

## APPENDIX 2: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	2006/03/06 * 12
MCC-57	Microwave Cable	Suhner	SUCOFLEX104	RE	2006/04/15 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2006/03/27 * 12
MHA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2006/01/09 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	RE/CE	2006/05/20 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2006/03/03 * 12
MOS-12	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	-
HA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2006/04/06 * 12
MCC-56	Microwave Cable	Suhner	SUCOFLEX104	RE	2006/04/15 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	RE	2006/03/27 * 12
MHF-05	High Pass Filter	Tokimec	TF323DCA	RE	2006/01/24 * 12
MRENT-23	Spectrum Analyzer	Advantest	R3273	RE	2006/01/10 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	CE	2006/02/02 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2006/02/06 * 12
MCC-50	Coaxial cable	UL Apex	-	CE	2006/03/09 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	CE	2006/01/19 * 24
MHA-02	Horn Antenna	EMCO	3160-09	RE	2006/01/09 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/10/10 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/10/14 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2005/12/16 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2006/02/23 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2005/09/07 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	RE	2005/09/16 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE	2006/03/04 * 12

**UL Apex Co., Ltd.**

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MF060b(14.06.06)

**EMI test equipment (2/2)**

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MSA-04	Spectrum Analyzer	Agilent	E4448A	AT	2006/06/02 * 12
MAT-22	Attenuator(10dB)( above1GHz)	Orient Microwave	BX10-0476-00	AT	2006/03/18 * 12
MCC-06	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	AT	2006/02/02 * 12
MRENT-33	Power sensor	Anritsu	MA2411B	AT	2006/04/25 * 12
MRENT-36	Power Meter	Anritsu	ML2496A	AT	2006/04/25 * 12
MOS-16	Thermo- Hygrometer	Custom	CTH-180	AT	2006/01/19 * 24

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

**Test Item:**

**CE: Conducted emission**

**RE: Radiated emission**

**AT: Antenna terminal conducted test**

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**UL Apex Co., Ltd.**

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MF060b(14.06.06)

**APPENDIX 3: Data of EMI test**

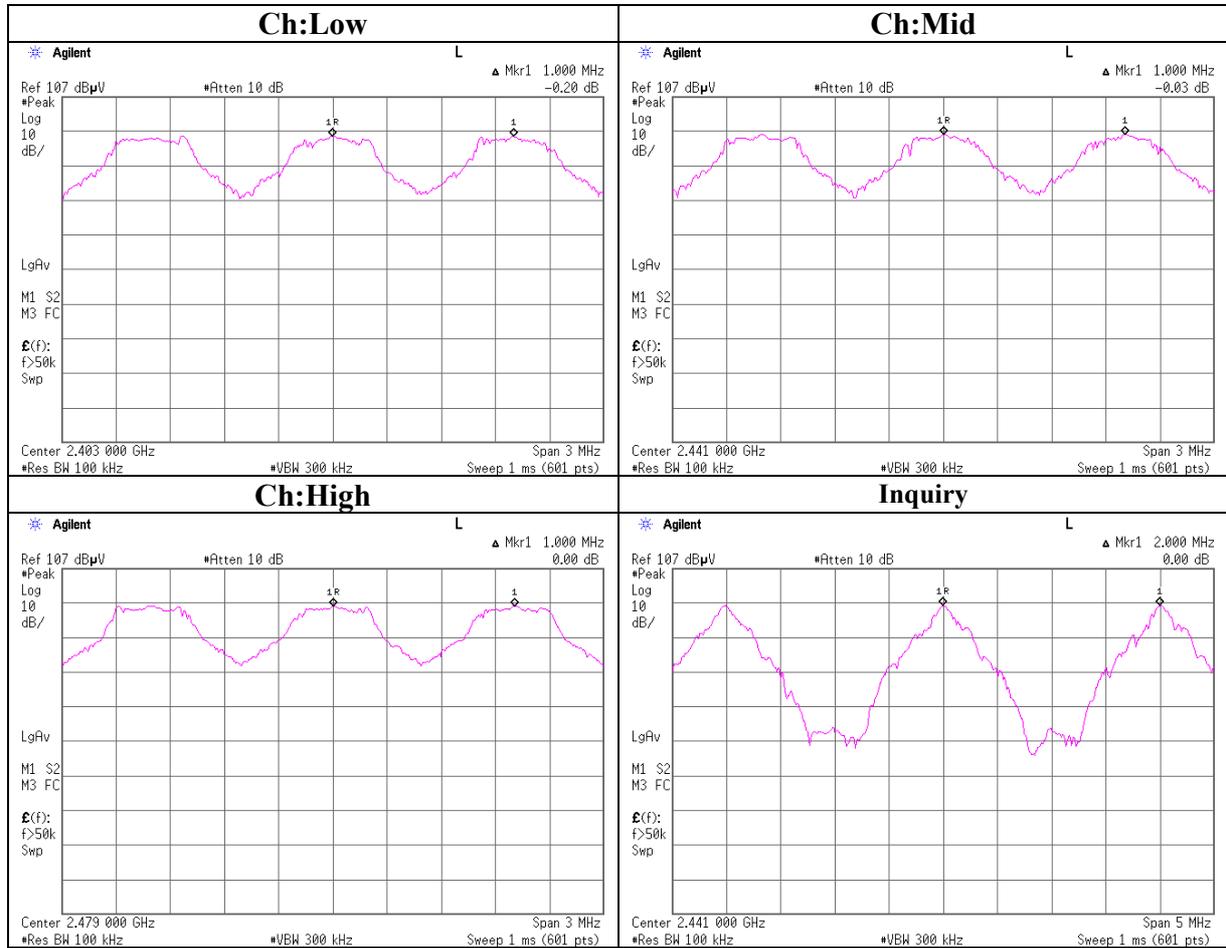
**Carrier Frequency Separation**

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

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC Part15 Subpart C 15.247(a)(1)  
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -  
MODEL : CECHZC1U DATE : 06/20/2006  
S/N : 1 TEMPERATURE : 26deg.C  
MODE : Tx(Hopping on)/Inquiry HUMIDITY : 53%  
ENGINEER : Takumi Shimada

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

### Carrier Frequency Separation



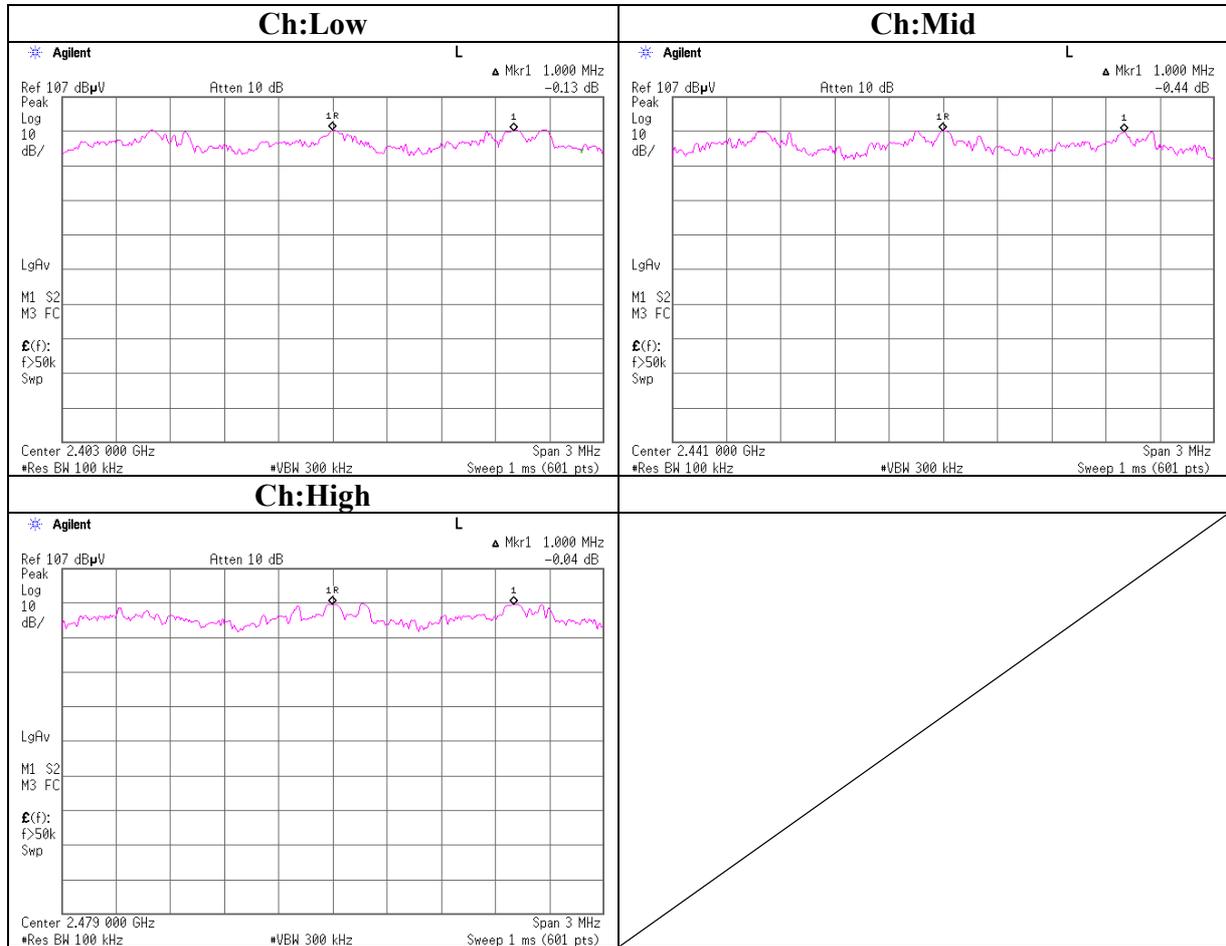
### Carrier Frequency Separation(EDR)

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

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC Part15 Subpart C 15.247(a)(1)  
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -  
MODEL : CECHZC1U DATE : 06/21/2006  
S/N : 1 TEMPERATURE : 27deg.C  
MODE : Tx(Hopping on) HUMIDITY : 46%  
ENGINEER : Takumi Shimada

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	>two thirds of the 20dB Bandwidth or 25[kHz](whichever is greater)
Mid	2441.0	1.000	>two thirds of the 20dB Bandwidth or 25[kHz](whichever is greater)
High	2480.0	1.000	>two thirds of the 20dB Bandwidth or 25[kHz](whichever is greater)

**Carrier Frequency Separation(EDR)**



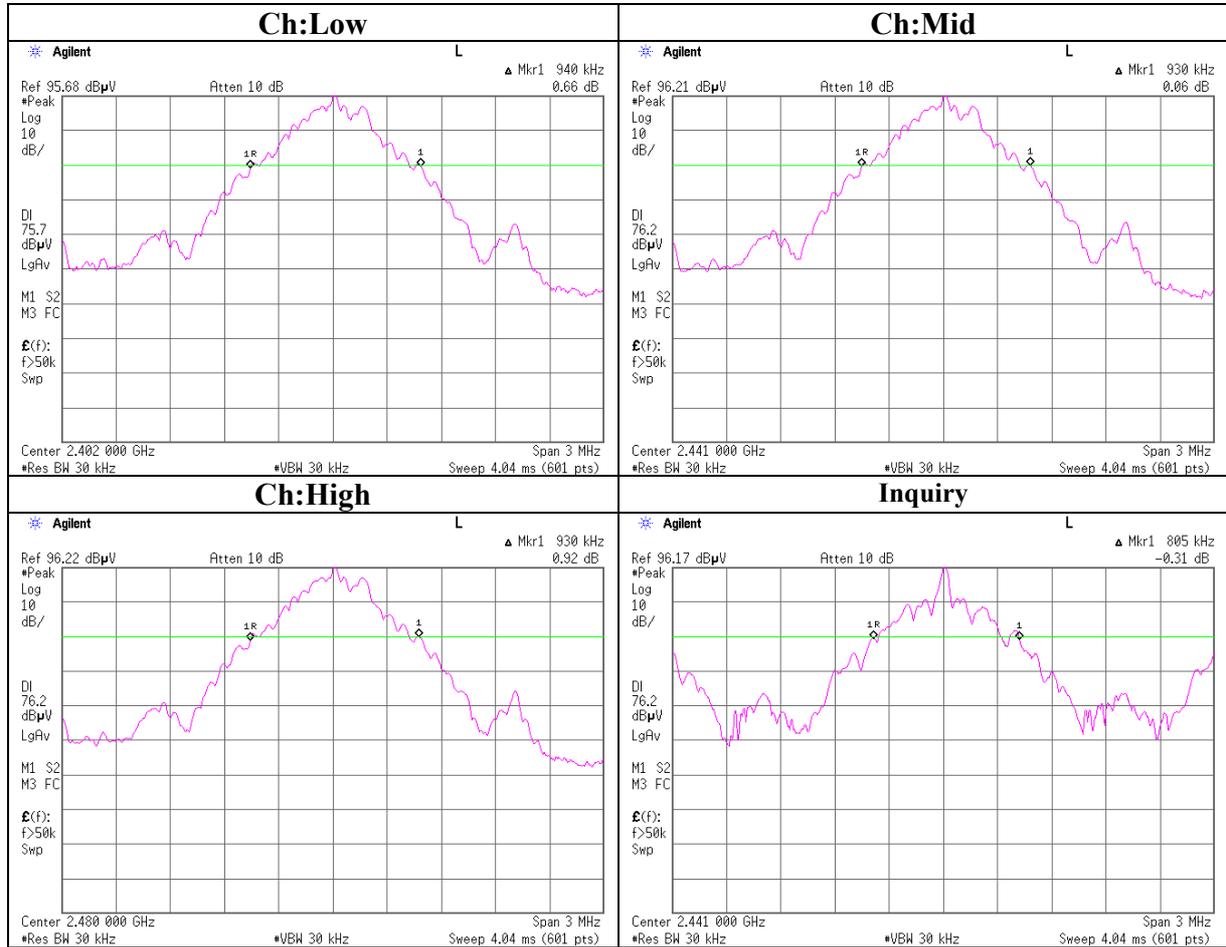
## 20dB Bandwidth

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

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC Part15 Subpart C 15.247(a)(1)  
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -  
MODEL : CECHZC1U DATE : 06/20/2006  
S/ N : 1 TEMPERATURE : 26deg.C  
MODE : Tx (Hopping off) /Inquiry HUMIDITY : 53%  
ENGINEER : Takumi Shimada

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.940	-
Mid	2441.0	0.940	-
High	2480.0	0.930	-
Inquiry	2441.0	0.805	-

**20dB Bandwidth**



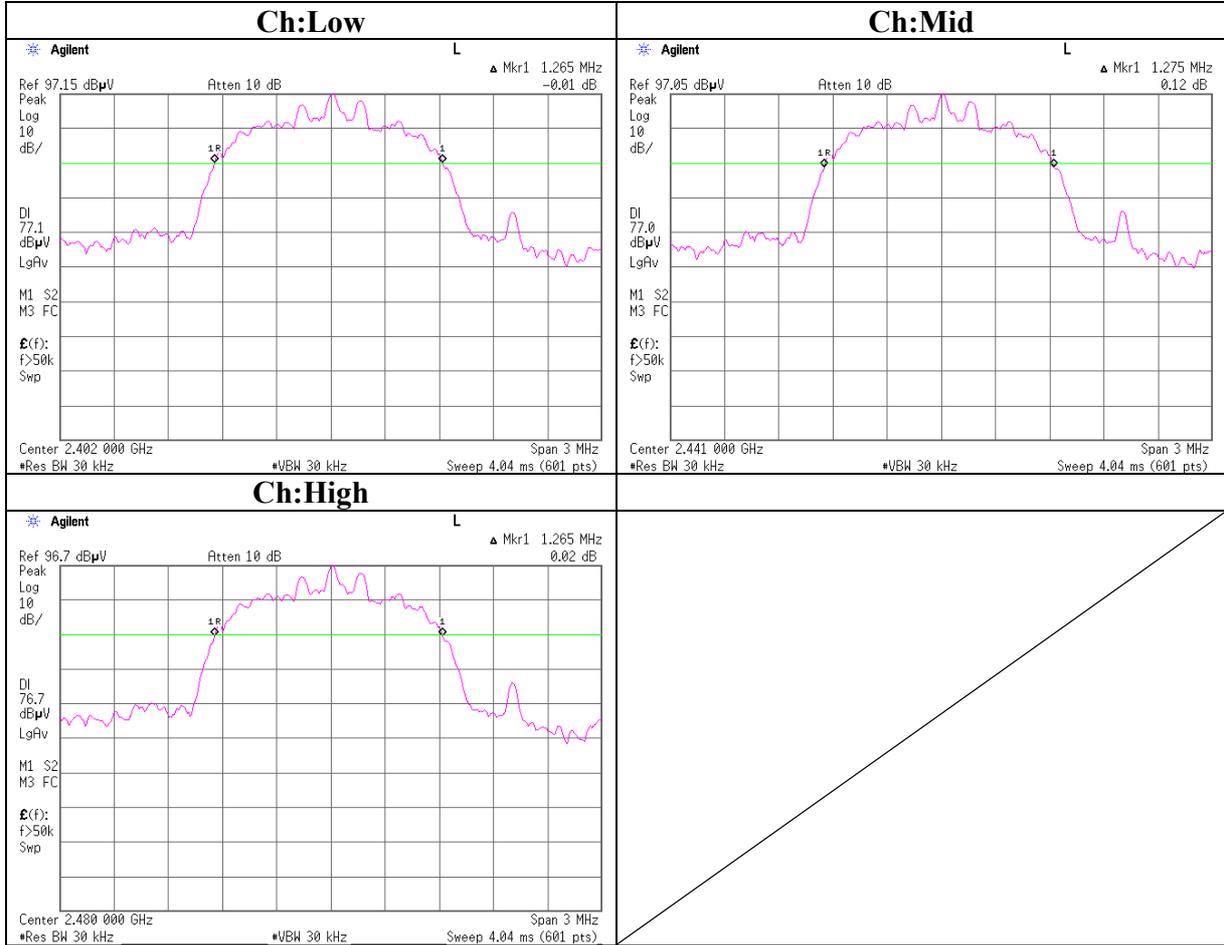
**20dB Bandwidth(EDR)**

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

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC Part15 Subpart C 15.247(a)(1)  
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -  
MODEL : CECHZC1U DATE : 06/21/2006  
S/ N : 1 TEMPERATURE : 27deg.C  
MODE : Tx (Hopping off) HUMIDITY : 46%  
ENGINEER : Takumi Shimada

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	1.265	-
Mid	2441.0	1.275	-
High	2480.0	1.265	-

**20dB Bandwidth(EDR)**



### Number of Hopping Frequency

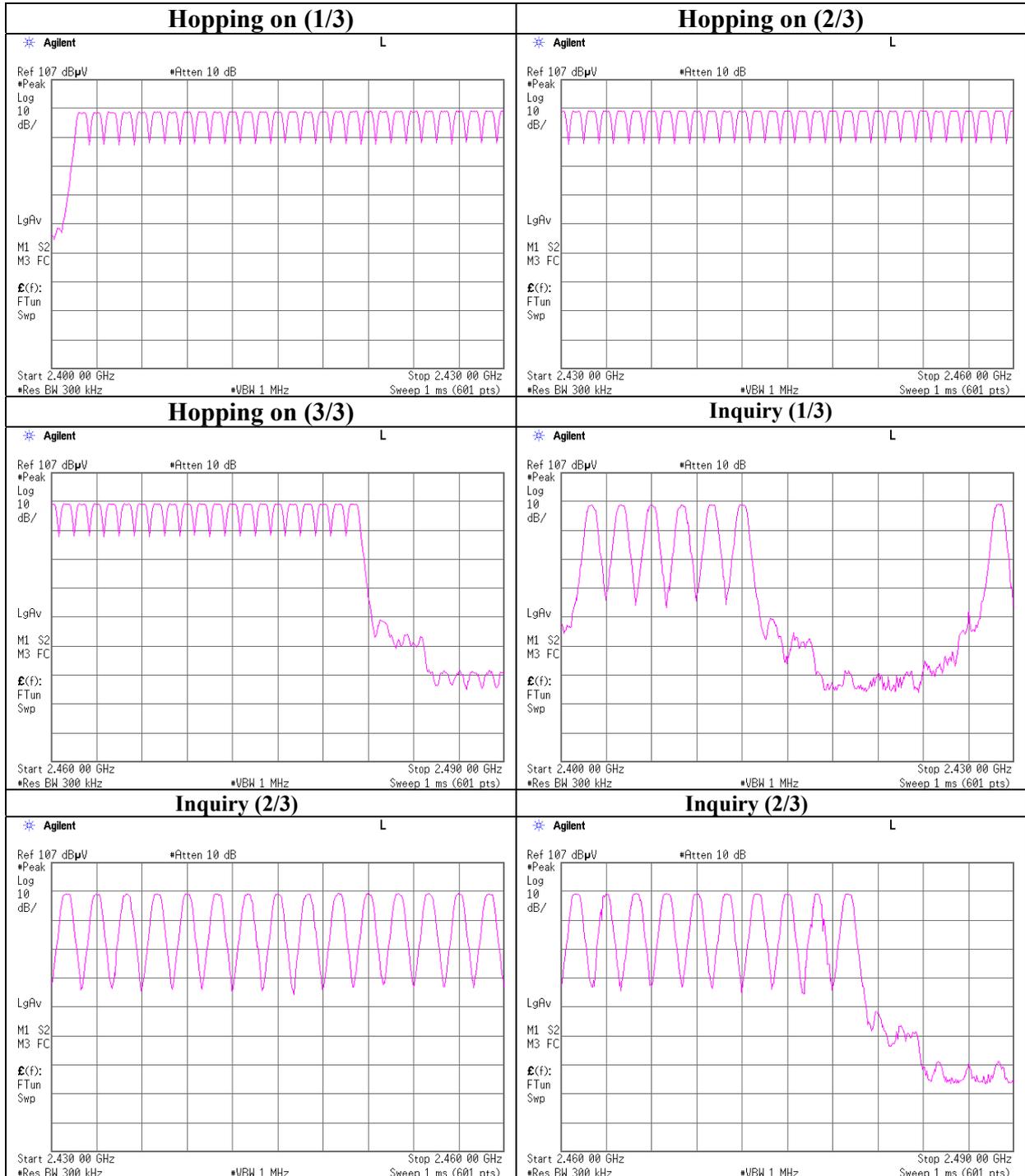
UL Apex Co., Ltd.  
Head Office EMC Lab. No.6 Shielded Room

COMPANY : Sony Computer Entertainment Inc.      REGULATION : FCC Part15 Subpart C 15.247(a)(1)(iii)  
EQUIPMENT : WIRELESS CONTROLLER      TEST DISTANCE : -  
MODEL : CECHZC1U      DATE : 06/20/2006  
S/ N : 1      TEMPERATURE : 26deg.C  
MODE : Tx (Hopping on) /Inquiry      HUMIDITY : 53%  
ENGINEER : Takumi Shimada

Mode	Number of channel [time]	Limit [time]
Tx(Hoppng on)	79	$\geq 15$

Mode	Number of channel [time]	Limit [time]
Inquiry	32	$\geq 15$

**Number of Hopping Frequency**



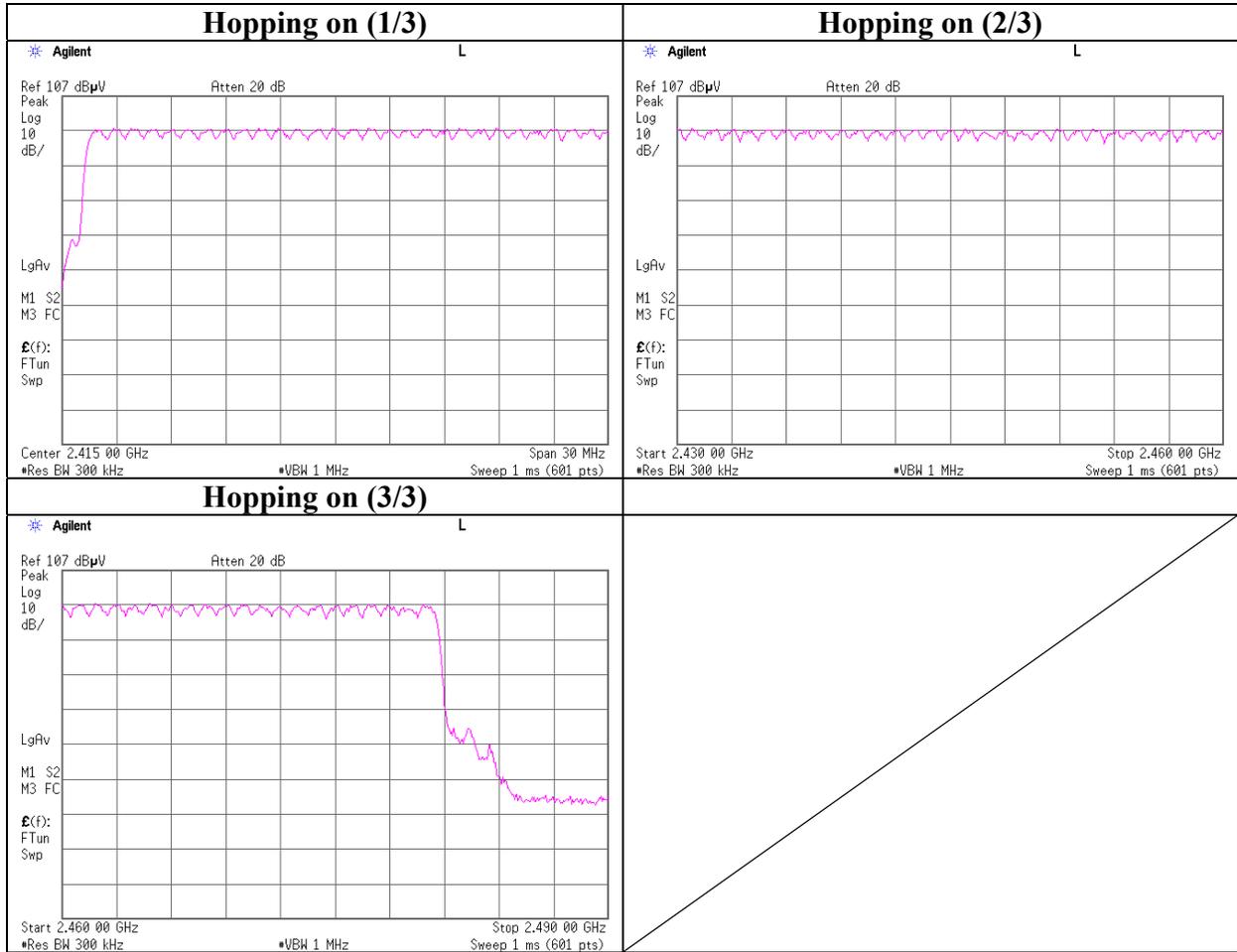
**Number of Hopping Frequency(EDR)**

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

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC Part15 Subpart C 15.247(a)(1)(iii)  
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -  
MODEL : CECHZC1U DATE : 06/20/2006  
S/ N : 1 TEMPERATURE : 27deg.C  
MODE : Tx (Hopping on) HUMIDITY : 46%  
ENGINEER : Takumi Shimada

Mode	Number of channel [time]	Limit [time]
Tx(Hoppng on)	79	$\geq 15$

**Number of Hopping Frequency(EDR)**



**Dwell time**

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

COMPANY	: Sony Computer Entertainment Inc.	REGULATION	: FCC Part15 Subpart C 15.247(a)(1)(iii)
EQUIPMENT	: WIRELESS CONTROLLER	TEST DISTANCE	: -
MODEL	: CECHZC1U	DATE	: 06/20/2006
S/N	: 1	TEMPERATURE	: 26deg.C
MODE	: Tx (Hopping on) /Inquiry	HUMIDITY	: 53%
		ENGINEER	: Takumi Shimada

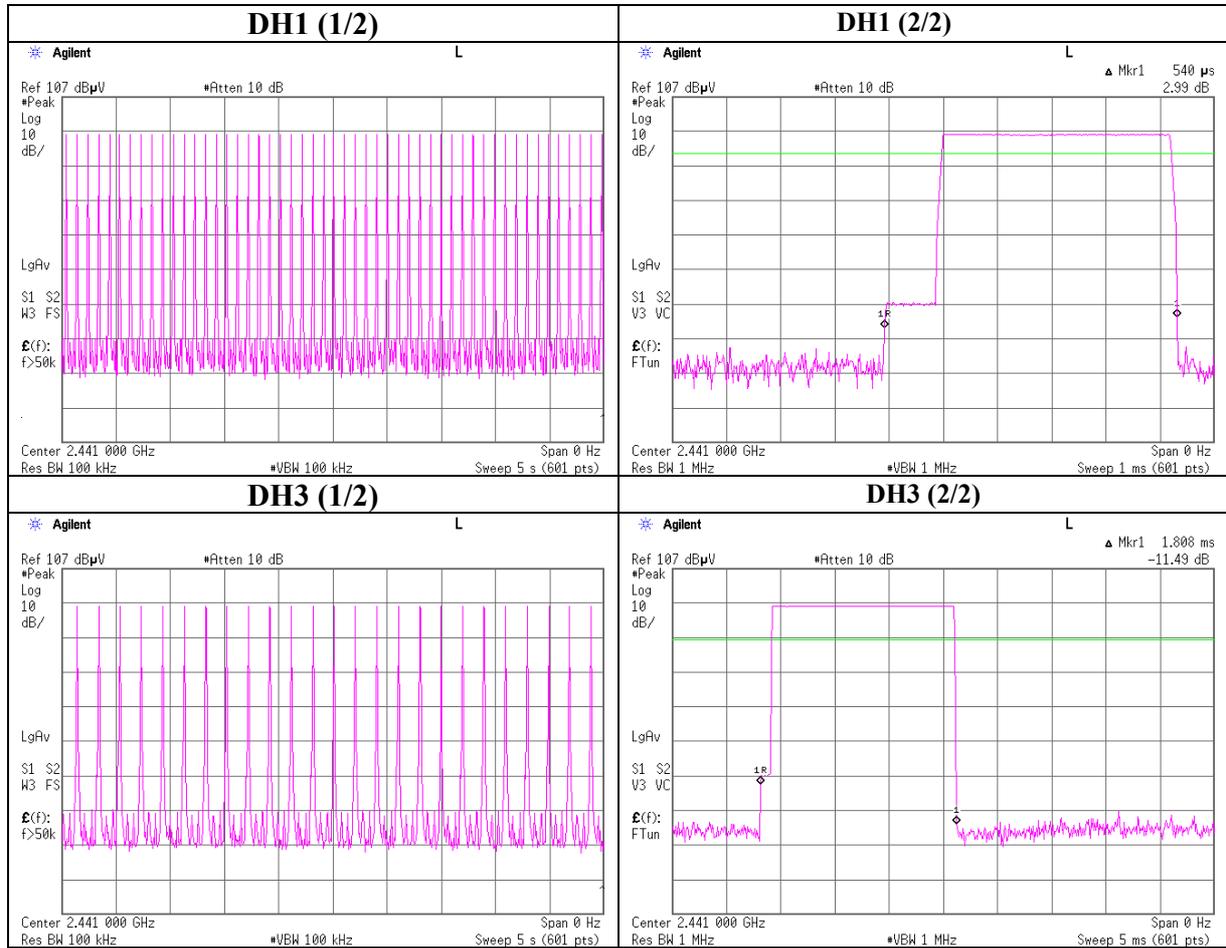
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times /5sec. x 31.6 = 323 times	0.504	163	400
DH3	26 times / 5sec. x 31.6 = 165times	1.808	299	400
DH5	18 times / 5 sec. x 31.6 = 114 times	3.000	342	400
Inquiry	100 times / 1sec. x 12.8 = 1280 times	0.243	312	400

**Dwell time factor**

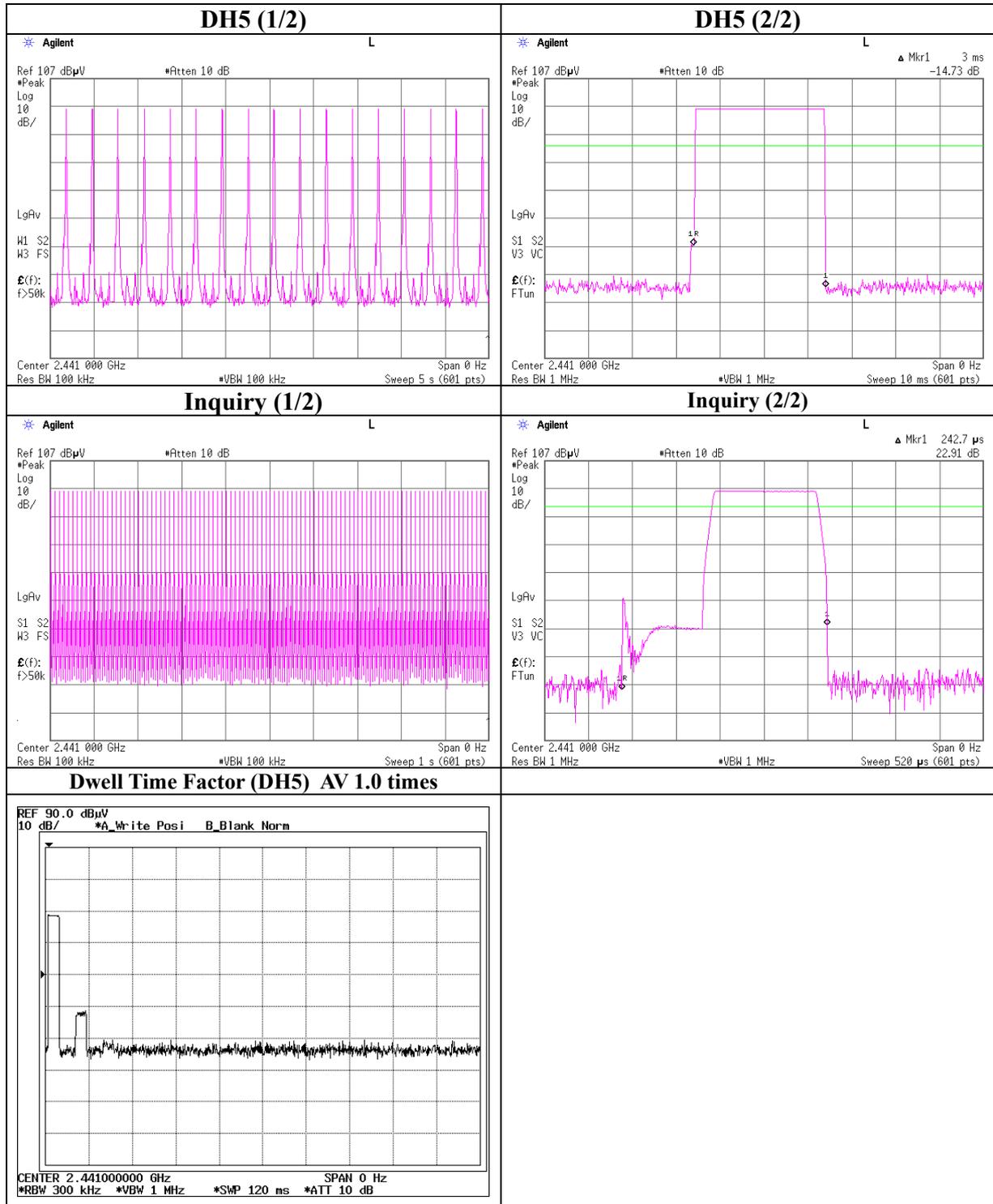
Dwell time factor =  $20\log_{10}(\text{dwell time}/100\text{ms})$

$$\begin{aligned}
&= 20\log_{10}\{(1.0\text{time} \times 3.000)/100\text{ms}\} \\
&= 20\log_{10}(3.000\text{ms}/100\text{ms}) \\
&= -30.4
\end{aligned}$$

**Dwell time**



**Dwell time**



**Dwell time(EDR)**

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

COMPANY : Sony Computer Entertainment Inc.      REGULATION : FCC Part15 Subpart C 15.247(a)(1)(iii)  
EQUIPMENT : WIRELESS CONTROLLER      TEST DISTANCE : -  
MODEL : CECHZC1U      DATE : 06/20/2006  
S/ N : 1      TEMPERATURE : 27deg.C  
MODE : Tx (Hopping on)      HUMIDITY : 46%  
ENGINEER : Takumi Shimada

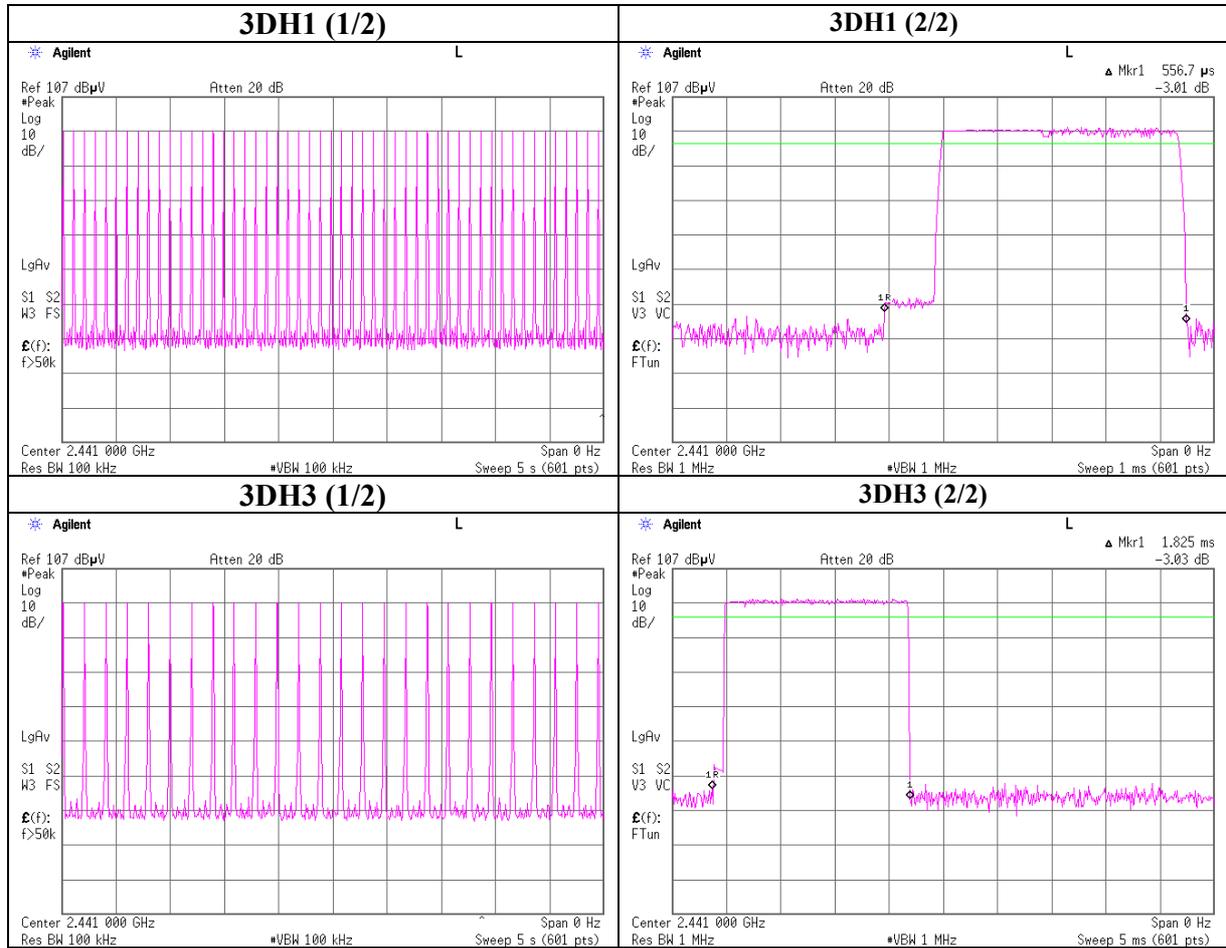
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times /5sec. x 31.6 = 323 times	0.557	180	400
DH3	26 times / 5sec. x 31.6 = 165times	1.825	302	400
DH5	18 times / 5 sec. x 31.6 = 114 times	3.000	342	400

**Dwell time factor**

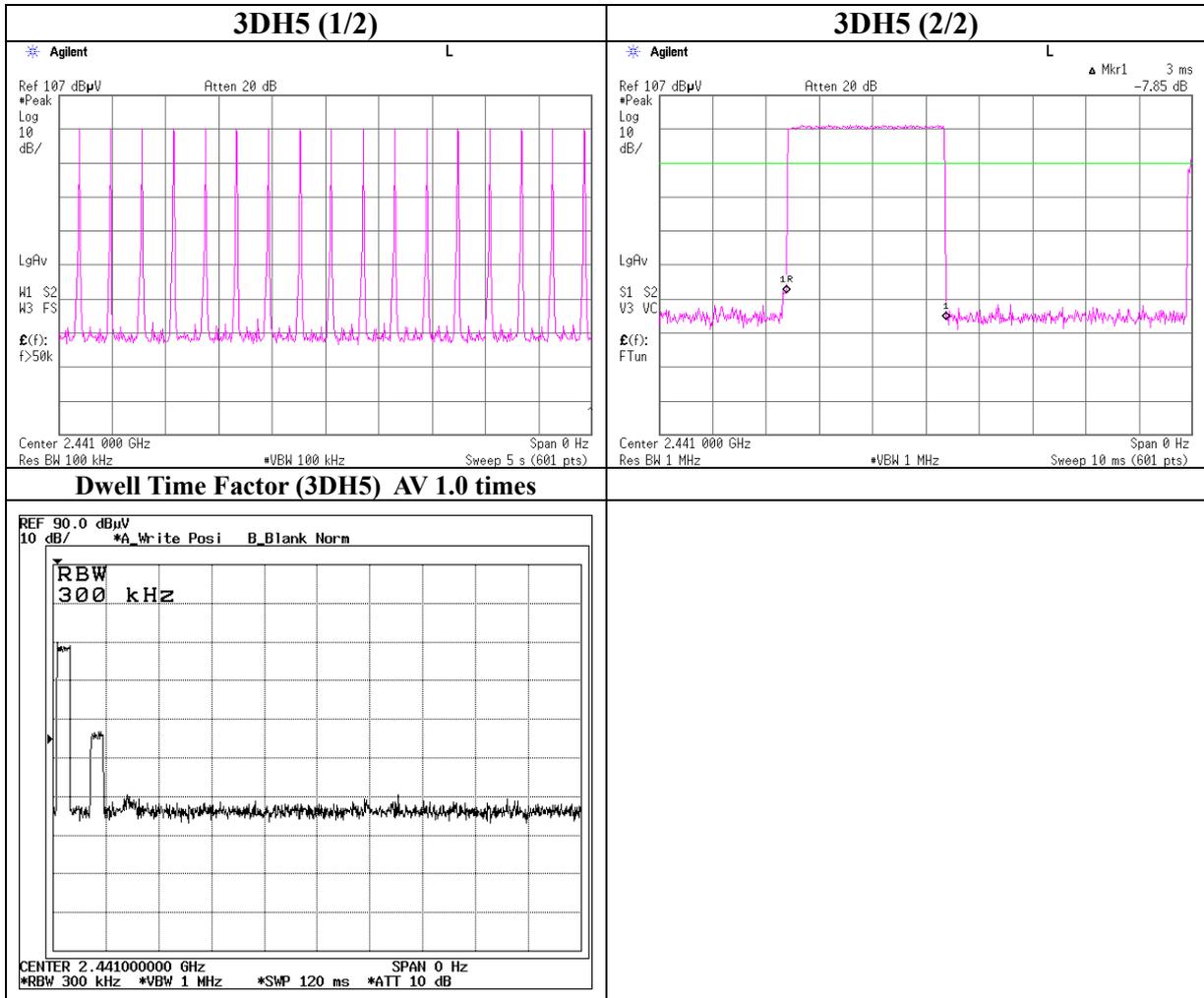
Dwell time factor =  $20\log_{10}(\text{dwell time}/100\text{ms})$

$$\begin{aligned} &= 20\log_{10}\{(1.0\text{time}*3.000)/100\text{ms}\} \\ &= 20\log_{10}(3.000\text{ms}/100\text{ms}) \\ &= -30.4 \end{aligned}$$

**Dwell time(EDR)**



**Dwell time(EDR)**



**Maximum Peak Output Power**

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

COMPANY : Sony Computer Entertainment Inc. REGULATION : FCC Part15 Subpart C 15.247(b)(1)  
EQUIPMENT : WIRELESS CONTROLLER TEST DISTANCE : -  
MODEL : CECHZC1U DATE : 06/20/2006 , 06/21/2006  
S/N : 1 TEMPERATURE : 26deg.C , 26deg.C  
MODE : Tx(Hopping Off)/Inquiry HUMIDITY : 53% , 44%  
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	-11.03	0.50	10.12	-0.41	0.91	20.97	125	21.38
Mid	2441.0	-10.56	0.50	10.12	0.06	1.01	20.97	125	20.91
High	2480.0	-10.61	0.50	10.12	0.01	1.00	20.97	125	20.96
Inquiry	2441.0	-10.59	0.50	10.12	0.03	1.01	20.97	125	20.94

2DH5									
Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-10.00	0.50	10.12	0.62	1.15	20.97	125	20.35
Mid	2441.0	-10.16	0.50	10.12	0.46	1.11	20.97	125	20.51
High	2480.0	-10.73	0.50	10.12	-0.11	0.97	20.97	125	21.08

3DH5									
Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-9.80	0.50	10.12	0.82	1.21	20.97	125	20.15
Mid	2441.0	-10.14	0.50	10.12	0.48	1.12	20.97	125	20.49
High	2480.0	-10.21	0.50	10.12	0.41	1.10	20.97	125	20.56

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.

**Radiated Spurious Emission**

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

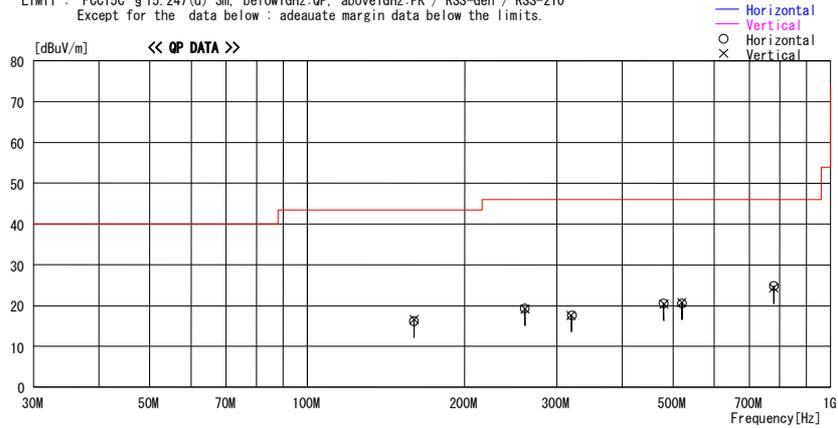
**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2006/06/26 15:49:27

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
Model No. : CECHZC1U Temp./ Humi. : 25 deg.C. / 58 %  
Serial No. : 4

Mode / Remarks : Bluetooth Tx 2402MHz (DH5), Max-axis(H:Z V:Y)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor	Gain						
159.906	21.7	QP	15.2	-20.7	16.2	288	300	Hori.	43.5	27.3
160.234	22.1	QP	15.2	-20.7	16.6	325	100	Vert.	43.5	26.9
260.530	21.2	QP	17.8	-19.7	19.3	60	300	Hori.	46.0	26.7
260.932	21.0	QP	17.8	-19.7	19.1	257	100	Vert.	46.0	26.9
319.494	21.2	QP	14.9	-18.5	17.6	95	100	Vert.	46.0	28.4
320.286	21.2	QP	14.9	-18.5	17.6	18	100	Hori.	46.0	28.4
479.344	22.4	QP	17.8	-19.7	20.5	311	100	Hori.	46.0	25.5
480.650	22.2	QP	17.8	-19.7	20.3	150	100	Vert.	46.0	25.7
520.266	22.3	QP	18.1	-19.7	20.7	345	100	Vert.	46.0	25.3
520.664	22.1	QP	18.1	-19.7	20.5	310	100	Hori.	46.0	25.5
779.748	21.8	QP	21.2	-18.2	24.8	4	100	Hori.	46.0	21.2
779.266	21.4	QP	21.2	-18.2	24.4	33	100	Vert.	46.0	21.6

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

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

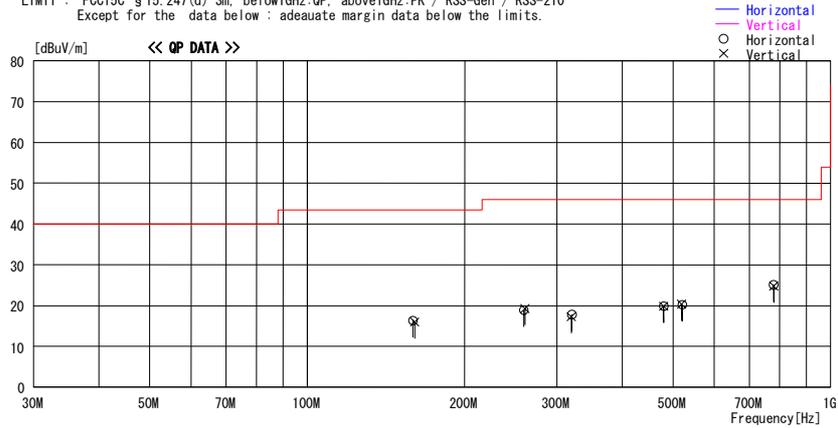
### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2006/06/26 12:47:01

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
Model No. : CECHZC1U Temp./ Humi. : 25 deg.C. / 58 %  
Serial No. : 4

Mode / Remarks : Bluetooth Tx 2441MHz (DH5), Max-axis(H:Z V:Y)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Gain [dB]						
159.142	21.8	QP	15.2	-20.7	16.3	2	300	Hori.	43.5	27.2
160.558	21.5	QP	15.2	-20.7	16.0	239	100	Vert.	43.5	27.5
259.298	20.9	QP	17.7	-19.7	18.9	156	300	Hori.	46.0	27.1
260.798	21.2	QP	17.8	-19.7	19.3	113	100	Vert.	46.0	26.7
320.712	21.3	QP	15.0	-18.5	17.8	322	100	Hori.	46.0	28.2
319.864	20.9	QP	14.9	-18.5	17.3	3	100	Vert.	46.0	28.7
480.380	21.8	QP	17.8	-19.7	19.9	354	100	Hori.	46.0	26.1
479.624	21.8	QP	17.8	-19.7	19.9	261	100	Vert.	46.0	26.1
519.700	21.9	QP	18.1	-19.7	20.3	0	100	Vert.	46.0	25.7
520.972	21.8	QP	18.1	-19.7	20.2	330	100	Hori.	46.0	25.8
779.054	22.1	QP	21.2	-18.2	25.1	357	100	Hori.	46.0	20.9
779.962	21.8	QP	21.2	-18.2	24.8	325	100	Vert.	46.0	21.2

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**

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

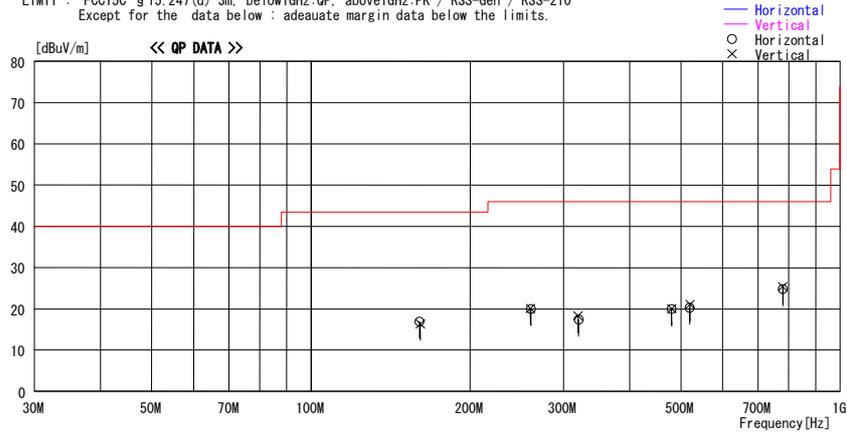
**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
 Date : 2006/06/26 16:15:39

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
 Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
 Model No. : CECHZCIU Temp./ Humi. : 25 deg. C. / 58 %  
 Serial No. : 4

Mode / Remarks : Bluetooth Tx 2480MHz (DH5), Max-axis(H:Z V:Y)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
 Except for the data below : adeauate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss& Gain						
160.950	21.9	QP	15.2	-20.7	16.4	11	100	Vert.	43.5	27.1
160.321	22.4	QP	15.2	-20.7	16.9	347	300	Hori.	43.5	26.6
260.300	21.9	QP	17.8	-19.7	20.0	348	300	Hori.	46.0	26.0
259.771	22.1	QP	17.7	-19.7	20.1	11	100	Vert.	46.0	25.9
320.698	20.9	QP	15.0	-18.5	17.4	3	100	Hori.	46.0	28.6
319.816	21.9	QP	14.9	-18.5	18.3	190	100	Vert.	46.0	27.7
480.642	21.9	QP	17.8	-19.7	20.0	6	100	Vert.	46.0	26.0
480.164	21.9	QP	17.8	-19.7	20.0	353	100	Hori.	46.0	26.0
520.072	21.9	QP	18.1	-19.7	20.3	201	100	Hori.	46.0	25.7
520.808	22.7	QP	18.1	-19.7	21.1	55	100	Vert.	46.0	24.9
780.314	21.7	QP	21.3	-18.2	24.8	346	100	Hori.	46.0	21.2
779.594	22.4	QP	21.2	-18.2	25.4	98	100	Vert.	46.0	20.6

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

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

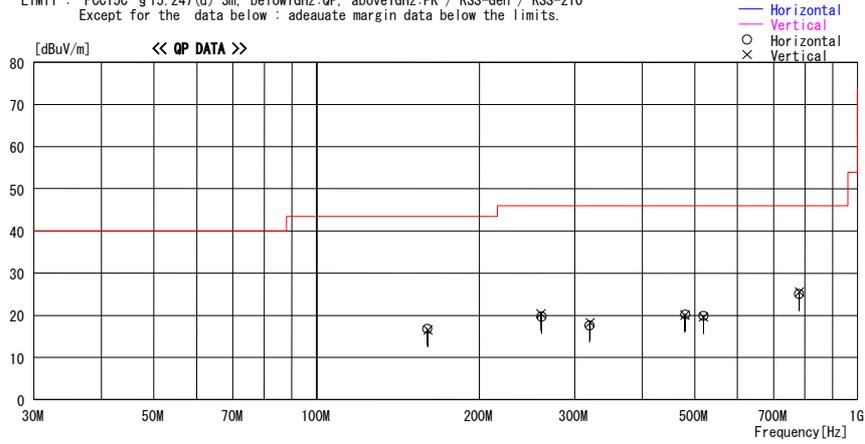
### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2006/06/26 16:55:41

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
Model No. : CECHZC1U Temp./ Humi. : 25 deg. C. / 58 %  
Serial No. : 4

Mode / Remarks : Bluetooth Tx 2402MHz (3DH5), Max-axis (H:Z V:Y)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
Except for the data below : adequate margin data below the limits.



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]						
160.140	22.3	QP	15.2	-20.7	16.8	352	300	Hori.	43.5	26.7
160.680	22.0	QP	15.2	-20.7	16.5	209	100	Vert.	43.5	27.0
260.041	22.3	QP	17.7	-19.7	20.3	234	100	Vert.	46.0	25.7
260.581	21.6	QP	17.8	-19.7	19.7	307	300	Hori.	46.0	26.3
319.600	21.2	QP	14.9	-18.5	17.6	170	100	Hori.	46.0	28.4
320.654	21.7	QP	15.0	-18.5	18.2	343	100	Vert.	46.0	27.8
480.223	22.1	QP	17.8	-19.7	20.2	23	100	Hori.	46.0	25.8
479.863	21.9	QP	17.8	-19.7	20.0	134	100	Vert.	46.0	26.0
519.332	21.5	QP	18.1	-19.7	19.9	202	100	Hori.	46.0	26.1
519.104	21.2	QP	18.1	-19.7	19.6	348	100	Vert.	46.0	26.4
780.212	22.1	QP	21.2	-18.2	25.1	1	100	Hori.	46.0	20.9
781.608	22.3	QP	21.3	-18.1	25.5	123	100	Vert.	46.0	20.5

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)

**Radiated Spurious Emission**

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

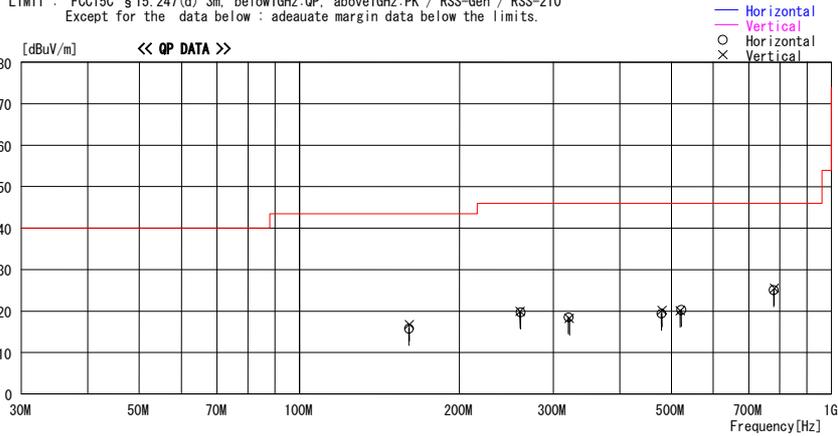
**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
Date : 2006/06/26 16:39:07

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
Model No. : CECHZC1U Temp./Humi. : 25 deg. C. / 58 %  
Serial No. : 4

Mode / Remarks : Bluetooth Tx 2441MHz (3DH5), Max-axis(H:Z V:Y)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
Except for the data below : adeauate margin data below the limits.



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]						
160.680	21.3	QP	15.2	-20.7	15.8	62	300	Hori.	43.5	27.7
160.950	22.3	QP	15.2	-20.7	16.8	54	100	Vert.	43.5	26.7
259.771	21.9	QP	17.7	-19.7	19.9	265	100	Vert.	46.0	26.1
260.311	21.6	QP	17.8	-19.7	19.7	156	300	Hori.	46.0	26.3
320.300	22.1	QP	14.9	-18.5	18.5	42	100	Hori.	46.0	27.5
321.700	21.7	QP	15.0	-18.5	18.2	165	100	Vert.	46.0	27.8
479.203	21.3	QP	17.8	-19.7	19.4	350	100	Hori.	46.0	26.6
480.603	22.1	QP	17.8	-19.7	20.2	8	100	Vert.	46.0	25.8
521.760	21.9	QP	18.1	-19.7	20.3	178	100	Hori.	46.0	25.7
519.870	21.7	QP	18.1	-19.7	20.1	334	100	Vert.	46.0	25.9
779.234	22.1	QP	21.2	-18.2	25.1	349	100	Hori.	46.0	20.9
781.200	22.3	QP	21.3	-18.1	25.5	23	100	Vert.	46.0	20.5

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)

### Radiated Spurious Emission

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

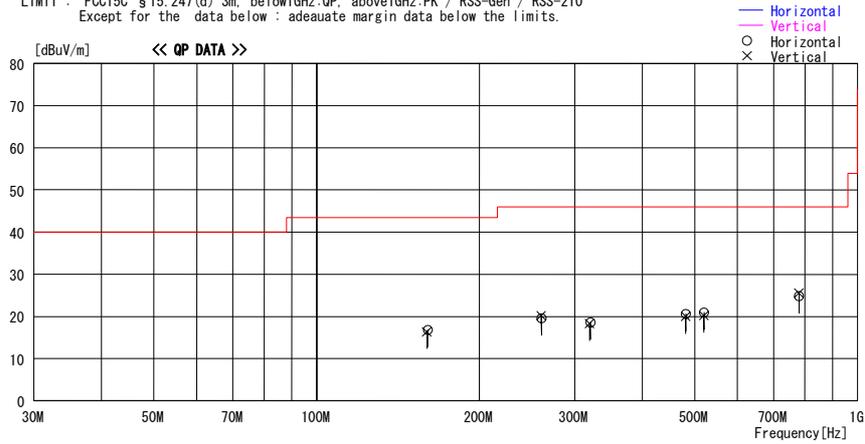
### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2006/06/26 17:11:34

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
Model No. : CECHZCTU Temp./ Humi. : 25 deg. C. / 58 %  
Serial No. : 4

Mode / Remarks : Bluetooth Tx 2480MHz (3DH5). Max-axis(H:Z V:Y)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Gain [dB]						
159.870	21.9	QP	15.2	-20.7	16.4	188	100	Vert.	43.5	27.1
160.680	22.3	QP	15.2	-20.7	16.8	356	300	Hori.	43.5	26.7
260.311	22.1	QP	17.8	-19.7	20.2	132	100	Vert.	46.0	25.8
260.581	21.5	QP	17.8	-19.7	19.6	297	300	Hori.	46.0	26.4
319.600	21.9	QP	14.9	-18.5	18.3	163	100	Vert.	46.0	27.7
321.000	22.1	QP	15.0	-18.5	18.6	342	100	Hori.	46.0	27.4
481.303	21.9	QP	17.8	-19.7	20.0	287	100	Vert.	46.0	26.0
482.003	22.5	QP	17.8	-19.7	20.6	99	100	Hori.	46.0	25.4
519.804	21.8	QP	18.1	-19.7	20.2	260	100	Vert.	46.0	25.8
520.504	22.5	QP	18.1	-19.7	20.9	351	100	Hori.	46.0	25.1
780.100	21.8	QP	21.2	-18.2	24.8	110	100	Hori.	46.0	21.2
779.508	22.5	QP	21.2	-18.2	25.5	174	100	Vert.	46.0	20.5

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)

### Radiated Spurious Emission

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

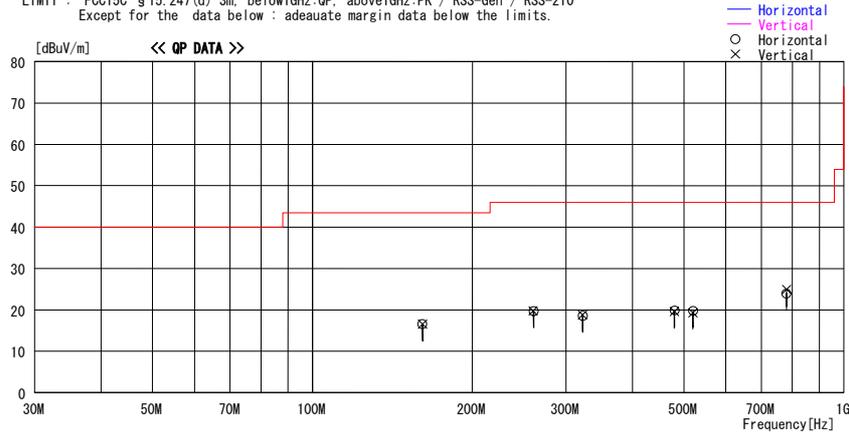
### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
Date : 2006/06/26 17:25:35

Applicant : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura  
Model No. : CECHZC1U Temp./ Humi. : 25 deg. C. / 58 %  
Serial No. : 4

Mode / Remarks : Bluetooth Rx 2441MHz, Max-axis(H:Z V:Y)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210  
Except for the data below : adeauate margin data below the limits.



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]						
160.950	22.1	QP	15.2	-20.7	16.6	192	300	Hori.	43.5	26.9
161.220	21.9	QP	15.3	-20.7	16.5	186	100	Vert.	43.5	27.0
260.311	21.7	QP	17.8	-19.7	19.8	153	100	Vert.	46.0	26.2
260.851	21.6	QP	17.8	-19.7	19.7	327	300	Hori.	46.0	26.3
322.400	22.1	QP	15.0	-18.5	18.6	222	100	Hori.	46.0	27.4
322.400	22.3	QP	15.0	-18.5	18.8	1	100	Vert.	46.0	27.2
479.658	21.5	QP	17.8	-19.7	19.6	209	100	Vert.	46.0	26.4
480.602	21.8	QP	17.8	-19.7	19.9	48	100	Hori.	46.0	26.1
519.876	20.9	QP	18.1	-19.7	19.3	2	100	Vert.	46.0	26.7
520.776	21.4	QP	18.1	-19.7	19.8	0	100	Hori.	46.0	26.2
780.208	21.9	QP	21.2	-18.2	24.9	276	100	Vert.	46.0	21.1
779.548	20.9	QP	21.2	-18.2	23.9	161	100	Hori.	46.0	22.1

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

	UL Apex Co., Ltd.
	Head Office EMC Lab. No.3/4 Semi Anechoic Chamber
Company : Sony Computer Entertainment Inc.	Report No. : 26KE0205-HO
Equipment : WIRELESS CONTROLLER	Regulation : Fcc Part15 Subpart C 15.247(d)
Model : CECHZC1U	Test distance : 3/1m
Sample No. : 4	Date : 06/23/2006 : 06/29/2006
Mode : Bluetooth, Tx 2402MHz (DH5)	Temperature : 25deg.C : 21deg.C
Remarks : Hor Z-axis / Ver Y-axis	Humidity : 58% : 63%
	Engineer : Mitsuru Fujimura

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>													
1	2390.0	48.0	45.2	30.6	32.7	2.1	0.0	-	48.0	45.2	74.0	26.0	28.8
2	2400.0	78.3	73.8	30.5	32.7	2.1	0.0	-	78.3	73.8	74.0	-	-
3	4804.0	42.6	42.7	34.8	31.6	3.5	1.4	-	50.7	50.8	74.0	23.3	23.2
4	7206.0	42.1	42.0	38.4	32.1	4.3	1.2	-	53.9	53.8	74.0	20.1	20.2
5	9608.0	43.3	43.8	39.9	33.1	5.0	1.0	-	56.1	56.6	74.0	17.9	17.4
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>													
6	12010.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
7	14412.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
8	16814.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
9	19216.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
10	21618.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
11	24020.0	45.7	46.4	39.1	31.9	7.9	0.0	-	51.3	52.0	74.0	22.7	22.0

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>													
1	2390.0	40.1	36.5	30.6	32.7	2.1	0.0	-30.4	9.7	6.1	54.0	44.3	47.9
2*	2400.0	65.7	62.1	30.5	32.7	2.1	0.0	-30.4	35.3	31.7	54.0	-	-
3	4804.0	31.7	31.2	34.8	31.6	3.5	1.4	-30.4	9.4	8.9	54.0	44.6	45.1
4	7206.0	29.7	29.8	38.4	32.1	4.3	1.2	-30.4	11.1	11.2	54.0	42.9	42.8
5	9608.0	31.0	30.9	39.9	33.1	5.0	1.0	-30.4	13.4	13.3	54.0	40.6	40.7
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac</b>													
6	12010.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
7	14412.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
8	16814.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
9	19216.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
10	21618.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
11	24020.0	33.8	33.8	39.1	31.9	7.9	0.0	-30.4	9.0	9.0	54.0	45.0	45.0

\*Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
0	2402.0	103.5	99.4	30.5	32.7	2.1	0.0	103.5	99.4	-	-	-
2	2400.0	56.5	52.7	30.5	32.7	2.1	0.0	56.5	52.7	Funda-20dB	27.0	26.7

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

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

\*Dwell time factor: See Dwell Time data.

**Radiated Spurious Emission**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3/4 Semi Anechoic Chamber

Company : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Equipment : WIRELESS CONTROLLER Regulation : Fcc Part15 Subpart C 15.247(d)  
Model : CECHZC1U Test distance : 3/1m  
Sample No. : 4 Date : 06/23/2006 : 06/29/2006  
Mode : Bluetooth, Tx 2441MHz (DH5) Temperature : 25deg.C : 21deg.C  
Remarks : Hor Z-axis / Ver Y-axis Humidity : 58% : 63%  
Engineer : Mitsuru Fujimura

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>													
1	4882.0	42.7	42.9	35.1	31.6	3.5	1.4	-	51.1	51.3	74.0	22.9	22.7
2	7323.0	41.2	41.7	38.6	32.2	4.3	1.1	-	53.0	53.5	74.0	21.0	20.5
3	9764.0	43.3	43.2	39.5	33.2	5.0	1.1	-	55.7	55.6	74.0	18.3	18.4
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>													
4	12205.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
9	24410.0	45.4	45.5	39.1	31.7	8.0	0.0	-	51.3	51.4	74.0	22.7	22.6

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>													
1	4882.0	31.3	31.6	35.1	31.6	3.5	1.4	-30.4	9.3	9.6	54.0	44.7	44.4
2	7323.0	29.4	29.6	38.6	32.2	4.3	1.1	-30.4	10.8	11.0	54.0	43.2	43.0
3	9764.0	31.3	31.2	39.5	33.2	5.0	1.1	-30.4	13.3	13.2	54.0	40.7	40.8
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac</b>													
4	12205.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
9	24410.0	33.7	33.7	39.1	31.7	8.0	0.0	-30.4	9.2	9.2	54.0	44.8	44.8

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

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

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

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

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

\*Dwell time factor: See Dwell Time data.

## Radiated Spurious Emission

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3/4 Semi Anechoic Chamber

Company : Sony Computer Entertainment Inc.	Report No. : 26KE0205-HO
Equipment : WIRELESS CONTROLLER	Regulation : Fcc Part15 Subpart C 15.247(d)
Model : CECHZC1U	Test distance : 3/1m
Sample No. : 4	Date : 06/23/2006 : 06/29/2006
Mode : Bluetooth, Tx 2480MHz (DH5)	Temperature : 25deg.C : 21deg.C
Remarks : Hor Z-axis / Ver Y-axis	Humidity : 58% : 63%
	Engineer : Mitsuru Fujimura

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>													
1	2483.5	62.5	58.4	30.2	32.7	2.3	0.0	-	62.3	58.2	74.0	11.7	15.8
2	4960.0	42.8	42.1	35.3	31.6	3.5	1.4	-	51.4	50.7	74.0	22.6	23.3
3	7440.0	42.1	41.3	38.9	32.3	4.3	1.1	-	54.1	53.3	74.0	19.9	20.7
4	9920.0	43.5	43.2	39.2	33.2	5.1	1.2	-	55.8	55.5	74.0	18.2	18.5
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>													
5	12400.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
10	24800.0	46.1	46.3	39.3	31.4	8.1	0.0	-	52.6	52.8	74.0	21.4	21.2

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>													
1	2483.5	53.3	50.0	30.2	32.7	2.3	0.0	-30.4	22.7	19.4	54.0	31.3	34.6
2	4960.0	30.8	30.1	35.3	31.6	3.5	1.4	-30.4	9.0	8.3	54.0	45.0	45.7
3	7440.0	29.7	29.4	38.9	32.3	4.3	1.1	-30.4	11.3	11.0	54.0	42.7	43.0
4	9920.0	31.2	31.0	39.2	33.2	5.1	1.2	-30.4	13.1	12.9	54.0	40.9	41.1
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac</b>													
5	12400.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
10	24800.0	33.9	33.9	39.3	31.4	8.1	0.0	-30.4	10.0	10.0	54.0	44.0	44.0

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

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

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

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

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

\*Dwell time factor: See Dwell Time data.

### Radiated Spurious Emission

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3/4 Semi Anechoic Chamber

Company : Sony Computer Entertainment Inc.	Report No. : 26KE0205-HO
Equipment : WIRELESS CONTROLLER	Regulation : Fcc Part15 Subpart C 15.247(d)
Model : CECHZC1U	Test distance : 3/1m
Sample No. : 4	Date : 06/23/2006 : 06/29/2006
Mode : Bluetooth, Tx 2402MHz (3DH5)	Temperature : 25deg.C : 21deg.C
Remarks : Hor Z-axis / Ver Y-axis	Humidity : 58% : 63%
	Engineer : Mitsuru Fujimura

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>													
1	2390.0	49.2	50.0	30.3	32.8	2.2	0.0	-	48.9	49.7	74.0	25.1	24.3
2*	2400.0	82.0	82.6	30.3	32.8	2.2	0.0	-	81.7	82.3	74.0	-	-
3	4804.0	40.7	40.9	34.8	31.6	3.5	1.4	-	48.8	49.0	74.0	25.2	25.0
4	7206.0	42.6	41.4	38.4	32.1	4.3	1.2	-	54.4	53.2	74.0	19.6	20.8
5	9608.0	43.1	43.2	39.9	33.1	5.0	1.0	-	55.9	56.0	74.0	18.1	18.0
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>													
6	12010.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
7	14412.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
8	16814.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
9	19216.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
10	21618.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
11	24020.0	45.8	45.4	39.1	31.9	7.9	0.0	-	51.4	51.0	74.0	22.6	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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>													
1	2390.0	35.2	36.3	30.3	32.8	2.2	0.0	-30.4	4.5	5.6	54.0	49.5	48.4
2*	2400.0	66.6	67.0	30.3	32.8	2.2	0.0	-30.4	35.9	36.3	54.0	-	-
3	4804.0	28.7	28.7	34.8	31.6	3.5	1.4	-30.4	6.4	6.4	54.0	47.6	47.6
4	7206.0	29.4	29.6	38.4	32.1	4.3	1.2	-30.4	10.8	11.0	54.0	43.2	43.0
5	9608.0	30.6	30.7	39.9	33.1	5.0	1.0	-30.4	13.0	13.1	54.0	41.0	40.9
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac</b>													
6	12010.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
7	14412.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
8	16814.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
9	19216.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
10	21618.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
11	24020.0	33.6	33.6	39.1	31.9	7.9	0.0	-30.4	8.8	8.8	54.0	45.2	45.2

\* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
0	2402.0	102.9	103.4	30.3	32.8	2.2	0.0	102.6	103.1	-	-	-
2	2400.0	53.2	53.6	30.3	32.8	2.2	0.0	52.9	53.3	Funda-20dB	29.7	29.8

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

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

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

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

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

\*Dwell time factor: See Dwell Time data.

**Radiated Spurious Emission**

Company : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Equipment : WIRELESS CONTROLLER Regulation : Fcc Part15 Subpart C 15.247(d)  
Model : CECHZC1U Test distance : 3/1m  
Sample No. : 4 Date : 06/23/2006 : 06/29/2006  
Mode : Bluetooth, Tx 2441MHz (3DH5) Temperature : 25deg.C : 21deg.C  
Remarks : Hor Z-axis / Ver Y-axis Humidity : 58% : 63%  
Engineer : Mitsuru Fujimura

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>													
1	4882.0	40.9	40.6	35.1	31.6	3.5	1.4	-	49.3	49.0	74.0	24.7	25.0
2	7323.0	41.1	42.5	38.6	32.2	4.3	1.1	-	52.9	54.3	74.0	21.1	19.7
3	9764.0	43.5	43.1	39.5	33.2	5.0	1.1	-	55.9	55.5	74.0	18.1	18.5
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>													
4	12205.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
9	24410.0	46.3	46.2	39.1	31.7	8.0	0.0	-	52.2	52.1	74.0	21.8	21.9

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]						HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>													
1	4882.0	28.3	28.5	35.1	31.6	3.5	1.4	-30.4	6.3	6.5	54.0	47.7	47.5
2	7323.0	29.6	29.6	38.6	32.2	4.3	1.1	-30.4	11.0	11.0	54.0	43.0	43.0
3	9764.0	31.1	31.0	39.5	33.2	5.0	1.1	-30.4	13.1	13.0	54.0	40.9	41.0
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac</b>													
4	12205.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
5	14646.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
6	17087.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
7	19528.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
8	21969.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
9	24410.0	33.8	33.8	39.1	31.7	8.0	0.0	-30.4	9.3	9.3	54.0	44.7	44.7

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 result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.  
\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.  
\*Dwell time factor: See Dwell Time data.

## Radiated Spurious Emission

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3/4 Semi Anechoic Chamber

Company : Sony Computer Entertainment Inc.	Report No. : 26KE0205-HO
Equipment : WIRELESS CONTROLLER	Regulation : Fcc Part15 Subpart C 15.247(d)
Model : CECHZC1U	Test distance : 3/1m
Sample No. : 4	Date : 06/23/2006 : 06/29/2006
Mode : Bluetooth, Tx 2480MHz (3DH5)	Temperature : 25deg.C : 21deg.C
Remarks : Hor Z-axis / Ver Y-axis	Humidity : 58% : 63%
	Engineer : Mitsuru Fujimura

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>													
1	2483.5	68.0	66.0	30.2	32.7	2.3	0.0	-	67.8	65.8	74.0	6.2	8.2
2	4960.0	40.9	40.7	35.3	31.6	3.5	1.4	-	49.5	49.3	74.0	24.5	24.7
3	7440.0	41.7	42.3	38.9	32.3	4.3	1.1	-	53.7	54.3	74.0	20.3	19.7
4	9920.0	43.5	43.3	39.2	33.2	5.1	1.2	-	55.8	55.6	74.0	18.2	18.4
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>													
5	12400.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	-	74.0	-	-
10	24800.0	46.5	46.6	39.3	31.4	8.1	0.0	-	53.0	53.1	74.0	21.0	20.9

**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]	Dwell Factor [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER						HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>													
1	2483.5	53.2	52.0	30.2	32.7	2.3	0.0	-30.4	22.6	21.4	54.0	31.4	32.6
2	4960.0	28.5	28.4	35.3	31.6	3.5	1.4	-30.4	6.7	6.6	54.0	47.3	47.4
3	7440.0	29.8	30.0	38.9	32.3	4.3	1.1	-30.4	11.4	11.6	54.0	42.6	42.4
4	9920.0	30.9	30.9	39.2	33.2	5.1	1.2	-30.4	12.8	12.8	54.0	41.2	41.2
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac</b>													
5	12400.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
6	14880.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
7	17360.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
8	19840.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
9	22320.0	N/S	N/S	-	-	-	-	-	-	-	54.0	-	-
10	24800.0	33.9	34.1	39.3	31.4	8.1	0.0	-30.4	10.0	10.2	54.0	44.0	43.8

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

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

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

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

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

\*Dwell time factor: See Dwell Time data.

**Radiated Spurious Emission**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3 Semi Anechoic Chamber

Company : Sony Computer Entertainment Inc. Report No. : 26KE0205-HO  
Equipment : Wireless Controller Regulation : Fcc Part15 Subpart C 15.247(d)  
Model : CECHZC1U Test distance : 3m  
Sample No. : 4 Date : 06/23/2006  
Mode : Bluetooth, Rx 2441MHz Temperature : 25deg.C  
Remarks : Hor Z-axis / Ver Y-axis Humidity : 58%  
Engineer : Mitsuru Fujimura

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

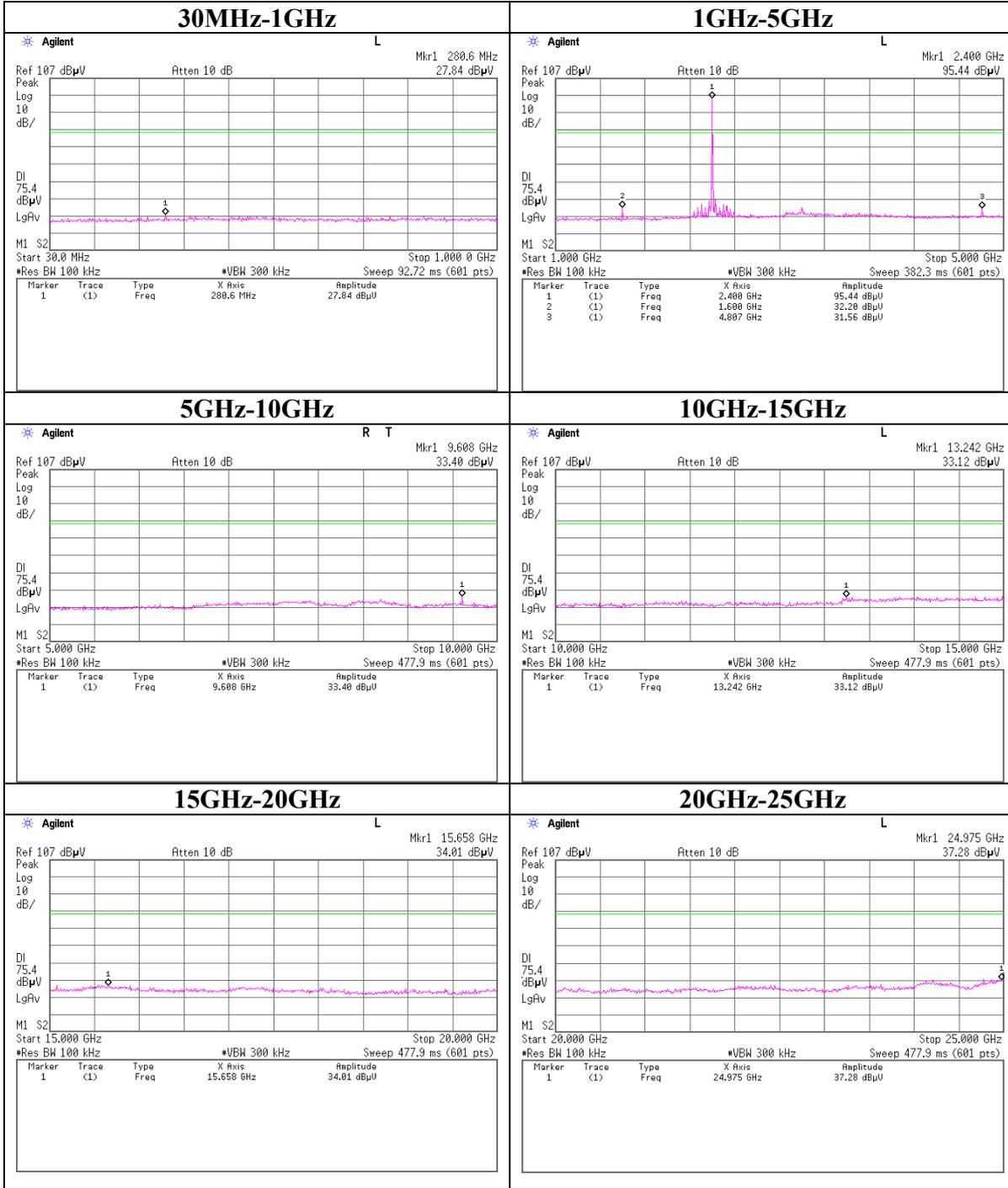
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2441.0	41.9	42.9	30.3	32.7	2.2	0.0	41.7	42.7	74.0	32.3	31.3
2	4882.0	40.2	40.8	35.1	31.6	3.5	0.0	47.2	47.8	74.0	26.8	26.2
3	7323.0	41.6	41.0	38.6	32.2	4.3	0.0	52.3	51.7	74.0	21.7	22.3

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

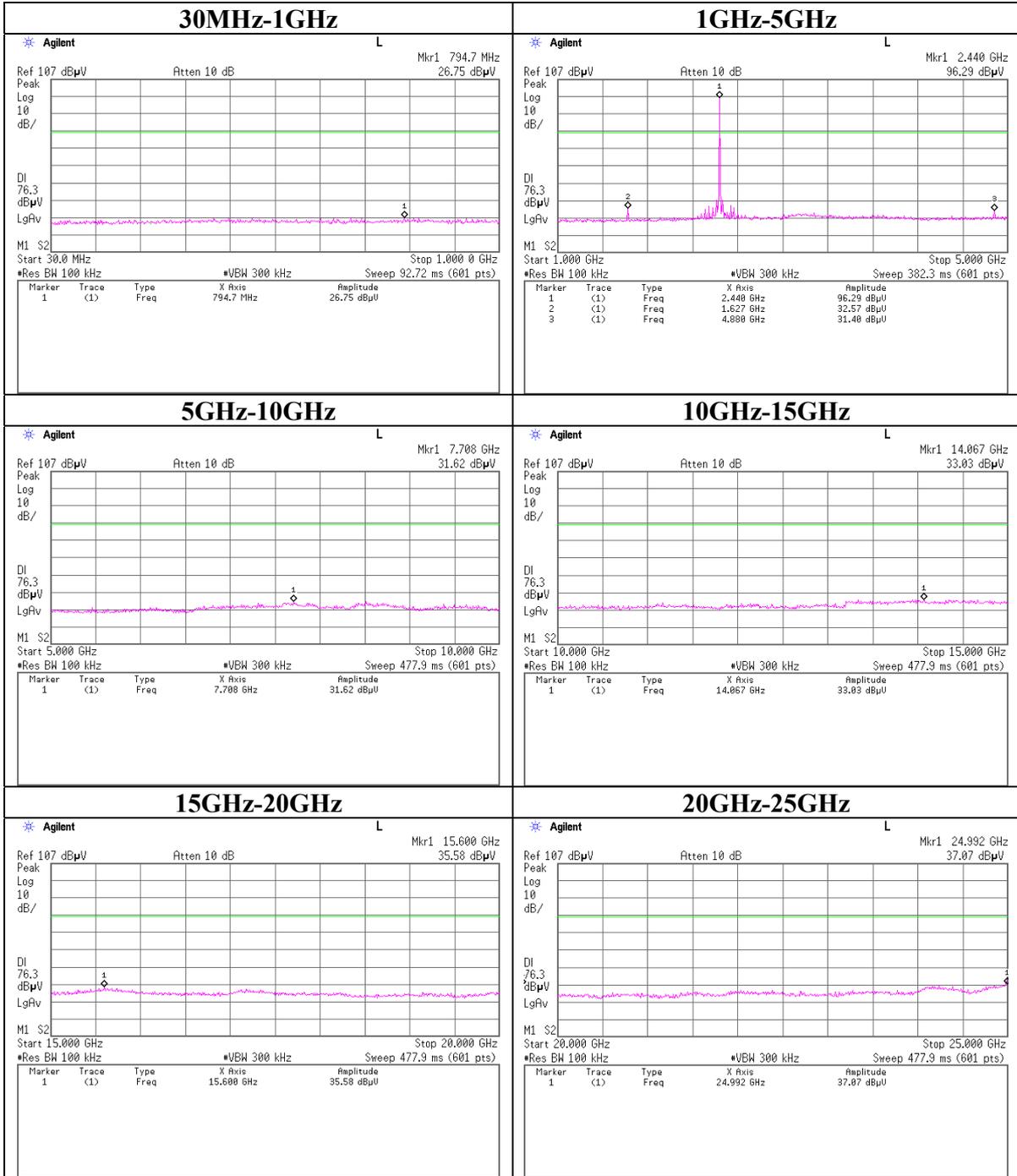
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor</b>												
1	2441.0	29.9	29.9	30.3	32.7	2.2	0.0	29.7	29.7	54.0	24.3	24.3
2	4882.0	28.2	28.3	35.1	31.6	3.5	0.0	35.2	35.3	54.0	18.8	18.7
3	7323.0	29.4	29.1	38.6	32.2	4.3	0.0	40.1	39.8	54.0	13.9	14.2

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 result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.  
\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

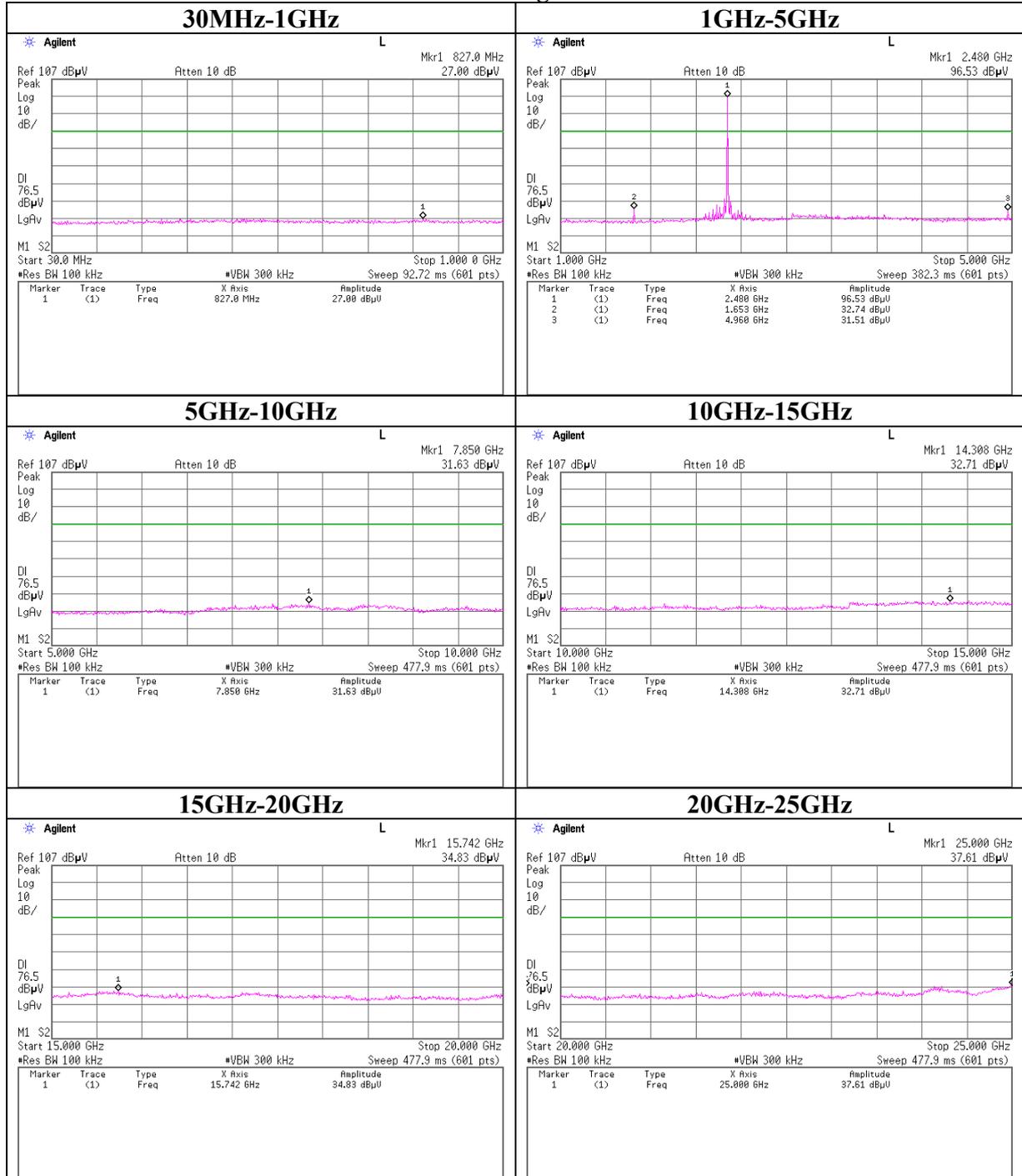
**Conducted Spurious Emission**  
**Ch:Low**



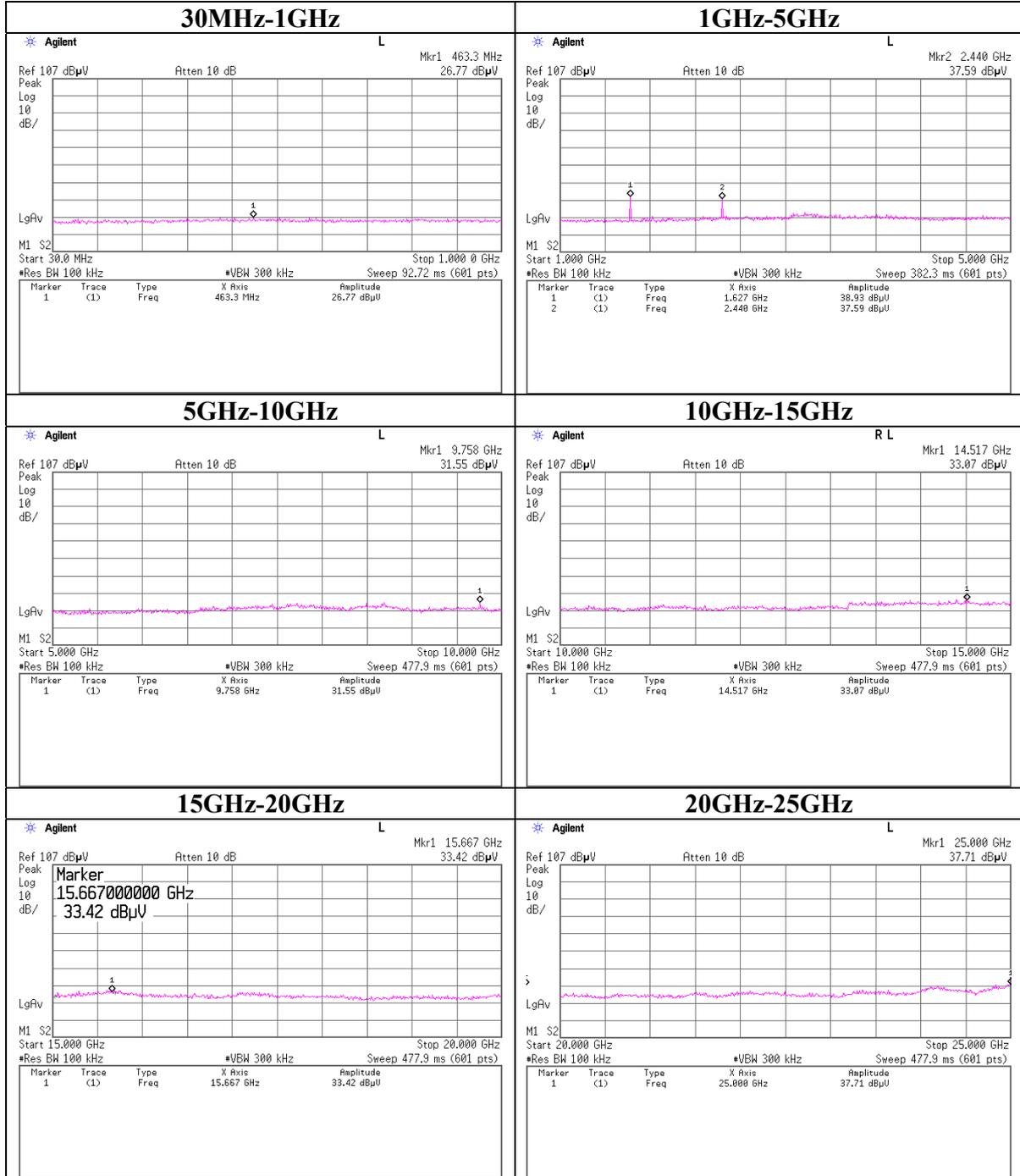
**Conducted Spurious Emission**  
**Ch:Mid**



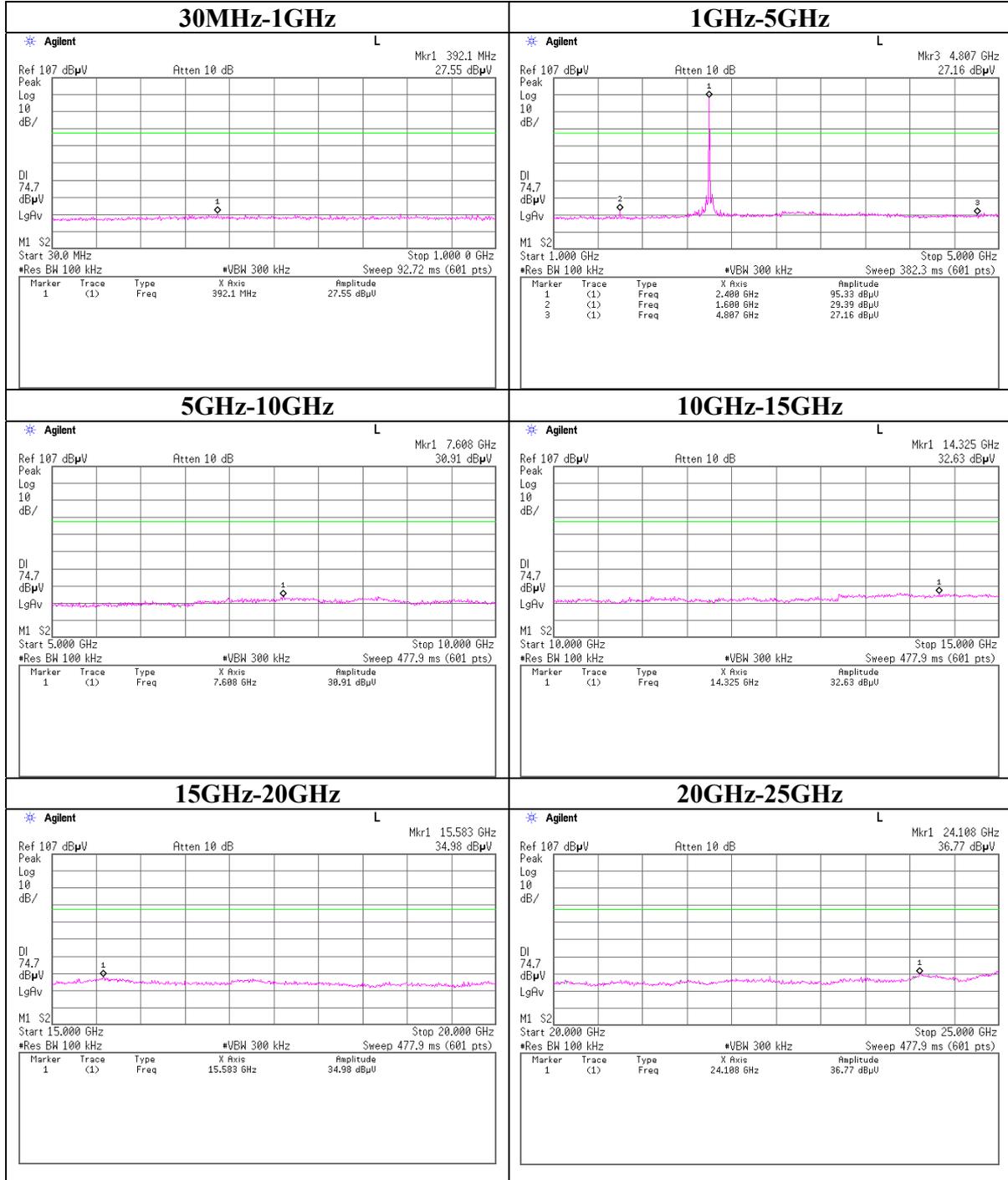
**Conducted Spurious Emission**  
**Ch:High**



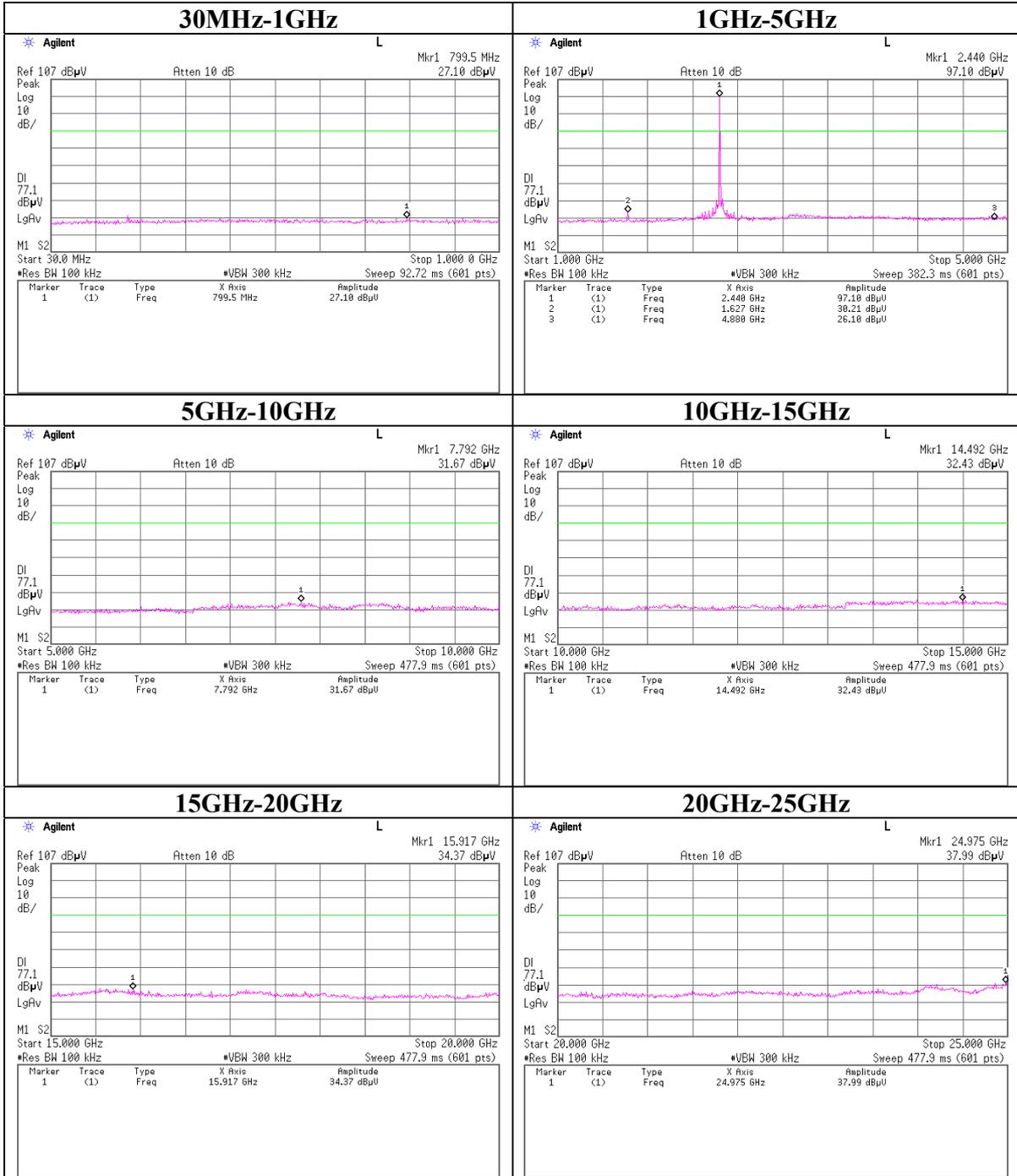
**Conducted Spurious Emission**  
**Rx Ch:Mid**



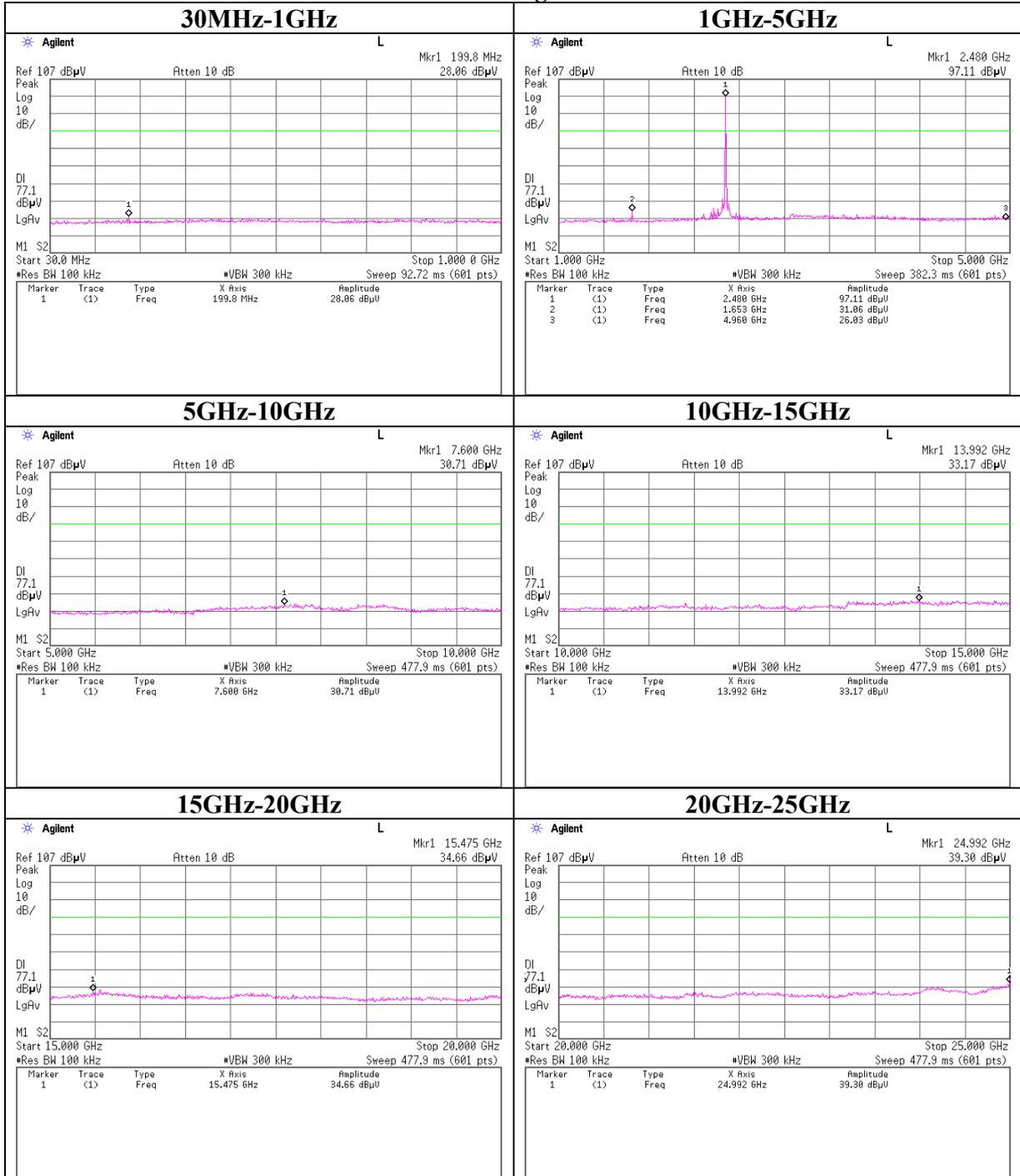
**Conducted Spurious Emission(EDR)**  
**Ch:Low**



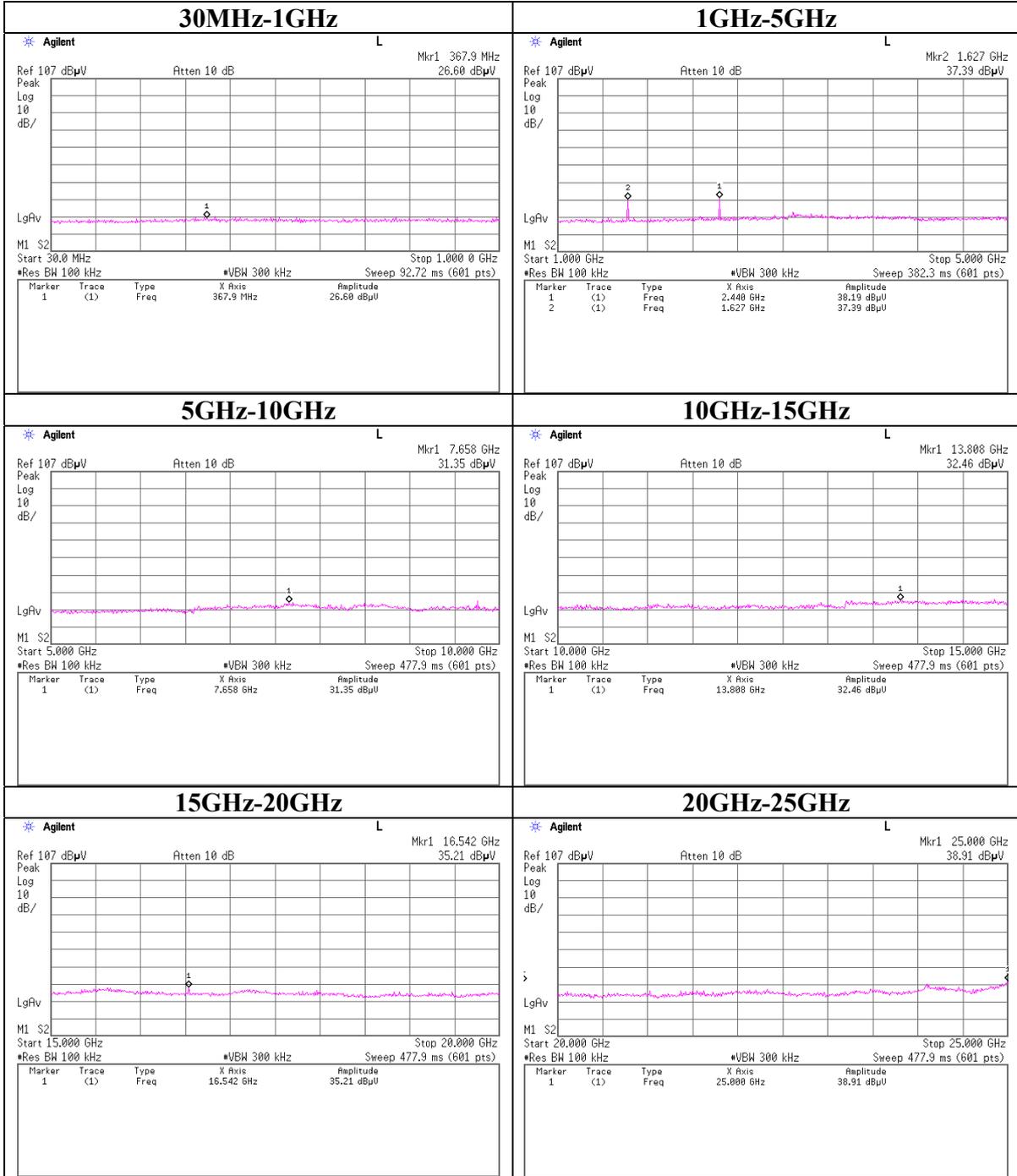
**Conducted Spurious Emission(EDR)**  
**Ch:Mid**



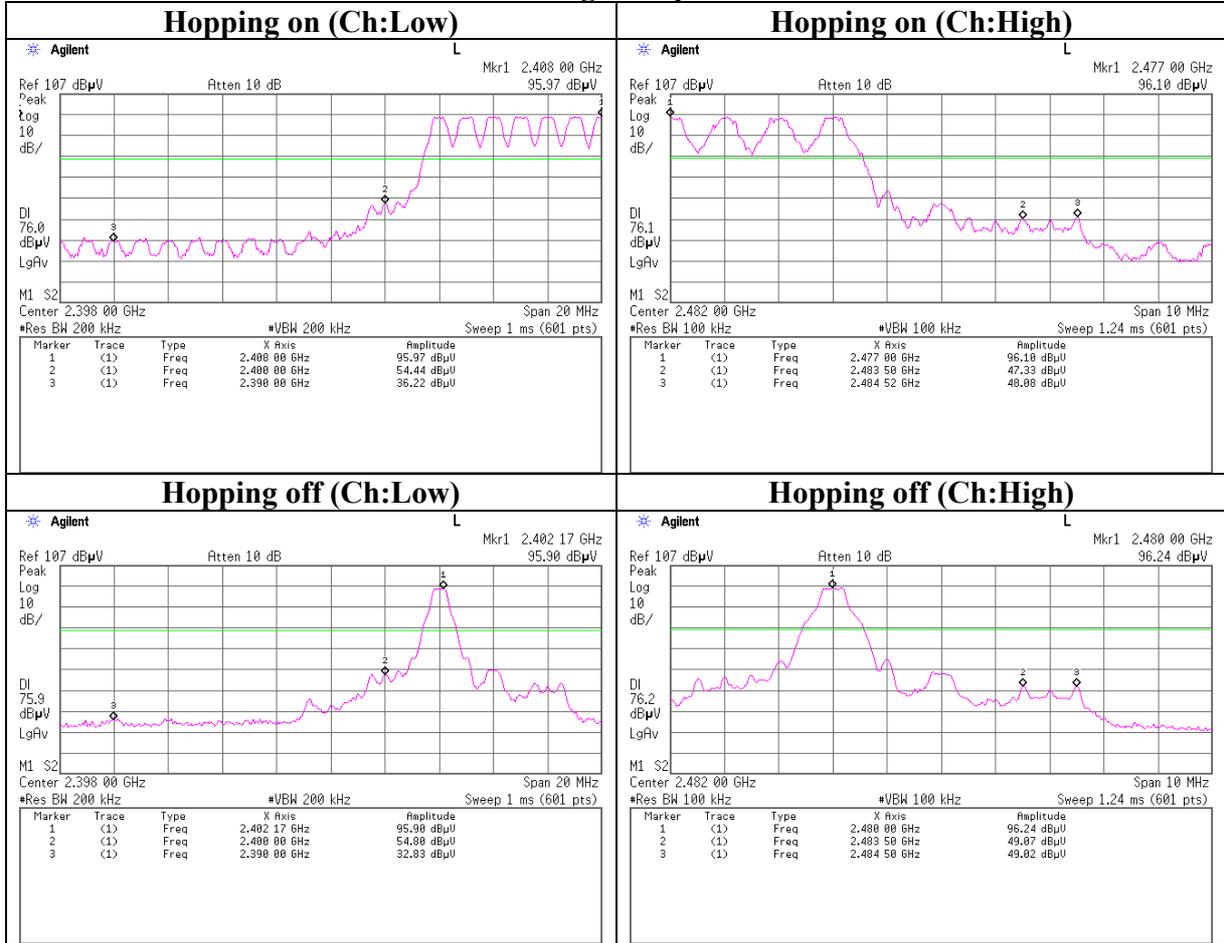
**Conducted Spurious Emission(EDR)**  
**Ch:High**



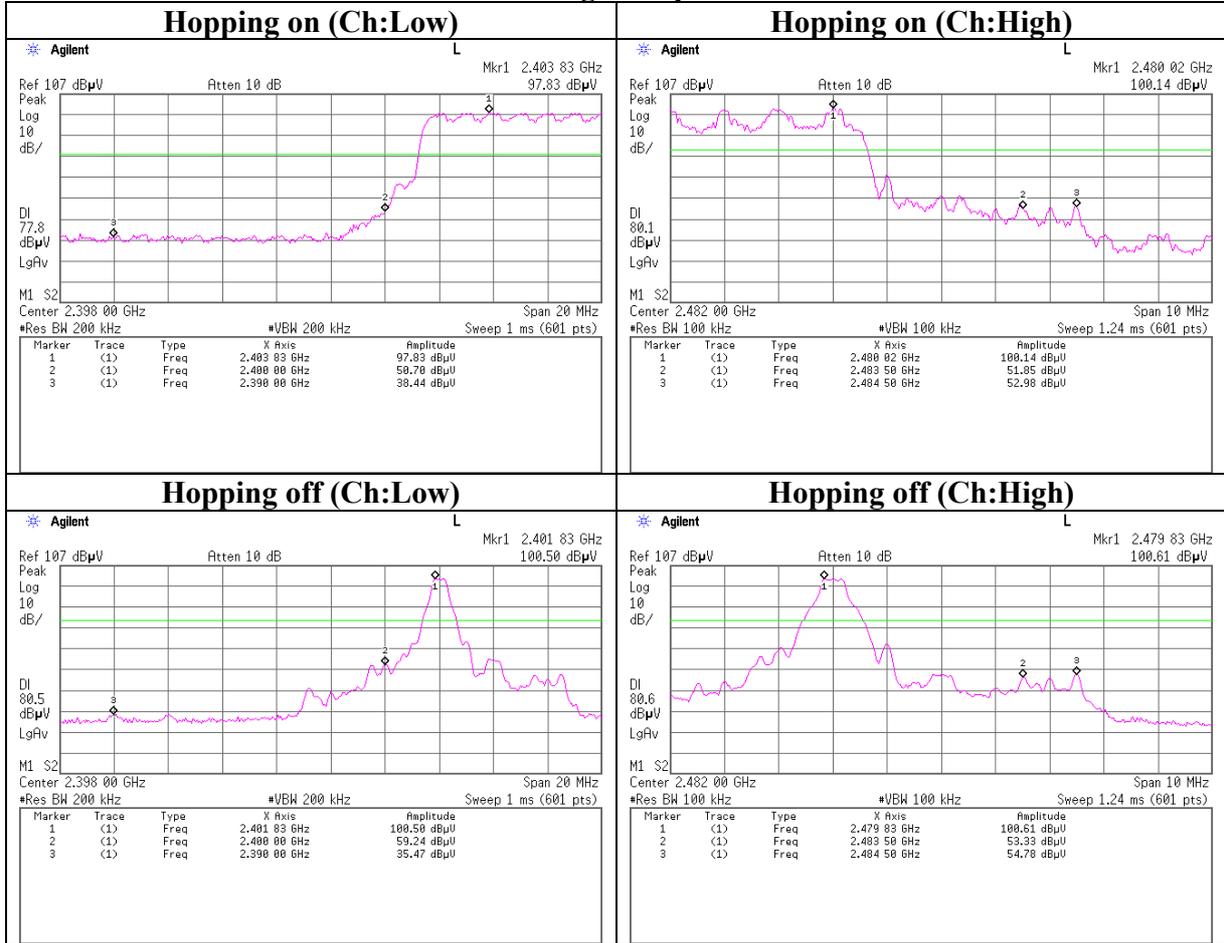
**Conducted Spurious Emission(EDR)**  
**Rx Ch:Mid**



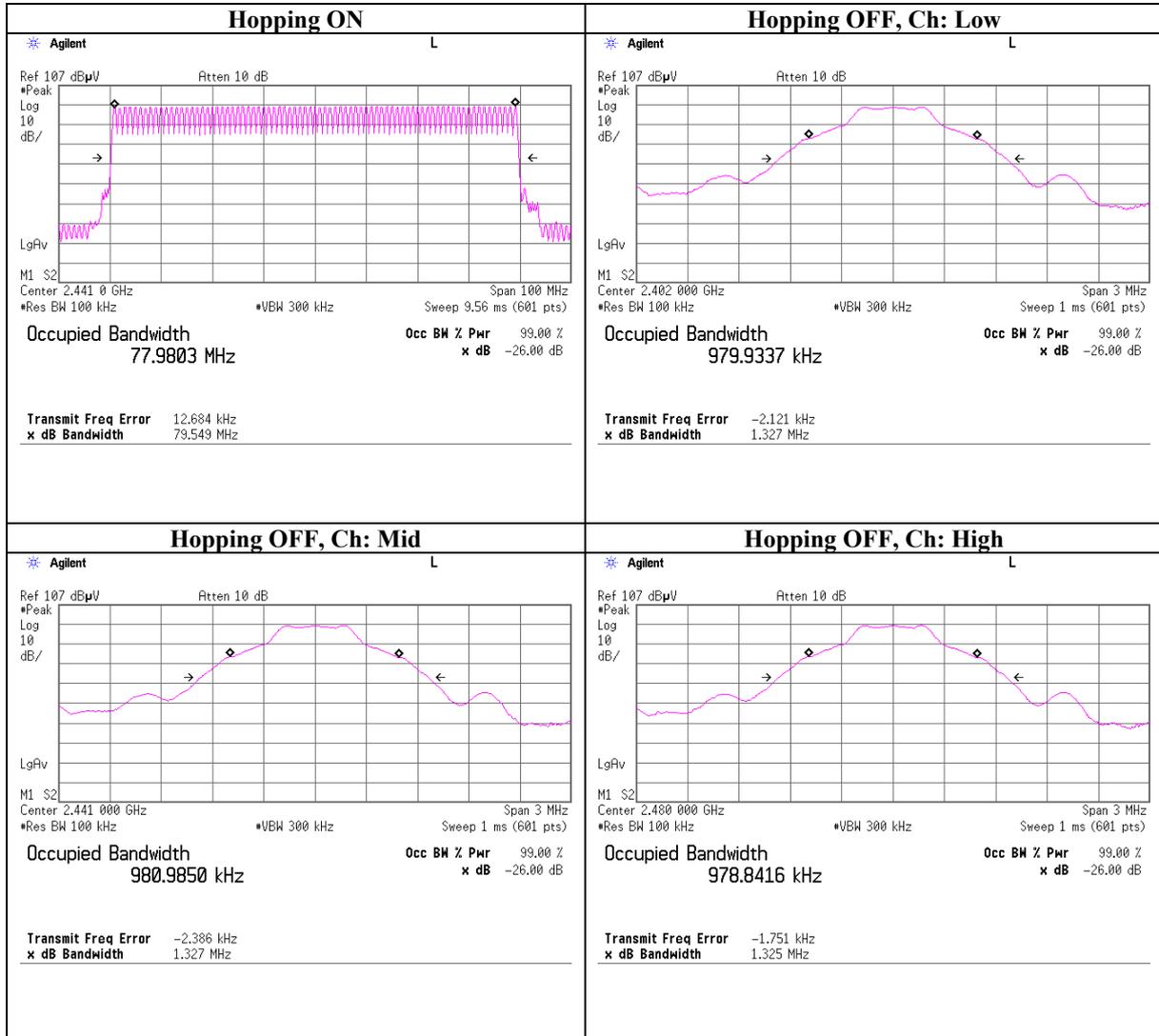
**Conducted Spurious Emission**  
**Band Edge compliance**



**Conducted Spurious Emission(EDR)**  
**Band Edge compliance**



### 99% Occupied Bandwidth



**99% Occupied Bandwidth(EDR)**

