

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, Ch: Low

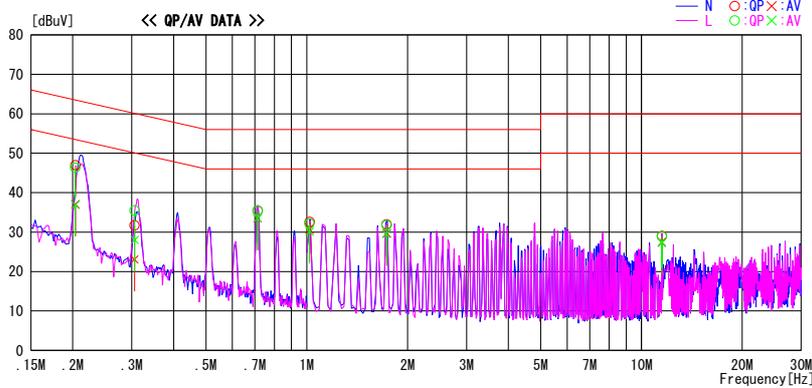
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation
Kind of EUT : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 010
Report No. : 28GE0005-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg.C / 37%
Operator : Akio Hayashi

Mode / Remarks : Tx, DH5, 2402MHz

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]	
0.20363	46.7	36.8	0.3	47.0	37.1	63.5	53.5	16.5	16.4	N
0.30563	31.4	22.8	0.3	31.7	23.1	60.1	50.1	28.4	27.0	N
0.71363	35.0	33.1	0.4	35.4	33.5	56.0	46.0	20.6	12.5	N
1.01940	32.2	30.2	0.4	32.6	30.6	56.0	46.0	23.4	15.4	N
1.73320	31.5	29.2	0.5	32.0	29.7	56.0	46.0	24.1	16.3	N
11.50000	27.6	25.9	1.5	29.1	27.4	60.0	50.0	30.9	22.6	N
0.20353	46.0	36.6	0.3	46.3	36.9	63.5	53.5	17.2	16.6	L
0.30612	35.2	27.7	0.3	35.5	28.0	60.1	50.1	24.6	22.1	L
0.71310	35.0	33.1	0.4	35.4	33.5	56.0	46.0	20.6	12.5	L
1.01900	31.8	29.7	0.4	32.2	30.1	56.0	46.0	23.8	15.9	L
1.73290	31.3	29.0	0.5	31.8	29.5	56.0	46.0	24.2	16.5	L
11.50060	27.4	25.8	1.5	28.9	27.3	60.0	50.0	31.1	22.7	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.

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

Conducted Emission
Tx, Ch: Mid

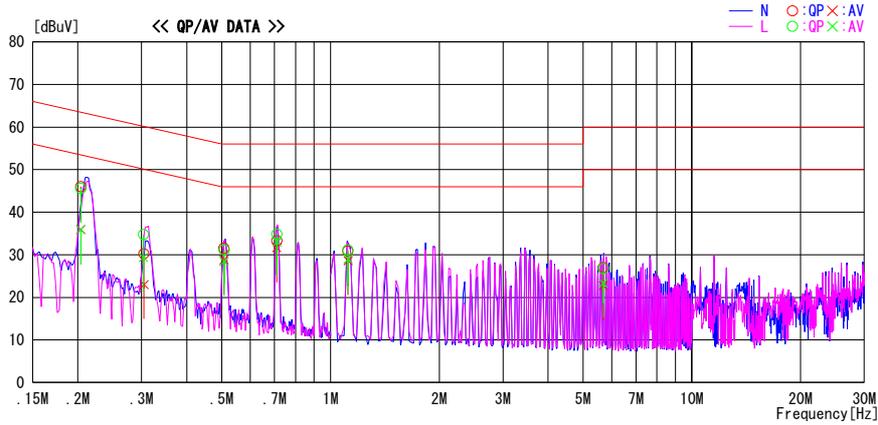
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation
Kind of EUT : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 010
Report No. : 28GE0005-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg. C / 37%
Operator : Akio Hayashi

Mode / Remarks : Tx, DH5, 2441MHz

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]	
0.20370	45.7	35.6	0.3	46.0	35.9	63.5	53.5	17.6	17.6	N
0.30460	29.9	22.7	0.3	30.2	23.0	60.1	50.1	29.9	27.1	N
0.50744	31.2	28.5	0.3	31.5	28.8	56.0	46.0	24.5	17.2	N
0.71013	32.9	31.2	0.4	33.3	31.6	56.0	46.0	22.7	14.4	N
1.11740	30.5	28.2	0.4	30.9	28.6	56.0	46.0	25.1	17.4	N
5.68881	26.0	21.8	1.0	27.0	22.8	60.0	50.0	33.0	27.2	N
0.20365	45.3	35.6	0.3	45.6	35.9	63.5	53.5	18.0	17.6	L
0.30373	34.5	29.1	0.3	34.8	29.4	60.1	50.1	25.3	20.7	L
0.50801	30.8	28.1	0.3	31.1	28.4	56.0	46.0	24.9	17.6	L
0.71073	34.4	32.6	0.4	34.8	33.0	56.0	46.0	21.2	13.0	L
1.11750	30.8	28.6	0.4	31.2	29.0	56.0	46.0	24.9	17.1	L
5.68951	25.7	22.3	1.0	26.7	23.3	60.0	50.0	33.3	26.7	L

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV]=READING [dBuV]+C. F [dB] (LISN LOSS+CABLE LOSS)
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Conducted Emission
Tx, Ch: High

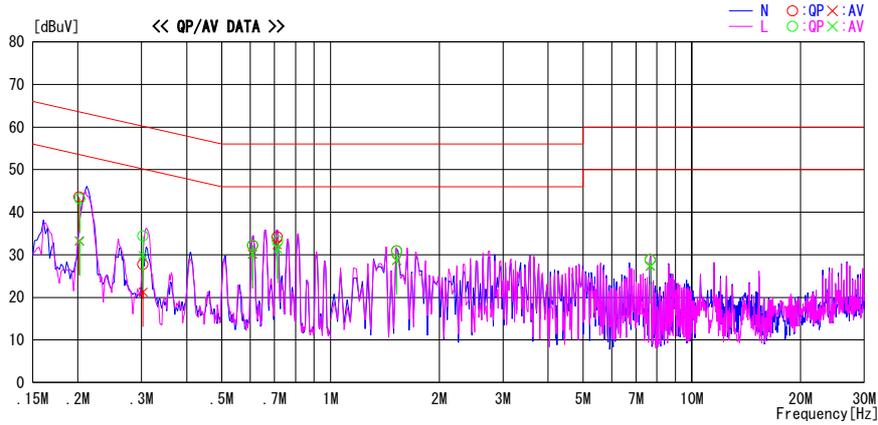
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation
Kind of EUT : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 010
Report No. : 28GE0005-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg.C / 37%
Operator : Akio Hayashi

Mode / Remarks : Tx, DH5, 2480MHz

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]	
0.20230	42.9	32.9	0.3	43.2	33.2	63.5	53.5	20.3	20.3	L
0.20173	43.3	33.0	0.3	43.6	33.3	63.5	53.5	19.9	20.2	N
0.30248	34.2	29.5	0.3	34.5	29.8	60.2	50.2	25.7	20.4	L
0.30258	27.4	20.9	0.3	27.7	21.2	60.2	50.2	32.5	29.0	N
0.60888	31.9	29.9	0.4	32.3	30.3	56.0	46.0	23.7	15.7	L
0.60868	31.8	29.8	0.4	32.2	30.2	56.0	46.0	23.8	15.9	N
0.71140	33.8	32.0	0.4	34.2	32.4	56.0	46.0	21.8	13.6	N
0.71308	32.8	31.0	0.4	33.2	31.4	56.0	46.0	22.8	14.6	L
1.52390	30.4	28.2	0.5	30.9	28.7	56.0	46.0	25.1	17.3	N
1.52450	30.4	28.2	0.5	30.9	28.7	56.0	46.0	25.1	17.3	L
7.67690	27.6	26.2	1.2	28.8	27.4	60.0	50.0	31.2	22.6	N
7.67551	27.5	26.1	1.2	28.7	27.3	60.0	50.0	31.3	22.7	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.

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Conducted Emission
Rx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

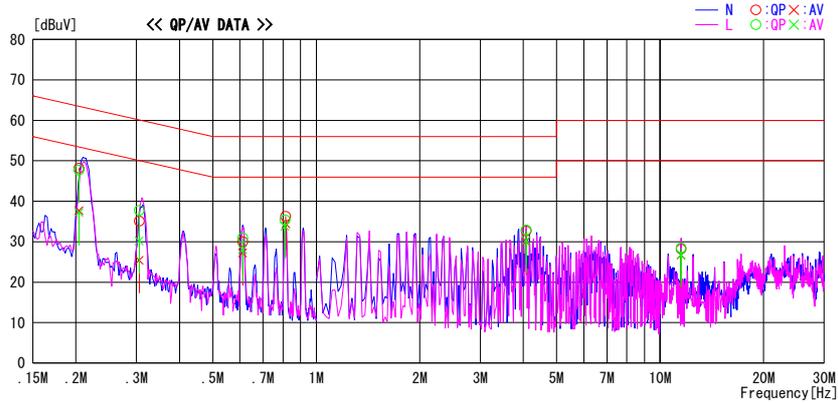
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation
Kind of EUT : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 010

Report No. : 28GE0005-HO
Power : AC 120V / 60Hz
Temp./Humi. : 20deg. C / 37%
Operator : Akio Hayashi

Mode / Remarks : Rx, DH5, 2441MHz

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]	
0.20410	47.9	37.4	0.3	48.2	37.7	63.4	53.4	15.2	15.7	N
0.30563	34.8	25.1	0.3	35.1	25.4	60.1	50.1	25.0	24.7	N
0.61153	29.6	26.8	0.4	30.0	27.2	56.0	46.0	26.0	18.8	N
0.81532	35.9	34.0	0.4	36.3	34.4	56.0	46.0	19.7	11.6	N
4.07769	31.8	29.2	0.8	32.6	30.0	56.0	46.0	23.4	16.0	N
11.50591	26.7	25.2	1.5	28.2	26.7	60.0	50.0	31.8	23.3	N
0.20413	47.4	36.9	0.3	47.7	37.2	63.4	53.4	15.7	16.2	L
0.30565	37.4	29.9	0.3	37.7	30.2	60.1	50.1	22.4	19.9	L
0.61145	30.5	27.7	0.4	30.9	28.1	56.0	46.0	25.1	17.9	L
0.81054	35.0	33.5	0.4	35.4	33.9	56.0	46.0	20.6	12.1	L
4.07809	32.1	29.5	0.8	32.9	30.3	56.0	46.0	23.1	15.7	L
11.50731	26.9	25.3	1.5	28.4	26.8	60.0	50.0	31.6	23.2	L

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.

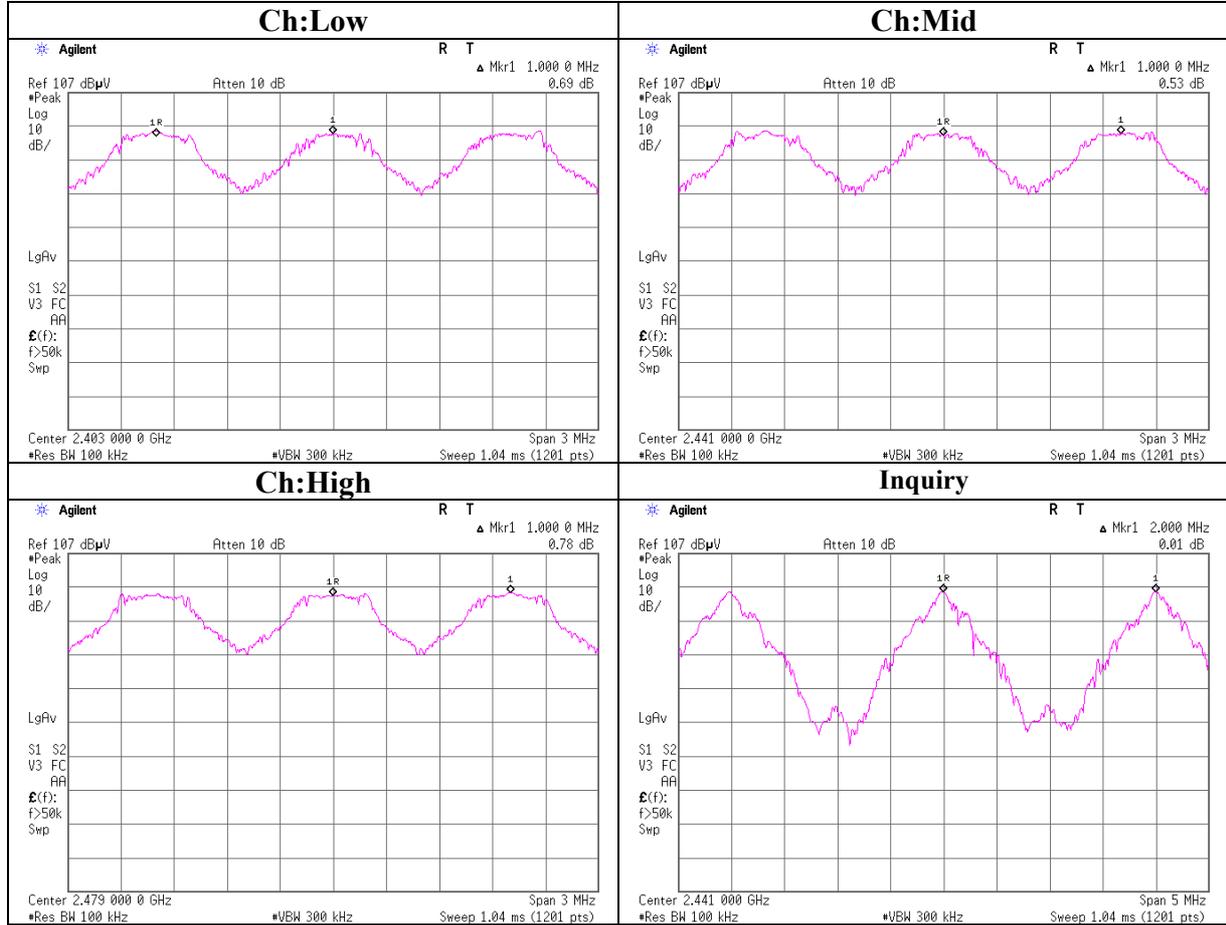
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Carrier Frequency Separation

		Head Office EMC Lab. No.6 Shielded Room	
		Test Report No.	: 28GE0005-HO
Company	: Sony Corporation	Regulation	: FCC15.247(a)(1)/RSS-210A8.1(b)
Equipment	: Sound Entertainment Player	Test distance	: -
Model No.	: SEP-30BT	Date	: 02/15/2008
Serial No.	: 008	Temperature	: 22deg.C.
Power	: DC3.7V	Humidity	: 41%
Mode	: Tx(Hopping on)/Inquiry	Engineer	: Shinya Watanabe

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	>two-thirds of 0.868[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)
Mid	2441.0	1.000	>two-thirds of 0.875[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)
High	2480.0	1.000	>two-thirds of 0.885[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)
Inquiry	2441.0	2.000	>two-thirds of 0.773[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)

Carrier Frequency Separation



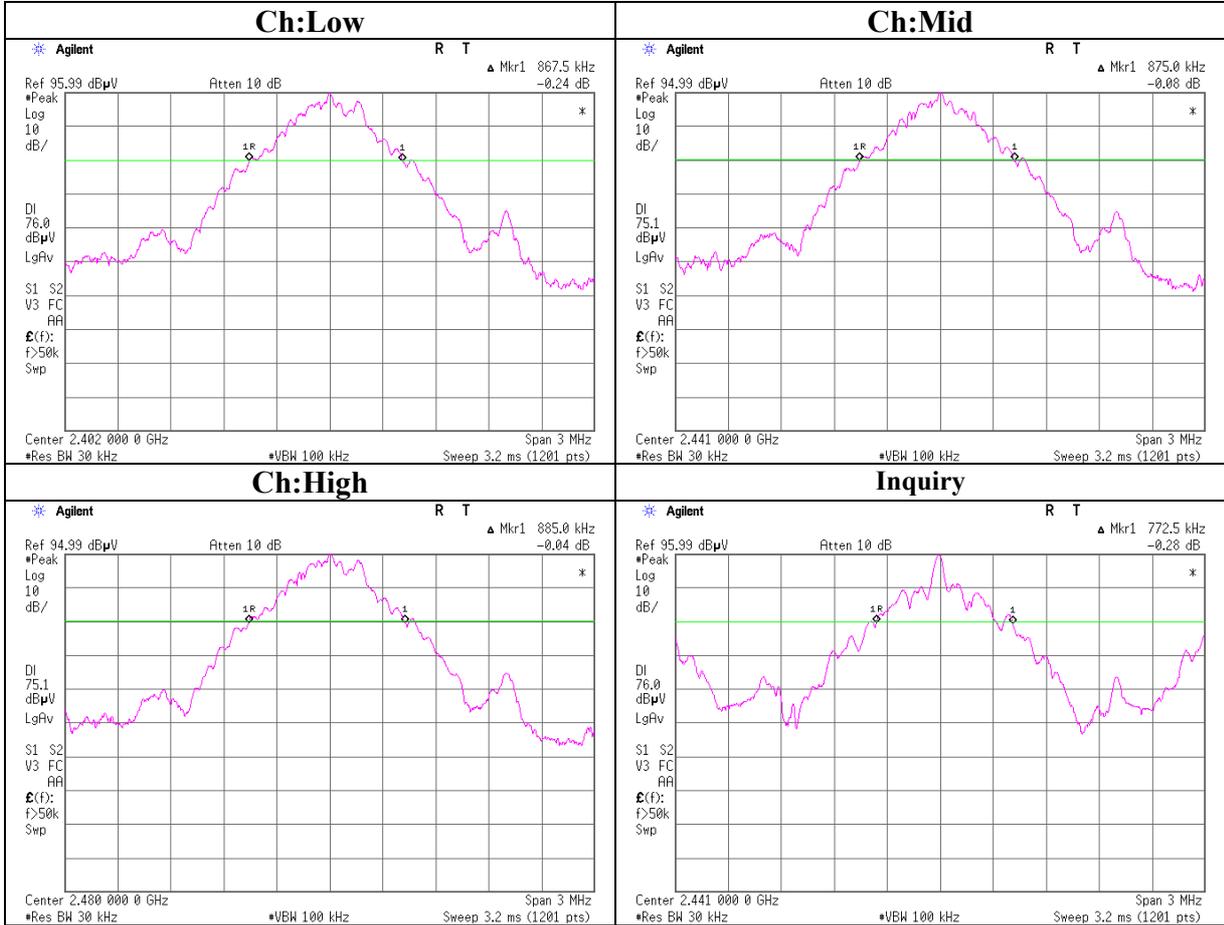
20dB Bandwidth

UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

Company	: Sony Corporation	Test Report No.	: 28GE0005-HO
Equipment	: Sound Entertainment Player	Regulation	: FCC15.247(a)(1)/RSS-210A8.1(a)
Model No.	: SEP-30BT	Test distance	: -
Serial No.	: 008	Date	: 02/15/2008
Power	: DC3.7V	Temperature	: 22deg.C.
Mode	: Tx(Hopping on)/Inquiry	Humidity	: 41%
		Engineer	: Shinya Watanabe

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.868	-
Mid	2441.0	0.875	-
High	2480.0	0.885	-
Inquiry	2441.0	0.773	-

20dB Bandwidth



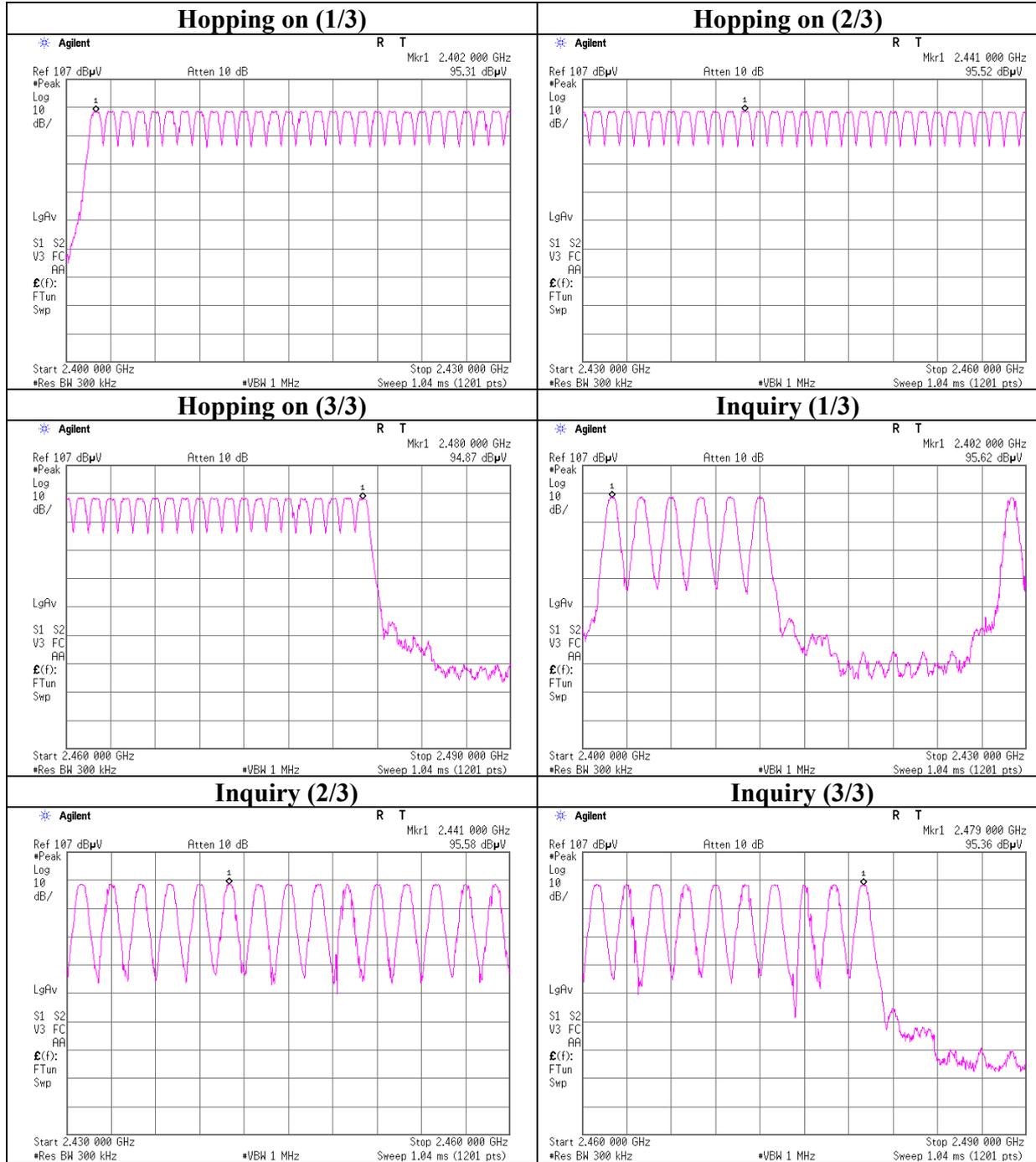
Number of Hopping Frequency

Company	: Sony Corporation	UL Japan, Inc.	
Equipment	: Sound Entertainment Player	Head Office EMC Lab. No.6 Shielded Room	
Model No.	: SEP-30BT	Test Report No.	: 28GE0005-HO
Serial No.	: 008	Regulation	: FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
Power	: DC3.7V	Test distance	: -
Mode	: Tx(Hopping on)/Inquiry	Date	: 02/15/2008
		Temperature	: 22deg.C.
		Humidity	: 41%
		Engineer	: Shinya Watanabe

Mode	Number of channel	Limit
	[number]	[time]
Tx(Hopping on)	79	≥ 15

Mode	Number of channel	Limit
	[number]	[time]
Inquiry	32	≥ 15

Number of Hopping Frequency



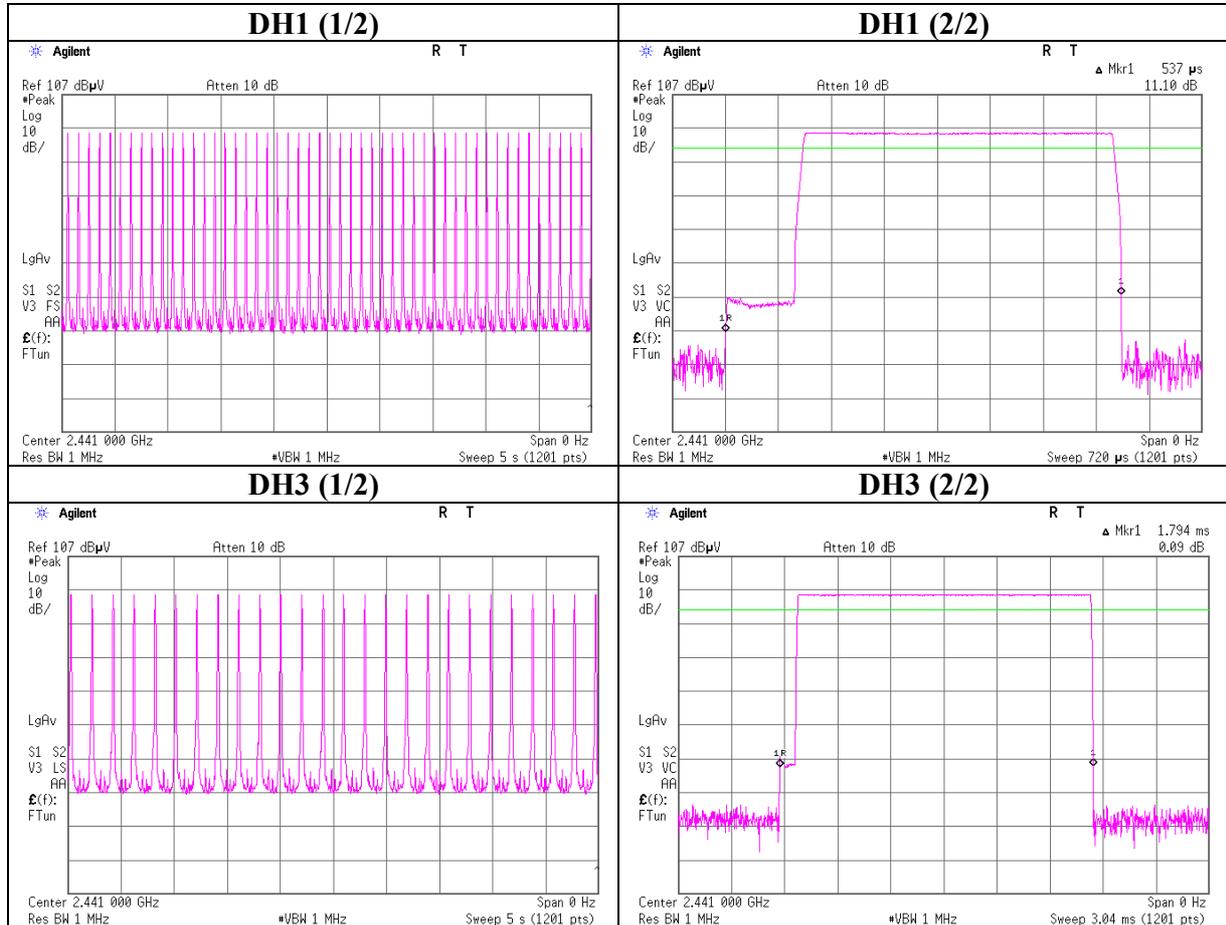
Dwell time

UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

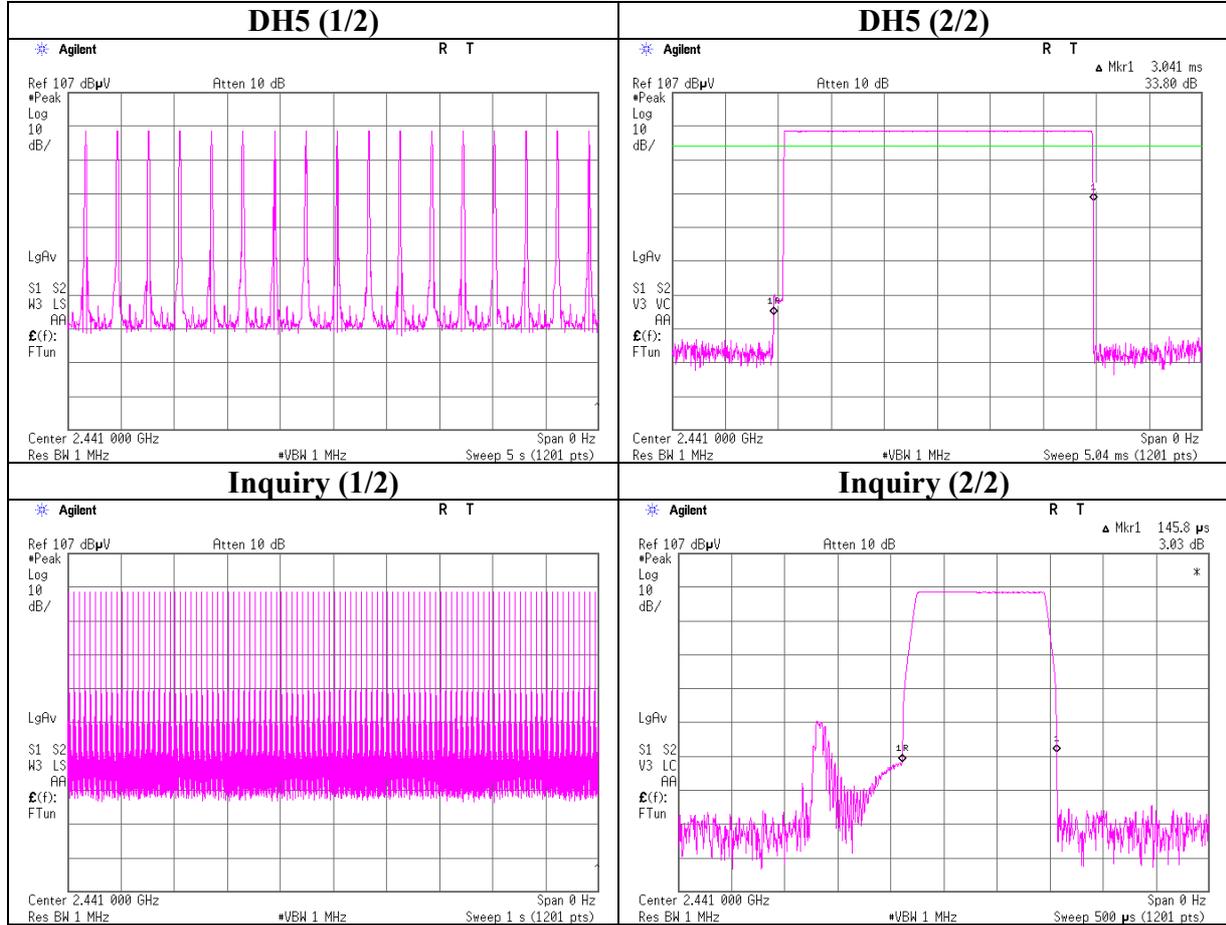
Company	: Sony Corporation	Test Report No.	: 28GE0005-HO
Equipment	: Sound Entertainment Player	Regulation	: FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
Model No.	: SEP-30BT	Test distance	: -
Serial No.	: 008	Date	: 02/15/2008
Power	: DC3.7V	Temperature	: 22deg.C.
Mode	: Tx(Hopping on)/Inquiry	Humidity	: 41%
		Engineer	: Shinya Watanabe

Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times / 5 sec. x 31.6 sec. = 323 times	0.537	173	400
DH3	26 times / 5 sec. x 31.6 sec. = 165 times	1.794	296	400
DH5	17 times / 5 sec. x 31.6 sec. = 108 times	3.041	328	400
Inquiry	100 times / 1 sec. x 12.8 sec. = 1280 times	0.146	187	400

Dwell time



Dwell time



Maximum Peak Output Power

Company : Sony Corporation
Equipment : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 008
Power : DC3.7V
Mode : Tx(Hopping on)/Inquiry

UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room
Test Report No. : 28GE0005-HO
Regulation : FCC15.247(b)(1)/RSS-210A8.4(2)
Test distance : -
Date : 02/15/2008
Temperature : 22deg.C.
Humidity : 41%
Engineer : Shinya Watanabe

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-11.39	0.20	10.01	-1.18	0.76	20.97	125	22.15
Mid	2441.0	-11.41	0.20	10.02	-1.19	0.76	20.97	125	22.16
High	2480.0	-11.57	0.20	10.03	-1.34	0.73	20.97	125	22.31
Inquiry	2441.0	-11.37	0.20	10.02	-1.15	0.77	20.97	125	22.12

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

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Radiated Spurious Emission (below 1GHz)
Tx, Ch: Low

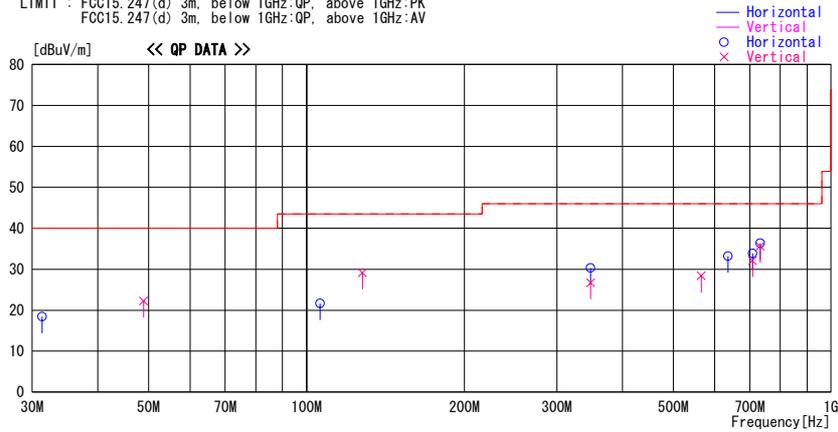
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation Report No. : 28GE0005-HO
Kind of EUT : Sound Entertainment Player Power : DC 3.7V (Battery)
Model No. : SEP-30BT Temp./Humi. : 20deg. C / 37%
Serial No. : 010 Operator : Akio Hayashi

Mode / Remarks : Tx, DH5, 2402MHz, On-Cradle

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]
48.910	33.6	QP	10.5	-21.8	22.3	0	100	Vert.	40.0	17.7
31.320	22.2	QP	18.2	-22.0	18.4	0	400	Hori.	40.0	21.6
106.108	32.2	QP	10.6	-21.1	21.7	320	288	Hori.	43.5	21.8
127.890	37.3	QP	12.8	-20.9	29.2	82	100	Vert.	43.5	14.3
348.003	30.1	QP	15.9	-19.2	26.8	210	100	Vert.	46.0	19.3
348.006	33.6	QP	15.9	-19.2	30.3	177	100	Hori.	46.0	15.7
636.003	32.2	QP	19.8	-18.8	33.2	165	130	Hori.	46.0	12.8
565.547	28.9	QP	18.7	-19.2	28.4	0	100	Vert.	46.0	17.6
708.000	31.6	QP	20.8	-18.5	33.9	283	118	Hori.	46.0	12.1
708.002	29.9	QP	20.8	-18.5	32.2	0	100	Vert.	46.0	13.9
732.001	33.6	QP	21.1	-18.3	36.4	118	216	Hori.	46.0	9.6
732.001	32.8	QP	21.1	-18.3	35.6	10	100	Vert.	46.0	10.4

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)
Tx, Ch: Mid

DATA OF RADIATED EMISSION TEST

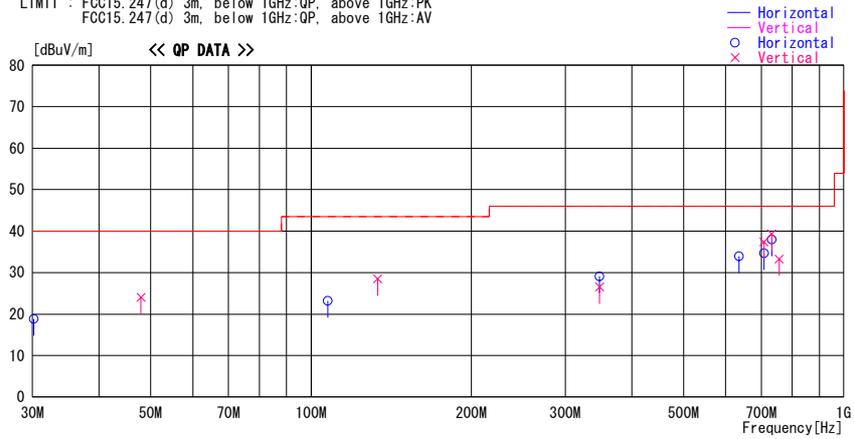
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Kind of EUT : Sound Entertainment Player
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Serial No. : 010

Report No. : 28GE0005-HO
Power : DC 3.7V (Battery)
Temp./Humi. : 20deg. C / 37%
Operator : Akio Hayashi

Mode / Remarks : Tx, DH5, 2441MHz, On-Cradle

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
30.180	22.1	QP	18.8	-22.0	18.9	72	400	Hori.	40.0	21.2
47.963	35.1	QP	10.8	-21.8	24.1	301	100	Vert.	40.0	16.0
107.548	33.6	QP	10.7	-21.1	23.2	13	400	Hori.	43.5	20.3
133.370	35.9	QP	13.4	-20.8	28.5	102	100	Vert.	43.5	15.0
348.002	29.9	QP	15.9	-19.2	26.6	193	100	Vert.	46.0	19.5
347.999	32.4	QP	15.9	-19.2	29.1	193	100	Hori.	46.0	16.9
636.000	33.0	QP	19.8	-18.8	34.0	195	132	Hori.	46.0	12.0
708.002	32.4	QP	20.8	-18.5	34.7	168	118	Hori.	46.0	11.3
708.000	35.1	QP	20.8	-18.5	37.4	10	100	Vert.	46.0	8.7
731.999	35.2	QP	21.1	-18.3	38.0	149	117	Hori.	46.0	8.0
732.002	36.5	QP	21.1	-18.3	39.3	6	100	Vert.	46.0	6.7
756.001	30.1	QP	21.3	-18.1	33.3	7	100	Vert.	46.0	12.7

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

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

Radiated Spurious Emission (below 1GHz)
Tx, Ch: High

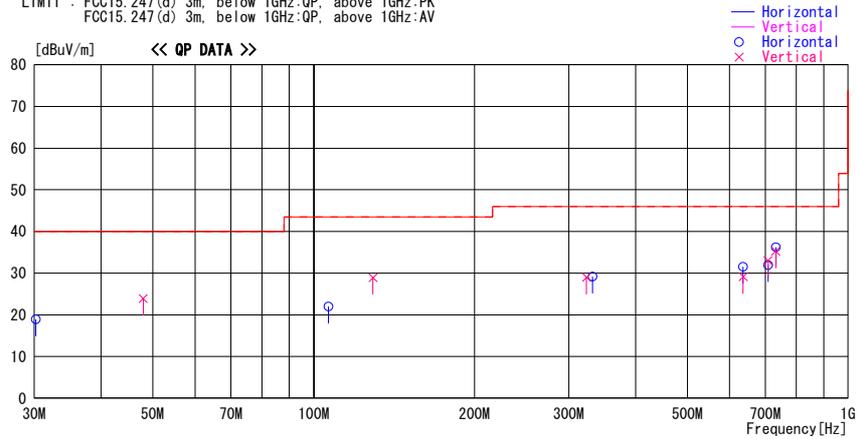
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation
Kind of EUT : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 010
Report No. : 28GE0005-HO
Power : DC 3.7V (Battery)
Temp./Humi. : 20deg. C / 37%
Operator : Akio Hayashi

Mode / Remarks : Tx, DHS, 2480MHz, On-Cradle

LIMIT : FCC15.247 (d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247 (d) 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]						
47.985	34.9	QP	10.8	-21.8	23.9	0	100	Vert.	40.0	16.1
30.202	22.1	QP	18.8	-22.0	18.9	0	400	Hori.	40.0	21.1
106.508	32.5	QP	10.6	-21.1	22.0	197	400	Hori.	43.5	21.5
129.088	36.9	QP	12.9	-20.9	28.9	82	100	Vert.	43.5	14.6
324.005	32.9	QP	15.2	-19.1	29.0	217	163	Vert.	46.0	17.1
332.335	33.0	QP	15.4	-19.2	29.2	192	138	Hori.	46.0	16.8
636.003	30.5	QP	19.8	-18.8	31.5	194	138	Hori.	46.0	14.5
636.004	28.1	QP	19.8	-18.8	29.1	4	100	Vert.	46.0	16.9
708.000	29.6	QP	20.8	-18.5	31.9	195	141	Hori.	46.0	14.1
708.001	30.7	QP	20.8	-18.5	33.0	349	100	Vert.	46.0	13.0
732.004	33.4	QP	21.1	-18.3	36.2	31	124	Hori.	46.0	9.8
731.998	32.5	QP	21.1	-18.3	35.3	9	100	Vert.	46.0	10.7

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 round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Rx, Ch: Mid

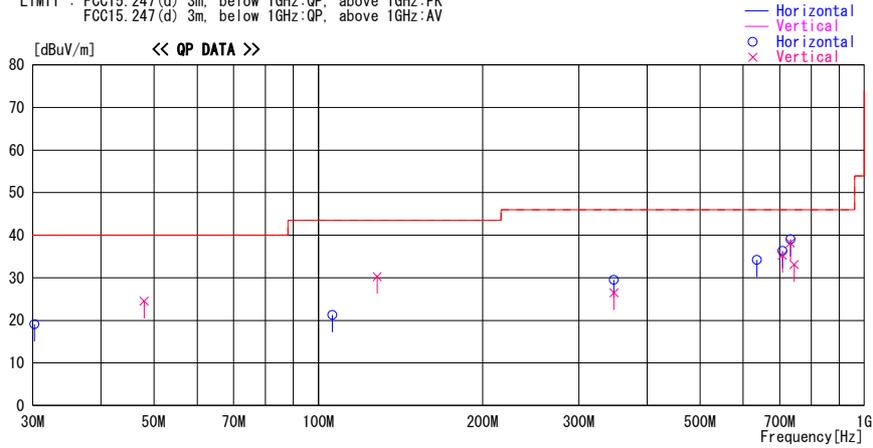
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/02/13

Company : Sony Corporation
Kind of EUT : Sound Entertainment Player
Model No. : SEP-30BT
Serial No. : 010
Report No. : 28GE0005-HO
Power : DC 3.7V (Battery)
Temp./Humi. : 20deg.C / 37%
Operator : Akio Hayashi

Mode / Remarks : Rx, DH5, 2441MHz, On-Cradle

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 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]						
47.976	35.5	QP	10.8	-21.8	24.5	270	100	Vert.	40.0	15.5
30.220	22.3	QP	18.8	-22.0	19.1	182	400	Hori.	40.0	21.0
106.169	31.8	QP	10.6	-21.1	21.3	10	283	Hori.	43.5	22.3
128.241	38.4	QP	12.8	-20.9	30.3	84	100	Vert.	43.5	13.2
347.998	29.8	QP	15.9	-19.2	26.5	210	120	Vert.	46.0	19.5
348.000	32.8	QP	15.9	-19.2	29.5	180	100	Hori.	46.0	16.5
636.002	33.2	QP	19.8	-18.8	34.2	164	133	Hori.	46.0	11.8
708.000	33.0	QP	20.8	-18.5	35.3	10	100	Vert.	46.0	10.7
708.000	34.0	QP	20.8	-18.5	36.3	159	118	Hori.	46.0	9.7
731.999	35.4	QP	21.1	-18.3	38.2	0	100	Vert.	46.0	7.8
732.001	36.2	QP	21.1	-18.3	39.0	142	116	Hori.	46.0	7.0
743.999	30.0	QP	21.2	-18.1	33.1	4	100	Vert.	46.0	12.9

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch:Low

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Sony Corporation	REPORT NO	: 28GE0005-HO
Equipment	: Sound Entertainment Player	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: SEP-30BT	TEST DISTANCE	: 3/1m
Sample No.	: 010	DATE	: 02/12/2008
Power	: DC 3.7V(Battery)	TEMPERATURE	: 25deg.C
Mode	: Tx, DH5, 2402MHz	HUMIDITY	: 37%
Remarks	: Hor X-axis , Ver Y-axis	ENGINEER	: Takayuki Shimada

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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1602.0	46.3	50.6	25.3	32.8	3.1	0.0	41.9	46.2	73.9	32.0	27.7
2	2390.0	44.0	44.2	26.8	32.5	3.9	0.0	42.2	42.4	73.9	31.7	31.5
3	2400.0	56.7	56.1	26.8	32.5	3.9	0.0	54.9	54.3	73.9	19.0	19.6
4	3201.7	54.0	51.8	28.4	32.0	4.6	0.0	55.0	52.8	73.9	18.9	21.1
5	4804.0	42.8	42.3	31.2	31.4	5.1	0.5	48.2	47.7	73.9	25.7	26.2
6	7206.0	41.5	41.4	35.5	31.0	5.8	0.6	52.4	52.3	73.9	21.5	21.6
7	9608.0	41.8	41.3	38.6	31.4	6.9	0.8	56.7	56.2	73.9	17.2	17.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12010.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	14412.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	16814.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	19216.0	NS	NS	-	-	-	-	-	-	73.9	-	-
12	21618.0	NS	NS	-	-	-	-	-	-	73.9	-	-
13	24020.0	46.3	46.5	39.8	29.9	11.0	0.0	57.7	57.9	73.9	16.2	16.0

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	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1602.0	35.8	45.3	25.3	32.8	3.1	0.0	31.4	40.9	53.9	22.5	13.0
2	2390.0	30.4	30.6	26.8	32.5	3.9	0.0	28.6	28.8	53.9	25.3	25.1
3	2400.0	41.2	41.0	26.8	32.5	3.9	0.0	39.4	39.2	53.9	14.5	14.7
4	3201.7	45.6	43.2	28.4	32.0	4.6	0.0	46.6	44.2	53.9	7.3	9.7
5	4804.0	29.3	29.1	31.2	31.4	5.1	0.5	34.7	34.5	53.9	19.2	19.4
6	7206.0	27.8	27.7	35.5	31.0	5.8	0.6	38.7	38.6	53.9	15.2	15.3
7	9608.0	28.1	28.0	38.6	31.4	6.9	0.8	43.0	42.9	53.9	10.9	11.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12010.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	14412.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	16814.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	19216.0	NS	NS	-	-	-	-	-	-	53.9	-	-
12	21618.0	NS	NS	-	-	-	-	-	-	53.9	-	-
13	24020.0	31.6	31.6	39.8	29.9	11.0	0.0	43.0	43.0	53.9	10.9	10.9

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

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

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

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

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

Radiated Spurious Emission (above 1GHz)
Tx, Ch:Mid

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Sony Corporation
Equipment : Sound Entertainment Player
Model : SEP-30BT
Sample No. : 010
Power : DC 3.7V(Battery)
Mode : Tx, DH5, 2441MHz
Remarks : Hor X-axis , Ver Y-axis

REPORT NO : 28GE0005-HO
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/12/2008
TEMPERATURE : 25deg.C
HUMIDITY : 37%
ENGINEER : Takayuki Shimada

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	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1626.7	51.1	49.8	25.3	32.8	3.1	0.0	46.7	45.4	73.9	27.2	28.5
2	3256.0	52.2	52.8	28.4	32.0	4.6	0.0	53.2	53.8	73.9	20.7	20.1
3	4882.0	43.0	40.5	31.4	31.4	5.1	0.4	48.5	46.0	73.9	25.4	27.9
4	7323.0	40.5	40.8	35.7	31.0	5.9	0.6	51.7	52.0	73.9	22.2	21.9
5	9764.0	41.6	41.1	38.7	31.4	7.0	0.7	56.6	56.1	73.9	17.3	17.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12205.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	14646.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	17087.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19528.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21969.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24410.0	45.9	46.6	40.1	30.0	11.1	0.0	57.6	58.3	73.9	16.3	15.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1626.7	46.2	44.3	25.3	32.8	3.1	0.0	41.8	39.9	53.9	12.1	14.0
2	3256.0	45.6	46.1	28.4	32.0	4.6	0.0	46.6	47.1	53.9	7.3	6.8
3	4882.0	29.2	27.7	31.4	31.4	5.1	0.4	34.7	33.2	53.9	19.2	20.7
4	7323.0	27.2	27.7	35.7	31.0	5.9	0.6	38.4	38.9	53.9	15.5	15.0
5	9764.0	27.6	28.2	38.7	31.4	7.0	0.7	42.6	43.2	53.9	11.3	10.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12205.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	14646.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	17087.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19528.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21969.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24410.0	32.6	32.6	40.1	30.0	11.1	0.0	44.3	44.3	53.9	9.6	9.6

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)
Tx, Ch:High

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Sony Corporation	REPORT NO	: 28GE0005-HO
Equipment	: Sound Entertainment Player	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: SEP-30BT	TEST DISTANCE	: 3/1m
Sample No.	: 010	DATE	: 02/12/2008
Power	: DC 3.7V(Battery)	TEMPERATURE	: 25deg.C
Mode	: Tx, DH5, 2480MHz	HUMIDITY	: 37%
Remarks	: Hor X-axis , Ver Y-axis	ENGINEER	: Takayuki Shimada

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
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1654.0	49.2	48.9	25.4	32.7	3.1	0.0	45.0	44.7	73.9	28.9	29.2
2	2483.5	47.6	46.6	27.0	32.5	4.0	0.0	46.1	45.1	73.9	27.8	28.8
3	3308.0	56.1	51.6	28.5	31.9	4.6	0.0	57.3	52.8	73.9	16.6	21.1
4	4960.0	41.1	40.7	31.5	31.4	5.1	0.3	46.6	46.2	73.9	27.3	27.7
5	7440.0	41.2	41.7	36.0	31.0	5.9	0.6	52.7	53.2	73.9	21.2	20.7
6	9920.0	42.9	42.7	38.9	31.4	7.1	0.6	58.1	57.9	73.9	15.8	16.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12400.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	14880.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	17360.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	19840.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	22320.0	NS	NS	-	-	-	-	-	-	73.9	-	-
12	24800.0	46.3	45.7	40.4	30.1	11.4	0.0	58.5	57.9	73.9	15.4	16.0

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	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1654.0	43.0	42.0	25.4	32.7	3.1	0.0	38.8	37.8	53.9	15.1	16.1
2	2483.5	34.0	33.7	27.0	32.5	4.0	0.0	32.5	32.2	53.9	21.4	21.7
3	3308.0	49.8	44.4	28.5	31.9	4.6	0.0	51.0	45.6	53.9	2.9	8.3
4	4960.0	28.7	27.7	31.5	31.4	5.1	0.3	34.2	33.2	53.9	19.7	20.7
5	7440.0	27.4	27.5	36.0	31.0	5.9	0.6	38.9	39.0	53.9	15.0	14.9
6	9920.0	28.8	28.8	38.9	31.4	7.1	0.6	44.0	44.0	53.9	9.9	9.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12400.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	14880.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	17360.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	19840.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	22320.0	NS	NS	-	-	-	-	-	-	53.9	-	-
12	24800.0	32.6	32.5	40.4	30.1	11.4	0.0	44.8	44.7	53.9	9.1	9.2

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

Radiated Spurious Emission (above 1GHz)
Rx, Ch:Mid

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Sony Corporation	REPORT NO	: 28GE0005-HO
Equipment	: Sound Entertainment Player	REGULATION	: FCC 15.247(d)/RSS-210A8.5
Model	: SEP-30BT	TEST DISTANCE	: 3/1m
Sample No.	: 010	DATE	: 02/12/2008
Power	: DC 3.7V(Battery)	TEMPERATURE	: 25deg.C
Mode	: Rx, DH5, 2441MHz	HUMIDITY	: 37%
Remarks	: Hor X-axis, Ver Y-axis	ENGINEER	: Takayuki Shimada

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
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1626.7	48.0	50.0	25.3	32.8	3.1	0.0	43.6	45.6	73.9	30.3	28.3
2	2441.0	43.6	43.3	26.9	32.5	4.0	0.0	42.0	41.7	73.9	31.9	32.2
3	3256.0	41.6	42.0	28.4	32.0	4.6	0.0	42.6	43.0	73.9	31.3	30.9
4	4882.0	40.9	40.5	31.4	31.4	5.1	0.0	46.0	45.6	73.9	27.9	28.3
5	7323.0	40.6	40.3	35.7	31.0	5.9	0.0	51.2	50.9	73.9	22.7	23.0

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					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1626.7	39.7	45.1	25.3	32.8	3.1	0.0	35.3	40.7	53.9	18.6	13.2
2	2441.0	29.5	28.9	26.9	32.5	4.0	0.0	27.9	27.3	53.9	26.0	26.6
3	3256.0	28.4	29.0	28.4	32.0	4.6	0.0	29.4	30.0	53.9	24.5	23.9
4	4882.0	27.5	28.0	31.4	31.4	5.1	0.0	32.6	33.1	53.9	21.3	20.8
5	7323.0	27.0	27.1	35.7	31.0	5.9	0.0	37.6	37.7	53.9	16.3	16.2

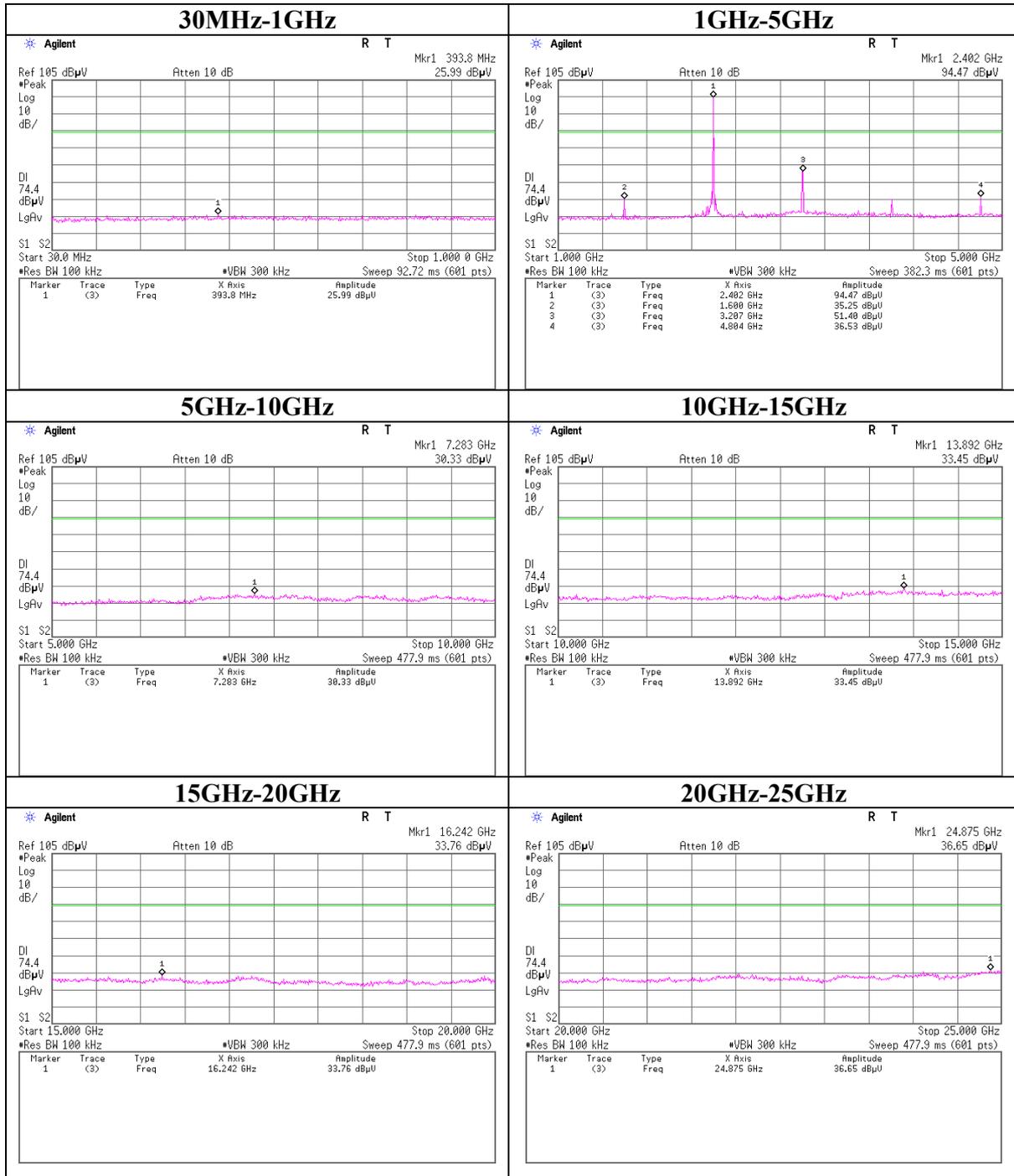
Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

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

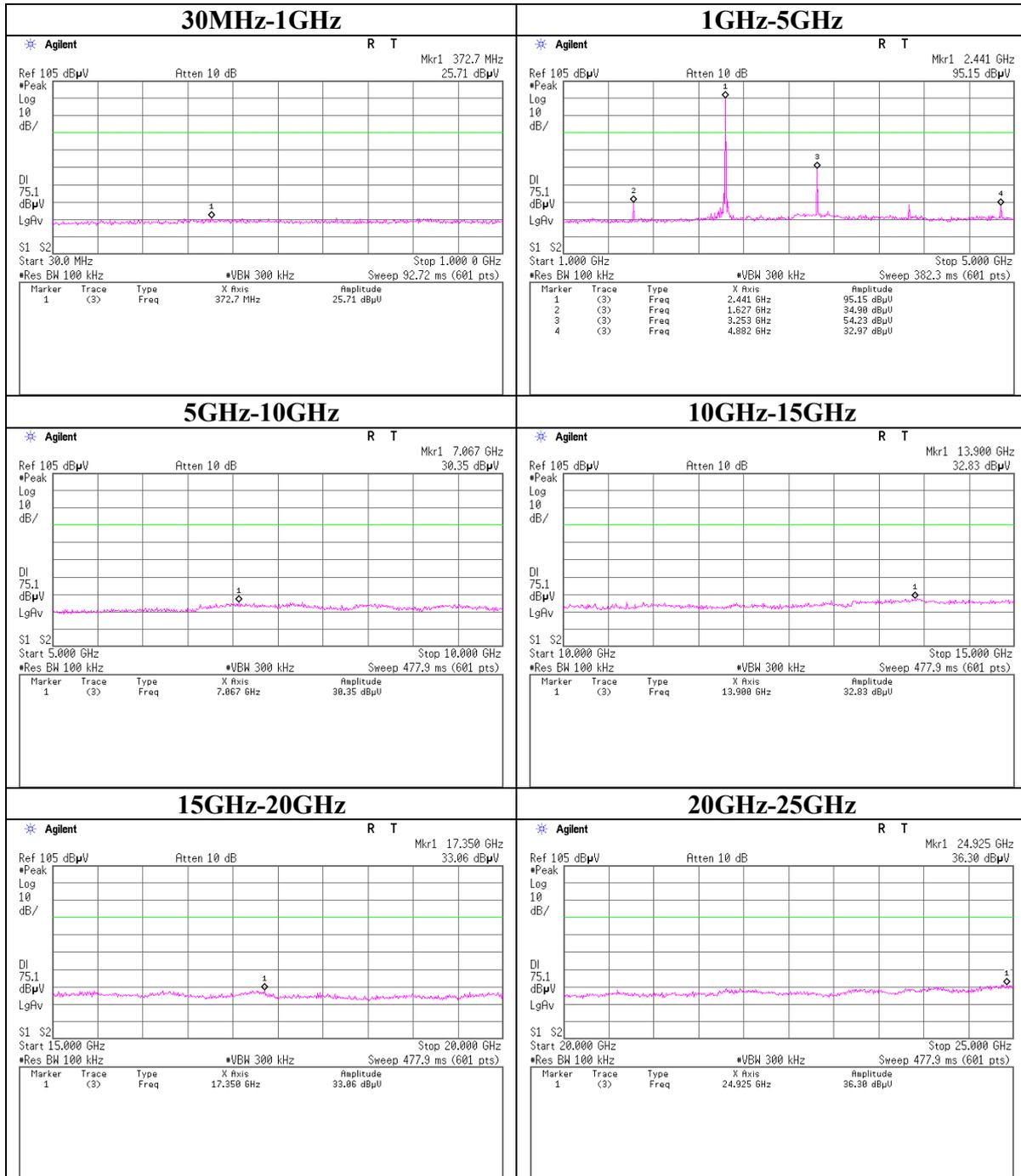
*The test result is round off to one or two decimal places, so some differences might be observed.

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

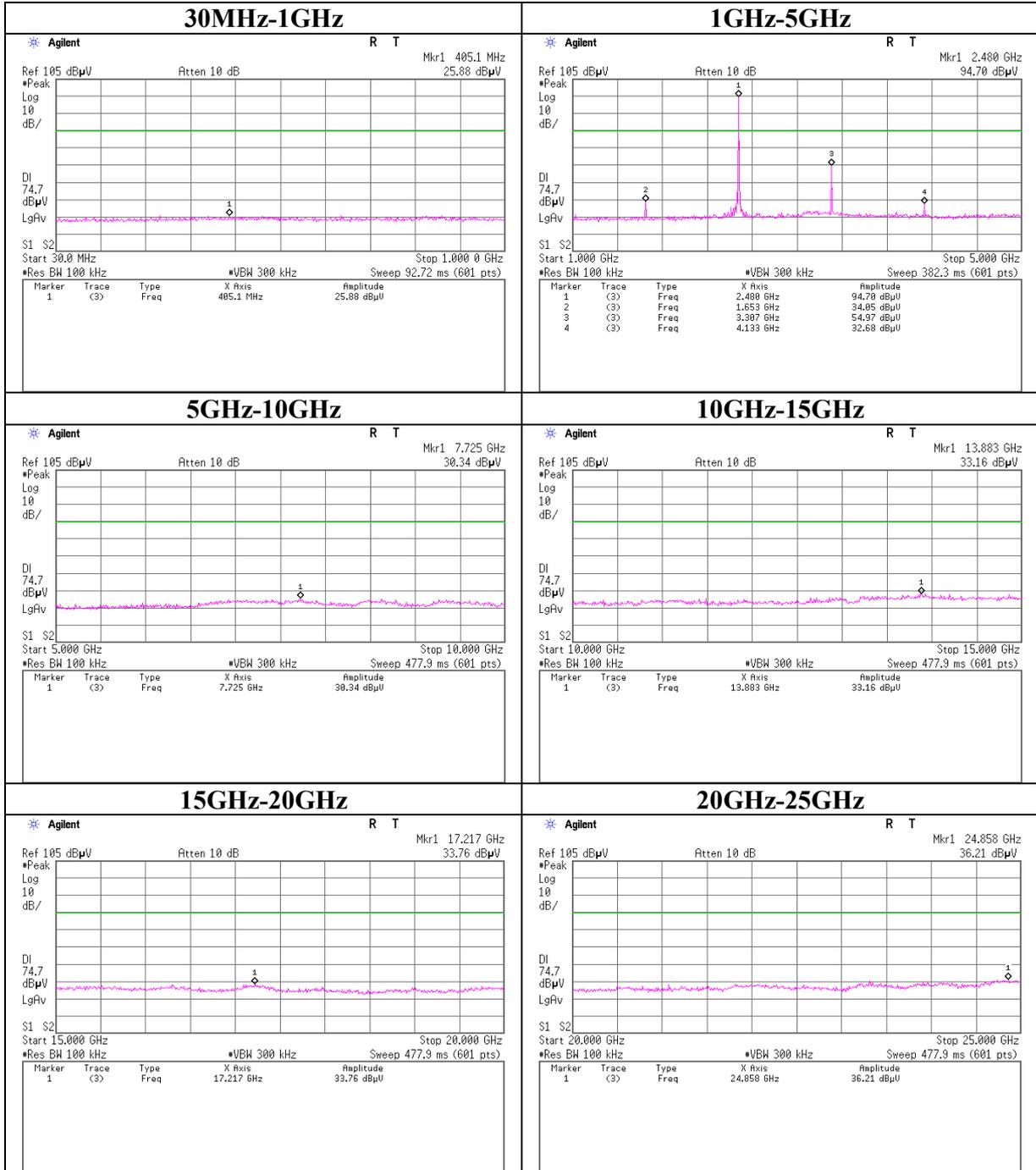
Conducted Spurious Emission
Tx, Ch:Low



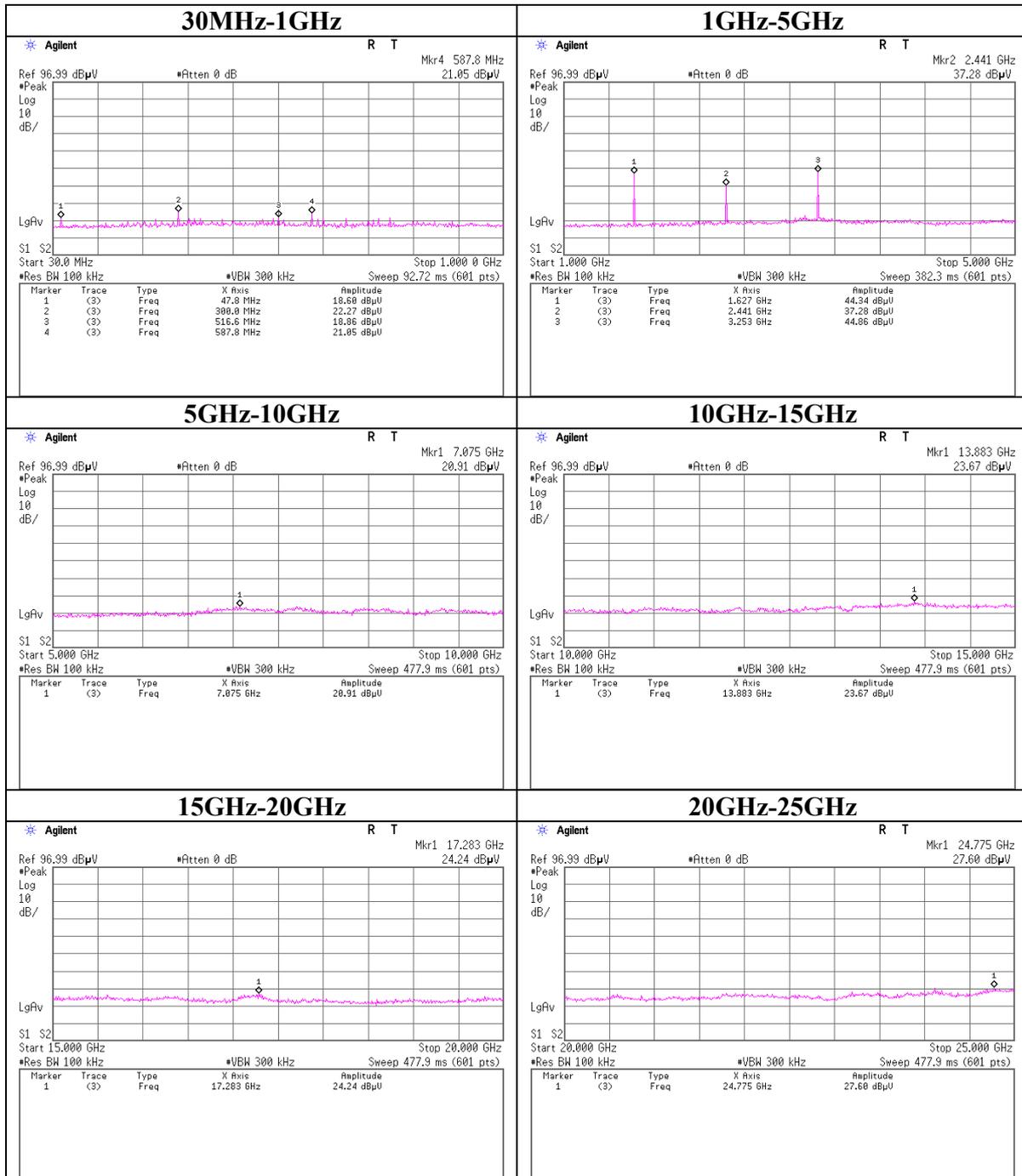
Conducted Spurious Emission
Tx, Ch:Mid



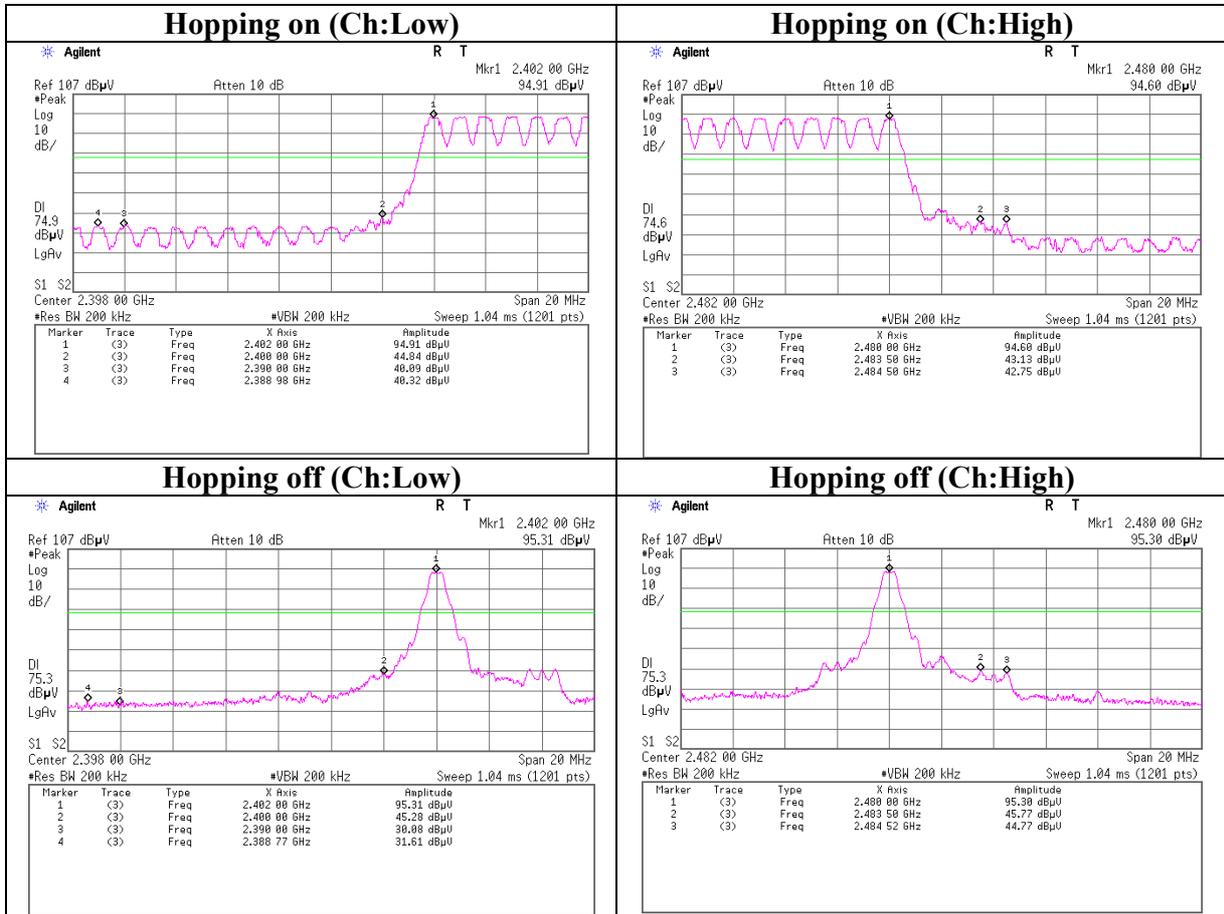
Conducted Spurious Emission
Tx, Ch:High



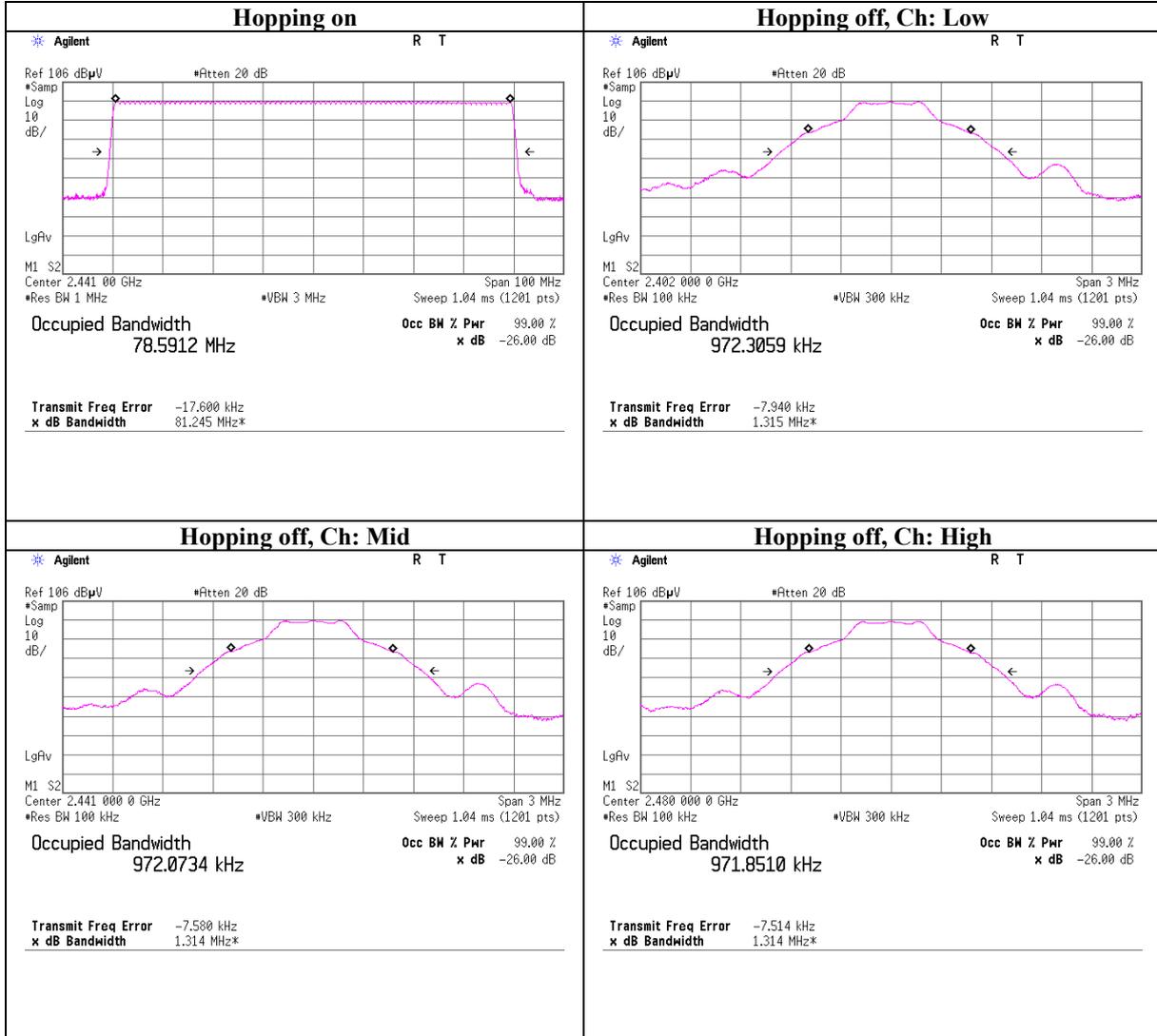
Conducted Spurious Emission
Rx, Ch:Mid



Conducted Spurious Emission Band Edge compliance



99% Occupied Bandwidth



*Refer to 20dB Bandwidth for 99% Occupied Bandwidth, inquiry mode

APPENDIX 3:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE/CE	2007/04/02 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE/CE	2007/11/12 * 12
MJM-05	Measure	PROMART	SEN1955	RE/CE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE/CE	2007/06/20 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2008/01/19 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/08/28 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2007/09/27 * 12
MHF-06	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2007/05/30 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2008/01/19 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE / CE	2007/03/01 * 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
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2008/02/15 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2007/09/13 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2007/02/22 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2008/02/15 * 12
MCC-25	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	AT	2007/08/27 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2007/09/05 * 12
MPM-09	Power Meter	Anritsu	ML2495A	AT	2007/09/22 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2007/09/22 * 12
MBM-10	Barometer	Sunoh	SBR121	AT	2007/12/27 * 36
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2008/01/10 * 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

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