APPENDIX 2: Data of EMI test

Peak Output Power (Conducted)

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

COMPANY	SHARP CORPORATION	REPORT NO	27JE0086-HO
EQUIPMENT	Wireless PDA	REGULATION	FCC Part22 Section 22.913(a)
MODEL	PV250	TEST METHOD	FCC Part2 Section 2.1046
S/N	001	TEST DISTANCE	-
POWER	DC3.9V(AC120V/60Hz)	DATE	06/18/2007
MODE	Tx 824.2MHz (128ch)/PCL=5(MAX Pow)	TEMPERATURE	25℃
	Tx 836.6MHz (190ch)/PCL=5(MAX Pow)	HUMIDITY	61%
	Tx 848.8MHz (251ch)/PCL=5(MAX Pow)	ENGINEER	Yutaka Yoshida

<GSM>

Ch	Frequency [MHz]	P/M Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Result [dBm]	Limit (7W) [dBm]	Margin [dB]
Low	824.2	8.1	20.3	4.8	33.2	38.5	5.3
Mid	836.6	7.5	20.3	4.7	32.5	38.5	6.0
High	848.8	6.7	20.3	4.7	31.7	38.5	6.8

<EGPRS>

Ch	Frequency [MHz]	P/M Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Result [dBm]	Limit (7W) [dBm]	Margin [dB]
Low	824.2	8.1	20.3	4.8	33.2	38.5	5.3
Mid	836.6	7.4	20.3	4.7	32.4	38.5	6.1
High	848.8	6.7	20.3	4.7	31.7	38.5	6.8

Sample Calculation : Result = Reading + Atten. + Cable Loss

Peak Output Power (Radiated)

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.913(a)
Model	PV250	Test Method	FCC Part 2 Section 2.1046
S/N	001	Test Distance	3m / 1m / 0.5m
Power	AC 120V / 60Hz	Date	June 1, 2007
Mode	GSM Mode / EGPRS Mode	Temperature	22 deg.C.
	Tx 824.2MHz(Ch128) / MAX Power	Humidity	53 %
	Tx 836.6MHz(Ch190) / MAX Power		
	Tx 848.8MHz(Ch251) / MAX Power		
EUT-Position	H: X-axis / V: Y-axis	Engineer	Yutaka Yoshida
Tx Antenna	0.8m Height		

<GSM>

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	824.20	128.8	125.0	39.6	39.8	1.6	2.2	9.8	28.1	28.3	38.5	10.4	10.2	Operating	No4
2	836.60	130.4	125.3	41.4	39.9	1.7	2.2	9.7	30.0	28.5	38.5	**8.5**	10.0	Operating	No4
3	848.80	130.0	124.6	41.2	39.1	1.7	2.2	9.7	29.8	27.7	38.5	8.7	10.8	Operating	No4

<EGPRS>

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	824.20	128.4	124.2	39.2	39.0	1.6	2.2	9.8	27.7	27.5	38.5	10.8	11.0	Operating	No4
2	836.60	130.6	124.9	41.6	39.5	1.7	2.2	9.7	30.2	28.1	38.5	**8.3**	10.4	Operating	No4
3	848.80	130.0	123.9	41.2	38.4	1.7	2.2	9.7	29.8	27.0	38.5	8.7	11.5	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW : 3MHz, VBW : 3MHz)

Emission Bandwidth

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

COMPANY	SHARP CORPORATION	REPORT NO	27JE0086-HO
EQUIPMENT	Wireless PDA	REGULATION	FCC Part22 Section 22.917(b)
MODEL	PV250	TEST METHOD	FCC Part2 Section 2.1049
S/N	001	TEST DISTANCE	-
POWER	DC3.9V (AC120V/60Hz)	DATE	06/18/2007
MODE	Tx 824.2MHz (128ch)/PCL=5(MAX Pow)	TEMPERATURE	25℃
	Tx 836.6MHz (190ch)/PCL=5(MAX Pow)	HUMIDITY	61%
	Tx 848.8MHz (251ch)/PCL=5(MAX Pow)	ENGINEER	Yutaka Yoshida

<GSM>

CH	FREQ [MHz]	Bandwidth [kHz]	Limit [kHz]
Low	824.2	339.5	-
Mid	836.6	336.1	-
High	848.8	336.6	-

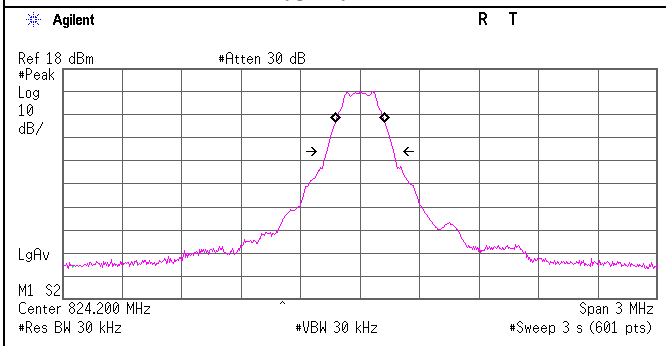
<EGPRS>

CH	FREQ [MHz]	Bandwidth [kHz]	Limit [kHz]
Low	824.2	340.0	-
Mid	836.6	337.3	-
High	848.8	339.4	-

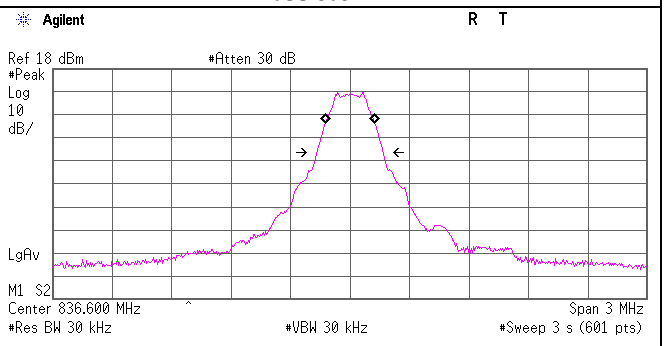
Emission Bandwidth

<GSM>

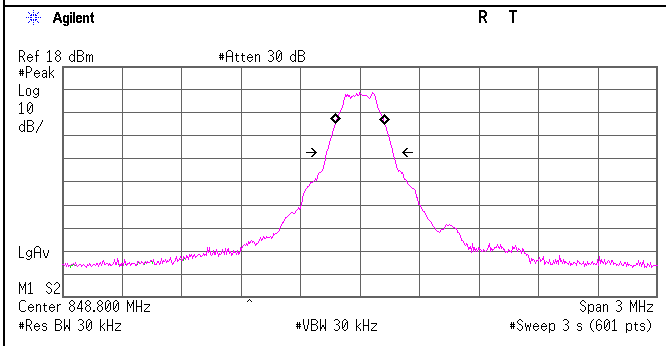
Tx:824.2MHz



Tx:836.6MHz



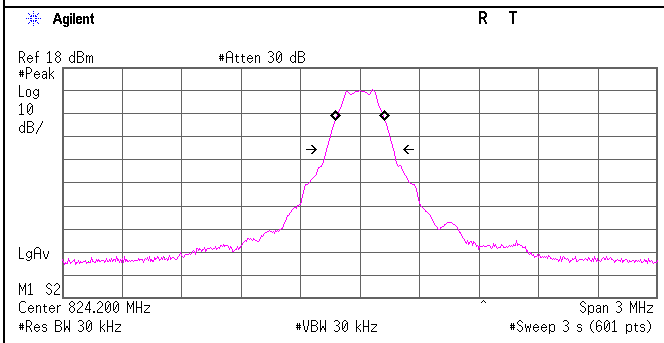
Tx:848.8MHz



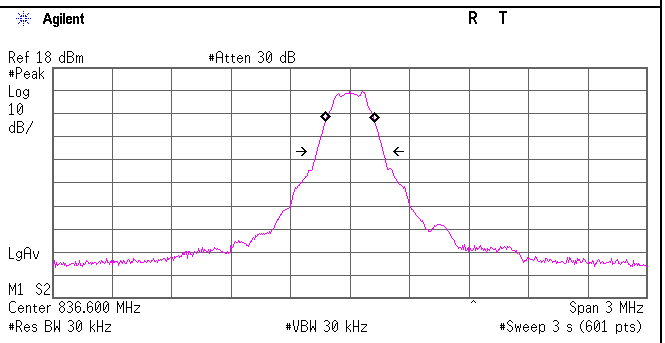
Emission Bandwidth

<EGPRS>

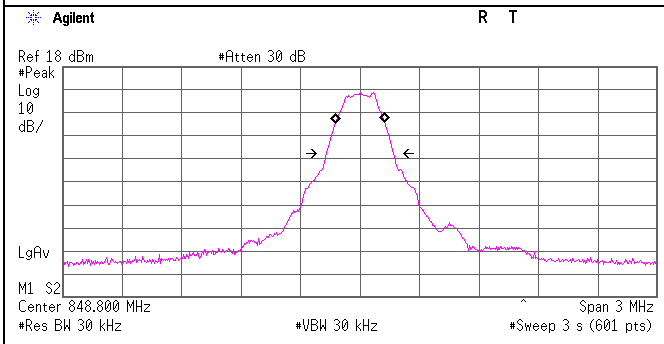
Tx:824.2MHz



Tx:836.6MHz



Tx:848.8MHz



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99%Occupied Bandwidth

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

COMPANY	SHARP CORPORATION	REPORT NO	27JE0086-HO
EQUIPMENT	Wireless PDA	REGULATION	FCC Part22 Section 22.917(b)
MODEL	PV250	TEST METHOD	FCC Part2 Section 2.1049
S/N	001	TEST DISTANCE	-
POWER	DC3.9V (AC120V/60Hz)	DATE	06/18/2007
MODE	Tx 824.2MHz (128ch)/PCL=5(MAX Pow)	TEMPERATURE	25℃
	Tx 836.6MHz (190ch)/PCL=5(MAX Pow)	HUMIDITY	61%
	Tx 848.8MHz (251ch)/PCL=5(MAX Pow)	ENGINEER	Yutaka Yoshida

<GSM>

	FREQ [MHz]	Bandwidth [kHz]	Limit [kHz]
Low	824.2	252.2	-
Mid	836.6	252.8	-
High	848.8	251.5	-

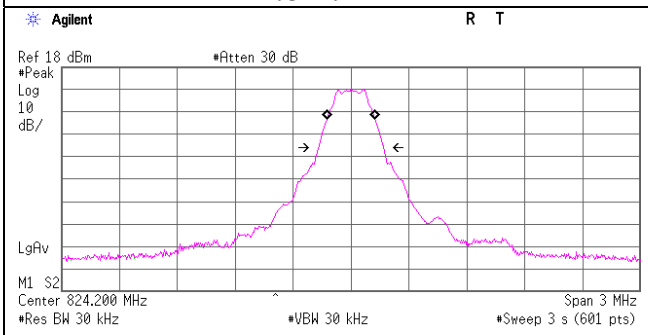
<EGPRS>

CH	FREQ [MHz]	Bandwidth [kHz]	Limit [kHz]
Low	824.2	253.7	-
Mid	836.6	252.9	-
High	848.8	253.2	-

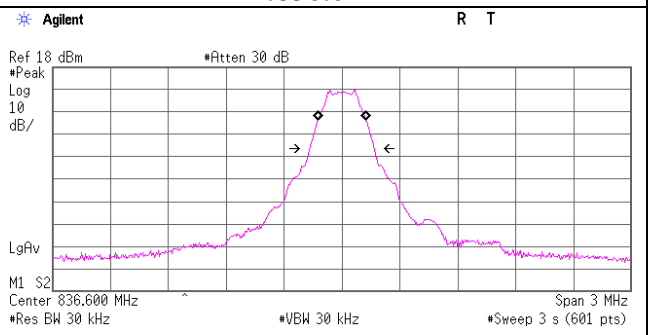
99%Occupied Bandwidth

<GSM>

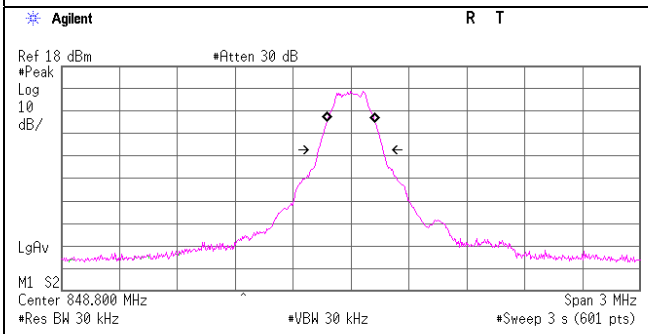
Tx:824.2MHz



Tx:836.6MHz



Tx:848.8MHz



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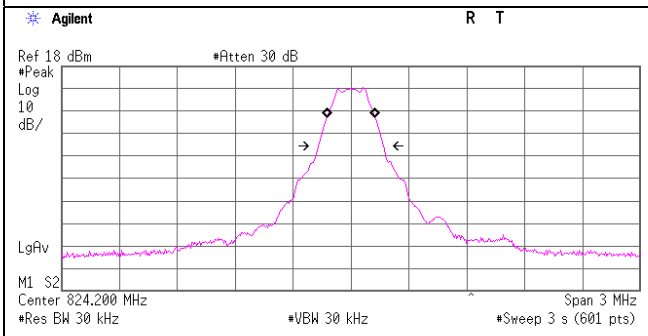
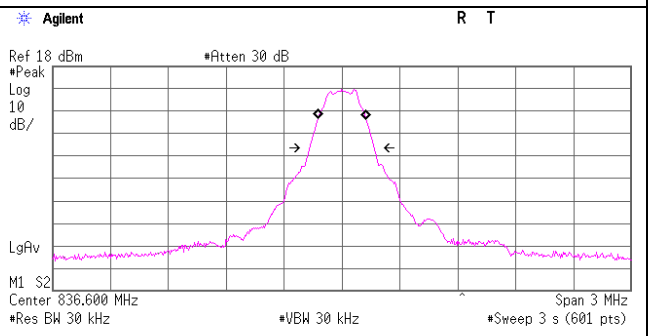
99%Occupied Bandwidth

<EGPRS>

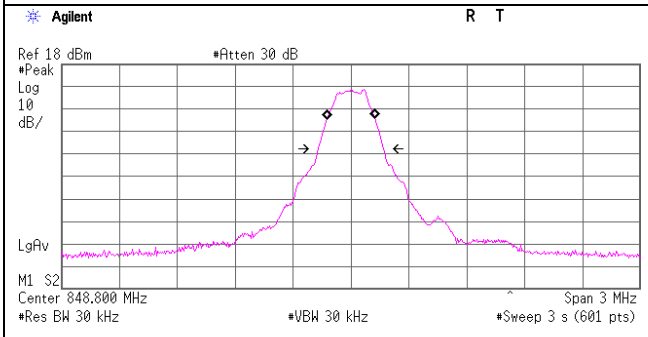
Tx:824.2MHz



Tx:836.6MHz



Tx:848.8MHz



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Band Edge(Conducted)

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

COMPANY	SHARP CORPORATION	REPORT NO	27JE0086-HO
EQUIPMENT	Wireless PDA	REGULATION	FCC Part22 Section 22.917(b)
MODEL	PV250	TEST METHOD	FCC Part2 Section 2.1049
S/N	001	TEST DISTANCE	-
POWER	DC3.9V (AC120V/60Hz)	DATE	06/18/2007
MODE	Tx 824.2MHz (128ch)/PCL=5(MAX Pow)	TEMPERATURE	25℃
	Tx 848.8MHz (251ch)/PCL=5(MAX Pow)	HUMIDITY	61%
		ENGINEER	Yutaka Yoshida

VIDEO AV 30 times

<GSM>

Frequency [MHz]	Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Result [dBm]	Limit [dBm]	Margine [dB]
823.98	-39.0	20.3	4.8	-13.9	-13.0	0.9
849.02	-38.7	20.3	4.7	-13.7	-13.0	0.7

<EGPRS>

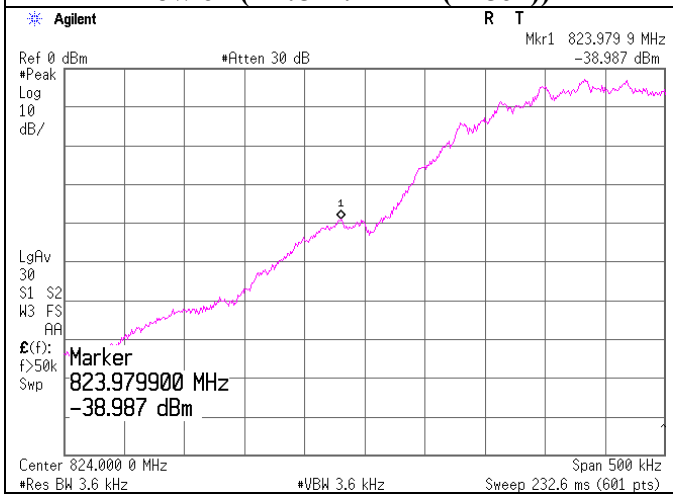
Frequency [MHz]	Reading [dBm]	Atten. [dB]	Cable Loss [dB]	Result [dBm]	Limit [dBm]	Margine [dB]
823.98	-38.6	20.3	4.8	-13.5	-13.0	0.5
849.02	-39.5	20.3	4.7	-14.5	-13.0	1.5

Sample Calculation : Result = Reading + Atten. + Cable Loss(including customer cable)

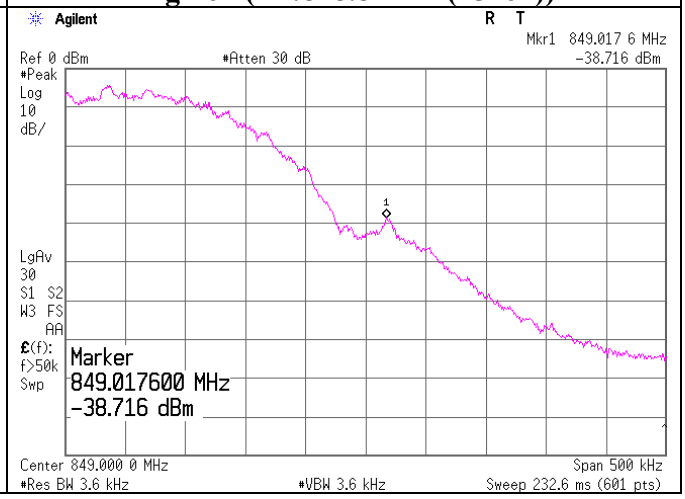
Band Edge(Conducted)

<GSM>

Low ch (Tx:824.2MHz (128ch))

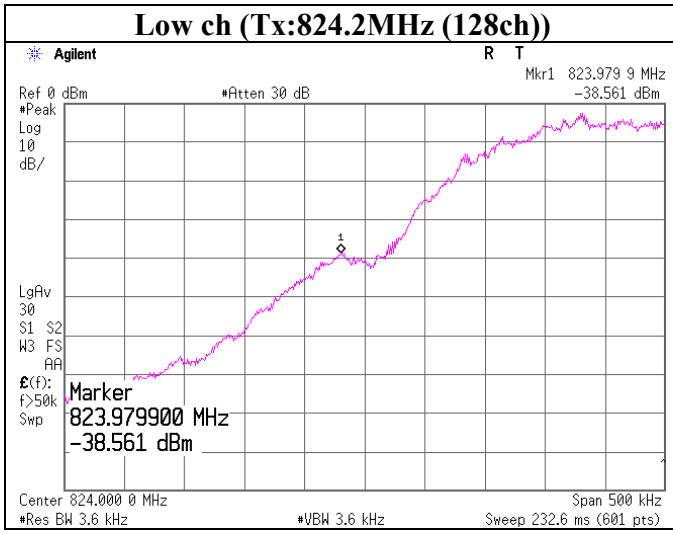


High ch (Tx:848.8MHz (251ch))

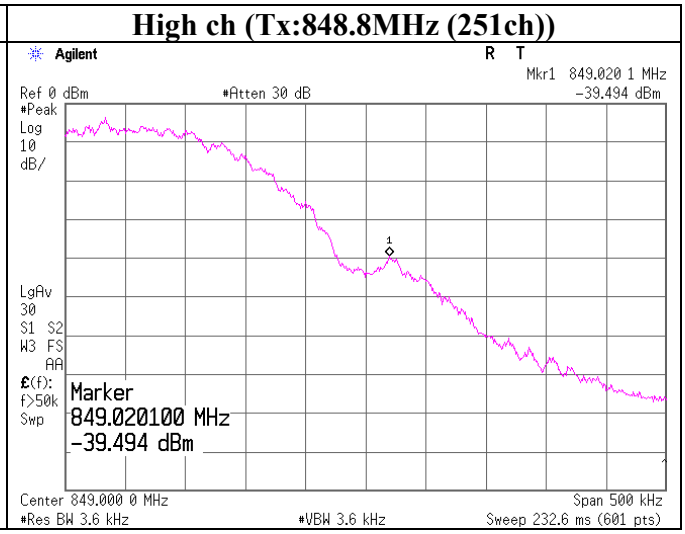


<EGPRS>

Low ch (Tx:824.2MHz (128ch))



High ch (Tx:848.8MHz (251ch))



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Band Edge (Radiated)

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(b)
Model	PV250	Test Method	FCC Part 2 Section 2.1049
S/N	001	Test Distance	3m
Power	AC 120V / 60Hz	Date	June 1, 2007
Mode	GSM Mode / EGPRS Mode	Temperature	22 deg.C.
	Tx 824.2MHz(Ch128) / MAX Power	Humidity	53 %
	Tx 848.8MHz(Ch251) / MAX Power		
EUT-Position	H: X-axis / V: Y-axis	Engineer	Yutaka Yoshida
Tx Antenna	0.8m Height		

[GSM Mode]

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	824.00	80.2	78.9	-9.0	-6.3	1.6	2.2	9.8	-20.5	-17.8	-13.0	7.5	4.8	Operating	No4
2	849.02	83.1	74.2	-5.7	-11.3	1.7	2.2	9.7	-17.1	-22.7	-13.0	**4.1**	9.7	Operating	No4

[EGPRS Mode]

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	823.98	82.9	78.0	-6.3	-7.2	1.6	2.2	9.8	-17.8	-18.7	-13.0	**4.8**	5.7	Operating	No4
2	850.00	81.2	74.8	-7.6	-10.7	1.7	2.2	9.7	-19.0	-22.1	-13.0	6.0	9.1	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW : 3.6kHz, VBW : 3.6kHz), Video Avarage : 30 times, Gating ON

Spurious Emission (Conducted)

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

COMPANY	SHARP CORPORATION	REPORT NO	27JE0087-HO
EQUIPMENT	Wireless PDA	REGULATION	Fcc Part 22 Section 22.917(a)
MODEL	PV250	TEST METHOD	Fcc Part 2 Section 2.1051
S/N	1	TEST DISTANCE	-
POWER	DC3.7V (AC120V/60Hz)	DATE	06/18/2007
MODE	Tx 824.2MHz (128ch)/PCL=5(MAX Pow)	TEMPERATURE	25℃
	Tx 836.6MHz (190ch)/PCL=5(MAX Pow)	HUMIDITY	61%
	Tx 848.8MHz (251ch)/PCL=5(MAX Pow)	ENGINEER	Yutaka Yoshida

Limit Line

Tx Frequency [MHz]	Limit [dBm]	Atten. [dB]	Cable Loss [dB]	Limit Line [dBm]
824.2	-13.0	20.3	4.8	-38.1
836.6	-13.0	20.3	4.7	-38.0
848.8	-13.0	20.3	4.7	-38.0

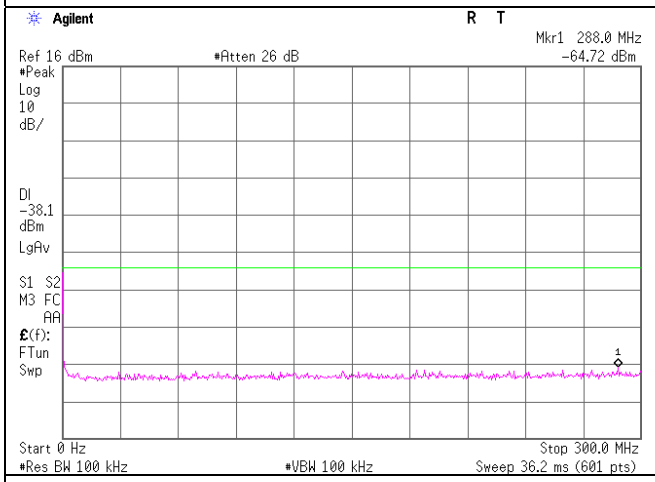
Sample Calculation : Limit Line = Limit - Atten. - Cable Loss

*All the spurious noises were below the above limit line.

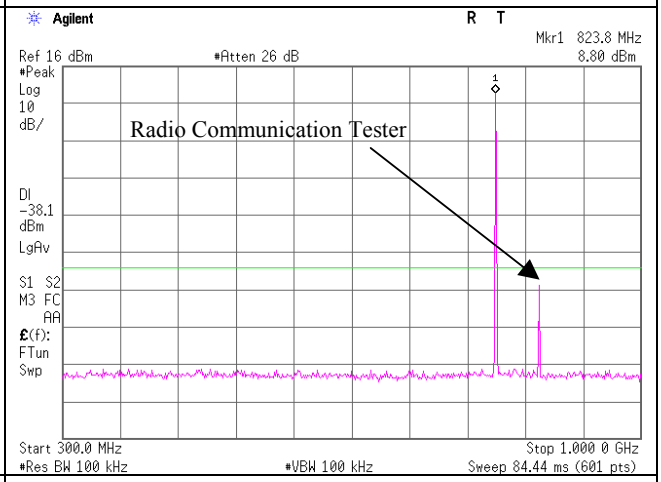
Spurious Emission (Conducted)

GSM / Tx:824.2MHz

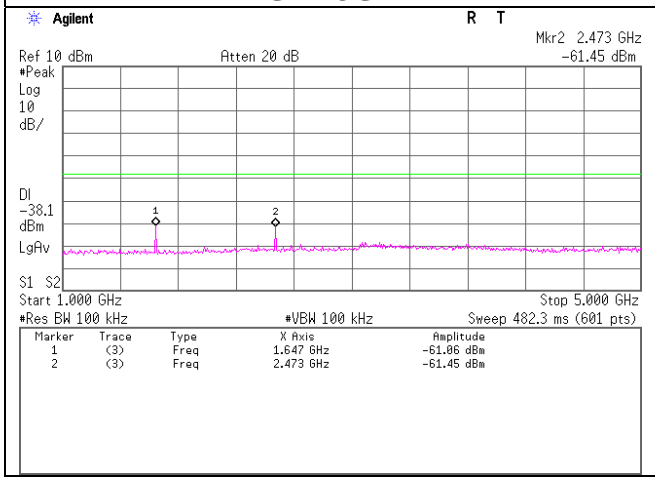
0Hz-300MHz



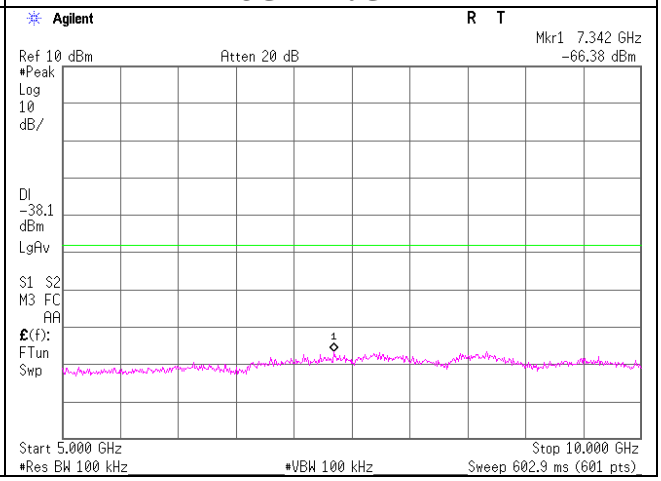
300MHz-1GHz



1GHz-5GHz



5GHz-10GHz



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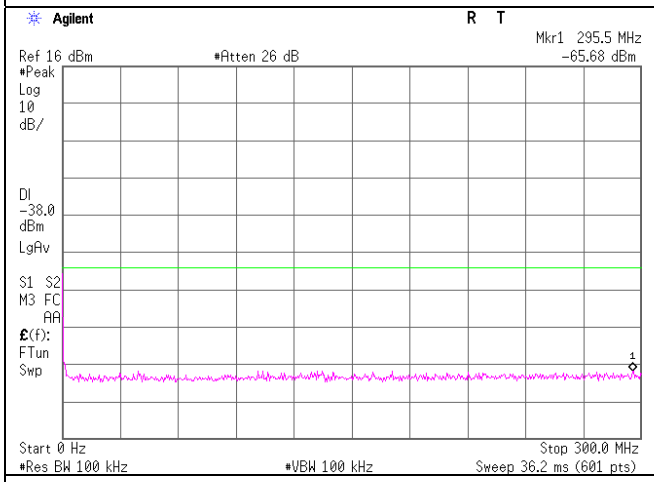
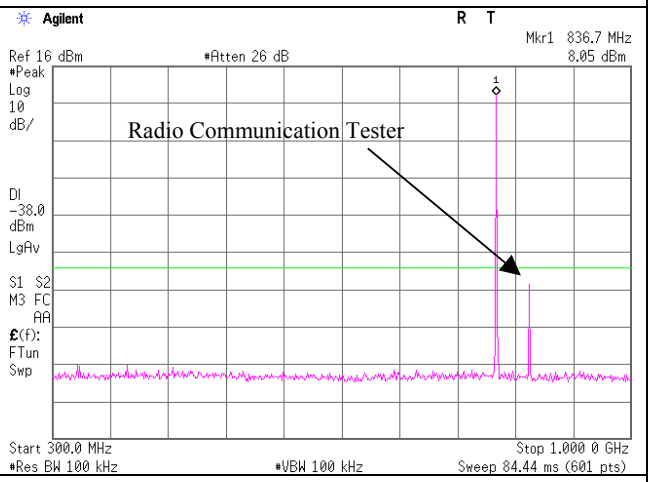
Spurious Emission (Conducted)

GSM850 / Tx:836.6MHz

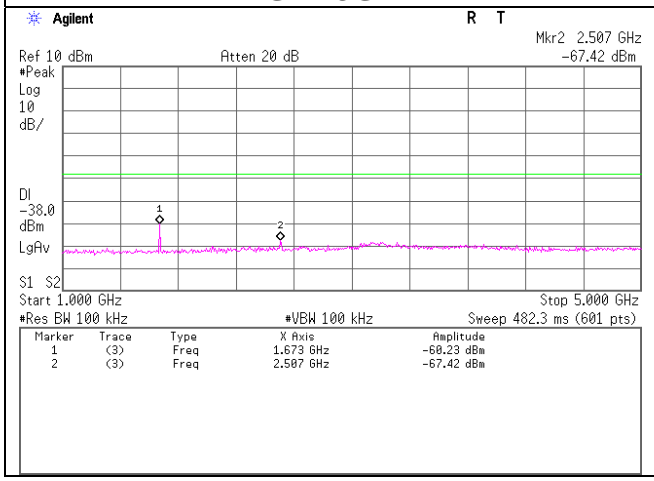
0Hz-300MHz



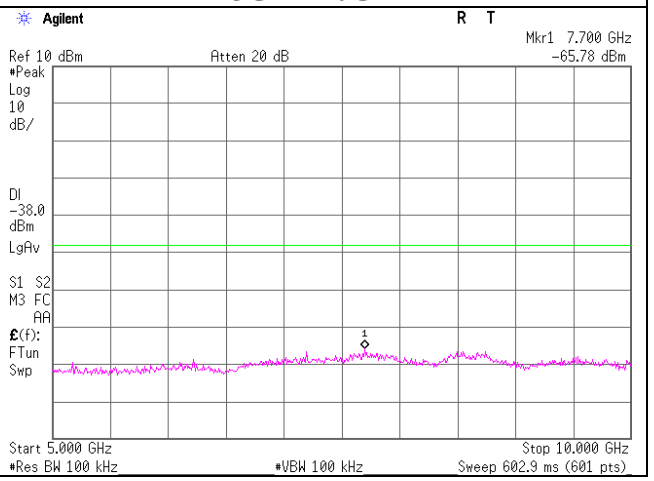
300MHz-1GHz



1GHz-5GHz



5GHz-10GHz



UL Japan, Inc.
Head Office EMC Lab.
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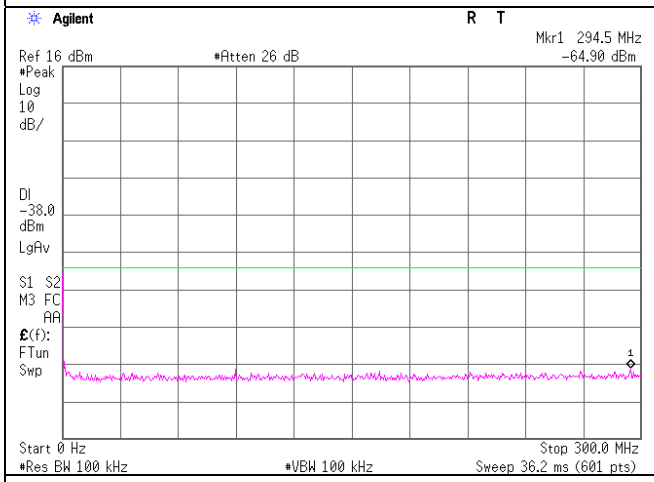
Facsimile : +81 596 24 8124

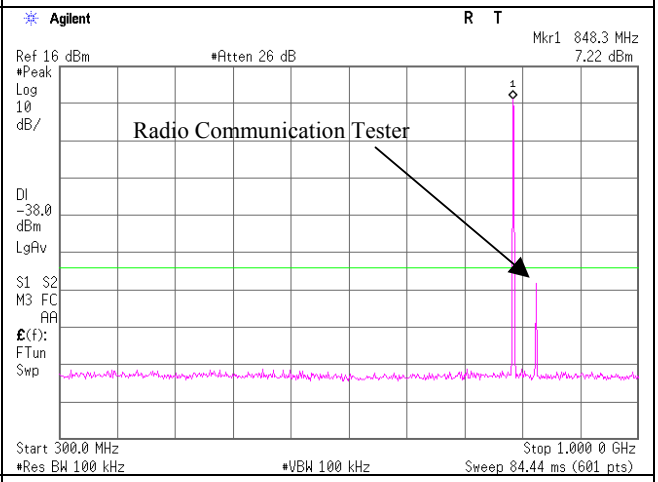
Spurious Emission (Conducted)

GSM850 / Tx:848.8MHz

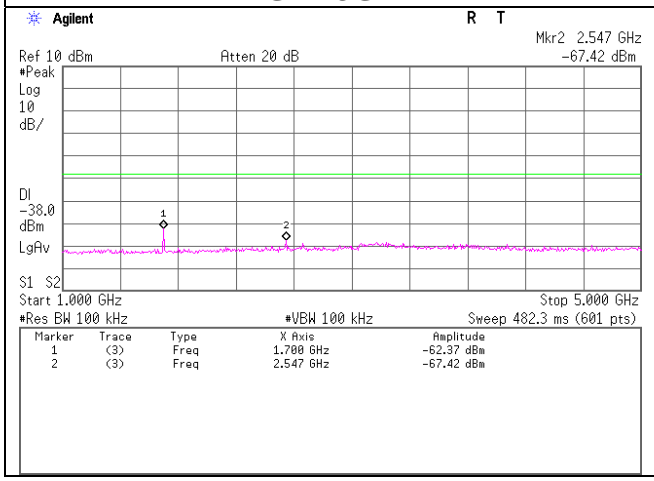
0Hz-300MHz



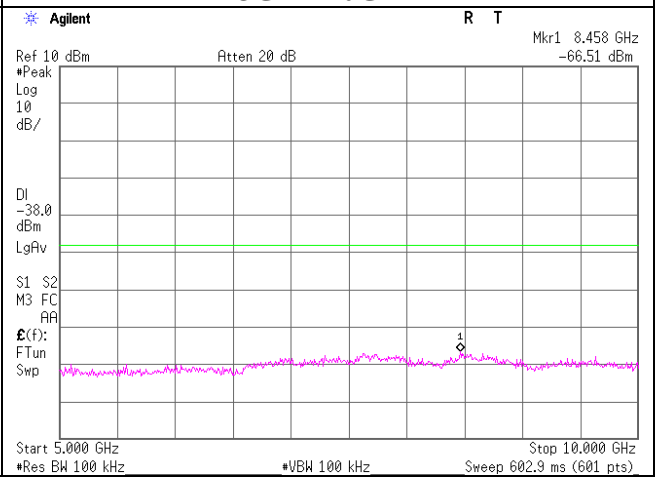
300MHz-1GHz



1GHz-5GHz



5GHz-10GHz



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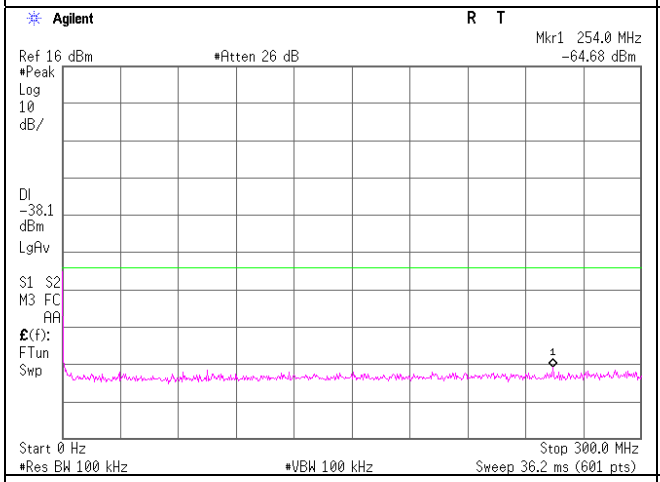
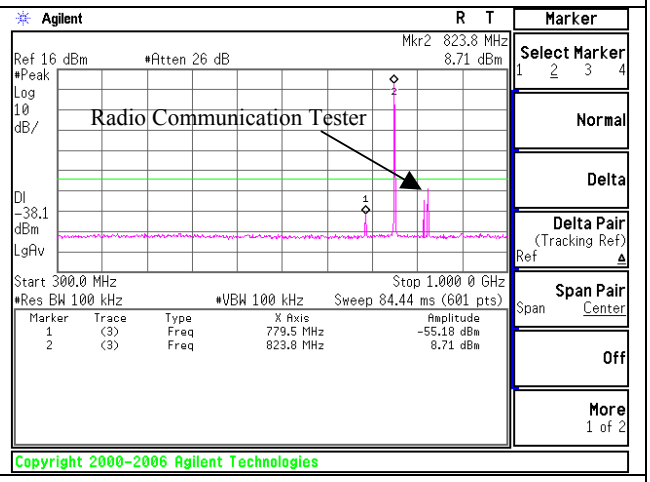
Spurious Emission (Conducted)

EGPRS / Tx:824.2MHz

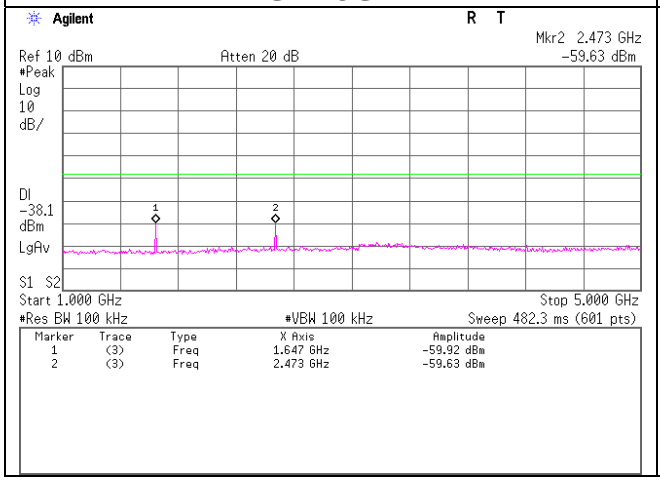
0Hz-300MHz



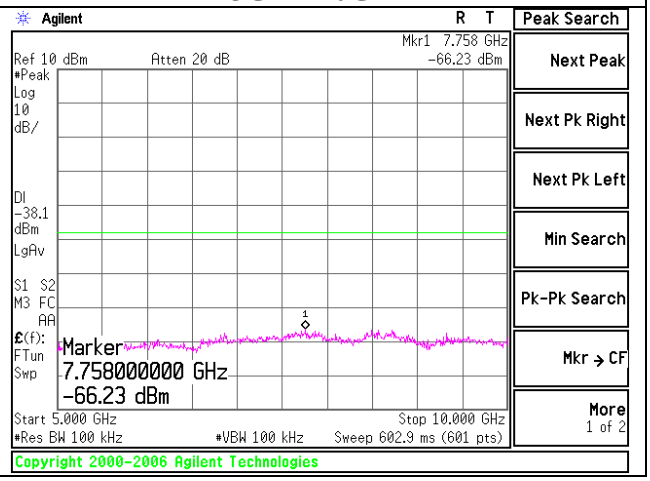
300MHz-1GHz



1GHz-5GHz



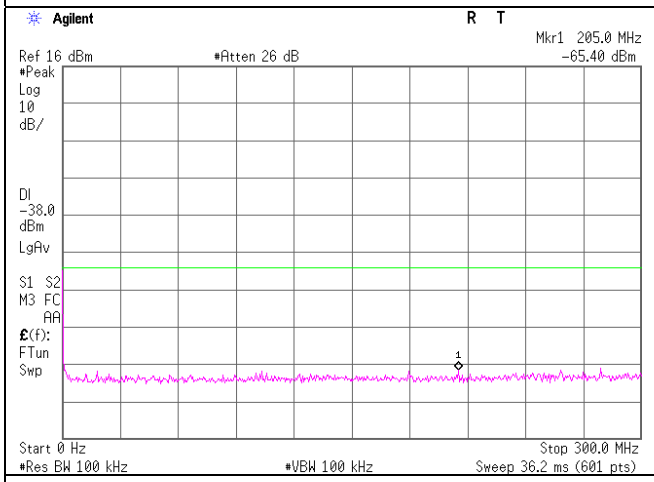
5GHz-10GHz



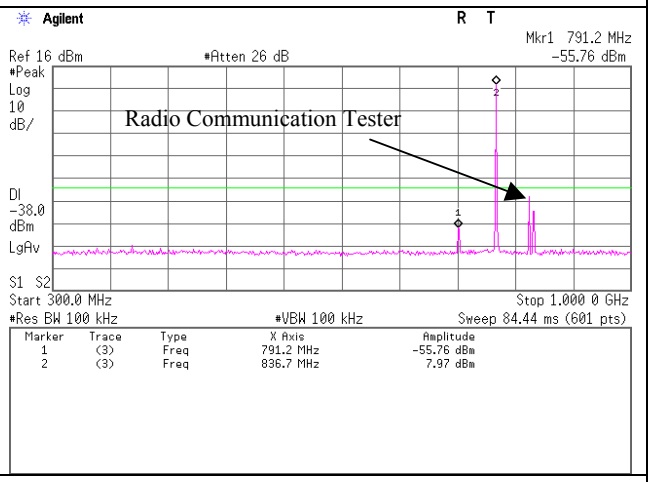
Spurious Emission (Conducted)

EGPRS / Tx:836.6MHz

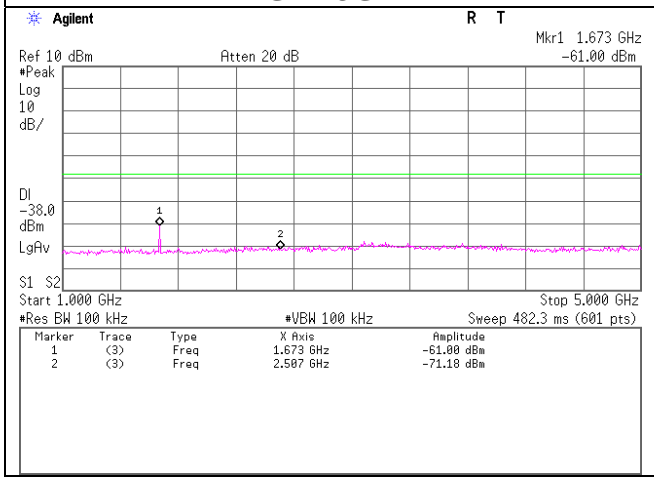
0Hz-300MHz



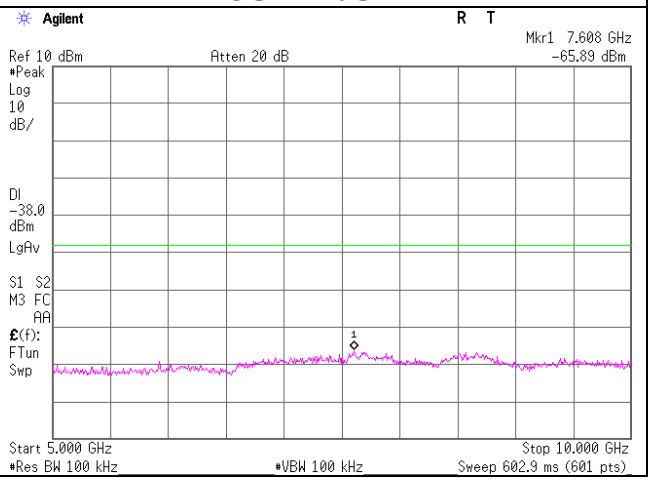
300MHz-1GHz



1GHz-5GHz



5GHz-10GHz



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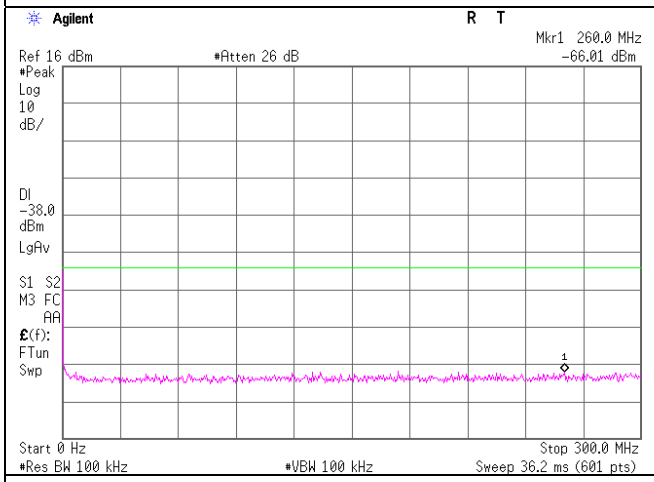
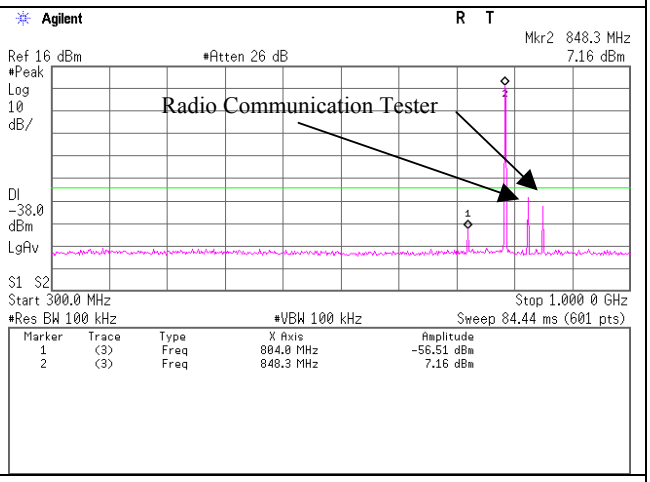
Spurious Emission (Conducted)

EGPRS / Tx:848.8MHz

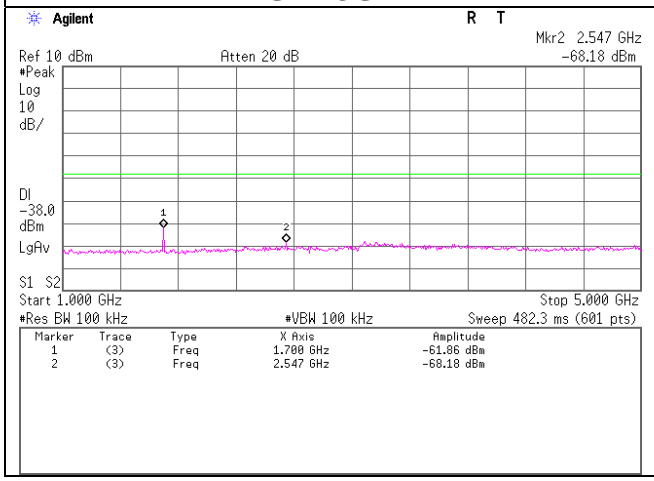
0Hz-300MHz



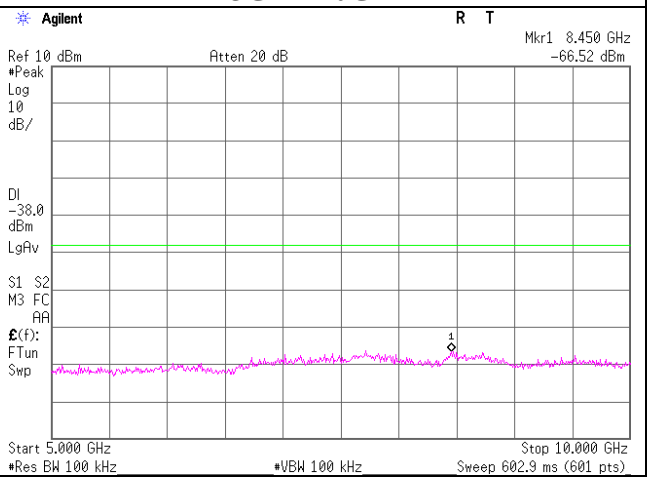
300MHz-1GHz



1GHz-5GHz



5GHz-10GHz



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Spurious Radiation

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO	
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250	Test Method	FCC Part 2 Section 2.1053	
S/N	001	Test Distance	3m	
Power	AC 120V / 60Hz	Date	May 30, 2007	June 4, 2007
Mode	GSM Mode	Temperature	24 deg.C.	23 deg.C.
	Tx 824.2MHz(Ch128) / MAX Power	Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis	Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	41.25	21.1	24.3	-34.1	-40.1	0.4	-23.7	10.3	-70.6	-76.6	-13.0	57.6	63.6	Operating	No4
2	78.15	15.4	19.7	-60.8	-57.5	0.5	-8.5	9.5	-81.5	-78.1	-13.0	68.5	65.1	Operating	No4
3	116.40	21.8	22.6	-66.4	-65.4	0.6	1.4	10.0	-77.7	-76.7	-13.0	64.7	63.7	Operating	No4
4	151.95	29.0	26.5	-60.7	-61.1	0.7	2.2	9.7	-71.2	-71.5	-13.0	58.2	58.5	Operating	No4
5	1648.40	63.4	62.7	-41.3	-43.7	2.2	9.1	0.0	-36.5	-38.9	-13.0	**23.5**	25.9	Operating	No4
6	2472.60	60.5	64.4	-46.6	-44.3	2.7	10.9	0.0	-40.6	-38.3	-13.0	27.6	25.3	Operating	No4
7	3296.80	45.5	49.1	-61.1	-58.9	3.3	11.4	0.0	-55.1	-52.9	-13.0	42.1	39.9	Operating	No4
8	4121.00	46.1	49.1	-61.3	-59.0	3.8	12.2	0.0	-55.1	-52.7	-13.0	42.1	39.7	Operating	No4
9	4945.20	40.4	41.8	-66.6	-67.5	4.4	12.4	0.0	-60.8	-61.7	-13.0	47.8	48.7	Operating	No4
10	5769.40	36.7	41.1	-69.6	-66.5	5.0	13.0	0.0	-63.7	-60.6	-13.0	50.7	47.6	Operating	No4
11	6593.60	45.9	44.4	-58.1	-60.4	5.5	12.4	0.0	-53.3	-55.7	-13.0	40.3	42.7	Operating	No4
12	7417.70	43.9	46.9	-57.9	-56.1	5.9	11.5	0.0	-54.5	-52.7	-13.0	41.5	39.7	Operating	No4
13	8242.00	42.0	43.9	-58.6	-58.6	6.3	11.1	0.0	-56.0	-56.0	-13.0	43.0	43.0	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Spurious Radiation

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO	
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250	Test Method	FCC Part 2 Section 2.1053	
S/N	001	Test Distance	3m	
Power	AC 120V / 60Hz	Date	May 30, 2007	June 4, 2007
Mode	GSM Mode	Temperature	24 deg.C.	23 deg.C.
	Tx 836.6MHz(Ch190) / MAX Power	Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis	Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	40.80	22.0	24.7	-32.9	-39.5	0.4	-23.9	10.3	-69.6	-76.3	-13.0	56.6	63.3	Operating	No4
2	76.80	15.4	21.0	-60.3	-55.9	0.5	-9.0	9.6	-81.5	-77.1	-13.0	68.5	64.1	Operating	No4
3	124.05	22.8	23.0	-65.8	-65.2	0.7	2.2	10.1	-76.6	-76.0	-13.0	63.6	63.0	Operating	No4
4	154.65	29.0	26.4	-60.8	-61.1	0.7	2.2	9.7	-71.2	-71.5	-13.0	58.2	58.5	Operating	No4
5	1673.20	71.8	75.2	-33.1	-31.4	2.2	9.2	0.0	-28.2	-26.5	-13.0	15.2	**13.5**	Operating	No4
6	2509.80	60.0	61.4	-47.0	-47.2	2.8	10.9	0.0	-41.1	-41.3	-13.0	28.1	28.3	Operating	No4
7	3346.40	58.0	58.7	-48.7	-49.3	3.3	11.5	0.0	-42.6	-43.3	-13.0	29.6	30.3	Operating	No4
8	4183.00	54.0	60.8	-53.4	-47.4	3.8	12.2	0.0	-47.2	-41.2	-13.0	34.2	28.2	Operating	No4
9	5019.60	42.1	39.9	-64.9	-69.5	4.5	12.5	0.0	-59.1	-63.6	-13.0	46.1	50.6	Operating	No4
10	5856.20	49.3	52.2	-56.9	-55.1	5.0	13.1	0.0	-51.1	-49.3	-13.0	38.1	36.3	Operating	No4
11	6692.80	46.6	47.1	-57.0	-57.3	5.5	12.2	0.0	-52.5	-52.8	-13.0	39.5	39.8	Operating	No4
12	7529.40	48.2	52.1	-53.4	-50.8	6.0	11.4	0.0	-50.2	-47.5	-13.0	37.2	34.5	Operating	No4
13	8366.00	45.6	46.1	-54.9	-56.4	6.4	11.1	0.0	-52.4	-53.8	-13.0	39.4	40.8	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Spurious Radiation

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO	
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250	Test Method	FCC Part 2 Section 2.1053	
S/N	001	Test Distance	3m	
Power	AC 120V / 60Hz	Date	May 30, 2007	June 4, 2007
Mode	GSM Mode	Temperature	24 deg.C.	23 deg.C.
	Tx 848.8MHz(Ch251) / MAX Power	Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis	Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	38.70	22.0	25.6	-31.5	-37.3	0.4	-25.2	10.4	-69.7	-75.5	-13.0	56.7	62.5	Operating	No4
2	75.95	16.4	21.7	-59.0	-55.0	0.5	-9.3	9.7	-80.6	-76.6	-13.0	67.6	63.6	Operating	No4
3	124.50	21.8	23.9	-66.8	-64.4	0.7	2.2	10.1	-77.6	-75.2	-13.0	64.6	62.2	Operating	No4
4	153.30	30.6	25.3	-59.2	-62.3	0.7	2.2	9.7	-69.6	-72.7	-13.0	56.6	59.7	Operating	No4
5	1697.60	76.3	71.8	-28.8	-35.0	2.2	9.3	0.0	-23.9	-30.0	-13.0	**10.9**	17.0	Operating	No4
6	2546.40	63.3	55.0	-43.7	-53.6	2.8	10.9	0.0	-37.7	-47.6	-13.0	24.7	34.6	Operating	No4
7	3395.20	61.3	62.6	-45.4	-45.4	3.3	11.5	0.0	-39.3	-39.4	-13.0	26.3	26.4	Operating	No4
8	4244.00	57.2	59.2	-50.2	-49.1	3.9	12.2	0.0	-44.0	-42.9	-13.0	31.0	29.9	Operating	No4
9	5092.80	42.5	43.0	-64.4	-66.2	4.5	12.5	0.0	-58.6	-60.4	-13.0	45.6	47.4	Operating	No4
10	5941.60	46.0	48.9	-60.2	-58.2	5.1	13.1	0.0	-54.3	-52.4	-13.0	41.3	39.4	Operating	No4
11	6790.40	46.9	47.5	-56.4	-56.6	5.6	12.1	0.0	-52.0	-52.2	-13.0	39.0	39.2	Operating	No4
12	7639.20	43.5	45.2	-57.9	-57.6	6.0	11.3	0.0	-54.8	-54.5	-13.0	41.8	41.5	Operating	No4
13	8488.00	44.9	46.9	-55.6	-55.6	6.5	11.2	0.0	-53.0	-53.0	-13.0	40.0	40.0	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Spurious Radiation

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

Company	SHARP CORPORATION		Report Number	27JE0086-HO	
Equipment	Wireless PDA		Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250		Test Method	FCC Part 2 Section 2.1053	
S/N	001		Test Distance	3m	
Power	AC 120V / 60Hz		Date	May 30, 2007	June 4, 2007
Mode	EGPRS Mode		Temperature	24 deg.C.	23 deg.C.
	Tx 824.2MHz(Ch128) / MAX Power		Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis		Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height				

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	45.28	20.4	24.7	-37.6	-41.6	0.4	-21.4	10.3	-71.8	-75.8	-13.0	58.8	62.8	Operating	No4
2	76.28	16.1	24.9	-59.4	-51.9	0.5	-9.2	9.6	-80.9	-73.3	-13.0	67.9	60.3	Operating	No4
3	127.65	24.0	23.8	-64.8	-64.4	0.7	2.2	10.1	-75.7	-75.2	-13.0	62.7	62.2	Operating	No4
4	157.17	30.3	24.6	-59.5	-62.8	0.7	2.2	9.6	-69.9	-73.1	-13.0	56.9	60.1	Operating	No4
5	1648.40	60.4	61.6	-44.3	-44.8	2.2	9.1	0.0	-39.5	-40.0	-13.0	26.5	27.0	Operating	No4
6	2472.60	63.3	67.7	-43.8	-41.0	2.7	10.9	0.0	-37.8	-35.0	-13.0	24.8	**22.0**	Operating	No4
7	3296.80	46.2	46.7	-60.4	-61.3	3.3	11.4	0.0	-54.4	-55.3	-13.0	41.4	42.3	Operating	No4
8	4121.00	44.0	45.3	-63.4	-62.8	3.8	12.2	0.0	-57.2	-56.5	-13.0	44.2	43.5	Operating	No4
9	4945.20	42.3	46.5	-64.7	-62.8	4.4	12.4	0.0	-58.9	-57.0	-13.0	45.9	44.0	Operating	No4
10	5769.40	39.2	42.1	-67.1	-65.5	5.0	13.0	0.0	-61.2	-59.6	-13.0	48.2	46.6	Operating	No4
11	6593.60	45.4	44.1	-58.6	-60.7	5.5	12.4	0.0	-53.8	-56.0	-13.0	40.8	43.0	Operating	No4
12	7417.70	42.9	49.1	-58.9	-53.9	5.9	11.5	0.0	-55.5	-50.5	-13.0	42.5	37.5	Operating	No4
13	8242.00	43.8	44.1	-56.8	-58.4	6.3	11.1	0.0	-54.2	-55.8	-13.0	41.2	42.8	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Spurious Radiation

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO	
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250	Test Method	FCC Part 2 Section 2.1053	
S/N	001	Test Distance	3m	
Power	AC 120V / 60Hz	Date	May 30, 2007	June 7, 2007
Mode	EGPRS Mode	Temperature	24 deg.C.	23 deg.C.
	Tx 836.6MHz(Ch190) / MAX Power	Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis	Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	43.98	20.1	22.4	-37.0	-43.3	0.4	-22.1	10.3	-71.9	-78.3	-13.0	58.9	65.3	Operating	No4
2	75.90	16.2	20.8	-59.2	-55.9	0.5	-9.3	9.7	-80.8	-77.5	-13.0	67.8	64.5	Operating	No4
3	128.00	24.0	22.4	-64.9	-65.8	0.7	2.2	10.1	-75.7	-76.6	-13.0	62.7	63.6	Operating	No4
4	156.12	30.1	24.8	-59.7	-62.7	0.7	2.2	9.6	-70.1	-73.0	-13.0	57.1	60.0	Operating	No4
5	1673.20	72.1	66.2	-32.8	-40.4	2.2	9.2	0.0	-27.9	-35.5	-13.0	**14.9**	22.5	Operating	No4
6	2509.80	69.4	67.6	-37.6	-41.0	2.8	10.9	0.0	-31.7	-35.1	-13.0	18.7	22.1	Operating	No4
7	3346.40	57.0	46.4	-49.7	-61.6	3.3	11.5	0.0	-43.6	-55.6	-13.0	30.6	42.6	Operating	No4
8	4183.00	52.2	51.4	-55.2	-56.8	3.8	12.2	0.0	-49.0	-50.6	-13.0	36.0	37.6	Operating	No4
9	5019.60	41.5	46.0	-65.5	-63.4	4.5	12.5	0.0	-59.7	-57.5	-13.0	46.7	44.5	Operating	No4
10	5856.20	45.7	45.9	-60.5	-61.4	5.0	13.1	0.0	-54.7	-55.6	-13.0	41.7	42.6	Operating	No4
11	6692.80	42.2	45.9	-61.4	-58.5	5.5	12.2	0.0	-56.9	-54.0	-13.0	43.9	41.0	Operating	No4
12	7529.40	48.6	51.3	-53.0	-51.6	6.0	11.4	0.0	-49.8	-48.3	-13.0	36.8	35.3	Operating	No4
13	8366.00	41.7	43.2	-58.8	-59.3	6.4	11.1	0.0	-56.3	-56.7	-13.0	43.3	43.7	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Spurious Radiation

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO	
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250	Test Method	FCC Part 2 Section 2.1053	
S/N	001	Test Distance	3m	
Power	AC 120V / 60Hz	Date	May 30, 2007	June 7, 2007
Mode	EGPRS Mode	Temperature	24 deg.C.	23 deg.C.
	Tx 848.8MHz(Ch251) / MAX Power	Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis	Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	47.00	19.5	22.7	-39.7	-44.3	0.4	-20.4	10.3	-73.1	-77.6	-13.0	60.1	64.6	Operating	No4
2	74.73	16.6	26.1	-58.4	-50.3	0.5	-9.7	9.8	-80.5	-72.5	-13.0	67.5	59.5	Operating	No4
3	120.48	23.0	22.3	-65.4	-65.6	0.6	2.2	10.1	-76.1	-76.3	-13.0	63.1	63.3	Operating	No4
4	154.93	27.9	24.3	-61.9	-63.2	0.7	2.2	9.7	-72.3	-73.6	-13.0	59.3	60.6	Operating	No4
5	1697.60	75.1	71.3	-30.0	-35.5	2.2	9.3	0.0	-25.1	-30.5	-13.0	**12.1**	17.5	Operating	No4
6	2546.40	56.5	59.4	-50.5	-49.2	2.8	10.9	0.0	-44.5	-43.2	-13.0	31.5	30.2	Operating	No4
7	3395.20	60.4	59.1	-46.3	-48.9	3.3	11.5	0.0	-40.2	-42.9	-13.0	27.2	29.9	Operating	No4
8	4244.00	51.5	51.5	-55.9	-56.8	3.9	12.2	0.0	-49.7	-50.6	-13.0	36.7	37.6	Operating	No4
9	5092.80	41.5	45.6	-65.4	-63.6	4.5	12.5	0.0	-59.6	-57.8	-13.0	46.6	44.8	Operating	No4
10	5941.60	43.4	42.4	-62.8	-64.7	5.1	13.1	0.0	-56.9	-58.9	-13.0	43.9	45.9	Operating	No4
11	6790.40	43.8	45.5	-59.5	-58.6	5.6	12.1	0.0	-55.1	-54.2	-13.0	42.1	41.2	Operating	No4
12	7639.20	45.3	47.7	-56.1	-55.1	6.0	11.3	0.0	-53.0	-52.0	-13.0	40.0	39.0	Operating	No4
13	8488.00	44.5	43.0	-56.0	-59.5	6.5	11.2	0.0	-53.4	-56.9	-13.0	40.4	43.9	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15
Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)
Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)
All other emissions were at least 20dB below the specification limit.
The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.
With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.
Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Spurious Radiation

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

Company	SHARP CORPORATION	Report Number	27JE0086-HO	
Equipment	Wireless PDA	Regulation	FCC Part 22 Section 22.917(a)	
Model	PV250	Test Method	FCC Part 2 Section 2.1053	
S/N	001	Test Distance	3m	
Power	AC 120V / 60Hz	Date	May 30, 2007	June 7, 2007
Mode	EGPRS Mode + BT Tx(2441MHz)	Temperature	24 deg.C.	23 deg.C.
	Tx 836.6MHz(Ch190) / MAX Power	Humidity	60 %	66 %
EUT-Position	H: X-axis / V: Y-axis	Engineer	Shinya Watanabe	Yutaka Yoshida
Tx Antenna	0.8m Height			

No.	Frequency [MHz]	Electric Field Strength (After Factor Calculation) [dBuV/m]		SG Reading [dBm]		Tx Cable Loss [dB]	Tx Ant. Gain [dBi]	Tx Ant. ATT. Loss [dB]	RESULT (ERP) [dBm]		LIMIT [dBm] (ERP)	MARGIN [dB]		Mode	A/C
		HOR	VER	HOR	VER				HOR	VER		HOR	VER		
1	44.85	20.9	24.5	-36.8	-41.6	0.4	-21.6	10.3	-71.2	-76.1	-13.0	58.2	63.1	Operating	No4
2	57.18	17.2	20.7	-49.5	-50.8	0.5	-15.7	10.6	-78.6	-79.9	-13.0	65.6	66.9	Operating	No4
3	67.35	16.2	15.9	-56.0	-58.9	0.5	-12.2	10.4	-81.3	-84.1	-13.0	68.3	71.1	Operating	No4
4	75.17	15.9	21.6	-59.2	-54.9	0.5	-9.5	9.7	-81.1	-76.9	-13.0	68.1	63.9	Operating	No4
5	82.63	15.9	19.2	-62.3	-59.7	0.5	-7.1	9.4	-81.4	-78.7	-13.0	68.4	65.7	Operating	No4
6	149.32	29.2	24.1	-60.5	-63.6	0.7	2.2	9.8	-71.0	-74.1	-13.0	58.0	61.1	Operating	No4
7	1673.20	64.1	66.8	-40.8	-39.8	2.2	9.2	0.0	-35.9	-34.9	-13.0	22.9	21.9	Operating	No4
8	2509.80	69.1	67.9	-37.9	-40.7	2.8	10.9	0.0	-32.0	-34.8	-13.0	**19.0**	21.8	Operating	No4
9	3346.40	45.5	45.9	-61.2	-62.1	3.3	11.5	0.0	-55.1	-56.1	-13.0	42.1	43.1	Operating	No4
10	4183.00	51.9	51.6	-55.5	-56.6	3.8	12.2	0.0	-49.3	-50.4	-13.0	36.3	37.4	Operating	No4
11	5019.60	41.3	44.3	-65.7	-65.1	4.5	12.5	0.0	-59.9	-59.2	-13.0	46.9	46.2	Operating	No4
12	5856.20	44.8	47.8	-61.4	-59.5	5.0	13.1	0.0	-55.6	-53.7	-13.0	42.6	40.7	Operating	No4
13	6692.80	45.5	46.9	-58.1	-57.5	5.5	12.2	0.0	-53.6	-53.0	-13.0	40.6	40.0	Operating	No4
14	7529.40	50.4	51.8	-51.2	-51.1	6.0	11.4	0.0	-48.0	-47.8	-13.0	35.0	34.8	Operating	No4
15	8366.00	42.8	44.0	-57.7	-58.5	6.4	11.1	0.0	-55.2	-55.9	-13.0	42.2	42.9	Operating	No4

CALCULATION RESULT = SG Reading - Tx Loss + Tx Ant. Gain - Tx Ant. ATT. Loss -2.15

Rx-ANTENNA : Biconical Antenna(30-300MHz), Logperriodic Antenna(300-1000MHz), Horn Antenna(1-10GHz)

Tx-ANTENNA : Shorted Dipole Antenna(30-120MHz), Dipole Antenna(120-1000MHz), Horn Antenna(1-10GHz)

All other emissions were at least 20dB below the specification limit.

The noise was measured at each position of all three axes X, Y and Z to compare the level, and the maximum noise.

With the result above, the effective radiated power was calculated on the basis of the reference value
- for the calibration data on the substitution measurement.

*The limit is rounded down to one decimal place.

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

Detector : S/A PK(RBW:100kHz / VBW:100kHz)

Frequency Stability(Temperature/Voltage Variation)

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

COMPANY	SHARP CORPORATION	REPORT NO	27JE0086-HO
EQUIPMENT	Wireless PDA	REGULATION	FCC Part22 Section 22.355
MODEL	PV250	TEST METHOD	FCC Part2 Section 2.1055(a)(1) and(b)
S/N	001		FCC Part2 Section 2.1055(d)(1) and(b)
POWER	DC3.9V(Rated Voltage)	TEST DISTANCE	-
MODE	Tx 836.6MHz (190ch)/PCL=5(MAX Pow)	DATE	06/22/2007
		TEMPERATURE	24℃
		HUMIDITY	51%
		ENGINEER	Yutaka Yoshida

<GSM>

Temp. [deg.C]	Volt. [V]	Frequency Reading [MHz]	Frequency Error [Hz]	Frequency Error [ppm]	Limit [ppm]
-30.0	3.9	836.600007	4	0.005	1.5
-20.0	3.9	836.600029	-18	-0.022	1.5
-10.0	3.9	836.599969	42	0.050	1.5
0.0	3.9	836.600021	-10	-0.012	1.5
10.0	3.9	836.599959	52	0.062	1.5
20.0	3.9	836.600011	0	0.000	Reference
30.0	3.9	836.599990	21	0.025	1.5
40.0	3.9	836.599981	30	0.036	1.5
50.0	3.9	836.599999	12	0.014	1.5

Temp. [deg.C]	Volt. [V]	Frequency Reading [MHz]	Frequency Error [Hz]	Frequency Error [ppm]	Limit [ppm]
20.0	3.6	836.600025	-14	-0.017	1.5
20.0	3.9	836.600011	0	0.000	Reference
20.0	4.2	836.599975	36	0.043	1.5

Frequency Stability(Temperature/Voltage Variation)

UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	SHARP CORPORATION	REPORT NO	26LE0301-HO
EQUIPMENT	Wireless PDA	REGULATION	FCC Part22 Section 24.355
MODEL	PV250	TEST METHOD	FCC Part2 Section 2.1055(a)(1) and(b)
S/N	001		FCC Part2 Section 2.1055(d)(1) and(b)
POWER	DC3.9V(Rated Voltage)	TEST DISTANCE	-
MODE	Tx 836.6MHz (190ch)/PCL=5(MAX Pow)	DATE	06/22/2007
		TEMPERATURE	24℃
		HUMIDITY	51%
		ENGINEER	Yutaka Yoshida

<EGPRS>

Temp. [deg.C]	Volt. [V]	Frequency Reading [MHz]	Frequency Error [Hz]	Frequency Error [ppm]	Limit [ppm]
-30.0	3.9	836.600047	-82	-0.098	1.5
-20.0	3.9	836.600031	-66	-0.079	1.5
-10.0	3.9	836.600027	-62	-0.074	1.5
0.0	3.9	836.599984	-19	-0.023	1.5
10.0	3.9	836.599988	-23	-0.027	1.5
20.0	3.9	836.599965	0	0.000	Reference
30.0	3.9	836.600071	-106	-0.127	1.5
40.0	3.9	836.599997	-32	-0.038	1.5
50.0	3.9	836.599979	-14	-0.017	1.5

Temp. [deg.C]	Volt. [V]	Frequency Reading [MHz]	Frequency Error [Hz]	Frequency Error [ppm]	Limit [ppm]
20.0	3.6	836.599926	39	0.047	1.5
20.0	3.9	836.599965	0	0.000	Reference
20.0	4.2	836.600002	-37	-0.044	1.5

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
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE	2007/06/20 * 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
MAT-28	Attenuator(3dB)	TME	UFA-01	RE	2007/03/05 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2006/08/17 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 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
MHF-14	High Pass Filter 3.5-18GHz	TOKIMEC	TF323DCC	RE	2006/12/18 * 12
MBF-08	Band Pass Filter	M-City	BPF1800-01	RE	2007/05/28 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2007/06/01 * 12
MAT-25	Attenuator(10dB)(above1GHz)	Agilent	8493C	AT	2006/06/02 * 12
MAT-23	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MCC-67	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	AT	2007/04/03 * 12
MCC-06	Microwave Cable 1G-26.5GHz 1m	Suhner	SUCOFLEX 104	AT	2007/02/26 * 12
MPSC-01	Power splitters/Combiners	Mini-Circuit	ZFSC-2-2500	AT	2006/09/20 * 12
MPSC-02	Power Splitters/Combiners	Mini-Circuit	ZFSC-2-10G	AT	2006/09/25 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2006/09/13 * 12

EMI test equipment (2/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MURC-01	Universal Radio communication Tester	Rohde & Schwarz	CMU200	RE/AT	Pre Check
MSTW-22	Universal Radio communication	Rohde & Schwarz	V3.54	RE/AT	-
MPSU-11	Power Supply	NF	ES1000S	AT	Pre Check
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2006/09/20 * 12
MPM-08	Power Meter	Anritsu	ML2495A	AT	2006/09/20 * 12
MCH-01	Temperature and Humidity Chamber	Tabai Espec	PL-2KP	AT	2006/12/21 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2006/01/19 * 24
MMM-02	Digital Tester	Hioki	3255	AT	2007/03/23 * 12
MDPS-13	DC Power Supply	Kikusui	PAK35-10A	AT	Pre Check
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	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:

RE: Radiated Emission
AT: Antenna Terminal Conducted