

**APPENDIX 2: Data of EMI test**

**Conducted Emission**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2007/06/25

Company	: SHARP CORPORATION	Report No.	: 27JE0086-HO
Kind of EUT	: Wireless PDA	Power	: AC 120V / 60Hz
Model No.	: PV250	Temp./Humi.	: 26deg.C / 60%
Serial No.	: 002	Operator	: Yutaka Yoshida

Mode / Remarks : Bluetooth Transmitting 2402MHz Mode

LIMIT : FCC15.207 OP  
FCC15.207 AV

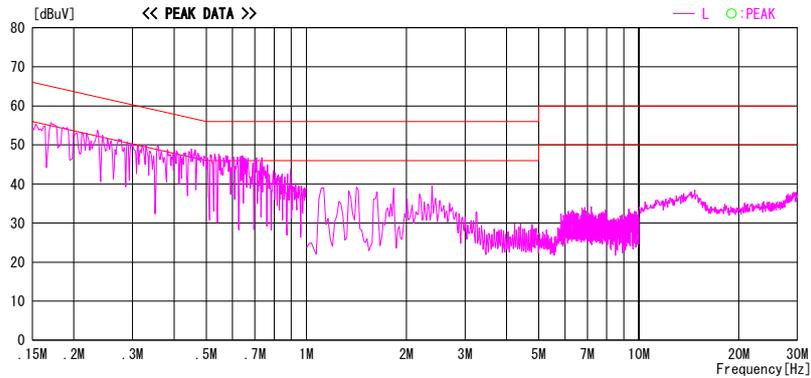
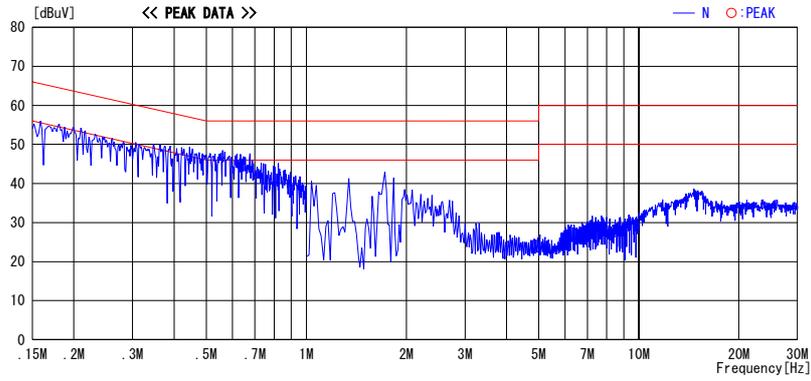


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

**UL Japan, Inc.**  
**Head Office EMC Lab.**  
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 Telephone : +81 596 24 8116  
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## Conducted Emission

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2007/06/25

Company : SHARP CORPORATION	Report No. : 27JE0086-HO
Kind of EUT : Wireless PDA	Power : AC 120V / 60Hz
Model No. : PV250	Temp./Humi. : 26deg. C / 60%
Serial No. : 002	Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Transmitting 2441MHz Mode

LIMIT : FCC15.207 QP  
FCC15.207 AV

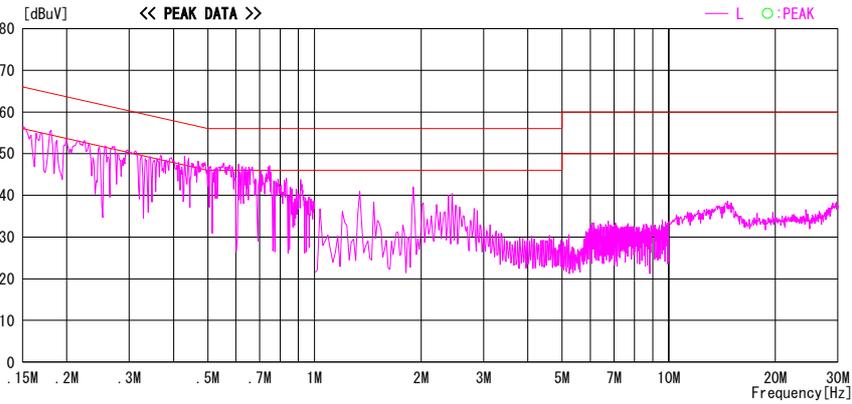
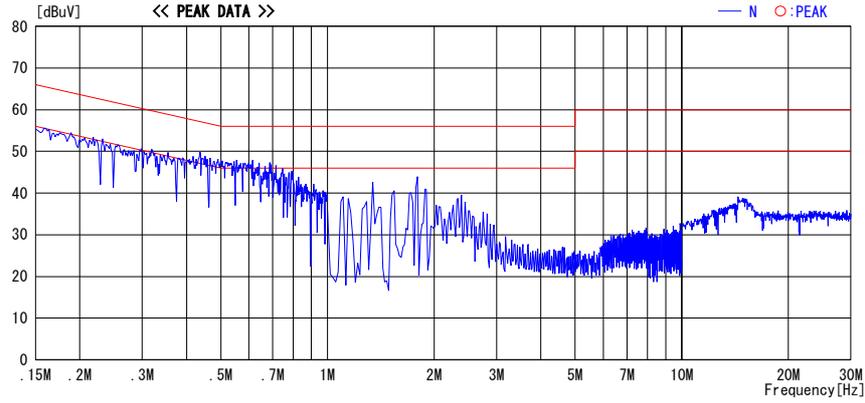


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT [dBuV] = READING [dBuV] + C. F [dB] (L ISN LOSS + CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## Conducted Emission

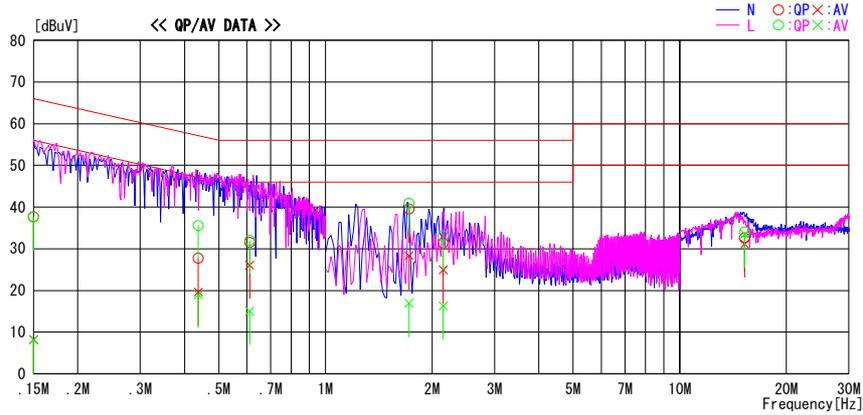
### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2007/06/25

Company : SHARP CORPORATION  
 Kind of EUT : Wireless PDA  
 Model No. : PV250  
 Serial No. : 002  
 Report No. : 27JE0086-HO  
 Power : AC 120V / 60Hz  
 Temp./Humi. : 26deg. C / 60%  
 Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Transmitting 2480MHz Mode

LIMIT : FCC15.207 QP  
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15000	37.3	7.8	0.4	37.7	8.2	66.0	56.0	28.3	47.8	N	
0.15000	37.2	7.7	0.4	37.6	8.1	66.0	56.0	28.4	47.9	L	
0.43766	35.2	18.6	0.4	35.6	19.0	57.1	47.1	21.5	28.1	L	
0.61124	31.5	14.6	0.5	32.0	15.1	56.0	46.0	24.0	30.9	L	
1.72000	40.2	16.2	0.7	40.9	16.9	56.0	46.0	15.1	29.1	L	
2.14810	32.4	15.6	0.7	33.1	16.3	56.0	46.0	22.9	29.7	L	
15.23490	30.3	29.8	3.7	34.0	33.5	60.0	50.0	26.0	16.5	L	
0.43766	27.3	19.2	0.4	27.7	19.6	57.1	47.1	29.4	27.5	N	
0.61124	31.0	25.6	0.5	31.5	26.1	56.0	46.0	24.5	19.9	N	
1.72000	38.8	27.6	0.7	39.5	28.3	56.0	46.0	16.5	17.7	N	
2.14810	30.7	24.2	0.7	31.4	24.9	56.0	46.0	24.6	21.1	N	
15.23490	28.9	27.5	3.7	32.6	31.2	60.0	50.0	27.4	18.8	N	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C. F. [dB] (L1 SN LOSS + CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

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

## Conducted Emission

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2007/06/25

Company	: SHARP CORPORATION	Report No.	: 27JE0086-HO
Kind of EUT	: Wireless PDA	Power	: AC 120V / 60Hz
Model No.	: PV250	Temp./Humi.	: 26deg. C / 60%
Serial No.	: 002	Operator	: Yutaka Yoshida

Mode / Remarks : Bluetooth Receiving 2441MHz Mode

LIMIT : FCC15.207 QP  
FCC15.207 AV

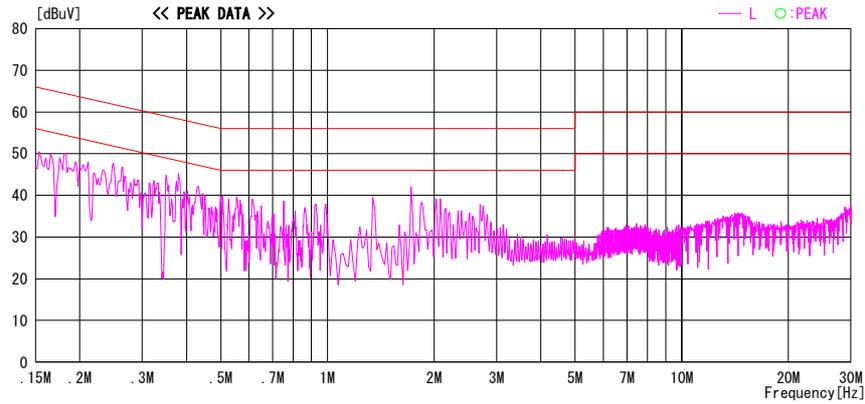
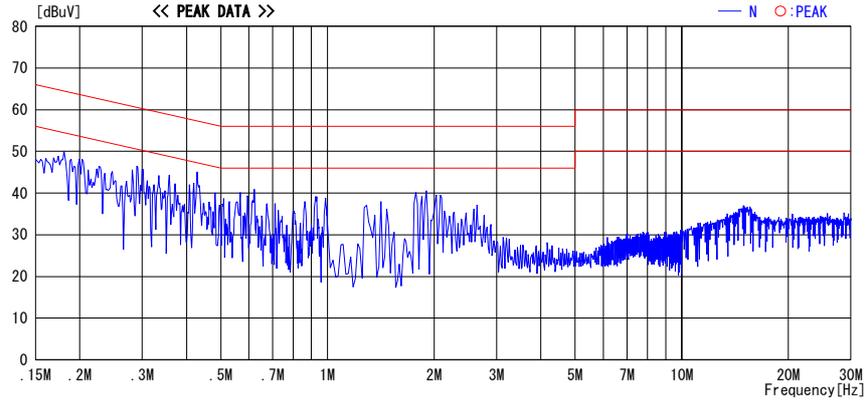


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (L ISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

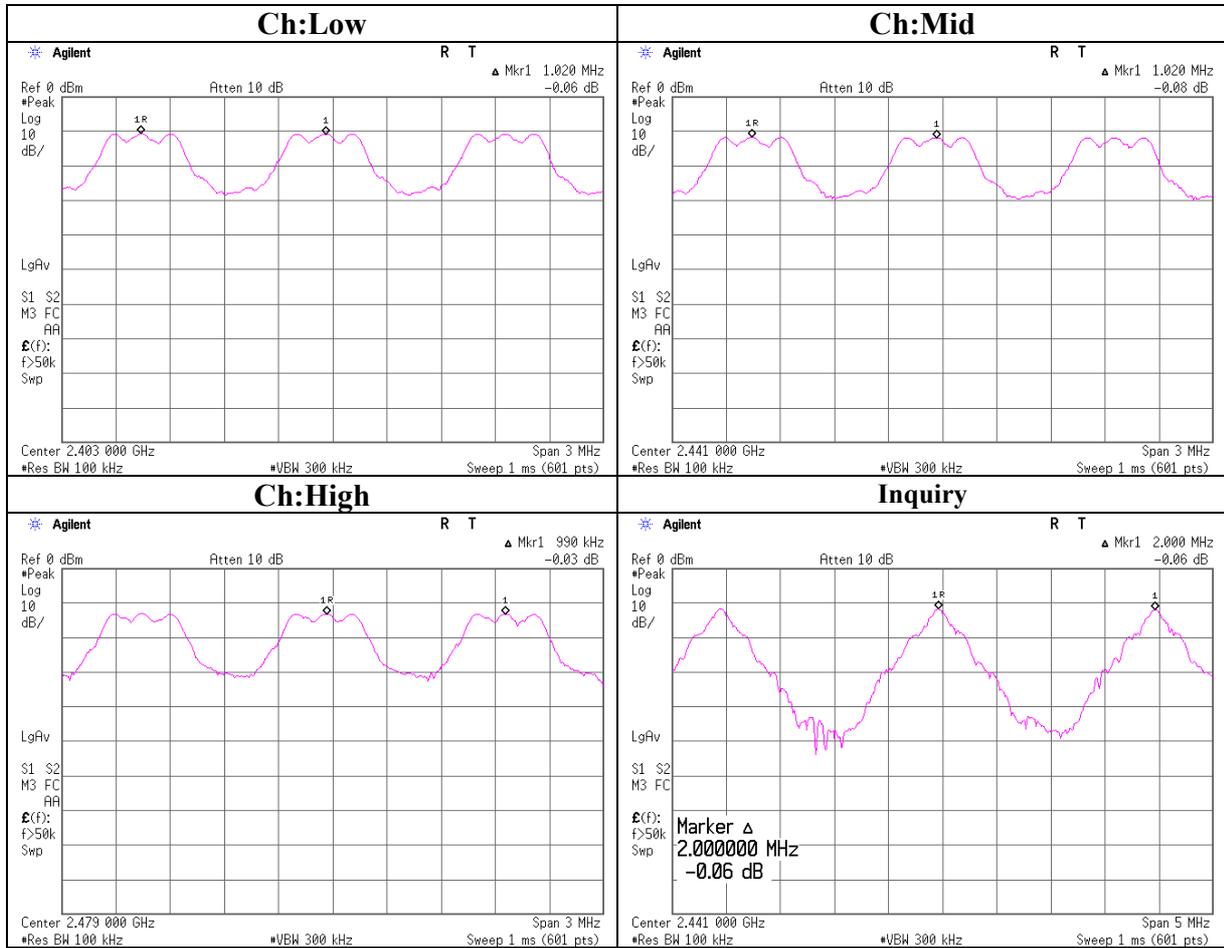
### Carrier Frequency Separation

UL Japan, Inc.  
Head Office EMC Lab. No.6 Shielded Room

COMPANY : SHARP CORPORATION      REGULATION : FCC15.247(a)(1)/RSS-210A8.1(b)  
EQUIPMENT : Wireless PDA      TEST DISTANCE : -  
MODEL : PV250      DATE : 06/19/2007  
S/N : 003      TEMPERATURE : 26deg.C  
POWER : DC3.9V      HUMIDITY : 51%  
MODE : Tx(Hopping on)/Inquiry      ENGINEER : Yutaka Yoshida

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.020	>two-thirds of 963.307[kHz](20dB Bandwidth or 25[kHz](whichever is greater)
Mid	2441.0	1.020	>two-thirds of 960.15[kHz](20dB Bandwidth or 25[kHz](whichever is greater)
High	2480.0	0.990	>two-thirds of 962.472[kHz](20dB Bandwidth or 25[kHz](whichever is greater)
Inquiry	2441.0	2.000	>two-thirds of 810.906[kHz](20dB Bandwidth or 25[kHz](whichever is greater)

### Carrier Frequency Separation



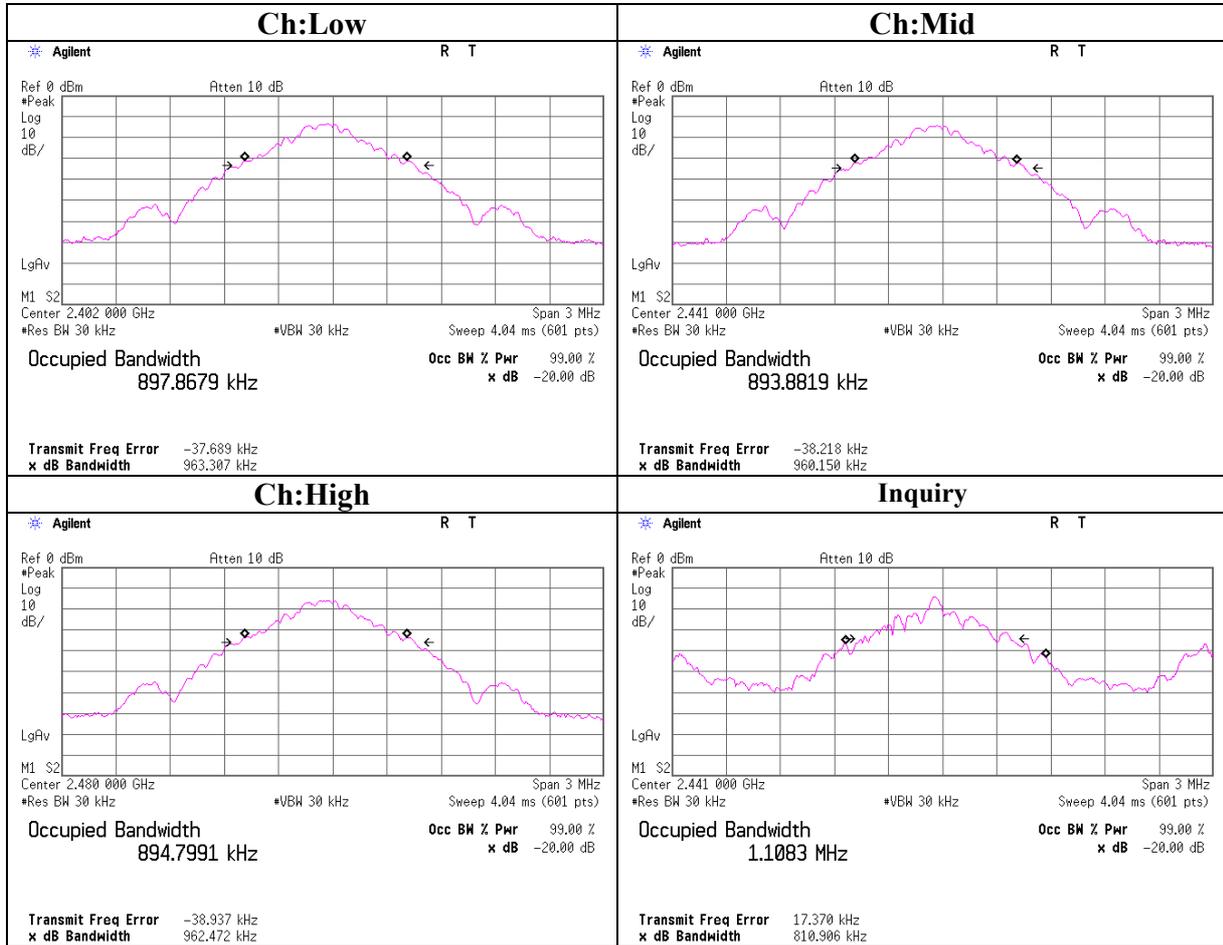
## 20dB Bandwidth

UL Japan, Inc.  
Head Office EMC Lab. No.6 Shielded Room

COMPANY	: SHARP CORPORATION	REGULATION	: FCC15.247(a)(1)/RSS-210A8.1(a)
EQUIPMENT	: Wireless PDA	TEST DISTANCE	: -
MODEL	: PV250	DATE	: 06/19/2007
S/ N	: 003	TEMPERATURE	: 26deg.C
POWER	: DC3.9V	HUMIDITY	: 51%
MODE	: Tx (Hopping off) /Inquiry	ENGINEER	: Yutaka Yoshida

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.963	-
Mid	2441.0	0.960	-
High	2480.0	0.962	-
Inquiry	2441.0	0.811	-

## 20dB Bandwidth



## Number of Hopping Frequency

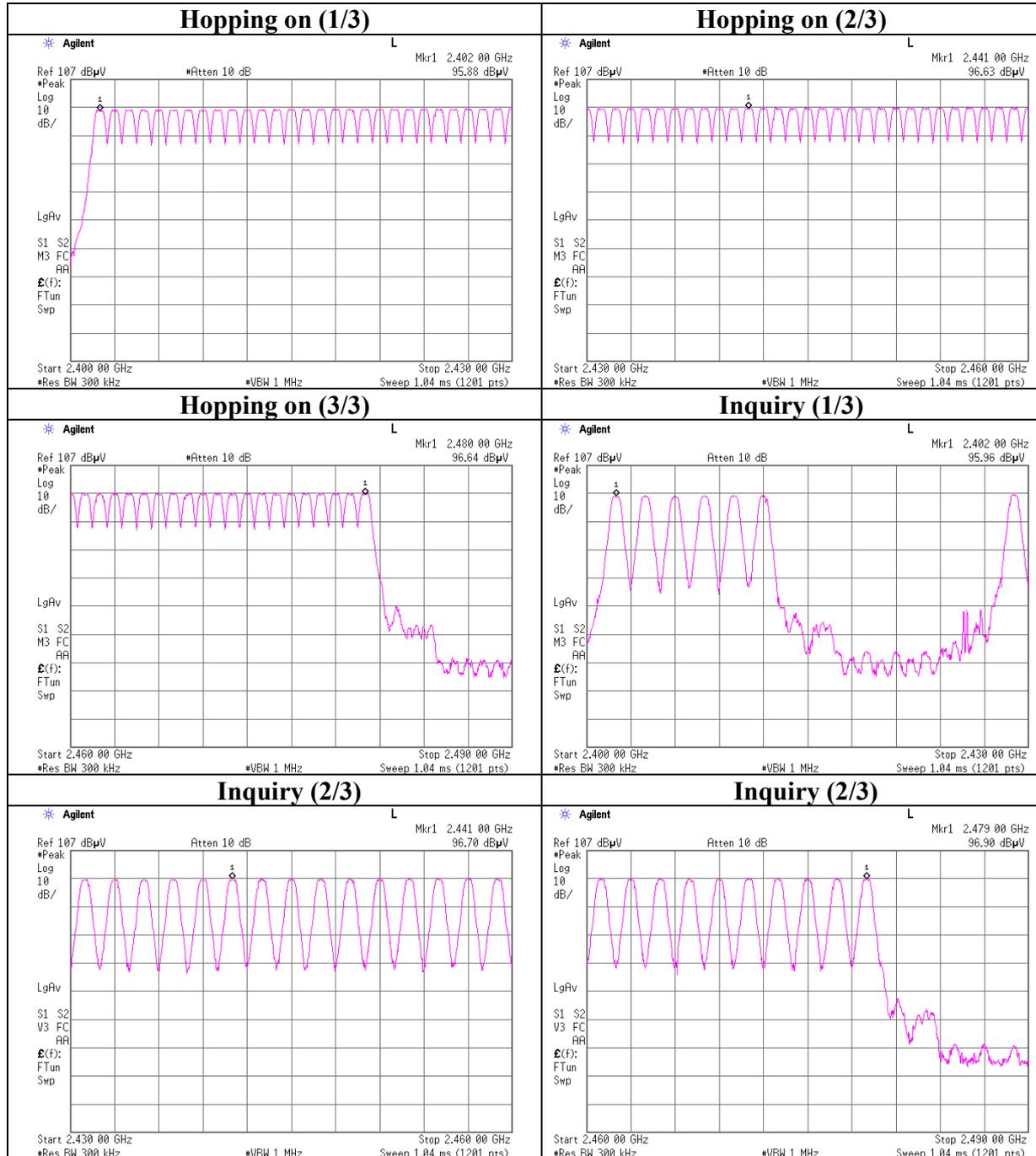
UL Japan, Inc.  
Head Office EMC Lab. No.6 Shielded Room

COMPANY : SHARP CORPORATION      REGULATION : FCC15.247(a)(1)(iii)/RSS-210A8.1(d)  
EQUIPMENT : Wireless PDA      TEST DISTANCE : -  
MODEL : PV250      DATE : 06/19/2007  
S/ N : 003      TEMPERATURE : 26deg.C  
POWER : DC3.9V      HUMIDITY : 51%  
MODE : Tx (Hopping on) /Inquiry      ENGINEER : Yutaka Yoshida

Mode	Number of channel	Limit
	[time]	[time]
Tx(Hoppng on)	79	$\geq 15$

Mode	Number of channel	Limit
	[time]	[time]
Inquiry	32	$\geq 15$

**Number of Hopping Frequency**



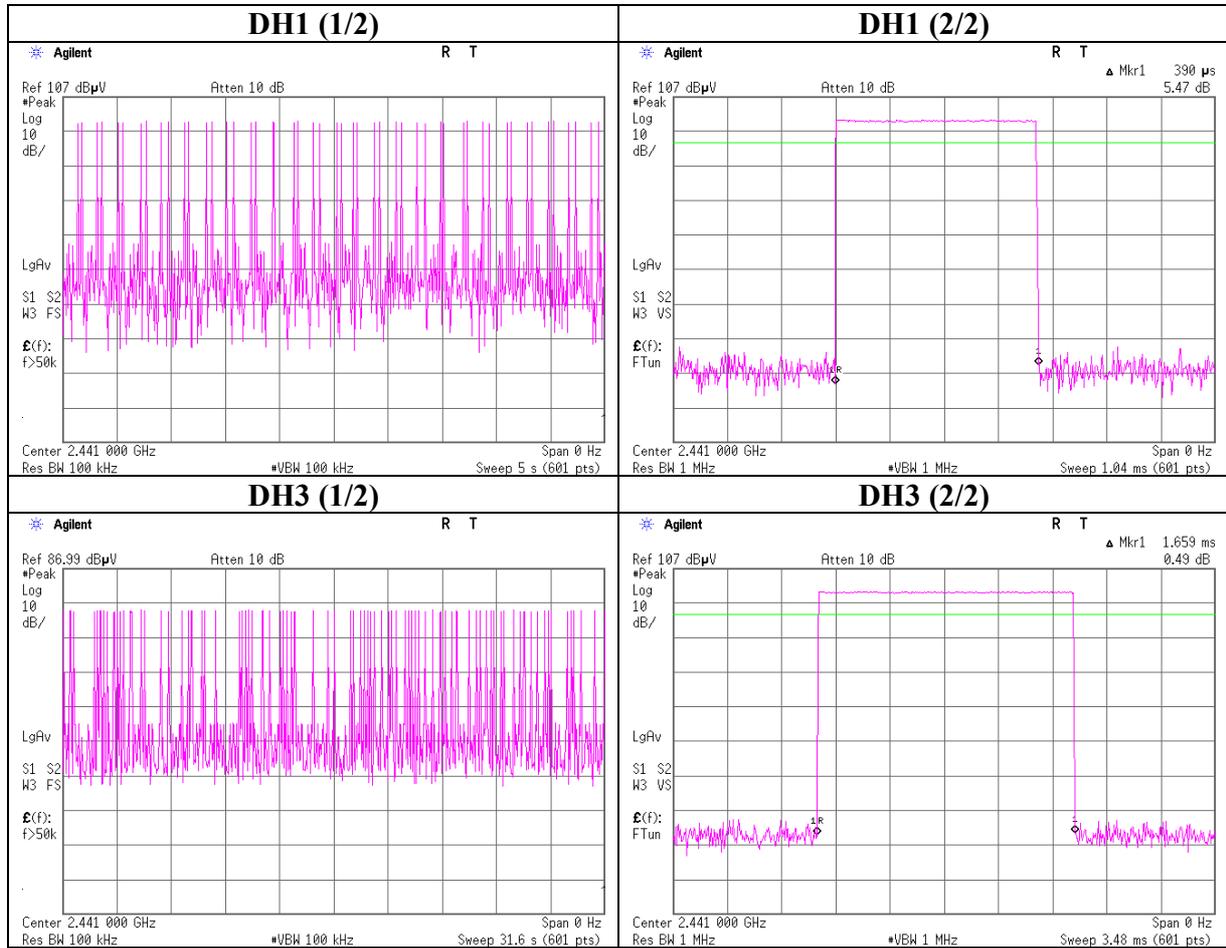
### Dwell time

UL Japan, Inc.  
Head Office EMC Lab. No.6 Shielded Room

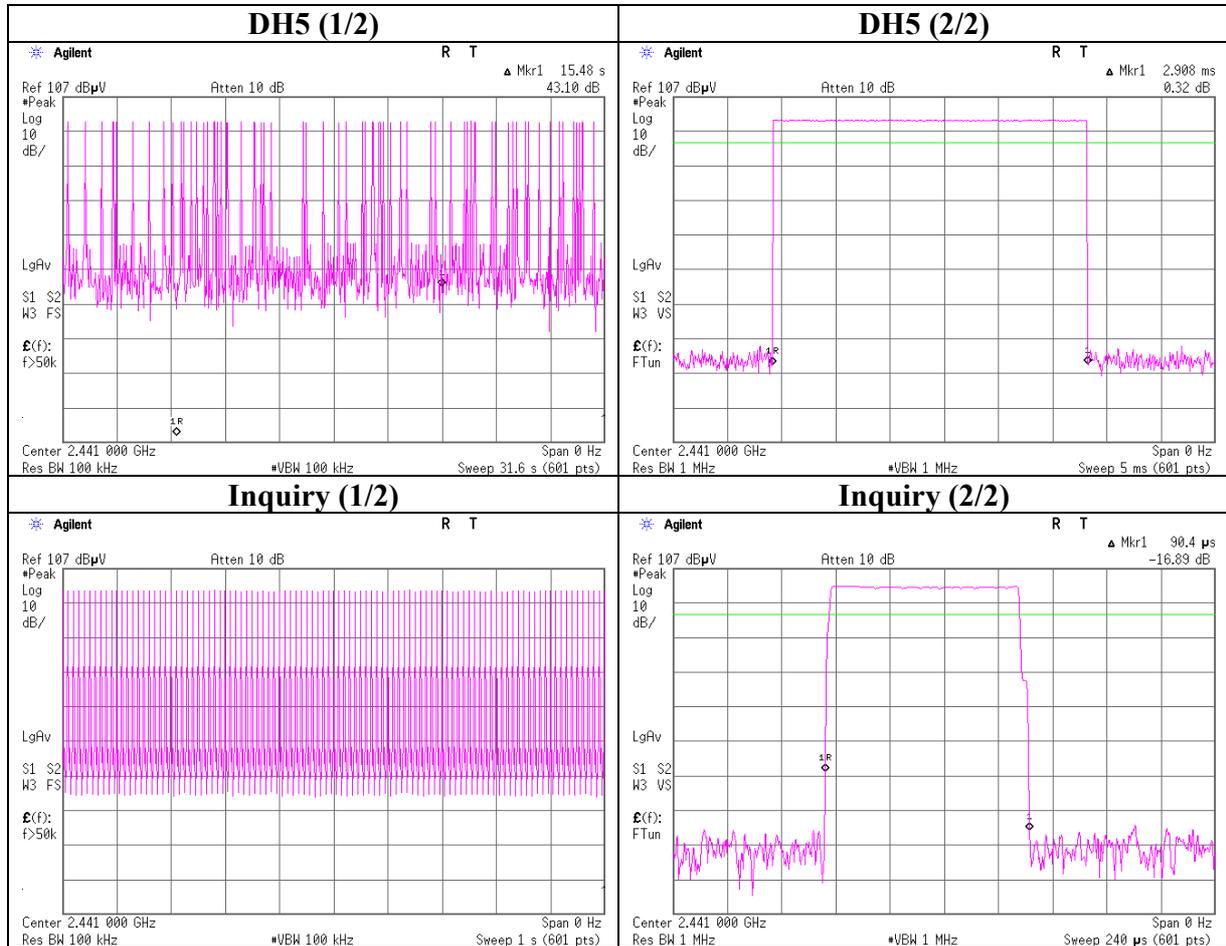
COMPANY : SHARP CORPORATION      REGULATION : FCC15.247(a)(1)(iii)/RSS-210A8.1(d)  
EQUIPMENT : Wireless PDA      TEST DISTANCE : -  
MODEL : PV250      DATE : 06/22/2007  
S/N : 003      TEMPERATURE : 24deg.C  
POWER : DC3.9V      HUMIDITY : 51%  
MODE : Tx (Hopping on) /Inquiry      ENGINEER : Yutaka 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 / 5 sec. x 31.6 sec. = 316 times	0.443	140	400
DH3	90 times	1.659	149	400
DH5	67 times	2.942	200	400
Inquiry	110 times / 1 sec. x 12.8 sec. = 1408 times	0.090	127	400

**Dwell time**



**Dwell time**



### Maximum Peak Output Power

UL Japan, Inc.  
Head Office EMC Lab. No.6 Shielded Room

COMPANY : SHARP CORPORATION                      REGULATION : FCC15.247(b)(1)/RSS-210A8.4(2)  
EQUIPMENT : Wireless PDA                              TEST DISTANCE : -  
MODEL : PV250    DATE : 06/19/2007  
S/N : 003    TEMPERATURE : 26deg.C  
POWER : DC 3.9V    HUMIDITY : 51%  
MODE : Tx(Hopping Off)/Inquiry                      ENGINEER : Yutaka Yoshida

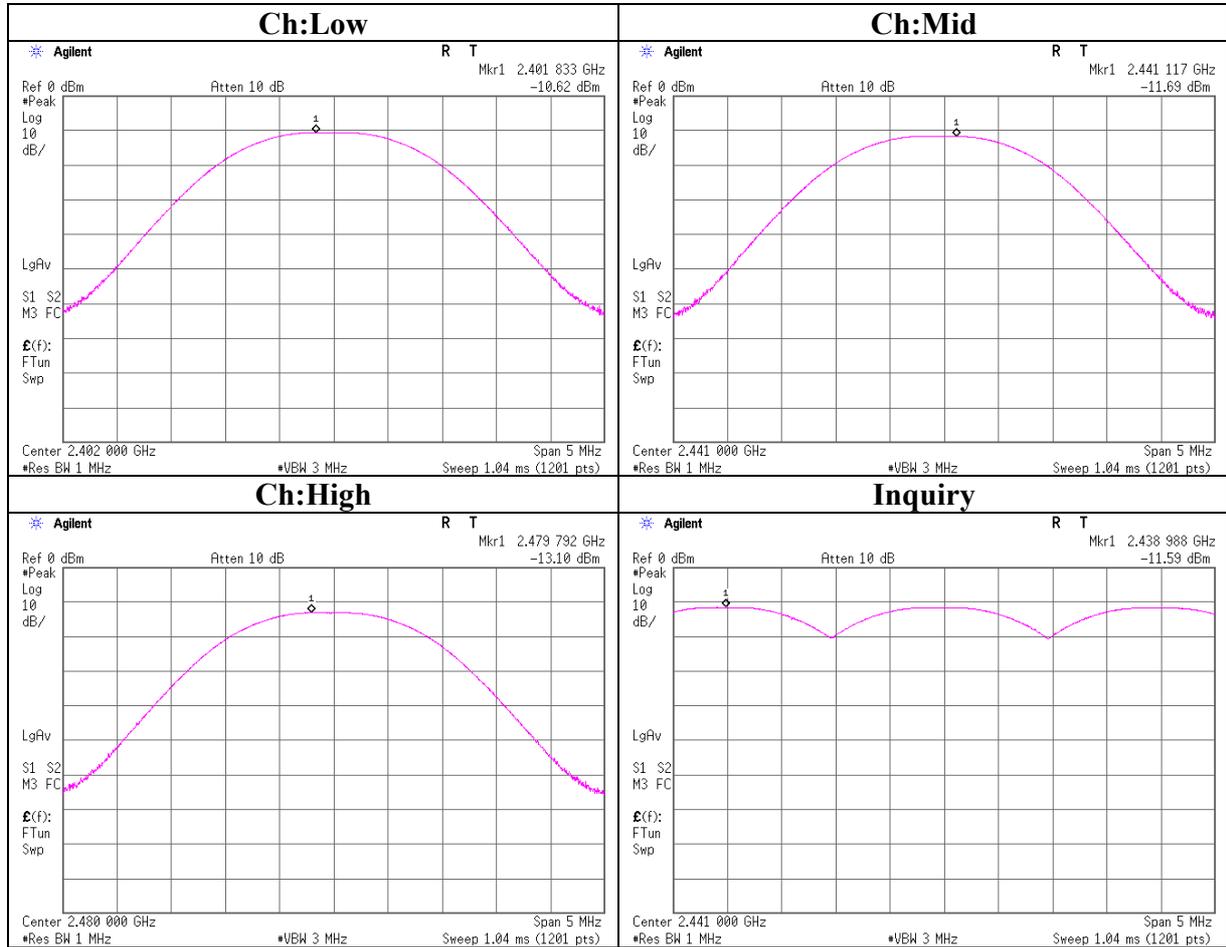
Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2401.8	-10.62	0.95	10.04	0.37	1.09	20.97	125	20.60
Mid	2441.1	-11.69	0.95	10.12	-0.62	0.87	20.97	125	21.59
High	2479.8	-13.10	0.95	10.02	-2.13	0.61	20.97	125	23.10
Inquiry	2439.0	-11.59	0.95	10.12	-0.52	0.89	20.97	125	21.49

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**



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

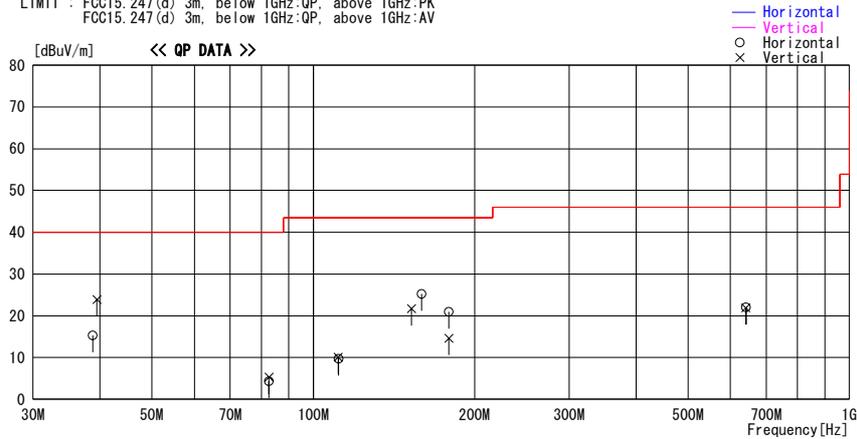
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Date : 2007/06/05

Company : SHARP CORPORATION  
Kind of EUT : Wireless PDA  
Model No. : PV250  
Serial No. : 001  
Report No. : 27JE0086-HO  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg. C. / 66%  
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Transmitting Mode / 2402MHz / DH5 / Worst Position (Hor:X-axis, Ver:Z-axis)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
39.480	34.5	QP	14.2	-24.8	23.9	7	100	Vert.	40.0	16.1	
38.775	25.4	QP	14.7	-24.8	15.3	77	381	Hori.	40.0	24.7	
82.650	21.1	QP	7.4	-24.2	4.3	359	100	Hori.	40.0	35.7	
82.650	22.1	QP	7.4	-24.2	5.3	248	130	Vert.	40.0	34.7	
111.270	21.9	QP	12.0	-23.8	10.1	6	100	Vert.	43.5	33.4	
111.540	21.4	QP	12.1	-23.8	9.7	146	400	Hori.	43.5	33.8	
159.139	33.0	QP	15.5	-23.3	25.2	170	225	Hori.	43.5	18.3	
152.500	29.8	QP	15.2	-23.3	21.7	67	100	Vert.	43.5	21.8	
179.040	21.2	QP	16.4	-23.0	14.6	275	170	Vert.	43.5	28.9	
179.040	27.5	QP	16.4	-23.0	20.9	11	163	Hori.	43.5	22.6	
640.906	21.8	QP	20.5	-20.3	22.0	20	100	Hori.	46.0	24.0	
640.906	21.7	QP	20.5	-20.3	21.9	74	100	Vert.	46.0	24.1	

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

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

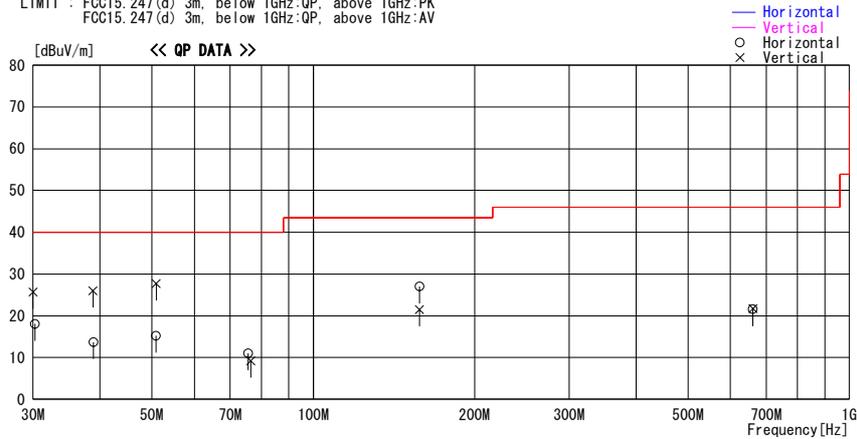
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Date : 2007/06/05

Company : SHARP CORPORATION  
Kind of EUT : Wireless PDA  
Model No. : PV250  
Serial No. : 001  
Report No. : 27JE0086-HO  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg. C. / 66%  
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Transmitting Mode / 2441MHz / DH5 / Worst Position(Hor:X-axis, Ver:Z-axis)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
30.000	31.1	QP	19.5	-24.9	25.7	307	100	Vert.	40.0	14.3	
30.270	23.5	QP	19.4	-24.9	18.0	141	400	Hori.	40.0	22.0	
38.820	36.1	QP	14.7	-24.8	26.0	307	100	Vert.	40.0	14.0	
38.910	23.9	QP	14.6	-24.8	13.7	141	400	Hori.	40.0	26.3	
50.930	41.8	QP	10.5	-24.6	27.7	301	100	Vert.	40.0	12.3	
50.880	29.3	QP	10.5	-24.6	15.2	186	202	Hori.	40.0	24.8	
76.440	26.4	QP	7.0	-24.2	9.2	147	242	Vert.	40.0	30.8	
75.575	28.1	QP	7.1	-24.2	11.0	251	400	Hori.	40.0	29.0	
157.806	34.8	QP	15.5	-23.3	27.0	0	218	Hori.	43.5	16.5	
157.832	29.3	QP	15.5	-23.3	21.5	87	217	Vert.	43.5	22.0	
660.506	21.1	QP	20.7	-20.2	21.6	335	100	Hori.	46.0	24.4	
660.506	21.2	QP	20.7	-20.2	21.7	0	100	Vert.	46.0	24.3	

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

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

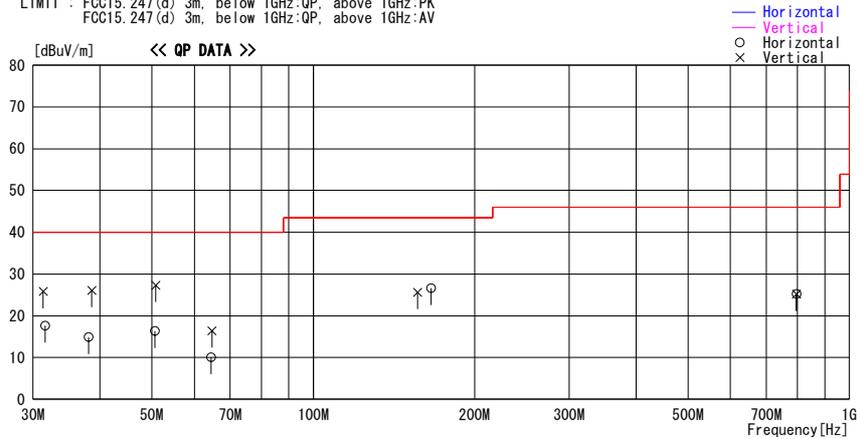
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Date : 2007/06/05

Company : SHARP CORPORATION  
Kind of EUT : Wireless PDA  
Model No. : PV250  
Serial No. : 001  
Report No. : 27JE0086-HO  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg. C. / 66%  
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Transmitting Mode / 2480MHz / DH5 / Worst Position(Hor:X-axis, Ver:Z-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK  
FCC15.247(d) 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]	Comment
			Factor [dB/m]	Gain [dB]							
31.350	31.8	QP	18.9	-24.9	25.8	278	100	Vert.	40.0	14.2	
31.620	23.8	QP	18.7	-24.9	17.6	0	241	Hori.	40.0	22.4	
38.100	24.6	QP	15.1	-24.8	14.9	0	241	Hori.	40.0	25.1	
38.640	36.1	QP	14.8	-24.8	26.1	278	100	Vert.	40.0	13.9	
50.705	30.3	QP	10.6	-24.6	16.3	222	400	Hori.	40.0	23.7	
50.820	41.3	QP	10.6	-24.6	27.3	258	100	Vert.	40.0	12.7	
64.500	26.4	QP	8.0	-24.4	10.0	0	337	Hori.	40.0	30.0	
64.740	32.8	QP	8.0	-24.4	16.4	194	100	Vert.	40.0	23.6	
156.560	33.5	QP	15.4	-23.3	25.6	34	100	Vert.	43.5	17.9	
165.771	33.9	QP	15.8	-23.1	26.6	192	276	Hori.	43.5	16.9	
796.309	21.2	QP	23.0	-19.0	25.2	44	100	Vert.	46.0	20.8	
797.009	21.2	QP	23.0	-19.0	25.2	359	100	Hori.	46.0	20.8	

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

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

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

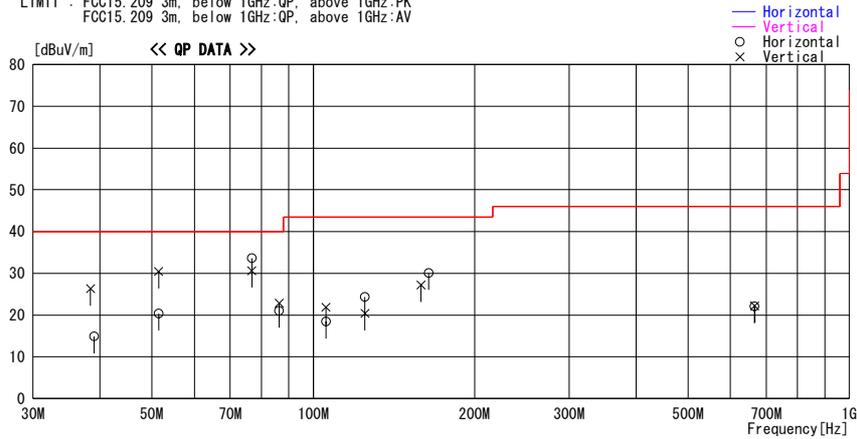
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UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Date : 2007/06/05

Company : SHARP CORPORATION  
Kind of EUT : Wireless PDA  
Model No. : PV250  
Serial No. : 001  
Report No. : 27JE0086-HO  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg. C. / 66%  
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Receiving Mode / 2441MHz / Worst Position(Hor:X-axis, Ver:Z-axis)

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]	Comment
			Factor [dB/m]	Loss & Gain [dB]							
39.015	25.2	QP	14.5	-24.8	14.9	359	300	Hori.	40.0	25.1	
38.394	36.2	QP	14.9	-24.8	26.3	294	100	Vert.	40.0	13.7	
51.480	34.6	QP	10.4	-24.6	20.4	236	400	Hori.	40.0	19.6	
51.455	44.6	QP	10.4	-24.6	30.4	261	100	Vert.	40.0	9.6	
76.800	50.8	QP	7.0	-24.2	33.6	67	243	Hori.	40.0	6.4	
76.800	47.8	QP	7.0	-24.2	30.6	0	100	Vert.	40.0	9.4	
86.400	37.0	QP	8.1	-24.1	21.0	261	215	Hori.	40.0	19.0	
86.400	38.8	QP	8.1	-24.1	22.8	359	100	Vert.	40.0	17.2	
105.600	31.0	QP	11.3	-23.9	18.4	139	168	Hori.	43.5	25.1	
105.600	34.5	QP	11.3	-23.9	21.9	0	100	Vert.	43.5	21.6	
124.769	34.5	QP	13.5	-23.7	24.3	0	149	Hori.	43.5	19.2	
124.800	30.6	QP	13.5	-23.7	20.4	79	100	Vert.	43.5	23.1	
164.170	37.5	QP	15.7	-23.1	30.1	359	194	Hori.	43.5	13.4	
158.813	35.0	QP	15.5	-23.3	27.2	61	100	Vert.	43.5	16.3	
665.406	21.6	QP	20.7	-20.2	22.1	359	100	Hori.	46.0	23.9	
666.106	21.7	QP	20.7	-20.2	22.2	226	100	Vert.	46.0	23.8	

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

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

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

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

Company	: SHARP CORPORATION	REPORT NO	: 27JE0086-HO
Equipment	: Wireless PDA	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: PV250	TEST DISTANCE	: 3/1m
Sample No.	: 001	DATE	: June 5, 2007
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C
Mode	: BT Tx 2402MHz, DH5, PRBS9, MAX Pow	HUMIDITY	: 66%
Remarks	: Hor X, Ver Z-axis(Worst)	ENGINEER	: Yutaka Yoshida

**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	2370.0	47.7	48.2	26.6	32.1	2.5	0.0	44.7	45.2	73.9	29.2	28.7
2	2390.0	41.9	42.9	26.6	32.1	2.5	0.0	38.9	39.9	73.9	35.0	34.0
3	4804.0	39.0	39.5	30.8	31.2	3.4	0.0	42.0	42.5	73.9	31.9	31.4
4	7206.0	41.0	40.6	35.2	32.5	4.2	0.0	47.9	47.5	73.9	26.0	26.4
5	9608.0	39.4	41.4	37.6	32.8	5.3	0.0	49.5	51.5	73.9	24.4	22.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	not found	not found	-	-	-	-	-	-	73.9	-	-
7	14412.0	not found	not found	-	-	-	-	-	-	73.9	-	-
8	16814.0	not found	not found	-	-	-	-	-	-	73.9	-	-
9	19216.0	not found	not found	-	-	-	-	-	-	73.9	-	-
10	21618.0	not found	not found	-	-	-	-	-	-	73.9	-	-
11	24020.0	45.4	44.2	38.7	32.2	8.1	0.0	50.5	49.3	73.9	23.4	24.6

**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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2370.0	43.3	43.4	26.6	32.1	2.5	0.0	40.3	40.4	53.9	13.6	13.5
2	2390.0	29.7	29.7	26.6	32.1	2.5	0.0	26.7	26.7	53.9	27.2	27.2
3	4804.0	27.3	26.8	30.8	31.2	3.4	0.0	30.3	29.8	53.9	23.6	24.1
4	7206.0	28.0	27.9	35.2	32.5	4.2	0.0	34.9	34.8	53.9	19.0	19.1
5	9608.0	27.8	29.2	37.6	32.8	5.3	0.0	37.9	39.3	53.9	16.0	14.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	not found	not found	-	-	-	-	-	-	53.9	-	-
7	14412.0	not found	not found	-	-	-	-	-	-	53.9	-	-
8	16814.0	not found	not found	-	-	-	-	-	-	53.9	-	-
9	19216.0	not found	not found	-	-	-	-	-	-	53.9	-	-
10	21618.0	not found	not found	-	-	-	-	-	-	53.9	-	-
11	24020.0	31.9	32.0	38.7	32.2	8.1	0.0	37.0	37.1	53.9	16.9	16.8

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2402.0	89.8	89.1	26.6	32.1	2.5	0.0	86.8	86.1	-	-	-
2	2400.0	34.0	35.8	26.6	32.1	2.5	0.0	31.0	32.8	Funda-20dB	35.8	33.3

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 (above 1GHz)**  
**Tx, Ch. Mid**

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

Company : SHARP CORPORATION  
Equipment : Wireless PDA  
Model : PV250  
Sample No. : 001  
Power : AC 120 V / 60 Hz  
Mode : BT Tx 2441MHz, DH5, PRBS9, MAX Pow  
Remarks : Hor X , Ver Z-axis(Worst)

REPORT NO : 27JE0086-HO  
REGULATION : FCC15.247(d)/RSS-210A8.5  
TEST DISTANCE : 3/1m  
DATE : June 5, 2007  
TEMPERATURE : 23deg.C  
HUMIDITY : 66%  
ENGINEER : Yutaka Yoshida

**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]
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	4882.0	38.7	39.1	31.0	31.2	3.4	0.0	41.9	42.3	73.9	32.0	31.6
2	7323.0	40.5	40.5	35.4	32.5	4.3	0.0	47.7	47.7	73.9	26.2	26.2
3	9764.0	39.5	39.6	37.6	32.9	5.4	0.0	49.6	49.7	73.9	24.3	24.2
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
4	12205.0	not found	not found	-	-	-	-	-	-	73.9	-	-
5	14646.0	not found	not found	-	-	-	-	-	-	73.9	-	-
6	17087.0	not found	not found	-	-	-	-	-	-	73.9	-	-
7	19528.0	not found	not found	-	-	-	-	-	-	73.9	-	-
8	21969.0	not found	not found	-	-	-	-	-	-	73.9	-	-
9	24410.0	42.2	43.6	38.8	32.2	8.2	0.0	47.5	48.9	73.9	26.4	25.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	4882.0	26.7	26.7	31.0	31.2	3.4	0.0	29.9	29.9	53.9	24.0	24.0
2	7323.0	28.6	28.4	35.4	32.5	4.3	0.0	35.8	35.6	53.9	18.1	18.3
3	9764.0	27.7	28.0	37.6	32.9	5.4	0.0	37.8	38.1	53.9	16.1	15.8
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
4	12205.0	not found	not found	-	-	-	-	-	-	53.9	-	-
5	14646.0	not found	not found	-	-	-	-	-	-	53.9	-	-
6	17087.0	not found	not found	-	-	-	-	-	-	53.9	-	-
7	19528.0	not found	not found	-	-	-	-	-	-	53.9	-	-
8	21969.0	not found	not found	-	-	-	-	-	-	53.9	-	-
9	24410.0	30.4	30.4	38.8	32.2	8.2	0.0	35.7	35.7	53.9	18.2	18.2

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 Filter was not used for factor 0.0dB of the above table.

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

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

Company : SHARP CORPORATION  
Equipment : Wireless PDA  
Model : PV250  
Sample No. : 001  
Power : AC 120 V / 60 Hz  
Mode : BT Tx 2480MHz, DH5, PRBS9, MAX Pow  
Remarks : Hor X , Ver Z-axis(Worst)

REPORT NO : 27JE0086-HO  
REGULATION : FCC15.247(d)/RSS-210A8.5  
TEST DISTANCE : 3/1m  
DATE : June 5, 2007  
TEMPERATURE : 23deg.C  
HUMIDITY : 66%  
ENGINEER : Yutaka Yoshida

**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	2483.5	44.1	47.5	26.8	32.1	2.6	0.0	41.4	44.8	73.9	32.5	29.1
2	2512.0	49.0	47.5	26.9	32.1	2.6	0.0	46.4	44.9	73.9	27.5	29.0
3	4960.0	41.8	39.3	31.1	31.2	3.4	0.0	45.1	42.6	73.9	28.8	31.3
4	7440.0	42.6	41.2	35.6	32.6	4.3	0.0	49.9	48.5	73.9	24.0	25.4
5	9920.0	41.9	39.6	37.7	32.9	5.4	0.0	52.1	49.8	73.9	21.8	24.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	not found	not found	-	-	-	-	-	-	73.9	-	-
7	14880.0	not found	not found	-	-	-	-	-	-	73.9	-	-
8	17360.0	not found	not found	-	-	-	-	-	-	73.9	-	-
9	19840.0	not found	not found	-	-	-	-	-	-	73.9	-	-
10	22320.0	not found	not found	-	-	-	-	-	-	73.9	-	-
11	24800.0	43.2	42.6	38.9	32.2	8.3	0.0	48.7	48.1	73.9	25.2	25.8

**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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	40.9	45.1	26.8	32.1	2.6	0.0	38.2	42.4	53.9	15.7	11.5
2	2512.0	44.3	42.8	26.9	32.1	2.6	0.0	41.7	40.2	53.9	12.2	13.7
3	4960.0	28.8	26.7	31.1	31.2	3.4	0.0	32.1	30.0	53.9	21.8	23.9
4	7440.0	29.8	28.5	35.6	32.6	4.3	0.0	37.1	35.8	53.9	16.8	18.1
5	9920.0	29.7	28.7	37.7	32.9	5.4	0.0	39.9	38.9	53.9	14.0	15.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	not found	not found	-	-	-	-	-	-	53.9	-	-
7	14880.0	not found	not found	-	-	-	-	-	-	53.9	-	-
8	17360.0	not found	not found	-	-	-	-	-	-	53.9	-	-
9	19840.0	not found	not found	-	-	-	-	-	-	53.9	-	-
10	22320.0	not found	not found	-	-	-	-	-	-	53.9	-	-
11	24800.0	30.2	30.2	38.9	32.2	8.3	0.0	35.7	35.7	53.9	18.2	18.2

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 (above 1GHz)**  
**Rx, Ch. Mid**

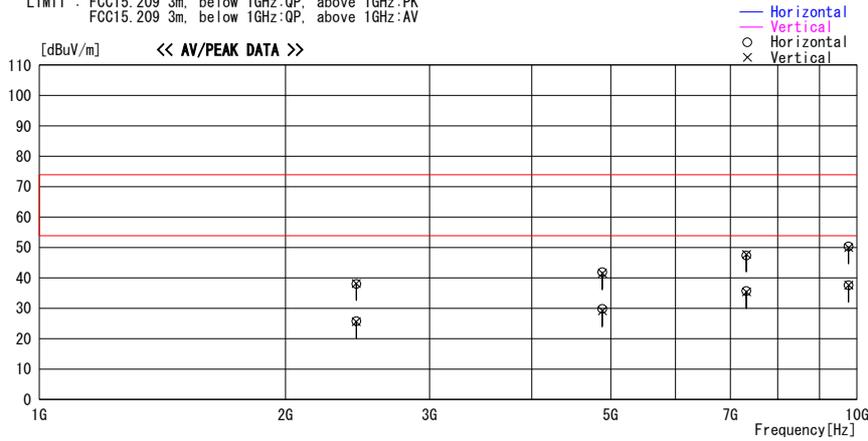
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Date : 2007/06/05

Company : SHARP CORPORATION  
Kind of EUT : Wireless PDA  
Model No. : PV250  
Serial No. : 001  
Report No. : 27JE0086-HO  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg. C. / 66%  
Operator : Yutaka Yoshida

Mode / Remarks : Bluetooth Receiving Mode / 2441MHz / Worst Position(Hor:X-axis, Ver:Z-axis)

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

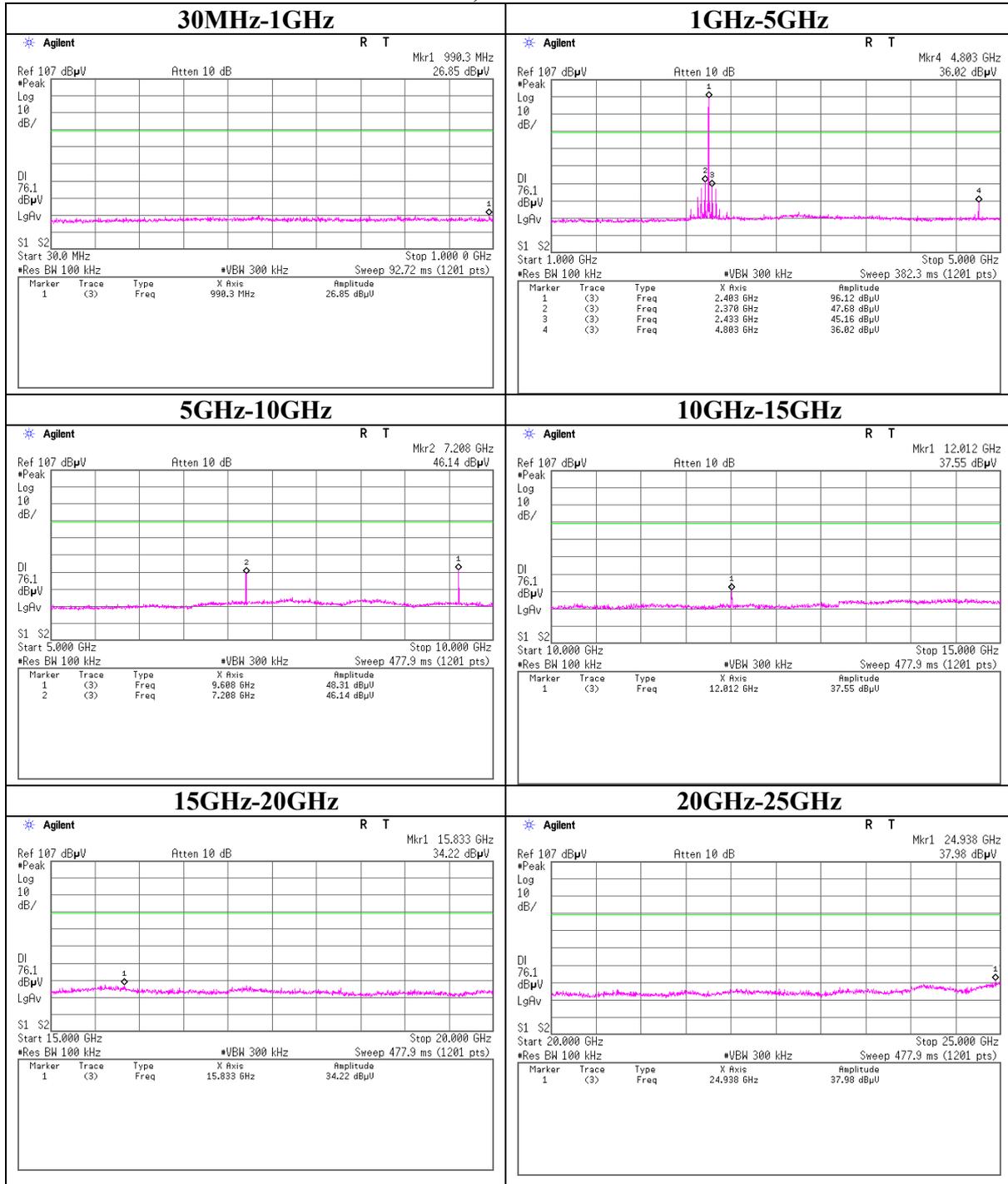


Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
2441.000	41.1	PK	26.7	-29.6	38.2	0	101	Vert.	73.9	35.7	
2441.000	40.9	PK	26.7	-29.6	38.0	41	100	Hori.	73.9	35.9	
2441.000	28.5	AV	26.7	-29.6	25.6	0	101	Vert.	53.9	28.3	
2441.000	28.7	AV	26.7	-29.6	25.8	41	100	Hori.	53.9	28.1	
4882.000	38.3	PK	31.0	-27.8	41.5	242	100	Vert.	73.9	32.4	
4882.000	38.7	PK	31.0	-27.8	41.9	183	100	Hori.	73.9	32.0	
4882.000	26.0	AV	31.0	-27.8	29.2	242	100	Vert.	53.9	24.7	
4882.000	26.6	AV	31.0	-27.8	29.8	183	100	Hori.	53.9	24.1	
7323.000	40.5	PK	35.4	-28.2	47.7	359	100	Vert.	73.9	26.2	
7323.000	40.1	PK	35.4	-28.2	47.3	251	100	Hori.	73.9	26.6	
7323.000	28.2	AV	35.4	-28.2	35.4	359	100	Vert.	53.9	18.5	
7323.000	28.5	AV	35.4	-28.2	35.7	251	100	Hori.	53.9	18.2	
9764.000	39.9	PK	37.6	-27.5	50.0	263	100	Vert.	73.9	23.9	
9764.000	40.3	PK	37.6	-27.5	50.4	359	100	Hori.	73.9	23.5	
9764.000	27.5	AV	37.6	-27.5	37.6	263	100	Vert.	53.9	16.3	
9764.000	27.5	AV	37.6	-27.5	37.6	359	100	Hori.	53.9	16.3	

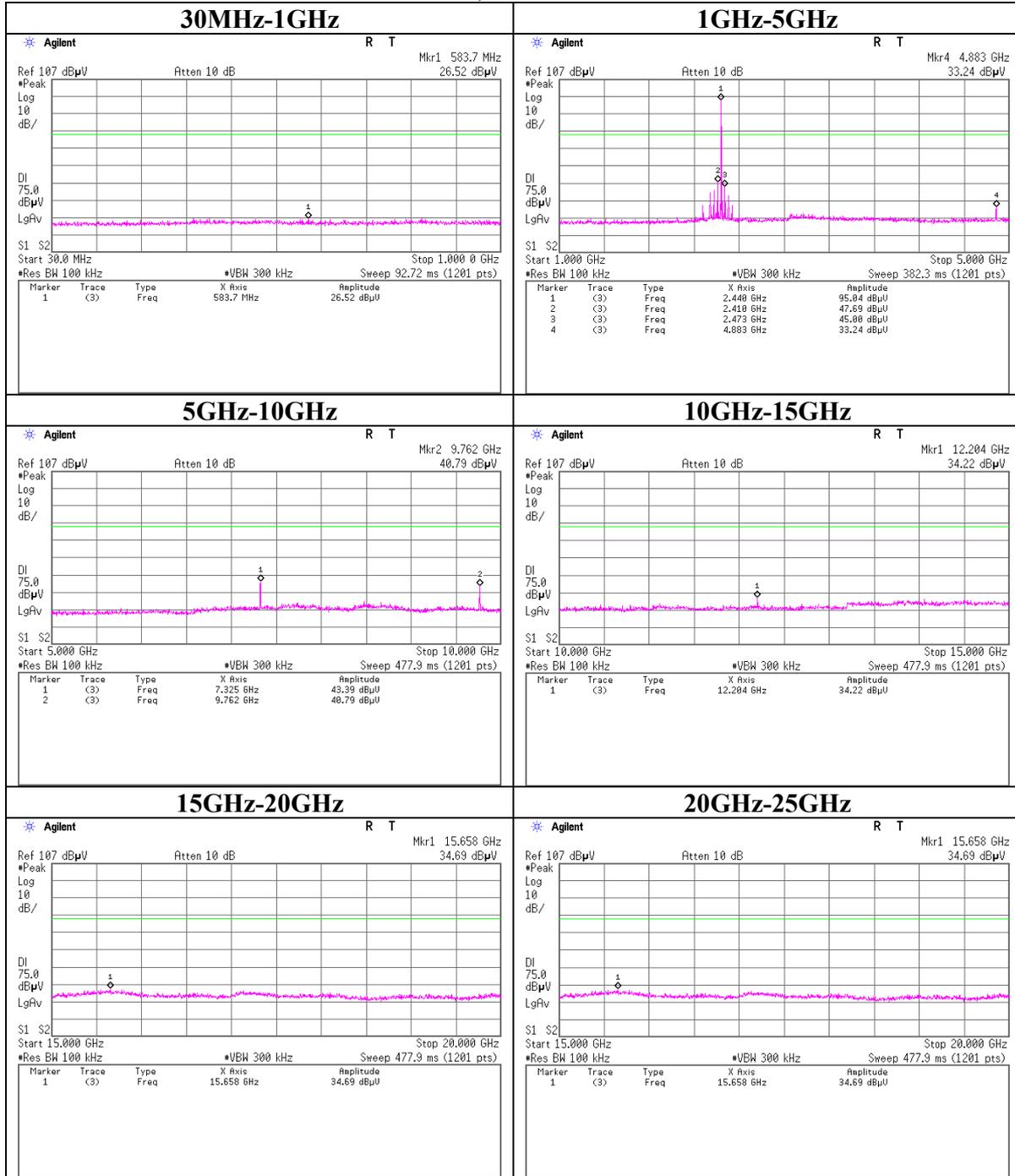
CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

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

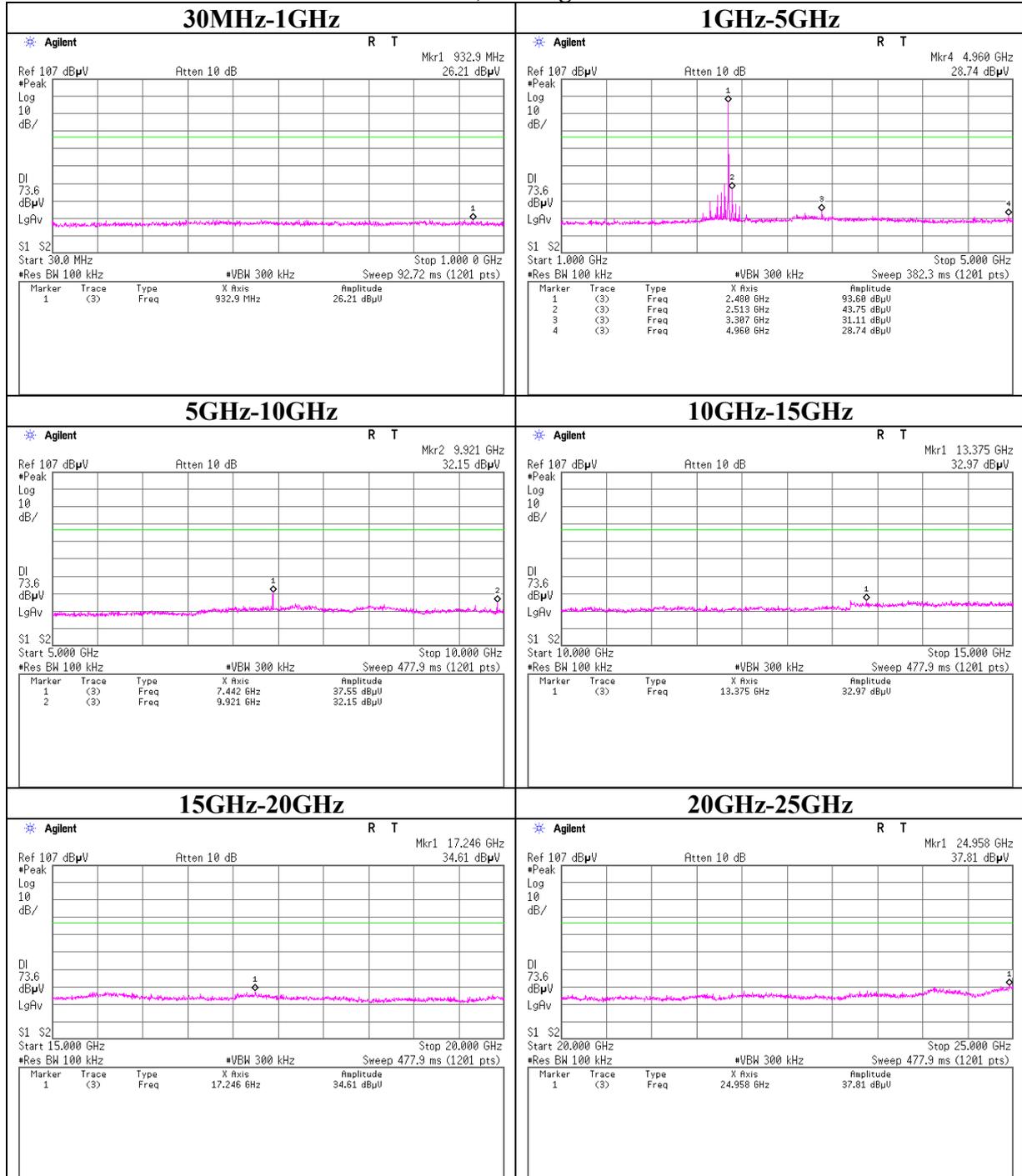
**Conducted Spurious Emission**  
**Tx, Ch:Low**



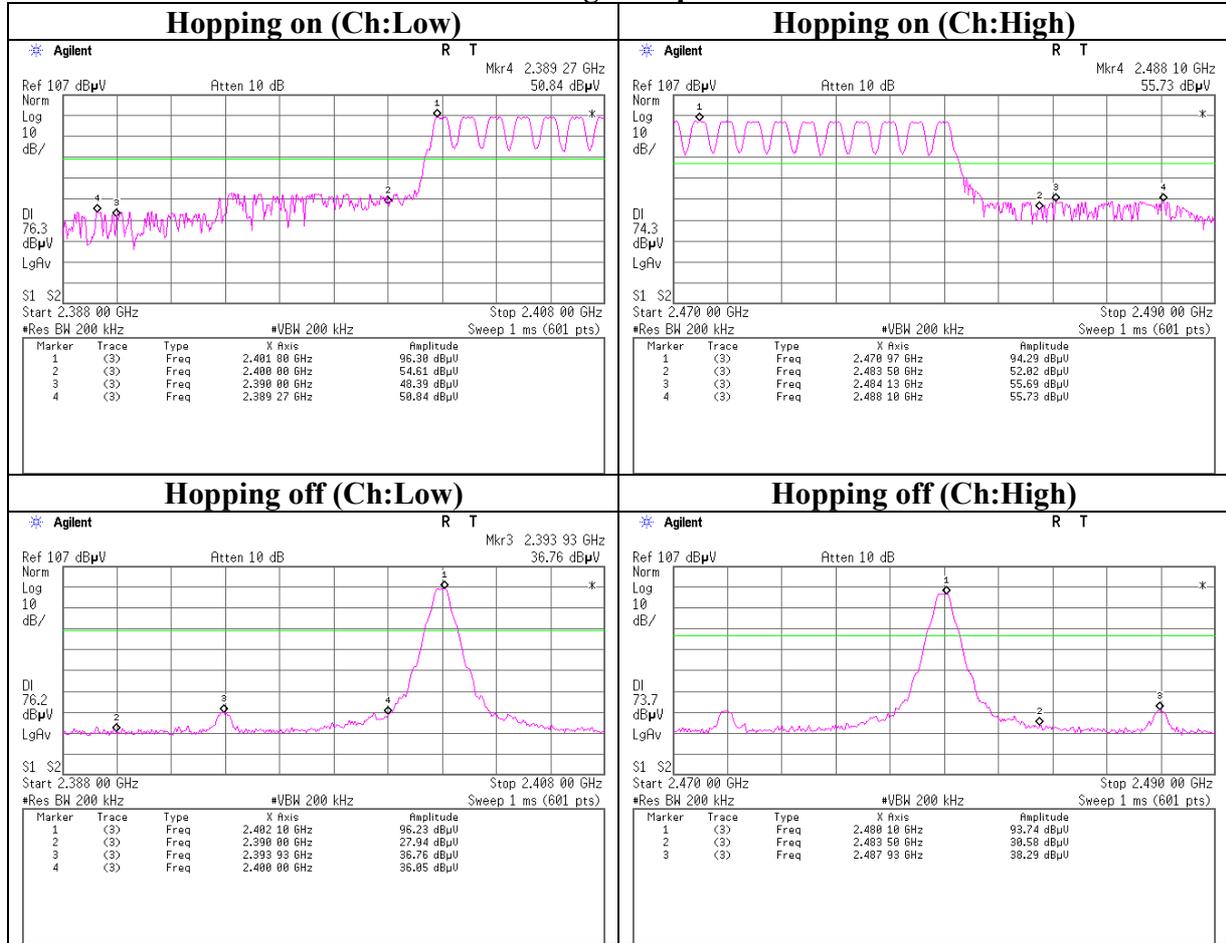
**Conducted Spurious Emission**  
**Tx, Ch:Mid**



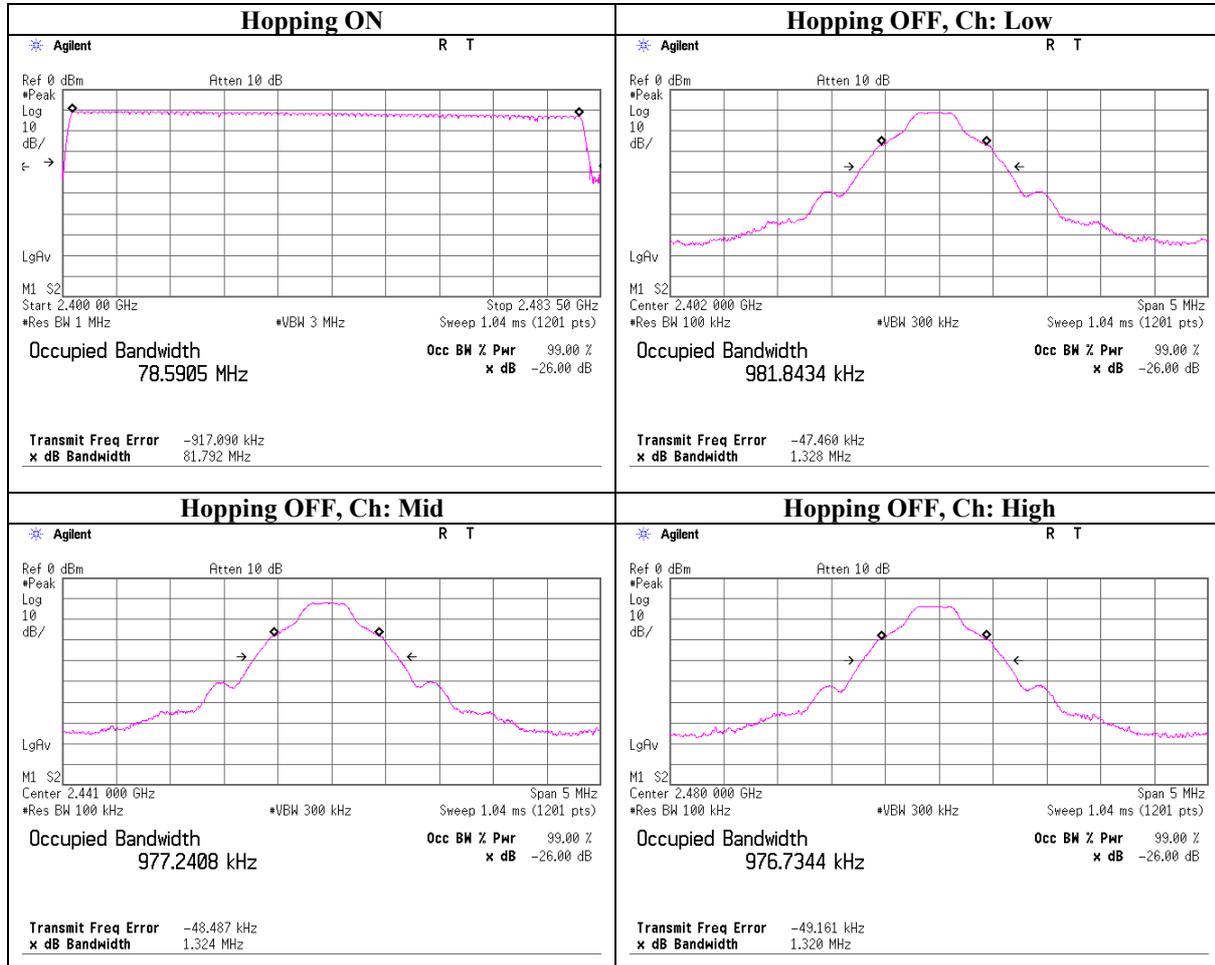
**Conducted Spurious Emission**  
**Tx, Ch:High**



### Conducted Spurious Emission Band Edge compliance



### 99% Occupied Bandwidth



### APPENDIX 3:Test instruments

#### EMI test equipment(1/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-04	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/03/03 * 12
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-
MOS-15	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MBM-03	Barometer	Sunoh	SBR121	RE	2006/02/13 * 36
MPSU-09	Power Supply	NF	ES6000W	RE	Pre Check
MMM-10	DIGITAL HiTESTER	Hioki	3805	RE	2007/01/12 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2006/08/17 * 12
MCC-57	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/30 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/12 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2007/06/01 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 12
MCC-50	Coaxial cable	UL Japan	-	RE	2007/03/06 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/01/19 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	RE	2007/01/19 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	RE	2007/03/12 * 12
MAT-31	Attenuator(6dB)	TME	UFA-01	RE	2007/03/05 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	RE	2006/09/12 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2006/09/13 * 12
MDPS-02	DC Power Supply	Agilent	6654A	AT	Pre Check
MMM-02	Digital Tester	Hioki	3255	AT	2007/03/23 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2006/01/19 * 24
MAT-23	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MCC-65	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	AT	2007/04/03 * 12
MPSC-01	Power splitters/Combiners	Mini-Circuit	ZFSC-2-2500	AT	2006/09/20 * 12
MBTR00	R&S Bluetooth RF Conformance Testsystem	Rohde & Schwarz	TS8960	AT	2007/05/15 * 6

**UL Japan, Inc.**

**Head Office EMC Lab.**

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**EMI test equipment(2/2)**

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	CE	2007/04/02 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	CE	2007/05/31 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2007/02/22 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2007/02/27 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	CE	2006/11/27 * 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.

**Test Item:**

**CE: Conducted Emission**

**RE: Radiated Emission**

**AT: Antenna Terminal Conducted**

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