



EMI TEST REPORT

Test Report No. : 30AE0173-HO

Applicant : **Sharp Corporation, Communication Systems Group.**

Type of Equipment : **Cellular Phone**

Model No. : **CDMA SH006**

FCC ID : **APYHRO00112**

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:

December 4, 2009

Tested by:

T. Shimada

Takumi Shimada
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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b (06.08.09)

CONTENTS	PAGE
SECTION 1: Customer information	3
SECTION 2: Equipment under test (E.U.T.)	3
SECTION 3: Test specification, procedures & results	4
SECTION 4: Operation of E.U.T. during testing	7
SECTION 5: Conducted Emission	9
SECTION 6: Radiated Emission	10
APPENDIX 1: Photographs of test setup.....	11
Conducted Emission	11
Radiated Emission	12
Worst Case Position (Horizontal: Y-axis/ Vertical:Y-axis)	13
APPENDIX 2: Data of EMI test	14
Conducted Emission	14
Radiated Emission	16
APPENDIX 3: Test instruments	20

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 SH006
Serial No. : SSHDM000867
Receipt Date of Sample : December 2, 2009
Rating : AC120V/60Hz, DC4.0V
Country of Mass-production : Japan
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 SH006 is the Cellular Phone.

Clock frequency : CPU: 19.2MHz
RTC: 32.768kHz

Feature of EUT : Model No: CDMA SH006 is 1XEV-DO Hybrid CDMA Tri-Band Cellular
Phone. CDMA SH006 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)

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 3: Test specification, procedures & results

3.1 Test specification

Test Specification : FCC Part 15 Subpart B 2009, final revised on December 2, 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] 13.5dB 1.55616MHz,L [AV] 9.0dB 0.93317MHz, L	Complied
Radiated emission	FCC: ANSI C63.4: 2003 8. Radiated emission measurements	Class B	N/A	6.7dB, 665.574MHz, QP, Vertical	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.

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 Test set up, Data of EMI, and Test instruments

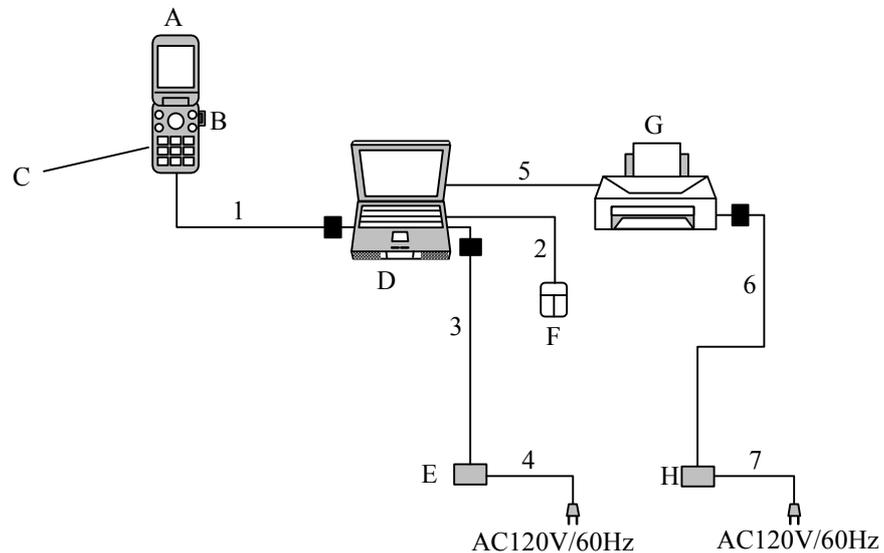
Refer to APPENDIX 1 to 3.

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



■ : Standard Ferrite Core

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

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Cellular Phone	CDMA SH006	SSHDM000867	SHARP	EUT
B	microSD Memory Card	64MB type	-	PANASONIC	-
C	Lithium-Ion Battery	SH003UAA	-	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

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.1 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: December 4, 2009

Test engineer: Takumi Shimada

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.1 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: December 4, 2009

Test engineer: Takumi Shimada

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: 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

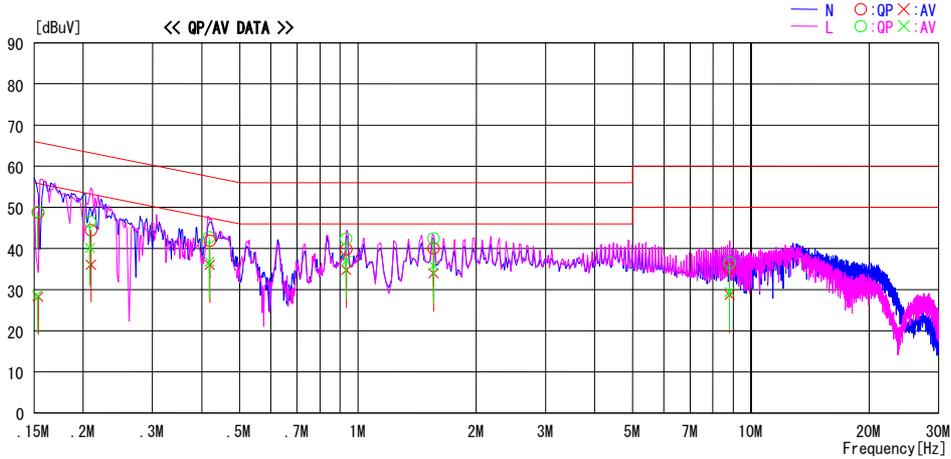
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/12/04

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH006
Serial No. : SSHDM000867
Report No. : 30AE0173-HO
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C / 35%
Engineer : Takumi Shimada

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]		
0.15351	48.5	28.0	0.2	48.7	28.2	65.8	55.8	17.1	27.6	N	
0.20920	44.2	35.8	0.3	44.5	36.1	63.2	53.2	18.7	17.1	N	
0.41961	41.6	35.7	0.3	41.9	36.0	57.5	47.5	15.6	11.5	N	
0.93349	39.5	34.4	0.4	39.9	34.8	56.0	46.0	16.1	11.3	N	
1.55551	39.5	33.4	0.5	40.0	33.9	56.0	46.0	16.0	12.1	N	
8.82130	33.8	27.3	1.4	35.2	28.7	60.0	50.0	24.8	21.4	N	
0.15293	48.7	28.4	0.2	48.9	28.6	65.8	55.8	16.9	27.2	L	
0.20806	46.3	39.9	0.3	46.6	40.2	63.3	53.3	16.8	13.2	L	
0.41857	42.5	36.5	0.3	42.8	36.8	57.5	47.5	14.7	10.7	L	
0.93317	42.0	36.6	0.4	42.4	37.0	56.0	46.0	13.6	9.0	L	
1.55616	42.0	35.4	0.5	42.5	35.9	56.0	46.0	13.5	10.1	L	
8.82237	35.1	28.0	1.4	36.5	29.4	60.0	50.0	23.5	20.6	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

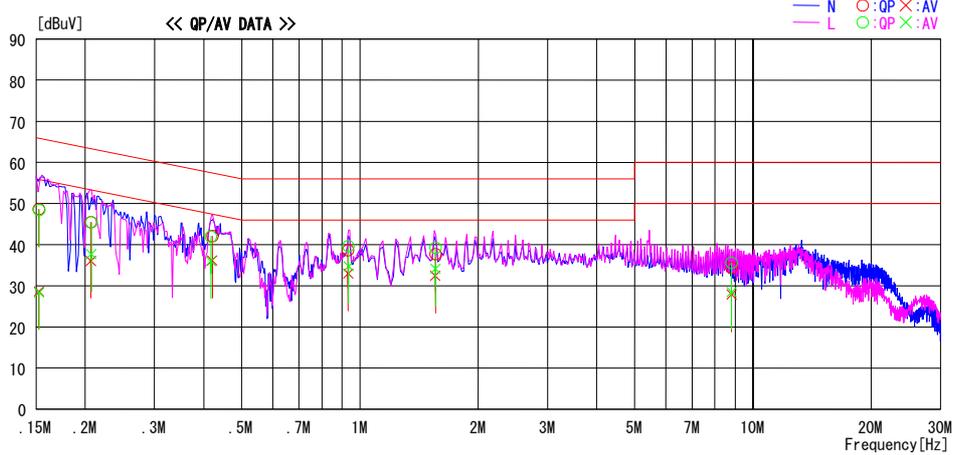
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/12/04

Company : Sharp Corporation	Report No. : 30AE0173-HO
Kind of EUT : Cellular Phone	Power : AC 120V / 60Hz
Model No. : CDMA SH006	Temp. /Humi. : 22deg. C / 35%
Serial No. : SSHDM000867	Engineer : Takumi Shimada

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]		
0.15236	48.5	28.4	0.2	48.7	28.6	65.9	55.9	17.2	27.3	N	
0.20660	45.2	35.8	0.3	45.5	36.1	63.3	53.3	17.8	17.2	N	
0.42082	41.8	35.8	0.3	42.1	36.1	57.4	47.4	15.3	11.3	N	
0.93241	38.2	32.6	0.4	38.6	33.0	56.0	46.0	17.4	13.0	N	
1.55435	37.2	31.9	0.5	37.7	32.4	56.0	46.0	18.3	13.6	N	
8.81703	32.9	26.5	1.4	34.3	27.9	60.0	50.0	25.7	22.1	N	
0.15267	48.3	28.3	0.2	48.5	28.5	65.9	55.9	17.4	27.4	L	
0.20735	45.1	37.4	0.3	45.4	37.7	63.3	53.3	17.9	15.6	L	
0.41745	41.7	35.7	0.3	42.0	36.0	57.5	47.5	15.5	11.5	L	
0.93438	39.2	34.4	0.4	39.6	34.8	56.0	46.0	16.4	11.3	L	
1.55670	38.8	33.7	0.5	39.3	34.2	56.0	46.0	16.7	11.8	L	
8.82131	34.2	27.1	1.4	35.6	28.5	60.0	50.0	24.4	21.5	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

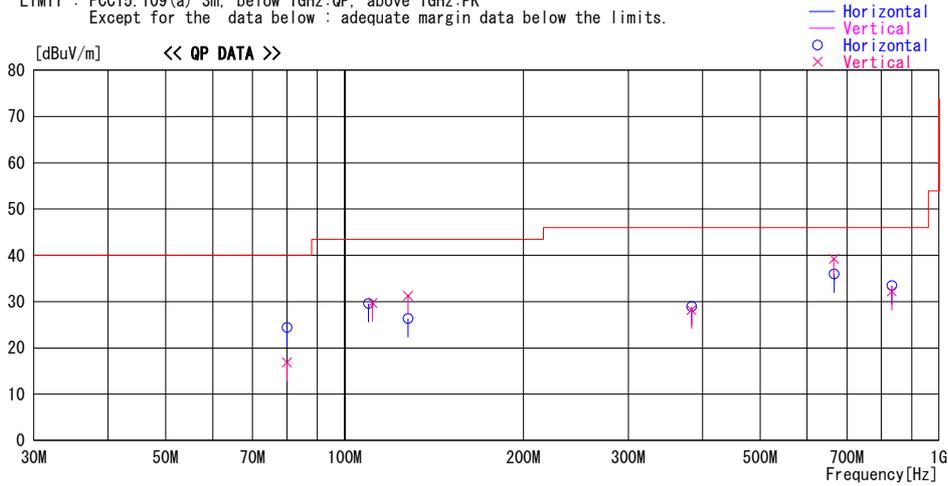
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/12/04

Company : Sharp Corporation	Report No. : 30AE0173-HO
Kind of EUT : Cellular Phone	Power : AC 120V / 60Hz
Model No. : CDMA SH006	Temp./Humi. : 22deg. C. / 35%
Serial No. : SSHDM000867	Engineer : Takumi Shimada

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 [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
79.994	51.5	QP	6.4	-33.5	24.4	277	228	Hori.	40.0	15.6	
80.003	43.8	QP	6.4	-33.4	16.8	136	100	Vert.	40.0	23.2	
109.765	50.9	QP	11.5	-32.8	29.6	272	163	Hori.	43.5	13.9	
111.379	50.8	QP	11.7	-32.8	29.7	265	100	Vert.	43.5	13.8	
127.815	45.4	QP	13.5	-32.5	26.4	262	137	Hori.	43.5	17.2	
127.816	50.3	QP	13.5	-32.5	31.3	34	100	Vert.	43.5	12.3	
383.447	42.7	QP	15.5	-30.0	28.2	13	182	Vert.	46.0	17.8	
383.765	43.4	QP	15.5	-30.0	28.9	82	100	Hori.	46.0	17.1	
665.574	47.9	QP	19.8	-28.4	39.3	207	100	Vert.	46.0	6.7	
665.937	44.5	QP	19.8	-28.4	35.9	267	100	Hori.	46.0	10.1	
832.461	38.6	QP	22.1	-27.2	33.5	1	100	Hori.	46.0	12.6	
832.760	37.3	QP	22.1	-27.2	32.2	0	100	Vert.	46.0	13.8	

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

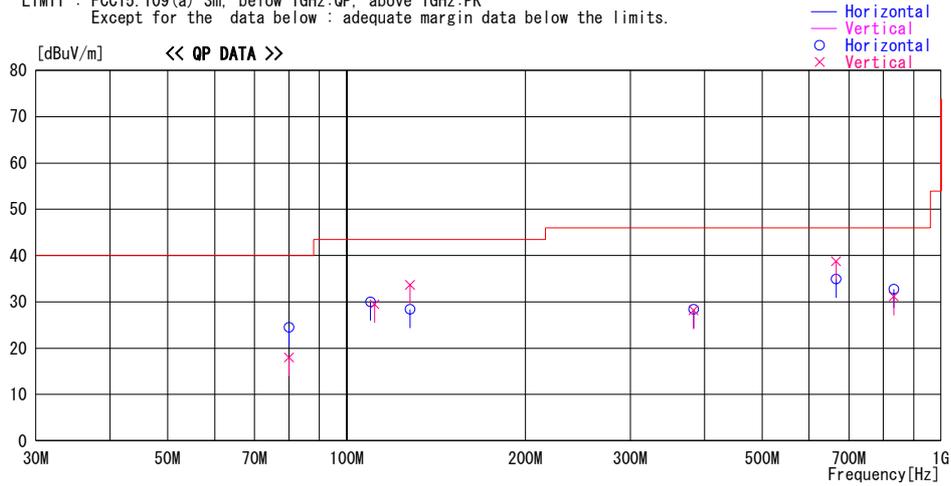
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/12/04

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH006
Serial No. : SSHDM000867
Report No. : 30AE0173-HO
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C. / 35%
Engineer : Takumi Shimada

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 [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
80.007	51.5	QP	6.4	-33.4	24.5	284	243	Hori.	40.0	15.5	
79.997	45.1	QP	6.4	-33.5	18.0	156	100	Vert.	40.0	22.0	
109.778	51.3	QP	11.5	-32.8	30.0	256	162	Hori.	43.5	13.5	
111.416	50.6	QP	11.7	-32.8	29.5	279	100	Vert.	43.5	14.0	
127.810	47.4	QP	13.5	-32.5	28.4	255	239	Hori.	43.5	15.1	
127.818	52.6	QP	13.5	-32.5	33.6	125	100	Vert.	43.5	9.9	
383.440	42.7	QP	15.5	-30.0	28.2	26	176	Vert.	46.0	17.8	
383.769	42.9	QP	15.5	-30.0	28.4	79	100	Hori.	46.0	17.6	
665.709	47.3	QP	19.8	-28.4	38.7	209	100	Vert.	46.0	7.3	
665.991	43.5	QP	19.8	-28.4	34.9	265	100	Hori.	46.0	11.1	
832.562	37.8	QP	22.1	-27.2	32.7	1	100	Hori.	46.0	13.3	
832.920	36.3	QP	22.1	-27.2	31.2	0	100	Vert.	46.0	14.8	

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

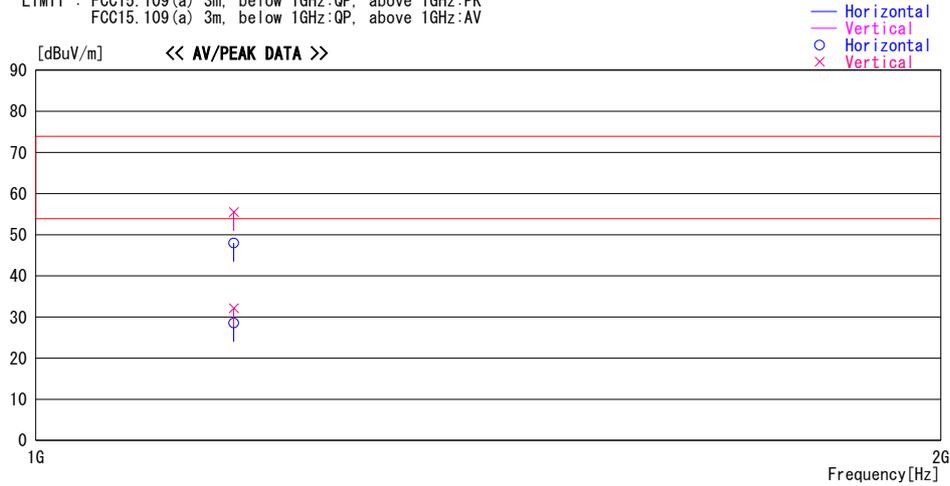
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/12/04

Company : Sharp Corporation	Report No. : 30AE0173-HO
Kind of EUT : Cellular Phone	Power : AC 120V / 60Hz
Model No. : CDMA SH006	Temp./Humi. : 22deg. C. / 35%
Serial No. : SSHDM000867	Engineer : Takumi Shimada

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		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss&Gain [dB]							
1163.536	57.5	PK	25.5	-35.0	48.0	0	100	Hori.	73.9	25.9	
1163.536	38.1	AV	25.5	-35.0	28.6	0	100	Hori.	53.9	25.3	
1163.698	65.0	PK	25.5	-35.0	55.5	0	100	Vert.	73.9	18.4	
1163.698	41.7	AV	25.5	-35.0	32.2	0	100	Vert.	53.9	21.7	

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

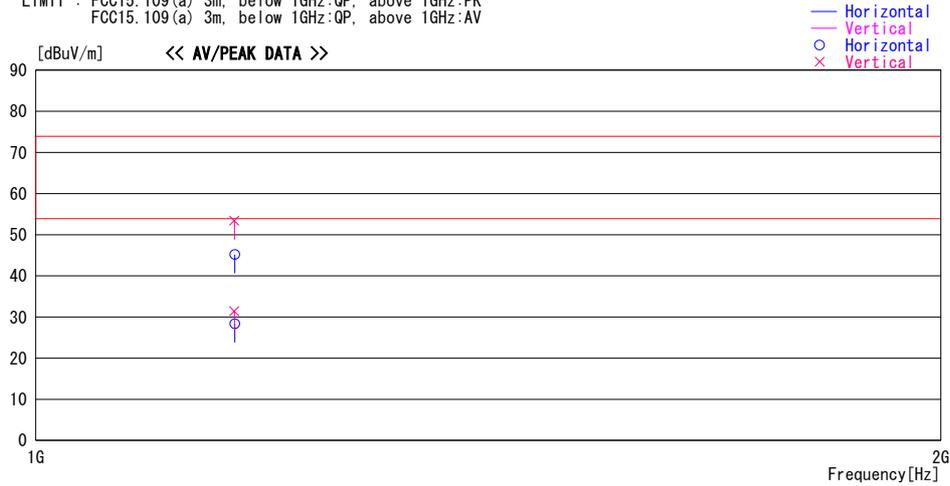
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/12/04

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH006
Serial No. : SSHDM000867
Report No. : 30AE0173-HO
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C. / 35%
Engineer : Takumi Shimada

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 [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss&Gain [dB]							
1164.617	54.7	PK	25.5	-35.0	45.2	0	100	Hori.	73.9	28.7	
1164.617	37.9	AV	25.5	-35.0	28.4	0	100	Hori.	53.9	25.5	
1164.117	62.9	PK	25.5	-35.0	53.4	0	100	Vert.	73.9	20.5	
1164.117	40.9	AV	25.5	-35.0	31.4	0	100	Vert.	53.9	22.5	

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.

APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-01	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 10m	DA-06881	CE / RE	2009/06/26 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	MOS01	CE / RE	2009/02/06 * 12
MJM-01	Measure	KDS	ES19-55	-	CE / RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	CE / RE	-
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	100084	CE / RE	2008/12/01 * 12
MLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	8127383	CE(EUT)	2009/06/22 * 12
MLS-03	LISN(AMN)	Schwarzbeck	NSLK8127	8127384	CE(AE)	2009/07/16 * 12
MTA-06	Terminator	MCL	BTRM-50	1 9951	CE	2009/02/17 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/TSJ	5D-2W(20m)/3D-2W(7.5m)/RG400u(1.5m)/RFM-E421(Switcher)	-/ 01068 (Switcher)	CE	2008/12/16 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032007	RE	2009/10/03 * 12
MLA-09	Logperiodic Antenna	Schwarzbeck	USLP9143B	9143B006	RE	2009/10/03 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	BL1069	RE	2009/11/26 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent /TSJ	-	-	RE	2009/10/09 * 12
MPA-20	Pre Amplifier	Elena	EPA-4020YA	030801	RE	2009/03/17 * 12
MHA-05	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	253	RE	2009/06/15 * 12
MCC-18	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	233010(1m) / 292410(5m)	RE	2009/09/16 * 12
MPA-01	Pre Amplifier	Agilent	8449B	3008A01671	RE	2009/02/12 * 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

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