EMI TEST REPORT

Test Report No. : 24LE0275-HO-2

Applicant	:	**Sharp Corporation**
Type of Equipment	:	**GSM & WCDMA Cellular Phone**
Model No.	:	**902SH**
Test standard	:	**FCC Part 15 Subpart C Section 15.207, Section 15.247 : 2004**
FCC ID	:	**APYHRO00038**
Test Result	:	**Complied**

1. This test report shall not be reproduced in full or partial, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this report are traceable to the national or international standards.

Date of test:

September 1 to 13, 2004

Tested by:

Hiroka Umeyama
EMC Service

Naoki Sakamoto
EMC Service

Approved by :

Hironobu Shimoji
Group Leader of
EMC Service

UL Apex Co., Ltd.
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

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SECTION 1: Client information

Company Name	:	Sharp Corporation
Brand or Trade name	:	SHARP
Address	:	2-13-1 Iida Hachihonmatsu HigashiHiroshima-City, Hiroshima-ken, 739-0192 Japan
Telephone Number	:	+81-82-420-1592
Facsimile Number	:	+81-82-420-1852
Contact Person	:	Seiichi Ichikawa

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

2.1 Identification of E.U.T.

Type of Equipment	:	GSM & WCDMA Cellular Phone
Model No.	:	902SH
Serial No.	:	350257/00/009102/7 (for Other tests) 350257/00/009262/9 (for Conducted and Radiated emission tests) 350257/00/008075/6 (for Radiated emission test)
Rating	:	DC4.0V (AC Charger: AC120V)
Country of Manufacture	:	Japan
Receipt Date of Sample	:	August 27, 2004
Condition of EUT	:	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product Description

Clock frequency	CPU:13MHz/ RTC:32.768kHz / VIDEO:27MHz
Feature of EUT	902SH(referred to as the EUT in this report)is Tri-Band GSM &WCDMA Mobile Cellular Phone with AC CHARGER(XN-1QC93), DATA CABLE and VIDEO CABLE(XN-1VC90)

<Transmitter>

Equipment Type	Transceiver
Frequency of Operation	2402MHz to 2480MHz
Bandwidth & Channel spacing	1MHz & 1MHz
Type of Modulation	FHSS
Antenna Type	Internal Antenna
Antenna Connector Type	Soldering
Antenna Gain	0 dBi
Mode of Operation	Simplex
ITU code	F1D
Operating voltage (Inner)	2.9V
Operating temperature	-10 to +55 deg.C.

FCC 15.31 (e)

This EUT provides stable voltage(DC2.9V) constantly to RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part15 Subpart C : 2004
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.207 Conducted limits : 2004
Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz: 2004

3.2 Procedures and results

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A	11.7dB 1.6826MHz QP, N	N/A
2	Carrier Frequency Separation	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(a)(1)	Conducted	N/A	*See data.	Complied
3	20dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(a)(1)	Conducted	N/A		Complied
4	Number of Hopping Frequency	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(a)(1)(iii)	Conducted	N/A		Complied
5	Dwell time	ANSI C63.4:2003 13.Measurement of intentional radiators	Section15.247(a)(1)(iii)	Conducted	N/A		Complied
6	Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(b)(1)	Conducted	N/A		Complied
7	Spurious Emission /Band Edge Compliance	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(c)	Conducted/ Radiated	N/A	1.0dB, 2483.5MHz HOR	Complied

Note: UL Apex's EMI Work Procedures No.QPM05.

Uncertainty

*In case of the margin below the EMC Head Office's uncertainty.
The data listed in this report meets the limits unless the uncertainty is taken into consideration.

Conducted Emission

The measurement uncertainty (with a 95% confidence level) for this test is ±1.3dB.

Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ±4.5dB(3m)/ ±4.7dB(10m).
The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ±5.2dB(3m)/ ±3.8dB(10m).
The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ±6.6dB.

Other test except Conducted Emission and Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test is ±3.0dB.

*These tests were also referred to FCC Public Notice DA 00-705 "Guidance on Measurement for Frequency Hopping Spread Spectrum Systems".

3.3 Addition to standards

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

3.4 Test Location

UL Apex Co., Ltd. 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

	Listed date (for FCC)	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	February 01, 2002	313583	IC4247	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	June 05, 2002	846015	IC4247-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 shielded room	-	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.4 measurement room	-	-	-	3.1 x 5.0 x 2.7m	N/A	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1 and No.2 semi-anechoic and No.3 shielded room.

3.5 Test set up, Test instruments and Data of EMI

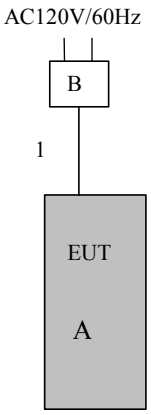
Refer to APPENDIX 1 to 3.

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

4.1 Operating Modes

The mode is used : [FHSS:Bluetooth]
Transmitting mode(Packet size DH5)
Low Channel :2402MHz
Mid Channel :2441MHz
High Channel :2480MHz
Inquiry

4.2 Configuration and peripherals



* Cabling was 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	FCC ID
A	GSM & WCDMA Cellular Phone	902SH	350257/00/009102/7 (for Other tests) 350257/00/009262/9 (for Conducted and Radiated emission tests) 350257/00/008075/6 (for Radiated emission test)	SHARP	APYHRO00038
B	AC Charger	XN-1QC08	N/A	HOSIDEN	N/A*1)

*1) Used for Conducted test only

List of cables used

No.	Name	Length (m)	Shield	Backshell Material
1	AC Charger Cable	1.5	N	Polyvinyl chloride*1)

*1) for conducted emission test only

SECTION 5: Conducted Emission

Test Procedure and conditions

EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane.
The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals 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 a Line Impedance Stabilization Network (LISN)/ Artificial mains Network (AMN) and excess AC cable was bundled in center.

1) For the tests on EUT itself (as a stand alone equipment)
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 50ohm connectors of the LISN(AMN) were resistively terminated in 50ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber or a Measurement Room.
The EUT was connected to a LISN (AMN).
An overview sweep with peak detection has been performed.

Detector : CISPR quasi-peak detector (IF BW 9 kHz)
Measurement range : 0.15-30MHz
Test data : APPENDIX 3
Test result : Pass

SECTION 6: Carrier Frequency Separation

Test Procedure

The carrier frequency separation was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass

SECTION 7: 20dB Bandwidth

Test Procedure

The 20dB bandwidth was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass

SECTION 8: Number of Hopping Frequency

Test Procedure

The Number of Hopping Frequency was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass

SECTION 9: Dwell time

Test Procedure

The Dwell time was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass

SECTION 10: Maximum Peak Output Power

Test Procedure

The Maximum Peak Output Power was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass

SECTION 11: Spurious Emission / Band Edge Compliance

[Conducted]

Test Procedure
The Out of Band Emission was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3
Test result : Pass

[Radiated]

Test Procedure
EUT was placed on a platform of nominal size, 0.5m by 0.5m, raised 80cm above the conducting ground plane.
The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).
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.
In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

Test data : APPENDIX 3
Test result : Pass

When not satisfying the requirement of Section 15.209, 20dBc was applied the restricted band of Section 15.205.

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver / Spectrum Analyzer	Spectrum Analyzer
Detector IF Bandwidth	QP: BW 120kHz(T/R) 20dBc : RBW: 100kHz VBW: 300kHz (S/A)	PK: RBW:1MHz/VBW: 1MHz AV: RBW:1MHz/VBW:10Hz 20dBc : RBW:100kHz/VBW:300kHz

- The carrier level and noise levels were measured at each position of all three axes X, Y and Z, and the position that has the maximum noise was determined.
With the position, the noise levels of all the frequencies was measured.

APPENDIX 1: Photographs of test setup

This page has been submitted for a separate exhibit.

This page has been submitted for a separate exhibit.

This page has been submitted for a separate exhibit.

APPENDIX 2: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE/CE	2004/04/12 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE/CE	2004/02/03 * 12
MRENT-09	Spectrum Analyzer	Advantest	R3273	RE/CE	2004/02/18 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2003/12/16 * 12
MPA-06	Pre Amplifier	Hewlett Packard	8447D	RE	2004/08/29 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2004/02/24 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2003/10/15 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2003/10/15 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2004/02/17 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2004/02/24 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE	2003/09/19 * 12
MAT-22	Attenuator (10dB)	Orient Microwave	BX10-0476-00	RE	2004/03/30 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2004/02/06 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2004/01/10 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2004/01/10 * 12
MCC-04	Microwave Cable	Storm	421-011	RE	2004/01/06 * 12
MCC-24	Microwave Cable	Storm	-	RE	2004/05/01 * 12
MBTR10	Spectrum Analyzer	Rohde & Schwarz	FSP30	AT	2003/11/12 * 12

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
Test Item:

CE: Conducted Emission
RE: Radiated Spurious Emission
AT: Other test s

APPENDIX 3: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

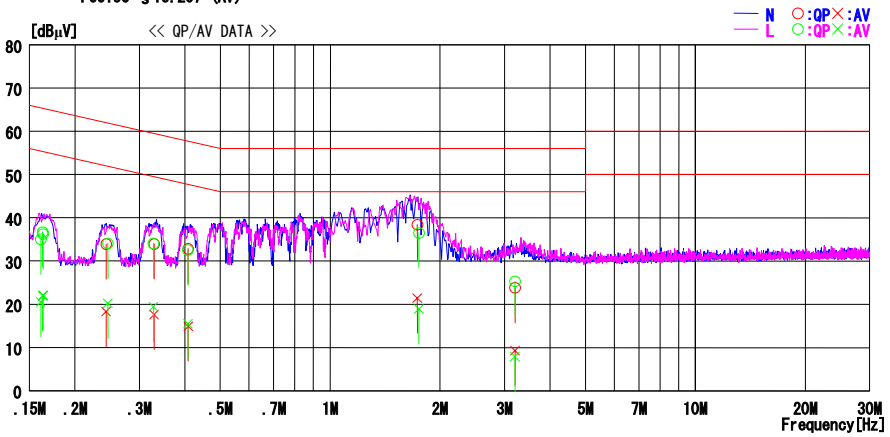
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/03 11:12:24

Applicant : SHARP Corporation
Kind of EUT : GSM･WCDMA Cellular phone
Model No. : 902SH
Serial No. : 350257/00/009262/9

Report No. : 24LE0275-HO
Power : AC120V / 60Hz(AC Adapter)
Temp℃/Humi% : 23 deg.C / 62 %
Operator : Naoki Sakamoto

Mode / Remarks : 2042MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	0.2436	33.9	18.3	0.0	33.9	18.3	62.0	52.0	28.1	33.7	N
2	0.3297	33.9	17.6	0.0	33.9	17.6	59.5	49.5	25.6	31.9	N
3	0.4086	32.8	14.9	0.0	32.8	14.9	57.7	47.7	24.9	32.8	N
4	1.7330	38.2	21.2	0.2	38.4	21.4	56.0	46.0	17.6	24.6	N
5	3.2051	23.5	9.0	0.3	23.8	9.3	56.0	46.0	32.2	36.7	N
6	0.1612	35.0	20.5	0.0	35.0	20.5	65.4	55.4	30.4	34.9	L
7	0.1631	36.7	21.9	0.0	36.7	21.9	65.3	55.3	28.6	33.4	L
8	0.1637	36.2	22.0	0.0	36.2	22.0	65.3	55.3	29.1	33.3	L
9	0.2462	34.1	20.2	0.0	34.1	20.2	61.9	51.9	27.8	31.7	L
10	0.3282	34.1	19.4	0.0	34.1	19.4	59.5	49.5	25.4	30.1	L
11	0.4078	32.5	15.5	0.0	32.5	15.5	57.7	47.7	25.2	32.2	L
12	1.7482	36.3	18.7	0.2	36.5	18.9	56.0	46.0	19.5	27.1	L
13	3.2030	25.0	7.6	0.3	25.3	7.9	56.0	46.0	30.7	38.1	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

DATA OF CONDUCTED EMISSION TEST

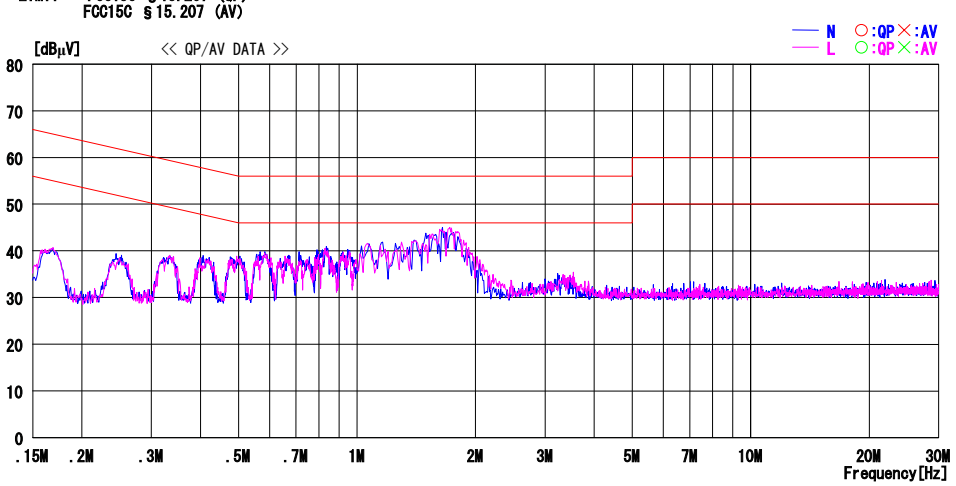
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/03 11:32:29

Applicant : SHARP Corporation
Kind of EUT : GSM-WCDMA Cellular phone
Model No. : 902SH
Serial No. : 350257/00/009262/9

Report No. : 24LE0275-HO
Power : AC120V / 60Hz(AC Adapter)
Temp℃/Humi% : 23 deg.C / 62 %
Operator : Naoki Sakamoto

Mode / Remarks : 2441MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

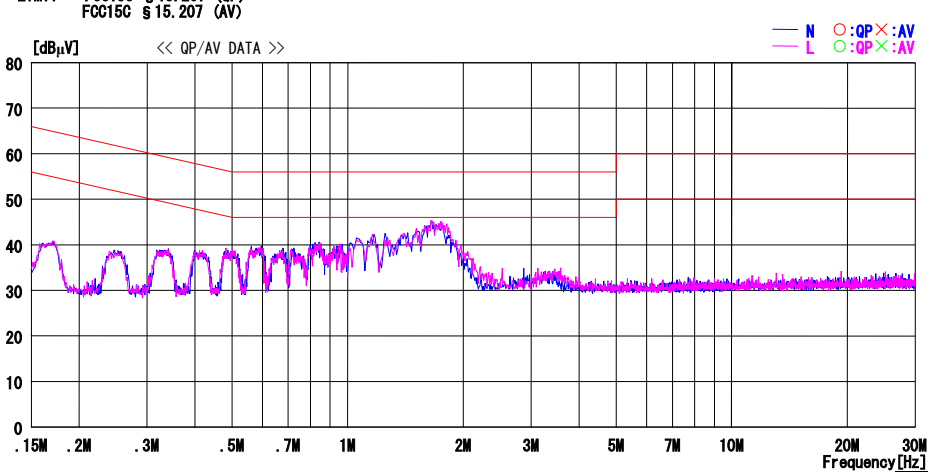
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/03 11:36:39

Applicant	: SHARP Corporation	Report No.	: 24LE0275-HO
Kind of EUT	: GSM･WCDMA Cellular phone	Power	: AC120V / 60Hz(AC Adapter)
Model No.	: 902SH	Temp℃/Humi%	: 23 deg.C / 62 %
Serial No.	: 350257/00/009262/9	Operator	: Naoki Sakamoto

Mode / Remarks : 2480MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

DATA OF CONDUCTED EMISSION TEST

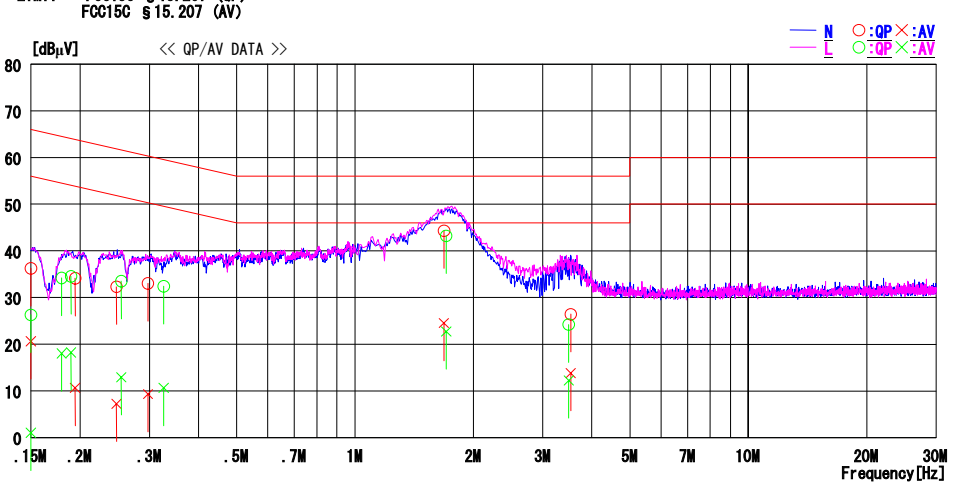
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/03 11:55:02

Applicant : SHARP Corporation
Kind of EUT : GSM-WCDMA Cellular phone
Model No. : 902SH
Serial No. : 350257/00/009262/9

Report No. : 24LE0275-HO
Power : AC120V / 60Hz(AC Adapter)
Temp℃/Humi% : 23 deg.C / 62 %
Operator : Naoki Sakamoto

Mode / Remarks : Inq

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	0.1500	36.2	20.6	0.0	36.2	20.6	66.0	56.0	29.8	35.4	N
2	0.1943	34.1	10.6	0.0	34.1	10.6	63.9	53.9	29.8	43.3	N
3	0.2475	32.3	7.2	0.0	32.3	7.2	61.8	51.8	29.5	44.6	N
4	0.2975	33.0	9.3	0.0	33.0	9.3	60.3	50.3	27.3	41.0	N
5	1.6826	44.1	24.3	0.2	44.3	24.5	56.0	46.0	11.7	21.5	N
6	3.5353	26.1	13.5	0.3	26.4	13.8	56.0	46.0	29.6	32.2	N
7	0.1500	26.3	1.0	0.0	26.3	1.0	66.0	56.0	39.7	55.0	L
8	0.1796	34.2	18.0	0.0	34.2	18.0	64.5	54.5	30.3	36.5	L
9	0.1898	34.5	18.2	0.0	34.5	18.2	64.0	54.0	29.5	35.8	L
10	0.2546	33.5	12.9	0.0	33.5	12.9	61.6	51.6	28.1	38.7	L
11	0.3262	32.4	10.6	0.0	32.4	10.6	59.5	49.5	27.1	38.9	L
12	1.7025	43.0	22.5	0.2	43.2	22.7	56.0	46.0	12.8	23.3	L
13	3.4973	23.9	11.9	0.3	24.2	12.2	56.0	46.0	31.8	33.8	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

DATA OF CONDUCTED EMISSION TEST

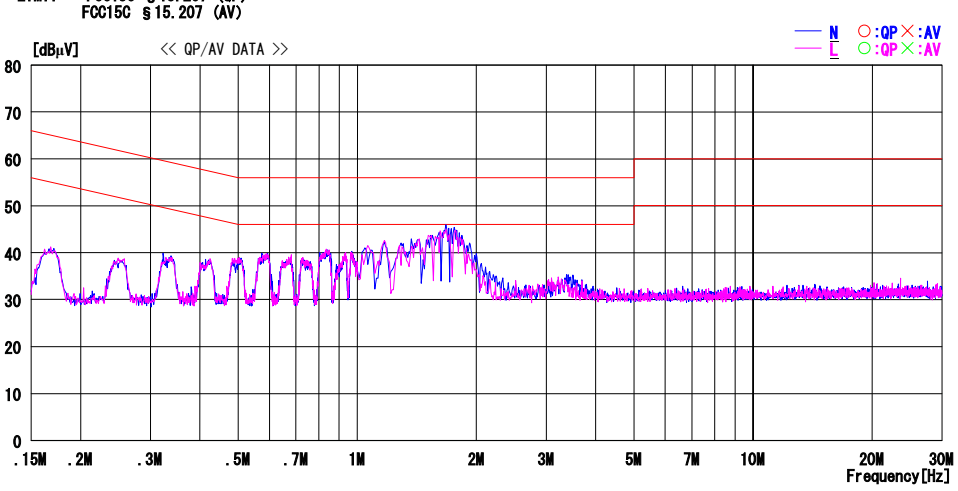
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/03 11:43:21

Applicant : SHARP Corporation
Kind of EUT : GSM-WCDMA Cellular phone
Model No. : 902SH
Serial No. : 350257/00/009262/9

Report No. : 24LE0275-HO
Power : AC120V / 60Hz(AC Adapter)
Temp℃/Humi% : 23 deg.C / 62 %
Operator : Naoki Sakamoto

Mode / Remarks : Standby

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Carrier Frequency Separation

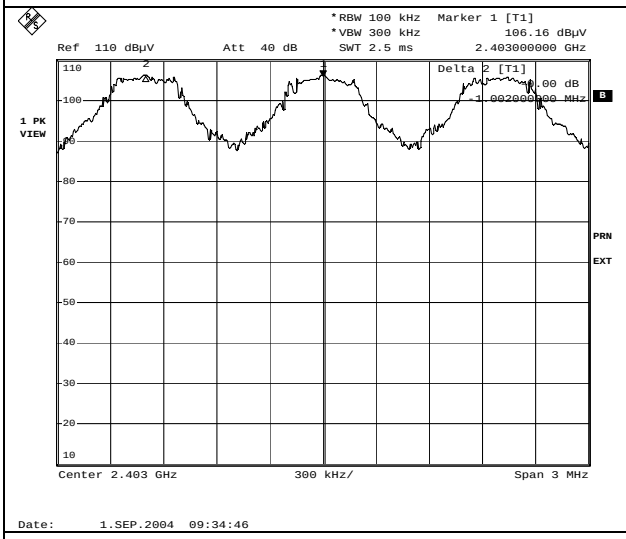
UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

COMPANY	Sharp Corporation	REGULATION	Fcc Part15 Subpart C 15.247(a)(1)
EQUIPMENT	GSM & WCDMA Cellular Phone	TEST DISTANCE	-
MODEL	902SH	DATE	09/01/2004
S/ N	350257/00/009102/7	TEMPERATURE	24.9deg.C
POWER	DC4.0V	HUMIDITY	59%
MODE	Tx(Hopping on)/Inquiry	ENGINEER	Hiroka Umeyama

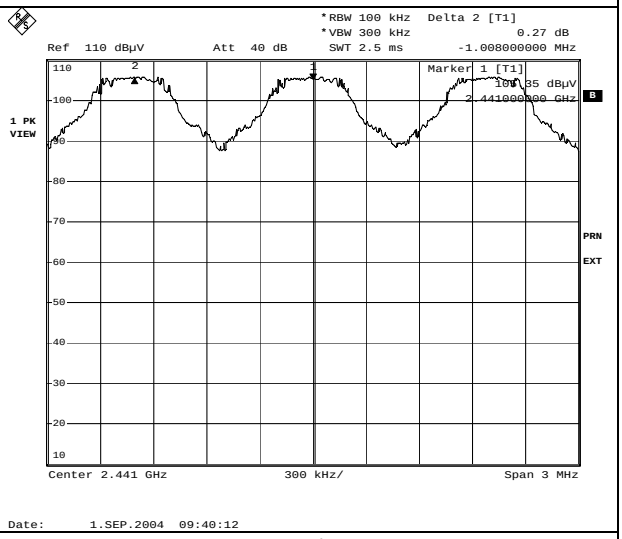
Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.002	>20dB Bandwidth and 25[kHz]
Mid	2441.0	1.008	>20dB Bandwidth and 25[kHz]
High	2480.0	1.014	>20dB Bandwidth and 25[kHz]
Inquiry	2441.0	2.010	>20dB Bandwidth and 25[kHz]

Carrier Frequency Separation

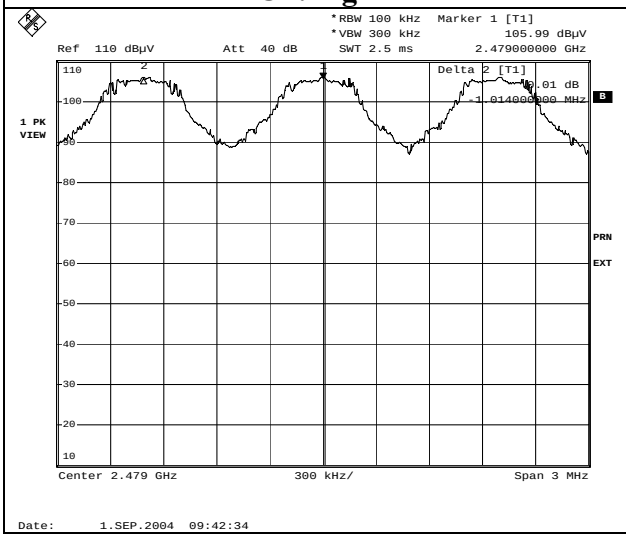
Ch:Low



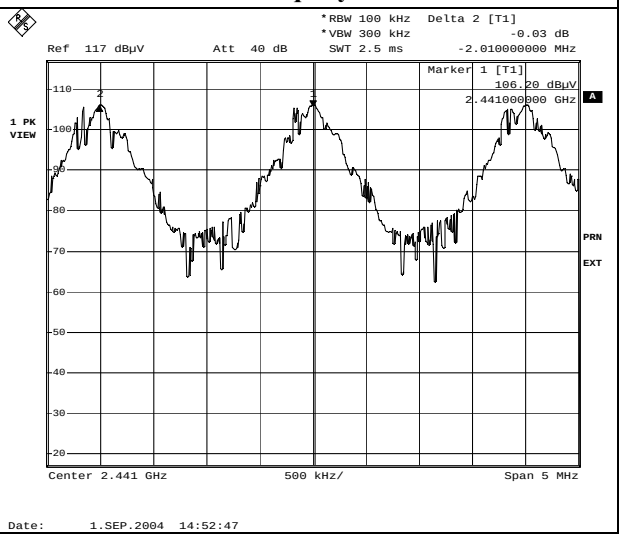
Ch:Mid



Ch:High



Inquiry



20dB Bandwidth

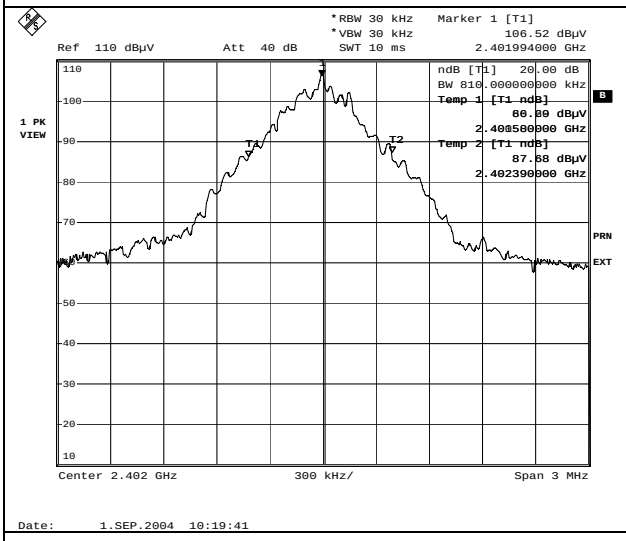
UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

COMPANY	Sharp Corporation	REGULATION	Fcc Part15 Subpart C 15.247(a)(1)
EQUIPMENT	GSM & WCDMA Cellular Phone	TEST DISTANCE	-
MODEL	902SH	DATE	09/01/2004
S/ N	350257/00/009102/7	TEMPERATURE	24.9deg.C
POWER	DC4.0V	HUMIDITY	59%
MODE	Tx(Hopping OFF)/Inquiry	ENGINEER	Hiroka Umeyama

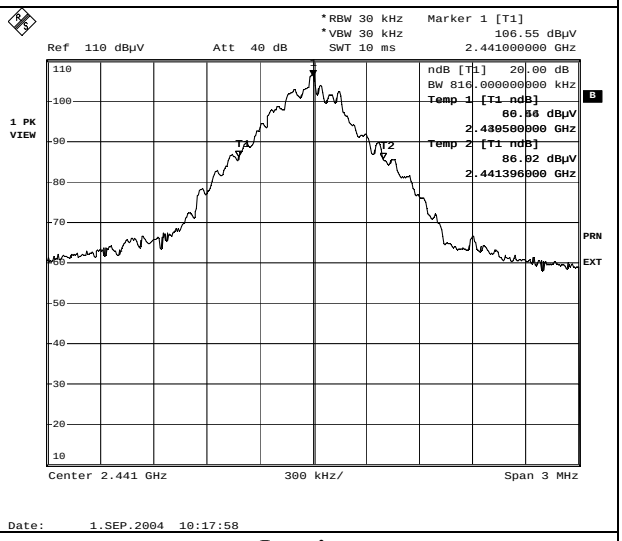
Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.810	-
Mid	2441.0	0.816	-
High	2480.0	0.762	-
Inquiry	2441.0	0.582	-

20dB Bandwidth

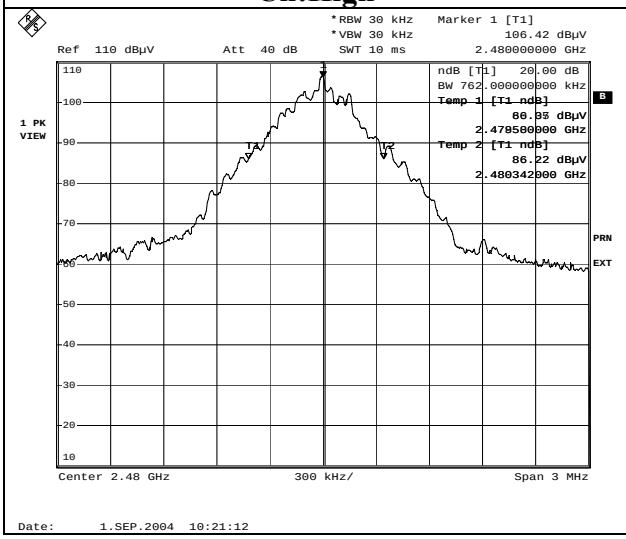
Ch:Low



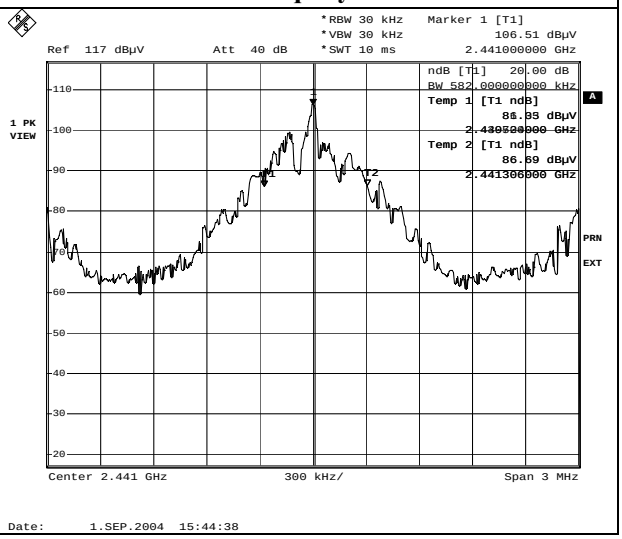
Ch:Mid



Ch:High



Inquiry



Number of Hopping Frequency

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

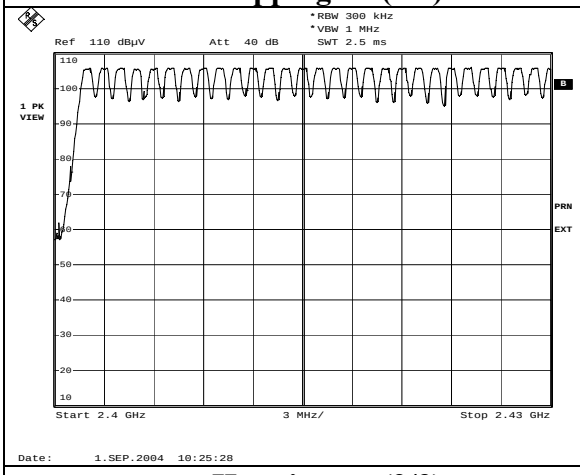
COMPANY	Sharp Corporation	REGULATION	Fcc Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT	GSM & WCDMA Cellular Phone	TEST DISTANCE	-
MODEL	902SH	DATE	09/01/2004
S/ N	350257/00/009102/7	TEMPERATURE	24.9deg.C
POWER	DC4.0V	HUMIDITY	59%
MODE	Tx(Hopping ON)/Inquiry	ENGINEER	Hiroka Umeyama

Mode	Number of channel [time]	Limit [time]
Tx(Hoppng on)	79	≧15

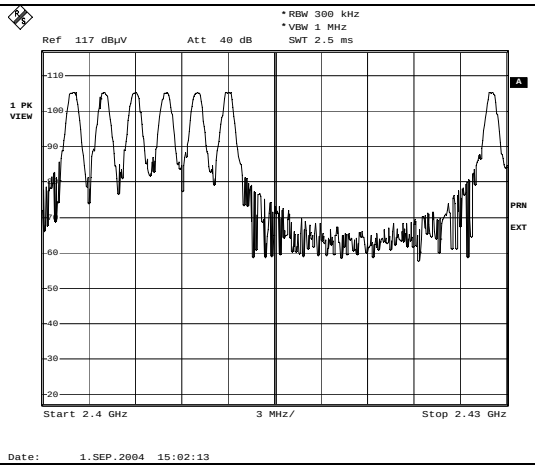
Mode	Number of channel [time]	Limit [time]
Inquiry	32	≧15

Number of Hopping Frequency

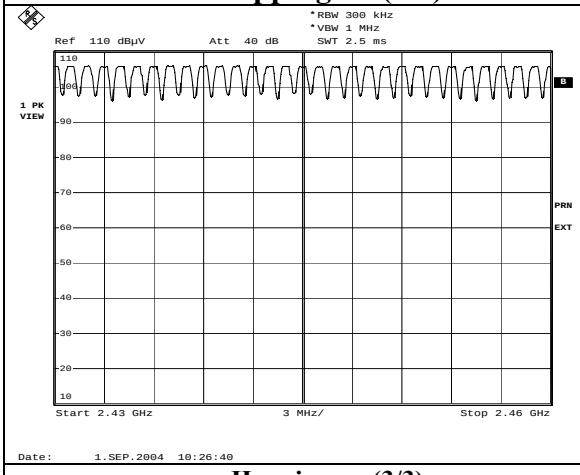
Hopping on (1/3)



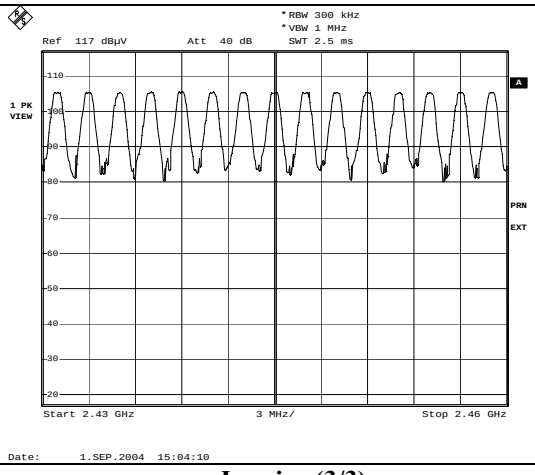
Inquiry (1/3)



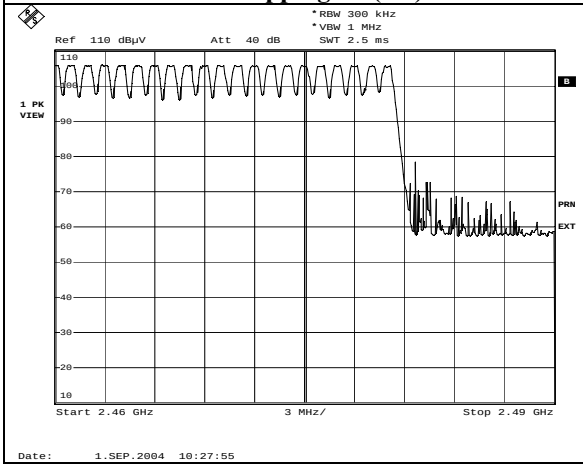
Hopping on (2/3)



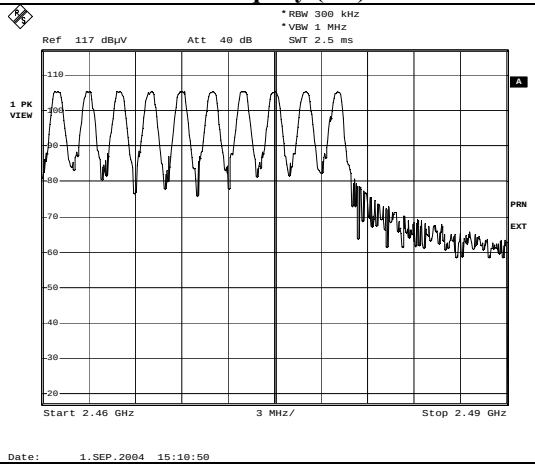
Inquiry (2/3)



Hopping on (3/3)



Inquiry (3/3)



Dwell time

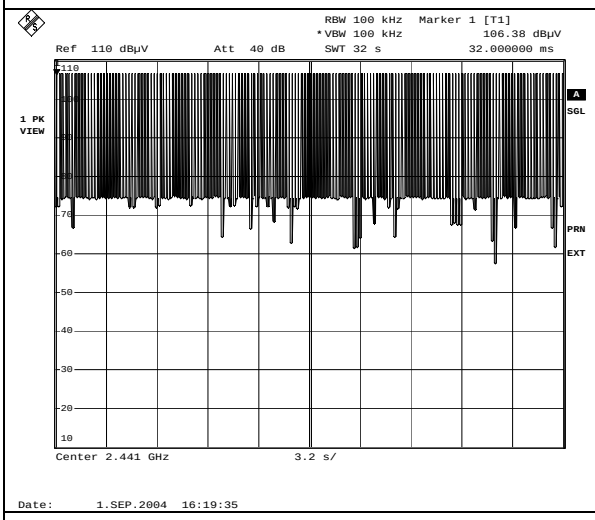
UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

COMPANY	Sharp Corporation	REGULATION	Fcc Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT	GSM & WCDMA Cellular Phone	TEST DISTANCE	-
MODEL	902SH	DATE	09/01/2004
S/ N	350257/00/009102/7	TEMPERATURE	24.9deg.C
POWER	DC4.0V	HUMIDITY	59%
MODE	Tx(Hopping ON)/Inquiry	ENGINEER	Hiroka Umeyama

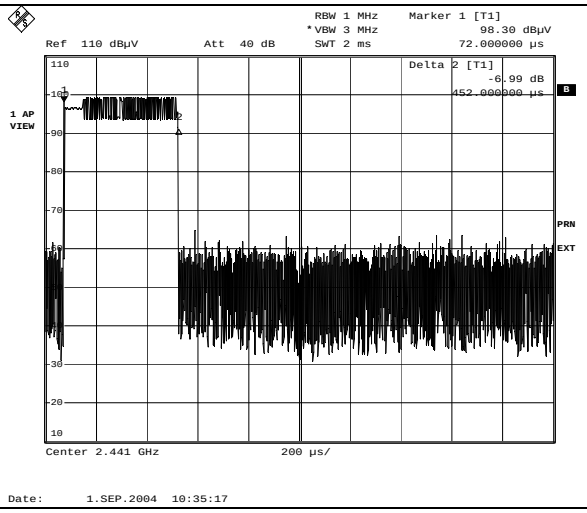
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	258times	0.452	117	400
DH3	144times	1.700	245	400
DH5	107times	2.960	317	400
Inquiry	100times / 1sec x 12.8sec = 1280	0.156	200	400

Dwell time

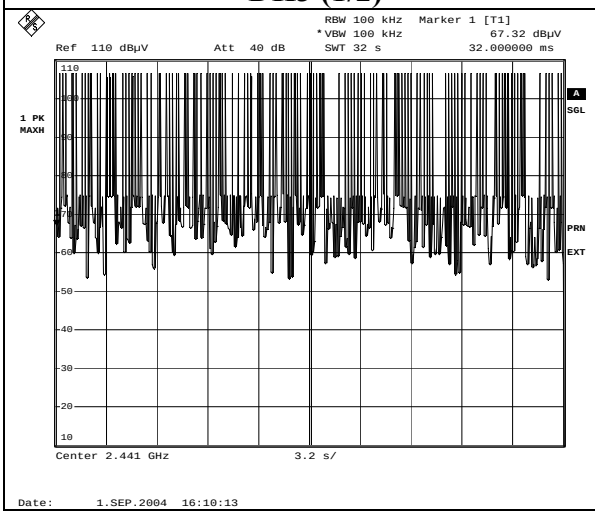
DH1 (1/2)



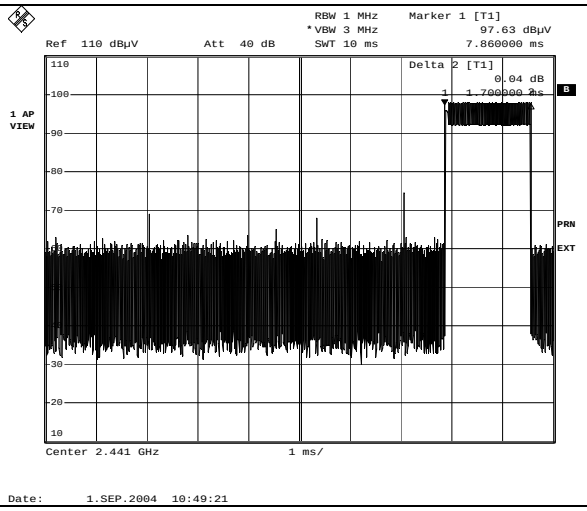
DH1 (2/2)



DH3 (1/2)

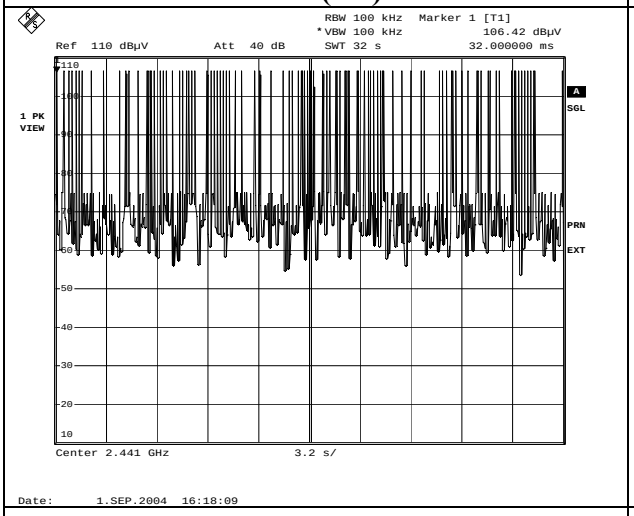


DH3 (2/2)

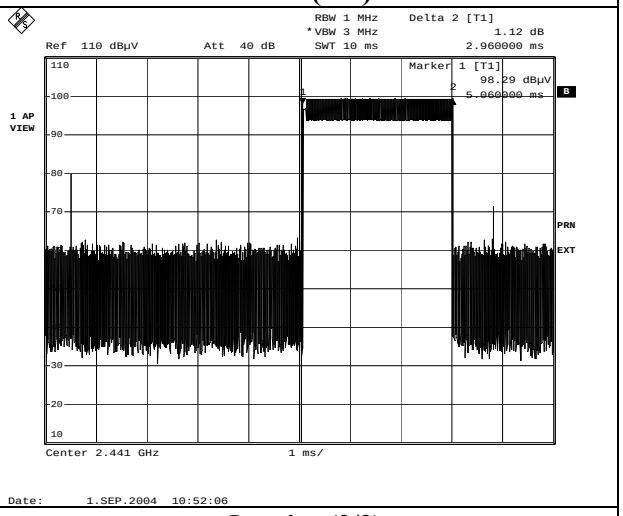


Dwell time

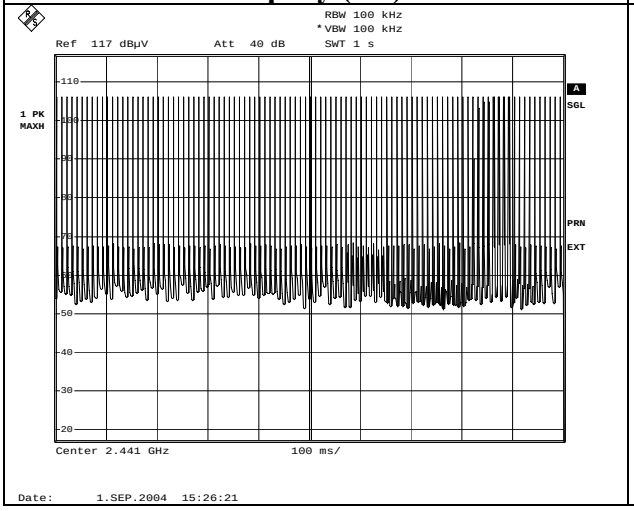
DH5 (1/2)



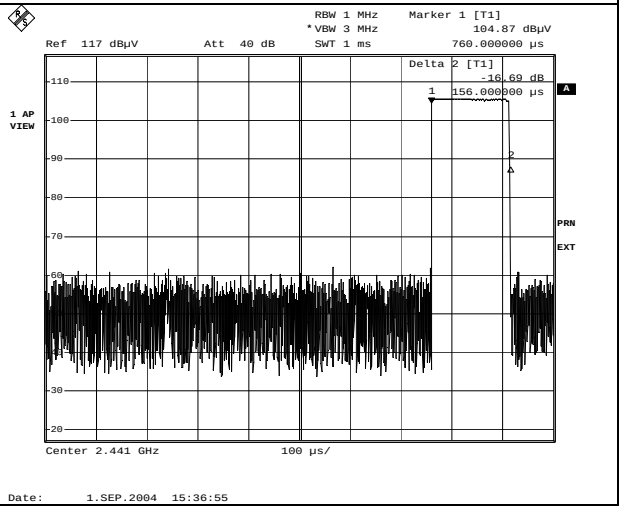
DH5 (2/2)



Inquiry (1/2)



Inquiry (2/2)



Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

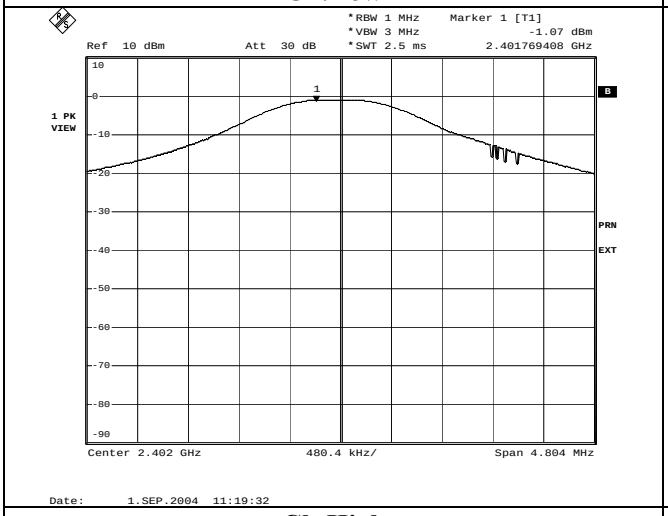
COMPANY	Sharp Corporation	REGULATION	Fcc Part15 Subpart C 15.247(b)(1)
EQUIPMENT	GSM & WCDMA Cellular Phone	TEST DISTANCE	-
MODEL	902SH	DATE	09/01/2004
S/ N	350257/00/009102/7	TEMPERATURE	24.9deg.C
POWER	DC4.0V	HUMIDITY	59%
MODE	Tx(Hopping OFF)/Inquiry	ENGINEER	Hiroka Umeyama

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2402.0	-1.07	0.30	0.00	-0.77	30.00	30.77
Mid	2441.0	-0.97	0.30	0.00	-0.67	30.00	30.67
High	2480.0	-1.25	0.30	0.00	-0.95	30.00	30.95
Inquiry	2441.0	-1.36	0.30	0.00	-1.06	21.00	22.06

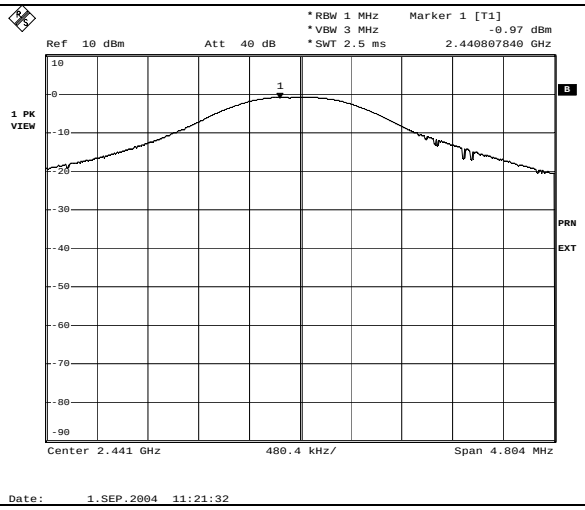
Sample Calculation:
Result = S/A Reading + Cable Loss (supplied by customer)+ Attenuator
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

Maximum Peak Output Power

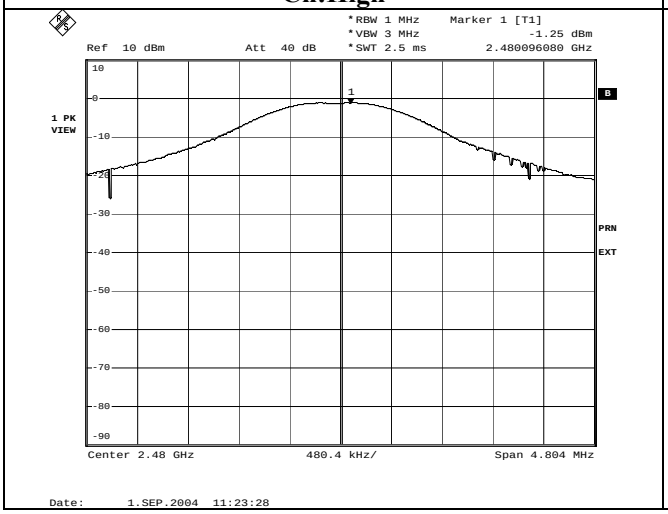
Ch:Low



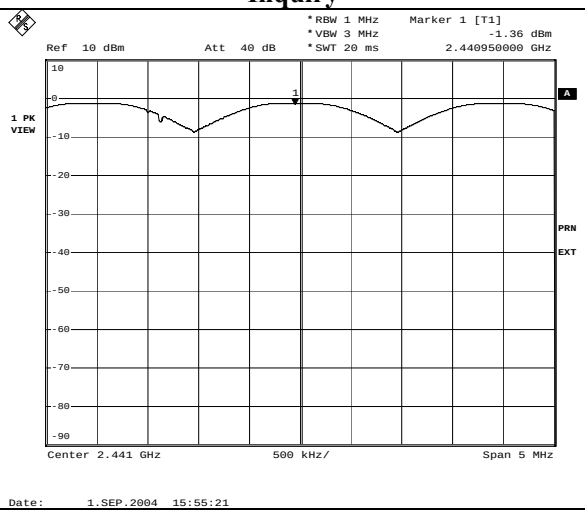
Ch:Mid



Ch:High



Inquiry



Radiated Spurious Emission(30-1000MHz)

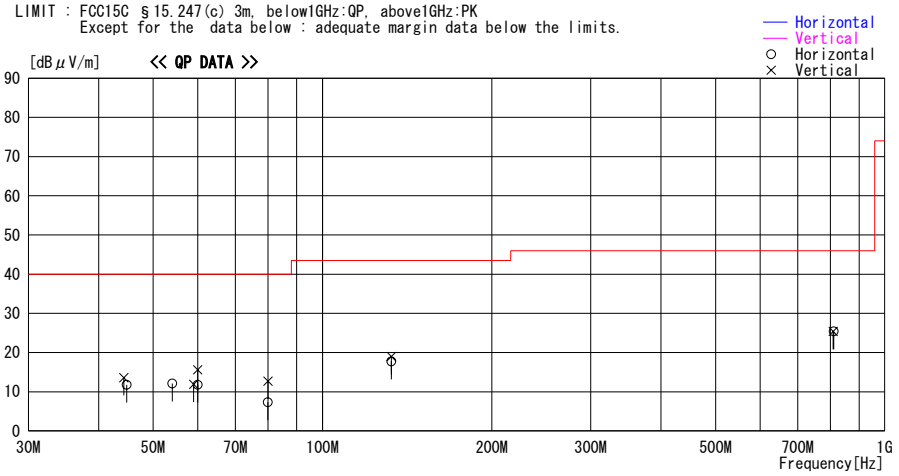
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/01 23:24:31

Applicant	: SHARP Corporation	Report No.	: 24LE0275-HO
Kind of EUT	: GSM･WCDMA Cellular phone	Power	: AC120V / 60Hz (DC4.0V)
Model No.	: 902SH	Temp℃/Humi%	: 25deg.C / 62%
Sample No.	: 350257/00/009262/9	Operator	: Naoki Sakamoto

Mode / Remarks : Transmitting Mode 2402MHz Z Axis(MAX)

LIMIT : FCC15C §15.247(c) 3m, below1GHz:QP, above1GHz:PK
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	44.851	21.3	11.7	6.6	27.8	11.8	40.0	28.2	100	22
2	54.070	23.6	9.4	6.8	27.7	12.1	40.0	27.9	100	0
3	60.002	24.7	8.1	6.8	27.8	11.8	40.0	28.2	100	360
4	79.979	21.5	6.3	7.1	27.6	7.3	40.0	32.7	100	0
5	132.502	24.0	13.7	7.4	27.4	17.7	43.5	25.8	177	360
6	811.716	21.2	21.6	10.5	27.9	25.4	46.0	20.6	100	0
----- Vertical ------										
7	44.329	22.9	11.9	6.6	27.8	13.6	40.0	26.4	100	302
8	58.984	24.6	8.3	6.8	27.8	11.9	40.0	28.1	100	99
9	60.002	28.5	8.1	6.8	27.8	15.6	40.0	24.4	100	0
10	80.001	26.9	6.3	7.1	27.6	12.7	40.0	27.3	100	4
11	132.497	25.3	13.7	7.4	27.4	19.0	43.5	24.5	125	96
12	809.633	21.2	21.6	10.5	27.9	25.4	46.0	20.6	100	0

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN Page:

Radiated Spurious Emission(30-1000MHz)

DATA OF RADIATED EMISSION TEST

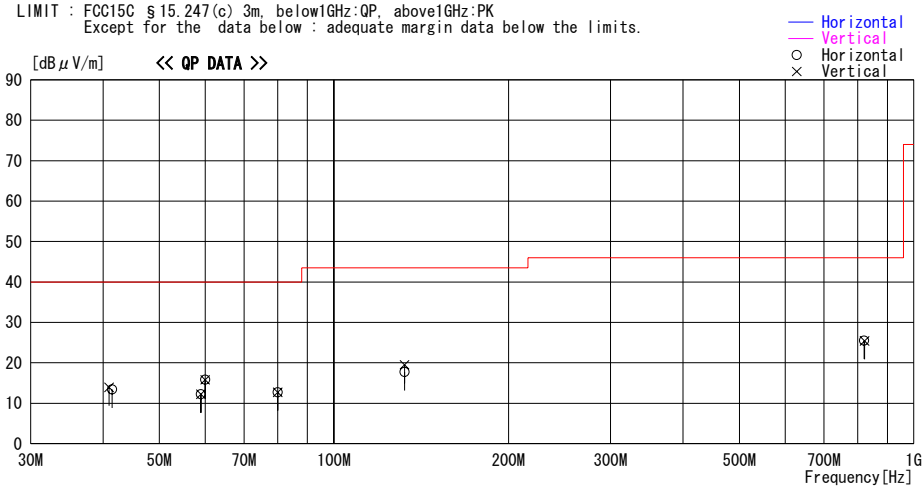
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/01 19:48:14

Applicant : SHARP Corporation
Kind of EUT : GSM･WCDMA Cellular phone
Model No. : 902SH
Sample No. : 350257/00/009262/9

Report No. : 24LE0275-HO
Power : AC120V / 60Hz (DC4.0V)
Temp℃/Humi% : 25deg.C / 62%
Operator : Naoki Sakamoto

Mode / Remarks : Transmitting Mode 2441MHz Z Axis(MAX)

LIMIT : FCC15C §15.247(c) 3m, below1GHz:QP, above1GHz:PK
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	41.480	21.5	13.1	6.6	27.8	13.4	40.0	26.6	100	0
2	58.984	24.9	8.3	6.8	27.8	12.2	40.0	27.8	100	360
3	60.002	28.7	8.1	6.8	27.8	15.8	40.0	24.2	100	357
4	80.002	26.9	6.3	7.1	27.6	12.7	40.0	27.3	100	0
5	132.346	24.0	13.7	7.4	27.4	17.7	43.5	25.8	164	156
6	820.762	21.3	21.5	10.6	27.9	25.5	46.0	20.5	100	360
----- Vertical ------										
7	40.950	21.8	13.3	6.6	27.8	13.9	40.0	26.1	100	0
8	58.982	24.9	8.3	6.8	27.8	12.2	40.0	27.8	100	360
9	60.001	28.7	8.1	6.8	27.8	15.8	40.0	24.2	100	0
10	80.002	26.9	6.3	7.1	27.6	12.7	40.0	27.3	100	360
11	132.349	25.8	13.7	7.4	27.4	19.5	43.5	24.0	111	360
12	822.211	21.2	21.5	10.6	27.9	25.4	46.0	20.6	100	360

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN Page:

Radiated Spurious Emission(30-1000MHz)

DATA OF RADIATED EMISSION TEST

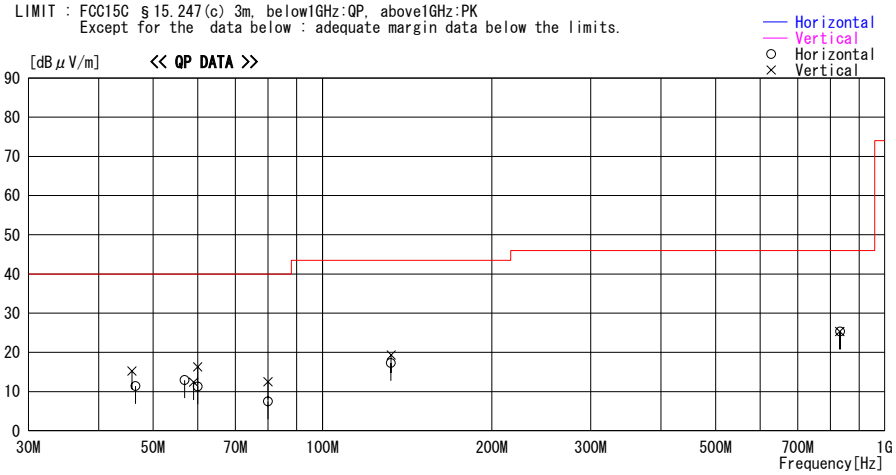
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2004/09/01 23:46:54

Applicant : SHARP Corporation
Kind of EUT : GSM-WCDMA Cellular phone
Model No. : 902SH
Sample No. : 350257/00/009262/9

Report No. : 24LE0275-HO
Power : AC120V / 60Hz (DC4.0V)
Temp℃/Humi% : 25deg.C / 62%
Operator : Naoki Sakamoto

Mode / Remarks : Transmitting Mode 2480MHz Z Axis(MAX)

LIMIT : FCC15C §15.247(c) 3m, below1GHz:QP, above1GHz:PK
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	46.491	21.4	11.2	6.6	27.8	11.4	40.0	28.6	100	360
2	56.839	25.0	8.8	6.8	27.7	12.9	40.0	27.1	100	0
3	60.002	24.2	8.1	6.8	27.8	11.3	40.0	28.7	100	360
4	80.003	21.7	6.3	7.1	27.6	7.5	40.0	32.5	100	0
5	132.337	23.6	13.7	7.4	27.4	17.3	43.5	26.2	163	133
6	832.734	21.1	21.5	10.6	27.9	25.3	46.0	20.7	100	0
----- Vertical ------										
7	45.828	25.0	11.4	6.6	27.8	15.2	40.0	24.8	100	0
8	58.983	25.1	8.3	6.8	27.8	12.4	40.0	27.6	100	360
9	60.002	29.2	8.1	6.8	27.8	16.3	40.0	23.7	100	360
10	80.003	26.7	6.3	7.1	27.6	12.5	40.0	27.5	100	0
11	132.485	25.6	13.7	7.4	27.4	19.3	43.5	24.2	113	227
12	831.306	21.1	21.5	10.6	27.9	25.3	46.0	20.7	100	360

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP.GAIN Page:

Radiated Spurious Emission (1-25GHz) / Band Edge compliance

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : Sharp Corporation
EQUIPMENT : GSM-WCDMA Cellular phone
MODEL : 902SH
S/ N : 350257/00/008075/6
POWER : AC120V/60Hz (DC4.0V)
MODE : Tx (2402MHz)
AXIS : Hor: Y-axis , Ver: Z-axis

REGULATION : FCC Part 15 Subpart C 15.247(c)
TEST DISTANCE : 3 and 1m
DATE : September 3 and 11, 2004
TEMPERATURE : 25deg.C and 24deg.C
HUMIDITY : 62% and 60%
ENGINEER : Naoki Sakamoto and Hiroka Umeyama

PK DETECT (RBW: 1MHz , VBW:1MHz)

No.	Freq.	Reading HOR	Reading VER	Ant. Factor	Amp. Gain	Cable Loss	Atten. or Filter	Result HOR	Result VER	Limit PK	Margin HOR	Margin VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	2390.0	51.4	53.1	30.8	36.3	6.3	10.0	62.2	63.9	74.0	11.8	10.1
2	4804.0	45.3	45.1	35.3	36.1	9.3	1.0	54.8	54.6	74.0	19.2	19.4
3	7206.0	44.2	33.1	37.9	35.6	11.8	0.5	58.8	47.7	74.0	15.2	26.3
4	9608.0	44.5	44.5	37.6	36.3	13.9	0.5	60.2	60.2	74.0	13.8	13.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
5	12010.0	41.6	42.0	41.0	35.7	15.5	0.0	52.9	53.3	74.0	21.1	20.7
6	14412.0	40.6	4.6	41.1	34.6	16.6	0.0	54.2	18.2	74.0	19.8	55.8
7	16814.0	43.7	43.1	45.9	35.6	18.6	0.0	63.1	62.5	74.0	10.9	11.5
8	19216.0	41.7	42.0	39.7	34.9	20.3	0.0	57.3	57.6	74.0	16.7	16.4
9	21618.0	44.1	43.8	40.8	35.4	22.1	0.0	62.1	61.8	74.0	11.9	12.2
10	24020.0	43.9	44.6	39.9	35.8	22.6	0.0	61.1	61.8	74.0	12.9	12.2

AV DETECT (RBW: 1MHz , VBW:10Hz)

No.	Freq.	Reading HOR	Reading VER	Ant. Factor	Amp. Gain	Cable Loss	Atten. or Filter	Result HOR	Result VER	Limit AV	Margin HOR	Margin VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	2390.0	31.3	31.3	30.8	36.3	6.3	10.0	42.1	42.1	54.0	11.9	11.9
2	4804.0	33.5	33.2	35.3	36.1	9.3	1.0	43.0	42.7	54.0	11.0	11.3
3	7206.0	31.2	31.0	37.9	35.6	11.8	0.5	45.8	45.6	54.0	8.2	8.4
4	9608.0	30.7	30.8	37.6	36.3	13.9	0.5	46.4	46.5	54.0	7.6	7.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
5	12010.0	29.5	29.2	41.0	35.7	15.5	0.0	40.8	40.5	54.0	13.2	13.5
6	14412.0	28.5	28.1	41.1	34.6	16.6	0.0	42.1	41.7	54.0	11.9	12.3
7	16814.0	30.6	30.4	45.9	35.6	18.6	0.0	50.0	49.8	54.0	4.0	4.2
8	19216.0	29.4	29.4	39.7	34.9	20.3	0.0	45.0	45.0	54.0	9.0	9.0
9	21618.0	31.0	31.0	40.8	35.4	22.1	0.0	49.0	49.0	54.0	5.0	5.0
10	24020.0	31.1	31.4	39.9	35.8	22.6	0.0	48.3	48.6	54.0	5.7	5.4

20dBc(Fundamental 2402MHz) (RBW: 100kHz , VBW:300kHz)

No.	FREQ	S/A READING HOR	S/A READING VER	ANT Factor	AMP GAIN	CABLE LOSS	ATTEN.	RESULT HOR	RESULT VER	Limit 20dBc	MARGIN HOR	MARGIN VER
	[MHz]	[dBuV/m]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator												
1	2400.0	89.3	90.2	30.8	36.3	6.4	10.0	100.2	101.1	-	-	-
2	2400.0	49.3	51.4	30.8	36.3	6.4	10.0	60.2	62.3	Funda-20dB	20.0	18.8

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB

* Except for the above table : All other spurious emissions were less than 20dB for the limit.
* Atten. : 1 to 3.5GHz, Filter : 3.5 to 26GHz
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

In the frequency over the fifth harmonic, the noise from the EUT was not seen. Its base noise implies the system noise floor.

Radiated Spurious Emission (1-25GHz) / Band Edge compliance

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY	:	Sharp Corporation	REGULATION	:	FCC Part 15 Subpart C 15.247(c)
EQUIPMENT	:	GSM-WCDMA Cellular phone	TEST DISTANCE	:	3 and 1m
MODEL	:	902SH	DATE	:	September 3 and 11, 2004
S/ N	:	350257/00/008075/6	TEMPERATURE	:	25deg.C and 24deg.C
POWER	:	AC120V/60Hz (DC4.0V)	HUMIDITY	:	62% and 60%
MODE	:	Tx (2441MHz)	ENGINEER	:	Naoki Sakamoto and Hiroka Umeyama
AXIS	:	Hor: Y-axis , Ver: Z-axis			

PK DETECT (RBW: 1MHz , VBW:1MHz)

No.	Freq.	Reading		Ant.	Amp.	Cable	Atten. or	Result		Limit	Margin	
		HOR	VER	Factor	Gain	Loss	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	4882.0	46.6	45.1	35.7	36.1	9.5	1.0	56.7	55.2	74.0	17.3	18.8
2	7323.0	44.6	44.3	38.2	35.7	12.0	0.5	59.6	59.3	74.0	14.4	14.7
3	9764.0	43.5	44.1	37.3	36.3	14.0	0.5	59.0	59.6	74.0	15.0	14.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
4	12205.0	42.0	42.0	41.5	35.6	15.6	0.0	54.0	54.0	74.0	20.0	20.0
5	14646.0	40.9	40.6	41.6	34.8	16.8	0.0	55.0	54.7	74.0	19.0	19.3
6	17087.0	43.5	43.3	46.5	35.4	18.8	0.0	63.9	63.7	74.0	10.1	10.3
7	19528.0	42.3	42.4	39.3	35.0	20.6	0.0	57.7	57.8	74.0	16.3	16.2
8	21969.0	42.3	43.3	40.4	35.0	22.3	0.0	60.5	61.5	74.0	13.5	12.5
9	24410.0	44.6	44.0	40.1	36.6	22.7	0.0	61.3	60.7	74.0	12.7	13.3

AV DETECT (RBW: 1MHz , VBW:10Hz)

No.	Freq.	Reading		Ant.	Amp.	Cable	Atten. or	Result		Limit	Margin	
		HOR	VER	Factor	Gain	Loss	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	4882.0	36.1	34.1	35.7	36.1	9.5	1.0	46.2	44.2	54.0	7.8	9.8
2	7323.0	30.7	31.2	38.2	35.7	12.0	0.5	45.7	46.2	54.0	8.3	7.8
3	9764.0	30.5	30.4	37.3	36.3	14.0	0.5	46.0	45.9	54.0	8.0	8.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
4	12205.0	29.6	29.2	41.5	35.6	15.6	0.0	41.6	41.2	54.0	12.4	12.8
5	14646.0	28.6	28.2	41.6	34.8	16.8	0.0	42.7	42.3	54.0	11.3	11.7
6	17087.0	30.6	30.5	46.5	35.4	18.8	0.0	51.0	50.9	54.0	3.0	3.1
7	19528.0	29.6	29.6	39.3	35.0	20.6	0.0	45.0	45.0	54.0	9.0	9.0
8	21969.0	30.5	30.5	40.4	35.0	22.3	0.0	48.7	48.7	54.0	5.3	5.3
9	24410.0	31.5	31.5	40.1	36.6	22.7	0.0	48.2	48.2	54.0	5.8	5.8

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB

* Except for the above table : All other spurious emissions were less than 20dB for the limit.
* Atten. : 1 to 3.5GHz, Filter : 3.5 to 26GHz
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
* In the frequency over the fifth harmonic, the noise from the EUT was not seen. Its base noise implies the system noise floor.

Radiated Spurious Emission (1-25GHz) / Band Edge compliance

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY	:	Sharp Corporation	REGULATION	:	FCC Part 15 Subpart C 15.247(c)
EQUIPMENT	:	GSM-WCDMA Cellular phone	TEST DISTANCE	:	3 and 1m
MODEL	:	902SH	DATE	:	September 3 and 11, 2004
S/ N	:	350257/00/008075/6	TEMPERATURE	:	25deg.C and 24deg.C
POWER	:	AC120V/60Hz (DC4.0V)	HUMIDITY	:	62% and 60%
MODE	:	Tx (2480MHz)	ENGINEER	:	Naoki Sakamoto and Hiroka Umeyama
AXIS	:	Hor: Y-axis , Ver: Z-axis			

PK DETECT (RBW: 1MHz , VBW:1MHz)

No.	Freq.	Reading		Ant.	Amp.	Cable	Atten. or	Result		Limit	Margin	
		HOR	VER	Factor	Gain	Loss	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	2483.5	61.8	61.6	31.0	36.2	6.4	10.0	73.0	72.8	74.0	1.0	1.2
2	4960.0	46.7	45.9	36.1	36.1	9.5	1.0	57.2	56.4	74.0	16.8	17.6
3	7440.0	44.3	44.8	38.5	35.7	12.0	0.5	59.6	60.1	74.0	14.4	13.9
4	9920.0	44.2	44.5	37.0	36.3	14.1	0.5	59.5	59.8	74.0	14.5	14.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
5	12400.0	42.2	42.0	41.9	35.5	15.7	0.0	54.8	54.6	74.0	19.2	19.4
6	14880.0	40.9	41.6	42.6	35.0	17.1	0.0	56.1	56.8	74.0	17.9	17.2
7	17360.0	42.9	42.5	46.9	35.2	19.0	0.0	64.1	63.7	74.0	9.9	10.3
8	19840.0	43.2	42.5	39.9	35.3	20.9	0.0	59.2	58.5	74.0	14.8	15.5
9	22320.0	43.5	42.7	40.7	35.1	22.4	0.0	62.0	61.2	74.0	12.0	12.8
10	24800.0	43.5	43.9	40.2	36.7	22.9	0.0	60.4	60.8	74.0	13.6	13.2

AV DETECT (RBW: 1MHz , VBW:10Hz)

No.	Freq.	Reading		Ant.	Amp.	Cable	Atten. or	Result		Limit	Margin	
		HOR	VER	Factor	Gain	Loss	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	2483.5	33.7	33.6	31.0	36.2	6.4	10.0	44.9	44.8	54.0	9.1	9.2
2	4960.0	37.0	33.0	36.1	36.1	9.5	1.0	47.5	43.5	54.0	6.5	10.5
3	7440.0	30.8	31.0	38.5	35.7	12.0	0.5	46.1	46.3	54.0	7.9	7.7
4	9920.0	30.6	30.8	37.0	36.3	14.1	0.5	45.9	46.1	54.0	8.1	7.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
5	12400.0	29.8	29.6	41.9	35.5	15.7	0.0	42.4	42.2	54.0	11.6	11.8
6	14880.0	28.8	28.7	42.6	35.0	17.1	0.0	44.0	43.9	54.0	10.0	10.1
7	17360.0	30.3	30.0	46.9	35.2	19.0	0.0	51.5	51.2	54.0	2.5	2.8
8	19840.0	30.1	29.9	39.9	35.3	20.9	0.0	46.1	45.9	54.0	7.9	8.1
9	22320.0	30.5	30.6	40.7	35.1	22.4	0.0	49.0	49.1	54.0	5.0	4.9
10	24800.0	30.9	30.9	40.2	36.7	22.9	0.0	47.8	47.8	54.0	6.2	6.2

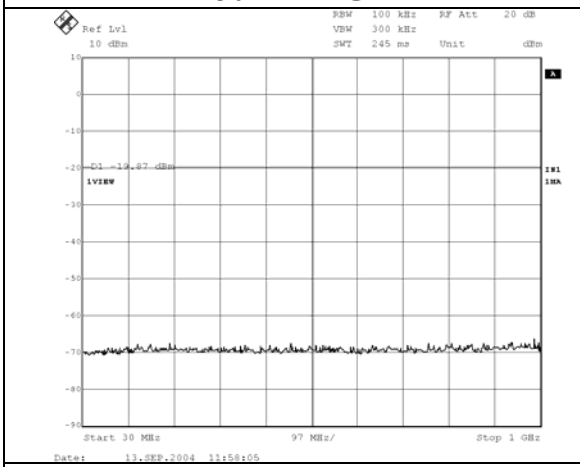
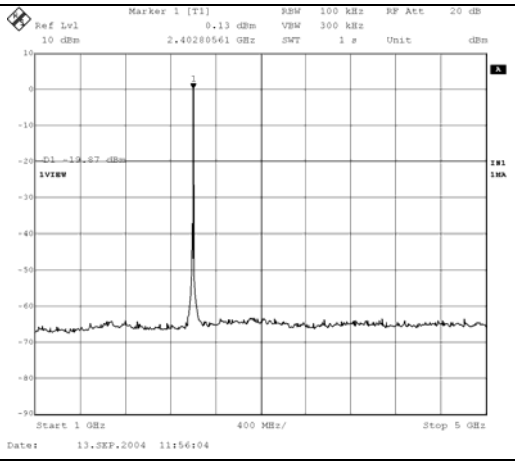
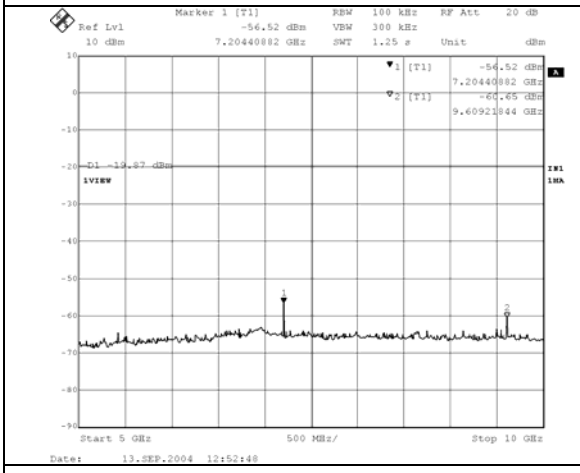
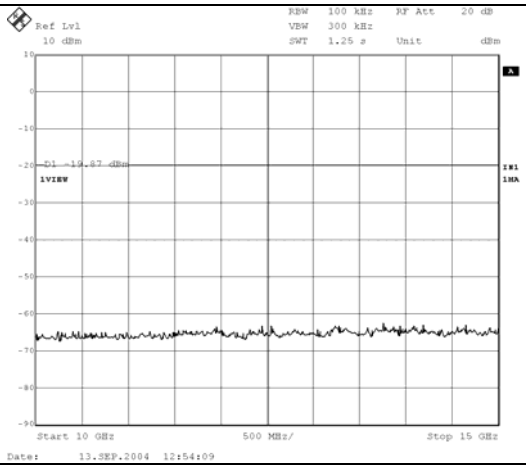
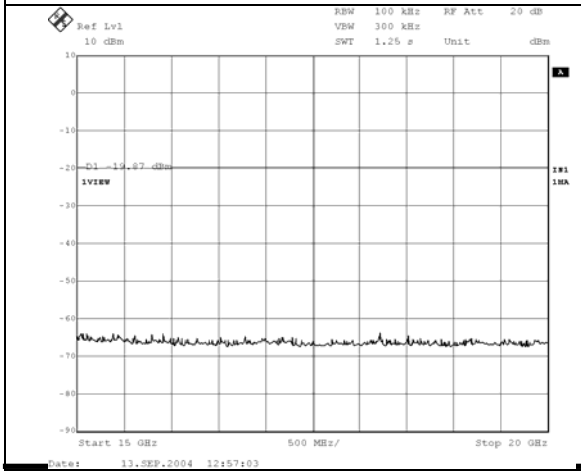
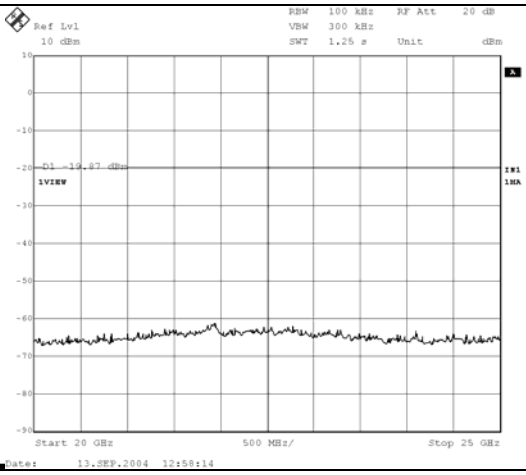
Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB

* Except for the above table : All other spurious emissions were less than 20dB for the limit.
* Atten. : 1 to 3.5GHz, Filter : 3.5 to 26GHz
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

In the frequency over the fifth harmonic, the noise from the EUT was not seen. Its base noise implies the system noise floor.

Conducted Spurious Emission(30MHz-25GHz)

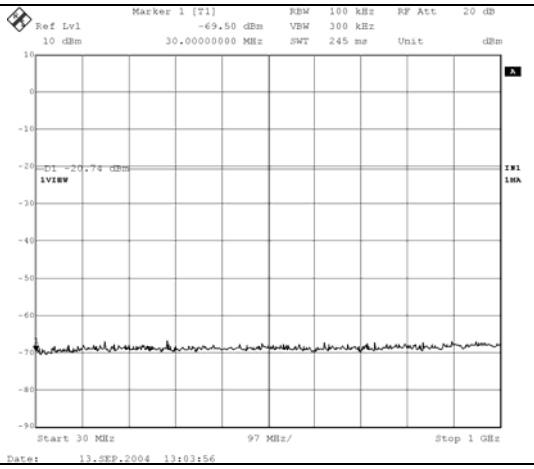
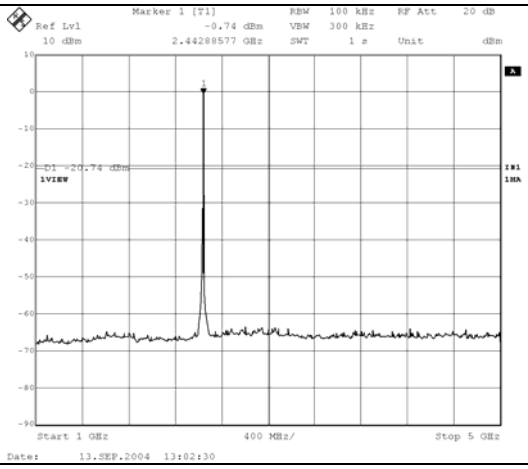
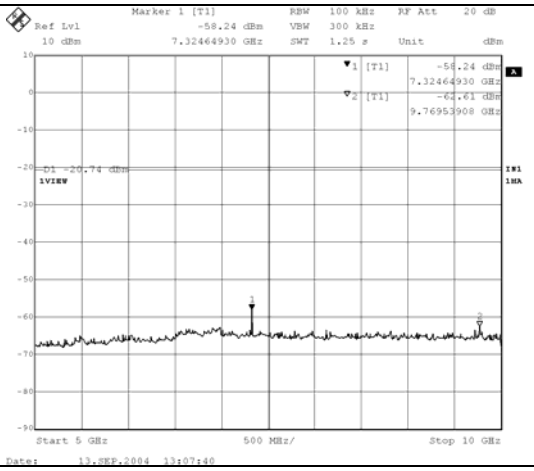
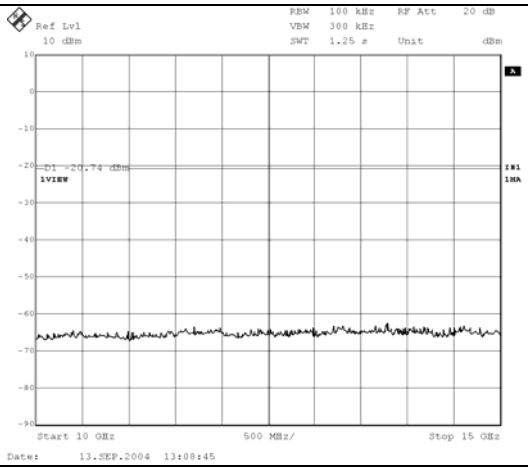
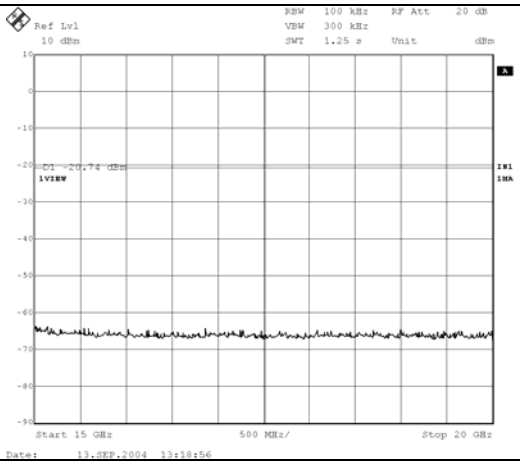
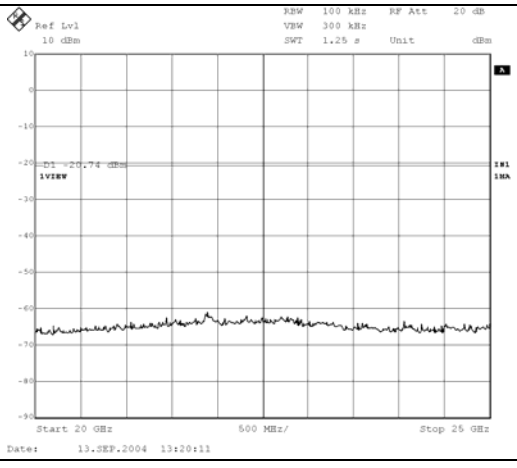
Ch:Low

30MHz-1GHz	1GHz-5GHz
	
5GHz-10GHz	**10GHz-15GHz**
	
15GHz-20GHz	**20GHz-25GHz**
	

UL Apex Co., Ltd.
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

Conducted Spurious Emission(30MHz-25GHz)

Ch:Mid

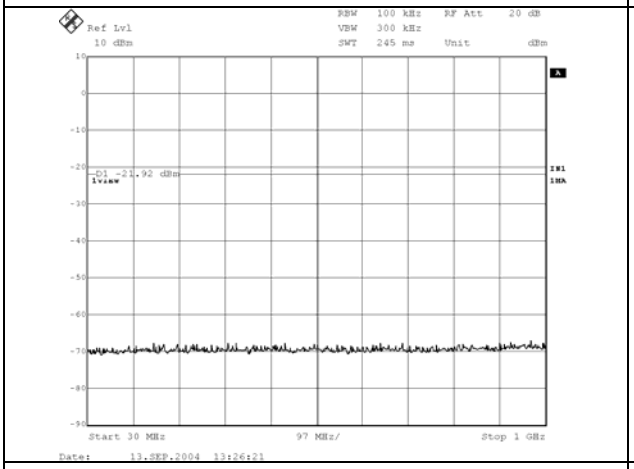
30MHz-1GHz	1GHz-5GHz
	
5GHz-10GHz	**10GHz-15GHz**
	
15GHz-20GHz	**20GHz-25GHz**
	

UL Apex Co., Ltd.
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

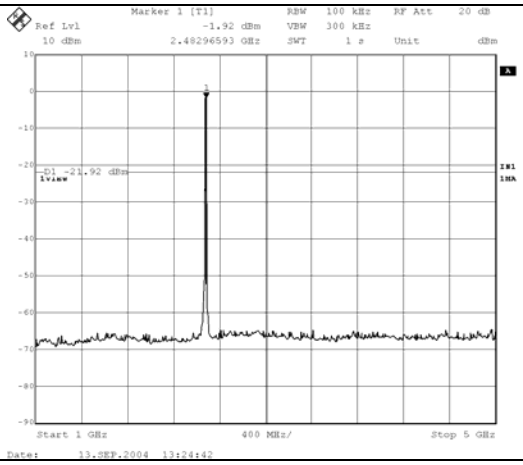
Conducted Spurious Emission(30MHz-25GHz)

Ch:High

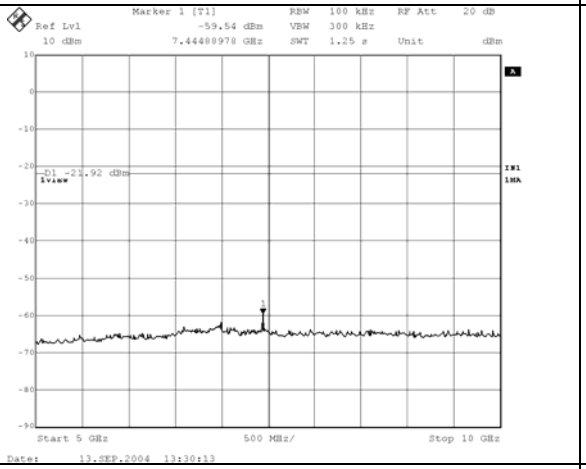
30MHz-1GHz



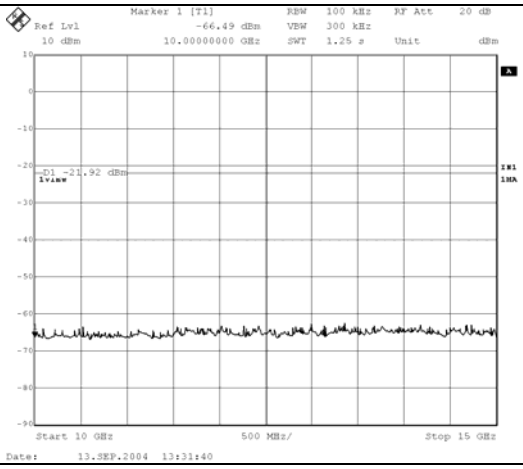
1GHz-5GHz



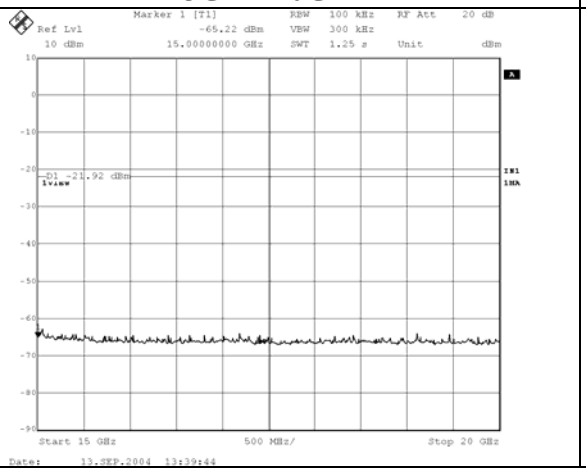
5GHz-10GHz



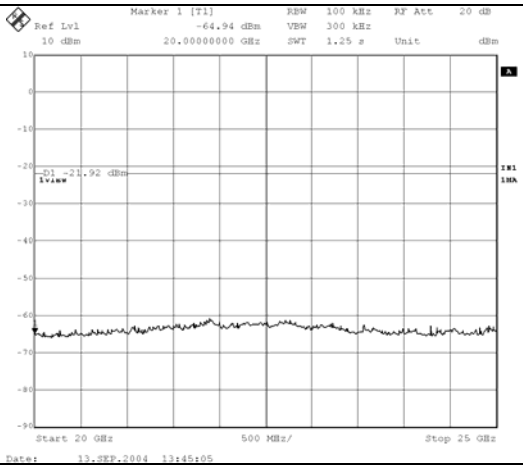
10GHz-15GHz



15GHz-20GHz

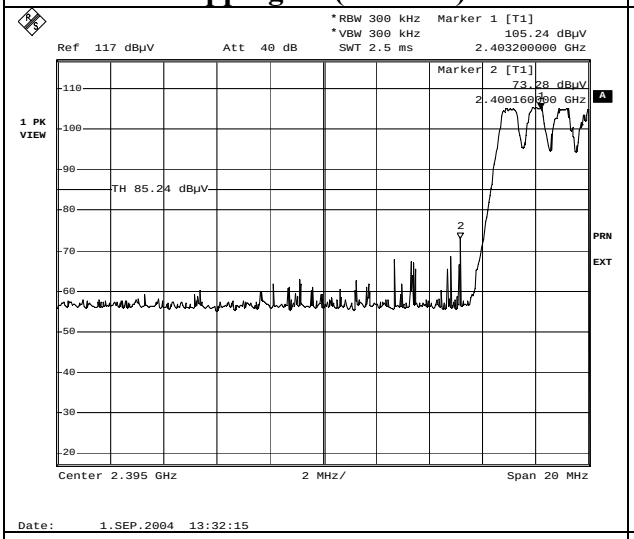


20GHz-25GHz

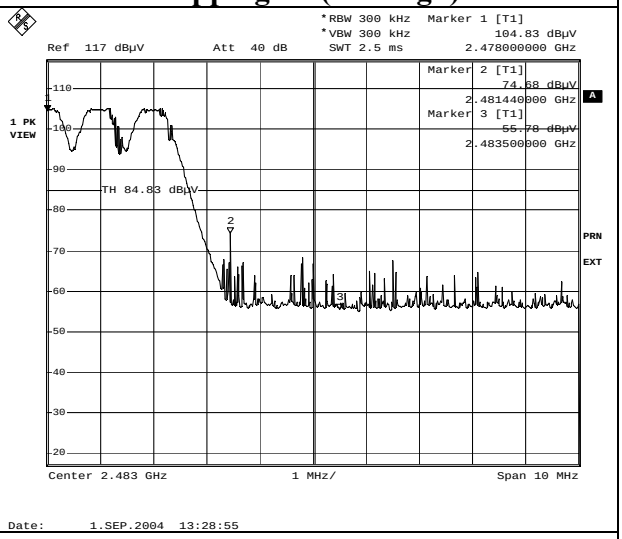


Conducted Spurious Emission / Band Edge compliance

Hopping on (Ch:Low)



Hopping on (Ch:High)



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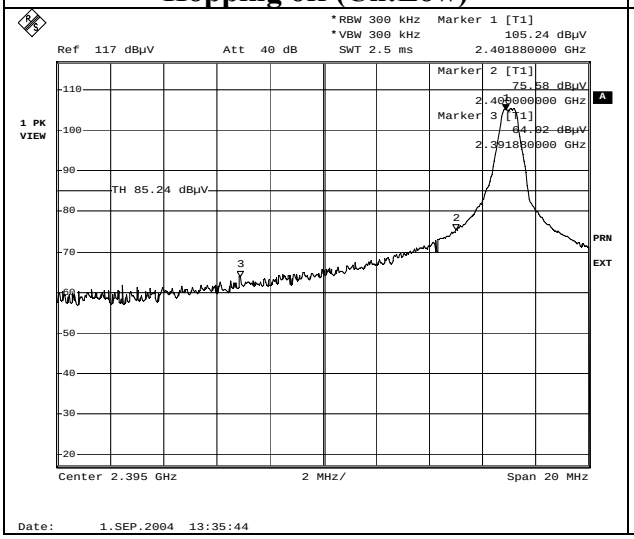
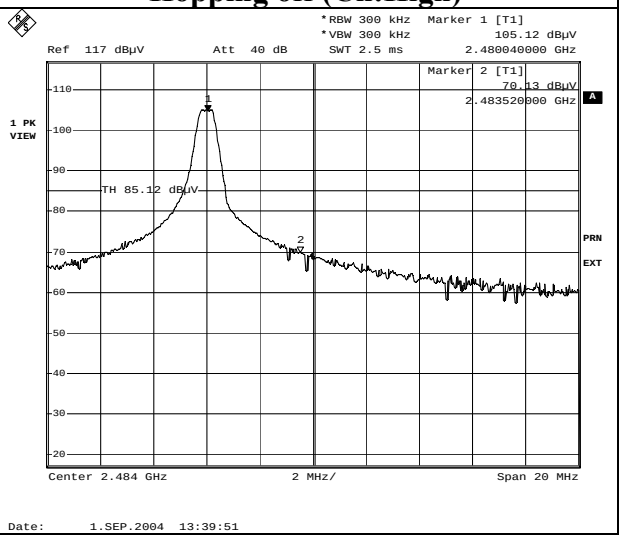


Hopping off (Ch:High)



UL Apex Co., Ltd.
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