

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, Ch: Low

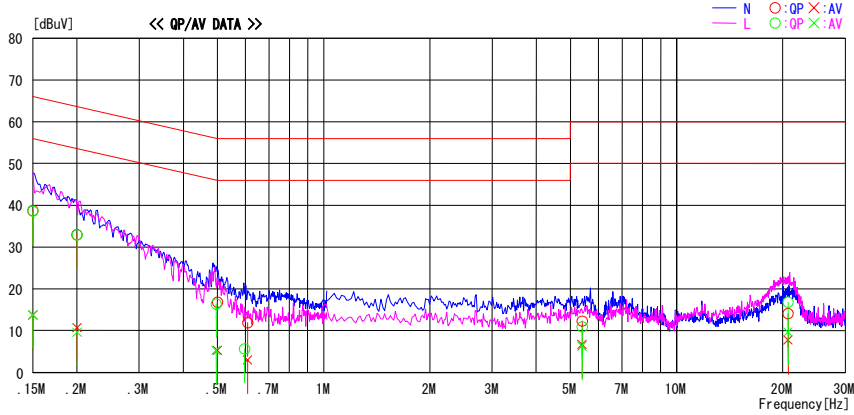
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/02

Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-50
Serial No. : E10118TV
Report No. : 28LE0031-HO-01
Power : AC120V/60Hz
Temp./Humi. : 24deg. C / 54%
Engineer : Satofumi Matsuyama

Mode / Remarks : Tx Lch(2405.376MHz) Normal-axis

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]		
0.15000	38.4	13.4	0.3	38.7	13.7	66.0	56.0	27.3	42.3	N	
0.19999	32.7	10.4	0.3	33.0	10.7	63.6	53.6	30.6	42.9	N	
0.50021	16.5	5.0	0.3	16.8	5.3	56.0	46.0	39.2	40.7	N	
0.60841	11.5	2.6	0.4	11.9	3.0	56.0	46.0	44.1	43.0	N	
5.39642	11.3	5.7	1.0	12.3	6.7	60.0	50.0	47.7	43.3	N	
20.68621	12.0	5.6	2.1	14.1	7.7	60.0	50.0	45.9	42.3	N	
0.15000	38.3	13.5	0.3	38.6	13.8	66.0	56.0	27.4	42.2	L	
0.20025	32.6	9.3	0.3	32.9	9.6	63.6	53.6	30.7	44.0	L	
0.49552	16.0	5.0	0.3	16.3	5.3	56.1	46.1	39.8	40.8	L	
0.59651	5.3	-2.9	0.4	5.7	-2.5	56.0	46.0	50.3	48.5	L	
5.39392	9.9	5.3	1.0	10.9	6.3	60.0	50.0	49.1	43.7	L	
20.68030	14.7	7.6	2.1	16.8	9.7	60.0	50.0	43.2	40.3	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuA]=READING[dBuV]+C.F[dB] (Probe factor+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.

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

Conducted Emission
Tx, Ch: Low

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
 Date : 2008/10/02

Company	: YAMAHA CORPORATION	Report No.	: 28LE0031-HO-01
Kind of EUT	: Portable Player Dock	Power	: AC120V/60Hz
Model No.	: PDX-50	Temp./Humi.	: 24deg. C / 54%
Serial No.	: E10118TV	Engineer	: Satofumi Matsuyama

Mode / Remarks : Tx Lch(2405.376MHz) Normal-axis

LIMIT : FCC15.207 QP
 FCC15.207 AV

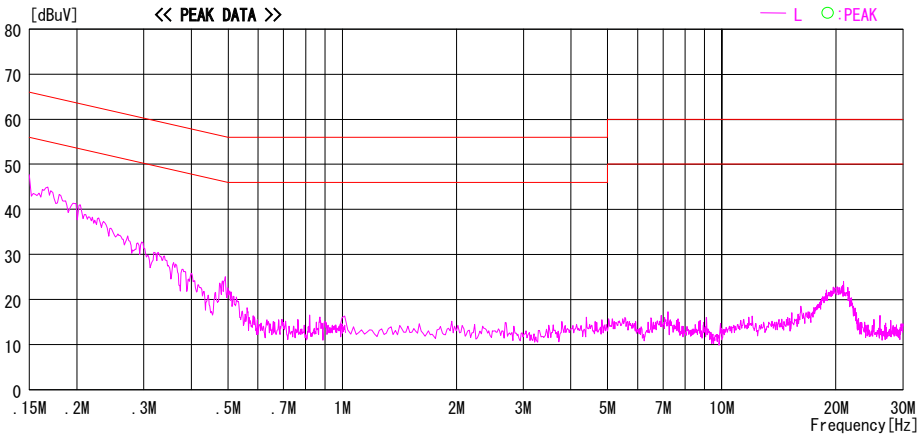
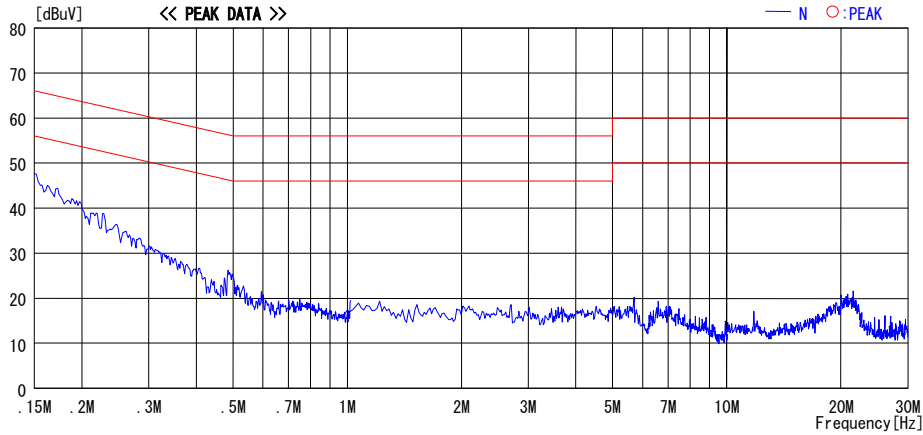


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuA]=READING[dBuV]+C.F[dB] (Probe factor+CABLE LOSS)
 Except for the above table: adequate margin data below the limits.

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

Conducted Emission
Tx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
 Date : 2008/10/02

Company	: YAMAHA CORPORATION	Report No.	: 28LE0031-HO-01
Kind of EUT	: Portable Player Dock	Power	: AC120V/60Hz
Model No.	: PDX-50	Temp./Humi.	: 24deg. C / 54%
Serial No.	: E10118TV	Operator	: Satofumi Matsuyama

Mode / Remarks : Tx Mch(2436.096MHz) Normal-axis

LIMIT : FCC15.207 QP
 FCC15.207 AV

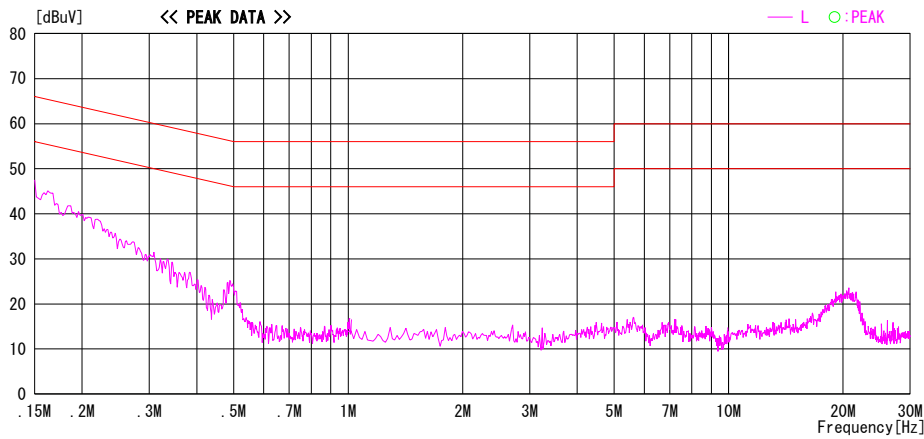
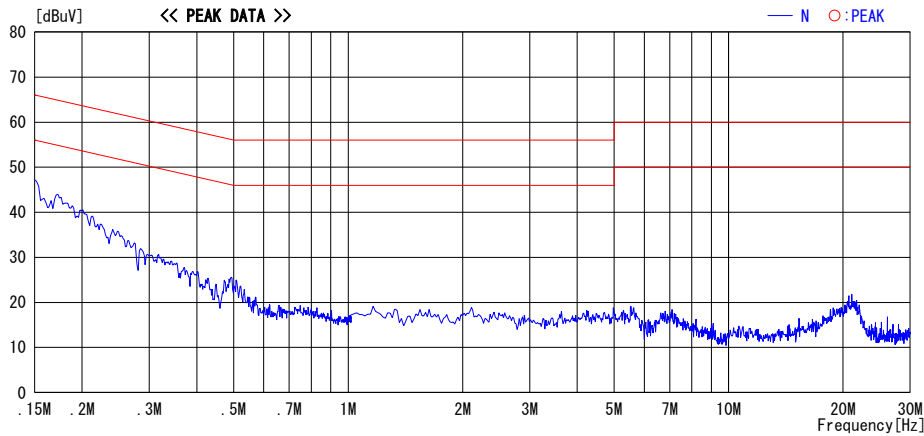


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuA]=READING [dBuV]+C. F [dB] (Probe factor+CABLE LOSS)
 Except for the above table: adequate margin data below the limits.

Conducted Emission
Tx, Ch: High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
 Date : 2008/10/02

Company	: YAMAHA CORPORATION	Report No.	: 28LE0031-HO-01
Kind of EUT	: Portable Player Dock	Power	: AC120V/60Hz
Model No.	: PDX-50	Temp./Humi.	: 24deg. C / 54%
Serial No.	: E10118TV	Operator	: Satofumi Matsuyama

Mode / Remarks : Tx Hch(2473.984MHz) Normal-axis

LIMIT : FCC15.207 QP
 FCC15.207 AV

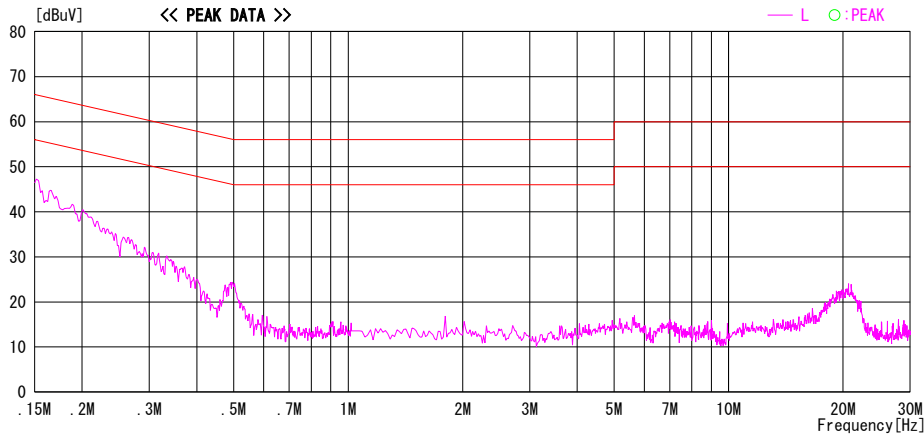
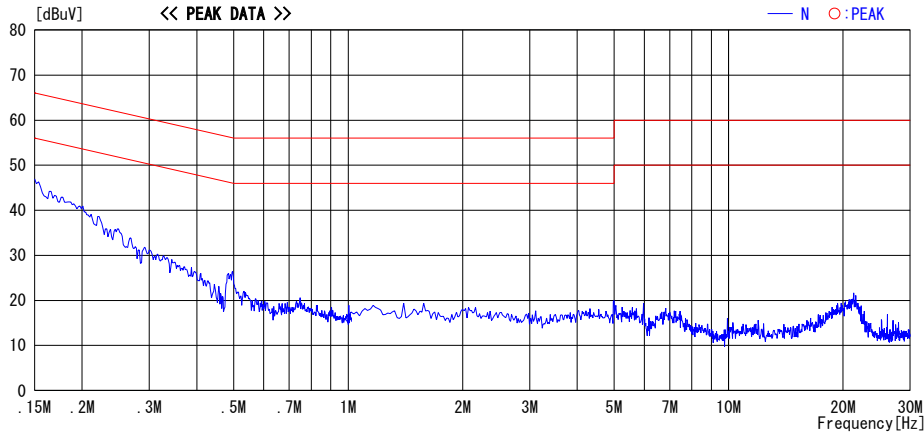


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuA] = READING [dBuV] + C. F [dB] (Probe factor + CABLE LOSS)
 Except for the above table: adequate margin data below the limits.

Conducted Emission
Rx, Ch: Mid

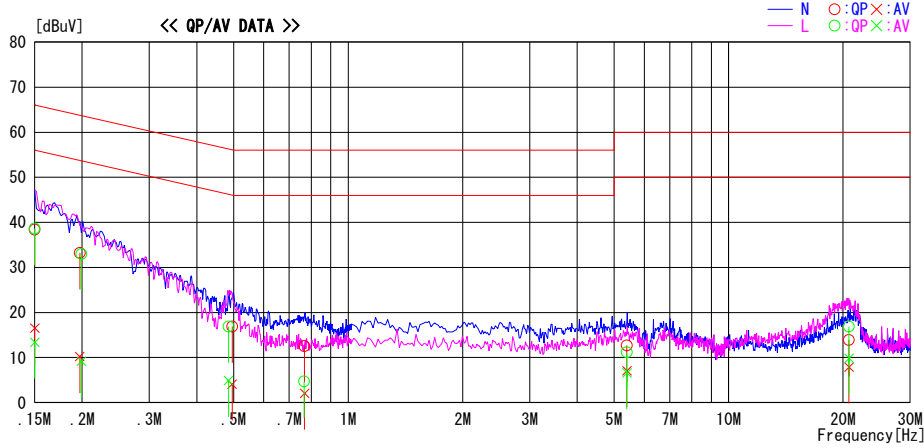
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
 Date : 2008/10/02

Company : YAMAHA CORPORATION
 Kind of EUT : Portable Player Dock
 Model No. : PDX-50
 Serial No. : E10118TV
 Report No. : 28LE0031-HO-01
 Power : AC120V/60Hz
 Temp./Humi. : 24deg. C / 54%
 Operator : Satofumi Matsuyama

Mode / Remarks : Rx Mch(2436.096MHz) Normal-axis

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]		
0.15000	38.1	16.2	0.3	38.4	16.5	66.0	56.0	27.6	39.5	N	
0.19708	32.9	9.9	0.3	33.2	10.2	63.7	53.7	30.5	43.5	N	
0.49562	16.6	3.8	0.3	16.9	4.1	56.1	46.1	39.2	42.0	N	
0.76803	12.1	1.7	0.4	12.5	2.1	56.0	46.0	43.5	43.9	N	
5.40415	11.7	6.1	1.0	12.7	7.1	60.0	50.0	47.3	42.9	N	
20.71601	11.8	5.8	2.1	13.9	7.9	60.0	50.0	46.1	42.1	N	
0.15000	38.3	13.1	0.3	38.6	13.4	66.0	56.0	27.4	42.6	L	
0.19898	32.7	8.9	0.3	33.0	9.2	63.7	53.7	30.7	44.5	L	
0.48488	16.6	4.6	0.3	16.9	4.9	56.3	46.3	39.4	41.4	L	
0.76628	4.3	-5.5	0.4	4.7	-5.1	56.0	46.0	51.3	51.1	L	
5.40284	10.2	5.6	1.0	11.2	6.6	60.0	50.0	48.8	43.4	L	
20.71561	14.8	7.7	2.1	16.9	9.8	60.0	50.0	43.1	40.2	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuA]=READING [dBuV]+C.F [dB] (Probe factor+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.

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

6dB Bandwidth

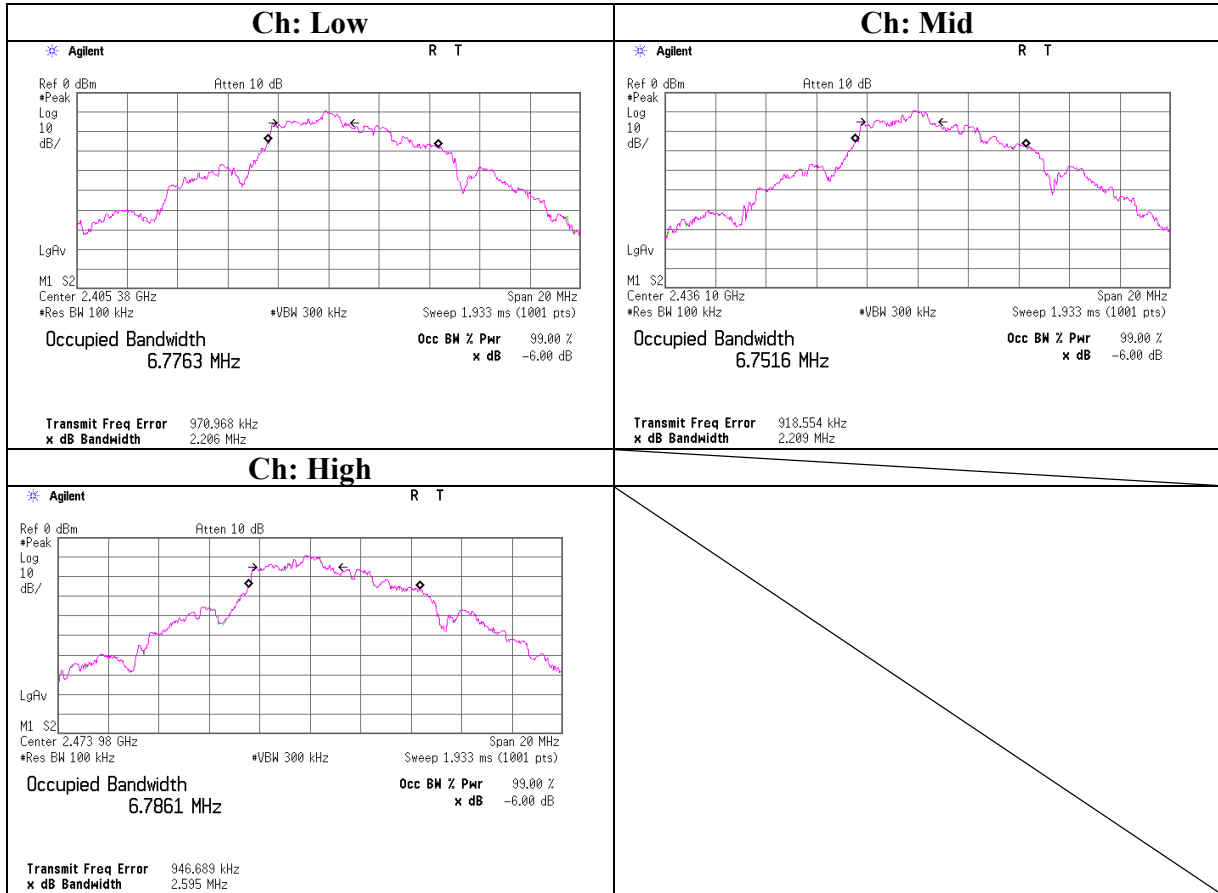
UL Japan, Inc.
Head Office EMC Lab. No.4 Shielded Room

Company : YAMAHA CORPORATION
Equipment : Portable Player Dock
Model No. : PDX-50
Serial No. : E10548TV
Power : AC120V/60Hz
Mode : Tx (Ch L, M, H)

Test Report No. : 28LE0031-HO-01
Regulation : FCC15.247(a)(2)/RSS-210A8.2(a)
Test distance : -
Date : 10/3/2008
Temperature : 26deg.C.
Humidity : 58%
Engineer : Shinya Watanabe

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2405.4	2.206	>500
Mid	2436.1	2.209	>500
High	2474.0	2.595	>500

6dB Bandwidth



Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.4 Shielded Room

Company	: YAMAHA CORPORATION	Test Report No.	: 28LE0031-HO-01
Equipment	: Portable Player Dock	Regulation	: FCC15.247(b)(3)/RSS-210A8.4(4)
Model No.	: PDX-50	Test distance	: -
Serial No.	: E10548TV	Date	: 10/3/2008
Power	: AC120V/60Hz	Temperature	: 26deg.C.
Mode	: Tx (Ch L, M, H)	Humidity	: 58%
		Engineer	: Shinya Watanabe

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2405.4	-8.21	1.83	10.09	3.71	2.35	30.00	1000	26.29
Mid	2436.1	-7.97	1.83	10.09	3.95	2.48	30.00	1000	26.05
High	2474.0	-7.82	1.84	10.09	4.11	2.58	30.00	1000	25.89

Sample Calculation:

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

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

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

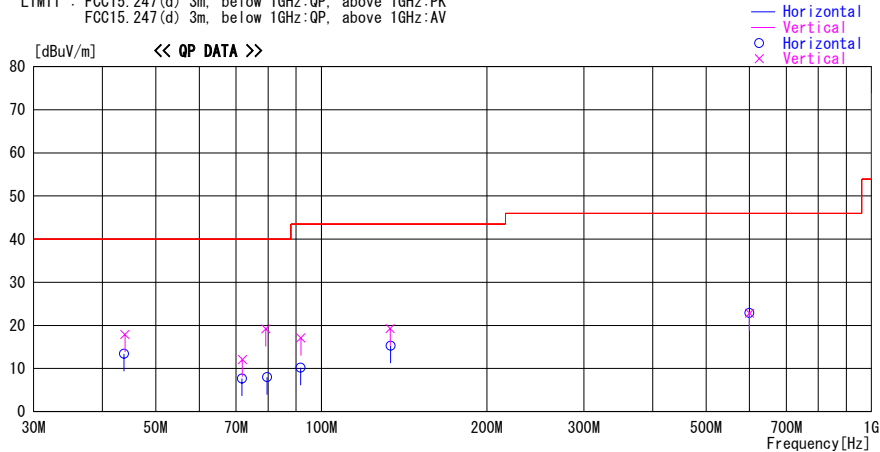
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
 Date : 2008/10/02

Company : YAMAHA CORPORATION
 Kind of EUT : Portable Player Dock
 Model No. : PDX-50
 Serial No. : E10118TV
 Report No. : 28LE0031-HO-01
 Power : AC120V/60Hz
 Temp./Humi. : 24deg. C / 54%
 Engineer : SatoFumi Matsuyama

Mode / Remarks : Tx Lch(2405.376MHz) Normal-axis

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
 FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss&Gain [dB]							
43.756	23.1	QP	12.1	-21.8	13.4	0	300	Hori.	40.0	26.6	
43.968	27.7	QP	12.0	-21.8	17.9	206	100	Vert.	40.0	22.1	
71.687	22.6	QP	6.6	-21.5	7.7	0	300	Hori.	40.0	32.3	
71.871	27.0	QP	6.6	-21.5	12.1	87	100	Vert.	40.0	27.9	
79.227	34.2	QP	6.4	-21.4	19.2	107	190	Vert.	40.0	20.8	
79.666	23.0	QP	6.4	-21.4	8.0	0	300	Hori.	40.0	32.0	
91.696	22.8	QP	8.5	-21.1	10.2	0	300	Hori.	43.5	33.3	
91.796	29.7	QP	8.5	-21.1	17.1	58	100	Vert.	43.5	26.4	
133.347	26.5	QP	13.4	-20.6	19.3	10	100	Vert.	43.5	24.2	
133.677	22.4	QP	13.5	-20.6	15.3	0	300	Hori.	43.5	28.2	
600.000	22.4	QP	19.3	-18.8	22.9	0	100	Hori.	46.0	23.1	
600.000	22.3	QP	19.3	-18.8	22.8	0	100	Vert.	46.0	23.2	

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

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

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

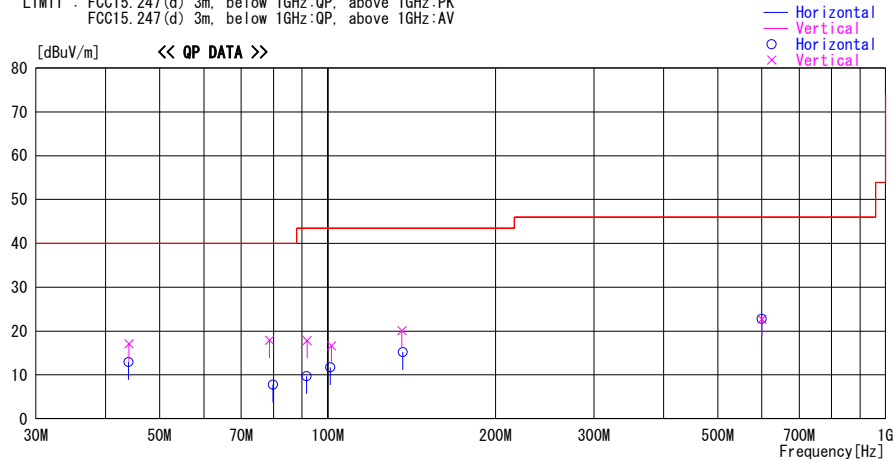
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/02

Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-50
Serial No. : E10118TV
Report No. : 28LE0031-HO-01
Power : AC120V/60Hz
Temp./Humi. : 24deg.C / 54%
Engineer : Satofumi Matsuyama

Mode / Remarks : Tx Mch(2436.096MHz) Normal-axis

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
44.008	22.7	QP	12.0	-21.8	12.9	0	300	Hori.	40.0	27.1	
44.068	26.9	QP	12.0	-21.8	17.1	296	100	Vert.	40.0	22.9	
78.667	32.9	QP	6.4	-21.4	17.9	220	218	Vert.	40.0	22.1	
79.811	22.8	QP	6.4	-21.4	7.8	0	300	Hori.	40.0	32.2	
91.712	22.3	QP	8.5	-21.1	9.7	0	300	Hori.	43.5	33.8	
91.936	30.4	QP	8.5	-21.1	17.8	76	100	Vert.	43.5	25.7	
101.143	22.5	QP	10.1	-20.9	11.7	0	300	Hori.	43.5	31.8	
101.583	27.4	QP	10.1	-20.9	16.6	97	100	Vert.	43.5	26.9	
135.831	27.0	QP	13.7	-20.6	20.1	15	100	Vert.	43.5	23.4	
136.487	22.0	QP	13.8	-20.6	15.2	0	300	Hori.	43.5	28.3	
600.000	22.3	QP	19.3	-18.8	22.8	0	100	Hori.	46.0	23.2	
600.000	22.2	QP	19.3	-18.8	22.7	0	100	Vert.	46.0	23.3	

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

Radiated Spurious Emission (below 1GHz)

Tx, Ch: High

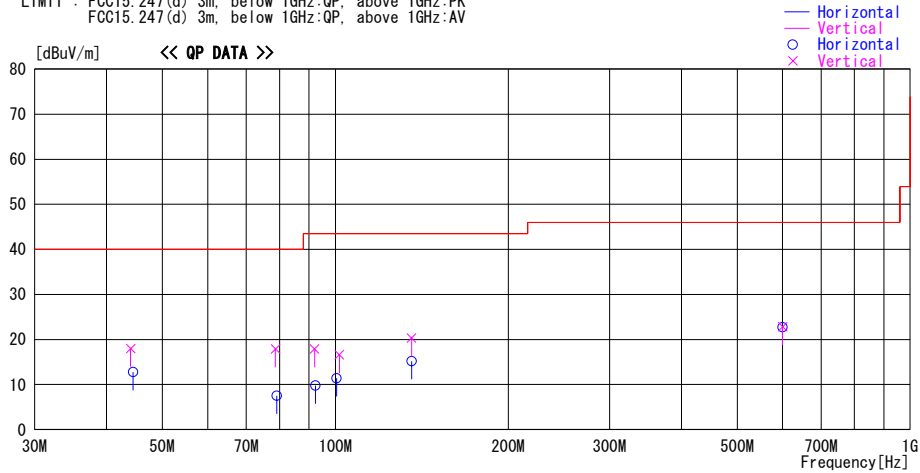
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/02

Company : YAMAHA CORPORATION	Report No. : 28LE0031-HO-01
Kind of EUT : Portable Player Dock	Power : AC120V/60Hz
Model No. : PDX-50	Temp./Humi. : 24deg. C / 54%
Serial No. : E10118TV	Engineer : Satofumi Matsuyama

Mode / Remarks : Tx Hch(2473.984MHz) Normal-axis

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
 FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
44.067	27.8	QP	12.0	-21.8	18.0	166	100	Vert.	40.0	22.0	
44.524	22.8	QP	11.8	-21.8	12.8	0	300	Hori.	40.0	27.2	
78.654	32.9	QP	6.4	-21.4	17.9	207	208	Vert.	40.0	22.1	
79.086	22.5	QP	6.4	-21.4	7.5	0	300	Hori.	40.0	32.5	
92.061	30.4	QP	8.6	-21.1	17.9	69	100	Vert.	43.5	25.6	
92.289	22.3	QP	8.6	-21.1	9.8	0	300	Hori.	43.5	33.7	
100.539	22.3	QP	10.0	-20.9	11.4	0	300	Hori.	43.5	32.1	
101.627	27.4	QP	10.1	-20.9	16.6	86	100	Vert.	43.5	26.9	
135.768	27.2	QP	13.7	-20.6	20.3	9	100	Vert.	43.5	23.2	
135.864	22.1	QP	13.7	-20.6	15.2	0	300	Hori.	43.5	28.3	
600.000	22.2	QP	19.3	-18.8	22.7	0	100	Hori.	46.0	23.3	
600.000	22.3	QP	19.3	-18.8	22.8	0	100	Vert.	46.0	23.2	

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

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

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

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

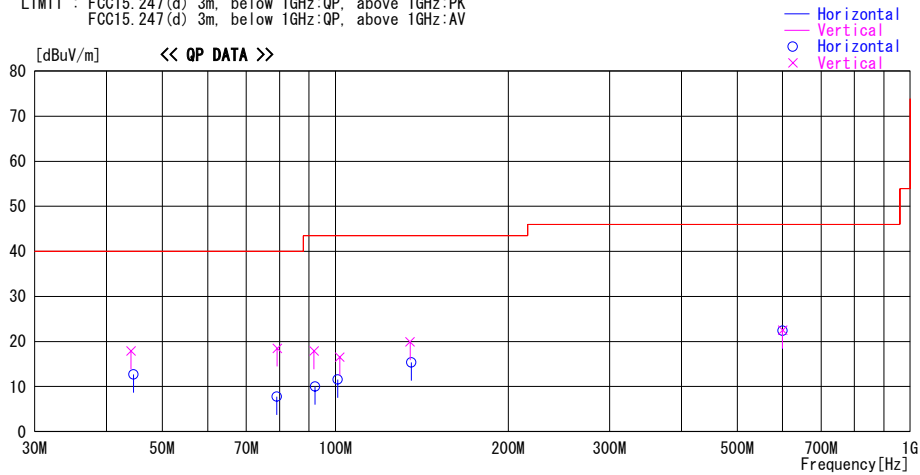
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2008/10/02

Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-50
Serial No. : E10118TV
Report No. : 28LE0031-HO-01
Power : AC120V/60Hz
Temp./Humi. : 24deg. C / 54%
Engineer : Satofumi Matsuyama

Mode / Remarks : Rx Mch(2436.096MHz) Normal-axis

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]	
44.133	27.7	QP	12.0	-21.8	17.9	54	100	Vert.	40.0	22.1	
44.548	22.7	QP	11.8	-21.8	12.7	0	300	Hori.	40.0	27.3	
79.226	33.5	QP	6.4	-21.4	18.5	302	175	Vert.	40.0	21.5	
79.077	22.8	QP	6.4	-21.4	7.8	0	300	Hori.	40.0	32.2	
91.821	30.5	QP	8.5	-21.1	17.9	68	100	Vert.	43.5	25.6	
92.273	22.5	QP	8.6	-21.1	10.0	0	300	Hori.	43.5	33.5	
100.989	22.4	QP	10.1	-20.9	11.6	0	300	Hori.	43.5	31.9	
101.781	27.2	QP	10.2	-20.9	16.5	352	100	Vert.	43.5	27.0	
134.978	26.9	QP	13.6	-20.6	19.9	4	100	Vert.	43.5	23.6	
135.665	22.3	QP	13.7	-20.6	15.4	0	300	Hori.	43.5	28.1	
600.000	21.9	QP	19.3	-18.8	22.4	0	100	Hori.	46.0	23.6	
600.000	22.0	QP	19.3	-18.8	22.5	0	100	Vert.	46.0	23.5	

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

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

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

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
: 28LE0031-HO-01
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 09/29/2008
TEMPERATURE : 24deg.C
HUMIDITY : 57%
ENGINEER : Takeshi Choda

Company : YAMAHA CORPORATION
Equipment : Portable Player Dock
Model : PDX-50
Sample No. : E10118TV
Power : AC 120V / 60Hz
Mode : Tx 2405.376MHz
Remarks : Normal-axis

REPORT NO : 28LE0031-HO-01
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 09/29/2008
TEMPERATURE : 24deg.C
HUMIDITY : 57%
ENGINEER : Takeshi Choda

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]											
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2390.0	44.6	46.4	26.8	32.5	2.6	0.0	41.5	43.3	73.9	32.4	30.6	
2*	2400.0	74.5	76.2	26.8	32.5	2.6	0.0	71.4	73.1	-	-	-	
3	4810.8	44.2	46.0	31.2	31.4	4.1	0.7	48.8	50.6	73.9	25.1	23.3	
4	7216.1	40.4	40.1	35.5	31.0	4.4	0.6	49.9	49.6	73.9	24.0	24.3	
5	9621.5	38.6	38.7	38.6	31.4	5.2	0.9	51.9	52.0	73.9	22.0	21.9	
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
6	12026.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-	
7	14432.3	N/S	N/S	-	-	-	-	-	-	73.9	-	-	
8	16837.6	N/S	N/S	-	-	-	-	-	-	73.9	-	-	
9	19243.0	N/S	N/S	-	-	-	-	-	-	73.9	-	-	
10	21648.4	N/S	N/S	-	-	-	-	-	-	73.9	-	-	
11	24053.8	45.9	45.8	39.9	30.0	7.7	0.0	54.0	53.9	73.9	19.9	20.0	

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	
		[dBuV]											
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
1	2390.0	31.2	33.1	26.8	32.5	2.6	0.0	28.1	30.0	53.9	25.8	23.9	
2*	2400.0	59.8	65.4	26.8	32.5	2.6	0.0	56.7	62.3	-	-	-	
3	4810.8	34.5	38.0	31.2	31.4	4.1	0.7	39.1	42.6	53.9	14.8	11.3	
4	7216.1	25.9	25.9	35.5	31.0	4.4	0.6	35.4	35.4	53.9	18.5	18.5	
5	9621.5	24.6	24.6	38.6	31.4	5.2	0.9	37.9	37.9	53.9	16.0	16.0	
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac													
6	12026.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-	
7	14432.3	N/S	N/S	-	-	-	-	-	-	53.9	-	-	
8	16837.6	N/S	N/S	-	-	-	-	-	-	53.9	-	-	
9	19243.0	N/S	N/S	-	-	-	-	-	-	53.9	-	-	
10	21648.4	N/S	N/S	-	-	-	-	-	-	53.9	-	-	
11	24053.8	32.3	32.3	39.9	30.0	7.7	0.0	40.4	40.4	53.9	13.5	13.5	

*Reference data

20dBc(Fundamental 2405.376MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]											
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss													
0	2405.4	100.8	102.0	26.9	32.5	2.6	0.0	97.8	99.0	-	-	-	
2	2400.0	69.2	71.4	26.8	32.5	2.6	0.0	66.1	68.3	Funda-20dB	11.7	10.7	

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

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

*In the frequency over the 3rd harmonic, the noise from the EUT was not seen. The data above is its base noise.

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

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

*N/S: Non-signal

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

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

Company	: YAMAHA CORPORATION	REPORT NO	: 28LE0031-HO-01
Equipment	: Portable Player Dock	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: PDX-50	TEST DISTANCE	: 3/1m
Sample No.	: E10118TV	DATE	: 09/29/2008
Power	: AC 120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: Tx 2436.096MHz	HUMIDITY	: 57%
Remarks	: Normal-axis	ENGINEER	: Takeshi Choda

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	4872.2	45.5	48.4	31.3	31.4	4.1	0.7	50.2	53.1	73.9	23.7	20.8
2	7308.3	40.4	40.3	35.7	31.0	4.5	0.6	50.2	50.1	73.9	23.7	23.8
3	9744.4	40.1	39.7	38.7	31.4	5.2	0.9	53.5	53.1	73.9	20.4	20.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12180.5	N/S	N/S	-	-	-	-	-	-	73.9	-	-
5	14616.6	N/S	N/S	-	-	-	-	-	-	73.9	-	-
6	17052.7	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	19488.8	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	21924.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	24361.0	46.1	46.2	40.1	30.0	7.9	0.0	54.6	54.7	73.9	19.3	19.2

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	4872.2	35.7	41.6	31.3	31.4	4.1	0.7	40.4	46.3	53.9	13.5	7.6
2	7308.3	26.7	26.6	35.7	31.0	4.5	0.6	36.5	36.4	53.9	17.4	17.5
3	9744.4	26.6	26.7	38.7	31.4	5.2	0.9	40.0	40.1	53.9	13.9	13.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12180.5	N/S	N/S	-	-	-	-	-	-	53.9	-	-
5	14616.6	N/S	N/S	-	-	-	-	-	-	53.9	-	-
6	17052.7	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	19488.8	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	21924.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	24361.0	31.9	31.8	40.1	30.0	7.9	0.0	40.4	40.3	53.9	13.5	13.6

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 3rd harmonic, the noise from the EUT was not seen. The data above is its base noise.

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

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

*N/S: Non-signal

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

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

Company	: YAMAHA CORPORATION	REPORT NO	: 28LE0031-HO-01
Equipment	: Portable Player Dock	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: PDX-50	TEST DISTANCE	: 3/1m
Sample No.	: E10118TV	DATE	: 09/29/2008
Power	: AC 120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: Tx 2473.984MHz	HUMIDITY	: 57%
Remarks	: Normal-axis	ENGINEER	: Takeshi Choda

PK DETECT (RBW: 1MHz, VBW: 1MHz)												
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	58.7	61.5	27.0	32.5	2.6	0.0	55.8	58.6	73.9	18.1	15.3
2	4948.0	46.0	49.5	31.5	31.4	4.2	0.7	51.0	54.5	73.9	22.9	19.4
3	7422.0	40.7	41.3	36.0	31.0	4.6	0.6	50.9	51.5	73.9	23.0	22.4
4	9895.9	40.9	40.8	38.8	31.4	5.2	0.9	54.4	54.3	73.9	19.5	19.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12369.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-
6	14843.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-
7	17317.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-
8	19791.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-
9	22265.9	N/S	N/S	-	-	-	-	-	-	73.9	-	-
10	24739.8	46.0	45.7	40.4	30.1	8.0	0.0	54.8	54.5	73.9	19.1	19.4

AV DETECT (RBW: 1MHz, VBW: 10Hz)												
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	46.6	50.2	27.0	32.5	2.6	0.0	43.7	47.3	53.9	10.2	6.6
2	4948.0	39.7	43.0	31.5	31.4	4.2	0.7	44.7	48.0	53.9	9.2	5.9
3	7422.0	27.3	27.9	36.0	31.0	4.6	0.6	37.5	38.1	53.9	16.4	15.8
4	9895.9	27.8	28.8	38.8	31.4	5.2	0.9	41.3	42.3	53.9	12.6	11.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12369.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-
6	14843.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-
7	17317.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-
8	19791.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-
9	22265.9	N/S	N/S	-	-	-	-	-	-	53.9	-	-
10	24739.8	32.2	32.2	40.4	30.1	8.0	0.0	41.0	41.0	53.9	12.9	12.9

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 3rd harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is round off to one or two decimal places, so some differences might be observed.
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.
*N/S: Non-signal

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

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

Company	: YAMAHA CORPORATION	REPORT NO	: 28LE0031-HO-01
Equipment	: Portable Player Dock	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: PDX-50	TEST DISTANCE	: 3m
Sample No.	: E10118TV	DATE	: 09/29/2008
Power	: AC 120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: Rx 2436.096MHz	HUMIDITY	: 57%
Remarks	: Normal-axis	ENGINEER	: Takeshi Choda

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

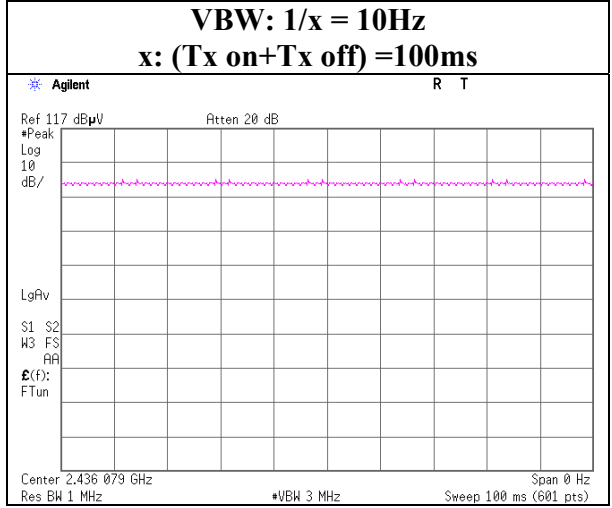
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2436.1	40.9	40.9	26.9	32.5	2.6	0.0	37.9	37.9	73.9	36.0	36.0
2	7308.3	38.0	38.0	35.7	31.0	3.9	0.0	46.6	46.6	73.9	27.3	27.3

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

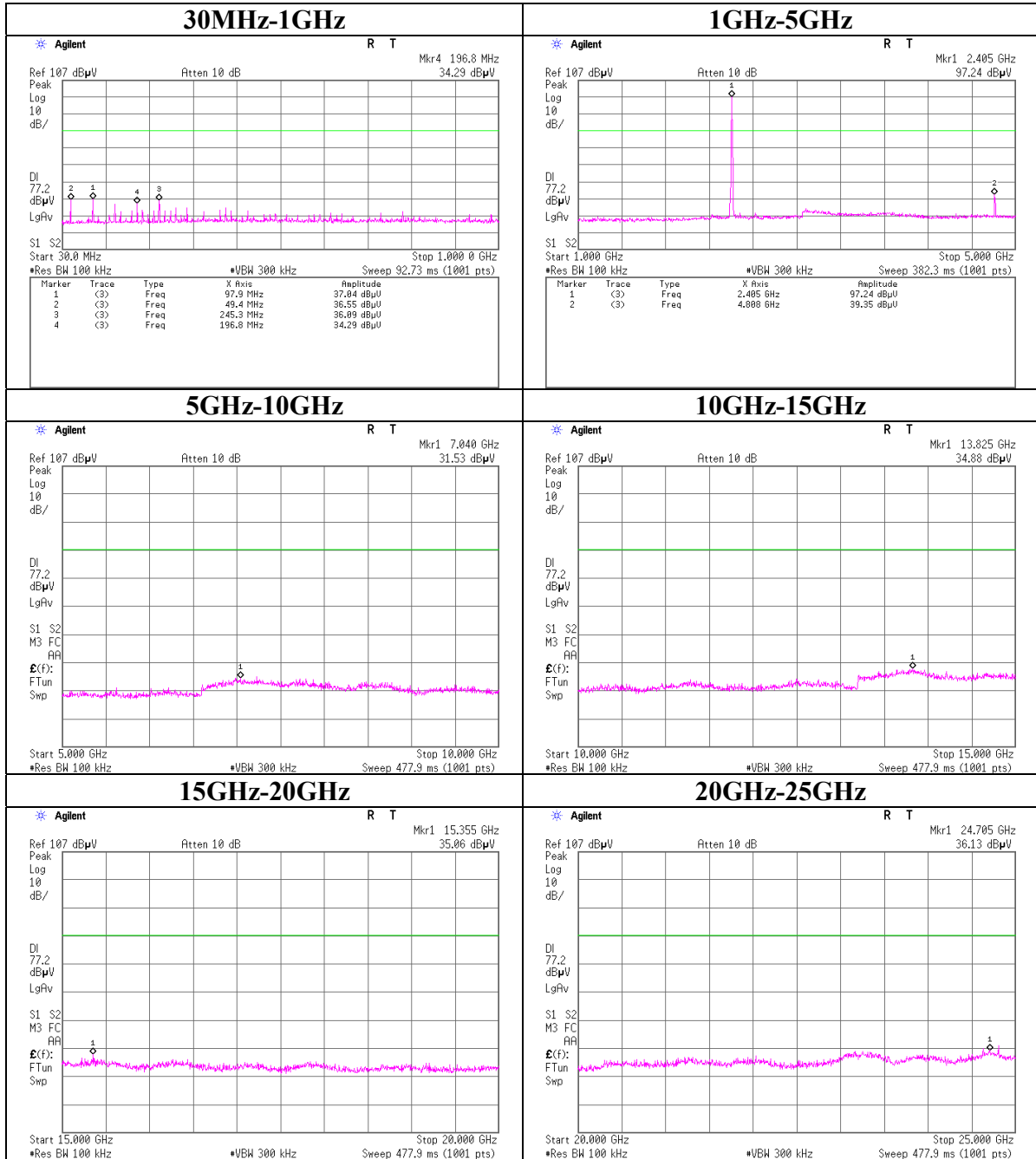
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2436.1	27.9	27.8	26.9	32.5	2.6	0.0	24.9	24.8	53.9	29.0	29.1
2	7308.3	25.1	25.4	35.7	31.0	3.9	0.0	33.7	34.0	53.9	20.2	19.9

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

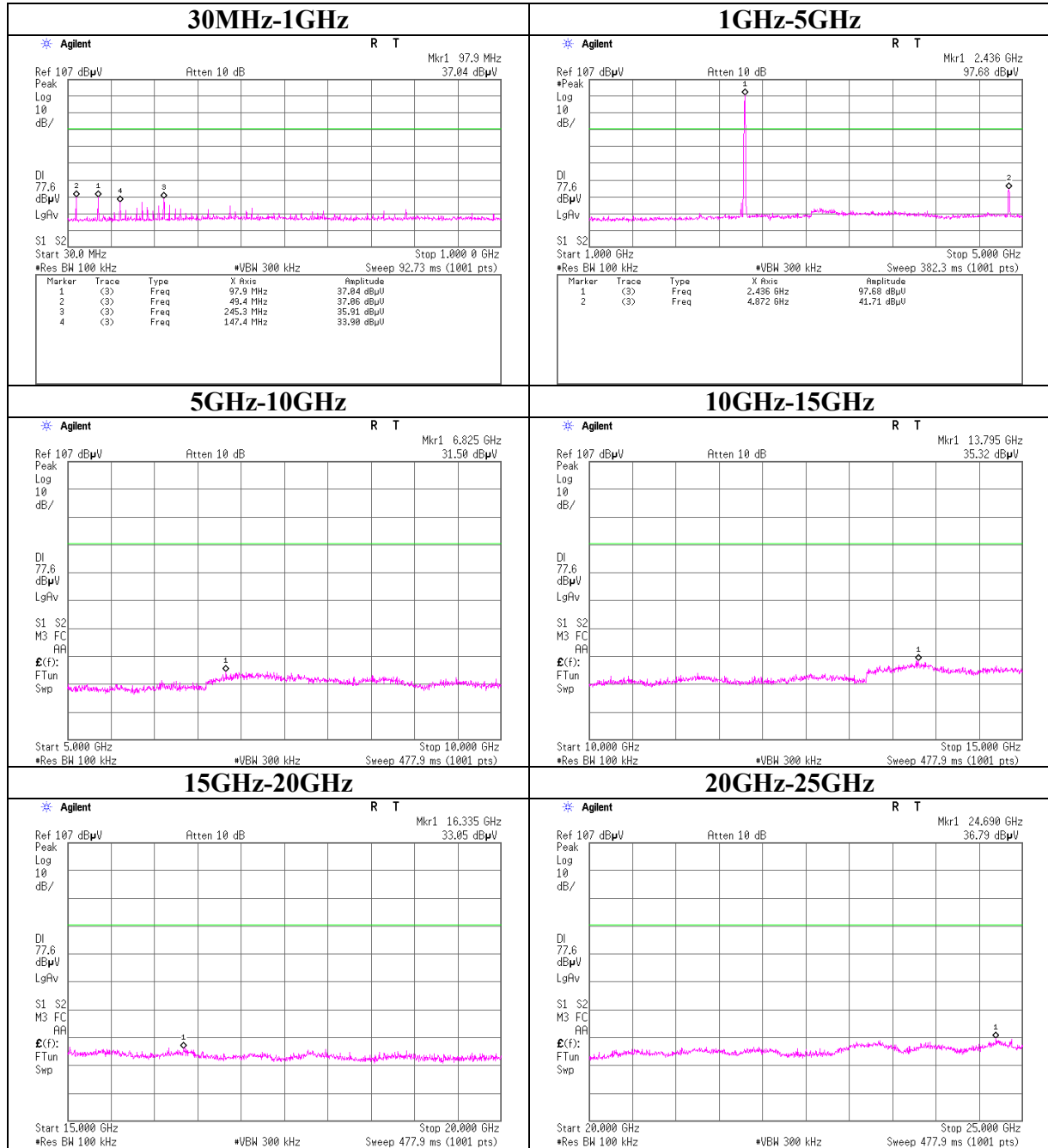
VBW (AV) Calculation



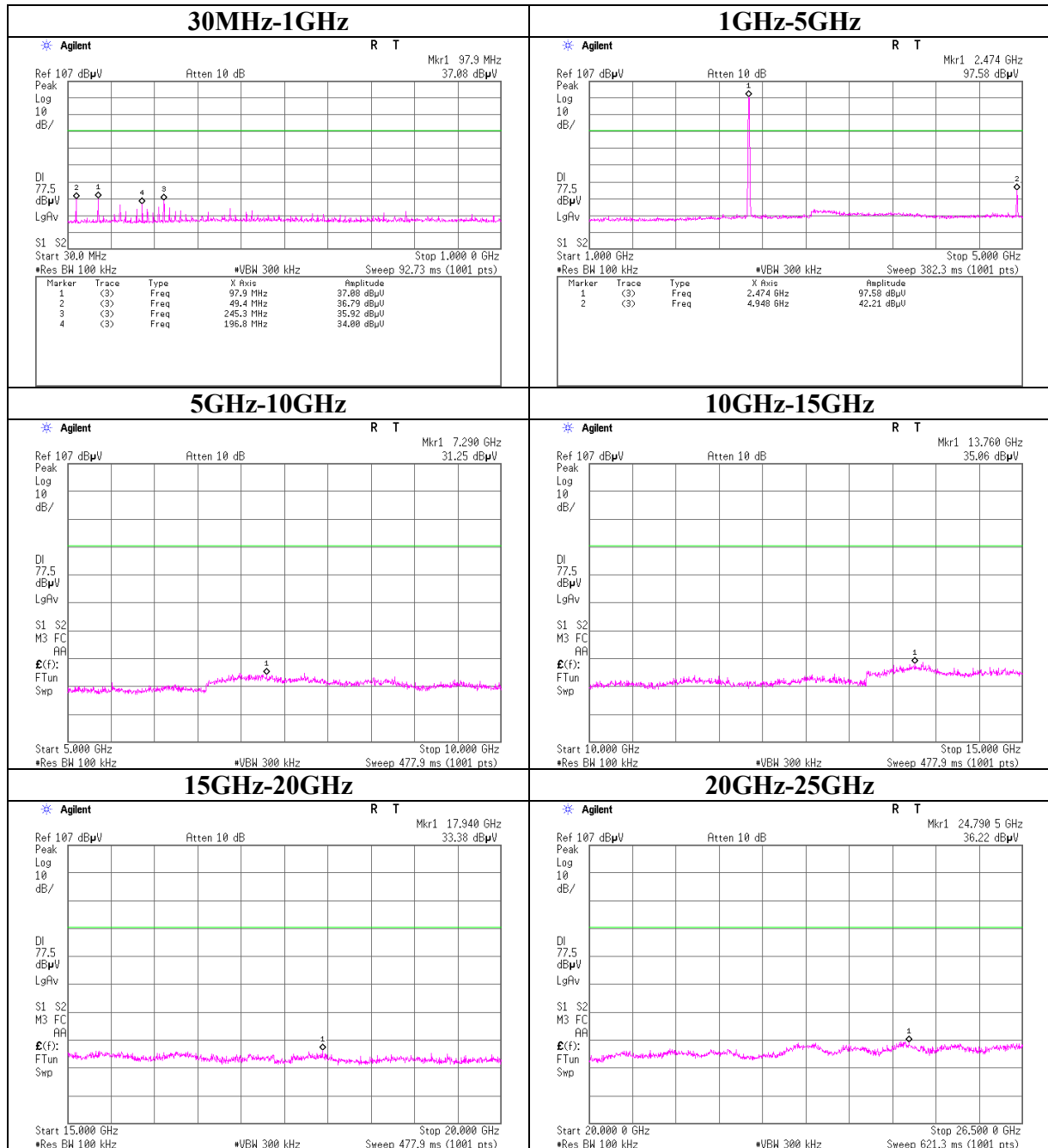
Conducted Spurious Emission
Tx, Ch: Low



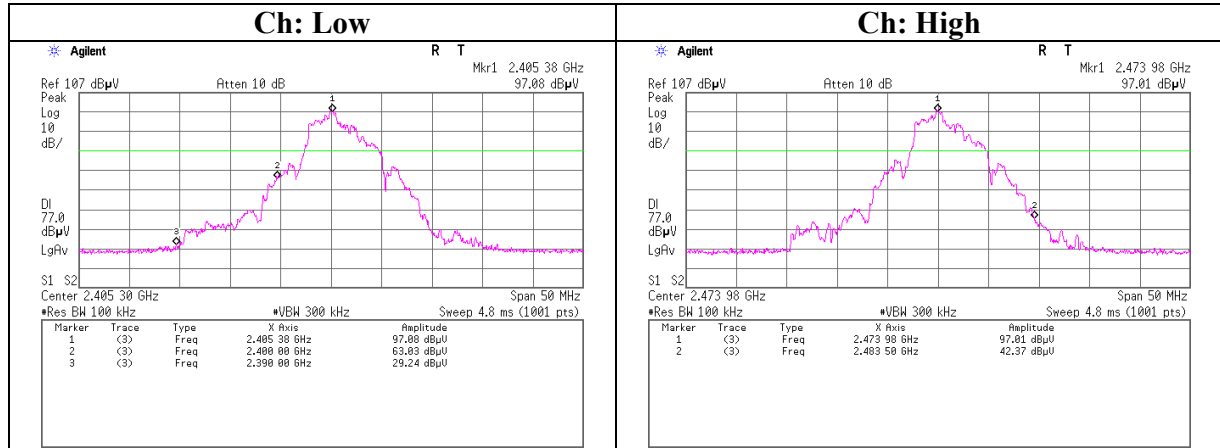
Conducted Spurious Emission
Tx, Ch: Mid



Conducted Spurious Emission
Tx, Ch: High



Conducted emission Band Edge compliance



Power Density

Company : YAMAHA CORPORATION
Equipment : Portable Player Dock
Model No. : PDX-50
Serial No. : E10548TV
Power : AC120V/60Hz
Mode : Tx (Ch L, M, H)

UL Japan, Inc.
Head Office EMC Lab. No.4 Shielded Room
Test Report No. : 28LE0031-HO-01
Regulation : FCC15.247(e)/RSS-210A8.2(b)
Test distance : -
Date : 10/3/2008
Temperature : 26deg.C.
Humidity : 58%
Engineer : Shinya Watanabe

[IEEE802.11b]

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2405.4	-11.25	1.83	10.09	0.7	8.0	7.3
Mid	2436.1	-11.07	1.83	10.09	0.9	8.0	7.2
High	2474.0	-11.44	1.84	10.09	0.5	8.0	7.5

Sample Calculation:

Result = Reading + Cable Loss (splied by customer + UL cable) + Attenuator

UL Japan, Inc.

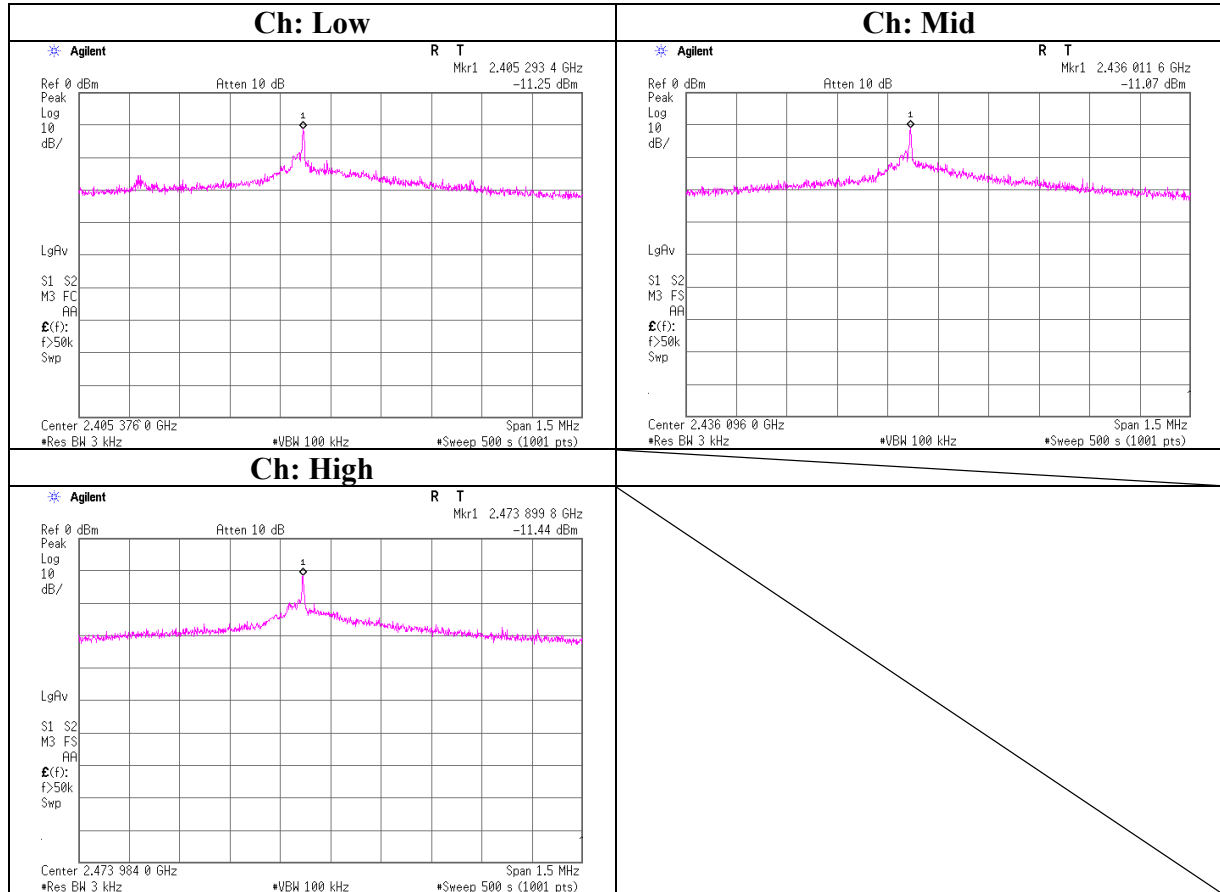
Head Office EMC Lab.

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

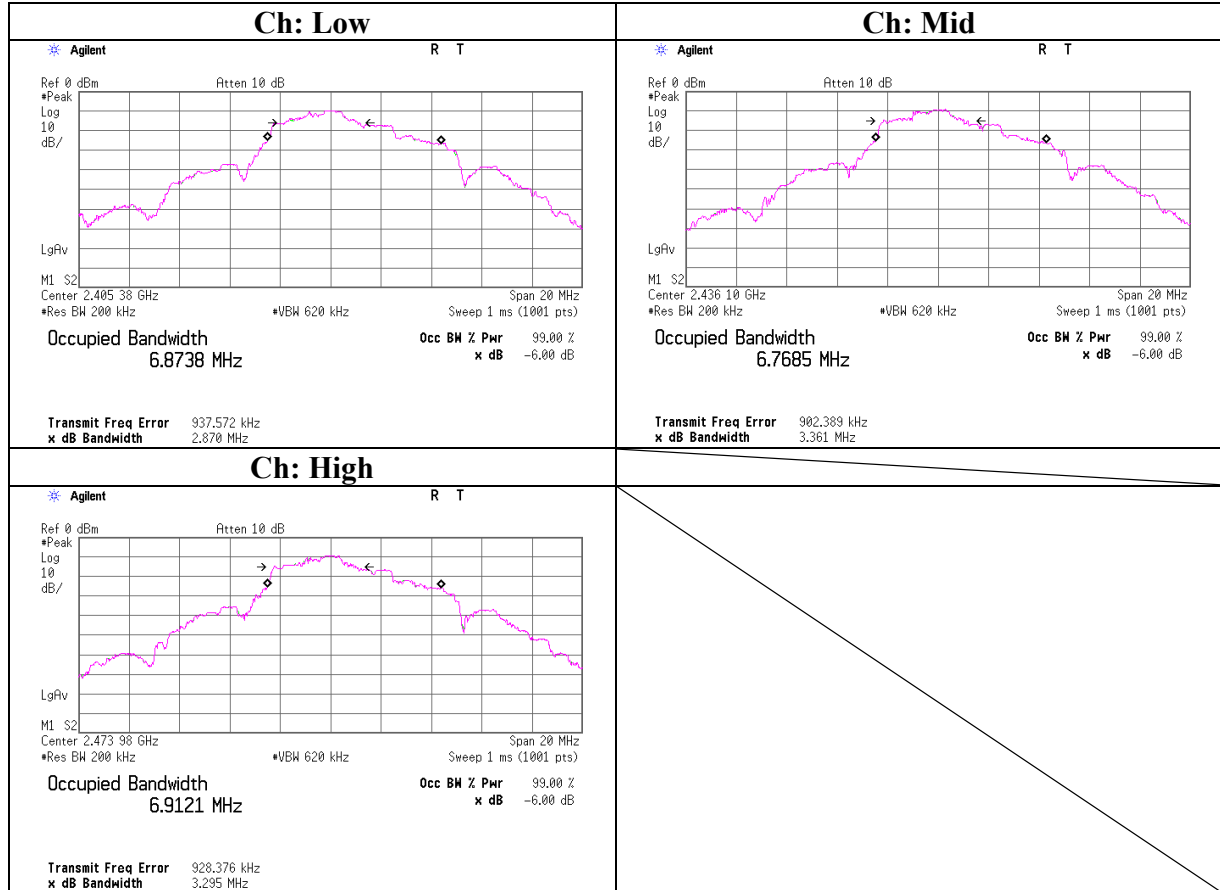
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

Power Density



99% Occupied Bandwidth



APPENDIX 3:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE/CE	2008/04/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	RE/CE	2007/12/27 * 12
MJM-05	Measure	PROMART	SEN1955	RE/CE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	-
MRENT-62	Spectrum Analyzer	Agilent	E4448A	RE	2007/11/27 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2008/01/19 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2008/05/12 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2008/09/17 * 12
MHA-02	Horn Antenna 18-26.5GHz	EMCO	3160-09	RE	2008/01/19 * 12
MCC-77	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	RE	2007/12/10 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE/CE	2008/04/02 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/10/21 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2007/10/21 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2008/02/15 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2007/11/13 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2008/09/04 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2008/02/20 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2008/02/15 * 12
MSA-11	Spectrum Analyzer	Agilent	E4448A	AT	2008/06/24 * 12
MPM-13	Power Meter	Anritsu	ML2495A	AT	2008/08/13 * 12
MPSE-18	Power sensor	Anritsu	MA2411B	AT	2008/08/13 * 12
MCC-66	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	AT	2008/04/04 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2008/03/04 * 12
MOS-23	Thermo-Hygrometer	Custom	CTH-201	AT	2007/12/27 * 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**

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