SPORTON International Inc.
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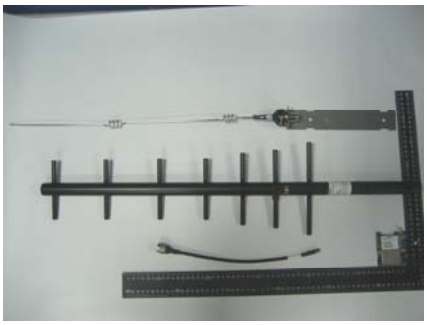
FCC RADIO TEST REPORT

Applicant's company	**Linc Technology LLC**
Applicant Address	3535 Factoria Blvd. SE, Suite 100 Bellevue, WA 98006 USA
FCC ID	**UONLEM111790**
Manufacturer's company	**Z-Com, Inc.**
Manufacturer Address	7F-2, No. 9. Prosperity RD.I Science-Based Industrial Park Hsinchu, 300 Taiwan

Product Name	FLC
Brand Name	Data-Linc Group
Model Name	910E
Test Rule	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	902 ~ 928 MHz
Received Date	Nov. 25, 2009
Final Test Date	Dec. 02, 2009
Submission Type	Original Equipment



Statement

Test result included is only for the 802.DSSS/g 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.

TAF
Testing Laboratory
1190

Table of Contents

History of This Test Report

Original Issue Date: Dec. 24, 2009

Report No.: FR6N2911-01

■ No additional attachment.

□ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

Certificate No.: CB9812071

1. CERTIFICATE OF COMPLIANCE

Product Name	:	FLC
Brand Name	:	Data-Linc Group
Model Name	:	910E
Applicant	:	Linc Technology LLC
Test Rule Part(s)	:	47 CFR FCC Part 15 Subpart C § 15.247

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Nov. 25, 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.

Jordan Hsiao 2009. 12. 24

Reviewed By:
Jordan Hsiao
SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	**Rule Section**	**Description of Test**	**Result**	**Under Limit**
4.1	15.207	AC Power Line Conducted Emissions	Complies	4.87 dB
4.2	15.247(b)(3)	Maximum Peak Conducted Output Power	Complies	0.20 dB
4.3	15.247(e)	Power Spectral Density	Complies	1.30 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions	Complies	0.50 dB
4.6	15.247(d)	Band Edge Emissions	Complies	-
4.7	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	$\pm 8.5\times10^{-8}$	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℃	Confidence levels of 95%
Humidity	±3.2%	Confidence levels of 95%
DC / AC Power Source	±1.4%	Confidence levels of 95%

3. GENERAL INFORMATION

3.1. Product Details

Items	Description
Power Type	From host system
Modulation	DSSS ; OFDM
Data Modulation	DSSS (BPSK / QPSK / CCK) ; OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	DSSS (1/ 2/ 5.5/11) ; OFDM (1.5/2.25/3/4.5/9/12/13.5)
Frequency Range	902 ~ 928 MHz
Channel Number	DSSS: 2 ; OFDM: 4
Channel Band Width (99%)	DSSS: 15.76 MHz ; OFDM: 6.76 MHz Note: DSSS:20MHz, OFDM:5MHz
Conducted Output Power	DSSS: 27.80 dBm ; OFDM: 28.60 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

3.2. Accessories

N/A

3.3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Data-Linc Group	A-Y11B	YAGI Antenna	N-female	11
2	Data-Linc Group	A-O7B	OMNI DIRECTIONAL Antenna	N type female	5

3.4. Table for Carrier Frequencies

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
902 ~ 928MHz (OFDM)	1	908 MHz	3	918 MHz
	2	913 MHz	4	923 MHz
902 ~ 928MHz (DSSS)	2	913 MHz	3	918 MHz

3.5. 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 all the possible configurations 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	Antenna
AC Power Line Conducted Emissions	Normal Link	1 Mbps	2	1/2
Maximum Peak Conducted Output Power	DSSS/CCK	1 Mbps	2/3	NA
Power Spectral Density 6dB Spectrum Bandwidth	OFDM/BPSK	1.5 Mbps	1/2/4	NA
Radiated Emissions 9kHz~1GHz	OFDM/BPSK	1.5 Mbps	2	1/2
Radiated Emissions 1GHz~10th Harmonic	DSSS/CCK	1 Mbps	2/3	1/2
	OFDM/BPSK	1.5 Mbps	1/2/4	1/2
Band Edge Emissions	DSSS/CCK	1 Mbps	2/3	1/2
	OFDM/BPSK	1.5 Mbps	1/4	1/2

The following test modes were performed for all tests:

Mode 1. EUT + Ant. 1

Mode 2. EUT + Ant. 2

3.6. Table for Testing Locations

Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.	VCCI Reg. No
03CH03-HY	SAC	Hwa Ya	480872	IC 4086	-
CO04-HY	Conduction	Hwa Ya	480872	IC 4086	-
TH01-HY	OVEN Room	Hwa Ya	-	-	-

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

Please refer section 6 for Test Site Address.

3.7. Table for Supporting Units

Support Unit	Brand	Model	FCC ID
Notebook	DELL	D400	E2K24GBRL
Mouse	iCooky	AMS0706W	DoC
Modem	ACEEX	DM1414	IFAXDM1414
Wireless AP	Planex	GW-AP54SGX	N/A

3.8. 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.

<For Antenna 1>

Power Parameters

Test Software Version	ART		
Frequency	913 MHz	918 MHz	-
DSSS Mode	24	24	-
Frequency	908 MHz	913 MHz	923 MHz
OFDM Mode	23.5	21.5	21

<For Antenna 2>

Power Parameters

Test Software Version	ART		
Frequency	913 MHz	918 MHz	-
DSSS Mode	25	25	-
Frequency	908 MHz	918 MHz	923 MHz
OFDM Mode	25	25	25

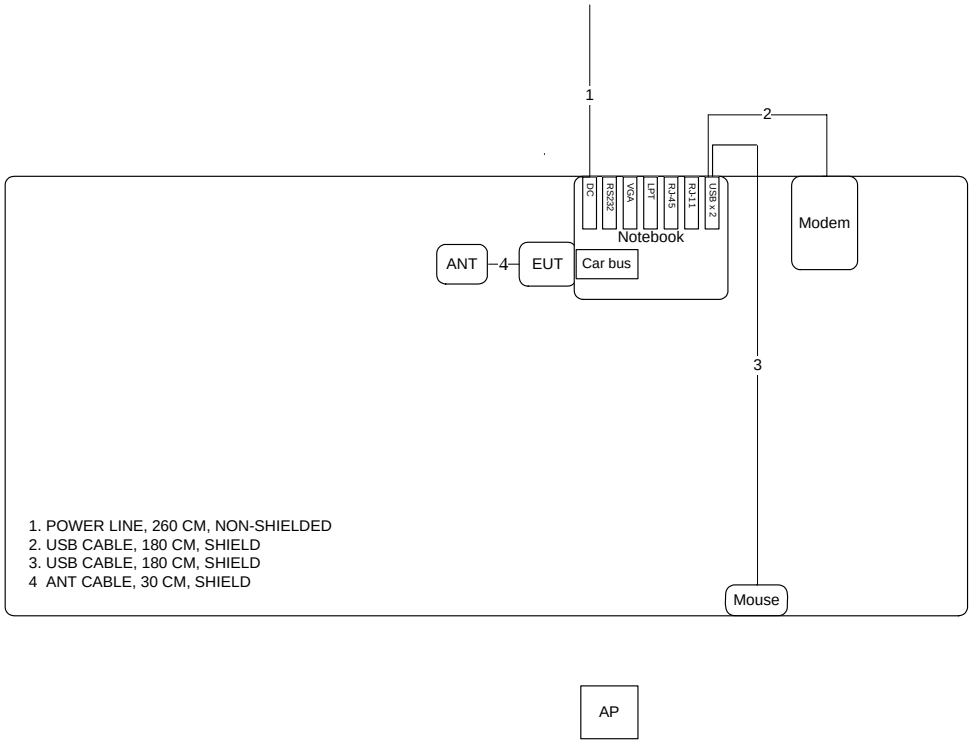
During the test, the following programs under WIN XP were executed:

Executed “ART” was executed the test program to control the EUT continuously transmit RF signal.

3.9. Test Configurations

3.9.1. Radiation Emissions Test Configuration

Test Configuration: 30MHz~1GHz



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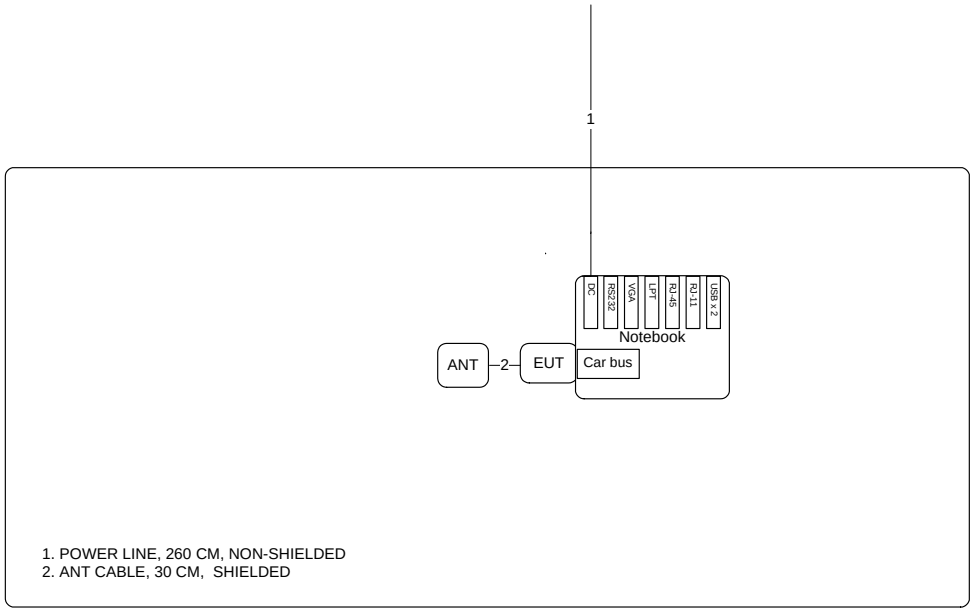
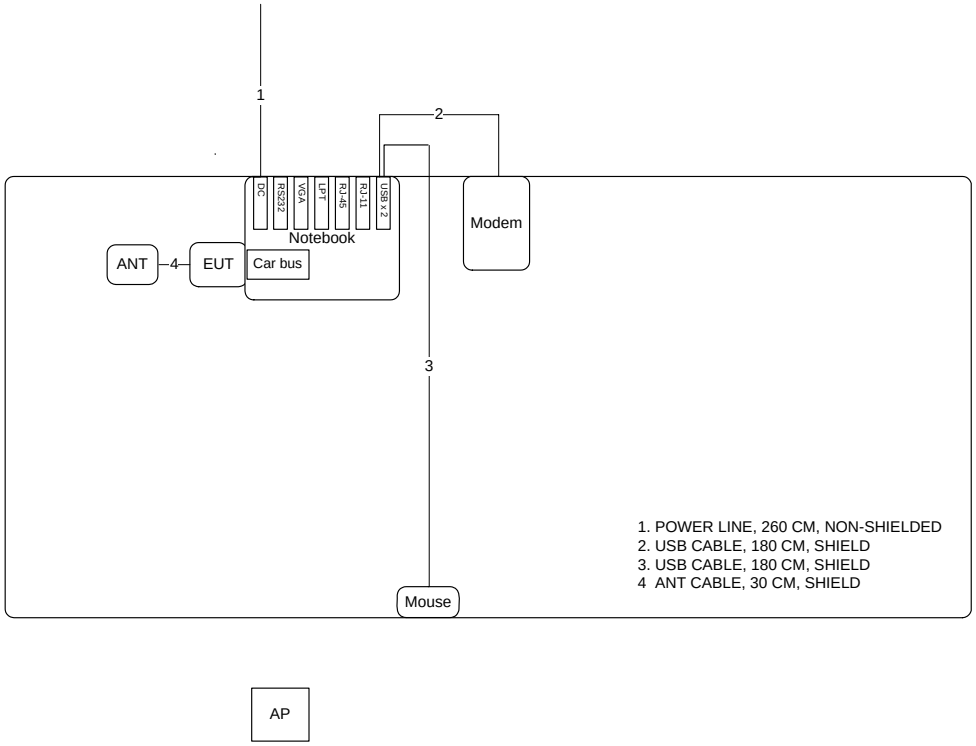
Test Configuration: Above 1GHz



3.9.2. AC Power Line Conduction Emissions Test Configuration



4. TEST RESULT

4.1. AC Power Line Conducted Emissions Measurement

4.1.1. 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.

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

4.1.2. Measuring Instruments and Setting

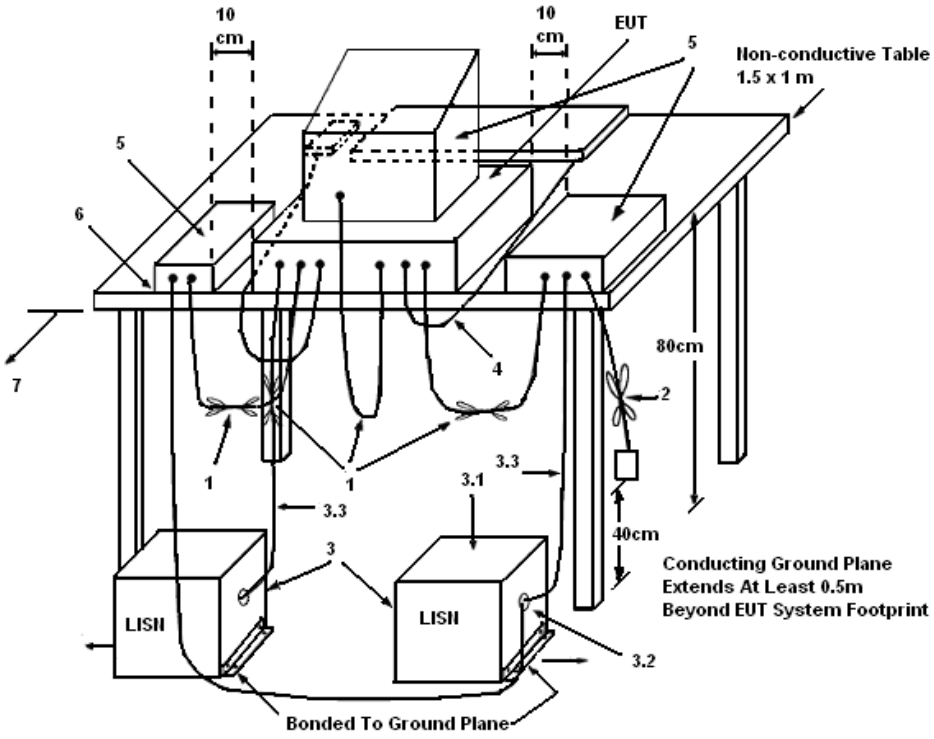
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

4.1.3. 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.

4.1.4. 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.

4.1.5. Test Deviation

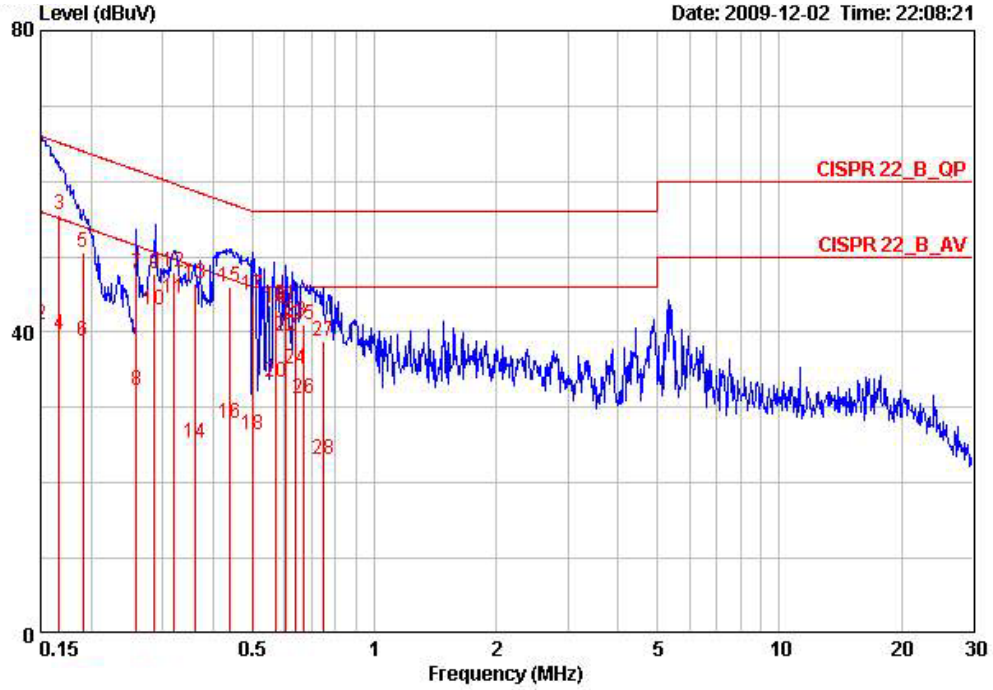
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

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

4.1.7. Results of AC Power Line Conducted Emissions Measurement

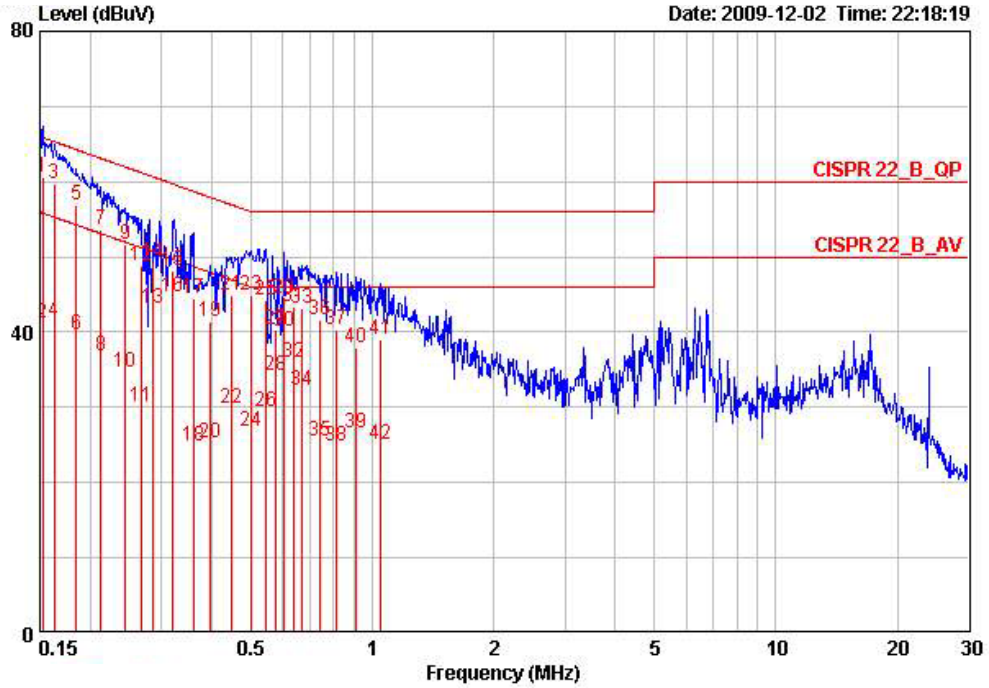
Temperature	23°C	Humidity	54%
Test Engineer	Rex Chiu	Phase	Line
Configuration	Normal Link / Mode 1		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15000	58.81	-7.19	66.00	58.53	0.08	0.20	QP
2	0.15000	41.02	-14.98	56.00	40.74	0.08	0.20	AVERAGE
3	0.16677	55.63	-9.49	65.12	55.36	0.07	0.20	QP
4	0.16677	39.69	-15.43	55.12	39.42	0.07	0.20	AVERAGE
5	0.19039	50.60	-13.42	64.02	50.35	0.05	0.20	QP
6	0.19039	38.72	-15.30	54.02	38.47	0.05	0.20	AVERAGE
7	0.25888	47.82	-13.64	61.47	47.58	0.04	0.20	QP
8	0.25888	32.33	-19.13	51.47	32.09	0.04	0.20	AVERAGE
9	0.28662	47.71	-12.91	60.62	47.47	0.04	0.20	QP
10	0.28662	42.96	-7.66	50.62	42.72	0.04	0.20	AVERAGE
11	0.31962	44.38	-5.34	49.72	44.14	0.04	0.20	AVERAGE
12	0.31962	47.92	-11.80	59.72	47.68	0.04	0.20	QP
13	0.35955	46.49	-12.25	58.74	46.26	0.03	0.20	QP
14	0.35955	25.32	-23.42	48.74	25.09	0.03	0.20	AVERAGE
15	0.43742	45.91	-11.20	57.11	45.68	0.03	0.20	QP
16	0.43742	27.88	-19.23	47.11	27.65	0.03	0.20	AVERAGE
17	0.50203	44.99	-11.01	56.00	44.77	0.03	0.19	QP
18	0.50203	26.33	-19.67	46.00	26.11	0.03	0.19	AVERAGE
19	0.57209	43.20	-12.80	56.00	42.97	0.03	0.20	QP
20	0.57209	33.40	-12.60	46.00	33.17	0.03	0.20	AVERAGE
21	0.60471	43.58	-12.42	56.00	43.35	0.03	0.20	QP
22	0.60471	39.45	-6.55	46.00	39.22	0.03	0.20	AVERAGE
23	0.63671	41.37	-14.63	56.00	41.14	0.03	0.20	QP
24	0.63671	35.10	-10.90	46.00	34.87	0.03	0.20	AVERAGE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
25	0.66931	41.00	-15.00	56.00	40.77	0.03	0.20	QP
26	0.66931	31.16	-14.84	46.00	30.93	0.03	0.20	AVERAGE
27	0.74697	38.71	-17.29	56.00	38.48	0.03	0.20	QP
28	0.74697	23.04	-22.96	46.00	22.81	0.03	0.20	AVERAGE

Temperature	23°C	Humidity	54%
Test Engineer	Rex Chiu	Phase	Neutral
Configuration	Normal Link / Mode 1		



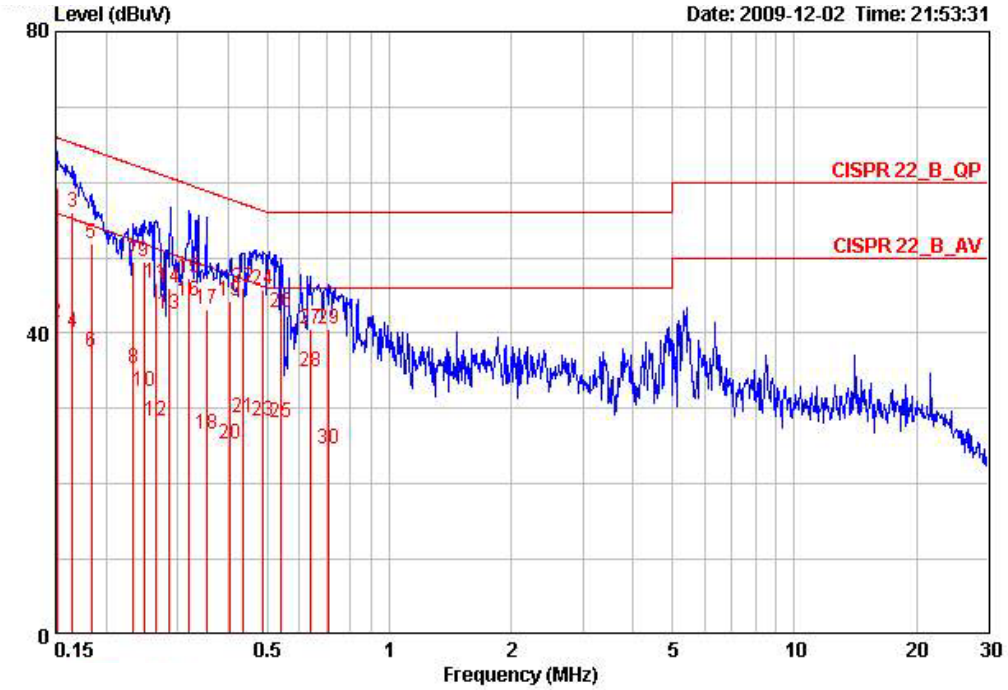
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15240	60.70	-5.16	65.87	60.40	0.10	0.20	QP
2	0.15240	41.10	-14.76	55.87	40.80	0.10	0.20	AVERAGE
3	0.16241	59.69	-5.65	65.34	59.39	0.10	0.20	QP
4	0.16241	41.36	-13.98	55.34	41.06	0.10	0.20	AVERAGE
5	0.18443	56.93	-7.36	64.28	56.64	0.09	0.20	QP
6	0.18443	39.75	-14.54	54.28	39.46	0.09	0.20	AVERAGE
7	0.21279	53.69	-9.41	63.10	53.41	0.08	0.20	QP
8	0.21279	36.90	-16.20	53.10	36.62	0.08	0.20	AVERAGE
9	0.24422	51.59	-10.36	61.95	51.31	0.08	0.20	QP
10	0.24422	34.77	-17.18	51.95	34.49	0.08	0.20	AVERAGE
11	0.26866	30.16	-21.00	51.16	29.88	0.08	0.20	AVERAGE
12	0.26866	48.90	-12.26	61.16	48.62	0.08	0.20	QP
13	0.28642	43.09	-7.53	50.63	42.82	0.07	0.20	AVERAGE
14	0.28642	49.22	-11.40	60.63	48.95	0.07	0.20	QP
15	0.31942	48.10	-11.62	59.72	47.83	0.07	0.20	QP
16 @	0.31942	44.79	-4.93	49.72	44.52	0.07	0.20	AVERAGE
17	0.35955	44.44	-14.30	58.74	44.17	0.07	0.20	QP
18	0.35955	24.76	-23.98	48.74	24.49	0.07	0.20	AVERAGE
19	0.39763	41.43	-16.47	57.90	41.16	0.07	0.20	QP
20	0.39763	25.21	-22.69	47.90	24.94	0.07	0.20	AVERAGE
21	0.44916	44.89	-12.00	56.89	44.62	0.07	0.20	QP
22	0.44916	29.96	-16.93	46.89	29.69	0.07	0.20	AVERAGE
23	0.49937	44.86	-11.15	56.01	44.61	0.07	0.18	QP
24	0.49937	26.80	-19.21	46.01	26.55	0.07	0.18	AVERAGE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
25	0.54355	44.24	-11.76	56.00	43.97	0.07	0.20	QP
26	0.54355	29.47	-16.53	46.00	29.20	0.07	0.20	AVERAGE
27	0.57475	40.42	-15.58	56.00	40.15	0.07	0.20	QP
28	0.57475	34.20	-11.80	46.00	33.93	0.07	0.20	AVERAGE
29	0.60635	44.48	-11.52	56.00	44.21	0.07	0.20	QP
30	0.60635	40.18	-5.82	46.00	39.91	0.07	0.20	AVERAGE
31	0.63815	43.32	-12.68	56.00	43.05	0.07	0.20	QP
32	0.63815	35.95	-10.05	46.00	35.68	0.07	0.20	AVERAGE
33	0.67187	43.10	-12.90	56.00	42.83	0.07	0.20	QP
34	0.67187	32.34	-13.66	46.00	32.07	0.07	0.20	AVERAGE
35	0.74302	25.45	-20.55	46.00	25.18	0.07	0.20	AVERAGE
36	0.74302	41.60	-14.40	56.00	41.33	0.07	0.20	QP
37	0.81737	40.39	-15.61	56.00	40.12	0.07	0.20	QP
38	0.81737	24.89	-21.11	46.00	24.62	0.07	0.20	AVERAGE
39	0.91357	26.55	-19.45	46.00	26.28	0.07	0.20	AVERAGE
40	0.91357	37.97	-18.03	56.00	37.70	0.07	0.20	QP
41	1.043	39.02	-16.98	56.00	38.76	0.07	0.19	QP
42	1.043	25.00	-21.00	46.00	24.74	0.07	0.19	AVERAGE

Note:

Level = Read Level + LISN Factor + Cable Loss.

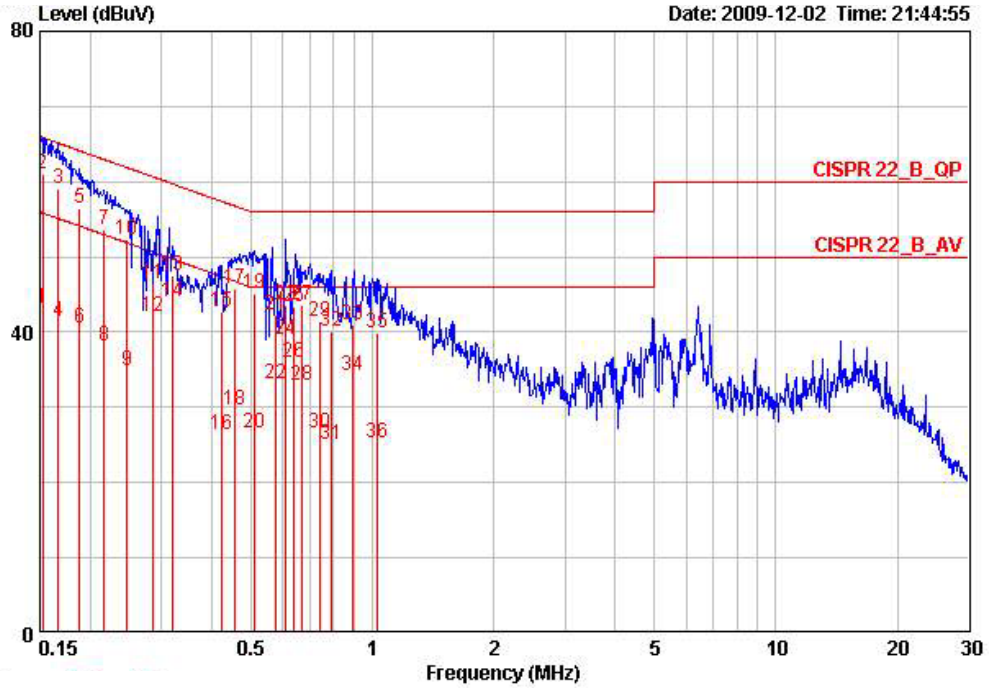
Temperature	23°C	Humidity	54%
Test Engineer	Rex Chiu	Phase	Line
Configuration	Normal Link / Mode 2		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15080	59.19	-6.76	65.96	58.92	0.07	0.20	QP
2	0.15080	41.51	-14.44	55.96	41.24	0.07	0.20	AVERAGE
3	0.16501	55.92	-9.29	65.21	55.65	0.07	0.20	QP
4	0.16501	40.22	-14.99	55.21	39.95	0.07	0.20	AVERAGE
5	0.18346	51.84	-12.49	64.33	51.58	0.06	0.20	QP
6	0.18346	37.55	-16.78	54.33	37.29	0.06	0.20	AVERAGE
7	0.23285	49.51	-12.84	62.35	49.26	0.05	0.20	QP
8	0.23285	35.27	-17.08	52.35	35.02	0.05	0.20	AVERAGE
9	0.24814	49.54	-12.28	61.82	49.30	0.04	0.20	QP
10	0.24814	32.30	-19.52	51.82	32.06	0.04	0.20	AVERAGE
11	0.26442	46.60	-14.69	61.29	46.36	0.04	0.20	QP
12	0.26442	28.33	-22.96	51.29	28.09	0.04	0.20	AVERAGE
13	0.28714	42.59	-8.02	50.61	42.35	0.04	0.20	AVERAGE
14	0.28714	46.04	-14.57	60.61	45.80	0.04	0.20	QP
15	0.31914	47.33	-12.40	59.73	47.09	0.04	0.20	QP
16	0.31914	44.29	-5.44	49.73	44.05	0.04	0.20	AVERAGE
17	0.35388	43.20	-15.67	58.87	42.97	0.03	0.20	QP
18	0.35388	26.62	-22.25	48.87	26.39	0.03	0.20	AVERAGE
19	0.40400	44.19	-13.58	57.77	43.96	0.03	0.20	QP
20	0.40400	25.23	-22.54	47.77	25.00	0.03	0.20	AVERAGE
21	0.43511	28.83	-18.32	47.15	28.60	0.03	0.20	AVERAGE
22	0.43511	45.91	-11.24	57.15	45.68	0.03	0.20	QP
23	0.48890	28.29	-17.89	46.19	28.15	0.03	0.11	AVERAGE
24	0.48890	45.73	-10.45	56.19	45.59	0.03	0.11	QP

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
25	0.54068	28.18	-17.82	46.00	27.95	0.03	0.20	AVERAGE
26	0.54068	42.76	-13.24	56.00	42.53	0.03	0.20	QP
27	0.63720	40.64	-15.36	56.00	40.41	0.03	0.20	QP
28	0.63720	34.83	-11.17	46.00	34.60	0.03	0.20	AVERAGE
29	0.70842	40.49	-15.51	56.00	40.26	0.03	0.20	QP
30	0.70842	24.62	-21.38	46.00	24.39	0.03	0.20	AVERAGE

Temperature	23°C	Humidity	54%
Test Engineer	Rex Chiu	Phase	Neutral
Configuration	Normal Link / Mode 2		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15240	43.17	-12.69	55.87	42.87	0.10	0.20	AVERAGE
2 @	0.15240	60.99	-4.87	65.87	60.69	0.10	0.20	QP
3	0.16677	59.16	-5.96	65.12	58.86	0.10	0.20	QP
4	0.16677	41.49	-13.63	55.12	41.19	0.10	0.20	AVERAGE
5	0.18838	56.37	-7.73	64.11	56.09	0.08	0.20	QP
6	0.18838	40.63	-13.47	54.11	40.35	0.08	0.20	AVERAGE
7	0.21620	53.63	-9.33	62.96	53.35	0.08	0.20	QP
8	0.21620	38.21	-14.75	52.96	37.93	0.08	0.20	AVERAGE
9	0.24682	34.84	-17.03	51.86	34.56	0.08	0.20	AVERAGE
10	0.24682	52.38	-9.49	61.86	52.10	0.08	0.20	QP
11	0.28698	46.42	-14.19	60.61	46.15	0.07	0.20	QP
12	0.28698	42.01	-8.60	50.61	41.74	0.07	0.20	AVERAGE
13	0.31958	47.55	-12.16	59.72	47.28	0.07	0.20	QP
14	0.31958	44.05	-5.66	49.72	43.78	0.07	0.20	AVERAGE
15	0.42373	42.74	-14.63	57.37	42.47	0.07	0.20	QP
16	0.42373	26.29	-21.08	47.37	26.02	0.07	0.20	AVERAGE
17	0.45395	45.78	-11.02	56.80	45.51	0.07	0.20	QP
18	0.45395	29.57	-17.23	46.80	29.30	0.07	0.20	AVERAGE
19	0.51007	45.22	-10.78	56.00	44.95	0.07	0.20	QP
20	0.51007	26.65	-19.35	46.00	26.38	0.07	0.20	AVERAGE
21	0.57369	42.34	-13.66	56.00	42.07	0.07	0.20	QP
22	0.57369	33.03	-12.97	46.00	32.76	0.07	0.20	AVERAGE
23	0.60649	43.65	-12.35	56.00	43.38	0.07	0.20	QP
24	0.60649	39.08	-6.92	46.00	38.81	0.07	0.20	AVERAGE

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
25	0.63929	43.28	-12.72	56.00	43.01	0.07	0.20	QP
26	0.63929	35.95	-10.05	46.00	35.68	0.07	0.20	AVERAGE
27	0.67069	43.56	-12.44	56.00	43.29	0.07	0.20	QP
28	0.67069	32.82	-13.18	46.00	32.55	0.07	0.20	AVERAGE
29	0.73910	41.50	-14.50	56.00	41.23	0.07	0.20	QP
30	0.73910	26.52	-19.48	46.00	26.25	0.07	0.20	AVERAGE
31	0.79180	25.15	-20.85	46.00	24.88	0.07	0.20	AVERAGE
32	0.79180	40.04	-15.96	56.00	39.77	0.07	0.20	QP
33	0.89257	40.94	-15.06	56.00	40.67	0.07	0.20	QP
34	0.89257	34.27	-11.73	46.00	34.00	0.07	0.20	AVERAGE
35	1.027	39.80	-16.20	56.00	39.54	0.07	0.19	QP
36	1.027	25.38	-20.62	46.00	25.12	0.07	0.19	AVERAGE

Note:

Level = Read Level + LISN Factor + Cable Loss.

4.2. Maximum Peak Output Power Measurement

4.2.1. Limit

For systems using digital modulation in the 902-928MHz, 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.

4.2.2. Measuring Instruments and Setting

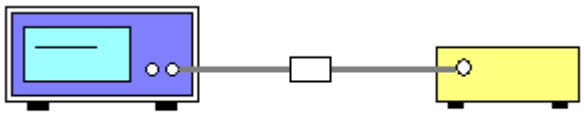
Please refer to section 5 of equipments list in this report. The following table is the setting of the power meter.

Power Meter Parameter	Setting
Filter No.	Auto
Measurement time	0.135 s ~ 26 s
Used Peak Sensor	NRV-Z32

4.2.3. Test Procedures

1. The transmitter output (antenna port) was connected to the power meter.
2. Turn on the EUT and power meter and then record the peak power value.
3. Repeat above procedures on all channels needed to be tested.

4.2.4. Test Setup Layout



4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of Maximum Peak Output Power

<For Antenna 1>

Temperature	24°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	DSSS/OFDM

Configuration DSSS

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
2	913 MHz	24.50	25.00	Complies
3	918 MHz	24.80	25.00	Complies

Configuration OFDM

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	908 MHz	24.50	25.00	Complies
2	913 MHz	24.60	25.00	Complies
4	923 MHz	24.80	25.00	Complies

<For Antenna 2>

Temperature	24°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	DSSS/OFDM

Configuration DSSS

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
2	913 MHz	27.80	30.00	Complies
3	918 MHz	27.70	30.00	Complies

Configuration OFDM

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	908 MHz	28.50	30.00	Complies
2	913 MHz	28.60	30.00	Complies
4	923 MHz	28.60	30.00	Complies

4.3. Power Spectral Density Measurement

4.3.1. 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.

4.3.2. Measuring Instruments and Setting

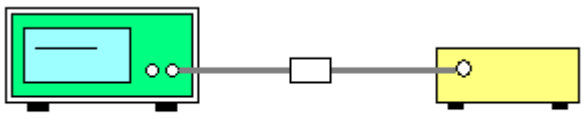
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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

4.3.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyser.
2. Set RBW of spectrum analyzer to 3kHz and VBW to 30kHz. 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 30kHz and the sweep time to 10s and record the maximum peak value.

4.3.4. Test Setup Layout



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of Power Spectral Density

<For Antenna 1>

Temperature	24°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	DSSS/OFDM

Configuration DSSS

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
2	913 MHz	1.70	3.00	Complies
3	918 MHz	1.27	3.00	Complies

Configuration OFDM

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	908 MHz	0.14	3.00	Complies
2	913 MHz	0.03	3.00	Complies
4	923 MHz	-0.29	3.00	Complies

<For Antenna 2>

Temperature	24°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	DSSS/OFDM

Configuration DSSS

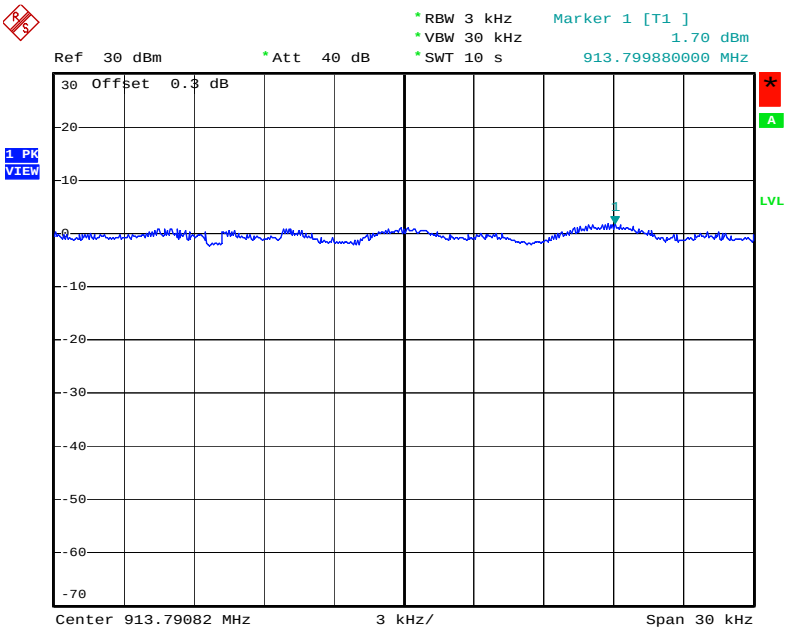
Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
2	913 MHz	1.70	8.00	Complies
3	918 MHz	2.57	8.00	Complies

Configuration OFDM

Channel	Frequency	Power Density (dBm)	Max. Limit (dBm)	Result
1	908 MHz	5.82	8.00	Complies
2	913 MHz	6.45	8.00	Complies
4	923 MHz	6.20	8.00	Complies

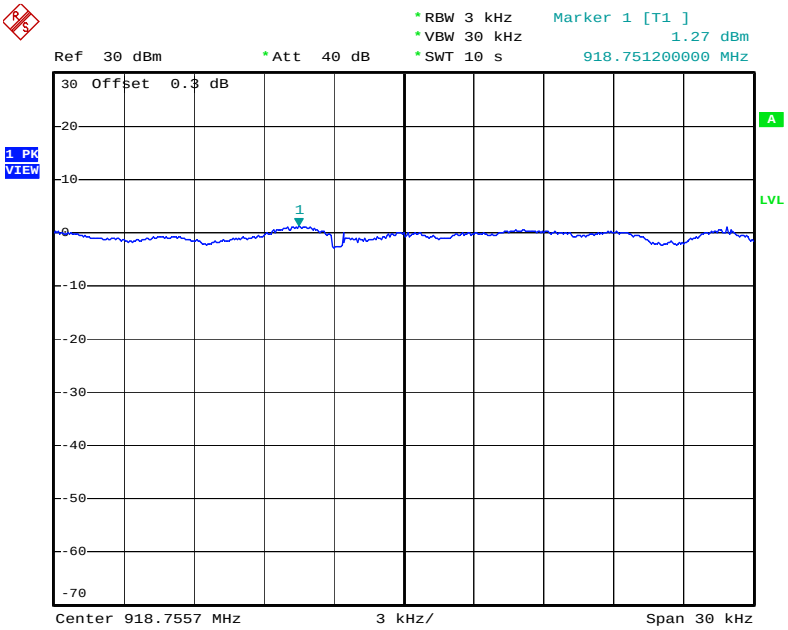
<For Antenna 1>

Power Density Plot on Configuration DSSS Ant. 1 / 913 MHz



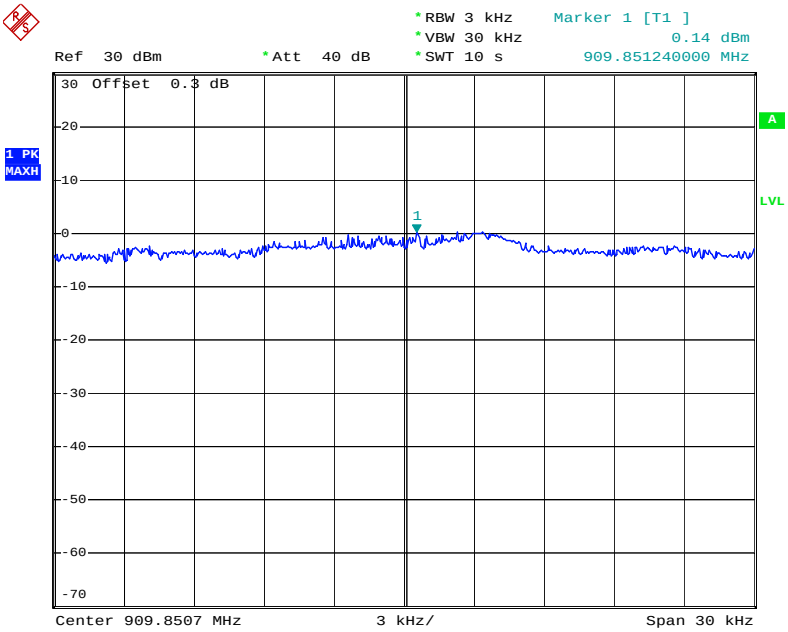
Date: 1.DEC.2009 14:30:58

Power Density Plot on Configuration DSSS Ant. 1 / 918 MHz



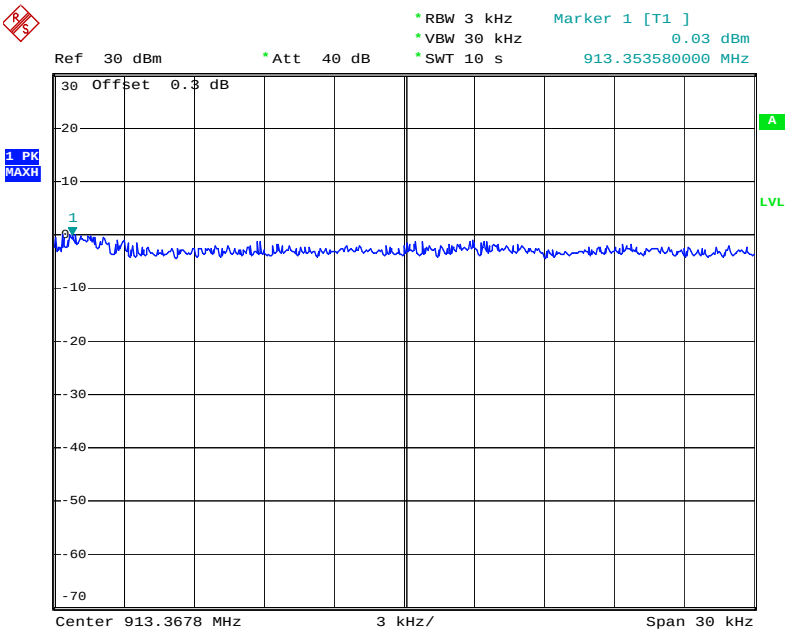
Date: 1.DEC.2009 14:46:50

Power Density Plot on Configuration OFDM Ant. 1 / 908 MHz



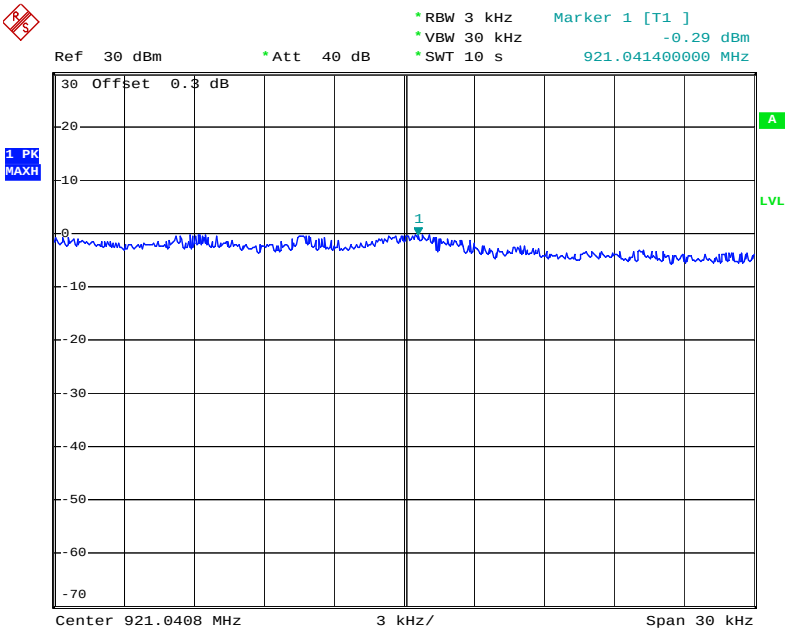
Date: 1.DEC.2009 14:44:16

Power Density Plot on Configuration OFDM Ant. 1 / 913 MHz



Date: 1.DEC.2009 14:42:22

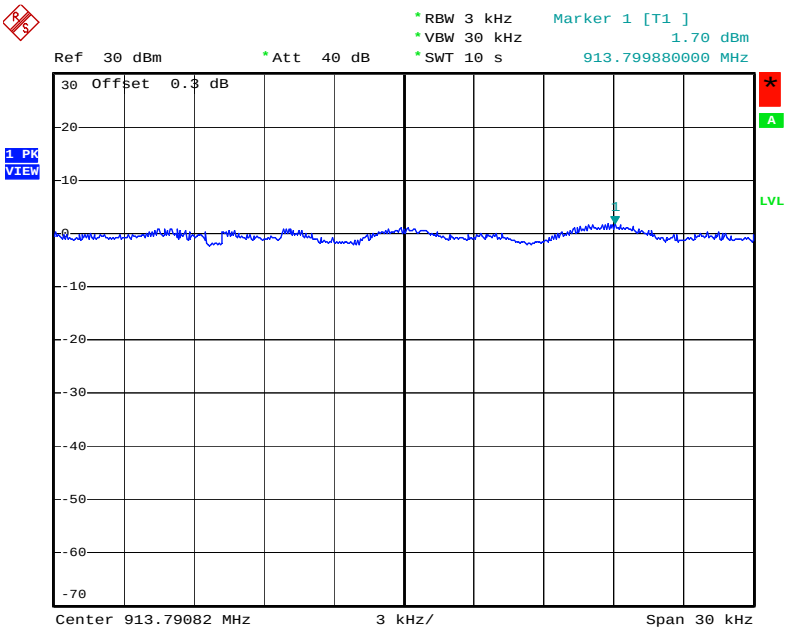
Power Density Plot on Configuration OFDM Ant. 1 / 923 MHz



Date: 1.DEC.2009 14:40:33

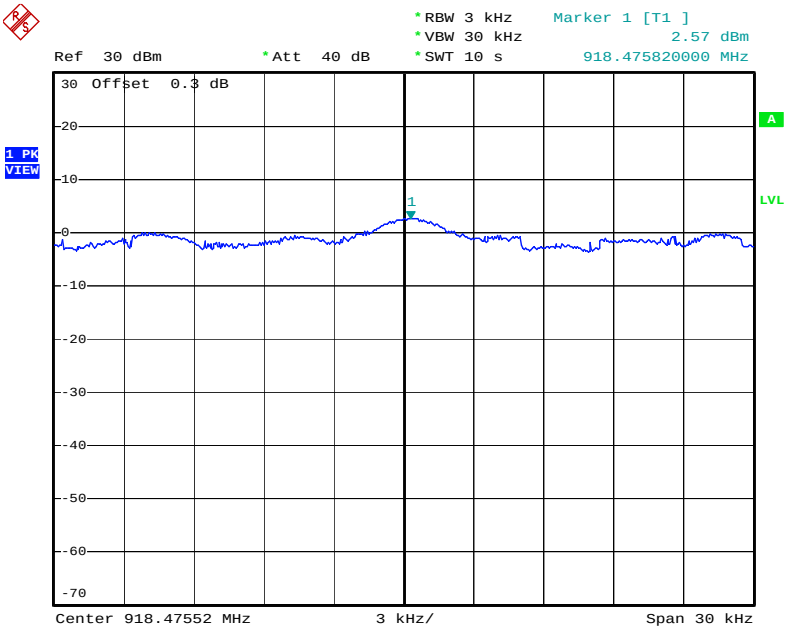
<For Antenna 2>

Power Density Plot on Configuration DSSS Ant. 2 / 913 MHz



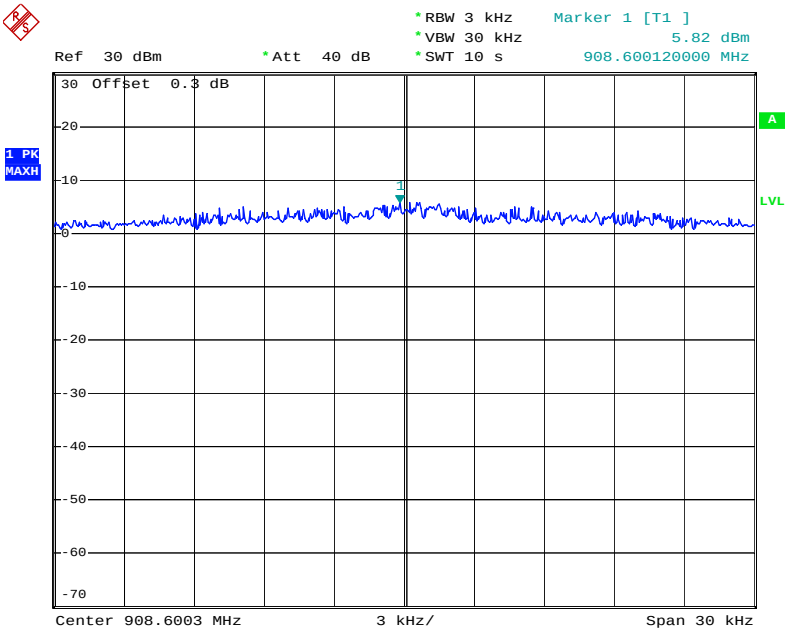
Date: 1.DEC.2009 14:30:58

Power Density Plot on Configuration DSSS Ant. 2 / 918 MHz



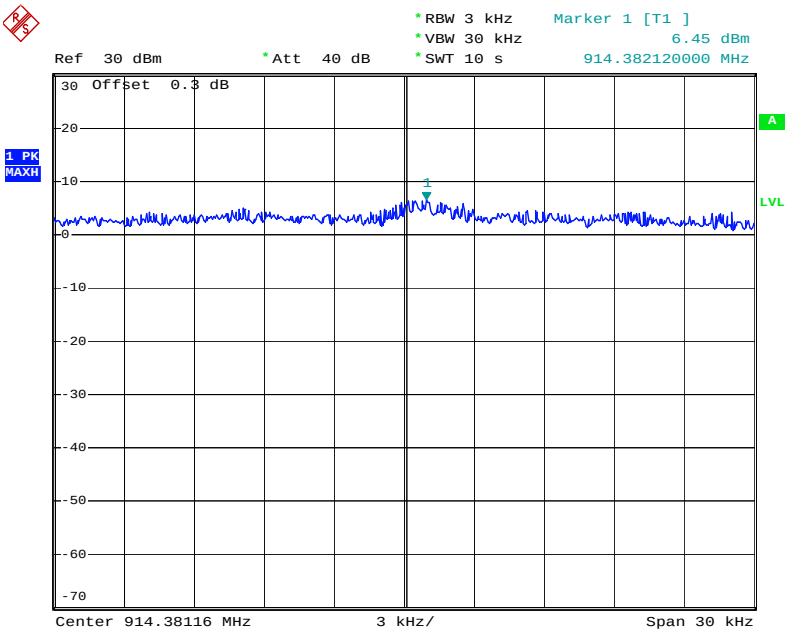
Date: 1.DEC.2009 14:33:14

Power Density Plot on Configuration OFDM Ant. 2 / 908 MHz



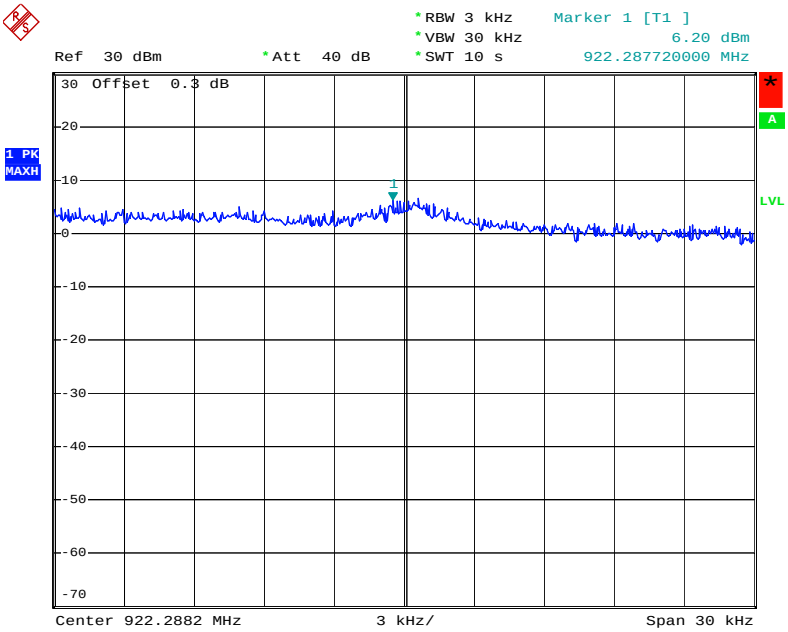
Date: 1.DEC.2009 14:35:16

Power Density Plot on Configuration OFDM Ant. 2 / 913 MHz



Date: 1.DEC.2009 14:36:28

Power Density Plot on Configuration OFDM Ant. 2 / 923 MHz



Date: 1.DEC.2009 14:37:28

4.4. 6dB Spectrum Bandwidth Measurement

4.4.1. Limit

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

4.4.2. Measuring Instruments and Setting

Please refer to section 5 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

4.4.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyser 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.

4.4.4. Test Setup Layout

4.4.5. Test Deviation

There is no deviation with the original standard.

4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.7. Test Result of 6dB Spectrum Bandwidth

<For Antenna 1>

Temperature	24°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	DSSS/OFDM

Configuration DSSS

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
2	913 MHz	11.60	15.76	500	Complies
3	918 MHz	9.60	15.00	500	Complies

Configuration OFDM

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	908 MHz	4.12	4.24	500	Complies
2	913 MHz	4.08	4.24	500	Complies
4	923 MHz	4.08	4.20	500	Complies

<For Antenna 2>

Temperature	24°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	DSSS/OFDM

Configuration DSSS

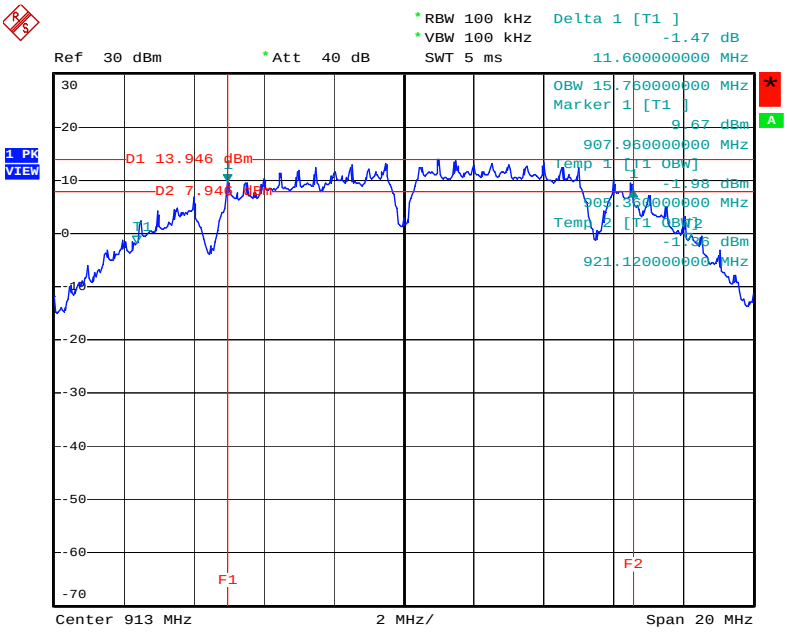
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
2	913 MHz	11.60	15.76	500	Complies
3	918 MHz	9.60	15.12	500	Complies

Configuration OFDM

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	908 MHz	4.16	6.64	500	Complies
2	913 MHz	4.12	6.76	500	Complies
4	923 MHz	4.08	6.28	500	Complies

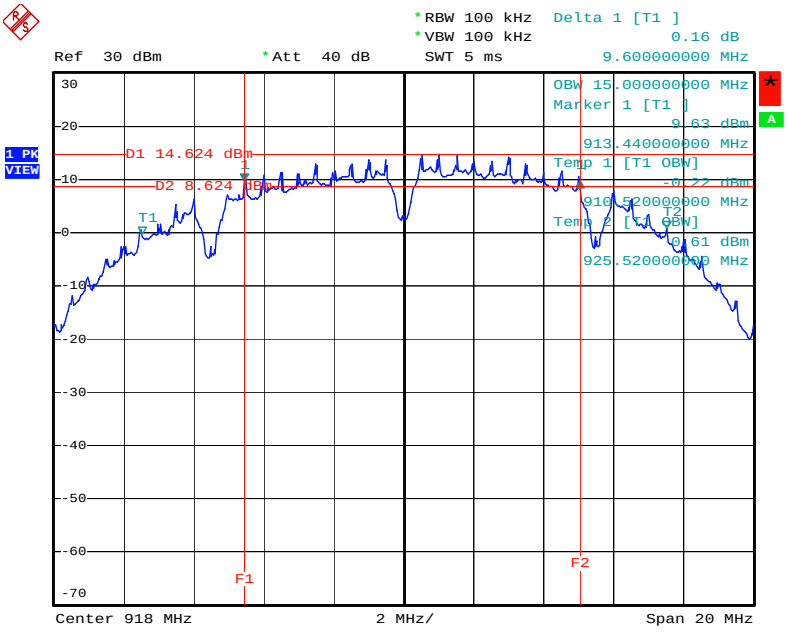
<For Antenna 1>

6 dB Bandwidth Plot on Configuration DSSS Ant. 1 / 913 MHz



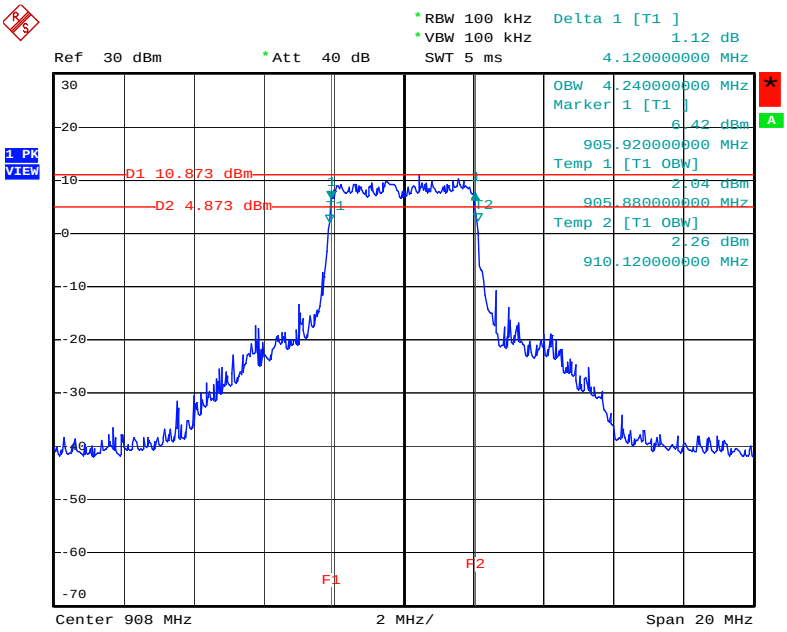
Date: 1.DEC.2009 14:29:31

6 dB Bandwidth Plot on Configuration DSSS Ant. 1 / 918 MHz



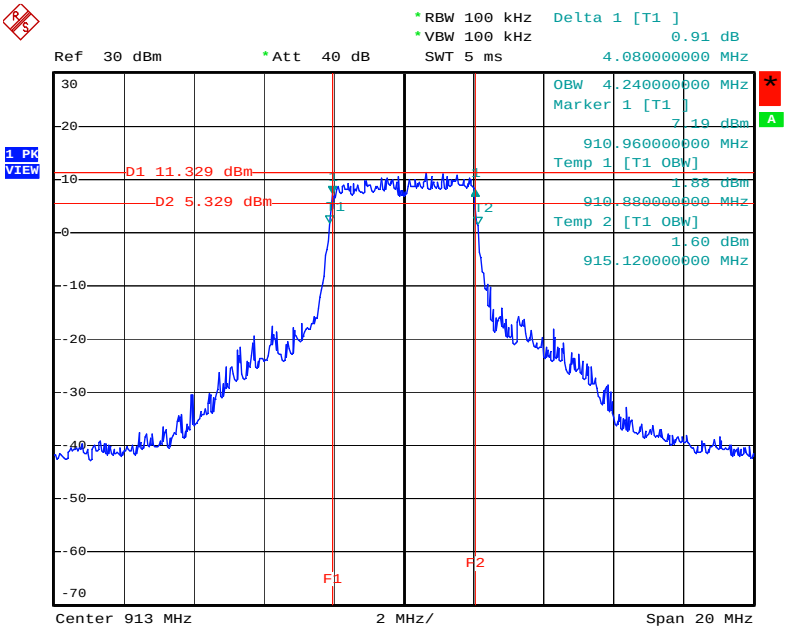
Date: 1.DEC.2009 14:45:23

6 dB Bandwidth Plot on Configuration IEEE 802.OFDM Ant. 1 / 908 MHz



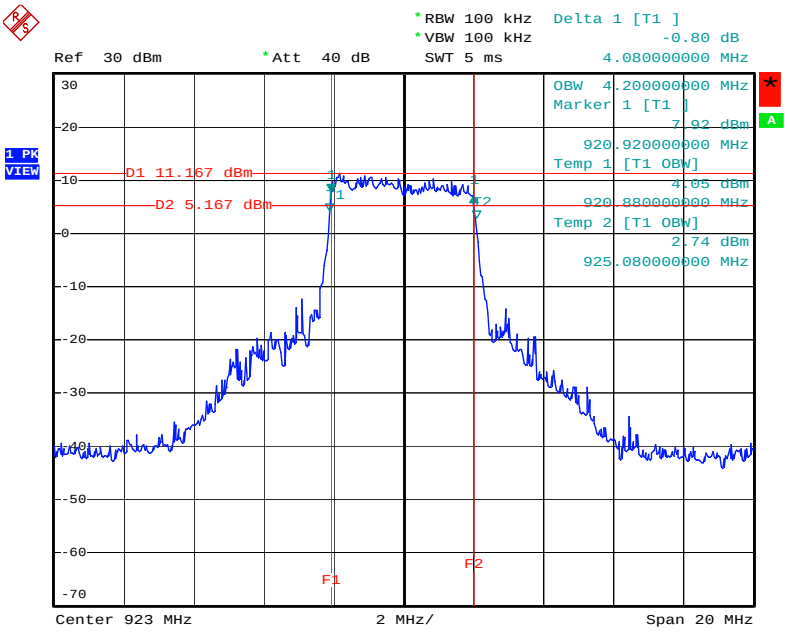
Date: 1.DEC.2009 14:42:40

6 dB Bandwidth Plot on Configuration IEEE 802.OFDM Ant. 1 / 913 MHz



Date: 1.DEC.2009 14:41:21

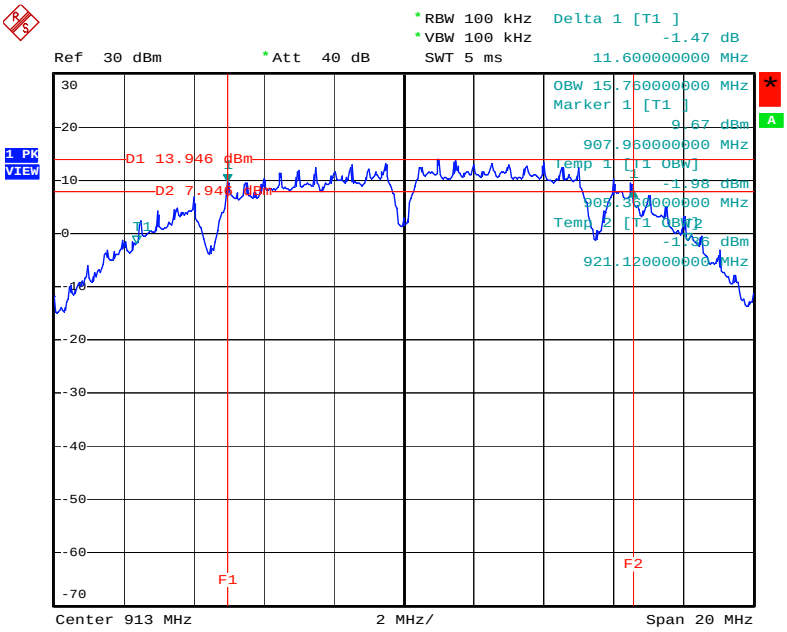
6 dB Bandwidth Plot on Configuration IEEE 802.OFDM Ant. 1 / 923 MHz



Date: 1.DEC.2009 14:39:12

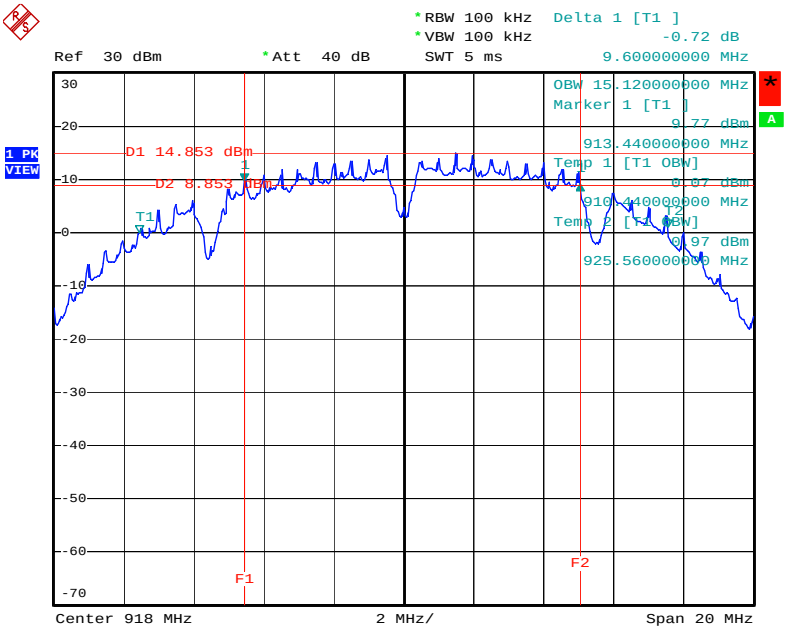
<For Antenna 2>

6 dB Bandwidth Plot on Configuration DSSS Ant. 2 / 913 MHz



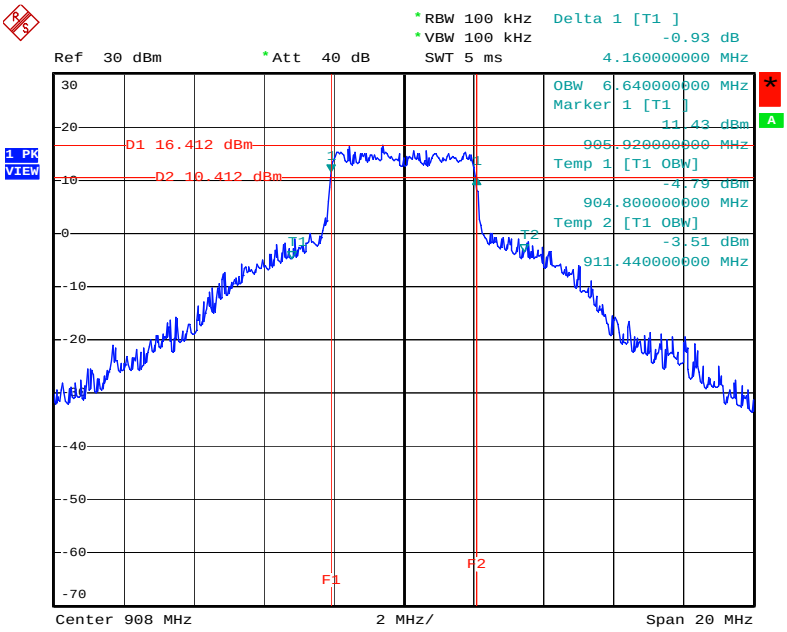
Date: 1.DEC.2009 14:29:31

6 dB Bandwidth Plot on Configuration DSSS Ant. 2 / 918 MHz



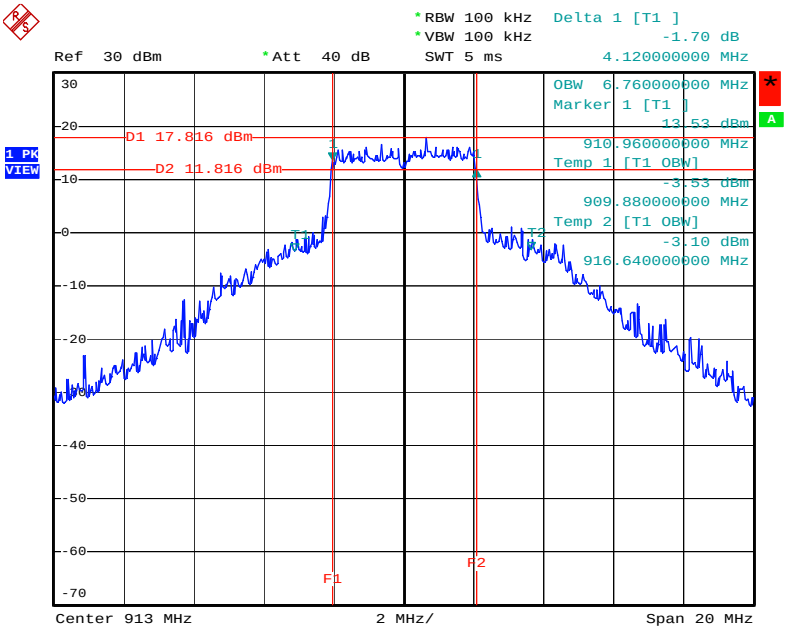
Date: 1.DEC.2009 14:31:46

6 dB Bandwidth Plot on Configuration IEEE 802.OFDM Ant. 2 / 908 MHz



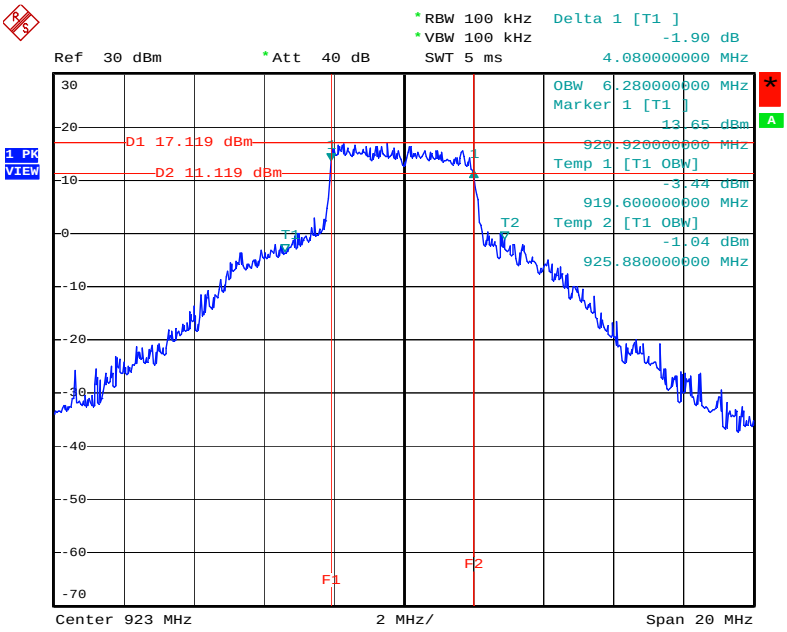
Date: 1.DEC.2009 14:23:09

6 dB Bandwidth Plot on Configuration IEEE 802.OFDM Ant. 2 / 913 MHz



Date: 1.DEC.2009 14:25:00

6 dB Bandwidth Plot on Configuration IEEE 802.OFDM Ant. 2 / 923 MHz



Date: 1.DEC.2009 14:26:47

4.5. Radiated Emissions Measurement

4.5.1. 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 (micorvolts/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

4.5.2. Measuring Instruments and Setting

Please refer to section 5 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)	100KHz / 100KHz for peak

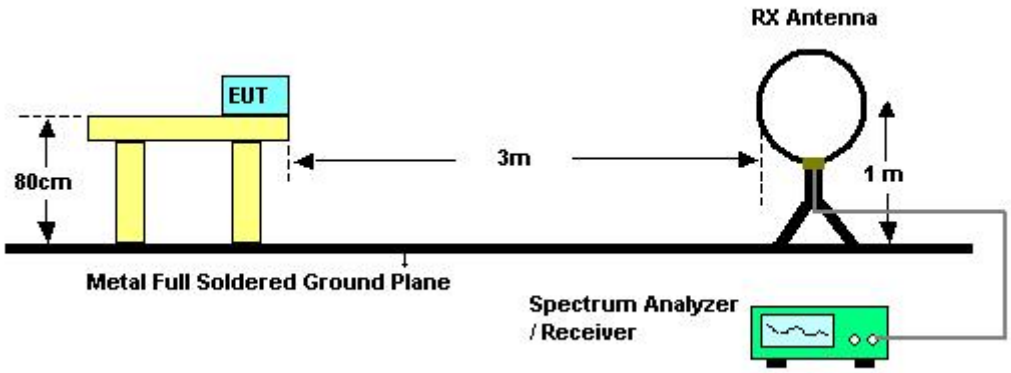
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.5.3. Test Procedures

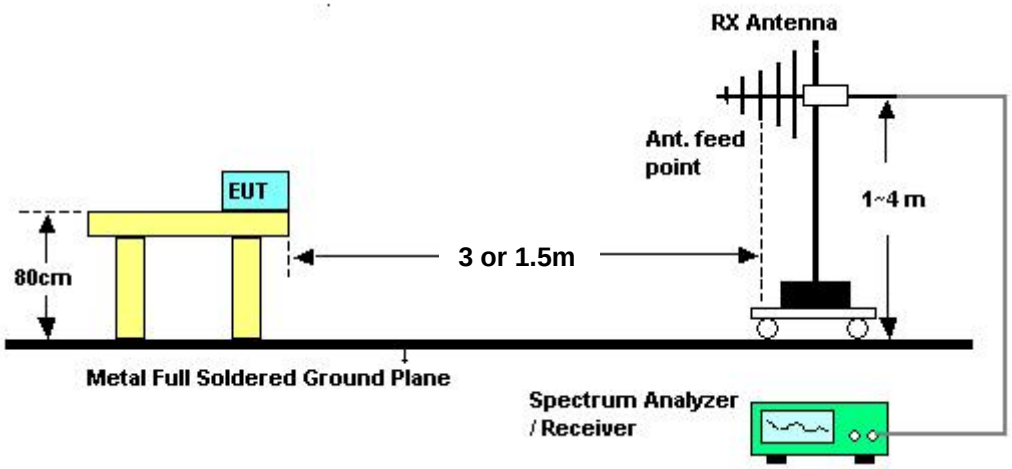
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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.

4.5.4. Test Setup Layout

For radiated emissions below 30MHz



For radiated emissions above 30MHz



4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.5.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Test Date	Nov. 27, 2009

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 (specific distance / test distance) (dB);

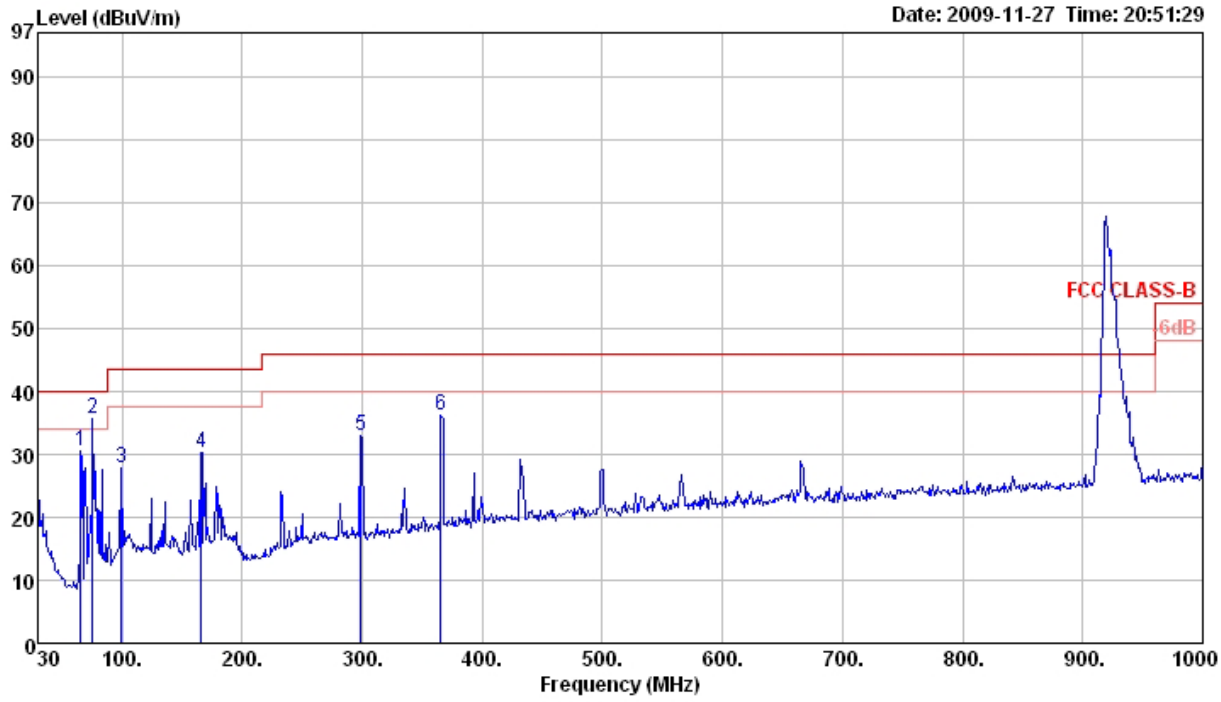
Limit line = specific limits (dBuV) + distance extrapolation factor.

4.5.8. Results of Radiated Emissions (30MHz~1GHz)

<For Antenna 1>

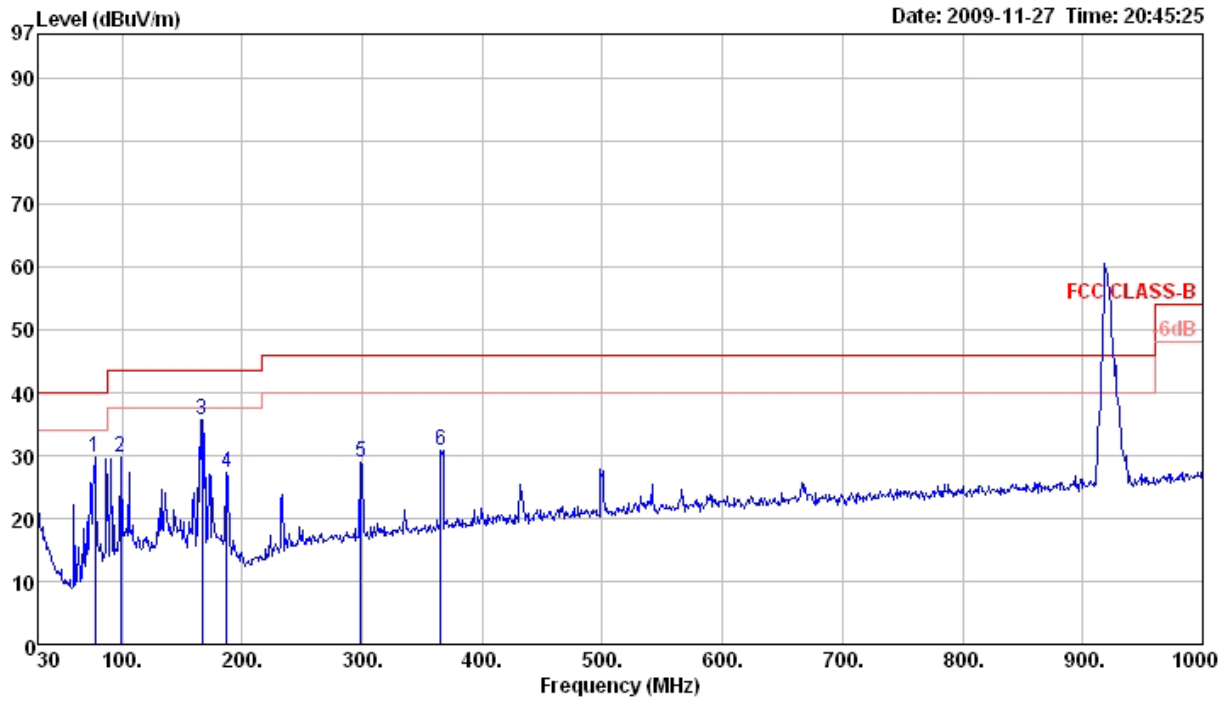
Temperature	24℃	Humidity	58%
Test Engineer	Roy Huang	Configurations	CTX / Ant. 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	65.89	30.40	40.00	-9.60	50.57	0.88	27.74	6.69	0	100	Peak	HORIZONTAL
2 p	75.59	35.59	40.00	-4.41	55.43	0.93	27.70	6.93	222	125	Peak	HORIZONTAL
3	99.84	27.81	43.50	-15.69	43.22	1.20	27.60	10.99	0	100	Peak	HORIZONTAL
4	165.80	30.28	43.50	-13.22	43.55	1.53	27.27	12.47	0	100	Peak	HORIZONTAL
5	298.69	33.09	46.00	-12.91	44.54	2.10	26.90	13.35	0	100	Peak	HORIZONTAL
6	365.62	36.33	46.00	-9.67	46.32	2.23	27.36	15.14	0	100	Peak	HORIZONTAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	77.53	29.61	40.00	-10.39	49.27	1.00	27.69	7.03	0	400	Peak	VERTICAL
2	98.87	29.83	43.50	-13.67	45.47	1.18	27.61	10.79	0	400	Peak	VERTICAL
3 p	166.77	35.76	43.50	-7.74	48.96	1.53	27.27	12.54	316	100	Peak	VERTICAL
4	187.14	27.28	43.50	-16.22	41.10	1.63	27.16	11.71	0	400	Peak	VERTICAL
5	298.69	28.96	46.00	-17.04	40.41	2.10	26.90	13.35	0	400	Peak	VERTICAL
6	365.62	30.82	46.00	-15.18	40.81	2.23	27.36	15.14	0	400	Peak	VERTICAL

Note:

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

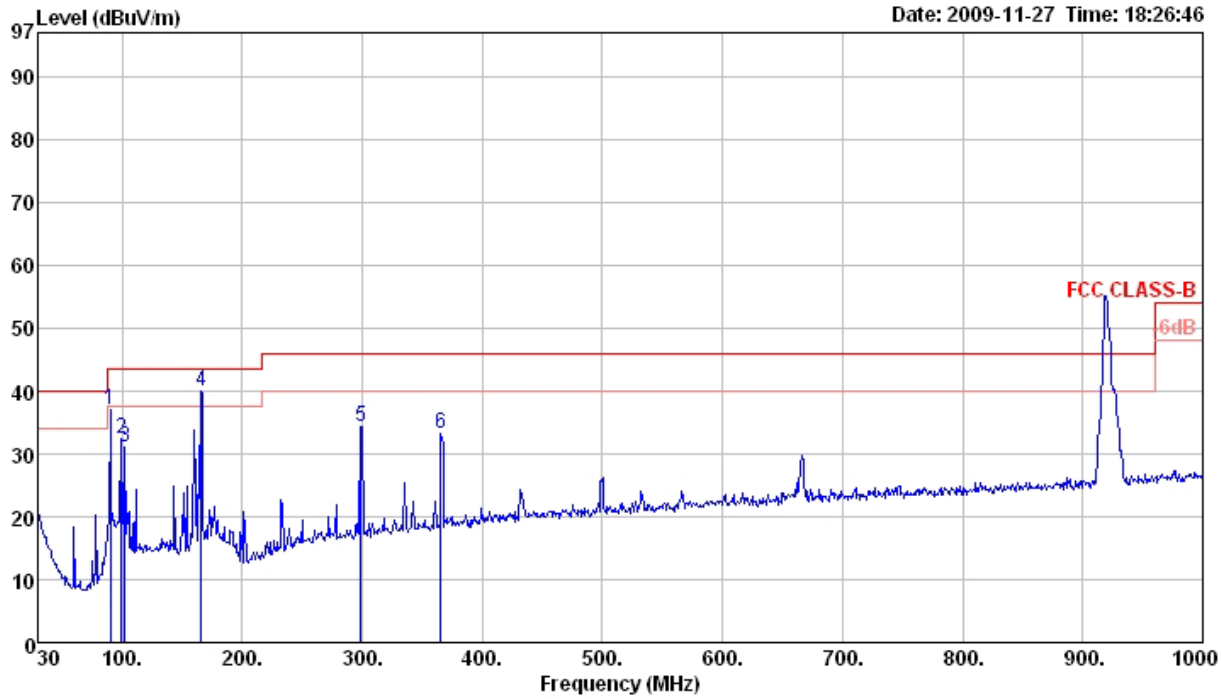
Emission level (dBuV/m) = 20 log Emission level (uV/m).

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

<For Antenna 2>

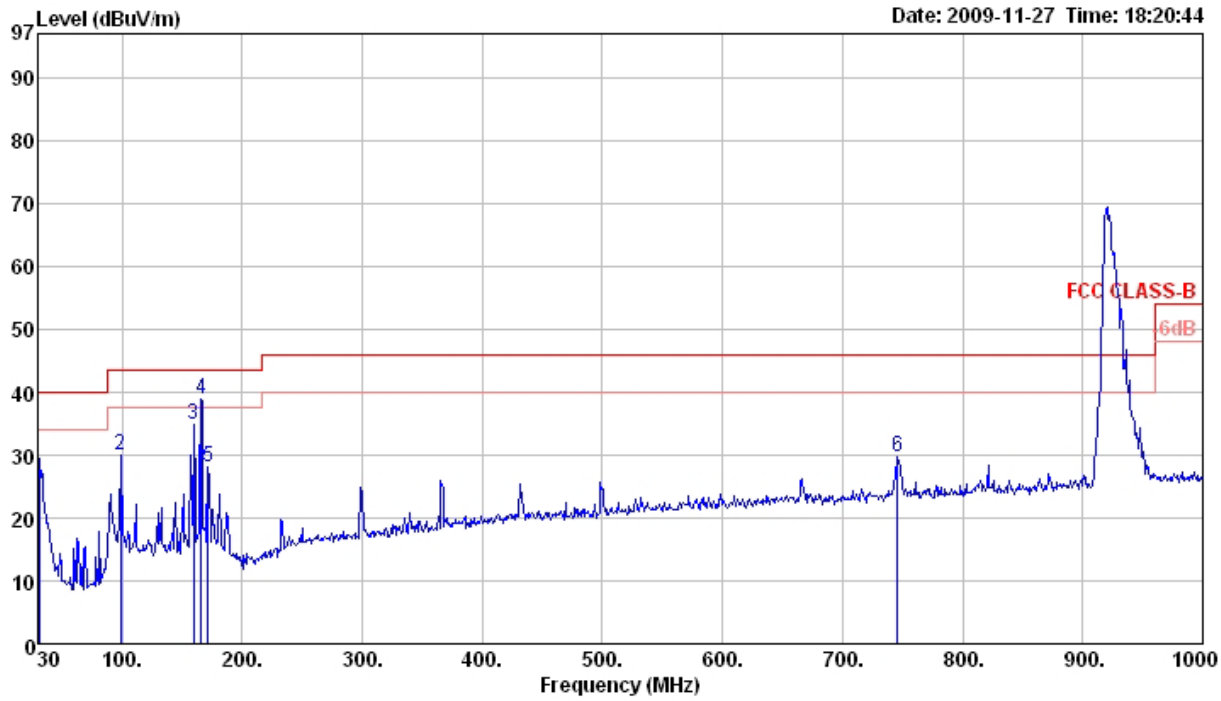
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	CTX / Ant. 2

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	90.14	36.98	43.50	-6.52	54.54	1.10	27.64	8.98	0	100	Peak	HORIZONTAL
2	99.84	32.49	43.50	-11.01	47.90	1.20	27.60	10.99	0	100	Peak	HORIZONTAL
3	102.75	31.03	43.50	-12.47	46.21	1.20	27.59	11.21	0	100	Peak	HORIZONTAL
4 p	165.80	40.08	43.50	-3.42	53.35	1.53	27.27	12.47	124	118	Peak	HORIZONTAL
5	298.69	34.40	46.00	-11.60	45.85	2.10	26.90	13.35	0	100	Peak	HORIZONTAL
6	365.62	33.12	46.00	-12.88	43.11	2.23	27.36	15.14	0	100	Peak	HORIZONTAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m	deg	cm		
1	30.97	29.40	40.00	-10.60	38.48	0.50	27.80	18.22	0	400	Peak	VERTICAL
2	98.87	29.92	43.50	-13.58	45.56	1.18	27.61	10.79	0	400	Peak	VERTICAL
3	159.98	34.75	43.50	-8.75	48.52	1.50	27.30	12.03	0	400	Peak	VERTICAL
4 p	165.80	38.82	43.50	-4.68	52.09	1.53	27.27	12.47	55	100	Peak	VERTICAL
5	171.62	28.15	43.50	-15.35	40.93	1.56	27.24	12.90	0	400	Peak	VERTICAL
6	745.86	29.65	46.00	-16.35	34.59	3.48	27.82	19.40	0	400	Peak	VERTICAL

Note:

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).

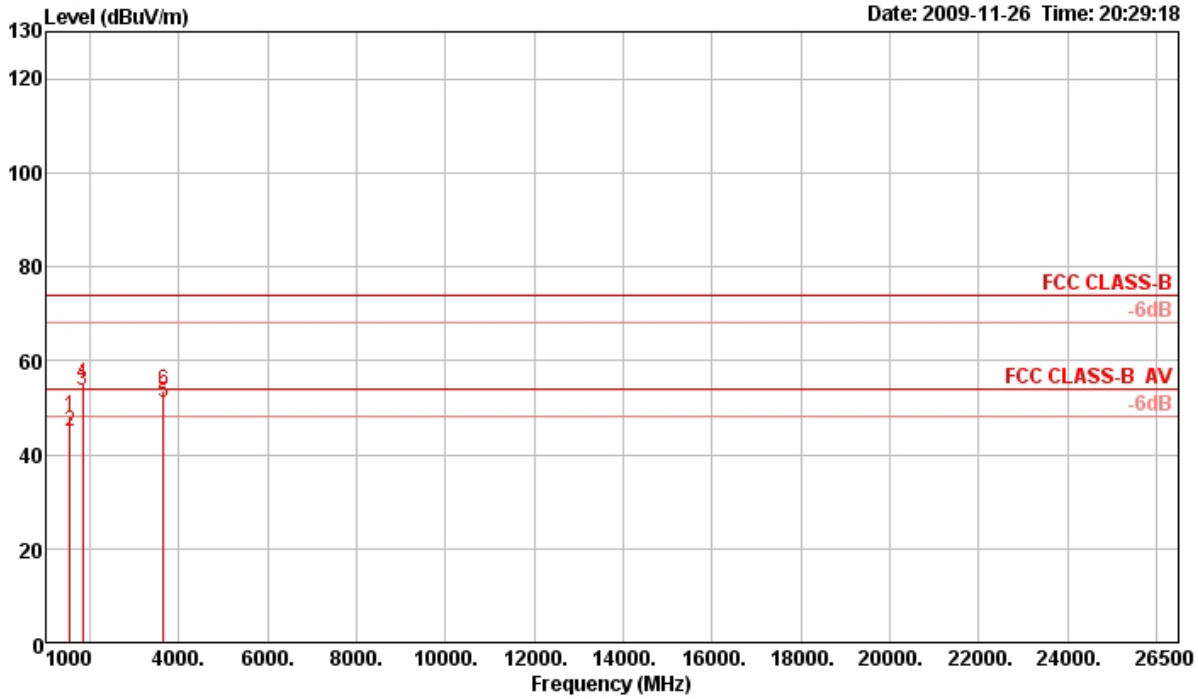
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

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

<For Antenna 1>

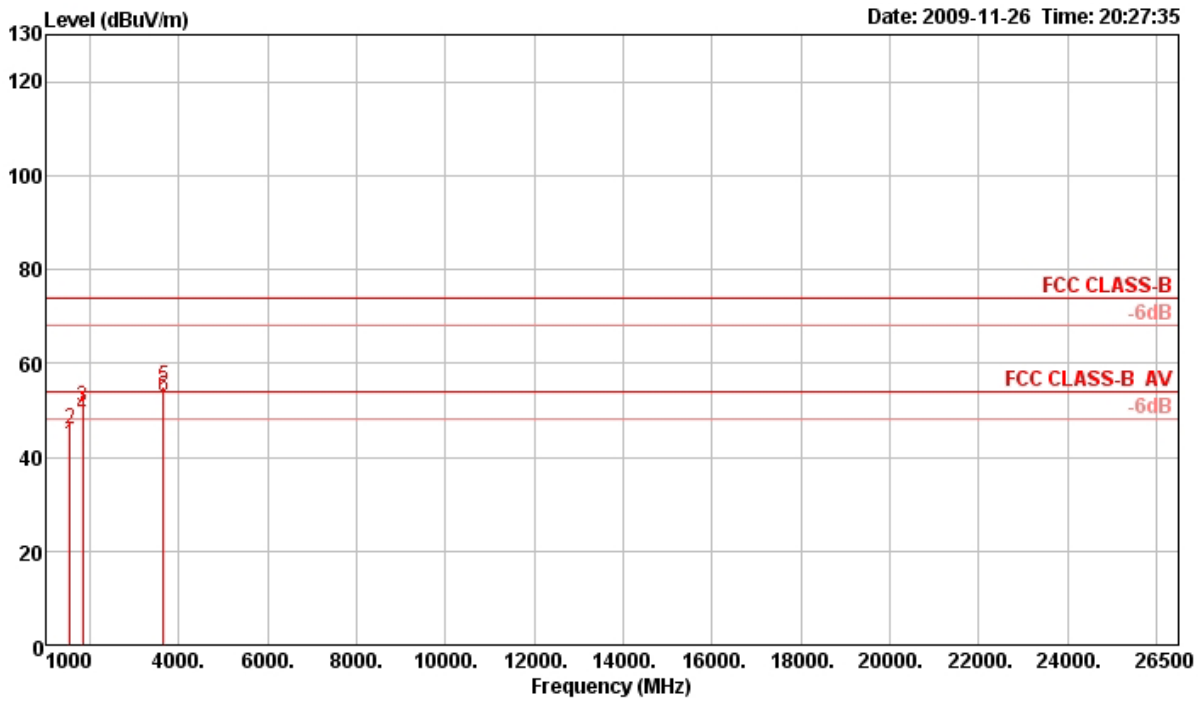
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	DSSS CH 2 / Ant. 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1543.98	48.01	74.00	-25.99	55.83	2.16	25.50	35.48	251	100	Peak	HORIZONTAL
2	1544.01	44.85	54.00	-9.15	52.67	2.16	25.50	35.48	251	100	Average	HORIZONTAL
3 a	1825.91	53.50	54.00	-0.50	59.72	2.40	26.63	35.25	123	101	Average	HORIZONTAL
4 p	1825.92	55.09	74.00	-18.91	61.31	2.40	26.63	35.25	123	101	Peak	HORIZONTAL
5 !	3651.86	51.17	54.00	-2.83	52.18	3.45	30.78	35.24	59	200	Average	HORIZONTAL
6	3651.92	53.62	74.00	-20.38	54.63	3.45	30.78	35.24	59	200	Peak	HORIZONTAL

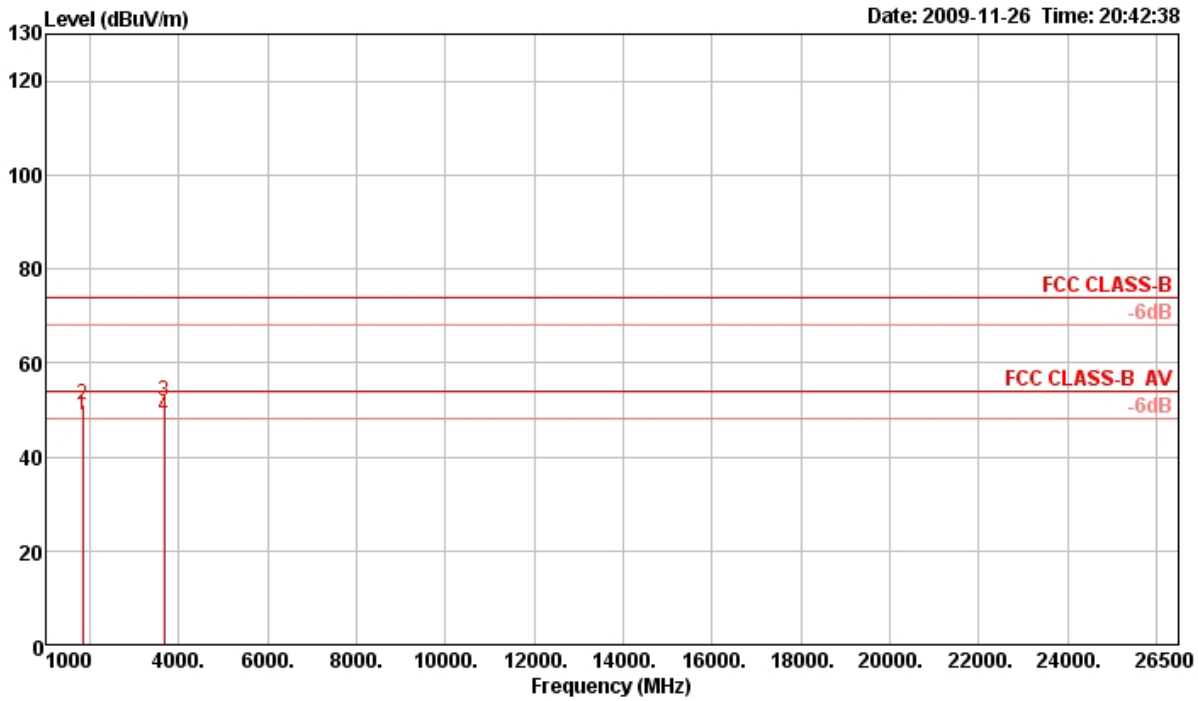
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1543.99	42.91	54.00	-11.09	50.73	2.16	25.50	35.48	267	100	Average	VERTICAL
2	1544.04	46.05	74.00	-27.95	53.87	2.16	25.50	35.48	267	100	Peak	VERTICAL
3	1825.90	50.82	74.00	-23.18	57.04	2.40	26.63	35.25	206	104	Peak	VERTICAL
4 !	1825.97	48.88	54.00	-5.12	55.10	2.40	26.63	35.25	206	104	Average	VERTICAL
5 p	3651.73	55.10	74.00	-18.90	56.11	3.45	30.78	35.24	47	180	Peak	VERTICAL
6 a	3652.00	52.83	54.00	-1.17	53.84	3.45	30.78	35.24	47	180	Average	VERTICAL

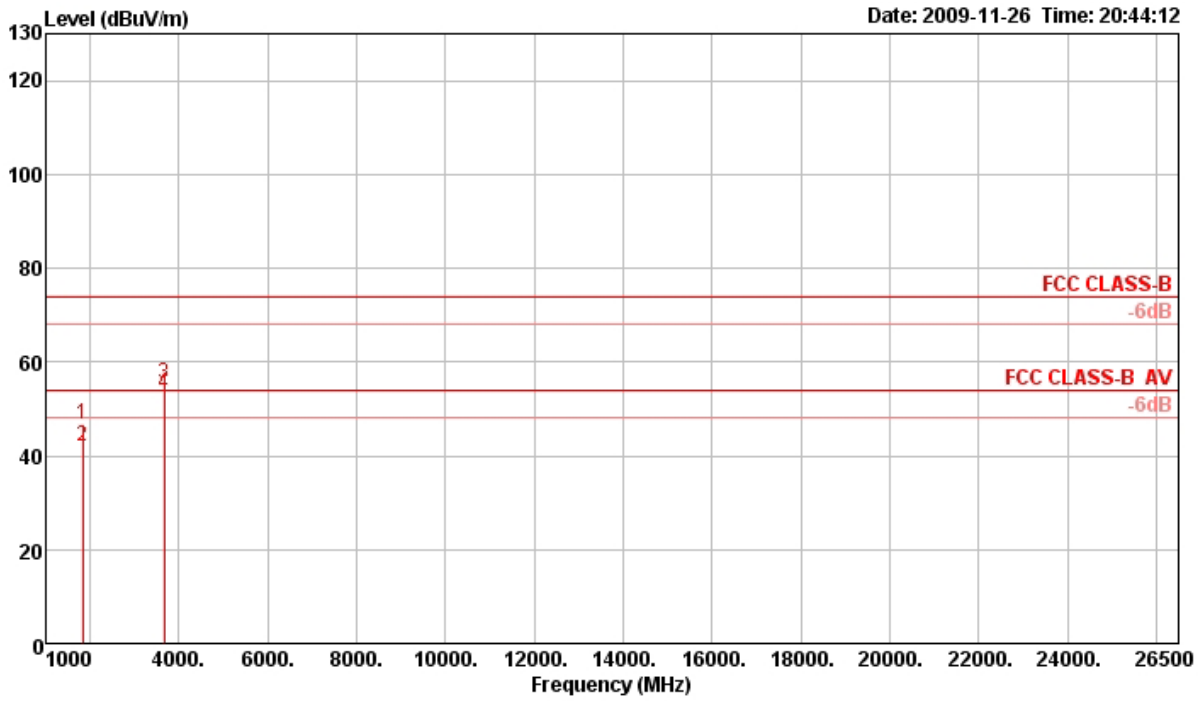
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	DSSS CH 3 / Ant. 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1 a	1835.93	48.95	54.00	-5.05	55.17	2.40	26.63	35.25	122	100	Average	HORIZONTAL
2	1835.95	51.01	74.00	-22.99	57.23	2.40	26.63	35.25	122	100	Peak	HORIZONTAL
3 p	3671.92	51.77	74.00	-22.23	52.68	3.46	30.86	35.23	181	200	Peak	HORIZONTAL
4 !	3671.95	48.43	54.00	-5.57	49.34	3.46	30.86	35.23	181	200	Average	HORIZONTAL

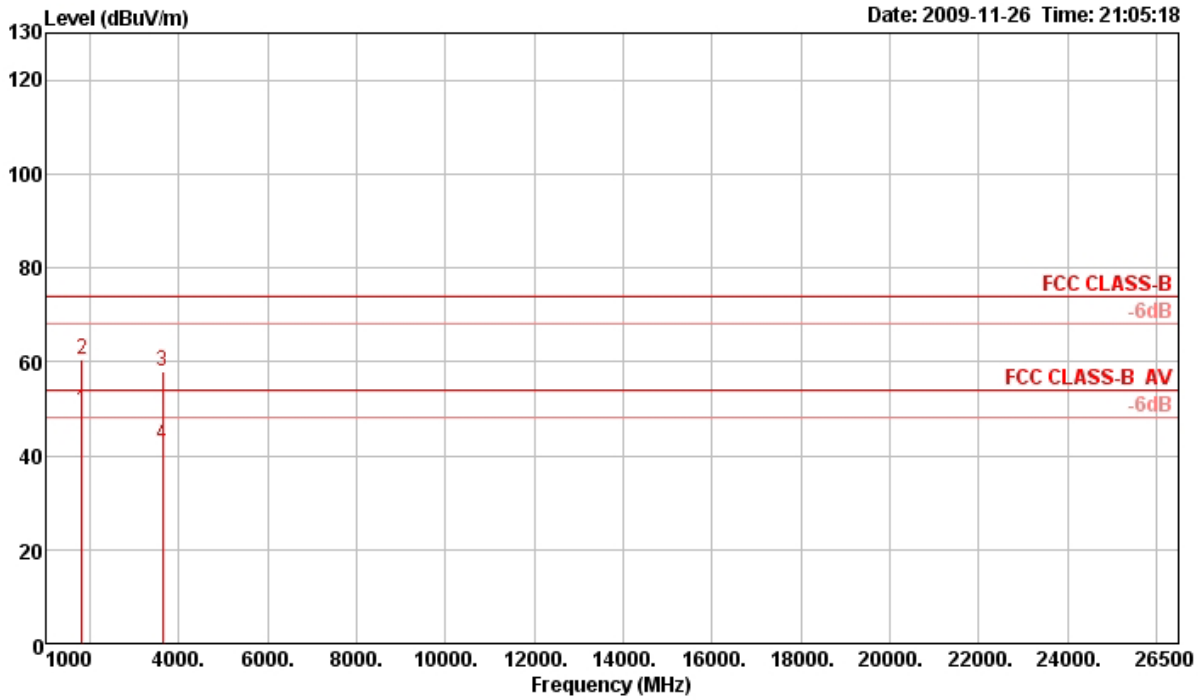
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1835.77	46.55	74.00	-27.45	52.77	2.40	26.63	35.25	204	100	Peak	VERTICAL
2	1835.95	42.09	54.00	-11.91	48.31	2.40	26.63	35.25	204	100	Average	VERTICAL
3 p	3671.79	55.25	74.00	-18.75	56.17	3.46	30.86	35.24	145	160	Peak	VERTICAL
4 a	3671.94	53.11	54.00	-0.89	54.02	3.46	30.86	35.23	145	160	Average	VERTICAL

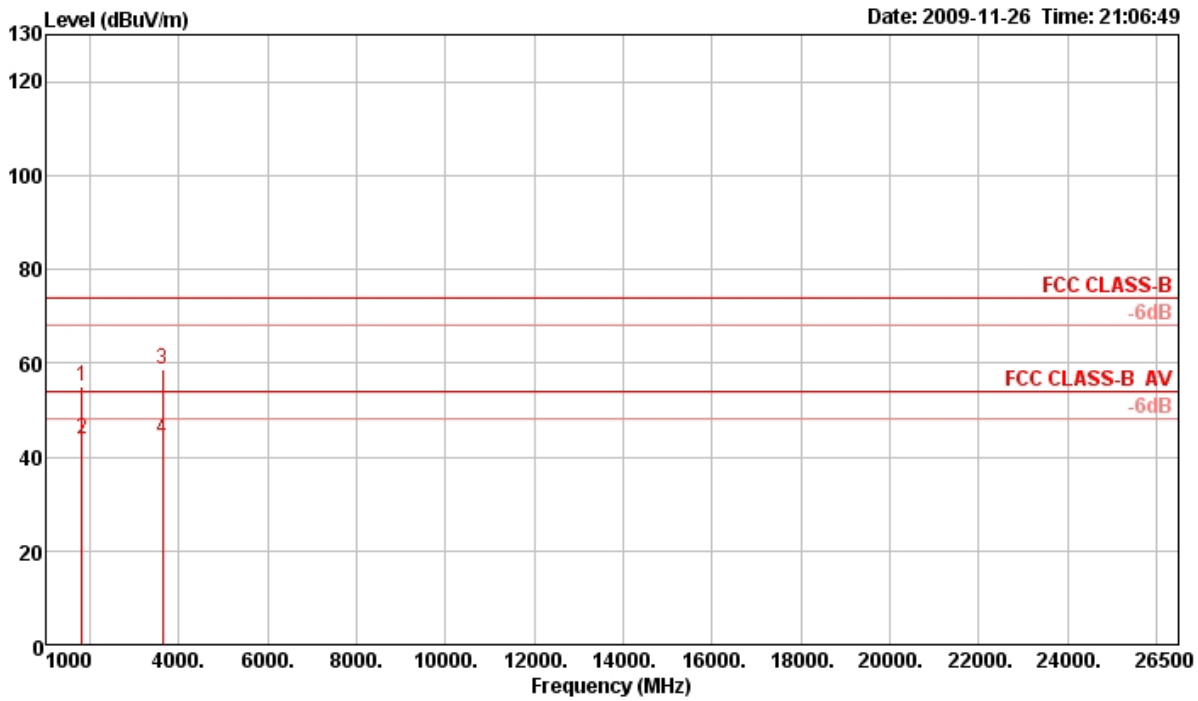
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	802.OFDM CH 1 / Ant. 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1 a	1815.80	49.67	54.00	-4.33	55.95	2.40	26.57	35.25	122	100	Average	HORIZONTAL
2 p	1816.68	60.59	74.00	-13.41	66.87	2.40	26.57	35.25	122	100	Peak	HORIZONTAL
3	3630.32	58.00	74.00	-16.00	59.11	3.45	30.69	35.25	187	200	Peak	HORIZONTAL
4	3632.00	42.53	54.00	-11.47	43.64	3.45	30.69	35.25	187	200	Average	HORIZONTAL

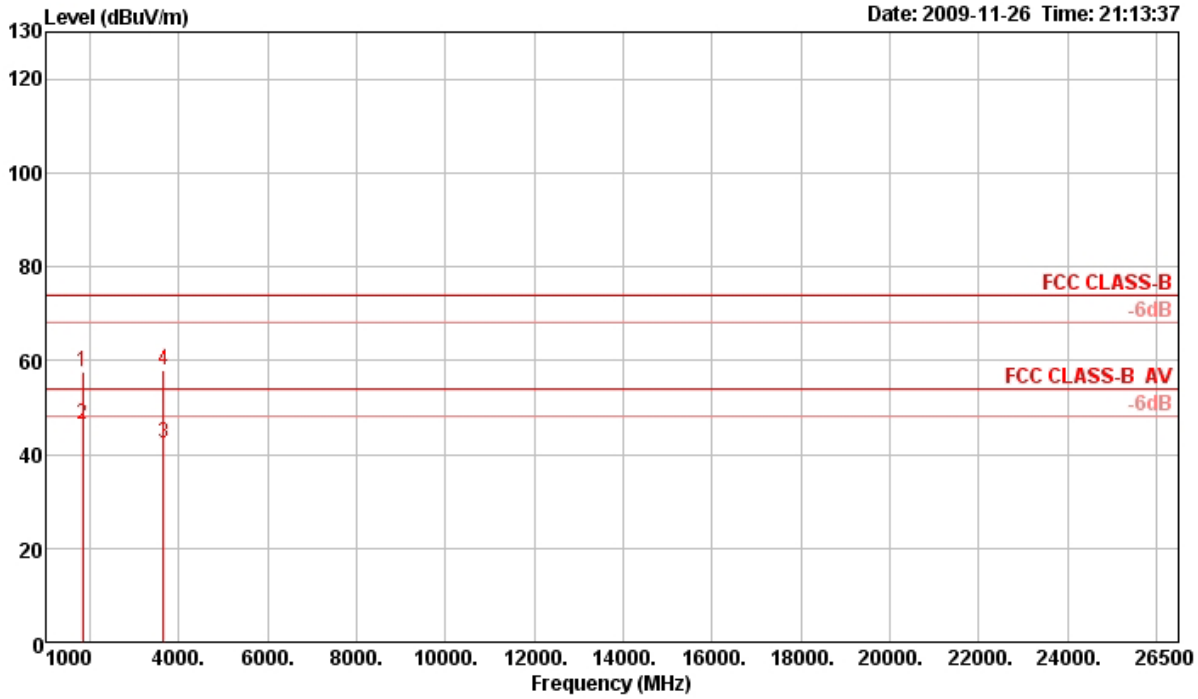
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1813.88	54.97	74.00	-19.03	61.27	2.38	26.57	35.25	205	100	Peak	VERTICAL
2	1815.88	43.65	54.00	-10.35	49.93	2.40	26.57	35.25	205	100	Average	VERTICAL
3 p	3627.40	58.49	74.00	-15.51	59.61	3.44	30.69	35.25	38	104	Peak	VERTICAL
4 a	3632.04	43.86	54.00	-10.14	44.97	3.45	30.69	35.25	38	104	Average	VERTICAL

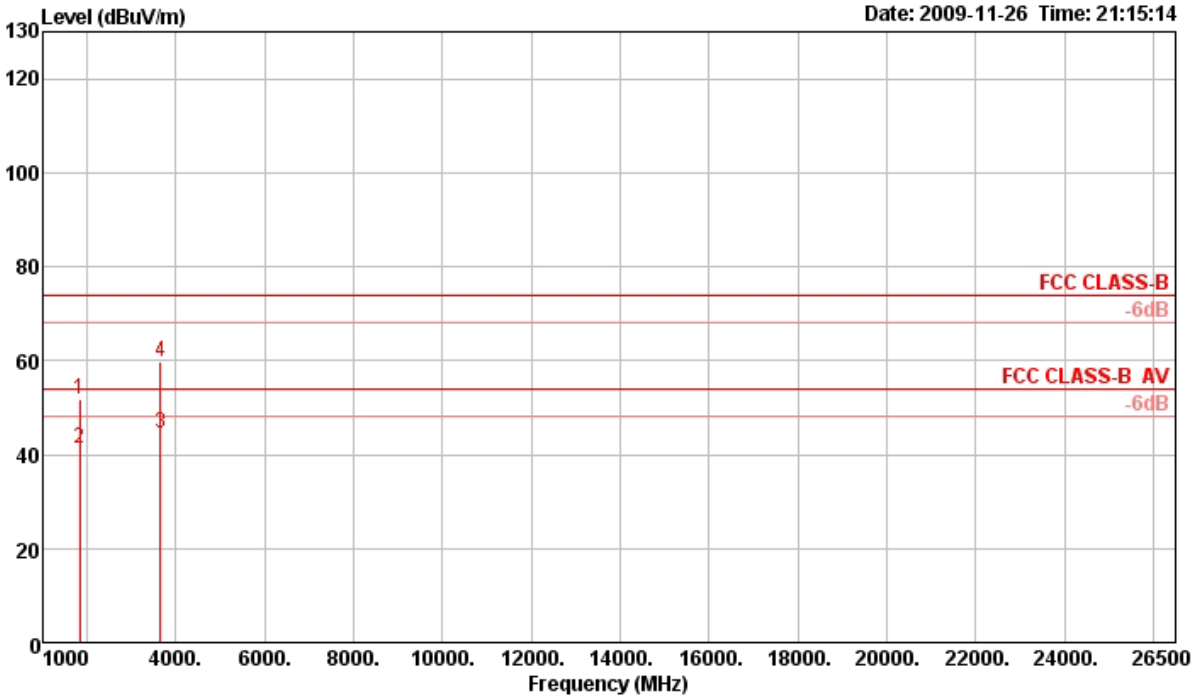
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	802.OFDM CH 2 / Ant. 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1822.56	57.41	74.00	-16.59	63.63	2.40	26.63	35.25	121	101	Peak	HORIZONTAL
2 a	1825.80	46.18	54.00	-7.82	52.40	2.40	26.63	35.25	121	101	Average	HORIZONTAL
3	3652.52	42.38	54.00	-11.62	43.39	3.45	30.78	35.24	185	200	Average	HORIZONTAL
4 p	3653.96	57.91	74.00	-16.09	58.92	3.45	30.78	35.24	185	200	Peak	HORIZONTAL

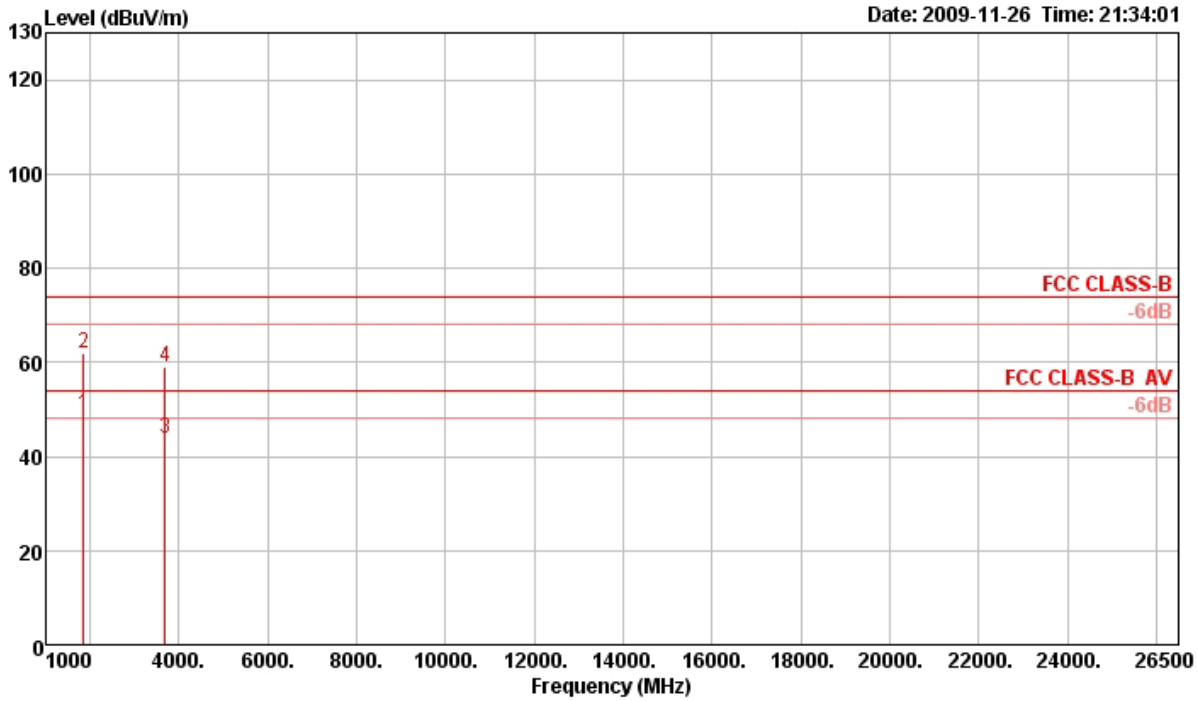
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1825.72	51.93	74.00	-22.07	58.15	2.40	26.63	35.25	201	105	Peak	VERTICAL
2	1825.80	41.23	54.00	-12.77	47.45	2.40	26.63	35.25	201	105	Average	VERTICAL
3 a	3651.92	44.60	54.00	-9.40	45.61	3.45	30.78	35.24	45	100	Average	VERTICAL
4 p	3653.76	59.91	74.00	-14.09	60.92	3.45	30.78	35.24	45	100	Peak	VERTICAL

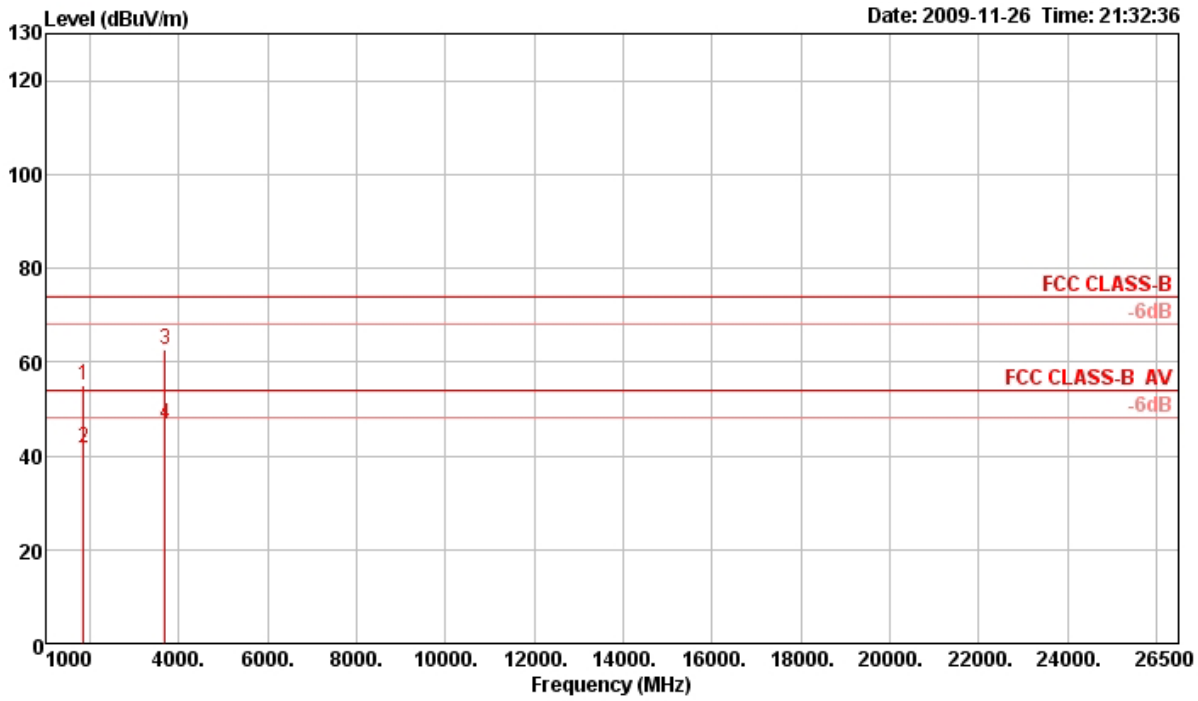
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	802.OFDM CH 4 / Ant. 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1 a	1845.84	48.75	54.00	-5.25	54.86	2.42	26.70	35.23	123	100	Average	HORIZONTAL
2 p	1847.48	61.89	74.00	-12.11	68.00	2.42	26.70	35.23	123	100	Peak	HORIZONTAL
3	3691.36	43.86	54.00	-10.14	44.67	3.47	30.95	35.23	187	102	Average	HORIZONTAL
4	3694.48	59.04	74.00	-14.96	59.85	3.47	30.95	35.23	187	102	Peak	HORIZONTAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1845.72	55.22	74.00	-18.78	61.33	2.42	26.70	35.23	361	100	Peak	VERTICAL
2	1845.92	41.68	54.00	-12.32	47.79	2.42	26.70	35.23	361	100	Average	VERTICAL
3 p	3686.84	62.79	74.00	-11.21	63.60	3.47	30.95	35.23	33	100	Peak	VERTICAL
4 a	3690.84	46.62	54.00	-7.38	47.43	3.47	30.95	35.23	33	100	Average	VERTICAL

Note:

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

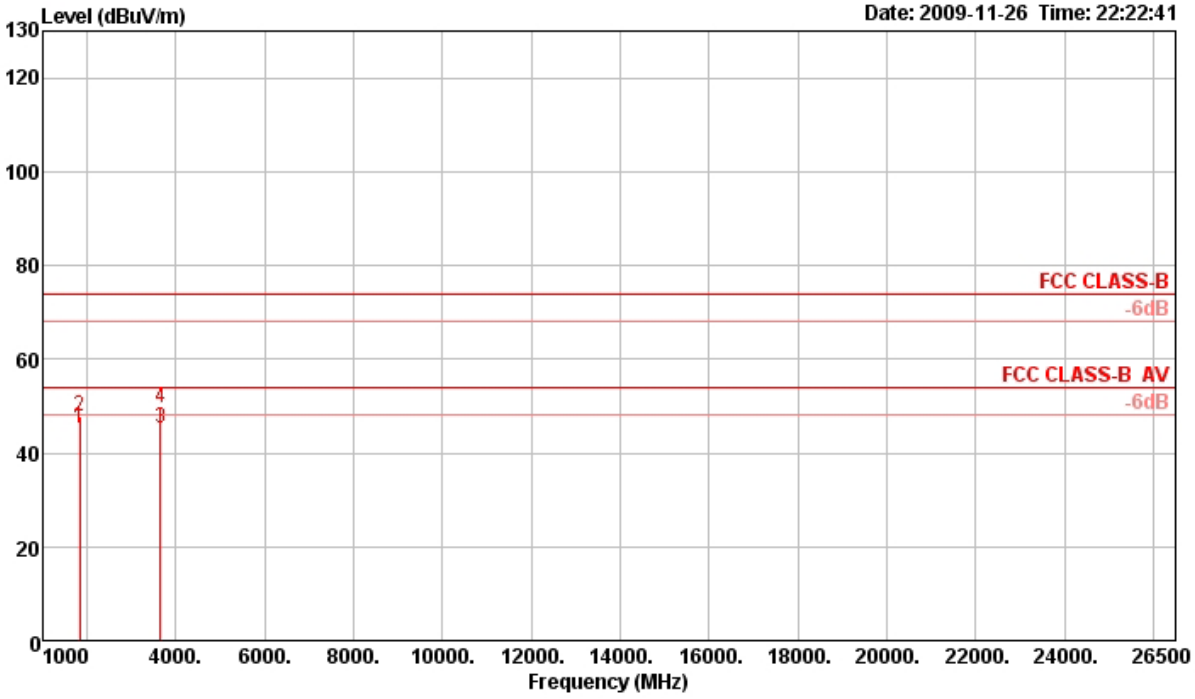
Emission level (dBuV/m) = 20 log Emission level (uV/m).

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

<For Antenna 2>

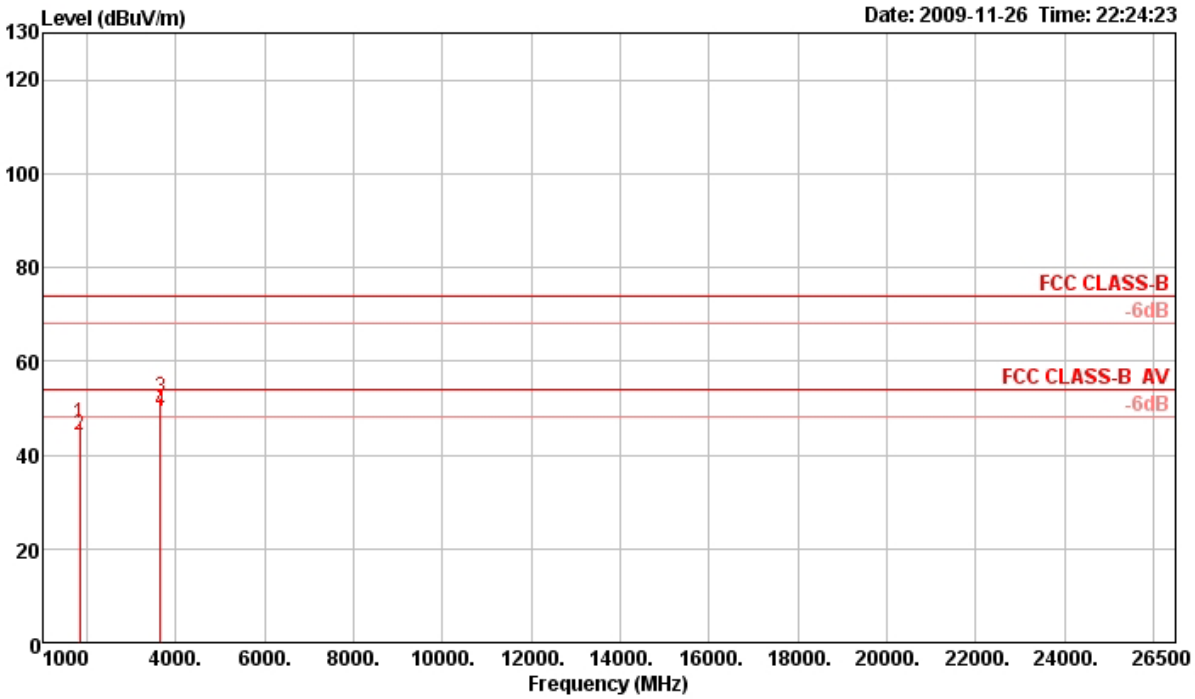
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	DSSS CH 2 / Ant. 2

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1825.86	45.29	54.00	-8.71	51.51	2.40	26.63	35.25	121	100	Average	HORIZONTAL
2	1826.03	47.87	74.00	-26.13	54.09	2.40	26.63	35.25	121	100	Peak	HORIZONTAL
3 a	3651.90	45.36	54.00	-8.64	46.37	3.45	30.78	35.24	325	99	Average	HORIZONTAL
4 p	3652.00	49.47	74.00	-24.53	50.48	3.45	30.78	35.24	325	99	Peak	HORIZONTAL

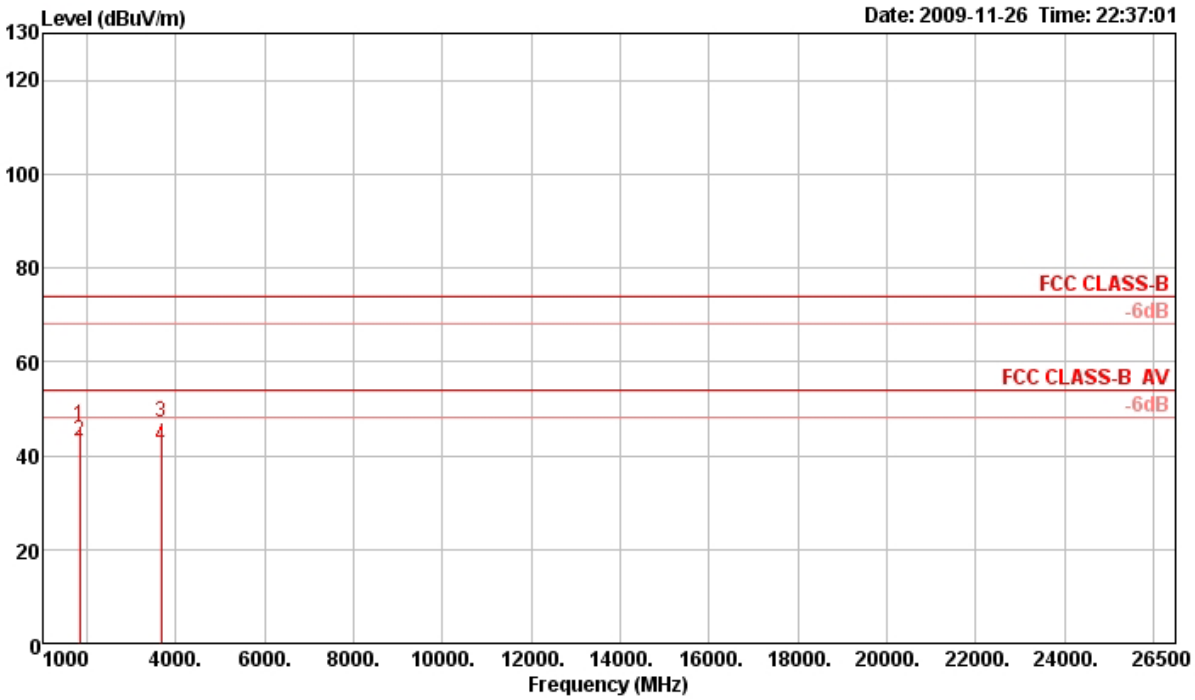
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1825.92	46.81	74.00	-27.19	53.03	2.40	26.63	35.25	193	106	Peak	VERTICAL
2	1825.94	44.16	54.00	-9.84	50.38	2.40	26.63	35.25	193	106	Average	VERTICAL
3 p	3651.85	52.25	74.00	-21.75	53.26	3.45	30.78	35.24	356	100	Peak	VERTICAL
4 a	3651.92	49.19	54.00	-4.81	50.20	3.45	30.78	35.24	356	100	Average	VERTICAL

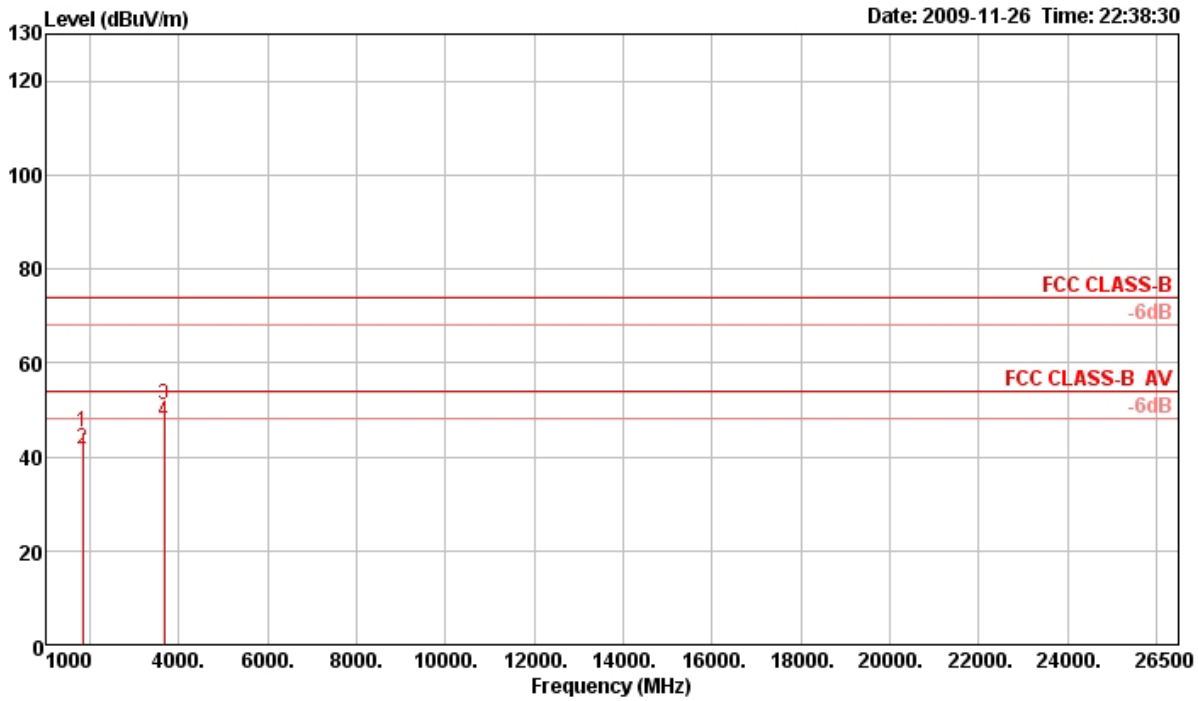
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	DSSS CH 3 / Ant. 2

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1835.82	46.28	74.00	-27.72	52.50	2.40	26.63	35.25	121	106	Peak	HORIZONTAL
2 a	1835.94	43.26	54.00	-10.74	49.48	2.40	26.63	35.25	121	106	Average	HORIZONTAL
3 p	3671.89	47.23	74.00	-26.77	48.14	3.46	30.86	35.23	307	100	Peak	HORIZONTAL
4	3671.96	41.84	54.00	-12.16	42.75	3.46	30.86	35.23	307	100	Average	HORIZONTAL

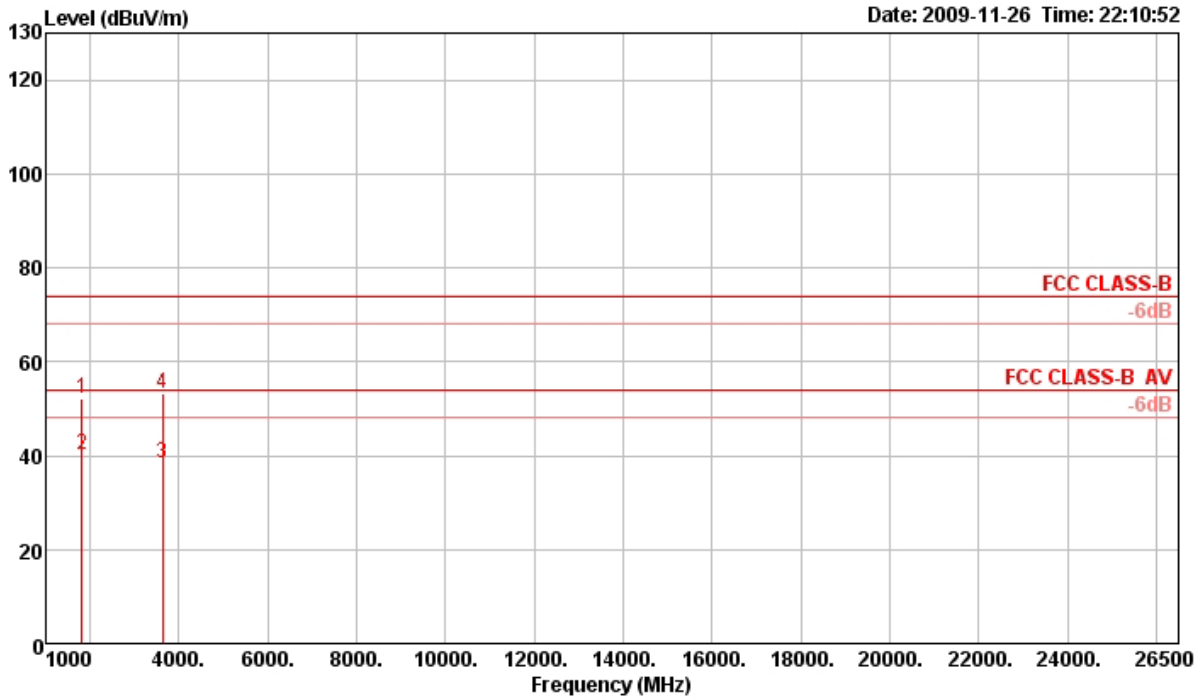
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1835.88	45.24	74.00	-28.76	51.46	2.40	26.63	35.25	188	100	Peak	VERTICAL
2	1835.93	41.75	54.00	-12.25	47.97	2.40	26.63	35.25	188	100	Average	VERTICAL
3 p	3671.86	50.94	74.00	-23.06	51.86	3.46	30.86	35.24	181	100	Peak	VERTICAL
4 a	3671.90	47.42	54.00	-6.58	48.33	3.46	30.86	35.23	181	100	Average	VERTICAL

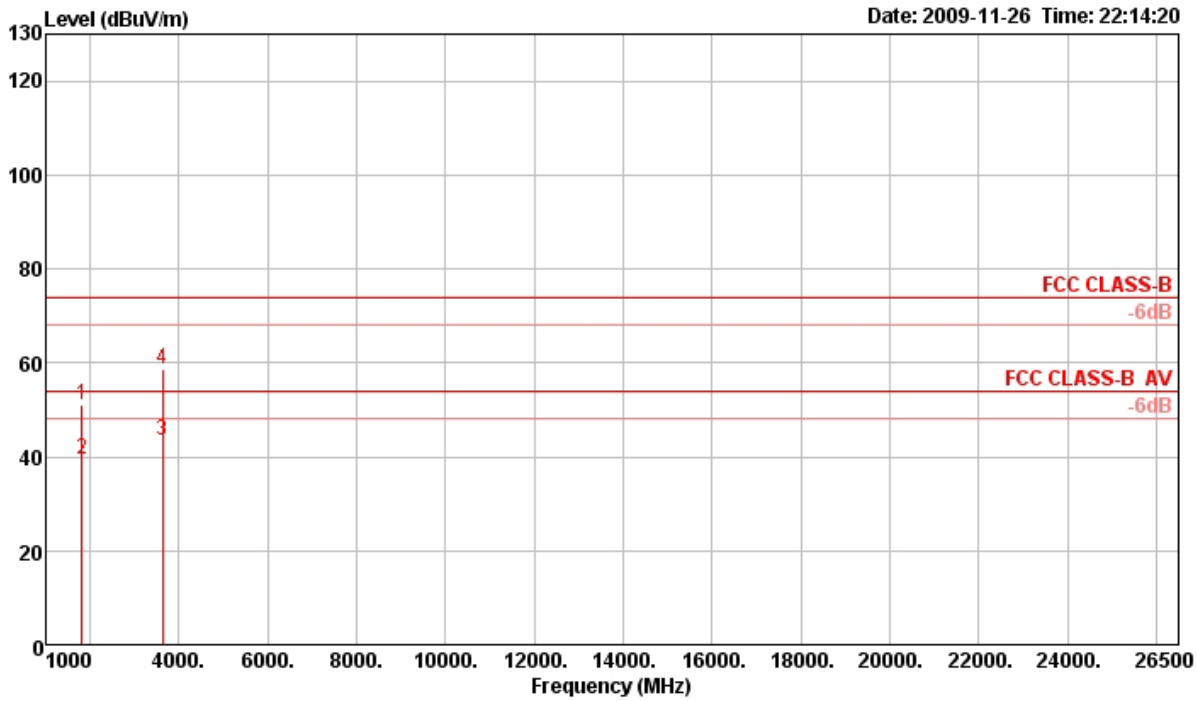
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	802.OFDM CH 1 / Ant. 2

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1814.20	52.28	74.00	-21.72	58.58	2.38	26.57	35.25	119	103	Peak	HORIZONTAL
2 a	1816.00	40.32	54.00	-13.68	46.60	2.40	26.57	35.25	119	103	Average	HORIZONTAL
3	3632.00	38.50	54.00	-15.50	39.61	3.45	30.69	35.25	196	100	Average	HORIZONTAL
4 p	3635.64	53.13	74.00	-20.87	54.24	3.45	30.69	35.25	196	100	Peak	HORIZONTAL

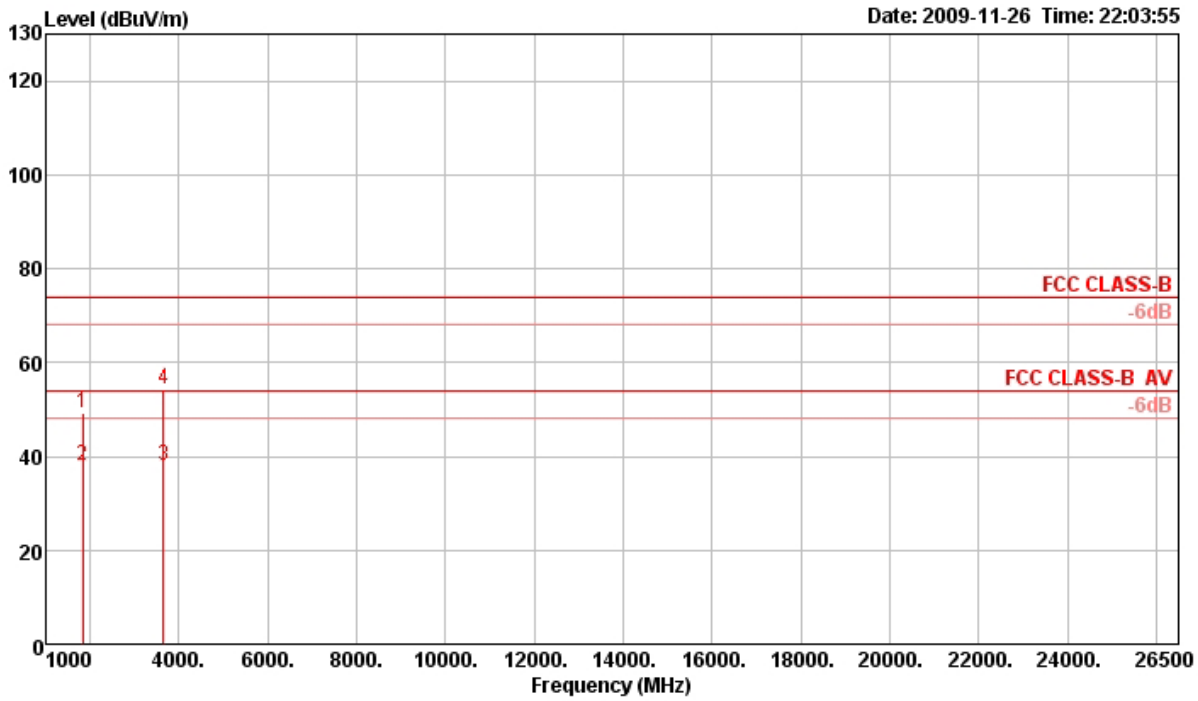
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1815.72	51.01	74.00	-22.99	57.29	2.40	26.57	35.25	30	143	Peak	VERTICAL
2	1816.00	39.30	54.00	-14.70	45.58	2.40	26.57	35.25	30	143	Average	VERTICAL
3 a	3632.08	43.51	54.00	-10.49	44.62	3.45	30.69	35.25	212	100	Average	VERTICAL
4 p	3633.84	58.59	74.00	-15.41	59.70	3.45	30.69	35.25	212	100	Peak	VERTICAL

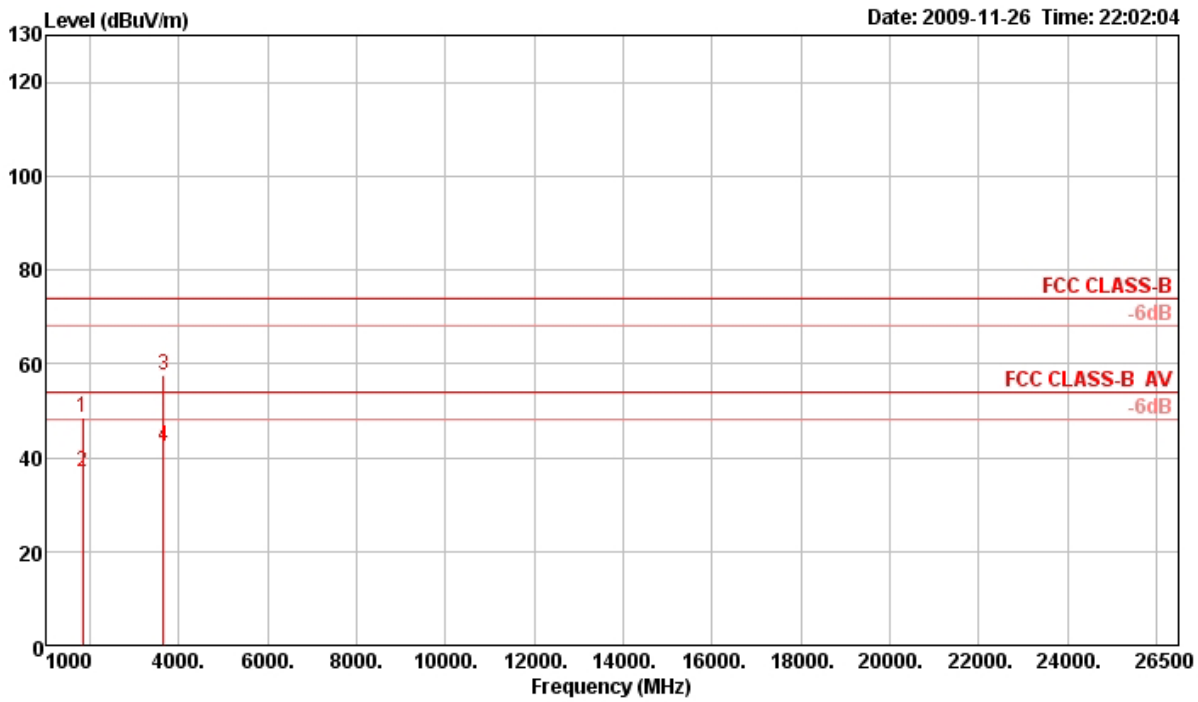
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	802.OFDM CH 2 / Ant. 2

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1824.16	49.29	74.00	-24.71	55.51	2.40	26.63	35.25	118	100	Peak	HORIZONTAL
2	1825.72	37.84	54.00	-16.16	44.06	2.40	26.63	35.25	118	100	Average	HORIZONTAL
3 a	3652.24	38.19	54.00	-15.81	39.20	3.45	30.78	35.24	260	102	Average	HORIZONTAL
4 p	3652.88	54.28	74.00	-19.72	55.29	3.45	30.78	35.24	260	102	Peak	HORIZONTAL

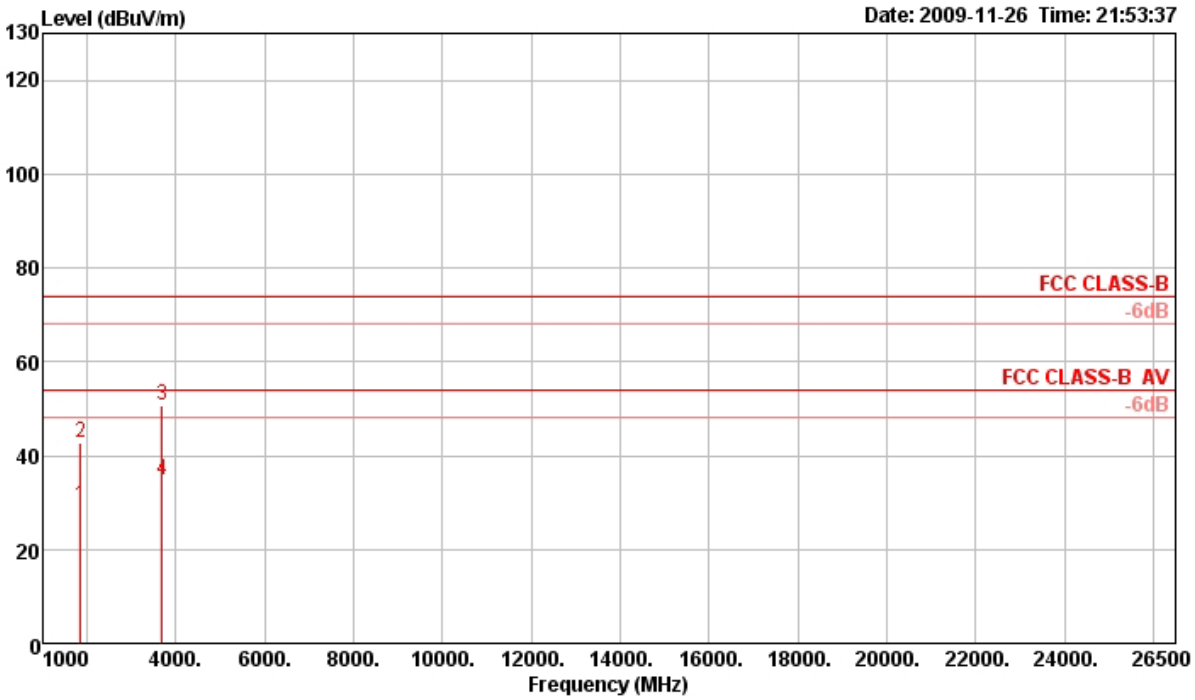
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1824.04	48.37	74.00	-25.63	54.59	2.40	26.63	35.25	192	104	Peak	VERTICAL
2	1825.64	37.08	54.00	-16.92	43.30	2.40	26.63	35.25	192	104	Average	VERTICAL
3 p	3650.16	57.53	74.00	-16.47	58.54	3.45	30.78	35.24	53	100	Peak	VERTICAL
4 a	3652.44	42.27	54.00	-11.73	43.28	3.45	30.78	35.24	53	100	Average	VERTICAL

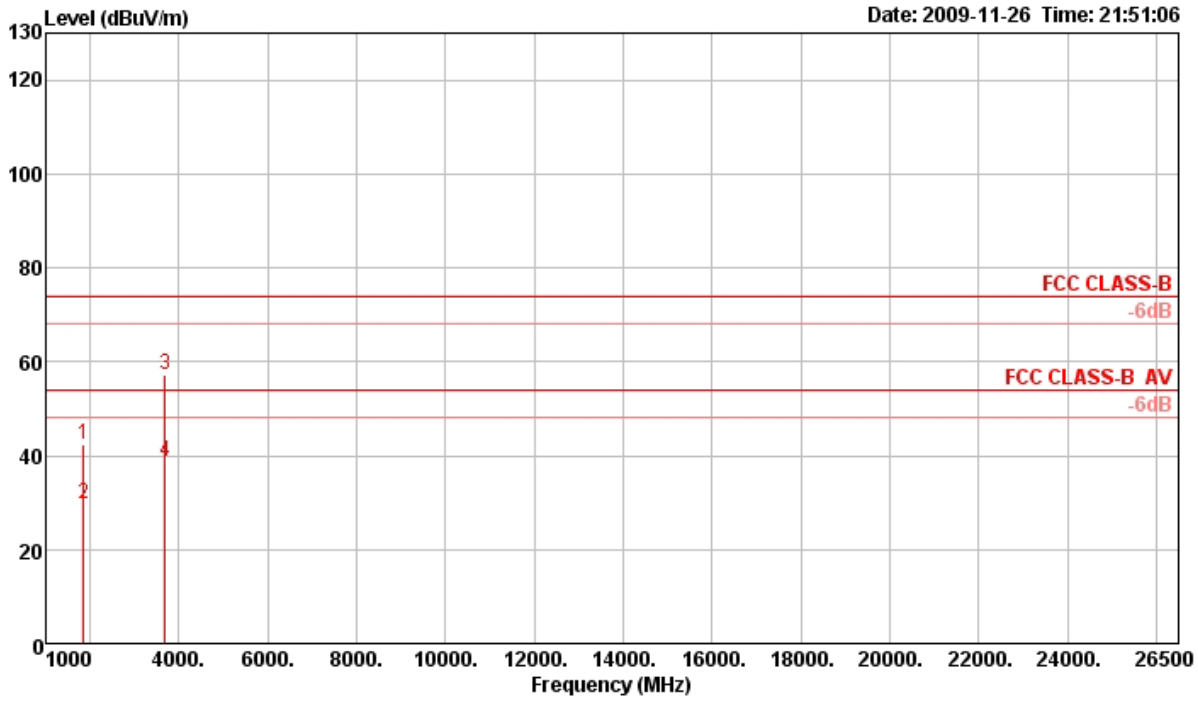
Temperature	24°C	Humidity	58%
Test Engineer	Roy Huang	Configurations	802.OFDM CH 4 / Ant. 2

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1844.64	29.49	54.00	-24.51	35.60	2.42	26.70	35.23	139	100	Average	HORIZONTAL
2	1844.72	42.63	74.00	-31.37	48.74	2.42	26.70	35.23	139	100	Peak	HORIZONTAL
3 p	3689.68	50.58	74.00	-23.42	51.39	3.47	30.95	35.23	307	100	Peak	HORIZONTAL
4 a	3690.68	34.62	54.00	-19.38	35.43	3.47	30.95	35.23	307	100	Average	HORIZONTAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	T/Pos	A/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	deg	cm		
1	1843.36	42.33	74.00	-31.67	48.44	2.42	26.70	35.23	27	104	Peak	VERTICAL
2	1845.12	29.77	54.00	-24.23	35.88	2.42	26.70	35.23	27	104	Average	VERTICAL
3 p	3689.32	57.13	74.00	-16.87	57.94	3.47	30.95	35.23	174	100	Peak	VERTICAL
4 a	3690.48	38.89	54.00	-15.11	39.70	3.47	30.95	35.23	174	100	Average	VERTICAL

Note:

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.

4.6. Band Edge Emissions Measurement

4.6.1. 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 (micorvolts/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

4.6.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	100 KHz /100 KHz for Peak

4.6.3. Test Procedures

1. The test procedure is the same as section 4.5.3, only the frequency range investigated is limited to 100MHz around bandedges.
2. In case the emission is fail due to the used RB/VB is too wide, marker-delta method of FCC Public Notice DA00-705 will be followed.

4.6.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.5.4.

4.6.5. Test Deviation

There is no deviation with the original standard.

4.6.6. EUT Operation during Test

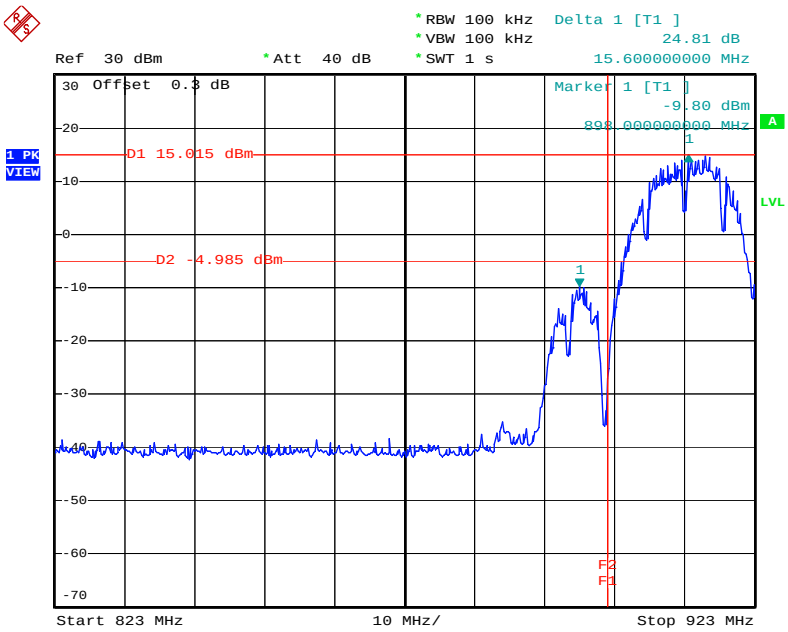
The EUT was programmed to be in continuously transmitting mode.

4.6.7. Test Result of Band Edge and Fundamental Emissions

For Emission not in Restricted Band

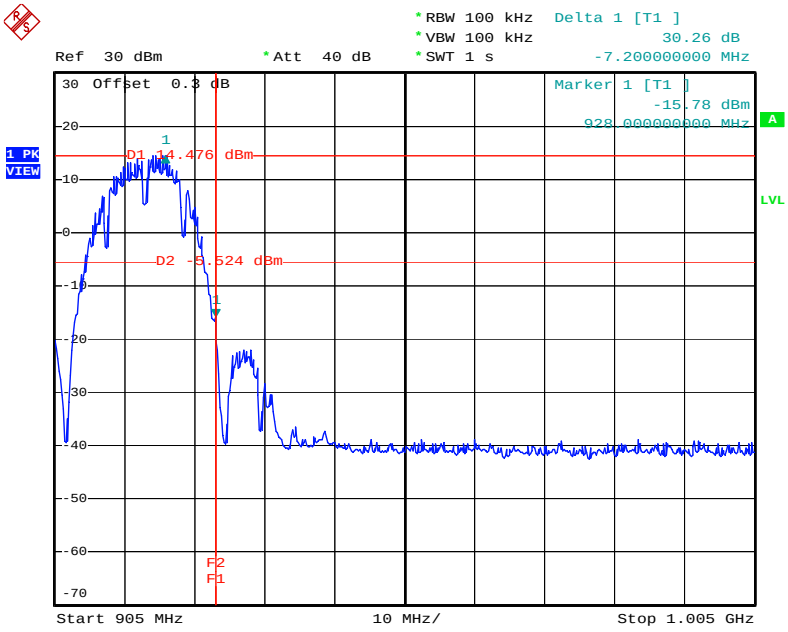
<For Antenna 1>

Low Band Edge Plot on Configuration DSSS Ant. 1 / 913MHz



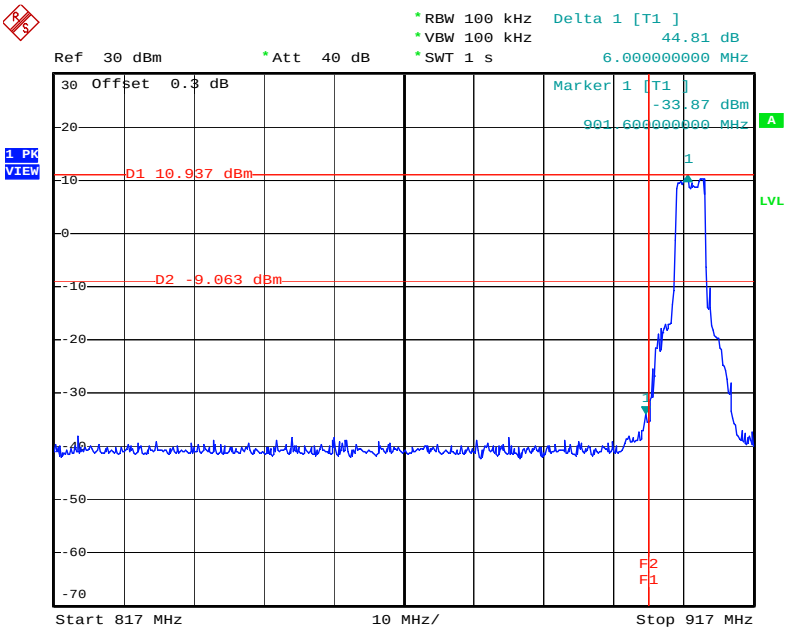
Date: 1.DEC.2009 14:31:06

High Band Edge Plot on Configuration DSSS Ant. 1 / 918 MHz



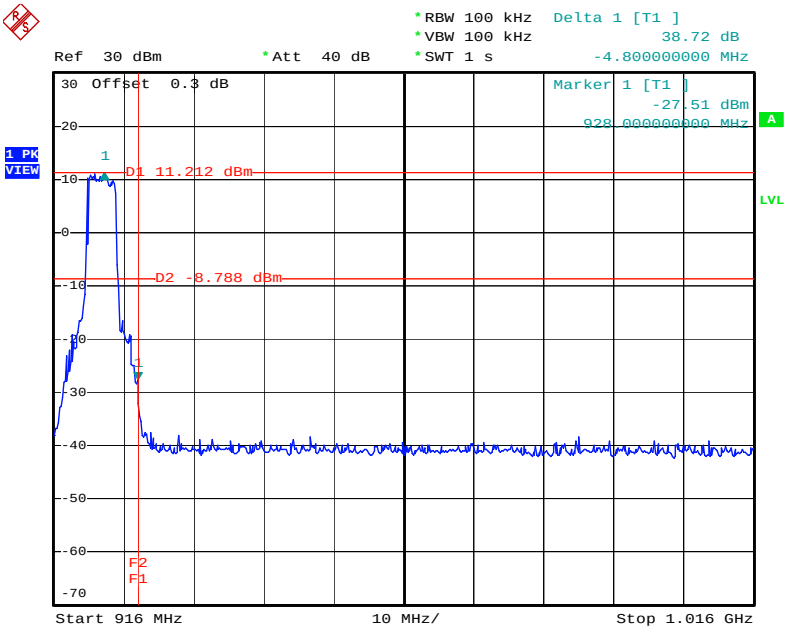
Date: 1.DEC.2009 14:46:58

Low Band Edge Plot on Configuration OFDM Ant. 1 / 908 MHz



Date: 1.DEC.2009 14:42:48

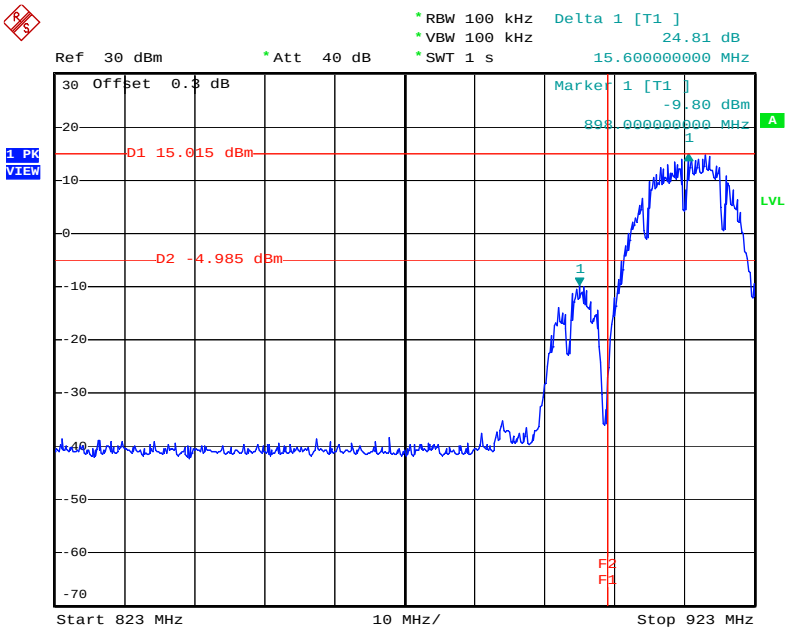
High Band Edge Plot on Configuration OFDM Ant. 1 / 923 MHz



Date: 1.DEC.2009 14:39:19

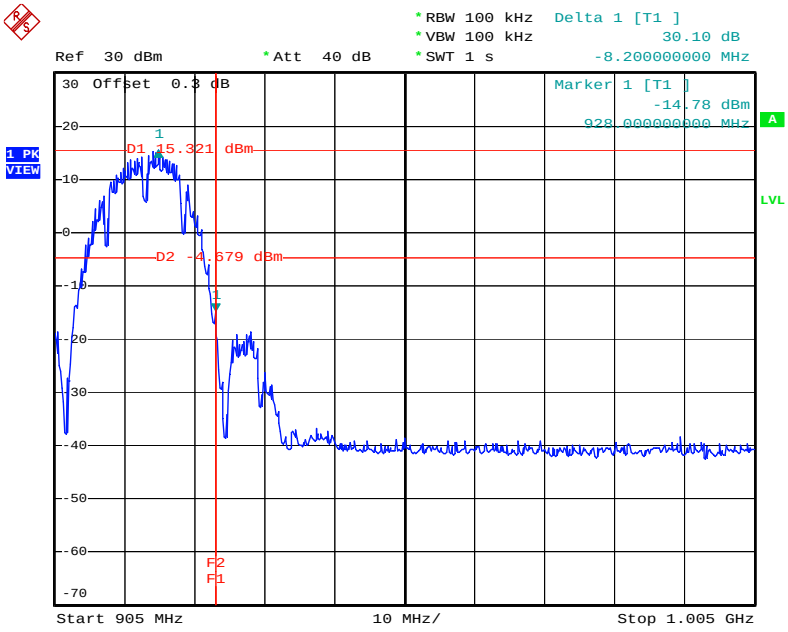
<For Antenna 2>

Low Band Edge Plot on Configuration DSSS Ant. 2 / 913MHz



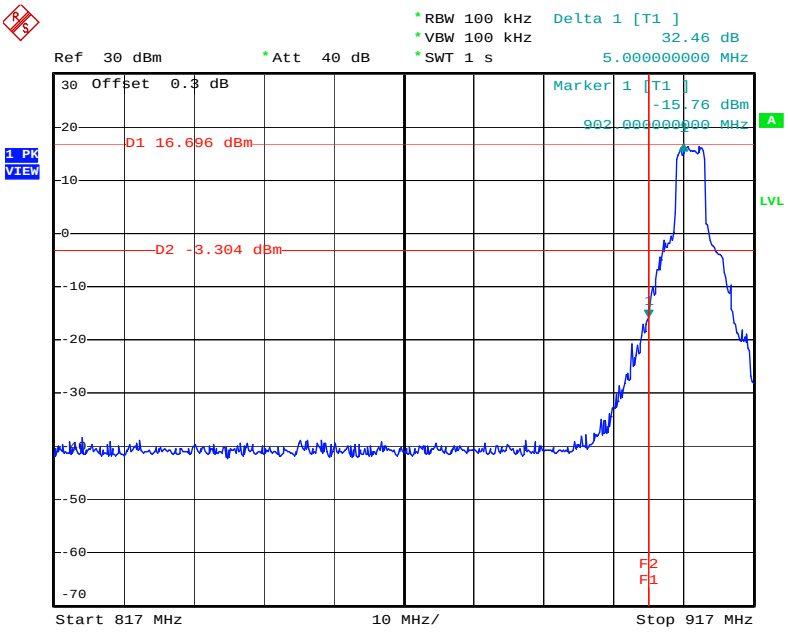
Date: 1.DEC.2009 14:31:06

High Band Edge Plot on Configuration DSSS Ant. 2 / 918 MHz



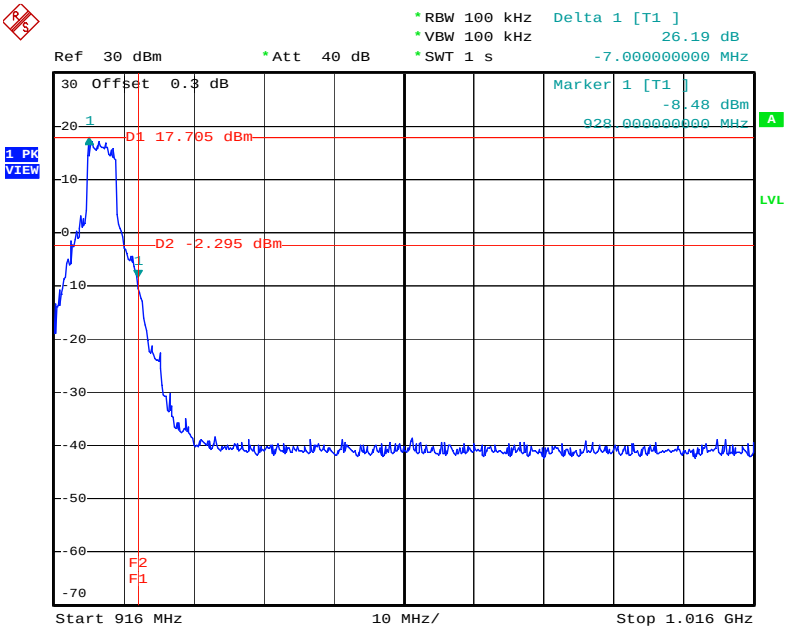
Date: 1.DEC.2009 14:33:21

Low Band Edge Plot on Configuration OFDM Ant. 2 / 908 MHz



Date: 1.DEC.2009 14:24:44

High Band Edge Plot on Configuration OFDM Ant. 2 / 923 MHz



Date: 1.DEC.2009 14:28:23

4.7. Antenna Requirements

4.7.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.7.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9kHz – 2.75GHz	Apr. 15, 2009	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 23, 2009	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2009	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2009	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz –30MHz	Jun. 11, 2009	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30 MHz - 1 GHz 3m	Jun. 07, 2009	Radiation (03CH03-HY)
Amplifier	SCHAFFNER	COA9231A	18667	9 kHz - 2 GHz	Jan. 23, 2009	Radiation (03CH03-HY)
Amplifier	Agilent	8449B	3008A02120	1 GHz - 26.5 GHz	Jul. 21, 2009	Radiation (03CH03-HY)
Amplifier	MITEQ	AMF-6F-260400	9121372	26.5 GHz - 40 GHz	Apr. 06, 2009*	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSP30	100305	9 kHz - 40 GHz	Feb. 03, 2009	Radiation (03CH03-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Jul. 28, 2008*	Radiation (03CH03-HY)
Bilog Antenna	SCHAFFNER	CBL 6112D	22237	30 MHz – 1 GHz	Sep. 26, 2009	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz ~ 18GHz	Apr. 28, 2009	Radiation (03CH03-HY)
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170154	15 GHz - 40 GHz	Jan.16, 2009	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30 MHz - 1 GHz	Jan. 05, 2009	Radiation (03CH03-HY)
RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	1 GHz - 40 GHz	Jan. 05, 2009	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 – 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Spectrum Analyzer	R&S	FSU26.5	100015	20Hz ~ 26.5GHz	Oct. 29, 2009	Conducted (TH01-HY)
Power Meter	R&S	NRVS	100444	DC ~ 40GHz	Jul. 31, 2009	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z51	100666	DC ~ 30GHz	Aug. 05, 2009	Conducted (TH01-HY)
Power Sensor	R&S	NRV-Z32	100057	30MHz ~ 6GHz	Jul. 31, 2009	Conducted (TH01-HY)
AC Power Source	HPC	HPA-500W	HPA-9100024	AC 0 ~ 300V	Jul. 12, 2009*	Conducted (TH01-HY)
DC Power Source	G.W.	GPC-6030D	C671845	DC 1V ~ 60V	Mar. 13, 2009	Conducted (TH01-HY)
Temp. and Humidity Chamber	Giant Force	GTH-225-20-S	MAB0103-001	N/A	Aug. 06, 2009	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2008	Conducted (TH01-HY)
RF CABLE-1m	Jye Bao	RG142	CB034-1m	20MHz ~ 7GHz	Dec. 01, 2009	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2008	Conducted (TH01-HY)
RF CABLE-2m	Jye Bao	RG142	CB035-2m	20MHz ~ 1GHz	Dec. 01, 2009	Conducted (TH01-HY)
Vector Signal Generator	R&S	SMU200A	102098	100kHz ~ 6GHz	Feb. 13, 2009	Conducted (TH01-HY)
Signal Generator	R&S	SMR40	100116	10MHz ~ 40GHz	Mar. 25, 2009	Conducted (TH01-HY)

Note: Calibration Interval of instruments listed above is one year.

Note: Calibration Interval of instruments listed above is two year.

6. TEST LOCATION

SHIJR	ADD	:	6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL	:	886-2-2696-2468
	FAX	:	886-2-2696-2255
HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL	:	886-3-327-3456
	FAX	:	886-3-318-0055
LINKOU	ADD	:	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL	:	886-2-2601-1640
	FAX	:	886-2-2601-1695
DUNGHU	ADD	:	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL	:	886-2-2631-4739
	FAX	:	886-2-2631-9740
JUNGHE	ADD	:	7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL	:	886-2-8227-2020
	FAX	:	886-2-8227-2626
NEIHU	ADD	:	4Fl., No. 339, Hsin Hu 2nd Rd., Taipei 114, Taiwan, R.O.C.
	TEL	:	886-2-2794-8886
	FAX	:	886-2-2794-9777
JHUBEI	ADD	:	No.8, Lane 7248, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
	TEL	:	886-3-656-9065
	FAX	:	886-3-656-9085

7. TAF CERTIFICATE OF ACCREDITATION

Certificate No. : L1190-070110

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	:	ISO/IEC 17025:2005
Accreditation Number	:	1190
Originally Accredited	:	December 15, 2003
Effective Period	:	January 10, 2007 to January 09, 2010
Accredited Scope	:	Testing Field, see described in the Appendix
Specific Accreditation Program	:	Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory

Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 10, 2007

P1, total 9 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.