

Test Report No :23FE0057-HO-1

APPENDIX 2
Test Instruments
EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date + Interval(month)
SA-07	Spectrum Analyzer	Advantest	R3273	RE / CE	2002/12/10 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE/CE	2003/01/31 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2002/05/09 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2003/03/18 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE / CE	2002/11/01 * 12
MCC-06	Microwave Cable	Storm	421-011	RE	2003/01/14 * 12
MPM-01	Power Meter	Agilent	E4417A	RE	2002/11/08 * 12
MPSE-03	Power sensor	Agilent	E9327A	RE	2003/04/14 * 12
MAT-20	Attenuator	HIROSE ELECTRIC CO.,LTD.	AT-110	RE	2003/02/04 * 12
MCC-05	Microwave Cable	Storm	421-011	RE	2003/01/14 * 12
MHA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2003/01/11 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2003/02/08 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2003/05/08 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2003/05/08 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2003/03/13 * 12
MHA-03	Horn Antenna	EMCO	3160-10	RE	2003/01/11 * 12
MHA-01	Horn Antenna	EMCO	3160-09	RE	2003/01/11 * 12

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

Test Item:

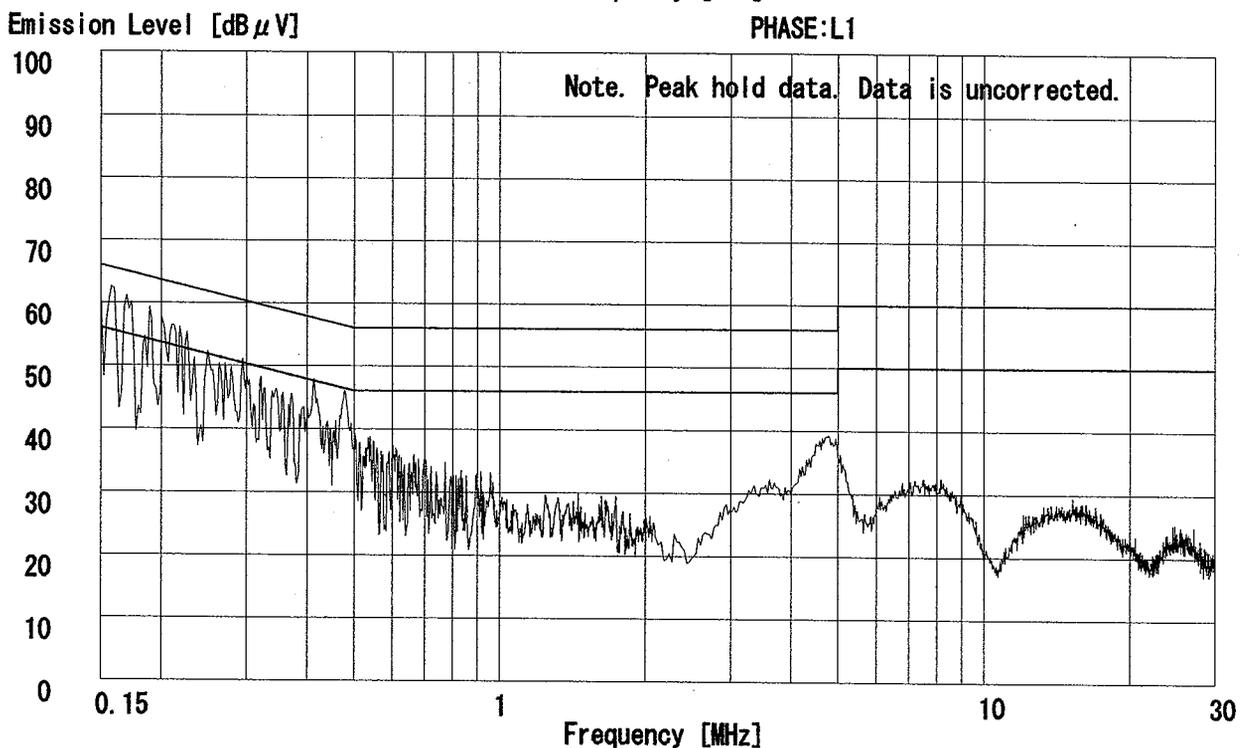
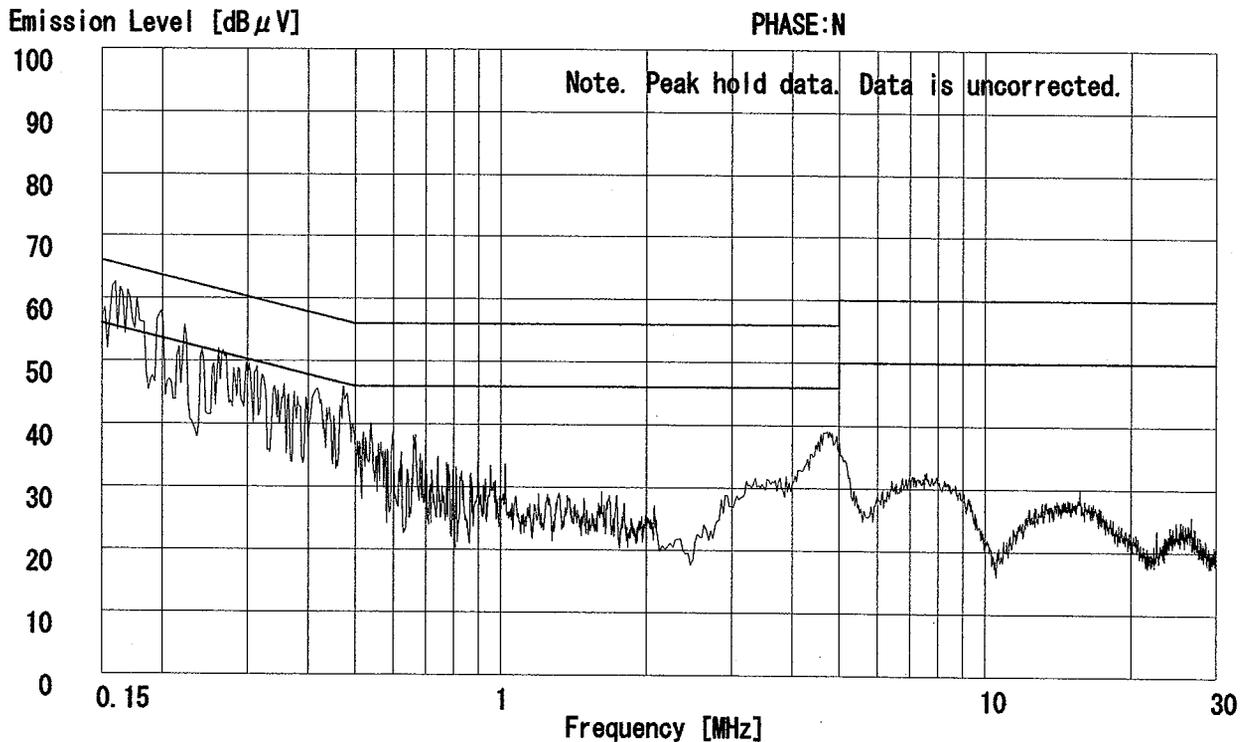
CE: Conducted emission,
 RE: Radiated emission,

DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd. Head Office EMC Lab.
No.2 Semi Anechoic Chamber
Report No. : 23FE0057-H0-1

Applicant : Sharp Corporation
Kind of Equipment : TabletPC
Model No. : PC-TN10W
Serial No. : CG-0001
Power : AC120V/60Hz
Mode : Transmitting (ch1:2412MHz)
Remarks : FCC ID : APYNAR0050
Date : 4/11/2003
Phase : Single Phase
Temperature : 20 °C
Humidity : 70 %
Regulation 1 : FCC Part15B ClassB (0.15-30MHz)
Regulation 2 : None

t. iwasa
Engineer : Yoshiaki Iwasa

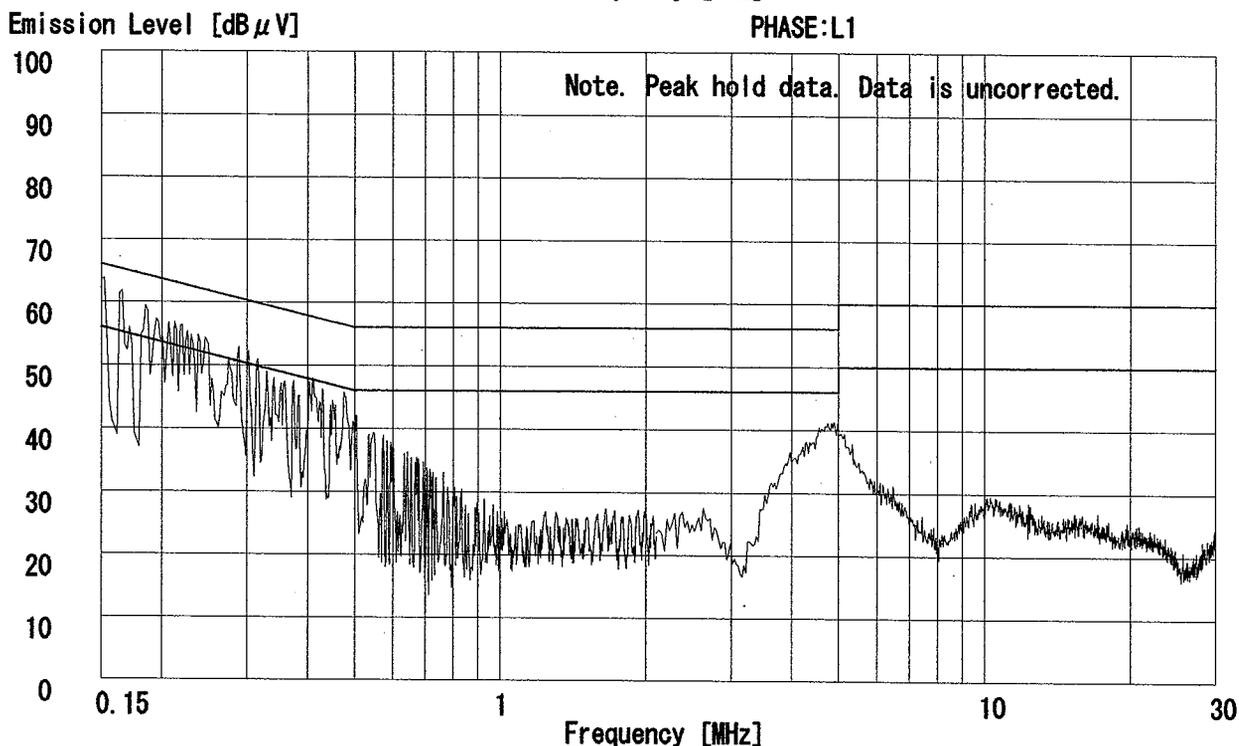
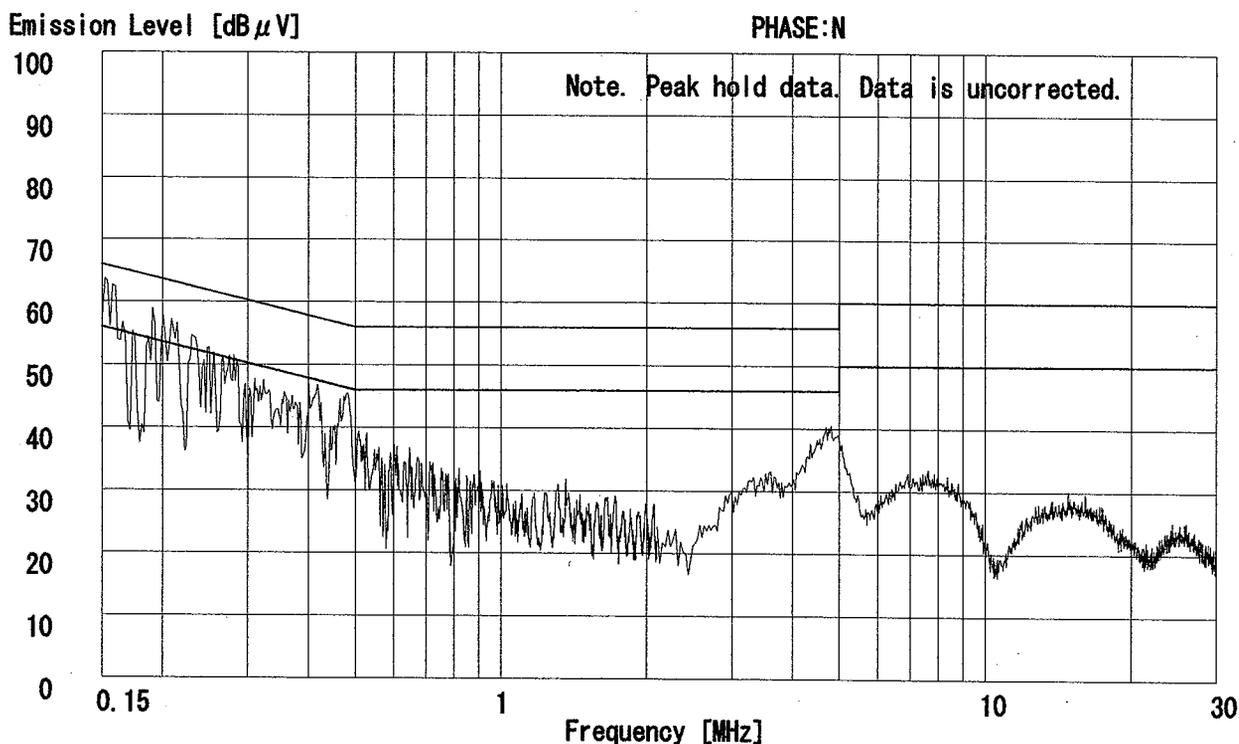


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No.2 Semi Anechoic Chamber
Report No. : 23FE0057-H0-1

Applicant : Sharp Corporation
Kind of Equipment : TabletPC
Model No. : PC-TN10W
Serial No. : CG-0001
Power : AC120V/60Hz
Mode : Transmitting (ch6:2437MHz)
Remarks : FCC ID : APYNAR0050
Date : 4/11/2003
Phase : Single Phase
Temperature : 20 °C
Humidity : 70 %
Regulation 1 : FCC Part15B ClassB (0.15-30MHz)
Regulation 2 : None

J. Iwasa
Engineer : Yoshiaki Iwasa

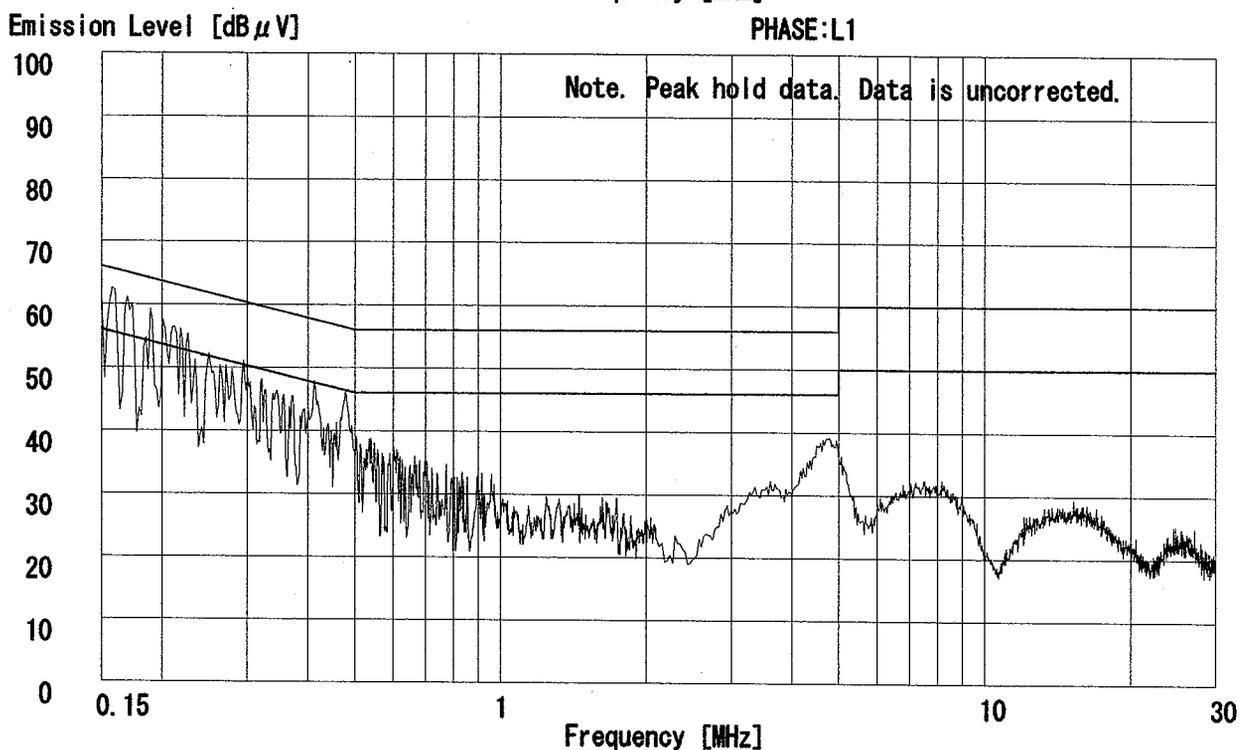
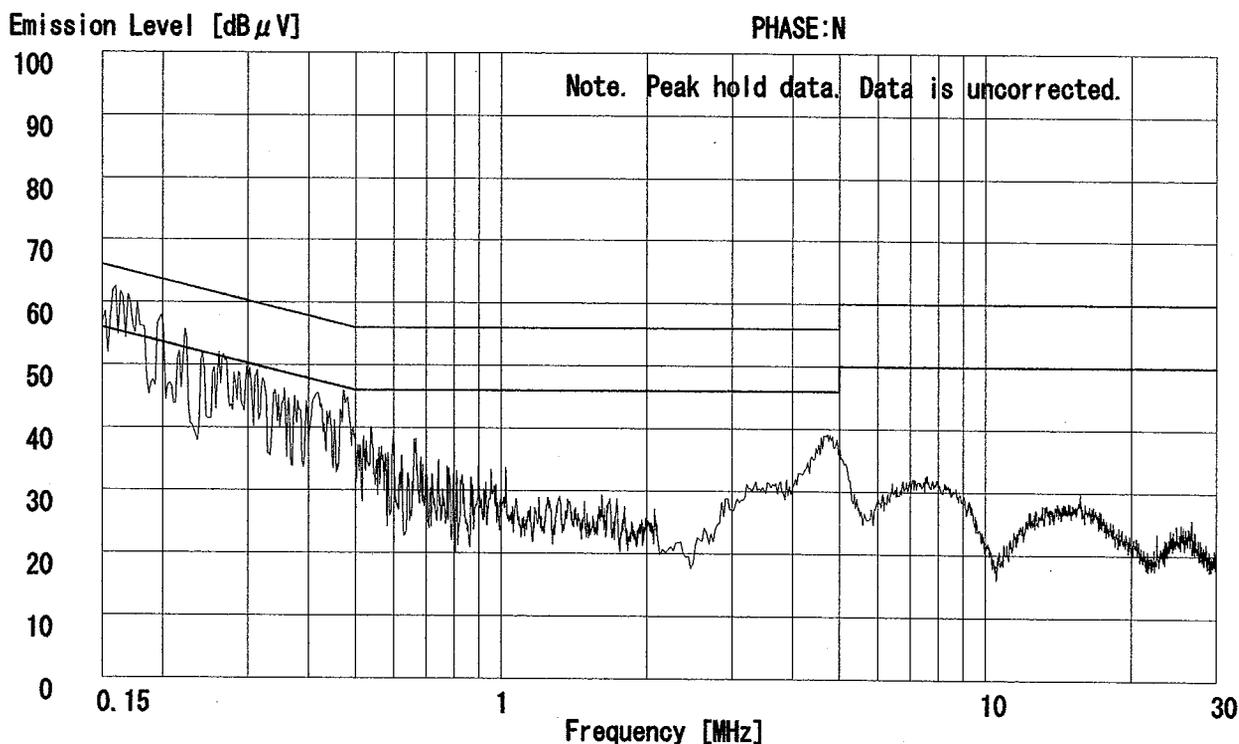


DATA OF CONDUCTION TEST CHART

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No.2 Semi Anechoic Chamber
Report No. : 23FE0057-H0-1

Applicant : Sharp Corporation
Kind of Equipment : TabletPC
Model No. : PC-TN10W
Serial No. : CG-0001
Power : AC120V/60Hz
Mode : Transmitting (ch11:2462MHz)
Remarks : FCC ID : APYNAR0050
Date : 4/11/2003
Phase : Single Phase
Temperature : 20 °C
Humidity : 70 %
Regulation 1 : FCC Part15B ClassB (0.15-30MHz)
Regulation 2 : None

J. Iwasa
Engineer : Yoshiaki Iwasa



DATA OF CONDUCTION TEST

UL Apex Co., Ltd. Head Office EMC Lab.
No.2 Semi Anechoic Chamber
Report No. : 23FE0057-H0-1

Applicant : Sharp Corporation
 Kind of Equipment : TabletPC
 Model No. : PC-TN10W
 Serial No. : CG-0001
 Power : AC120V/60Hz
 Mode : Transmitting(ch1:2412MHz)
 Remarks : FCC ID : APYNAR0050
 Date : 4/11/2003
 Phase : Single Phase
 Temperature : 20 °C
 Humidity : 70 %
 Regulation : FCC Part15B ClassB (0.15-30MHz)



 Engineer : Yoshiaki Iwasa

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dBuV]	AV	QP [dBuV]	AV				QP [dBuV]	AV	QP [dBuV]	AV	QP [dB]	AV
1.	0.1500	52.9	-	53.1	-	0.0	0.1	0.0	53.2	-	66.0	56.0	12.8	-
2.	0.2000	47.4	-	47.4	-	0.0	0.1	0.0	47.5	-	63.6	53.6	16.1	-
3.	0.2200	45.3	-	45.4	-	0.0	0.1	0.0	45.5	-	62.8	52.8	17.3	-
4.	0.4800	42.2	-	34.4	-	0.1	0.1	0.0	42.4	-	56.3	46.3	13.9	-
5.	0.5000	29.9	-	30.0	-	0.1	0.1	0.0	30.2	-	56.0	46.0	25.8	-
6.	4.8120	32.9	-	37.3	-	0.2	0.5	0.0	38.0	-	56.0	46.0	18.0	-

CALCULATION: READING[dBμV] + LISN FACTOR[dB] + CABLE LOSS[dB] + ATTEN[dB].

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd. Head Office EMC Lab.
No.2 Semi Anechoic Chamber
Report No. : 23FE0057-H0-1

Applicant : Sharp Corporation
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 Serial No. : CG-0001
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 Mode : Transmitting(ch6:2437MHz)
 Remarks : FCC ID : APYNAR0050
 Date : 4/11/2003
 Phase : Single Phase
 Temperature : 20 °C
 Humidity : 70 %
 Regulation : FCC Part15B ClassB (0.15-30MHz)



 Engineer : Yoshiaki Iwasa

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dBuV]	AV	QP [dBuV]	AV				QP [dBuV]	AV	QP [dBuV]	AV	QP [dBuV]	AV
1.	0.1500	52.8	-	52.8	-	0.0	0.1	0.0	52.9	-	66.0	56.0	13.1	-
2.	0.2000	47.2	-	47.5	-	0.0	0.1	0.0	47.6	-	63.6	53.6	16.0	-
3.	0.2200	45.4	-	45.5	-	0.0	0.1	0.0	45.6	-	62.8	52.8	17.2	-
4.	0.4800	39.6	-	40.0	-	0.1	0.1	0.0	40.2	-	56.3	46.3	16.1	-
5.	0.5000	30.2	-	30.6	-	0.1	0.1	0.0	30.8	-	56.0	46.0	25.2	-
6.	4.8120	36.5	-	36.4	-	0.2	0.5	0.0	37.2	-	56.0	46.0	18.8	-

CALCULATION: READING[dB μV] + LISN FACTOR[dB] + CABLE LOSS[dB] + ATTEN[dB].

Except for the above table: adequate margin data below the limits.

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 Remarks : FCC ID : APYNAR0050
 Date : 4/11/2003
 Phase : Single Phase
 Temperature : 20 °C
 Humidity : 70 %
 Regulation : FCC Part15B ClassB (0.15-30MHz)



 Engineer : Yoshiaki Iwasa

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]				QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]
1.	0.1500	52.6	-	52.7	-	0.0	0.1	0.0	52.8	-	66.0	56.0	13.2	-
2.	0.2000	47.1	-	47.1	-	0.0	0.1	0.0	47.2	-	63.6	53.6	16.4	-
3.	0.2200	45.1	-	45.3	-	0.0	0.1	0.0	45.4	-	62.8	52.8	17.4	-
4.	0.4800	40.0	-	41.5	-	0.1	0.1	0.0	41.7	-	56.3	46.3	14.6	-
5.	0.5000	30.0	-	30.2	-	0.1	0.1	0.0	30.4	-	56.0	46.0	25.6	-
6.	4.8120	35.9	-	34.6	-	0.2	0.5	0.0	36.6	-	56.0	46.0	19.4	-

CALCULATION: READING[dBμV] + LISN FACTOR[dB] + CABLE LOSS[dB] + ATTEN[dB].

Except for the above table: adequate margin data below the limits.

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : SHARP CORPORATION
EQUIPMENT : TabletPC
MODEL : PC-TN10W
S/N : CG-0001
FCC ID : APYNAR0050
IC Number : -
POWER : AC120V / 60Hz
MODE : ch1(2412MHz)

REPORT NO : 23FE0057-HO-1
REGULATION : Fcc Part15 Subpart C 247(a)(2)
TEST DISTANCE : -
DATE : 2003/4/7
TEMPERATURE : 21°C
HUMIDITY : 60%

Y. Iwasa

ENGINEER : Yoshiaki Iwasa

PK DETECT

No.	FREQ [MHz]	T/R READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]						HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	1598.0	48.7	51.0	24.2	37.3	5.1	0.0	0.0	40.7	43	74.0	33.3	31.0
2	4824.0	41.3	41.8	35.2	36.8	8.7	0.5	0.0	48.9	49.4	74.0	25.1	24.6
3	7236.0	40.3	41.3	37.6	36.5	10.9	0.2	0.0	52.5	53.5	74.0	21.5	20.5
4	9648.0	42.6	42.4	37.3	37.2	12.9	0.0	0.0	55.6	55.4	74.0	18.4	18.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
5	12060.0	40.2	40.9	40.7	36.8	14.2	0.0	0.0	48.8	49.5	74.0	25.2	24.5
6	14472.0	39.8	39.9	42.9	35.4	15.7	0.0	0.0	53.5	53.6	74.0	20.5	20.4
7	16884.0	41.6	42.3	45.3	36.4	17.4	0.0	0.0	58.4	59.1	74.0	15.6	14.9
8	19296.0	42.6	41.0	40.9	35.9	18.6	0.0	0.0	56.7	55.1	74.0	17.3	18.9
9	21708.0	42.1	42.0	40.9	36.6	19.2	0.0	0.0	56.1	56.0	74.0	17.9	18.0
10	24120.0	41.9	43.6	40.3	36.5	20.6	0.0	0.0	56.8	58.5	74.0	17.2	15.5

AV DETECT

No.	FREQ [MHz]	T/R READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]						HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	1598.0	33.8	33.7	24.2	37.3	5.1	0.0	0.0	25.8	25.7	54.0	28.2	28.3
2	4824.0	30.7	30.7	35.2	36.8	8.7	0.5	0.0	38.3	38.3	54.0	15.7	15.7
3	7236.0	30.4	30.4	37.6	36.5	10.9	0.2	0.0	42.6	42.6	54.0	11.4	11.4
4	9648.0	32.0	31.3	37.3	37.2	12.9	0.0	0.0	45.0	44.3	54.0	9.0	9.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
5	12060.0	29.5	29.5	40.7	36.8	14.2	0.0	0.0	38.1	38.1	54.0	15.9	15.9
6	14472.0	29.1	28.9	42.9	35.4	15.7	0.0	0.0	42.8	42.6	54.0	11.2	11.4
7	16884.0	31.2	31.2	45.3	36.4	17.4	0.0	0.0	48.0	48.0	54.0	6.0	6.0
8	19296.0	31.0	31.0	40.9	35.9	18.6	0.0	0.0	45.1	45.1	54.0	8.9	8.9
9	21708.0	31.4	31.5	40.9	36.6	19.2	0.0	0.0	45.4	45.5	54.0	8.6	8.5
10	24120.0	31.6	31.6	40.3	36.5	20.6	0.0	0.0	46.5	46.5	54.0	7.5	7.5

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

*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 limit of 15.209 was applied also to frequency other than the restricted band which was shown in 15.205.

DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : SHARP CORPORATION
EQUIPMENT : TabletPC
MODEL : PC-TN10W
S/N : CG-0001
FCC ID : APYNAR0050
IC Number : -
POWER : AC120V / 60Hz
MODE : ch6(2437MHz)

REPORT NO : 23FE0057-HO-1
REGULATION : Fcc Part15 Subpart C 247(a)(2)
TEST DISTANCE : -
DATE : 2003/4/7
TEMPERATURE : 21°C
HUMIDITY : 60%

J. Iwase
ENGINEER : Yoshiaki Iwasa

PK DETECT

No.	FREQ [MHz]	T/R READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]						HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	1597.9	47.6	48.8	23.2	37.7	4.6	0.0	0.0	37.7	38.9	74.0	36.3	35.1
2	4874.0	41.5	43.1	35.5	36.8	8.8	0.5	0.0	49.5	51.1	74.0	24.5	22.9
3	7311.0	41.1	39.7	37.7	36.6	10.9	0.2	0.0	53.3	51.9	74.0	20.7	22.1
4	9748.0	42.3	42.0	37.0	37.2	13.0	0.0	0.0	55.1	54.8	74.0	18.9	19.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
5	12185.0	53.8	40.3	41.1	36.7	14.2	0.0	0.0	62.9	49.4	74.0	11.1	24.6
6	14622.0	51.4	39.7	43.1	35.5	15.8	0.0	0.0	65.3	53.6	74.0	8.7	20.4
7	17059.0	41.3	41.6	45.5	36.2	17.5	0.0	0.0	58.6	58.9	74.0	15.4	15.1
8	19496.0	41.9	43.2	40.6	36.0	18.7	0.0	0.0	55.7	57.0	74.0	18.3	17.0
9	21933.0	41.3	43.6	40.9	36.0	19.3	0.0	0.0	56.0	58.3	74.0	18.0	15.7
10	24370.0	41.7	41.8	40.4	36.9	20.7	0.0	0.0	56.4	56.5	74.0	17.6	17.5

AV DETECT

No.	FREQ [MHz]	T/R READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]						HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	1597.9	34.9	36.1	23.2	37.7	4.6	0.0	0.0	25.0	26.2	54.0	29.0	27.8
2	4874.0	31.0	31.3	35.5	36.8	8.8	0.5	0.0	39.0	39.3	54.0	15.0	14.7
3	7311.0	30.4	30.5	37.7	36.6	10.9	0.2	0.0	42.6	42.7	54.0	11.4	11.3
4	9748.0	31.6	31.6	37.0	37.2	13.0	0.0	0.0	44.4	44.4	54.0	9.6	9.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
5	12185.0	32.8	29.4	41.1	36.7	14.2	0.0	0.0	41.9	38.5	54.0	12.1	15.5
6	14622.0	32.2	29.0	43.1	35.5	15.8	0.0	0.0	46.1	42.9	54.0	7.9	11.1
7	17059.0	30.9	30.9	45.5	36.2	17.5	0.0	0.0	48.2	48.2	54.0	5.8	5.8
8	19496.0	31.2	31.2	40.6	36.0	18.7	0.0	0.0	45.0	45.0	54.0	9.0	9.0
9	21933.0	31.6	31.6	40.9	36.0	19.3	0.0	0.0	46.3	46.3	54.0	7.7	7.7
10	24370.0	31.7	31.8	40.4	36.9	20.7	0.0	0.0	46.4	46.5	54.0	7.6	7.5

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

*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 limit of 15.209 was applied also to frequency other than the restricted band which was shown in 15.205.

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Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : SHARP CORPORATION
EQUIPMENT : TabletPC
MODEL : PC-TN10W
S/N : CG-0001
FCC ID : APYNAR0050
IC Number : -
POWER : AC120V / 60Hz
MODE : ch11(2462MHz)

REPORT NO : 23FE0057-HO-1
REGULATION : Fcc Part15 Subpart C 247(a)(2)
TEST DISTANCE : -
DATE : 2003/4/7
TEMPERATURE : 21°C
HUMIDITY : 60%

J. Iwase
ENGINEER : Yoshiaki Iwasa

PK DETECT

No.	FREQ [MHz]	T/R READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]						HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	1576.6	60.1	53.5	25.3	37.2	5.3	0.0	0.0	53.5	46.9	74.0	20.5	27.1
2	4924.0	41.2	41.9	35.8	36.8	8.8	0.5	0.0	49.5	50.2	74.0	24.5	23.8
3	7385.6	41.3	41.5	37.9	36.6	11.0	0.2	0.0	53.8	54.0	74.0	20.2	20.0
4	9848.0	42.2	42.6	36.7	37.3	13.1	0.0	0.0	54.7	55.1	74.0	19.3	18.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
5	12310.0	49.6	40.8	41.5	36.6	14.3	0.0	0.0	59.3	50.5	74.0	14.7	23.5
6	14772.0	40.0	40.4	43.2	35.6	15.9	0.0	0.0	54.0	54.4	74.0	20.0	19.6
7	17234.0	41.1	41.8	45.5	36.2	17.6	0.0	0.0	58.5	59.2	74.0	15.5	14.8
8	19696.0	42.1	41.6	40.8	36.0	18.8	0.0	0.0	56.2	55.7	74.0	17.8	18.3
9	22158.0	40.8	40.9	40.8	35.7	19.4	0.0	0.0	55.8	55.9	74.0	18.2	18.1
10	24620.0	41.3	41.2	40.5	36.9	20.8	0.0	0.0	56.2	56.1	74.0	17.8	17.9

AV DETECT

No.	FREQ [MHz]	T/R READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	ATTEN [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]						HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + (Band Pass or ATTEN).													
1	1576.6	46.5	38.8	25.3	37.2	5.3	0.0	0.0	39.9	32.2	54.0	14.1	21.8
2	4924.0	30.9	30.9	35.8	36.8	8.8	0.5	0.0	39.2	39.2	54.0	14.8	14.8
3	7385.6	30.6	30.7	37.9	36.6	11.0	0.2	0.0	43.1	43.2	54.0	10.9	10.8
4	9848.0	31.8	31.8	36.7	37.3	13.1	0.0	0.0	44.3	44.3	54.0	9.7	9.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac)													
5	12310.0	32.0	29.7	41.5	36.6	14.3	0.0	0.0	41.7	39.4	54.0	12.3	14.6
6	14772.0	29.0	29.1	43.2	35.6	15.9	0.0	0.0	43.0	43.1	54.0	11.0	10.9
7	17234.0	31.2	31.2	45.5	36.2	17.6	0.0	0.0	48.6	48.6	54.0	5.4	5.4
8	19696.0	31.4	31.4	40.8	36.0	18.8	0.0	0.0	45.5	45.5	54.0	8.5	8.5
9	22158.0	30.9	30.9	40.8	35.7	19.4	0.0	0.0	45.9	45.9	54.0	8.1	8.1
10	24620.0	31.1	31.1	40.5	36.9	20.8	0.0	0.0	46.0	46.0	54.0	8.0	8.0

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

*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 limit of 15.209 was applied also to frequency other than the restricted band which was shown in 15.205.

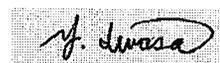
Test report No. : 23FE0057-HO-1
Page : 23 of 41
Issued date : May 12, 2003
FCC ID : APYNAR0050

DATA OF 6dB BANDWIDTH

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : Sharp Corporation
EQUIPMENT : TabletPC
MODEL : PC-TN10W
S/N : CG-0001
FCC ID : APYNAR0050
IC Number : -
POWER : AC120V / 60Hz
MODE : Tx (ch1,6,11)

REPORT NO : 23FE0057-HO-1
REGULATION : Fcc Part15 Subpart C 247
TEST DISTANCE : -
DATE : 2003/4/7
TEMPERATURE : 21°C
HUMIDITY : 60%

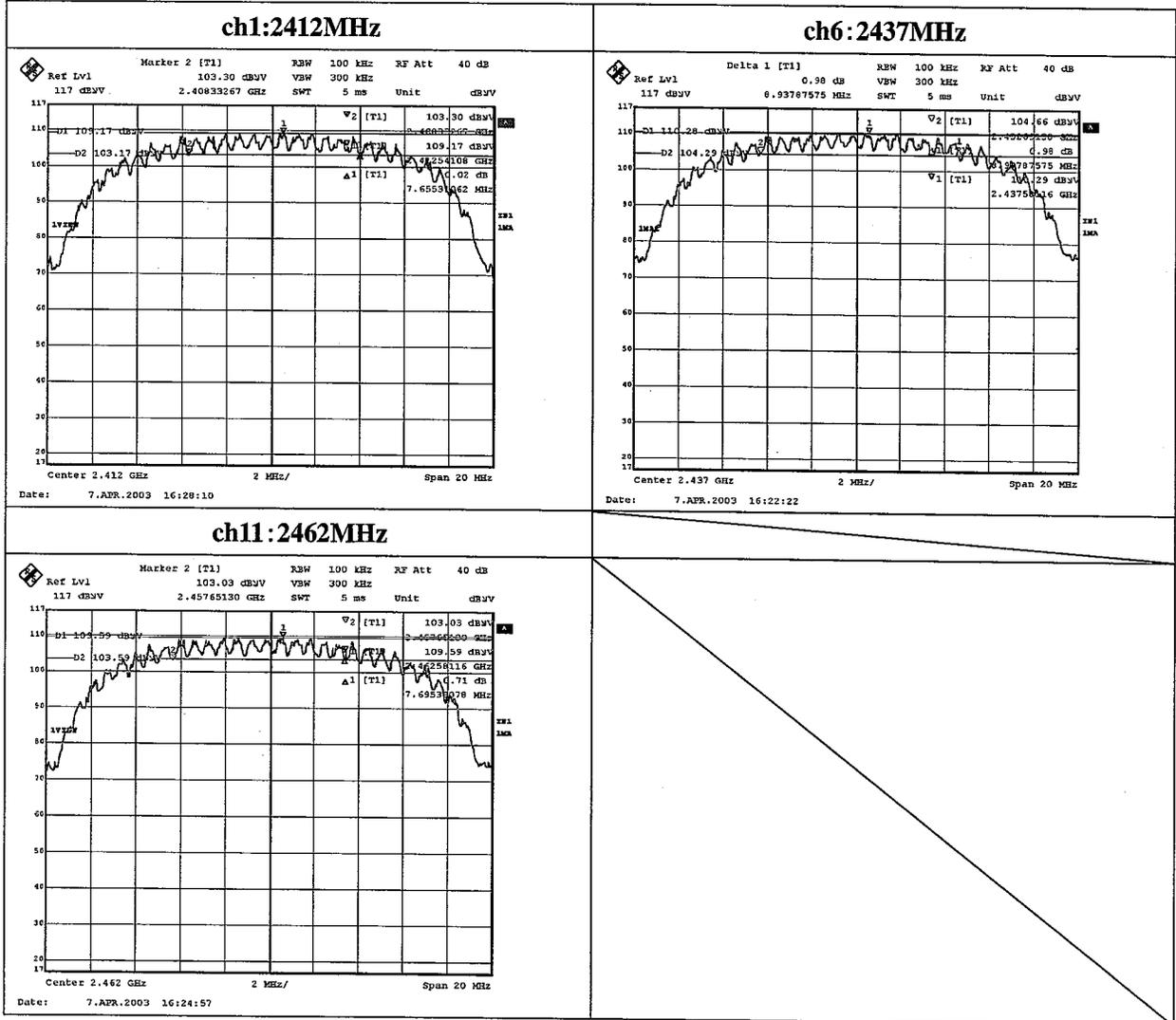


ENGINEER : Yoshiaki Iwasa

PK DETECT(RBW 100kHz, VBW 300kHz)

CH	FREQ [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
ch1	2412.0	7.655	500.0
ch6	2437.0	8.988	500.0
ch11	2462.0	7.695	500.0

6dB Bandwidth(Conducted)

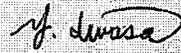


DATA OF PEAK OUTPUT POWER(CONDUCTED)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : Sharp Corporation
EQUIPMENT : TabletPC
MODEL : PC-TN10W
S/N : CG-0001
FCC ID : APYNAR0050
IC Number : -
POWER : AC120V / 60Hz
MODE : Tx (ch1,6,11)

REPORT NO : 23FE0057-HO-1
REGULATION : Fcc Part15 Subpart C 247(b)(3)
TEST DISTANC : -
DATE : 2003/4/7
TEMPERATURE : 21°C
HUMIDITY : 60%



ENGINEER : Yoshiaki Iwasa

ch	FREQ [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	ATTEN. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
ch1	2412.0	5.50	0.0	10.0	15.5	30.0	14.5
ch6	2437.0	6.10	0.0	10.0	16.1	30.0	13.9
ch11	2462.0	6.00	0.0	10.0	16.0	30.0	14.0

Sample Calculation:

Result = Reading + Cable Loss

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/11 18:44:03

Applicant : SHARP CORPORATION
 Kind of EUT : TabletPC
 Model No. : PC-TN10W
 Serial No. : CG-0001

Report No. : 23FE0057-HO-1
 Power : AC120V/60Hz
 Temp°C/Humi% : 23 / 35
 Operator : Yoshiaki Iwasa

Mode / Remarks: Transmitting (CH1:2412MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247 (c) 3m
 All other spurious emissions were less than 20dB for the limit.

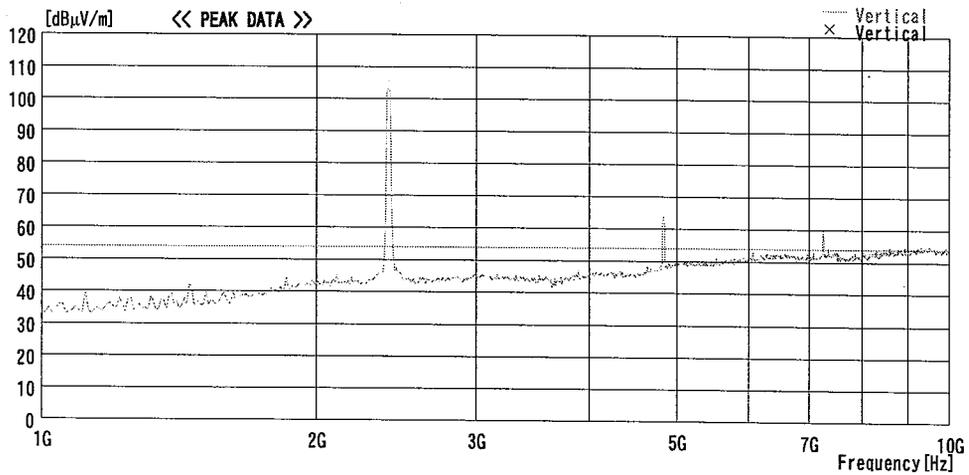
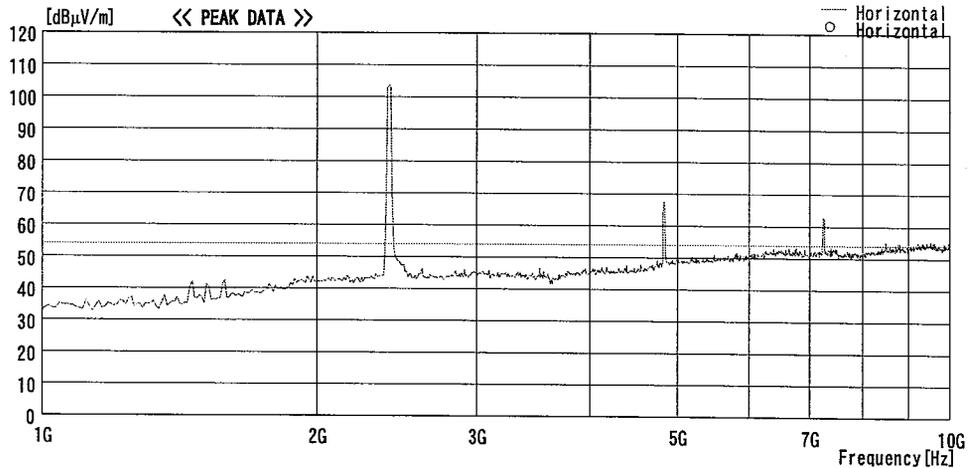


CHART:WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
 CALCULATION : READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - AMP. GAIN Page:

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/11 18:32:23

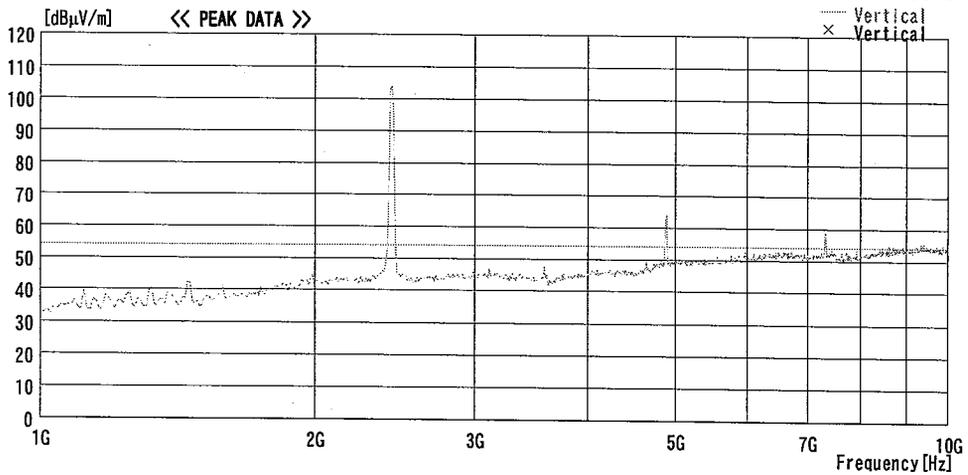
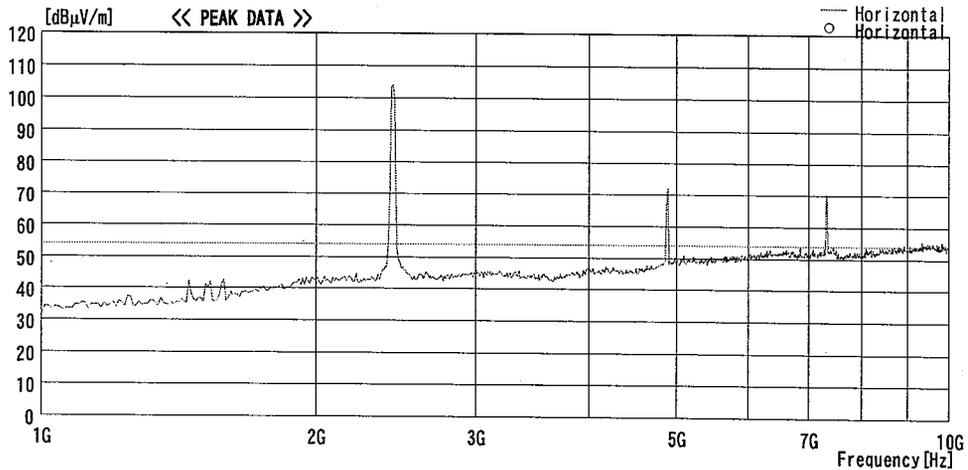
Applicant : SHARP CORPORATION
 Kind of EUT : TabletPC
 Model No. : PG-TN10W
 Serial No. : CG-0001

Report No. : 23FE0057-HO-1
 Power : AC120V/60Hz
 Temp°C/Humi% : 23 / 35
 Operator : Yoshiaki Iwasa

Mode / Remarks: Transmitting (CH6:2437MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247(c) 3m

All other spurious emissions were less than 20dB for the limit.



DATA OF RADIATED EMISSION TEST

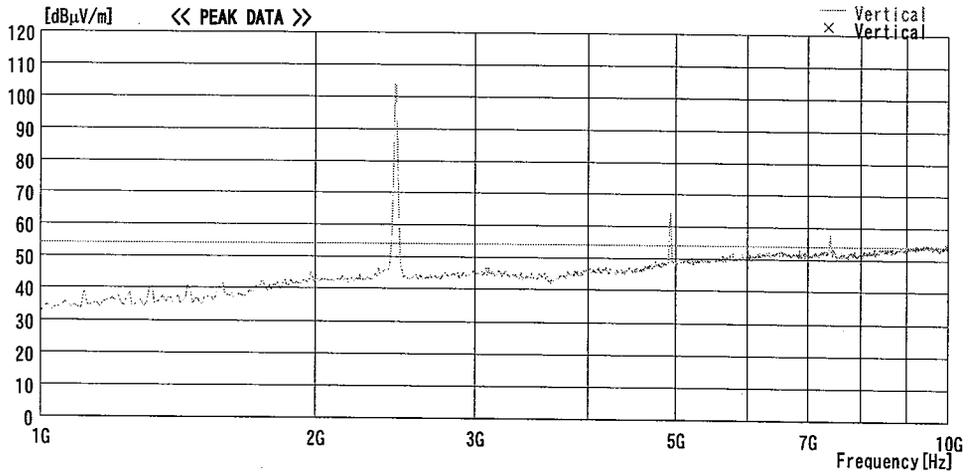
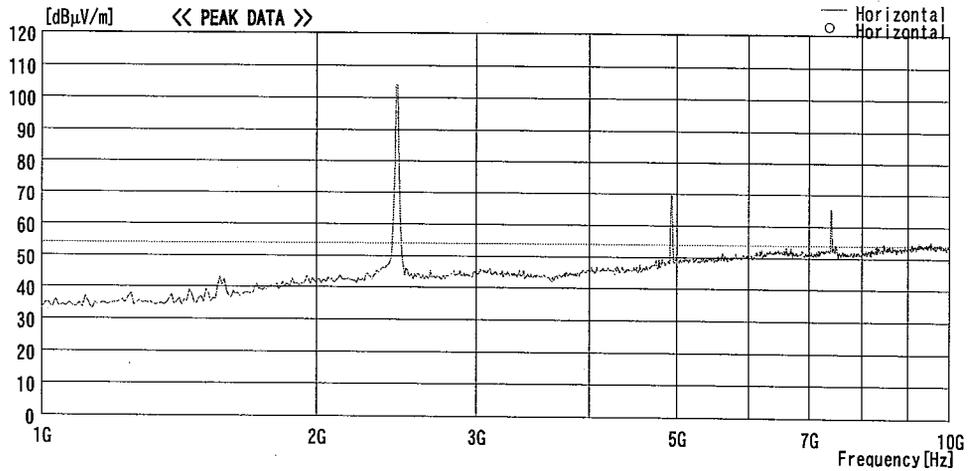
UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/11 18:46:44

Applicant : SHARP CORPORATION
 Kind of EUT : TabletPC
 Model No. : PG-TN10W
 Serial No. : CG-0001

Report No. : 23FE0057-HO-1
 Power : AC120V/60Hz
 Temp°C/Humi% : 23 / 35
 Operator : Yoshiaki Iwasa

Mode / Remarks: Transmitting (CH11:2462MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247(c) 3m
 All other spurious emissions were less than 20dB for the limit.



DATA OF RADIATED EMISSION TEST

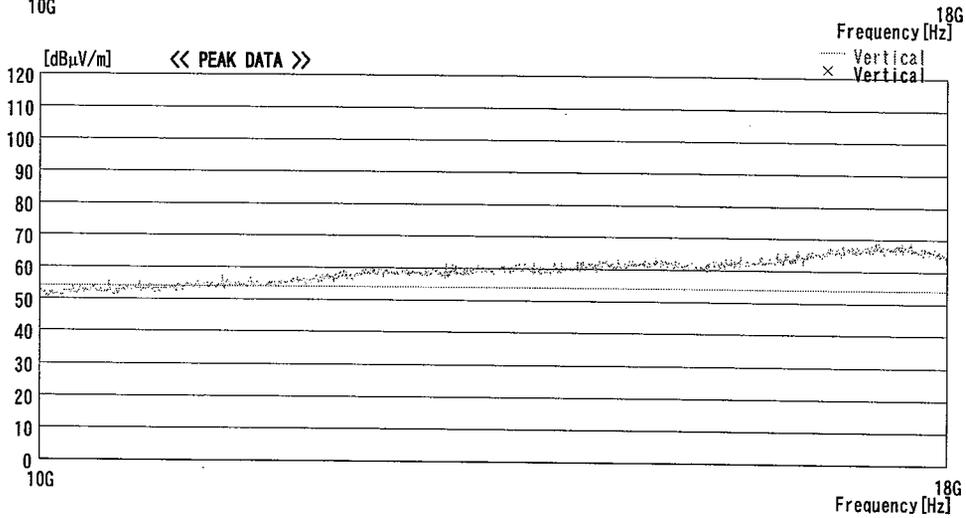
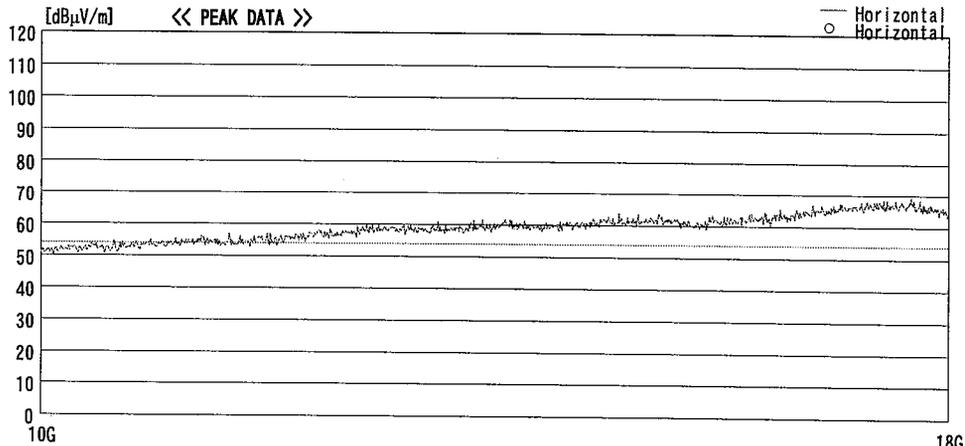
UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/11 20:35:51

Applicant : SHARP CORPORATION
 Kind of EUT : TabletPC
 Model No. : PC-TN10W
 Serial No. : CG-0001

Report No. : 23FE0057-HO-1
 Power : AC120V/60Hz
 Temp°C/Humi% : 23 / 35
 Operator : Yoshiaki Iwasa

Mode / Remarks: Transmitting (CH1:2412MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247 (c) 1m
 All other spurious emissions were less than 20dB for the limit.



DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/11 20:41:53

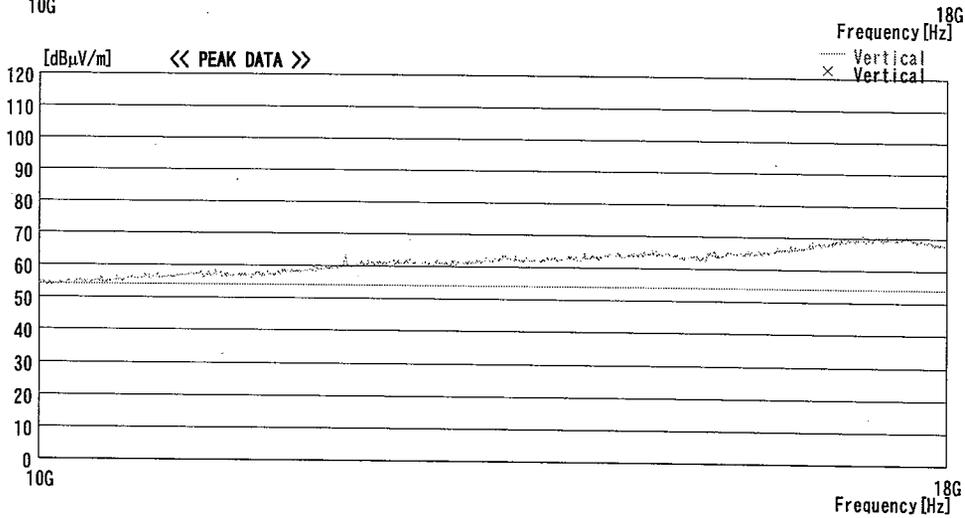
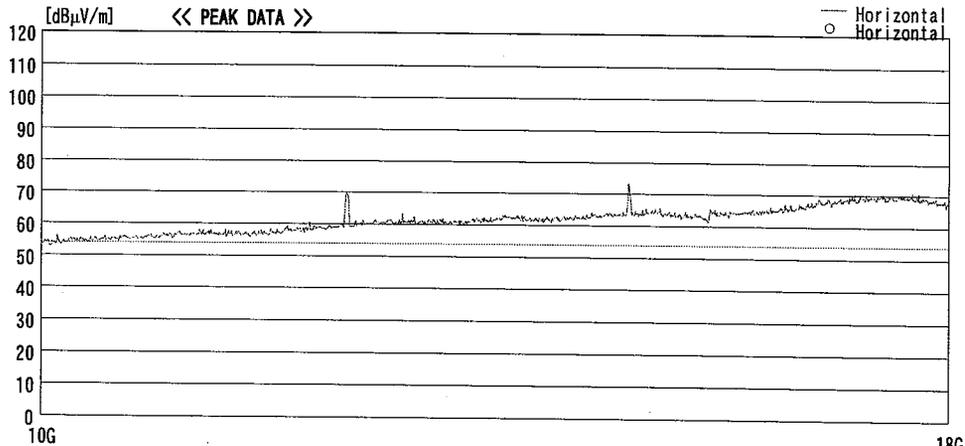
Applicant : SHARP CORPORATION
 Kind of EUT : TabletPC
 Model No. : PC-TN10W
 Serial No. : CG-0001

Report No. : 23FE0057-HO-1
 Power : AC120V/60Hz
 Temp°C/Humi% : 23 / 35
 Operator : Yoshiaki Iwasa

Mode / Remarks: Transmitting (CH6:2437MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247(c) 1m

All other spurious emissions were less than 20dB for the limit.



DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/11 20:45:09

Applicant : SHARP CORPORATION
 Kind of EUT : TabletPC
 Model No. : PC-TN10W
 Serial No. : CG-0001

Report No. : 23FE0057-HO-1
 Power : AC120V/60Hz
 Temp°C/Humi% : 23 / 35
 Operator : Yoshiaki Iwasa

Mode / Remarks: Transmitting (CH11:2462MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247(c) 1m
 All other spurious emissions were less than 20dB for the limit.

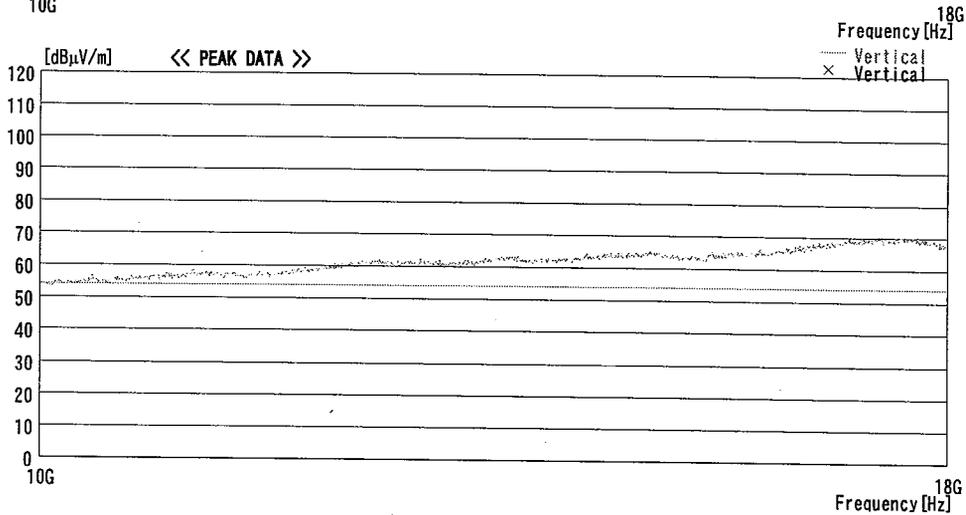
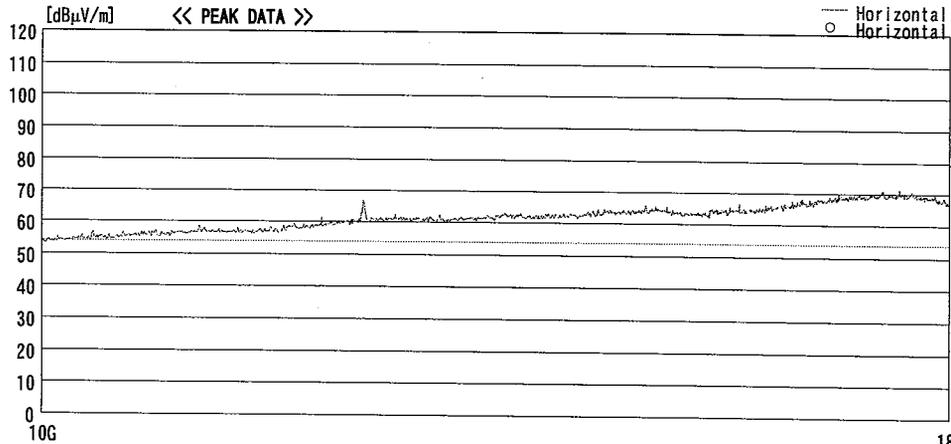


CHART: WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
 CALCULATION : READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - AMP. GAIN

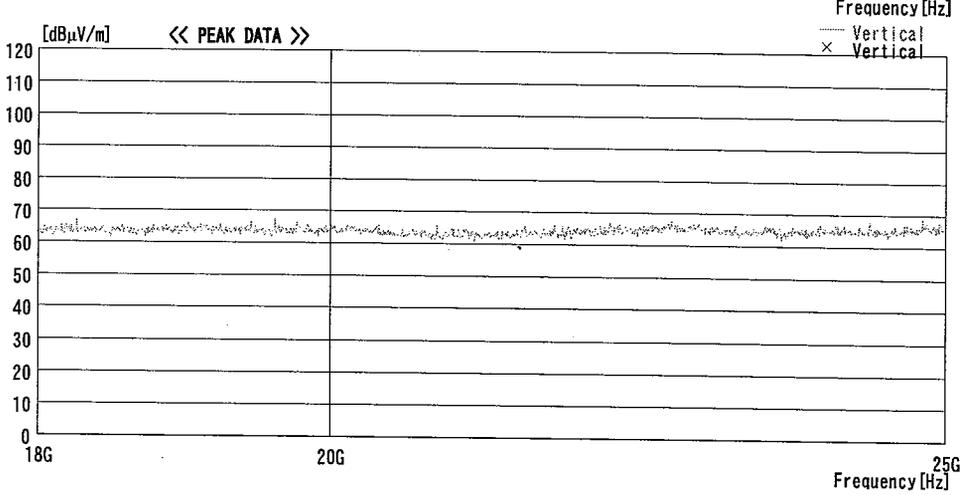
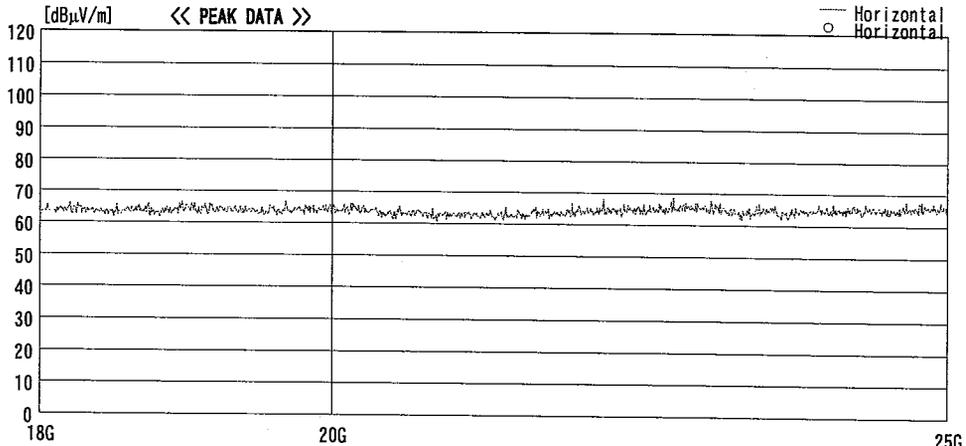
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/15 19:09:14

Applicant : SHARP CORPORATION Kind of EUT : TabletPC Model No. : PC-TN10W Serial No. : CG-0001	Report No. : 23FE0057-HO-1 Power : AC120V/60Hz Temp°C/Humi% : 23 / 35 Operator : Yoshiaki Iwasa
---	--

Mode / Remarks: Transmitting (CH1:2412MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247(c) 1m
 All other spurious emissions were less than 20dB for the limit.



Test report No. : 23FE0057-HO-1
 Page : 33 of 41
 Issued date : May 12, 2003
 FCC ID : APYNAR0050

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/15 19:14:19

Applicant : SHARP CORPORATION Kind of EUT : TabletPC Model No. : PC-TN10W Serial No. : CG-0001	Report No. : 23FE0057-HO-1 Power : AC120V/60Hz Temp°C/Humi% : 23 / 35 Operator : Yoshiaki Iwasa
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Mode / Remarks: Transmitting (CH6:2437MHz) FCC ID: APYNAR0050

LIMIT : FCC15C §15.247 (c) 1m
 All other spurious emissions were less than 20dB for the limit.

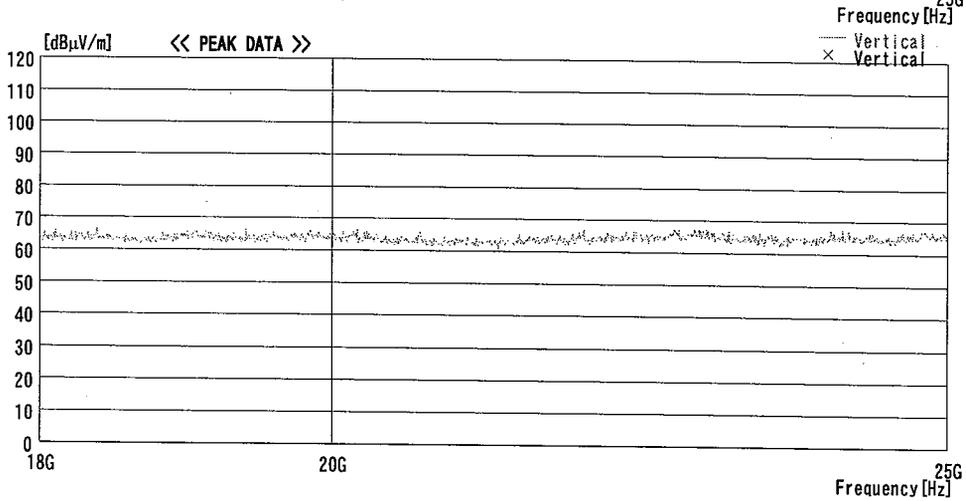
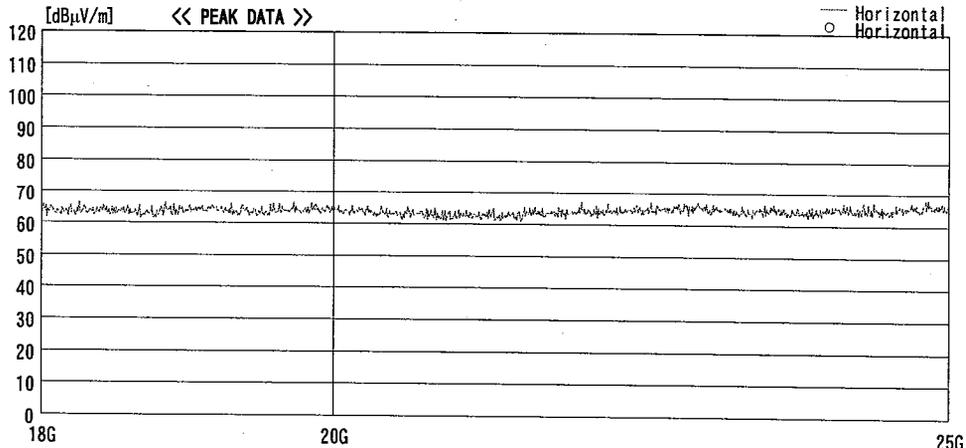


CHART: WITHOUT FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
 CALCULATION : READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - AMP. GAIN Page:

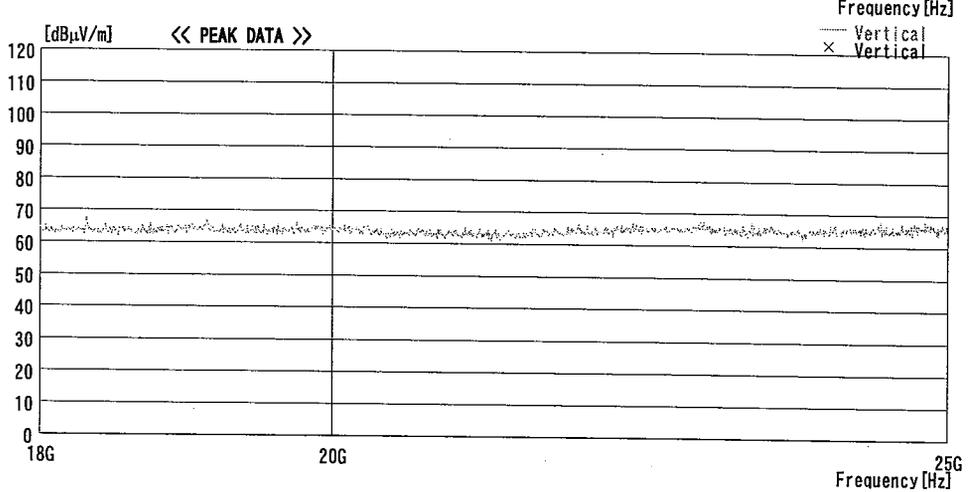
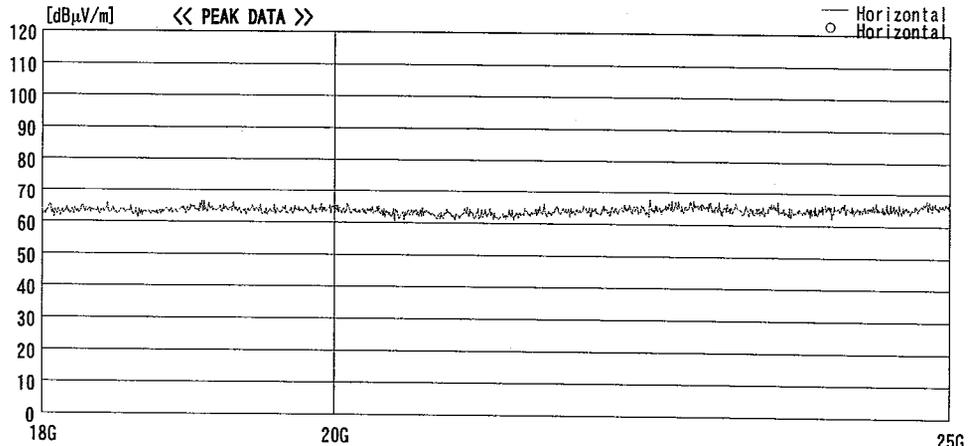
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2003/04/15 19:11:31

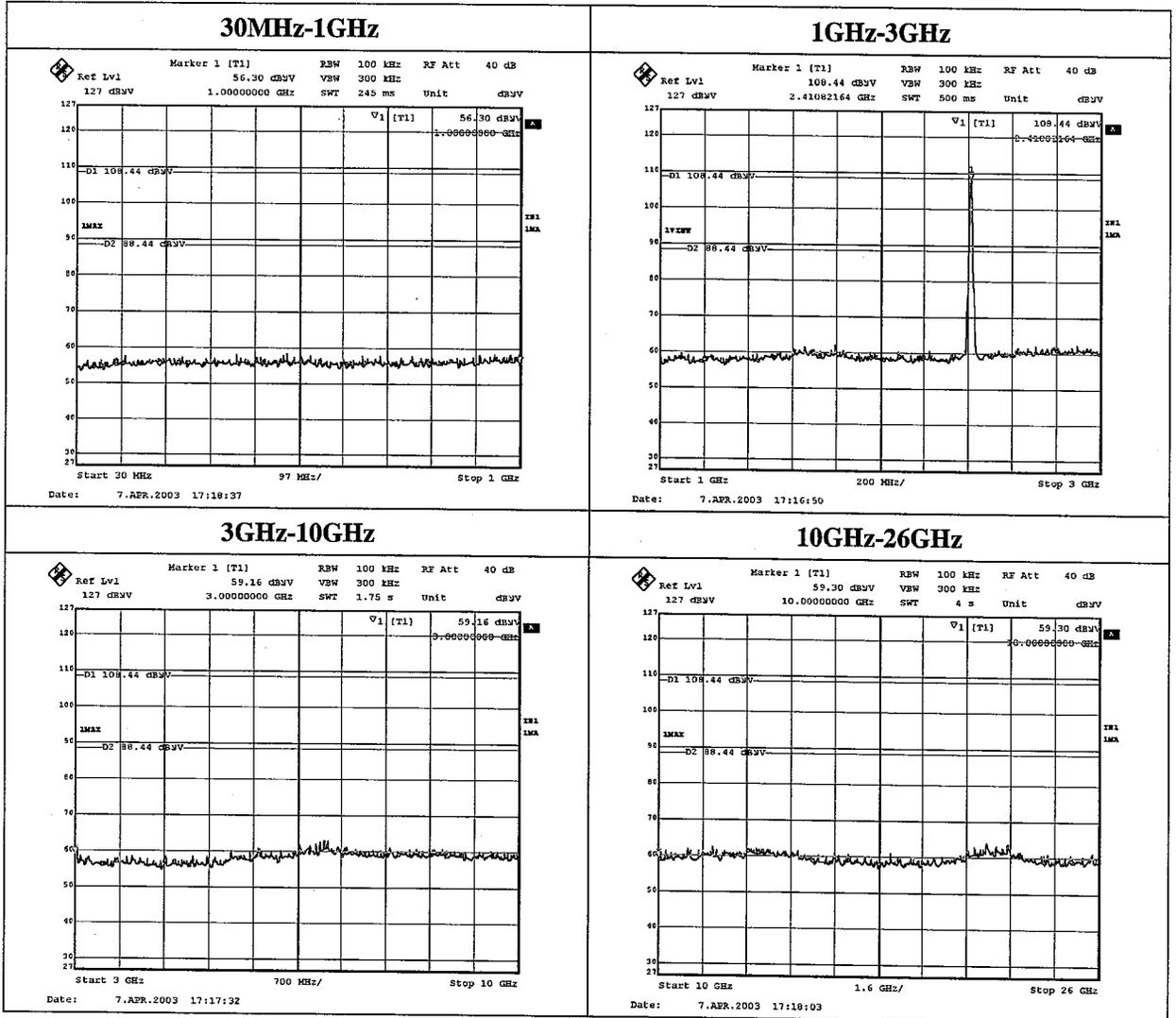
Applicant : SHARP CORPORATION Kind of EUT : TabletPC Model No. : PC-TN10W Serial No. : CG-0001	Report No. : 23FE0057-HO-1 Power : AC120V/60Hz Temp°C/Humi% : 23 / 35 Operator : Yoshiaki Iwasa
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Mode / Remarks: Transmitting (CH11:2462MHz) FCC ID: APYNAR0050

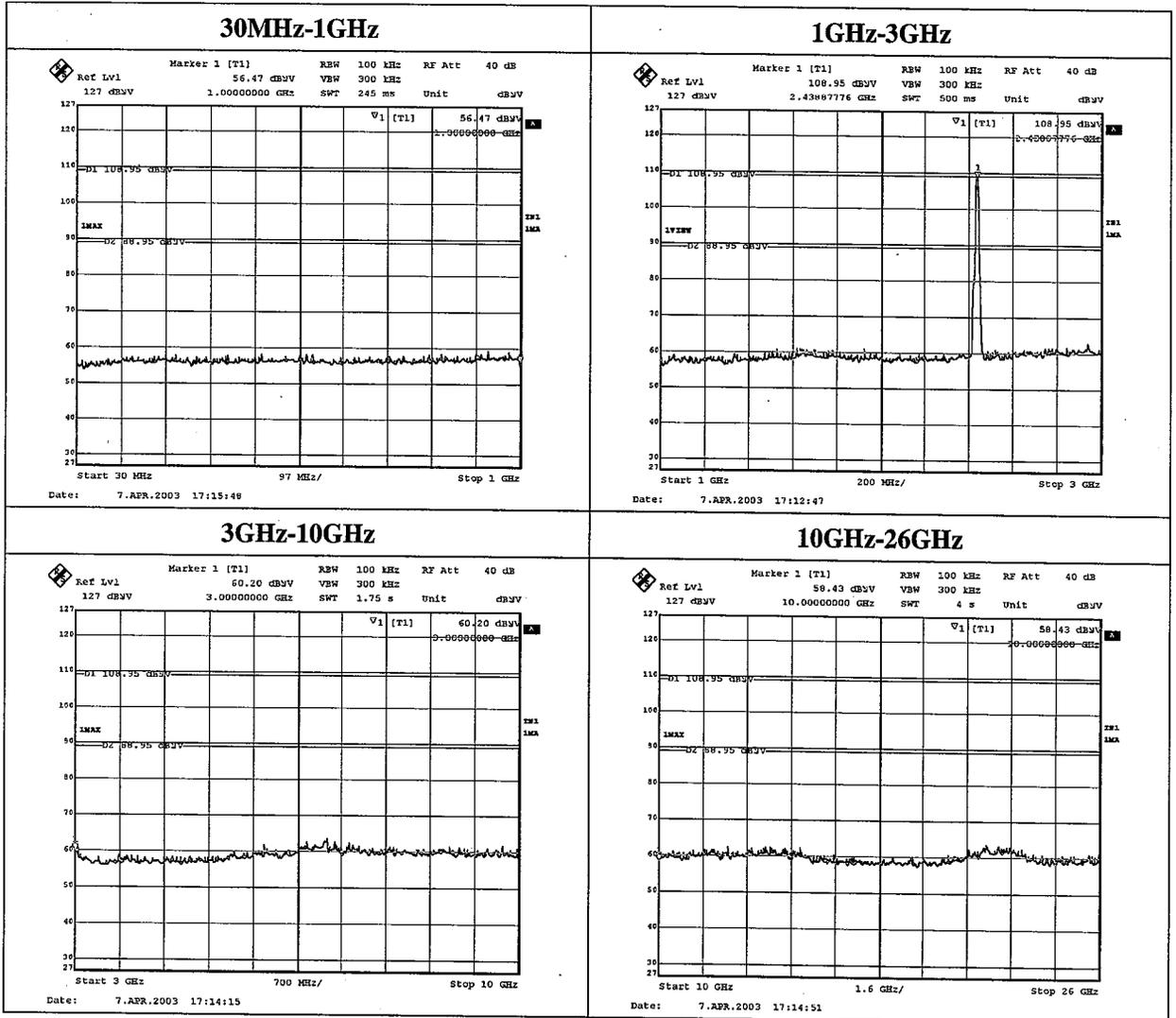
LIMIT : FCC15C §15.247(c) 1m
 All other spurious emissions were less than 20dB for the limit.



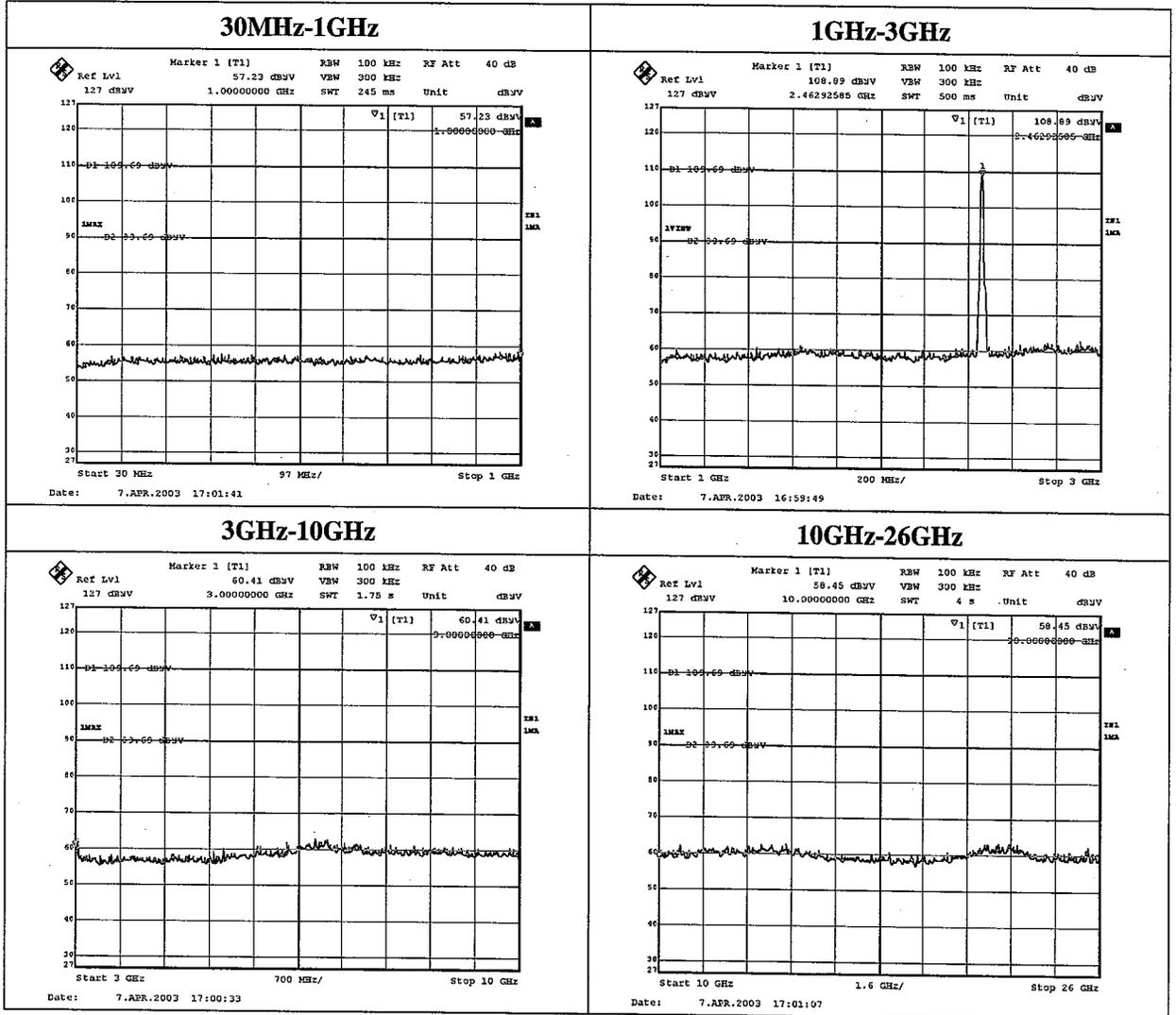
Out Band Emissions (ch1:2412MHz) (Conducted)



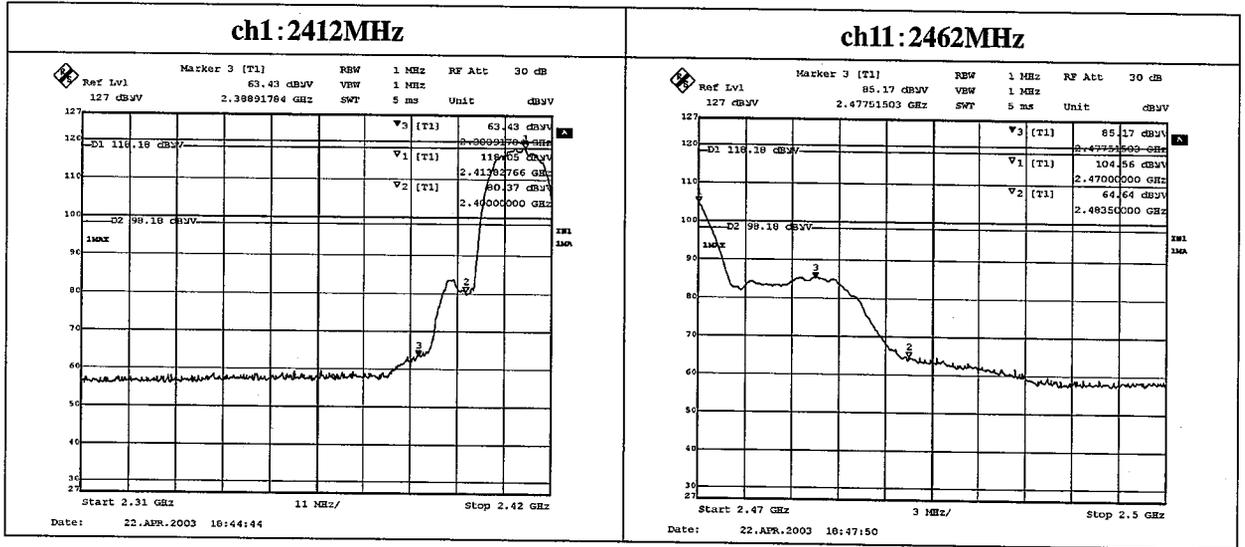
Out Band Emissions (ch6:2437MHz) (Conducted)



Out Band Emissions (ch11:2462MHz) (Conducted)



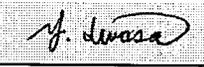
Restricted Band Edges (Conducted)



DATA OF BAND EDGE

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : SHARP CORPORATION	REPORT NO : 23FE0057-HO-1
EQUIPMEN : TabletPC	REGULATION : Fcc Part15 Subpart C 247(c)
MODEL : PC-TN10W	TEST DISTANCE : -
S/N : CG-0001	DATE : 2003/4/7
FCC ID : APYNAR0050	TEMPERATURE : 21°C
IC NUMBER : -	HUMIDITY : 60%
POWER : AC120V / 60Hz	
MODE : Tx (ch1,11)	


ENGINEER : Yoshiaki Iwasa

PK DETECT(S/A SPAN:110/30MHz, RBW:1MHz/1MHz, VBW:1MHz/2MHz, SWEEP TIME:AUTO)
Conducted

Frequency [MHz]	Reading [dBuV]	Cable Loss [dB]	E [dBuV]	P [nW]	Difference of level [dB]	Field Strength [dBuV/m]	Limit
2388.9	63.4	2.1	65.5	70.79	-	51.7	<74[dBuV/m]
2400.0	80.4	2.1	82.5	-	37.7*	-	>20[dB]
2483.5	64.6	2.1	66.7	93.33	-	52.9	<74[dBuV/m]

* Reference : Reading (118.1[dBuV]) + Cable Loss (2.1[dB]) = E (120.2[dBuV]) at 2413.8MHz.

Sample Calculation:

$$\text{Field Strength} = 20\log((\sqrt{30 * P * 10^{-9} * G}) / d * 10^6)$$

E : Reading + Cable Loss

P : Converted to nW

d : Test distance(m) 3

G : Numeric Antenna Gain 0.63

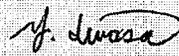
Test report No. : 23FE0057-HO-1
Page : 40 of 41
Issued date : May 12, 2003
FCC ID : APYNAR0050

DATA OF POWER DENSITY(CONDUCTED)

UL Apex Co., Ltd.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

COMPANY : Sharp Corporation
EQUIPMENT : TabletPC
MODEL : PC-TN10W
S/N : CG-0001
FCC ID : APYNAR0050
IC Number : -
POWER : AC120V / 60Hz
MODE : Tx (ch1,6,11)

REPORT NO : 23FE0057-HO-1
REGULATION : Fcc Part15 Subpart C 247
TEST DISTANCE : -
DATE : 2003/4/7
TEMPERATURE : 21°C
HUMIDITY : 60%



ENGINEER : Yoshiaki Iwasa

ch	FREQ [MHz]	S/A Reading [dBm]	Cable Loss [dB]	ATTEN [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
ch1	2412.5	-4.58	3.3	0.0	-1.3	8.0	9.3
ch6	2437.5	-3.76	3.3	0.0	-0.5	8.0	8.5
ch11	2462.5	-4.40	3.4	0.0	-1.0	8.0	9.0

Sample Calculation:

Result = Reading + Cable Loss

Peak Power Density

