



EMI TEST REPORT

Test Report No. : 29HE0048-HO-B-R1

Applicant : Sharp Corporation, Communication Systems Group.
Type of Equipment : Cellular Phone
Model No. : SH-07A
FCC ID : APYHRO00101
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.
6. Original test report number of this report is 29HE0048-HO-B.

Date of test: April 20, 2009

Tested by: 
Takumi Shimada
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 (09.01.08)

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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-shi, Hiroshima,
739-0192 Japan
Telephone Number : +81-82-420-1644
Facsimile Number : +81-82-420-1934
Contact Person : Takuya Inoue

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

2.1 Identification of E.U.T.

Type of Equipment : Cellular Phone
Model No. : SH-07A
Serial No. : 004401111935132
Receipt Date of Sample : April 20, 2009
Rating : AC 120V/60Hz, DC 4.0V
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: SH-07A (referred to as the EUT in this report) is the Cellular Phone.

Clock frequency(ies) in the system : 48MHz, 500.5MHz

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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	ANSI C63.4: 2003 7. AC powerline conducted emission measurements	Class B	N/A	[QP] 17.6dB, 20.09478MHz, L [AV] 12.2dB, 20.09478MHz, L	Complied
Radiated emission	ANSI C63.4: 2003 8. Radiated emission measurements	Class B	N/A	4.2dB, 32.768MHz, QP Vertical	Complied

*Note: UL Japan, Inc's EMI Work Procedure QPM05.

*These tests were performed without any deviations from test procedure except for addition or exclusion.

3.3 Additions or deviations to standards

No addition, deviation, nor exclusion has been made from standards.

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	Conducted emission	Radiated emission (10m*)			Radiated emission (3m*)			Radiated emission (3m*)	
	150kHz-30MHz	9kHz-30MHz	30MHz-300MHz	300MHz-1GHz	9kHz-30MHz	30MHz-300MHz	300MHz-1GHz	1GHz-18GHz	18GHz-40GHz
No.1 semi-anechoic chamber (\pm)	3.7dB	3.1dB	4.4dB	4.2dB	3.2dB	3.8dB	3.9dB	5.9dB	6.1dB
No.2 semi-anechoic chamber (\pm)	3.7dB	-	-	-	3.2dB	4.4dB	4.0dB	5.9dB	6.1dB
No.3 semi-anechoic chamber (\pm)	3.7dB	-	-	-	3.2dB	4.6dB	4.0dB	5.9dB	6.1dB
No.4 semi-anechoic chamber (\pm)	3.7dB	-	-	-	3.2dB	3.9dB	3.9dB	5.9dB	6.1dB

*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
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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

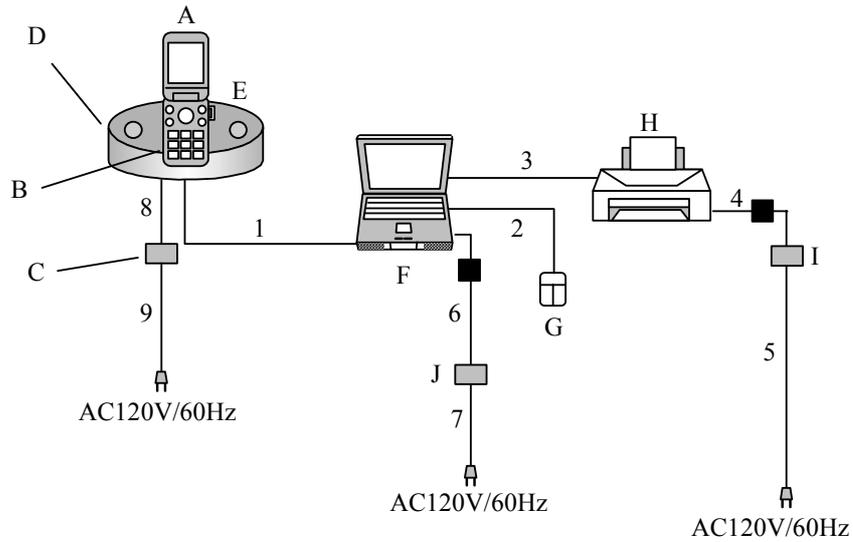
Refer to APPENDIX 1 to 3.

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

4.1 Operating modes

The mode is used : 1) USB Data Com mode
2) Standby mode

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	SH-07A	004401111935132	SHARP	EUT
B	Lithium-Ion Battery	SH22	None	SHARP	EUT
C	AC Charger	01	None	NEC	EUT
D	Desktop Holder	SH27	None	HOSHIDEN	EUT
E	microSD Memory Card	SD-C08G	0831U49492Y	TOSHIBA	-
F	Personal Computer	PP11L	CN-0F7970-71615-77H-0D63	Dell	-
G	Mouse	MO56UO	531048353	Dell	-
H	Printer	895Cxi	SG8BL1W18J	Hewlett Packard	-
I	AC Adapter (Printer)	C4557-60004	C8L01B	Hewlett Packard	-
J	AC Adapter (PC)	PA-1650-05D2	0F7970-71615-77H-0D63	Dell	-

List of cables used

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	USB Data Cable	1.00	Shielded	Shielded	-
2	Mouse Cable	1.85	Shielded	Shielded	-
3	Parallel printer Cable	2.0	Shielded	Shielded	-
4	DC Adapter Cable (Printer)	2.0	Unshielded	Unshielded	-
5	AC Power Cable (Printer)	1.75	Unshielded	Unshielded	-
6	DC Cable (PC)	1.8	Unshielded	Unshielded	-
7	AC Cable (PC)	0.9	Unshielded	Unshielded	-
8	DC Cable (AC Charger)	1.51	Unshielded	Unshielded	-
9	AC Cable (AC Charger)	0.56 *1) 1.8 *2)	Unshielded	Unshielded	-

*1) Used for Radiated emission test.

*2) Used for Conducted emission test.

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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: April 20, 2009

Test engineer: Takumi Shimada

UL Japan, Inc.

Head Office EMC Lab.

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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 -5000MHz (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 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 test was made on EUT at the normal use position.

6.5 Test result

Summary of the test results: Pass

Date: April 20, 2009

Test engineer: Takumi Shimada

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.

APPENDIX 2: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

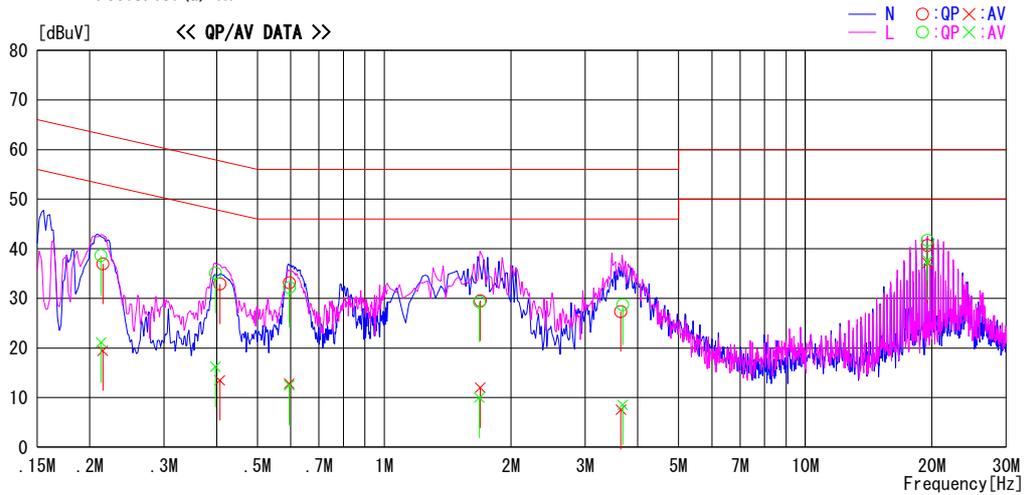
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/04/20

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : SH-07A
Serial No. : 00440111935132

Report No. : 29HE0048-HO
Power : AC 120V / 60Hz
Temp./Humi. : 23deg.C / 47%
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]		
0.21483	36.7	19.2	0.3	37.0	19.5	63.0	53.0	26.0	33.6	N	
0.40724	32.6	13.2	0.3	32.9	13.5	57.7	47.7	24.8	34.2	N	
0.59505	32.9	12.5	0.3	33.2	12.8	56.0	46.0	22.9	33.2	N	
1.69011	29.0	11.5	0.5	29.5	12.0	56.0	46.0	26.5	34.0	N	
3.64641	26.5	6.8	0.8	27.3	7.6	56.0	46.0	28.7	38.4	N	
19.50465	38.4	34.8	2.3	40.7	37.1	60.0	50.0	19.4	12.9	N	
0.21272	38.4	20.8	0.3	38.7	21.1	63.1	53.1	24.4	32.0	L	
0.39745	34.8	15.9	0.3	35.1	16.2	57.9	47.9	22.8	31.7	L	
0.59523	31.9	12.2	0.3	32.2	12.5	56.0	46.0	23.9	33.5	L	
1.68274	28.8	9.5	0.5	29.3	10.0	56.0	46.0	26.7	36.0	L	
3.68288	27.9	7.8	0.8	28.7	8.6	56.0	46.0	27.3	37.4	L	
19.50462	39.4	35.3	2.3	41.7	37.6	60.0	50.0	18.3	12.4	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuA] = READING [dBuV] + C. F [dB] (PROVE 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

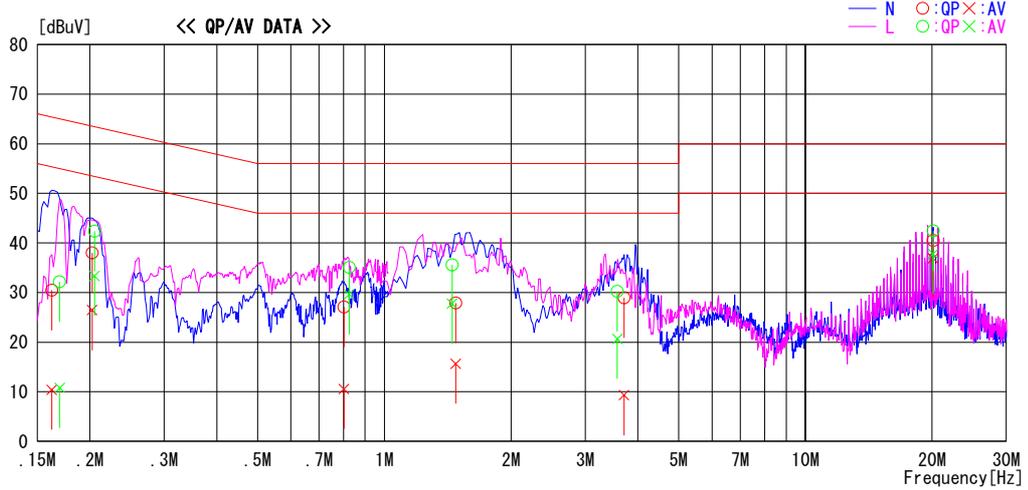
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/04/20

Company : Sharp Corporation,
 Kind of EUT : Cellular Phone
 Model No. : SH-07A
 Serial No. : 004401111935132

Report No. : 29HE0048-H0
 Power : AC 120V / 60Hz
 Temp./Humi. : 23deg.C / 47%
 Engineer : Takumi Shimada

Mode / Remarks : Standby Mode

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



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.16232	30.2	10.2	0.2	30.4	10.4	65.3	55.3	34.9	44.9	N	
0.20223	37.7	26.2	0.3	38.0	26.5	63.5	53.5	25.5	27.1	N	
0.80150	26.7	10.2	0.4	27.1	10.6	56.0	46.0	29.0	35.4	N	
1.47790	27.4	15.2	0.5	27.9	15.7	56.0	46.0	28.1	30.3	N	
3.70802	28.1	8.5	0.8	28.9	9.3	56.0	46.0	27.1	36.7	N	
20.09708	38.2	34.6	2.3	40.5	36.9	60.0	50.0	19.5	13.1	N	
0.16950	31.9	10.6	0.2	32.1	10.8	65.0	55.0	32.9	44.2	L	
0.20512	42.1	33.1	0.3	42.4	33.4	63.4	53.4	21.0	20.0	L	
0.82541	34.7	29.2	0.4	35.1	29.6	56.0	46.0	20.9	16.4	L	
1.44788	35.1	27.3	0.5	35.6	27.8	56.0	46.0	20.4	18.3	L	
3.57504	29.4	19.9	0.8	30.2	20.7	56.0	46.0	25.8	25.3	L	
20.09478	40.1	35.5	2.3	42.4	37.8	60.0	50.0	17.6	12.2	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuA] = READING [dBuV] + C.F [dB] (PROBE 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

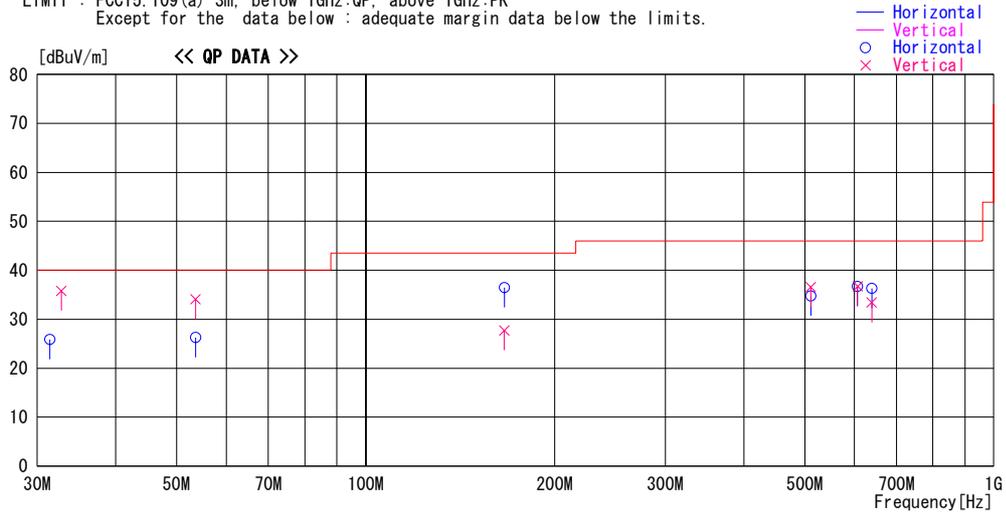
DATA OF RADIATED EMISSION TEST

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Date : 2009/04/20

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : SH-07A
Serial No. : 00440111935132
Report No. : 29HE0048-HO
Power : AC120V / 60Hz
Temp./Humi. : 23deg.C. / 47%
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	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
31.417	28.9	QP	18.4	-21.4	25.9	259	287	Hori.	40.0	14.1	
32.768	39.5	QP	17.7	-21.4	35.8	351	100	Vert.	40.0	4.2	
53.637	37.8	QP	9.4	-20.9	26.3	83	333	Hori.	40.0	13.8	
53.610	45.6	QP	9.4	-20.9	34.1	181	100	Vert.	40.0	5.9	
166.257	39.7	QP	15.7	-19.0	36.4	88	111	Hori.	43.5	7.1	
166.219	31.0	QP	15.7	-19.0	27.7	195	100	Vert.	43.5	15.8	
511.262	33.3	QP	18.4	-17.0	34.7	147	100	Hori.	46.0	11.3	
511.270	35.1	QP	18.4	-17.0	36.5	23	127	Vert.	46.0	9.5	
607.131	33.8	QP	19.4	-16.5	36.7	154	120	Hori.	46.0	9.3	
607.128	33.9	QP	19.4	-16.5	36.8	341	100	Vert.	46.0	9.2	
639.084	32.8	QP	19.8	-16.3	36.3	150	100	Hori.	46.0	9.7	
639.086	29.9	QP	19.8	-16.3	33.4	13	100	Vert.	46.0	12.6	

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

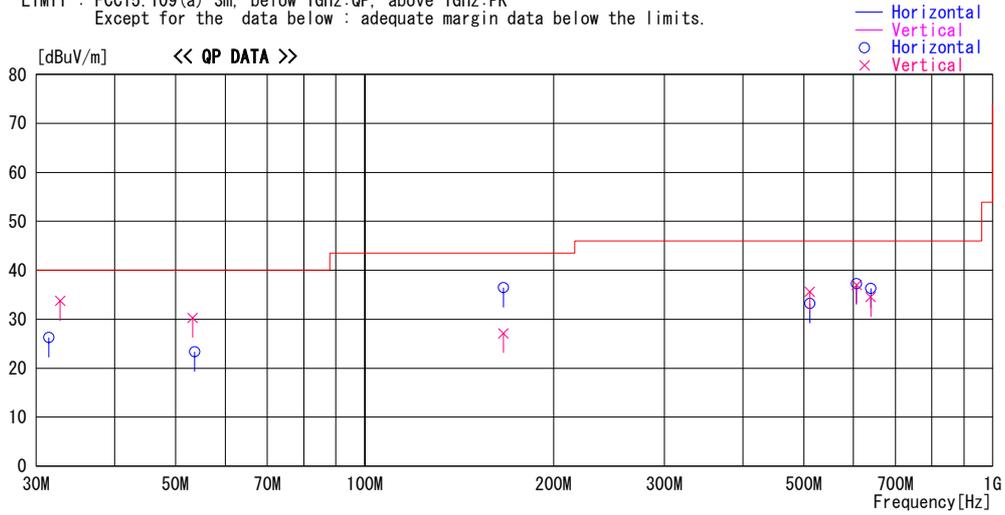
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Power : AC120V / 60Hz
Temp./Humi. : 23deg.C. / 47%
Engineer : Takumi Shimada

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	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
31.424	29.3	QP	18.4	-21.4	26.3	97	294	Hori.	40.0	13.7	
32.755	37.4	QP	17.7	-21.4	33.7	353	100	Vert.	40.0	6.3	
53.639	35.0	QP	9.3	-20.9	23.4	76	330	Hori.	40.0	16.6	
53.227	41.8	QP	9.4	-20.9	30.3	203	100	Vert.	40.0	9.7	
166.253	39.8	QP	15.7	-19.0	36.5	78	106	Hori.	43.5	7.0	
166.305	30.5	QP	15.7	-19.0	27.2	199	100	Vert.	43.5	16.3	
511.277	31.9	QP	18.4	-17.0	33.3	146	100	Hori.	46.0	12.7	
511.263	34.2	QP	18.4	-17.0	35.6	27	116	Vert.	46.0	10.4	
607.130	34.4	QP	19.4	-16.5	37.3	151	127	Hori.	46.0	8.7	
607.139	34.1	QP	19.4	-16.5	37.0	345	100	Vert.	46.0	9.0	
639.086	32.8	QP	19.8	-16.3	36.3	150	100	Hori.	46.0	9.7	
639.081	31.0	QP	19.8	-16.3	34.5	4	100	Vert.	46.0	11.5	

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

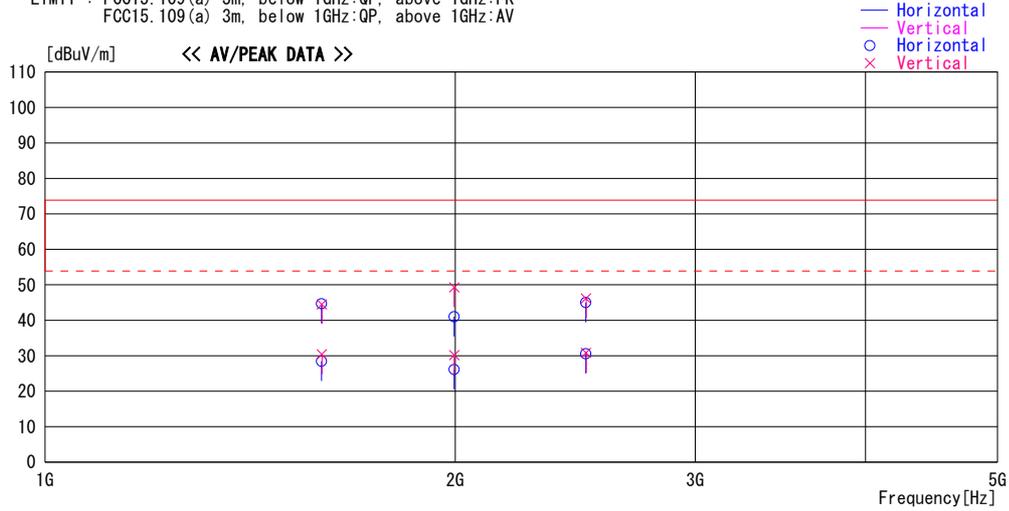
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/04/20

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : SH-07A
Serial No. : 00440111935132

Report No. : 29HE0048-HO
Power : AC120V / 60Hz
Temp./Humi. : 23deg. C. / 47%
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]							
1594.938	53.6	PK	25.8	-34.7	44.7	0	100	Hori.	73.9	29.2	
1594.938	37.3	AV	25.8	-34.7	28.4	0	100	Hori.	53.9	25.5	
1596.060	53.4	PK	25.8	-34.7	44.5	45	100	Vert.	73.9	29.4	
1596.060	39.3	AV	25.8	-34.7	30.4	45	100	Vert.	53.9	23.5	
1995.877	38.3	AV	26.2	-34.3	30.2	90	120	Vert.	53.9	23.7	
1995.877	57.4	PK	26.2	-34.3	49.3	90	120	Vert.	73.9	24.6	
1996.283	49.2	PK	26.2	-34.3	41.1	120	100	Hori.	73.9	32.9	
1996.283	34.2	AV	26.2	-34.3	26.1	120	100	Hori.	53.9	27.8	
2493.583	51.2	PK	27.3	-33.5	45.0	145	100	Hori.	73.9	28.9	
2493.583	36.7	AV	27.3	-33.5	30.5	145	100	Hori.	53.9	23.4	
2494.285	52.4	PK	27.3	-33.5	46.2	10	100	Vert.	73.9	27.7	
2494.285	37.0	AV	27.3	-33.5	30.8	10	100	Vert.	53.9	23.1	

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.

Radiated Emission

DATA OF RADIATED EMISSION TEST

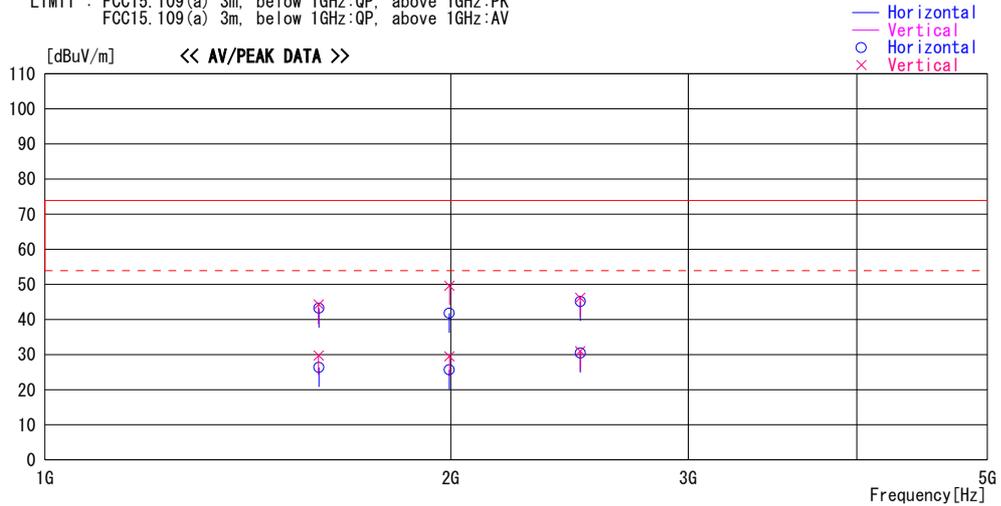
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2009/04/20

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : SH-07A
Serial No. : 004401111935132

Report No. : 29HE0048-HO
Power : AC120V / 60Hz
Temp./Humi. : 23deg.C. / 47%
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	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
1596.343	52.2	PK	25.8	-34.7	43.3	0	100	Hori.	73.9	30.7	
1596.343	35.3	AV	25.8	-34.7	26.4	0	100	Hori.	53.9	27.5	
1595.799	53.2	PK	25.8	-34.7	44.3	45	100	Vert.	73.9	29.6	
1595.799	38.7	AV	25.8	-34.7	29.8	45	100	Vert.	53.9	24.1	
1995.266	57.8	PK	26.2	-34.3	49.7	90	120	Vert.	73.9	24.2	
1995.266	37.6	AV	26.2	-34.3	29.5	90	120	Vert.	53.9	24.4	
1994.835	49.9	PK	26.2	-34.3	41.8	100	100	Hori.	73.9	32.1	
1994.835	33.7	AV	26.2	-34.3	25.6	100	100	Hori.	53.9	28.3	
2494.054	51.3	PK	27.3	-33.5	45.1	145	100	Hori.	73.9	28.8	
2494.054	36.7	AV	27.3	-33.5	30.5	145	100	Hori.	53.9	23.4	
2494.095	52.4	PK	27.3	-33.5	46.2	10	100	Vert.	73.9	27.7	
2494.095	37.1	AV	27.3	-33.5	30.9	10	100	Vert.	53.9	23.0	

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.

APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-01	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 10m	DA-06881	RE/CE	2008/10/29 * 12
MLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	8127383	CE(EUT)	2008/06/27 * 12
MLS-03	LISN(AMN)	Schwarzbeck	NSLK8127	8127384	CE(AE)	2008/07/01 * 12
MTA-06	Terminator	MCL	BTRM-50	1 9951	CE	2009/02/17 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/Agilent/TSJ	-	-	CE	2008/12/16 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	100084	RE/CE	2008/12/01 * 12
CUST-MSTW-14	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MOS-01	Digital Humidity Indicator	N.T	NT-1800	MOS01	RE/CE	2009/02/06 * 12
MJM-01	Measure	KDS	ES19-55	-	RE/CE	-
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032007	RE	2008/11/12 * 12
MLA-09	Logperiodic Antenna	Schwarzbeck	USLP9143B	9143B006	RE	2008/11/12 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	BL1069	RE	2008/11/14 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent/TSJ	-	-	RE	2008/10/02 * 12
MPA-04	Pre Amplifier	Agilent	8447D	2944A09965	RE	2008/07/23 * 12
MHA-05	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	253	RE	2009/01/31 * 12
MCC-18	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	233010(1m) / 292410(5m)	RE	2008/09/09 * 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.

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