



EMI TEST REPORT

Test Report No. : 29JE0136-HO

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

Type of Equipment : **Cellular Phone**

Model No. : **CDMA SH003**

FCC ID : **APYHRO00107**

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:

August 21, 2009

Tested by:

Hiroyuki Furutaka
EMC Services

Approved by :

Minoru Yamanaka
Assistant Manager 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.

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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 SH003
Serial No. : SSHCS000772
Receipt Date of Sample : August 18, 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 SH003 is the Cellular Phone.

Clock frequency : CPU: 19.2MHz
RTC: 32.768kHz

Feature of EUT : Model No: CDMA SH003 is 1XEV-DO Hybrid CDMA Tri-Band Cellular
Phone.
CDMA SH003 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] 15.6dB 0.41740MHz, L [AV] 11.2dB 0.41740MHz, L	Complied
Radiated emission	FCC: ANSI C63.4: 2003 8. Radiated emission measurements	Class B	N/A	6.9dB, 100.006MHz, 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

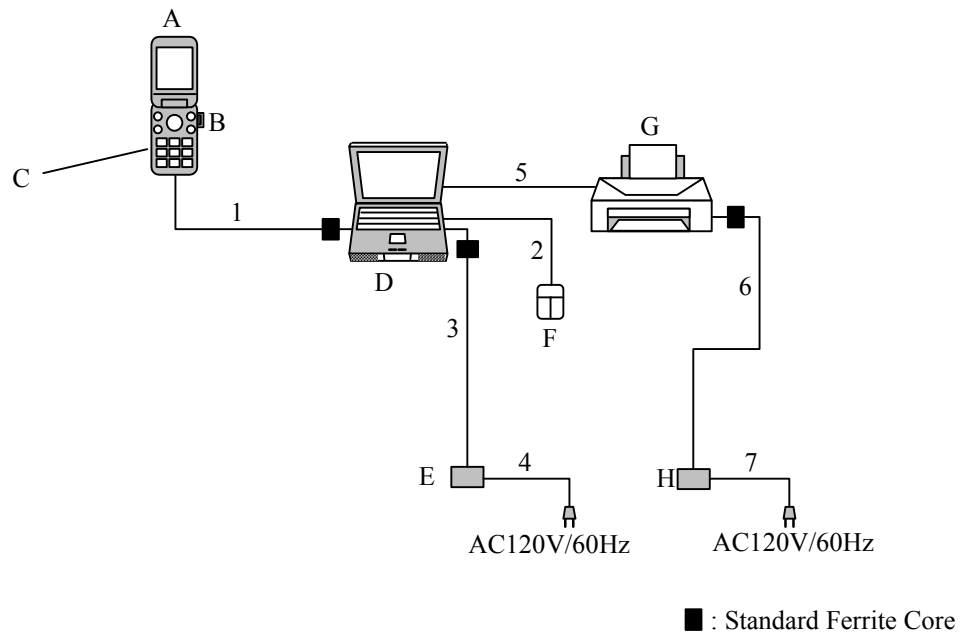
Refer to APPENDIX 1 to 3.

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 SH003	SSHCS000772	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	0.80	Shielded	Shielded
2	Mouse Cable	1.90	Unshielded	Unshielded
3	AC Adapter Cable(PC)	1.90	Unshielded	Unshielded
4	AC Power Cable(PC)	0.90	Unshielded	Unshielded
5	Parallel Cable	2.00	Shielded	Shielded
6	AC Adapter Cable (printer)	2.00	Unshielded	Unshielded
7	AC Power Cable (printer)	2.00	Unshielded	Unshielded

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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 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: August 21, 2009

Test engineer: Hiroyuki Furutaka

UL Japan, Inc.

Head Office EMC Lab.

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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 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: August 21, 2009

Test engineer: Hiroyuki Furutaka

UL Japan, Inc.

Head Office EMC Lab.

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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: X-axis/ Vertical:X-axis)

This page has been submitted for a separate exhibit.

APPENDIX 2: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

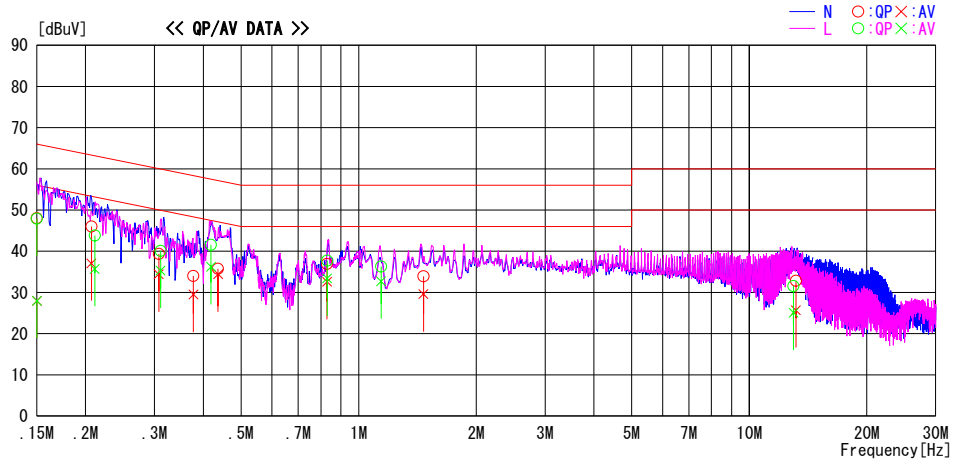
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/08/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH003
Serial No. : SSHCS000772

Report No. : 29JE0136-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C. / 54%
Engineer : Hiroyuki Furutaka

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
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.15000	47.7	27.7	0.3	48.0	28.0	66.0	56.0	18.0	28.0	N
0.15000	47.6	27.7	0.3	47.9	28.0	66.0	56.0	18.1	28.0	L
0.20680	45.7	36.8	0.3	46.0	37.1	63.3	53.3	17.3	16.2	N
0.21090	43.5	35.4	0.3	43.8	35.7	63.2	53.2	19.4	17.5	L
0.30760	39.1	34.1	0.3	39.4	34.4	60.0	50.0	20.6	15.6	N
0.31100	39.8	35.0	0.3	40.1	35.3	59.9	49.9	19.8	14.6	L
0.37720	33.7	29.2	0.3	34.0	29.5	58.3	48.3	24.3	18.8	N
0.41880	41.3	35.9	0.3	41.6	36.2	57.5	47.5	15.9	11.3	L
0.43640	35.4	34.1	0.3	35.7	34.4	57.1	47.1	21.4	12.7	N
0.83000	36.6	32.3	0.3	36.9	32.6	56.0	46.0	19.1	13.4	N
0.83050	37.4	33.1	0.3	37.7	33.4	56.0	46.0	18.3	12.6	L
1.46400	33.5	29.2	0.4	33.9	29.6	56.0	46.0	22.1	16.4	N
1.14130	35.9	32.3	0.4	36.3	32.7	56.0	46.0	19.7	13.3	L
12.97400	30.4	23.9	1.2	31.6	25.1	60.0	50.0	28.4	24.9	L
13.16400	31.6	24.5	1.2	32.8	25.7	60.0	50.0	27.2	24.3	N

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

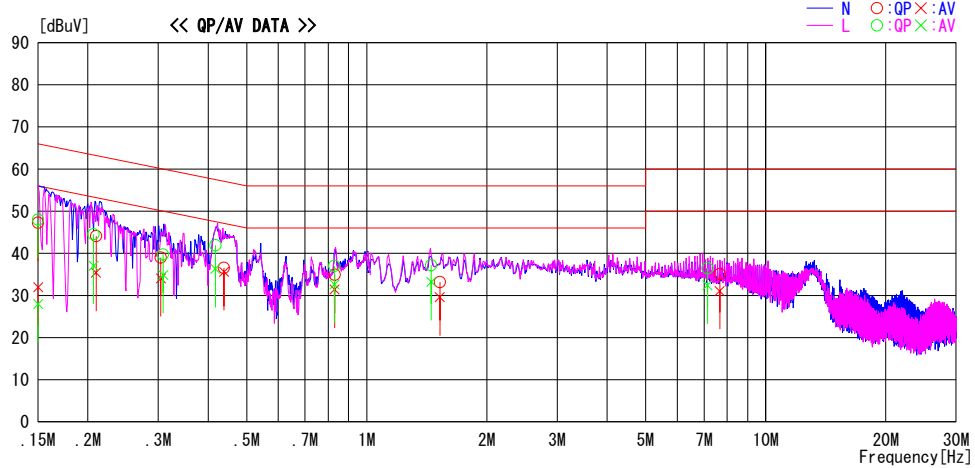
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/08/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH003
Serial No. : SSHCS000772

Report No. : 29JE0136-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C. / 54%
Engineer : Hiroyuki Furutaka

Mode / Remarks : Standby mode

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



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV		QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.15000	47.7	27.7	0.3	48.0	28.0	66.0	56.0	18.0	28.0	L
0.15000	47.0	31.6	0.3	47.3	31.9	66.0	56.0	18.7	24.1	N
0.20670	44.3	36.8	0.3	44.6	37.1	63.3	53.3	18.7	16.2	L
0.20950	43.8	35.1	0.3	44.1	35.4	63.2	53.2	19.1	17.8	N
0.30470	38.7	33.8	0.3	39.0	34.1	60.1	50.1	21.1	16.0	N
0.30890	39.4	34.6	0.3	39.7	34.9	60.0	50.0	20.3	15.1	L
0.41740	41.6	36.0	0.3	41.9	36.3	57.5	47.5	15.6	11.2	L
0.43840	36.3	35.3	0.3	36.6	35.6	57.1	47.1	20.5	11.5	N
0.83000	36.7	32.3	0.3	37.0	32.6	56.0	46.0	19.0	13.4	L
0.83110	34.6	31.1	0.3	34.9	31.4	56.0	46.0	21.1	14.6	N
1.52400	32.8	29.2	0.4	33.2	29.6	56.0	46.0	22.8	16.4	N
1.45080	36.8	32.8	0.4	37.2	33.2	56.0	46.0	18.8	12.8	L
7.66240	34.2	30.2	0.9	35.1	31.1	60.0	50.0	24.9	18.9	N
7.14500	35.7	31.6	0.8	36.5	32.4	60.0	50.0	23.5	17.6	L

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C [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

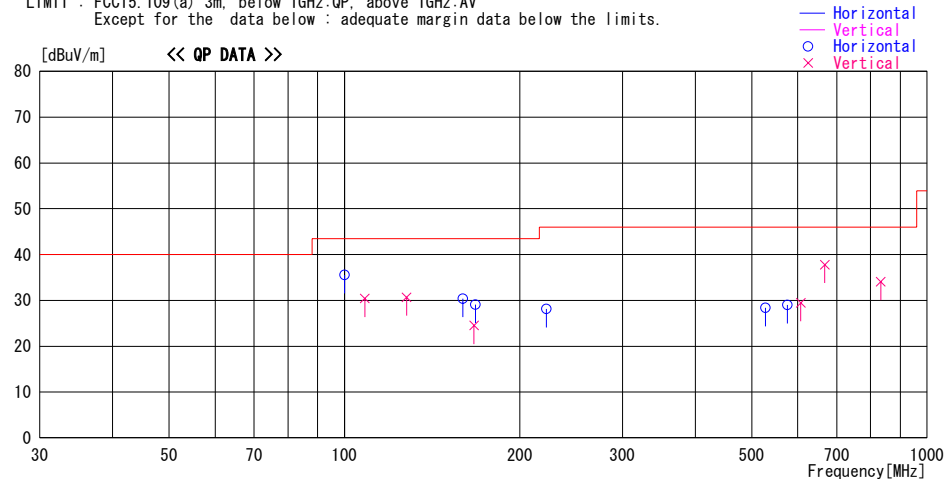
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Date : 2009/08/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH003
Serial No. : SSHCS000772

Report No. : 29JE0136-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C. / 54%
Engineer : Hiroyuki Furutaka

Mode / Remarks : USB Data Com mode

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



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		Factor	Gain	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
100.009	49.8	QP	9.7	-23.9	35.6	65	305	Hori.	43.5	7.9	
108.409	43.1	QP	11.1	-23.8	30.4	240	100	Vert.	43.5	13.1	
127.816	41.1	QP	13.2	-23.6	30.7	101	100	Vert.	43.5	12.8	
159.739	38.5	QP	15.1	-23.2	30.4	238	208	Hori.	43.5	13.1	
166.864	32.2	QP	15.4	-23.1	24.5	302	100	Vert.	43.5	19.0	
167.910	36.7	QP	15.5	-23.1	29.1	208	194	Hori.	43.5	14.4	
222.100	33.7	QP	17.0	-22.6	28.1	208	194	Hori.	46.0	17.9	
527.912	29.6	QP	19.5	-20.7	28.4	37	100	Hori.	46.0	17.6	
575.915	29.3	QP	20.1	-20.4	29.0	357	100	Hori.	46.0	17.0	
607.176	29.2	QP	20.5	-20.2	29.5	166	100	Vert.	46.0	16.5	
667.298	36.0	QP	21.7	-19.9	37.8	226	100	Vert.	46.0	8.2	
832.800	29.0	QP	23.6	-18.5	34.1	19	100	Vert.	46.0	11.9	

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.

Radiated Emission

DATA OF RADIATED EMISSION TEST

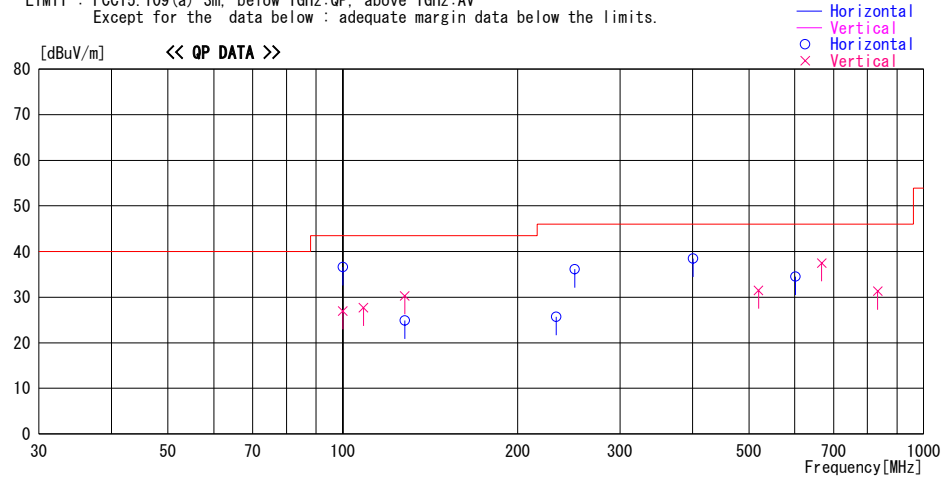
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Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH003
Serial No. : SSHCS000772

Report No. : 29JE0136-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C. / 54%
Engineer : Hiroyuki Furutaka

Mode / Remarks : Standby mode

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:AV
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]	
100.006	50.8	QP	9.7	-23.9	36.6	68	285	Hori.	43.5	6.9	
100.004	41.2	QP	9.7	-23.9	27.0	302	100	Vert.	43.5	16.5	
108.560	40.4	QP	11.1	-23.8	27.7	321	100	Vert.	43.5	15.8	
127.818	35.3	QP	13.2	-23.6	24.9	272	292	Hori.	43.5	18.6	
127.816	40.7	QP	13.2	-23.6	30.3	142	100	Vert.	43.5	13.2	
233.076	31.0	QP	17.2	-22.5	25.7	253	133	Hori.	46.0	20.3	
250.600	40.9	QP	17.6	-22.4	36.1	7	300	Hori.	46.0	9.9	
519.490	32.8	QP	19.4	-20.7	31.5	183	100	Vert.	46.0	14.5	
400.949	42.0	QP	17.8	-21.3	38.5	80	100	Hori.	46.0	7.5	
667.300	35.7	QP	21.7	-19.9	37.5	227	100	Vert.	46.0	8.5	
601.416	34.4	QP	20.4	-20.3	34.5	15	100	Hori.	46.0	11.5	
833.360	26.2	QP	23.6	-18.5	31.3	9	100	Vert.	46.0	14.7	

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

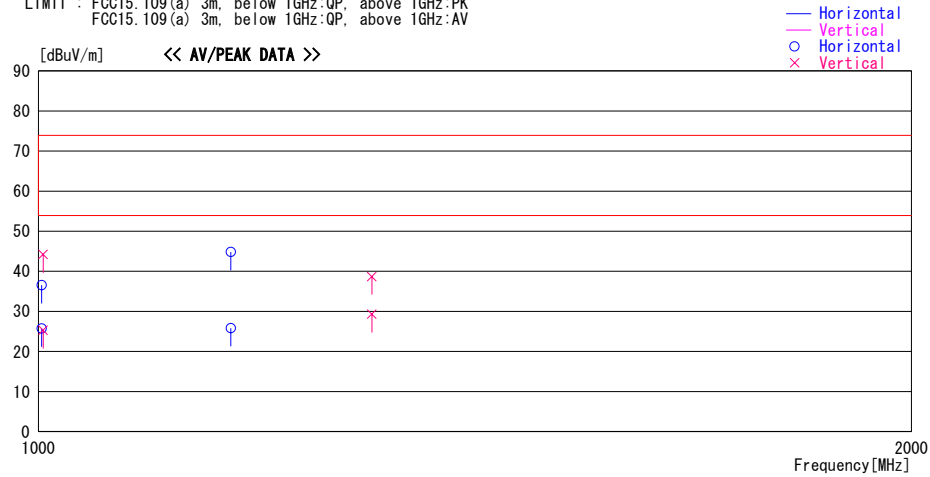
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/08/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH003
Serial No. : SSHCS000772

Report No. : 29JE0136-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C. / 54%
Engineer : Hiroyuki Furutaka

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	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
1002.486	46.6	PK	23.5	-33.5	36.6	161	113	Hori.	73.9	37.3	
1002.486	35.7	AV	23.5	-33.5	25.7	161	113	Hori.	53.9	28.2	
1003.580	35.3	AV	23.5	-33.5	25.3	14	175	Vert.	53.9	28.6	
1003.580	54.2	PK	23.5	-33.5	44.2	14	175	Vert.	73.9	29.7	
1164.983	53.3	PK	24.2	-32.7	44.8	296	100	Hori.	73.9	29.1	
1164.983	34.3	AV	24.2	-32.7	25.8	296	100	Hori.	53.9	28.1	
1302.969	46.3	PK	24.6	-32.2	38.7	185	111	Vert.	73.9	35.2	
1302.969	36.9	AV	24.6	-32.2	29.3	185	111	Vert.	53.9	24.6	

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

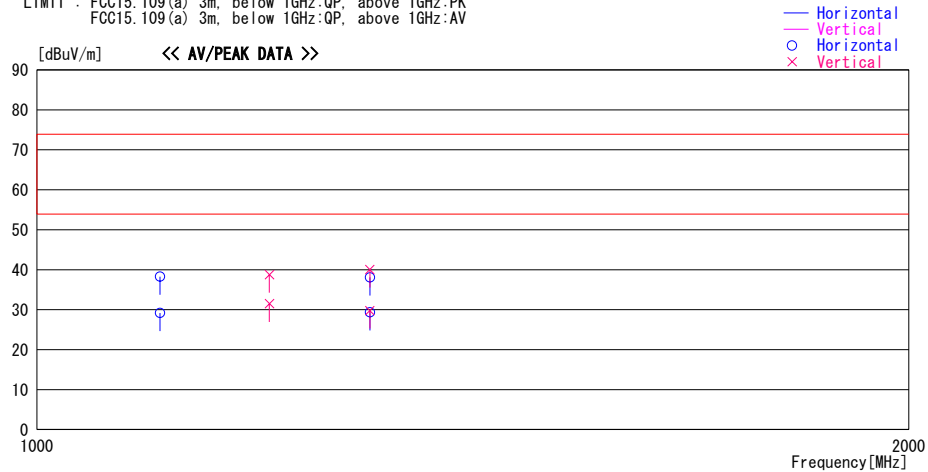
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/08/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : CDMA SH003
Serial No. : SSHCS000772

Report No. : 29JE0136-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C. / 54%
Engineer : Hiroyuki Furutaka

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	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
1102.636	47.4	PK	23.9	-33.0	38.3	214	100	Hori.	73.9	35.6	
1102.636	38.3	AV	23.9	-33.0	29.2	214	100	Hori.	53.9	24.7	
1202.931	39.8	AV	24.3	-32.6	31.5	263	114	Vert.	53.9	22.4	
1202.931	47.1	PK	24.3	-32.6	38.8	263	114	Vert.	73.9	35.1	
1302.913	37.0	AV	24.6	-32.2	29.4	76	107	Hori.	53.9	24.5	
1302.913	45.7	PK	24.6	-32.2	38.1	76	107	Hori.	73.9	35.8	
1303.000	47.7	PK	24.6	-32.2	40.1	206	114	Vert.	73.9	33.8	
1303.000	37.4	AV	24.6	-32.2	29.8	206	114	Vert.	53.9	24.1	

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-04	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2009/02/03 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE/CE	2009/02/06 * 12
MJM-07	Measure	PROMART	SEN1955	-	RE/CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MSA-05	Spectrum Analyzer	Advantest	R3273	160400285	RE/CE	2009/06/29 * 12
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	RE	2009/02/25 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	100635	RE/CE	2008/10/03 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2009/01/10 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2009/01/10 * 12
MCC-50	Coaxial cable	UL Japan	-	-	RE	2009/03/18 * 12
MAT-31	Attenuator(6dB)	TME	UFA-01	-	RE	2009/03/03 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2009/03/18 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2009/08/10 * 12
MCC-57	Microwave Cable 1G-26.5GHz 6m	Suhner	SUCOFLEX104	246769(1m) / 292411(5m)	RE	2008/11/05 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2009/03/19 * 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-113	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(5m)/421-010(1m)/sucoform141-PE(1m)/RFM-E121(Switcher)	-/04178	CE	2009/07/01 * 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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