



RADIO TEST REPORT

Test Report No. : 28FE0133-HO

Applicant : Sharp Corporation, Communication Systems Group.
Type of Equipment : GSM 900 / 1800 / 1900 GPRS phone /
Bluetooth Enable
Model No. : SH9010C
FCC ID : APYHRO00067
Test regulation : FCC Part 15 Subpart C 2008
Section 15.207, Section 15.247
Test Result : Complied

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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 to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Date of test: February 5 and 16, 2008

Tested by:

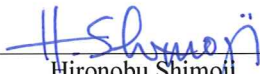


Motoya Imura
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Approved by :



Hironobu Shimoji
Assistant Manager of EMC Services



NVLAP LAB CODE: 200572-0

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*As for the range of Accreditation in NVLAP, you may refer to the WEB address, <http://uljapan.co.jp/emc/nvlap.htm>

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MF060b (09.01.08)

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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	:	+81-82-420-1837
Facsimile Number	:	+81-82-420-1654
Contact Person	:	Tetsuya Maekawa

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

2.1 Identification of E.U.T.

Type of Equipment	:	GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable
Model No.	:	SH9010C
Serial No.	:	004401/11/108684/5 (Antenna Terminal conducted test) 004401/11/108696/9 (Conducted Emission test and Radiated Emission test)
Rating	:	AC 120V/60Hz, DC 4.0V
Country of Manufacture	:	Japan
Receipt Date of Sample	:	February 5, 2008
Condition of EUT	:	Engineering 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: SH9010C (referred to as the EUT in this report) is the GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable.

Clock frequency in the system	:	26MHz
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[Bluetooth Specification (Bluetooth Ver.2.0 without EDR function)]

Equipment Type	:	Transceiver
Frequency of Operation	:	2402MHz-2480MHz
Bandwidth & Channel Spacing	:	1MHz & 1MHz
Modulation	:	FHSS
Power Supply	:	DC2.9V
Antenna Type	:	Internal Antenna
Antenna Gain	:	0dBi

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SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification	:	FCC Part15 Subpart C: 2007, final revised on January 30, 2008
Title	:	FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators Section 15.207 Conducted limits Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz

FCC 15.31 (e)

The 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.

3.2 Procedures and results

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results
1	Conducted emission	FCC: ANSI C63.4:2003 7. AC powerline conducted emission measurements IC: RSS-Gen 7.2.2	FCC: Section 15.207 IC: RSS-Gen 7.2.2	-	N/A	[QP] 26.8dB 4.04852MHz, N Tx, Low Ch. [AV] 25.1dB 4.04852MHz, N Tx, Low Ch.	Complied
2	Carrier Frequency Separation	FCC: FCC Public Notice DA 00-705 IC: -	FCC: Section 15.247(a)(1) IC: RSS-210 A8.1 (b)	Conducted	N/A	See data.	Complied
3	20dB Bandwidth	FCC: FCC Public Notice DA 00-705 IC: -	FCC: Section 15.247(a)(1) IC: RSS-210 A8.1 (a)	Conducted	N/A		Complied
4	Number of Hopping Frequency	FCC: FCC Public Notice DA 00-705 IC: -	FCC: Section 15.247(a)(1)(iii) IC: RSS-210 A8.1 (d)	Conducted	N/A		Complied
5	Dwell time	FCC: FCC Public Notice DA 00-705 IC: -	FCC: Section 15.247(a)(1)(iii) IC: RSS-210 A8.1 (d)	Conducted	N/A		Complied
6	Maximum Peak Output Power	FCC: FCC Public Notice DA 00-705 IC: RSS-Gen 4.8	FCC: Section 15.247(b)(1) IC: RSS-210 A8.4 (2)	Conducted	N/A		Complied
7	Band Edge Compliance	FCC: FCC Public Notice DA 00-705 IC: -	FCC: Section 15.247(d) IC: RSS-210 A8.5	Conducted	N/A		Complied
8	Spurious Emission	FCC: FCC Public Notice DA 00-705 IC: RSS-Gen 4.9 RSS-Gen 4.10	FCC: Section 15.247(d) IC: RSS-210 A8.5 RSS-Gen 7.2.1 and 7.2.3	Conducted/ Radiated	N/A	[Tx] 5.4dB 24800.0MHz, Hori./Vert., AV [Rx] 13.5dB 7323.0MHz, Hori./Vert., AV	Complied

Note: UL Japan, Inc.'s EMI Work Procedures No.QPM05 and QPM15.

*These tests were performed without any deviations from test procedure except for additions or exclusions.

*In case any questions arise about test procedure, ANSI C63.4: 2003 is also referred.

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3.3 Addition to standards

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	99% Occupied Band Width	IC: RSS-Gen 4.6.1	IC: RSS-Gen 4.6.1	Conducted	N/A	N/A	N/A

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
No.1 semi-anechoic chamber (±)	3.7dB	3.1dB	4.7dB	4.4dB	3.2dB	3.7dB	4.4dB	5.9dB	6.1dB
No.2 semi-anechoic chamber (±)	3.7dB	-	-	-	3.2dB	4.3dB	3.9dB	5.9dB	6.1dB
No.3 semi-anechoic chamber (±)	3.7dB	-	-	-	3.2dB	4.2dB	4.4dB	5.9dB	6.1dB
No.4 semi-anechoic chamber (±)	3.7dB	-	-	-	3.2dB	4.2dB	4.4dB	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 report meets the limits unless the uncertainty is taken into consideration.

Other test except Conducted Emission and Spurious Emission (Radiated)

The measurement uncertainty for this test is 3.0dB.

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3.5 Test Location

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	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	IC4247	19.2 x 11.2 x 7.7m	7.0 x 6.0m	No.1 Power source room
No.2 semi-anechoic chamber	655103	IC4247-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	148738	IC4247-3	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	IC4247-4	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, Test instruments and Data of EMI

Refer to APPENDIX 1 to 3.

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

4.1 Operating Mode(s)

Test	Mode	Tested frequency
Conducted Emission	Transmitting (Tx), Payload: PRBS9	2402MHz 2441MHz 2480MHz
	Receiving (Rx)	2441MHz
Carrier Frequency Separation	Transmitting (Tx)(Hopping On)/Inquiry, Payload: PRBS9	2402MHz 2441MHz 2480MHz
20dB Bandwidth Maximum Peak Output Power	Transmitting (Tx)(Hopping Off)/Inquiry, Payload: PRBS9	2402MHz 2441MHz 2480MHz
Number of Hopping Frequency	Transmitting (Tx)(Hopping On)/Inquiry, Payload: PRBS9	-
Dwell time	Transmitting (Tx)(Hopping On) Payload: PRBS9 -DH1 -DH3 -DH5	-
	Inquiry	
Spurious Emission (Conducted/Radiated)	Transmitting (Tx), Payload: PRBS9	2402MHz 2441MHz 2480MHz
	Receiving (Rx)	2441MHz
Band Edge Compliance (Conducted)	Transmitting (Tx), DH5, Payload: PRBS9 -Hopping ON -Hopping OFF	2402MHz 2480MHz
	(Radiated) Transmitting (Tx), DH5	2402MHz 2480MHz
99% Occupied Bandwidth	Transmitting (Tx), Payload: PRBS9 -Hopping ON -Hopping OFF	2402MHz 2441MHz 2480MHz

As a result of preliminary test, the formal test was performed with the above modes, which had the maximum payload (except Dwell time test).

Remarks: Test was not performed at AFH mode, because the decrease of number of channel (min: 20ch) at AFH mode does not influence on the output power and bandwidth of the EUT. However, the limit level 125mWof AFH mode was used for the test.

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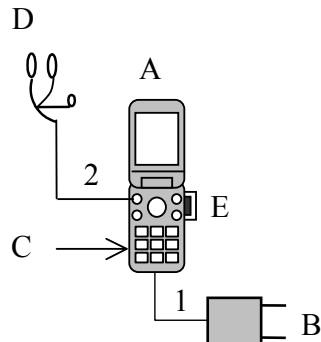
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4.2 Configuration and peripherals



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

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable	SH9010C	004401/11/108684/5*1) 004401/11/108696/9*2)	Sharp Corporation	EUT
B	AC CHARGER	XN-1QC73	PDA	HOSIDEN	-
C	Rechargeable Lithium-ion Battery	XN-1BT92	QJA	SANYO	-
D	Stereo Handsfree*1)	RPHOHA018 AF	-	-	-
E	microSD Memory Card	SDSDQ-1024	-	SanDisk	-

*1) Used for Antenna Terminal Conducted test

*2) Used for Conducted Emission test and Radiated Emission test

List of cables used

No.	Name	Length (m)	Shield	
			Cable	Connector
1	Cable for AC CHARGER	1.5	Unshielded	Unshielded
2	Cable for Stereo Handsfree*1)	1.7	Unshielded	Unshielded

*1) Used for Conducted Emission / Radiated Emission tests

SECTION 5: Conducted Emission

Test Procedure and conditions

EUT was placed on a urethane platform of nominal size, 1.0m by 0.5m, 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.

For the tests on EUT with other peripherals (as a whole system)

I/O cable and AC cables that were connected to the 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. All unused 50ohm connectors of the LISN(AMN) were resistivity 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	: quasi-peak and average detector (IF BW 9 kHz)
Measurement range	: 0.15-30MHz
Test data	: APPENDIX 2
Test result	: Pass

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SECTION 6: Spurious Emission

[Conducted]

Test Procedure

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

The following spectrum analyzer setting was used:

- RBW: 100kHz
- VBW: 300kHz
- Sweep: Auto
- Detector: Peak
- Trace: Max Hold

Test data : APPENDIX 2

Test result : Pass

[Radiated]

Test Procedure

EUT was placed on a urethane platform of nominal size, 1.0m 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 linear mode).

The test was made with the detector (RBW/VBW) in the following table.

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

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.

20dBc was applied to the frequency over the limit of FCC 15.209 / Table 2 of RSS-210 2.7 (IC) and outside the restricted band of FCC15.205 / Table 1 of RSS-210 2.7 (IC).

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

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

Test data : APPENDIX 2

Test result : Pass

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SECTION 7: Bandwidth

Test Procedure

The bandwidth was measured with a spectrum analyzer connected to the antenna port.
The following spectrum analyzer setting was used:

- Span: 3MHz
- RBW: 30kHz
- VBW: 30kHz
- Sweep: Auto
- Detector: Peak
- Trace: Max Hold

Test data	: APPENDIX 2
Test result	: Pass

SECTION 8: Maximum Peak Output Power

Test Procedure

The Maximum Peak Output Power was measured with a power meter (tested bandwidth: 50MHz) connected to the antenna port.

Test data	: APPENDIX 2
Test result	: Pass

SECTION 9: Carrier Frequency Separation

Test Procedure

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

- Span: 3MHz
- RBW: 100kHz
- VBW: 300kHz
- Sweep: Auto
- Detector: Peak
- Trace: Max Hold

Test data	: APPENDIX 2
Test result	: Pass

SECTION 10: Number of Hopping Frequency

Test Procedure

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

- Span: 30MHz
- RBW: 300kHz
- VBW: 1MHz
- Sweep: Auto
- Detector: Peak
- Trace: Max Hold

Test data	: APPENDIX 2
Test result	: Pass

SECTION 11: Dwell time

Test Procedure

The Dwell time was measured with a spectrum analyzer connected to the antenna port.
The following spectrum analyzer setting was used:

- Span: Zero Span
- RBW: 1MHz
- VBW: 3MHz
- Sweep: as necessary to capture the entire dwell time per hopping channel
- Detector: function peak
- Trace: Max Hold

Test data	: APPENDIX 2
Test result	: Pass

APPENDIX 1: Photographs of test setup

Conducted Emission

This page has been submitted for a separate exhibit.

Spurious Emission (Radiated)

This page has been submitted for a separate exhibit.

Worst Case Position (Horizontal: X-axis/ Vertical:Z-axis)

This page has been submitted for a separate exhibit.

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, Ch. Low

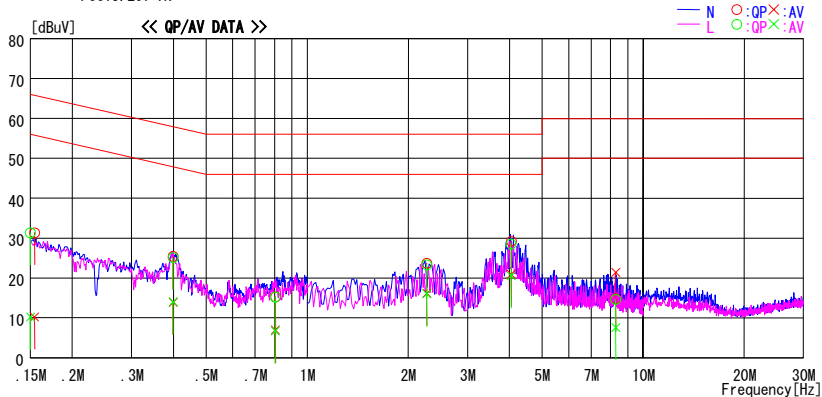
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2008/02/16

Company : Sharp Corporation
Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth
Model No. : SH9010C
Serial No. : 004401/11/108696/9
Report No. : 28FE0133-HO
Power : AC 120V / 60Hz
Temp./Humi. : 22deg.C / 30%
Operator : Motoya Imura

Mode / Remarks : Transmitting 2402MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.15420	31.0	9.9	0.4	31.4	10.3	65.8	55.8	34.4	45.5	N
0.39879	25.0	13.5	0.4	25.4	13.9	57.9	47.9	32.5	34.0	N
0.80320	14.8	6.4	0.5	15.3	6.9	56.0	46.0	40.7	39.1	N
2.26887	23.0	15.4	0.7	23.7	16.1	56.0	46.0	32.3	29.9	N
4.04852	27.9	19.6	1.3	29.2	20.9	56.0	46.0	26.8	25.1	N
8.28650	12.7	19.3	2.1	14.8	21.4	60.0	50.0	45.2	28.6	N
0.15000	31.0	9.8	0.4	31.4	10.2	66.0	56.0	34.6	45.8	L
0.39870	24.7	13.6	0.4	25.1	14.0	57.9	47.9	32.8	33.9	L
0.80309	14.8	6.2	0.5	15.3	6.7	56.0	46.0	40.7	39.3	L
2.26920	22.6	15.2	0.7	23.3	15.9	56.0	46.0	32.7	30.1	L
4.04820	27.2	19.2	1.3	28.5	20.5	56.0	46.0	27.5	25.5	L
8.28610	12.5	5.5	2.1	14.6	7.6	60.0	50.0	45.4	42.4	L

CHART: WITH FACTOR. Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (Probe factor+CABLE LOSS)
Except for the above table: adequate margin data below the limits.

*The test result is round off to one or two decimal places, so some differences might be observed.

Conducted Emission

Tx, Ch. Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Date : 2008/02/16

Company : Sharp Corporation

Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth

Model No. : SH9010C

Serial No. : 004401/11/108696/9

Report No. : 28FE0133-H0

Power : AC 120V / 60Hz

Temp./Humi. : 22deg.C / 30%

Operator : Motoya Imura

Mode / Remarks: Transmitting 2441MHz

LIMIT : FCC15.207 QP

FCC15.207 AV

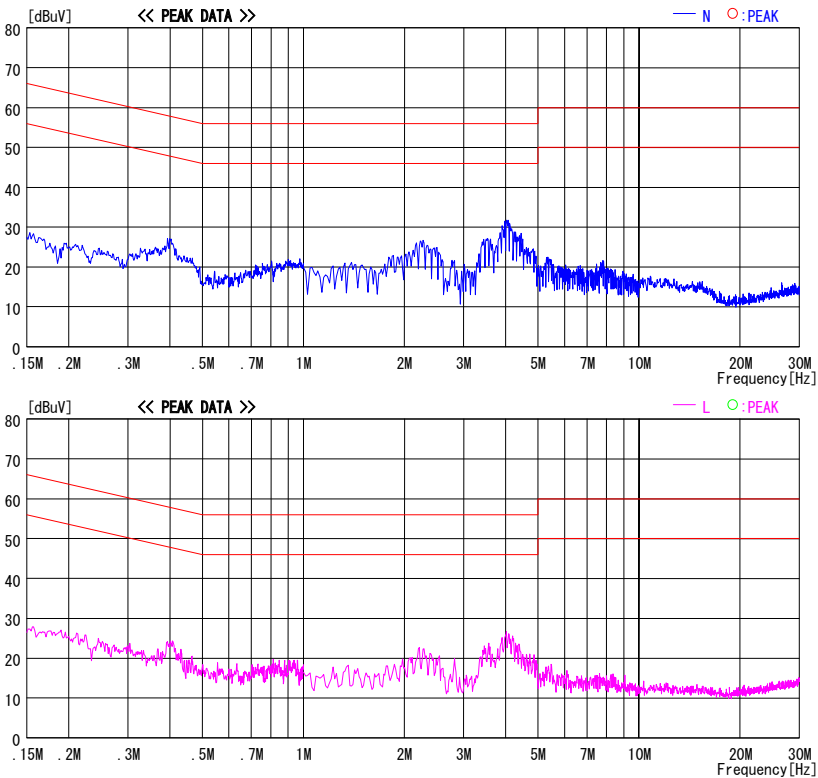


CHART:WITH FACTOR,Peak hold data. CALCURATION:RESULT[dBuA]=READING[dBuV]+C. F[dB] (Probe factor+CABLE LOSS)

Except for the above table: adequate margin data below the limits.

Conducted Emission Tx, Ch. High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2008/02/16

Company : Sharp Corporation
Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth
Model No. : SH9010C
Serial No. : 004401/11/108696/9
Report No. : 28FE0133-HO
Power : AC 120V / 60Hz
Temp./Humi. : 22deg.C / 30%
Operator : Motoya Imura

Mode / Remarks: Transmitting 2480MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

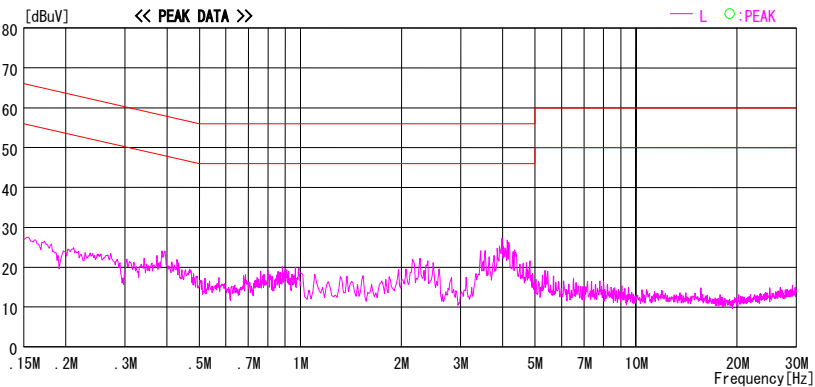
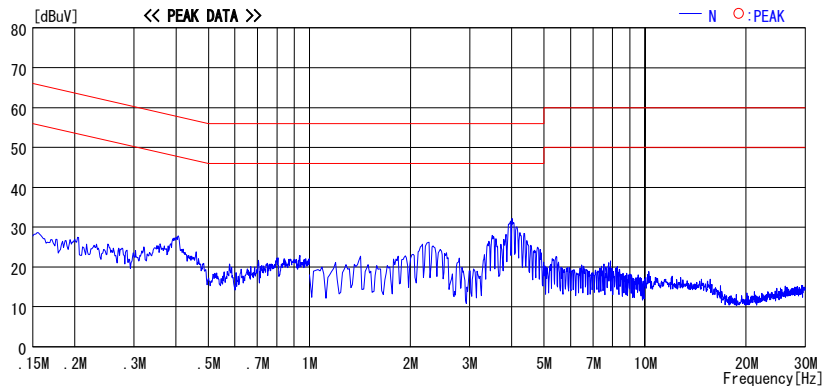


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuA]=READING[dBuV]+C.F[dB] (Probe factor+CABLE LOSS)
Except for the above table: adequate margin data below the limits.

Conducted Emission Rx, Ch. Mid

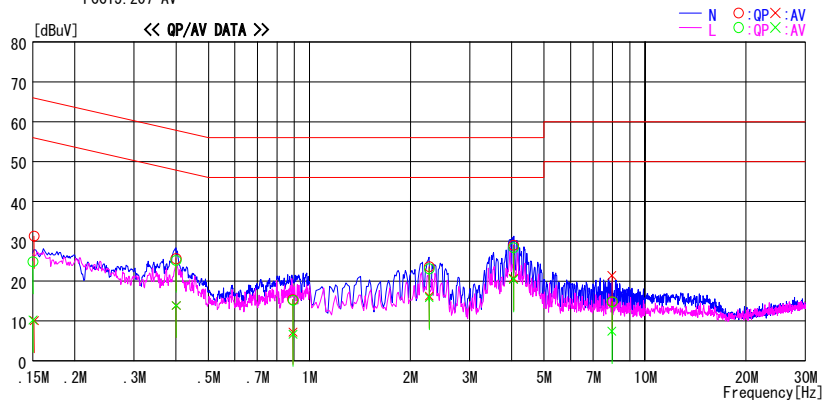
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2008/02/16

Company : Sharp Corporation Report No. : 28FE0133-HO
Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth Power : AC 120V / 60Hz
Model No. : SH9010C Temp./Humi. : 22deg.C / 30%
Serial No. : 004401/11/108696/9 Operator : Motoya Imura

Mode / Remarks: Receiving 2441MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.15142	30.9	9.7	0.4	31.3	10.1	65.9	55.9	34.6	45.8	N
0.40075	25.2	13.5	0.4	25.6	13.9	57.8	47.8	32.2	33.9	N
0.89234	14.9	6.7	0.5	15.4	7.2	56.0	46.0	40.6	38.8	N
2.27500	22.9	15.5	0.7	23.6	16.2	56.0	46.0	32.4	29.8	N
4.06001	27.7	19.4	1.3	29.0	20.7	56.0	46.0	27.0	25.3	N
7.97498	12.8	19.3	2.1	14.9	21.4	60.0	50.0	45.1	28.6	N
0.15000	24.5	9.8	0.4	24.9	10.2	66.0	56.0	41.1	45.8	L
0.40075	24.8	13.5	0.4	25.2	13.9	57.8	47.8	32.6	33.9	L
0.89375	14.7	6.2	0.5	15.2	6.7	56.0	46.0	40.8	39.3	L
2.27500	22.4	15.2	0.7	23.1	15.9	56.0	46.0	32.9	30.1	L
4.06001	27.1	19.1	1.3	28.4	20.4	56.0	46.0	27.6	25.6	L
7.97498	12.7	5.3	2.1	14.8	7.4	60.0	50.0	45.2	42.6	L

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuA]=READING[dBuV]+C.F[dB] (Probe factor+CABLE LOSS)
Except for the above table: adequate margin data below the limits.

*The test result is round off to one or two decimal places, so some differences might be observed.

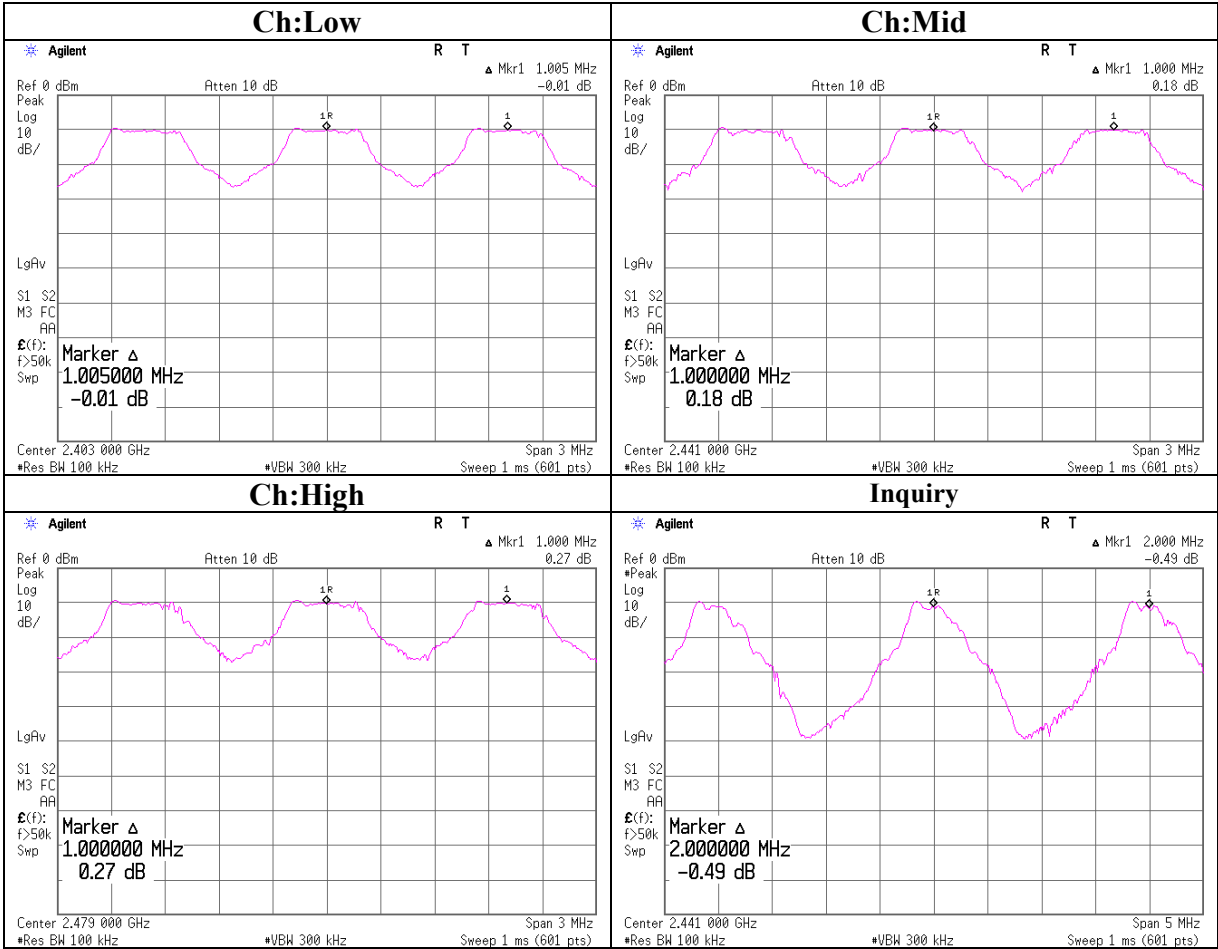
Carrier Frequency Separation

UL Japan, Inc.
Head Office EMC Lab. No.3 Preparation Room

Company	: Sharp Corporation	Regulation	: FCC15.247(a)(1)/RSS-210A8.1(b)
Equipment	: GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable	Test distance	: -
Model No.	: SH9010C	Date	: 02/05/2008
Serial No.	: 004401/11/108684/5	Temperature	: 22deg.C
Power	: AC 120V / 60Hz	Humidity	: 54%
Mode	: Bluetooth Tx(Hopping on)/Inquiry	Engineer	: Takumi Shimada

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.005	>[0.633 {two-thirds of 0.950MHz (20dB Bandwidth)} or 25[kHz](whichever is greater)]
Mid	2441.0	1.000	>[0.637 {two-thirds of 0.955MHz (20dB Bandwidth)} or 25[kHz](whichever is greater)]
High	2480.0	1.000	>[0.637 {two-thirds of 0.955MHz (20dB Bandwidth)} or 25[kHz](whichever is greater)]
Inquiry	2441.0	2.000	>[0.54 {two-thirds of 0.810MHz (20dB Bandwidth)} or 25[kHz](whichever is greater)]

Carrier Frequency Separation



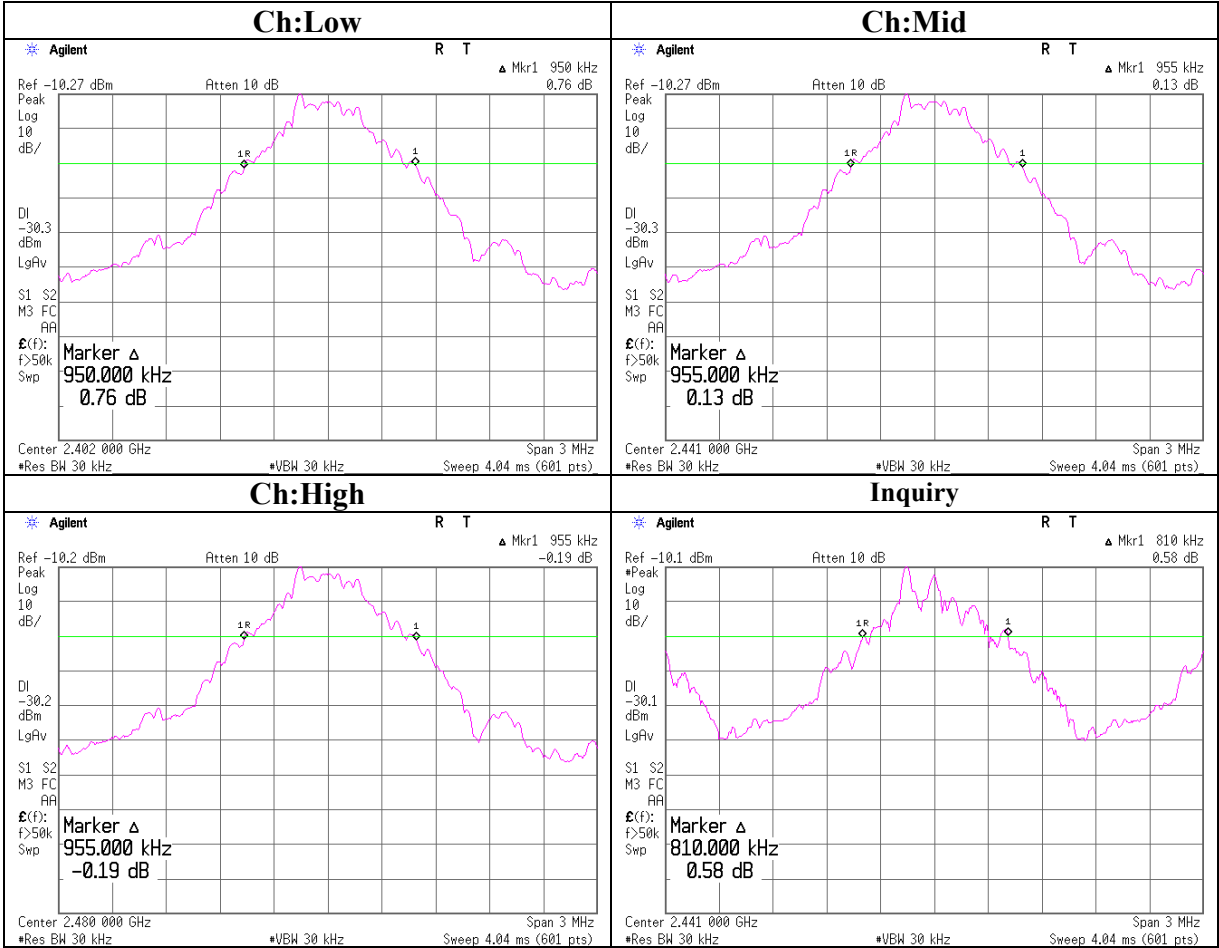
20dB Bandwidth

UL Japan, Inc.
Head Office EMC Lab. No.3 Preparation Room

Company	: Sharp Corporation	Regulation	: FCC15.247(a)(1)/RSS-210A8.1(b)
Equipment	: GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable	Test distance	: -
Model No.	: SH9010C	Date	: 02/05/2008
Serial No.	: 004401/11/108684/5	Temperature	: 22deg. C.
Power	: AC 120V / 60Hz	Humidity	: 54%
Mode	: Bluetooth Tx(Hopping off)/Inquiry	Engineer	: Takumi Shimada

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.950	-
Mid	2441.0	0.955	-
High	2480.0	0.955	-
Inquiry	2441.0	0.810	-

20dB Bandwidth



Number of Hopping Frequency

UL Japan, Inc.
Head Office EMC Lab. No.3 Preparation Room

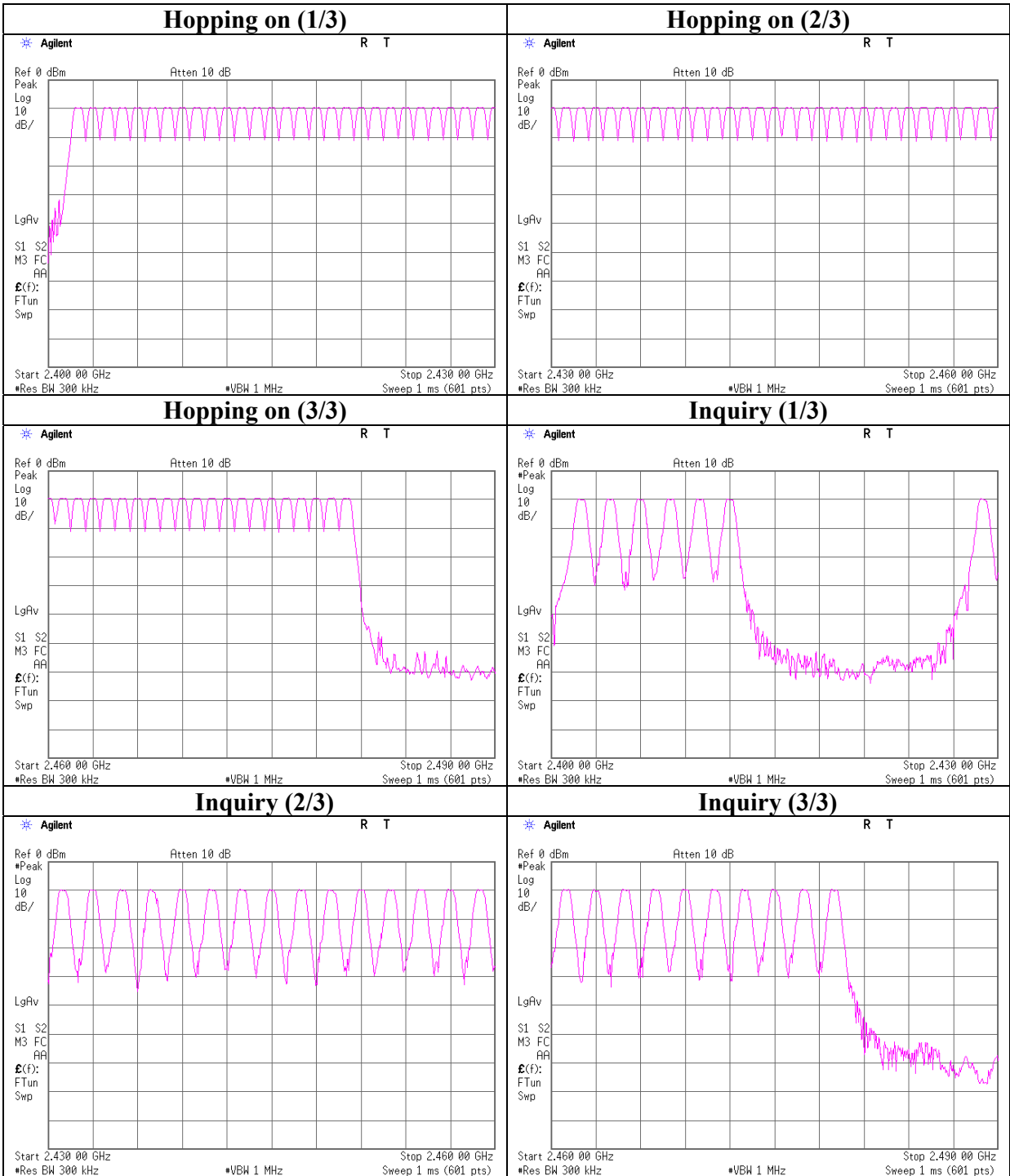
Company : Sharp Corporation
Equipment : GSM 900 / 1800 / 1900 GPRS phone /
Bluetooth Enable
Model No. : SH9010C
Serial No. : 004401/11/108684/5
Power : AC 120V / 60Hz
Mode : Bluetooth Tx(Hopping on)/Inquiry

Regulation : FCC15.247(a)(1)/RSS-210A8.1(b)
Test distance : -
Date : 02/05/2008
Temperature : 22deg. C.
Humidity : 54%
Engineer : Takumi Shimada

Mode	Number of channel [number]	Limit [time]
Tx(Hopping on)	79	≥ 15

Mode	Number of channel [number]	Limit [time]
Inquiry	32	≥ 15

Number of Hopping Frequency



Dwell time

UL Japan, Inc.
Head Office EMC Lab. No.3 Preparation Room

Company	: Sharp Corporation	Regulation	: FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
Equipment	: GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable	Test distance	: -
Model No.	: SH9010C	Date	: 02/05/2008
Serial No.	: 004401/11/108684/5	Temperature	: 22deg. C.
Power	: AC 120V / 60Hz	Humidity	: 54%
Mode	: Tx (Hopping on) / Inquiry	Engineer	: Takumi Shimada

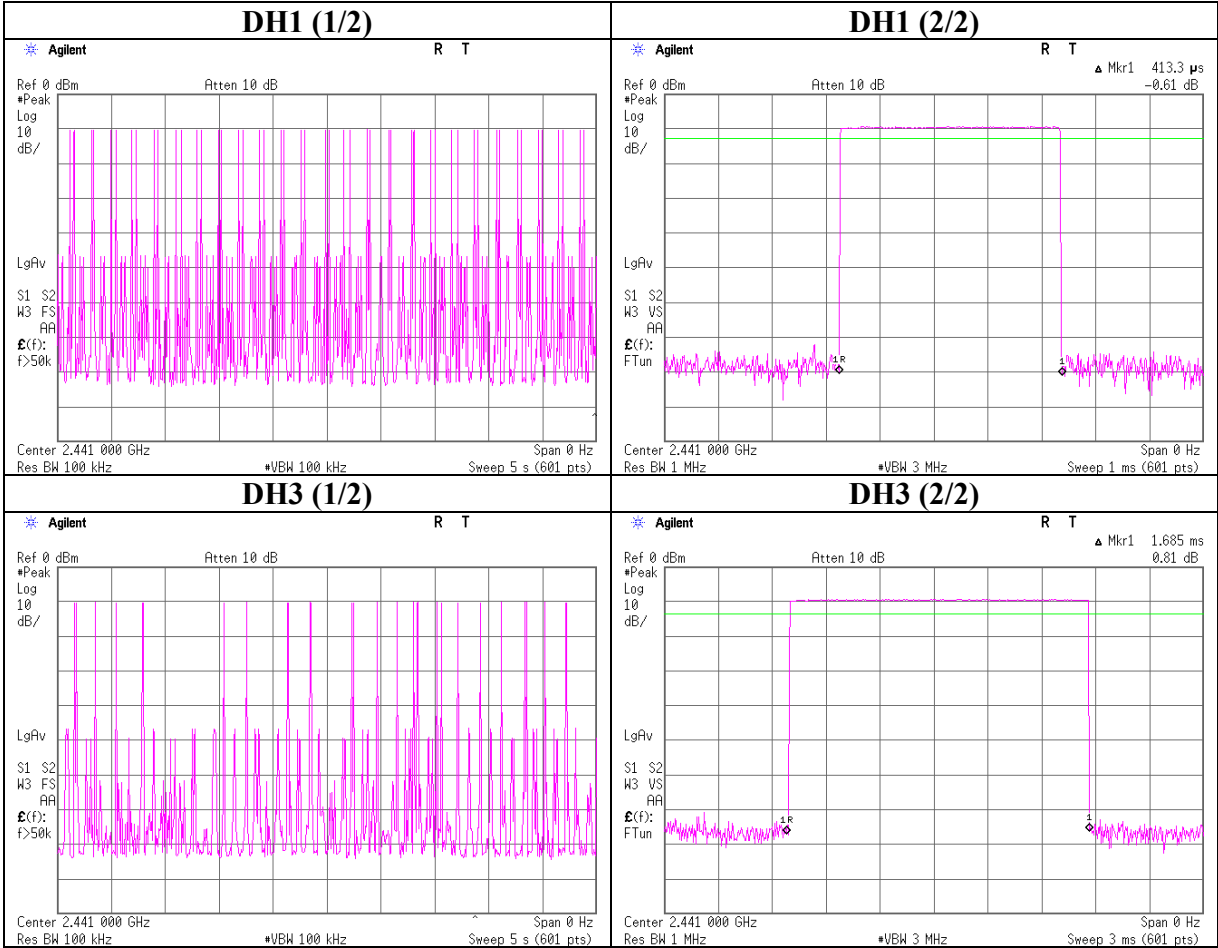
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period		Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times / 5 sec. x	31.6 sec. = 320 times	0.413	132	400
DH3	22 times / 5 sec. x	31.6 sec. = 138 times	1.685	233	400
DH5	18 times / 5 sec. x	31.6 sec. = 116 times	2.983	346	400
Inquiry	100 times / 1 sec. x	12.8 sec. = 1280 times	0.139	178	400

*DH1 / 1:51 2:50 3:50 4:52 5:50 =50.6times

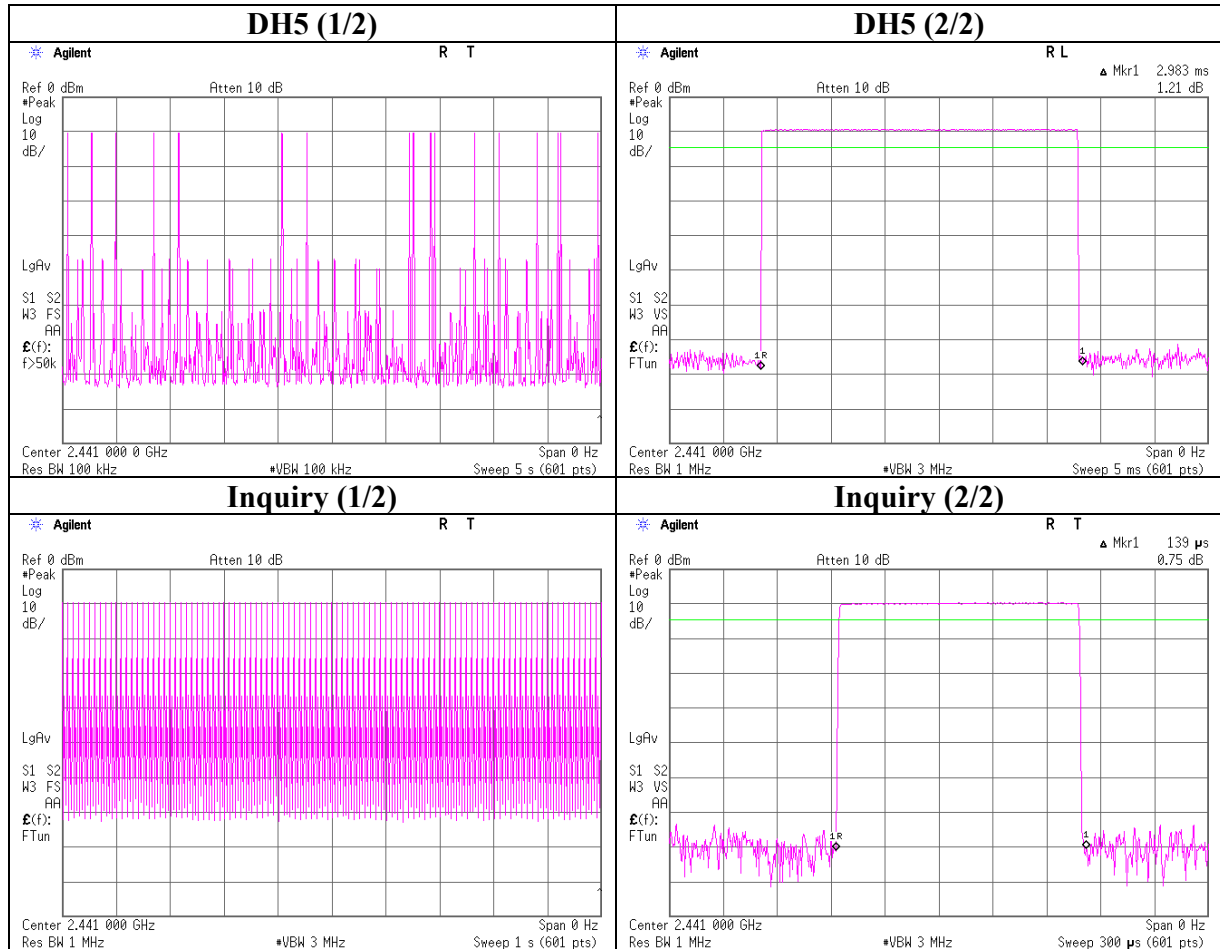
*DH3 / 1:22 2:23 3:22 4:21 5:21 =21.8times

*DH5 / 1:18 2:19 3:18 4:19 5:17 =18.2times

Dwell time



Dwell time



Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.3 Prepararent Room

Company	: Sharp Corporation	Regulation	: FCC15.247(b)(1)/RSS-210A8.4(2)
Equipment	: GSM 900 / 1800 / 1900 GPRS phone / Bluetooth Enable	Test distance	: -
Model No.	: SH9010C	Date	: 02/05/2008
Serial No.	: 004401/11/108684/5	Temperature	: 22deg. C.
Power	: AC 120V / 60Hz	Humidity	: 54%
Mode	: Tx(Hopping Off)/Inquiry	Engineer	: Takumi Shimada

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-8.55	0.15	10.08	1.68	1.47	20.97	125	19.29
Mid	2441.0	-8.35	0.15	10.08	1.88	1.54	20.97	125	19.09
High	2480.0	-8.19	0.15	10.08	2.04	1.60	20.97	125	18.93
Inquiry	2441.0	-8.32	0.15	10.08	1.91	1.55	20.97	125	19.06

Sample Calculation:

Result = Reading + Cable Loss (supplied by customer)+ Attenuator

* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Low

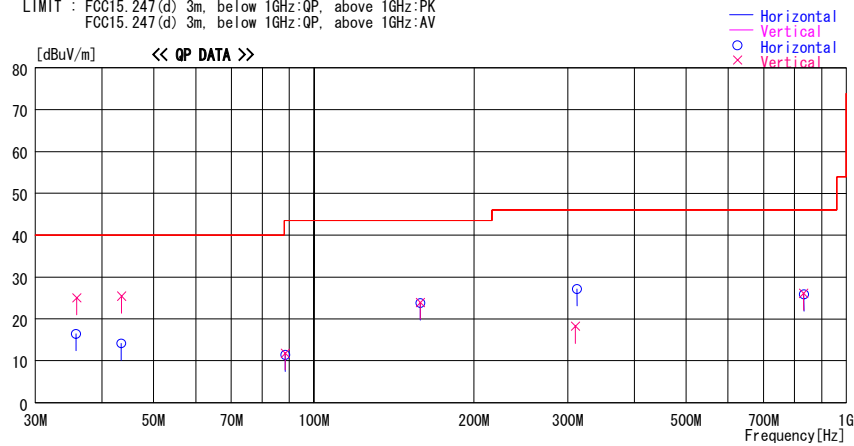
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2008/02/16

Company : Sharp Corporation Report No. : 28FE0133-HO
Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth Power : AC 120V / 60Hz
Model No. : SH9010C Temp./Humi. : 22deg. C / 30%
Serial No. : 004401/11/108696/9 Operator : Motoya Imura

Mode / Remarks : Transmitting 2402MHz (Max-axis H:X-axis / V:Z-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
35.760	22.3	QP	16.0	-21.9	16.4	342	311	Hori.	40.0	23.6
35.850	31.0	QP	15.9	-21.9	25.0	44	100	Vert.	40.0	15.0
43.552	35.0	QP	12.2	-21.8	25.4	29	100	Vert.	40.0	14.6
43.445	23.8	QP	12.2	-21.8	14.2	312	298	Hori.	40.0	25.8
88.410	24.8	QP	7.9	-21.3	11.4	53	300	Hori.	43.5	32.1
88.432	25.2	QP	7.9	-21.3	11.8	210	100	Vert.	43.5	31.7
158.633	28.9	QP	15.3	-20.4	23.8	335	300	Hori.	43.5	19.7
158.642	29.0	QP	15.3	-20.4	23.9	171	100	Vert.	43.5	19.6
310.080	22.5	QP	14.7	-19.0	18.2	44	100	Vert.	46.0	27.8
312.008	31.4	QP	14.8	-19.0	27.2	325	105	Hori.	46.0	18.8
832.004	21.6	QP	21.7	-17.2	26.1	265	100	Vert.	46.0	19.9
833.170	21.4	QP	21.7	-17.2	25.9	336	100	Hori.	46.0	20.1

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 test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Mid

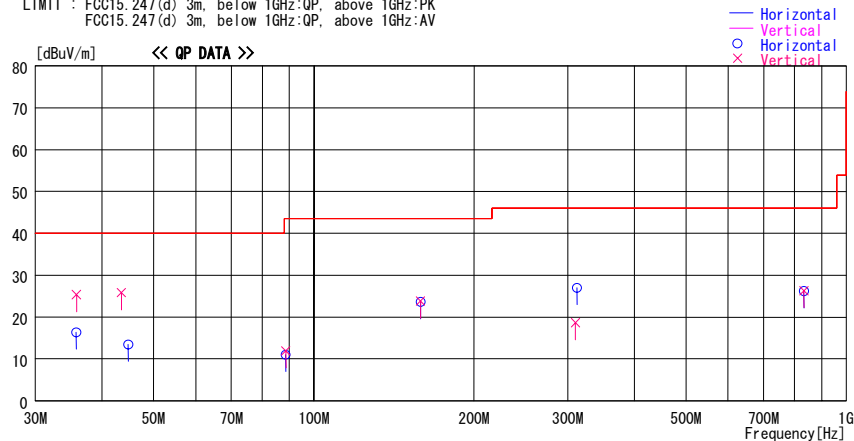
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2008/02/16

Company : Sharp Corporation
Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth
Model No. : SH9010C
Serial No. : 004401/11/108696/9
Report No. : 28FE0133-HO
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C / 30%
Operator : Motoya Imura

Mode / Remarks : Transmitting 2441MHz (Max-axis H:X-axis / V:Z-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
35.811	22.3	QP	15.9	-21.9	16.3	342	234	Hori.	40.0	23.7
35.820	31.3	QP	15.9	-21.9	25.3	10	100	Vert.	40.0	14.7
43.500	35.4	QP	12.2	-21.8	25.8	344	107	Vert.	40.0	14.2
44.850	23.5	QP	11.7	-21.8	13.4	303	311	Hori.	40.0	26.6
88.492	24.4	QP	7.9	-21.3	11.0	40	300	Hori.	43.5	32.5
88.608	25.3	QP	7.9	-21.3	11.9	207	100	Vert.	43.5	31.6
158.656	28.7	QP	15.3	-20.4	23.6	335	300	Hori.	43.5	19.9
158.699	28.9	QP	15.3	-20.4	23.8	171	120	Vert.	43.5	19.7
310.080	22.9	QP	14.7	-19.0	18.6	44	100	Vert.	46.0	27.4
312.008	31.2	QP	14.8	-19.0	27.0	302	113	Hori.	46.0	19.0
833.015	21.8	QP	21.7	-17.2	26.3	244	100	Vert.	46.0	19.7
833.112	21.7	QP	21.7	-17.2	26.2	320	100	Hori.	46.0	19.8

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

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Rx, Ch. Mid

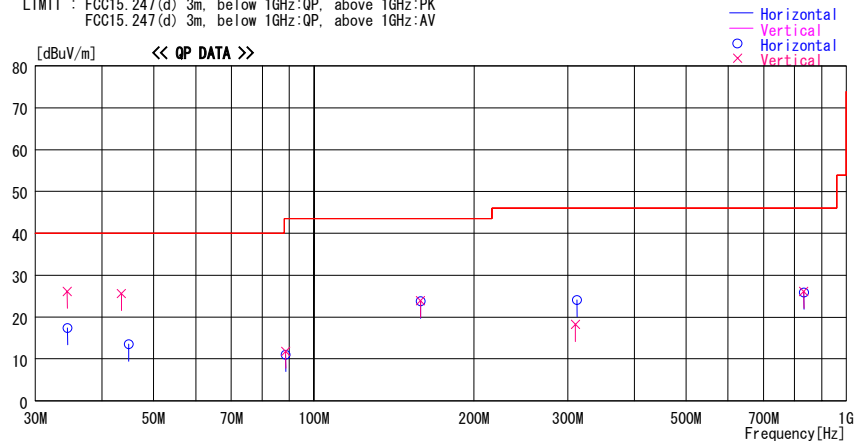
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber
Date : 2008/02/16

Company : Sharp Corporation Report No. : 28FE0133-HO
Kind of EUT : GSM900/1800/1900 GPRS phone/Bluetooth Power : AC 120V / 60Hz
Model No. : SH9010C Temp./Humi. : 22deg. C / 30%
Serial No. : 004401/11/108696/9 Operator : Motoya Imura

Mode / Remarks : Receiving 2441MHz (Max-axis H:X-axis / V:Z-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
34.472	22.6	QP	16.7	-21.9	17.4	332	299	Hori.	40.0	22.6
34.420	31.3	QP	16.7	-21.9	26.1	10	100	Vert.	40.0	13.9
43.503	35.2	QP	12.2	-21.8	25.6	0	110	Vert.	40.0	14.4
44.882	23.6	QP	11.7	-21.8	13.5	312	286	Hori.	40.0	26.5
88.511	24.4	QP	7.9	-21.3	11.0	66	312	Hori.	43.5	32.5
88.519	25.2	QP	7.9	-21.3	11.8	210	104	Vert.	43.5	31.7
158.701	28.9	QP	15.3	-20.4	23.8	340	300	Hori.	43.5	19.7
158.700	29.0	QP	15.3	-20.4	23.9	170	100	Vert.	43.5	19.6
310.010	22.5	QP	14.7	-19.0	18.2	66	100	Vert.	46.0	27.8
312.008	28.3	QP	14.8	-19.0	24.1	329	121	Hori.	46.0	21.9
832.443	21.6	QP	21.7	-17.2	26.1	265	100	Vert.	46.0	19.9
833.399	21.4	QP	21.7	-17.2	25.9	354	100	Hori.	46.0	20.1

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 test result is round off to one or two decimal places, so some differences might be observed.

Test report No. : 28FE0133-HO
Page : 35 of 44
Issued date : February 28, 2008
FCC ID : APYHRO00067

Radiated Spurious Emission (above 1GHz) Tx, Ch. Low

UL Japan, Inc.
Head Office EMC Lab. No2 Semi Anechoic Chamber

Company : Sharp Corporation
Equipment : GSM900/1800/1900 GPRS phone/Bluetooth Enable
Model No. : SH9010C
Sample No. : 004401/11/108696/9
Power : AC120V / 60Hz
Mode : Transmitting mode 2402MHz
Remarks : Hor X -axis, Ver Z-axis

REPORT NO : 28FE0133-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 01/16/2008
TEMPERATURE : 22deg.C
HUMIDITY : 30%
ENGINEER : Motoya Imura

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	42.8	42.2	26.8	32.5	3.9	0.0	41.0	40.4	73.9	32.9	33.5
2	*2400.0	69.6	68.3	26.8	32.5	3.9	0.0	67.8	66.5	73.9	-	-
3	4804.0	41.5	41.9	31.2	31.4	5.1	0.7	47.1	47.5	73.9	26.8	26.4
4	7206.0	43.0	41.5	35.5	31.0	5.8	0.0	53.3	51.8	73.9	20.6	22.1
5	9608.0	41.8	42.3	38.6	31.4	6.9	0.0	55.9	56.4	73.9	18.0	17.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	14412.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16814.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19216.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21618.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24020.0	47.5	47.5	39.8	29.9	11.0	0.0	58.9	58.9	73.9	15.0	15.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	32.4	31.2	26.8	32.5	3.9	0.0	30.6	29.4	53.9	23.3	24.5
2	*2400.0	41.9	43.3	26.8	32.5	3.9	0.0	40.1	41.5	53.9	-	-
3	4804.0	29.8	30.5	31.2	31.4	5.1	0.7	35.4	36.1	53.9	18.5	17.8
4	7206.0	29.8	29.8	35.5	31.0	5.8	0.0	40.1	40.1	53.9	13.8	13.8
5	9608.0	29.9	30.0	38.6	31.4	6.9	0.0	44.0	44.1	53.9	9.9	9.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	14412.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16814.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19216.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21618.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24020.0	35.1	35.1	39.8	29.9	11.0	0.0	46.5	46.5	53.9	7.4	7.4

* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]										
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2402.0	96.2	95.4	27.3	31.5	3.0	0.0	95.0	94.2	-	-	-
2	2400.0	46.2	44.9	27.3	31.5	3.0	0.0	45.0	43.7	Funda-20dB	30.0	30.5

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

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

*The test result is round off to one or two decimal places, so some differences might be observed.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

*NS:Non Signal

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Test report No. : 28FE0133-HO
Page : 36 of 44
Issued date : February 28, 2008
FCC ID : APYHRO00067

Radiated Spurious Emission (above 1GHz) **Tx, Ch. Mid**

UL Japan, Inc.
Head Office EMC Lab. No2 Semi Anechoic Chamber

Company : Sharp Corporation
Equipment : GSM900/1800/1900 GPRS phone/Bluetooth Enable
Model No. : SH9010C
Sample No. : 004401/11/108696/9
Power : AC120V / 60Hz
Mode : Transmitting mode 2441MHz
Remarks : Hor X -axis, Ver Z-axis

REPORT NO : 28FE0133-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 01/16/2008
TEMPERATURE : 22deg.C
HUMIDITY : 30%
ENGINEER : Motoya Imura

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	44.8	42.5	31.4	31.4	5.1	0.7	50.6	48.3	73.9	23.3	25.6
2	7323.0	42.3	42.2	35.7	31.0	5.9		52.9	52.8	73.9	21.0	21.1
3	9764.0	41.5	41.4	38.7	31.4	7.0		55.8	55.7	73.9	18.1	18.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	NS	NS	-	-	-	-	-	-	73.9	-	-
5	14646.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	17087.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	19528.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	21969.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	24410.0	47.8	47.9	40.1	30.0	11.1	0.0	59.5	59.6	73.9	14.4	14.3

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	35.1	31.2	31.4	31.4	5.1	0.7	40.9	37.0	53.9	13.0	16.9
2	7323.0	29.8	29.8	35.7	31.0	5.9	0.0	40.4	40.4	53.9	13.5	13.5
3	9764.0	29.8	29.7	38.7	31.4	7.0	0.0	44.1	44.0	53.9	9.8	9.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	NS	NS	-	-	-	-	-	-	53.9	-	-
5	14646.0	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17087.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19528.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21969.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24410.0	35.2	35.2	40.1	30.0	11.1	0.0	46.9	46.9	53.9	7.0	7.0

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

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

*The test result is round off to one or two decimal places, so some differences might be observed.

*Hi-Pass Filter was not used for factor 0.0dB of the above table.

*NS:Non Signal

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Radiated Spurious Emission (above 1GHz) Tx, Ch. High

UL Japan, Inc.
Head Office EMC Lab. No2 Semi Anechoic Chamber

Company : Sharp Corporation	REPORT NO : 28FE0133-HO	
Equipment : GSM900/1800/1900 GPRS phone/Bluetooth Enable	REGULATION : FCC15.247(d)/RSS-210A8.5	
Model No. : SH9010C	TEST DISTANCE : 3/1m	
Sample No. : 004401/11/108696/9	DATE : 01/16/2008	
Power : AC120V / 60Hz	TEMPERATURE : 22deg.C	
Mode : Transmitting mode 2480MHz	HUMIDITY : 30%	
Remarks : Hor X -axis, Ver Z-axis	ENGINEER : Motoya Imura	

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	52.3	51.9	27.0	32.5	4.0	0.0	50.8	50.4	73.9	23.1	23.5
2	4960.0	43.2	43.2	31.5	31.4	5.1	0.7	49.1	49.1	73.9	24.8	24.8
3	7440.0	42.9	42.1	36.0	31.0	5.9	0.0	53.8	53.0	73.9	20.1	20.9
4	9920.0	42.2	42.0	38.9	31.4	7.1	0.0	56.8	56.6	73.9	17.1	17.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12185.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14622.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17059.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19496.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	21933.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24800.0	47.8	47.7	40.4	30.1	11.4	0.0	60.0	59.9	73.9	13.9	14.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	32.8	32.7	27.0	32.5	4.0	0.0	31.3	31.2	53.9	22.6	22.7
2	4960.0	32.1	31.9	31.5	31.4	5.1	0.7	38.0	37.8	53.9	15.9	16.1
3	7440.0	30.1	30.3	36.0	31.0	5.9	0.0	41.0	41.2	53.9	12.9	12.7
4	9920.0	30.4	30.2	38.9	31.4	7.1	0.0	45.0	44.8	53.9	8.9	9.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12185.0	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14622.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17059.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19496.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	21933.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24800.0	36.3	36.3	40.4	30.1	11.4	0.0	48.5	48.5	53.9	5.4	5.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*NS:Non Signal

Test report No. : 28FE0133-HO
Page : 38 of 44
Issued date : February 28, 2008
FCC ID : APYHRO00067

Radiated Spurious Emission (above 1GHz) Rx, Ch. Mid

UL Japan, Inc.
 Head Office EMC Lab. No2 Semi Anechoic Chamber

Company	: Sharp Corporation	REPORT NO	: 28FE0133-HO
Equipment	: GSM900/1800/1900 GPRS phone/Bluetooth Enable	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model No.	: SH9010C	TEST DISTANCE	: 3/1m
Sample No.	: 004401/11/108696/9	DATE	: 01/13/2008
Power	: AC120V / 60Hz	TEMPERATURE	: 22deg.C
Mode	: Receiving mode 2441MHz	HUMIDITY	: 30%
Remarks	: Hor X -axis, Ver Z-axis	ENGINEER	: Motoya Imura

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2441.0	44.0	43.9	26.9	32.5	4.0	0.0	42.4	42.3	73.9	31.5	31.6
2	4882.0	40.6	40.6	31.4	31.4	5.1	0.0	45.7	45.7	73.9	28.2	28.2
3	7323.0	41.3	41.4	35.7	31.0	5.9	0.0	51.9	52.0	73.9	22.0	21.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2441.0	30.5	30.4	26.9	32.5	4.0	0.0	28.9	28.8	73.9	45.0	45.1
2	4882.0	29.4	29.2	31.4	31.4	5.1	0.0	34.5	34.3	53.9	19.4	19.6
3	7323.0	29.8	29.8	35.7	31.0	5.9	0.0	40.4	40.4	53.9	13.5	13.5

Test Distance 1.0m : Distance Factor(Dfac) = $20\log(3/1.0) = 9.5\text{dB}$

*Except for the above table : All other spurious emissions were less than 20dB for the limit.

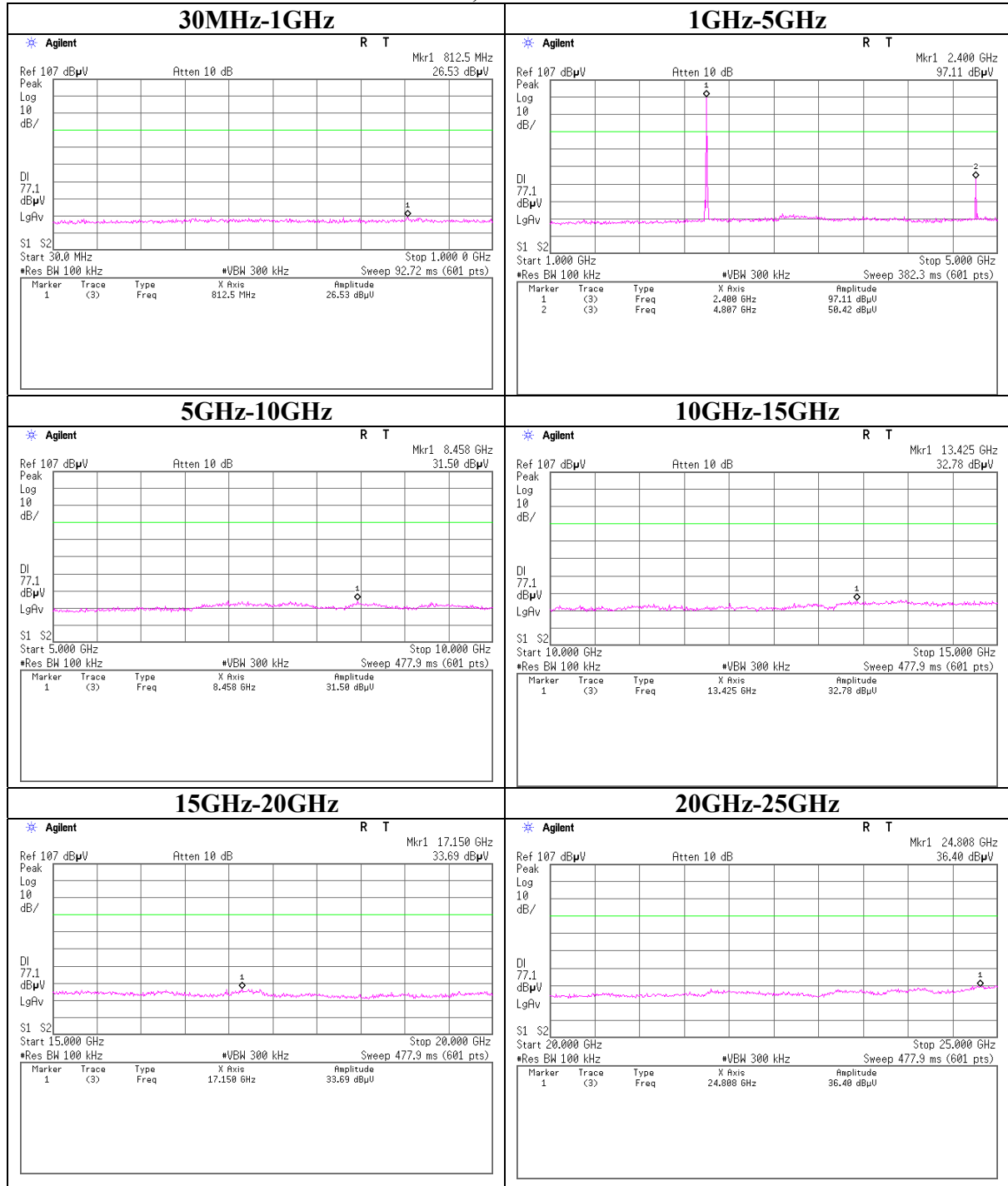
*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

*The test result is round off to one or two decimal places, so some differences might be observed.

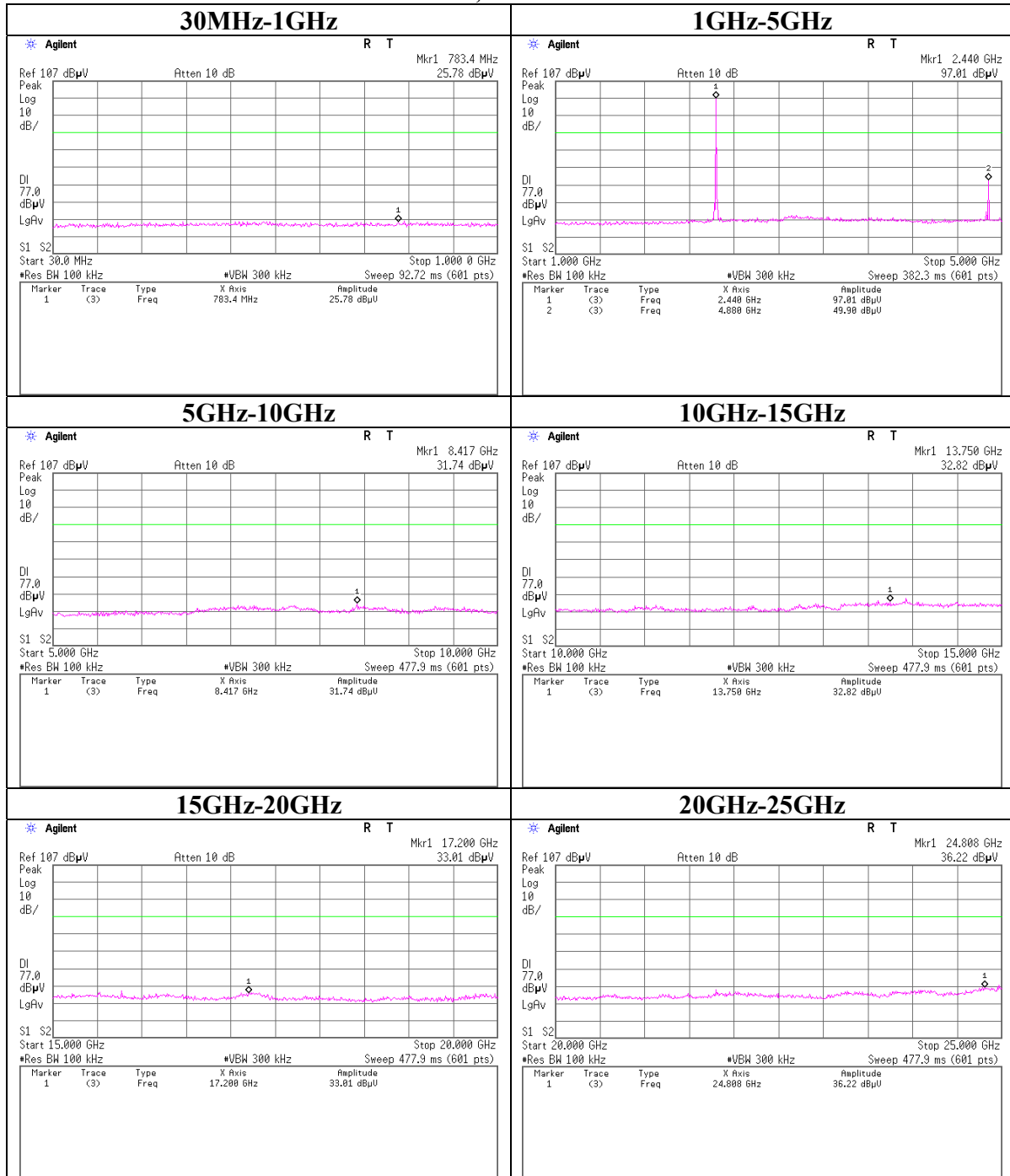
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

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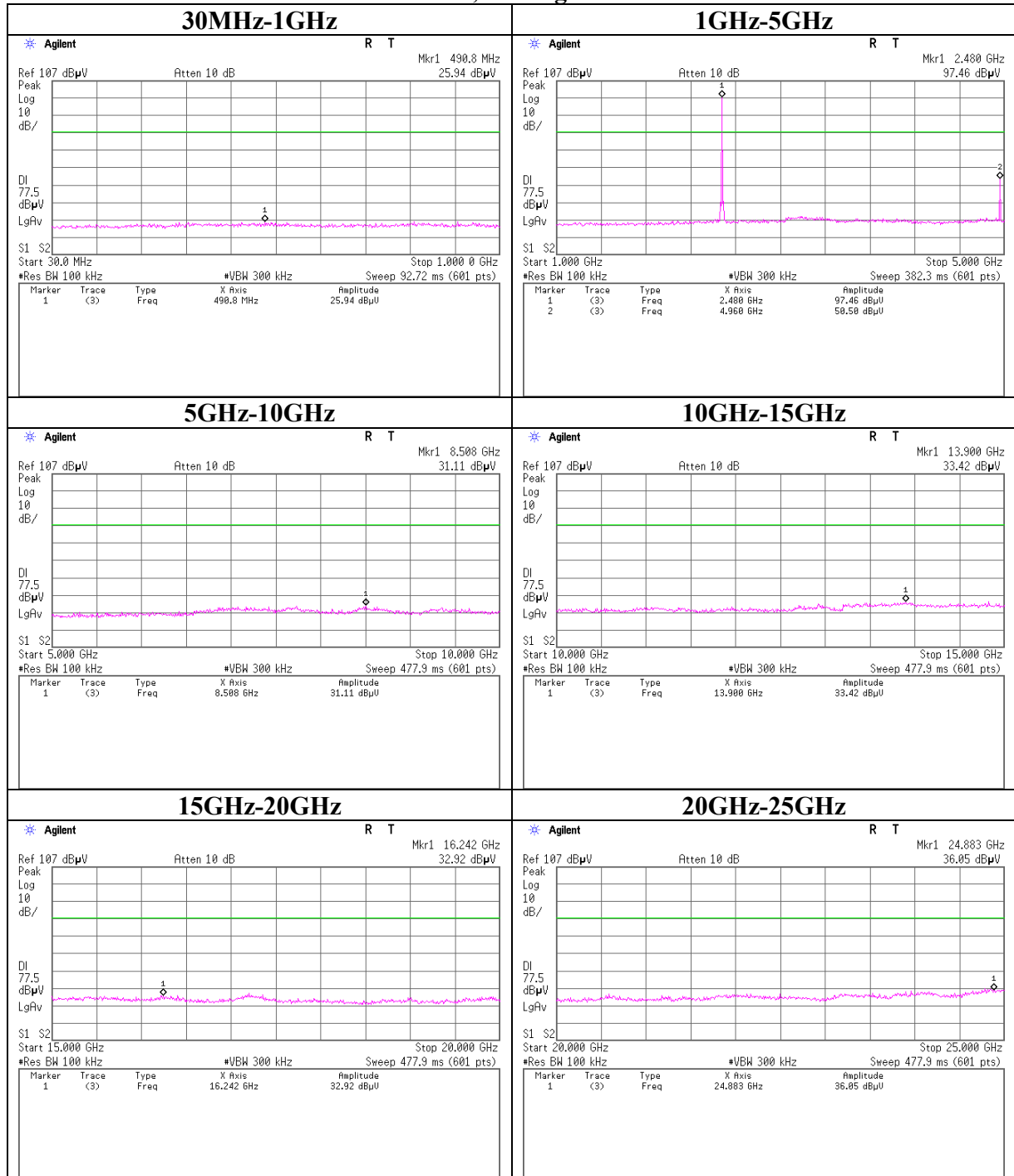
Conducted Spurious Emission
Tx, Ch:Low



Conducted Spurious Emission
Tx, Ch:Mid

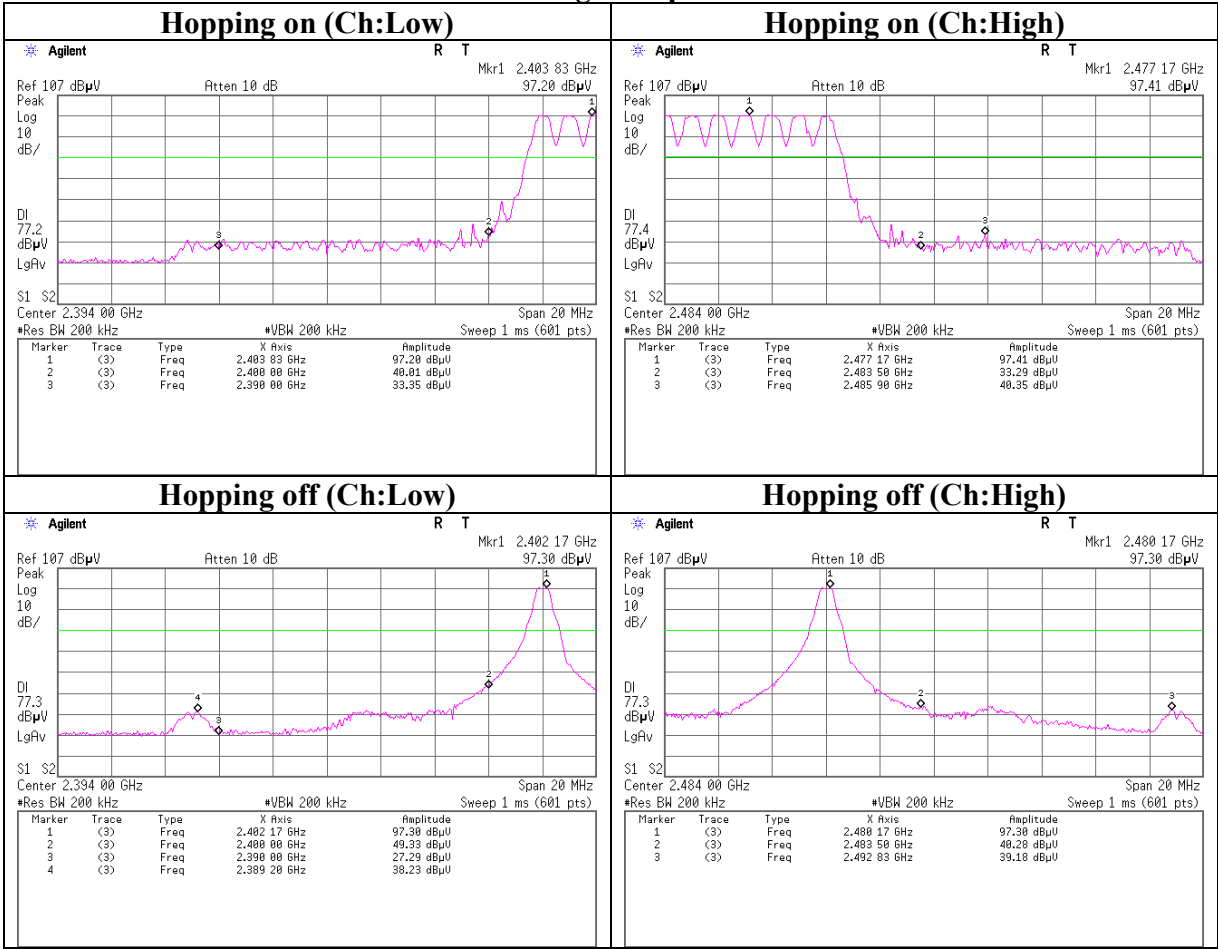


Conducted Spurious Emission
Tx, Ch:High

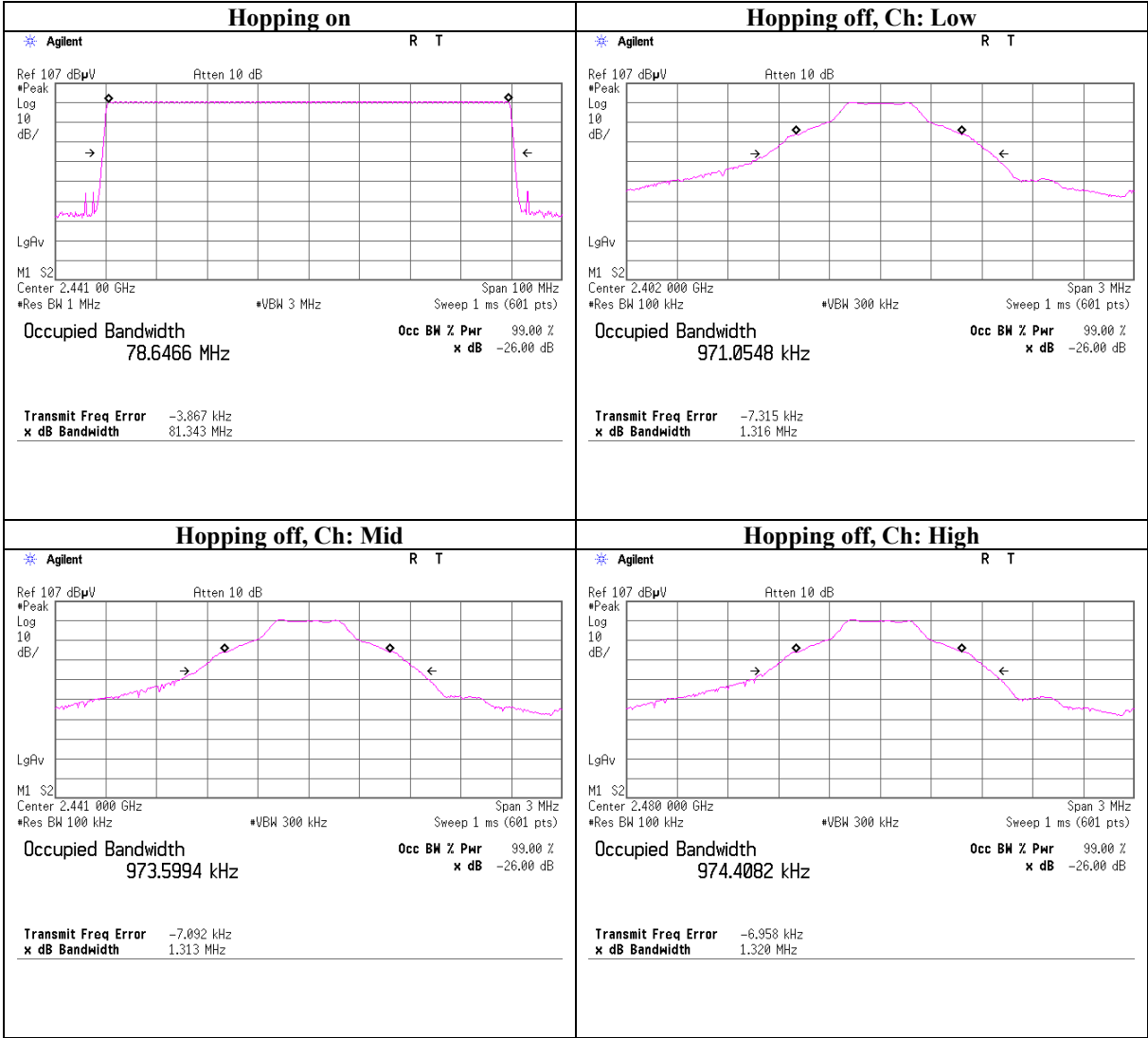


Conducted Spurious Emission

Band Edge compliance



99% Occupied Bandwidth



APPENDIX 3: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	2007/04/02 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2007/02/22 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2008/02/15 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE/CE	2007/03/01 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE/CE	2007/06/20 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2008/02/15 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/08/28 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2007/09/13 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2007/09/27 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	RE	2007/12/10 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/10/21 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2007/10/21 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2008/01/19 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE / CE	2007/11/12 * 12
MJM-05	Measure	PROMART	SEN1955	RE / CE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE / CE	-
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2007/09/05 * 12
MAT-25	Attenuator(10dB)(above 1GHz)	Agilent	8493C	AT	2007/06/28 * 12
MCC-66	Microwave Cable 1G-40GHz	Schneider	SUCOFLEX102	AT	2007/04/03 * 12
MPM-08	Power Meter	Anritsu	ML2495A	AT	2007/09/12 * 12
MPSE-11	Power sensor	Anritsu	MA2411B	AT	2007/09/12 * 12
MOS-12	Thermo-Hygrometer	Custom	CTH-180	AT	2008/01/10 * 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
AT: Antenna Terminal Conducted test