

APPENDIX 2: Data of EMI test

Conducted Emission

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

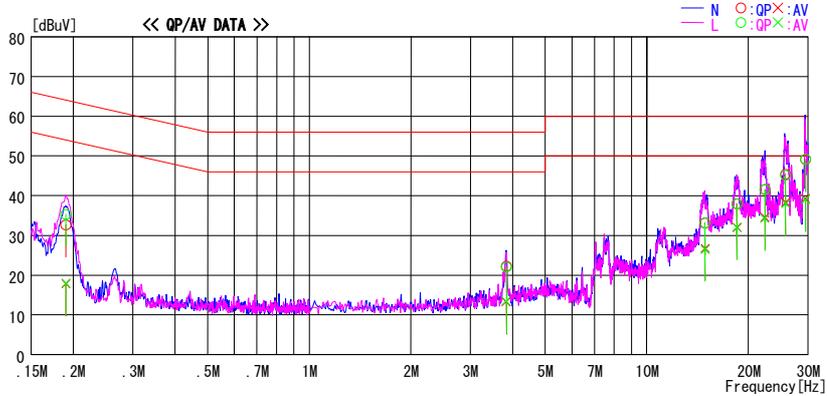
DATA OF CONDUCTED EMISSION TEST

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 : Kazufumi Nakai

Mode / Remarks: 11a Tx 5180MHz, 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]	
0.18995	32.4	17.6	0.2	32.6	17.8	64.0	54.0	31.4	36.2	N
3.83501	21.8	12.9	0.4	22.2	13.3	56.0	46.0	33.8	32.7	N
14.88011	32.4	25.9	0.8	33.2	26.7	60.0	50.0	26.8	23.3	N
18.50019	37.1	31.1	0.9	38.0	32.0	60.0	50.0	22.0	18.0	N
22.40028	40.6	33.5	1.0	41.6	34.5	60.0	50.0	18.4	15.5	N
25.76036	44.3	37.2	1.1	45.4	38.3	60.0	50.0	14.6	11.7	N
29.50045	48.0	38.0	1.2	49.2	39.2	60.0	50.0	10.9	10.8	N
0.18995	35.1	17.8	0.2	35.3	18.0	64.0	54.0	28.7	36.0	L
3.83501	21.7	13.1	0.4	22.1	13.5	56.0	46.0	34.0	32.5	L
14.88011	32.4	25.7	0.8	33.2	26.5	60.0	50.0	26.8	23.5	L
18.48019	37.1	31.2	0.9	38.0	32.1	60.0	50.0	22.0	17.9	L
22.36028	40.5	33.2	1.0	41.5	34.2	60.0	50.0	18.5	15.8	L
25.76036	44.1	36.8	1.1	45.2	37.9	60.0	50.0	14.8	12.1	L
29.50045	48.0	37.8	1.2	49.2	39.0	60.0	50.0	10.8	11.0	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

11a, 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	: Kazufumi Nakai

Mode / Remarks : 11a Tx 5200MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP
FCC15.207 AV

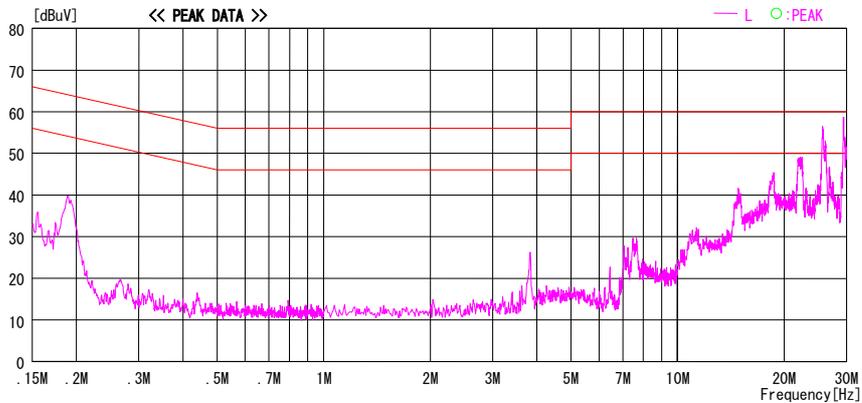
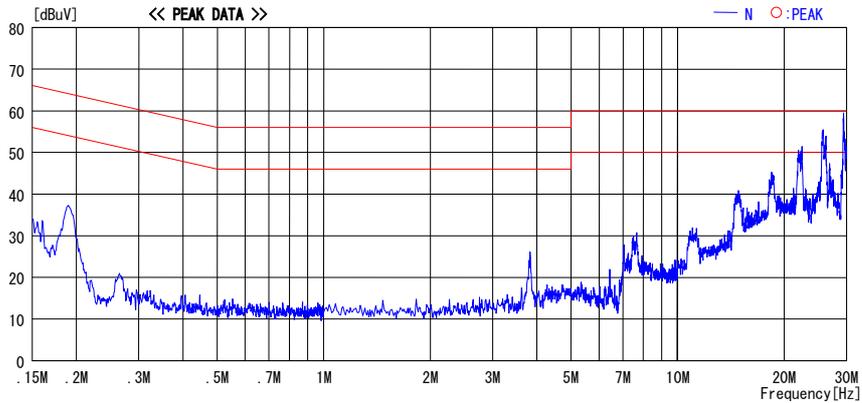


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C. F [dB] (L ISN LOSS + CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

11a, 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	: Kazufumi Nakai

Mode / Remarks : 11a Tx 5240MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP
FCC15.207 AV

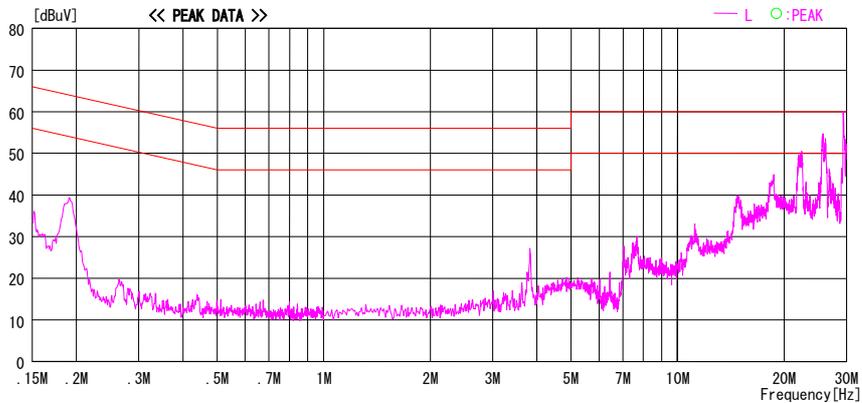
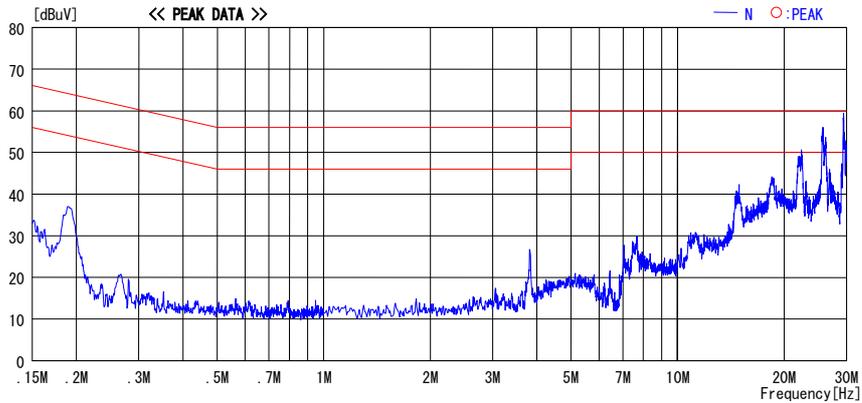


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT [dBuV]=READING [dBuV]+C. F [dB] (L ISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
11a, 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	: Kazufumi Nakai

Mode / Remarks : 11a Tx 5180MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP
FCC15.207 AV

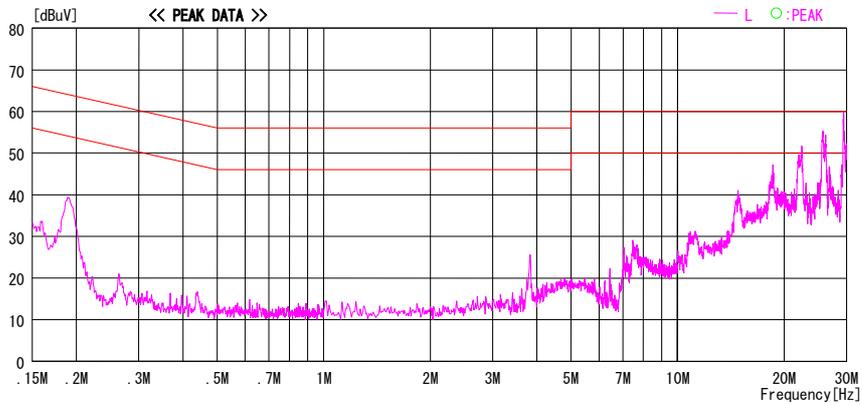
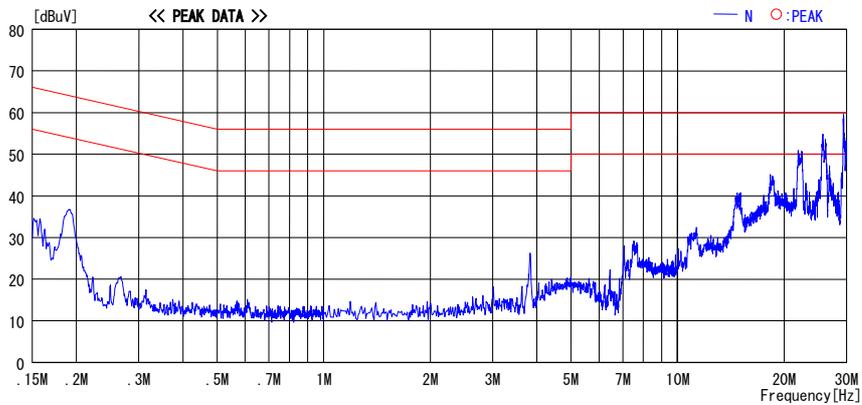


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT [dBuV] = READING [dBuV] + C. F [dB] (L I S N LOSS + C A B L E LOSS)
 Except for the above table : adequate margin data below the limits.

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

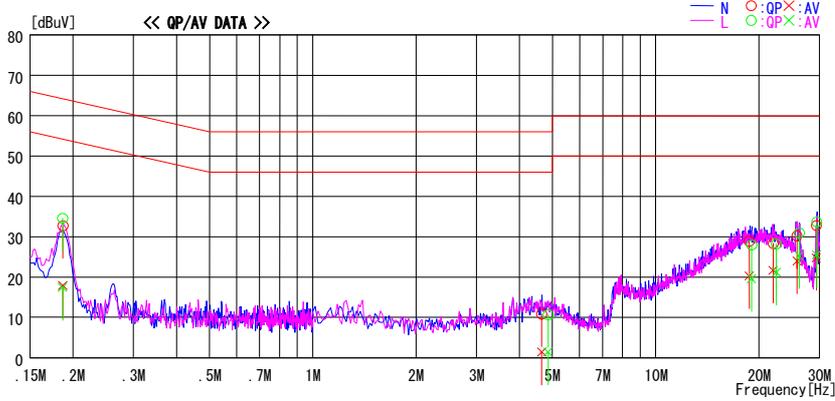
DATA OF CONDUCTED EMISSION TEST

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

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 : 11a Tx 5180MHz, 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]	
0.18681	32.4	17.6	0.3	32.7	17.9	64.2	54.2	31.5	36.3	N
4.65092	10.0	0.6	0.8	10.8	1.4	56.0	46.0	45.2	44.6	N
18.73523	27.0	18.4	1.9	28.9	20.3	60.0	50.0	31.1	29.7	N
21.99841	26.3	19.6	2.1	28.4	21.7	60.0	50.0	31.6	28.3	N
25.81329	28.0	21.8	2.2	30.2	24.0	60.0	50.0	29.8	26.0	N
29.38381	30.4	22.4	2.4	32.8	24.8	60.0	50.0	27.2	25.2	N
0.18642	34.3	17.1	0.3	34.6	17.4	64.2	54.2	29.6	36.8	L
4.85287	9.8	0.5	0.9	10.7	1.4	56.0	46.0	45.3	44.6	L
19.02687	26.1	17.7	1.9	28.0	19.6	60.0	50.0	32.0	30.4	L
22.48482	26.1	19.1	2.1	28.2	21.2	60.0	50.0	31.8	28.8	L
26.23204	28.8	23.1	2.2	31.0	25.3	60.0	50.0	29.0	24.7	L
29.44687	31.2	23.1	2.4	33.6	25.5	60.0	50.0	26.4	24.5	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
11a, 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
 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. : 20deg. C / 37%
 Operator : Kazufumi Nakai

Mode / Remarks : 11a Tx 5180MHz, 54Mbps, ANT:A(Worst), Power provided through the host equipment (another type)

LIMIT : FCC15.207 QP
 FCC15.207 AV

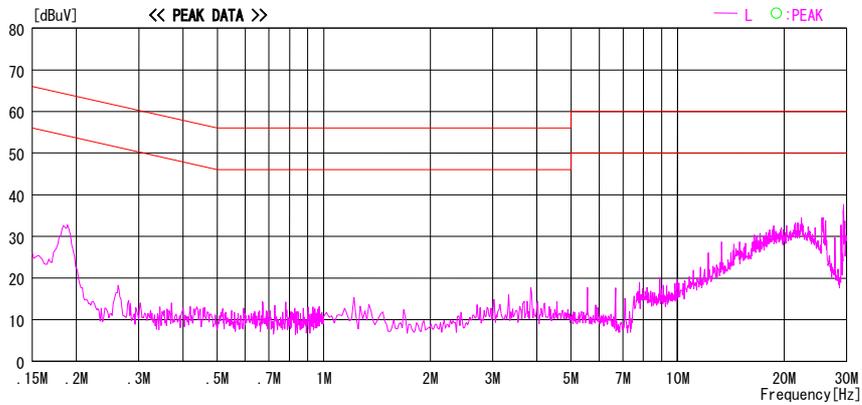
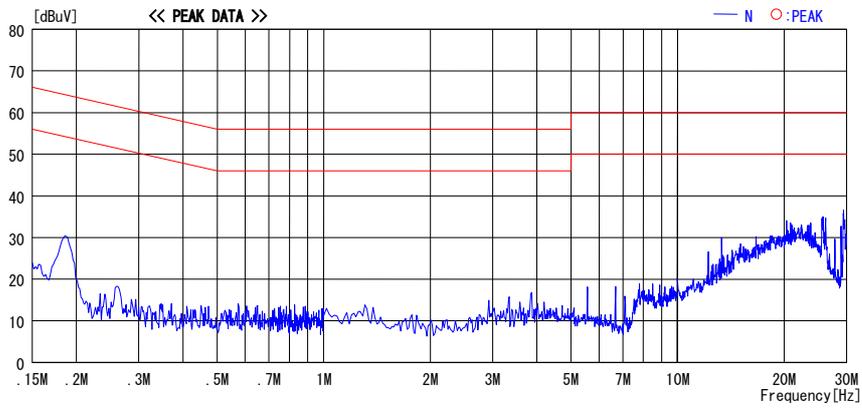


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV]=READING [dBuV]+C. F [dB] (L I S N L O S S+C A B L E L O S S)
 Except for the above table : adequate margin data below the limits.

Conducted Emission

11a, Rx, Ch: Mid, Antenna A, Antenna Cable: 25cm, Power Supply Unit 1

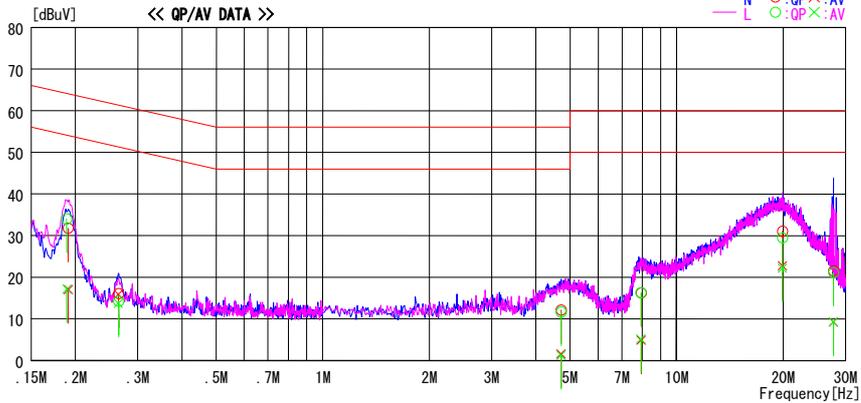
DATA OF CONDUCTED EMISSION TEST

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

Company : Sony Corporation
 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 : Kazufumi Nakai

Mode / Remarks : 11a Rx 5200MHz, 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]	
0.19080	31.6	16.8	0.2	31.8	17.0	64.0	54.0	32.2	37.0	N
0.26475	15.9	15.7	0.2	16.1	15.9	61.3	51.3	45.2	35.4	N
4.71699	11.6	1.1	0.5	12.1	1.6	56.0	46.0	43.9	44.4	N
7.93893	15.6	4.3	0.6	16.2	4.9	60.0	50.0	43.8	45.1	N
19.88023	30.2	21.9	0.9	31.1	22.8	60.0	50.0	28.9	27.2	N
27.74041	20.4	8.2	1.1	21.5	9.3	60.0	50.0	38.5	40.7	N
0.18910	33.9	17.0	0.2	34.1	17.2	64.1	54.1	30.0	36.9	L
0.26475	14.1	13.5	0.2	14.3	13.7	61.3	51.3	47.0	37.6	L
4.71699	11.2	0.8	0.5	11.7	1.3	56.0	46.0	44.4	44.7	L
7.92093	15.7	4.5	0.6	16.3	5.1	60.0	50.0	43.7	44.9	L
19.90023	28.5	21.3	0.9	29.4	22.2	60.0	50.0	30.6	27.8	L
27.74041	20.1	8.1	1.1	21.2	9.2	60.0	50.0	38.8	40.8	L

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C. F [dB] (L1SN 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
11a, 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	: Kazufumi Nakai

Mode / Remarks : 11a Rx 5200MHz, 54Mbps(Worst), ANT:A(Worst), Power provided through the host equipment

LIMIT : FCC15.207 QP
FCC15.207 AV

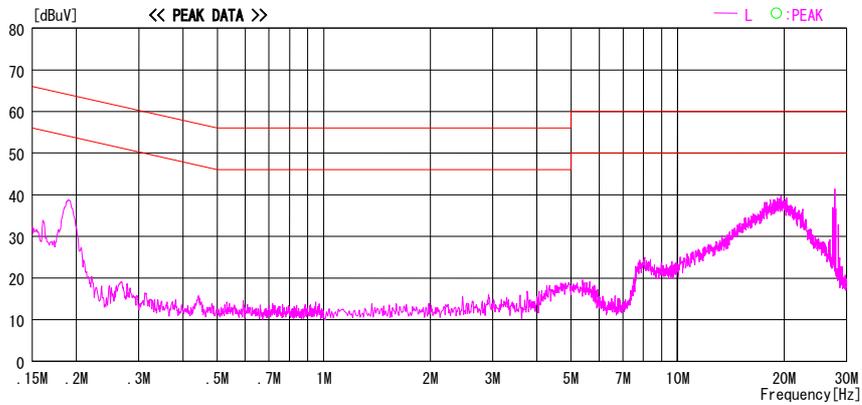
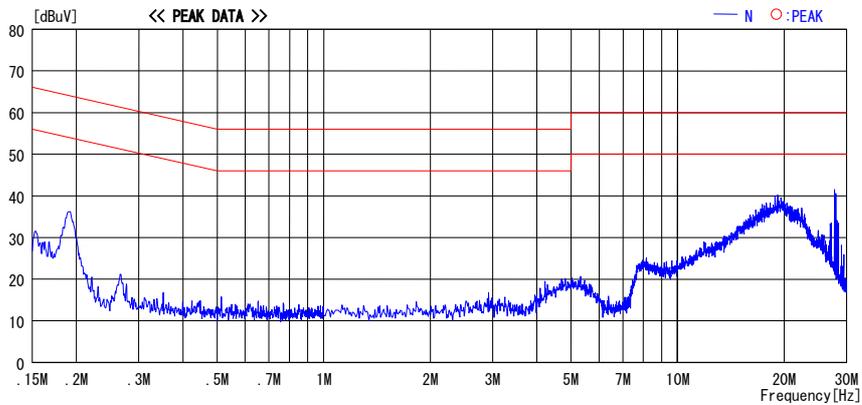


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT [dBuV]=READING [dBuV]+C. F [dB] (L I S N LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

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

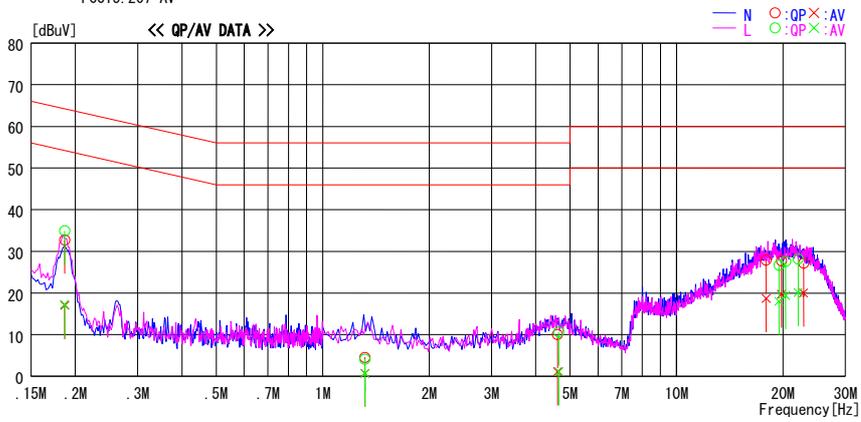
DATA OF CONDUCTED EMISSION TEST

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	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
11a, 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 : 11a Rx 5200MHz, ANT:A(Worst), Power provided through the host equipment (another type)

LIMIT : FCC15.207 QP
FCC15.207 AV

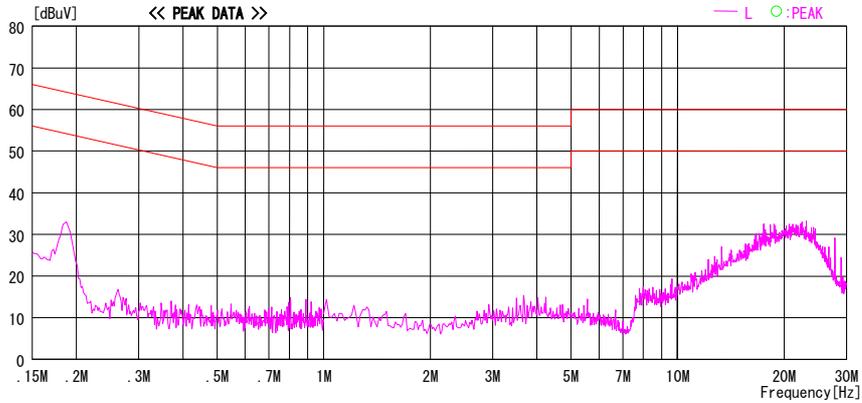
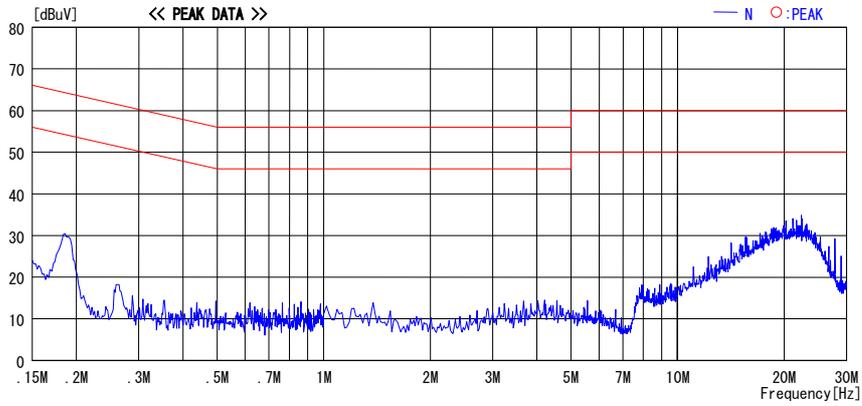


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT [dBuV]=READING [dBuV]+C. F [dB] (L ISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

26dB Emission Bandwidth

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

Company : Sony Corporation
Equipment : WLAN MODULE
Model : CMN-727AS
Sample No. : 55
Power : DC3.3V
Mode : Tx IEEE 802.11a 54Mbps
Antenna A

REPORT NO : 27LE0344-HO
REGULATION : FCC 15.407(a)(1)(2)(3)
TEST DISTANCE : -
DATE : 02/19/2008
TEMPERATURE : 23deg.C
HUMIDITY : 31%
ENGINEER : Norihisa Hashimoto

Ch	Freq. [MHz]	26dB Bandwidth [MHz]	Limit [MHz]
36	5180.0	22.756	-
40	5200.0	23.087	-
48	5240.0	23.141	-

UL Japan, Inc.

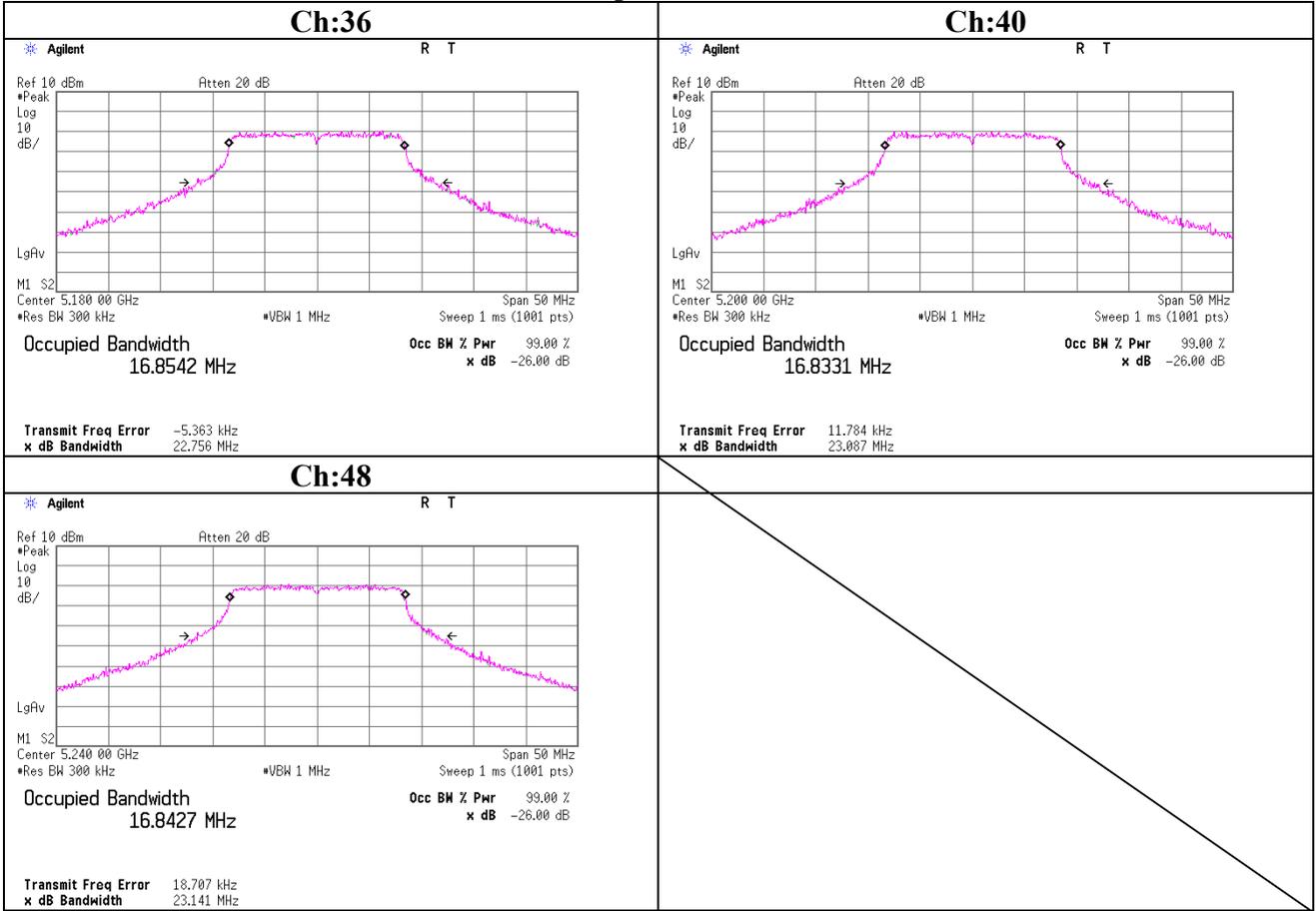
Head Office EMC Lab.

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

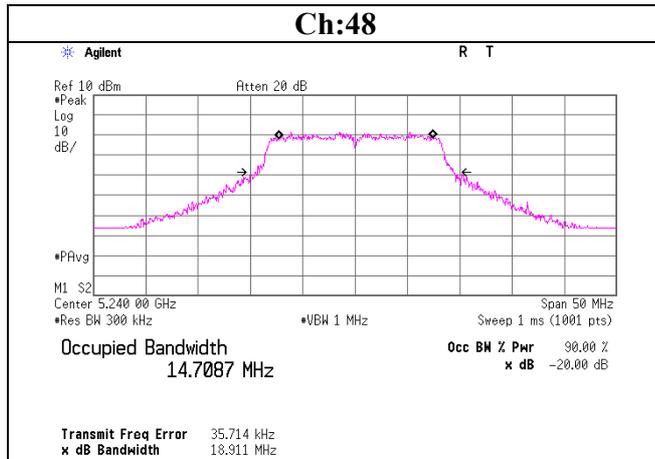
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

26dB Emission Bandwidth
54Mbps, Antenna A



20dB Emission Bandwidth
< 20MHz



Maximum Peak Output Power

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

Company : Sony Corporation	REPORT NO : 27LE0344-HO
Equipment : WLAN MODULE	REGULATION : FCC 15.407(a)(1)(2)(3)/RSS-210 A9.2(1)
Model : CMN-727AS	TEST DISTANCE : -
Sample No. : 55	DATE : 02/18/2008
Power : DC3.3V	TEMPERATURE : 25deg.C
Mode : Tx IEEE 802.11a	HUMIDITY : 33%
	ENGINEER : Kazufumi Nakai

ANT:A 54Mbps

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
36	5180.0	-0.59	2.14	10.12	11.67	17.00	5.33
40	5200.0	-2.29	2.14	10.13	9.98	17.00	7.02
48	5240.0	-1.65	2.15	10.13	10.63	17.00	6.37

ANT:B 54Mbps

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
36	5180.0	-0.88	2.14	10.12	11.38	17.00	5.62
40	5200.0	-2.53	2.14	10.13	9.74	17.00	7.26
48	5240.0	-1.77	2.15	10.13	10.51	17.00	6.49

Applied Limit = 17dBm or 4dBm + 10 * log(26dB Bandwidth) (Whichever is less)
 4dBm + 10 * log(26dB Bandwidth) = 4 + 10 * log(22.756) = 17.57dBm

ANT:A

Bit Rate [Mbps]	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]
6	5200.0	-2.32	2.14	10.13	9.95
9	5200.0	-2.39	2.14	10.13	9.88
12	5200.0	-2.38	2.14	10.13	9.89
18	5200.0	-2.34	2.14	10.13	9.93
24	5200.0	-2.42	2.14	10.13	9.85
36	5200.0	-2.46	2.14	10.13	9.81
48	5200.0	-2.36	2.14	10.13	9.91
54	5200.0	-2.29	2.14	10.13	9.98

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

UL Japan, Inc.

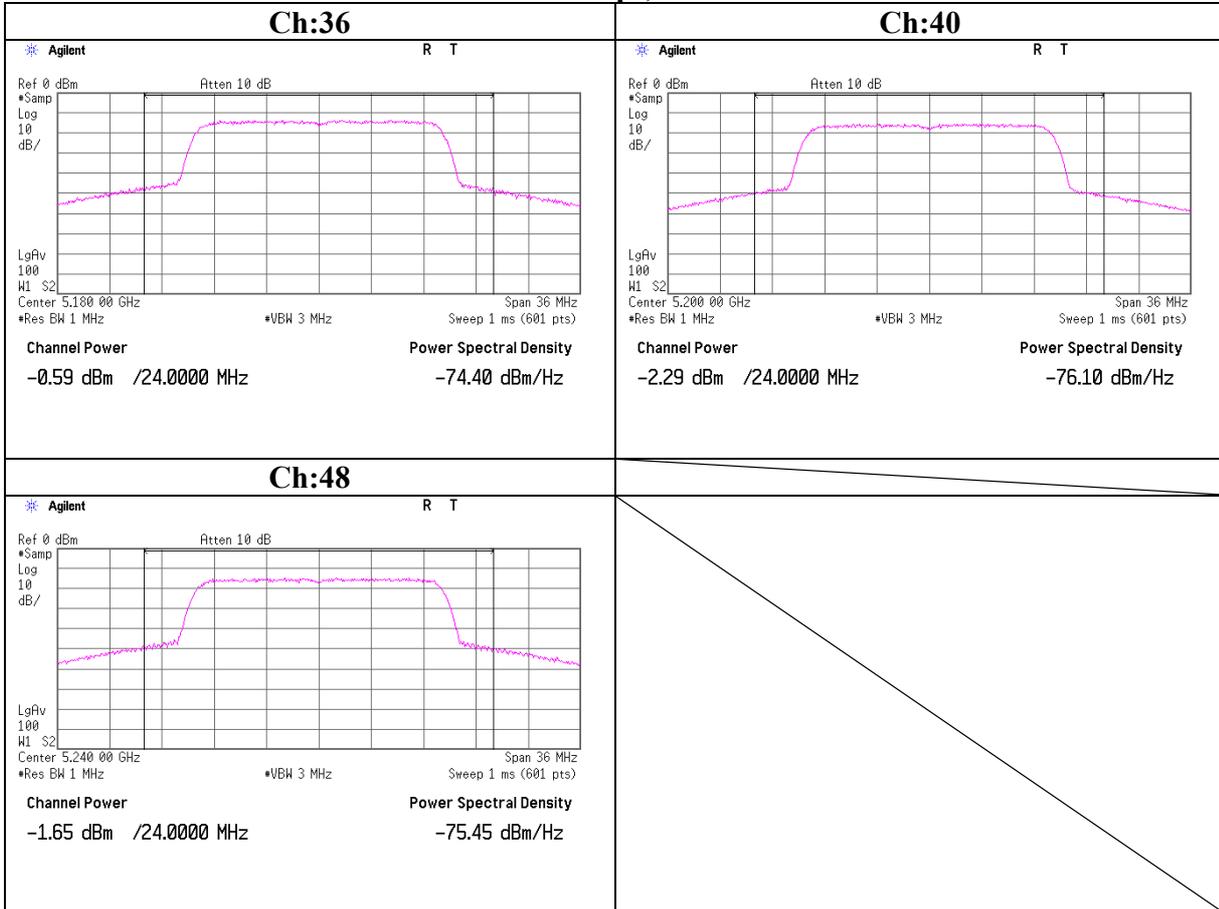
Head Office EMC Lab.

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

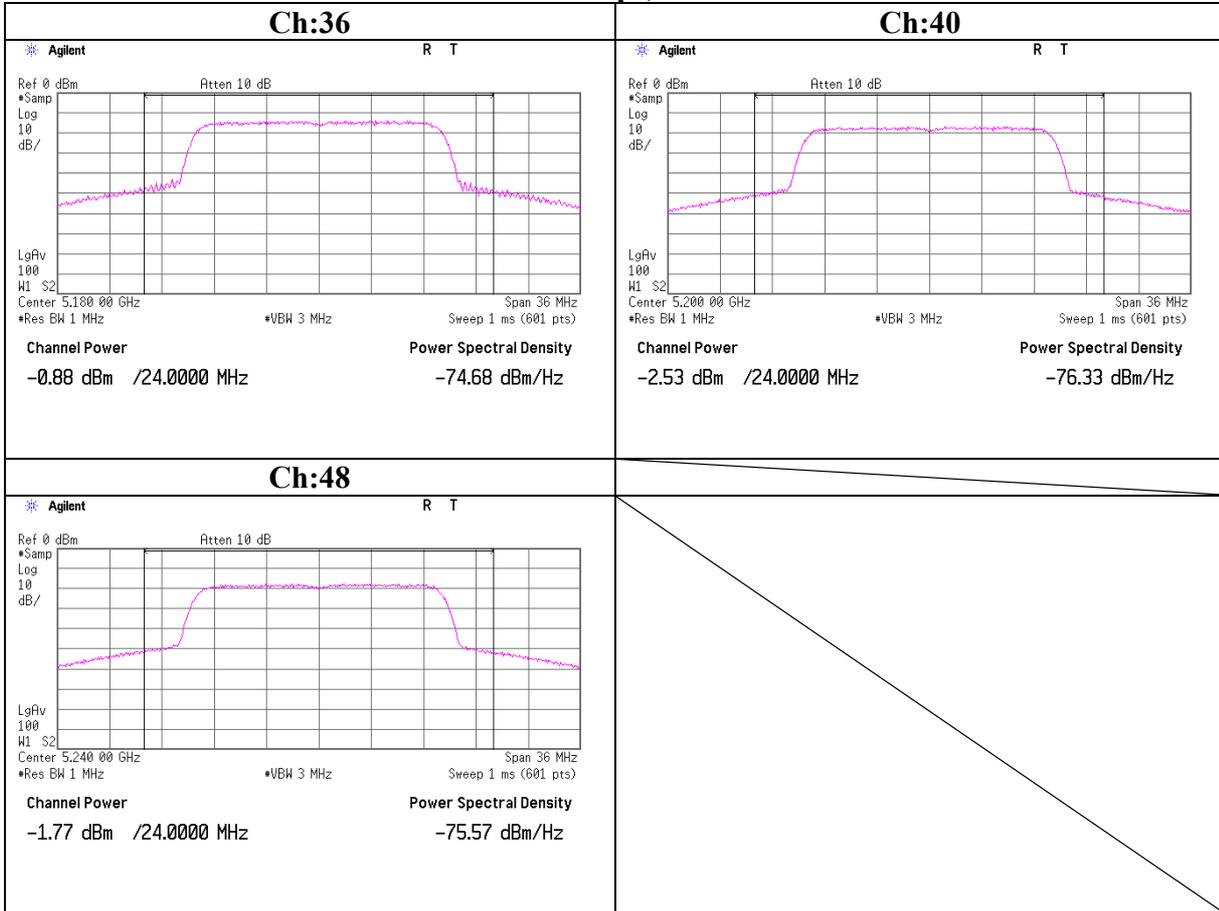
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

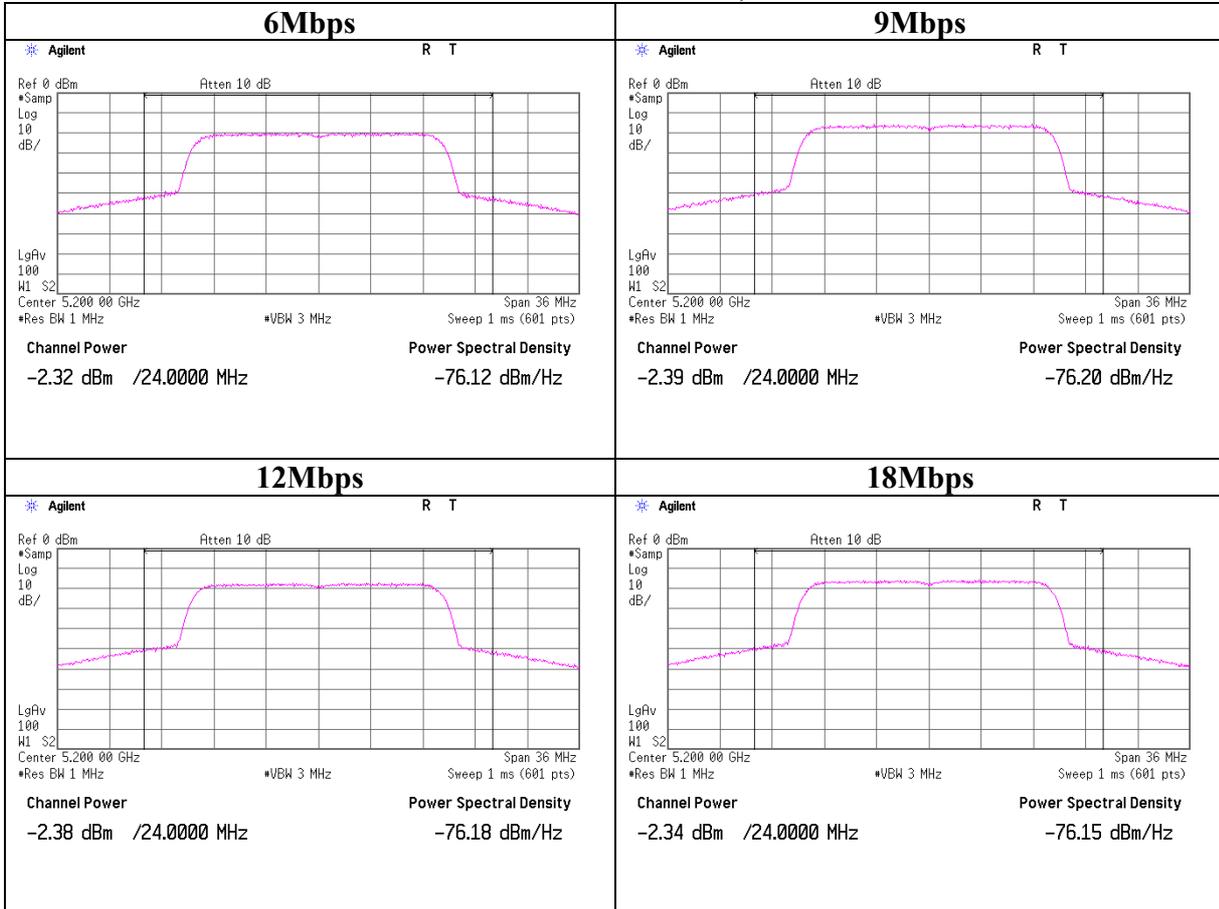
Maximum Peak Output Power
54Mbps, Antenna A



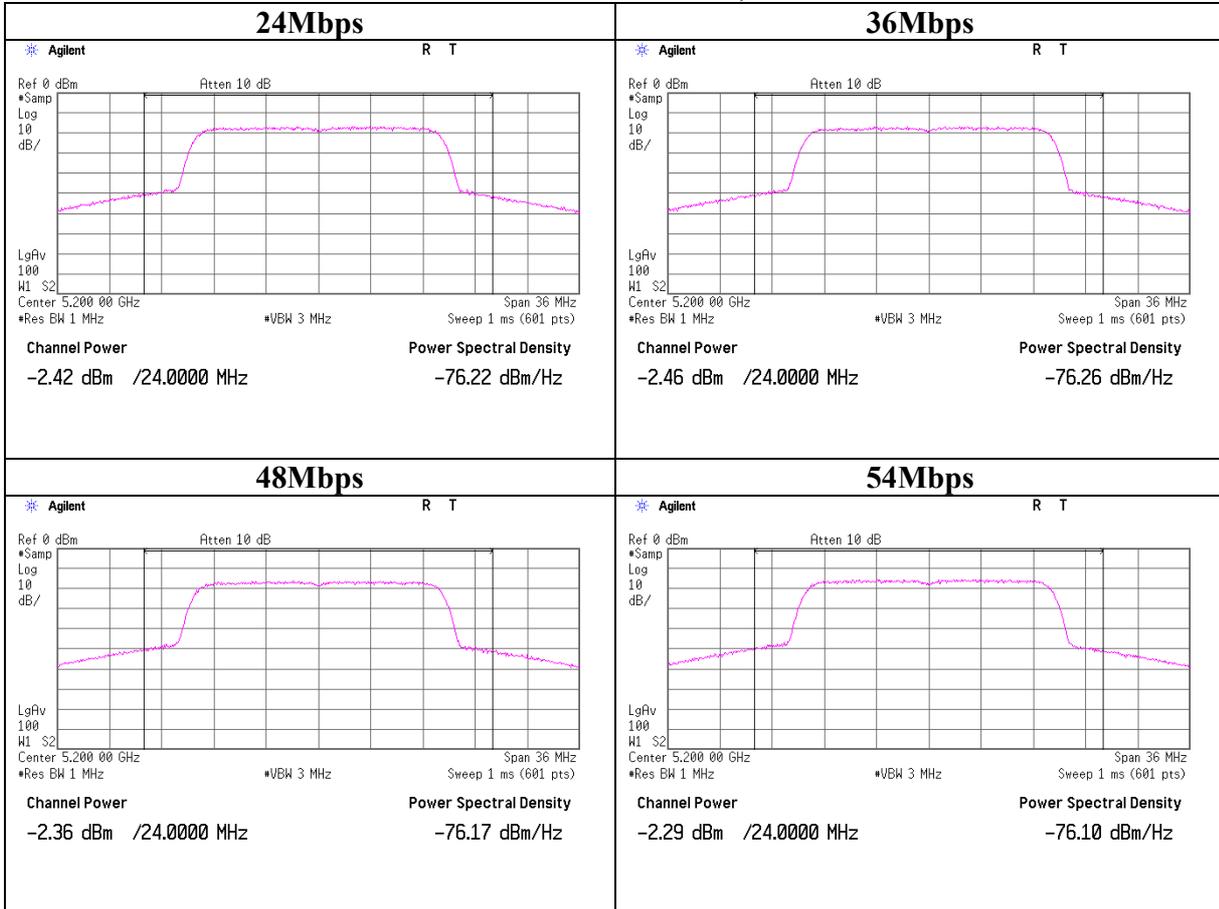
Maximum Peak Output Power
54Mbps, Antenna B



Maximum Peak Output Power
Worst Bit Rate Check, Antenna A



Maximum Peak Output Power
Worst Bit Rate Check, Antenna A



Radiated Spurious Emission (below 1GHz)
11a, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2

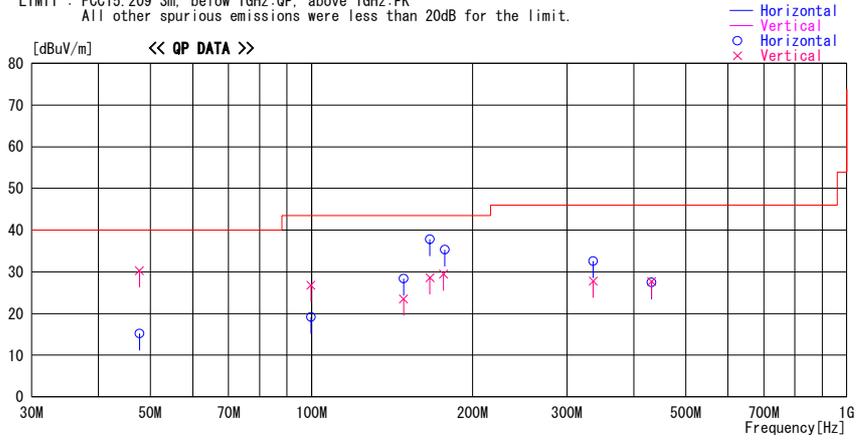
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/27

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 3cm Temp./Humi. : 25deg.C / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5180MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:X, Ver: EUT:X, Ant:X

LIMIT : FCC15.209 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		Comment
			Factor [dB/m]	Loss& Gain [dB]					[dBuV/m]	[dB]	
47.693	29.1	QP	10.8	-24.7	15.2	121	400	Hori.	40.0	24.8	
47.693	44.2	QP	10.8	-24.7	30.3	244	100	Vert.	40.0	9.7	
99.709	33.2	QP	9.9	-23.9	19.2	339	304	Hori.	43.5	24.3	
99.709	40.8	QP	9.9	-23.9	26.8	281	100	Vert.	43.5	16.7	
148.647	37.0	QP	14.8	-23.4	28.4	136	239	Hori.	43.5	15.1	
148.629	32.1	QP	14.8	-23.4	23.5	218	223	Vert.	43.5	20.0	
166.365	45.3	QP	15.7	-23.2	37.8	211	181	Hori.	43.5	5.7	
166.366	36.1	QP	15.7	-23.2	28.6	15	100	Vert.	43.5	14.9	
177.496	42.1	QP	16.3	-23.1	35.3	310	315	Hori.	43.5	8.2	
176.371	36.3	QP	16.3	-23.1	29.5	354	164	Vert.	43.5	14.0	
335.969	38.9	QP	15.6	-21.9	32.6	17	100	Hori.	46.0	13.4	
335.969	34.1	QP	15.6	-21.9	27.8	250	161	Vert.	46.0	18.2	
431.960	31.1	QP	17.6	-21.2	27.5	347	100	Hori.	46.0	18.5	
431.960	31.3	QP	17.6	-21.2	27.7	309	123	Vert.	46.0	18.3	

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

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

Radiated Spurious Emission (below 1GHz)
11a, Tx, Ch: Mid, 54Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2

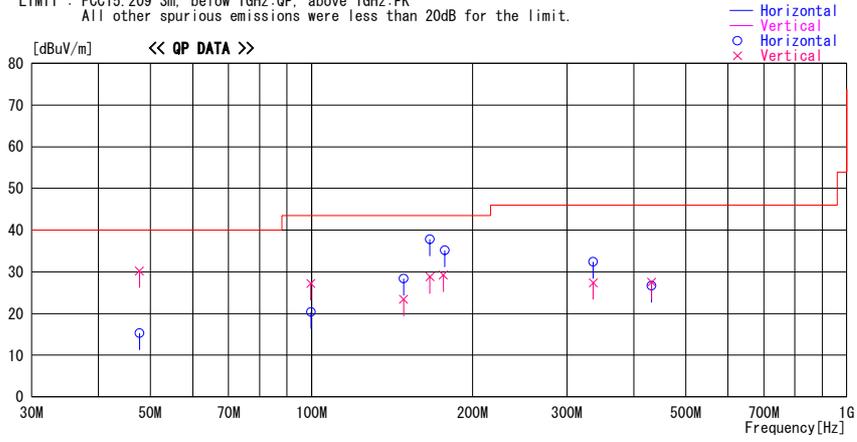
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/28

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 3cm Temp./Humi. : 25deg.C / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5200MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:X, Ver: EUT:X, Ant:X

LIMIT : FCC15.209 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		Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
47.696	29.2	QP	10.8	-24.7	15.3	118	400	Hori.	40.0	24.7	
47.700	44.1	QP	10.8	-24.7	30.2	246	100	Vert.	40.0	9.8	
99.709	34.4	QP	9.9	-23.9	20.4	351	307	Hori.	43.5	23.1	
99.660	41.2	QP	9.9	-23.9	27.2	258	100	Vert.	43.5	16.3	
148.621	37.0	QP	14.8	-23.4	28.4	136	241	Hori.	43.5	15.1	
148.643	32.0	QP	14.8	-23.4	23.4	212	217	Vert.	43.5	20.1	
166.364	45.3	QP	15.7	-23.2	37.8	197	188	Hori.	43.5	5.7	
166.366	36.3	QP	15.7	-23.2	28.8	15	100	Vert.	43.5	14.7	
177.466	42.0	QP	16.3	-23.1	35.2	310	308	Hori.	43.5	8.3	
176.360	36.0	QP	16.3	-23.1	29.2	358	154	Vert.	43.5	14.3	
335.969	38.7	QP	15.6	-21.9	32.4	13	100	Hori.	46.0	13.6	
335.970	33.7	QP	15.6	-21.9	27.4	259	168	Vert.	46.0	18.6	
431.959	30.3	QP	17.6	-21.2	26.7	351	100	Hori.	46.0	19.3	
431.959	31.1	QP	17.6	-21.2	27.5	316	130	Vert.	46.0	18.5	

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)
11a, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2

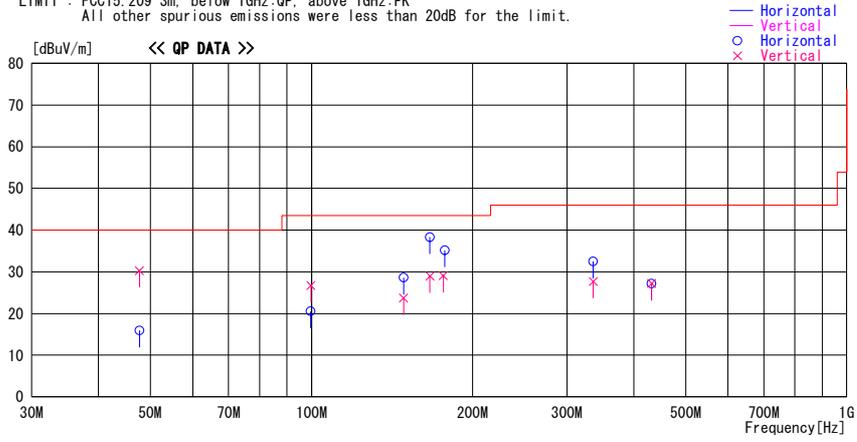
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
 Date : 2008/03/28

Company : Sony Corporation
 Kind of EUT : WLAN MODULE
 Model No. : CMN-727AS / Ant 3cm
 Serial No. : 54
 Report No. : 27LE0344-HO
 Power : DC 3.3V
 Temp./Humi. : 25deg.C / 28%
 Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5240MHz, 54Mbps(Worst), ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:X, Ver: EUT:X, Ant:X

LIMIT : FCC15.209 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		Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
47.696	29.8	QP	10.8	-24.7	15.9	118	400	Hor.	40.0	24.1	
47.697	44.2	QP	10.8	-24.7	30.3	225	100	Vert.	40.0	9.7	
99.707	34.5	QP	9.9	-23.9	20.5	353	301	Hor.	43.5	23.0	
99.709	40.7	QP	9.9	-23.9	26.7	273	100	Vert.	43.5	16.8	
148.625	37.2	QP	14.8	-23.4	28.6	126	235	Hor.	43.5	14.9	
148.626	32.3	QP	14.8	-23.4	23.7	202	214	Vert.	43.5	19.8	
166.366	45.8	QP	15.7	-23.2	38.3	205	180	Hor.	43.5	5.2	
166.365	36.5	QP	15.7	-23.2	29.0	16	100	Vert.	43.5	14.5	
177.458	42.0	QP	16.3	-23.1	35.2	213	302	Hor.	43.5	8.3	
176.349	35.9	QP	16.3	-23.1	29.1	358	153	Vert.	43.5	14.4	
335.970	38.8	QP	15.6	-21.9	32.5	18	100	Hor.	46.0	13.5	
335.970	34.0	QP	15.6	-21.9	27.7	257	159	Vert.	46.0	18.3	
431.960	30.8	QP	17.6	-21.2	27.2	356	100	Hor.	46.0	18.8	
431.961	30.8	QP	17.6	-21.2	27.2	302	123	Vert.	46.0	18.8	

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)
11a, Tx, Ch: Low, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2
[Reference Data]

DATA OF RADIATED EMISSION TEST

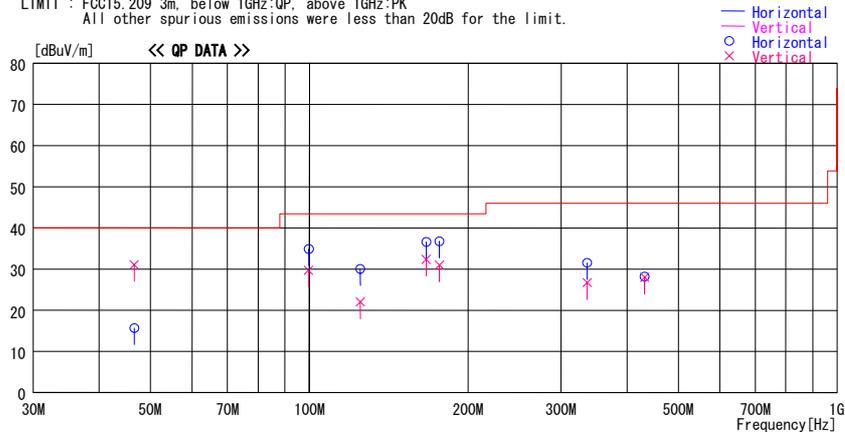
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/27

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. : 25deg.C / 28%
Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5180MHz, 54Mbps(Worst), 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
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]							
46.599	29.3	QP	11.1	-24.7	15.7	281	400	Hori.	40.0	24.3	
46.614	44.7	QP	11.1	-24.7	31.1	257	100	Vert.	40.0	8.9	
99.708	48.9	QP	9.9	-23.9	34.9	349	308	Hori.	43.5	8.6	
99.660	43.7	QP	9.9	-23.9	29.7	266	289	Vert.	43.5	13.8	
125.001	40.6	QP	13.1	-23.6	30.1	0	149	Hori.	43.5	13.4	
125.001	32.5	QP	13.1	-23.6	22.0	294	100	Vert.	43.5	21.5	
166.495	44.1	QP	15.7	-23.2	36.6	43	190	Hori.	43.5	6.9	
166.495	39.9	QP	15.7	-23.2	32.4	323	100	Vert.	43.5	11.1	
176.452	43.6	QP	16.3	-23.1	36.8	220	191	Hori.	43.5	6.7	
176.460	37.8	QP	16.3	-23.1	31.0	17	174	Vert.	43.5	12.5	
335.969	37.8	QP	15.6	-21.9	31.5	25	100	Hori.	46.0	14.5	
335.969	33.0	QP	15.6	-21.9	26.7	251	145	Vert.	46.0	19.3	
431.960	31.8	QP	17.6	-21.2	28.2	94	100	Hori.	46.0	17.8	
431.961	31.6	QP	17.6	-21.2	28.0	310	116	Vert.	46.0	18.0	

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

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

Radiated Spurious Emission (below 1GHz)
11a, Tx, Ch: Mid, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2
[Reference Data]

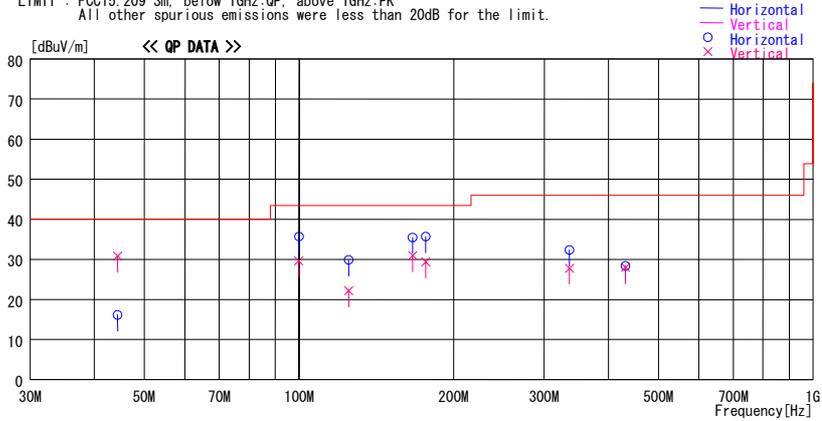
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/27

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 50cm Temp./Humi. : 25deg.C. / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5200MHz, 54Mbps(Worst), 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
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]							
44.373	29.2	QP	11.8	-24.8	16.2	277	400	Hori.	40.0	23.8	
44.374	43.8	QP	11.8	-24.8	30.8	230	100	Vert.	40.0	9.2	
99.872	49.7	QP	9.9	-23.9	35.7	348	304	Hori.	43.5	7.8	
99.871	43.6	QP	9.9	-23.9	29.6	267	300	Vert.	43.5	13.9	
125.000	40.4	QP	13.1	-23.6	29.9	0	147	Hori.	43.5	13.6	
125.001	32.7	QP	13.1	-23.6	22.2	266	271	Vert.	43.5	21.3	
166.398	43.0	QP	15.7	-23.2	35.5	146	196	Hori.	43.5	8.0	
166.366	38.5	QP	15.7	-23.2	31.0	332	100	Vert.	43.5	12.5	
176.396	42.5	QP	16.3	-23.1	35.7	215	191	Hori.	43.5	7.8	
176.390	36.2	QP	16.3	-23.1	29.4	13	175	Vert.	43.5	14.1	
335.968	38.6	QP	15.6	-21.9	32.3	30	100	Hori.	46.0	13.7	
335.970	34.1	QP	15.6	-21.9	27.8	258	145	Vert.	46.0	16.2	
431.960	32.0	QP	17.6	-21.2	28.4	133	100	Hori.	46.0	17.6	
431.960	31.6	QP	17.6	-21.2	28.0	303	115	Vert.	46.0	18.0	

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

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

Radiated Spurious Emission (below 1GHz)
11a, Tx, Ch: High, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2
[Reference Data]

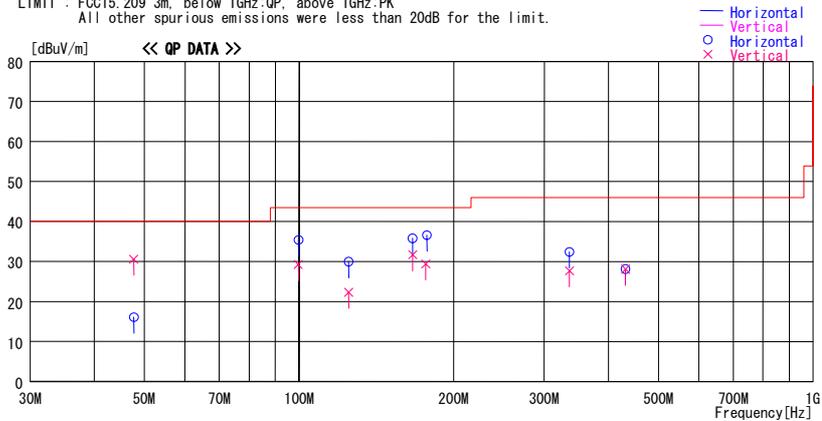
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/27

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 50cm Temp./Humi. : 25deg.C. / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5240MHz, 54Mbps(Worst), 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
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 [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
47.698	30.0	QP	10.8	-24.7	16.1	273	400	Hori.	40.0	23.9	
47.698	44.5	QP	10.8	-24.7	30.6	255	100	Vert.	40.0	9.4	
99.708	49.4	QP	9.9	-23.9	35.4	348	311	Hori.	43.5	8.1	
99.708	43.2	QP	9.9	-23.9	29.2	271	291	Vert.	43.5	14.3	
125.000	40.5	QP	13.1	-23.6	30.0	359	155	Hori.	43.5	13.5	
125.000	32.8	QP	13.1	-23.6	22.3	297	100	Vert.	43.5	21.2	
166.399	43.3	QP	15.7	-23.2	35.8	138	187	Hori.	43.5	7.7	
166.364	39.2	QP	15.7	-23.2	31.7	327	100	Vert.	43.5	11.8	
177.496	43.4	QP	16.3	-23.1	36.6	313	194	Hori.	43.5	6.9	
176.389	36.2	QP	16.3	-23.1	29.4	17	178	Vert.	43.5	14.1	
335.969	38.7	QP	15.6	-21.9	32.4	28	100	Hori.	46.0	13.6	
335.969	34.0	QP	15.6	-21.9	27.7	247	148	Vert.	46.0	18.3	
431.961	31.7	QP	17.6	-21.2	28.1	139	100	Hori.	46.0	17.9	
431.961	31.7	QP	17.6	-21.2	28.1	129	129	Vert.	46.0	17.9	

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

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

Radiated Spurious Emission (below 1GHz)
11a, Tx, Ch: Mid, Antenna A, Antenna Cable: 25cm, Power Supply Unit 2
[Reference Data]

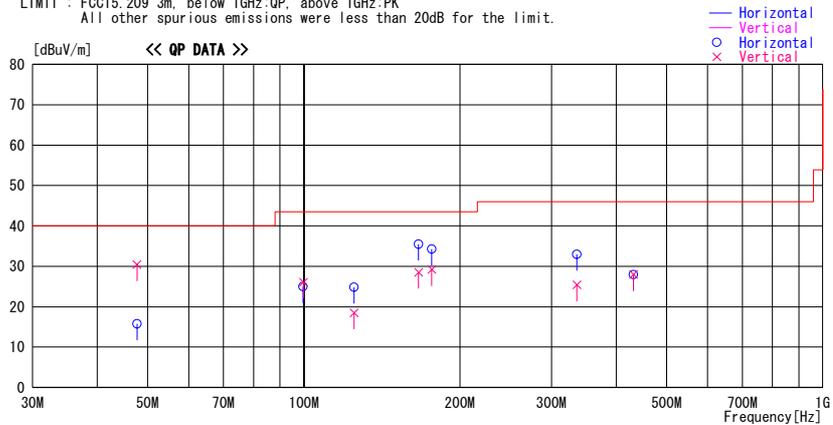
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/27

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 25cm / Power Unit 2 Temp./Humi. : 25deg.C. / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Tx 5200MHz, 54Mbps(Worst), 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
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 [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
47.696	29.7	QP	10.8	-24.7	15.8	114	400	Hori.	40.0	24.2	
47.702	44.3	QP	10.8	-24.7	30.4	214	100	Vert.	40.0	9.6	
99.610	39.0	QP	9.9	-23.9	25.0	339	317	Hori.	43.5	18.5	
99.871	40.1	QP	9.9	-23.9	26.1	256	100	Vert.	43.5	17.4	
125.000	35.3	QP	13.1	-23.6	24.8	197	154	Hori.	43.5	18.7	
125.000	29.0	QP	13.1	-23.6	18.5	213	100	Vert.	43.5	25.0	
166.364	43.0	QP	15.7	-23.2	35.5	199	197	Hori.	43.5	8.0	
166.366	36.0	QP	15.7	-23.2	28.5	4	234	Vert.	43.5	15.0	
176.358	41.1	QP	16.3	-23.1	34.3	228	190	Hori.	43.5	9.2	
176.369	36.0	QP	16.3	-23.1	29.2	344	100	Vert.	43.5	14.3	
335.969	39.3	QP	15.6	-21.9	33.0	24	100	Hori.	46.0	13.0	
335.969	31.7	QP	15.6	-21.9	25.4	249	152	Vert.	46.0	20.6	
431.960	31.6	QP	17.6	-21.2	28.0	356	100	Hori.	46.0	18.0	
431.960	31.6	QP	17.6	-21.2	28.0	308	117	Vert.	46.0	18.0	

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

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

Radiated Spurious Emission (below 1GHz)
11a, Rx, Ch: Mid, Antenna A, Antenna Cable: 3cm, Power Supply Unit 2

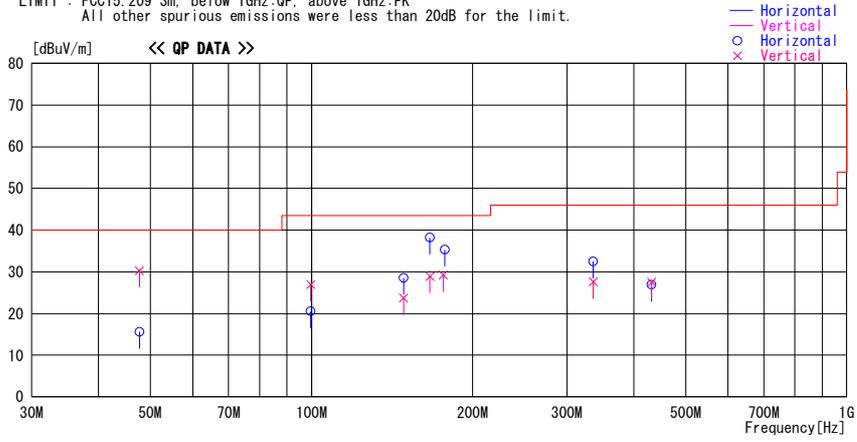
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/28

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 3cm Temp./Humi. : 25deg.C / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Rx 5200MHz, ANT:A(Worst), Worst-axis: Hor: EUT:X, Ant:X, Ver: EUT:X, Ant:X

LIMIT : FCC15.209 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		Comment
			Factor [dB/m]	Loss& Gain [dB]					[dBuV/m]	[dB]	
47.698	29.5	QP	10.8	-24.7	15.6	120	400	Hor.	40.0	24.4	
47.698	44.2	QP	10.8	-24.7	30.3	241	100	Vert.	40.0	9.7	
99.707	34.5	QP	9.9	-23.9	20.5	353	303	Hor.	43.5	23.0	
99.707	41.0	QP	9.9	-23.9	27.0	266	100	Vert.	43.5	16.5	
148.625	37.1	QP	14.8	-23.4	28.5	129	232	Hor.	43.5	15.0	
148.640	32.3	QP	14.8	-23.4	23.7	210	215	Vert.	43.5	19.8	
166.360	45.7	QP	15.7	-23.2	38.2	205	178	Hor.	43.5	5.3	
166.365	36.4	QP	15.7	-23.2	28.9	18	100	Vert.	43.5	14.6	
177.465	42.1	QP	16.3	-23.1	35.3	310	308	Hor.	43.5	8.2	
176.354	36.0	QP	16.3	-23.1	29.2	358	158	Vert.	43.5	14.3	
335.969	38.8	QP	15.6	-21.9	32.5	15	100	Hor.	46.0	13.5	
335.969	33.9	QP	15.6	-21.9	27.6	255	165	Vert.	46.0	18.4	
431.960	30.5	QP	17.6	-21.2	26.9	350	100	Hor.	46.0	19.1	
431.961	31.1	QP	17.6	-21.2	27.5	305	128	Vert.	46.0	18.5	

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)
11a, Rx, Ch: Mid, Antenna A, Antenna Cable: 50cm, Power Supply Unit 2
[Reference Data]

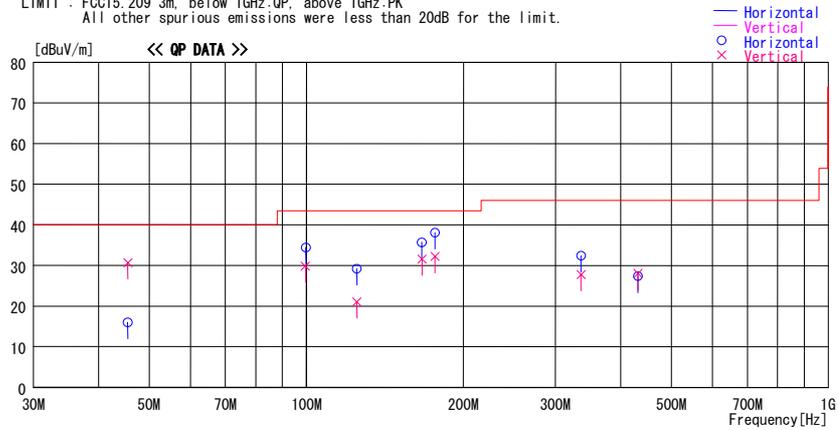
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/03/27

Company : Sony Corporation Report No. : 27LE0344-HO
Kind of EUT : WLAN MODULE Power : DC 3.3V
Model No. : CMN-727AS / Ant 50cm Temp./Humi. : 25deg. C. / 28%
Serial No. : 54 Operator : Takayuki Shimada

Mode / Remarks : 11a Rx 5200MHz, 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
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
45.487	29.3	QP	11.4	-24.7	16.0	270	400	Hori.	40.0	24.0	
45.493	44.0	QP	11.4	-24.7	30.7	256	100	Vert.	40.0	9.3	
99.709	48.4	QP	9.9	-23.9	34.4	350	315	Hori.	43.5	9.1	
99.610	43.9	QP	9.9	-23.9	29.9	288	324	Vert.	43.5	13.6	
125.000	39.7	QP	13.1	-23.6	29.2	0	151	Hori.	43.5	14.3	
125.000	31.6	QP	13.1	-23.6	21.1	306	100	Vert.	43.5	22.4	
166.421	43.2	QP	15.7	-23.2	35.7	151	189	Hori.	43.5	7.8	
166.495	39.1	QP	15.7	-23.2	31.6	337	100	Vert.	43.5	11.9	
176.418	44.9	QP	16.3	-23.1	38.1	220	190	Hori.	43.5	5.4	
176.424	39.0	QP	16.3	-23.1	32.2	17	180	Vert.	43.5	11.3	
335.969	38.7	QP	15.6	-21.9	32.4	30	100	Hori.	46.0	13.6	
335.969	34.1	QP	15.6	-21.9	27.8	260	158	Vert.	46.0	18.2	
431.959	31.0	QP	17.6	-21.2	27.4	136	100	Hori.	46.0	18.6	
431.960	31.6	QP	17.6	-21.2	28.0	313	117	Vert.	46.0	18.0	

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

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

Radiated Spurious Emission (above 1GHz:Inside of the restricted band)
11a, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.
 Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fec Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 3m / 1m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / CH36.5180MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5150.0	42.0	42.2	31.4	31.2	3.5	0.0	45.7	45.9	73.9	28.2	28.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
2	15540.0	44.7	45.7	38.3	32.5	7.0	0.6	48.6	49.6	73.9	25.3	24.3
3	20720.0	43.3	43.1	37.6	32.4	7.4	0.0	46.4	46.2	73.9	27.5	27.7

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5150.0	30.2	30.0	31.4	31.2	3.5	0.0	33.9	33.7	53.9	20.0	20.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
2	15540.0	31.7	33.6	38.3	32.5	7.0	0.6	35.6	37.5	53.9	18.3	16.4
3	20720.0	30.7	30.6	37.6	32.4	7.4	0.0	33.8	33.7	53.9	20.1	20.2

Test Distance 1.0m : Distance Factor(Dfac) = $20\log(3/1.0) = 9.5$ dB
 * Except for the above table : All other spurious emissions were less than 20dB for the limit.
 * In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
 *The limit is rounded down to one decimal place.

Radiated Spurious Emission (above 1GHz:Inside of the restricted band)
11a, Tx, Ch: Mid, 54Mbps, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.
 Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 3m / 1m / 0.5m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / 5200MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
0	-	-	-	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
1	15600.0	42.7	45.0	38.1	32.5	7.0	0.6	46.4	48.7	73.9	27.5	25.2
2	20800.0	42.9	43.0	37.6	32.4	7.5	0.0	46.1	46.2	73.9	27.8	27.7
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
3	31200.0	37.3	37.3	40.2	25.1	6.4	0.0	43.2	43.2	73.9	30.7	30.7

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
0	-	-	-	-	-	-	-	-	-	53.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
1	15600.0	30.2	31.6	38.1	32.5	7.0	0.6	33.9	35.3	53.9	20.0	18.6
2	20800.0	30.7	30.8	37.6	32.4	7.5	0.0	33.9	34.0	53.9	20.0	19.9
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
3	31200.0	23.7	23.7	40.2	25.1	6.4	0.0	29.6	29.6	53.9	24.3	24.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB
 Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.6 dB
 * Except for the above table : All other spurious emissions were less than 20dB for the limit.
 * In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
 * The limit is rounded down to one decimal place.
 * The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (above 1GHz:Inside of the restricted band)
11a, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY : Sony Corporation
EQUIPMENT : WLAN MODULE
MODEL : CMN-727AS
SAMPLE NO. : 54
POWER : DC3.3V(AC120V/60Hz)
MODE : Transmitting (11a / 54Mbps / 5240MHz) Ant A
POSITION : Hor : Module_X / Ant_X Ver : Module_X / Ant_X

REGULATION : Fcc Part15 Subpart E 15.407
TEST DISTANCE : 3m / 1m / 0.5m
DATE : 02/28/2008
TEMPERATURE : 22deg.C.
HUMIDITY : 30%
ENGINEER : Takayuki Shimada

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5350.0	41.4	40.9	31.5	31.1	3.5	0.0	45.3	44.8	73.9	28.6	29.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
2	15720.0	46.1	49.8	37.7	32.5	7.0	0.6	49.4	53.1	73.9	24.5	20.8
3	20960.0	43.5	43.6	37.6	32.5	7.5	0.0	46.6	46.7	73.9	27.3	27.2
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
4	31440.0	37.9	37.9	40.1	25.2	6.4	0.0	43.6	43.6	73.9	30.3	30.3

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5350.0	29.3	29.1	31.5	31.1	3.5	0.0	33.2	33.0	53.9	20.7	20.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
2	15720.0	32.9	36.8	37.7	32.5	7.0	0.6	36.2	40.1	53.9	17.7	13.8
3	20960.0	30.9	30.9	37.6	32.5	7.5	0.0	34.0	34.0	53.9	19.9	19.9
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
4	31440.0	24.8	24.8	40.1	25.2	6.4	0.0	30.5	30.5	53.9	23.4	23.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB
Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.6 dB
* Except for the above table : All other spurious emissions were less than 20dB for the limit.
* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
*The limit is rounded down to one decimal place.
*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (above 1GHz:Outside of the restricted band)
***used conversion formula**

11a, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.
 Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 1m / 0.5m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / 5180MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
1	10360.00	62.1	65.2	-42.6	-39.5	-27.0	15.6	12.5	1m
2	25900.00	58.6	58.7	-46.1	-46.0	-27.0	19.1	19.0	1m
3	31080.00	55.5	55.4	-55.3	-55.4	-27.0	28.3	28.4	0.5m
4	36260.00	69.7	69.6	-41.1	-41.2	-27.0	14.1	14.2	0.5m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
 *The test result is rounded off to one or two decimal places, so some differences might be observed.

Test report No. : 27LE0344-HO-B-R1
Page : 46 of 70
Issued date : May 16, 2008
Revised date : August 20, 2008
FCC ID : AK8CMN727AS

Radiated Spurious Emission (above 1GHz:Outside of the restricted band)
***used conversion formula**

11a, Tx, Ch: Mid, 54Mbps, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 1m / 0.5m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / 5200MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Limit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
1	10400.00	59.6	61.4	-45.1	-43.3	-27.0	18.1	16.3	1m
2	26000.00	57.5	57.3	-47.2	-47.4	-27.0	20.2	20.4	1m
3	36400.00	69.9	69.8	-40.9	-41.0	-27.0	13.9	14.0	0.5m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*The test result is rounded 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:Outside of the restricted band)
***used conversion formula**

11a, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.
 Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 1m / 0.5m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / 5240MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Limit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
1	10480.00	64.5	65.3	-40.2	-39.4	-27.0	13.2	12.4	1m
2	26200.00	57.1	56.9	-47.6	-47.8	-27.0	20.6	20.8	1m
3	36680.00	70.3	70.2	-40.5	-40.6	-27.0	13.5	13.6	0.5m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
 *The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (above 1GHz)
11a, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 25cm
[Reference Data]

UL Japan, Inc.
 Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY : Sony Corporation EQUIPMENT : WLAN MODULE MODEL : CMN-727AS SAMPLE NO. : 54 POWER : DC3.3V(AC120V/60Hz) MODE : Transmitting (11a / 54Mbps / CH36:5180MHz) Ant A POSITION : Hor : Module_X / Ant_X Ver : Module_X / Ant_X	REGULATION : Fcc Part15 Subpart E 15.407 TEST DISTANCE : 3m / 1m DATE : 02/28/2008 TEMPERATURE : 22deg.C. HUMIDITY : 30% ENGINEER : Takayuki Shimada
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Inside of the restricted band

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5150.0	41.2	41.7	31.4	31.2	3.5	-	44.9	45.4	73.9	29.0	28.5

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5150.0	28.3	29.2	31.4	31.2	3.5	-	32.0	32.9	53.9	21.9	21.0

Outside of the restricted band

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
2	10360.00	64.6	64.0	-40.1	-40.7	-27.0	13.1	13.7	1m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

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

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (above 1GHz)
11a, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 25cm
[Reference Data]

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 3m / 1m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / CH36:5240MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

Inside of the restricted band

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5350.0	40.6	41.3	31.5	31.1	3.5	0.0	44.5	45.2	73.9	29.4	28.7

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5350.0	28.7	28.8	31.5	31.1	3.5	0.0	32.6	32.7	53.9	21.3	21.2

Outside of the restricted band

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
2	10480.00	67.6	71.8	-37.1	-32.9	-27.0	10.1	5.9	1m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

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

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (above 1GHz)
11a, Tx, Ch: Low, 54Mbps, Antenna A, Antenna Cable: 50cm
[Reference Data]

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 3m / 1m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / CH36.5180MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

Inside of the restricted band

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5150.0	41.6	41.1	31.4	31.2	3.5	0.0	45.3	44.8	73.9	28.6	29.1

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5150.0	29.5	29.6	31.4	31.2	3.5	0.0	33.2	33.3	53.9	20.7	20.6

Outside of the restricted band

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
2	10360.00	66.4	68.0	-38.3	-36.7	-27.0	11.3	9.7	1m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

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

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (above 1GHz)
11a, Tx, Ch: High, 54Mbps, Antenna A, Antenna Cable: 50cm
[Reference Data]

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

COMPANY	: Sony Corporation	REGULATION	: Fcc Part15 Subpart E 15.407
EQUIPMENT	: WLAN MODULE	TEST DISTANCE	: 3m / 1m
MODEL	: CMN-727AS	DATE	: 02/28/2008
SAMPLE NO.	: 54	TEMPERATURE	: 22deg.C.
POWER	: DC3.3V(AC120V/60Hz)	HUMIDITY	: 30%
MODE	: Transmitting (11a / 54Mbps / CH36:5240MHz) Ant A	ENGINEER	: Takayuki Shimada
POSITION	: Hor : Module_X / Ant_X Ver : Module_X / Ant_X		

Inside of the restricted band

PK DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit PK [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5350.0	40.6	41.3	31.5	31.1	3.5	0.0	44.5	45.2	73.9	29.4	28.7

AV DETECT

No.	Freq. [MHz]	Reading [dBuV]		Ant. Factor [dB/m]	Amp. Gain [dB]	Cable Loss [dB]	Atten. or Filter [dB]	Result [dBuV/m]		Limit AV [dBuV/m]	Margin	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)												
1	5350.0	29.4	29.2	31.5	31.1	3.5	0.0	33.3	33.1	53.9	20.6	20.8

Outside of the restricted band

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm]	Margin [dB]		Remark (Distance)
		HOR	VER	HOR	VER		HOR	VER	
2	10480.00	68.4	70.3	-36.3	-34.4	-27.0	9.3	7.4	1m

Result(EIRP[dBm])=10*LOG(((Electric Field Strength [V/m] * Distance [m]) ^ 2) / 30) *10^3)

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

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (above 1GHz)
11a, Rx, Ch: Mid, Antenna A, Antenna Cable: 3cm

UL Japan, Inc.

Company : Sony Corporation
Equipment : WLAN MODULE
Model : CMN-727AS
S/N : 54
Power : DC 3.3V
Mode : WLAN 11a, Rx 5200MHz
Position : Module, H: X-axis, V: X-axis
Antenna, H: X-axis, V: X-axis

Head Office EMC Lab. No.4 Semi Anechoic Chamber
Regulation : FCC15.109(a) / RSS-210 A8.5
Test Distance : 3m / 1m
Date : 02/28/2008
Temperature : 22deg.C.
Humidity : 30%
Engineer : Takayuki Shimada
Antenna Cable 3cm

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

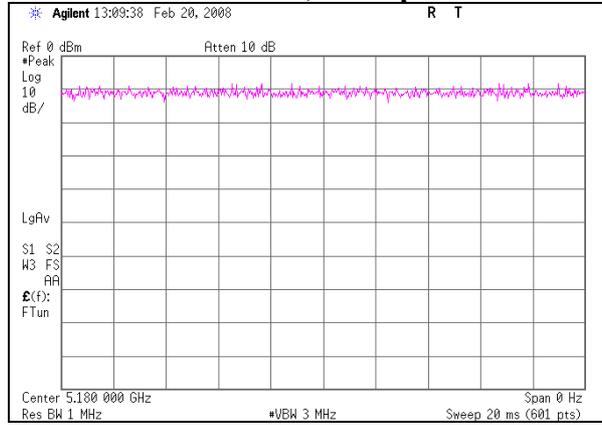
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	3466.67	46.4	45.9	28.5	31.6	3.0	0.0	46.3	45.8	73.9	27.6	28.1
2	5200.00	38.6	39.9	31.4	31.1	3.5	0.0	42.4	43.7	73.9	31.5	30.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
3	15600.00	40.5	40.6	38.1	32.5	6.3	0.0	42.9	43.0	73.9	31.0	30.9

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

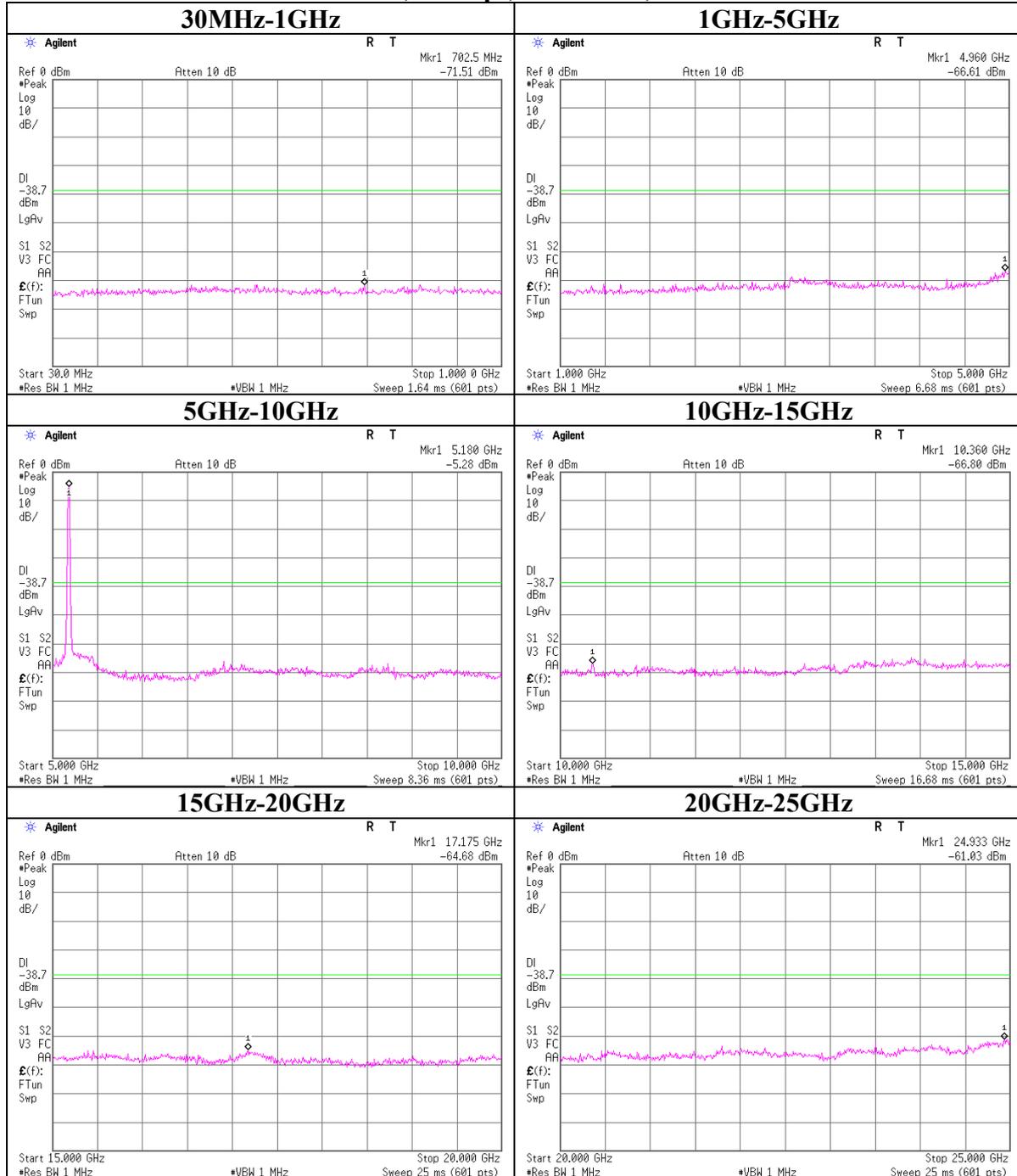
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	3466.67	39.5	38.8	28.5	31.6	3.0	0.0	39.4	38.7	53.9	14.5	15.2
2	5200.00	26.8	26.9	31.4	31.1	3.5	0.0	30.6	30.7	53.9	23.3	23.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac												
3	15600.00	28.5	28.5	38.1	32.5	6.3	0.0	30.9	30.9	53.9	23.0	23.0

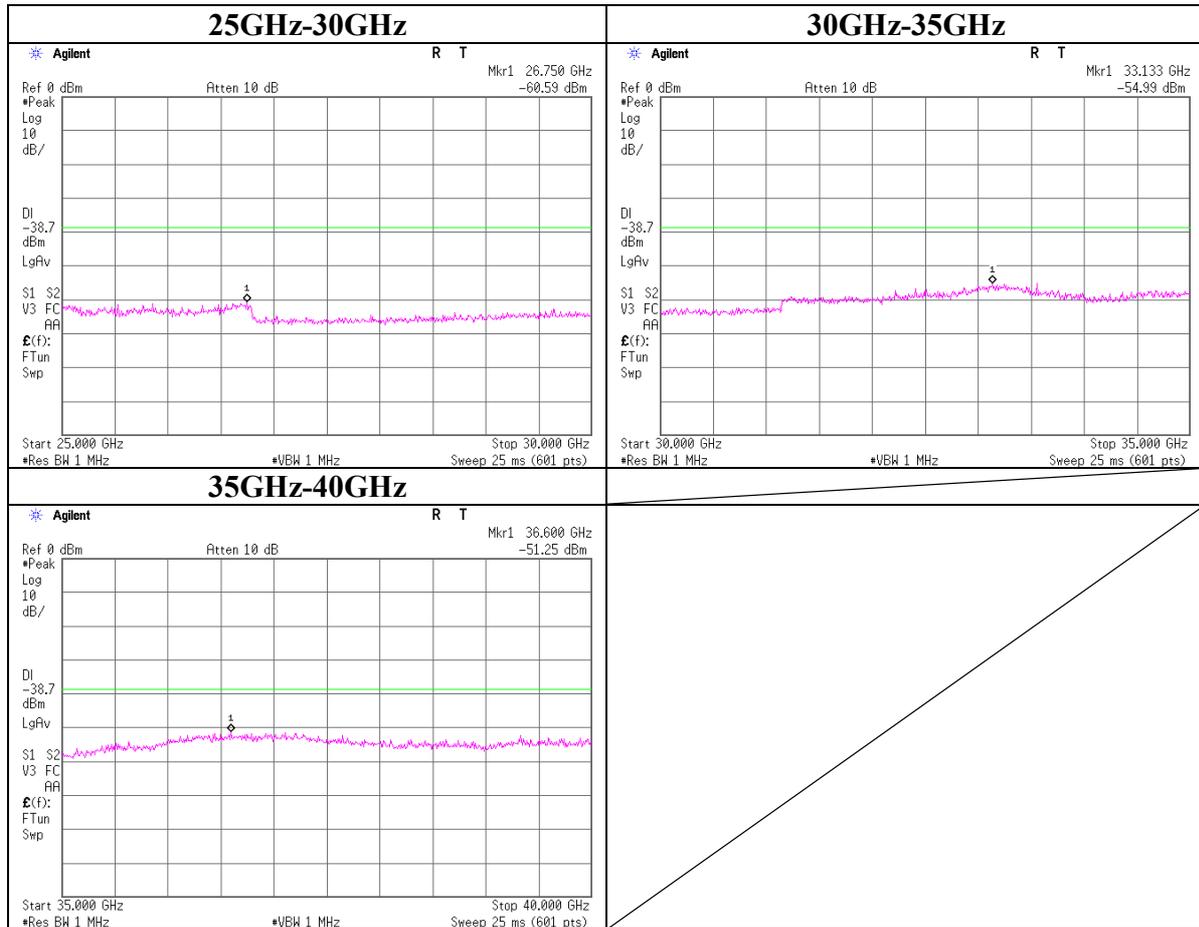
Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Filter was not used for factor 0.0dB of the above table.
*The limit is rounded down to one decimal place.
*The test result is round off to one or two decimal places, so some differences might be observed.

Transmitting Duty 11a, 54Mbps



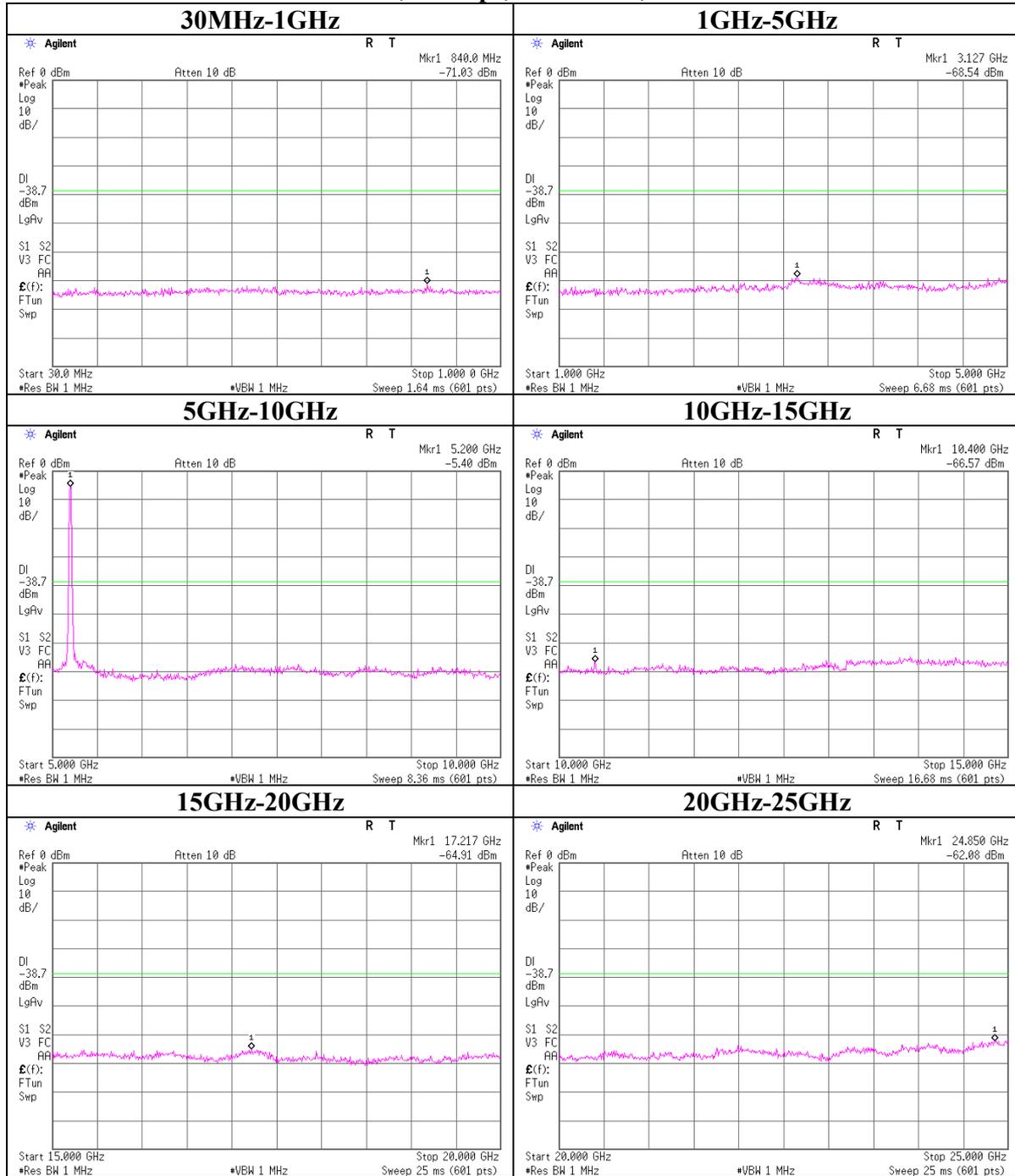
Conducted Spurious Emission(DSSS and other forms of modulation)
Tx, 54Mbps, Antenna A, Ch: 36

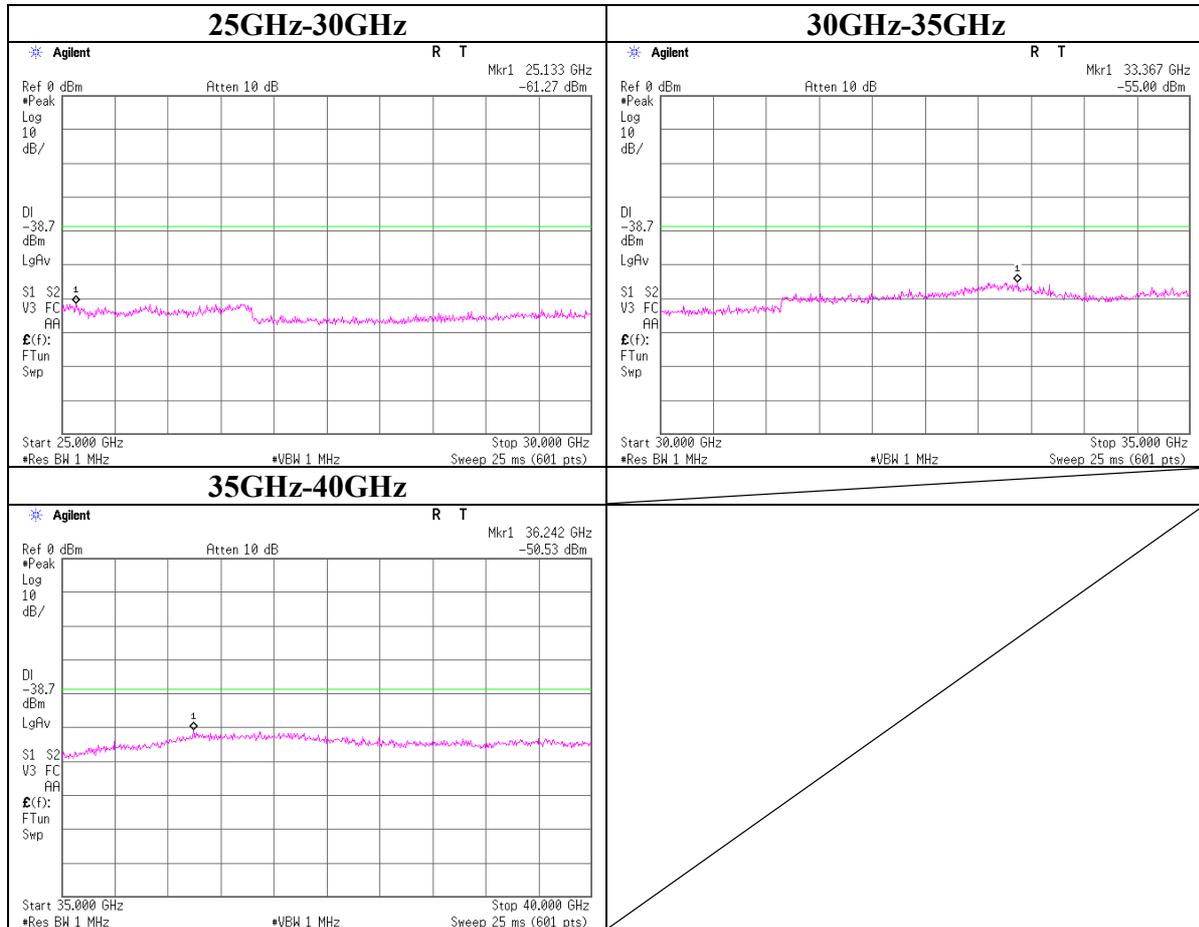




Conducted Spurious Emission(DSSS and other forms of modulation)

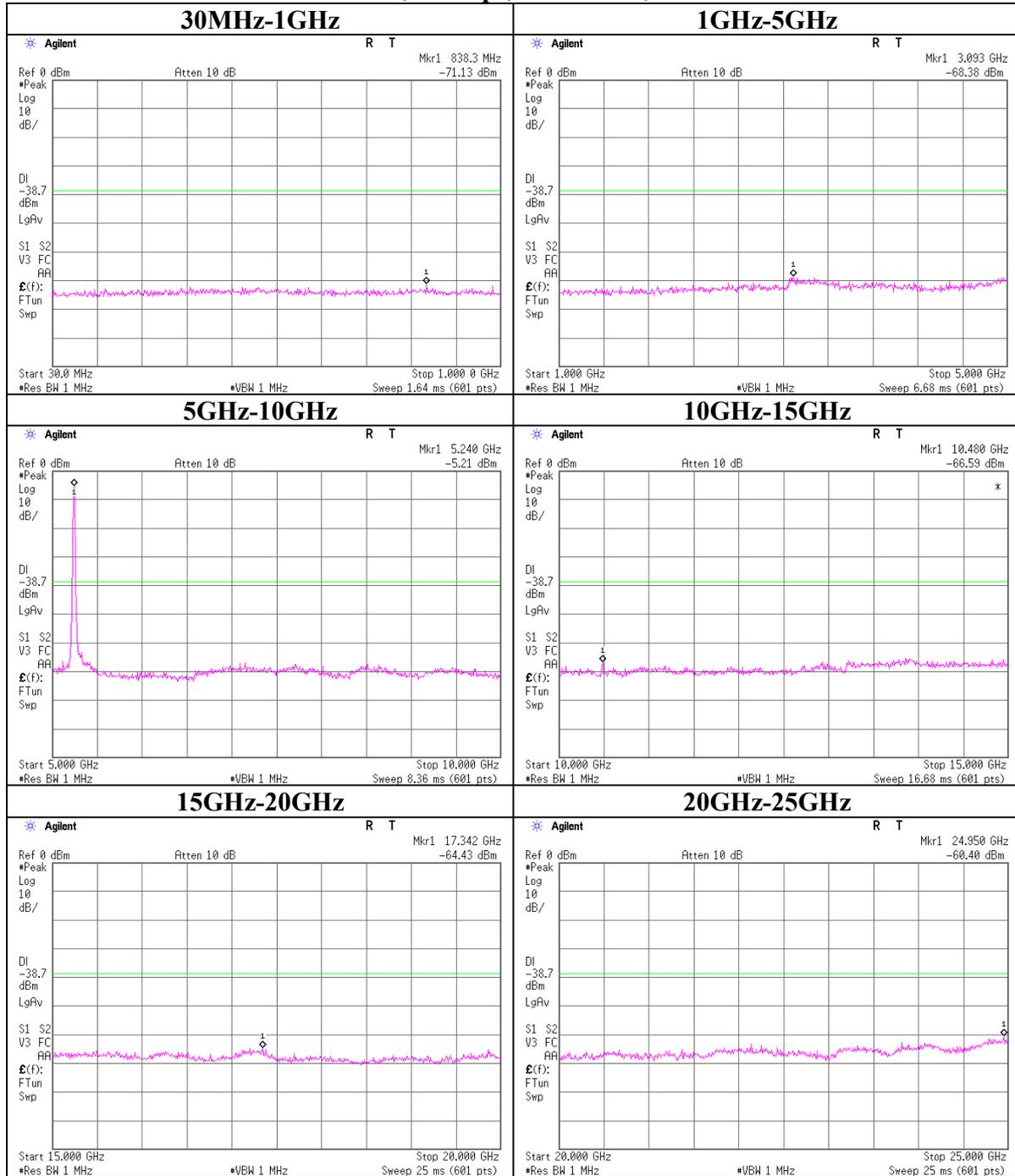
Tx, 54Mbps, Antenna A, Ch : 40

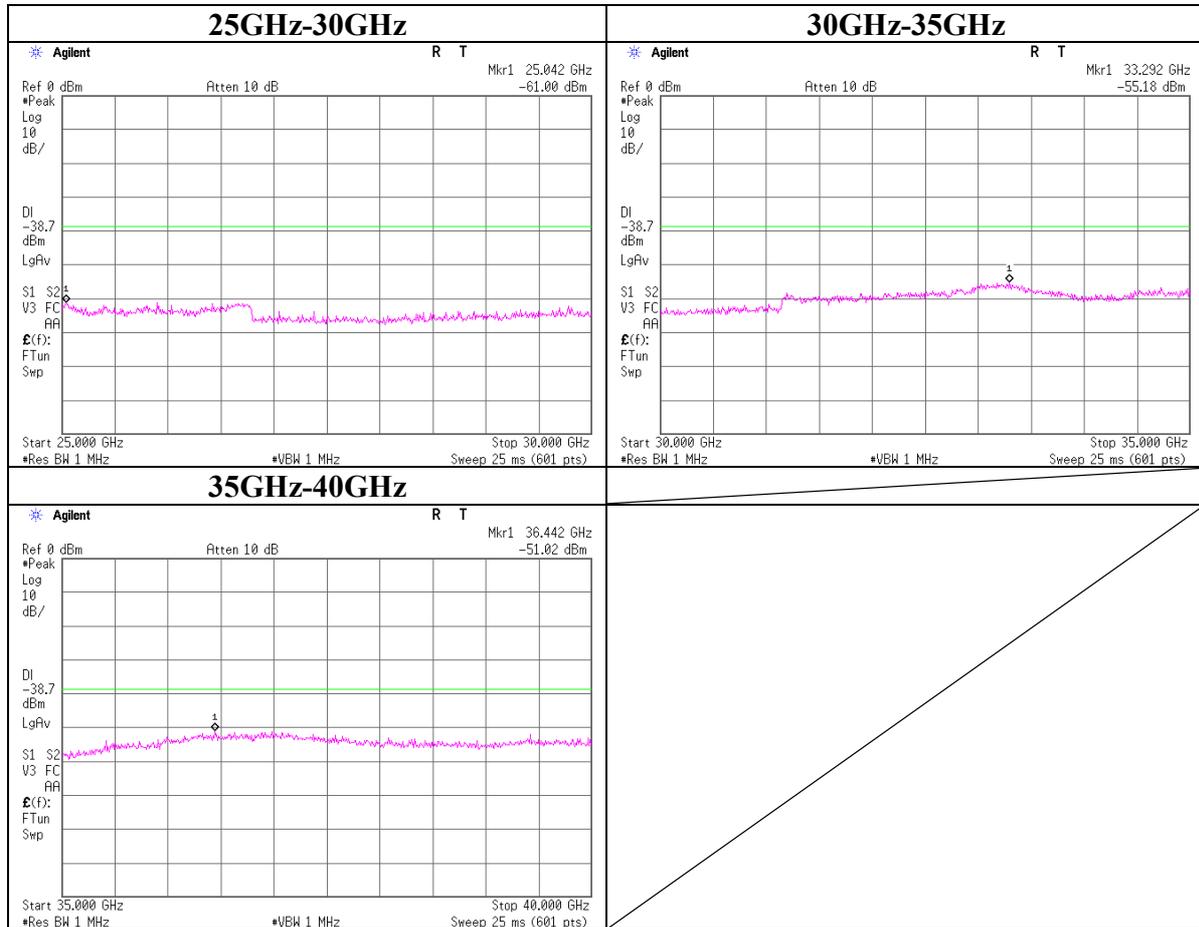




Conducted Spurious Emission(DSSS and other forms of modulation)

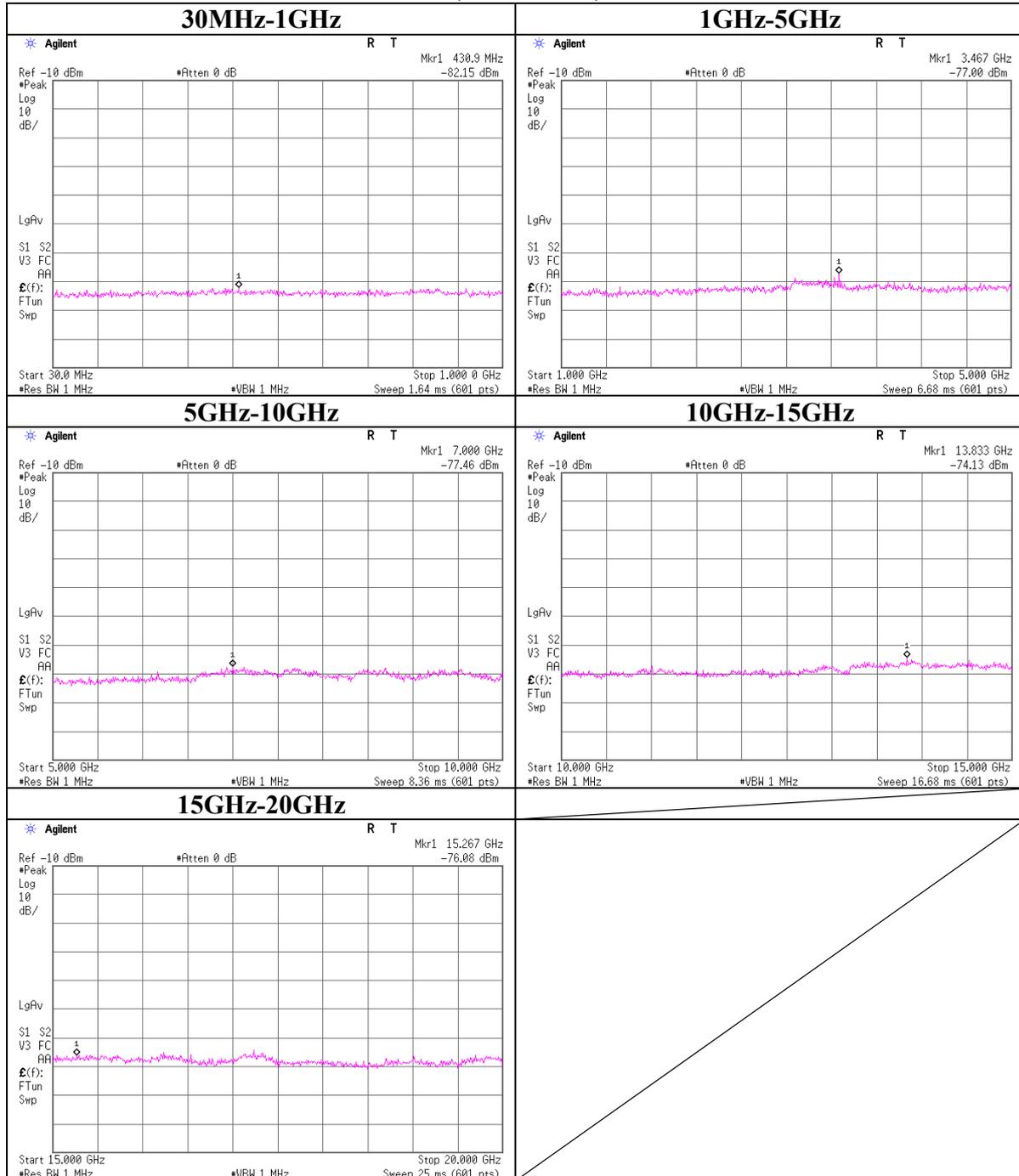
Tx, 54Mbps, Antenna A, Ch: 48





Conducted Spurious Emission(DSSS and other forms of modulation)

Rx, Antenna A, Ch: 40



Radiated emission Band Edge compliance

UL Japan, Inc.
 Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company	Sony Corporation	Regulation	FCC15.407(b)(1)(7)
Equipment	WLAN MODULE	Test Distance	3m
Model	CMN-727AS	Date	02/27/2008
S/N	54	Temperature	25 deg. C.
Power	DC 3.3V	Humidity	26 %
Mode	Tx 11a 54Mbps, 5180MHz	Engineer	Takayuki Shimada
Module-Position	H: X-axis / V: X-axis		
Antenna- Position	H: X-axis / V: X-axis		
Antenna Cable	3cm		

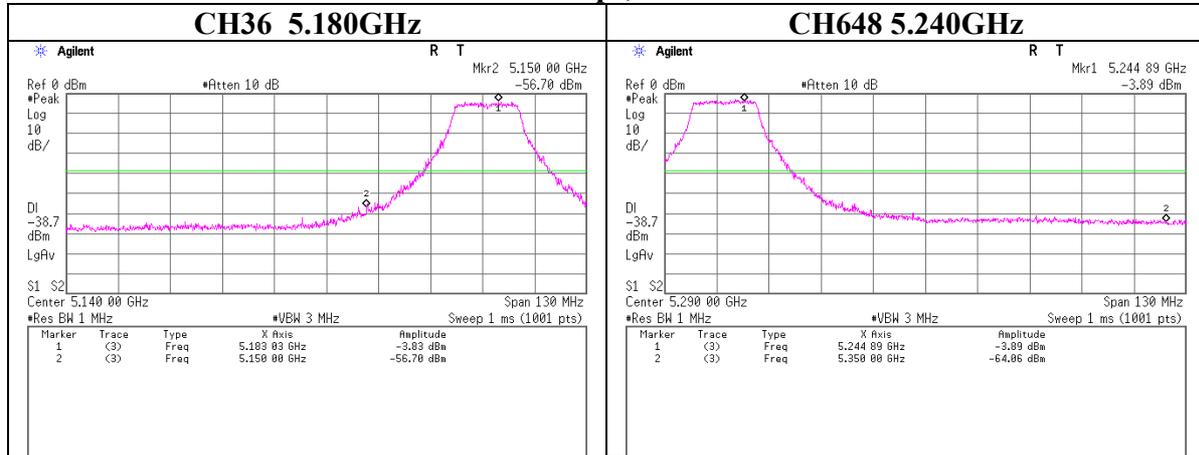
PK DETECT (RBW: 1MHz, VBW:1MHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass												
1	5150.0	42.0	42.2	31.4	31.2	3.5	0.0	45.7	45.9	73.9	28.2	28.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass												
1	5150.0	30.2	30.0	31.4	31.2	3.5	0.0	33.9	33.7	53.9	20.0	20.2

Conducted emission Band Edge compliance
54Mbps, Antenna A



Peak Power Spectral Density

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

Company : Sony Corporation
Equipment : WLAN MODULE
Model : CMN-727AS
Sample No. : 55
Power : DC3.3V
Mode : Tx IEEE 802.11a 54Mbps
Antenna A

REPORT NO : 27LE0344-HO
REGULATION : FCC 15.407(a)(1)(2)(3)
TEST DISTANCE : -
DATE : 02/19/2008
TEMPERATURE : 23deg.C
HUMIDITY : 31%
ENGINEER : Norihisa Hashimoto

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
36	5180.0	-14.30	2.00	10.10	-2.20	4.00	6.20
40	5200.0	-14.56	2.00	10.10	-2.46	4.00	6.46
48	5240.0	-13.68	2.00	10.10	-1.58	4.00	5.58

Sample Calculation:

Result = Reading + Cable Loss (splied by customer : 0.4dB + UL Japan : 1.6dB) + Attenuator

* Atten. was not used for factor 0.0dB of the above table.

UL Japan, Inc.

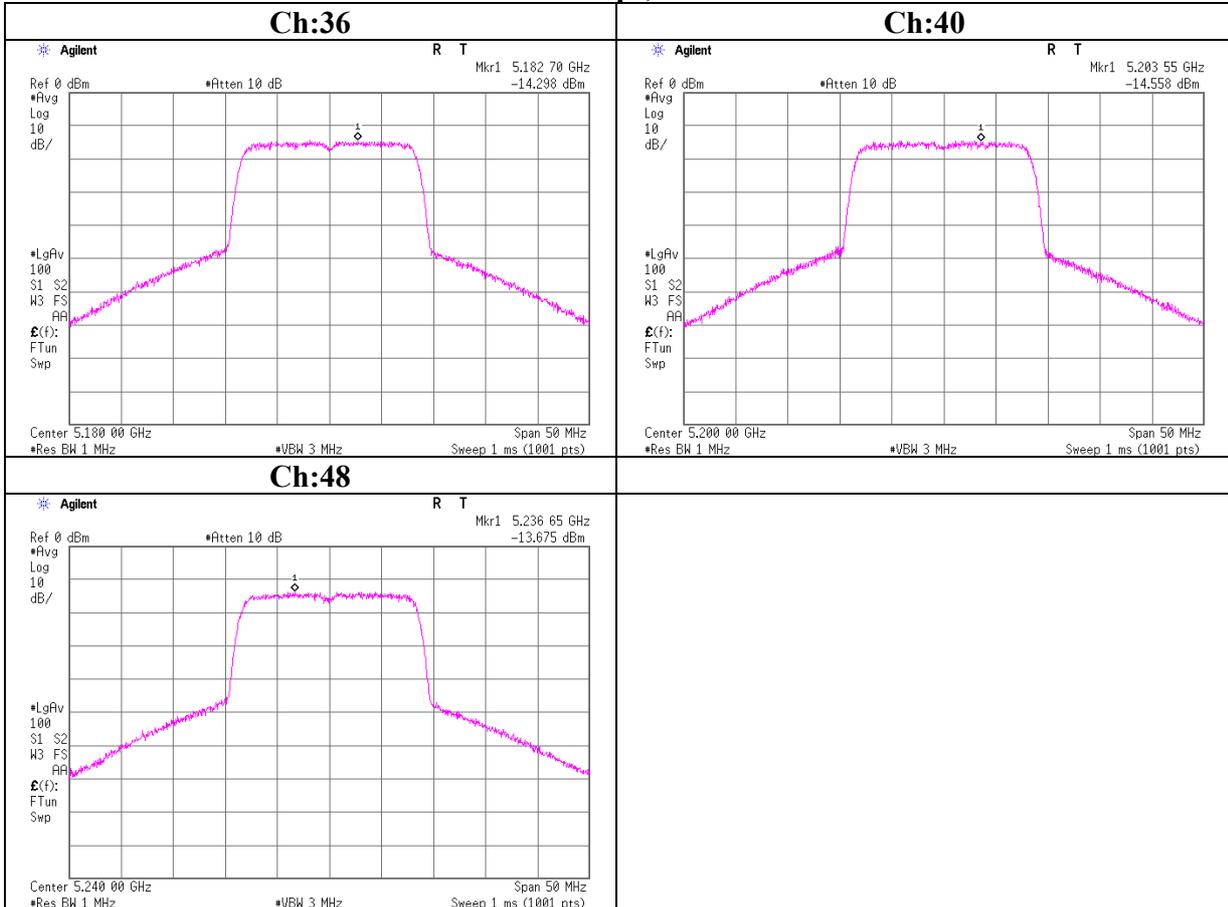
Head Office EMC Lab.

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

Peak Power Spectral Density
54Mbps, Antenna A



Test report No. : 27LE0344-HO-B-R1
Page : 65 of 70
Issued date : May 16, 2008
Revised date : August 20, 2008
FCC ID : AK8CMN727AS

Peak Excursion Ratio

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

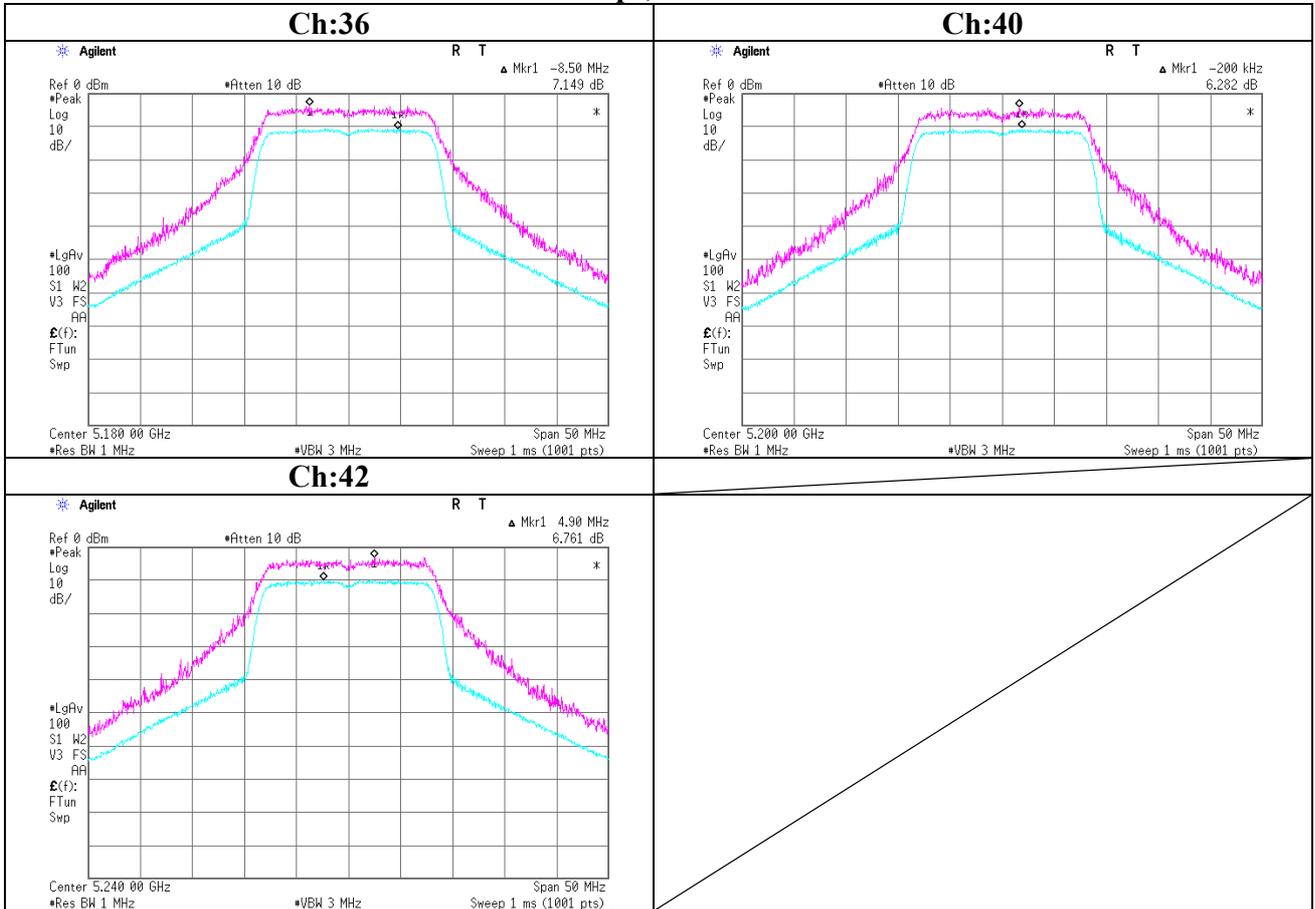
Company : Sony Corporation
Equipment : WLAN MODULE
Model : CMN-727AS
Sample No. : 55
Power : DC3.3V
Mode : Tx IEEE 802.11a 54Mbps
Antenna A

REPORT NO : 27LE0344-HO
REGULATION : FCC 15.407(a)(6)
TEST DISTANCE : -
DATE : 02/19/2008
TEMPERATURE : 23deg.C
HUMIDITY : 31%
ENGINEER : Norihisa Hashimoto

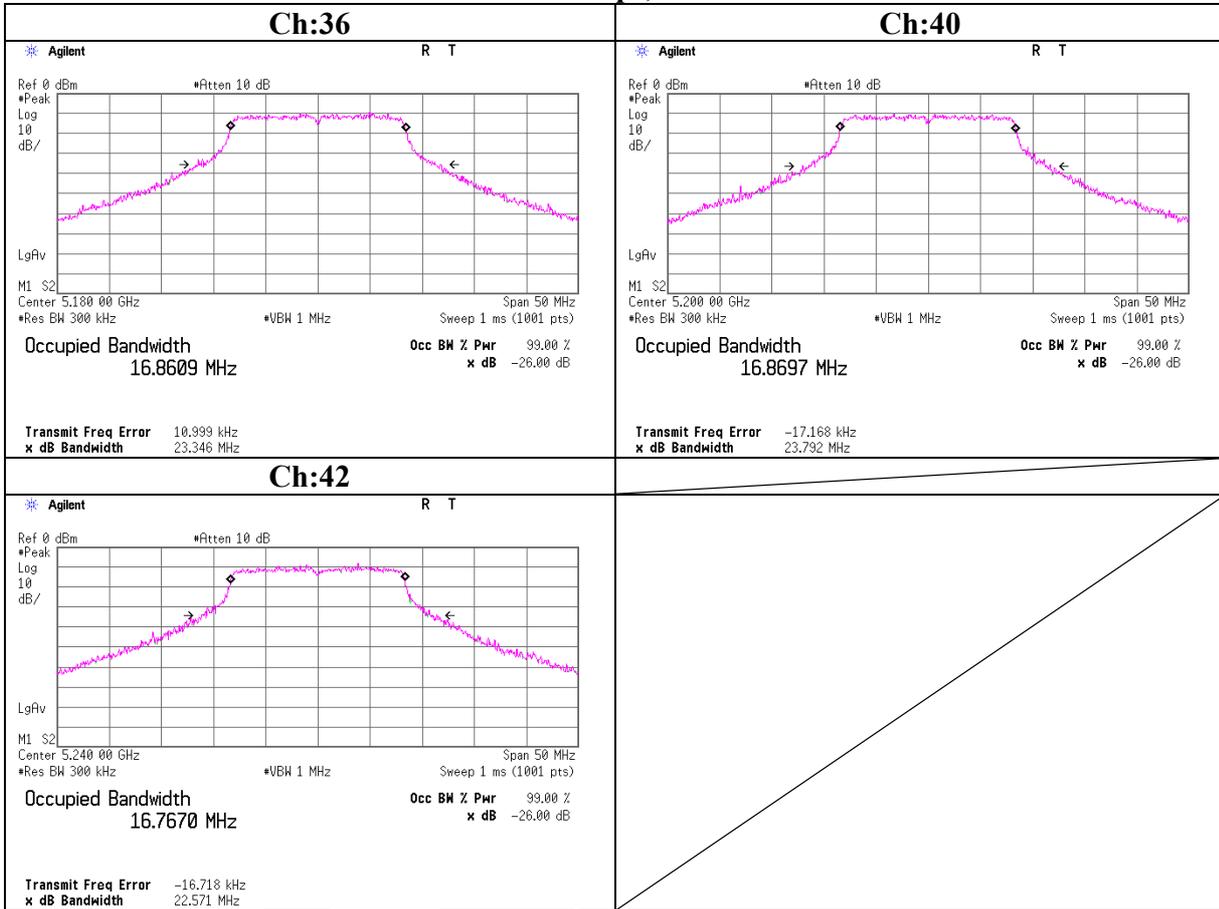
Ch	Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]
36	5180.0	7.149	13.0
40	5200.0	6.282	13.0
48	5240.0	6.761	13.0

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

Peak Excursion Ratio
54Mbps, Antenna A



99% Occupied Bandwidth
54Mbps, Antenna A



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)(above 1GHz)	Agilent	8493C	AT	2007/06/28 * 12
MCC-66	Microwave Cable 1G-40GHz	Schner	SUCOFLEX 102	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	SUCOFLEX 104	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	SUCOFLEX 104	RE	2007/12/26 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/12 * 12
MCC-67	Microwave Cable 1G-40GHz	Schner	SUCOFLEX 102	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

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

EMI test equipment(2/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MCC-27	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX 101	RE	2007/08/28 * 12
MCC-28	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX 101	RE	2007/08/28 * 12
MPA-03	Microwave System Power Amplifier	Agilent	83050A	RE	2007/06/08 * 12
MHA-16	Horn Antenna 15- 40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 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	2008/03/17 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	CE	2007/06/01 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	CE	2007/09/14 * 12
MHF-23	High Pass Filter 7- 20GHz	TOKIMEC	TF37NCCC	RE	2008/01/07 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2007/06/01 * 12
MHA-17	Horn Antenna 15- 40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 12
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	CE	2007/04/02 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2008/02/15 * 12
MTA-07	Terminator	MCL	BTRM-50	CE	2008/02/04 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	CE	2007/03/01 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	CE	2007/11/12 * 12
MJM-05	Measure	PROMART	SEN1955	CE	-
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2008/03/25 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	RE	2008/01/10 * 12
MJM-06	Measure	PROMART	SEN1955	RE	-
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE	2008/02/20 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2008/01/12 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2008/01/12 * 12
MCC-51	Coaxial cable	UL Japan	-	RE	2007/07/26 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	RE	2008/03/06 * 12
MAT-30	Attenuator(6dB)	TME	UFA-01	RE	2008/03/10 * 12

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

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FCC ID : AK8CMN727AS

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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Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124