Shenzhen Huatongwei International Inspection Co., Ltd.
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FCC PART 15 SUBPART C TEST REPORT

FCC PART 15.247

Report Reference No.....:	**WE08110001**
Compiled by (position+printed name+signature)..:	File administrators Tracy Qi
Supervised by (position+printed name+signature)..:	Test Engineer Tracy Qi
Approved by (position+printed name+signature)..:	Manager Jimmy Li
Date of issue.....:	Nov 20, 2008
Testing Laboratory Name .....:	**Shenzhen Huatongwei International Inspection Co., Ltd**
Address.....:	Keji Nan No.12 Road, Hi-tech Park, Shenzhen, China
Applicant's name.....:	**Invengo Information Technology Co., Ltd.**
Address.....:	3/F, No T2-B, High-Tech Industrial Park South, Shenzhen, China
Test specification:	
Standard .....:	**FCC Part 15.247: Operation within the bands 920-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz Direct Sequence System**
TRF Originator.....:	Shenzhen Huatongwei International Inspection CO., Ltd
Master TRF.....:	Dated 2006-06

Test item description ..... :	Reader
FCC ID.....	TQ4YWGIT-R5678904
Trade Mark .....:	/
Model/Type reference.....:	XCRF-502E
Listed Models .....:	/
Antenna Designation	Dedicated Antenna with 6 dB Gain (Replace by end user is not permitted)
Result.....:	**Positive**

T E S T R E P O R T

Test Report No. :	WE08110001	Nov 20, 2008 Date of issue

Equipment under Test	:	Reader
Model /Type	:	XCRF-502E
Listed Models	:	/
Applicant	:	Invengo Information Technology Co., Ltd.
Address	:	3/F, No T2-B, High-Tech Industrial Park South, Shenzhen, China

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

Contents

1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

2 . SUMMARY

2.1. General Remarks

Date of receipt of test sample : Nov 11, 2008

Testing commenced on : Nov 13, 2008

Testing concluded on : Nov 19, 2008

2.2. Equipment Under Test

Power supply system utilised

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

/

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

902~928 MHz lower power, RFID reader, It is designed by way of utilizing the FHSS technology to achieve the system operation.

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. EUT configuration

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

o - supplied by the manufacturer

o - supplied by the lab

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

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

This submittal(s) (test report) is intended for FCC ID: TQ4YWGIT-R5678904 filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.7. 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 (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: August 02, 2007. Valid time is until March 04, 2009.

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 from Aug 24, 2005 to Sept 30, 2009.

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 September 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 November 28th, 2005.

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 April 25, 2009.

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, 2006. Valid time is until December 19, 2009.

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, 2006. Valid time is until December 19, 2009.

IECEE CB

Shenzhen Huatongwei International Inspection Co Ltd has been assessed and determined to fully comply with the requirements of ISO/IEC 17025: 2005-05, The Basic Rules, IECEE 01: 2006-10 and Rules of Procedure IECEE 02: 2006-10, and the relevant IECEE CB-Scheme Operational Documents.
It is therefore entitled to operate as a CB Testing Laboratory under the responsibility of Nemko A/S. This certificate remains valid until May 25th 2009 at which time it will be reissued by the IECEE Executive Secretary upon successful completion of the normally scheduled 3-year Reassessment Program administered by the IECEE CB Scheme.

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 09 July, 2010.

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. Configuration of Tested System

Fig. 2-1 Configuration of Tested System

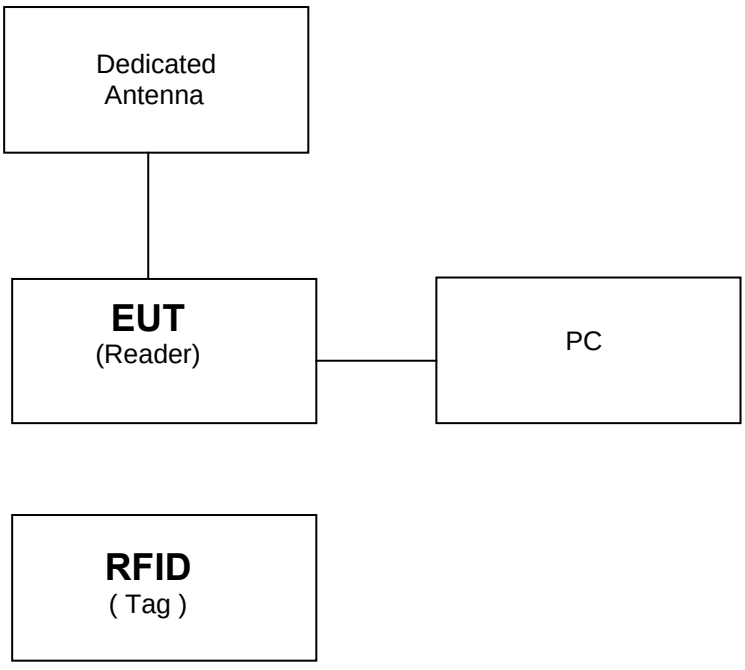


Table 2-1 Equipment Used in Tested System

No.	Product	Manufacturer	Model No.	Serial No.	FCC ID
1	PC	DELL	DIMENSION 2350	OD0120	DoC

3.5. Test Description

FCC PART 15		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.247	Channel Separation	PASS
FCC Part 15.247	Hopping Channels	PASS
FCC Part 15.247	20dB Bandwidth	PASS
FCC Part 15.247(b)	Maximum Peak Output Power	PASS
FCC Part 15.247	Operation Frequency	PASS
FCC Part 15.247	Spurious Emission	PASS
FCC Part 15.109/ 15.205/ 15.209	Radiated Emissions	PASS
FCC Part 15.247	Out of Band Emission and Restricted Band Radiation	PASS
FCC Part 15.247	Dwell Time	PASS

Remark: The measurement uncertainty is not included in the test result.

3.6. 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	4.22dB	(1)
Radiated Emission	1~12.75GHz	4.35dB	(1)
Conducted Disturbance	0.15~30MHz	3.29dB	(1)

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

3.7. Equipments Used during the Test

AC Power Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCS30	100038	2008/11
2	ARTIFICIAL MAINS	ROHDE & SCHWARZ	ESH2-Z5	100028	2008/11
3	PULSE LIMITER	ROHDE & SCHWARZ	ESHSZ2	100044	2008/11
4	EMI TEST SOFTWARE	ROHDE & SCHWARZ	ES-K1 1.71	N/A	2008/11

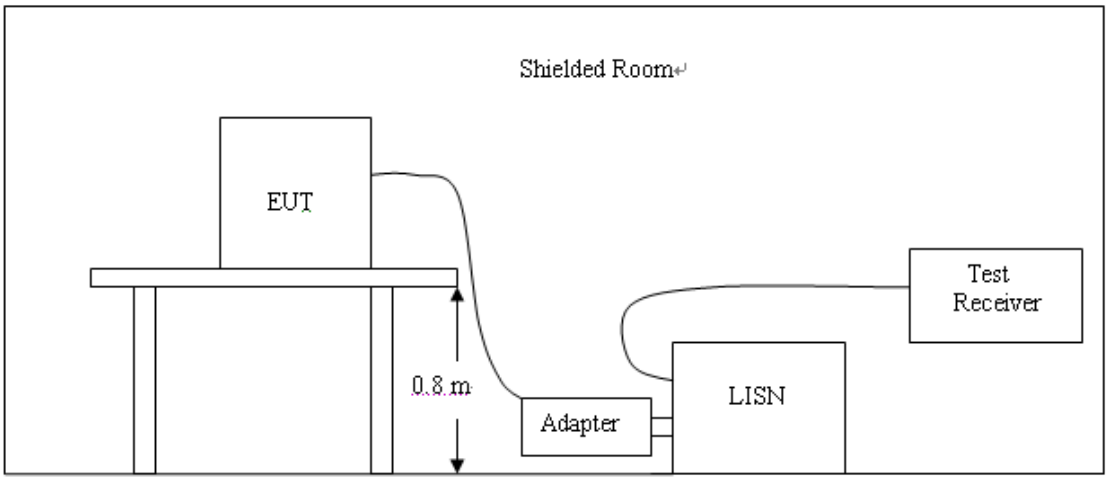
Radiated Emissions					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ULTRA-BROADBAND ANTENNA	ROHDE & SCHWARZ	HL562	100015	2008/11
2	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESI 26	100009	2008/11
3	RF TEST PANEL	ROHDE & SCHWARZ	TS / RSP	335015/ 0017	2008/11
4	TURNTABLE	ETS	2088	2149	2008/11
5	ANTENNA MAST	ETS	2075	2346	2008/11
6	EMI TEST SOFTWARE	ROHDE & SCHWARZ	ESK1	N/A	2008/11

Maximum Peak Output Power / Hopping Channel / 20dB Bandwidth / Band Edge Measurement					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCI	100106	2008/11

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.
2 Support equipment, if needed, was placed as per ANSI C63.4.
3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
4 The EUT received DC8V power from the adapter, the adapter 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：

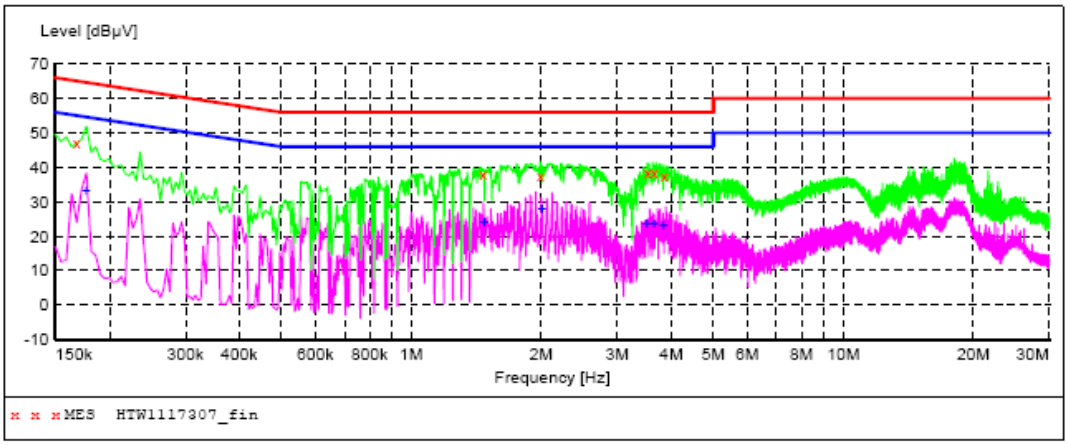
Frequency (MHz)	Maximum RF Line Voltage (dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15 - 0.50	79	66	66-56*	56-46*
0.50 - 5.00	73	60	56	46
5.00 - 30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

TEST RESULTS

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



MEASUREMENT RESULT: "HTW1117307_fin"

11/17/2008 9:58AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.168000	47.00	10.6	65	18.1	QP	N	GND
1.468500	37.90	10.7	56	18.1	QP	N	GND
1.995000	37.50	10.7	56	18.5	QP	N	GND
3.525000	38.60	10.7	56	17.4	QP	N	GND
3.651000	38.70	10.7	56	17.3	QP	N	GND
3.849000	37.50	10.7	56	18.5	QP	N	GND

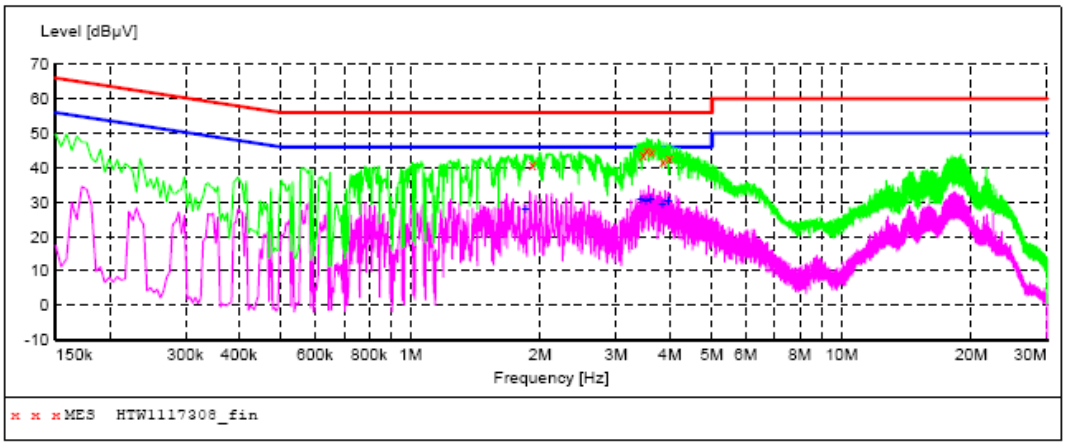
MEASUREMENT RESULT: "HTW1117307_fin2"

11/17/2008 9:58AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.177000	33.10	10.6	55	21.5	AV	N	GND
1.477500	24.30	10.7	46	21.7	AV	N	GND
2.008500	27.80	10.7	46	18.2	AV	N	GND
3.511500	23.70	10.7	46	22.3	AV	N	GND
3.655500	23.60	10.7	46	22.4	AV	N	GND
3.831000	23.40	10.7	46	22.6	AV	N	GND

Page 1/1 11/17/2008 9:58AM HTW1117307

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



MEASUREMENT RESULT: "HTW1117308_fin"

11/17/2008 10:03AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.918500	41.00	10.7	56	15.0	QP	L1	GND
3.466500	43.70	10.7	56	12.3	QP	L1	GND
3.534000	45.30	10.7	56	10.7	QP	L1	GND
3.633000	44.60	10.7	56	11.4	QP	L1	GND
3.858000	41.70	10.7	56	14.3	QP	L1	GND
3.988500	42.70	10.7	56	13.3	QP	L1	GND

MEASUREMENT RESULT: "HTW1117308_fin2"

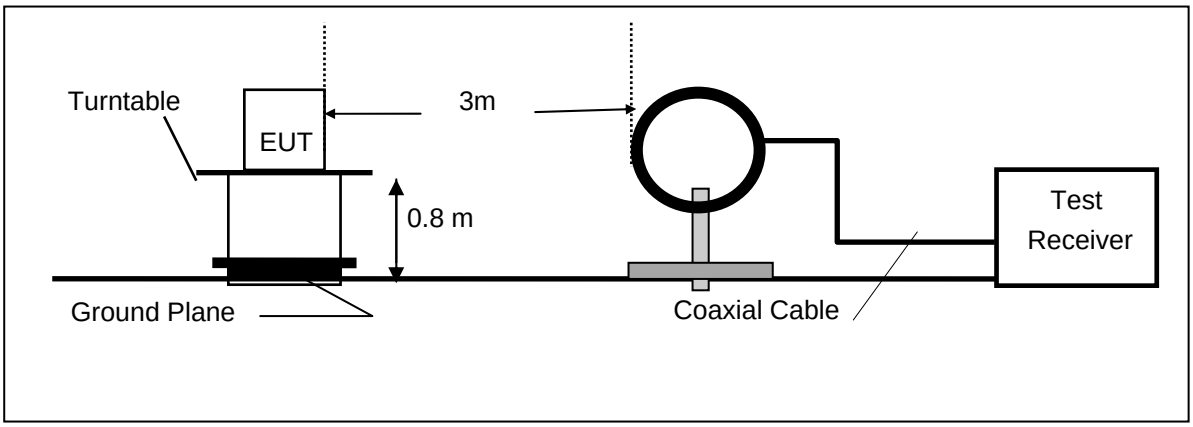
11/17/2008 10:03AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
1.846500	28.00	10.7	46	18.0	AV	L1	GND
3.430500	30.80	10.7	46	15.2	AV	L1	GND
3.520500	30.40	10.7	46	15.6	AV	L1	GND
3.606000	30.90	10.7	46	15.1	AV	L1	GND
3.844500	29.40	10.7	46	16.6	AV	L1	GND
3.961500	30.40	10.7	46	15.6	AV	L1	GND

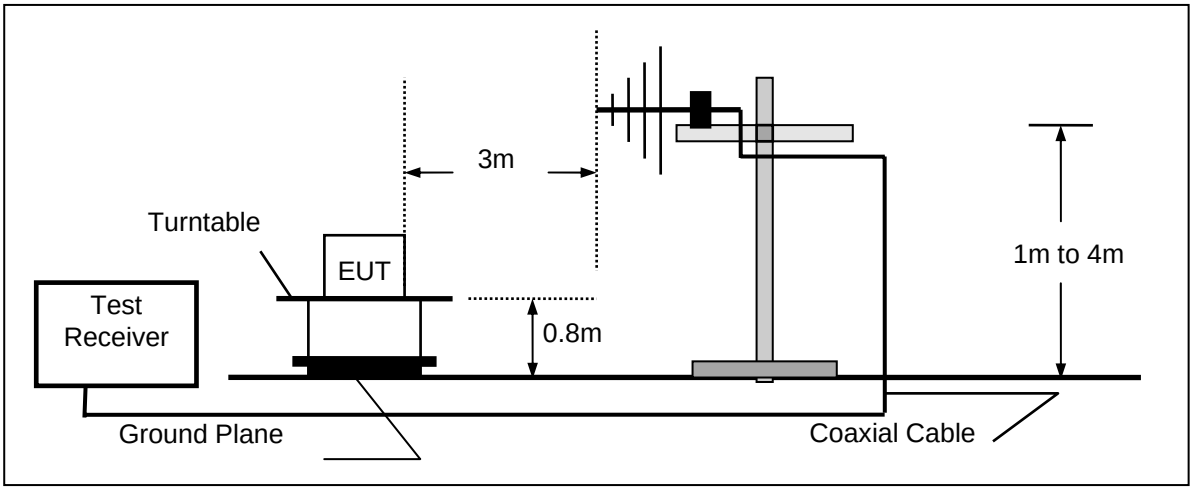
4.2. Radiated Emission Test

TEST CONFIGURATION

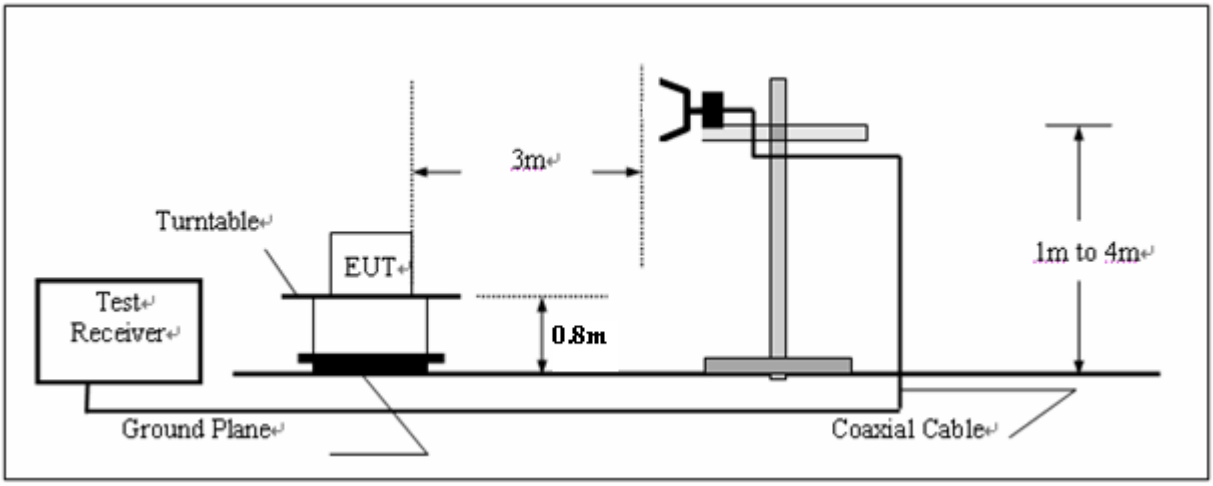
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



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



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



TEST PROCEDURE

1 The EUT was placed on a turn table which is 0.8m above ground plane.
2 Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.

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	

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. According to § 15.247(d), in any 100kHz bandwidth outside the frequency band in which the EUT is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the100kHz bandwidth within the band that contains the highest level of desired power.

TEST RESULTS

Below 1GHz:

Frequency (MHz)	Ant/CL/ Amp.CF (dB)	Meter Reading at 3m(dBμV)		Limits (dBμV/m)	Emission Level at 3m(dBμV/m)	
		Horizontal	Vertical		Horizontal	Vertical
30.00	20.70	*	*	40.00	*	*
99.98	14.80	20.10	20.20	43.50	34.90	35.00
376.01	18.80	16.40	16.00	46.00	35.20	34.80
399.34	20.20	17.40	19.70	46.00	37.60	39.90
500.42	20.10	17.70	15.70	46.00	37.80	35.80
733.69	23.90	13.50	13.00	46.00	37.40	36.90
1000.00	24.30	*	*	54.00	*	*

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

Spurious Emssion on Transmitting:

Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
Below 1 GHz	V	Peak	---				At least 20
Below 1 GHz	H	Peak	---				dB down
Above 1 GHz	V	Peak	---				than the
Above 1 GHz	H	Peak	---				Limit

Remark：

(1) Measuring frequencies from 25 MHz to the 10 GHz。

(2) Datum 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 between 25MHz to 1GHz was 120KHz and 1 MHz for above 1 GHz

Spurious Emission on Receiving:

Freq. (MHz)	Ant.Pol. H/V	DetectorMode (PK/AV)	Reading (dBuV)	Ant./CL/ Amp. CF(dB)	Actual FS (dBuV/m)	Limit3m (dBuV/m)	Safe Margin (dB)
Below 1 GHz	V	Peak	---				At least 20
Below 1 GHz	H	Peak	---				dB down
Above 1 GHz	V	Peak	---				than the
Above 1 GHz	H	Peak	---				Limit

Remark：

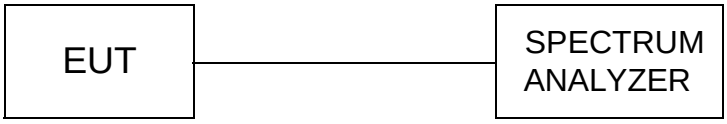
(1) Measuring frequencies from 25 MHz to the 10 GHz。

(2) Datum 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 between 25MHz to 1GHz was 120KHz and 1 MHz for above 1 GHz

4.3. Maximum Peak Output Power

TEST CONFIGURATION



TEST PROCEDURE

1. Connect the EUT to Spectrum Analyzer through a 10 dB attenuator.
2. The spectrum shall be set as follows:

   Span : 1.5 times channel integration bandwidth.

   RBW : 10 KHz

   VBW : 30 KHz

   Detector : Peak

   Sweep : Single trace

3 Compute the combined power of all signal responses contained in the trace by covering all the data points.

4. For 99% occupied BW, place the markers at the frequency at which 0.5% of the power lies to the right of the right marker and 0.5% of the power lies to the left of the left marker.
5. The peak output power is the channel power integrated over 99% bandwidth.

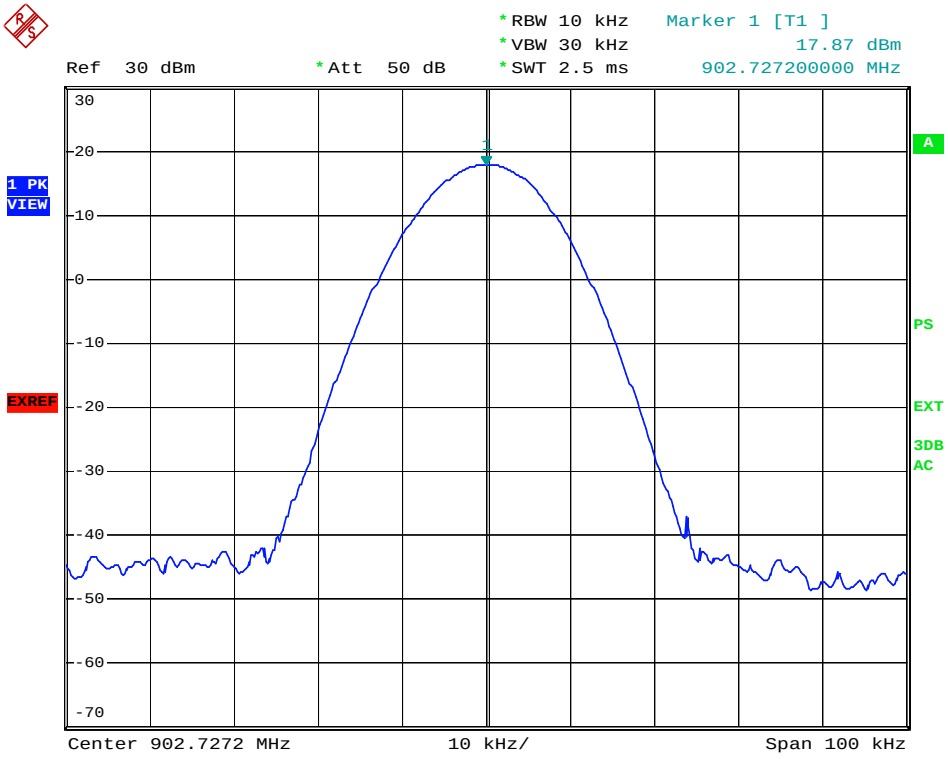
LIMIT

The Maximum Peak Output Power Measurement is 30dBm.

TEST RESULTS

Company	Invengo Information Technology Co., Ltd.	Test Date	11/18/2008
Product Name	Reader	Test By	Tracy Qi
Model Name	XCRF-502E	TEMP&Humidity	25°C, 53%

Channel	Channel Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass / Fail
Low	902.75	27.87	30	PASS
Mid	914.75	27.89	30	PASS
High	927.25	28.44	30	PASS



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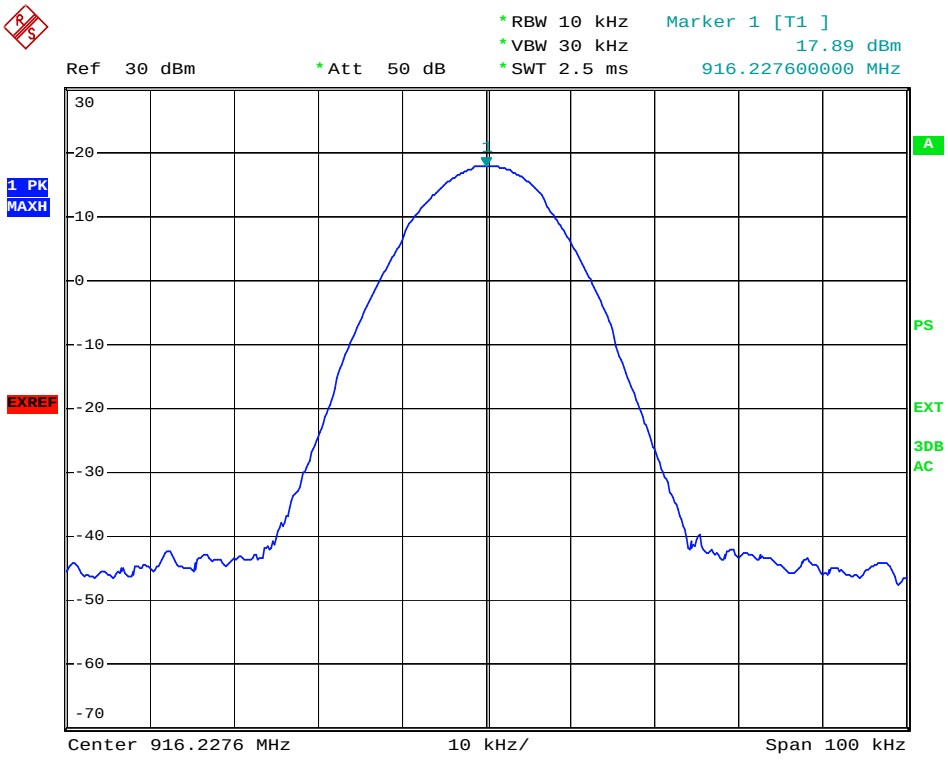

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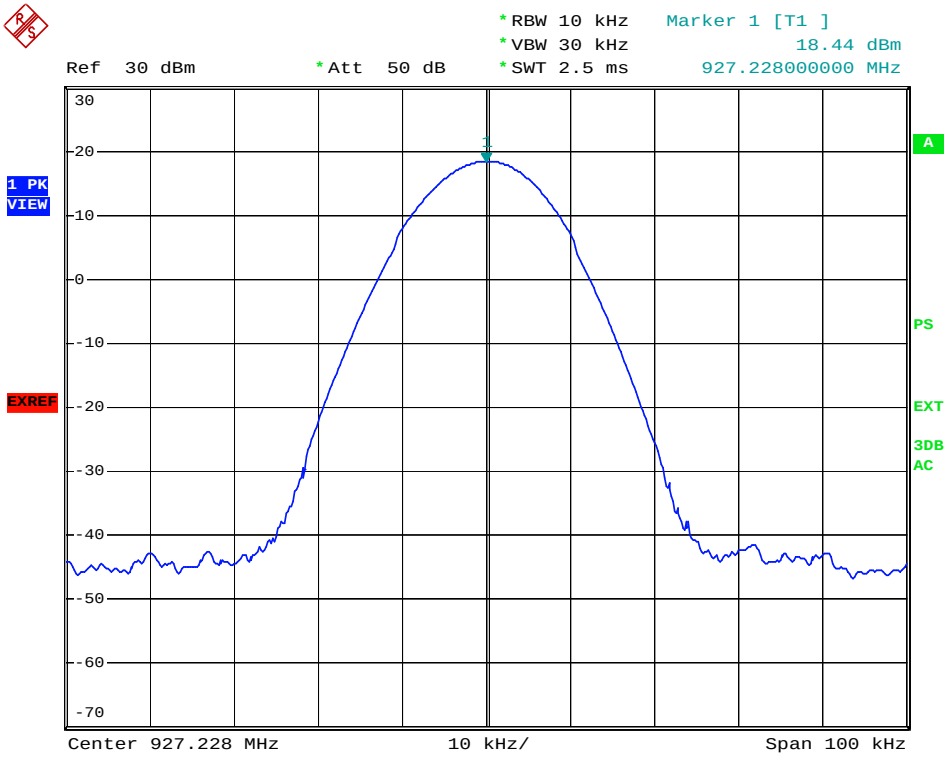
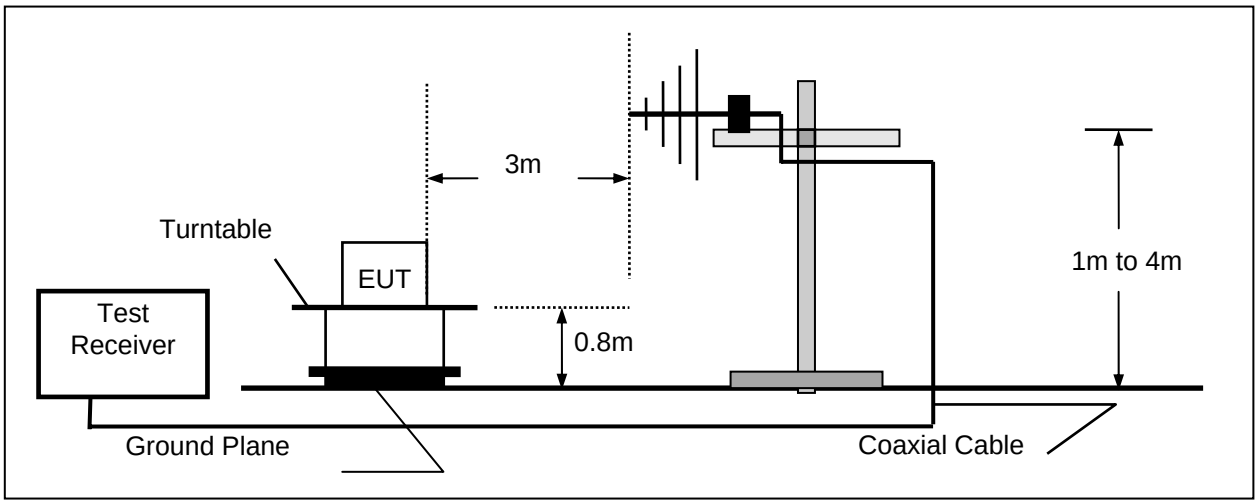


Date: 18.NOV.2008 07:58:05

4.4. Hopping Channel

TEST CONFIGURATION



TEST PROCEDURE

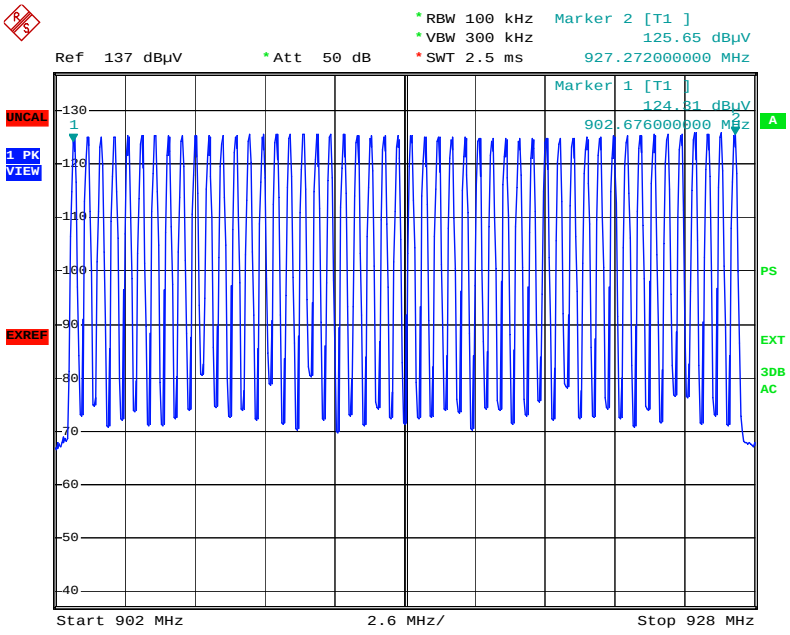
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as Normal Operation mode
3. Set SPA Start Frequency = 902 MHz, Stop Frequency= 928 MHz, RBW= 100 KHz, VBW= 300 KHz.
4. Set SPA Trace 1 Max hold, then View.

LIMIT

Per 15.247 (a)(1)(i) At least 50 hopping Frequencies for 20 dB channel bandwidth less than 250 KHz

TEST RESULTS

Total 50 Channels



Date: 18.NOV.2008 08:11:43

4.5. Channel Separation

TEST CONFIGURATION

The same as described in Section 4.4

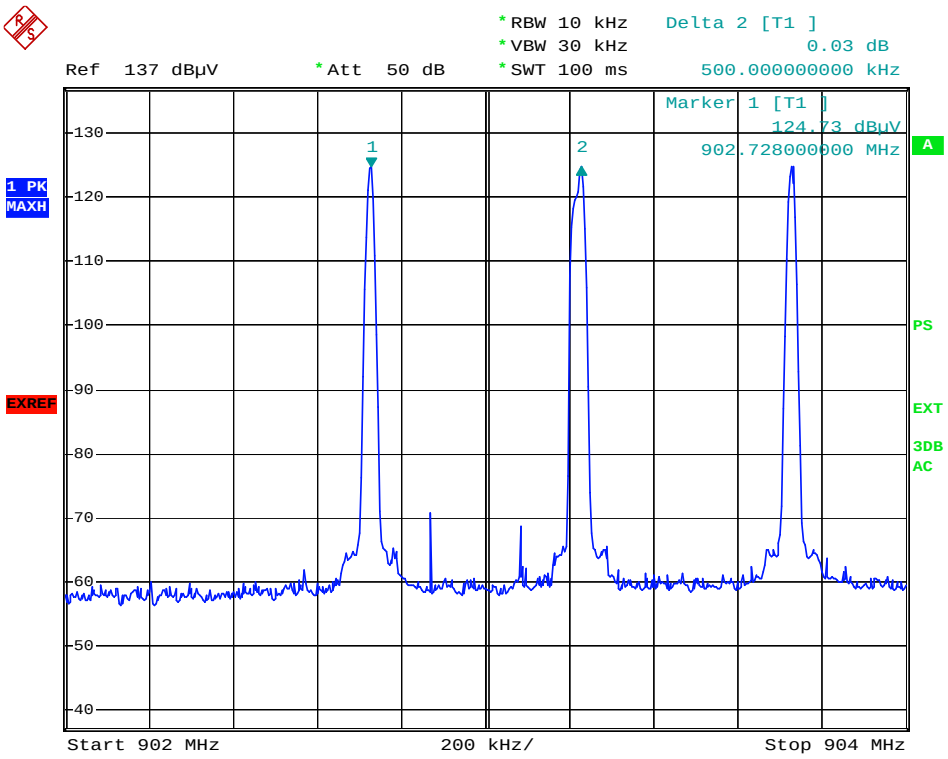
TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as Normal Operation mode
3. Set Start Frequency = 902MHz, Stop Frequency = 904 MHz, RBW= 10 KHz, VBW= 30 KHz
4. Set SPA Trace 1 Max hold, then View.

LIMIT

Per 15.247 (a)(1) At least 25 KHz or 20 dB bandwidth of the hopping Channel, whichever is greater

TEST RESULTS



Date: 18.NOV.2008 08:29:54

4.6. Band Edge Measurement

TEST CONFIGURATION

The same as described in Section 4.4

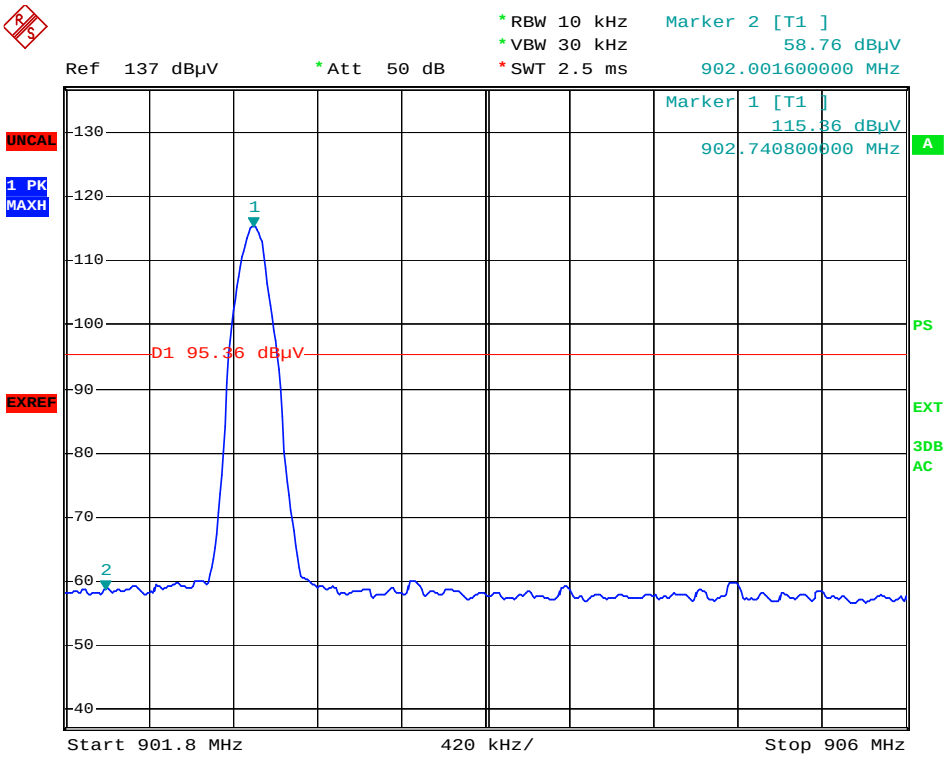
TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as Continuous Transmitting Mode.
3. Set SPA Center Frequency = Bottom Channel for lowest frequency band edge (Top Channel for highest frequency band edge) RBW= 10 KHz, VBW= 30 KHz
4. Set SPA Trace 1 Max hold, then View.

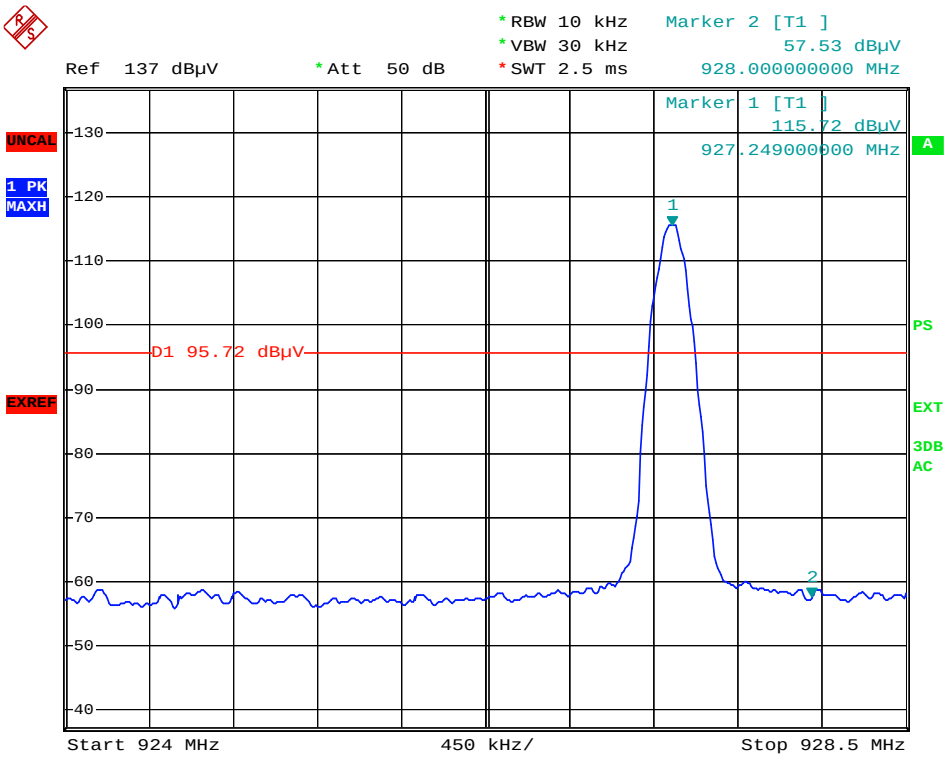
LIMIT

Per 15.247 (c) In any 100 KHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at least 20 dB below that in 100 KHz bandwidth within the band that contains the highest level of the desired power.

TEST RESULTS



Date: 18.NOV.2008 08:15:03



Date: 18.NOV.2008 08:17:08

4.7. 20dB Bandwidth Measurement

TEST CONFIGURATION

The same as described in Section 4.4

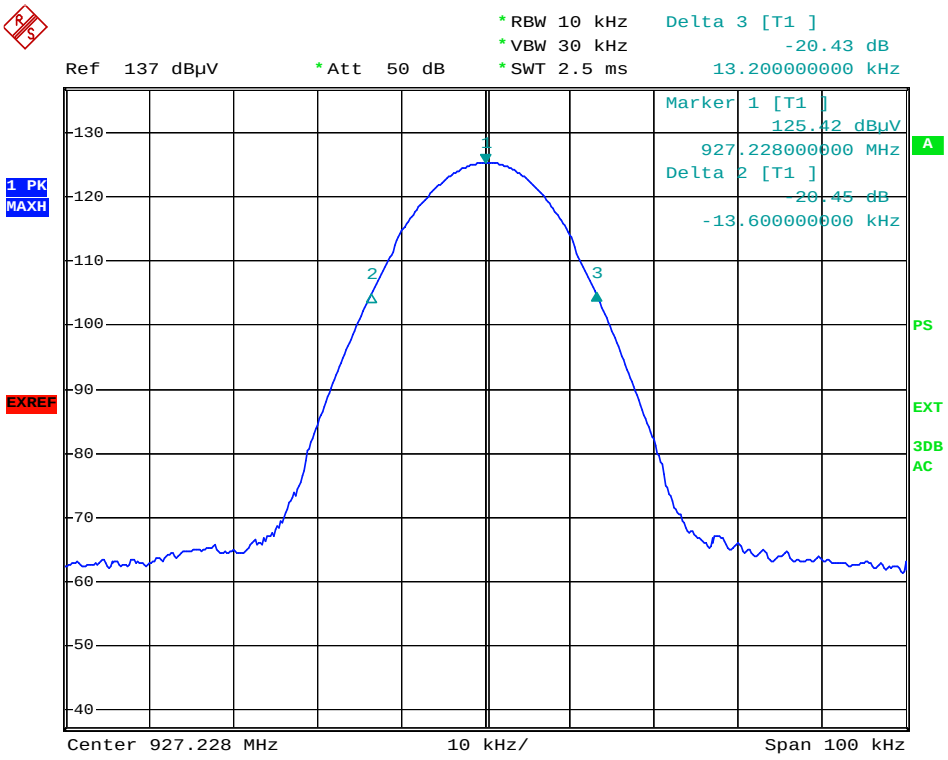
TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as continuous transmitting mode
3. Set SPA Center Frequency = Operation Frequency, RBW, VBW= 30 KHz, Span =500 KHz.
4. Set SPA Trace 1 Max hold, then View.

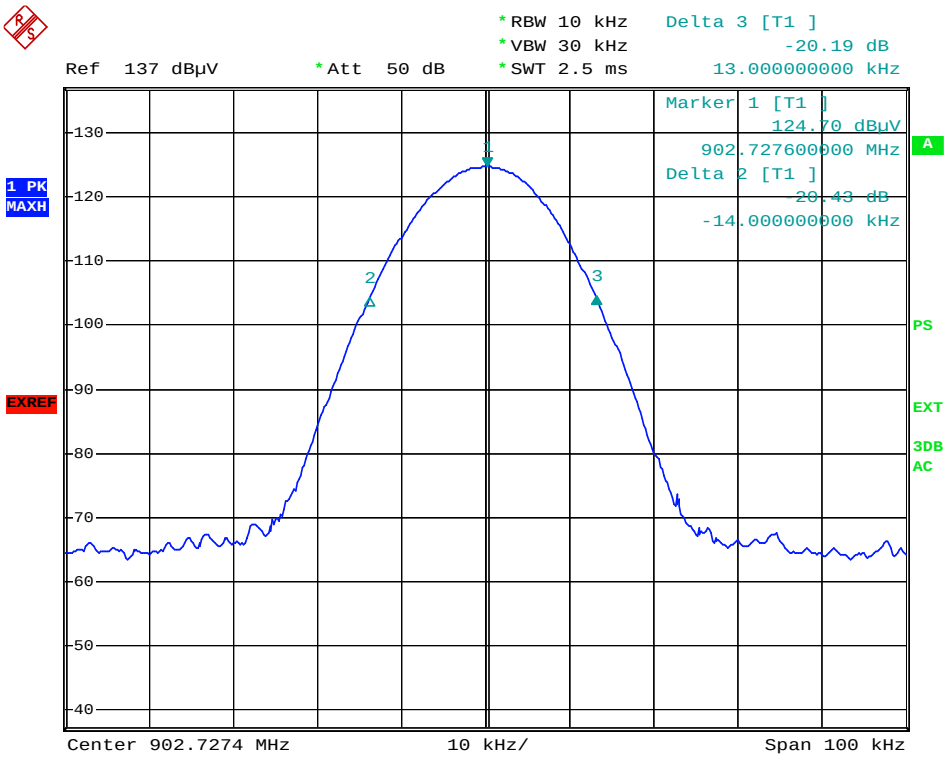
LIMIT

Per 15.247 (a)(1) At least 25 KHz or 20 dB bandwidth of the hopping Channel, whichever is greater

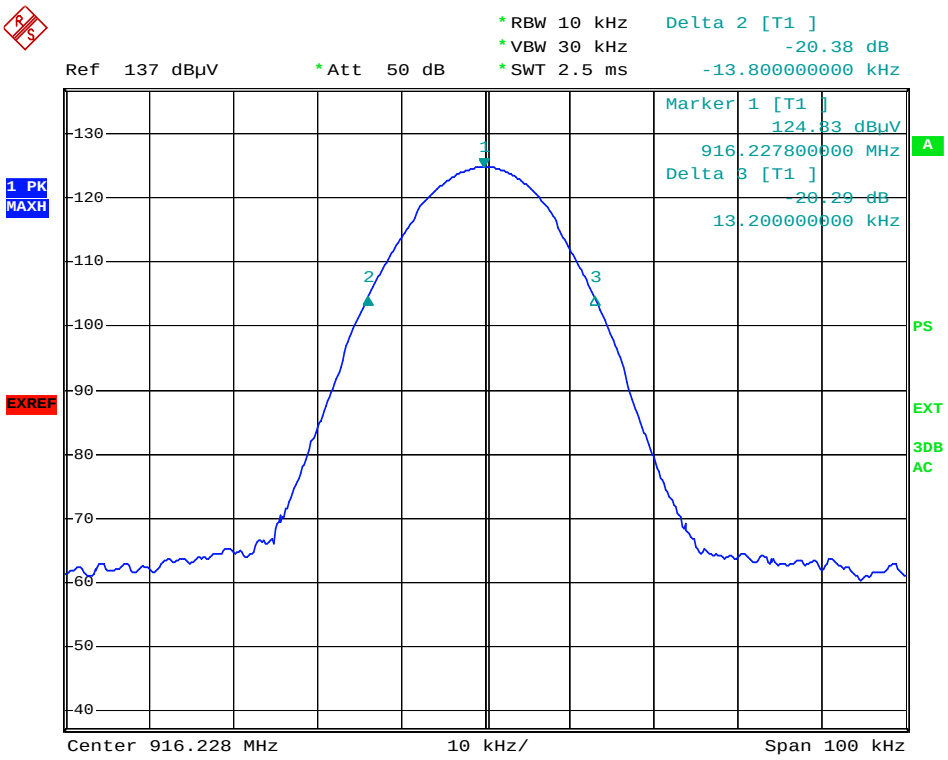
TEST RESULTS



Date: 18.NOV.2008 08:05:01



Date: 18.NOV.2008 08:07:49



Date: 18.NOV.2008 08:08:37

4.8. Operation Frequency

TEST CONFIGURATION

The same as described in Section 4.4

TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as Continuous Transmitting Mode.
3. Set SPA Start Frequency = 902MHz, Stop Frequency = 908 MHz, RBW= 10 KHz, VBW= 30 KHz,
4. Set SPA Trace 1 Max hold, then View.

LIMIT

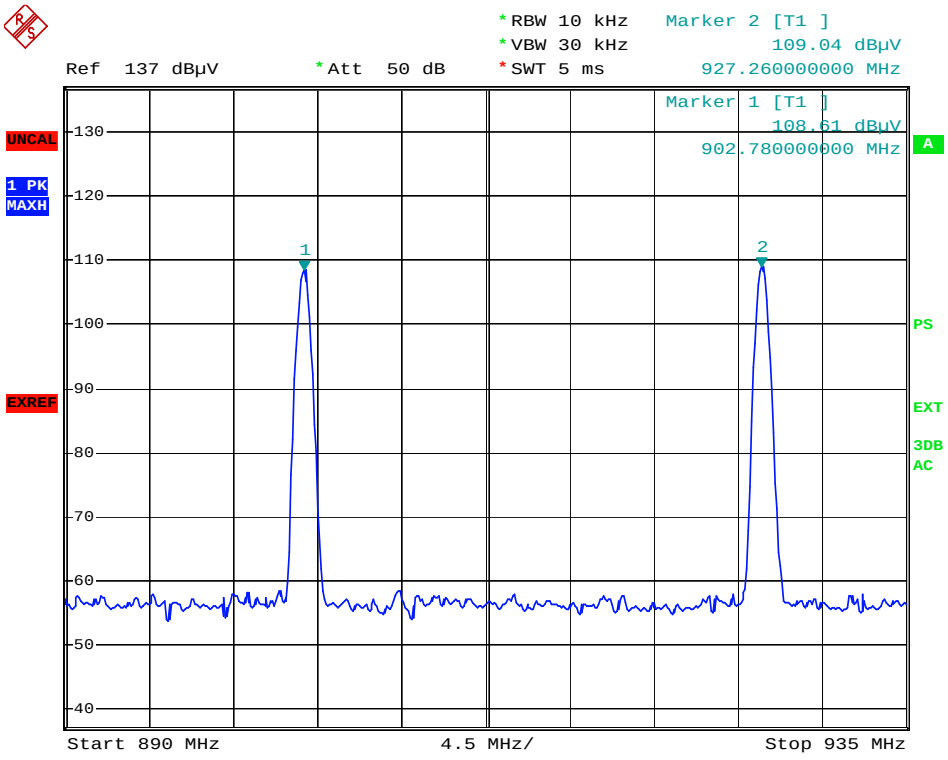
Per 15.247 The operation frequencies shall lie wholly within 902 MHz to 928 MHz

TEST RESULTS

Limits and Measurement Result Of Operation Frequency		
Applicable Limits	Measurement Result	
	Test Data	Criteria
Per 15.247 The operation frequencies shall lie wholly within 902 MHz to 928 MHz	Fl=902.780 MHz Ft=927.260 MHz	PASS

Notes:

Fl means the lowest band edge frequency of the bottom channel; Ft means the highest band edge frequency of the top channel



Date: 18.NOV.2008 08:20:28

4.9. Dwell Time

TEST CONFIGURATION

The same as described in Section 4.4

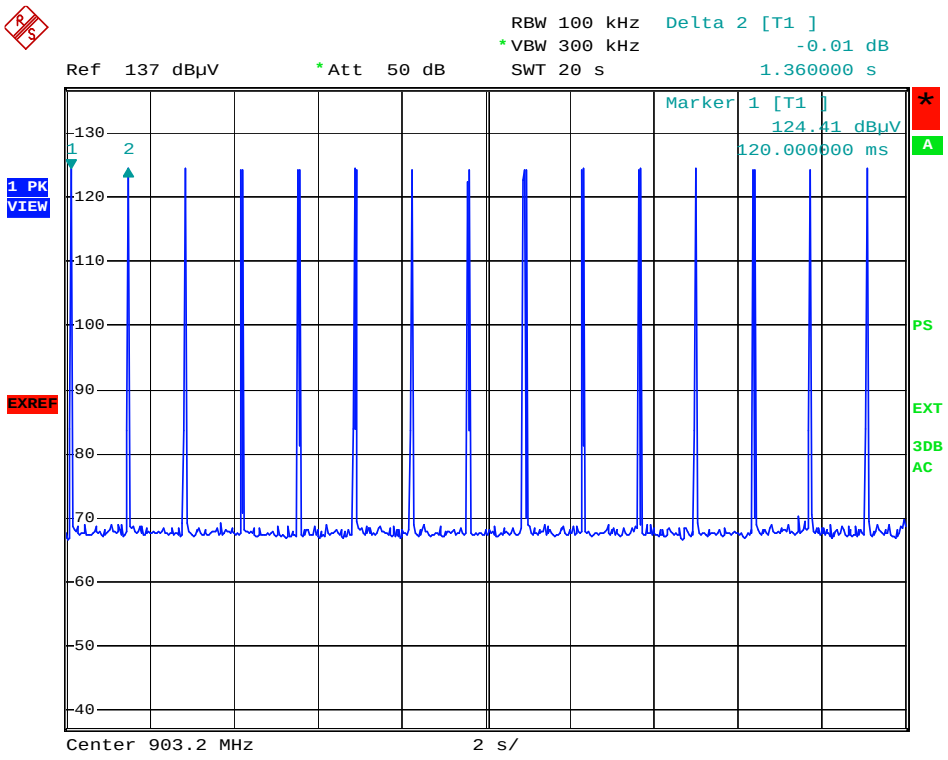
TEST PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as Normal Operation mode
3. Set SPA Span= 0 Hz, RBW= 100 KHz, VBW= 300 KHz
4. Set SPA Trace 1 Max hold, then View.

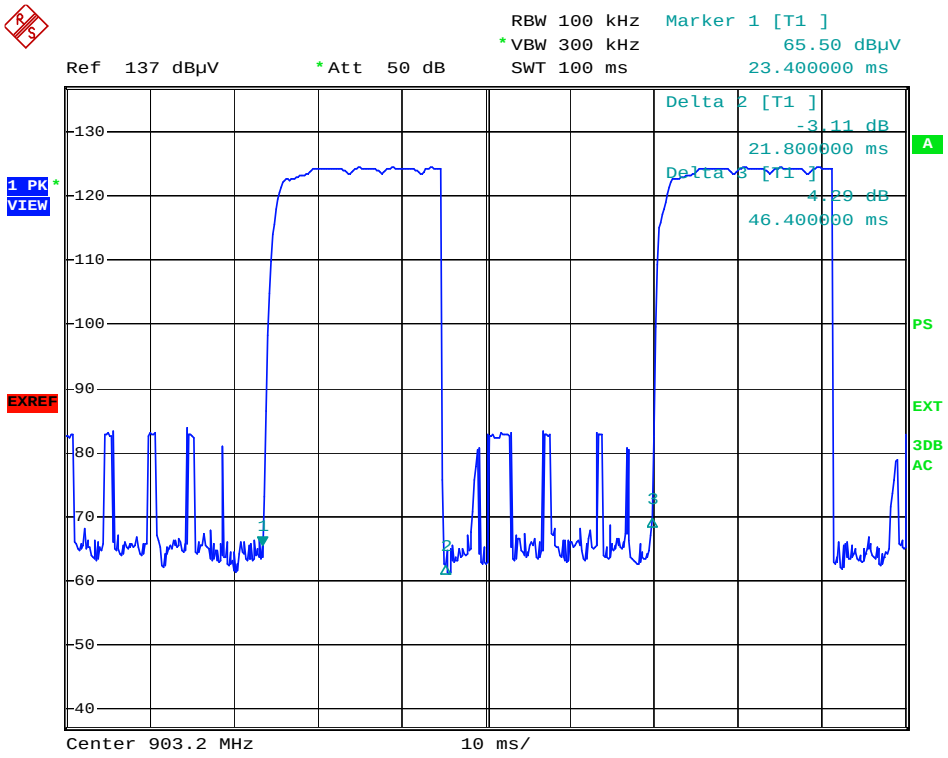
LIMIT

Per 15.247 (a)(1)(ii) The average time of occupancy on any frequency shall not be greater than 0.4 seconds

TEST RESULTS



Date: 18.NOV.2008 15:33:10



Date: 18.NOV.2008 15:31:14

In 20 s total 15 times be found, per transmitting time are 21.8 ms.

Dwell Time:

15 * 21.8 = 327 ms < 400 ms (Limit)

Test result: **Pass**

APPENDIX 1--PHOTOGRAPHS OF SET UP

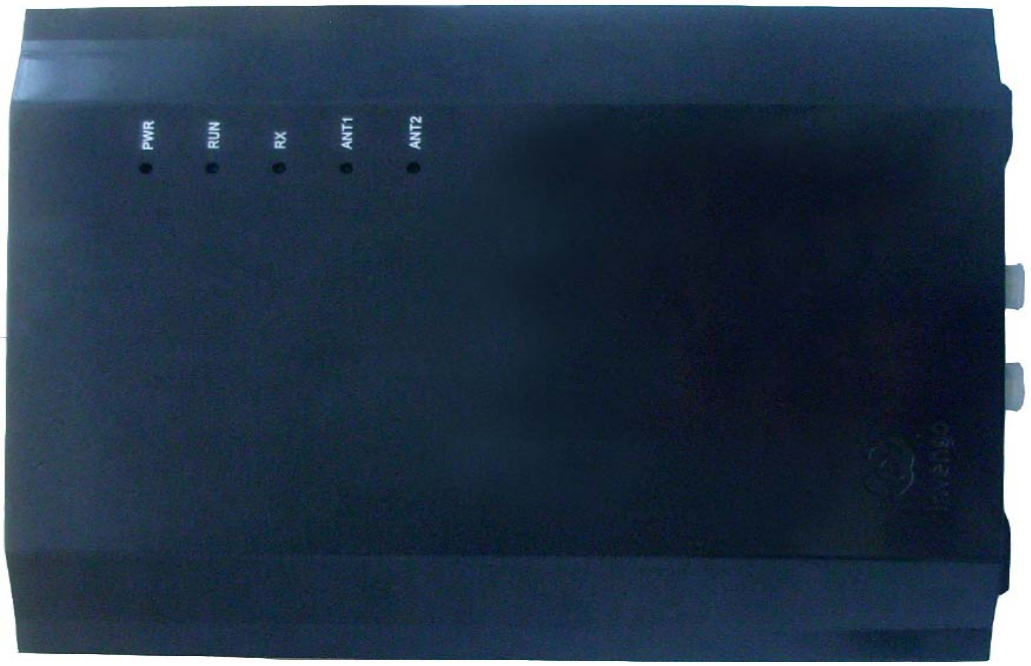
Radiated Emission

Conducted Emission

APPENDIX 2--PHOTOGRAPHS OF EUT

External Photos of EUT

Top View of EUT



Bottom View of EUT

Front View of EUT

Back View of EUT

Left View of EUT

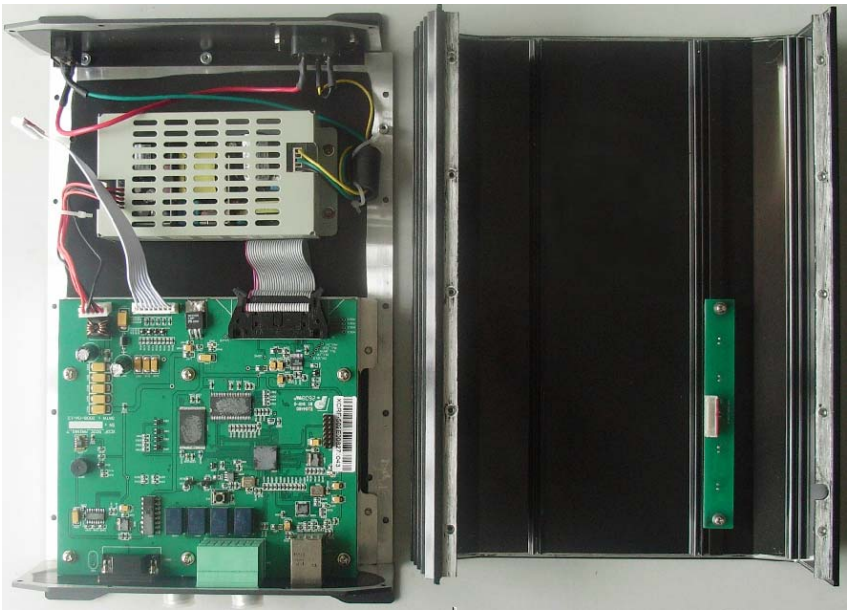
Right View of EUT

Cable of System

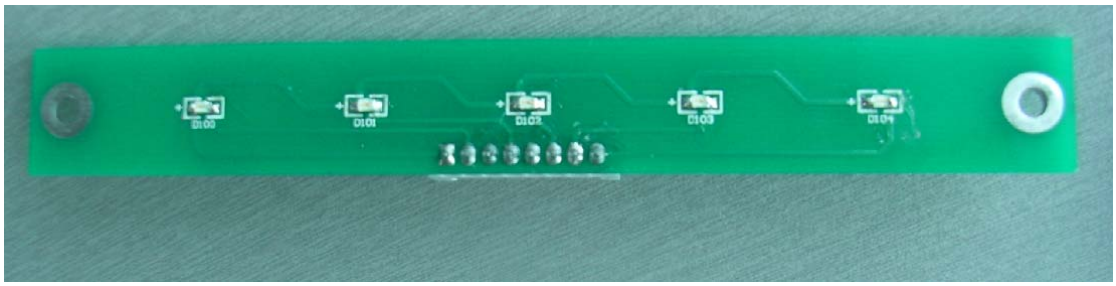
Antenna of System

Internal Photos of EUT

Internal of EUT-1

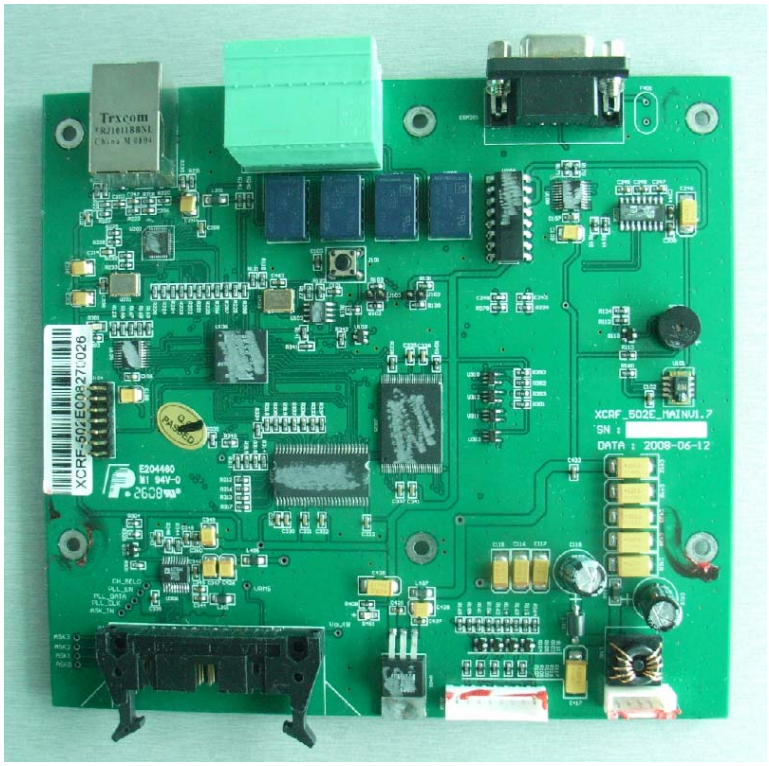


Internal of EUT-2

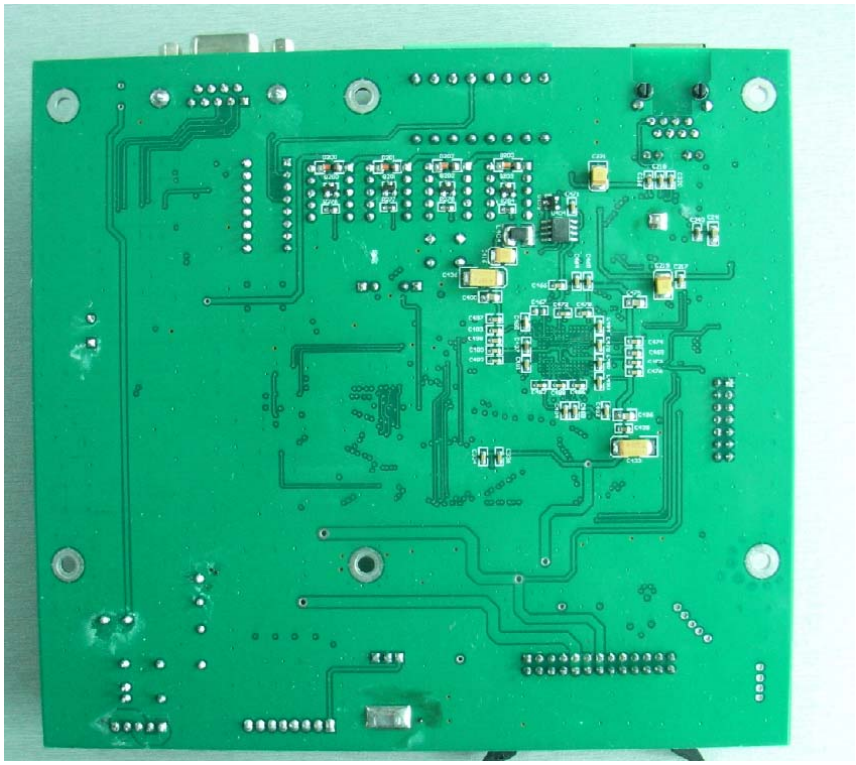


Internal of EUT-3

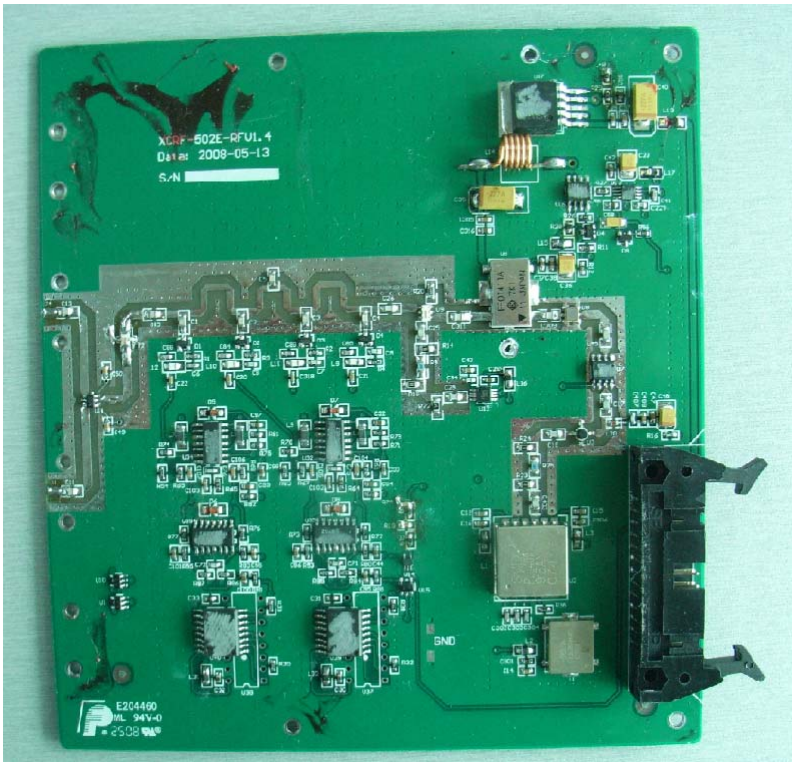
Internal of EUT-4



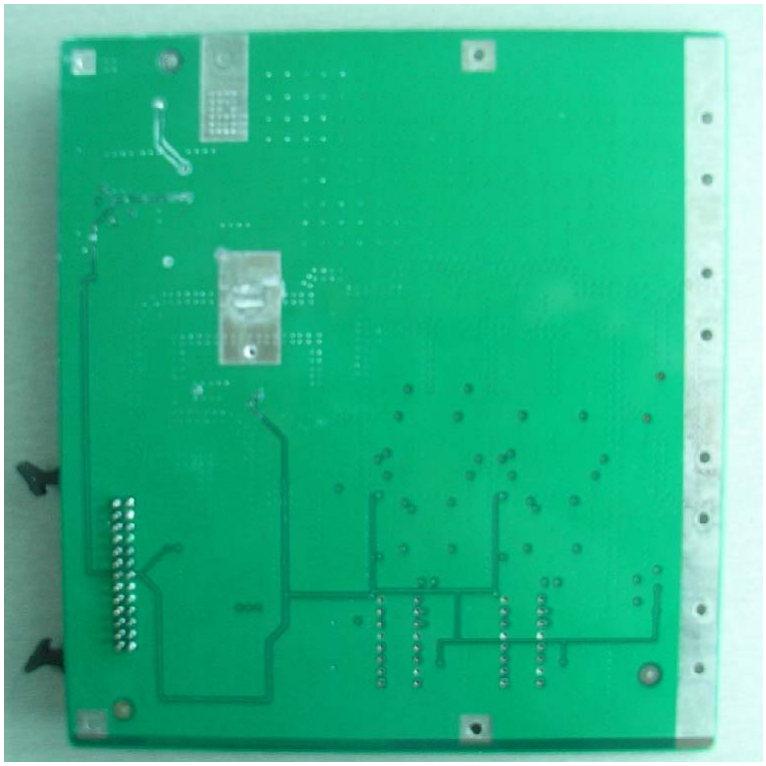
Internal of EUT-5



Internal of EUT-6

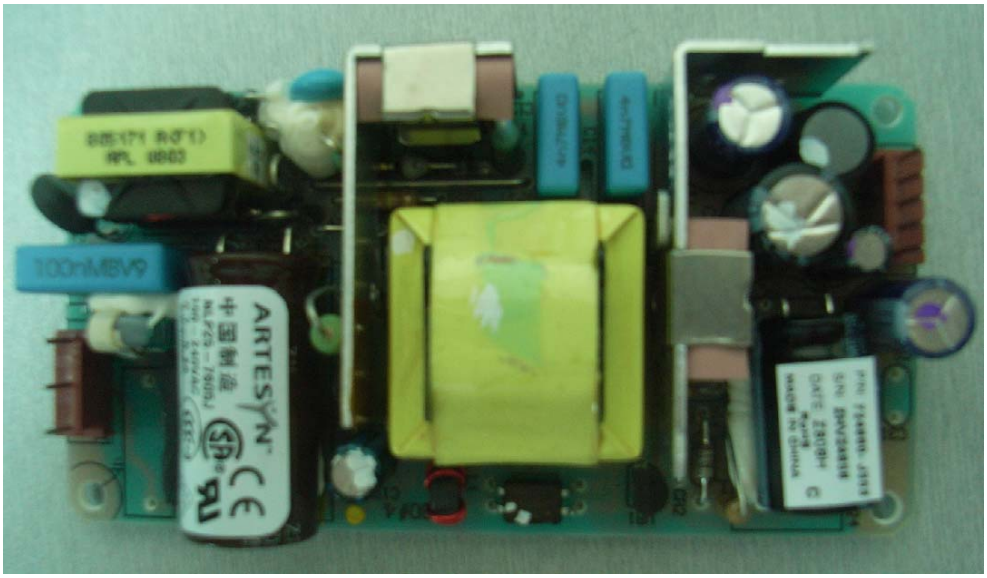


Internal of EUT-7

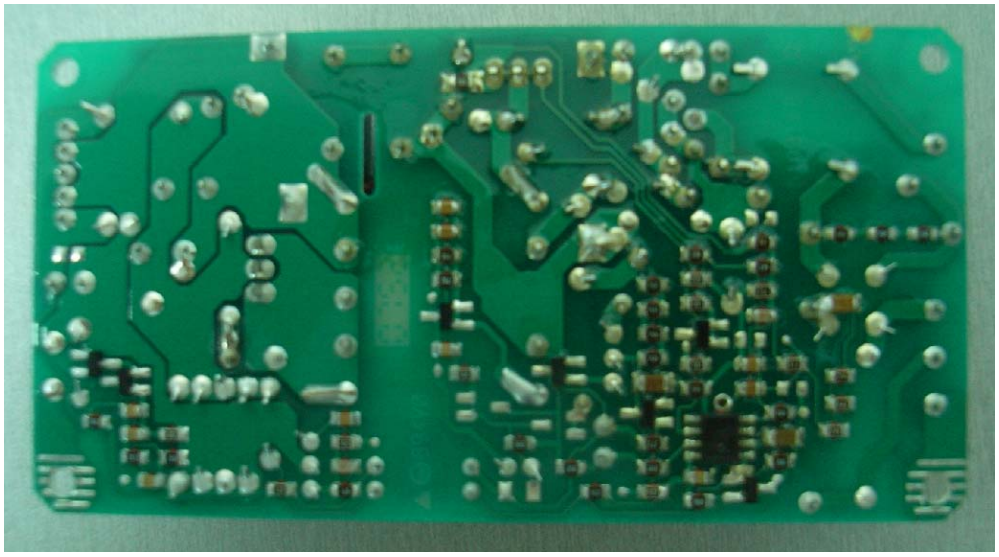


Internal of EUT-8

Internal of EUT-9



Internal of EUT-10



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