Shenzhen Huatongwei International Inspection Co., Ltd.

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FCC TEST REPORT

47 CFR FCC Part 15 Subpart B

FCC ID	T37PL9678-A5
Report Reference No	TRE12070068 R/C:28527
Compiled by	7 - Thans
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(position+printed name+signature):	Manager Wenliang Li
Date of issue	Sep 06, 2012
Testing Laboratory Name	Shenzhen Huatongwei International Inspection Co., Ltd
Address	Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Applicant's name	ASOKA Shenzhen Limited.
Address:	Room 1701,17/F., Fiyta Hi Tech Building, Gao-Xin Rd, South, Shenzhen , P R China
Test specification:	
Standard:	47 CFR FCC Part 15 Subpart B - Unintentional Radiators
	ANSI C63.4: 2009

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Master TRF...... Dated 2006-06

TRF Originator...... Shenzhen Huatongwei International Inspection CO., Ltd

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Test item description	PlugLink 500 MIMO Pass-Through Adapter
Trade Mark:	
Model/Type reference:	PL9678-A5
Operation Frequency	From 2MHz to 70MHz
Listed Models	1
Result:	Positive

TEST REPORT

Test Report No. :	TRE12070068	Feb 06, 2012
	11CL12070000	Date of issue

Equipment under Test : PlugLink 500 MIMO Pass-Through Adapter

Model /Type : PL9678-A5

Listed Models : /

Applicant : ASOKA Shenzhen Limited.

Address : Room 1701,17/F., Fiyta Hi Tech Building, Gao-Xin Rd,

South, Shenzhen, PR China

Manufacturer : Asoka USA Corporation

Address : 2620 Augustine Drive Suite 230, Santa Clara City, CA

95054

Test Result according to the standards on page 4:	Positive
---	----------

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. TEST STANDARDS

The tests were performed according to following standards:

47 CFR FCC Part 15 Subpart B - Unintentional Radiators

ANSI C63.4: 2009 – American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz

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2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	July 18, 2012
Testing commenced on	:	July 18, 2012
Testing concluded on	:	Sep 06, 2012

2.2. Equipment Under Test

Power supply system utilised

Power supply voltage	:	•	120V / 60 Hz	0	115V / 60Hz
		0	12 V DC	0	24 V DC
		0	Other (specified in blank below))

2.3. Short description of the Equipment under Test (EUT)

The EUT PlugLink 500 MIMO Pass-Through Adapter is an In-House BPL device.

For more details, refer to the user's manual of the EUT.

Sample Type: Prototype

2.4. EUT operation mode

The EUT has been tested under typical operating condition.

2.5. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **T37PL9678-A5** filing to comply with the FCC Part 15, Subpart B Rules.

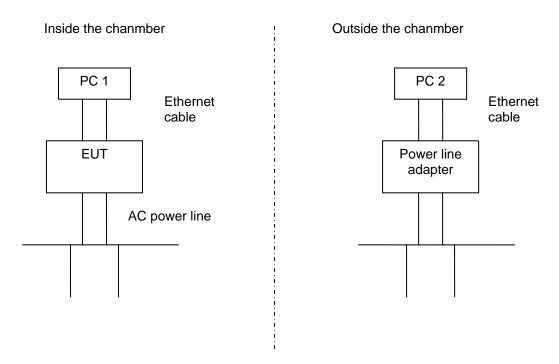
2.6. Modifications

No modifications were implemented to meet testing criteria.

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2.7. Configuration of Tested System

Configuration of Tested System



Equipment Used in Tested System

No.	Equipment	Manufacturer	Model No.	Serial No.	Notes
1	Notebook PC	DELL	D610	CN-0D4571-48643-51S-0236	(1)
2	Notebook PC	DELL	D600	CN-0X2034-48643-428-1379	(1)
3	PlugLink 500 MIMO Pass- Through Adapter	ASOKA	PL9678-A5	/	(2)

2.8. Product Information

As the product operation frequency band from 2MHz to 70MHz.we choose two products to test conduted emission for operation difference frequencies, the two products PCB layouts and hardware are the same and only software regulates the operating range. While use product 3 which operation frequency band from 2MHz to 70MHz for radiated emission.

Product 1:

Series Number:Y11117800041 Operation frequency:2MHz-30MHz;

Product 2:

Series Number:Y11117800044 Operation frequency:30MHz-70MHz;

Product 3:

Series Number:Y11117800042 Operation frequency:2MHz-70MHz; Report No.: TRE12070068 Page 7 of 28 Issued: 2012-09-06

3. TEST ENVIRONMENT

3.1. Address of the test laboratory

Shenzhen Huatongwei International Inspection Co., Ltd Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China Phone: 86-755-26715686 Fax: 86-755-26748089

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2009) and CISPR Publication 22.

3.2. Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L1225

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: Mar. 01, 2009. Valid time is until Feb. 28, 2015.

A2LA-Lab Cert. No. 2243.01

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. Valid time is until Sep. 30, 2013.

FCC-Registration No.: 662850

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 662850, Renewal date Jun. 01, 2012, valid time is until Jun. 01, 2015.

IC-Registration No.: 5377A

The 3m Alternate Test Site of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 5377A on Jan. 25, 2011, valid time is until Jan. 24, 2014.

ACA

Shenzhen Huatongwei International Inspection Co., Ltd. EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our A2LA accreditation.

NEMKO-Aut. No.: ELA125

Shenzhen Huatongwei International Inspection Co., Ltd. has been assessed the quality assurance system, the testing facilities, qualifications and testing practices of the relevant parts of the organization. The quality assurance system of the Laboratory has been validated against ISO/IEC 17025 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10, the authorization is valid through Jul. 07, 2013.

VCCI

The 3m Semi-anechoic chamber $(12.2m\times7.95m\times6.7m)$ and Shielded Room $(8m\times4m\times3m)$ of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-292. Date of Registration: Dec. 24, 2010. Valid time is until Dec. 23, 2013.

Main Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: C-2726. Date of Registration: Dec. 20, 2009. Valid time is until Dec. 19, 2012.

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Telecommunication Ports Conducted Interference Measurement of Shenzhen Huatongwei International Inspection Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: T-1837. Date of Registration: May 07, 2010. Valid time is until May 06, 2013.

DNV

Shenzhen Huatongwei International Inspection Co., Ltd. has been found to comply with the requirements of DNV towards subcontractor of EMC and safety testing services in conjunction with the EMC and Low voltage Directives and in the voluntary field. The acceptance is based on a formal quality Audit and follow-ups according to relevant parts of ISO/IEC Guide 17025 (2005), in accordance with the requirements of the DNV Laboratory Quality Manual towards subcontractors. Valid time is until Aug. 24, 2013.

3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 950-1050mbar

3.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen Huatongwei International Inspection Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Huatongwei laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.24 dB	(1)
Radiated Emission	1~18GHz	5.16 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.39 dB	(1)

⁽¹⁾ This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.5. Equipments Used during the Test

Cond	Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.		
1	EMI TEST RECEIVER	Rohde & Schwarz	ESCI	100106	2011/10/24		
2	ARTIFICIAL MAINS	Rohde & Schwarz	ESH2-Z5	100028	2011/10/24		
3	PULSE LIMITER	Rohde & Schwarz	ESHSZ2	100044	2011/10/24		
4	EMI TEST SOFTWARE	Rohde & Schwarz	ES-K1	N/A	2011/10/24		
5	TWO-LINE V- NETWORK	Rohde & Schwarz	ESH3-Z5	100049	2011/10/24		

Radia	ted Emission				
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ULTRA-BROADBAND ANTENNA	Rohde & Schwarz	HL562	100015	2011/10/24
2	EMI TEST RECEIVER	Rohde & Schwarz	ESI 26	100009	2011/10/24
3	RF TEST PANEL	Rohde & Schwarz	TS / RSP	335015/0017	2011/10/24
4	TURNTABLE	ETS	2088	2149	2011/10/24
5	ANTENNA MAST	ETS	2075	2346	2011/10/24
6	EMI TEST OFTWARE	Rohde & Schwarz	ESK1	N/A	2011/10/24
7	HORN ANTENNA	Rohde & Schwarz	HF906	100039	2011/11/01
8	Amplifer	Sonoma	310N	E009-13	2011/10/24
9	JS amplifer	Rohde & Schwarz	JS4-00101800- 28-5A	F201504	2011/10/24
10	High pass filter	Compliance Direction systems	BSU-6	34202	2011/10/24

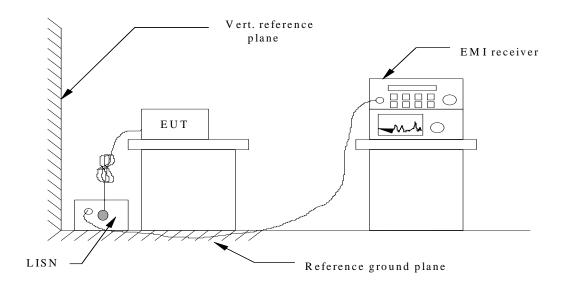
The calibration interval was one year.

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4. TEST CONDITIONS AND RESULTS

4.1. Conducted Emissions Test

TEST CONFIGURATION



TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4-2009.
- 2 Support equipment, if needed, was placed as per ANSI C63.4-2009.
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4-2009.
- 4 The EUT received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any.
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

CONDUCTED POWER LINE EMISSION LIMIT

For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following:

	Maximum RF Line Voltage (dBμV)						
Frequency (MHz)	CLAS	S A	CLASS B				
(111112)	Q.P.	Ave.	Q.P.	Ave.			
0.15 - 0.50	79	66	66-56*	56-46*			
0.50 - 5.00	73	60	56	46			
5.00 - 30.0	73	60	60	50			

TEST CONDITION

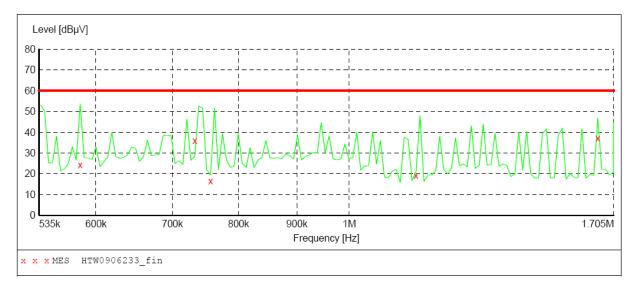
The data rate was set at the maximum rate used by the EUT, and the operating frequency of the EUT as unintentional radiator was divided into two frequency band, blow 30MHz and above 30MHz.

TEST RESULTS

Blow 30MHz (Product 1)

SCAN TABLE: "FCC-ASO(150K-30M)FIN" Short Description: 150K-30M V

150K-30M Voltage

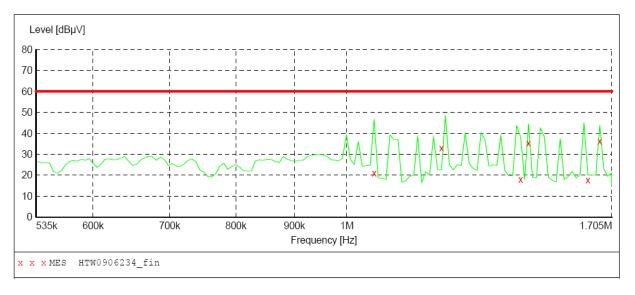


MEASUREMENT RESULT: "HTW0906233 fin"

9/	6/2012 4:52	PM						
	Frequency	Level				Detector	Line	PΕ
	MHz	dΒμV	dB	dΒμV	dB			
	0.532490	30.90	9.7	60	29.1	QP	N	GND
	0.581273	24.30	9.8	60	35.7	QP	N	GND
	0.732380	36.00	9.8	60	24.0	QP	N	GND
	0.756100	16.50	9.8	60	43.5	QP	N	GND
	1.144260	19.30	9.9	60	40.7	QP	N	GND
	1.650862	37.20	9.9	60	22.8	QP	N	GND

SCAN TABLE: "FCC-ASO(150K-30M) FIN" Short Description: 150K-30M

150K-30M Voltage



MEASUREMENT RESULT: "HTW0906234 fin"

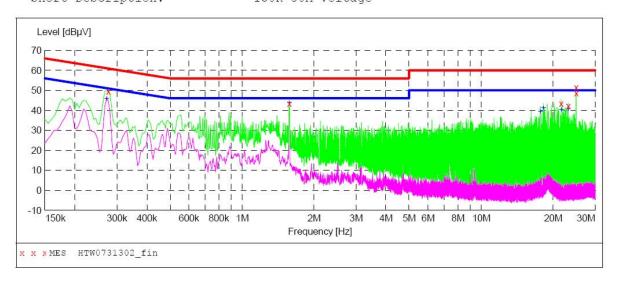
9/6/20	12 4:55E	PM						
Fre	quency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.	056626	20.90	9.9	60	39.1	QP	L1	GND
1.	209900	32.90	9.9	60	27.1	QΡ	L1	GND
1.	418923	17.90	9.9	60	42.1	QP	L1	GND
1.	441722	35.30	9.9	60	24.7	QP	L1	GND
1.	624757	17.70	9.9	60	42.3	QP	L1	GND
1.	664067	36.20	9.9	60	23.8	QP	L1	GND

Page 1/1 9/6/2012 4:55PM HTW0906234

TEST RESULTS

above 30MHz (Product 2)

SCAN TABLE: "Voltage (9K-30M)FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "HTW0731302_fin"

:57PM						
Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
49.60	10.1	61	11.3	QP	N	GND
43.40	10.2	56	12.6	QP	N	GND
43.50	10.5	60	16.5	QP	N	GND
42.10	10.6	60	17.9	QP	N	GND
51.70	10.7	60	8.3	QP	N	GND
48.70	10.7	60	11.3	QP	N	GND
	Level dBµV 49.60 43.40 43.50 42.10 51.70	Level Transd dB dB d9.60 10.1 43.40 10.2 43.50 10.5 42.10 10.6 51.70 10.7	Level Transd Limit dBμV dB dBμV 49.60 10.1 61 43.40 10.2 56 43.50 10.5 60 42.10 10.6 60 51.70 10.7 60	Level Transd Limit Margin dBμV dB dBμV dBμγ dBμγ dBμγ dBμγ dBμγ dBμγ dBμγ dBμγ	Level Transd Limit Margin Detector dBμV dB dBμV dB dBμV dB 49.60 10.1 61 11.3 QP 43.40 10.2 56 12.6 QP 43.50 10.5 60 16.5 QP 42.10 10.6 60 17.9 QP 51.70 10.7 60 8.3 QP	Level Transd dBμV Limit Margin dB Detector Line dBμV Line dBμV 49.60 10.1 61 11.3 QP N 43.40 10.2 56 12.6 QP N 43.50 10.5 60 16.5 QP N 42.10 10.6 60 17.9 QP N 51.70 10.7 60 8.3 QP N

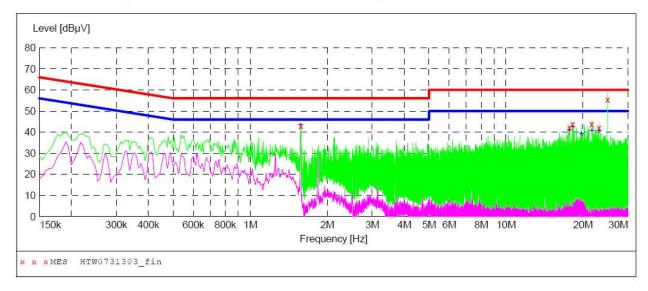
MEASUREMENT RESULT: "HTW0731302 fin2"

7/31/2012 5:5	57PM						
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.271500	45.80	10.1	51	5.3	AV	N	GND
1.576500	43.60	10.2	46	2.4	AV	N	GND
17.695500	39.50	10.4	50	10.5	AV	N	GND
18.244500	41.10	10.4	50	8.9	AV	N	GND
21.664500	40.10	10.5	50	9.9	AV	N	GND
23.127000	40.40	10.6	50	9.6	AV	N	GND

Page 1/1 7/31/2012 5:57PM HTW0731302

SCAN TABLE: "Voltage (9K-30M)FIN"

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "HTW0731303 fin"

7/31/2012 6:0	0PM						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dΒμV	dB	dΒμV	dB			
1 576500	42 10	10.0	E/C	10 0	OD	T 1	CIMID
1.576500	43.10	10.2	56	12.9	QP	L1	GND
17.695500	42.20	10.4	60	17.8	QP	L1	GND
18.244500	44.00	10.4	60	16.0	QP	L1	GND
21.664500	44.00	10.5	60	16.0	QP	L1	GND
23.131500	42.20	10.6	60	17.8	QP	L1	GND
24.999000	55.40	10.7	60	4.6	QP	L1	GND

MEASUREMENT RESULT: "HTW0731303 fin2"

7/	/31/2012 6:0	OPM						
	Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
	1.576500	43.30	10.2	46	2.7	AV	L1	GND
	17.695500	40.80	10.4	50	9.2	AV	L1	GND
	18.244500	42.40	10.4	50	7.6	AV	L1	GND
	19.711500	39.20	10.4	50	10.8	AV	L1	GND
	21.664500	40.60	10.5	50	9.4	AV	L1	GND
	23.127000	40.60	10.6	50	9.4	AV	L1	GND

Page 1/1 7/31/2012 6:01PM HTW0731303

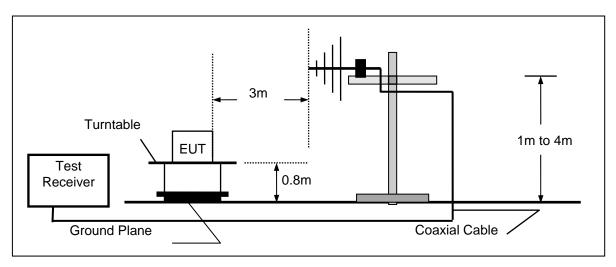
Remark:

- (1) Measuring frequencies from 0.15 MHz to the 30 MHz.
- (2) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) The IF bandwidth of EMI Test Receiver was 9KHz for measuring from 0.15 MHz to 30MHz

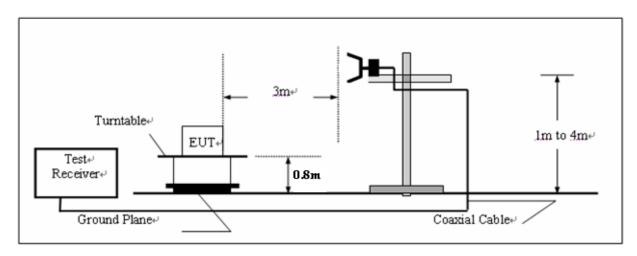
4.2. Radiated Emission Test

TEST CONFIGURATION

a) Radiated Emission Test Set-Up, Frequency below 1000MHz



b) Radiated Emission Test Set-Up, Frequency above 1000MHz



TEST PROCEDURE

- 1. The EUT is placed on a turntable, which is 0.8m above ground plane.
- The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.

FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

For example

Freque	_	FS	RA	AF	CL	AG	Transd
(MHz		(dBµV/m)	(dBuV/m)	(dB)	(dB)	(dB)	(dB)
300.0	0	40	58.1	12.2	1.6	31.90	-18.1

Transd=AF +CL-AG

RADIATION LIMIT

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (μV/m)		
30-88	3	40.0	100		
88-216	3	43.5	150		
216-960	3	46.0	200		
Above 960	3	54.0	500		

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

TEST CONDITION

The data rate was set at the maximum rate used by the EUT.

The highest fundamental frequency of the EUT is 166MHz, according to § 15.33(a), the radiated emission test was performed within the frequency band 9KHz – 2000MHz. The unintentional operating frequency range is 2MHz – 70MHz.

TEST RESULTS

(Product 3)

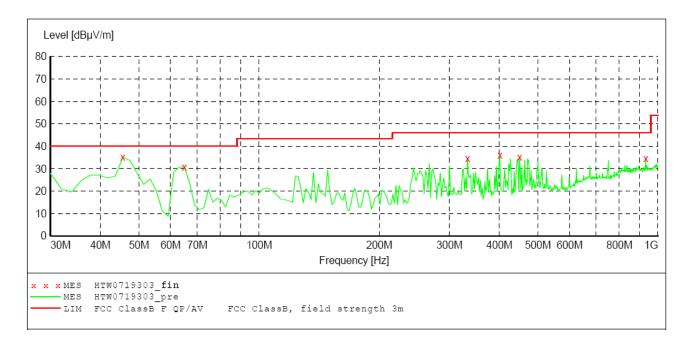
SCAN TABLE: "test Field(30M-1G)QP"

Short Description: Field Strength(30M-1G)

Stop Step Start Detector Meas. IF Transducer

Bandw.

Frequency Frequency Width Time Bandw. 30.0 MHz 1.0 GHz 60.0 kHz QuasiPeak 1.0 s 120 kHz HL562



MEASUREMENT RESULT: "HTW0719303 fin"

7/19/2012 1:5	55PM							
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.551102	35.10	-19.6	40.0	4.9	QP	100.0	130.00	HORIZONTAL
64.989980	30.70	-23.8	40.0	9.3	QP	100.0	47.00	HORIZONTAL
333.246493	34.70	-16.5	46.0	11.3	QP	100.0	136.00	HORIZONTAL
401.282565	36.20	-15.3	46.0	9.8	QP	100.0	103.00	HORIZONTAL
449.879760	35.20	-14.7	46.0	10.8	QP	100.0	103.00	HORIZONTAL
931.963928	34.60	-7.3	46.0	11.4	OP	100.0	254.00	HORTZONTAL

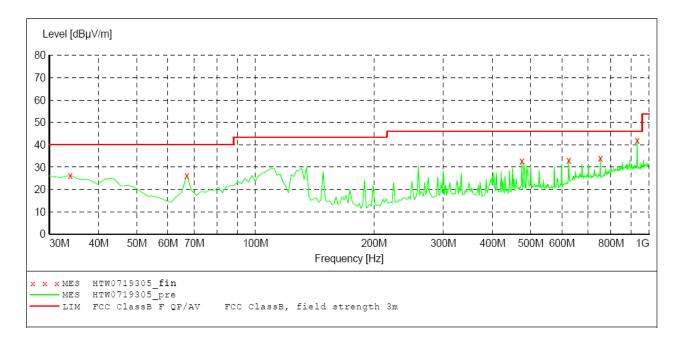
SCAN TABLE: "test Field(30M-1G)QP"

Short Description: Field Strength(30M-1G)

Start Stop Step Detector Meas. IF Transducer

Frequency Frequency Width Time Bandw.

30.0 MHz 1.0 GHz 60.0 kHz QuasiPeak 1.0 s 120 kHz HL562



MEASUREMENT RESULT: "HTW0719305_fin"

//1	-9/	40.	12	∠:	TOP	.vl
	_					_

	Level dBµV/m			_		-	Azimuth deg	Polarization
33.887776		-13.1			~	100.0		VERTICAL
66.933868	26.40	-23.6	40.0	13.6	QP	100.0	0.00	VERTICAL
475.150301	33.00	-14.0	46.0	13.0	QP	100.0	204.00	VERTICAL
624.829659		-11.5			QP	100.0	191.00	VERTICAL
751.182365	34.10	-10.3	46.0	11.9	QP	100.0	100.00	VERTICAL
931.963928	42.20	-7.3	46.0	3.8	QP	100.0	0.00	VERTICAL

Remark:

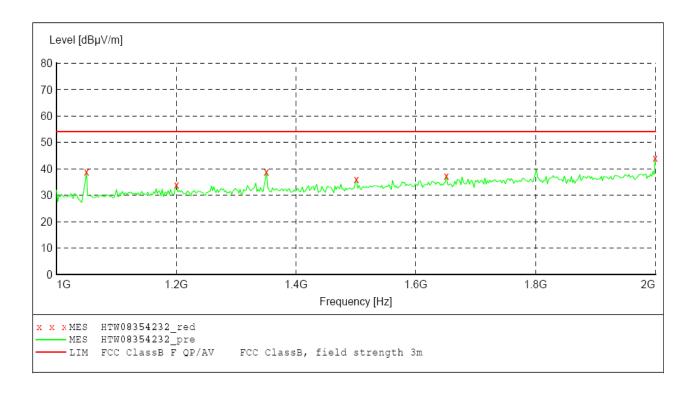
- (1) Measuring frequencies from 30 MHz to the 1 GHz.
- (2) Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3) The IF bandwidth of EMI Test Receiver was 120KHz for measuring from 30 MHz to 1 GHz and 1 MHz for measuring above 1 GHz

Sweep TABLE: "test Field(1G-2G)QP"

Short Description: Field Strength(1G-2G)

Stop Detector IF Transducer

Frequency Frequency Bandw.
1.0 GHz 2.0 GHz MaxPeak 1 MHz HF906



MEASUREMENT RESULT: "HTW08354232 red"

7/27/2012 09: Frequency MHz		Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1050.100200	38.90	-9.3	54.0	15.1	PK	100.0	304.00	VERTICAL
1200.400802	34.10	-8.1	54.0	19.9	PK	100.0	142.00	VERTICAL
1350.701403	38.90	-7.0	54.0	15.1	PK	100.0	45.00	VERTICAL
1501.002004	36.00	-6.0	54.0	18.0	PK	100.0	24.00	VERTICAL
1651.302605	37.50	-4.4	54.0	16.5	PK	100.0	314.00	VERTICAL
2000.000000	44.10	-1.4	54.0	9.9	PK	100.0	328.00	VERTICAL

Page 1/1 7/27/2012 09:30PM HTW08354232

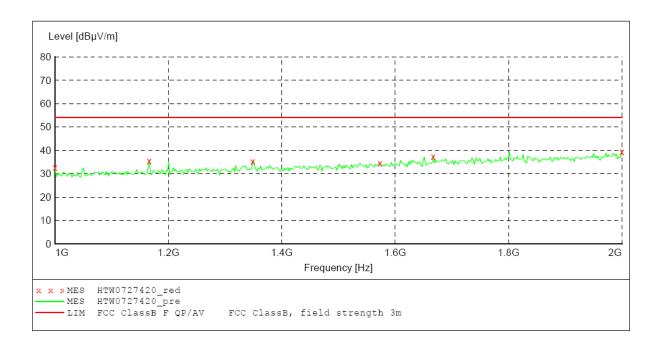
Sweep TABLE: "test Field(1G-2G)QP"

Short Description: Field Strength(1G-2G)

Start Stop Detector IF Transducer

Frequency Frequency Bandw.

1.0 GHz 2.0 GHz MaxPeak 1 MHz HF906



MEASUREMENT RESULT: "HTW0727420 red"

7/27/2011 12:27PM Frequency Level Transd Limit Margin Det. Height Azimuth Polarization MHz $dB\mu V/m$ dB $dB\mu V/m$ dB deg cm 21.2 PK 18.3 PK 1000.000000 32.80 -9.8 54.0 100.0 86.00 HORIZONTAL 249.00 HORIZONTAL 1166.332665 35.70 54.0 -8.4 100.0 1348.697395 18.8 PK 29.00 HORIZONTAL 35.20 -7.0 54.0 100.0 1573.146293 34.60 -5.2 54.0 19.4 PK 100.0 252.00 HORIZONTAL 37.50 -4.3 54.0 16.5 PK 39.50 -1.4 54.0 14.5 PK 1667.334669 100.0 45.00 HORIZONTAL

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Remark:

2000.000000

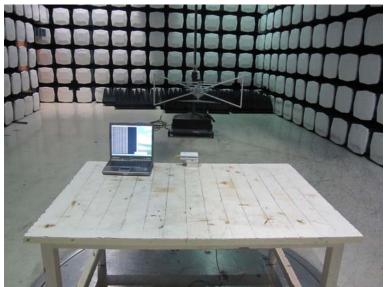
- (1)Measuring frequencies from 1 GHz to the 2 GHz.
- Data of measurement within this frequency range shown "---" in the table above means the (2)reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (3)The RBW of EMI Test Receiver was 1MHz and the VBW was 3MHz for measuring from 1 GHz to 2 GHz.

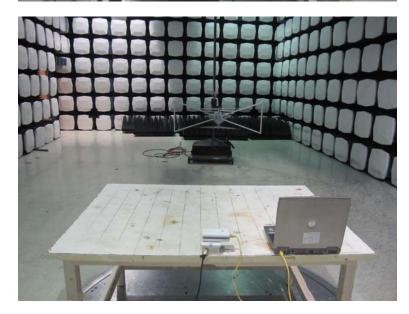
100.0

3.00 HORIZONTAL

5. Test Setup Photos of the EUT









6. External and Internal Photos of the EUT

Internal Photos













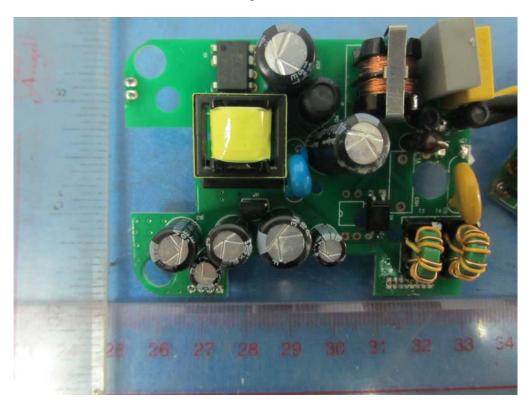
Internal Photos



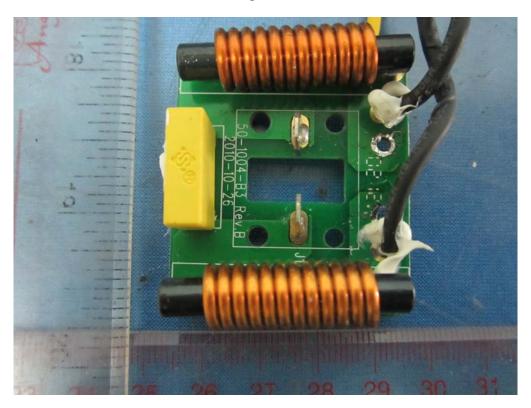














.....End of Report.....