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## CTK Co., Ltd.

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# TEST REPORT For FCC

Test Report No. : 2011050055  
Date of Issue : May 23, 2011  
FCC ID : ZK9STM-8800  
Model/Type No. : STM-8800  
Kind of Product : Industrial PDA  
Applicant : Woongjin Holdings Co., Ltd.  
Applicant Address : 3F. Kukdong Bldg., Chungmuro 3-ga, Jung-gu, Seoul, Korea  
Manufacturer : Woongjin Holdings Co., Ltd.  
Manufacturer Address : 3F. Kukdong Bldg., Chungmuro 3-ga, Jung-gu, Seoul, Korea  
Contact Person : Hyong-Ju Kim / Principal Research Engineer  
Telephone : +82-2-2075-9370  
Received Date : November 27, 2010  
Test period : Start : April 11, 2011 End : April 29, 2011  
Test Results : ☒ In Compliance ☐ Not in Compliance

The test results presented in this report relate only to the object tested.

Tested by

Y. T. Lee

Young-taek, Lee  
Test Engineer  
Date: May 23, 2011

Reviewed by

Y. J. Park

Young-Joon, Park  
Technical Manager  
Date: May 23, 2011



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### REPORT REVISION HISTORY

Date	Revision	Revision
May 23, 2011	Issued (2011050055)	All

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## 1.0 General Product Description

### 1.0.1 Tested Equipment

- ☒ Unless otherwise indicated, all tests were conducted on Model STM-8800
- ☐ Tests performed on Model \_\_\_\_\_ were considered to be representative of Model(s) \_\_\_\_\_.

### 1.0.2 Equipment Size, Mobility and Identification

Dimensions: 82.2(W) by 216.2(L) by 59.2(H) ☒ mm (Outdoor Unit)  
82.2(W) by 216.2(L) by 59.2(H) ☒ mm (Indoor Unit)

Mobility: ☒ Portable ☒ Table-top ☐ Built-in  
☐ Floor-standing

Serial No.: Prototype

### 1.0.3 Electrical Ratings

Input 1: DC 3.7 V(Rechargeable Li-ion Battery Pack)  
Output 1: -

Input 2: 5.0 Vdc (AC ADAPTER Input: 100-240 Vac, 50-60 Hz, 0.3 A  
Output: 5.0 Vdc, 2.0 A)

Output 2: -

### 1.0.4 Test Voltage & Frequency

Unless indicated otherwise on the individual data sheet or test results, the test voltage and frequency was as indicated below.

Voltage 1: 3.7 Vdc (Battery)  
Frequency 1: -

Voltage 2: 120 Vac (AC ADAPTOR)  
Frequency 2: 60 Hz

## 1.1 Model Differences

Not applicable

## 1.2 Device Modifications

Not applicable



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### 1.3 EUT Configuration(s)

See Appendix A for individual test set-up configuration(s). The following peripheral devices and/or interface cables were connected during the measurement:

#### [Without Cradle mode]

☒ Peripheral Devices

Device	Manufacturer	Model No.	Serial No.	FCC ID or DoC
AC ADAPTER	NingBo ISO Electronics Co., Ltd.	KPA-045E	-	-
Personal Computer	Samsung Electronics Co., Ltd.	DB-A150	ZMSI96BSB00125F	DoC
LCD Monitor	VS17	Lite-ON Technology Corp.	CNN5130QMC	DoC
Keyboard(PS/2)	Samsung Electro-Mechanics Co., Ltd.	SEM-DT35	33008101	DoC
Mouse(USB)	Microsoft Corporation	Optical Mouse USB/PS2 Compatible	69657-492-4974533-40420	DoC

☒ Cable Description

#	Description	Ferrite Core	Length (m)	Other Details
1	AC power Cable, Unshielded	No	1.8	Connect to AC Power
2	AC power Cable, Unshielded	No	1.8	Connect to AC Power
3	D-SUB Cable, Shielded	Yes	1.8	Between a Personal Computer and a LCD Monitor
4	Keyboard Cable, Shielded	No	1.5	PS/2 type
5	Mouse Cable, Shielded	Yes	1.5	USB type
6	USB Cable, Shielded	Yes	1.0	Between the EUT and a Personal Computer
7	DC IN Cable, Unshielded	Yes	1.5	Between the EUT and an AC ADAPTER
8	AC power Cable, Unshielded	No	1.8	Connect to AC Power

#### [With Cradle mode]

☒ Peripheral Devices

Device	Manufacturer	Model No.	Serial No.	FCC ID or DoC
AC ADAPTER	NingBo ISO Electronics Co., Ltd.	KPA-045E	-	-
Cradle	Woongjin System & Technology Co., Ltd.	-	-	-
USB Drive	BMK Technology	MemoRive	-	DoC
Personal Computer	Samsung Electronics Co., Ltd.	DB-A150	ZMSI96BSB00125F	DoC
LCD Monitor	VS17	Lite-ON Technology Corp.	CNN5130QMC	DoC
Keyboard(PS/2)	Samsung Electro-Mechanics Co., Ltd.	SEM-DT35	33008101	DoC
Mouse(USB)	Microsoft Corporation	Optical Mouse USB/PS2 Compatible	69657-492-4974533-40420	DoC

☒ Cable Description

#	Description	Ferrite Core	Length (m)	Other Details
1	AC power Cable, Unshielded	No	1.8	Connect to AC Power
2	AC power Cable, Unshielded	No	1.8	Connect to AC Power
3	D-SUB Cable, Shielded	Yes	1.8	Between a Personal Computer and a LCD Monitor
4	Keyboard Cable, Shielded	No	1.5	PS/2 type
5	Mouse Cable, Shielded	Yes	1.5	USB type
6	USB port	-	-	Between the EUT and an USB Drive
7	USB Cable, Shielded (Mini USB or B Type USB)	Yes	1.0	Between the EUT and a Personal Computer
8	Serial Cable, Shielded	No	1.8	Between the EUT and a Personal Computer
9	Serial Cable, Shielded	No	1.8	Connect to the EUT
10	Cradle Port	-	-	Between the EUT and a Cradle
11	DC IN Cable, Unshielded	Yes	1.5	Between the EUT and an AC ADAPTER
12	AC power Cable, Unshielded	No	1.8	Connect to AC Power



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### 1.4 Test Software

- ☐ EMC Test V 1.0
- ☐ Display Test Patterns – V1.5
- ☐ Ping.exe
- ☒ Not applicable

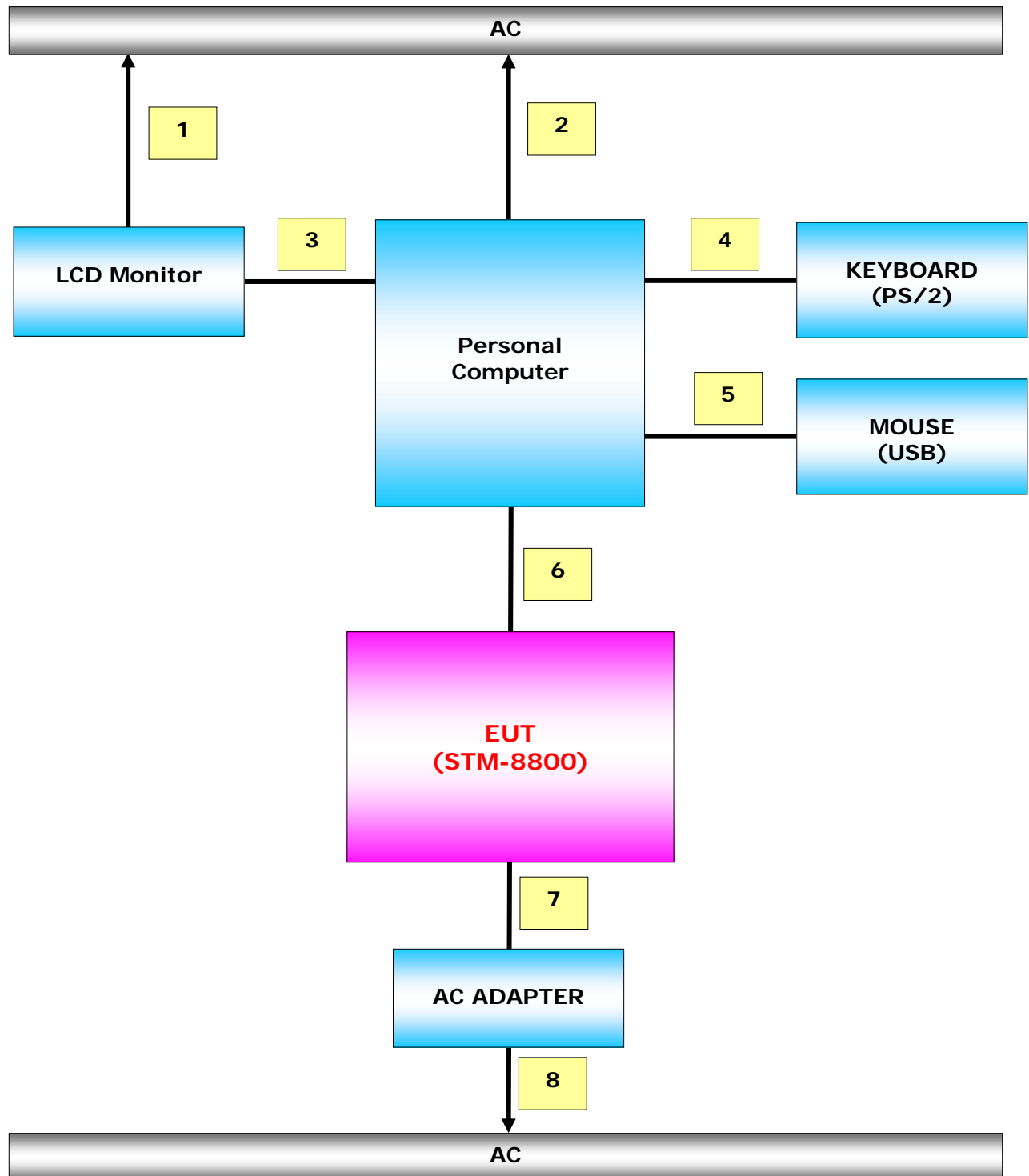
### 1.5 EUT Operating Mode(s)

Equipment under test was operated during the measurement under the following conditions:

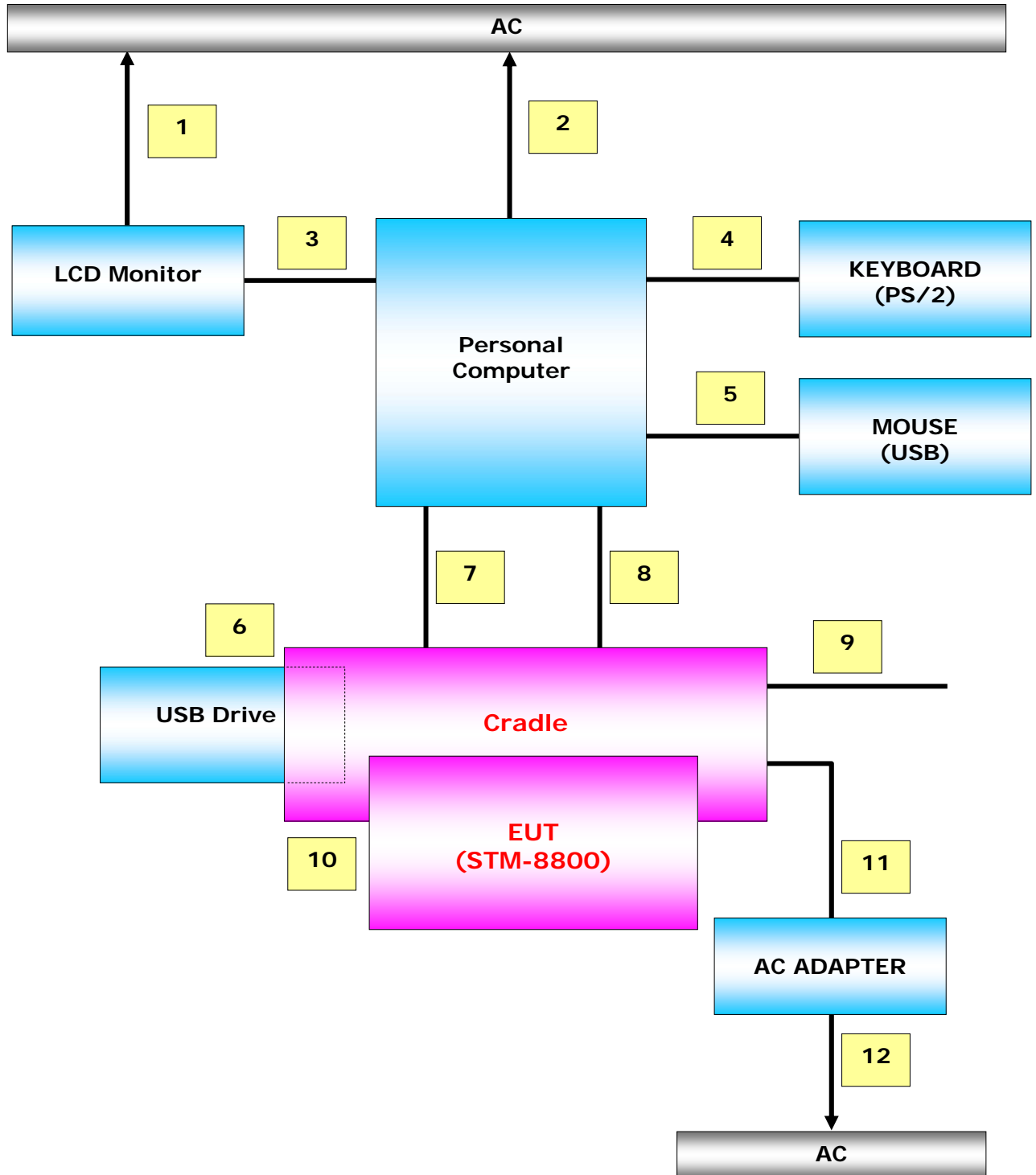
- ☐ Standby
- ☐ Display circles pattern
- ☒ Practice operation – EUT transmitting at 13.56 MHz continuously
  1. Without Cradle Mode(Battery Mode)
  2. With Cradle Mode
- ☐ Scrolling 'H'
- ☐ Read / Write

## Configuration

[Without Cradle mode]



[With Cradle mode]







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### 1.7 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

### 1.8 Test Facility

The measurement facility is located at 386-1, Ho-dong, Cheoin-gu, Yongin-si, Gyeonggi-do, 449-100, Korea. The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

### 1.9 Measurement Procedure

Preliminary AC power line conducted emissions tests were performed shielded room. To find worst mode, several typical mode and typical cable position were tested. Final AC power line conducted emissions test was performed shielded room. (location is same as Preliminary test)  
Based on the preliminary tests of the EUT, final test was proceeded worst case test mode and cable configuration.

Preliminary radiated emissions test were performed anechoic chamber (Distance of antenna and EUT was 3 m). To find worst mode, several typical mode and typical cable position were tested and peak level and frequency were recorded.

Final radiated emissions test was performed Open Area Test Site. Based on the preliminary tests of the EUT, final test was proceeded worst case test mode and cable configuration.

\* Measurement procedures was In accordance with ANSI C63.4-2003 7.2.3, 7.2.4, 8.3.1.1, 8.3.1.2



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### 1.10 Laboratory Accreditations and Listings

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3 & 10 meter Open Area Test Sites and one conducted site to perform FCC Part 15/18 measurements.	 805871
JAPAN	VCCI	10 meter Open Area Test Site and one conducted site.	 R-948, C-986, T-1843
KOREA	KCC	EMI (10 meter Open Area Test Site and two conducted sites) EMS (ESD, RS, EFT/Burst, Surge, CS, Magnetic, Dips and interruptions)	 No. 51, KR0025
International	KOLAS	EMC	



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## 2.0 Emissions Test Regulations

The emissions tests were performed according to following regulations:

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> EN 61000-6-3:2007                   |  |  |
| <input type="checkbox"/> EN 61000-6-4:2007                   |  |  |
| <input type="checkbox"/> EN 55011:2007 +A2:2007              | <input type="checkbox"/> Group 1<br><input type="checkbox"/> Class A | <input type="checkbox"/> Group 2<br><input type="checkbox"/> Class B |
| <input type="checkbox"/> EN 55013:2001 +A1:2003 +A2:2006     |  |  |
| <input type="checkbox"/> EN 55014-1:2006                     |  |  |
| <input type="checkbox"/> EN 55015:2006                       |  |  |
| <input type="checkbox"/> EN 61204-3:2000                     | <input type="checkbox"/> Class A                                     | <input type="checkbox"/> Class B                                     |
| <input type="checkbox"/> EN 61131-2:2003                     |  |  |
| <input type="checkbox"/> EN 61326-1:2006                     | <input type="checkbox"/> Class A                                     | <input type="checkbox"/> Class B                                     |
| <input type="checkbox"/> EN 55022:2006                       | <input type="checkbox"/> Class A                                     | <input type="checkbox"/> Class B                                     |
| <input type="checkbox"/> EN 61000-3-2:2006                   |  |  |
| <input type="checkbox"/> EN 61000-3-3:1995 +A1:2001 +A2:2005 |  |  |
| <input type="checkbox"/> VCCI V-3/2008.04                    | <input type="checkbox"/> Class A                                     | <input type="checkbox"/> Class B                                     |
| <input type="checkbox"/> AS/NZS CISPR22:2006                 | <input type="checkbox"/> Class A                                     | <input type="checkbox"/> Class B                                     |
| <input checked="" type="checkbox"/> FCC Part 15 Subpart C    |  |  |
| <input type="checkbox"/> CISPR 22:2006                       | <input type="checkbox"/> Class A                                     | <input type="checkbox"/> Class B                                     |

## 2.1 Radiated Electric Field Emissions - 15.225(a)

### Reference Standard

FCC Part 15.225(a)

### Test Date

April 27, 2011

### Test Location

☒ EMI-Anechoic chamber with a conductive ground plane:  
Testing was performed at a test distance of 3 m

### Test Equipment

	Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
<input checked="" type="checkbox"/>	Field Strength Meter	Rohde & Schwarz	ESHS30	828144/002	2012-02-09
<input checked="" type="checkbox"/>	Loop Antenna	EMCO	6502	9107-2652	2011-10-29

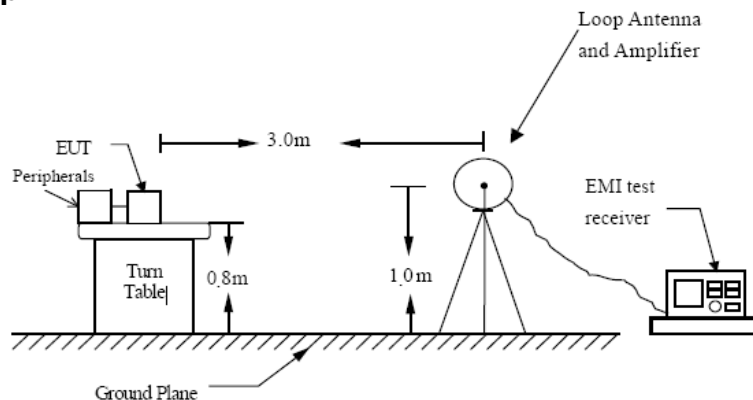
### Frequency Range of Measurement

13.553 MHz to 13.567 MHz

### Instrument Settings

IF Band Width: 10 kHz

### Test Setup





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### Measurement Procedure(below 30 MHz)

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. Three orientation for the EUT were tried to find out which orientation produces the worst emissions.
3. The loop antenna was also moved around to find out worst position for the emissions.
4. Set the spectrum analyzer in the following setting as:  
For Below 30 MHz :  
RBW = 9 kHz / VBW = 300 kHz / Sweep = AUTO
5. Repeat above procedures until the measurements for all frequencies are complete.

### Radiated emission limits

The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 uV/m at 30 meters.

### Test Results

Frequency (MHz)	Field Strength of Fundamental uV/m@ 30 m	Field Strength of Fundamental dBuV/m @ 30 m	Field Strength of Fundamental dBuV/m @ 3 m
13.553-13.567	0.99	-0.13	39.87

The requirements are:

- ☒ MET  
☐ NOT MET  
☐ NOT APPLICABLE

### Remarks

See Appendix A for test data



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## 2.2 Radiated Electric Field Emissions - 15.225(b)(c)

### Reference Standard

FCC Part 15.225(b)(c)

### Test Date

April 27, 2011

### Test Location

☒ EMI-Anechoic chamber with a conductive ground plane:  
Testing was performed at a test distance of 3 m

### Test Equipment

	Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
<input checked="" type="checkbox"/>	Field Strength Meter	Rohde & Schwarz	ESHS30	828144/002	2012-02-09
<input checked="" type="checkbox"/>	Loop Antenna	EMCO	6502	9107-2652	2011-10-29

### Frequency Range of Measurement

13.410 MHz to 13.553 MHz, 13.567 MHz to 13.710 MHz  
13.110 MHz to 13.410 MHz, 13.710 MHz to 14.010 MHz

### Instrument Settings

IF Band Width: 10 kHz

### Radiated emission limits

Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334  $\mu\text{V/m}$  at 30 meters.

Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz, the field strength of any emissions shall not exceed 106  $\mu\text{V/m}$  at 30 meters.

### Test Results

Frequency (MHz)	Field Strength of Fundamental $\mu\text{V/m}$ @ 30 m	Field Strength of Fundamental dBuV/m @ 30 m	Field Strength of Fundamental dBuV/m @ 3 m
13.410-13.553	0.10	-19.68	20.32
13.567-13.710	0.26	-11.81	28.19
13.110-13.410	0.23	-12.69	27.31
13.710-14.010	0.15	-16.39	23.61

The requirements are:

- ☒ MET  
☐ NOT MET  
☐ NOT APPLICABLE



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## 2.3 Radiated Electric Field Emissions - 15.225(d)

### Reference Standard

FCC Part 15.225(d), 15.209

### Test Date

April 27, 2011

### Test Location

☒ EMI-OATS: Testing was performed at a test distance of 3 m

### Test Equipment

	Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
<input checked="" type="checkbox"/>	Field Strength Meter	Rohde & Schwarz	ESVS30	826638/008	2011-07-12
<input checked="" type="checkbox"/>	ULTRA Broadband Antenna	Rohde & Schwarz	HL562	361324/014	2011-11-18
<input checked="" type="checkbox"/>	Field Strength Meter	Rohde & Schwarz	ESHS30	828144/002	2012-02-09
<input checked="" type="checkbox"/>	Loop Antenna	EMCO	6502	9107-2652	2011-10-29

### Frequency Range of Measurement

9 kHz to 1000 MHz

### Instrument Settings

IF Band Width: 10 kHz (9 kHz to 30 MHz)

IF Band Width: 120 kHz (30 MHz to 1000 MHz)

### Measurement Procedure(above 30 MHz)

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. Set the spectrum analyzer in the following setting as:  
For 30 MHz ~ 1000 MHz :  
RBW = 120 kHz / VBW = 300 kHz / Sweep = AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.



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### Radiated emission limits

Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Measurement Distance (m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100**	3
88-216	150**	3
216-960	200**	3
Above 960	500	3

\*\* Except as provided in 15.209(g).fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72MHz, 76-88MHz, 174-216MHz, 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g.15.231 and 15.241.

### Test Results

The requirements are:

- ☒ MET  
☐ NOT MET  
☐ NOT APPLICABLE

### Remarks

See Appendix A for test data



## 2.4 Frequency Stability – 15.225(e)

### Reference Standard

FCC Part 15.225(e)

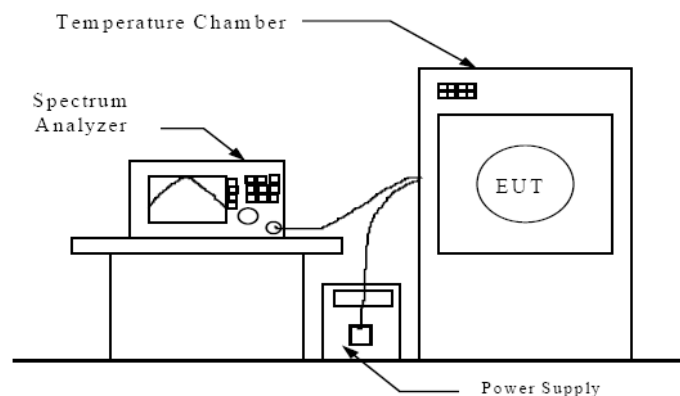
### Test Date

April 25, 2011

### Test Equipment

	Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
<input checked="" type="checkbox"/>	Signal Analyzer	Agilent	N9020A	MY48011598	2011-11-12
<input checked="" type="checkbox"/>	Temp & Humi Chamber	Kunpoong Engineering	JT-TH-556-1	9QE5-002	2012-01-14

### Test Setup



### Test Procedure

- A. Frequency stability vs. temperature measurement
  - The EUT was placed into the constant temperature chamber.
  - The spectrum analyzer was used to read the EUT operating frequency.
  - Set the constant temperature chamber temperature within the range of -20°C to +50°C
- B. Frequency stability vs. input voltage measurement
  - The EUT was placed into the constant temperature chamber and set the temperature to 20°C.
  - The spectrum analyzer was used to read the EUT operating frequency.
  - The EUT is powered with the DC Power Supplied it with 85% and 115% voltage, and measured the EUT operating frequency.



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### Frequency tolerance Limit

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01\%$  of the operating frequency over a temperature variation of  $-20^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of  $20^{\circ}\text{C}$ .

- Operating frequency : 13.56 MHz
- Limit : 13.56 MHz \*  $(\pm 0.0001) = (\pm 1356 \text{ Hz})$
- Within the band : 13.558644 MHz – 13.561356 MHz.

### Test Data

Timing	$-20^{\circ}\text{C}$	$-10^{\circ}\text{C}$	$0^{\circ}\text{C}$	$10^{\circ}\text{C}$	$20^{\circ}\text{C}$	$30^{\circ}\text{C}$	$40^{\circ}\text{C}$	$50^{\circ}\text{C}$
Start-up	13.560200	13.560202	13.560194	13.560198	13.560184	13.560160	13.560166	13.560154
10 min	13.560200	13.560200	13.560198	13.560194	13.560174	13.560156	13.560161	13.560154
30 min	13.560196	13.560202	13.560200	13.560190	13.560168	13.560156	13.560166	13.560151

Timing	Power 85%	Power 115%
Start-up	13.560184 MHz	13.560186 MHz
10 min	13.560184 MHz	13.560184 MHz
30 min	13.560184 MHz	13.560186 MHz

### Test Results

The requirements are:

- ☒ MET
- ☐ NOT MET
- ☐ NOT APPLICABLE



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## 2.5 Conducted Voltage Emissions – 15.207

### Reference Standard

FCC Part 15.207

### Test Date

April 28, 2011

### Test Location

Shielded Room

### Test Equipment

	Name of Equipment	Manufacturer	Model No.	Serial No.	Due Date
<input checked="" type="checkbox"/>	EMI Test Receiver	Rohde & Schwarz	ESCI3	100032	2012-02-09
<input type="checkbox"/>	EMI Test Receiver	Rohde & Schwarz	ESHS30	828144/002	2012-02-09
<input type="checkbox"/>	LISN	Rohde & Schwarz	ENV216	101150	2012-03-09
<input type="checkbox"/>	LISN	EMCO	3825/2	9409-2246	2011-07-09
<input checked="" type="checkbox"/>	LISN	Rohde & Schwarz	ENV216	101151	2012-03-09
<input checked="" type="checkbox"/>	LISN	Rohde & Schwarz	ESH3-Z5	100207	2011-11-15
<input type="checkbox"/>	ISN	TESEQ GMBH	ISN T8	25191	2011-12-30
<input type="checkbox"/>	ISN	TESEQ GMBH	ENY81-CA6	101553	2011-11-25

### Frequency Range of Measurement

150 kHz to 30 MHz

### Instrument Settings

IF Band Width: 9 kHz

### Conducted Emission limits

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

### Test Results

The requirements are:

☒ MET

Frequency (MHz)	Measured Data (dBuV)	Margin (dB)	Remark
0.546	42.4	3.6	Average

☐ NOT MET

☐ NOT APPLICABLE

### Remarks

See Appendix A for test data.

## APPENDIX A – TEST DATA

### Radiated Electric Field Emissions (Quasi-Peak reading)

#### #1 Without Cradle Mode(Battery Mode)

##### 1) Fundamental Frequency Test Data

Frequency [MHz]	Reading [dB $\mu$ V/m@3m]	Pol.	Height [m]	Correction Factor		Limits [dB $\mu$ V/m@3m]	Result [dB $\mu$ V/m@3m]	Margin [dB]
				Antenna	Cable			
13.56	29.57	V	1.0	8.84	0.01	124.0	38.4	85.6

##### 2) Frequency Range from 9 kHz to 30 MHz Test Data

Frequency [MHz]	Reading [dB $\mu$ V/m@3m]	Pol.	Height [m]	Correction Factor		Limits [dB $\mu$ V/m@3m]	Result [dB $\mu$ V/m@3m]	Margin [dB]
				Antenna	Cable			
18.33	12.8	V	1.0	8.26	0.01	69.5	21.1	48.4
12.86	18.6	V	1.0	8.84	0.01	69.5	27.5	42.1

##### 3) Frequency Range from 30 MHz to 1000 MHz Test Data

Frequency [MHz]	Reading [dB $\mu$ V/m@3m]	Pol.	Height [m]	Correction Factor			Limits [dB $\mu$ V/m@3m]	Result [dB $\mu$ V/m@3m]	Margin [dB]
				Antenna	Cable	Amp. Gain			
47.00	54.1	V	3.4	9.7	0.3	31.4	40.0	32.7	7.3
119.70	53.5	V	3.8	10.1	1.1	31.5	43.5	33.2	10.4
168.20	54.9	H	1.3	7.3	1.4	31.4	43.5	32.1	11.4
718.70	45.7	H	1.2	18.8	4.0	31.3	46.0	37.2	8.8
750.20	45.6	H	1.2	19.3	4.1	31.3	46.0	37.7	8.4
939.40	43.0	H	1.2	21.1	4.5	30.2	46.0	38.5	7.5



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### #2 With Cradle Mode

#### 1) Fundamental Frequency Test Data

Frequency [MHz]	Reading [dB $\mu$ V/m@3m]	Pol.	Height [m]	Correction Factor		Limits [dB $\mu$ V/m@3m]	Result [dB $\mu$ V/m@3m]	Margin [dB]
				Antenna	Cable			
13.56	31.0	V	1.0	8.84	0.01	124.0	39.9	84.1

#### 2) Frequency Range from 9 kHz to 30 MHz Test Data

Frequency [MHz]	Reading [dB $\mu$ V/m@3m]	Pol.	Height [m]	Correction Factor		Limits [dB $\mu$ V/m@3m]	Result [dB $\mu$ V/m@3m]	Margin [dB]
				Antenna	Cable			
28.53	14.3	V	1.0	5.38	0.01	69.5	19.7	49.8
27.22	15.9	V	1.0	7.18	0.01	69.5	23.1	46.4

#### 3) Frequency Range from 30 MHz to 1000 MHz Test Data

Frequency [MHz]	Reading [dB $\mu$ V/m@3m]	Pol.	Height [m]	Correction Factor			Limits [dB $\mu$ V/m@3m]	Result [dB $\mu$ V/m@3m]	Margin [dB]
				Antenna	Cable	Amp. Gain			
47.00	58.0	H	1.4	9.7	0.3	31.4	40.0	36.6	3.4
168.20	55.4	V	1.2	7.3	1.4	31.4	43.5	32.7	10.8
716.30	46.2	H	1.2	18.8	4.0	31.3	46.0	37.7	11.8
721.10	48.2	H	3.5	18.8	4.0	31.3	46.0	39.8	6.3
750.20	45.9	V	3.4	19.3	4.1	31.3	46.0	38.0	8.1
939.40	44.1	V	1.1	21.1	4.5	30.2	46.0	39.5	6.5



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### Conducted Voltage Emissions (AC ADAPTOR Mode)

[HOT]

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	48.1	1000.0	9.000	On	L1	10.1	17.9	66.0
0.249000	43.9	1000.0	9.000	On	L1	10.1	17.9	61.8
0.460500	44.9	1000.0	9.000	On	L1	10.2	11.8	56.7
0.514500	47.5	1000.0	9.000	On	L1	10.2	8.5	56.0
0.541500	49.5	1000.0	9.000	On	L1	10.1	6.5	56.0
0.789000	39.5	1000.0	9.000	On	L1	10.0	16.5	56.0
0.892500	41.8	1000.0	9.000	On	L1	10.0	14.2	56.0
1.365000	39.6	1000.0	9.000	On	L1	9.9	16.4	56.0
1.954500	37.8	1000.0	9.000	On	L1	9.9	18.2	56.0
1.977000	38.0	1000.0	9.000	On	L1	9.9	18.0	56.0

#### Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.343500	34.3	1000.0	9.000	On	L1	10.1	14.8	49.1
0.546000	42.4	1000.0	9.000	On	L1	10.1	3.6	46.0
0.550500	42.0	1000.0	9.000	On	L1	10.1	4.0	46.0
0.843000	33.5	1000.0	9.000	On	L1	10.0	12.5	46.0
0.870000	32.7	1000.0	9.000	On	L1	10.0	13.3	46.0
1.333500	31.0	1000.0	9.000	On	L1	9.9	15.0	46.0
1.923000	30.9	1000.0	9.000	On	L1	9.9	15.1	46.0
1.981500	31.3	1000.0	9.000	On	L1	9.9	14.7	46.0
2.467500	30.2	1000.0	9.000	On	L1	9.9	15.8	46.0
3.075000	29.8	1000.0	9.000	On	L1	9.8	16.2	46.0

[NEUTRAL]

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.501000	39.6	1000.0	9.000	On	N	10.2	16.4	56.0
0.505500	41.5	1000.0	9.000	On	N	10.2	14.5	56.0
0.789000	38.3	1000.0	9.000	On	N	10.0	17.7	56.0
0.807000	38.5	1000.0	9.000	On	N	10.0	17.5	56.0
1.266000	35.9	1000.0	9.000	On	N	9.9	20.1	56.0
1.509000	38.3	1000.0	9.000	On	N	9.9	17.7	56.0
1.576500	37.9	1000.0	9.000	On	N	9.9	18.1	56.0
2.040000	37.7	1000.0	9.000	On	N	9.9	18.3	56.0
2.742000	36.1	1000.0	9.000	On	N	9.9	19.9	56.0
3.228000	36.3	1000.0	9.000	On	N	9.9	19.7	56.0

#### Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.348000	27.9	1000.0	9.000	On	N	10.1	21.1	49.0
0.546000	35.9	1000.0	9.000	On	N	10.2	10.1	46.0
0.546000	35.4	1000.0	9.000	On	N	10.2	10.6	46.0
0.843000	27.9	1000.0	9.000	On	N	10.0	18.1	46.0
0.847500	27.7	1000.0	9.000	On	N	10.0	18.3	46.0
1.414500	27.2	1000.0	9.000	On	N	9.9	18.8	46.0
1.981500	26.8	1000.0	9.000	On	N	9.9	19.2	46.0
1.990500	26.0	1000.0	9.000	On	N	9.9	20.0	46.0
2.607000	25.5	1000.0	9.000	On	N	9.9	20.5	46.0
3.133500	24.0	1000.0	9.000	On	N	9.9	22.0	46.0



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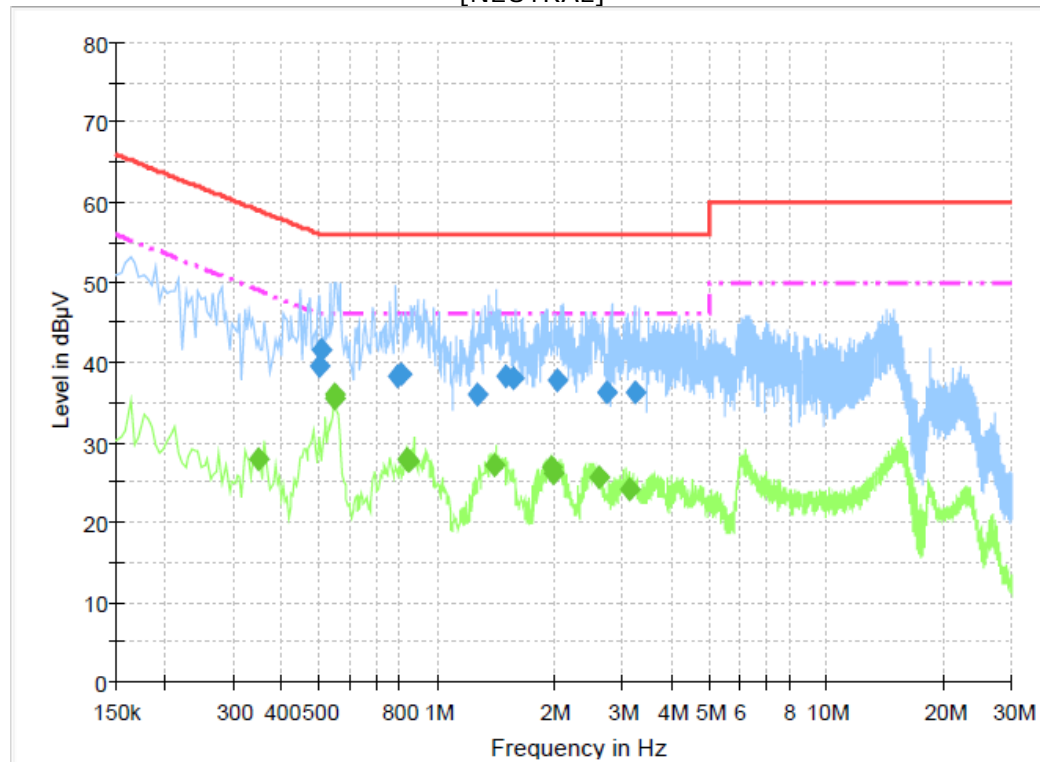
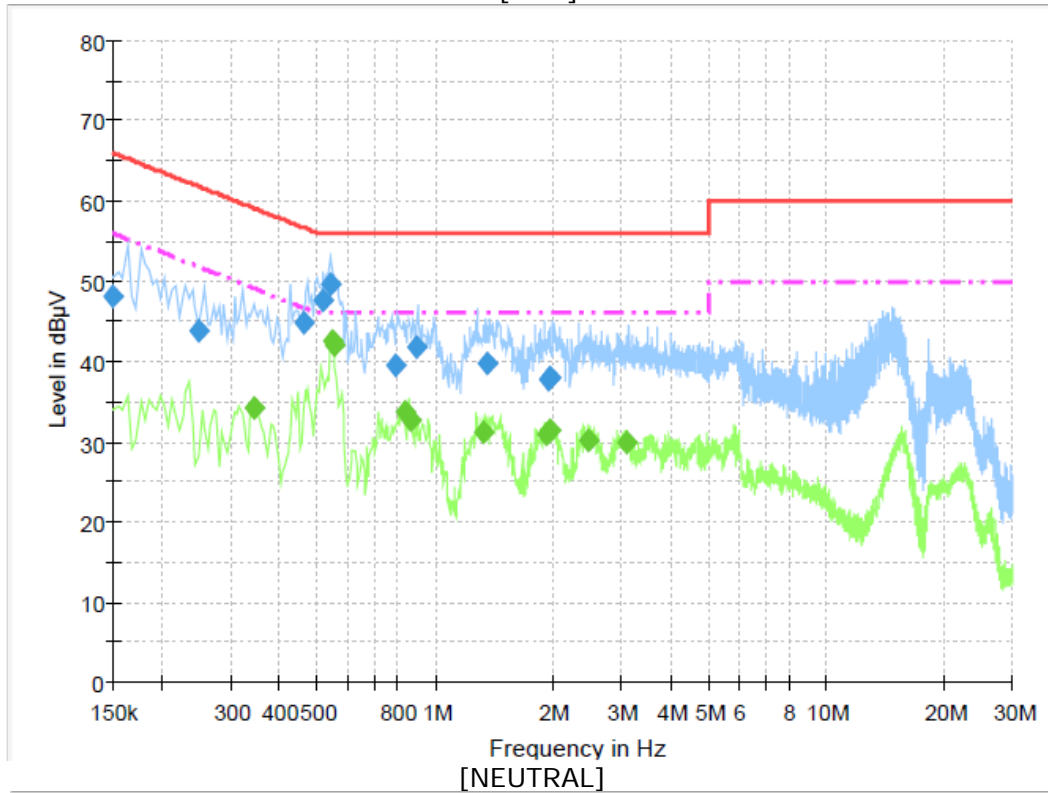
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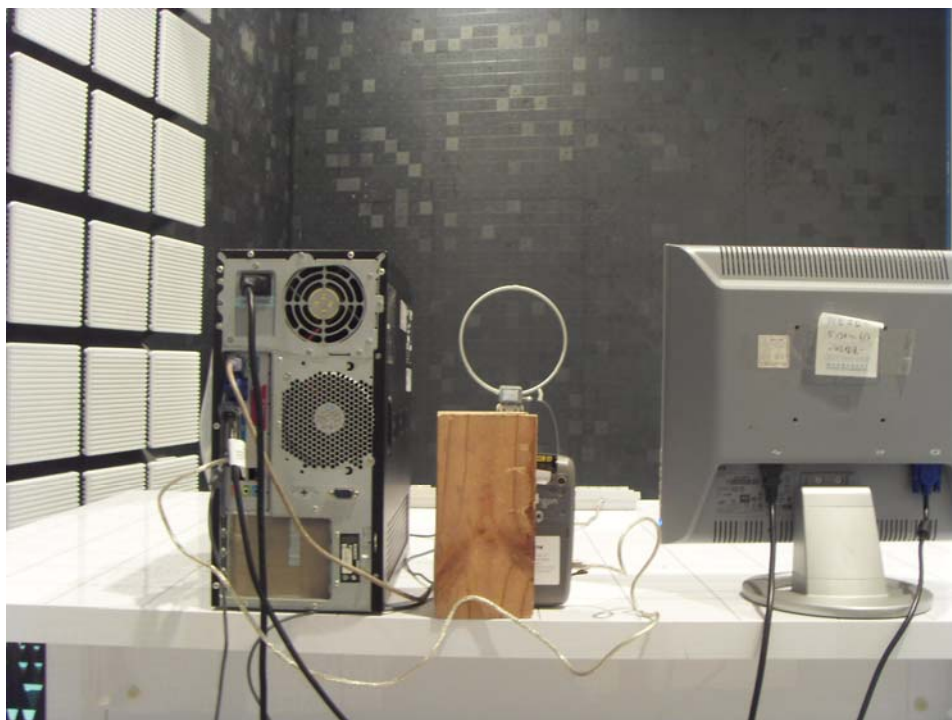
[HOT]





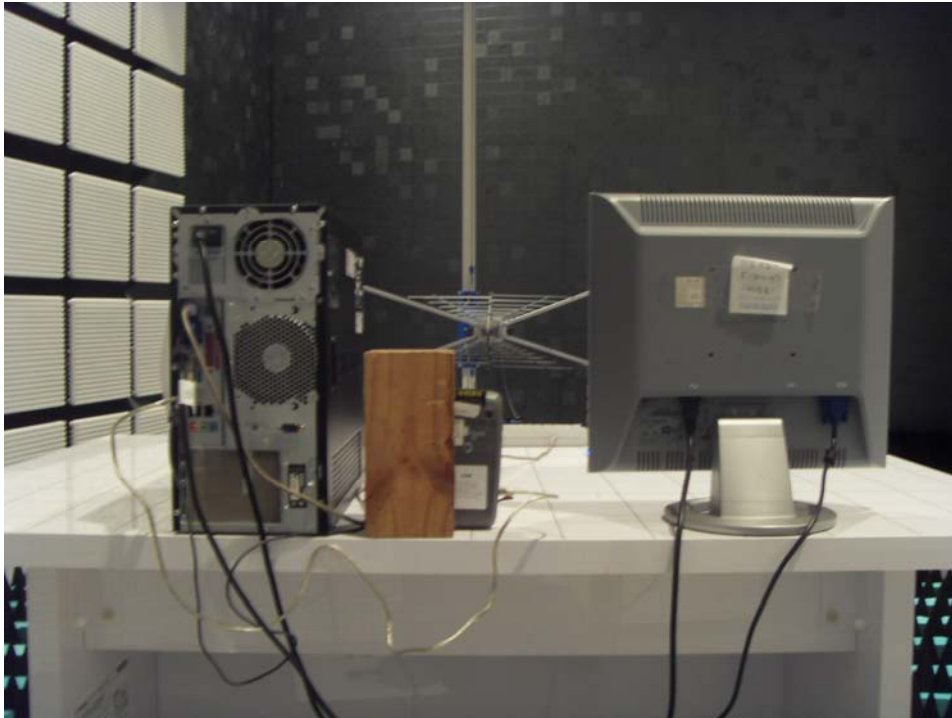
## APPENDIX B - Test Setup Photos and Configuration

### Radiated Electric Field Emissions (9 kHz ~ 30 MHz) : Battery

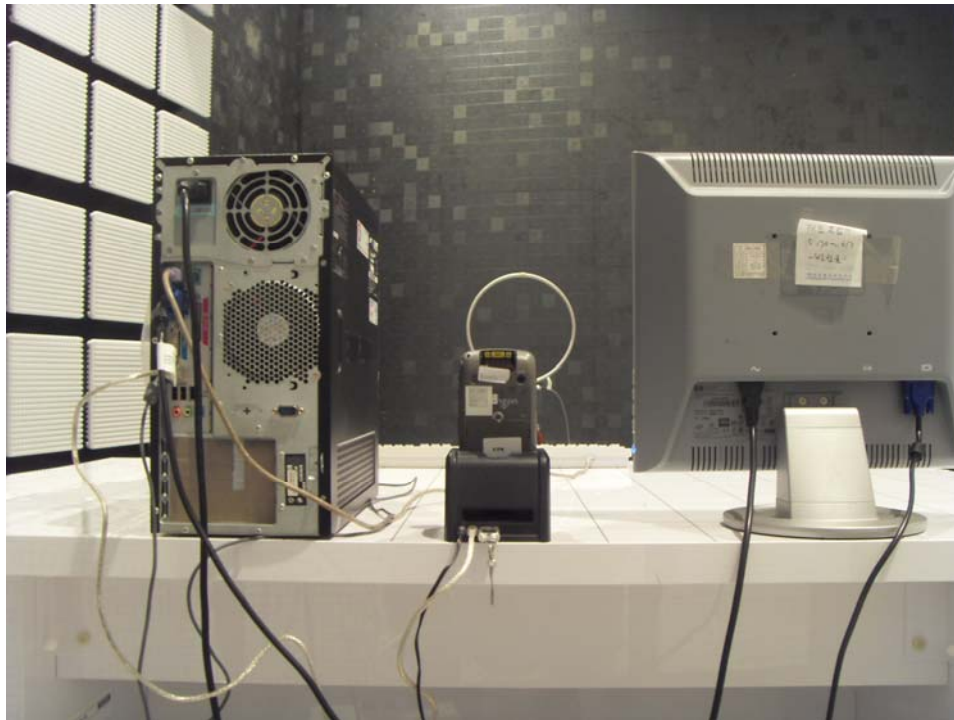




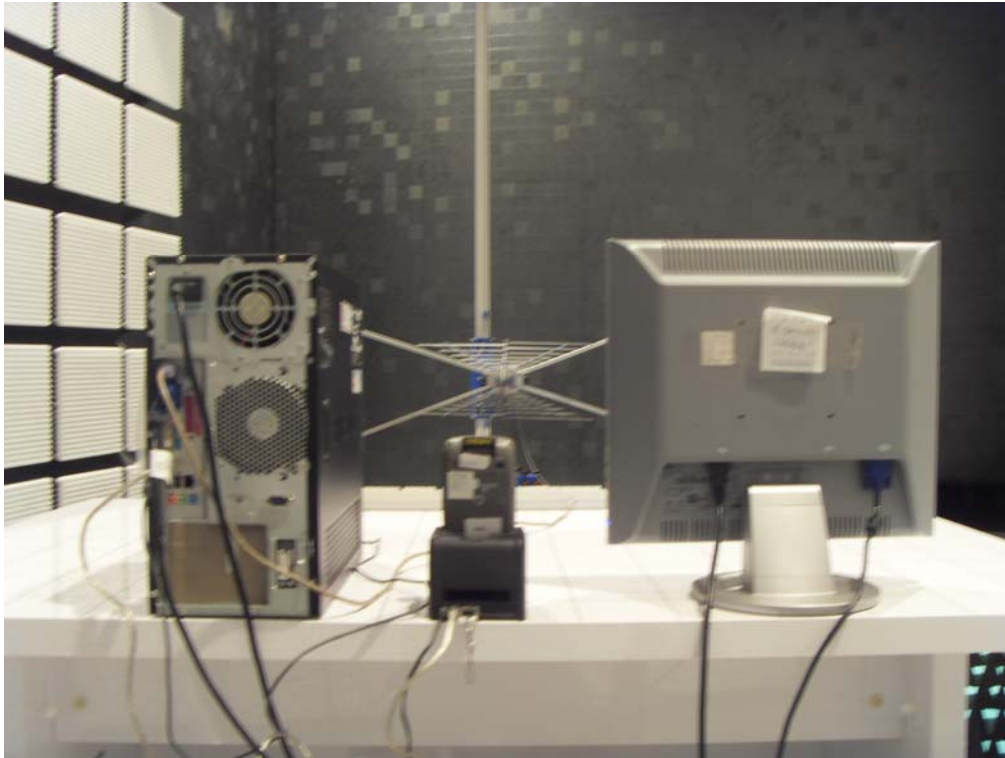
## Radiated Electric Field Emissions (30 MHz ~ 1000 MHz) : Battery



## Radiated Electric Field Emissions (9 kHz ~ 30 MHz) : With Cradle



## Radiated Electric Field Emissions (30 MHz ~ 1000 MHz) : With Cradle





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### Frequency Stability

