

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, ANT 0, Ch: Low

DATA OF CONDUCTED EMISSION TEST

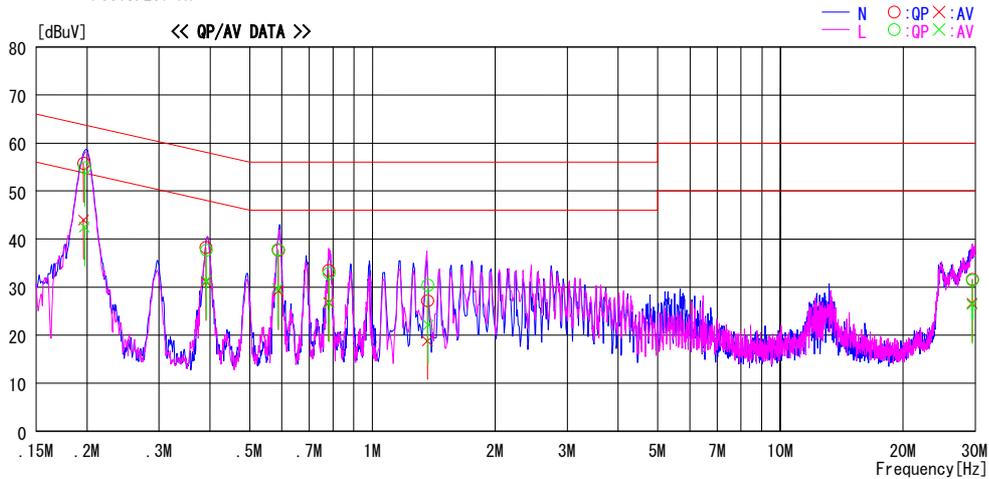
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001

Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 25deg. C / 43%
Engineer : Takumi Shimada

Mode / Remarks : Tx 2412MHz ANT0

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.19594	55.5	43.6	0.3	55.8	43.9	63.8	53.8	8.0	9.9	N	
0.39101	37.9	30.8	0.3	38.2	31.1	58.0	48.0	19.8	16.9	N	
0.58795	37.4	28.9	0.3	37.7	29.2	56.0	46.0	18.3	16.8	N	
0.78146	33.2	26.5	0.3	33.5	26.8	56.0	46.0	22.5	19.2	N	
1.36513	26.8	18.4	0.4	27.2	18.8	56.0	46.0	28.8	27.2	N	
29.50267	29.6	24.6	2.0	31.6	26.6	60.0	50.0	28.4	23.4	N	
0.19715	54.6	42.2	0.3	54.9	42.5	63.7	53.7	8.8	11.2	L	
0.39165	37.4	31.1	0.3	37.7	31.4	58.0	48.0	20.3	16.6	L	
0.58640	37.5	29.4	0.3	37.8	29.7	56.0	46.0	18.2	16.3	L	
0.78286	32.6	26.3	0.3	32.9	26.6	56.0	46.0	23.1	19.4	L	
1.36913	30.0	21.7	0.4	30.4	22.1	56.0	46.0	25.6	23.9	L	
29.49959	29.5	24.3	2.0	31.5	26.3	60.0	50.0	28.6	23.7	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C. F [dB] (LISN LOSS + CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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

Conducted Emission
Tx, ANT 0, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001

Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 25deg. C / 43%
Engineer : Takumi Shimada

Mode / Remarks : Tx 2438MHz ANT0

LIMIT : FCC15.207 QP
FCC15.207 AV

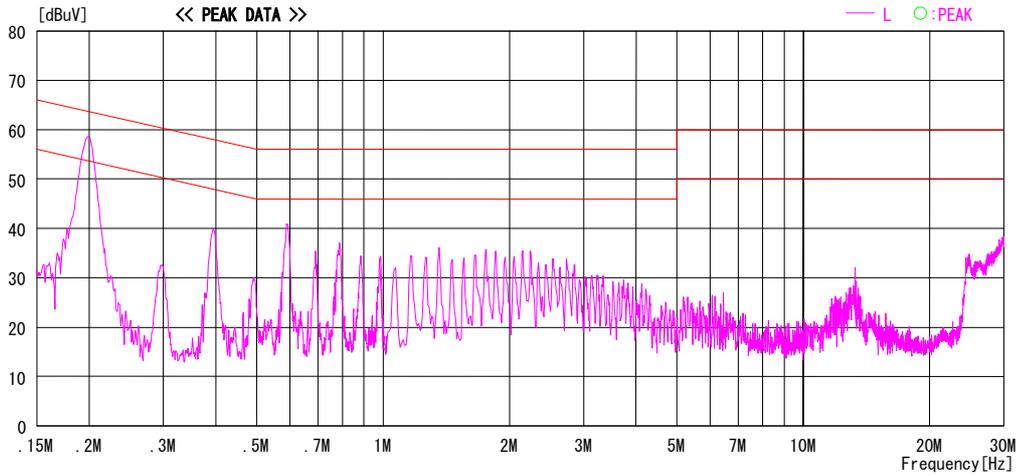
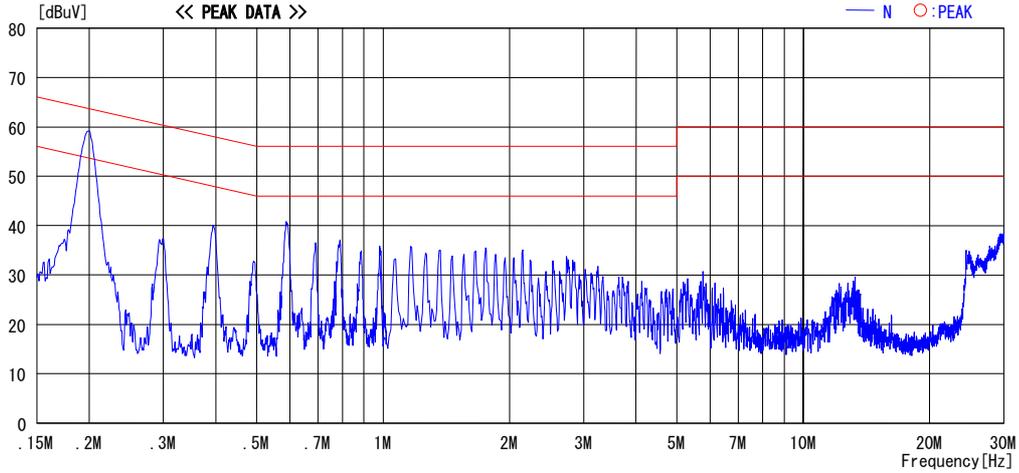


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV]=READING [dBuV]+C.F [dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
Tx, ANT 0, Ch: High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001

Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 25deg. C / 43%
Engineer : Takumi Shimada

Mode / Remarks : Tx 2462MHz ANT0

LIMIT : FCC15.207 QP
FCC15.207 AV

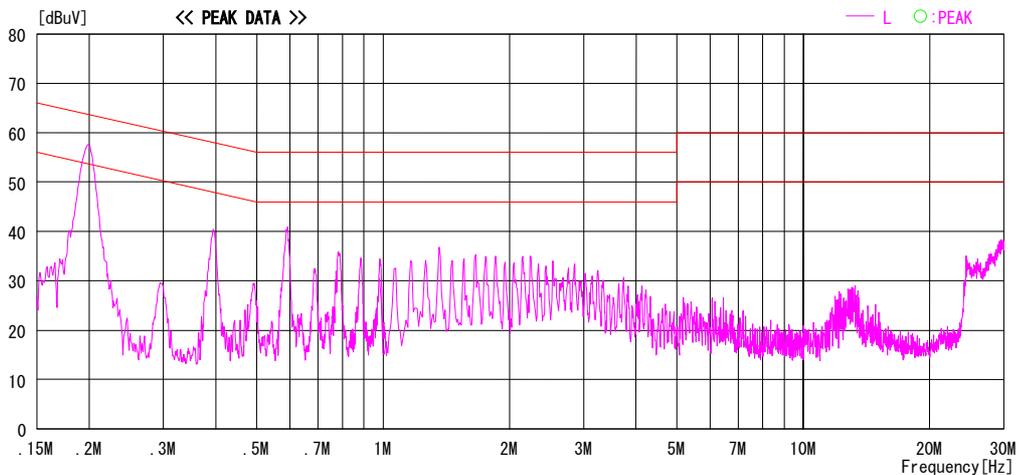
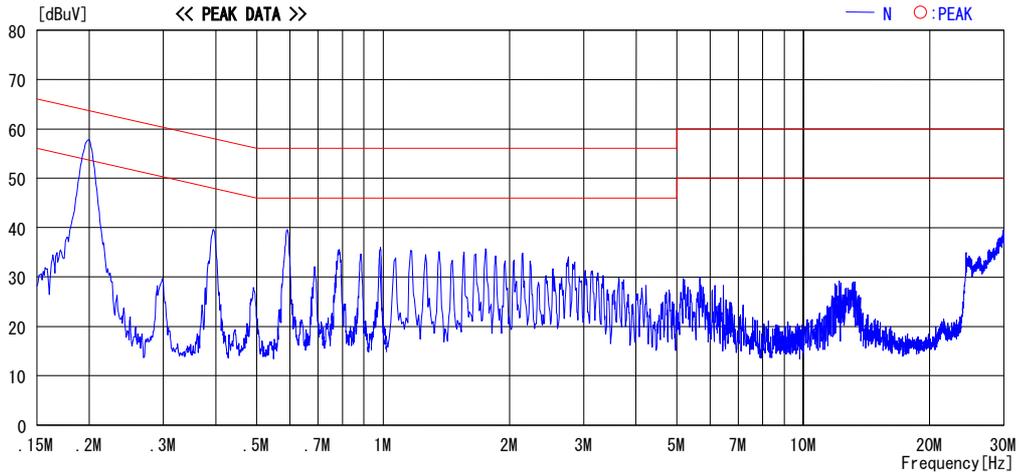


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV]=READING [dBuV]+C.F [dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
Tx, ANT 1, Ch: Low

DATA OF CONDUCTED EMISSION TEST

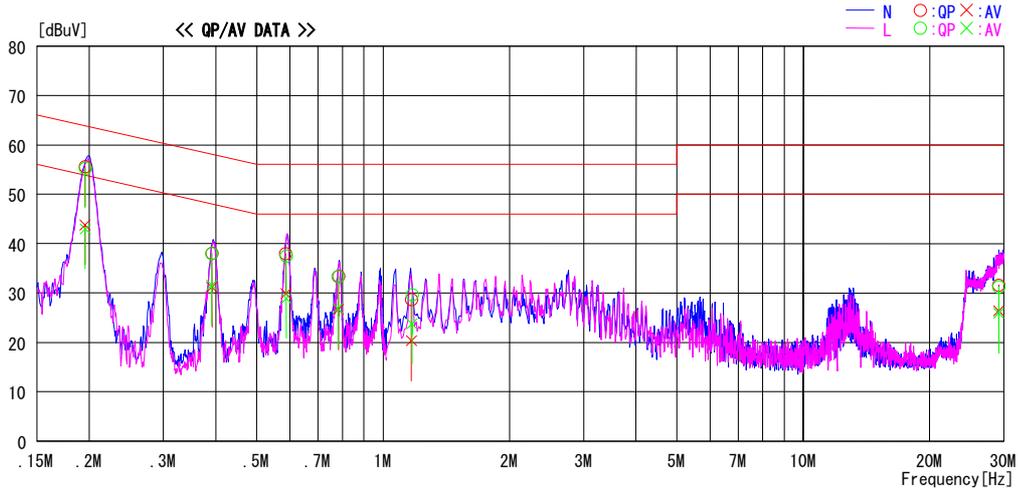
UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001

Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 25deg. C / 43%
Engineer : Takumi Shimada

Mode / Remarks : Tx 2412MHz ANT1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.19540	55.3	43.5	0.3	55.6	43.8	63.8	53.8	8.2	10.0	N	
0.39135	37.8	30.9	0.3	38.1	31.2	58.0	48.0	19.9	16.8	N	
0.58667	37.7	29.6	0.3	38.0	29.9	56.0	46.0	18.0	16.1	N	
0.78280	33.1	26.3	0.3	33.4	26.6	56.0	46.0	22.6	19.4	N	
1.16875	28.3	19.9	0.4	28.7	20.3	56.0	46.0	27.3	25.7	N	
29.19512	29.6	24.4	2.0	31.6	26.4	60.0	50.0	28.4	23.6	N	
0.19550	55.0	42.7	0.3	55.3	43.0	63.8	53.8	8.5	10.8	L	
0.39088	37.7	31.3	0.3	38.0	31.6	58.0	48.0	20.0	16.4	L	
0.58816	37.2	28.6	0.3	37.5	28.9	56.0	46.0	18.5	17.1	L	
0.78131	33.0	26.6	0.3	33.3	26.9	56.0	46.0	22.7	19.1	L	
1.17170	29.3	23.3	0.4	29.7	23.7	56.0	46.0	26.3	22.3	L	
29.20159	29.2	23.9	2.0	31.2	25.9	60.0	50.0	28.8	24.1	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C.F [dB] (LISN LOSS + CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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

Conducted Emission
Tx, ANT 1, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2009/04/14

Company	: Panasonic Corporation	Report No.	: 29GE0129-HO-01
Kind of EUT	: Speaker system (Wireless Audio Receiver)	Power	: AC 120V / 60Hz
Model No.	: SB-ZT1	Temp./Humi.	: 25deg. C / 43%
Serial No.	: 001	Engineer	: Takumi Shimada

Mode / Remarks : Tx 2438MHz ANT1

LIMIT : FCC15.207 QP
FCC15.207 AV

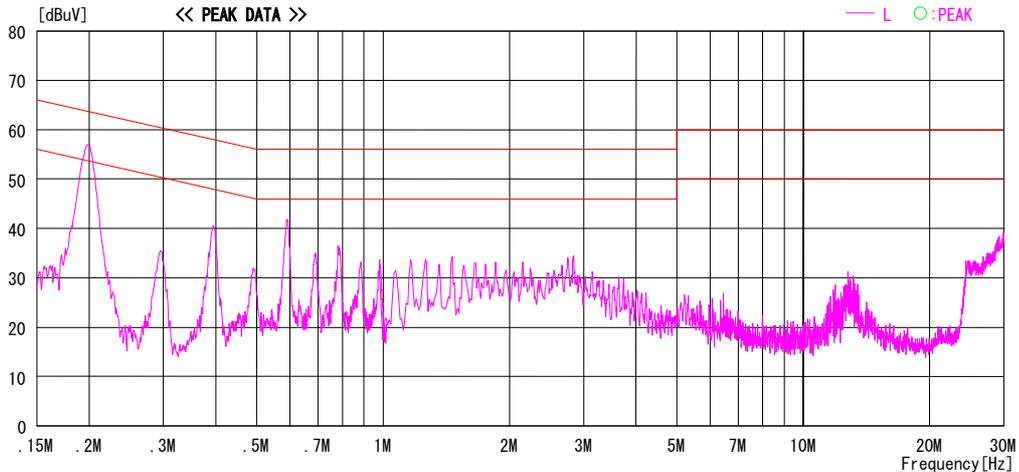
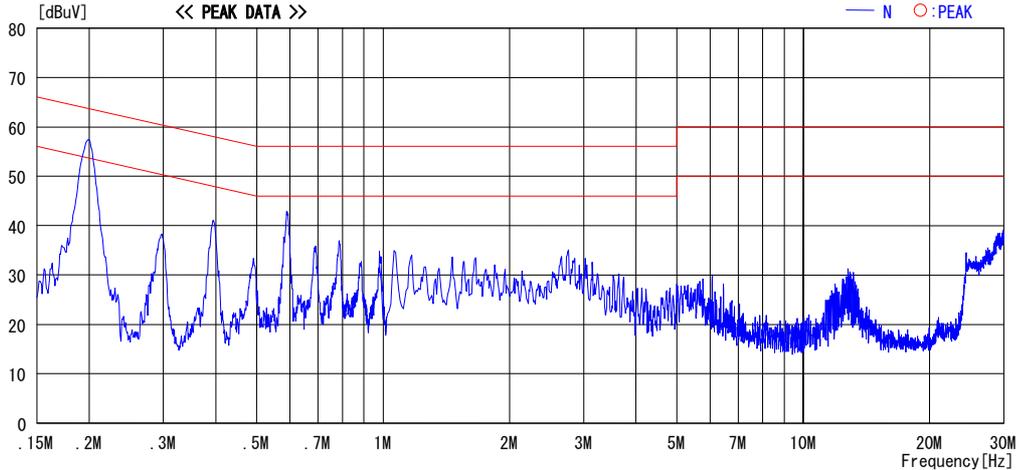


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV]=READING [dBuV]+C. F [dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
Tx, ANT 1, Ch: High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001

Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 25deg.C / 43%
Engineer : Takumi Shimada

Mode / Remarks : Tx 2462MHz ANT1

LIMIT : FCC15.207 QP
FCC15.207 AV

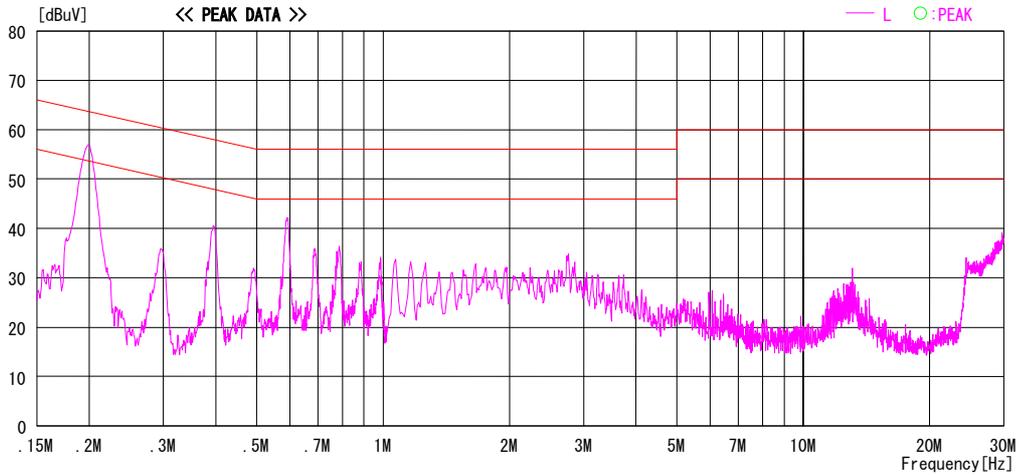
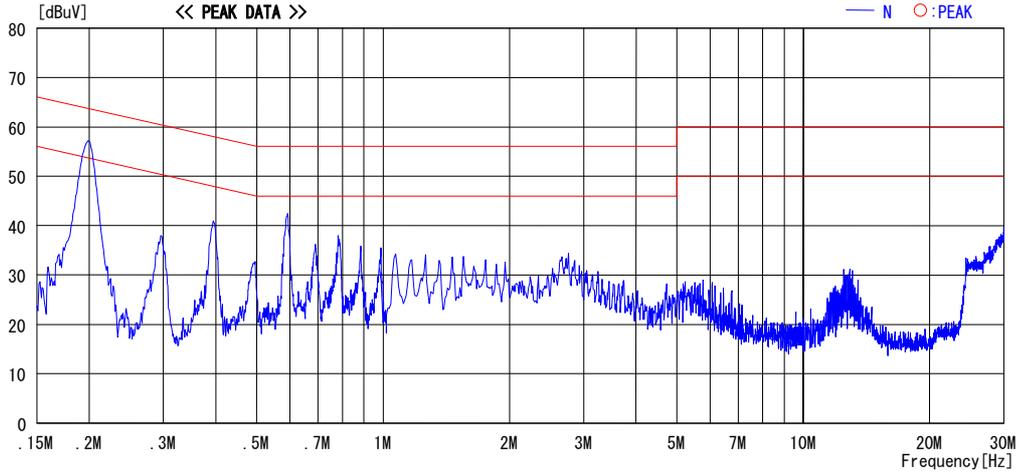


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV]=READING [dBuV]+C.F [dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
Rx, ANT 0, Ch: Mid

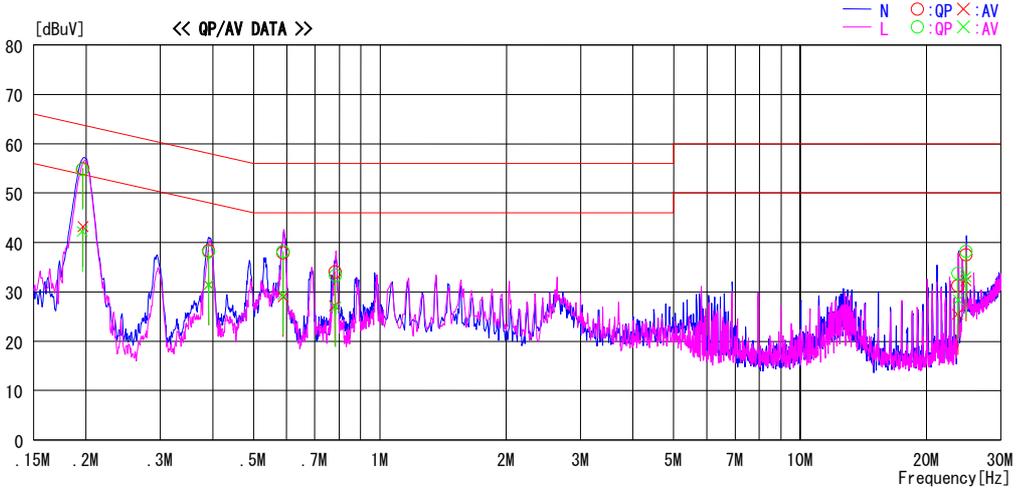
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation Report No. : 29GE0129-HO-01
Kind of EUT : Speaker system (Wireless Audio Receiver) Power : AC 120V / 60Hz
Model No. : SB-ZT1 Temp./Humi. : 25deg. C / 43%
Serial No. : 001 Engineer : Takumi Shimada

Mode / Remarks : Rx 2438MHz ANT0

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.19629	54.7	42.9	0.3	55.0	43.2	63.8	53.8	8.8	10.6	N	
0.39080	38.1	31.1	0.3	38.4	31.4	58.0	48.0	19.6	16.6	N	
0.58809	37.6	28.7	0.3	37.9	29.0	56.0	46.0	18.1	17.0	N	
0.78072	33.7	26.9	0.3	34.0	27.2	56.0	46.0	22.0	18.8	N	
23.73320	29.5	23.6	1.8	31.3	25.4	60.0	50.0	28.7	24.6	N	
24.78704	35.7	30.4	1.8	37.5	32.2	60.0	50.0	22.5	17.8	N	
0.19581	54.5	41.9	0.3	54.8	42.2	63.8	53.8	9.0	11.6	L	
0.39079	37.8	31.1	0.3	38.1	31.4	58.0	48.0	19.9	16.6	L	
0.58762	37.9	29.2	0.3	38.2	29.5	56.0	46.0	17.8	16.5	L	
0.78331	33.1	26.6	0.3	33.4	26.9	56.0	46.0	22.6	19.1	L	
23.74590	32.0	26.5	1.8	33.8	28.3	60.0	50.0	26.2	21.7	L	
24.78899	36.4	31.2	1.8	38.2	33.0	60.0	50.0	21.8	17.0	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C.F [dB] (LISN LOSS + CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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Conducted Emission
Rx, ANT 1, Ch: Mid

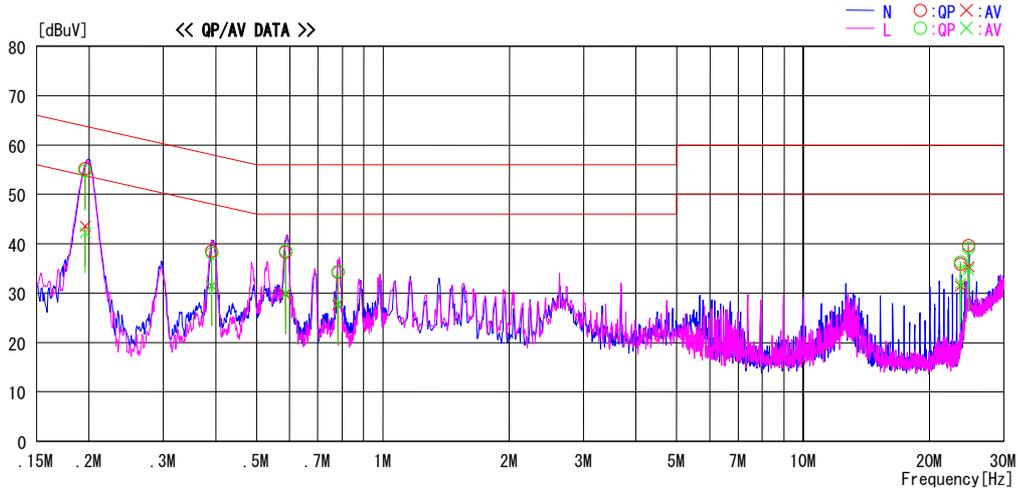
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/04/14

Company : Panasonic Corporation Report No. : 29GE0129-HO-01
Kind of EUT : Speaker system (Wireless Audio Receiver) Power : AC 120V / 60Hz
Model No. : SB-ZT1 Temp./Humi. : 25deg. C / 43%
Serial No. : 001 Engineer : Takumi Shimada

Mode / Remarks : Rx 2438MHz ANT1

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.19544	54.9	43.2	0.3	55.2	43.5	63.8	53.8	8.6	10.3	N	
0.39103	38.2	31.2	0.3	38.5	31.5	58.0	48.0	19.5	16.5	N	
0.58637	38.1	29.5	0.3	38.4	29.8	56.0	46.0	17.6	16.2	N	
0.78124	34.0	27.3	0.3	34.3	27.6	56.0	46.0	21.7	18.4	N	
23.69482	34.1	29.6	1.8	35.9	31.4	60.0	50.0	24.1	18.6	N	
24.75310	37.9	33.5	1.8	39.7	35.3	60.0	50.0	20.3	14.7	N	
0.19558	54.5	41.9	0.3	54.8	42.2	63.8	53.8	9.0	11.6	L	
0.39131	37.8	31.1	0.3	38.1	31.4	58.0	48.0	19.9	16.6	L	
0.58665	38.3	29.7	0.3	38.6	30.0	56.0	46.0	17.4	16.0	L	
0.78144	34.1	27.6	0.3	34.4	27.9	56.0	46.0	21.6	18.1	L	
23.70530	34.6	30.2	1.8	36.4	32.0	60.0	50.0	23.6	18.0	L	
24.75060	37.4	32.9	1.8	39.2	34.7	60.0	50.0	20.8	15.3	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C.F [dB] (LISN LOSS + CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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6dB Bandwidth

UL Japan, Inc.
Head Office EMC Lab. No.11 Measurement Room

Company : Panasonic Corporation
Equipment : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 002
Power : AC 120V/ 60Hz
Mode : Tx Mode, ANT 0, ANT 1

Test Report No. : 29GE0129-HO-01
Regulation : FCC15.247(a)(2)/RSS-210A8.2(a)
Test distance : -
Date : 03/24/2009
Temperature : 31 deg.C.
Humidity : 38%
Engineer : Takeshi Choda

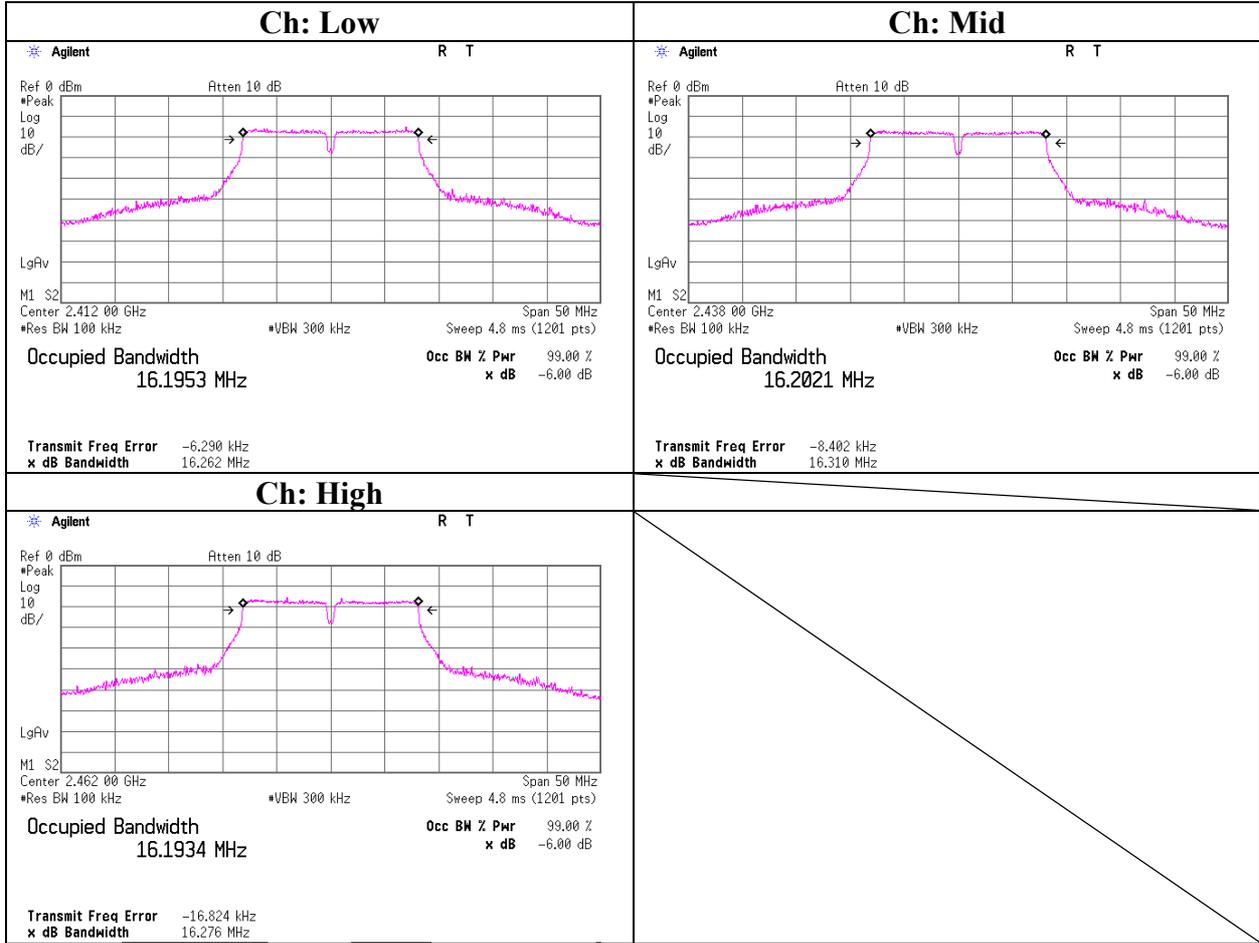
[ANT 0]

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	16.262	>500
Mid	2438.0	16.310	>500
High	2462.0	16.276	>500

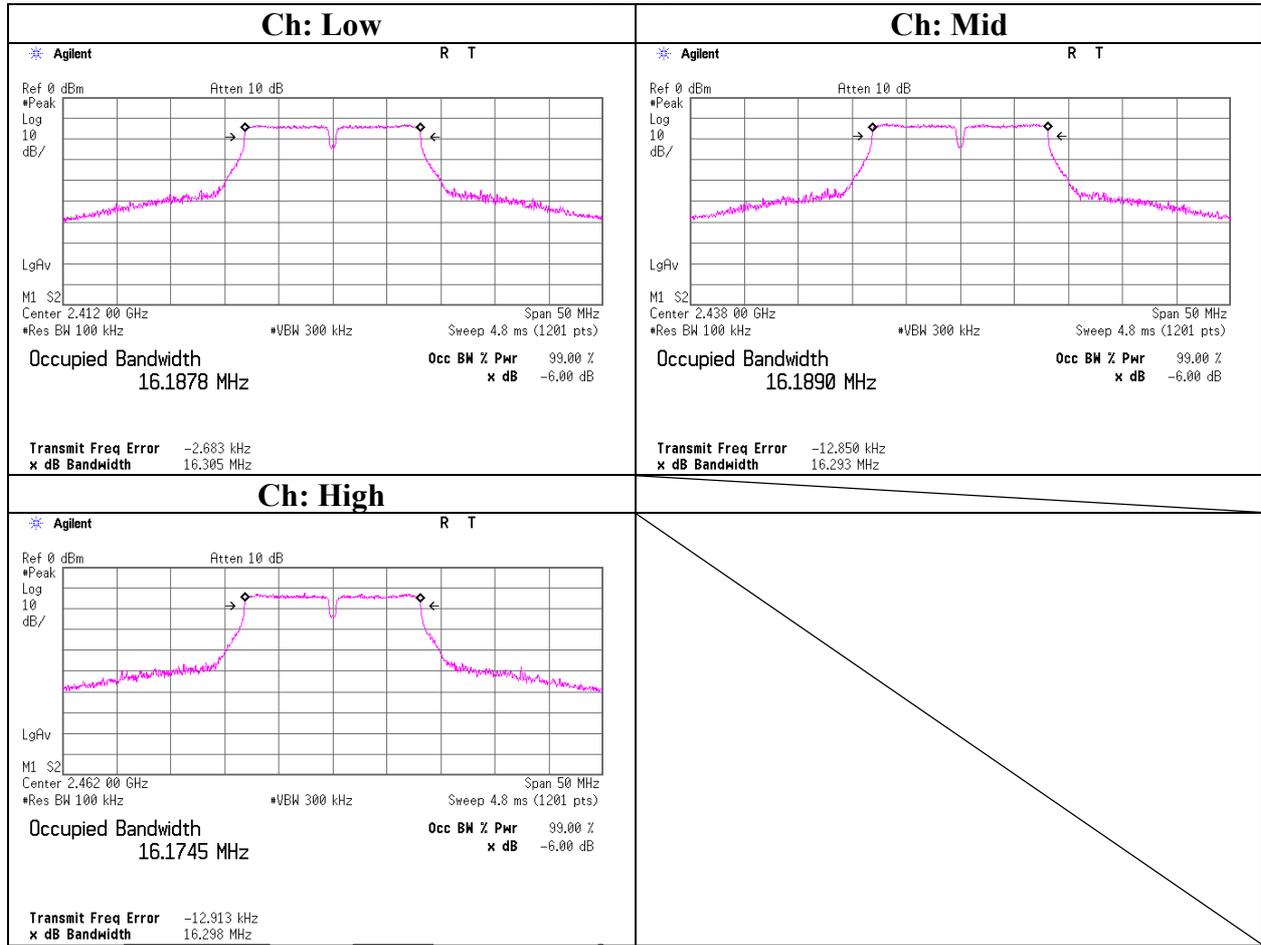
[ANT 1]

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	16.305	>500
Mid	2438.0	16.293	>500
High	2462.0	16.298	>500

6dB Bandwidth
ANT 0



6dB Bandwidth
ANT 1



Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.11 Measurement Room

Company : Panasonic Corporation	Test Report No. : 29GE0129-HO-01
Equipment : Speaker system (Wireless Audio Receiver)	Regulation : FCC15.247(b)(3)/RSS-210A8.4(4)
Model No. : SB-ZT1	Test distance : -
Serial No. : 002	Date : 03/24/2009
Power : AC120V/60Hz	Temperature : 31deg.C.
Mode : Tx Mode, ANT 0, ANT 1	Humidity : 38%
	Engineer : Takeshi Choda

[ANT 0]

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]*	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	5.28	-1.13	10.08	14.23	26.49	30.00	1000	15.77
Mid	2438.0	5.38	-1.13	10.08	14.33	27.10	30.00	1000	15.67
High	2462.0	5.35	-1.12	10.08	14.31	26.98	30.00	1000	15.69

Sample Calculation:

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

*The cable which was used for the tests was shorter than the actual usage cable in length.
Therefore, the value of this cable loss was "- (minus)" number.

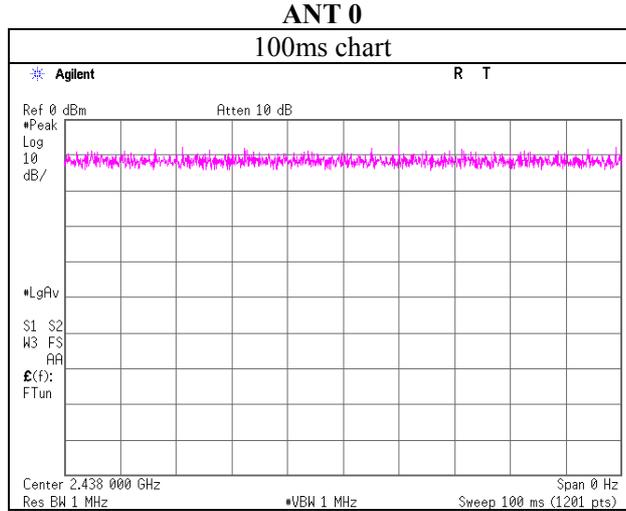
[ANT 1]

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	8.16	2.87	10.08	21.11	129.12	30.00	1000	8.89
Mid	2438.0	8.38	2.87	10.08	21.33	135.83	30.00	1000	8.67
High	2462.0	8.51	2.88	10.08	21.47	140.28	30.00	1000	8.53

Sample Calculation:

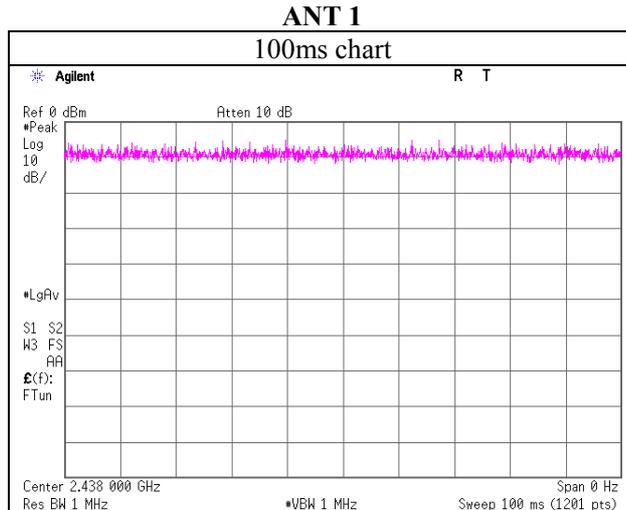
Result = Reading + Cable Loss (supplied by customer + ULJ) + Attenuator

VBW setting to use of the radiated emission
(Average detector function)



--- VBW Setting ---

$VBW = 1 / (1\text{cycle time}) = 1 / 100\text{ms} = 10\text{Hz}$ -> Therefore, we use VBW=10Hz for Spurious Emission Test (Average)



--- VBW Setting ---

$VBW = 1 / (1\text{cycle time}) = 1 / 100\text{ms} = 10\text{Hz}$ -> Therefore, we use VBW=10Hz for Spurious Emission Test (Average)

Radiated Spurious Emission (below 1GHz)
Tx, ANT 0, Ch: Low

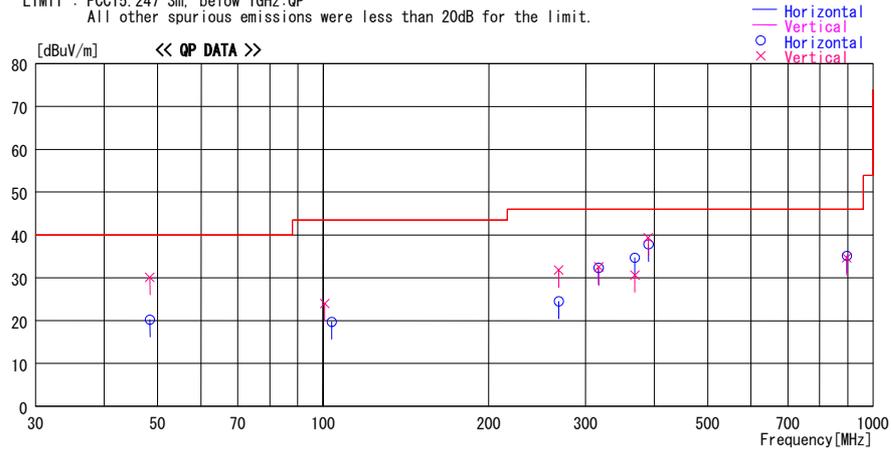
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/03/19

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 21deg. C / 45%
Engineer : Satofumi Matsuyama

Mode / Remarks : Tx 2412MHz ANTO

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
48.392	34.1	QP	10.8	-24.7	20.2	306	400	Hori.	40.0	19.8	
48.396	44.0	QP	10.8	-24.7	30.1	9	100	Vert.	40.0	9.9	
103.646	33.3	QP	10.2	-23.8	19.7	121	300	Hori.	43.5	23.8	
100.686	38.3	QP	9.6	-23.9	24.0	295	100	Vert.	43.5	19.5	
268.190	35.9	QP	18.1	-22.2	31.8	273	100	Vert.	46.0	14.2	
268.191	28.6	QP	18.1	-22.2	24.5	330	300	Hori.	46.0	21.5	
316.949	39.3	QP	15.1	-21.9	32.5	263	100	Vert.	46.0	13.5	
316.955	39.1	QP	15.1	-21.9	32.3	243	100	Hori.	46.0	13.7	
368.766	39.7	QP	16.5	-21.5	34.7	332	100	Hori.	46.0	11.3	
368.762	35.6	QP	16.5	-21.5	30.6	196	122	Vert.	46.0	15.4	
390.100	42.2	QP	17.0	-21.4	37.8	76	100	Hori.	46.0	8.2	
390.099	43.7	QP	17.0	-21.4	39.3	293	158	Vert.	46.0	6.7	
896.001	30.9	QP	22.0	-17.7	35.2	115	100	Hori.	46.0	10.8	
896.003	30.3	QP	22.0	-17.7	34.6	6	119	Vert.	46.0	11.4	

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (below 1GHz)
Tx, ANT 0, Ch: Mid

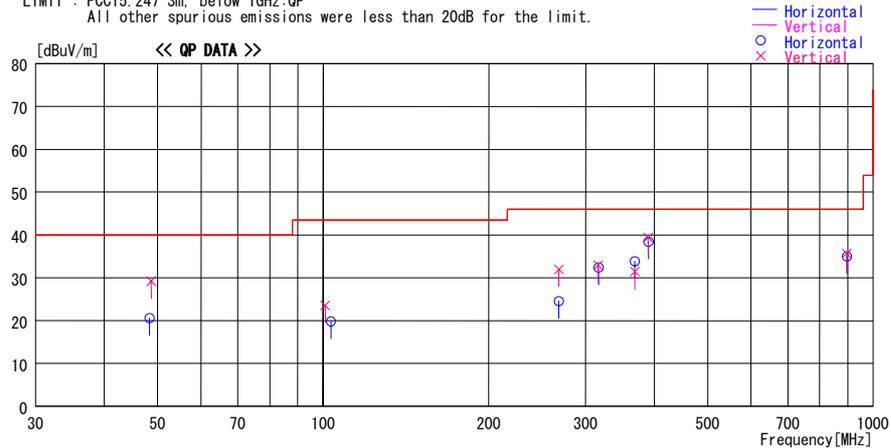
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/03/20

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 21deg. C / 45%
Engineer : Tomtoaka Sasagawa

Mode / Remarks : Tx 2438MHz ANTO

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
48.378	34.5	QP	10.8	-24.7	20.6	221	100	Hori.	40.0	19.4	
48.723	43.2	QP	10.7	-24.7	29.2	12	100	Vert.	40.0	10.8	
103.414	33.5	QP	10.1	-23.8	19.8	222	100	Hori.	43.5	23.7	
100.928	37.9	QP	9.6	-23.9	23.6	278	100	Vert.	43.5	19.9	
268.314	36.1	QP	18.1	-22.2	32.0	298	100	Vert.	46.0	14.0	
268.125	28.7	QP	18.1	-22.2	24.6	231	232	Hori.	46.0	21.4	
316.413	39.7	QP	15.1	-21.9	32.9	241	100	Vert.	46.0	13.1	
316.851	39.2	QP	15.1	-21.9	32.4	11	100	Hori.	46.0	13.6	
368.492	38.9	QP	16.5	-21.5	33.9	9	100	Hori.	46.0	12.1	
368.920	36.4	QP	16.5	-21.5	31.4	211	141	Vert.	46.0	14.6	
390.414	42.8	QP	17.0	-21.4	38.4	87	100	Hori.	46.0	7.6	
390.003	43.8	QP	17.0	-21.4	39.4	301	162	Vert.	46.0	6.6	
896.040	30.7	QP	22.0	-17.7	35.0	112	100	Hori.	46.0	11.0	
896.002	31.4	QP	22.0	-17.7	35.7	23	121	Vert.	46.0	10.3	

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (below 1GHz)
Tx, ANT 0, Ch: High

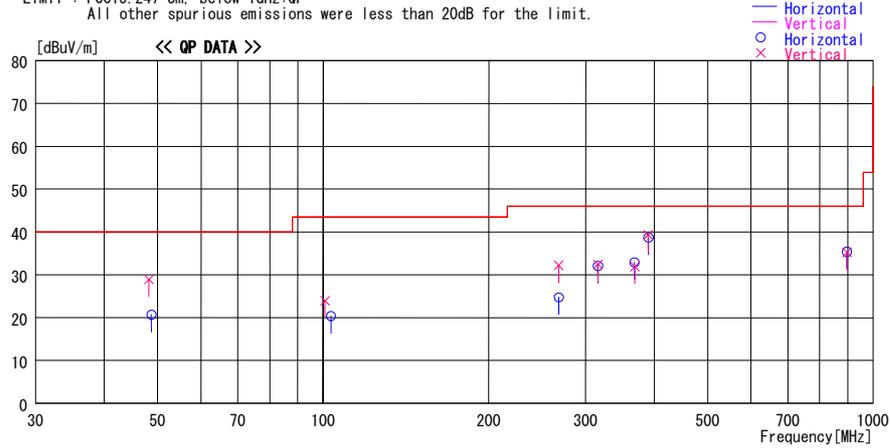
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/03/20

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 21deg.C / 45%
Engineer : Tomtoaka Sasagawa

Mode / Remarks : Tx 2462MHz ANTO

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
48.742	34.7	QP	10.7	-24.7	20.7	211	100	Hori.	40.0	19.3	
48.241	42.7	QP	10.9	-24.7	28.9	14	100	Vert.	40.0	11.1	
103.412	34.1	QP	10.1	-23.8	20.4	212	100	Hori.	43.5	23.1	
100.874	38.2	QP	9.6	-23.9	23.9	265	100	Vert.	43.5	19.6	
268.001	36.4	QP	18.0	-22.2	32.2	251	100	Vert.	46.0	13.8	
268.051	28.9	QP	18.0	-22.2	24.7	256	212	Hori.	46.0	21.3	
316.051	39.2	QP	15.1	-21.9	32.4	231	100	Vert.	46.0	13.6	
316.004	38.9	QP	15.1	-21.9	32.1	14	100	Hori.	46.0	13.9	
368.032	37.9	QP	16.5	-21.5	32.9	16	100	Hori.	46.0	13.1	
368.994	36.9	QP	16.5	-21.5	31.9	198	139	Vert.	46.0	14.1	
390.314	43.1	QP	17.0	-21.4	38.7	98	100	Hori.	46.0	7.3	
390.023	43.7	QP	17.0	-21.4	39.3	287	156	Vert.	46.0	6.7	
896.051	31.1	QP	22.0	-17.7	35.4	145	100	Hori.	46.0	10.6	
896.141	30.9	QP	22.0	-17.7	35.2	12	124	Vert.	46.0	10.8	

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

*The limit is rounded down to one decimal place.

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

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

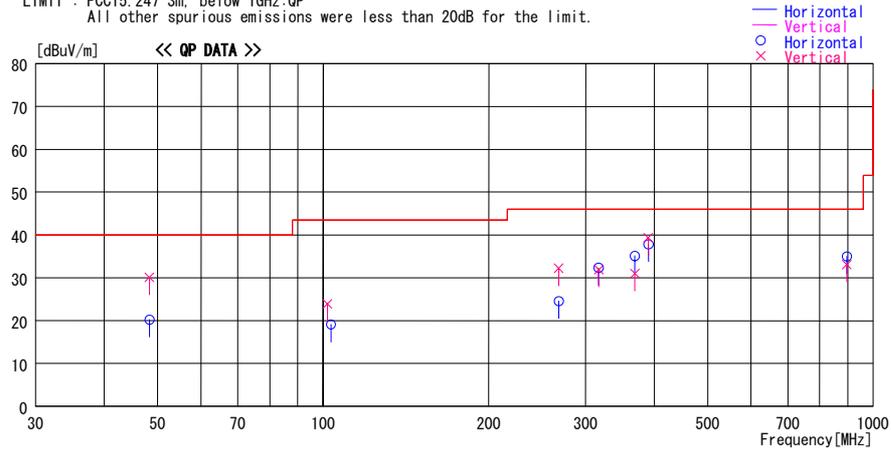
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/03/19

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 21deg. C / 45%
Engineer : Satofumi Matsuyama

Mode / Remarks : Tx 2412MHz ANT1

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
48.367	34.1	QP	10.8	-24.7	20.2	310	400	Hori.	40.0	19.8	
48.322	43.9	QP	10.9	-24.7	30.1	8	100	Vert.	40.0	9.9	
101.828	38.0	QP	9.8	-23.9	23.9	311	100	Vert.	43.5	19.6	
103.286	32.8	QP	10.1	-23.8	19.1	132	300	Hori.	43.5	24.4	
268.193	28.7	QP	18.1	-22.2	24.6	335	300	Hori.	46.0	21.4	
268.190	36.3	QP	18.1	-22.2	32.2	269	100	Vert.	46.0	13.8	
316.954	39.1	QP	15.1	-21.9	32.3	233	100	Hori.	46.0	13.7	
316.953	38.7	QP	15.1	-21.9	31.9	268	100	Vert.	46.0	14.1	
368.762	40.1	QP	16.5	-21.5	35.1	336	100	Hori.	46.0	10.9	
368.758	36.0	QP	16.5	-21.5	31.0	192	133	Vert.	46.0	15.0	
390.096	42.2	QP	17.0	-21.4	37.8	75	100	Hori.	46.0	8.2	
390.094	43.7	QP	17.0	-21.4	39.3	291	156	Vert.	46.0	6.7	
895.999	30.7	QP	22.0	-17.7	35.0	113	100	Hori.	46.0	11.0	
896.005	28.8	QP	22.0	-17.7	33.1	5	127	Vert.	46.0	12.9	

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

*The limit is rounded down to one decimal place.

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

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

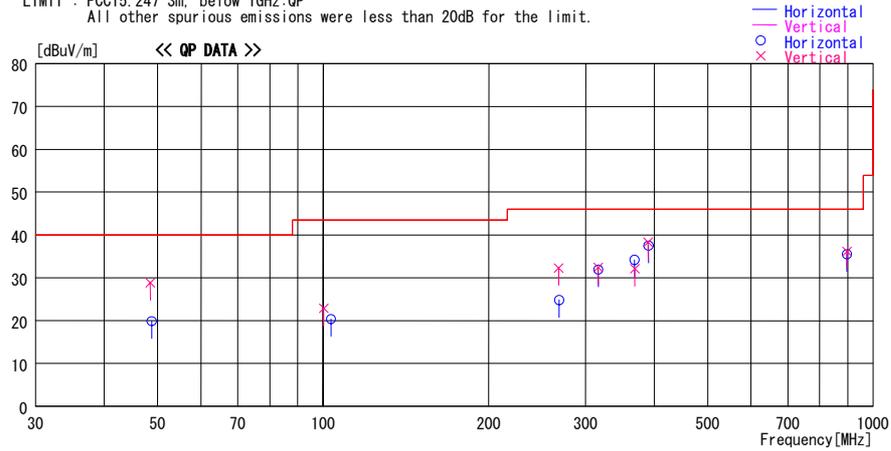
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/03/20

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 21deg. C / 45%
Engineer : Tomtoaka Sasagawa

Mode / Remarks : Tx 2438MHz ANT1

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
48.752	33.9	QP	10.7	-24.7	19.9	211	100	Hori.	40.0	20.1	
48.510	42.7	QP	10.8	-24.7	28.8	11	100	Vert.	40.0	11.2	
103.413	34.1	QP	10.1	-23.8	20.4	232	100	Hori.	43.5	23.1	
100.231	37.2	QP	9.5	-23.9	22.8	287	100	Vert.	43.5	20.7	
268.141	36.4	QP	18.1	-22.2	32.3	302	100	Vert.	46.0	13.7	
268.414	28.9	QP	18.1	-22.2	24.8	212	244	Hori.	46.0	21.2	
316.512	39.2	QP	15.1	-21.9	32.4	243	100	Vert.	46.0	13.6	
316.513	38.7	QP	15.1	-21.9	31.9	17	100	Hori.	46.0	14.1	
368.414	39.2	QP	16.5	-21.5	34.2	14	100	Hori.	46.0	11.8	
368.912	37.1	QP	16.5	-21.5	32.1	232	142	Vert.	46.0	13.9	
390.392	41.9	QP	17.0	-21.4	37.5	94	100	Hori.	46.0	8.5	
390.004	42.7	QP	17.0	-21.4	38.3	281	156	Vert.	46.0	7.7	
896.421	31.2	QP	22.0	-17.7	35.5	111	100	Hori.	46.0	10.5	
896.741	31.9	QP	22.0	-17.7	36.2	12	123	Vert.	46.0	9.8	

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

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

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

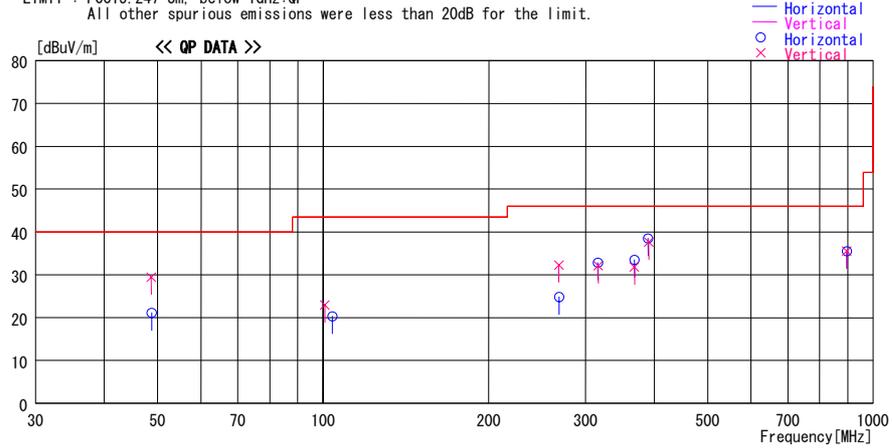
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/03/20

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 21deg. C / 45%
Engineer : Tomtoaka Sasagawa

Mode / Remarks : Tx 2462MHz ANT1

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
48.751	35.1	QP	10.7	-24.7	21.1	198	100	Hori.	40.0	18.9	
48.675	43.5	QP	10.7	-24.7	29.5	24	100	Vert.	40.0	10.5	
103.921	33.9	QP	10.2	-23.8	20.3	212	100	Hori.	43.5	23.2	
100.741	37.2	QP	9.6	-23.9	22.9	289	100	Vert.	43.5	20.6	
268.321	36.4	QP	18.1	-22.2	32.3	302	100	Vert.	46.0	13.7	
268.421	28.9	QP	18.1	-22.2	24.8	221	223	Hori.	46.0	21.2	
316.421	38.9	QP	15.1	-21.9	32.1	251	100	Vert.	46.0	13.9	
316.004	39.6	QP	15.1	-21.9	32.8	15	100	Hori.	46.0	13.2	
368.041	38.5	QP	16.5	-21.5	33.5	11	100	Hori.	46.0	12.5	
368.011	36.8	QP	16.5	-21.5	31.8	241	134	Vert.	46.0	14.2	
390.031	42.9	QP	17.0	-21.4	38.5	91	100	Hori.	46.0	7.5	
390.823	41.9	QP	17.1	-21.4	37.6	287	165	Vert.	46.0	8.4	
896.004	31.2	QP	22.0	-17.7	35.5	115	100	Hori.	46.0	10.5	
896.001	31.2	QP	22.0	-17.7	35.5	34	124	Vert.	46.0	10.5	

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)

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (below 1GHz)
Rx, ANT 0, Ch: Mid

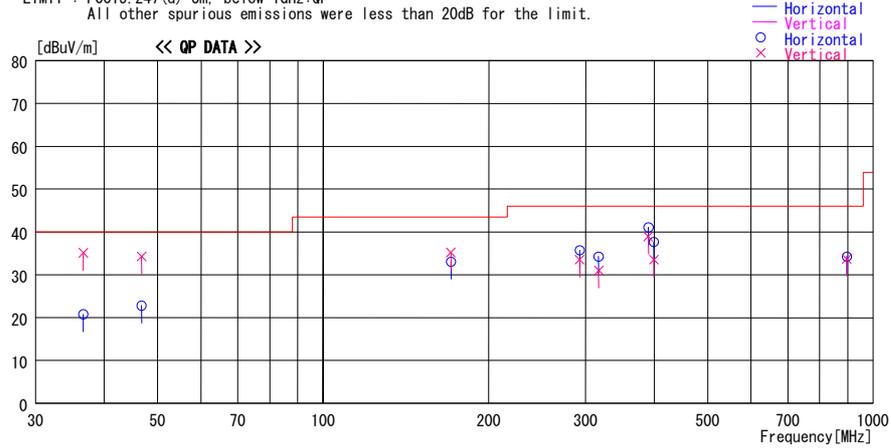
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/04/03

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 22deg.C / 29%
Engineer : Takayuki Shimada

Mode / Remarks : Rx 2438MHz ANTO

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
36.651	30.4	QP	15.3	-24.9	20.8	293	320	Hori.	40.0	19.2	
36.651	44.7	QP	15.3	-24.9	35.1	240	100	Vert.	40.0	4.9	
46.761	36.1	QP	11.4	-24.7	22.8	306	346	Hori.	40.0	17.2	
46.761	47.5	QP	11.4	-24.7	34.2	273	100	Vert.	40.0	5.8	
170.665	40.7	QP	15.5	-23.1	33.1	116	108	Hori.	43.5	10.4	
170.665	42.8	QP	15.5	-23.1	35.2	288	100	Vert.	43.5	8.3	
292.574	38.7	QP	19.0	-22.0	35.7	112	119	Hori.	46.0	10.3	
292.574	36.5	QP	19.0	-22.0	33.5	97	100	Vert.	46.0	12.5	
316.953	41.1	QP	15.1	-21.9	34.3	268	100	Hori.	46.0	11.7	
316.953	37.8	QP	15.1	-21.9	31.0	354	100	Vert.	46.0	15.0	
390.096	45.5	QP	17.0	-21.4	41.1	321	100	Hori.	46.0	4.9	
390.096	43.3	QP	17.0	-21.4	38.9	26	155	Vert.	46.0	7.1	
399.239	41.7	QP	17.3	-21.3	37.7	323	100	Hori.	46.0	8.3	
399.239	37.5	QP	17.3	-21.3	33.5	254	146	Vert.	46.0	12.5	
896.002	30.0	QP	22.0	-17.7	34.3	101	100	Hori.	46.0	11.7	
896.002	29.4	QP	22.0	-17.7	33.7	0	118	Vert.	46.0	12.3	

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

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

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

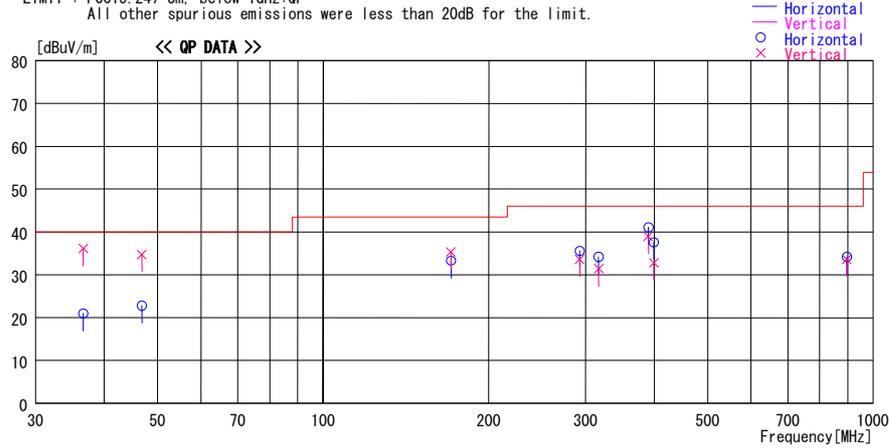
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2009/04/03

Company : Panasonic Corporation
Kind of EUT : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 001
Report No. : 29GE0129-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 22deg.C / 29%
Engineer : Takayuki Shimada

Mode / Remarks : Rx 2438MHz ANT1

LIMIT : FCC15.247 3m, below 1GHz:QP
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
36.650	30.5	QP	15.3	-24.9	20.9	296	320	Hori.	40.0	19.1	
36.650	45.7	QP	15.3	-24.9	36.1	241	100	Vert.	40.0	3.9	
46.824	36.1	QP	11.4	-24.7	22.8	319	349	Hori.	40.0	17.2	
46.824	48.0	QP	11.4	-24.7	34.7	274	100	Vert.	40.0	5.3	
170.665	40.9	QP	15.5	-23.1	33.3	116	109	Hori.	43.5	10.2	
170.665	42.9	QP	15.5	-23.1	35.3	290	100	Vert.	43.5	8.2	
292.568	38.6	QP	19.0	-22.0	35.6	107	121	Hori.	46.0	10.4	
292.568	36.6	QP	19.0	-22.0	33.6	107	100	Vert.	46.0	12.4	
316.948	41.0	QP	15.1	-21.9	34.2	270	100	Hori.	46.0	11.8	
316.956	38.2	QP	15.1	-21.9	31.4	354	100	Vert.	46.0	14.6	
390.088	45.5	QP	17.0	-21.4	41.1	323	100	Hori.	46.0	4.9	
390.092	43.4	QP	17.0	-21.4	39.0	24	153	Vert.	46.0	7.0	
399.234	41.6	QP	17.3	-21.3	37.6	320	100	Hori.	46.0	8.4	
399.240	36.8	QP	17.3	-21.3	32.8	255	146	Vert.	46.0	13.2	
895.996	29.9	QP	22.0	-17.7	34.2	106	100	Hori.	46.0	11.8	
896.001	29.3	QP	22.0	-17.7	33.6	0	120	Vert.	46.0	12.4	

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

*The limit is rounded down to one decimal place.

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

Radiated Spurious Emission (above 1GHz)
Tx, ANT 0, Ch: Low

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m / 1m
Power	AC 120V / 60Hz	Date 03/18/2009 03/19/2009
Mode	Tx, 2412MHz	Temperature 22deg.C. 22deg.C.
Antenna	0	Humidity 42% 42%
		Engineer Tomotaka Sasagawa Tomotaka Sasagawa

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.14	52.9	45.9	24.8	33.9	2.0	0.0	45.8	38.8	73.9	28.1	35.1
2	2164.74	50.7	53.4	26.6	32.6	2.5	0.0	47.2	49.9	73.9	26.7	24.0
3	2390.00	47.7	65.8	27.1	32.4	2.6	0.0	45.0	63.1	73.9	28.9	10.8
4 **	2400.00	56.3	75.1	27.1	32.4	2.6	0.0	53.6	72.4	-	-	-
5	2545.23	44.5	50.8	27.5	32.3	2.7	0.0	42.4	48.7	73.9	31.5	25.2
6	4824.00	41.8	41.9	31.3	31.4	3.9	1.1	46.7	46.8	73.9	27.2	27.1
7	7236.00	41.6	41.9	35.6	31.2	4.4	1.1	51.5	51.8	73.9	22.4	22.1
8	9648.00	41.4	41.7	38.4	32.0	5.2	1.3	54.3	54.6	73.9	19.6	19.3
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	12060.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	14472.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	16884.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	19296.00	NS	NS	-	-	-	-	-	-	73.9	-	-
13	21708.00	NS	NS	-	-	-	-	-	-	73.9	-	-
14	24120.00	48.4	48.3	38.5	31.0	8.0	0.0	54.4	54.3	73.9	19.5	19.6

** Reference data (Refer to next page(20dBc data sheet))

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.14	42.4	34.9	24.8	33.9	2.0	0.0	35.3	27.8	53.9	18.6	26.1
2	2164.74	40.8	40.4	26.6	32.6	2.5	0.0	37.3	36.9	53.9	16.6	17.0
3	2390.00	32.8	47.5	27.1	32.4	2.6	0.0	30.1	44.8	53.9	23.8	9.1
4 **	2400.00	35.4	53.9	27.1	32.4	2.6	0.0	32.7	51.2	-	-	-
5	2545.23	32.5	38.2	27.5	32.3	2.7	0.0	30.4	36.1	53.9	23.5	17.8
6	4824.00	29.8	30.2	31.3	31.4	3.9	1.1	34.7	35.1	53.9	19.2	18.8
7	7236.00	30.1	30.4	35.6	31.2	4.4	1.1	40.0	40.3	53.9	13.9	13.6
8	9648.00	29.9	30.1	38.4	32.0	5.2	1.3	42.8	43.0	53.9	11.1	10.9
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	12060.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	14472.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	16884.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	19296.00	NS	NS	-	-	-	-	-	-	53.9	-	-
13	21708.00	NS	NS	-	-	-	-	-	-	53.9	-	-
14	24120.00	36.0	36.2	38.5	31.0	8.0	0.0	42.0	42.2	53.9	11.9	11.7

** Reference data (Refer to next page(20dBc data sheet))

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB

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

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

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

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)
Tx, ANT 0, Ch: Low

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m
Power	AC 120V / 60Hz	Date 03/18/2009
Mode	Tx, 2412MHz	Temperature 22deg.C.
Antenna	0	Humidity 42%
		Engineer Tomotaka Sasagawa

20dBc (Fundamental 2412.0 MHz) (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
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
0	2412.00	77.9	92.1	27.2	32.4	2.6	0.0	75.3	89.5	-	-	-
4	2400.00	41.3	58.1	27.1	32.4	2.6	0.0	38.6	55.4	Funda-20dB	16.7	14.1

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

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

Radiated Spurious Emission (above 1GHz)
Tx, ANT 0, Ch: Mid

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m / 1m
Power	AC 120V / 60Hz	Date 03/18/2009 03/19/2009
Mode	Tx, 2438MHz	Temperature 22deg.C. 22deg.C.
Antenna	0	Humidity 42% 42%
		Engineer Tomotaka Sasagawa Tomotaka Sasagawa

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.22	52.9	45.9	24.8	33.9	2.0	0.0	45.8	38.8	73.9	28.1	35.1
2	2166.11	50.2	51.9	26.6	32.6	2.5	0.0	46.7	48.4	73.9	27.2	25.5
3	2364.52	47.6	56.4	27.1	32.4	2.6	0.0	44.9	53.7	73.9	29.0	20.2
4	2483.50	45.2	54.9	27.3	32.4	2.7	0.0	42.8	52.5	73.9	31.1	21.4
5	4876.00	42.1	41.9	31.3	31.3	4.0	1.1	47.2	47.0	73.9	26.7	26.9
6	7314.00	41.7	41.7	35.8	31.2	4.4	1.1	51.8	51.8	73.9	22.1	22.1
7	9752.00	41.5	41.2	38.5	32.0	5.2	1.3	54.5	54.2	73.9	19.4	19.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12190.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	14628.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	17066.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	19504.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	21942.00	NS	NS	-	-	-	-	-	-	73.9	-	-
13	24380.00	48.1	48.4	38.6	30.6	8.0	0.0	54.6	54.9	73.9	19.3	19.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.22	42.9	34.7	24.8	33.9	2.0	0.0	35.8	27.6	53.9	18.1	26.3
2	2166.11	40.5	41.5	26.6	32.6	2.5	0.0	37.0	38.0	53.9	16.9	15.9
3	2364.52	31.2	45.1	27.1	32.4	2.6	0.0	28.5	42.4	53.9	25.4	11.5
4	2483.50	32.1	41.6	27.3	32.4	2.7	0.0	29.7	39.2	53.9	24.2	14.7
5	4876.00	30.4	30.0	31.3	31.3	4.0	1.1	35.5	35.1	53.9	18.4	18.8
6	7314.00	30.1	30.1	35.8	31.2	4.4	1.1	40.2	40.2	53.9	13.7	13.7
7	9752.00	29.8	30.3	38.5	32.0	5.2	1.3	42.8	43.3	53.9	11.1	10.6
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12190.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	14628.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	17066.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	19504.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	21942.00	NS	NS	-	-	-	-	-	-	53.9	-	-
13	24380.00	36.1	35.9	38.6	30.6	8.0	0.0	42.6	42.4	53.9	11.3	11.5

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)
Tx, ANT 0, Ch: High

Company Panasonic Corporation
Equipment Speaker system (Wireless Audio Receiver)
Model SB-ZT1
S/N 001
Power AC 120V / 60Hz
Mode Tx, 2462MHz
Antenna 0

UL Japan, Inc.
Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m / 1m
Date 03/18/2009 03/19/2009
Temperature 22deg.C. 22deg.C.
Humidity 42% 42%
Engineer Tomotaka Sasagawa Tomotaka Sasagawa

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.14	53.1	45.7	24.8	33.9	2.0	0.0	46.0	38.6	73.9	27.9	35.3
2	2164.31	50.8	52.9	26.6	32.6	2.5	0.0	47.3	49.4	73.9	26.6	24.5
3	2364.22	47.1	55.4	27.1	32.4	2.6	0.0	44.4	52.7	73.9	29.5	21.2
4	2483.50	51.1	64.8	27.3	32.4	2.7	0.0	48.7	62.4	73.9	25.2	11.5
5	4924.00	41.2	42.1	31.4	31.3	4.0	1.1	46.4	47.3	73.9	27.5	26.6
6	7386.00	41.4	41.8	35.9	31.2	4.5	1.1	51.7	52.1	73.9	22.2	21.8
7	9848.00	41.6	41.5	38.7	32.0	5.2	1.3	54.8	54.7	73.9	19.1	19.2
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12310.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	14772.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	17234.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	19696.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	22158.00	NS	NS	-	-	-	-	-	-	73.9	-	-
13	24620.00	48.4	48.0	38.8	30.2	8.1	0.0	55.6	55.2	73.9	18.3	18.7

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.14	42.5	34.4	24.8	33.9	2.0	0.0	35.4	27.3	53.9	18.5	26.6
2	2164.31	40.1	40.5	26.6	32.6	2.5	0.0	36.6	37.0	53.9	17.3	16.9
3	2364.22	31.8	43.2	27.1	32.4	2.6	0.0	29.1	40.5	53.9	24.8	13.4
4	2483.50	33.0	45.1	27.3	32.4	2.7	0.0	30.6	42.7	53.9	23.3	11.2
5	4924.00	30.1	29.8	31.4	31.3	4.0	1.1	35.3	35.0	53.9	18.6	18.9
6	7386.00	29.7	30.2	35.9	31.2	4.5	1.1	40.0	40.5	53.9	13.9	13.4
7	9848.00	30.1	29.8	38.7	32.0	5.2	1.3	43.3	43.0	53.9	10.6	10.9
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12310.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	14772.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	17234.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	19696.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	22158.00	NS	NS	-	-	-	-	-	-	53.9	-	-
13	24620.00	35.9	36.7	38.8	30.2	8.1	0.0	43.1	43.9	53.9	10.8	10.0

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

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

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m / 1m
Power	AC 120V / 60Hz	Date 03/18/2009 03/19/2009
Mode	Tx, 2412MHz	Temperature 22deg.C. 22deg.C.
Antenna	1	Humidity 42% 42%
		Engineer Tomotaka Sasagawa Tomotaka Sasagawa

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.67	53.9	46.8	24.8	33.9	2.0	0.0	46.8	39.7	73.9	27.1	34.2
2	1953.33	54.6	60.0	26.2	32.8	2.4	0.0	50.4	55.8	73.9	23.5	18.1
3	2319.17	57.6	57.7	27.0	32.5	2.6	0.0	54.7	54.8	73.9	19.2	19.1
4	2390.00	67.6	70.1	27.1	32.4	2.6	0.0	64.9	67.4	73.9	9.0	6.5
5**	2400.00	77.6	81.2	27.1	32.4	2.6	0.0	74.9	78.5	-	-	-
6	2580.00	59.8	60.1	27.5	32.3	2.7	0.0	57.7	58.0	73.9	16.2	15.9
7	4824.00	42.3	42.4	31.3	31.4	3.9	1.1	47.2	47.3	73.9	26.7	26.6
8	7236.00	41.2	42.1	35.6	31.2	4.4	1.1	51.1	52.0	73.9	22.8	21.9
9	9648.00	41.3	41.8	38.4	32.0	5.2	1.3	54.2	54.7	73.9	19.7	19.2
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
10	12060.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	14472.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	16884.00	NS	NS	-	-	-	-	-	-	73.9	-	-
13	19296.00	NS	NS	-	-	-	-	-	-	73.9	-	-
14	21708.00	NS	NS	-	-	-	-	-	-	73.9	-	-
15	24120.00	48.2	48.5	38.5	31.0	8.0	0.0	54.2	54.5	73.9	19.7	19.4

** Reference data (Refer to next page(20dBc data sheet))

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.67	49.7	35.1	24.8	33.9	2.0	0.0	42.6	28.0	53.9	11.3	25.9
2	1953.33	42.5	45.7	26.2	32.8	2.4	0.0	38.3	41.5	53.9	15.6	12.4
3	2319.17	44.8	44.3	27.0	32.5	2.6	0.0	41.9	41.4	53.9	12.0	12.5
4	2390.00	47.9	50.4	27.1	32.4	2.6	0.0	45.2	47.7	53.9	8.7	6.2
5**	2400.00	51.3	54.0	27.1	32.4	2.6	0.0	48.6	51.3	-	-	-
6	2580.00	48.1	48.3	27.5	32.3	2.7	0.0	46.0	46.2	53.9	7.9	7.7
7	4824.00	30.2	31.1	31.3	31.4	3.9	1.1	35.1	36.0	53.9	18.8	17.9
8	7236.00	30.4	30.8	35.6	31.2	4.4	1.1	40.3	40.7	53.9	13.6	13.2
9	9648.00	30.5	30.5	38.4	32.0	5.2	1.3	43.4	43.4	53.9	10.5	10.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
10	12060.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	14472.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	16884.00	NS	NS	-	-	-	-	-	-	53.9	-	-
13	19296.00	NS	NS	-	-	-	-	-	-	53.9	-	-
14	21708.00	NS	NS	-	-	-	-	-	-	53.9	-	-
15	24120.00	36.2	35.8	38.5	31.0	8.0	0.0	42.2	41.8	53.9	11.7	12.1

** Reference data (Refer to next page(20dBc data sheet))

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB

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

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

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

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

*NS: No detect Signal.

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

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m
Power	AC 120V / 60Hz	Date 03/18/2009
Mode	Tx, 2412MHz	Temperature 22deg.C.
Antenna	1	Humidity 42%
		Engineer Tomotaka Sasagawa

20dBc (Fundamental 2412.0 MHz) (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
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
0	2412.00	92.6	95.9	27.2	32.4	2.6	0.0	90.0	93.3	-	-	-
5	2400.00	60.5	64.6	27.1	32.4	2.6	0.0	57.8	61.9	Funda-20dB	12.2	11.4

*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*The test result is round off to one or two decimal places, so some differences might be observed.

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

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m / 1m
Power	AC 120V / 60Hz	Date 03/18/2009 03/19/2009
Mode	Tx, 2438MHz	Temperature 22deg.C. 22deg.C.
Antenna	1	Humidity 42% 42%
		Engineer Tomotaka Sasagawa Tomotaka Sasagawa

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.23	53.8	49.6	24.8	33.9	2.0	0.0	46.7	42.5	73.9	27.2	31.4
2	1953.22	53.1	58.9	26.2	32.8	2.4	0.0	48.9	54.7	73.9	25.0	19.2
3	2317.88	58.1	58.7	27.0	32.5	2.6	0.0	55.2	55.8	73.9	18.7	18.1
4	2390.00	54.2	58.0	27.1	32.4	2.6	0.0	51.5	55.3	73.9	22.4	18.6
5	2400.00	55.3	58.5	27.1	32.4	2.6	0.0	52.6	55.8	73.9	21.3	18.1
6	2483.50	57.7	57.9	27.3	32.4	2.7	0.0	55.3	55.5	73.9	18.6	18.4
7	2582.43	51.8	58.9	27.5	32.3	2.7	0.0	49.7	56.8	73.9	24.2	17.1
8	4876.00	42.3	41.9	31.3	31.3	4.0	1.1	47.4	47.0	73.9	26.5	26.9
9	7314.00	42.0	41.8	35.8	31.2	4.4	1.1	52.1	51.9	73.9	21.8	22.0
10	9752.00	41.8	41.6	38.5	32.0	5.2	1.3	54.8	54.6	73.9	19.1	19.3
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
11	12190.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	14628.00	NS	NS	-	-	-	-	-	-	73.9	-	-
13	17066.00	NS	NS	-	-	-	-	-	-	73.9	-	-
14	19504.00	NS	NS	-	-	-	-	-	-	73.9	-	-
15	21942.00	NS	NS	-	-	-	-	-	-	73.9	-	-
16	24380.00	47.9	48.1	38.6	30.6	8.0	0.0	54.4	54.6	73.9	19.5	19.3

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.23	50.2	44.3	24.8	33.9	2.0	0.0	43.1	37.2	53.9	10.8	16.7
2	1953.22	43.1	44.2	26.2	32.8	2.4	0.0	38.9	40.0	53.9	15.0	13.9
3	2317.88	44.3	44.1	27.0	32.5	2.6	0.0	41.4	41.2	53.9	12.5	12.7
4	1953.22	40.9	45.0	26.2	32.8	2.4	0.0	36.7	40.8	53.9	17.2	13.1
5	2317.88	41.8	45.5	27.0	32.5	2.6	0.0	38.9	42.6	53.9	15.0	11.3
6	2390.00	44.4	44.9	27.1	32.4	2.6	0.0	41.7	42.2	53.9	12.2	11.7
7	2400.00	40.8	47.2	27.1	32.4	2.6	0.0	38.1	44.5	53.9	15.8	9.4
8	4876.00	31.2	30.0	31.3	31.3	4.0	1.1	36.3	35.1	53.9	17.6	18.8
9	7314.00	30.8	29.8	35.8	31.2	4.4	1.1	40.9	39.9	53.9	13.0	14.0
10	9752.00	30.5	30.2	38.5	32.0	5.2	1.3	43.5	43.2	53.9	10.4	10.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
11	12190.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	14628.00	NS	NS	-	-	-	-	-	-	53.9	-	-
13	17066.00	NS	NS	-	-	-	-	-	-	53.9	-	-
14	19504.00	NS	NS	-	-	-	-	-	-	53.9	-	-
15	21942.00	NS	NS	-	-	-	-	-	-	53.9	-	-
16	24380.00	36.5	36.2	38.6	30.6	8.0	0.0	43.0	42.7	53.9	10.9	11.2

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

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

Company	Panasonic Corporation	UL Japan, Inc.
Equipment	Speaker system (Wireless Audio Receiver)	Head Office EMC Lab. No.2 and No.3 Semi Anechoic Chamber
Model	SB-ZT1	Regulation FCC15.247(d) / RSS-210 A8.5
S/N	001	Test Distance 3m / 1m
Power	AC 120V / 60Hz	Date 03/18/2009 03/19/2009
Mode	Tx, 2462MHz	Temperature 22deg.C. 22deg.C.
Antenna	1	Humidity 42% 42%
		Engineer Tomotaka Sasagawa Tomotaka Sasagawa

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.14	54.0	49.4	24.8	33.9	2.0	0.0	46.9	42.3	73.9	27.0	31.6
2	1953.32	53.7	58.0	26.2	32.8	2.4	0.0	49.5	53.8	73.9	24.4	20.1
3	2319.22	57.8	58.7	27.0	32.5	2.6	0.0	54.9	55.8	73.9	19.0	18.1
4	2390.00	57.8	59.6	27.1	32.4	2.6	0.0	55.1	56.9	73.9	18.8	17.0
5	2400.00	57.5	60.9	27.1	32.4	2.6	0.0	54.8	58.2	73.9	19.1	15.7
6	2483.50	67.5	69.8	27.3	32.4	2.7	0.0	65.1	67.4	73.9	8.8	6.5
7	2582.43	52.3	59.8	27.5	32.3	2.7	0.0	50.2	57.7	73.9	23.7	16.2
8	4924.00	42.2	41.9	31.4	31.3	4.0	1.1	47.4	47.1	73.9	26.5	26.8
9	7368.00	41.8	42.1	35.9	31.2	4.5	1.1	52.1	52.4	73.9	21.8	21.5
10	9848.00	41.7	41.8	38.7	32.0	5.2	1.3	54.9	55.0	73.9	19.0	18.9
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
11	12310.00	NS	NS	-	-	-	-	-	-	73.9	-	-
12	14772.00	NS	NS	-	-	-	-	-	-	73.9	-	-
13	17234.00	NS	NS	-	-	-	-	-	-	73.9	-	-
14	19696.00	NS	NS	-	-	-	-	-	-	73.9	-	-
15	22158.00	NS	NS	-	-	-	-	-	-	73.9	-	-
16	24620.00	48.2	48.1	38.8	30.2	8.1	0.0	55.4	55.3	73.9	18.5	18.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1166.14	51.0	44.4	24.8	33.9	2.0	0.0	43.9	37.3	53.9	10.0	16.6
2	1953.32	42.9	44.6	26.2	32.8	2.4	0.0	38.7	40.4	53.9	15.2	13.5
3	2319.22	44.8	44.9	27.0	32.5	2.6	0.0	41.9	42.0	53.9	12.0	11.9
4	2390.00	45.4	46.9	27.1	32.4	2.6	0.0	42.7	44.2	53.9	11.2	9.7
5	2400.00	45.4	45.8	27.1	32.4	2.6	0.0	42.7	43.1	53.9	11.2	10.8
6	2483.50	48.9	49.2	27.3	32.4	2.7	0.0	46.5	46.8	53.9	7.4	7.1
7	2582.43	40.5	46.7	27.5	32.3	2.7	0.0	38.4	44.6	53.9	15.5	9.3
8	4924.00	30.9	30.5	31.4	31.3	4.0	1.1	36.1	35.7	53.9	17.8	18.2
9	7368.00	30.2	30.2	35.9	31.2	4.5	1.1	40.5	40.5	53.9	13.4	13.4
10	9848.00	30.4	30.1	38.7	32.0	5.2	1.3	43.6	43.3	53.9	10.3	10.6
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
11	12310.00	NS	NS	-	-	-	-	-	-	53.9	-	-
12	14772.00	NS	NS	-	-	-	-	-	-	53.9	-	-
13	17234.00	NS	NS	-	-	-	-	-	-	53.9	-	-
14	19696.00	NS	NS	-	-	-	-	-	-	53.9	-	-
15	22158.00	NS	NS	-	-	-	-	-	-	53.9	-	-
16	24620.00	36.1	36.2	38.8	30.2	8.1	0.0	43.3	43.4	53.9	10.6	10.5

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB
*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)
Rx, ANT 0, Ch: Mid

Company Panasonic Corporation
Equipment Speaker system (Wireless Audio Receiver)
Model SB-ZT1
S/N 001
Power AC 120V / 60Hz
Mode Rx, 2438MHz
Antenna 0

UL Japan, Inc.
Head Office EMC Lab. No.3 Semi Anechoic Chamber
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m
Date 04/02/2009
Temperature 22deg.C.
Humidity 29%
Engineer Takayuki Shimada

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2438.00	42.5	42.4	26.8	32.3	2.8	0.0	39.8	39.7	73.9	34.1	34.2
2	4876.00	42.3	43.7	31.3	31.4	3.4	0.0	45.6	47.0	73.9	28.3	26.9
3	7314.00	41.6	41.6	35.8	31.9	4.2	0.0	49.7	49.7	73.9	24.2	24.2

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2438.00	28.8	28.8	26.8	32.3	2.8	0.0	26.1	26.1	53.9	27.8	27.8
2	4876.00	30.8	33.7	31.3	31.4	3.4	0.0	34.1	37.0	53.9	19.8	16.9
3	7314.00	28.8	28.8	35.8	31.9	4.2	0.0	36.9	36.9	53.9	17.0	17.0

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*The test result is round off to one or two decimal places, so some differences might be observed.

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

Company Panasonic Corporation
Equipment Speaker system (Wireless Audio Receiver)
Model SB-ZT1
S/N 001
Power AC 120V / 60Hz
Mode Rx, 2438MHz
Antenna 1

UL Japan, Inc.
Head Office EMC Lab. No.3 Semi Anechoic Chamber
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m
Date 04/02/2009
Temperature 22deg.C.
Humidity 29%
Engineer Takayuki Shimada

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

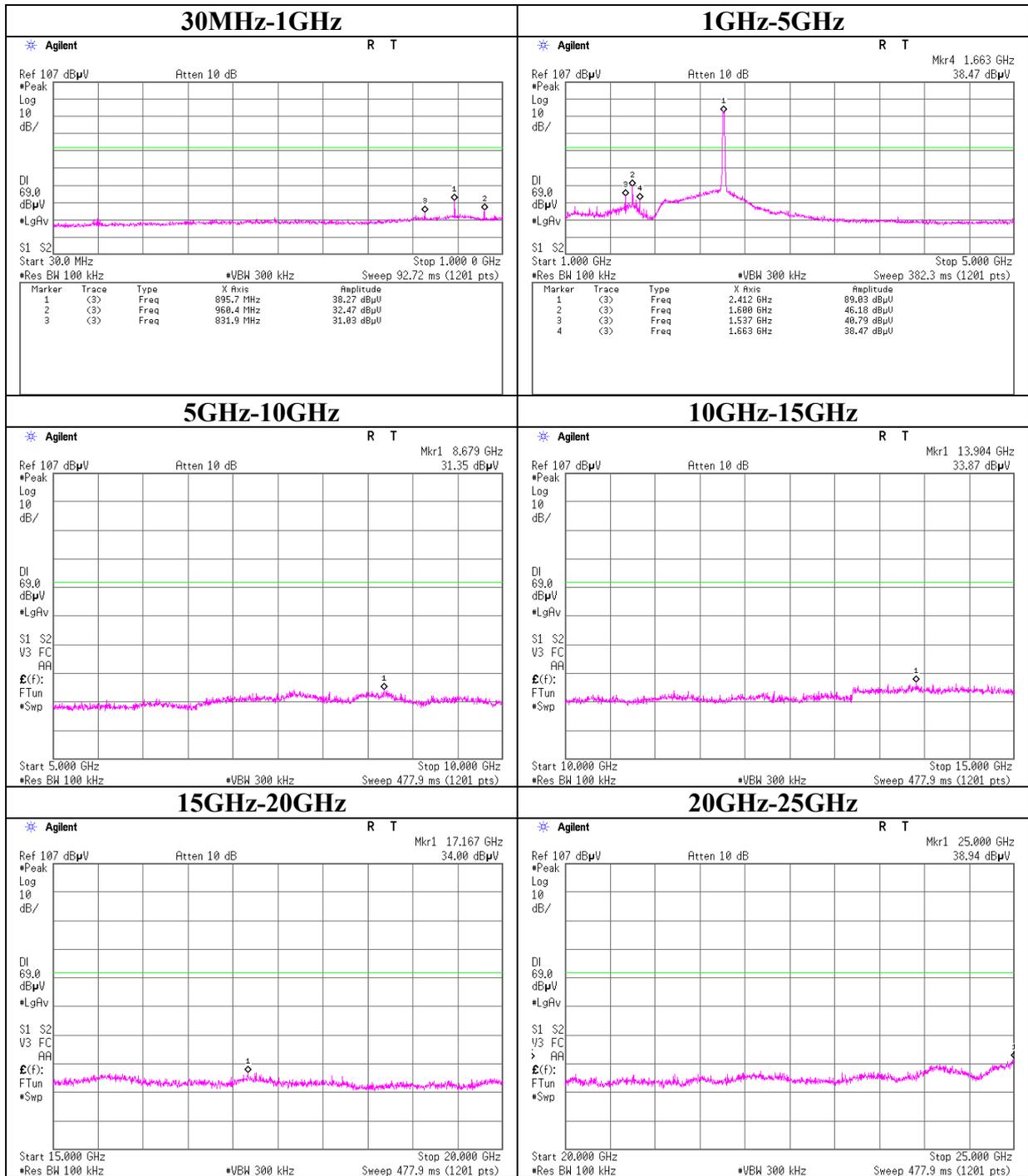
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2438.00	42.4	42.1	26.8	32.3	2.8	0.0	39.7	39.4	73.9	34.2	34.5
2	4876.00	42.1	43.8	31.3	31.4	3.4	0.0	45.4	47.1	73.9	28.5	26.8
3	7314.00	41.7	41.6	35.8	31.9	4.2	0.0	49.8	49.7	73.9	24.1	24.2

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

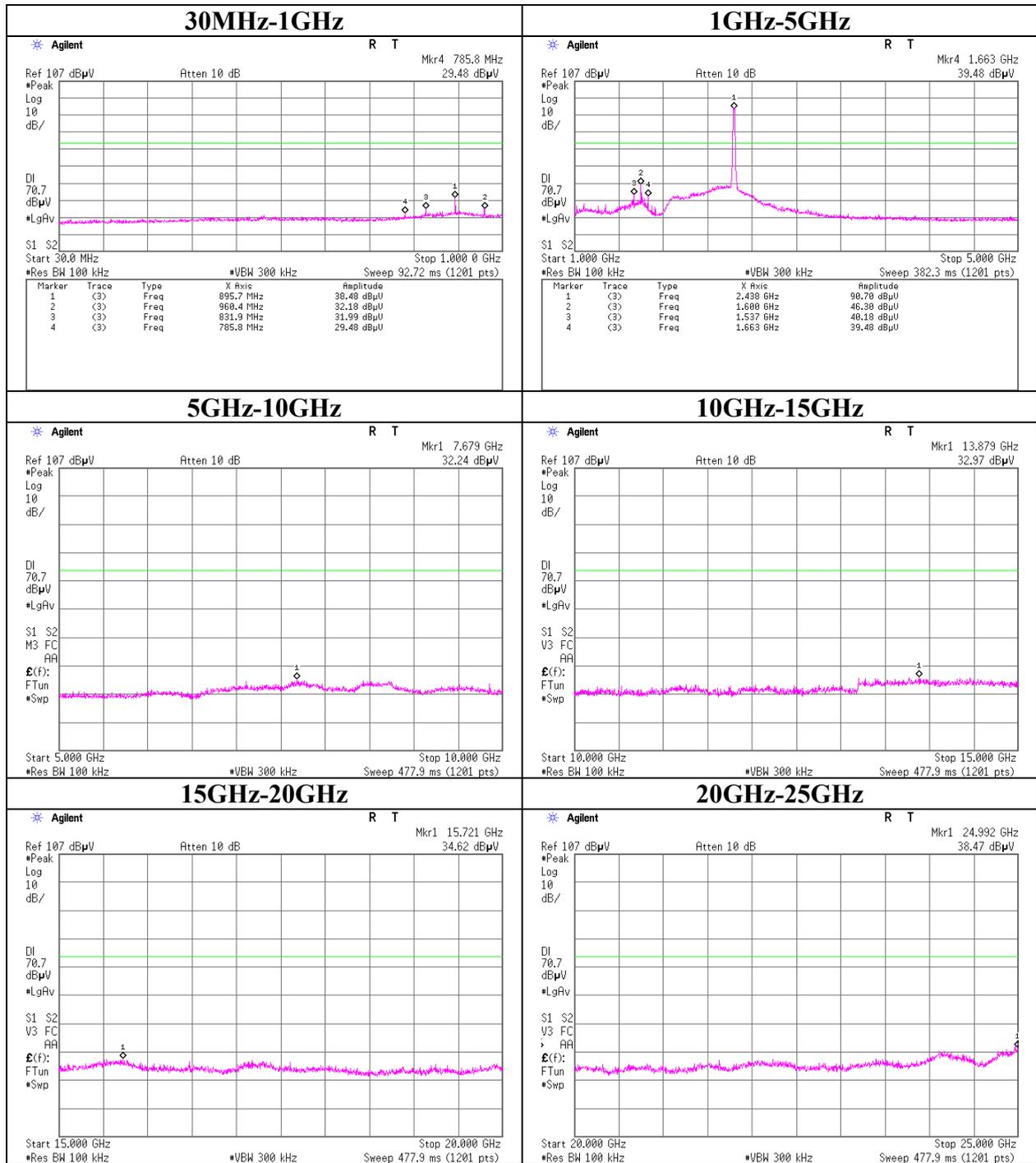
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		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2438.00	28.8	28.8	26.8	32.3	2.8	0.0	26.1	26.1	53.9	27.8	27.8
2	4876.00	31.0	34.9	31.3	31.4	3.4	0.0	34.3	38.2	53.9	19.6	15.7
3	7314.00	28.8	28.8	35.8	31.9	4.2	0.0	36.9	36.9	53.9	17.0	17.0

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*The test result is round off to one or two decimal places, so some differences might be observed.

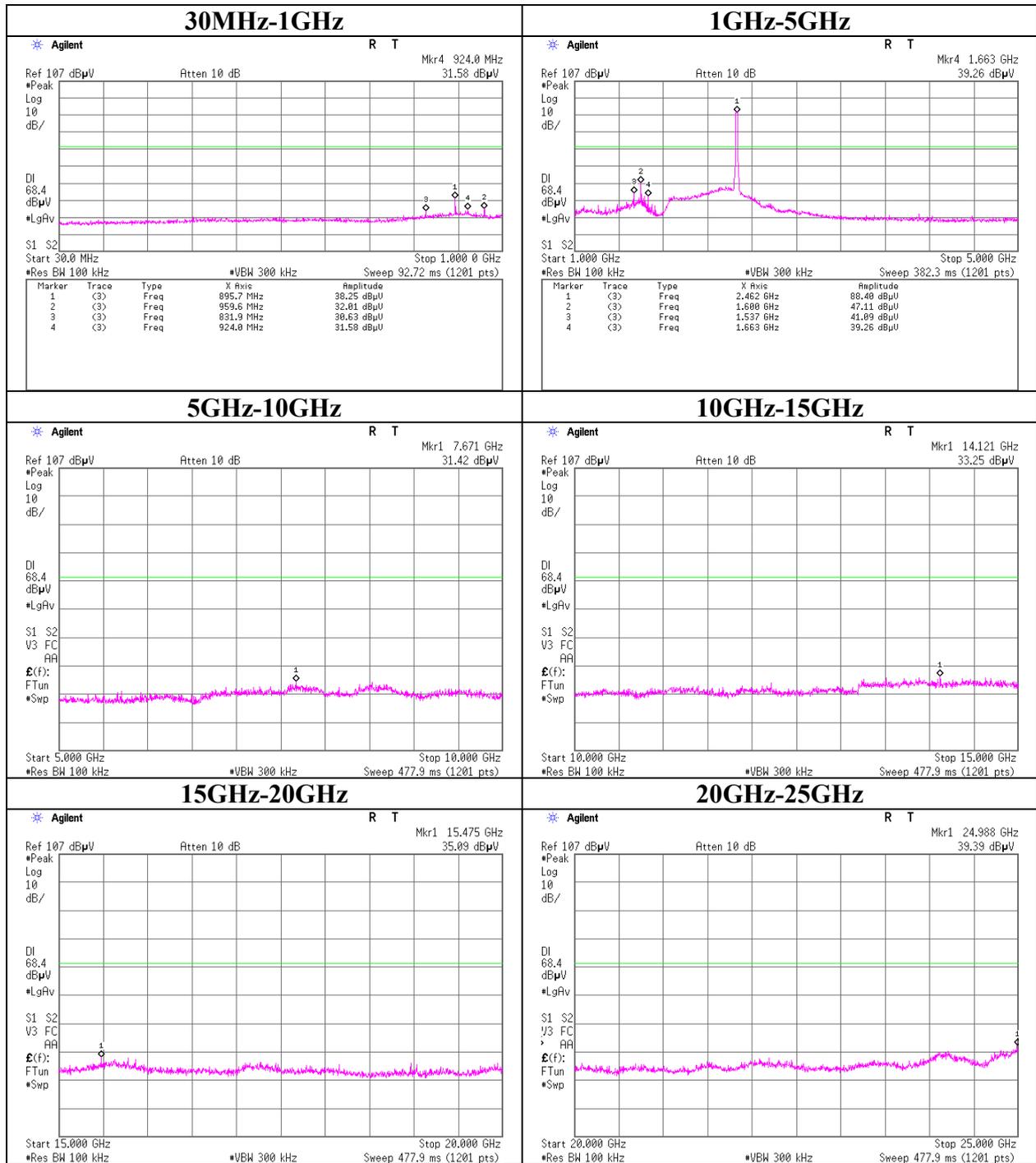
Conducted Spurious Emission
Tx, ANT 0, Ch: Low



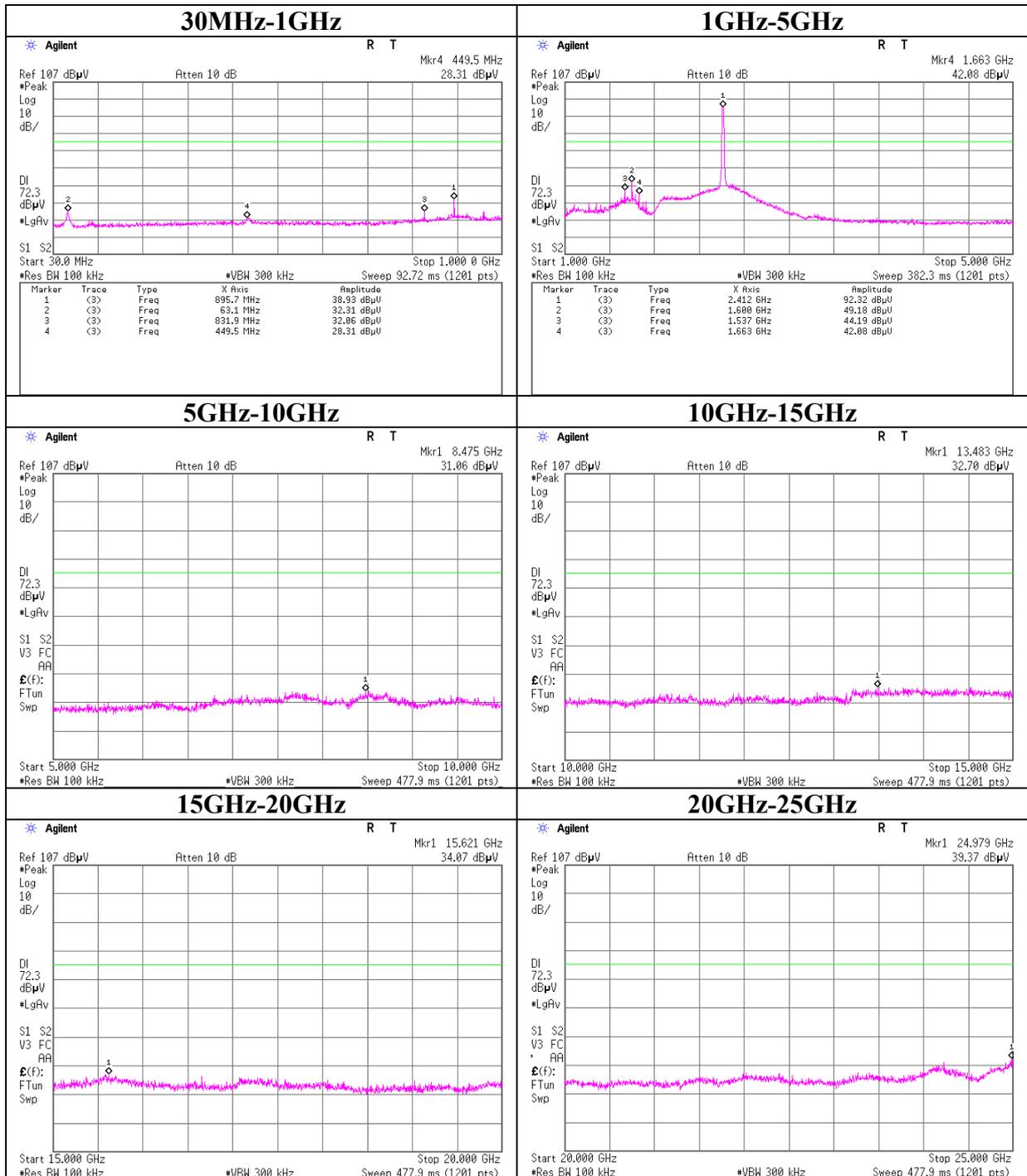
Conducted Spurious Emission
Tx, ANT 0, Ch: Mid



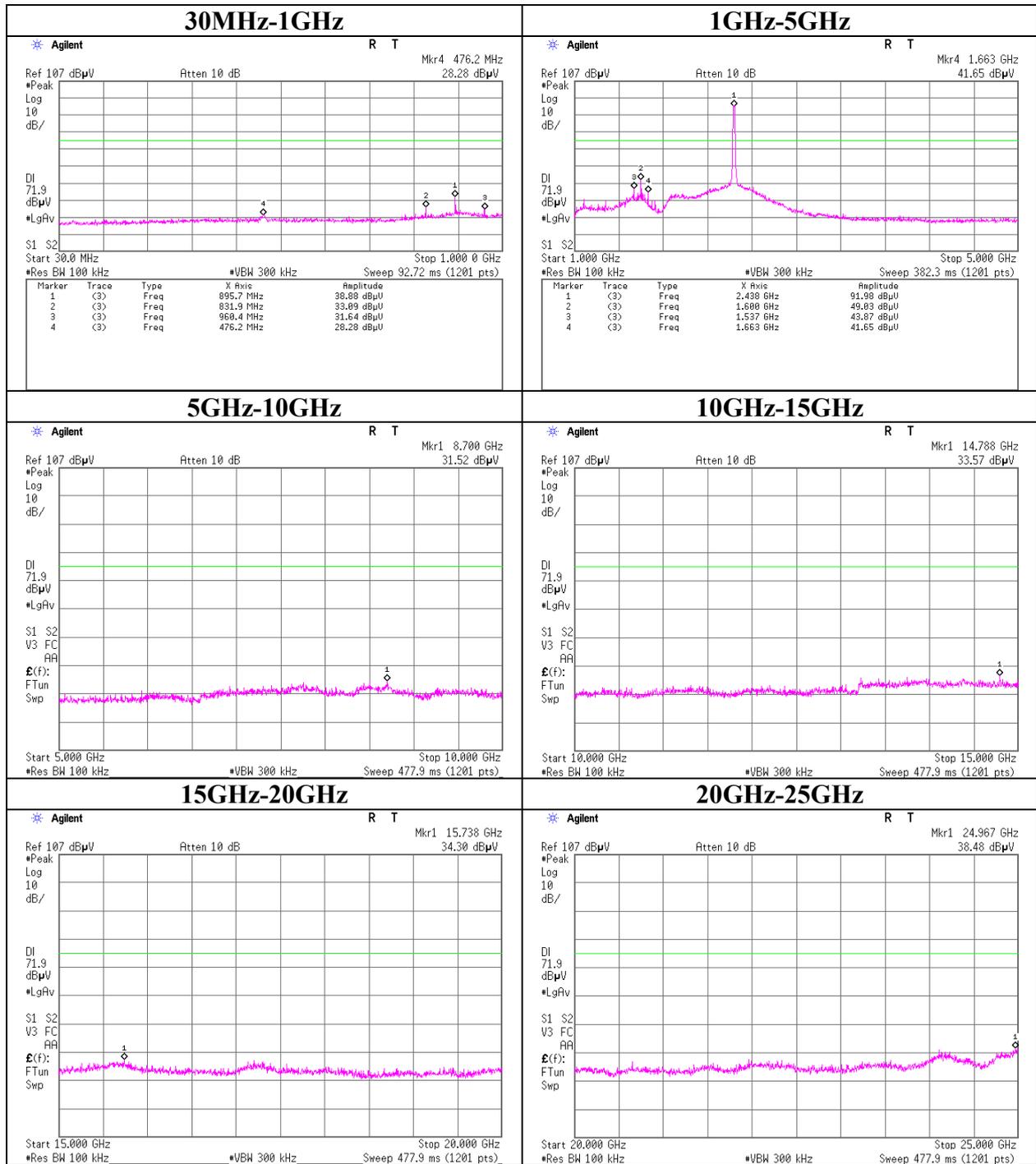
Conducted Spurious Emission
Tx, ANT 0, Ch: High



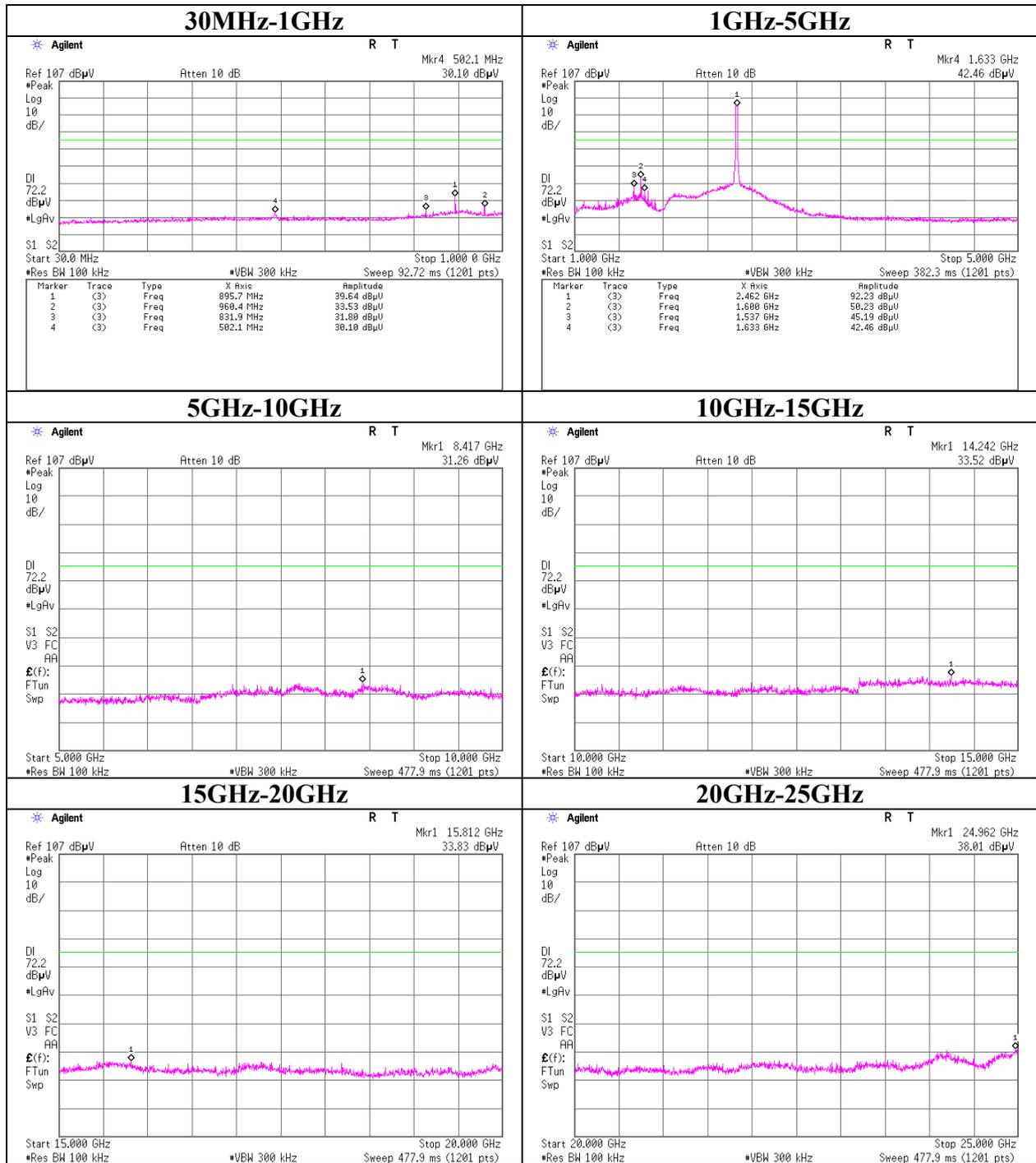
Conducted Spurious Emission
Tx, ANT 1, Ch: Low



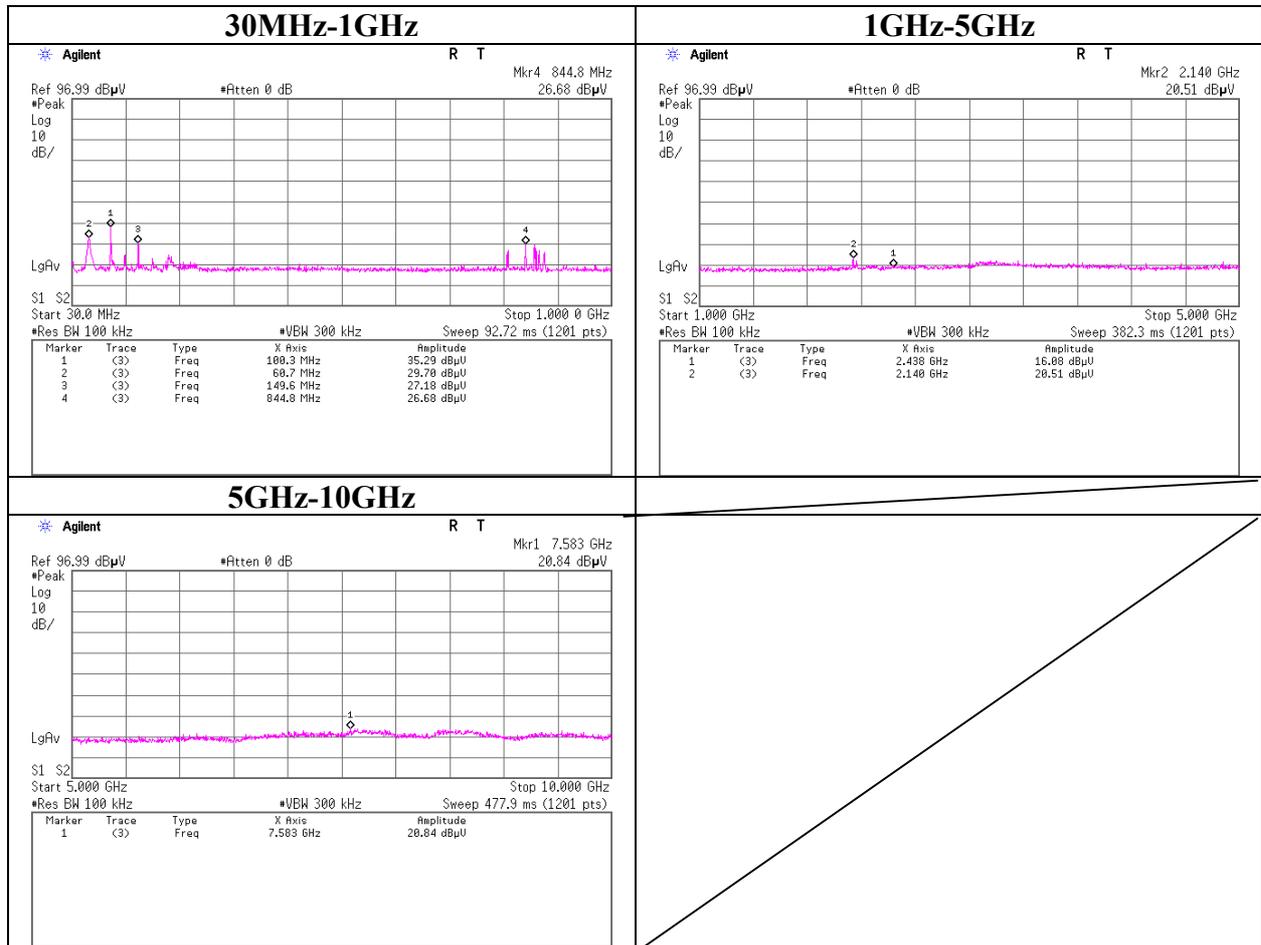
Conducted Spurious Emission
Tx, ANT 1, Ch: Mid



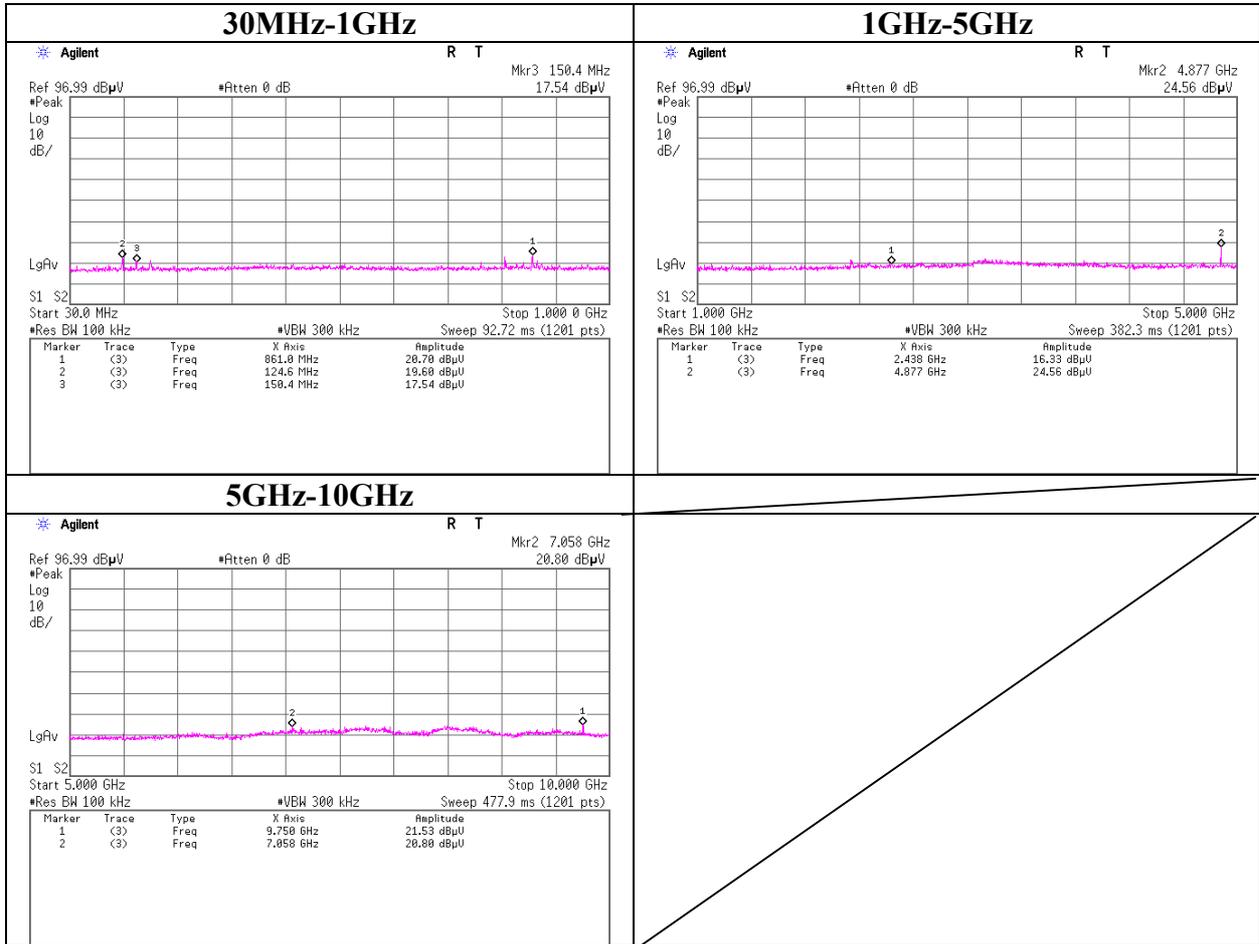
Conducted Spurious Emission
Tx, ANT 1, Ch: High



Conducted Spurious Emission
Rx, ANT 0, Ch: Mid

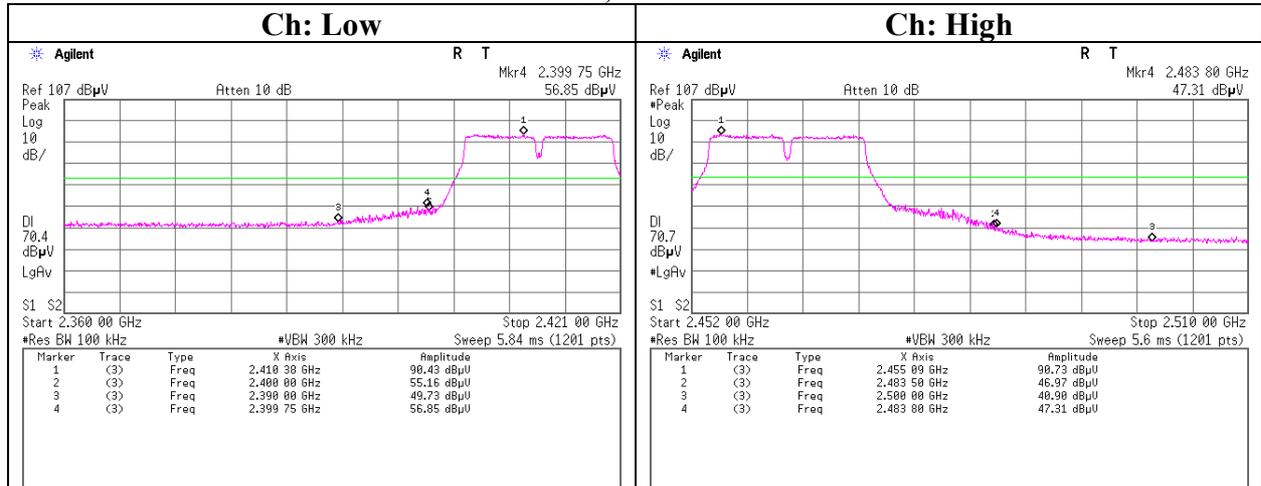


Conducted Spurious Emission
Rx, ANT 1, Ch: Mid

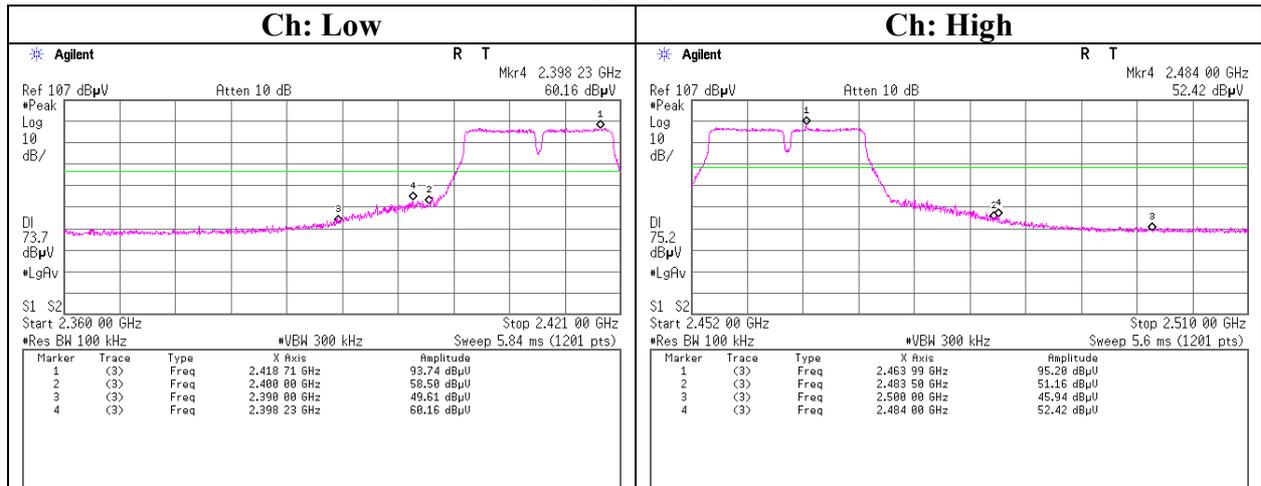


Conducted emission Band Edge compliance

Tx, ANT 0



ANT 1



Power Density

UL Japan, Inc.
Head Office EMC Lab. No.11 Measurement Room

Company : Panasonic Corporation
Equipment : Speaker system (Wireless Audio Receiver)
Model No. : SB-ZT1
Serial No. : 002
Power : AC120V/60Hz
Mode : Tx Mode

Test Report No. : 29GE0129-HO-01
Regulation : FCC15.247(e)/RSS-210A8.2(b)
Test distance : -
Date : 03/24/2009
Temperature : 31deg.C.
Humidity : 38%
Engineer : Takeshi Choda

[ANT 0]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]*	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2408.0	-16.98	-1.13	10.08	-8.03	8.00	16.03
Mid	2431.0	-18.18	-1.13	10.08	-9.23	8.00	17.23
High	2455.0	-18.10	-1.12	10.08	-9.14	8.00	17.14

Sample Calculation:

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

*The cable which was used for the tests was shorter than the actual usage cable in length.
Therefore, the value of this cable loss was "- (minus)" number.

[ANT 1]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2408.0	-15.21	2.87	10.08	-2.26	8.00	10.26
Mid	2436.0	-15.12	2.87	10.08	-2.17	8.00	10.17
High	2460.0	-14.76	2.88	10.08	-1.80	8.00	9.80

Sample Calculation:

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

UL Japan, Inc.

Head Office EMC Lab.

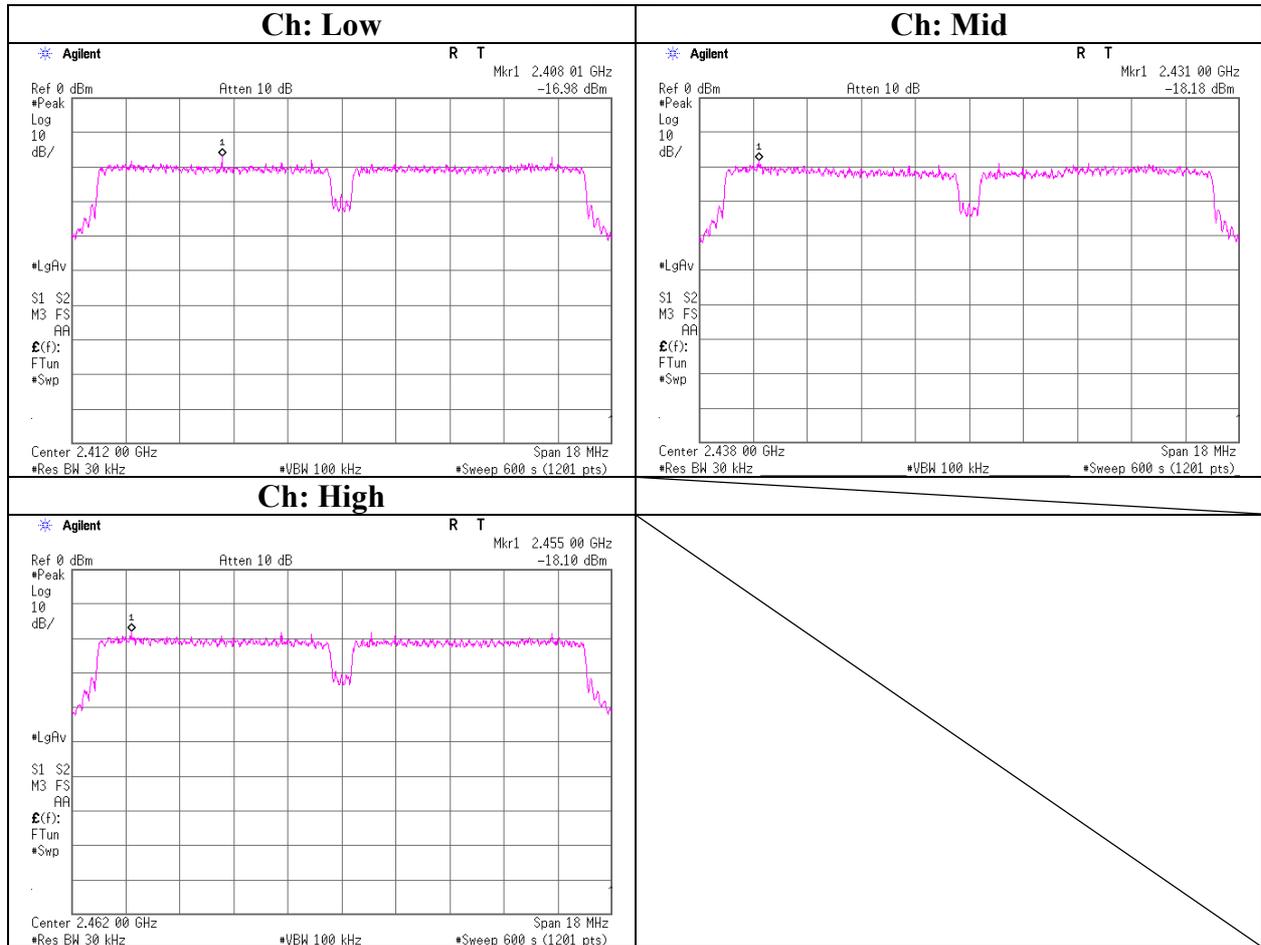
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

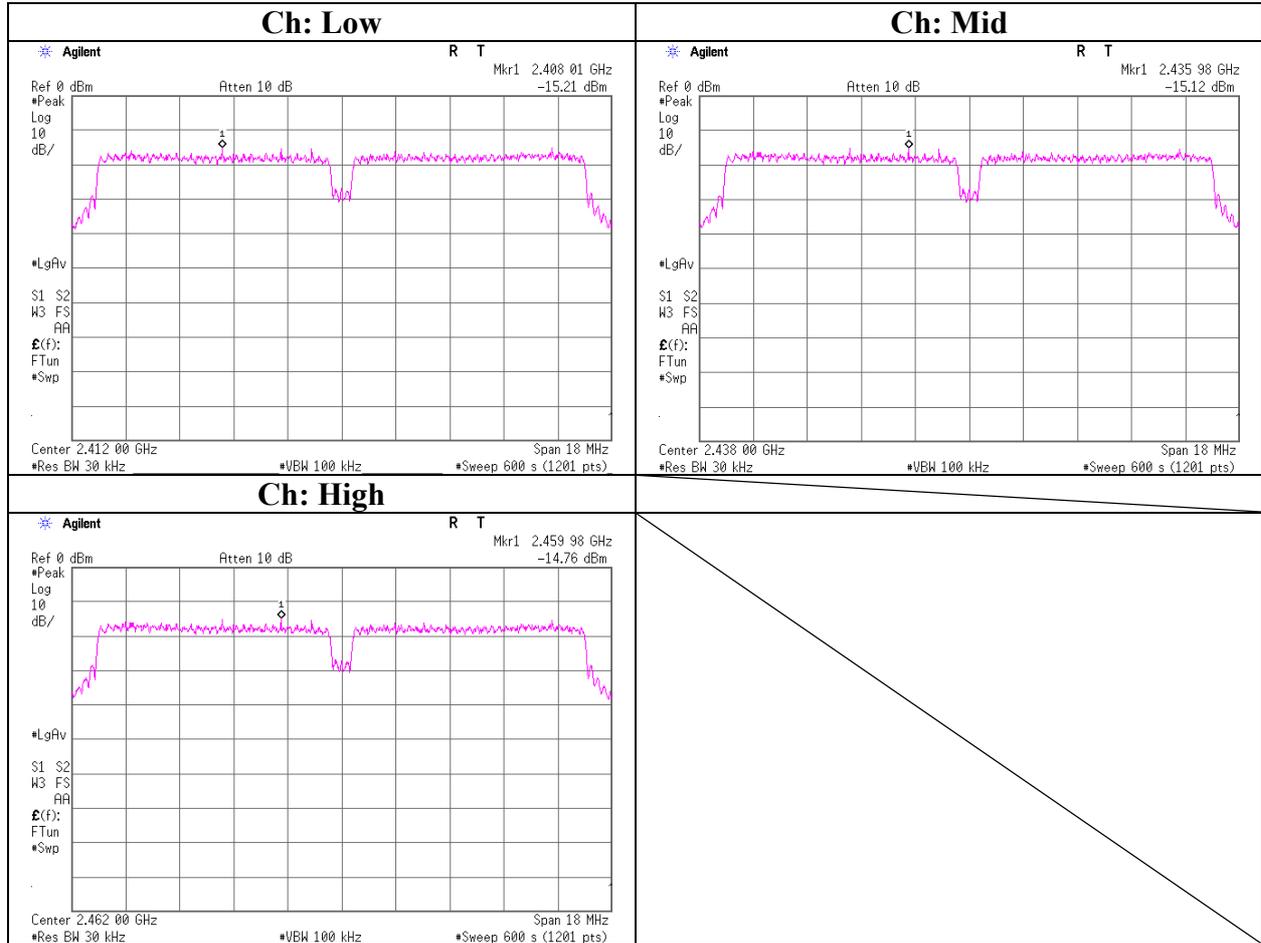
Power Density

ANT 0



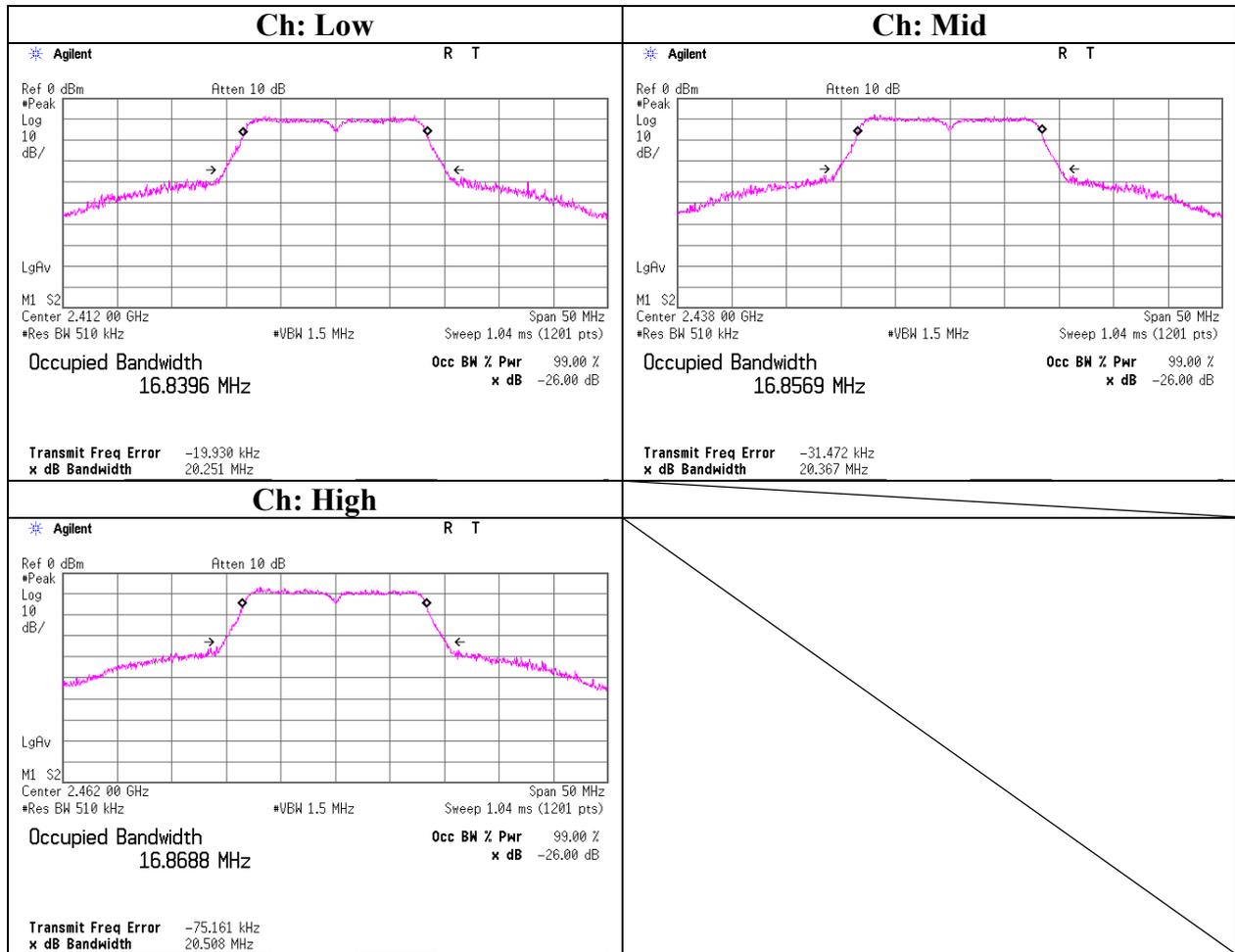
Power Density

ANT 1



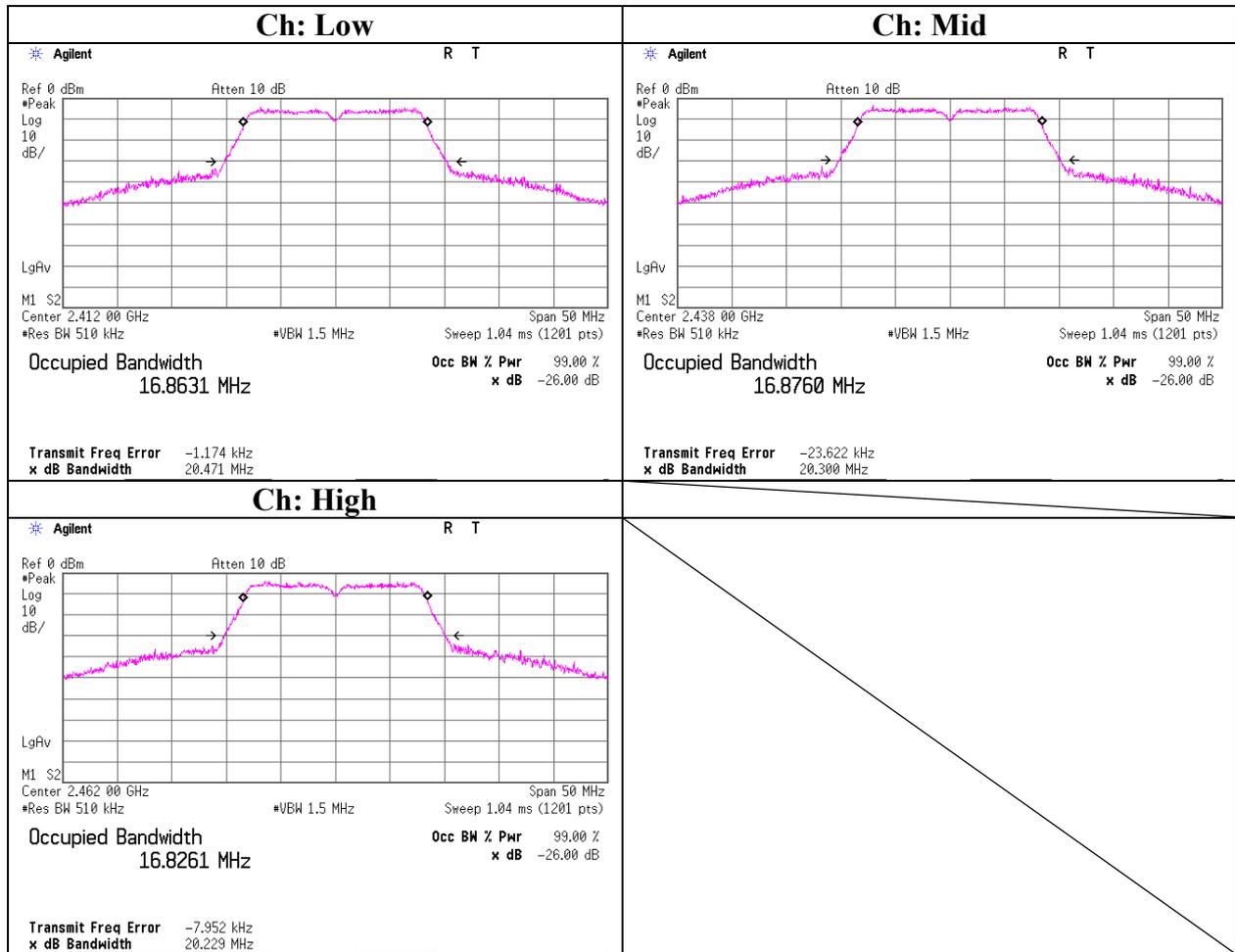
99%Occupied Bandwidth

Ant 0



99%Occupied Bandwidth

Ant 1



APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE	2008/04/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE	2009/02/05 * 12
MJM-05	Measure	PROMART	SEN1955	-	RE	-
CUST-MSTW-14	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MRENT-62	Spectrum Analyzer	Agilent	E4448A	MY46180856	RE	2008/11/25 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2009/01/31 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	295123(5m) / 287573(1m)	RE	2008/11/27 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2008/09/17 * 12
MAEC-03	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2009/02/02 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	-	RE/CE	2009/02/06 * 12
MJM-06	Measure	PROMART	SEN1955	-	RE/CE	-
MTR-08	Test Receiver	Rohde & Schwarz	ESCI	100767	RE/CE	2008/06/12 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1915	RE	2009/01/19 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	174	RE	2009/01/10 * 12
MCC-51	Coaxial cable	UL Japan	-	-	RE	2008/07/18 * 12
MAT-30	Attenuator(6dB)	TME	UFA-01	-	RE	2009/03/02 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	260834	RE	2009/03/18 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE(EUT)	2009/02/18 * 12
MCC-112	Coaxial cable	Fujikura/Suhner/TSJ	-	-	CE	2008/07/03 * 12
MSA-09	Spectrum Analyzer	Advantest	R3273	95090115	RE	2008/12/24 * 12
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	258	RE	2008/04/23 * 12
MCC-56	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	174410(1m) / 284655(5m)	RE	2009/01/07 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	MY39500779	RE	2009/03/19 * 12
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170306	RE	2008/04/30 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	AT/RE	2008/08/18 * 12
MPM-12	Power Meter	Anritsu	ML2495A	0825002	AT	2008/08/13 * 12
MPSE-17	Power sensor	Anritsu	MA2411B	0738285	AT	2008/08/13 * 12
MCC-116	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290221/4	AT	2008/08/04 * 12
MAT-20	Attenuator(10dB)(above 1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-110	-	AT	2009/01/16 * 12
MTA-09	Terminator	HP	HP 909D	03745	AT	2009/02/12 * 12
MCC-114	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290212/4	AT	2008/08/01 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	-	AT	2009/02/04 * 12

The expiration date of the calibration is the end of the expired month.

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

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item: CE: Conducted Emission
RE: Radiated Emission
AT: Antenna Terminal Conducted test