



Declaration of Compliance

CFR 47 Part 15 Subpart B

Test Report File No.	11-IST-0481	<input checked="" type="checkbox"/> Basic	<input type="checkbox"/> Alternate
Date of Receipt	Mar. 17, 2011	Begin of test date	Mar. 21, 2011
Date of Issue	Apr. 01, 2011	End of test date	Mar. 21, 2011

Kind of Product	E-BOOK
Basic Model(s)	EB07
FCCID	QDMEB07

Applicant	IRIVER LIMITED
Address	iriver House, 902-5, Bangbae-Dong, Seocho-Gu, Seoul-Si, Korea
Manufacturer	IRIVER LIMITED
Address	iriver House, 902-5, Bangbae-Dong, Seocho-Gu, Seoul-Si, Korea

Standard	Section 15.107, Section 15.109 [Class B Equipment]
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Test Result ☒ **Positive** ☐ **Negative**

Tested By

Reviewed By

Uihyun Ryu / Senior Engineer

B.S.KIM / Chief

Comment(s)

- Investigations requested : Measurement to the relevant clauses of FCC rules and regulations Part 15 Subpart B - Unintentional Radiators, Class B.
- The test report with appendix consists of 16 pages.
- The test result only responds to the tested sample.
- It is not allowed to copy this report even partly without the allowance of IST EMC Laboratory.
- This equipment as for has been shown to be capable of continued compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4 2003.





TABLE OF CONTENTS

Table of contents	2
Information of test laboratory, Environmental conditions, Power supply system used, Product information	3
Descriptions of test	4-5
Conducted Emission	4
Radiated Emission	5
Equipment Under Test	6-7
Summary	8
 ■ Test Conditions and Data - Emissions	
◆ Conducted Emissions	0.15 MHz - 30 MHz Applicable
Test Conditions / Data and Plots	9-11
◆ Radiated Emissions	30 MHz - 1 GHz Applicable
Test Conditions / Data and Plots	12-13
Appendix A. The Photos of Test Setup	14-16

Note:



IST Co., Ltd.
TEST REPORT NO. : 11-IST-0481

INFORMATIONS OF TEST LABORATORY

IST Co., Ltd.

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Kyonggi-Do, 446-599, Korea

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KOLAS Testing No. : 118

RRA Designation No. : KR0018

FCC Registration No. : 400603

FCC(DoC) Registration No. : 801060

VCCI Member No. : 1739



POWER SUPPLY SYSTEM USED

Power supply system

120 V, 60 Hz

(Refer to the product information)

PRODUCT INFORMATION

CPU	Freescall iMX-508(Cortex-A8/800MHz)
Display Type	EPD(LG Display-6.0" / LB060X01)
Display Resolution	XGA(1024 x 768)
Color Depth	16 Gray Level (Monochrome)
Key Structure	Power Slide / Home, Back, Enter, Option key(4 Key) / Navi Key(4 Key) / QWERTY Keyboard (38 Key)
Capacity	2GB Only
Storage Type	Movi NAND 2GB
External Storage	SD(SDHC/32G)
Memory	1Gbit(Mobile DDR SDRAM : 200MHz)
Connection Type	Mini USB 2.0
Power Charge	USB Charging (DC 5V)
Battery	Li-Polymer 3.7 V / 1800mA/h
Network	802.11 b/g Support

- EMC suppression device is not used during the test.
- Please refer to user's manual.



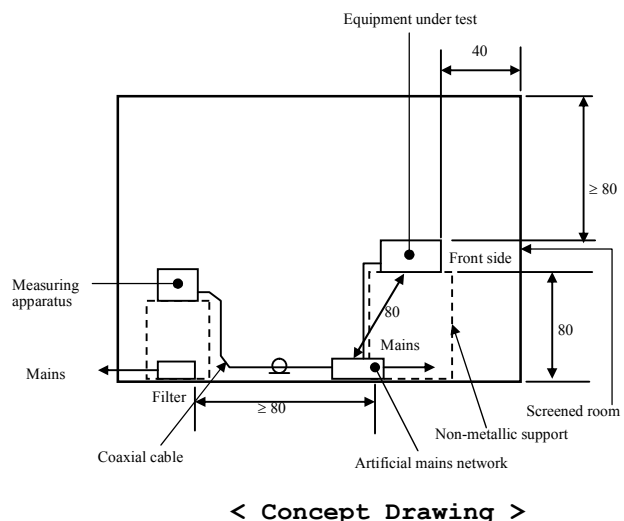
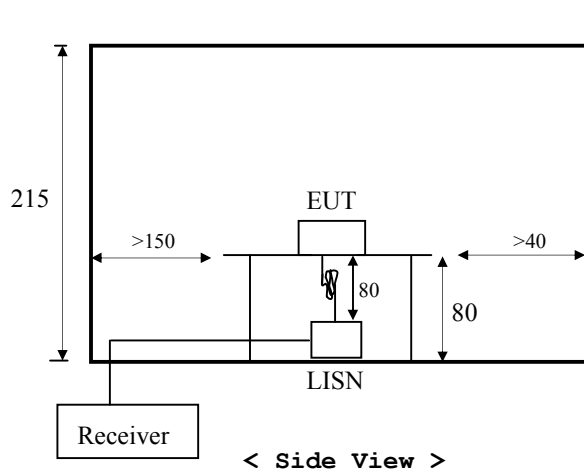
DESCRIPTIONS OF TEST

Conducted Emissions:

The measurement were performed over the frequency range of 0.15 MHz to 30 MHz using a 50 Ω /50uH LISN as the input transducer to a Spectrum Analyzer or a Field Intensity Meter. The measurements were made with the detector set for "Peak" amplitude within a bandwidth of 10KHz or for "quasi-peak" & "Average" within a bandwidth of 9 KHz.

-Procedure of Test

The line-conducted facility is located inside a shielded room No.1. A 1 m X 1.5 m wooden table 80 cm height is placed 40 cm away from the vertical wall and 1.5 m away from the other wall of the shielded room. The R/S ESH3-Z5 and Hyup-Rip KNW-407 LISN are bonded to bottom of the shielded room. The EUT is located on the wooden table with distance more than 80 cm from the LISN and powered from the Hyup-Rip LISN. The peripheral equipment is powered from the other LISN. Power to the LISNs are filtered by a noise cut power line filters. All electrical cables are shielded by braided tinned steel tubing with inner ϕ 1.2 cm. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply lines will be connected to the Hyup-Rip LISN. All interconnected cables more than 1 m were shortened by non-inductive bundling to a 1 m length. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating conditions. The RF output of the LISN was connected to the R/S receiver to determine the frequency producing the maximum emission from the EUT. The frequency producing the maximum level was reexamined using Quasi-Peak mode by manual measurement, after scanned by automatic Peak mode for frequency range from 0.15 to 30 MHz. The bandwidth of the receiver was set to 10 kHz. The EUT, peripheral equipment, and interconnecting cables were arranged and manipulated to maximize each EME emission.





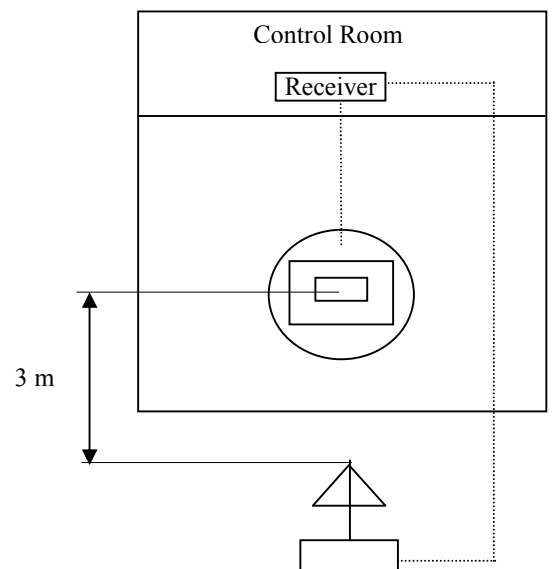
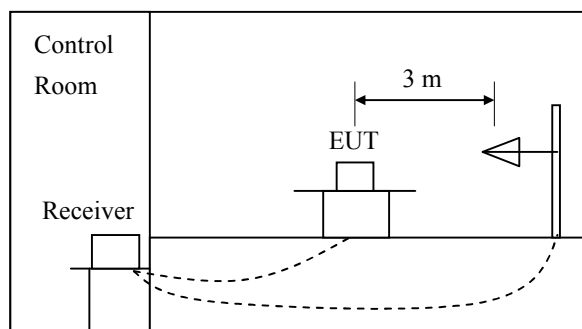
DESCRIPTION OF TEST

Radiated Emissions:

The measurement was performed over the frequency range of 30 MHz to 1 GHz using antenna as the input transducer to a Spectrum analyzer or a Field Intensity Meter. The measurement was made with the detector set for "quasi-peak" within a bandwidth of 120 KHz.

-Procedure of Test

Preliminary measurements were made at 3 meter using bi-conical and log-periodic antennas, and spectrum analyzer to determine the frequency producing the max. emission in anechoic chamber. Appropriate precaution was taken to ensure that all emission from the EUT were maximized and investigated. The system configuration, mode of operation, turn-table azimuth and height with respect to the antenna were noted for each frequency found. The spectrum was scanned from 30 MHz to 300 MHz using S/B bi-conical antenna and 300 to 1000 MHz using S/B log-periodic antenna. Above 1 GHz, linearly polarized double ridge horn antennas were used. Final measurements were made at open site with 10-meters test distance using S/B bi-log antenna or horn antenna. The OATS have been verified in regular for its normalized site attenuation. The test equipment was placed on a wooden table. Sufficient time for the EUT, peripheral equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. Each frequency found during pre-scan measurements was re-examined by manual. The detector function was set to CISPR quasi-peak mode and the bandwidth of the receiver was set to 120 kHz or 1 MHz depending on the frequency of type of signal. The EUT, peripheral equipment and interconnecting cables were re-configured to the set-up producing the max. emission for the frequency and were placed on top of a 0.8-meter high nonmetallic 1 x 1.5 meter table. The EUT, peripheral equipment, and interconnecting cables were re-arranged and manipulated to maximize each emission. The turntable containing the system was rotated; the antenna height was varied 1 to 4 meters and stopped at the azimuth or height producing the maximum emission. Each emission was maximized by: varying the mode of operation to the EUT and/or peripheral equipment and changing the polarity of the antenna, whichever determined the worst-case emission.





Equipment Under Test

EUT Type :

- ☒ Table-Top. ☐ Floor-Standing.
☐ Table-Top and Floor-Standing(Combination).

Operation - mode of the E.U.T. :

The equipment under test was operated during the measurement under following conditions :

- ☐ Standby Mode
☒ Operational Condition : File up/down

Configuration of the equipment under test :

Following peripheral devices and interface cables were connected during the measurement :

Equipment	Type	Brand	Serial No.
Notebook PC	Pavilion dv3500	HEWLET-PACKARD COMPANY	CNU90637N9
Adapter	Series PPP014L-SA	Suzhou Li Shin Electronic Co., Ltd.	9117558602
SD Memory	SDC-32M	Cannon	N/A

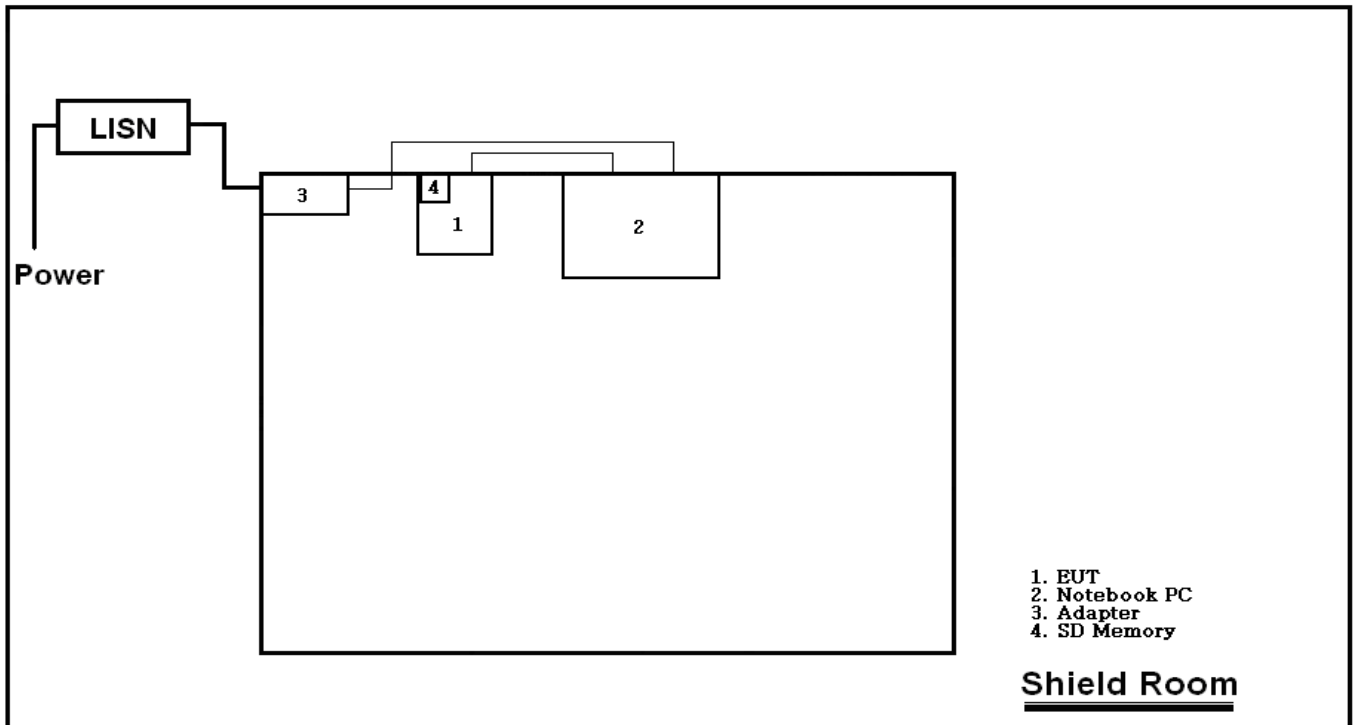
Connecting Interface Cables :

- Unshielded USB cable(without ferrite core): 0.8 m

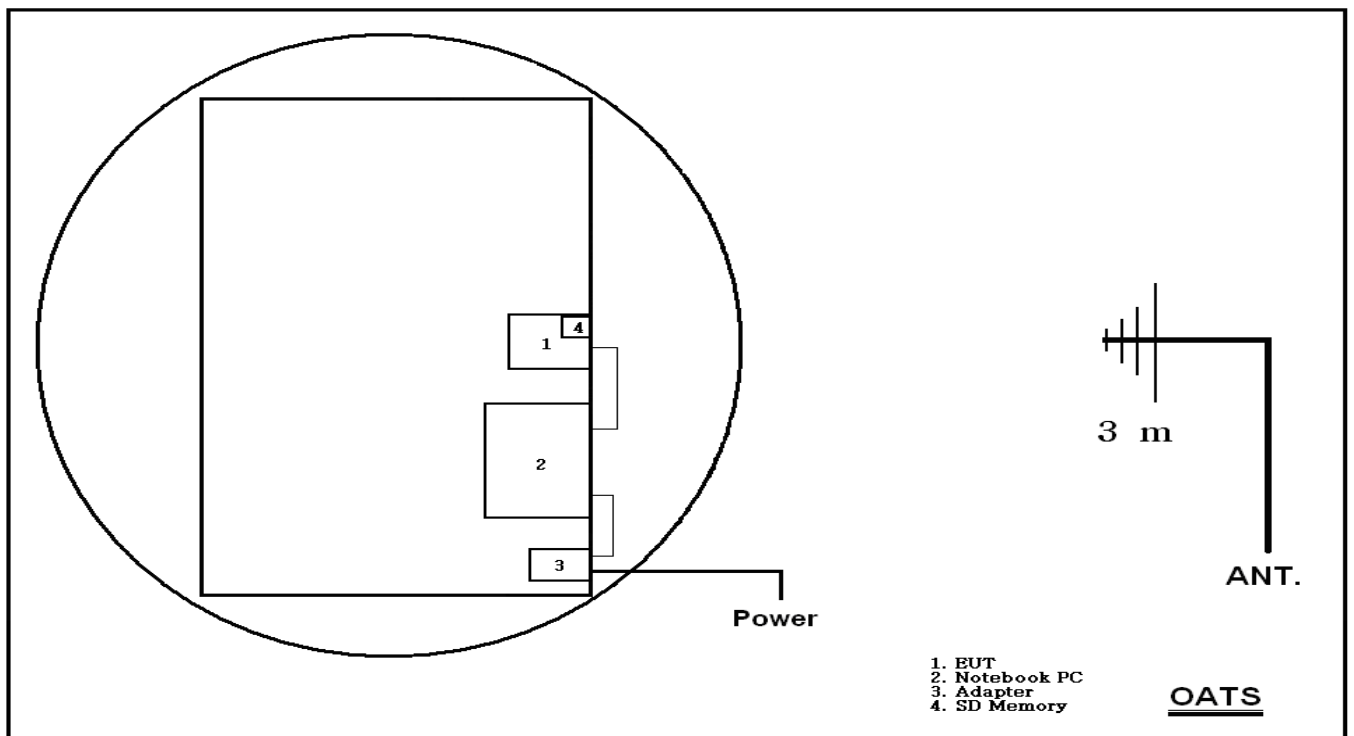
Note :



Test Set-Up



Conducted Emissions



Radiated Emissions



SUMMARY

Emissions

■ Conducted Emission

The requirements are	● MET	○ Not MET
Minimum limit margin	16.58 dB at 0.191 MHz	
Maximum limit exceeding		

Remarks : Limits are kept with more than 3 dB margin.

Find the test data in following page 10 to 11.

- Radiated Emission

The requirements are	● MET	○ Not MET
Minimum limit margin	5.93 dB at 240.001 MHz	
Maximum limit exceeding		

Remarks : Limits are kept with more than 3 dB margin.

Find the test data in following page 13 to 14.



TEST CONDITIONS AND DATA

Conducted Emissions

[Applicable]

◆ Test Equipment Used

Model Name	Description	Manufacture	Due Calibration	Serial No.
ESCI	Test Receiver	Rohde & Schwarz	Jul. 13, 2011	100373
KNW-407	LISN	Hyup-Rip	Oct. 13, 2011	8-883-10
ESH3-Z2	Pulse Limiter	Rohde & Schwarz	May 21, 2011	357.8810.52

◆ Test Accessories Used

Type	Manufacturer
Aneroid Barometer	Sato
Hygrometer	Sato

◆ Environmental Conditions

Temperature	(20.6 ± 0.2) °C
Humidity	(40.8 ± 0.1) % R.H.
Atmosphere pressure	997 hPa

◆ Test Program See the operational condition page 6.

◆ Test Date Mar. 21, 2011

◆ Test Area Conducted room No.1

Note :



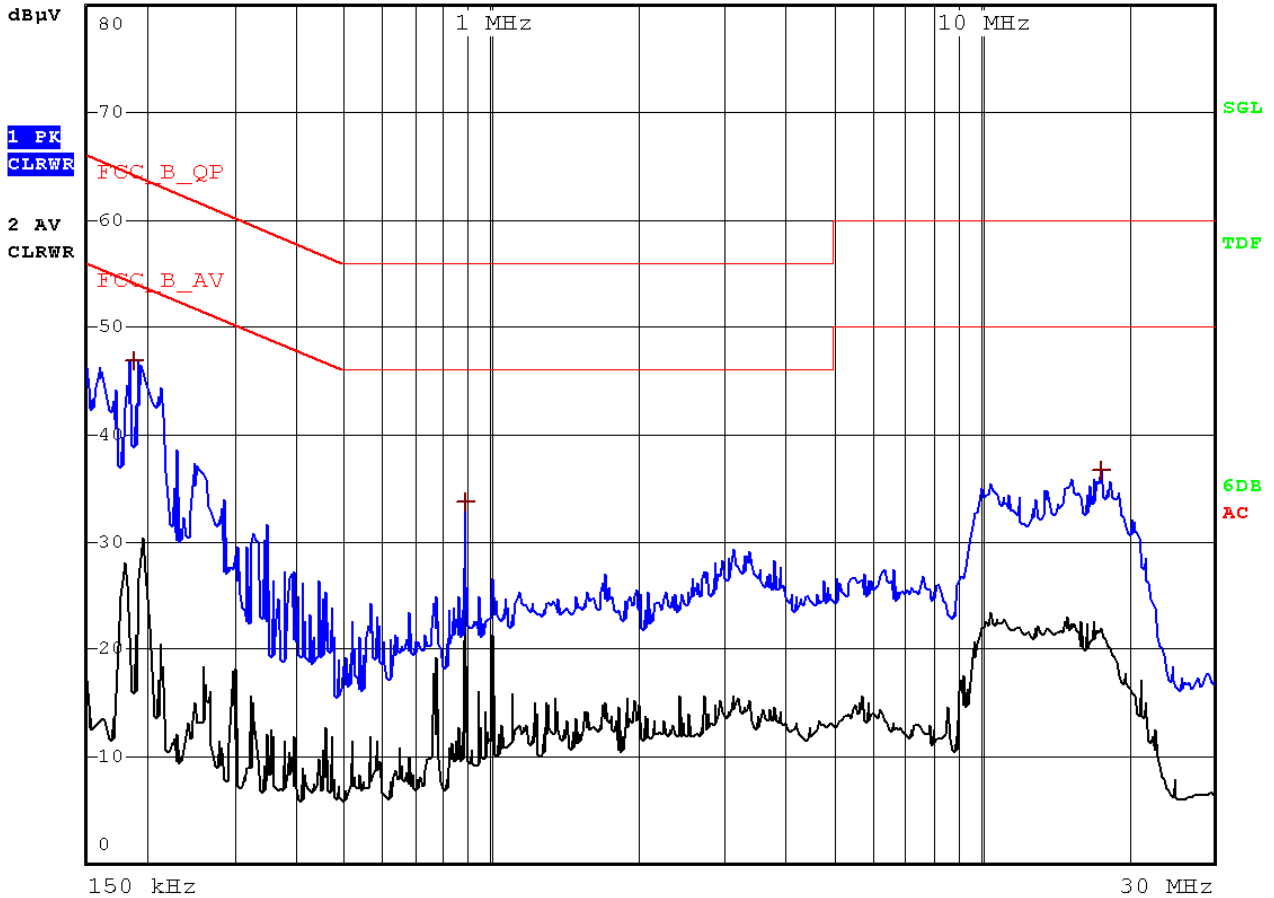
Conducted Emissions

Live Phase



RBW 9 kHz
MT 160 ms
PREAMP OFF

Att 10 dB



Model Name : EB07 120 Vac/ 60 Hz Phase : Live

Freq. [MHz]	Measurement [dB μV]		Limit [dB μV]		Insertion Loss	Cable Loss	Result [dB μV]		Margin [dB]	
	Q-peak	Average	Q-peak	Average			Q-peak	Average	Q-peak	Average
0.190	44.32	26.27	64.04	54.04	0.27	0.01	44.60	26.55	19.44	27.49
0.886	32.41	32.32	56.00	46.00	0.11	0.03	32.55	32.46	23.45	13.54
17.746	27.57	19.70	60.00	50.00	0.45	0.17	28.19	20.32	31.81	29.68



Note :

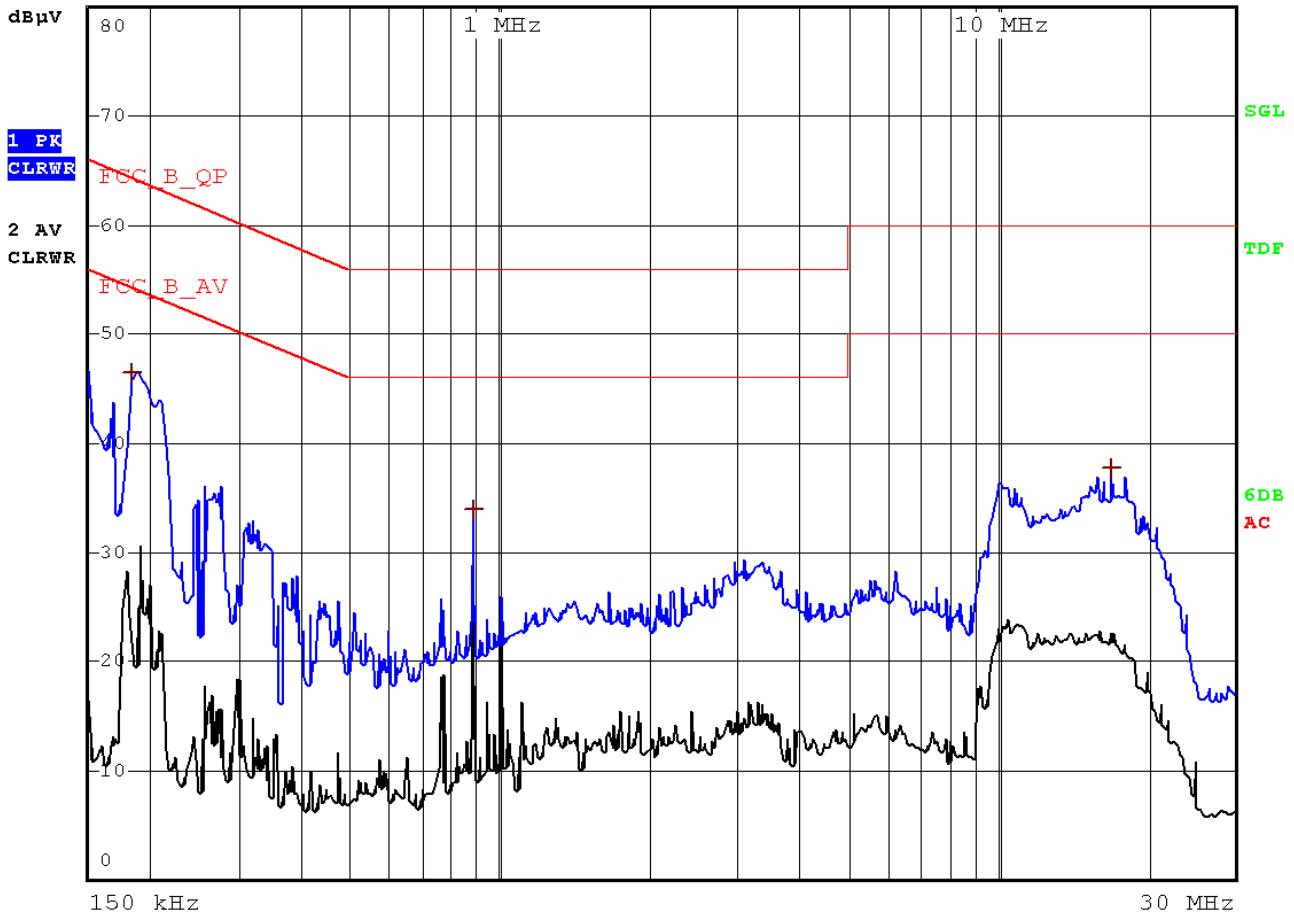
Conducted Emissions

Neutral Phase



RBW 9 kHz
MT 160 ms
PREAMP OFF

Att 10 dB



Model Name : EB07 120 Vac/ 60 Hz Phase : Neutral

Freq. [MHz]	Measurement [dB μV]		Limit [dB μV]		Insertion Loss	Cable Loss	Result [dB μV]		Margin [dB]	
	Q-peak	Average	Q-peak	Average			Q-peak	Average	Q-peak	Average
0.186	43.62	25.63	64.21	54.21	0.29	0.01	43.92	25.93	20.30	28.29
0.886	32.27	32.09	56.00	46.00	0.12	0.03	32.42	32.24	23.58	13.76
16.898	30.04	20.18	60.00	50.00	0.43	0.16	30.63	20.77	29.37	29.23

Note :



TEST CONDITIONS AND DATA

Radiated Emission

[Applicable]

◆ Test Equipment Used

Model Name	Description	Manufacture	Due Calibration	Serial No.
ESCS 30	Test Receiver	Rohde & Schwarz	Sep. 17, 2011	100171
E7405A	Test Receiver	Agilent	Oct. 13, 2011	MY42000092
VULB 9160	Antenna	Schwarzbeck	Aug. 06, 2011	3048
3115	Antenna	EMCO	Dec. 22, 2011	9012-3602

◆ Test Accessories Used

Type	Manufacturer
Aneroid Barometer	Sato
Hygrometer	Sato

◆ Environmental Conditions

Temperature	(10.1 ± 0.5) °C
Humidity	(42.9 ± 0.8) % R.H.
Atmosphere pressure	997 hPa

◆ Test Program See the operational condition page 6.

◆ Test Date Mar. 21, 2011

◆ Test Area Open Area Test site No.2 (3 m)
 Test Chamber

Note :



Radiated Emissions

[Applicable]

30 MHz ~ 1GHz

Freq. [MHz]	Reading [dBuV]	Antenna Factor [dB/m]	Cable Loss [dB]	Polar. [H/V]	Limit [dBuV/m]	Result [dBuV/m]	Margin [dB]
57.532	13.90	12.11	1.26	V	40.00	27.27	12.73
149.415	17.50	12.60	1.98	H	43.50	32.08	11.42
153.201	8.90	12.69	2.00	V	43.50	23.59	19.91
240.001	26.70	10.78	2.59	H	46.00	40.07	5.93
299.750	20.60	12.75	2.43	H	46.00	35.78	10.22
398.617	7.40	14.96	3.38	V	46.00	25.74	20.26

1 GHz ~ 5 GHz

Freq. [MHz]	Reading [dBuV]	Antenna Factor [dB/m]	Cable Loss [dB]	Amp. Gain [dB]	Polar. [H/V]	Limit [dBuV/m]	Result [dBuV/m]	Margin [dB]
1335.89	53.20	6.00	5.60	37.00	V	54.00	27.8	26.2
2328.01	52.00	8.90	7.10	36.30	V	54.50	31.7	22.3

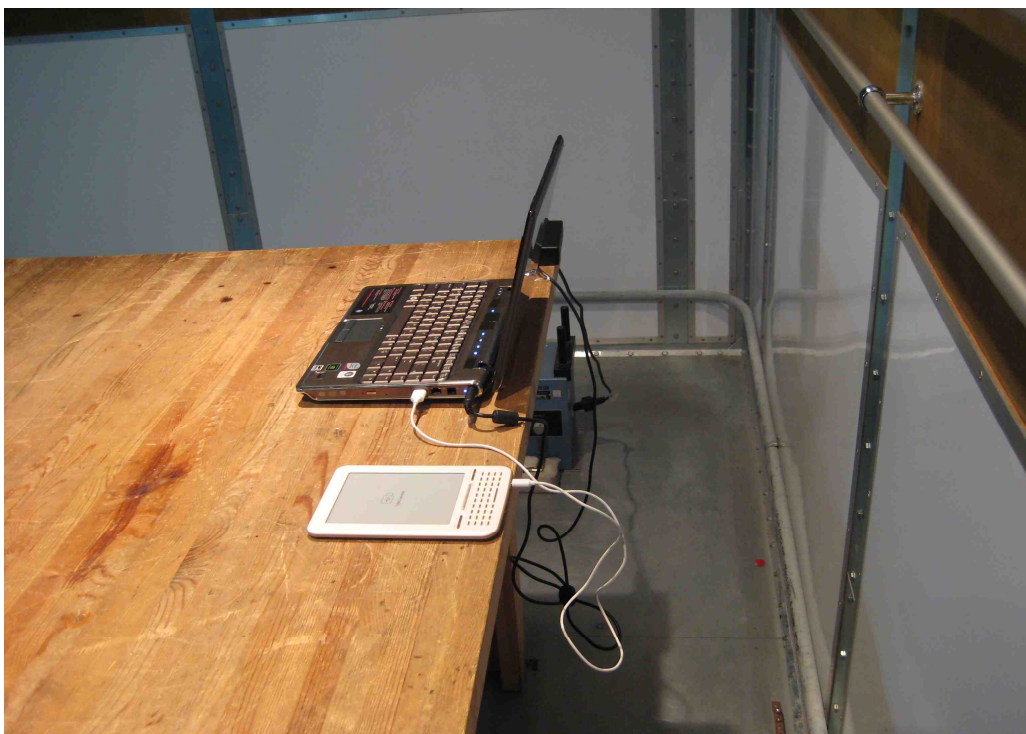
Note :



Appendix A. The Photos of Test Setup



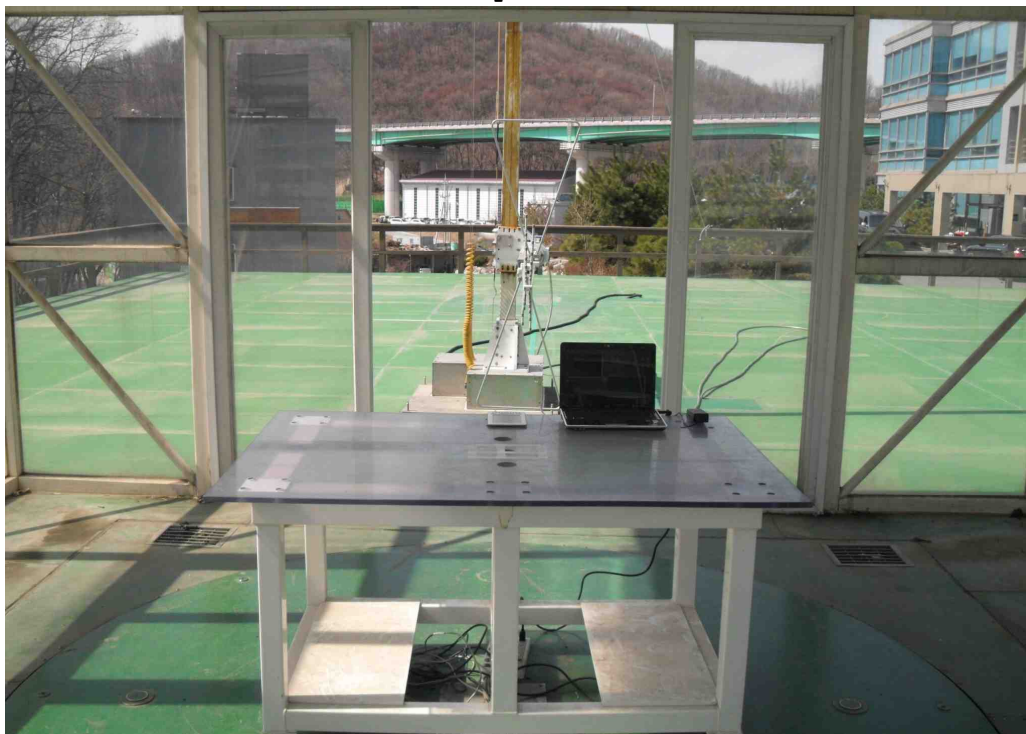
Conducted Emissions - Front View



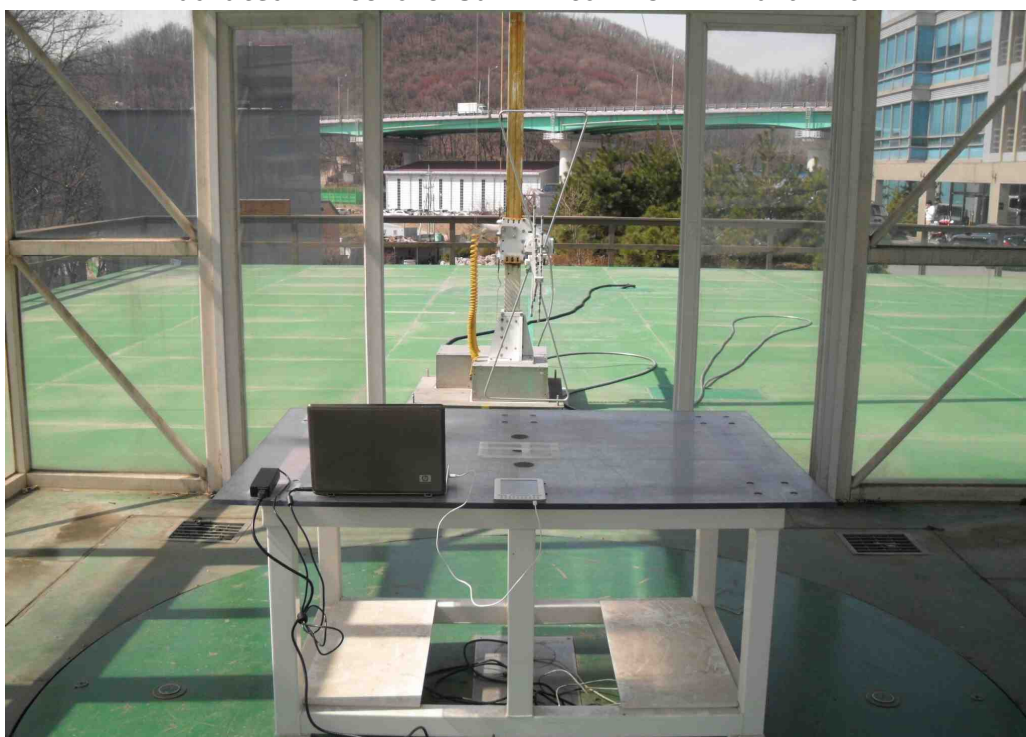
Conducted Emissions - Rear View



Appendix A. The Photos of Test Setup



Radiated Emissions 30 MHz to 1 GHz -Front View



Radiated Emissions 30 MHz to 1 GHz -Rear View



Radiated Emissions 1 GHz to 5 GHz -Front View