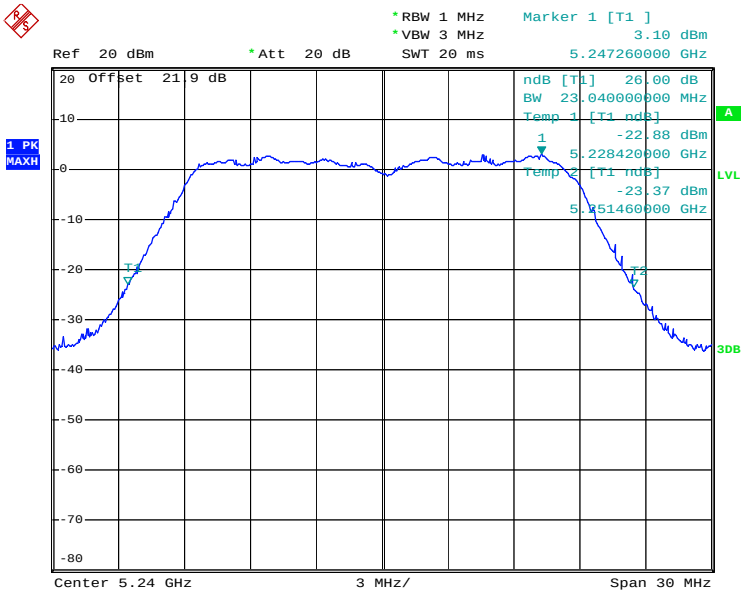
Chain A+B+C



Date: 29.NOV.2008 14:19:22

Mode 9 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 48

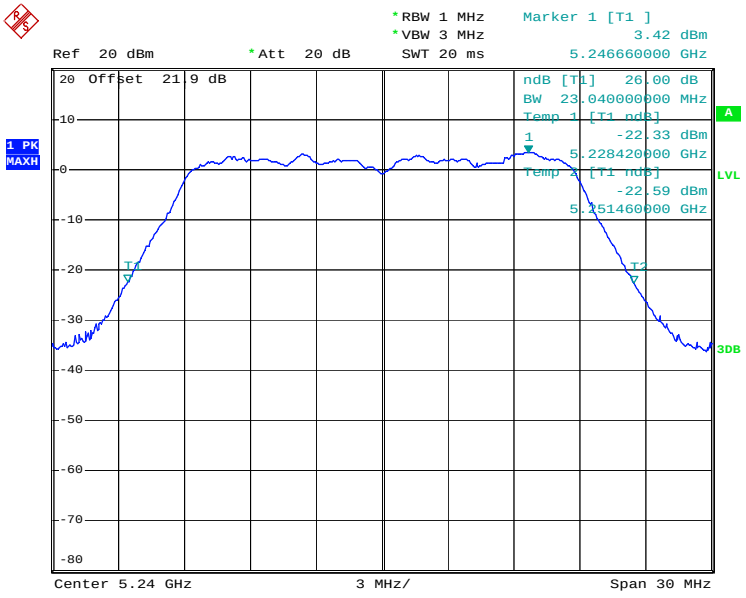
Chain A of Chain A+B+C



Date: 16.JAN.2009 15:10:29

Mode 9 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 48

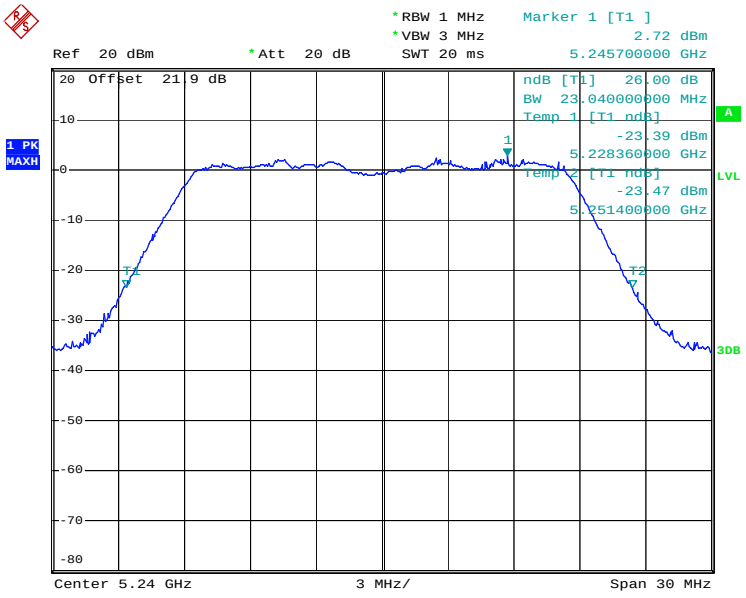
Chain B of Chain A+B+C



Date: 16.JAN.2009 15:09:53

Mode 9 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 48

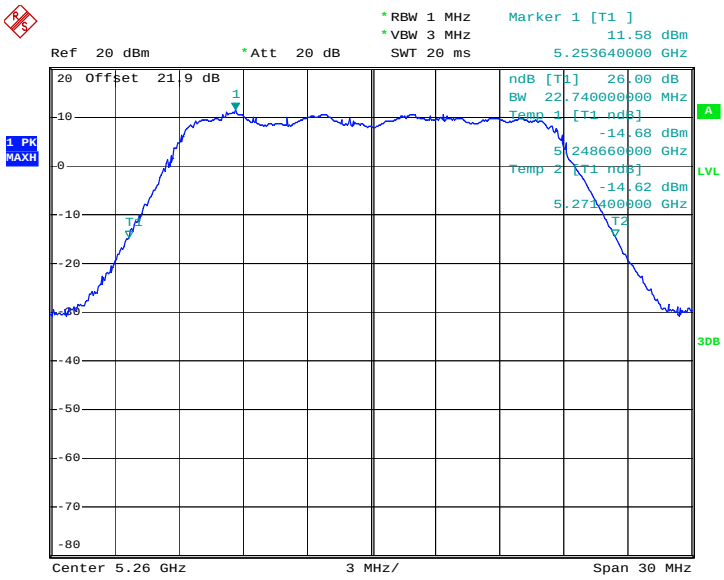
Chain C of Chain A+B+C



Date: 16.JAN.2009 15:09:16

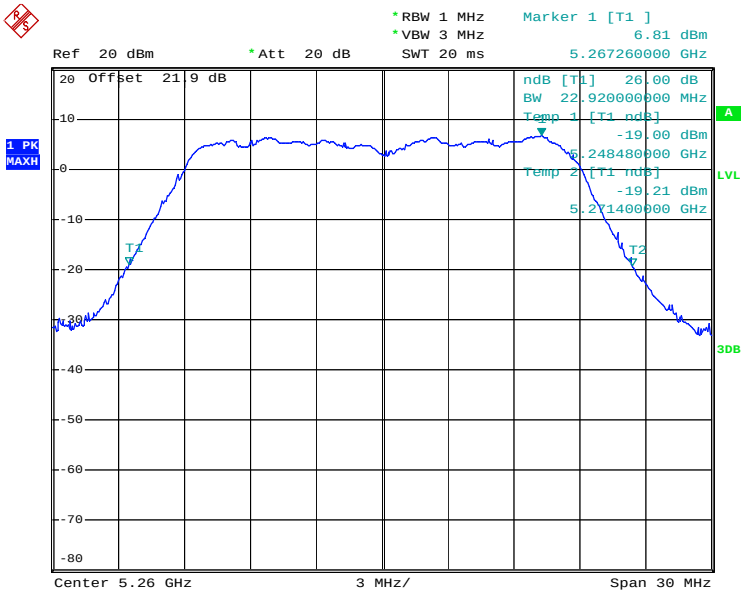
Mode 10 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 52

Chain A+B+C



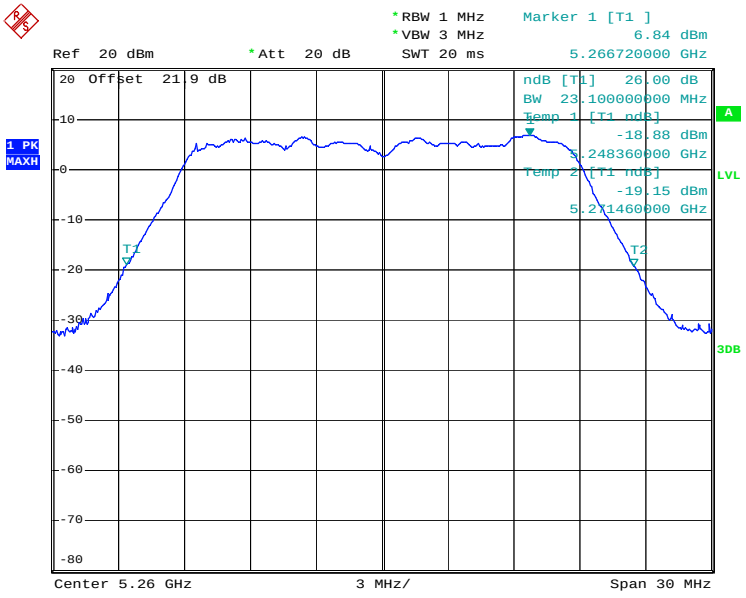
Mode 10 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 52

Chain A of Chain A+B+C



Mode 10 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 52

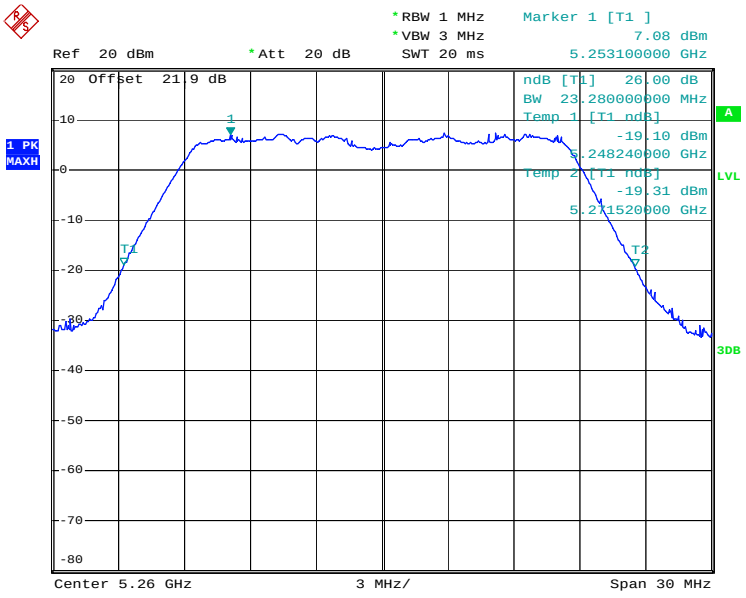
Chain B of Chain A+B+C



Date: 16.JAN.2009 15:12:02

Mode 10 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 52

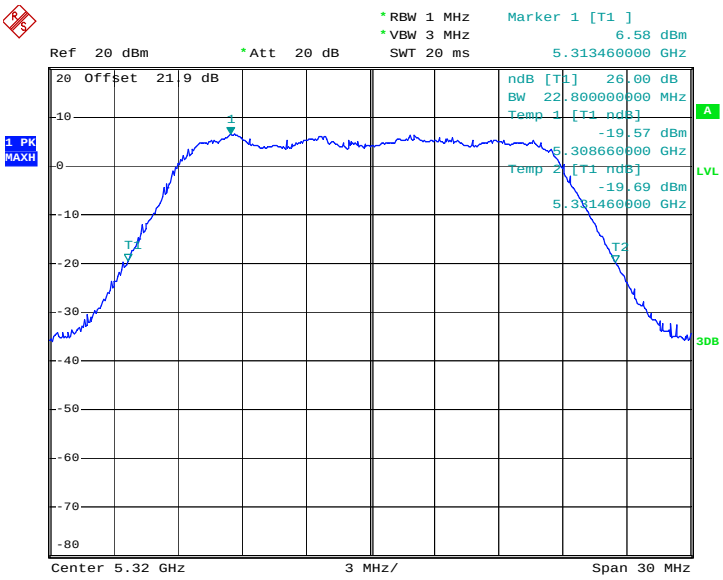
Chain C of Chain A+B+C



Date: 16.JAN.2009 15:13:54

Mode 11 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 64

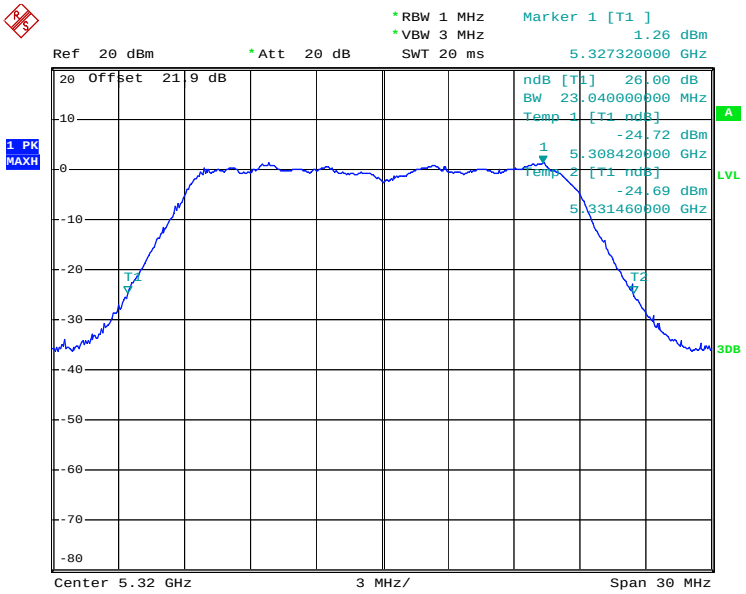
Chain A+B+C



Date: 29.NOV.2008 14:24:31

Mode 11 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 64

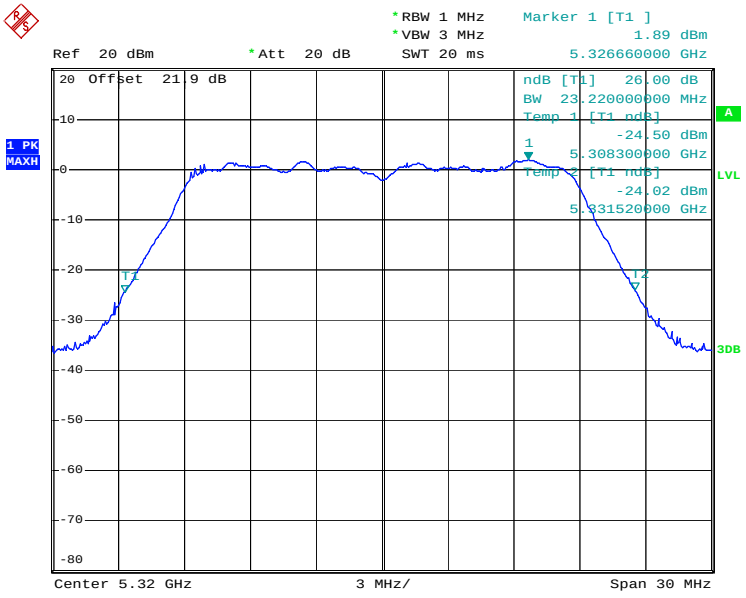
Chain A of Chain A+B+C



Date: 16.JAN.2009 15:17:31

Mode 11 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 64

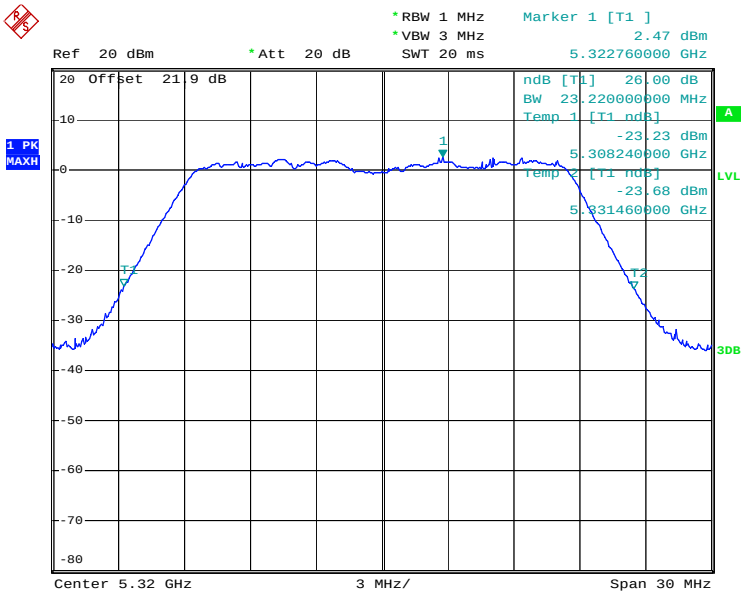
Chain B of Chain A+B+C



Date: 16.JAN.2009 15:16:32

Mode 11 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 64

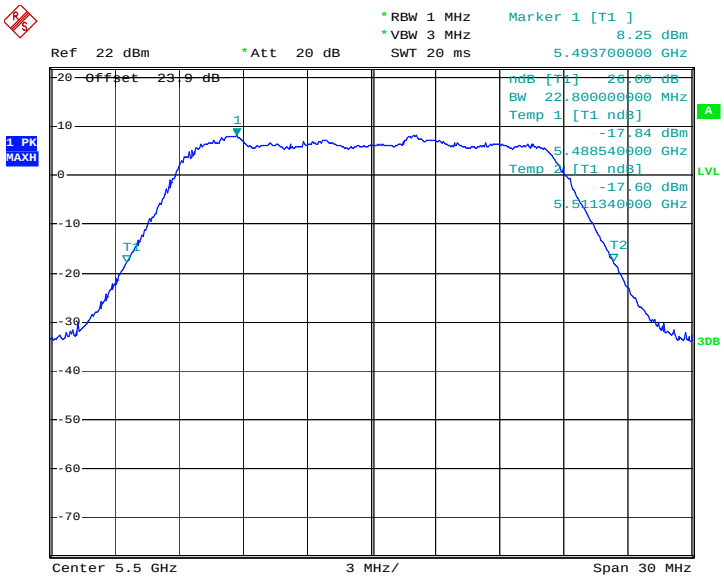
Chain C of Chain A+B+C



Date: 16.JAN.2009 15:18:07

Mode 12 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 100

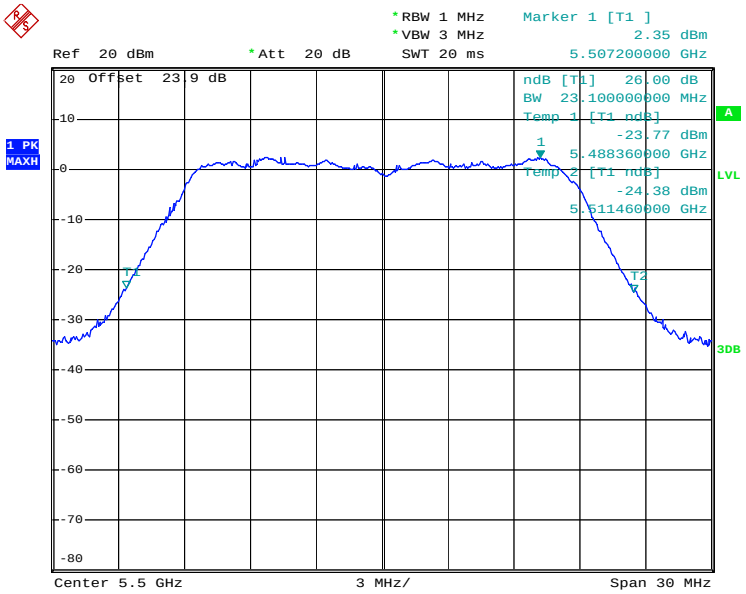
Chain A+B+C



Date: 29.NOV.2008 15:16:12

Mode 12 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 100

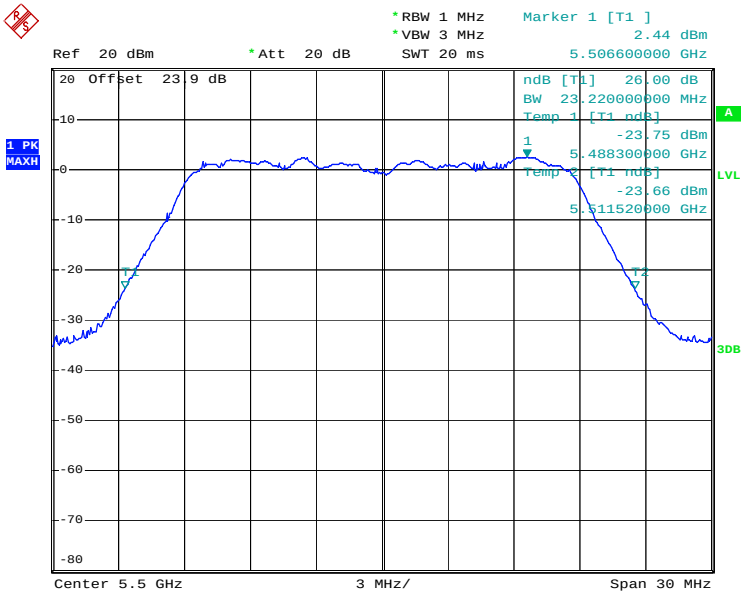
Chain A of Chain A+B+C



Date: 16.JAN.2009 15:21:00

Mode 12 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 100

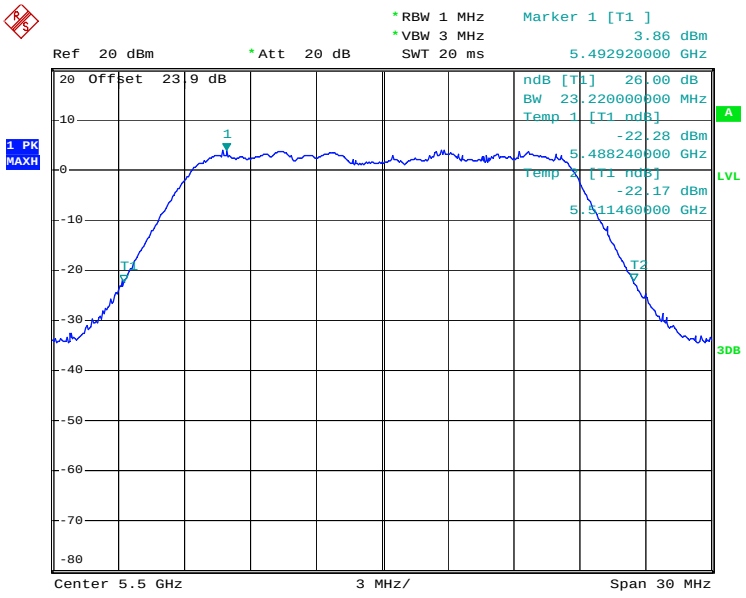
Chain B of Chain A+B+C



Date: 16.JAN.2009 15:20:11

Mode 12 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 100

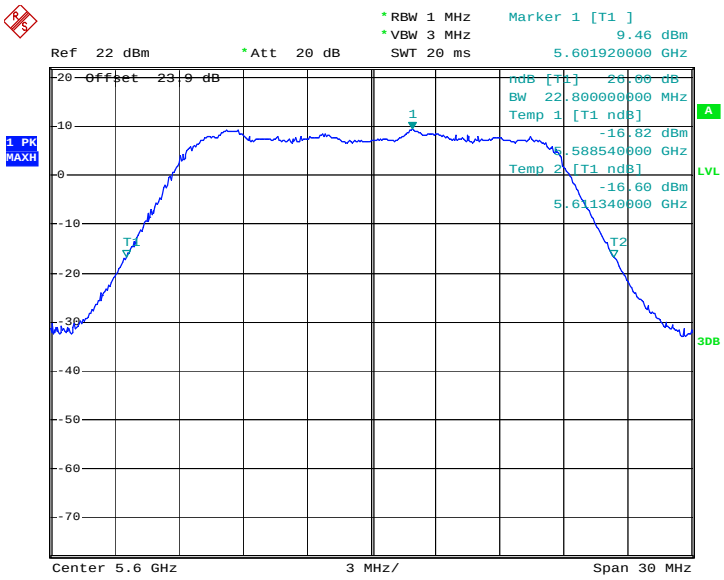
Chain C of Chain A+B+C



Date: 16.JAN.2009 15:19:33

Mode 13 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 120

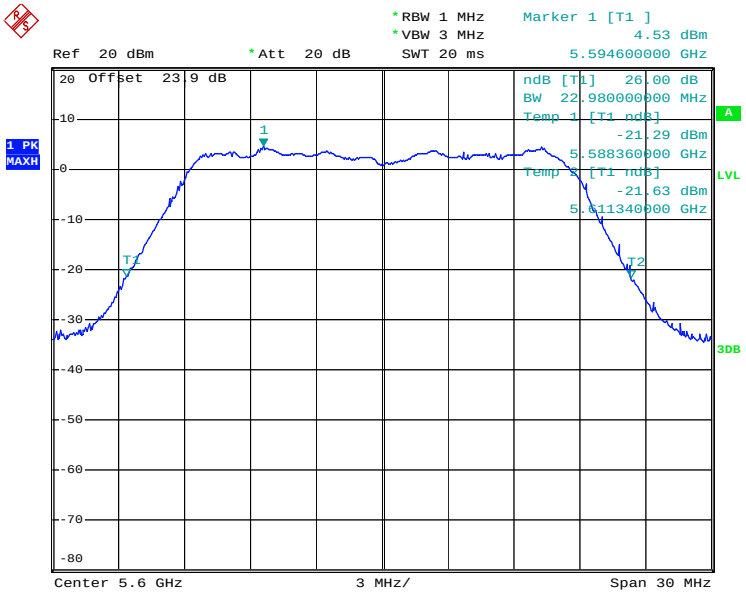
Chain A+B+C



Date: 29.NOV.2008 15:19:06

Mode 13 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 120

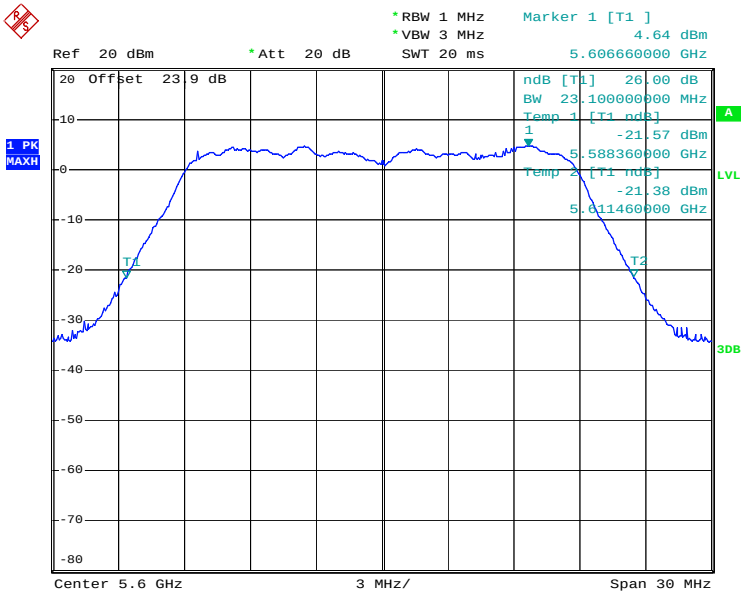
Chain A of Chain A+B+C



Date: 16.JAN.2009 15:21:46

Mode 13 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 120

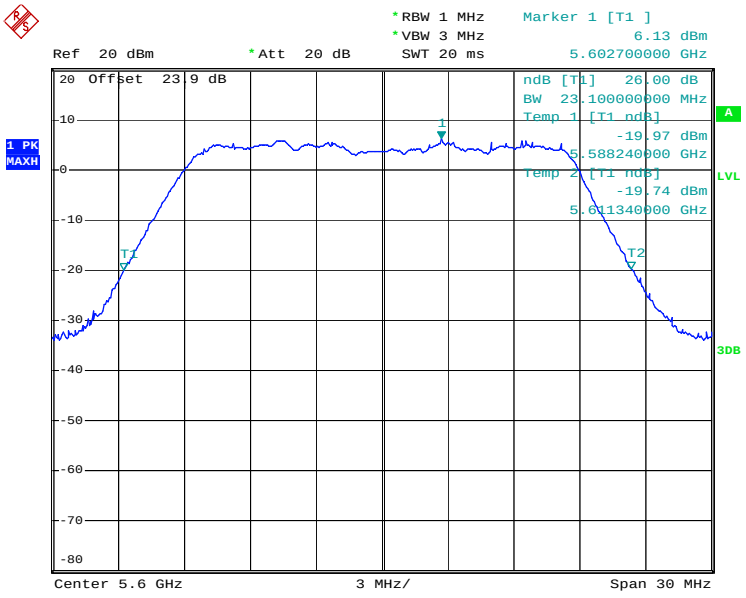
Chain B of Chain A+B+C



Date: 16.JAN.2009 15:22:29

Mode 13 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 120

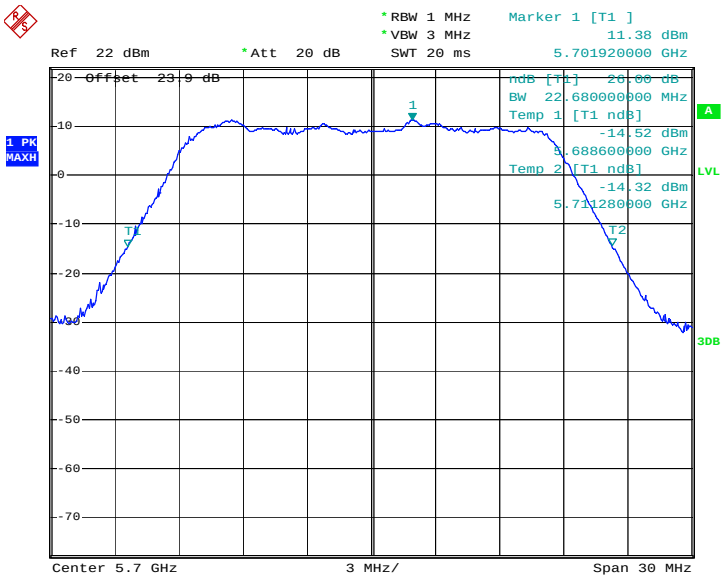
Chain C of Chain A+B+C



Date: 16.JAN.2009 15:23:12

Mode 14 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 140

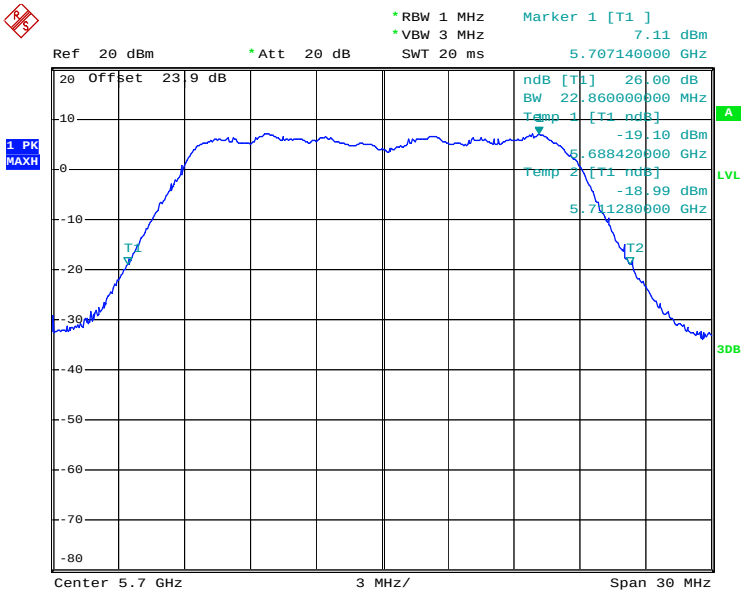
Chain A+B+C



Date: 29.NOV.2008 15:21:38

Mode 14 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 140

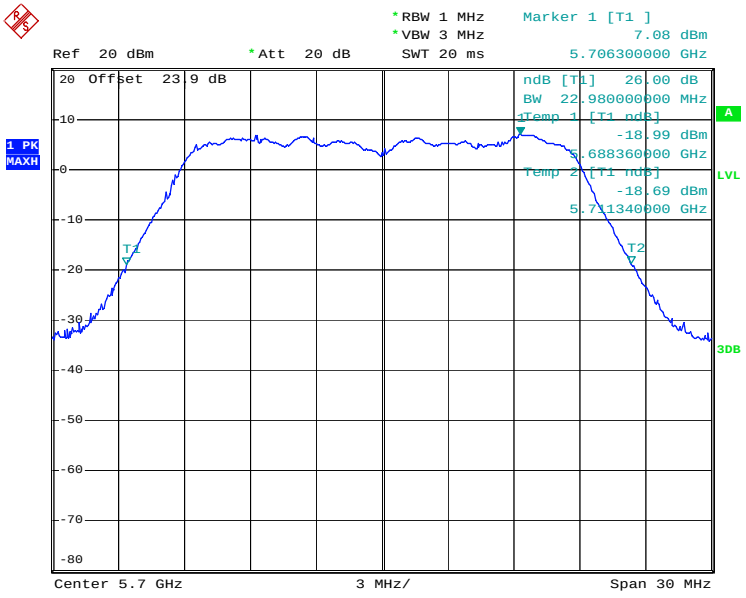
Chain A of Chain A+B+C



Date: 16.JAN.2009 15:25:26

Mode 14 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 140

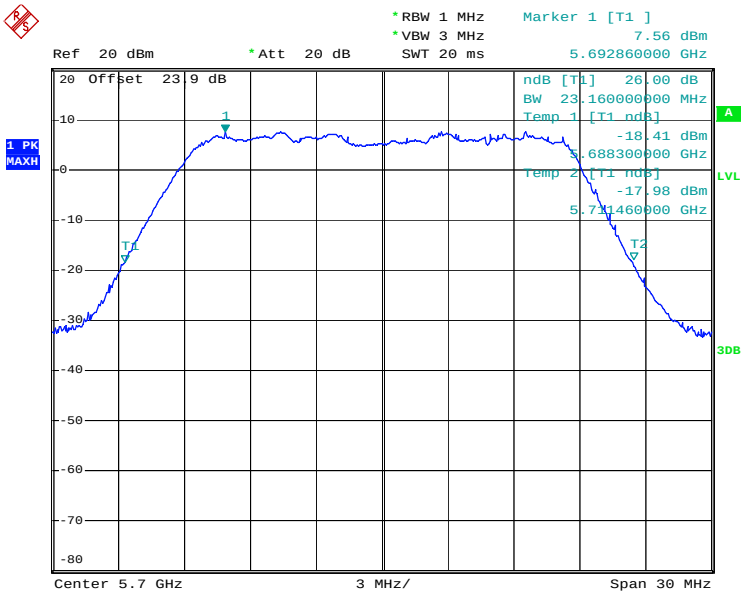
Chain B of Chain A+B+C



Date: 16.JAN.2009 15:25:01

Mode 14 : 26 dB Bandwidth Plot on 802.11n(20M) Channel 140

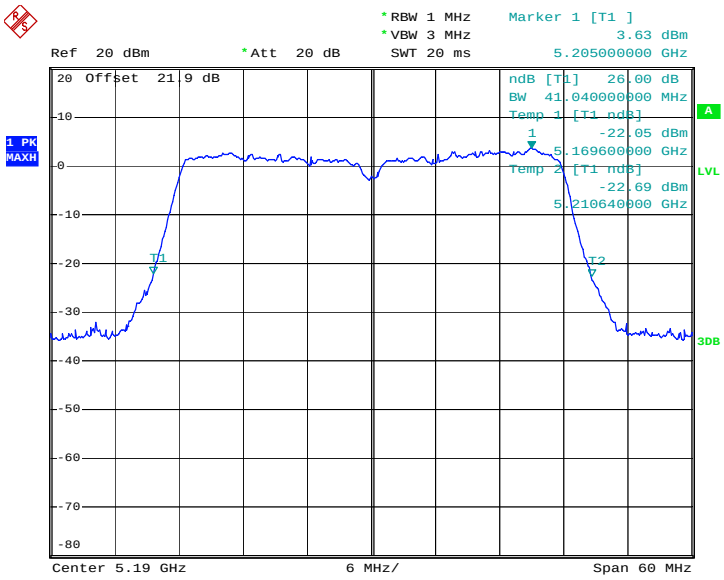
Chain C of Chain A+B+C



Date: 16.JAN.2009 15:24:18

Mode 15 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 38

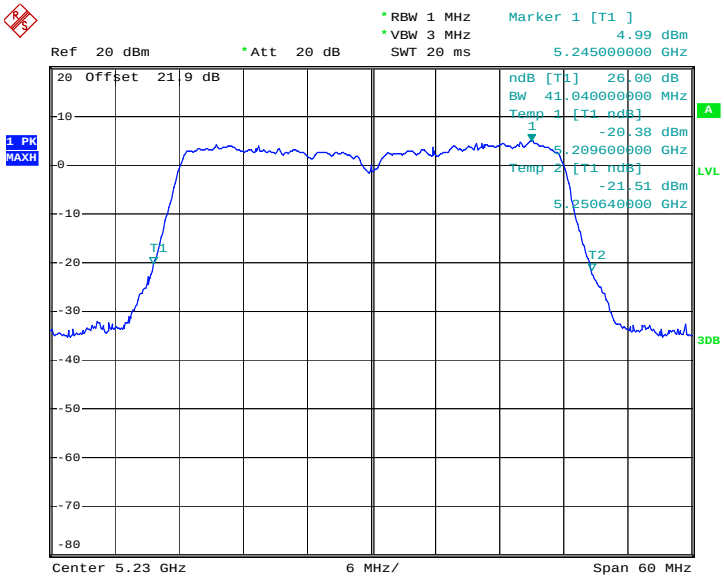
Chain A+C



Date: 29.NOV.2008 16:13:30

Mode 16 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 46

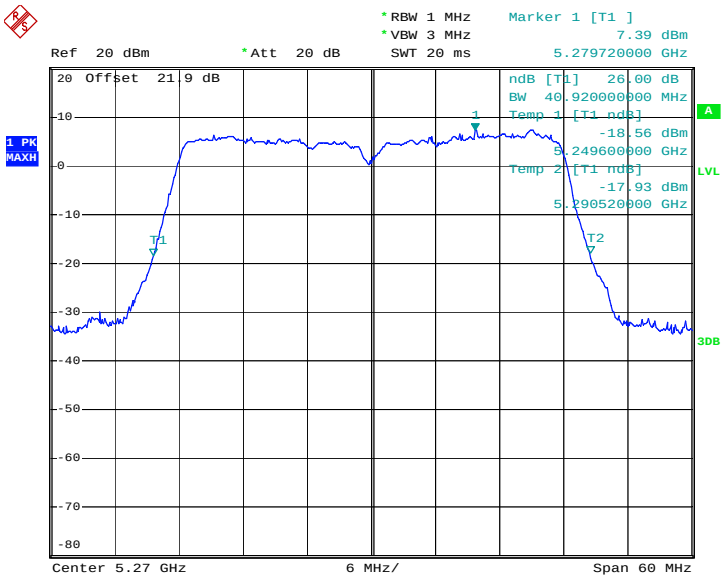
Chain A+C



Date: 29.NOV.2008 16:16:00

Mode 17 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 54

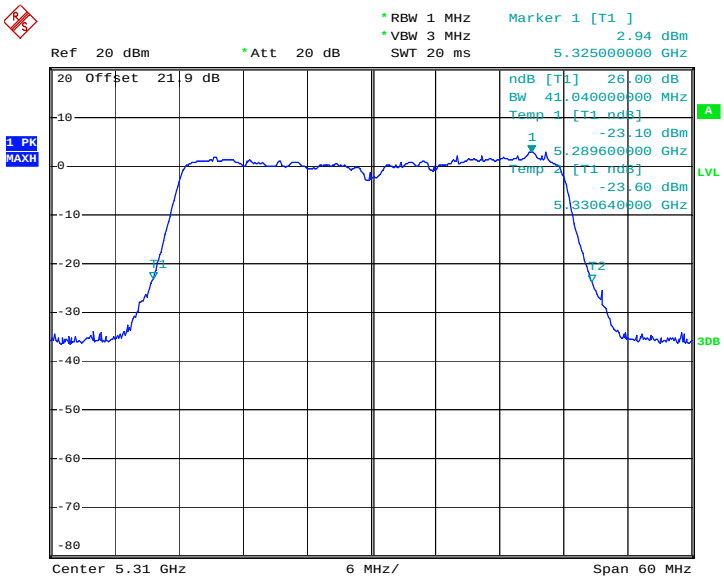
Chain A+C



Date: 29.NOV.2008 16:18:27

Mode 18 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 62

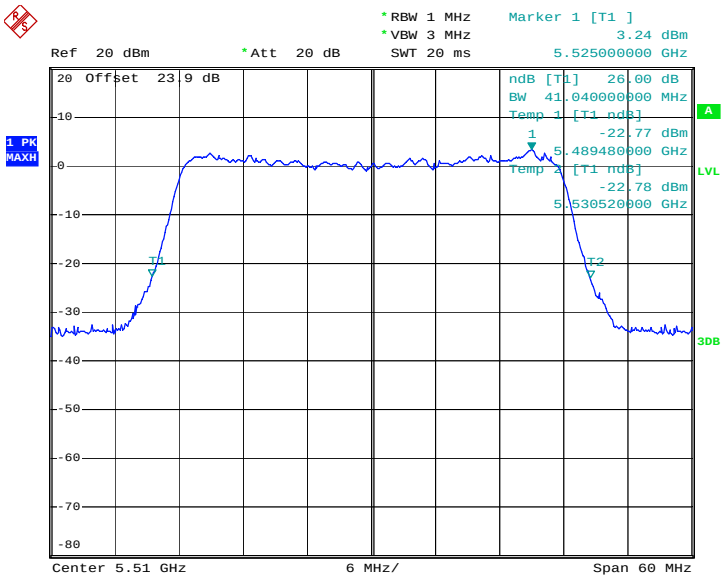
Chain A+C



Date: 29.NOV.2008 16:21:05

Mode 19 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 102

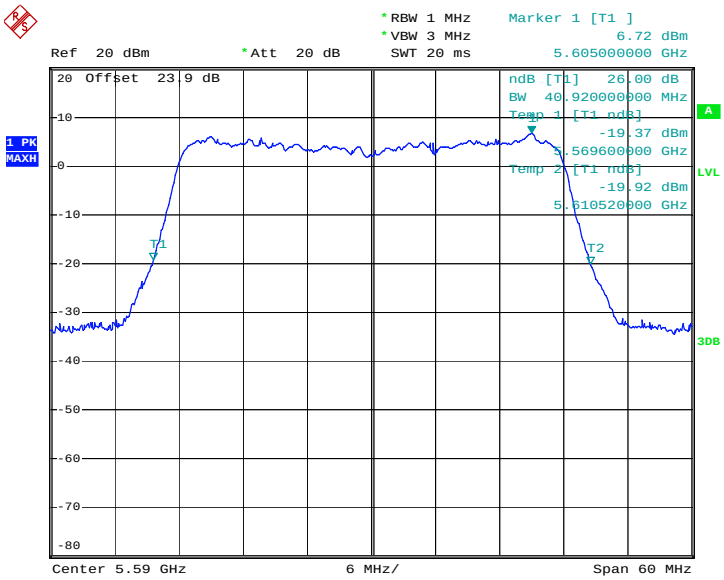
Chain A+C



Date: 29.NOV.2008 17:29:05

Mode 20 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 118

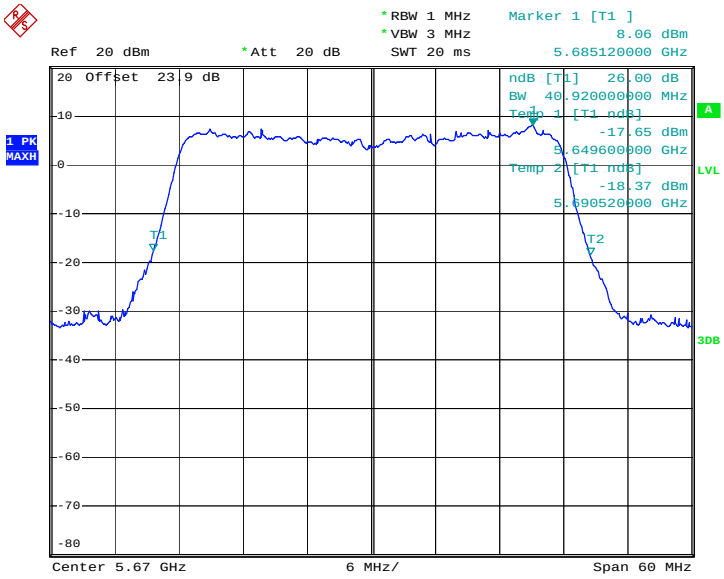
Chain A+C



Date: 29.NOV.2008 17:31:44

Mode 21 : 26 dB Bandwidth Plot on 802.11n(40M) Channel 134

Chain A+C



Date: 29.NOV.2008 17:34:07

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5.15~5.25 GHz, the maximum conducted output power shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B, where B is the 26 dB emissions bandwidth in MHz. If transmitting antenna directional gain is greater than 6 dBi, the peak output power and power density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B. If transmitting antenna directional gain is greater than 6 dBi, the peak output power and power density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC Public Notice DA 02-2138 (Measurement Guidelines of UNII).
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. Measure the power and record it.

3.2.4 Test Setup

3.2.5 Test Result of Maximum Conducted Output Power

Test Mode :	Mode 1~7 (Chain A)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	Measured Power Output (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	15.22	17	Pass
48	5240	16.45	17	Pass
52	5260	16.24	24	Pass
64	5320	14.98	24	Pass
100	5500	16.71	24	Pass
120	5600	17.09	24	Pass
140	5700	17.51	24	Pass

Test Mode :	Mode 8~14 (Chain A+B+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	Measured Power Output (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	16.62	17	Pass
48	5240	16.80	17	Pass
52	5260	22.10	24	Pass
64	5320	17.08	24	Pass
100	5500	17.92	24	Pass
120	5600	20.25	24	Pass
140	5700	22.30	24	Pass

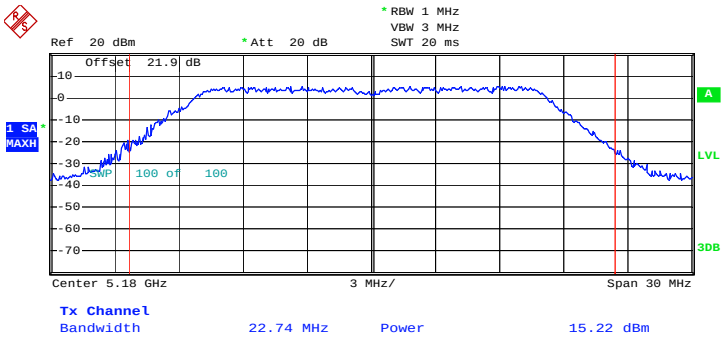
Test Mode :	Mode 15~21 (Chain A+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	Measured Power Output (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	16.37	17	Pass
46	5230	16.23	17	Pass
54	5270	19.51	24	Pass
62	5310	14.70	24	Pass
102	5510	15.24	24	Pass
118	5590	18.59	24	Pass
134	5670	19.41	24	Pass

3.2.6 Test Result of Power Output Plots

Mode 1 : Output Power Plot on 802.11a Channel 36

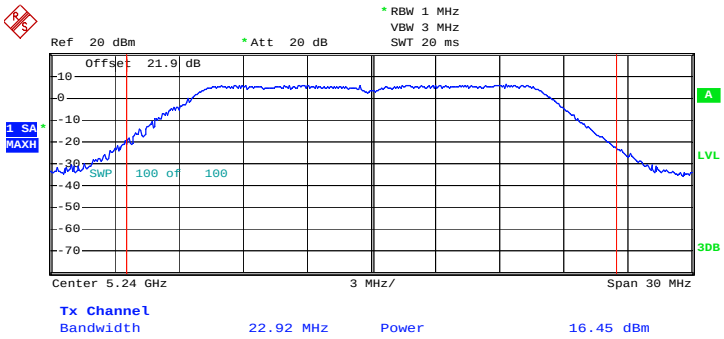
Chain A



Date: 29.NOV.2008 08:10:32

Mode 2 : Output Power Plot on 802.11a Channel 48

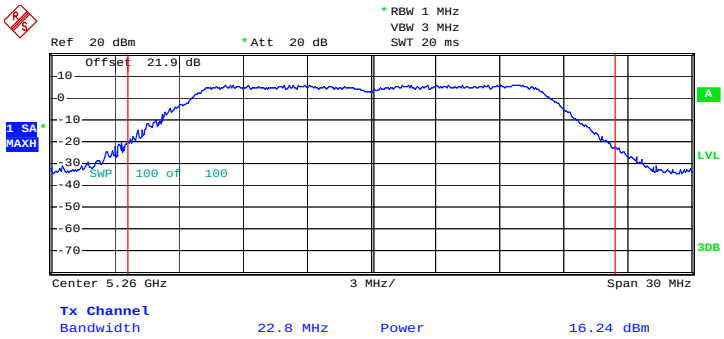
Chain A



Date: 29.NOV.2008 08:22:34

Mode 3 : Output Power Plot on 802.11a Channel 52

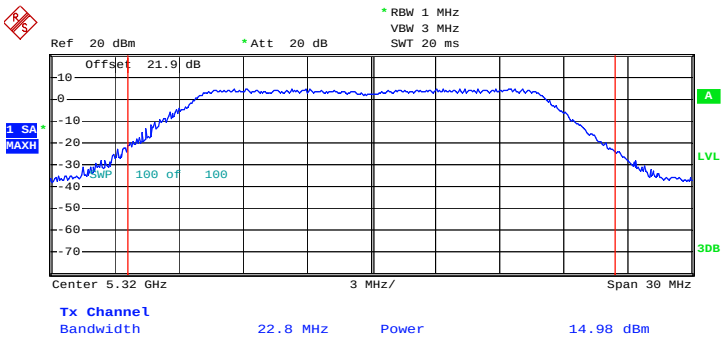
Chain A



Date: 29.NOV.2008 08:25:28

Mode 4 : Output Power Plot on 802.11a Channel 64

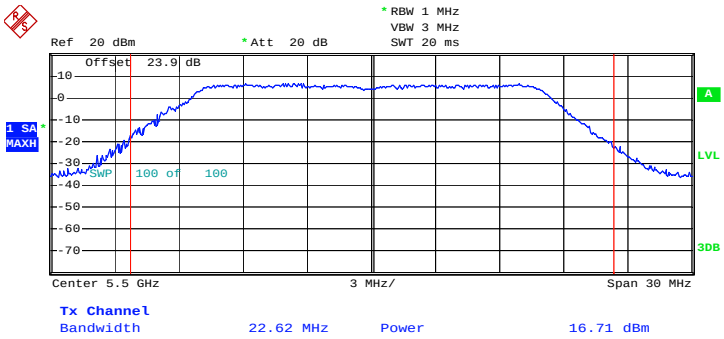
Chain A



Date: 29.NOV.2008 08:55:32

Mode 5 : Output Power Plot on 802.11a Channel 100

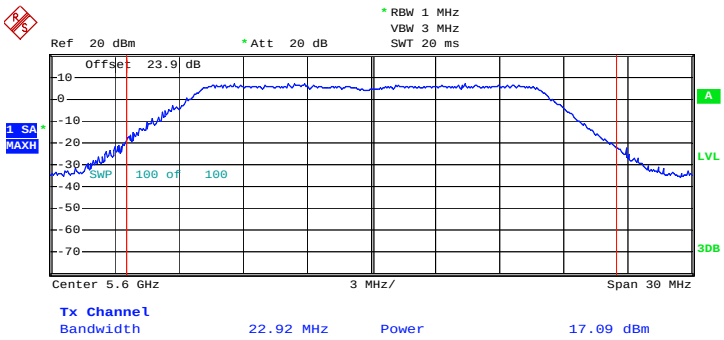
Chain A



Date: 29.NOV.2008 09:11:39

Mode 6 : Output Power Plot on 802.11a Channel 120

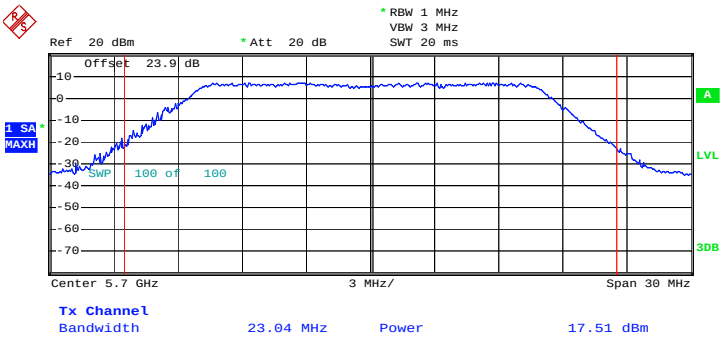
Chain A



Date: 29.NOV.2008 09:14:54

Mode 7 : Output Power Plot on 802.11a Channel 140

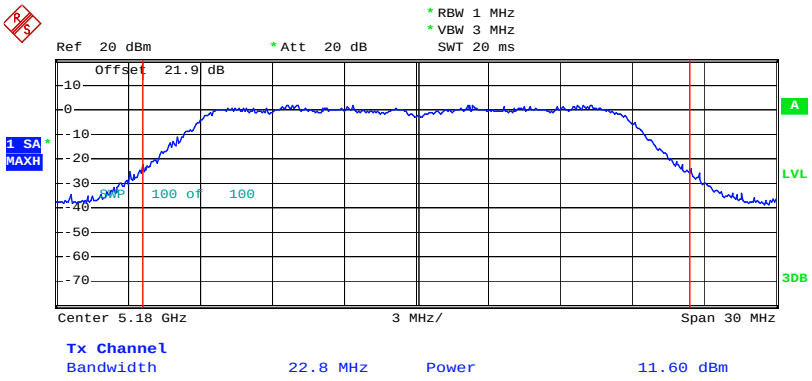
Chain A



Date: 29.NOV.2008 09:20:12

Mode 8 : Output Power Plot on 802.11n(20M) Channel 36

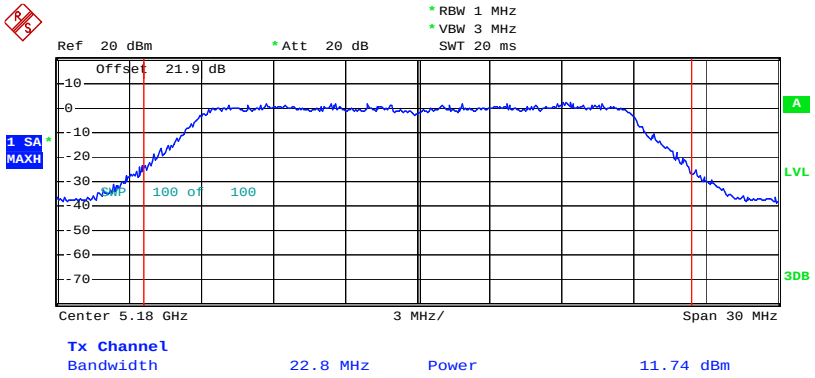
Chain A of Chain A+B+C



Date: 16.JAN.2009 19:55:20

Mode 8 : Output Power Plot on 802.11n(20M) Channel 36

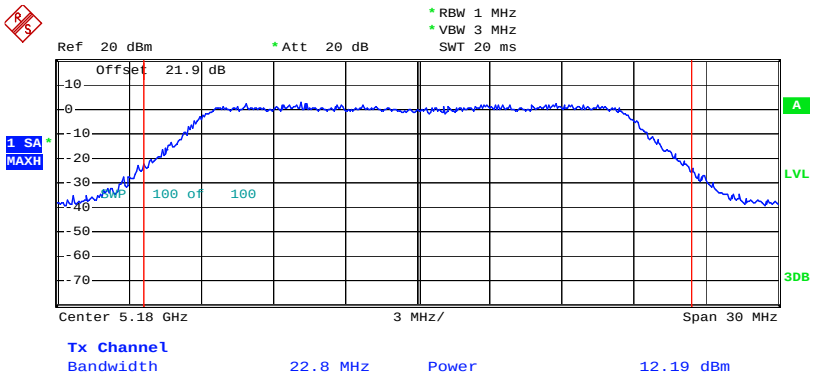
Chain B of Chain A+B+C



Date: 16.JAN.2009 19:54:11

Mode 8 : Output Power Plot on 802.11n(20M) Channel 36

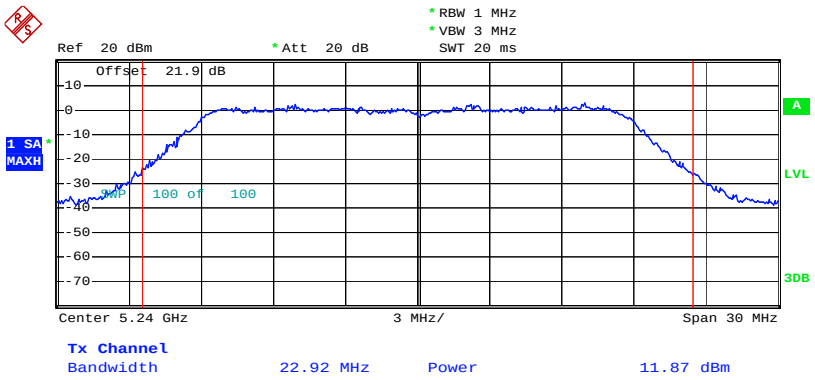
Chain C of Chain A+B+C



Date: 16.JAN.2009 19:53:14

Mode 9 : Output Power Plot on 802.11n(20M) Channel 48

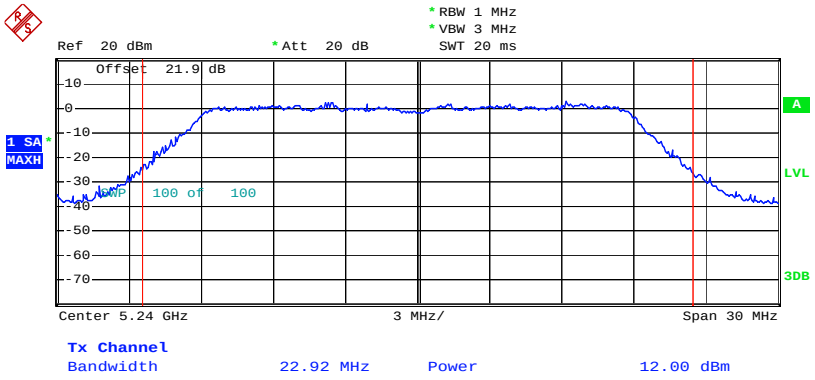
Chain A of Chain A+B+C



Date: 16.JAN.2009 19:51:09

Mode 9 : Output Power Plot on 802.11n(20M) Channel 48

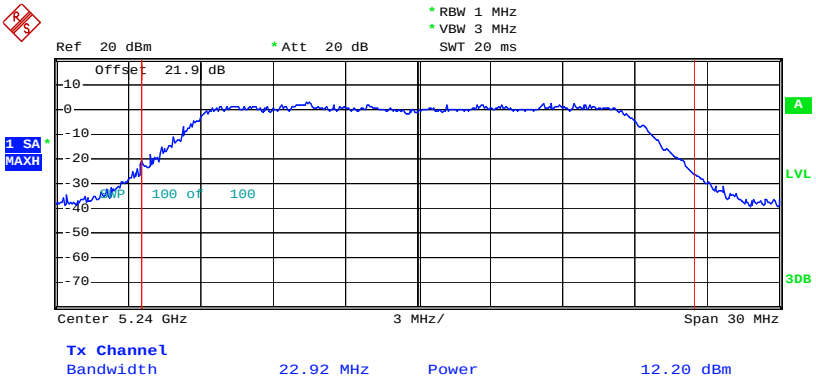
Chain B of Chain A+B+C



Date: 16.JAN.2009 19:51:49

Mode 9 : Output Power Plot on 802.11n(20M) Channel 48

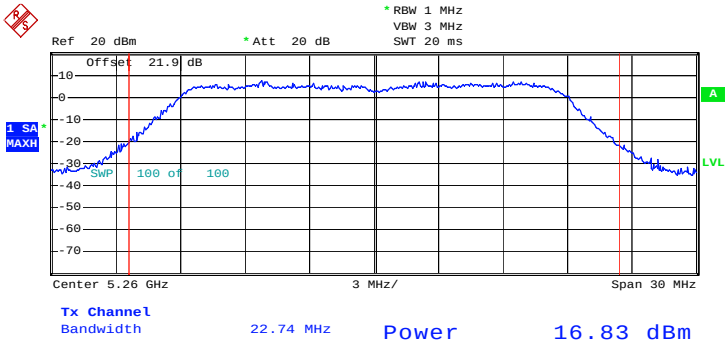
Chain C of Chain A+B+C



Date: 16.JAN.2009 19:52:29

Mode 10 : Output Power Plot on 802.11n(20M) Channel 52

Chain A of Chain A+B+C

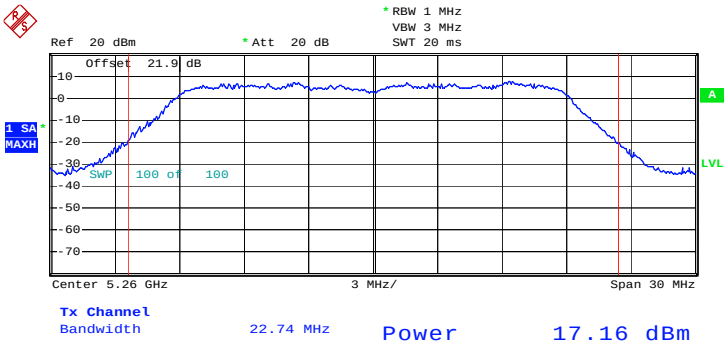


2nd comment ...

Date: 1.JAN.2009 21:06:10

Mode 10 : Output Power Plot on 802.11n(20M) Channel 52

Chain B of Chain A+B+C

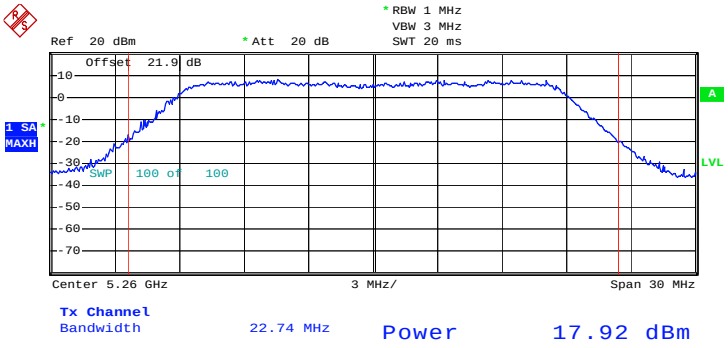


2nd comment ...

Date: 1.JAN.2009 21:05:13

Mode 10 : Output Power Plot on 802.11n(20M) Channel 52

Chain C of Chain A+B+C

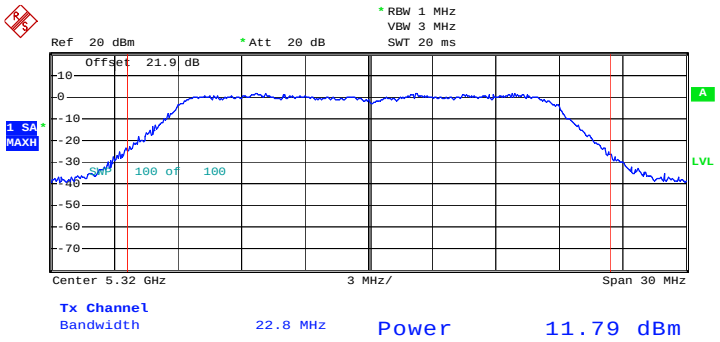


2nd comment ...

Date: 1.JAN.2009 21:03:24

Mode 11 : Output Power Plot on 802.11n(20M) Channel 64

Chain A of Chain A+B+C

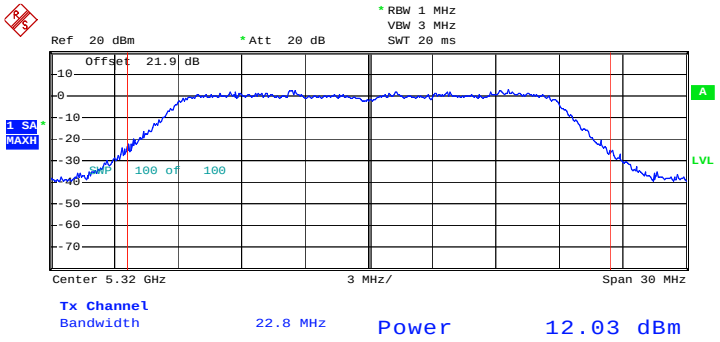


2nd comment ...

Date: 1.JAN.2009 21:07:30

Mode 11 : Output Power Plot on 802.11n(20M) Channel 64

Chain B of Chain A+B+C

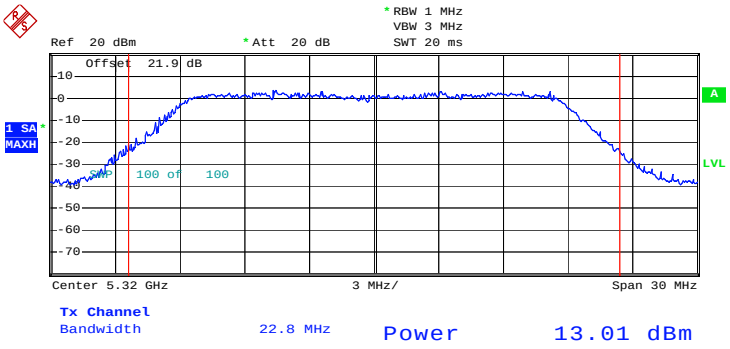


2nd comment ...

Date: 1.JAN.2009 21:08:30

Mode 11 : Output Power Plot on 802.11n(20M) Channel 64

Chain C of Chain A+B+C

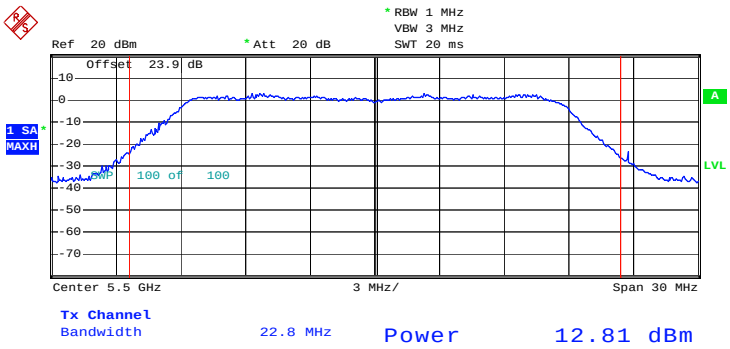


2nd comment ...

Date: 1.JAN.2009 21:09:26

Mode 12 : Output Power Plot on 802.11n(20M) Channel 100

Chain A of Chain A+B+C

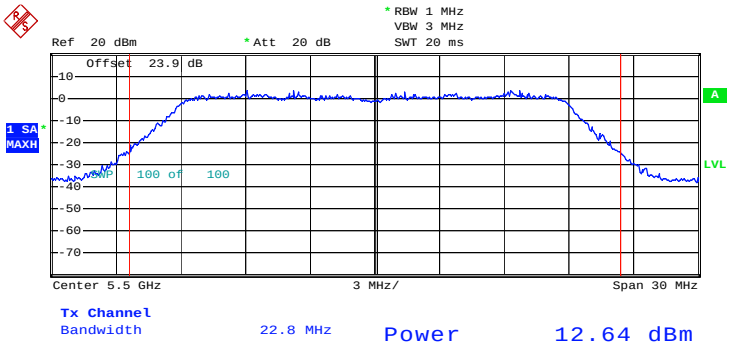


2nd comment ...

Date: 1.JAN.2009 20:46:00

Mode 12 : Output Power Plot on 802.11n(20M) Channel 100

Chain B of Chain A+B+C

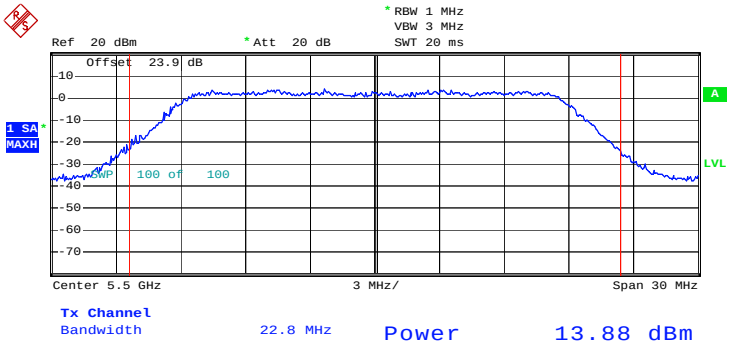


2nd comment ...

Date: 1.JAN.2009 20:46:59

Mode 12 : Output Power Plot on 802.11n(20M) Channel 100

Chain C of Chain A+B+C

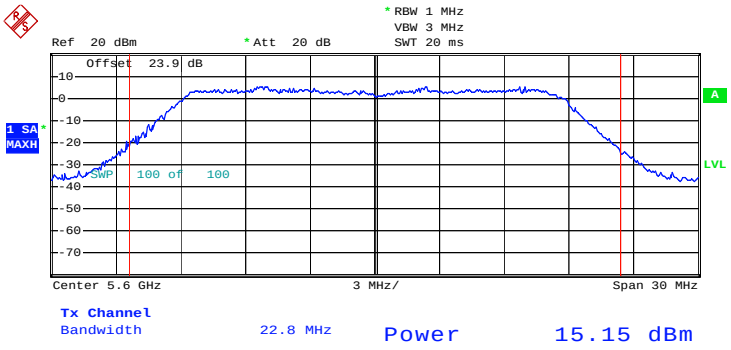


2nd comment ...

Date: 1.JAN.2009 20:48:00

Mode 13 : Output Power Plot on 802.11n(20M) Channel 120

Chain A of Chain A+B+C

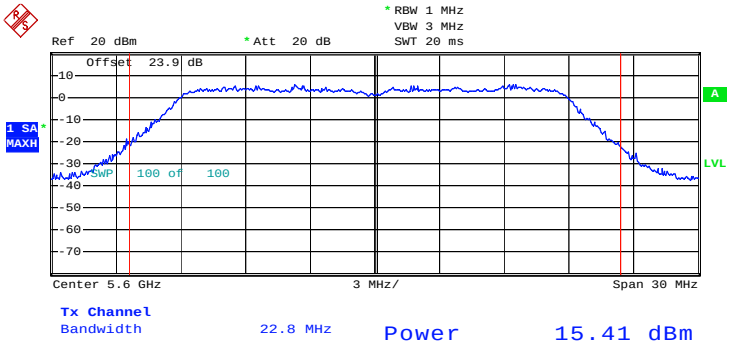


2nd comment ...

Date: 1.JAN.2009 20:50:43

Mode 13 : Output Power Plot on 802.11n(20M) Channel 120

Chain B of Chain A+B+C

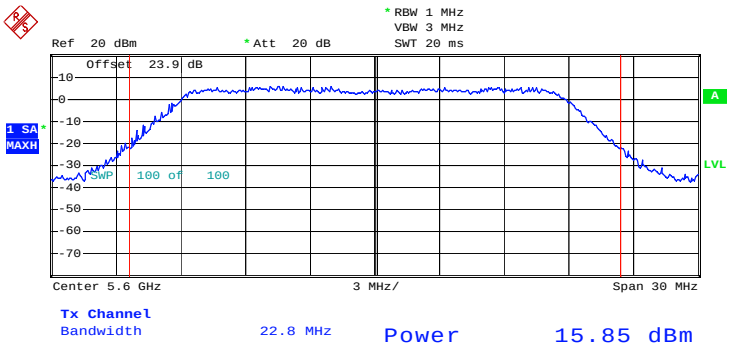


2nd comment ...

Date: 1.JAN.2009 20:49:56

Mode 13 : Output Power Plot on 802.11n(20M) Channel 120

Chain C of Chain A+B+C

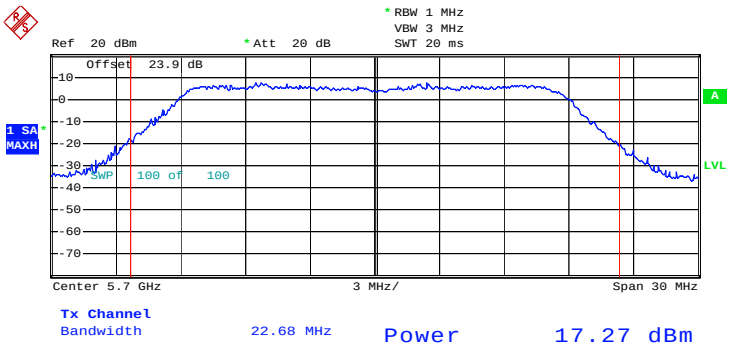


2nd comment ...

Date: 1.JAN.2009 20:48:54

Mode 14 : Output Power Plot on 802.11n(20M) Channel 140

Chain A of Chain A+B+C

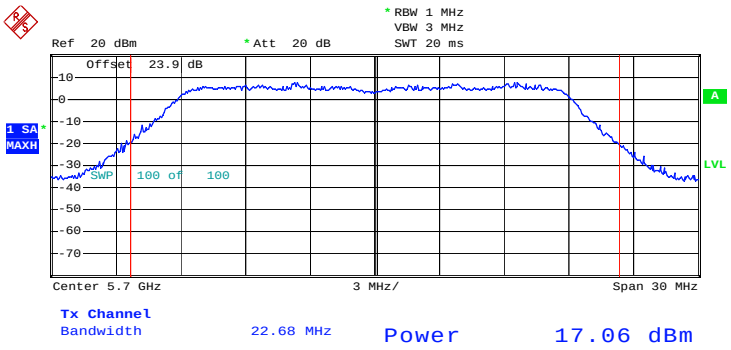


2nd comment ...

Date: 1.JAN.2009 20:53:36

Mode 14 : Output Power Plot on 802.11n(20M) Channel 140

Chain B of Chain A+B+C

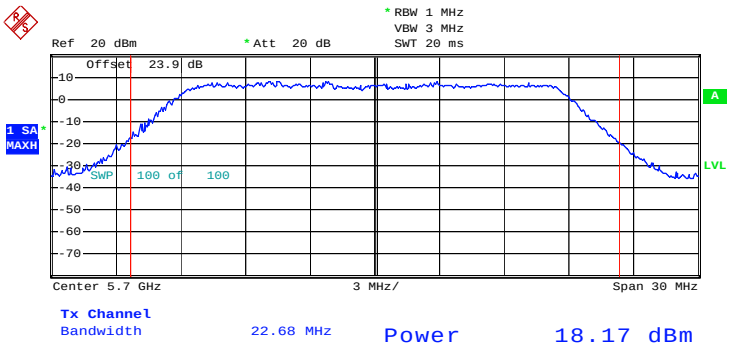


2nd comment ...

Date: 1.JAN.2009 20:54:24

Mode 14 : Output Power Plot on 802.11n(20M) Channel 140

Chain C of Chain A+B+C

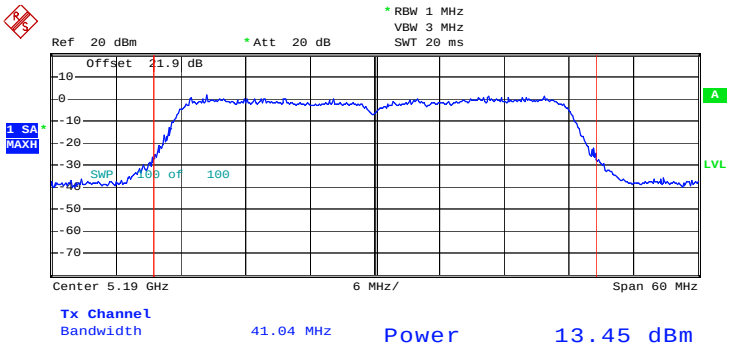


2nd comment ...

Date: 1.JAN.2009 20:55:24

Mode 15 : Output Power Plot on 802.11n(40M) Channel 38

Chain A of Chain A+C

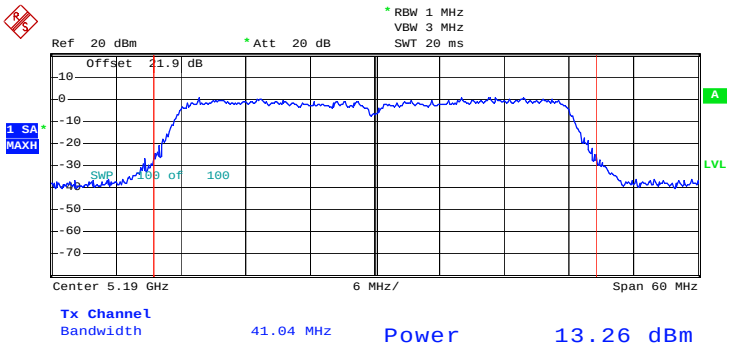


2nd comment ...

Date: 1.JAN.2009 22:11:45

Mode 15 : Output Power Plot on 802.11n(40M) Channel 38

Chain C of Chain A+C

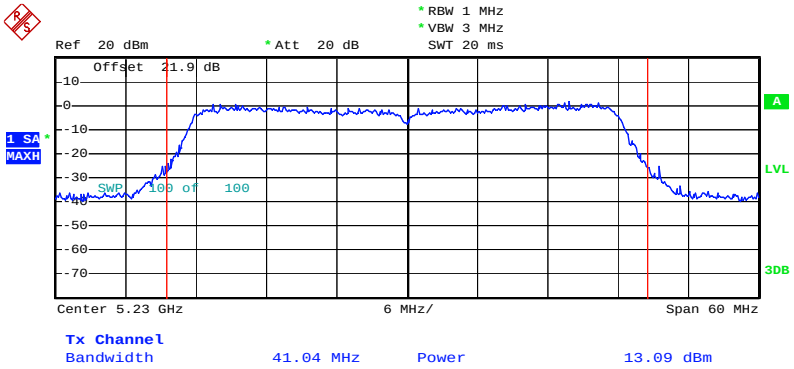


2nd comment ...

Date: 1.JAN.2009 22:11:24

Mode 16 : Output Power Plot on 802.11n(40M) Channel 46

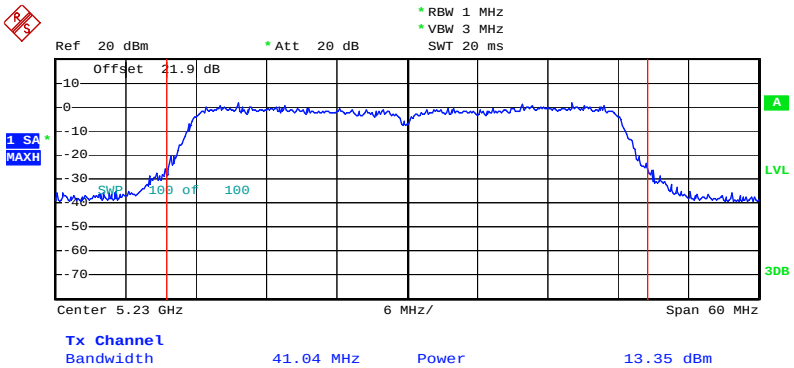
Chain A of Chain A+C



Date: 16.JAN.2009 20:12:51

Mode 16 : Output Power Plot on 802.11n(40M) Channel 46

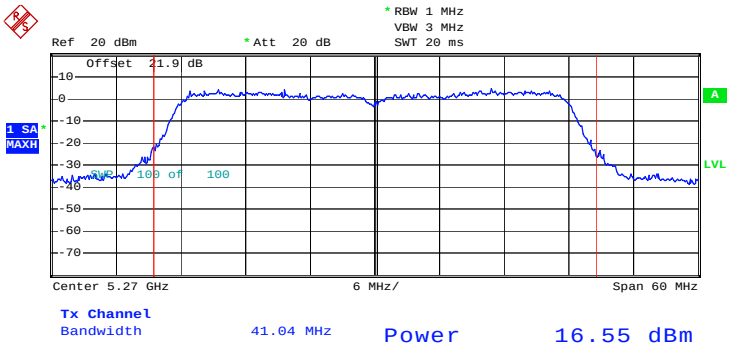
Chain C of Chain A+C



Date: 16.JAN.2009 20:13:26

Mode 17 : Output Power Plot on 802.11n(40M) Channel 54

Chain A of Chain A+C

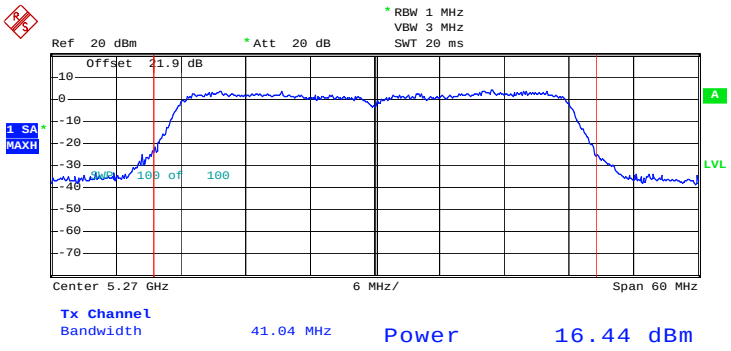


2nd comment ...

Date: 1.JAN.2009 22:10:14

Mode 17 : Output Power Plot on 802.11n(40M) Channel 54

Chain C of Chain A+C

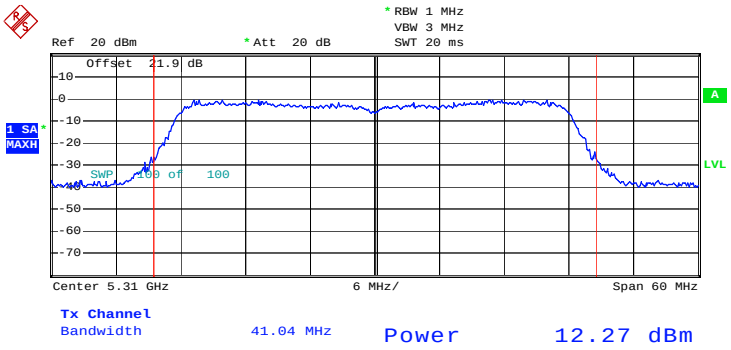


2nd comment ...

Date: 1.JAN.2009 22:10:46

Mode 18 : Output Power Plot on 802.11n(40M) Channel 62

Chain A of Chain A+C

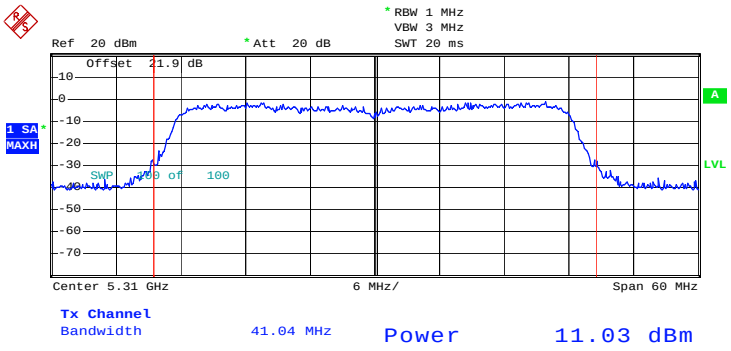


2nd comment ...

Date: 1.JAN.2009 22:14:18

Mode 18 : Output Power Plot on 802.11n(40M) Channel 62

Chain C of Chain A+C

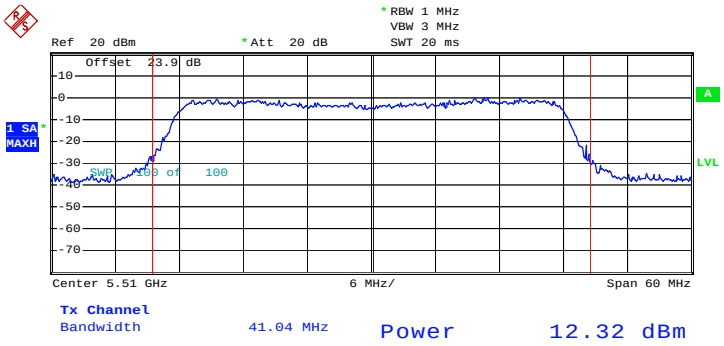


2nd comment ...

Date: 1.JAN.2009 22:13:55

Mode 19 : Output Power Plot on 802.11n(40M) Channel 102

Chain A of Chain A+C

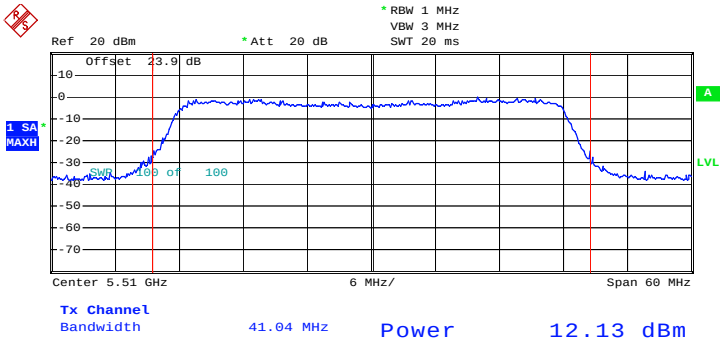


2nd comment ...

Date: 1.JAN.2009 22:02:28

Mode 19 : Output Power Plot on 802.11n(40M) Channel 102

Chain C of Chain A+C

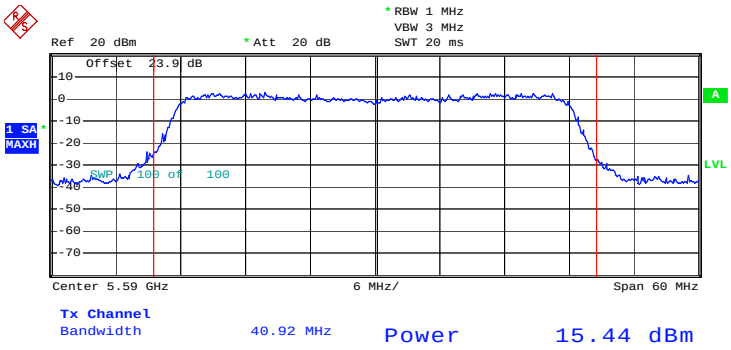


2nd comment ...

Date: 1.JAN.2009 22:02:54

Mode 20 : Output Power Plot on 802.11n(40M) Channel 118

Chain A of Chain A+C

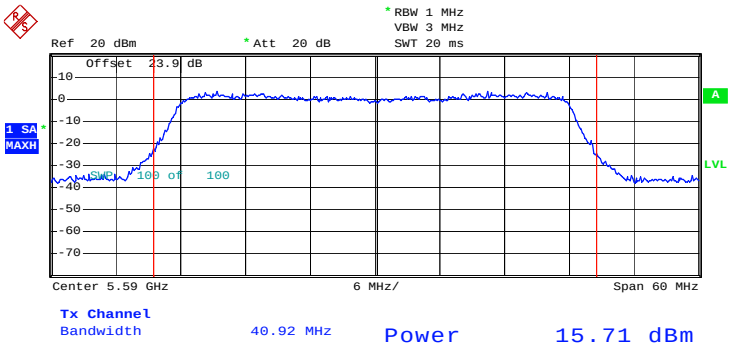


2nd comment ...

Date: 1.JAN.2009 22:04:04

Mode 20 : Output Power Plot on 802.11n(40M) Channel 118

Chain C of Chain A+C

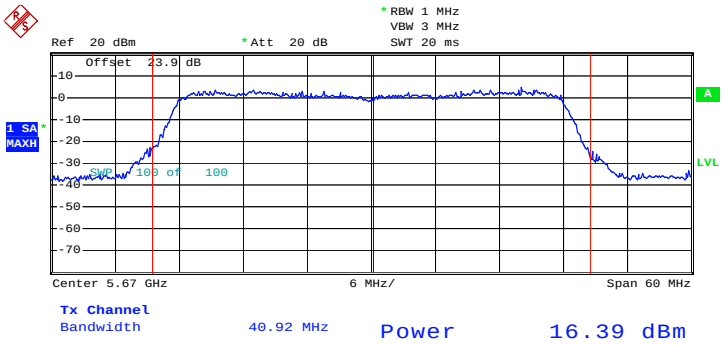


2nd comment ...

Date: 1.JAN.2009 22:03:52

Mode 21 : Output Power Plot on 802.11n(40M) Channel 134

Chain A of Chain A+C

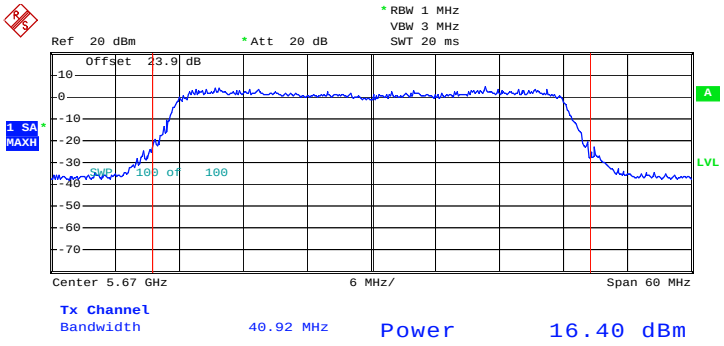


2nd comment ...

Date: 1.JAN.2009 22:04:50

Mode 21 : Output Power Plot on 802.11n(40M) Channel 134

Chain C of Chain A+C



2nd comment ...

Date: 1.JAN.2009 22:05:08

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5.15–5.25 GHz, the power spectral density shall not exceed 4 dBm in any 1MHz band. For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the power spectral density shall not exceed 11 dBm in any 1 1MHz band. If transmitting antenna directional gain is greater than 6 dBi, both the maximum conducted output power and the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

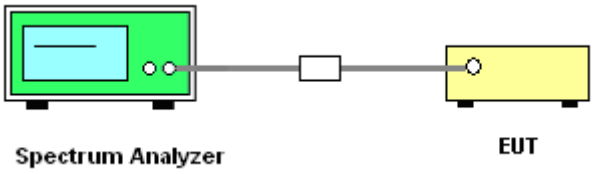
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

The transmitter output is connected to the spectrum analyzer. According to the method 3 of DA-02-2138, the resolution bandwidth is set to 1 MHz, video bandwidth is 3MHz, trace average 100 traces in power averaging mode, and sample detection is used, and the analyzer is set for video averaging.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Test Mode :	Mode 1~7 (Chain A)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
36	5180	-5.85	4	Pass
48	5240	-4.24	4	Pass
52	5260	-4.84	11	Pass
64	5320	-6.62	11	Pass
100	5500	-4.69	11	Pass
120	5600	-3.11	11	Pass
140	5700	-3.27	11	Pass

Test Mode :	Mode 8~14 (Chain A+B+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	Measured PSD (dBm)				Max. Limits (dBm)	Pass/Fail
		A+B+C	A	B	C		
36	5180	-5.29	-	-	-	4	Pass
48	5240	-5.13	-9.65	-9.74	-9.11	4	Pass
52	5260	-1.61	-6.83	-5.30	-4.62	11	Pass
64	5320	-6.39	-	-	-	11	Pass
100	5500	-5.20	-	-	-	11	Pass
120	5600	-2.49	-	-	-	11	Pass
140	5700	-0.55	-4.98	-6.31	-5.47	11	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*LOG(10^(chain A/10)+10^(chain B/10)+10^(chain C/ 10)).
*Ch 48=-4.72 (dBm)
*Ch 52=-0.72 (dBm)
*Ch 140=-0.78 (dBm)

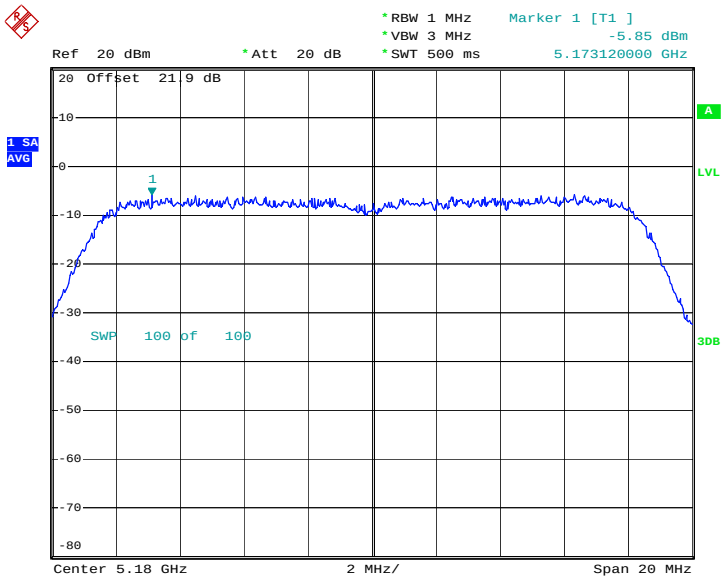
Test Mode :	Mode 15~21 (Chain A+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Channel	Frequency (MHz)	Measured PSD (dBm)	Max. Limits (dBm)	Pass/Fail
38	5190	-9.63	4	Pass
46	5230	-8.21	4	Pass
54	5270	-7.98	11	Pass
62	5310	-7.69	11	Pass
102	5510	-10.45	11	Pass
118	5590	-6.54	11	Pass
134	5670	-5.42	11	Pass

3.3.6 Test Result of Power Spectral Density Plots

Mode 1 : PSD Plot on 802.11a Channel 36

Chain A

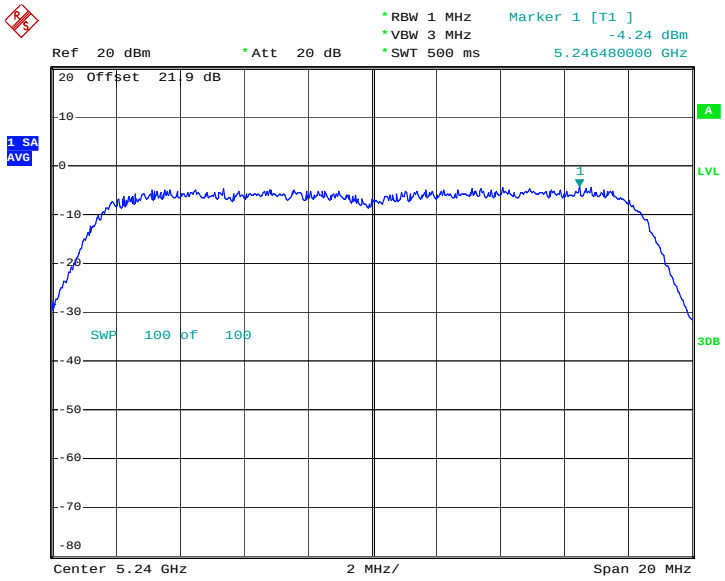


2nd comment ...

Date: 2.DEC.2008 20:23:47

Mode 2 : PSD Plot on 802.11a Channel 48

Chain A

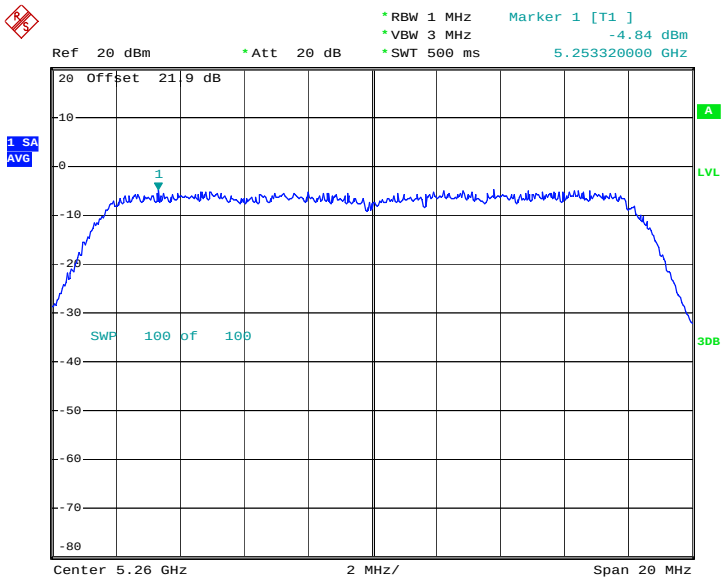


2nd comment ...

Date: 2.DEC.2008 20:26:13

Mode 3 : PSD Plot on 802.11a Channel 52

Chain A

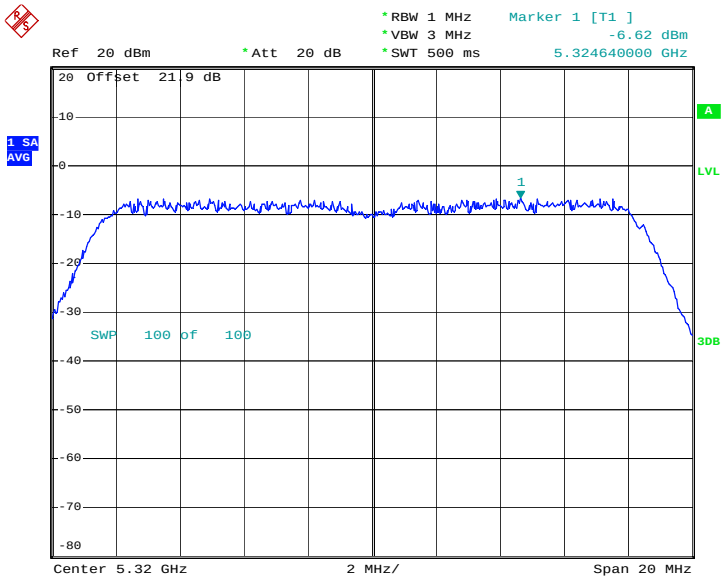


2nd comment ...

Date: 2.DEC.2008 20:28:01

Mode 4 : PSD Plot on 802.11a Channel 64

Chain A

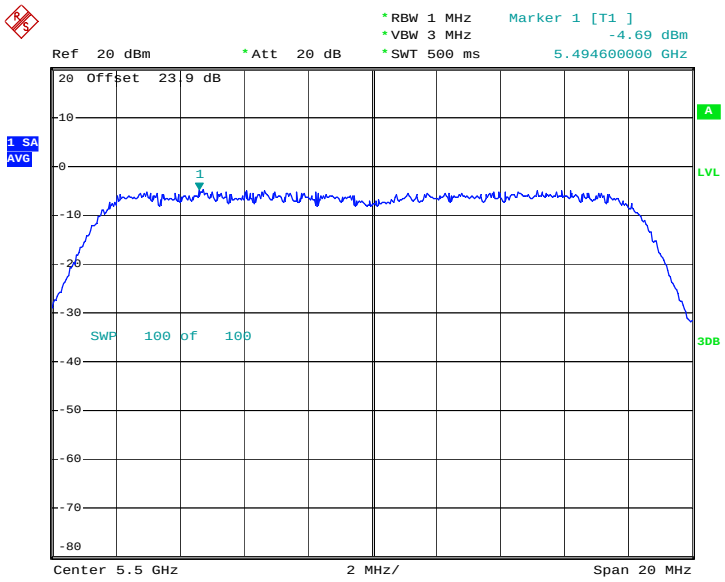


2nd comment ...

Date: 2.DEC.2008 20:29:48

Mode 5 : PSD Plot on 802.11a Channel 100

Chain A

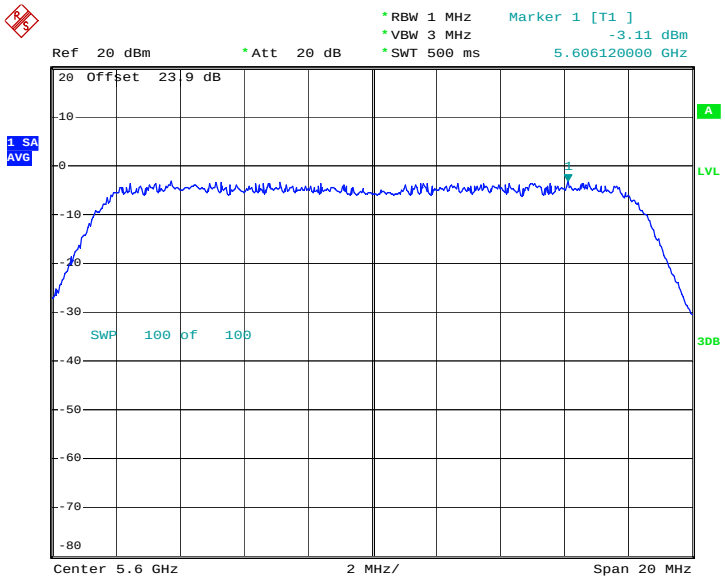


2nd comment ...

Date: 2.DEC.2008 22:50:13

Mode 6 : PSD Plot on 802.11a Channel 120

Chain A

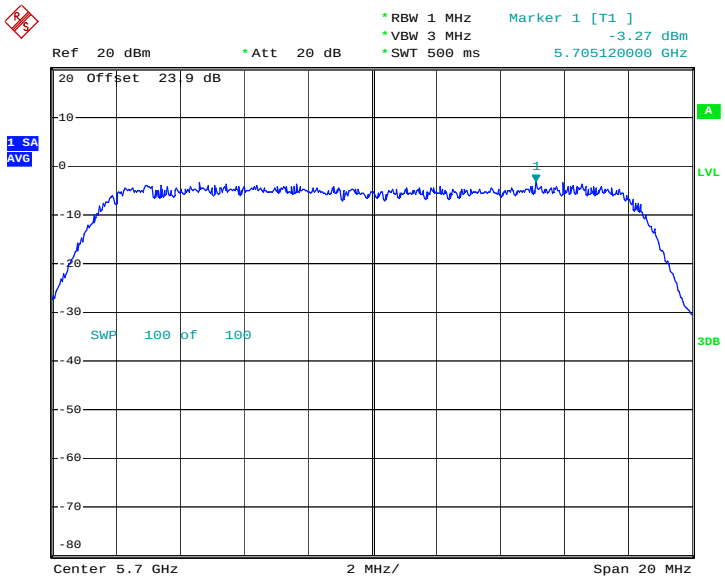


2nd comment ...

Date: 2.DEC.2008 22:47:20

Mode 7 : PSD Plot on 802.11a Channel 140

Chain A

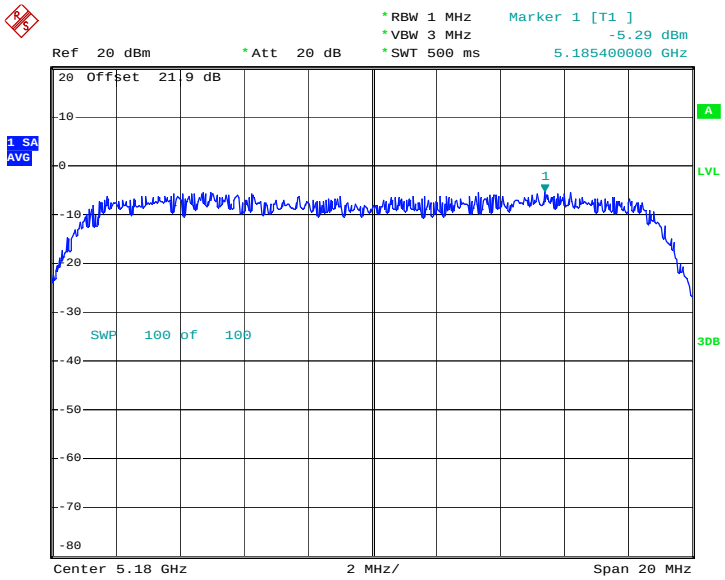


2nd comment ...

Date: 2.DEC.2008 22:45:08

Mode 8 : PSD Plot on 802.11n(20M) Channel 36

Chain A+B+C

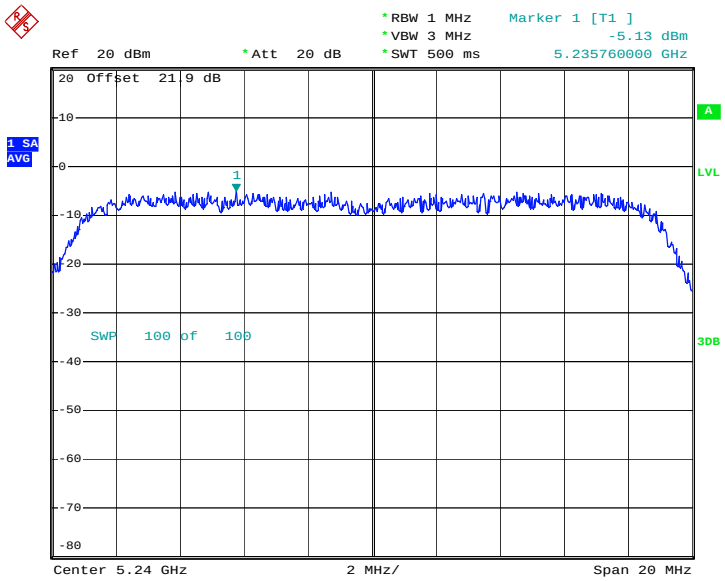


2nd comment ...

Date: 2.DEC.2008 20:32:53

Mode 9 : PSD Plot on 802.11n(20M) Channel 48

Chain A+B+C (with combiner)

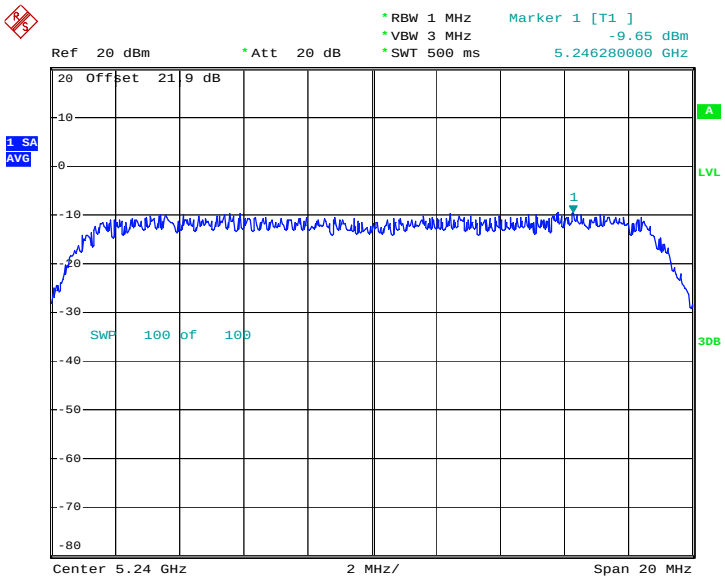


2nd comment ...

Date: 2.DEC.2008 20:34:34

Mode 9 : PSD Plot on 802.11n(20M) Channel 48

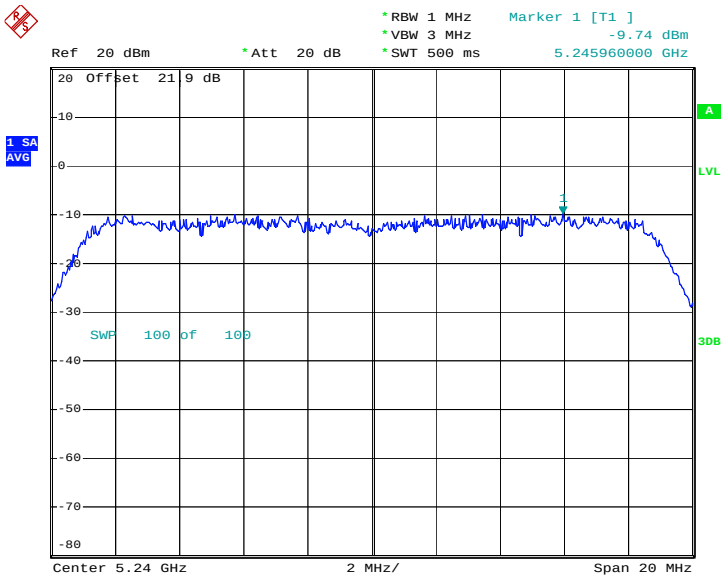
Chain A of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:43:30

Mode 9 : PSD Plot on 802.11n(20M) Channel 48

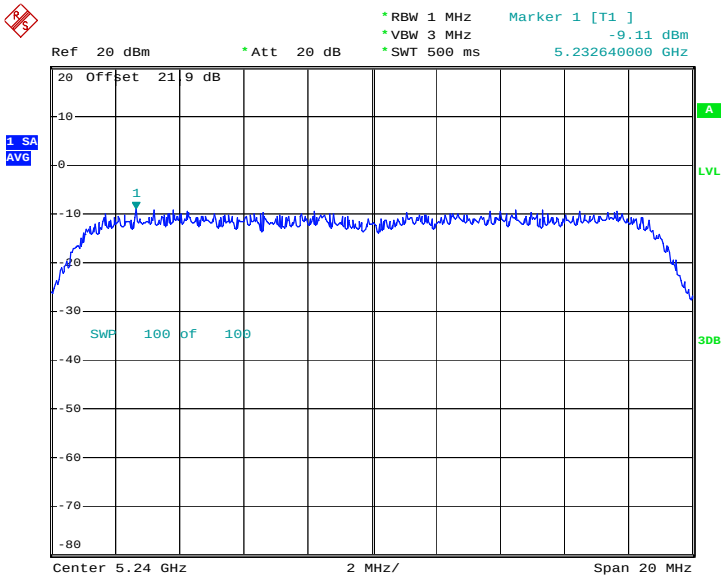
Chain B of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:41:49

Mode 9 : PSD Plot on 802.11n(20M) Channel 48

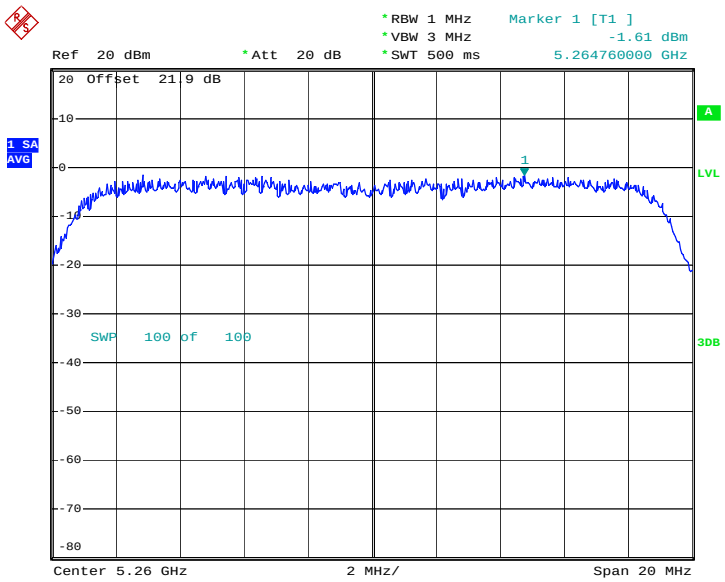
Chain C of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:39:34

Mode 10 : PSD Plot on 802.11n(20M) Channel 52

Chain A+B+C (with combiner)

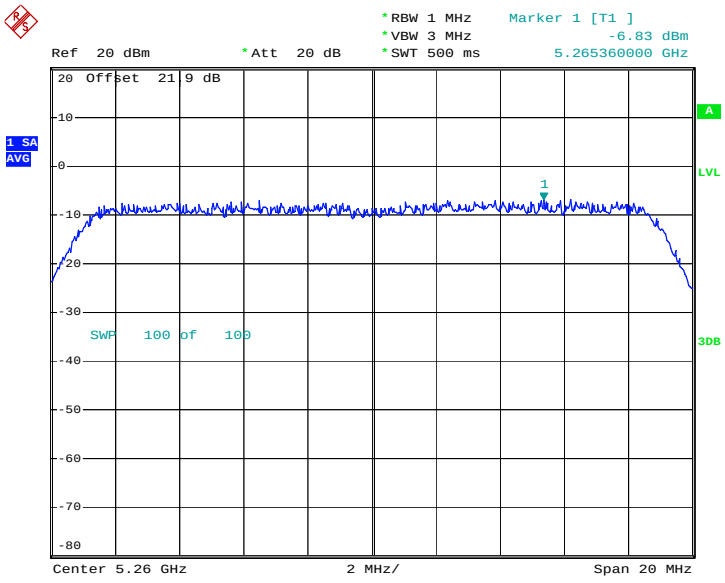


2nd comment ...

Date: 2.DEC.2008 20:36:28

Mode 10 : PSD Plot on 802.11n(20M) Channel 52

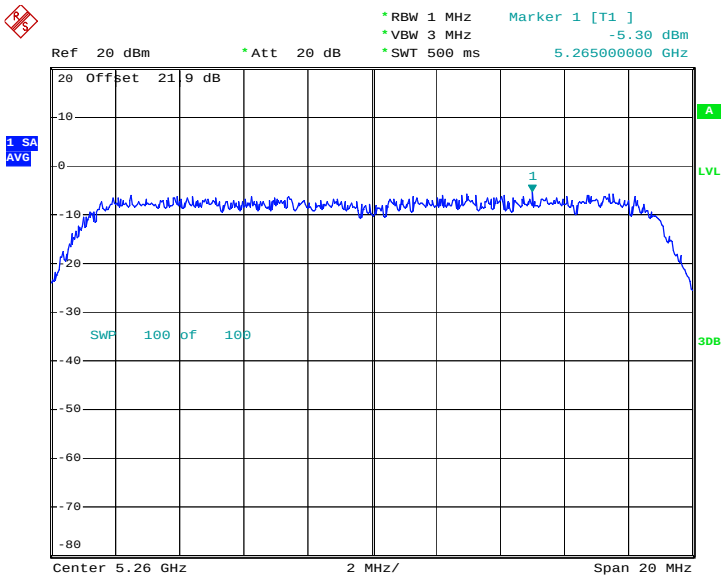
Chain A of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:34:41

Mode 10 : PSD Plot on 802.11n(20M) Channel 52

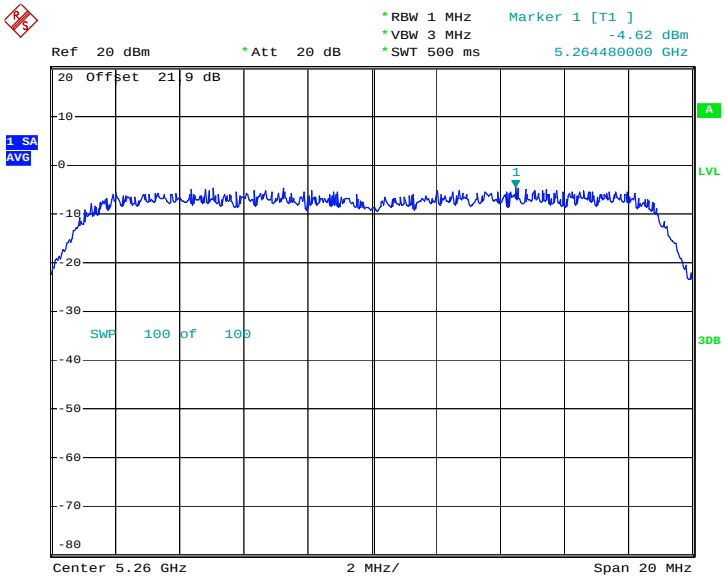
Chain B of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:36:13

Mode 10 : PSD Plot on 802.11n(20M) Channel 52

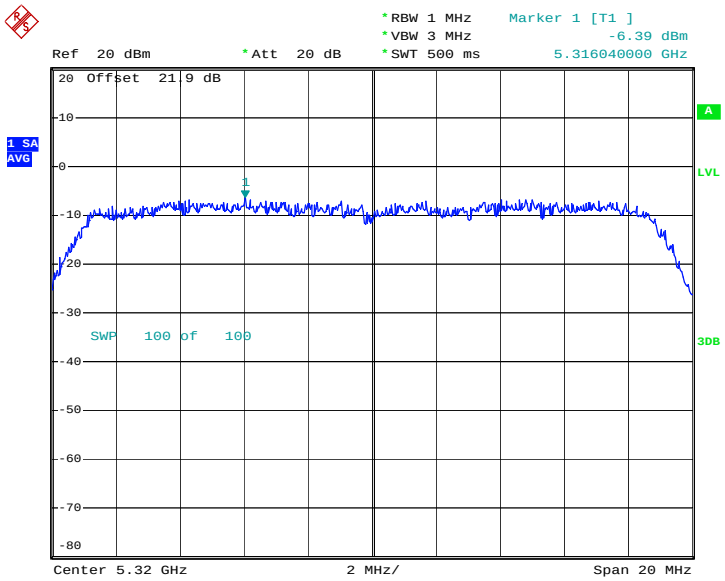
Chain C of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:37:46

Mode 11 : PSD Plot on 802.11n(20M) Channel 64

Chain A+B+C

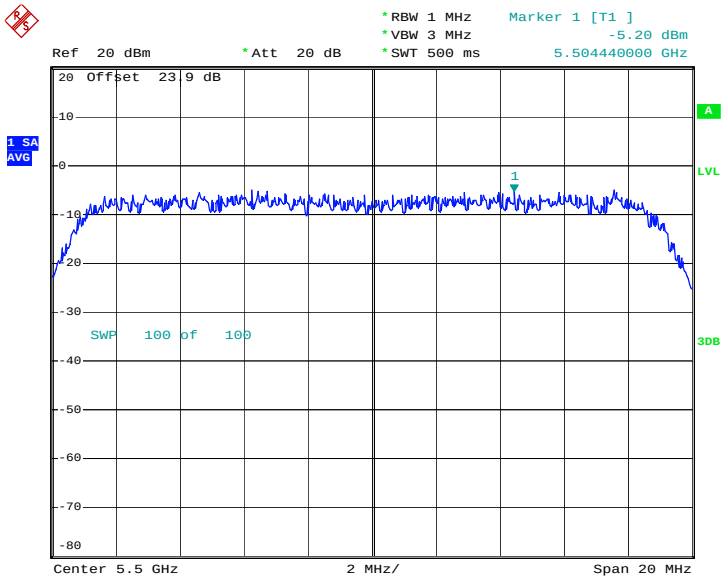


2nd comment ...

Date: 2.DEC.2008 20:38:08

Mode 12 : PSD Plot on 802.11n(20M) Channel 100

Chain A+B+C

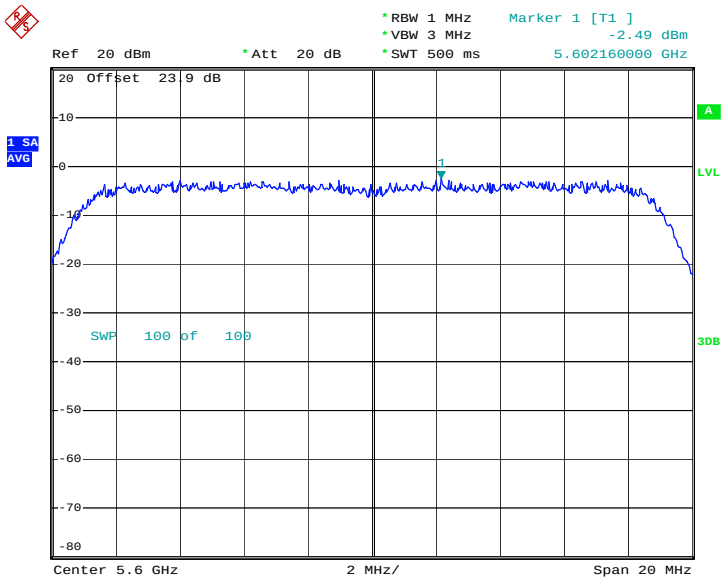


2nd comment ...

Date: 2.DEC.2008 22:37:45

Mode 13 : PSD Plot on 802.11n(20M) Channel 120

Chain A+B+C

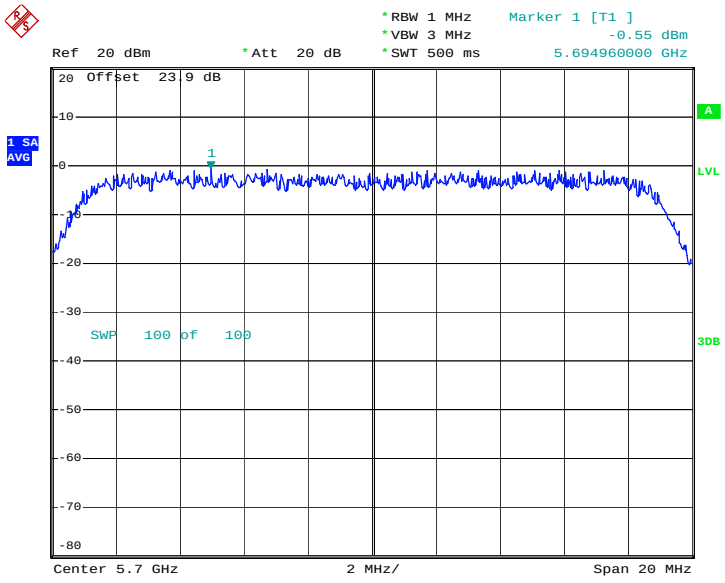


2nd comment ...

Date: 2.DEC.2008 22:41:57

Mode 14 : PSD Plot on 802.11n(20M) Channel 140

Chain A+B+C (with combiner)

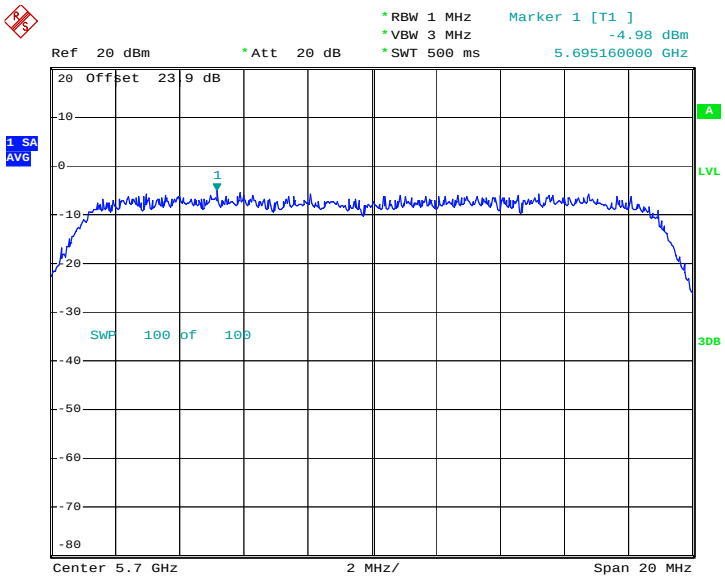


2nd comment ...

Date: 2.DEC.2008 22:43:26

Mode 14 : PSD Plot on 802.11n(20M) Channel 140

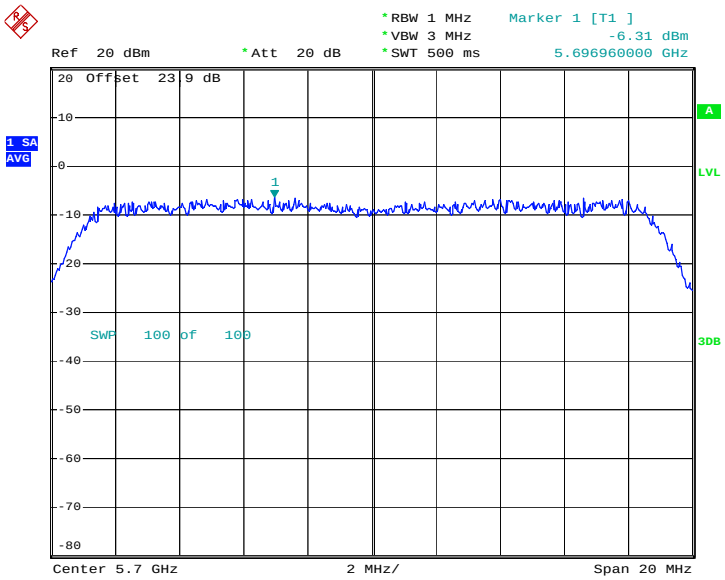
Chain A of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:45:30

Mode 14 : PSD Plot on 802.11n(20M) Channel 140

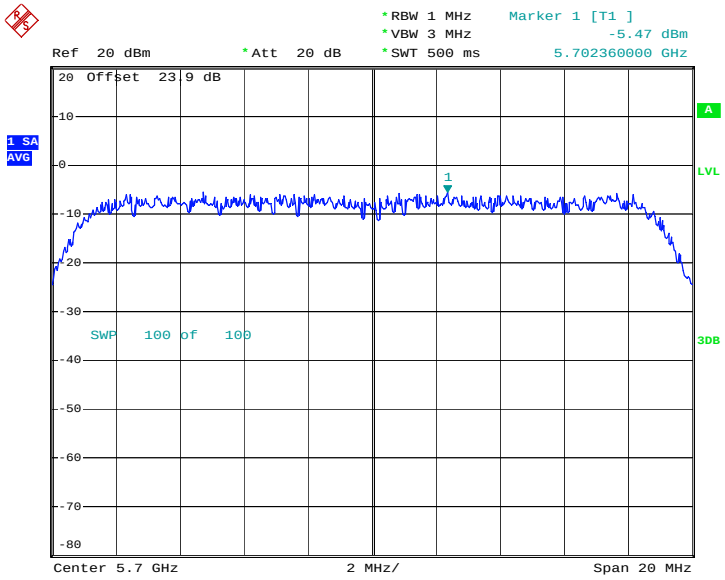
Chain B of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:48:56

Mode 14 : PSD Plot on 802.11n(20M) Channel 140

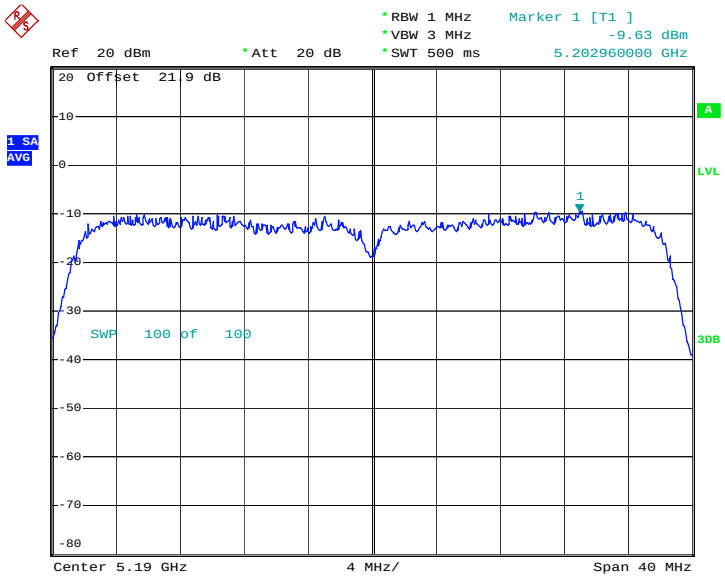
Chain C of Chain A+B+C (without combiner)



Date: 16.JAN.2009 18:50:46

Mode 15 : PSD Plot on 802.11n(40M) Channel 38

Chain A+C

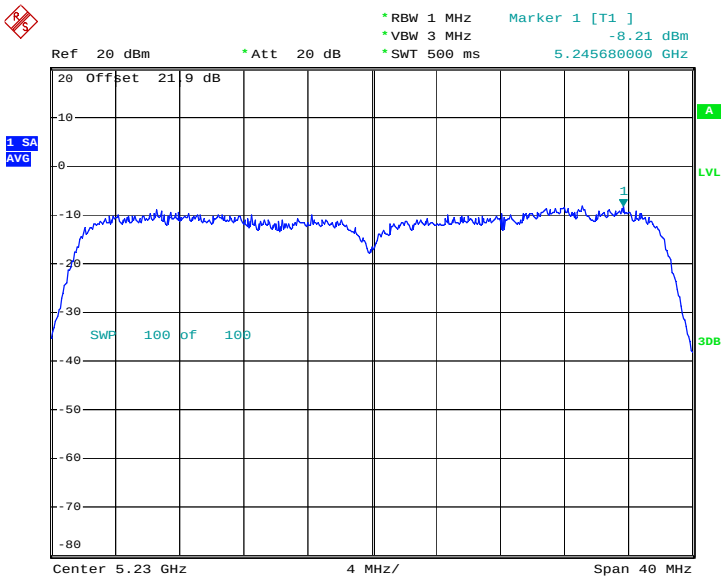


2nd comment ...

Date: 2.DEC.2008 20:42:40

Mode 16 : PSD Plot on 802.11n(40M) Channel 46

Chain A+C

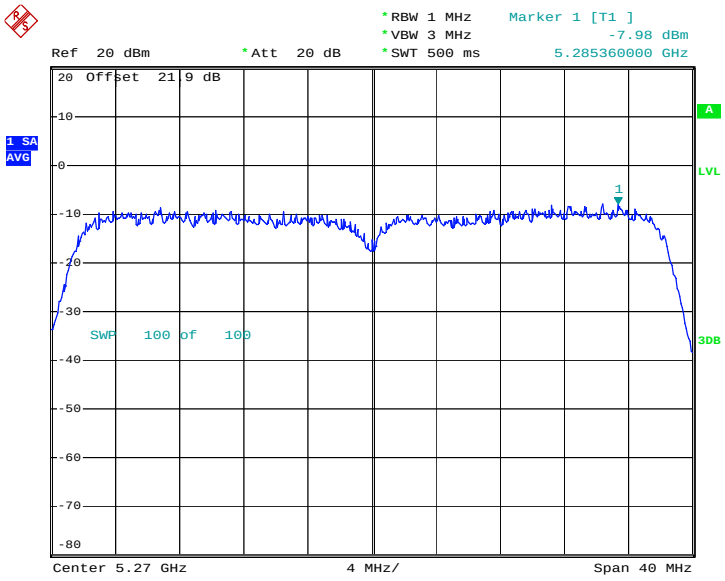


2nd comment ...

Date: 2.DEC.2008 20:53:17

Mode 17 : PSD Plot on 802.11n(40M) Channel 54

Chain A+C

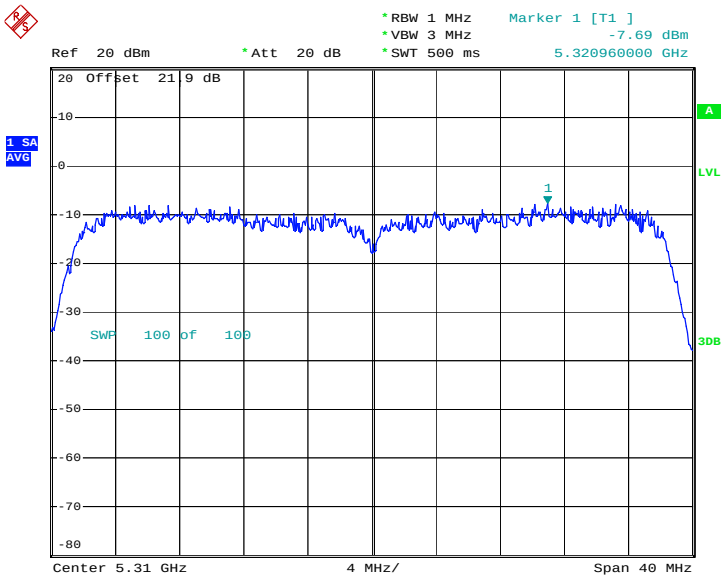


2nd comment ...

Date: 2.DEC.2008 20:56:38

Mode 18 : PSD Plot on 802.11n(40M) Channel 62

Chain A+C

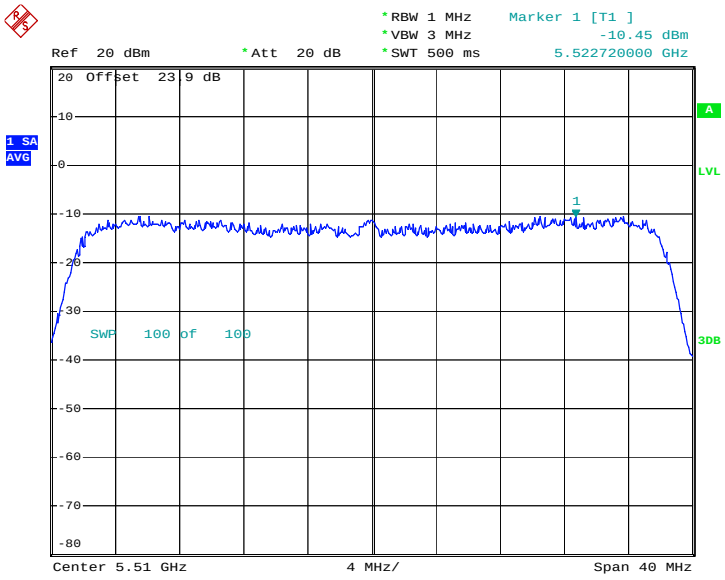


2nd comment ...

Date: 2.DEC.2008 20:58:16

Mode 19 : PSD Plot on 802.11n(40M) Channel 102

Chain A+C

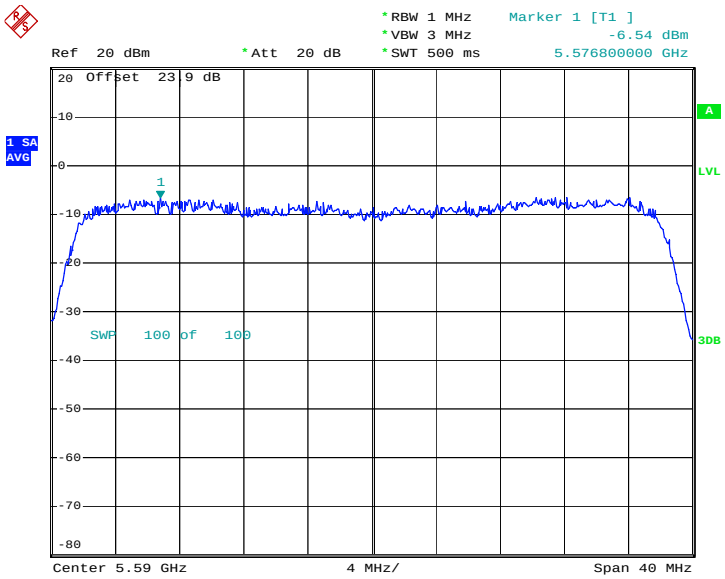


2nd comment ...

Date: 2.DEC.2008 21:33:16

Mode 20 : PSD Plot on 802.11n(40M) Channel 118

Chain A+C

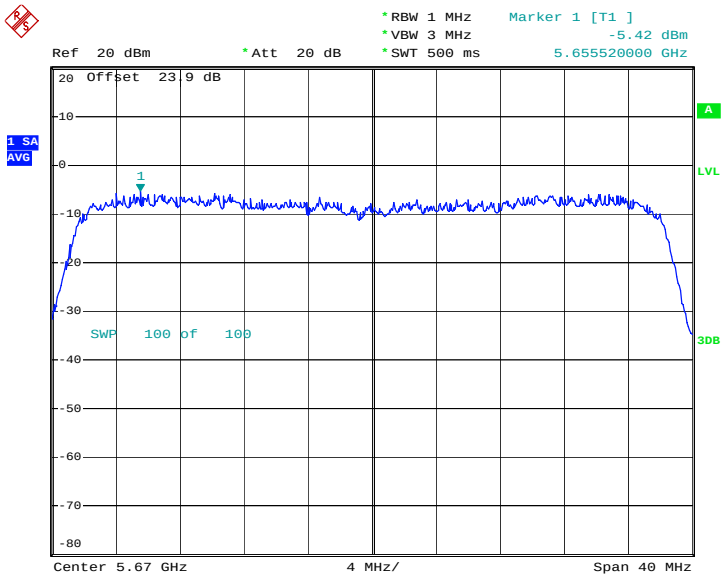


2nd comment ...

Date: 2.DEC.2008 21:51:06

Mode 21 : PSD Plot on 802.11n(40M) Channel 134

Chain A+C



2nd comment ...

Date: 2.DEC.2008 22:02:54

3.4 Band Edges Measurement

3.4.1 Limit of Band Edges

For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all applicable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15–5.25 GHz band. For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. Set both RBW and VBW of spectrum analyzer to 1MHz with convenient frequency span including 1MHz bandwidth from band edge.
2. The band edges was measured and recorded.
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. For all other emissions, the limit was set to -27dBm eirp (68.2dBuV/m).

3.4.4 Test Setup

3.4.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	Temperature :	21~24°C
Test Channel :	36 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	46.73	-21.47	68.20	42.32	34.53	5.98	36.10	100	0	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
5150.00	46.96	-21.24	68.20	42.55	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 4	Temperature :	21~24°C
Test Channel :	64 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	47.74	-20.46	68.20	43.18	34.57	6.09	36.10	100	0	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
5350.00	48.12	-20.08	68.20	43.56	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 5	Temperature :	21~24°C
Test Channel :	100 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	46.35	-21.85	68.20	41.70	34.59	6.16	36.10	100	0	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
5460.00	47.31	-20.89	68.20	42.66	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 7	Temperature :	21~24°C
Test Channel :	140 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	48.43	-19.77	68.20	43.20	34.96	6.42	36.16	100	0	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
5760.00	48.24	-19.96	68.20	43.02	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

Test Mode :	Mode 8	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	45.84	-22.36	68.20	41.43	34.53	5.98	36.10	100	0	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
5150.00	47.22	-20.98	68.20	42.81	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 11	Temperature :	21~24°C
Test Channel :	64 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	46.65	-21.55	68.20	42.09	34.57	6.09	36.10	100	0	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
5350.00	47.36	-20.84	68.20	42.80	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 12	Temperature :	21~24°C
Test Channel :	100 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	47.23	-20.97	68.20	42.58	34.59	6.16	36.10	100	0	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
5460.00	48.23	-19.97	68.20	43.58	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 14	Temperature :	21~24°C
Test Channel :	140 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	46.99	-21.21	68.20	41.76	34.96	6.42	36.16	100	0	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
5760.00	47.23	-20.97	68.20	42.00	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

Test Mode :	Mode 15	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	48.30	-19.90	68.20	43.89	34.53	5.98	36.10	100	0	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
5150.00	46.59	-21.61	68.20	42.18	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 18	Temperature :	21~24°C
Test Channel :	64 802.11n (BW 20M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	47.33	-20.87	68.20	42.77	34.57	6.09	36.10	100	0	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
5350.00	47.54	-20.66	68.20	42.98	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 19	Temperature :	21~24°C
Test Channel :	100 802.11n (BW 20M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	47.32	-20.88	68.20	42.67	34.59	6.16	36.10	100	0	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
5460.00	47.61	-20.59	68.20	42.96	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 21	Temperature :	21~24°C
Test Channel :	140 802.11n (BW 20M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	48.70	-19.50	68.20	43.47	34.96	6.42	36.16	100	0	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
5760.00	47.83	-20.37	68.20	42.60	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

Test Mode :	Mode 22	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	47.83	-20.37	68.20	43.42	34.53	5.98	36.10	100	0	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
5150.00	48.62	-19.58	68.20	44.21	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 25	Temperature :	21~24°C
Test Channel :	64 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	48.84	-19.36	68.20	44.28	34.57	6.09	36.10	100	0	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
5350.00	49.00	-19.20	68.20	44.44	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 26	Temperature :	21~24°C
Test Channel :	100 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	47.87	-20.33	68.20	43.22	34.59	6.16	36.10	100	0	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
5460.00	48.80	-19.40	68.20	44.15	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 28	Temperature :	21~24°C
Test Channel :	140 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	48.77	-19.43	68.20	43.54	34.96	6.42	36.16	100	0	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
5760.00	50.06	-18.14	68.20	44.83	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

Test Mode :	Mode 29	Temperature :	21~24°C
Test Channel :	38 802.11n (BW 40M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	47.57	-20.63	68.20	43.16	34.53	5.98	36.10	100	0	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
5150.00	47.21	-20.99	68.20	42.80	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 31	Temperature :	21~24°C
Test Channel :	62 802.11n (BW 40M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	47.03	-21.17	68.20	42.47	34.57	6.09	36.10	100	0	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
5350.00	47.04	-21.16	68.20	42.48	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 32	Temperature :	21~24°C
Test Channel :	102 802.11n (BW 40M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	47.99	-20.21	68.20	43.34	34.59	6.16	36.10	100	0	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
5460.00	48.31	-19.89	68.20	43.66	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 34	Temperature :	21~24°C
Test Channel :	134 802.11n (BW 40M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	48.05	-20.15	68.20	42.82	34.96	6.42	36.16	100	0	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
5760.00	47.96	-20.24	68.20	42.73	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

Test Mode :	Mode 35	Temperature :	21~24°C
Test Channel :	38 802.11n (BW 40M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	48.83	-19.37	68.20	44.42	34.53	5.98	36.10	100	0	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
5150.00	52.59	-15.61	68.20	48.18	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 37	Temperature :	21~24°C
Test Channel :	62 802.11n (BW 40M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	48.48	-19.72	68.20	43.92	34.57	6.09	36.10	100	0	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
5350.00	49.83	-18.37	68.20	45.27	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 38	Temperature :	21~24°C
Test Channel :	102 802.11n (BW 40M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	48.10	-20.10	68.20	43.45	34.59	6.16	36.10	100	0	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
5460.00	49.41	-18.79	68.20	44.76	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 40	Temperature :	21~24°C
Test Channel :	134 802.11n (BW 40M, 2Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	49.20	-19.00	68.20	43.97	34.96	6.42	36.16	100	0	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
5760.00	49.44	-18.76	68.20	44.21	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

Test Mode :	Mode 41	Temperature :	21~24°C
Test Channel :	38 802.11n (BW 40M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5150.00	47.84	-20.36	68.20	43.43	34.53	5.98	36.10	100	0	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
5150.00	47.33	-20.87	68.20	42.92	34.53	5.98	36.10	100	0	Peak

Test Mode :	Mode 43	Temperature :	21~24°C
Test Channel :	62 802.11n (BW 40M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5350.00	47.14	-21.06	68.20	42.58	34.57	6.09	36.10	100	0	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
5350.00	47.47	-20.73	68.20	42.91	34.57	6.09	36.10	100	0	Peak

Test Mode :	Mode 44	Temperature :	21~24°C
Test Channel :	102 802.11n (BW 40M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5460.00	46.77	-21.43	68.20	42.12	34.59	6.16	36.10	100	0	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
5460.00	47.83	-20.37	68.20	43.18	34.59	6.16	36.10	100	0	Peak

Test Mode :	Mode 46	Temperature :	21~24°C
Test Channel :	134 802.11n (BW 40M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang		

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
5760.00	48.48	-19.72	68.20	43.25	34.96	6.42	36.16	100	0	Peak

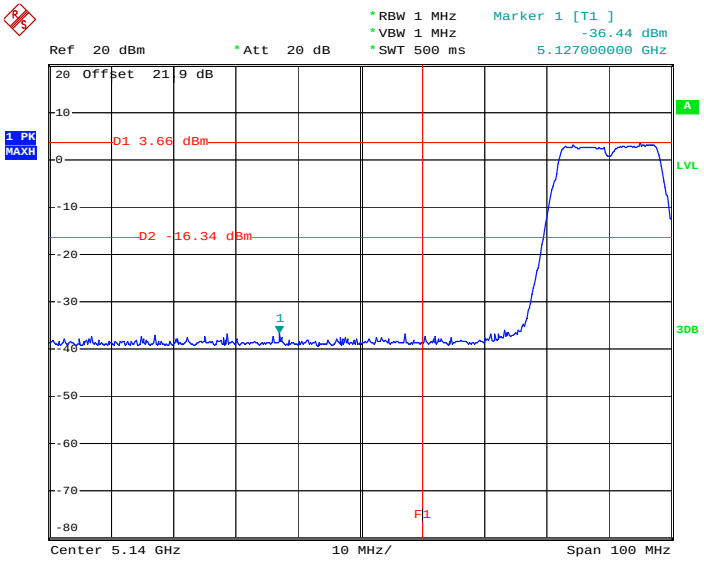
ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
5760.00	48.02	-20.18	68.20	42.79	34.96	6.42	36.16	100	0	Peak

Note: Signal is not in a restricted band.

3.4.6 Test Result of Conducted Band Edges

Test Mode :	Mode 1 and Mode 4 (Chain A)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

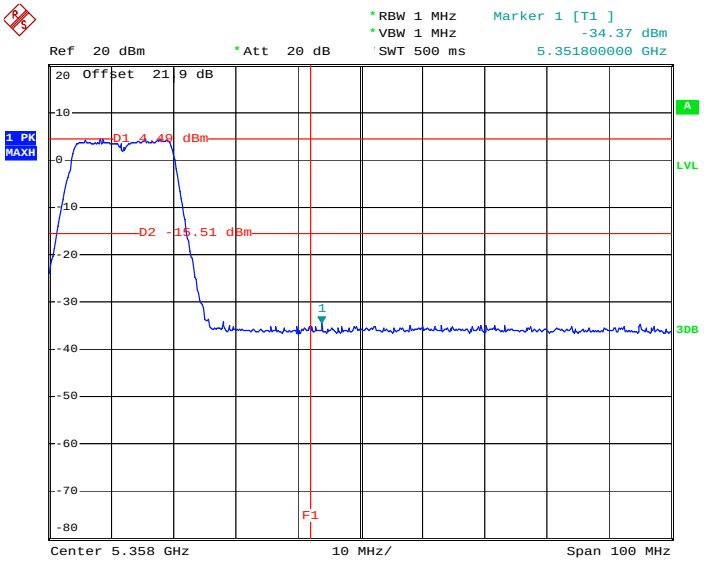
Mode 1 : Low Band Edge Plot on Channel 36



2nd comment ...

Date: 2.DEC.2008 17:29:35

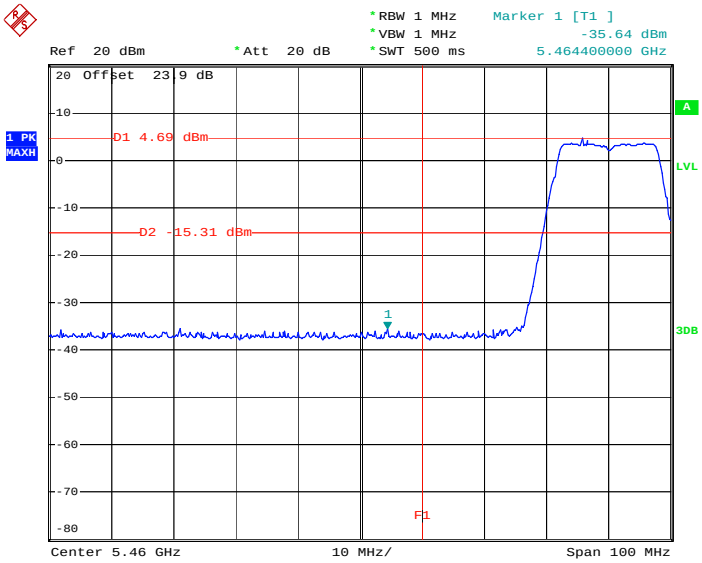
Mode 4 : High Band Edge Plot on Channel 64



Date: 16.DEC.2008 10:16:29

Test Mode :	Mode 5 and Mode 7 (Chain A)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

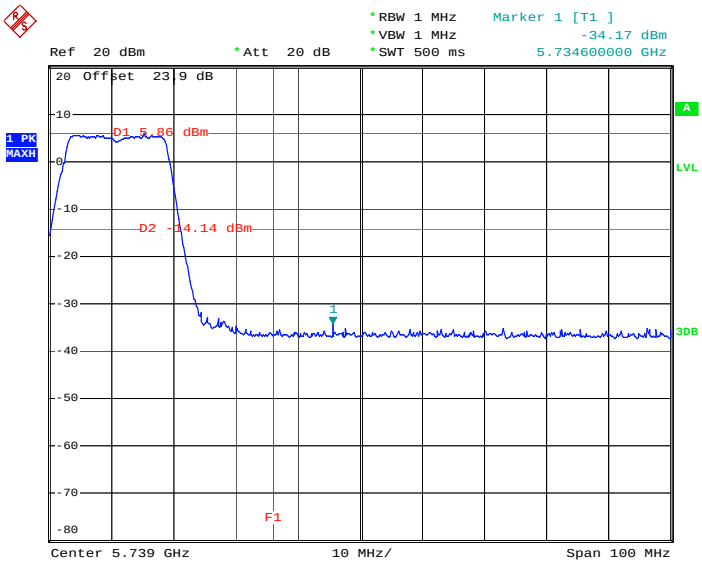
Mode 5 : Low Band Edge Plot on Channel 100



2nd comment ...

Date: 2.DEC.2008 17:51:55

Mode 7 : High Band Edge Plot on Channel 140

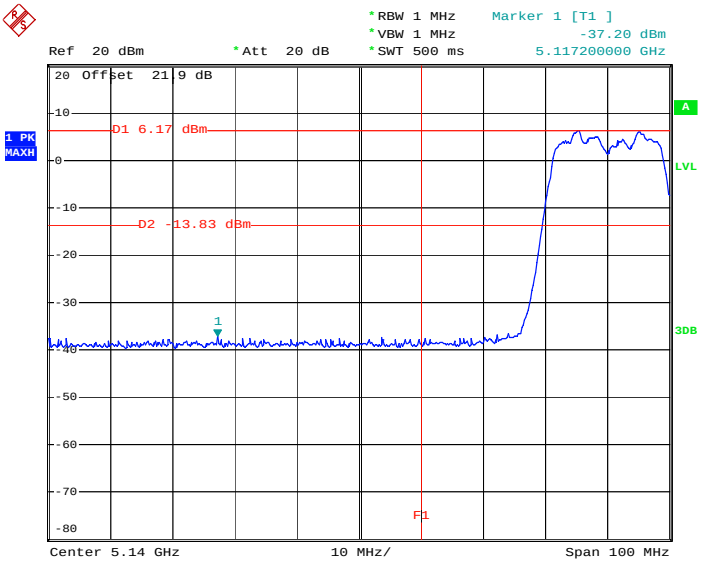


2nd comment ...

Date: 2.DEC.2008 18:09:16

Test Mode :	Mode 8 and Mode 11 (Chain A+B+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

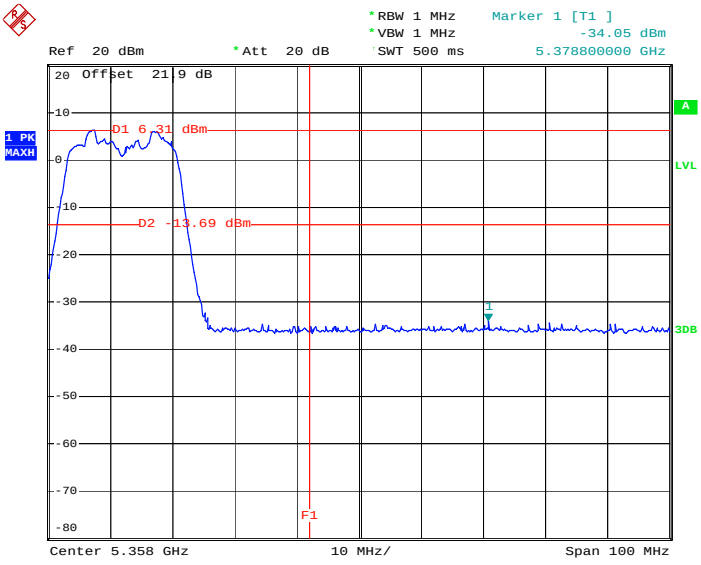
Mode 8 : Low Band Edge Plot on Channel 36



2nd comment ...

Date: 2.DEC.2008 17:31:01

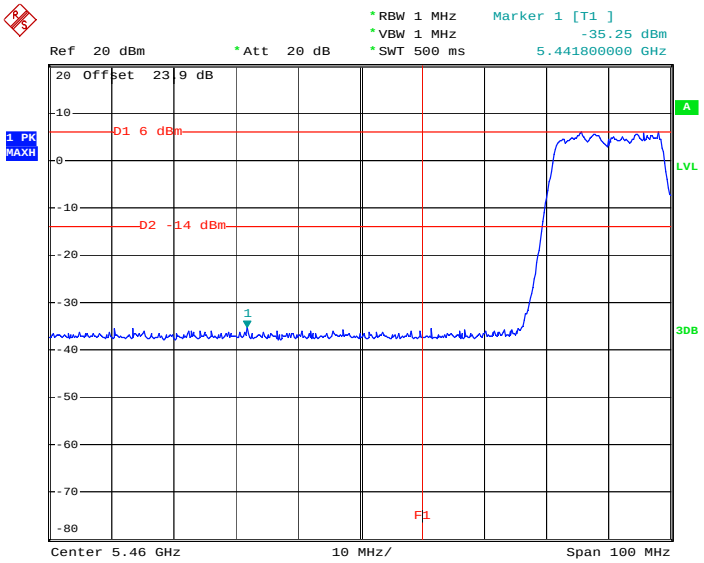
Mode 11 : High Band Edge Plot on Channel 64



Date: 16.DEC.2008 10:21:48

Test Mode :	Mode 12 and Mode 14 (Chain A+B+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

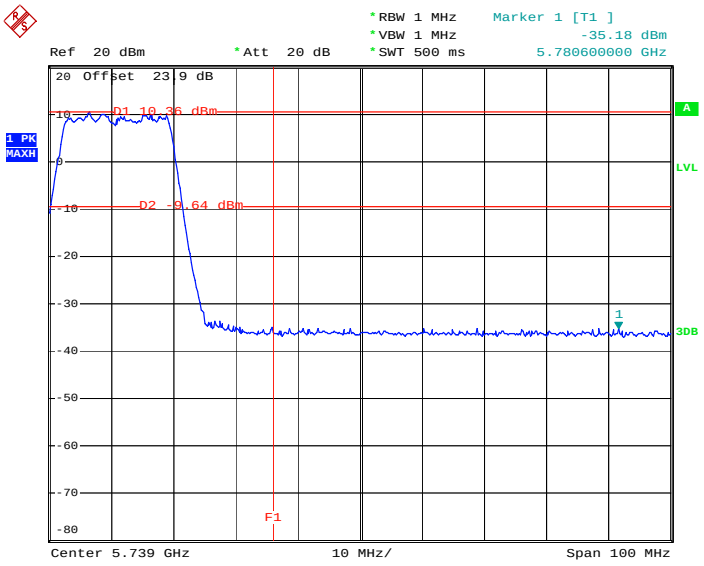
Mode 12 : Low Band Edge Plot on Channel 100



2nd comment ...

Date: 2.DEC.2008 17:53:05

Mode 14 : High Band Edge Plot on Channel 140

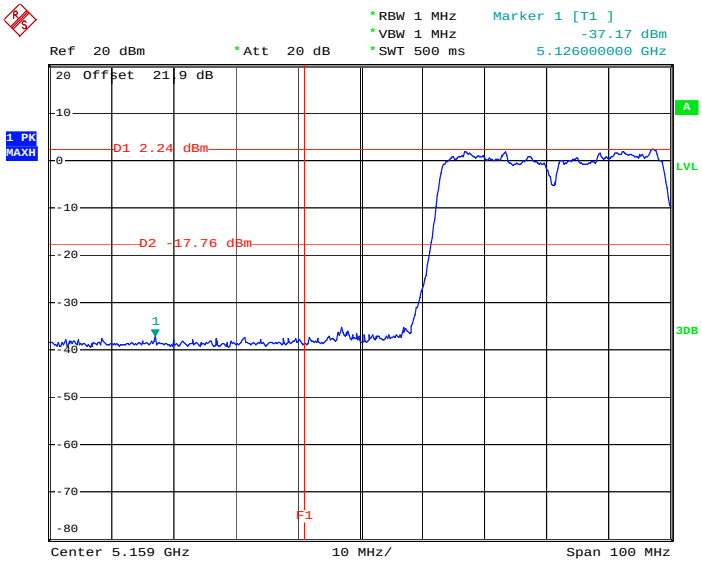


2nd comment ...

Date: 2.DEC.2008 18:07:24

Test Mode :	Mode 15 and Mode 18 (Chain A+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

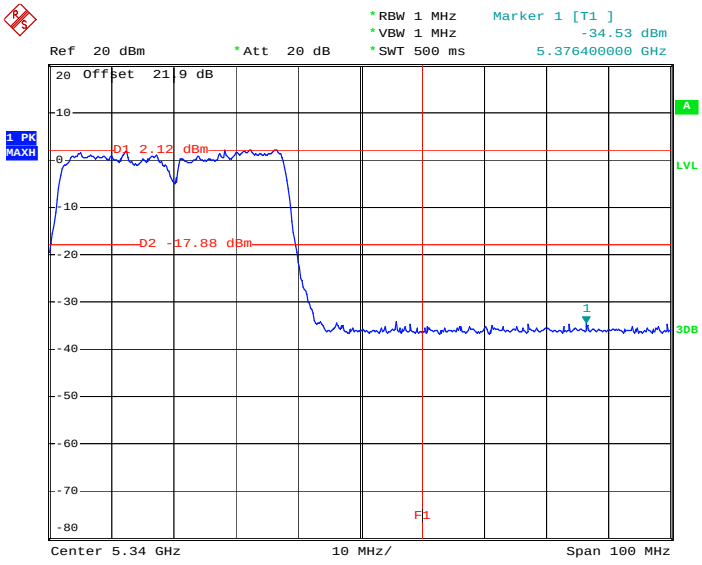
Mode 15 : Low Band Edge Plot on Channel 38



2nd comment ...

Date: 2.DEC.2008 17:33:58

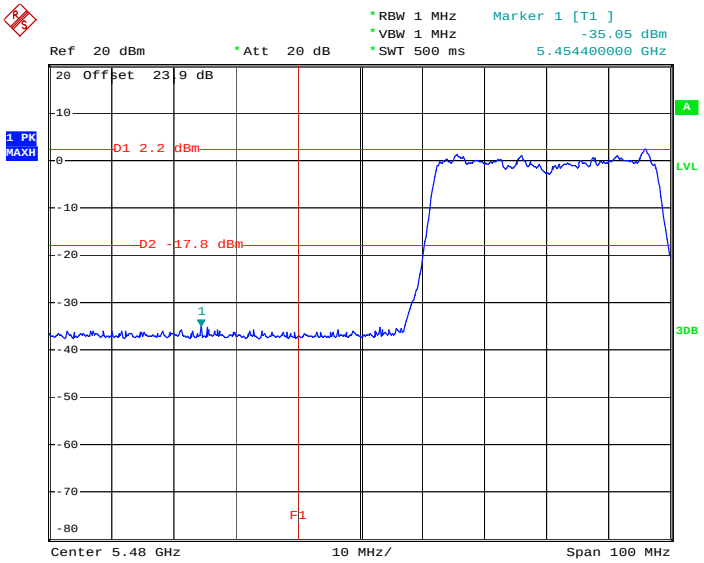
Mode 18 : High Band Edge Plot on Channel 62



Date: 16.DEC.2008 10:25:32

Test Mode :	Mode 19 and Mode 21 (Chain A+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

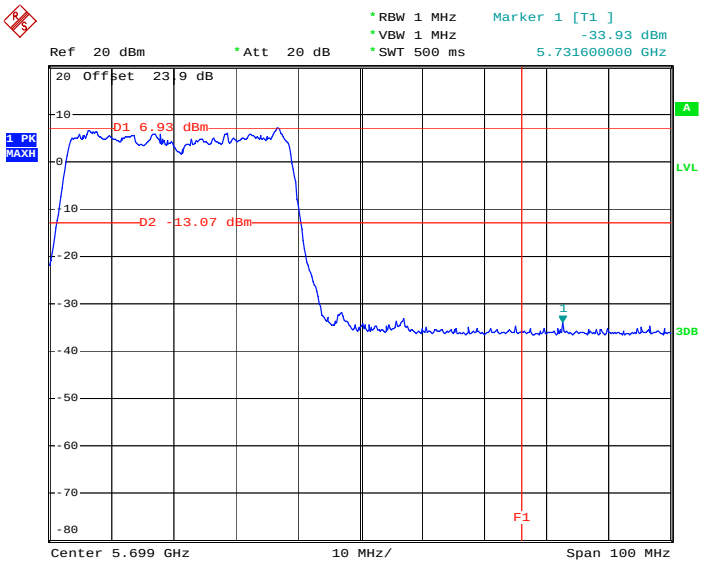
Mode 19 : Low Band Edge Plot on Channel 102



2nd comment ...

Date: 2.DEC.2008 17:55:23

Mode 21 : High Band Edge Plot on Channel 134



2nd comment ...

Date: 2.DEC.2008 18:02:25

3.5 Spurious Emission

3.5.1 Limit of Spurious Emission Measurement

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

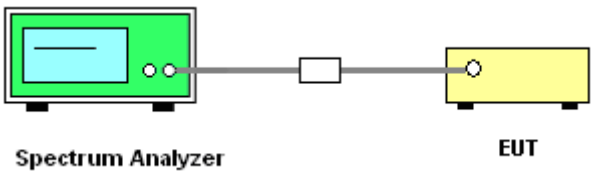
3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 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.

3.5.4 Test Setup

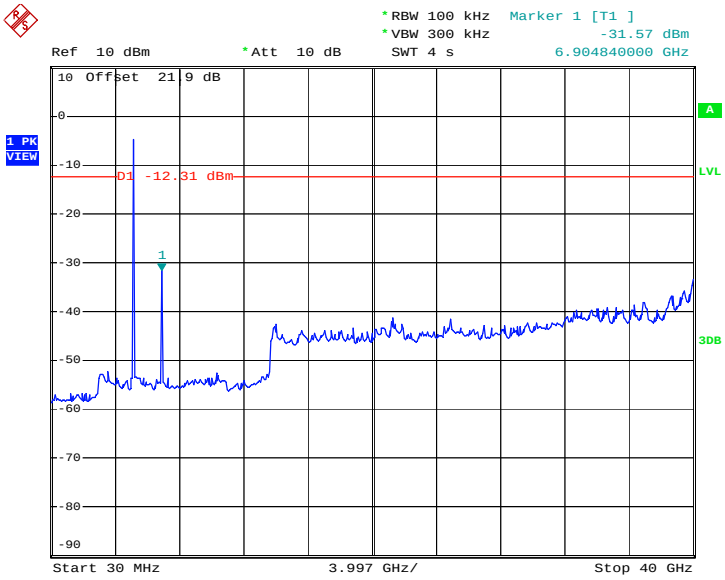


3.5.5 Test Result

Test Mode :	Mode 8~14 (Chain A+B+C)	Temperature :	24~25℃
Test Engineer :	Ken Hsu	Relative Humidity :	39~40%

Mode 8 : Spurious Emission Plot on channel 36 between 30 MHz~40 GHz

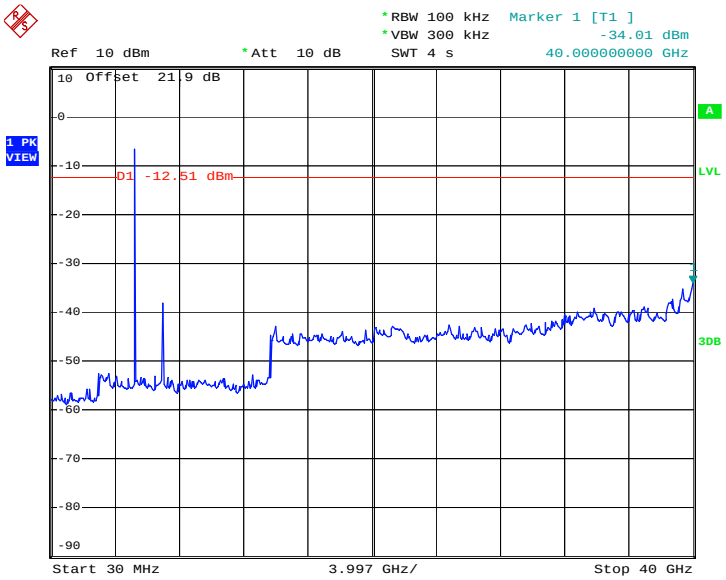
Chain A+B+C (with combiner)



Date: 16.JAN.2009 16:07:33

Mode 9 : Spurious Emission Plot on channel 48 between 30 MHz~40 GHz

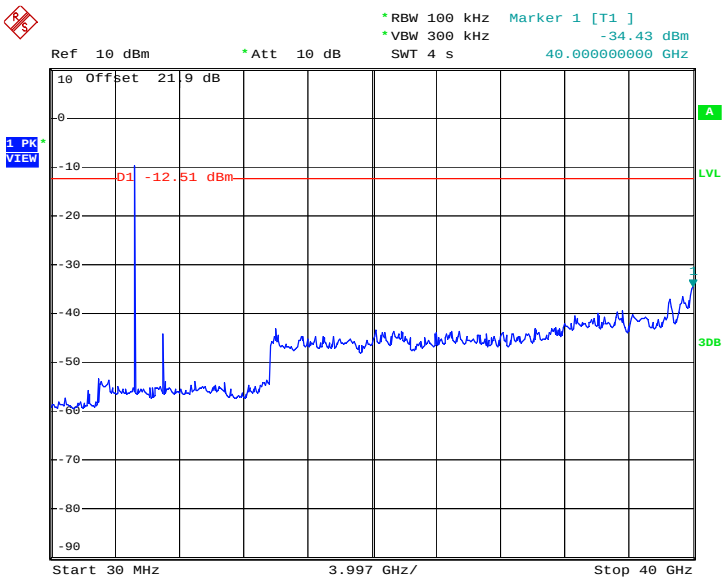
Chain A+B+C (with combiner)



Date: 16.JAN.2009 16:08:46

Mode 9 : Spurious Emission Plot on channel 48 between 30 MHz~40 GHz

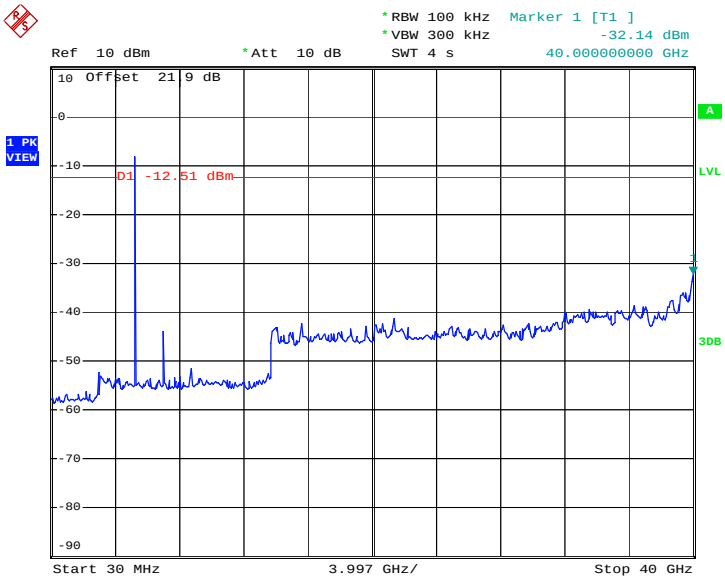
Chain A of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:24:23

Mode 9 : Spurious Emission Plot on channel 48 between 30 MHz~40 GHz

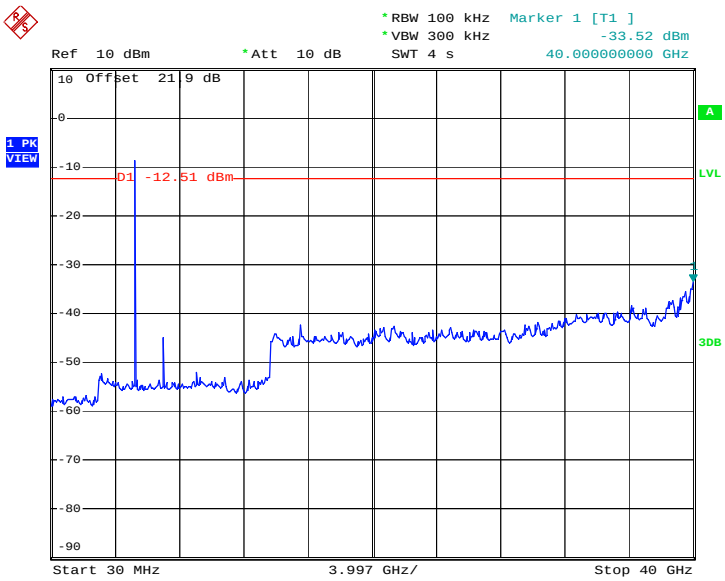
Chain B of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:25:19

Mode 9 : Spurious Emission Plot on channel 48 between 30 MHz~40 GHz

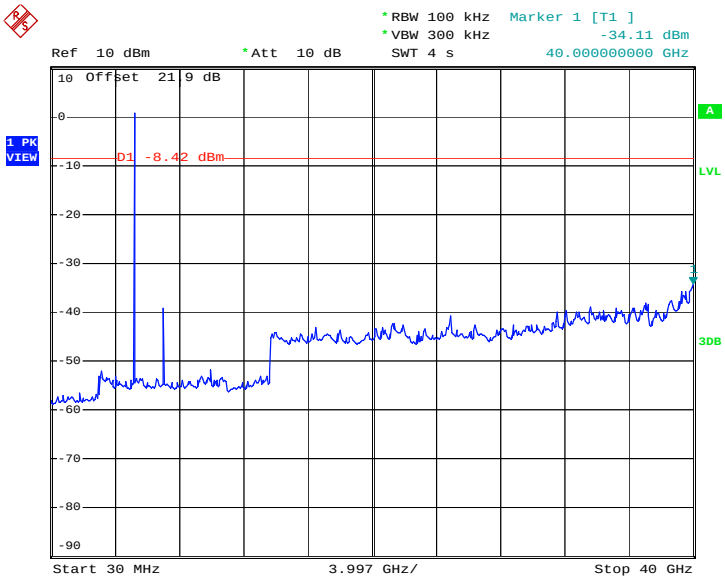
Chain C of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:26:07

Mode 10 : Spurious Emission Plot on channel 52 between 30 MHz~40 GHz

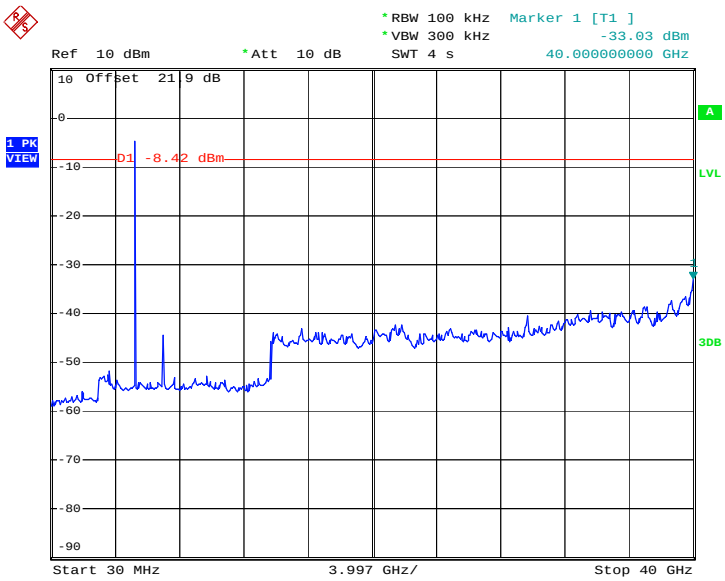
Chain A+B+C (with combiner)



Date: 16.JAN.2009 16:09:43

Mode 10 : Spurious Emission Plot on channel 52 between 30 MHz~40 GHz

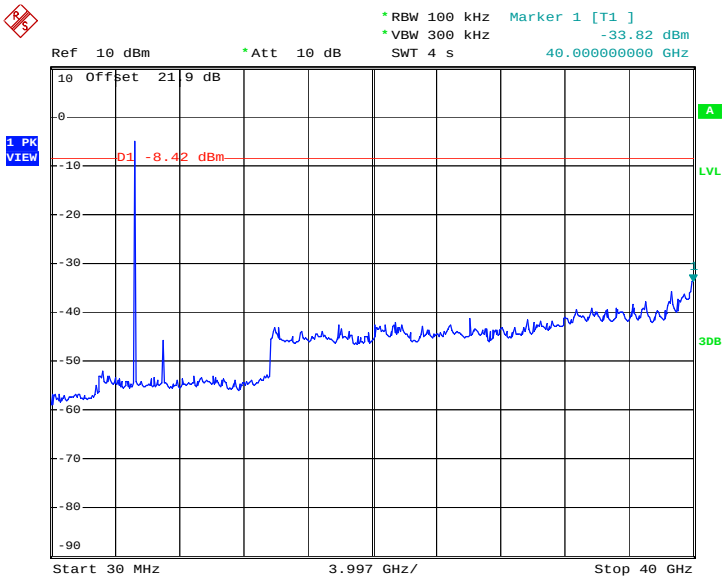
Chain A of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:32:50

Mode 10 : Spurious Emission Plot on channel 52 between 30 MHz~40 GHz

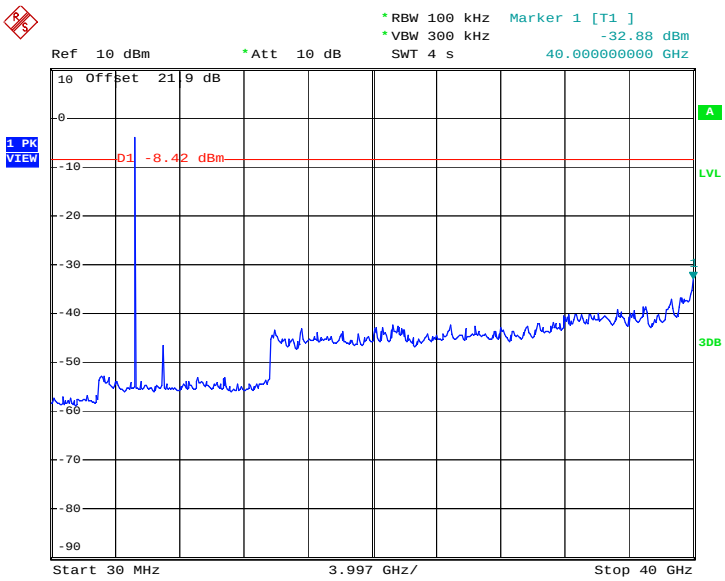
Chain B of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:31:56

Mode 10 : Spurious Emission Plot on channel 52 between 30 MHz~40 GHz

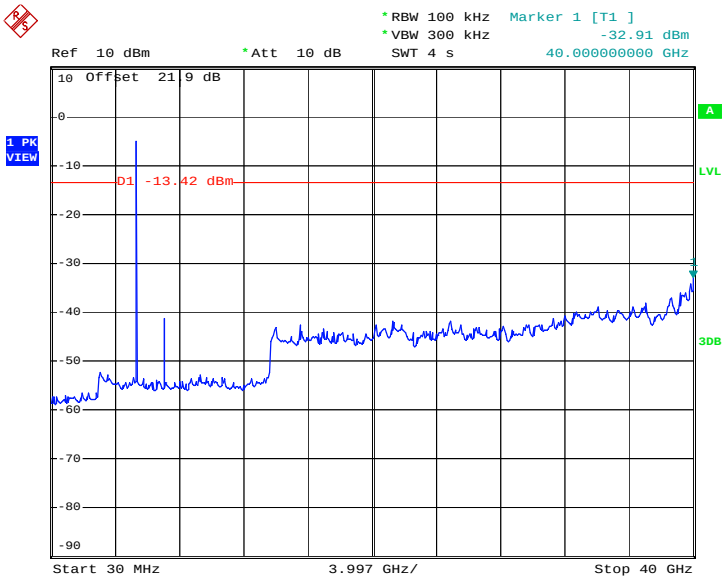
Chain C of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:30:26

Mode 11 : Spurious Emission Plot on channel 64 between 30 MHz~40 GHz

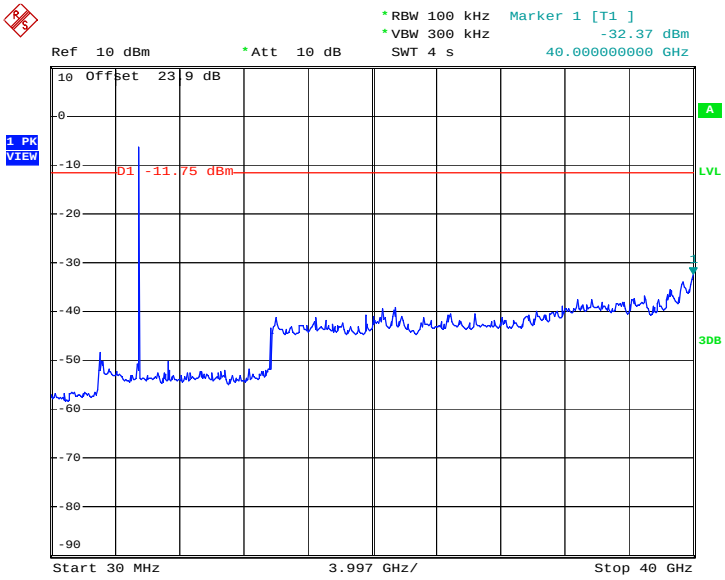
Chain A+B+C (with conbimer)



Date: 16.JAN.2009 16:10:51

Mode 12 : Spurious Emission Plot on channel 100 between 30 MHz~40 GHz

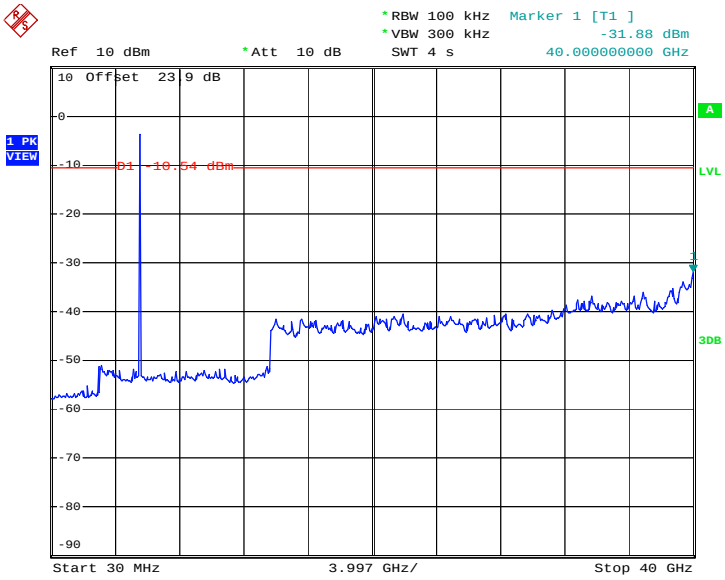
Chain A+B+C (with combiner)



Date: 16.JAN.2009 16:26:02

Mode 13 : Spurious Emission Plot on channel 120 between 30 MHz~40 GHz

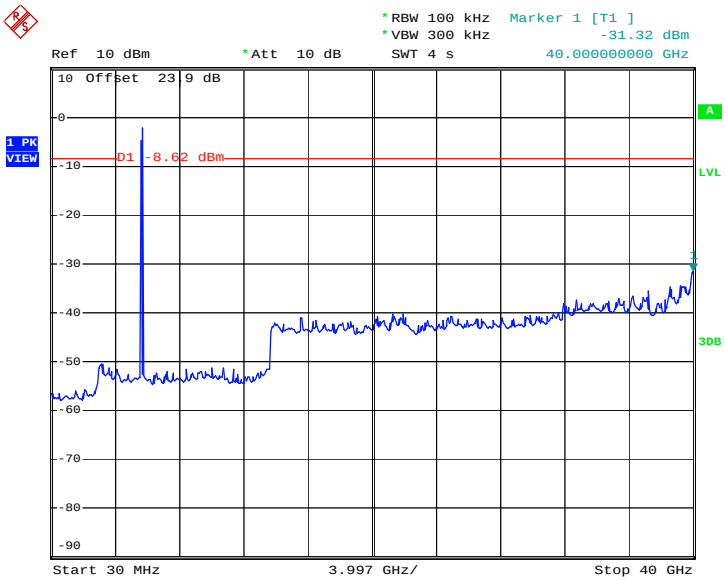
Chain A+B+C (with combiner)



Date: 16.JAN.2009 16:27:04

Mode 14 : Spurious Emission Plot on channel 140 between 30 MHz~40 GHz

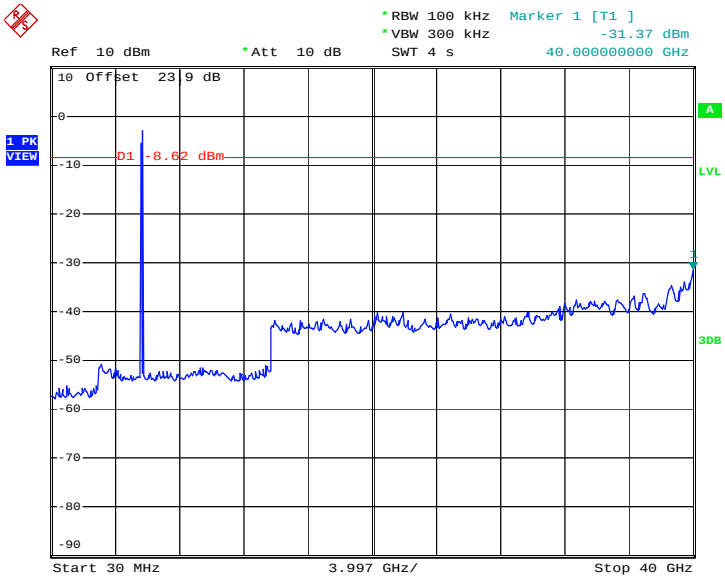
Chain A+B+C (with combiner)



Date: 16.JAN.2009 16:28:19

Mode 14 : Spurious Emission Plot on channel 140 between 30 MHz~40 GHz

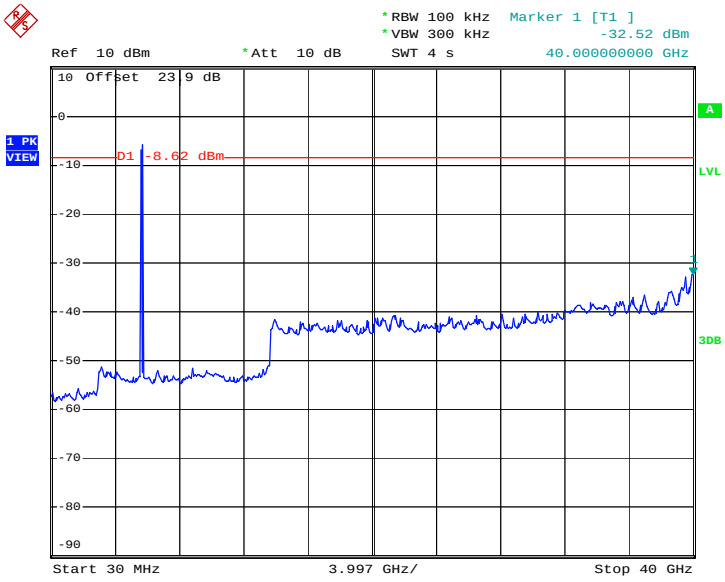
Chain A of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:35:56

Mode 14 : Spurious Emission Plot on channel 140 between 30 MHz~40 GHz

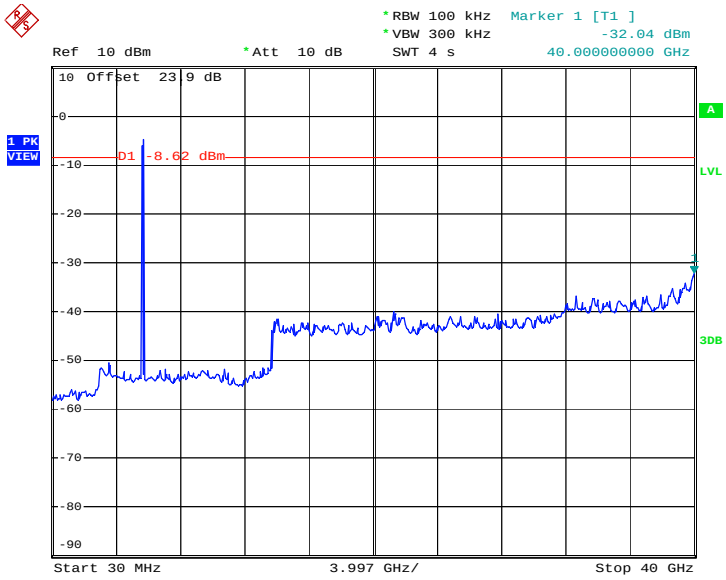
Chain B of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:36:41

Mode 14 : Spurious Emission Plot on channel 140 between 30 MHz~40 GHz

Chain C of Chain A+B+C (without combiner)



Date: 18.JAN.2009 15:37:26

3.6 AC Conducted Emission Measurement

3.6.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

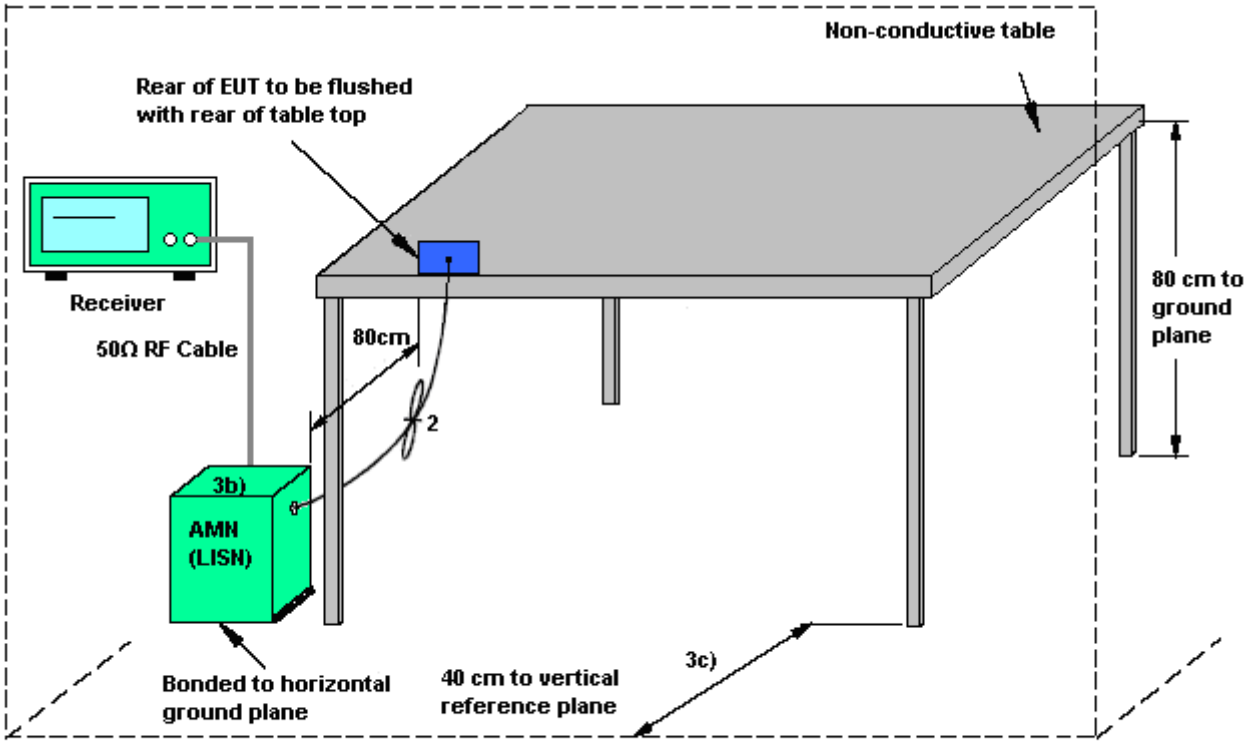
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

1. Please follow the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

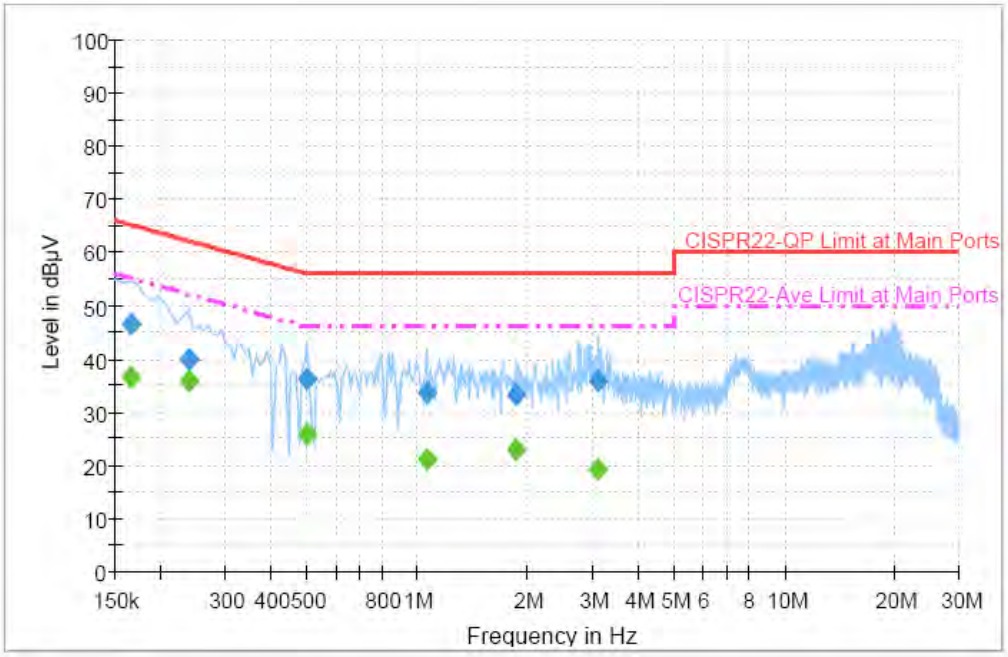
3.6.4 Test Setup



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 :**	24~25℃
Test Engineer :	Cona Huang	**Relative Humidity :**	39~40%
		Phase :	Line
Function Type :	WLAN Link + Adapter		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



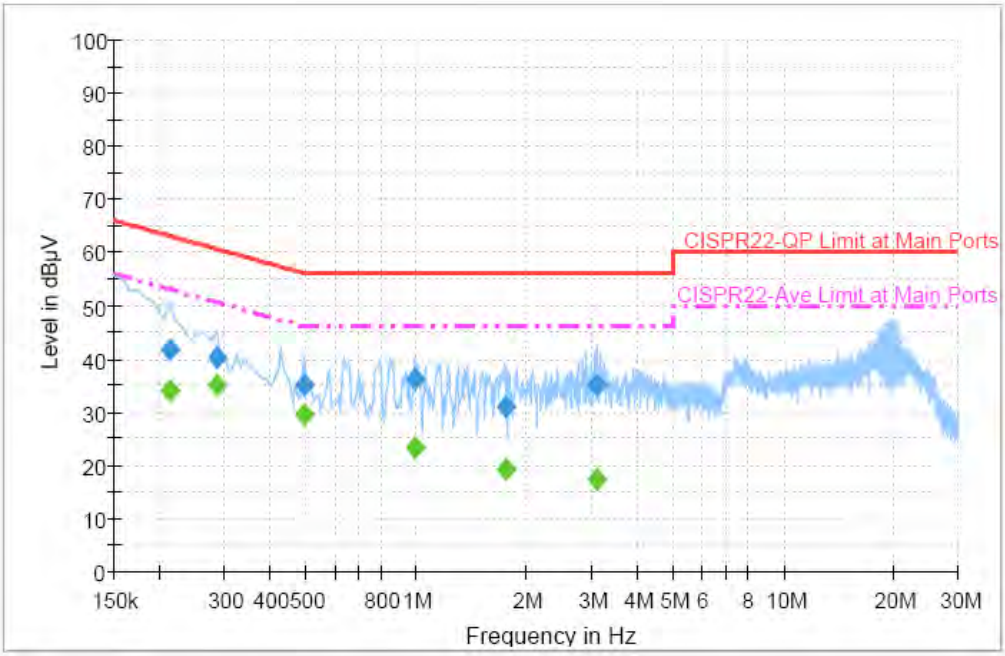
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	46.4	Off	L1	19.3	18.8	65.2
0.238000	40.0	Off	L1	19.4	22.2	62.2
0.502000	36.1	Off	L1	19.3	19.9	56.0
1.062000	33.5	Off	L1	19.4	22.5	56.0
1.862000	33.3	Off	L1	19.4	22.7	56.0
3.102000	35.8	Off	L1	19.5	20.2	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.166000	36.4	Off	L1	19.3	18.8	55.2
0.238000	35.8	Off	L1	19.4	16.4	52.2
0.502000	26.0	Off	L1	19.3	20.0	46.0
1.062000	20.9	Off	L1	19.4	25.1	46.0
1.862000	23.1	Off	L1	19.4	22.9	46.0
3.102000	19.3	Off	L1	19.5	26.7	46.0

Test Mode :	Mode 1	**Temperature :**	24~25℃
Test Engineer :	Cona Huang	**Relative Humidity :**	39~40%
		Phase :	Neutral
Function Type :	WLAN 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)
0.214000	41.9	Off	N	19.4	21.1	63.0
0.286000	40.2	Off	N	19.3	20.4	60.6
0.494000	35.0	Off	N	19.3	21.1	56.1
0.998000	36.3	Off	N	19.4	19.7	56.0
1.758000	30.9	Off	N	19.5	25.1	56.0
3.094000	35.0	Off	N	19.5	21.0	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.214000	33.9	Off	N	19.4	19.1	53.0
0.286000	34.9	Off	N	19.3	15.7	50.6
0.494000	29.4	Off	N	19.3	16.7	46.1
0.998000	23.2	Off	N	19.4	22.8	46.0
1.758000	19.2	Off	N	19.5	26.8	46.0
3.094000	17.2	Off	N	19.5	28.8	46.0

3.7 Radiated Emission Measurement

3.7.1 Limit of Radiated Emission

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209.

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

(1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz. Devices operating in the 5.25–5.35 GHz band that generate emissions in the 5.15–5.25 GHz band must meet all applicable technical requirements for operation in the 5.15–5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of –27 dBm/MHz in the 5.15–5.25 GHz band. (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

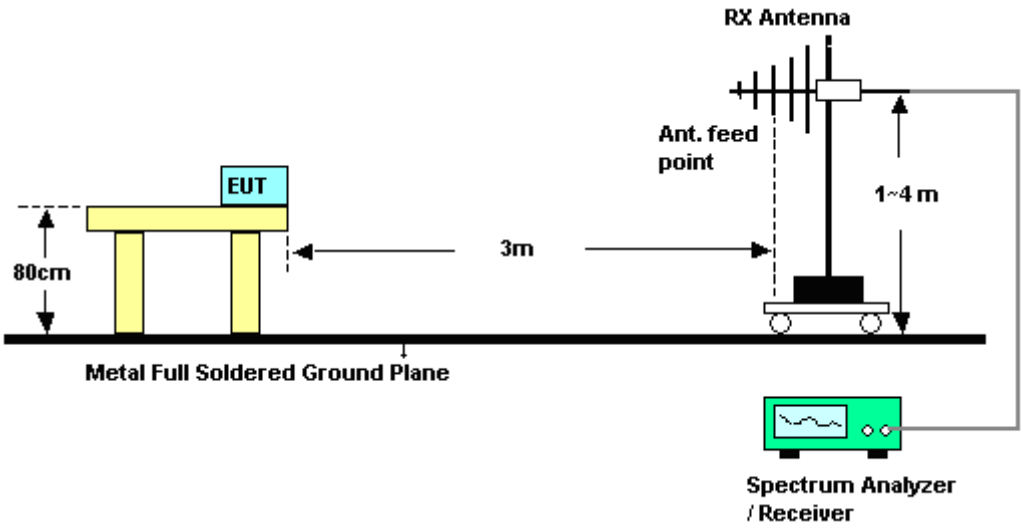
3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

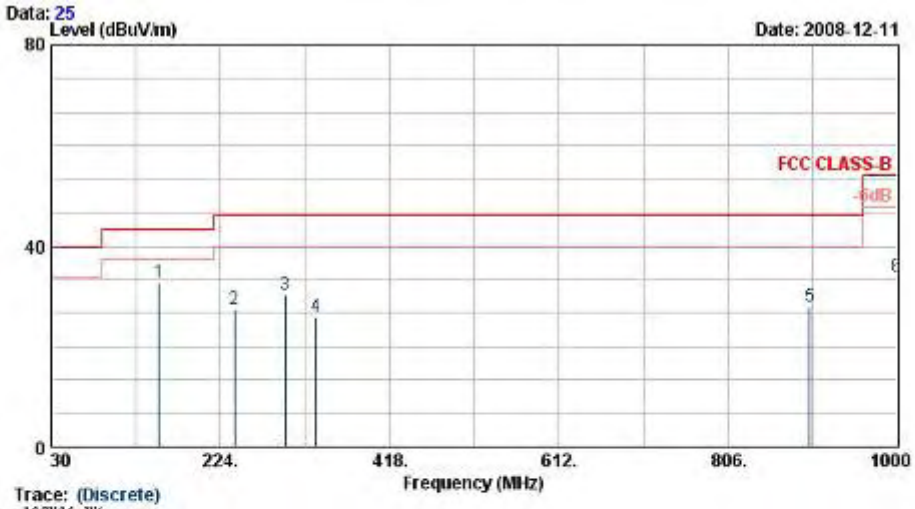
1. The testing follows the guidelines in FCC Public Notice DA 02-2138, (Measurement Guidelines of UNII)
2. The EUT was placed on a rotatable table top 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest radiation.
5. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
6. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
7. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
8. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
9. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.7.4 Test Setup



3.7.5 Test Result of Radiated Emission < 1GHz

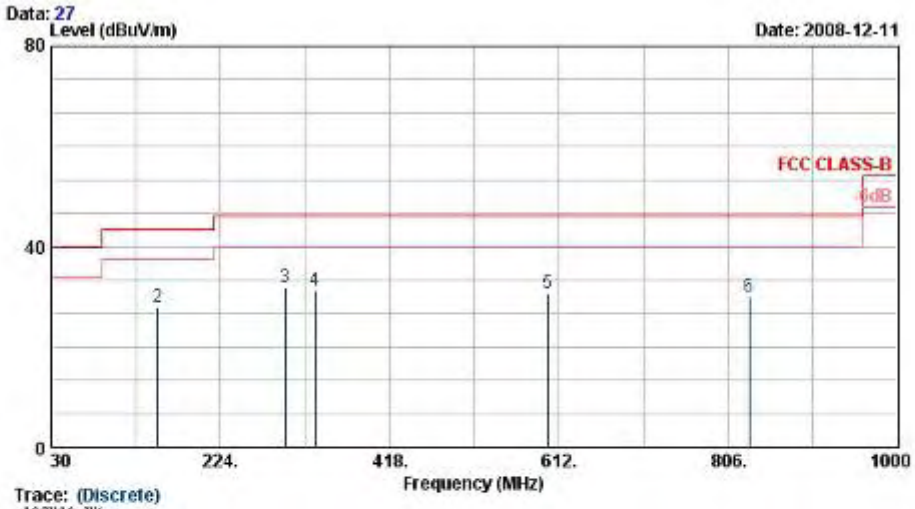
Test Mode :	Mode 22	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m BILOG_081124 HORIZONTAL
Model : FR 8N2104

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	153.39	32.72	-10.78	43.50	52.83	11.05	0.60	31.76	100	123	Peak
2	239.79	27.22	-18.78	46.00	46.28	12.10	0.70	31.86	---	---	Peak
3	298.38	30.34	-15.66	46.00	47.90	13.88	0.70	32.14	---	---	Peak
4	332.90	25.74	-20.26	46.00	41.97	14.82	0.80	31.85	---	---	Peak
5	899.90	27.91	-18.09	46.00	36.58	21.70	1.30	31.67	---	---	Peak
6	1000.00	33.78	-20.22	54.00	41.02	22.20	1.30	30.74	---	---	Peak

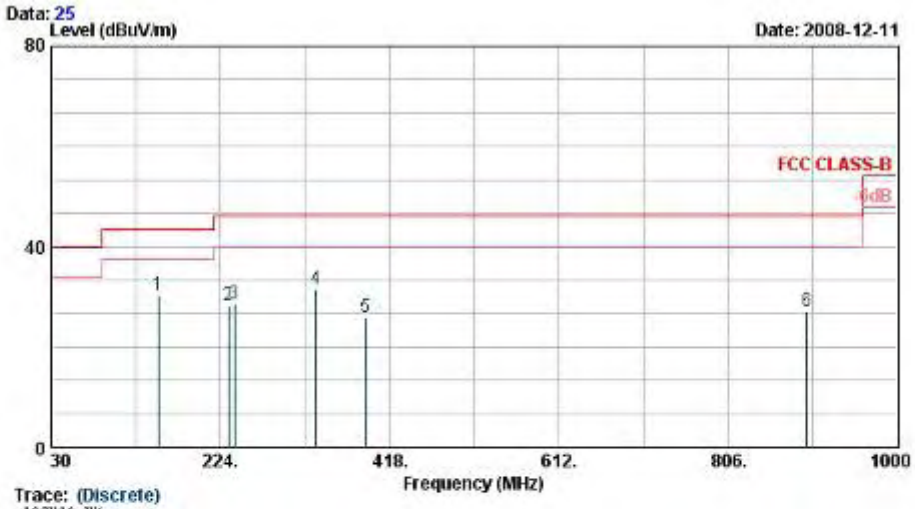
Test Mode :	Mode 22	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m BILOG_081124 VERTICAL
Model : FR 8N2104

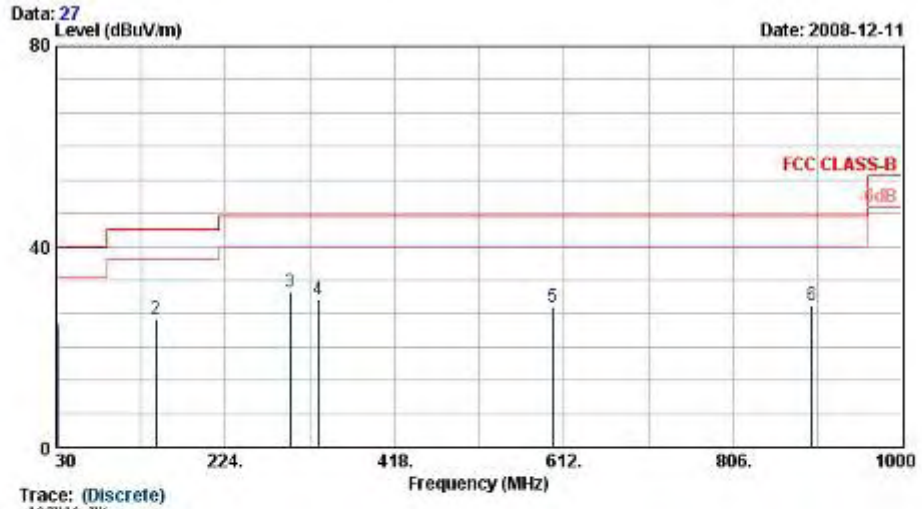
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.54	28.26	-11.74	40.00	40.28	19.30	0.30	31.61	100	269	Peak
2	152.04	27.86	-15.64	43.50	47.89	11.10	0.60	31.73	---	---	Peak
3	298.38	31.90	-14.10	46.00	49.46	13.88	0.70	32.14	---	---	Peak
4	332.20	31.11	-14.89	46.00	47.34	14.82	0.80	31.85	---	---	Peak
5	598.90	30.60	-15.40	46.00	42.68	19.09	1.00	32.18	---	---	Peak
6	829.90	30.02	-15.98	46.00	39.97	21.16	1.20	32.31	---	---	Peak

Test Mode :	Mode 23	Temperature :	21~24°C
Test Channel :	48 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



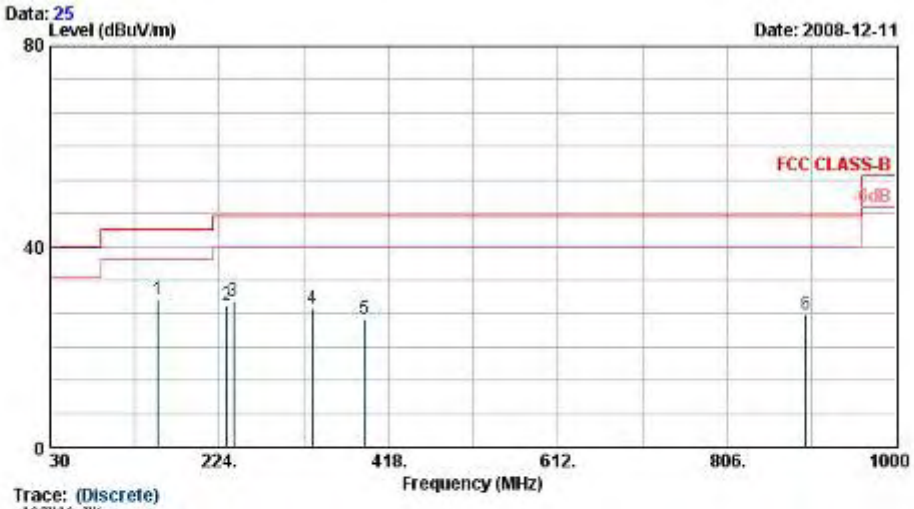
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	152.58	30.20	-13.30	43.50	50.23	11.10	0.80	31.73	100	235	Peak
2	233.04	28.26	-17.74	46.00	48.05	11.47	0.70	31.97	---	---	Peak
3	239.79	28.53	-17.47	46.00	47.59	12.10	0.70	31.86	---	---	Peak
4	332.90	31.54	-14.46	46.00	47.77	14.82	0.80	31.85	---	---	Peak
5	390.30	26.00	-20.00	46.00	40.78	16.26	0.80	31.85	---	---	Peak
6	896.40	27.06	-18.94	46.00	35.81	21.68	1.30	31.73	---	---	Peak

Test Mode :	Mode 23	Temperature :	21~24°C
Test Channel :	48 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



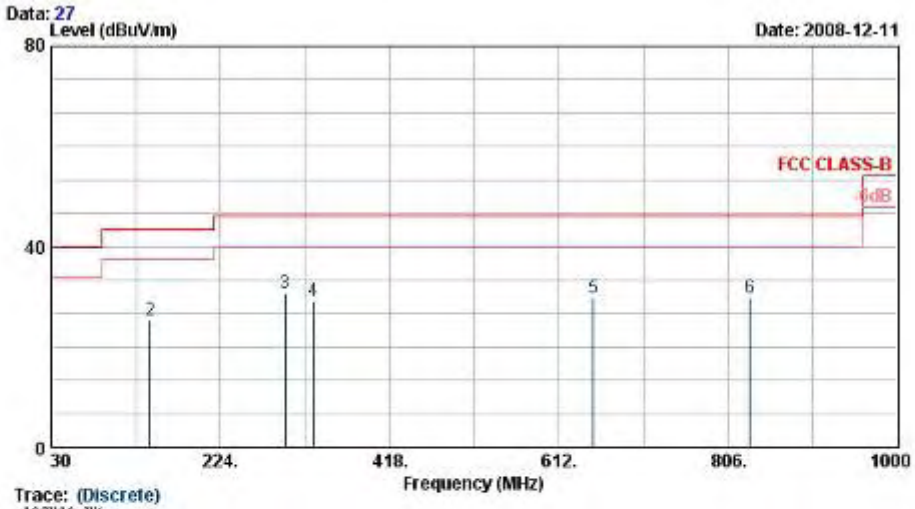
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.08	24.61	-15.39	40.00	36.62	19.30	0.30	31.61	---	---	Peak
2	144.48	25.71	-17.79	43.50	45.34	11.53	0.55	31.71	---	---	Peak
3	298.38	30.80	-15.20	46.00	48.36	13.88	0.70	32.14	100	351	Peak
4	330.80	29.44	-16.56	46.00	45.74	14.76	0.80	31.87	---	---	Peak
5	598.90	28.10	-17.90	46.00	40.19	19.09	1.00	32.18	---	---	Peak
6	896.40	28.34	-17.66	46.00	37.09	21.68	1.30	31.73	---	---	Peak

Test Mode :	Mode 24	Temperature :	21~24°C
Test Channel :	52 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	153.39	29.50	-14.00	43.50	49.60	11.05	0.60	31.76	100	235	Peak
2	232.23	28.19	-17.81	46.00	48.09	11.38	0.70	31.98	---	---	Peak
3	239.79	29.27	-16.73	46.00	48.33	12.10	0.70	31.86	---	---	Peak
4	330.80	27.63	-18.37	46.00	43.94	14.76	0.80	31.87	---	---	Peak
5	390.30	25.72	-20.28	46.00	40.50	16.26	0.80	31.85	---	---	Peak
6	896.40	26.48	-19.52	46.00	35.23	21.68	1.30	31.73	---	---	Peak

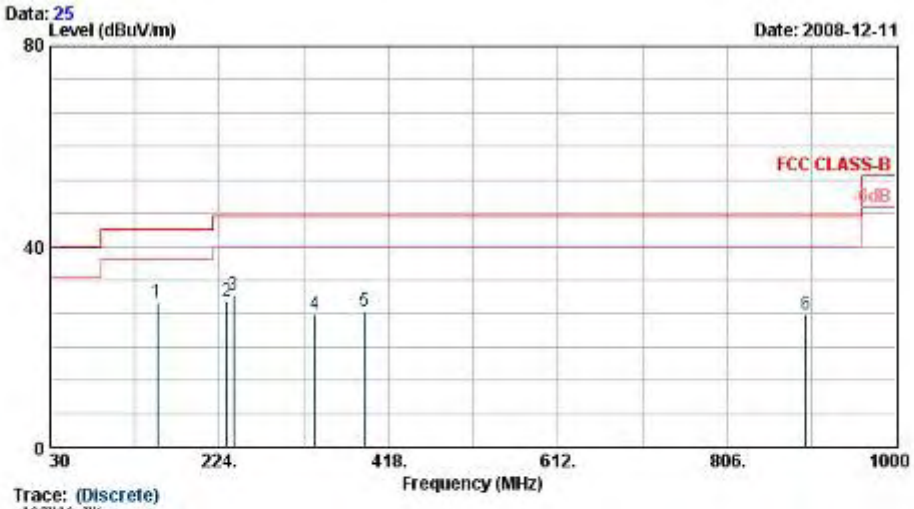
Test Mode :	Mode 24	Temperature :	21~24°C
Test Channel :	52 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m BILOG_081124 VERTICAL
Model : FR 8N2104

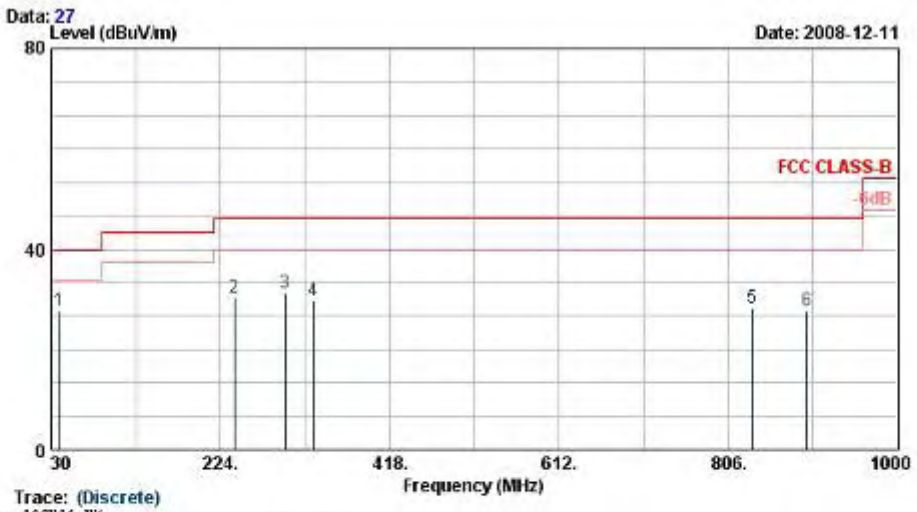
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	26.34	-13.66	40.00	37.70	19.90	0.30	31.56	100	235	Peak
2	143.13	25.37	-18.13	43.50	44.96	11.58	0.54	31.71	---	---	Peak
3	298.38	30.57	-15.43	46.00	48.13	13.88	0.70	32.14	---	---	Peak
4	330.80	29.22	-16.78	46.00	45.52	14.76	0.80	31.87	---	---	Peak
5	651.40	29.87	-16.13	46.00	41.17	19.51	1.10	31.90	---	---	Peak
6	831.30	29.75	-16.25	46.00	39.69	21.18	1.20	32.32	---	---	Peak

Test Mode :	Mode 25	Temperature :	21~24°C
Test Channel :	64 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



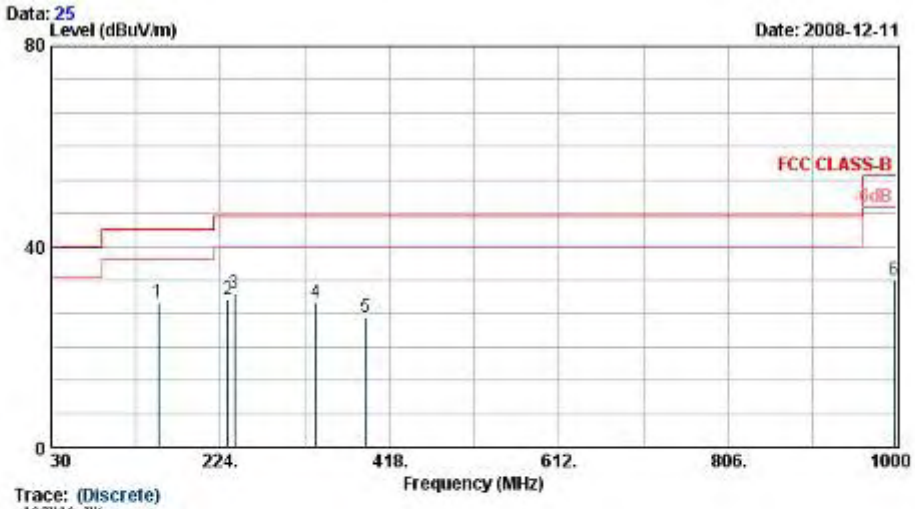
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	152.58	28.72	-14.78	43.50	48.75	11.10	0.80	31.73	100	328	Peak
2	232.23	29.01	-16.99	46.00	48.91	11.38	0.70	31.98	---	---	Peak
3	239.79	30.44	-15.56	46.00	49.50	12.10	0.70	31.86	---	---	Peak
4	332.90	26.55	-19.45	46.00	42.79	14.82	0.80	31.85	---	---	Peak
5	390.30	26.96	-19.04	46.00	41.75	16.26	0.80	31.85	---	---	Peak
6	896.40	26.37	-19.63	46.00	35.12	21.68	1.30	31.73	---	---	Peak

Test Mode :	Mode 25	Temperature :	21~24°C
Test Channel :	64 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



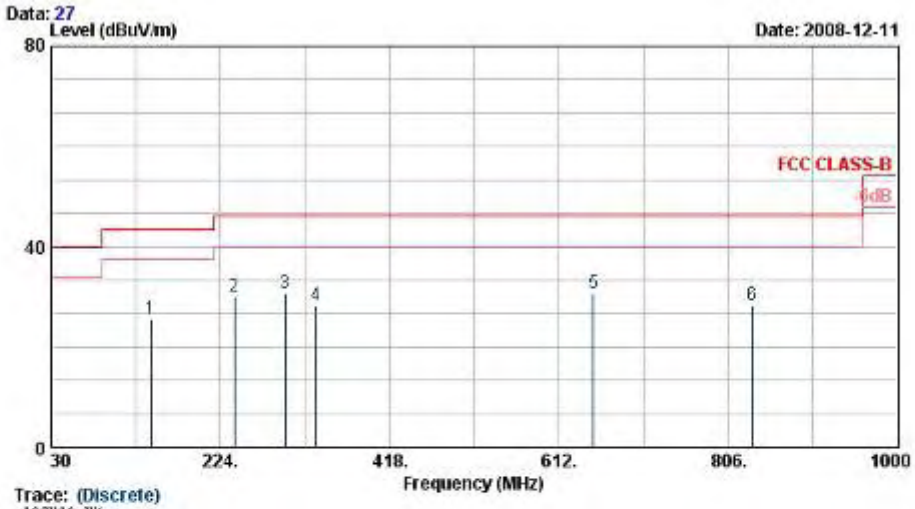
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	38.64	27.64	-12.36	40.00	44.56	14.50	0.30	31.72	100	332	Peak
2	239.79	30.27	-15.73	46.00	49.33	12.10	0.70	31.86	---	---	Peak
3	298.38	31.14	-14.86	46.00	48.70	13.88	0.70	32.14	---	---	Peak
4	330.80	29.64	-16.36	46.00	45.95	14.76	0.80	31.87	---	---	Peak
5	833.40	28.33	-17.67	46.00	38.26	21.20	1.20	32.33	---	---	Peak
6	896.40	27.53	-18.47	46.00	36.28	21.68	1.30	31.73	---	---	Peak

Test Mode :	Mode 26	Temperature :	21~24°C
Test Channel :	100 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



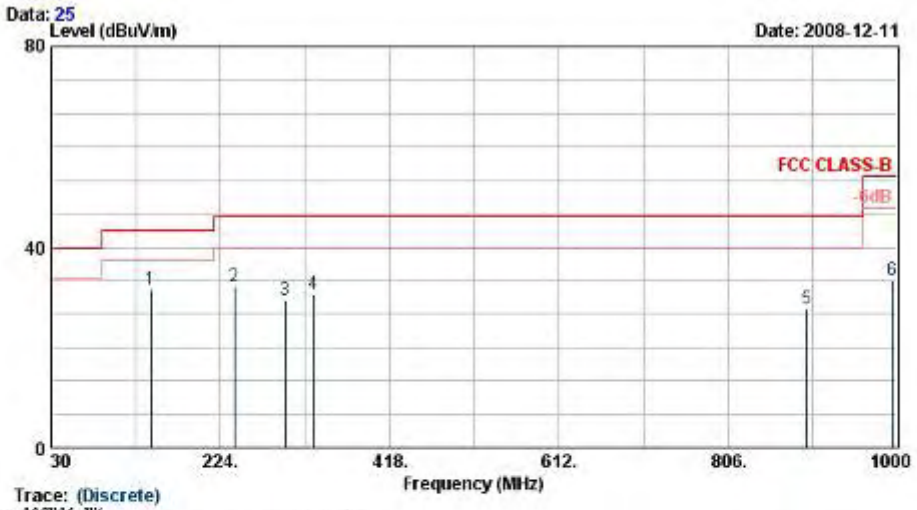
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	152.58	28.90	-14.60	43.50	48.93	11.10	0.60	31.73	100	325	Peak
2 @	232.23	29.48	-16.52	46.00	49.38	11.38	0.70	31.98	---	---	Peak
3 @	239.79	30.67	-15.33	46.00	49.73	12.10	0.70	31.86	---	---	Peak
4 @	332.90	28.72	-17.28	46.00	44.96	14.82	0.80	31.85	---	---	Peak
5 @	390.30	25.99	-20.01	46.00	40.78	16.26	0.80	31.85	---	---	Peak
6 @	995.80	33.30	-20.70	54.00	40.60	22.19	1.30	30.79	---	---	Peak

Test Mode :	Mode 26	Temperature :	21~24°C
Test Channel :	100 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.94	25.51	-17.99	43.50	45.10	11.58	0.54	31.71	---	---	Peak
2 @	239.79	30.06	-15.94	46.00	49.12	12.10	0.70	31.86	---	---	Peak
3 @	298.38	30.55	-15.45	46.00	48.11	13.88	0.70	32.14	---	---	Peak
4 @	332.90	28.28	-17.72	46.00	44.51	14.82	0.80	31.85	---	---	Peak
5 @	651.40	30.60	-15.40	46.00	41.89	19.51	1.10	31.90	100	235	Peak
6 @	833.40	28.17	-17.83	46.00	38.10	21.20	1.20	32.33	---	---	Peak

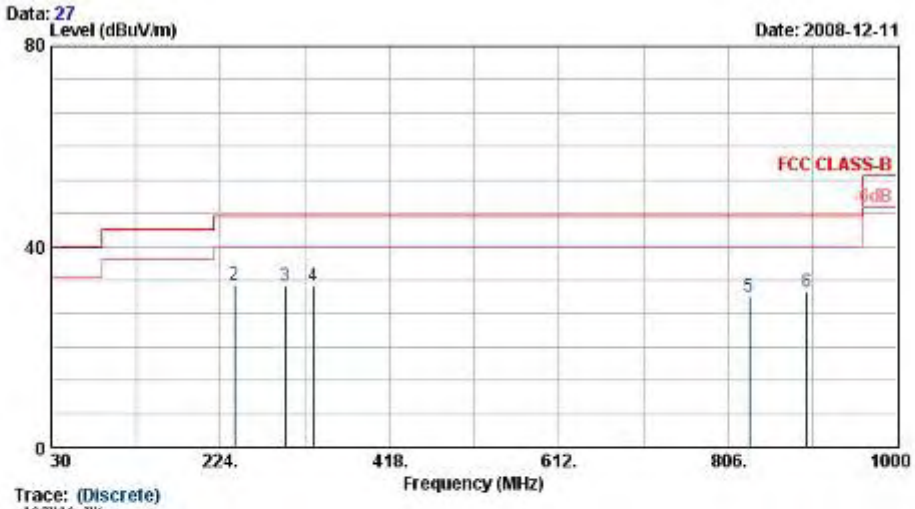
Test Mode :	Mode 27	Temperature :	21~24°C
Test Channel :	120 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m BILOG_081124 HORIZONTAL
Model : FR 8N2104

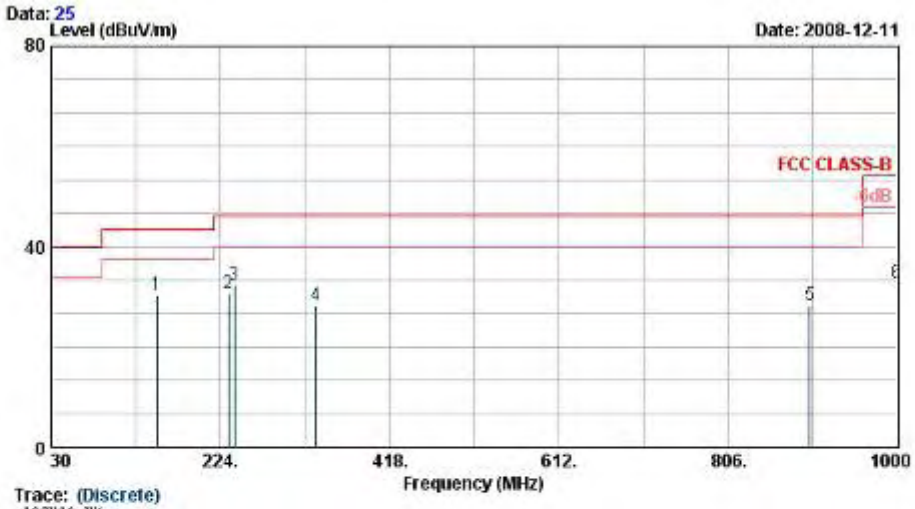
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	143.94	31.55	-11.95	43.50	51.14	11.58	0.54	31.71	100	223	Peak
2 @	239.79	32.04	-13.96	46.00	51.10	12.10	0.70	31.86	---	---	Peak
3 @	298.38	29.34	-16.66	46.00	46.90	13.88	0.70	32.14	---	---	Peak
4 @	330.80	30.56	-15.44	46.00	46.87	14.76	0.80	31.87	---	---	Peak
5 @	896.40	27.77	-18.23	46.00	36.52	21.68	1.30	31.73	---	---	Peak
6	994.40	33.20	-20.80	54.00	40.53	22.19	1.30	30.82	---	---	Peak

Test Mode :	Mode 27	Temperature :	21~24°C
Test Channel :	120 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		



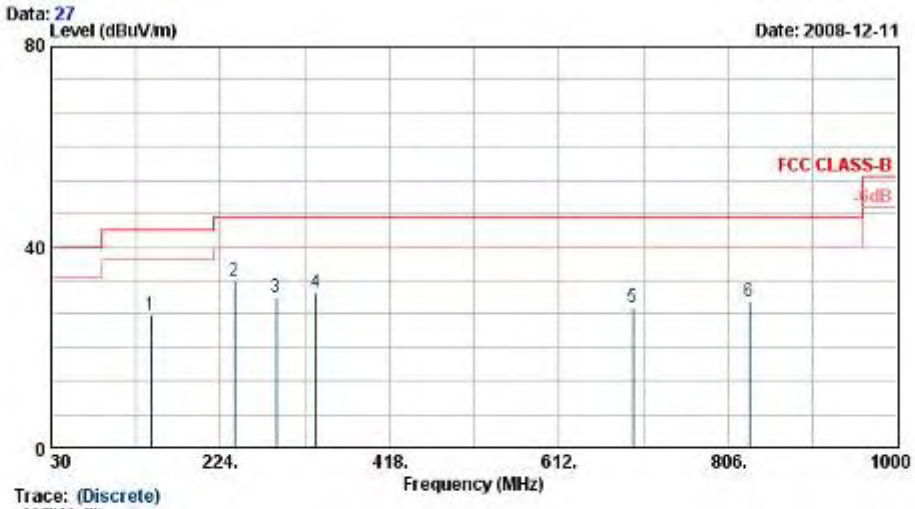
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 @	30.27	28.91	-11.09	40.00	40.27	19.90	0.30	31.56	100	328	Peak
2 @	239.79	32.30	-13.70	46.00	51.36	12.10	0.70	31.86	---	---	Peak
3 @	298.38	31.97	-14.03	46.00	49.53	13.88	0.70	32.14	---	---	Peak
4 @	330.80	32.23	-13.77	46.00	48.53	14.76	0.80	31.87	---	---	Peak
5 @	829.90	29.89	-16.11	46.00	39.84	21.16	1.20	32.31	---	---	Peak
6 @	896.40	31.06	-14.94	46.00	39.81	21.68	1.30	31.73	---	---	Peak

Test Mode :	Mode 28	Temperature :	21~24°C
Test Channel :	140 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	N/A		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	151.23	30.40	-13.10	43.50	50.35	11.15	0.80	31.71	100	265	Peak
2	233.04	30.55	-15.45	46.00	50.34	11.47	0.70	31.97	---	---	Peak
3	239.79	32.39	-13.61	46.00	51.45	12.10	0.70	31.86	---	---	Peak
4	332.90	28.39	-17.61	46.00	44.62	14.82	0.80	31.85	---	---	Peak
5	899.90	28.29	-17.71	46.00	36.96	21.70	1.30	31.67	---	---	Peak
6	1000.00	32.67	-21.33	54.00	39.91	22.20	1.30	30.74	---	---	Peak

Test Mode :	Mode 28	Temperature :	21~24°C
Test Channel :	140 802.11n (BW 20M, 3Tx)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	N/A		

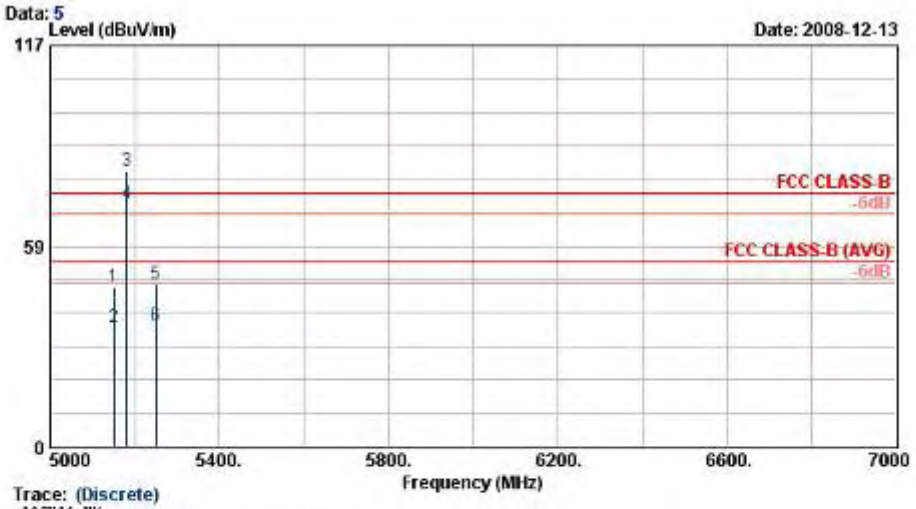


Site : 03CH06-HY
Condition : FCC CLASS-B 3m BTLOC_061124 VERTICAL
Model : FR 8N2104

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	143.94	26.38	-17.12	43.50	45.97	11.58	0.54	31.71	---	---	Peak
2	239.79	33.34	-12.66	46.00	52.40	12.10	0.70	31.86	100	325	Peak
3	287.58	30.11	-15.89	46.00	47.81	13.66	0.70	32.07	---	---	Peak
4	332.90	30.99	-15.01	46.00	47.22	14.82	0.80	31.85	---	---	Peak
5	696.90	27.94	-18.06	46.00	39.60	19.69	1.10	32.45	---	---	Peak
6	829.90	29.13	-16.87	46.00	39.08	21.16	1.20	32.31	---	---	Peak

3.7.6 Test Result of Radiated Emission ≥ 1GHz

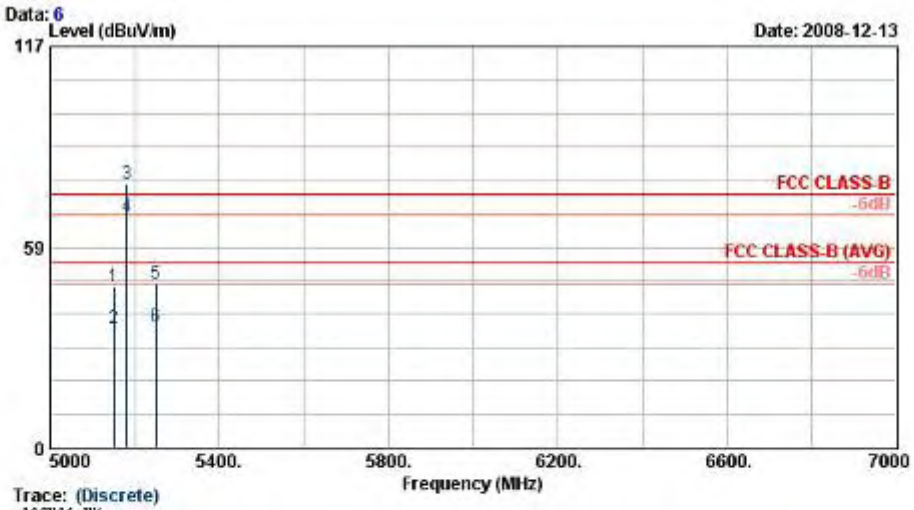
Test Mode :	Mode 1	Temperature :	21~24°C
Test Channel :	36 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT_080821 HORIZONTAL
Model : FR 8N2104
Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5150.00	46.73	-27.27	74.00	42.32	34.53	5.98	36.10	100	0	Peak
2 @	5150.00	34.63	-19.37	54.00	30.22	34.53	5.98	36.10	100	89	Average
3 @	5180.00	80.47			76.04	34.54	6.00	36.10	100	0	Peak
4 @	5180.00	70.78			66.35	34.54	6.00	36.10	100	89	Average
5	5250.00	47.51	-26.49	74.00	43.02	34.55	6.04	36.10	100	0	Peak
6 @	5250.00	35.07	-18.93	54.00	30.58	34.55	6.04	36.10	100	89	Average

Test Mode :	Mode 1	Temperature :	21~24°C
Test Channel :	36 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		

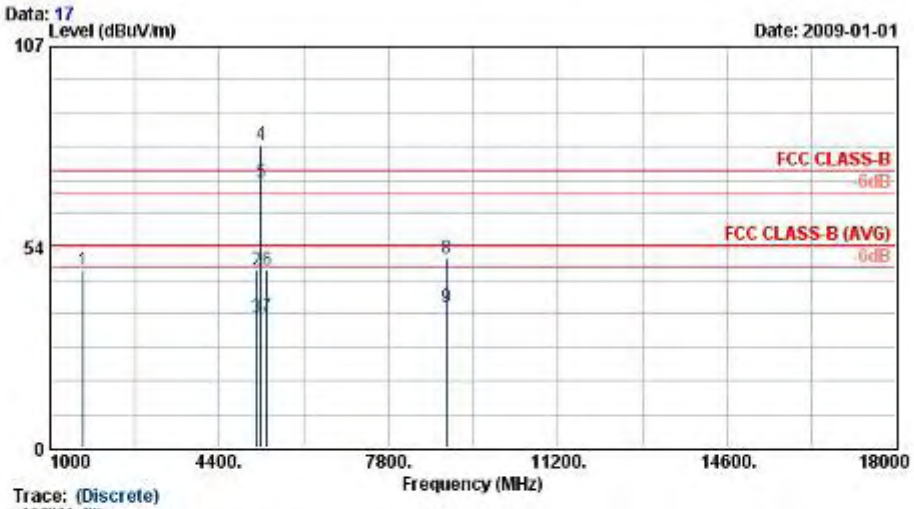


Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT_080821 VERTICAL
Model : FR 8N2104
Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5150.00	46.96	-27.04	74.00	42.55	34.53	5.98	36.10	100	0	Peak
2 @	5150.00	34.64	-19.36	54.00	30.23	34.53	5.98	36.10	162	161	Average
3 @	5180.00	76.99			72.56	34.54	6.00	36.10	100	0	Peak
4 @	5180.00	67.41			62.98	34.54	6.00	36.10	162	161	Average
5	5250.00	47.75	-26.25	74.00	43.26	34.55	6.04	36.10	100	0	Peak
6 @	5250.00	35.09	-18.91	54.00	30.60	34.55	6.04	36.10	162	161	Average

3.7.7

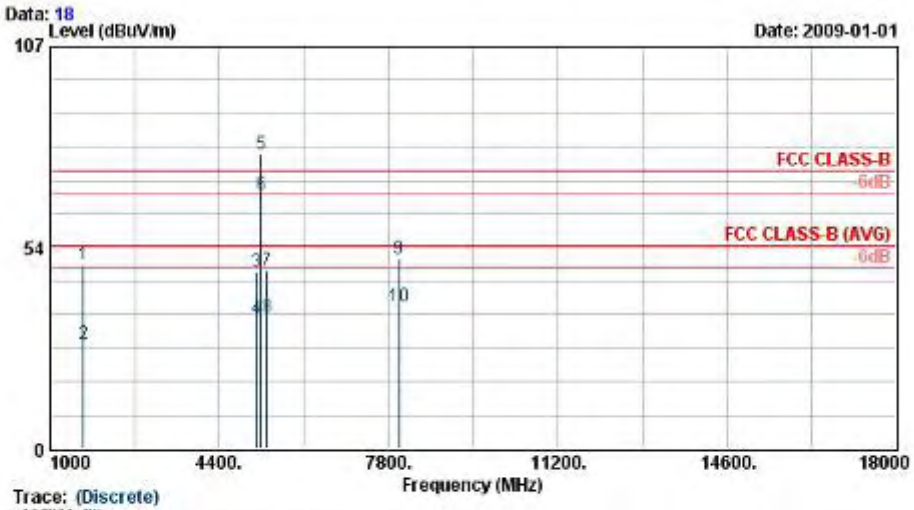
Test Mode :	Mode 2	Temperature :	21~24°C
Test Channel :	48 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#4 and #5 are Fundamental Signals		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_061031 HORIZONTAL
Model : FR 8N2104
Mode : 11a Tx_CH48

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1668.00	47.46	-26.54	74.00	51.68	29.17	3.01	36.41	100	0	Peak
2	5150.00	47.32	-26.68	74.00	42.91	34.53	5.98	36.10	100	0	Peak
3	5150.00	34.43	-19.57	54.00	30.02	34.53	5.98	36.10	100	108	Average
4 X	5240.00	80.74			76.26	34.55	6.04	36.10	100	0	Peak
5 @	5240.00	70.88			66.40	34.55	6.04	36.10	100	108	Average
6	5350.00	47.53	-26.47	74.00	42.97	34.57	6.09	36.10	100	0	Peak
7	5350.00	34.86	-19.14	54.00	30.30	34.57	6.09	36.10	100	108	Average
8	8966.00	50.60	-23.40	74.00	43.55	36.17	7.77	36.88	100	0	Peak
9	8966.00	37.37	-16.63	54.00	30.31	36.17	7.77	36.88	100	36	Average

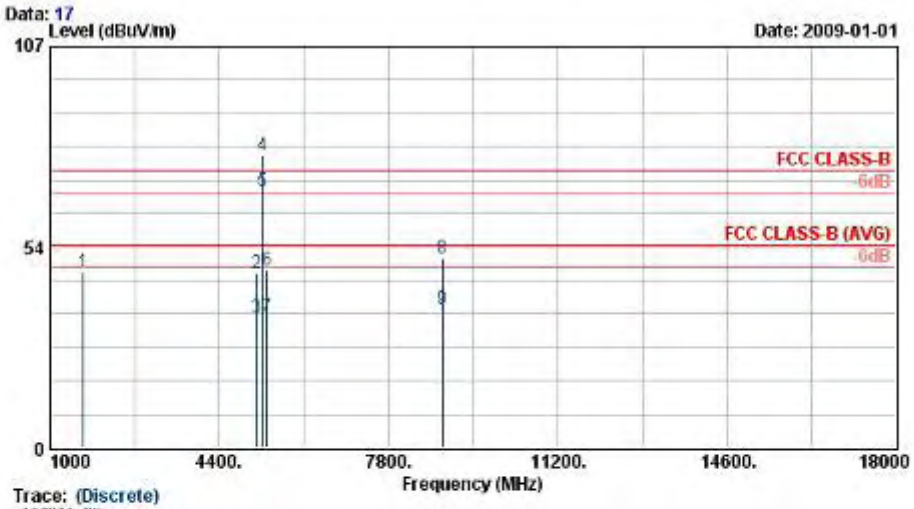
Test Mode :	Mode 2	Temperature :	21~24°C
Test Channel :	48 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#5 and #6 are Fundamental Signals		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_081031 VERTICAL
Model : FR 8N2104
Mode : 11a Ts_CH48

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1662.00	48.81	-25.19	74.00	53.03	29.17	3.01	36.41	100	0	Peak
2	1662.00	27.76	-26.24	54.00	31.98	29.17	3.01	36.41	100	55	Average
3	5150.00	46.87	-27.13	74.00	42.46	34.53	5.98	36.10	100	0	Peak
4	5150.00	34.50	-19.50	54.00	30.09	34.53	5.98	36.10	100	72	Average
5 X	5240.00	78.25			73.76	34.55	6.04	36.10	100	0	Peak
6 @	5240.00	67.65			63.17	34.55	6.04	36.10	100	72	Average
7	5350.00	47.17	-26.83	74.00	42.61	34.57	6.09	36.10	100	0	Peak
8	5350.00	34.92	-19.08	54.00	30.36	34.57	6.09	36.10	100	72	Average
9	8004.00	50.44	-23.56	74.00	43.92	35.70	7.52	36.70	100	0	Peak
10	8004.00	37.96	-16.04	54.00	31.44	35.70	7.52	36.70	100	249	Average

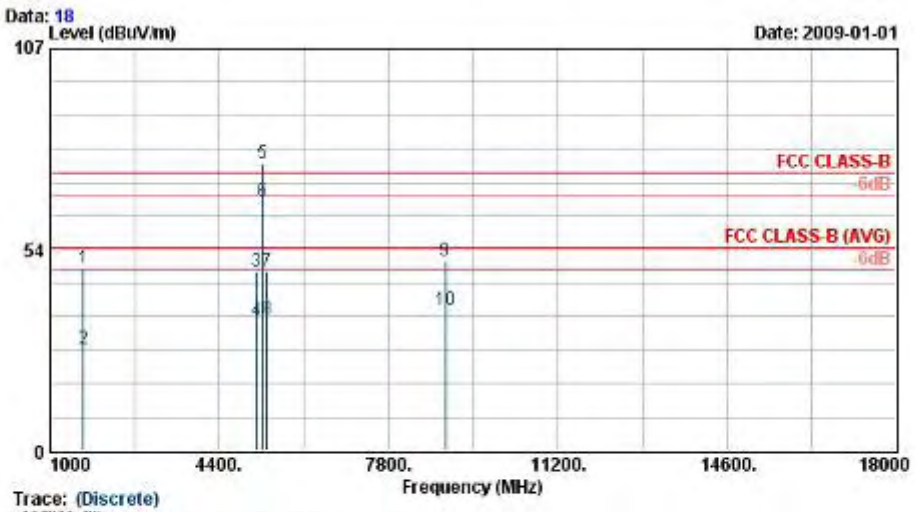
Test Mode :	Mode 3	Temperature :	21~24°C
Test Channel :	52 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#4 and #5 are Fundamental Signals		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_081031 HORIZONTAL
Model : FR 8N2104
Mode : 11a Tx_CH52

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1662.00	46.83	-27.17	74.00	51.06	29.17	3.01	36.41	100	0	Peak
2	5150.00	46.49	-27.51	74.00	42.08	34.53	5.98	36.10	100	0	Peak
3	5150.00	34.52	-19.48	54.00	30.11	34.53	5.98	36.10	100	109	Average
4 X	5260.00	78.12			73.62	34.55	6.05	36.10	100	0	Peak
5 @	5260.00	68.27			63.76	34.55	6.05	36.10	100	109	Average
6	5350.00	47.40	-26.60	74.00	42.84	34.57	6.09	36.10	100	0	Peak
7	5350.00	34.88	-19.12	54.00	30.32	34.57	6.09	36.10	100	109	Average
8	8876.00	50.34	-23.66	74.00	43.47	36.07	7.65	36.85	100	0	Peak
9	8876.00	37.12	-16.88	54.00	30.25	36.07	7.65	36.85	100	251	Average

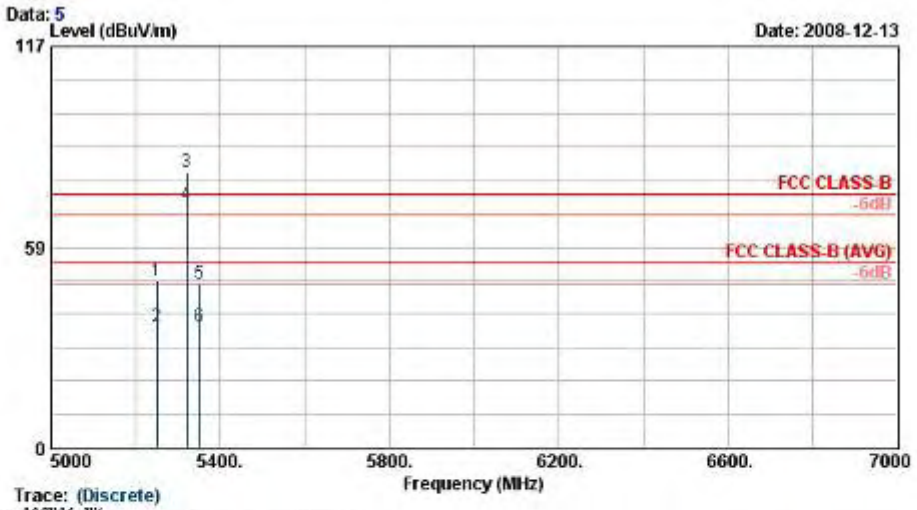
Test Mode :	Mode 3	Temperature :	21~24°C
Test Channel :	52 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#5 and #6 are Fundamental Signals		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_081031 VERTICAL
Model : FR 8N2104
Mode : 11a Ts_CH52

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		1668.00	48.49	-25.51	74.00	52.72	29.17	3.01	36.41	100	0	Peak
2		1668.00	26.97	-27.03	54.00	31.20	29.17	3.01	36.41	100	150	Average
3		5150.00	47.58	-26.42	74.00	43.17	34.53	5.98	36.10	100	0	Peak
4		5150.00	34.54	-19.46	54.00	30.13	34.53	5.98	36.10	100	71	Average
5	X	5260.00	76.42			71.92	34.55	6.05	36.10	100	0	Peak
6	@	5260.00	66.55			62.04	34.55	6.05	36.10	100	71	Average
7		5350.00	47.92	-26.08	74.00	43.36	34.57	6.09	36.10	100	0	Peak
8		5350.00	34.92	-19.08	54.00	30.36	34.57	6.09	36.10	100	71	Average
9		8942.00	50.65	-23.35	74.00	43.64	36.13	7.74	36.87	100	0	Peak
10		8942.00	37.34	-16.66	54.00	30.34	36.13	7.74	36.87	100	108	Average

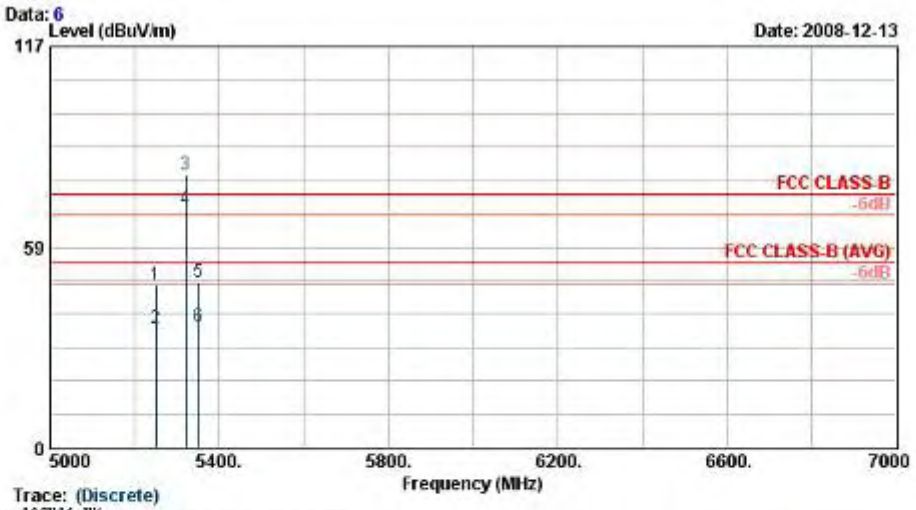
Test Mode :	Mode 4	Temperature :	21~24°C
Test Channel :	64 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT_080821 HORIZONTAL
Model : FR 8N2104

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5250.00	48.87	-25.13	74.00	44.38	34.55	6.04	36.10	100	0	Peak
2 @	5250.00	35.02	-18.98	54.00	30.53	34.55	6.04	36.10	100	105	Average
3 @	5320.00	80.56			76.02	34.56	6.08	36.10	100	0	Peak
4 @	5320.00	70.88			66.34	34.56	6.08	36.10	100	105	Average
5	5350.00	47.74	-26.26	74.00	43.18	34.57	6.09	36.10	100	0	Peak
6 @	5350.00	35.04	-18.96	54.00	30.48	34.57	6.09	36.10	100	105	Average

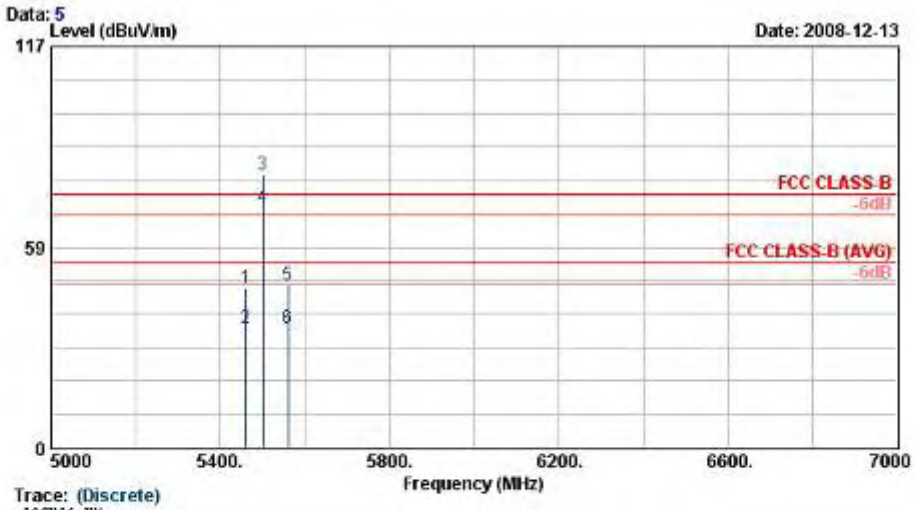
Test Mode :	Mode 4	Temperature :	21~24°C
Test Channel :	64 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT_080821 VERTICAL
Model : FR 8N2104

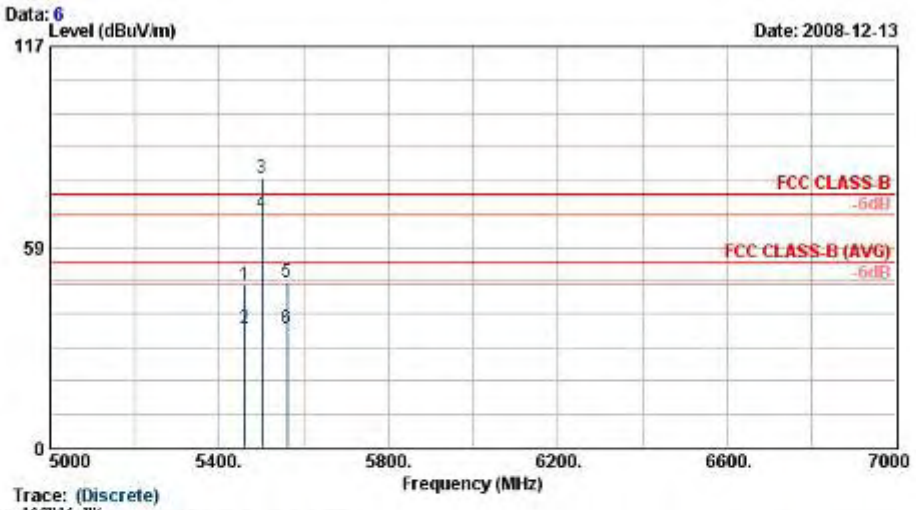
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5250.00	47.29	-26.71	74.00	42.80	34.55	6.04	36.10	100	0	Peak
2 @	5250.00	34.95	-19.05	54.00	30.46	34.55	6.04	36.10	100	199	Average
3 @	5320.00	79.45			74.91	34.56	6.08	36.10	100	0	Peak
4 @	5320.00	69.69			65.15	34.56	6.08	36.10	100	199	Average
5	5350.00	48.12	-25.88	74.00	43.56	34.57	6.09	36.10	100	0	Peak
6 @	5350.00	35.18	-18.82	54.00	30.62	34.57	6.09	36.10	100	199	Average

Test Mode :	Mode 5	Temperature :	21~24°C
Test Channel :	100 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



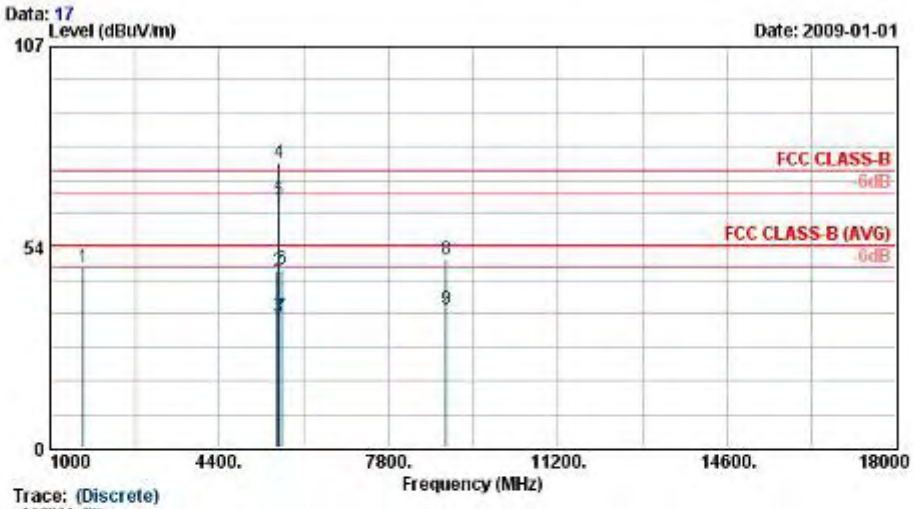
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5460.00	46.35	-27.65	74.00	41.70	34.59	6.16	36.10	100	0	Peak
2 @	5460.00	34.83	-19.17	54.00	30.18	34.59	6.16	36.10	100	64	Average
3 @	5500.00	79.58			74.89	34.60	6.19	36.11	100	0	Peak
4 @	5500.00	69.93			65.24	34.60	6.19	36.10	100	64	Average
5	5560.00	47.36	-26.64	74.00	42.57	34.67	6.24	36.12	100	0	Peak
6 @	5560.00	34.97	-19.03	54.00	30.18	34.67	6.24	36.12	100	64	Average

Test Mode :	Mode 5	Temperature :	21~24°C
Test Channel :	100 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5460.00	47.31	-26.69	74.00	42.66	34.59	6.16	36.10	100	0	Peak
2 @	5460.00	34.94	-19.06	54.00	30.29	34.59	6.16	36.10	100	170	Average
3 @	5500.00	78.82			74.15	34.60	6.18	36.10	100	0	Peak
4 @	5500.00	68.50			63.81	34.60	6.19	36.10	100	170	Average
5	5560.00	48.38	-25.62	74.00	43.59	34.67	6.24	36.12	100	0	Peak
6 @	5560.00	34.96	-19.04	54.00	30.17	34.67	6.24	36.12	100	170	Average

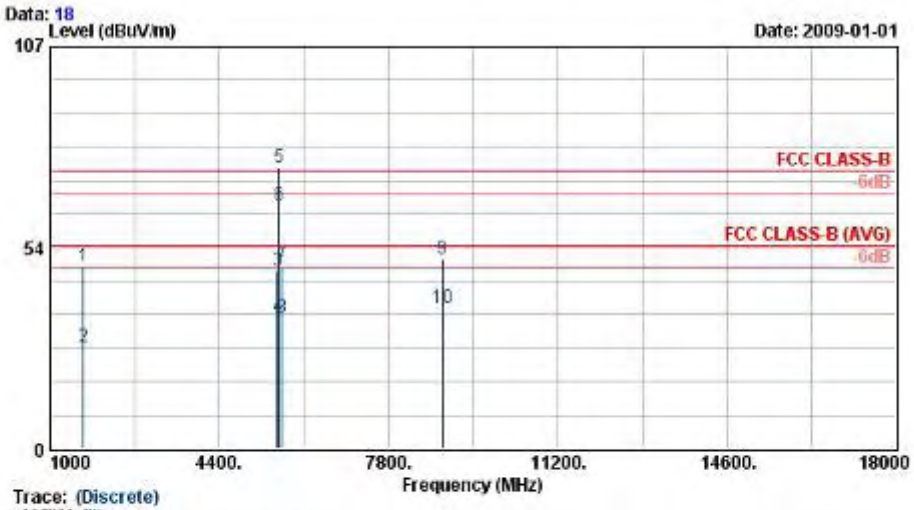
Test Mode :	Mode 6	Temperature :	21~24°C
Test Channel :	120 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#4 and #5 are Fundamental Signals		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m RF-ANT(6-18G)_081031 HORIZONTAL
Model : FR 8N2104
Mode : 11a Ts_CH120

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1662.00	47.97	-26.03	74.00	52.19	29.17	3.01	36.41	100	0	Peak
2	5560.00	46.88	-27.12	74.00	42.09	34.67	6.24	36.12	100	0	Peak
3	5560.00	34.94	-19.06	54.00	30.15	34.67	6.24	36.12	100	58	Average
4 X	5600.00	76.11			71.23	34.72	6.28	36.12	100	0	Peak
5 @	5600.00	65.92			61.01	34.74	6.28	36.12	100	58	Average
6	5660.00	47.60	-26.40	74.00	42.59	34.82	6.33	36.14	100	0	Peak
7	5660.00	35.06	-18.94	54.00	30.05	34.82	6.33	36.14	100	58	Average
8	8950.00	50.20	-23.80	74.00	43.19	36.15	7.74	36.88	100	0	Peak
9	8950.00	37.12	-16.88	54.00	30.11	36.15	7.74	36.88	100	64	Average

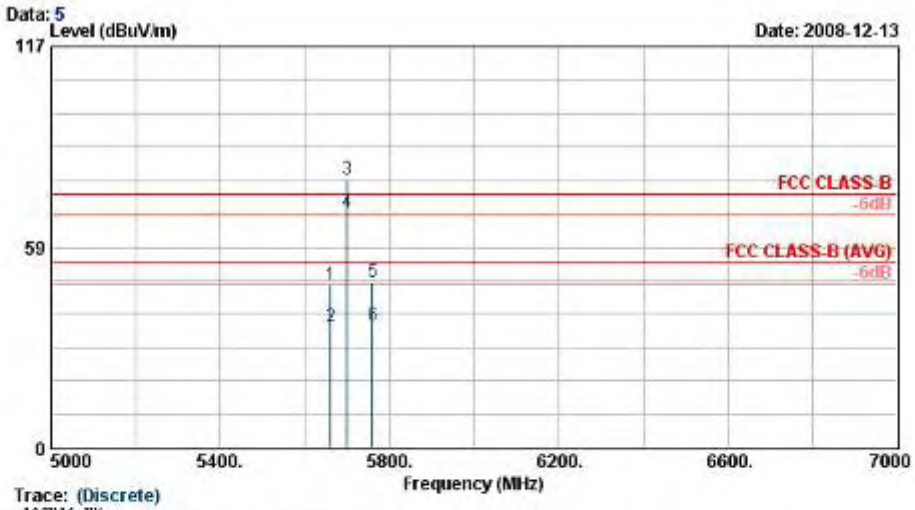
Test Mode :	Mode 6	Temperature :	21~24°C
Test Channel :	120 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#5 and #6 are Fundamental Signals		



Site : 03CH06-HV
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_081031 VERTICAL
Model : FR 8N2104
Mode : 11a Ts_CH120

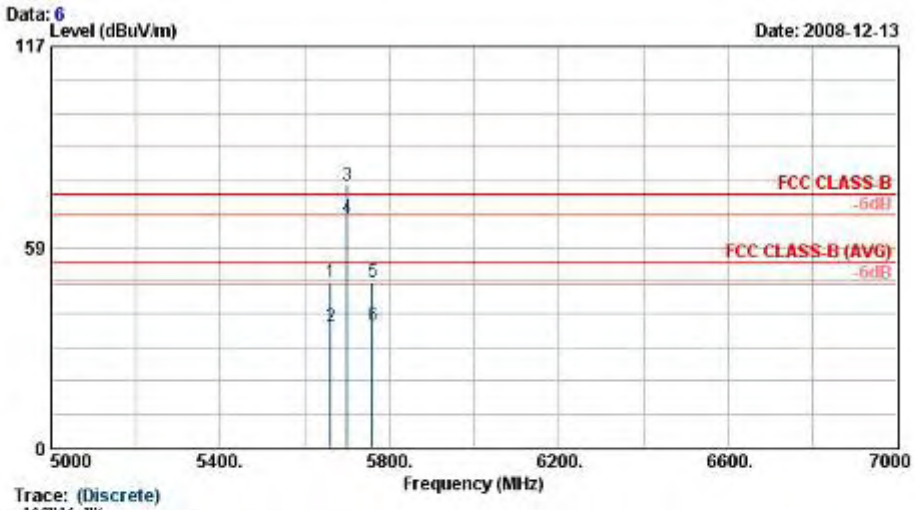
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1668.00	48.68	-25.32	74.00	52.90	29.17	3.01	36.41	100	0	Peak
2	1668.00	27.02	-26.98	54.00	31.25	29.17	3.01	36.41	100	66	Average
3	5560.00	47.30	-26.70	74.00	42.51	34.67	6.24	36.12	100	0	Peak
4	5560.00	34.99	-19.01	54.00	30.20	34.67	6.24	36.12	101	55	Average
5 X	5600.00	74.76			69.86	34.74	6.28	36.13	100	0	Peak
6 @	5600.00	64.80			59.89	34.74	6.28	36.12	101	55	Average
7	5660.00	48.62	-25.38	74.00	43.61	34.82	6.33	36.14	100	0	Peak
8	5660.00	35.07	-18.93	54.00	30.06	34.82	6.33	36.14	101	55	Average
9	8884.00	50.56	-23.44	74.00	43.67	36.08	7.65	36.85	100	0	Peak
10	8884.00	37.48	-16.52	54.00	30.59	36.08	7.65	36.85	100	314	Average

Test Mode :	Mode 7	Temperature :	21~24°C
Test Channel :	140 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



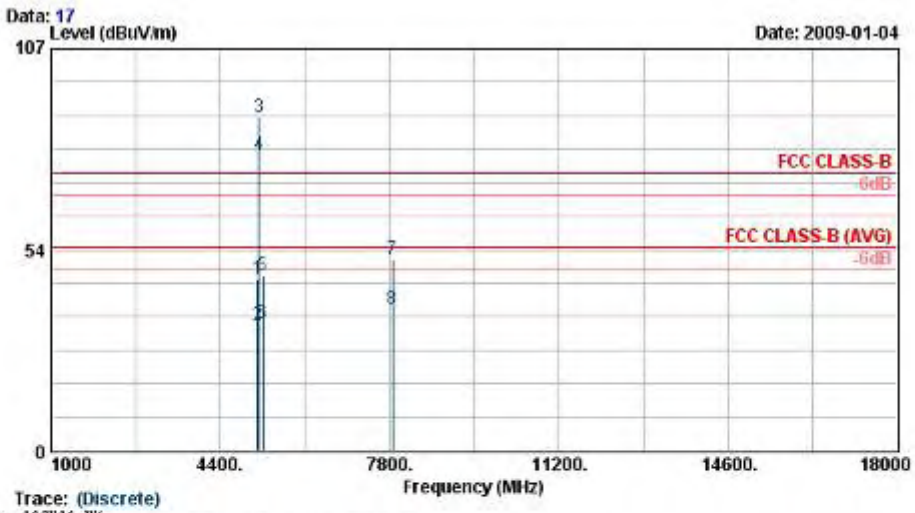
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5660.00	47.48	-26.52	74.00	42.47	34.82	6.33	36.14	100	0	Peak
2	5660.00	35.16	-18.84	54.00	30.15	34.82	6.33	36.14	100	329	Average
3 X	5700.00	78.42			73.30	34.89	6.37	36.14	100	0	Peak
4 @	5700.00	68.69			63.59	34.87	6.37	36.14	100	329	Average
5	5760.00	48.43	-25.57	74.00	43.20	34.96	6.42	36.16	100	0	Peak
6	5760.00	35.85	-18.15	54.00	30.62	34.96	6.42	36.16	100	329	Average

Test Mode :	Mode 7	Temperature :	21~24°C
Test Channel :	140 802.11a	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals		



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5660.00	48.29	-25.71	74.00	43.28	34.82	6.33	36.14	100	0	Peak
2	5660.00	35.36	-18.64	54.00	30.35	34.82	6.33	36.14	100	62	Average
3 X	5700.00	76.71			71.61	34.87	6.37	36.14	100	0	Peak
4 X	5700.00	66.94			61.84	34.87	6.37	36.14	100	62	Average
5	5760.00	48.24	-25.76	74.00	43.02	34.96	6.42	36.16	100	0	Peak
6	5760.00	35.83	-18.17	54.00	30.60	34.96	6.42	36.16	100	62	Average

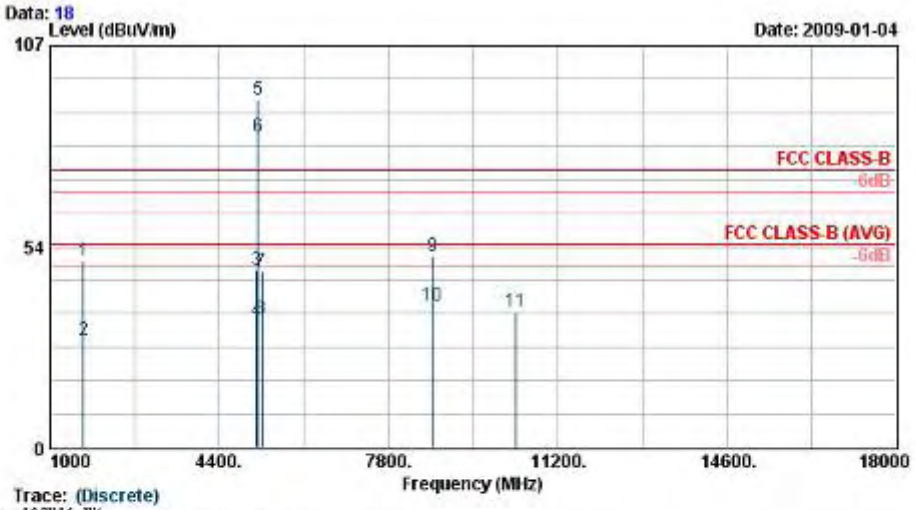
Test Mode :	Mode 8	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT(8-18G)_081031 HORIZONTAL
Model : FR 8N2104
Mode : 11n (20M) , Ant C , Ta_CH36

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5150.00	45.84	-28.16	74.00	41.43	34.53	5.98	36.10	100	0	Peak
2	5150.00	33.27	-20.73	54.00	28.86	34.53	5.98	36.10	100	358	Average
3 X	5180.00	88.62			84.19	34.53	6.00	36.10	100	0	Peak
4 X	5180.00	78.69			74.26	34.54	6.00	36.10	100	358	Average
5	5250.00	46.48	-27.52	74.00	41.99	34.55	6.04	36.10	100	0	Peak
6	5250.00	33.77	-20.23	54.00	29.28	34.55	6.04	36.10	100	358	Average
7	7854.00	50.72	-23.28	74.00	44.30	35.64	7.45	36.67	100	0	Peak
8	7854.00	37.60	-16.40	54.00	31.18	35.64	7.45	36.67	100	123	Average

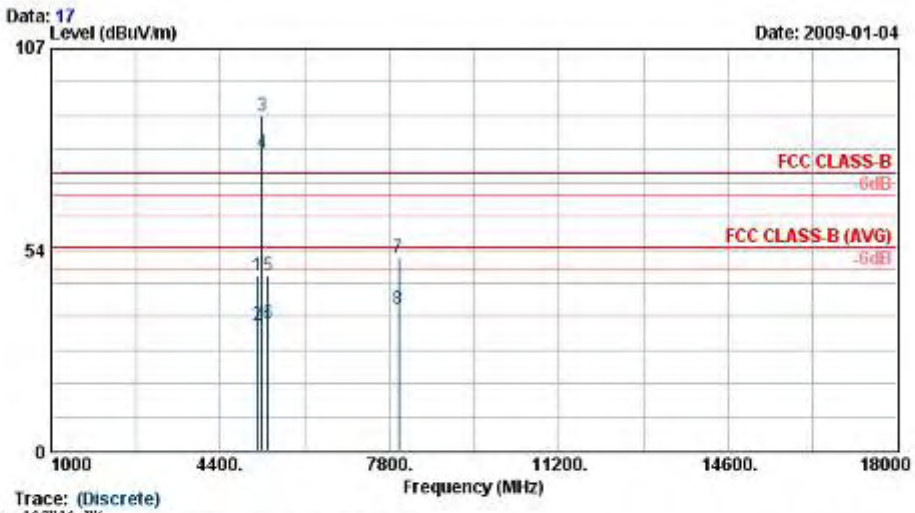
Test Mode :	Mode 8	Temperature :	21~24°C
Test Channel :	36 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#5 and #6 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT(8-18G)_081031 VERTICAL
Model : FR 8N2104
Mode : 11n (20M) , Ant C , Ta_CH36

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1668.00	49.80	-24.20	74.00	54.02	29.17	3.01	36.41	100	0	Peak
2	1668.00	28.77	-25.23	54.00	33.00	29.17	3.01	36.41	100	245	Average
3	5150.00	47.22	-26.78	74.00	42.81	34.53	5.98	36.10	100	0	Peak
4	5150.00	33.98	-20.02	54.00	29.57	34.53	5.98	36.10	100	69	Average
5 X	5180.00	92.66			88.23	34.53	6.00	36.10	100	0	Peak
6 @	5180.00	82.61			78.18	34.54	6.00	36.10	100	69	Average
7	5250.00	47.03	-26.97	74.00	42.54	34.55	6.04	36.10	100	0	Peak
8	5250.00	34.13	-19.87	54.00	29.64	34.55	6.04	36.10	100	69	Average
9	8676.00	50.75	-23.25	74.00	44.22	35.88	7.42	36.77	100	0	Peak
10	8676.00	37.73	-16.27	54.00	31.20	35.88	7.42	36.77	100	99	Average
11	10360.00	36.39	-37.61	74.00	74.15	-9.16	8.25	36.85	100	0	Peak

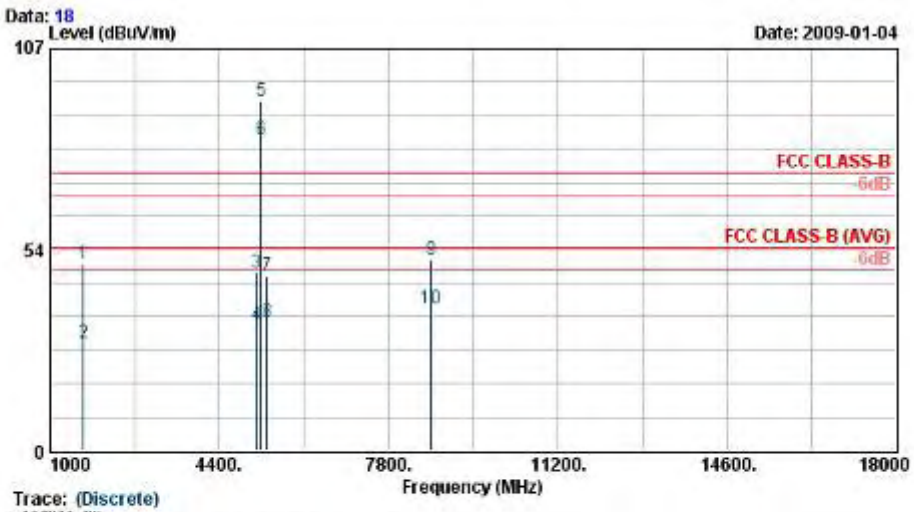
Test Mode :	Mode 9	Temperature :	21~24°C
Test Channel :	48 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT(8-18G)_081031 HORIZONTAL
Model : FR 8N2104
Mode : 11n (20M) , Ant C , Ta_CH48

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5150.00	46.43	-27.57	74.00	42.02	34.53	5.98	36.10	100	0	Peak
2	5150.00	33.26	-20.74	54.00	28.85	34.53	5.98	36.10	100	4	Average
3 X	5240.00	89.15			84.66	34.55	6.04	36.10	100	0	Peak
4 X	5240.00	79.19			74.71	34.55	6.04	36.10	100	4	Average
5	5350.00	46.50	-27.50	74.00	41.94	34.57	6.09	36.10	100	0	Peak
6	5350.00	33.81	-20.19	54.00	29.25	34.57	6.09	36.10	100	4	Average
7	7974.00	51.31	-22.69	74.00	44.81	35.69	7.51	36.69	100	0	Peak
8	7974.00	37.90	-16.10	54.00	31.40	35.69	7.51	36.69	100	196	Average

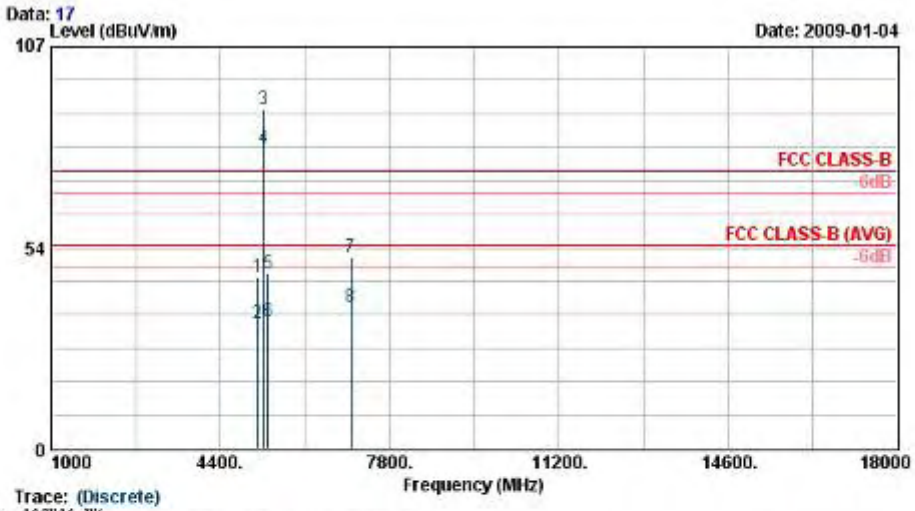
Test Mode :	Mode 9	Temperature :	21~24°C
Test Channel :	48 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#5 and #6 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_061031 VERTICAL
Model : FR 8N2104
Mode : 11n (20M) , Ant C , Tx_CH48

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	1662.00	49.60	-24.40	74.00	53.82	29.17	3.01	36.41	100	0	Peak
2	1662.00	28.58	-25.42	54.00	32.81	29.17	3.01	36.41	100	116	Average
3	5150.00	47.27	-26.73	74.00	42.86	34.53	5.98	36.10	100	0	Peak
4	5150.00	33.58	-20.42	54.00	29.17	34.53	5.98	36.10	100	71	Average
5 X	5240.00	93.05			88.57	34.55	6.04	36.10	100	0	Peak
6 @	5240.00	82.87			78.39	34.55	6.04	36.10	100	71	Average
7	5350.00	46.54	-27.46	74.00	41.98	34.57	6.09	36.10	100	0	Peak
8	5350.00	34.12	-19.88	54.00	29.56	34.57	6.09	36.10	100	71	Average
9	8654.00	51.01	-22.99	74.00	44.54	35.85	7.39	36.76	100	0	Peak
10	8654.00	37.78	-16.22	54.00	31.30	35.85	7.39	36.76	100	120	Average

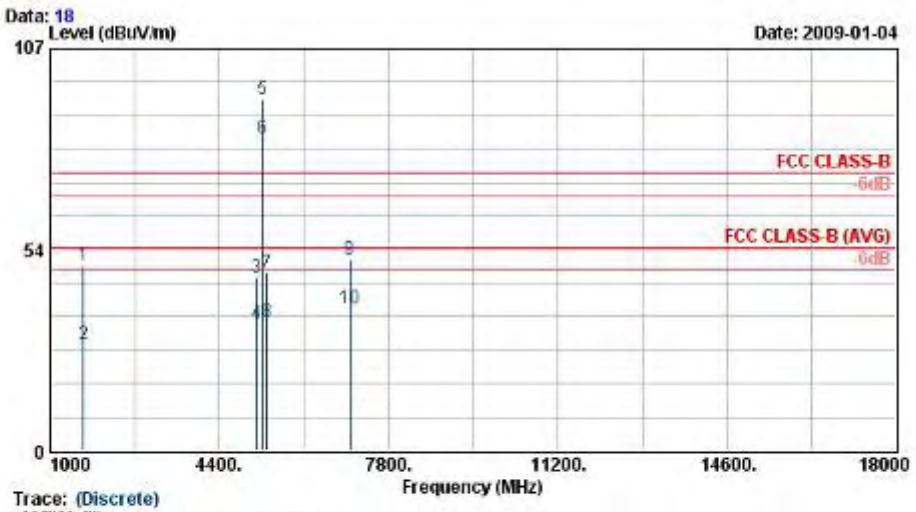
Test Mode :	Mode 10	Temperature :	21~24°C
Test Channel :	52 802.11n (BW 20M, SISO)	Relative Humidity :	41~49%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT(8-18G)_081031 HORIZONTAL
Model : FR 8N2104
Mode : 11n (20M) , Ant C , Tx_CH52

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	5150.00	45.68	-28.32	74.00	41.27	34.53	5.98	36.10	100	0	Peak
2	5150.00	33.22	-20.78	54.00	28.81	34.53	5.98	36.10	100	353	Average
3 X	5260.00	90.22			85.71	34.55	6.05	36.10	100	0	Peak
4 X	5260.00	80.10			75.59	34.55	6.05	36.10	100	353	Average
5	5350.00	46.37	-27.63	74.00	41.81	34.57	6.09	36.10	100	0	Peak
6	5350.00	33.82	-20.18	54.00	29.26	34.57	6.09	36.10	100	353	Average
7	7012.00	51.06	-22.94	74.00	44.68	35.69	7.09	36.41	100	0	Peak
8	7012.00	37.81	-16.19	54.00	31.44	35.69	7.09	36.41	100	25	Average

Test Mode :	Mode 10	**Temperature :**	21~24°C
Test Channel :	52 802.11n (BW 20M, SISO)	**Relative Humidity :**	41~49%
Test Engineer :	Sun Wang	**Polarization :**	Vertical
Remark :	#5 and #6 are Fundamental Signals		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m HF-ANT(6-18G)_061031 VERTICAL
Model : FR 8N2104
Mode : 11n (20M) , Ant C , Tx_CH52

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		1668.00	49.33	-24.67	74.00	53.56	29.17	3.01	36.41	100	0	Peak
2		1668.00	28.20	-25.80	54.00	32.43	29.17	3.01	36.41	100	79	Average
3		5150.00	46.27	-27.73	74.00	41.86	34.53	5.98	36.10	100	0	Peak
4		5150.00	33.61	-20.39	54.00	29.20	34.53	5.98	36.10	100	70	Average
5	X	5260.00	93.40			88.91	34.55	6.04	36.10	100	0	Peak
6	@	5260.00	83.31			78.80	34.55	6.05	36.10	100	70	Average
7		5350.00	47.24	-26.76	74.00	42.68	34.57	6.09	36.10	100	0	Peak
8		5350.00	34.12	-19.88	54.00	29.56	34.57	6.09	36.10	100	70	Average
9		7012.00	51.09	-22.91	74.00	44.72	35.69	7.09	36.41	100	0	Peak
10		7012.00	37.90	-16.10	54.00	31.53	35.69	7.09	36.41	100	173	Average