



RADIO TEST REPORT

Test Report No. : 29CE0004-HO

Applicant : Sharp Corporation
Type of Equipment : Cellular Phone
Model No. : WX-T930
FCC ID : APYHRO00084
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: October 20 to November 11, 2008

Tested by:

Hisayoshi Sato
EMC Services

Approved by :

Mitsuru Fujimura
Assistant Manager of EMC Services

NVLAP LAB CODE: 200572-0

This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation.

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

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MF060b (09.01.08)

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SECTION 1: Customer information

Company Name : Sharp Corporation
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Telephone Number : +81-82-420-1837
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Contact Person : Tetsuya Maekawa

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

2.1 Identification of E.U.T.

Type of Equipment : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166118/3 (Antenna Terminal conducted tests)
004401/11/166109/2 (Conducted Emission and Radiated Emission tests)
Rating : AC 120V/60Hz, DC4.0V
Receipt Date of Sample : October 16, 2008
Country of Mass-production : China
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: WX-T930 (referred to as the EUT in this report) is the Cellular Phone.

Clock frequency(ies) in the system : 32.768kHz, 26MHz, 208MHz

[Bluetooth (Ver. 2.0 without EDR function)]

Equipment Type : Transceiver
Frequency of Operation : 2402-2480MHz
Bandwidth & Channel Spacing : 1MHz & 1MHz / CH
Modulation : FHSS
Power Supply (inner) : DC 2.75V
Antenna Type : Internal Antenna
Antenna Gain : 0dBi
Operating temperature range : -10 to +55 deg. C.

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SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part15 Subpart C: 2008, final revised on May 19, 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)

This EUT provides stable voltage(DC2.75V) constantly to RF Module regardless of input voltage and Radiated Emission test was performed with the New Battery. 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	FCC: Section 15.207	-	N/A	[Tx] QP 31.0dB, 0.25461MHz, L AV 42.4dB, 2.28870MHz, L [Rx] QP 31.4dB, 0.24938MHz, L AV 42.1dB, 0.49870MHz, N	Complied			
		IC: RSS-Gen 7.2.2	IC: RSS-Gen 7.2.2							
2	Carrier Frequency Separation	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(a)(1)	Conducted	N/A	See data.	Complied			
		IC: -	IC: RSS-210 A8.1 (b)							
3	20dB Bandwidth	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(a)(1)	Conducted	N/A		See data.	Complied		
		IC: -	IC: RSS-210 A8.1 (a)							
4	Number of Hopping Frequency	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(a)(1)(iii)	Conducted	N/A			See data.	Complied	
		IC: -	IC: RSS-210 A8.1 (d)							
5	Dwell time	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(a)(1)(iii)	Conducted	N/A				See data.	Complied
		IC: -	IC: RSS-210 A8.1 (d)							
6	Maximum Peak Output Power	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(b)(1)	Conducted	N/A	See data.				Complied
		IC: RSS-Gen 4.8	IC: RSS-210 A8.4 (2)							
7	Band Edge Compliance	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(d)	Conducted	N/A		See data.			Complied
		IC: -	IC: RSS-210 A8.5							
8	Spurious Emission	FCC: FCC Public Notice DA 00-705	FCC: Section 15.247(d)	Conducted/ Radiated	N/A			See data.		Complied
		IC: RSS-Gen 4.9 RSS-Gen 4.10	IC: RSS-210 A8.5 RSS-Gen 7.2.1 and 7.2.3							

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.

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	18GHz-40GHz
No.1 semi-anechoic chamber (±)	3.7dB	3.1dB	4.4dB	4.2dB	3.2dB	3.8dB	3.9dB	5.9dB	6.1dB
No.2 semi-anechoic chamber (±)	3.7dB	-	-	-	3.2dB	4.4dB	4.0dB	5.9dB	6.1dB
No.3 semi-anechoic chamber (±)	3.7dB	-	-	-	3.2dB	4.6dB	4.0dB	5.9dB	6.1dB
No.4 semi-anechoic chamber (±)	3.7dB	-	-	-	3.2dB	3.9dB	3.9dB	5.9dB	6.1dB

*10m/3m = Measurement distance

Conducted emission test

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

Radiated emission test(3m)

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

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	2973C-1	19.2 x 11.2 x 7.7m	7.0 x 6.0m	No.1 Power source room
No.2 semi-anechoic chamber	655103	2973C-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	148738	2973C-3	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.3 Preparation room
No.3 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.4 semi-anechoic chamber	134570	2973C-4	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.4 Preparation room
No.4 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.5 semi-anechoic chamber	-	-	6.0 x 6.0 x 3.9m	6.0 x 6.0m	-
No.6 shielded room	-	-	4.0 x 4.5 x 2.7m	4.75 x 5.4 m	-
No.6 measurement room	-	-	4.75 x 5.4 x 3.0m	4.75 x 4.15 m	-
No.7 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.8 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-
No.9 measurement room	-	-	8.0 x 4.5 x 2.8m	2.0 x 2.0m	-
No.10 measurement room	-	-	2.6 x 2.8 x 2.5m	2.4 x 2.4m	-
No.11 measurement room	-	-	3.1 x 3.4 x 3.0m	2.4 x 3.4m	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

3.6 Test set up, 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	Bluetooth(BT), Transmitting (Tx), Payload: PRBS9 -DH5	2402MHz 2441MHz 2480MHz
	Bluetooth(BT), Receiving (Rx)	2441MHz
Carrier Frequency Separation	Bluetooth(BT), Transmitting (Tx) (Hopping ON)/Inquiry, Payload: PRBS9 -DH5	2402MHz 2441MHz 2480MHz
20dB Bandwidth	Bluetooth(BT), Transmitting (Tx) (Hopping Off)/Inquiry, Payload: PRBS9 -DH5	2402MHz 2441MHz 2480MHz
Number of Hopping Frequency	Bluetooth(BT), Transmitting (Tx) (Hopping ON)/Inquiry, Payload: PRBS9 -DH5	-
Dwell time	Bluetooth(BT), Transmitting (Tx) (Hopping ON)/Inquiry, Payload: PRBS9 -DH1 -DH3 -DH5	-
Maximum Peak Output Power	Bluetooth(BT), Transmitting (Tx) (Hopping Off)/Inquiry, Payload: PRBS9 -DH5	2402MHz 2441MHz 2480MHz
Spurious Emission (Conducted/Radiated)	Bluetooth(BT), Transmitting (Tx), Payload: PRBS9 -DH5	2402MHz 2441MHz 2480MHz
	Bluetooth(BT), Receiving (Rx)	2441MHz
Band Edge Compliance (Conducted)	Bluetooth(BT), Transmitting (Tx), (Hopping ON)/(Hopping Off) Payload: PRBS9 -DH5	2402MHz 2480MHz
99% Occupied Bandwidth	Bluetooth(BT), Transmitting (Tx), (Hopping ON)/(Hopping Off)/Inquiry Payload: PRBS9 -DH5	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 125mW of AFH mode was used for the test.

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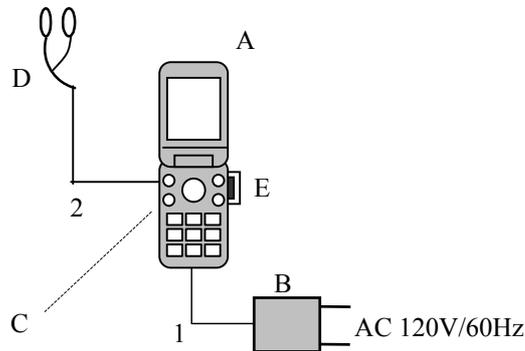
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4.2 Configuration and peripherals



* Cabling and setup(s) 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	Cellular Phone	WX-T930	004401/11/166118/3*1) 004401/11/166109/2*2)	SHARP	EUT
B	AC CHARGER	ZTDA A1	QEA	KYUSHU MITSUMI	EUT
C	Rechargeable Lithium-ion Battery	XN-1BT21	RIA	SANYO	-
D	Stereo Handsfree	RPHOHA018AF	01	HOSIDEN	-
E	microSD Memory Card	SDSDQ-128	01	SanDisk	-

*1) Used for Antenna Terminal conducted tests

*2) Used for Conducted Emission and Radiated Emission tests

List of cables used

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

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SECTION 5: Conducted Emission

Test Procedure and conditions

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

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 urethane platform of nominal size, 0.5m by 1.0m, 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(above 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.

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

When using Spectrum analyzer, the test was made by using peak hold.

Only for Average measurement, the test was made with adjusting span to zero.

The result also satisfied with the general limits specified in section FCC 15.209(a) / RSS-210 2.7 (IC).

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver	Spectrum Analyzer
Detector	QP: BW 120kHz	PK: RBW:1MHz/VBW: 1MHz
IF Bandwidth		AV: RBW:1MHz/VBW:10Hz or RBW:1MHz/VBW:270Hz *1)

*1) Used for the band edge of the carrier and the harmonics that can be measured. The VBW is based on the inverse of the duty cycle (see page 41).

- 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

20dB 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: 100kHz
- Sweep: Auto
- Detector: Peak
- Trace: Max Hold

Test data : APPENDIX 2
Test result : Pass

99% Occupied Bandwidth

Test Procedure

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

- Span: Enough width to display 20dB Bandwidth
- RBW: 1 to 3% of Span
- VBW: Three times of RBW
- 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 and 5MHz
- 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: 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: Y-axis/ Vertical:Z-axis)

This page has been submitted for a separate exhibit.

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, Ch: Low (DH5)

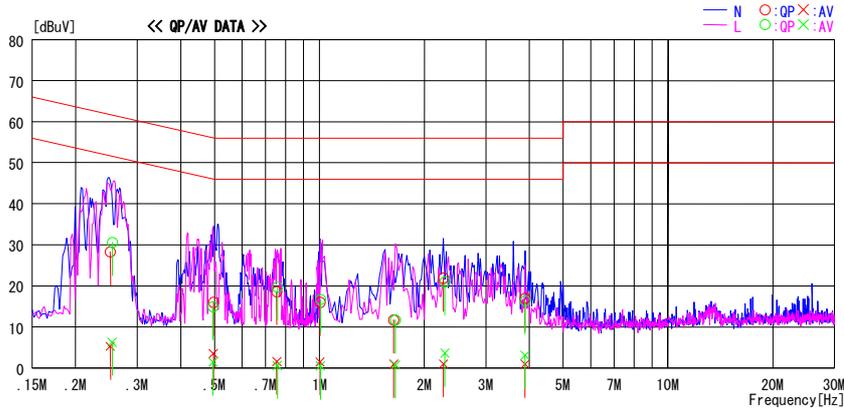
DATA OF CONDUCTED EMISSION

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166109/2
Report No. : 29CE0004-HO
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Temp./Humi. : 24deg. C / 56%
Engineer : Hisayoshi Sato

Mode / Remarks : BT 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]	
0.25112	28.0	5.0	0.3	28.3	5.3	61.7	51.7	33.4	46.4	N
0.49696	15.7	3.2	0.3	16.0	3.5	56.1	46.1	40.1	42.6	N
0.75499	18.2	1.2	0.4	18.6	1.6	56.0	46.0	37.4	44.4	N
1.00431	15.6	1.1	0.4	16.0	1.5	56.0	46.0	40.0	44.5	N
1.63435	11.2	0.4	0.5	11.7	0.9	56.0	46.0	44.3	45.1	N
2.27052	21.3	0.5	0.6	21.9	1.1	56.0	46.0	34.1	44.9	N
3.88821	16.2	0.1	0.8	17.0	0.9	56.0	46.0	39.0	45.1	N
0.25461	30.3	6.0	0.3	30.6	6.3	61.6	51.6	31.0	45.3	L
0.49521	14.6	1.1	0.3	14.9	1.4	56.1	46.1	41.2	44.7	L
0.75674	19.3	0.2	0.4	19.7	0.6	56.0	46.0	36.3	45.4	L
1.00606	16.3	0.1	0.4	16.7	0.5	56.0	46.0	39.3	45.5	L
1.65252	11.2	0.3	0.5	11.7	0.8	56.0	46.0	44.3	45.2	L
2.28870	20.4	3.0	0.6	21.0	3.6	56.0	46.0	35.0	42.4	L
3.88821	15.7	2.3	0.8	16.5	3.1	56.0	46.0	39.6	42.9	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 rounded off to one or two decimal places, so some differences might be observed.

Conducted Emission
Tx, Ch: Mid (DH5)

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166109/2
Report No. : 29CE0004-HO
Power : DC 4.0V (AC Charger 120 V / 60
Temp./Humi. : 24deg. C / 56%
Engineer : Hisayoshi Sato

Mode / Remarks : BT Transmitting 2441MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

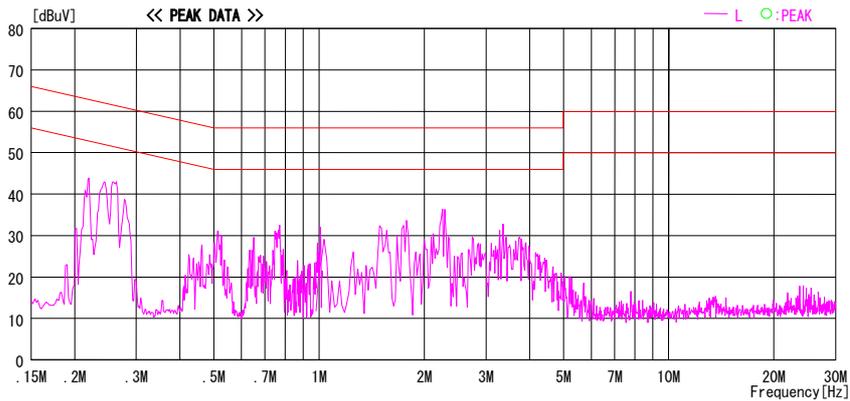
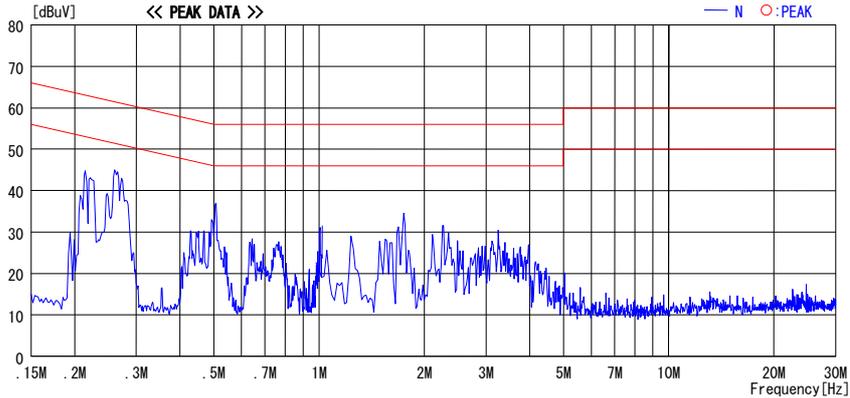


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBA] = READING [dBuV] + C. F [dB] (Probe factor + CABLE LOSS)
Except for the above table: adequate margin data below the limits.

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

Conducted Emission
Tx, Ch: High (DH5)

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166109/2
Report No. : 29CE0004-HO
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Temp./Humi. : 24deg.C / 56%
Engineer : Hisayoshi Sato

Mode / Remarks : BT Transmitting 2480MHz

LIMIT : FCC15.207 OP
FCC15.207 AV

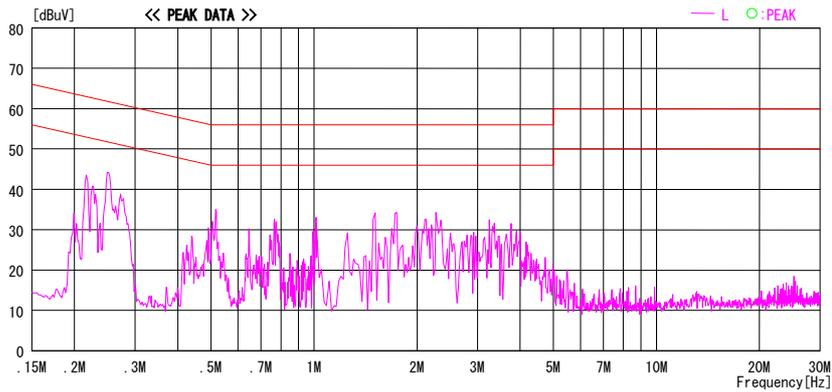
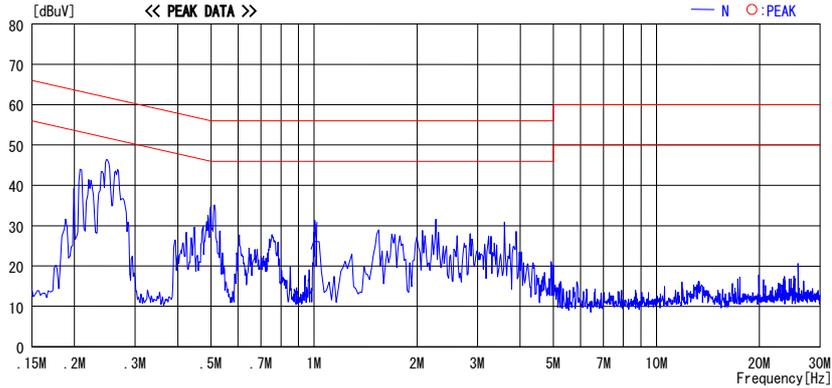


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuA] = READING [dBuV] + C. F [dB] (Probe factor + CABLE LOSS)
Except for the above table: adequate margin data below the limits.

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

Conducted Emission
Rx, Ch: Mid

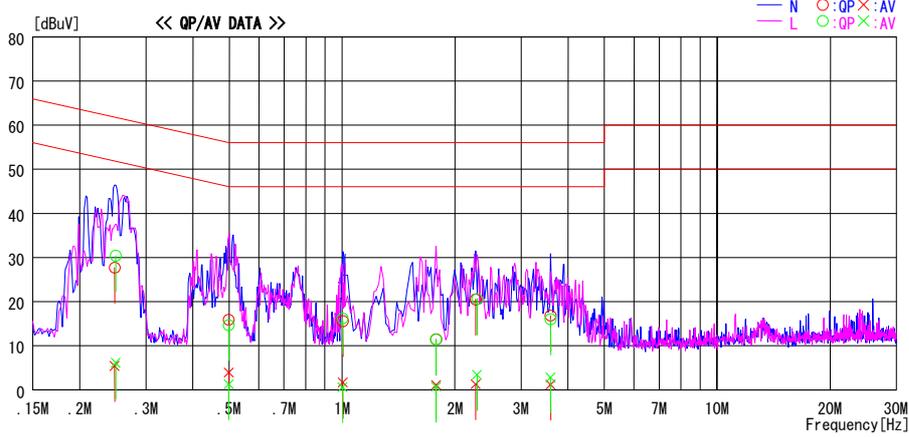
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166109/2
Report No. : 29CE0004-HO
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Temp./Humi. : 24deg.C / 56%
Engineer : Hisayoshi Sato

Mode / Remarks : BT Receiving 2441MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.24764	27.4	5.1	0.3	27.7	5.4	61.8	51.8	34.1	46.4	N
0.49870	15.6	3.6	0.3	15.9	3.9	56.0	46.0	40.1	42.1	N
1.00431	15.2	1.3	0.4	15.6	1.7	56.0	46.0	40.4	44.3	N
1.77976	11.0	0.6	0.5	11.5	1.1	56.0	46.0	44.5	44.9	N
2.27052	19.9	0.7	0.6	20.5	1.3	56.0	46.0	35.5	44.7	N
3.59739	16.0	0.4	0.8	16.8	1.2	56.0	46.0	39.2	44.8	N
0.24938	30.1	5.8	0.3	30.4	6.1	61.8	51.8	31.4	45.7	L
0.49870	14.4	1.0	0.3	14.7	1.3	56.0	46.0	41.3	44.7	L
1.00257	15.8	0.2	0.4	16.2	0.6	56.0	46.0	39.8	45.4	L
1.77976	10.9	0.2	0.5	11.4	0.7	56.0	46.0	44.6	45.3	L
2.28870	20.0	2.8	0.6	20.6	3.4	56.0	46.0	35.4	42.6	L
3.59739	15.2	2.0	0.8	16.0	2.8	56.0	46.0	40.0	43.2	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 rounded off to one or two decimal places, so some differences might be observed.

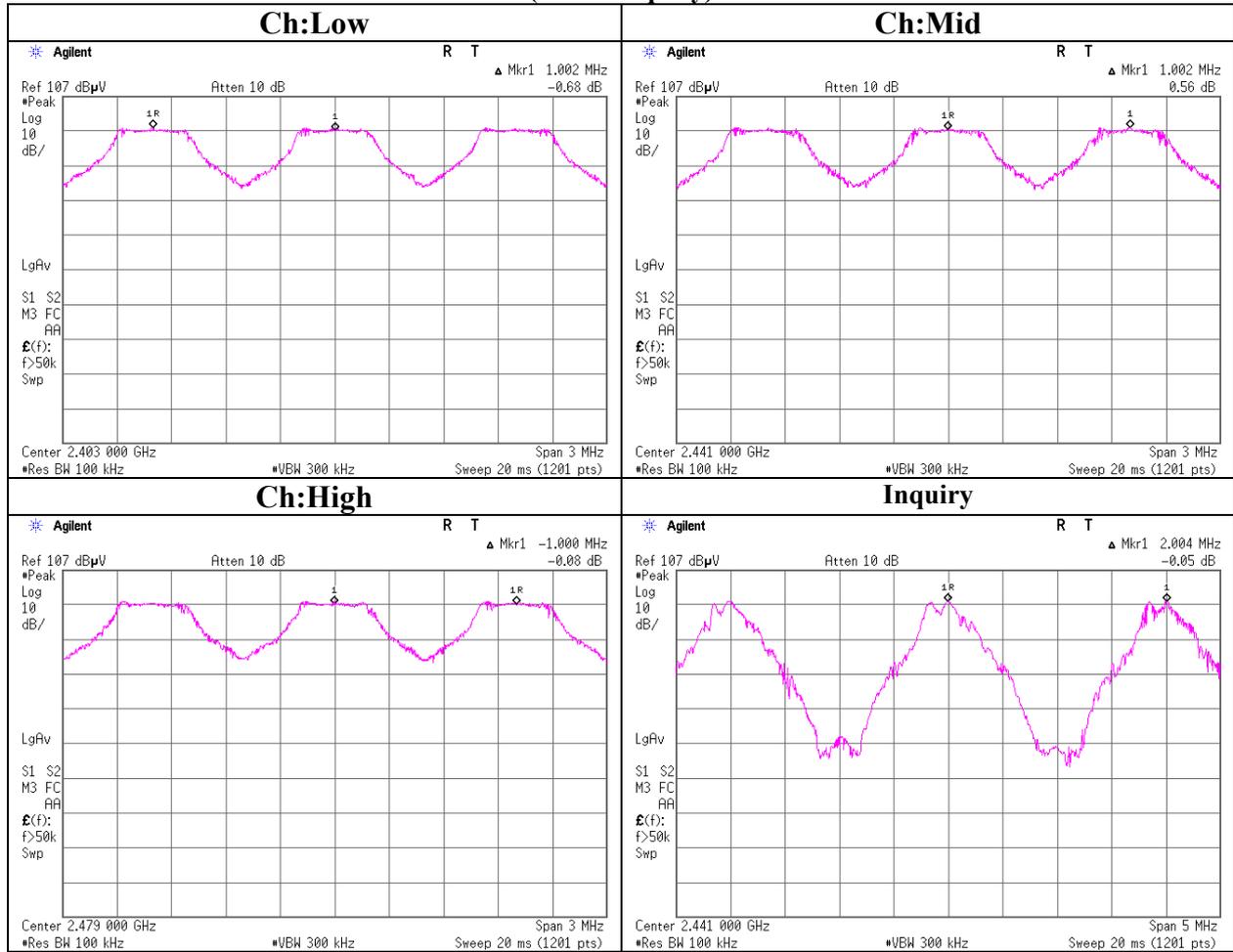
Carrier Frequency Separation
(DH5 / Inquiry)

		UL Japan, Inc.
		Head Office EMC Lab. No.11 Shielded Room
Company	: Sharp Corporation	Test Report No. : 29CE0004-HO
Equipment	: Cellular Phone	Regulation : FCC15.247(a)(1)/RSS-210A8.1(a)
Model No.	: WX-T930	Test distance : -
Serial No.	: 004401/11/166118/3	Date : 10/22/2008
Power	: DC 4.0V (AC Charger 120 V / 60 Hz)	Temperature : 25deg.C
Mode	: BT DH5 Tx (Hopping on) /Inquiry	Humidity : 61%
		Engineer : Hisayoshi Sato

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.002	>0.663MHz(two-thirds of the 20dB Bandwidth(0.994MHz)) or 25[kHz](whichever is greater)
Mid	2441.0	1.002	>0.663MHz(two-thirds of the 20dB Bandwidth(0.995MHz)) or 25[kHz](whichever is greater)
High	2480.0	1.000	>0.663MHz(two-thirds of the 20dB Bandwidth(0.994MHz)) or 25[kHz](whichever is greater)
Inquiry	2441.0	2.004	>0543MHz(two-thirds of the 20dB Bandwidth(0.814MHz)) or 25[kHz](whichever is greater)

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

Carrier Frequency Separation
(DH5 / Inquiry)

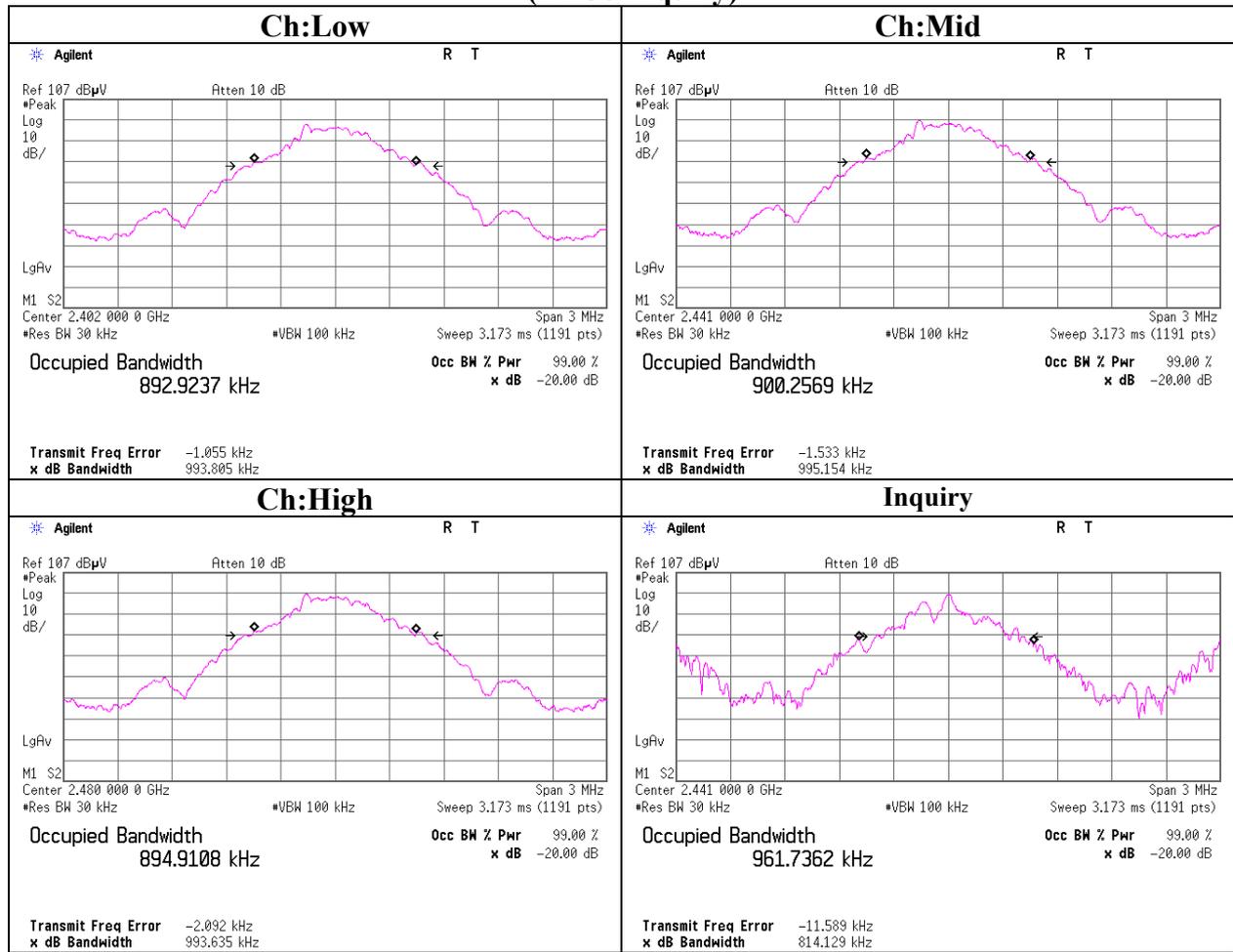


20dB Bandwidth
(DH5 / Inquiry)

Company	: Sharp Corporation	UL Japan, Inc.	
Equipment	: Cellular Phone	Head Office EMC Lab. No.11 Shielded Room	
Model No.	: WX-T930	Test Report No.	: 29CE0004-HO
Serial No.	: 004401/11/166118/3	Regulation	: FCC15.247(a)(1)/RSS-210A8.1(a)
Power	: DC 4.0V (AC Charger 120 V / 60 Hz)	Test distance	: -
Mode	: BT DH5 Tx (Hopping off) /Inquiry	Date	: 10/22/2008
		Temperature	: 25deg.C
		Humidity	: 61%
		Engineer	: Hisayoshi Sato

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.994	-
Mid	2441.0	0.995	-
High	2480.0	0.994	-
Inquiry	2441.0	0.814	-

**20dB Bandwidth
(DH5 / Inquiry)**



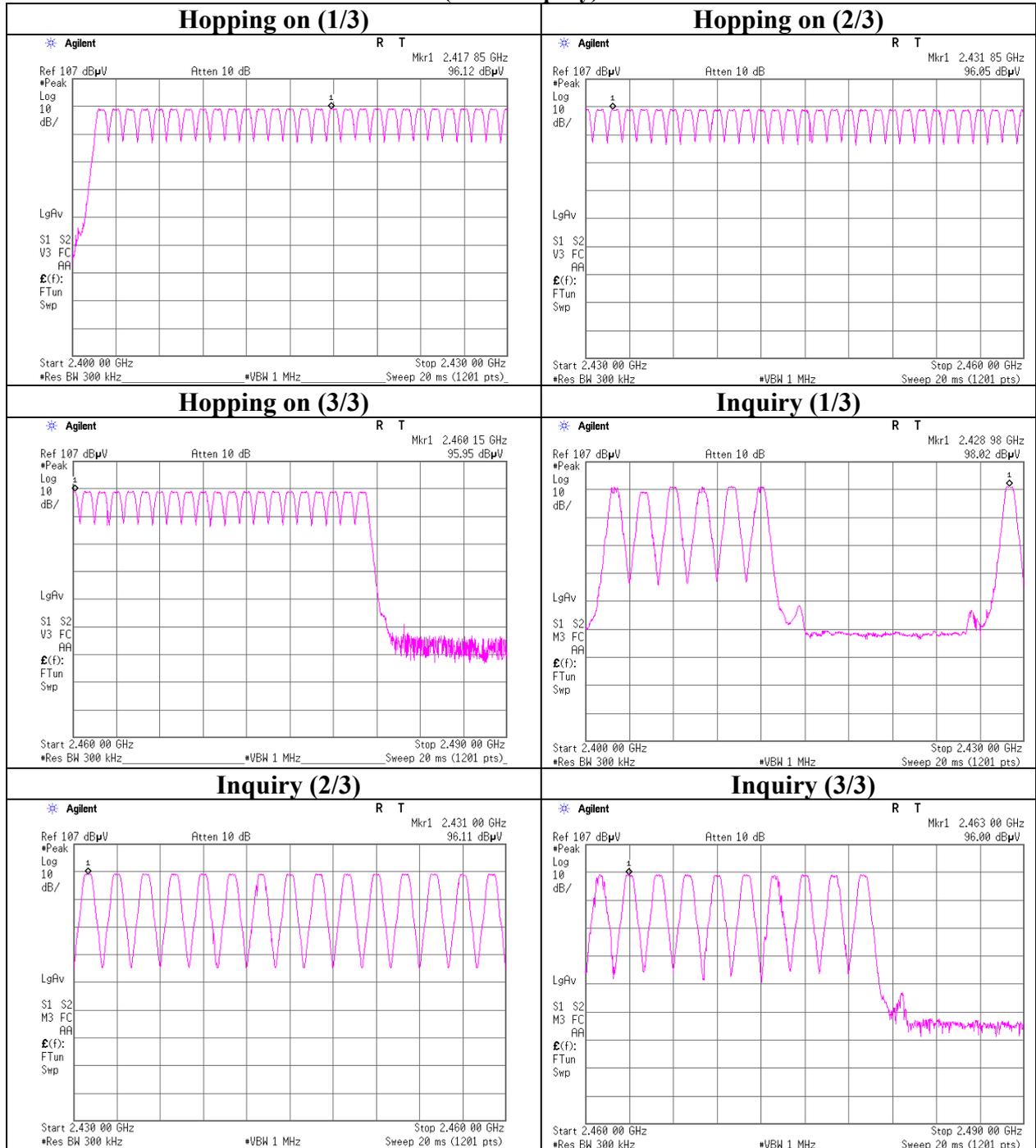
Number of Hopping Frequency
(DH5 / Inquiry)

Company	: Sharp Corporation	UL Japan, Inc.	
Equipment	: Cellular Phone	Head Office EMC Lab. No.11 Shielded Room	
Model No.	: WX-T930	Test Report No.	: 29CE0004-HO
Serial No.	: 004401/11/166118/3	Regulation	: FCC15.247(a)(1)/RSS-210A8.1(a)
Power	: DC 4.0V (AC Charger 120 V / 60 Hz)	Test distance	: -
Mode	: BT DH5 Tx (Hopping off) /Inquiry	Date	: 10/22/2008
		Temperature	: 25deg.C
		Humidity	: 61%
		Engineer	: Hisayoshi Sato

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

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

**Number of Hopping Frequency
(DH5 / Inquiry)**



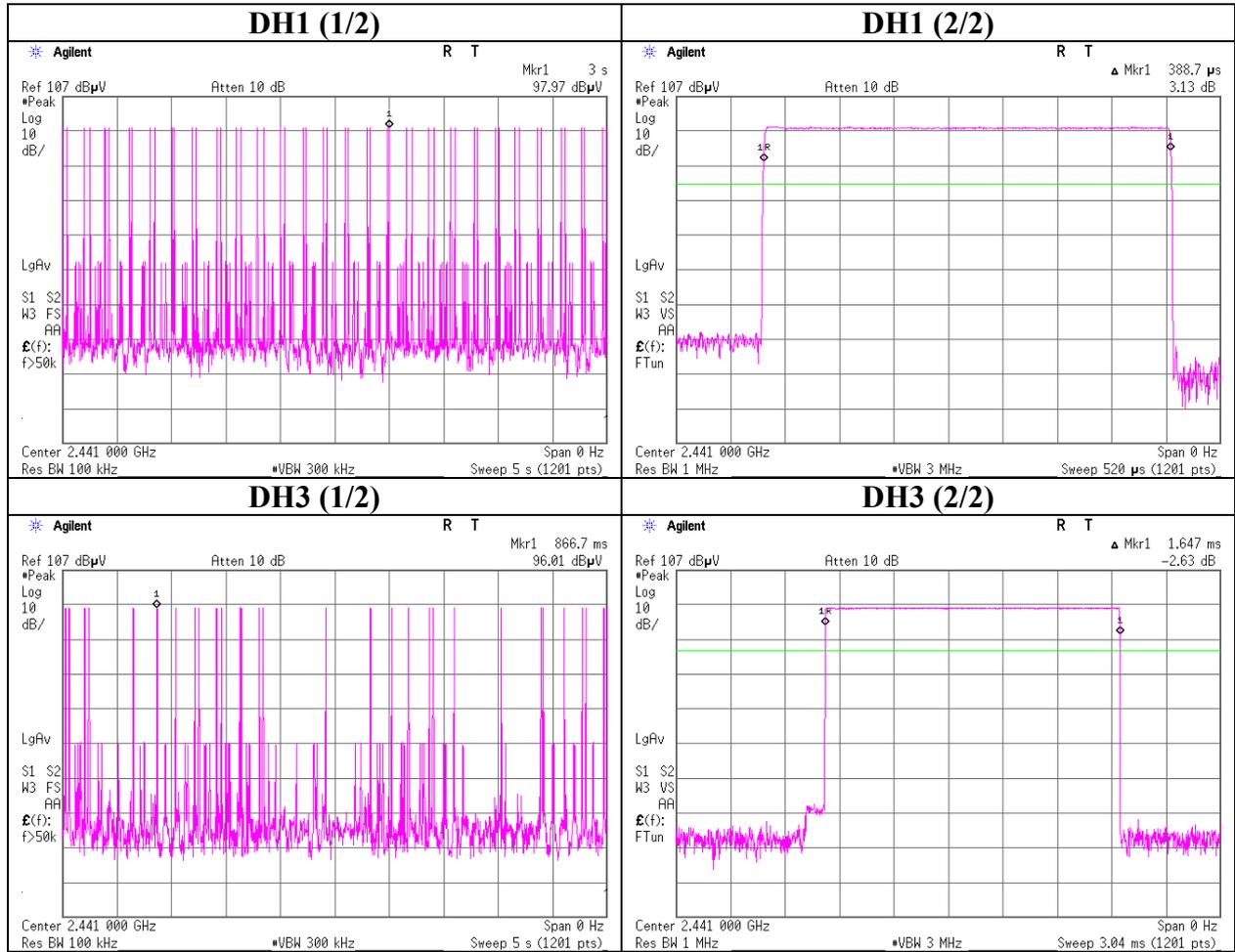
Dwell time

Company : Sharp Corporation
Equipment : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166118/3
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Mode : BT Tx (Hopping on) /Inquiry

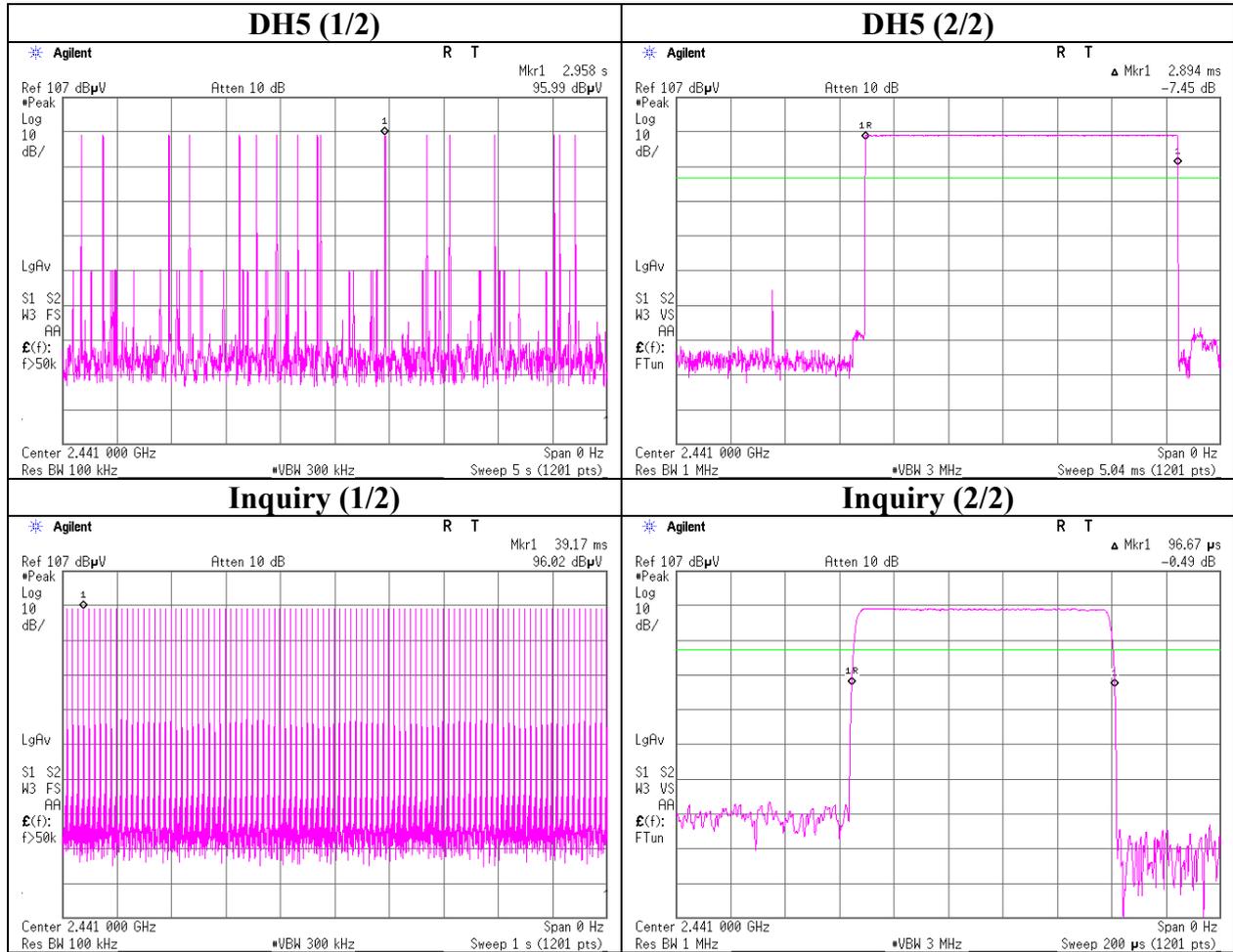
UL Japan, Inc.
Head Office EMC Lab. No.11 Shielded Room
Test Report No. : 29CE0004-HO
Regulation : FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
Test distance : -
Date : 10/22/2008
Temperature : 25deg.C
Humidity : 61%
Engineer : Hisayoshi Sato

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	50 times / 5 sec. x	31.6 sec. =	316 times	0.389	123	400
DH3	29 times / 5 sec. x	31.6 sec. =	184 times	1.647	303	400
DH5	17 times / 5 sec. x	31.6 sec. =	108 times	2.894	313	400
Inquiry	100 times / 1 sec. x	12.8 sec. =	1280 times	0.097	124	400

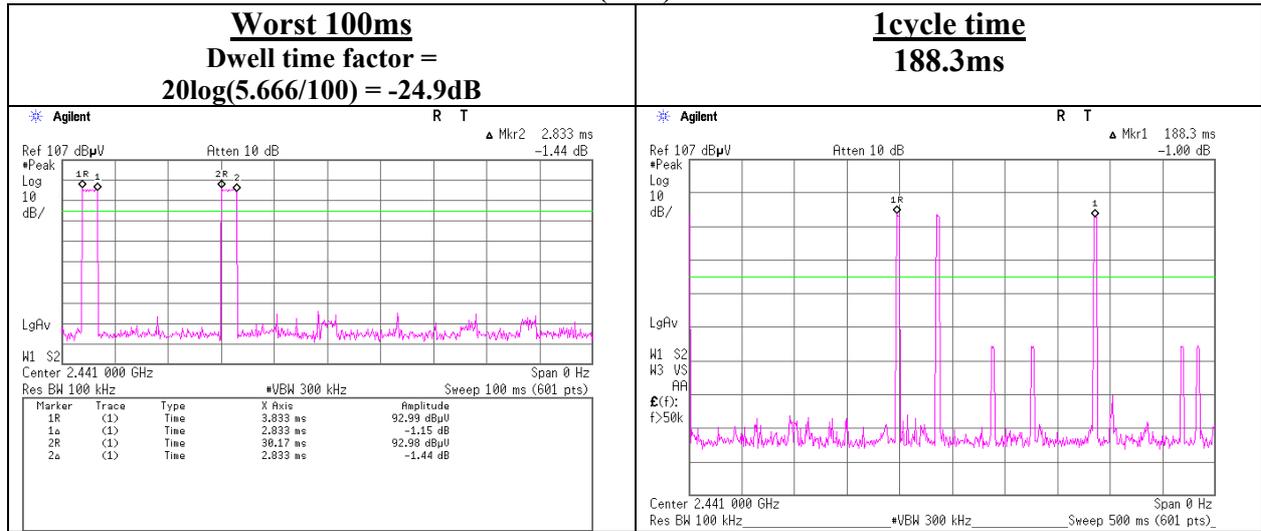
Dwell time



Dwell time



Dwell time factor
(DH5)



Maximum Peak Output Power
(DH5 / Inquiry)

Company : Sharp Corporation
Equipment : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166118/3
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Mode : BT DH5 Tx(Hopping Off)/Inquiry

UL Japan, Inc.
Head Office EMC Lab. No.11 Shielded Room
Test Report No. : 29CE0004-HO
Regulation : FCC15.247(b)(1)/RSS-210A8.4(2)
Test distance : -
Date : 10/21/2008
Temperature : 25deg.C
Humidity : 61%
Engineer : Hisayoshi Sato

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-11.10	1.07	10.09	0.06	1.01	20.97	125	20.91
Mid	2441.0	-10.54	1.07	10.09	0.62	1.15	20.97	125	20.35
High	2480.0	-10.02	1.08	10.09	1.15	1.30	20.97	125	19.82
Inquiry	2441.0	-10.01	1.07	10.09	1.15	1.30	20.97	125	19.82

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch: Low (DH5)

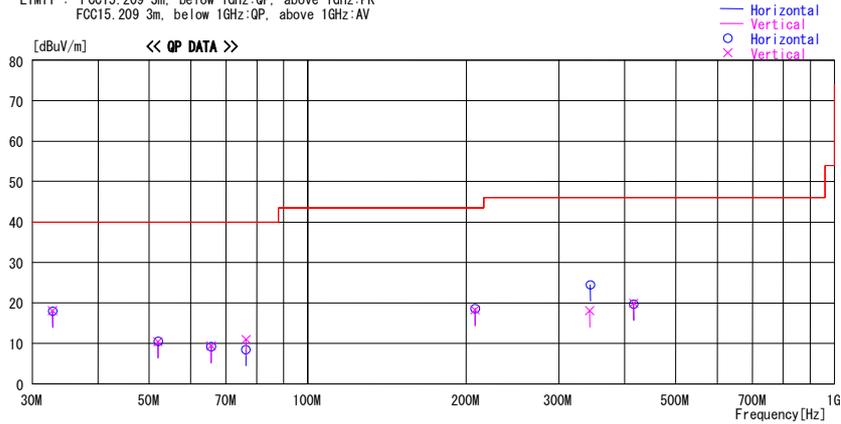
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation
Kind of EUT : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166109/2
Report No. : 29CE0004-HO
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Temp./Humi. : 24deg. C / 56%
Engineer : Hisayoshi Sato

Mode / Remarks : BT Transmitting 2402MHz, Max-axis (Hor:Y Ver:Z)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK
FCC15.209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg.]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss & Gain [dB]						
32.768	22.3	QP	17.5	-21.8	18.0	15	300	Horri.	40.0	22.0
32.768	22.4	QP	17.5	-21.8	18.1	356	100	Vert.	40.0	21.9
52.000	22.4	QP	9.8	-21.7	10.5	15	300	Horri.	40.0	29.5
52.000	22.3	QP	9.8	-21.7	10.4	358	100	Vert.	40.0	29.6
65.536	23.7	QP	7.3	-21.6	9.4	358	100	Vert.	40.0	30.6
65.536	23.5	QP	7.3	-21.6	9.2	283	300	Horri.	40.0	30.8
76.354	23.5	QP	6.5	-21.5	8.5	283	300	Horri.	40.0	31.5
76.421	26.0	QP	6.5	-21.5	11.0	358	100	Vert.	40.0	29.0
208.000	21.6	QP	16.7	-19.7	18.6	8	300	Horri.	43.5	24.9
208.000	21.3	QP	16.7	-19.7	18.3	358	100	Vert.	43.5	25.2
343.276	21.3	QP	15.8	-19.0	18.1	240	100	Vert.	46.0	27.9
344.276	27.7	QP	15.8	-19.0	24.5	5	100	Horri.	46.0	21.5
416.000	21.6	QP	17.4	-19.3	19.7	38	100	Horri.	46.0	26.3
416.000	21.8	QP	17.4	-19.3	19.9	358	100	Vert.	46.0	26.1

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 (DH5)

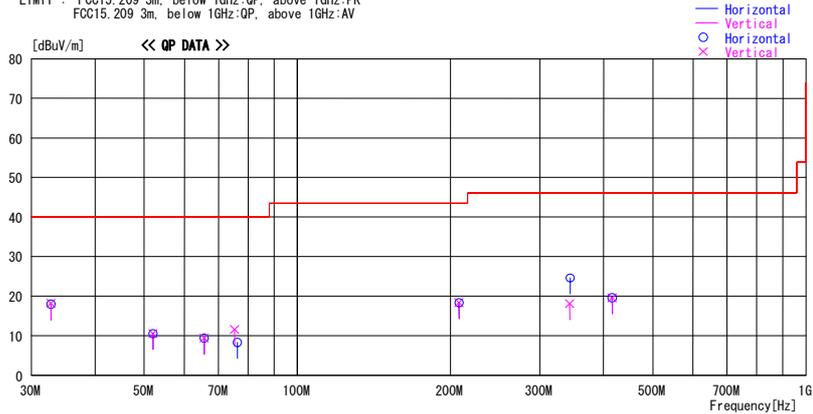
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation Report No. : 29CE0004-HO
Kind of EUT : Cellular Phone Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Model No. : WX-T930 Temp./Humi. : 24deg. C / 56%
Serial No. : 004401/11/166109/2 Engineer : Hisayoshi Sato

Mode / Remarks : BT Transmitting 2441MHz, Max-axis (Hor:Y Ver:Z)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK
FCC15.209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar	Limit [dBuV/m]	Margin [dB]
			Factor [dB]	Gain [dB]						
32.768	22.3	QP	17.5	-21.8	18.0	15	300	Hori	40.0	22.0
32.768	22.5	QP	17.5	-21.8	18.2	356	100	Vert	40.0	21.8
52.000	22.4	QP	9.8	-21.7	10.5	15	300	Hori	40.0	29.5
52.000	22.4	QP	9.8	-21.7	10.5	358	100	Vert	40.0	29.5
65.536	23.7	QP	7.3	-21.6	9.4	358	100	Vert	40.0	30.6
65.536	23.7	QP	7.3	-21.6	9.4	283	300	Hori	40.0	30.6
75.246	26.6	QP	6.5	-21.5	11.6	358	100	Vert	40.0	28.4
76.178	23.3	QP	6.5	-21.5	8.3	283	300	Hori	40.0	31.7
208.000	21.3	QP	16.7	-19.7	18.3	358	100	Vert	43.5	25.2
208.000	21.3	QP	16.7	-19.7	18.3	8	300	Hori	43.5	25.2
343.253	21.3	QP	15.8	-19.0	18.1	1	100	Vert	46.0	27.9
344.253	27.8	QP	15.8	-19.0	24.6	2	100	Hori	46.0	21.4
416.000	21.5	QP	17.4	-19.3	19.6	38	100	Hori	46.0	26.4
416.000	21.5	QP	17.4	-19.3	19.6	358	100	Vert	46.0	26.5

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

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch: High (DH5)

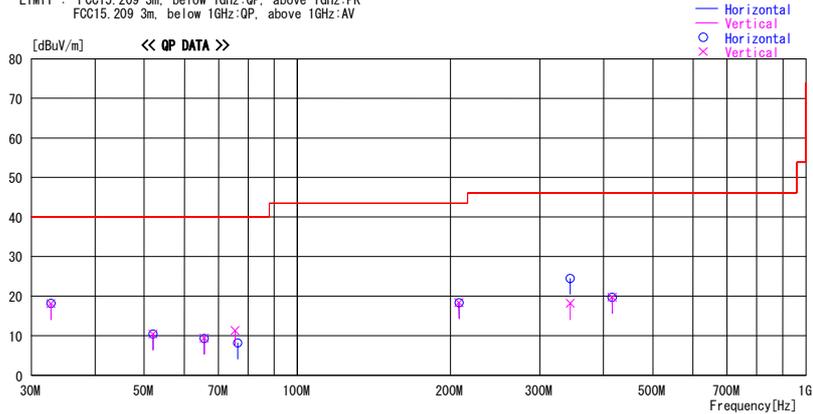
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Sharp Corporation Report No. : 29CE0004-HO
Kind of EUT : Cellular Phone Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Model No. : WX-T930 Temp./Humi. : 24deg. C / 56%
Serial No. : 004401/11/166109/2 Engineer : Hisayoshi Sato

Mode / Remarks : BT Transmitting 2480MHz, Max-axis (Hor:Y Ver:Z)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK
FCC15.209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar	Limit [dBuV/m]	Margin [dB]
			Factor [dB]	Loss & Gain [dB]						
32.768	22.4	QP	17.5	-21.8	18.1	15	300	Hori	40.0	21.9
32.768	22.4	QP	17.5	-21.8	18.1	356	100	Vert	40.0	21.9
52.000	22.3	QP	9.8	-21.7	10.4	15	300	Hori	40.0	29.6
52.000	22.3	QP	9.8	-21.7	10.4	358	100	Vert	40.0	29.6
65.536	23.7	QP	7.3	-21.6	9.4	358	100	Vert	40.0	30.6
65.536	23.6	QP	7.3	-21.6	9.3	283	300	Hori	40.0	30.7
75.411	26.3	QP	6.5	-21.5	11.3	358	100	Vert	40.0	28.7
76.350	23.2	QP	6.5	-21.5	8.2	283	300	Hori	40.0	31.8
208.000	21.3	QP	16.7	-19.7	18.3	358	100	Vert	43.5	25.2
208.000	21.3	QP	16.7	-19.7	18.3	8	300	Hori	43.5	25.2
344.231	27.7	QP	15.8	-19.0	24.5	8	100	Hori	46.0	21.5
344.231	21.3	QP	15.8	-19.0	18.1	22	100	Vert	46.0	27.9
416.000	21.6	QP	17.4	-19.3	19.7	358	100	Vert	46.0	26.3
416.000	21.6	QP	17.4	-19.3	19.7	38	100	Hori	46.0	26.3

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

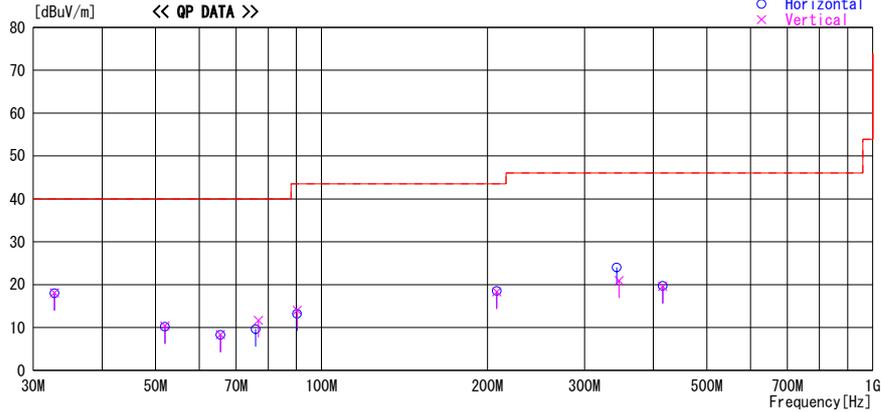
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/21

Company : Shsrp Corporation
Kind of EUT : Cellular Phone
Model No. : WX-T930
Serial No. : 004401/11/166109/2
Report No. : 29CE0004-HO
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Temp./Humi. : 24deg. C / 56%
Engineer : Hisayoshi Sato

Mode / Remarks : BT Receiving 2441MHz, Max-axis (Hor:Y Ver:Z)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK
FCC15.209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Gain [dB]						
32.768	22.3	QP	17.5	-21.8	18.0	199	300	Hori.	40.0	22.0
32.768	22.4	QP	17.5	-21.8	18.1	104	100	Vert.	40.0	21.9
52.000	22.3	QP	9.8	-21.7	10.4	293	100	Vert.	40.0	29.6
52.000	22.1	QP	9.8	-21.7	10.2	353	300	Hori.	40.0	29.8
65.536	22.5	QP	7.3	-21.6	8.2	199	300	Hori.	40.0	31.8
65.536	22.7	QP	7.3	-21.6	8.3	104	100	Vert.	40.0	31.7
75.912	24.6	QP	6.5	-21.5	9.6	40	300	Hori.	40.0	30.4
76.811	26.8	QP	6.4	-21.5	11.7	225	100	Vert.	40.0	28.3
90.278	26.2	QP	8.2	-21.2	13.2	42	300	Hori.	43.5	30.3
90.310	27.0	QP	8.2	-21.2	14.0	226	100	Vert.	43.5	29.5
208.000	21.5	QP	16.7	-19.7	18.5	343	300	Hori.	43.5	25.0
208.000	21.3	QP	16.7	-19.7	18.3	294	100	Vert.	43.5	25.2
343.166	27.2	QP	15.8	-19.0	24.0	346	100	Hori.	46.0	22.0
346.666	24.0	QP	15.9	-19.0	20.9	43	100	Vert.	46.0	25.1
416.000	21.5	QP	17.4	-19.3	19.6	16	100	Vert.	46.0	26.4
416.000	21.6	QP	17.4	-19.3	19.7	134	100	Hori.	46.0	26.3

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 (above 1GHz)
Tx, Ch: Low

Company	: Sharp Corporation	UL Japan, Inc.	
Equipmen	: Cellular Phone	Head Office EMC Lab. No.2 Semi Anechoic Chamber	
Model	: WX-T930	Regulation	: FCC15.247(d) / RSS-210 A8.5
S/N	: 004401/11/166109/2	Test Distance	: 3m (1G-10GHz) / 1m (above10GHz)
Power	: DC 4.0V (AC Charger 120 V / 60 Hz)	Date	: October 20, 2008
Mode	: BT Transmitting 2402 MHz	Temperature	: 24 deg.C.
Position	: Hor Y-axis, Ver Z-axis	Humidity	: 56 %
		Engineer	: Hisayoshi Sato

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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2390.00	54.7	48.2	26.8	32.4	2.6	0.0	-	51.7	45.2	73.9	22.2	28.7
2	2400.00	63.2	61.9	26.8	32.4	2.6	0.0	-	60.2	58.9	73.9	13.7	15.0
3	4804.00	48.0	43.4	31.2	31.4	4.1	0.7	-	52.6	48.0	73.9	21.3	25.9
4	7206.00	47.3	42.4	35.5	31.2	4.4	0.6	-	56.6	51.7	73.9	17.3	22.2
5	9608.00	46.7	40.6	38.6	32.0	5.1	0.9	-	59.3	53.2	73.9	14.6	20.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
6	12010.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
7	14412.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
8	16814.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
9	19216.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
10	21618.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
11	24020.00	41.3	39.7	39.8	29.0	7.7	0.0	-	50.3	48.7	73.9	23.6	25.2

AV DETECT (RBW: 1MHz, VBW: 270Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	Dwell Factor [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2390.00	36.3	32.8	26.8	32.4	2.6	0.0	-	33.3	29.8	53.9	20.6	24.1
2	2400.00	47.0	45.1	26.8	32.4	2.6	0.0	-24.9	19.1	17.2	53.9	34.8	36.7
3	4804.00	38.3	30.7	31.2	31.4	4.1	0.7	-24.9	18.0	10.4	53.9	35.9	43.5
4	7206.00	30.3	30.5	35.5	31.2	4.4	0.6	-24.9	14.7	14.9	53.9	39.2	39.0
5	9608.00	29.8	29.7	38.6	32.0	5.1	0.9	-24.9	17.5	17.4	53.9	36.4	36.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
6	12010.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
7	14412.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
8	16814.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
9	19216.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
10	21618.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
11	24020.00	30.2	29.9	39.8	29.0	7.7	0.0	-24.9	14.3	14.0	53.9	39.6	39.9

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB

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

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

*Dwell time factor = 20log (Dwell time / 100ms) = 20log (5.666 * 10^-3 / 100 * 10^-3) = -24.9 dB (Refer to dwell time data sheet)

*In the frequency over the 6th harmonic, the noise from the EUT was not seen.The data above is its base noise.

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

*NS: No detect Signal.

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

Company	: Sharp Corporation	UL Japan, Inc.	
Equipmen	: Cellular Phone	Head Office EMC Lab. No.2 Semi Anechoic Chamber	
Model	: WX-T930	Regulation	: FCC15.247(d) / RSS-210 A8.5
S/N	: 004401/11/166109/2	Test Distance	: 3m (1G-10GHz) / 1m (above10GHz)
Power	: DC 4.0V (AC Charger 120 V / 60 Hz)	Date	: October 20, 2008
Mode	: BT Transmitting 2441 MHz	Temperature	: 24 deg.C.
Position	: Hor Y-axis, Ver Z-axis	Humidity	: 56 %
		Engineer	: Hisayoshi Sato

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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	4882.00	43.2	43.2	31.4	31.3	4.1	0.7	-	48.1	48.1	73.9	25.8	25.8
2	7323.00	41.0	40.4	35.7	31.2	4.5	0.6	-	50.6	50.0	73.9	23.3	23.9
3	9764.00	40.9	40.7	38.7	32.0	5.2	0.9	-	53.7	53.5	73.9	20.2	20.4
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
4	12205.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
5	14646.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
6	17087.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
7	19528.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
8	21969.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
9	24410.00	40.7	38.8	40.1	28.9	7.9	0.0	-	50.3	48.4	73.9	23.6	25.5

AV DETECT (RBW: 1MHz, VBW: 270Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	Dwell Factor [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	4882.00	32.5	34.1	31.4	31.3	4.1	0.7	-24.9	12.5	14.1	53.9	41.4	39.8
2	7323.00	30.5	30.7	35.7	31.2	4.5	0.6	-24.9	15.2	15.4	53.9	38.7	38.5
3	9764.00	30.4	29.7	38.7	32.0	5.2	0.9	-24.9	18.3	17.6	53.9	35.6	36.3
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
4	12205.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
5	14646.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
6	17087.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
7	19528.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
8	21969.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
9	24410.00	30.0	29.9	40.1	28.9	7.9	0.0	-24.9	14.7	14.6	53.9	39.2	39.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB

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

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

*Dwell time factor = 20log (Dwell time / 100ms) = 20log (5.666.*10^-3 / 100*10^-3) = -24.9 dB (Refer to dwell time data sheet)

*In the frequency over the 6th harmonic, the noise from the EUT was not seen. The data above is its base noise.

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

*NS: No detect Signal.

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

Company	: Sharp Corporation	UL Japan, Inc.
Equipmen	: Cellular Phone	Head Office EMC Lab. No.2 Semi Anechoic Chamber
Model	: WX-T930	Regulation : FCC15.247(d) / RSS-210 A8.5
S/N	: 004401/11/166109/2	Test Distance : 3m (1G-10GHz) / 1m (above10GHz)
Power	: DC 4.0V (AC Charger 120 V / 60 Hz)	Date : October 20, 2008
Mode	: BT Transmitting 2480 MHz	Temperature : 24 deg.C.
Position	: Hor Y-axis, Ver Z-axis	Humidity : 56 %
		Engineer : Hisayoshi Sato

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 [dBuV]	VER [dBuV]						HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2483.50	46.9	43.6	27.0	32.4	2.6	0.0	-	44.1	40.8	73.9	29.8	33.1
2	4960.00	42.9	43.5	31.5	31.3	4.2	0.7	-	48.0	48.6	73.9	25.9	25.3
3	7440.00	40.9	41.0	36.0	31.2	4.6	0.6	-	50.9	51.0	73.9	23.0	22.9
4	9920.00	40.7	38.9	38.9	32.0	5.2	0.9	-	53.7	51.9	73.9	20.2	22.0
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
5	12400.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
6	14880.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
7	17360.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
8	19840.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
9	22320.00	NS	NS	-	-	-	-	-	-	-	73.9	-	-
10	24800.00	42.1	40.8	40.4	28.8	8.0	0.0	-	52.2	50.9	73.9	21.7	23.0

AV DETECT (RBW: 1MHz, VBW: 270Hz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	Dwell Factor [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2483.50	36.8	34.9	27.0	32.4	2.6	0.0	-24.9	9.1	7.2	53.9	44.8	46.7
2	4960.00	32.3	33.2	31.5	31.3	4.2	0.7	-24.9	12.5	13.4	53.9	41.4	40.5
3	7440.00	30.2	30.2	36.0	31.2	4.6	0.6	-24.9	15.3	15.3	53.9	38.6	38.6
4	9920.00	30.0	30.0	38.9	32.0	5.2	0.9	-24.9	18.1	18.1	53.9	35.8	35.8
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
5	12400.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
6	14880.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
7	17360.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
8	19840.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
9	22320.00	NS	NS	-	-	-	-	-24.9	-	-	53.9	-	-
10	24800.00	31.3	31.3	40.4	28.8	8.0	0.0	-24.9	16.5	16.5	53.9	37.4	37.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*Dwell time factor = 20log (Dwell time / 100ms) = 20log (5.666 * 10^-3 / 100 * 10^-3) = -24.9 dB (Refer to dwell time data sheet)
*In the frequency over the 6th harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is rounded off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

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

Company : Sharp Corporation
Equipment : Cellular Phone
Model : WX-T930
S/N : 004401/11/166109/2
Power : DC 4.0V (AC Charger 120 V / 60 Hz)
Mode : BT Receiving 2441 MHz
Position : Hor Y-axis, Ver Z-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Regulation : FCC15.247(d) / RSS-210 A8.5
Test Distance : 3m
Date : October 20, 2008
Temperature : 24 deg.C.
Humidity : 56 %
Engineer : Hisayoshi Sato

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

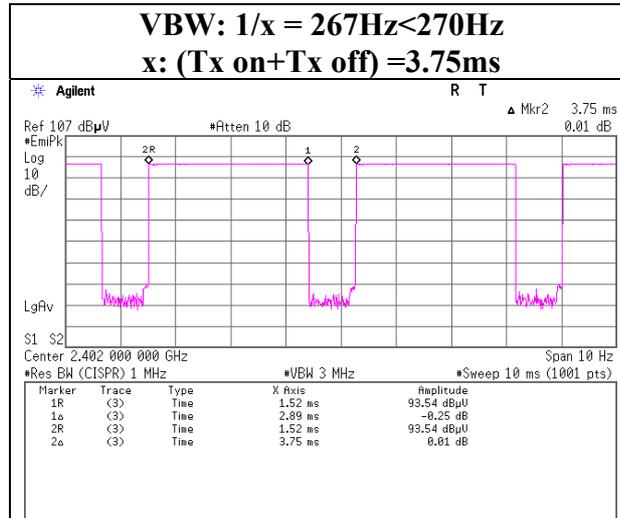
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]											
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2441.0	40.9	41.0	26.9	32.4	2.6	0.0	38.0	38.1	73.9	35.9	35.8	
2	4882.0	37.2	36.4	31.4	31.3	3.1	0.0	40.4	39.6	73.9	33.5	34.3	
3	7323.0	37.5	38.2	35.7	31.2	3.9	0.0	45.9	46.6	73.9	28.0	27.3	

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

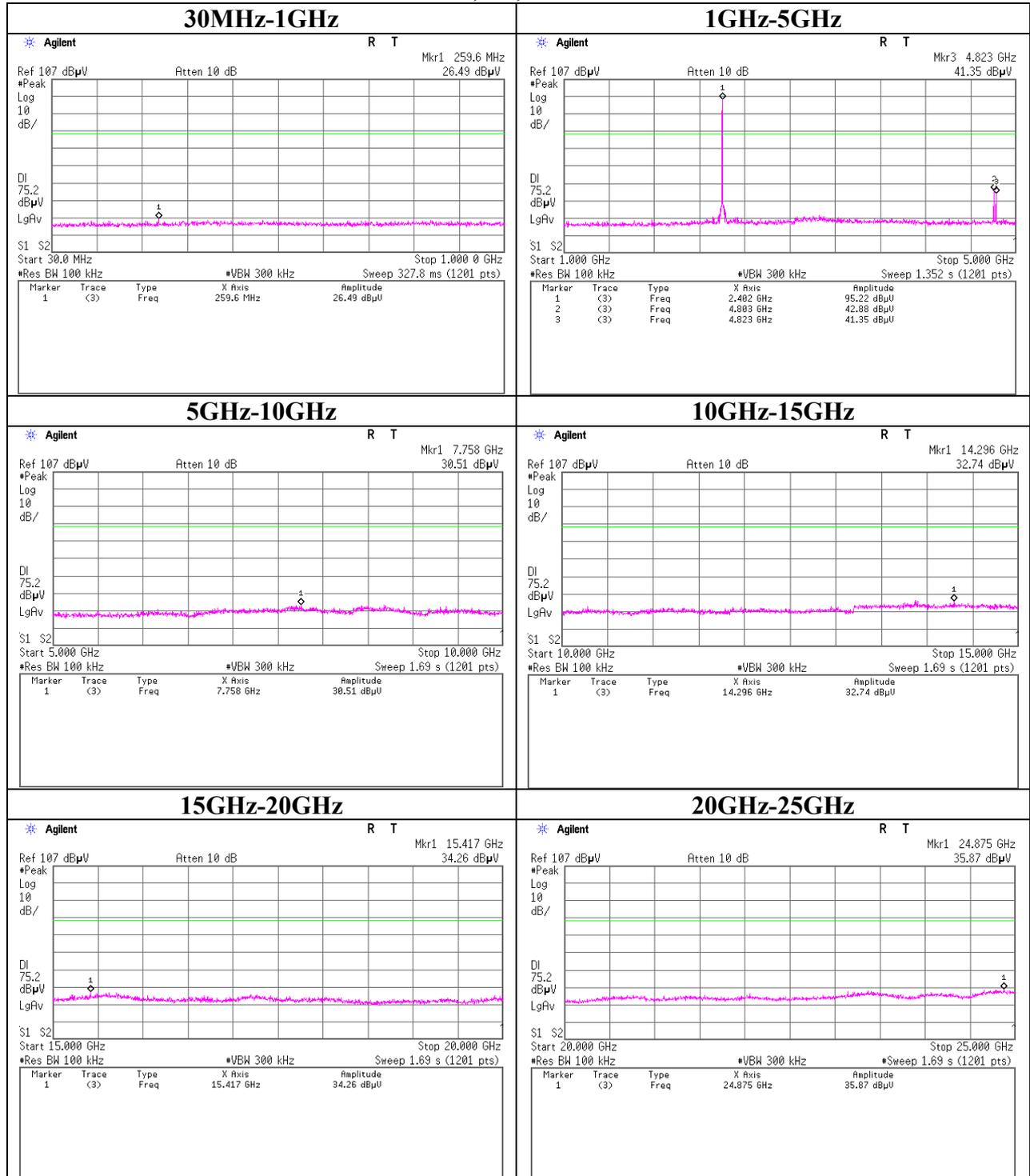
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]											
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2441.0	29.6	29.5	26.9	32.4	2.6	0.0	26.7	26.6	53.9	27.2	27.3	
2	4882.0	27.6	27.7	31.4	31.3	3.1	0.0	30.8	30.9	53.9	23.1	23.0	
3	7323.0	27.6	27.5	35.7	31.2	3.9	0.0	36.0	35.9	53.9	17.9	18.0	

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*The test result is rounded 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.

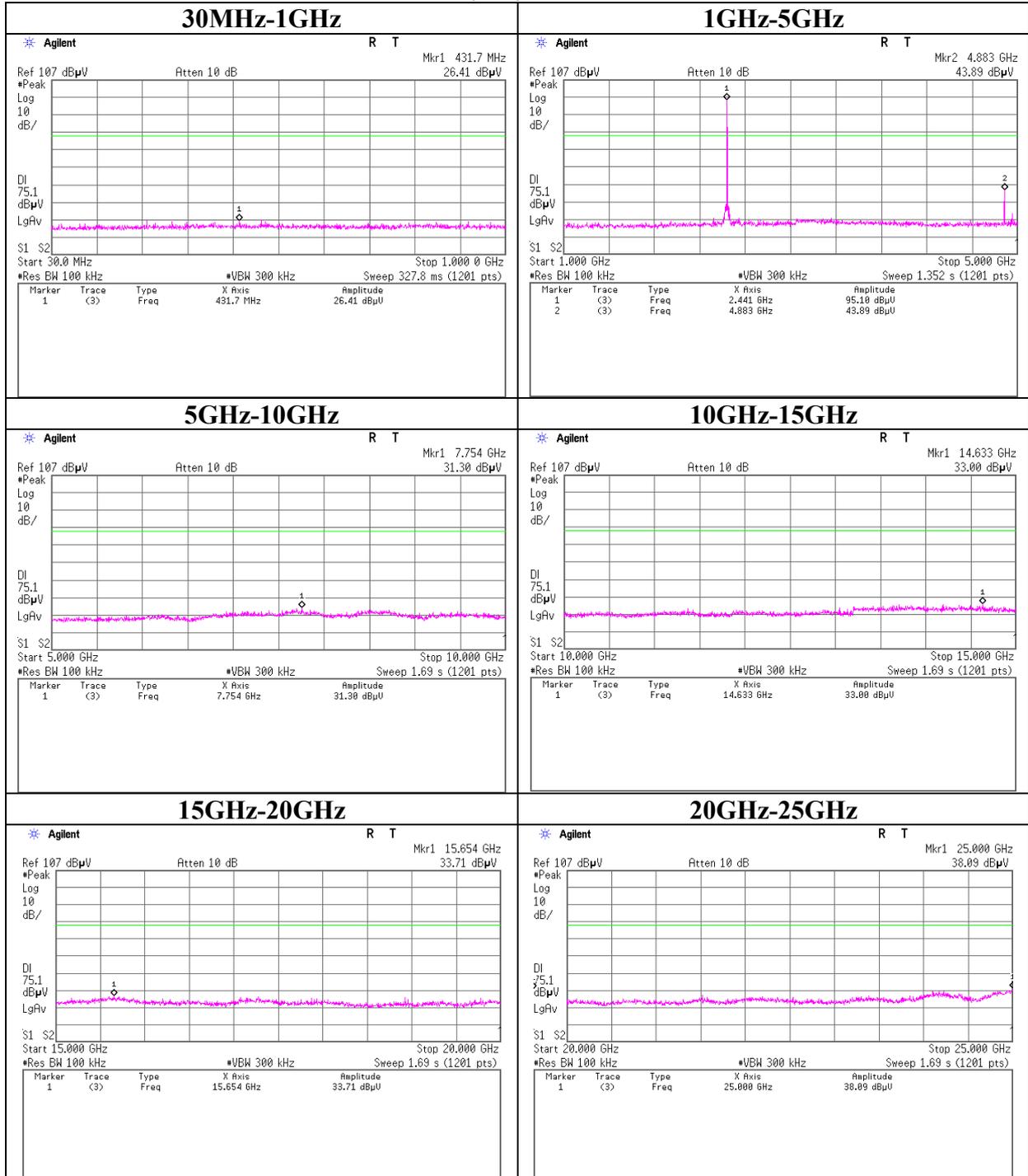
VBW (AV) Calculation



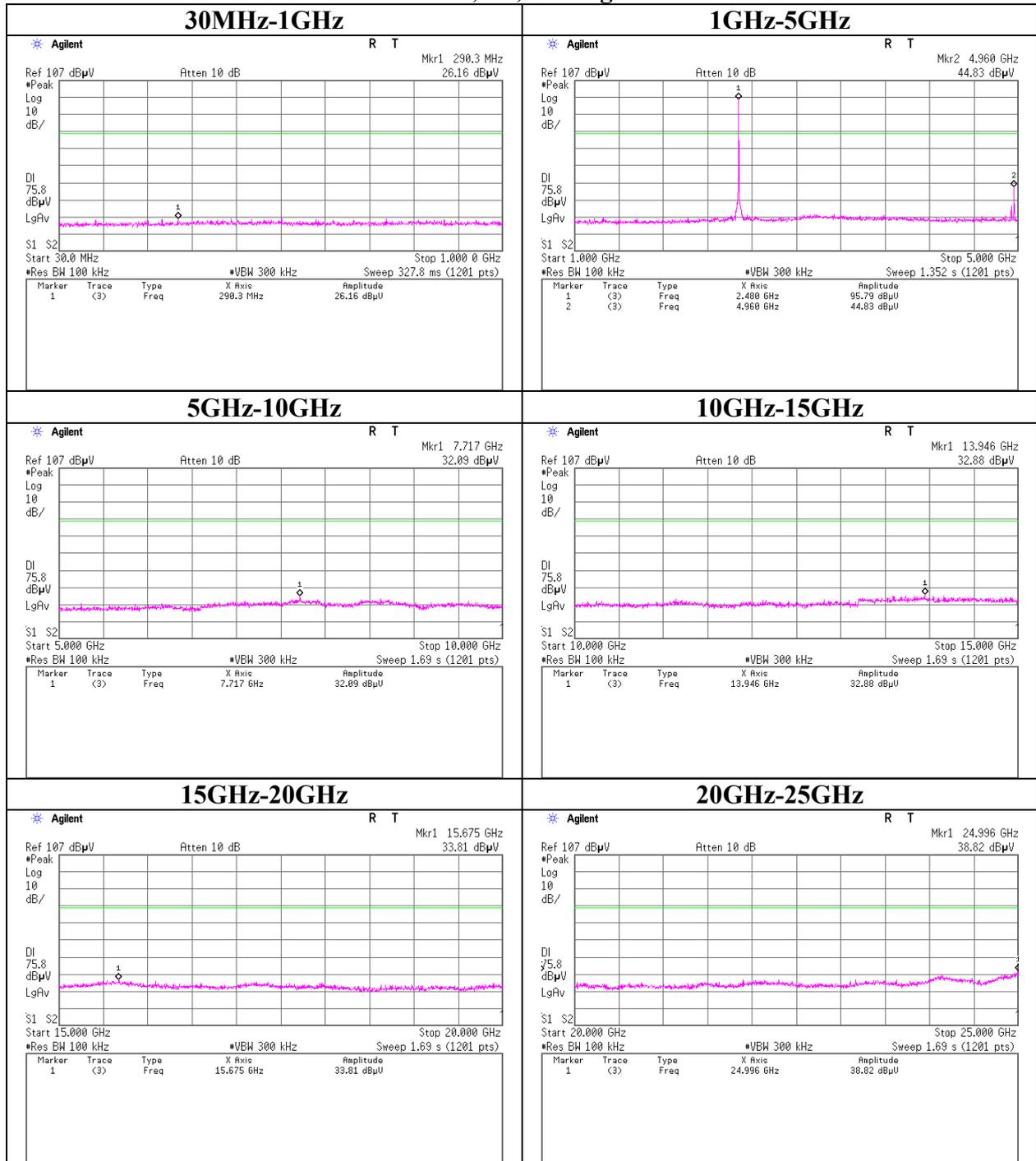
Conducted Spurious Emission
BDR, Tx, Ch:Low



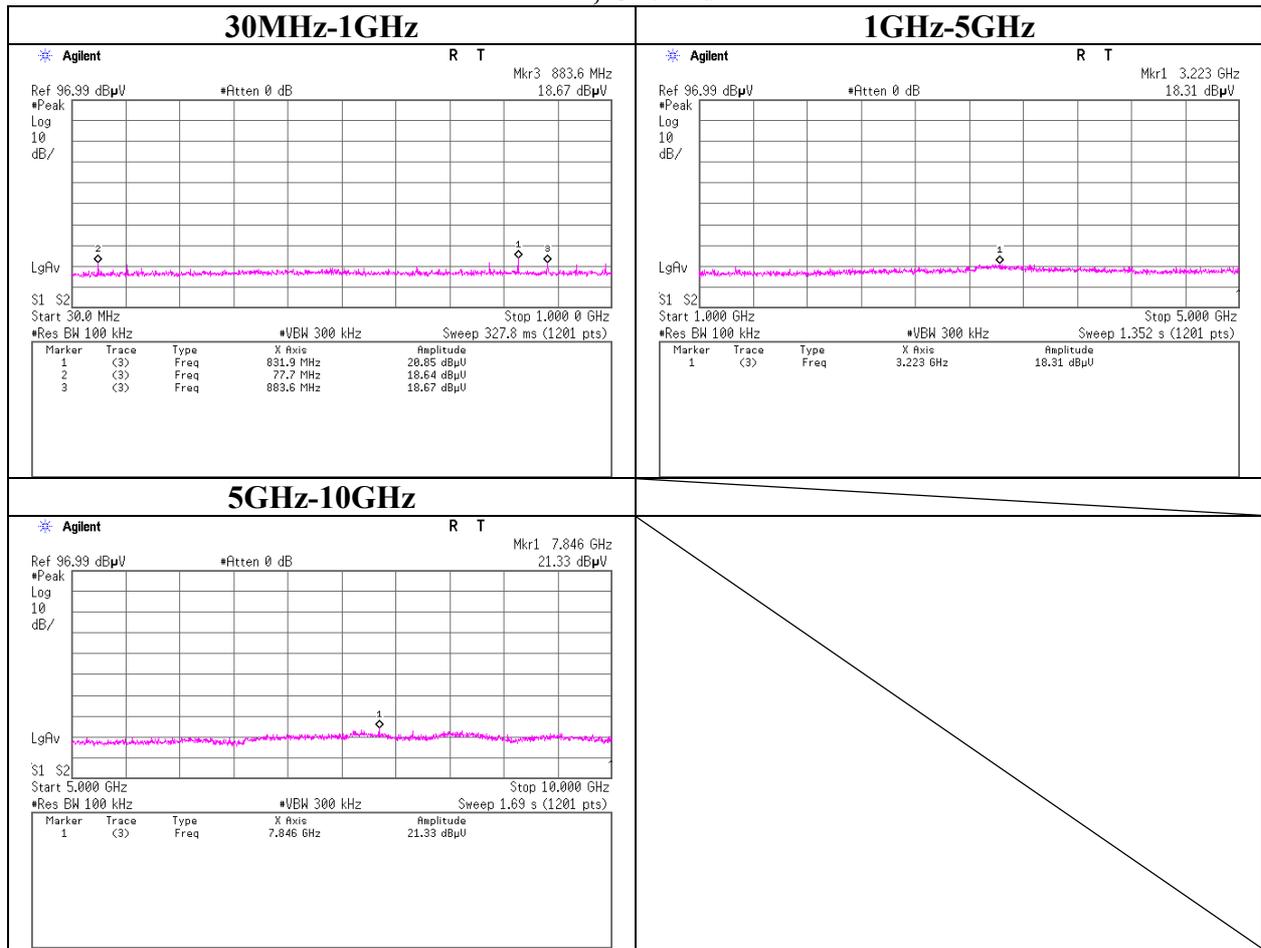
Conducted Spurious Emission
BDR, Tx, Ch:Mid



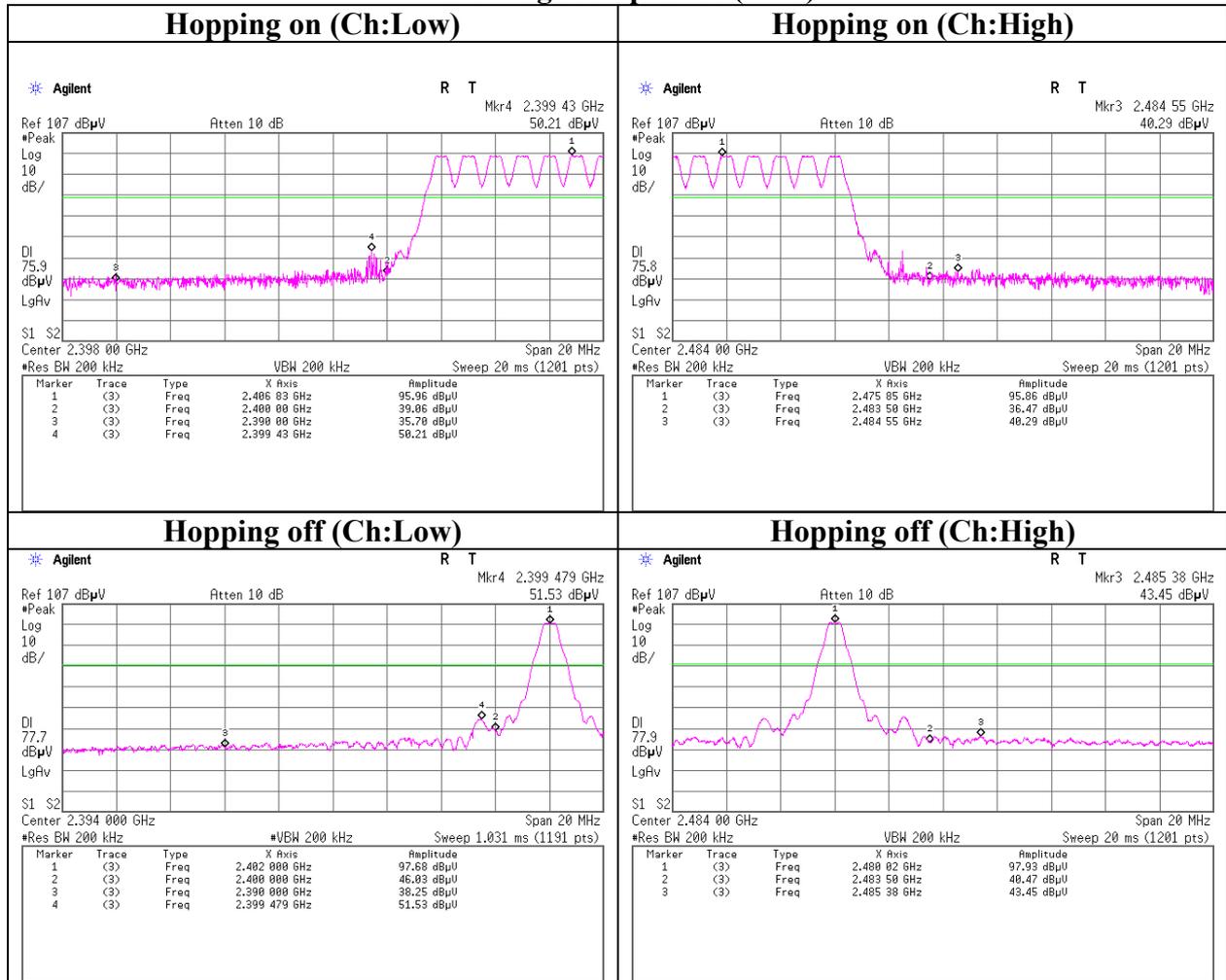
Conducted Spurious Emission
BDR, Tx, Ch:High



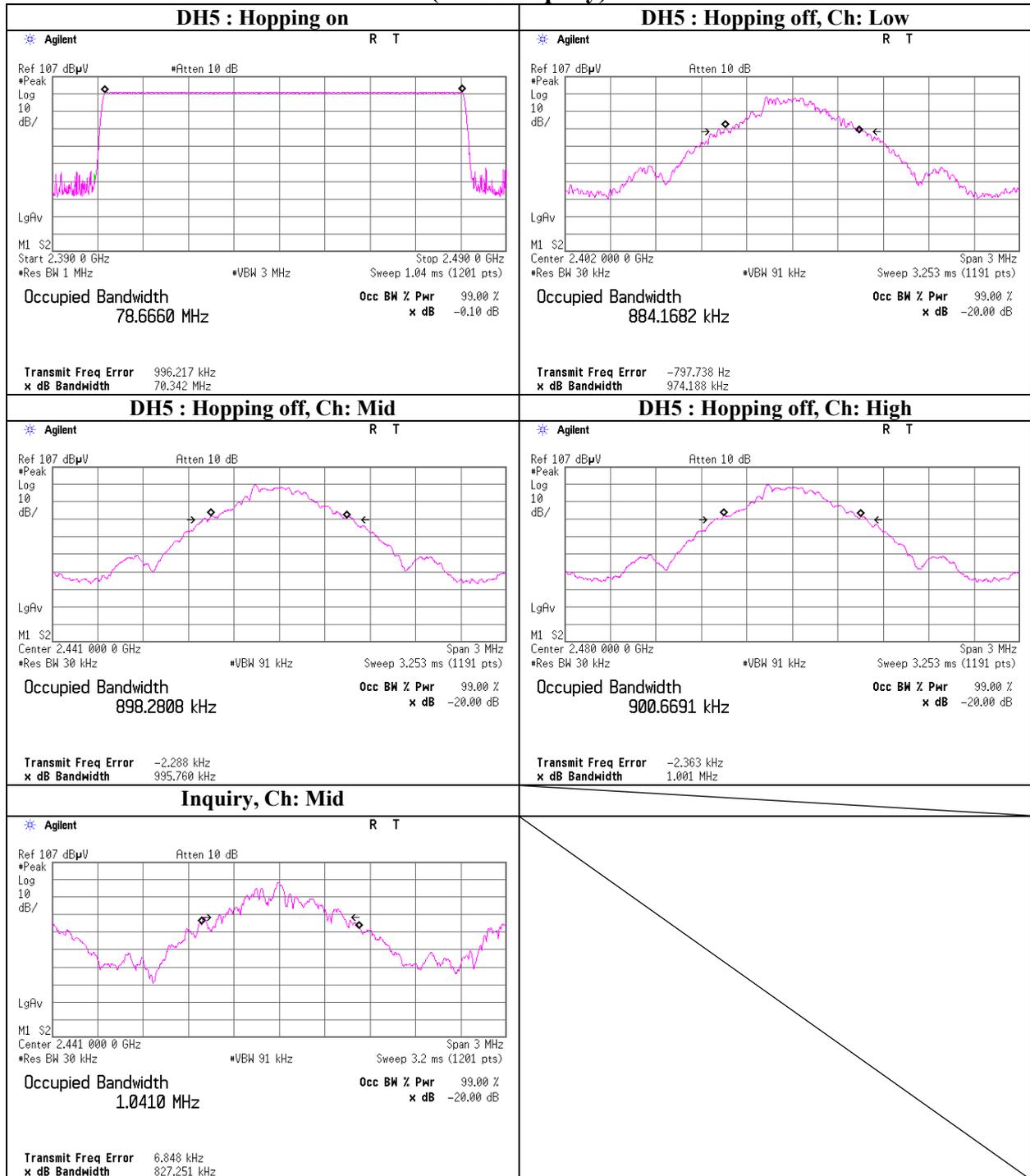
Conducted Spurious Emission
Rx, Ch:Mid



Conducted Spurious Emission Band Edge compliance (DH5)



99% Occupied Bandwidth (DH5 / Inquiry)



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	2008/04/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	RE/CE	2007/12/27 * 12
MJM-05	Measure	PROMART	SEN1955	RE/CE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE/CE	2008/08/18 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE/CE	2008/04/02 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2008/10/18 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2008/10/18 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2008/02/15 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2007/11/13 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2008/09/04 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2008/01/19 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2008/05/12 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2008/09/17 * 12
MHA-02	Horn Antenna 18-26.5GHz	EMCO	3160-09	RE	2008/01/19 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	RE	2007/12/10 * 12
MCC-77	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2008/02/20 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2008/02/15 * 12
MPM-13	Power Meter	Anritsu	ML2495A	AT	2008/08/13 * 12
MPSE-18	Power sensor	Anritsu	MA2411B	AT	2008/08/13 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	AT	2008/08/18 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2008/03/04 * 12
MCC-116	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	AT	2008/08/04 * 12
MOS-19	Thermo-Hygrometer	Custom	CTH-201	AT	2007/12/05 * 12

The expiration date of the calibration is the end of the expired month.

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

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item: CE: Conducted Emission

RE: Radiated Emission

AT: Antenna Terminal Conducted test

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