

FCC RADIO TEST REPORT

according to

47 CFR FCC Part 15 Subpart C § 15.247

Equipment : TG587n v2
Model No. : DSLWBA683FN
Filing Type : New Application
FCC ID : RSE-TG587NV2
Trade Name : THOMSON
Applicant : Thomson Telecom Belgium
Prins Boudewijnlaan 47 B-2650 Edegem Belgium

Statement

Test result included is only for the 802.11b/g/n Dipole Antenna part of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in **ANSI C63.4-2003** and **47 CFR FCC Part 15 Subpart C**.

The test equipment used to perform the test is calibrated and traceable to NML/ROC.



SPORTON International Inc.

6F, No. 106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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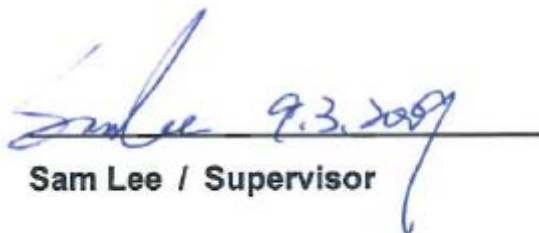
CERTIFICATE OF COMPLIANCE

according to

47 CFR FCC Part 15 Subpart C § 15.247

Equipment : TG587n v2
Model No. : DSLWBA683FN
Trade Name : THOMSON
Applicant : Thomson Telecom Belgium
Prins Boudewijnlaan 47 B-2650 Edegem
Belgium

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Jan. 22, 2009 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.



Sam Lee / Supervisor

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

1 SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	Rule Section	Description of Test	Result	Under Limit
3.1	15.207	AC Power Line Conducted Emissions	Complies	11.13 dB
3.2	15.247(b)(3)	Maximum Conducted Output Power	Complies	10.06 dB
3.3	15.247(e)	Power Spectral Density	Complies	14.66 dB
3.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
3.5	15.247(d)	Radiated Emissions	Complies	2.81 dB
3.6	15.247(d)	Band Edge Emissions	Complies	0.08 dB
3.7	15.203	Antenna Requirements	Complies	-

Test Items	Uncertainty	Remark
AC Power Line Conducted Emissions	±2.3dB	Confidence levels of 95%
Maximum Peak Conducted Output Power	±0.8dB	Confidence levels of 95%
Power Spectral Density	±0.5dB	Confidence levels of 95%
6dB Spectrum Bandwidth	±8.5×10 ⁻⁸	Confidence levels of 95%
Radiated Emissions (9kHz~30MHz)	±0.8dB	Confidence levels of 95%
Radiated Emissions (30MHz~1000MHz)	±1.9dB	Confidence levels of 95%
Radiated / Band Edge Emissions (1GHz~18GHz)	±1.9dB	Confidence levels of 95%
Radiated Emissions (18GHz~40GHz)	±1.9dB	Confidence levels of 95%
Temperature	±0.7°C	Confidence levels of 95%
Humidity	±3.2%	Confidence levels of 95%
DC / AC Power Source	±1.4%	Confidence levels of 95%

1.1 Information provided by the manufacturer

The design of the following products is identical to TG587n v2, Model: DSLWBA683FN but with lesser functions & components equipped or with minor modifications.

Therefore, the following variant products that existed at the time of the qualification of the TG587n v2 can also be covered by this test report:

Interface Equipment	Model Number	DC 22Vdc, 818mA	ADSL/2/2+	Ethernet 10/100M bps	USB 2.0 Host	WLAN IEEE 802.11bgn
TG587n v2 (EUT)	DSLWBA683FN	●	●(AnnexA)	●(4 port)	●(2 port)	●
TG585n v2	DSLWBA683JF	●	●(AnnexA)	●(4 port)	○	●

● : Equipped

○ : Not Equipped

2 GENERAL INFORMATION

2.1 Product Details

The radio detail of IEEE 802.11b/g/n is shown in the table below. For more detailed features description, please refer to the manufacturer's specifications or user's manual.

Items	Description
Power Type	22V from adapter
Modulation	DSSS for IEEE 802.11b ; OFDM for IEEE 802.11g and IEEE 802.11n
Data Modulation	DSSS (DBPSK / DQPSK / CCK) ; OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	802.11b: 1/ 2/ 5.5/11Mbps ; 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: 6.5/13/19.5/26/39/52/58.5/65/78/104/117/130 Mbps
Frequency Range	2400 ~ 2483.5MHz
Channel Number	11b/g/n: 11
Channel Band Width (99%)	11b: 13.20 MHz ; 11g: 16.56 MHz ; 11n: 17.72 MHz
Conducted Output Power	11b: 15.56 dBm ; 11g: 17.15 dBm ; 11n: 19.94 dBm

2.2 Accessories

Power	Brand	Model	Rating
Switching-Type Power Adapter	OEM	ADS18B-W220082	Input:100-240V, 50-60Hz 0.5A Output: 22V, 818mA
Switching-Type Power Adapter	FRIWO	FW7348S/22	Input:100-240V, 50-60Hz 400mA Output: 22V, 818mA

2.3 Table for Filed Antenna

Antenna & Bandwidth

Antenna	1st (TX)		2nd (TX)	
	20 MHz	40 MHz	20 MHz	40 MHz
802.11b	V	X	X	X
802.11g	V	X	X	X
802.11n	V	X	V	X

	Ant. 1(WJ1)	Ant. 2(WJ2)	
2412MHz	1.94	2.25	dBi
2472MHz	2.69	3.01	dBi

The test result of Ant1+Ant2 is calculation in this report.

IEEE 802.11n Modulation Scheme

MCS Index	Nss	Modulation	R	NBPSC	NCBPS		NDBPS		Data rate(Mbps)
					20MHz		20MHz		800nsGI
					20MHz		20MHz		20MHz
0	1	BPSK	1/2	1	52	26	26	26	6.5
1	1	QPSK	1/2	2	104	52	52	52	13.0
2	1	QPSK	3/4	2	104	78	78	78	19.5
3	1	16-QAM	1/2	4	208	104	104	104	26.0
4	1	16-QAM	3/4	4	208	156	156	156	39.0
5	1	64-QAM	2/3	6	312	208	208	208	52.0
6	1	64-QAM	3/4	6	312	234	234	234	58.5
7	1	64-QAM	5/6	6	312	260	260	260	65.0
8	2	BPSK	1/2	1	104	52	52	52	13.0
9	2	QPSK	1/2	2	208	104	104	104	26.0
10	2	QPSK	3/4	2	208	156	156	156	39.0
11	2	16-QAM	1/2	4	416	208	208	208	52.0
12	2	16-QAM	3/4	4	416	312	312	312	78.0
13	2	64-QAM	2/3	6	624	416	416	416	104.0
14	2	64-QAM	3/4	6	624	468	468	468	117.0
15	2	64-QAM	5/6	6	624	520	520	520	130.0

Symbol	Explanation
NSS	Number of spatial streams
R	Code rate
NBPSC	Number of coded bits per single carrier
NCBPS	Number of coded bits per symbol
NDBPS	Number of data bits per symbol
GI	guard interval

2.4 Table for Carrier Frequencies

Frequency Allocation for 802.11b/g/n

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	1	2412 MHz	7	2442 MHz
	2	2417 MHz	8	2447 MHz
	3	2422 MHz	9	2452 MHz
	4	2427 MHz	10	2457 MHz
	5	2432 MHz	11	2462 MHz
	6	2437 MHz	-	-

2.5 Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on the entire possible configuration for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel
AC Power Line Conducted Emissions	Mode 1. OEM adapter	Auto	-
	Mode 2. FRIWO adapter		
Maximum Conducted Output Power	11b/BPSK	1Mbps	1/6/11
Power Spectral Density	11g/BPSK	6 Mbps	1/6/11
6dB Spectrum Bandwidth	11n/BPSK (ANT1 or ANT2)	6.5 Mbps	1/6/11
Radiated Emissions Above 1GHz	11n/BPSK (ANT1+ANT2)	13Mbps (MCS8)	
Band Edge Emissions			
Radiated Emissions Below 1GHz	Mode 1. OEM adapter	Auto	-
	Mode 2. FRIWO adapter		

2.6 Table for Testing Locations

Test Site No.	Site Category	Location	Test Site No.	Site Category	Location
CO01- CB	Conduction	JHUBEI	TH01-CB	OVEN Room	JHUBEI
10CH01-CB	SAC	JHUBEI	03CH03- CB	SAC	JHUBEI

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC); Fully Anechoic Chamber (FAC).

2.7 Table for Supporting Units

Support Unit	Brand	Model	FCC ID
Notebook	DELL	1200	N/A

2.8 Table for Parameters of Test Software Setting

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. 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.

Power Parameters of IEEE 802.11b/g (Ant.1)

Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	DEFAULT	DEFAULT	DEFAULT
IEEE 802.11g	DEFAULT	DEFAULT	DEFAULT

Power Parameters of IEEE 802.11b/g (Ant.2)

Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	DEFAULT	DEFAULT	DEFAULT
IEEE 802.11g	DEFAULT	DEFAULT	DEFAULT

Power Parameters of IEEE 802.11n (Ant.1)

Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11n	DEFAULT	DEFAULT	DEFAULT

Power Parameters of IEEE 802.11n (Ant.2)

Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11n	DEFAULT	DEFAULT	DEFAULT

Power Parameters of IEEE 802.11n (Ant.1+ Ant.2)

Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11n	DEFAULT	DEFAULT	DEFAULT

2.9 EUT Operation during Test

An executive program, EMCTEST.EXE under WIN XP, which generates a complete line of continuously repeating “H” pattern was used as the test software.

The NB sends “H” messages to the panel, and the panel displays “H” patterns on the screen.

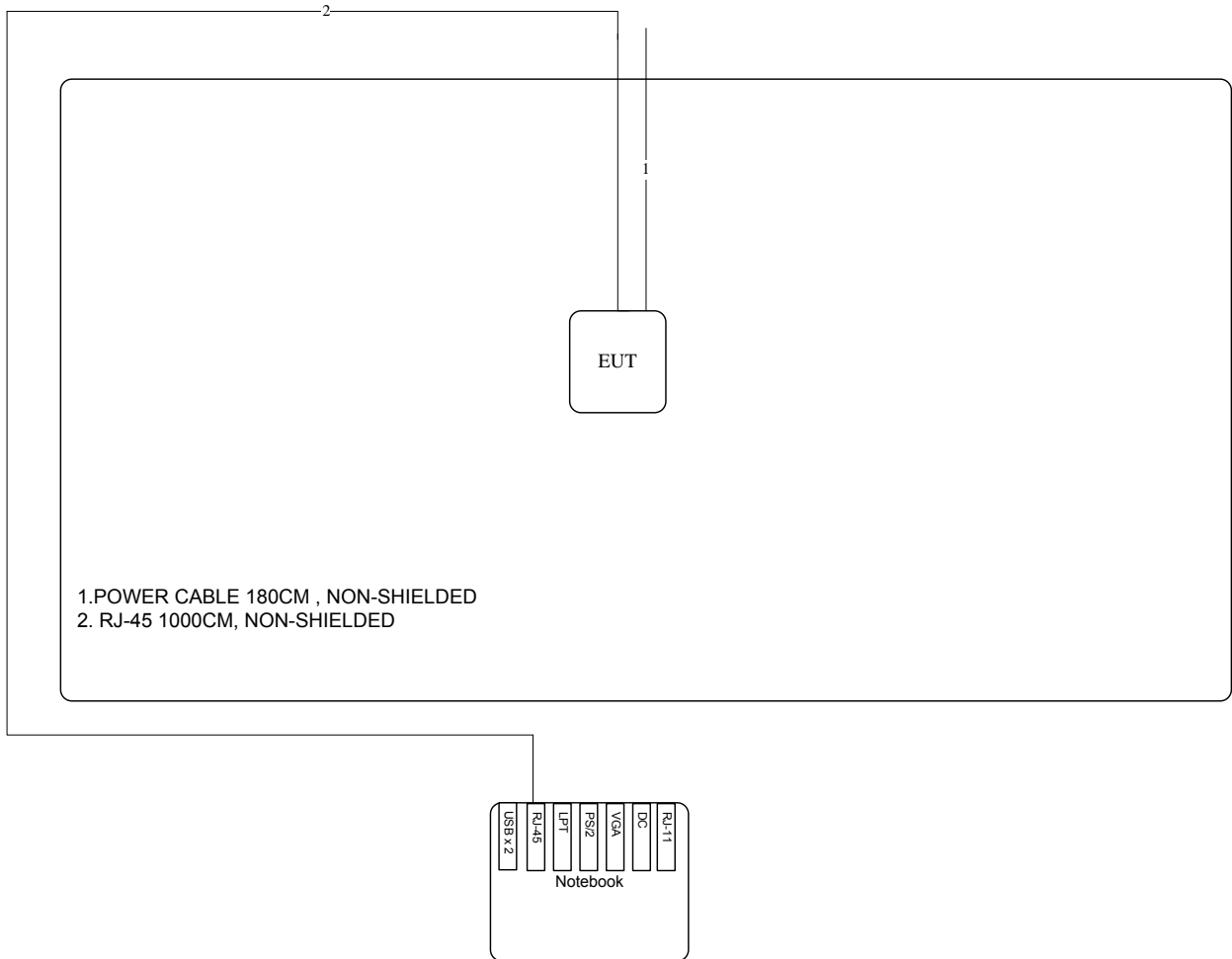
Executed "ping.exe" to link with the remote workstation to receive and transmit data by LAN and WLAN.

Executed “Telnet” to keep transmitting signals at fixed frequency.

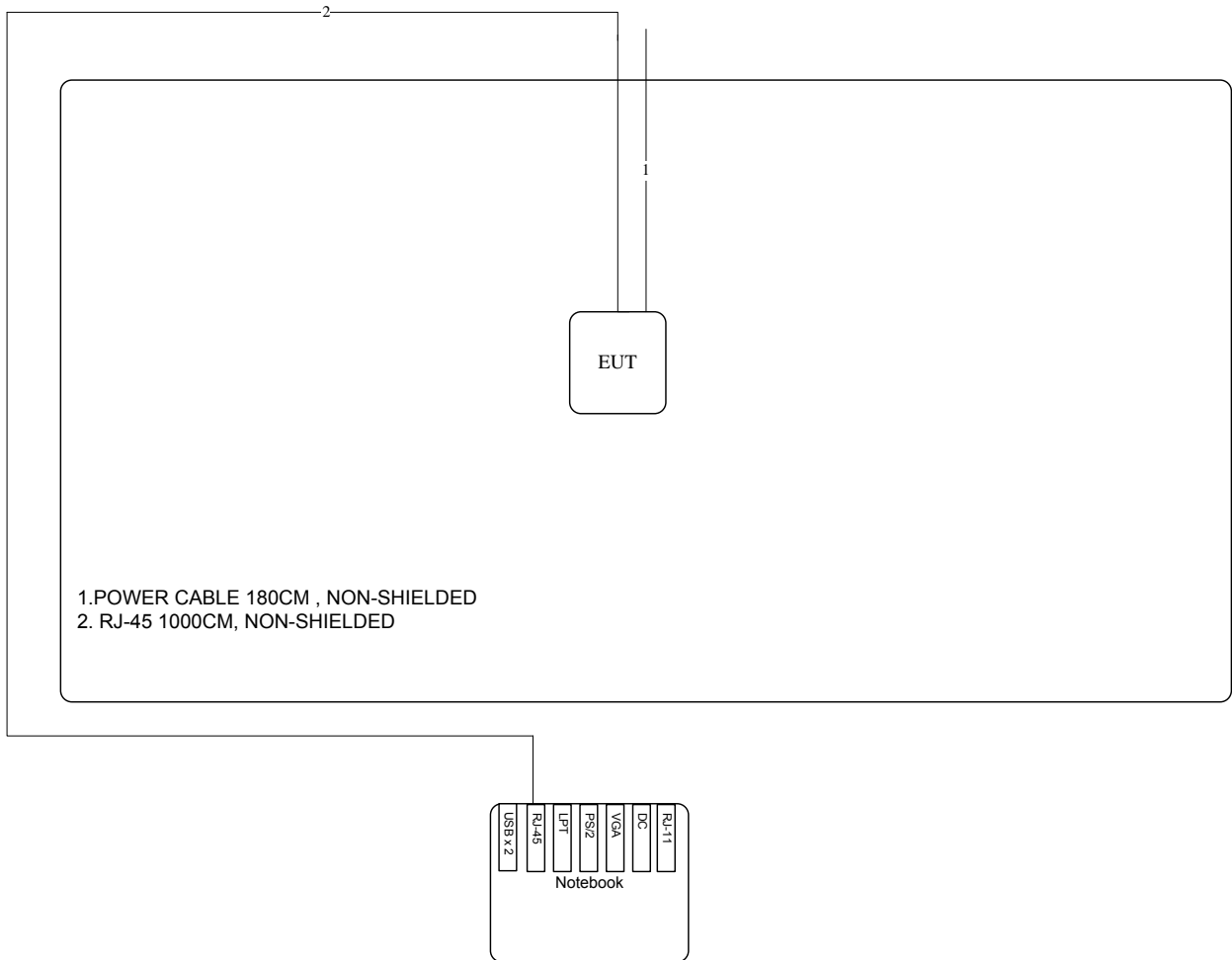
2.10 Test Configuration

2.10.1 Radiation Emissions Test Configuration

For radiated emissions 9kHz~1GHz



For radiated emissions above 1GHz



3 TEST RESULT

3.1 AC Power Line Conducted Emissions Measurement

3.1.1 Limit

For this product which is designed to be connected to the 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 below limits table.

Class B

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

3.1.2 Measuring Instruments and Setting

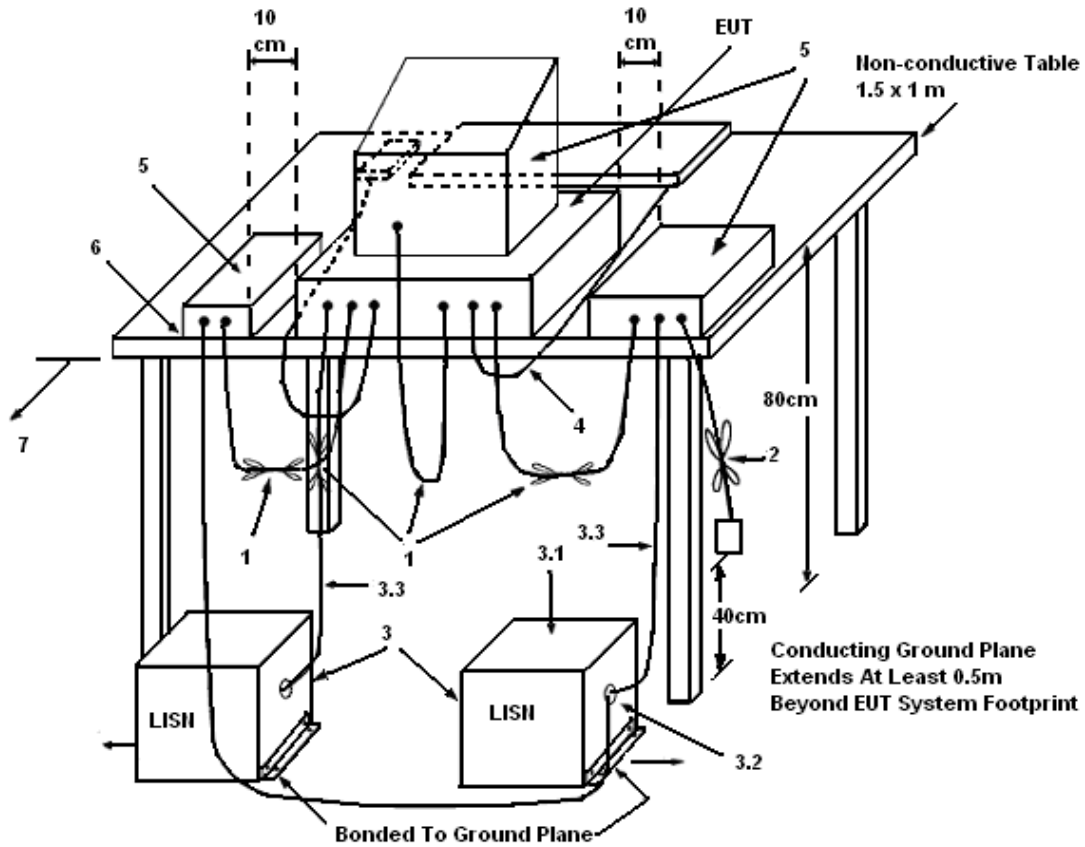
Please refer to section 4 of equipments list in this report. The following table is the setting of the receiver.

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 KHz

3.1.3 Test Procedures

1. Configure the EUT according to ANSI C63.4. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 KHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.

3.1.4 Test Setup Layout



LEGEND:

- (1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- (2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- (3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference ground plane.
- (3.1) All other equipment powered from additional LISN(s).
- (3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.
- (3.3) LISN at least 80 cm from nearest part of EUT chassis.
- (4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.
- (5) Non-EUT components of EUT system being tested.
- (6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.
- (7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

3.1.5 Test Deviation

There is no deviation with the original standard.

3.1.6 EUT Operation during Test

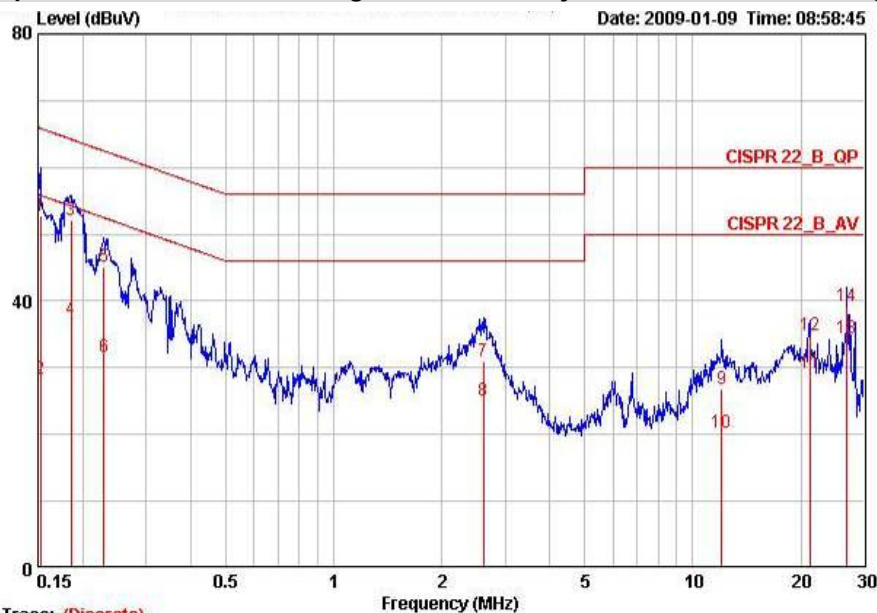
The EUT was placed on the test table and programmed in normal function.

3.1.7 Results of AC Power Line Conducted Emissions Measurement

Adapter	OEM	Temperature	23°C
Test Engineer	Peter Wu	Humidity	54%

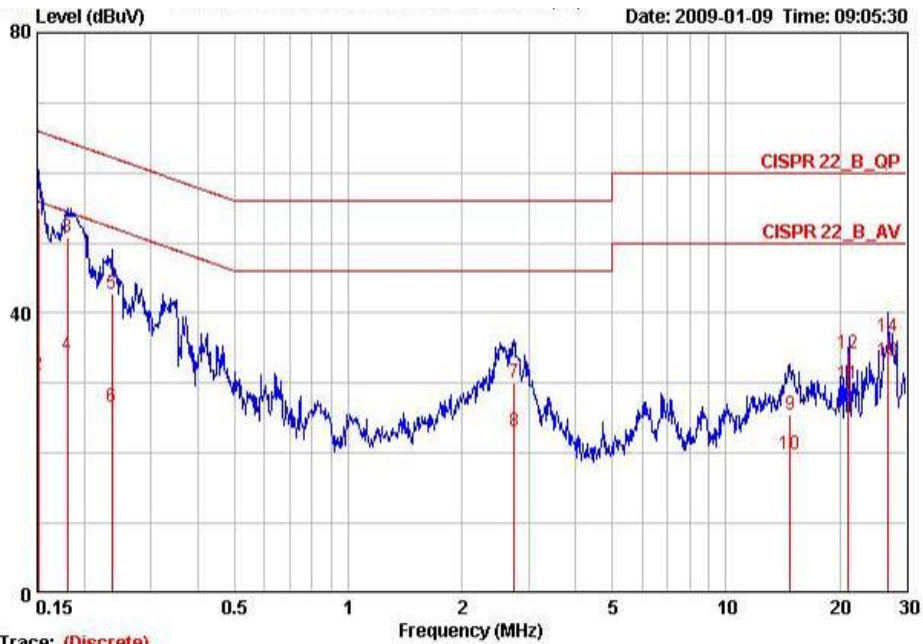
Note: Corrected Reading (dBµV) = LISN Factor + Cable Loss + Read Level = Level

■ The test was passed at the minimum margin that marked by the frame in the following data



Trace: (Discrete)
 Site : CO01-CB
 Condition : CISPR 22_B_QP LISN 080609 LINE
 eut : TG587n V2 PEM2
 power : AC 110V/60Hz
 Engineer : Peter
 Temp : 23
 Relative Humidity : 54
 Atmosphere : 98.6kPa
 memo : All function work
 : ADSL 2+ link
 : FCC OEM Adapter type :AD518B-W 220082
 : AC ports
 : NB-C Ping Test

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.15240	52.85	-13.01	65.87	52.58	0.07	0.20	QP
2	0.15240	28.38	-27.48	55.87	28.11	0.07	0.20	AVERAGE
3	0.18541	52.16	-12.08	64.24	51.90	0.06	0.20	QP
4	0.18541	37.35	-16.89	54.24	37.09	0.06	0.20	AVERAGE
5	0.22918	45.02	-17.46	62.48	44.77	0.05	0.20	QP
6	0.22918	31.56	-20.92	52.48	31.31	0.05	0.20	AVERAGE
7	2.608	30.92	-25.08	56.00	30.65	0.07	0.20	QP
8	2.608	25.03	-20.97	46.00	24.76	0.07	0.20	AVERAGE
9	12.060	26.71	-33.29	60.00	25.87	0.44	0.40	QP
10	12.060	20.28	-29.72	50.00	19.44	0.44	0.40	AVERAGE
11	21.174	29.24	-20.76	50.00	27.84	0.90	0.50	AVERAGE
12	21.174	34.78	-25.22	60.00	33.38	0.90	0.50	QP
13	26.831	34.39	-15.61	50.00	32.57	1.25	0.57	AVERAGE
14	26.831	39.33	-20.67	60.00	37.51	1.25	0.57	QP



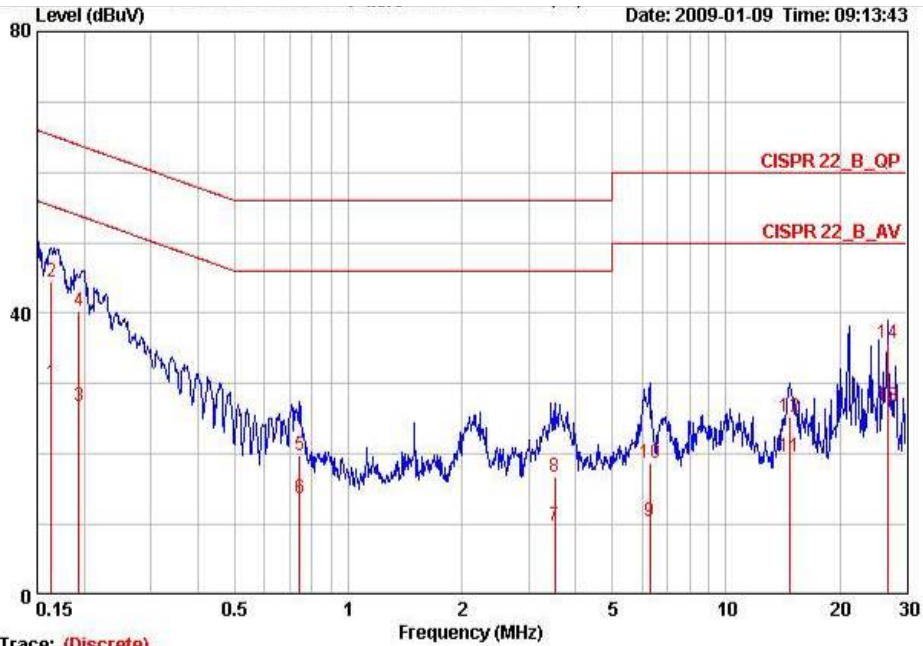
Trace: (Discrete)
 Site : CO01-CB
 Condition : CISPR 22_B_QP LISN 080609 NEUTRAL
 eut : TG587n V2 PEM2
 power : AC 110V/60Hz
 Engineer : Peter
 Temp : 23
 Relative Humidity : 54
 Atmosphere : 98.6kPa
 memo : All function work
 : ADSL 2+ link
 : FCC OEM Adapter type :AD518B- W 220082
 : AC ports
 : NB-C Ping Test

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.15080	54.82	-11.13	65.96	54.52	0.10	0.20	QP
2	0.15080	31.14	-24.81	55.96	30.84	0.10	0.20	AVERAGE
3	0.18056	50.74	-13.72	64.46	50.45	0.09	0.20	QP
4	0.18056	34.01	-20.45	54.46	33.72	0.09	0.20	AVERAGE
5	0.23658	42.75	-19.47	62.22	42.47	0.08	0.20	QP
6	0.23658	26.51	-25.71	52.22	26.23	0.08	0.20	AVERAGE
7	2.750	30.14	-25.86	56.00	29.83	0.11	0.20	QP
8	2.750	23.02	-22.98	46.00	22.71	0.11	0.20	AVERAGE
9	14.750	25.51	-34.49	60.00	24.55	0.56	0.40	QP
10	14.750	19.90	-30.10	50.00	18.94	0.56	0.40	AVERAGE
11	21.113	29.89	-20.11	50.00	28.50	0.89	0.50	AVERAGE
12	21.113	34.17	-25.83	60.00	32.78	0.89	0.50	QP
13	26.809	33.11	-16.89	50.00	31.25	1.29	0.57	AVERAGE
14	26.809	36.56	-23.44	60.00	34.70	1.29	0.57	QP

Adapter	FRIWO	Temperature	23°C
Test Engineer	Peter Wu	Humidity	54%

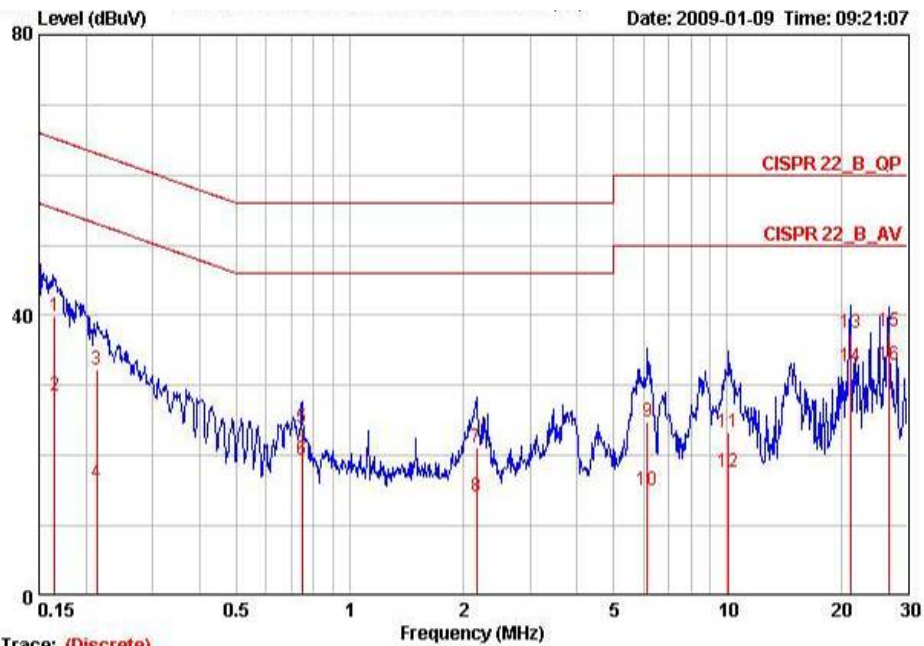
Note: Corrected Reading (dBμV) = LISN Factor + Cable Loss + Read Level = Level

■ The test was passed at the minimum margin that marked by the frame in the following data



Trace: (Discrete)
 Site : CO01-CB
 Condition : CISPR 22_B_QP LISN 080609 LINE
 eut : TG587n V2 PEM2
 power : AC 110V/60Hz
 Engineer : Peter
 Temp : 23
 Relative Humidity : 54
 Atmosphere : 98.6kPa
 memo : All function work
 : ADSL 2+ link
 : FCC Firwo Adapter type :FW73485/22
 : AC ports
 : NB-C Ping Test

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.16360	29.99	-25.29	55.28	29.72	0.07	0.20	AVERAGE
2	0.16360	44.42	-20.86	65.28	44.15	0.07	0.20	QP
3	0.19383	26.71	-27.16	53.87	26.46	0.05	0.20	AVERAGE
4	0.19383	40.22	-23.65	63.87	39.97	0.05	0.20	QP
5	0.74302	19.93	-36.07	56.00	19.70	0.03	0.20	QP
6	0.74302	13.70	-32.30	46.00	13.47	0.03	0.20	AVERAGE
7	3.528	9.79	-36.21	46.00	9.40	0.09	0.30	AVERAGE
8	3.528	16.77	-39.23	56.00	16.38	0.09	0.30	QP
9	6.285	10.49	-39.51	50.00	9.91	0.22	0.36	AVERAGE
10	6.285	18.77	-41.23	60.00	18.19	0.22	0.36	QP
11	14.700	19.62	-30.38	50.00	18.68	0.54	0.40	AVERAGE
12	14.700	25.31	-34.69	60.00	24.37	0.54	0.40	QP
13	26.747	26.91	-23.09	50.00	25.13	1.25	0.53	AVERAGE
14	26.747	35.71	-24.29	60.00	33.93	1.25	0.53	QP



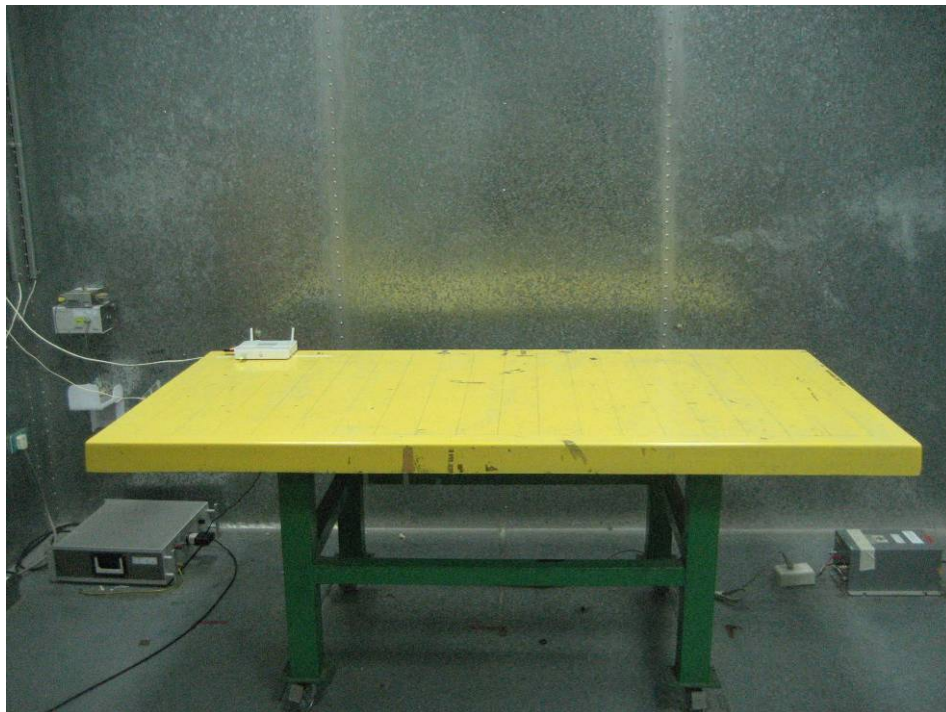
Trace: (Discrete)
 Site : CO01-CB
 Condition : CISPR 22_B_QP LISN 080609 NEUTRAL
 eut : TG587n V2 PEM2
 power : AC 110V/60Hz
 Engineer : Peter
 Temp : 23
 Relative Humidity : 54
 Atmosphere : 98.6kPa
 memo : All function work
 : ADSL 2+ link
 : FCC Firwo Adapter type :FW7348S/22
 : AC ports
 : NB-C Ping Test

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.16521	40.00	-25.20	65.20	39.70	0.10	0.20	QP
2	0.16521	28.50	-26.70	55.20	28.20	0.10	0.20	AVERAGE
3	0.21392	32.33	-30.72	63.05	32.05	0.08	0.20	QP
4	0.21392	16.21	-36.84	53.05	15.93	0.08	0.20	AVERAGE
5	0.74697	24.06	-31.94	56.00	23.79	0.07	0.20	QP
6	0.74697	19.31	-26.69	46.00	19.04	0.07	0.20	AVERAGE
7	2.167	21.12	-34.88	56.00	20.82	0.10	0.20	QP
8	2.167	14.25	-31.75	46.00	13.95	0.10	0.20	AVERAGE
9	6.153	24.80	-35.20	60.00	24.21	0.26	0.33	QP
10	6.153	14.95	-35.05	50.00	14.36	0.26	0.33	AVERAGE
11	10.072	23.30	-36.70	60.00	22.60	0.39	0.31	QP
12	10.072	17.58	-32.42	50.00	16.88	0.39	0.31	AVERAGE
13	21.173	37.56	-22.44	60.00	36.17	0.89	0.50	QP
14	21.173	32.63	-17.37	50.00	31.24	0.89	0.50	AVERAGE
15	26.734	37.69	-22.31	60.00	35.87	1.29	0.53	QP
16	26.734	32.88	-17.12	50.00	31.06	1.29	0.53	AVERAGE

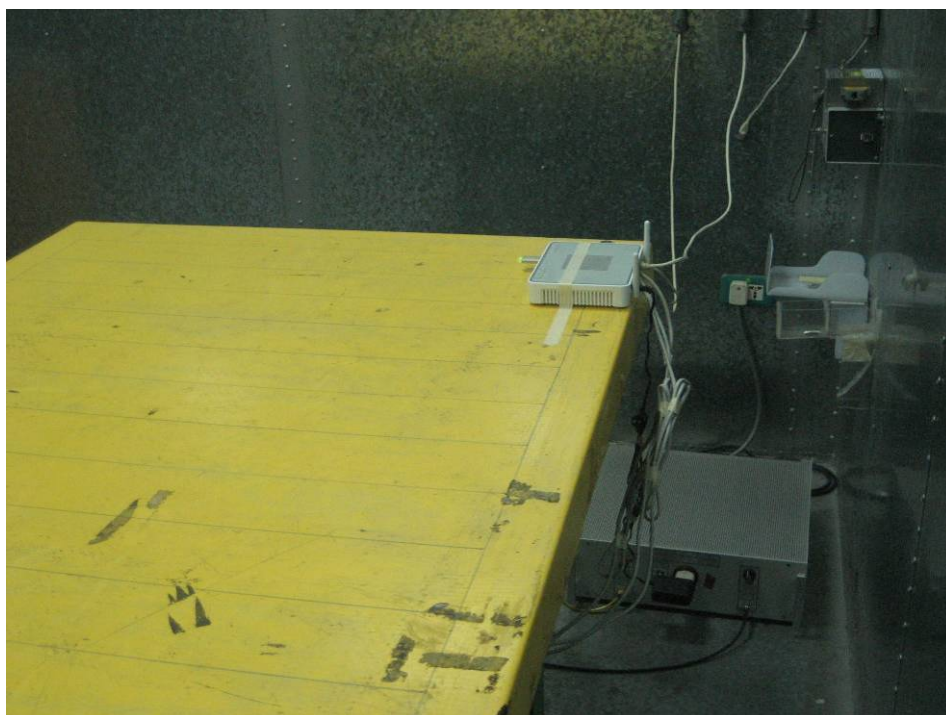
3.2 Photographs of Conducted Power line Test Configuration

- The photographs show the configuration that generates the maximum emission.

FRONT VIEW



REAR VIEW



3.3 Maximum Conducted Output Power Measurement

3.3.1 Limit

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. The limited has to be reduced by the amount in dB that the gain of the antenna exceed 6dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

3.3.2 Measuring Instruments and Setting

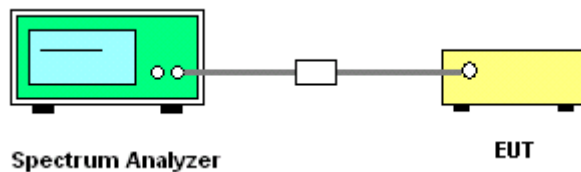
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Power Meter Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz
VB	3000 kHz
Detector	rms
Trace	Max Hold
Sweep Time	Auto

3.3.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Test was performed in accordance with Measurement of Digital Transmission Systems Operating under Section 15.247.

3.3.4 Test Setup Layout



3.3.5 Test Deviation

There is no deviation with the original standard.

3.3.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.3.7 Test Result of Maximum Conducted Output Power

Test date	Aug. 07, 2009	Test Site No.	TH01-CB
Temperature	23°C	Humidity	58%
Test Engineer	Johnson	Configuration	802.11b/g/n

<Ant. 1 connector >

Configuration IEEE 802.11b

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.25	30.00	Complies
6	2437 MHz	15.03	30.00	Complies
11	2462 MHz	14.76	30.00	Complies

Configuration IEEE 802.11g

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.34	30.00	Complies
6	2437 MHz	16.19	30.00	Complies
11	2462 MHz	16.28	30.00	Complies

<Ant. 2 connector >

Configuration IEEE 802.11b

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	15.56	30.00	Complies
6	2437 MHz	15.26	30.00	Complies
11	2462 MHz	15.03	30.00	Complies

Configuration IEEE 802.11g

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.15	30.00	Complies
6	2437 MHz	17.07	30.00	Complies
11	2462 MHz	16.44	30.00	Complies

Configuration of IEEE 802.11n (20MHz) **MCS0**

<Ant. 1 connector >

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.45	30.00	Complies
6	2437 MHz	16.45	30.00	Complies
11	2462 MHz	16.68	30.00	Complies

<Ant. 2 connector >

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.84	30.00	Complies
6	2437 MHz	17.13	30.00	Complies
11	2462 MHz	16.92	30.00	Complies

Configuration of IEEE 802.11n (20MHz) **MCS8**

<Ant. 1 connector >

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	16.53	30.00	Complies
6	2437 MHz	16.30	30.00	Complies
11	2462 MHz	16.13	30.00	Complies

<Ant. 2 connector >

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.30	30.00	Complies
6	2437 MHz	17.31	30.00	Complies
11	2462 MHz	16.69	30.00	Complies

<Ant. 1 +Ant. 2 connector >

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	19.94	30.00	Complies
6	2437 MHz	19.84	30.00	Complies
11	2462 MHz	19.43	30.00	Complies

ex:

ch1 : total power= ant1+ant2= 16.53dBm+17.3dBm=0.045W+0.0537W=0.0987W=19.94dBm

ch6: total power= ant1+ant2= 16.3dBm+17.31dBm=0.0426W+0.0538W=0.0964W=19.84dBm

ch11: total power= ant1+ant2= 16.13dBm+16.69dBm=0.041W+0.0466W=0.0964W=19.43dBm

3.4 Power Spectral Density Measurement

3.4.1 Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

3.4.2 Measuring Instruments and Setting

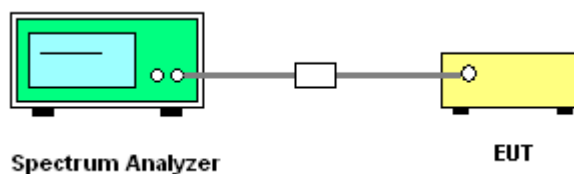
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	30MHz
RB	3 kHz
VB	30 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	10s

3.4.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 3 kHz and VBW to 30 kHz. Set Detector to Peak, Trace to Max Hold.
3. Mark the frequency with maximum peak power as the center of the display of the spectrum.
4. Set the span to 30MHz and the sweep time to 10s and record the maximum peak value.

3.4.4 Test Setup Layout



3.4.5 Test Deviation

There is no deviation with the original standard.

3.4.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.4.7 Test Result of Power Spectral Density

Test date	Aug. 07, 2009	Test Site No.	TH01-CB
Temperature	23°C	Humidity	58%
Test Engineer	Johnson	Configuration	802.11b/g/n

<Ant.1 connector >

Configuration IEEE 802.11b

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-8.70	8.00	Complies
6	2437 MHz	-9.84	8.00	Complies
11	2462 MHz	-8.37	8.00	Complies

Configuration IEEE 802.11g

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-9.34	8.00	Complies
6	2437 MHz	-10.19	8.00	Complies
11	2462 MHz	-11.29	8.00	Complies

<Ant.2 connector >

Configuration IEEE 802.11b

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-9.42	8.00	Complies
6	2437 MHz	-10.35	8.00	Complies
11	2462 MHz	-10.83	8.00	Complies

Configuration IEEE 802.11g

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-8.95	8.00	Complies
6	2437 MHz	-10.79	8.00	Complies
11	2462 MHz	-11.93	8.00	Complies

Configuration of IEEE 802.11n (20MHz)

<MCS0 - Ant. 1 connector >

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-11.08	8.00	Complies
6	2437 MHz	-9.57	8.00	Complies
11	2462 MHz	-11.11	8.00	Complies

<MCS0 - Ant.2 connector >

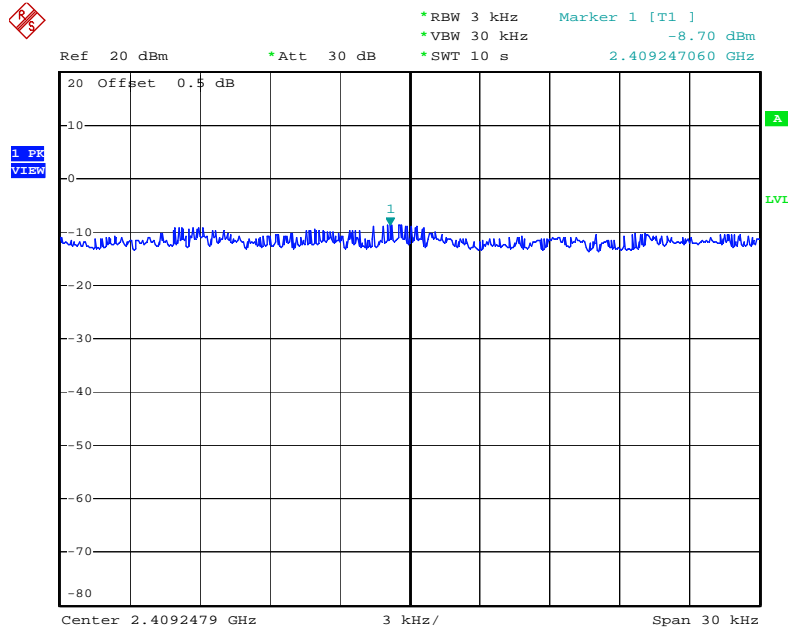
Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-10.73	8.00	Complies
6	2437 MHz	-9.46	8.00	Complies
11	2462 MHz	-9.96	8.00	Complies

<MCS8 - Ant. 1 +Ant. 2 connector >

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	-6.66	8.00	Complies
6	2437 MHz	-9.46	8.00	Complies
11	2462 MHz	-10.40	8.00	Complies

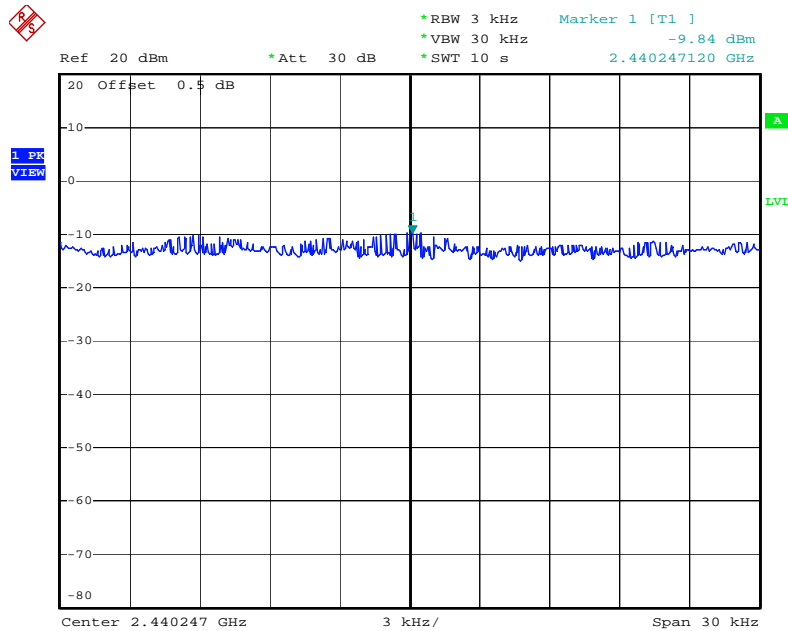
<Ant. 1 connector >

Power Density Plot on Configuration IEEE 802.11b / 2412 MHz



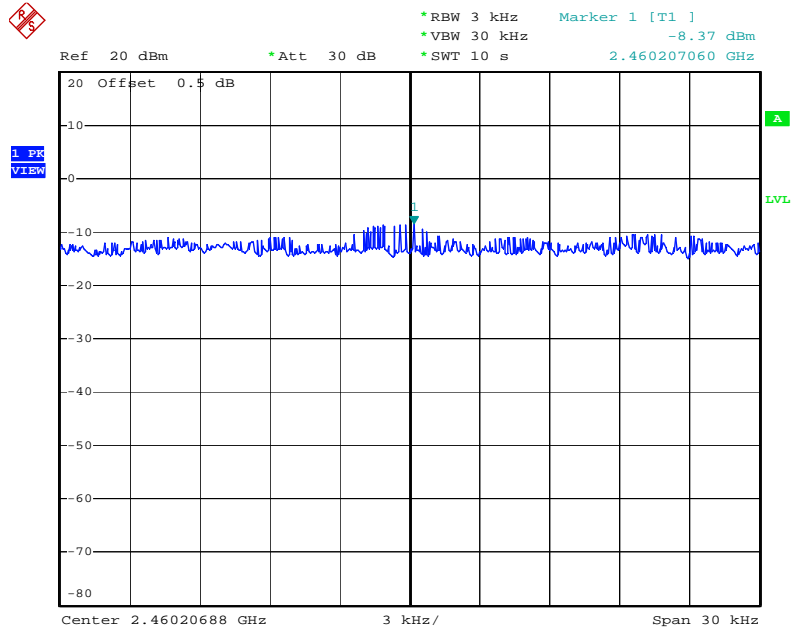
Date: 6.AUG.2009 17:53:04

Power Density Plot on Configuration IEEE 802.11b / 2437 MHz



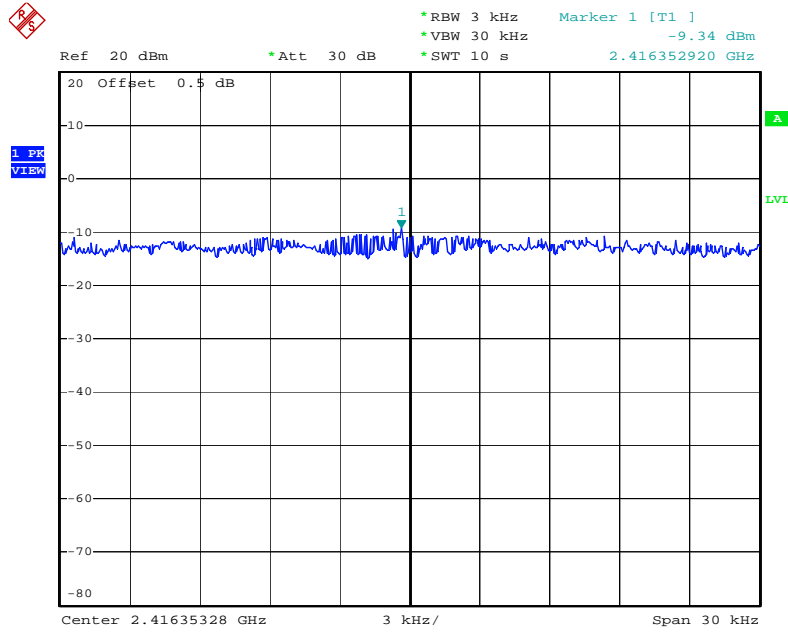
Date: 6.AUG.2009 17:55:36

Power Density Plot on Configuration IEEE 802.11b / 2462 MHz



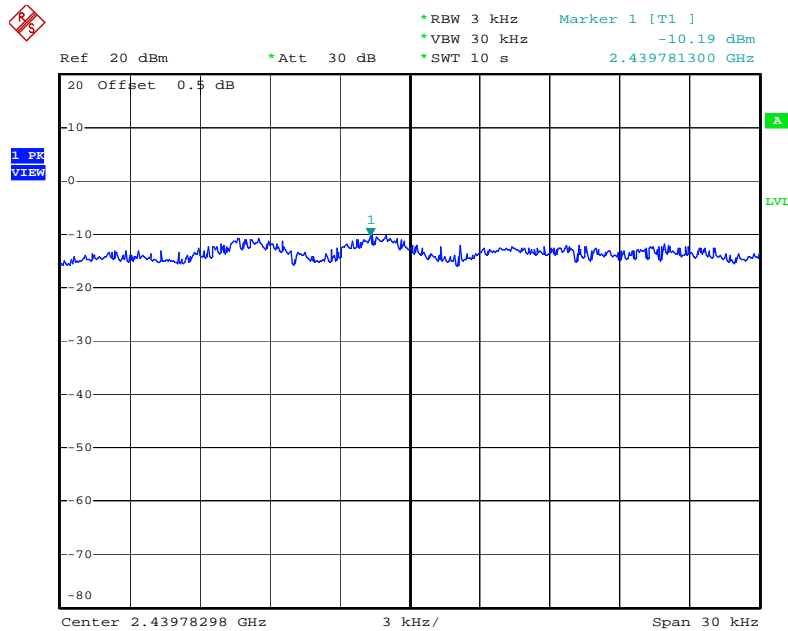
Date: 6.AUG.2009 17:58:12

Power Density Plot on Configuration IEEE 802.11g / 2412 MHz



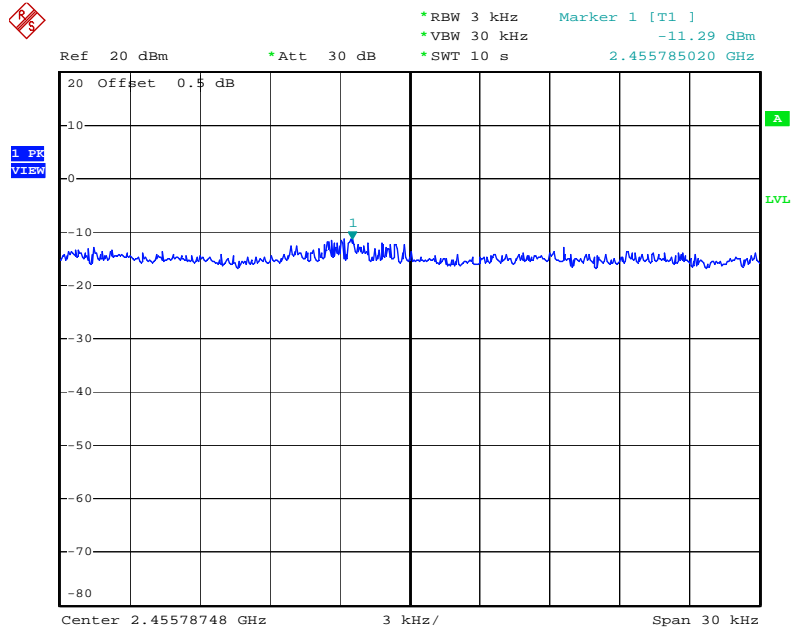
Date: 6.AUG.2009 18:29:55

Power Density Plot on Configuration IEEE 802.11g / 2437 MHz



Date: 7.AUG.2009 00:49:59

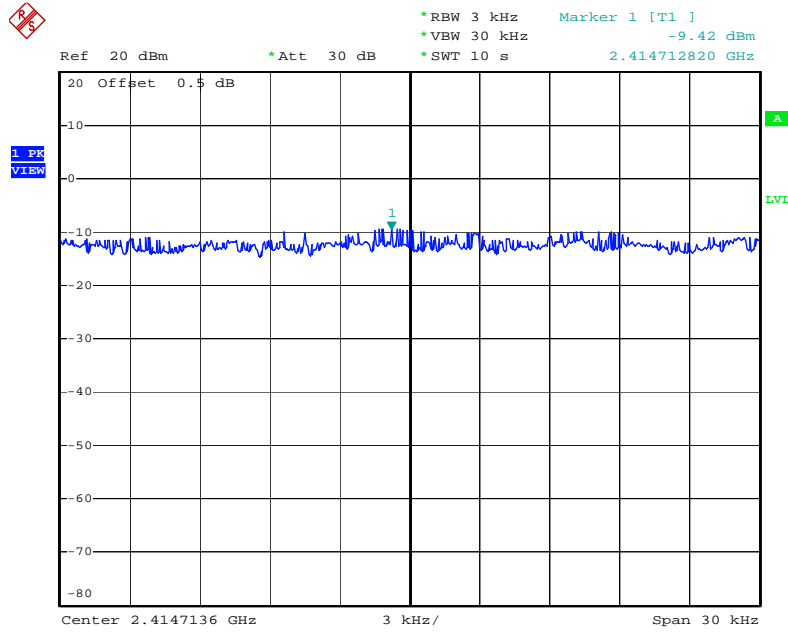
Power Density Plot on Configuration IEEE 802.11g / 2462 MHz



Date: 7.AUG.2009 00:47:32

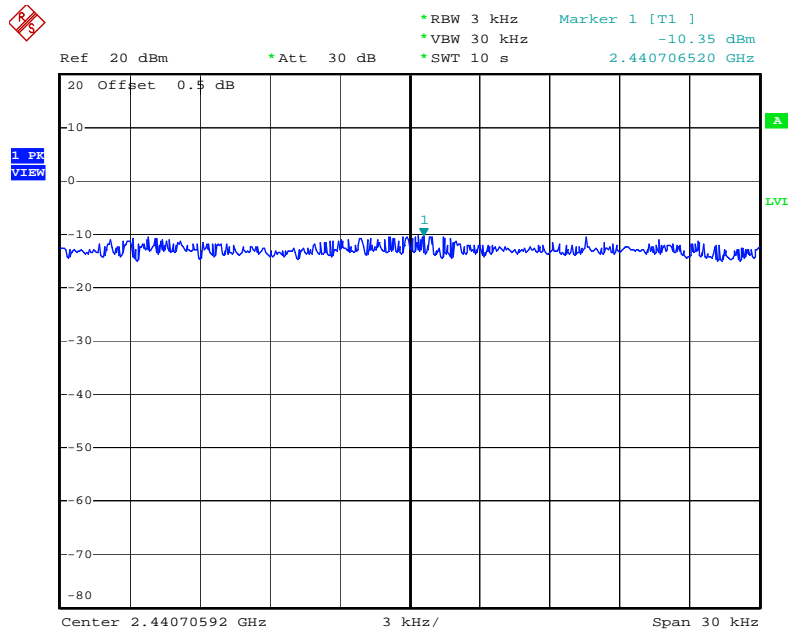
<Ant. 2 connector >

Power Density Plot on Configuration IEEE 802.11b / 2412 MHz



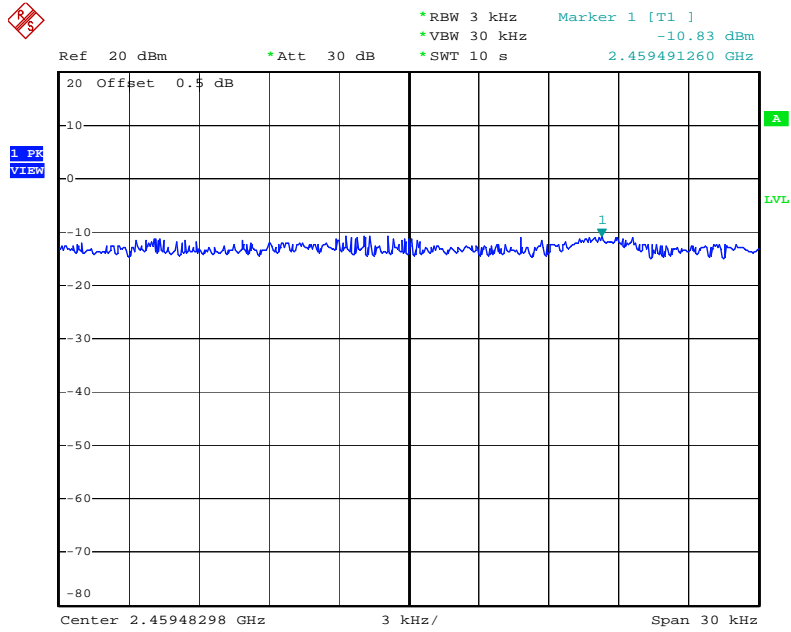
Date: 7.AUG.2009 00:37:22

Power Density Plot on Configuration IEEE 802.11b / 2437 MHz



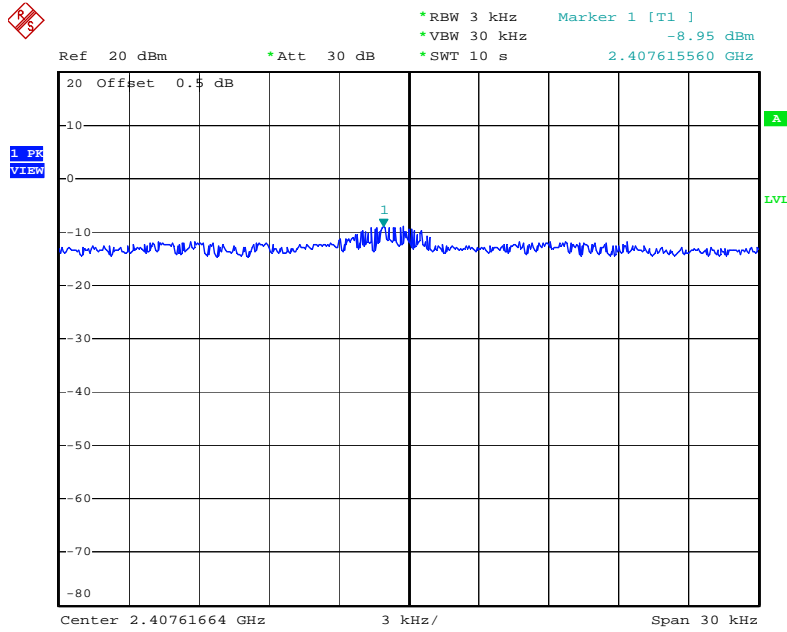
Date: 6.AUG.2009 18:52:30

Power Density Plot on Configuration IEEE 802.11b / 2462 MHz



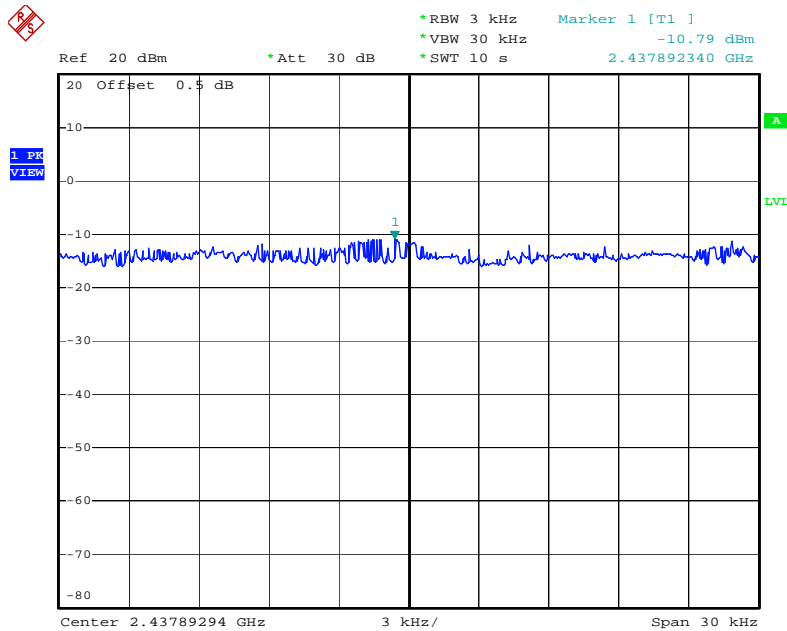
Date: 6.AUG.2009 18:49:48

Power Density Plot on Configuration IEEE 802.11g / 2412 MHz



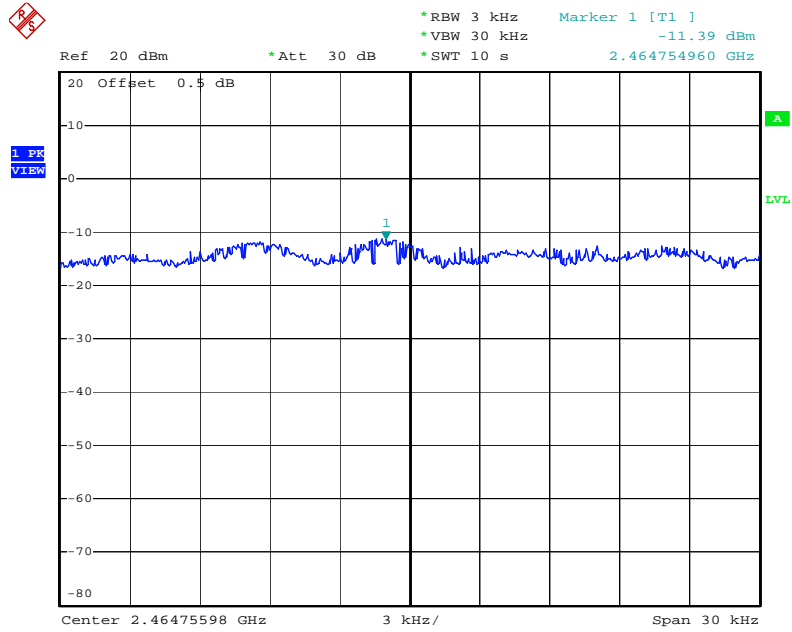
Date: 6.AUG.2009 18:39:56

Power Density Plot on Configuration IEEE 802.11g / 2437 MHz



Date: 6.AUG.2009 18:42:42

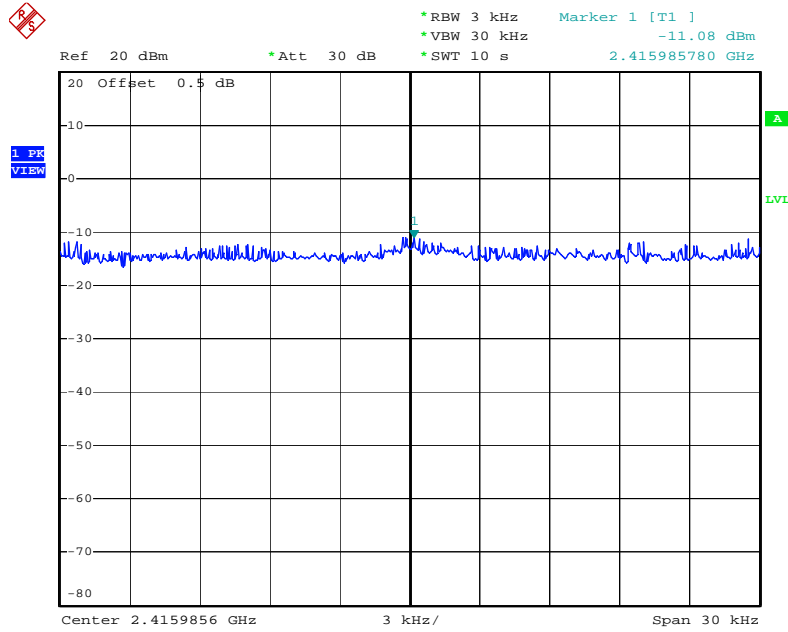
Power Density Plot on Configuration IEEE 802.11g / 2462 MHz



Date: 7.AUG.2009 00:42:07

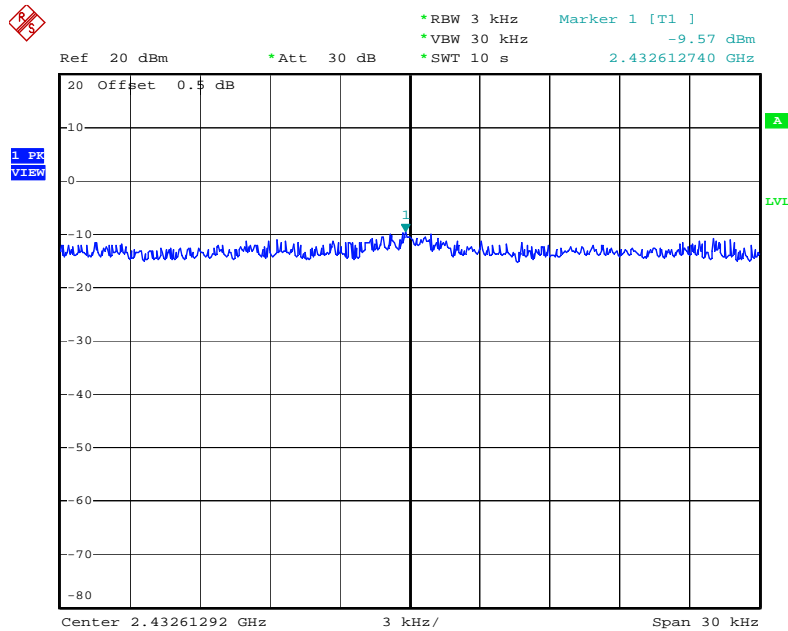
<MCS0 - Ant. 1 connector >

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2412 MHz



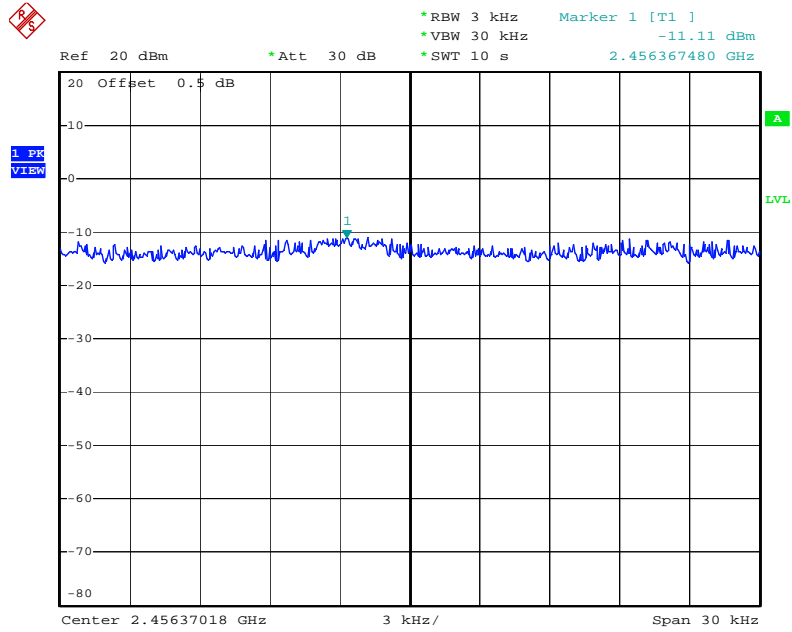
Date: 6.AUG.2009 18:18:26

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2437 MHz



Date: 6.AUG.2009 18:06:41

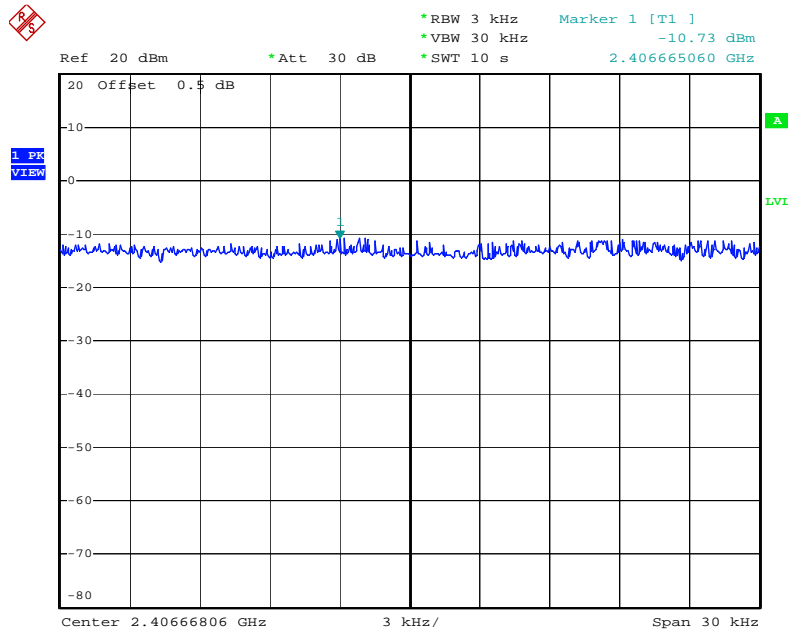
Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2462 MHz



Date: 6.AUG.2009 18:03:54

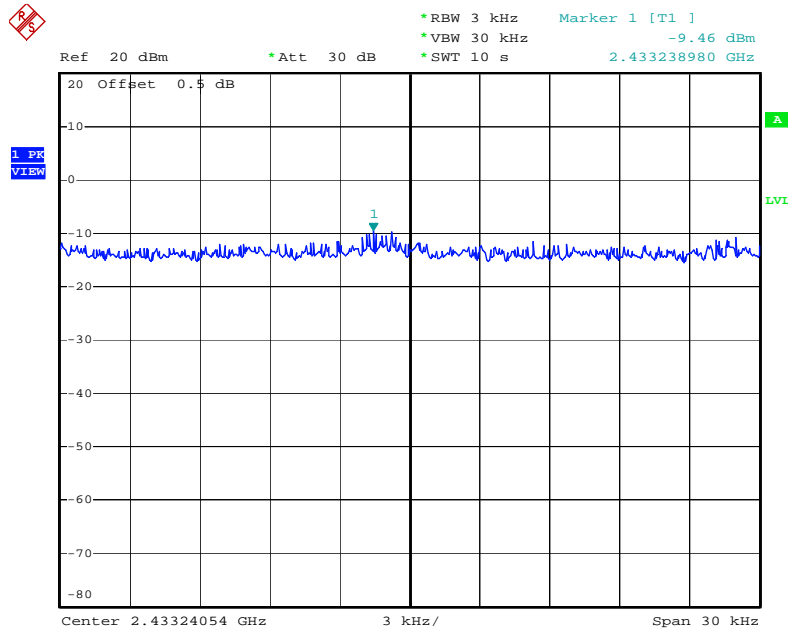
<MCS0 - Ant. 2 connector >

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2412 MHz



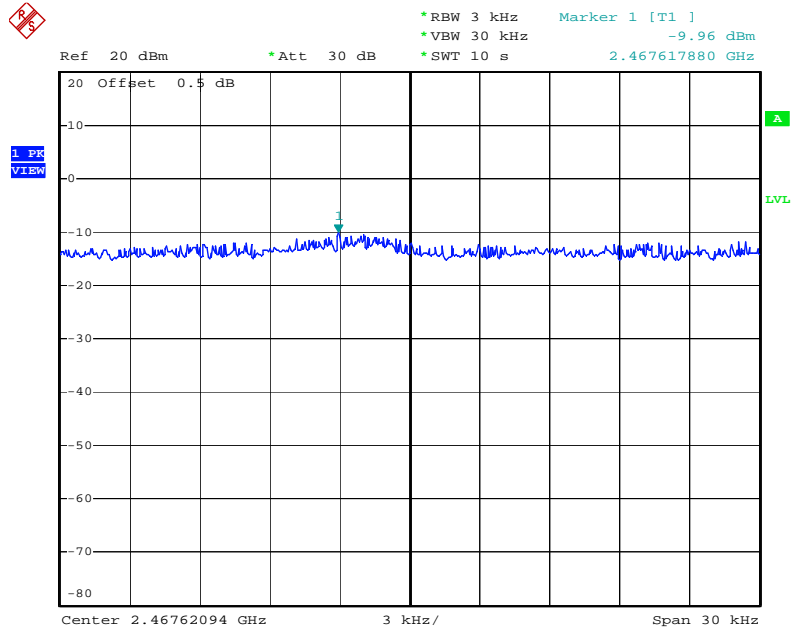
Date: 6.AUG.2009 19:02:04

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2437 MHz



Date: 6.AUG.2009 19:05:31

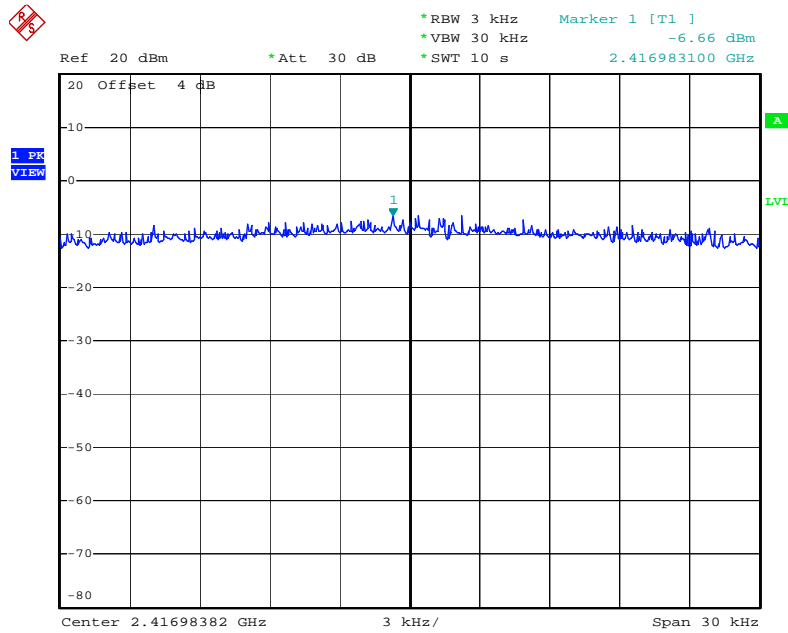
Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2462 MHz



Date: 6.AUG.2009 19:14:24

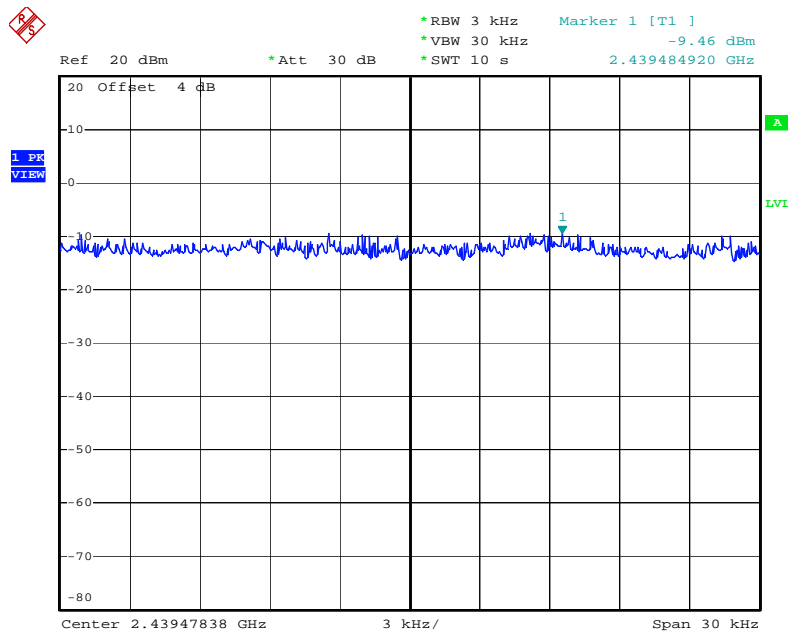
<MCS8 - Ant.1+Ant. 2 connector >

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2412 MHz



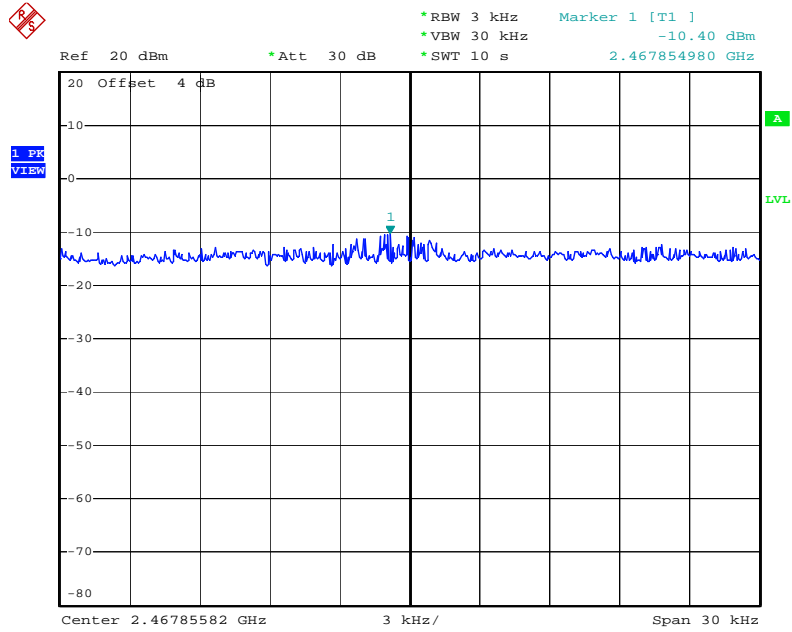
Date: 6.AUG.2009 19:51:25

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2437 MHz



Date: 6.AUG.2009 19:47:13

Power Density Plot on Configuration of IEEE 802.11n (20MHz) / 2462 MHz



Date: 6.AUG.2009 19:33:39

3.5 6dB Spectrum Bandwidth Measurement

3.5.1 Limit

For digital modulation systems, the minimum 6dB bandwidth shall be at least 500 kHz.

3.5.2 Measuring Instruments and Setting

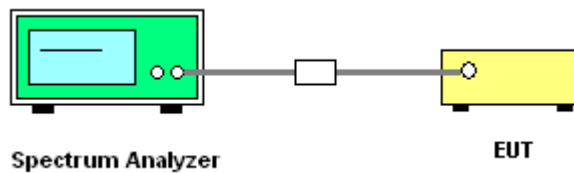
Please refer to section 4 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 6dB Bandwidth
RB	100 kHz
VB	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

3.5.3 Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.
2. The resolution bandwidth of 100 kHz and the video bandwidth of 100 kHz were used.
3. Measured the spectrum width with power higher than 6dB below carrier.

3.5.4 Test Setup Layout



3.5.5 Test Deviation

There is no deviation with the original standard.

3.5.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.5.7 Test Result of 6dB Spectrum Bandwidth

Test date	Aug. 07, 2009	Test Site No.	TH01-CB
Temperature	23°C	Humidity	58%
Test Engineer	Johnson	Configuration	802.11b/g/n

<Ant. 1 connector >

Configuration IEEE 802.11b

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.04	13.08	500	Complies
6	2437 MHz	10.12	13.04	500	Complies
11	2462 MHz	10.16	13.08	500	Complies

Configuration IEEE 802.11g

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.40	16.52	500	Complies
6	2437 MHz	16.44	16.52	500	Complies
11	2462 MHz	16.40	16.56	500	Complies

<Ant. 2 connector >

Configuration IEEE 802.11b

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.08	13.08	500	Complies
6	2437 MHz	10.12	13.20	500	Complies
11	2462 MHz	10.16	13.12	500	Complies

Configuration IEEE 802.11g

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.40	16.52	500	Complies
6	2437 MHz	16.40	16.56	500	Complies
11	2462 MHz	16.40	16.52	500	Complies

Configuration of IEEE 802.11n (20MHz)

<MCS0 - Ant. 1 connector >

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.36	16.52	500	Complies
6	2437 MHz	17.60	17.72	500	Complies
11	2462 MHz	17.60	17.68	500	Complies

<MCS0 - Ant. 2 connector >

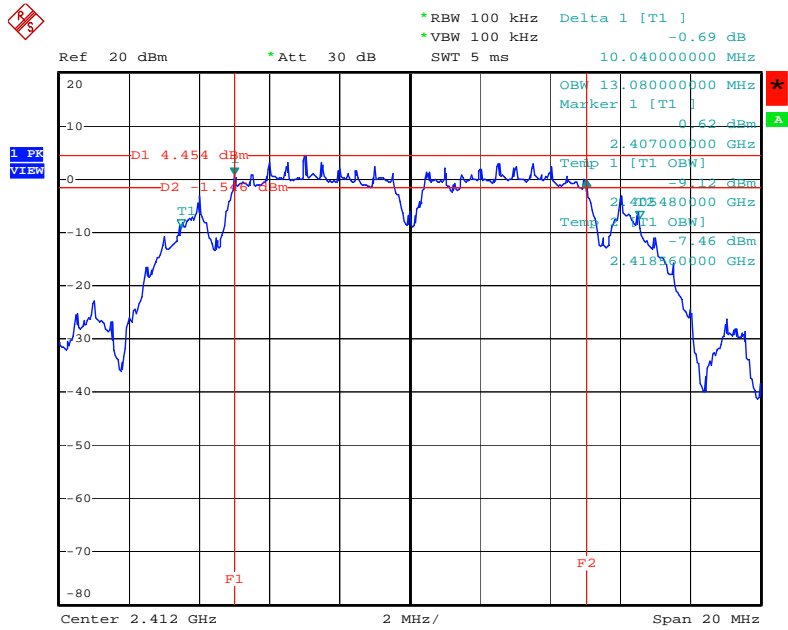
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	17.60	17.64	500	Complies
6	2437 MHz	17.60	17.68	500	Complies
11	2462 MHz	17.60	17.60	500	Complies

<MCS8 - Ant. 1 +Ant. 2 connector >

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	17.60	17.68	500	Complies
6	2437 MHz	17.64	17.64	500	Complies
11	2462 MHz	17.52	17.68	500	Complies

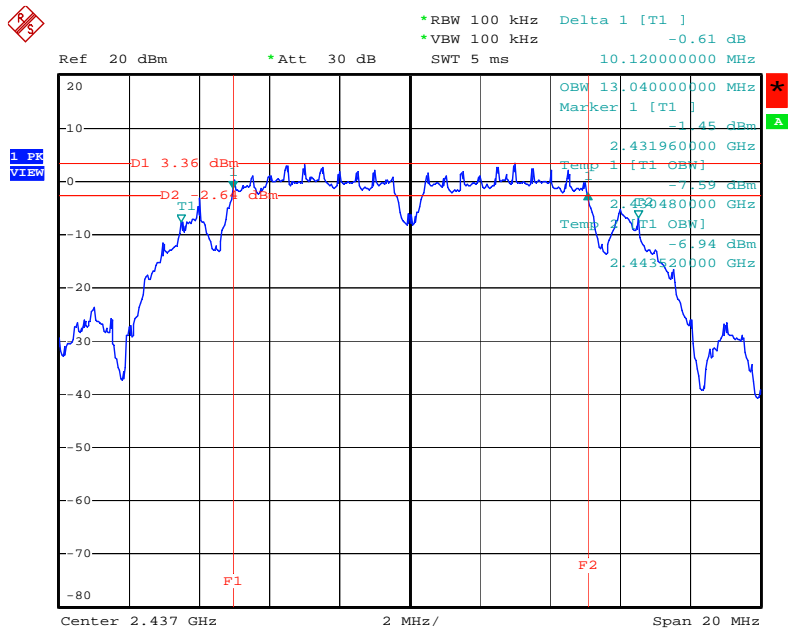
<Ant. 1 connector >

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2412 MHz



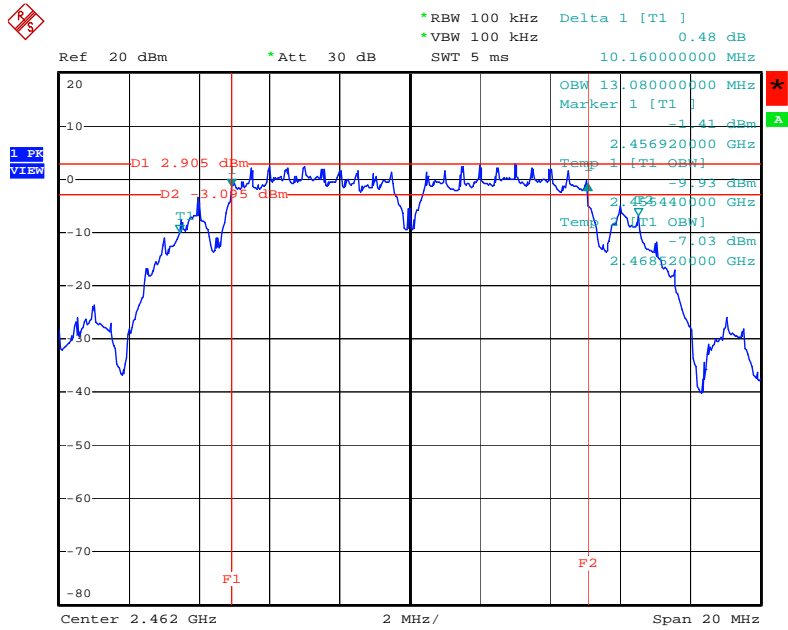
Date: 6.AUG.2009 17:51:37

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2437 MHz



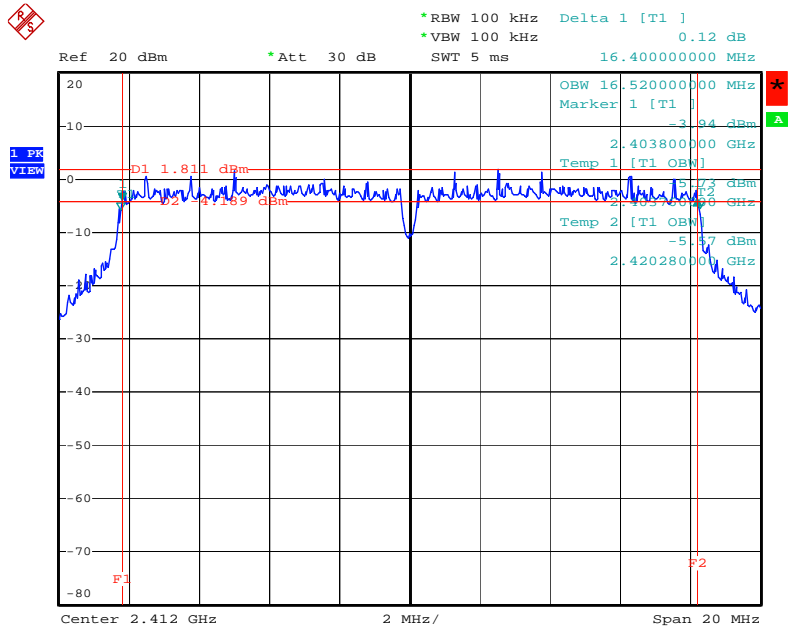
Date: 6.AUG.2009 17:54:07

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2462 MHz



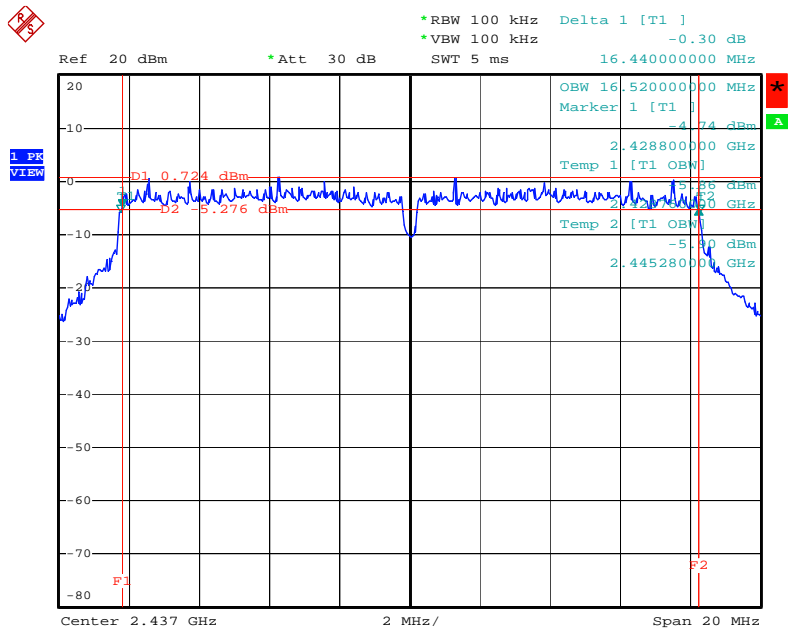
Date: 6.AUG.2009 17:59:44

6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2412 MHz



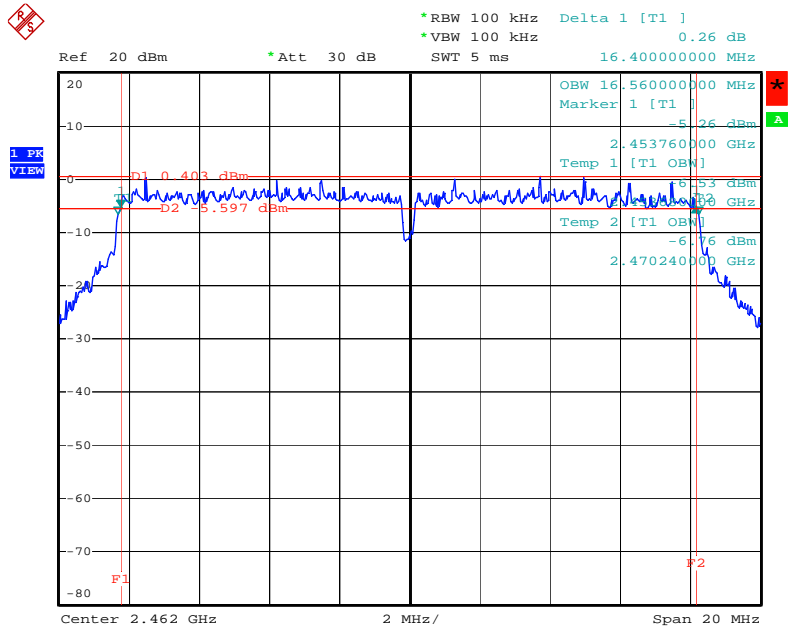
Date: 6.AUG.2009 18:28:27

6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2437 MHz



Date: 7.AUG.2009 00:48:31

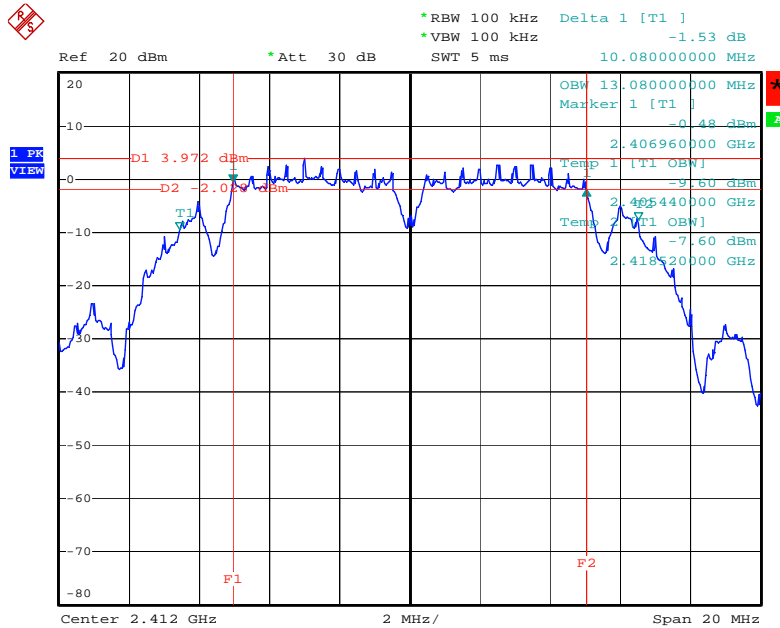
6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2462 MHz



Date: 7.AUG.2009 00:46:05

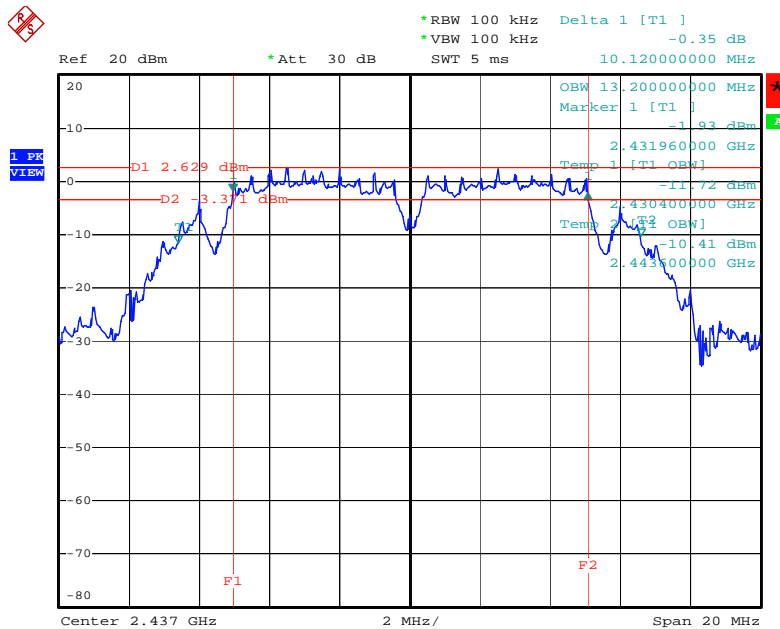
<Ant. 2 connector >

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2412 MHz



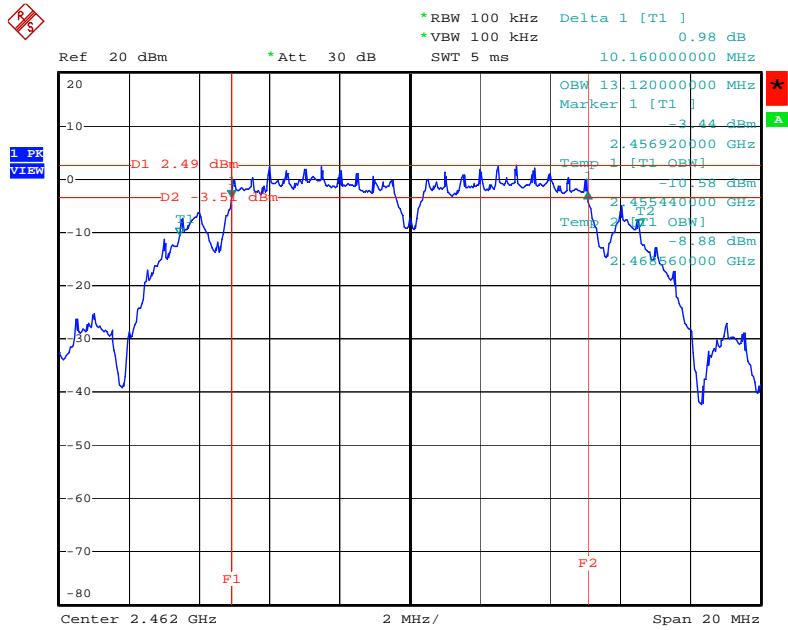
Date: 7.AUG.2009 00:35:55

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2437 MHz



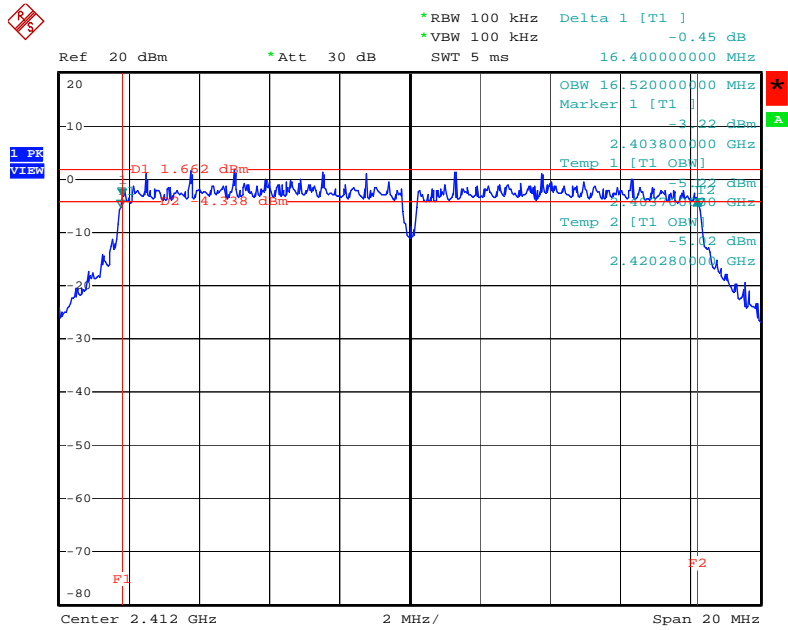
Date: 6.AUG.2009 18:51:02

6 dB Bandwidth Plot on Configuration IEEE 802.11b / 2462 MHz



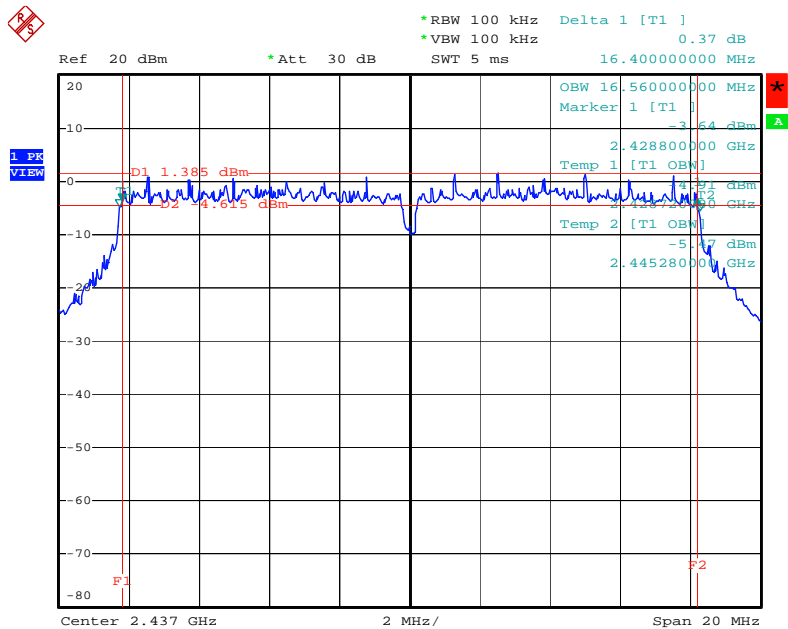
Date: 6.AUG.2009 18:48:21

6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2412 MHz



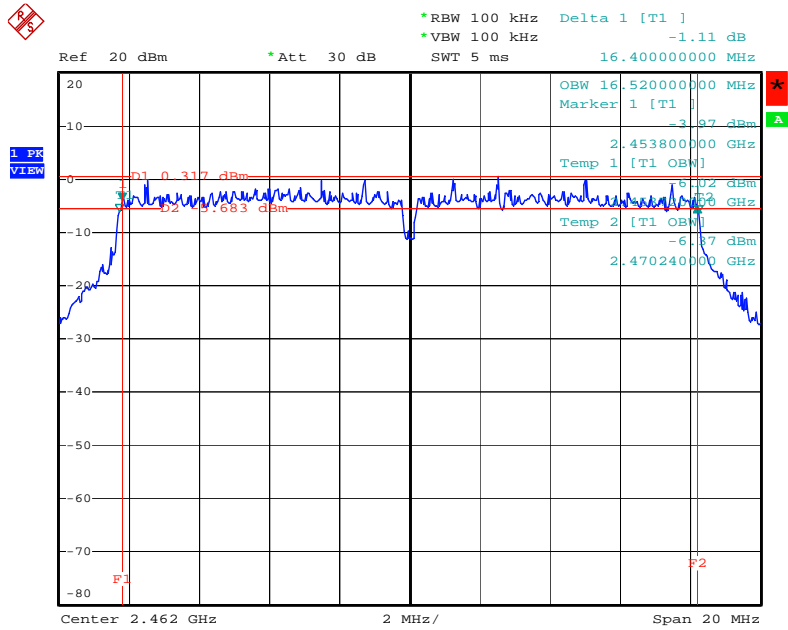
Date: 6.AUG.2009 18:38:29

6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2437 MHz



Date: 6.AUG.2009 18:41:14

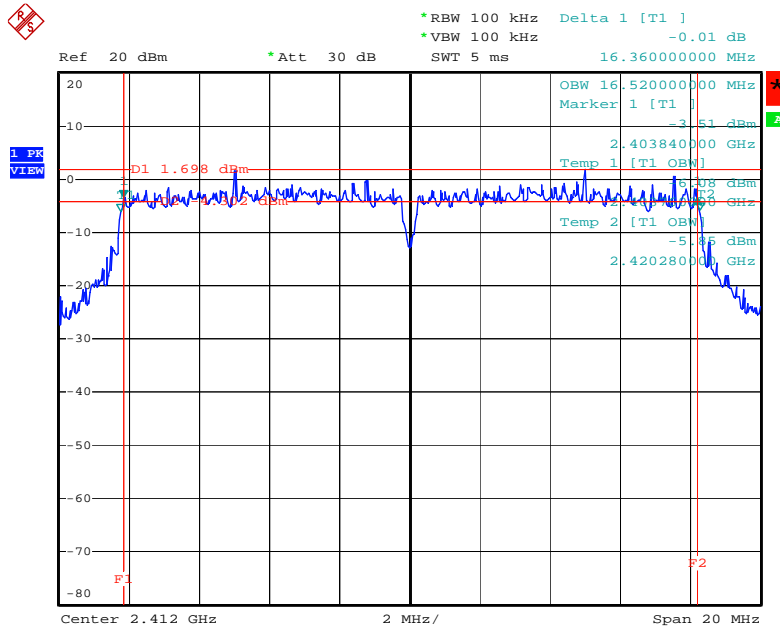
6 dB Bandwidth Plot on Configuration IEEE 802.11g / 2462 MHz



Date: 7.AUG.2009 00:40:40

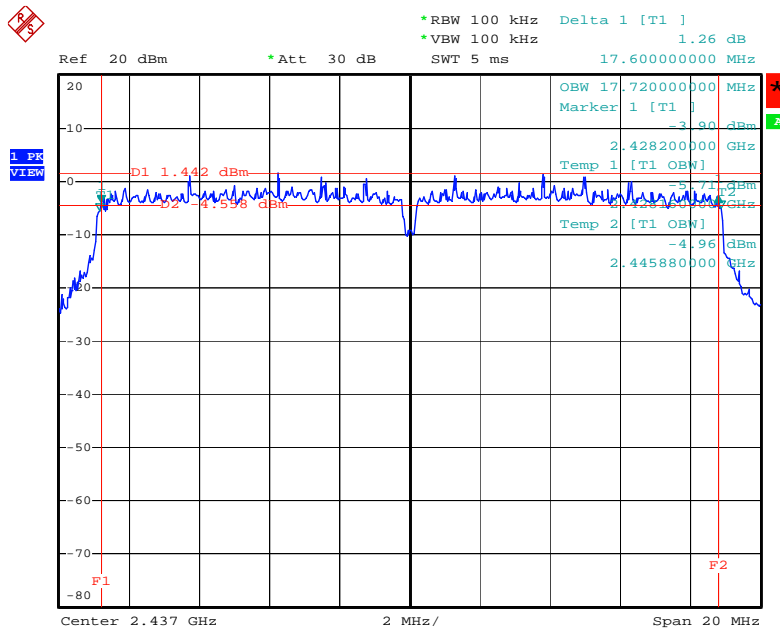
<MCS0 - Ant. 1 connector >

6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2412 MHz



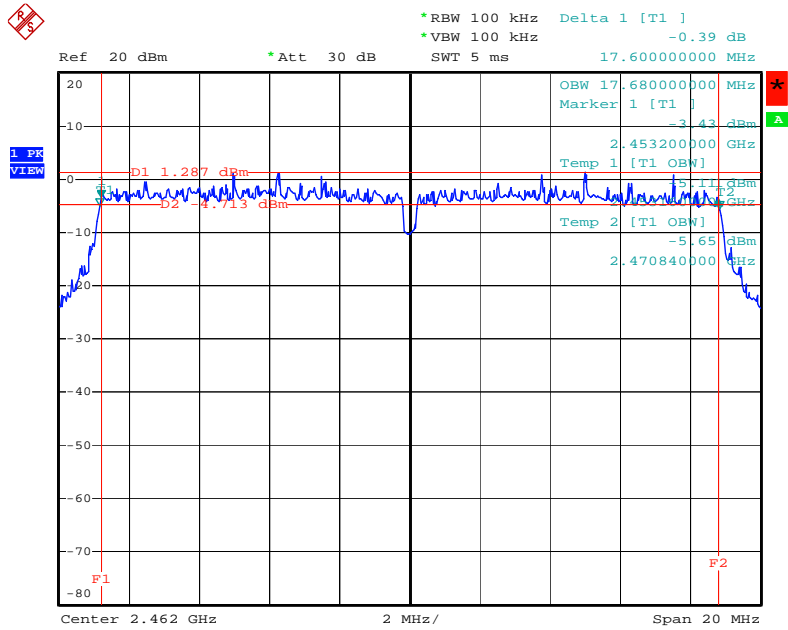
Date: 6.AUG.2009 18:20:38

6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2437 MHz



Date: 6.AUG.2009 18:05:13

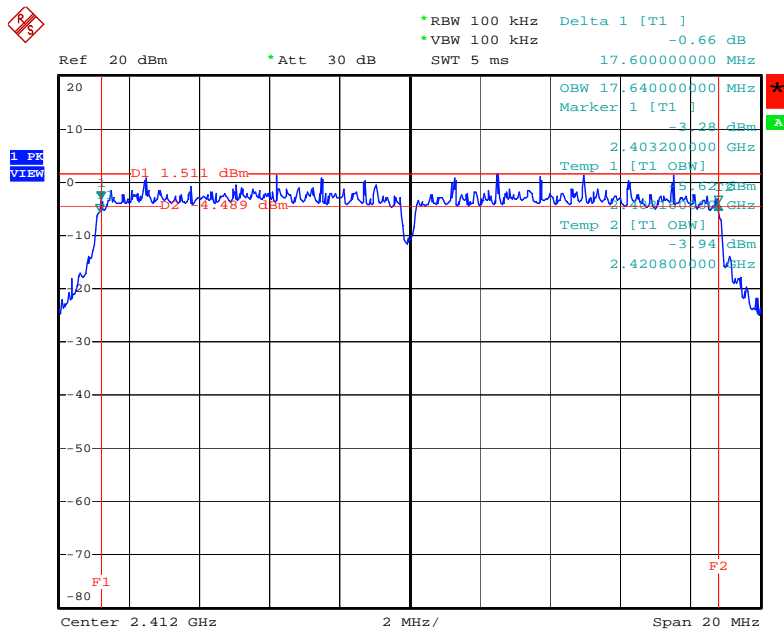
6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2462 MHz



Date: 6.AUG.2009 18:02:26

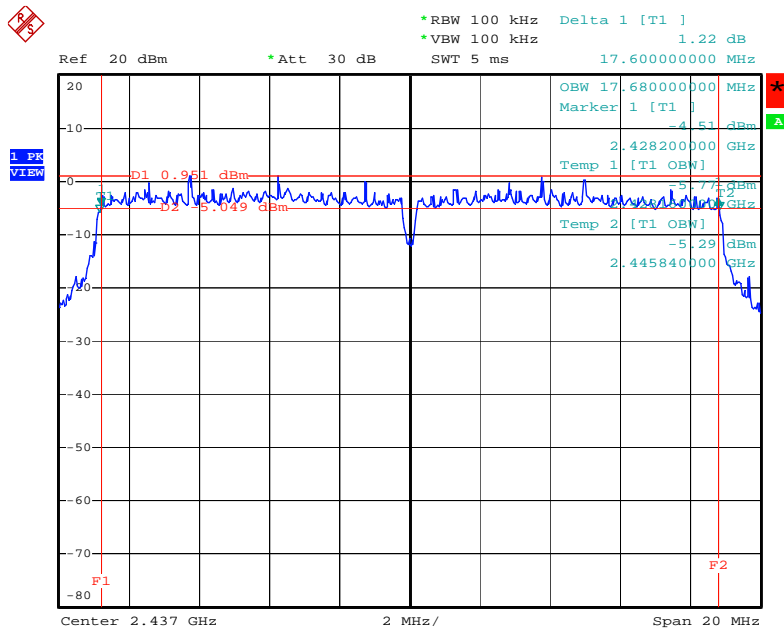
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6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2412 MHz



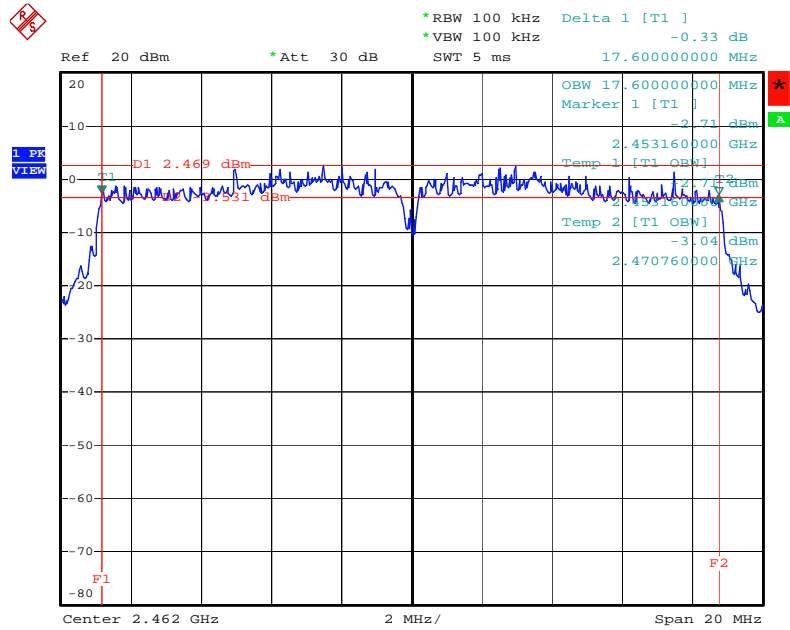
Date: 6.AUG.2009 19:00:37

6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2437 MHz



Date: 6.AUG.2009 19:04:03

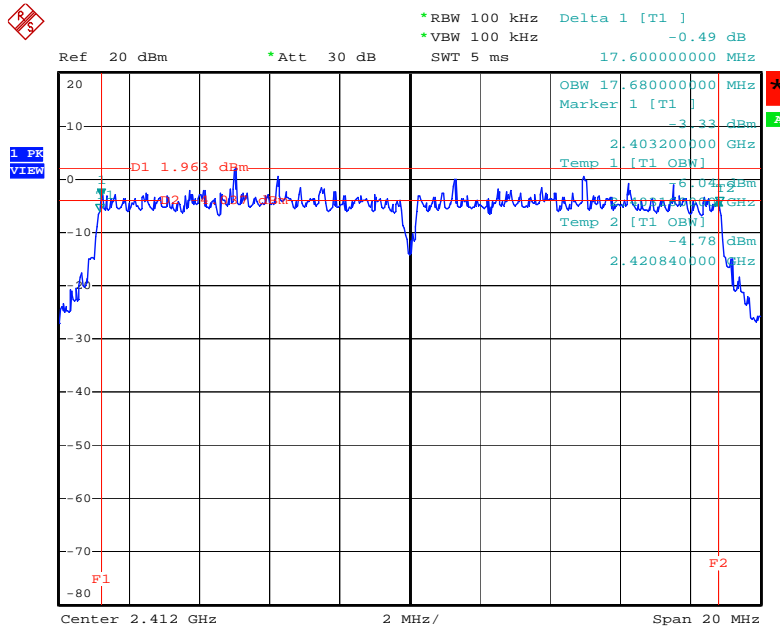
6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2462 MHz



Date: 6.AUG.2009 19:12:57

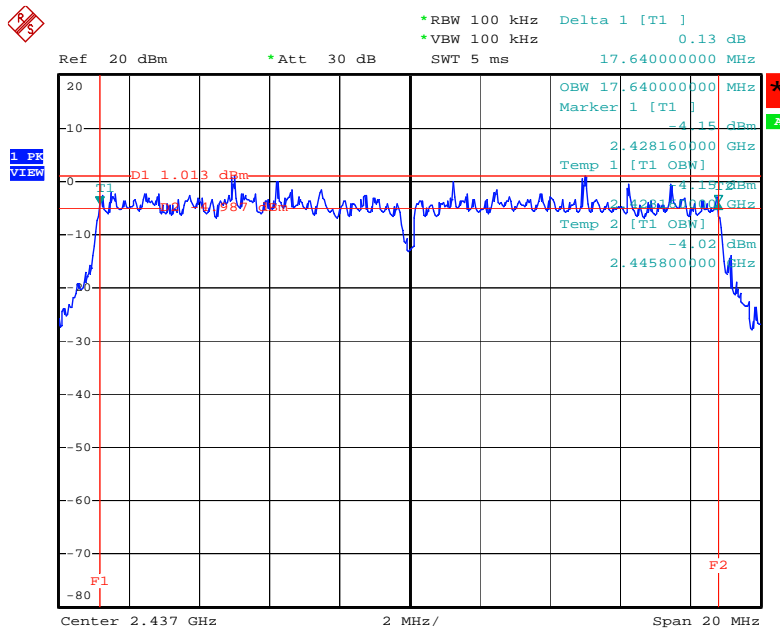
< MCS8 - Ant. 1+Ant. 2 connector >

6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2412 MHz



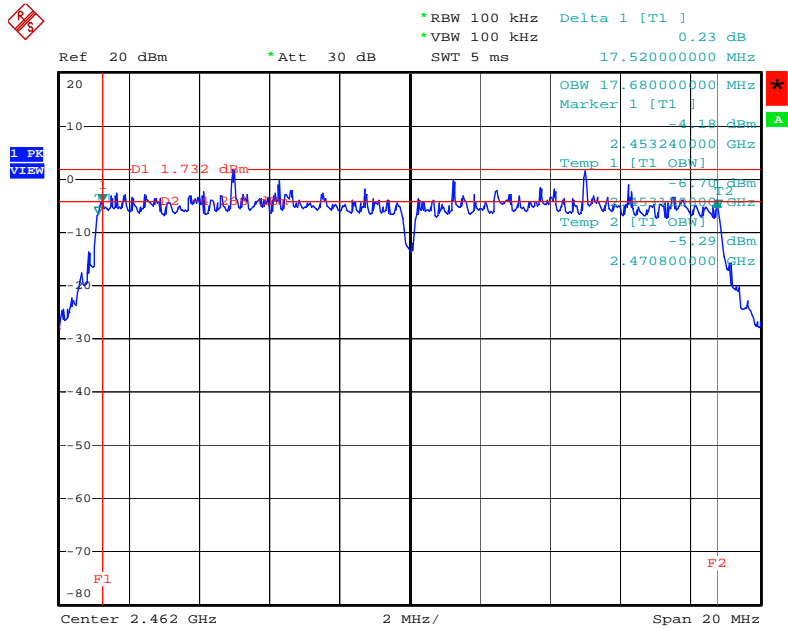
Date: 6.AUG.2009 19:49:58

6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2437 MHz



Date: 6.AUG.2009 19:45:45

6 dB Bandwidth Plot on Configuration of IEEE 802.11n (20MHz) / 2462 MHz



Date: 6.AUG.2009 19:32:12

3.6 Radiated Emissions Measurement

3.6.1 Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

3.6.2 Measuring Instruments and Setting

Please refer to section 4 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for Peak

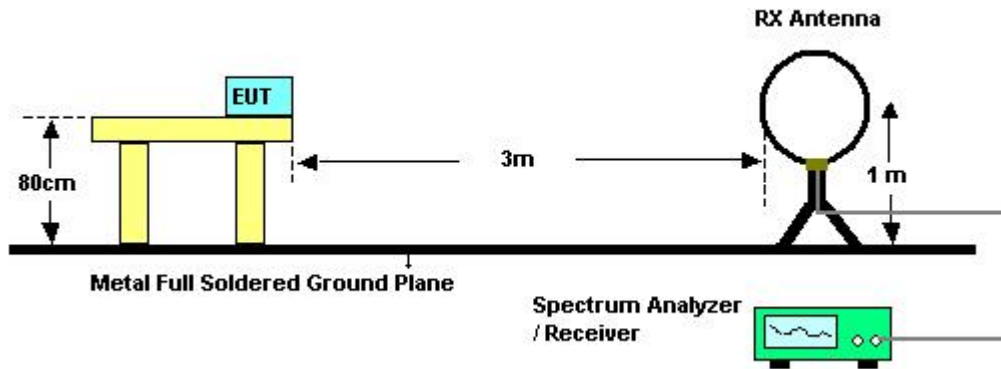
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.6.3 Test Procedures

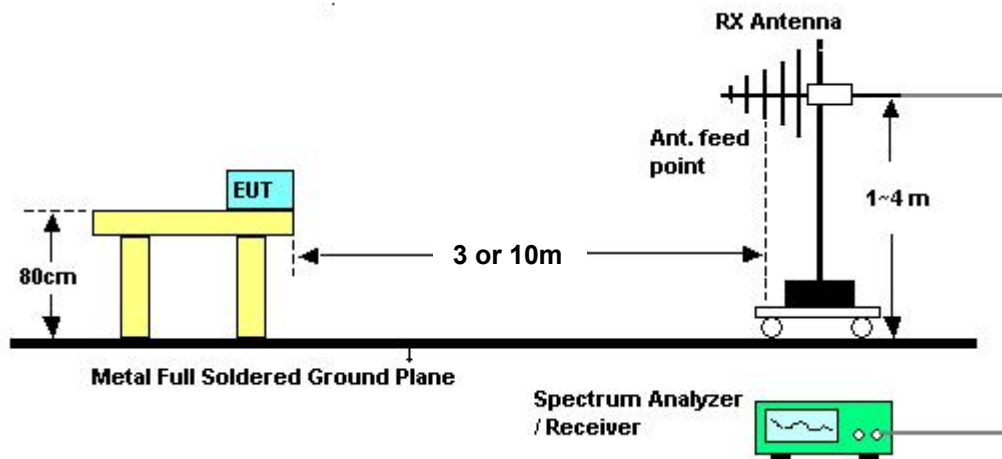
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak 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.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

3.6.4 Test Setup Layout

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

3.6.5 Test Deviation

There is no deviation with the original standard.

3.6.6 EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.6.7 Results of Radiated Emissions (9kHz~30MHz)

Frequency Range of Test	9kHz~30MHz	Test Site No.	03CH01-CB
Ch01-cb	23°C	Humidity	54%
Test Engineer	Howar Sung		

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

Note:

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

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

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

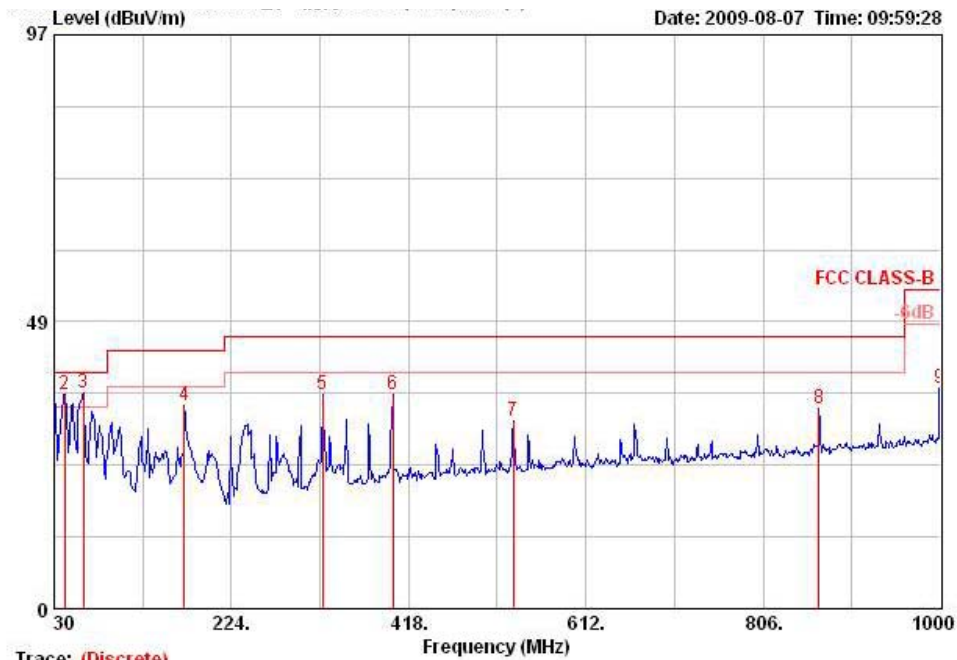
3.6.8 Results of Radiated Emissions (30MHz~1GHz)

Frequency Range of Test	from 30 MHz to 1000 MHz	Test Site No.	03CH01-CB
Temperature	24.3°C	Humidity	56%
Adapter	OEM	Test Engineer	Howar Sung

Note: 1. Emission level (dBμV/m) = 20 log Emission level (μV/m)

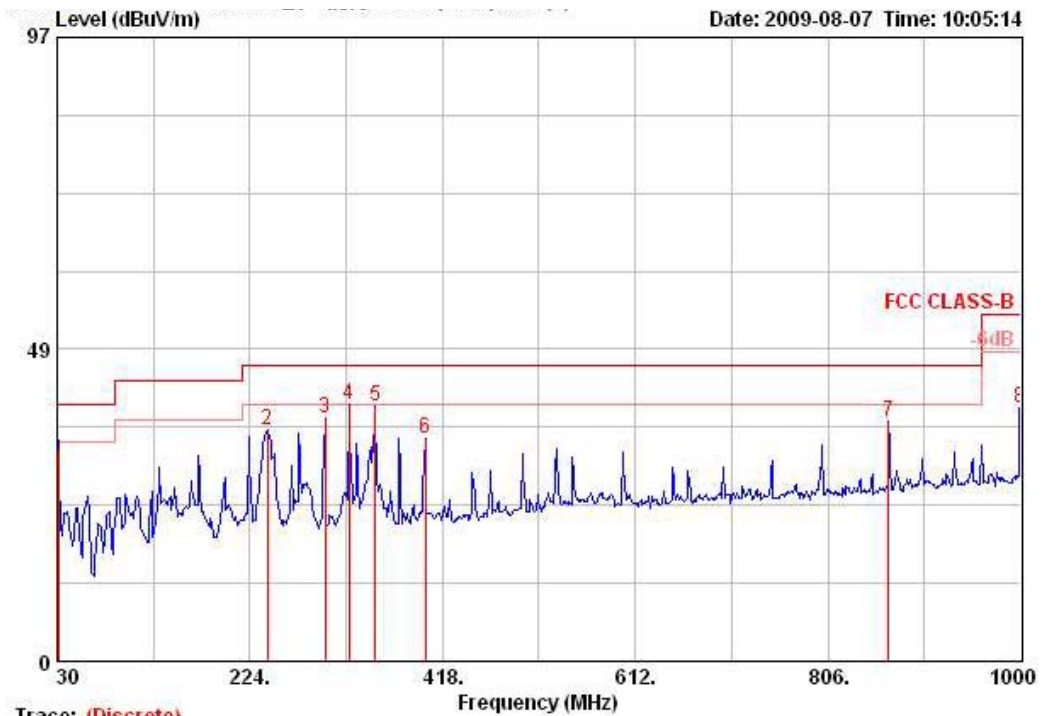
2. Corrected Reading : Antenna Factor + Cable Loss + Read Level – Preamp Factor = Level

■ The test was passed at the minimum margin that marked by the frame in the following data



Trace: (Discrete)
 Site : 03CH01-CB
 Condition : FCC CLASS-B 3m BILOG ANT20070726 VERTICAL 400cm 0deg
 Antenna : TG587
 power :
 memo :
 Relative Humidity : 56%
 Atmosphere : 98.6kpa
 Temp. : 24.3 °C
 Engineer :

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1 !	30.000	36.03	-3.97	40.00	44.57	18.76	0.50	27.80	Peak	400	0	VERTICAL
2 !	41.640	36.34	-3.66	40.00	51.45	11.99	0.70	27.80	Peak	400	0	VERTICAL
3 @	62.010	36.47	-3.53	40.00	56.64	6.74	0.84	27.75	Peak	125	207	VERTICAL
4	172.590	34.31	-9.19	43.50	47.00	12.97	1.56	27.23	Peak	400	0	VERTICAL
5	323.910	36.25	-9.75	46.00	47.15	14.02	2.15	27.06	Peak	400	0	VERTICAL
6	400.540	36.22	-9.78	46.00	45.45	16.08	2.31	27.61	Peak	400	0	VERTICAL
7	532.460	31.72	-14.28	46.00	39.06	18.00	2.76	28.10	Peak	400	0	VERTICAL
8	867.110	33.82	-12.18	46.00	37.54	20.28	3.47	27.47	Peak	400	0	VERTICAL
9	1000.000	37.23	-16.77	54.00	39.24	21.29	3.70	27.00	Peak	400	0	VERTICAL



Trace: (Discrete)
 Site : 03CH01-CB
 Condition : FCC CLASS-B 3m BILOG ANT20070726 HORIZONTAL 100cm 0deg
 Antenna : TG587
 power :
 memo :
 Relative Humidity : 56%
 Atmosphere : 98.6kpa
 Temp. : 24.3 °C
 Engineer :

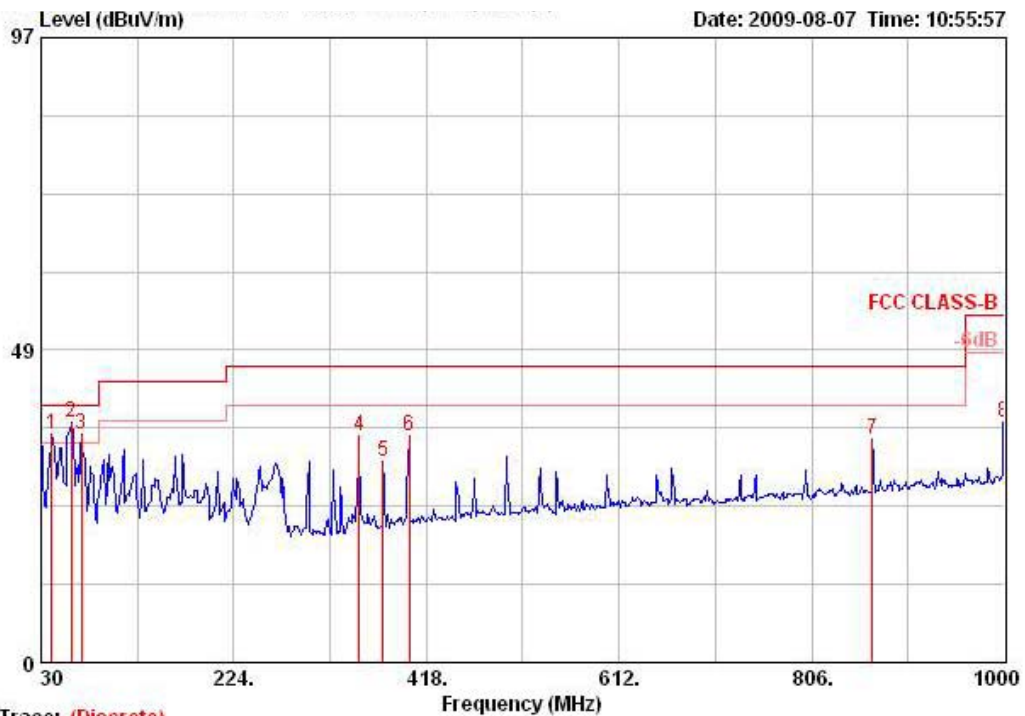
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	30.970	33.40	-6.60	40.00	42.48	18.22	0.50	27.80	Peak	100	0	HORIZONTAL
2	241.460	35.86	-10.14	46.00	48.89	12.13	1.87	27.02	Peak	100	0	HORIZONTAL
3	299.660	37.85	-8.15	46.00	49.29	13.36	2.10	26.90	Peak	100	0	HORIZONTAL
4	323.910	39.90	-6.10	46.00	50.79	14.02	2.15	27.06	Peak	205	265	HORIZONTAL
5	350.100	39.75	-6.25	46.00	50.07	14.72	2.20	27.25	Peak	100	0	HORIZONTAL
6	400.540	34.71	-11.29	46.00	43.94	16.08	2.31	27.61	Peak	100	0	HORIZONTAL
7	867.110	37.34	-8.66	46.00	41.06	20.28	3.47	27.47	Peak	100	0	HORIZONTAL
8	1000.000	39.39	-14.61	54.00	41.40	21.29	3.70	27.00	Peak	100	0	HORIZONTAL

Frequency Range of Test	from 30 MHz to 1000 MHz	Test Site No.	03CH01-CB
Temperature	24.3°C	Humidity	56%
Adapter	FRIWO	Test Engineer	Howar Sung

Note: 1. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)

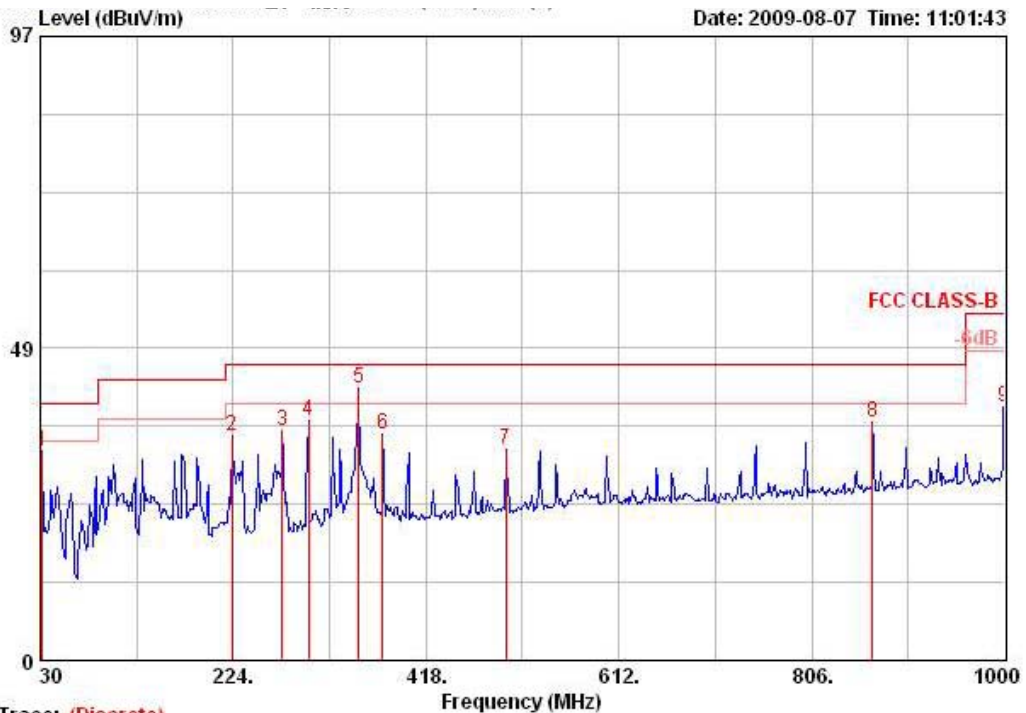
2. Corrected Reading : Antenna Factor + Cable Loss + Read Level – Preamp Factor = Level

■ The test was passed at the minimum margin that marked by the frame in the following data



Trace: (Discrete)
 Site : 03CH01-CB
 Condition : FCC CLASS-B 3m BILOG ANT20070726 VERTICAL 400cm 0deg
 eut : TG587
 power :
 memo :
 : THOMSON ADAPTER FW7348S/22
 Relative Humidity : 56%
 Atmosphere : 98.6kpa
 Temp. : 24.3 °C
 Engineer :

	Over	Limit	Read	Antenna	Cable	Preamp		Ant	Table			
Freq	Level	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos			
MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg			
1 !	40.670	35.49	-4.51	40.00	50.04	12.55	0.70	27.80	Peak	400	0	VERTICAL
2 @	60.070	37.19	-2.81	40.00	57.38	6.77	0.80	27.76	Peak	125	250	VERTICAL
3 !	70.740	35.34	-4.66	40.00	55.55	6.69	0.82	27.72	Peak	400	0	VERTICAL
4	350.100	35.17	-10.83	46.00	45.50	14.72	2.20	27.25	Peak	400	0	VERTICAL
5	374.350	31.16	-14.84	46.00	40.95	15.38	2.25	27.42	Peak	400	0	VERTICAL
6	400.540	35.16	-10.84	46.00	44.38	16.08	2.31	27.61	Peak	400	0	VERTICAL
7	867.110	34.51	-11.49	46.00	38.23	20.28	3.47	27.47	Peak	400	0	VERTICAL
8	1000.000	37.24	-16.76	54.00	39.25	21.29	3.70	27.00	Peak	400	0	VERTICAL

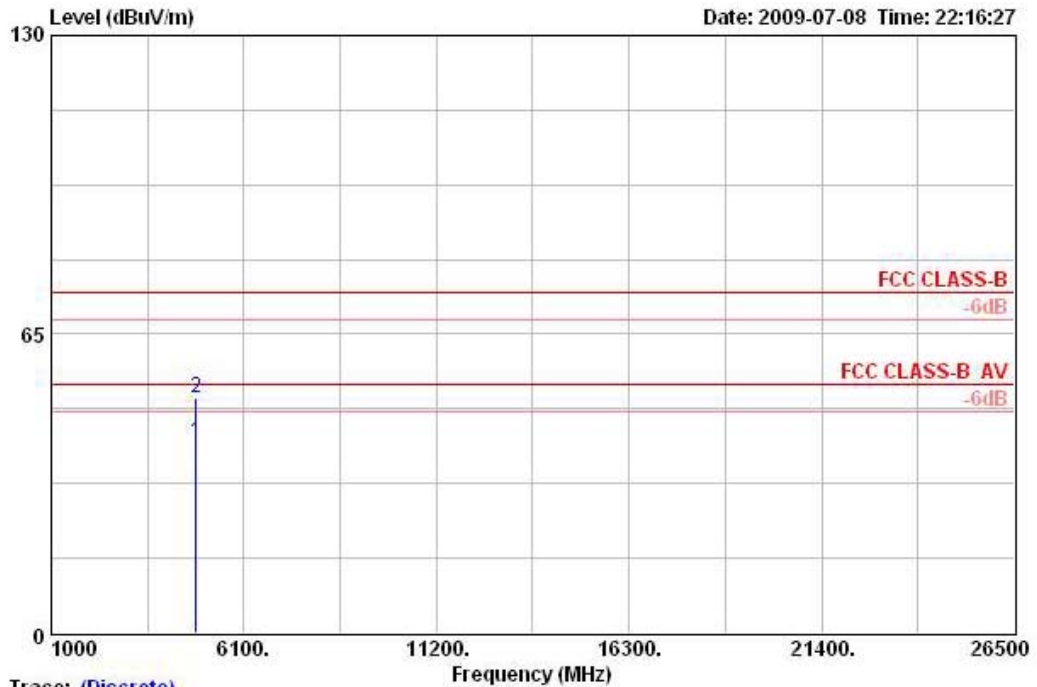


Trace: (Discrete)
 Site : 03CH01-CB
 Condition : FCC CLASS-B 3m BILOG ANT20070726 HORIZONTAL 100cm 0deg
 Antenna : TG587
 Power :
 Memo :
 Adapter : THOMSON ADAPTER FW7348S/22
 Relative Humidity : 56%
 Atmosphere : 98.6kpa
 Temp. : 24.3 °C
 Engineer :

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos	Pol/Phase
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg	
1	31.940	32.61	-7.39	40.00	42.22	17.69	0.50	27.80	Peak	100	0	HORIZONTAL
2	223.030	34.80	-11.20	46.00	49.29	10.77	1.79	27.05	Peak	100	0	HORIZONTAL
3	273.470	35.75	-10.25	46.00	47.66	13.05	1.99	26.95	Peak	100	0	HORIZONTAL
4	299.660	37.39	-8.61	46.00	48.83	13.36	2.10	26.90	Peak	100	0	HORIZONTAL
5 !	350.100	42.27	-3.73	46.00	52.59	14.72	2.20	27.25	Peak	165	275	HORIZONTAL
6	374.350	35.20	-10.80	46.00	44.99	15.38	2.25	27.42	Peak	100	0	HORIZONTAL
7	498.510	32.87	-13.13	46.00	40.66	17.60	2.70	28.09	Peak	100	0	HORIZONTAL
8	867.110	37.06	-8.94	46.00	40.78	20.28	3.47	27.47	Peak	100	0	HORIZONTAL
9	1000.000	39.44	-14.56	54.00	41.45	21.29	3.70	27.00	Peak	100	0	HORIZONTAL

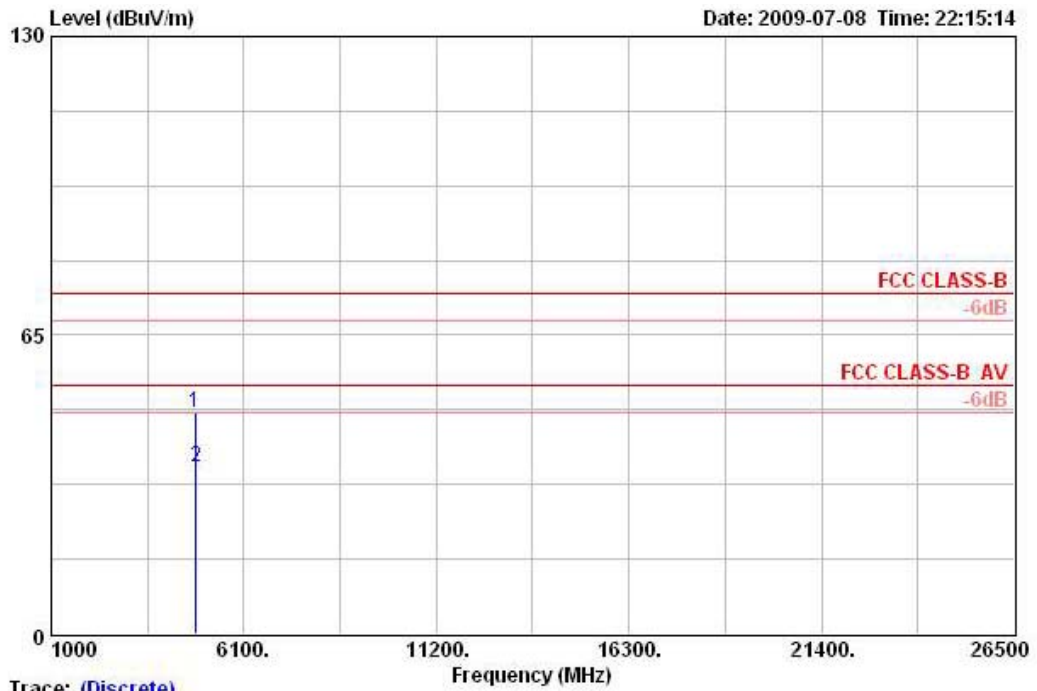
3.6.9 Results for Radiated Emissions (1GHz~10th Harmonic)

Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11b CH 1 (Ant. 1)



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 Antenna : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 'C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11b CH1

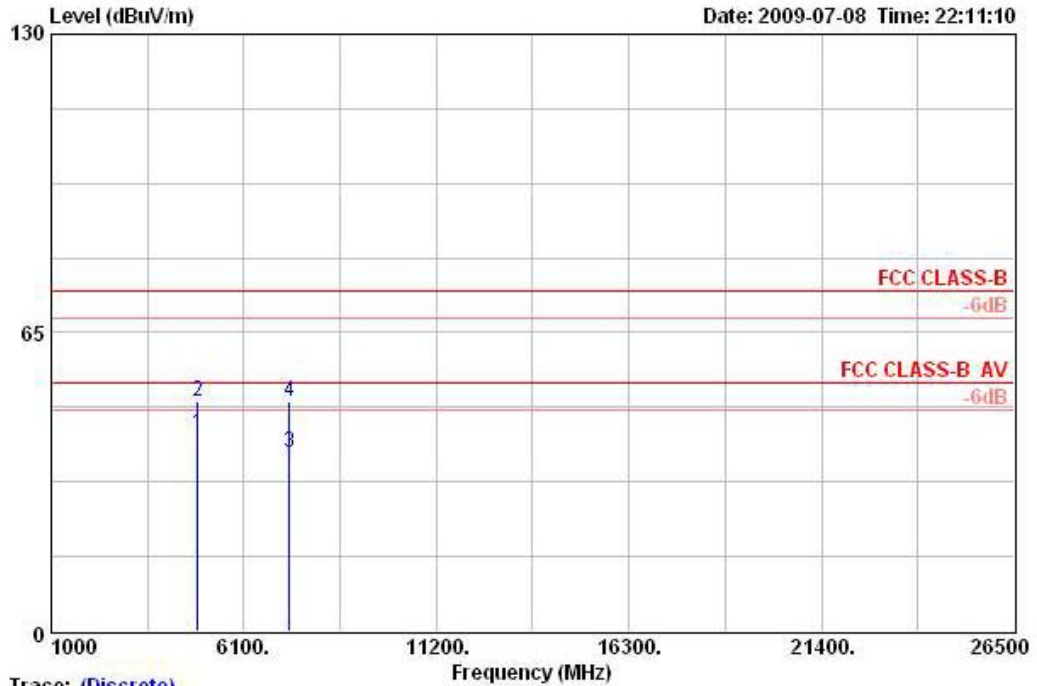
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB			deg	cm
1	4824.100	41.52	-12.48	54.00	36.94	33.39	35.20	6.39	AVERAGE	VERTICAL	0	100
2	4825.680	51.08	-22.92	74.00	46.51	33.39	35.20	6.39	PEAK	VERTICAL	0	100



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11b CH1

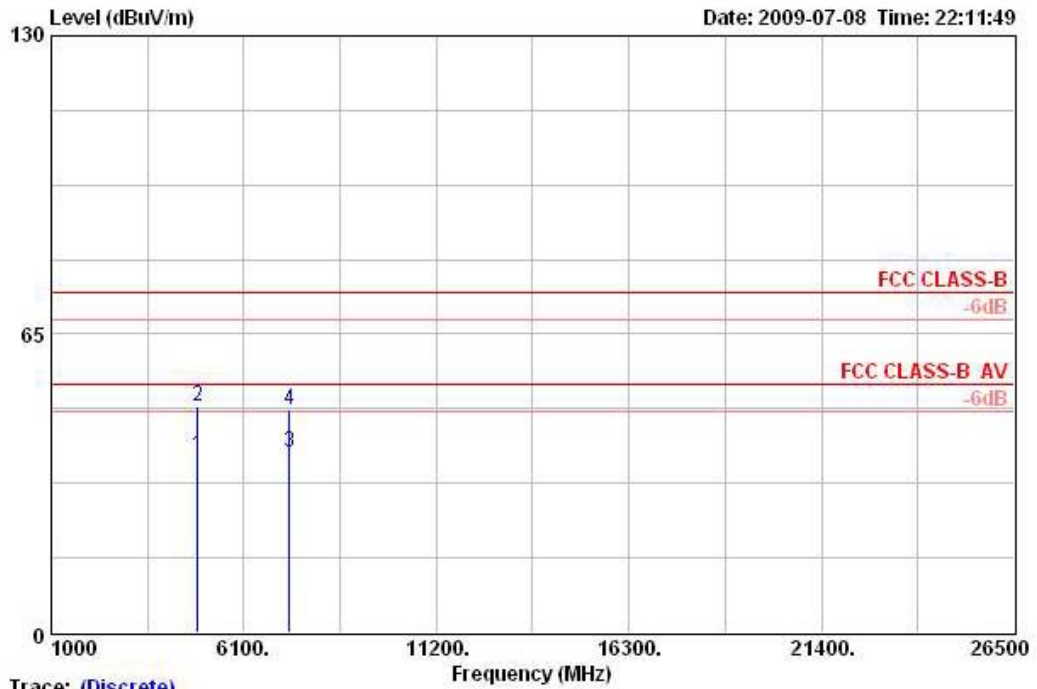
	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Factor	Loss			Pos	Pos
					dBuV	dB/m	dB	dB			deg	cm
1	4821.620	48.19	-25.81	74.00	43.61	33.39	35.20	6.39	PERK	HORIZONTAL	360	100
2	4823.720	36.37	-17.63	54.00	31.80	33.39	35.20	6.39	AVERAGE	HORIZONTAL	360	100

Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11b CH 6 (Ant. 1)



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11b C6

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss			Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4873.990	42.93	-11.07	54.00	38.09	33.48	35.20	6.56	AVERAGE	VERTICAL	278	100
2	4873.990	49.88	-24.12	74.00	45.03	33.48	35.20	6.56	PEAK	VERTICAL	278	100
3	7309.900	38.78	-15.22	54.00	29.71	36.50	35.42	7.99	AVERAGE	VERTICAL	278	100
4	7309.900	49.85	-24.15	74.00	40.78	36.50	35.42	7.99	PEAK	VERTICAL	278	100

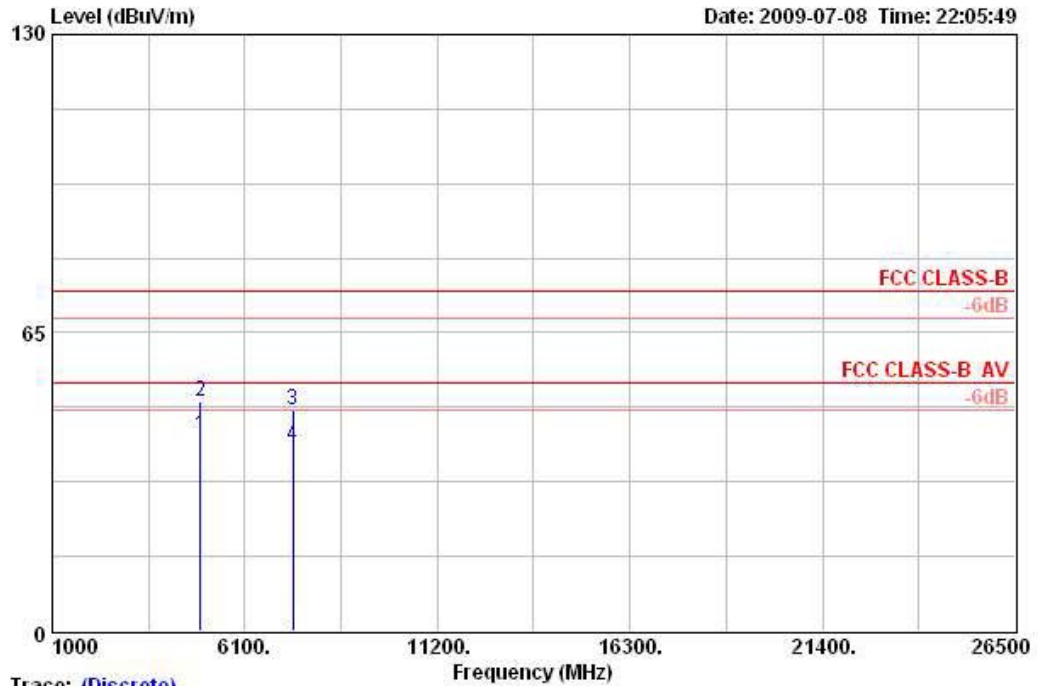


Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11b C6

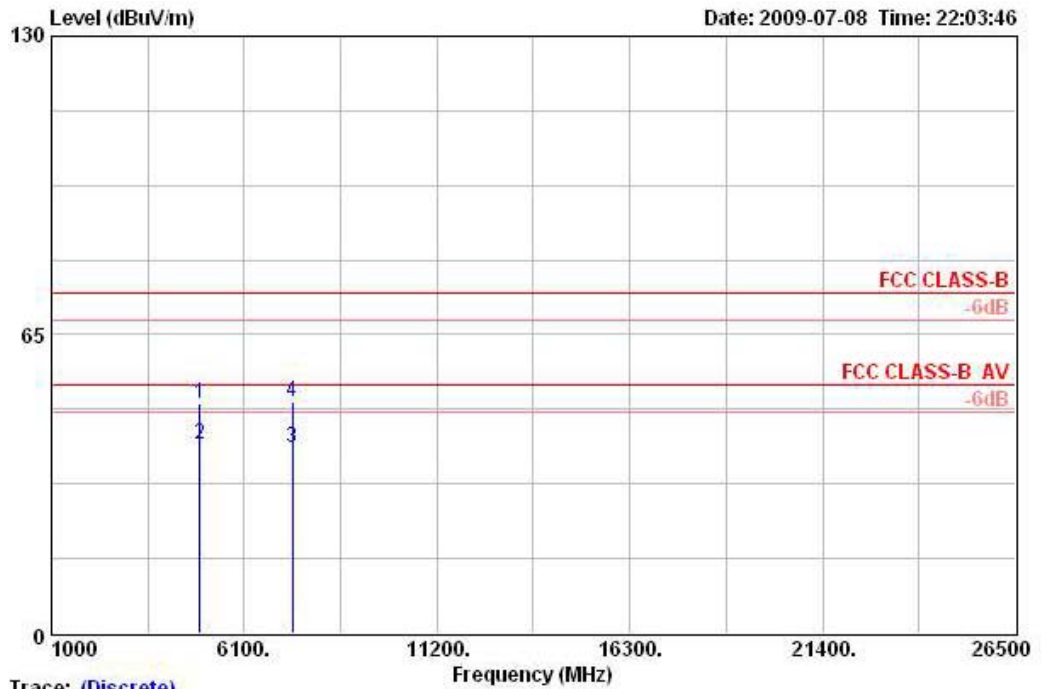
	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			Pos	Pos
											deg	cm
1	4873.940	38.69	-15.31	54.00	33.85	33.48	35.20	6.56	AVERAGE	HORIZONTAL	0	100
2	4874.050	49.12	-24.88	74.00	44.28	33.48	35.20	6.56	PEAK	HORIZONTAL	0	100
3	7310.540	39.30	-14.70	54.00	30.23	36.50	35.42	7.99	AVERAGE	HORIZONTAL	278	100
4	7310.540	48.68	-25.32	74.00	39.61	36.50	35.42	7.99	PEAK	HORIZONTAL	278	100

Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11b CH 11(Ant. 1)



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11b C11

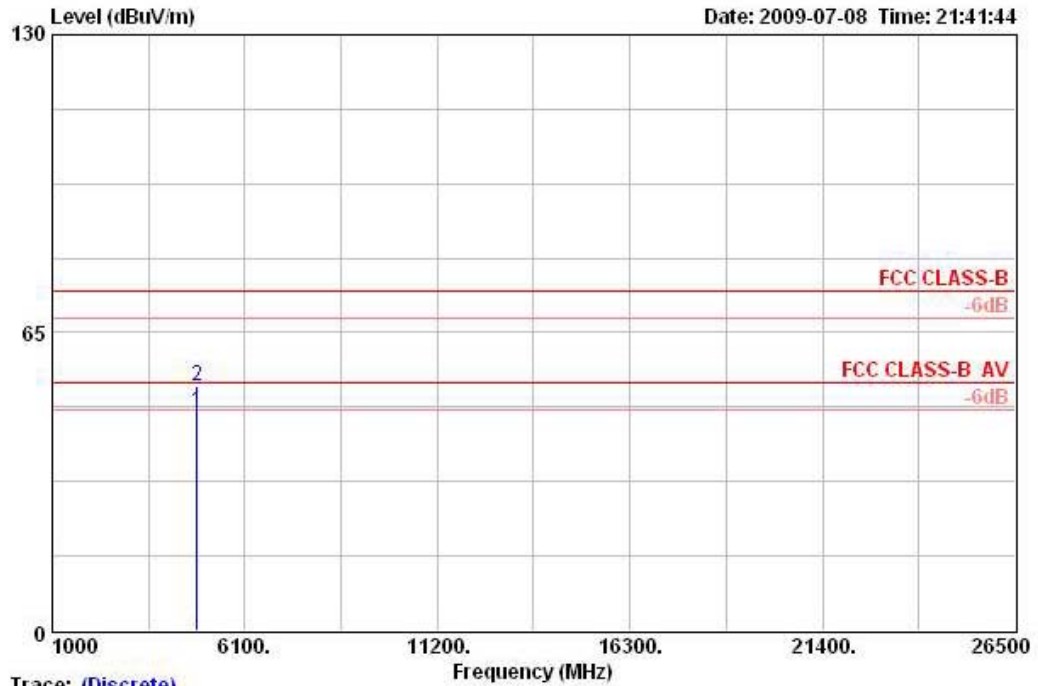
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4923.960	42.60	-11.40	54.00	37.49	33.58	35.20	6.73	AVERAGE	VERTICAL	278	100
2	4923.960	49.85	-24.15	74.00	44.74	33.58	35.20	6.73	PEAK	VERTICAL	278	100
3	7376.960	48.15	-25.85	74.00	38.95	36.61	35.45	8.05	PEAK	VERTICAL	360	100
4	7384.520	40.22	-13.78	54.00	31.00	36.63	35.46	8.05	AVERAGE	VERTICAL	360	100



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18CHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56 %
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11b C11

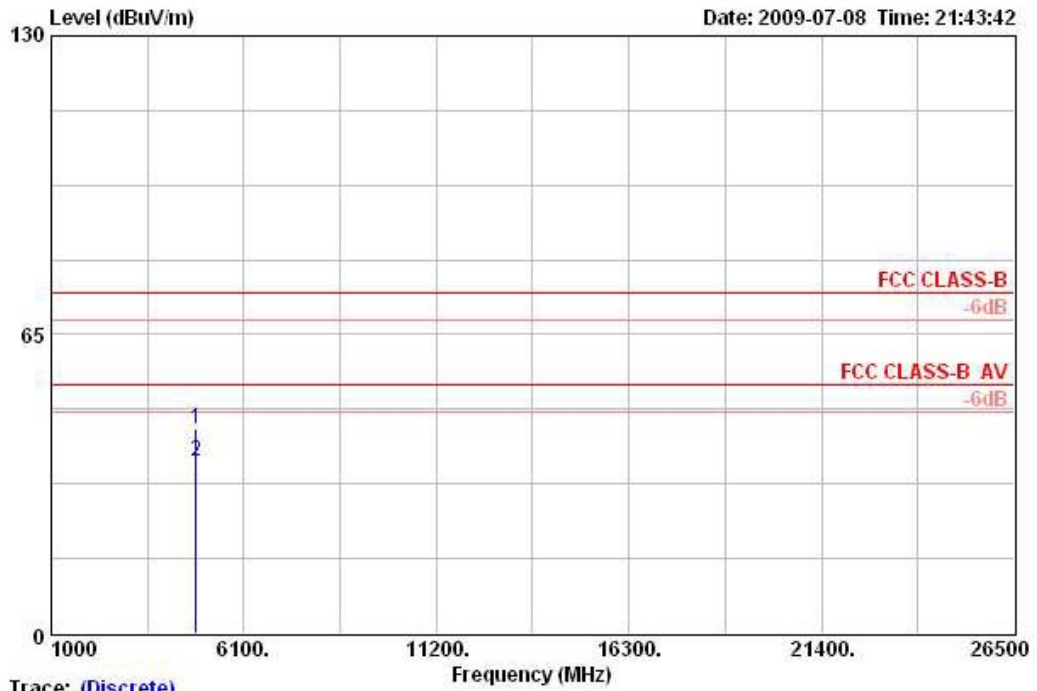
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4923.848	49.82	-24.18	74.00	44.71	33.58	35.20	6.73	PEAK	HORIZONTAL	360	100
2	4923.924	41.00	-13.00	54.00	35.89	33.58	35.20	6.73	AVERAGE	HORIZONTAL	360	100
3	7378.240	40.25	-13.75	54.00	31.05	36.61	35.45	8.05	AVERAGE	HORIZONTAL	27	100
4	7378.240	50.28	-23.72	74.00	41.08	36.61	35.45	8.05	PEAK	HORIZONTAL	0	100

Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11b CH 1 (Ant. 2)



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 'C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11b CH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4823.984	47.92	-6.08	54.00	43.34	33.39	35.20	6.39	AVERAGE	VERTICAL	271	100
2	4823.988	53.42	-20.58	74.00	48.85	33.39	35.20	6.39	PEAK	VERTICAL	271	100

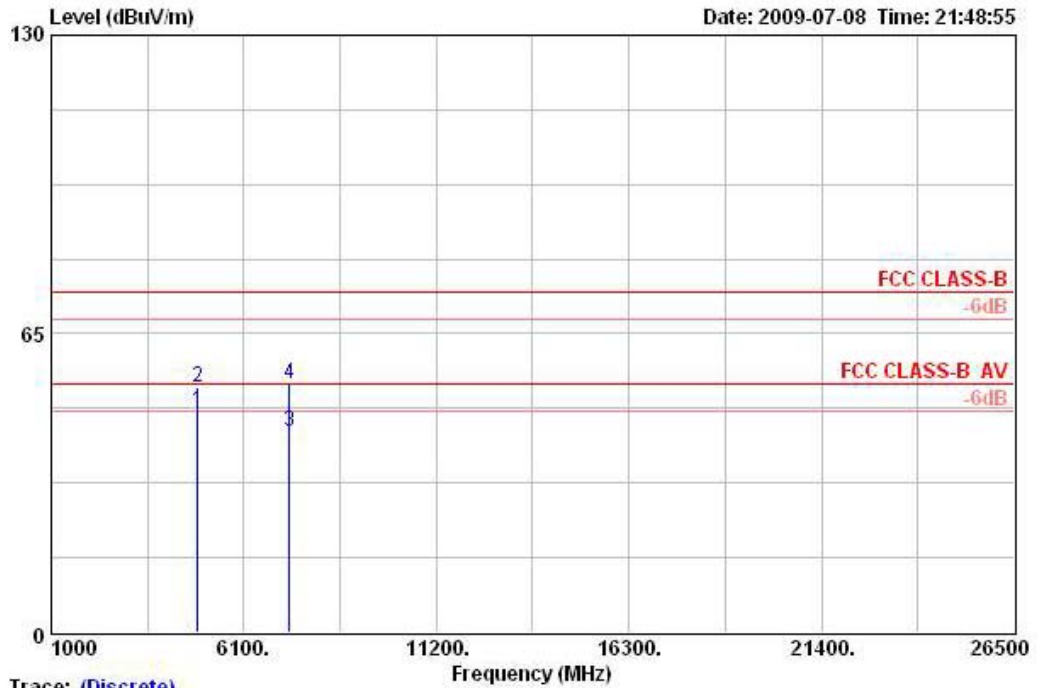


Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18CHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 'C
 Relative Humidity : 56 %
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11b CH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4823.452	44.31	-29.69	74.00	39.73	33.39	35.20	6.39	PEAK	HORIZONTAL	0	100
2	4823.812	37.49	-16.51	54.00	32.91	33.39	35.20	6.39	AVERAGE	HORIZONTAL	0	100

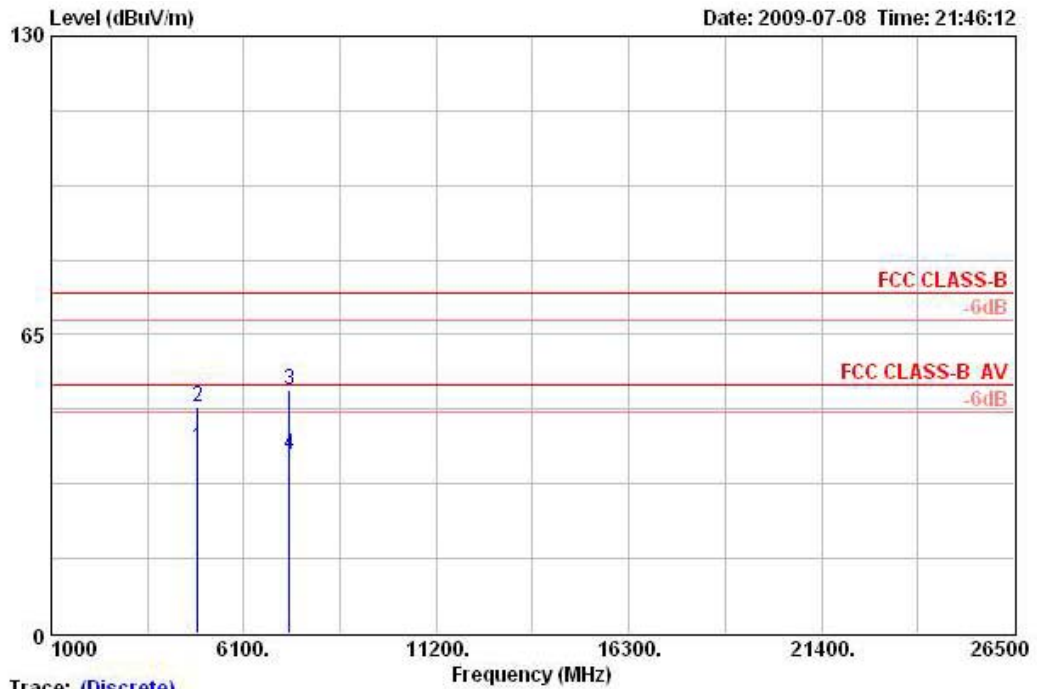
Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11b CH 6 (Ant. 2)



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11b CH6

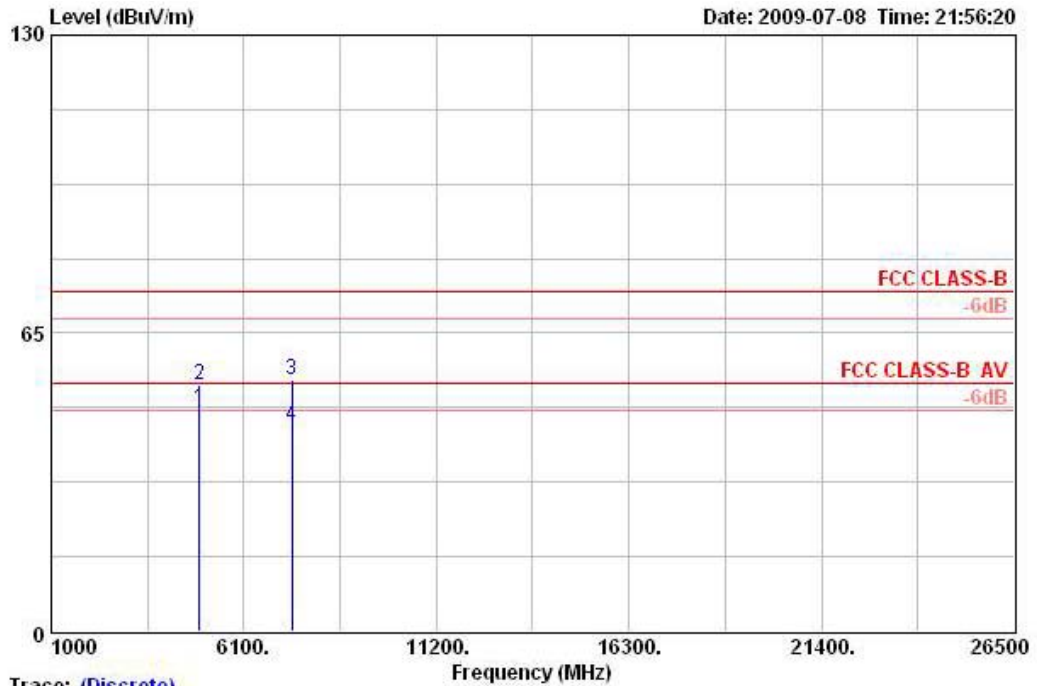
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1 !	4874.040	48.32	-5.68	54.00	43.47	33.48	35.20	6.56	AVERAGE	VERTICAL	87	100
2	4874.300	53.36	-20.64	74.00	48.52	33.48	35.20	6.56	PEAK	VERTICAL	87	100
3	7307.900	43.63	-10.37	54.00	34.56	36.50	35.42	7.99	AVERAGE	VERTICAL	360	100
4	7308.060	53.92	-20.08	74.00	44.85	36.50	35.42	7.99	PEAK	VERTICAL	360	100



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18CHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56 %
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11b CH6

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4873.980	40.55	-13.45	54.00	35.70	33.48	35.20	6.56	AVERAGE	HORIZONTAL	360	100
2	4874.020	49.35	-24.65	74.00	44.51	33.48	35.20	6.56	PEAK	HORIZONTAL	360	100
3	7301.860	52.87	-21.13	74.00	43.80	36.50	35.42	7.99	PEAK	HORIZONTAL	0	100
4	7301.860	39.06	-14.94	54.00	29.99	36.50	35.42	7.99	AVERAGE	HORIZONTAL	0	100

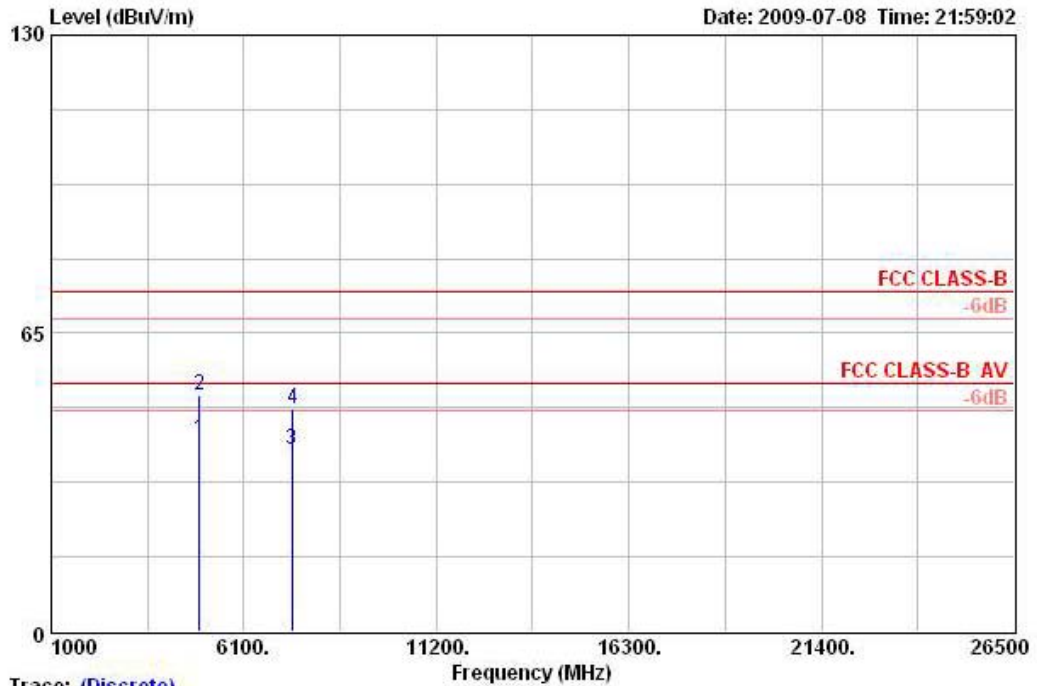
Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11b CH 11(Ant. 2)



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 100cm 360deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11b C11

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss			Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1 !	4923.948	48.47	-5.53	54.00	43.37	33.58	35.20	6.73	AVERAGE	VERTICAL	130	100
2	4924.092	53.71	-20.29	74.00	48.60	33.58	35.20	6.73	PEAK	VERTICAL	130	100
3	7382.440	54.67	-19.33	74.00	45.47	36.61	35.45	8.05	PEAK	VERTICAL	360	100
4	7383.120	44.74	-9.26	54.00	35.54	36.61	35.45	8.05	AVERAGE	VERTICAL	360	100

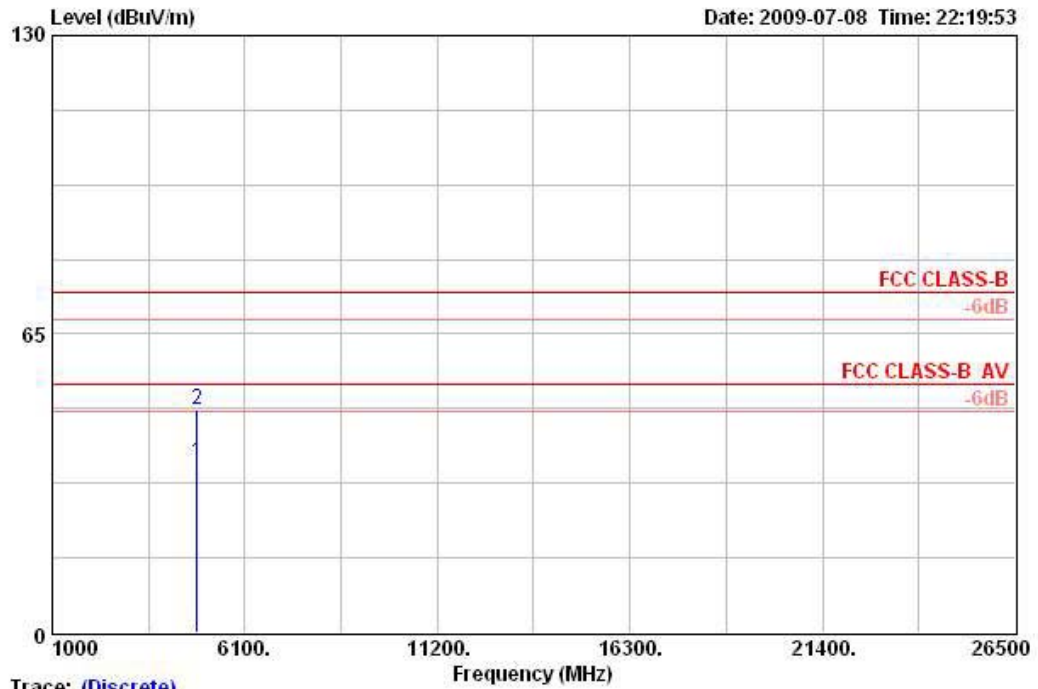


Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Ant : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 'C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11b C11

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			Pos	Pos
											deg	cm
1	4924.008	41.97	-12.03	54.00	36.86	33.58	35.20	6.73	AVERAGE	HORIZONTAL	125	100
2	4924.060	51.40	-22.60	74.00	46.30	33.58	35.20	6.73	PEAK	HORIZONTAL	125	100
3	7377.560	39.57	-14.43	54.00	30.37	36.61	35.45	8.05	AVERAGE	HORIZONTAL	360	100
4	7387.040	48.51	-25.49	74.00	39.29	36.63	35.46	8.05	PEAK	HORIZONTAL	360	100

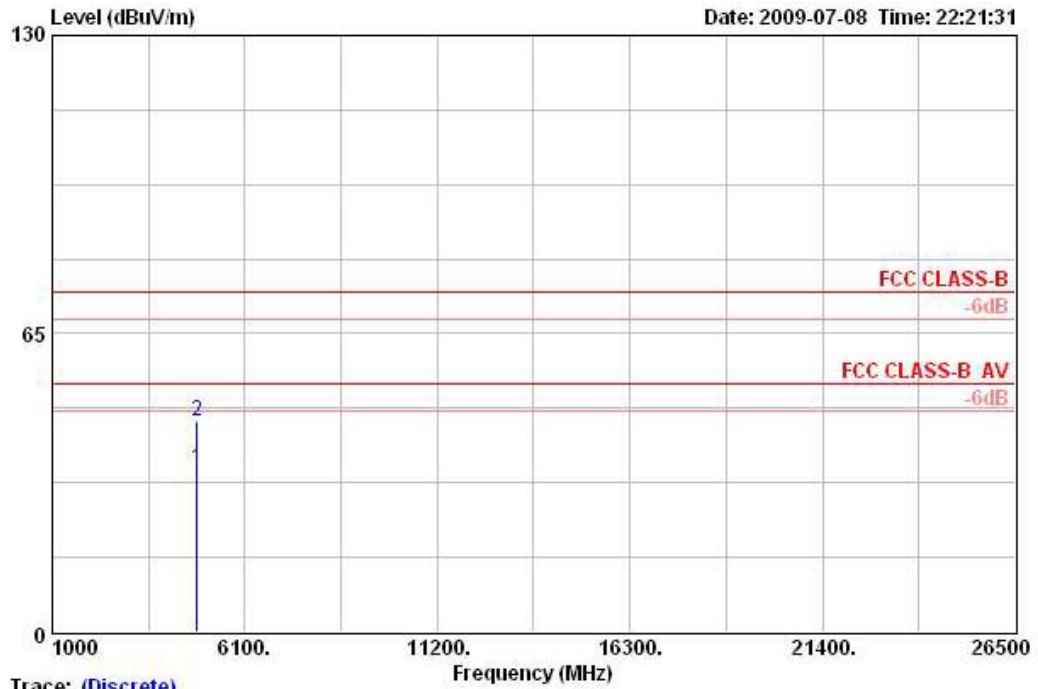
Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11g CH 1 (Ant. 1)



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11g CH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4823.950	37.15	-16.85	54.00	32.57	33.39	35.20	6.39	AVERAGE	VERTICAL	360	100
2	4825.840	48.38	-25.62	74.00	43.80	33.39	35.20	6.39	PEAK	VERTICAL	360	100

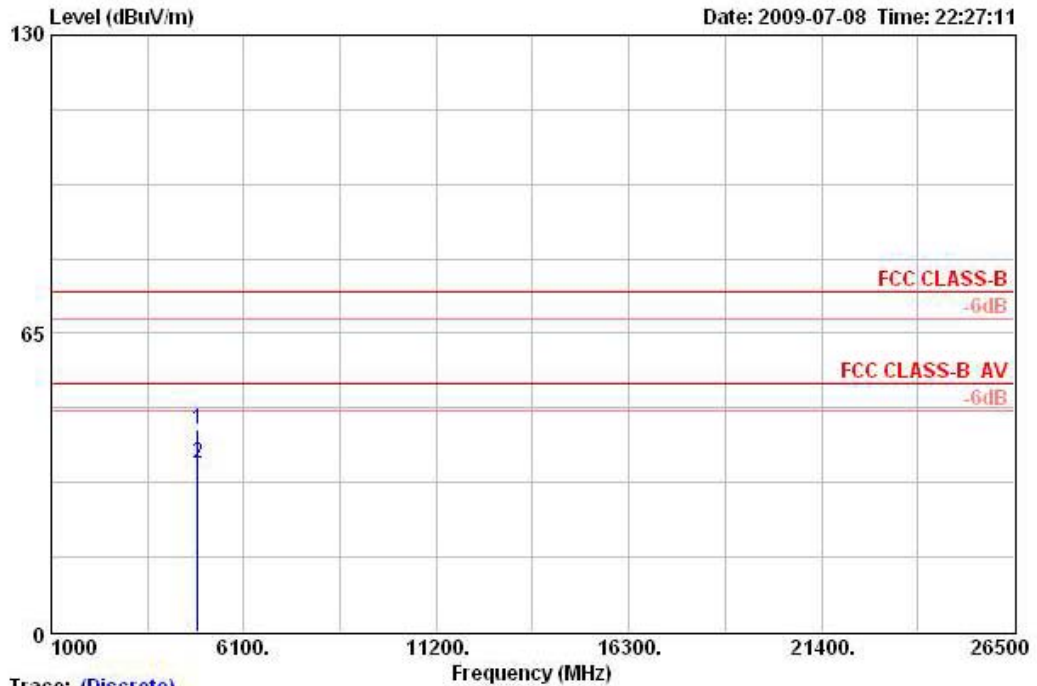


Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJI
 : Tx 11g CH1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4825.720	35.55	-18.45	54.00	30.97	33.39	35.20	6.39	AVERAGE	HORIZONTAL	0	100
2	4825.720	45.95	-28.05	74.00	41.37	33.39	35.20	6.39	PEAK	HORIZONTAL	0	100

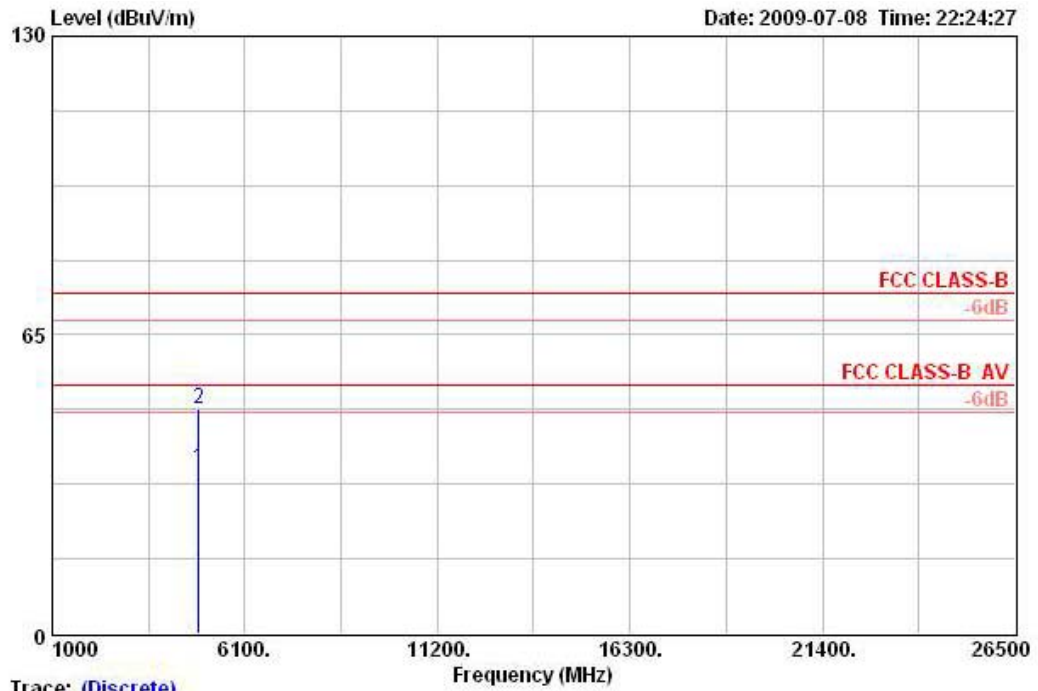
Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11g CH 6 (Ant. 1)



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 'C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11g CH6

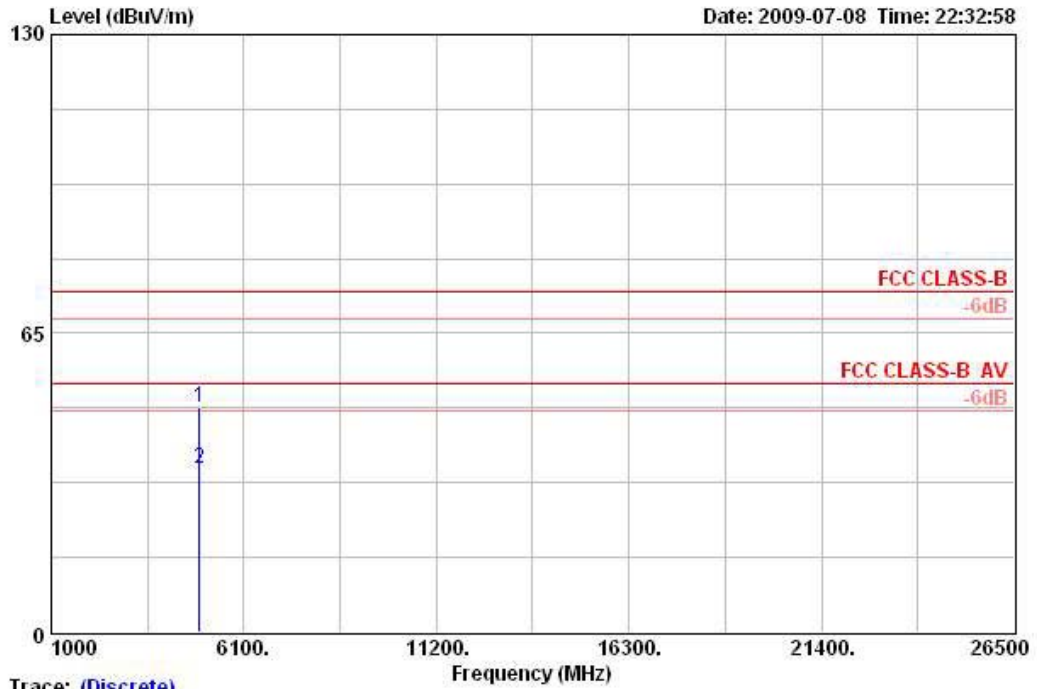
	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	Limit	Line	Level	Factor	Factor	Loss			Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4871.890	44.13	-29.87	74.00	39.28	33.48	35.20	6.56	PEAK	VERTICAL	0	100
2	4873.120	36.70	-17.30	54.00	31.86	33.48	35.20	6.56	AVERAGE	VERTICAL	0	100



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11g CH6

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Factor	Loss			Pos	Pos
					dBuV	dB/m	dB	dB			deg	cm
1	4872.540	35.92	-18.08	54.00	31.08	33.48	35.20	6.56	AVERAGE	HORIZONTAL	360	100
2	4872.840	48.84	-25.16	74.00	44.00	33.48	35.20	6.56	PEAK	HORIZONTAL	360	100

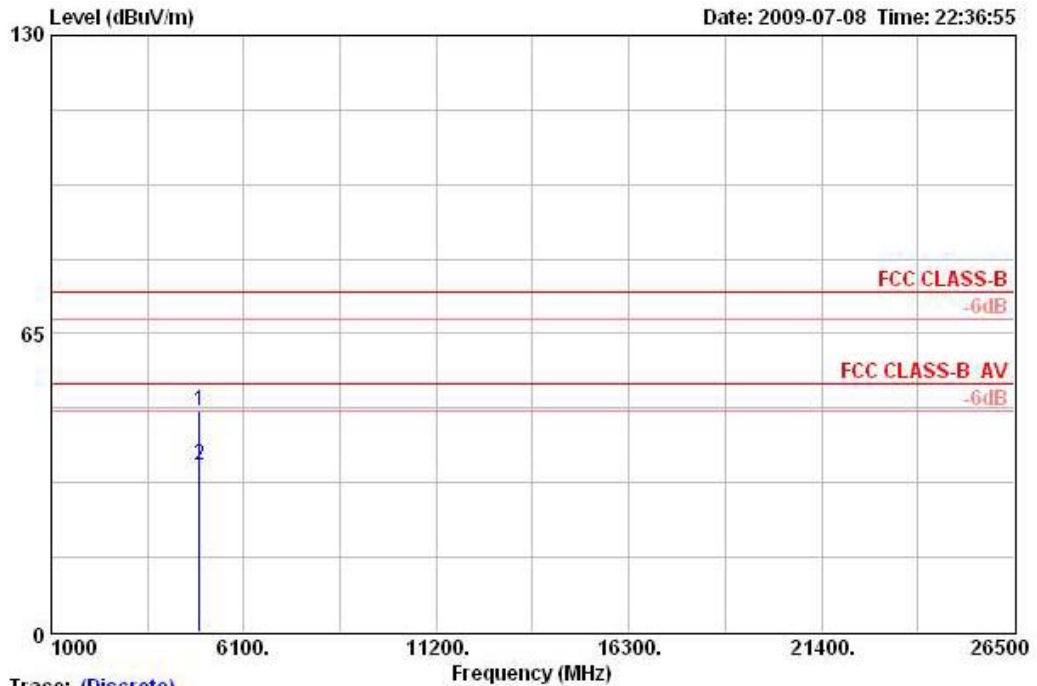
Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11g CH 11 (Ant. 1)



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 VERTICAL 0cm 0deg
 eut : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ1
 : Tx 11g CH11

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4921.610	48.82	-25.18	74.00	43.71	33.58	35.20	6.73	PEAK	VERTICAL	360	100
2	4923.840	35.58	-18.42	54.00	30.47	33.58	35.20	6.73	AVERAGE	VERTICAL	360	100



Trace: (Discrete)
 Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 Power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJI
 : Tx 11g CH11

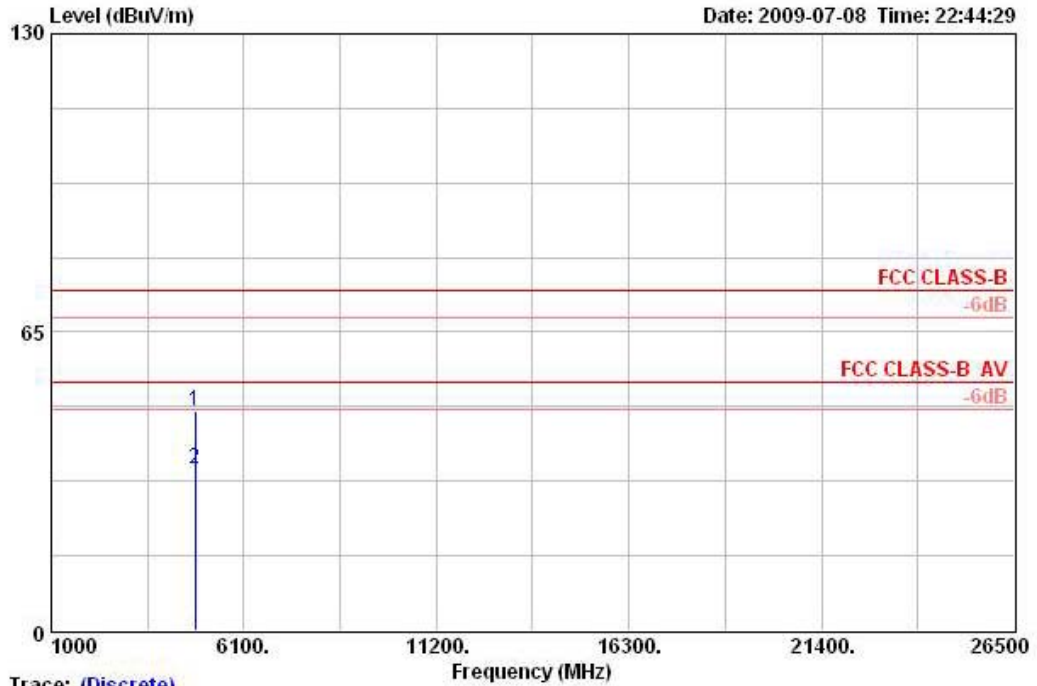
	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4925.310	48.17	-25.83	74.00	43.06	33.58	35.20	6.73	PEAK	HORIZONTAL	0	100
2	4926.050	36.18	-17.82	54.00	31.08	33.58	35.20	6.73	AVERAGE	HORIZONTAL	0	100

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

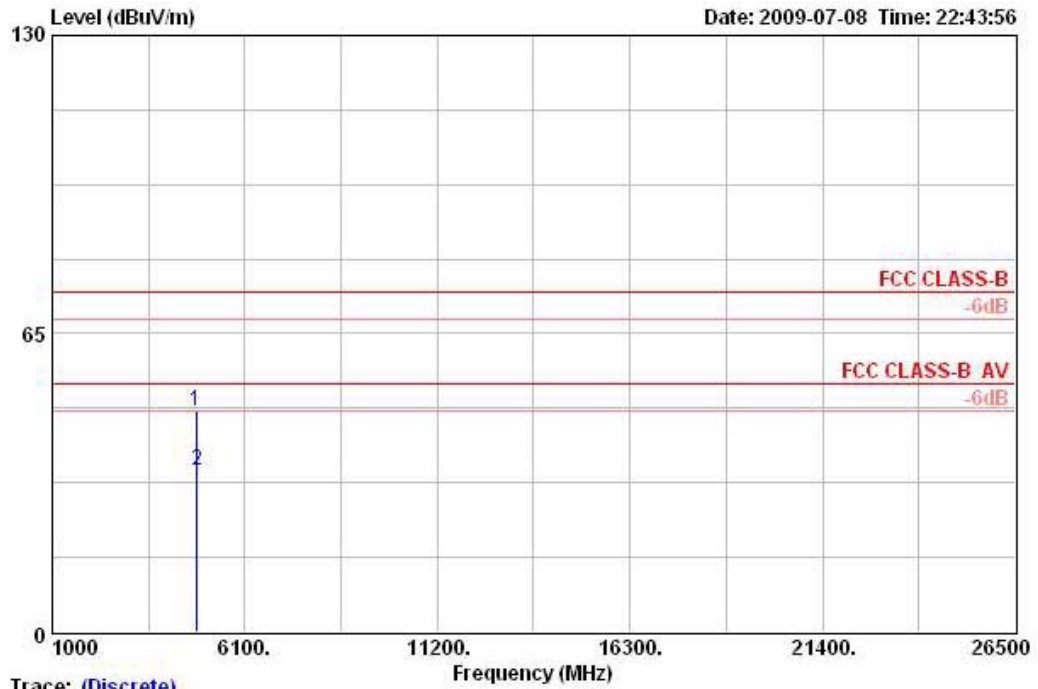
Test date	Jul. 08, 2009	Test Site No.	03CH03-CB
Temperature	25.6°C	Humidity	56%
Test Engineer	Beck Wu	Configuration	802.11g CH 1 (Ant. 2)



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18CHORN ANT:20070301 VERTICAL 0cm 0deg
 Antenna : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11g CH01

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Pol/Phase	Table Pos	Ant Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB			deg	cm
1	4821.560	47.84	-26.16	74.00	43.26	33.39	35.20	6.39	PEAK	VERTICAL	360	100
2	4822.520	35.33	-18.67	54.00	30.75	33.39	35.20	6.39	AVERAGE	VERTICAL	360	100



Trace: (Discrete)

Site : 03CH03-CB
 Condition : FCC CLASS-B 3m 18GHORN ANT:20070301 HORIZONTAL 0cm 0deg
 Antenna : TG587n V2
 power : 110V 60Hz
 Engineer : Beck
 Temp : 25.6 °C
 Relative Humidity : 56%
 Atmosphere : 98.6 Kpa
 memo : WJ2
 : Tx 11g CH01

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Remark	Pol/Phase	Table	Ant
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Factor	Loss			Pos	Pos
					dBuV	dB/m	dB	dB			deg	cm
1	4822.100	48.04	-25.96	74.00	43.46	33.39	35.20	6.39	PEAK	HORIZONTAL	360	100
2	4824.860	35.13	-18.87	54.00	30.56	33.39	35.20	6.39	AVERAGE	HORIZONTAL	360	100