



EMI TEST REPORT

Test Report No. : 30AE0172-HO

Applicant : Sharp Corporation, Communication Systems Group.
Type of Equipment : Cellular Phone
Model No. : CDMA SH005
FCC ID : APYHRO00111
Test regulation : FCC Part 15 Subpart B 2009 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 above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Date of test:

November 11, 2009

Tested by:

T. Nakagawa
Tomohisa Nakagawa
EMC Services

Approved by :

Y. Yoshida
Yutaka Yoshida
Group Leader of EMC Services



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://uljapan.co.jp/emc/nvlap.html>

UL Japan, Inc.

Head Office EMC Lab.

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

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MF060b (06.08.09)

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SECTION 1: Customer information

Company Name : Sharp Corporation, Communication Systems Group.
Brand Name : SHARP
Address : 2-13-1 Iida Hachihonmatsu, HigashiHiroshima-City, Hiroshima, 739-0192,
Japan
Telephone Number : +81-82-420-1630
Facsimile Number : +81-82-420-1624
Contact Person : Hachiroh Hidaka

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

2.1 Identification of E.U.T.

Type of Equipment : Cellular Phone
Model No. : CDMA SH005
Serial No. : SSHDK001404
Receipt Date of Sample : November 5, 2009
Rating : AC120V/60Hz, DC4.0V
Country of Mass-production : China (Guangdong Province)
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No Modification by the test lab

2.2 Product Description

Sharp Corporation, Communication Systems Group., Model No: CDMA SH005 is the Cellular Phone.

Clock frequency : CPU: 19.2MHz
RTC: 32.768kHz

Feature of EUT : Model No: CDMA SH005 is 1XEV-DO Hybrid CDMA Tri-Band Cellular
Phone.
CDMA SH005 has Bluetooth wireless interface technology for
establishing contact and transmitting data with certain devices.
FeliCa technology enabled easy changing and payments as
Mobile Wallet. (Note: FeliCa does not operate in USA)

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SECTION 3: Test specification, procedures & results

3.1 Test specification

Test Specification : FCC Part 15 Subpart B 2009, final revised on February 27, 2009
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] 20.9dB 0.15000MHz,N [AV] 14.0dB 0.93120MHz, L	Complied
Radiated emission	FCC: ANSI C63.4: 2003 8. Radiated emission measurements	Class B	N/A	8.8dB, 106.912MHz, QP, Horizontal	Complied
*Note: UL Japan, Inc's EMI Work Procedure QPM05.					

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	3.7dB
No.2	3.7dB
No.3	3.7dB
No.4	3.7dB

Test room (semi-anechoic chamber)	Radiated emission (10m*)(+dB)			Radiated emission (3m*)(+dB)					
	9kHz-30MHz	30MHz-300MHz	300MHz-1GHz	9kHz-30MHz	30MHz-300MHz	300MHz-1GHz	1GHz-18GHz	18GHz-26.5GHz	26.5GHz-40GHz
No.1	3.1dB	4.4dB	3.9dB	3.2dB	3.8dB	3.9dB	5.0dB	5.0dB	5.4dB
No.2	-	-	-	3.2dB	4.4dB	4.0dB	5.0dB	5.2dB	5.4dB
No.3	-	-	-	3.2dB	4.2dB	3.8dB	5.0dB	5.3dB	5.3dB
No.4	-	-	-	3.2dB	4.0dB	3.8dB	5.0dB	5.3dB	5.3dB

*10m/3m = 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.

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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 Test set up, Data of EMI, and Test instruments

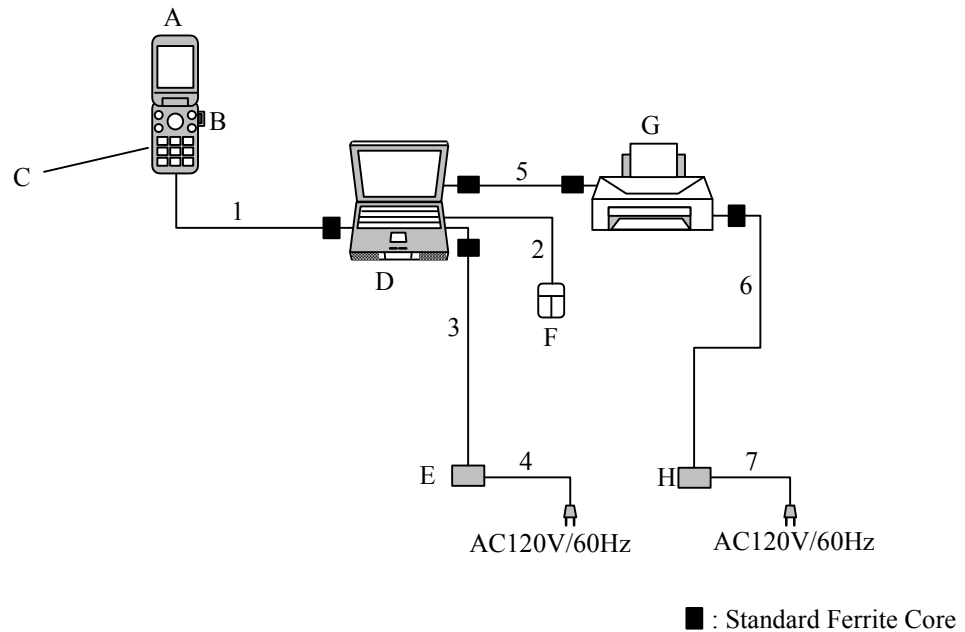
Refer to APPENDIX 1 to 3.

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

4.1 Operating modes

The mode(s) : 1) USB Data Com mode
 The USB data is communicated between EUT and Personal Computer
 (Pair of EUT).
 2) Standby mode
 Standby state for USB communication

4.2 Configuration and peripherals



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

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Cellular Phone	CDMA SH005	SSHDK001404	SHARP	EUT
B	microSD Memory Card	64MB type	-	PANASONIC	-
C	Lithium-Ion Battery	SH002UAA	-	SHARP	EUT
D	Personal Computer	PP10L	8LH3H1X	Dell	DoC
E	AC Adapter (PC)	AA22850	-	Dell	DoC
F	Mouse	M05UOA	G0N00FIF	Dell	DoC
G	Printer	C6414A	CNOB11C1H2	Hewlett Packard	DoC
H	AC Adapter (Printer)	C6409-60014	AA21210	Hewlett Packard	DoC

List of cables used

No.	Name	Length (m)	Shield	
			Cable	Connector
1	USB Data Cable	0.8	Shielded	Shielded
2	Mouse Cable	1.9	Unshielded	Unshielded
3	AC Adapter Cable(PC)	1.9	Unshielded	Unshielded
4	AC Power Cable(PC)	0.9	Unshielded	Unshielded
5	Parallel Cable	2.0	Shielded	Shielded
6	AC Adapter Cable (printer)	2.0	Unshielded	Unshielded
7	AC Power Cable (printer)	2.0	Unshielded	Unshielded

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SECTION 5: Conducted Emission

5.1 Operating environment

Test place	: No.2 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 1.

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: November 11, 2009

Test engineer: Tomohisa Nakagawa

SECTION 6: Radiated Emission

6.1 Operating environment

Test place : No.2 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 edge 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 1.

6.3 Test conditions

Frequency range : 30MHz-300MHz (Biconical antenna) / 300MHz-1000MHz (Logperiodic antenna)
1000MHz - 2000MHz (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: 1MHz 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 carrier level and 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: November 11, 2009

Test engineer: Tomohisa Nakagawa

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APPENDIX 1: Photographs of test setup

Conducted Emission

This page has been submitted for a separate exhibit.

Radiated Emission

This page has been submitted for a separate exhibit.

Worst Case Position (Horizontal: Y-axis/ Vertical:Y-axis)

This page has been submitted for a separate exhibit.

APPENDIX 2: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

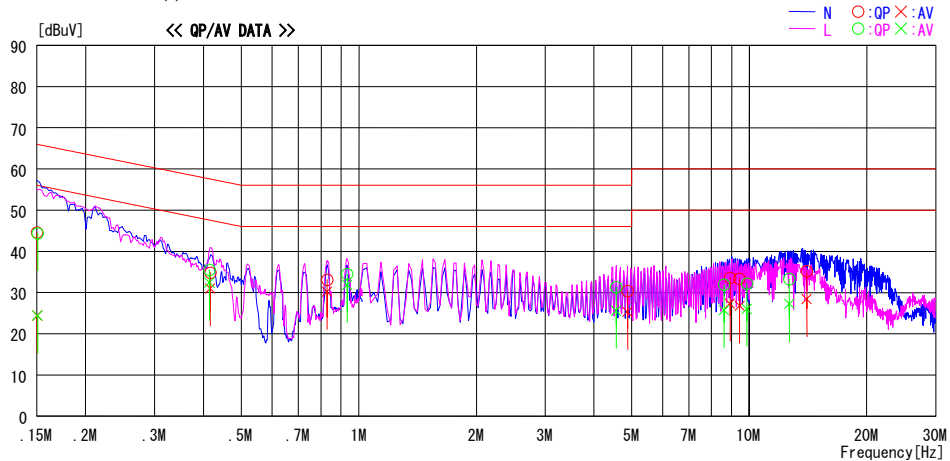
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2009/11/11

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH005
Serial No. : SSHDK001404

Report No. : 30AE0172-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg.C. / 68%
Engineer : Tomohisa Nakagawa

Mode / Remarks : USB Data Com mode

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



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	44.3	24.1	0.3	44.6	24.4	66.0	56.0	21.4	31.6	N	
0.41620	34.5	30.7	0.3	34.8	31.0	57.5	47.5	22.7	16.5	N	
0.82920	32.7	29.8	0.4	33.1	30.2	56.0	46.0	22.9	15.8	N	
4.87340	29.5	24.4	0.9	30.4	25.3	56.0	46.0	25.6	20.7	N	
8.92060	32.4	26.1	1.2	33.6	27.3	60.0	50.0	26.4	22.7	N	
9.43680	32.1	25.5	1.3	33.4	26.8	60.0	50.0	26.6	23.2	N	
14.02400	33.5	26.7	1.7	35.2	28.4	60.0	50.0	24.8	21.6	N	
0.15054	44.1	24.1	0.3	44.4	24.4	66.0	56.0	21.6	31.6	L	
0.41452	35.2	32.1	0.3	35.5	32.4	57.6	47.6	22.1	15.2	L	
0.93412	34.1	31.5	0.4	34.5	31.9	56.0	46.0	21.5	14.1	L	
4.56340	30.5	24.8	0.8	31.3	25.6	56.0	46.0	24.7	20.4	L	
8.61188	30.8	24.6	1.1	31.9	25.7	60.0	50.0	28.1	24.3	L	
9.85180	30.9	24.8	1.3	32.2	26.1	60.0	50.0	27.8	23.9	L	
12.65560	31.8	25.7	1.5	33.3	27.2	60.0	50.0	26.7	22.8	L	

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

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

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

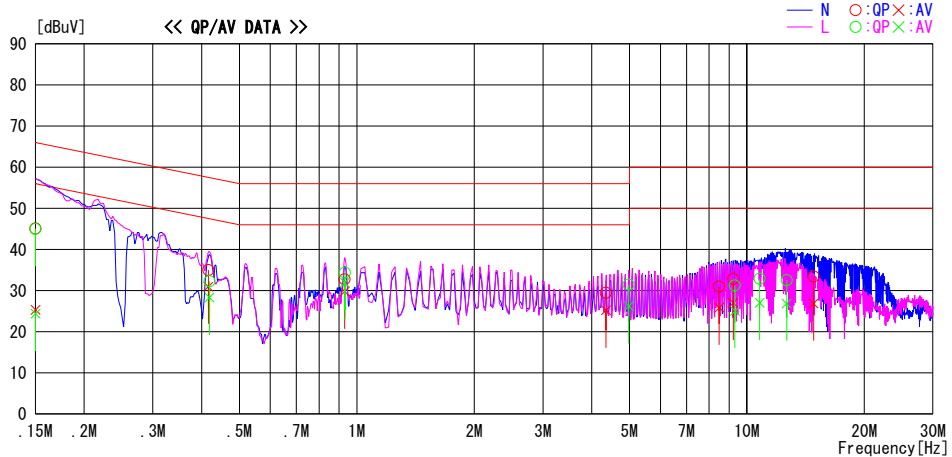
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/11/11

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH005
Serial No. : SSHDK001404

Report No. : 30AE0172-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg.C. / 68%
Engineer : Tomohisa Nakagawa

Mode / Remarks : Standby mode

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



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	44.8	25.0	0.3	45.1	25.3	66.0	56.0	20.9	30.7	N	
0.41620	34.7	30.7	0.3	35.0	31.0	57.5	47.5	22.5	16.5	N	
0.93042	32.3	29.4	0.4	32.7	29.8	56.0	46.0	23.3	16.2	N	
4.35080	28.7	24.4	0.8	29.5	25.2	56.0	46.0	26.5	20.8	N	
8.49600	29.9	24.8	1.1	31.0	25.9	60.0	50.0	29.0	24.1	N	
9.22480	31.5	25.8	1.3	32.8	27.1	60.0	50.0	27.2	22.9	N	
14.82160	31.8	25.2	1.7	33.5	26.9	60.0	50.0	26.5	23.1	N	
0.15000	44.7	24.1	0.3	45.0	24.4	66.0	56.0	21.0	31.6	L	
0.41920	32.0	28.0	0.3	32.3	28.3	57.5	47.5	25.2	19.2	L	
0.93120	34.0	31.6	0.4	34.4	32.0	56.0	46.0	21.6	14.0	L	
4.97730	30.6	25.3	0.9	31.5	26.2	56.0	46.0	24.5	19.8	L	
9.32120	30.0	23.8	1.3	31.3	25.1	60.0	50.0	28.7	24.9	L	
10.78320	31.6	25.8	1.3	32.9	27.1	60.0	50.0	27.1	22.9	L	
12.64850	31.1	25.4	1.5	32.6	26.9	60.0	50.0	27.4	23.1	L	

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

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

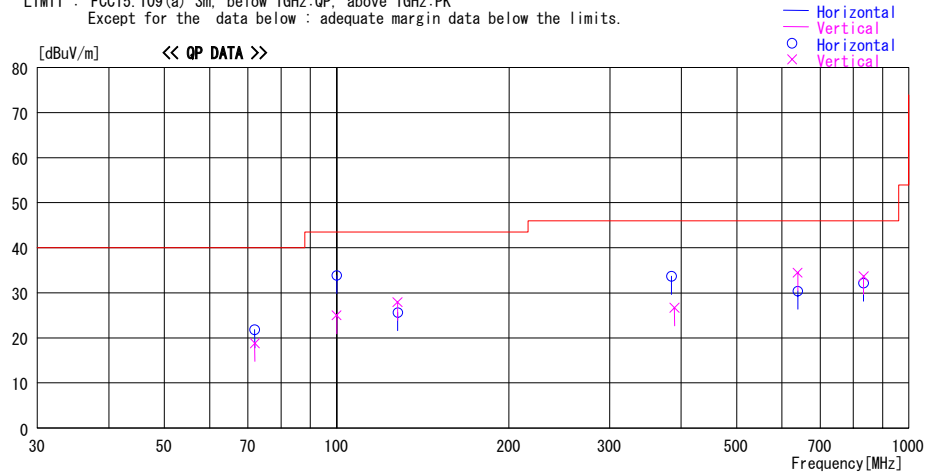
Radiated Emission

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2009/11/11

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH005
Serial No. : SSHDK001404
Report No. : 30AE0172-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 68%
Engineer : Tomohisa Nakagawa
Mode / Remarks : USB Data Com mode

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 Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
71.992	36.1	QP	7.0	-21.3	21.8	283	238	Hori.	40.0	18.2	
71.991	33.1	QP	7.0	-21.3	18.8	0	400	Vert.	40.0	21.2	
100.002	44.3	QP	10.6	-21.0	33.9	265	297	Hori.	43.5	9.6	
100.002	35.4	QP	10.6	-21.0	25.0	304	100	Vert.	43.5	18.5	
127.815	32.1	QP	14.2	-20.7	25.6	167	180	Hori.	43.5	17.9	
127.815	34.4	QP	14.2	-20.7	27.9	126	100	Vert.	43.5	15.6	
384.444	35.1	QP	17.5	-18.9	33.7	8	100	Hori.	46.0	12.3	
389.393	28.0	QP	17.7	-19.0	26.7	7	164	Vert.	46.0	19.3	
639.045	28.3	QP	20.5	-18.4	30.4	144	100	Hori.	46.0	15.6	
639.076	32.4	QP	20.5	-18.4	34.5	348	100	Vert.	46.0	11.5	
833.030	26.9	QP	22.5	-17.2	32.2	202	117	Hori.	46.0	13.8	
833.317	28.4	QP	22.5	-17.2	33.7	353	100	Vert.	46.0	12.3	

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

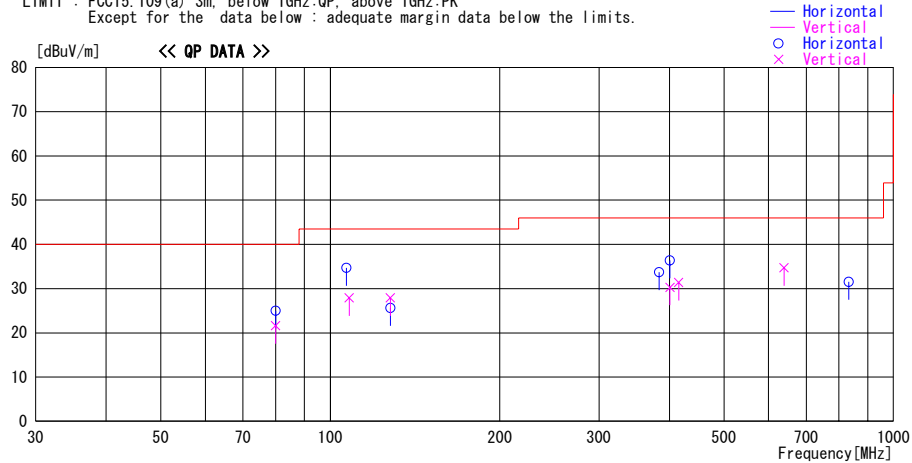
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/11/11

Company : Sharp Corporation
Kind of EUT : Cellular Phone
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Serial No. : SSHDK001404

Report No. : 30AE0172-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg.C. / 68%
Engineer : Tomohisa Nakagawa

Mode / Remarks : Standby mode

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	Loss&Gain							
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
79.994	35.8	QP	7.0	-21.2	21.6	123	100	Vert.	40.0	18.4	
80.001	39.2	QP	7.0	-21.2	25.0	282	234	Hori.	40.0	15.0	
106.912	44.0	QP	11.7	-21.0	34.7	100	295	Hori.	43.5	8.8	
108.100	37.1	QP	11.8	-21.0	27.9	282	100	Vert.	43.5	15.6	
127.819	34.4	QP	14.2	-20.7	27.9	128	100	Vert.	43.5	15.6	
127.823	32.1	QP	14.2	-20.7	25.6	341	311	Hori.	43.5	17.9	
383.444	35.1	QP	17.5	-18.9	33.7	358	100	Hori.	46.0	12.3	
400.954	31.2	QP	18.0	-18.9	30.3	259	120	Vert.	46.0	15.7	
400.959	37.3	QP	18.0	-18.9	36.4	10	100	Hori.	46.0	9.6	
415.398	32.4	QP	18.0	-19.0	31.4	177	100	Vert.	46.0	14.6	
639.077	32.6	QP	20.5	-18.4	34.7	353	100	Vert.	46.0	11.3	
833.101	26.2	QP	22.5	-17.2	31.5	251	100	Hori.	46.0	14.5	

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.

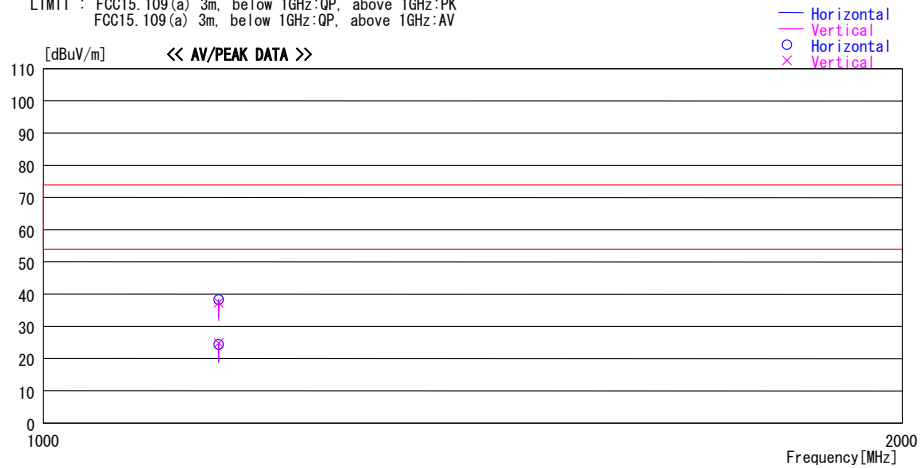
Radiated Emission

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/11/11

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH005
Serial No. : SSHDK001404
Report No. : 30AE0172-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 68%
Engineer : Tomohisa Nakagawa
Mode / Remarks : USB Data Com mode

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]	
1152.000	45.1	PK	24.8	-31.5	38.4	0	100	Hori.	73.9	35.5	
1152.000	44.1	PK	24.8	-31.5	37.4	0	100	Vert.	73.9	36.5	
1152.000	31.2	AV	24.8	-31.5	24.5	0	100	Hori.	53.9	29.4	
1152.000	31.6	AV	24.8	-31.5	24.9	0	100	Vert.	53.9	29.0	

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

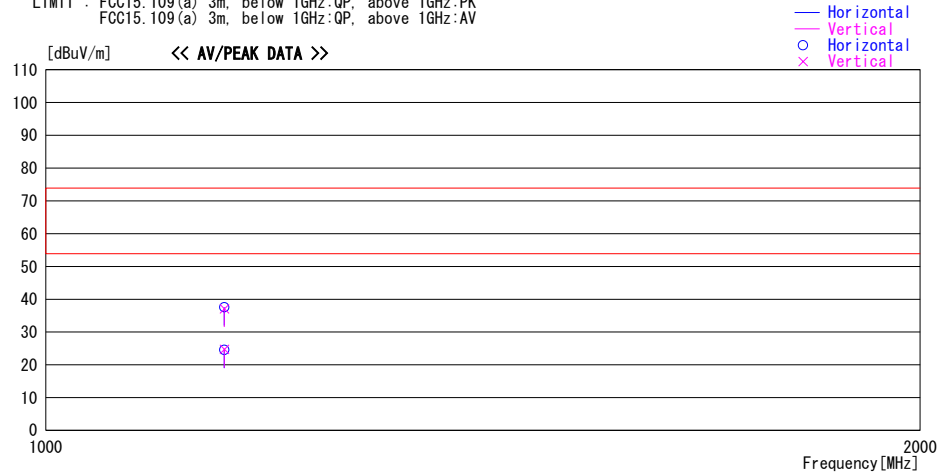
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/11/11

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH005
Serial No. : SSHDK001404
Report No. : 30AE0172-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 68%
Engineer : Tomohisa Nakagawa

Mode / Remarks : Standby mode

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



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
1152.000	44.3	PK	24.8	-31.5	37.6	0	100	Hori.	73.9	36.3	
1152.000	43.8	PK	24.8	-31.5	37.1	0	100	Vert.	73.9	36.8	
1152.000	31.3	AV	24.8	-31.5	24.6	0	100	Hori.	53.9	29.3	
1152.000	31.4	AV	24.8	-31.5	24.7	0	100	Vert.	53.9	29.2	

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 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	CE/RE	2009/08/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	CE/RE	2009/02/05 * 12
MJM-05	Measure	PROMART	SEN1955	-	CE/RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	CE/RE	-
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	CE/RE	2009/04/14 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE(EUT)	2009/02/18 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE(AE)	2009/02/18 * 12
MTA-07	Terminator	MCL	BTRM-50	1 9944	CE	2009/02/17 * 12
MCC-13	Coaxial Cable	Fujikura	3D-2W(12m)/ 5D-2W(5m)/ 5D-2W(0.8m)/ 5D-2W(1m)	-	CE	2009/02/16 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	CE/RE	2009/08/25 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2009/10/05 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2009/10/05 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2009/02/16 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2008/11/14 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2009/09/02 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2009/01/31 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	295123(5m) / 287573(1m)	RE	2008/11/27 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2009/09/14 * 12

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

All equipment is calibrated with traceable calibrations. Each calibration 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

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