



EMI TEST REPORT

Test Report No. : 32EE0075-HO-C-R1

Applicant : NEC Corporation of America
Type of Equipment : Digital Portable Cellular Telephone
Model No. : KMP7N4AC1-3A
FCC ID : A98-QOE9653
Test standard : FCC Part 15 Subpart B: 2011 Class B
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.
6. This report is a revised version of 32EE0075-HO-C. 32EE0075-HO-C is replaced with this report.

Date of test: December 25, 2011

Representative test engineer:

Katsunori Okai
Engineer of WiSE Japan,
UL Verification Service

Approved by:

Takahiro Hatakeda
Leader of WiSE Japan,
UL Verification Service



NVLAP LAB CODE: 200572-0

This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation.
*As for the range of Accreditation in NVLAP, you may refer to the WEB address,
<http://www.ul.com/japan/jpn/pages/services/emc/about/mark1/index.jsp#nvlap>

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

CONTENTS	PAGE
SECTION 1: Customer information	3
SECTION 2: Equipment under test (E.U.T.)	3
SECTION 3: Test specification, procedures & results	6
SECTION 4: Operation of E.U.T. during testing	9
SECTION 5: Conducted Emission	11
SECTION 6: Radiated Emission	12
APPENDIX 1: Data of EMI test	13
Conducted Emission	13
Radiated Emission	14
APPENDIX 2: Test instruments	16
APPENDIX 3: Photographs of test setup.....	17
Conducted Emission	17
Radiated Emission	18
Worst Case Position (Horizontal: X-axis/ Vertical:X-axis)	19

SECTION 1: Customer information

Company Name : NEC Corporation of America
Address : Radio Communications Systems Division
6535N. State Highway 161, Irving, TX 75039-2402 USA
Telephone Number : +1 214 262 4241
Facsimile Number : +1 214 262 4225
Contact Person : Sanjay Wadhwa

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Digital Portable Cellular Telephone
Model No. : KMP7N4AC1-3A
Serial No. : Refer to Section 4, Clause 4.2
Rating : DC 3.8V
Receipt Date of Sample : December 23, 2011
Country of Mass-production : Japan
Condition of EUT : Production prototype
Modification of EUT : No Modification by the test lab

2.2 Product description

Model No: KMP7N4AC1-3A, (referred to as the EUT in this report), is the Digital Portable Cellular Telephone.

Radio Specification [1/2]

Bluetooth (Ver.2.1 + EDR)

Equipment Type	Transceiver
Frequency of Operation	2402-2480MHz
Other Clock Frequency	19.2MHz
Type of Modulation	FHSS
Bandwidth & Channel spacing	1MHz & 1MHz
Antenna Connector Type	Integrated antenna

Low Energy (Ver.4.0)

Equipment Type	Transceiver
Frequency of Operation	2402-2480MHz
Other Clock Frequency	19.2MHz
Bandwidth & Channel spacing	1MHz & 2MHz
Antenna Connector Type	Integrated antenna

WLAN (IEEE802.11b/g/n (SISO/HT20))

Equipment Type	Transceiver
Frequency of Operation	2412-2462MHz
Other Clock Frequency	19.2MHz
Type of Modulation	DSSS, OFDM
Antenna Connector Type	Integrated antenna

GSM

Equipment Type	Transceiver
Frequency of Operation	[Up Link] GSM850: 824 – 849MHz PCS: 1850 – 1910MHz [Down Link] GSM850: 869 – 894MHz PCS: 1930 – 1990MHz
Other Clock Frequency	19.2MHz
Type of Modulation	GMSK
Channel spacing	200kHz
Antenna Connector Type	Integrated antenna

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

Radio Specification [2/2]

WCDMA

Equipment Type	Transceiver
Frequency of Operation	[Up Link] Band V: 824 – 849MHz [Down Link] Band V: 869 – 894MHz
Other Clock Frequency	19.2MHz
Type of Modulation	HPSK
Channel spacing	5MHz
Antenna Connector Type	Integrated antenna

GPS

Equipment Type	Receiver
Receiver Type	Direct Downconversion
Frequency of Operation	1575.42MHz
Other Clock Frequency	19.2MHz
Antenna Connector Type	Integrated antenna

RFID

Equipment Type	Transceiver
Frequency of Operation	13.56MHz
Type of Modulation	ASK
Antenna Connector Type	Integrated antenna

SECTION 3: Test specification, procedures & results

3.1 Test specification

Test Specification : FCC Part 15 Subpart B: 2011, final revised on November 21, 2011 and effective December 21, 2011

Title : FCC 47CFR Part15 Radio Frequency Device
Subpart B Unintentional Radiators

3.2 Procedures and results

Item	Test Procedure	Limits	Deviation	Worst margin	Result
Conducted emission	FCC: ANSI C63.4: 2003 7. AC powerline conducted emission measurements	Class B	N/A	[QP] 13.8dB 0.20175MHz, L [AV] 11.8dB 0.20175MHz, L	Complied
Radiated emission	FCC: ANSI C63.4: 2003 8. Radiated emission measurements	Class B	N/A	5.6dB 119.999MHz, QP Vertical	Complied

*Note: UL Japan, Inc's EMI Work Procedure 13-EM-W0420.

3.3 Addition to standard

No addition, exclusion nor deviation has been made from the standard.

3.4 Uncertainty

EMI

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor k=2.

Test room (semi-anechoic chamber)	Conducted emission (+dB)
	150kHz-30MHz
No.1	3.5dB
No.2	3.6dB
No.3	3.6dB
No.4	3.6dB

Test room (semi-anechoic chamber)	Radiated emission						
	(3m*)(+dB)				(1m*)(+dB)		(0.5m*)(+dB)
	9kHz -30MHz	30MHz -300MHz	300MHz -1GHz	1GHz -18GHz	10GHz -18GHz	18GHz -26.5GHz	26.5GHz -40GHz
No.1	4.2dB	5.0dB	5.1dB	4.7dB	5.7dB	4.4dB	4.3dB
No.2	4.1dB	5.2dB	5.1dB	4.8dB	5.6dB	4.3dB	4.2dB
No.3	4.5dB	5.0dB	5.2dB	4.8dB	5.6dB	4.5dB	4.2dB
No.4	4.7dB	5.2dB	5.2dB	4.8dB	5.6dB	5.1dB	4.2dB

*3m/1m/0.5m = Measurement distance

Conducted Emission test

The data listed in this test report has enough margin, more than the site margin.

Radiated emission test(3m)

The data listed in this test report has enough margin, more than the site margin.

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

3.5 Test Location

UL Japan, Inc. Head Office EMC Lab. *NVLAP Lab. code: 200572-0
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone : +81 596 24 8116 Facsimile : +81 596 24 8124

	FCC Registration Number	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	313583	2973C-1	19.2 x 11.2 x 7.7m	7.0 x 6.0m	No.1 Power source room
No.2 semi-anechoic chamber	655103	2973C-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	148738	2973C-3	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.3 Preparation room
No.3 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.4 semi-anechoic chamber	134570	2973C-4	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.4 Preparation room
No.4 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.5 semi-anechoic chamber	-	-	6.0 x 6.0 x 3.9m	6.0 x 6.0m	-
No.6 shielded room	-	-	4.0 x 4.5 x 2.7m	4.75 x 5.4 m	-
No.6 measurement room	-	-	4.75 x 5.4 x 3.0m	4.75 x 4.15 m	-
No.7 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.8 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-
No.9 measurement room	-	-	8.0 x 4.5 x 2.8m	2.0 x 2.0m	-
No.10 measurement room	-	-	2.6 x 2.8 x 2.5m	2.4 x 2.4m	-
No.11 measurement room	-	-	3.1 x 3.4 x 3.0m	2.4 x 3.4m	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

3.6 Data of EMI, Test instruments, and Test set up

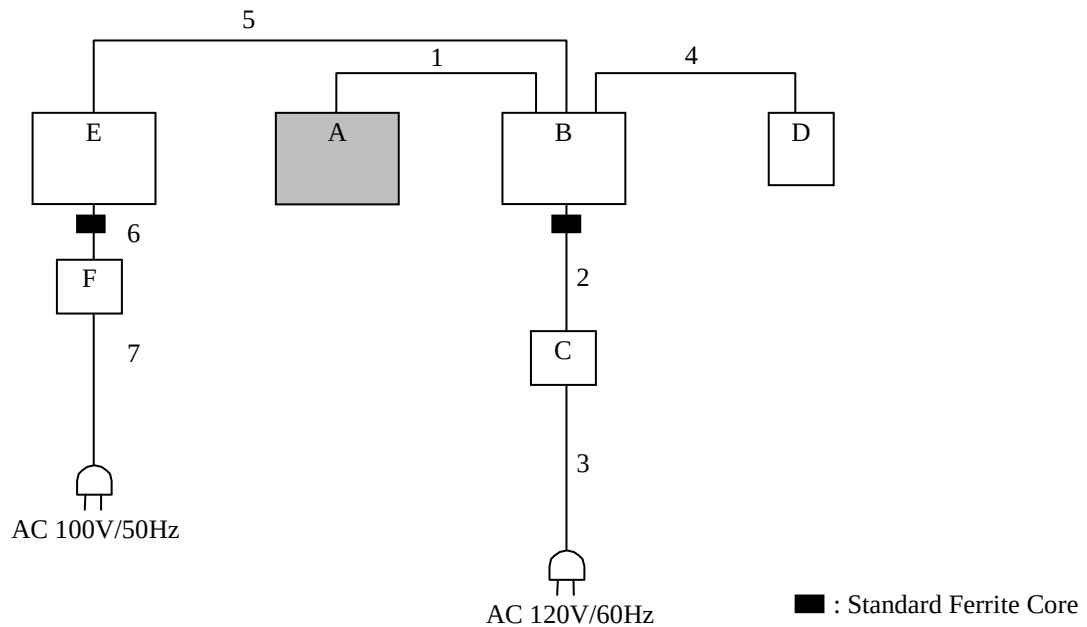
Refer to APPENDIX.

SECTION 4: Operation of E.U.T. during testing

4.1 Operating modes

Mode	Remarks
USB Communication mode	*EUT copied the data that was into the Micro SD memory onto laptop PC through the USB cable.

4.2 Configuration and peripherals



*Cabling and setup were taken into consideration and test data was taken under worse case conditions.

*It was preliminary confirmed that there was no difference in emission level due to a standard ferrite core.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Digital Portable Cellular Telephone	KMP7N4AC1-3A	004401200840235	NEC Corporation of America	EUT
B	Laptop PC	2373T49	L316W54	IBM	DoC
C	AC Adaptor	92P1020	11S92P1020Z1Z9RM6 3A76X	IBM	DoC
D	Mouse	MO56UOA	G0100D8Z	DELL	DoC
E	Printer	Desk Jet 840C	CN0B11C1H2	Hewlett Packard	DoC
F	AC Adapter	C6409-60014	0049R0D	Hewlett Packard	DoC

List of cables used

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	USB Cable	2.0	Shielded	Shielded	-
2	DC Cable	1.0	Unshielded	Unshielded	-
3	AC Cable	1.0	Unshielded	Unshielded	-
4	Mouse Cable	1.8	Shielded	Shielded	-
5	Printer Cable	3.0	Shielded	Shielded	-
6	DC Cable	2.0	Unshielded	Unshielded	-
7	AC Cable	1.0	Unshielded	Unshielded	-

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

SECTION 5: Conducted Emission

5.1 Operating environment

Test place : No.4 semi anechoic chamber.
Temperature : See data
Humidity : See data

5.2 Test configuration

EUT was placed on a urethane platform of nominal size, 1.0m by 1.5m, raised 0.8m above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT and its peripherals was aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from the LISN/AMN and excess AC cable was bundled in center. I/O cables that were connected to the other peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN/AMN to the input power source. All unused 50 ohm connectors of the LISN/AMN were resistivity terminated in 50 ohm when not connected to the measuring equipment. Photographs of the set up are shown in Appendix 3.

Frequency range : 0.15 MHz-30MHz
EUT position : Table top
EUT operation mode : See Clause 4.1

5.3 Test procedure

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT within a semi anechoic chamber. The EUT was connected to a Line Impedance Stabilization Network (LISN)/ Artificial Mains network (AMN). An overview sweep with peak detection has been performed. The measurements have been performed with a quasi-peak detector and if required, with an average detector.

The conducted emission measurements were made with the following detector function of the test receiver.

Detector Type : Quasi-Peak and Average
IF Bandwidth : 9 kHz

5.4 Test result

Summary of the test results: Pass

Date: December 25, 2011

Test engineer: Katsunori Okai

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

SECTION 6: Radiated Emission

6.1 Operating environment

Test place : No.4 semi anechoic chamber
Temperature : See data
Humidity : See data

6.2 Test configuration

EUT was placed on a urethane platform of nominal size, 1.0m by 1.5m, raised 0.8m above the conducting ground plane. The EUT was set on the center of the tabletop.
Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Photographs of the set up are shown in Appendix 3.

6.3 Test conditions

Frequency range : 30MHz-300MHz (Biconical antenna) / 300MHz-1000MHz (Logperiodic antenna)
1000MHz -13000MHz (Horn antenna)
Test distance : 3m
EUT position : Table top
EUT operation mode : See Clause 4.1

6.4 Test procedure

The height of the measuring antenna varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.
The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.
The radiated emission measurements were made with the following detector function of the test receiver and the Spectrum analyzer.

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver	Spectrum Analyzer
IF Bandwidth	QP: BW 120kHz	PK: RBW:1MHz/VBW: 3MHz AV *1): RBW:1MHz/VBW:10Hz

*1) When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

- The noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

6.5 Test result

Summary of the test results: Pass

Date: December 25, 2011

Test engineer: Katsunori Okai

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

APPENDIX 1: Data of EMI test

Conducted Emission

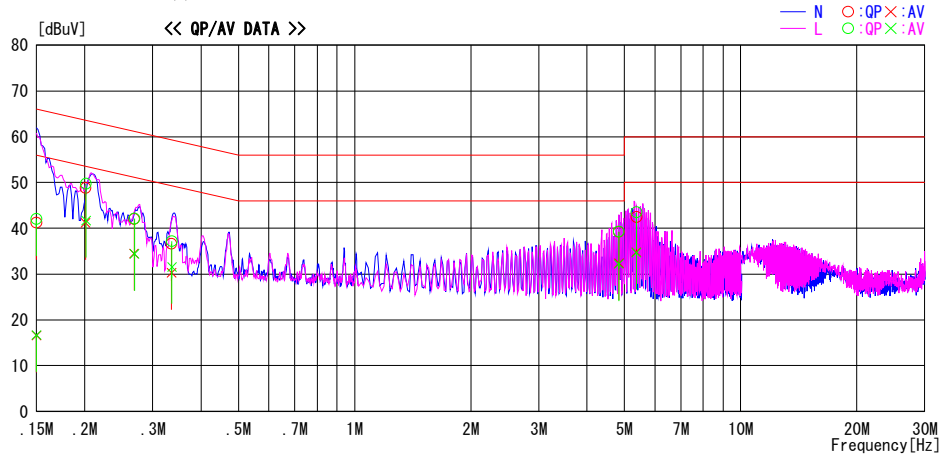
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2011/12/25

Report No. : 32EE0075-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg. C / 35%RH
Engineer : Katsunori Okai

Mode / Remarks : USB Communication

LIMIT : FCC15.107(a) QP ClassB
FCC15.107(a) AV ClassB



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15000	27.9	3.3	13.3	41.2	16.6	66.0	56.0	24.8	39.4	N	
0.20109	35.5	27.9	13.3	48.8	41.2	63.6	53.6	14.8	12.4	N	
0.26848	28.7	21.2	13.3	42.0	34.5	61.2	51.2	19.2	16.7	N	
0.33572	23.3	17.0	13.3	36.6	30.3	59.3	49.3	22.7	19.0	N	
4.83580	25.5	18.7	13.7	39.2	32.4	56.0	46.0	16.8	13.6	N	
5.37173	28.6	21.0	13.8	42.4	34.8	60.0	50.0	17.6	15.2	N	
0.15000	28.7	3.4	13.3	42.0	16.7	66.0	56.0	24.0	39.3	L	
0.20175	36.4	28.4	13.3	49.7	41.7	63.5	53.5	13.8	11.8	L	
0.26895	28.8	21.1	13.3	42.1	34.4	61.2	51.2	19.1	16.8	L	
0.33649	23.9	18.3	13.3	37.2	31.6	59.3	49.3	22.1	17.7	L	
4.83440	25.6	18.5	13.7	39.3	32.2	56.0	46.0	16.7	13.8	L	
5.37171	29.7	20.9	13.8	43.5	34.7	60.0	50.0	16.5	15.3	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT=READING+C.F (LISN LOSS+ATT LOSS +CABLE LOSS)
Except for the above table : adequate margin data below the limits.

*The limit is rounded down to one decimal place.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Emission

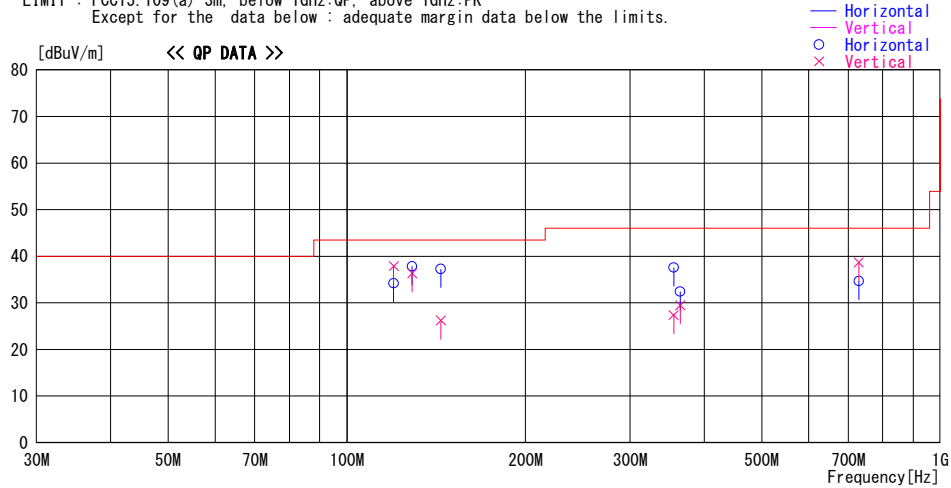
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2011/12/25

Report No. : 32EE0075-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg. C / 35% RH
Engineer : Katsunori Okai

Mode / Remarks : USB Communication

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
119.999	45.2	QP	12.9	-23.9	34.2	121	140	Hori.	43.5	9.3	
119.999	48.9	QP	12.9	-23.9	37.9	190	100	Vert.	43.5	5.6	
128.851	46.4	QP	13.7	-23.8	36.3	340	100	Vert.	43.5	7.2	
128.852	47.9	QP	13.7	-23.8	37.8	268	167	Hori.	43.5	5.7	
143.992	35.0	QP	14.8	-23.6	26.2	188	100	Vert.	43.5	17.3	
143.992	46.1	QP	14.8	-23.6	37.3	245	223	Hori.	43.5	6.2	
355.321	32.4	QP	17.0	-22.0	27.4	291	100	Vert.	46.0	18.6	
355.521	42.6	QP	17.0	-22.0	37.6	10	100	Hori.	46.0	8.4	
364.503	37.2	QP	17.1	-21.9	32.4	27	100	Hori.	46.0	13.6	
364.504	34.3	QP	17.1	-21.9	29.5	201	100	Vert.	46.0	16.5	
729.007	32.0	QP	22.5	-19.8	34.7	66	100	Hori.	46.0	11.3	
729.007	36.0	QP	22.5	-19.8	38.7	98	100	Vert.	46.0	7.3	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz:-HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

*The limit is rounded down to one decimal place.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Emission

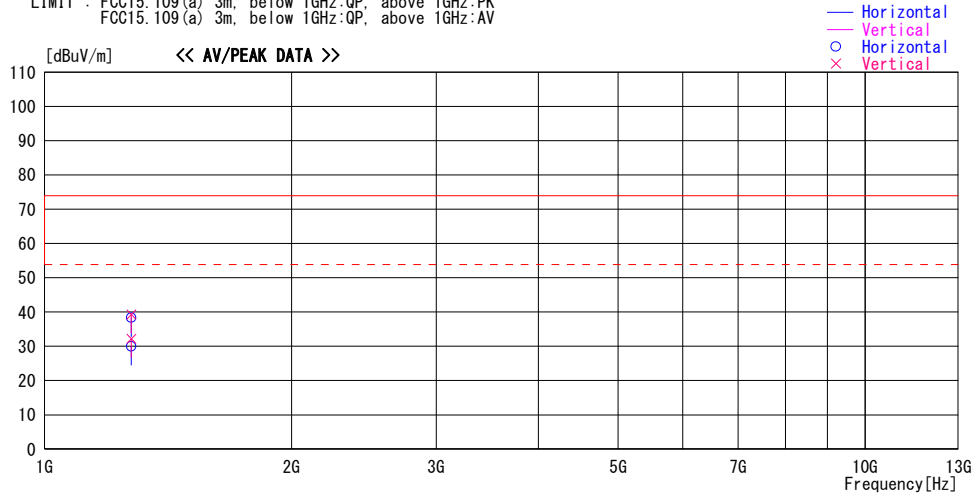
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2011/12/25

Report No. : 32EE0075-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg.C / 35% RH
Engineer : Katsunori Okai

Mode / Remarks : USB Communication

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
1275.766	46.8	PK	24.7	-32.2	39.3	90	100	Vert.	73.9	34.6	
1275.766	39.7	AV	24.7	-32.2	32.2	90	100	Vert.	53.9	21.7	
1275.767	45.8	PK	24.7	-32.2	38.3	240	100	Hori.	73.9	35.6	
1275.767	37.5	AV	24.7	-32.2	30.0	240	100	Hori.	53.9	23.9	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

*The limit is rounded down to one decimal place.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

APPENDIX 2: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date	Expiration date of the calibration
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2011/03/01	2012/03/31
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE/CE	2011/02/23	2012/02/29
MJM-07	Measure	PROMART	SEN1955	-	RE/CE	-	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE/CE	2011/04/08	2012/04/30
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	100635	RE/CE	2011/10/19	2012/10/31
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2011/11/16	2012/11/30
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2011/11/16	2012/11/30
MCC-50	Coaxial Cable	UL Japan	-	-	RE	2011/03/25	2012/03/31
MAT-51	Attenuator(6dB)	Weinschel	2	AS3557	RE	2011/01/14	2012/01/31
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2011/03/04	2012/03/31
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2011/08/11	2012/08/31
MCC-56	Microwave Cable	Suhner	SUCOFLEX104	270875/4(1m) / 284655(5m)	RE	2011/03/02	2012/03/31
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2011/03/10	2012/03/31
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE	2011/02/20	2012/02/29
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE	2011/02/22	2012/02/29
MTA-31	Terminator	TME	CT-01	-	CE	2011/01/05	2012/01/31
MAT-67	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2011/02/22	2012/02/29
MCC-113	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(5m)/421-010(1m)/sucoform141-PE(1m)/RFM-E121(Switcher)	-/04178	CE	2011/07/04	2012/07/31

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item:

CE: Conducted emission

RE: Radiated emission

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124