

**APPENDIX 2: Data of EMI test**

**Conducted Emission**

**11b, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

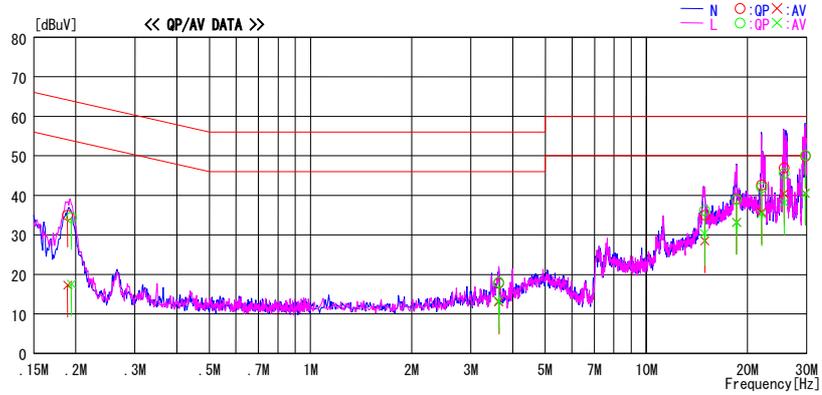
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber  
Date : 2008/02/27

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Antenna 25cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V (AC 120V / 60Hz)  
 Temp./Humi. : 23deg. C / 40%  
 Operator : Shinya Watanabe

Mode / Remarks : 11b Tx 2412MHz, 11Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.18920	34.8	17.1	0.2	35.0	17.3	64.1	54.1	29.1	36.8	N
3.63701	17.4	12.6	0.4	17.8	13.0	56.0	46.0	38.2	33.0	N
14.92011	34.2	27.7	0.8	35.0	28.5	60.0	50.0	25.0	21.5	N
18.54020	38.3	32.3	0.9	39.2	33.2	60.0	50.0	20.9	16.8	N
22.02028	41.6	34.7	1.0	42.6	35.7	60.0	50.0	17.4	14.3	N
25.68036	45.9	39.4	1.1	47.0	40.5	60.0	50.0	13.1	9.6	N
29.72045	48.7	39.3	1.2	49.9	40.5	60.0	50.0	10.1	9.5	N
0.19420	34.3	17.4	0.2	34.5	17.6	63.9	53.9	29.4	36.3	L
3.63701	17.6	12.9	0.4	18.0	13.3	56.0	46.0	38.0	32.7	L
14.90011	35.4	29.6	0.8	36.2	30.4	60.0	50.0	23.8	19.6	L
18.54020	38.1	32.3	0.9	39.0	33.2	60.0	50.0	21.0	16.8	L
22.02028	41.1	34.3	1.0	42.1	35.3	60.0	50.0	18.0	14.7	L
25.70036	44.5	37.1	1.1	45.6	38.2	60.0	50.0	14.4	11.9	L
29.72045	48.9	39.3	1.2	50.1	40.5	60.0	50.0	9.9	9.5	L

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

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

**Conducted Emission**

**11b, Tx, Ch: Mid, 11Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 25cm	Temp./Humi.	: 23deg. C / 40%
Serial No.	: 54	Operator	: Shinya Watanabe

Mode / Remarks : 11b Tx 2437MHz, 11Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
FCC15.207 AV

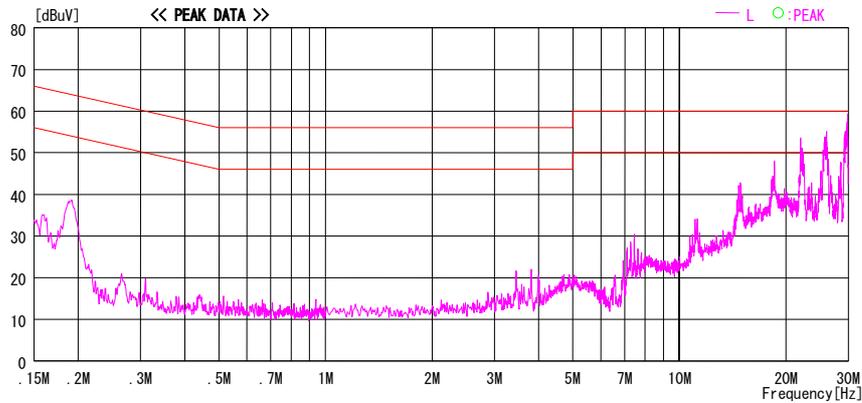
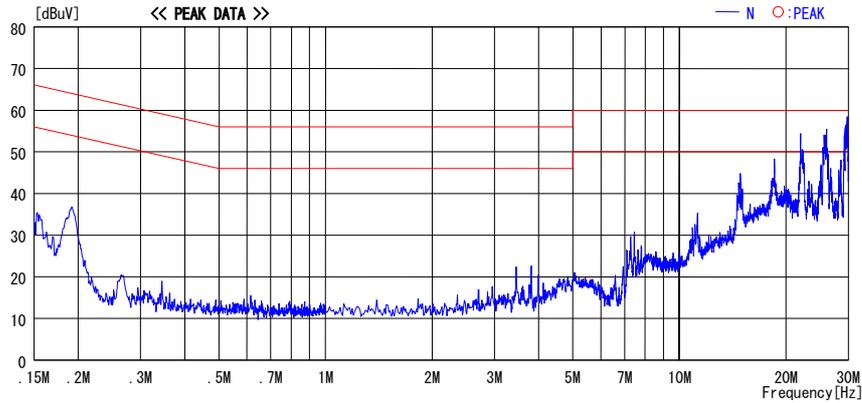


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

### Conducted Emission

**11b, Tx, Ch: High, 11Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

#### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company : Sony Corporation	Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE	Power : DC 3.3V (AC 120V / 60Hz)
Model No. : CMN-727AS / Antenna 25cm	Temp./Humi. : 23deg. C / 40%
Serial No. : 54	Operator : Shinya Watanabe

Mode / Remarks : 11b Tx 2462MHz, 11Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
FCC15.207 AV

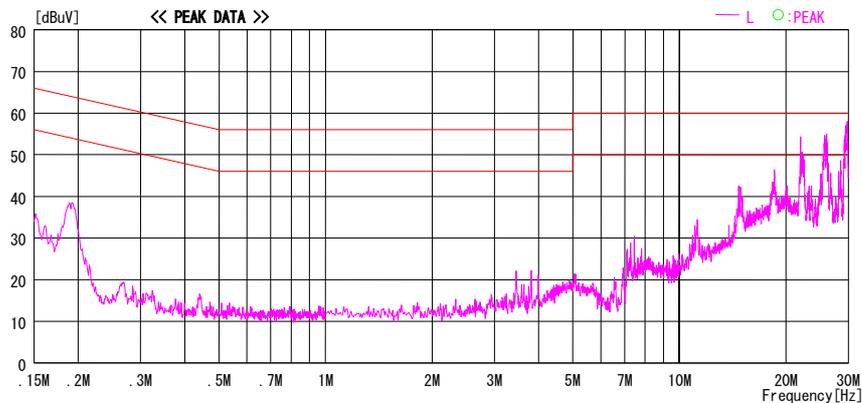
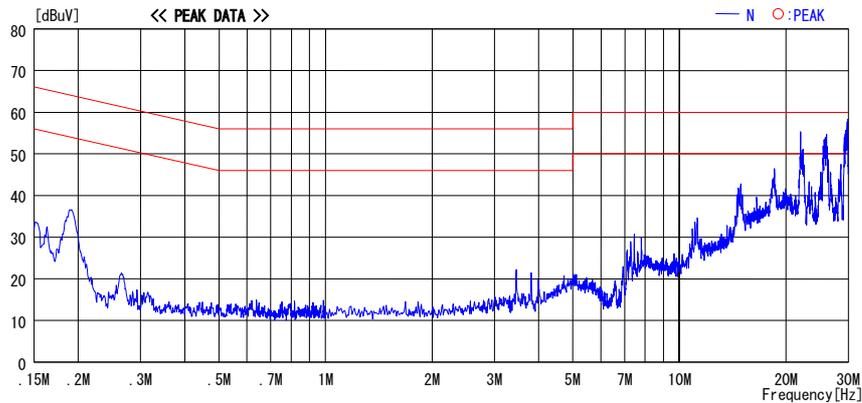


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11b, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 1**  
**[Reference Data]**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 50cm	Temp./Humi.	: 23deg. C / 40%
Serial No.	: 54	Operator	: Shinya Watanabe

Mode / Remarks : 11b Tx 2412MHz, 11Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 OP  
FCC15.207 AV

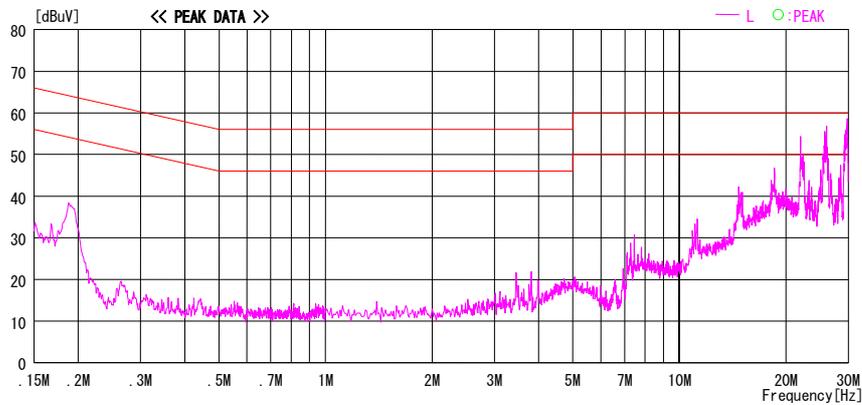
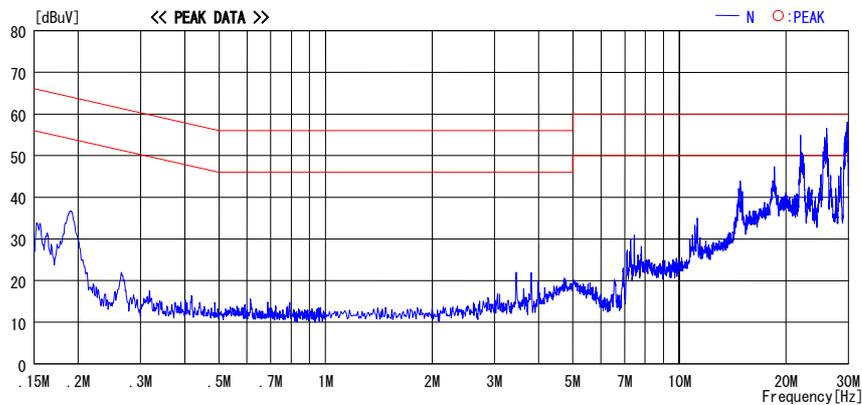


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11b, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 1**  
**[Reference Data]**

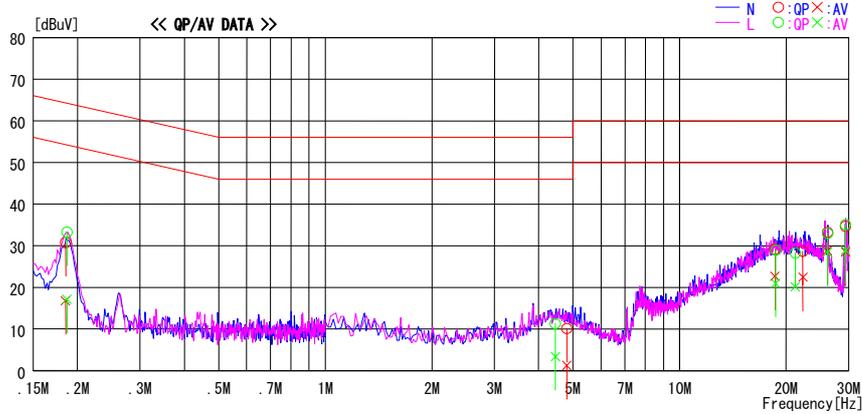
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/18

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Antenna 3cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V (AC 120V / 60Hz)  
 Temp./Humi. : 20deg. C / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11b Tx 2412MHz, 11Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.18476	30.5	16.5	0.3	30.8	16.8	64.3	54.3	33.5	37.5	N
4.80304	9.3	0.5	0.8	10.1	1.3	56.0	46.0	45.9	44.7	N
18.61587	27.3	20.8	1.9	29.2	22.7	60.0	50.0	30.8	27.3	N
22.27172	26.6	20.3	2.1	28.7	22.4	60.0	50.0	31.3	27.6	N
26.13224	31.0	26.6	2.2	33.2	28.8	60.0	50.0	26.8	21.2	N
29.42188	32.3	26.1	2.4	34.7	28.5	60.0	50.0	25.3	21.5	N
0.18654	33.0	16.9	0.3	33.3	17.2	64.2	54.2	30.9	37.0	L
4.45826	10.5	2.6	0.8	11.3	3.4	56.0	46.0	44.7	42.6	L
18.65643	27.0	19.1	1.9	28.9	21.0	60.0	50.0	31.1	29.0	L
21.18786	26.3	18.2	2.0	28.3	20.2	60.0	50.0	31.7	29.8	L
26.13117	30.8	26.2	2.2	33.0	28.4	60.0	50.0	27.0	21.6	L
29.42373	32.7	26.5	2.4	35.1	28.9	60.0	50.0	24.9	21.1	L

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

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

**Conducted Emission**

**11g, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

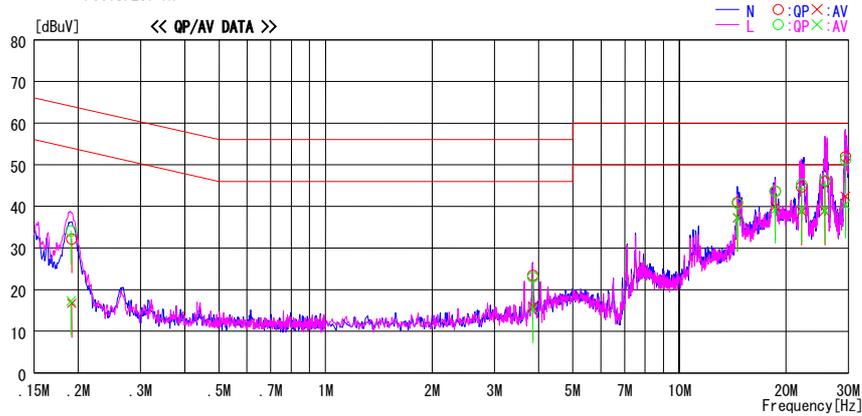
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Antenna 25cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V (AC 120V / 60Hz)  
 Temp./Humi. : 23deg. C / 40%  
 Operator : Shinya Watanabe

Mode / Remarks : 11g Tx 2412MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.19165	32.0	16.5	0.2	32.2	16.7	64.0	54.0	31.8	37.3	N
3.85301	23.1	15.5	0.4	23.5	15.9	56.0	46.0	32.5	30.1	N
14.58010	40.1	36.5	0.8	40.9	37.3	60.0	50.0	19.1	12.7	N
18.64020	42.8	39.1	0.9	43.7	40.0	60.0	50.0	16.4	10.0	N
22.14028	43.7	37.8	1.0	44.7	38.8	60.0	50.0	15.3	11.2	N
25.74036	44.9	37.7	1.1	46.0	38.8	60.0	50.0	14.0	11.2	N
29.46045	50.9	41.3	1.1	52.0	42.4	60.0	50.0	8.0	7.6	N
0.19080	33.9	17.1	0.2	34.1	17.3	64.0	54.0	29.9	36.8	L
3.85301	22.7	14.9	0.4	23.1	15.3	56.0	46.0	32.9	30.7	L
14.58010	40.0	36.3	0.8	40.8	37.1	60.0	50.0	19.2	12.9	L
18.64020	42.8	38.3	0.9	43.7	39.2	60.0	50.0	16.4	10.8	L
22.14028	44.4	38.3	1.0	45.4	39.3	60.0	50.0	14.6	10.7	L
25.78036	45.1	38.1	1.1	46.2	39.2	60.0	50.0	13.8	10.8	L
29.46045	50.1	39.4	1.1	51.2	40.5	60.0	50.0	8.8	9.5	L

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

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

**Conducted Emission**

**11g, Tx, Ch: Mid, 54Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 25cm	Temp./Humi.	: 23deg. C / 40%
Serial No.	: 54	Operator	: Shinya Watanabe

Mode / Remarks : 11g Tx 2437MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
 FCC15.207 AV

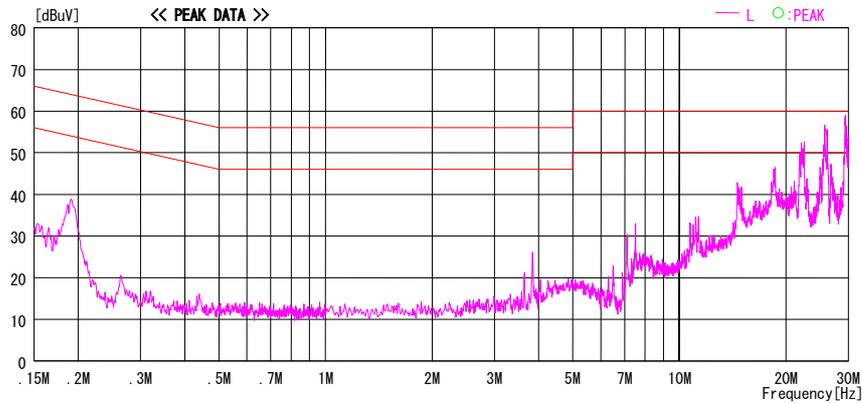
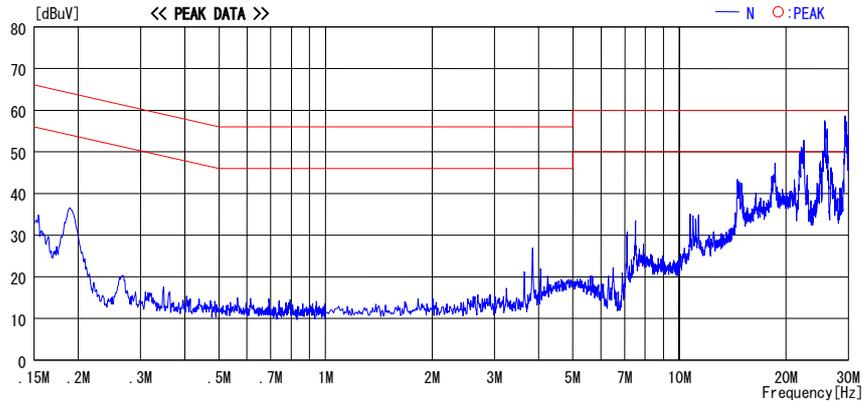


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**

**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 25cm	Temp./Humi.	: 23deg. C / 40%
Serial No.	: 54	Operator	: Shinya Watanabe

Mode / Remarks : 11g Tx 2462MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
FCC15.207 AV

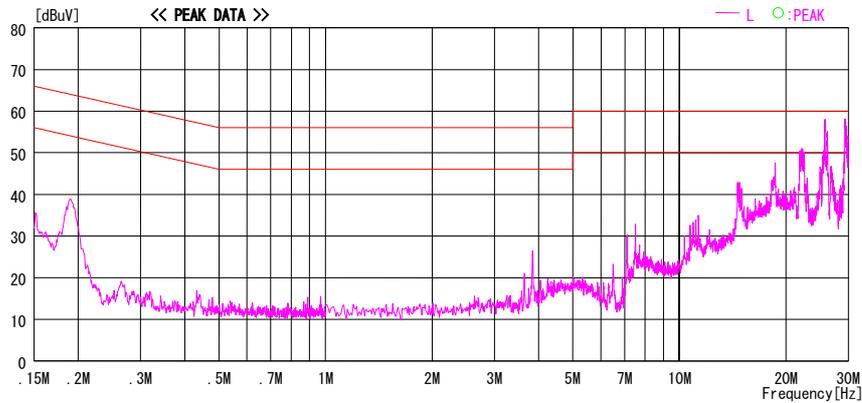
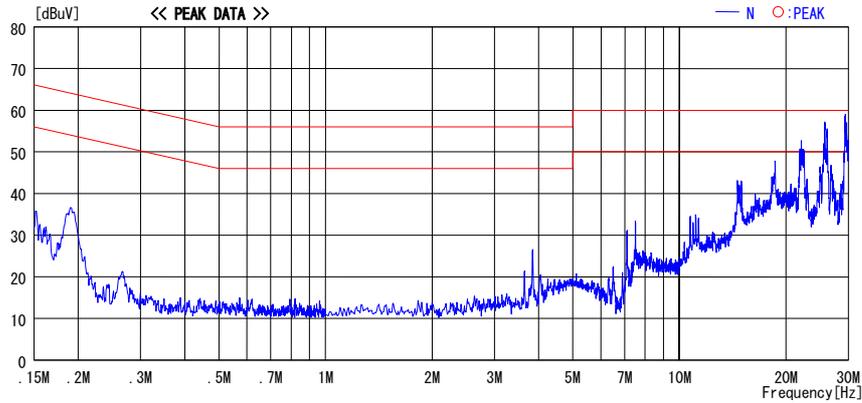


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11g, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 1**  
**[Reference Data]**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 50cm	Temp./Humi.	: 23deg. C / 40%
Serial No.	: 54	Operator	: Shinya Watanabe

Mode / Remarks : 11g Tx 2412MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 OP  
FCC15.207 AV

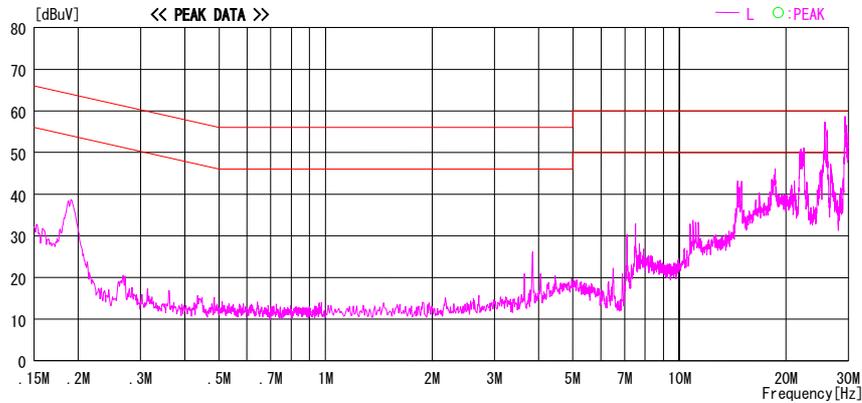
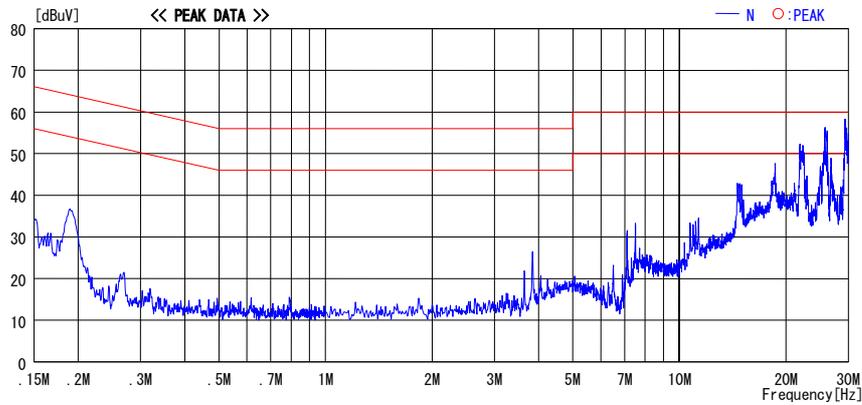


CHART:WITH FACTOR, Peak hold data. CALCURATION:RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**

**11g, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 1  
[Reference Data]**

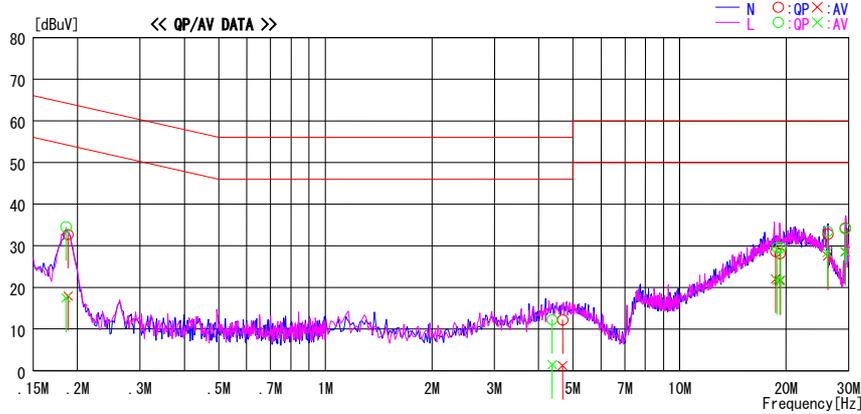
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2008/03/17

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Antenna 3cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V (AC 120V / 60Hz)  
 Temp./Humi. : 20deg. C / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11g Tx 2412MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.18792	32.4	17.6	0.3	32.7	17.9	64.1	54.1	31.4	36.2	N
4.67734	11.4	0.4	0.8	12.2	1.2	56.0	46.0	43.8	44.8	N
18.64689	26.7	20.1	1.9	28.6	22.0	60.0	50.0	31.4	28.0	N
19.19856	26.2	19.7	1.9	28.1	21.6	60.0	50.0	31.9	28.4	N
26.18643	30.6	25.3	2.2	32.8	27.5	60.0	50.0	27.2	22.5	N
29.35730	31.9	26.2	2.4	34.3	28.6	60.0	50.0	25.7	21.4	N
0.18541	34.2	17.1	0.3	34.5	17.4	64.2	54.2	29.7	36.8	L
4.37285	11.5	0.6	0.8	12.3	1.4	56.0	46.0	43.7	44.6	L
18.80997	27.7	19.7	1.9	29.6	21.6	60.0	50.0	30.4	28.4	L
19.29370	27.7	19.8	1.9	29.6	21.7	60.0	50.0	30.4	28.3	L
26.13287	31.3	26.1	2.2	33.5	28.3	60.0	50.0	26.5	21.7	L
29.35734	31.7	26.1	2.4	34.1	28.5	60.0	50.0	25.9	21.5	L

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

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

**Conducted Emission**  
**11g, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 2**  
**[Reference Data]**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/18

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 25cm	Temp./Humi.	: 20deg. C / 37%
Serial No.	: 54	Operator	: Kazufumi Nakai

Mode / Remarks : 11g Tx 2412MHz, 54Mbps, ANT:A(Worst), Power provided through the host equipment (another type)  
 LIMIT : FCC15.207 OP  
 FCC15.207 AV

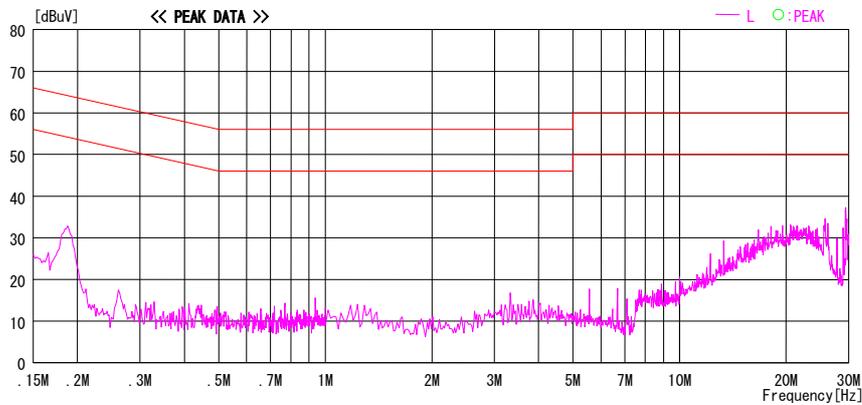
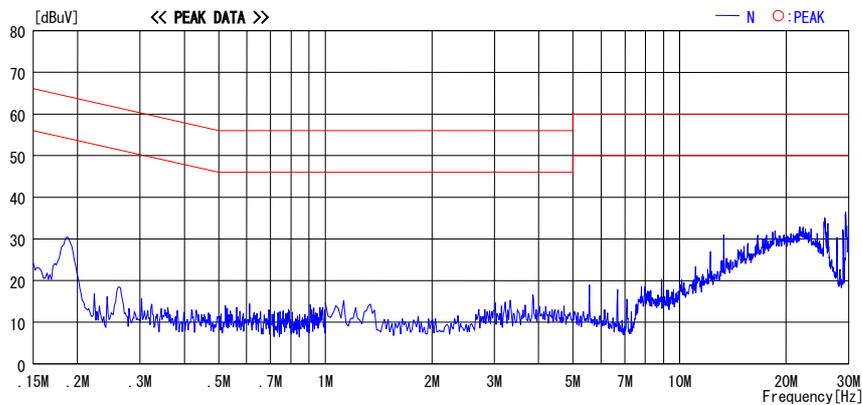


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L1SN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**

**11b/g, Rx, Ch: Mid, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1**

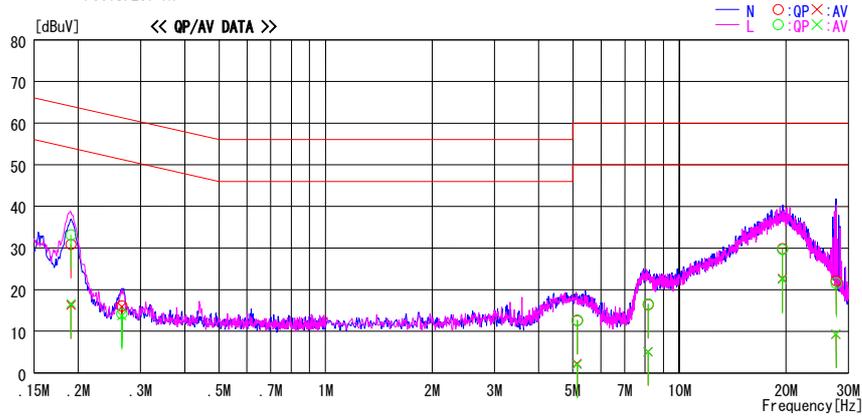
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company : Sony Corporation Report No. : 27LE0344-HO  
 Kind of EUT : WLAN MODULE Power : DC 3.3V (AC 120V / 60Hz)  
 Model No. : CMN-727AS / Antenna 25cm Temp./Humi. : 23deg. C / 40%  
 Serial No. : 54 Operator : Shinya Watanabe

Mode / Remarks : 11bg Rx 2437MHz , ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.19080	30.7	16.1	0.2	30.9	16.3	64.0	54.0	33.1	37.7	N
0.26560	15.9	15.7	0.2	16.1	15.9	61.3	51.3	45.2	35.4	N
5.13999	12.1	1.8	0.5	12.6	2.3	60.0	50.0	47.4	47.8	N
8.15493	15.8	4.5	0.6	16.4	5.1	60.0	50.0	43.6	44.9	N
19.54022	28.9	21.8	0.9	29.8	22.7	60.0	50.0	30.2	27.3	N
27.68040	21.0	8.2	1.1	22.1	9.3	60.0	50.0	37.9	40.7	N
0.19080	32.9	16.4	0.2	33.1	16.6	64.0	54.0	30.9	37.4	L
0.26560	14.1	13.5	0.2	14.3	13.7	61.3	51.3	47.1	37.6	L
5.13999	12.2	1.6	0.5	12.7	2.1	60.0	50.0	47.3	48.0	L
8.15493	16.0	4.5	0.6	16.6	5.1	60.0	50.0	43.4	44.9	L
19.54022	28.8	21.5	0.9	29.7	22.4	60.0	50.0	30.3	27.6	L
27.68040	20.5	8.2	1.1	21.6	9.3	60.0	50.0	38.4	40.7	L

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

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

**Conducted Emission**  
**11b/g, Rx, Ch: Mid, Antenna A, Antenna Cable: 50cm, Power Supply Unit 1**  
**[Reference Data]**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/27

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 50cm	Temp./Humi.	: 23deg. C / 40%
Serial No.	: 54	Operator	: Shinya Watanabe

Mode / Remarks : 11bg Rx 2437MHz , ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 OP  
FCC15.207 AV

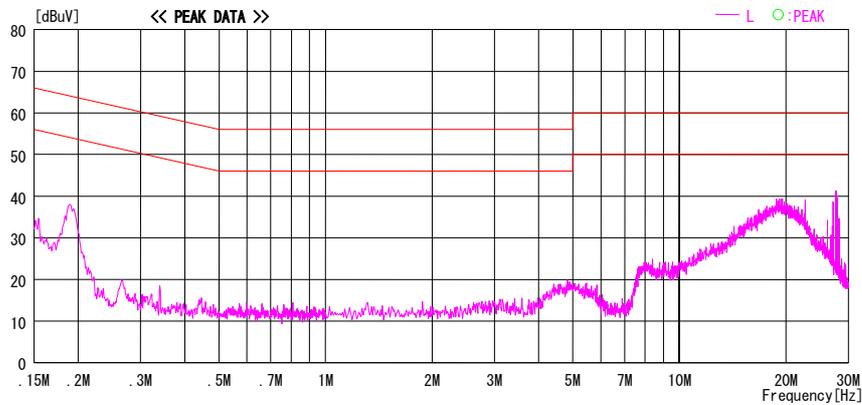
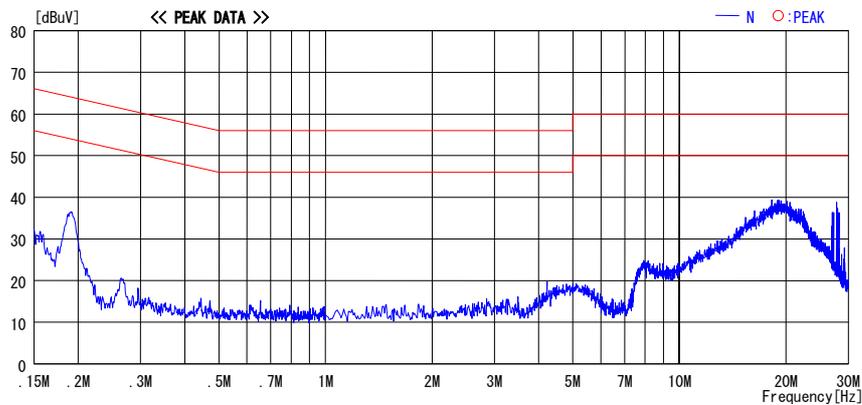


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11b/g, Rx, Ch: Mid, Antenna A, Antenna Cable: 3cm, Power Supply Unit 1**  
**[Reference Data]**

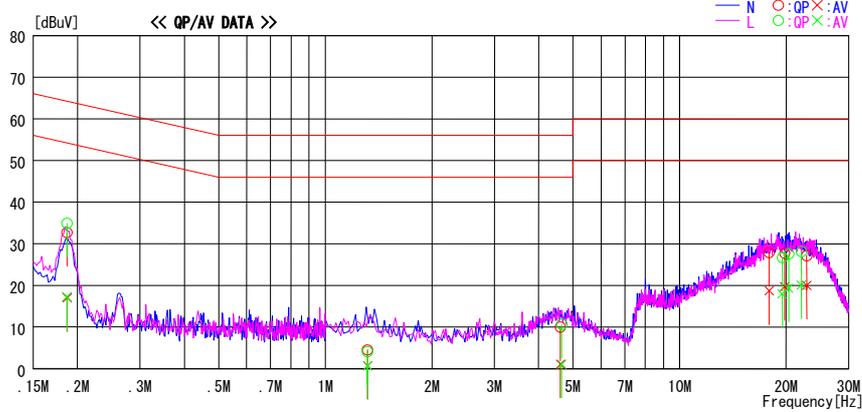
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/18

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Antenna 3cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V (AC 120V / 60Hz)  
 Temp./Humi. : 20deg. C / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11bg Rx 2437MHz, ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP  
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.18675	32.4	16.7	0.3	32.7	17.0	64.2	54.2	31.5	37.2	N
1.31654	4.0	0.2	0.5	4.5	0.7	56.0	46.0	51.5	45.3	N
4.60667	9.2	0.3	0.8	10.0	1.1	56.0	46.0	46.0	44.9	N
17.90921	26.1	16.9	1.8	27.9	18.7	60.0	50.0	32.1	31.3	N
19.79098	25.8	17.8	1.9	27.7	19.7	60.0	50.0	32.3	30.3	N
22.84649	25.1	17.9	2.1	27.2	20.0	60.0	50.0	32.8	30.0	N
0.18640	34.6	17.0	0.3	34.9	17.3	64.2	54.2	29.3	36.9	L
1.31524	3.6	0.2	0.5	4.1	0.7	56.0	46.0	51.9	45.3	L
4.64987	9.9	0.3	0.8	10.7	1.1	56.0	46.0	45.3	44.9	L
19.49221	24.8	16.1	1.9	26.7	18.0	60.0	50.0	33.3	32.0	L
20.32824	25.7	17.5	1.9	27.6	19.4	60.0	50.0	32.4	30.6	L
22.05740	26.0	18.0	2.1	28.1	20.1	60.0	50.0	31.9	29.9	L

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

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

**Conducted Emission**  
**11b/g, Rx, Ch: Mid, Antenna A, Antenna Cable: 25cm, Power Supply Unit 2**  
**[Reference Data]**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/18

Company	: Sony Corporation	Report No.	: 27LE0344-HO
Kind of EUT	: WLAN MODULE	Power	: DC 3.3V (AC 120V / 60Hz)
Model No.	: CMN-727AS / Antenna 25cm	Temp./Humi.	: 20deg. C. / 37%
Serial No.	: 54	Operator	: Kazufumi Nakai

Mode / Remarks : 11bg Rx 2437MHz, ANT:A(Worst), Power provided through the host equipment (another type)

LIMIT : FCC15.207 OP  
FCC15.207 AV

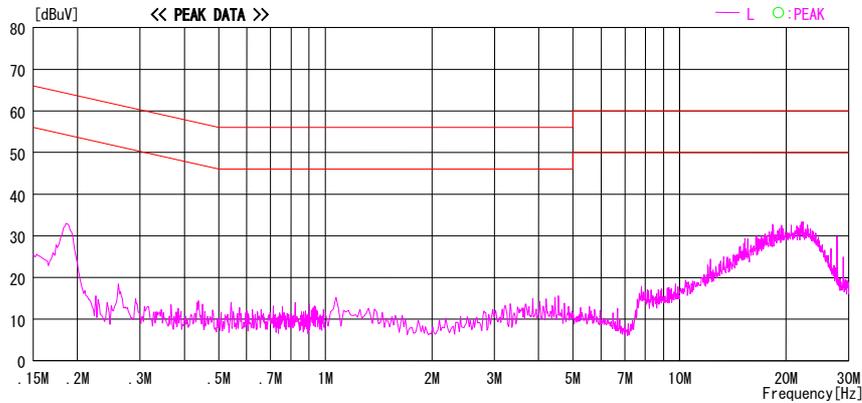
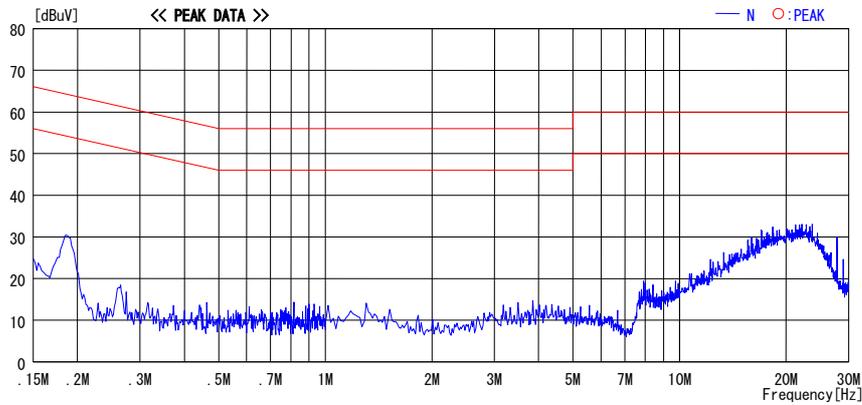


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L1SN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

### 6dB Bandwidth

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

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model No. : CMN-727AS  
Serial No. : 55  
Power : DC 3.3V  
Mode : Tx (Ch L, M, H)  
Antenna A

Test Report No. : 27LE0344-HO  
Regulation : FCC15.247(a)(2)/RSS-210A8.2(a)  
Test distance : -  
Date : 02/19/2008  
Temperature : 23deg.C.  
Humidity : 31%  
Engineer : Norihisa Hashimoto

#### **[IEEE802.11b] 11Mbps**

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	11.658	>500
Mid	2437.0	12.312	>500
High	2462.0	11.678	>500

#### **[IEEE802.11g] 54Mbps**

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	16.600	>500
Mid	2437.0	16.593	>500
High	2462.0	16.615	>500

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**UL Japan, Inc.**

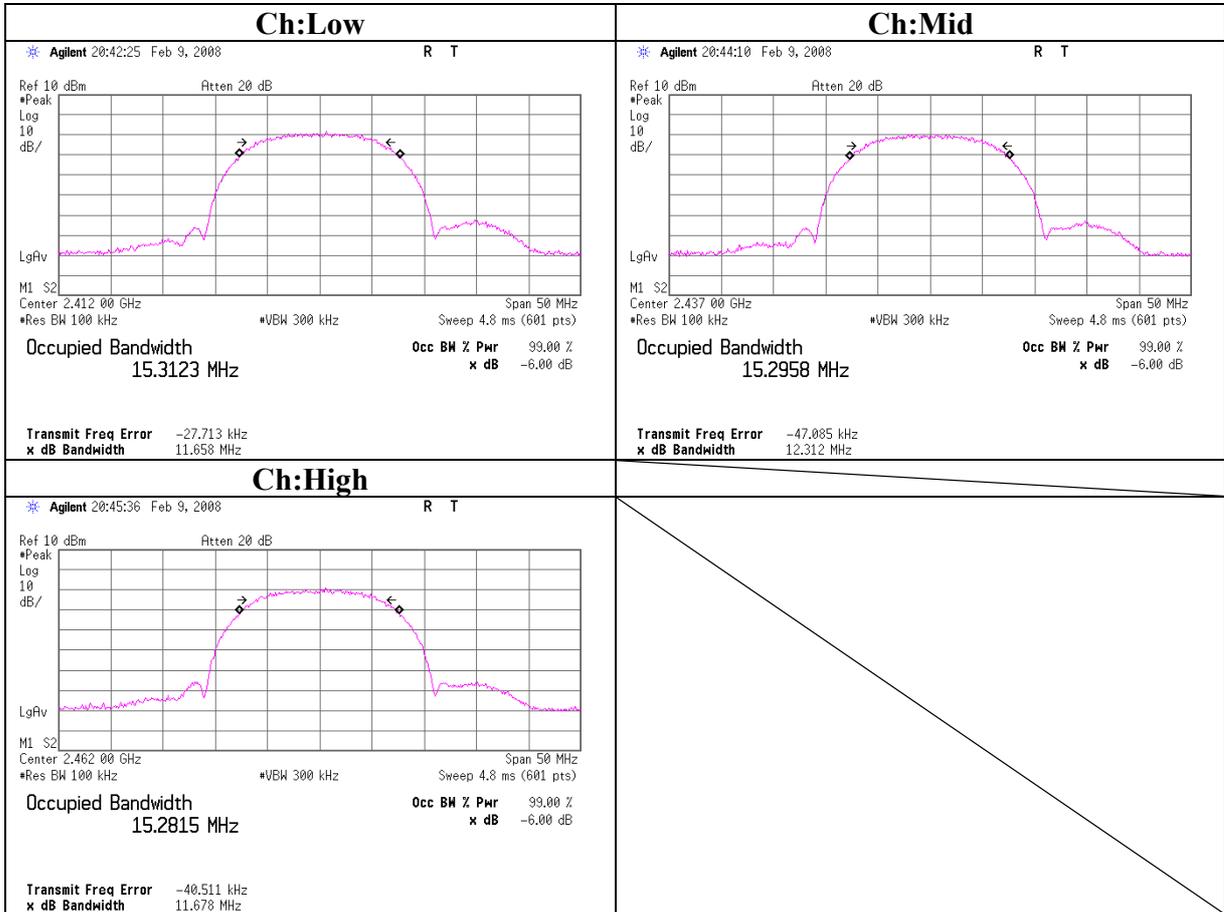
**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

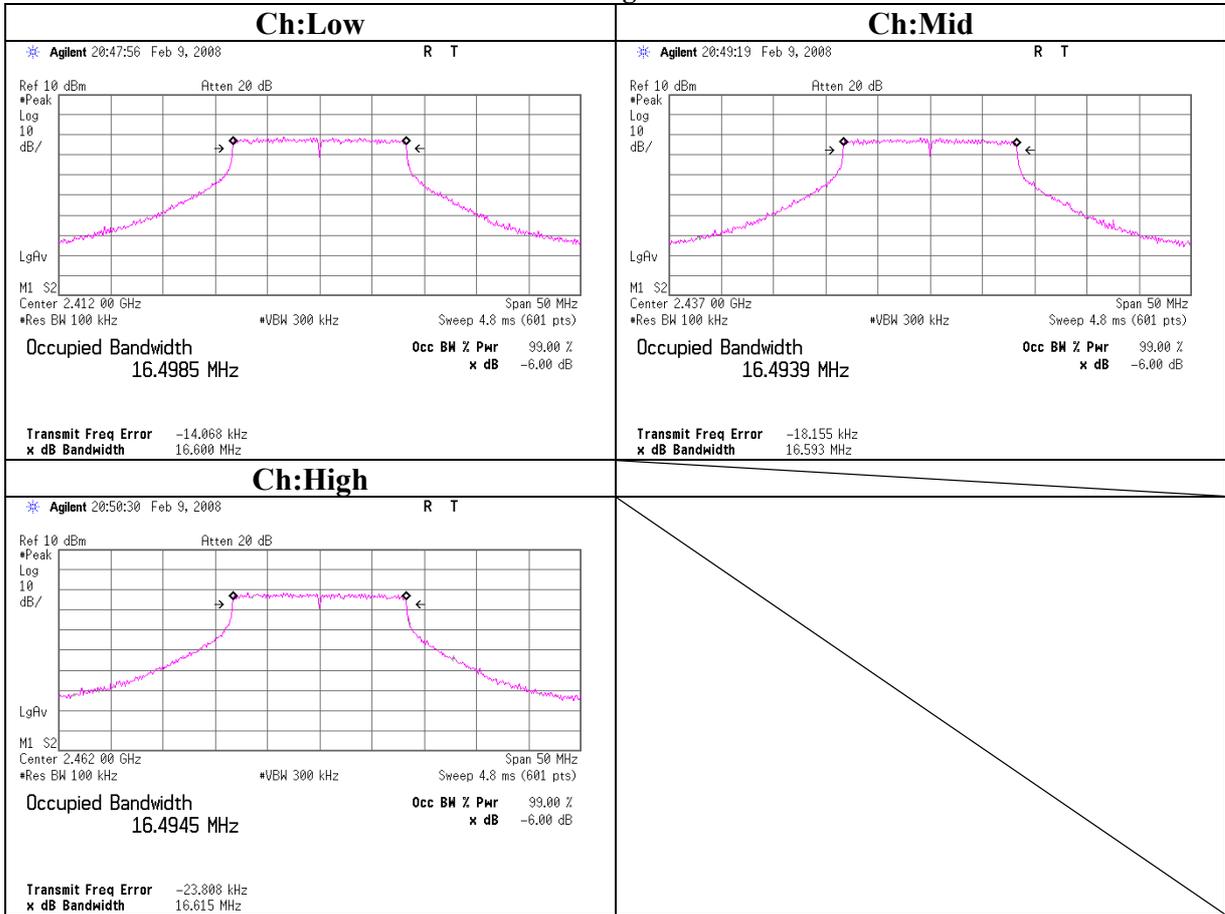
Facsimile : +81 596 24 8124

**6dB Bandwidth**  
**11b**



**6dB Bandwidth**

**11g**



## Maximum Peak Output Power

UL Japan, Inc.  
Head Office EMC Lab. No.4 Measurement Room

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model No. : CMN-727AS  
Serial No. : 55  
Power : DC 3.3V  
Mode : Tx (Ch L, M, H)  
Antenna A (Worst)

Test Report No. : 27LE0344-HO  
Regulation : FCC15.247(b)(3)/RSS-210A8.4(4)  
Test distance : -  
Date : 02/18/2008  
Temperature : 25deg.C.  
Humidity : 33%  
Engineer : Kazufumi Nakai

### [IEEE802.11b] ANT A, 11Mbps

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	2.01	1.56	10.04	13.61	22.96	30.00	1000	16.39
Mid	2437.0	2.12	1.57	10.04	13.73	23.60	30.00	1000	16.27
High	2462.0	1.30	1.57	10.04	12.91	19.54	30.00	1000	17.09

### [IEEE802.11b] ANT B, 11Mbps

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	1.95	1.56	10.04	13.55	22.65	30.00	1000	16.45
Mid	2437.0	2.08	1.57	10.04	13.69	23.39	30.00	1000	16.31
High	2462.0	1.21	1.57	10.04	12.82	19.14	30.00	1000	17.18

### [IEEE802.11b] ANT A

Bit Rate [Mbps]	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
1	2437.0	2.01	1.57	10.04	13.62	23.01	30.00	1000	16.38
2	2437.0	2.02	1.57	10.04	13.63	23.07	30.00	1000	16.37
5.5	2437.0	1.66	1.57	10.04	13.27	21.23	30.00	1000	16.73
11	2437.0	2.12	1.57	10.04	13.73	23.60	30.00	1000	16.27

Sample Calculation:

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

**UL Japan, Inc.**

**Head Office EMC Lab.**

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Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

## Maximum Peak Output Power

UL Japan, Inc.  
Head Office EMC Lab. No.4 Measurement Room

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model No. : CMN-727AS  
Serial No. : 55  
Power : DC 3.3V  
Mode : Tx (Ch L, M, H)  
Antenna A (Worst)

Test Report No. : 27LE0344-HO  
Regulation : FCC15.247(b)(3)/RSS-210A8.4(4)  
Test distance : -  
Date : 02/18/2008  
Temperature : 25deg.C.  
Humidity : 33%  
Engineer : Kazufumi Nakai

### [IEEE802.11g] ANT A, 54Mbps

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	8.65	1.56	10.04	20.25	105.93	30.00	1000	9.75
Mid	2437.0	7.48	1.57	10.04	19.09	81.10	30.00	1000	10.91
High	2462.0	7.01	1.57	10.04	18.62	72.78	30.00	1000	11.38

### [IEEE802.11g] ANT B, 54Mbps

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	8.22	1.56	10.04	19.82	95.94	30.00	1000	10.18
Mid	2437.0	7.33	1.57	10.04	18.94	78.34	30.00	1000	11.06
High	2462.0	6.73	1.57	10.04	18.34	68.23	30.00	1000	11.66

### [IEEE802.11g] ANT A

Bit Rate [Mbps]	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
6	2437.0	7.02	1.57	10.04	18.63	72.95	30.00	1000	11.37
9	2437.0	7.05	1.57	10.04	18.66	73.45	30.00	1000	11.34
12	2437.0	6.44	1.57	10.04	18.05	63.83	30.00	1000	11.95
18	2437.0	7.31	1.57	10.04	18.92	77.98	30.00	1000	11.08
24	2437.0	7.21	1.57	10.04	18.82	76.21	30.00	1000	11.18
36	2437.0	6.01	1.57	10.04	17.62	57.81	30.00	1000	12.38
48	2437.0	6.00	1.57	10.04	17.61	57.68	30.00	1000	12.39
54	2437.0	7.48	1.57	10.04	19.09	81.10	30.00	1000	10.91

Sample Calculation:

**Radiated Spurious Emission (below 1GHz)**  
**11b, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

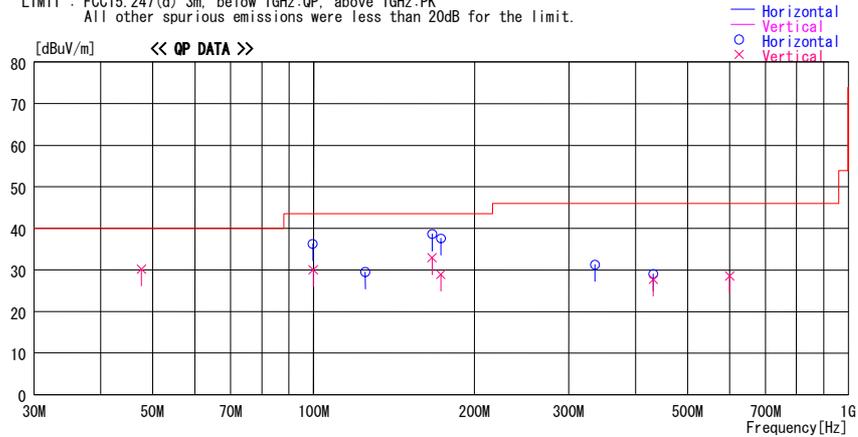
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber  
 Date : 2008/03/26

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11b Tx 2412MHz, 11Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK  
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss&Gain [dB]							
47.669	44.1	QP	10.8	-24.7	30.2	181	100	Vert.	40.0	9.8	
99.589	50.4	QP	9.8	-23.9	36.3	359	330	Hori.	43.5	7.2	
99.903	44.0	QP	9.9	-23.9	30.0	266	260	Vert.	43.5	13.5	
124.997	40.0	QP	13.1	-23.6	29.5	359	153	Hori.	43.5	14.0	
166.515	40.4	QP	15.7	-23.2	32.9	320	100	Vert.	43.5	10.6	
166.538	46.1	QP	15.7	-23.2	38.6	43	200	Hori.	43.5	4.9	
172.978	44.7	QP	16.1	-23.2	37.6	324	196	Hori.	43.5	5.9	
172.986	36.0	QP	16.1	-23.2	28.9	35	100	Vert.	43.5	14.6	
335.969	37.6	QP	15.6	-21.9	31.3	37	100	Hori.	46.0	14.7	
431.962	32.6	QP	17.6	-21.2	29.0	341	100	Hori.	46.0	17.0	
431.963	31.3	QP	17.6	-21.2	27.7	310	128	Vert.	46.0	18.3	
600.005	29.6	QP	19.3	-20.3	28.6	41	100	Vert.	46.0	17.4	

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

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

**Radiated Spurious Emission (below 1GHz)**  
**11b, Tx, Ch: Mid, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

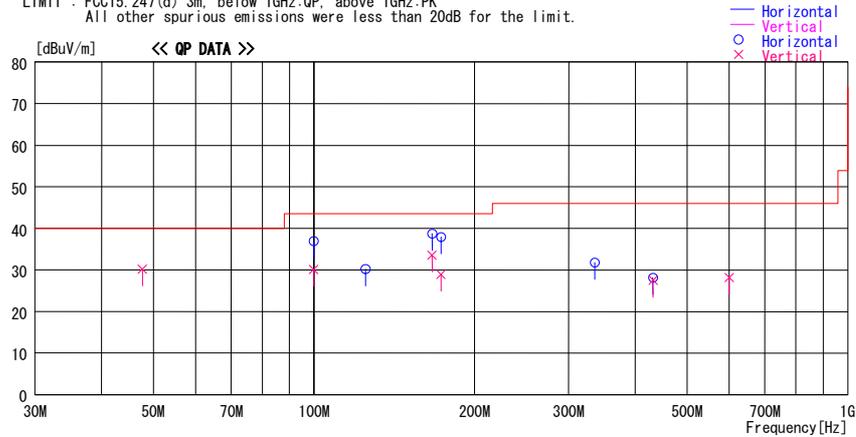
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber  
 Date : 2008/03/26

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11b Tx 2437MHz, 11Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK  
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss & Gain [dB]							
47.702	44.1	QP	10.8	-24.7	30.2	200	100	Vert.	40.0	9.8	
99.907	44.1	QP	9.9	-23.9	30.1	265	252	Vert.	43.5	13.4	
99.908	50.9	QP	9.9	-23.9	36.9	0	328	Hori.	43.5	6.6	
124.993	40.7	QP	13.1	-23.6	30.2	0	142	Hori.	43.5	13.3	
166.516	46.2	QP	15.7	-23.2	38.7	59	193	Hori.	43.5	4.8	
166.518	41.1	QP	15.7	-23.2	33.6	292	100	Vert.	43.5	9.9	
172.993	45.0	QP	16.1	-23.2	37.9	322	193	Hori.	43.5	5.6	
173.001	36.0	QP	16.1	-23.2	28.9	48	100	Vert.	43.5	14.6	
335.973	38.1	QP	15.6	-21.9	31.8	38	100	Hori.	46.0	14.2	
431.962	31.1	QP	17.6	-21.2	27.5	306	138	Vert.	46.0	18.5	
431.962	31.7	QP	17.6	-21.2	28.1	338	100	Hori.	46.0	17.9	
600.001	29.2	QP	19.3	-20.3	28.2	35	100	Vert.	46.0	17.8	

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

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

**Radiated Spurious Emission (below 1GHz)**  
**11b, Tx, Ch: High, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

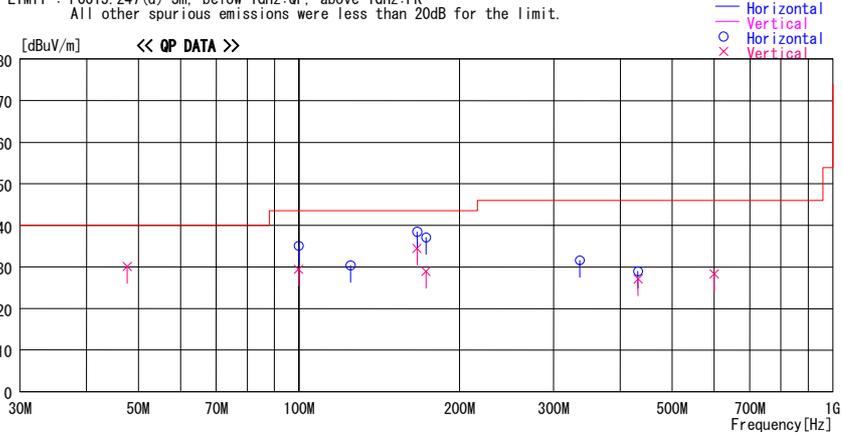
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber  
 Date : 2008/03/26

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11b Tx 2462MHz, 11Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK  
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss & Gain [dB]							
47.688	44.0	QP	10.8	-24.7	30.1	119	100	Vert.	40.0	9.9	
99.902	49.1	QP	9.9	-23.9	35.1	0	302	Hori.	43.5	8.4	
99.920	43.5	QP	9.9	-23.9	29.5	304	244	Vert.	43.5	14.0	
125.005	40.9	QP	13.1	-23.6	30.4	0	151	Hori.	43.5	13.1	
166.516	46.0	QP	15.7	-23.2	38.5	62	185	Hori.	43.5	5.0	
166.531	42.0	QP	15.7	-23.2	34.5	304	100	Vert.	43.5	9.0	
173.008	44.2	QP	16.1	-23.2	37.1	339	191	Hori.	43.5	6.4	
173.011	36.0	QP	16.1	-23.2	28.9	50	100	Vert.	43.5	14.6	
335.978	37.9	QP	15.6	-21.9	31.6	32	100	Hori.	46.0	14.4	
431.947	30.7	QP	17.6	-21.2	27.1	312	133	Vert.	46.0	18.9	
431.954	32.5	QP	17.6	-21.2	28.9	340	100	Hori.	46.0	17.1	
600.002	29.3	QP	19.3	-20.3	28.3	43	100	Vert.	46.0	17.7	

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)

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

**Radiated Spurious Emission (below 1GHz)**  
**11g, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

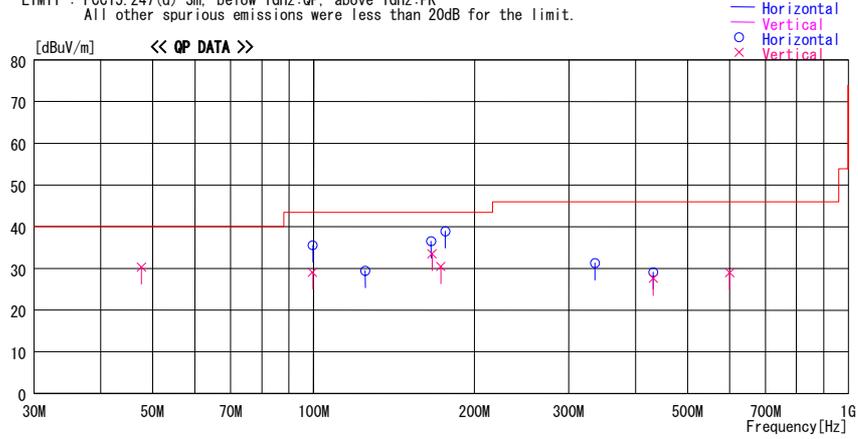
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber  
 Date : 2008/03/26

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11g Tx 2412MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK  
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBUV]	DET	Antenna	Loss&	Level [dBUV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]					[dBUV/m]	[dB]	
47.681	44.2	QP	10.8	-24.7	30.3	194	100	Vert.	40.0	9.7	
99.585	43.2	QP	9.8	-23.9	29.1	293	252	Vert.	43.5	14.4	
99.596	49.6	QP	9.9	-23.9	35.6	359	323	Hori.	43.5	7.9	
125.003	39.9	QP	13.1	-23.6	29.4	0	138	Hori.	43.5	14.1	
165.961	44.0	QP	15.7	-23.2	36.5	136	197	Hori.	43.5	7.0	
166.515	41.0	QP	15.7	-23.2	33.5	322	100	Vert.	43.5	10.0	
172.996	37.5	QP	16.1	-23.2	30.4	41	100	Vert.	43.5	13.1	
176.349	45.7	QP	16.3	-23.1	38.9	314	203	Hori.	43.5	4.6	
335.968	37.6	QP	15.6	-21.9	31.3	35	100	Hori.	46.0	14.7	
431.952	31.2	QP	17.6	-21.2	27.6	308	127	Vert.	46.0	18.4	
431.963	32.7	QP	17.6	-21.2	29.1	341	100	Hori.	46.0	16.9	
600.003	30.0	QP	19.3	-20.3	29.0	35	100	Vert.	46.0	17.0	

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)

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

**Radiated Spurious Emission (below 1GHz)**  
**11g, Tx, Ch: Mid, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

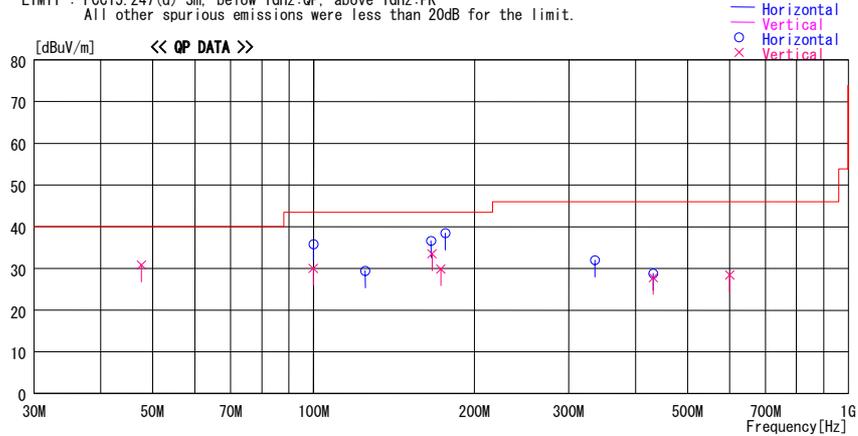
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber  
 Date : 2008/03/26

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11g Tx 2437MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK  
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss & Gain [dB]							
47.687	44.7	QP	10.8	-24.7	30.8	225	100	Vert.	40.0	9.2	
99.892	49.8	QP	9.9	-23.9	35.8	359	313	Hori.	43.5	7.7	
99.912	44.0	QP	9.9	-23.9	30.0	267	291	Vert.	43.5	13.5	
124.994	39.9	QP	13.1	-23.6	29.4	0	160	Hori.	43.5	14.1	
165.933	44.1	QP	15.7	-23.2	36.6	134	190	Hori.	43.5	6.9	
166.536	41.0	QP	15.7	-23.2	33.5	299	100	Vert.	43.5	10.0	
172.964	37.0	QP	16.1	-23.2	29.9	55	100	Vert.	43.5	13.6	
176.308	45.3	QP	16.3	-23.1	38.5	319	198	Hori.	43.5	5.0	
335.965	38.3	QP	15.6	-21.9	32.0	33	100	Hori.	46.0	14.0	
431.967	31.4	QP	17.6	-21.2	27.8	303	133	Vert.	46.0	18.2	
431.967	32.4	QP	17.6	-21.2	28.8	345	100	Hori.	46.0	17.2	
599.989	29.5	QP	19.2	-20.3	28.4	39	100	Vert.	46.0	17.6	

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)

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

**Radiated Spurious Emission (below 1GHz)**  
**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

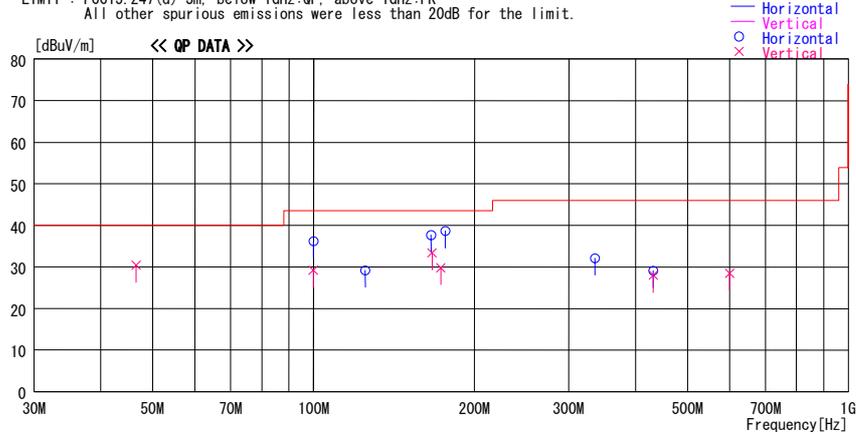
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber  
 Date : 2008/03/26

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 37%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11g Tx 2462MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.247(d) 3m, below 1GHz:OP, above 1GHz:PK  
 All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
46.586	44.0	OP	11.1	-24.7	30.4	200	100	Vert.	40.0	9.6	
99.898	43.2	OP	9.9	-23.9	29.2	274	232	Vert.	43.5	14.3	
99.912	50.2	OP	9.9	-23.9	36.2	0	302	Hori.	43.5	7.3	
125.002	39.7	OP	13.1	-23.6	29.2	0	143	Hori.	43.5	14.3	
165.945	45.2	OP	15.7	-23.2	37.7	55	183	Hori.	43.5	5.8	
166.524	40.9	OP	15.7	-23.2	33.4	307	100	Vert.	43.5	10.1	
172.973	36.9	OP	16.1	-23.2	29.8	33	100	Vert.	43.5	13.7	
176.316	45.4	OP	16.3	-23.1	38.6	309	200	Hori.	43.5	4.9	
335.974	38.4	OP	15.6	-21.9	32.1	27	100	Hori.	46.0	13.9	
431.956	31.6	OP	17.6	-21.2	28.0	324	131	Vert.	46.0	18.0	
431.963	32.7	OP	17.6	-21.2	29.1	331	100	Hori.	46.0	16.9	
600.000	29.5	OP	19.3	-20.3	28.5	39	100	Vert.	46.0	17.5	

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)

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

**Radiated Spurious Emission (below 1GHz)**  
**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 2**  
**[Reference Data]**

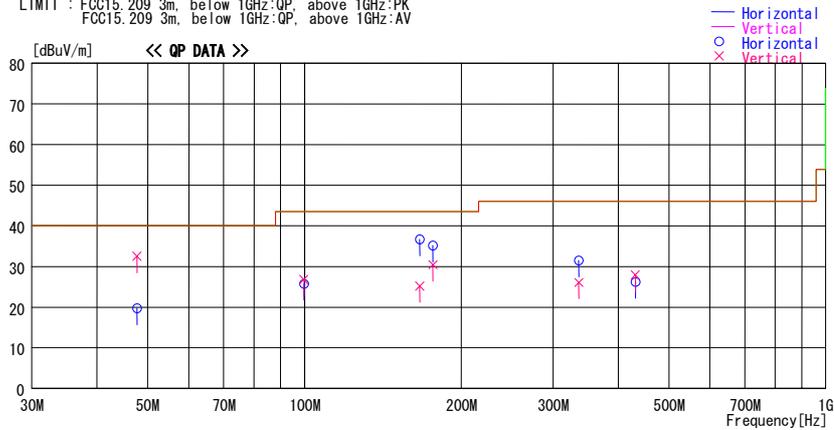
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/28

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 25cm / Power Unit 2  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 35%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11g Tx 2437MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y DEI

LIMIT : FCC15 209 3m, below 1GHz:QP, above 1GHz:PK  
 FCC15 209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss & Gain [dB]						
47.720	30.5	QP	10.9	-21.7	19.7	267	294	Hor.	40.0	20.3
47.712	43.3	QP	10.9	-21.7	32.5	0	100	Vert.	40.0	7.5
99.774	36.8	QP	9.9	-21.0	25.7	0	285	Hor.	43.5	17.8
99.776	37.9	QP	9.9	-21.0	26.8	285	100	Vert.	43.5	16.7
166.368	29.8	QP	15.7	-20.3	25.2	0	100	Vert.	43.5	18.3
166.457	41.3	QP	15.7	-20.3	36.7	201	203	Hor.	43.5	6.8
176.430	39.1	QP	16.2	-20.1	35.2	220	190	Hor.	43.5	8.3
176.430	34.3	QP	16.2	-20.1	30.4	90	100	Vert.	43.5	13.1
335.970	35.0	QP	15.6	-19.1	31.5	359	100	Hor.	46.0	14.5
335.976	29.6	QP	15.6	-19.1	26.1	152	100	Vert.	46.0	19.9
431.964	28.0	QP	17.4	-19.2	26.2	112	100	Hor.	46.0	19.8
431.431	29.7	QP	17.4	-19.2	27.9	320	100	Vert.	46.0	18.1

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)

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

**Radiated Spurious Emission (below 1GHz)**  
**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2**  
**[Reference Data]**

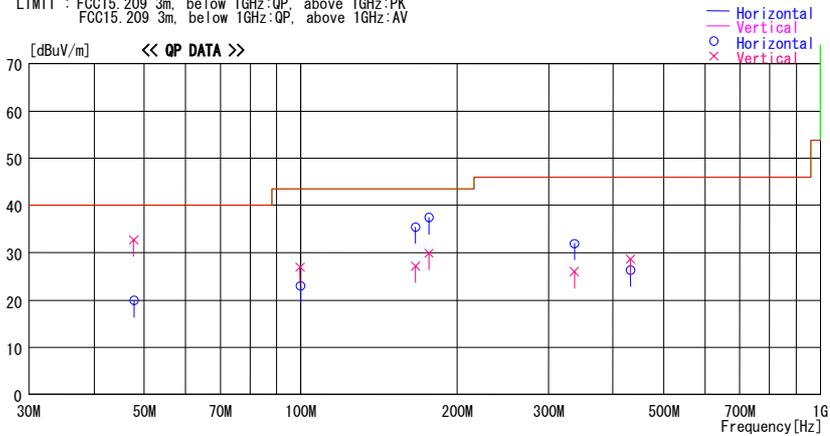
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/28

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 3cm / Power Unit 2  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg.C. / 35%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11g Tx 2437MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y DEI

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
 FCC15.209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss &	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Gain [dB]						
47.769	30.7	QP	10.9	-21.7	19.9	261	284	Hori.	40.0	20.1
47.761	43.5	QP	10.9	-21.7	32.7	0	100	Vert.	40.0	7.3
99.917	34.0	QP	10.0	-21.0	23.0	359	301	Hori.	43.5	20.5
99.765	38.0	QP	9.9	-21.0	26.9	285	100	Vert.	43.5	16.6
166.388	40.0	QP	15.7	-20.3	35.4	217	161	Hori.	43.5	8.1
166.388	31.8	QP	15.7	-20.3	27.2	296	201	Vert.	43.5	16.3
176.608	41.3	QP	16.2	-20.1	37.4	217	205	Hori.	43.5	6.1
176.627	33.8	QP	16.2	-20.1	29.9	51	100	Vert.	43.5	13.6
335.977	35.5	QP	15.6	-19.1	32.0	359	100	Hori.	46.0	14.0
335.981	29.5	QP	15.6	-19.1	26.0	263	180	Vert.	46.0	20.0
431.971	28.1	QP	17.4	-19.2	26.3	91	100	Hori.	46.0	19.7
431.971	30.4	QP	17.4	-19.2	28.6	330	117	Vert.	46.0	17.4

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

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



**Radiated Spurious Emission (below 1GHz)**  
**11b/g, Rx, Ch: Mid, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

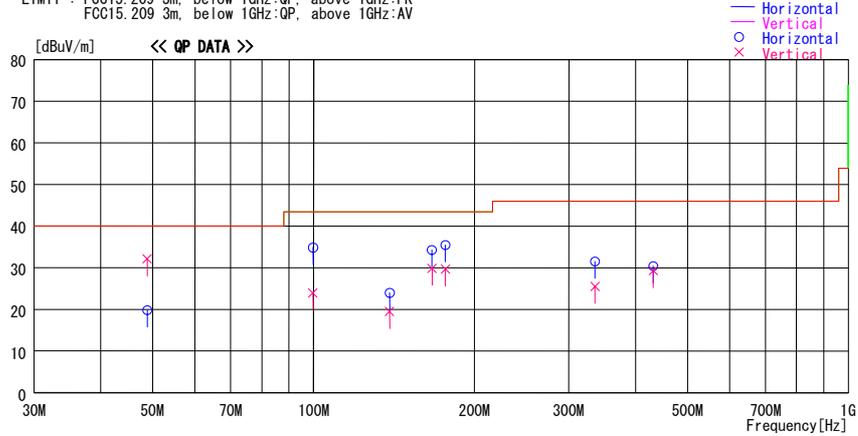
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2008/03/28

Company : Sony Corporation  
 Kind of EUT : WLAN MODULE  
 Model No. : CMN-727AS / Ant 50cm  
 Serial No. : 54  
 Report No. : 27LE0344-HO  
 Power : DC 3.3V  
 Temp./Humi. : 22deg. C. / 35%  
 Operator : Kazufumi Nakai

Mode / Remarks : 11bg Rx 2437MHz, ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:Z, Ver: EUT:Y, Ant:Y

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
 FCC15.209 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss & Gain [dB]						
48.841	30.9	QP	10.6	-21.7	19.8	270	341	Hori.	40.0	20.2
48.838	43.2	QP	10.6	-21.7	32.1	0	100	Vert.	40.0	7.9
99.777	45.9	QP	9.9	-21.0	34.8	359	320	Hori.	43.5	8.7
99.713	35.1	QP	9.9	-21.0	24.0	287	100	Vert.	43.5	19.5
138.767	26.0	QP	14.1	-20.6	19.5	320	100	Vert.	43.5	24.0
138.741	30.5	QP	14.1	-20.6	24.0	351	201	Hori.	43.5	19.5
166.382	38.9	QP	15.7	-20.3	34.3	54	173	Hori.	43.5	9.2
166.492	34.5	QP	15.7	-20.3	29.9	64	100	Vert.	43.5	13.6
176.491	39.4	QP	16.2	-20.1	35.5	208	192	Hori.	43.5	8.0
176.492	33.6	QP	16.2	-20.1	29.7	54	100	Vert.	43.5	13.8
335.969	35.0	QP	15.6	-19.1	31.5	320	100	Hori.	46.0	14.5
335.969	29.0	QP	15.6	-19.1	25.5	265	100	Vert.	46.0	20.5
431.962	31.1	QP	17.4	-19.2	29.3	323	100	Vert.	46.0	16.7
431.961	32.2	QP	17.4	-19.2	30.4	352	100	Hori.	46.0	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)

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

**Radiated Spurious Emission (above 1GHz)**

**11b, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 and No.1 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11b, Tx 2412MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m / 1m  
Date : 02/18/2008 02/19/2008  
Temperature : 26deg.C. 23deg.C.  
Humidity : 32% 29%  
Engineer : Kazufumi Nakai Kazufumi Nakai

Antenna Cable 50cm

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2390.00	47.6	47.6	27.0	32.1	2.5	0.0	45.0	45.0	73.9	28.9	28.9
2	2400.00	57.3	56.5	27.0	32.1	2.5	0.0	54.7	53.9	73.9	19.2	20.0
3	4824.00	44.1	45.7	30.8	31.2	3.7	0.9	48.3	49.9	73.9	25.6	24.0
4	7236.00	41.4	41.7	35.7	32.5	4.6	0.7	49.9	50.2	73.9	24.0	23.7
5	9648.00	42.0	42.0	38.2	32.9	5.8	1.0	54.1	54.1	73.9	19.8	19.8
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
6	12060.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24120.00	49.1	49.0	39.9	34.8	9.4	0.0	54.1	54.0	73.9	19.8	19.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2390.00	34.1	34.5	27.0	32.1	2.5	0.0	31.5	31.9	53.9	22.4	22.0
2	2400.00	46.6	46.3	27.0	32.1	2.5	0.0	44.0	43.7	53.9	9.9	10.2
3	4824.00	31.9	33.8	30.8	31.2	3.7	0.9	36.1	38.0	53.9	17.8	15.9
4	7236.00	30.6	30.6	35.7	32.5	4.6	0.7	39.1	39.1	53.9	14.8	14.8
5	9648.00	30.5	30.6	38.2	32.9	5.8	1.0	42.6	42.7	53.9	11.3	11.2
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
6	12060.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24120.00	36.2	36.2	39.9	34.8	9.4	0.0	41.2	41.2	53.9	12.7	12.7

NS: Non Signal

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

\*The limit is rounded down to one decimal place.

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

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**Radiated Spurious Emission (above 1GHz)**

**11b, Tx, Ch: Mid, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 and No.1 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11b, Tx 2437MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m / 1m  
Date : 02/18/2008 02/19/2008  
Temperature : 26deg.C 23deg.C  
Humidity : 32% 29%  
Engineer : Kazufumi Nakai Kazufumi Nakai

Antenna Cable 50cm

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	4874.00	45.7	47.3	31.0	31.2	3.7	0.9	50.1	51.7	73.9	23.8	22.2
2	7311.00	42.3	43.1	35.9	32.5	4.7	0.7	51.1	51.9	73.9	22.8	22.0
3	9748.00	42.4	42.2	38.3	32.9	5.9	1.0	54.7	54.5	73.9	19.2	19.4
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
4	12185.00	NS	NS	-	-	-	-	-	-	73.9	-	-
5	14622.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	17059.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	19496.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	21933.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	24370.00	48.5	48.7	40.1	34.9	9.5	0.0	53.7	53.9	73.9	20.2	20.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	4874.00	32.8	34.5	31.0	31.2	3.7	0.9	37.2	38.9	53.9	16.7	15.0
2	7311.00	30.6	30.6	35.9	32.5	4.7	0.7	39.4	39.4	53.9	14.5	14.5
3	9748.00	30.4	30.4	38.3	32.9	5.9	1.0	42.7	42.7	53.9	11.2	11.2
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
4	12185.00	NS	NS	-	-	-	-	-	-	53.9	-	-
5	14622.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17059.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19496.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21933.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24370.00	35.9	35.9	40.1	34.9	9.5	0.0	41.1	41.1	53.9	12.8	12.8

NS: Non Signal

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

\*The limit is rounded down to one decimal place.

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

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**Radiated Spurious Emission (above 1GHz)**

**11b, Tx, Ch: High, 11Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 and No.1 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11b, Tx 2462MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m / 1m  
Date : 02/18/2008 02/19/2008  
Temperature : 26deg.C. 23deg.C.  
Humidity : 32% 29%  
Engineer : Kazufumi Nakai Kazufumi Nakai

Antenna Cable 50cm

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	47.1	51.1	27.2	32.1	2.6	0.0	44.8	48.8	73.9	29.1	25.1
2	4924.00	44.0	43.6	31.1	31.2	3.7	0.9	48.5	48.1	73.9	25.4	25.8
3	7386.00	42.5	42.8	36.0	32.6	4.7	0.7	51.3	51.6	73.9	22.6	22.3
4	9848.00	41.8	42.6	38.3	32.9	6.0	1.0	54.2	55.0	73.9	19.7	18.9
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	12310.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24620.00	49.1	49.2	40.3	34.9	9.5	0.0	54.5	54.6	73.9	19.4	19.3

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	33.0	32.7	27.2	32.1	2.6	0.0	30.7	30.4	53.9	23.2	23.5
2	4924.00	31.8	33.0	31.1	31.2	3.7	0.9	36.3	37.5	53.9	17.6	16.4
3	7386.00	30.9	30.9	36.0	32.6	4.7	0.7	39.7	39.7	53.9	14.2	14.2
4	9848.00	30.5	30.5	38.3	32.9	6.0	1.0	42.9	42.9	53.9	11.0	11.0
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	12310.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24620.00	36.2	36.2	40.3	34.9	9.5	0.0	41.6	41.6	53.9	12.3	12.3

NS: Non Signal

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

\*The limit is rounded down to one decimal place.

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

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**Radiated Spurious Emission (above 1GHz)**

**11g, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 and No.1 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2412MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m / 1m  
Date : 02/18/2008 02/19/2008  
Temperature : 26deg.C. 23deg.C.  
Humidity : 32% 29%  
Engineer : Kazufumi Nakai Kazufumi Nakai

Antenna Cable 50cm

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2390.00	56.9	55.8	27.0	32.1	2.5	0.0	54.3	53.2	73.9	19.6	20.7
2*	2400.00	79.7	81.5	27.0	32.1	2.5	0.0	77.1	78.9	-	-	-
3	4824.00	44.9	47.8	30.8	31.2	3.7	0.9	49.1	52.0	73.9	24.8	21.9
4	7236.00	41.6	42.2	35.7	32.5	4.6	0.7	50.1	50.7	73.9	23.8	23.2
5	9648.00	42.2	41.9	38.2	32.9	5.8	1.0	54.3	54.0	73.9	19.6	19.9
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
6	12060.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24120.00	49.3	49.3	39.9	34.8	9.4	0.0	54.3	54.3	73.9	19.6	19.6

\*Reference Data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2390.00	39.5	39.5	27.0	32.1	2.5	0.0	36.9	36.9	53.9	17.0	17.0
2*	2400.00	50.5	51.6	27.0	32.1	2.5	0.0	47.9	49.0	-	-	-
3	4824.00	32.7	35.1	30.8	31.2	3.7	0.9	36.9	39.3	53.9	17.0	14.6
4	7236.00	30.7	30.6	35.7	32.5	4.6	0.7	39.2	39.1	53.9	14.7	14.8
5	9648.00	30.5	30.5	38.2	32.9	5.8	1.0	42.6	42.6	53.9	11.3	11.3
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
6	12060.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24120.00	36.2	36.2	39.9	34.8	9.4	0.0	41.2	41.2	53.9	12.7	12.7

\*Reference Data

**20dBc (Fundamental 2412.0 MHz)** (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
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
0	2412.00	91.6	92.1	27.1	32.1	2.5	0.0	89.1	89.6	-	-	-
2	2400.00	63.0	64.7	27.0	32.1	2.5	0.0	60.4	62.1	Funda-20dB	8.7	7.5

NS: Non Signal

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

\*The limit is rounded down to one decimal place.

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

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**Radiated Spurious Emission (above 1GHz)**

**11g, Tx, Ch: Mid, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 and No.1 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2437MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m / 1m  
Date : 02/18/2008 02/19/2008  
Temperature : 26deg.C. 23deg.C.  
Humidity : 32% 29%  
Engineer : Kazufumi Nakai Kazufumi Nakai

Antenna Cable 50cm

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	4874.00	44.5	46.1	31.0	31.2	3.7	0.9	48.9	50.5	73.9	25.0	23.4
2	7311.00	43.0	43.8	35.9	32.5	4.7	0.7	51.8	52.6	73.9	22.1	21.3
3	9748.00	42.5	42.5	38.3	32.9	5.9	1.0	54.8	54.8	73.9	19.1	19.1
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
4	12185.00	NS	NS	-	-	-	-	-	-	73.9	-	-
5	14622.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	17059.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	19496.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	21933.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	24370.00	48.8	48.7	40.1	34.9	9.5	0.0	54.0	53.9	73.9	19.9	20.0

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	4874.00	32.8	34.7	31.0	31.2	3.7	0.9	37.2	39.1	53.9	16.7	14.8
2	7311.00	30.7	30.6	35.9	32.5	4.7	0.7	39.5	39.4	53.9	14.4	14.5
3	9748.00	30.4	30.5	38.3	32.9	5.9	1.0	42.7	42.8	53.9	11.2	11.1
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
4	12185.00	NS	NS	-	-	-	-	-	-	53.9	-	-
5	14622.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17059.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19496.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21933.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24370.00	35.8	35.8	40.1	34.9	9.5	0.0	41.0	41.0	53.9	12.9	12.9

NS: Non Signal

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3/1.0) = 9.54$  dB

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

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

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

\*The limit is rounded down to one decimal place.

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

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**Radiated Spurious Emission (above 1GHz)**

**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 and No.1 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2462MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m / 1m  
Date : 02/18/2008 02/19/2008  
Temperature : 26deg.C. 23deg.C.  
Humidity : 32% 29%  
Engineer : Kazufumi Nakai Kazufumi Nakai

Antenna Cable 50cm

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	55.0	55.4	27.2	32.1	2.6	0.0	52.7	53.1	73.9	21.2	20.8
2	4924.00	46.6	48.3	31.1	31.2	3.7	0.9	51.1	52.8	73.9	22.8	21.1
3	7386.00	43.2	42.7	36.0	32.6	4.7	0.7	52.0	51.5	73.9	21.9	22.4
4	9848.00	42.0	41.7	38.3	32.9	6.0	1.0	54.4	54.1	73.9	19.5	19.8
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	12310.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24620.00	49.0	49.1	40.3	34.9	9.5	0.0	54.4	54.5	73.9	19.5	19.4

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	38.0	39.2	27.2	32.1	2.6	0.0	35.7	36.9	53.9	18.2	17.0
2	4924.00	33.0	34.9	31.1	31.2	3.7	0.9	37.5	39.4	53.9	16.4	14.5
3	7386.00	30.9	30.9	36.0	32.6	4.7	0.7	39.7	39.7	53.9	14.2	14.2
4	9848.00	30.5	30.6	38.3	32.9	6.0	1.0	42.9	43.0	53.9	11.0	10.9
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	12310.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24620.00	36.3	36.3	40.3	34.9	9.5	0.0	41.7	41.7	53.9	12.2	12.2

NS: Non Signal

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

\*The limit is rounded down to one decimal place.

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

**UL Japan, Inc.**

**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

**Radiated Spurious Emission (above 1GHz)**  
**11g, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 2**  
**[Reference Data]**

UL Japan, Inc.

Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m  
Date : 02/27/2008  
Temperature : 25deg.C.  
Humidity : 26%  
Engineer : Kazufumi Nakai

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2412MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Antenna Cable 25cm

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.00	54.2	56.9	27.0	32.1	2.5	0.0	51.6	54.3	73.9	22.3	19.6
2*	2400.00	76.8	77.0	27.0	32.1	2.5	0.0	74.2	74.4	-	-	-
3	4824.00	49.0	48.5	30.8	31.2	3.7	0.9	53.2	52.7	73.9	20.7	21.2

\*Reference Data

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.00	38.9	39.6	27.0	32.1	2.5	0.0	36.3	37.0	53.9	17.6	16.9
2*	2400.00	52.0	53.1	27.0	32.1	2.5	0.0	49.4	50.5	-	-	-
3	4824.00	35.2	34.9	30.8	31.2	3.7	0.9	39.4	39.1	53.9	14.5	14.8

\*Reference Data

**20dBc (Fundamental 2412.0 MHz)** (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit 20dBc [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
0	2412.00	90.1	90.2	27.1	32.1	2.5	0.0	87.6	87.7	-	-	-
2	2400.00	60.1	61.5	27.0	32.1	2.5	0.0	57.5	58.9	Funda-20dB	10.1	8.8

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

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

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (above 1GHz)**  
**11g, Tx, Ch: Low, 11Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2**  
**[Reference Data]**

UL Japan, Inc.

Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m  
Date : 02/27/2008  
Temperature : 25deg.C.  
Humidity : 26%  
Engineer : Kazufumi Nakai

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2412MHz  
Position : Module, H: X-axis, V: X-axis  
Antenna, H: X-axis, V: X-axis

Antenna Cable 3cm

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2390.00	54.3	53.2	27.0	32.1	2.5	0.0	51.7	50.6	73.9	22.2	23.3
2*	2400.00	78.5	76.8	27.0	32.1	2.5	0.0	75.9	74.2	-	-	-
3	4824.00	38.7	38.8	30.8	31.2	3.7	0.9	42.9	43.0	73.9	31.0	30.9

\*Reference Data

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2390.00	38.9	37.4	27.0	32.1	2.5	0.0	36.3	34.8	53.9	17.6	19.1
2*	2400.00	50.1	49.3	27.0	32.1	2.5	0.0	47.5	46.7	-	-	-
3	4824.00	26.6	26.8	30.8	31.2	3.7	0.9	30.8	31.0	53.9	23.1	22.9

\*Reference Data

**20dBc (Fundamental 2412.0 MHz)** (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit 20dBc [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
0	2412.00	91.3	89.4	27.1	32.1	2.5	0.0	88.8	86.9	-	-	-
2	2400.00	64.5	60.6	27.0	32.1	2.5	0.0	61.9	58.0	Funda-20dB	6.9	8.9

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

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

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (above 1GHz)**  
**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 25cm, Power Supply Unit 2**  
**[Reference Data]**

UL Japan, Inc.

Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Regulation : FCC15.247(d) / RSS-210 A8.5

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2462MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Test Distance : 3m  
Date : 02/27/2008  
Temperature : 25deg.C.  
Humidity : 26%  
Engineer : Kazufumi Nakai

Antenna Cable 25cm

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	52.3	52.0	27.2	32.1	2.6	0.0	50.0	49.7	73.9	23.9	24.2
2	4924.00	46.1	45.4	31.1	31.2	3.7	0.9	50.6	49.9	73.9	23.3	24.0

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	38.0	36.7	27.2	32.1	2.6	0.0	35.7	34.4	53.9	18.2	19.5
2	4924.00	32.9	31.2	31.1	31.2	3.7	0.9	37.4	35.7	53.9	16.5	18.2

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.  
\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.  
\*The limit is rounded down to one decimal place.  
\*The test result is round off to one or two decimal places, so some differences might be observed.

**Radiated Spurious Emission (above 1GHz)**  
**11g, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2**  
**[Reference Data]**

UL Japan, Inc.

Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Regulation : FCC15.247(d) / RSS-210 A8.5  
Test Distance : 3m  
Date : 02/27/2008  
Temperature : 25deg.C.  
Humidity : 26%  
Engineer : Kazufumi Nakai

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11g, Tx 2462MHz  
Position : Module, H: X-axis, V: X-axis  
Antenna, H: X-axis, V: X-axis

Antenna Cable 3cm

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	57.6	48.2	27.2	32.1	2.6	0.0	55.3	45.9	73.9	18.6	28.0
2	4924.00	42.9	45.5	31.1	31.2	3.7	0.9	47.4	50.0	73.9	26.5	23.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2483.50	42.0	34.0	27.2	32.1	2.6	0.0	39.7	31.7	53.9	14.2	22.2
2	4924.00	29.8	32.5	31.1	31.2	3.7	0.9	34.3	37.0	53.9	19.6	16.9

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.  
\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.  
\*The limit is rounded down to one decimal place.  
\*The test result is round off to one or two decimal places, so some differences might be observed.

**Radiated Spurious Emission (above 1GHz)**

**11b/g, Rx, Ch: Mid, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2**

UL Japan, Inc.

Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company : Sony Corporation  
Equipment : WLAN MODULE  
Model : CMN-727AS  
S/N : 54  
Power : DC 3.3V  
Mode : WLAN 11b/g, Rx 2437MHz  
Position : Module, H: X-axis, V: Y-axis  
Antenna, H: Z-axis, V: Y-axis

Regulation : FCC15.109(a) / RSS-210 A8.5  
Test Distance : 3m  
Date : 02/20/2008  
Temperature : 24deg.C.  
Humidity : 30%  
Engineer : Kazufumi Nakai

Antenna Cable 50cm

**PK DETECT (Reference data)** (RBW: 1MHz, VBW: 1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2442.50	46.0	44.8	27.1	32.1	2.5	0.0	43.5	42.3	73.9	30.4	31.6
2	4885.00	47.7	44.4	31.0	31.2	3.4	0.0	50.9	47.6	73.9	23.0	26.3
3	7327.50	42.8	42.9	35.9	32.5	4.3	0.0	50.5	50.6	73.9	23.4	23.3

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2442.50	39.3	35.8	27.1	32.1	2.5	0.0	36.8	33.3	53.9	17.1	20.6
2	4885.00	43.5	36.8	31.0	31.2	3.4	0.0	46.7	40.0	53.9	7.2	13.9
3	7327.50	31.3	31.3	35.9	32.5	4.3	0.0	39.0	39.0	53.9	14.9	14.9

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

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

\*The limit is rounded down to one decimal place.

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

**UL Japan, Inc.**

**Head Office EMC Lab.**

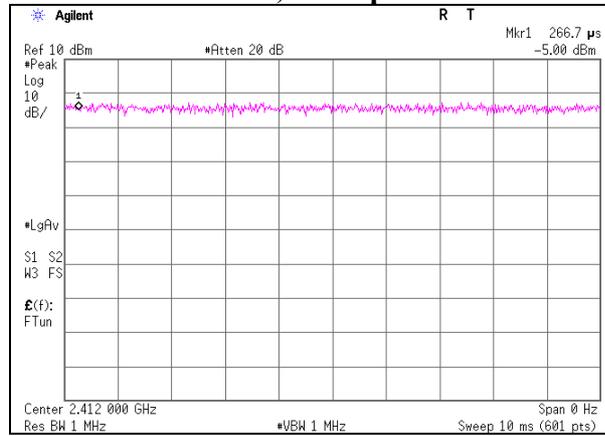
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

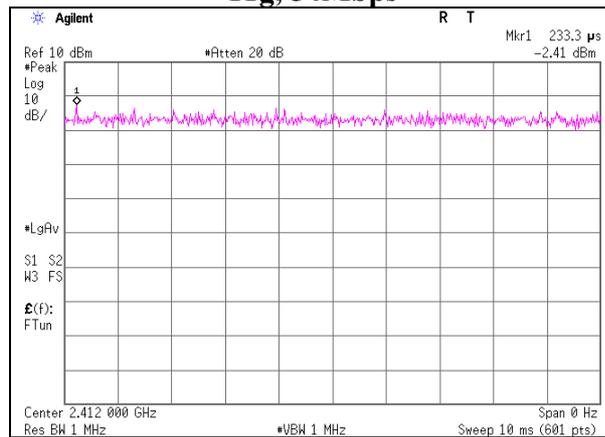
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## Transmitting Duty

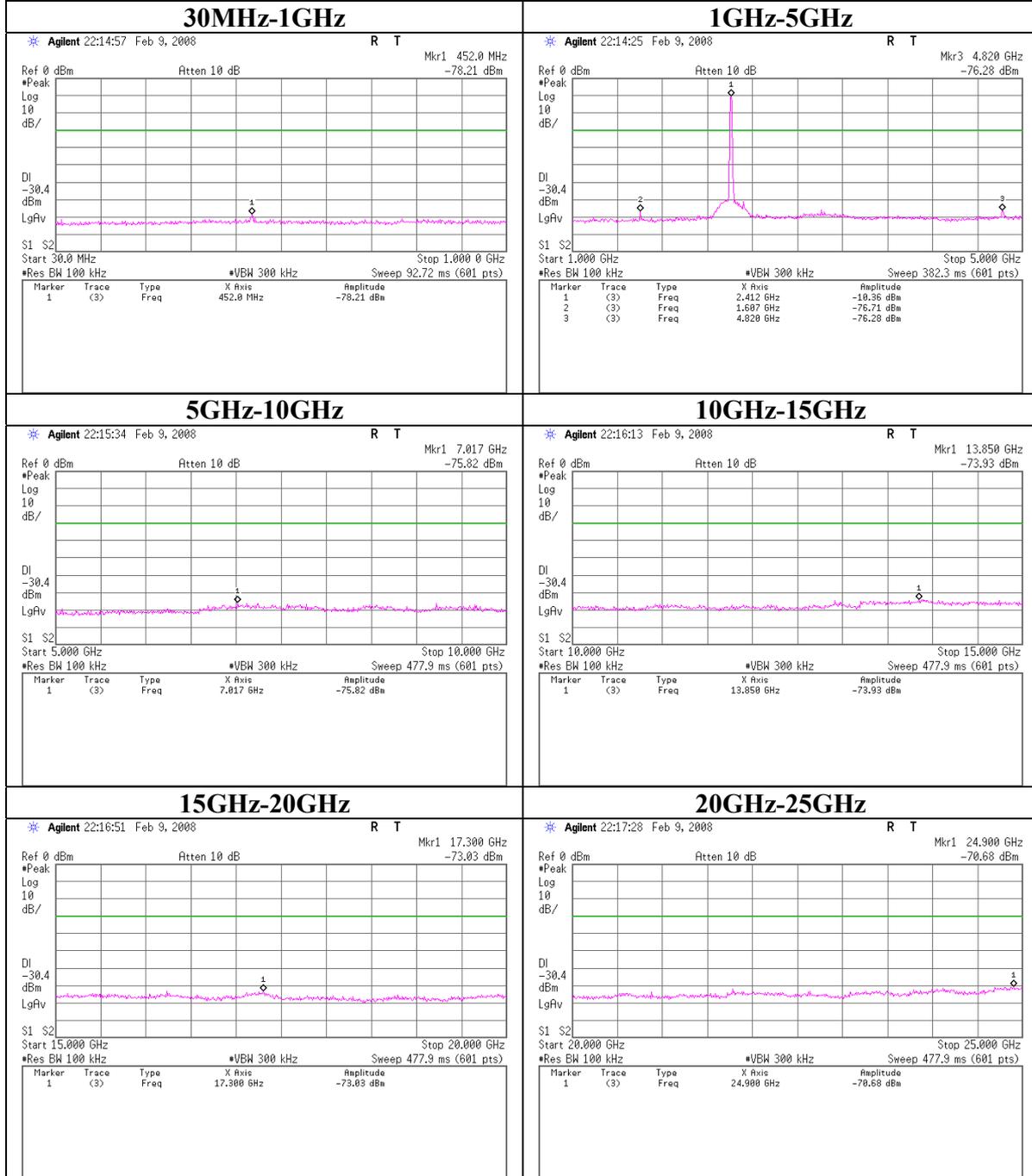
### 11b, 11Mbps



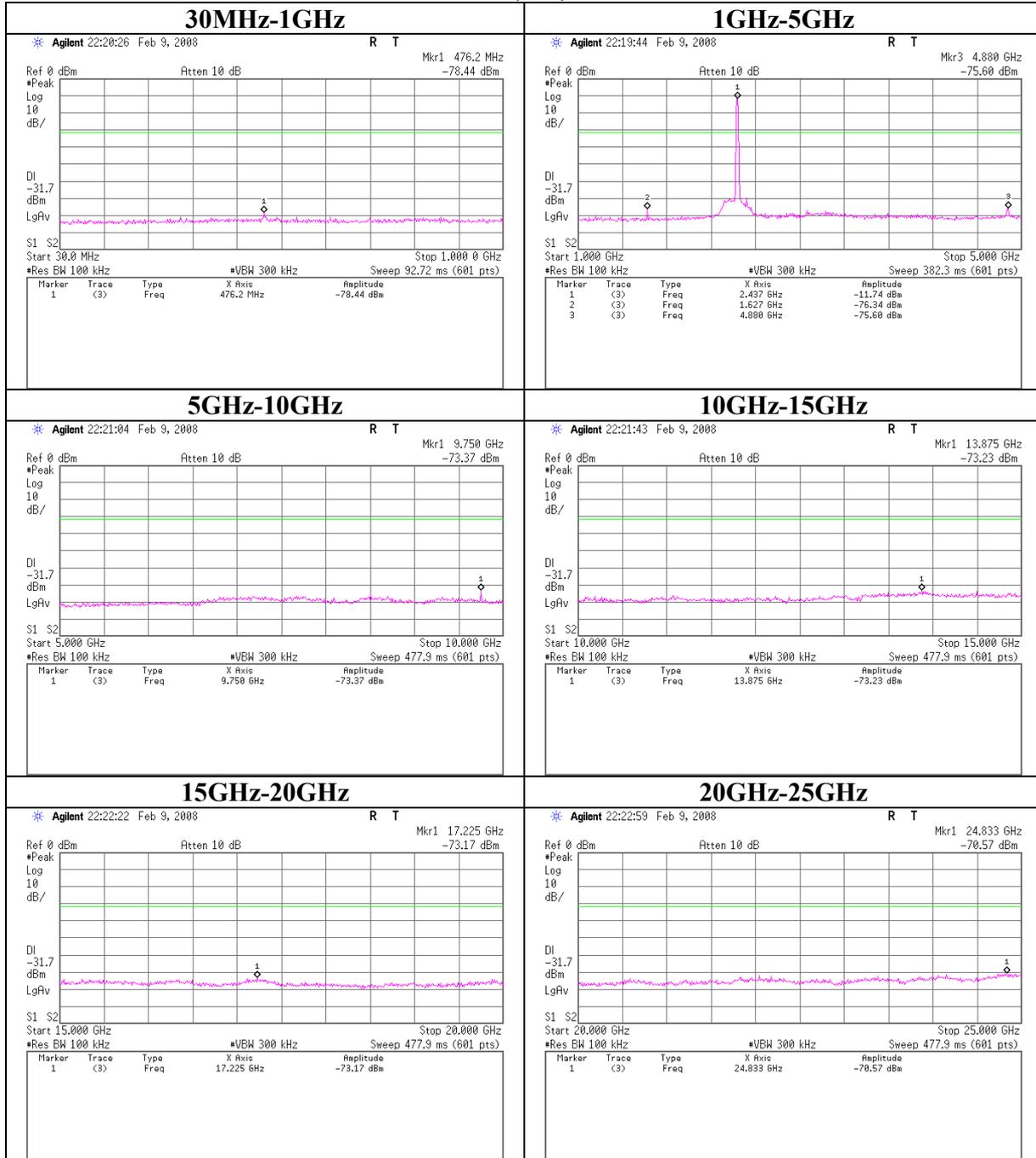
### 11g, 54Mbps



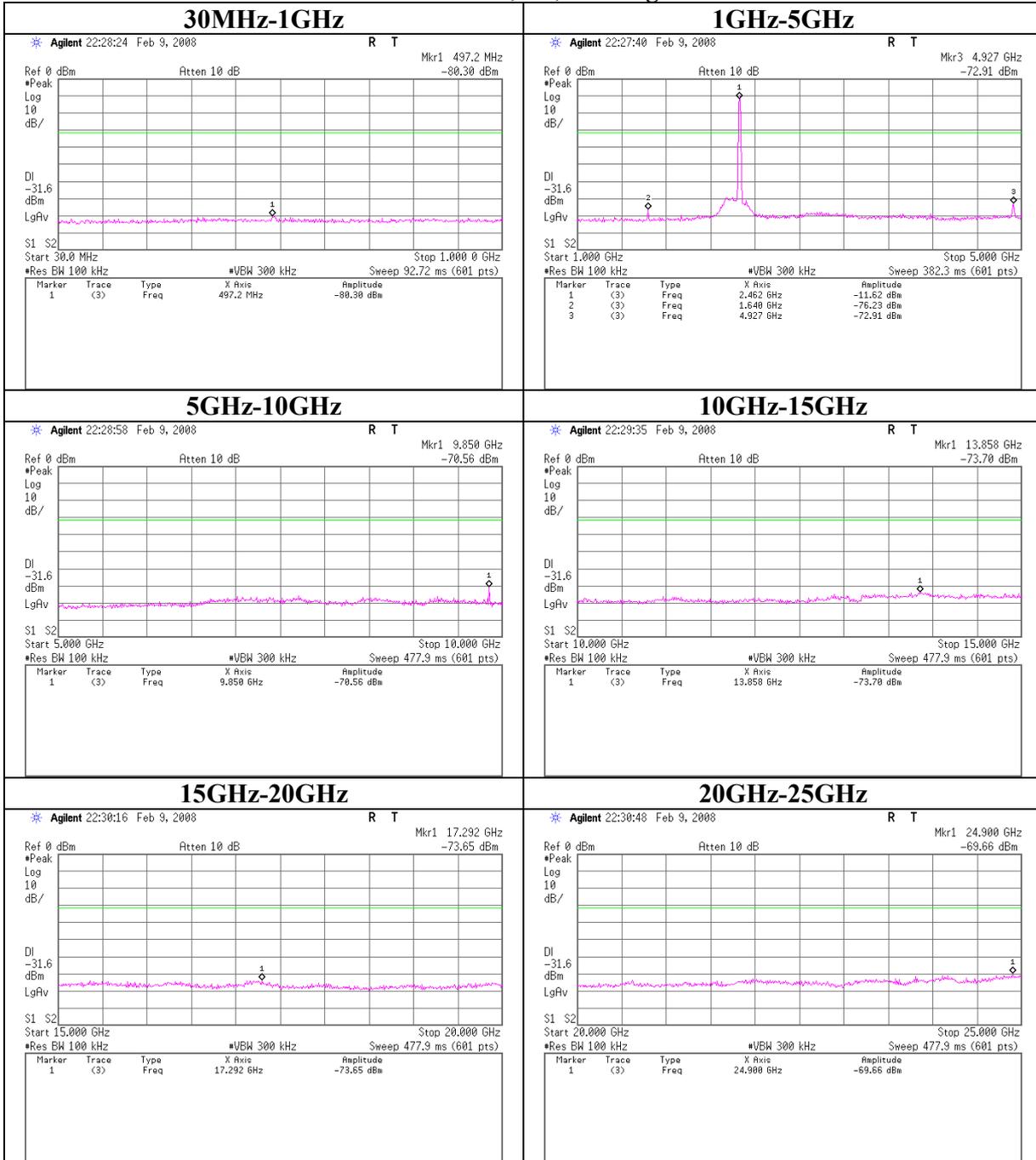
**Conducted Spurious Emission**  
**11b, Tx, Ch: Low**



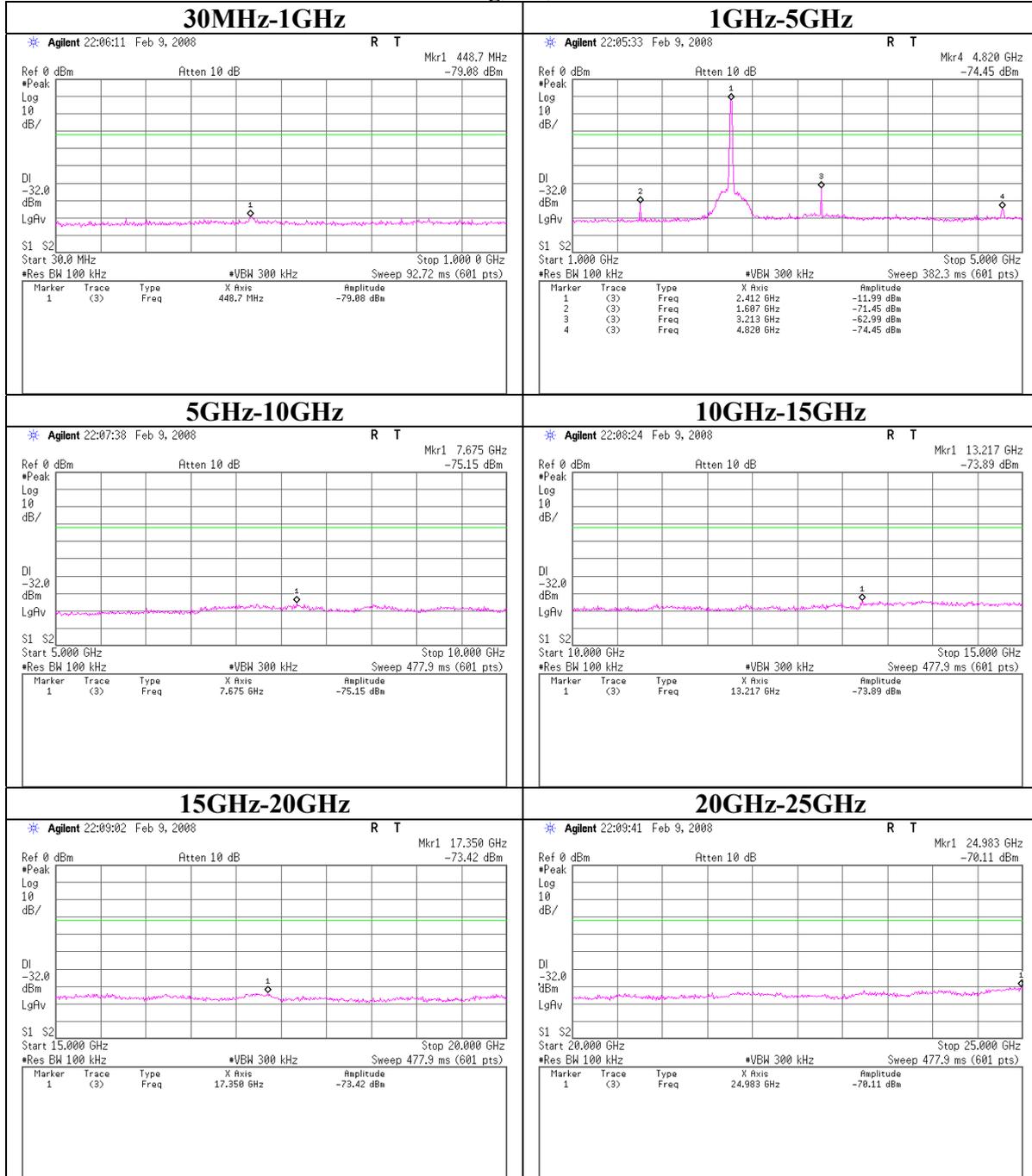
**Conducted Spurious Emission**  
**11b, Tx, Ch: Mid**



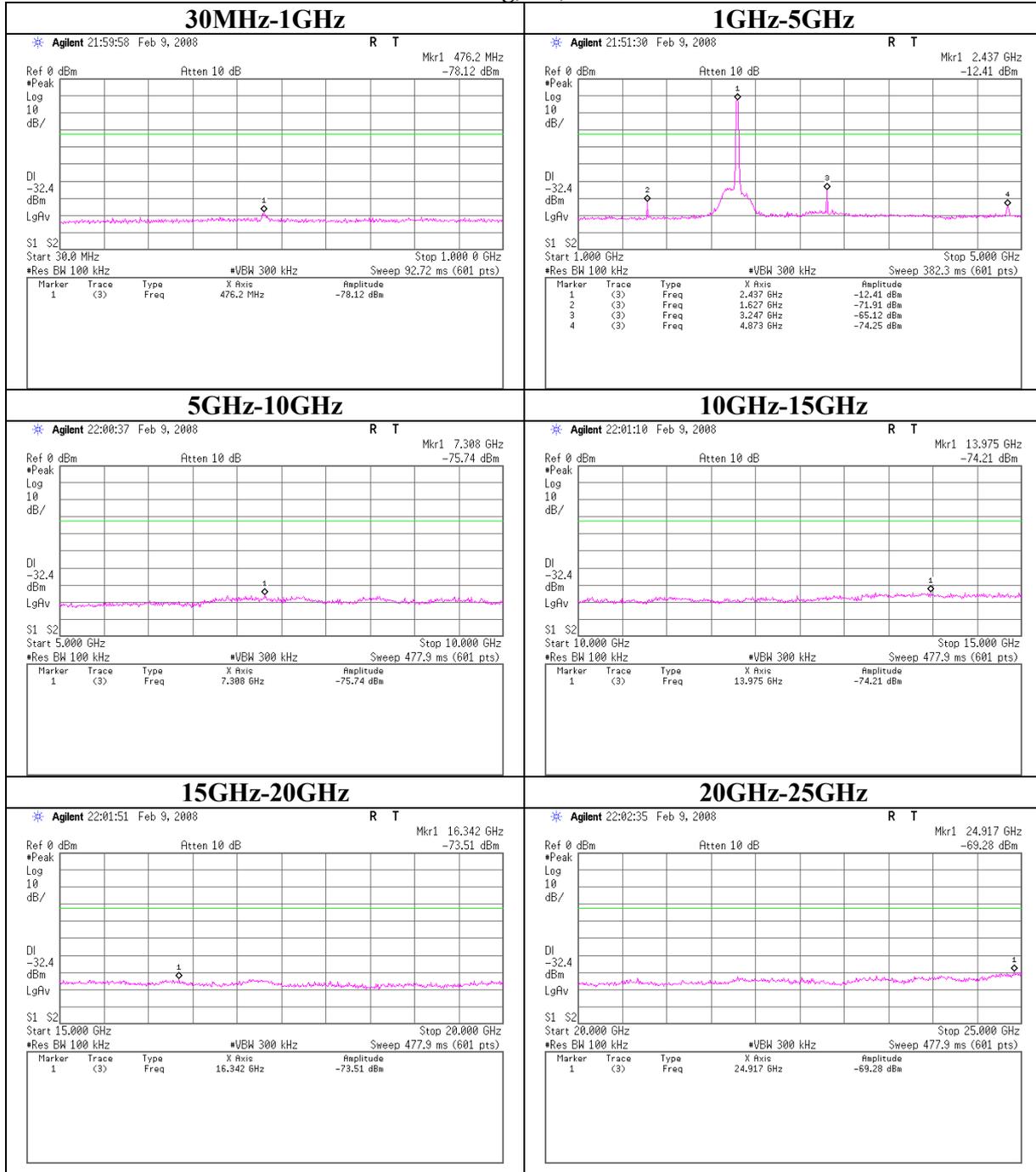
**Conducted Spurious Emission**  
**11b, Tx, Ch: High**



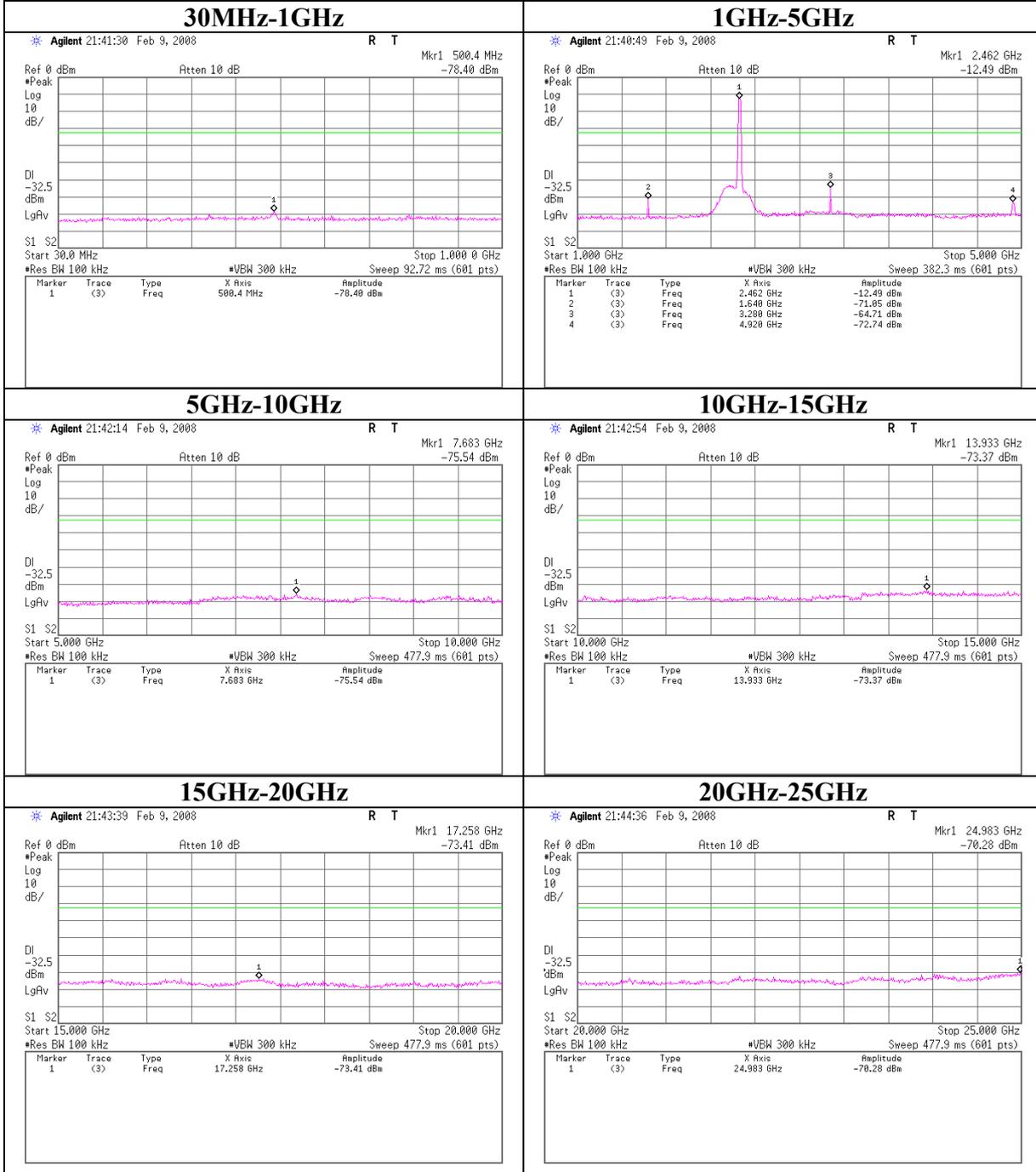
**Conducted Spurious Emission**  
**11g, Tx, Ch: Low**



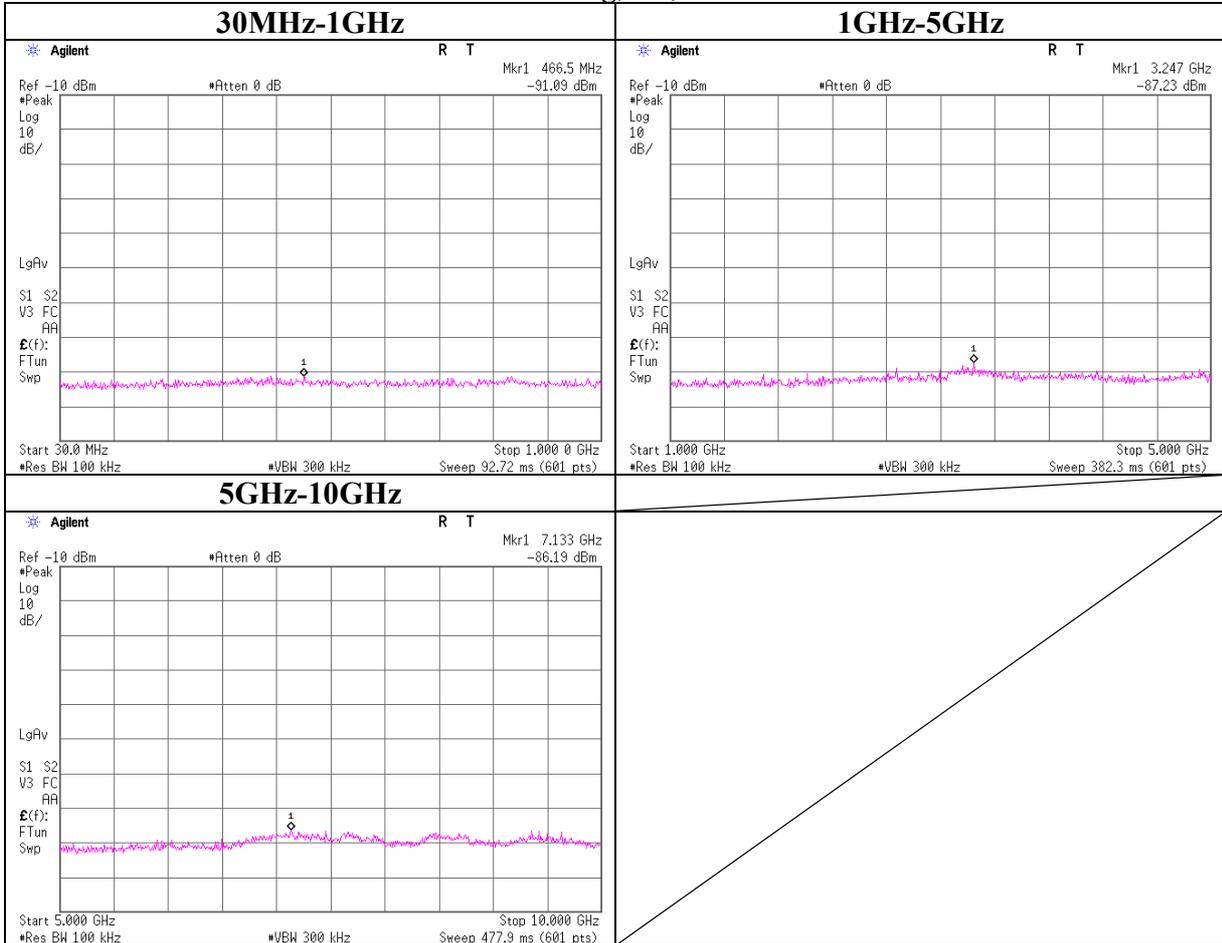
**Conducted Spurious Emission**  
**11g, Tx, Ch: Mid**



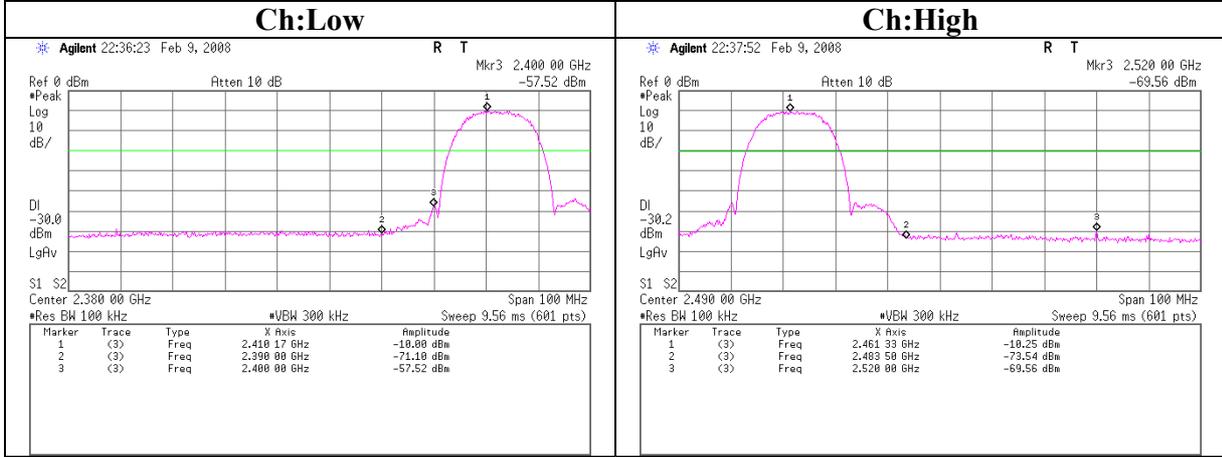
**Conducted Spurious Emission**  
**11g, Tx, Ch: High**



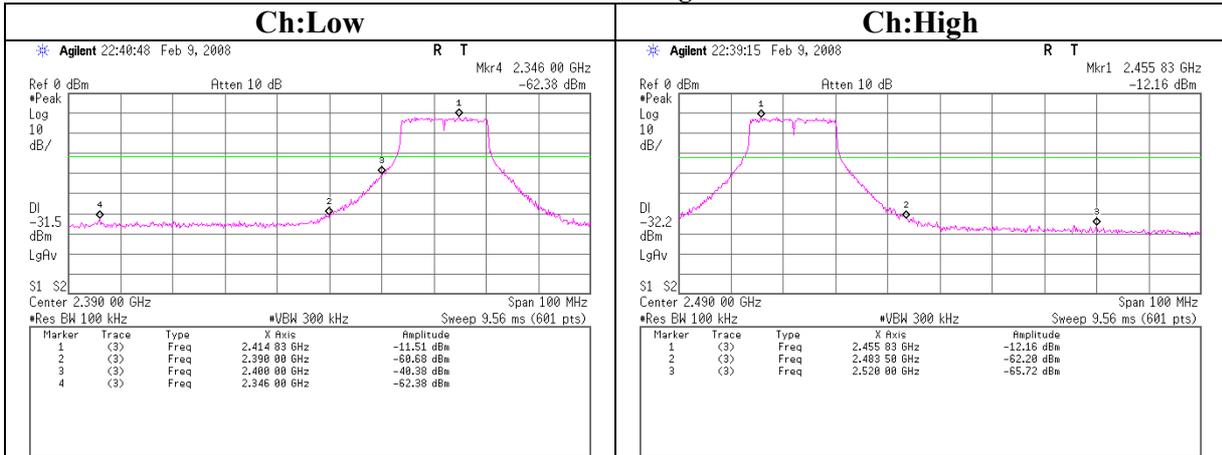
**Conducted Spurious Emission**  
**11b/g, Rx, Ch: Mid**



**Conducted emission Band Edge compliance**  
**11b**



**11g**



### Power Density

	UL Japan, Inc.
	Head Office EMC Lab. No.7 Shielded Room
Company : Sony Corporation	Test Report No. : 27LE0344-HO
Equipment : WLAN MODULE	Regulation : FCC15.247(e)/RSS-210A8.2(b)
Model No. : CMN-727AS	Test distance : -
Serial No. : 55	Date : 02/19/2008
Power : DC 3.3V	Temperature : 23°C
Mode : Tx (Ch L, M, H)	Humidity : 31%
Antenna A	Engineer : Norihisa Hashimoto

#### [IEEE802.11b] 11Mbps

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.7	-22.51	1.41	10.01	-11.09	8.00	19.09
Mid	2437.7	-22.93	1.41	10.01	-11.51	8.00	19.51
High	2463.5	-23.38	1.42	10.02	-11.94	8.00	19.94

Sample Calculation:

Result = Reading + Cable Loss (spplied by customer : 0.4dB + UL Japan : 1.01dB) + Attenuator

#### [IEEE802.11g] 54Mbps

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2415.5	-24.40	1.41	10.01	-12.98	8.00	20.98
Mid	2434.1	-23.44	1.41	10.01	-12.02	8.00	20.02
High	2459.2	-24.12	1.42	10.02	-12.68	8.00	20.68

Sample Calculation:

Result = Reading + Cable Loss (spplied by customer : 0.4dB + UL Japan : 1.01dB) + Attenuator

**UL Japan, Inc.**

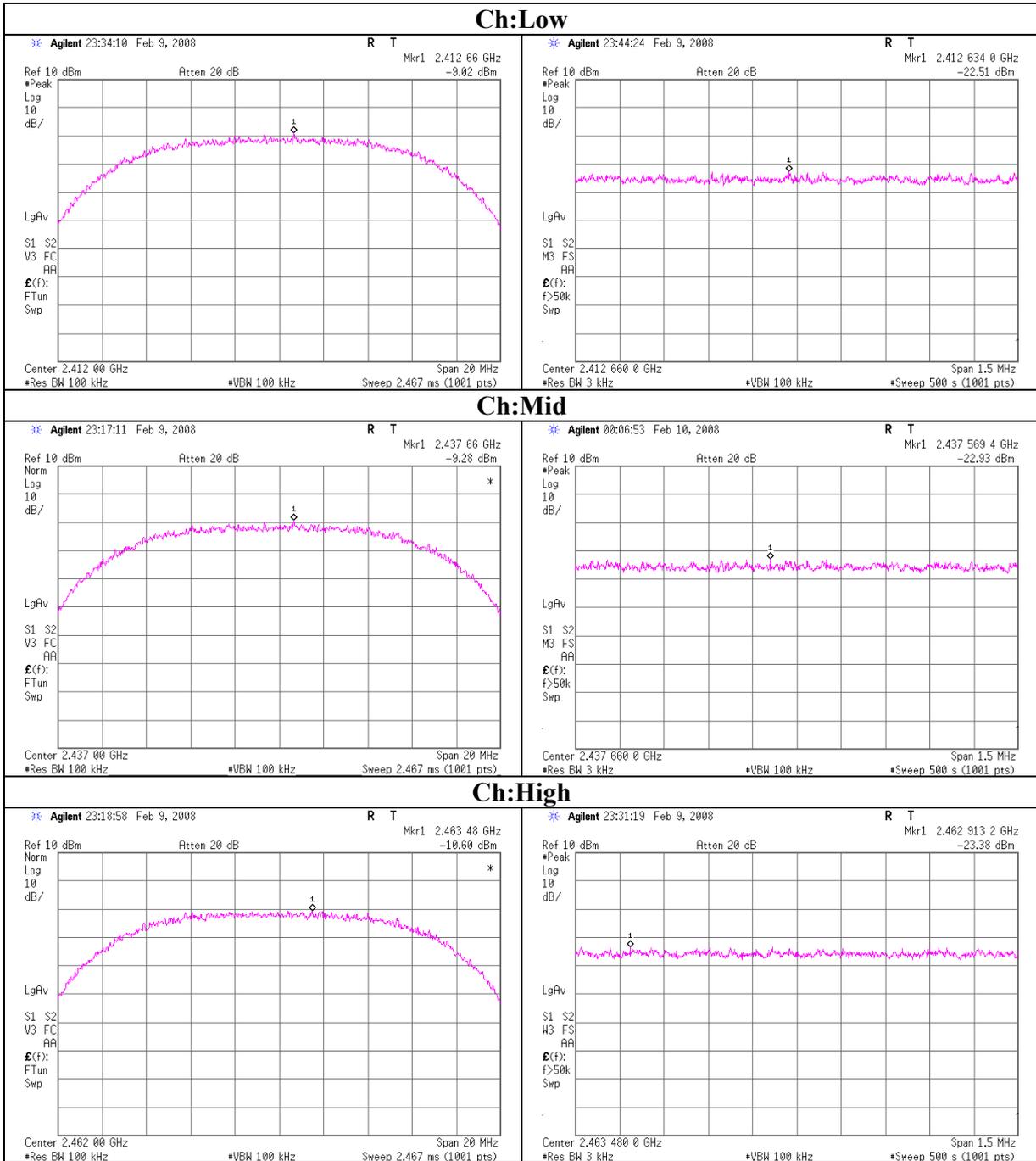
**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

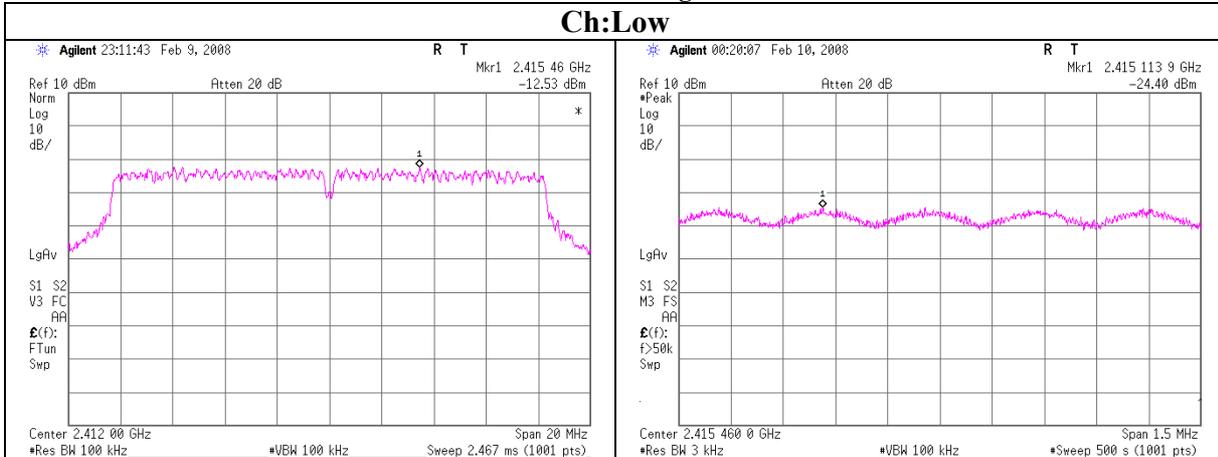
Facsimile : +81 596 24 8124

**Power Density**  
**11b**

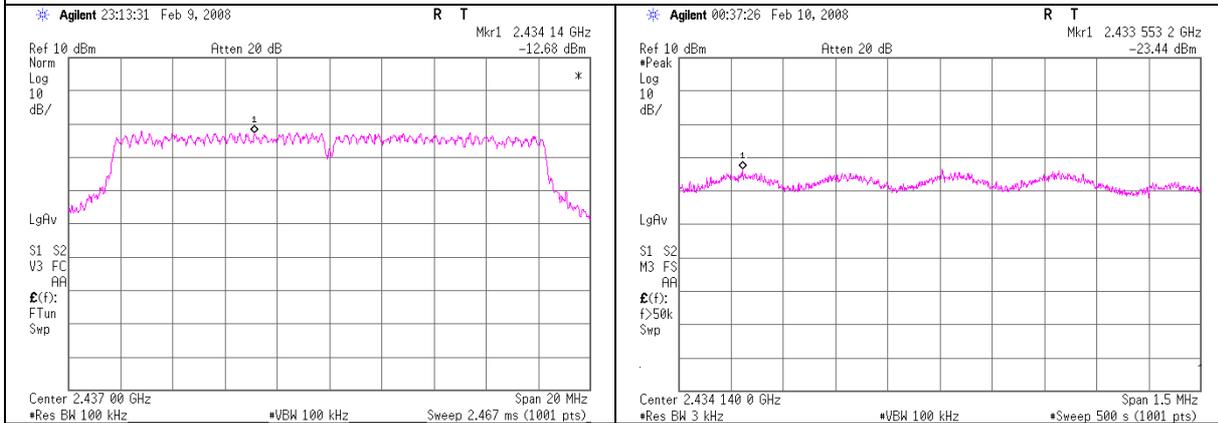


**Power Density**  
**11g**

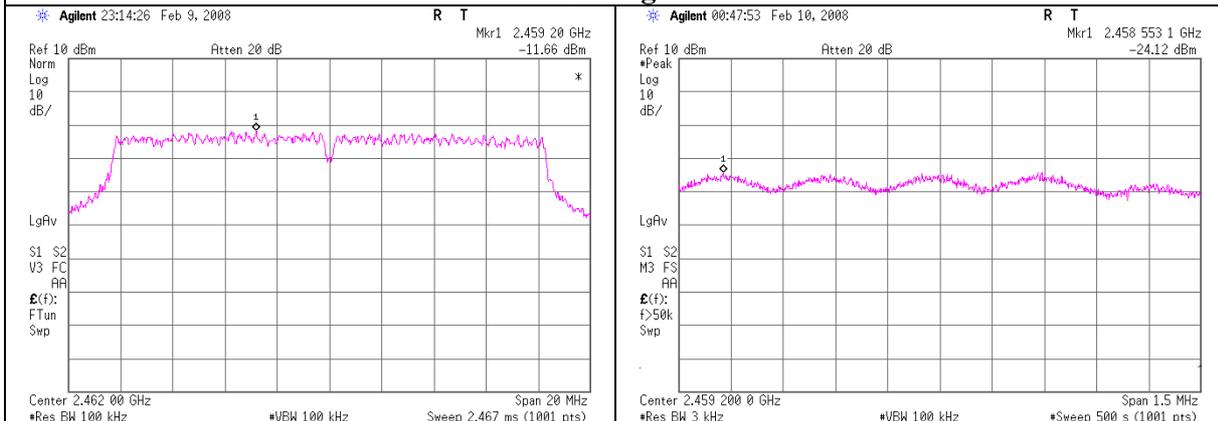
**Ch:Low**



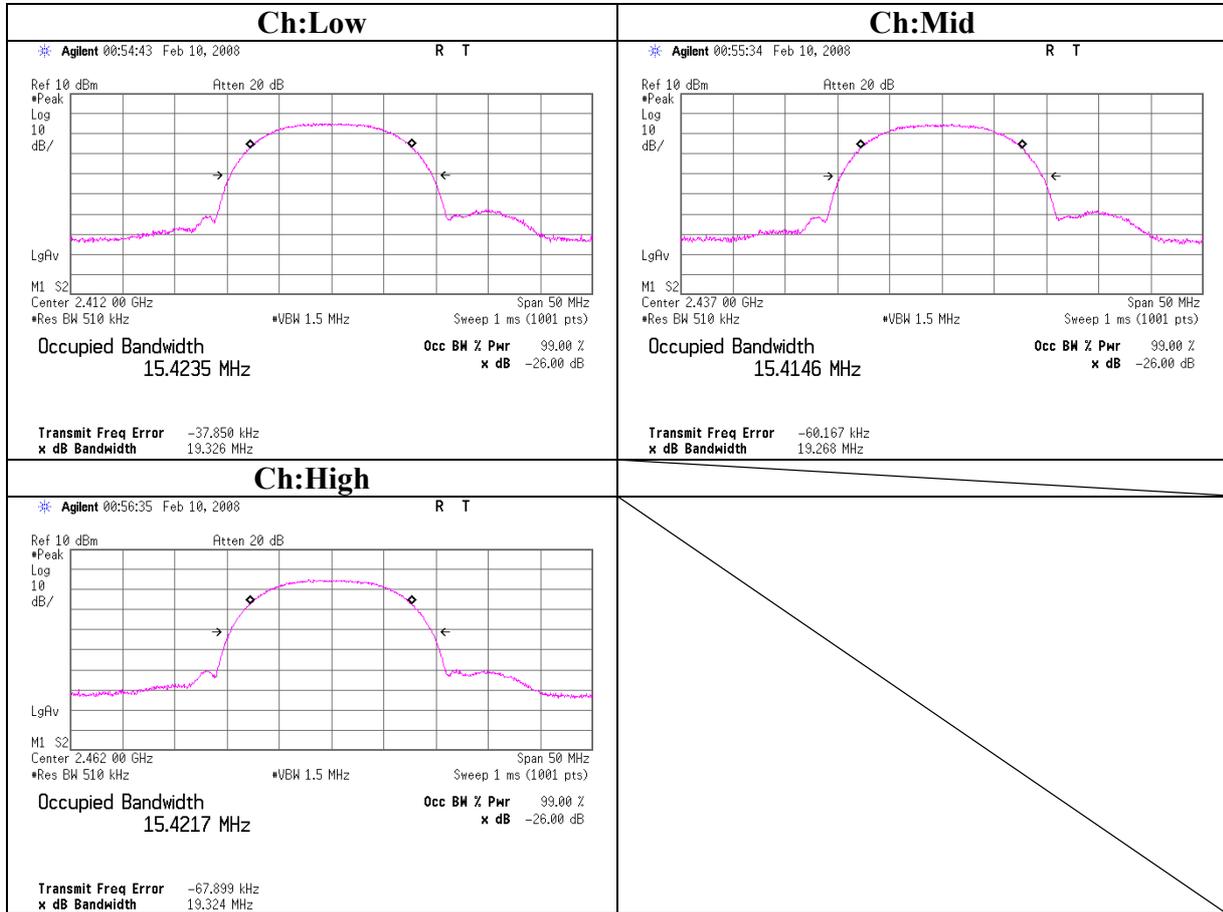
**Ch:Mid**



**Ch:High**

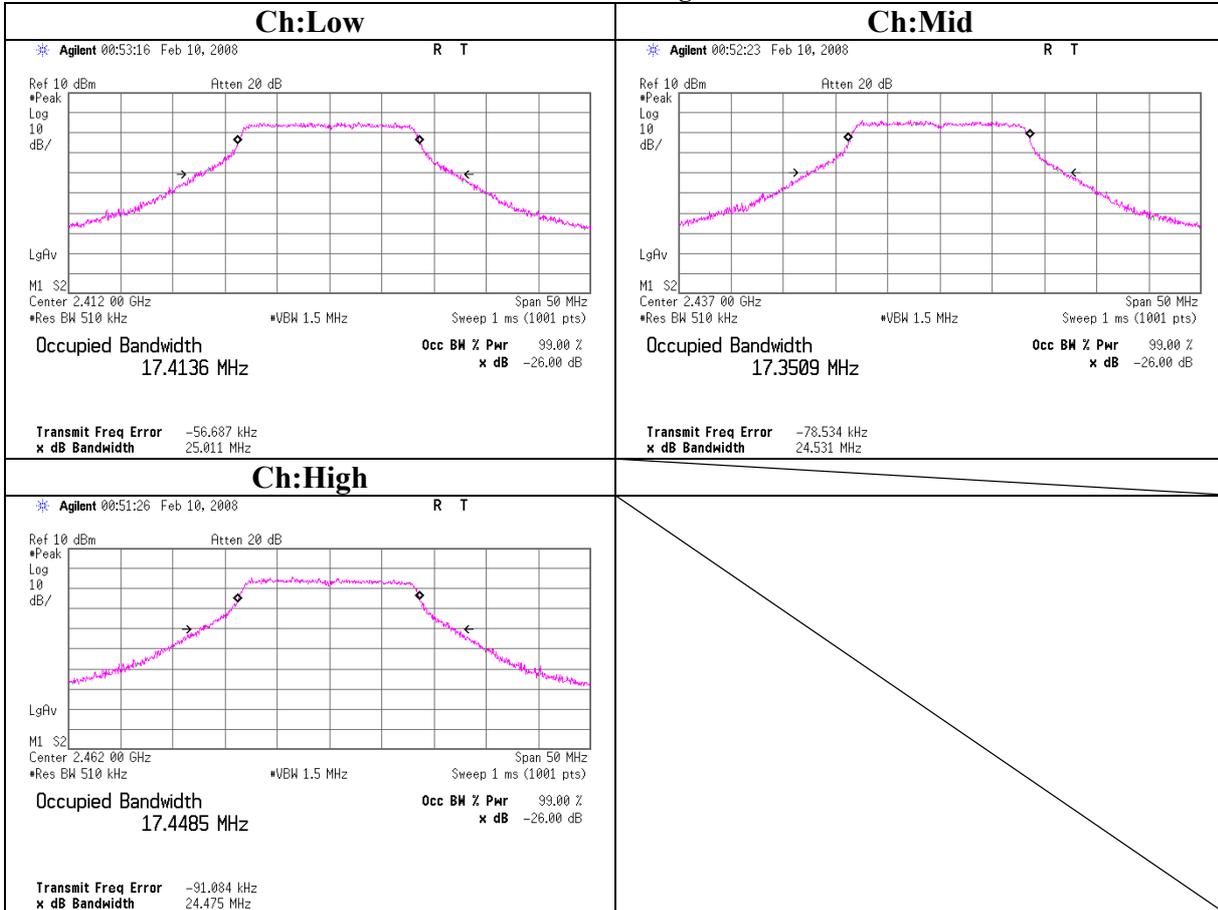


**99% Occupied Bandwidth**  
**11b**



**99% Occupied Bandwidth**

11g



### APPENDIX 3: Test instruments

#### EMI test equipment(1/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-04	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE/CE	2007/03/03 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	RE/CE / AT	2008/01/10 * 12
MJM-07	Measure	PROMART	SEN1955	RE/CE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	
MPM-09	Power Meter	Anritsu	ML2495A	AT	2007/09/22 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2007/09/22 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	RE / AT	2007/09/05 * 12
MAT-24	Attenuator(10dB)(above1G Hz)	Agilent	8493C	AT	2007/06/28 * 12
MCC-66	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	AT	2007/04/03 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2007/08/16 * 12
MCC-57	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/30 * 12
MHF-20	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCC	RE	2007/12/10 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/12 * 12
MCC-67	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	AT	2007/04/03 * 12
MAT-23	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	2007/11/12 * 12
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE	2007/11/23 * 12
MHA-05	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2008/01/19 * 12
MCC-15	Microwave Cable 1G-26.5GHz 1m	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MCC-18	Microwave Cable 1G-26.5GHz 5m	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2008/02/12 * 12
MHF-17	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	RE	2007/12/10 * 12
MCC-76	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MHA-01	Horn Antenna 18-26.5G	EMCO	3160-09	RE	2008/01/19 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	RE	2007/11/12 * 12
MJM-01	Measure	KDS	ES19-55	RE	-
MTR-01	Test Receiver	Rohde & Schwarz	ES140	RE	2007/10/19 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2007/06/01 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2008/02/20 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (AE)	2008/02/19 * 12
MTA-30	Terminator	TME	CT-01	CE	2008/01/15 * 12
MCC-50	Coaxial cable	UL Japan	-	CE	2007/03/06 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	CE	2007/09/14 * 12

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### EMI test equipment(2/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/04/02 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE	2007/11/12 * 12
MJM-05	Measure	PROMART	SEN1955	RE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	CE/RE	-
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2008/03/25 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2008/01/12 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2008/01/12 * 12
MAT-30	Attenuator(6dB)	TME	UFA-01	RE	2008/03/10 * 12
MCC-51	Coaxial cable	UL Japan	-	RE	2007/07/26 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	RE	2008/03/06 * 12
MSA-09	Spectrum Analyzer	Advantest	R3273	RE	2007/12/21 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE	2008/02/20 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	RE	2008/01/10 * 12
MJM-06	Measure	PROMART	SEN1955	RE	-
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2008/02/15 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2007/09/13 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	RE	2007/09/22 * 12
MRENT-62	Spectrum Analyzer	Agilent	E4448A	RE	2007/11/27 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/10/21 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2007/10/21 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2007/11/13 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	RE	2007/12/27 * 12

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

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

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

Test Item: CE: Conducted Emission

RE: Radiated Emission

AT: Antenna Terminal Conducted test

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