



EMI TEST REPORT

Test Report No.: 25KE0051-HO-1

Applicant : Sony Corporation
Type of Equipment : Personal Computer
Model No. : PCG-4F2L
FCC ID : AK8PCG4F2L
Test standard : FCC Part 15 Subpart C
Section 15.207, Section 15.247: 2005
Test Result : Complied

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

Date of test:

July 7 to 13, 2005

Tested by:

K. Adachi

Kenichi Adachi
EMC Services

K. Aoki

Keiichi Aoki
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Approved by :

H. Shimaji

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Group Leader of
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MF060b(01.06.05)

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SECTION 1: Client information

Company Name	Sony Corporation
Brand name	Sony
Address	6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001, Japan
Telephone Number	+81-3-5795-8702
Facsimile Number	+81-3-5795-8981
Contact Person	Takumi Ozawa

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

2.1 Identification of E.U.T.

Type of Equipment	Personal Computer
Model No.	PCG-4F2L
Serial No.	XTA37 (for Radiated emission and Conducted emission) XTA40 (for other tests)
Country of Manufacture	Japan
Rating	DC16.0 V, 4.0A (AC Adapter output)
Receipt Date of Sample	July 6, 2005
Condition of EUT	Engineering prototype (Note for sale: This sample is equivalent to mass-produced item)
Category Identified	Portable device

2.2 Product Description

Digital Specification

Feature of EUT	Model No: PCG-4F2L (referred to as the EUT in this report) is the Personal Computer with Wireless LAN IEEE802.11b/g. and Bluetooth module. The Bluetooth module is granted by FCC/IC (FCC ID: CWTUGPZ6/IC No.: 1788F-UGPZ6).
Size	272*190*30 (W*L*H)
Operating temperature range	+5 to +35 deg. C.
Battery	Type : Li-ion Battery Model Name : VGP-BPxx Rating =7.4V : 7800mAh
Operation Clock	2462MHz, 1200MHz, 400MHz, 270MHz, 100MHz, 77.5MHz, 48MHz, 33MHz, 25MHz, 24.576MHz, 24MHz, 14.381MHz, 10MHz

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Radio Specification

Wireless LAN (IEEE802.11b/g)

Equipment Type	Transceiver
Frequency band	2412-2462MHz
Channel spacing	5MHz
Type of Modulation	11b: DSSS 11g: OFDM
Antenna Type	lambda/4-Monopole Antenna
Antenna Connector Type	U.FL Compatible connector
Antenna Gain	Right: 2.63dBi Left: -0.81dBi
Max. Output Power	16.88dBm (Peak), 48.75mW
ITU code	G1D/D1D
Power Supply	DC 3.3V $\pm$ 10%

Bluetooth

Equipment Type	Transceiver
Frequency band	2402-2480MHz
Channel spacing	1MHz
Type of Modulation	FHSS
Antenna Type	lambda/4 Monopole Antenna
Antenna Connector Type	U.FL Compatible connector
Antenna Gain	1.5dBi
Max. Output Power	0.84dBm (Peak), 1.21mW
ITU code	F1D
Power Supply	DC 3.3V $\pm$ 10%

FCC 15.31 (e)

This EUT provides stable voltage (DC3.3V) constantly to RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

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SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part15 Subpart C : 2005

Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.207 Conducted limits : 2005
Section 15.247 Operation within the bands 902-928MHz,
2400-2483.5MHz, and 5725-5850MHz : 2005

3.2 Procedures and results

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207 RSS-210 6.6	-	N/A	24.1 dB (0.19259MHz, QP, N, 11b High Ch.)	Complied
2	6dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(a)(2) RSS-210 5.9.1	Conducted	N/A	See data.	Complied
3	Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(b)(3) RSS-210 6.2.2(o)(b)	Conducted	N/A	See data.	Complied
4	Spurious Emission	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d) RSS-210 6.2.2(o)(e)(e1) and 6.3	Conducted/ Radiated	N/A	5.2dB MHz (2335.975 and 2336.060MHz, AV, Hori, 11g Mid. Ch.)	Complied
5	Restricted Band Edges	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d) RSS-210 6.2.2(o)(e)(e1) and 6.3	Conducted	N/A	See data.	Complied
6	Power Density	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (e) RSS-210 6.2.2(o)(b)	Conducted	N/A	See data.	Complied

Note: UL Apex's EMI Work Procedures No.QPM05 and QPM15.

Uncertainty:

Conducted Emission

The measurement uncertainty (with a 95% confidence level) for this test is ± 1.3 dB.

The data listed in this test report has enough margin, more than the site margin.

Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ± 4.5 dB(3m)/ ± 4.7 dB(10m).

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ± 5.2 dB(3m)/ ± 3.8 dB(10m).

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ± 6.6 dB.

The data listed in this report meets the limits unless the uncertainty is taken into consideration.

Other test except Conducted Emission and Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test is ± 3.0 dB.

The data listed in this test report has enough margin, more than the site margin.

*These tests were also referred to "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247".

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

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3.3 Addition to standards

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	99% Occupied Band Width	RSS-210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4: 2004	RSS-210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4: 2004	Conducted	N/A	N/A	N/A
2	Co-location & Co-operation (Confirmation testing for Radiated Spurious Emission at simultaneous transmission)	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(d)	Radiated	N/A	5.2dB (2335.975m, AV, Hori)	Complied

3.4 Test Location

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	FCC Registration Number	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	313583	IC4247A	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	846015	IC4247A-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.4 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1 and No.2 semi-anechoic and No.3 shielded room.

3.5 Test set up, Test instruments and Data of EMI

Refer to APPENDIX 1 to 3.

SECTION 4: Operation of E.U.T. during testing

4.1 Operating Modes

The mode is used : Transmitting mode
Low Channel : 2412MHz (Ch 1)
Mid Channel : 2437MHz (Ch 6)
High Channel : 2462MHz (Ch11)

1. The results of pre-check found that:

IEEE 802.11b DSSS (CCK, 11Mbps) had the highest field strength level (PK)

IEEE 802. 11g DSSS (OFDM, 6Mbps) had the highest field strength level (AV*).

*The field strength level (PK) were almost same at all the data rates, 6Mbps, 18Mbps, 36Mbps, 48Mbps, and 54Mbps.

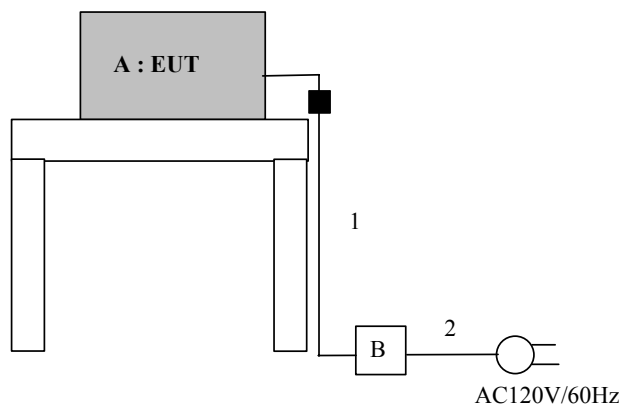
Therefore, test was performed at IEEE 802.11b DSSS (CCK, 11Mbps) and IEEE 802. 11g DSSS (OFDM, 6Mbps).

2. The test was performed with the Aux Antenna only, since the main antenna is the same type and is set up symmetrically with the main antenna.

3. Radiated Emission test was performed at the above mode + Bluetooth transmission (simultaneous transmission).

4.2 Configuration and peripherals

■ : Standard ferrite core



* Cabling was taken into consideration and test data was taken under worse case conditions.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID
A	Personal Computer	PCG-4F2L	XTA37 *1) XTA40 *2)	SONY	AK8PCG4F2L
B	AC Adaptor	VGP-AC16V8	0000563 *1) 0018336 *2)	SONY	-

*1) for Spurious Emission (Radiated) and Conducted emission (AC) test

*2) for other tests

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Test report No. : 25KE0051-HO-1
Page : 9 of 84
Issued date : August 9, 2005
FCC ID : AK8PCG4F2L

List of cables used

No.	Name	Length (m)	Shield	Backshell Material
1	DC Cable	2.0	N	Polyvinyl chloride
2	AC Cable	0.8	N	Polyvinyl chloride

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SECTION 5: Conducted Emission

Test Procedure and conditions

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

For the tests on EUT itself (as a stand alone equipment)

Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN /(AMN) to the input power source. All unused 50ohm connectors of the LISN(AMN) were resistivity terminated in 50ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber or a Measurement Room.

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

Detector	: CISPR quasi-peak and average detector (IF BW 9 kHz)
Measurement range	: 0.15-30MHz
Test data	: APPENDIX 3
Test result	: Pass

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SECTION 6: Spurious Emission

[Conducted]

Test Procedure

The Out of Band Emission was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 3

Test result : Pass

[Radiated]

Test Procedure

EUT was placed on a platform of nominal size, 0.5m by 1.0m, raised 80cm above the conducting ground plane.

The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).

The height of the measuring varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer (in linear mode).

The test was made with the detector (RBW/VBW) in the following table.

When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

20dBc was applied to the frequency over the limit of FCC 15.209 and outside the restricted band of 15.205.

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

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

Test data : APPENDIX 3

Test result : Pass

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SECTION 7: Bandwidth

Test Procedure

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

Test data	: APPENDIX 3
Test result	: Pass

SECTION 8: Maximum Peak Output Power

Test Procedure

The test was made with the spectrum analyzer that has a function of channel-power measurements.
The Maximum Peak Output Power was measured with a spectrum analyzer connected to the antenna port.

Test data	: APPENDIX 3
Test result	: Pass

SECTION 12: Peak Power Density

Test Procedure

The Peak Power Density was measured with a spectrum analyzer connected to the antenna port.

Test data	: APPENDIX 3
Test result	: Pass

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APPENDIX 1: Photographs of test setup

Conducted Emission

Front



Rear

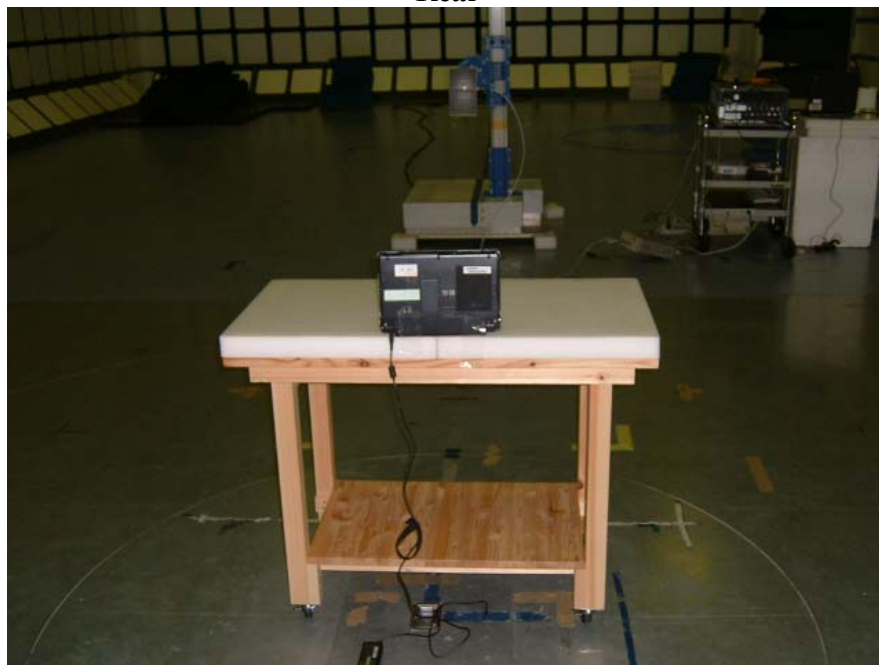


Spurious Emission (Radiated)

Front



Rear

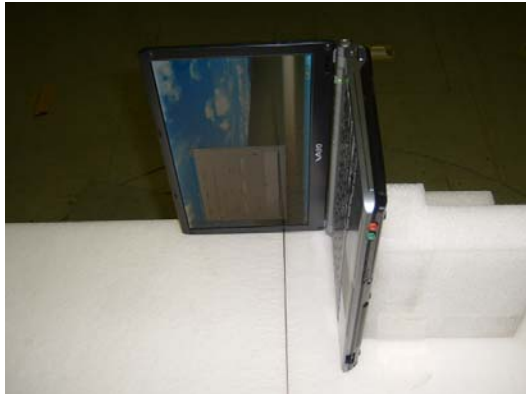


Worst Case Position (Z-axis:Horizontal / X-axis:Vertical)

X-axis



Y-axis



Z-axis



APPENDIX 2:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE/CE	2004/11/13 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE/CE	2004/11/12 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2004/08/26 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2005/02/05 * 12
MCC-18	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2005/02/03 * 12
MHA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2005/01/10 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE	2004/09/18 * 12
MHA-01	Horn Antenna	EMCO	3160-09	RE(MW)	2005/01/10 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	AT	2005/05/19 * 12
MAT-22	Attenuator(10dB)(above 1GHz)	Orient Microwave	BX10-0476-00	AT	2005/03/16 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent/T SJ	-	RE	2004/12/19 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2004/10/14 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2004/10/14 * 12
MAT-06	Attenuator(6dB)	Weinschel Corp	2	RE	2004/12/16 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2005/05/24 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/Agilent/T SJ	-	CE	2004/12/24 * 12
MLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2004/11/10 * 12

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

Test Item:

CE: Conducted emission

RE: Radiated emission

AT: Antenna terminal disturbance voltage

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APPENDIX 3: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 23:54:32

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-HO
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b 11Mbps Tx2412MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

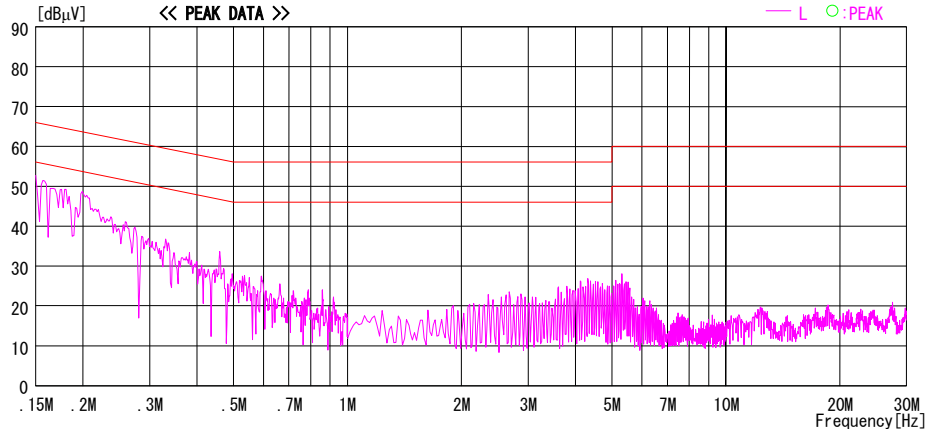
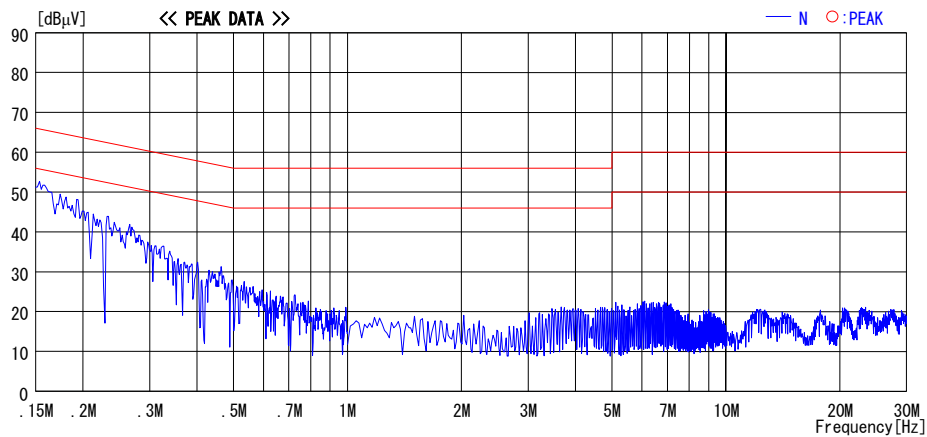


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C. F (L1SN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:00:27

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-H0
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b 11Mbps Tx2437MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

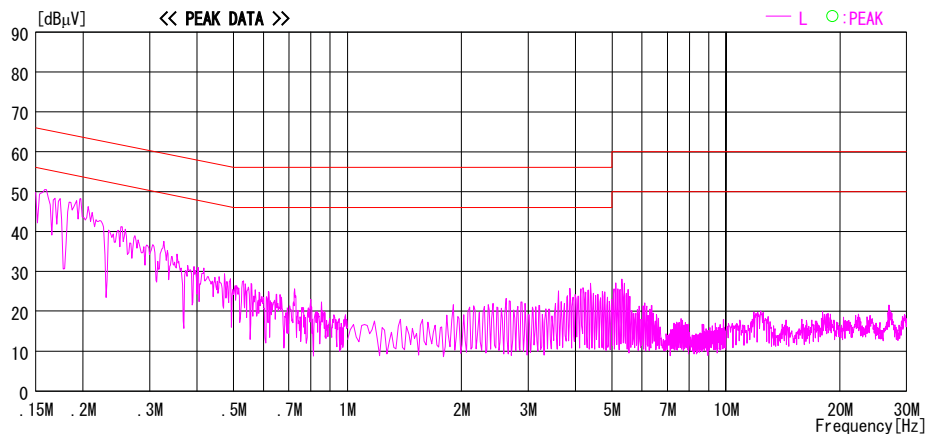
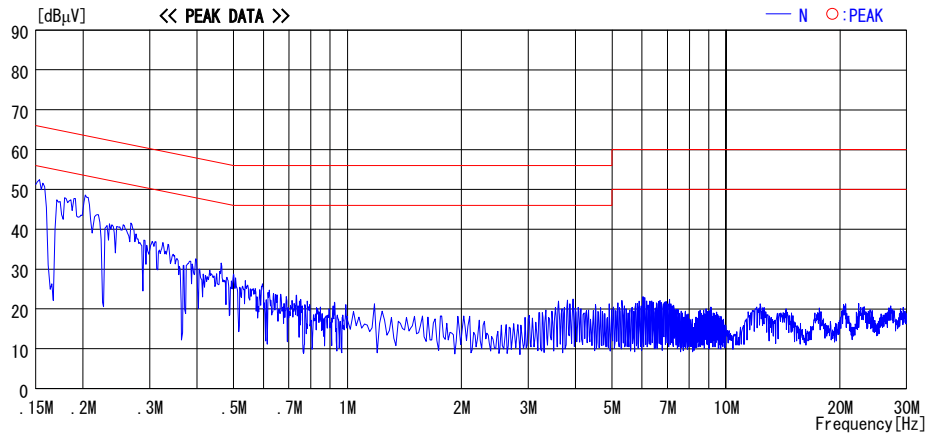


CHART:WITH FACTOR,Peak hold data,Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:04:57

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-H0
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b 11Mbps Tx2462MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

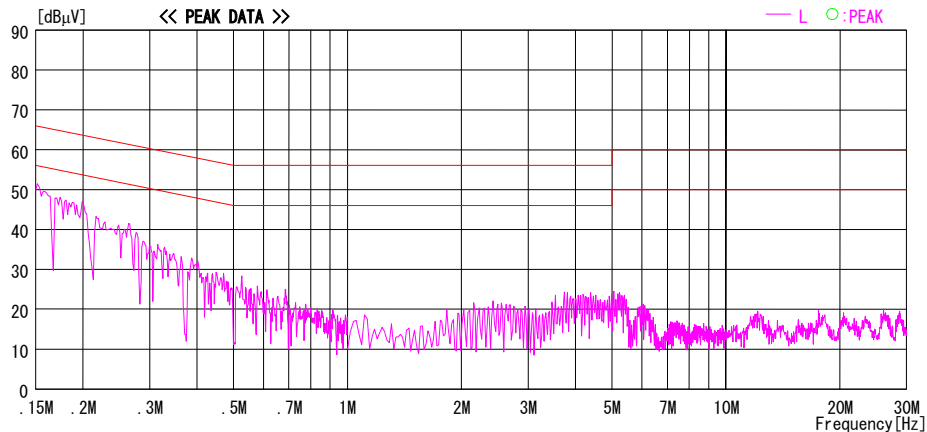
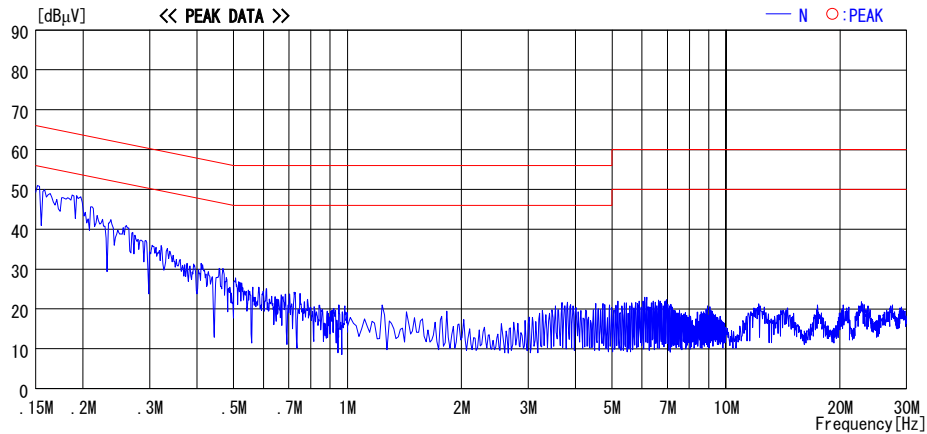


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

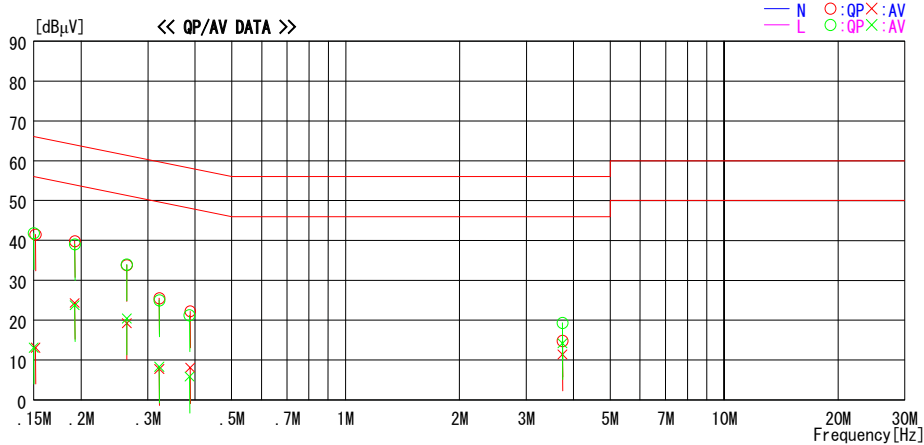
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:04:57

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b 11Mbps Tx2462MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBμV]	AV [dBμV]		QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]		
0.15170	41.2	12.8	0.3	41.5	13.1	65.9	55.9	24.4	42.8	N	
0.19259	39.2	23.7	0.6	39.8	24.3	63.9	53.9	24.1	29.6	N	
0.26413	33.3	18.7	0.5	33.8	19.2	61.3	51.3	27.5	32.1	N	
0.32205	25.1	7.3	0.4	25.5	7.7	59.7	49.7	34.2	42.0	N	
0.38848	21.9	7.8	0.3	22.2	8.1	58.1	48.1	35.9	40.0	N	
3.74149	13.9	10.5	0.9	14.8	11.4	56.0	46.0	41.2	34.6	N	
0.15000	41.5	12.8	0.3	41.8	13.1	66.0	56.0	24.2	42.9	L	
0.19259	38.4	23.1	0.6	39.0	23.7	63.9	53.9	24.9	30.2	L	
0.26413	33.4	19.9	0.5	33.9	20.4	61.3	51.3	27.4	30.9	L	
0.32205	24.5	7.9	0.4	24.9	8.3	59.7	49.7	34.8	41.4	L	
0.38677	20.9	5.5	0.3	21.2	5.8	58.1	48.1	36.9	42.3	L	
3.74149	18.4	13.3	0.9	19.3	14.2	56.0	46.0	36.7	31.8	L	

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
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:28:14

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-H0
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g 6Mbps Tx2412MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

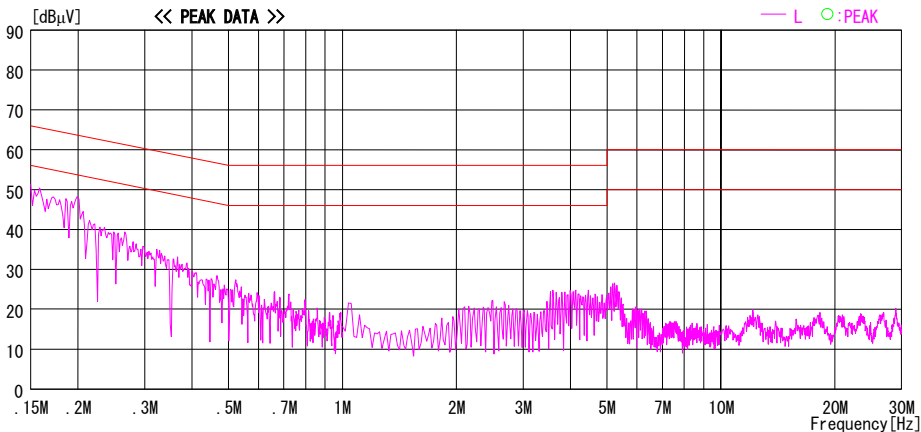
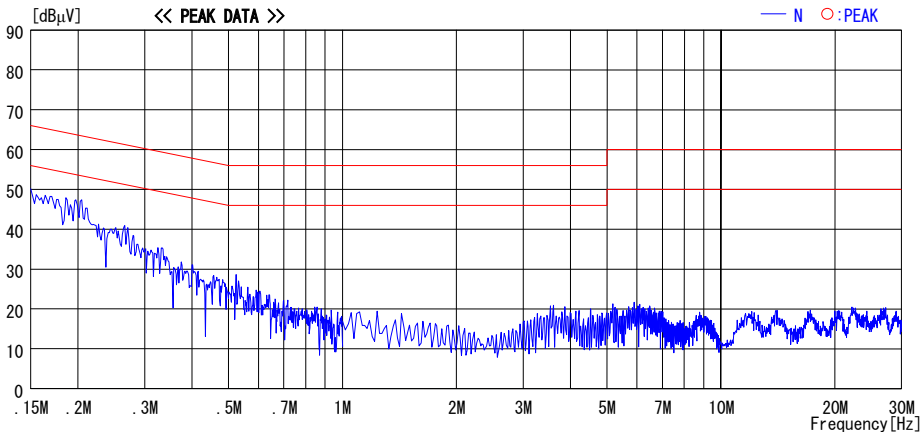


CHART:WITH FACTOR,Peak hold data,Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:32:19

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g 6Mbps Tx2437MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

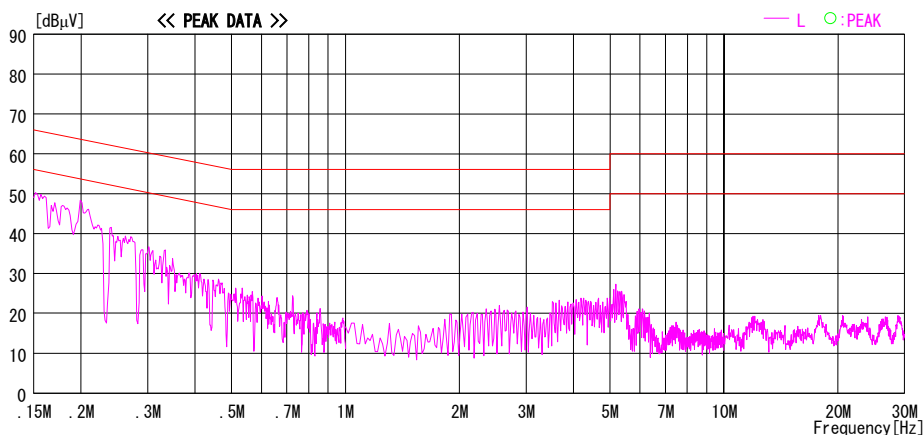
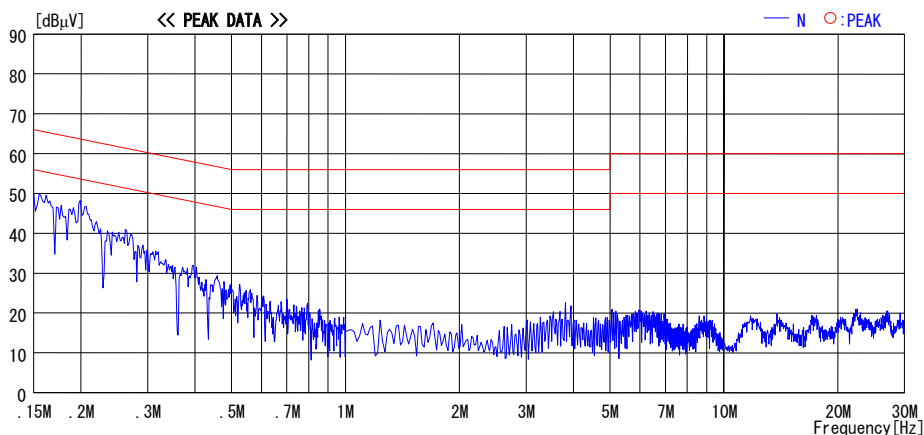


CHART:WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:36:37

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-HO
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g 6Mbps Tx2462MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)

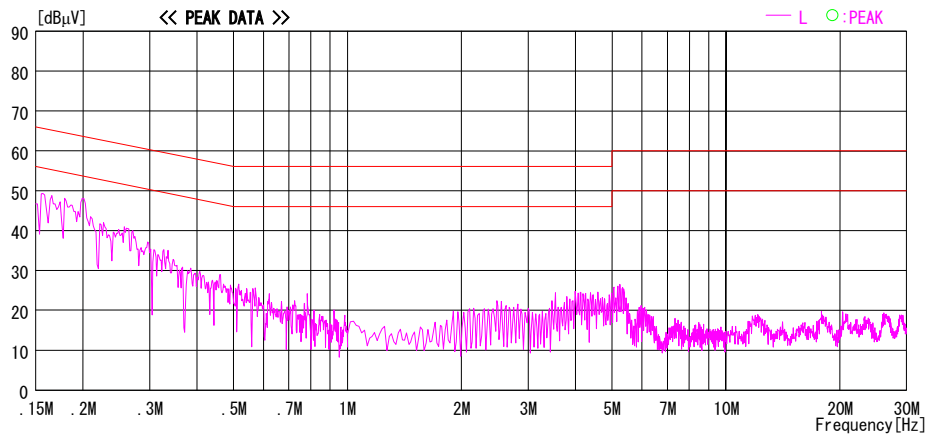
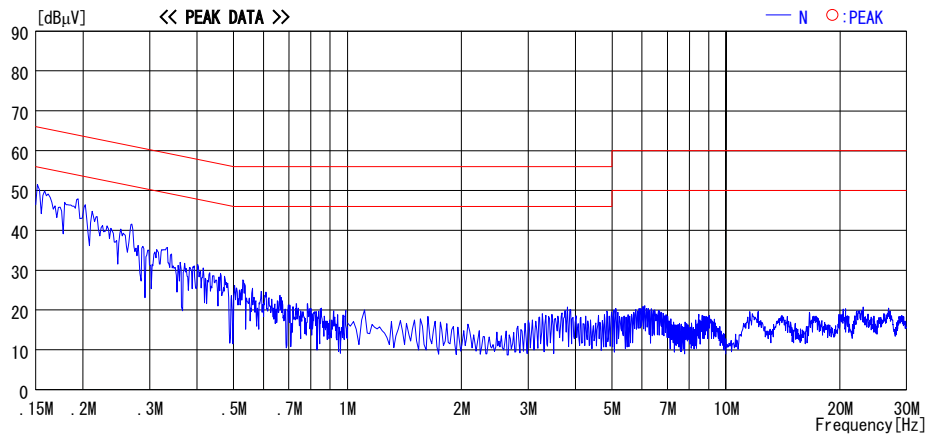


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

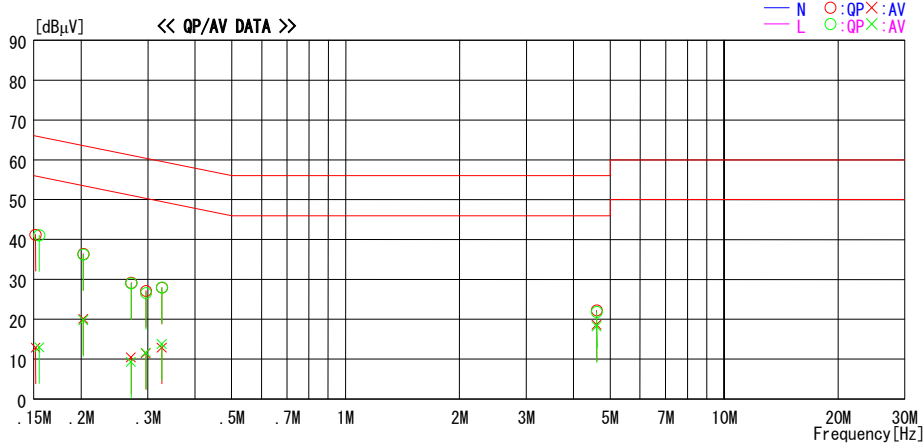
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/13 00:36:37

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-HO
Power : AC120V / 60Hz
Temp°C/Humi% : 24deg. C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g 6Mbps Tx2462MHz Aux-antenna

LIMIT : FCC15C § 15.207 (QP)
FCC15C § 15.207 (AV)



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBμV]	AV [dBμV]		QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]		
0.15170	40.9	12.6	0.3	41.2	12.9	65.9	55.9	24.7	43.0	N	
0.20281	35.8	19.5	0.6	36.4	20.1	63.5	53.5	27.1	33.4	N	
0.27094	28.7	9.9	0.5	29.2	10.4	61.1	51.1	31.9	40.7	N	
0.29649	26.7	11.1	0.4	27.1	11.5	60.3	50.3	33.2	38.8	N	
0.32716	27.5	12.5	0.4	27.9	12.9	59.5	49.5	31.6	36.6	N	
4.60722	21.1	17.5	1.1	22.2	18.6	56.0	46.0	33.8	27.4	N	
0.15511	40.8	12.7	0.3	41.1	13.0	65.7	55.7	24.6	42.7	L	
0.20281	35.6	19.2	0.6	36.2	19.8	63.5	53.5	27.3	33.7	L	
0.27094	28.5	8.8	0.5	29.0	9.3	61.1	51.1	32.1	41.8	L	
0.29649	26.2	11.2	0.4	26.6	11.6	60.3	50.3	33.7	38.7	L	
0.32716	27.6	13.4	0.4	28.0	13.8	59.5	49.5	31.5	35.7	L	
4.60722	20.7	17.1	1.1	21.8	18.2	56.0	46.0	34.2	27.8	L	

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

6dB Bandwidth(DSSS and other forms of modulation)

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Shielded Room

Company : Sony Corporation
Equipment : Personal Computer
Model : PCG-4F2L
Sample No. : XTA40
Power : AC120V/60Hz
Mode : Tx (ch 1, 6,11)

REPORT NO : 25KE0051-HO
REGULATION : Fcc Part15 Subpart C 15.247(a)(2)
TEST DISTANCE : -
DATE : 07/08/2005
TEMPERATURE : 22deg.C.
HUMIDITY : 58%
ENGINEER : Kenichi Adachi

[IEEE802.11b] Aux antenna (worst antenna) , 11Mbps

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	9.533	500.0
Mid	2437.0	8.114	500.0
High	2462.0	8.680	500.0

[IEEE802.11g] Aux antenna (worst antenna), 6Mbps

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	16.523	500.0
Mid	2437.0	16.486	500.0
High	2462.0	16.495	500.0

(Reference data)

[IEEE802.11b] Main antenna , 11Mbps

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	8.382	500.0
Mid	2437.0	8.202	500.0
High	2462.0	8.307	500.0

(Reference data)

[IEEE802.11g] Main antenna , 6Mbps

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	16.508	500.0
Mid	2437.0	16.482	500.0
High	2462.0	16.487	500.0

UL Apex Co., Ltd.

Head Office EMC Lab.

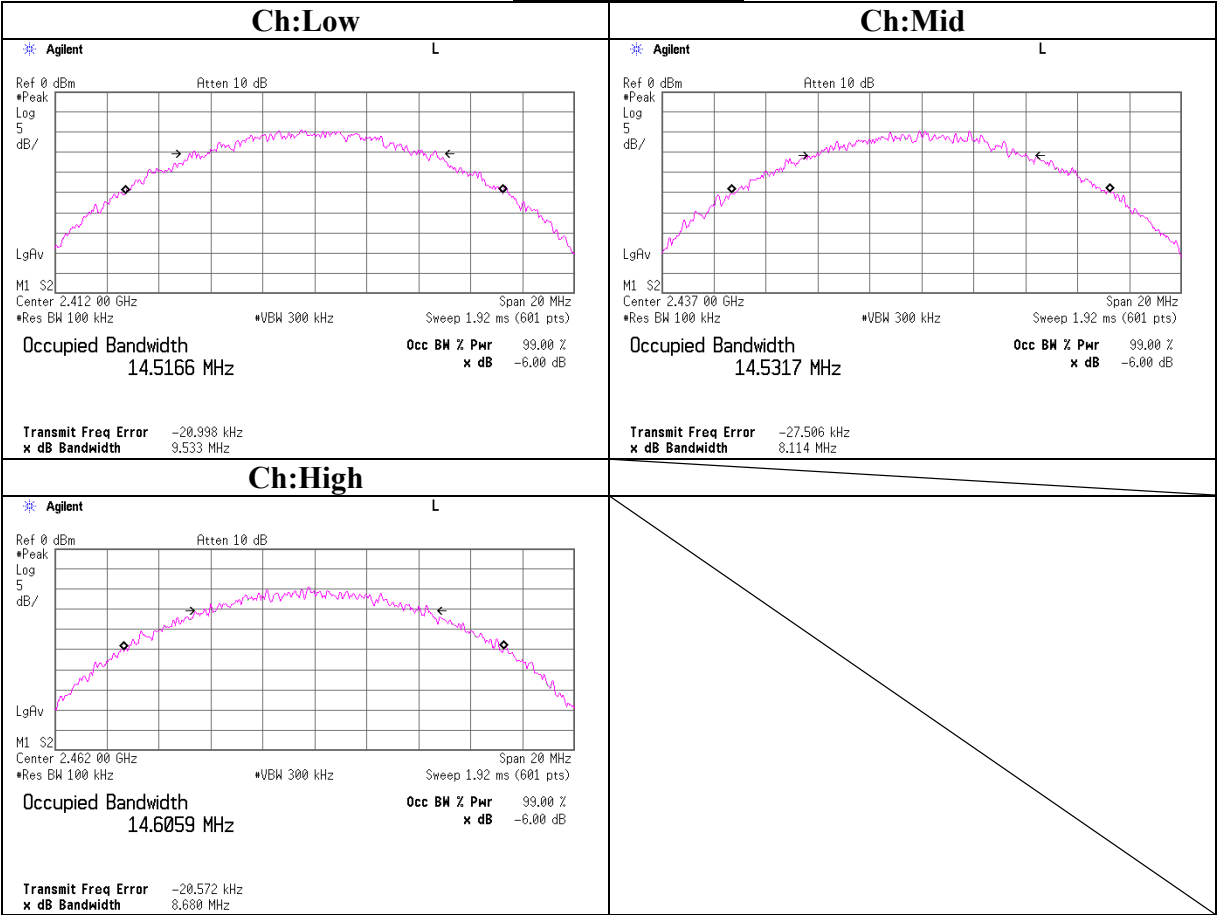
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

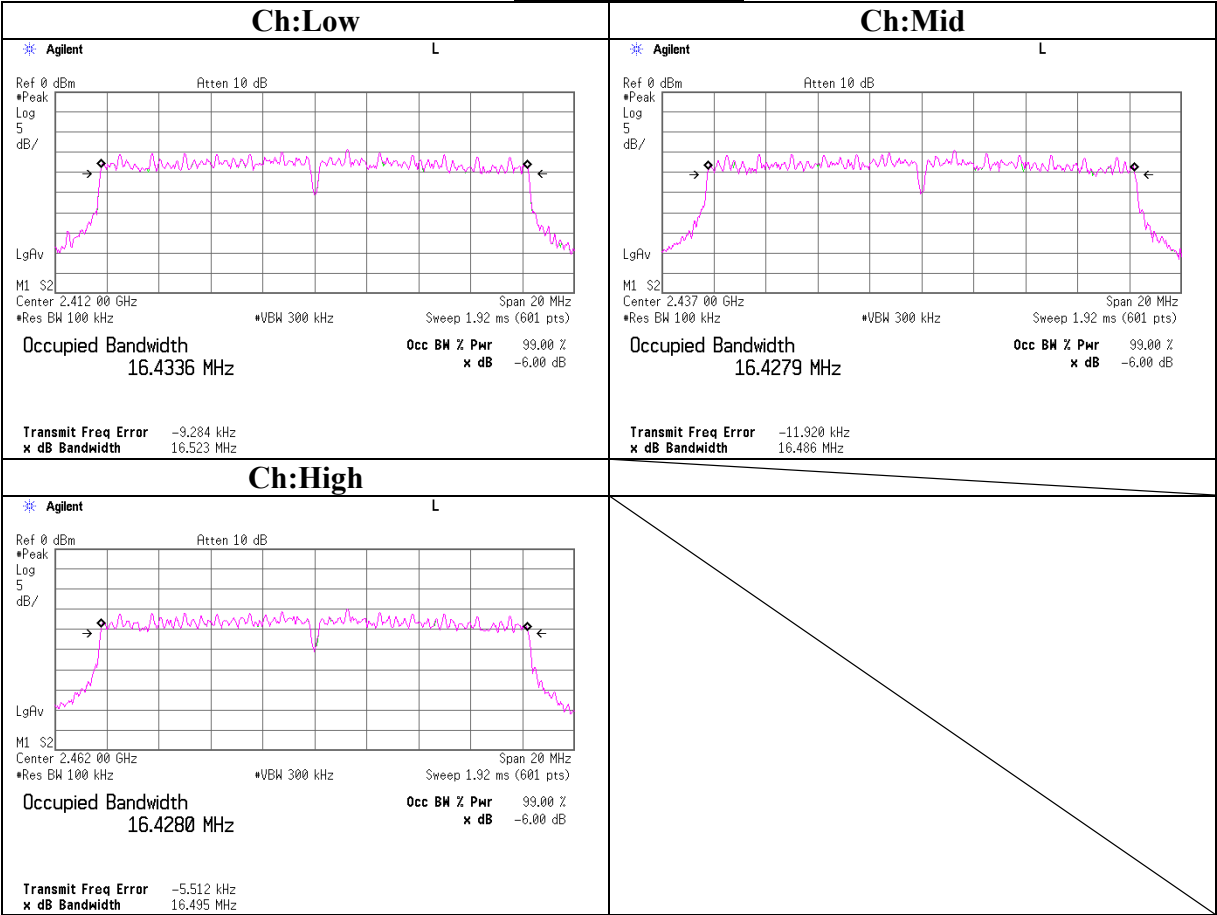
MF060b(01.06.05)

6dB Bandwidth(DSSS and other forms of modulation)
Sub antenna, 11b

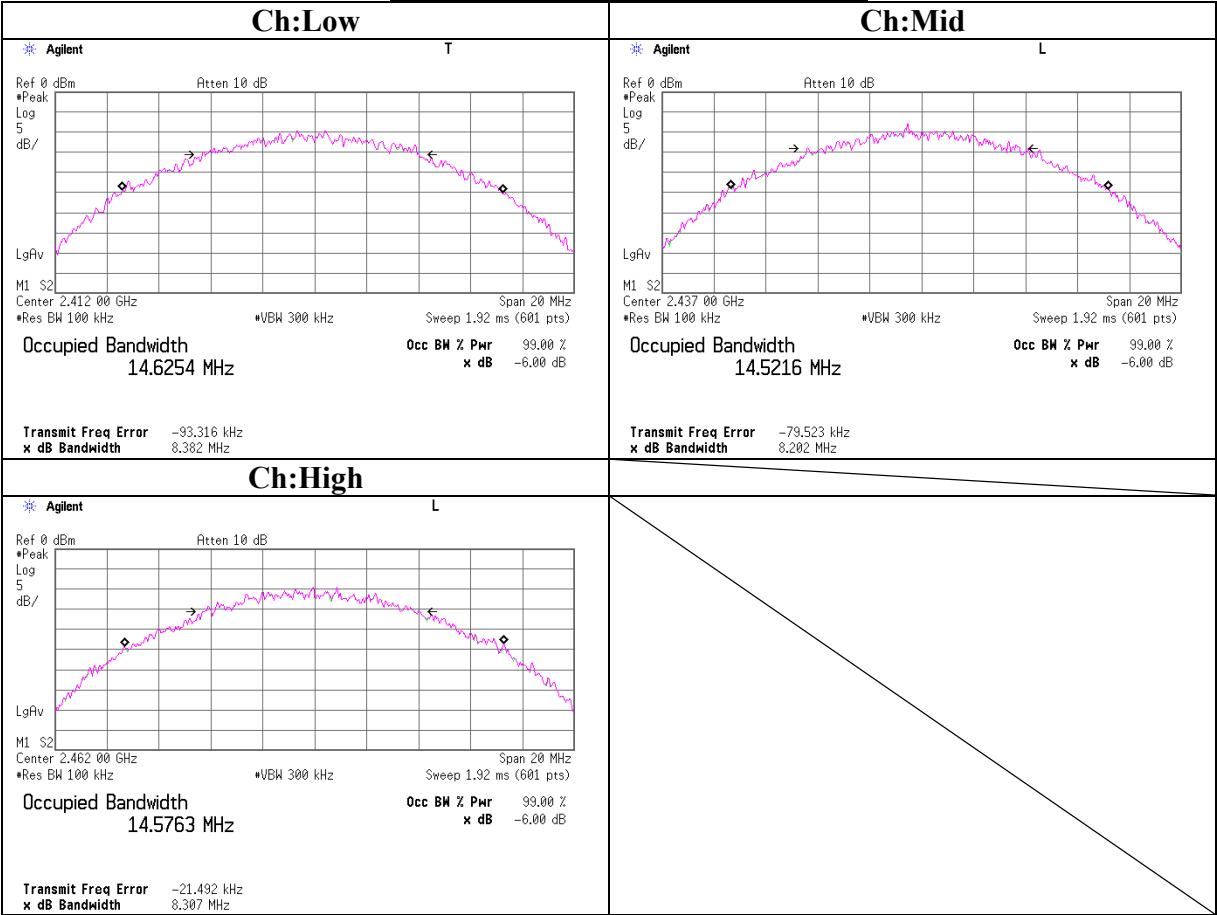


6dB Bandwidth(DSSS and other forms of modulation)

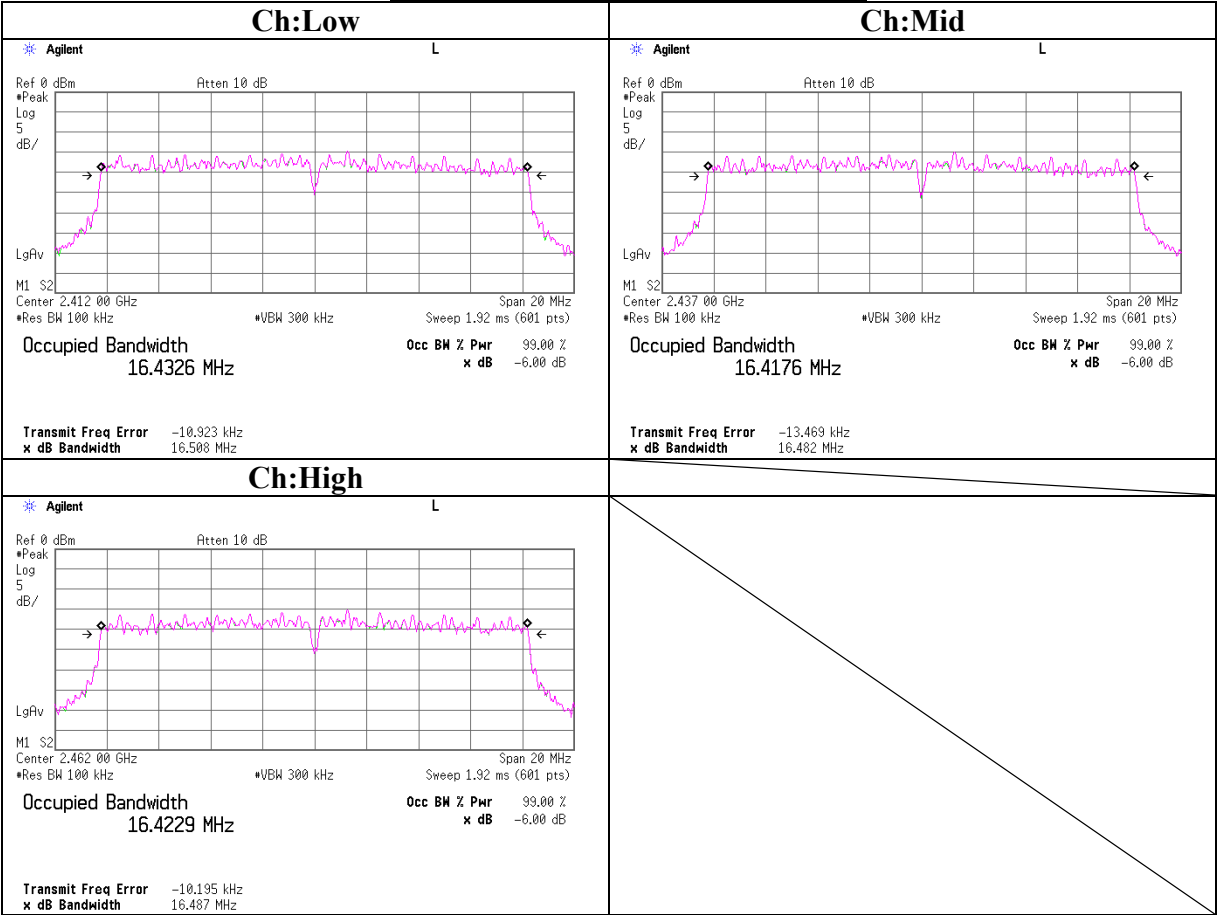
Sub antenna, 11g



6dB Bandwidth(DSSS and other forms of modulation)
(Reference data) Main antenna, 11b



6dB Bandwidth(DSSS and other forms of modulation)
(Reference data) Main antenna, 11g



Maximum Peak OutPut Power (DSSS and other forms of modulation)

Company : Sony Corporation
Equipment : Personal Computer
Model : PCG-4F2L
Sample No. : XTA40
Power : AC120V/60Hz
Mode : Tx (ch 1, 6,11)

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Shielded Room
REPORT NO : 25KE0051-HO
REGULATION : Fcc Part15 Subpart C 15.247(b)(3)
TEST DISTANCE : -
DATE : 07/08/2005
TEMPERATURE : 22deg.C.
HUMIDITY : 58%
ENGINEER : Kenichi Adachi

[IEEE802.11b] Aux antenna , 11Mbps

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	5.84	1.13	9.91	16.88	30.00	13.12
Mid	2437.0	5.31	1.09	9.91	16.31	30.00	13.69
High	2462.0	5.52	1.18	9.91	16.61	30.00	13.39

[IEEE802.11g] Aux antenna , 6Mbps

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	4.67	1.13	9.91	15.71	30.00	14.29
Mid	2437.0	4.58	1.09	9.91	15.58	30.00	14.42
High	2462.0	4.18	1.18	9.91	15.27	30.00	14.73

(Reference data) [IEEE802.11b] Main antenna , 11Mbps

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	5.12	1.13	9.91	16.16	30.00	13.84
Mid	2437.0	5.72	1.09	9.91	16.72	30.00	13.28
High	2462.0	5.28	1.18	9.91	16.37	30.00	13.63

(Reference data) [IEEE802.11g] Main antenna , 6Mbps

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	4.70	1.13	9.91	15.74	30.00	14.26
Mid	2437.0	4.47	1.09	9.91	15.47	30.00	14.53
High	2462.0	4.15	1.18	9.91	15.24	30.00	14.76

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.

UL Apex Co., Ltd.

Head Office EMC Lab.

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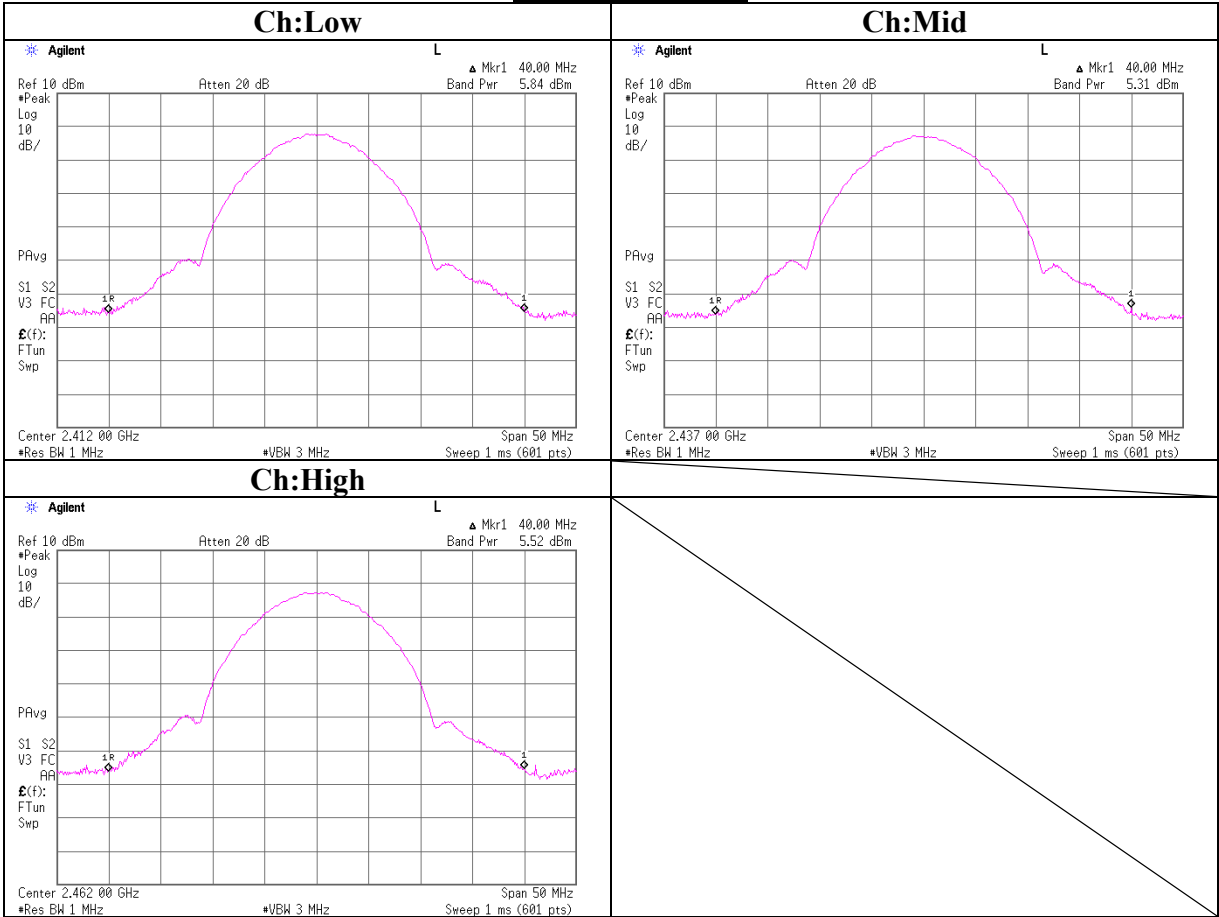
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(01.06.05)

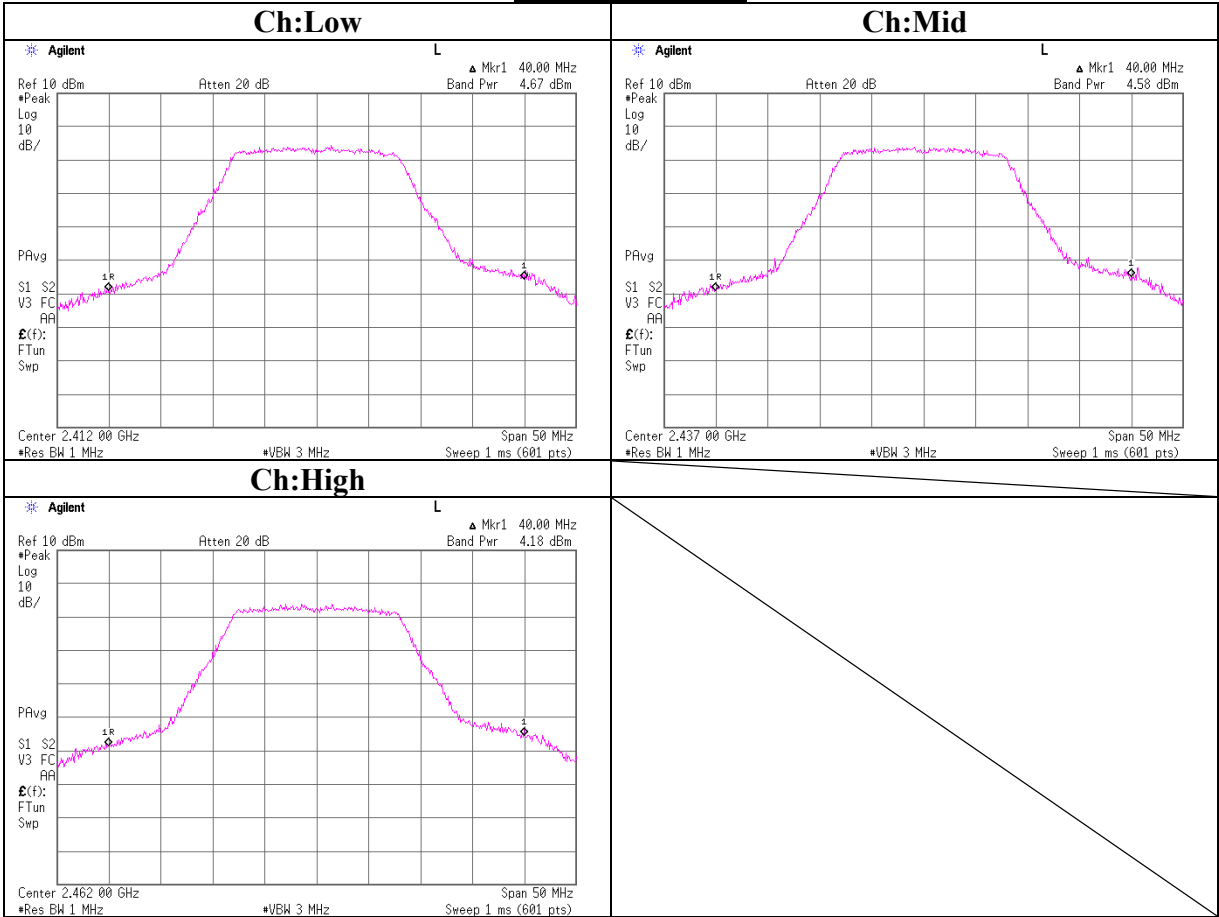
Maximum Peak OutPut Power (DSSS and other forms of modulation)

Aux antenna, 11b



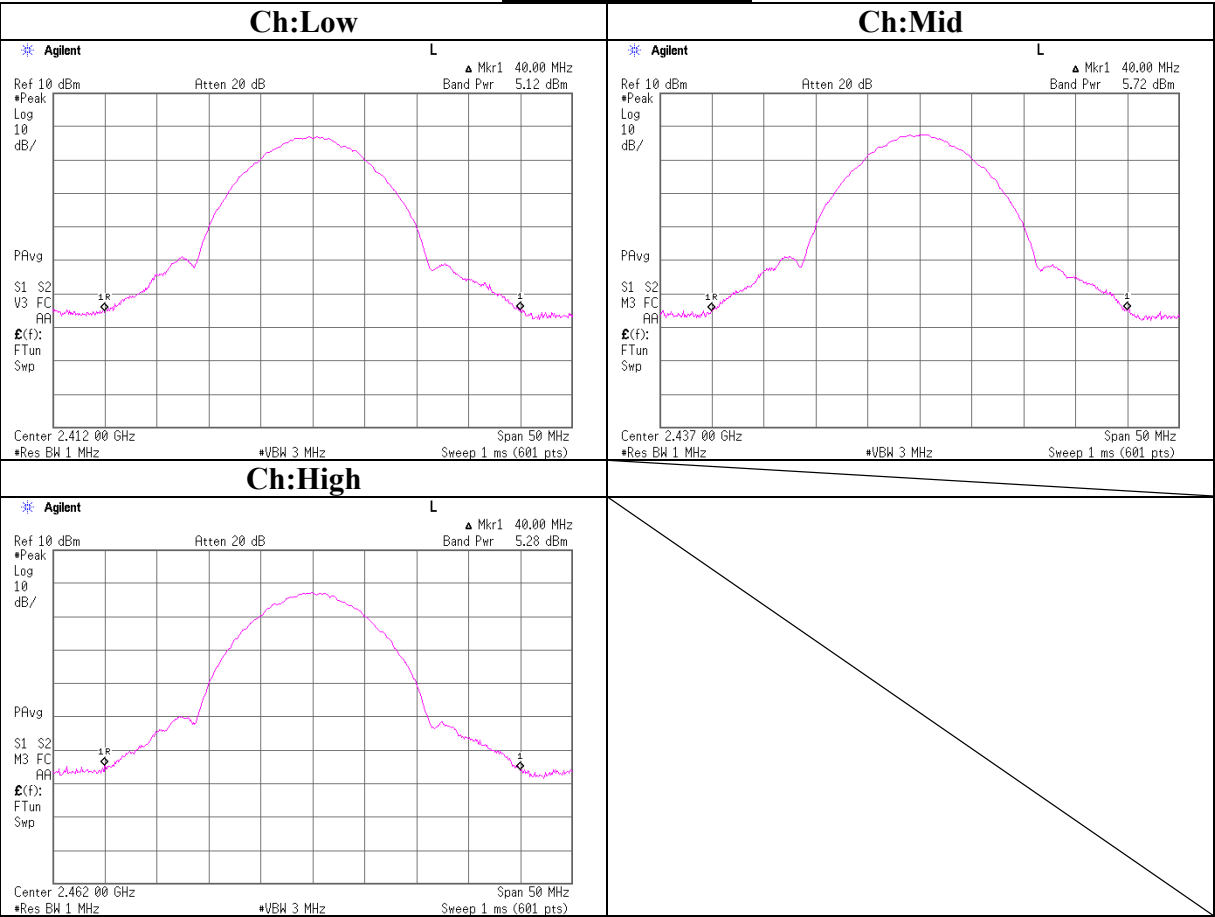
Maximum Peak OutPut Power (DSSS and other forms of modulation)

Aux antenna, 11g



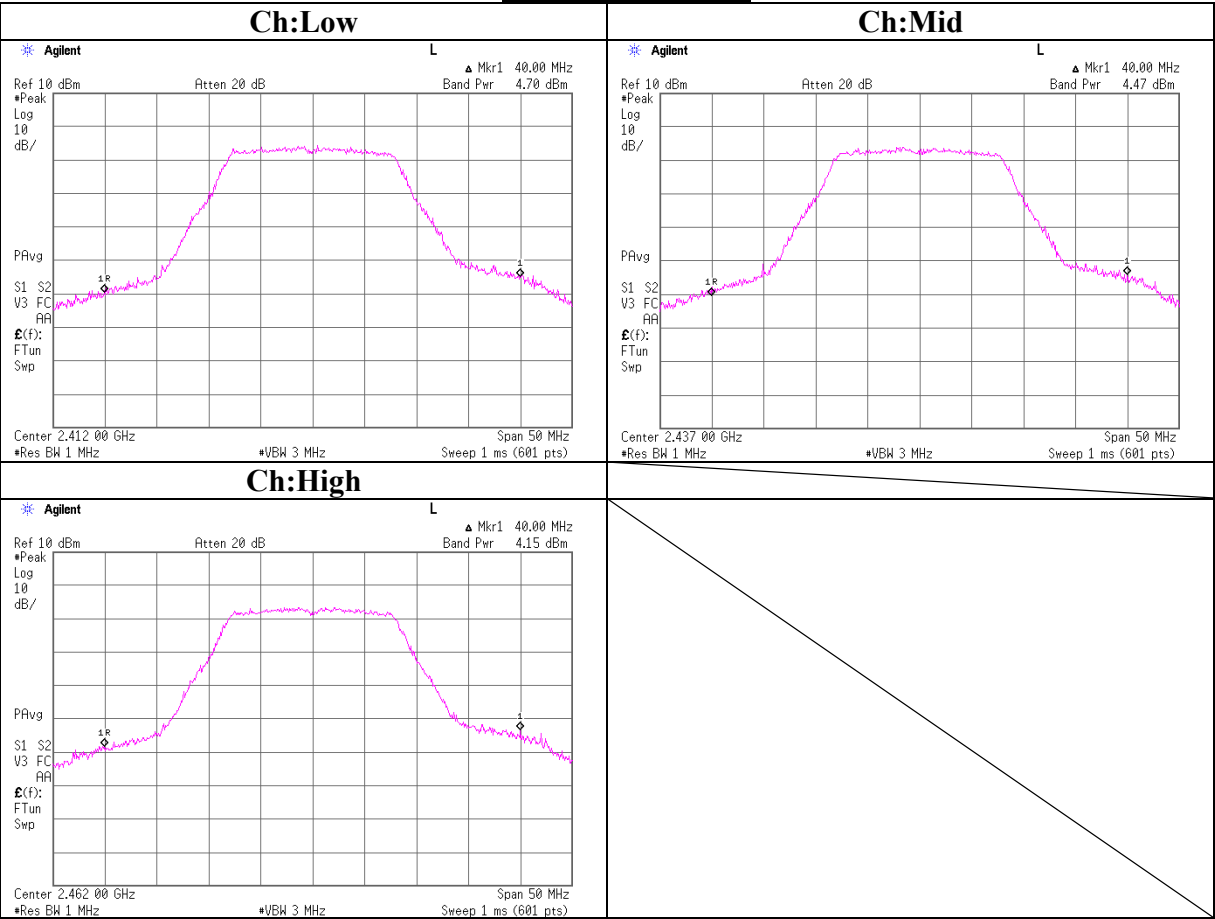
(Reference data)

Maximum Peak OutPut Power (DSSS and other forms of modulation)
Main antenna, 11b



(Reference data)

Maximum Peak OutPut Power (DSSS and other forms of modulation)
Main antenna, 11g



Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)
11b, Low ch.

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

DATA OF RADIATED EMISSION TEST

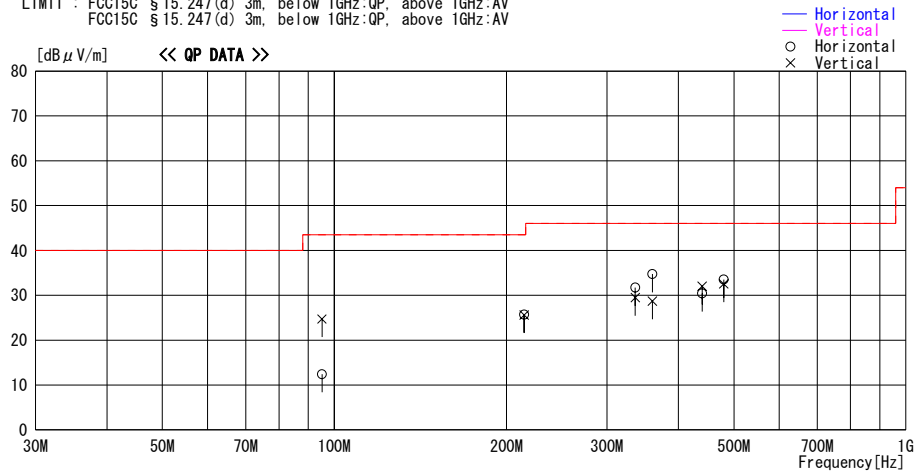
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.126	23.1	QP	9.3	-20.0	12.4	0	0	Hori.	43.5	31.1
95.126	35.4	QP	9.3	-20.0	24.7	0	100	Vert.	43.5	18.8
214.766	26.2	QP	17.2	-17.8	25.6	0	100	Vert.	43.5	17.9
214.766	26.3	QP	17.2	-17.8	25.7	306	100	Hori.	43.5	17.8
336.004	30.6	QP	15.9	-17.0	29.5	0	100	Vert.	46.0	16.5
336.004	32.8	QP	15.9	-17.0	31.7	271	100	Hori.	46.0	14.3
360.017	34.9	QP	16.8	-17.0	34.7	315	100	Hori.	46.0	11.3
360.017	28.9	QP	16.8	-17.0	28.7	0	100	Vert.	46.0	17.3
439.995	30.9	QP	18.3	-17.2	32.0	155	100	Vert.	46.0	14.0
439.995	29.3	QP	18.3	-17.2	30.4	0	100	Hori.	46.0	15.6
480.025	31.2	QP	18.5	-17.2	32.5	0	100	Vert.	46.0	13.5
480.025	32.2	QP	18.5	-17.2	33.5	86	100	Hori.	46.0	12.5

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)

11b, Mid ch.

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

DATA OF RADIATED EMISSION TEST

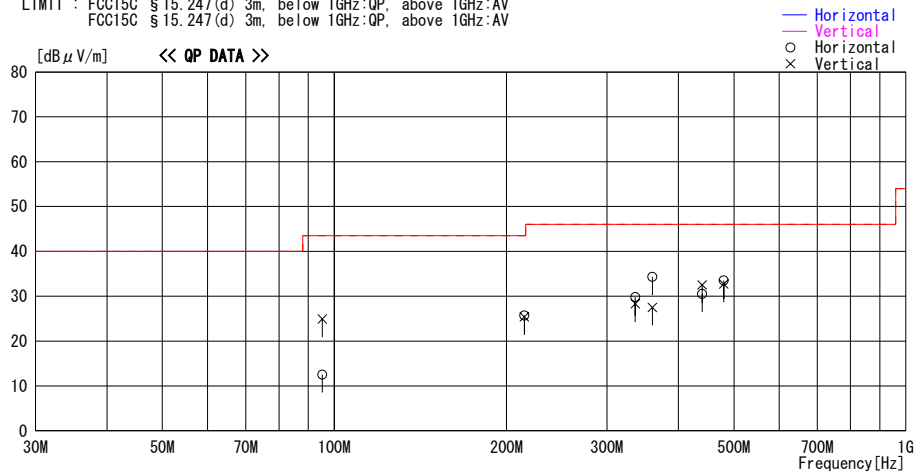
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.252	23.2	QP	9.3	-20.0	12.5	0	100	Hori.	43.5	31.0
95.252	35.6	QP	9.3	-20.0	24.9	0	100	Vert.	43.5	18.6
214.892	26.0	QP	17.2	-17.8	25.4	0	100	Vert.	43.5	18.1
214.892	26.3	QP	17.2	-17.8	25.7	279	100	Hori.	43.5	17.8
336.020	29.4	QP	15.9	-17.0	28.3	0	100	Vert.	46.0	17.7
336.020	30.9	QP	15.9	-17.0	29.8	164	100	Hori.	46.0	16.2
359.993	34.5	QP	16.8	-17.0	34.3	282	100	Hori.	46.0	11.7
359.993	27.7	QP	16.8	-17.0	27.5	0	100	Vert.	46.0	18.5
440.021	31.4	QP	18.3	-17.2	32.5	152	100	Vert.	46.0	13.5
440.021	29.4	QP	18.3	-17.2	30.5	0	100	Hori.	46.0	15.5
480.001	31.4	QP	18.5	-17.2	32.7	0	100	Vert.	46.0	13.3
480.001	32.2	QP	18.5	-17.2	33.5	90	100	Hori.	46.0	12.5

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)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(01.06.05)

Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)

11b, High ch.

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

DATA OF RADIATED EMISSION TEST

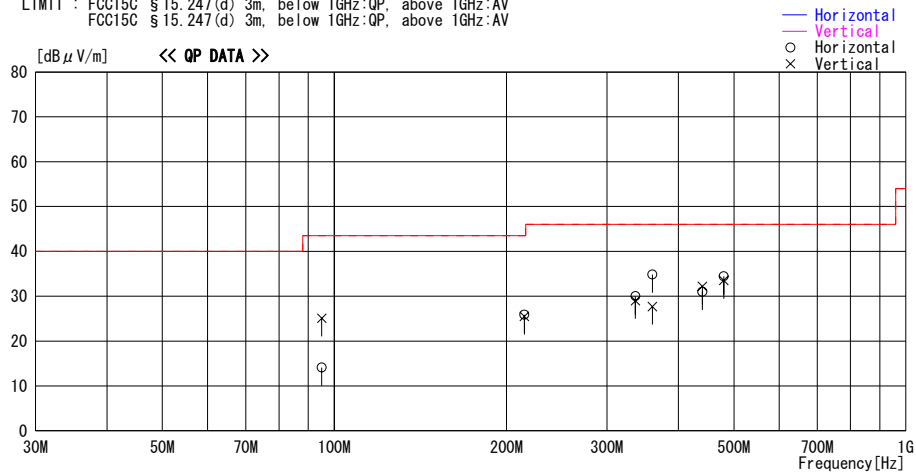
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.005	24.8	QP	9.3	-20.0	14.1	0	100	Hori.	43.5	29.4
95.005	35.8	QP	9.3	-20.0	25.1	0	100	Vert.	43.5	18.4
214.889	26.1	QP	17.2	-17.8	25.5	0	100	Vert.	43.5	18.0
214.889	26.5	QP	17.2	-17.8	25.9	303	100	Hori.	43.5	17.6
336.432	30.0	QP	16.0	-17.0	29.0	0	100	Vert.	46.0	17.0
336.432	31.0	QP	16.0	-17.0	30.0	187	100	Hori.	46.0	16.0
360.009	35.0	QP	16.8	-17.0	34.8	288	100	Hori.	46.0	11.2
360.009	27.9	QP	16.8	-17.0	27.7	0	100	Vert.	46.0	18.3
440.120	31.1	QP	18.3	-17.2	32.2	176	100	Vert.	46.0	13.8
440.120	29.9	QP	18.3	-17.2	31.0	0	100	Hori.	46.0	15.0
480.103	32.2	QP	18.5	-17.2	33.5	0	100	Vert.	46.0	12.5
480.103	33.1	QP	18.5	-17.2	34.4	87	100	Hori.	46.0	11.6

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(01.06.05)

Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)

11g, Low ch.

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

DATA OF RADIATED EMISSION TEST

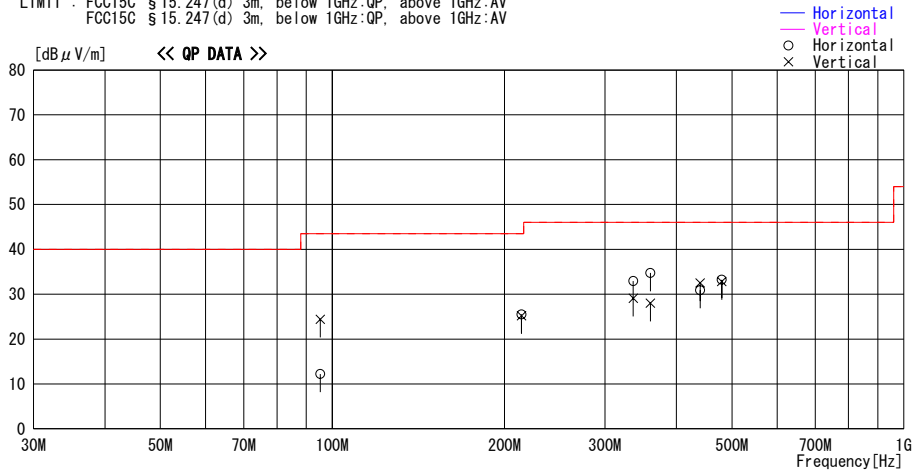
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.251	22.9	QP	9.3	-20.0	12.2	0	100	Hori.	43.5	31.3
95.251	35.1	QP	9.3	-20.0	24.4	0	100	Vert.	43.5	19.1
214.223	25.8	QP	17.2	-17.8	25.2	0	100	Vert.	43.5	18.3
214.223	26.1	QP	17.2	-17.8	25.5	260	100	Hori.	43.5	18.0
335.998	30.2	QP	15.9	-17.0	29.1	0	100	Vert.	46.0	16.9
335.998	34.0	QP	15.9	-17.0	32.9	103	100	Hori.	46.0	13.1
359.998	34.9	QP	16.8	-17.0	34.7	304	100	Hori.	46.0	11.3
359.998	28.2	QP	16.8	-17.0	28.0	0	100	Vert.	46.0	18.0
440.020	31.4	QP	18.3	-17.2	32.5	182	100	Vert.	46.0	13.5
440.020	29.8	QP	18.3	-17.2	30.9	0	100	Hori.	46.0	15.1
480.011	31.5	QP	18.5	-17.2	32.8	0	100	Vert.	46.0	13.2
480.011	31.9	QP	18.5	-17.2	33.2	76	100	Hori.	46.0	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)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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MF060b(01.06.05)

Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)

11g, Mid ch.

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

DATA OF RADIATED EMISSION TEST

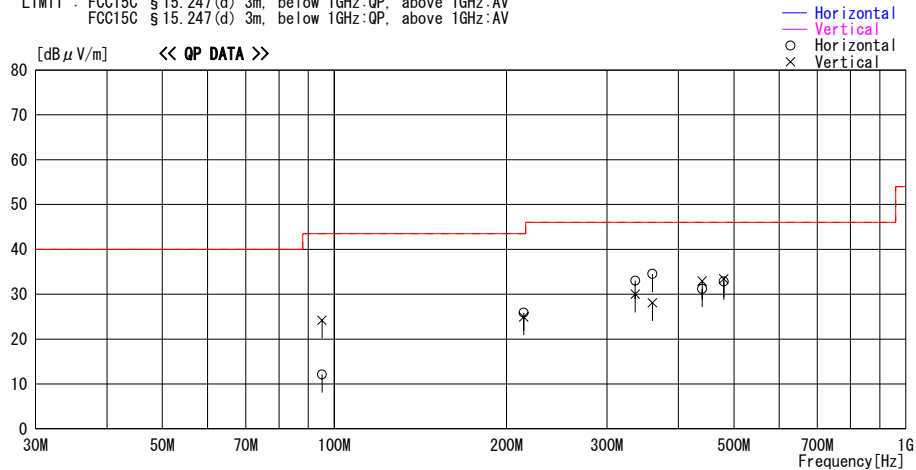
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.112	22.8	QP	9.3	-20.0	12.1	0	100	Hori.	43.5	31.4
95.112	34.9	QP	9.3	-20.0	24.2	0	100	Vert.	43.5	19.3
214.314	25.5	QP	17.2	-17.8	24.9	0	100	Vert.	43.5	18.6
214.314	26.5	QP	17.2	-17.8	25.9	277	100	Hori.	43.5	17.6
336.009	31.1	QP	15.9	-17.0	30.0	0	100	Vert.	46.0	16.0
336.009	34.1	QP	15.9	-17.0	33.0	114	100	Hori.	46.0	13.0
359.994	34.7	QP	16.8	-17.0	34.5	311	100	Hori.	46.0	11.5
359.994	28.3	QP	16.8	-17.0	28.1	0	100	Vert.	46.0	17.9
440.001	31.8	QP	18.3	-17.2	32.9	178	100	Vert.	46.0	13.1
440.001	30.1	QP	18.3	-17.2	31.2	0	100	Hori.	46.0	14.8
480.139	32.1	QP	18.5	-17.2	33.4	0	100	Vert.	46.0	12.6
480.139	31.5	QP	18.5	-17.2	32.8	91	100	Hori.	46.0	13.2

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

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MF060b(01.06.05)

Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)

11g, High ch.

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

DATA OF RADIATED EMISSION TEST

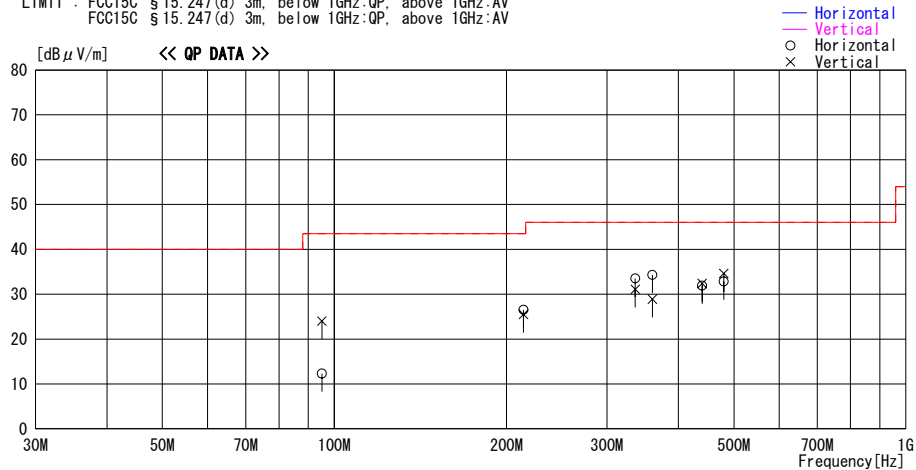
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss& Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.035	23.0	QP	9.3	-20.0	12.3	0	100	Hori.	43.5	31.2
95.035	34.7	QP	9.3	-20.0	24.0	0	100	Vert.	43.5	19.5
214.214	26.1	QP	17.2	-17.8	25.5	0	100	Vert.	43.5	18.0
214.214	27.1	QP	17.2	-17.8	26.5	253	100	Hori.	43.5	17.0
336.081	32.2	QP	15.9	-17.0	31.1	0	100	Vert.	46.0	14.9
336.081	34.6	QP	15.9	-17.0	33.5	109	100	Hori.	46.0	12.5
360.090	34.5	QP	16.8	-17.0	34.3	303	100	Hori.	46.0	11.7
360.090	29.1	QP	16.8	-17.0	28.9	0	100	Vert.	46.0	17.1
439.986	31.3	QP	18.3	-17.2	32.4	188	100	Vert.	46.0	13.6
439.986	30.8	QP	18.3	-17.2	31.9	0	100	Hori.	46.0	14.1
480.022	33.3	QP	18.5	-17.2	34.6	0	100	Vert.	46.0	11.4
480.022	31.5	QP	18.5	-17.2	32.8	76	100	Hori.	46.0	13.2

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Facsimile : +81 596 24 8124

MF060b(01.06.05)

Radiated Spurious Emission(DSSS and other forms of modulation)(below1GHz)

11g, Mid ch. + Bluetooth Hopping On

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

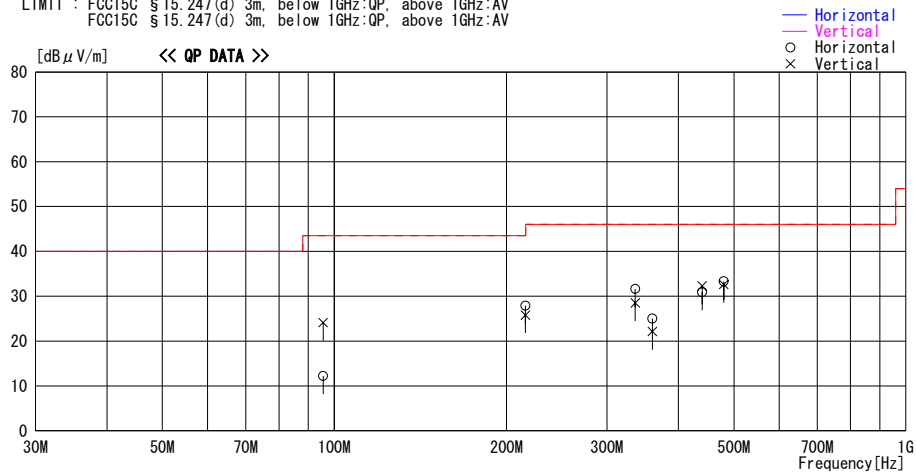
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/12 20:50:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Keiichi Aoki

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis
V:X-axis)
LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
95.576	22.8	QP	9.4	-20.0	12.2	0	100	Hori.	43.5	31.3
95.576	34.7	QP	9.4	-20.0	24.1	0	100	Vert.	43.5	19.4
215.952	26.4	QP	17.2	-17.8	25.8	0	100	Vert.	43.5	17.7
215.952	28.5	QP	17.2	-17.8	27.9	260	100	Hori.	43.5	15.6
336.025	29.6	QP	15.9	-17.0	28.5	0	100	Vert.	46.0	17.5
336.025	32.7	QP	15.9	-17.0	31.6	135	100	Hori.	46.0	14.4
360.100	25.2	QP	16.8	-17.0	25.0	208	100	Hori.	46.0	21.0
360.100	22.3	QP	16.8	-17.0	22.1	0	100	Vert.	46.0	23.9
440.016	31.2	QP	18.3	-17.2	32.3	169	100	Vert.	46.0	13.7
440.016	29.8	QP	18.3	-17.2	30.9	0	100	Hori.	46.0	15.1
480.005	31.3	QP	18.5	-17.2	32.6	0	100	Vert.	46.0	13.4
480.005	32.0	QP	18.5	-17.2	33.3	93	100	Hori.	46.0	12.7

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(01.06.05)

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, Low ch.

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

DATA OF RADIATED EMISSION TEST

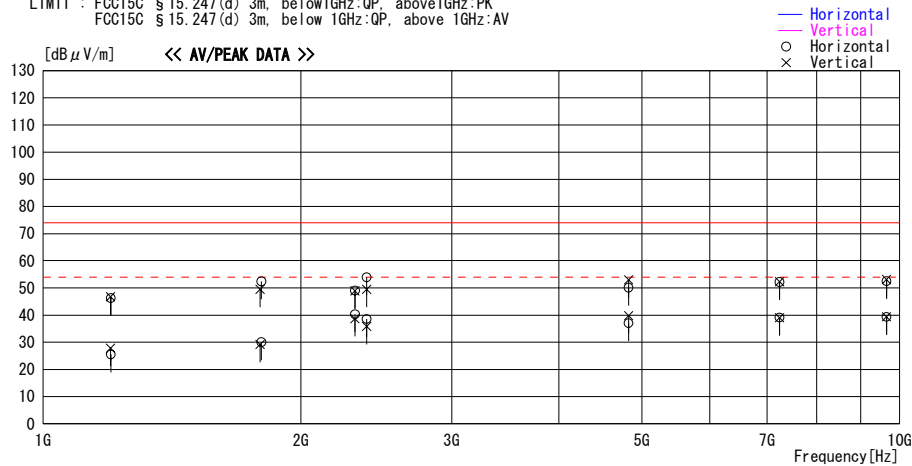
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 13:44:33

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
1198.976	58.7	PK	23.1	-35.0	46.8	0	100	Vert	74.0	27.2
1198.976	39.7	AV	23.1	-35.0	27.8	0	100	Vert	54.0	26.2
1199.271	58.2	PK	23.1	-35.0	46.3	175	110	Hori.	74.0	27.7
1199.271	37.4	AV	23.1	-35.0	25.5	175	110	Hori.	54.0	28.5
1791.822	55.4	PK	28.4	-34.3	49.5	0	100	Vert	74.0	24.5
1791.822	35.1	AV	28.4	-34.3	29.2	0	100	Vert	54.0	24.8
1798.474	58.2	PK	28.5	-34.3	52.4	175	110	Hori.	74.0	21.6
1798.474	35.8	AV	28.5	-34.3	30.0	175	110	Hori.	54.0	24.0
2312.003	51.9	PK	31.0	-33.9	49.0	200	140	Hori.	74.0	25.0
2312.003	43.2	AV	31.0	-33.9	40.3	200	140	Hori.	54.0	13.7
2312.084	51.8	PK	31.0	-33.9	48.9	180	140	Vert	74.0	25.1
2312.084	41.6	AV	31.0	-33.9	38.7	180	140	Vert	54.0	15.3
2384.844	56.8	PK	30.9	-33.8	53.9	200	140	Hori.	74.0	20.1
2384.844	41.4	AV	30.9	-33.8	38.5	200	140	Hori.	54.0	15.5
2385.271	52.4	PK	30.9	-33.8	49.5	180	140	Vert	74.0	24.5
2385.271	38.7	AV	30.9	-33.8	35.8	180	140	Vert	54.0	18.2
4824.058	49.1	PK	35.0	-31.1	53.0	350	110	Vert	74.0	21.0
4824.058	35.9	AV	35.0	-31.1	39.8	350	110	Vert	54.0	14.2
4824.079	33.1	AV	35.0	-31.1	37.0	340	145	Hori.	54.0	17.0
4824.079	46.2	PK	35.0	-31.1	50.1	340	145	Hori.	74.0	23.9
7236.000	45.5	PK	37.6	-30.8	52.3	0	100	Vert	74.0	21.7
7236.000	32.2	AV	37.6	-30.8	39.0	0	100	Vert	54.0	15.0

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz) 11b, Low ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 13:44:33

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
7236.000	32.3	AV	37.6	-30.8	39.1	0	100	Hori.	54.0	14.9
7236.000	45.4	PK	37.6	-30.8	52.2	0	100	Hori.	74.0	21.8
9648.147	33.7	AV	36.3	-30.6	39.4	70	110	Vert.	54.0	14.6
9648.147	47.4	PK	36.3	-30.6	53.1	70	110	Vert.	74.0	20.9
9648.232	46.8	PK	36.3	-30.6	52.5	310	105	Hori.	74.0	21.5
9648.232	33.6	AV	36.3	-30.6	39.3	310	105	Hori.	54.0	14.7

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

Company : Sony Corporation
Equipment : Personal Computer
Model : PCG-4F2L
Sample No. : XTA37
Power : AC 120V / 60Hz
Mode : IEEE802.11b, 11Mbps, Tx: ch.01
Aux-antenna
Remarks : EUT-max-axis (Hor.: Z, Ver.: X)

REPORT NO : 25KE0051-HO
REGULATION : Fcc Part15 Subpart C 15.247(d)
TEST DISTANCE : 3m
DATE : 07/07/2005
TEMPERATURE : 24deg.C
HUMIDITY : 60%
ENGINEER : Kenichi Adachi

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [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	2411.5	104.3	99.4	30.9	36.4	2.7	0.0	101.5	96.6	-	-	-
2	2400.0	65.2	62.6	30.9	36.4	2.6	0.0	62.3	59.7	Funda-20dB	19.2	16.9

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

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

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

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, Low ch.

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

DATA OF RADIATED EMISSION TEST

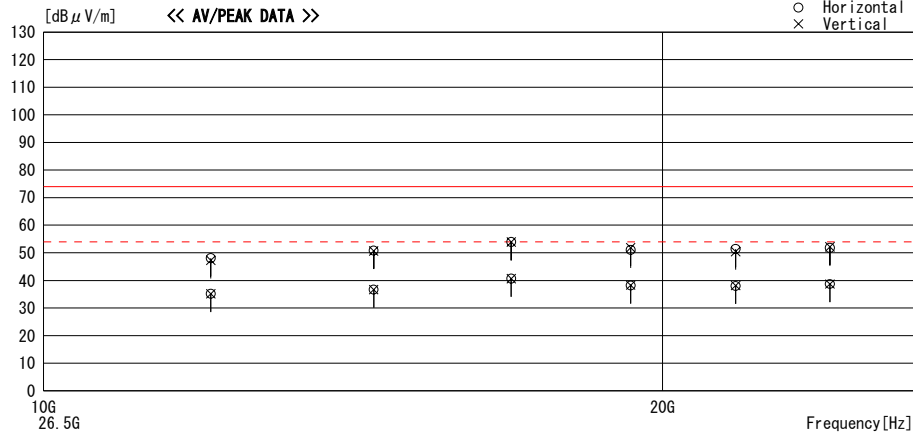
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 02:08:27

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dB μ V]		Factor	Gain	[dB μ V/m]	[Deg]	[cm]		[dB μ V/m]	[dB]
12060.000	45.4	PK	41.4	-38.8	48.0	0	100	Hori.	74.0	26.0
12060.000	44.7	PK	41.4	-38.8	47.3	0	100	Vert.	74.0	26.7
14472.000	46.3	PK	41.8	-37.3	50.8	0	100	Hori.	74.0	23.2
14472.000	46.2	PK	41.8	-37.3	50.7	0	100	Vert.	74.0	23.3
16884.000	45.6	PK	44.6	-36.3	53.9	0	100	Vert.	74.0	20.1
16884.000	45.6	PK	44.6	-36.3	53.9	0	100	Hori.	74.0	20.1
19296.000	46.1	PK	41.6	-35.9	51.8	0	100	Vert.	74.0	22.2
19296.000	45.4	PK	41.6	-35.9	51.1	0	100	Hori.	74.0	22.9
21708.000	47.0	PK	40.4	-36.0	51.4	0	100	Hori.	74.0	22.6
21708.000	46.0	PK	40.4	-36.0	50.4	0	100	Vert.	74.0	23.6
24120.000	47.7	PK	41.0	-36.9	51.8	0	100	Hori.	74.0	22.2
24120.000	48.1	PK	41.0	-36.9	52.2	0	100	Vert.	74.0	21.9
12060.000	32.5	AV	41.4	-38.8	35.1	0	100	Vert.	54.0	18.9
14472.000	32.1	AV	41.8	-37.3	36.6	0	100	Vert.	54.0	17.4
16884.000	32.4	AV	44.6	-36.3	40.7	0	100	Vert.	54.0	13.4
12060.000	32.6	AV	41.4	-38.8	35.2	0	100	Hori.	54.0	18.8
14472.000	32.2	AV	41.8	-37.3	36.7	0	100	Hori.	54.0	17.4
16884.000	32.3	AV	44.6	-36.3	40.6	0	100	Hori.	54.0	13.4
19296.000	32.5	AV	41.6	-35.9	38.2	0	100	Vert.	54.0	15.8
21708.000	33.8	AV	40.4	-36.0	38.2	0	100	Vert.	54.0	15.9
24120.000	34.6	AV	41.0	-36.9	38.7	0	100	Vert.	54.0	15.3
19296.000	32.4	AV	41.6	-35.9	38.1	0	100	Hori.	54.0	15.9

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, Low ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 02:08:27

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
21708.000	33.6	AV	40.4	-36.0	38.0	0	100	Hori.	54.0	16.0
24120.000	34.6	AV	41.0	-36.9	38.7	0	100	Hori.	54.0	15.3

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, Mid ch.

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

DATA OF RADIATED EMISSION TEST

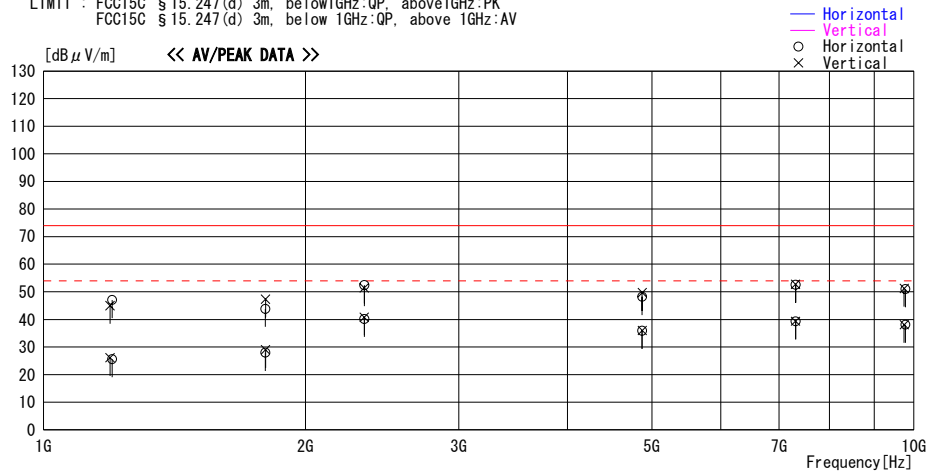
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 19:15:33

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBμV]		Factor	Gain	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
1199.188	59.0	PK	23.1	-35.0	47.1	180	100	Hori.	74.0	26.9
1192.384	57.0	PK	23.0	-35.0	45.0	0	100	Vert.	74.0	29.0
1798.884	53.1	PK	28.6	-34.3	47.4	270	150	Vert.	74.0	26.6
1798.593	49.6	PK	28.5	-34.3	43.8	180	150	Hori.	74.0	30.2
2336.065	54.2	PK	31.0	-33.8	51.4	45	150	Vert.	74.0	22.6
2336.175	55.2	PK	31.0	-33.8	52.4	270	150	Hori.	74.0	21.6
4874.000	44.0	PK	35.3	-31.1	48.2	0	100	Hori.	74.0	25.8
4874.000	45.5	PK	35.3	-31.1	49.7	0	100	Vert.	74.0	24.3
7311.000	45.6	PK	37.7	-30.7	52.6	0	100	Hori.	74.0	21.4
7311.000	45.7	PK	37.7	-30.7	52.7	0	100	Vert.	74.0	21.3
9748.000	45.6	PK	36.2	-30.6	51.2	0	100	Vert.	74.0	22.8
9779.627	45.3	PK	36.2	-30.5	51.0	0	100	Hori.	74.0	23.0
1192.384	38.1	AV	23.0	-35.0	26.1	0	100	Vert.	54.0	27.9
1798.884	34.7	AV	28.6	-34.3	29.0	270	150	Vert.	54.0	25.0
2336.065	43.6	AV	31.0	-33.8	40.8	45	150	Vert.	54.0	13.2
1199.188	37.6	AV	23.1	-35.0	25.7	180	100	Hori.	54.0	28.4
1798.593	33.8	AV	28.5	-34.3	28.0	180	150	Hori.	54.0	26.1
2336.175	43.0	AV	31.0	-33.8	40.2	270	150	Hori.	54.0	13.8
4874.000	31.7	AV	35.3	-31.1	35.9	0	100	Hori.	54.0	18.1
7311.000	32.3	AV	37.7	-30.7	39.3	0	100	Hori.	54.0	14.7
9779.627	32.4	AV	36.2	-30.5	38.1	0	100	Hori.	54.0	15.9
4874.000	31.8	AV	35.3	-31.1	36.0	0	100	Vert.	54.0	18.0

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz) **11b, Mid ch.**

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 19:15:33

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
7311.000	32.4	AV	37.7	-30.7	39.4	0	100	Vert.	54.0	14.6
9748.000	32.5	AV	36.2	-30.6	38.1	0	100	Vert.	54.0	16.0

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, Mid ch.

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

DATA OF RADIATED EMISSION TEST

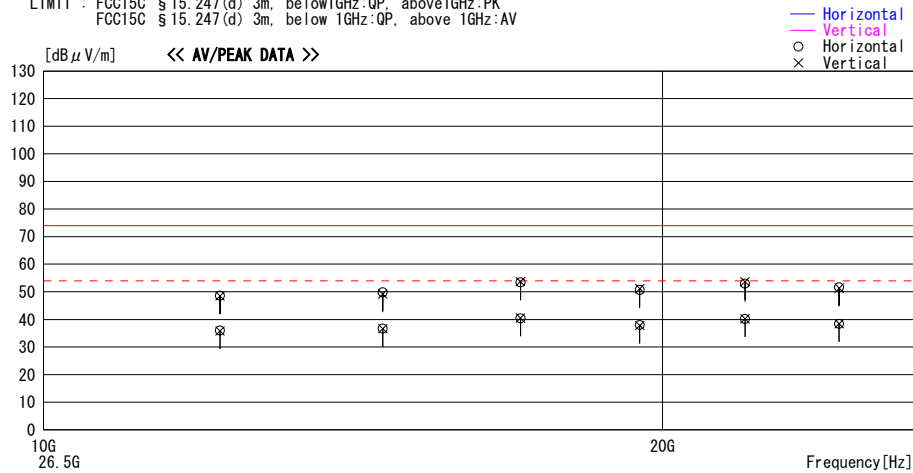
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 01:41:49

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dB μ V]		Factor	Gain	[dB μ V/m]	[Deg]	[cm]		[dB μ V/m]	[dB]
12185.000	45.7	PK	41.5	-38.6	48.6	0	100	Hori.	74.0	25.4
12185.000	45.6	PK	41.5	-38.6	48.5	0	100	Vert.	74.0	25.5
14622.000	45.4	PK	42.1	-37.7	49.8	0	100	Hori.	74.0	24.2
14622.000	44.8	PK	42.1	-37.7	49.2	0	100	Vert.	74.0	24.8
17059.000	45.3	PK	44.6	-36.2	53.7	0	100	Vert.	74.0	20.3
17059.000	45.0	PK	44.6	-36.2	53.4	0	100	Hori.	74.0	20.6
19496.000	45.7	PK	41.4	-36.0	51.1	0	100	Vert.	74.0	22.9
19496.000	45.3	PK	41.4	-36.0	50.7	0	100	Hori.	74.0	23.3
21933.000	48.7	PK	40.5	-35.5	53.7	0	100	Vert.	74.0	20.4
21933.000	48.0	PK	40.5	-35.5	53.0	0	100	Hori.	74.0	21.0
24370.000	47.1	PK	41.1	-36.9	51.3	0	100	Vert.	74.0	22.7
24370.000	47.4	PK	41.1	-36.9	51.6	0	100	Hori.	74.0	22.4
12185.000	32.9	AV	41.5	-38.6	35.8	0	100	Vert.	54.0	18.2
14622.000	32.2	AV	42.1	-37.7	36.6	0	100	Vert.	54.0	17.4
17059.000	32.1	AV	44.6	-36.2	40.5	0	100	Vert.	54.0	13.5
12185.000	33.0	AV	41.5	-38.6	35.9	0	100	Hori.	54.0	18.1
14622.000	32.2	AV	42.1	-37.7	36.6	0	100	Hori.	54.0	17.4
17059.000	32.0	AV	44.6	-36.2	40.4	0	100	Hori.	54.0	13.6
19496.000	32.6	AV	41.4	-36.0	38.0	0	100	Hori.	54.0	16.1
21933.000	35.2	AV	40.5	-35.5	40.2	0	100	Hori.	54.0	13.8
24370.000	34.2	AV	41.1	-36.9	38.4	0	100	Hori.	54.0	15.6
19496.000	32.4	AV	41.4	-36.0	37.8	0	100	Vert.	54.0	16.2

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz) **11b, Mid ch.**

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 01:41:49

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
21933.000	35.2	AV	40.5	-35.5	40.2	0	100	Vert.	54.0	13.8
24370.000	34.3	AV	41.1	-36.9	38.5	0	100	Vert.	54.0	15.5

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, High ch.

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

DATA OF RADIATED EMISSION TEST

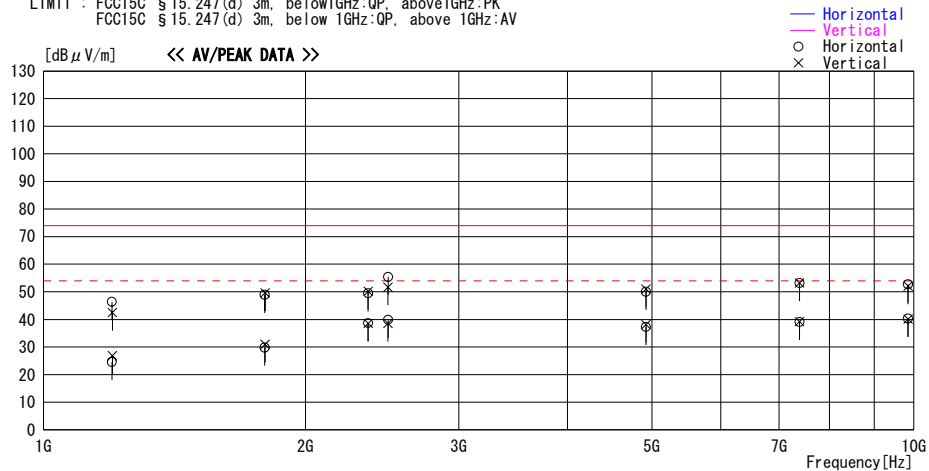
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 17:47:17

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBμV]		Factor	Gain	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
1197.980	58.3	PK	23.1	-35.0	46.4	180	102	Hori.	74.0	27.6
1197.980	36.5	AV	23.1	-35.0	24.6	180	102	Hori.	54.0	29.4
1199.729	54.4	PK	23.1	-35.0	42.5	180	100	Vert.	74.0	31.5
1199.729	38.8	AV	23.1	-35.0	26.9	180	100	Vert.	54.0	27.1
1795.234	54.7	PK	28.5	-34.3	48.9	180	102	Hori.	74.0	25.1
1795.234	35.6	AV	28.5	-34.3	29.8	180	102	Hori.	54.0	24.2
1797.151	55.4	PK	28.5	-34.3	49.6	180	100	Vert.	74.0	24.4
1797.151	36.8	AV	28.5	-34.3	31.0	180	100	Vert.	54.0	23.0
2359.748	52.3	PK	31.0	-33.8	49.5	200	140	Hori.	74.0	24.5
2359.748	41.5	AV	31.0	-33.8	38.7	200	140	Hori.	54.0	15.3
2360.189	53.0	PK	31.0	-33.8	50.2	170	140	Vert.	74.0	23.8
2360.189	41.3	AV	31.0	-33.8	38.5	170	140	Vert.	54.0	15.5
2487.686	54.8	PK	30.8	-33.9	51.7	170	140	Vert.	74.0	22.3
2487.686	41.6	AV	30.8	-33.9	38.5	170	140	Vert.	54.0	15.5
2487.922	58.5	PK	30.8	-33.9	55.4	200	140	Hori.	74.0	18.6
2487.922	43.0	AV	30.8	-33.9	39.9	200	140	Hori.	54.0	14.1
4923.986	46.3	PK	35.6	-30.9	51.0	310	130	Vert.	74.0	23.0
4923.986	33.5	AV	35.6	-30.9	38.2	310	130	Vert.	54.0	15.9
4923.988	45.3	PK	35.6	-30.9	50.0	330	145	Hori.	74.0	24.0
4923.988	32.6	AV	35.6	-30.9	37.3	330	145	Hori.	54.0	16.7
7386.000	46.0	PK	37.8	-30.6	53.2	0	100	Hori.	74.0	20.8
7386.000	31.9	AV	37.8	-30.6	39.1	0	100	Hori.	54.0	14.9

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, High ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 17:47:17

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
7386.000	46.0	PK	37.8	-30.6	53.2	0	100	Vert.	74.0	20.8
7386.000	32.0	AV	37.8	-30.6	39.2	0	100	Vert.	54.0	14.8
9847.974	46.2	PK	36.2	-30.3	52.1	310	130	Vert.	74.0	21.9
9847.974	34.2	AV	36.2	-30.3	40.1	310	130	Vert.	54.0	13.9
9848.329	46.8	PK	36.2	-30.3	52.7	310	150	Hori.	74.0	21.3
9848.329	34.4	AV	36.2	-30.3	40.3	310	150	Hori.	54.0	13.7

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, High ch.

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

DATA OF RADIATED EMISSION TEST

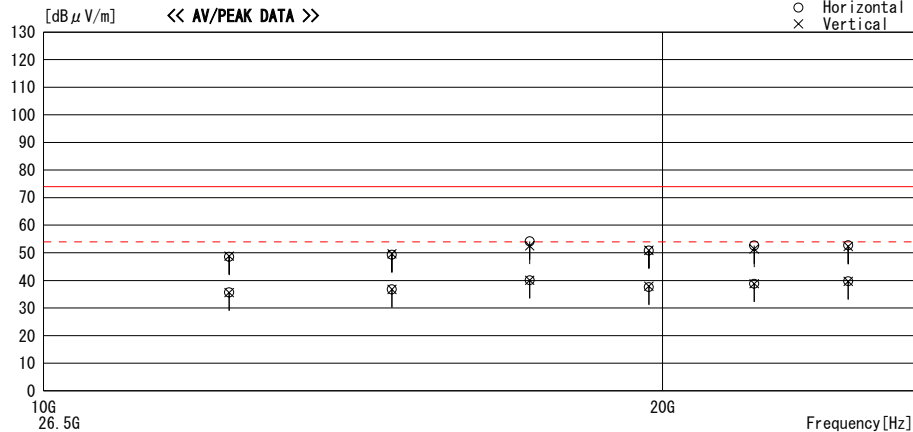
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 01:18:10

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dB μ V]		[dB/m]	[dB]	[dB μ V/m]	[Deg]	[cm]		[dB μ V/m]	[dB]
12310.000	45.4	PK	41.5	-38.4	48.5	0	100	Hori.	74.0	25.5
12310.000	45.7	PK	41.5	-38.4	48.8	0	100	Vert.	74.0	25.2
14772.000	45.1	PK	42.4	-37.8	49.7	0	100	Vert.	74.0	24.4
14772.000	44.7	PK	42.4	-37.8	49.3	0	100	Hori.	74.0	24.7
17234.000	46.0	PK	44.5	-36.4	54.1	0	100	Hori.	74.0	19.9
17234.000	44.4	PK	44.5	-36.4	52.5	0	100	Vert.	74.0	21.5
19696.000	45.8	PK	41.2	-36.2	50.8	0	100	Hori.	74.0	23.2
19696.000	45.9	PK	41.2	-36.2	50.9	0	100	Vert.	74.0	23.1
22158.000	47.6	PK	40.5	-35.4	52.7	0	100	Hori.	74.0	21.4
22158.000	46.3	PK	40.5	-35.4	51.4	0	100	Vert.	74.0	22.6
24620.000	47.6	PK	41.1	-36.4	52.3	0	100	Vert.	74.0	21.7
24620.000	48.0	PK	41.1	-36.4	52.7	0	100	Hori.	74.0	21.3
12310.000	32.5	AV	41.5	-38.4	35.6	0	100	Vert.	54.0	18.4
14772.000	32.1	AV	42.4	-37.8	36.7	0	100	Vert.	54.0	17.3
17234.000	31.9	AV	44.5	-36.4	40.0	0	100	Vert.	54.0	14.0
12310.000	32.5	AV	41.5	-38.4	35.6	0	100	Hori.	54.0	18.4
14772.000	32.2	AV	42.4	-37.8	36.8	0	100	Hori.	54.0	17.3
17234.000	31.9	AV	44.5	-36.4	40.0	0	100	Hori.	54.0	14.0
19696.000	32.6	AV	41.2	-36.2	37.6	0	100	Hori.	54.0	16.4
22158.000	33.7	AV	40.5	-35.4	38.8	0	100	Hori.	54.0	15.2
24620.000	35.0	AV	41.1	-36.4	39.7	0	100	Hori.	54.0	14.3
19696.000	32.9	AV	41.2	-36.2	37.9	0	100	Vert.	54.0	16.1

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11b, High ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 01:18:10

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11b, 11Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
22158.000	33.7	AV	40.5	-35.4	38.8	0	100	Vert.	54.0	15.2
24620.000	35.0	AV	41.1	-36.4	39.7	0	100	Vert.	54.0	14.3

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Low ch.

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

DATA OF RADIATED EMISSION TEST

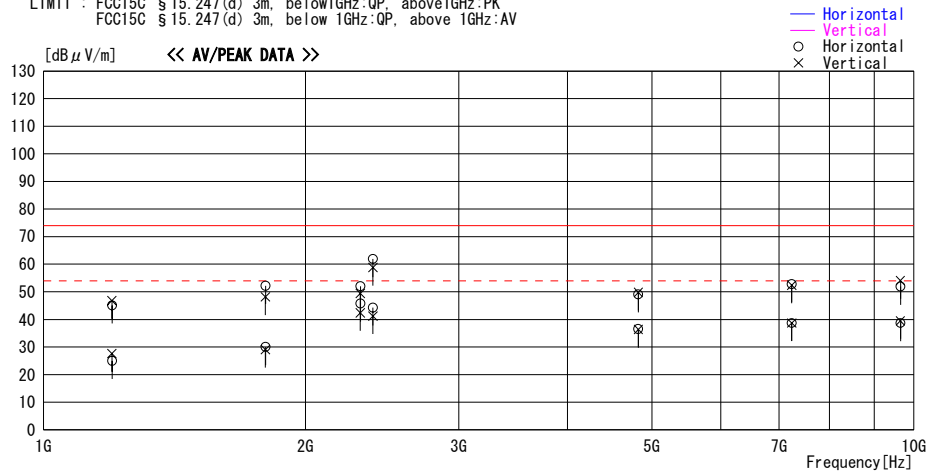
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 15:07:41

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBμV]		Factor	Gain	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
1198.306	58.7	PK	23.1	-35.0	46.8	0	100	Vert.	74.0	27.2
1198.306	39.5	AV	23.1	-35.0	27.6	0	100	Vert.	54.0	26.4
1199.150	57.0	PK	23.1	-35.0	45.1	175	105	Hori.	74.0	28.9
1199.150	36.9	AV	23.1	-35.0	25.0	175	105	Hori.	54.0	29.0
1798.473	54.0	PK	28.5	-34.3	48.2	190	100	Vert.	74.0	25.8
1798.473	34.9	AV	28.5	-34.3	29.1	190	100	Vert.	54.0	24.9
1798.882	57.9	PK	28.6	-34.3	52.2	175	105	Hori.	74.0	21.8
1798.882	35.7	AV	28.6	-34.3	30.0	175	105	Hori.	54.0	24.0
2311.708	52.3	PK	31.0	-33.9	49.4	190	140	Vert.	74.0	24.6
2311.708	45.3	AV	31.0	-33.9	42.4	190	140	Vert.	54.0	11.6
2311.888	54.9	PK	31.0	-33.9	52.0	190	110	Hori.	74.0	22.0
2311.888	48.7	AV	31.0	-33.9	45.8	190	110	Hori.	54.0	8.2
2389.774	61.7	PK	30.9	-33.8	58.8	190	140	Vert.	74.0	15.2
2389.774	44.1	AV	30.9	-33.8	41.2	190	140	Vert.	54.0	12.8
2389.774	64.8	PK	30.9	-33.8	61.9	190	110	Hori.	74.0	12.1
2389.774	47.2	AV	30.9	-33.8	44.3	190	110	Hori.	54.0	9.7
4823.985	45.9	PK	35.0	-31.1	49.8	300	115	Vert.	74.0	24.2
4823.985	32.4	AV	35.0	-31.1	36.3	300	115	Vert.	54.0	17.7
4823.988	45.2	PK	35.0	-31.1	49.1	330	130	Hori.	74.0	24.9
4823.988	32.6	AV	35.0	-31.1	36.5	330	130	Hori.	54.0	17.5
7236.000	45.6	PK	37.6	-30.8	52.4	0	100	Vert.	74.0	21.6
7236.000	31.9	AV	37.6	-30.8	38.7	0	100	Vert.	54.0	15.3

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz) 11g, Low ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 15:07:41

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
7236.000	46.0	PK	37.6	-30.8	52.8	0	100	Hori.	74.0	21.2
7236.000	31.9	AV	37.6	-30.8	38.7	0	100	Hori.	54.0	15.3
9647.977	48.4	PK	36.3	-30.6	54.1	300	150	Vert.	74.0	19.9
9647.977	33.8	AV	36.3	-30.6	39.5	300	150	Vert.	54.0	14.5
9647.977	46.2	PK	36.3	-30.6	51.9	340	100	Hori.	74.0	22.1
9647.977	33.0	AV	36.3	-30.6	38.7	340	100	Hori.	54.0	15.3

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

Company : Sony Corporation
Equipment : Personal Computer
Model : PCG-4F2L
Sample No. : XTA37
Power : AC 120V / 60Hz
Mode : IEEE802.11g, 6Mbps, Tx: ch.01
Aux-antenna
Remarks : EUT-max-axis (Hor.: Z, Ver.: X)
REPORT NO : 25KE0051-HO
REGULATION : Fcc Part15 Subpart C 15.247(d)
TEST DISTANCE : 3m
DATE : 07/07/2005
TEMPERATURE : 24deg.C
HUMIDITY : 60%
ENGINEER : Kenichi Adachi

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dBr/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [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	2413.3	99.0	95.4	30.9	36.4	2.7	0.0	96.2	92.6	-	-	-
2	2400.0	65.4	65.0	30.9	36.4	2.6	0.0	62.5	62.1	Funda-20dB	13.7	10.5

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

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

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

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Low ch.

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

DATA OF RADIATED EMISSION TEST

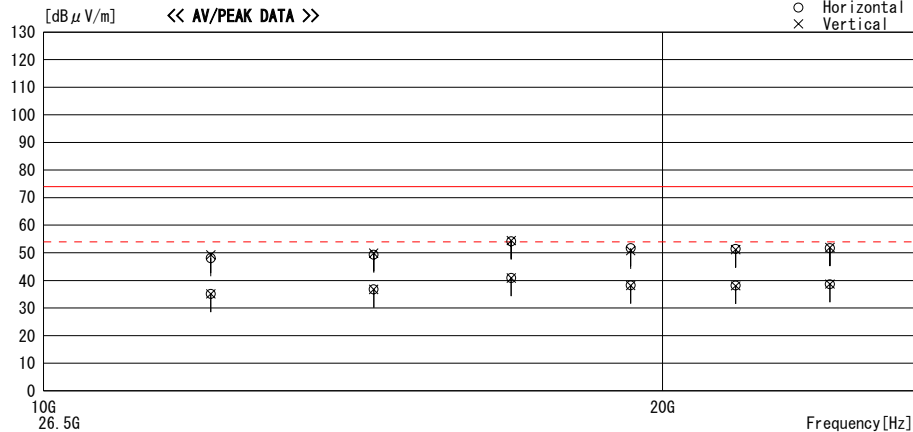
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 23:49:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss& Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
12060.000	45.5	PK	41.4	-38.8	48.1	0	100	Hori.	74.0	25.9
12060.000	46.7	PK	41.4	-38.8	49.3	0	100	Vert.	74.0	24.7
14472.000	44.8	PK	41.8	-37.3	49.3	0	100	Hori.	74.0	24.7
14472.000	45.4	PK	41.8	-37.3	49.9	0	100	Vert.	74.0	24.1
16884.000	46.1	PK	44.6	-36.3	54.4	0	100	Vert.	74.0	19.6
16884.000	45.8	PK	44.6	-36.3	54.1	0	100	Hori.	74.0	19.9
19296.000	46.0	PK	41.6	-35.9	51.7	0	100	Hori.	74.0	22.3
19296.000	45.1	PK	41.6	-35.9	50.8	0	100	Vert.	74.0	23.2
21708.000	46.7	PK	40.4	-36.0	51.1	0	100	Vert.	74.0	22.9
21708.000	47.0	PK	40.4	-36.0	51.4	0	100	Hori.	74.0	22.6
24120.000	47.6	PK	41.0	-36.9	51.7	0	100	Hori.	74.0	22.3
24120.000	47.8	PK	41.0	-36.9	51.9	0	100	Vert.	74.0	22.1
12060.000	32.5	AV	41.4	-38.8	35.1	0	100	Vert.	54.0	18.9
14472.000	32.2	AV	41.8	-37.3	36.7	0	100	Vert.	54.0	17.3
16884.000	32.6	AV	44.6	-36.3	40.9	0	100	Vert.	54.0	13.1
12060.000	32.5	AV	41.4	-38.8	35.1	0	100	Hori.	54.0	18.9
14472.000	32.2	AV	41.8	-37.3	36.7	0	100	Hori.	54.0	17.3
16884.000	32.6	AV	44.6	-36.3	40.9	0	100	Hori.	54.0	13.1
19296.000	32.5	AV	41.6	-35.9	38.2	0	100	Hori.	54.0	15.8
21708.000	33.7	AV	40.4	-36.0	38.1	0	100	Hori.	54.0	15.9
24120.000	34.6	AV	41.0	-36.9	38.7	0	100	Hori.	54.0	15.4
19296.000	32.4	AV	41.6	-35.9	38.1	0	100	Vert.	54.0	15.9

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz) **11g, Low ch.**

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 23:49:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2412MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
21708.000	33.6	AV	40.4	-36.0	38.0	0	100	Vert.	54.0	16.0
24120.000	34.6	AV	41.0	-36.9	38.7	0	100	Vert.	54.0	15.3

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch.

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

DATA OF RADIATED EMISSION TEST

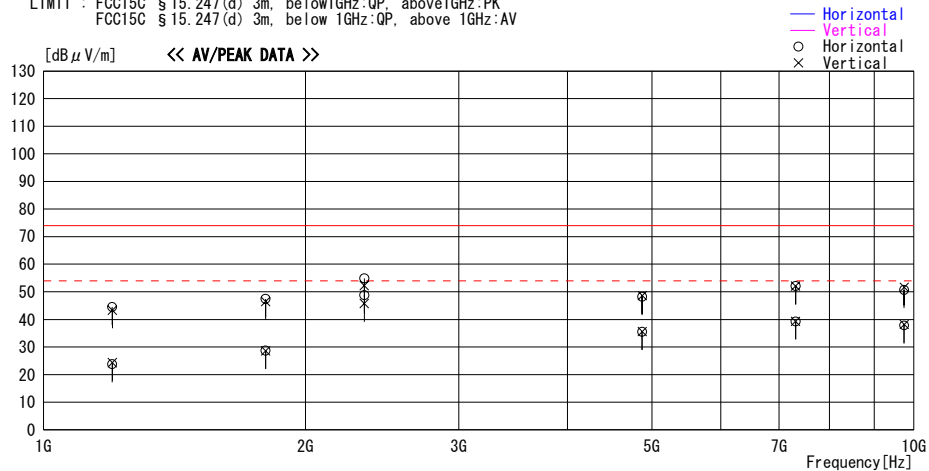
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 20:04:02

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss& Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
1198.917	56.4	PK	23.1	-35.0	44.5	180	150	Hori.	74.0	29.5
1199.553	55.2	PK	23.1	-35.0	43.3	45	150	Vert.	74.0	30.7
1799.535	52.2	PK	28.6	-34.3	46.5	270	150	Vert.	74.0	27.5
1799.074	53.2	PK	28.6	-34.3	47.5	180	150	Hori.	74.0	26.5
2336.060	57.6	PK	31.0	-33.8	54.8	200	150	Hori.	74.0	19.2
2336.002	55.1	PK	31.0	-33.8	52.3	45	150	Vert.	74.0	21.7
4874.000	44.0	PK	35.3	-31.1	48.2	0	100	Hori.	74.0	25.8
4874.000	44.5	PK	35.3	-31.1	48.7	0	100	Vert.	74.0	25.3
7311.000	45.1	PK	37.7	-30.7	52.1	0	100	Hori.	74.0	21.9
7311.000	45.1	PK	37.7	-30.7	52.1	0	100	Vert.	74.0	21.9
9748.000	45.1	PK	36.2	-30.6	50.7	0	100	Hori.	74.0	23.3
9748.000	46.0	PK	36.2	-30.6	51.6	0	100	Vert.	74.0	22.4
1199.553	36.3	AV	23.1	-35.0	24.4	45	150	Vert.	54.0	29.6
1799.535	34.3	AV	28.6	-34.3	28.6	270	150	Vert.	54.0	25.4
2336.002	48.6	AV	31.0	-33.8	45.8	45	150	Vert.	54.0	8.2
1198.917	35.7	AV	23.1	-35.0	23.8	180	150	Hori.	54.0	30.2
1799.074	34.4	AV	28.6	-34.3	28.7	180	150	Hori.	54.0	25.3
2336.060	51.6	AV	31.0	-33.8	48.8	200	150	Hori.	54.0	5.2
4874.000	31.3	AV	35.3	-31.1	35.5	0	100	Hori.	54.0	18.6
7311.000	32.3	AV	37.7	-30.7	39.3	0	100	Hori.	54.0	14.7
9748.000	32.4	AV	36.2	-30.8	37.8	0	100	Hori.	54.0	16.2
4874.000	31.4	AV	35.3	-31.1	35.6	0	100	Vert.	54.0	18.4

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 20:04:02

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
7311.000	32.3	AV	37.7	-30.7	39.3	0	100	Vert.	54.0	14.7
9748.000	32.6	AV	36.2	-30.6	38.2	0	100	Vert.	54.0	15.8

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch.

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

DATA OF RADIATED EMISSION TEST

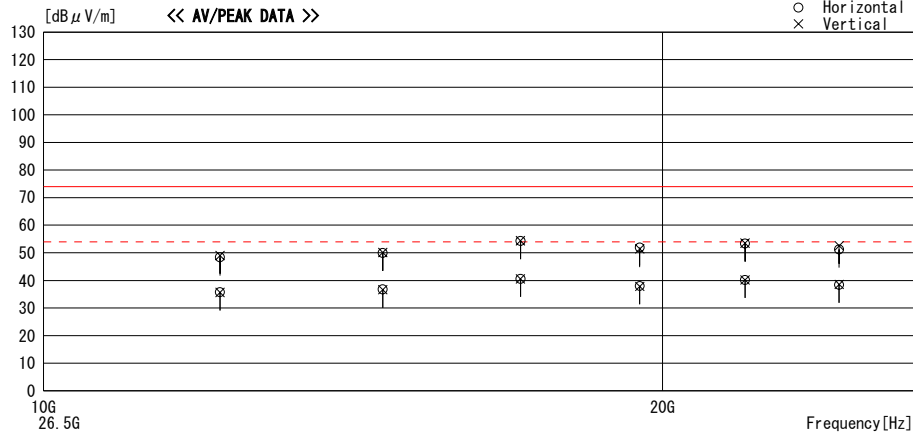
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 23:22:25

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit		Margin
			Factor	Loss& Gain					[dBμV/m]	[dB]	
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]				
12185.000	46.1	PK	41.5	-38.6	49.0	0	100	Vert.	74.0	25.0	
12185.000	45.4	PK	41.5	-38.6	48.3	0	100	Hori.	74.0	25.7	
14622.000	45.6	PK	42.1	-37.7	50.0	0	100	Hori.	74.0	24.0	
14622.000	45.7	PK	42.1	-37.7	50.1	0	100	Vert.	74.0	23.9	
17059.000	46.0	PK	44.6	-36.2	54.4	0	100	Vert.	74.0	19.7	
17059.000	45.9	PK	44.6	-36.2	54.3	0	100	Hori.	74.0	19.7	
19496.000	46.6	PK	41.4	-36.0	52.0	0	100	Hori.	74.0	22.1	
19496.000	46.0	PK	41.4	-36.0	51.4	0	100	Vert.	74.0	22.6	
21933.000	48.5	PK	40.5	-35.5	53.5	0	100	Vert.	74.0	20.5	
21933.000	48.3	PK	40.5	-35.5	53.3	0	100	Hori.	74.0	20.7	
24370.000	47.0	PK	41.1	-36.9	51.2	0	100	Hori.	74.0	22.8	
24370.000	48.4	PK	41.1	-36.9	52.6	0	100	Vert.	74.0	21.4	
12185.000	32.7	AV	41.5	-38.6	35.6	0	100	Vert.	54.0	18.4	
14622.000	32.2	AV	42.1	-37.7	36.6	0	100	Vert.	54.0	17.4	
17059.000	32.2	AV	44.6	-36.2	40.6	0	100	Vert.	54.0	13.4	
12185.000	32.8	AV	41.5	-38.6	35.7	0	100	Hori.	54.0	18.3	
14622.000	32.3	AV	42.1	-37.7	36.7	0	100	Hori.	54.0	17.3	
17059.000	32.2	AV	44.6	-36.2	40.6	0	100	Hori.	54.0	13.4	
19496.000	32.6	AV	41.4	-36.0	38.0	0	100	Hori.	54.0	16.0	
21933.000	35.2	AV	40.5	-35.5	40.2	0	100	Hori.	54.0	13.8	
24370.000	34.2	AV	41.1	-36.9	38.4	0	100	Hori.	54.0	15.6	
19496.000	32.4	AV	41.4	-36.0	37.8	0	100	Vert.	54.0	16.2	

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 23:22:25

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37
Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
21933.000	35.2	AV	40.5	-35.5	40.2	0	100	Vert.	54.0	13.8
24370.000	34.3	AV	41.1	-36.9	38.5	0	100	Vert.	54.0	15.5

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, High ch.

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

DATA OF RADIATED EMISSION TEST

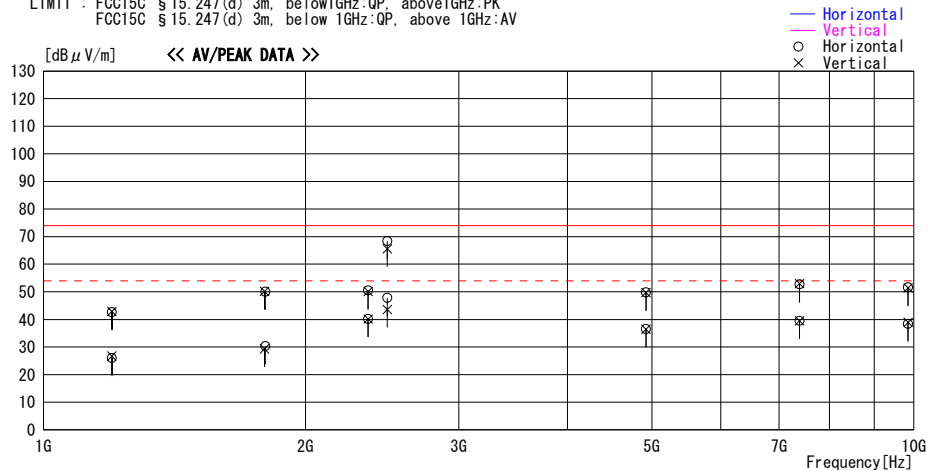
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 16:51:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg.C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBμV]		Factor	Gain	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
1198.337	54.8	PK	23.1	-35.0	42.9	180	105	Vert.	74.0	31.1
1198.337	38.6	AV	23.1	-35.0	26.7	180	105	Vert.	54.0	27.3
1198.383	54.5	PK	23.1	-35.0	42.6	170	105	Hori.	74.0	31.4
1198.383	37.9	AV	23.1	-35.0	26.0	170	105	Hori.	54.0	28.0
1794.357	56.0	PK	28.5	-34.3	50.2	180	105	Vert.	74.0	23.8
1794.357	35.1	AV	28.5	-34.3	29.3	180	105	Vert.	54.0	24.7
1798.000	55.8	PK	28.5	-34.3	50.0	170	105	Hori.	74.0	24.0
1798.000	36.1	AV	28.5	-34.3	30.3	170	105	Hori.	54.0	23.7
2359.896	53.3	PK	31.0	-33.8	50.5	200	140	Hori.	74.0	23.5
2359.896	43.0	AV	31.0	-33.8	40.2	200	140	Hori.	54.0	13.8
2359.936	52.9	PK	31.0	-33.8	50.1	170	140	Vert.	74.0	23.9
2359.936	43.0	AV	31.0	-33.8	40.2	170	140	Vert.	54.0	13.8
2483.502	68.7	PK	30.8	-33.9	65.6	170	140	Vert.	74.0	8.4
2483.502	46.7	AV	30.8	-33.9	43.6	170	140	Vert.	54.0	10.4
2483.693	71.5	PK	30.8	-33.9	68.4	200	140	Hori.	74.0	5.6
2483.693	50.9	AV	30.8	-33.9	47.8	200	140	Hori.	54.0	6.2
4923.992	46.1	PK	35.6	-31.9	49.8	310	120	Hori.	74.0	24.2
4923.992	32.8	AV	35.6	-31.9	36.5	310	120	Hori.	54.0	17.5
4924.013	46.0	PK	35.6	-31.9	49.7	330	140	Vert.	74.0	24.3
4924.013	32.7	AV	35.6	-31.9	36.4	330	140	Vert.	54.0	17.6
7386.000	45.5	PK	37.8	-30.6	52.7	0	100	Hori.	74.0	21.3
7386.000	32.3	AV	37.8	-30.6	39.5	0	100	Hori.	54.0	14.5

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, High ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 16:51:06

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
7386.001	45.8	PK	37.8	-30.6	53.0	0	100	Vert.	74.0	21.0
7386.001	32.3	AV	37.8	-30.6	39.5	0	100	Vert.	54.0	14.5
9847.974	45.7	PK	36.2	-30.3	51.6	330	100	Hori.	74.0	22.4
9847.974	32.5	AV	36.2	-30.3	38.4	330	100	Hori.	54.0	15.6
9847.974	45.5	PK	36.2	-30.3	51.4	300	150	Vert.	74.0	22.6
9847.974	33.0	AV	36.2	-30.3	38.9	300	150	Vert.	54.0	15.1

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, High ch.

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

DATA OF RADIATED EMISSION TEST

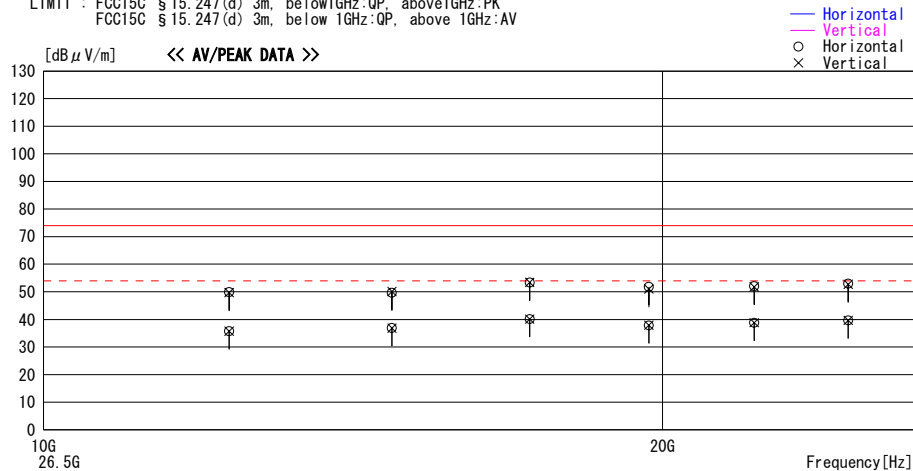
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 00:39:52

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
			Factor								
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]			[dBuV/m]	[dB]
12310.000	46.8	PK	41.5	-38.4	49.9	0	100	Hori.		74.0	24.1
12310.000	46.6	PK	41.5	-38.4	49.7	0	100	Vert.		74.0	24.3
14772.000	45.5	PK	42.4	-37.8	50.1	0	100	Vert.		74.0	23.9
14772.000	45.1	PK	42.4	-37.8	49.7	0	100	Hori.		74.0	24.4
17234.000	45.2	PK	44.5	-36.4	53.3	0	100	Hori.		74.0	20.7
17234.000	45.3	PK	44.5	-36.4	53.4	0	100	Vert.		74.0	20.6
19696.000	46.0	PK	41.2	-36.2	51.0	0	100	Vert.		74.0	23.0
19696.000	46.7	PK	41.2	-36.2	51.7	0	100	Hori.		74.0	22.3
22158.000	46.9	PK	40.5	-35.4	52.0	0	100	Hori.		74.0	22.0
22158.000	46.7	PK	40.5	-35.4	51.8	0	100	Vert.		74.0	22.2
24620.000	48.0	PK	41.1	-36.4	52.7	0	100	Vert.		74.0	21.3
24620.000	48.3	PK	41.1	-36.4	53.0	0	100	Hori.		74.0	21.0
12310.000	32.6	AV	41.5	-38.4	35.7	0	100	Vert.		54.0	18.3
14772.000	32.2	AV	42.4	-37.8	36.8	0	100	Vert.		54.0	17.2
17234.000	32.0	AV	44.5	-36.4	40.1	0	100	Vert.		54.0	13.9
12310.000	32.6	AV	41.5	-38.4	35.7	0	100	Hori.		54.0	18.3
14772.000	32.3	AV	42.4	-37.8	36.9	0	100	Hori.		54.0	17.1
17234.000	32.0	AV	44.5	-36.4	40.1	0	100	Hori.		54.0	13.9
19696.000	32.8	AV	41.2	-36.2	37.8	0	100	Hori.		54.0	16.2
22158.000	33.7	AV	40.5	-35.4	38.8	0	100	Hori.		54.0	15.2
24620.000	35.0	AV	41.1	-36.4	39.7	0	100	Hori.		54.0	14.3
19696.000	32.9	AV	41.2	-36.2	37.9	0	100	Vert.		54.0	16.1

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, High ch.

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/08 00:39:52

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2462MHz, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
22158.000	33.7	AV	40.5	-35.4	38.8	0	100	Vert.	54.0	15.2
24620.000	35.0	AV	41.1	-36.4	39.7	0	100	Vert.	54.0	14.3

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch. + Bluetooth Hopping On

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

DATA OF RADIATED EMISSION TEST

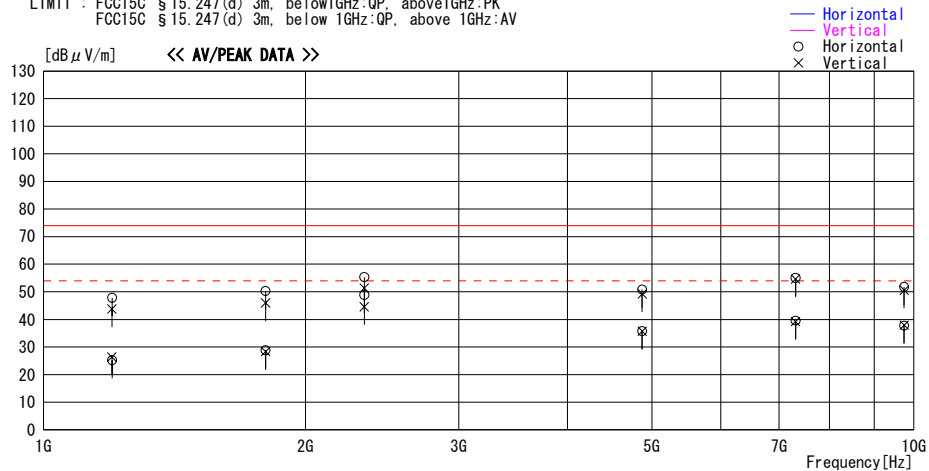
UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 20:58:24

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis
V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss & Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
1198.361	55.7	PK	23.1	-35.0	43.8	0	150	Vert.	74.0	30.2
1198.361	38.3	AV	23.1	-35.0	26.4	0	150	Vert.	54.0	27.6
1199.253	59.8	PK	23.1	-35.0	47.9	180	130	Hori.	74.0	26.2
1199.253	37.1	AV	23.1	-35.0	25.2	180	130	Hori.	54.0	28.8
1799.000	56.0	PK	28.6	-34.3	50.3	180	150	Hori.	74.0	23.8
1799.000	34.5	AV	28.6	-34.3	28.8	180	150	Hori.	54.0	25.2
1799.401	51.7	PK	28.6	-34.3	46.0	280	150	Vert.	74.0	28.0
1799.401	34.0	AV	28.6	-34.3	28.3	280	150	Vert.	54.0	25.7
2335.975	58.2	PK	31.0	-33.8	55.4	200	130	Hori.	74.0	18.7
2335.975	51.7	AV	31.0	-33.8	48.9	200	130	Hori.	54.0	5.2
2336.012	47.4	AV	31.0	-33.8	44.6	0	150	Vert.	54.0	9.4
2336.012	54.1	PK	31.0	-33.8	51.3	0	150	Vert.	74.0	22.7
4874.000	45.1	PK	35.3	-31.1	49.3	0	100	Vert.	74.0	24.8
4874.000	46.6	PK	35.3	-31.1	50.8	0	100	Hori.	74.0	23.2
4874.000	31.5	AV	35.3	-31.1	35.7	0	100	Hori.	54.0	18.3
4874.000	31.5	AV	35.3	-31.1	35.7	0	100	Vert.	54.0	18.3
7311.000	48.0	PK	37.7	-30.7	55.0	0	100	Hori.	74.0	19.0
7311.000	47.6	PK	37.7	-30.7	54.6	0	100	Vert.	74.0	19.4
7311.000	32.5	AV	37.7	-30.7	39.5	0	100	Hori.	54.0	14.5
7311.000	32.2	AV	37.7	-30.7	39.2	0	100	Vert.	54.0	14.8
9748.000	46.1	PK	36.2	-30.6	51.7	0	100	Hori.	74.0	22.3
9748.000	32.2	AV	36.2	-30.6	37.8	0	100	Hori.	54.0	16.3

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch. + Bluetooth Hopping On

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 20:58:24

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis
V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
9748.000	45.0	PK	36.2	-30.6	50.6	0	100	Vert.	74.0	23.4
9748.000	32.4	AV	36.2	-30.6	38.0	0	100	Vert.	54.0	16.0

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch. + Bluetooth Hopping On

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

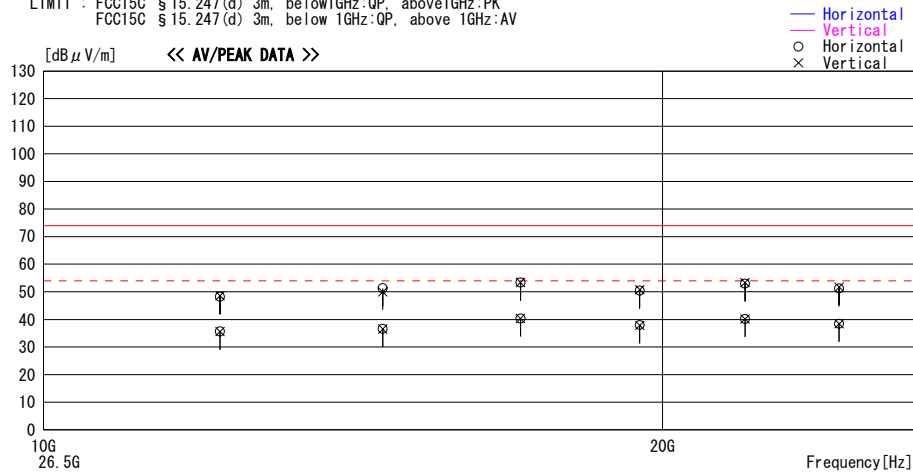
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 22:48:01

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis
V:X-axis)
LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
12185.000	45.3	PK	41.5	-38.6	48.2	0	100	Hori.	74.0	25.8
12185.000	45.7	PK	41.5	-38.6	48.6	0	100	Vert.	74.0	25.4
14622.000	45.6	PK	42.1	-37.7	50.0	0	100	Vert.	74.0	24.0
14622.000	46.9	PK	42.1	-37.7	51.3	0	100	Hori.	74.0	22.7
17059.000	45.1	PK	44.6	-36.2	53.5	0	100	Vert.	74.0	20.5
17059.000	44.9	PK	44.6	-36.2	53.3	0	100	Hori.	74.0	20.7
19496.000	45.0	PK	41.4	-36.0	50.4	0	100	Hori.	74.0	23.6
19496.000	45.4	PK	41.4	-36.0	50.8	0	100	Vert.	74.0	23.2
21933.000	47.9	PK	40.5	-35.5	52.9	0	100	Hori.	74.0	21.1
21933.000	48.3	PK	40.5	-35.5	53.3	0	100	Vert.	74.0	20.7
24370.000	47.0	PK	41.1	-36.9	51.2	0	100	Hori.	74.0	22.8
24370.000	47.5	PK	41.1	-36.9	51.7	0	100	Vert.	74.0	22.3
12185.000	32.7	AV	41.5	-38.6	35.6	0	100	Vert.	54.0	18.4
14622.000	32.1	AV	42.1	-37.7	36.5	0	100	Vert.	54.0	17.5
17059.000	31.9	AV	44.6	-36.2	40.3	0	100	Vert.	54.0	13.7
12185.000	32.7	AV	41.5	-38.6	35.6	0	100	Hori.	54.0	18.4
14622.000	32.1	AV	42.1	-37.7	36.5	0	100	Hori.	54.0	17.5
17059.000	32.0	AV	44.6	-36.2	40.4	0	100	Hori.	54.0	13.6
19496.000	32.5	AV	41.4	-36.0	37.9	0	100	Hori.	54.0	16.1
21933.000	35.2	AV	40.5	-35.5	40.2	0	100	Hori.	54.0	13.8
24370.000	34.3	AV	41.1	-36.9	38.5	0	100	Hori.	54.0	15.6
19496.000	32.4	AV	41.4	-36.0	37.8	0	100	Vert.	54.0	16.2

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(DSSS and other forms of modulation)(above1GHz)
11g, Mid ch. + Bluetooth Hopping On

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 22:48:01

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis
V:X-axis)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
21933.000	35.2	AV	40.5	-35.5	40.2	0	100	Vert.	54.0	13.8
24370.000	34.2	AV	41.1	-36.9	38.4	0	100	Vert.	54.0	15.6

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(Band edge Compliance)(above1GHz)
11g, Low ch. + Bluetooth Hopping Off Tx2402MHz

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

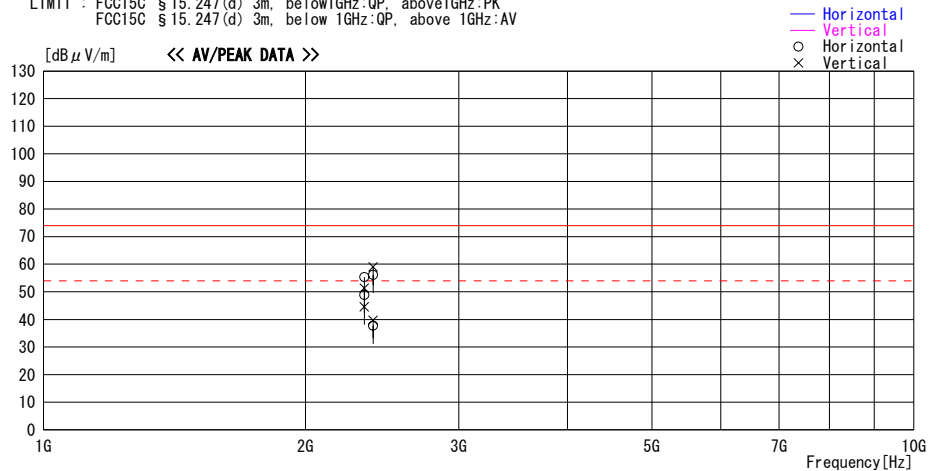
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 20:58:24

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth(ch1) Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)
LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dB μ V]	DET	Antenna	Loss&	Level [dB μ V/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin
			Factor [dB/m]	Gain [dB]					[dB μ V/m]	[dB]
2335.975	58.2	PK	31.0	-33.8	55.4	200	130	Hori.	74.0	18.7
2335.975	51.7	AV	31.0	-33.8	48.9	200	130	Hori.	54.0	5.2
2336.012	47.4	AV	31.0	-33.8	44.6	0	150	Vert.	54.0	9.4
2336.012	54.1	PK	31.0	-33.8	51.3	0	150	Vert.	74.0	22.7
2390.000	59.0	PK	30.9	-33.8	56.1	180	150	Hori.	74.0	17.9
2390.000	61.9	PK	30.9	-33.8	59.0	0	150	Vert.	74.0	15.0
2390.000	42.7	AV	30.9	-33.8	39.8	0	150	Vert.	54.0	14.2
2390.000	40.5	AV	30.9	-33.8	37.6	180	150	Hori.	54.0	16.4

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)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission(Band edge Compliance)(above1GHz)
11g, Low ch. + Bluetooth Hopping Off Tx2402MHz

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

Company	: Sony Corporation	REPORT NO	: 25KE0051-HO
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: PCG-4F2L	TEST DISTANCE	: 3m
Sample No.	: XTA37	DATE	: 07/07/2005
Power	: AC 120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: IEEE802.11g, 6Mbps, Tx: ch.01, Aux-antenna + Bluetooth Tx: ch01(2402MHz)	HUMIDITY	: 60%
Remarks	: EUT-max-axis (Hor.: Z, Ver.: X)	ENGINEER	: Kenichi Adachi

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
		[dBuV]										
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	99.4	94.9	30.9	36.4	2.7	0.0	96.6	92.1	-	-	-
2	2400.0	65.9	63.7	30.9	36.4	2.6	0.0	63.0	60.8	Funda-20dB	13.6	11.3

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

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

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

Radiated Spurious Emission(Band edge Compliance)(above1GHz)
11g, High ch. + Bluetooth Hopping Off Tx2480MHz

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

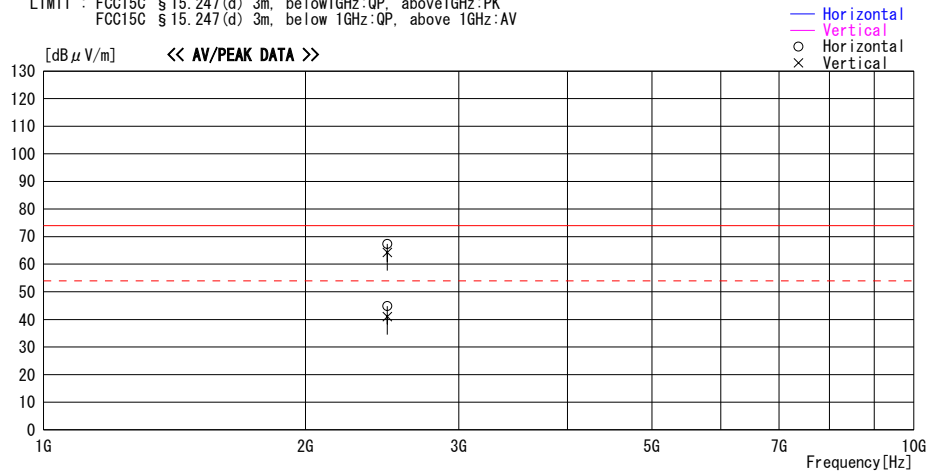
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/07/07 20:58:24

Applicant : Sony Corporation
Kind of EUT : Personal Computer
Model No. : PCG-4F2L
Serial No. : XTA37

Report No. : 25KE0051-HO
Power : AC 120V / 60Hz
Temp./Humi. : 24deg. C / 60%
Operator : Kenichi Adachi

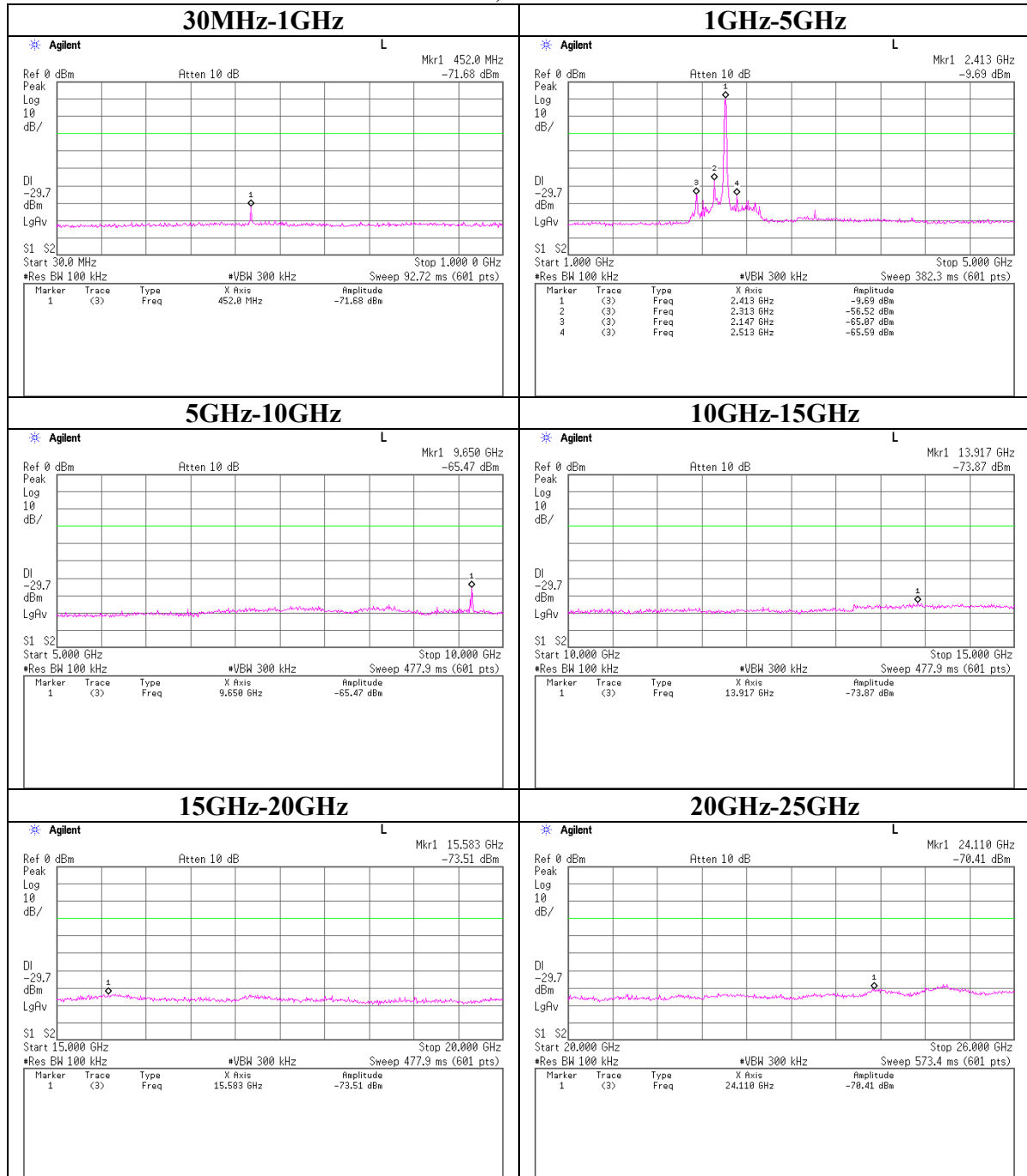
Mode / Remarks : IEEE 802.11g, 6Mbps, Tx 2437MHz + Bluetooth(ch11) Hopping On, Aux-antenna, EUT-max-axis(H:Z-axis V:X-axis)
LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



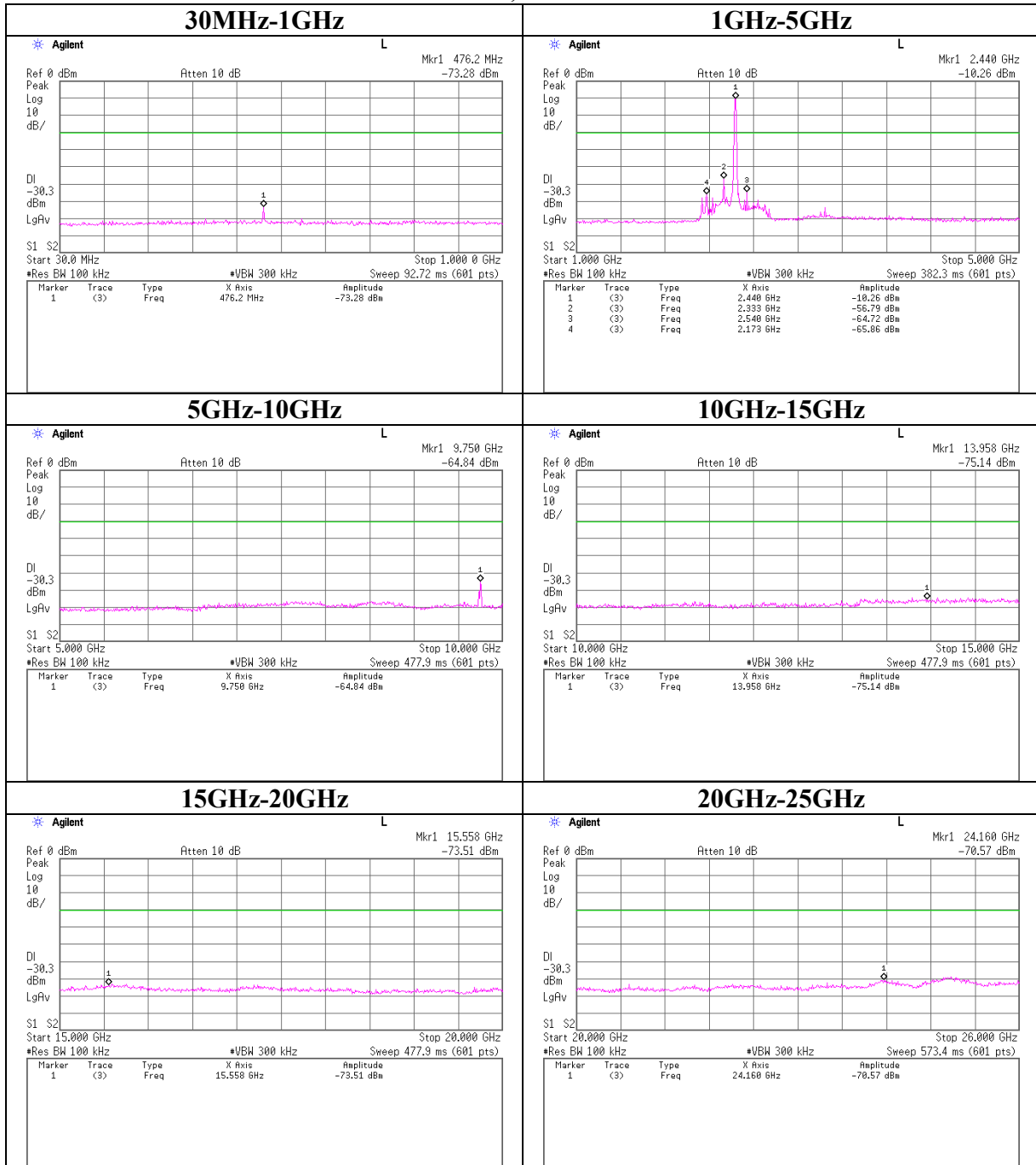
Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
2483.500	70.5	PK	30.8	-33.9	67.4	200	150	Hori.	74.0	6.6
2483.500	44.2	AV	30.8	-33.9	41.1	180	150	Vert.	54.0	13.0
2483.500	67.4	PK	30.8	-33.9	64.3	180	150	Vert.	74.0	9.7
2483.500	47.9	AV	30.8	-33.9	44.8	200	150	Hori.	54.0	9.2

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

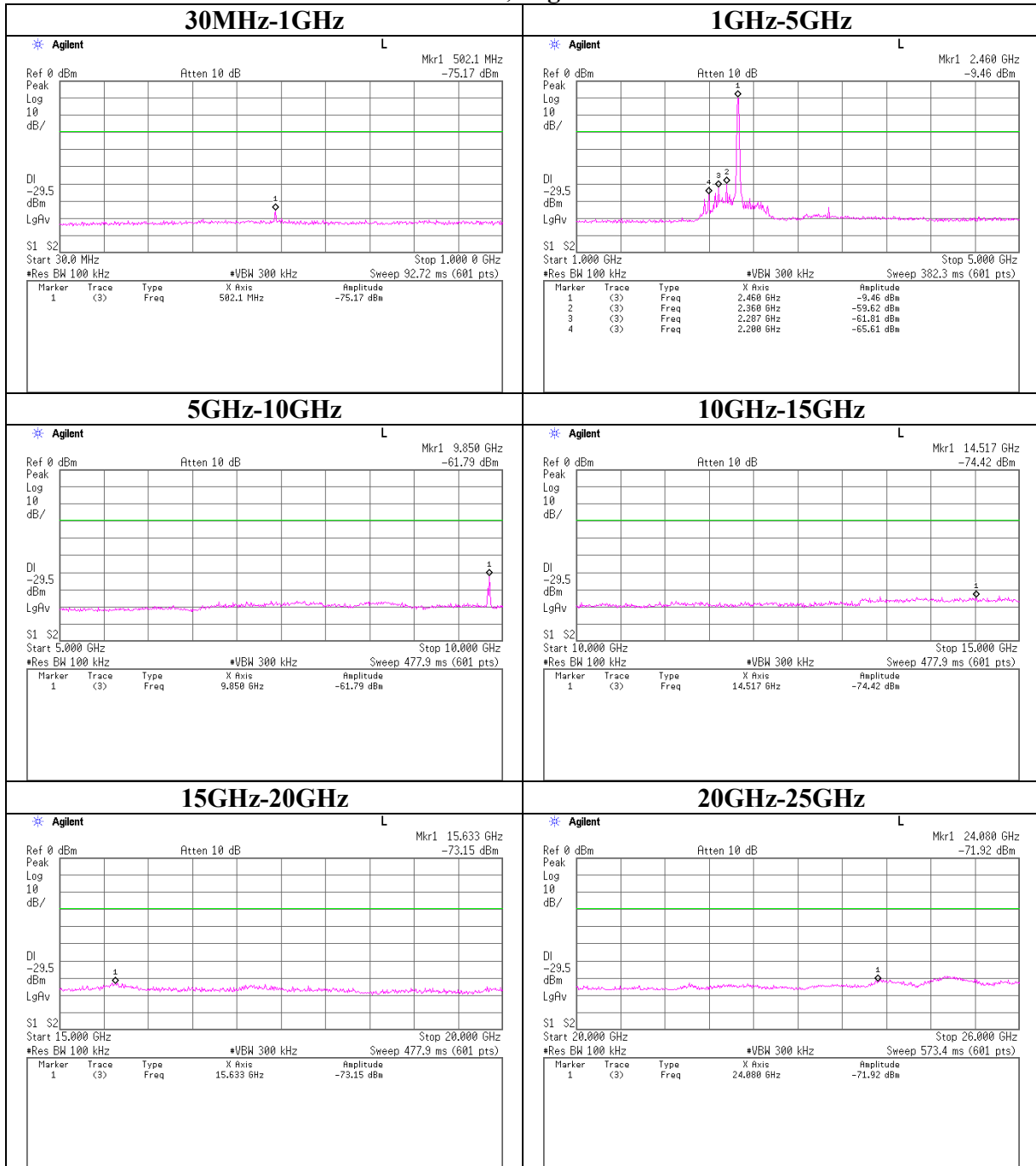
Conducted Spurious Emission(DSSS and other forms of modulation)
11b, Low ch.



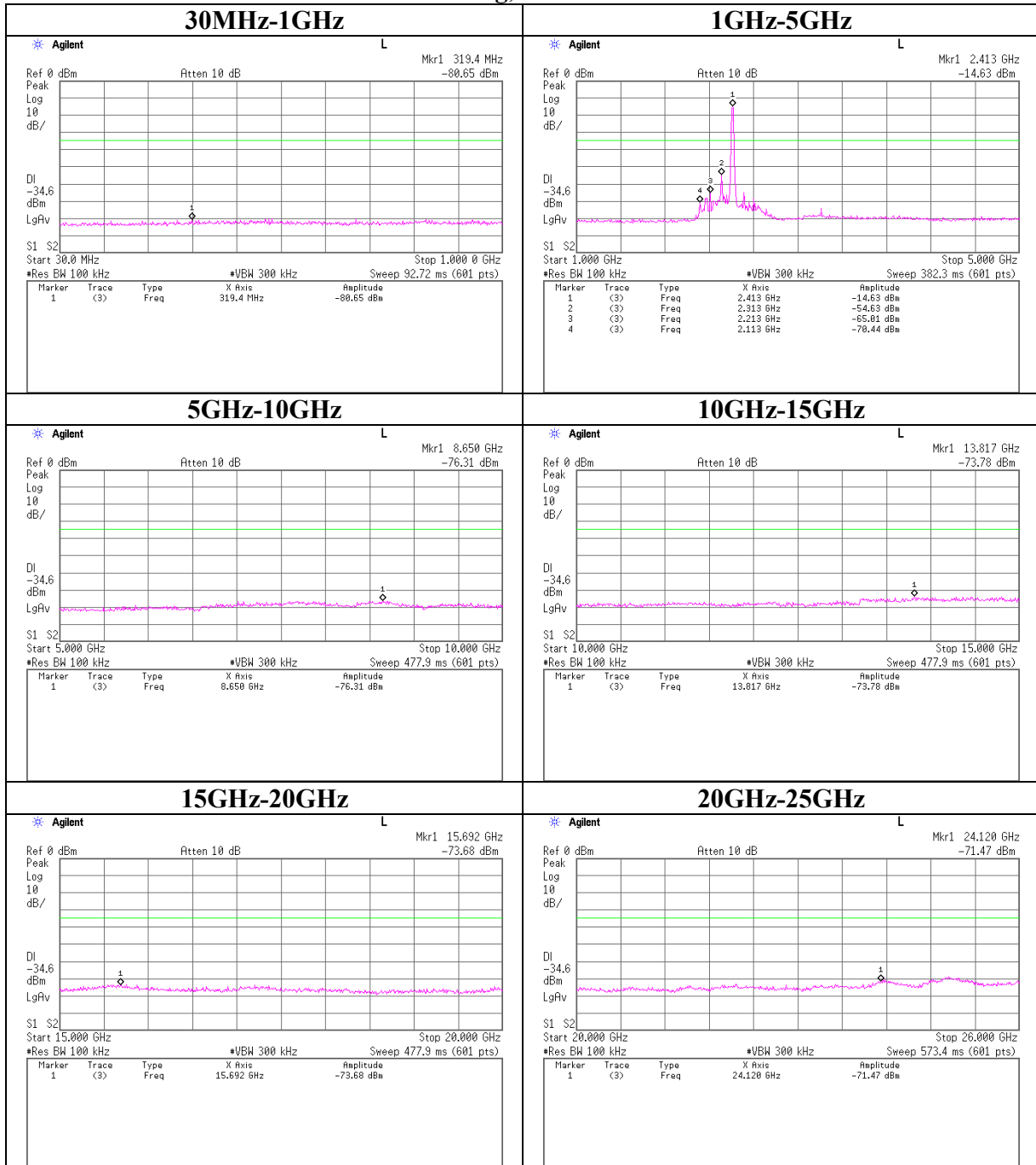
Conducted Spurious Emission(DSSS and other forms of modulation)
11b, Mid ch.



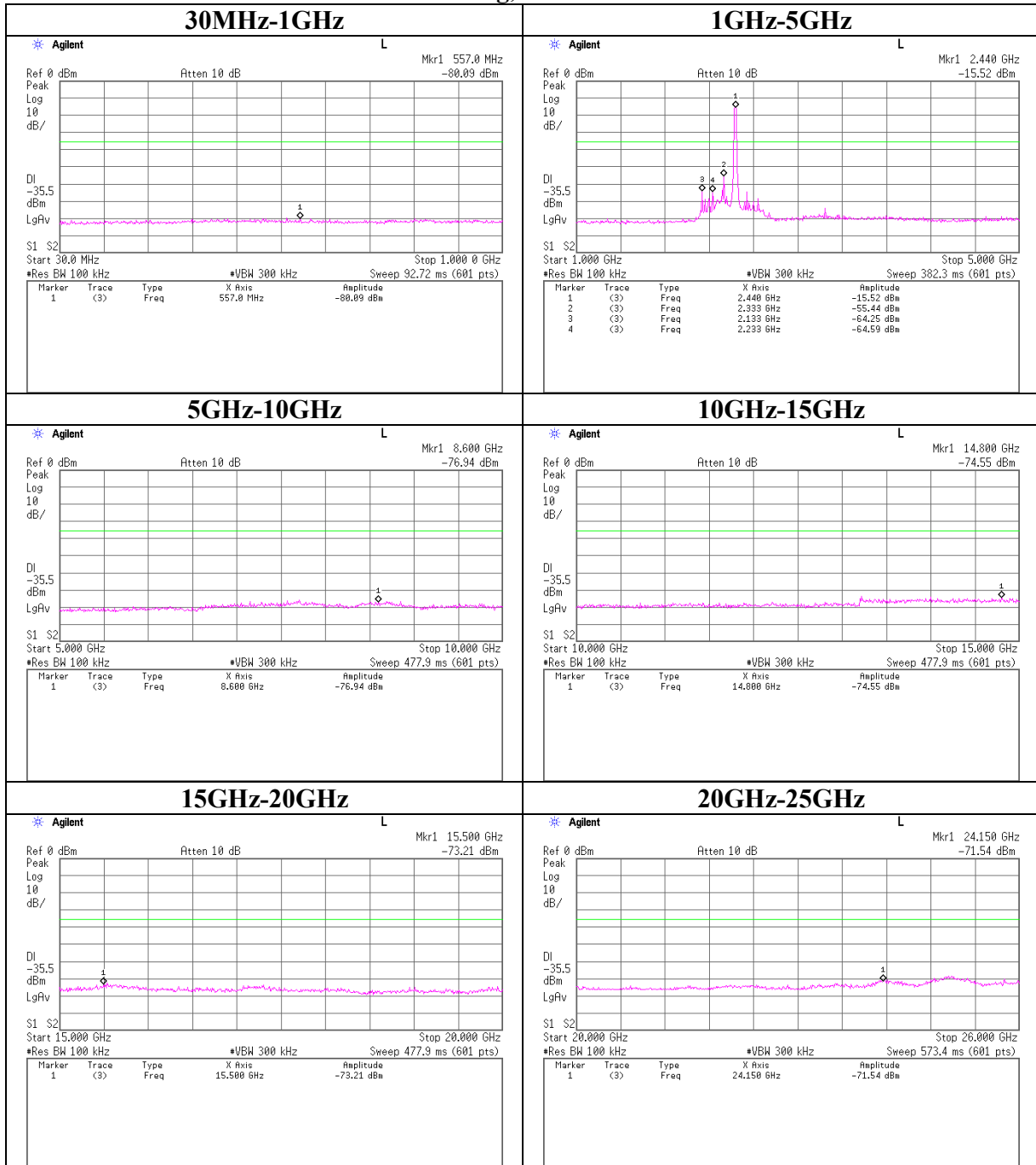
Conducted Spurious Emission(DSSS and other forms of modulation)
11b, High ch.



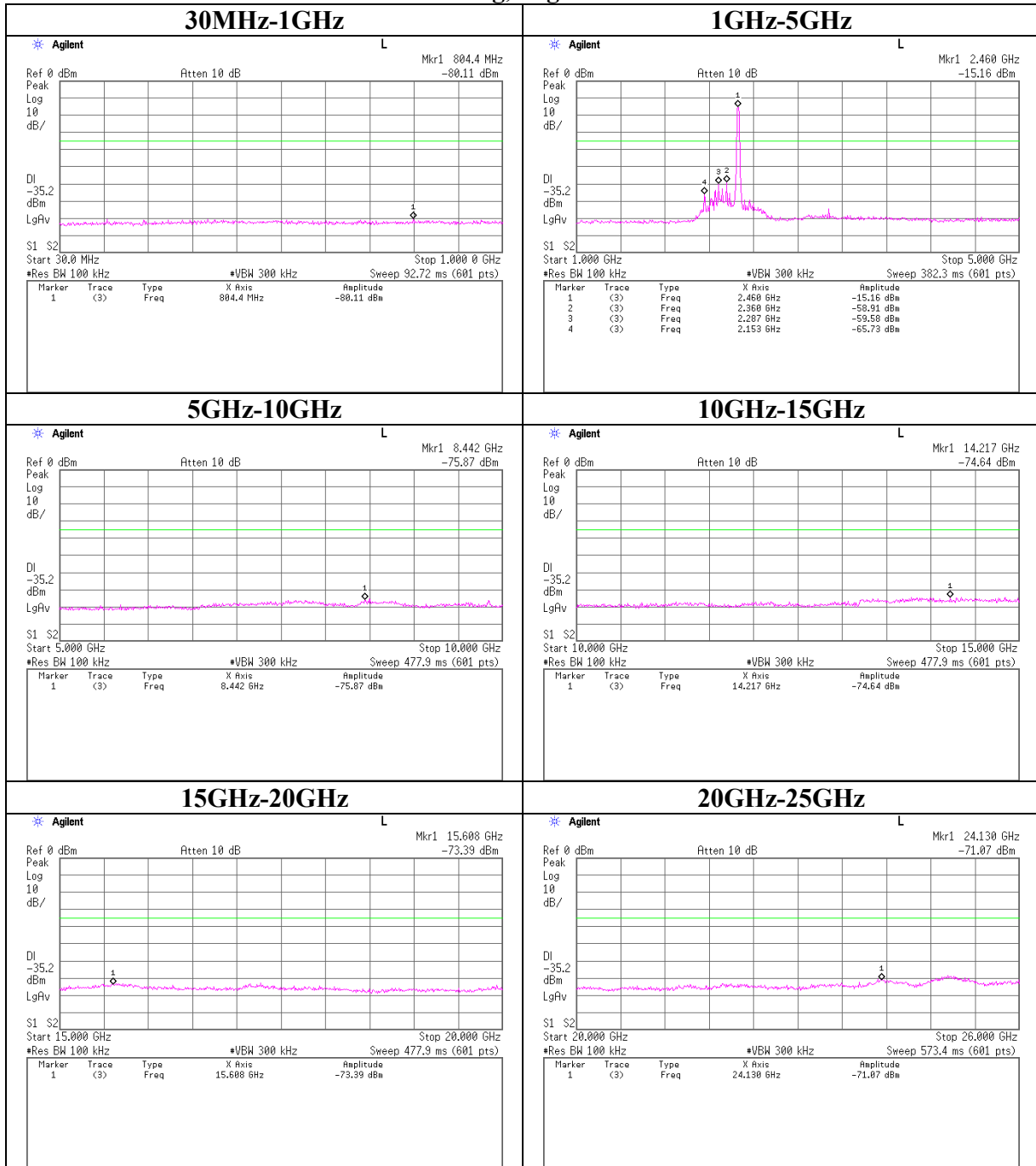
Conducted Spurious Emission(DSSS and other forms of modulation)
11g, Low ch.



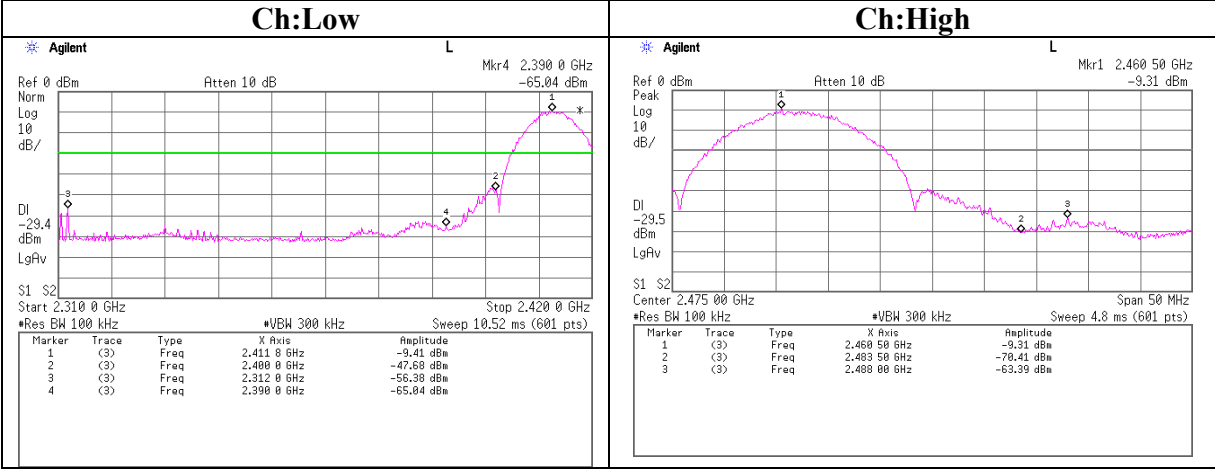
Conducted Spurious Emission(DSSS and other forms of modulation)
11g, Mid ch.



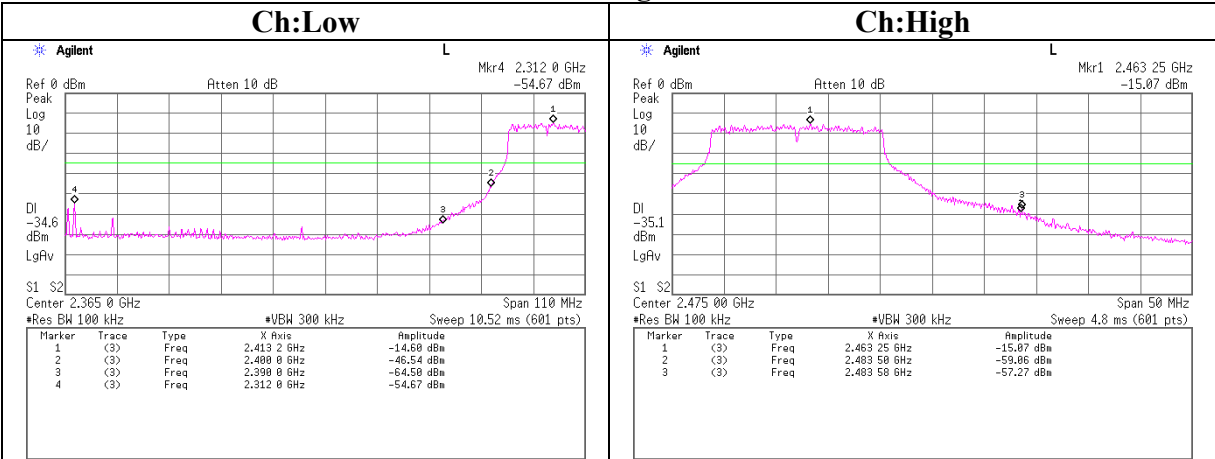
Conducted Spurious Emission(DSSS and other forms of modulation)
11g, High ch.



Conducted emission Band Edge compliance (DSSS and other forms of modulation)
11b



11g



Power Density (DSSS and other forms of modulation)

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

Company	: Sony Corporation	REGULATION	: FCC Part15 Subpart C 15.247(e)
Equipment	: Personal Computer	TEST DISTANCE	: -
Model	: PCG-4F2L	DATE	: 07/08/2005
Sample No.	: XTA40	TEMPERATURE	: 22 deg.C.
Power	: AC120V/60Hz	HUMIDITY	: 58%
Mode	: Tx (ch 1, 6,11)	ENGINEER	: Kenichi Adachi

[IEEE802.11b] Aux (worst) antenna , 11Mbps

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.0	-23.45	1.13	9.91	-12.4	8.0	20.4
Mid	2437.0	-24.41	1.09	9.91	-13.4	8.0	21.4
High	2462.5	-23.99	1.18	9.91	-12.9	8.0	20.9

Sample Calculation:

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

[IEEE802.11g] Aux (worst) antenna , 6Mbps

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.6	-28.49	1.13	9.91	-17.5	8.0	25.5
Mid	2437.6	-28.36	1.09	9.91	-17.4	8.0	25.4
High	2462.3	-28.80	1.18	9.91	-17.7	8.0	25.7

Sample Calculation:

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

UL Apex Co., Ltd.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

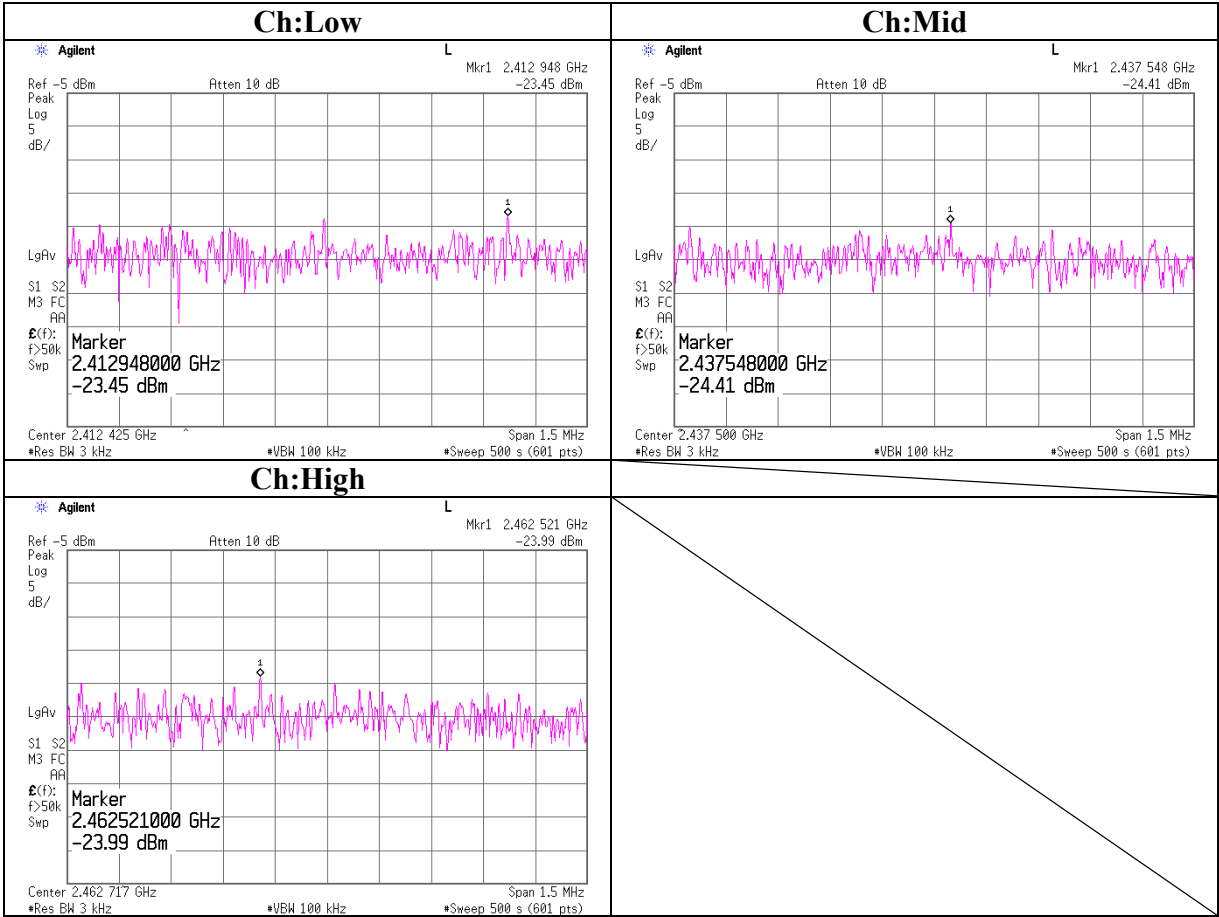
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(01.06.05)

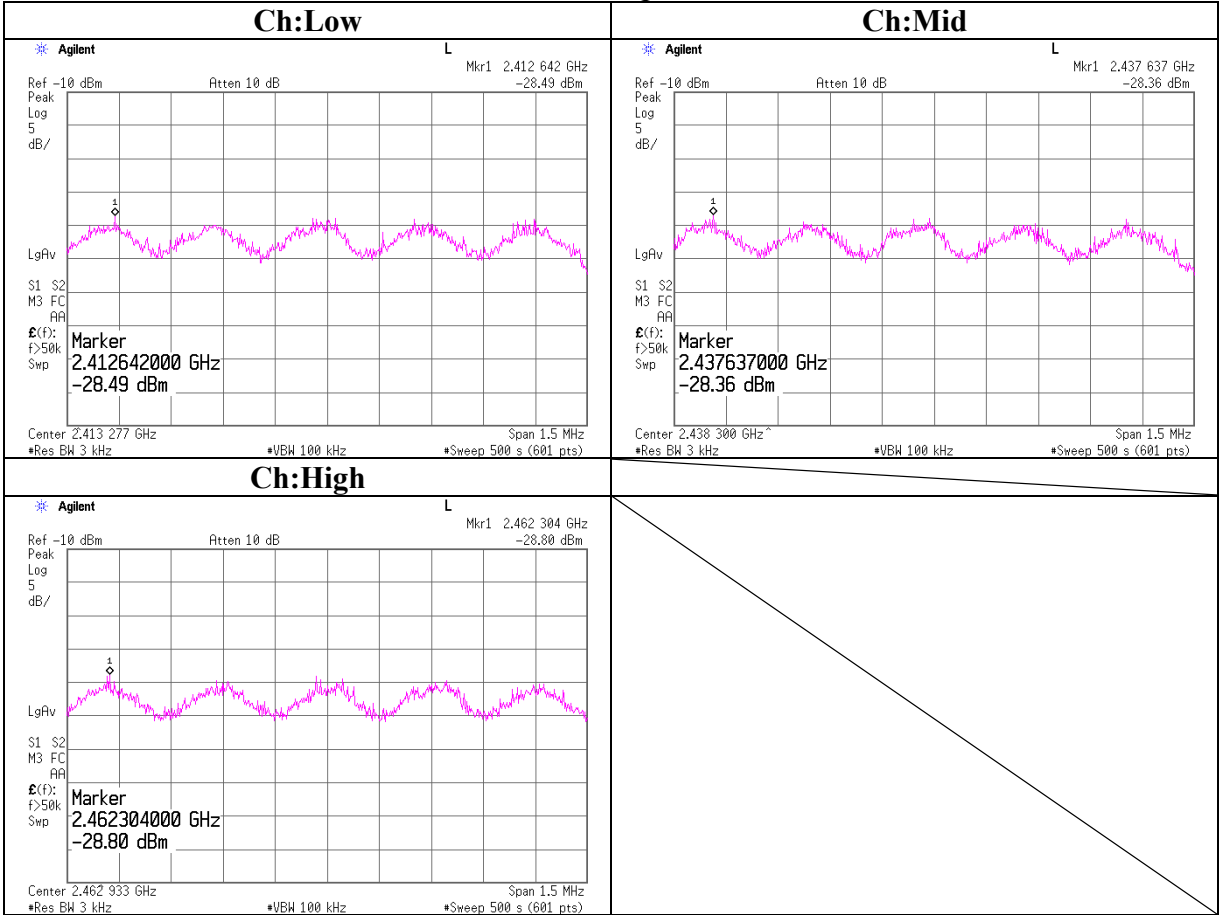
Power Density(DSSS and other forms of modulation)

11b



Power Density(DSSS and other forms of modulation)

11g



99%Occupied Bandwidth(DSSS and other forms of modulation)

11g

