



EMI TEST REPORT

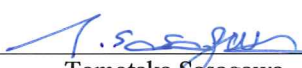
Test Report No. : 30KE0061-HO-B

Applicant : Sharp Corporation, Communication Systems Group.
Type of Equipment : Cellular Phone
Model No. : 842SH
FCC ID : APYHRO00125
Test standard : FCC Part 15 Subpart B 2010 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: June 16, 2010

Tested by:


Tomotaka Sasagawa
Engineer of EMC Service

Approved by:


Mitsuru Fujimura
Manager of EMC Service



NVLAP LAB CODE: 200572-0

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

UL Japan, Inc.

Head Office EMC Lab.

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MF060b (10.05.10)

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SECTION 1: Customer information

Company Name : Sharp Corporation, Communication Systems Group.
Address : 2-13-1 Iida Hachihonmatsu HigashiHiroshima-City, Hiroshima,
739-0192 Japan
Telephone Number : +81-82-420-1827
Facsimile Number : +81-82-420-1572
Contact Person : Hiroyuki Uwatoko

SECTION 2: Equipment Under Test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Cellular Phone
Model No. : 842SH
Serial No. : Refer to Section 4, Clause 4.2
Receipt Date of Sample : June 16, 2010
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

Model No: 842SH (referred to as the EUT in this report) is the Cellular Phone.
842SH is Dual-band (FDD I/FDD XI) WCDMA & Tri-band (900/1800/1900) GSM Dual mode Cellular Phone.
The EUT has the function that Bluetooth wireless technology interface for establishing contact and transmitting data with certain device.

General Specification

Clock frequency(ies) in the system : CPU: 26MHz
RTC: 32.768kHz
Inner: 208MHz
Power Supply : AC 120V

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SECTION 3: Test specification, procedures & results

3.1 Test specification

Test Specification : FCC Part 15 Subpart B 2010, final revised on January 22, 2010 and effective March 1, 2010

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] 13.4dB 0.17302MHz, L (USB Data Come mode) [AV] 13.5dB 0.17302MHz, L (USB Data Come mode)	Complied
Radiated emission	FCC: ANSI C63.4: 2003 8. Radiated emission measurements	Class B	N/A	7.9dB 598.465MHz, Vertical, QP (USB Data Come mode)	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	2.6dB
No.2	2.9dB
No.3	3.3dB
No.4	2.8dB

Test room (semi-anechoic chamber)	Radiated emission (10m*)(+dB)		
	9kHz -30MHz	30MHz -300MHz	300MHz -1GHz
No.1	2.7dB	4.8dB	5.0dB
No.2	-	-	-
No.3	-	-	-
No.4	-	-	-

*10m = Measurement distance

Test room (semi-anechoic chamber)	Radiated emission						
	(3m*)(+dB)			(1m*)(+dB)		(0.5m*)(+dB)	
	9kHz -30MHz	30MHz -300MHz	300MHz -1GHz	1GHz -10GHz	10GHz -18GHz	18GHz -26.5GHz	26.5GHz -40GHz
No.1	2.9dB	4.8dB	5.0dB	3.9dB	4.3dB	4.5dB	4.3dB
No.2	3.5dB	4.8dB	5.1dB	4.0dB	4.2dB	4.4dB	4.2dB
No.3	3.8dB	4.6dB	4.7dB	4.0dB	4.2dB	4.5dB	4.2dB
No.4	3.5dB	4.4dB	4.9dB	4.0dB	4.2dB	4.6dB	4.2dB

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

Conducted Emission test

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

Radiated emission test (3m)

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

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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

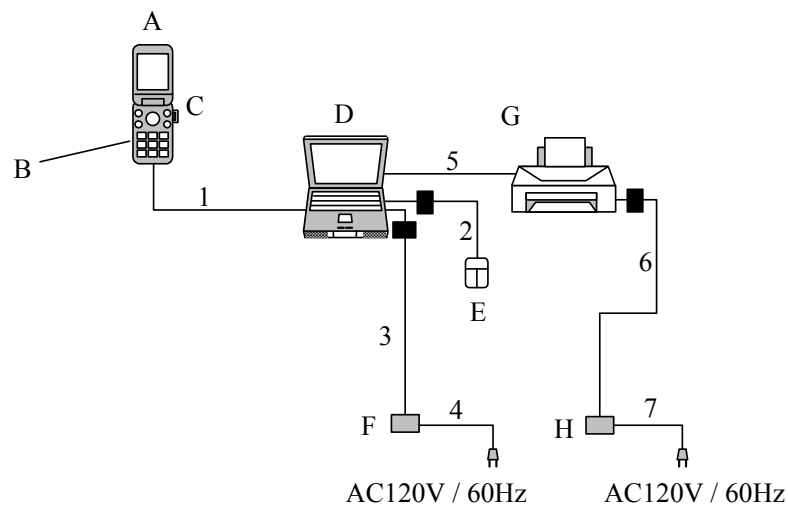
Refer to APPENDIX.

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

4.1 Operating modes

The mode is used :
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 worse case conditions.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Cellular Phone	842SH	004401/11/268187/5	Sharp Corporation	EUT
B	Lithium-Ion Battery	SHBCU1	SKA	Sharp Corporation	EUT
C	microSD Memory Card	SD-MD008GA	None	TOSHIBA	-
D	Personal Computer	PP11L	CN-0D4571-48643-55V-1651	Dell	-
E	Mouse	M-BE55	LZE21450232	Logitech	-
F	AC Adapter (PC)	PA-1650-05D2	CN-0F7970-71615-561-14A1	Dell	-
G	Printer	895Cxi	SG8BL1W16V	Hewlett Packard	-
H	AC Adapter (Printer)	C4557-60004	C8K28B	Hewlett Packard	-

List of cables used

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	USB Data Cable	0.8	Shielded	Shielded	-
2	Mouse Cable	0.72	Unshielded	Unshielded	-
3	AC Adapter Cable (PC)	1.76	Unshielded	Unshielded	-
4	AC Power Cable (PC)	0.85	Unshielded	Unshielded	-
5	Parallel Cable	1.65	Shielded	Shielded	-
6	AC Adapter Cable (Printer)	2.0	Unshielded	Unshielded	-
7	AC Power Cable (Printer)	1.75	Unshielded	Unshielded	-

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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. 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: June 16, 2010

Test engineer: Tomotaka Sasagawa

UL Japan, Inc.

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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 - 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: 3MHz AV *1): RBW:1MHz/VBW:10Hz

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

The noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at representative X-axis since no difference was found among each position.

6.5 Test result

Summary of the test results: Pass

Date: June 16, 2010

Test engineer: Tomotaka Sasagawa

UL Japan, Inc.

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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

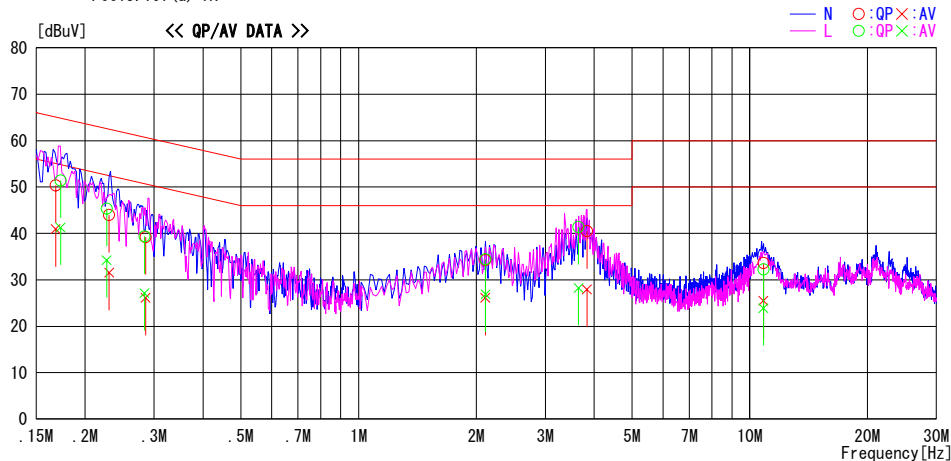
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2010/06/16

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : 842SH
Serial No. : 004401/11/268187/5

Report No. : 30KE0061-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C. / 54%
Engineer : Tomotaka Sasagawa

Mode / Remarks : USB Data Com 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]		
0.16819	37.1	27.7	13.2	50.3	40.9	65.0	55.0	14.7	14.1	N	
0.17302	38.2	28.1	13.2	51.4	41.3	64.8	54.8	13.4	13.5	L	
0.23026	30.7	18.2	13.3	44.0	31.5	62.4	52.4	18.4	20.9	N	
0.22701	32.1	21.1	13.2	45.3	34.3	62.6	52.6	17.3	18.3	L	
0.28563	25.9	12.9	13.3	39.2	26.2	60.7	50.7	21.5	24.6	N	
0.28347	26.1	13.8	13.3	39.4	27.1	60.7	50.7	21.3	23.6	L	
2.10693	20.8	12.7	13.5	34.3	26.2	56.0	46.0	21.8	19.9	N	
2.11015	20.9	13.3	13.5	34.4	26.8	56.0	46.0	21.6	19.2	L	
3.83368	26.7	14.1	13.8	40.5	27.9	56.0	46.0	15.5	18.1	N	
3.64835	27.7	14.6	13.7	41.4	28.3	56.0	46.0	14.6	17.7	L	
10.83396	19.0	10.9	14.6	33.6	25.5	60.0	50.0	26.4	24.5	N	
10.83396	17.7	9.3	14.6	32.3	23.9	60.0	50.0	27.7	26.1	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 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.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

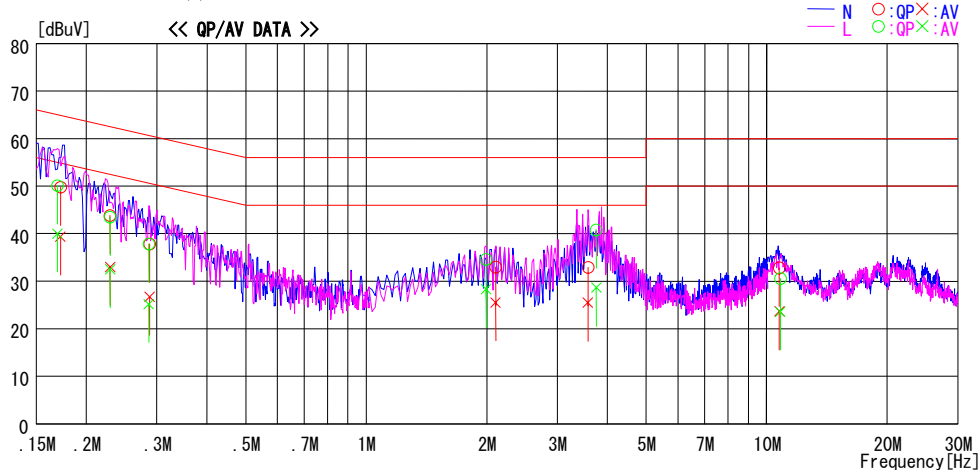
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2010/06/16

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : 842SH
Serial No. : 004401/11/268187/5

Report No. : 30KE0061-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 54%
Engineer : Tomotaka Sasagawa

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]		
0.17214	36.6	26.2	13.2	49.8	39.4	64.9	54.9	15.1	15.5	N	
0.22931	30.5	19.7	13.3	43.8	33.0	62.5	52.5	18.7	19.5	N	
0.28774	24.5	13.4	13.3	37.8	26.7	60.6	50.6	22.8	23.9	N	
2.10216	19.4	12.0	13.5	32.9	25.5	56.0	46.0	23.1	20.5	N	
3.57921	19.2	11.8	13.7	32.9	25.5	56.0	46.0	23.1	20.5	N	
10.75148	18.2	9.0	14.6	32.8	23.6	60.0	50.0	27.2	26.4	N	
0.16948	36.9	26.8	13.2	50.1	40.0	65.0	55.0	14.9	15.0	L	
0.22915	30.2	19.2	13.3	43.5	32.5	62.5	52.5	19.0	20.0	L	
0.28599	24.5	11.9	13.3	37.8	25.2	60.6	50.6	22.8	25.4	L	
1.99077	21.1	14.8	13.5	34.6	28.3	56.0	46.0	21.4	17.7	L	
3.75477	27.0	14.9	13.8	40.8	28.7	56.0	46.0	15.2	17.3	L	
10.81287	16.0	9.0	14.6	30.6	23.6	60.0	50.0	29.5	26.4	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 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

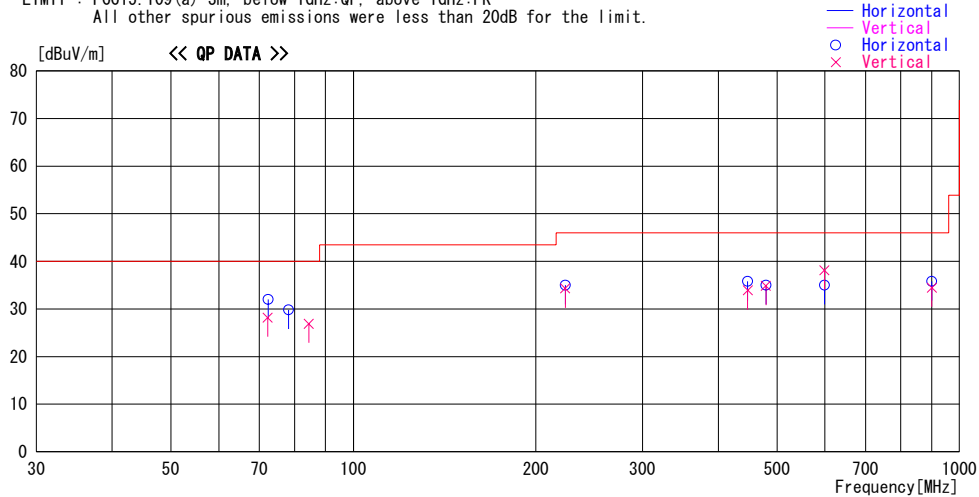
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2010/06/16

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : 842SH
Serial No. : 004401/11/268187/5

Report No. : 30KE0061-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 54%
Engineer : Tomotaka Sasagawa

Mode / Remarks : USB Data Com Mode

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
72.204	54.9	QP	6.5	-33.2	28.2	0	100	Vert.	40.0	11.8	
72.371	58.7	QP	6.5	-33.2	32.0	345	179	Hori.	40.0	8.0	
78.156	56.6	QP	6.4	-33.1	29.9	277	255	Hori.	40.0	10.2	
84.448	52.6	QP	7.2	-32.9	26.9	344	100	Vert.	40.0	13.1	
223.707	48.8	QP	17.0	-30.8	35.0	160	272	Hori.	46.0	11.0	
223.707	48.1	QP	17.0	-30.8	34.3	7	100	Vert.	46.0	11.7	
447.294	47.1	QP	17.8	-29.1	35.8	213	100	Hori.	46.0	10.2	
447.342	45.2	QP	17.8	-29.1	33.9	342	159	Vert.	46.0	12.1	
479.297	46.0	QP	18.0	-29.0	35.0	233	100	Hori.	46.0	11.0	
479.299	45.9	QP	18.0	-29.0	34.9	2	114	Vert.	46.0	11.1	
598.465	47.0	QP	19.3	-28.2	38.1	344	100	Vert.	46.0	7.9	
598.935	43.9	QP	19.3	-28.2	35.0	113	100	Hori.	46.0	11.0	
900.601	38.9	QP	21.8	-26.2	34.5	344	100	Vert.	46.0	11.5	
900.647	40.2	QP	21.8	-26.2	35.8	329	100	Hori.	46.0	10.2	

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)

Radiated Emission

DATA OF RADIATED EMISSION TEST

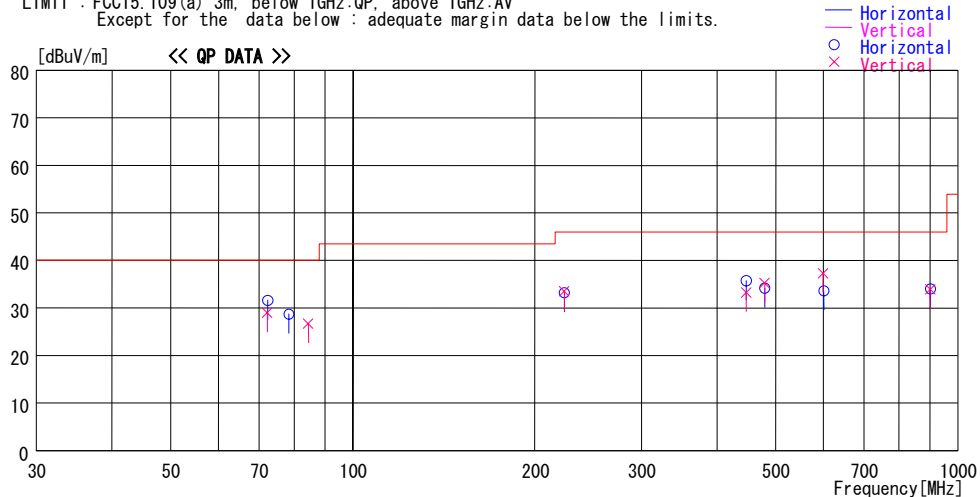
UL Japan, Inc. Head Office EMC Lab. No. 1 Semi Anechoic Chamber
Date : 2010/06/16

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : 842SH
Serial No. : 004401/11/268187/5

Report No. : 30KE0061-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 54%
Engineer : Tomotaka Sasagawa

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 [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
72.387	58.3	QP	6.5	-33.2	31.6	342	245	Hori.	40.0	8.4	
72.204	55.7	QP	6.5	-33.2	29.0	65	100	Vert.	40.0	11.0	
78.412	55.4	QP	6.4	-33.1	28.7	320	263	Hori.	40.0	11.3	
84.435	52.4	QP	7.2	-32.9	26.7	326	100	Vert.	40.0	13.3	
223.657	47.0	QP	17.0	-30.8	33.2	281	233	Hori.	46.0	12.8	
223.707	47.3	QP	17.0	-30.8	33.5	0	100	Vert.	46.0	12.5	
447.421	47.0	QP	17.8	-29.1	35.7	211	100	Hori.	46.0	10.3	
447.346	44.6	QP	17.8	-29.1	33.3	16	100	Vert.	46.0	12.7	
479.559	45.2	QP	18.0	-29.0	34.2	219	242	Hori.	46.0	11.8	
479.308	46.3	QP	18.0	-29.0	35.3	15	100	Vert.	46.0	10.7	
598.825	46.2	QP	19.3	-28.2	37.3	340	100	Vert.	46.0	8.7	
600.411	42.5	QP	19.3	-28.2	33.6	0	100	Hori.	46.0	12.4	
901.810	38.4	QP	21.8	-26.2	34.0	345	108	Hori.	46.0	12.0	
900.590	38.3	QP	21.8	-26.2	33.9	7	100	Vert.	46.0	12.1	

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)

Radiated Emission

DATA OF RADIATED EMISSION TEST

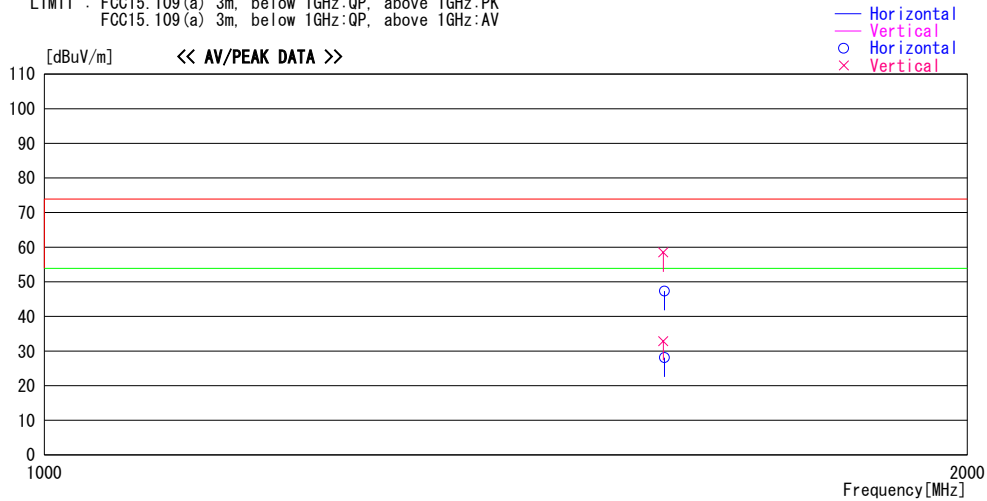
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2010/06/16

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : 842SH
Serial No. : 004401/11/268187/5

Report No. : 30KE0061-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 54%
Engineer : Tomotaka Sasagawa

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]	
1591.410	66.8	PK	26.3	-34.6	58.5	197	100	Vert.	73.9	15.4	
1591.410	41.2	AV	26.3	-34.6	32.9	197	100	Vert.	53.9	21.0	
1593.183	55.7	PK	26.3	-34.6	47.4	182	100	Hori.	73.9	26.5	
1593.183	36.4	AV	26.3	-34.6	28.1	182	100	Hori.	53.9	25.8	

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)

Radiated Emission

DATA OF RADIATED EMISSION TEST

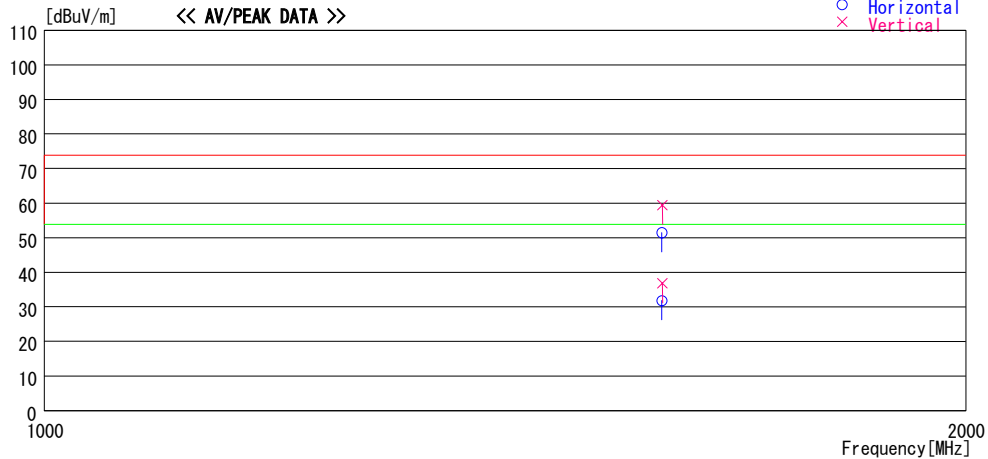
UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2010/06/16

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : 842SH
Serial No. : 004401/11/268187/5

Report No. : 30KE0061-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 54%
Engineer : Tomotaka Sasagawa

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]							
1591.312	59.8	PK	26.3	-34.6	51.5	187	100	Hori.	73.9	22.4	
1591.312	40.1	AV	26.3	-34.6	31.8	187	100	Hori.	53.9	22.1	
1591.993	45.1	AV	26.3	-34.6	36.8	191	100	Vert.	53.9	17.1	
1591.993	67.7	PK	26.3	-34.6	59.4	191	100	Vert.	73.9	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)

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	RE / CE	2009/06/26 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	MOS01	RE / CE	2010/02/09 * 12
MJM-01	Measure	KDS	ES19-55	-	RE / CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE / CE	-
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	100084	RE / CE	2009/12/17 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032007	RE	2009/10/03 * 12
KLA-04	Logperiodic Antenna	Schwarzbeck	USLP9143	361	RE	2009/07/12 * 12
MAT-08	Attenuator(6dB)	Weinschel Corp	2	BK7971	RE	2009/11/13 * 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	2010/03/23 * 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	2010/02/12 * 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	2010/02/02 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/TSJ	5D-2W(20m)/3D-2W(7.5m)/RG400u(1.5m)/RFM-E421(Switcher)	-/01068(Switcher)	CE	2010/01/05 * 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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