

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, Ch. Low, DH5

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

| | | | |
|-------------|---------------------|-------------|-------------------|
| Applicant | : SHARP CORPORATION | Report No. | : 28FE0217-H0 |
| Kind of EUT | : GSM Mobile Phone | Power | : AC120V / 60Hz |
| Model No. | : PV210 | Temp./Humi. | : 25deg. C / 31% |
| Serial No. | : 168 | Operator | : Kazuya Yoshioka |

Mode / Remarks : Buleetooth Transmitting Mode / 2402MHz / DH5

LIMIT : FCC15.207 OP
FCC15.207 AV

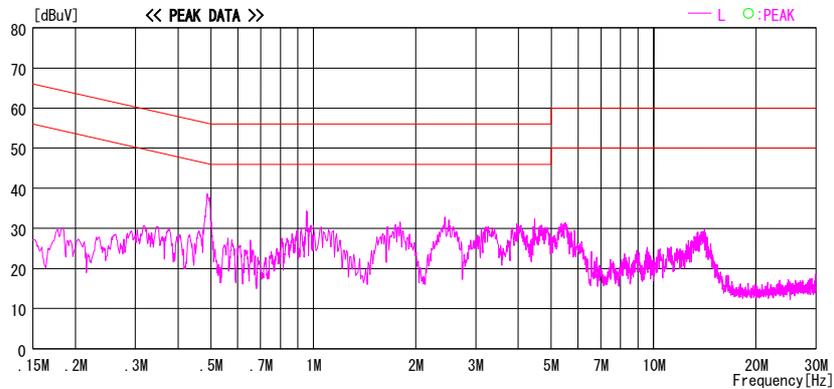
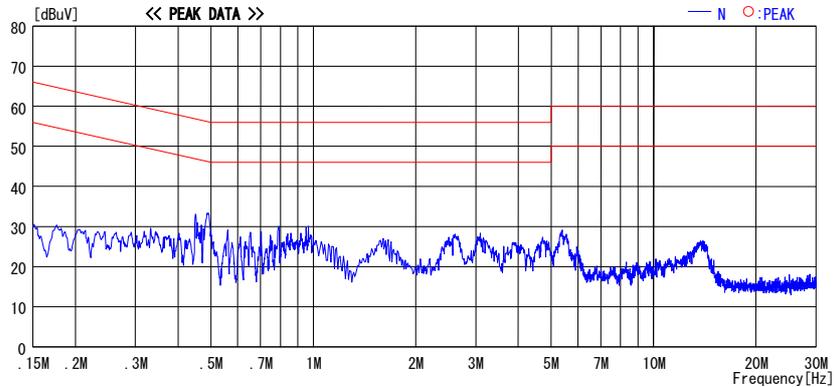


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F (L ISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

UL Japan, Inc.
Head Office EMC Lab.
 4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
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Conducted Emission

Tx, Ch. Mid, DH5

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

| | | | |
|-------------|---------------------|-------------|-------------------|
| Applicant | : SHARP CORPORATION | Report No. | : 28FE0217-HO |
| Kind of EUT | : GSM Mobile Phone | Power | : AC120V / 60Hz |
| Model No. | : PV210 | Temp./Humi. | : 25deg. C / 31% |
| Serial No. | : 168 | Operator | : Kazuya Yoshioka |

Mode / Remarks : Buletooth Transmitting Mode / 2441MHz / DH5

LIMIT : FCC15.207 QP
FCC15.207 AV

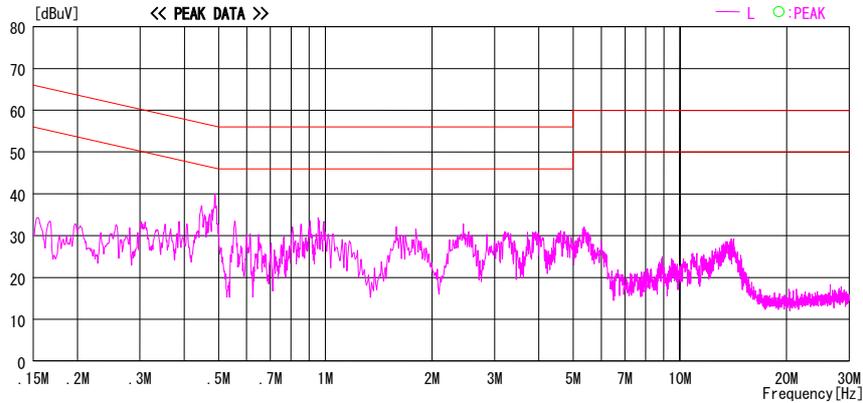
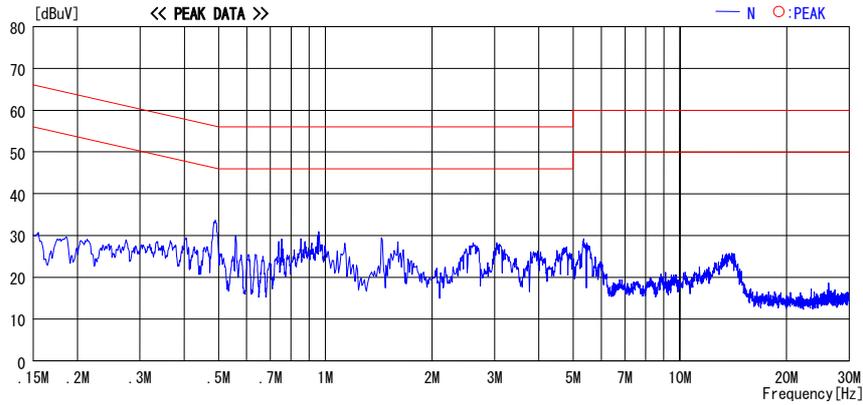


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

Tx, Ch. High, DH5

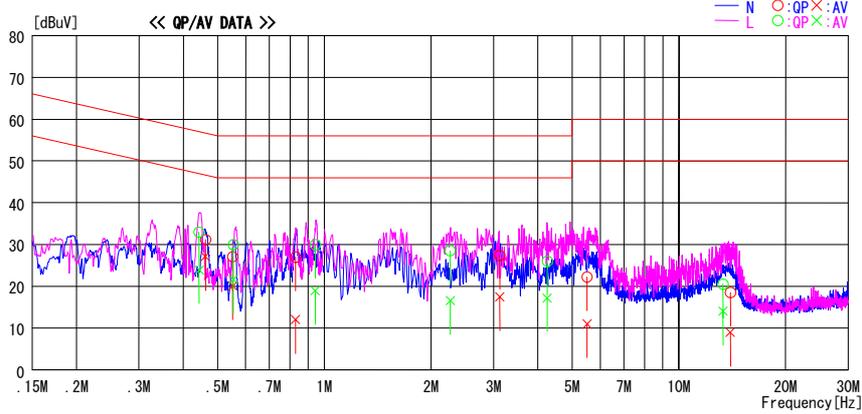
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2008/02/26

Applicant : SHARP CORPORATION
 Kind of EUT : GSM Mobile Phone
 Model No. : PV210
 Serial No. : 168
 Report No. : 28FE0217-HO
 Power : AC120V / 60Hz
 Temp./Humi. : 25deg. C / 31%
 Operator : Kazuya Yoshioka

Mode / Remarks : Bluetooth Transmitting Mode / 2480MHz / DH5

LIMIT : FCC15.207 QP
 FCC15.207 AV



| Frequency [MHz] | Reading Level | | Corr. Factor [dB] | Results | | Limit | | Margin | | Phase |
|-----------------|---------------|-----------|-------------------|-----------|-----------|-----------|-----------|---------|---------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.44329 | 32.7 | 23.6 | 0.3 | 33.0 | 23.9 | 57.0 | 47.0 | 24.0 | 23.1 | L |
| 0.55399 | 29.7 | 21.3 | 0.3 | 30.0 | 21.6 | 56.0 | 46.0 | 26.0 | 24.4 | L |
| 0.94228 | 29.7 | 18.7 | 0.3 | 30.0 | 19.0 | 56.0 | 46.0 | 26.0 | 27.0 | L |
| 2.26534 | 28.0 | 16.1 | 0.5 | 28.5 | 16.6 | 56.0 | 46.0 | 27.5 | 29.4 | L |
| 4.25291 | 25.3 | 16.5 | 0.7 | 26.0 | 17.2 | 56.0 | 46.0 | 30.0 | 28.8 | L |
| 13.31531 | 19.2 | 12.7 | 1.3 | 20.5 | 14.0 | 60.0 | 50.0 | 39.5 | 36.0 | L |
| 0.46173 | 30.9 | 26.8 | 0.3 | 31.2 | 27.1 | 56.7 | 46.7 | 25.5 | 19.6 | N |
| 0.55135 | 26.8 | 19.8 | 0.3 | 27.1 | 20.1 | 56.0 | 46.0 | 28.9 | 25.9 | N |
| 0.82883 | 26.7 | 11.7 | 0.3 | 27.0 | 12.0 | 56.0 | 46.0 | 29.0 | 34.0 | N |
| 3.12459 | 26.9 | 17.0 | 0.5 | 27.4 | 17.5 | 56.0 | 46.0 | 28.6 | 28.5 | N |
| 5.51023 | 21.4 | 10.2 | 0.8 | 22.2 | 11.0 | 60.0 | 50.0 | 37.8 | 39.0 | N |
| 13.97607 | 17.1 | 7.6 | 1.4 | 18.5 | 9.0 | 60.0 | 50.0 | 41.5 | 41.0 | N |

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

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

Conducted Emission

Tx, Ch. Low, 3DH5

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/27

| | |
|--------------------------------|------------------------------|
| Applicant : SHARP CORPORATION | Report No. : 28FE0217-HO |
| Kind of EUT : GSM Mobile Phone | Power : AC120V / 60Hz |
| Model No. : PV210 | Temp./Humi. : 25deg. C / 31% |
| Serial No. : 168 | Operator : Kazuya Yoshioka |

Mode / Remarks : Bluetooth Transmitting Mode / 2402MHz / 3DH5

LIMIT : FCC15.207 QP
FCC15.207 AV

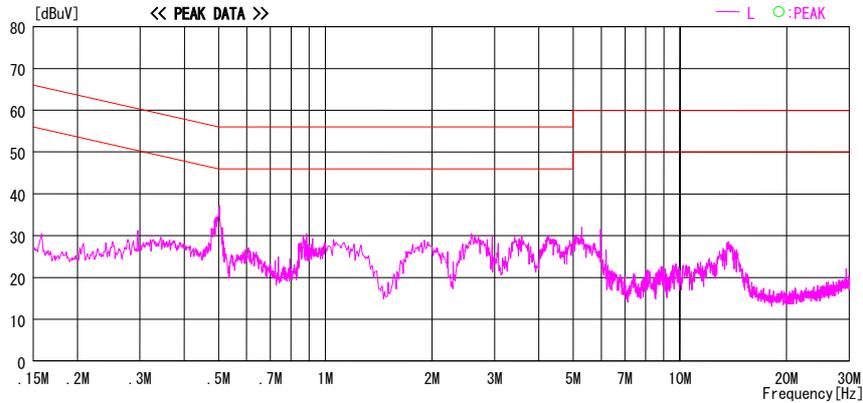
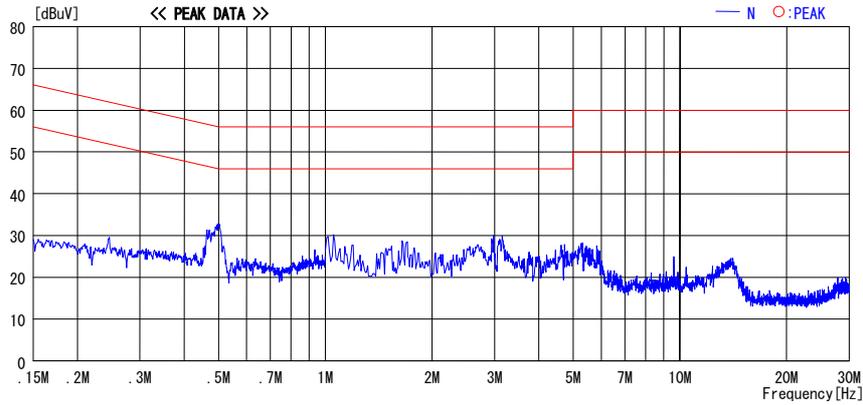


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

Tx, Ch. Mid, 3DH5

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/27

Applicant : SHARP CORPORATION
 Kind of EUT : GSM Mobile Phone
 Model No. : PV210
 Serial No. : 168

Report No. : 28FE0217-HO
 Power : AC120V / 60Hz
 Temp./Humi. : 25deg. C / 31%
 Operator : Kazuya Yoshioka

Mode / Remarks : Buletooth Transmitting Mode / 2441MHz / 3DH5

LIMIT : FCC15.207 QP
 FCC15.207 AV

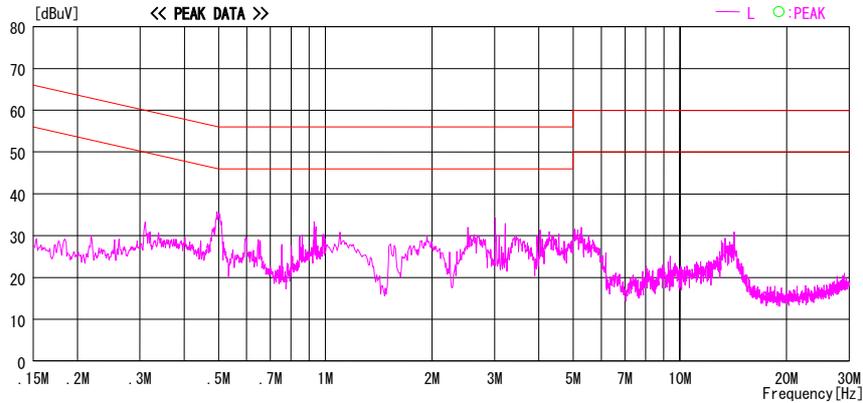
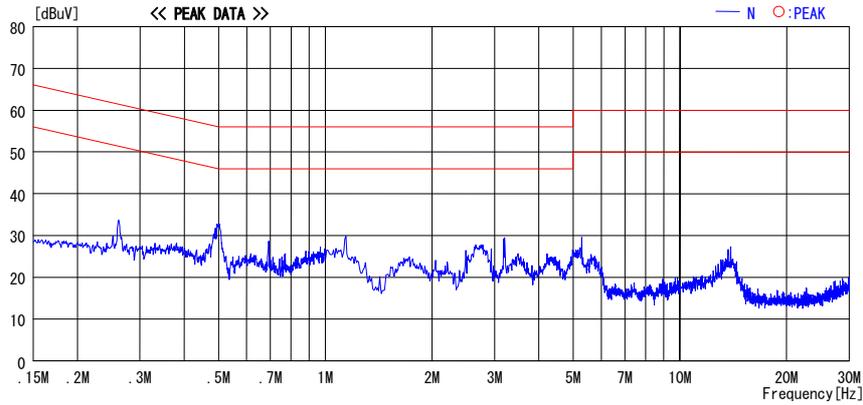


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

Conducted Emission
Tx, Ch. High, 3DH5

DATA OF CONDUCTED EMISSION TEST

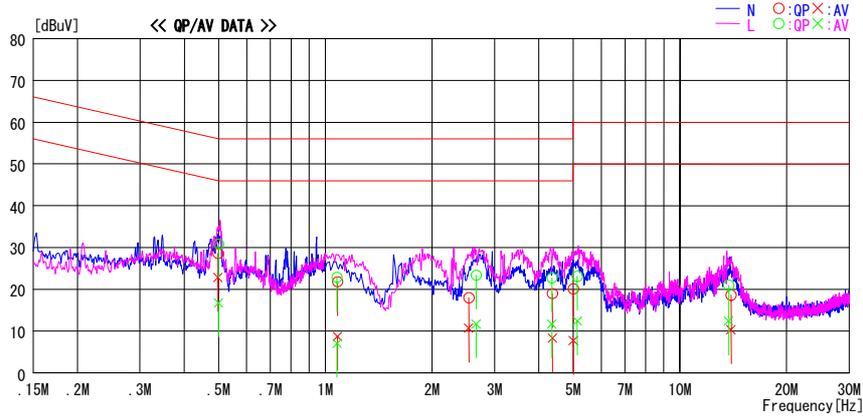
UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2008/02/27

Applicant : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168

Report No. : 28FE0217-HO
Power : AC120V / 60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Kazuya Yoshioka

Mode / Remarks : Buletooth Transmitting Mode / 2480Mhz / 3DH5

LIMIT : FCC15.207 QP
FCC15.207 AV



| Frequency [MHz] | Reading Level | | Corr. Factor | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.49983 | 30.6 | 16.5 | 0.2 | 30.8 | 16.7 | 56.0 | 46.0 | 25.2 | 29.3 | L |
| 1.07850 | 22.6 | 6.8 | 0.3 | 22.9 | 7.1 | 56.0 | 46.0 | 33.1 | 38.9 | L |
| 2.66453 | 23.0 | 11.3 | 0.4 | 23.4 | 11.7 | 56.0 | 46.0 | 32.6 | 34.3 | L |
| 4.35836 | 22.2 | 11.2 | 0.5 | 22.7 | 11.7 | 56.0 | 46.0 | 33.3 | 34.3 | L |
| 5.13612 | 22.6 | 11.9 | 0.5 | 23.1 | 12.4 | 60.0 | 50.0 | 36.9 | 37.6 | L |
| 13.72986 | 20.1 | 11.6 | 0.8 | 20.9 | 12.4 | 60.0 | 50.0 | 39.1 | 37.6 | L |
| 0.49803 | 28.3 | 22.5 | 0.3 | 28.6 | 22.8 | 56.0 | 46.0 | 27.4 | 23.2 | N |
| 1.08208 | 21.4 | 8.3 | 0.4 | 21.8 | 8.7 | 56.0 | 46.0 | 34.2 | 37.3 | N |
| 2.53738 | 17.5 | 10.2 | 0.5 | 18.0 | 10.7 | 56.0 | 46.0 | 38.0 | 35.3 | N |
| 4.37323 | 18.3 | 7.6 | 0.7 | 19.0 | 8.3 | 56.0 | 46.0 | 37.0 | 37.7 | N |
| 5.00806 | 19.3 | 6.9 | 0.8 | 20.1 | 7.7 | 60.0 | 50.0 | 39.9 | 42.3 | N |
| 13.93882 | 17.2 | 8.9 | 1.4 | 18.6 | 10.3 | 60.0 | 50.0 | 41.4 | 39.7 | N |

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

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

Conducted Emission Rx, Ch. Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

Applicant : SHARP CORPORATION
 Kind of EUT : GSM Mobile Phone
 Model No. : PV210
 Serial No. : 168

Report No. : 28FE0217-HO
 Power : AC120V / 60Hz
 Temp./Humi. : 25deg. C / 31%
 Operator : Kazuya Yoshioka

Mode / Remarks : Bluetooth Receiving Mode / 2441MHz

LIMIT : FCC15.207 QP
 FCC15.207 AV

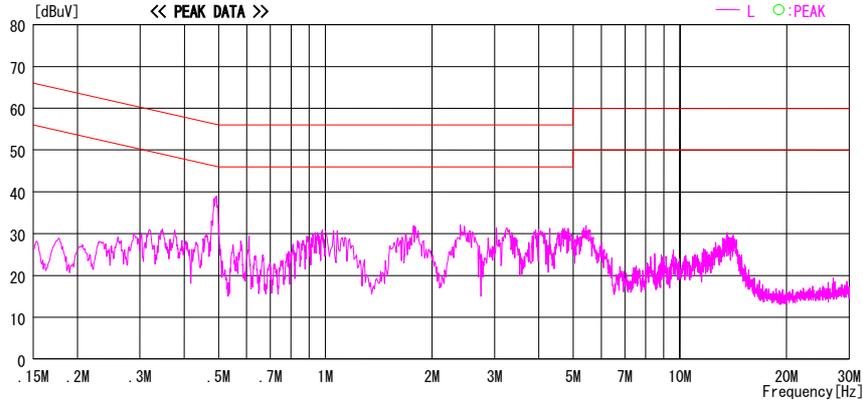
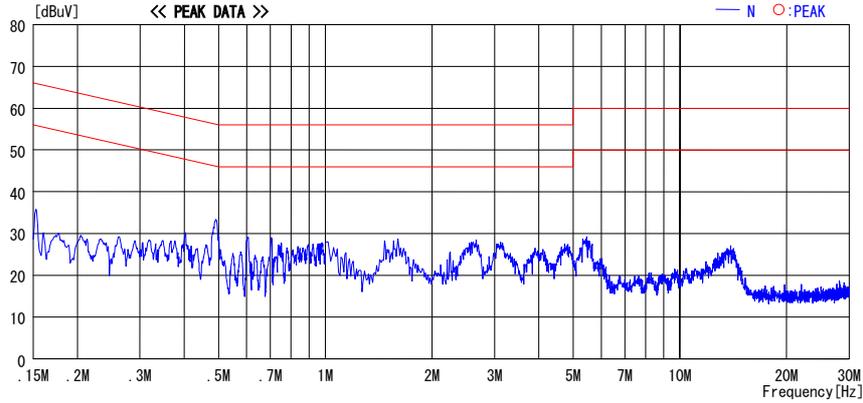


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

Carrier Frequency Separation

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

| | | | |
|-----------|--------------------------|---------------|----------------------------------|
| COMPANY | : SHARP CORPORATION | REGULATION | : FCC15.247(a)(1)/RSS-210A8.1(b) |
| EQUIPMENT | : GSM Mobile Phone | TEST DISTANCE | : - |
| MODEL | : PV210 | DATE | : 03/13/2008 |
| S/N | : 171 | TEMPERATURE | : 28deg.C |
| POWER | : AV120V / 60Hz | HUMIDITY | : 30% |
| MODE | : Tx(Hopping on)/Inquiry | ENGINEER | : Satofumi Matsuyama |

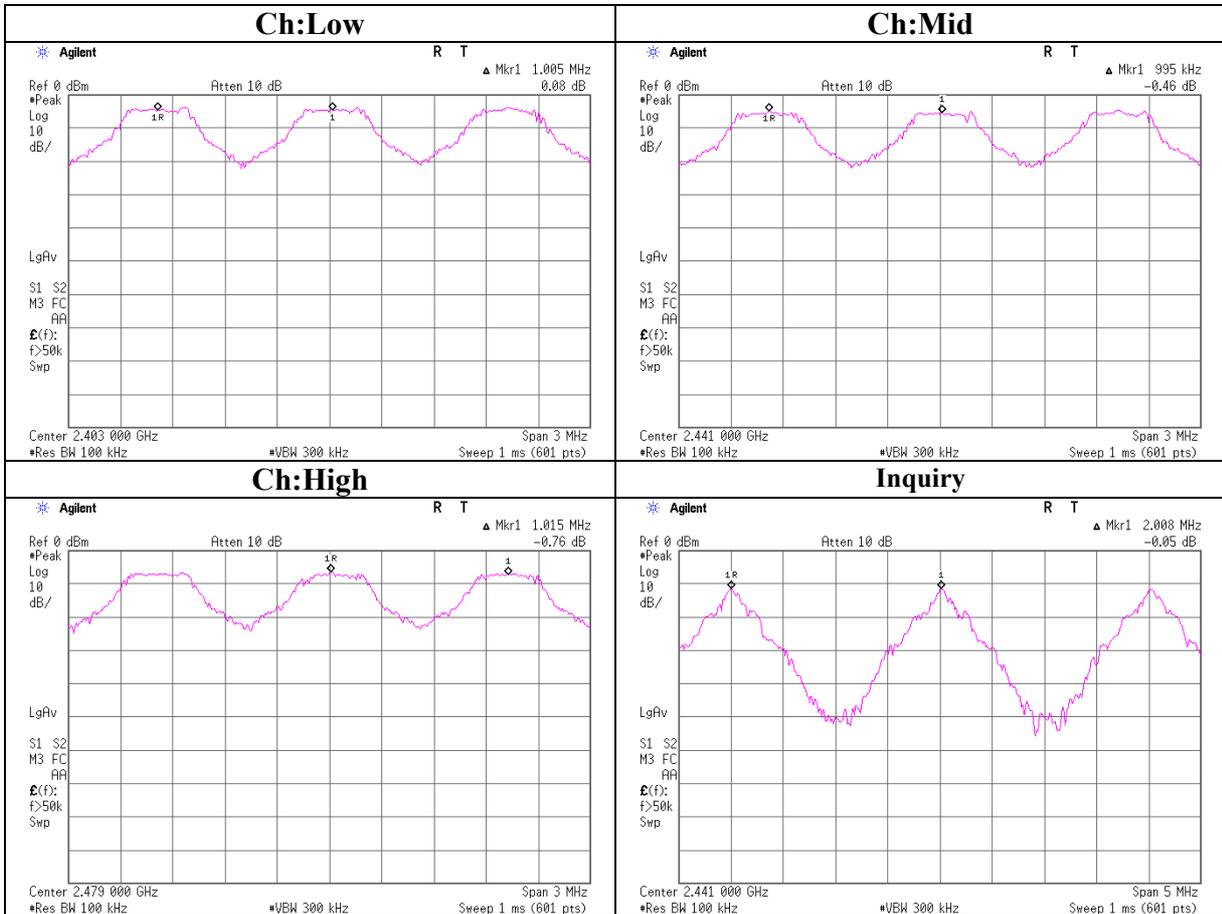
DH5

| Ch | Freq. [MHz] | Channel separation [MHz] | Limit |
|---------|----------------|-----------------------------|--|
| Low | 2402.0 | 1.005 | >two-thirds of 968.052[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |
| Mid | 2441.0 | 0.995 | >two-thirds of 965.284[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |
| High | 2480.0 | 1.015 | >two-thirds of 965.488[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |
| Inquiry | 2441.0 | 2.008 | >two-thirds of 815.499[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |

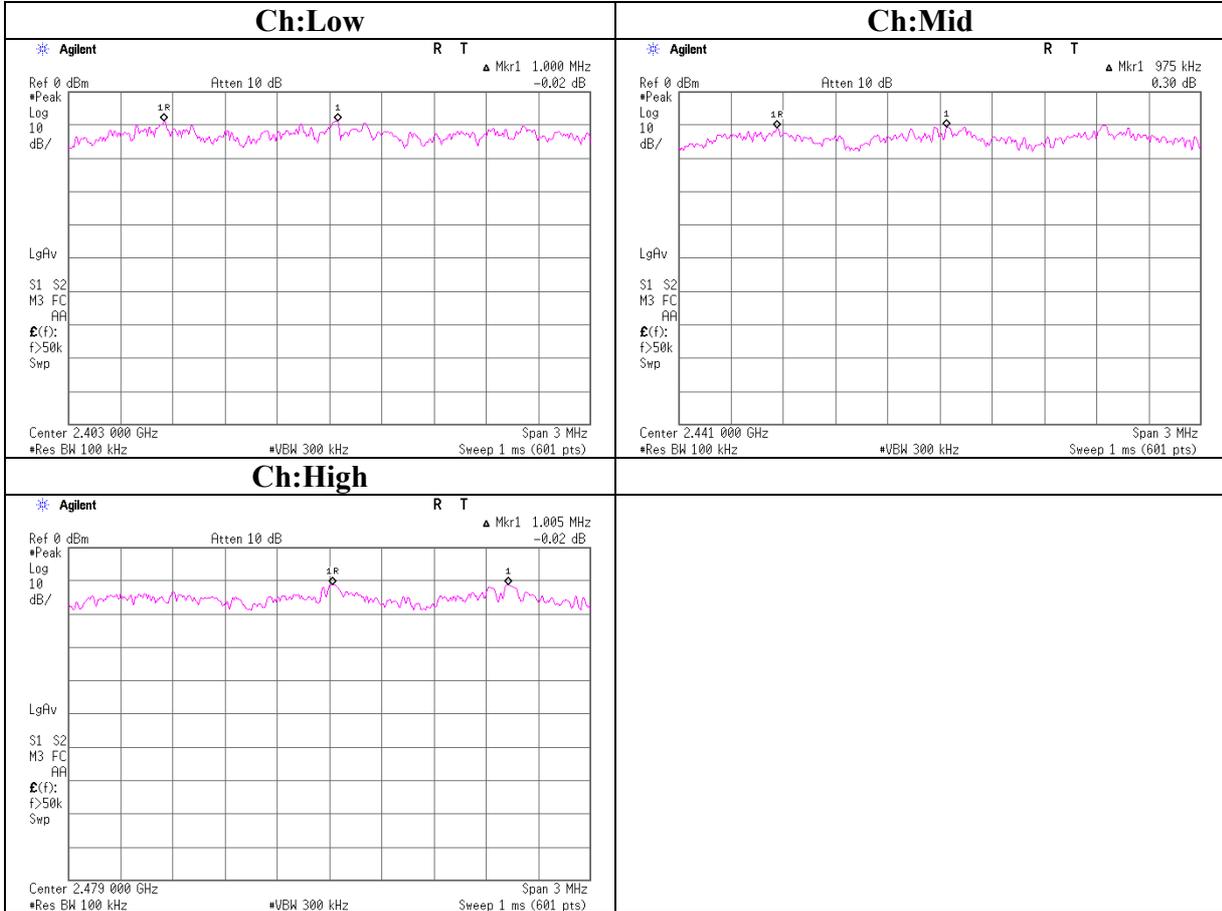
3DH5

| Ch | Freq. [MHz] | Channel separation [MHz] | Limit |
|------|----------------|-----------------------------|--|
| Low | 2402.0 | 1.000 | >two-thirds of 971.286[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |
| Mid | 2441.0 | 0.975 | >two-thirds of 965.662[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |
| High | 2480.0 | 1.005 | >two-thirds of 972.616[kHz](20dB Bandwidth or 25[kHz])(whichever is greater) |

Carrier Frequency Separation
DH5



Carrier Frequency Separation
3DH5



20dB Bandwidth

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

COMPANY : SHARP CORPORATION REGULATION : FCC15.247(a)(1)/RSS-210A8.1(a)
EQUIPMENT : GSM Mobile Phone TEST DISTANCE : -
MODEL : PV210 DATE : 03/13/2008
S/N : 171 TEMPERATURE : 28deg.C
POWER : AV120V / 60Hz HUMIDITY : 30%
MODE : Tx (Hopping off) /Inquiry ENGINEER : Satofumi Matsuyama

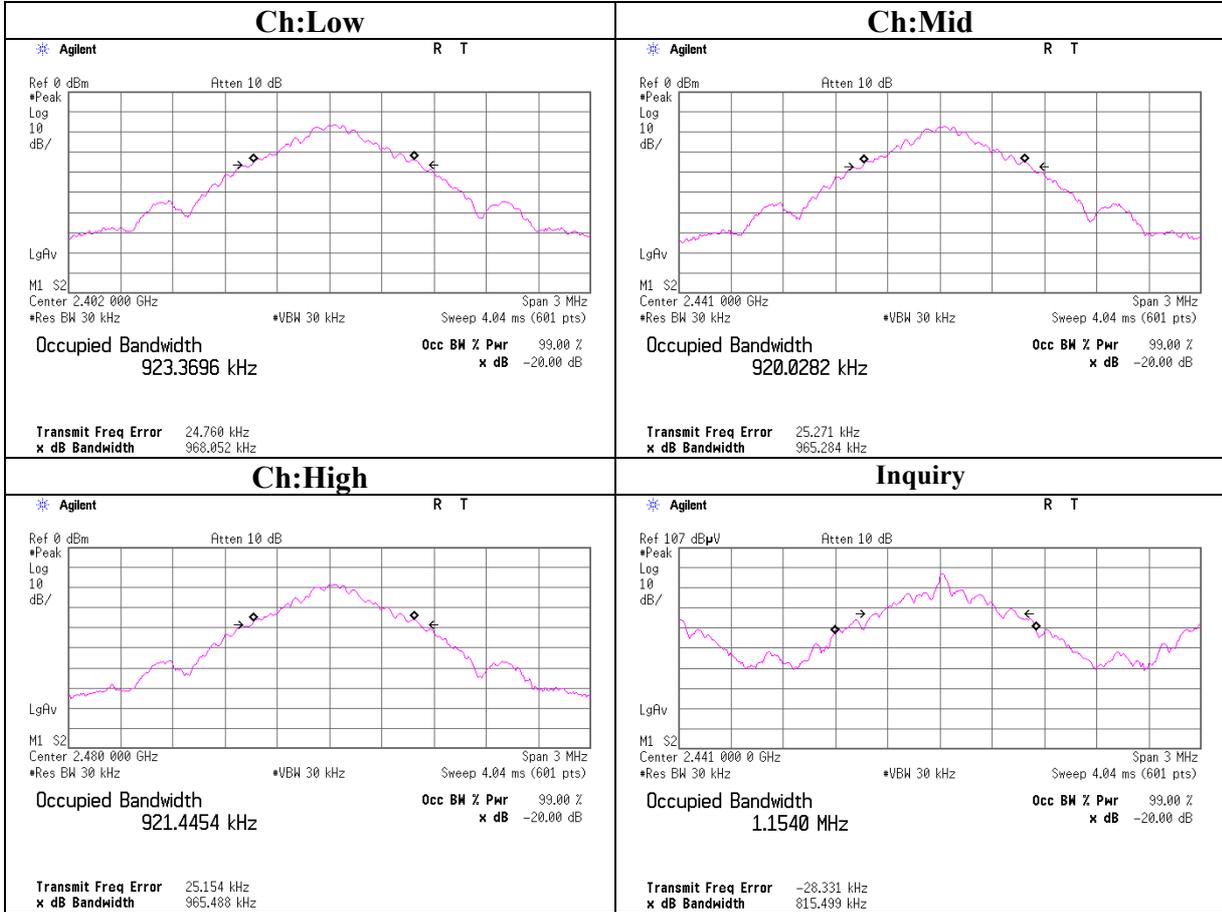
DH5

| Ch | Freq. [MHz] | 20dB Bandwidth [MHz] | Limit [MHz] |
|---------|----------------|-------------------------|----------------|
| Low | 2402.0 | 0.968 | - |
| Mid | 2441.0 | 0.965 | - |
| High | 2480.0 | 0.965 | - |
| Inquiry | 2441.0 | 0.815 | - |

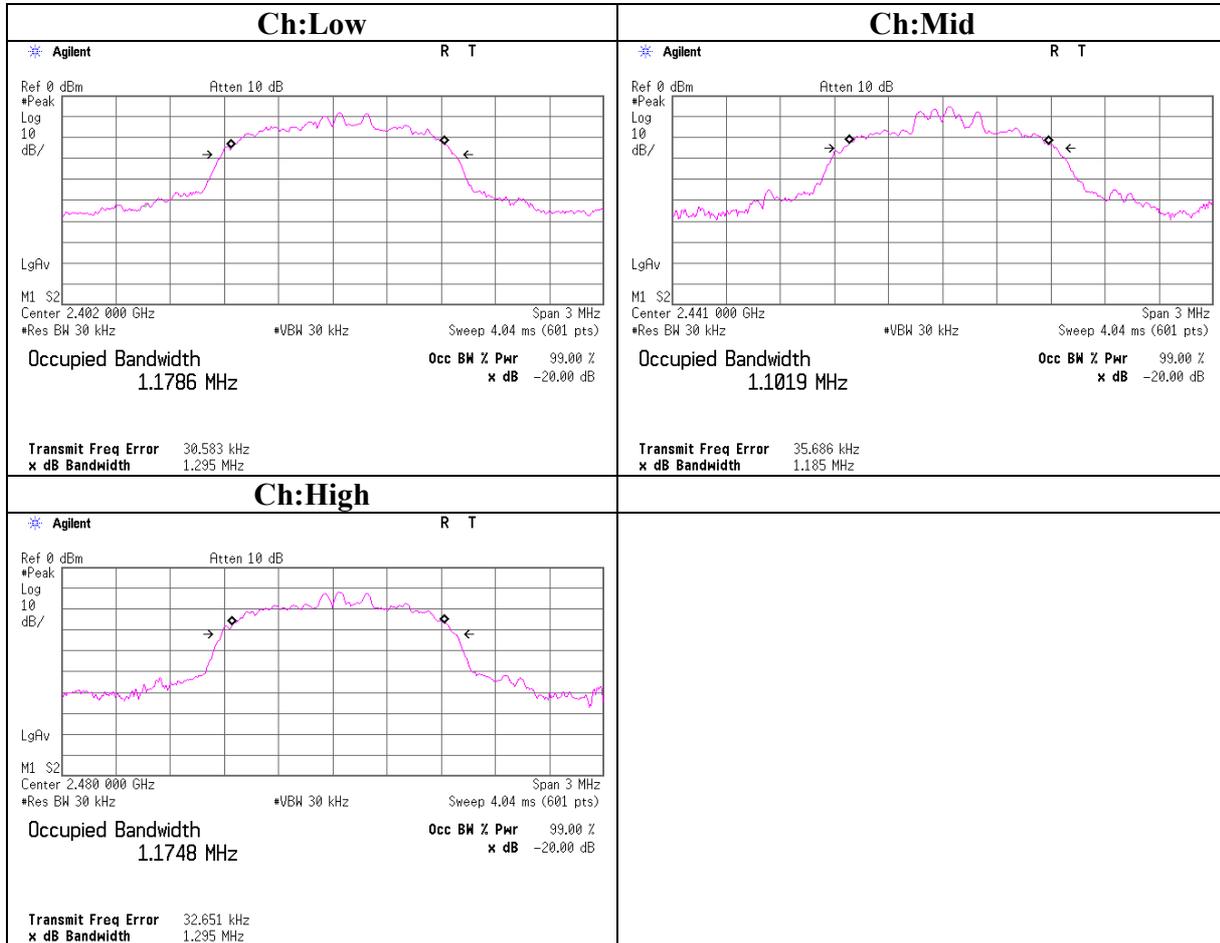
3DH5

| Ch | Freq. [MHz] | 20dB Bandwidth [MHz] | Limit [MHz] |
|------|----------------|-------------------------|----------------|
| Low | 2402.0 | 1.295 | - |
| Mid | 2441.0 | 1.185 | - |
| High | 2480.0 | 1.295 | - |

20dB Bandwidth
DH5



20dB Bandwidth
3DH5



Number of Hopping Frequency

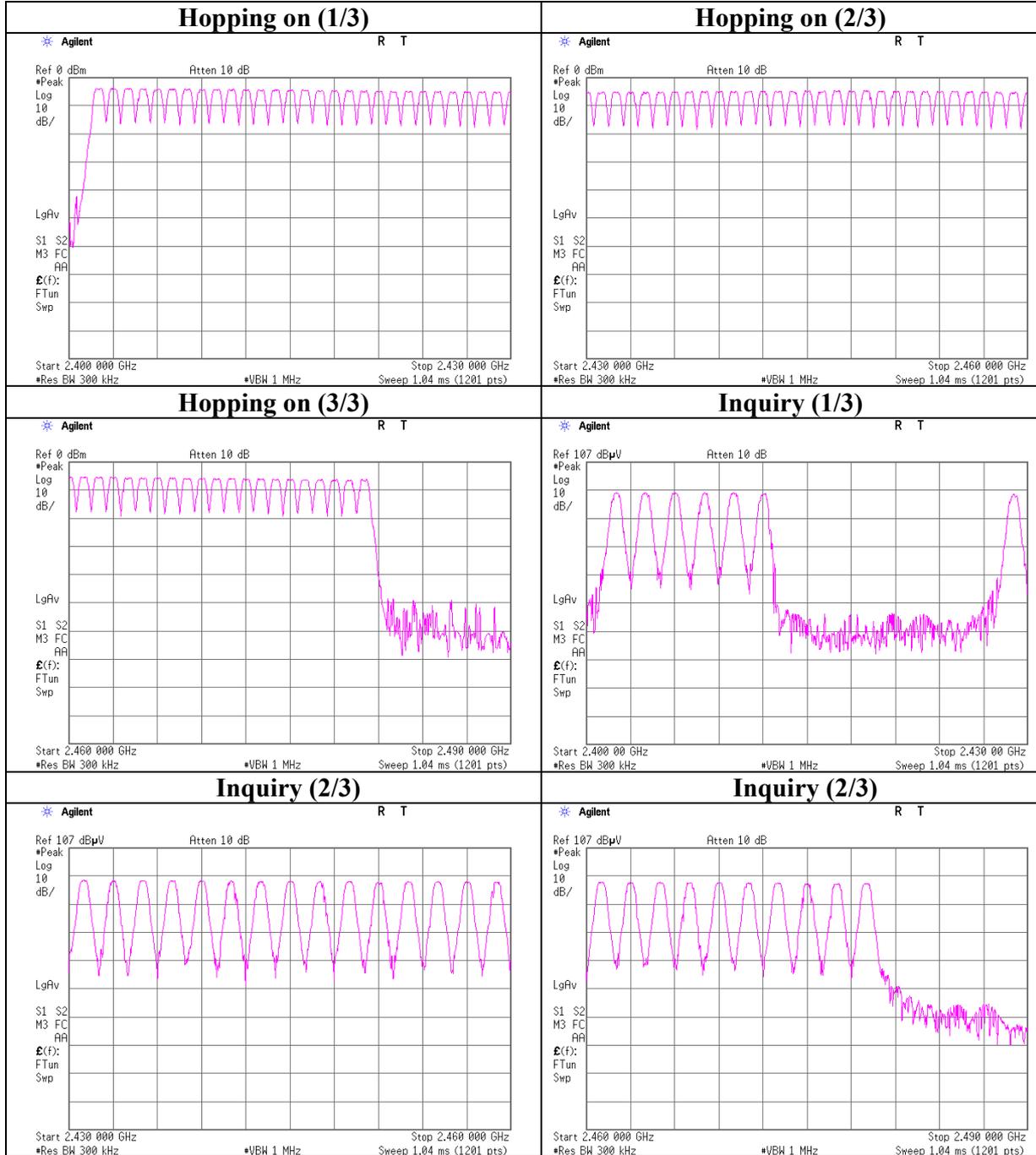
UL Japan, Inc.
Head Office EMC Lab. No.7 Shielded Room

COMPANY : SHARP CORPORATION REGULATION : FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
EQUIPMENT : GSM Mobile Phone TEST DISTANCE : -
MODEL : PV210 DATE : 03/13/2008
S/N : 171 TEMPERATURE : 28deg.C
POWER : AV120V / 60Hz HUMIDITY : 30%
MODE : Tx (Hopping on) /Inquiry ENGINEER : Satofumi Matsuyama

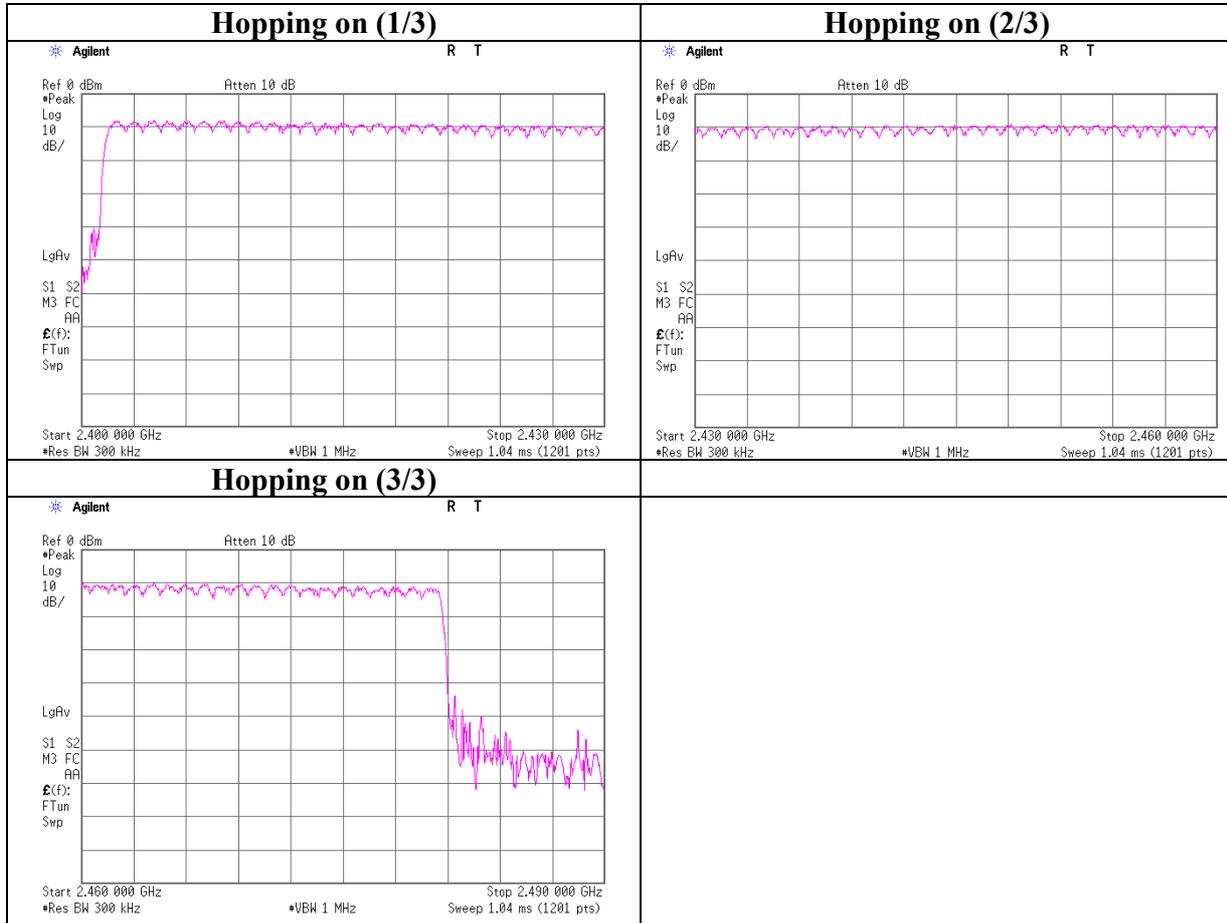
| Mode | Number of channel [time] | Limit [time] |
|------|-----------------------------|-----------------|
| DH5 | 79 | ≥ 15 |
| 3DH5 | 79 | ≥ 15 |

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

Number of Hopping Frequency
DH5



Number of Hopping Frequency
3DH5



Dwell time

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

| | | | |
|-----------|----------------------------|---------------|---------------------------------------|
| COMPANY | : SHARP CORPORATION | REGULATION | : FCC15.247(a)(1)(iii)/RSS-210A8.1(d) |
| EQUIPMENT | : GSM Mobile Phone | TEST DISTANCE | : - |
| MODEL | : PV210 | DATE | : 03/13/2008 |
| S/ N | : 171 | TEMPERATURE | : 28deg.C |
| POWER | : AV120V / 60Hz | HUMIDITY | : 30% |
| MODE | : Tx (Hopping on) /Inquiry | ENGINEER | : Satofumi Matsuyama |

| 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 *1 | 41 times / 5 sec. x 31.6 sec. = 260 times | 0.408 | 106 | 400 |
| DH3 *2 | 76 times | 1.677 | 127 | 400 |
| DH5 *3 | 51 times | 2.926 | 149 | 400 |
| Inquiry | 100 times / 1 sec. x 12.8 sec. = 1280 times | 0.111 | 141 | 400 |

*1 $(39+41+46+41+40) \div 5 = 41.4 \approx 41$ times

*2 $(75+70+77+72+87) \div 5 = 76.2 \approx 76$ times

*3 $(55+50+47+51+53) \div 5 = 51.2 \approx 51$ times

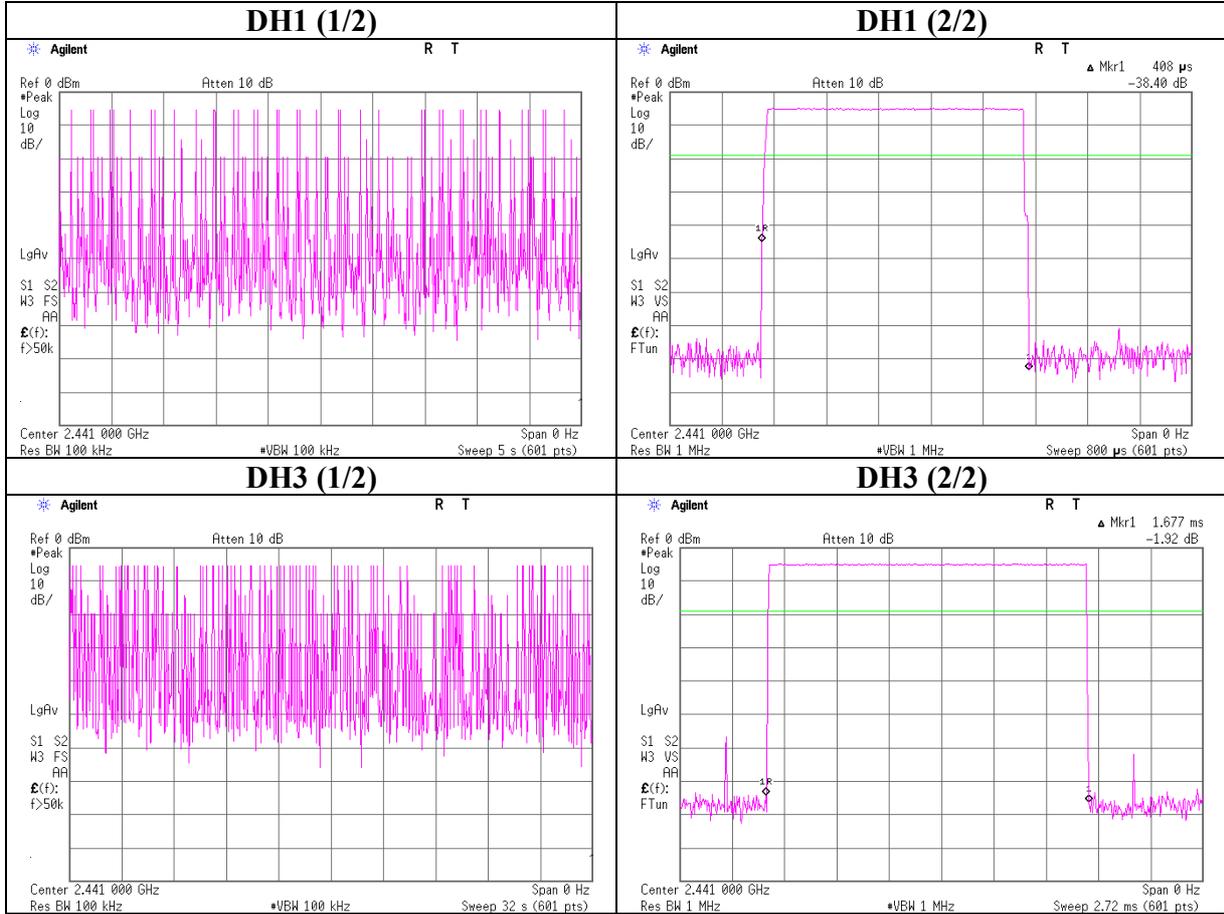
| Mode | Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period | Length of transmission time [msec] | Result [msec] | Limit [msec] |
|---------|--|--|------------------|-----------------|
| 3DH1 *4 | 46 times / 5 sec. x 31.6 sec. = 291 times | 0.416 | 121 | 400 |
| 3DH3 *5 | 88 times | 1.673 | 147 | 400 |
| 3DH5 *6 | 55 times | 2.933 | 161 | 400 |

*4 $(42+48+47+48+47) \div 5 = 46.4 \approx 46$ times

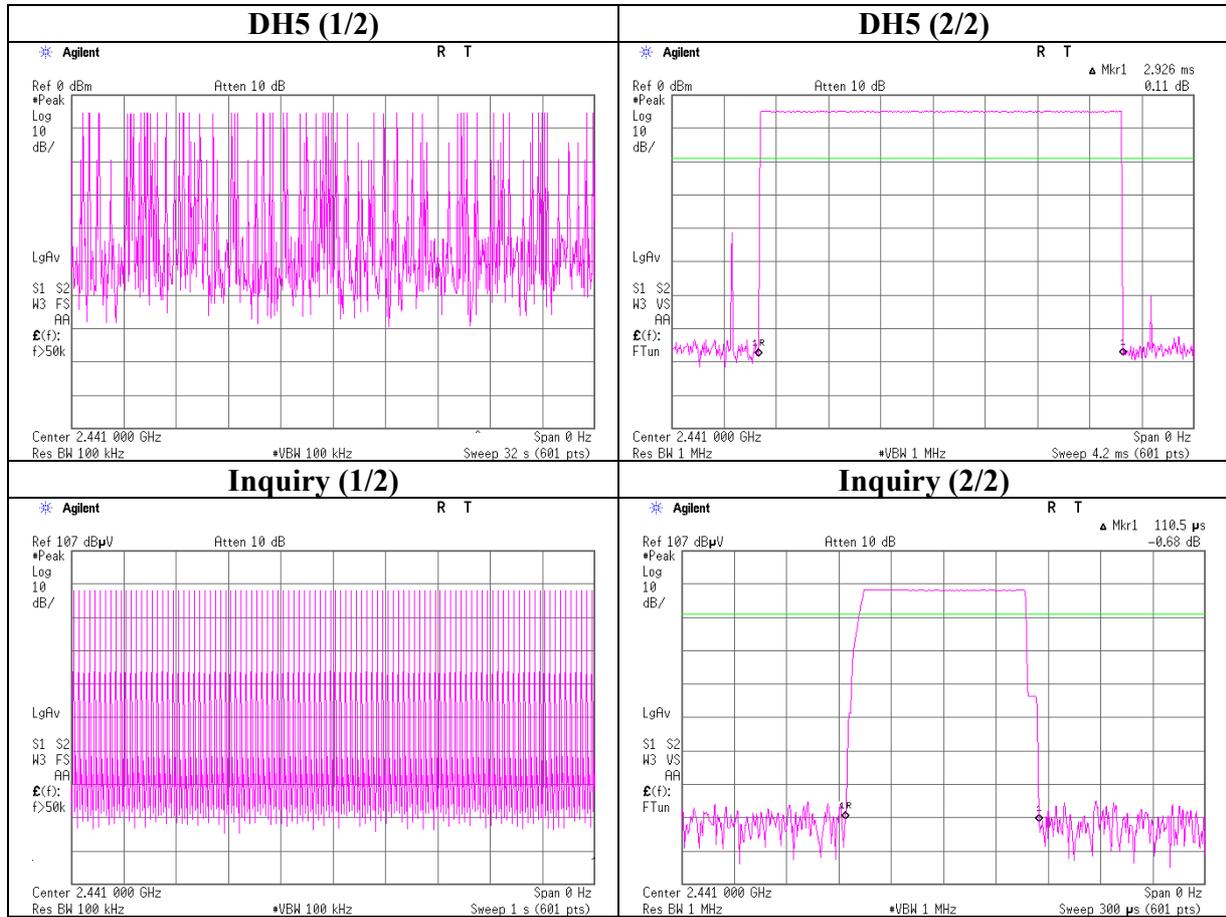
*5 $(69+90+94+85+100) \div 5 = 87.6 \approx 88$ times

*6 $(60+59+51+56+47) \div 5 = 54.6 \approx 55$ times

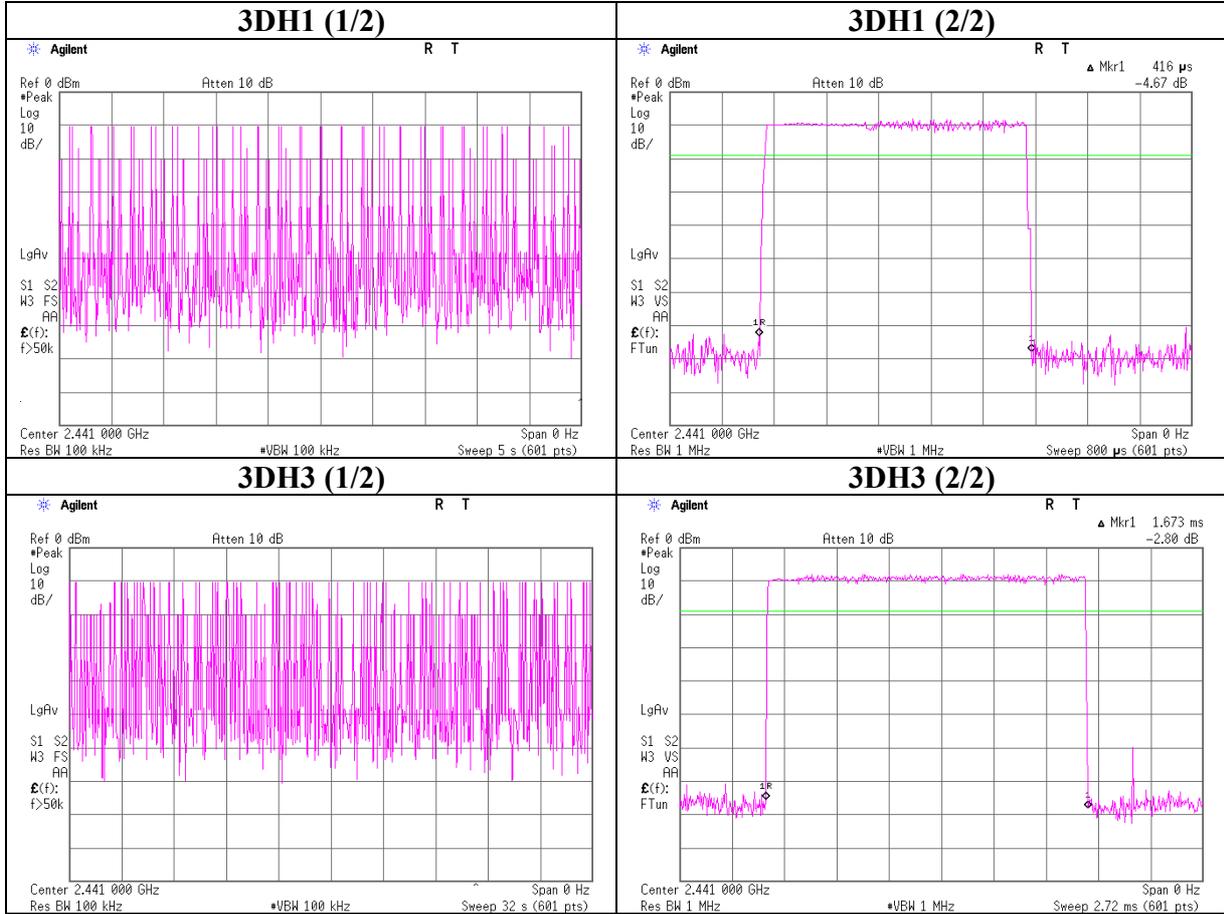
Dwell time



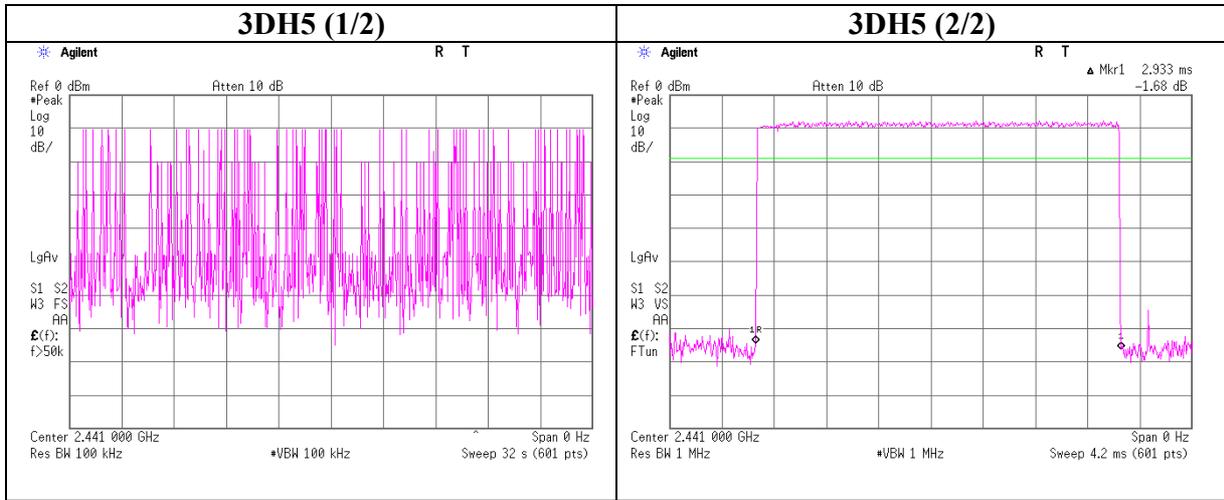
Dwell time



Dwell time



Dwell time



Maximum Peak Output Power

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

| | |
|--------------------------------|---|
| COMPANY : SHARP CORPORATION | REGULATION : FCC15.247(b)(1)/RSS-210A8.4(2) |
| EQUIPMENT : GSM Mobile Phone | TEST DISTANCE : - |
| MODEL : PV210 | DATE : 03/13/2008 |
| S/N : 171 | TEMPERATURE : 28deg.C |
| POWER : AV120V / 60Hz | HUMIDITY : 30% |
| MODE : Tx(Hopping Off)/Inquiry | ENGINEER : Satofumi Matsuyama |

DH5

| Ch | Freq. [MHz] | S/A Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|---------|----------------|-------------------------|-----------------------|----------------|--------|------|-------|------|----------------|
| | | | | | [dBm] | [mW] | [dBm] | [mW] | |
| Low | 2402.1 | -13.88 | 1.40 | 10.09 | -2.39 | 0.58 | 20.97 | 125 | 23.36 |
| Mid | 2440.9 | -14.76 | 1.41 | 10.09 | -3.26 | 0.47 | 20.97 | 125 | 24.23 |
| High | 2479.9 | -15.88 | 1.42 | 10.09 | -4.37 | 0.37 | 20.97 | 125 | 25.34 |
| Inquiry | 2439.1 | -11.51 | 1.41 | 10.09 | -0.01 | 1.00 | 20.97 | 125 | 20.98 |

3DH5

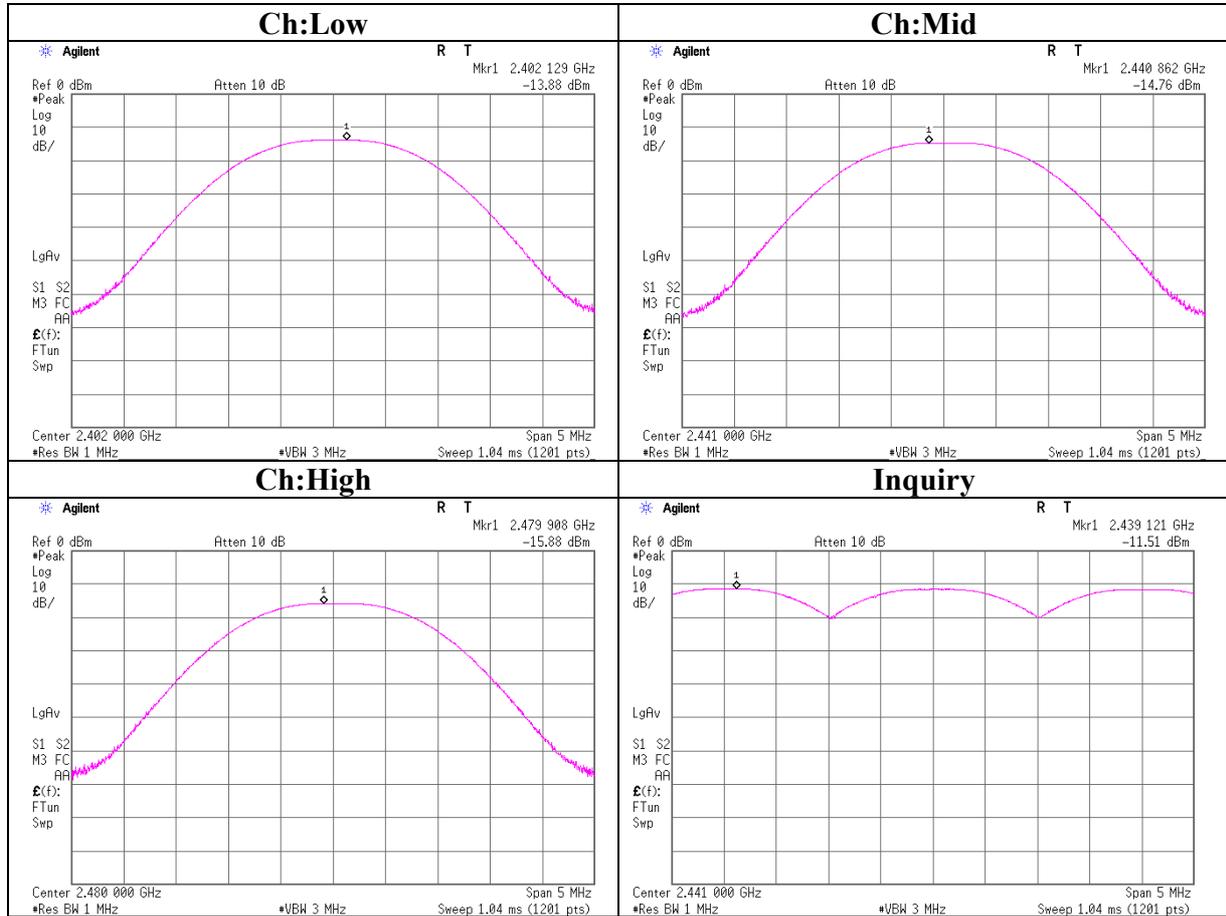
| Ch | Freq. [MHz] | S/A Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|------|----------------|-------------------------|-----------------------|----------------|--------|------|-------|------|----------------|
| | | | | | [dBm] | [mW] | [dBm] | [mW] | |
| Low | 2402.1 | -5.04 | 4.80 | 0.00 | -0.24 | 0.95 | 20.97 | 125 | 21.21 |
| Mid | 2441.1 | -6.30 | 4.80 | 0.00 | -1.50 | 0.71 | 20.97 | 125 | 22.47 |
| High | 2480.0 | -8.07 | 4.80 | 0.00 | -3.27 | 0.47 | 20.97 | 125 | 24.24 |

Sample Calculation:

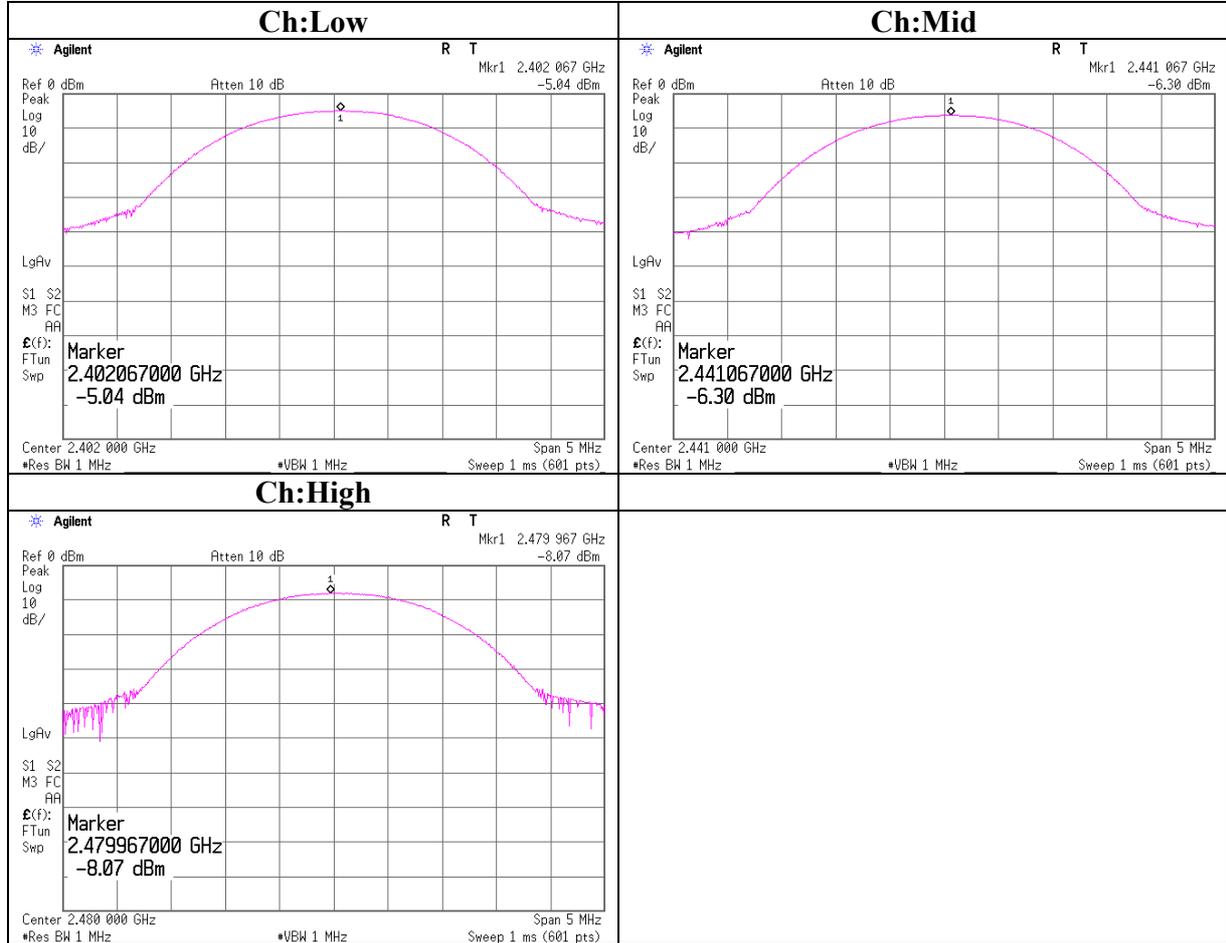
Result = Reading + Cable Loss (supplied by customer)+ Attenuator

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

Maximum Peak Output Power
DH5



Maximum Peak Output Power
3DH5



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

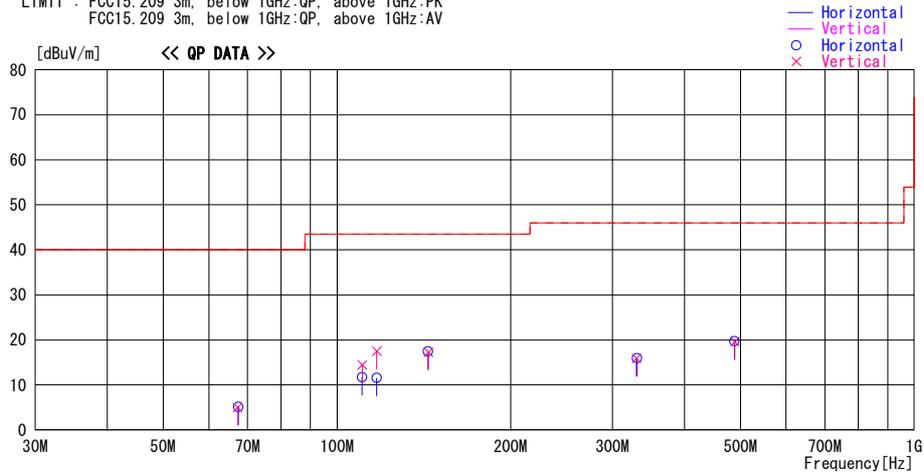
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-HO
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Satofumi Matsuyama

Mode / Remarks : Bluetooth Transmitting Mode / 2402MHz / DH5 / 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 | Loss& | Level [dBuV/m] | Angle [Deg] | Height [cm] | Polar. | Limit [dBuV/m] | Margin [dB] |
|--------------------|-------------------|-----|------------------|--------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Gain [dB] | | | | | | |
| 67.494 | 22.5 | QP | 6.9 | -24.3 | 5.1 | 0 | 300 | Hori. | 40.0 | 34.9 |
| 67.340 | 22.4 | QP | 6.9 | -24.3 | 5.0 | 0 | 100 | Vert. | 40.0 | 35.0 |
| 110.511 | 24.2 | QP | 11.4 | -23.9 | 11.7 | 170 | 300 | Hori. | 43.5 | 31.8 |
| 110.658 | 26.9 | QP | 11.4 | -23.9 | 14.4 | 80 | 100 | Vert. | 43.5 | 29.1 |
| 117.225 | 29.1 | QP | 12.2 | -23.8 | 17.5 | 18 | 100 | Vert. | 43.5 | 26.0 |
| 117.223 | 23.2 | QP | 12.2 | -23.8 | 11.6 | 190 | 300 | Hori. | 43.5 | 31.9 |
| 143.680 | 26.3 | QP | 14.6 | -23.4 | 17.5 | 210 | 300 | Hori. | 43.5 | 26.0 |
| 143.995 | 26.1 | QP | 14.6 | -23.4 | 17.3 | 147 | 100 | Vert. | 43.5 | 26.2 |
| 330.101 | 22.3 | QP | 15.5 | -21.9 | 15.9 | 0 | 100 | Vert. | 46.0 | 30.1 |
| 330.793 | 22.3 | QP | 15.5 | -21.9 | 15.9 | 0 | 100 | Hori. | 46.0 | 30.1 |
| 488.303 | 22.5 | QP | 18.0 | -20.8 | 19.7 | 0 | 100 | Hori. | 46.0 | 26.3 |
| 489.003 | 22.4 | QP | 18.0 | -20.8 | 19.6 | 0 | 100 | Vert. | 46.0 | 26.4 |

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

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Mid, DH5

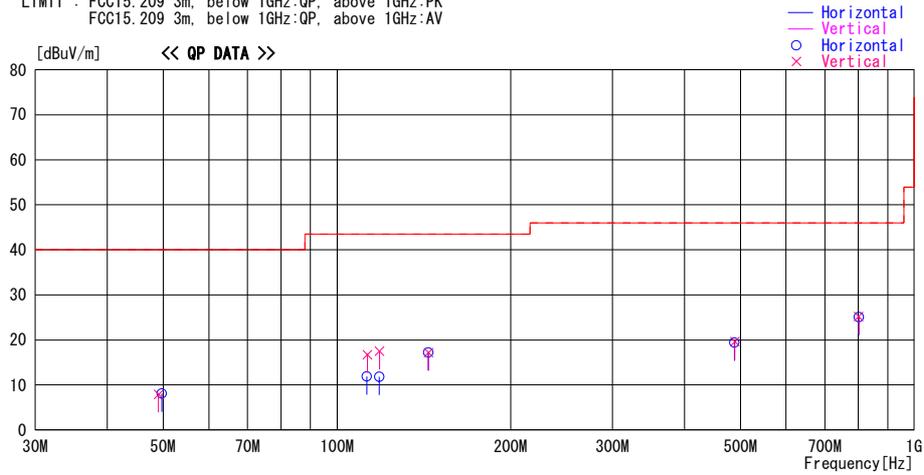
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-HO
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Satofumi Matsuyama

Mode / Remarks : Bluetooth Transmitting Mode / 2441MHz / DH5 / 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 | Loss& | Level [dBuV/m] | Angle [Deg] | Height [cm] | Polar. | Limit [dBuV/m] | Margin [dB] |
|--------------------|-------------------|-----|------------------|--------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Gain [dB] | | | | | | |
| 49.084 | 22.2 | QP | 10.4 | -24.7 | 7.9 | 0 | 100 | Vert. | 40.0 | 32.1 |
| 49.744 | 22.6 | QP | 10.2 | -24.7 | 8.1 | 0 | 100 | Hori. | 40.0 | 31.9 |
| 112.598 | 24.1 | QP | 11.7 | -23.9 | 11.9 | 130 | 300 | Hori. | 43.5 | 31.6 |
| 112.960 | 28.9 | QP | 11.7 | -23.9 | 16.7 | 90 | 100 | Vert. | 43.5 | 26.8 |
| 118.427 | 23.2 | QP | 12.4 | -23.8 | 11.8 | 190 | 300 | Hori. | 43.5 | 31.7 |
| 118.475 | 28.9 | QP | 12.4 | -23.8 | 17.5 | 180 | 100 | Vert. | 43.5 | 26.0 |
| 143.889 | 26.0 | QP | 14.6 | -23.4 | 17.2 | 160 | 300 | Hori. | 43.5 | 26.3 |
| 143.995 | 26.0 | QP | 14.6 | -23.4 | 17.2 | 70 | 100 | Vert. | 43.5 | 26.3 |
| 488.030 | 22.2 | QP | 18.0 | -20.8 | 19.4 | 0 | 100 | Hori. | 46.0 | 26.6 |
| 489.003 | 22.4 | QP | 18.0 | -20.8 | 19.6 | 0 | 100 | Vert. | 46.0 | 26.4 |
| 801.664 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 0 | 100 | Hori. | 46.0 | 20.9 |
| 801.691 | 22.3 | QP | 21.8 | -18.9 | 25.2 | 0 | 100 | Vert. | 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 test result is round off to one or two decimal places, so some differences might be observed.

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

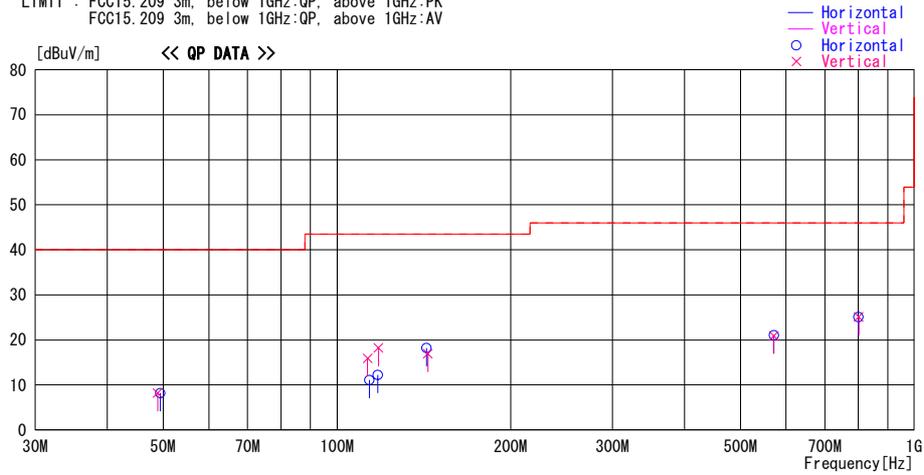
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-HO
Power : AC 120V/60Hz
Temp./Humi. : 25deg.C / 31%
Operator : Satofumi Matsuyama

Mode / Remarks : Bluetooth Transmitting Mode / 2480MHz / DH5 / 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 | Loss& | Level [dBuV/m] | Angle [Deg] | Height [cm] | Polar. | Limit [dBuV/m] | Margin [dB] |
|--------------------|-------------------|-----|------------------|--------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Gain [dB] | | | | | | |
| 48.914 | 22.5 | QP | 10.4 | -24.7 | 8.2 | 0 | 100 | Vert. | 40.0 | 31.8 |
| 49.418 | 22.6 | QP | 10.3 | -24.7 | 8.2 | 0 | 300 | Hori. | 40.0 | 31.8 |
| 113.878 | 23.2 | QP | 11.8 | -23.9 | 11.1 | 210 | 300 | Hori. | 43.5 | 32.4 |
| 113.030 | 28.1 | QP | 11.7 | -23.9 | 15.9 | 50 | 100 | Vert. | 43.5 | 27.6 |
| 117.767 | 23.7 | QP | 12.3 | -23.8 | 12.2 | 160 | 300 | Hori. | 43.5 | 31.3 |
| 117.999 | 29.7 | QP | 12.3 | -23.8 | 18.2 | 170 | 100 | Vert. | 43.5 | 25.3 |
| 142.971 | 27.2 | QP | 14.5 | -23.5 | 18.2 | 210 | 300 | Hori. | 43.5 | 25.3 |
| 143.741 | 25.7 | QP | 14.6 | -23.4 | 16.9 | 120 | 100 | Vert. | 43.5 | 26.6 |
| 571.255 | 22.5 | QP | 18.9 | -20.4 | 21.0 | 0 | 100 | Hori. | 46.0 | 25.0 |
| 570.683 | 22.4 | QP | 18.9 | -20.4 | 20.9 | 0 | 100 | Vert. | 46.0 | 25.1 |
| 801.004 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 0 | 100 | Hori. | 46.0 | 20.9 |
| 801.504 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 0 | 100 | Vert. | 46.0 | 20.9 |

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

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Low, 3DH5

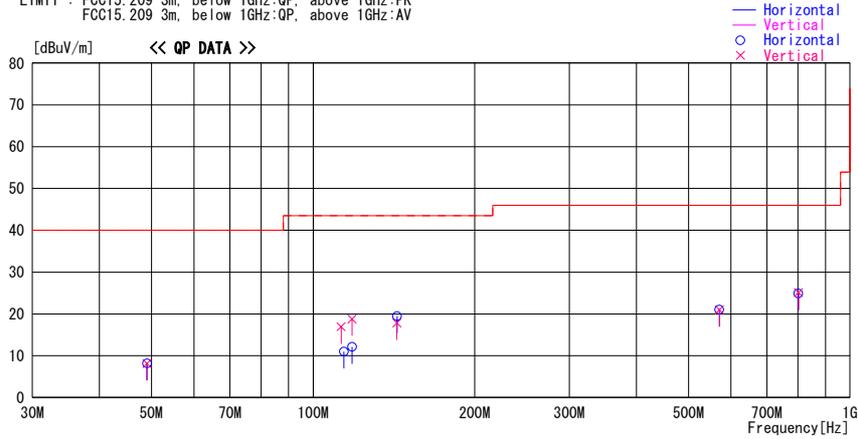
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-H0
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Kazuya Yoshioka

Mode / Remarks : Bluetooth Transmitting Mode / 2402MHz / 3DH5 / 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] |
|--------------------|-------------------|-----|------------------|--------------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Loss& Gain [dB] | | | | | | |
| 49.082 | 22.5 | QP | 10.4 | -24.7 | 8.2 | 359 | 300 | Hori. | 40.0 | 31.8 |
| 49.029 | 22.4 | QP | 10.4 | -24.7 | 8.1 | 359 | 100 | Vert. | 40.0 | 31.9 |
| 112.766 | 29.1 | QP | 11.7 | -23.9 | 16.9 | 54 | 100 | Vert. | 43.5 | 26.6 |
| 114.117 | 23.1 | QP | 11.8 | -23.9 | 11.0 | 208 | 124 | Hori. | 43.5 | 32.5 |
| 118.123 | 23.6 | QP | 12.3 | -23.8 | 12.1 | 165 | 278 | Hori. | 43.5 | 31.4 |
| 118.183 | 30.2 | QP | 12.4 | -23.8 | 18.8 | 157 | 100 | Vert. | 43.5 | 24.7 |
| 143.314 | 28.4 | QP | 14.6 | -23.5 | 19.5 | 179 | 216 | Hori. | 43.5 | 24.0 |
| 143.173 | 26.7 | QP | 14.6 | -23.5 | 17.8 | 140 | 100 | Vert. | 43.5 | 25.7 |
| 571.048 | 22.5 | QP | 18.9 | -20.4 | 21.0 | 359 | 100 | Hori. | 46.0 | 25.0 |
| 571.123 | 22.5 | QP | 18.9 | -20.4 | 21.0 | 359 | 100 | Vert. | 46.0 | 25.0 |
| 800.839 | 22.0 | QP | 21.8 | -18.9 | 24.9 | 359 | 100 | Hori. | 46.0 | 21.1 |
| 801.412 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 359 | 100 | Vert. | 46.0 | 20.9 |

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

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Mid, 3DH5

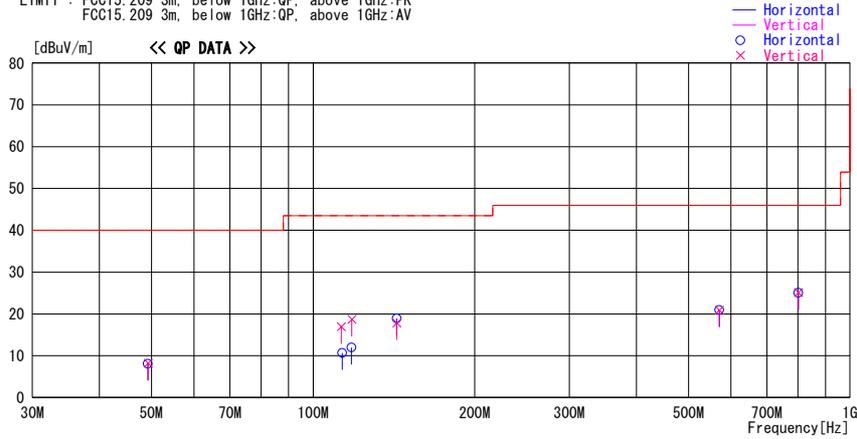
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-H0
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Kazuya Yoshioka

Mode / Remarks : Bluetooth Transmitting Mode / 2441MHz / 3DH5 / 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] |
|--------------------|-------------------|-----|------------------|--------------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Loss& Gain [dB] | | | | | | |
| 49.238 | 22.5 | QP | 10.3 | -24.7 | 8.1 | 359 | 300 | Hori. | 40.0 | 31.9 |
| 49.332 | 22.6 | QP | 10.3 | -24.7 | 8.2 | 359 | 100 | Vert. | 40.0 | 31.8 |
| 113.290 | 22.9 | QP | 11.7 | -23.9 | 10.7 | 209 | 295 | Hori. | 43.5 | 32.8 |
| 112.828 | 29.1 | QP | 11.7 | -23.9 | 16.9 | 54 | 100 | Vert. | 43.5 | 26.6 |
| 117.896 | 23.5 | QP | 12.3 | -23.8 | 12.0 | 158 | 134 | Hori. | 43.5 | 31.5 |
| 118.066 | 30.2 | QP | 12.3 | -23.8 | 18.7 | 170 | 100 | Vert. | 43.5 | 24.8 |
| 143.151 | 26.7 | QP | 14.6 | -23.5 | 17.8 | 143 | 100 | Vert. | 43.5 | 25.7 |
| 143.141 | 27.8 | QP | 14.6 | -23.5 | 18.9 | 209 | 226 | Hori. | 43.5 | 24.6 |
| 570.889 | 22.4 | QP | 18.9 | -20.4 | 20.9 | 359 | 100 | Vert. | 46.0 | 25.1 |
| 570.856 | 22.4 | QP | 18.9 | -20.4 | 20.9 | 359 | 100 | Hori. | 46.0 | 25.1 |
| 801.125 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 359 | 100 | Hori. | 46.0 | 20.9 |
| 801.086 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 359 | 100 | Vert. | 46.0 | 20.9 |

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

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch. High, 3DH5

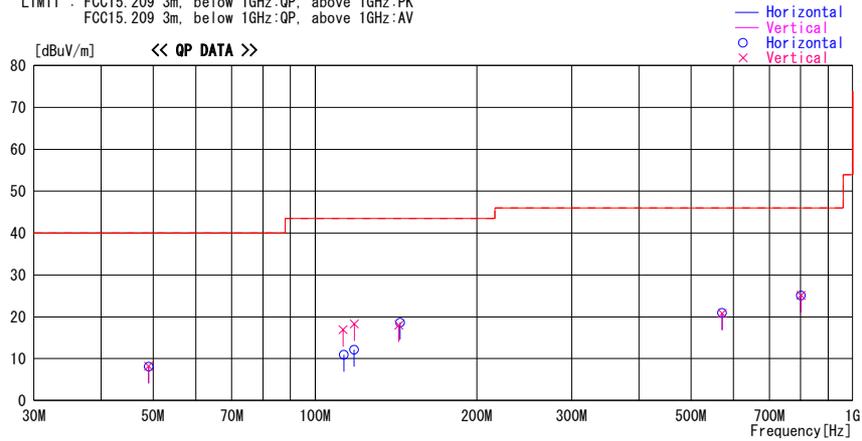
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-H0
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Kazuya Yoshioka

Mode / Remarks : Bluetooth Transmitting Mode / 2480MHz / 3DH5 / 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] |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Loss& Gain [dB] | | | | | | |
| 49.018 | 22.5 | QP | 10.4 | -24.7 | 8.2 | 359 | 100 | Vert. | 40.0 | 31.8 |
| 49.047 | 22.4 | QP | 10.4 | -24.7 | 8.1 | 359 | 300 | Hori. | 40.0 | 31.9 |
| 112.761 | 29.1 | QP | 11.7 | -23.9 | 16.9 | 51 | 100 | Vert. | 43.5 | 26.6 |
| 113.078 | 23.1 | QP | 11.7 | -23.9 | 10.9 | 206 | 296 | Hori. | 43.5 | 32.6 |
| 118.159 | 23.5 | QP | 12.4 | -23.8 | 12.1 | 164 | 294 | Hori. | 43.5 | 31.4 |
| 118.357 | 29.7 | QP | 12.4 | -23.8 | 18.3 | 151 | 100 | Vert. | 43.5 | 25.2 |
| 143.145 | 26.9 | QP | 14.6 | -23.5 | 18.0 | 142 | 100 | Vert. | 43.5 | 25.5 |
| 143.958 | 27.4 | QP | 14.6 | -23.4 | 18.6 | 175 | 238 | Hori. | 43.5 | 24.9 |
| 571.391 | 22.4 | QP | 18.9 | -20.4 | 20.9 | 359 | 100 | Hori. | 46.0 | 25.1 |
| 571.615 | 22.3 | QP | 18.9 | -20.4 | 20.8 | 359 | 100 | Vert. | 46.0 | 25.2 |
| 800.991 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 359 | 100 | Hori. | 46.0 | 20.9 |
| 801.267 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 359 | 100 | Vert. | 46.0 | 20.9 |

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

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

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

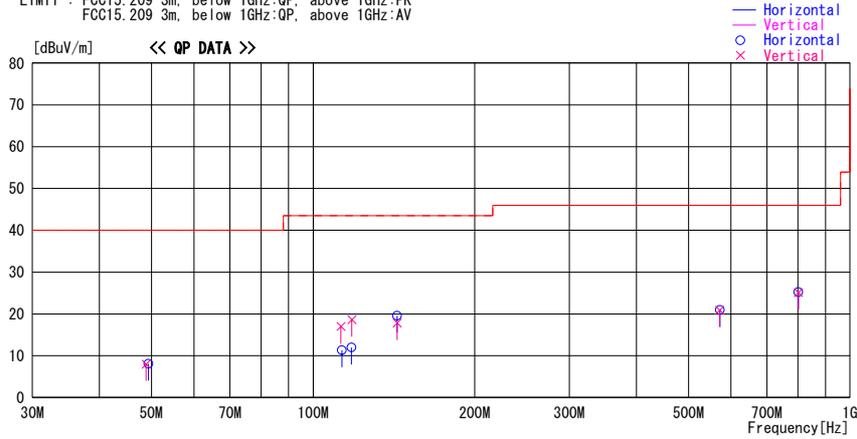
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-H0
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Kazuya Yoshioka

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] |
|-----------------|----------------|-----|---------------|-----------------|----------------|-------------|-------------|--------|----------------|-------------|
| | | | Factor [dB/m] | Loss& Gain [dB] | | | | | | |
| 49.329 | 22.5 | QP | 10.3 | -24.7 | 8.1 | 359 | 300 | Hori. | 40.0 | 31.9 |
| 48.854 | 22.3 | QP | 10.4 | -24.7 | 8.0 | 359 | 100 | Vert. | 40.0 | 32.0 |
| 113.068 | 23.5 | QP | 11.7 | -23.9 | 11.3 | 180 | 260 | Hori. | 43.5 | 32.2 |
| 112.650 | 29.2 | QP | 11.7 | -23.9 | 17.0 | 62 | 100 | Vert. | 43.5 | 26.5 |
| 117.799 | 23.5 | QP | 12.3 | -23.8 | 12.0 | 164 | 173 | Hori. | 43.5 | 31.5 |
| 118.099 | 30.1 | QP | 12.3 | -23.8 | 18.6 | 151 | 100 | Vert. | 43.5 | 24.9 |
| 143.361 | 26.7 | QP | 14.6 | -23.5 | 17.8 | 135 | 100 | Vert. | 43.5 | 25.7 |
| 143.367 | 28.5 | QP | 14.6 | -23.5 | 19.6 | 182 | 219 | Hori. | 43.5 | 23.9 |
| 571.931 | 22.4 | QP | 18.9 | -20.4 | 20.9 | 359 | 100 | Hori. | 46.0 | 25.1 |
| 571.613 | 22.4 | QP | 18.9 | -20.4 | 20.9 | 359 | 100 | Vert. | 46.0 | 25.1 |
| 800.958 | 22.3 | QP | 21.8 | -18.9 | 25.2 | 359 | 100 | Hori. | 46.0 | 20.8 |
| 801.315 | 22.2 | QP | 21.8 | -18.9 | 25.1 | 359 | 100 | Vert. | 46.0 | 20.9 |

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Low, DH5

UL Japan, Inc.
Head Office EMC Lab. No.3 Semi Anechoic Chamber

Company : SHARP COPORATION
Equipment : GSM Mobile Phone
Model No. : PV210
Sample No. : 168
Power : AC 120 V / 60 Hz
Mode : BT Tx 2402MHz, DH5, PRBS9
Remarks : Hor X , Ver Z-axis

REPORT NO : 28FE0217-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/26/2008
TEMPERATURE : 25deg.C
HUMIDITY : 31%
ENGINEER : Satofumi Matsuyama

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit PK [dBuV/m] | MARGIN | |
|---|---------------|-------------|-----------|-------------------------|---------------------|-----------------------|---------------------------|----------|------|-------------------------|--------|------|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER |
| | | [dBuV] | | | | | | [dBuV/m] | | [dB] | | |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | |
| 1 | 2176.8 | 48.0 | 47.2 | 27.0 | 31.6 | 2.8 | 0.0 | 46.2 | 45.4 | 73.9 | 27.7 | 28.5 |
| 2 | 2327.0 | 46.5 | 44.2 | 27.2 | 31.5 | 3.0 | 0.0 | 45.2 | 42.9 | 73.9 | 28.7 | 31.0 |
| 3 | 2390.0 | 41.9 | 42.4 | 27.3 | 31.5 | 3.0 | 0.0 | 40.7 | 41.2 | 73.9 | 33.2 | 32.7 |
| 4 | 2400.0* | 64.0 | 69.5 | 27.3 | 31.5 | 3.0 | 0.0 | 62.8 | 68.3 | 73.9 | - | - |
| 5 | 4804.0 | 41.7 | 40.7 | 31.5 | 30.8 | 4.3 | 0.8 | 47.5 | 46.5 | 73.9 | 26.4 | 27.4 |
| 6 | 7206.0 | 42.4 | 41.7 | 35.8 | 31.3 | 5.0 | 0.7 | 52.6 | 51.9 | 73.9 | 21.3 | 22.0 |
| 7 | 9608.0 | 42.6 | 42.2 | 38.2 | 31.9 | 6.0 | 1.1 | 56.0 | 55.6 | 73.9 | 17.9 | 18.3 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 8 | 12010.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 9 | 14412.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 10 | 16814.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 11 | 19216.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 12 | 21618.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 13 | 24020.0 | 46.3 | 46.1 | 38.7 | 30.5 | 9.3 | 0.0 | 54.3 | 54.1 | 73.9 | 19.6 | 19.8 |

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 |
| | | [dBuV] | | | | | | [dBuV/m] | | [dB] | | |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | |
| 1 | 2176.8 | 41.8 | 39.7 | 27.0 | 31.6 | 2.8 | 0.0 | 40.0 | 37.9 | 53.9 | 13.9 | 16.0 |
| 2 | 2327.0 | 38.1 | 33.6 | 27.2 | 31.5 | 3.0 | 0.0 | 36.8 | 32.3 | 53.9 | 17.1 | 21.6 |
| 3 | 2390.0 | 30.7 | 30.6 | 27.3 | 31.5 | 3.0 | 0.0 | 29.5 | 29.4 | 53.9 | 24.4 | 24.5 |
| 4 | 2400.0* | 61.1 | 66.6 | 27.3 | 31.5 | 3.0 | 0.0 | 59.9 | 65.4 | 53.9 | - | - |
| 5 | 4804.0 | 31.6 | 30.0 | 31.5 | 30.8 | 4.3 | 0.8 | 37.4 | 35.8 | 53.9 | 16.5 | 18.1 |
| 6 | 7206.0 | 30.6 | 30.6 | 35.8 | 31.3 | 5.0 | 0.7 | 40.8 | 40.8 | 53.9 | 13.1 | 13.1 |
| 7 | 9608.0 | 31.6 | 31.5 | 38.2 | 31.9 | 6.0 | 1.1 | 45.0 | 44.9 | 53.9 | 8.9 | 9.0 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 8 | 12010.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 9 | 14412.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 10 | 16814.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 11 | 19216.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 12 | 21618.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 13 | 24020.0 | 34.9 | 35.0 | 38.7 | 30.5 | 9.3 | 0.0 | 42.9 | 43.0 | 53.9 | 11.0 | 10.9 |

* Reference data

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit 20dBc [dBuV/m] | MARGIN | |
|--|---------------|-------------|------|-------------------------|---------------------|-----------------------|---------------------------|----------|------|----------------------------|--------|------|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER |
| | | [dBuV] | | | | | | [dBuV/m] | | [dB] | | |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | |
| 1 | 2402.0 | 88.4 | 94.0 | 27.3 | 31.5 | 3.0 | 0.0 | 87.2 | 92.8 | - | - | - |
| 2 | 2400.0 | 37.1 | 39.2 | 27.3 | 31.5 | 3.0 | 0.0 | 35.9 | 38.0 | Funda-20dB | 31.3 | 34.8 |

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

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

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

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Mid, DH5

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : SHARP COPORATION
Equipment : GSM Mobile Phone
Model No. : PV210
Sample No. : 168
Power : AC 120 V / 60 Hz
Mode : BT Tx 2441MHz,DH5,PRBS9
Remarks : Hor X , Ver Z-axis

REPORT NO : 28FE0217-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/26/2008
TEMPERATURE : 25deg.C
HUMIDITY : 31%
ENGINEER : Satofumi Matsuyama

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit PK [dBuV/m] | MARGIN | | |
|---|---------------|-------------|-----------|-------------------------|---------------------|-----------------------|---------------------------|--------|------|-------------------------|--------|------|--|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER | |
| | | [dBuV] | | | | | | | | | | | |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | | |
| 1 | 2212.2 | 46.4 | 46.7 | 27.0 | 31.6 | 2.8 | 0.0 | 44.6 | 44.9 | 73.9 | 29.3 | 29.0 | |
| 2 | 2364.8 | 46.1 | 44.1 | 27.3 | 31.5 | 3.0 | 0.0 | 44.9 | 42.9 | 73.9 | 29.0 | 31.0 | |
| 3 | 4882.0 | 41.1 | 41.6 | 31.7 | 30.7 | 4.3 | 0.8 | 47.2 | 47.7 | 73.9 | 26.7 | 26.2 | |
| 4 | 7323.0 | 41.4 | 41.4 | 35.9 | 31.3 | 5.1 | 0.7 | 51.8 | 51.8 | 73.9 | 22.1 | 22.1 | |
| 5 | 9764.0 | 42.3 | 43.3 | 38.2 | 32.1 | 6.0 | 1.2 | 55.6 | 56.6 | 73.9 | 18.3 | 17.3 | |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | | |
| 6 | 12205.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - | |
| 7 | 14646.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - | |
| 8 | 17087.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - | |
| 9 | 19528.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - | |
| 10 | 21969.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - | |
| 11 | 24410.0 | 46.8 | 46.6 | 38.8 | 30.3 | 9.4 | 0.0 | 55.2 | 55.0 | 73.9 | 18.7 | 18.9 | |

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit AV [dBuV/m] | MARGIN | | |
|---|---------------|-------------|-----------|-------------------------|---------------------|-----------------------|---------------------------|--------|------|-------------------------|--------|------|--|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER | |
| | | [dBuV] | | | | | | | | | | | |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | | |
| 1 | 2212.2 | 39.8 | 40.0 | 27.0 | 31.6 | 2.8 | 0.0 | 38.0 | 38.2 | 53.9 | 15.9 | 15.7 | |
| 2 | 2364.8 | 36.8 | 34.1 | 27.3 | 31.5 | 3.0 | 0.0 | 35.6 | 32.9 | 53.9 | 18.3 | 21.0 | |
| 3 | 4882.0 | 30.7 | 31.1 | 31.7 | 30.7 | 4.3 | 0.8 | 36.8 | 37.2 | 53.9 | 17.1 | 16.7 | |
| 4 | 7323.0 | 30.3 | 30.1 | 35.9 | 31.3 | 5.1 | 0.7 | 40.7 | 40.5 | 53.9 | 13.2 | 13.4 | |
| 5 | 9764.0 | 31.6 | 31.7 | 38.2 | 32.1 | 6.0 | 1.2 | 44.9 | 45.0 | 53.9 | 9.0 | 8.9 | |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | | |
| 6 | 12205.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - | |
| 7 | 14646.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - | |
| 8 | 17087.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - | |
| 9 | 19528.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - | |
| 10 | 21969.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - | |
| 11 | 24410.0 | 35.2 | 35.2 | 38.8 | 30.3 | 9.4 | 0.0 | 43.6 | 43.6 | 53.9 | 10.3 | 10.3 | |

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch. High, DH5

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : SHARP COPORATION
Equipment : GSM Mobile Phone
Model No. : PV210
Sample No. : 168
Power : AC 120 V / 60 Hz
Mode : BT Tx 2480MHz,DH5,PRBS9
Remarks : Hor X , Ver Z-axis

REPORT NO : 28FE0217-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/26/2008
TEMPERATURE : 25deg.C
HUMIDITY : 31%
ENGINEER : Satofumi Matsuyama

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor | AMP GAIN | CABLE LOSS | Hi-Pass Filter | RESULT | | Limit PK | MARGIN | |
|---|---------------|-------------|-----------|---------------|-------------|---------------|-------------------|----------|------|-------------|--------|------|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER |
| | | [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 | 2092.5 | 45.2 | 46.2 | 26.9 | 31.6 | 2.7 | 0.0 | 43.2 | 44.2 | 73.9 | 30.7 | 29.7 |
| 2 | 2247.5 | 47.0 | 45.6 | 27.1 | 31.6 | 2.9 | 0.0 | 45.4 | 44.0 | 73.9 | 28.5 | 29.9 |
| 3 | 2483.5 | 52.4 | 52.7 | 27.4 | 31.5 | 3.1 | 0.0 | 51.4 | 51.7 | 73.9 | 22.5 | 22.2 |
| 4 | 4960.0 | 41.2 | 40.5 | 31.8 | 30.7 | 4.4 | 0.8 | 47.5 | 46.8 | 73.9 | 26.4 | 27.1 |
| 5 | 7440.0 | 41.6 | 41.5 | 36.1 | 31.3 | 5.2 | 0.7 | 52.3 | 52.2 | 73.9 | 21.6 | 21.7 |
| 6 | 9920.0 | 43.6 | 43.3 | 38.2 | 32.2 | 6.0 | 1.2 | 56.8 | 56.5 | 73.9 | 17.1 | 17.4 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 7 | 12400.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 8 | 14880.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 9 | 17360.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 10 | 19840.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 11 | 22320.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 12 | 24800.0 | 47.3 | 47.2 | 38.9 | 30.1 | 9.4 | 0.0 | 56.0 | 55.9 | 73.9 | 17.9 | 18.0 |

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor | AMP GAIN | CABLE LOSS | Hi-Pass Filter | RESULT | | Limit AV | MARGIN | |
|---|---------------|-------------|-----------|---------------|-------------|---------------|-------------------|----------|------|-------------|--------|------|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER |
| | | [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 | 2092.5 | 37.6 | 39.2 | 26.9 | 31.6 | 2.7 | 0.0 | 35.6 | 37.2 | 53.9 | 18.3 | 16.7 |
| 2 | 2247.5 | 39.7 | 37.9 | 27.1 | 31.6 | 2.9 | 0.0 | 38.1 | 36.3 | 53.9 | 15.8 | 17.6 |
| 3 | 2483.5 | 50.1 | 50.5 | 27.4 | 31.5 | 3.1 | 0.0 | 49.1 | 49.5 | 53.9 | 4.8 | 4.4 |
| 4 | 4960.0 | 30.9 | 30.1 | 31.8 | 30.7 | 4.4 | 0.8 | 37.2 | 36.4 | 53.9 | 16.7 | 17.5 |
| 5 | 7440.0 | 30.6 | 30.5 | 36.1 | 31.3 | 5.2 | 0.7 | 41.3 | 41.2 | 53.9 | 12.6 | 12.7 |
| 6 | 9920.0 | 31.9 | 32.2 | 38.2 | 32.2 | 6.0 | 1.2 | 45.1 | 45.4 | 53.9 | 8.8 | 8.5 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 7 | 12400.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 8 | 14880.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 9 | 17360.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 10 | 19840.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 11 | 22320.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 12 | 24800.0 | 36.0 | 36.0 | 38.9 | 30.1 | 9.4 | 0.0 | 44.7 | 44.7 | 53.9 | 9.2 | 9.2 |

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Low, 3DH5

UL Japan, Inc.
Head Office EMC Lab. No.3 Semi Anechoic Chamber

Company : SHARP COPORATION
Equipment : GSM Mobile Phone
Model No. : PV210
Sample No. : 168
Power : AC 120 V / 60 Hz
Mode : BT Tx 2402MHz,3DH5,PRBS9
Remarks : Hor X , Ver Z-axis

REPORT NO : 28FE0217-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/25/2008 02/26/2008
TEMPERATURE : 24deg.C 25deg.C
HUMIDITY : 30% 31%
ENGINEER : Kazuya Yoshioka Satofumi Matsuyama

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 | 2176.8 | 48.0 | 47.4 | 27.0 | 31.6 | 2.8 | 0.0 | 46.2 | 45.6 | 73.9 | 27.7 | 28.3 |
| 2 | 2327.0 | 45.9 | 45.7 | 27.2 | 31.5 | 3.0 | 0.0 | 44.6 | 44.4 | 73.9 | 29.3 | 29.5 |
| 3 | 2390.0 | 41.4 | 41.7 | 27.3 | 31.5 | 3.0 | 0.0 | 40.2 | 40.5 | 73.9 | 33.7 | 33.4 |
| 4 | 2400.0* | 66.2 | 66.7 | 27.3 | 31.5 | 3.0 | 0.0 | 65.0 | 65.5 | 73.9 | - | - |
| 5 | 4804.0 | 41.8 | 41.0 | 31.5 | 30.8 | 4.3 | 0.8 | 47.6 | 46.8 | 73.9 | 26.3 | 27.1 |
| 6 | 7206.0 | 41.6 | 42.2 | 35.8 | 31.3 | 5.0 | 0.7 | 51.8 | 52.4 | 73.9 | 22.1 | 21.5 |
| 7 | 9608.0 | 42.6 | 42.9 | 38.2 | 31.9 | 6.0 | 1.1 | 56.0 | 56.3 | 73.9 | 17.9 | 17.6 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 8 | 12010.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 9 | 14412.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 10 | 16814.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 11 | 19216.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 12 | 21618.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 13 | 24020.0 | 46.3 | 46.1 | 38.7 | 30.5 | 9.3 | 0.0 | 54.3 | 54.1 | 73.9 | 19.6 | 19.8 |

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 | 2176.8 | 41.6 | 40.4 | 27.0 | 31.6 | 2.8 | 0.0 | 39.8 | 38.6 | 53.9 | 14.1 | 15.3 |
| 2 | 2327.0 | 37.3 | 37.0 | 27.2 | 31.5 | 3.0 | 0.0 | 36.0 | 35.7 | 53.9 | 17.9 | 18.2 |
| 3 | 2390.0 | 30.0 | 29.8 | 27.3 | 31.5 | 3.0 | 0.0 | 28.8 | 28.6 | 53.9 | 25.1 | 25.3 |
| 4 | 2400.0* | 63.1 | 63.8 | 27.3 | 31.5 | 3.0 | 0.0 | 61.9 | 62.6 | 53.9 | - | - |
| 5 | 4804.0 | 31.2 | 29.8 | 31.5 | 30.8 | 4.3 | 0.8 | 37.0 | 35.6 | 53.9 | 16.9 | 18.3 |
| 6 | 7206.0 | 29.5 | 29.6 | 35.8 | 31.3 | 5.0 | 0.7 | 39.7 | 39.8 | 53.9 | 14.2 | 14.1 |
| 7 | 9608.0 | 30.7 | 30.9 | 38.2 | 31.9 | 6.0 | 1.1 | 44.1 | 44.3 | 53.9 | 9.8 | 9.6 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 8 | 12010.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 9 | 14412.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 10 | 16814.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 11 | 19216.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 12 | 21618.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 13 | 24020.0 | 34.9 | 34.9 | 38.7 | 30.5 | 9.3 | 0.0 | 42.9 | 42.9 | 53.9 | 11.0 | 11.0 |

* Reference data

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit 20dBc [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 | 90.5 | 93.3 | 27.3 | 31.5 | 3.0 | 0.0 | 89.3 | 92.1 | - | - | - |
| 2 | 2400.0 | 36.8 | 36.7 | 27.3 | 31.5 | 3.0 | 0.0 | 35.6 | 35.5 | Funda-20dB | 33.7 | 36.6 |

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Mid, 3DH5

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : SHARP COPORATION
Equipment : GSM Mobile Phone
Model No. : PV210
Sample No. : 168
Power : AC 120 V / 60 Hz
Mode : BT Tx 2441MHz,3DH5,PRBS9
Remarks : Hor X , Ver Z-axis

REPORT NO : 28FE0217-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/25/2008 02/26/2008
TEMPERATURE : 24deg.C 25deg.C
HUMIDITY : 30% 31%
ENGINEER : Kazuya Yoshioka Satofumi Matsuyama

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 | 2212.2 | 48.0 | 47.4 | 27.0 | 31.6 | 2.8 | 0.0 | 46.2 | 45.6 | 73.9 | 27.7 | 28.3 |
| 2 | 2364.7 | 46.0 | 46.4 | 27.3 | 31.5 | 3.0 | 0.0 | 44.8 | 45.2 | 73.9 | 29.1 | 28.7 |
| 3 | 4882.0 | 41.8 | 41.1 | 31.7 | 30.7 | 4.3 | 0.8 | 47.9 | 47.2 | 73.9 | 26.0 | 26.7 |
| 4 | 7323.0 | 41.5 | 41.3 | 35.9 | 31.3 | 5.1 | 0.7 | 51.9 | 51.7 | 73.9 | 22.0 | 22.2 |
| 5 | 9764.0 | 43.2 | 44.0 | 38.2 | 32.1 | 6.0 | 1.2 | 56.5 | 57.3 | 73.9 | 17.4 | 16.6 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 6 | 12205.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 7 | 14646.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 8 | 17087.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 9 | 19528.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 10 | 21969.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 11 | 24410.0 | 46.6 | 46.6 | 38.8 | 30.3 | 9.4 | 0.0 | 55.0 | 55.0 | 73.9 | 18.9 | 18.9 |

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit AV [dBuV/m] | MARGIN | |
|--|---------------|-------------|-----------|-------------------------|---------------------|-----------------------|---------------------------|--------|------|-------------------------|--------|------|
| | | HOR | VER | | | | | HOR | VER | | HOR | VER |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | |
| 1 | 2212.2 | 41.6 | 40.4 | 27.0 | 31.6 | 2.8 | 0.0 | 39.8 | 38.6 | 53.9 | 14.1 | 15.3 |
| 2 | 2364.7 | 37.2 | 37.8 | 27.3 | 31.5 | 3.0 | 0.0 | 36.0 | 36.6 | 53.9 | 17.9 | 17.3 |
| 3 | 4882.0 | 31.4 | 29.7 | 31.7 | 30.7 | 4.3 | 0.8 | 37.5 | 35.8 | 53.9 | 16.4 | 18.1 |
| 4 | 7323.0 | 29.2 | 29.3 | 35.9 | 31.3 | 5.1 | 0.7 | 39.6 | 39.7 | 53.9 | 14.3 | 14.2 |
| 5 | 9764.0 | 30.9 | 31.1 | 38.2 | 32.1 | 6.0 | 1.2 | 44.2 | 44.4 | 53.9 | 9.7 | 9.5 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 6 | 12205.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 7 | 14646.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 8 | 17087.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 9 | 19528.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 10 | 21969.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 11 | 24410.0 | 35.2 | 35.2 | 38.8 | 30.3 | 9.4 | 0.0 | 43.6 | 43.6 | 53.9 | 10.3 | 10.3 |

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

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

**Radiated Spurious Emission (above 1GHz)
Tx, Ch. High, 3DH5**

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

| | | | |
|------------|----------------------------|---------------|---|
| Company | : SHARP COPORATION | REPORT NO | : 28FE0217-HO |
| Equipment | : GSM Mobile Phone | REGULATION | : FCC15.247(d)/RSS-210A8.5 |
| Model No. | : PV210 | TEST DISTANCE | : 3/1m |
| Sample No. | : 168 | DATE | : 02/25/2008 02/26/2008 |
| Power | : AC 120 V / 60 Hz | TEMPERATURE | : 24deg.C 25deg.C |
| Mode | : BT Tx 2480MHz,3DH5,PRBS9 | HUMIDITY | : 30% 31% |
| Remarks | : Hor X , Ver Z-axis | ENGINEER | : Kazuya Yoshioka Satofumi Matsuyama |

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit PK [dBuV/m] | MARGIN | |
|---|---------------|---------------|---------------|-------------------------|---------------------|-----------------------|---------------------------|-----------------|-----------------|-------------------------|-------------|-------------|
| | | HOR [dBuV] | VER [dBuV] | | | | | HOR [dBuV/m] | VER [dBuV/m] | | HOR [dB] | VER [dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | |
| 1 | 2092.5 | 45.0 | 45.5 | 26.9 | 31.6 | 2.7 | 0.0 | 43.0 | 43.5 | 73.9 | 30.9 | 30.4 |
| 2 | 2247.5 | 46.7 | 46.8 | 27.1 | 31.6 | 2.9 | 0.0 | 45.1 | 45.2 | 73.9 | 28.8 | 28.7 |
| 3 | 2483.5 | 48.3 | 51.3 | 27.4 | 31.5 | 3.1 | 0.0 | 47.3 | 50.3 | 73.9 | 26.6 | 23.6 |
| 4 | 4960.0 | 41.8 | 41.9 | 31.8 | 30.7 | 4.4 | 0.8 | 48.1 | 48.2 | 73.9 | 25.8 | 25.7 |
| 5 | 7440.0 | 42.1 | 41.5 | 36.1 | 31.3 | 5.2 | 0.7 | 52.8 | 52.2 | 73.9 | 21.1 | 21.7 |
| 6 | 9920.0 | 43.4 | 43.4 | 38.2 | 32.2 | 6.0 | 1.2 | 56.6 | 56.6 | 73.9 | 17.3 | 17.3 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 7 | 12400.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 8 | 14880.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 9 | 17360.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 10 | 19840.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 11 | 22320.0 | not found | not found | - | - | - | - | - | - | 73.9 | - | - |
| 12 | 24800.0 | 47.3 | 46.9 | 38.9 | 30.1 | 9.4 | 0.0 | 56.0 | 55.6 | 73.9 | 17.9 | 18.3 |

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

| No. | FREQ [MHz] | S/A READING | | ANT Factor [dB/m] | AMP GAIN [dB] | CABLE LOSS [dB] | Hi-Pass Filter [dB] | RESULT | | Limit AV [dBuV/m] | MARGIN | |
|---|---------------|---------------|---------------|-------------------------|---------------------|-----------------------|---------------------------|-----------------|-----------------|-------------------------|-------------|-------------|
| | | HOR [dBuV] | VER [dBuV] | | | | | HOR [dBuV/m] | VER [dBuV/m] | | HOR [dB] | VER [dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss | | | | | | | | | | | | |
| 1 | 2092.5 | 36.7 | 36.7 | 26.9 | 31.6 | 2.7 | 0.0 | 34.7 | 34.7 | 53.9 | 19.2 | 19.2 |
| 2 | 2247.5 | 40.1 | 39.0 | 27.1 | 31.6 | 2.9 | 0.0 | 38.5 | 37.4 | 53.9 | 15.4 | 16.5 |
| 3 | 2483.5 | 45.8 | 49.1 | 27.4 | 31.5 | 3.1 | 0.0 | 44.8 | 48.1 | 53.9 | 9.1 | 5.8 |
| 4 | 4960.0 | 31.6 | 30.9 | 31.8 | 30.7 | 4.4 | 0.8 | 37.9 | 37.2 | 53.9 | 16.0 | 16.7 |
| 5 | 7440.0 | 29.6 | 29.8 | 36.1 | 31.3 | 5.2 | 0.7 | 40.3 | 40.5 | 53.9 | 13.6 | 13.4 |
| 6 | 9920.0 | 31.2 | 31.2 | 38.2 | 32.2 | 6.0 | 1.2 | 44.4 | 44.4 | 53.9 | 9.5 | 9.5 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac | | | | | | | | | | | | |
| 7 | 12400.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 8 | 14880.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 9 | 17360.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 10 | 19840.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 11 | 22320.0 | not found | not found | - | - | - | - | - | - | 53.9 | - | - |
| 12 | 24800.0 | 35.8 | 35.8 | 38.9 | 30.1 | 9.4 | 0.0 | 44.5 | 44.5 | 53.9 | 9.4 | 9.4 |

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

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

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

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

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

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

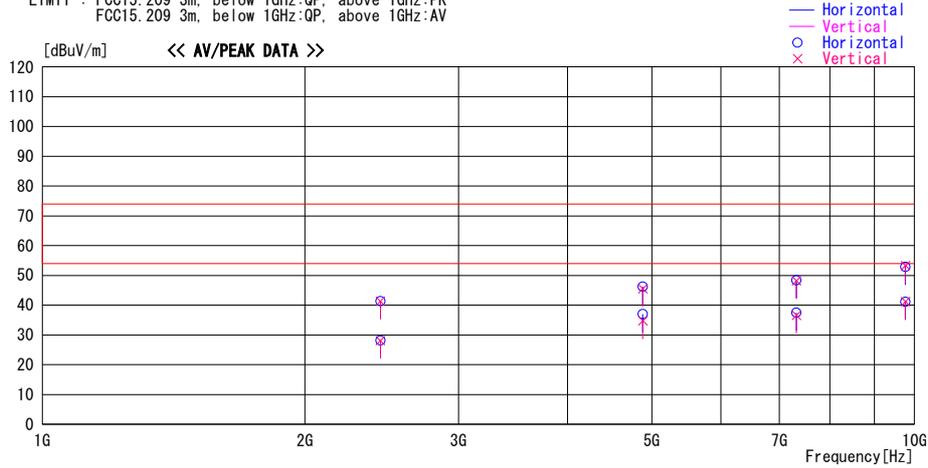
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/26

Company : SHARP CORPORATION
Kind of EUT : GSM Mobile Phone
Model No. : PV210
Serial No. : 168
Report No. : 28FE0217-HO
Power : AC 120V/60Hz
Temp./Humi. : 25deg. C / 31%
Operator : Satofumi Matsuyama

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

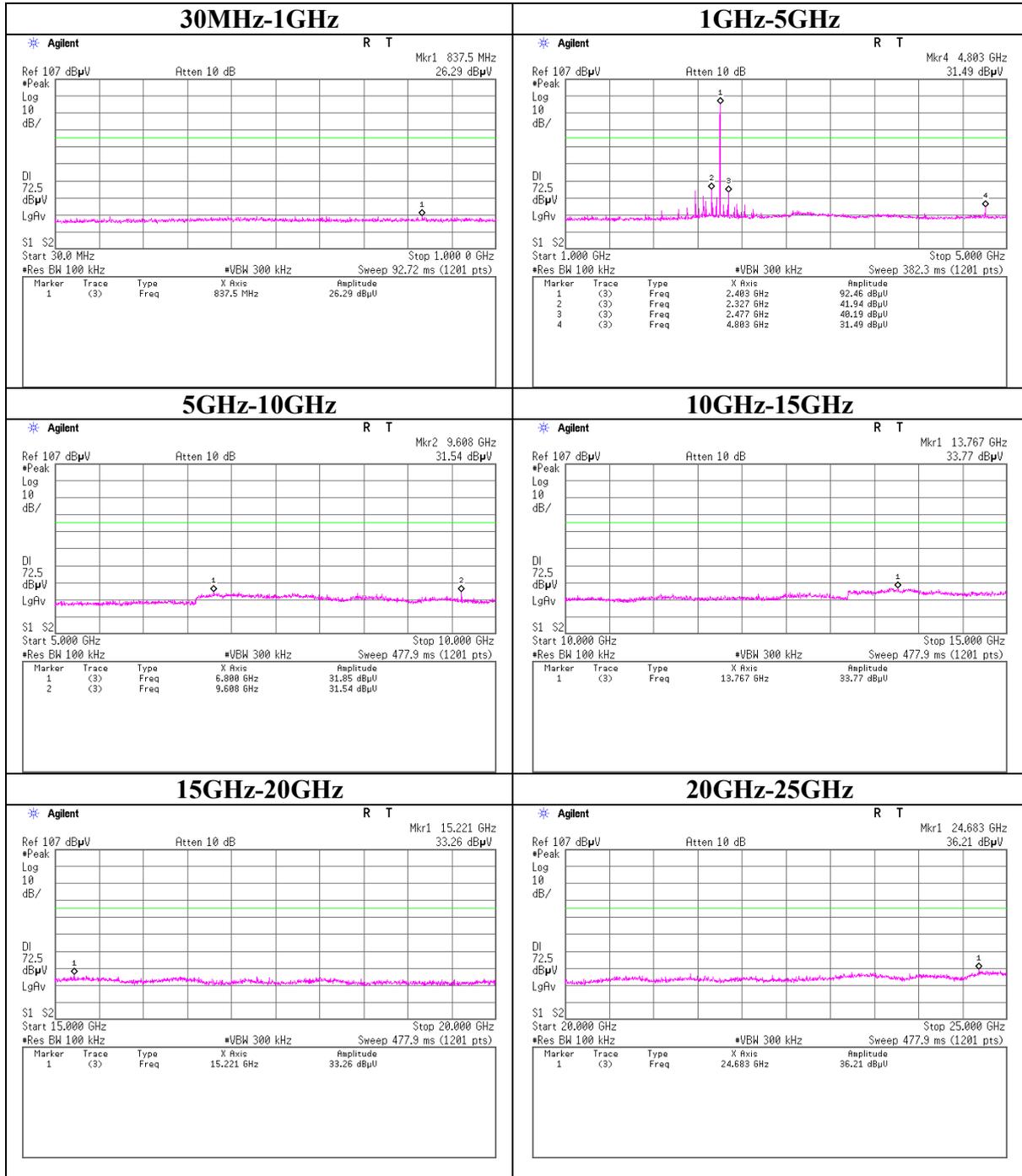


| Frequency [MHz] | Reading [dBuV] | DET | Antenna | | Level [dBuV/m] | Angle [Deg] | Height [cm] | Polar. | Limit [dBuV/m] | Margin [dB] |
|--------------------|-------------------|-----|------------------|--------------------|-------------------|----------------|----------------|--------|-------------------|----------------|
| | | | Factor [dB/m] | Loss& Gain [dB] | | | | | | |
| 2441.000 | 42.4 | PK | 27.4 | -28.4 | 41.4 | 359 | 150 | Hori. | 73.9 | 32.5 |
| 2441.000 | 42.3 | PK | 27.4 | -28.4 | 41.3 | 359 | 149 | Vert. | 73.9 | 32.6 |
| 2441.000 | 29.1 | AV | 27.4 | -28.4 | 28.1 | 359 | 150 | Hori. | 53.9 | 25.8 |
| 2441.000 | 29.1 | AV | 27.4 | -28.4 | 28.1 | 359 | 149 | Vert. | 53.9 | 25.8 |
| 4882.000 | 40.6 | PK | 31.7 | -26.8 | 45.5 | 146 | 123 | Vert. | 73.9 | 28.4 |
| 4882.000 | 29.8 | AV | 31.7 | -26.8 | 34.7 | 146 | 123 | Vert. | 53.9 | 19.2 |
| 4882.000 | 41.3 | PK | 31.7 | -26.8 | 46.2 | 23 | 105 | Hori. | 73.9 | 27.7 |
| 4882.000 | 32.1 | AV | 31.7 | -26.8 | 37.0 | 23 | 105 | Hori. | 53.9 | 16.9 |
| 7323.000 | 39.0 | PK | 35.9 | -26.7 | 48.2 | 0 | 100 | Vert. | 73.9 | 25.7 |
| 7323.000 | 27.4 | AV | 35.9 | -26.7 | 36.6 | 0 | 100 | Vert. | 53.9 | 17.3 |
| 7323.000 | 39.2 | PK | 35.9 | -26.7 | 48.4 | 0 | 100 | Hori. | 73.9 | 25.5 |
| 7323.000 | 28.3 | AV | 35.9 | -26.7 | 37.5 | 0 | 100 | Hori. | 53.9 | 16.4 |
| 9764.000 | 41.8 | PK | 38.2 | -26.7 | 53.3 | 0 | 100 | Vert. | 73.9 | 20.6 |
| 9764.000 | 29.7 | AV | 38.2 | -26.7 | 41.2 | 0 | 100 | Vert. | 53.9 | 12.7 |
| 9764.000 | 41.4 | PK | 38.2 | -26.7 | 52.9 | 0 | 100 | Hori. | 73.9 | 21.0 |
| 9764.000 | 29.6 | AV | 38.2 | -26.7 | 41.1 | 0 | 100 | Hori. | 53.9 | 12.8 |

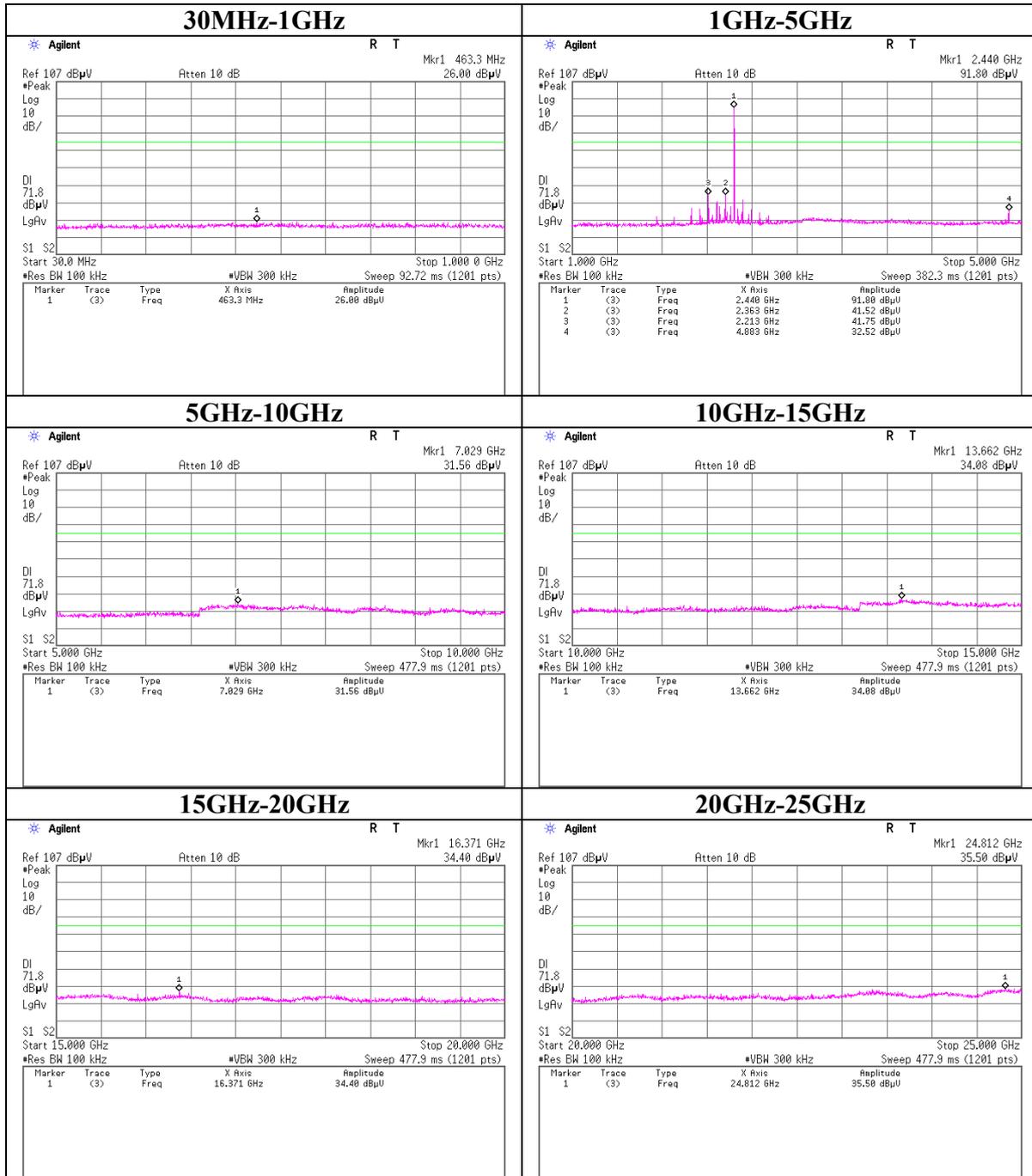
CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

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

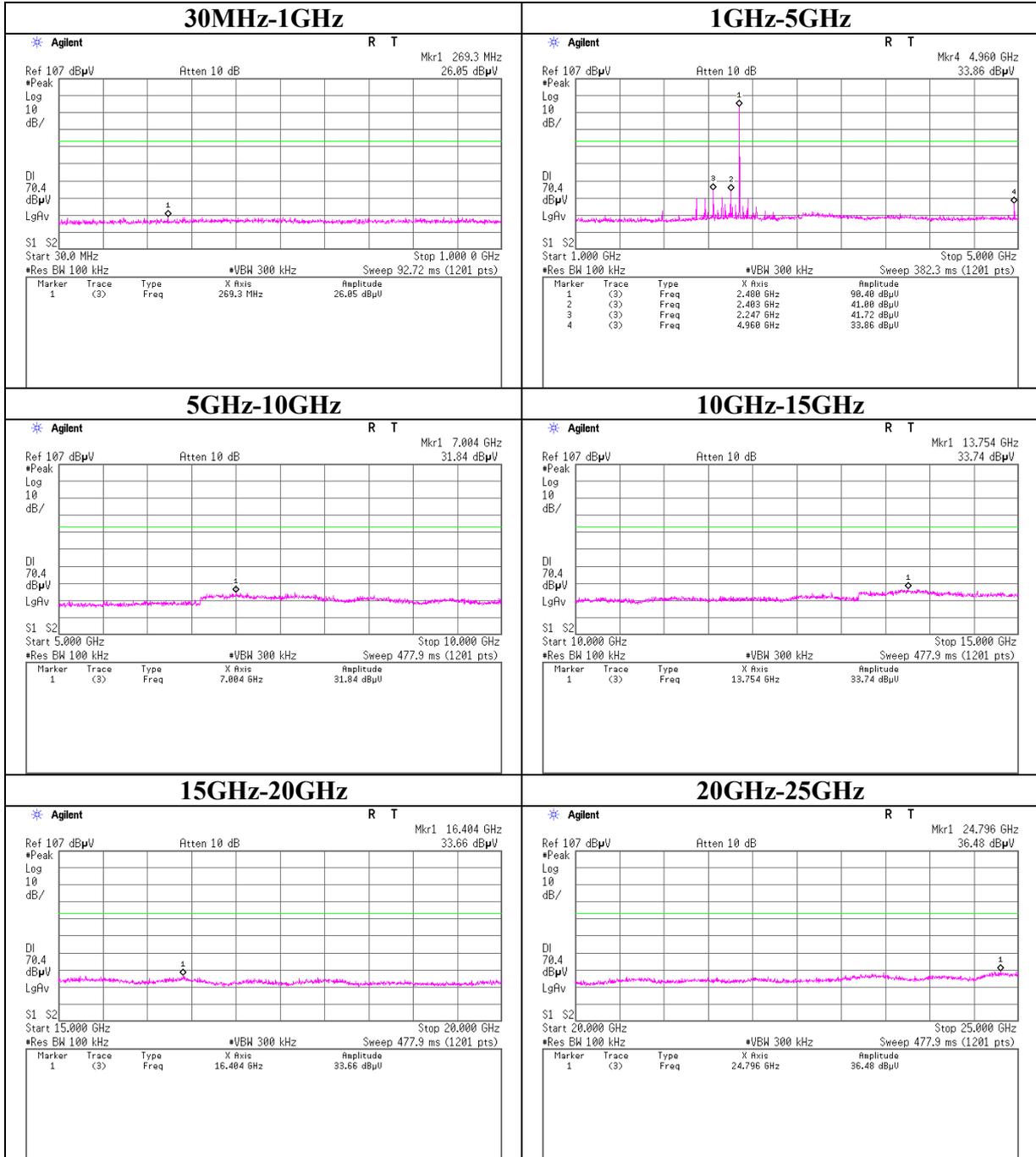
Conducted Spurious Emission
Tx, Ch:Low, DH5



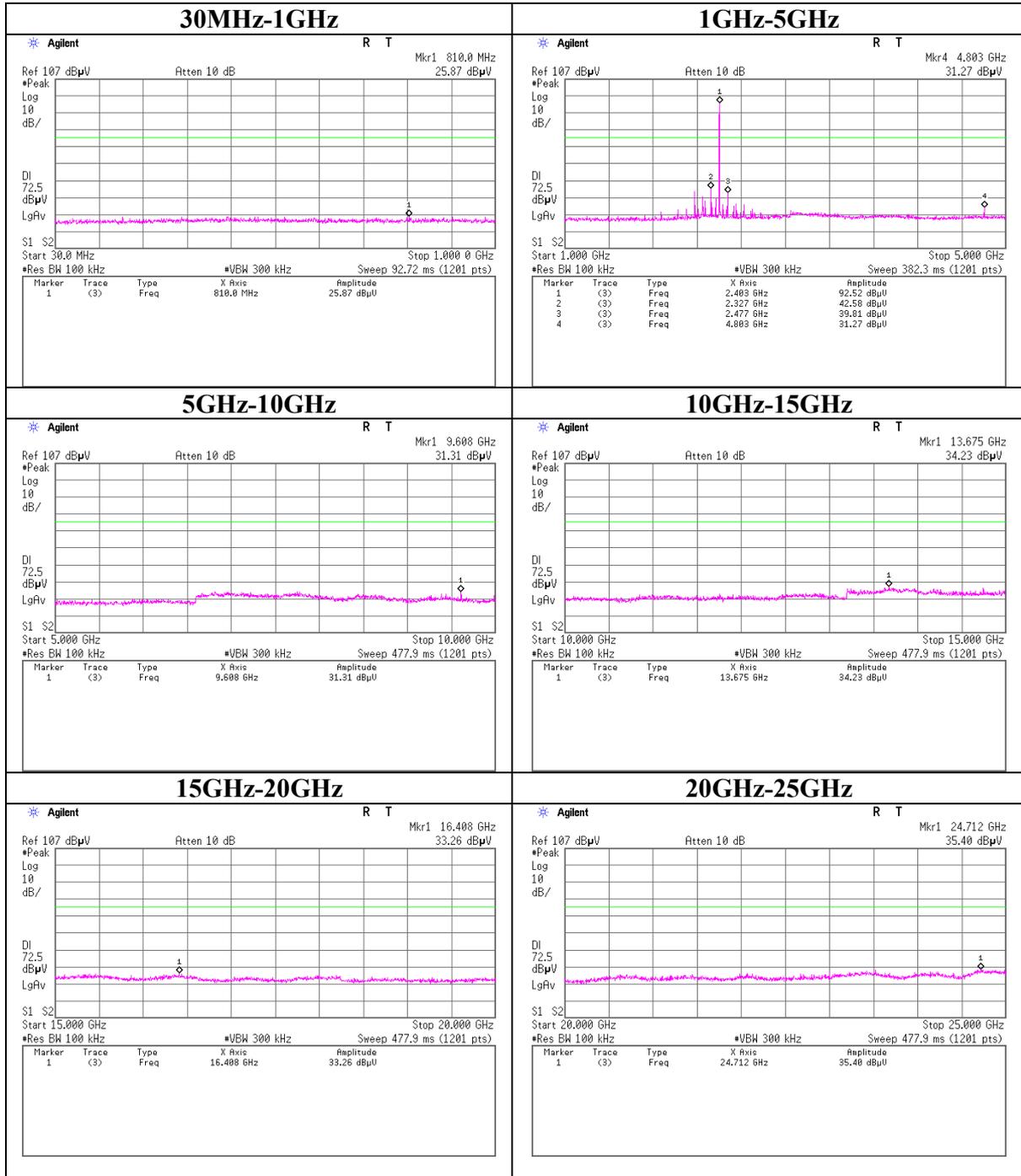
Conducted Spurious Emission
Tx, Ch:Mid, DH5



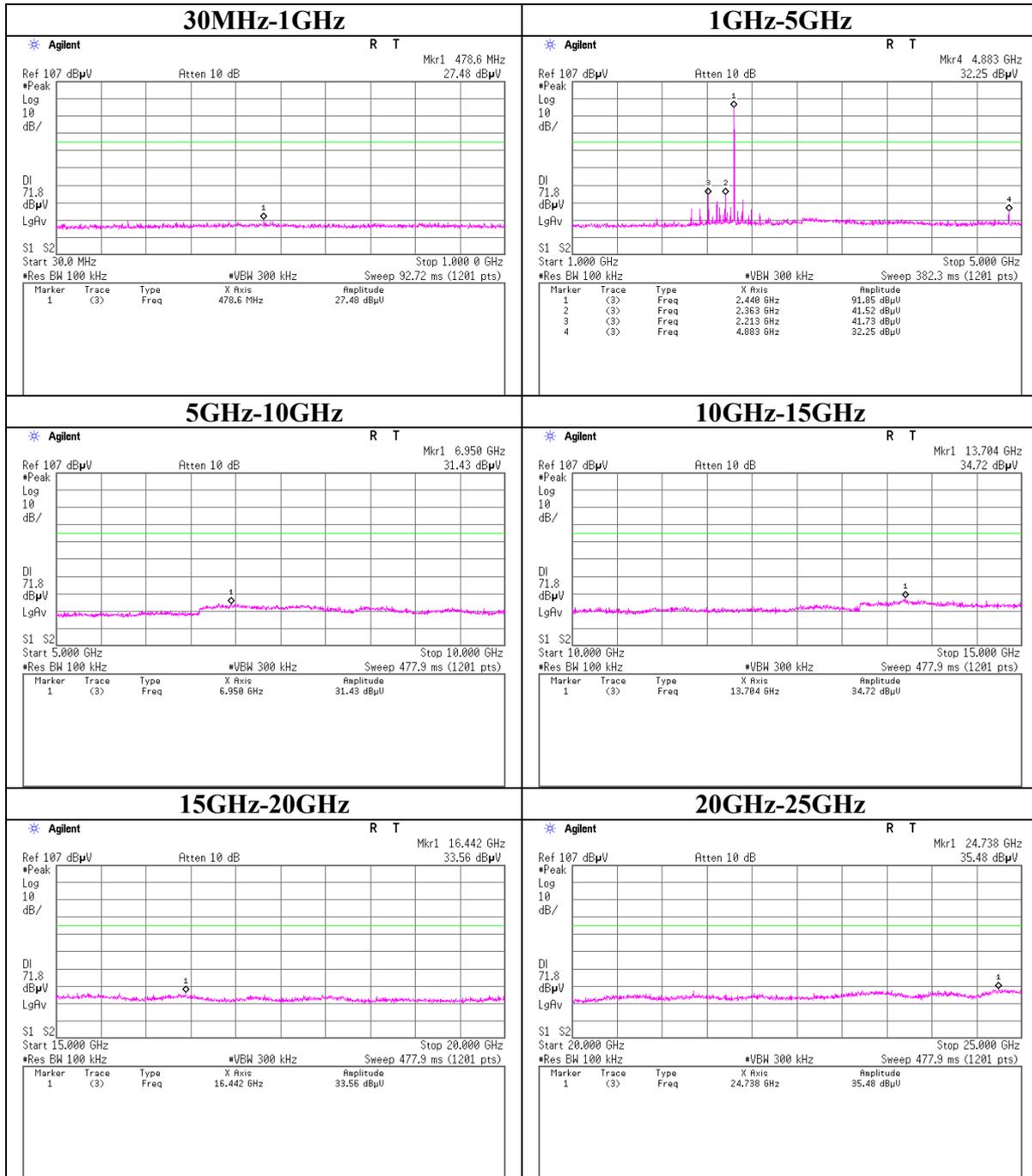
Conducted Spurious Emission
Tx, Ch:High, DH5



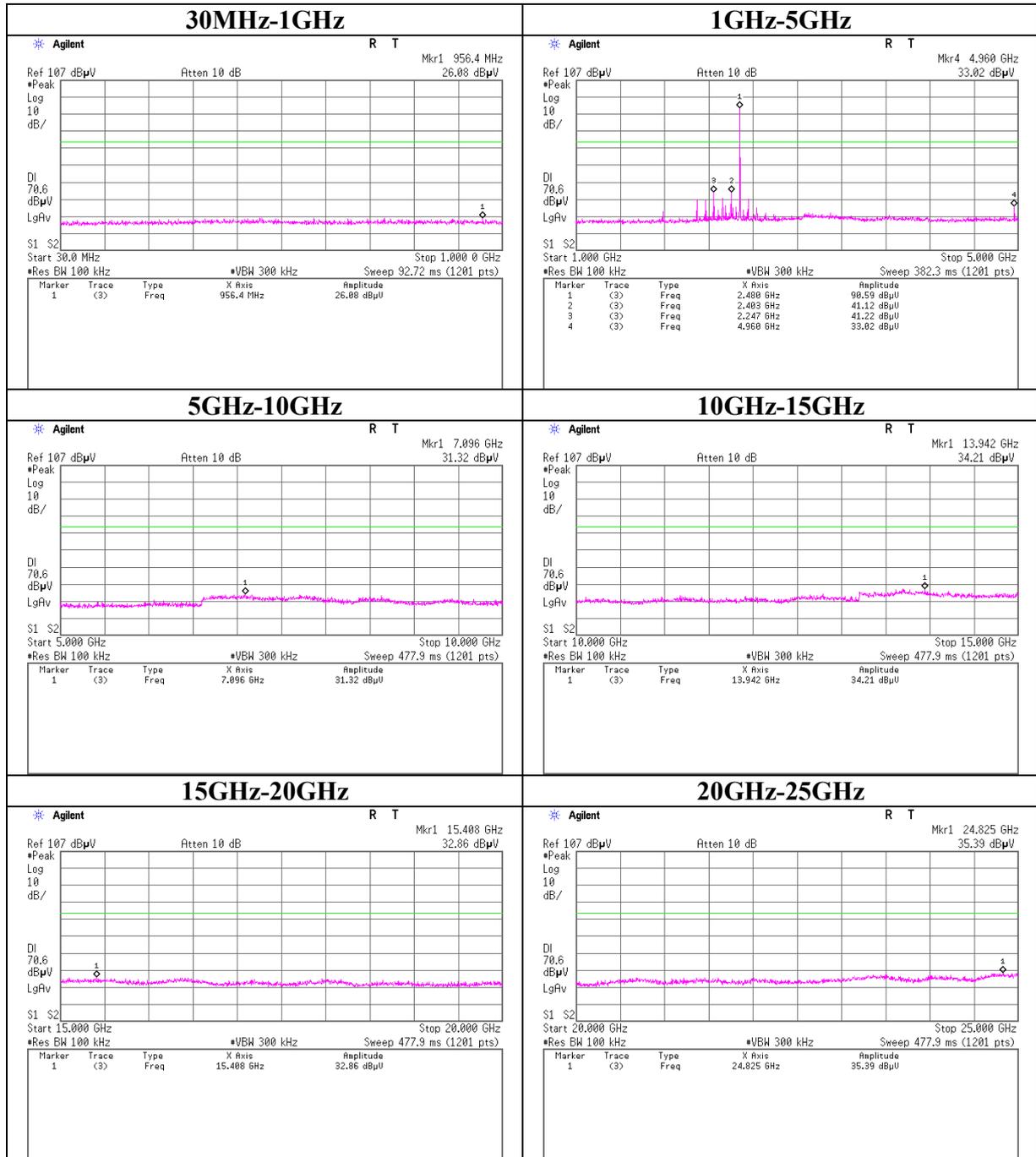
Conducted Spurious Emission
Tx, Ch:Low, 3DH5



Conducted Spurious Emission
Tx, Ch:Mid, 3DH5

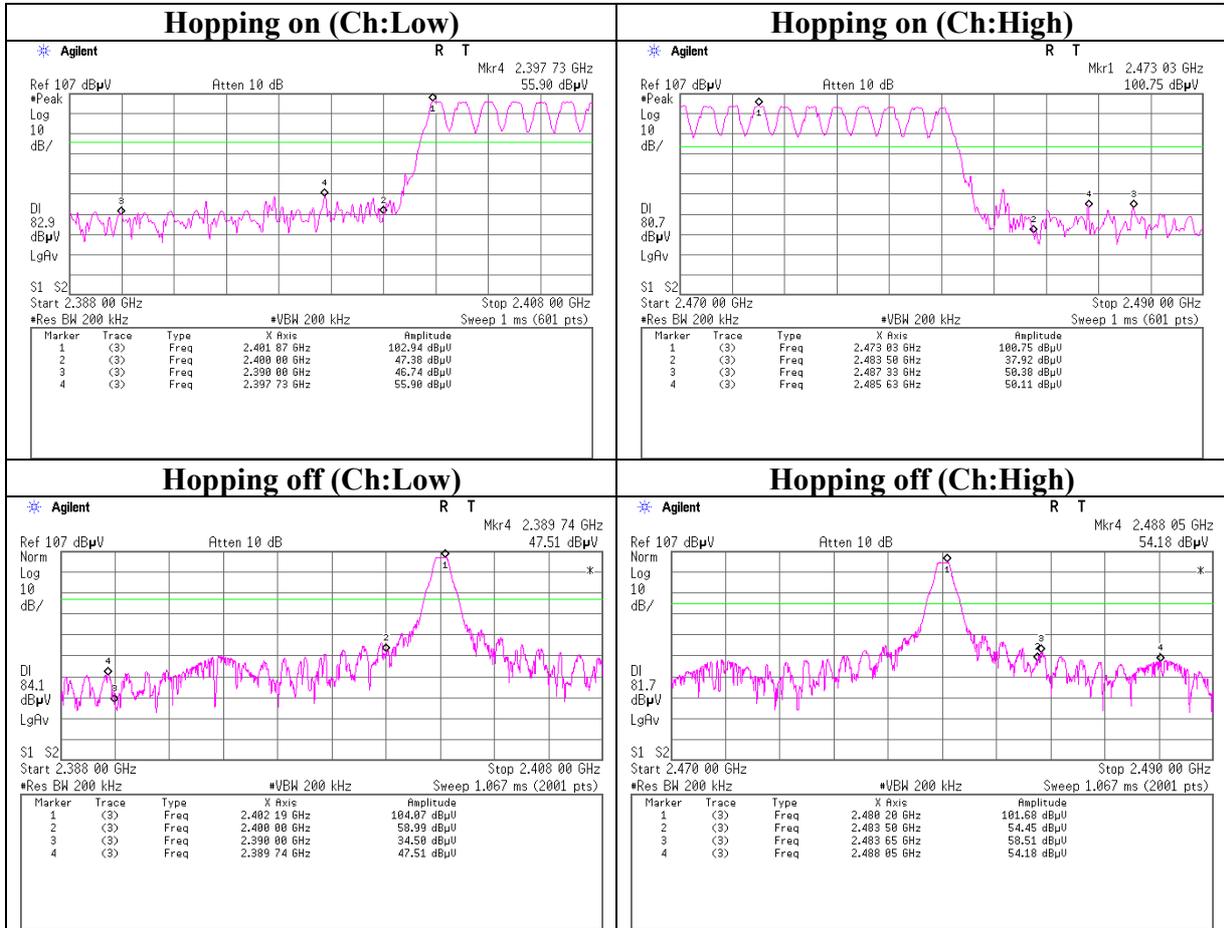


Conducted Spurious Emission
Tx, Ch:High, 3DH5



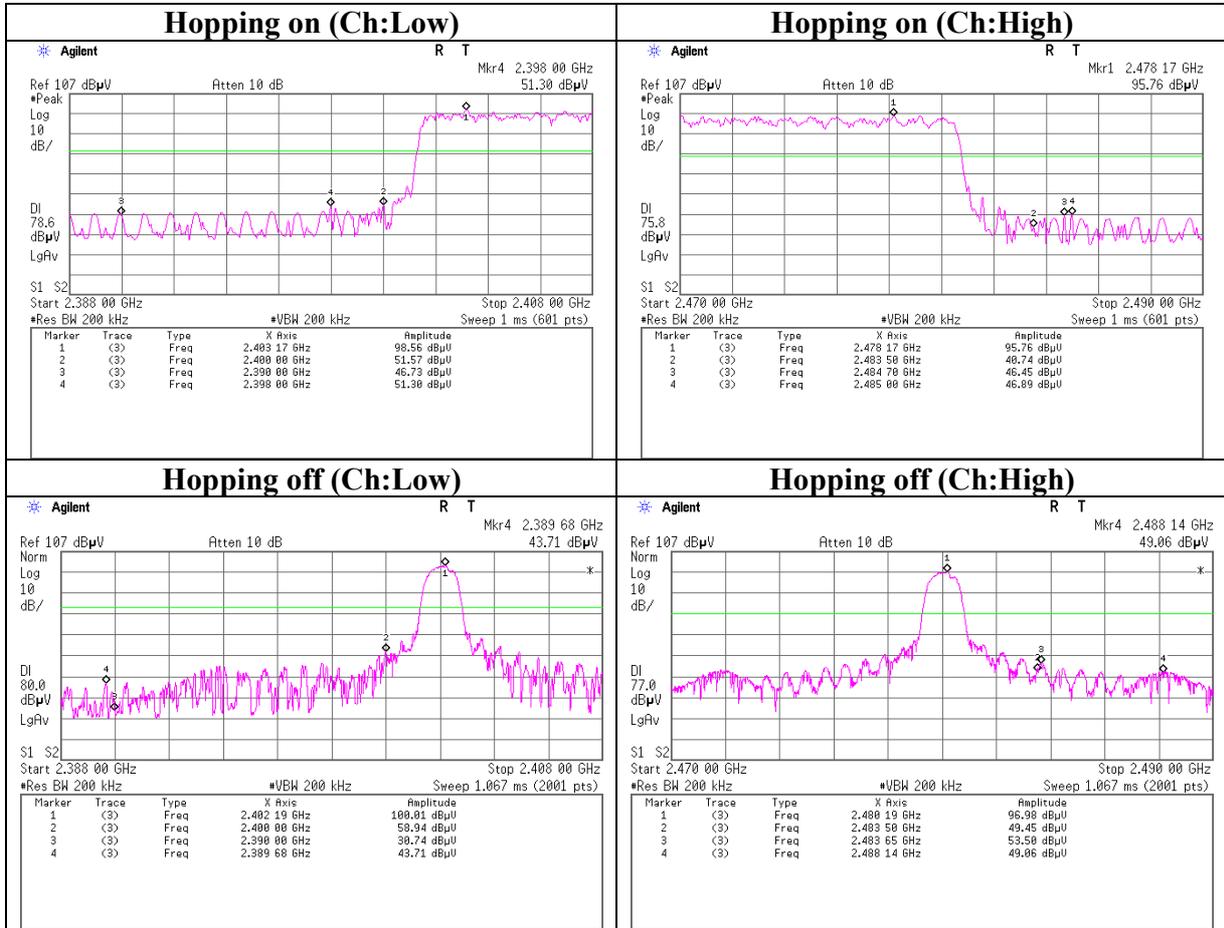
Conducted Spurious Emission
Band Edge compliance

DH5

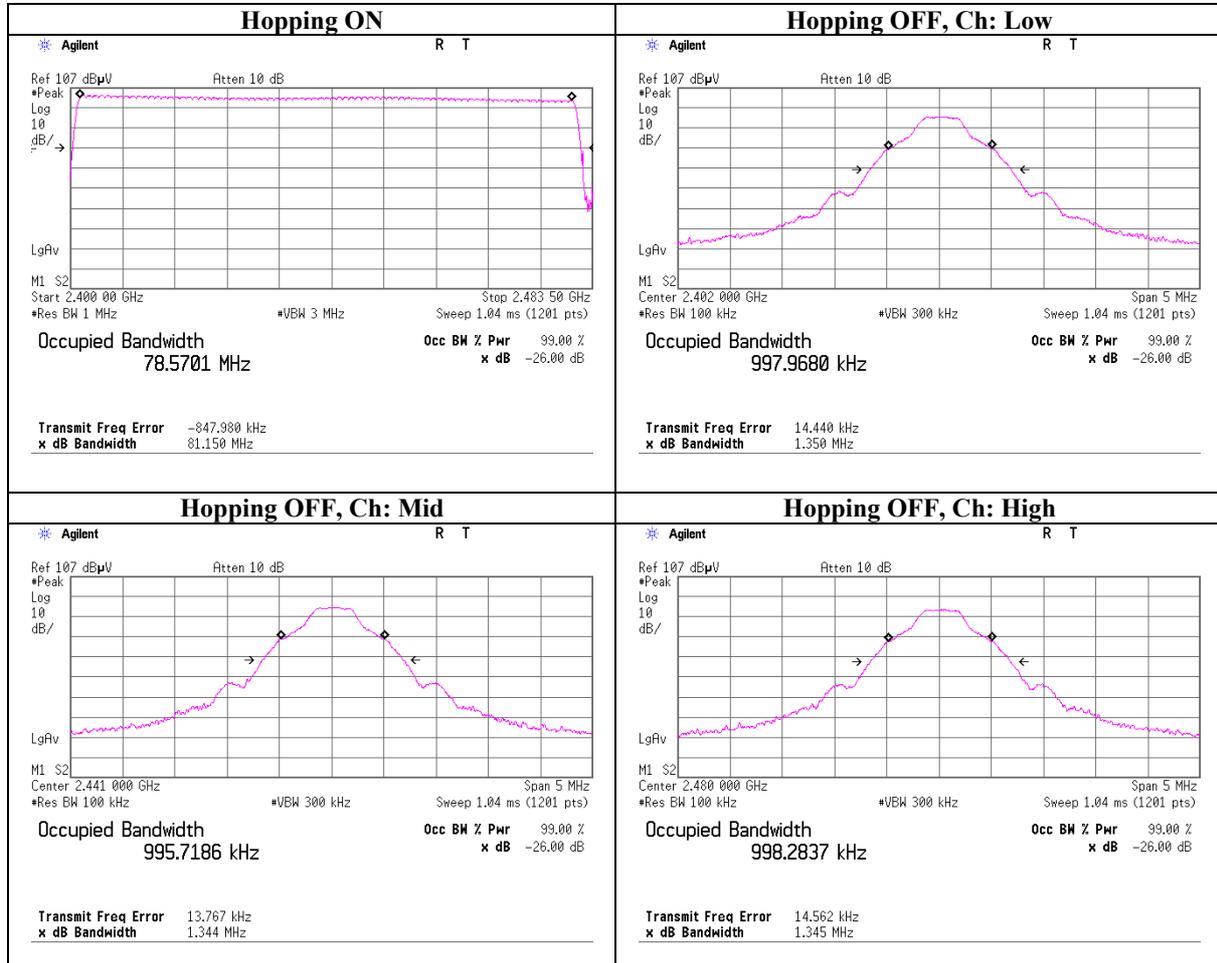


Conducted Spurious Emission
Band Edge compliance

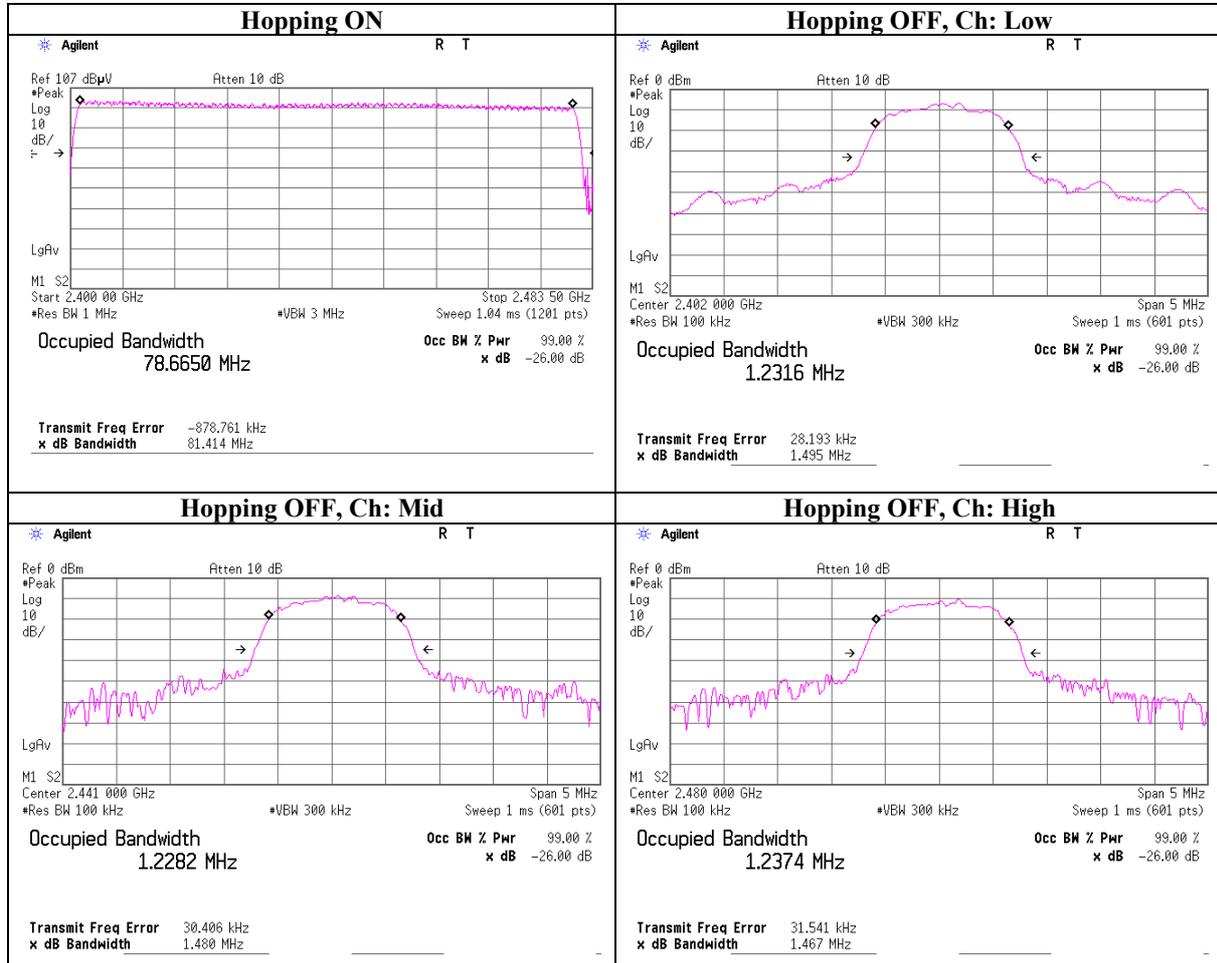
3DH5



99% Occupied Bandwidth DH5



99% Occupied Bandwidth 3DH5



APPENDIX 3:Test instruments

EMI test equipment

| Control No. | Instrument | Manufacturer | Model No | Test Item | Calibration Date * Interval(month) |
|--------------------|------------------------------|---------------------|--------------------------|------------------|---|
| MAEC-03 | Anechoic Chamber | TDK | Semi Anechoic Chamber 3m | RE/CE | 2007/03/05 * 12 |
| MHA-20 | Horn Antenna 1-18GHz | Schwarzbeck | BBHA9120D | RE | 2007/04/14 * 12 |
| MHA-16 | Horn Antenna 15-40GHz | Schwarzbeck | BBHA9170 | RE | 2007/04/06 * 12 |
| MCC-56 | Microwave Cable 1G-26.5GHz | Suhner | SUCOFLEX104 | RE | 2008/03/12 * 12 |
| MPA-11 | MicroWave System Amplifier | Agilent | 83017A | RE | 2008/03/13 * 12 |
| MHF-19 | High Pass Filter 3.5-18.0GHz | TOKIMEC | TF323DCA | RE | 2007/12/10 * 12 |
| MCC-78 | Microwave Cable 1G-26.5GHz | Suhner | SUCOFLEX104 | RE | 2007/12/26 * 12 |
| MSA-09 | Spectrum Analyzer | Advantest | R3273 | RE/CE | 2007/12/21 * 12 |
| MTR-02 | Test Receiver | Rohde & Schwarz | ESCS30 | RE/CE | 2008/02/20 * 12 |
| MOS-13 | Thermo-Hygrometer | Custom | CTH-180 | RE/CE | 2008/01/10 * 12 |
| MJM-06 | Measure | PROMART | SEN1955 | RE/CE | - |
| MSTW-14 | EMI measurement program | TSJ | TEPTO-DV | RE/CE | - |
| MBA-03 | Biconical Antenna | Schwarzbeck | BBA9106 | RE | 2008/01/12 * 12 |
| MLA-03 | Logperiodic Antenna | Schwarzbeck | USLP9143 | RE | 2008/01/12 * 12 |
| MAT-30 | Attenuator(6dB) | TME | UFA-01 | RE | 2008/03/10 * 12 |
| MCC-51 | Coaxial cable | UL Japan | - | RE/CE | 2007/07/26 * 12 |
| MPA-13 | Pre Amplifier | SONOMA INSTRUMENT | 310 | RE | 2008/03/06 * 12 |
| MLS-07 | LISN(AMN) | Schwarzbeck | NSLK8127 | CE (EUT) | 2008/02/20 * 12 |
| MSA-10 | Spectrum Analyzer | Agilent | E4448A | AT | 2008/02/27 * 12 |
| MCC-67 | Microwave Cable 1G-40GHz | Schner | SUCOFLEX102 | AT | 2007/04/03 * 12 |
| MAT-22 | Attenuator(10dB) DC-18GHz | Orient Microwave | BX10-0476-00 | AT | 2008/03/04 * 12 |
| MCC-05 | Microwave Cable 1G-40GHz 2m | Storm | 421-011 (90-1394-079) | AT | 2008/01/31 * 12 |
| MPSC-02 | Power Splitters/Combiners | Mini-Circuit | ZFSC-2-10G | AT | Pre Check |
| MOS-04 | Digital Humidity Indicator | N.T | NT-1800 | AT | 2007/11/12 * 12 |
| MBTR15 | CBT Bluetooth Tester | Rohde & Schwarz | CBT | AT | Pre Check |

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

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

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

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

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