APPENDIX 2: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

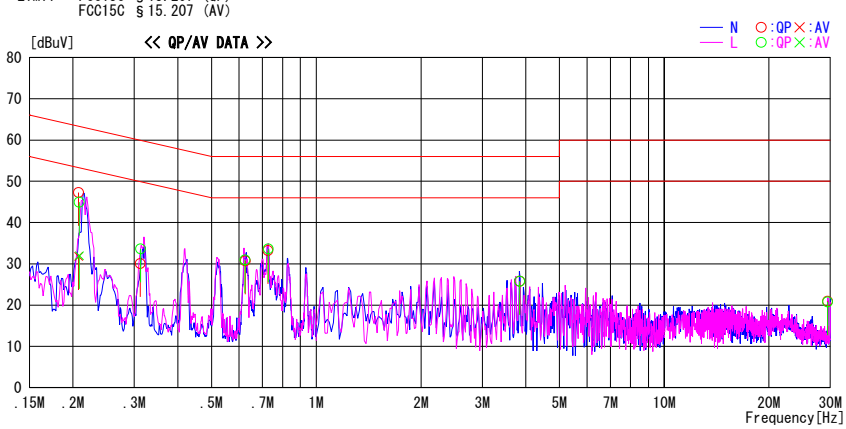
UL Apex Co., Ltd. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2006/11/13 10:50:06

Applicant : Sony EMCS Corporation Saitama TEC
Kind of EUT : Wireless Speaker System
Model No. : SRS-BTM30
Serial No. : 002

Report No. : 27CE0097-HO
Power : AC120V / 60Hz(AC Adaptor)
Temp./Humi. : 20deg.C / 46%
Operator : Hiroka Umeyama

Mode / Remarks : Tx 2402MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



Frequency	Reading Level		Corr.	Results		Limit		Margin		Phase
	QP	AV	Factor	QP	AV	QP	AV	QP	AV	
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	
0.20761	47.1	31.6	0.2	47.3	31.8	63.3	53.3	16.0	21.5	N
0.31222	29.8	-----	0.3	30.1	-----	59.9	-----	29.8	-----	N
0.62531	30.4	-----	0.3	30.7	-----	56.0	-----	25.3	-----	N
0.72710	32.9	-----	0.3	33.2	-----	56.0	-----	22.8	-----	N
3.84458	25.3	-----	0.5	25.8	-----	56.0	-----	30.2	-----	N
29.48873	19.3	-----	1.6	20.9	-----	60.0	-----	39.1	-----	N
0.20854	44.7	31.8	0.2	44.9	32.0	63.3	53.3	18.4	21.3	L
0.31294	33.3	-----	0.3	33.6	-----	59.9	-----	26.3	-----	L
0.62423	30.7	-----	0.3	31.0	-----	56.0	-----	25.0	-----	L
0.72760	33.3	-----	0.3	33.6	-----	56.0	-----	22.4	-----	L
3.84683	25.3	-----	0.5	25.8	-----	56.0	-----	30.2	-----	L
29.48906	19.2	-----	1.6	20.8	-----	60.0	-----	39.2	-----	L

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

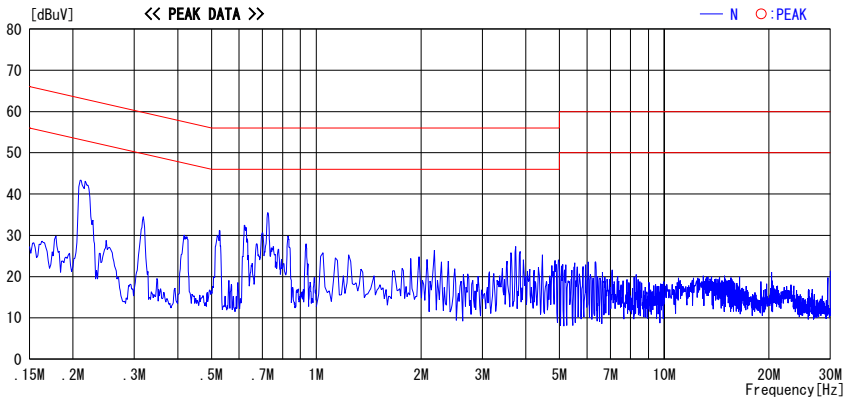
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2006/11/13 10:43:17

Applicant	: Sony EMCS Corporation Saitama TEC	Report No.	: 27CE0097-HO
Kind of EUT	: Wireless Speaker System	Power	: AC120V / 60Hz(AC Adaptor)
Model No.	: SRS-BTM30	Temp./Humi.	: 20deg.C / 46%
Serial No.	: 002	Operator	: Hiroka Umeyama

Mode / Remarks : Tx 2441MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



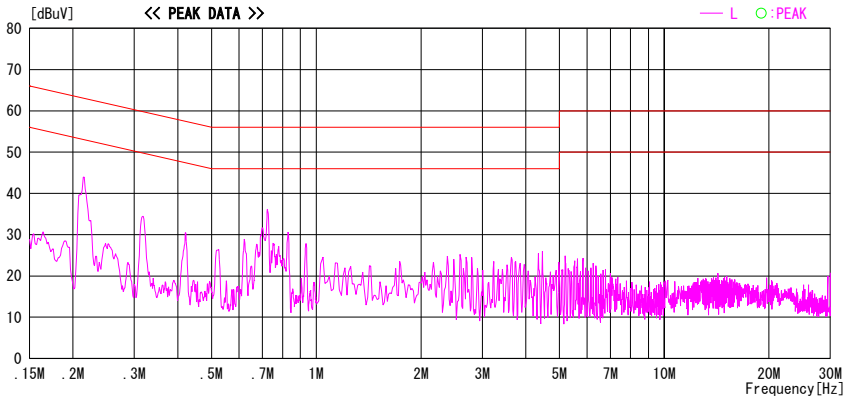


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

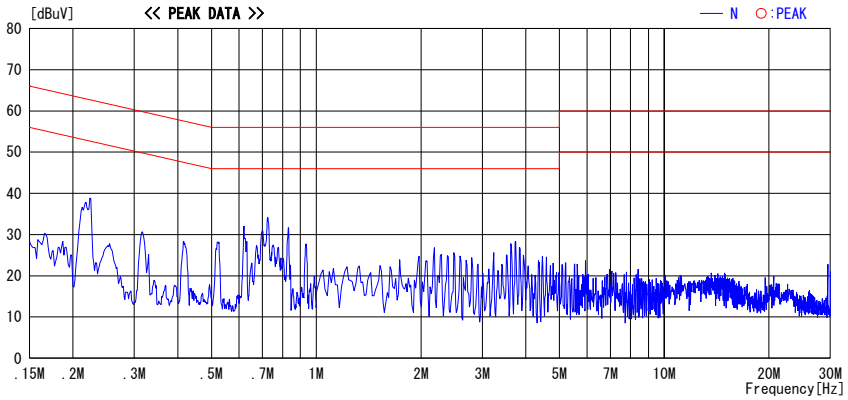
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2006/11/13 10:36:38

Applicant	: Sony EMCS Corporation Saitama TEC	Report No.	: 27CE0097-HO
Kind of EUT	: Wireless Speaker System	Power	: AC120V / 60Hz(AC Adaptor)
Model No.	: SRS-BTM30	Temp./Humi.	: 20deg.C / 46%
Serial No.	: 002	Operator	: Hiroka Umeyama

Mode / Remarks : Tx 2480MHz

LIMIT : FCC15C §15.207 (QP)
FCC15C §15.207 (AV)



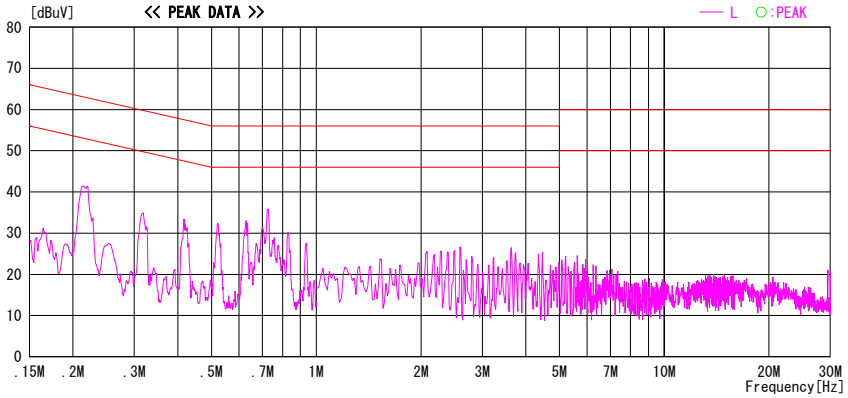


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Carrier Frequency Separation

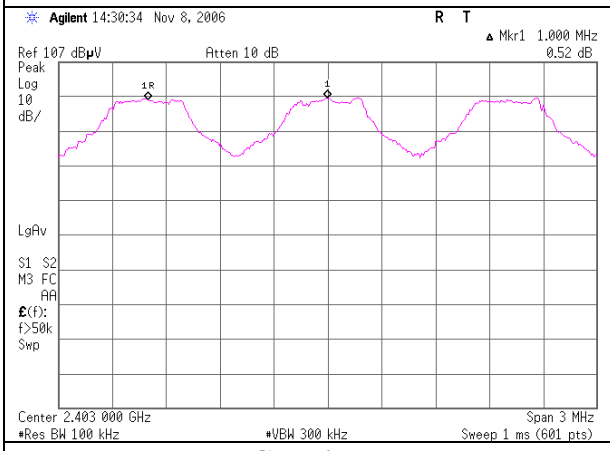
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	: Sony EMCS Corporation Saitama TEC	REGULATION	: FCC15.247(a)(1)/RSS-210A8.1(2)
EQUIPMENT	: Wireless Speaker System	TEST DISTANCE	: -
MODEL	: SRS-BTM30	DATE	: 11/08/2006
S/ N	: 001	TEMPERATURE	: 22deg.C
POWER	: AC120V/60Hz（BT Module DC1.8V)	HUMIDITY	: 30%
MODE	: Tx (Hopping on) /Inquiry	ENGINEER	: Shinya Watanabe

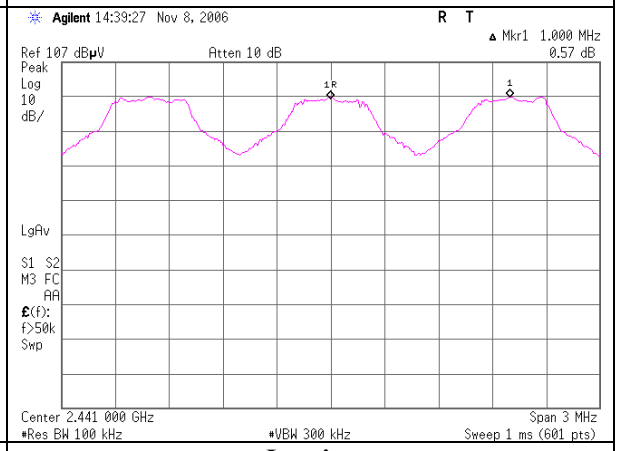
Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	>two-thirds of 0.867[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)
Mid	2441.0	1.000	>two-thirds of 0.870[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)
High	2480.0	1.000	>two-thirds of 0.869[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)
Inquiry	2441.0	2.000	>two-thirds of 0.759[MHz](20dB Bandwidth) or 25[kHz](whichever is greater)

Carrier Frequency Separation

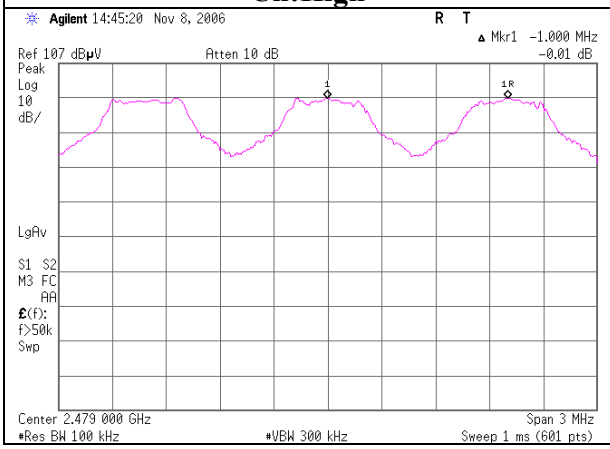
Ch:Low



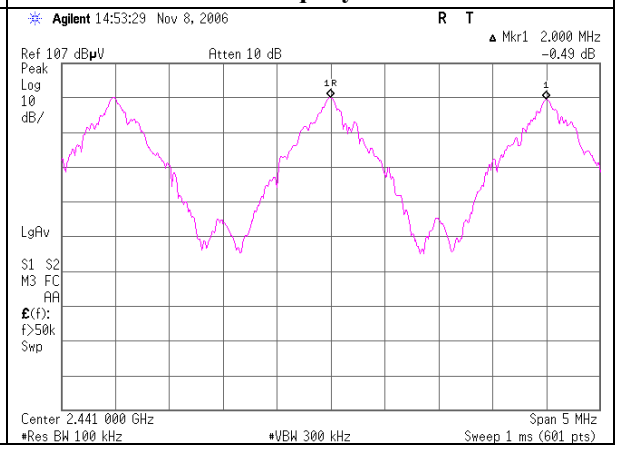
Ch:Mid



Ch:High



Inquiry



20dB Bandwidth

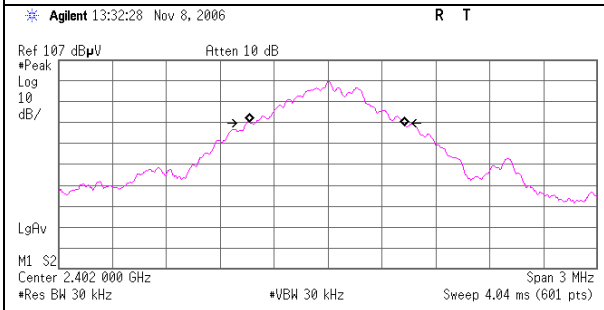
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	: Sony EMCS Corporation Saitama TEC	REGULATION	: FCC15.247(a)(1)/RSS-210A8.1(1)
EQUIPMENT	: Wireless Speaker System	TEST DISTANCE	: -
MODEL	: SRS-BTM30	DATE	: 11/08/2006
S/ N	: 001	TEMPERATURE	: 22deg.C
POWER	: AC120V/60Hz（BT Module DC1.8V)	HUMIDITY	: 30%
MODE	: Tx (Hopping off) /Inquiry	ENGINEER	: Shinya Watanabe

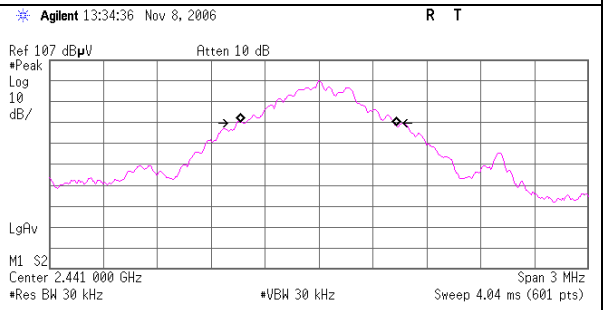
Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.867	-
Mid	2441.0	0.870	-
High	2480.0	0.869	-
Inquiry	2441.0	0.759	-

20dB Bandwidth

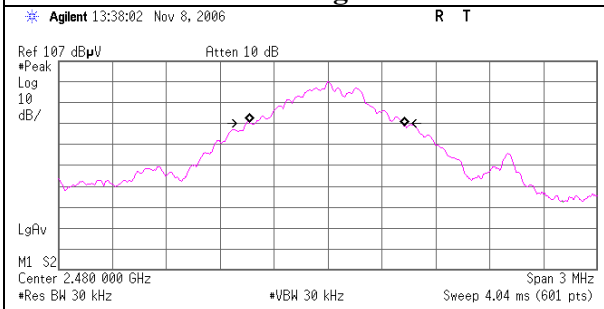
Ch:Low



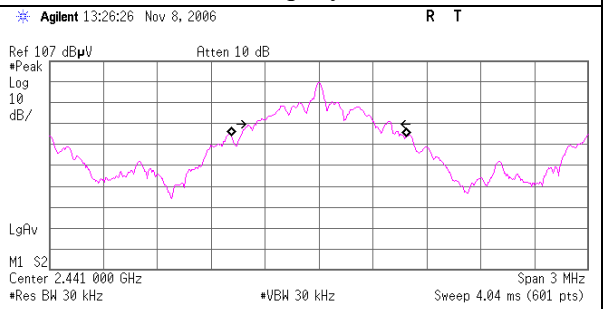
Ch:Mid



Ch:High



Inquiry



Number of Hopping Frequency

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

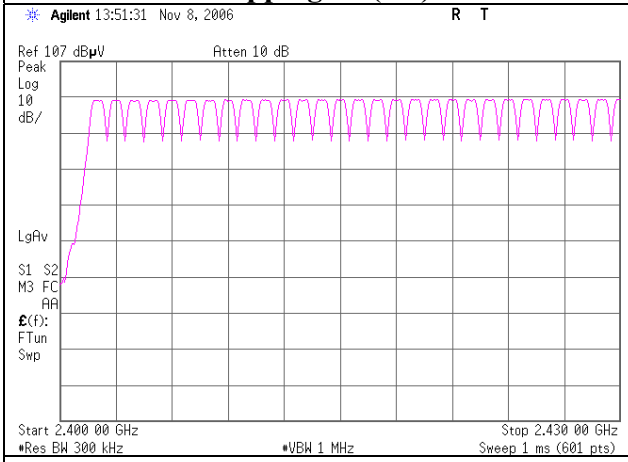
COMPANY	: Sony EMCS Corporation Saitama TEC	REGULATION	: FCC15.247(a)(1)(iii)/RSS-210A8.1(4)
EQUIPMENT	: Wireless Speaker System	TEST DISTANCE	: -
MODEL	: SRS-BTM30	DATE	: 11/08/2006
S/ N	: 001	TEMPERATURE	: 22deg.C
POWER	: AC120V/60Hz（BT Module DC1.8V)	HUMIDITY	: 30%
MODE	: Tx (Hopping on) /Inquiry	ENGINEER	: Shinya Watanabe

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

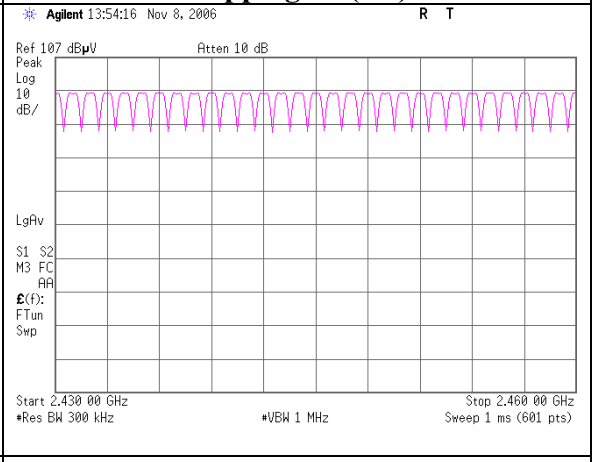
Mode	Number of channel [time]	Limit [time]
Inquiry	32	≧15

Number of Hopping Frequency

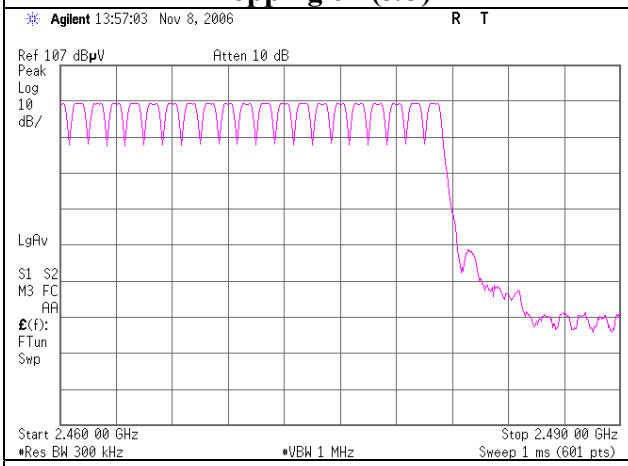
Hopping on (1/3)



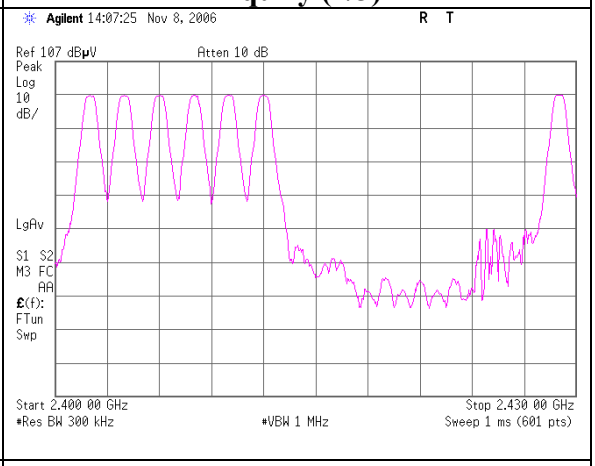
Hopping on (2/3)



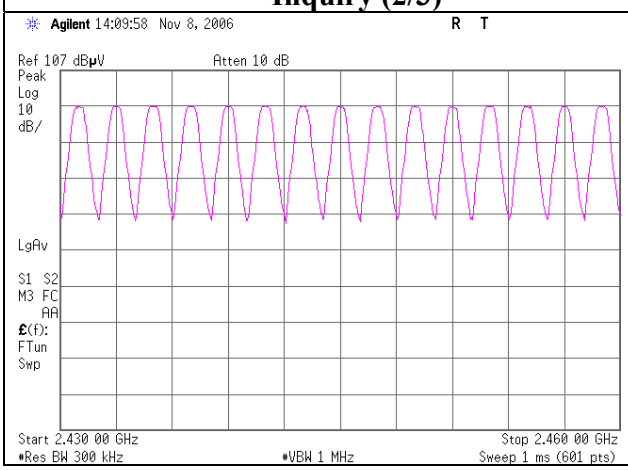
Hopping on (3/3)



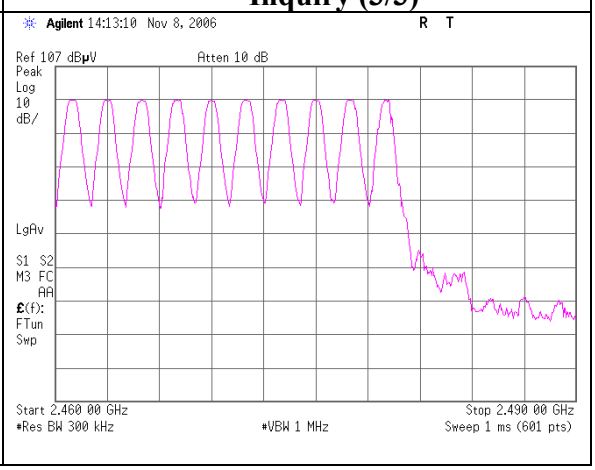
Inquiry (1/3)



Inquiry (2/3)



Inquiry (3/3)



Dwell time

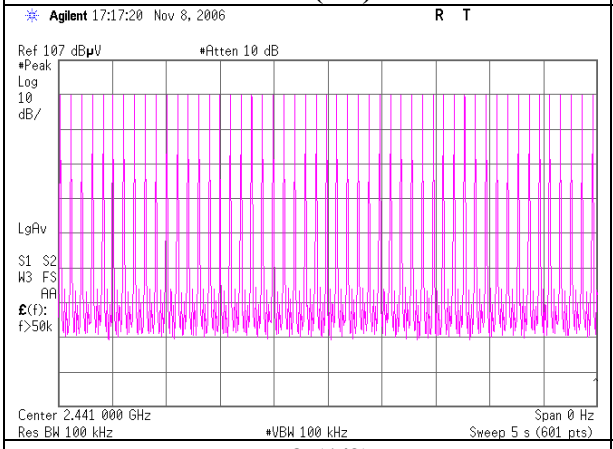
UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	: Sony EMCS Corporation Saitama TEC	REGULATION	: FCC15.247(a)(1)(iii)/RSS-210A8.1(4)
EQUIPMENT	: Wireless Speaker System	TEST DISTANCE	: -
MODEL	: SRS-BTM30	DATE	: 11/08/2006
S/ N	: 001	TEMPERATURE	: 22deg.C
POWER	: AC120V/60Hz (BT Module DC1.8V)	HUMIDITY	: 30%
MODE	: Tx (Hopping on) /Inquiry	ENGINEER	: Shinya Watanabe

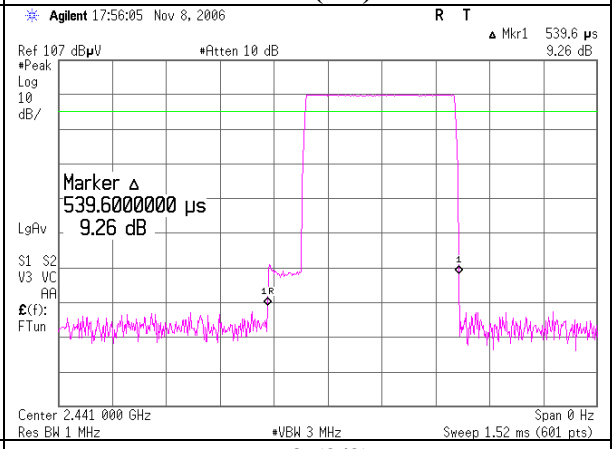
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	51 times / 5 sec. x 31.6 sec. = 323 times	0.540	174	400
DH3	17 times / 5 sec. x 31.6 sec. = 108 times	1.795	194	400
DH5	11 times / 5 sec. x 31.6 sec. = 70 times	3.067	215	400
Inquiry	100 times / 1 sec. x 12.8 sec. = 1280 times	0.146	187	400

Dwell time

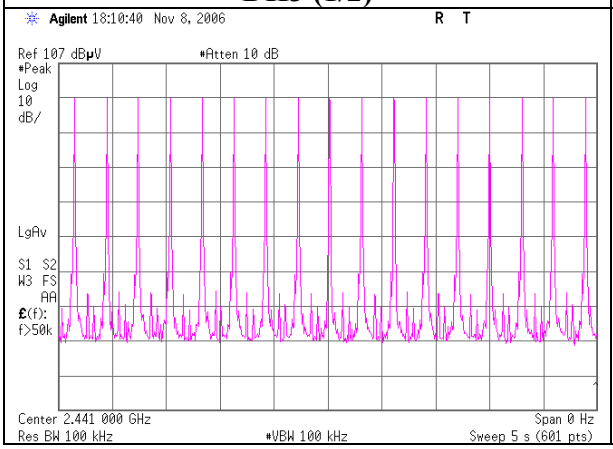
DH1 (1/2)



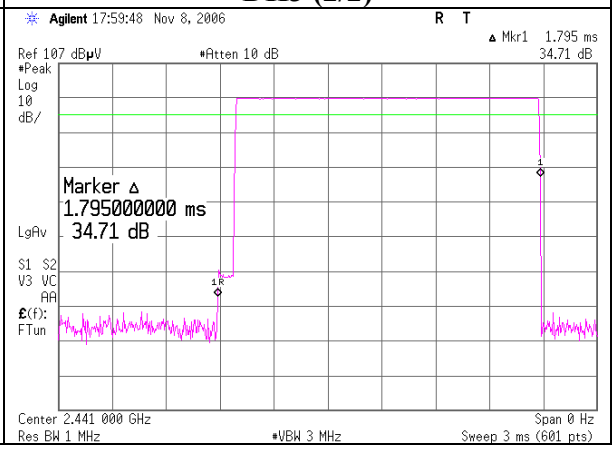
DH1 (2/2)



DH3 (1/2)

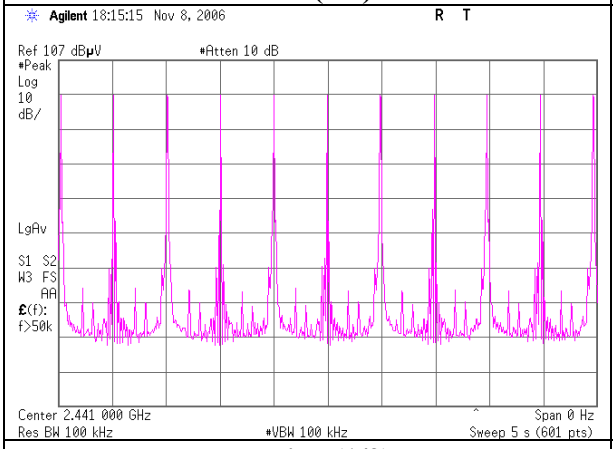


DH3 (2/2)

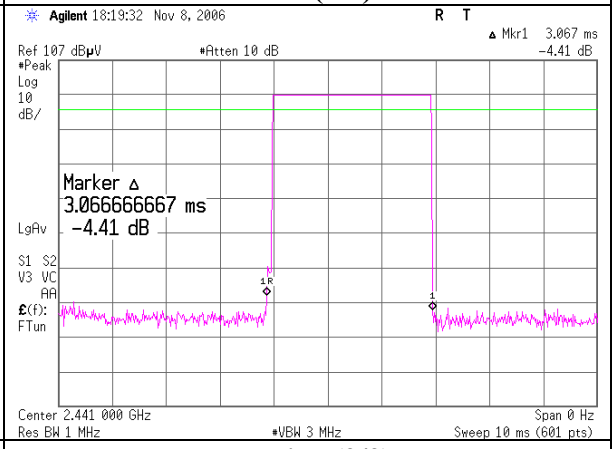


Dwell time

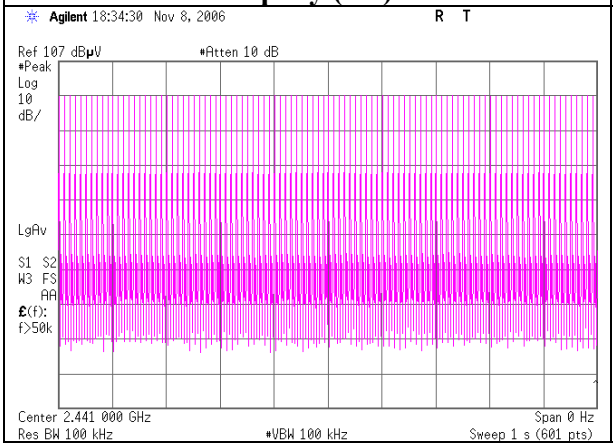
DH5 (1/2)



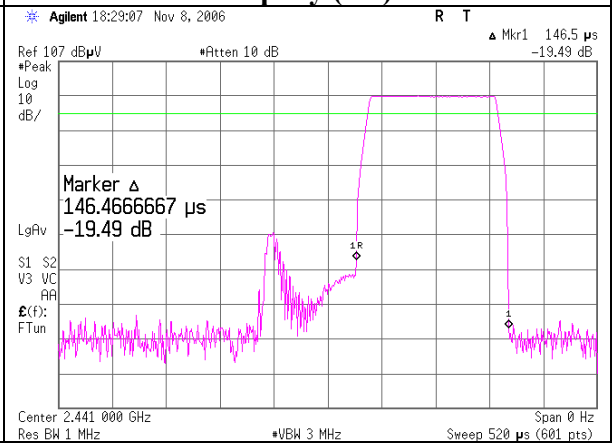
DH5 (2/2)



Inquiry (1/2)



Inquiry (2/2)



Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.7 Shielded Room

COMPANY	: Sony EMCS Corporation Saitama TEC	REGULATION	: FCC15.247(b)(1)/RSS-210A8.4(2)
EQUIPMENT	: Wireless Speaker System	TEST DISTANCE	: -
MODEL	: SRS-BTM30	DATE	: 11/08/2006
S/ N	: 001	TEMPERATURE	: 22deg.C
POWER	: AC120V/60Hz (BT Module DC1.8V)	HUMIDITY	: 30%
MODE	: Tx(Hopping Off)/Inquiry	ENGINEER	: Shinya Watanabe

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	[dB]
Low	2402.0	-10.44	0.67	10.14	0.37	1.09	20.97	125	20.60
Mid	2441.0	-10.18	0.67	10.14	0.63	1.16	20.97	125	20.34
High	2480.0	-10.14	0.79	10.14	0.79	1.20	20.97	125	20.18
Inquiry	2441.0	-10.55	0.67	10.14	0.26	1.06	20.97	125	20.71

Sample Calculation:
Result = Reading + Cable Loss + Attenuator

Radiated Spurious Emission (below 1GHz)

* 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

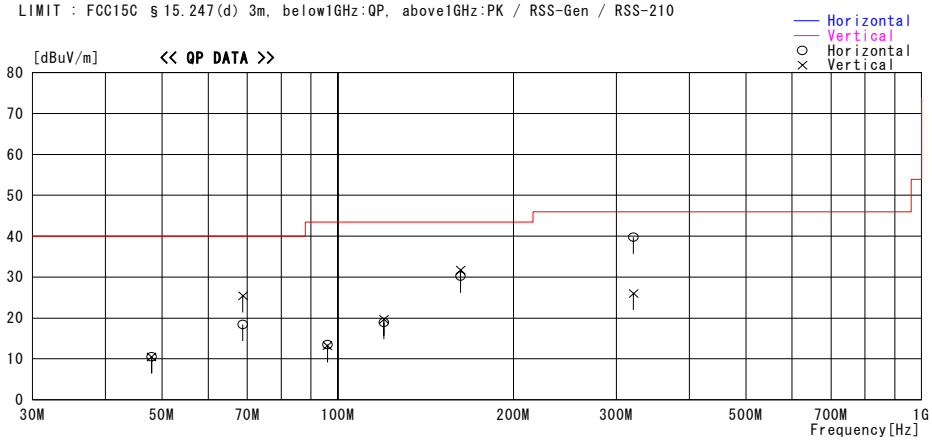
UL Apex Co., Ltd. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2006/11/07 10:54:19

Applicant : Sony EMCS Corporation Saitama TEC
Kind of EUT : Wireless Speaker System
Model No. : SRS-BTM30
Serial No. : 002

Report No. : 27CE0097-HO
Power : AC120V / 60Hz DC5.2V
Temp./Humi. : 21deg.C. / 60%
Operator : Yasuyuki Fukui

Mode / Remarks : Tx 2402MHz V:X-axis H:X-axis

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
48.000	24.2	QP	11.2	-24.9	10.5	359	310	Hori.	40.0	29.5
48.000	24.2	QP	11.2	-24.9	10.5	48	100	Vert.	40.0	29.5
68.780	42.6	QP	7.3	-24.5	25.4	0	100	Vert.	40.0	14.6
68.780	35.6	QP	7.3	-24.5	18.4	176	314	Hori.	40.0	21.6
96.000	27.0	QP	10.2	-24.0	13.2	0	100	Vert.	43.5	30.3
96.000	27.3	QP	10.2	-24.0	13.5	359	300	Hori.	43.5	30.0
120.000	29.1	QP	13.5	-23.7	18.9	345	300	Hori.	43.5	24.6
120.000	29.9	QP	13.5	-23.7	19.7	0	100	Vert.	43.5	23.8
162.300	39.2	QP	15.8	-23.3	31.7	39	100	Vert.	43.5	11.8
162.300	37.7	QP	15.8	-23.3	30.2	266	211	Hori.	43.5	13.3
321.100	46.8	QP	15.2	-22.2	39.8	359	100	Hori.	46.0	6.2
321.100	33.0	QP	15.2	-22.2	26.0	117	100	Vert.	46.0	20.0

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

Radiated Spurious Emission (below 1GHz)

* 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

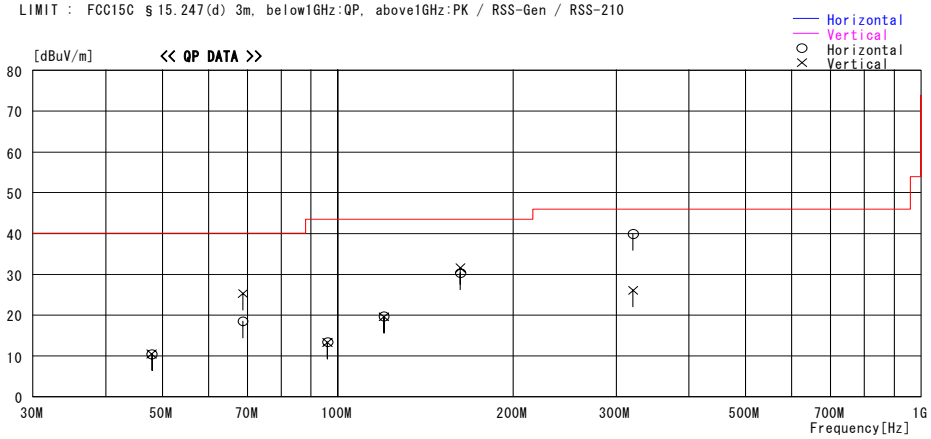
UL Apex Co., Ltd. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2006/11/07 11:15:19

Applicant : Sony EMCS Corporation Saitama TEC
Kind of EUT : Wireless Speaker System
Model No. : SRS-BTM30
Serial No. : 002

Report No. : 27CE0097-HO
Power : AC120V / 60Hz DC5.2V
Temp./Humi. : 21deg.C. / 60%
Operator : Yasuyuki Fukui

Mode / Remarks : Tx 2441MHz V:X-axis H:X-axis

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
48.000	24.1	QP	11.2	-24.9	10.4	359	309	Hori.	40.0	29.6
48.000	24.2	QP	11.2	-24.9	10.5	48	100	Vert.	40.0	29.5
68.777	42.5	QP	7.3	-24.5	25.3	0	100	Vert.	40.0	14.7
68.777	35.7	QP	7.3	-24.5	18.5	176	314	Hori.	40.0	21.5
96.000	27.1	QP	10.2	-24.0	13.3	0	100	Vert.	43.5	30.2
96.000	27.2	QP	10.2	-24.0	13.4	359	309	Hori.	43.5	30.1
120.000	29.9	QP	13.5	-23.7	19.7	345	298	Hori.	43.5	23.8
120.000	29.8	QP	13.5	-23.7	19.6	0	100	Vert.	43.5	23.9
162.321	39.1	QP	15.8	-23.3	31.6	39	100	Vert.	43.5	11.9
162.321	37.8	QP	15.8	-23.3	30.3	266	213	Hori.	43.5	13.2
321.110	46.9	QP	15.2	-22.2	39.9	359	100	Hori.	46.0	6.1
321.110	33.1	QP	15.2	-22.2	26.1	117	100	Vert.	46.0	19.9

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

Radiated Spurious Emission (below 1GHz)

* 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

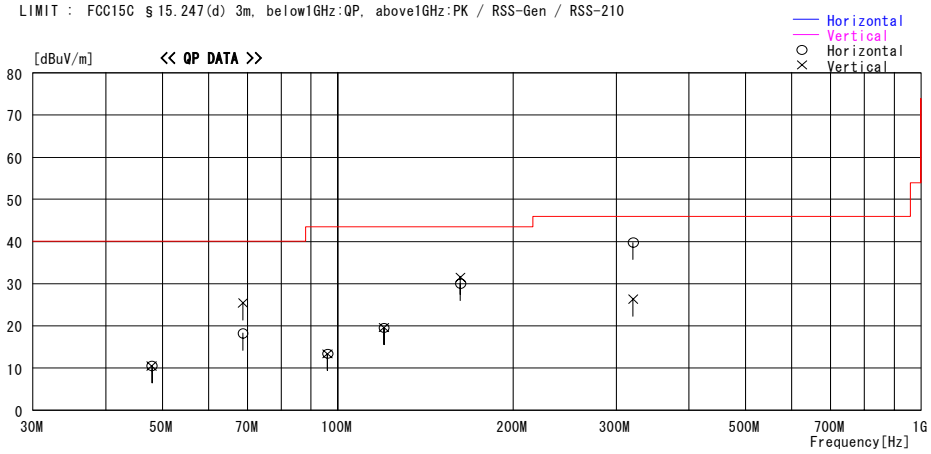
UL Apex Co., Ltd. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2006/11/07 11:30:20

Applicant : Sony EMCS Corporation Saitama TEC
Kind of EUT : Wireless Speaker System
Model No. : SRS-BTM30
Serial No. : 002

Report No. : 27CE0097-HO
Power : AC120V / 60Hz DC5.2V
Temp./Humi. : 21deg.C. / 60%
Operator : Yasuyuki Fukui

Mode / Remarks : Tx 2480MHz V:X-axis H:X-axis

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK / RSS-Gen / RSS-210



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
48.000	24.2	QP	11.2	-24.9	10.5	359	303	Hori.	40.0	29.5
48.000	24.2	QP	11.2	-24.9	10.5	47	100	Vert.	40.0	29.5
68.776	42.6	QP	7.3	-24.5	25.4	2	100	Vert.	40.0	14.6
68.776	35.5	QP	7.3	-24.5	18.3	176	314	Hori.	40.0	21.7
96.000	27.2	QP	10.2	-24.0	13.4	0	100	Vert.	43.5	30.1
96.000	27.2	QP	10.2	-24.0	13.4	359	312	Hori.	43.5	30.1
120.000	29.8	QP	13.5	-23.7	19.6	345	299	Hori.	43.5	23.9
120.000	29.8	QP	13.5	-23.7	19.6	0	100	Vert.	43.5	23.9
162.323	39.0	QP	15.8	-23.3	31.5	40	100	Vert.	43.5	12.0
162.323	37.6	QP	15.8	-23.3	30.1	267	210	Hori.	43.5	13.4
321.113	46.8	QP	15.2	-22.2	39.8	358	100	Hori.	46.0	6.2
321.113	33.3	QP	15.2	-22.2	26.3	116	100	Vert.	46.0	19.7

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

Radiated Spurious Emission (above 1GHz)

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

Company	: Sony EMCS Corporation Saitama TEC	REPORT NO	: 27CE0097-HO
Equipment	: Wireless Speaker System	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: SRS-BTM30	TEST DISTANCE	: 3/1m
Sample No.	: 002	DATE	: 11/02/2006
Power	: AC 120 V / 60 Hz DC5.2V	TEMPERATURE	: 22deg.C
Mode	: Tx 2402MHz	HUMIDITY	: 50%
Remarks	: Hor X , Ver X-axis	ENGINEER	: Yasuyuki Fukui

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1602.0	47.6	48.0	26.6	33.8	1.9	0.0	42.3	42.7	74.0	31.7	31.3
2	2390.0	41.3	40.7	29.1	32.8	2.2	0.0	39.8	39.2	74.0	34.2	34.8
3	2400.0	56.5	53.4	29.1	32.8	2.2	0.0	55.0	51.9	74.0	19.0	22.1
4	4804.0	40.0	40.0	33.4	31.6	3.5	0.1	45.4	45.4	74.0	28.6	28.6
5	7206.0	41.2	41.4	37.3	32.1	4.3	0.3	51.0	51.2	74.0	23.0	22.8
6	9608.0	40.3	41.2	39.4	33.1	5.0	0.7	52.3	53.2	74.0	21.7	20.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12010.0	39.9	40.0	40.5	33.0	5.8	0.8	44.5	44.6	74.0	29.5	29.4
8	14412.0	43.3	43.1	41.5	32.3	6.3	0.6	49.9	49.7	74.0	24.1	24.3
9	16814.0	40.1	40.1	40.4	32.1	6.8	1.2	46.9	46.9	74.0	27.1	27.1
10	19216.0	41.0	41.0	39.4	31.8	7.3	0.0	46.4	46.4	74.0	27.6	27.6
11	21618.0	40.0	40.0	39.7	32.3	7.7	0.0	45.6	45.6	74.0	28.4	28.4
12	24020.0	41.5	41.5	39.7	31.6	8.1	0.0	48.2	48.2	74.0	25.8	25.8

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1602.0	42.3	45.6	26.6	33.8	1.9	0.0	37.0	40.3	54.0	17.0	13.7
2	2390.0	30.5	30.5	29.1	32.8	2.2	0.0	29.0	29.0	54.0	25.0	25.0
3	2400.0	36.3	36.2	29.1	32.8	2.2	0.0	34.8	34.7	54.0	19.2	19.3
4	4804.0	29.5	29.4	33.4	31.6	3.5	0.1	34.9	34.8	54.0	19.1	19.2
5	7206.0	30.6	30.6	37.3	32.1	4.3	0.3	40.4	40.4	54.0	13.6	13.6
6	9608.0	30.7	30.7	39.4	33.1	5.0	0.7	42.7	42.7	54.0	11.3	11.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	12010.0	30.8	30.8	40.5	33.0	5.8	0.8	35.4	35.4	54.0	18.6	18.6
8	14412.0	31.9	31.9	41.5	32.3	6.3	0.6	38.5	38.5	54.0	15.5	15.5
9	16814.0	31.7	31.7	40.4	32.1	6.8	1.2	38.5	38.5	54.0	15.5	15.5
10	19216.0	31.7	31.7	39.4	31.8	7.3	0.0	37.1	37.1	54.0	16.9	16.9
11	21618.0	33.0	33.0	39.7	32.3	7.7	0.0	38.6	38.6	54.0	15.4	15.4
12	24020.0	34.2	34.2	39.7	31.6	8.1	0.0	40.9	40.9	54.0	13.1	13.1

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.

Radiated Spurious Emission (above 1GHz)

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

Company	: Sony EMCS Corporation Saitama TEC	REPORT NO	: 27CE0097-HO
Equipment	: Wireless Speaker System	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: SRS-BTM30	TEST DISTANCE	: 3/1m
Sample No.	: 002	DATE	: 11/02/2006
Power	: AC 120 V / 60 Hz DC5.2V	TEMPERATURE	: 22deg.C
Mode	: Tx 2441MHz	HUMIDITY	: 50%
Remarks	: Hor X , Ver X-axis	ENGINEER	: Yasuyuki Fukui

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1628.0	46.9	52.3	26.8	33.7	1.9	0.0	41.9	47.3	74.0	32.1	26.7
2	4882.0	40.0	40.3	33.6	31.6	3.5	0.0	45.5	45.8	74.0	28.5	28.2
3	7323.0	39.7	39.8	37.4	32.2	4.3	0.4	49.6	49.7	74.0	24.4	24.3
4	9764.0	39.5	39.1	39.6	33.2	5.0	0.7	51.6	51.2	74.0	22.4	22.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12205.0	37.4	40.0	40.6	32.9	5.8	0.8	42.2	44.8	74.0	31.8	29.2
6	14646.0	39.7	40.0	41.0	32.4	6.3	0.6	45.7	46.0	74.0	28.3	28.0
7	17087.0	43.0	42.1	41.3	32.0	6.8	1.1	50.7	49.8	74.0	23.3	24.2
8	19528.0	40.0	40.0	39.6	31.9	7.3	0.0	45.5	45.5	74.0	28.5	28.5
9	21969.0	41.6	41.6	40.1	32.1	7.8	0.0	47.9	47.9	74.0	26.1	26.1
10	24410.0	40.6	40.6	39.8	31.1	8.2	0.0	48.0	48.0	74.0	26.0	26.0

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1628.0	39.7	49.4	26.8	33.7	1.9	0.0	34.7	44.4	54.0	19.3	9.6
2	4882.0	30.1	30.1	33.6	31.6	3.5	0.0	35.6	35.6	54.0	18.4	18.4
3	7323.0	30.5	30.5	37.4	32.2	4.3	0.4	40.4	40.4	54.0	13.6	13.6
4	9764.0	30.2	30.2	39.6	33.2	5.0	0.7	42.3	42.3	54.0	11.7	11.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12205.0	31.7	31.7	40.6	32.9	5.8	0.8	36.5	36.5	54.0	17.5	17.5
6	14646.0	31.5	31.5	41.0	32.4	6.3	0.6	37.5	37.5	54.0	16.5	16.5
7	17087.0	32.6	32.7	41.3	32.0	6.8	1.1	40.3	40.4	54.0	13.7	13.6
8	19528.0	31.5	31.5	39.6	31.9	7.3	0.0	37.0	37.0	54.0	17.0	17.0
9	21969.0	34.1	34.1	40.1	32.1	7.8	0.0	40.4	40.4	54.0	13.6	13.6
10	24410.0	34.2	34.2	39.8	31.1	8.2	0.0	41.6	41.6	54.0	12.4	12.4

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

Radiated Spurious Emission (above 1GHz)

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

Company	: Sony EMCS Corporation Saitama TEC	REPORT NO	: 27CE0097-HO
Equipment	: Wireless Speaker System	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: SRS-BTM30	TEST DISTANCE	: 3/1m
Sample No.	: 002	DATE	: 11/02/2006
Power	: AC 120 V / 60 Hz DC5.2V	TEMPERATURE	: 22deg.C
Mode	: Tx 2480MHz	HUMIDITY	: 50%
Remarks	: Hor X , Ver X-axis	ENGINEER	: Yasuyuki Fukui

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1654.0	45.1	55.4	26.9	33.7	1.9	0.0	40.2	50.5	74.0	33.8	23.5
2	2483.5	45.2	43.6	29.2	32.7	2.3	0.0	44.0	42.4	74.0	30.0	31.6
3	4960.0	42.1	42.0	33.7	31.6	3.5	0.0	47.7	47.6	74.0	26.3	26.4
4	7440.0	40.3	41.0	37.6	32.3	4.3	0.5	50.4	51.1	74.0	23.6	22.9
5	9920.0	40.1	40.3	39.8	33.2	5.1	0.7	52.5	52.7	74.0	21.5	21.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	40.0	40.0	40.6	32.8	5.9	0.8	45.0	45.0	74.0	29.0	29.0
7	14880.0	40.5	41.0	40.4	32.4	6.3	0.6	45.9	46.4	74.0	28.1	27.6
8	17360.0	41.9	42.0	42.7	31.9	6.9	1.0	51.1	51.2	74.0	22.9	22.8
9	19840.0	42.0	42.0	39.4	32.0	7.4	0.0	47.3	47.3	74.0	26.7	26.7
10	22320.0	42.4	42.4	40.1	32.0	7.9	0.0	48.9	48.9	74.0	25.1	25.1
11	24800.0	43.2	43.2	40.0	30.6	8.3	0.0	51.4	51.4	74.0	22.6	22.6

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

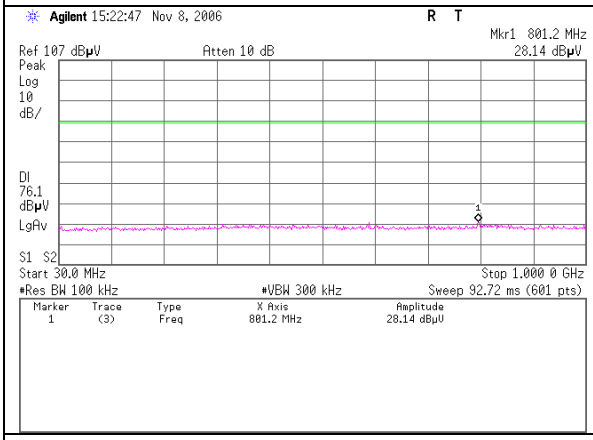
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1654.0	40.1	52.7	26.9	33.7	1.9	0.0	35.2	47.8	54.0	18.8	6.2
2	2483.5	31.0	30.0	29.2	32.7	2.3	0.0	29.8	28.8	54.0	24.2	25.2
3	4960.0	32.1	32.5	33.7	31.6	3.5	0.0	37.7	38.1	54.0	16.3	15.9
4	7440.0	30.5	30.7	37.6	32.3	4.3	0.5	40.6	40.8	54.0	13.4	13.2
5	9920.0	30.2	30.3	39.8	33.2	5.1	0.7	42.6	42.7	54.0	11.4	11.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	30.7	30.7	40.6	32.8	5.9	0.8	35.7	35.7	54.0	18.3	18.3
7	14880.0	31.8	31.8	40.4	32.4	6.3	0.6	37.2	37.2	54.0	16.8	16.8
8	17360.0	32.1	32.1	42.7	31.9	6.9	1.0	41.3	41.3	54.0	12.7	12.7
9	19840.0	32.6	32.6	39.4	32.0	7.4	0.0	37.9	37.9	54.0	16.1	16.1
10	22320.0	33.3	33.3	40.1	32.0	7.9	0.0	39.8	39.8	54.0	14.2	14.2
11	24800.0	35.4	35.4	40.0	30.6	8.3	0.0	43.6	43.6	54.0	10.4	10.4

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

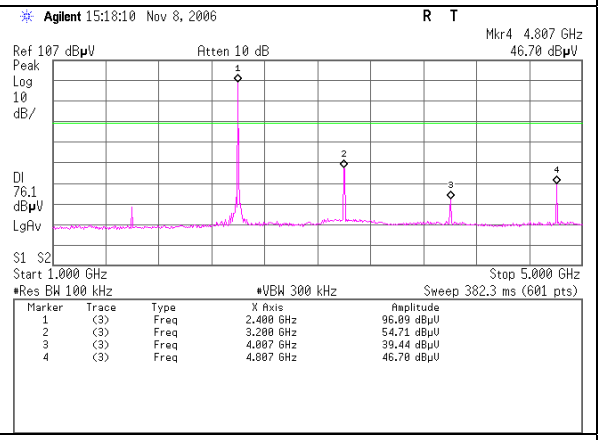
Conducted Spurious Emission

Ch:Low

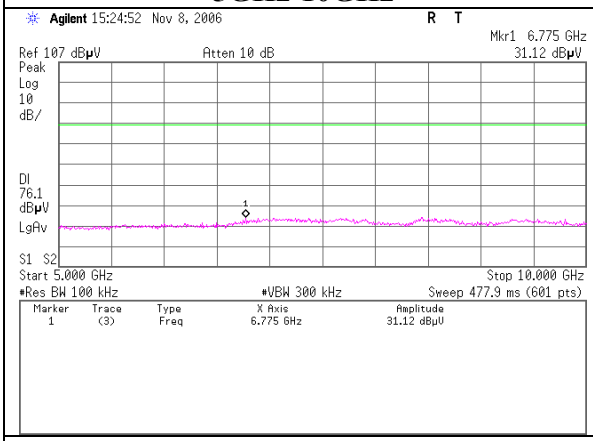
30MHz-1GHz



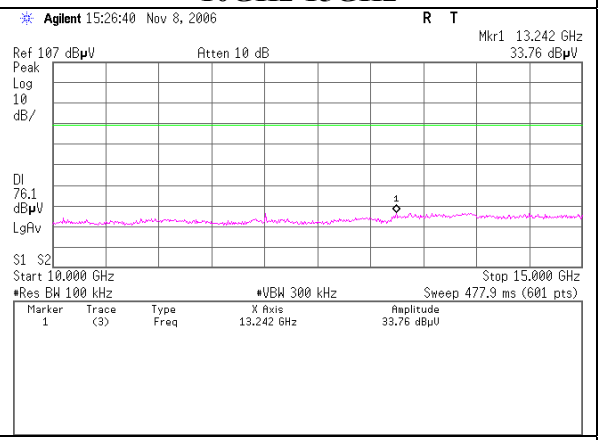
1GHz-5GHz



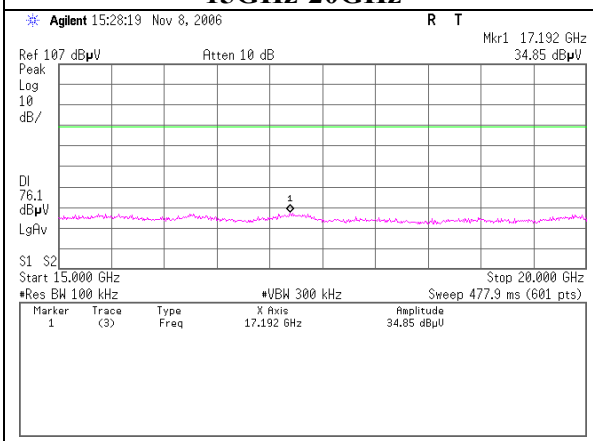
5GHz-10GHz



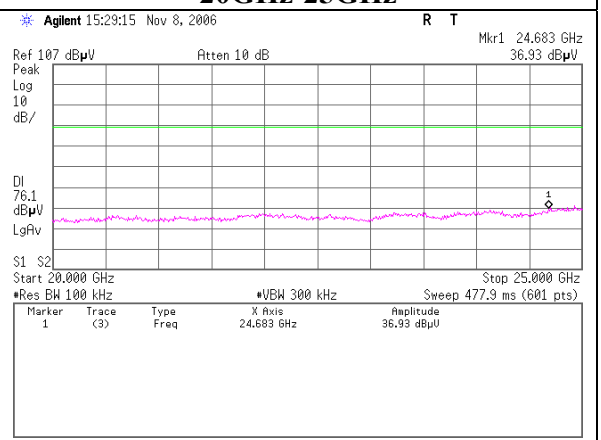
10GHz-15GHz



15GHz-20GHz

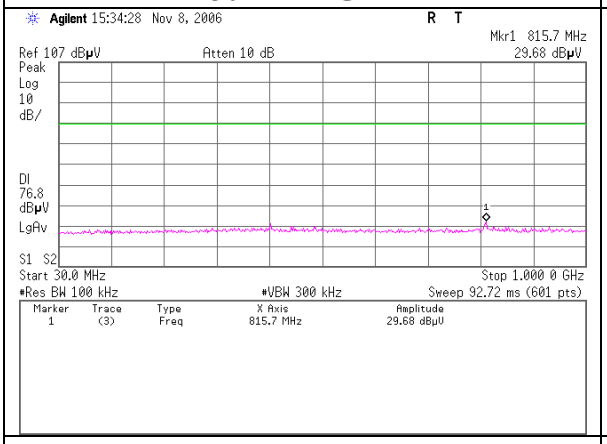


20GHz-25GHz

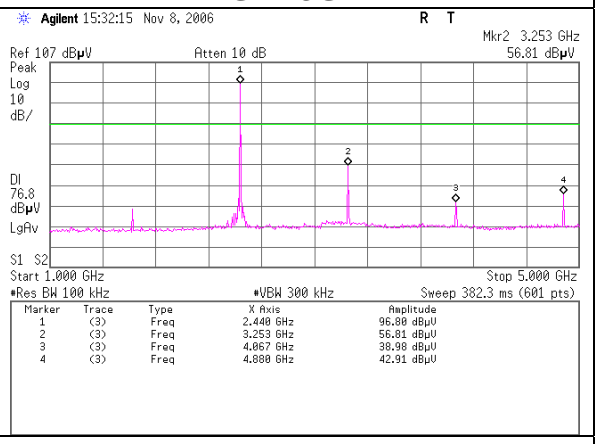


Conducted Spurious Emission
Ch:Mid

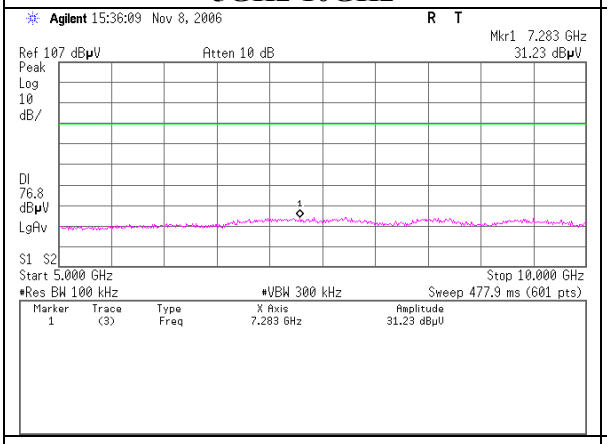
30MHz-1GHz



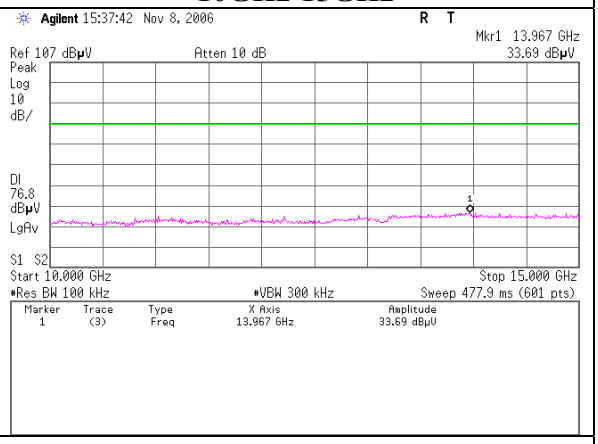
1GHz-5GHz



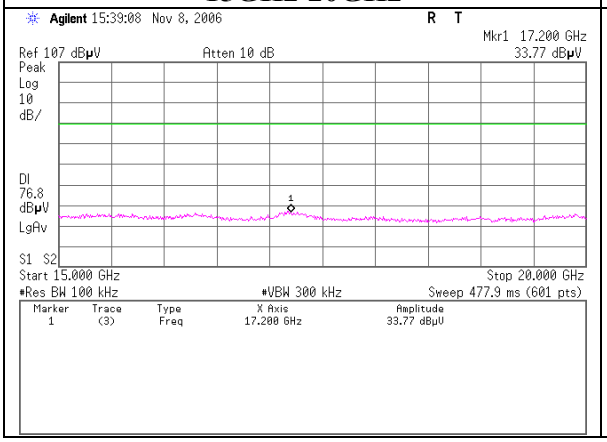
5GHz-10GHz



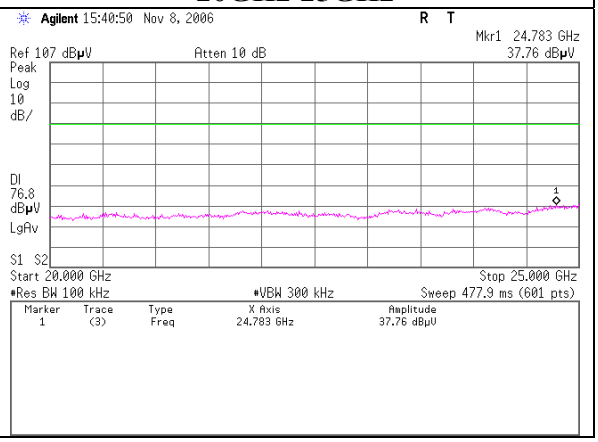
10GHz-15GHz



15GHz-20GHz

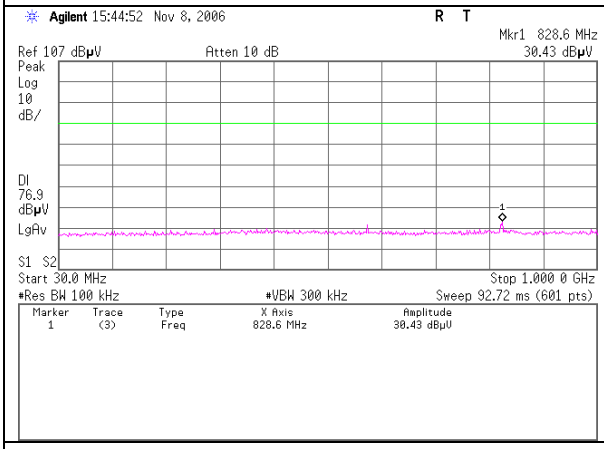


20GHz-25GHz

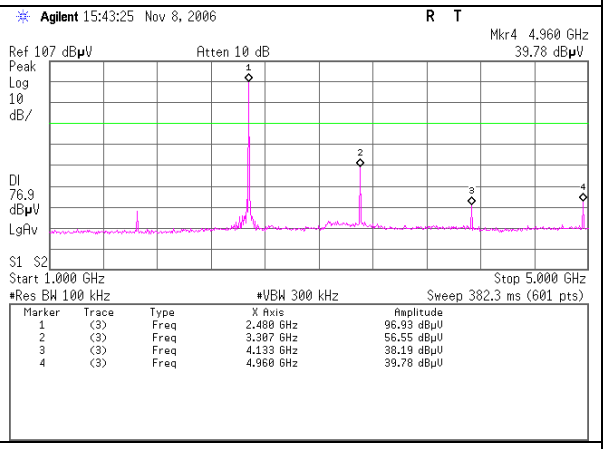


Conducted Spurious Emission
Ch:High

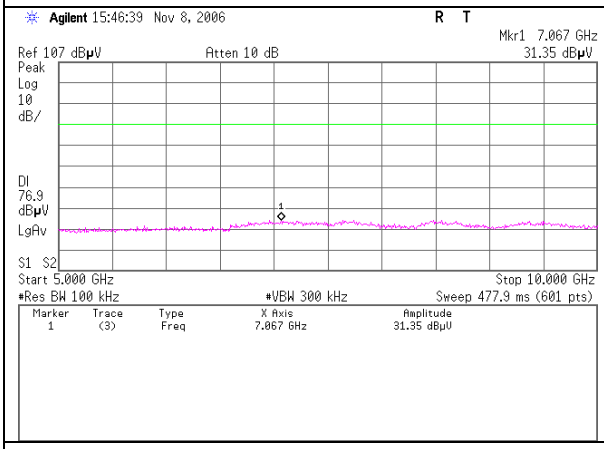
30MHz-1GHz



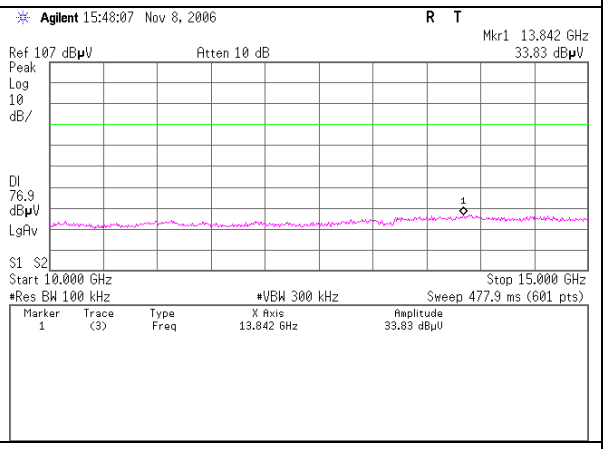
1GHz-5GHz



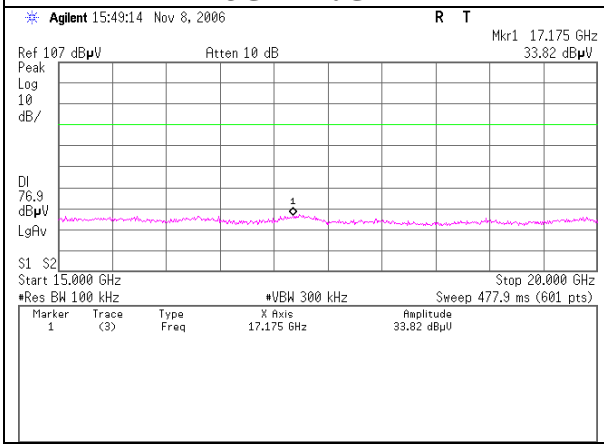
5GHz-10GHz



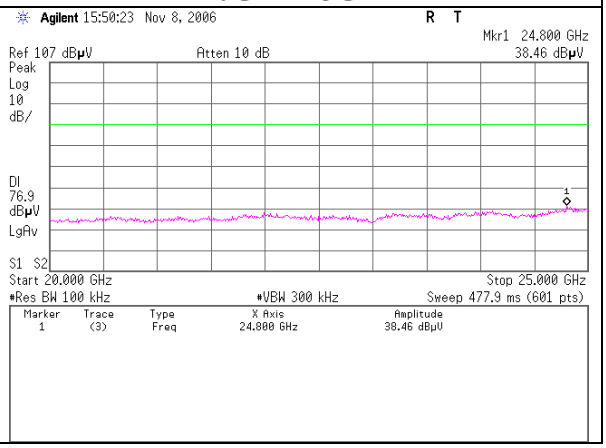
10GHz-15GHz



15GHz-20GHz



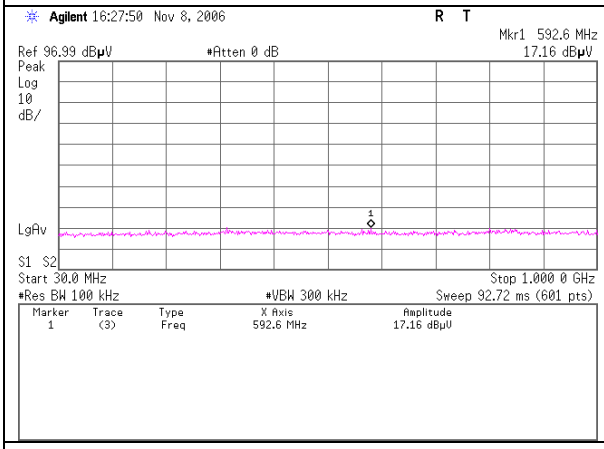
20GHz-25GHz



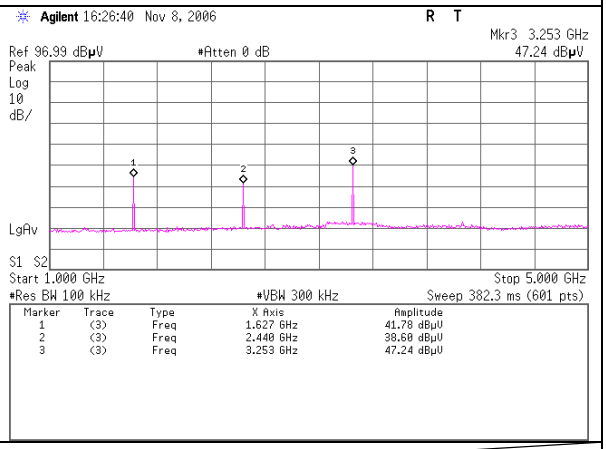
Conducted Spurious Emission

Ch:Mid Rx

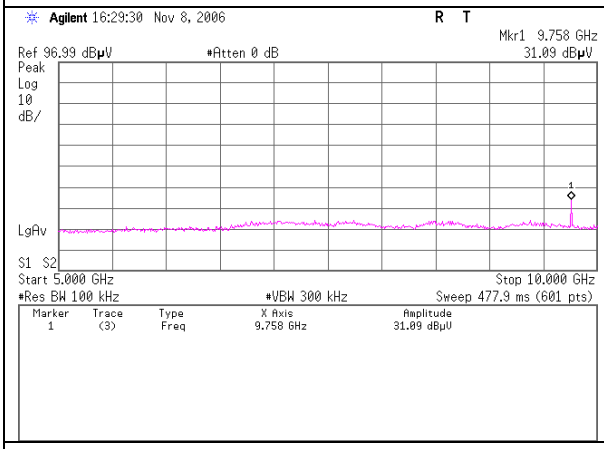
30MHz-1GHz



1GHz-5GHz



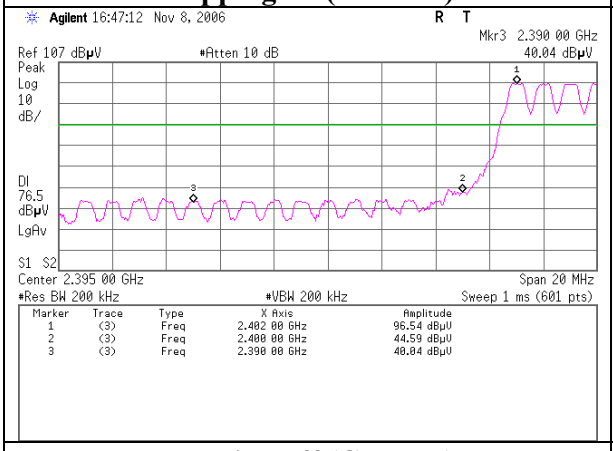
5GHz-10GHz



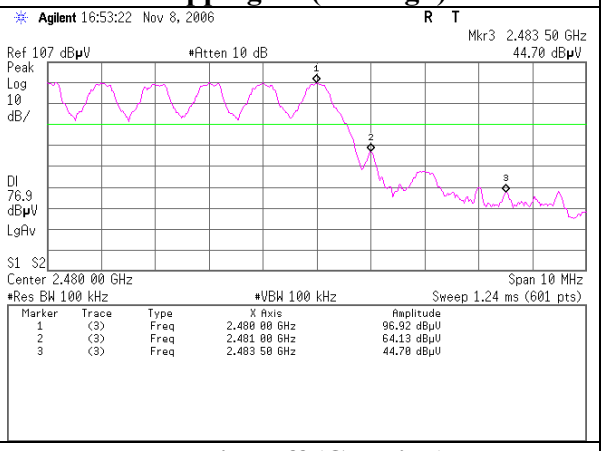
Conducted Spurious Emission

Band Edge compliance

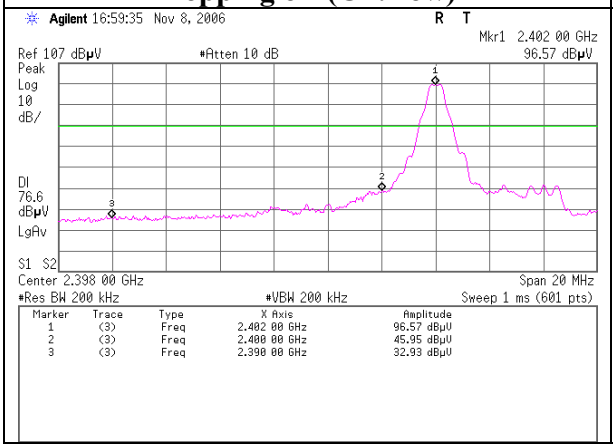
Hopping on (Ch:Low)



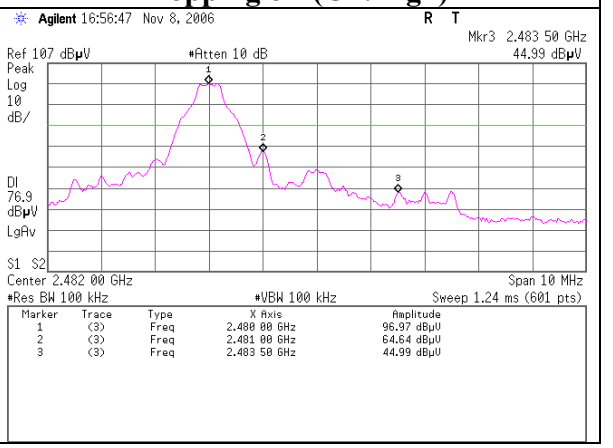
Hopping on (Ch:High)



Hopping off (Ch:Low)



Hopping off (Ch:High)



APPENDIX 3:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE / CE	2006/03/03 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	RE / CE	2006/01/19 * 24
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE / CE	-
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2006/04/06 * 12
MCC-56	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2006/04/15 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	RE	2006/03/27 * 12
MHA-01	Horn Antenna 18-26.5G	EMCO	3160-09	RE	2006/01/09 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	RE / AT	2006/09/13 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/01/29 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/01/29 * 12
MSA-07	Spectrum Analyzer	Advantest	R3272	RE	2005/11/22 * 12
TR-07	Test Receiver	Rohde & Schwarz	ESCS30	RE / CE	2006/09/12 * 12
MCC-51	Coaxial cable	UL Apex	-	RE	2006/03/11 * 12
MAT-30	Attenuator(6dB)	TME	UFA-01	RE	2006/03/11 * 12
MPA-13	Pre Amplifier	SONOA INSTRUMENT	310	RE	2006/03/25 * 12
MJM-01	Measure	KDS	ES19-55	RE / CE	-
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	2004/11/25 * 24
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	AT	2006/02/02 * 12
MAT-23	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2006/03/18 * 12
MAT-25	Attenuator(10dB) (above1GHz)	Agilent	8493C	AT	2006/06/02 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	CE	2006/06/02 * 12
MCC-59	Coaxial cable	UL Apex	-	CE	2006/04/13 * 12
MLS-03	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2006/06/01 * 12
MPM-09	Power Meter	Anritsu	ML2495A	AT	2006/09/20 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	AT	2006/09/20 * 12

The expiration date of the calibration is the end of the expired month.
All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
Test Item:

CE: AC Main Conducted Emission
AT: Antenna Terminal Conducted Spurious Emission
RE: Radiated Spurious Emission, Maximum Peak Output Power, 20dB Bandwidth, Number of Hopping Frequency, Dwell time