RADIO TEST REPORT

Test Report No. : 25HE0087-HO-1

Applicant	:	**SHARP CORPORATION**
Type of Equipment	:	**Wireless PDA**
Model No.	:	**PV200**
FCC ID	:	**APYNAR0060**
Test standard	:	**FCC Part 15 Subpart C** **Section 15.207, Section 15.247: 2006**
Test Result	:	**Complied**

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

Date of test: February 27 to March 25, 2006

Tested by:

Yutaka Yoshida
EMC Services

Takumi Shimada
EMC Services

Approved by :

Hironobu Shimoji
Group Leader of
EMC Services

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SECTION 1: Client information

Company Name	:	SHARP CORPORATION
Address	:	492 Minosho-cho, Yamatokoriyama-city, NARA 639-1186, JAPAN
Telephone Number	:	+81-743-55-4022
Facsimile Number	:	+81-743-55-2553
Contact Person	:	Takahiro Inoue

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

2.1 Identification of E.U.T.

Type of Equipment	:	Wireless PDA
Model No.	:	PV200
Serial No.	:	5 for Conducted Emission / Radiated Emission tests 001 for Antenna Terminal Conducted test
Country of Manufacture	:	Japan
Rating	:	AC120V/60Hz (AC Adapter)
Receipt Date of Sample	:	February 23, 2006
Condition of EUT	:	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product Description

Model No: PV200 (referred to as the EUT in this report) is the Wireless PDA.

Clock frequency(ies) in the system	:	32.768kHz, 12MHz, 26MHz, 32MHz
Equipment Type	:	Transceiver
Frequency of Operation	:	2402 - 2480MHz
Bandwidth & Channel spacing	:	1MHz & 1MHz
Modulation	:	FHSS
ITU code	:	F1D
Power Supply (inner)	:	DC 3.0V
Antenna Type	:	Chip Antenna (AF216M245001T)
Antenna Gain	:	-6.6dBi max

SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification	:	FCC Part15 Subpart C : 2006
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 (DC3.0V) 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*0)	Results
1	Conducted emission	**FCC:** ANSI C63.4:2003 7. AC powerline conducted emission measurements	**FCC:** Section 15.207	-	N/A	17.6dB 0.43325MHz AV, N	Complied
		IC: RSS-Gen 7.2.2	**IC:** RSS-Gen 7.2.2				
2	Carrier Frequency Separation	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(a)(1)	Conducted	N/A	See data.	Complied
		IC: -	**IC:** RSS-210 A8.1 (2)				
3	20dB Bandwidth	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(a)(1)	Conducted	N/A		Complied
		IC: -	**IC:** RSS-210 A8.1 (1)				
4	Number of Hopping Frequency	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(a)(1)(iii)	Conducted	N/A		Complied
		IC: -	**IC:** RSS-210 A8.1 (4)				
5	Dwell time	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(a)(1)(iii)	Conducted	N/A		Complied
		IC: -	**IC:** RSS-210 A8.1 (4)				
6	Maximum Peak Output Power	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(b)(1)	Conducted	N/A		Complied
		IC: RSS-Gen 4.6	**IC:** RSS-210 A8.4 (2)				
7	Band Edge Compliance	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(d)	Conducted	N/A		Complied
		IC: -	**IC:** RSS-210 A8.5				
8	Spurious Emission	**FCC:** ANSI C63.4:2003 13. Measurement of intentional radiators	**FCC:** Section15.247(d)	Conducted/ Radiated	N/A	[Tx] 4.0 dB 58.440MHz, QP, Vert., Ch: High [Rx] 3.0dB 64.001MHz, QP, Vert.	Complied
		IC: RSS-Gen 4.7 RSS-Gen 4.8	**IC:** RSS-210 A8.5 RSS-Gen 7.2.1 and 7.2.3				

Note: UL Apex's EMI Work Procedures No.QPM05 and QPM15.
*0) The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

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

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

3.3 Addition to standards

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	99% Occupied Band Width	**IC:** RSS-Gen 4.4.1	**IC:** RSS-Gen 4.4.1	Conducted	N/A	N/A	N/A

3.4 Uncertainty

Conducted Emission
The measurement uncertainty (with a 95% confidence level) for this test is ±2.6dB.
The data listed in this test report has enough margin, more than the site margin.

Spurious Emission (Radiated)
The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ±4.59dB(3m)/ ±4.58dB(10m).
The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ±4.62dB(3m)/ ±4.60dB(10m).
The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ±5.27dB.
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 (with a 95% confidence level) for this test is ±3.0dB.

3.5 Test Location

UL Apex Co., Ltd. Head Office EMC Lab. *NVLAP Lab. code: 200572-0
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone : +81 596 24 8116, Facsimile : +81 596 24 8124

	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	IC4247A	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	846015	IC4247A-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 measurement room	-	–	4.0 x 6.0 x 2.7m	N/A	-
No.4 measurement room	-	–	4.0 x 6.0 x 2.7m	N/A	-
No.5 shielded room	-	-	6.0 x 6.0 x 3.9m	N/A	-
No.6 shielded room	-	-	4.0 x 4.5 x 2.7m	N/A	-
No.6 preparation room	-	-	4.75 x 5.4 x 3.0m	N/A	-
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	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1 and No.2 semi-anechoic and No.7 shielded room.

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

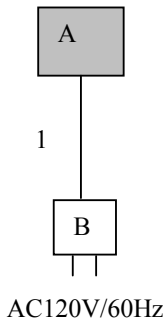
4.1 Operating Modes

The mode used for test : [FHSS:Bluetooth]
Transmitting mode (Packet size DH5, Data packet: PRBS9)
- Low Channel : 2402MHz
- Mid Channel : 2441MHz
- High Channel : 2480MHz
- Inquiry

Receiving mode
- Mid Channel : 2441MHz

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.

4.2 Configuration and peripherals



* Cabling and setup were taken into consideration and test data was taken under worse case conditions.
* The EUT (Wireless PDA) has USB and Headset ports. The EUT with USB and Headset cables connected were tested under FCC Part 15 Subpart B (Class B).

Description of Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Wireless PDA	PV200	5 for CE/RE tests 001 for AT test	Sharp Corporation	EUT
B	AC Adaptor	ADP-5FH B	-	DELTA ELECTRONICS, INC	-

List of cables used

No.	Name	Length (m)	Shield
1	DC Cable	1.5	N

SECTION 5: Conducted Emission

Test Procedure and conditions

EUT was placed on a platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane.
The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from a Line Impedance Stabilization Network (LISN)/ Artificial mains Network (AMN) and excess AC cable was bundled in center.

For the tests on EUT itself (as a stand alone equipment)
Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN /(AMN) to the input power source. All unused 50ohm connectors of the LISN(AMN) were 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 : **CISPR quasi-peak and average detector (IF BW 9 kHz)**
Measurement range : **0.15-30MHz**
Test data : **APPENDIX 3**
Test result : **Pass**

Date: March 25, 2006 Test engineer: Yutaka Yoshida

SECTION 6: Spurious Emission

[Conducted]
Test Procedure
The Out of Band Emission was measured with a spectrum analyzer connected to the antenna port.
Test data : APPENDIX 3
Test result : Pass

[Radiated]
Test Procedure
EUT was placed on a platform of nominal size, 0.5m by 0.5m, raised 80cm above the conducting ground plane.
The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).
The height of the measuring varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.
The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer (in 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 and outside the restricted band of 15.205.

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

- The carrier level and noise levels were 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 3
Test result : Pass

Date: March 9, 23, 25 and 27, 2006 Test engineer: Yutaka Yoshida

SECTION 7: Bandwidth

Test Procedure

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

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 8: Maximum Peak Output Power

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

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 9: Carrier Frequency Separation

Test Procedure

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

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 10: Number of Hopping Frequency

Test Procedure

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

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 11: Dwell time

Test Procedure

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

Test data : **APPENDIX 3**
Test result : **Pass**

APPENDIX 1: Photographs of test setup

Conducted Emission

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Spurious Emission (Radiated)

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This page has been submitted for a separate exhibit.

APPENDIX 2:Test instruments

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2005/09/16 * 12
MAT-25	Attenuator(10dB)(above1GHz)	Agilent	8493C	AT	2005/06/03 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	2004/11/25 * 24
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE	2005/11/14 * 12
MHA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2006/01/09 * 12
MHA-01	Horn Antenna	EMCO	3160-09	RE	2006/01/09 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2006/02/09 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2005/08/30 * 12
MCC-18	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2006/02/02 * 12
MCC-15	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2006/02/02 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2005/11/10 * 12
MHF-05	High Pass Filter	Tokimec	TF323DCA	RE	2006/01/24 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/10/10 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/10/14 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent/TSJ	-	RE	2006/02/20 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2005/11/10 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2005/05/24 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	RE	2004/11/25 * 24
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE/CE	2005/04/11* 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/10/10 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/10/14 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2006/02/23 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2005/09/07 * 12
MRENT-26	Spectrum Analyzer	Advantest	R3273	RE/CE	2006/02/15 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE/CE	2006/02/02 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2006/02/23 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2006/02/06 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE/CE	2004/11/25 * 24
MCC-05	Microwave Cable 1G-50GHz	Storm	421-011 (90-1394-079)	RE	2006/01/04 * 12

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

Test Item:

CE: Conducted Emission
RE: Radiated Emission
AT: Antenna Terminal Conducted test

APPENDIX 3: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

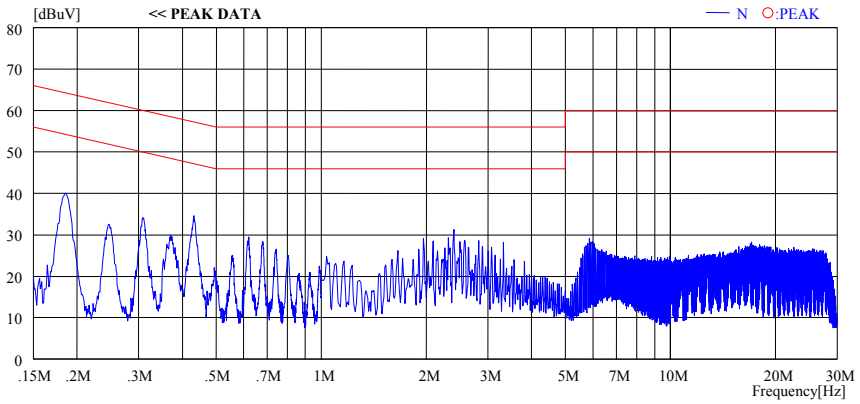
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/03/25 14:17:17

Company : Sharp Corporation
Kind of EUT : Wireless PDA
Model No. : PV200
Serial No. : 5

Report No. : 25HE0087-HO
Power : AC120V/60Hz
Temp℃/Humi% : 24deg.C / 30%
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Cont. Tx 2402MHz

LIMIT : FCC15C §15.207 (QP) / RSS-Gen
FCC15C §15.207 (AV) / RSS-Gen



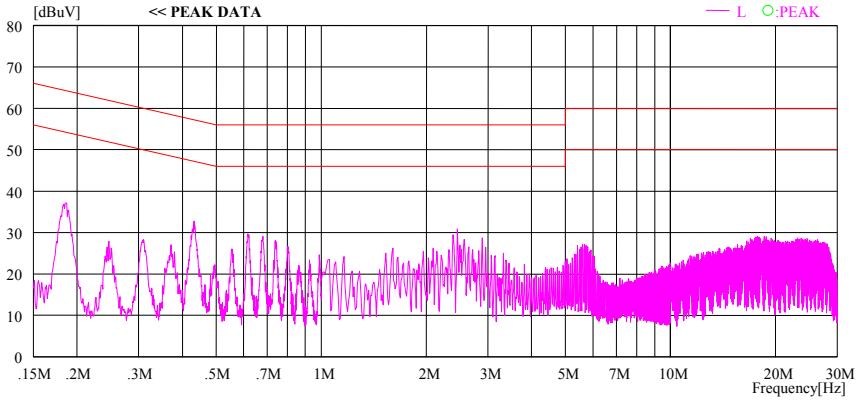


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

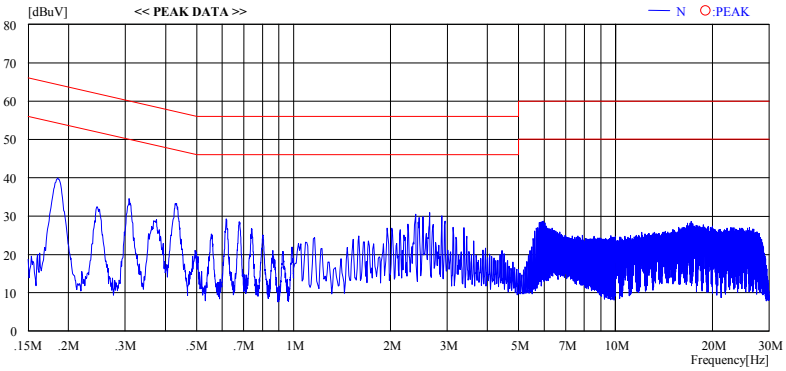
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/03/25 14:25:06

Company	: Sharp Corporation	Report No.	: 25HE0087-HO
Kind of EUT	: Wireless PDA	Power	: AC120V/60Hz
Model No.	: PV200	Temp℃/Humi%	: 24deg.C / 30%
Serial No.	: 5	Operator	: Yutaka Yoshida

Mode / Remarks : Bluetooth Cont. Tx 2441MHz

LIMIT : FCC15C §15.207 (QP) / RSS-Gen
FCC15C §15.207 (AV) / RSS-Gen



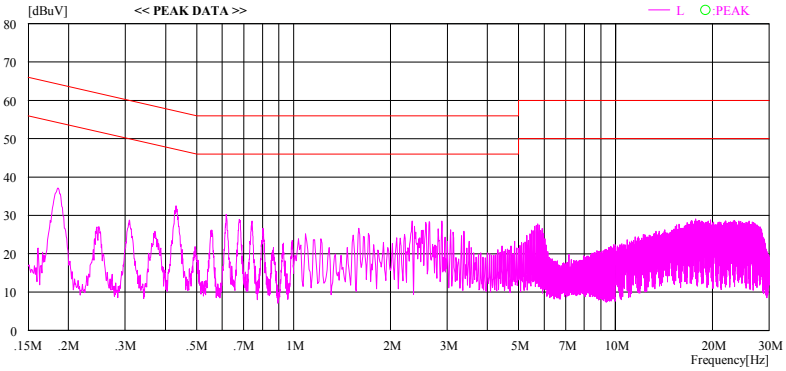


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

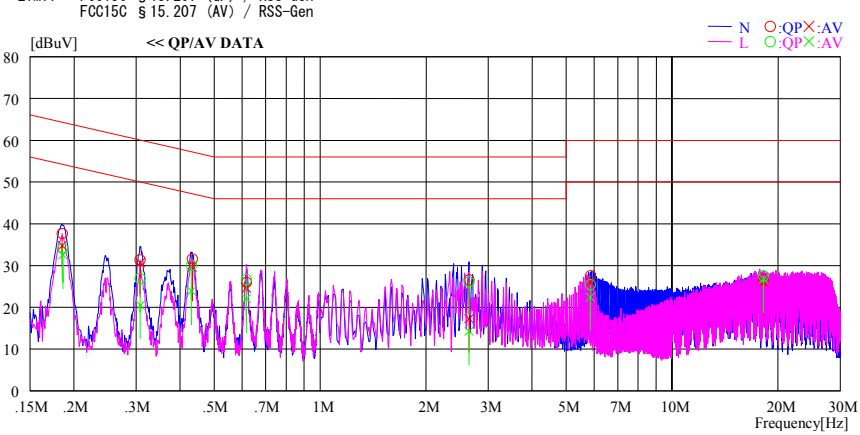
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/03/25 14:25:06

Company : Sharp Corporation
Kind of EUT : Wireless PDA
Model No. : PV200
Serial No. : 5

Report No. : 25HE0087-HO
Power : AC120V/60Hz
Temp℃/Humi% : 24deg.C / 30%
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Cont. Tx 2441MHz

LIMIT : FCC15C §15.207 (QP) / RSS-Gen
FCC15C §15.207 (AV) / RSS-Gen



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.18512	37.5	34.6	0.2	37.7	34.8	64.3	54.3	26.6	19.5	N
0.30810	31.1	30.4	0.3	31.4	30.7	60.0	50.0	28.6	19.3	N
0.43325	31.3	29.3	0.3	31.6	29.6	57.2	47.2	25.6	17.6	N
0.61705	25.7	24.2	0.3	26.0	24.5	56.0	46.0	30.0	21.5	N
2.64787	26.1	16.8	0.5	26.6	17.3	56.0	46.0	29.4	28.7	N
5.85571	26.8	25.2	0.8	27.6	26.0	60.0	50.0	32.4	24.0	N
18.18157	25.4	24.9	1.2	26.6	26.1	60.0	50.0	33.4	23.9	N
0.18560	33.9	32.4	0.2	34.1	32.6	64.2	54.2	30.1	21.6	L
0.30796	26.6	20.2	0.3	26.9	20.5	60.0	50.0	33.1	29.5	L
0.43060	29.8	23.6	0.3	30.1	23.9	57.2	47.2	27.1	23.3	L
0.61710	26.4	21.7	0.3	26.7	22.0	56.0	46.0	29.3	24.0	L
2.64976	25.6	13.8	0.5	26.1	14.3	56.0	46.0	29.9	31.7	L
5.85459	24.6	21.6	0.8	25.4	22.4	60.0	50.0	34.6	27.6	L
18.18244	26.4	25.5	1.2	27.6	26.7	60.0	50.0	32.4	23.3	L

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

Conducted Emission

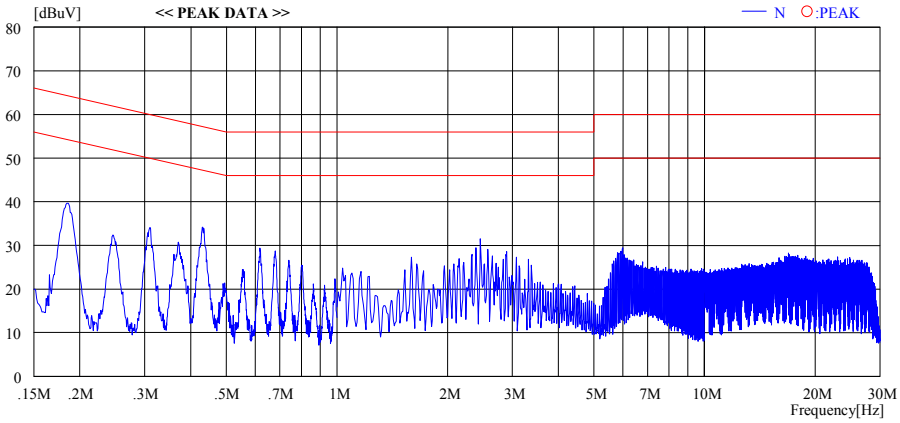
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/03/25 14:33:55

Company	: Sharp Corporation	Report No.	: 25HE0087-HO
Kind of EUT	: Wireless PDA	Power	: AC120V/60Hz
Model No.	: PV200	Temp℃/Humi%	: 24deg.C / 30%
Serial No.	: 5	Operator	: Yutaka Yoshida

Mode / Remarks : Bluetooth Cont. Tx 2480MHz

LIMIT : FCC15C §15.207 (QP) / RSS-Gen
FCC15C §15.207 (AV) / RSS-Gen



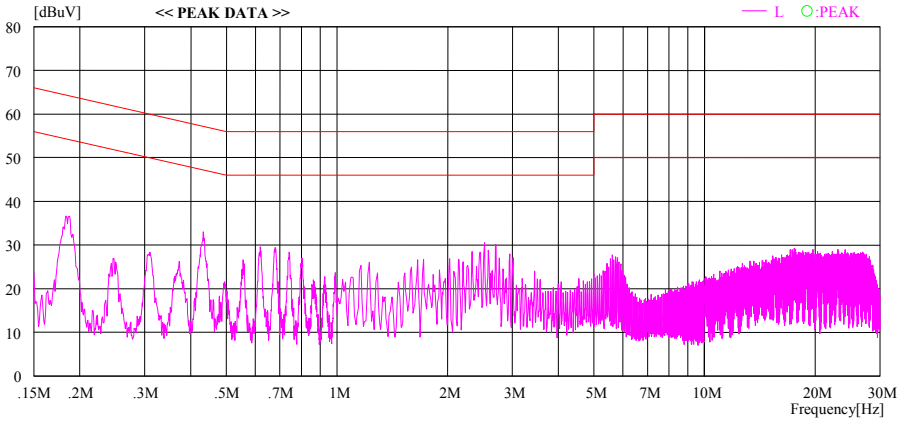


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

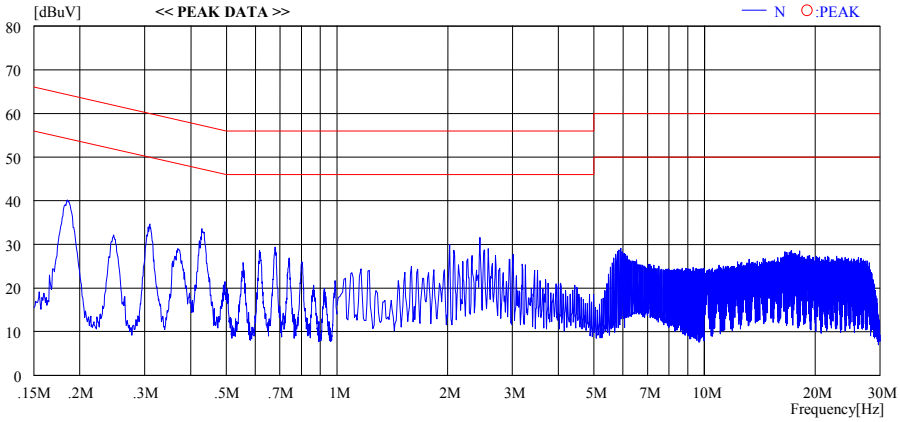
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/03/25 15:04:35

Company	: Sharp Corporation	Report No.	: 25HE0087-HO
Kind of EUT	: Wireless PDA	Power	: AC120V/60Hz
Model No.	: PV200	Temp℃/Humi%	: 24deg.C / 30%
Serial No.	: 5	Operator	: Yutaka Yoshida

Mode / Remarks : Bluetooth Cont. Rx 2441MHz

LIMIT : FCC15C §15.207 (QP) / RSS-Gen
FCC15C §15.207 (AV) / RSS-Gen



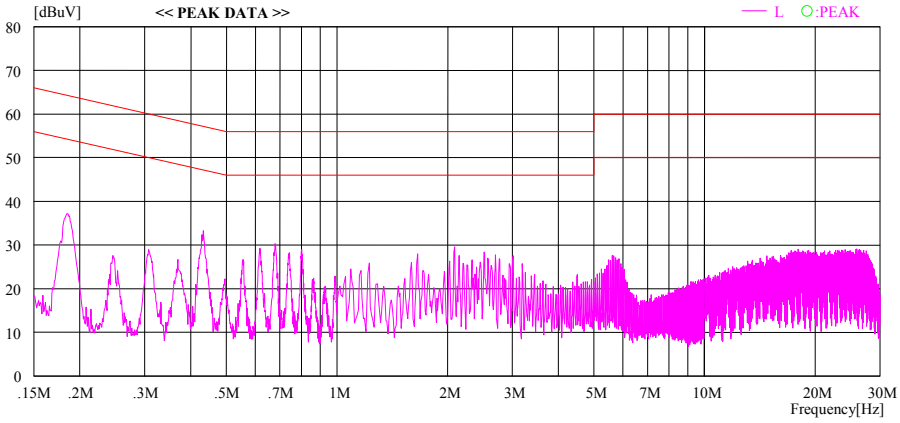


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Carrier Frequency Separation

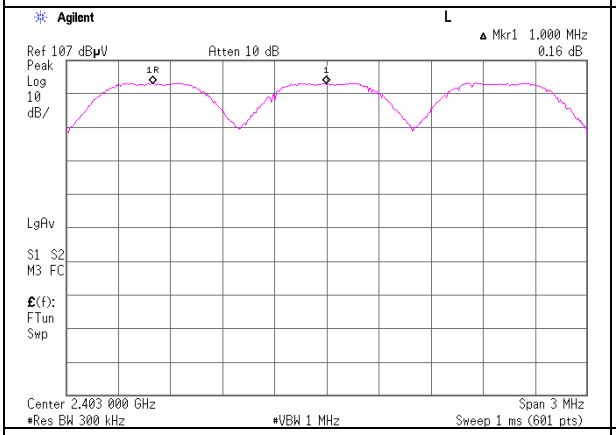
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	:	Sharp Corporation	REGULATION	:	FCC Part15 Subpart C 15.247(a)(1)
EQUIPMENT	:	Wireless PDA	TEST DISTANCE	:	-
MODEL	:	PV200	DATE	:	02/27/2006 , 03/10/2006
S/ N	:	001	TEMPERATURE	:	30deg.C , 32deg.C
POWER	:	AC120V/60Hz	HUMIDITY	:	28% , 38%
MODE	:	Tx(Hopping on)/Inquiry	ENGINEER	:	Takumi Shimada Yutaka Yoshida

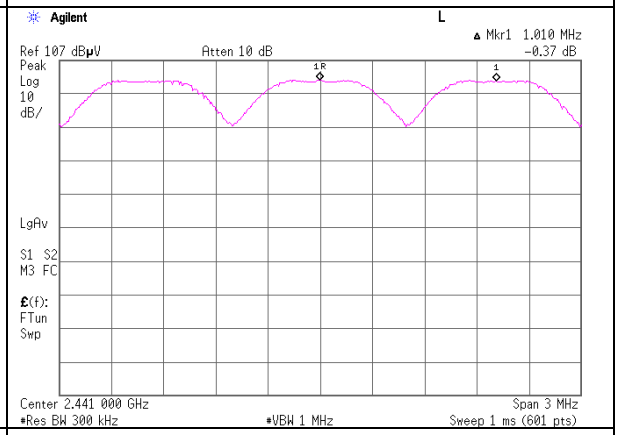
Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	>two-thirds of the 20dB Bandwidth or 25[kHz] (whichever is greater)
Mid	2441.0	1.010	>two-thirds of the 20dB Bandwidth or 25[kHz] (whichever is greater)
High	2480.0	0.985	>two-thirds of the 20dB Bandwidth or 25[kHz] (whichever is greater)
Inquiry	2441.0	2.000	>two-thirds of the 20dB Bandwidth or 25[kHz] (whichever is greater)

Carrier Frequency Separation

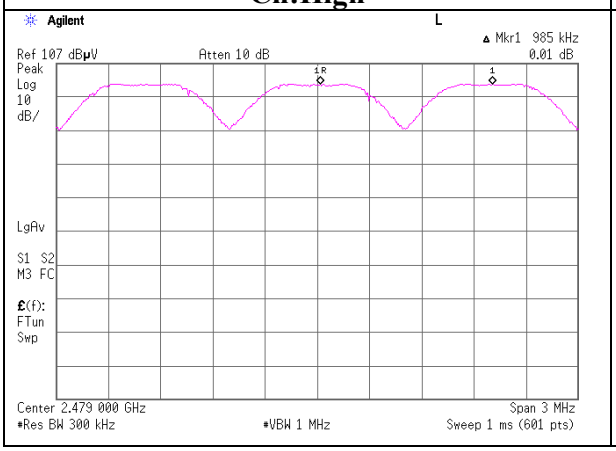
Ch:Low



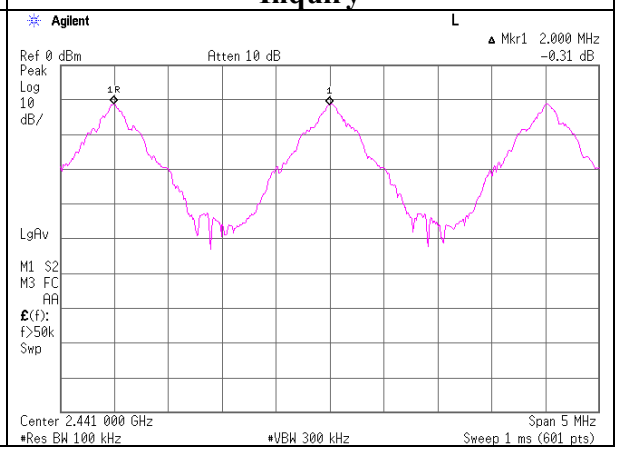
Ch:Mid



Ch:High



Inquiry



20dB Bandwidth

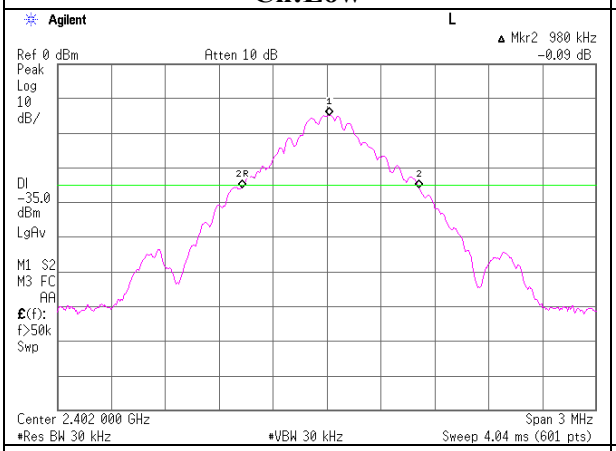
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	:	Sharp Corporation	REGULATION	:	FCC Part15 Subpart C 15.247(a)(1)
EQUIPMENT	:	Wireless PDA	TEST DISTANCE	:	-
MODEL	:	PV200	DATE	:	02/27/2006
S/ N	:	001	TEMPERATURE	:	30deg.C
POWER	:	AC120V/60Hz	HUMIDITY	:	28%
MODE	:	Tx (Hopping off) /Inquiry	ENGINEER	:	Takumi Shimada

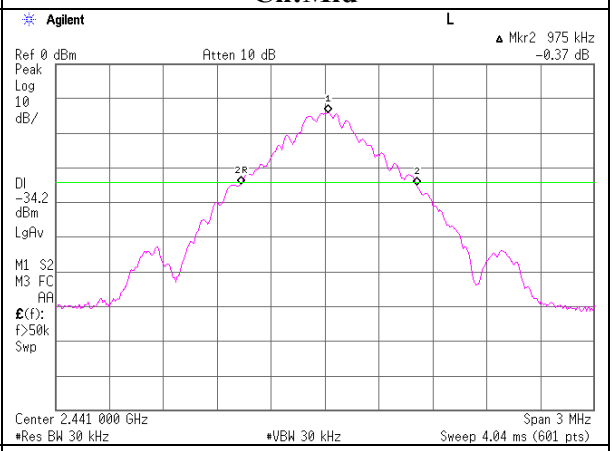
Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.980	-
Mid	2441.0	0.975	-
High	2480.0	0.965	-
Inquiry	2441.0	0.800	-

20dB Bandwidth

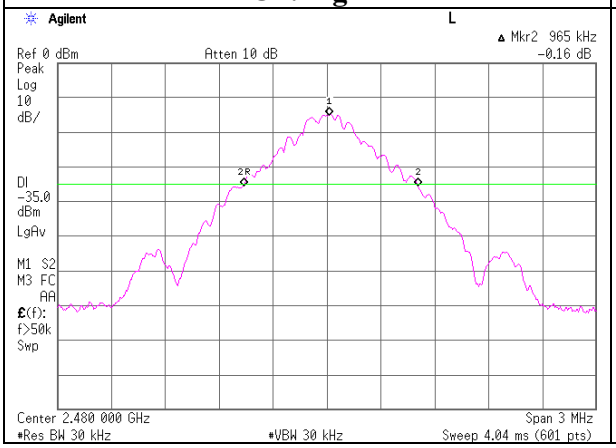
Ch:Low



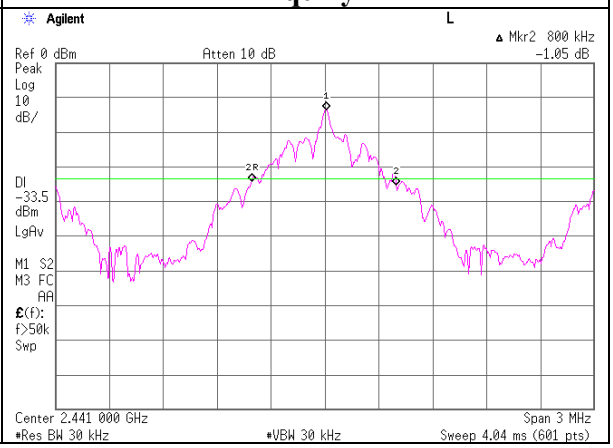
Ch:Mid



Ch:High



Inquiry



Number of Hopping Frequency

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

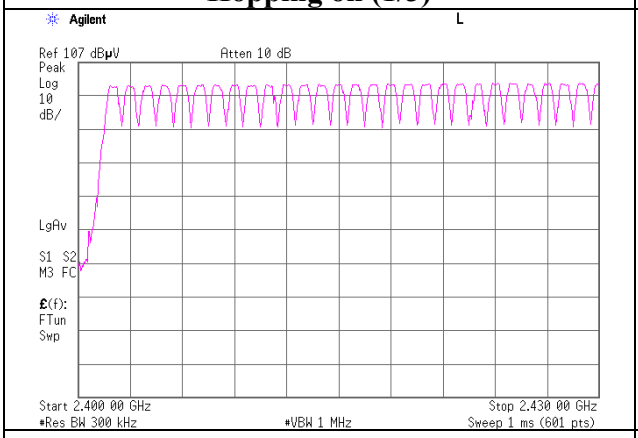
COMPANY	:	Sharp Corporation	REGULATION	:	FCC Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT	:	Wireless PDA	TEST DISTANCE	:	-
MODEL	:	PV200	DATE	:	02/27/2006 , 03/10/2006
S/ N	:	001	TEMPERATURE	:	30deg.C , 32deg.C
POWER	:	AC120V/60Hz	HUMIDITY	:	28% , 38%
MODE	:	Tx (Hopping on) /Inquiry	ENGINEER	:	Takumi Shimada Yutaka Yoshida

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

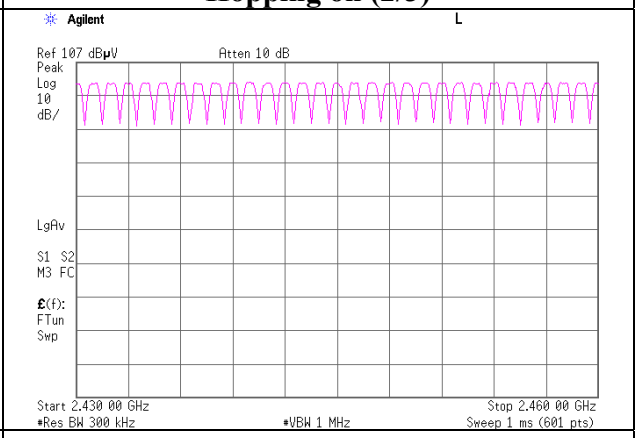
Mode	Number of channel [time]	Limit [time]
Inquiry	32	≧15

Number of Hopping Frequency

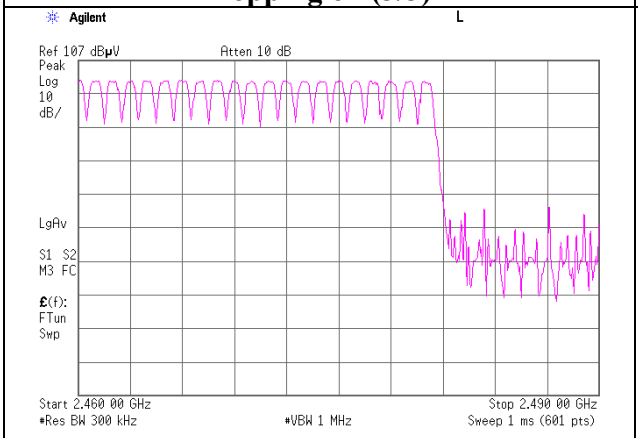
Hopping on (1/3)



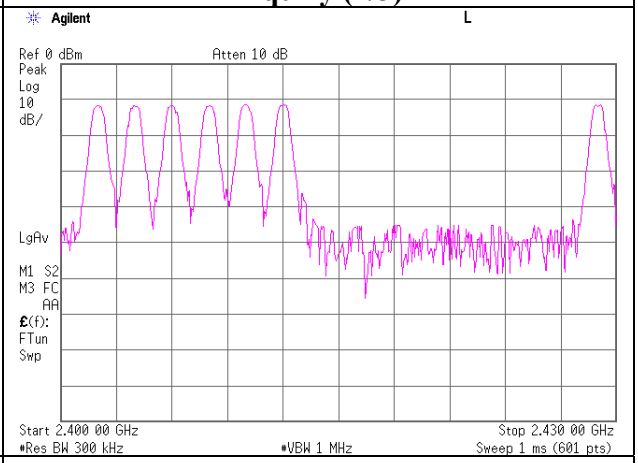
Hopping on (2/3)



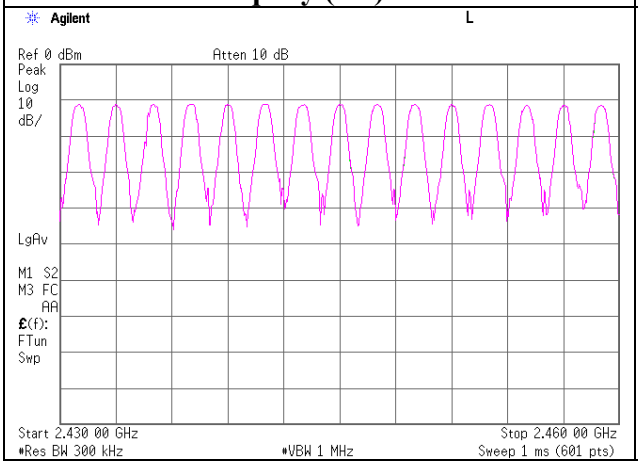
Hopping on (3/3)



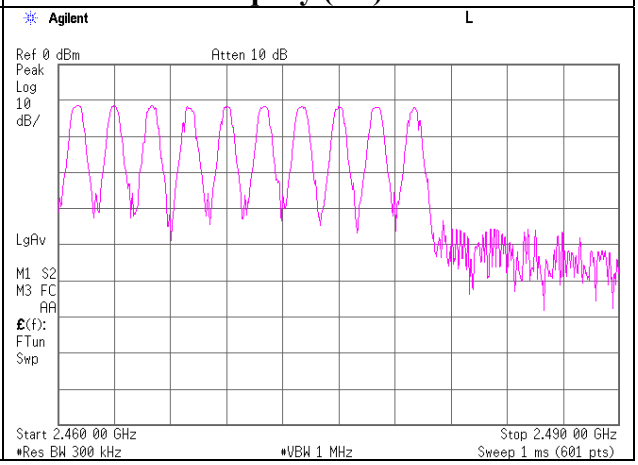
Inquiry (1/3)



Inquiry (2/3)



Inquiry (2/3)



Dwell time

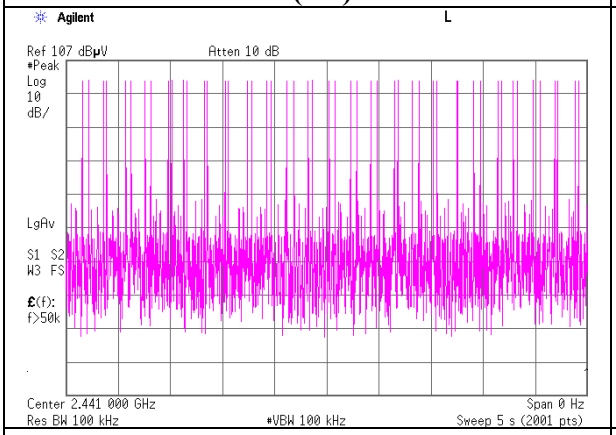
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	:	Sharp Corporation	REGULATION	:	FCC Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT	:	Wireless PDA	TEST DISTANCE	:	-
MODEL	:	PV200	DATE	:	02/27/2006 , 03/10/2006
S/ N	:	001	TEMPERATURE	:	30deg.C , 32deg.C
POWER	:	AC120V/60Hz	HUMIDITY	:	28% , 38%
MODE	:	Tx (Hopping on) /Inquiry	ENGINEER	:	Takumi Shimada Yutaka Yoshida

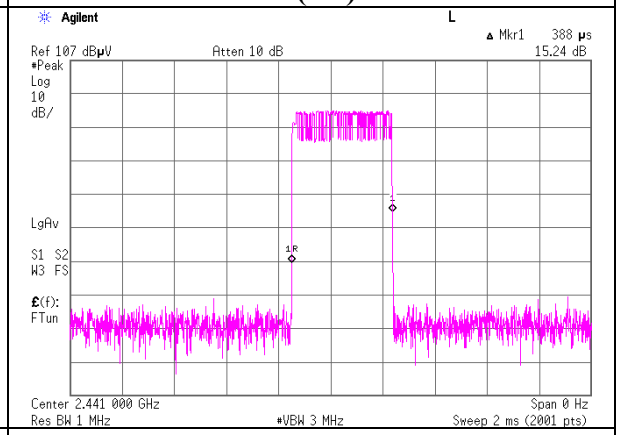
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	50 times /5sec. x 31.6 = 316 times	0.388	123	400
DH3	99 times	1.644	163	400
DH5	55 times	2.895	159	400
Inquiry	100 times / 1sec. x 12.8 = 1280 times	0.093	119	400

Dwell time

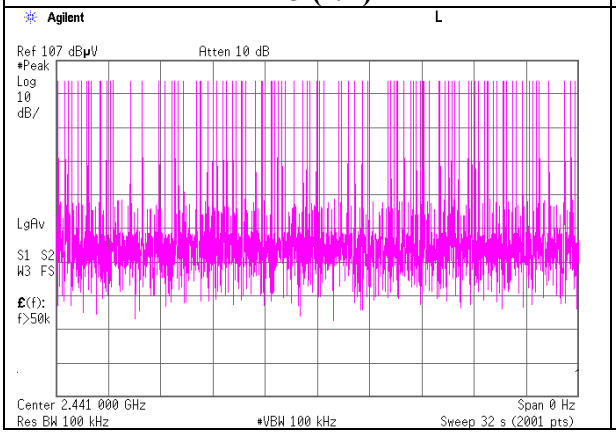
DH1 (1/2)



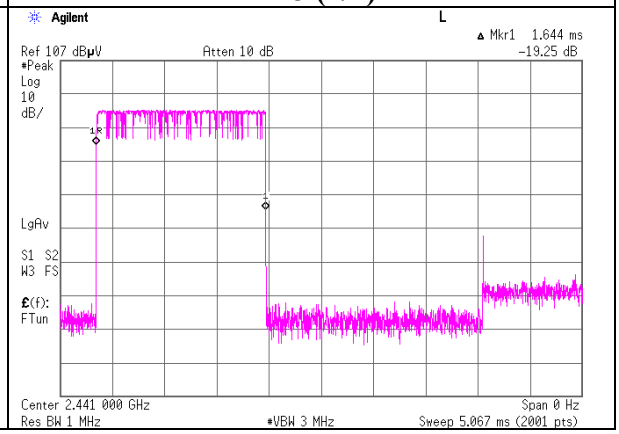
DH1 (2/2)



DH3 (1/2)

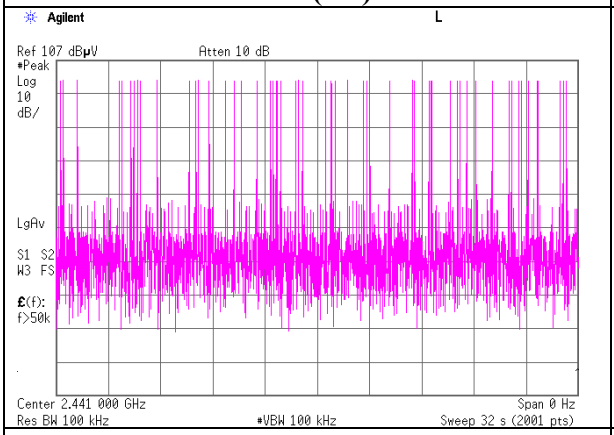


DH3 (2/2)

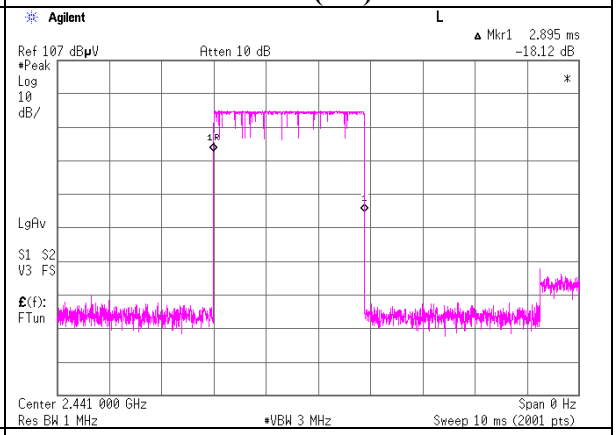


Dwell time

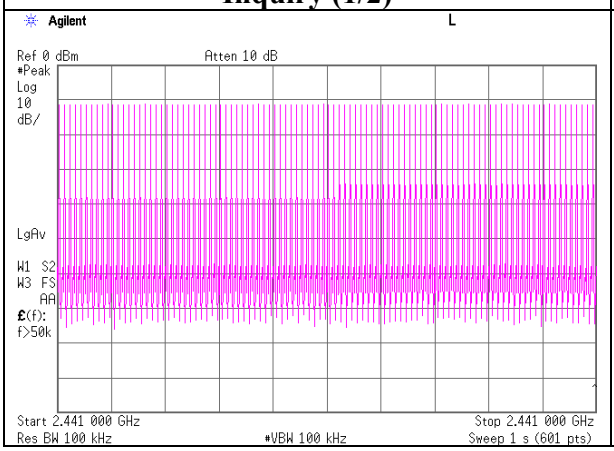
DH5 (1/2)



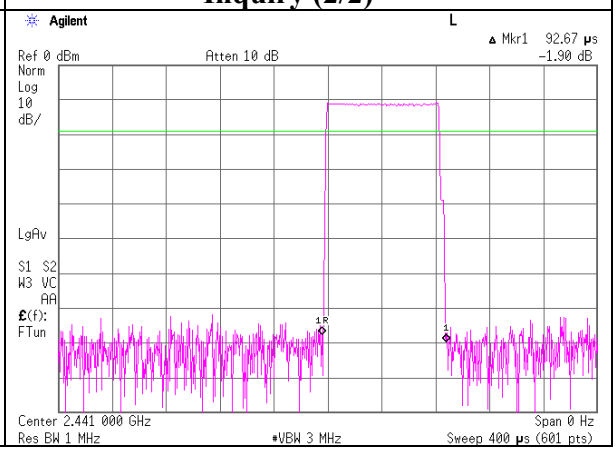
DH5 (2/2)



Inquiry (1/2)



Inquiry (2/2)



Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

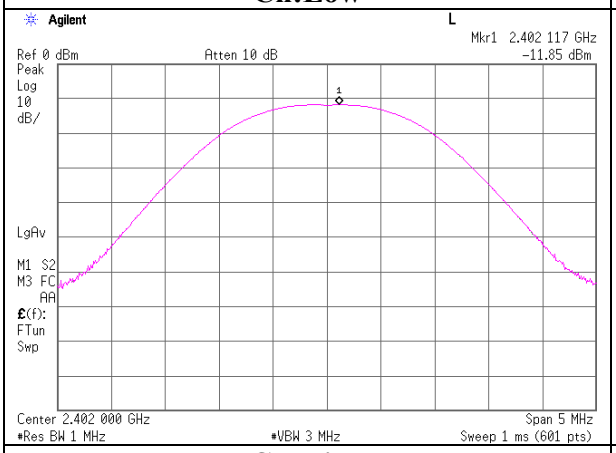
COMPANY	: Sharp Corporation	REGULATION	:	FCC Part15 Subpart C 15.247(b)(1)
EQUIPMENT	: Wireless PDA	TEST DISTANCE	:	-
MODEL	: PV200	DATE	:	02/27/2006
S/ N	: 001	TEMPERATURE	:	30deg.C
POWER	: AC120V/60Hz	HUMIDITY	:	28%
MODE	: Tx(Hopping Off)/Inquiry	ENGINEER	:	Takumi Shimada

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Result [mW]	Limit [dBm]	Limit [mW]	Margin [dB]
Low	2402.0	-11.85	0.95	10.12	-0.78	0.84	20.96	125	21.74
Mid	2441.0	-11.24	0.95	10.14	-0.15	0.97	20.96	125	21.11
High	2480.0	-12.14	0.95	10.15	-1.04	0.79	20.96	125	22.00
Inquiry	2443.0	-11.07	0.95	10.14	0.02	1.00	20.96	125	20.94

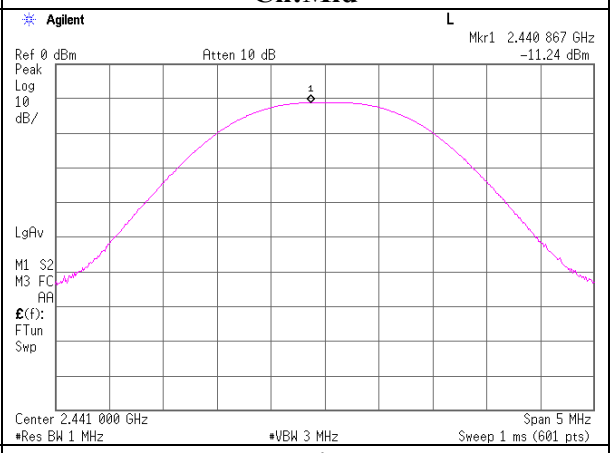
Sample Calculation:
Result = Reading + Cable Loss (supplied by customer)+ Attenuator
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

Maximum Peak Output Power

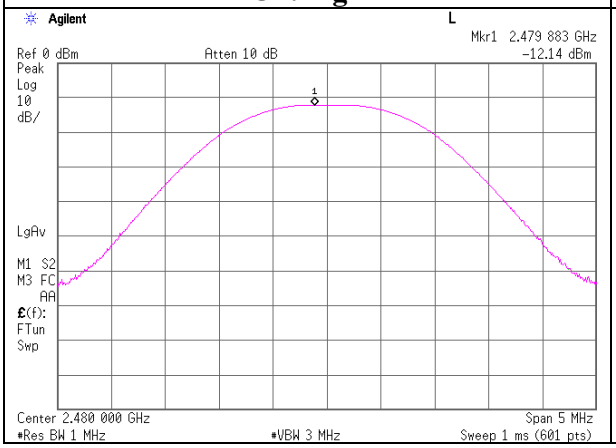
Ch:Low



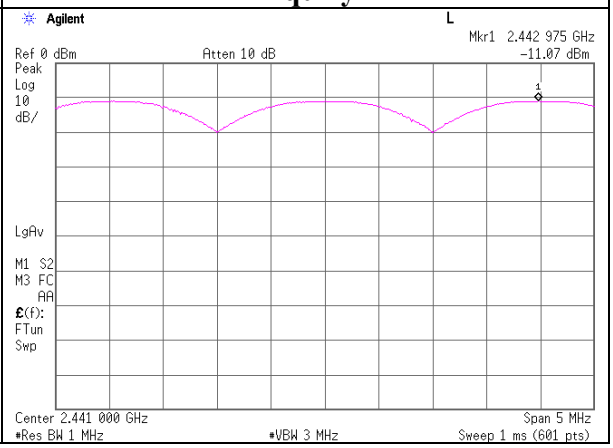
Ch:Mid



Ch:High



Inquiry



Radiated Spurious Emission

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

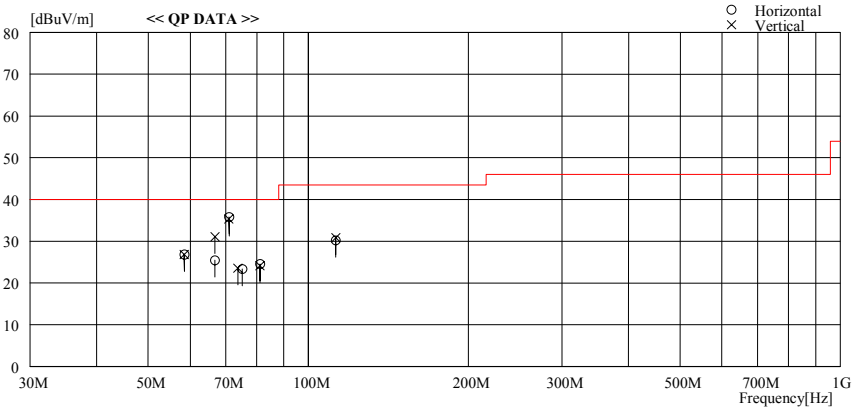
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2006/03/23 15:48:26

Company : Sharp Corporation
Kind of EUT : Wireless PDA
Model No. : PV200
Serial No. : 5

Report No. : 25HE0087-HO
Power : AC120V/60Hz
Temp./Humi. : 24deg.C. / 30%
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Cont.Tx 2402MHz / Hor:Y-axis, Ver:X-axis

LIMIT : FCC15C §15.209, 3m, below1GHz / RSS-210
Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
58.440	38.0	QP	8.9	-20.1	26.8	125	292	Hori.	40.0	13.2
58.433	38.0	QP	8.9	-20.1	26.8	359	287	Vert.	40.0	13.2
66.780	37.7	QP	7.5	-19.8	25.4	205	188	Hori.	40.0	14.6
66.779	43.4	QP	7.5	-19.8	31.1	215	175	Vert.	40.0	8.9
70.961	48.6	QP	7.0	-19.8	35.8	172	395	Hori.	40.0	4.2
70.957	48.1	QP	7.0	-19.8	35.3	255	388	Vert.	40.0	4.7
75.135	36.1	QP	6.9	-19.6	23.4	248	400	Hori.	40.0	16.6
73.734	36.2	QP	7.0	-19.6	23.6	0	347	Vert.	40.0	16.4
81.191	37.1	QP	7.1	-19.6	24.6	217	215	Hori.	40.0	15.4
81.186	36.6	QP	7.1	-19.6	24.1	0	348	Vert.	40.0	15.9
112.691	37.0	QP	12.2	-19.0	30.2	166	262	Hori.	43.5	13.3
112.692	37.6	QP	12.2	-19.0	30.8	117	165	Vert.	43.5	12.7

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

Radiated Spurious Emission

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

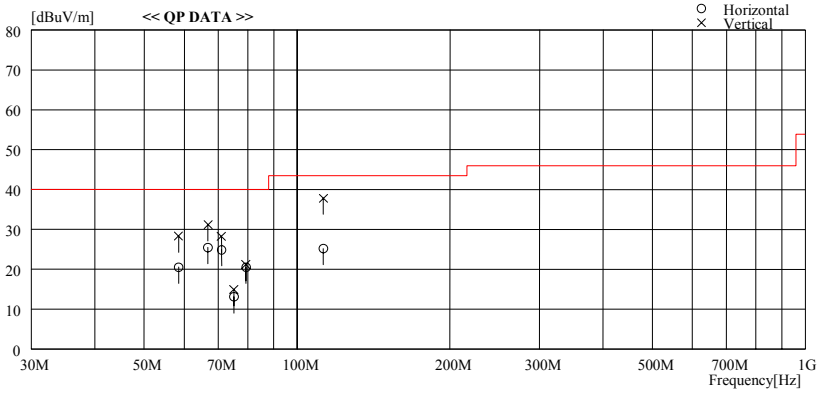
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2006/03/23 16:40:40

Company	: Sharp Corporation	Report No.	: 25HE0087-HO
Kind of EUT	: Wireless PDA	Power	: AC120V/60Hz
Model No.	: PV200	Temp./Humi.	: 24deg.C. / 30%
Serial No.	: 5	Operator	: Yutaka Yoshida

Mode / Remarks : Bluetooth Cont.Tx 2441MHz / Hor:Y-axis, Ver:X-axis

LIMIT : FCC15C §15.209, 3m, below1GHz / RSS-210
Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
58.431	31.7	QP	8.9	-20.1	20.5	161	331	Hori.	40.0	19.5
58.442	39.5	QP	8.9	-20.1	28.3	76	100	Vert.	40.0	11.7
66.786	37.8	QP	7.5	-19.8	25.5	154	267	Hori.	40.0	14.5
66.785	43.4	QP	7.5	-19.8	31.1	213	100	Vert.	40.0	8.9
70.967	37.7	QP	7.0	-19.8	24.9	181	259	Hori.	40.0	15.1
70.955	41.0	QP	7.0	-19.8	28.2	162	100	Vert.	40.0	11.8
75.130	25.8	QP	6.9	-19.6	13.1	-1	308	Hori.	40.0	26.9
75.135	27.6	QP	6.9	-19.6	14.9	241	100	Vert.	40.0	25.1
79.299	33.2	QP	6.9	-19.6	20.5	189	252	Hori.	40.0	19.5
79.310	33.9	QP	6.9	-19.6	21.2	234	100	Vert.	40.0	18.8
112.698	32.0	QP	12.2	-19.0	25.2	0	249	Hori.	43.5	18.3
112.699	44.6	QP	12.2	-19.0	37.8	256	100	Vert.	43.5	5.7

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

Radiated Spurious Emission

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

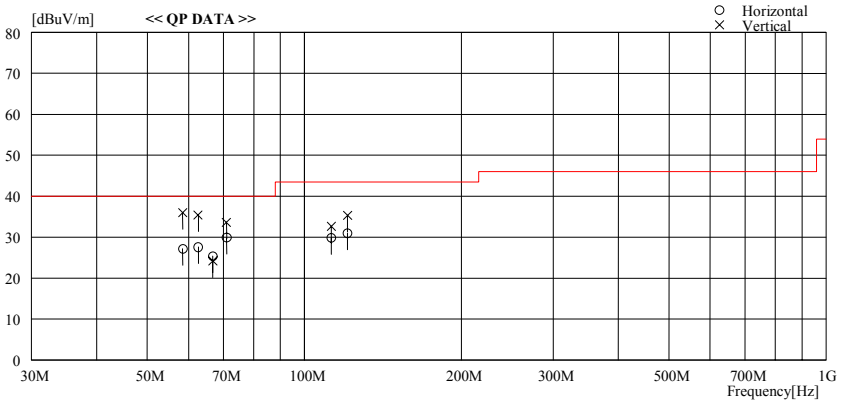
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2006/03/23 17:57:29

Company : Sharp Corporation
Kind of EUT : Wireless PDA
Model No. : PV200
Serial No. : 5

Report No. : 25HE0087-HO
Power : AC120V/60Hz
Temp./Humi. : 24deg.C. / 30%
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Cont.Tx 2480MHz / Hor:Y-axis, Ver:X-axis

LIMIT : FCC15C §15.209, 3m, below1GHz / RSS-210
Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
58.436	38.4	QP	8.9	-20.1	27.2	147	322	Hori.	40.0	12.8
58.440	47.2	QP	8.9	-20.1	36.0	61	100	Vert.	40.0	4.0
62.617	39.3	QP	8.2	-19.9	27.6	162	317	Hori.	40.0	12.4
62.619	47.1	QP	8.2	-19.9	35.4	248	100	Vert.	40.0	4.6
66.783	37.7	QP	7.5	-19.8	25.4	176	243	Hori.	40.0	14.6
66.782	36.5	QP	7.5	-19.8	24.2	213	100	Vert.	40.0	15.8
70.956	42.7	QP	7.0	-19.8	29.9	360	243	Hori.	40.0	10.1
70.961	46.4	QP	7.0	-19.8	33.6	243	100	Vert.	40.0	6.4
112.704	36.6	QP	12.2	-19.0	29.8	0	259	Hori.	43.5	13.7
112.699	39.4	QP	12.2	-19.0	32.6	280	100	Vert.	43.5	10.9
121.051	36.6	QP	13.2	-18.8	31.0	154	160	Hori.	43.5	12.5
121.046	40.9	QP	13.2	-18.8	35.3	180	100	Vert.	43.5	8.2

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

Radiated Spurious Emission

* The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

DATA OF RADIATED EMISSION TEST

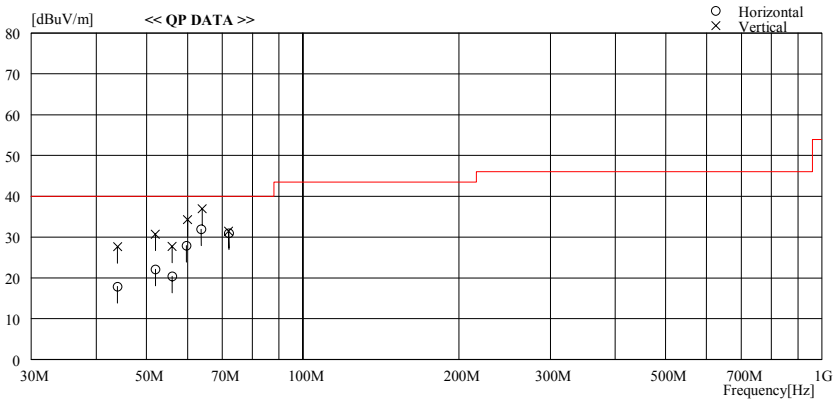
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/03/25 10:30:16

Company : Sharp Corporation
Kind of EUT : Wireless PDA
Model No. : PV200
Serial No. : 5

Report No. : 25HE0087-HO
Power : AC120V/60Hz
Temp./Humi. : 24deg.C. / 30%
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Cont.Rx 2441MHz / Hor:Y-axis, Ver:X-axis

LIMIT : FCC15C §15.209, 3m, below1GHz / RSS-Gen
Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
44.000	27.9	QP	12.1	-22.1	17.9	291	360	Hori.	40.0	22.1
44.000	37.6	QP	12.1	-22.1	27.6	7	100	Vert.	40.0	12.4
52.000	34.4	QP	9.7	-22.0	22.1	298	367	Hori.	40.0	17.9
52.000	43.0	QP	9.7	-22.0	30.7	7	100	Vert.	40.0	9.3
56.001	33.5	QP	8.9	-22.0	20.4	300	300	Hori.	40.0	19.6
56.001	40.8	QP	8.9	-22.0	27.7	360	100	Vert.	40.0	12.3
59.700	41.4	QP	8.3	-21.8	27.9	291	352	Hori.	40.0	12.1
60.000	47.8	QP	8.2	-21.8	34.2	352	100	Vert.	40.0	5.8
63.750	46.2	QP	7.6	-21.9	31.9	295	391	Hori.	40.0	8.1
64.001	51.4	QP	7.5	-21.9	37.0	201	100	Vert.	40.0	3.0
72.000	46.0	QP	6.5	-21.5	31.0	295	400	Hori.	40.0	9.0
72.001	46.4	QP	6.5	-21.5	31.4	220	100	Vert.	40.0	8.6

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

Radiated Spurious Emission

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chamber

Company	: Sharp Corporation	REPORT NO	: 25HE0087-HO
Equipment	: Wireless PDA	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: PV200	TEST DISTANCE	: 3/1m
Sample No.	: 5	DATE	: March 9, 2006
Power	: AC 120 V / 60 Hz(AC Adapter)	TEMPERATURE	: 24deg.C
Mode	: Bluetooth, Tx 2402MHz	HUMIDITY	: 30%
Remarks	: Hor:Y-axis, Ver:X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	44.3	44.0	30.5	36.3	3.2	0.0	41.7	41.4	74.0	32.3	32.6
2	4804.0	42.7	43.3	35.3	35.9	4.4	1.4	47.9	48.5	74.0	26.1	25.5
3	7206.0	42.9	44.3	37.6	35.8	5.3	1.2	51.2	52.6	74.0	22.8	21.4
4	9608.0	43.1	43.2	36.6	36.4	6.1	1.0	50.4	50.5	74.0	23.6	23.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12010.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
6	14412.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
7	16814.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
8	19216.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
9	21618.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
10	24020.0	46.5	46.2	39.7	35.4	5.9	0.0	47.2	46.9	74.0	26.8	27.1

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	31.0	30.9	30.5	36.3	3.2	0.0	28.4	28.3	54.0	25.6	25.7
2	4804.0	29.8	29.8	35.3	35.9	4.4	1.4	35.0	35.0	54.0	19.0	19.0
3	7206.0	29.6	29.6	37.6	35.8	5.3	1.2	37.9	37.9	54.0	16.1	16.1
4	9608.0	30.1	30.2	36.6	36.4	6.1	1.0	37.4	37.5	54.0	16.6	16.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12010.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
6	14412.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
7	16814.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
8	19216.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
9	21618.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
10	24020.0	31.9	31.9	39.7	35.4	5.9	0.0	32.6	32.6	54.0	21.4	21.4

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.0	98.0	98.6	30.5	36.3	3.2	0.0	95.4	96.0	-	-	-
2	2400.0	39.3	36.9	30.5	36.3	3.2	0.0	36.7	34.3	Funda-20dB	38.7	41.7

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 result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chamber

Company	: Sharp Corporation	REPORT NO	: 25HE0087-HO
Equipment	: Wireless PDA	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: PV200	TEST DISTANCE	: 3/1m
Sample No.	: 5	DATE	: March 9, 2006
Power	: AC 120 V / 60 Hz(AC Adapter)	TEMPERATURE	: 24deg.C
Mode	: Bluetooth, Tx 2441MHz	HUMIDITY	: 30%
Remarks	: Hor:Y-axis, Ver:X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	42.8	42.6	35.6	35.9	4.4	1.4	48.3	48.1	74.0	25.7	25.9
2	7323.0	42.8	42.3	37.7	35.8	5.4	1.1	51.2	50.7	74.0	22.8	23.3
3	9764.0	43.3	42.8	36.5	36.5	6.1	1.1	50.5	50.0	74.0	23.5	24.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12205.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
6	14646.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
7	17087.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
8	19528.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
9	21969.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
10	24410.0	45.5	45.7	39.8	35.9	5.8	0.0	45.7	45.9	74.0	28.3	28.1

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	29.1	29.4	35.6	35.9	4.4	1.4	34.6	34.9	54.0	19.4	19.1
2	7323.0	29.4	29.7	37.7	35.8	5.4	1.1	37.8	38.1	54.0	16.2	15.9
3	9764.0	29.7	29.7	36.5	36.5	6.1	1.1	36.9	36.9	54.0	17.1	17.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12205.0	Not found	Not founb	-	-	-	-	-	-	54.0	-	-
6	14646.0	Not found	Not founb	-	-	-	-	-	-	54.0	-	-
7	17087.0	Not found	Not founb	-	-	-	-	-	-	54.0	-	-
8	19528.0	Not found	Not founb	-	-	-	-	-	-	54.0	-	-
9	21969.0	Not found	Not founb	-	-	-	-	-	-	54.0	-	-
10	24410.0	32.2	32.2	39.8	35.9	5.8	0.0	32.4	32.4	54.0	21.6	21.6

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 result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chamber

Company	: Sharp Corporation	REPORT NO	: 25HE0087-HO
Equipment	: Wireless PDA	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: PV200	TEST DISTANCE	: 3/1m
Sample No.	: 5	DATE	: March 9, 2006
Power	: AC 120 V / 60 Hz(AC Adapter)	TEMPERATURE	: 24deg.C
Mode	: Bluetooth, Tx 2480MHz	HUMIDITY	: 30%
Remarks	: Hor:Y-axis, Ver:X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	46.8	45.2	30.3	36.3	3.2	0.0	44.0	42.4	74.0	30.0	31.6
2	4960.0	43.0	43.3	35.9	35.8	4.4	1.4	48.9	49.2	74.0	25.1	24.8
3	7440.0	42.7	43.1	37.8	35.8	5.5	1.1	51.3	51.7	74.0	22.7	22.3
4	9920.0	42.9	43.4	36.3	36.6	6.3	1.2	50.1	50.6	74.0	23.9	23.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12400.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
6	14880.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
7	17360.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
8	19840.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
9	22320.0	Not found	Not found	-	-	-	-	-	-	74.0	-	-
10	24800.0	46.2	45.6	40.0	35.4	5.8	0.0	47.1	46.5	74.0	26.9	27.5

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	42.0	37.9	30.3	36.3	3.2	0.0	39.2	35.1	54.0	14.8	18.9
2	4960.0	29.4	29.4	35.9	35.8	4.4	1.4	35.3	35.3	54.0	18.7	18.7
3	7440.0	29.6	29.6	37.8	35.8	5.5	1.1	38.2	38.2	54.0	15.8	15.8
4	9920.0	29.6	29.6	36.3	36.6	6.3	1.2	36.8	36.8	54.0	17.2	17.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12400.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
6	14880.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
7	17360.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
8	19840.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
9	22320.0	Not found	Not found	-	-	-	-	-	-	54.0	-	-
10	24800.0	32.4	32.4	40.0	35.4	5.8	0.0	33.3	33.3	54.0	20.7	20.7

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 result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission

UL Apex Co., Ltd.
Head Office EMC Lab. No.1 Semi Anechoic Chambe

Company	: Sharp Corporation	REPORT NO	: 25HE0087-HO
Equipment	: Wireless PDA	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: PV200	TEST DISTANCE	: 3m
Sample No.	: 5	DATE	: March 27, 2006
Power	: AC 120 V / 60 Hz(AC Adapter)	TEMPERATURE	: 20deg.C
Mode	: Bluetooth, Rx 2441MHz	HUMIDITY	: 37%
Remarks	: Hor:Y-axis, Ver:X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2441.0	43.4	44.1	30.4	36.3	3.3	0.0	40.8	41.5	74.0	33.2	32.5
2	4882.0	42.4	43.0	35.6	35.9	5.0	0.0	47.1	47.7	74.0	26.9	26.3
2	7323.0	42.0	41.9	37.7	35.8	6.1	0.0	50.0	49.9	74.0	24.0	24.1
3	9764.0	42.7	42.2	36.5	36.5	7.5	0.0	50.2	49.7	74.0	23.8	24.3

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

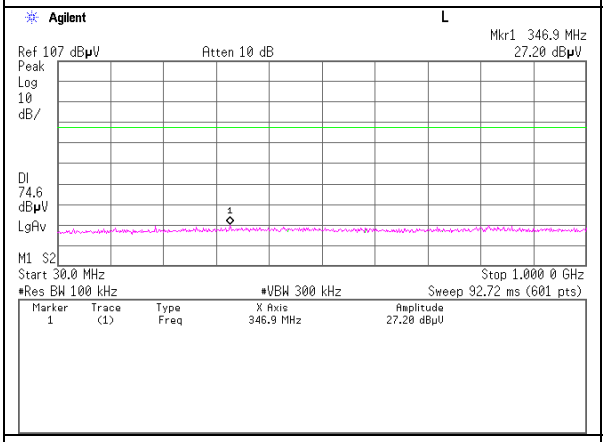
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2441.0	31.0	31.0	30.4	36.3	3.3	0.0	28.4	28.4	54.0	25.6	25.6
2	4882.0	29.2	29.4	35.6	35.9	5.0	0.0	33.9	34.1	54.0	20.1	19.9
2	7323.0	29.1	29.2	37.7	35.8	6.1	0.0	37.1	37.2	54.0	16.9	16.8
3	9764.0	29.0	29.2	36.5	36.5	7.5	0.0	36.5	36.7	54.0	17.5	17.3

*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 result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

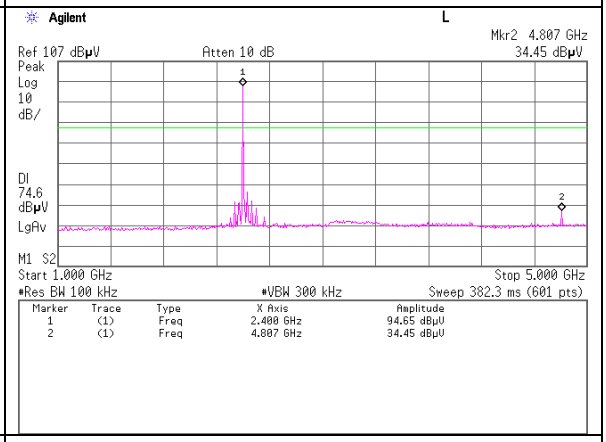
Conducted Spurious Emission

Ch:Low

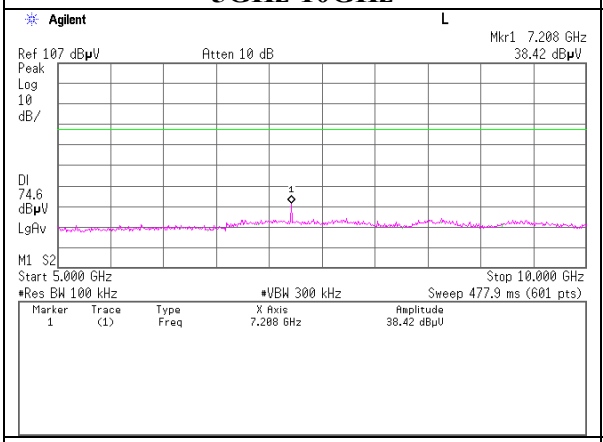
30MHz-1GHz



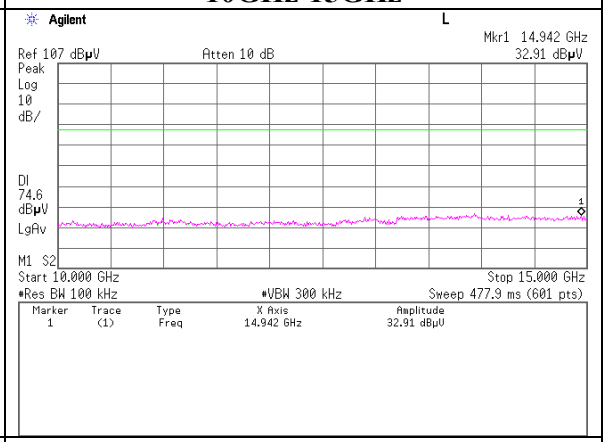
1GHz-5GHz



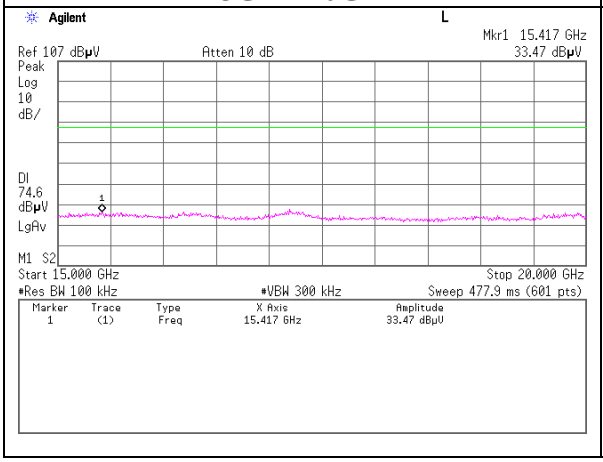
5GHz-10GHz



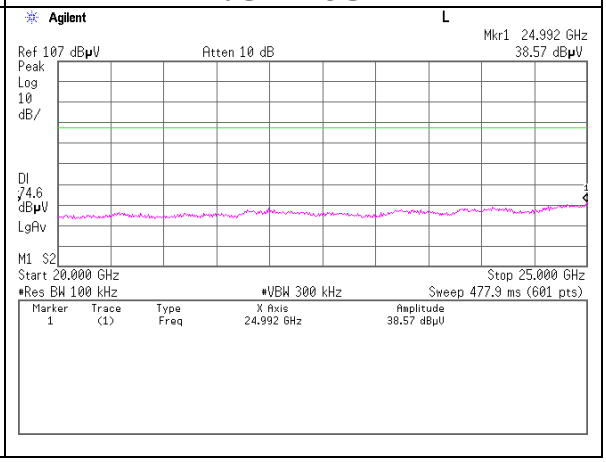
10GHz-15GHz



15GHz-20GHz

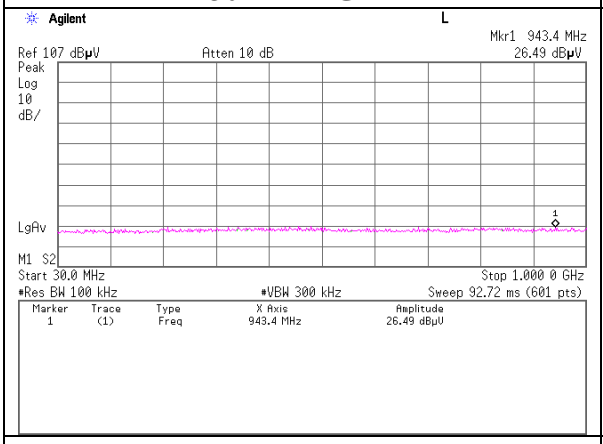


20GHz-25GHz

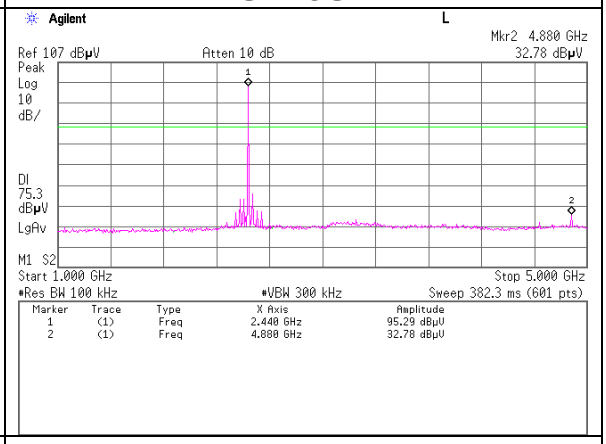


Conducted Spurious Emission
Ch:Mid

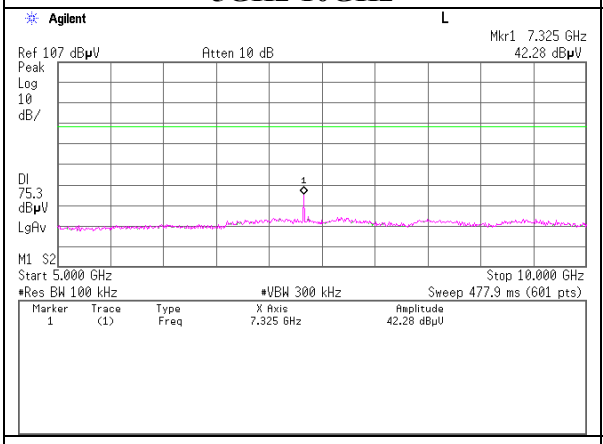
30MHz-1GHz



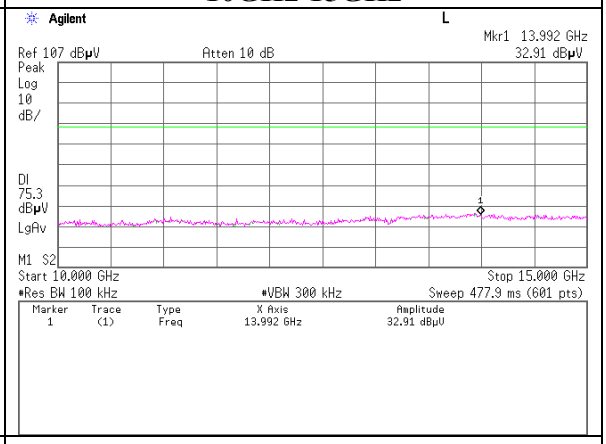
1GHz-5GHz



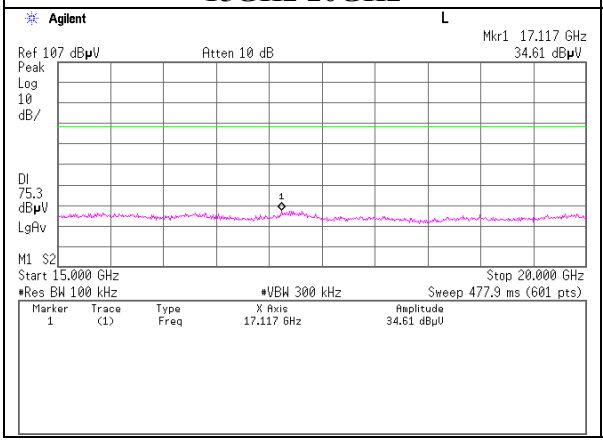
5GHz-10GHz



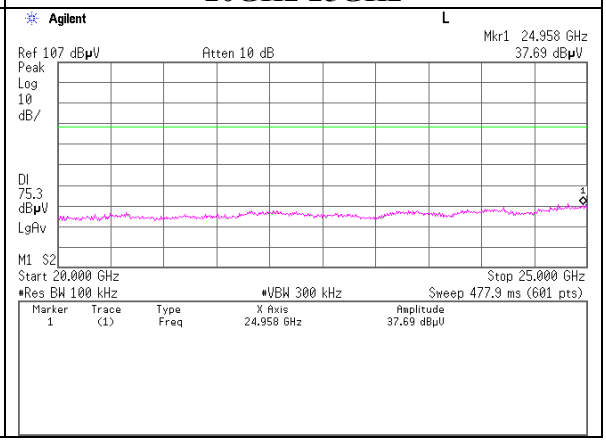
10GHz-15GHz



15GHz-20GHz

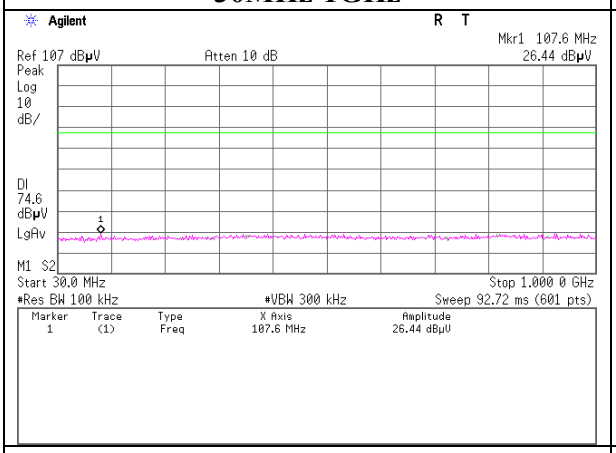


20GHz-25GHz

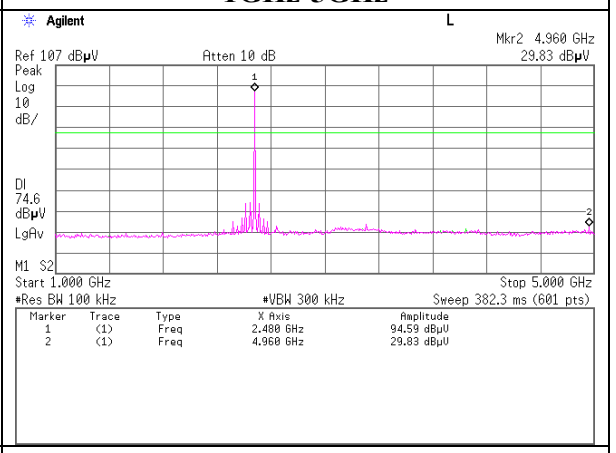


Conducted Spurious Emission
Ch:High

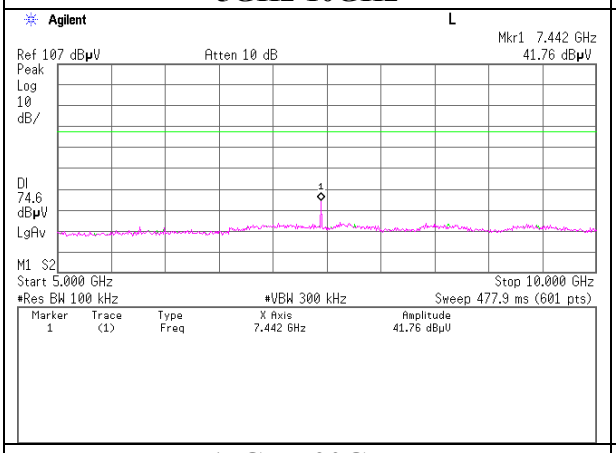
30MHz-1GHz



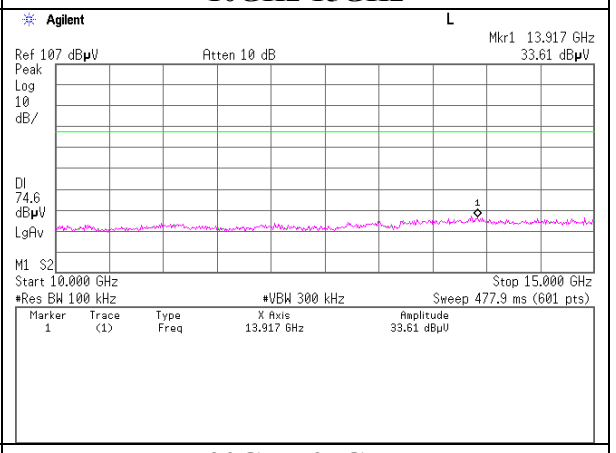
1GHz-5GHz



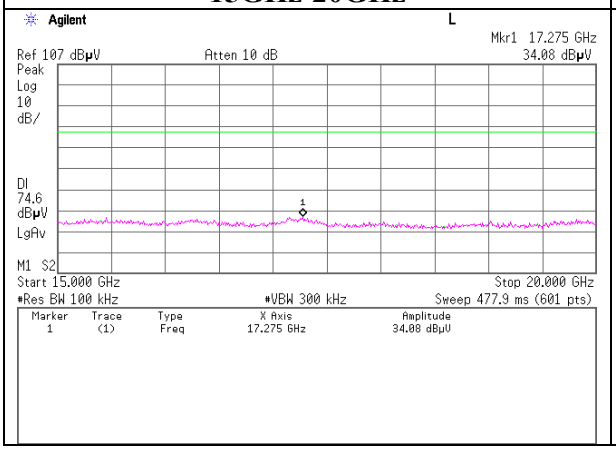
5GHz-10GHz



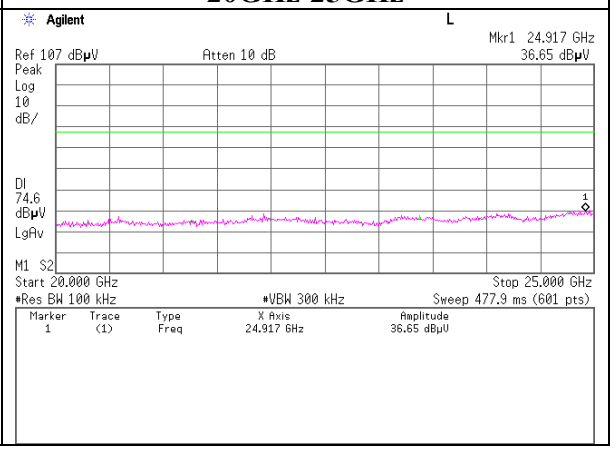
10GHz-15GHz



15GHz-20GHz

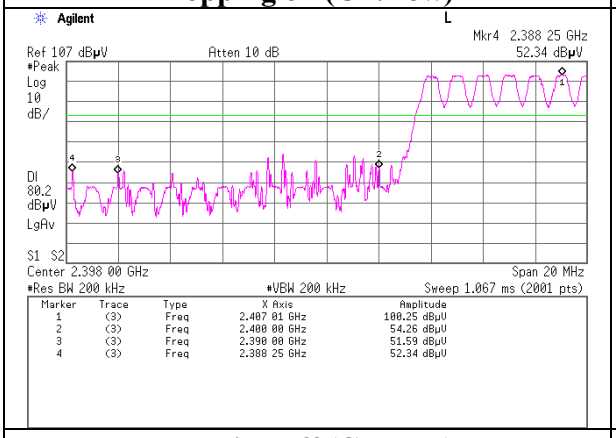


20GHz-25GHz

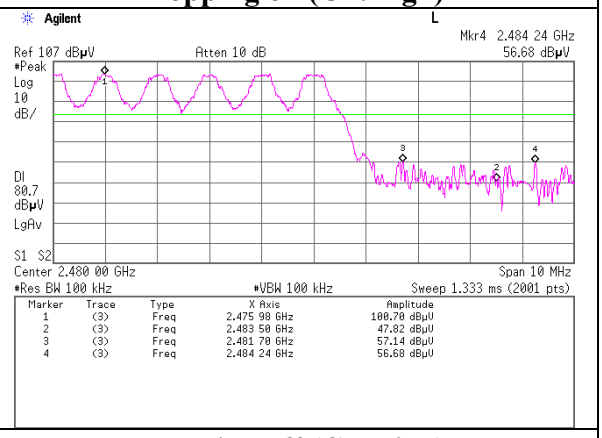


Conducted Spurious Emission
Band Edge compliance

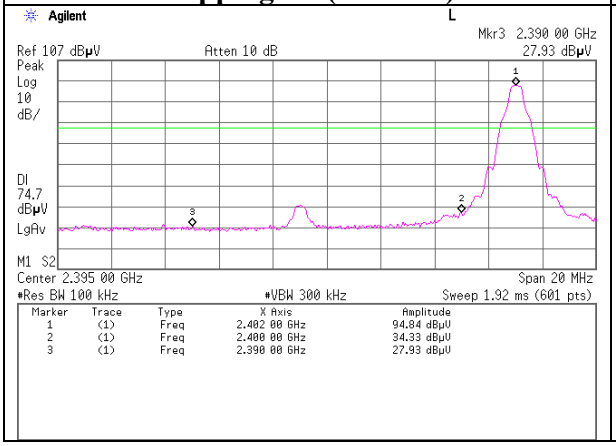
Hopping on (Ch:Low)



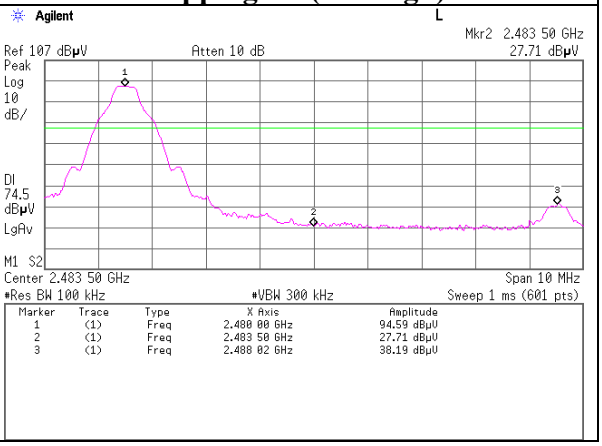
Hopping on (Ch:High)



Hopping off (Ch:Low)

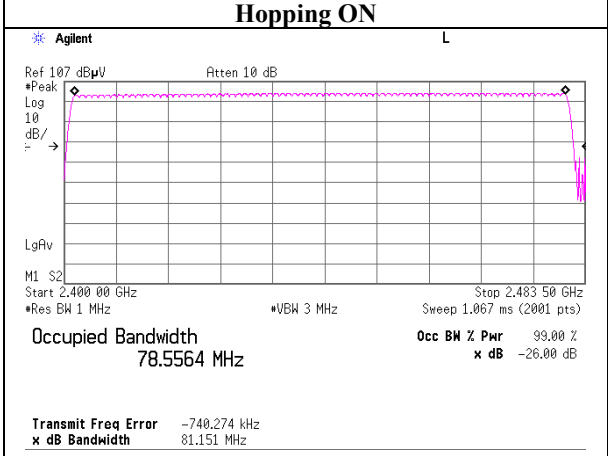


Hopping off (Ch:High)

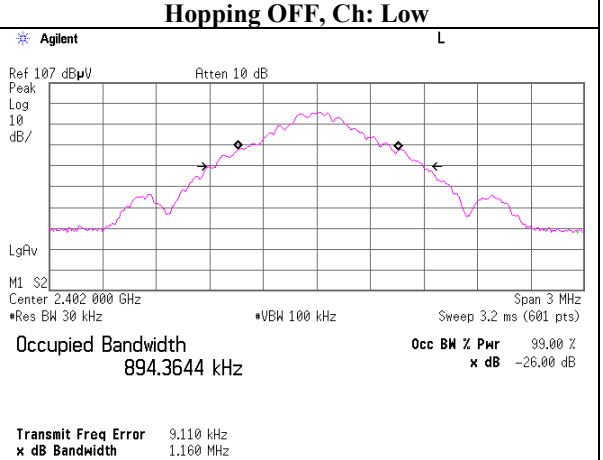


99% Occupied Bandwidth

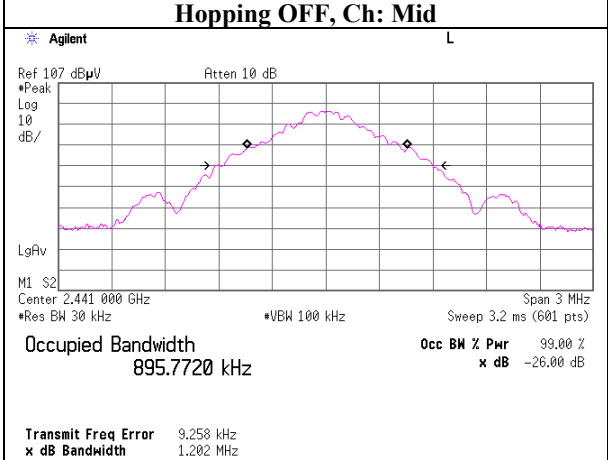
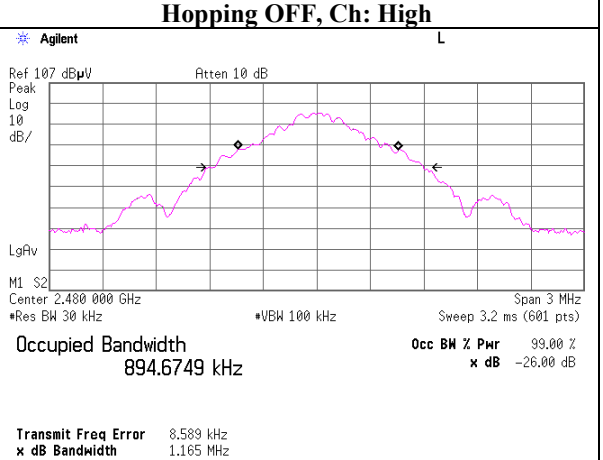
Hopping ON



Hopping OFF, Ch: Low



Hopping OFF, Ch: Mid



Hopping OFF, Ch: High