

APPENDIX 2:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	1 to 2	2006/04/10 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	1 to 2	2004/11/25 * 24
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	2	2006/01/09 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	2	2005/08/30 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	2, 3 to 7	2006/02/02 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	2	2005/08/30 * 12
MPA-10	Pre Amplifier	Agilent	8449B	2	2005/09/07 * 12
MRENT-31	Spectrum Analyzer	Advantest	R3273	1 to 2	2006/04/24 * 12
MHF-05	High Pass Filter	Tokimec	TF323DCA	2	2006/01/24 * 12
MHA-02	Horn Antenna	EMCO	3160-09	2	2006/01/09 * 12
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	1 to 2	-
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	2	2005/10/10 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	2	2005/10/14 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	2	2006/02/23 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2	2005/09/07 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	2	2005/12/16 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	3 to 7	2006/02/11 * 12
MAT-23	Attenuator(10dB)(above 1GHz)	Orient Microwave	BX10-0476-00	3 to 7	2006/03/18 * 12
MRENT-36	Power Meter	Anritsu	ML2496A	3 to 7	2006/04/25 * 12
MRENT-33	Power sensor	Anritsu	MA2411B	3 to 7	2006/04/25 * 12
MCC-35	Microwave Cable	Hirose Electric	U.FL-2LP-066-A-(200)	3 to 7	2005/09/06 * 12
MOS-16	Thermo-Hygrometer	Custom	CTH-180	3 to 7	2006/01/19 * 24
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	1	2006/02/06 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	1	2006/02/02 * 12

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

Test Item:

- 1: AC Main Conducted Emission
- 2: Radiated Spurious Emission
- 3: Antenna Terminal Conducted Spurious Emission
- 4: Maximum Peak Output Power
- 5: 6dB Bandwidth [DSSS]
- 6: Peak Output Power Density [DSSS]
- 7: 99% OBW

UL Apex Co., Ltd.

Head Office EMC Lab.

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Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(14.06.06)

APPENDIX 3: Data of EMI test

Conducted Emission
11b Tx Ch Low

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 20:28:46

Company : Sony Corporation

Kind of EUT : Wireless LAN Module

Model No. : LAVM-001

Serial No. : XG60365NU00005

Report No. : 26IE0106-HO

Power : AC120V/60Hz

Temp°C/Humi% : 27deg.C / 47%

Operator : Yutaka Yoshida

Mode / Remarks : 11b Tx:1ch 2412MHz / 11Mbps

LIMIT : FCC15C §15.207 (QP)/ RSS-Gen 7.2.2

FCC15C §15.207 (AV)/ RSS-Gen 7.2.2

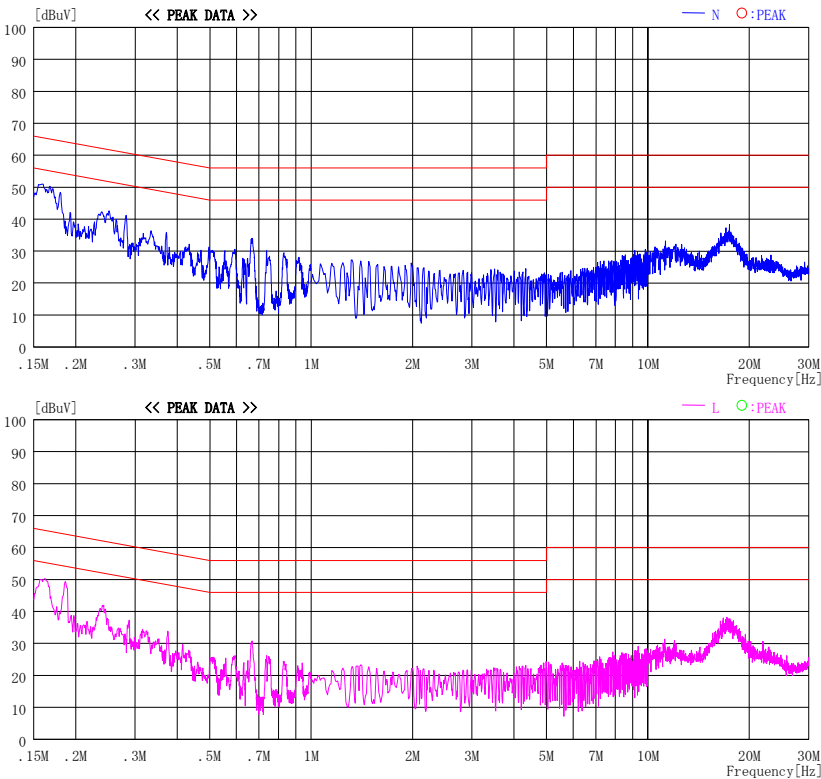


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission (11b)
11b Tx Ch Mid

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 20:40:32

Company : Sony Corporation
Kind of EUT : Wireless LAN Module
Model No. : LAWM-001
Serial No. : XG60365NU00005

Report No. : 26IE0106-H0
Power : AC120V/60Hz
Temp°C/Humi% : 27deg. C / 47%
Operator : Yutaka Yoshida

Mode / Remarks : 11b Tx:6ch 2437MHz / 11Mbps

LIMIT : FCC15C § 15.207 (QP)/ RSS-Gen 7.2.2
FCC15C § 15.207 (AV)/ RSS-Gen 7.2.2

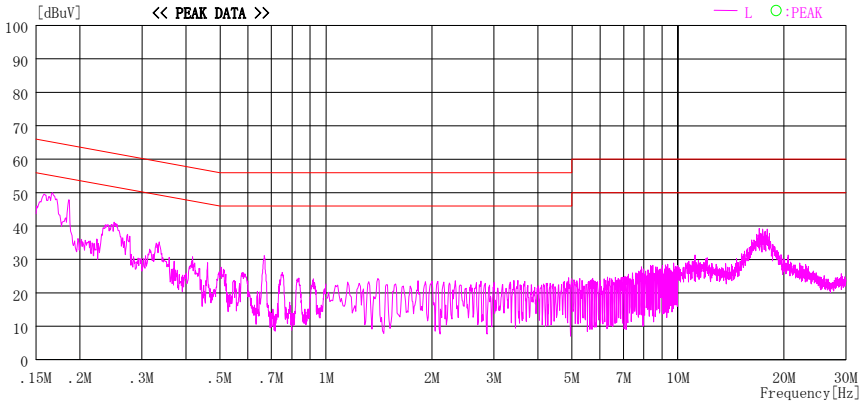
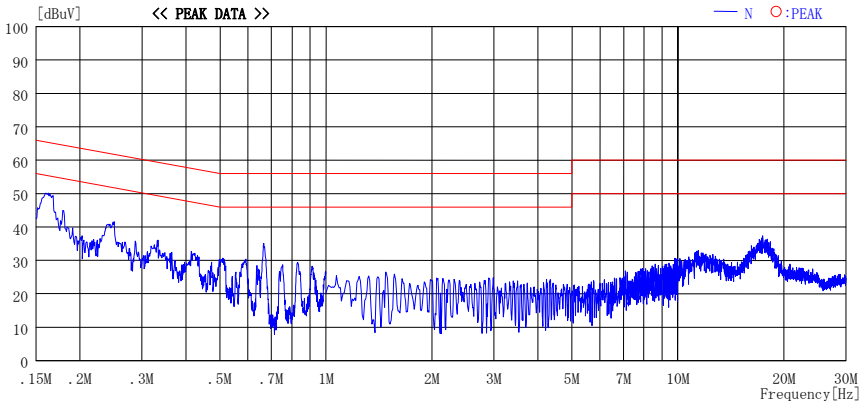


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
11b Tx Ch High

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 20:44:40

Company : Sony Corporation
Kind of EUT : Wireless LAN Module
Model No. : LAWM-001
Serial No. : XG60365NU00005
Report No. : 26IE0106-H0
Power : AC120V/60Hz
Temp°C/Humi% : 27deg. C / 47%
Operator : Yutaka Yoshida

Mode / Remarks : 11b Tx:11ch 2462MHz / 11Mbps

LIMIT : FCC15C § 15.207 (QP)/ RSS-Gen 7.2.2
FCC15C § 15.207 (AV)/ RSS-Gen 7.2.2

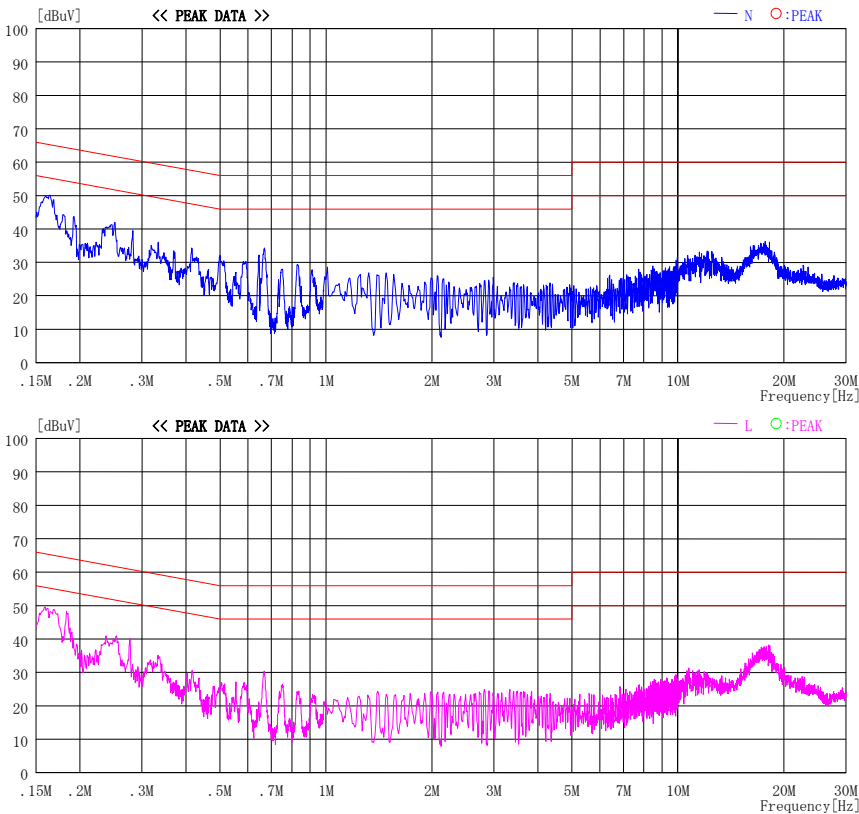


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

11g Tx Ch Low

DATA OF CONDUCTED EMISSION TEST

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

Date : 2006/05/30 22:22:16

Company : Sony Corporation

Kind of EUT : Wireless LAN Module

Model No. : LAWM-001

Serial No. : XG60365NU00005

Report No. : 26IE0106-H0

Power : AC120V/60Hz

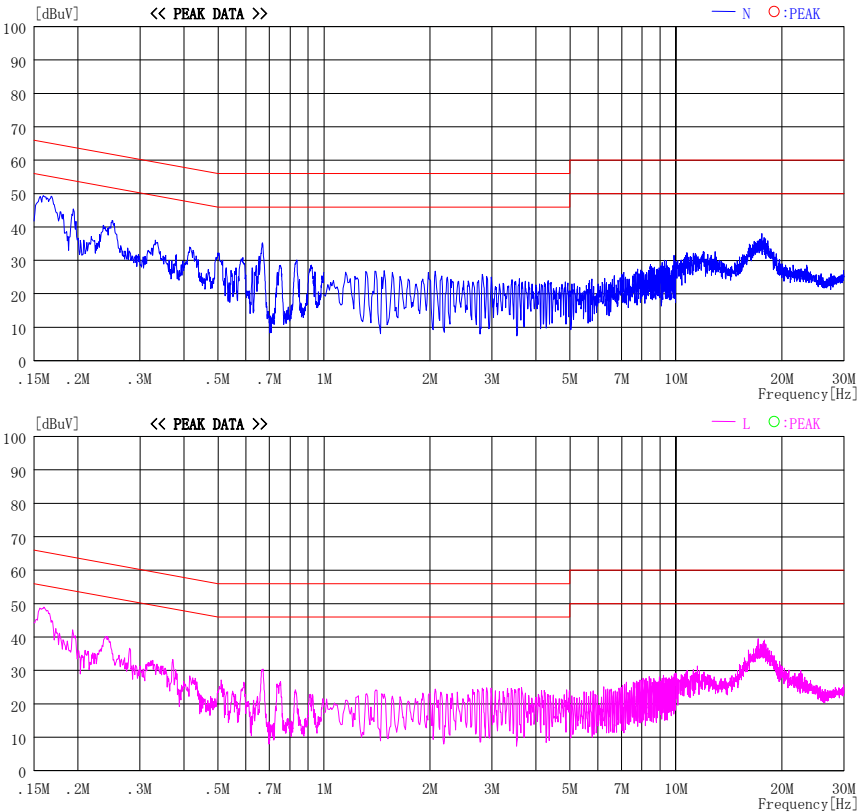
Temp°C/Humi% : 27deg. C / 47%

Operator : Yutaka Yoshida

Mode / Remarks : 11g Tx:1ch 2412MHz / 54Mbps

LIMIT : FCC15C § 15.207 (QP)/ RSS-Gen 7.2.2

FCC15C § 15.207 (AV)/ RSS-Gen 7.2.2



Conducted Emission

11g Tx Ch Mid

DATA OF CONDUCTED EMISSION TEST

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

Date : 2006/05/30 22:26:22

Company : Sony Corporation

Kind of EUT : Wireless LAN Module

Model No. : LAWM-001

Serial No. : XG60365NU00005

Report No. : 26IE0106-H0

Power : AC120V/60Hz

Temp°C/Humi% : 27deg. C / 47%

Operator : Yutaka Yoshida

Mode / Remarks : 11g Tx:6ch 2437MHz / 54Mbps

LIMIT : FCC15C § 15.207 (QP)/ RSS-Gen 7.2.2

FCC15C § 15.207 (AV)/ RSS-Gen 7.2.2

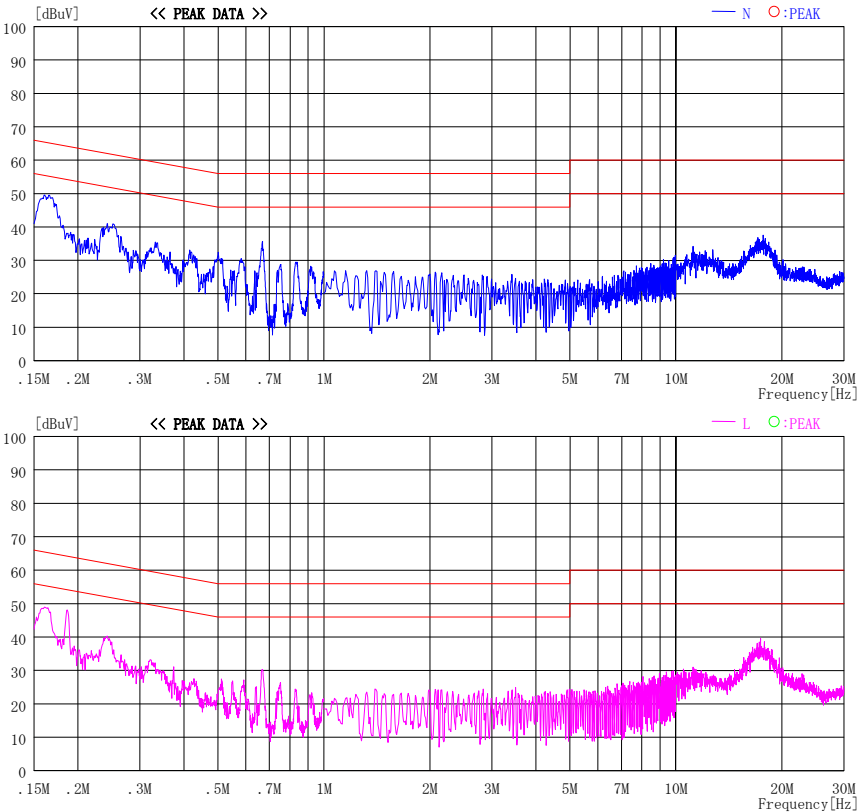


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)

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

Conducted Emission
11g Tx Ch Mid

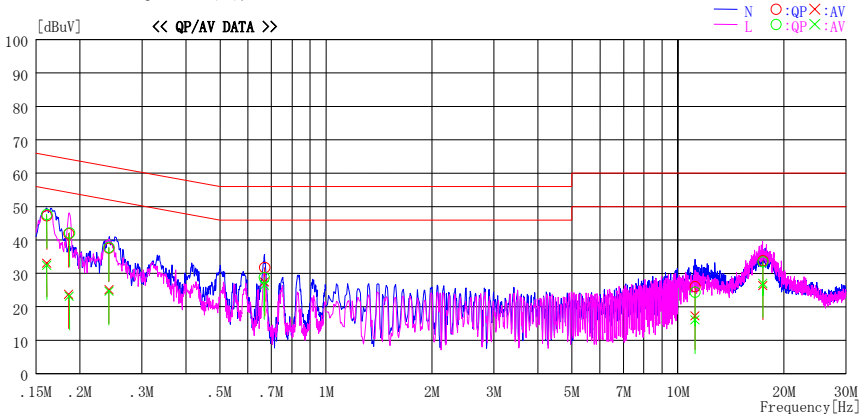
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 22:26:22

Company : Sony Corporation
Kind of EUT : Wireless LAN Module
Model No. : LAWM-001
Serial No. : XG60365NU00005
Report No. : 26IE0106-H0
Power : AC120V/60Hz
Temp°C/Humi% : 27deg. C / 47%
Operator : Yutaka Yoshida

Mode / Remarks : 11g Tx:6ch 2437MHz / 54Mbps

LIMIT : FCC15C § 15.207 (QP) / RSS-Gen 7.2.2
FCC15C § 15.207 (AV) / RSS-Gen 7.2.2



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.16105	47.0	32.8	0.3	47.3	33.1	65.4	55.4	18.2	22.3	N	
0.16105	47.4	32.0	0.3	47.7	32.3	65.4	55.4	17.7	23.1	L	
0.18570	41.6	23.4	0.3	41.9	23.7	64.2	54.2	22.3	30.5	N	
0.18655	41.9	22.9	0.3	42.2	23.2	64.2	54.2	22.1	31.0	L	
0.24180	37.2	24.7	0.4	37.6	25.1	62.0	52.0	24.4	26.9	N	
0.24180	37.4	24.3	0.4	37.8	24.7	62.0	52.0	24.2	27.3	L	
0.66850	28.4	26.0	0.4	28.8	26.4	56.0	46.0	27.2	19.6	L	
0.66935	31.3	27.0	0.4	31.7	27.4	56.0	46.0	24.3	18.6	N	
11.18003	24.6	15.8	1.5	26.1	17.3	60.0	50.0	33.9	32.7	N	
11.18003	22.9	14.6	1.5	24.4	16.1	60.0	50.0	35.6	33.9	L	
17.42017	31.5	25.1	1.9	33.4	27.0	60.0	50.0	26.6	23.0	L	
17.44017	32.0	24.4	1.9	33.9	26.3	60.0	50.0	26.1	23.7	N	

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

11g Tx Ch High

DATA OF CONDUCTED EMISSION TEST

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

Date : 2006/05/30 22:31:39

Company : Sony Corporation

Kind of EUT : Wireless LAN Module

Model No. : LAWM-001

Serial No. : XG60365NU00005

Report No. : 26IE0106-H0

Power : AC120V/60Hz

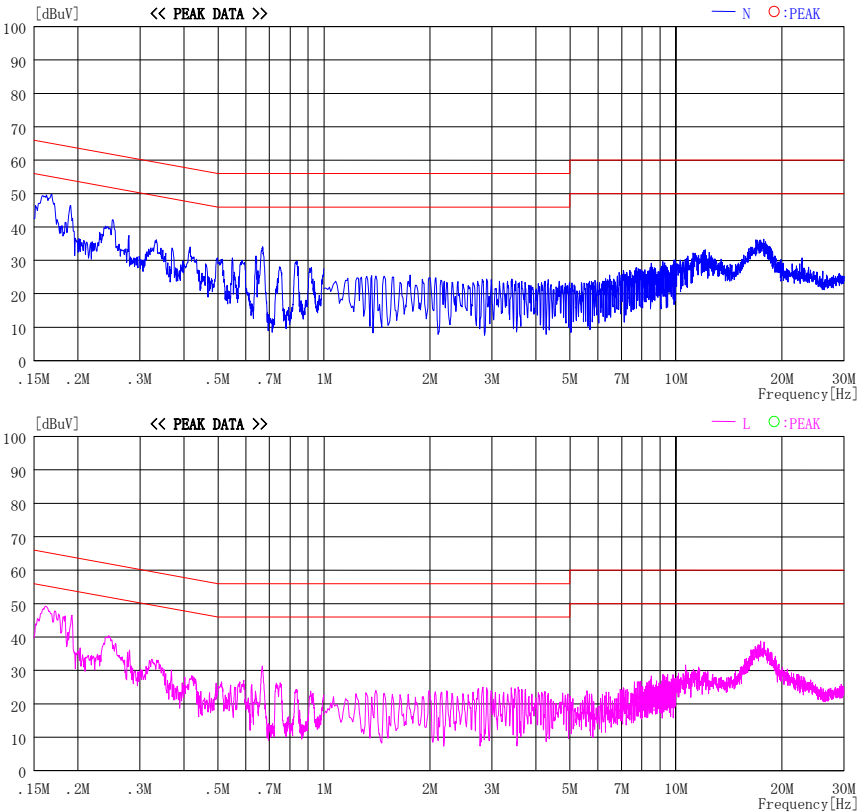
Temp°C/Humi% : 27deg. C / 47%

Operator : Yutaka Yoshida

Mode / Remarks : 11g Tx:11ch 2462MHz / 54Mbps

LIMIT : FCC15C § 15.207 (QP)/ RSS-Gen 7.2.2

FCC15C § 15.207 (AV)/ RSS-Gen 7.2.2



Conducted Emission

Rx Ch Mid

DATA OF CONDUCTED EMISSION TEST

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

Date : 2006/05/30 22:37:46

Company : Sony Corporation

Kind of EUT : Wireless LAN Module

Model No. : LAWM-001

Serial No. : XG60365NU00005

Report No. : 26IE0106-H0

Power : AC120V/60Hz

Temp°C/Humi% : 27deg. C / 47%

Operator : Yutaka Yoshida

Mode / Remarks : Rx:6ch 2437MHz

LIMIT : FCC15C § 15.207 (QP)/ RSS-Gen 7.2.2

FCC15C § 15.207 (AV)/ RSS-Gen 7.2.2

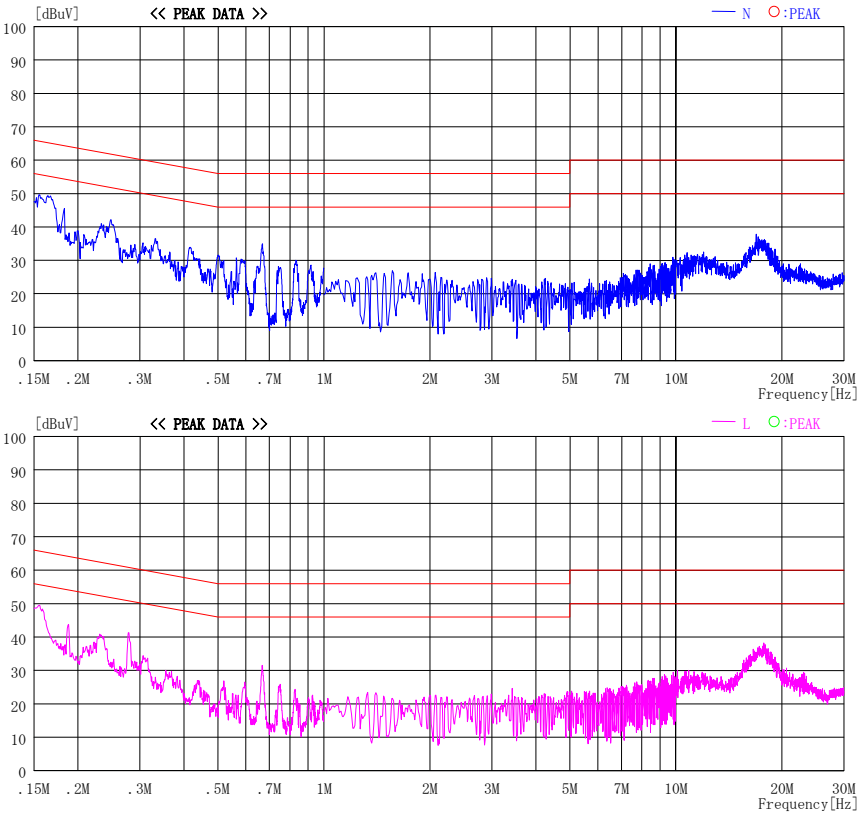


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)

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

6dB Bandwidth

UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

Company : Sony Corporation
Equipment : Wireless LAN Module
Model : LAWM-001
Sample No. : XG60365NU00005
Power : AC120V/60Hz(EUT DC 3.3V)
Mode : Tx(ch1,6,11)

REPORT NO : 26IE0106-HO
REGULATION : FCC Part15 Subpart C 15.247(a)(2)
TEST DISTANCE : -
DATE : 05/31/2006
TEMPERATURE : 23deg.C.
HUMIDITY : 64%
ENGINEER : Makoto Kosaka

[IEEE802.11b] (11Mbps)

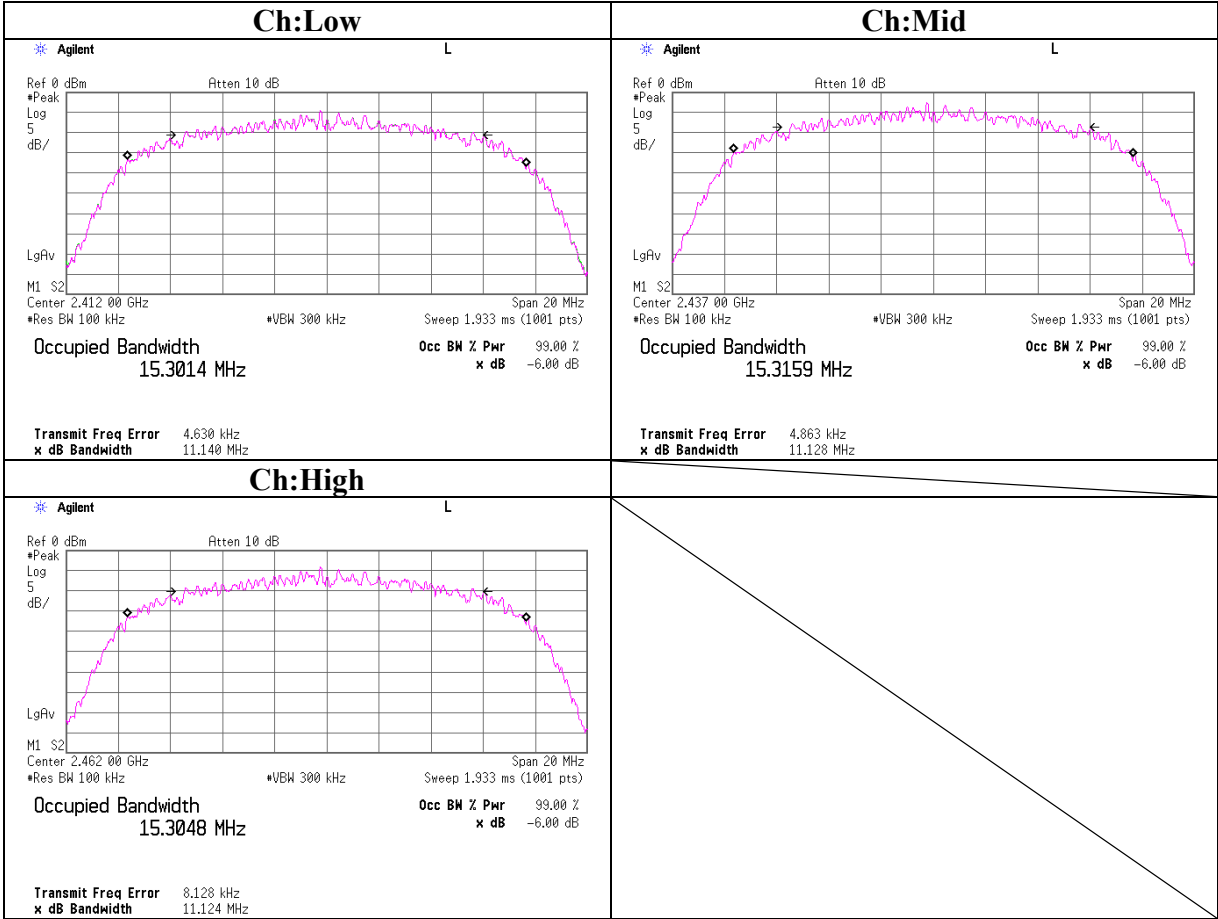
Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	11.140	500.0
Mid	2437.0	11.128	500.0
High	2462.0	11.124	500.0

[IEEE802.11g] (54Mbps)

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	16.445	500.0
Mid	2437.0	16.438	500.0
High	2462.0	16.445	500.0

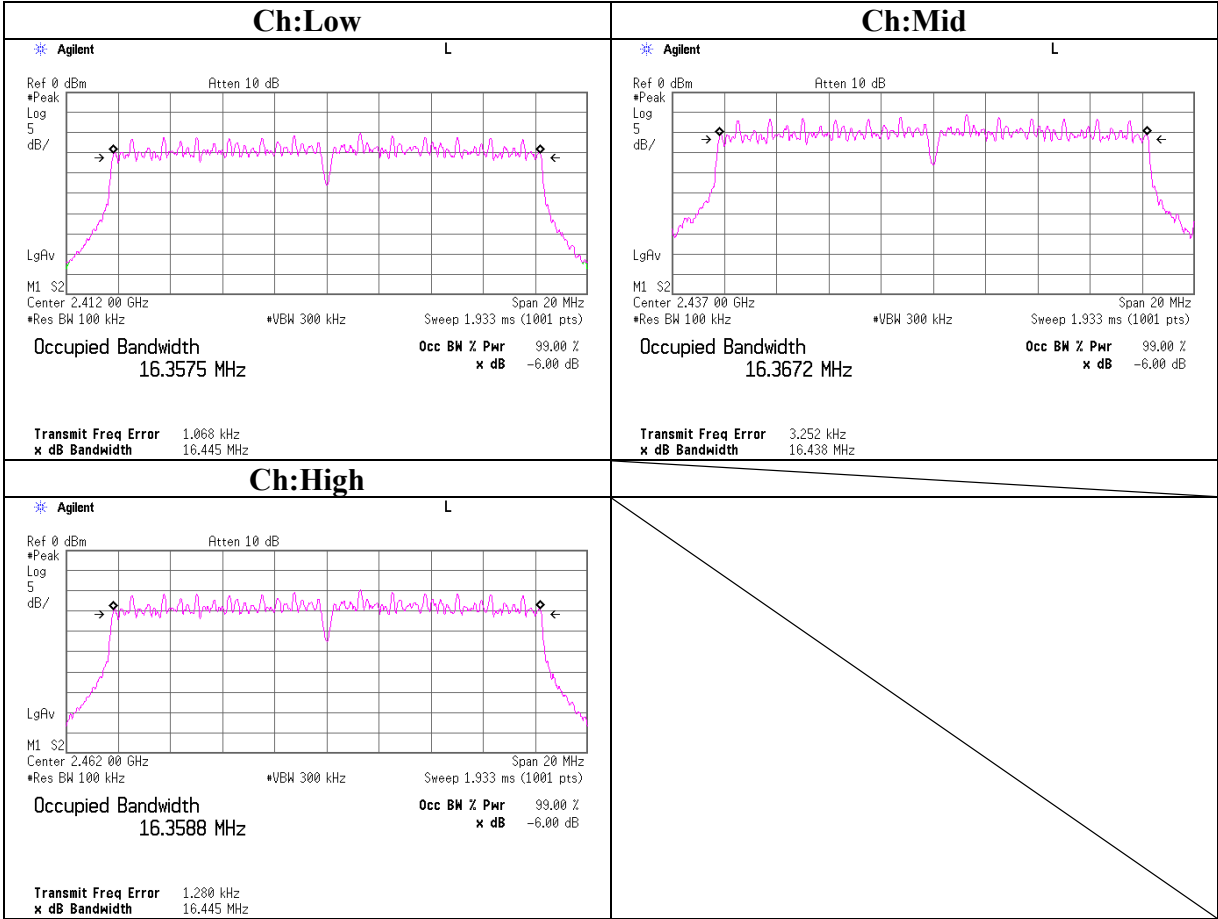
6dB Bandwidth

11b



6dB Bandwidth

11g



Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

Company : Sony Corporation
Equipment : Wireless LAN Module
Model : LAWM-001
Sample No. : XG60365NU00005
Power : AC120V/60Hz(EUT DC 3.3V)
Mode : Tx(ch1,6,11)

REPORT NO : 26IE0106-HO
REGULATION : FCC Part15 Subpart C 15.247(b)(3)
TEST DISTANCE : -
DATE : 05/31/2006
TEMPERATURE : 23deg.C.
HUMIDITY : 64%
ENGINEER : Makoto Kosaka

[IEEE802.11b]

Ch	Freq. [MHz]	Power Meter Reading(PK)	Cable Loss	Atten.	Result		Limit		Margin
		[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	6.61	1.58	10.14	18.33	68.08	30.00	1000	11.67
Mid	2437.0	8.22	1.59	10.14	19.95	98.86	30.00	1000	10.05
High	2462.0	6.97	1.69	10.14	18.80	75.86	30.00	1000	11.20

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.

[IEEE802.11g]

Ch	Freq. [MHz]	Power Meter Reading(PK)	Cable Loss	Atten.	Result		Limit		Margin
		[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	9.43	1.58	10.14	21.15	130.32	30.00	1000	8.85
Mid	2437.0	10.72	1.59	10.14	22.45	175.79	30.00	1000	7.55
High	2462.0	9.35	1.69	10.14	21.18	131.22	30.00	1000	8.82

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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MF060b(14.06.06)

Radiated Spurious Emission

11b Tx Ch Low

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

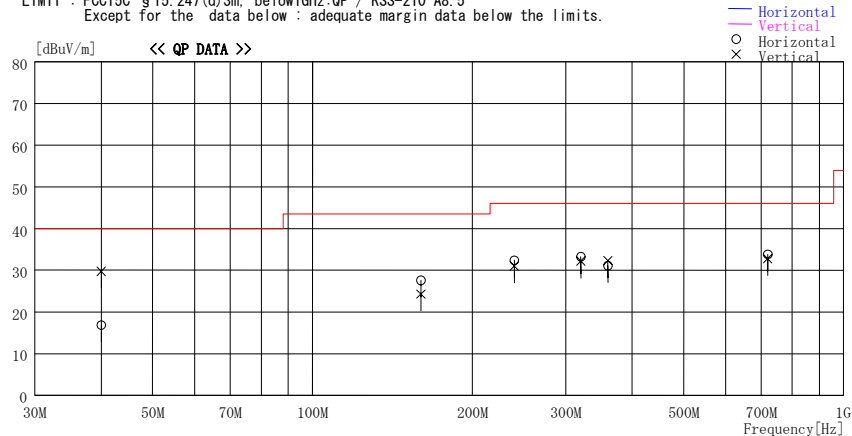
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 09:59:27

Company : Sony Corporation Report No. : 26IE0106-H0
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg. C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Tx 11b 11Mbps 1ch(2412MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-210 A8.5
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
40.000	25.3	QP	13.6	-22.0	16.9	89	195	Hori.	40.0	23.1
40.000	38.1	QP	13.6	-22.0	29.7	0	100	Vert.	40.0	10.3
160.000	33.1	QP	15.2	-20.7	27.6	239	208	Hori.	43.5	15.9
160.000	29.8	QP	15.2	-20.7	24.3	72	156	Vert.	43.5	19.2
239.997	35.3	QP	17.0	-19.9	32.4	38	148	Hori.	46.0	13.6
239.997	33.9	QP	17.0	-19.9	31.0	47	182	Vert.	46.0	15.0
319.999	36.9	QP	14.9	-18.5	33.3	68	100	Hori.	46.0	12.8
319.999	35.8	QP	14.9	-18.5	32.2	72	100	Vert.	46.0	13.8
359.999	34.3	QP	16.4	-19.6	31.1	50	100	Hori.	46.0	14.9
359.999	35.5	QP	16.4	-19.6	32.3	94	122	Vert.	46.0	13.7
719.987	31.8	QP	20.8	-18.8	33.8	1	100	Hori.	46.0	12.2
719.987	30.8	QP	20.8	-18.8	32.8	39	131	Vert.	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)

Radiated Spurious Emission 11b Tx Ch Mid

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

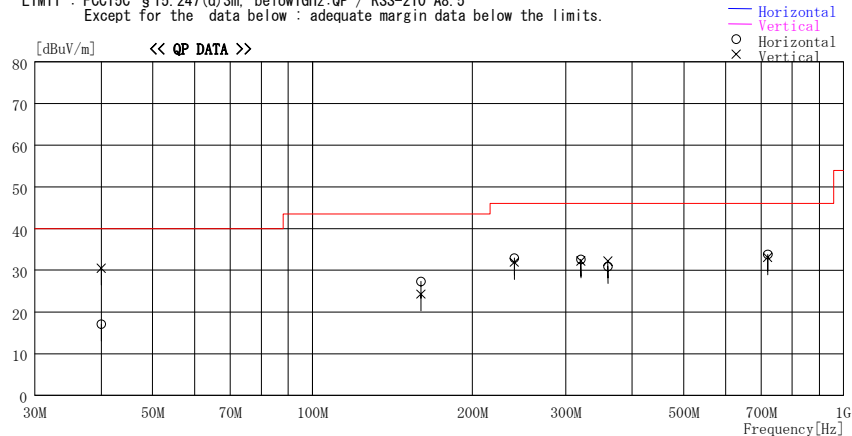
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 11:45:47

Company : Sony Corporation Report No. : 26IE0106-H0
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg. C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Tx 11b 11Mbps 6ch(2437MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-210 A8.5
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
40.000	25.5	QP	13.6	-22.0	17.1	125	206	Hori.	40.0	22.9
40.000	38.9	QP	13.6	-22.0	30.5	0	100	Vert.	40.0	9.5
160.000	32.8	QP	15.2	-20.7	27.3	32	220	Hori.	43.5	16.2
160.000	29.8	QP	15.2	-20.7	24.3	77	178	Vert.	43.5	19.2
240.000	35.8	QP	17.0	-19.9	32.9	35	145	Hori.	46.0	13.1
240.000	34.8	QP	17.0	-19.9	31.9	47	182	Vert.	46.0	14.1
320.000	36.2	QP	14.9	-18.5	32.6	281	100	Hori.	46.0	13.4
320.000	35.8	QP	14.9	-18.5	32.2	58	136	Vert.	46.0	13.8
360.000	34.1	QP	16.4	-19.6	30.9	64	100	Hori.	46.0	15.1
360.000	35.4	QP	16.4	-19.6	32.2	94	122	Vert.	46.0	13.8
719.987	31.8	QP	20.8	-18.8	33.8	1	100	Hori.	46.0	12.2
719.987	31.0	QP	20.8	-18.8	33.0	39	131	Vert.	46.0	13.0

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)

Radiated Spurious Emission 11b Tx Ch High

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

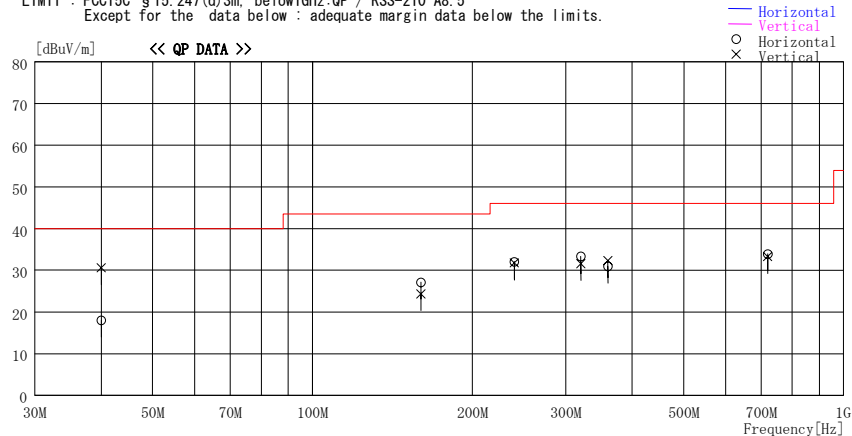
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 11:53:24

Company : Sony Corporation Report No. : 26IE0106-H0
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg. C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Tx 11b 11Mbps 11ch(2462MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-210 A8.5
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
40.000	26.4	QP	13.6	-22.0	18.0	268	202	Hori.	40.0	22.0
40.000	39.0	QP	13.6	-22.0	30.6	0	100	Vert.	40.0	9.4
160.000	32.6	QP	15.2	-20.7	27.1	227	204	Hori.	43.5	16.4
160.000	29.8	QP	15.2	-20.7	24.3	77	178	Vert.	43.5	19.2
240.000	34.9	QP	17.0	-19.9	32.0	35	145	Hori.	46.0	14.0
240.000	34.6	QP	17.0	-19.9	31.7	47	182	Vert.	46.0	14.3
320.000	36.9	QP	14.9	-18.5	33.3	281	100	Hori.	46.0	12.7
320.000	35.2	QP	14.9	-18.5	31.6	58	136	Vert.	46.0	14.4
360.000	34.1	QP	16.4	-19.6	30.9	64	100	Hori.	46.0	15.1
360.000	35.5	QP	16.4	-19.6	32.3	94	122	Vert.	46.0	13.7
719.987	31.9	QP	20.8	-18.8	33.9	0	100	Hori.	46.0	12.1
719.987	31.3	QP	20.8	-18.8	33.3	39	131	Vert.	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)

Radiated Spurious Emission

11g Tx Ch Low

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

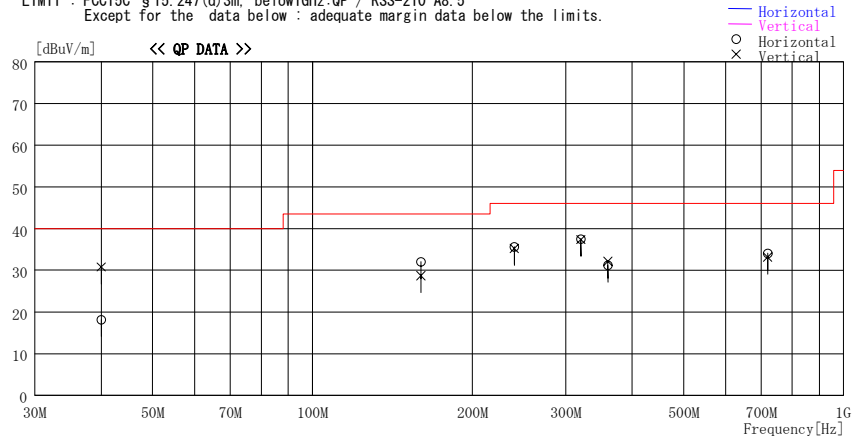
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 11:32:49

Company : Sony Corporation Report No. : 26IE0106-HO
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg. C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps 1ch(2412MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-210 A8.5
Except for the data below : adequate margin data below the limits.



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]
40.000	26.5	QP	13.6	-22.0	18.1	268	202	Hori.	40.0	21.9
40.000	39.2	QP	13.6	-22.0	30.8	0	100	Vert.	40.0	9.2
160.000	37.5	QP	15.2	-20.7	32.0	244	221	Hori.	43.5	11.5
160.000	34.2	QP	15.2	-20.7	28.7	77	178	Vert.	43.5	14.8
240.000	38.5	QP	17.0	-19.9	35.6	34	145	Hori.	46.0	10.4
240.000	38.1	QP	17.0	-19.9	35.2	47	182	Vert.	46.0	10.8
320.000	41.1	QP	14.9	-18.5	37.5	281	100	Hori.	46.0	8.5
320.000	40.9	QP	14.9	-18.5	37.3	58	136	Vert.	46.0	8.7
360.000	34.4	QP	16.4	-19.6	31.2	65	100	Hori.	46.0	14.8
360.000	35.3	QP	16.4	-19.6	32.1	94	122	Vert.	46.0	13.9
719.987	32.0	QP	20.8	-18.8	34.0	0	100	Hori.	46.0	12.0
719.987	31.1	QP	20.8	-18.8	33.1	39	131	Vert.	46.0	12.9

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)

Radiated Spurious Emission

11g Tx Ch Mid

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

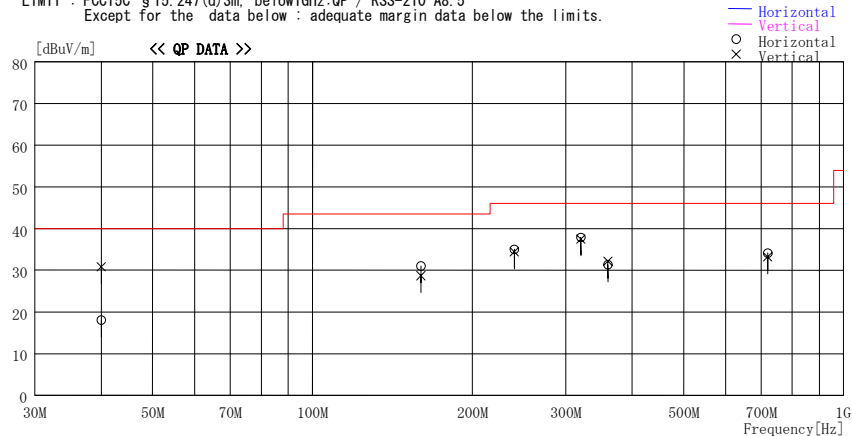
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 11:37:39

Company : Sony Corporation Report No. : 26IE0106-H0
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg. C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps 6ch(2437MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-210 A8.5
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
40.000	26.4	QP	13.6	-22.0	18.0	266	202	Hori.	40.0	22.0
40.000	39.2	QP	13.6	-22.0	30.8	0	100	Vert.	40.0	9.2
160.000	36.5	QP	15.2	-20.7	31.0	244	221	Hori.	43.5	12.5
160.000	34.2	QP	15.2	-20.7	28.7	77	178	Vert.	43.5	14.8
240.000	37.9	QP	17.0	-19.9	35.0	34	145	Hori.	46.0	11.0
240.000	37.3	QP	17.0	-19.9	34.4	47	182	Vert.	46.0	11.6
320.000	41.5	QP	14.9	-18.5	37.9	281	100	Hori.	46.0	8.2
320.000	41.1	QP	14.9	-18.5	37.5	58	136	Vert.	46.0	8.5
360.000	34.5	QP	16.4	-19.6	31.3	63	100	Hori.	46.0	14.7
360.000	35.4	QP	16.4	-19.6	32.2	94	122	Vert.	46.0	13.9
719.987	32.1	QP	20.8	-18.8	34.1	0	100	Hori.	46.0	11.9
719.987	31.2	QP	20.8	-18.8	33.2	39	131	Vert.	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)

Radiated Spurious Emission

11g Tx Ch High

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

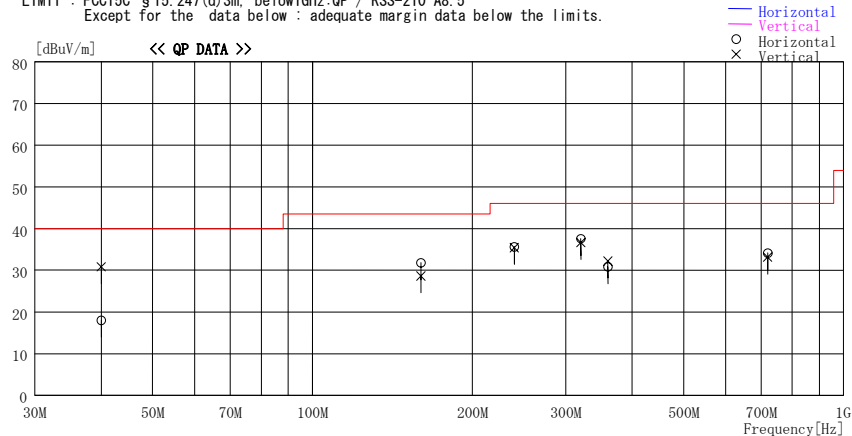
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 11:28:00

Company : Sony Corporation Report No. : 26IE0106-H0
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg. C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps 11ch(2462MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-210 A8.5
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
40.000	26.4	QP	13.6	-22.0	18.0	268	202	Hori.	40.0	22.0
40.000	39.2	QP	13.6	-22.0	30.8	0	100	Vert.	40.0	9.2
160.000	37.3	QP	15.2	-20.7	31.8	244	221	Hori.	43.5	11.7
160.000	34.1	QP	15.2	-20.7	28.6	77	176	Vert.	43.5	14.9
240.000	38.5	QP	17.0	-19.9	35.6	34	145	Hori.	46.0	10.4
240.000	38.3	QP	17.0	-19.9	35.4	47	182	Vert.	46.0	10.6
320.000	41.2	QP	14.9	-18.5	37.6	281	100	Hori.	46.0	8.4
320.000	40.2	QP	14.9	-18.5	36.6	58	136	Vert.	46.0	9.4
360.000	34.0	QP	16.4	-19.6	30.8	64	100	Hori.	46.0	15.2
360.000	35.4	QP	16.4	-19.6	32.2	94	122	Vert.	46.0	13.8
719.987	32.1	QP	20.8	-18.8	34.1	0	100	Hori.	46.0	11.9
719.987	31.1	QP	20.8	-18.8	33.1	39	131	Vert.	46.0	12.9

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)

Radiated Spurious Emission Rx Ch Mid

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

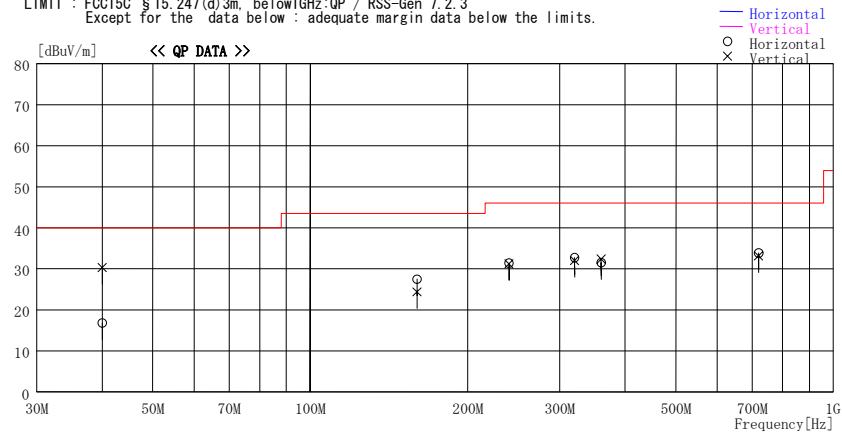
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 12:58:39

Company : Sony Corporation Report No. : 26IE0106-HO
Kind of EUT : Wireless LAN Module Power : AC120V/60Hz (EUT DC 3.3V)
Model No. : LAWM-001 Temp./Humi. : 25deg.C. / 56%
Serial No. : XG60365NU00005 Operator : Makoto Kosaka

Mode / Remarks : Rx 6ch(2437MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : FCC15C §15.247(d)3m, below1GHz:QP / RSS-Gen 7.2.3
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Gain [dB]						
40.000	25.2	QP	13.6	-22.0	16.8	93	231	Hori.	40.0	23.2
40.000	38.7	QP	13.6	-22.0	30.3	0	100	Vert.	40.0	9.7
160.000	33.0	QP	15.2	-20.7	27.5	32	220	Hori.	43.5	16.0
160.000	29.9	QP	15.2	-20.7	24.4	77	178	Vert.	43.5	19.1
240.000	34.3	QP	17.0	-19.9	31.4	35	211	Hori.	46.0	14.6
240.000	34.1	QP	17.0	-19.9	31.2	47	182	Vert.	46.0	14.8
320.000	36.3	QP	14.9	-18.5	32.7	281	100	Hori.	46.0	13.3
320.000	35.6	QP	14.9	-18.5	32.0	58	136	Vert.	46.0	14.0
360.000	34.7	QP	16.4	-19.6	31.5	64	100	Hori.	46.0	14.5
360.000	35.6	QP	16.4	-19.6	32.4	94	122	Vert.	46.0	13.7
719.987	31.9	QP	20.8	-18.8	33.9	0	100	Hori.	46.0	12.2
719.987	31.1	QP	20.8	-18.8	33.1	39	131	Vert.	46.0	12.9

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)

Radiated Spurious Emission

Rx Ch Mid

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

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DATA OF RADIATED EMISSION TEST

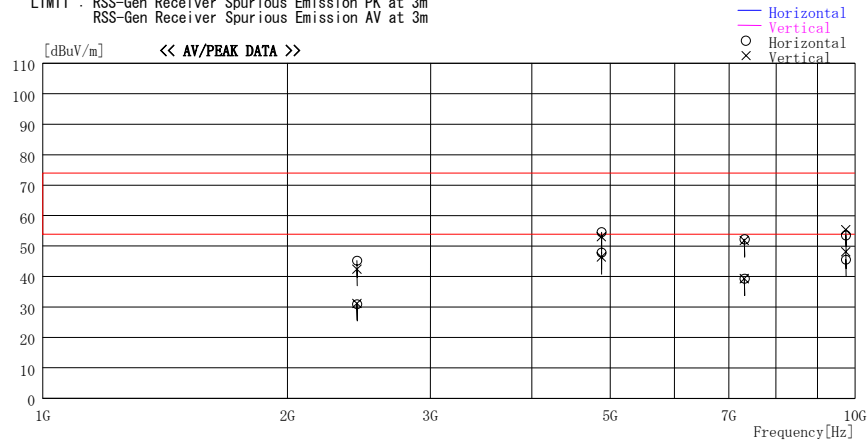
UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2006/05/30 19:01:36

Company : Sony Corporation
Kind of EUT : Wireless LAN Module
Model No. : LAWM-001
Serial No. : XG60365NU00005

Report No. : 26IE0106-HO
Power : AC120V/60Hz (EUT DC 3.3V)
Temp./Humi. : 27deg. C. / 47%
Operator : Yutaka Yoshida

Mode / Remarks : Rx 6ch(2437MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

LIMIT : RSS-Gen Receiver Spurious Emission PK at 3m
RSS-Gen Receiver Spurious Emission AV at 3m



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB]	Gain [dB]					[dBuV/m]	[dB]	
2437.000	43.8	PK	30.5	-29.1	45.2	0	100	Hori.	73.9	28.7	Ref. Data
2437.000	41.0	PK	30.5	-29.1	42.4	0	100	Vert.	73.9	31.5	Ref. Data
2437.000	29.5	AV	30.5	-29.1	30.9	0	100	Hori.	53.9	23.0	
2437.000	29.8	AV	30.5	-29.1	31.2	0	100	Vert.	53.9	22.7	
4873.984	45.6	PK	36.1	-27.1	54.6	40	111	Hori.	73.9	19.3	Ref. Data
4873.984	44.1	PK	36.1	-27.1	53.1	211	102	Vert.	73.9	20.8	Ref. Data
4873.984	38.9	AV	36.1	-27.1	47.9	40	111	Hori.	53.9	6.0	
4873.984	37.4	AV	36.1	-27.1	46.4	211	102	Vert.	53.9	7.5	
7311.000	40.3	PK	37.8	-25.9	52.2	0	100	Hori.	73.9	21.7	Ref. Data
7311.000	40.0	PK	37.8	-25.9	51.9	0	100	Vert.	73.9	22.0	Ref. Data
7311.000	27.4	AV	37.8	-25.9	39.3	0	100	Hori.	53.9	14.6	
7311.000	27.4	AV	37.8	-25.9	39.3	0	100	Vert.	53.9	14.6	
9747.932	42.2	PK	36.6	-25.2	53.6	137	106	Hori.	73.9	20.3	Ref. Data
9747.932	44.0	PK	36.6	-25.2	55.4	207	112	Vert.	73.9	18.5	Ref. Data
9747.932	34.2	AV	36.6	-25.2	45.6	137	106	Hori.	53.9	8.3	
9747.932	36.8	AV	36.6	-25.2	48.2	207	112	Vert.	53.9	5.7	

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)

Radiated Spurious Emission

11b Tx Ch Low

Company : Sony Corporation Equipment : Wireless LAN Module Model : LAWMM-001 Sample No. : XG60365NU00005 Power : DC3.3V Mode : 11b 11Mbps, Tx 2412MHz Remarks : Hor Z, Ver Y-axis	REPORT NO : 26IE0106-HO REGULATION : Fcc Part15 Subpart C 15.247(d) TEST DISTANCE : 3m DATE : 05/29/2006 TEMPERATURE : 23deg.C HUMIDITY : 68% ENGINEER : Yutaka Yoshida	UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
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PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	71.6	69.9	30.6	32.4	3.3	0.0	73.1	71.4	74.0	0.9	2.6
2	4824.0	45.3	45.1	35.7	31.9	4.6	1.4	55.1	54.9	74.0	18.9	19.1
3	7236.0	40.2	40.8	37.6	31.5	5.6	1.2	53.1	53.7	74.0	20.9	20.3
4	9648.0	43.8	44.5	36.6	31.7	6.6	1.0	56.2	56.9	74.0	17.8	17.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12060.0	not found	not found	-	-	-	-	-	-	74.0	-	-
6	14472.0	not found	not found	-	-	-	-	-	-	74.0	-	-
7	16884.0	not found	not found	-	-	-	-	-	-	74.0	-	-
8	19296.0	not found	not found	-	-	-	-	-	-	74.0	-	-
9	21708.0	not found	not found	-	-	-	-	-	-	74.0	-	-
10	24120.0	42.8	42.7	39.1	30.4	5.4	0.0	47.4	47.3	74.0	26.6	26.7

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	47.5	46.3	30.6	32.4	3.3	0.0	49.0	47.8	54.0	5.0	6.2
2	4824.0	37.4	38.4	35.7	31.9	4.6	1.4	47.2	48.2	54.0	6.8	5.8
3	7236.0	27.8	27.8	37.6	31.5	5.6	1.2	40.7	40.7	54.0	13.3	13.3
4	9648.0	35.2	36.0	36.6	31.7	6.6	1.0	47.6	48.4	54.0	6.4	5.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12060.0	not found	not found	-	-	-	-	-	-	54.0	-	-
6	14472.0	not found	not found	-	-	-	-	-	-	54.0	-	-
7	16884.0	not found	not found	-	-	-	-	-	-	54.0	-	-
8	19296.0	not found	not found	-	-	-	-	-	-	54.0	-	-
9	21708.0	not found	not found	-	-	-	-	-	-	54.0	-	-
10	24120.0	30.2	30.2	39.1	30.4	5.4	0.0	34.8	34.8	54.0	19.2	19.2

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	108.8	106.8	30.6	32.4	3.3	0.0	110.2	108.2	-	-	-
2	2399.5	67.0	65.9	30.6	32.4	3.3	0.0	68.5	67.4	Funda-20dB	21.7	20.8
3	2400.0	63.1	61.3	30.6	32.4	3.3	0.0	64.6	62.8	Funda-20dB	25.7	25.5

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

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

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

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

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

UL Apex Co., Ltd.

Head Office EMC Lab.

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Facsimile : +81 596 24 8124

MF060b(14.06.06)

Radiated Spurious Emission 11b Tx Ch Mid

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

Company : Sony Corporation	REPORT NO : 26IE0106-HO
Equipment : Wireless LAN Module	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : LAWM-001	TEST DISTANCE : 3m
Sample No. : XG60365NU00005	DATE : 05/29/2006
Power : DC3.3V	TEMPERATURE : 23deg.C
Mode : 11b 11Mbps, Tx 2437MHz	HUMIDITY : 68%
Remarks : Hor Z , Ver Y-axis	ENGINEER : Yutaka Yoshida

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	45.4	46.2	36.1	31.9	4.7	1.4	55.7	56.5	74.0	18.3	17.5
2	7311.0	40.9	40.1	37.8	31.6	5.7	1.1	53.9	53.1	74.0	20.1	20.9
3	9748.0	43.6	43.5	36.6	31.8	6.6	1.1	56.0	55.9	74.0	18.0	18.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12185.0	not found	not found	-	-	-	-	-	-	74.0	-	-
5	14622.0	not found	not found	-	-	-	-	-	-	74.0	-	-
6	17059.0	not found	not found	-	-	-	-	-	-	74.0	-	-
7	19496.0	not found	not found	-	-	-	-	-	-	74.0	-	-
8	21933.0	not found	not found	-	-	-	-	-	-	74.0	-	-
9	24370.0	41.1	41.7	39.1	30.5	5.4	0.0	45.6	46.2	74.0	28.4	27.8

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	37.9	34.3	36.1	31.9	4.7	1.4	48.2	44.6	54.0	5.8	9.4
2	7311.0	27.8	27.7	37.8	31.6	5.7	1.1	40.8	40.7	54.0	13.2	13.3
3	9748.0	34.9	35.4	36.6	31.8	6.6	1.1	47.3	47.8	54.0	6.7	6.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12185.0	not found	not found	-	-	-	-	-	-	54.0	-	-
5	14622.0	not found	not found	-	-	-	-	-	-	54.0	-	-
6	17059.0	not found	not found	-	-	-	-	-	-	54.0	-	-
7	19496.0	not found	not found	-	-	-	-	-	-	54.0	-	-
8	21933.0	not found	not found	-	-	-	-	-	-	54.0	-	-
9	24370.0	28.7	28.7	39.1	30.5	5.4	0.0	33.2	33.2	54.0	20.8	20.8

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

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

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

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

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

Radiated Spurious Emission 11b Tx Ch High

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

Company : Sony Corporation	REPORT NO : 26IE0106-HO
Equipment : Wireless LAN Module	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : LAWM-001	TEST DISTANCE : 3m
Sample No. : XG60365NU00005	DATE : 05/29/2006
Power : DC3.3V	TEMPERATURE : 23deg.C
Mode : 11b 11Mbps, Tx 2462MHz	HUMIDITY : 68%
Remarks : Hor Z , Ver Y-axis	ENGINEER : Yutaka Yoshida

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	65.3	63.8	30.4	32.4	3.5	0.0	66.8	65.3	74.0	7.3	8.8
2	4924.0	44.5	45.9	36.4	31.8	4.7	1.4	55.1	56.5	74.0	18.9	17.5
3	7386.0	40.5	39.9	38.0	31.8	5.7	1.1	53.5	52.9	74.0	20.5	21.1
4	9848.0	44.4	44.2	36.5	31.9	6.6	1.2	56.8	56.6	74.0	17.2	17.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.0	not found	not found	-	-	-	-	-	-	74.0	-	-
6	14772.0	not found	not found	-	-	-	-	-	-	74.0	-	-
7	17234.0	not found	not found	-	-	-	-	-	-	74.0	-	-
8	19696.0	not found	not found	-	-	-	-	-	-	74.0	-	-
9	22158.0	not found	not found	-	-	-	-	-	-	74.0	-	-
10	24620.0	41.9	41.3	39.2	30.6	5.4	0.0	46.4	45.8	74.0	27.6	28.2

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	45.7	44.6	30.4	32.4	3.5	0.0	47.2	46.1	54.0	6.9	8.0
2	4924.0	38.4	35.6	36.4	31.8	4.7	1.4	49.0	46.2	54.0	5.0	7.8
3	7386.0	27.6	27.6	38.0	31.8	5.7	1.1	40.6	40.6	54.0	13.4	13.4
4	9848.0	36.6	37.1	36.5	31.9	6.6	1.2	49.0	49.5	54.0	5.0	4.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.0	not found	not found	-	-	-	-	-	-	54.0	-	-
6	14772.0	not found	not found	-	-	-	-	-	-	54.0	-	-
7	17234.0	not found	not found	-	-	-	-	-	-	54.0	-	-
8	19696.0	not found	not found	-	-	-	-	-	-	54.0	-	-
9	22158.0	not found	not found	-	-	-	-	-	-	54.0	-	-
10	24620.0	29.1	29.2	39.2	30.6	5.4	0.0	33.6	33.7	54.0	20.4	20.3

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

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

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

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

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

Radiated Spurious Emission

11g Tx Ch Low

Company : Sony Corporation Equipment : Wireless LAN module Model : LAWM-001 Sample No. : XG60365NU00005 Power : DC3.3V Mode : 11g 54Mbps, Tx 2412MHz Remarks : Hor Z , Ver Y-axis	REPORT NO : 26IE0106-HO REGULATION : Fcc Part15 Subpart C 15.247(d) TEST DISTANCE : 3m DATE : 05/29/2006 TEMPERATURE : 23deg.C HUMIDITY : 68% ENGINEER : Yutaka Yoshida	UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
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PK DETECT (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	67.4	65.5	30.6	32.4	3.3	0.0	68.9	67.0	74.0	5.1	7.0
2	4824.0	45.1	44.5	35.7	31.9	4.6	1.4	54.9	54.3	74.0	19.1	19.7
3	7236.0	40.6	40.0	37.6	31.5	5.6	1.2	53.5	52.9	74.0	20.5	21.1
4	9648.0	44.5	45.0	36.6	31.7	6.6	1.0	56.9	57.4	74.0	17.1	16.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12060.0	not found	not found	-	-	-	-	-	-	74.0	-	-
6	14472.0	not found	not found	-	-	-	-	-	-	74.0	-	-
7	16884.0	not found	not found	-	-	-	-	-	-	74.0	-	-
8	19296.0	not found	not found	-	-	-	-	-	-	74.0	-	-
9	21708.0	not found	not found	-	-	-	-	-	-	74.0	-	-
10	24120.0	41.2	40.9	39.1	30.4	5.4	0.0	45.8	45.5	74.0	28.2	28.5

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	48.7	47.1	30.6	32.4	3.3	0.0	50.2	48.6	54.0	3.8	5.4
2	4824.0	38.6	38.0	35.7	31.9	4.6	1.4	48.4	47.8	54.0	5.6	6.2
3	7236.0	27.9	27.9	37.6	31.5	5.6	1.2	40.8	40.8	54.0	13.2	13.2
4	9648.0	35.8	37.5	36.6	31.7	6.6	1.0	48.2	49.9	54.0	5.8	4.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12060.0	not found	not found	-	-	-	-	-	-	54.0	-	-
6	14472.0	not found	not found	-	-	-	-	-	-	54.0	-	-
7	16884.0	not found	not found	-	-	-	-	-	-	54.0	-	-
8	19296.0	not found	not found	-	-	-	-	-	-	54.0	-	-
9	21708.0	not found	not found	-	-	-	-	-	-	54.0	-	-
10	24120.0	28.8	28.8	39.1	30.4	5.4	0.0	33.4	33.4	54.0	20.6	20.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	103.2	100.6	30.6	32.4	3.3	0.0	104.6	102.0	-	-	-
2	2400.0	69.6	63.3	30.6	32.4	3.3	0.0	71.1	64.8	Funda-20dB	13.6	17.3

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

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

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

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

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

Radiated Spurious Emission 11g Tx Ch Mid

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

Company : Sony Corporation	REPORT NO : 26IE0106-HO
Equipment : Wireless LAN Module	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : LAWM-001	TEST DISTANCE : 3m
Sample No. : XG60365NU00005	DATE : 05/29/2006
Power : DC3.3V	TEMPERATURE : 23deg.C
Mode : 11g 54Mbps, Tx 2437MHz	HUMIDITY : 68%
Remarks : Hor Z , Ver Y-axis	ENGINEER : Yutaka Yoshida

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	45.0	44.3	36.1	31.9	4.7	1.4	55.3	54.6	74.0	18.7	19.4
2	7311.0	41.2	40.1	37.8	31.6	5.7	1.1	54.2	53.1	74.0	19.8	20.9
3	9748.0	43.5	43.6	36.6	31.8	6.6	1.1	55.9	56.0	74.0	18.1	18.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12185.0	not found	not found	-	-	-	-	-	-	74.0	-	-
5	14622.0	not found	not found	-	-	-	-	-	-	74.0	-	-
6	17059.0	not found	not found	-	-	-	-	-	-	74.0	-	-
7	19496.0	not found	not found	-	-	-	-	-	-	74.0	-	-
8	21933.0	not found	not found	-	-	-	-	-	-	74.0	-	-
9	24370.0	40.7	40.6	39.1	30.5	5.4	0.0	45.2	45.1	74.0	28.8	28.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.0	37.9	37.2	36.1	31.9	4.7	1.4	48.2	47.5	54.0	5.8	6.5
2	7311.0	27.8	27.7	37.8	31.6	5.7	1.1	40.8	40.7	54.0	13.2	13.3
3	9748.0	33.5	35.1	36.6	31.8	6.6	1.1	45.9	47.5	54.0	8.1	6.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12185.0	not found	not found	-	-	-	-	-	-	54.0	-	-
5	14622.0	not found	not found	-	-	-	-	-	-	54.0	-	-
6	17059.0	not found	not found	-	-	-	-	-	-	54.0	-	-
7	19496.0	not found	not found	-	-	-	-	-	-	54.0	-	-
8	21933.0	not found	not found	-	-	-	-	-	-	54.0	-	-
9	24370.0	28.2	28.2	39.1	30.5	5.4	0.0	32.7	32.7	54.0	21.3	21.3

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

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

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

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

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

Radiated Spurious Emission(11g) 11g Tx Ch High

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

Company : Sony Corporation	REPORT NO : 26IE0106-HO
Equipment : Wireless LAN Module	REGULATION : Fee Part15 Subpart C 15.247(d)
Model : LAWM-001	TEST DISTANCE : 3m
Sample No. : XG60365NU00005	DATE : 05/29/2006
Power : DC3.3V	TEMPERATURE : 23deg.C
Mode : 11g 54Mbps, Tx 2462MHz	HUMIDITY : 68%
Remarks : Hor Z, Ver Y-axis	ENGINEER : Yutaka Yoshida

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	67.0	65.4	30.4	32.4	3.5	0.0	68.5	66.9	74.0	5.6	7.1
2	4924.0	44.9	44.4	36.4	31.8	4.7	1.4	55.5	55.0	74.0	18.5	19.0
3	7386.0	40.1	40.5	38.0	31.8	5.7	1.1	53.1	53.5	74.0	20.9	20.5
4	9848.0	44.0	45.1	36.5	31.9	6.6	1.2	56.4	57.5	74.0	17.6	16.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.0	not found	not found	-	-	-	-	-	-	74.0	-	-
6	14772.0	not found	not found	-	-	-	-	-	-	74.0	-	-
7	17234.0	not found	not found	-	-	-	-	-	-	74.0	-	-
8	19696.0	not found	not found	-	-	-	-	-	-	74.0	-	-
9	22158.0	not found	not found	-	-	-	-	-	-	74.0	-	-
10	24620.0	41.6	41.9	39.2	30.6	5.4	0.0	46.1	46.4	74.0	27.9	27.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	47.0	45.8	30.4	32.4	3.5	0.0	48.5	47.3	54.0	5.5	6.8
2	4924.0	38.4	37.2	36.4	31.8	4.7	1.4	49.0	47.8	54.0	5.0	6.2
3	7386.0	27.6	27.6	38.0	31.8	5.7	1.1	40.6	40.6	54.0	13.4	13.4
4	9848.0	36.7	37.0	36.5	31.9	6.6	1.2	49.1	49.4	54.0	4.9	4.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.0	not found	not found	-	-	-	-	-	-	54.0	-	-
6	14772.0	not found	not found	-	-	-	-	-	-	54.0	-	-
7	17234.0	not found	not found	-	-	-	-	-	-	54.0	-	-
8	19696.0	not found	not found	-	-	-	-	-	-	54.0	-	-
9	22158.0	not found	not found	-	-	-	-	-	-	54.0	-	-
10	24620.0	29.2	29.2	39.2	30.6	5.4	0.0	33.7	33.7	54.0	20.3	20.3

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

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

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

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

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

Radiated Spurious Emission

Rx Ch Mid

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

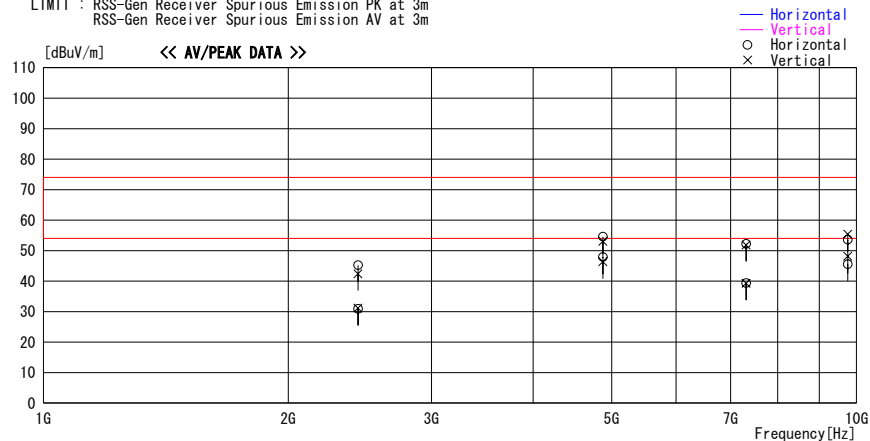
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2006/05/30 19:01:36

Company : Sony Corporation
Kind of EUT : Wireless LAN Module
Model No. : LAWM-001
Serial No. : XG60365NU00005
Report No. : 26IE0106-HO
Power : AC120V/60Hz (EUT DC 3.3V)
Temp./Humi. : 27deg. C. / 47%
Operator : Yutaka Yoshida

Mode / Remarks : Rx 6ch(2437MHz) Hor:Z-axis, Ver:Y-axis(MAX Axis)

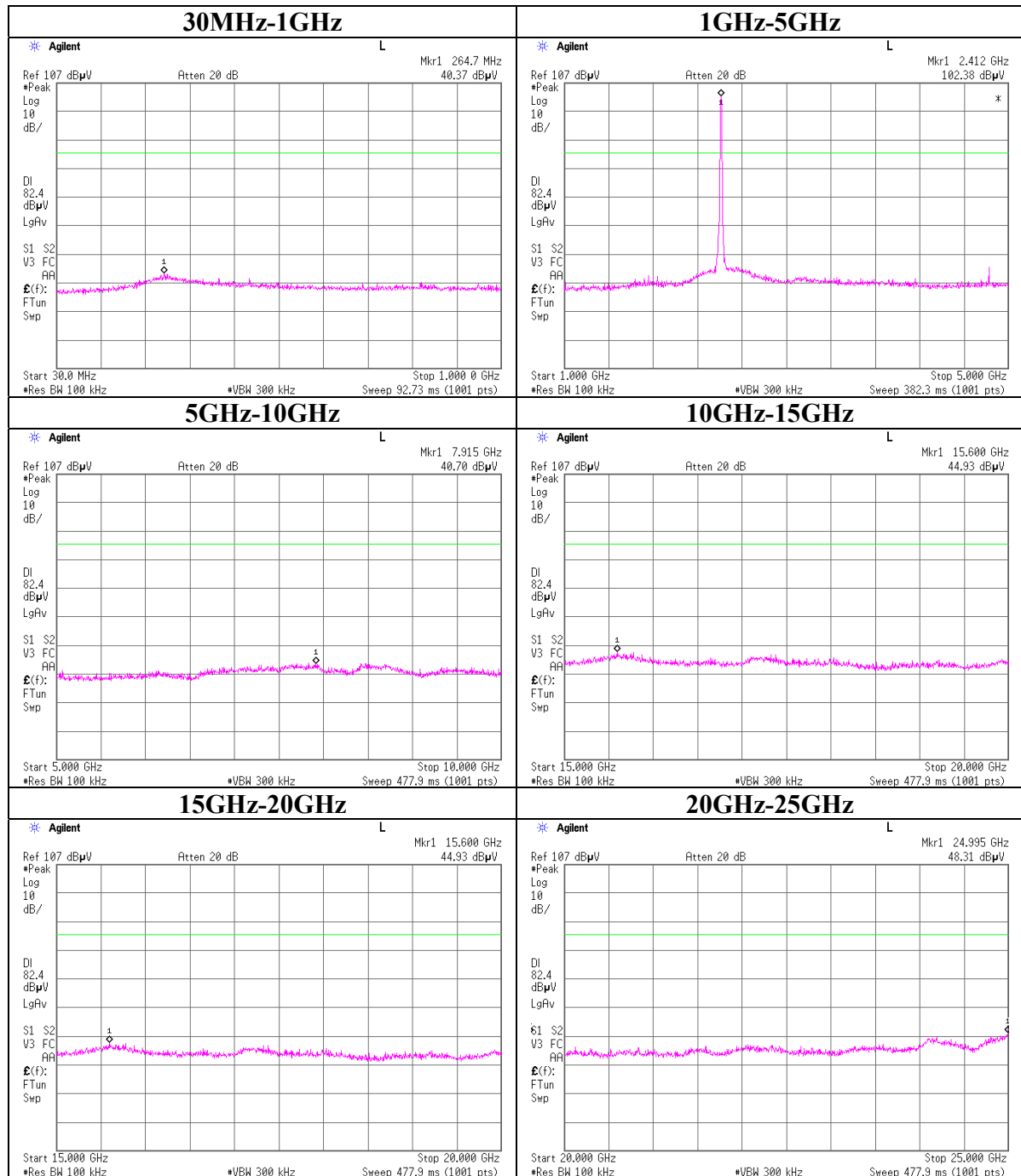
LIMIT : RSS-Gen Receiver Spurious Emission PK at 3m
RSS-Gen Receiver Spurious Emission AV at 3m



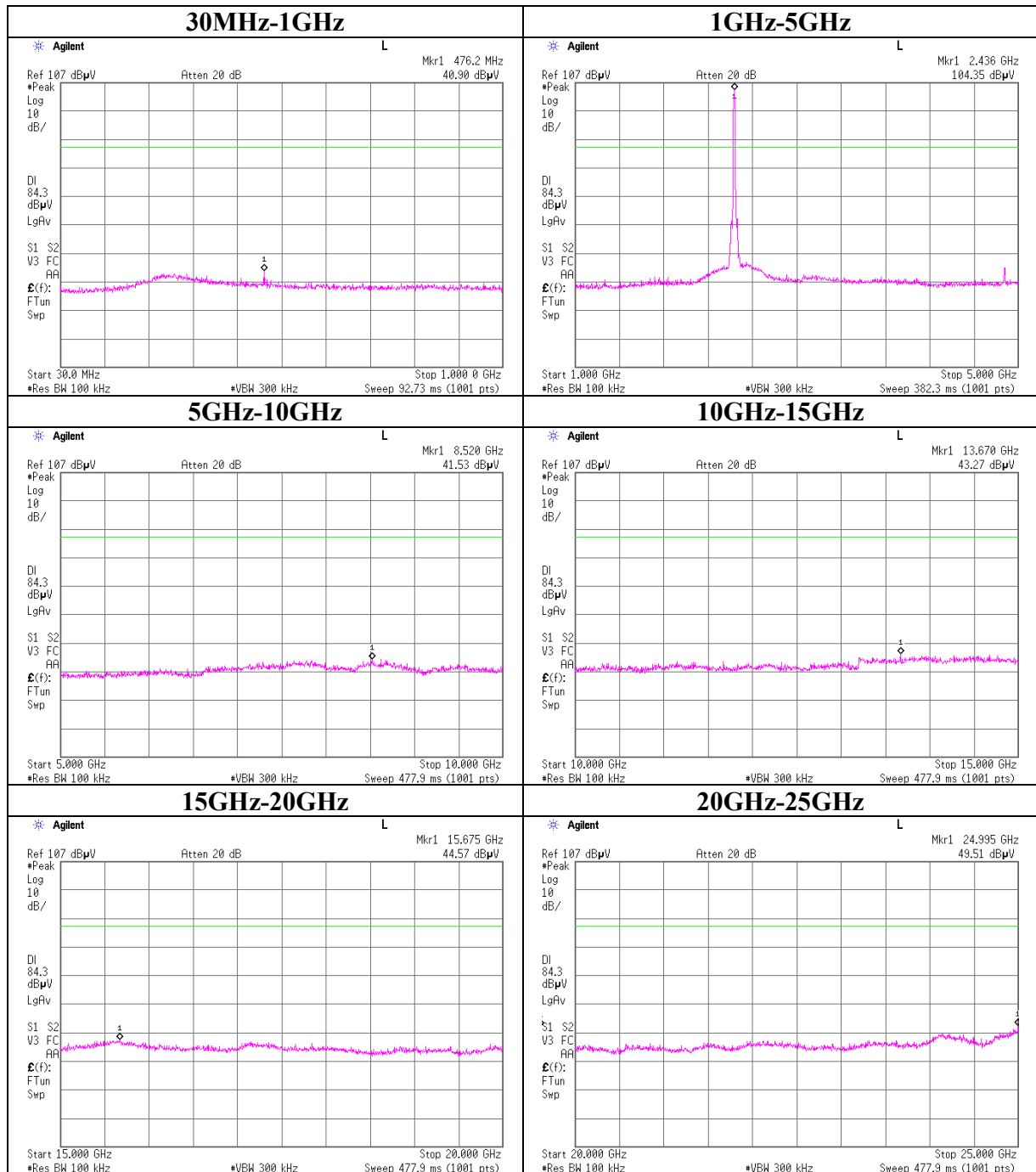
Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
2437.000	43.8	PK	30.5	-29.1	45.2	Hori.	74.0	28.8	Ref. Data
2437.000	41.0	PK	30.5	-29.1	42.4	Vert.	74.0	31.6	Ref. Data
2437.000	29.5	AV	30.5	-29.1	30.9	Hori.	54.0	23.1	
2437.000	29.8	AV	30.5	-29.1	31.2	Vert.	54.0	22.8	
4873.984	45.6	PK	36.1	-27.1	54.6	Hori.	74.0	19.4	Ref. Data
4873.984	44.1	PK	36.1	-27.1	53.1	Vert.	74.0	20.9	Ref. Data
4873.984	38.9	AV	36.1	-27.1	47.9	Hori.	54.0	6.1	
4873.984	37.4	AV	36.1	-27.1	46.4	Vert.	54.0	7.6	
7311.000	40.3	PK	37.8	-25.9	52.2	Hori.	74.0	21.8	Ref. Data
7311.000	40.0	PK	37.8	-25.9	51.9	Vert.	74.0	22.1	Ref. Data
7311.000	27.4	AV	37.8	-25.9	39.3	Hori.	54.0	14.7	
7311.000	27.4	AV	37.8	-25.9	39.3	Vert.	54.0	14.7	
9747.932	42.2	PK	36.6	-25.2	53.6	Hori.	74.0	20.4	Ref. Data
9747.932	44.0	PK	36.6	-25.2	55.4	Vert.	74.0	18.6	Ref. Data
9747.932	34.2	AV	36.6	-25.2	45.6	Hori.	54.0	8.4	
9747.932	36.8	AV	36.6	-25.2	48.2	Vert.	54.0	5.8	

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)

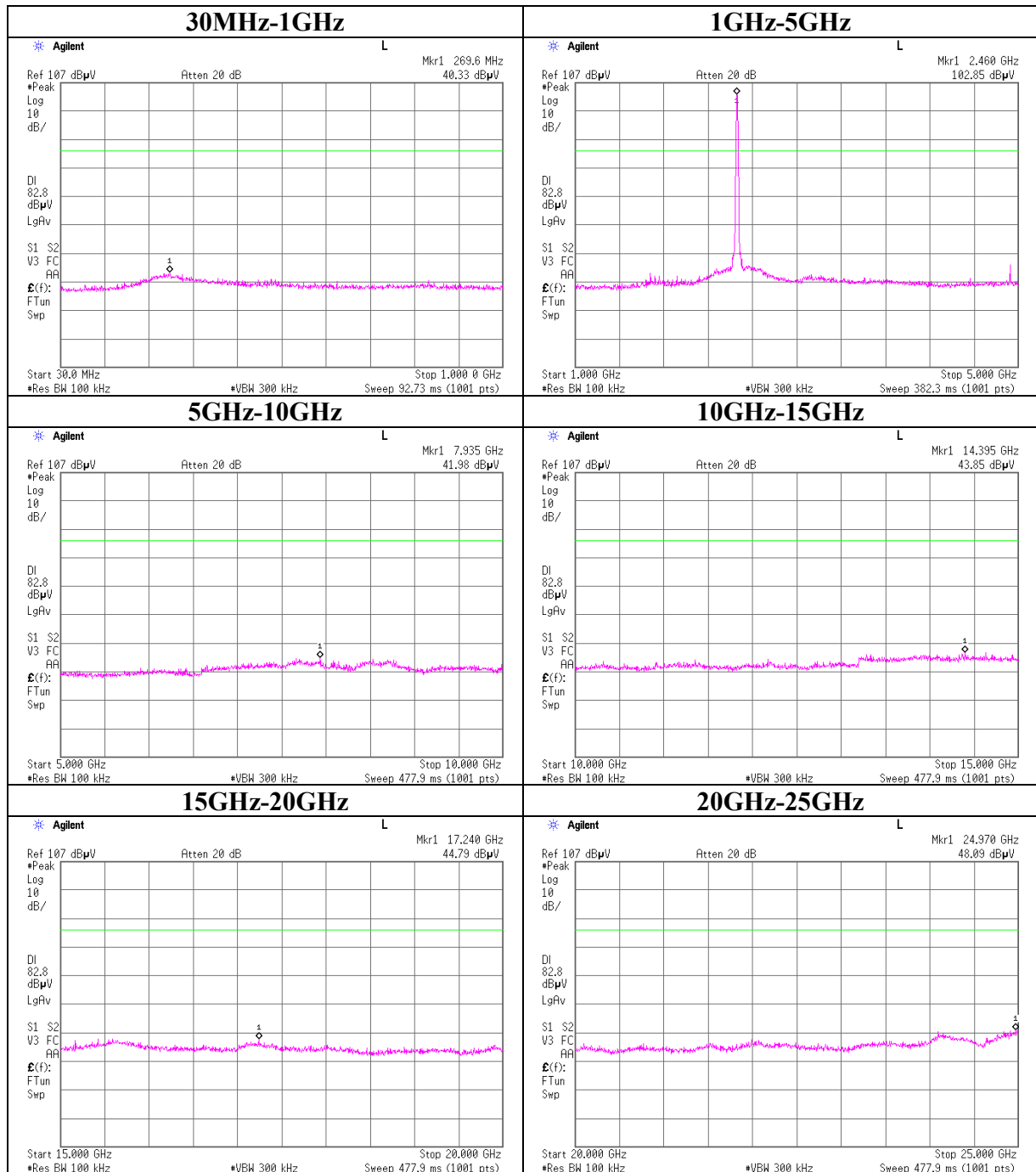
Conducted Spurious Emission
11b Tx Ch Low



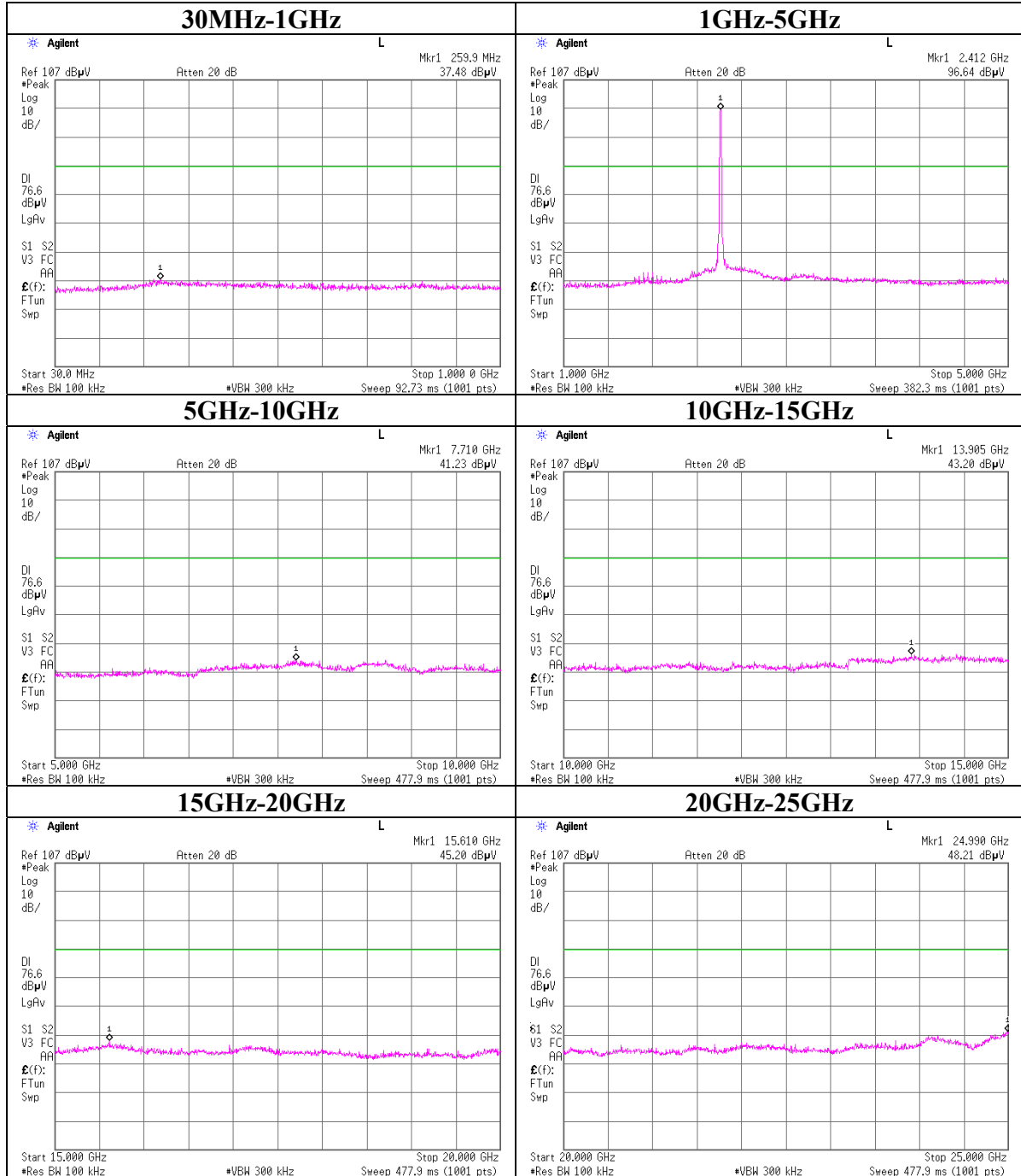
Conducted Spurious Emission
11b Tx Ch Mid



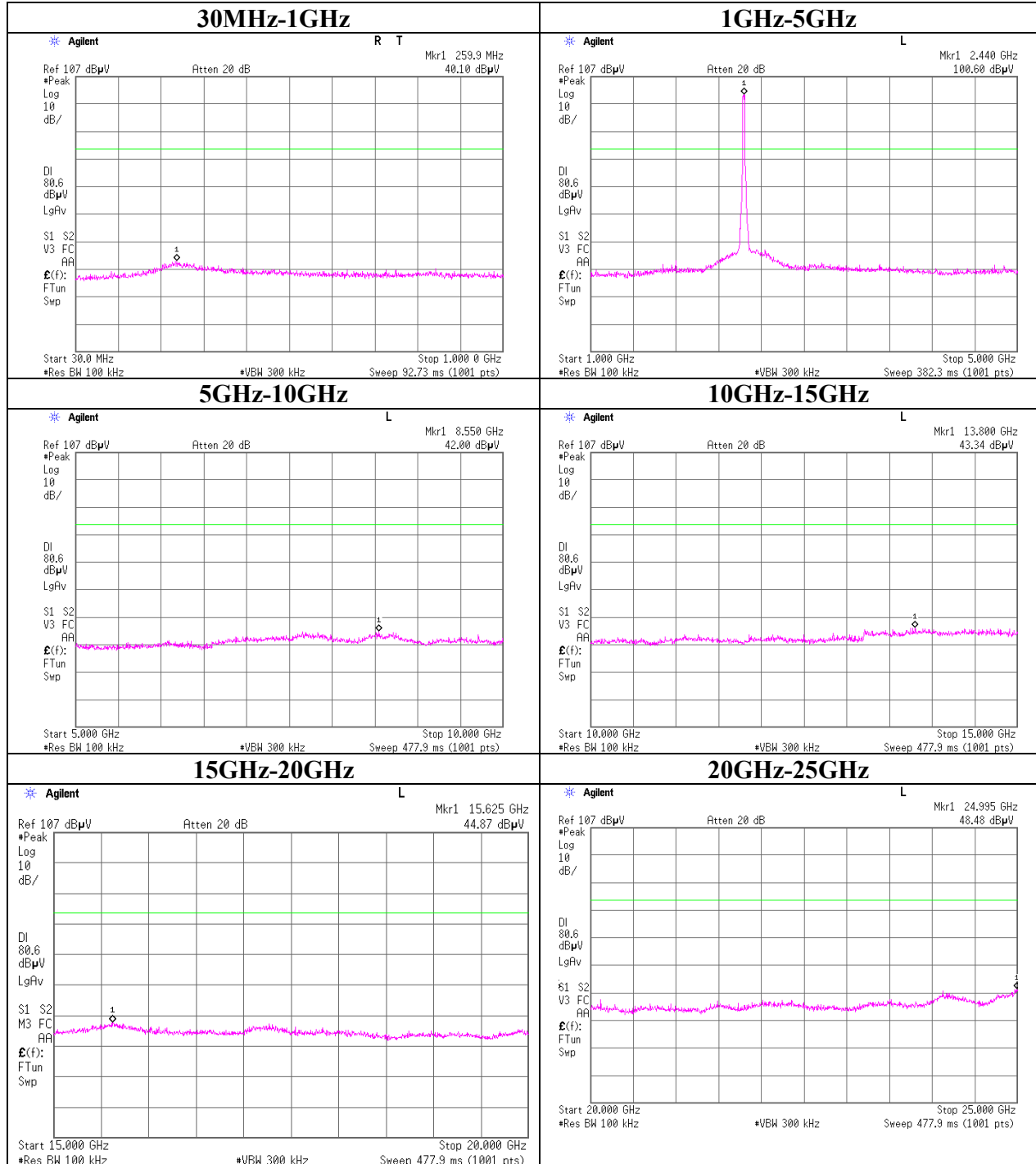
Conducted Spurious Emission
11b Tx Ch High



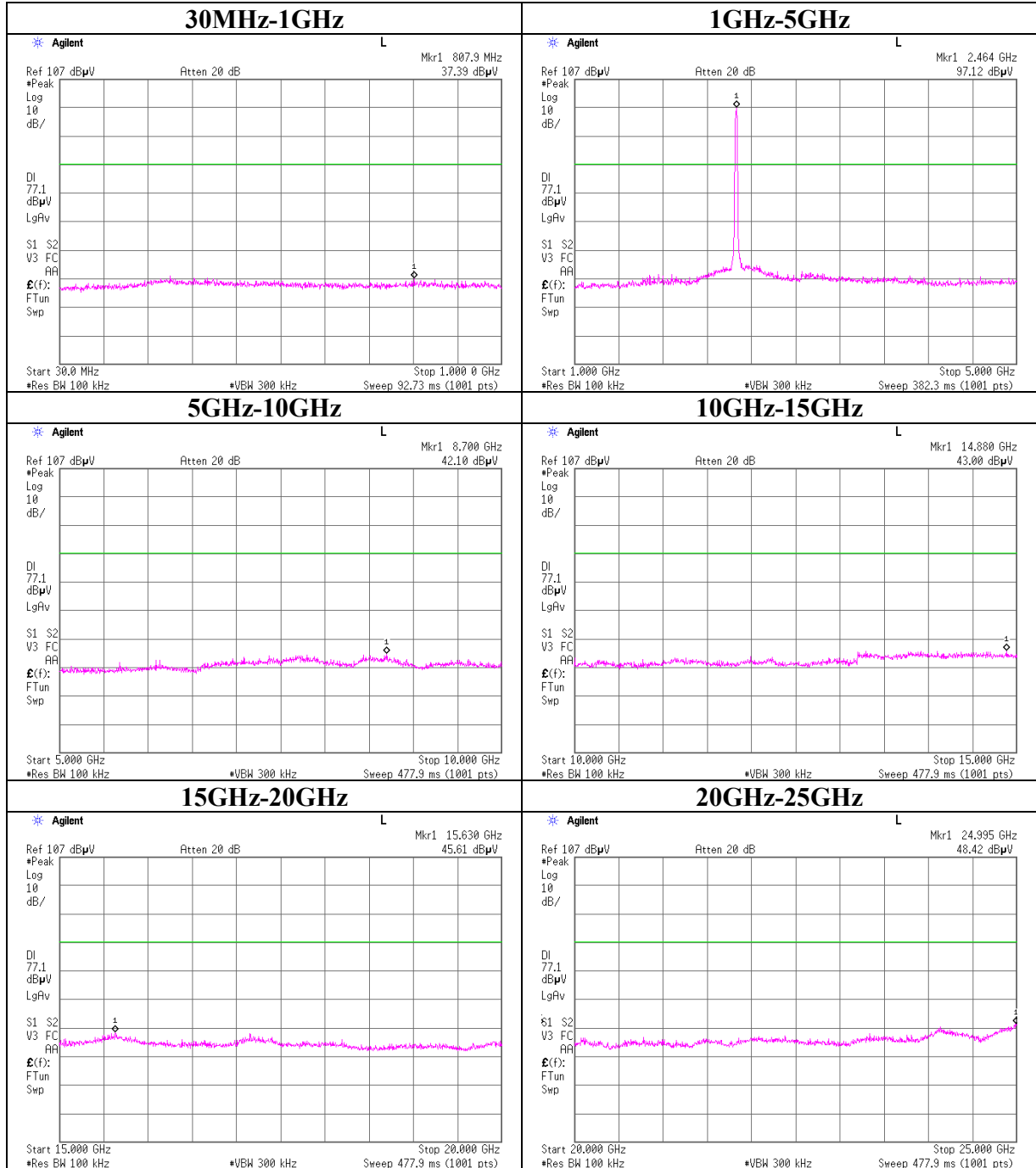
Conducted Spurious Emission
11g Tx Ch Low



Conducted Spurious Emission 11g Tx Ch Mid

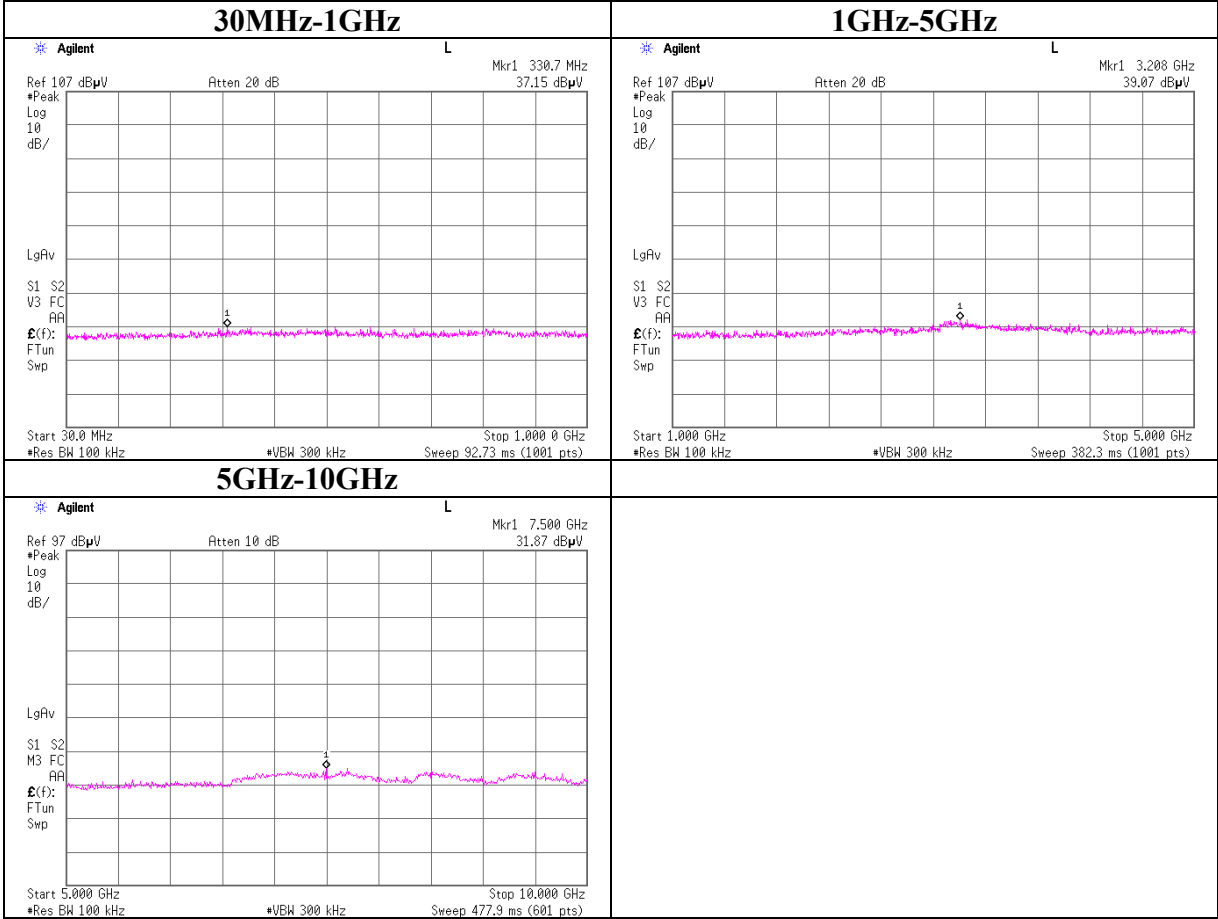


Conducted Spurious Emission
11g Tx Ch High



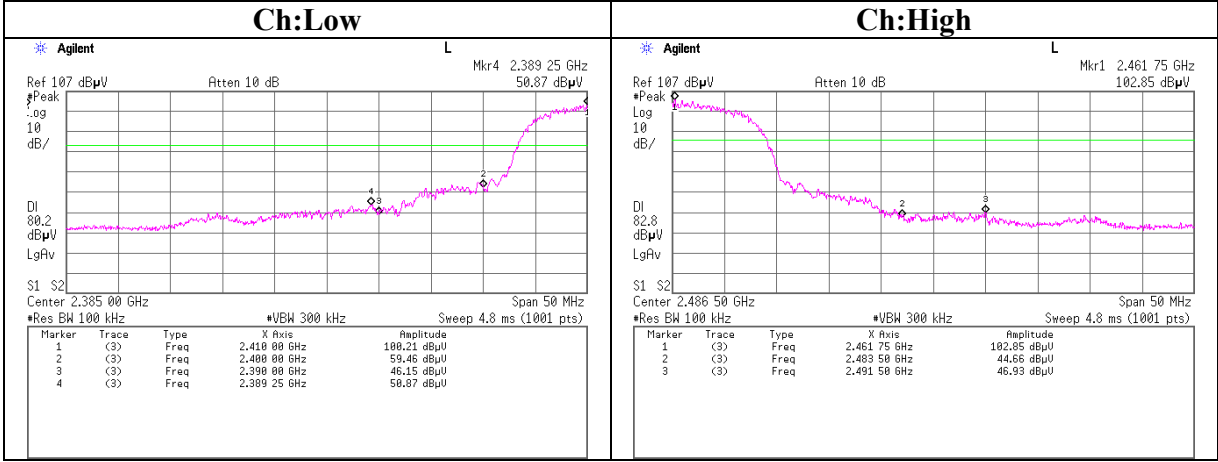
Conducted Spurious Emission

Rx Ch Low

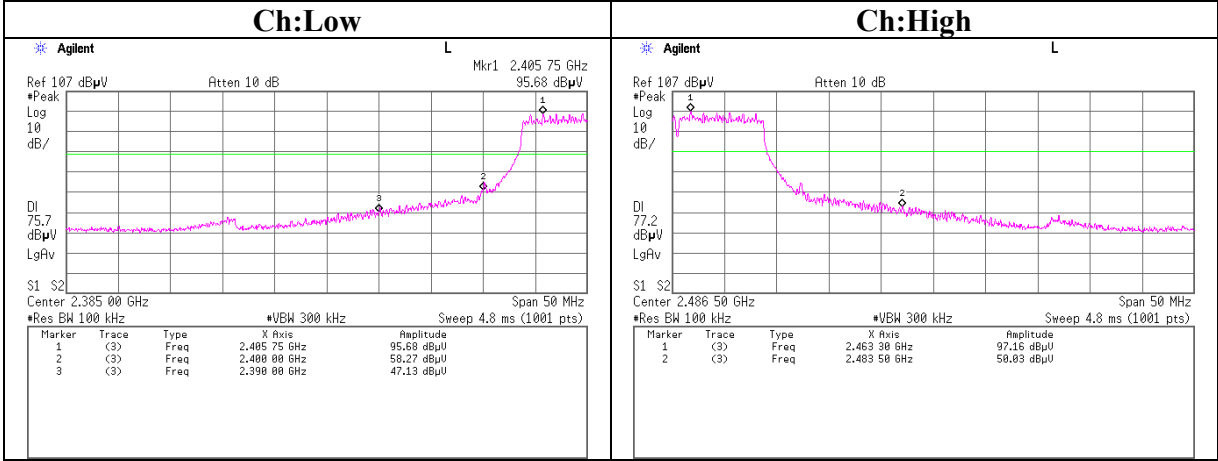


Conducted emission Band Edge compliance

11b 11Mbps



11g 54Mbps



Power Density

UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

COMPANY	: Sony Corporation	REPORT NO	: 26IE0106-HO
EQUIPMENT	: Wireless LAN Module	REGULATION	: FCC Part15 Subpart C 15.247(e)
MODEL	: LAWM-001	TEST DISTANCE	: -
SAMPLE NO.	: XG60365NU00005	DATE	: 05/31/2006
POWER	: AC120V/60Hz(EUT DC 3.3V)	TEMPERATURE	: 23deg.C.
MODE	: Tx(ch1,6,11)	HUMIDITY	: 64%
		ENGINEER	: Makoto Kosaka

[IEEE802.11b]

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2411.3	-19.09	1.58	10.14	-7.4	8.0	15.4
Mid	2436.3	-17.20	1.59	10.14	-5.5	8.0	13.5
High	2461.3	-18.67	1.69	10.14	-6.8	8.0	14.8

Sample Calculation:

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

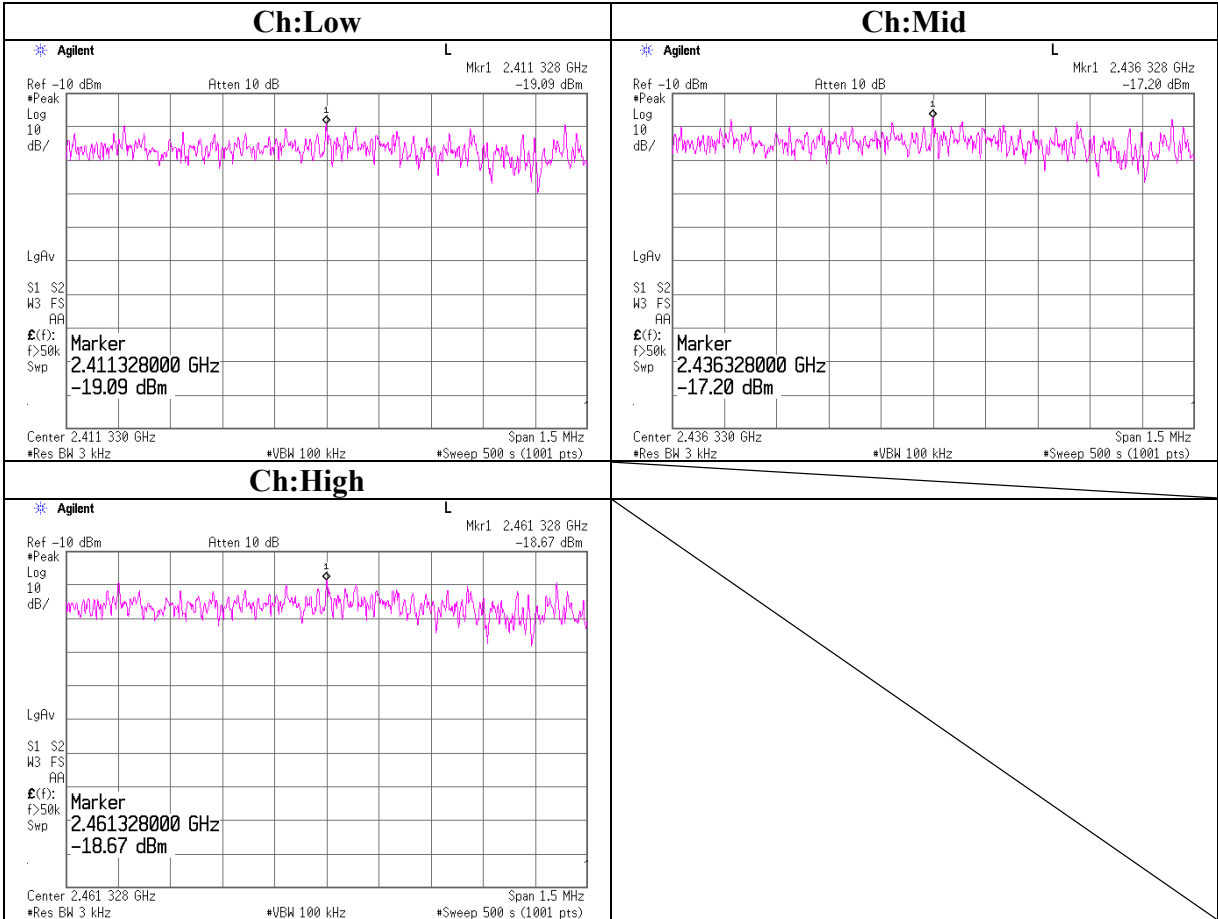
[IEEE802.11g]

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2410.1	-26.48	2.50	10.12	-13.9	8.0	21.9
Mid	2440.2	-26.58	2.46	10.12	-14.0	8.0	22.0
High	2465.2	-23.36	2.43	10.12	-10.8	8.0	18.8

Sample Calculation:

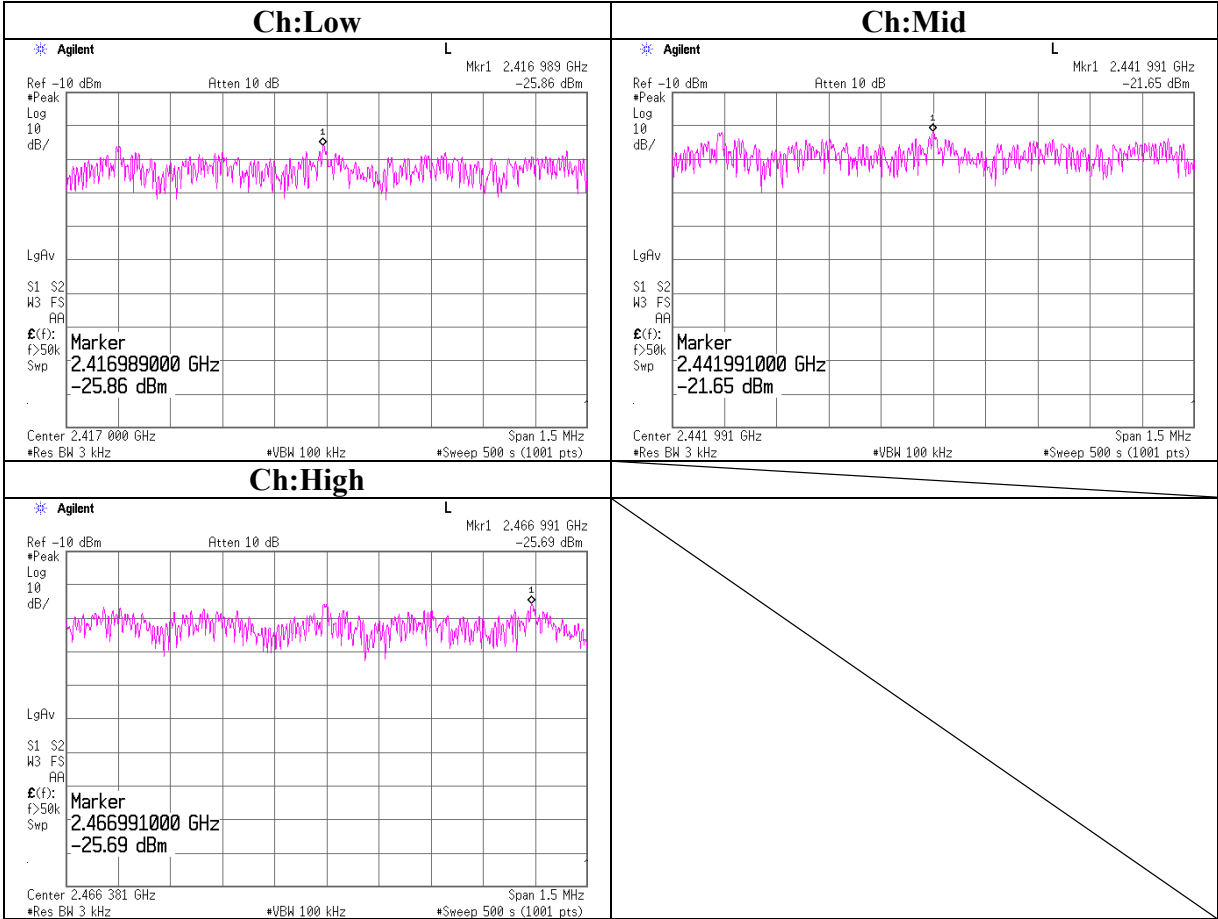
Result = Reading + Cable Loss (supplied by customer)+ Attenuator

Power Density
11b



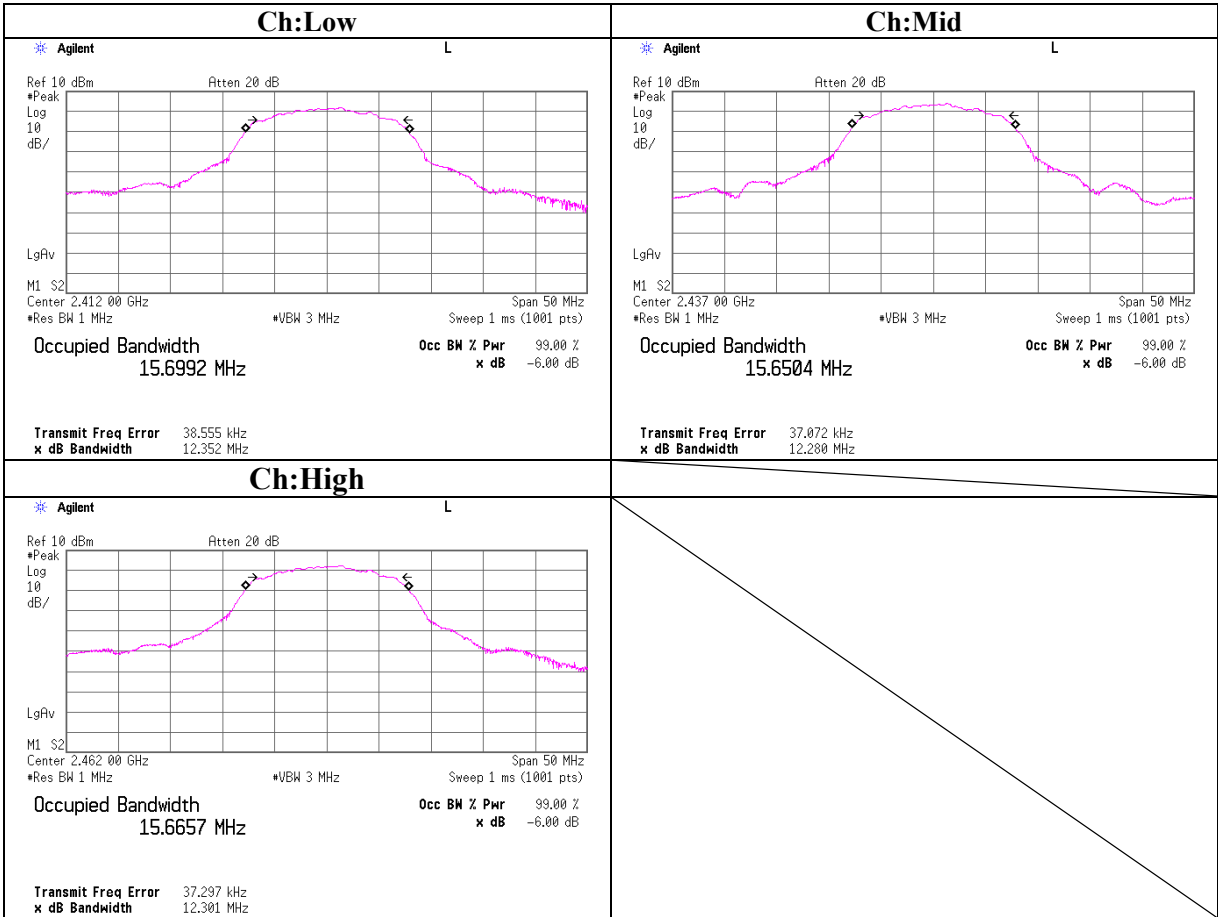
Power Density

11g



99%Occupied Bandwidth

11b



99%Occupied Bandwidth
11g

