Shenzhen Huatongwei International Inspection Co., Ltd.
Keji S,12th , Road, Hi-tech Industrial Park, Shenzhen, Guangdong, China
Phone:86-755-26748099 Fax:86-755-26748089 http://www.szhtw.com.cn

CNASL1225

FCC TEST REPORT

47 CFR FCC Part 15.249

Report Reference No.....:	**TRE1111010802**
FCC ID.....:	**X66-WMS01**
Compiled by (position+printed name+signature)..:	File administrators Tim Zhang
Supervised by (position+printed name+signature)..:	Test Engineer Eric Zhang
Approved by (position+printed name+signature)..:	Manager Wenliang Li
Date of issue.....:	Feb 29, 2012
Testing Laboratory Name .....:	**Shenzhen Huatongwei International Inspection Co., Ltd**
Address.....:	Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Applicant's name.....:	**Beijing Hitevision Digital Media Technology Co., Ltd.**
Address.....:	No 1 Building，Hong Hui Industrial Park，Liu Xian No 2 Road，Bao An District
Manufacturer's name .....:	**Beijing Hitevision Digital Media Technology Co., Ltd.**
Address.....:	No 1 Building，Hong Hui Industrial Park，Liu Xian No 2 Road，Bao An District
Test specification:	
Standard .....:	**47 CFR FCC Part 15 Subpart C & 15.249**
	ANSI C63.10: 2009
TRF Originator.....:	Shenzhen Huatongwei International Inspection CO., Ltd
Master TRF.....:	Dated 2006-06

Equipment Under Test ..... :	**Wireless Microphone Suite**
Trade Mark .....:	/
Model/Type reference.....:	HV-M300
Listed Models .....:	QA-HV-MTMR, TMR-010
Result.....:	Complied

T E S T R E P O R T

Test Report No. :	TRE1111010802	Feb 29, 2012 Date of issue

Equipment under Test	:	Wireless Microphone Suite
Model /Type	:	HV-M300
Listed Models	:	QA-HV-MTMR, TMR-010
Applicant	:	Beijing Hitevision Digital Media Technology Co., Ltd..
Address	:	No 1 Building，Hong Hui Industrial Park，Liu Xian No 2 Road，Bao An District
Manufacturer	:	Beijing Hitevision Digital Media Technology Co., Ltd..
Address	:	No 1 Building，Hong Hui Industrial Park，Liu Xian No 2 Road，Bao An District

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 Rules Part 15.249: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0 - 24.25 GHz.

ANSI C63.10: 2009 – American National Standard for Teating Unlicensed Wireless Devices

2. SUMMARY

2.1. General Remarks

Date of receipt of test sample : Nov 25, 2011

Testing commenced on : Nov 25, 2011

Testing concluded on : Feb 29, 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)

/

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

2.4GHz (Wireless Microphone).

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: **X66-WMS01** filing to comply with Section 15.249 of the FCC Part 15, Subpart C Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.

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: August 02, 2007. 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 to 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 July 01, 2009.

IC-Registration No.: 5377

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. 5377 on Jan 24th, 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 17025:2005 or equivalent. The laboratory also fulfils the conditions described in Nemko Document NLA-10, the Authorization is valid through July 07, 2014.

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.: R-2484. Date of Registration: December 20, 2009. Valid time is until December 19, 2012.

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: December 20, 2009. Valid time is until December 19, 2012.

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 24 Aug, 2013.

3.3. 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 Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	0.09~30MHz	3.85dB	(1)
Radiated Emission	30~1000MHz	4.22dB	(1)
Radiated Emission	1~12.75GHz	4.35dB	(1)
99% Bandwidth	/	0.25dB	(1)
Deactivation Time	/	0.5ms	(1)

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

3.4. Summary of standards and result

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.109, §15.205(a), §15.209(a), 15.249(a), §15.249(c), §15.35	Radiated Emissions	Compliance
§15.249(d)	Out of Band Emissions	Compliance
§15.215(c)	20 dB Bandwidth	Compliance

NOTE: (1) The detailed test rusult please see section 4.
(2) The test report merely corresponds to the test sample.
(3) It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

3.5. Environmental conditions

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

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 950-1050mbar

3.6. Equipments Used during the Test

Radiated Emissions / Out of Band Emissions					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Loop Antenna	ROHDE & SCHWARZ	HFH2-Z2	100020	2011/10/23
2	Ultra-Broadband Antenna	ROHDE & SCHWARZ	HL562	100015	2011/10/23
3	Double-Ridged-Waveguide Horn Antenna	ROHDE & SCHWARZ	HF906	100039	2011/10/23
4	Horn Antenna	SCHWARZBECK	BBHA9170	25841	2011/10/23
5	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESI 26	100009	2011/10/23
6	RF TEST PANEL	ROHDE & SCHWARZ	TS / RSP	335015/ 0017	2011/10/23
7	TURNTABLE	ETS	2088	2149	2011/10/23
8	ANTENNA MAST	ETS	2075	2346	2011/10/23
9	EMI TEST SOFTWARE	ROHDE & SCHWARZ	ESK1	N/A	2011/10/23

20 dB Bandwidth					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCI	100106	2011/10/23

4. TEST CONDITIONS AND RESULTS

4.1. ANTENNA REQUIREMENT

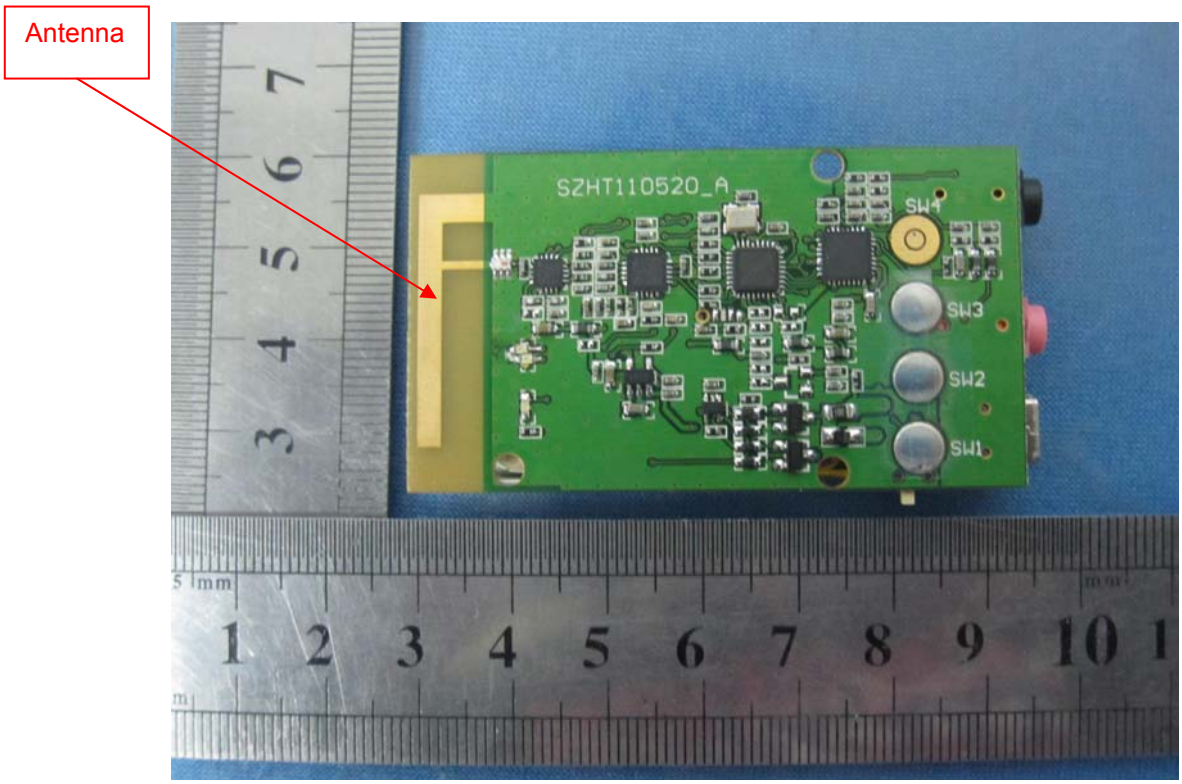
According to FCC Part 15C § 15.203,

a), An intentional radiator shall be de-signed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
b), The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

The EUT use of a Integral antenna，Please refer to the EUT Internal photos.

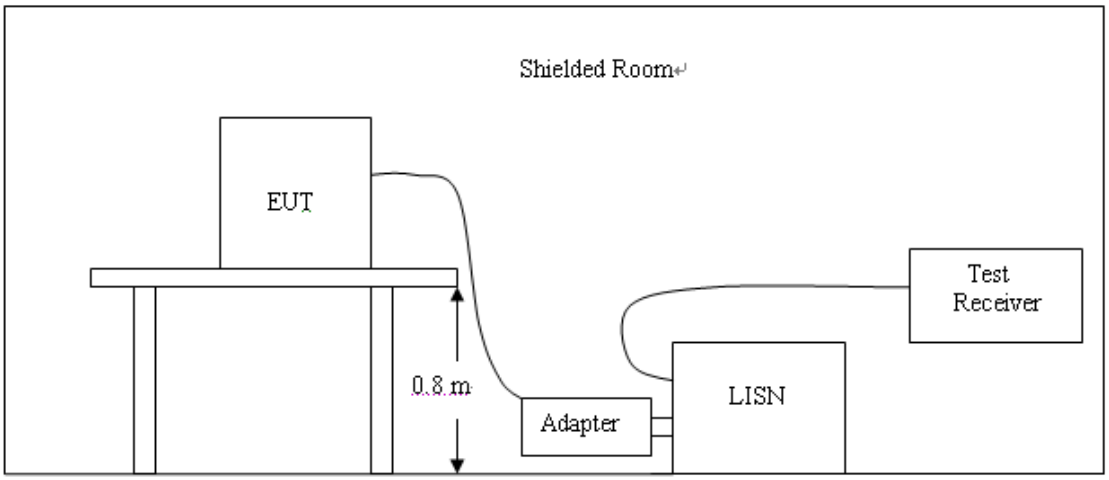
The EUT complied the antenna requirement.

Please refer to the EUT photos.



4.2. 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 Weather station Transmitter; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
2 Support equipment, if needed, was placed as per ANSI C63.10.
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4 All support equipments received AC power from a second LISN, if any.
5 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.
6 Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
7 During the above scans, the emissions were maximized by cable manipulation.

CONDUCTED LIMIT

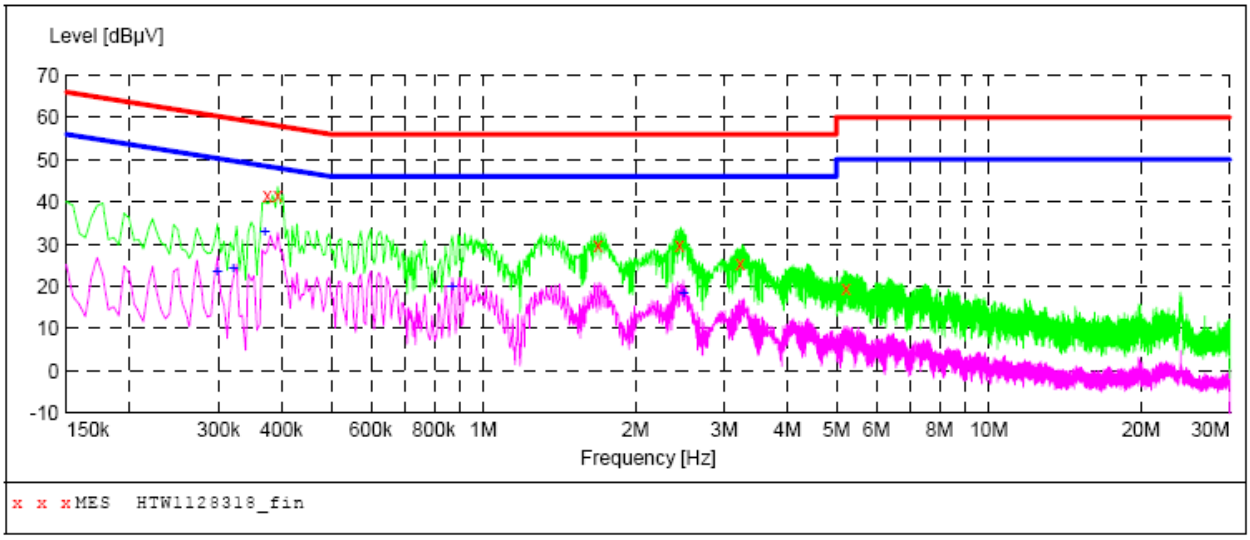
According to FCC Subpart 15 B § 15.207 AC Conducted Emission Limits is as following：

Frequency fange (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.1~ 0.5	66 to 56*	56 to 46*
0.5 ~ 5	56	46
5 ~ 30	60	50
* Decreasing linearly with the logarithm of the frequency		

TEST RESULTS

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

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "HTW1128318_fin"

11/28/2011 4:03PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.375000	41.50	10.1	58	16.9	QP	L1	GND
0.393000	41.60	10.1	58	16.4	QP	L1	GND
1.689000	29.70	10.2	56	26.3	QP	L1	GND
2.449500	30.00	10.2	56	26.0	QP	L1	GND
3.228000	25.30	10.2	56	30.7	QP	L1	GND
5.226000	19.60	10.2	60	40.4	QP	L1	GND

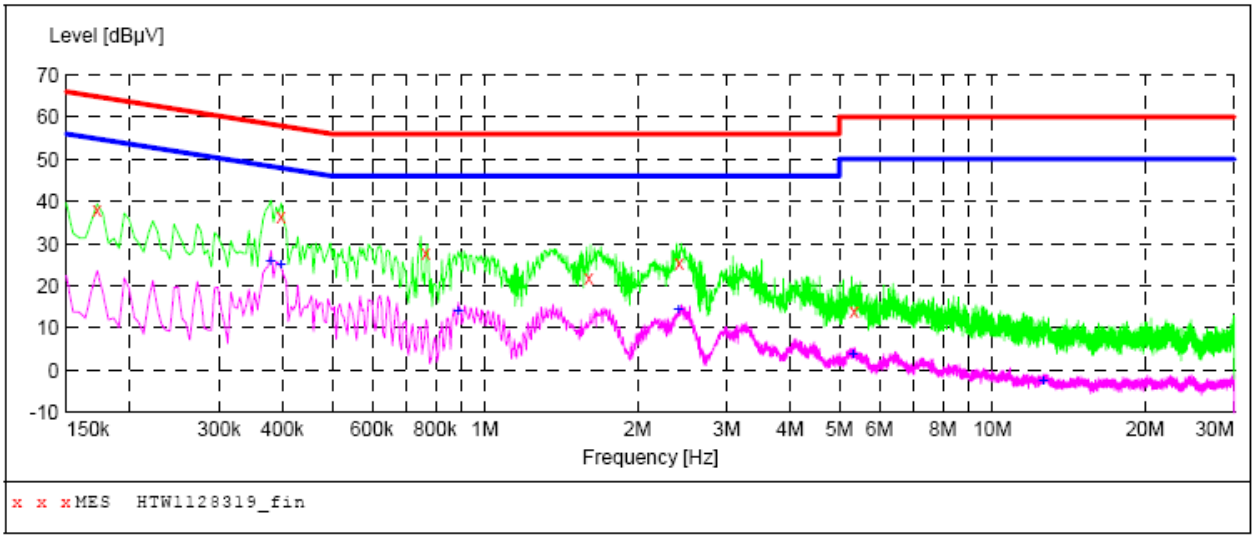
MEASUREMENT RESULT: "HTW1128318_fin2"

11/28/2011 4:03PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.298500	23.70	10.1	50	26.6	AV	L1	GND
0.321000	24.10	10.1	50	25.6	AV	L1	GND
0.370500	32.90	10.1	49	15.6	AV	L1	GND
0.870000	19.90	10.1	46	26.1	AV	L1	GND
2.499000	18.50	10.2	46	27.5	AV	L1	GND

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

Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "HTW1128319_fin"

11/28/2011 4:06PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.172500	37.90	10.1	65	26.9	QP	N	GND
0.397500	36.40	10.1	58	21.5	QP	N	GND
0.766500	27.90	10.1	56	28.1	QP	N	GND
1.603500	22.00	10.2	56	34.0	QP	N	GND
2.418000	25.50	10.2	56	30.5	QP	N	GND
5.343000	13.90	10.2	60	46.1	QP	N	GND

MEASUREMENT RESULT: "HTW1128319_fin2"

11/28/2011 4:06PM

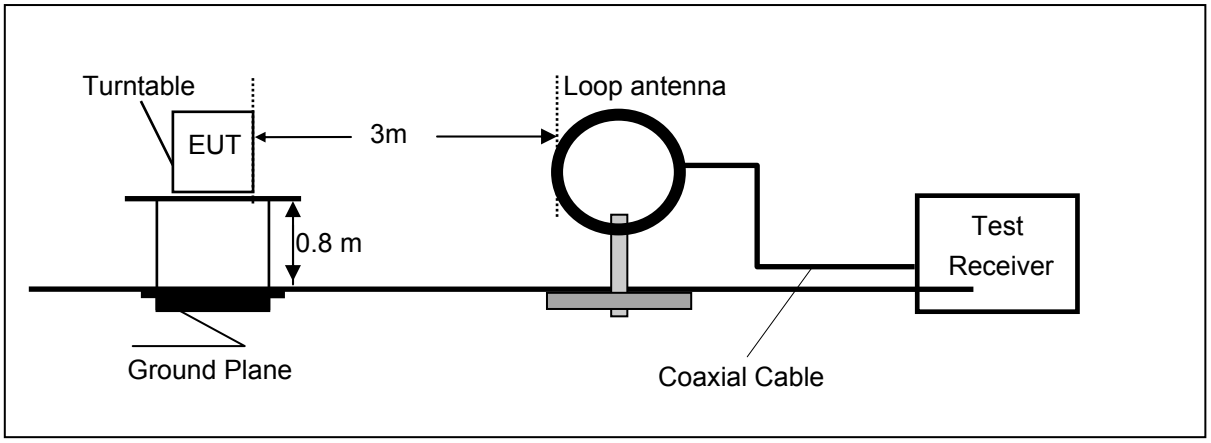
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.379500	25.80	10.1	48	22.5	AV	N	GND
0.397500	25.10	10.1	48	22.8	AV	N	GND
0.888000	14.00	10.1	46	32.0	AV	N	GND
2.413500	14.50	10.2	46	31.5	AV	N	GND
5.325000	3.80	10.2	50	46.2	AV	N	GND
12.615000	-2.40	10.4	50	52.4	AV	N	GND

4.3. Radiated Emission Test

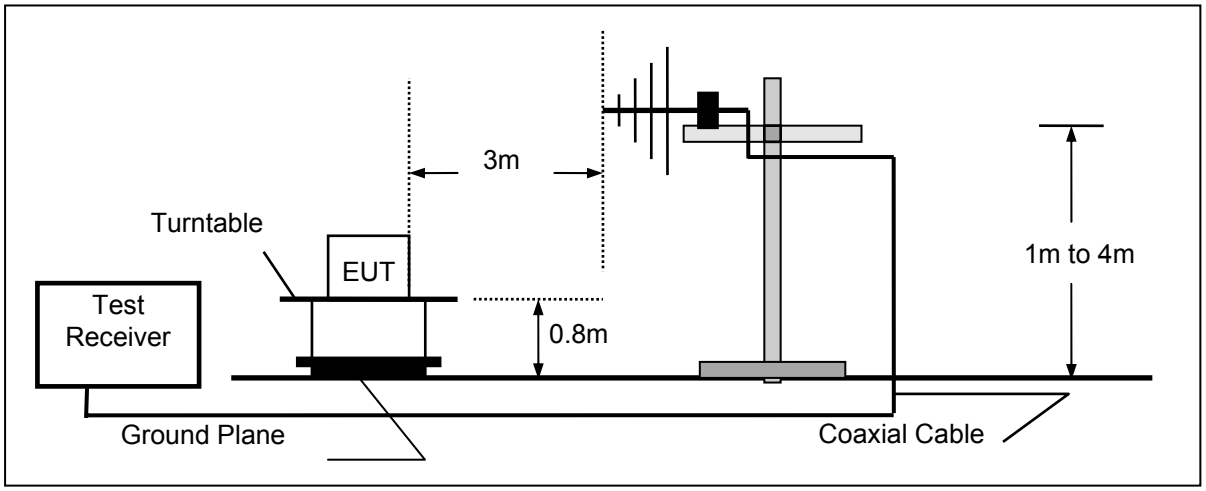
TEST CONFIGURATION

Radiated Emission Test Set-Up

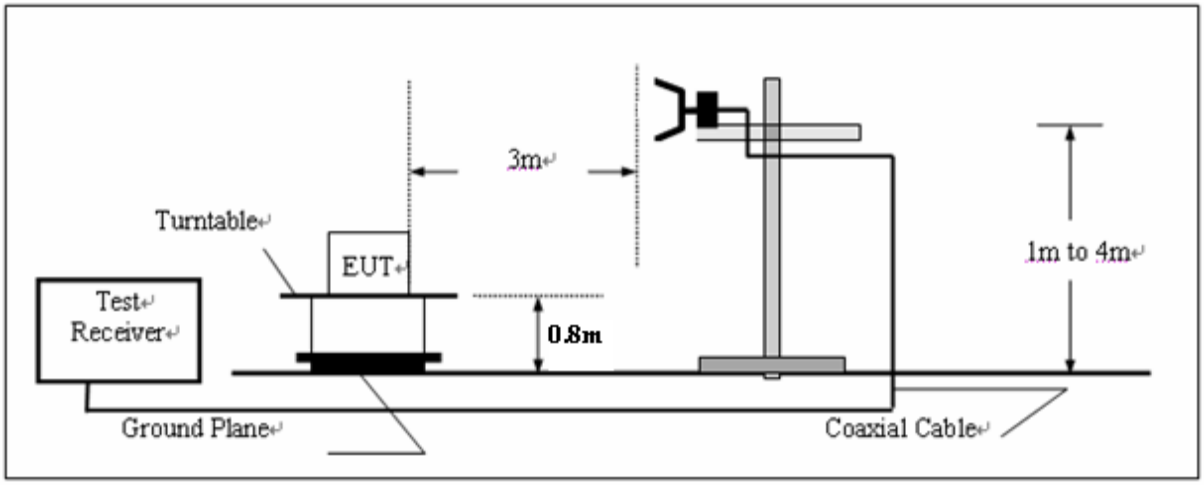
Frequency range 9KHz – 30MHz



Frequency range 30MHz – 1000MHz



Frequency range above 1GHz-25GHz



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 fundamental frequency is 2.45GHz and the lowest crystal frequency is 16MHz, So the radiation emissions frequency range were tested from 9KHz to 25GHz.

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.

As per §15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

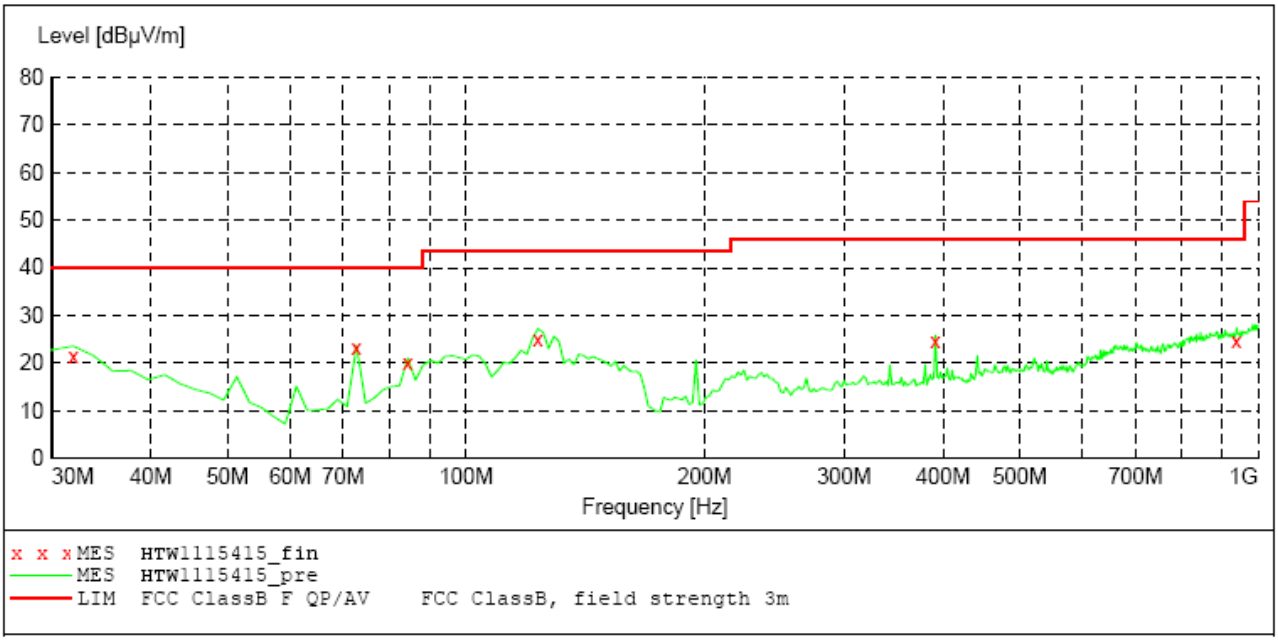
As per §15.249 (c), Field strength limits are specified at a distance of 3 meters.

TEST RESULTS

For 30MHz to 1000MHz

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
```



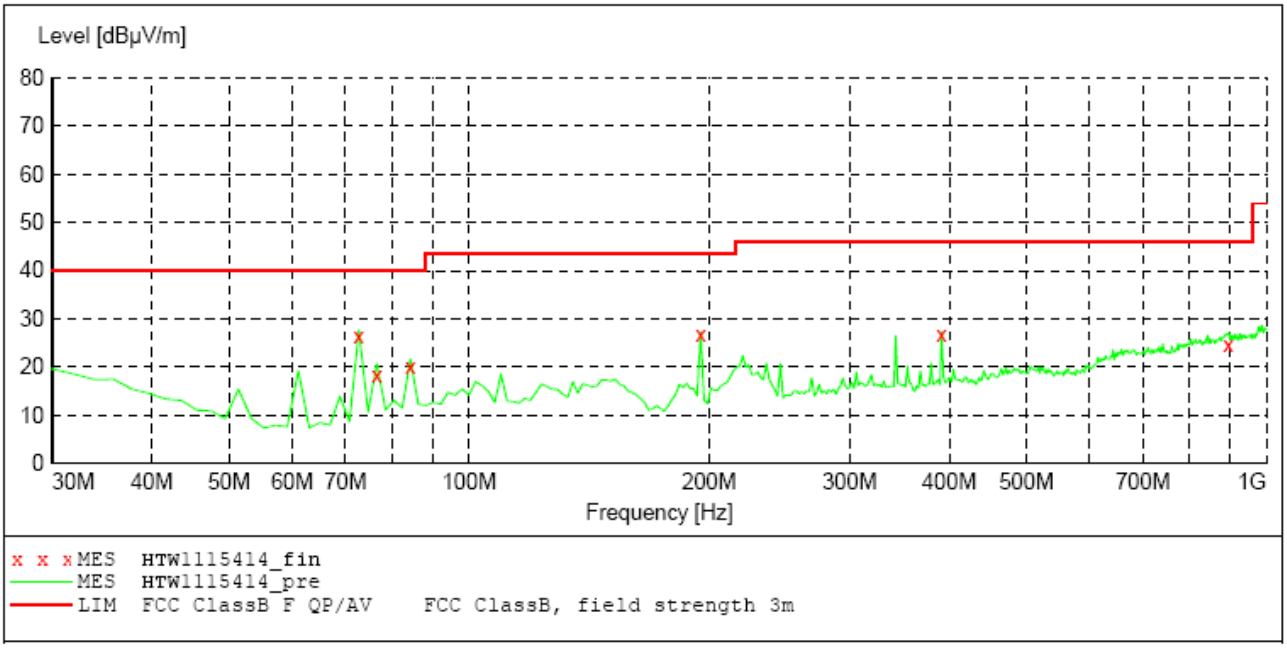
MEASUREMENT RESULT: "HTW1115415_fin"

11/27/2011 9:16AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
31.940000	20.60	-11.9	40.0	19.4	QP	100.0	45.00	VERTICAL
72.760000	22.70	-22.3	40.0	17.3	QP	100.0	164.00	VERTICAL
84.420000	19.90	-20.8	40.0	20.1	QP	100.0	113.00	VERTICAL
123.300000	25.30	-19.2	43.5	18.2	QP	100.0	231.00	VERTICAL
391.560000	24.10	-15.5	46.0	21.9	QP	100.0	202.00	VERTICAL
939.730000	24.50	-7.8	46.0	21.5	QP	100.0	81.00	VERTICAL

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: "HTW1115414_fin"

11/27/2011 8:57AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
72.760000	26.70	-22.3	40.0	13.3	QP	300.0	172.00	HORIZONTAL
76.650000	18.40	-21.9	40.0	21.6	QP	300.0	129.00	HORIZONTAL
84.420000	19.90	-20.8	40.0	20.1	QP	300.0	158.00	HORIZONTAL
195.230000	26.30	-21.5	43.5	17.2	QP	100.0	245.00	HORIZONTAL
391.560000	26.40	-15.5	46.0	19.6	QP	100.0	101.00	HORIZONTAL
896.970000	24.80	-7.5	46.0	21.2	QP	100.0	154.00	HORIZONTAL

REMARKS：

1. ∗Undetectable
2. 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
3.The Transd=Cabel loss +Antenna factor -pre-amplifier factor
4. The pre-test have done for the EUT in three axes and found the worst emission at position shown in test setup photos. The worst case data is recorded in the report.

Radiated emission of fundamental emission

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
2402	105.94	114	8.06	PK	Horizontal
2402	91.52	94	2.48	AV	Horizontal
2402	102.90	114	11.1	PK	Vertical
2402	90.23	94	3.77	AV	Vertical

Spurious radiated emission

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
25	30.11	69.54	39.43	QP	/
4804.56	56.52	74	17.48	PK	Horizontal
4804.56	45.86	54	8.14	AV	Horizontal
7206.25	57.52	74	16.48	PK	Horizontal
7206.25	46.20	54	7.8	AV	Horizontal
4804.56	57.25	74	16.75	PK	Vertical
4804.56	45.59	54	8.41	AV	Vertical
7206.25	58.58	74	15.42	PK	Vertical
7206.25	44.41	54	9.59	AV	Vertical

Radiated emission of fundamental emission

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
2440	104.20	114	9.80	PK	Horizontal
2440	90.21	94	3.79	AV	Horizontal
2440	102.56	114	11.44	PK	Vertical
2440	90.04	94	3.96	AV	Vertical

Spurious radiated emission

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
21	31.54	69.54	38.00	QP	/
4880.32	55.75	74	18.25	PK	Horizontal
4880.32	44.52	54	9.48	AV	Horizontal
7320.27	56.52	74	17.48	PK	Horizontal
7320.27	45.75	54	8.25	AV	Horizontal
4880.32	57.52	74	16.48	PK	Vertical
4880.32	45.85	54	8.15	AV	Vertical
7320.27	57.79	74	16.21	PK	Vertical
7320.27	44.57	54	9.43	AV	Vertical

Radiated emission of fundamental emission

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
2480	92.83	114	21.17	PK	Horizontal
2480	80.25	94	14.75	AV	Horizontal
2480	91.72	114	22.28	PK	Vertical
2480	80.24	94	13.76	AV	Vertical

Spurious radiated emission

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
22	31.85	69.54	37.69	QP	/
4960.21	55.52	74	18.48	PK	Horizontal
4960.21	43.41	54	10.59	AV	Horizontal
7440.65	55.69	74	18.31	PK	Horizontal
7440.65	44.52	54	9.48	AV	Horizontal
4960.21	56.52	74	17.48	PK	Vertical
4960.21	46.54	54	7.46	AV	Vertical
7440.65	57.52	74	16.48	PK	Vertical
7440.65	46.59	54	7.41	AV	Vertical

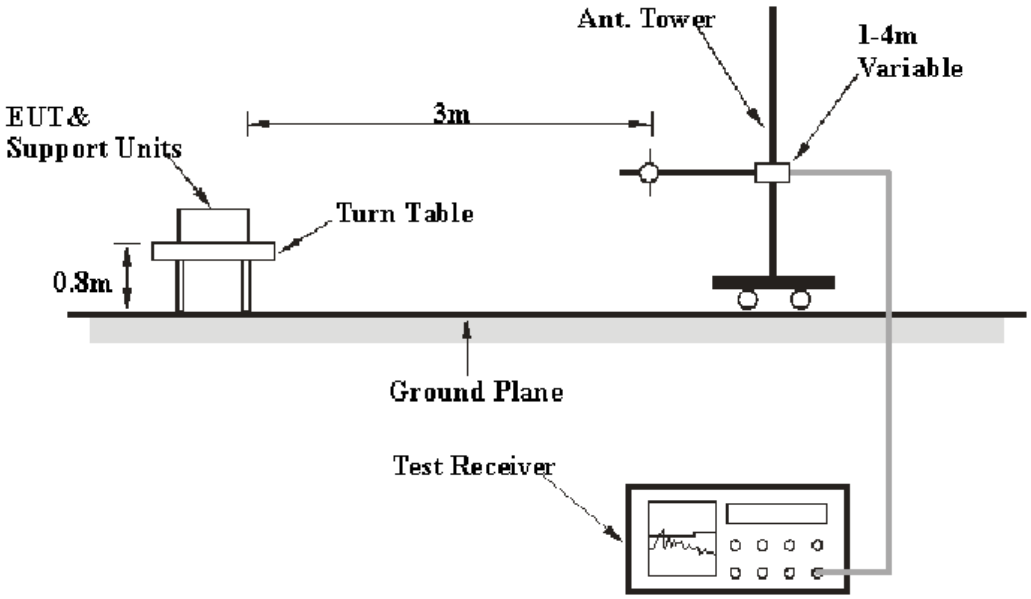
4.4. Out of band emissions

TEST PROCEDURE

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.4 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 1MHz and VBM to 3MHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.

The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBM to 300 KHz, to measure the conducted peak band edge.

EUT Setup



LIMIT

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

TEST RESULTS

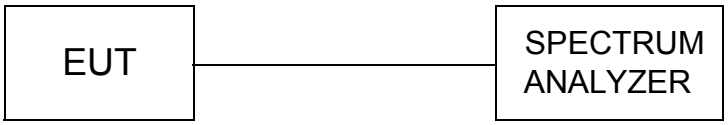
Test Mode: Transmitting

Frequency (MHz)	Corrected Reading (dBμV/m)@3m	FCC Limit (dBμV/m) @3m	Margin (dB)	Detector	Polari-zation
Out of left side band					
2385.00	68.29	74	5.71	PK	Horizontal
2385.00	50.52	54	3.48	AV	Horizontal
2390.00	66.26	74	7.74	PK	Vertical
2390.00	50.85	54	3.15	AV	Vertical
Out of right side band					
2483.50	72.52	74	1.48	PK	Horizontal
2483.50	52.25	54	1.75	AV	Horizontal
2483.50	71.00	74	3.00	PK	Vertical
2483.50	52.54	54	1.46	AV	Vertical

Note: The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in Section 15.209.

4.5. 20dB Bandwidth Measurement

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The spectrum analyzer center frequency is set to the transmitter frequency. The RBW is set to 100 KHz and VBW is set 300 KHz.

LIMIT

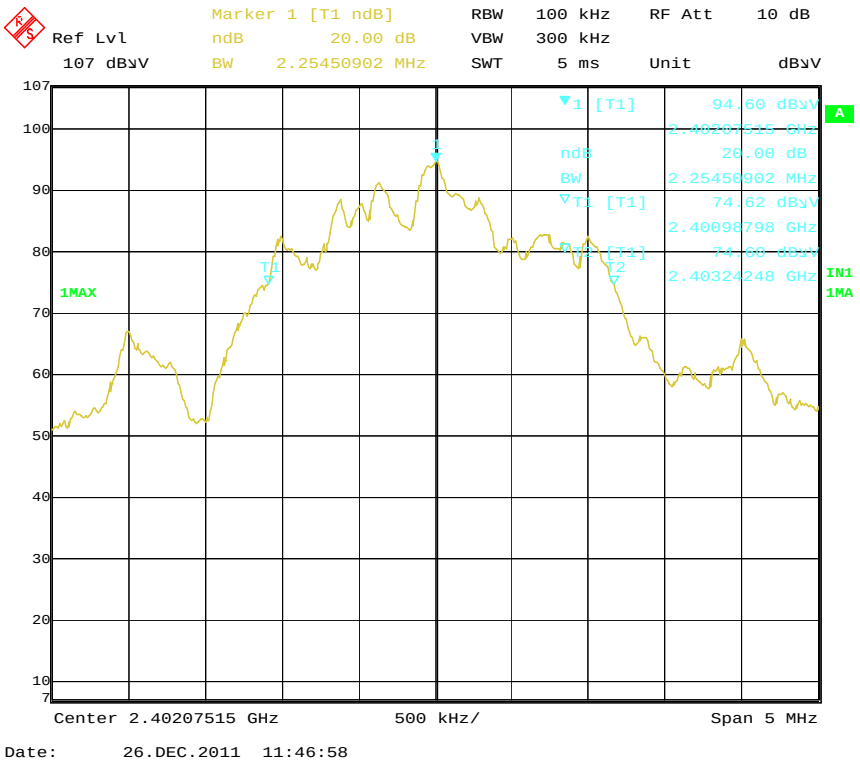
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

The 20dB bandwidth shall be no wider than 0.25% of the centre frequency for devices operating between 70-900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the centre frequency.

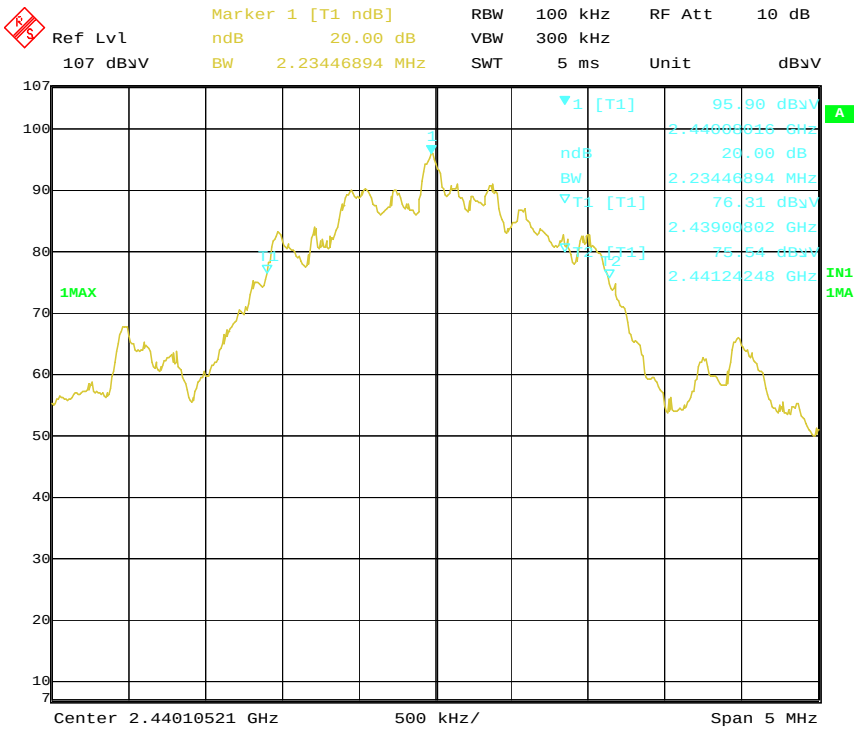
TEST RESULTS

20dB Bandwidth Measurement Result			
Operating Frequency(MHz)	**Bandwidth(MHz)**	**Limits(MHz)**	**Result**
2402	**2.255**	**12.01**	**PASS**
2440	**2.234**	**12.20**	**PASS**
2480	**2.244**	**12.40**	**PASS**

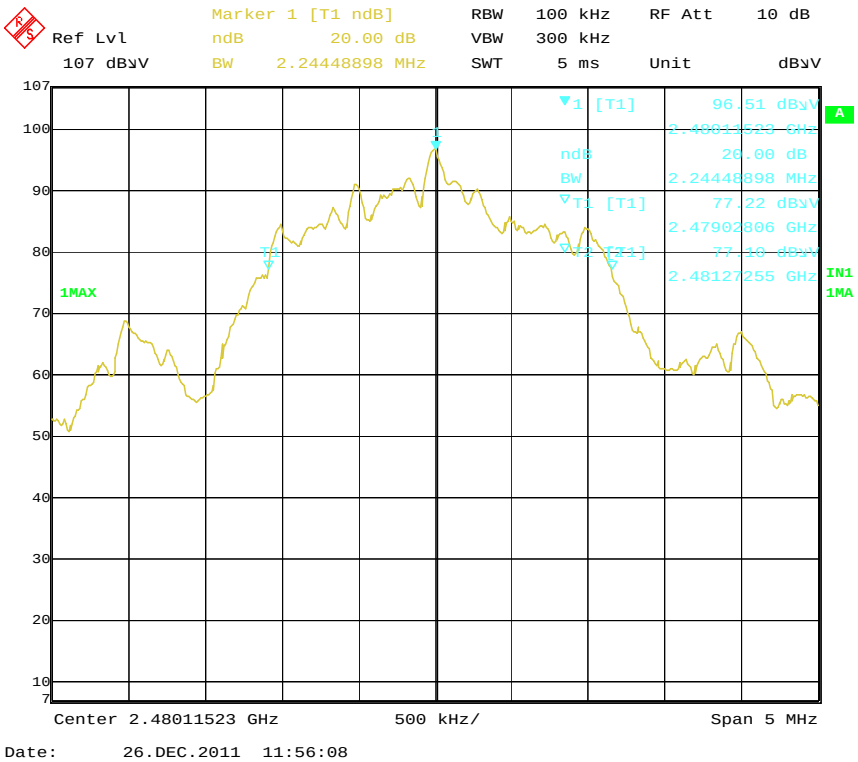
Measurement Result @The Channel 2402MHz



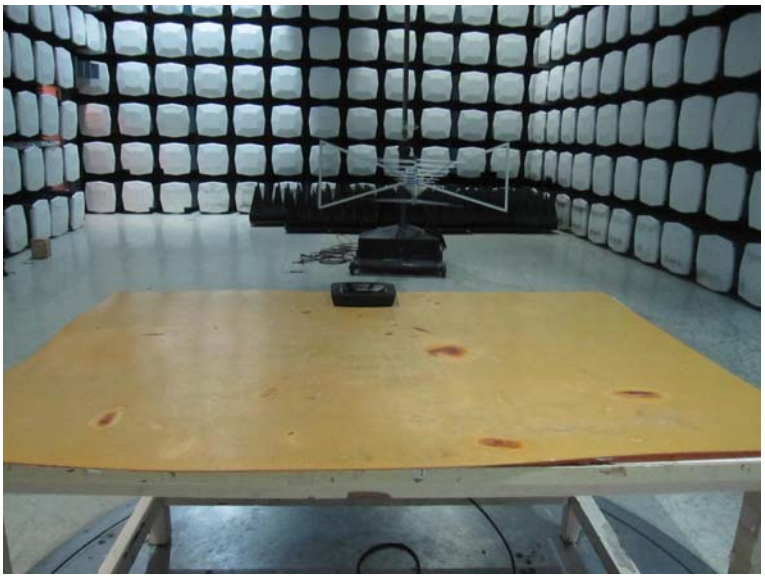
Measurement Result @The Channel 2440MHz

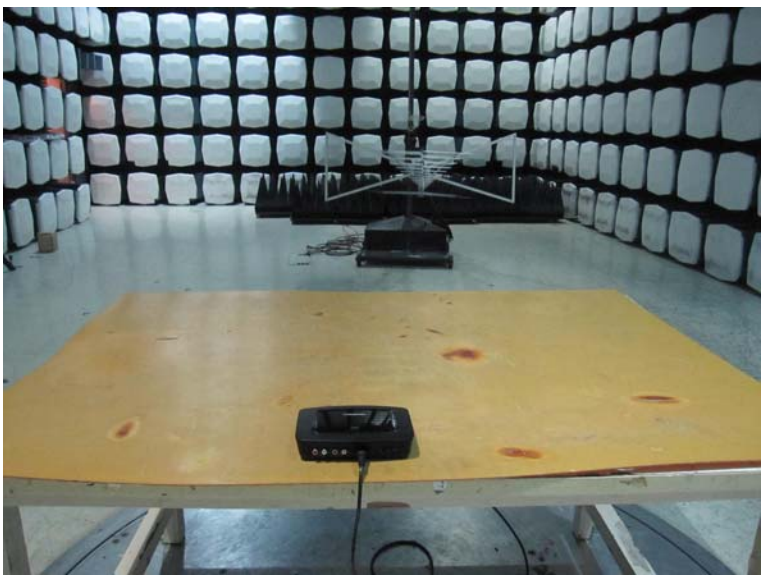


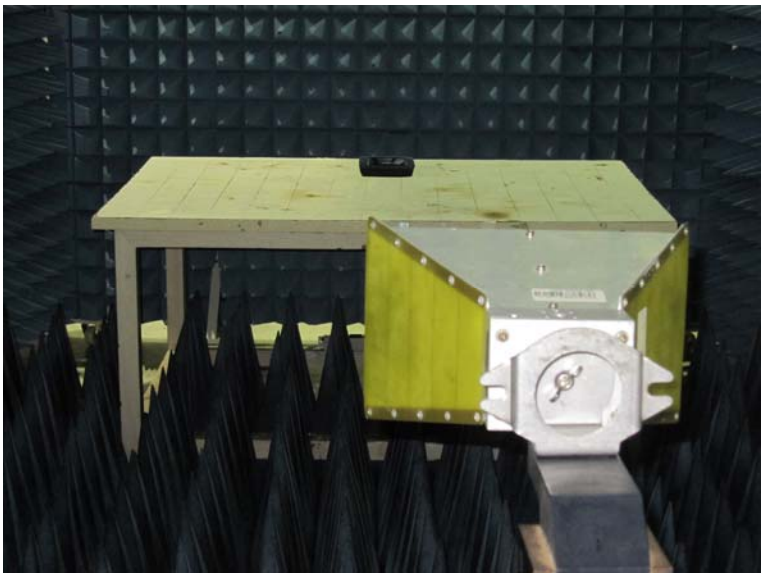
Measurement Result @The Channel 2480MHz



5. Test Setup Photos of the EUT



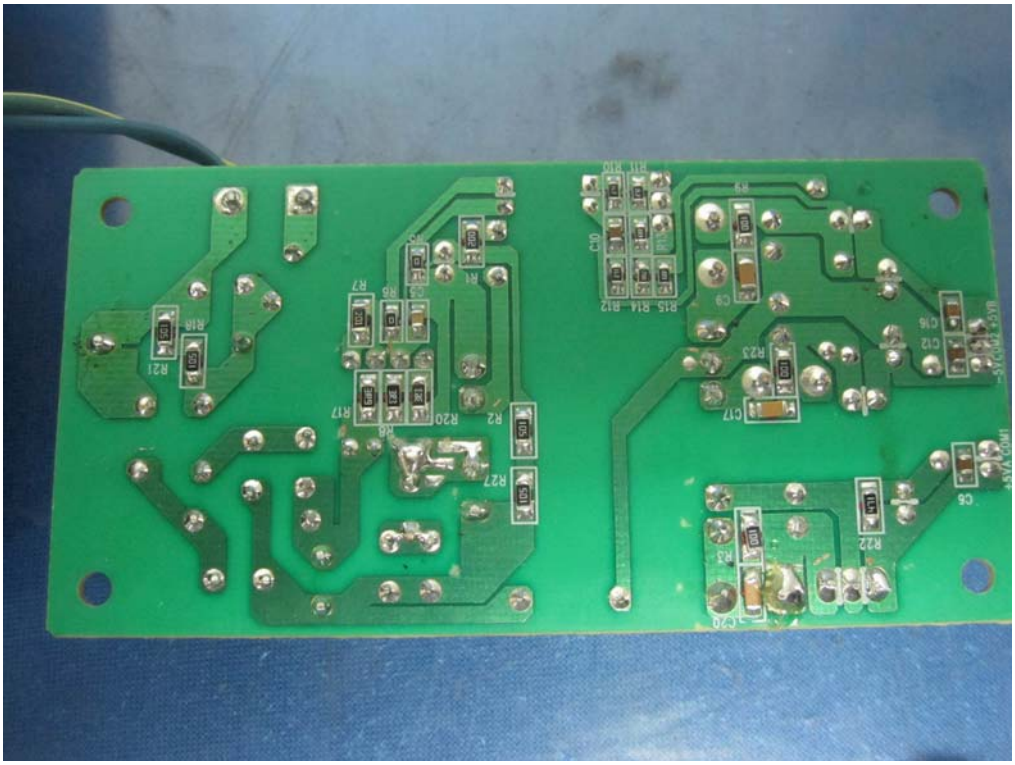


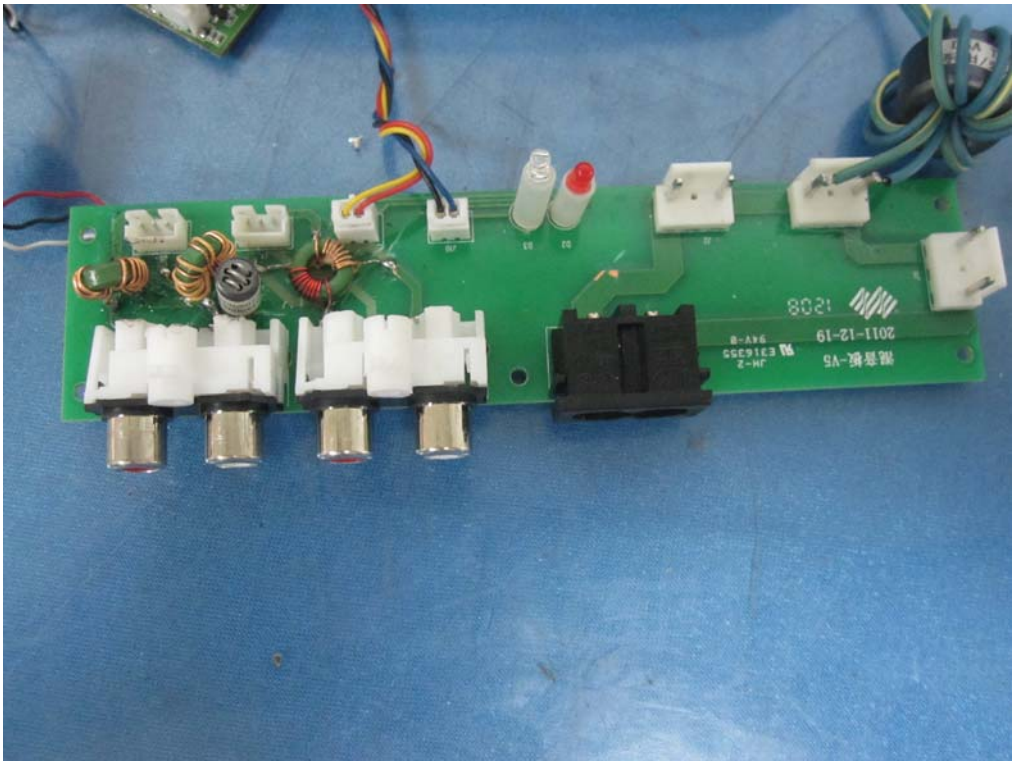


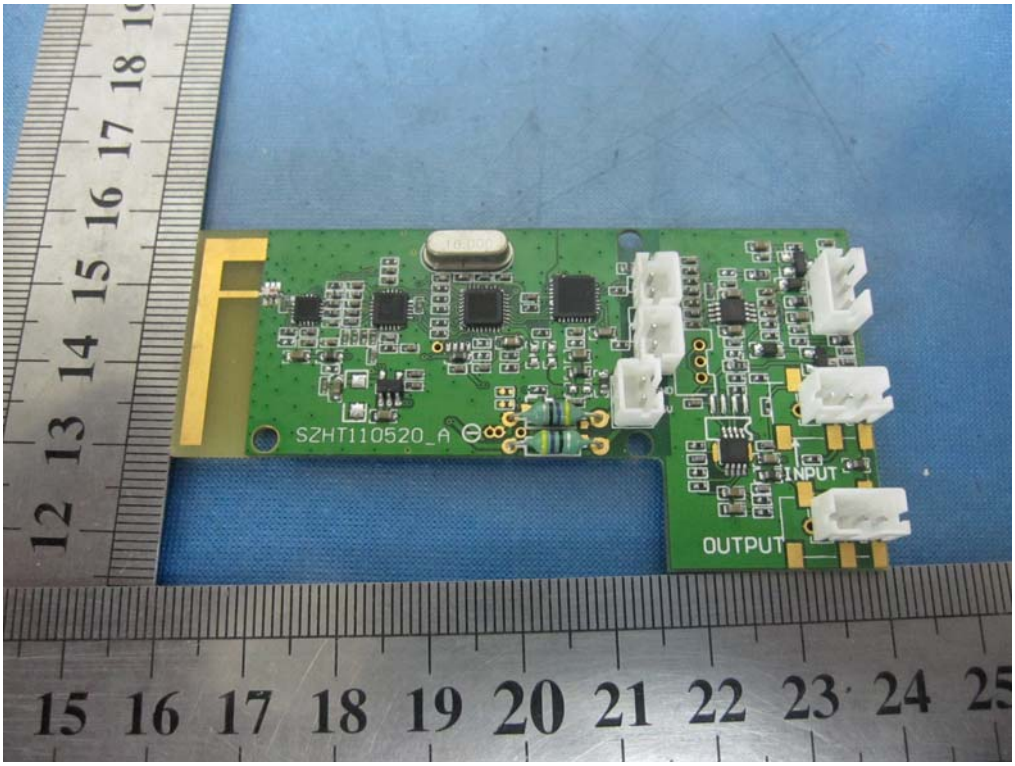
6. External and Internal Photos of the EUT

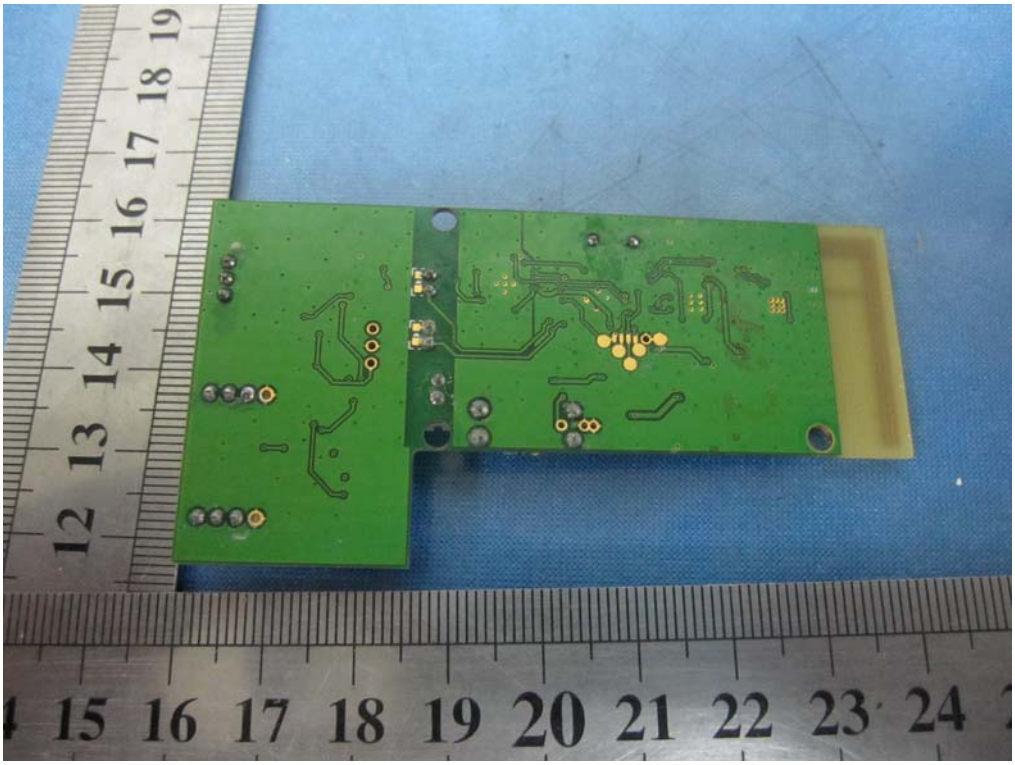
External Photos

Internal Photos






SZHT110520_A
INPUT
OUTPUT



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