

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

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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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MF060b(14.06.06)

APPENDIX 3: Data of EMI test

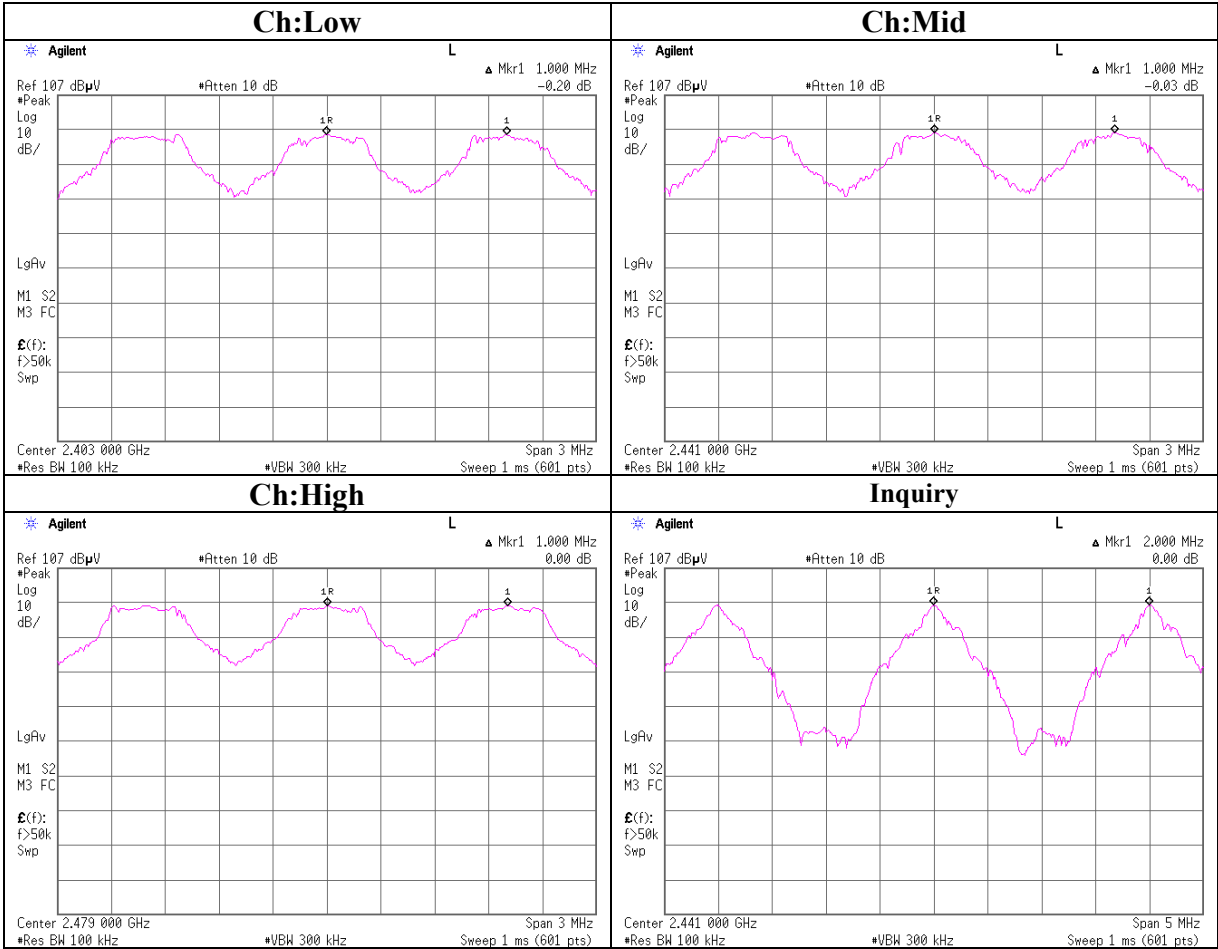
Carrier Frequency Separation

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



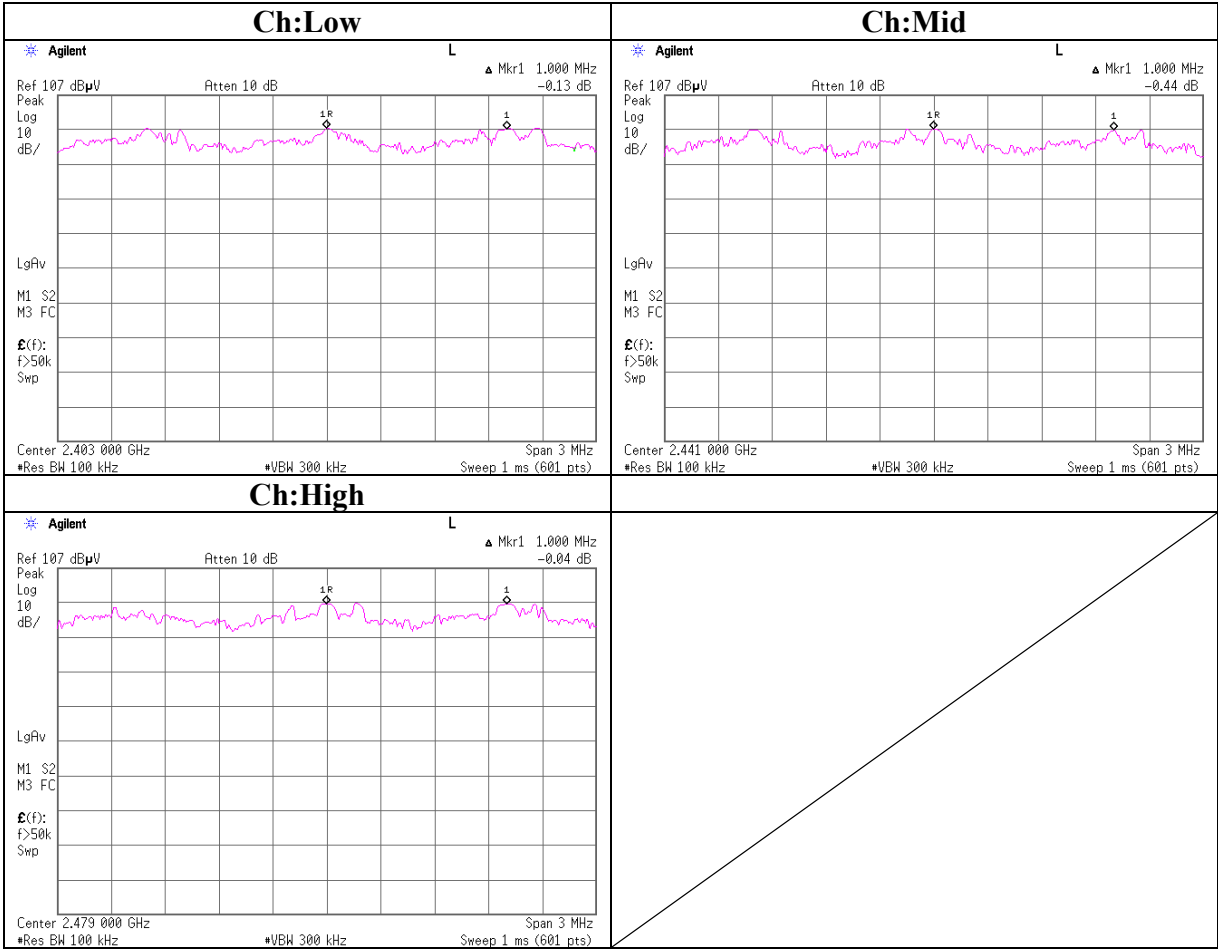
Carrier Frequency Separation(EDR)

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)



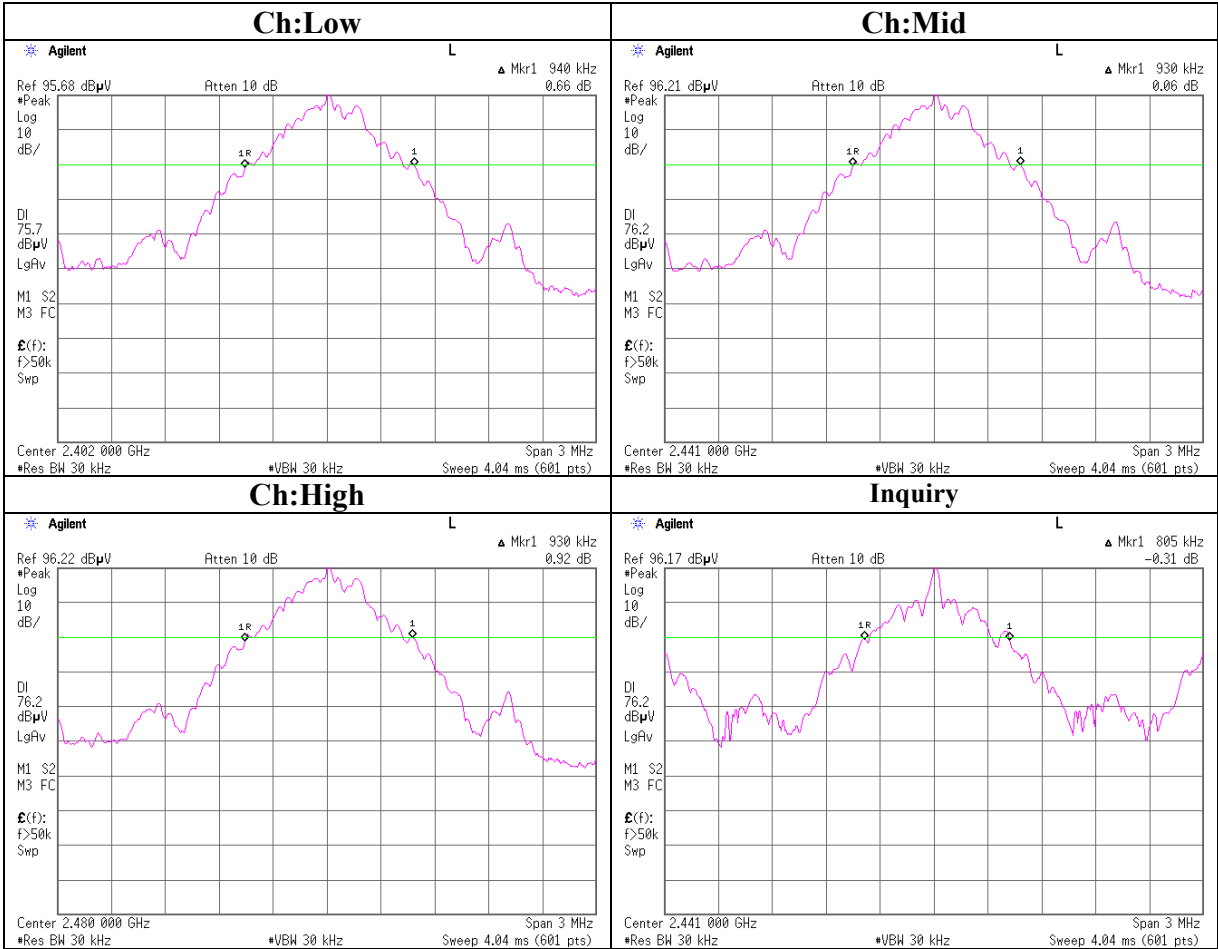
20dB Bandwidth

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

20dB Bandwidth



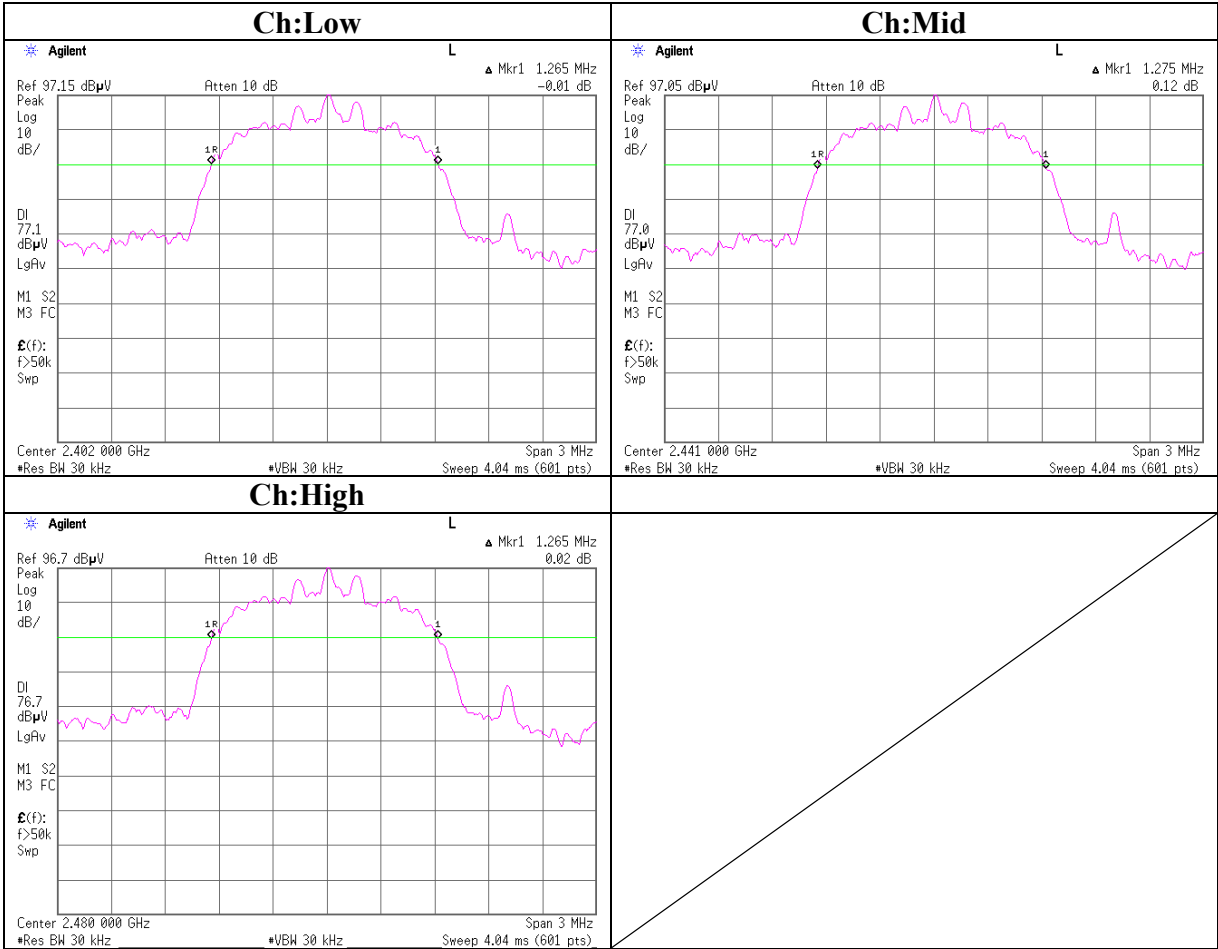
20dB Bandwidth(EDR)

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

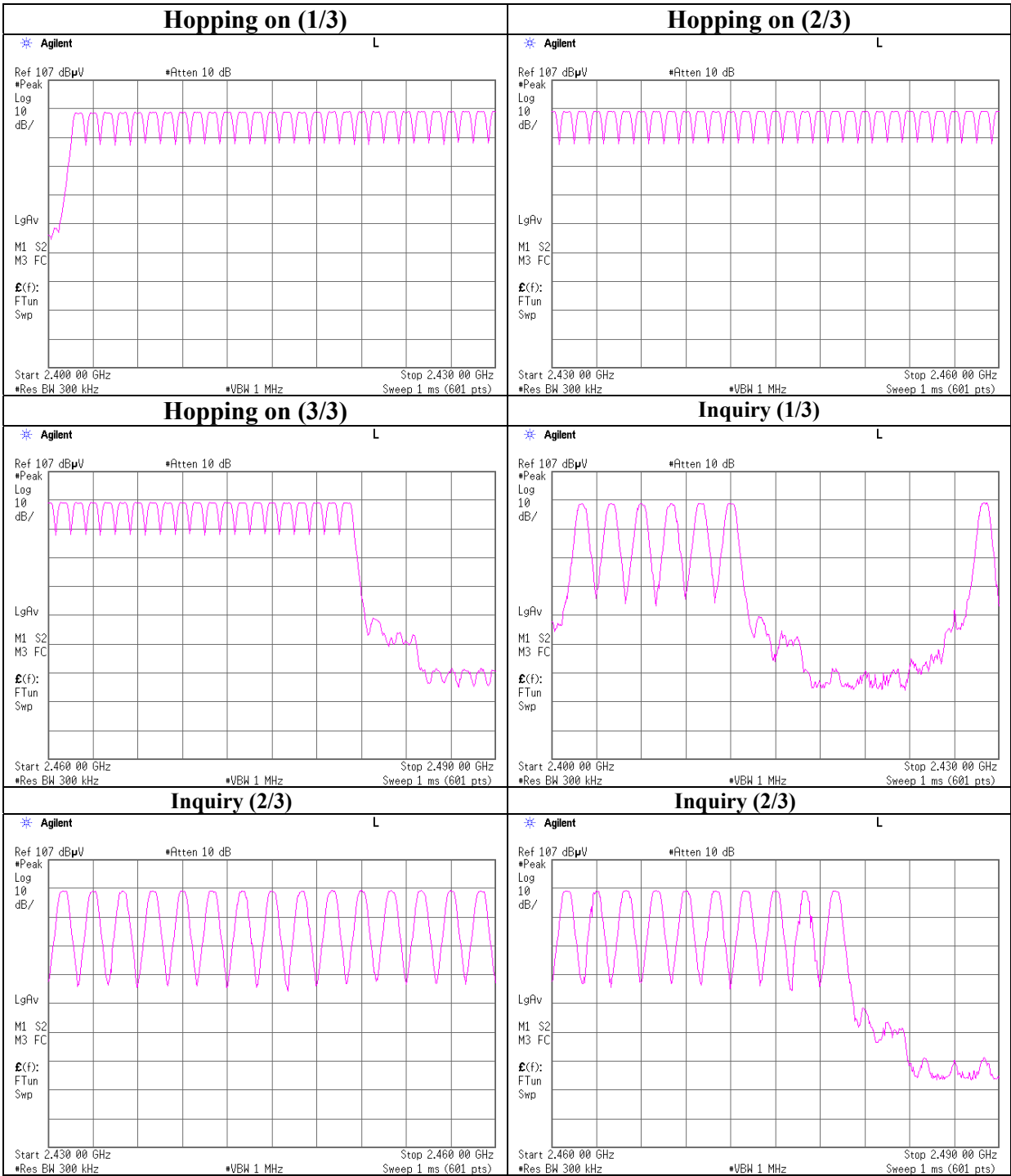
UL Apex Co., Ltd.
Head Office EMC Lab. No.6 Shielded Room

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	≥ 15

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

Number of Hopping Frequency



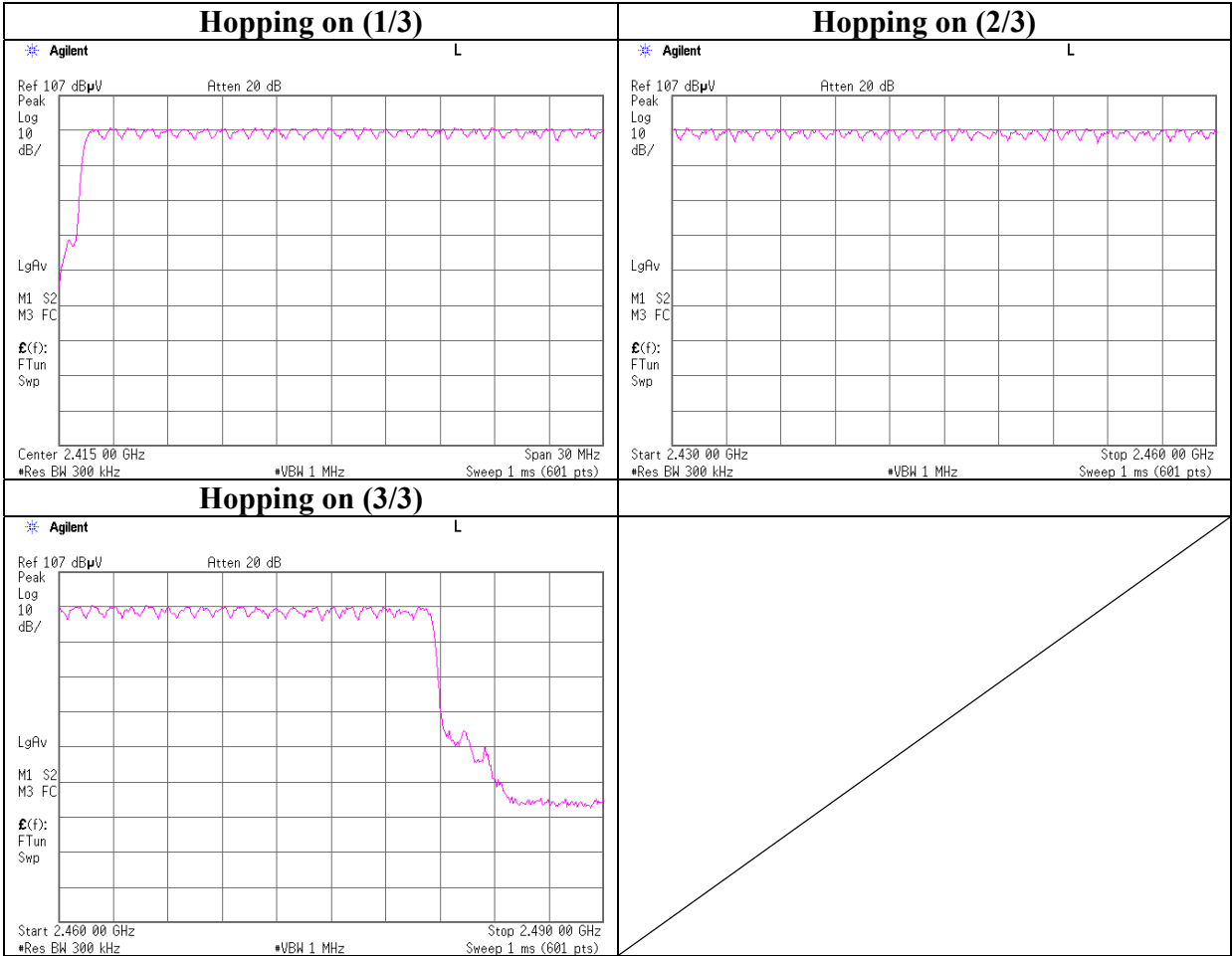
Number of Hopping Frequency(EDR)

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	Limit
	[time]	[time]
Tx(Hoppng on)	79	≥ 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

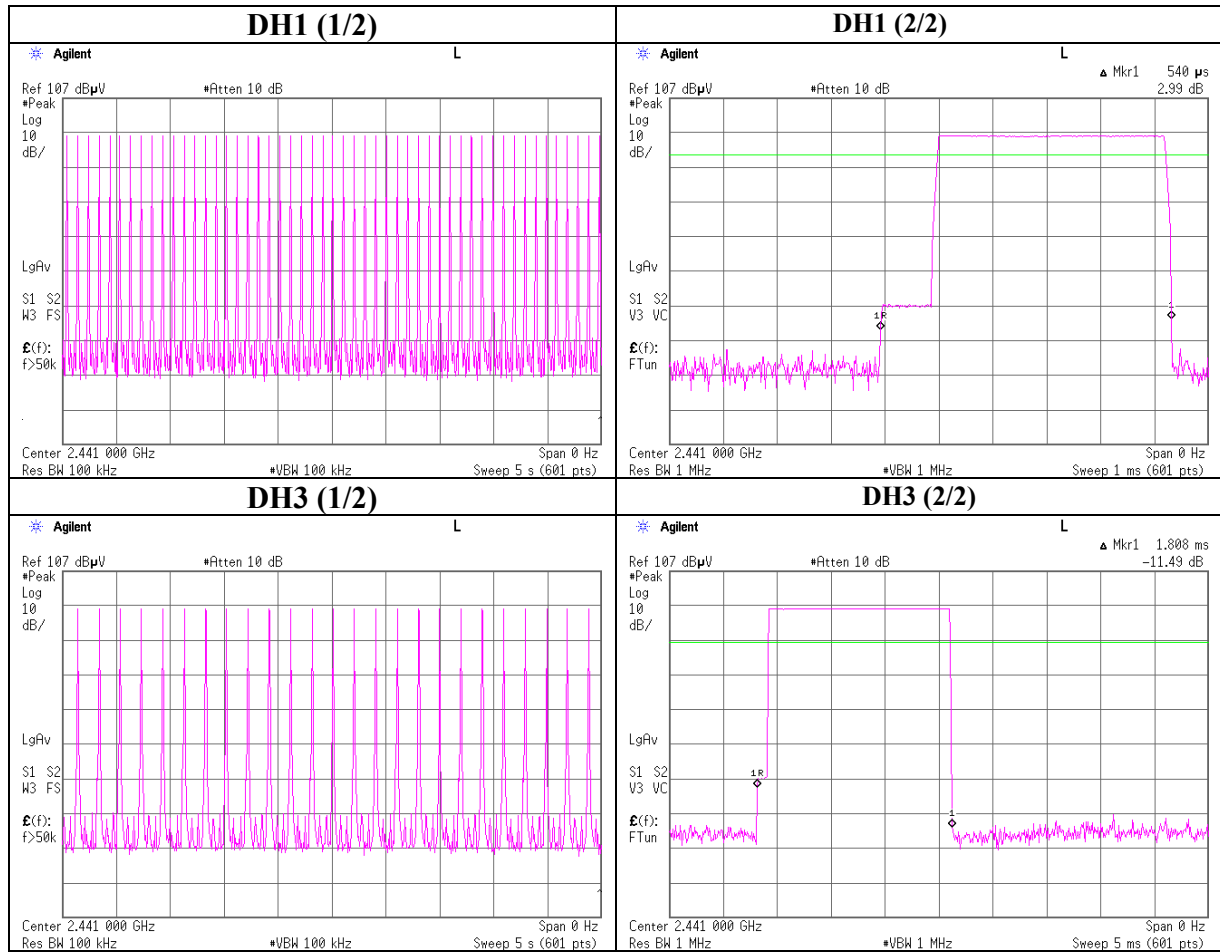
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times /5sec. x 31.6 = 323 times	0.504	163	400
DH3	26 times / 5sec. x 31.6 = 165times	1.808	299	400
DH5	18 times / 5 sec. x 31.6 = 114 times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

Dwell time factor

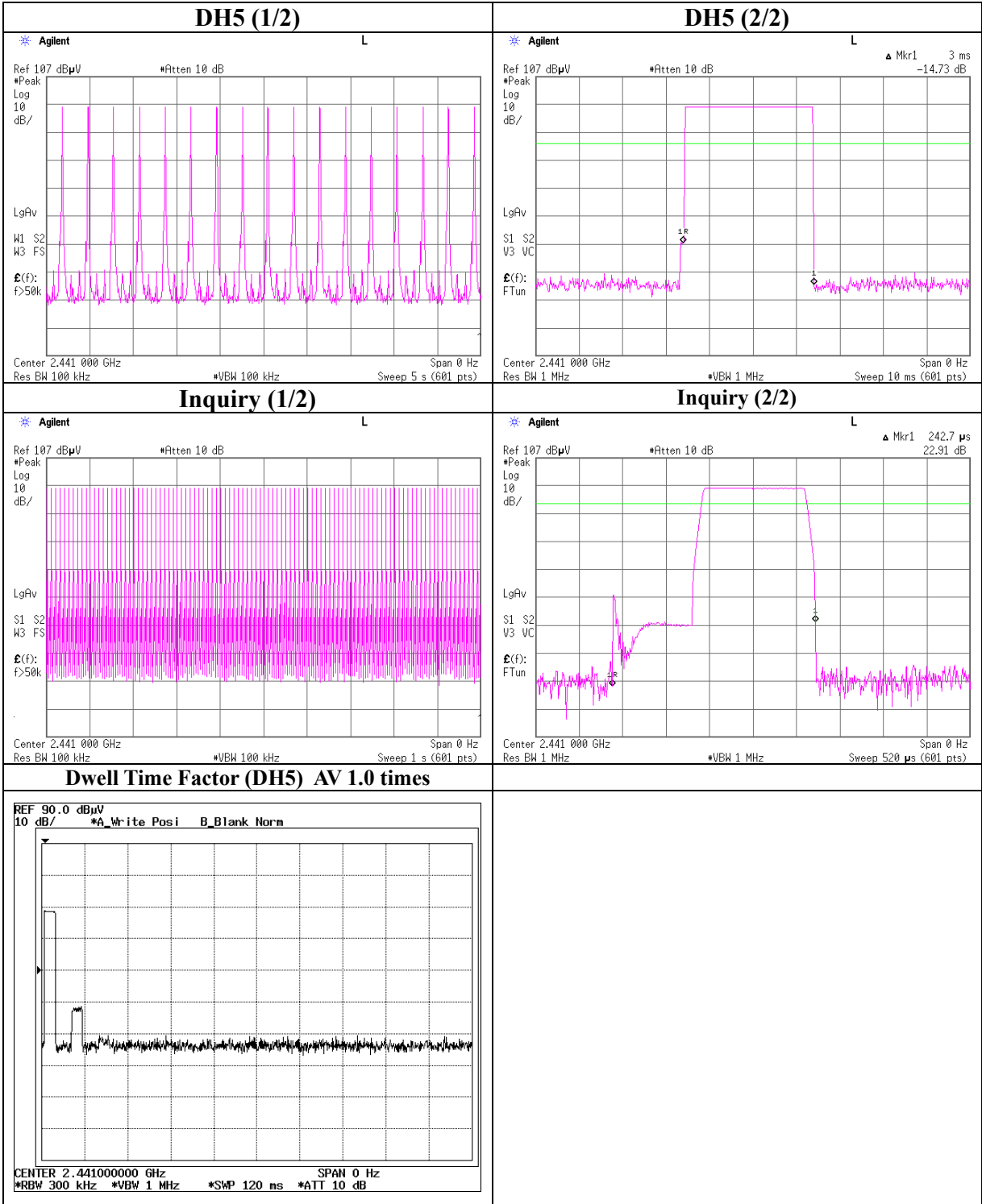
Dwell time factor = $20\log_{10}(\text{dwell time}/100\text{ms})$

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

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

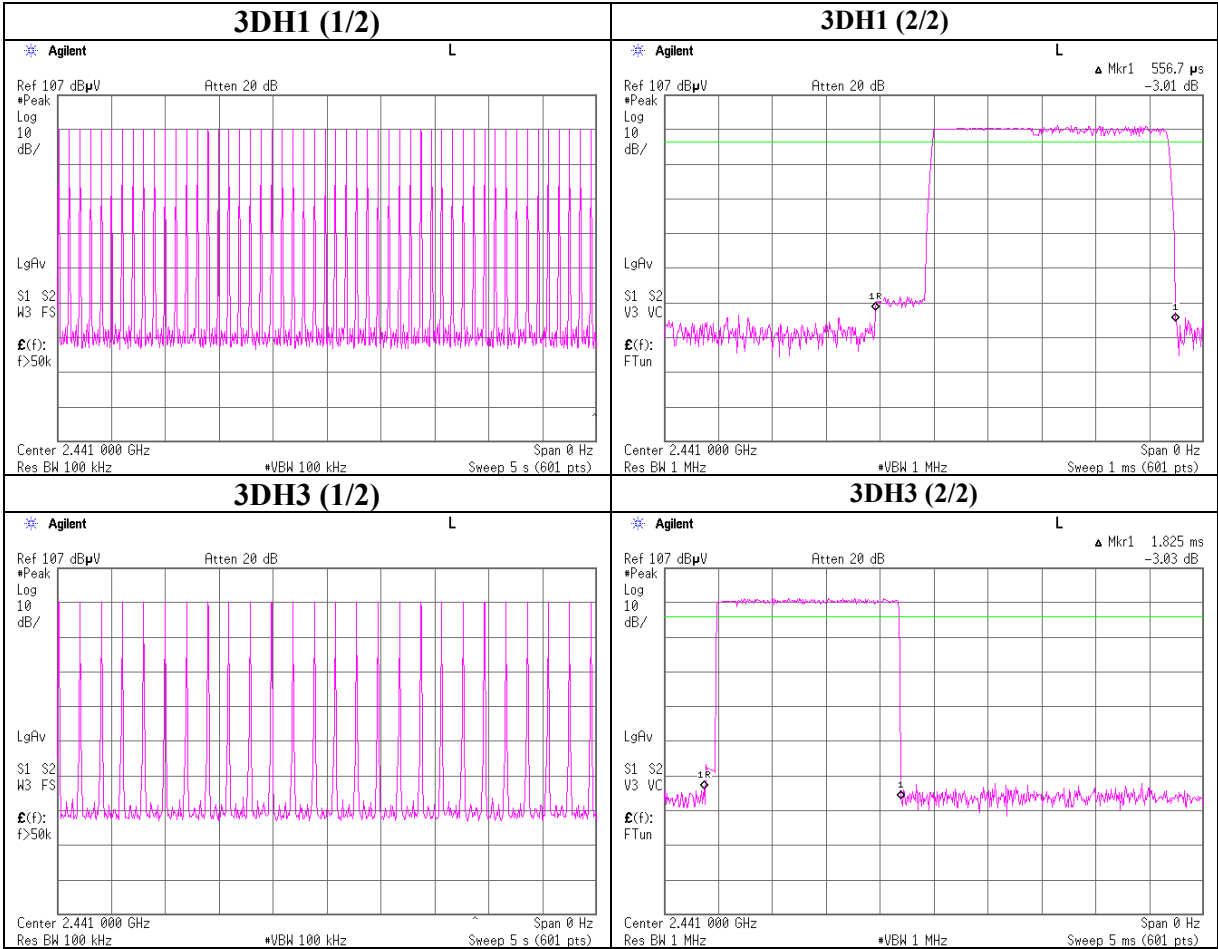
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times /5sec. x 31.6 = 323 times	0.557	180	400
DH3	26 times / 5sec. x 31.6 = 165times	1.825	302	400
DH5	18 times / 5 sec. x 31.6 = 114 times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

Dwell time factor

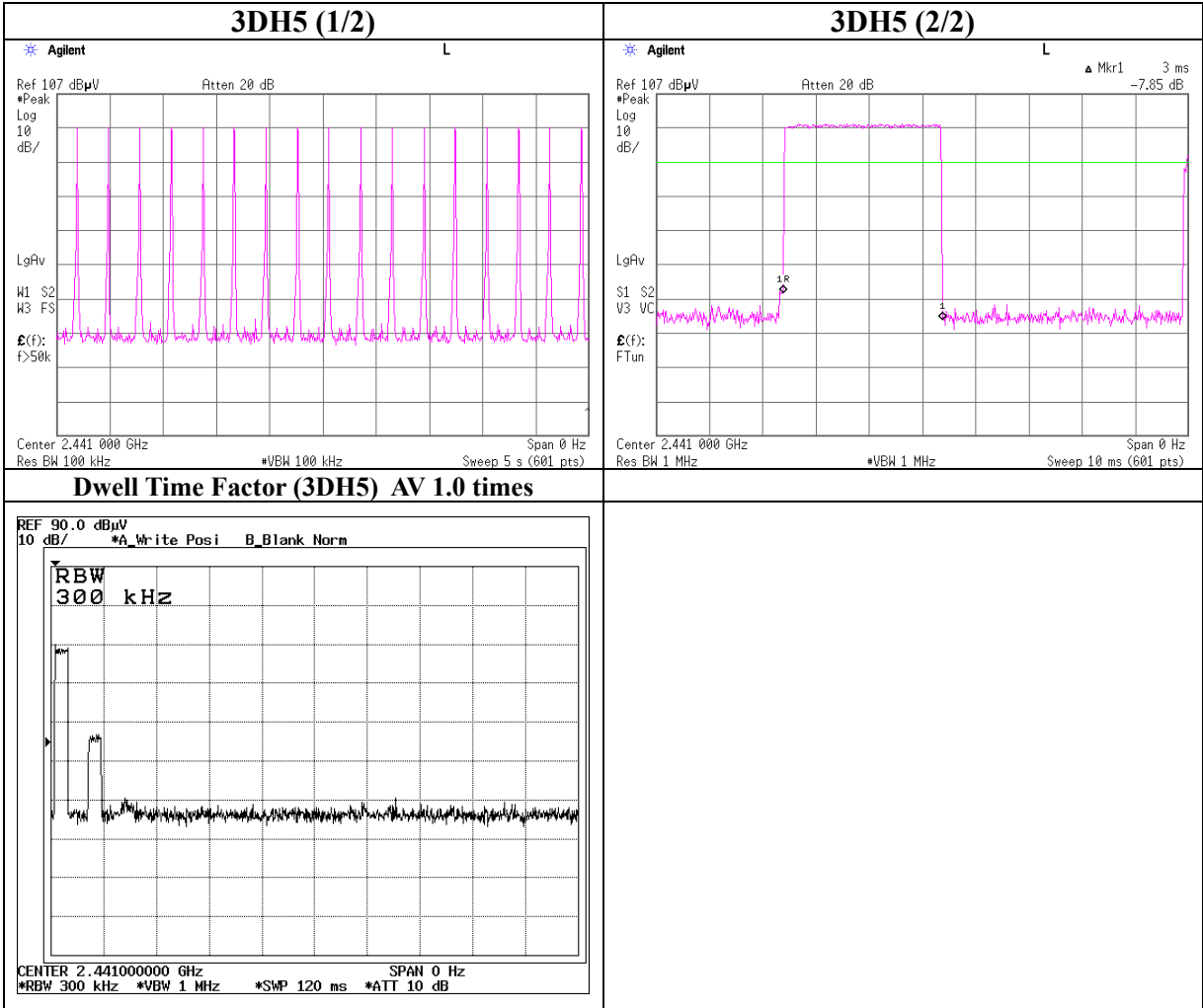
Dwell time factor = $20\log_{10}(\text{dwell time}/100\text{ms})$

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

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.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
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.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
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.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
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.

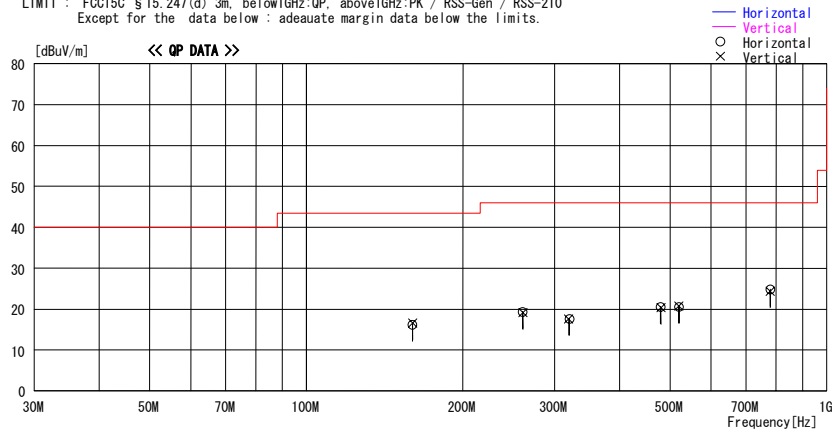
DATA OF RADIATED EMISSION TEST

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 [dB/m]	Gain [dB]						
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.

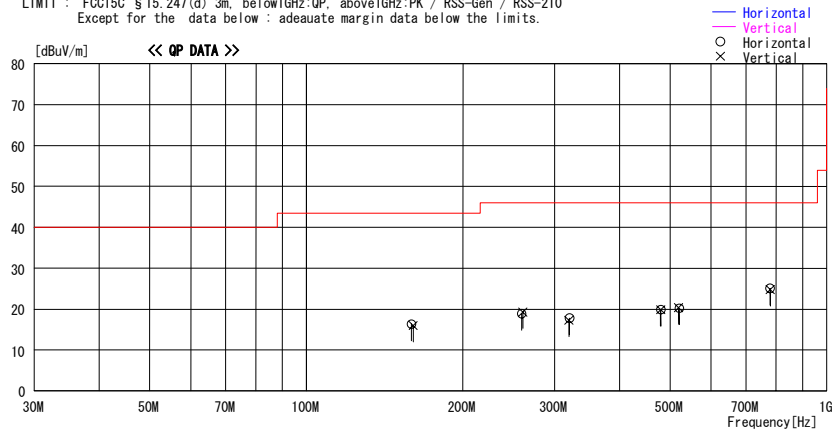
DATA OF RADIATED EMISSION TEST

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.

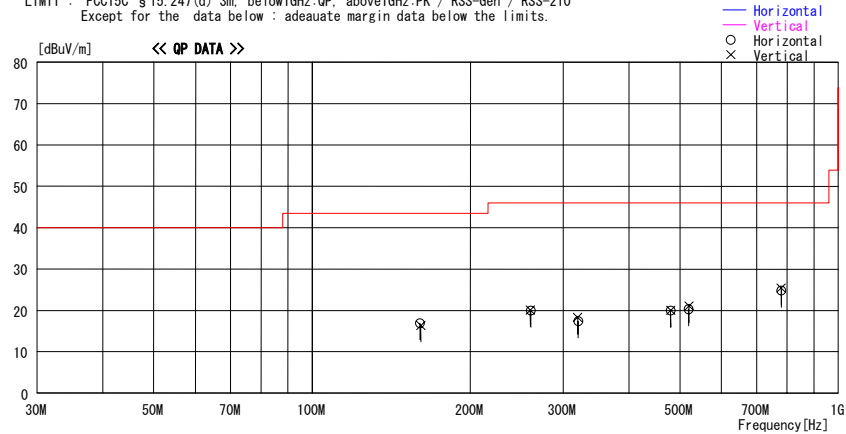
DATA OF RADIATED EMISSION TEST

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-H0
Kind of EUT : WIRELESS CONTROLLER Operator : Mitsuru Fujimura
Model No. : CECHZC1U 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 : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
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.

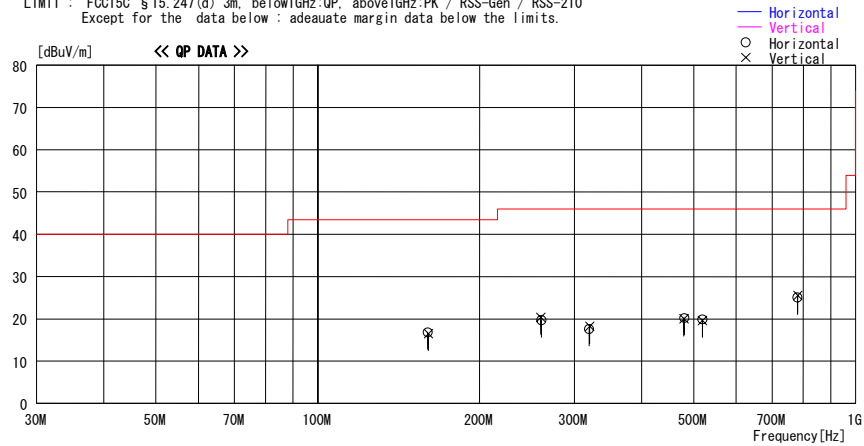
DATA OF RADIATED EMISSION TEST

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, below 1GHz:QP, above 1GHz: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	Margin
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[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.

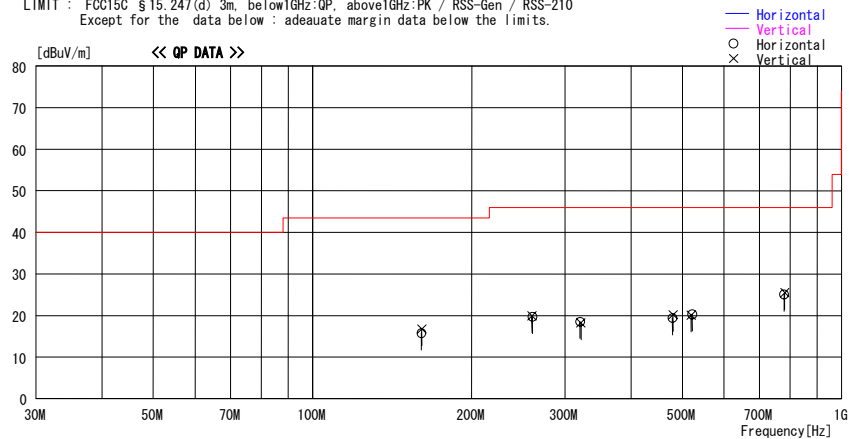
DATA OF RADIATED EMISSION TEST

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 : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[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.

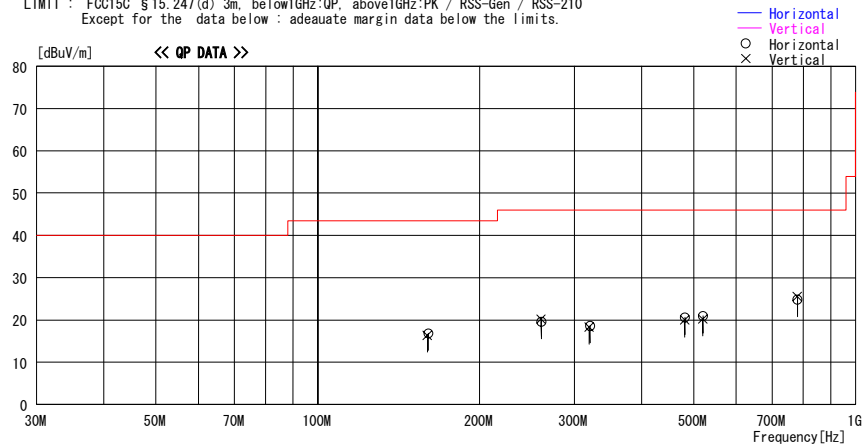
DATA OF RADIATED EMISSION TEST

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. : CECHZC1U 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, below 1GHz:QP, above 1GHz:PK / RSS-Gen / RSS-210
Except for the data below : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[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.

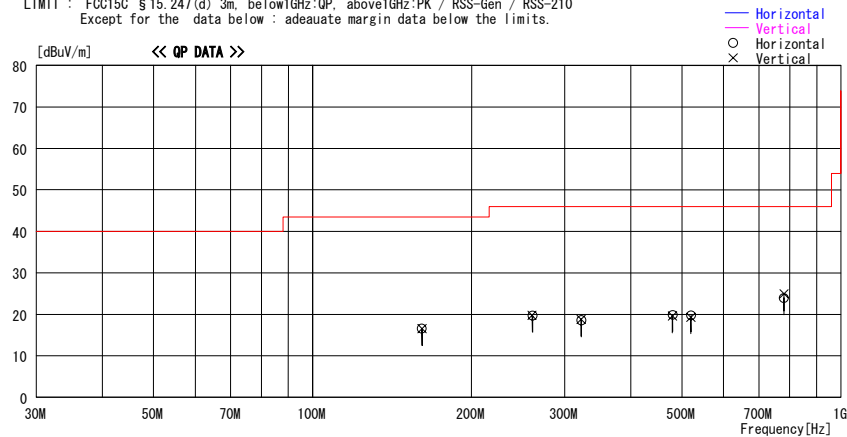
DATA OF RADIATED EMISSION TEST

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. : CECHZG1U 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 : adequate margin data below the limits.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
160.950	22.1	QP	15.2	-20.7	16.6	192	300	Hori.	43.5	26.
161.220	21.9	QP	15.3	-20.7	16.5	186	100	Vert.	43.5	27.
260.311	21.7	QP	17.8	-19.7	19.8	153	100	Vert.	46.0	26.
260.851	21.6	QP	17.8	-19.7	19.7	327	300	Hori.	46.0	26.
322.400	22.1	QP	15.0	-18.5	18.6	222	100	Hori.	46.0	27.
322.400	22.3	QP	15.0	-18.5	18.8	1	100	Vert.	46.0	27.
479.658	21.5	QP	17.8	-19.7	19.6	209	100	Vert.	46.0	26.
480.602	21.8	QP	17.8	-19.7	19.9	48	100	Hori.	46.0	26.
519.876	20.9	QP	18.1	-19.7	19.3	2	100	Vert.	46.0	26.
520.776	21.4	QP	18.1	-19.7	19.8	0	100	Hori.	46.0	26.
780.208	21.9	QP	21.2	-18.2	24.9	276	100	Vert.	46.0	21.
779.548	20.9	QP	21.2	-18.2	23.9	161	100	Hori.	46.0	22.

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 : CECHZCIU	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 [dBm]	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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac													
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
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
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.

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MF060b(14.06.06)

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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac													
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.

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MF060b(14.06.06)

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 [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	Dwell Factor [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER						HOR	VER		HOR	VER
		Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss											
1	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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac													
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.

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MF060b(14.06.06)

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	VER						HOR	VER		HOR	VER
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
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	VER						HOR	VER		HOR	VER
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac													
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	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
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.

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MF060b(14.06.06)

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	VER						HOR	VER		HOR	VER
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
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	VER						HOR	VER		HOR	VER
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac													
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 Filter was not used for factor 0.0dB of the above table.

*Dwell time factor: See Dwell Time data.

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MF060b(14.06.06)

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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
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
		[dBuV]							[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor													
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
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor - Dfac													
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]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
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]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss + Dwell Factor												
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 Filter was not used for factor 0.0dB of the above table.

UL Apex Co., Ltd.

Head Office EMC Lab.

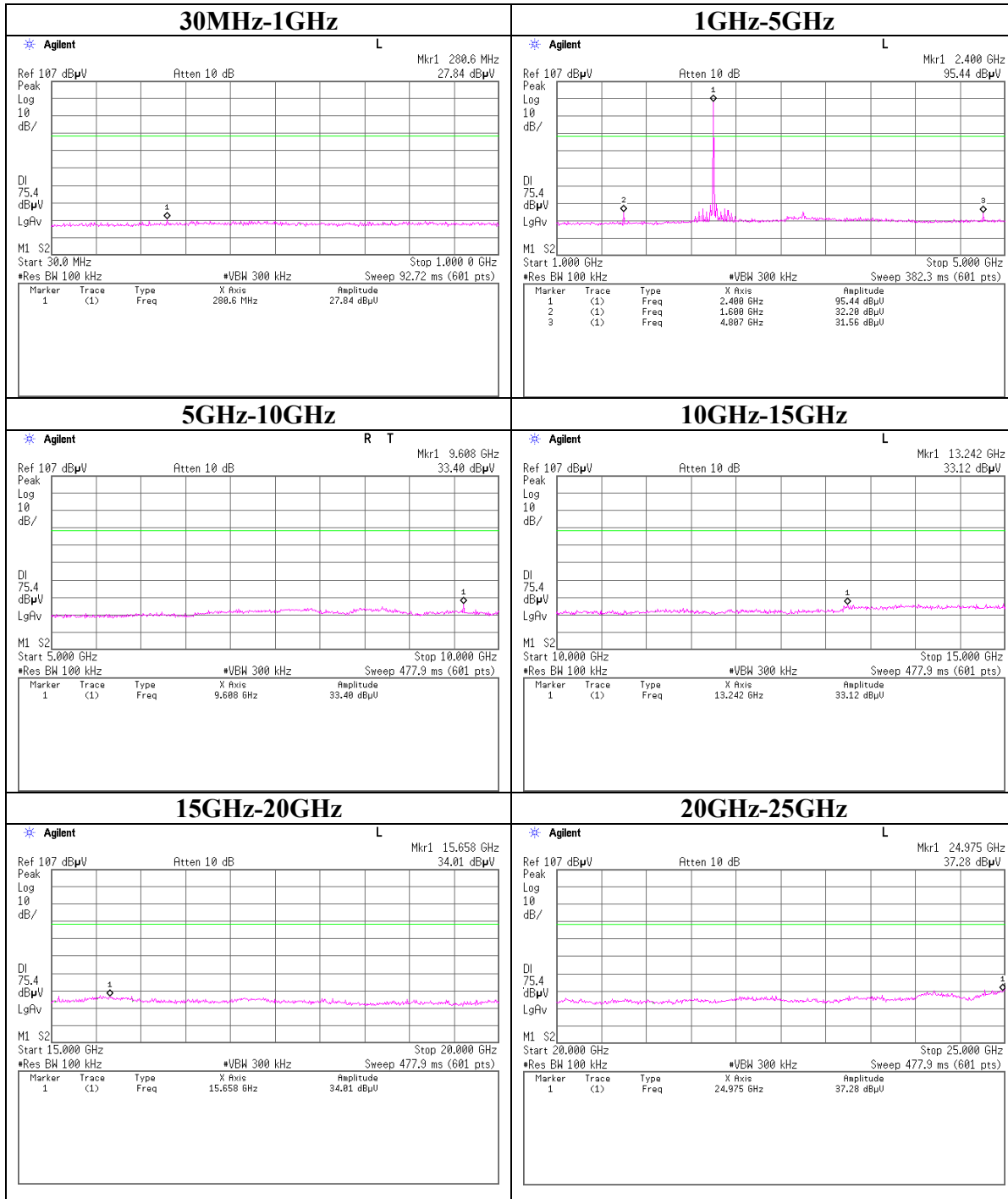
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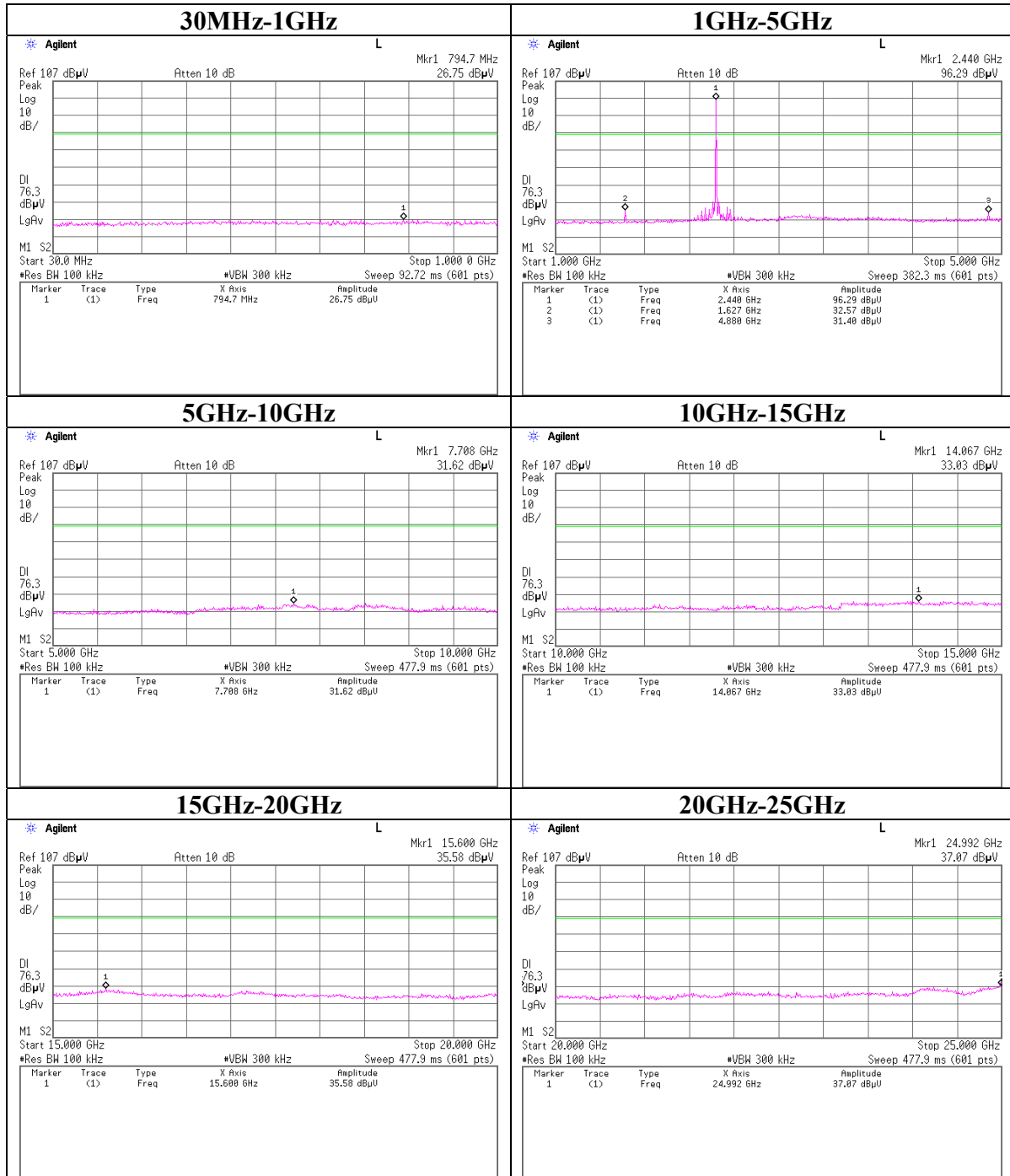
Facsimile : +81 596 24 8124

MF060b(14.06.06)

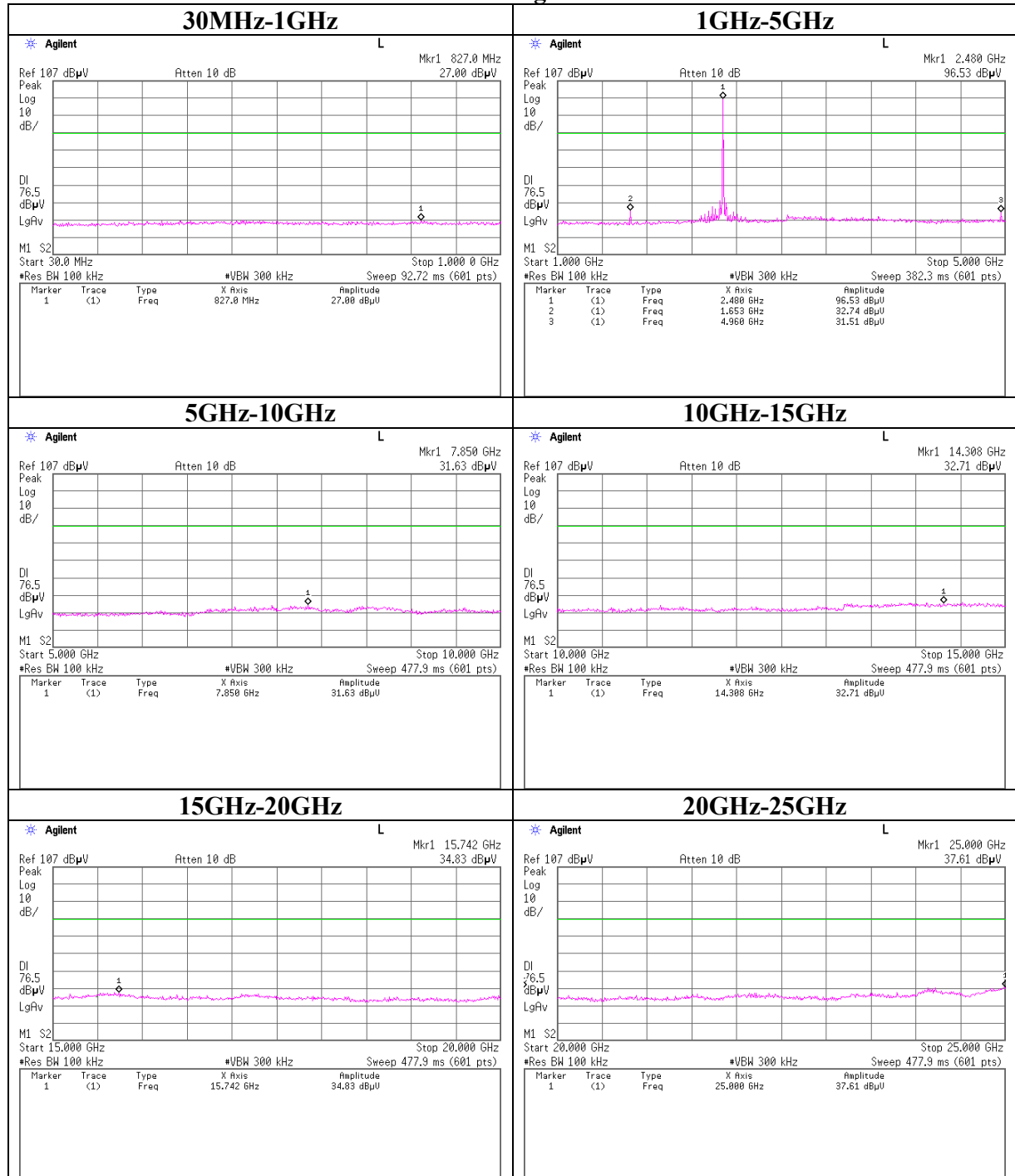
Conducted Spurious Emission
Ch:Low



Conducted Spurious Emission
Ch:Mid

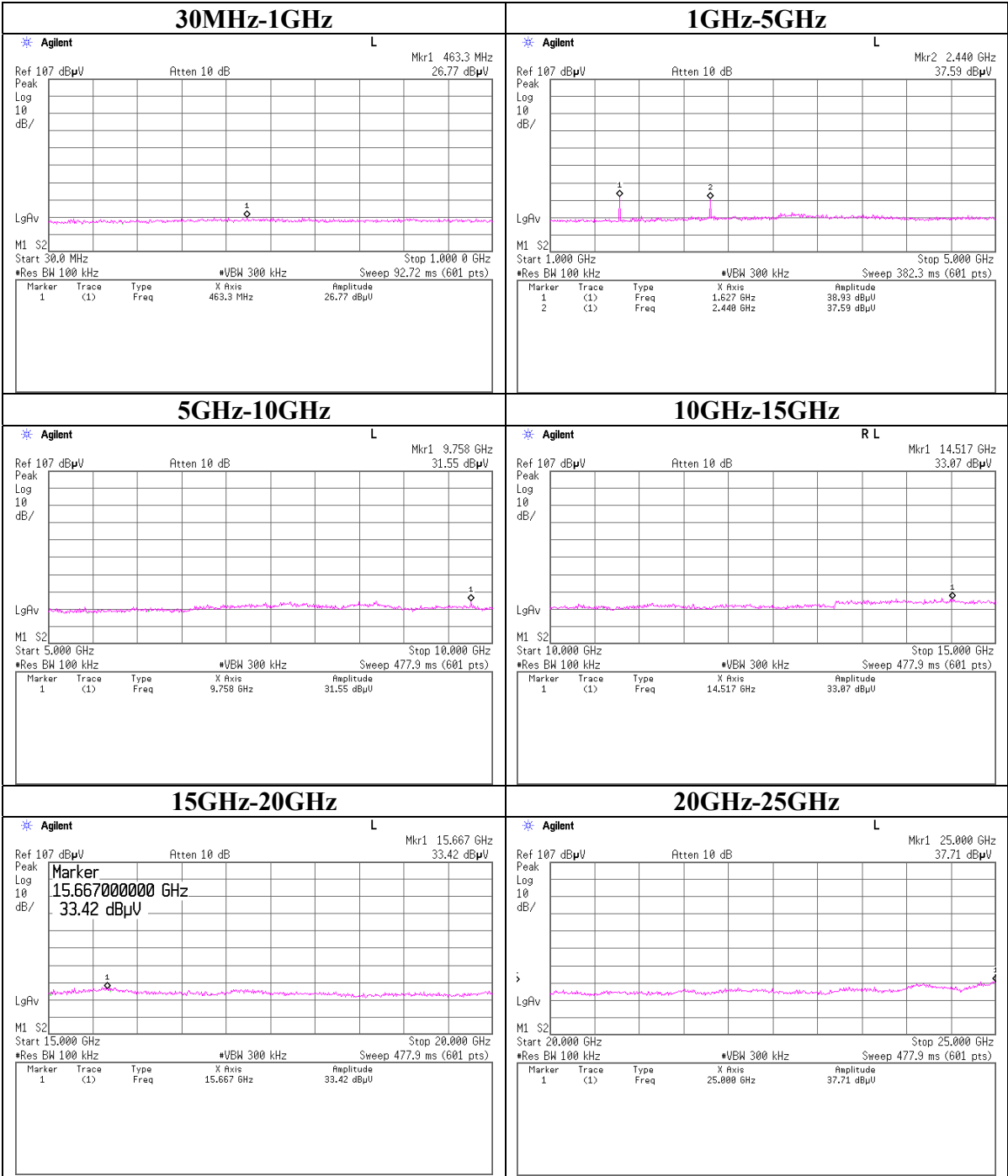


Conducted Spurious Emission
Ch:High

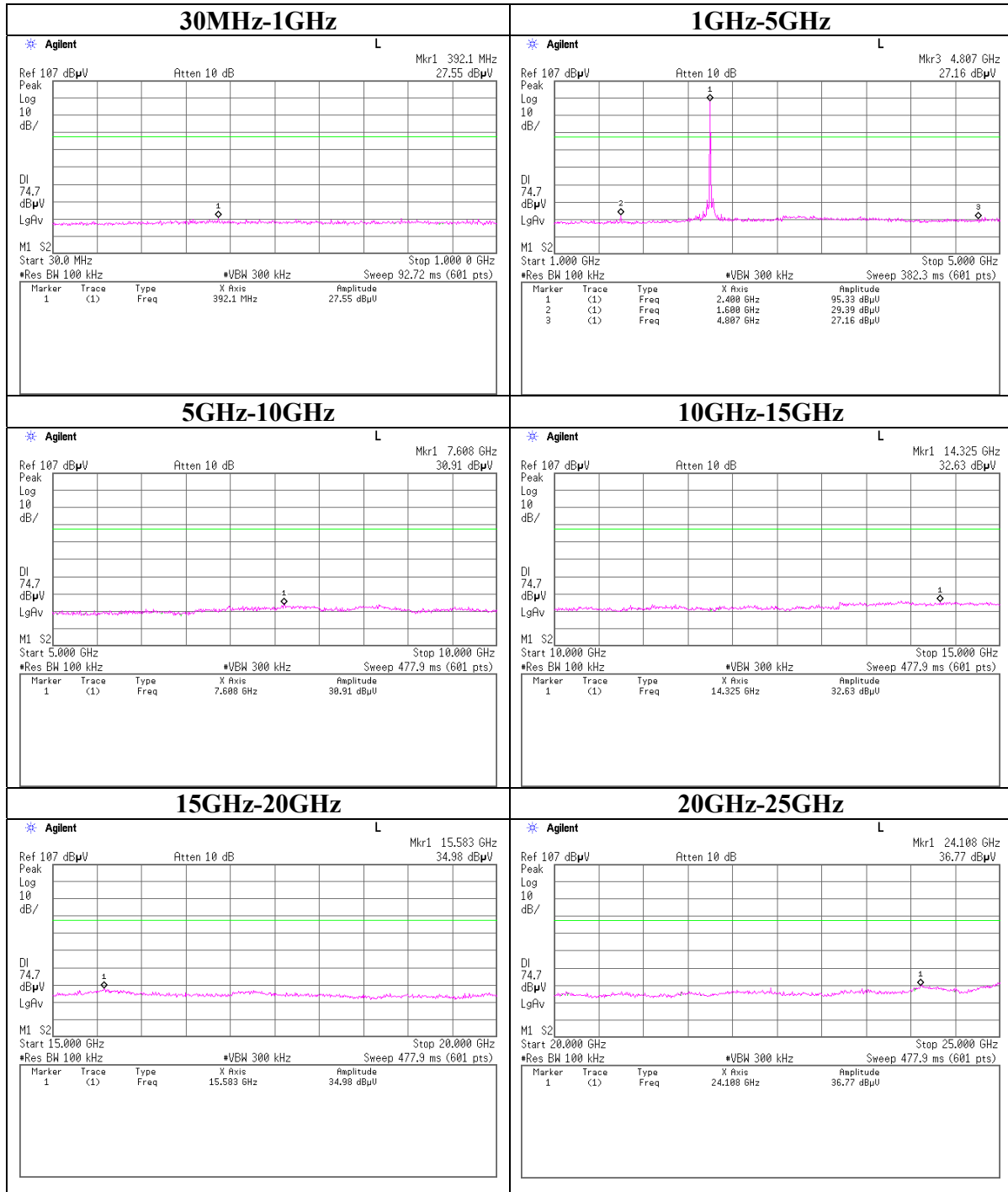


Conducted Spurious Emission

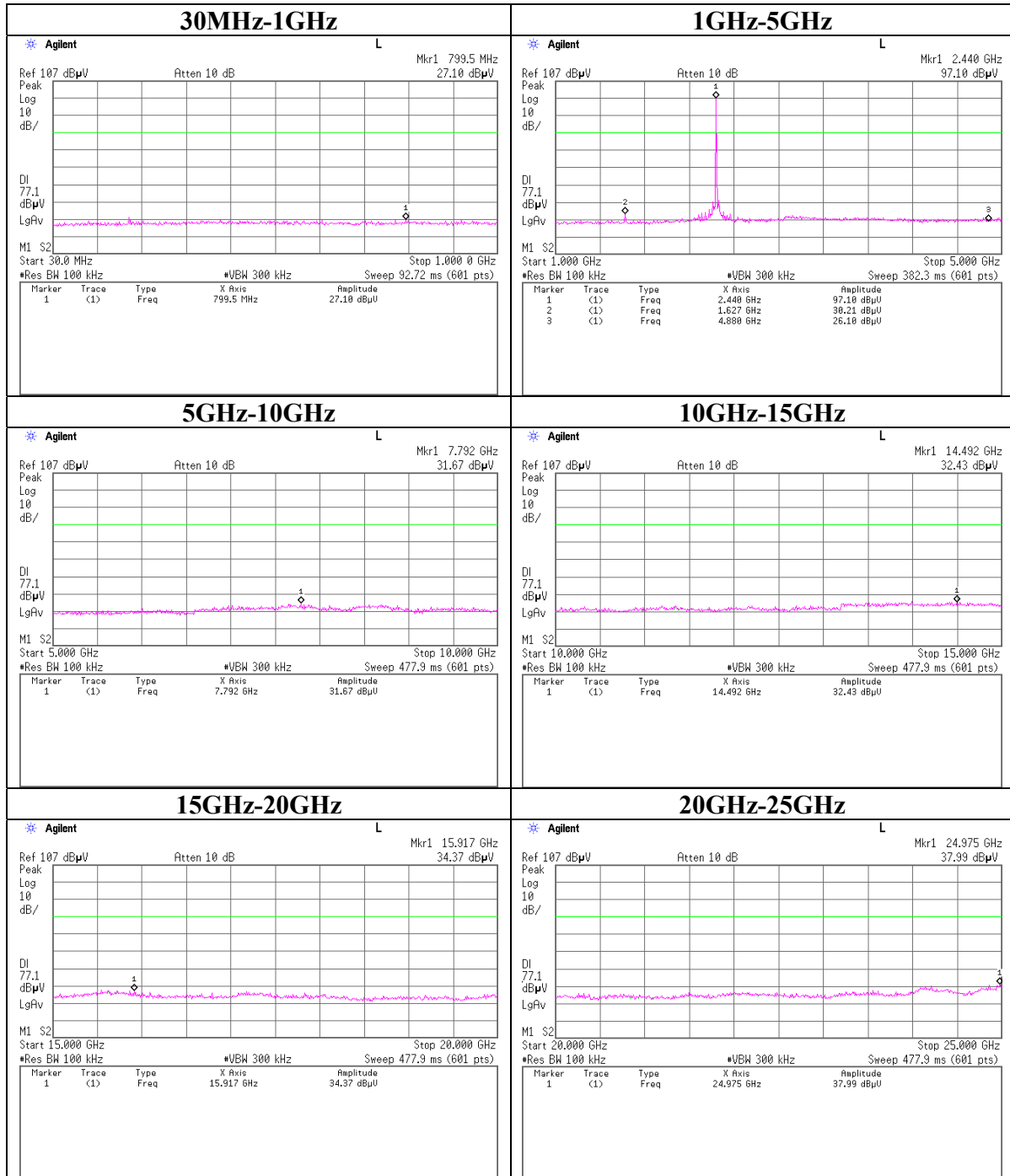
Rx Ch:Mid



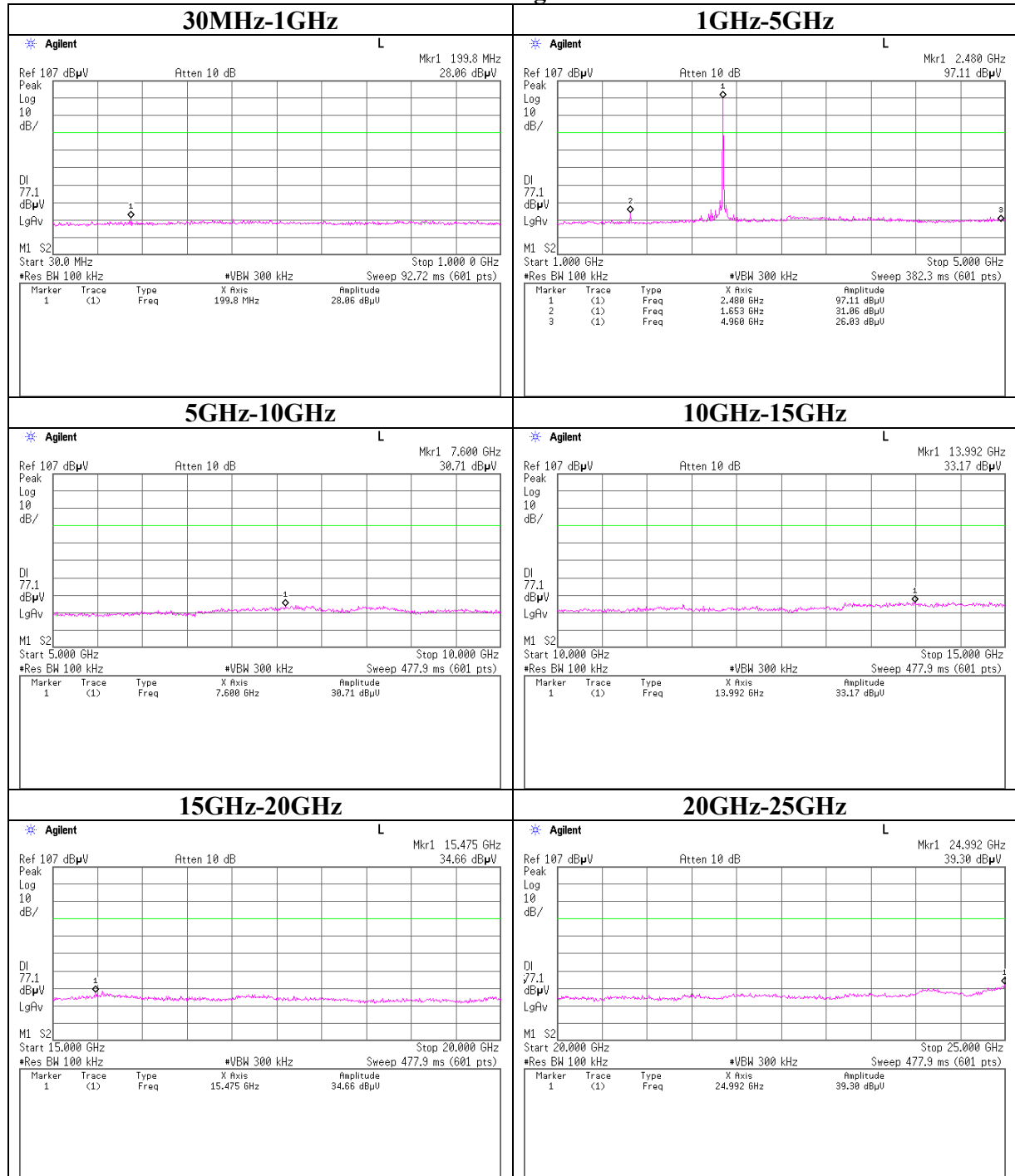
Conducted Spurious Emission(EDR)
Ch:Low



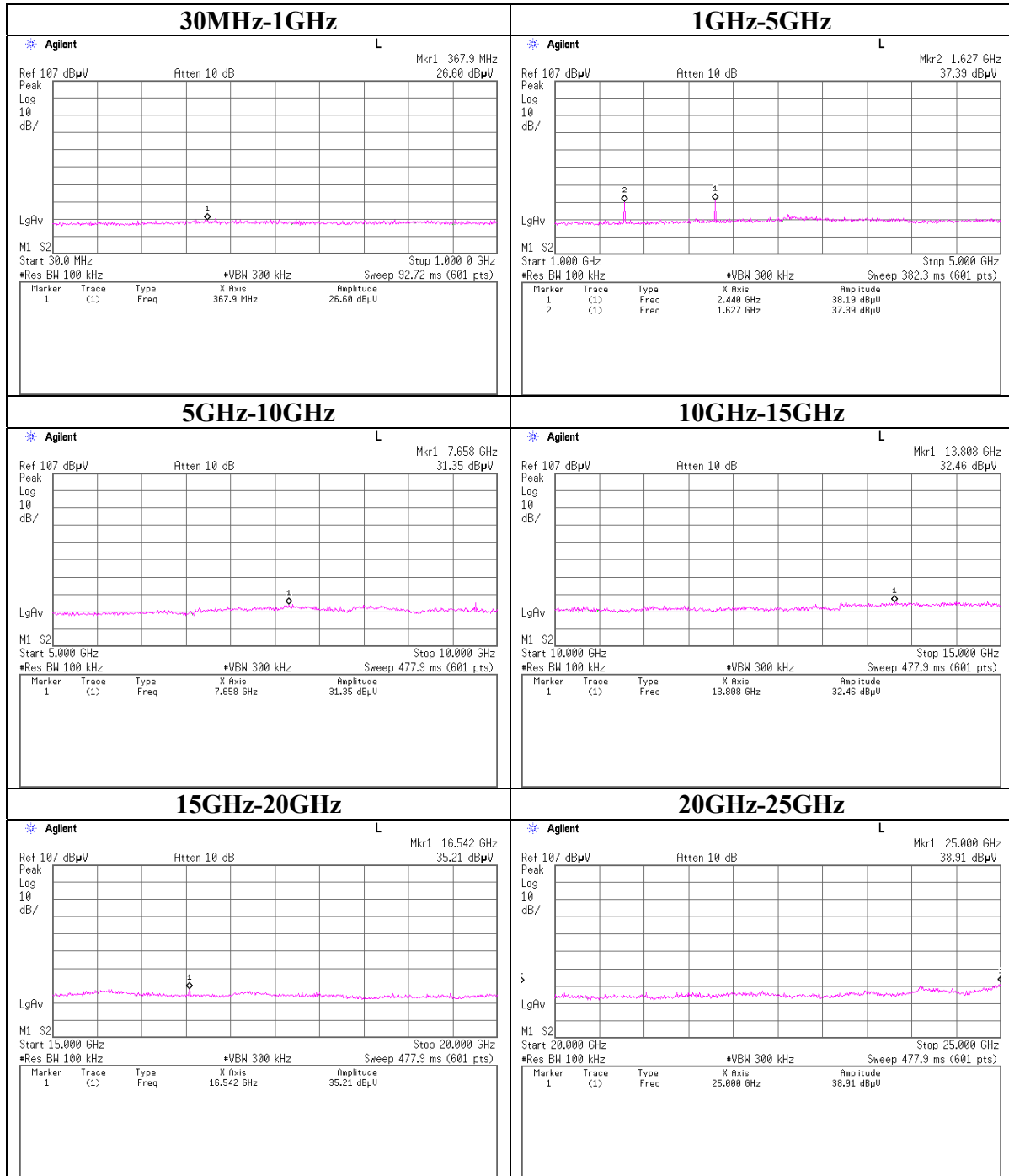
Conducted Spurious Emission(EDR)
Ch:Mid



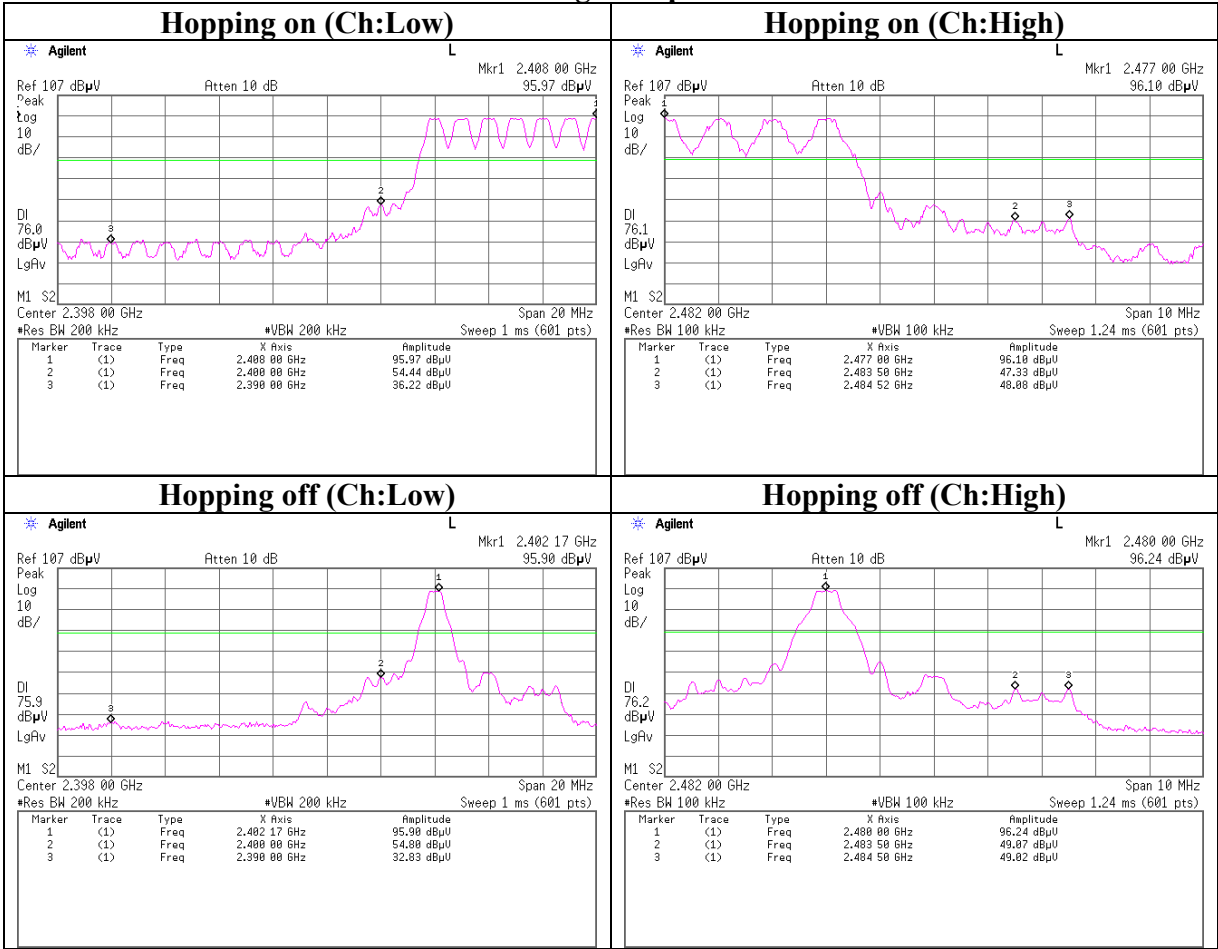
Conducted Spurious Emission(EDR)
Ch:High



Conducted Spurious Emission(EDR)
Rx Ch:Mid

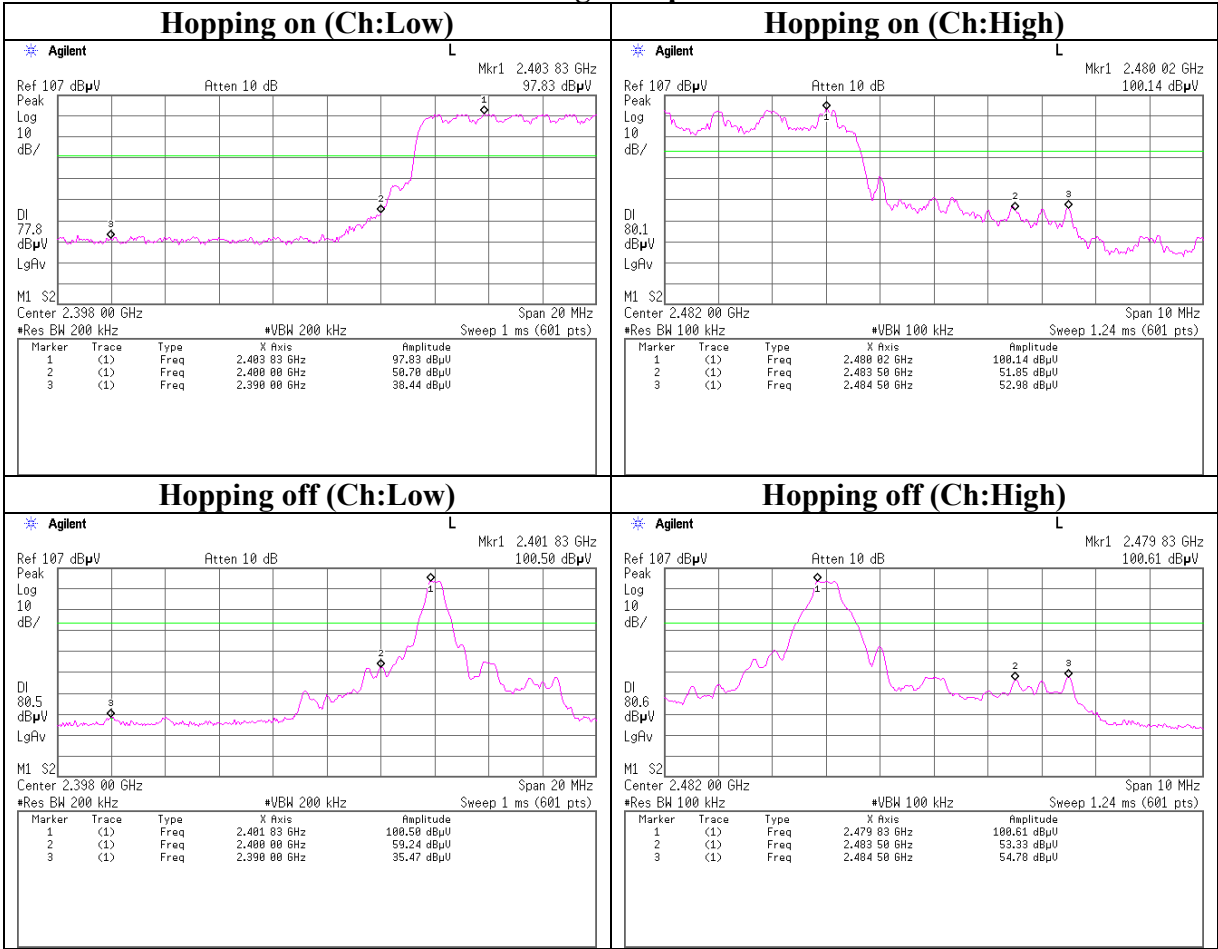


Conducted Spurious Emission
Band Edge compliance

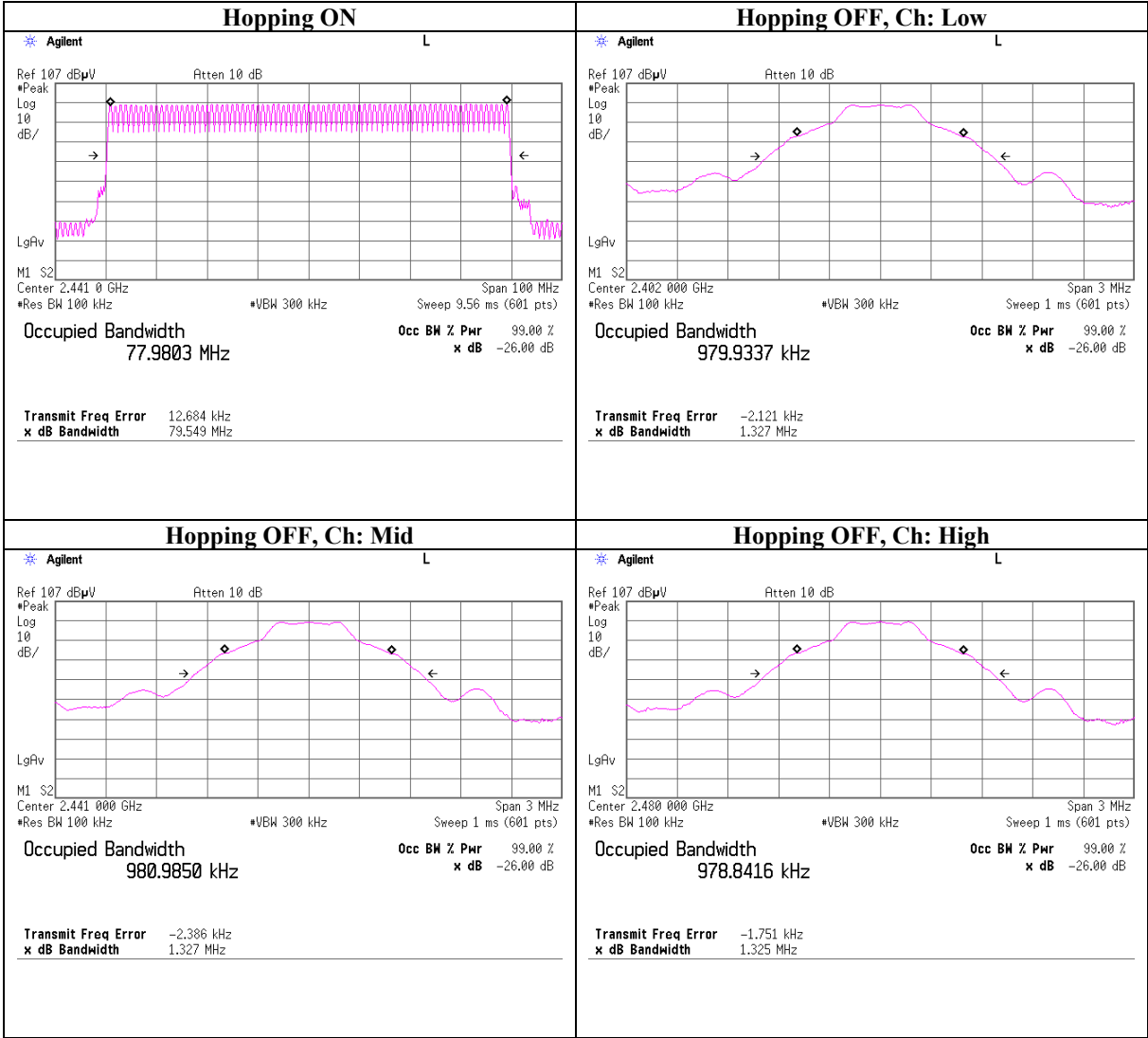


Conducted Spurious Emission(EDR)

Band Edge compliance



99% Occupied Bandwidth



99% Occupied Bandwidth(EDR)

