

APPENDIX 2: Data of EMI test

Carrier Frequency Separation

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

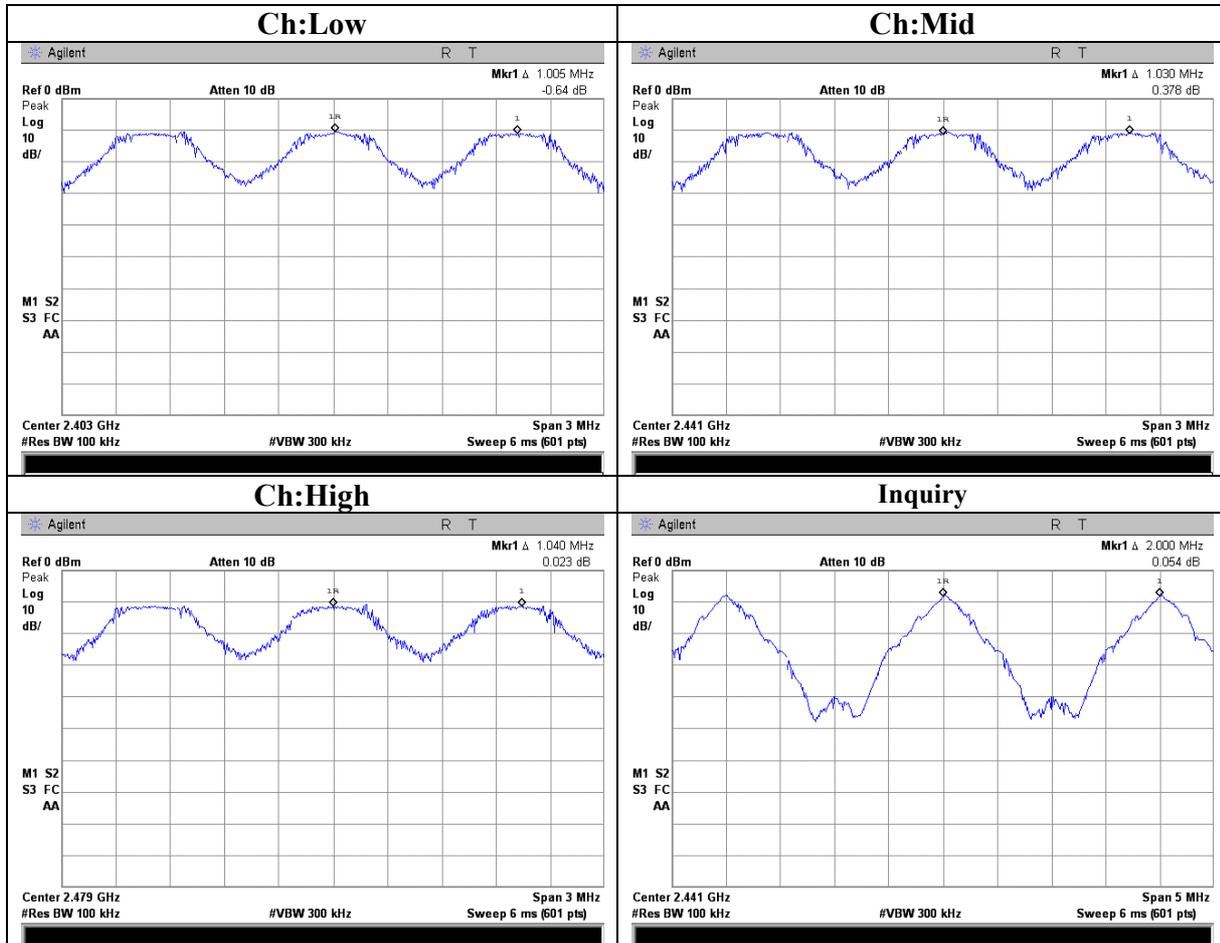
COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC15.247(a)(1)/RSS-210A8.1(b)
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -
MODEL : CECHZC1U DATE : 09/13/2007
S/N : 1 TEMPERATURE : 24deg.C
POWER : DC5V (USB Bus Power) HUMIDITY : 64%
MODE : Tx(Hopping on)/Inquiry ENGINEER : Takumi Shimada

DH5			
Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.005	>two-thirds of the 0.945[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)
Mid	2441.0	1.040	>two-thirds of the 0.950[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)
High	2480.0	1.030	>two-thirds of the 0.945[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)
Inquiry	2441.0	2.000	>two-thirds of the 0.820[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)

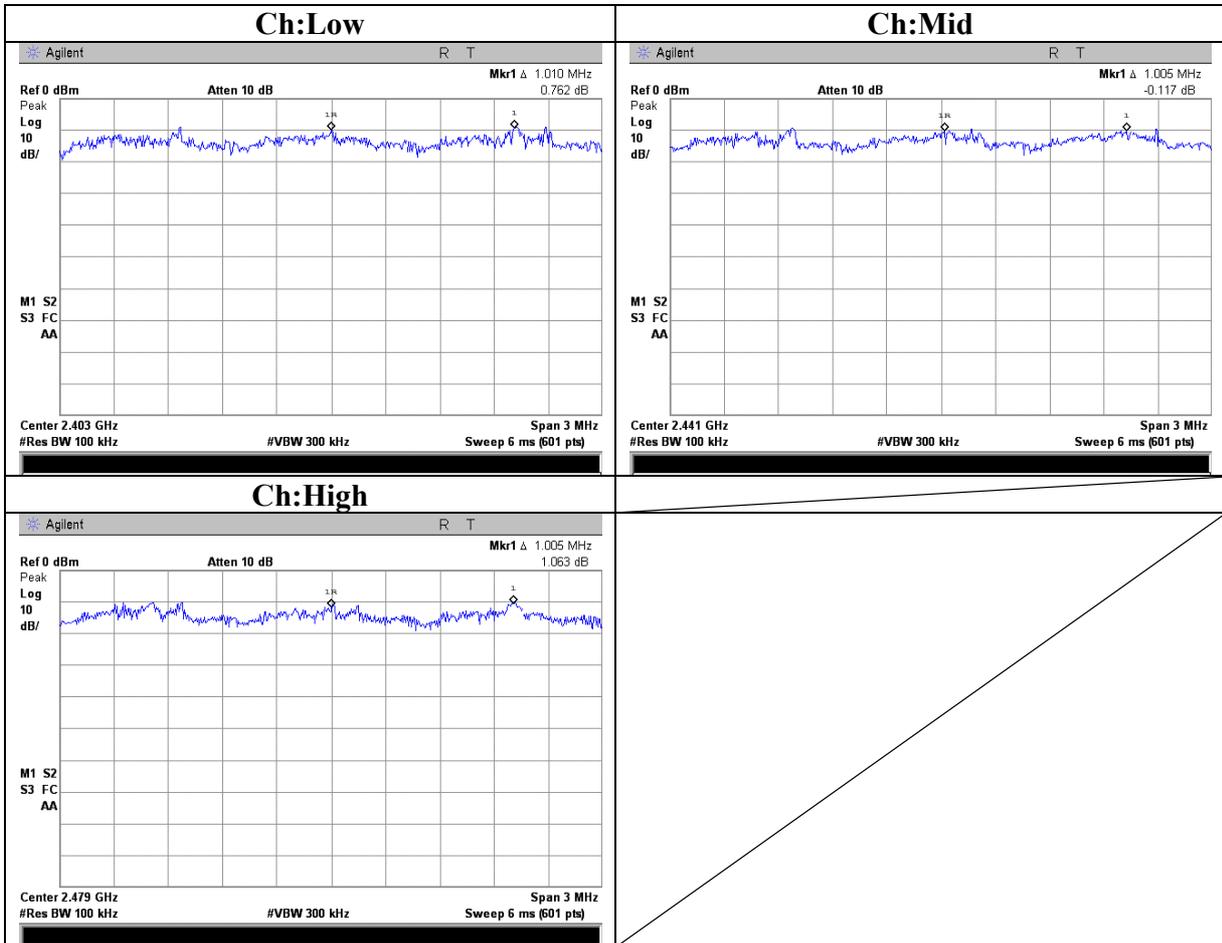
3DH5			
Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.010	>two-thirds of the 1.290[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)
Mid	2441.0	1.005	>two-thirds of the 1.285[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)
High	2480.0	1.005	>two-thirds of the 1.285[MHz] (20dB Bandwidth) or 25[kHz](whichever is greater)

UL Japan, Inc.
Head Office EMC Lab.
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
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Carrier Frequency Separation



Carrier Frequency Separation (EDR)



20dB Bandwidth

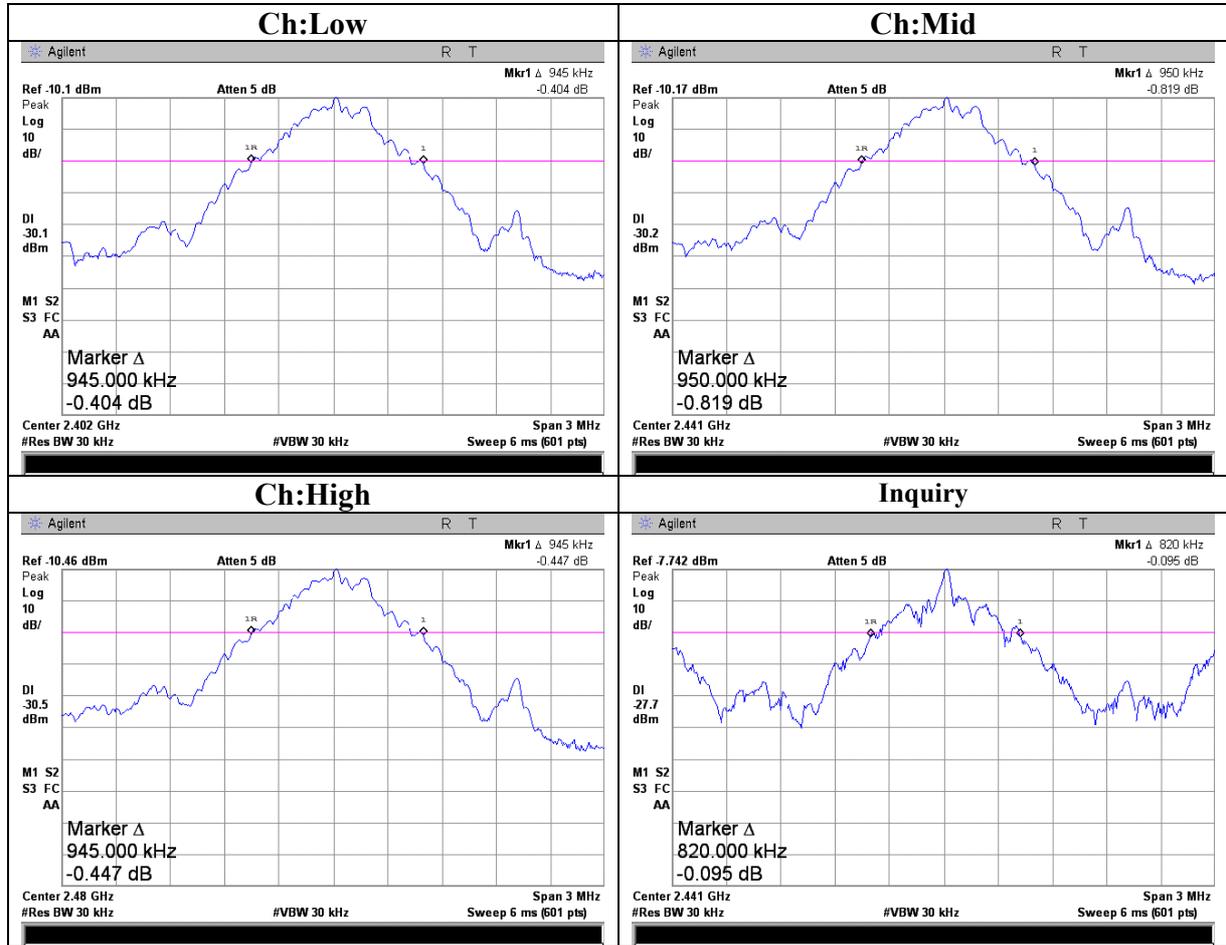
UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC15.247(a)(1)/RSS-210A8.1(a)
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -
MODEL : CECHZC1U DATE : 09/13/2007
S/N : 1 TEMPERATURE : 24deg.C
POWER : DC5V (USB Bus Power) HUMIDITY : 64%
MODE : Tx (Hopping off) /Inquiry ENGINEER : Takumi Shimada

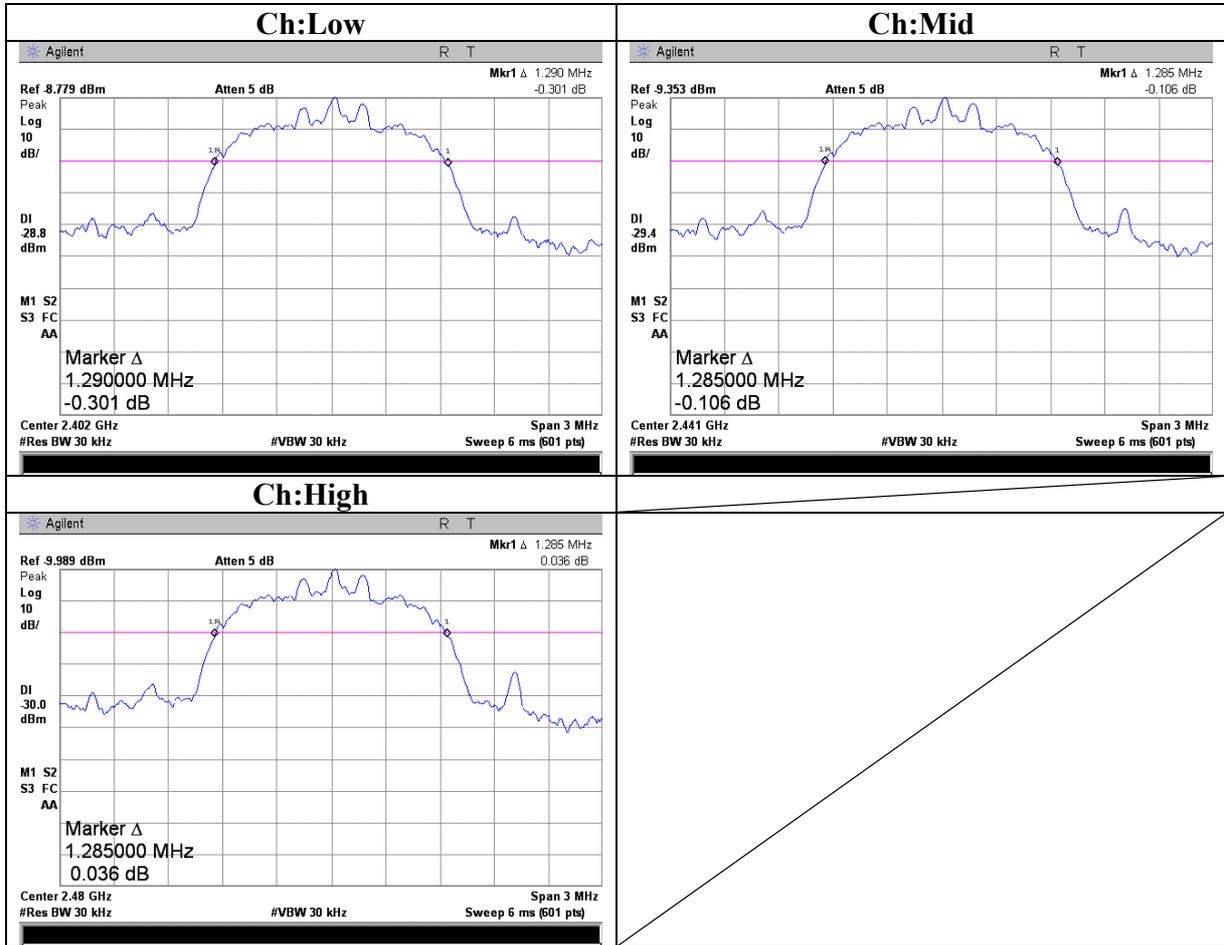
DH5			
Ch	Freq.	20dB Bandwidth	Limit
	[MHz]	[MHz]	[MHz]
Low	2402.0	0.945	-
Mid	2441.0	0.950	-
High	2480.0	0.945	-
Inquiry	2441.0	0.820	-

3DH5			
Ch	Freq.	20dB Bandwidth	Limit
	[MHz]	[MHz]	[MHz]
Low	2402.0	1.290	-
Mid	2441.0	1.285	-
High	2480.0	1.285	-

20dB Bandwidth



20dB Bandwidth (EDR)



Number of Hopping Frequency

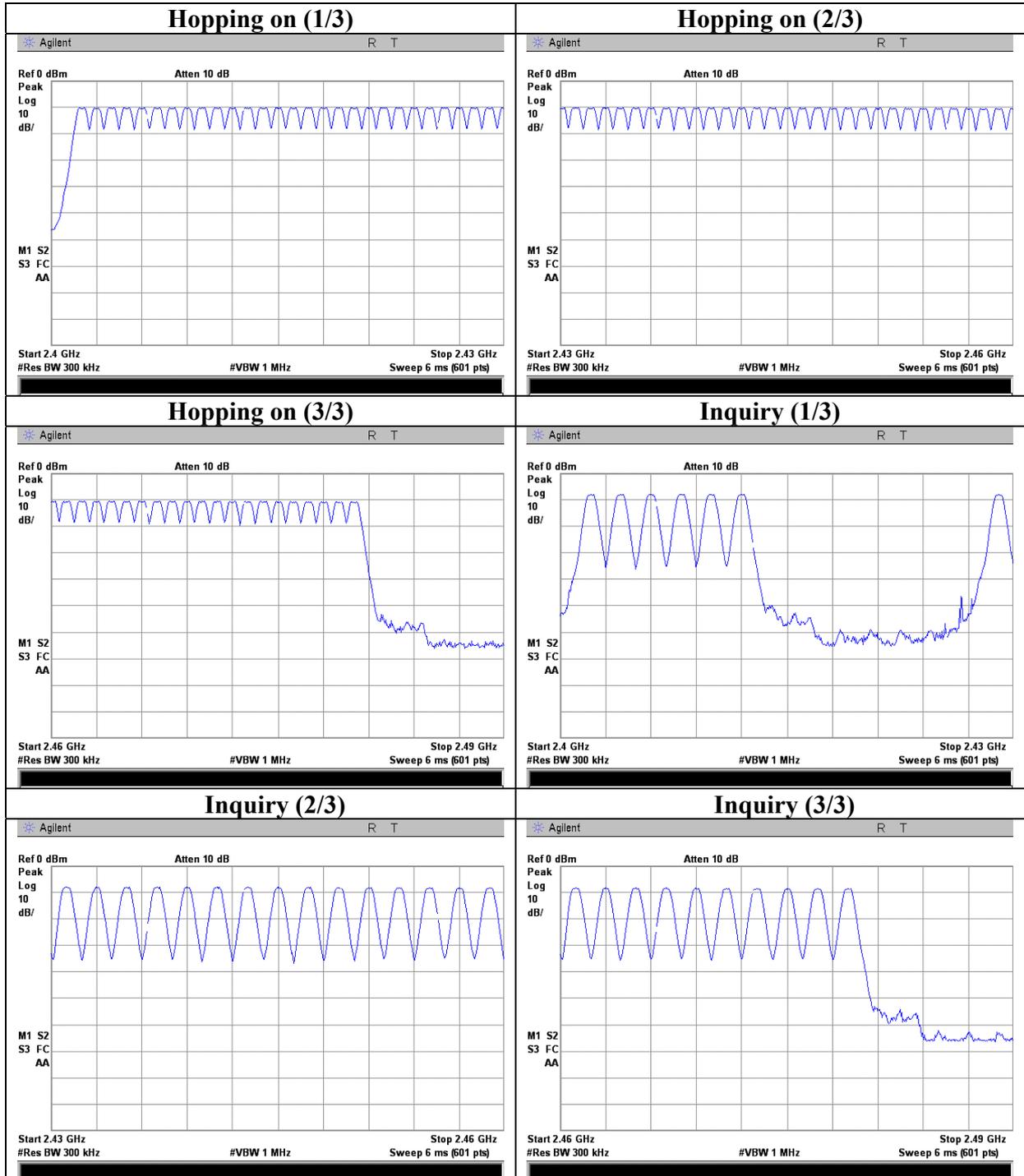
UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

COMPANY	: Sony Computer Entertainment Inc.	REGULATION	: FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
EQUIPMENT	: WIRELESS CONTROLLER	TEST DISTANCE	: -
MODEL	: CECHZC1U	DATE	: 09/13/2007
S/ N	: 1	TEMPERATURE	: 24deg.C
POWER	: DC5V (USB Bus Power)	HUMIDITY	: 64%
MODE	: Tx (Hopping on) /Inquiry	ENGINEER	: Takumi Shimada

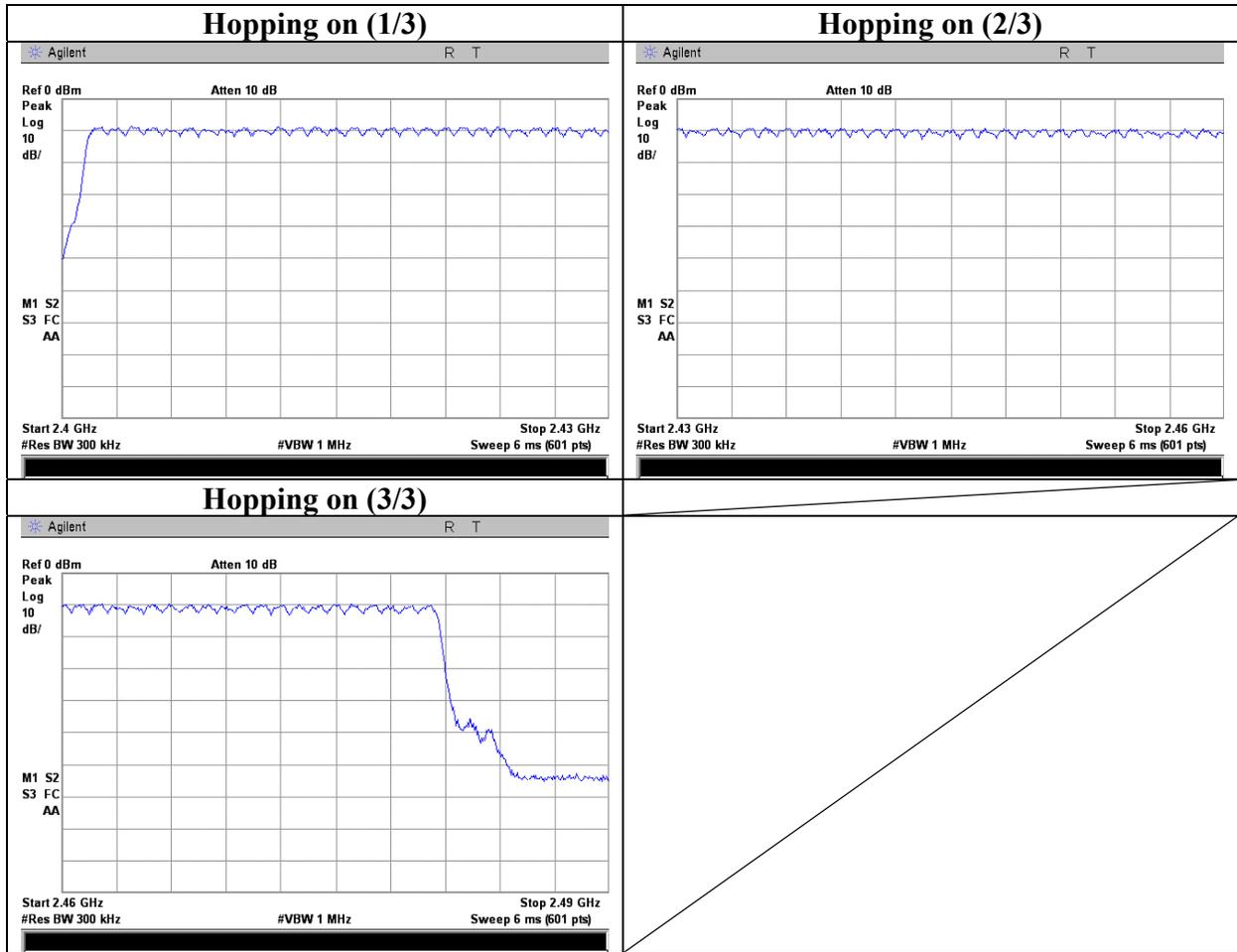
Mode	Number of channel [time]	Limit [time]
DH5	79	≥ 15
3DH5	79	≥ 15

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

Number of Hopping Frequency



Number of Hopping Frequency (EDR)



Dwell time

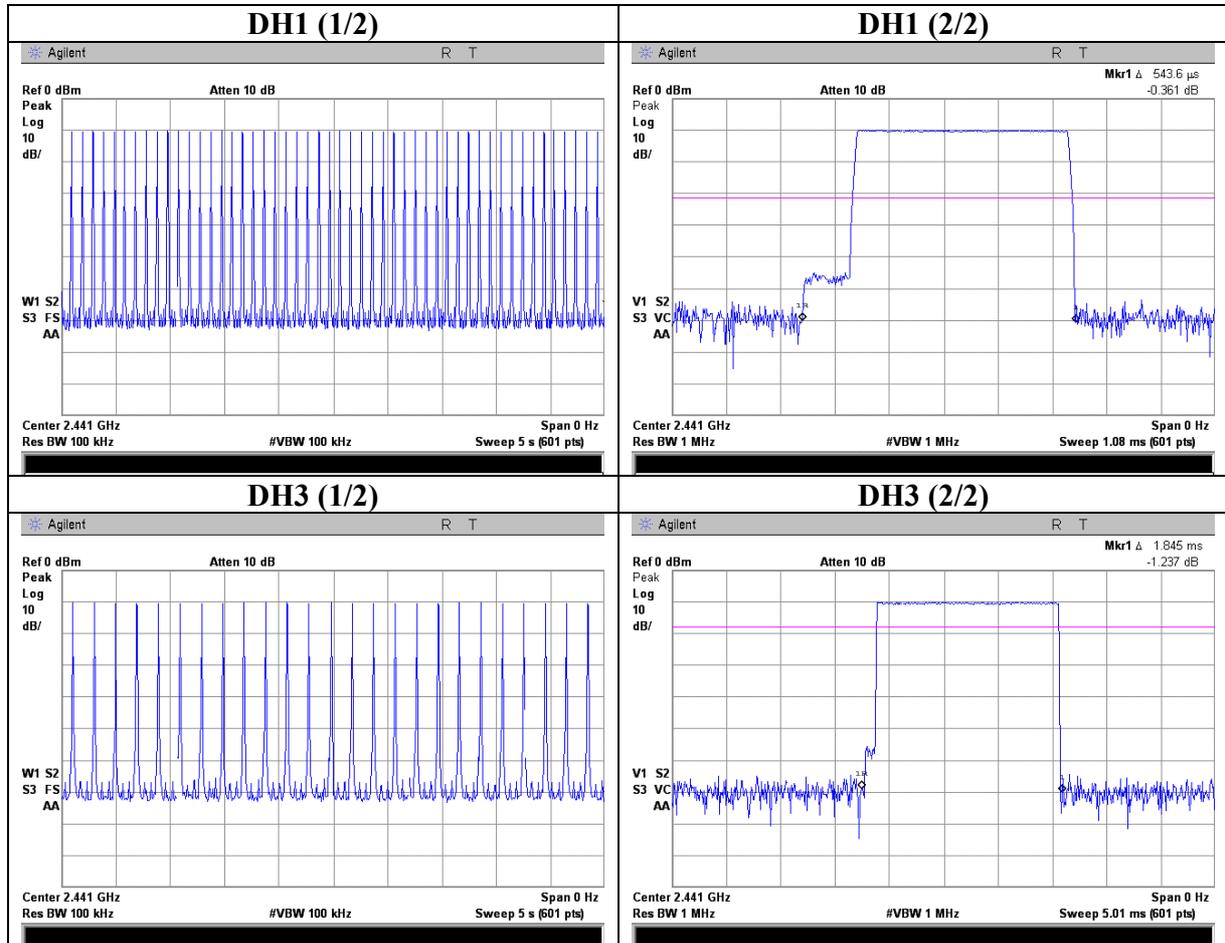
UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

COMPANY : Sony Computer Entertainment Inc.	REGULATION : FCC15.247(a)(1)(iii)/RSS-210A8.1(d)
EQUIPMENT : WIRELESS CONTROLLER	TEST DISTANCE : -
MODEL : CECHZC1U	DATE : 09/13/2007
S/N : 1	TEMPERATURE : 24deg.C
POWER : DC5V (USB Bus Power)	HUMIDITY : 64%
MODE : Tx (Hopping on) /Inquiry	ENGINEER : Takumi Shimada

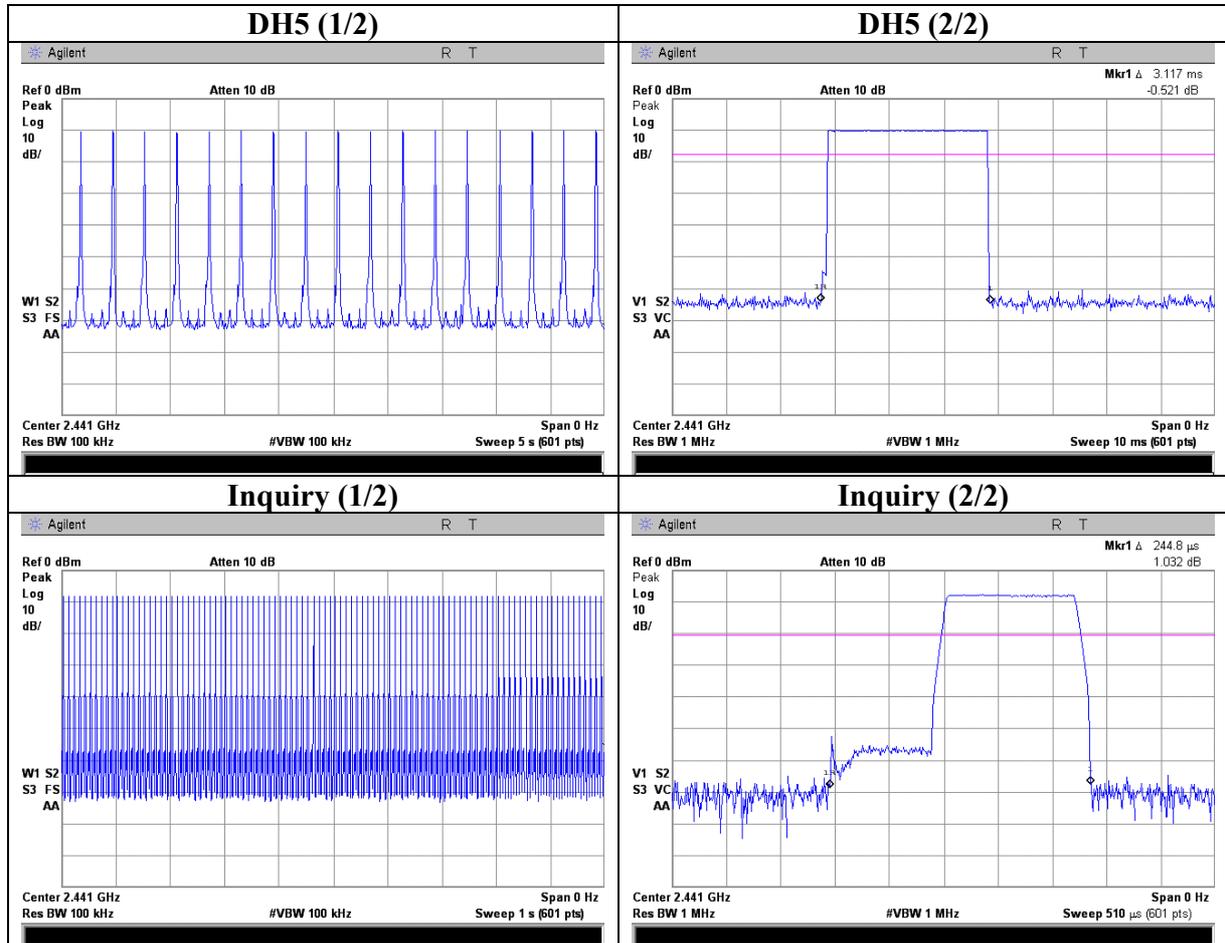
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times / 5 sec. x 31.6 sec. = 323 times	0.544	176	400
DH3	25 times / 5 sec. x 31.6 sec. = 158 times	1.845	292	400
DH5	17 times / 5 sec. x 31.6 sec. = 108 times	3.117	337	400
Inquiry	100 times / 1 sec. x 12.8 sec. = 1280 times	0.245	313	400

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]
3DH1	51 times / 5 sec. x 31.6 sec. = 323 times	0.563	182	400
3DH3	25 times / 5 sec. x 31.6 sec. = 158 times	1.820	288	400
3DH5	17 times / 5 sec. x 31.6 sec. = 108 times	3.133	338	400

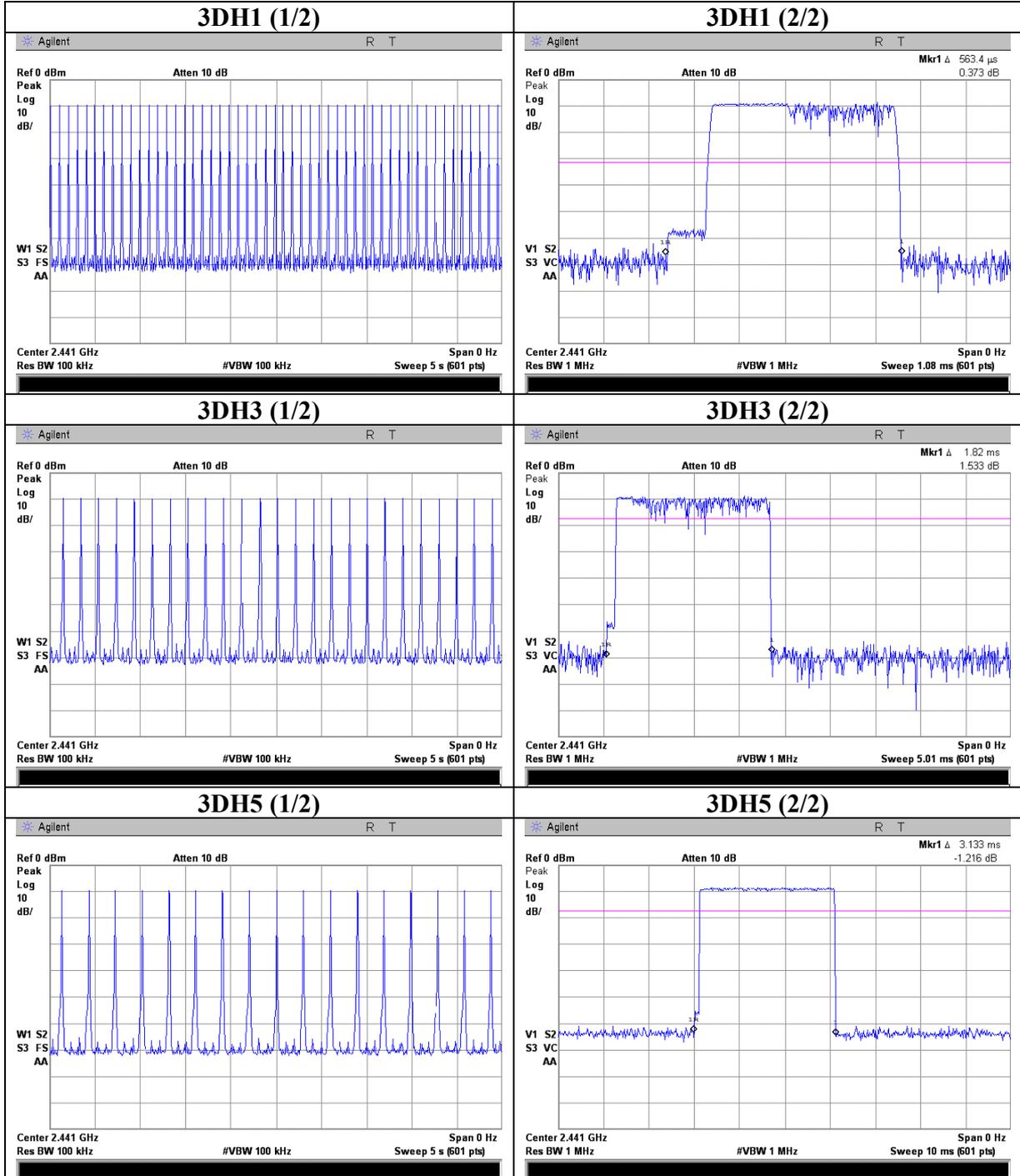
Dwell time



Dwell time



Dwell time (EDR)



Maximum Peak Output Power

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

COMPANY : Sony Computer Entertainment Inc.	REGULATION : FCC Part15 Subpart C 15.247(b)(1)/RSS-210 A8.4(2)
EQUIPMENT : WIRELESS CONTROLLER	TEST DISTANCE : -
MODEL : CECHZC1U	DATE : 09/25/2007
S/N : 1	TEMPERATURE : 24deg.C
POWER : DC5V (USB Bus Power)	HUMIDITY : 57%
MODE : Tx(Hopping Off)/Inquiry	ENGINEER : Takumi Shimada

DH5									
Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-10.29	0.50	10.01	0.22	1.05	20.97	125	20.75
Mid	2441.0	-10.21	0.50	10.02	0.31	1.07	20.97	125	20.66
High	2480.0	-10.35	0.50	10.03	0.18	1.04	20.97	125	20.79
Inquiry	2441.0	-9.85	0.50	10.02	0.67	1.17	20.97	125	20.30

2DH5									
Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-9.83	0.50	10.01	0.68	1.17	20.97	125	20.29
Mid	2441.0	-10.29	0.50	10.02	0.23	1.05	20.97	125	20.74
High	2480.0	-10.98	0.50	10.03	-0.45	0.90	20.97	125	21.42

3DH5									
Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-9.76	0.50	10.01	0.75	1.19	20.97	125	20.22
Mid	2441.0	-10.21	0.50	10.02	0.31	1.07	20.97	125	20.66
High	2480.0	-10.93	0.50	10.03	-0.40	0.91	20.97	125	21.37

Sample Calculation:

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

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

*Compared to the original test report 26KE0205-HO-A, difference in Maximum Peak Output Power is within +/- 0.5dB.

Radiated Spurious Emission (below 1GHz)
Tx(DH5), Ch. Low

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

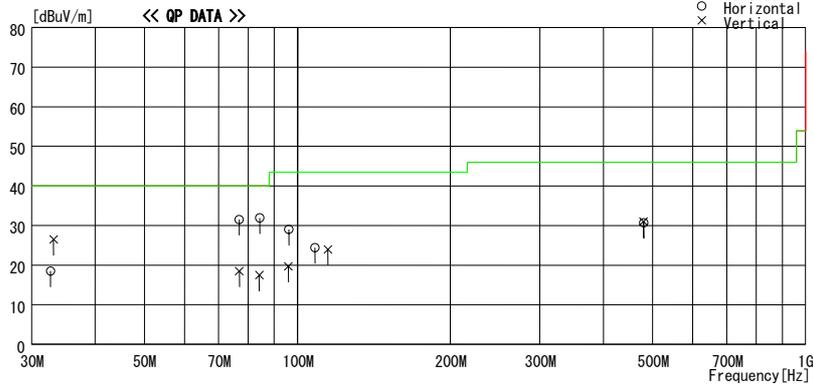
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : CECHZC1U Temp./ Humi. : 26deg.C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks: Bluetooth Tx 2402MHz, Packet Type:DH5, Data: PRBS9

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]						
32.700	22.9	QP	17.6	-22.0	18.5	156	300	Hori.	40.0	21.5
33.150	31.2	QP	17.3	-22.0	26.5	222	100	Vert.	40.0	13.5
76.800	46.2	QP	6.8	-21.5	31.5	293	300	Hori.	40.0	8.5
76.892	33.2	QP	6.8	-21.5	18.5	121	100	Vert.	40.0	21.5
84.341	46.2	QP	7.1	-21.4	31.9	277	300	Hori.	40.0	8.1
84.122	31.9	QP	7.0	-21.4	17.5	357	100	Vert.	40.0	22.5
96.150	41.2	QP	9.1	-21.3	29.0	275	300	Hori.	43.5	14.5
96.001	31.9	QP	9.1	-21.3	19.7	115	100	Vert.	43.5	23.8
108.300	34.2	QP	11.3	-21.1	24.4	287	300	Hori.	43.5	19.1
114.872	32.9	QP	12.2	-21.1	24.0	202	100	Vert.	43.5	19.5
480.210	31.8	QP	18.4	-19.5	30.7	159	100	Hori.	46.0	15.3
479.665	32.1	QP	18.4	-19.5	31.0	183	100	Vert.	46.0	15.0

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

Radiated Spurious Emission (below 1GHz)
Tx(DH5), Ch. Mid

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

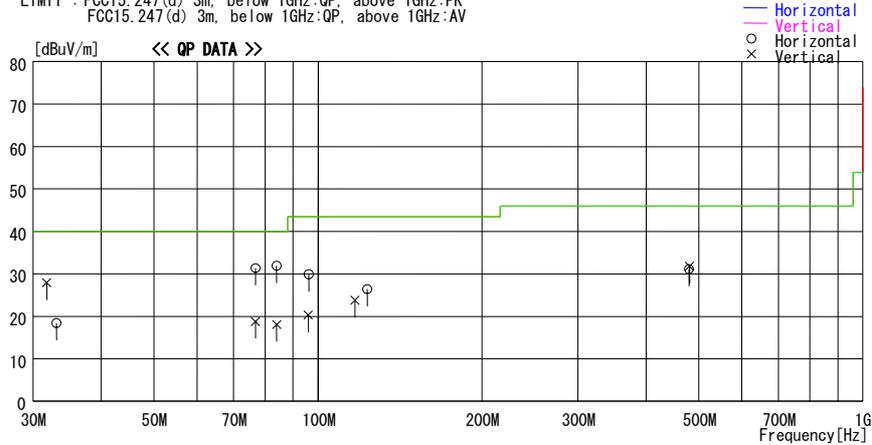
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : GECHZCU Temp./Humi. : 26deg. C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks: Bluetooth Tx 2441MHz, Packet Type:DH5, Data: PRBS9

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]						
31.788	31.9	QP	18.0	-22.0	27.9	236	100	Vert.	40.0	12.1
33.150	23.1	QP	17.3	-22.0	18.4	334	300	Hori.	40.0	21.6
76.800	46.1	QP	6.8	-21.5	31.4	291	300	Hori.	40.0	8.6
76.799	33.5	QP	6.8	-21.5	18.8	320	100	Vert.	40.0	21.2
84.000	46.3	QP	7.0	-21.4	31.9	291	300	Hori.	40.0	8.1
84.011	32.5	QP	7.0	-21.4	18.1	99	100	Vert.	40.0	21.9
96.150	42.1	QP	9.1	-21.3	29.9	302	300	Hori.	43.5	13.6
96.021	32.5	QP	9.1	-21.3	20.3	136	100	Vert.	43.5	23.2
123.150	34.2	QP	13.1	-20.9	26.4	285	300	Hori.	43.5	17.1
116.998	32.4	QP	12.5	-21.1	23.8	4	100	Vert.	43.5	19.7
479.665	32.2	QP	18.4	-19.5	31.1	41	100	Hori.	46.0	14.9
480.998	32.9	QP	18.4	-19.5	31.8	184	100	Vert.	46.0	14.2

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

Radiated Spurious Emission (below 1GHz)
Tx(DH5), Ch. High

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

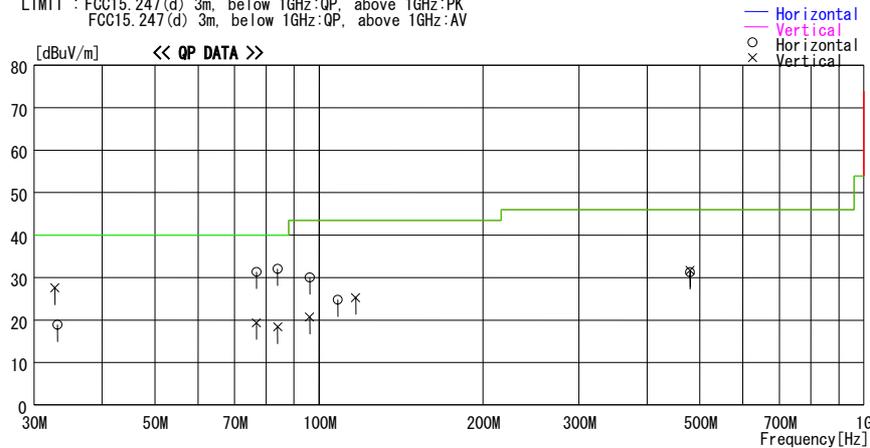
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : CECHZC1U Temp./ Humi. : 26deg C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks: Bluetooth Tx 2480MHz, Packet Type:DH5, Data: PRBS9

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]						
33.150	23.6	QP	17.3	-22.0	18.9	74	300	Hori.	40.0	21.1
32.771	32.1	QP	17.5	-22.0	27.6	11	100	Vert.	40.0	12.4
76.800	46.1	QP	6.8	-21.5	31.4	286	300	Hori.	40.0	6.6
76.799	34.1	QP	6.8	-21.5	19.4	2	100	Vert.	40.0	20.6
84.000	46.5	QP	7.0	-21.4	32.1	284	300	Hori.	40.0	7.9
84.001	32.8	QP	7.0	-21.4	18.4	353	100	Vert.	40.0	21.6
96.150	42.3	QP	9.1	-21.3	30.1	131	300	Hori.	43.5	13.4
96.150	32.9	QP	9.1	-21.3	20.7	84	100	Vert.	43.5	22.8
116.766	33.9	QP	12.5	-21.1	25.3	252	100	Vert.	43.5	18.2
108.300	34.6	QP	11.3	-21.1	24.8	282	300	Hori.	43.5	18.7
479.665	32.4	QP	18.4	-19.5	31.3	39	100	Hori.	46.0	14.7
480.230	32.8	QP	18.4	-19.5	31.7	317	100	Vert.	46.0	14.3

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

Radiated Spurious Emission (below 1GHz)
Tx(3DH5), Ch. Low

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

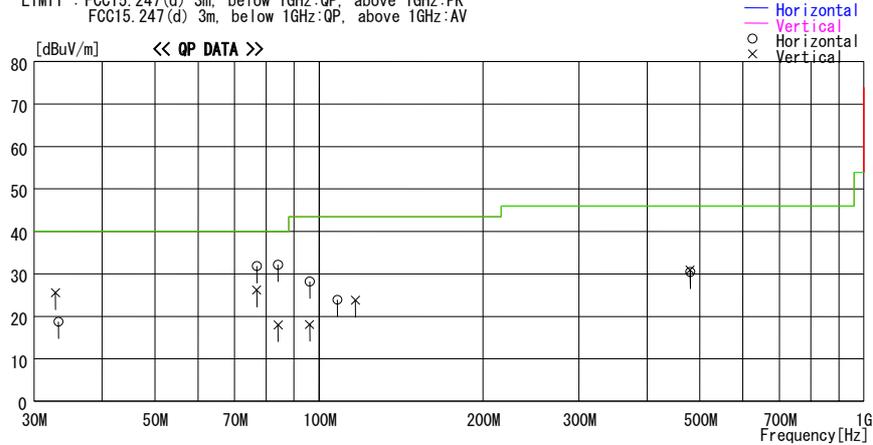
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : GECHZC1U Temp./ Humi. : 26deg. C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks: Bluetooth Tx 2402MHz, Packet Type:3DH5, Data: PRBS9

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]						
33.250	23.4	QP	17.3	-22.0	18.7	152	300	Hori.	40.0	21.3
32.842	30.1	QP	17.5	-22.0	25.6	239	100	Vert.	40.0	14.4
76.903	46.5	QP	6.8	-21.5	31.8	277	300	Hori.	40.0	8.2
76.909	40.9	QP	6.8	-21.5	26.2	308	100	Vert.	40.0	13.8
84.123	46.6	QP	7.0	-21.4	32.2	275	300	Hori.	40.0	7.9
84.128	32.4	QP	7.0	-21.4	18.0	313	100	Vert.	40.0	22.0
96.144	40.4	QP	9.1	-21.3	28.2	289	300	Hori.	43.5	15.3
96.145	30.3	QP	9.1	-21.3	18.1	181	100	Vert.	43.5	25.4
108.155	33.7	QP	11.3	-21.1	23.9	275	300	Hori.	43.5	19.6
116.698	32.4	QP	12.5	-21.1	23.8	107	100	Vert.	43.5	19.7
480.098	31.6	QP	18.4	-19.5	30.5	48	100	Hori.	46.0	15.5
480.083	32.0	QP	18.4	-19.5	30.9	192	100	Vert.	46.0	15.1

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

Radiated Spurious Emission (below 1GHz)
Tx(3DH5), Ch. Mid

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

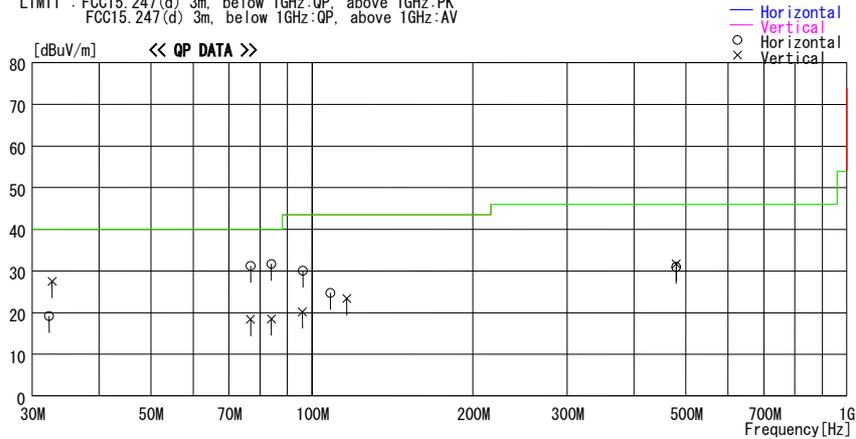
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : CECHZC1U Temp./ Humi. : 26deg. C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks : Bluetooth Tx 2441MHz, Packet Type:3DH5, Data: PRBS9

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]
32.250	23.4	QP	17.8	-22.0	19.2	351	300	Hori.	40.0	20.8
32.700	31.9	QP	17.6	-22.0	27.5	10	100	Vert.	40.0	12.5
76.800	45.9	QP	6.8	-21.5	31.2	266	300	Hori.	40.0	8.8
76.782	33.1	QP	6.8	-21.5	18.4	3	100	Vert.	40.0	21.6
84.000	46.1	QP	7.0	-21.4	31.7	289	300	Hori.	40.0	8.3
84.011	32.9	QP	7.0	-21.4	18.5	107	100	Vert.	40.0	21.5
96.150	42.3	QP	9.1	-21.3	30.1	295	300	Hori.	43.5	13.4
96.002	32.4	QP	9.1	-21.3	20.2	123	100	Vert.	43.5	23.3
116.223	32.1	QP	12.4	-21.1	23.4	2	100	Vert.	43.5	20.1
108.300	34.5	QP	11.3	-21.1	24.7	295	300	Hori.	43.5	18.8
479.665	32.1	QP	18.4	-19.5	31.0	38	100	Hori.	46.0	15.0
480.012	32.8	QP	18.4	-19.5	31.7	181	100	Vert.	46.0	14.3

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

Radiated Spurious Emission (below 1GHz)
Tx(3DH5), Ch. High

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

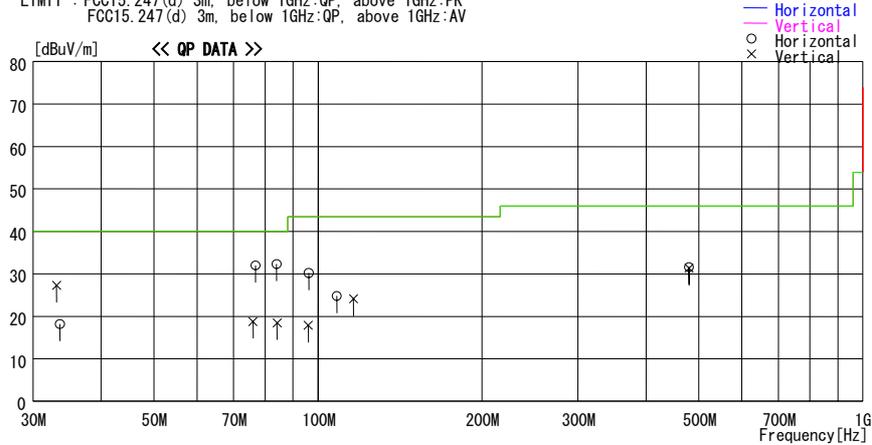
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : GECHZC1U Temp./ Humi. : 26deg. C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks: Bluetooth Tx 2480MHz, Packet Type:3DH5, Data: PRBS9

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]						
33.150	32.0	QP	17.3	-22.0	27.3	223	100	Vert.	40.0	12.7
33.600	23.1	QP	17.1	-22.0	18.2	172	300	Hori.	40.0	21.8
76.800	46.7	QP	6.8	-21.5	32.0	260	300	Hori.	40.0	8.0
76.011	33.5	QP	6.8	-21.5	18.8	302	100	Vert.	40.0	21.2
84.011	46.7	QP	7.0	-21.4	32.3	293	300	Hori.	40.0	7.7
84.110	32.9	QP	7.0	-21.4	18.5	340	100	Vert.	40.0	21.5
96.150	42.4	QP	9.1	-21.3	30.2	289	300	Hori.	43.5	13.3
96.010	30.1	QP	9.1	-21.3	17.9	124	100	Vert.	43.5	25.6
108.300	34.6	QP	11.3	-21.1	24.8	289	300	Hori.	43.5	18.7
116.200	32.8	QP	12.4	-21.1	24.1	241	100	Vert.	43.5	19.4
479.665	32.7	QP	18.4	-19.5	31.6	88	100	Hori.	46.0	14.4
479.665	32.4	QP	18.4	-19.5	31.3	278	100	Vert.	46.0	14.7

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

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

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

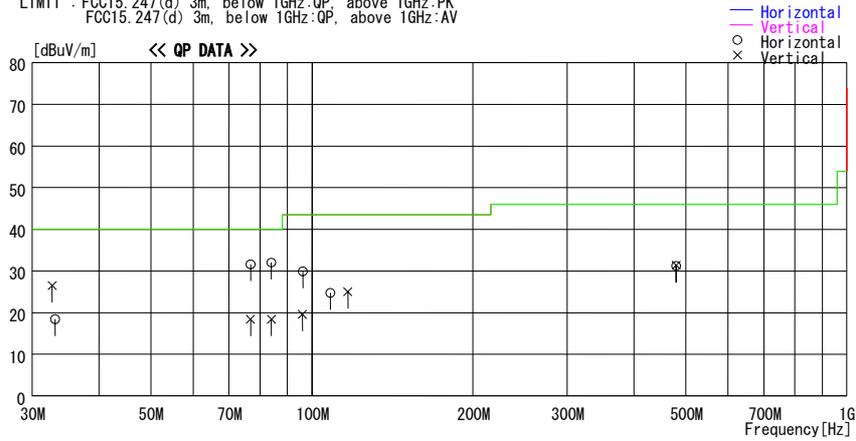
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2007/09/08

Company : Sony Computer Entertainment Inc. Report No. : 28BE0105-HO-01
Kind of EUT : WIRELESS CONTROLLER Power : DC5V (USB Bus Power)
Model No. : CECHZC1U Temp./ Humi. : 26deg. C. / 52 %
Serial No. : 3 Operator : Tomotaka Sasagawa

Mode / Remarks : Bluetooth Rx 2441MHz,

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]
32.700	30.9	QP	17.6	-22.0	26.5	19	100	Vert.	40.0	13.5
33.150	23.1	QP	17.3	-22.0	18.4	171	300	Hori.	40.0	21.6
76.800	46.3	QP	6.8	-21.5	31.6	289	300	Hori.	40.0	8.4
76.779	33.1	QP	6.8	-21.5	18.4	307	100	Vert.	40.0	21.6
84.000	46.4	QP	7.0	-21.4	32.0	260	300	Hori.	40.0	8.0
84.012	32.8	QP	7.0	-21.4	18.4	352	100	Vert.	40.0	21.6
96.150	42.1	QP	9.1	-21.3	29.9	289	300	Hori.	43.5	13.6
96.001	31.8	QP	9.1	-21.3	19.6	137	100	Vert.	43.5	23.9
108.300	34.5	QP	11.3	-21.1	24.7	278	300	Hori.	43.5	18.8
116.780	33.6	QP	12.5	-21.1	25.0	256	100	Vert.	43.5	18.5
479.665	32.3	QP	18.4	-19.5	31.2	31	100	Hori.	46.0	14.8
479.665	32.5	QP	18.4	-19.5	31.4	198	100	Vert.	46.0	14.6

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

**Radiated Spurious Emission (above 1GHz)
Tx(DH5), Ch. Low**

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

Company	: Sony Computer Entertainment Inc.	REPORT NO	: 28BE0105-HO-01
Equipment	: WIRELESS CONTROLLER	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: CECHZC1U	TEST DISTANCE	: 3/1m
Sample No.	: 3	DATE	: 09/08/2007
Power	: DC5V (USB Bus Power)	TEMPERATURE	: 26deg.C
Mode	: Bluetooth, Tx 2402MHz(DH5)	HUMIDITY	: 52%
Remarks	: Hor X , Ver Z-axis	ENGINEER	: Tomotaka Sasagawa

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	2390.0	45.7	43.9	27.1	32.3	3.8	0.0	44.3	42.5	73.9	29.6	31.4
2	2400.0	65.8	66.1	27.1	32.3	3.8	0.0	64.4	64.7	73.9	9.5	9.2
3	4804.0	44.0	43.4	31.3	31.6	5.5	0.9	50.1	49.5	73.9	23.8	24.4
4	7206.0	43.7	42.3	35.7	31.4	6.3	0.7	55.0	53.6	73.9	18.9	20.3
5	9608.0	43.9	44.4	38.5	31.9	7.5	0.5	58.5	59.0	73.9	15.4	14.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	14412.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	16814.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	19216.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
10	21618.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
11	24020.0	47.4	47.2	40.6	30.7	11.0	0.0	58.8	58.6	73.9	15.1	15.3

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	30.6	30.1	27.1	32.3	3.8	0.0	29.2	28.7	53.9	24.7	25.2
2	2400.0	47.9	47.7	27.1	32.3	3.8	0.0	46.5	46.3	53.9	7.4	7.6
3	4804.0	30.7	29.2	31.3	31.6	5.5	0.9	36.8	35.3	53.9	17.1	18.6
4	7206.0	30.2	30.1	35.7	31.4	6.3	0.7	41.5	41.4	53.9	12.4	12.5
5	9608.0	30.8	31.0	38.5	31.9	7.5	0.5	45.4	45.6	53.9	8.5	8.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	14412.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	16814.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	19216.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
10	21618.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
11	24020.0	34.5	34.1	40.6	30.7	11.0	0.0	45.9	45.5	53.9	8.0	8.4

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(DH5), Ch. Mid

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

Company	: Sony Computer Entertainment Inc.	REPORT NO	: 28BE0105-HO-01
Equipment	: WIRELESS CONTROLLER	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: CECHZC1U	TEST DISTANCE	: 3/1m
Sample No.	: 3	DATE	: 09/08/2007
Power	: DCSV (USB Bus Power)	TEMPERATURE	: 26deg.C
Mode	: Bluetooth, Tx 2441MHz(DH5)	HUMIDITY	: 52%
Remarks	: Hor X , Ver Z-axis	ENGINEER	: Tomotaka Sasagawa

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 [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	43.2	41.9	31.4	31.6	5.4	1.0	49.4	48.1	73.9	24.5	25.8
2	7323.0	43.4	42.9	36.0	31.4	6.4	0.7	55.1	54.6	73.9	18.8	19.3
3	9764.0	43.1	42.8	38.7	32.0	7.5	0.5	57.8	57.5	73.9	16.1	16.4
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	24410.0	47.8	46.9	40.7	30.6	11.1	0.0	59.5	58.6	73.9	14.4	15.3

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dB]	VER [dB]			
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	30.9	31.2	31.4	31.6	5.4	1.0	37.1	37.4	53.9	16.8	16.5
2	7323.0	30.8	31.2	36.0	31.4	6.4	0.7	42.5	42.9	53.9	11.4	11.0
3	9764.0	30.9	30.2	38.7	32.0	7.5	0.5	45.6	44.9	53.9	8.3	9.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	24410.0	33.8	34.5	40.7	30.6	11.1	0.0	45.5	46.2	53.9	8.4	7.7

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

Radiated Spurious Emission (above 1GHz)
Tx(DH5), Ch. High

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

Company : Sony Computer Entertainment Inc. REPORT NO : 28BE0105-HO-01
Equipment : WIRELESS CONTROLLER REGULATION : FCC15.247(d)/RSS-210A8.5
Model : CECHZC1U TEST DISTANCE : 3/1m
Sample No. : 3 DATE : 09/08/2007
Power : DCSV (USB Bus Power) TEMPERATURE : 26deg.C
Mode : Bluetooth, Tx 2480MHz(DH5) HUMIDITY : 52%
Remarks : Hor X , Ver Z-axis ENGINEER : Tomotaka Sasagawa

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	2483.5	57.6	53.5	27.2	32.3	3.8	0.0	56.3	52.2	73.9	17.6	21.7
2	4960.0	43.1	42.9	31.5	31.6	5.3	1.0	49.3	49.1	73.9	24.6	24.8
3	7440.0	42.8	42.8	36.2	31.4	6.4	0.7	54.7	54.7	73.9	19.2	19.2
4	9920.0	42.9	43.8	38.9	32.0	7.4	0.5	57.7	58.6	73.9	16.2	15.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12400.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
10	24800.0	46.9	47.2	40.8	30.5	11.4	0.0	59.1	59.4	73.9	14.8	14.5

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass 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	2483.5	42.7	46.5	27.2	32.3	3.8	0.0	41.4	45.2	53.9	12.5	8.7
2	4960.0	30.2	30.2	31.5	31.6	5.3	1.0	36.4	36.4	53.9	17.5	17.5
3	7440.0	30.0	30.9	36.2	31.4	6.4	0.7	41.9	42.8	53.9	12.0	11.1
4	9920.0	31.2	32.1	38.9	32.0	7.4	0.5	46.0	46.9	53.9	7.9	7.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12400.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
10	24800.0	34.1	34.4	40.8	30.5	11.4	0.0	46.3	46.6	53.9	7.6	7.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.
*The 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(3DH5), Ch. Low

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

Company : Sony Computer Entertainment Inc. REPORT NO : 28BE0105-HO-01
Equipment : WIRELESS CONTROLLER REGULATION : FCC15.247(d)/RSS-210A8.5
Model : CECHZC1U TEST DISTANCE : 3/m
Sample No. : 3 DATE : 09/08/2007
Power : DC5V (USB Bus Power) TEMPERATURE : 26deg.C
Mode : Bluetooth, Tx 2402MHz(3DH5) HUMIDITY : 52%
Remarks : Hor X , Ver Z-axis ENGINEER : Tomotaka Sasagawa

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	2390.0	48.1	45.6	27.1	32.3	3.8	0.0	46.7	44.2	73.9	27.2	29.7
2*	2400.0	73.8	69.2	27.1	32.3	3.8	0.0	72.4	67.8	73.9	-	-
3	4804.0	42.9	43.1	31.3	31.6	5.5	0.9	49.0	49.2	73.9	24.9	24.7
4	7206.0	41.2	41.2	35.7	31.4	6.3	0.7	52.5	52.5	73.9	21.4	21.4
5	9608.0	30.2	42.3	38.5	31.9	7.5	0.5	44.8	56.9	73.9	29.1	17.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12185.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	14622.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	17059.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	19496.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
10	21933.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
11	24020.0	47.2	46.9	40.6	30.7	11.0	0.0	58.6	58.3	73.9	15.3	15.6

* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	37.4	31.0	27.1	32.3	3.8	0.0	36.0	29.6	53.9	17.9	24.3
2*	2400.0	53.9	51.4	27.1	32.3	3.8	0.0	52.5	50.0	53.9	-	-
3	4804.0	31.2	30.9	31.3	31.6	5.5	0.9	37.3	37.0	53.9	16.6	16.9
4	7206.0	30.8	30.9	35.7	31.4	6.3	0.7	42.1	42.2	53.9	11.8	11.7
5	9608.0	30.2	31.2	38.5	31.9	7.5	0.5	44.8	45.8	53.9	9.1	8.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12185.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	14622.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	17059.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	19496.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
10	21933.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
11	24020.0	34.7	34.5	40.6	30.7	11.0	0.0	46.1	45.9	53.9	7.8	8.0

* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	2402.0	101.4	97.8	27.1	32.3	3.8	0.0	100.0	96.4	-	-	-
2	2400.0	59.9	53.3	27.1	32.3	3.8	0.0	58.5	51.9	Funda-20dB	21.5	24.5

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

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

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

*The 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(3DH5), Ch. Mid

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

Company : Sony Computer Entertainment Inc. REPORT NO : 28BE0105-HO-01
Equipment : WIRELESS CONTROLLER REGULATION : FCC15.247(d)/RSS-210A8.5
Model : CECHZC1U TEST DISTANCE : 3/1m
Sample No. : 3 DATE : 09/08/2007
Power : DC5V (USB Bus Power) TEMPERATURE : 26deg.C
Mode : Bluetooth, Tx 2441MHz(3DH5) HUMIDITY : 52%
Remarks : Hor X , Ver Z-axis ENGINEER : Tomotaka Sasagawa

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	4882.0	43.1	42.8	31.4	31.6	5.4	1.0	49.3	49.0	73.9	24.6	24.9
2	7323.0	41.2	42.7	36.0	31.4	6.4	0.7	52.9	54.4	73.9	21.0	19.5
3	9764.0	42.8	42.3	38.7	32.0	7.5	0.5	57.5	57.0	73.9	16.4	16.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	24410.0	47.1	47.3	40.7	30.6	11.1	0.0	58.8	59.0	73.9	15.1	14.9

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	4882.0	30.9	31.2	31.4	31.6	5.4	1.0	37.1	37.4	53.9	16.8	16.5
2	7323.0	31.2	30.8	36.0	31.4	6.4	0.7	42.9	42.5	53.9	11.0	11.4
3	9764.0	31.2	30.9	38.7	32.0	7.5	0.5	45.9	45.6	53.9	8.0	8.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	24410.0	34.2	34.4	40.7	30.6	11.1	0.0	45.9	46.1	53.9	8.0	7.8

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

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

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

*The 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(3DH5), Ch. High**

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

Company	: Sony Computer Entertainment Inc.	REPORT NO	: 28BE0105-HO-01
Equipment	: WIRELESS CONTROLLER	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: CECHZC1U	TEST DISTANCE	: 3/1m
Sample No.	: 3	DATE	: 09/08/2007
Power	: DC5V (USB Bus Power)	TEMPERATURE	: 26 deg.C.
Mode	: Bluetooth, Tx 2480MHz(3DH5)	HUMIDITY	: 52%
Remarks	: Hor X , Ver Z-axis	ENGINEER	: Tomotaka Sasagawa

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	2483.5	57.6	61.5	27.2	32.3	3.8	0.0	56.3	60.2	73.9	17.6	13.7
2	4960.0	42.8	43.1	31.5	31.6	5.3	1.0	49.0	49.3	73.9	24.9	24.6
3	7440.0	42.2	42.8	36.2	31.4	6.4	0.7	54.1	54.7	73.9	19.8	19.2
4	9920.0	42.8	42.4	38.9	32.0	7.4	0.5	57.6	57.2	73.9	16.3	16.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12400.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-
10	24800.0	47.5	47.2	40.8	30.5	11.4	0.0	59.7	59.4	73.9	14.2	14.5

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass 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	2483.5	43.1	46.9	27.2	32.3	3.8	0.0	41.8	45.6	53.9	12.1	8.3
2	4960.0	31.0	30.8	31.5	31.6	5.3	1.0	37.2	37.0	53.9	16.7	16.9
3	7440.0	30.8	30.9	36.2	31.4	6.4	0.7	42.7	42.8	53.9	11.2	11.1
4	9920.0	30.8	31.2	38.9	32.0	7.4	0.5	45.6	46.0	53.9	8.3	7.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12400.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-
10	24800.0	34.2	33.9	40.8	30.5	11.4	0.0	46.4	46.1	53.9	7.5	7.8

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The 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 Computer Entertainment Inc.	REPORT NO	: 28BE0105-HO-01
Equipment	: WIRELESS CONTROLLER	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: CECHZC1U	TEST DISTANCE	: 3m
Sample No.	: 3	DATE	: 09/08/2007
Power	: DC5V (USB Bus Power)	TEMPERATURE	: 26deg.C
Mode	: Bluetooth, Rx 2441MHz	HUMIDITY	: 52%
Remarks	: Hor X, Ver Z-axis	ENGINEER	: Tomotaka Sasagawa

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

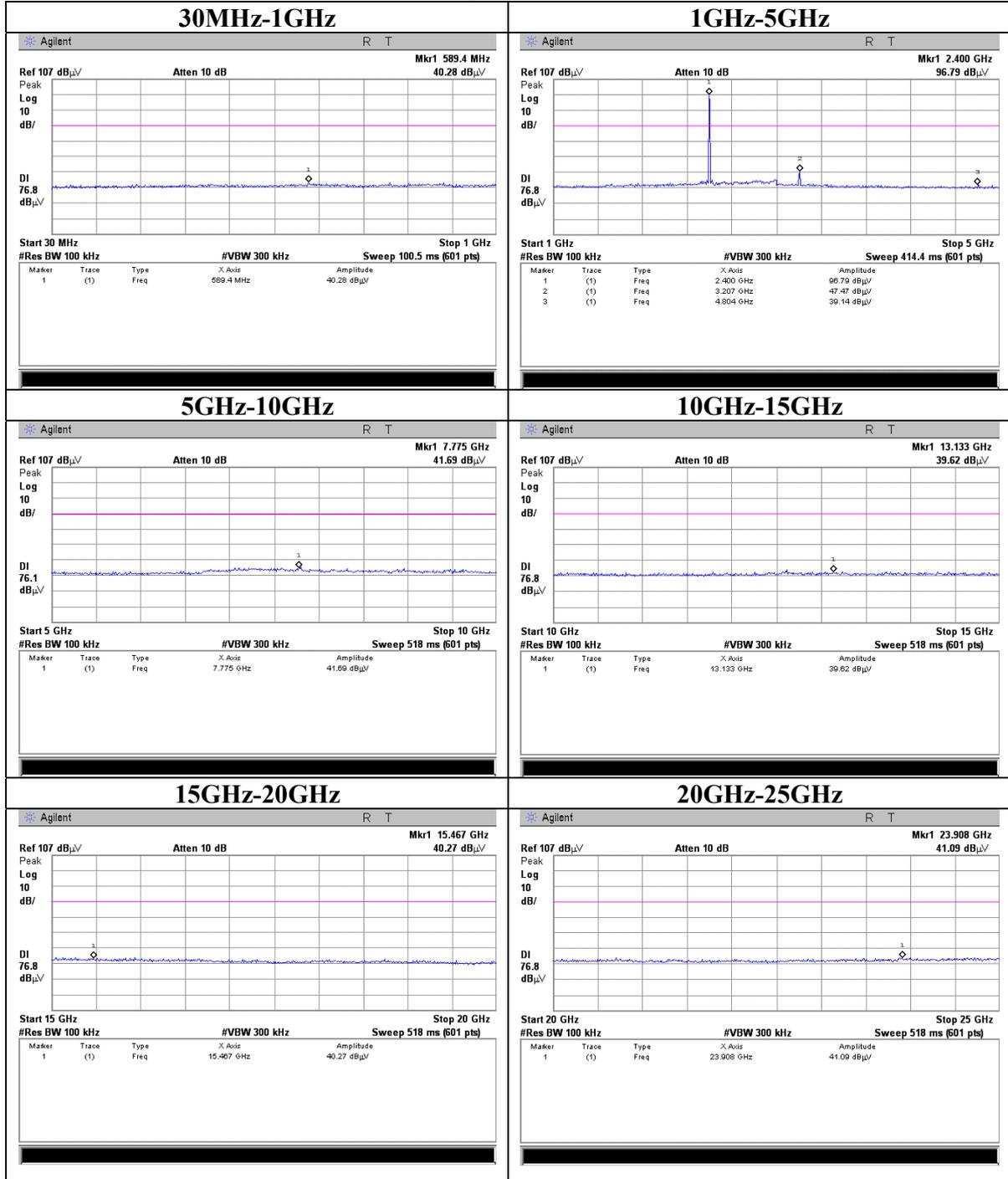
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2439.6	52.3	51.9	27.2	32.3	3.9	0.0	51.1	50.7	73.9	22.8	23.2

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

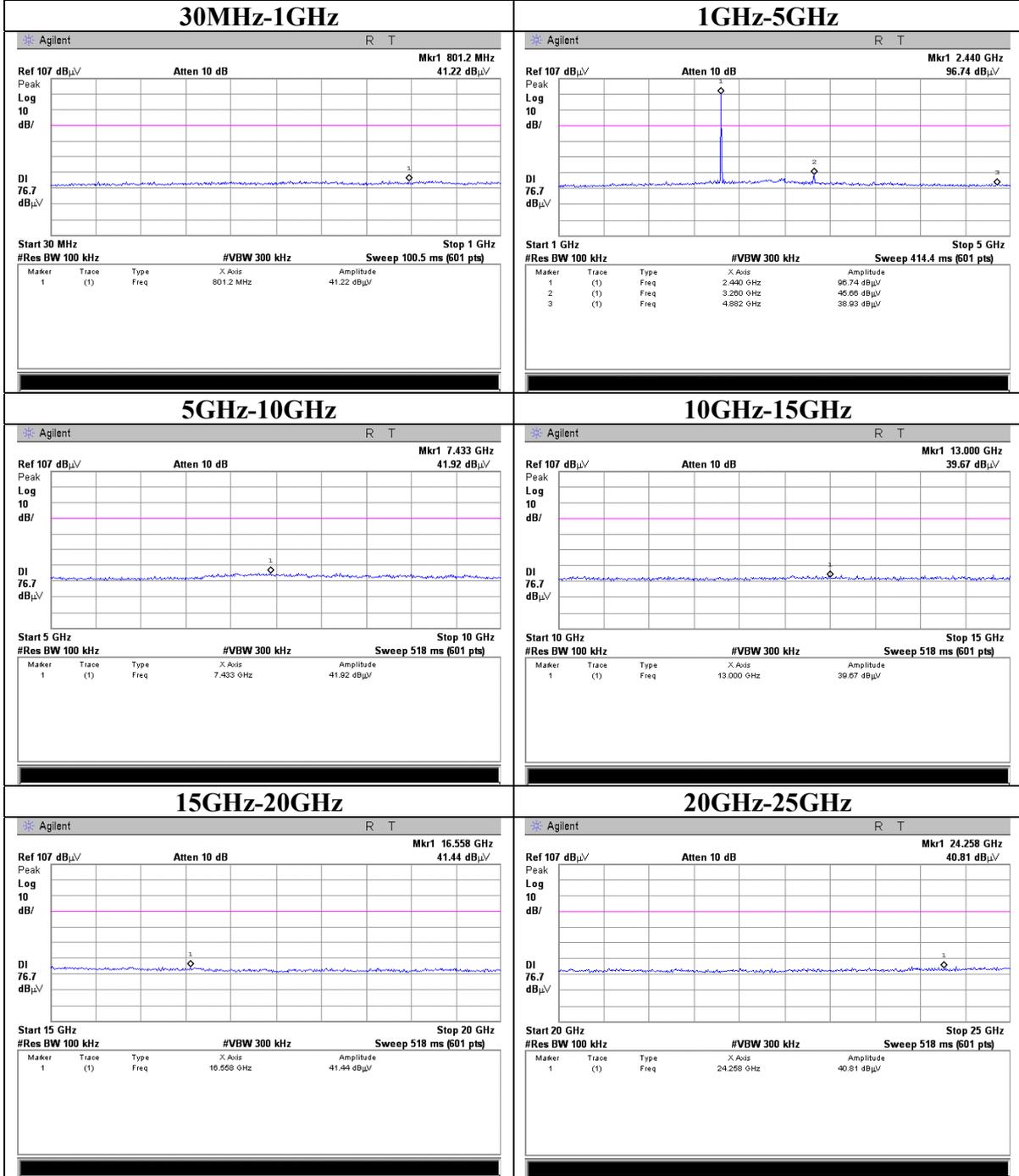
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2439.6	46.9	45.8	27.2	32.3	3.9	0.0	45.7	44.6	53.9	8.2	9.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The 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.

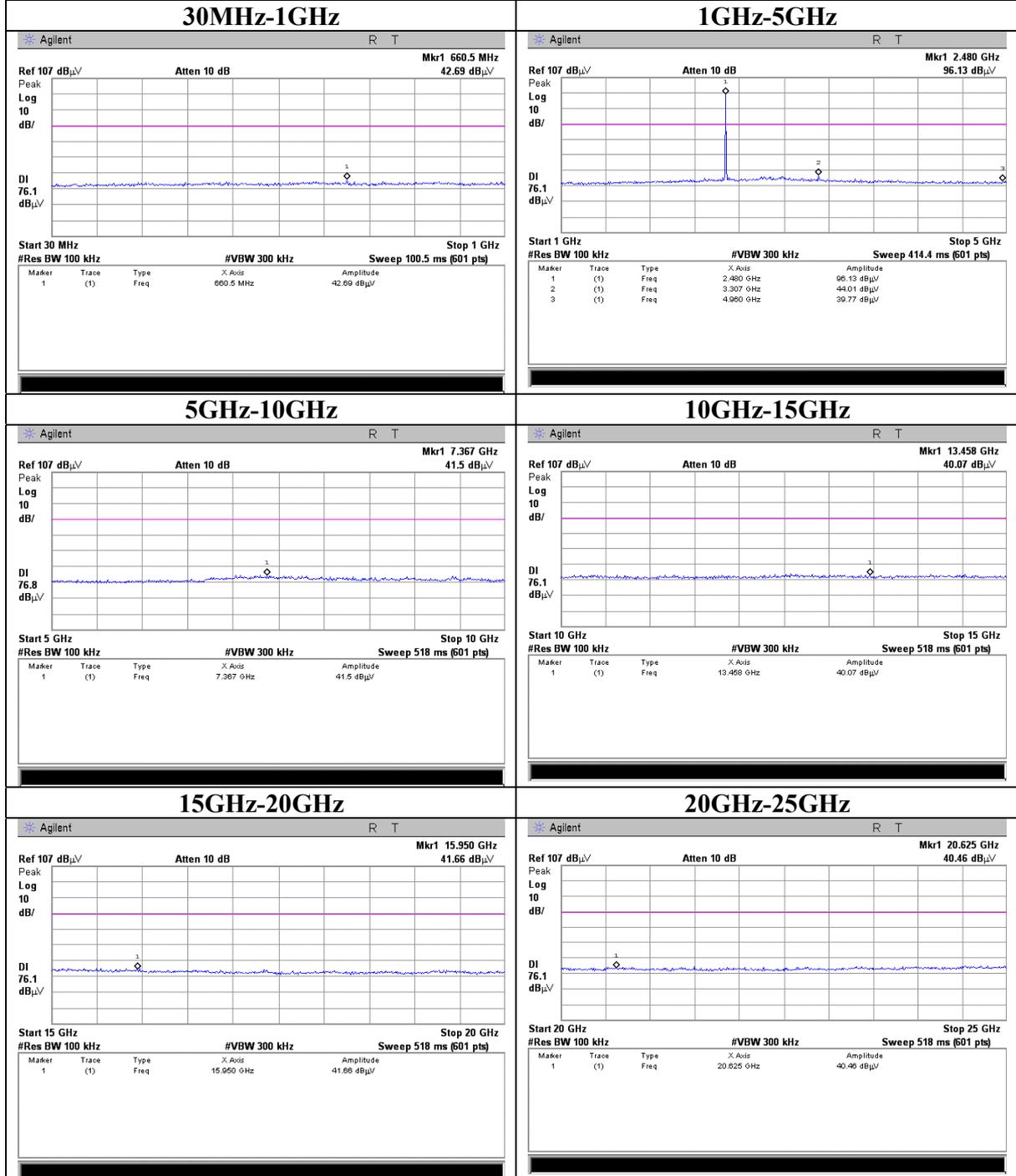
Conducted Spurious Emission
Tx, Ch:Low



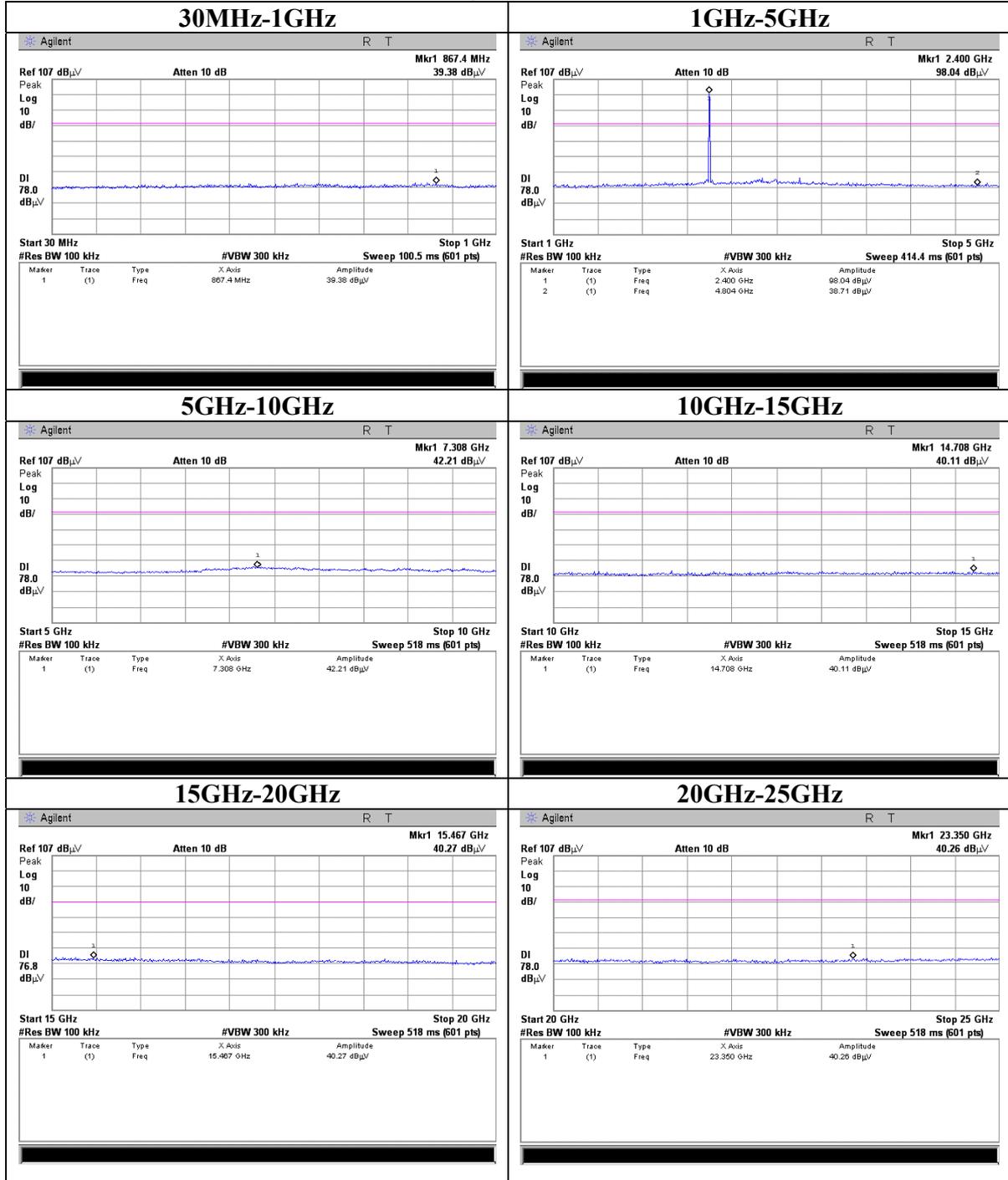
Conducted Spurious Emission
Tx, Ch:Mid



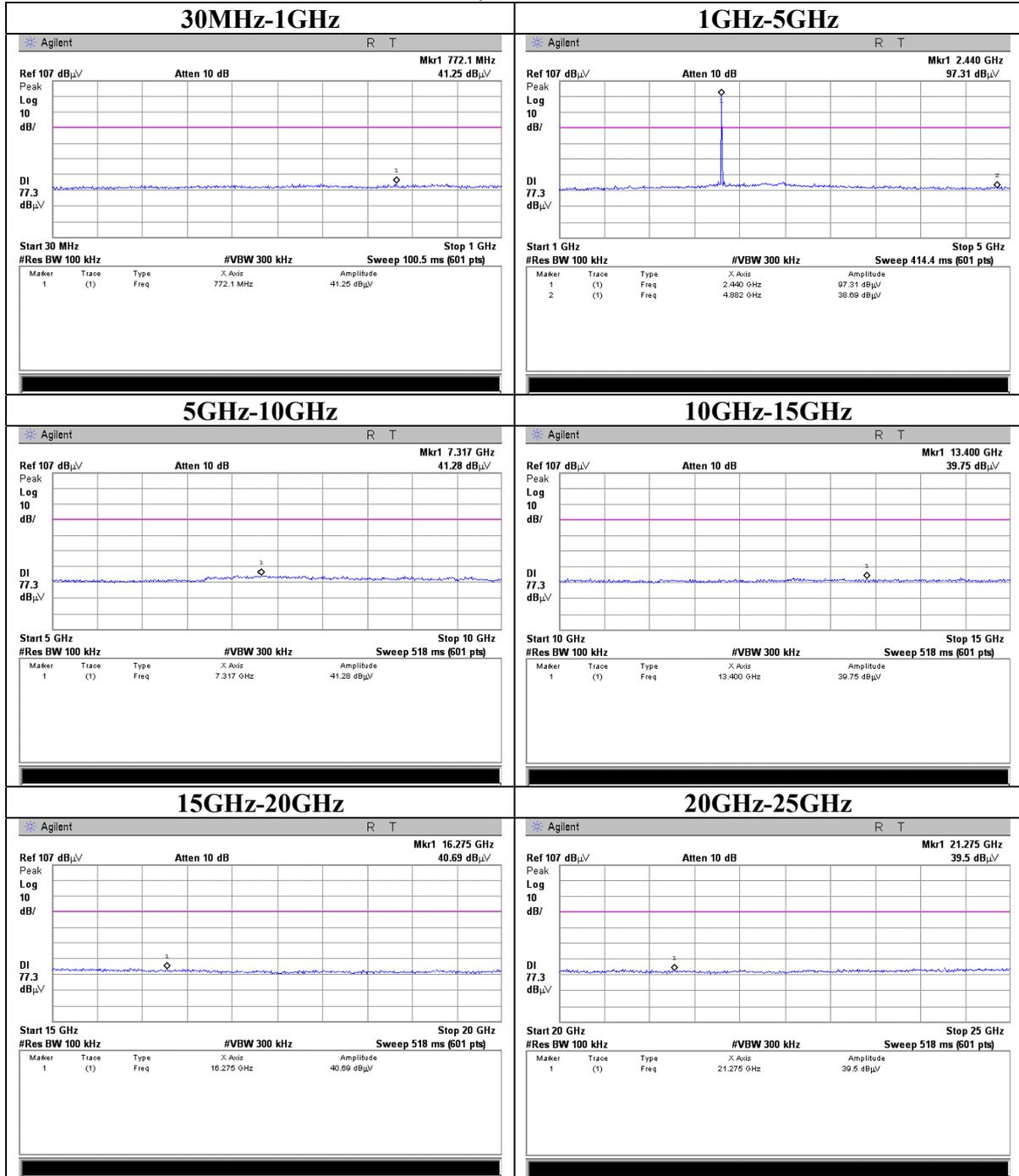
Conducted Spurious Emission
Tx, Ch:High



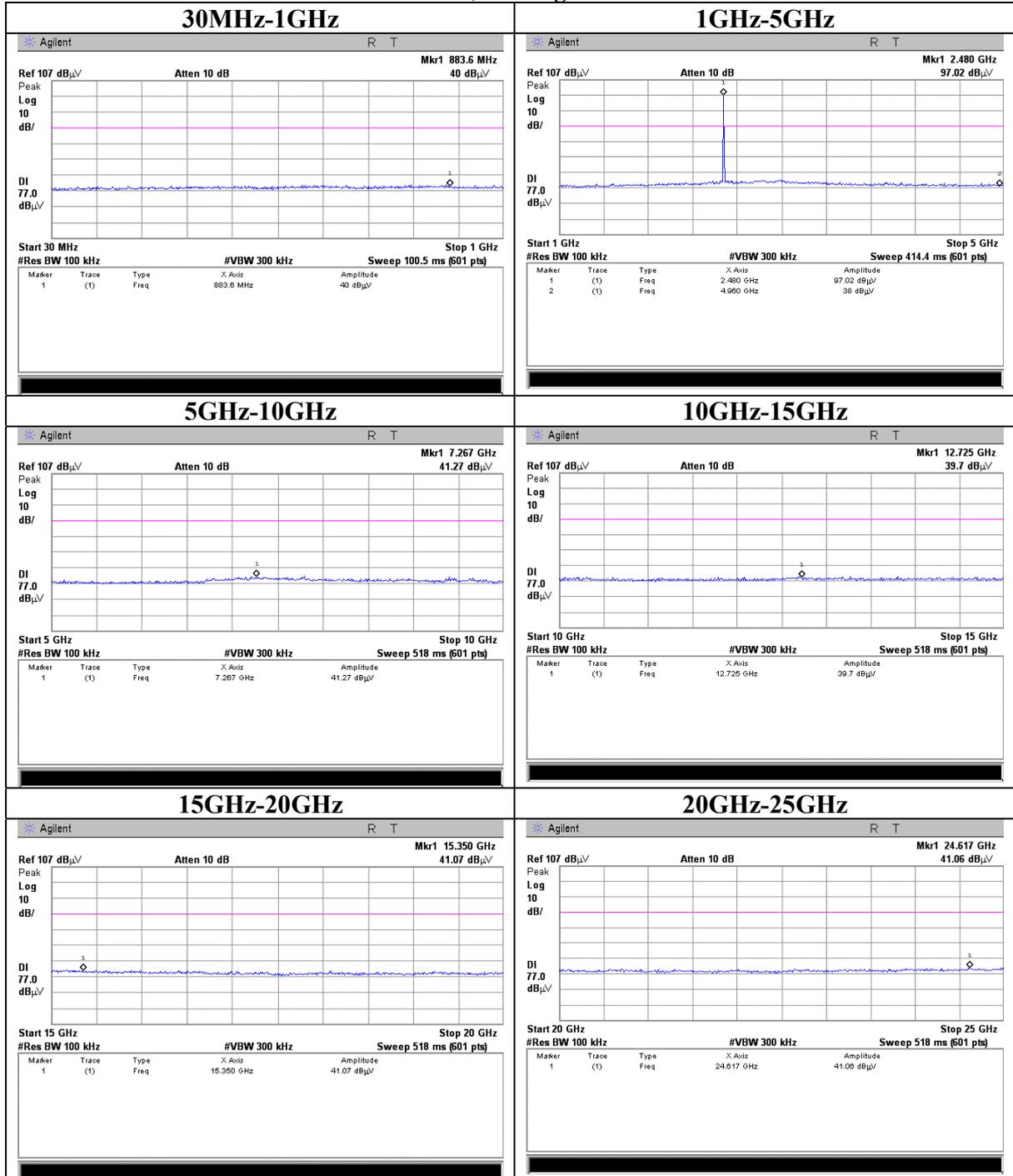
Conducted Spurious Emission (EDR)
Tx, Ch:Low



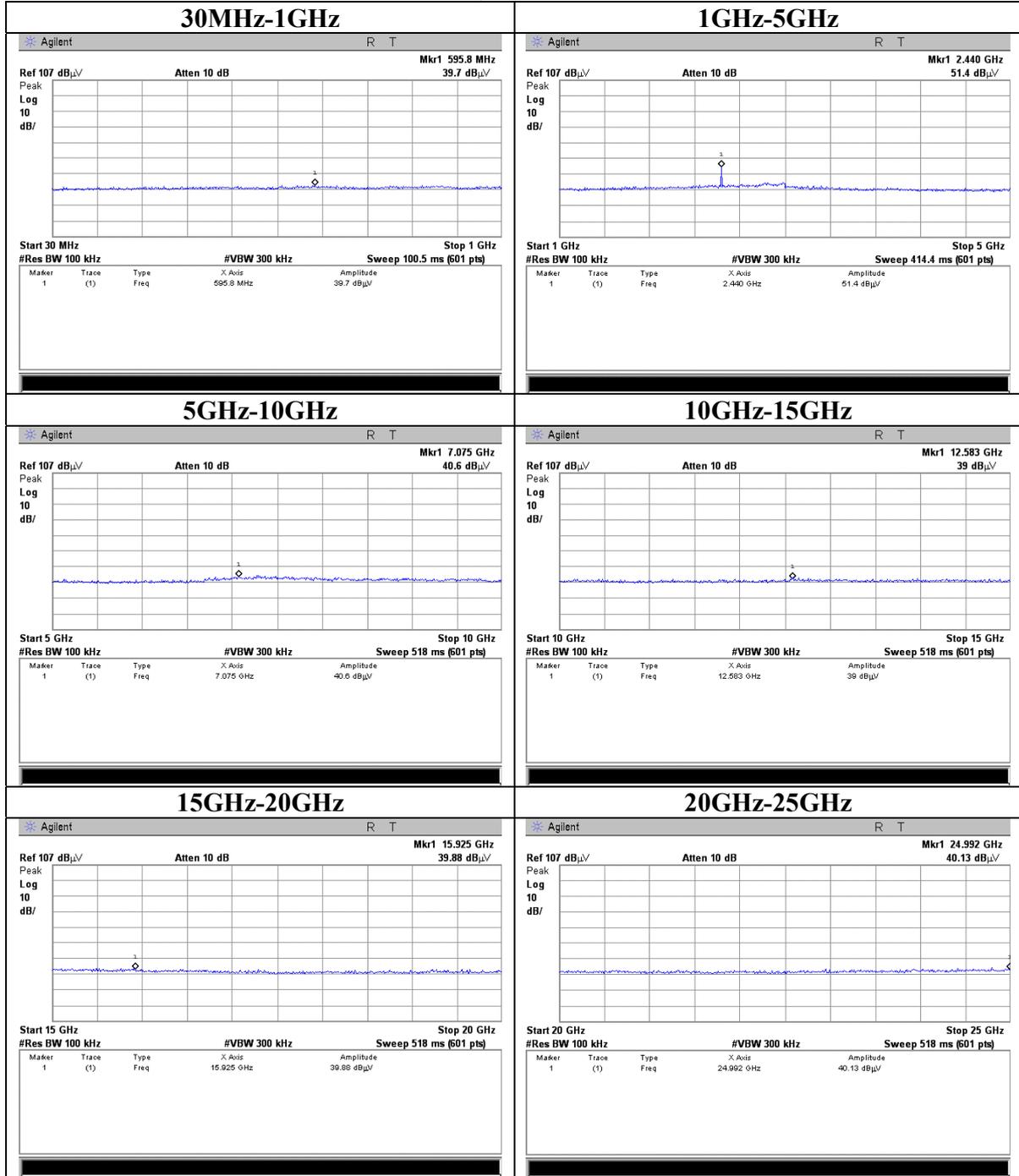
Conducted Spurious Emission (EDR)
Tx, Ch:Mid



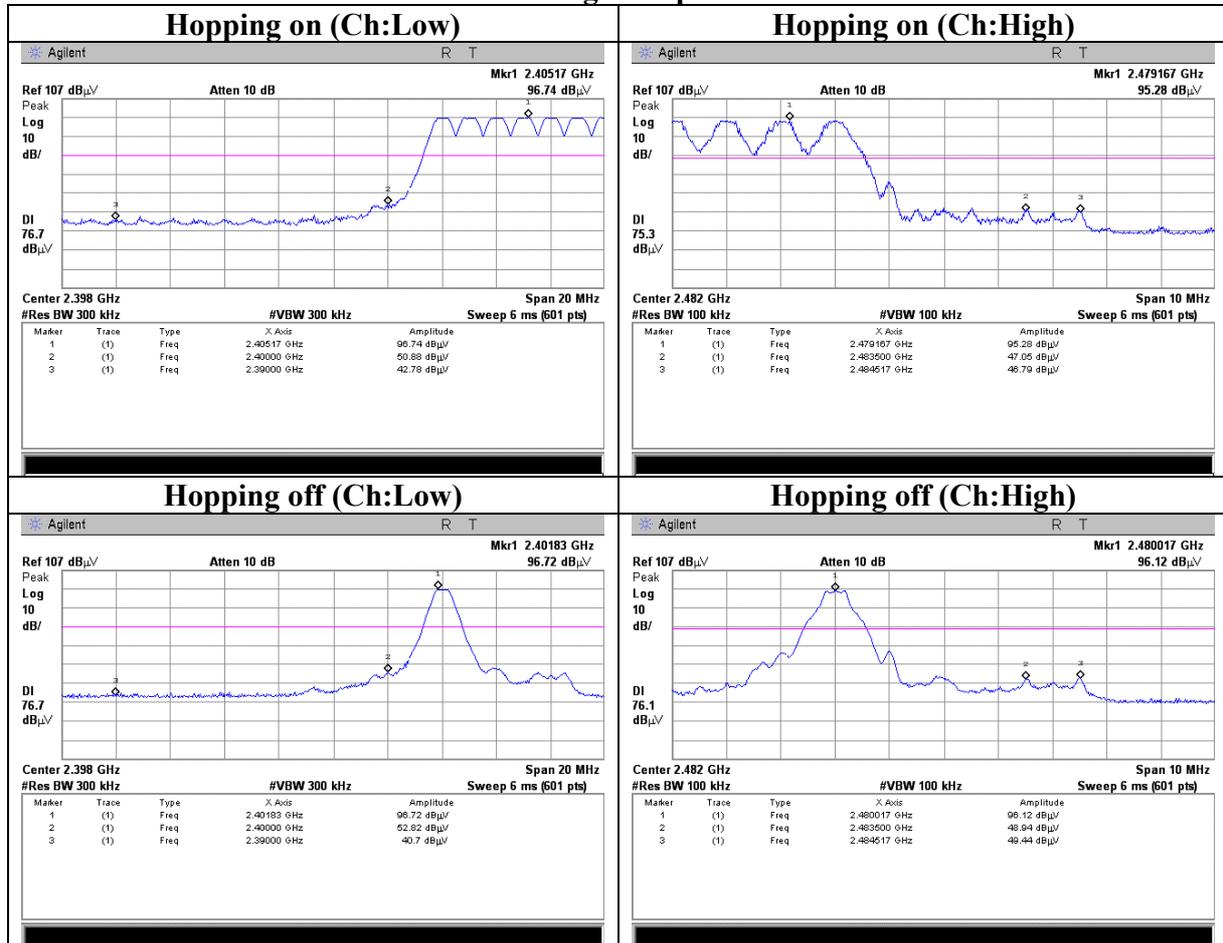
Conducted Spurious Emission (EDR)
Tx, Ch:High



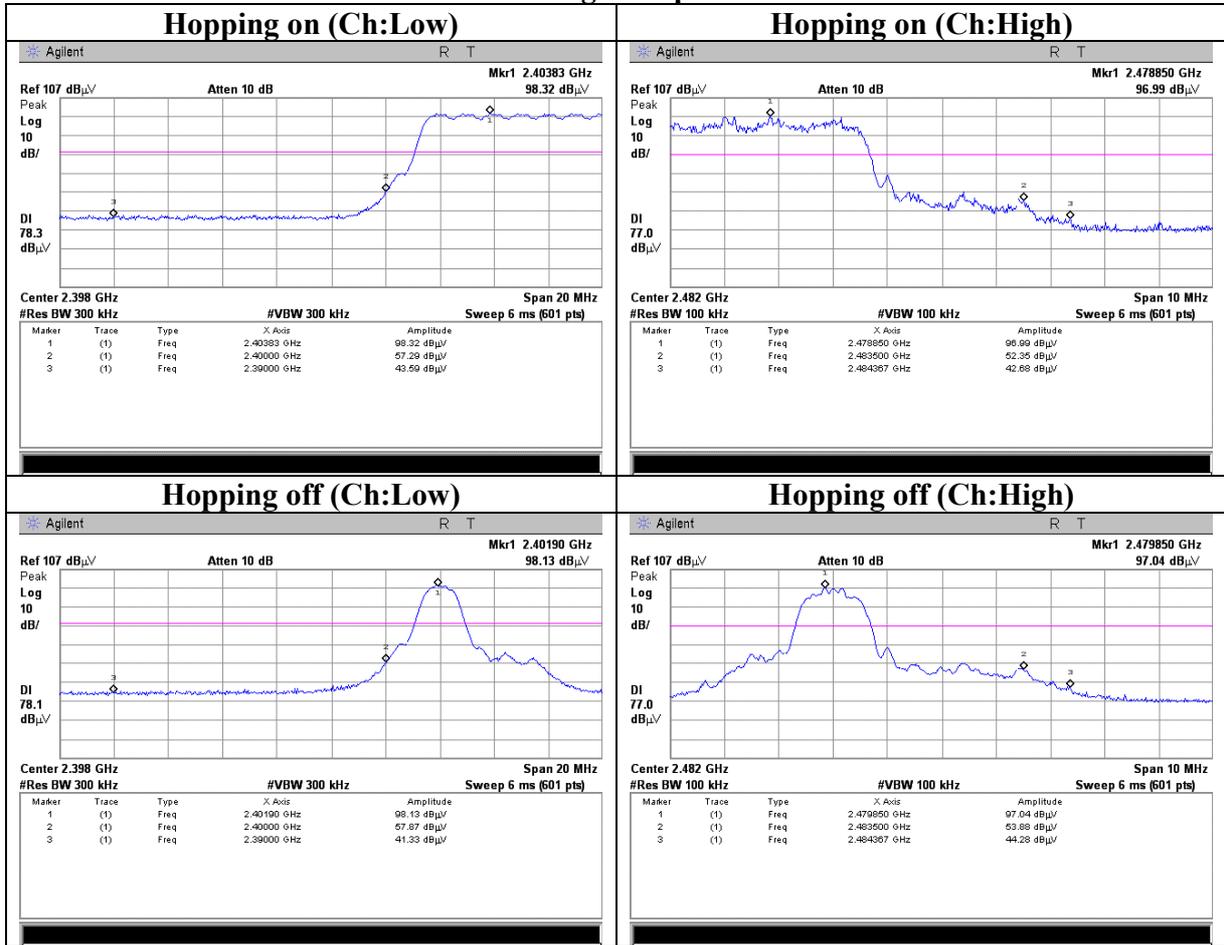
Conducted Spurious Emission
Rx, Ch:Mid



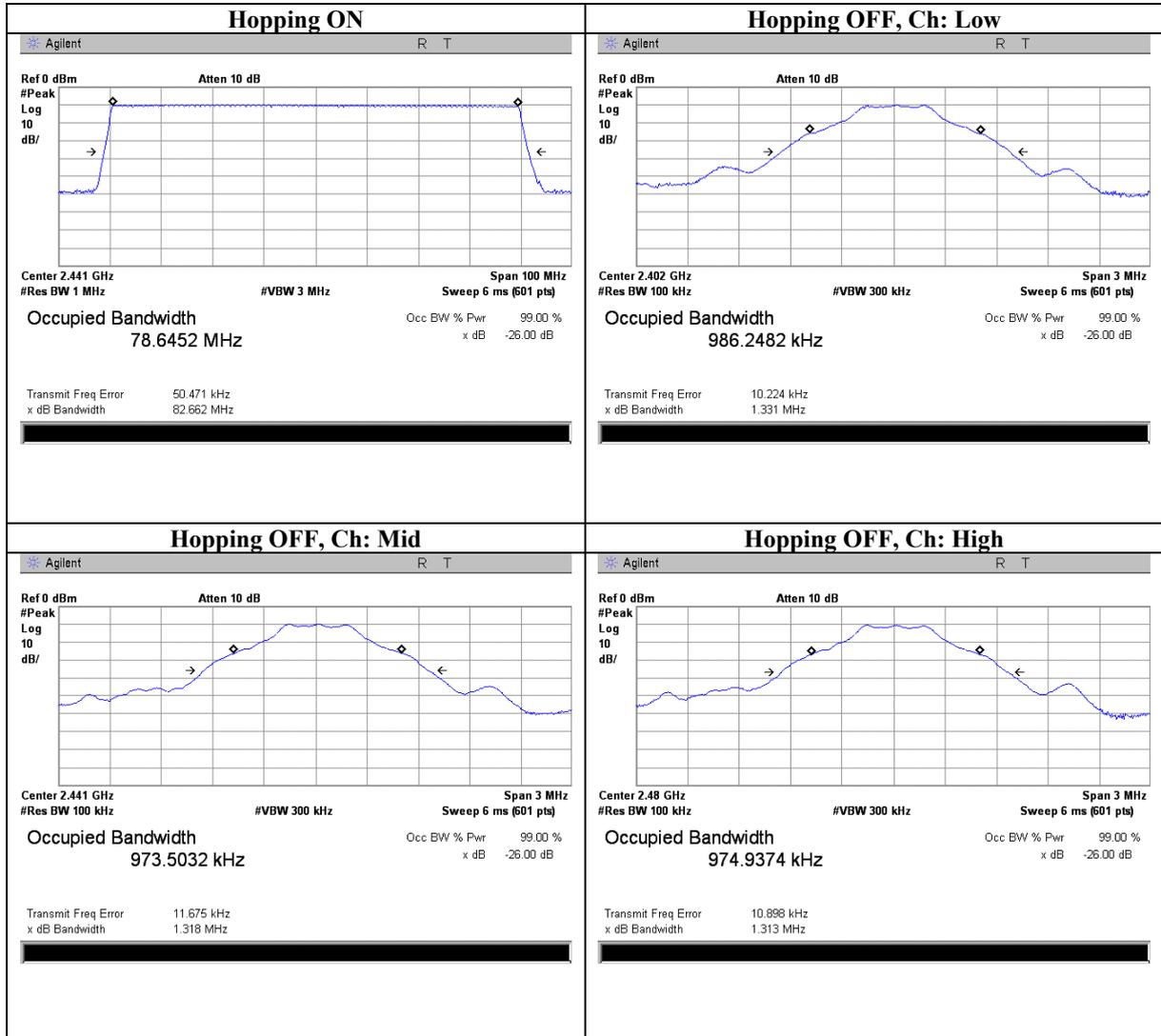
Conducted Spurious Emission Band Edge compliance



Conducted Spurious Emission (EDR)
Band Edge compliance

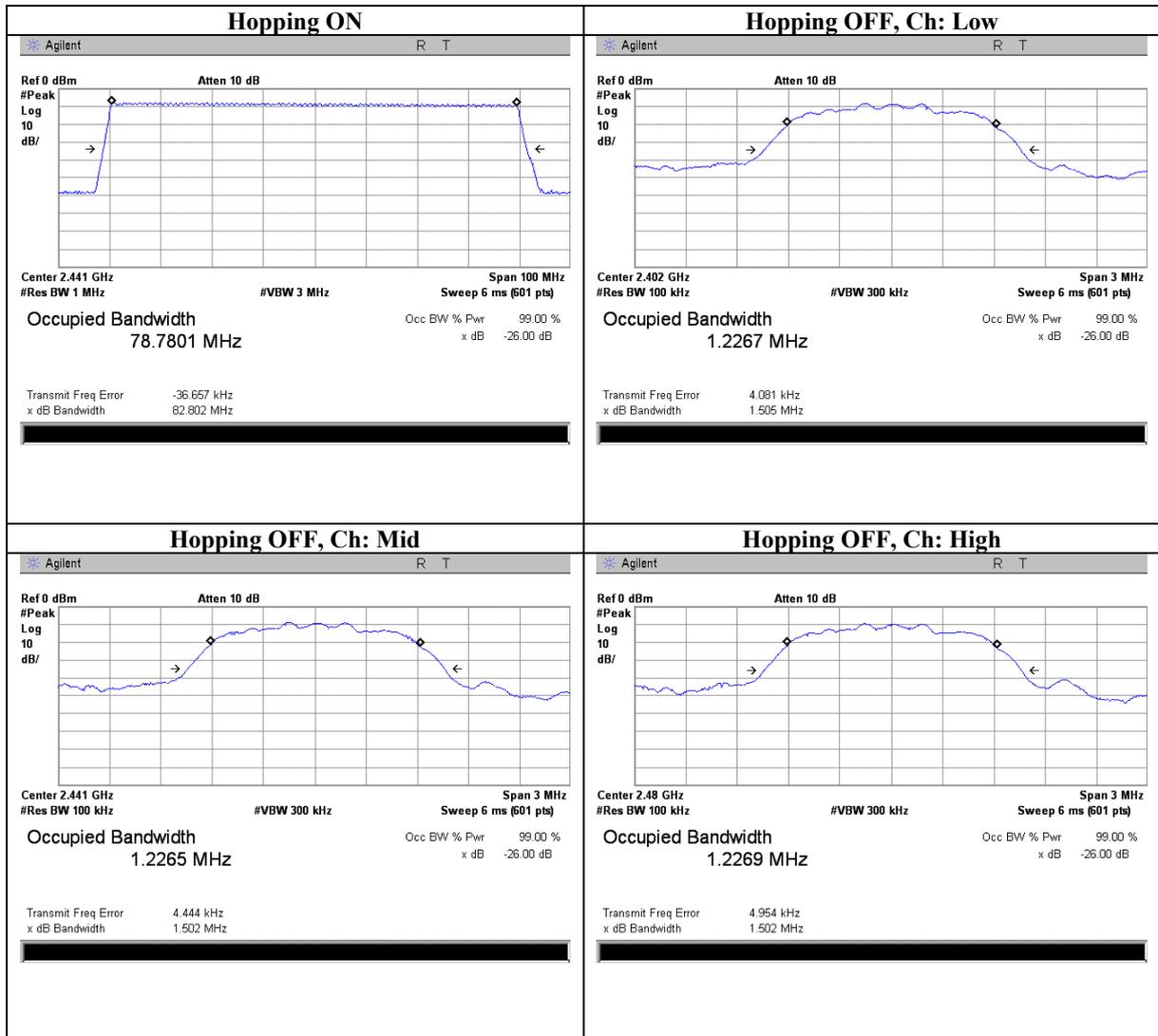


99% Occupied Bandwidth



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

99% Occupied Bandwidth(EDR)



*Refer to 20dB Bandwidth for 99% 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	2007/04/02 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2006/09/11 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2006/09/07 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2007/02/22 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/08/28 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE	2007/06/01 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	RE	2006/09/12 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/10/07 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/10/07 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2007/01/30 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2006/12/27 * 12
MJM-07	Measure	PROMART	SEN1955	RE	-
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2007/02/27 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE	2007/01/30 * 12
MSA-06	Spectrum Analyzer	Agilent	E4407B	AT	2007/04/10 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MPM-09	Power Meter	Anritsu	ML2495A	AT	2006/09/20 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2006/09/20 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2006/01/19 * 24
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE / CE	-
MHF-06	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2007/05/30 * 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.

Test Item:

RE: Radiated Emission

AT: Antenna Terminal Conducted test

UL Japan, Inc.

Head Office EMC Lab.

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