Shenzhen Huatongwei International Inspection Co., Ltd.
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CNASL1225

FCC TEST REPORT

47 CFR FCC Part 15 Subpart B

Report Reference No......:	**TRE1306014303 R/C:77515**
FCC ID.....:	**2AAMSMJ97XXX**
Compiled by (position+printed name+signature)..:	File administrators Jerome Luo
Supervised by (position+printed name+signature)..:	Test Engineer Yuchao Wang
Approved by (position+printed name+signature)..:	Manager Wenliang Li
Date of issue.....:	July 18, 2013
Testing Laboratory Name.....:	**Shenzhen Huatongwei International Inspection Co., Ltd**
Address .....:	Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Applicant's name.....:	**SHENZHEN NST INDUSTRY AND TRADE CO.,LTD**
Address .....:	2/F,Bldg B,HongMen Technical Garden II,Jihua Road,.Buji Town,Longgang District,Shenzhen P.R.China
Test specification:	
Standard .....:	**47 CFR FCC Part 15 Subpart B - Unintentional Radiators** **ANSI C63.4: 2009**
TRF Originator.....:	Shenzhen Huatongwei International Inspection CO., Ltd
Master TRF.....:	Dated 2006-06

Test item description .....:	Tablet PC
Trade Mark .....:	ULTRATAB™
Model/Type reference.....:	MJ97XXX
Listed Models .....:	MX70XXX, MX78XXX,MX80XXX,MJ90XXX, M70XXX,MJ10XXX, MG11XXX, MG13XXX,CMXXXX,M78XXX,M80XXX, M80XXX,M90XXX,M97XXX, M11XXX, M10XXX
Manufacturer .....:	**HK YITOA TECHNOLOGY CO., LIMITED**
Rating .....:	DC 5.0V
Result.....:	**Positive**

T E S T R E P O R T

Test Report No. :	**TRE1306014303**	July 18, 2013 Date of issue

Equipment under Test	:	Tablet PC
Model /Type	:	MJ97XXX
Listed Models	:	MX70XXX, MX78XXX,MX80XXX,MJ90XXX, M70XXX, MJ10XXX,MG11XXX, MG13XXX,CMXXXX,M78XXX, M80XXX, M80XXX,M90XXX,M97XXX,M11XXX, M10XXX
Applicant	:	**SHENZHEN NST INDUSTRY AND TRADE CO.,LTD**
Address	:	2/F,Bldg B,HongMen Technical Garden II,Jihua Road,.Buji Town,Longgang District,Shenzhen P.R.China
Manufacturer		**HK YITOA TECHNOLOGY CO., LIMITED**
Address	:	UNIT 04，7/F BRIGHT WAY TOWER NO 33 MONG KOK RD KL

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.

Contents

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

2 . SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	June 20, 2013
Testing commenced on	:	June 20, 2012
Testing concluded on	:	July 18, 2012

2.2. Equipment Under Test

Power supply system utilised

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

DC 5.0V

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

2.4GHz (MID (M/N:MJ97XXX))

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

the EUT. Serial number: 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: 2AAMSMJ97XXX** filing to comply with the FCC Part 15, Subpart B Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.

2.7. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

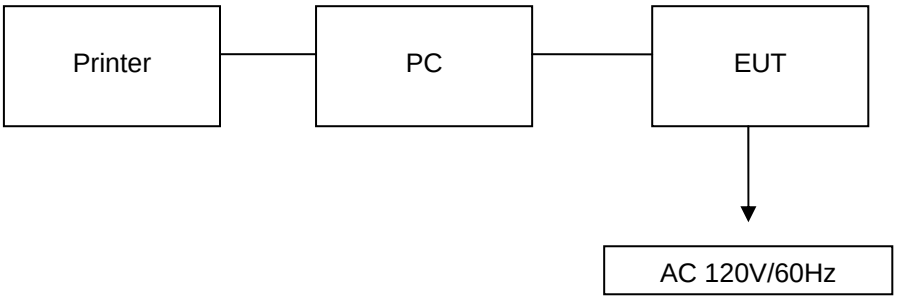
○ - supplied by the lab

○	Power Cable	Length (m) :	/
		Shield :	/
		Detachable :	/
○	Multimeter	Manufacturer :	/
		Model No. :	/

● AC Adapter MODEL:JY-05200
INPUT:100-240V～50/60Hz 0.3A Max
OUTPUT: 5.0V DC 2.0A
Power Cable: 120cm
◇ Shielded ◆ Unshielded

2.8. Configuration of Tested System

Configuration of Tested System



Equipment Used in Tested System

No.	Equipment	Manufacturer	Model No.	Serial No.	Notes
1	PC	DELL	DIMENSION E520	CNG8390Q6X	DOC
2	LCD	DELL	1707FPT	CN-OPO153-64180-59E-00ZP	
3	Printer	ESPOn	C3990	C3990A	DOC

2.9. NOTE

1. The EUT is Table PC with WLAN and Bluetooth function,The functions of the EUT listed as below:

	Test Standards	Reference Report
WLAN 802.11b/g/n	FCC Part 15 Subpart C	TRE1306014301
Bluetooth	FCC Part 15 Subpart C	TRE1306014302
USB Port	FCC Part 15 Subpart B	TRE1306014303
MPE REPORT	FCC Per 47 CFR 2.1093(d)	TRE1306014304

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 (2003) 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. 29, 2012. 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 Sept. 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 June. 01, 2012, valid time is until June. 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.

VCCI

The 3m Semi-anechoic chamber (12.2m×7.95m×6.7m) and Shielded Room (8m×4m×3m) 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.

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

Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI TEST RECEIVER	Rohde & Schwarz	ESCI	100106	2012/10/27
2	ARTIFICIAL MAINS	Rohde & Schwarz	ESH2-Z5	100028	2012/10/27
3	PULSE LIMITER	Rohde & Schwarz	ESHSZ2	100044	2012/10/27
4	EMI TEST SOFTWARE	Rohde & Schwarz	ES-K1	N/A	2012/10/27

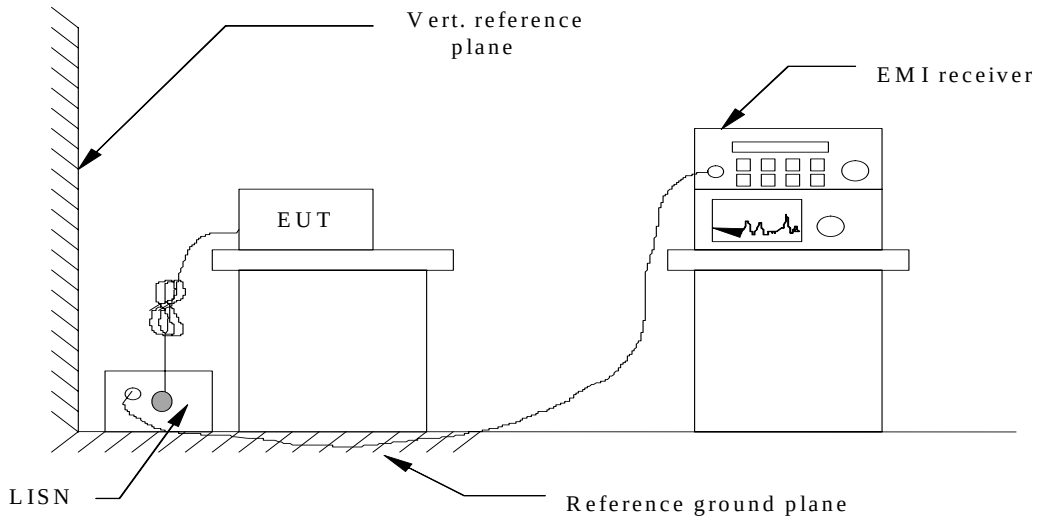
Radiated Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ULTRA-BROADBAND ANTENNA	ShwarzBeck	VULB9163	538	2012/10/27
2	EMI TEST RECEIVER	Rohde & Schwarz	ESI 26	100009	2012/10/27
3	EMI TEST OFTWARE	Audix	E3	N/A	2012/10/27
4	TURNTABLE	MATURO	TT2.0	----	2012/10/27
5	ANTENNA MAST	MATURO	TAM-4.0-P	----	2012/10/27
6	EMI TEST OFTWARE	Rohde & Schwarz	ESK1	N/A	2012/10/27
7	HORN ANTENNA	ShwarzBeck	9120D	1011	2012/10/27
8	Amplifer	Sonoma	310N	E009-13	2012/10/27
9	JS amplifer	Rohde & Schwarz	JS4-00101800-28-5A	F201504	2012/10/27

The calibration interval was one year.

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：

Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	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

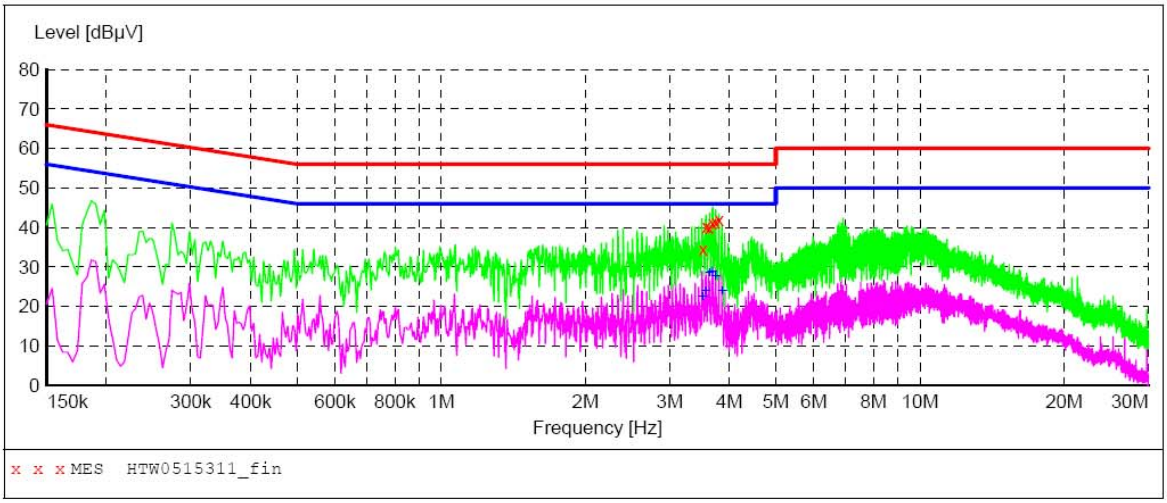
* Decreasing linearly with the logarithm of the frequency

TEST RESULTS

Remark:We tested all conditions(two USB connects and one HDMI connects and recorded worst case at USB connect.

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

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "HTW0515311_fin"

7/15/2013 8:11PM

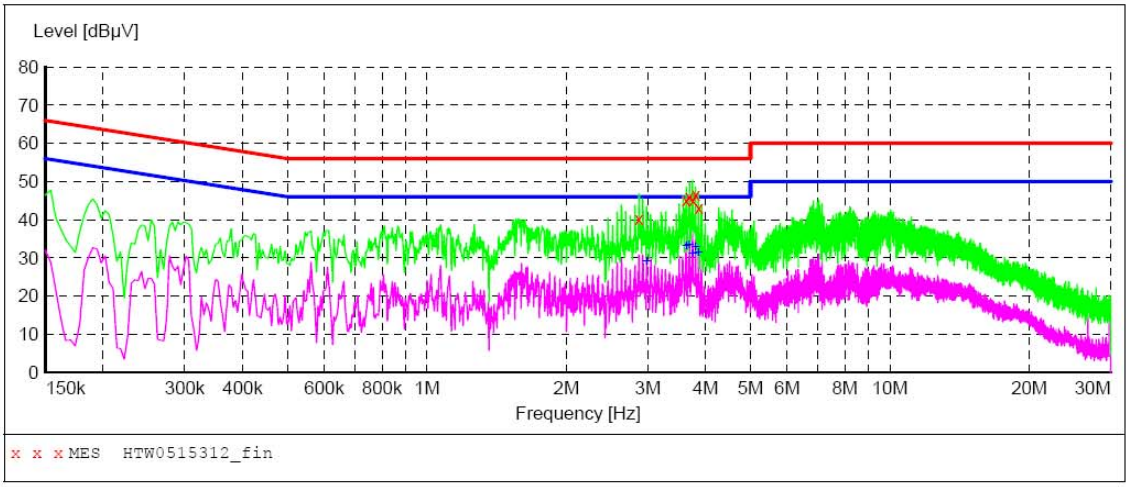
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
3.522000	34.50	10.5	56	21.5	QP	N	GND
3.574000	40.10	10.5	56	15.9	QP	N	GND
3.630000	40.00	10.5	56	16.0	QP	N	GND
3.686000	41.20	10.5	56	14.8	QP	N	GND
3.742000	41.50	10.5	56	14.5	QP	N	GND
3.806000	41.90	10.5	56	14.1	QP	N	GND

MEASUREMENT RESULT: "HTW0515311_fin2"

7/15/2013 8:11PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
3.518000	22.50	10.5	46	23.5	AV	N	GND
3.574000	23.90	10.5	46	22.1	AV	N	GND
3.634000	28.50	10.5	46	17.5	AV	N	GND
3.686000	28.80	10.5	46	17.2	AV	N	GND
3.742000	27.50	10.5	46	18.5	AV	N	GND
3.866000	23.80	10.5	46	22.2	AV	N	GND

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



MEASUREMENT RESULT: "HTW0515312_fin"

7/15/2013 8:14PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
2.870000	40.20	10.5	56	15.8	QP	L1	GND
3.630000	45.00	10.5	56	11.0	QP	L1	GND
3.686000	46.00	10.5	56	10.0	QP	L1	GND
3.754000	45.10	10.5	56	10.9	QP	L1	GND
3.806000	46.40	10.5	56	9.6	QP	L1	GND
3.866000	43.00	10.5	56	13.0	QP	L1	GND

MEASUREMENT RESULT: "HTW0515312_fin2"

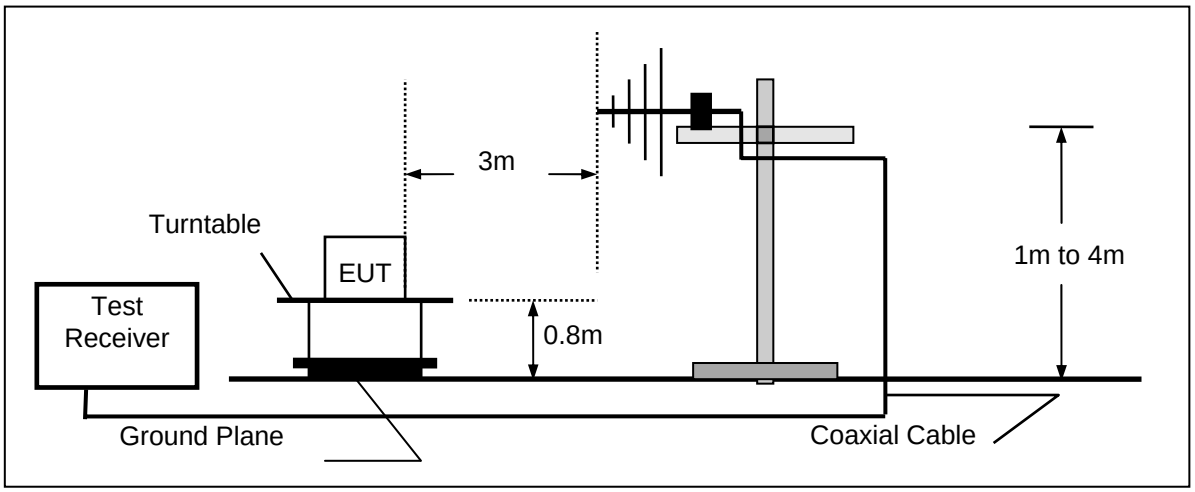
7/15/2013 8:14PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
2.986000	29.10	10.5	46	16.9	AV	L1	GND
3.634000	32.90	10.5	46	13.1	AV	L1	GND
3.686000	33.40	10.5	46	12.6	AV	L1	GND
3.754000	31.10	10.5	46	14.9	AV	L1	GND
3.802000	32.80	10.5	46	13.2	AV	L1	GND
3.862000	31.40	10.5	46	14.6	AV	L1	GND

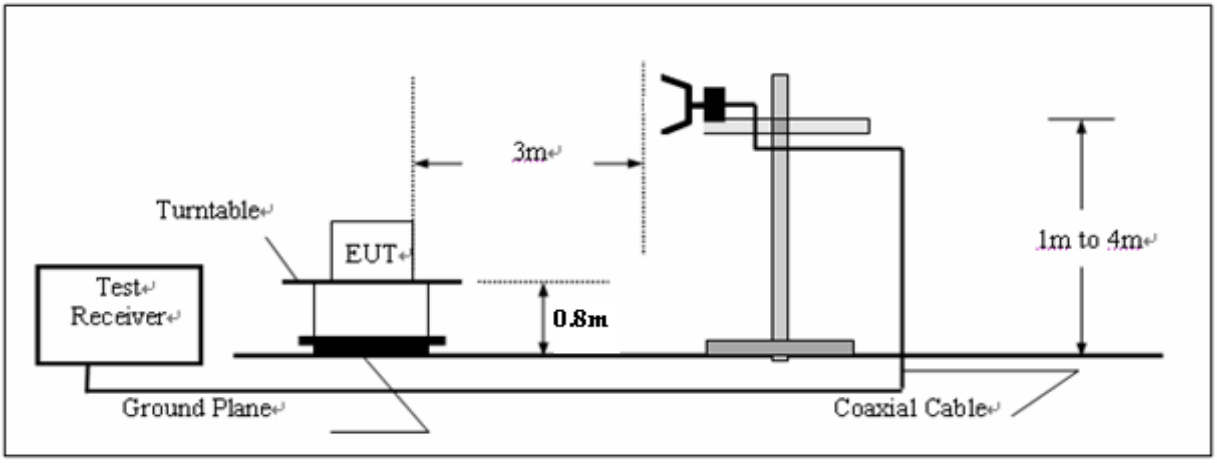
4.2. Radiated Emission Test

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.
2. 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.
7. The maximum operation frequency was 512MHz,the radiated emission test frequency from 30MHz to 6GHz.

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:

FS = RA + AF + CL - AG

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

For example

Frequency (MHz)	FS (dBμV/m)	RA (dBμV/m)	AF (dB)	CL (dB)	AG (dB)	Transd (dB)
300.00	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：

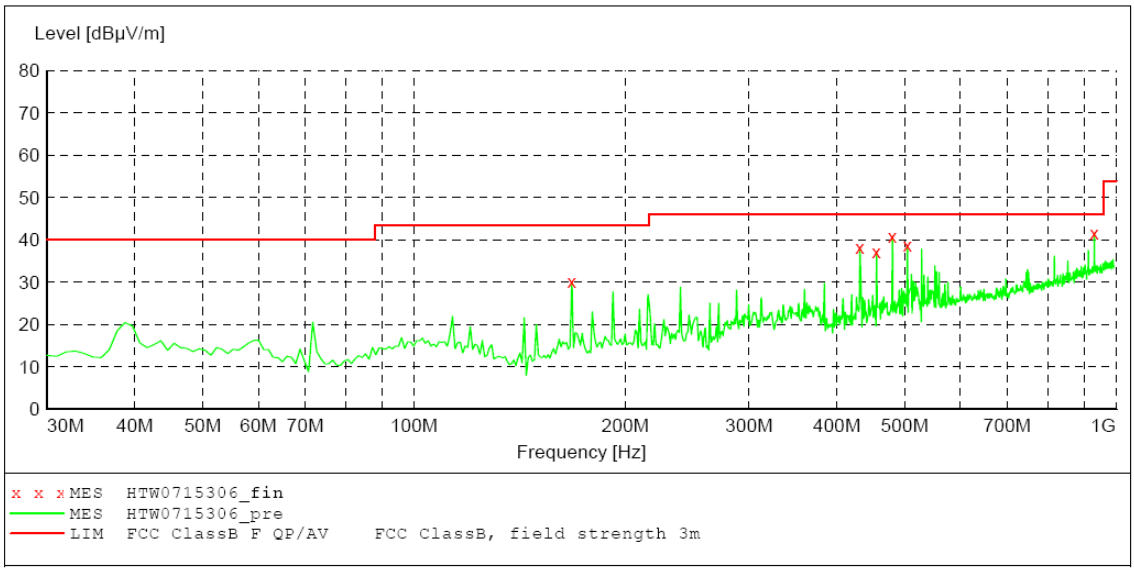
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST RESULTS

Remark:We tested all conditions(two USB connects and one HDMI connects and recorded worst case at USB connect.

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

Short Description:			Field Strength		
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.1 GHz	MaxPeak	Coupled	100 kHz	VULB9163



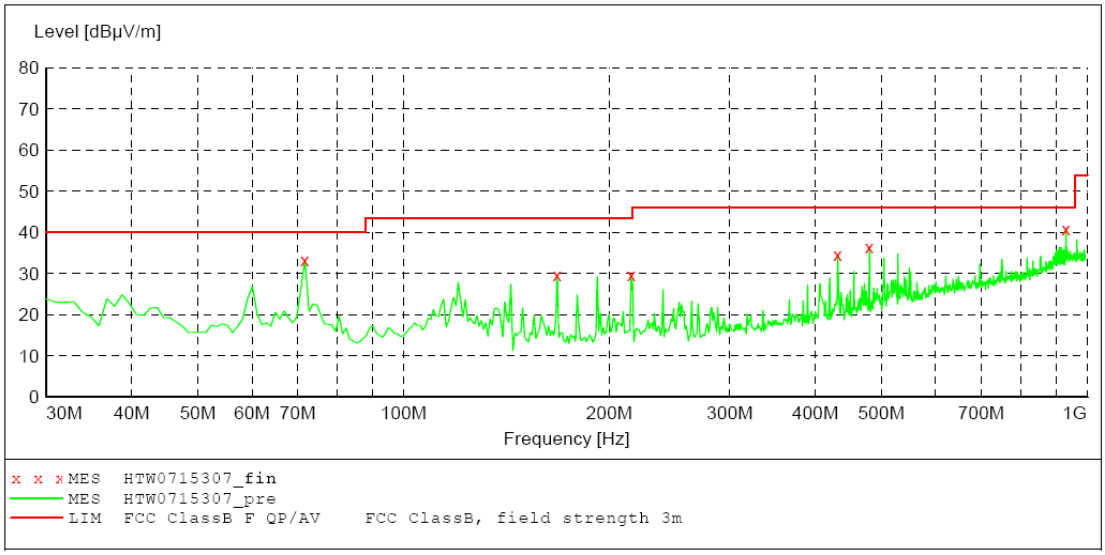
MEASUREMENT RESULT: "HTW0715306_fin"

7/15/2013 7:13PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
167.740000	30.10	-17.0	43.5	13.4	QP	300.0	245.00	HORIZONTAL
431.580000	38.20	-9.6	46.0	7.8	QP	100.0	211.00	HORIZONTAL
455.830000	37.20	-9.0	46.0	8.8	QP	100.0	199.00	HORIZONTAL
480.080000	40.90	-8.0	46.0	5.1	QP	100.0	199.00	HORIZONTAL
504.330000	38.70	-6.9	46.0	7.3	QP	100.0	188.00	HORIZONTAL
931.130000	41.60	3.2	46.0	4.4	QP	100.0	29.00	HORIZONTAL

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

Short Description:			Field Strength		
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.1 GHz	MaxPeak	Coupled	100 kHz	VULB9163



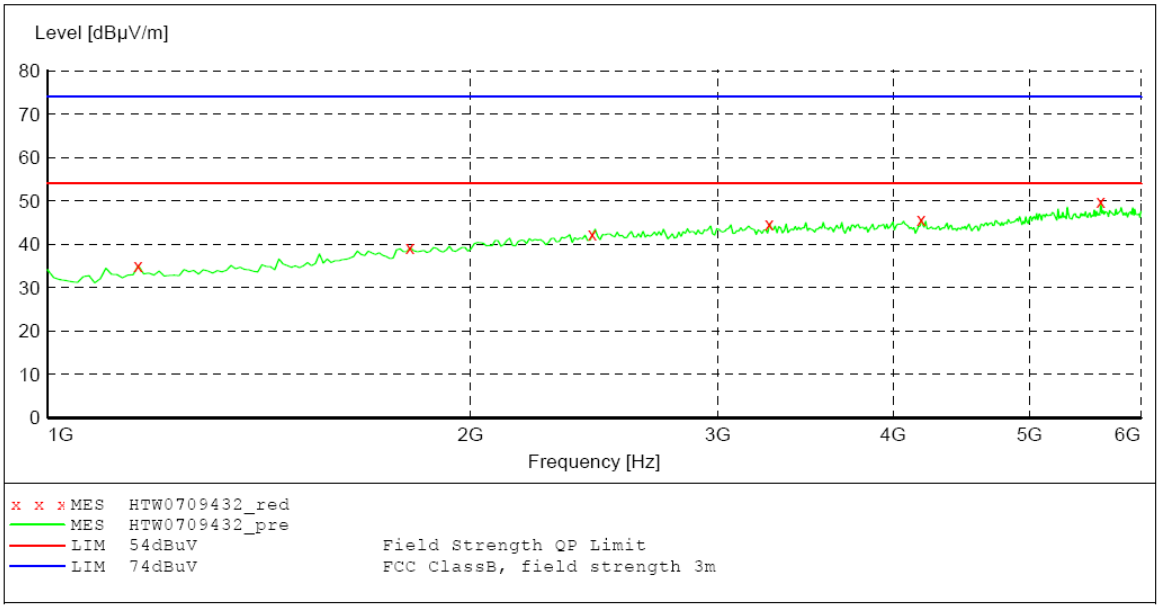
MEASUREMENT RESULT: "HTW0715307_fin"

7/15/2013 7:32PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
71.710000	33.30	-19.6	40.0	6.7	QP	100.0	183.00	VERTICAL
167.740000	29.70	-17.0	43.5	13.8	QP	100.0	90.00	VERTICAL
215.270000	29.70	-15.0	43.5	13.8	QP	100.0	77.00	VERTICAL
431.580000	34.60	-9.6	46.0	11.4	QP	100.0	264.00	VERTICAL
480.080000	36.50	-8.0	46.0	9.5	QP	100.0	274.00	VERTICAL
931.130000	40.80	3.2	46.0	5.2	QP	100.0	341.00	VERTICAL

SWEEP TABLE: "test (1G-18G) P"

Short Description:					Field Strength(1G-18G)
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	HF906 2011



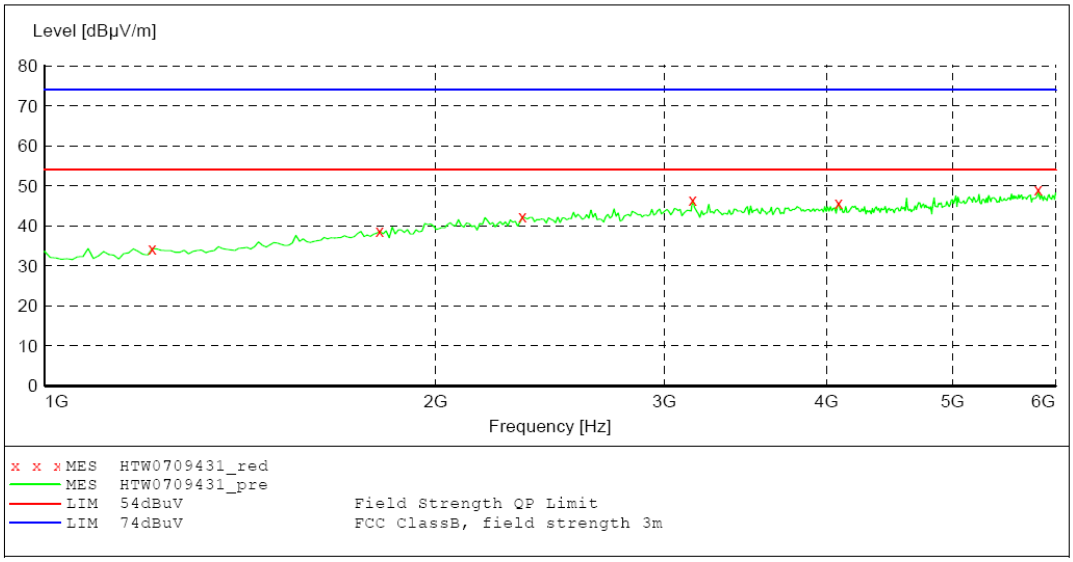
MEASUREMENT RESULT: "HTW0709432_red"

7/9/2013 7:58PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1160.320641	35.10	-8.4	54.0	18.9	PK	100.0	359.00	VERTICAL
1811.623246	39.30	-3.0	54.0	14.7	PK	100.0	103.00	VERTICAL
2442.885772	42.30	0.6	54.0	11.7	PK	100.0	20.00	VERTICAL
3264.529058	44.80	2.4	54.0	9.2	PK	100.0	193.00	VERTICAL
4186.372745	45.80	3.5	54.0	8.2	PK	100.0	207.00	VERTICAL
5619.238477	49.90	6.8	54.0	4.1	PK	100.0	17.00	VERTICAL

SWEEP TABLE: "test (1G-18G) P"

Short Description:					Field Strength(1G-18G)
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
1.0 GHz	18.0 GHz	MaxPeak	Coupled	1 MHz	HF906 2011



MEASUREMENT RESULT: "HTW0709431_red"

7/9/2013 7:56PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
1210.420842	34.40	-8.0	54.0	19.6	PK	100.0	199.00	HORIZONTAL
1811.623246	38.70	-3.0	54.0	15.3	PK	100.0	272.00	HORIZONTAL
2332.665331	42.30	0.2	54.0	11.7	PK	100.0	268.00	HORIZONTAL
3154.308617	46.50	2.3	54.0	7.5	PK	100.0	18.00	HORIZONTAL
4086.172345	45.70	3.6	54.0	8.3	PK	100.0	190.00	HORIZONTAL
5819.639279	49.00	7.1	54.0	5.0	PK	100.0	353.00	HORIZONTAL

5. Test Setup Photos of the EUT

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