SPORTON International Inc.
No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, TaoYuan Hsien, Taiwan, R.O.C.
Ph: 886-3-327-3456 / FAX: 886-3-327-0973 / www.sporton.com.tw

FCC RADIO TEST REPORT

Applicant's company	**Motorola Solutions, Inc.**
Applicant Address	Unit A1 Linhay Business Park Eastern Road, Ashburton, Devon
FCC ID	**QWP58250**
Manufacturer's company	**JOY TECHNOLOGY (SHENZHEN) CO., LTD.**
Manufacturer Address	Building A, B, C, D, HengKeng Ind., Shangpai, Shangwu,Aiqun Rd., Shiyan Town,Shenzhen 518108 China

Product Name	PTP250 Point to Point Broadband Wireless System
Brand Name	Motorola
Model Name	WB3721/WB3723
Test Rule Part(s)	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	5725 ~ 5850MHz
Received Date	Nov. 24, 2010
Final Test Date	Mar. 29, 2011
Submission Type	Original Equipment
Multiple Listing	Please refer to section 3.7

Statement

This test report covers operation in the Band 5725MHz to 5850MHz using 802.11n and 802.11a modes. Operation in other bands is not supported in the device.

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.

Testing Laboratory
1190

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History of This Test Report

Report No.	Issue Date	Version	Description
FR052615-01	Feb. 24, 2011	Rev. 01	Initial issue of report
FR052615-01	Apr. 06, 2011	Rev. 02	1. Add test result of antenna 2. 2. Modified Applicant's company and Applicant's address
FR052615-01	May 04, 2011	Rev. 03	Modify the Power Spectral Density measurement

1. CERTIFICATE OF COMPLIANCE

Product Name	:	PTP250 Point to Point Broadband Wireless System
Brand Name	:	Motorola
Model Name	:	WB3721/WB3723
Applicant	:	Motorola Solutions, Inc.
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. 24, 2010 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 2011.5.4

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	4.86 dB
4.2	15.247(b)(3)	Maximum Conducted Output Power	Complies	1.21 dB
4.3	15.247(e)	Power Spectral Density	Complies	3.15 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions	Complies	4.98 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 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

IEEE 802.11n

Items	Description
Product Type	For Antenna 1: WLAN (2TX, 2RX) For Antenna 2: WLAN (1TX, 1RX)
Radio Type	Intentional Transceiver
Power Type	From POE
Modulation	see the below table for IEEE 802.11n
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	see the below table for IEEE 802.11n
Frequency Range	5725 ~ 5850MHz
Number of Channels	5 for 20MHz bandwidth ; 2 for 40MHz bandwidth
Channel Band Width (99%)	For Antenna 1: MCS8 (20MHz): 17.72 MHz ; MCS8 (40MHz): 36.32 MHz For Antenna 2: MCS8 (20MHz): 17.96 MHz ; MCS8 (40MHz): 36.32 MHz
Conducted Output Power	For Antenna 1: MCS8 (20MHz): 28.69 dBm ; MCS8 (40MHz): 28.23 dBm For Antenna 2: MCS8 (20MHz): 25.67 dBm ; MCS8 (40MHz): 25.26 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

802.11a

Items	Description
Product Type	For Antenna 1: WLAN (2TX, 2RX) For Antenna 2: WLAN (1TX, 1RX)
Radio Type	Intentional Transceiver
Power Type	From POE
Modulation	OFDM for IEEE 802.11a
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	OFDM (6/9/12/18/24/36/48/54)
Frequency Range	5725 ~ 5850MHz
Number of Channels	5
Channel Band Width (99%)	For Antenna 1: 17.12 MHz For Antenna 2: 18.16 MHz
Conducted Output Power	For Antenna 1: 28.79 dBm For Antenna 2: 25.65 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

<For Antenna 1>

Antenna & Band width

Antenna	Single (TX)		Two (TX)	
Band width Mode	20 MHz	40 MHz	20 MHz	40 MHz
IEEE 802.11a	X	X	V	X
IEEE 802.11n	X	X	V	V

<For Antenna 2>

Antenna & Band width

Antenna	Single (TX)	
Band width Mode	20 MHz	40 MHz
IEEE 802.11a	V	X
IEEE 802.11n	V	V

IEEE 802.11n spec

MCS Index	Nss	Modulation	R	NBPSC	NCBPS		NDBPS		Datarate(Mbps)			
									800nsGI		400nsGI	
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz	20MHz	40MHz
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.200	15
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.400	30
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.700	45
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.900	60
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.300	90
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.800	120
6	1	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.000	135
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.200	150
8	2	BPSK	1/2	1	104	216	52	108	13.0	27.0	14.444	30
9	2	QPSK	1/2	2	208	432	104	216	26.0	54.0	28.889	60
10	2	QPSK	3/4	2	208	432	156	324	39.0	81.0	43.333	90
11	2	16-QAM	1/2	4	416	864	208	432	52.0	108.0	57.778	120
12	2	16-QAM	3/4	4	416	864	312	648	78.0	162.0	86.667	180
13	2	64-QAM	2/3	6	624	1296	416	864	104.0	216.0	115.556	240
14	2	64-QAM	3/4	6	624	1296	468	972	117.0	243.0	130.000	270
15	2	64-QAM	5/6	6	624	1296	520	1080	130.0	270.0	144.444	300

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

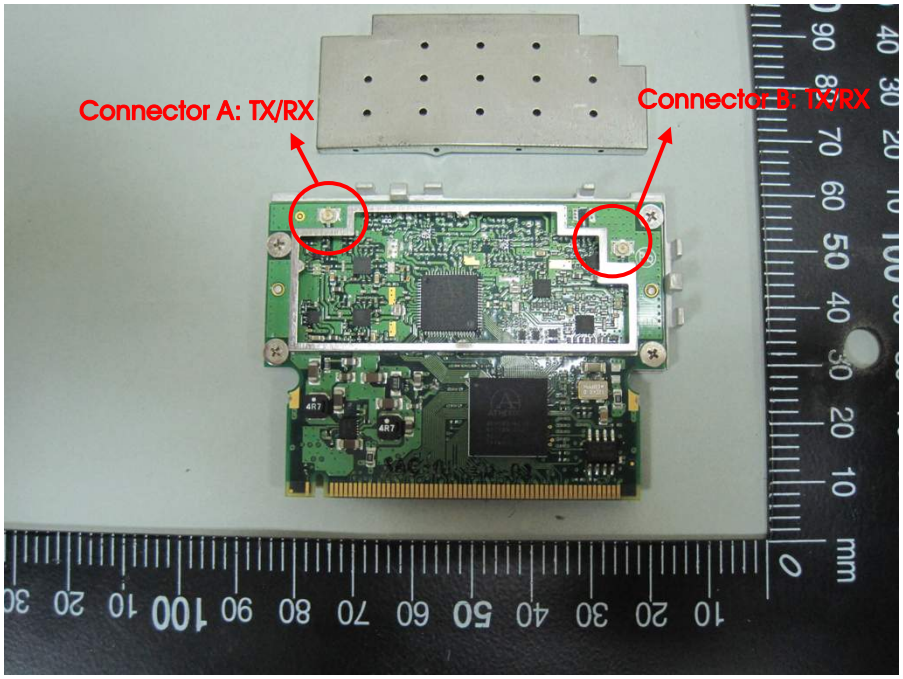
3.2. Accessories

Support Unit	Brand	Model	Rating
PIDU	MOTOROLA	WB2521	Input: 100~240VAC, 47-63Hz, 1.8A Output: 48-55VDC, 1A
POE	MOTOROLA	PD-7001G	Input: 100~240VAC, 50-60Hz, 0.8A Output: 55VDC, 0.57A

3.3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Cable Loss (dBi)
1-A	MOTOROLA	1232000000093A-A0	Dual Polarised Antenna	I-pex	23	1.5
1-B	MOTOROLA	1232000000093A-A0	Dual Polarised Antenna	I-pex	23	1.5
2	Radio Waves, Inc.	SP6-5.2	PARABOLIC SUBSCRIBER ANTENNAS	Type "N" female	37.6	1.0

Note: The EUT has two antenna ports (A/B) each of which can transmit or receive signals. Both antenna ports were connected when testing Antenna 1 but only port A was connected when testing Antenna 2 (dual polar dish not available)



3.4. Table for Carrier Frequencies

For IEEE 802.11a, use Channel 149, 153, 157, 161, 165.

There are two bandwidth systems for IEEE 802.11n.

For 20MHz bandwidth systems, use Channel 149, 153, 157, 161, 165.

For 40MHz bandwidth systems, use Channel 151, 159.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5725~5850 MHz Band 4	149	5745 MHz	159	5795 MHz
	151	5755 MHz	161	5805 MHz
	153	5765 MHz	165	5825 MHz
	157	5785 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.

<For Antenna 1>

Test Items	Mode	Data Rate	Channel	Antenna
AC Power Line Conducted Emissions	CTX Link	Auto	-	-
Max. Peak Conducted Output Power	MCS8/20MHz	13 Mbps	149/157/165	1-A/1-B/
	MCS8/40MHz	27 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	
Power Spectral Density 6dB Spectrum Bandwidth	MCS8/20MHz	13 Mbps	149/157/165	1-A +1-B
	MCS8/40MHz	27 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	
Radiated Emissions Below 1GHz	CTX Link	6 Mbps	-	-
Radiated Emissions Above 1GHz	MCS8/20MHz	13 Mbps	149/157/165	1-A +1-B
	MCS8/40MHz	27 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	
Band Edge Emissions	MCS8/20MHz	13 Mbps	149/157/165	1-A +1-B
	MCS8/40MHz	27 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	

<For Antenna 2>

Test Items	Mode	Data Rate	Channel	Antenna
AC Power Line Conducted Emissions	CTX Link	Auto	-	-
Max. Peak Conducted Output Power	MCS0/20MHz	6.5 Mbps	149/157/165	2
	MCS0/40MHz	13.5 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	
Power Spectral Density 6dB Spectrum Bandwidth	MCS0/20MHz	6.5 Mbps	149/157/165	2
	MCS0/40MHz	13.5 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	
Radiated Emissions Below 1GHz	CTX Link	6 Mbps	-	-
Radiated Emissions Above 1GHz	MCS0/20MHz	6.5 Mbps	149/157/165	2
	MCS0/40MHz	13.5 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	
Band Edge Emissions	MCS0/20MHz	6.5 Mbps	149/157/165	2
	MCS0/40MHz	13.5 Mbps	151/159	
	11a/BPSK	6 Mbps	149/157/165	

Test Mode 1. EUT + Antenna 1 + POE (PD-7001G)

Test Mode 2. EUT + Antenna 1 + POE (WB2521)

Test Mode 3. EUT + Antenna 2 + POE (PD-7001G)

Test Mode 4. EUT + Antenna 2 + POE (WB2521)

< AC Power Line Conducted Emissions>:

Due to Antenna would not affect test results, so that we choose the antenna 1 was tested and recorded in this report.

Mode 1 and Mode 2 were recorded the test data in the report.

<For Radiated Emissions Test Below 1GHz>:

All the test modes were tested and recorded the test data in the report.

<For Radiated Emissions Test Above 1GHz>:

Due to POE would not affect test results, so that we choose the POE (PD-7001G) was tested and recorded in this report.

Mode 1 and Mode 3 were recorded the test data in the report.

3.6. Table for Testing Locations

Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.	VCCI Reg. No
03CH01-CB	SAC	Hsin Chu	187376	IC 4086D	-
CO01-CB	Conduction	Hsin Chu	187376	IC 4086D	-
TH01-CB	OVEN Room	Hsin Chu	-	-	-

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 Multiple List

The model names in the following table are all refer to the identical product.

Model Name	Manufacturer
WB3720	PTP 250 Integrated Link, 5.8 GHz (FCC)
WB3721	PTP 250 Integrated Single End, 5.8 GHz (FCC)
WB3722	PTP 250 Connectorised Link, 5.8 GHz (FCC)
WB3723	PTP 250 Connectorised Single End 5.8 GHz (FCC)

Certification Model Number WB3721 covers Products WB3721 (integrated antenna model) and WB3723 (connectorised model) . These products are also available as complete Radio Links under Product Numbers WB3720 (integrated antenna model) and WB3722 (connectorised model).

3.8. Table for Supporting Units

Support Unit	Brand	Model	FCC ID
PC	hp compaq	d330uT	DoC
LCD Monitor	DELL	1704FPTt	DoC
Keyboard	iCooky	SK068	DoC
Mouse	iCooky	AMS0706W	DoC
Notebook	DELL	D400	E2K24GBRL
POE	MOTOROLA	PD-7001G	N/A

3.9. Table for Parameters of Test Software Setting

"During testing, ART software was used to set the channel frequency and transmit power of the Equipment Under Test (EUT). The transmit power settings available in the firmware used in the final product will not permit the user to exceed the powers as set by this test software."

For Antenna 1:

Power value as set for IEEE 802.11n

Test Software Version	ART V2.0.2X		
Frequency (20MHz bandwidth)	5745 MHz	5785 MHz	5825 MHz
Set power value (MCS8)	21	21	21
40MHz bandwidth	5755 MHz	5795 MHz	-
Set power value (MCS8)	21	21	-

Power value as set for IEEE 802.11a

Test Software Version	ART V2.0.2X		
Frequency (20MHz bandwidth)	5745 MHz	5785 MHz	5825 MHz
Set power value (MCS8)	21	21	21

For Antenna 2:

Power value as set for IEEE 802.11n

Test Software Version	ART V2.0.2X		
Frequency (20MHz bandwidth)	5745 MHz	5785 MHz	5825 MHz
Set power value (MCS0)	21	21	21
Frequency (40MHz bandwidth)	5755 MHz	5795 MHz	-
Set power value (MCS0)	21	21	-

Power value as set for IEEE 802.11a

Test Software Version	ART V2.0.2X		
Frequency (20MHz bandwidth)	5745 MHz	5785 MHz	5825 MHz
Set power value (MCS0)	21	21	21

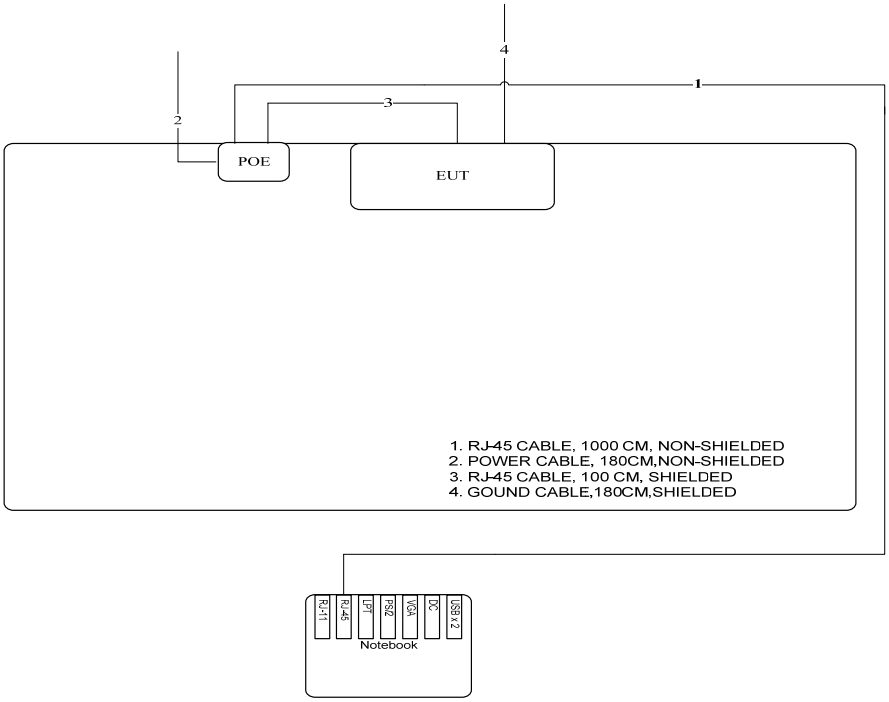
During the test, "ART V2.0.2X" under WIN XP was executed to control the EUT continuously transmit RF signal.

3.10. Test Configurations

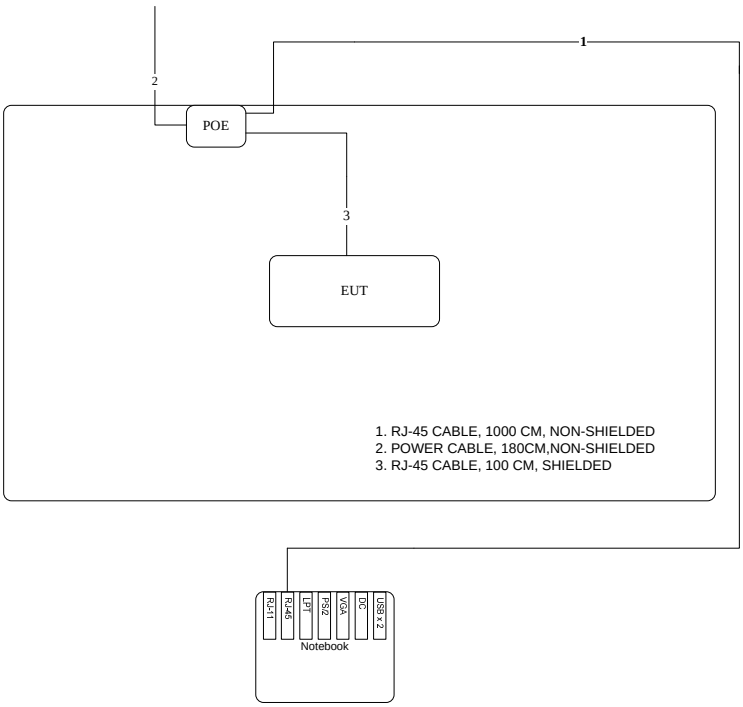
3.10.1. Radiation Emissions Test Configuration

For Antenna 1:

Test Configuration: 9kHz~1GHz

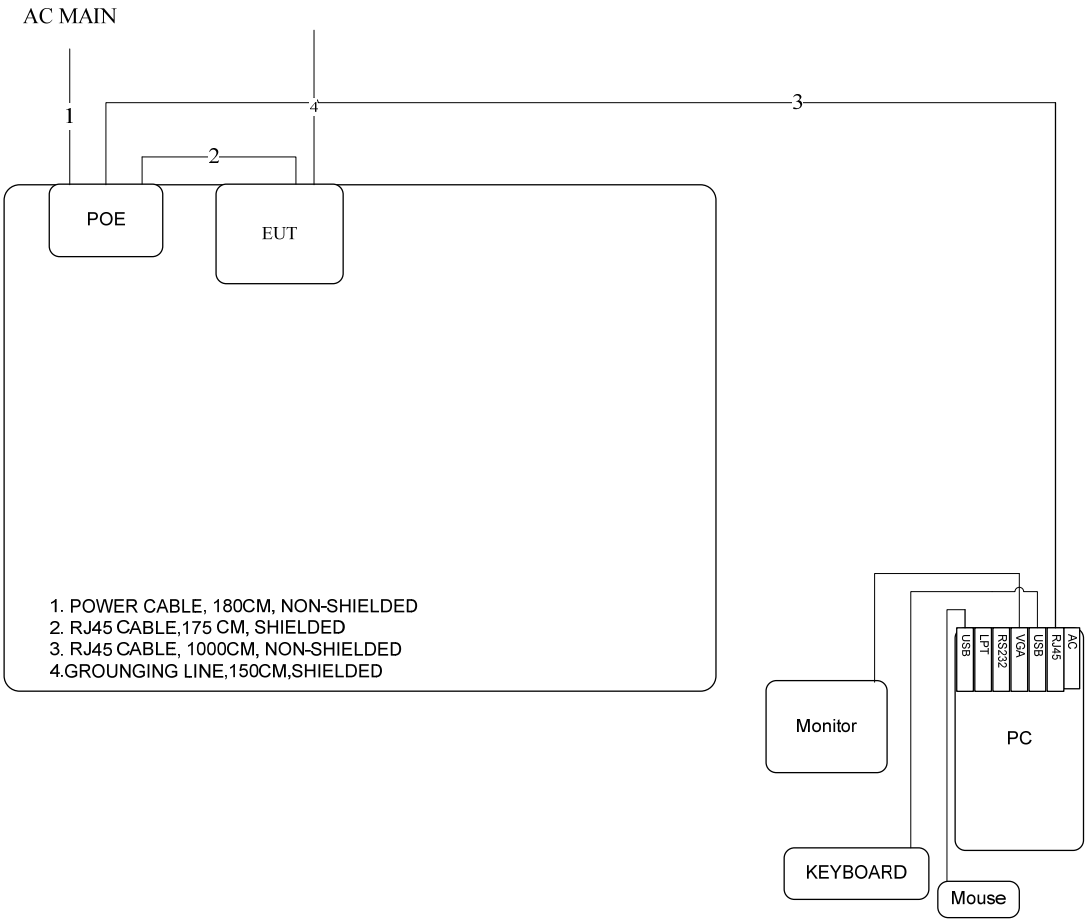


Test Configuration: above 1GHz

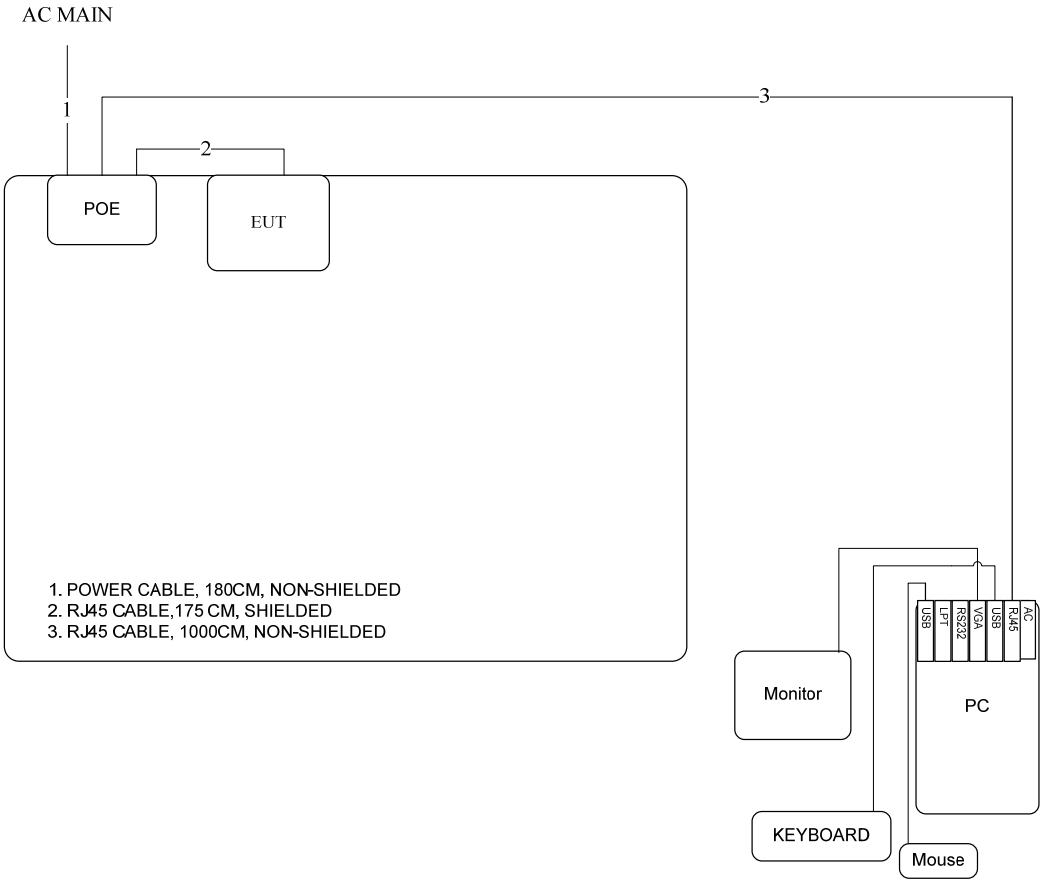


For Antenna 2:

Test Configuration: above 1GHz



3.10.2. 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

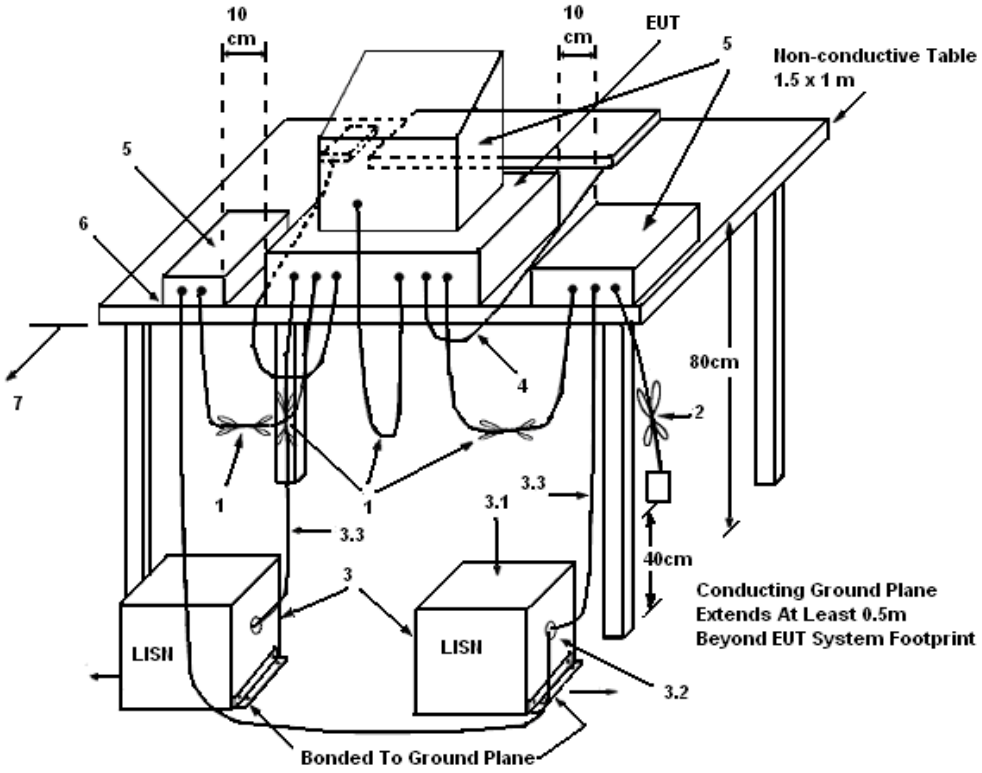
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

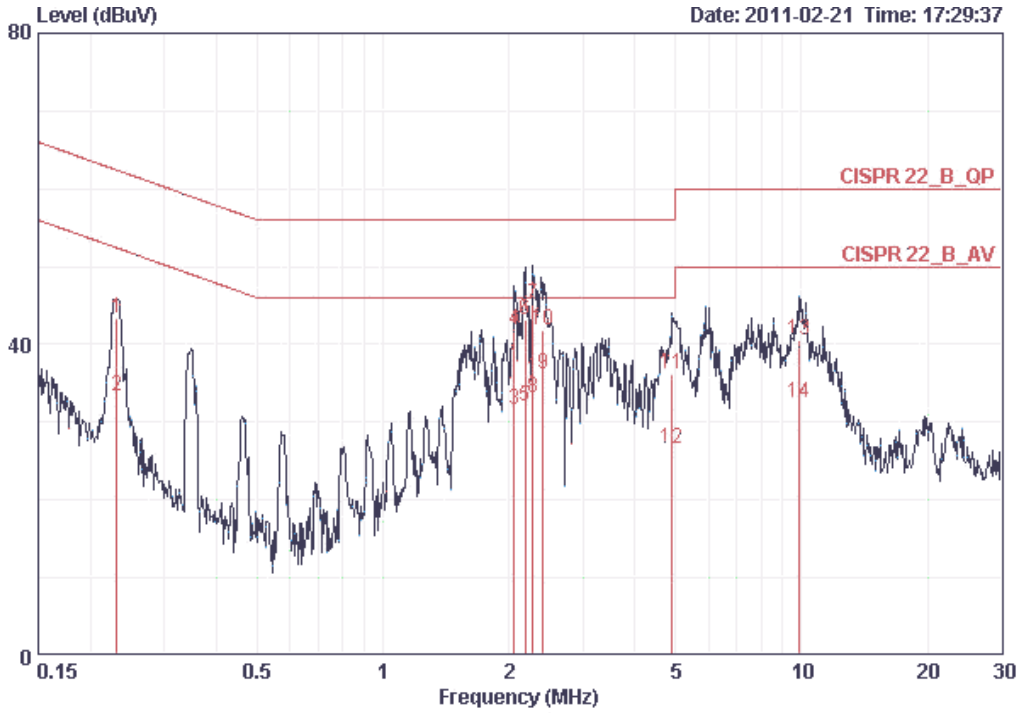
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

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

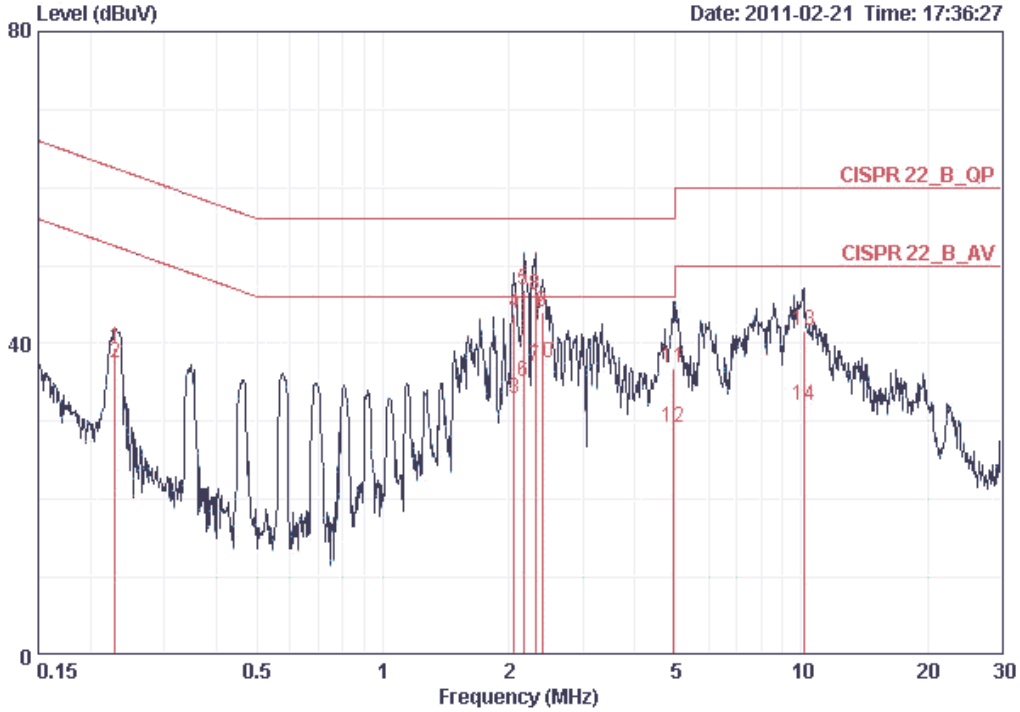
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	13°C	Humidity	61%
Test Engineer	Peter Wu	Phase	Line
Configuration	CTX Link / Mode 1		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.23162	43.45	-18.95	62.39	43.20	0.05	0.20	QP
2	0.23162	33.34	-19.06	52.39	33.09	0.05	0.20	AVERAGE
3	2.055	31.57	-14.43	46.00	31.32	0.05	0.20	AVERAGE
4	2.055	41.85	-14.15	56.00	41.60	0.05	0.20	QP
5	2.190	32.14	-13.86	46.00	31.88	0.06	0.20	AVERAGE
6	2.190	43.20	-12.80	56.00	42.94	0.06	0.20	QP
7	2.285	45.20	-10.80	56.00	44.94	0.06	0.20	QP
8	2.285	33.03	-12.97	46.00	32.77	0.06	0.20	AVERAGE
9 @	2.409	36.13	-9.87	46.00	35.87	0.06	0.20	AVERAGE
10	2.409	41.79	-14.21	56.00	41.53	0.06	0.20	QP
11	4.900	36.20	-19.80	56.00	35.74	0.16	0.30	QP
12	4.900	26.70	-19.30	46.00	26.24	0.16	0.30	AVERAGE
13	9.913	40.54	-19.46	60.00	39.89	0.35	0.30	QP
14	9.913	32.46	-17.54	50.00	31.81	0.35	0.30	AVERAGE

Temperature	13°C	Humidity	61%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	CTX Link / Mode 1		

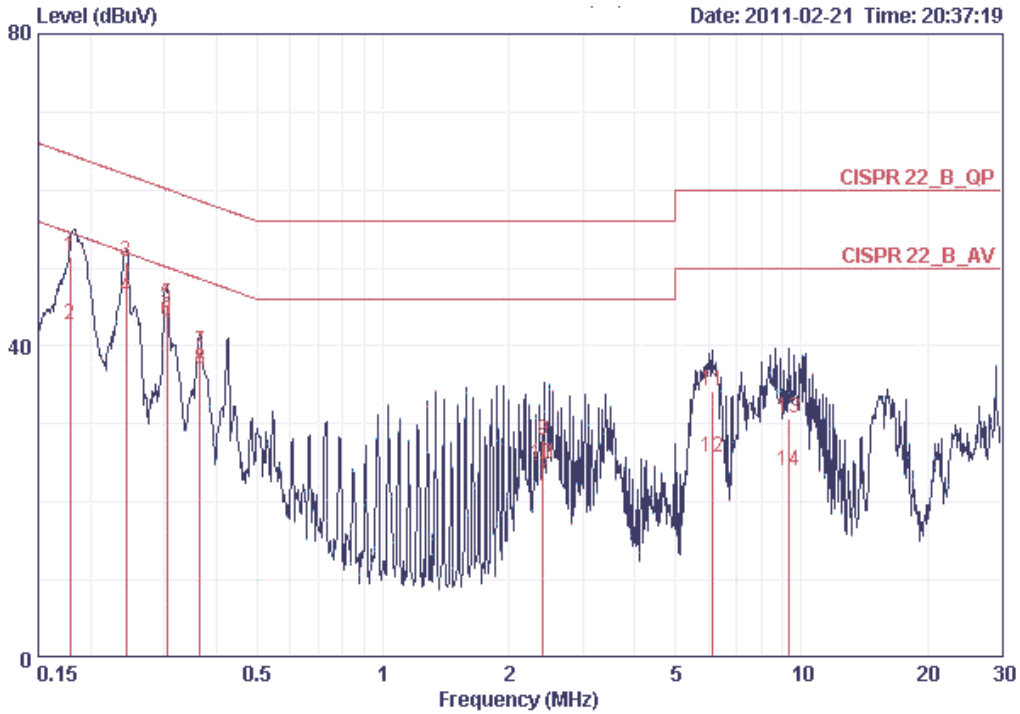


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.22918	39.52	-22.96	62.48	39.24	0.08	0.20	QP
2	0.22918	37.53	-14.95	52.48	37.25	0.08	0.20	AVERAGE
3	2.055	32.97	-13.03	46.00	32.68	0.09	0.20	AVERAGE
4	2.055	43.72	-12.28	56.00	43.43	0.09	0.20	QP
5 @	2.167	46.77	-9.23	56.00	46.47	0.10	0.20	QP
6	2.167	35.11	-10.89	46.00	34.81	0.10	0.20	AVERAGE
7 @	2.309	37.00	-9.00	46.00	36.70	0.10	0.20	AVERAGE
8 @	2.309	46.26	-9.74	56.00	45.96	0.10	0.20	QP
9	2.396	44.10	-11.90	56.00	43.80	0.10	0.20	QP
10 @	2.396	37.50	-8.50	46.00	37.20	0.10	0.20	AVERAGE
11	4.952	36.85	-19.15	56.00	36.35	0.20	0.30	QP
12	4.952	29.24	-16.76	46.00	28.74	0.20	0.30	AVERAGE
13	10.125	41.62	-18.38	60.00	40.90	0.39	0.32	QP
14	10.125	32.05	-17.95	50.00	31.33	0.39	0.32	AVERAGE

Note:

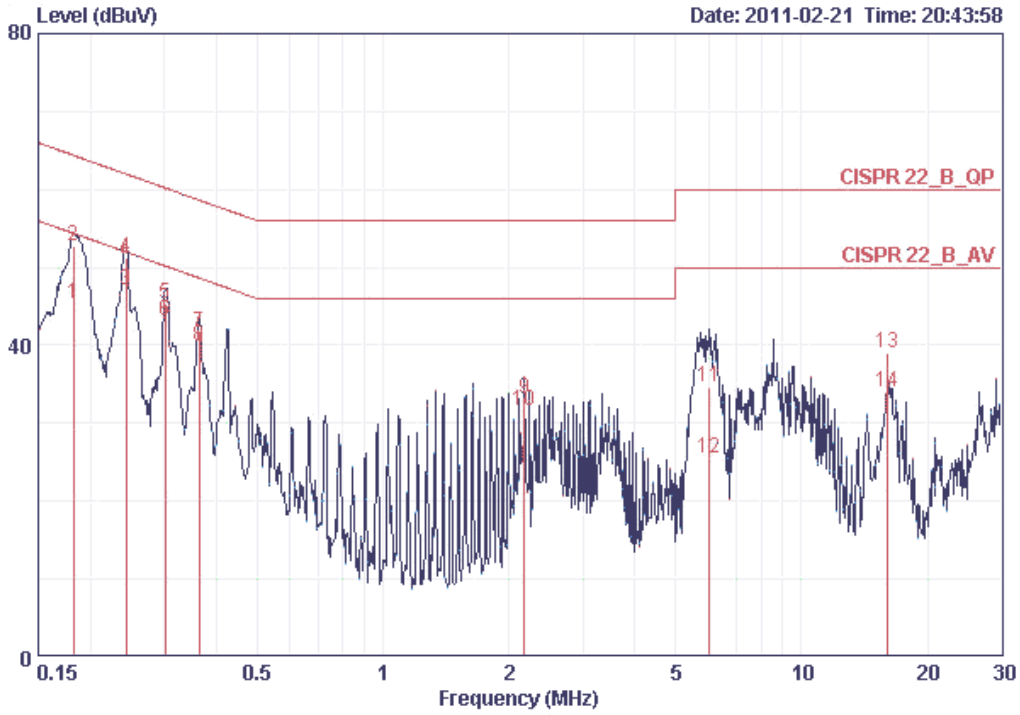
Level = Read Level + LISN Factor + Cable Loss

Temperature	13°C	Humidity	61%
Test Engineer	Peter Wu	Phase	Line
Configuration	CTX Link / Mode 2		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17846	51.46	-13.10	64.56	51.20	0.06	0.20	QP
2	0.17846	42.70	-11.86	54.56	42.44	0.06	0.20	AVERAGE
3	0.24293	50.73	-11.26	62.00	50.49	0.04	0.20	QP
4 @	0.24293	46.12	-5.87	52.00	45.88	0.04	0.20	AVERAGE
5	0.30509	45.35	-14.76	60.10	45.11	0.04	0.20	QP
6 @	0.30509	43.10	-7.01	50.10	42.86	0.04	0.20	AVERAGE
7	0.36531	39.25	-19.35	58.61	39.02	0.03	0.20	QP
8	0.36531	37.05	-11.55	48.61	36.82	0.03	0.20	AVERAGE
9	2.414	27.98	-28.02	56.00	27.72	0.06	0.20	QP
10	2.414	24.91	-21.09	46.00	24.65	0.06	0.20	AVERAGE
11	6.121	34.22	-25.78	60.00	33.68	0.22	0.33	QP
12	6.121	25.81	-24.19	50.00	25.27	0.22	0.33	AVERAGE
13	9.302	30.78	-29.22	60.00	30.15	0.33	0.30	QP
14	9.302	24.03	-25.97	50.00	23.40	0.33	0.30	AVERAGE

Temperature	13°C	Humidity	61%
Test Engineer	Peter Wu	Phase	Neutral
Configuration	CTX Link / Mode 2		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 @	0.18249	45.25	-9.12	54.37	44.96	0.09	0.20	AVERAGE
2	0.18249	52.68	-11.69	64.37	52.39	0.09	0.20	QP
3 @	0.24293	47.14	-4.86	52.00	46.86	0.08	0.20	AVERAGE
4	0.24293	51.21	-10.79	62.00	50.93	0.08	0.20	QP
5	0.30188	45.30	-14.89	60.19	45.03	0.07	0.20	QP
6 @	0.30188	43.13	-7.06	50.19	42.86	0.07	0.20	AVERAGE
7	0.36338	41.66	-16.99	58.65	41.39	0.07	0.20	QP
8 @	0.36338	39.95	-8.70	48.65	39.68	0.07	0.20	AVERAGE
9	2.178	33.16	-22.84	56.00	32.86	0.10	0.20	QP
10	2.178	31.70	-14.30	46.00	31.40	0.10	0.20	AVERAGE
11	6.024	34.72	-25.28	60.00	34.16	0.25	0.31	QP
12	6.024	25.48	-24.52	50.00	24.92	0.25	0.31	AVERAGE
13	16.055	39.07	-20.93	60.00	38.04	0.63	0.40	QP
14	16.055	34.07	-15.93	50.00	33.04	0.63	0.40	AVERAGE

Note:

Level = Read Level + LISN Factor + Cable Loss

4.2. Maximum Conducted peak Output Power Measurement

4.2.1. Limit

Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

4.2.2. Measuring Instruments and Setting

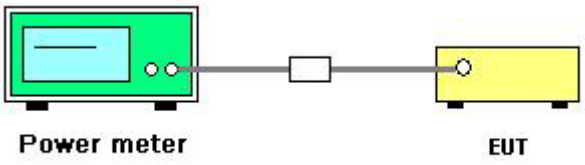
Please refer to section 5 of equipments list in this report. The following table is the setting of the peak power meter.

Power Meter Parameter	Setting
Bandwidth	50MHz bandwidth is greater than the EUT emission bandwidth
Detector	Peak

4.2.3. Test Procedures

Spectrum Parameter	Setting
RF Output Power Method	☒ ANSI C63.10 clause 6.10.2.1 (a) power meter method
RF Output Power Method	☐ ANSI C63.10 clause 6.10.2.1 (b) channel integration method
RF Output Power Method	☐ ANSI C63.10 clause 6.10.3.1 Method 1 - spectral trace averaging
RF Output Power Method	☐ ANSI C63.10 clause 6.10.3.2 Method 2 - zero-span mode with trace averaging

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. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.8. Test Result of Maximum Conducted Peak Output Power

For Antenna 1:

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 1

Configuration IEEE 802.11n MCS8 20MHz Ant. 1-A

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	25.26	30.00	Complies
157	5785 MHz	25.20	30.00	Complies
165	5825 MHz	24.96	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz Ant. 1-B

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	26.06	30.00	Complies
157	5785 MHz	25.66	30.00	Complies
165	5825 MHz	25.33	30.00	Complies

Configuration IEEE 802.11n MCS8 20MHz Ant. 1-A + Ant. 1-B

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	28.69	30.00	Complies
157	5785 MHz	28.45	30.00	Complies
165	5825 MHz	28.16	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz Ant. 1-A

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	25.12	30.00	Complies
159	5795 MHz	24.90	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz Ant. 1-B

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	25.32	30.00	Complies
159	5795 MHz	25.06	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	28.23	30.00	Complies
159	5795 MHz	27.99	30.00	Complies

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 1

Configuration IEEE 802.11a Ant. 1-A

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	25.37	30.00	Complies
157	5785 MHz	25.08	30.00	Complies
165	5825 MHz	24.88	30.00	Complies

Configuration IEEE 802.11a Ant. 1-B

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	26.15	30.00	Complies
157	5785 MHz	25.59	30.00	Complies
165	5825 MHz	24.76	30.00	Complies

Configuration IEEE 802.11a Ant. 1-A + Ant. 1-B

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	28.79	30.00	Complies
157	5785 MHz	28.35	30.00	Complies
165	5825 MHz	27.83	30.00	Complies

For Antenna 2:

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 3

Configuration IEEE 802.11n MCS8 20MHz Ant. 2

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	25.67	30.00	Complies
157	5785 MHz	25.42	30.00	Complies
165	5825 MHz	25.21	30.00	Complies

Configuration IEEE 802.11n MCS8 40MHz Ant. 2

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
151	5755 MHz	25.26	30.00	Complies
159	5795 MHz	25.11	30.00	Complies

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 3

Configuration IEEE 802.11a Ant. 2

Channel	Frequency	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	25.65	30.00	Complies
157	5785 MHz	25.47	30.00	Complies
165	5825 MHz	24.98	30.00	Complies

4.2.9. Test Result of Maximum Conducted Average Output Power

For Antenna 1:

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 1

Configuration IEEE 802.11n MCS8 20MHz Ant. 1-A

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	22.19
157	5785 MHz	22.02
165	5825 MHz	21.88

Configuration IEEE 802.11n MCS8 20MHz Ant. 1-B

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	22.26
157	5785 MHz	22.15
165	5825 MHz	21.89

Configuration IEEE 802.11n MCS8 20MHz Ant. 1-A + Ant. 1-B

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	25.24
157	5785 MHz	25.10
165	5825 MHz	24.90

Configuration IEEE 802.11n MCS8 40MHz Ant. 1-A

Channel	Frequency	Conducted Average Power (dBm)
151	5755 MHz	19.37
159	5795 MHz	19.26

Configuration IEEE 802.11n MCS8 40MHz Ant. 1-B

Channel	Frequency	Conducted Average Power (dBm)
151	5755 MHz	19.16
159	5795 MHz	18.86

Configuration IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B

Channel	Frequency	Conducted Average Power (dBm)
151	5755 MHz	22.28
159	5795 MHz	22.07

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 1

Configuration IEEE 802.11a Ant. 1-A

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	21.94
157	5785 MHz	20.87
165	5825 MHz	20.56

Configuration IEEE 802.11a Ant. 1-B

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	22.64
157	5785 MHz	22.03
165	5825 MHz	21.14

Configuration IEEE 802.11a Ant. 1-A + Ant. 1-B

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	25.31
157	5785 MHz	24.50
165	5825 MHz	23.87

For Antenna 2:

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 3

Configuration IEEE 802.11n MCS0 20MHz Ant. 2

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	20.27
157	5785 MHz	20.39
165	5825 MHz	20.18

Configuration IEEE 802.11n MCS0 40MHz Ant. 2

Channel	Frequency	Conducted Average Power (dBm)
151	5755 MHz	19.30
159	5795 MHz	19.54

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 3

Configuration IEEE 802.11a Ant. 2

Channel	Frequency	Conducted Average Power (dBm)
149	5745 MHz	20.47
157	5785 MHz	20.59
165	5825 MHz	20.14

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 8dBm 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	30 kHz
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 analyzer.
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.
5. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

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	28°C	**Humidity**	60%
Test Engineer	Sam Chen	**Configurations**	IEEE 802.11n / Mode 1

Configuration 11a IEEE 802.11n MCS8 20MHz Ant. 1-A + Ant. 1-B

Channel	Frequency	Power Density (dBm/3kHz) Ant. 1-A	Power Density (dBm/3kHz) Ant. 1-B	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-2.46	-5.07	-0.56	8.00	Complies
157	5785 MHz	-1.68	-5.74	-0.24	8.00	Complies
165	5825 MHz	1.37	0.21	3.84	8.00	Complies

Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B

Channel	Frequency	Power Density (dBm/3kHz) Ant. 1-A	Power Density (dBm/3kHz) Ant. 1-B	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-5.77	-6.86	-3.27	8.00	Complies
159	5795 MHz	-6.09	-5.94	-3.00	8.00	Complies

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 1

Configuration IEEE 802.11a Ant. 1-A + Ant. 1-B

Channel	Frequency	Power Density (dBm/3kHz) Ant. 1-A	Power Density (dBm/3kHz) Ant. 1-B	Total Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-2.99	-6.74	-1.46	8.00	Complies
157	5785 MHz	-4.94	-2.27	-0.39	8.00	Complies
165	5825 MHz	-4.31	-2.87	-0.52	8.00	Complies

Note: All the test values were listed in the report.

For plots, only the channel with maximum results was shown.

For Antenna 2:

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 3

Configuration 11a IEEE 802.11n MCS8 20MHz Ant. 2

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-2.71	8.00	Complies
157	5785 MHz	-0.15	8.00	Complies
165	5825 MHz	-3.68	8.00	Complies

Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 2

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
151	5755 MHz	-4.71	8.00	Complies
159	5795 MHz	-4.30	8.00	Complies

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 3

Configuration IEEE 802.11a Ant. 2

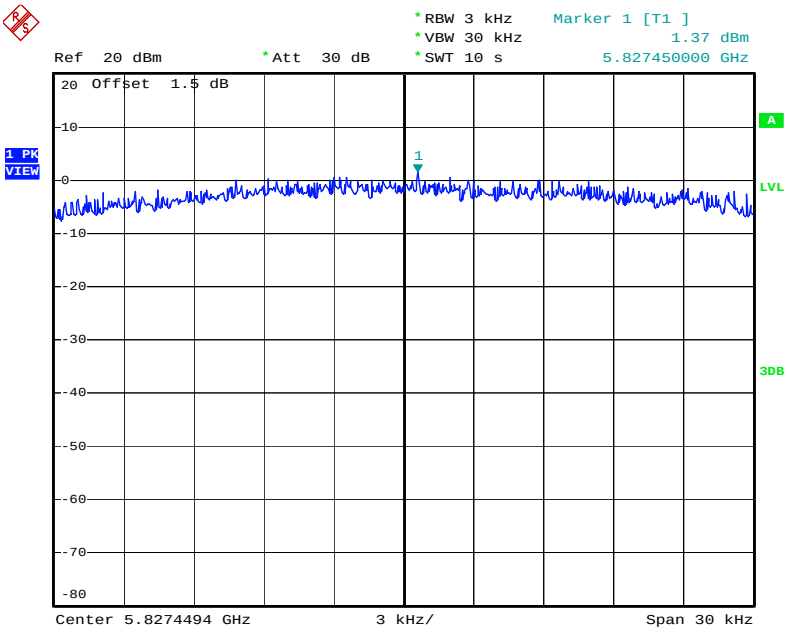
Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-4.82	8.00	Complies
157	5785 MHz	-2.51	8.00	Complies
165	5825 MHz	-6.48	8.00	Complies

Note: All the test values were listed in the report.

For plots, only the worse case was listed in the report.

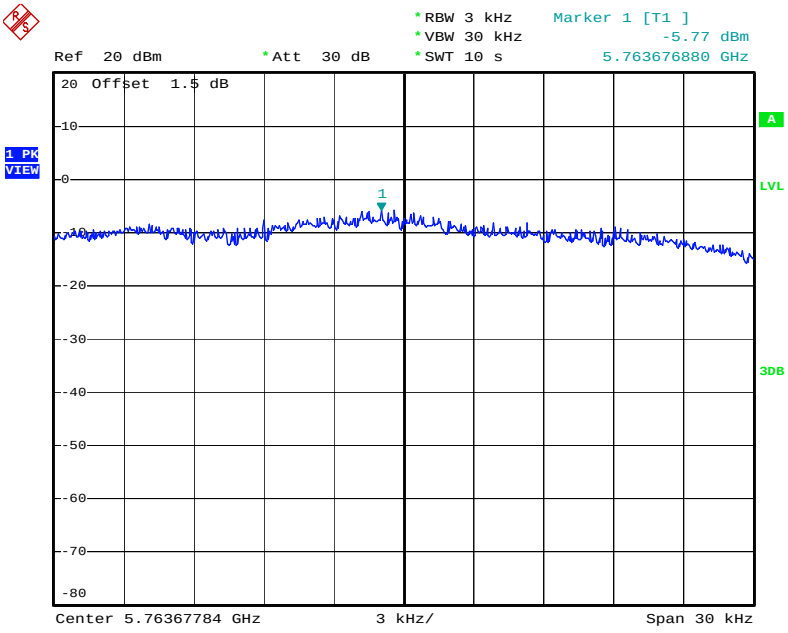
For Antenna 1:

Power Density Plot on Configuration 11a IEEE 802.11n MCS8 20MHz Ant. 1-A / 5825 MHz



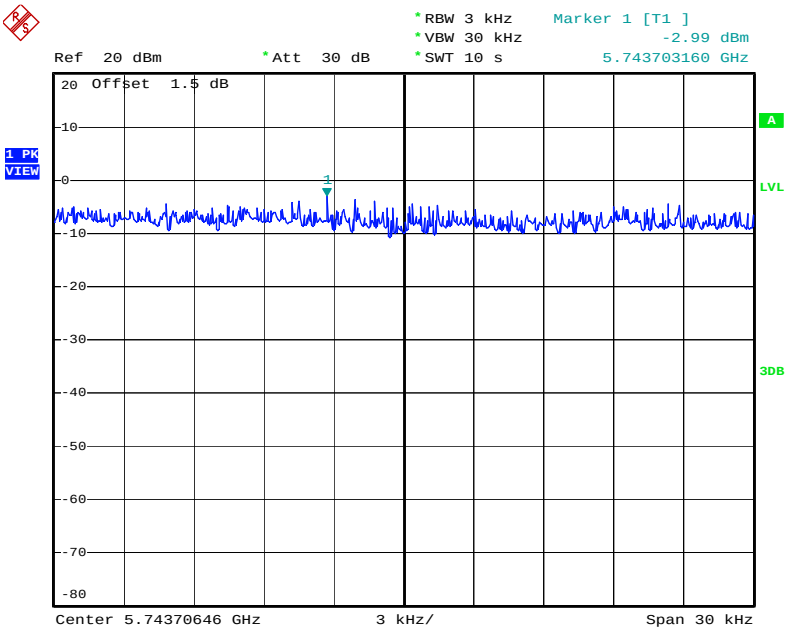
Date: 3.MAY.2011 08:53:36

Power Density Plot on Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 1-A / 5755 MHz



Date: 3.MAY.2011 09:06:11

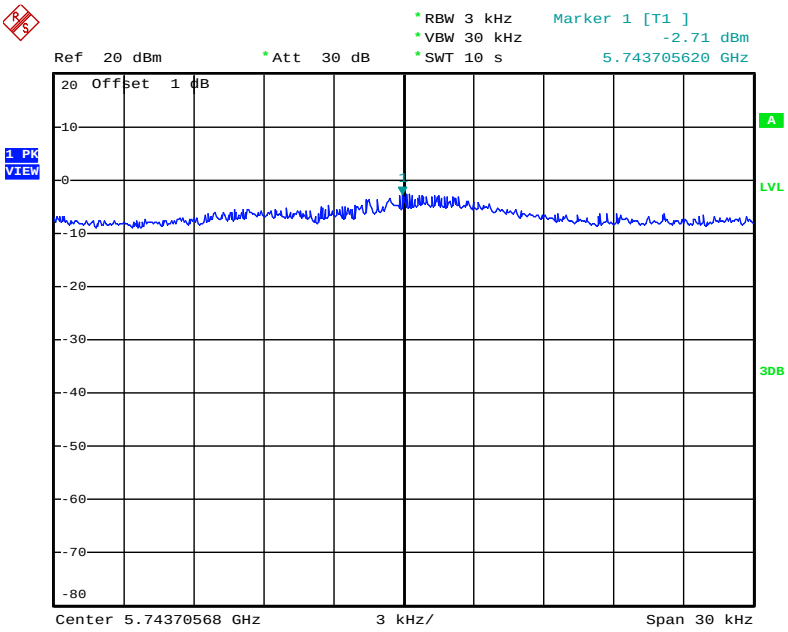
Power Density Plot on Configuration 11a IEEE 802.11a Ant. 1-A / 5745 MHz



Date: 3.MAY.2011 08:32:01

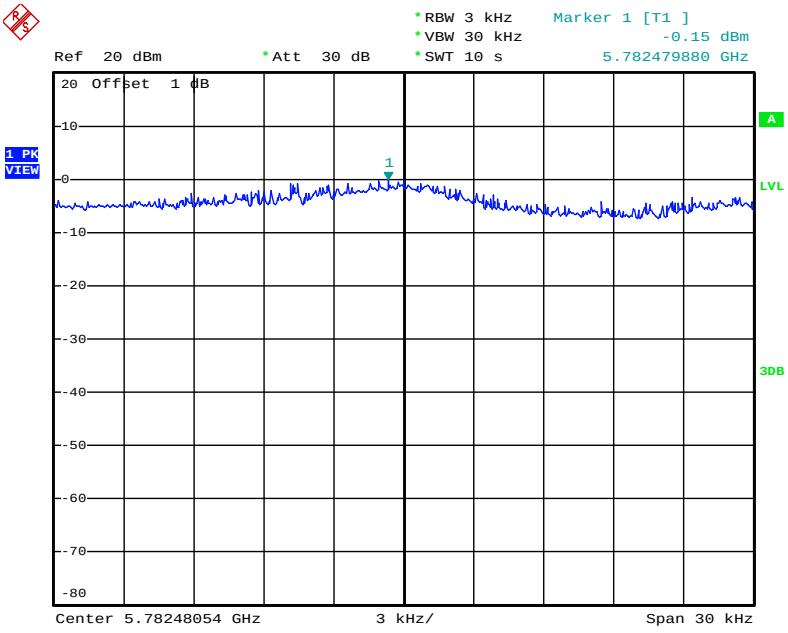
For Antenna 2:

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz Ant. 2 / 5745 MHz



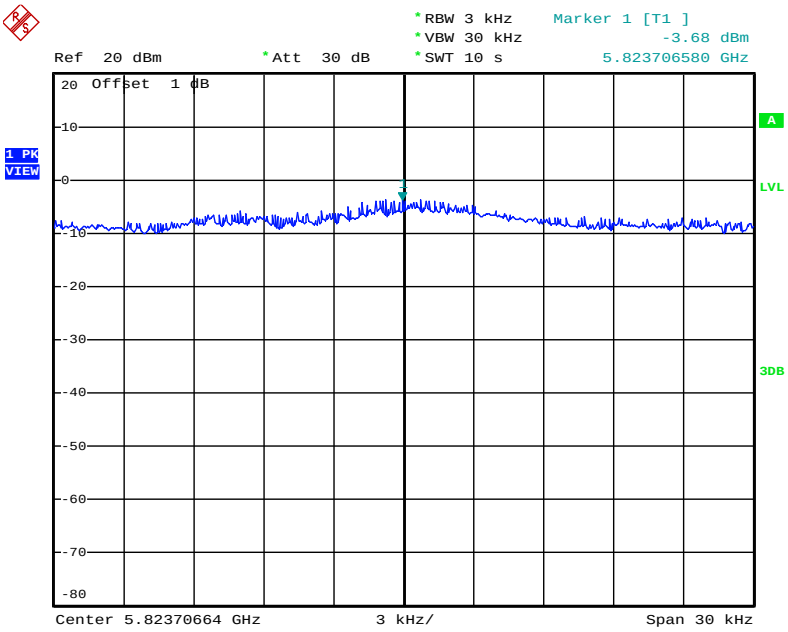
Date: 19.FEB.2011 15:47:28

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz Ant. 2 / 5785 MHz



Date: 19.FEB.2011 15:45:12

Power Density Plot on Configuration IEEE 802.11n MCS8 20MHz Ant. 2 / 5825 MHz



Date: 19.FEB.2011 15:42:33

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

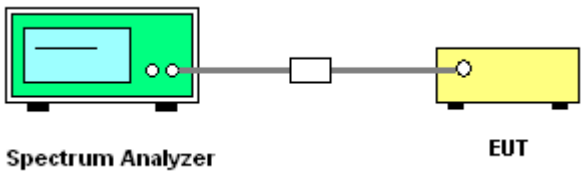
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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 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.
4. Measuring multiple antennas, the connector is required to link with spectrum analyzer through a combiner.

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	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 1

Configuration 11a IEEE 802.11n MCS8 20MHz Ant. 1-A+ Ant. 1-B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.88	17.60	500	Complies
157	5785 MHz	15.40	17.68	500	Complies
165	5825 MHz	16.56	17.72	500	Complies

Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 1-A+ Ant. 1-B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	34.48	36.24	500	Complies
159	5795 MHz	35.68	36.32	500	Complies

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 1

Configuration IEEE 802.11a Ant. 1-A + Ant. 1-B

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.08	16.68	500	Complies
157	5785 MHz	15.72	16.68	500	Complies
165	5825 MHz	15.40	17.12	500	Complies

Note: All the test values were listed in the report.

For plots, only the worse case was listed in the report.

For Antenna 2:

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11n / Mode 3

Configuration 11a IEEE 802.11n MCS0 20MHz Ant. 2

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	17.32	17.64	500	Complies
157	5785 MHz	16.96	17.96	500	Complies
165	5825 MHz	17.32	17.60	500	Complies

Configuration 11a IEEE 802.11n MCS0 40MHz Ant. 2

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	36.40	36.32	500	Complies
159	5795 MHz	36.40	36.24	500	Complies

Temperature	28°C	Humidity	60%
Test Engineer	Sam Chen	Configurations	IEEE 802.11a / Mode 3

Configuration IEEE 802.11a Ant. 2

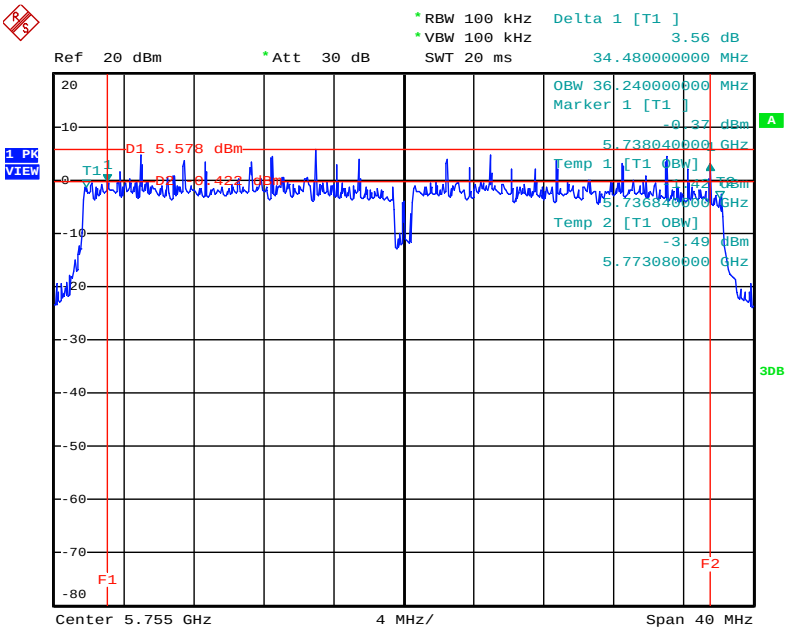
Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.32	16.48	500	Complies
157	5785 MHz	16.32	18.16	500	Complies
165	5825 MHz	16.32	16.48	500	Complies

Note: All the test values were listed in the report.

For plots, only the worse case was listed in the report.

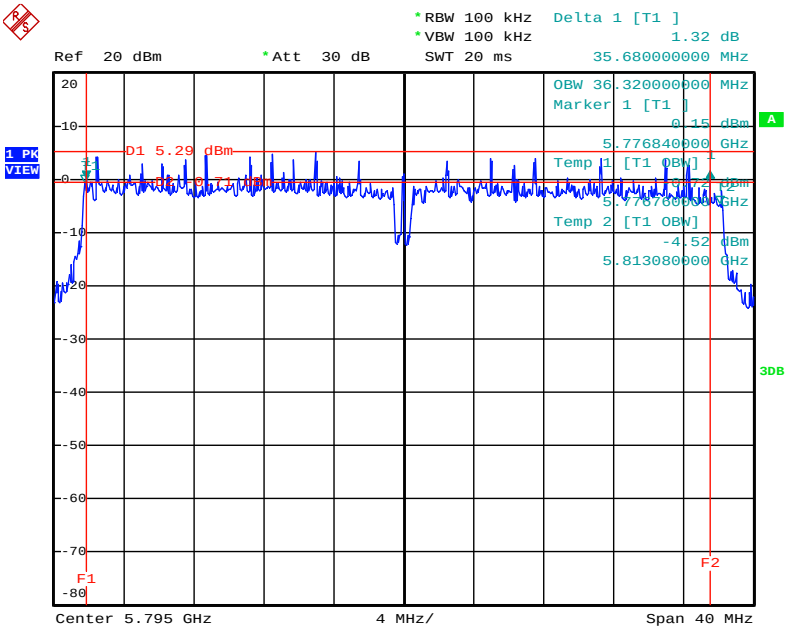
For Antenna 1:

6 dB Bandwidth Plot on Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B / 5755 MHz



Date: 19.FEB.2011 16:10:23

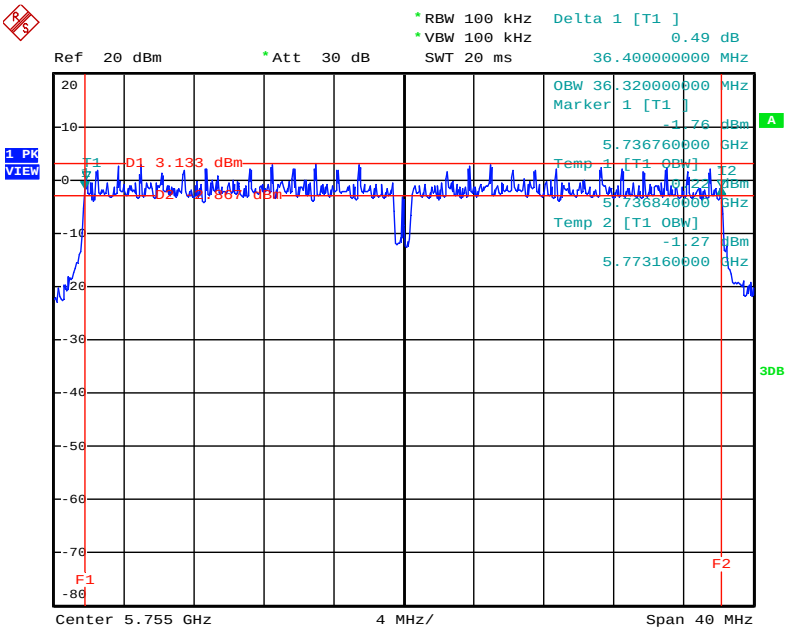
6 dB Bandwidth Plot on Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B / 5795 MHz



Date: 19.FEB.2011 16:14:17

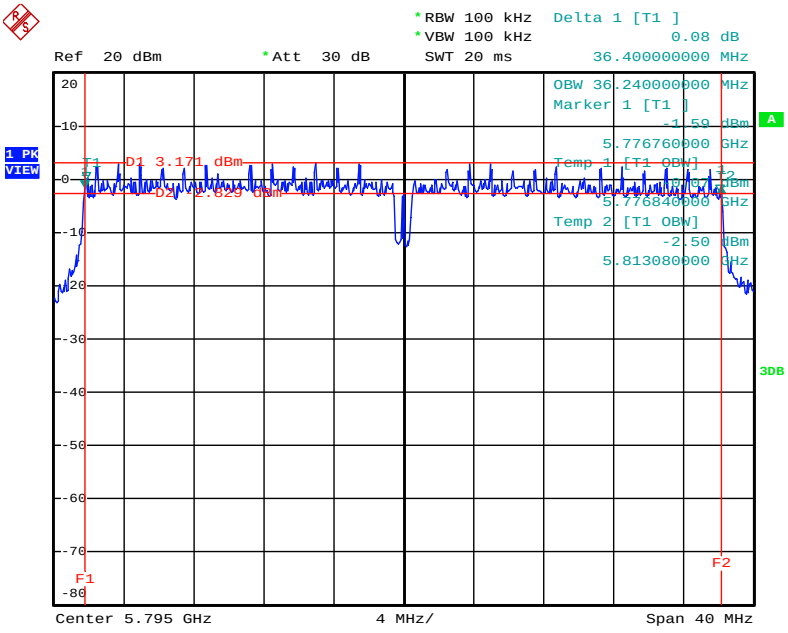
For Antenna 2:

6 dB Bandwidth Plot on Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 2 / 5755 MHz



Date: 19.FEB.2011 15:37:49

6 dB Bandwidth Plot on Configuration 11a IEEE 802.11n MCS8 40MHz Ant. 2 / 5795 MHz



Date: 19.FEB.2011 15:33:06

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)	1MHz / 1MHz for peak

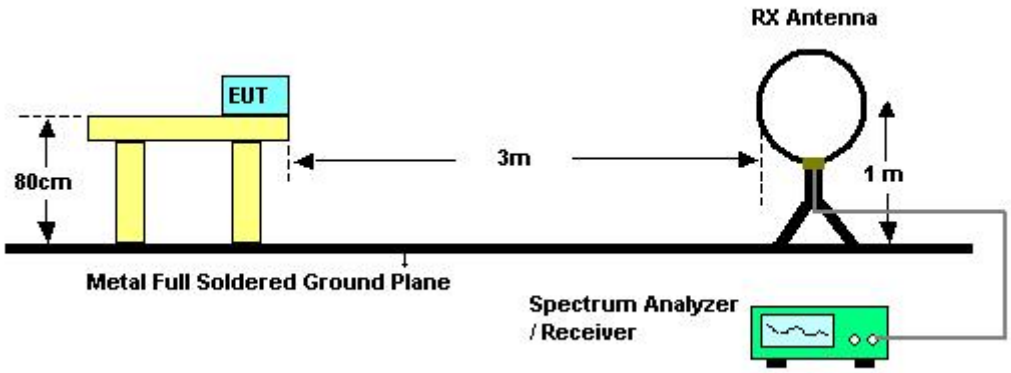
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

4.5.3. Test Procedures

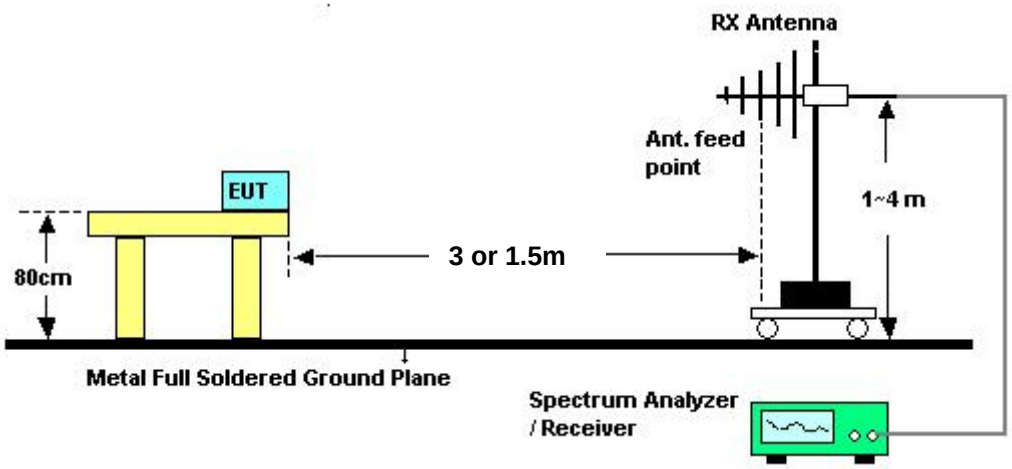
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting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



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

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	21°C	Humidity	62%
Test Engineer	Allen Liu	Test Date	Mar. 29, 2011

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.

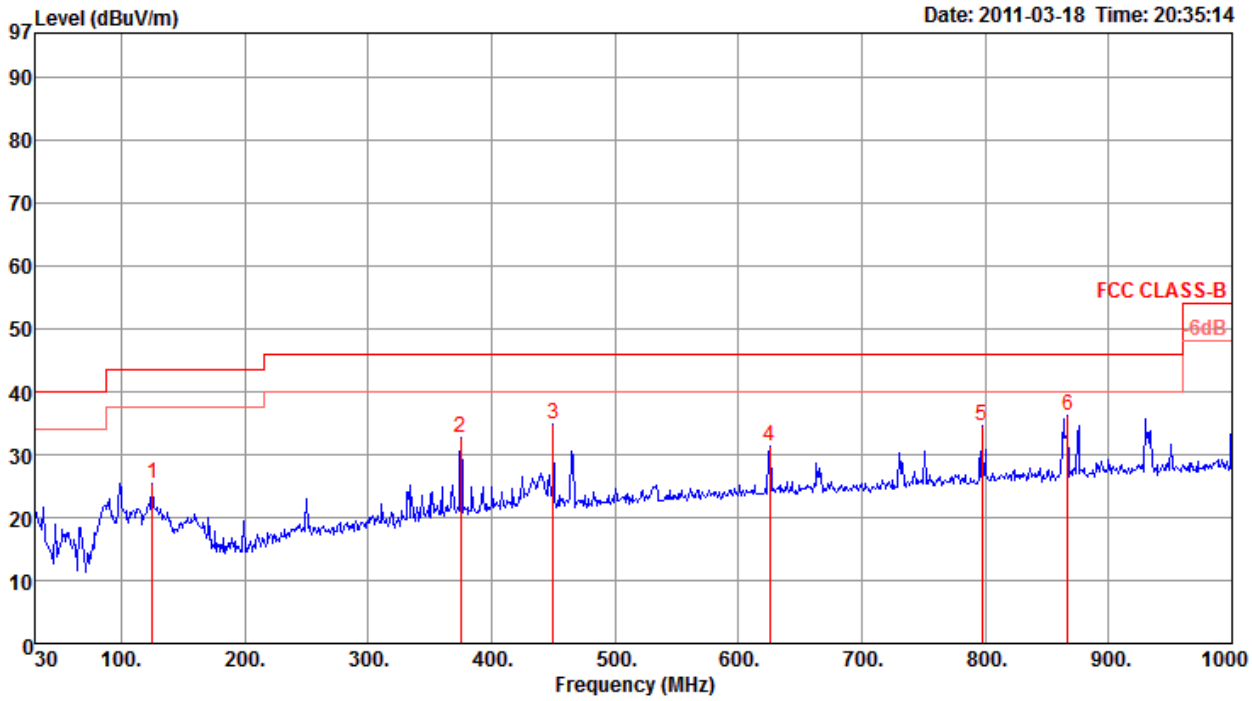
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

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

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

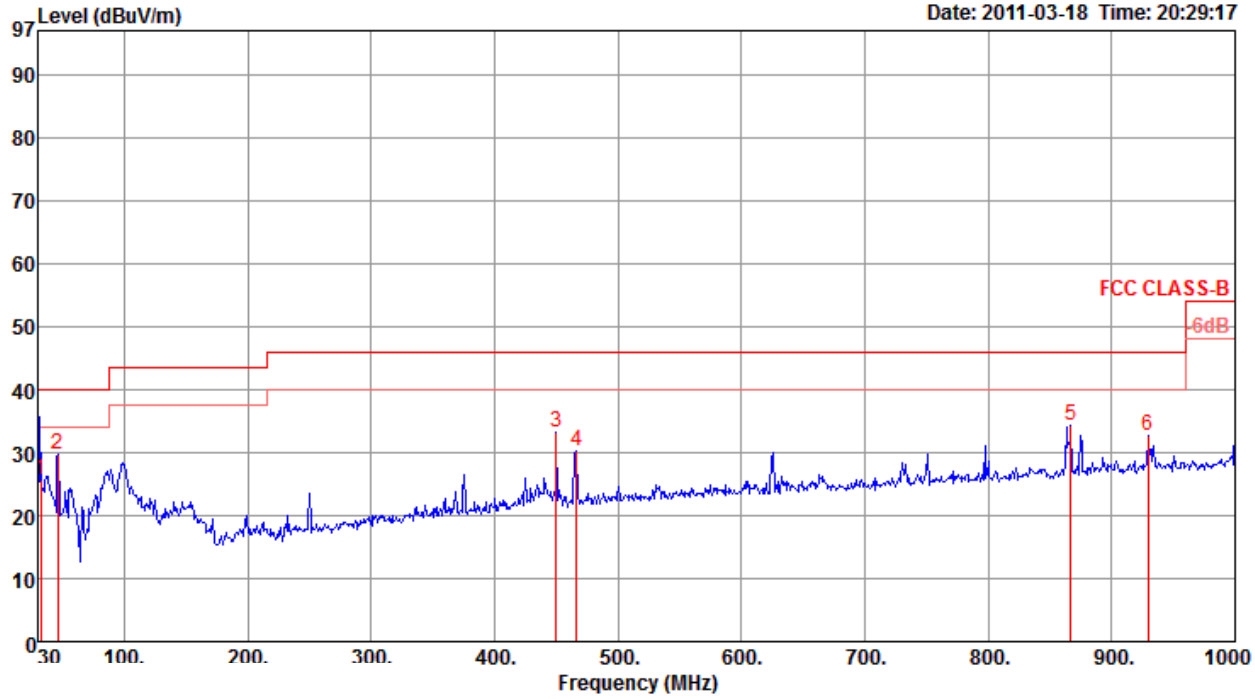
Temperature	21°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	CTX Link / Mode 1

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	125.06	25.49	43.50	-18.01	39.41	1.25	27.48	12.31	0	100	Peak	HORIZONTAL
2	375.32	32.67	46.00	-13.33	42.31	2.25	27.43	15.54	0	100	Peak	HORIZONTAL
3	450.01	34.85	46.00	-11.15	43.20	2.60	27.85	16.90	0	100	Peak	HORIZONTAL
4	625.58	31.40	46.00	-14.60	37.53	3.05	28.07	18.89	0	100	Peak	HORIZONTAL
5	797.27	34.56	46.00	-11.44	38.62	3.31	27.61	20.24	0	100	Peak	HORIZONTAL
6 p	867.11	36.30	46.00	-9.70	39.42	3.47	27.47	20.88	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	q	32.19	25.58	40.00	-14.42	35.70	0.50	27.80	17.18	170	100	QP	VERTICAL
2	p	46.49	29.69	40.00	-10.31	47.95	0.70	27.80	8.84	0	400	Peak	VERTICAL
3		450.01	33.11	46.00	-12.89	41.46	2.60	27.85	16.90	0	400	Peak	VERTICAL
4		466.50	30.29	46.00	-15.71	38.47	2.63	27.93	17.12	0	400	Peak	VERTICAL
5		867.11	34.28	46.00	-11.72	37.40	3.47	27.47	20.88	0	400	Peak	VERTICAL
6		929.19	32.73	46.00	-13.27	35.10	3.60	27.28	21.31	0	400	Peak	VERTICAL

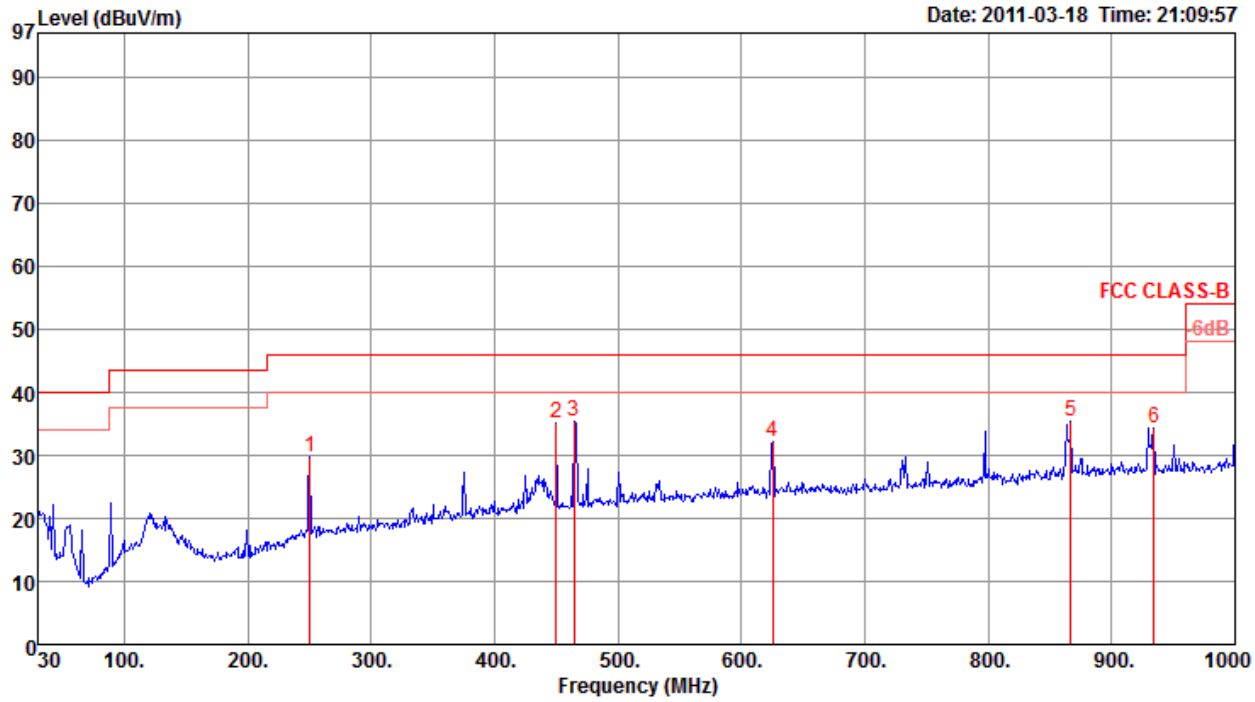
Note:

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

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

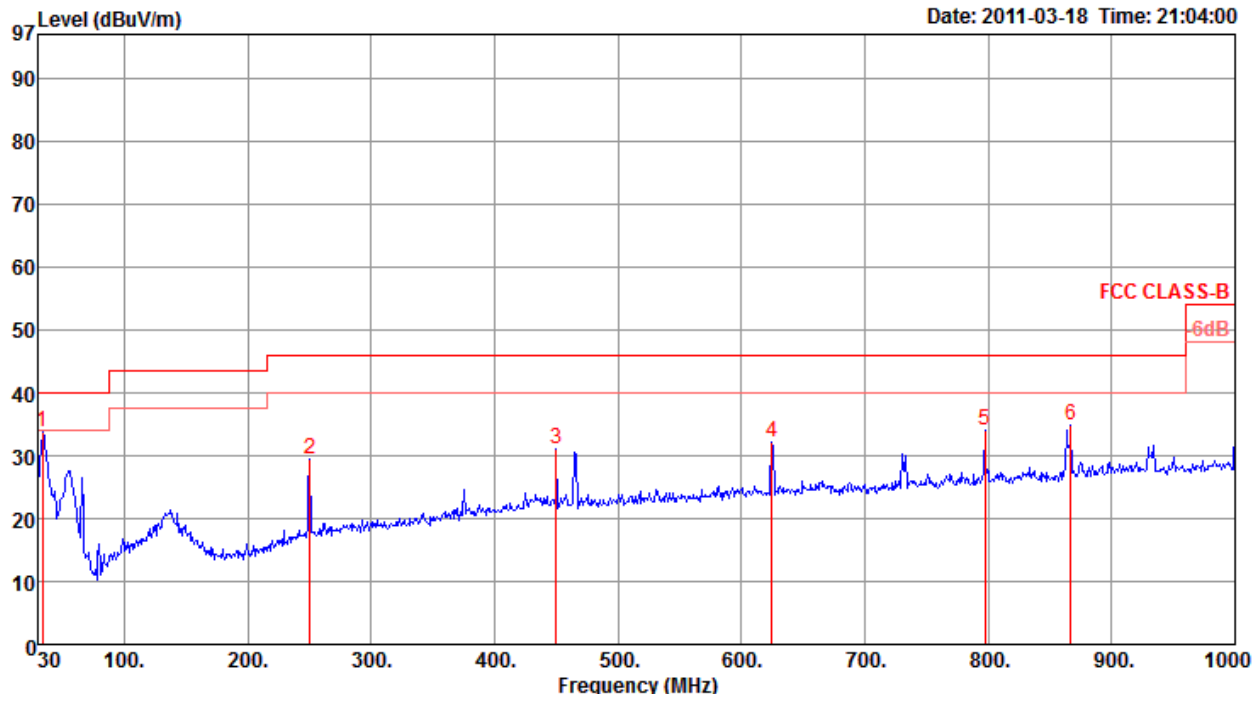
Temperature	21°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	CTX Link / Mode 2

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	250.19	29.63	46.00	-16.37	42.06	1.90	27.00	12.67	0	100	Peak	HORIZONTAL
2	450.01	35.21	46.00	-10.79	43.56	2.60	27.85	16.90	0	100	Peak	HORIZONTAL
3 p	464.56	35.45	46.00	-10.55	43.65	2.63	27.92	17.09	0	100	Peak	HORIZONTAL
4	625.58	32.08	46.00	-13.92	38.21	3.05	28.07	18.89	0	100	Peak	HORIZONTAL
5	867.11	35.34	46.00	-10.66	38.46	3.47	27.47	20.88	0	100	Peak	HORIZONTAL
6	934.04	34.24	46.00	-11.76	36.56	3.60	27.26	21.34	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 p	33.88	33.69	40.00	-6.31	45.04	0.50	27.80	15.95	0	400	Peak	VERTICAL
2	250.19	29.42	46.00	-16.58	41.85	1.90	27.00	12.67	0	400	Peak	VERTICAL
3	450.01	31.10	46.00	-14.90	39.45	2.60	27.85	16.90	0	400	Peak	VERTICAL
4	624.61	32.10	46.00	-13.90	38.24	3.05	28.08	18.89	0	400	Peak	VERTICAL
5	797.27	34.08	46.00	-11.92	38.14	3.31	27.61	20.24	0	400	Peak	VERTICAL
6	867.11	34.93	46.00	-11.07	38.05	3.47	27.47	20.88	0	400	Peak	VERTICAL

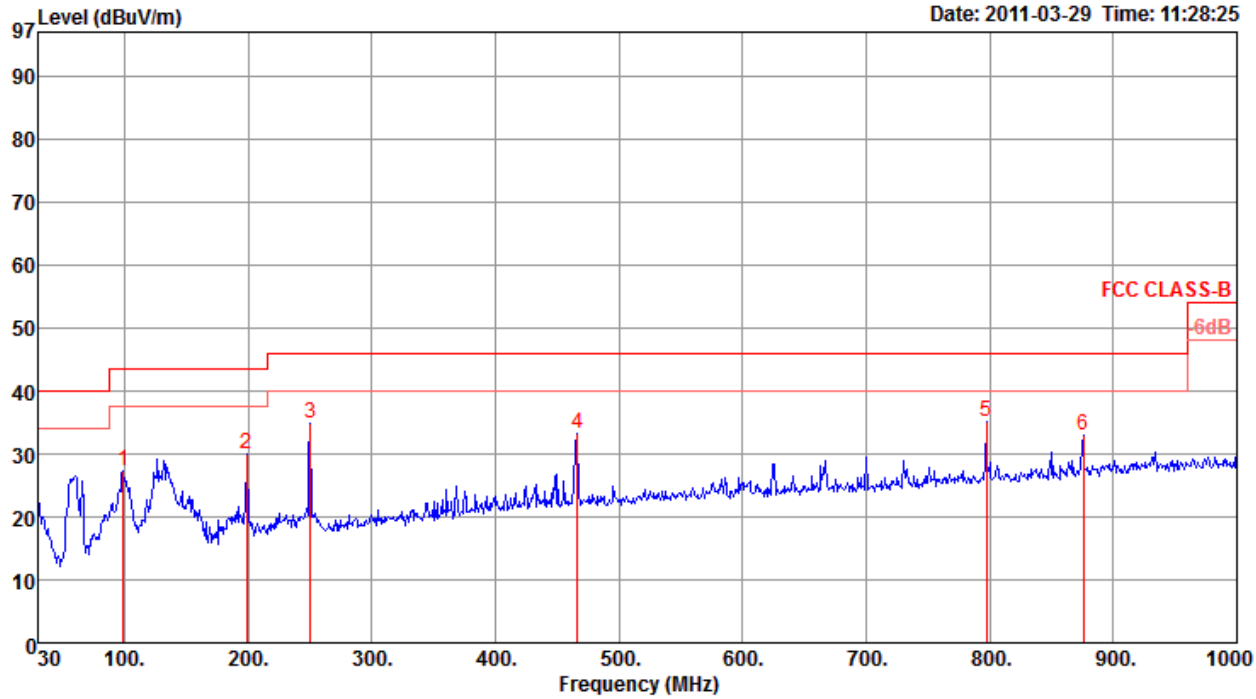
Note:

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

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

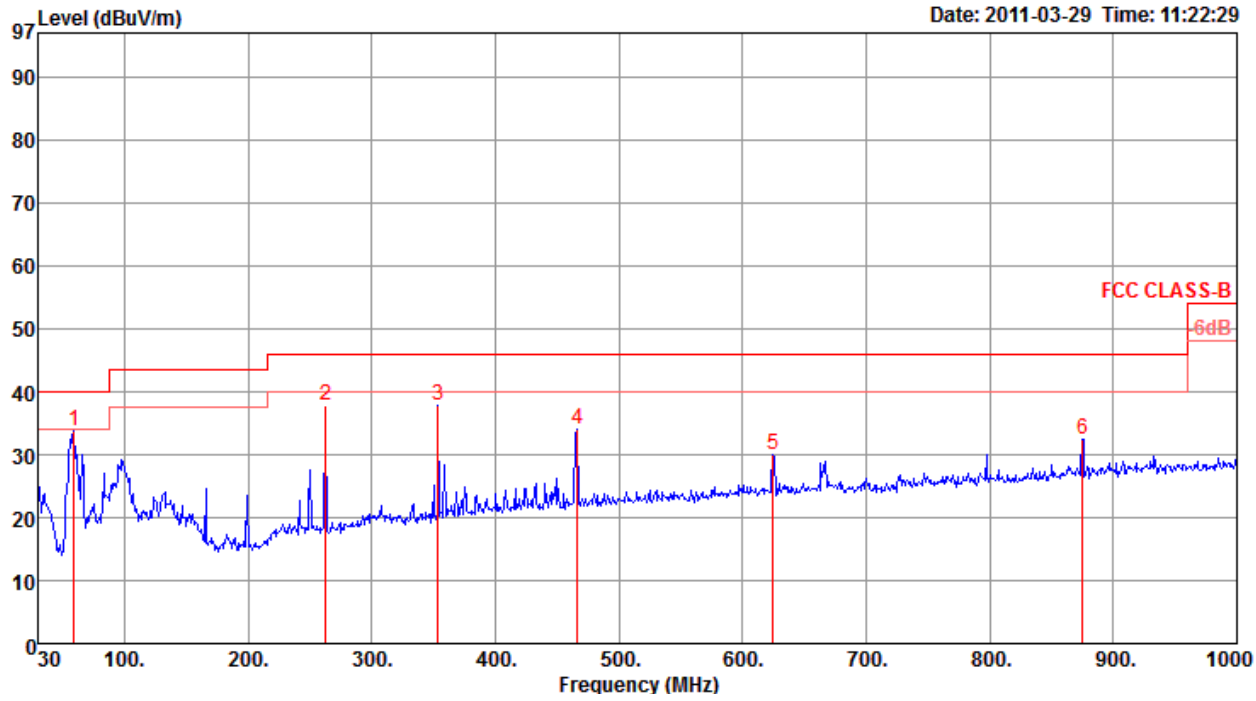
Temperature	21°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	CTX Link / Mode 3

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	98.87	27.29	43.50	-16.21	43.11	1.18	27.61	10.61	0	100	Peak	HORIZONTAL
2	198.78	29.91	43.50	-13.59	45.94	1.69	27.11	9.39	0	100	Peak	HORIZONTAL
3	250.19	34.86	46.00	-11.14	47.29	1.90	27.00	12.67	0	100	Peak	HORIZONTAL
4	466.50	33.14	46.00	-12.86	41.32	2.63	27.93	17.12	0	100	Peak	HORIZONTAL
5 p	797.27	35.04	46.00	-10.96	39.10	3.31	27.61	20.24	0	100	Peak	HORIZONTAL
6	875.84	33.02	46.00	-12.98	36.01	3.50	27.45	20.96	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 q	59.10	33.71	40.00	-6.29	54.28	0.80	27.76	6.39	257	100	QP	VERTICAL
2	262.80	37.79	46.00	-8.21	49.94	1.95	26.97	12.87	0	400	Peak	VERTICAL
3 p	353.98	37.80	46.00	-8.20	47.91	2.21	27.28	14.96	0	400	Peak	VERTICAL
4	466.50	34.08	46.00	-11.92	42.26	2.63	27.93	17.12	0	400	Peak	VERTICAL
5	624.61	29.94	46.00	-16.06	36.08	3.05	28.08	18.89	0	400	Peak	VERTICAL
6	874.87	32.54	46.00	-13.46	35.54	3.50	27.45	20.95	0	400	Peak	VERTICAL

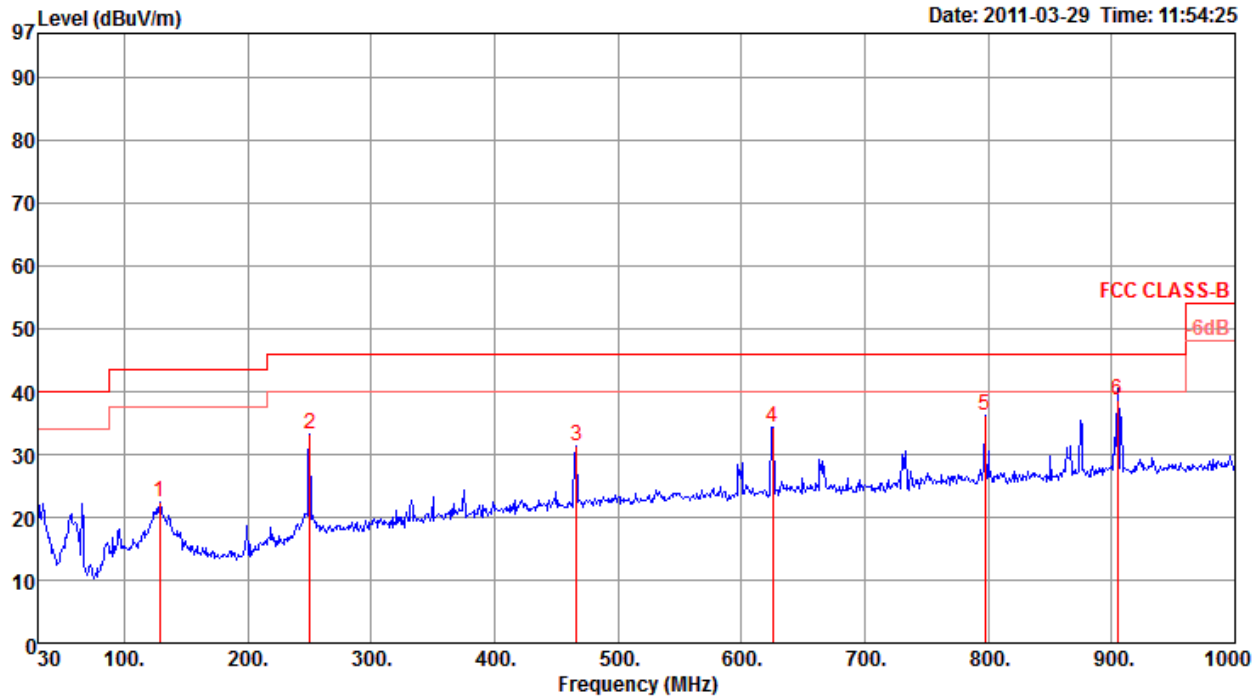
Note:

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

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

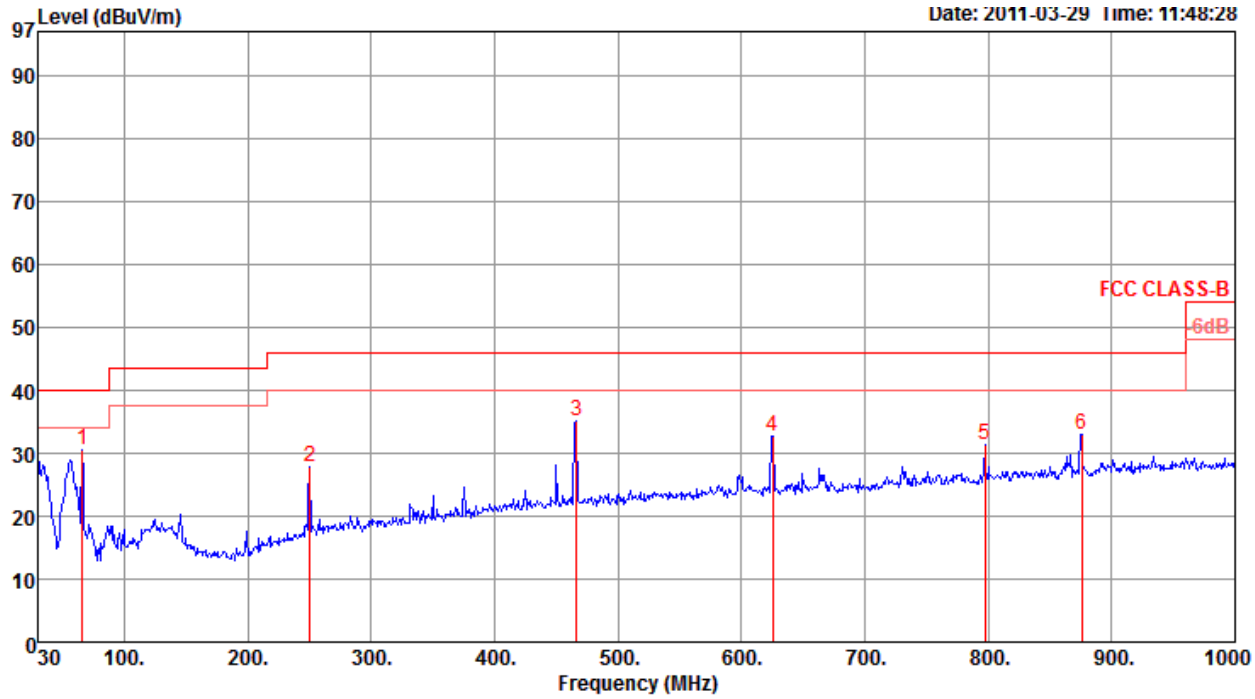
Temperature	21°C	Humidity	62%
Test Engineer	Allen Liu	Configurations	CTX Link / Mode 4

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	128.94	22.47	43.50	-21.03	36.56	1.29	27.45	12.07	0	100	Peak	HORIZONTAL
2	250.19	33.30	46.00	-12.70	45.73	1.90	27.00	12.67	0	100	Peak	HORIZONTAL
3	466.50	31.48	46.00	-14.52	39.66	2.63	27.93	17.12	0	100	Peak	HORIZONTAL
4	625.58	34.37	46.00	-11.63	40.50	3.05	28.07	18.89	0	100	Peak	HORIZONTAL
5	797.27	36.09	46.00	-9.91	40.15	3.31	27.61	20.24	0	100	Peak	HORIZONTAL
6 p	904.94	38.62	46.00	-7.38	41.20	3.60	27.38	21.20	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 p	65.89	30.52	40.00	-9.48	51.10	0.88	27.74	6.28	0	400	Peak	VERTICAL
2	250.19	27.85	46.00	-18.15	40.28	1.90	27.00	12.67	0	400	Peak	VERTICAL
3	466.50	35.25	46.00	-10.75	43.43	2.63	27.93	17.12	0	400	Peak	VERTICAL
4	625.58	32.70	46.00	-13.30	38.83	3.05	28.07	18.89	0	400	Peak	VERTICAL
5	797.27	31.27	46.00	-14.73	35.33	3.31	27.61	20.24	0	400	Peak	VERTICAL
6	875.84	32.92	46.00	-13.08	35.91	3.50	27.45	20.96	0	400	Peak	VERTICAL

Note:

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

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	21℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 20MHz CH 149 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 a	11489.98	39.44	60.00	-20.56	30.93	4.76	34.75	38.50	100	100	Average	HORIZONTAL
2 p	11490.02	51.58	80.00	-28.42	43.07	4.76	34.75	38.50	100	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 a	11490.01	40.82	60.00	-19.18	32.31	4.76	34.75	38.50	286	100	Average	VERTICAL
2 p	11490.02	52.53	80.00	-27.47	44.02	4.76	34.75	38.50	286	100	Peak	VERTICAL

Temperature	21℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 20MHz CH 157 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 p	11569.99	51.73	80.00	-28.27	43.13	4.91	34.82	38.51	93	100	Peak	HORIZONTAL
2 a	11570.00	39.23	60.00	-20.77	30.63	4.91	34.82	38.51	93	100	Average	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 p	11569.99	51.70	80.00	-28.30	43.10	4.91	34.82	38.51	218	100	Peak	VERTICAL
2 a	11570.01	41.54	60.00	-18.46	32.94	4.91	34.82	38.51	218	100	Average	VERTICAL

Temperature	21℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 20MHz CH 165 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 p	11649.98	56.82	80.00	-23.18	48.16	5.03	34.90	38.53	271	100	Peak	HORIZONTAL
2 a	11650.01	43.95	60.00	-16.05	35.29	5.03	34.90	38.53	271	100	Average	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 a	11649.99	44.29	60.00	-15.71	35.63	5.03	34.90	38.53	170	100	Average	VERTICAL
2 p	11650.00	55.82	80.00	-24.18	47.16	5.03	34.90	38.53	170	100	Peak	VERTICAL

Temperature	21℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 40MHz CH 151 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 p	11509.99	51.12	80.00	-28.88	42.59	4.78	34.75	38.50	262	100	Peak	HORIZONTAL
2 a	11510.00	38.30	60.00	-21.70	29.77	4.78	34.75	38.50	262	100	Average	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 p	11510.01	50.89	80.00	-29.11	42.36	4.78	34.75	38.50	104	100	Peak	VERTICAL
2 a	11510.02	38.34	60.00	-21.66	29.81	4.78	34.75	38.50	104	100	Average	VERTICAL

Temperature	21℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 40MHz CH 159 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 p	11589.98	53.75	80.00	-26.25	45.14	4.91	34.82	38.52	258	100	Peak	HORIZONTAL
2 a	11589.99	41.80	60.00	-18.20	33.19	4.91	34.82	38.52	258	100	Average	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 p	11589.99	53.81	80.00	-26.19	45.20	4.91	34.82	38.52	14	100	Peak	VERTICAL
2 a	11590.01	41.05	60.00	-18.95	32.44	4.91	34.82	38.52	14	100	Average	VERTICAL

Temperature	21℃	Humidity	62%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a CH 149 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 a	11489.99	43.75	60.00	-16.25	35.24	4.76	34.75	38.50	114	100	Average	HORIZONTAL
2 p	11490.02	56.33	80.00	-23.67	47.82	4.76	34.75	38.50	114	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 p	11490.60	57.21	80.00	-22.79	48.70	4.76	34.75	38.50	318	100	Peak	VERTICAL
2 a	11490.84	42.85	60.00	-17.15	34.34	4.76	34.75	38.50	318	100	Average	VERTICAL

Temperature	24°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a CH 157 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 p	11569.99	56.47	80.00	-23.53	47.87	4.91	34.82	38.51	316	100	Peak	HORIZONTAL
2 a	11569.99	44.56	60.00	-15.44	35.96	4.91	34.82	38.51	316	100	Average	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 a	11569.98	43.11	60.00	-16.89	34.51	4.91	34.82	38.51	165	100	Average	VERTICAL
2 p	11570.01	55.08	80.00	-24.92	46.48	4.91	34.82	38.51	165	100	Peak	VERTICAL

Temperature	24°C	Humidity	56%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a CH 165 / Ant. 1-A + Ant. 1-B / Mode 1
Test Date	Feb. 18, 2011		

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 a	11649.98	48.02	60.00	-11.98	39.36	5.03	34.90	38.53	195	100	Average	HORIZONTAL
2 p	11650.00	62.10	80.00	-17.90	53.44	5.03	34.90	38.53	195	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 p	11650.00	59.03	80.00	-20.97	50.37	5.03	34.90	38.53	351	100	Peak	VERTICAL
2 a	11650.02	46.16	60.00	-13.84	37.50	5.03	34.90	38.53	351	100	Average	VERTICAL

For Antenna 2:

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 20MHz CH 149 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 a	11489.98	43.41	60.00	-16.59	34.90	4.76	34.75	38.50	199	200	Average	HORIZONTAL
2 p	11489.99	55.67	80.00	-24.33	47.16	4.76	34.75	38.50	199	200	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 a	11490.00	41.47	60.00	-18.53	32.96	4.76	34.75	38.50	142	200	Average	VERTICAL
2 p	11490.01	54.29	80.00	-25.71	45.78	4.76	34.75	38.50	142	200	Peak	VERTICAL

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 20MHz CH 157 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 a	11570.02	42.42	60.00	-17.58	33.82	4.91	34.82	38.51	42	200	Average	HORIZONTAL
2 p	11570.02	53.93	80.00	-26.07	45.33	4.91	34.82	38.51	42	200	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 p	11570.02	61.38	80.00	-18.62	52.78	4.91	34.82	38.51	330	200	Peak	VERTICAL
2 a	11570.02	48.33	60.00	-11.67	39.73	4.91	34.82	38.51	330	200	Average	VERTICAL

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 20MHz CH 165 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 a	11649.98	47.73	60.00	-12.27	39.07	5.03	34.90	38.53	79	200	Average	HORIZONTAL
2 p	11650.01	61.85	80.00	-18.15	53.19	5.03	34.90	38.53	79	200	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 a	11650.00	52.73	60.00	-7.27	44.07	5.03	34.90	38.53	171	200	Average	VERTICAL
2 p	11650.02	66.29	80.00	-13.71	57.63	5.03	34.90	38.53	171	200	Peak	VERTICAL

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 40MHz CH 151 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 p	11509.99	53.53	80.00	-26.47	45.00	4.78	34.75	38.50	159	200	Peak	HORIZONTAL
2 a	11509.99	39.86	60.00	-20.14	31.33	4.78	34.75	38.50	159	200	Average	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 p	11510.00	50.62	80.00	-29.38	42.09	4.78	34.75	38.50	25	200	Peak	VERTICAL
2 a	11510.00	39.07	60.00	-20.93	30.54	4.78	34.75	38.50	25	200	Average	VERTICAL

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	11a IEEE 802.11n MCS8 40MHz CH 159 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 p	11590.01	53.81	80.00	-26.19	45.20	4.91	34.82	38.52	52	200	Peak	HORIZONTAL
2 a	11590.02	41.33	60.00	-18.67	32.72	4.91	34.82	38.52	52	200	Average	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 p	11590.00	58.82	80.00	-21.18	50.21	4.91	34.82	38.52	155	200	Peak	VERTICAL
2 a	11590.02	45.35	60.00	-14.65	36.74	4.91	34.82	38.52	155	200	Average	VERTICAL

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a CH 149 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 a	11490.00	46.69	60.00	-13.31	38.18	4.76	34.75	38.50	350	200	Average	HORIZONTAL
2 p	11490.01	59.88	80.00	-20.12	51.37	4.76	34.75	38.50	350	200	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 p	11490.00	59.73	80.00	-20.27	51.22	4.76	34.75	38.50	253	200	Peak	VERTICAL
2 a	11490.01	45.85	60.00	-14.15	37.34	4.76	34.75	38.50	253	200	Average	VERTICAL

Temperature	23℃	Humidity	60%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a CH 157 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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	a	11569.99	45.21	60.00	-14.79	36.61	4.91	34.82	38.51	6	200	Average	HORIZONTAL
2	p	11570.01	57.46	80.00	-22.54	48.86	4.91	34.82	38.51	6	200	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	a	11569.98	49.73	60.00	-10.27	41.13	4.91	34.82	38.51	356	200	Average	VERTICAL
2	p	11570.02	61.67	80.00	-18.33	53.07	4.91	34.82	38.51	356	200	Peak	VERTICAL

Temperature	23°C	Humidity	60%
Test Engineer	Allen Liu	Configurations	IEEE 802.11a CH 165 / Ant. 1-A / Mode 3
Test Date	Feb. 18, 2011		

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 a	11650.00	49.32	60.00	-10.68	40.66	5.03	34.90	38.53	220	200	Average	HORIZONTAL
2 p	11650.02	62.34	80.00	-17.66	53.68	5.03	34.90	38.53	220	200	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 a	11649.98	55.02	60.00	-4.98	46.36	5.03	34.90	38.53	164	200	Average	VERTICAL
2 p	11650.00	66.69	80.00	-13.31	58.03	5.03	34.90	38.53	164	200	Peak	VERTICAL

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 transmitter output (antenna port) was connected to the spectrum analyzer
2. The resolution bandwidth of 100 kHz and the video bandwidth of 100 kHz were used
3. The band edge was weasured and recorded

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

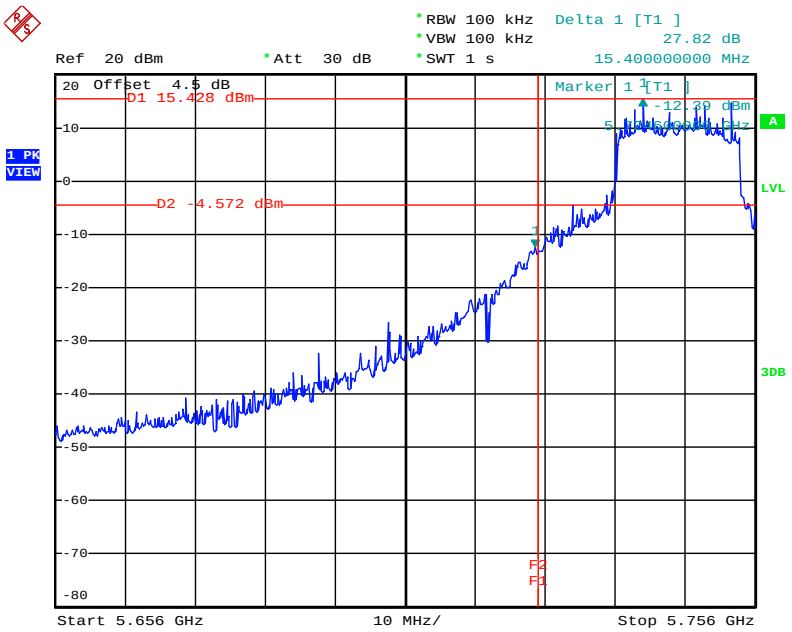
The EUT was programmed to be in continuously transmitting mode.

4.6.7. Test Result of Band Edge and Fundamental Emissions

For Emission not in Restricted Band

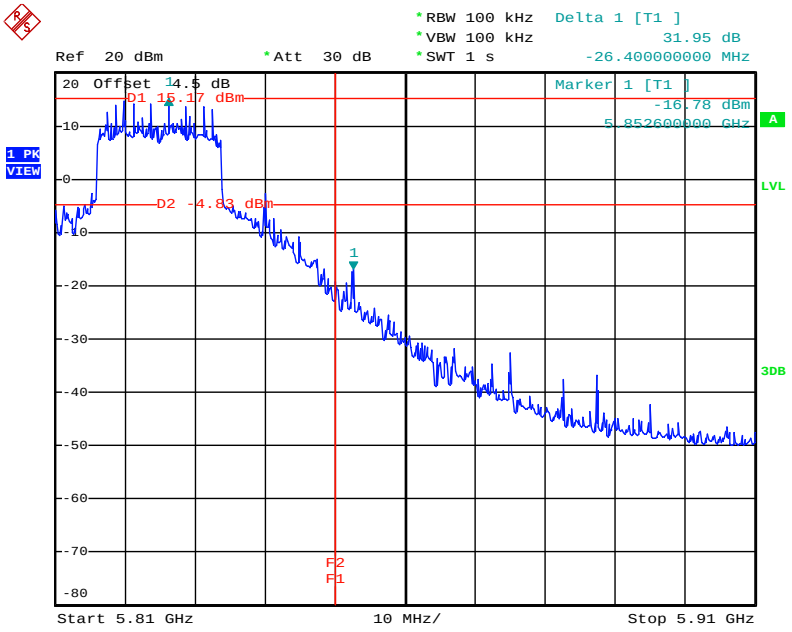
For Antenna 1:

Low Band Edge Plot on Configuration 11a IEEE 802.11n MCS8 20MHz Ant. 1-A + Ant. 1-B / 5745 MHz



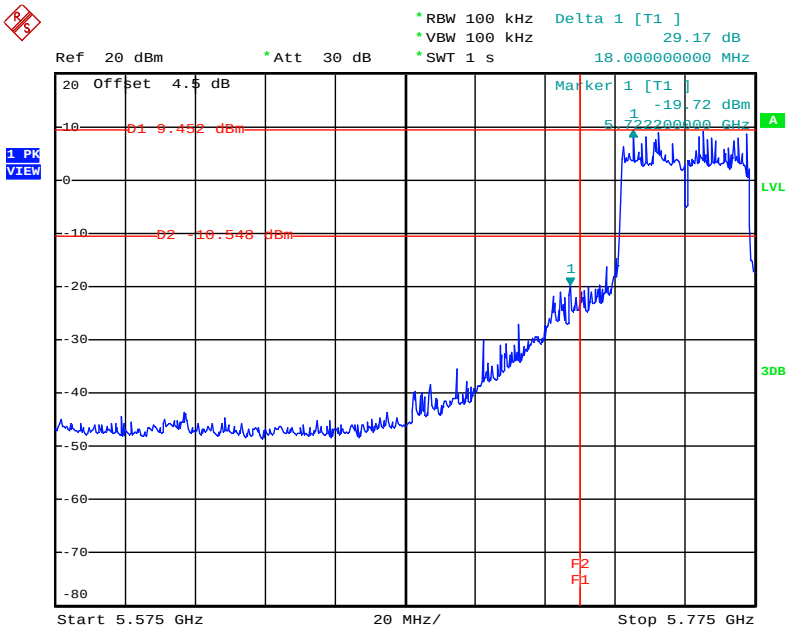
Date: 19.FEB.2011 16:05:13

High Band Edge Plot on Configuration 11a IEEE 802.11n MCS8 20MHz Ant. 1-A + Ant. 1-B / 5825 MHz



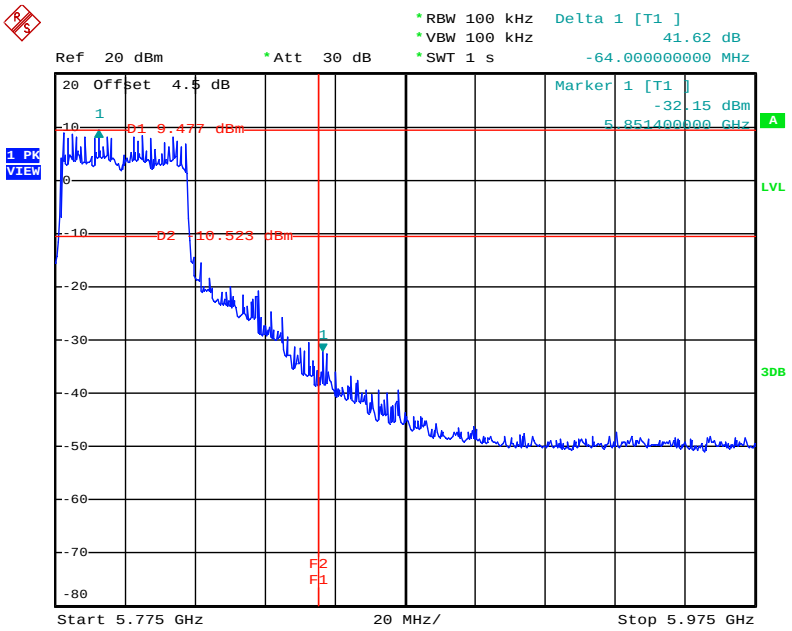
Date: 19.FEB.2011 16:09:25

Low Band Edge Plot on Configuration11a IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B / 5755 MHz



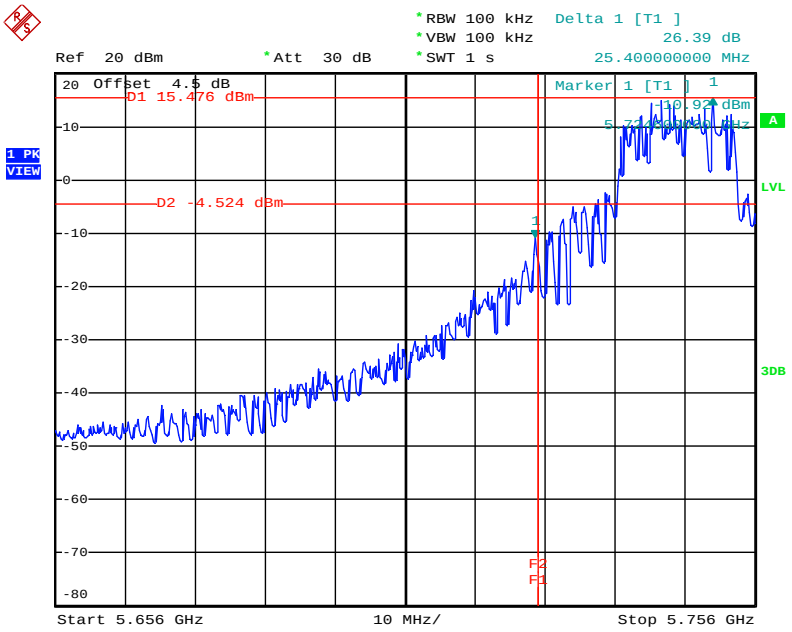
Date: 19.FEB.2011 16:11:59

High Band Edge Plot on Configuration11a IEEE 802.11n MCS8 40MHz Ant. 1-A + Ant. 1-B / 5795 MHz



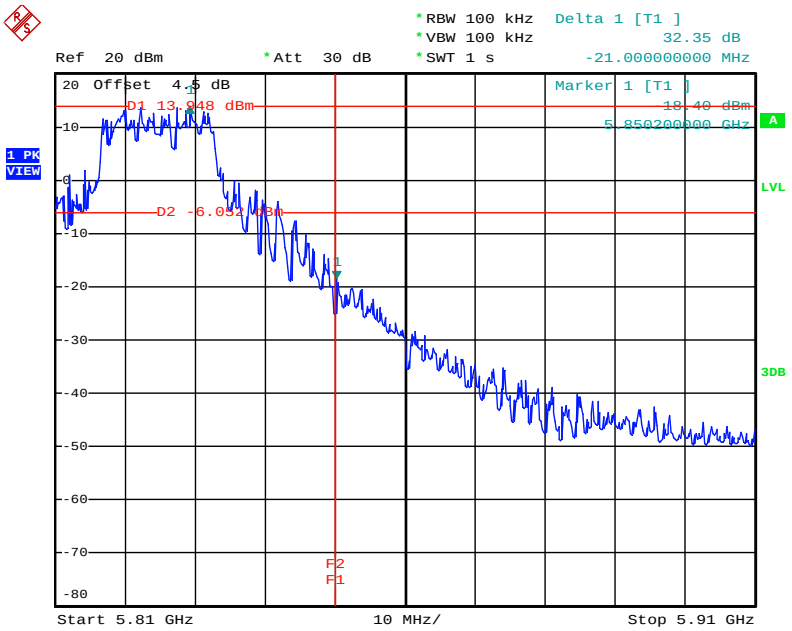
Date: 19.FEB.2011 16:15:53

Low Band Edge Plot on Configuration IEEE 802.11a Ant. 1-A + Ant. 1-B / 5745 MHz



Date: 19.FEB.2011 16:03:06

High Band Edge Plot on Configuration IEEE 802.11a Ant. 1-A + Ant. 1-B / 5825 MHz

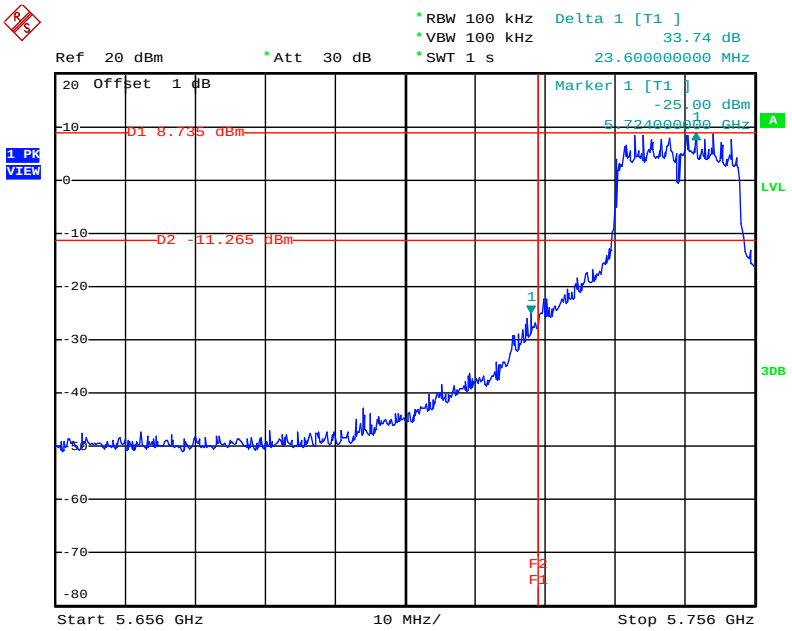


Date: 19.FEB.2011 15:57:30

For Emission not in Restricted Band

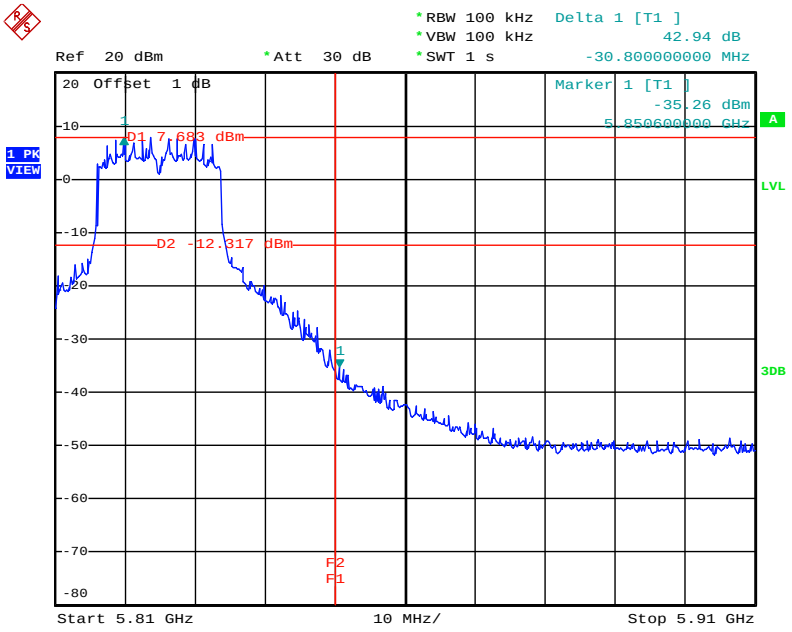
For Antenna 2:

Low Band Edge Plot on Configuration 11a IEEE 802.11n MCS0 20MHz Ant. 2 / 5745 MHz



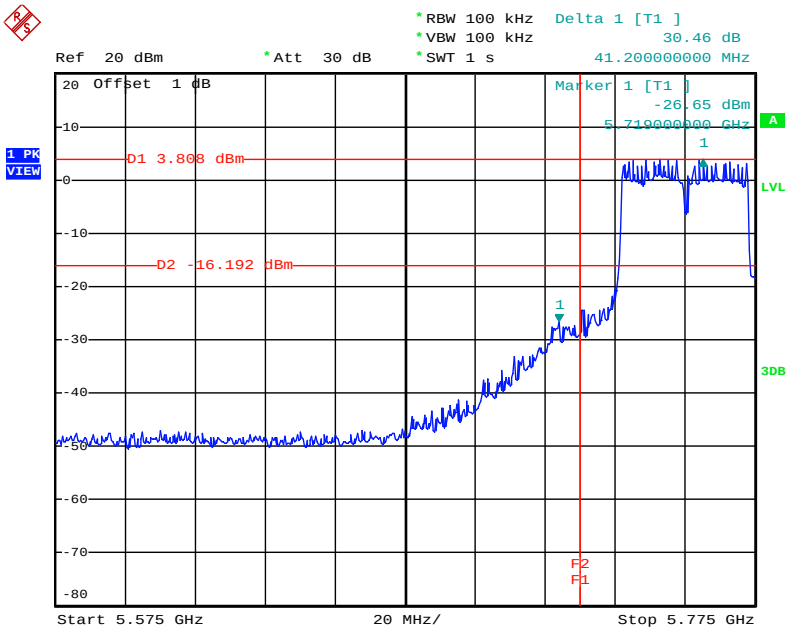
Date: 19.FEB.2011 15:47:36

High Band Edge Plot on Configuration 11a IEEE 802.11n MCS0 20MHz Ant. 2 / 5825 MHz



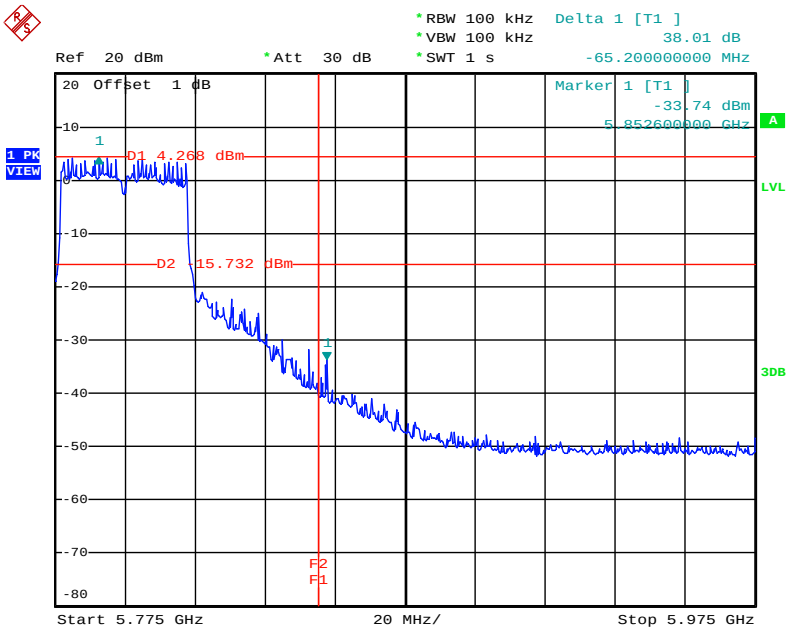
Date: 19.FEB.2011 15:42:42

Low Band Edge Plot on Configuration11a IEEE 802.11n MCS0 40MHz Ant. 2 / 5755 MHz



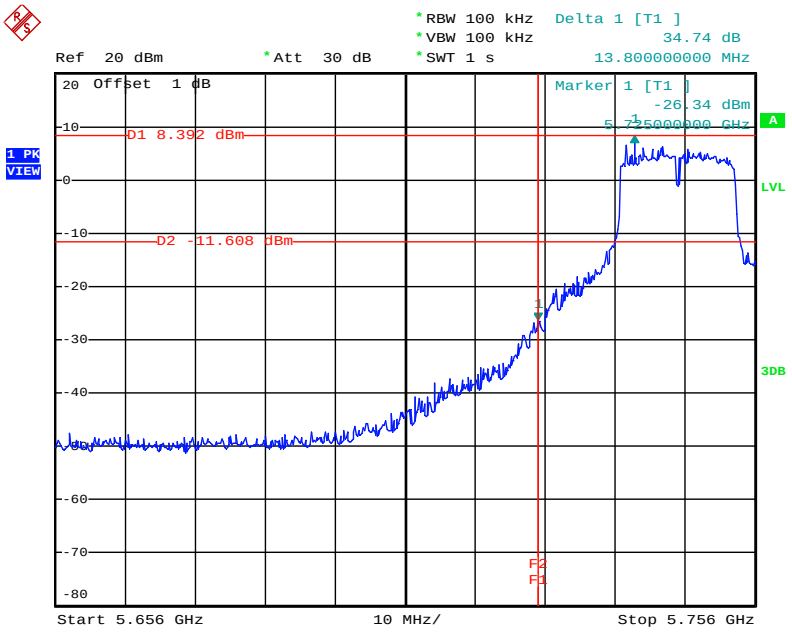
Date: 19.FEB.2011 15:39:25

High Band Edge Plot on Configuration11a IEEE 802.11n MCS0 40MHz Ant. 2 / 5795 MHz



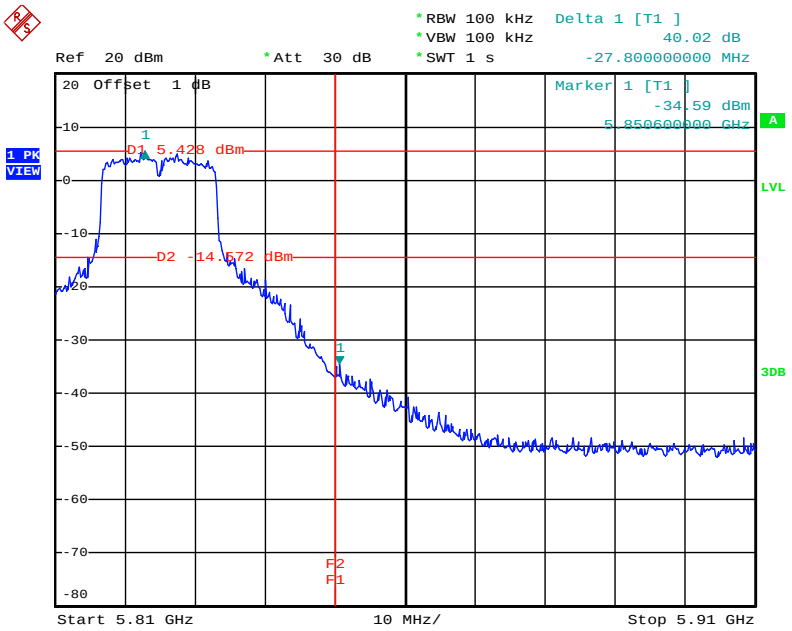
Date: 19.FEB.2011 15:34:42

Low Band Edge Plot on Configuration IEEE 802.11a Ant. 2 / 5745 MHz



Date: 19.FEB.2011 15:49:43

High Band Edge Plot on Configuration IEEE 802.11a Ant. 2 / 5825 MHz



Date: 19.FEB.2011 15:53:33

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
EMI Test Receiver	R&S	ESCS 30	100377	9kHz ~ 2.75GHz	Sep. 01, 2010	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Apr. 24, 2010	Conduction (CO01-CB)
V- LISN	Schwarzbeck	NSLK 8127	8127-478	9K ~ 30MHz	Oct. 30, 2010	Conduction (CO01-CB)
PULSE LIMITER	R&S	ESH3-Z2	100430	9K~30MHz	Jan. 04, 2011	Conduction (CO01-CB)
COND Cable	-	Cable	-	0.15MHz~30MHz	Dec. 01, 2010	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	Oct. 17, 2010	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 13, 2010	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBEAK	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Oct. 08, 2010	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 17, 2010	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Nov. 06, 2010	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26.5GHz ~ 40GHz	Nov. 17, 2010	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP	100304	9kHz ~ 40GHz	Nov. 06, 2010	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS 30	100355	9KHz ~ 2.75GHz	Mar. 06, 2011	Radiation (03CH01-CB)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz - 30 MHz	Sep. 09, 2010*	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N/A	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO2000	N/A	1 m - 4 m	N/A	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	-	30 MHz - 1 GHz	Nov. 17, 2010	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-1	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-2	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-3	-	1 GHz - 40 GHz	Nov. 17, 2010	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	-	1 GHz - 40 GHz	Nov. 17, 2010	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP30	100023	9KHz~30GHz	Mar. 05, 2011	Conducted (TH01-CB)
Temp. and Humidity Chamber	TEN BILLION	TTH-D3SP	TBN-931011	-30~100℃	May. 21, 2010	Conducted (TH01-CB)
Signal Generator	R&S	SMR40	100302	10MHz-40GHz	Mar. 09, 2010	Conducted (TH01-CB)
RF Power Divider	HP	11636A	00306	2GHz ~ 18GHz	N/A	Conducted (TH01-CB)
RF Power Splitter	Anaren	44100	1839	2GHz ~ 18GHz	N/A	Conducted (TH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Power Splitter	Anaren	42100	17930	2GHz ~ 18GHz	N/A	Conducted (TH01-CB)
Signal generator	R&S	SMU200A	102782	10MHz-40GHz	Mar. 09, 2010	Conducted (TH01-CB)
Horn Antenna	COM-POWER	AH-118	071187	1GHz – 18GHz	Apr. 16, 2010	Conducted (TH01-CB)
Horn Antenna	COM-POWER	AH-118	071042	1GHz – 18GHz	Oct. 14, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-12	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-13	-	1 GHz – 26.5 GHz	Nov. 17, 2010	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Sep. 13, 2010	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Sep. 08, 2010	Conducted (TH01-CB)

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

Note: For "*" Calibration Interval of instruments listed above is two years.

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 724, 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. : L1190-091230

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, 2010 to January 09, 2013
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 Accreditation Program for BSMI Mutual Recognition Arrangment with Foreign Authorities

Jay-San Chen
President, Taiwan Accreditation Foundation
Date : December 30, 2009

P1, total 22 pages

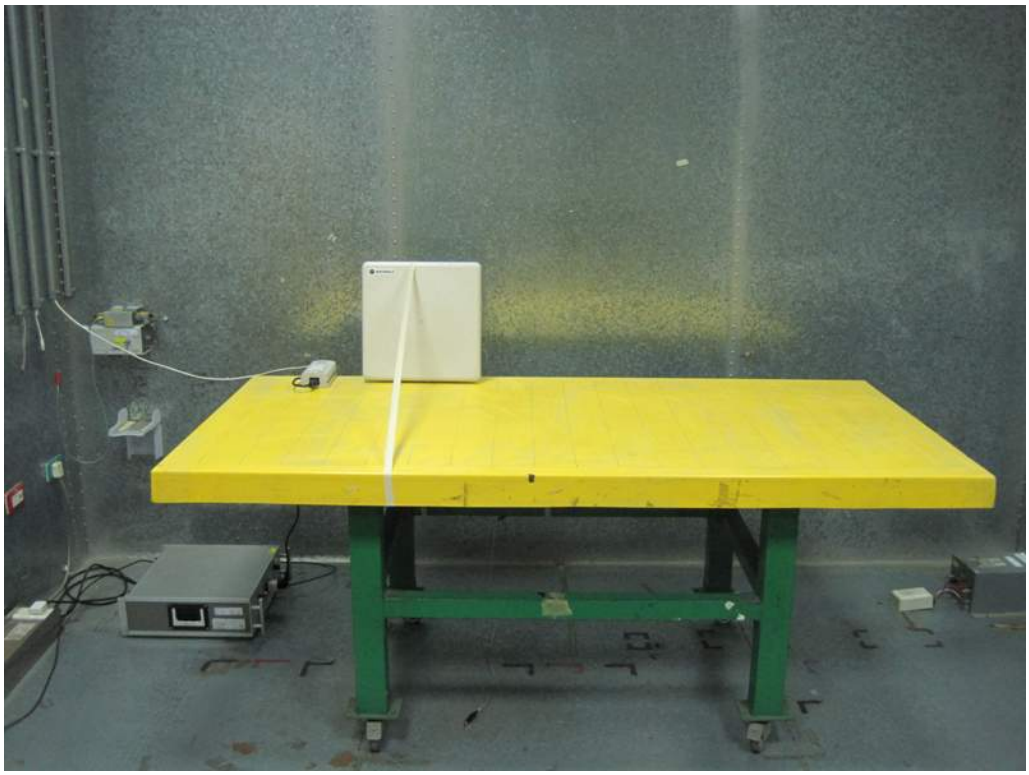
The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix

Appendix A. Test Photos

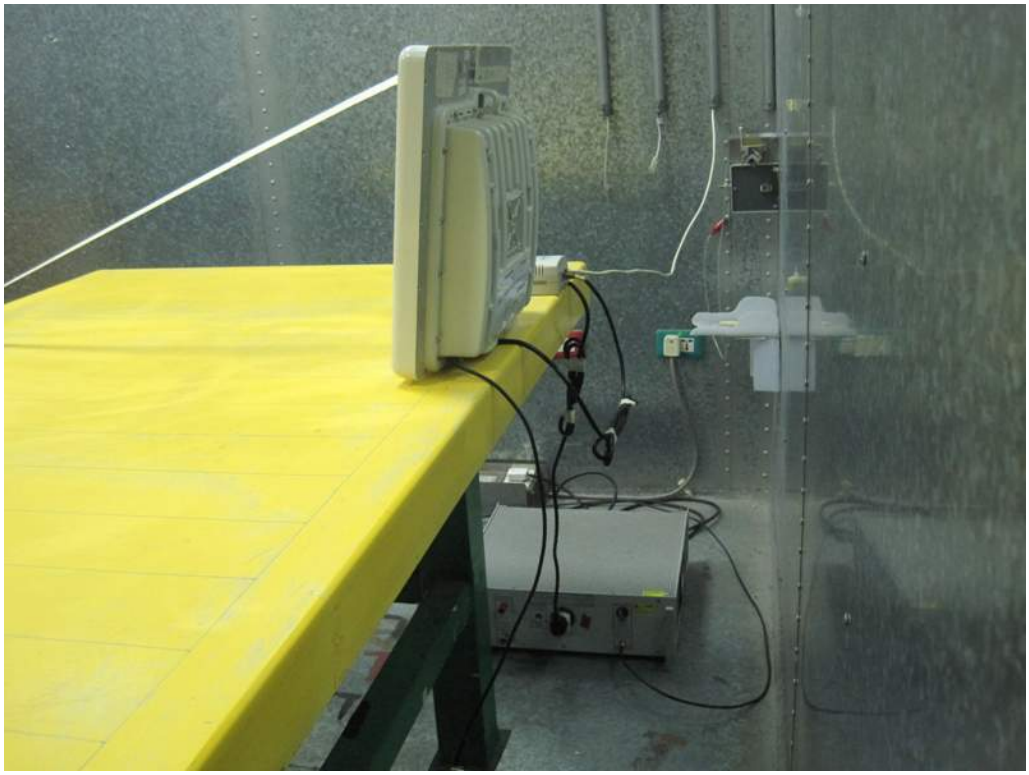
1. Photographs of Conducted Emissions Test Configuration

Test Mode: Mode 1

FRONT VIEW



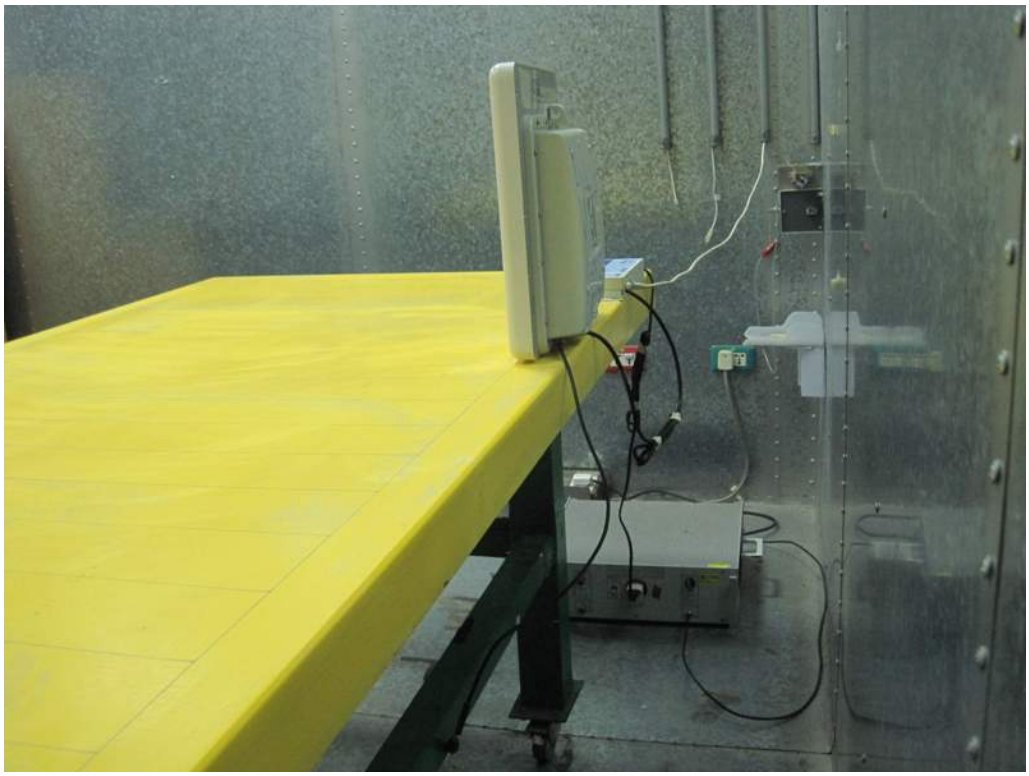
REAR VIEW



Test Mode: Mode 2

FRONT VIEW

REAR VIEW



2. Photographs of Radiated Emissions Test Configuration

9kHz ~30MHz

FRONT VIEW

REAR VIEW

30MHz~1GHz

For Mode 1:

FRONT VIEW

REAR VIEW

30MHz~1GHz

For Mode 2:

FRONT VIEW

REAR VIEW

30MHz~1GHz

For Mode 3:

FRONT VIEW

REAR VIEW

30MHz~1GHz

For Mode 4:

FRONT VIEW

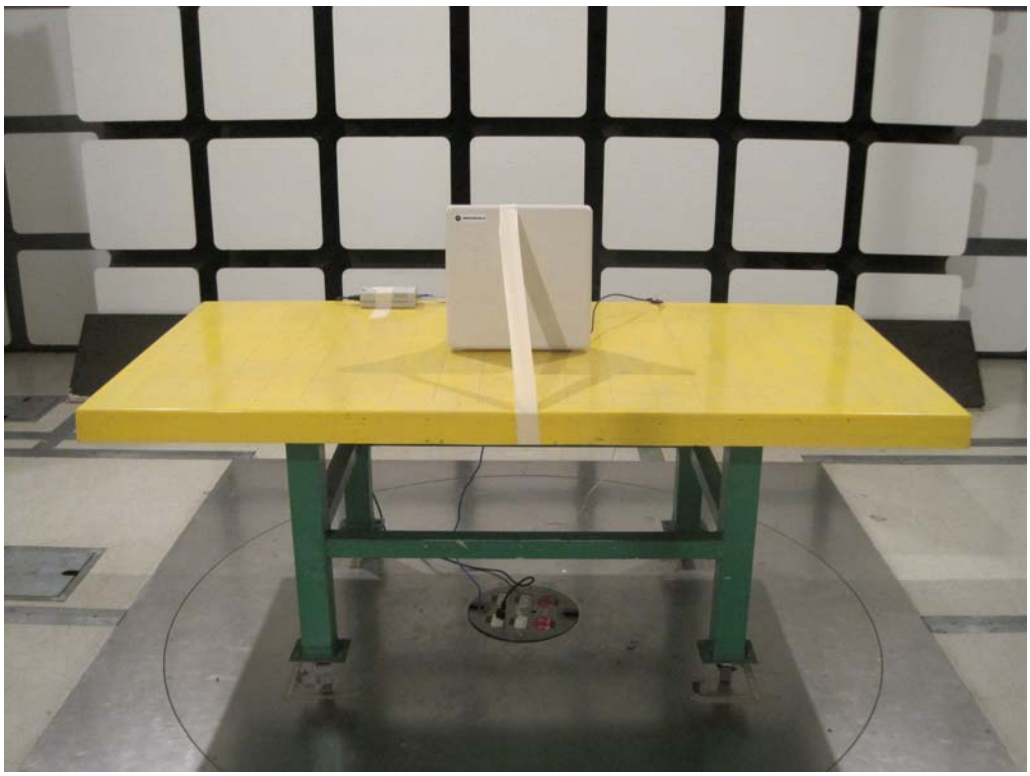
REAR VIEW

Above 1GHz

For Mode 1:

FRONT VIEW

REAR VIEW



Above 1GHz

For Mode 3:

FRONT VIEW

REAR VIEW

Appendix B. Maximum Permissible Exposure

1. Maximum Permissible Exposure

1.1. Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|², |H|² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time |E|², |H|² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

1.2. MPE Calculation Method

E (V/m) = $\frac{\sqrt{30 \times P \times G}}{d}$ Power Density: *Pd* (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

Pd = $\frac{30 \times P \times G}{377 \times d^2}$

From the peak EUT RF output power, the minimum mobile separation distance, d=1.1m(Antenna 1)/ 3.5m(Antenna 2), as well as the gain of the used antenna, the RF power density can be obtained.

1.3. Calculated Result and Limit

For 5GHz UNII Band:

For Antenna 1:

Minimum mobile separation distance: 110cm

Antenna Type : Dual Polarised Antenna

Max Conducted Average Power for IEEE 802.11a Ant. 1-A + Ant. 1-B: 25.31dBm

Antenna Gain (dBi)	Antenna Gain (numeric)	Average Output Power (dBm)	Average Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
21.5	141.2538	25.3100	339.6253	0.445887	5	Complies

For Antenna 2:

Minimum mobile separation distance: 350cm

Antenna Type : PARABOLIC SUBSCRIBER ANTENNAS

Max Conducted Average Power for IEEE 802.11n MCS0 20MHz Ant. 2: 20.59dBm

Antenna Gain (dBi)	Antenna Gain (numeric)	Average Output Power (dBm)	Average Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
35.6	3630.7805	20.5900	114.5513	0.270318	5	Complies