

APPENDIX 2: Data of EMI test

Conducted Emission
Tx, Ch: Low

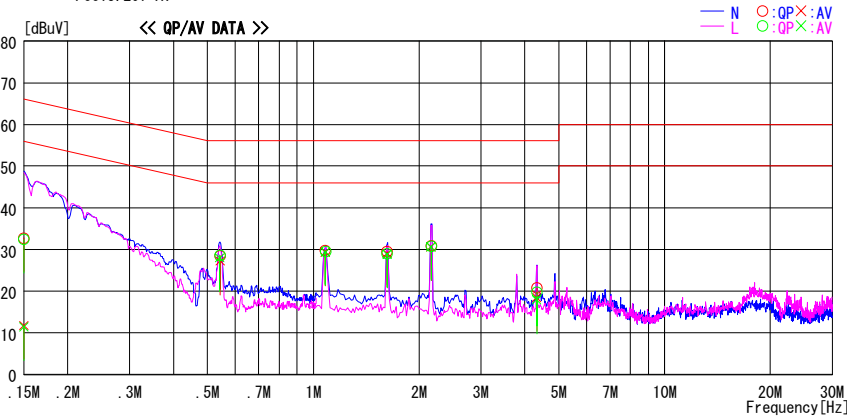
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2009/01/26

Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-10
Report No. : 29EE0176-HO-01
Power : AC120V/60Hz
Temp./Humi. : 23deg. C / 35%
Engineer : Keisuke Kawamura

Mode / Remarks : Tx, 2405.376MHz

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	32.4	11.4	0.3	32.7	11.7	66.0	56.0	33.3	44.3	N	
0.54290	28.2	26.9	0.3	28.5	27.2	56.0	46.0	27.5	18.8	N	
1.08160	29.4	28.9	0.4	29.8	29.3	56.0	46.0	26.2	16.7	N	
1.62370	29.0	28.5	0.5	29.5	29.0	56.0	46.0	26.5	17.0	N	
2.16520	30.4	30.1	0.5	30.9	30.6	56.0	46.0	25.1	15.4	N	
4.32940	20.0	17.6	0.8	20.8	18.4	56.0	46.0	35.2	27.6	N	
0.15000	32.1	11.1	0.3	32.4	11.4	66.0	56.0	33.6	44.6	L	
0.54110	28.3	27.6	0.3	28.6	27.9	56.0	46.0	27.4	18.1	L	
1.08310	29.1	29.0	0.4	29.5	29.4	56.0	46.0	26.5	16.6	L	
1.62320	28.5	28.3	0.5	29.0	28.8	56.0	46.0	27.0	17.2	L	
2.16500	30.3	30.1	0.5	30.8	30.6	56.0	46.0	25.2	15.4	L	
4.32990	18.9	17.0	0.8	19.7	17.8	56.0	46.0	36.3	28.2	L	

CHART:WITH FACTOR,Peak hold data. CALCURATION: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.

Conducted Emission

Tx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2009/01/26

Company : YAMAHA CORPORATION

Kind of EUT : Portable Player Dock

Model No. : PDX-60

Serial No. : ES-10

Report No. : 29EE0176-HO-01

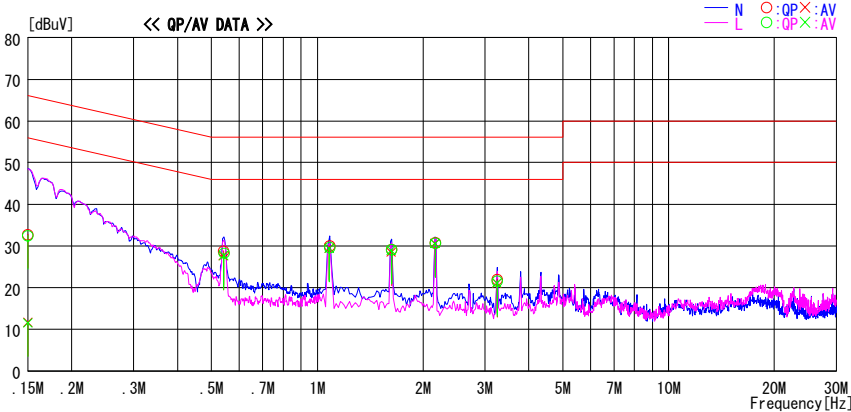
Power : AC120V/60Hz

Temp./Humi. : 23deg. C / 35%

Engineer : Keisuke Kawamura

Mode / Remarks : Tx, 2436.096MHz

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	32.4	11.3	0.3	32.7	11.6	66.0	56.0	33.3	44.4	N	
0.54026	28.5	27.3	0.3	28.8	27.6	56.0	46.0	27.2	18.4	N	
1.08220	29.6	29.1	0.4	30.0	29.5	56.0	46.0	26.0	16.5	N	
1.62500	28.6	28.0	0.5	29.1	28.5	56.0	46.0	26.9	17.5	N	
2.16480	30.3	30.1	0.5	30.8	30.6	56.0	46.0	25.2	15.4	N	
3.24850	21.3	20.3	0.7	22.0	21.0	56.0	46.0	34.0	25.0	N	
0.15000	32.2	11.2	0.3	32.5	11.5	66.0	56.0	33.5	44.5	L	
0.54220	28.0	27.3	0.3	28.3	27.6	56.0	46.0	27.7	18.4	L	
1.08230	29.2	29.0	0.4	29.6	29.4	56.0	46.0	26.4	16.6	L	
1.62390	28.6	28.4	0.5	29.1	28.9	56.0	46.0	26.9	17.1	L	
2.16530	30.2	30.0	0.5	30.7	30.5	56.0	46.0	25.3	15.5	L	
3.24690	20.9	20.4	0.7	21.6	21.1	56.0	46.0	34.4	24.9	L	

CHART:WITH FACTOR, Peak hold data. CALCURATION: 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.

Conducted Emission Tx, Ch: High

DATA OF CONDUCTED EMISSION TEST

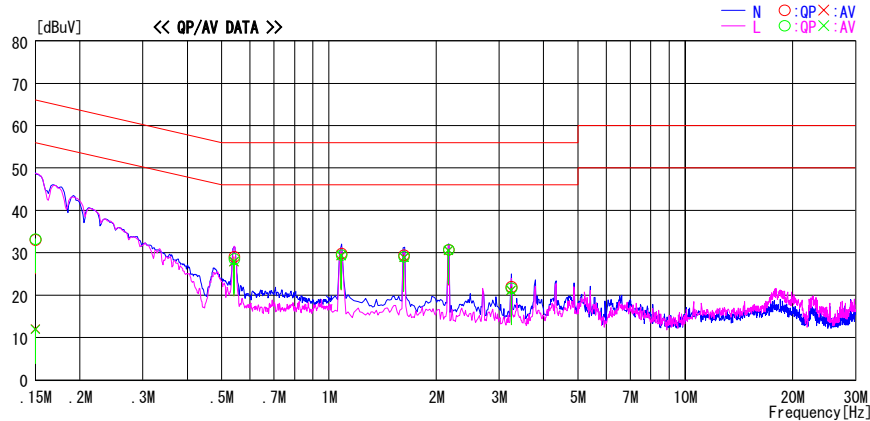
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/01/26

Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-10

Report No. : 29EE0176-HO-01
Power : AC120V/60Hz
Temp./Humi. : 23deg. C / 35%
Engineer : Keisuke Kawamura

Mode / Remarks : Tx, 2473.984MHz

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]		
0.15000	32.8	11.7	0.3	33.1	12.0	66.0	56.0	32.9	44.0	N	
0.54180	28.8	27.6	0.3	29.1	27.9	56.0	46.0	26.9	18.1	N	
0.15000	33.0	11.6	0.3	33.3	11.9	66.0	56.0	32.7	44.1	L	
0.54140	28.2	27.6	0.3	28.5	27.9	56.0	46.0	27.5	18.1	L	
1.08340	29.4	28.9	0.4	29.8	29.3	56.0	46.0	26.2	16.7	N	
1.08200	29.1	29.0	0.4	29.5	29.4	56.0	46.0	26.5	16.6	L	
1.62350	29.0	28.4	0.5	29.5	28.9	56.0	46.0	26.5	17.1	N	
1.62377	28.6	28.4	0.5	29.1	28.9	56.0	46.0	26.9	17.1	L	
2.16440	30.2	30.0	0.5	30.7	30.5	56.0	46.0	25.3	15.5	N	
2.16500	30.2	30.1	0.5	30.7	30.6	56.0	46.0	25.3	15.4	L	
3.24860	21.3	20.4	0.7	22.0	21.1	56.0	46.0	34.0	24.9	N	
3.24680	21.0	20.4	0.7	21.7	21.1	56.0	46.0	34.3	24.9	L	

CHART:WITH FACTOR,Peak hold data. CALCURATION: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.

Conducted Emission Rx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

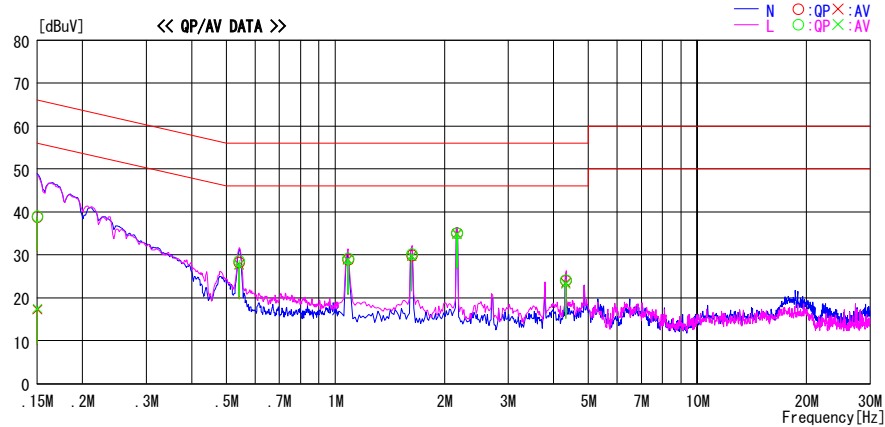
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/01/27

Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-10

Report No. : 29EE0176-HO-01
Power : AC120V/60Hz
Temp./Humi. : 23deg. C / 35%
Engineer : Keisuke Kawamura

Mode / Remarks : Rx, 2436.096MHz

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]		
0.15000	38.7	17.1	0.3	39.0	17.4	66.0	56.0	27.0	38.6	L	
0.54130	28.3	27.4	0.3	28.6	27.7	56.0	46.0	27.4	18.3	L	
1.08250	28.8	28.4	0.4	29.2	28.8	56.0	46.0	26.8	17.2	L	
1.62470	29.7	29.2	0.5	30.2	29.7	56.0	46.0	25.8	16.3	L	
2.16580	34.6	34.3	0.5	35.1	34.8	56.0	46.0	20.9	11.2	L	
4.33100	23.4	22.4	0.8	24.2	23.2	56.0	46.0	31.8	22.8	L	
0.15000	38.6	16.9	0.3	38.9	17.2	66.0	56.0	27.1	38.8	N	
0.54200	27.9	27.4	0.3	28.2	27.7	56.0	46.0	27.8	18.3	N	
1.08300	28.5	28.5	0.4	28.9	28.9	56.0	46.0	27.1	17.1	N	
1.62380	29.4	29.2	0.5	29.9	29.7	56.0	46.0	26.1	16.3	N	
2.16600	34.6	34.4	0.5	35.1	34.9	56.0	46.0	20.9	11.1	N	
4.33200	23.2	22.6	0.8	24.0	23.4	56.0	46.0	32.0	22.6	N	

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

6dB Bandwidth

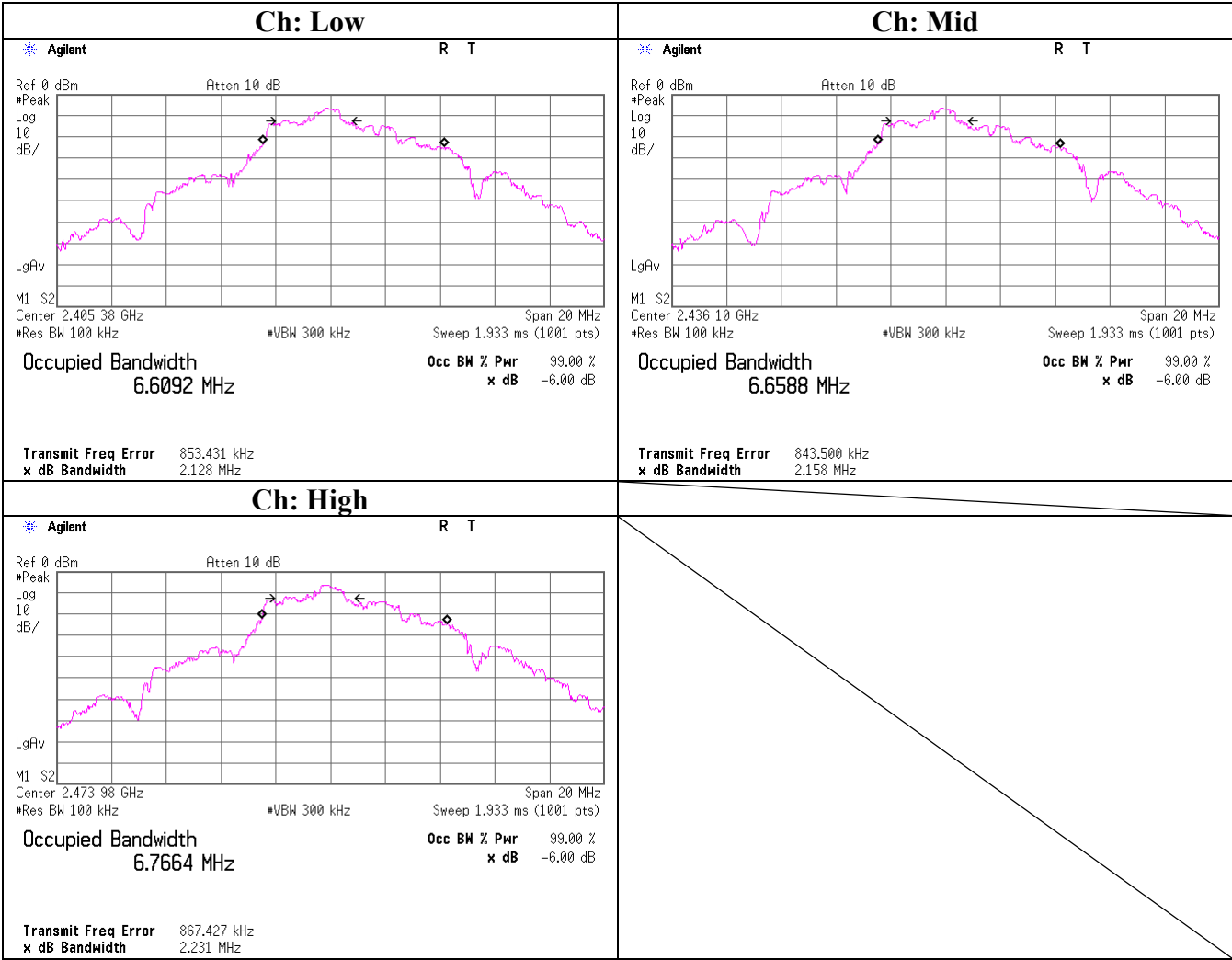
UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

Company : YAMAHA CORPORATION
Equipment : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-11
Power : AC120V/60Hz
Mode : Tx (Ch L, M, H)

Test Report No. : 29EE0176-HO-01
Regulation : FCC15.247(a)(2)/RSS-210A8.2(a)
Test distance : -
Date : 01/26/2009
Temperature : 22deg.C.
Humidity : 36%
Engineer : Katsunori Okai

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2405.4	2.128	>500
Mid	2436.1	2.158	>500
High	2474.0	2.231	>500

6dB Bandwidth



Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.6 Shielded Room

Company : YAMAHA CORPORATION
Equipment : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-11
Power : AC120V/60Hz
Mode : Tx (Ch L, M, H)

Test Report No. : 29EE0176-HO-01
Regulation : FCC15.247(b)(3)/RSS-210A8.4(4)
Test distance : -
Date : 01/26/2009
Temperature : 22deg.C.
Humidity : 36%
Engineer : Katsunori Okai

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin
					[dBm]	[mW]	[dBm]	[mW]	
Low	2405.4	-5.36	1.85	10.09	6.58	4.55	30.00	1000	23.42
Mid	2436.1	-5.27	1.85	10.09	6.67	4.65	30.00	1000	23.33
High	2474.0	-5.18	1.86	10.09	6.77	4.75	30.00	1000	23.23

Sample Calculation:

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

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 : 2009/01/27

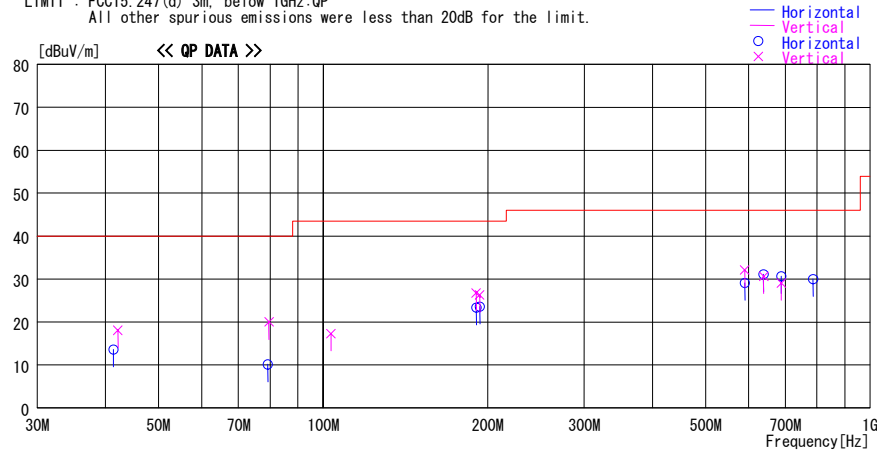
Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-10

Report No. : 29EE0176-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 32%
Engineer : Takayuki Shimada

Mode / Remarks : Tx, 2436.096MHz

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

All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
41.350	22.1	QP	13.3	-21.8	13.6	0	100	Hori.	40.0	26.4	
42.150	26.9	QP	13.0	-21.8	18.1	0	100	Vert.	40.0	21.9	
79.201	24.9	QP	6.6	-21.4	10.1	100	100	Hori.	40.0	29.9	
79.623	34.8	QP	6.6	-21.4	20.0	223	100	Vert.	40.0	20.0	
103.356	27.4	QP	10.8	-20.9	17.3	278	100	Vert.	43.5	26.2	
190.548	26.9	QP	16.4	-19.9	23.4	227	169	Hori.	43.5	20.1	
190.548	30.2	QP	16.4	-19.9	26.7	65	100	Vert.	43.5	16.8	
193.264	27.0	QP	16.5	-19.9	23.6	225	169	Hori.	43.5	19.9	
193.270	29.7	QP	16.5	-19.9	26.3	57	100	Vert.	43.5	17.2	
589.794	28.8	QP	19.1	-18.8	29.1	3	257	Hori.	46.0	16.9	
589.801	31.8	QP	19.1	-18.8	32.1	327	100	Vert.	46.0	13.9	
638.954	29.7	QP	19.4	-18.5	30.6	317	100	Vert.	46.0	15.4	
638.954	30.2	QP	19.4	-18.5	31.1	345	225	Hori.	46.0	14.9	
688.095	29.2	QP	19.7	-18.3	30.6	0	203	Hori.	46.0	15.4	
688.100	27.7	QP	19.7	-18.3	29.1	100	100	Vert.	46.0	16.9	
786.395	26.0	QP	21.5	-17.5	30.0	244	100	Hori.	46.0	16.0	

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

*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 : 2009/01/27

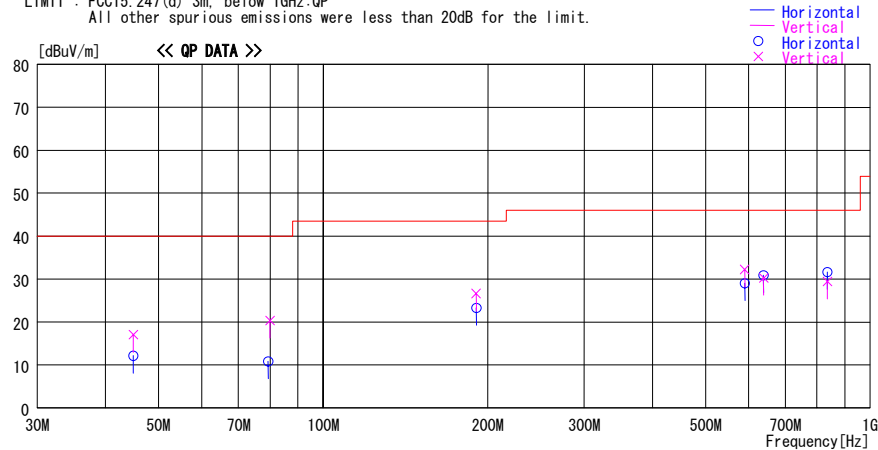
Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-10

Report No. : 29EE0176-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 32%
Engineer : Takayuki Shimada

Mode / Remarks : Tx, 2473.984MHz

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

All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
44.976	22.0	QP	11.9	-21.8	12.1	0	300	Hori.	40.0	27.9	
44.976	26.9	QP	11.9	-21.8	17.0	0	100	Vert.	40.0	23.0	
79.287	25.6	QP	6.6	-21.4	10.8	0	234	Hori.	40.0	29.2	
79.941	35.1	QP	6.6	-21.4	20.3	219	100	Vert.	40.0	19.7	
190.556	30.1	QP	16.4	-19.9	26.6	55	100	Vert.	43.5	16.9	
190.552	26.8	QP	16.4	-19.9	23.3	227	162	Hori.	43.5	20.2	
589.796	28.7	QP	19.1	-18.8	29.0	0	262	Hori.	46.0	17.0	
589.798	31.9	QP	19.1	-18.8	32.2	327	100	Vert.	46.0	13.8	
638.952	30.0	QP	19.4	-18.5	30.9	324	100	Hori.	46.0	15.1	
638.959	29.4	QP	19.4	-18.5	30.3	316	100	Vert.	46.0	15.7	
835.548	27.3	QP	21.6	-17.3	31.6	134	100	Hori.	46.0	14.4	
835.548	25.1	QP	21.6	-17.3	29.4	336	125	Vert.	46.0	16.6	

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

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

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 : 2009/01/27

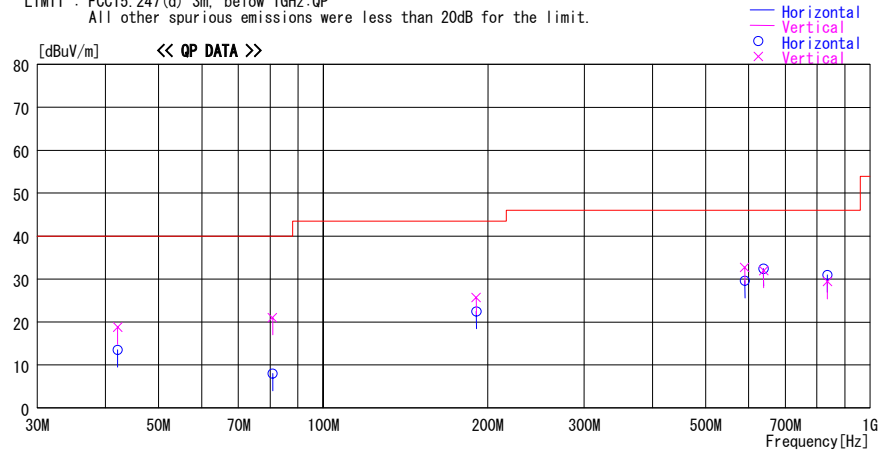
Company : YAMAHA CORPORATION
Kind of EUT : Portable Player Dock
Model No. : PDX-60
Serial No. : ES-10

Report No. : 29EE0176-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 32%
Engineer : Takayuki Shimada

Mode / Remarks : Rx, 2436.096MHz

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

All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
42.113	22.3	QP	13.0	-21.8	13.5	0	294	Hori.	40.0	26.5	
42.113	27.6	QP	13.0	-21.8	18.8	0	100	Vert.	40.0	21.2	
80.805	22.6	QP	6.7	-21.3	8.0	0	242	Hori.	40.0	32.0	
80.805	35.6	QP	6.7	-21.3	21.0	220	100	Vert.	40.0	19.0	
190.528	29.2	QP	16.4	-19.9	25.7	49	100	Vert.	43.5	17.8	
190.528	26.0	QP	16.4	-19.9	22.5	232	163	Hori.	43.5	21.0	
589.796	29.3	QP	19.1	-18.8	29.6	0	263	Hori.	46.0	16.4	
589.798	32.4	QP	19.1	-18.8	32.7	330	100	Vert.	46.0	13.3	
638.952	31.5	QP	19.4	-18.5	32.4	344	226	Hori.	46.0	13.6	
638.952	31.1	QP	19.4	-18.5	32.0	316	100	Vert.	46.0	14.0	
835.545	26.7	QP	21.6	-17.3	31.0	142	100	Hori.	46.0	15.0	
835.548	25.1	QP	21.6	-17.3	29.4	329	120	Vert.	46.0	16.6	

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

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

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

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

Company	: YAMAHA CORPORATION	REPORT NO	: 29EE0176-HO-01
Equipment	: Portable Player Dock	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: PDX-60	TEST DISTANCE	: 3/1m
Sample No.	: ES-10	DATE	: 01/26/2009 : 01/27/2009
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C : 23deg.C.
Mode	: Tx, 2405.376MHz	HUMIDITY	: 35% : 32%
Remarks	: Normal-axis	ENGINEER	: Keisuke Kawamura : 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
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.0	44.3	41.7	26.8	32.4	2.6	0.0	41.3	38.7	73.9	32.6	35.2
2	4810.8	47.0	47.1	31.2	31.4	3.9	1.1	51.8	51.9	73.9	22.1	22.0
3	7216.1	40.4	39.7	35.5	31.2	4.4	1.1	50.2	49.5	73.9	23.7	24.4
4	9621.5	40.0	40.2	38.6	32.0	5.2	1.3	53.1	53.3	73.9	20.8	20.6
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12026.9	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14432.3	NS	NS	-	-	-	-	-	-	73.9	-	-
7	16837.6	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19243.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	21648.4	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24053.8	42.6	41.6	39.9	29.0	7.9	0.0	51.9	50.9	73.9	22.0	23.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	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	2390.0	32.8	29.0	26.8	32.4	2.6	0.0	29.8	26.0	53.9	24.1	27.9
2	4810.8	39.6	40.1	31.2	31.4	3.9	1.1	44.4	44.9	53.9	9.5	9.0
3	7216.1	26.4	26.4	35.5	31.2	4.4	1.1	36.2	36.2	53.9	17.7	17.7
4	9621.5	27.0	27.1	38.6	32.0	5.2	1.3	40.1	40.2	53.9	13.8	13.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12026.9	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14432.3	NS	NS	-	-	-	-	-	-	53.9	-	-
7	16837.6	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19243.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	21648.4	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24053.8	29.2	29.2	39.9	29.0	7.9	0.0	38.5	38.5	53.9	15.4	15.4

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]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2405.4	100.6	97.4	26.9	32.4	2.6	0.0	97.7	94.5	-	-	-
2	2400.0	64.6	62.2	30.9	39.9	5.5	0.0	61.1	58.7	Funda-20dB	16.6	15.8

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

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

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

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

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

*NS: Non Signal

Radiated Spurious Emission

Tx, Ch: Mid

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

Company : YAMAHA CORPORATION	REPORT NO : 29EE0176-HO-01
Equipment : Portable Player Dock	REGULATION : FCC15.247(d)/RSS-210A8.5
Model : PDX-60	TEST DISTANCE : 3/1m
Sample No. : ES-10	DATE : 01/26/2009 : 01/27/2009
Power : AC 120 V / 60 Hz	TEMPERATURE : 23deg.C : 23deg.C.
Mode : Tx, 2436.096MHz	HUMIDITY : 35% : 32%
Remarks : Normal-axis	ENGINEER : Keisuke Kawamura : 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
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4872.2	48.8	47.6	31.3	31.3	4.0	1.1	53.9	52.7	73.9	20.0	21.2
2	7308.3	40.8	39.1	35.7	31.2	4.4	1.1	50.8	49.1	73.9	23.1	24.8
3	9744.4	41.4	40.0	38.7	32.0	5.2	1.3	54.6	53.2	73.9	19.3	20.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12180.5	NS	NS	-	-	-	-	-	-	73.9	-	-
5	14616.6	NS	NS	-	-	-	-	-	-	73.9	-	-
6	17052.7	NS	NS	-	-	-	-	-	-	73.9	-	-
7	19488.8	NS	NS	-	-	-	-	-	-	73.9	-	-
8	21924.9	NS	NS	-	-	-	-	-	-	73.9	-	-
9	24361.0	43.1	43.3	40.1	29.0	8.0	0.0	52.7	52.9	73.9	21.2	21.0

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]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4872.2	40.4	39.3	31.3	31.3	4.0	1.1	45.5	44.4	53.9	8.4	9.5
2	7308.3	27.8	26.2	35.7	31.2	4.4	1.1	37.8	36.2	53.9	16.1	17.7
3	9744.4	28.6	27.1	38.7	32.0	5.2	1.3	41.8	40.3	53.9	12.1	13.6
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12180.5	NS	NS	-	-	-	-	-	-	53.9	-	-
5	14616.6	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17052.7	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19488.8	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21924.9	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24361.0	30.5	30.5	40.1	29.0	8.0	0.0	40.1	40.1	53.9	13.8	13.8

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

Radiated Spurious Emission
Tx, Ch: High

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

Company : YAMAHA CORPORATION
Equipment : Portable Player Dock
Model : PDX-60
Sample No. : ES-10
Power : AC 120 V / 60 Hz
Mode : Tx, 2473.984
Remarks : Normal-axis

REPORT NO : 29EE0176-HO-01
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 01/26/2009 : 01/27/2009
TEMPERATURE : 23deg.C : 23deg.C.
HUMIDITY : 35% : 32%
ENGINEER : Keisuke Kawamura : 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
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	49.2	47.9	27.0	32.4	2.7	0.0	46.5	45.2	73.9	27.4	28.7
2	4948.0	51.5	47.0	31.4	31.3	4.0	1.1	56.7	52.2	73.9	17.2	21.7
3	7422.0	40.0	39.3	36.0	31.2	4.5	1.1	50.4	49.7	73.9	23.5	24.2
4	9895.9	40.8	41.1	38.8	32.0	5.2	1.3	54.1	54.4	73.9	19.8	19.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12369.9	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14843.9	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17317.9	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19791.9	NS	NS	-	-	-	-	-	-	73.9	-	-
9	22265.9	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24739.8	43.6	42.7	40.4	28.9	8.2	0.0	53.8	52.9	73.9	20.1	21.0

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]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.5	39.7	37.3	27.0	32.4	2.7	0.0	37.0	34.6	53.9	16.9	19.3
2	4948.0	43.8	40.5	31.4	31.3	4.0	1.1	49.0	45.7	53.9	4.9	8.2
3	7422.0	26.1	26.2	36.0	31.2	4.5	1.1	36.5	36.6	53.9	17.4	17.3
4	9895.9	27.2	27.2	38.8	32.0	5.2	1.3	40.5	40.5	53.9	13.4	13.4
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12369.9	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14843.9	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17317.9	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19791.9	NS	NS	-	-	-	-	-	-	53.9	-	-
9	22265.9	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24739.8	30.1	30.1	40.4	28.9	8.2	0.0	40.3	40.3	53.9	13.6	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 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.

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

*NS: Non Signal

Radiated Spurious Emission
Rx, Ch: Mid

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

Company	: YAMAHA CORPORATION	REPORT NO	: 29EE0176-HO-01
Equipment	: Portable Player Dock	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: PDX-60	TEST DISTANCE	: 3/1m
Sample No.	: ES-10	DATE	: 01/26/2009
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C
Mode	: Rx, 2436.096	HUMIDITY	: 35%
Remarks	: Normal-axis	ENGINEER	: Keisuke Kawamura

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	41.1	42.9	26.9	32.4	2.6	0.0	38.2	40.0	73.9	35.7	33.9
2	4872.2	39.5	39.5	31.3	31.3	3.7	0.0	43.2	43.2	73.9	30.7	30.7
3	7308.3	39.0	38.9	35.7	31.2	4.0	0.0	47.5	47.4	73.9	26.4	26.5
4	9744.4	41.1	40.0	38.7	32.0	4.7	0.0	52.5	51.4	73.9	21.4	22.5

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

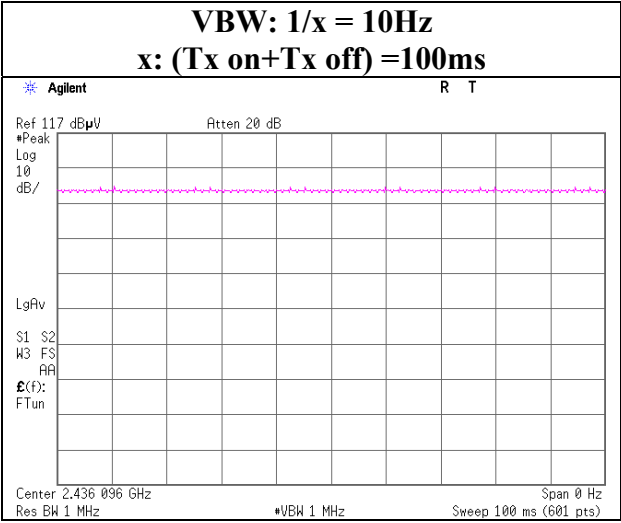
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2436.1	27.0	28.3	26.9	32.4	2.6	0.0	24.1	25.4	53.9	29.8	28.5
2	4872.2	26.1	26.1	31.3	31.3	3.7	0.0	29.8	29.8	53.9	24.1	24.1
3	7308.3	26.2	26.2	35.7	31.2	4.0	0.0	34.7	34.7	53.9	19.2	19.2
4	9744.4	27.0	26.8	38.7	32.0	4.7	0.0	38.4	38.2	53.9	15.5	15.7

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

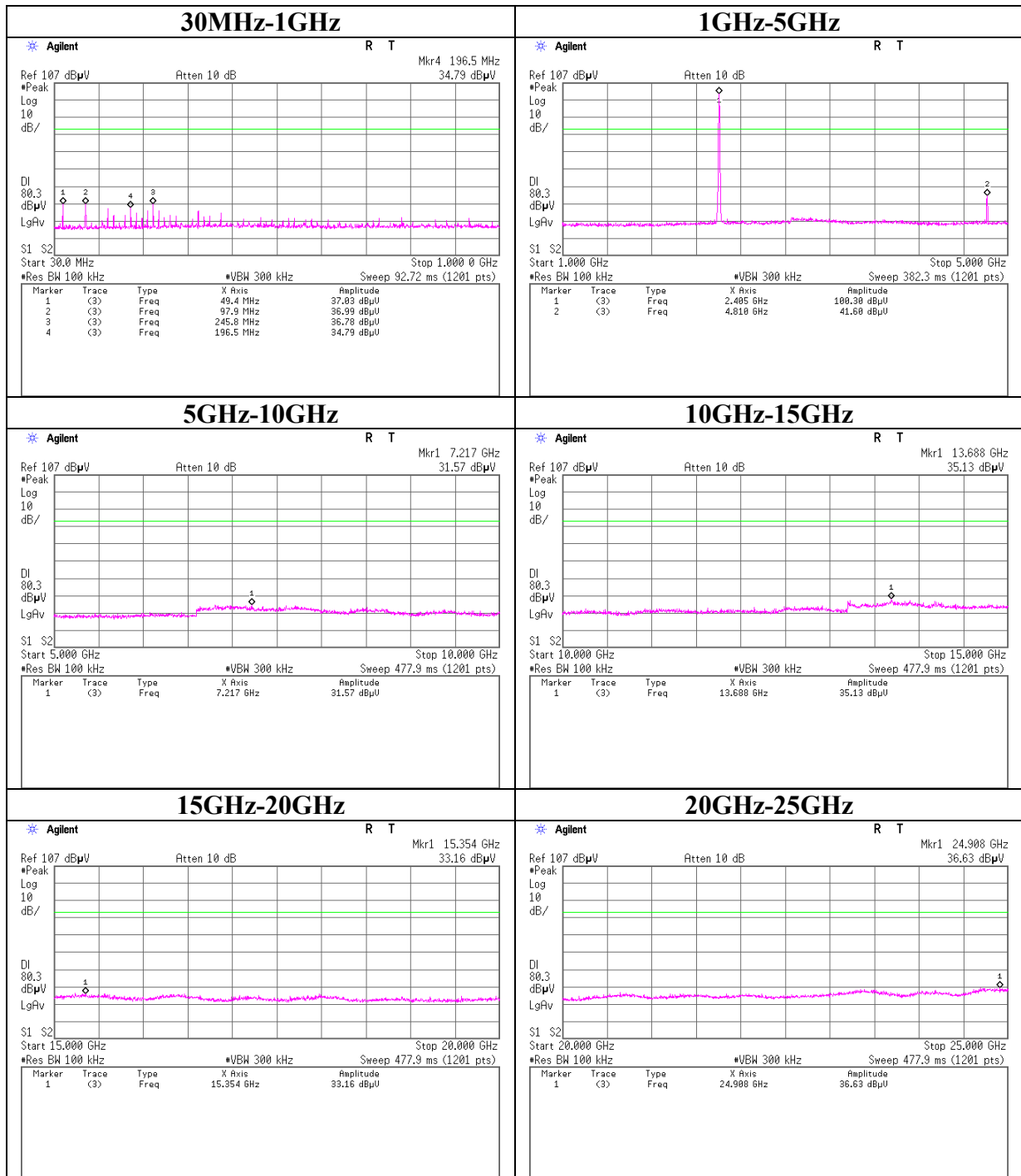
*The test result is round off to one or two decimal places, so some differences might be observed.

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

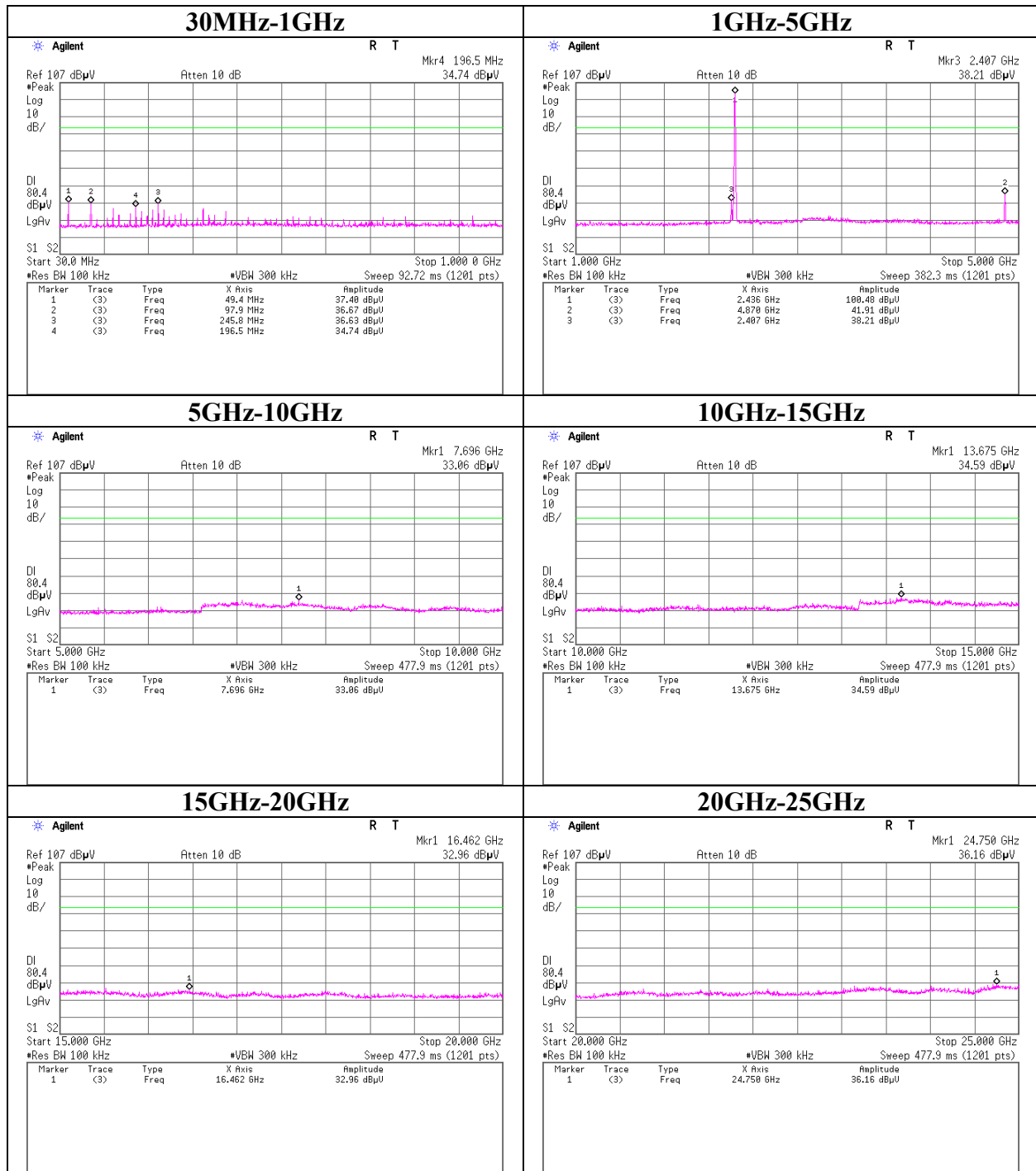
VBW (AV) Calculation



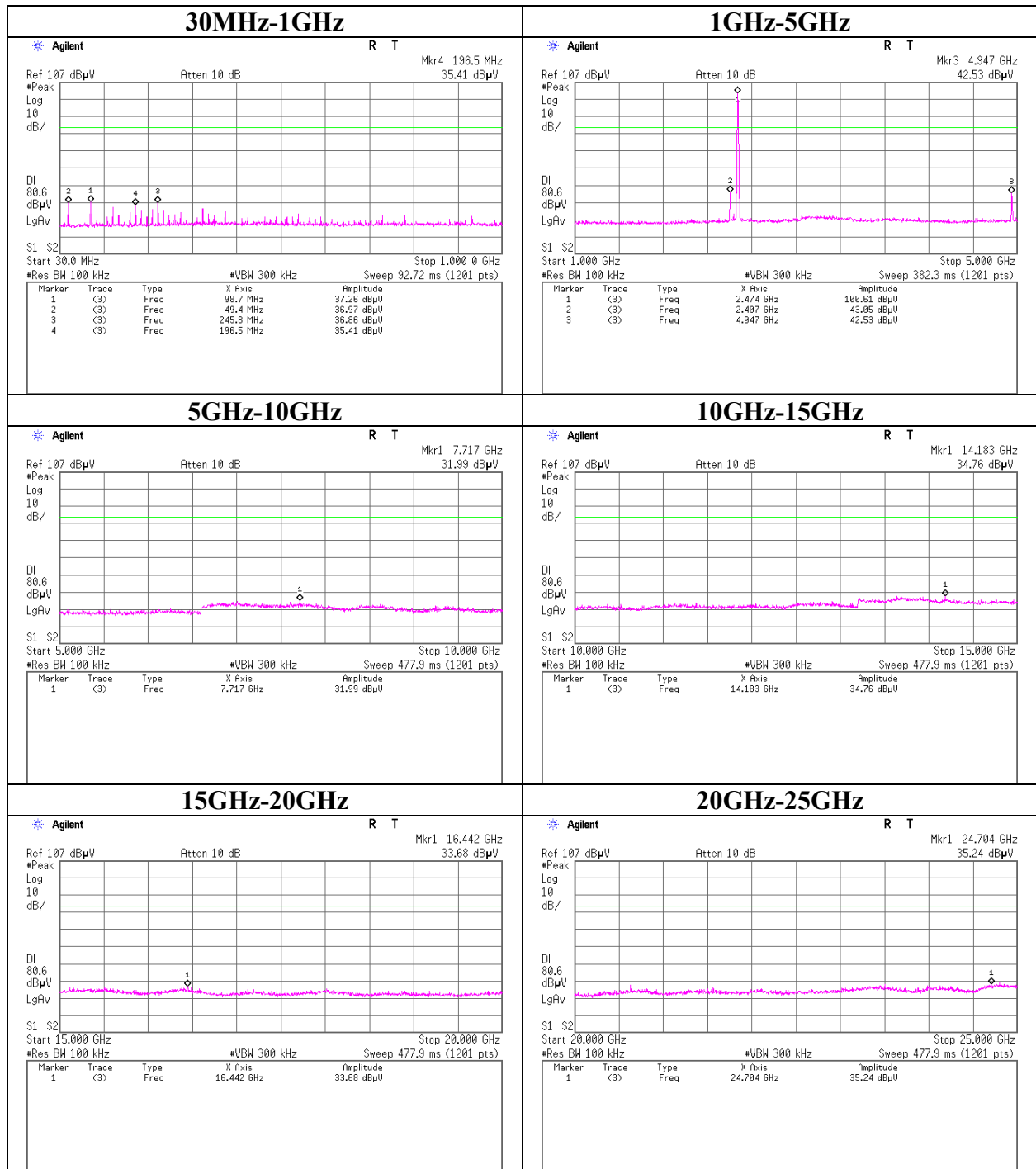
Conducted Spurious Emission
Tx, Ch: Low



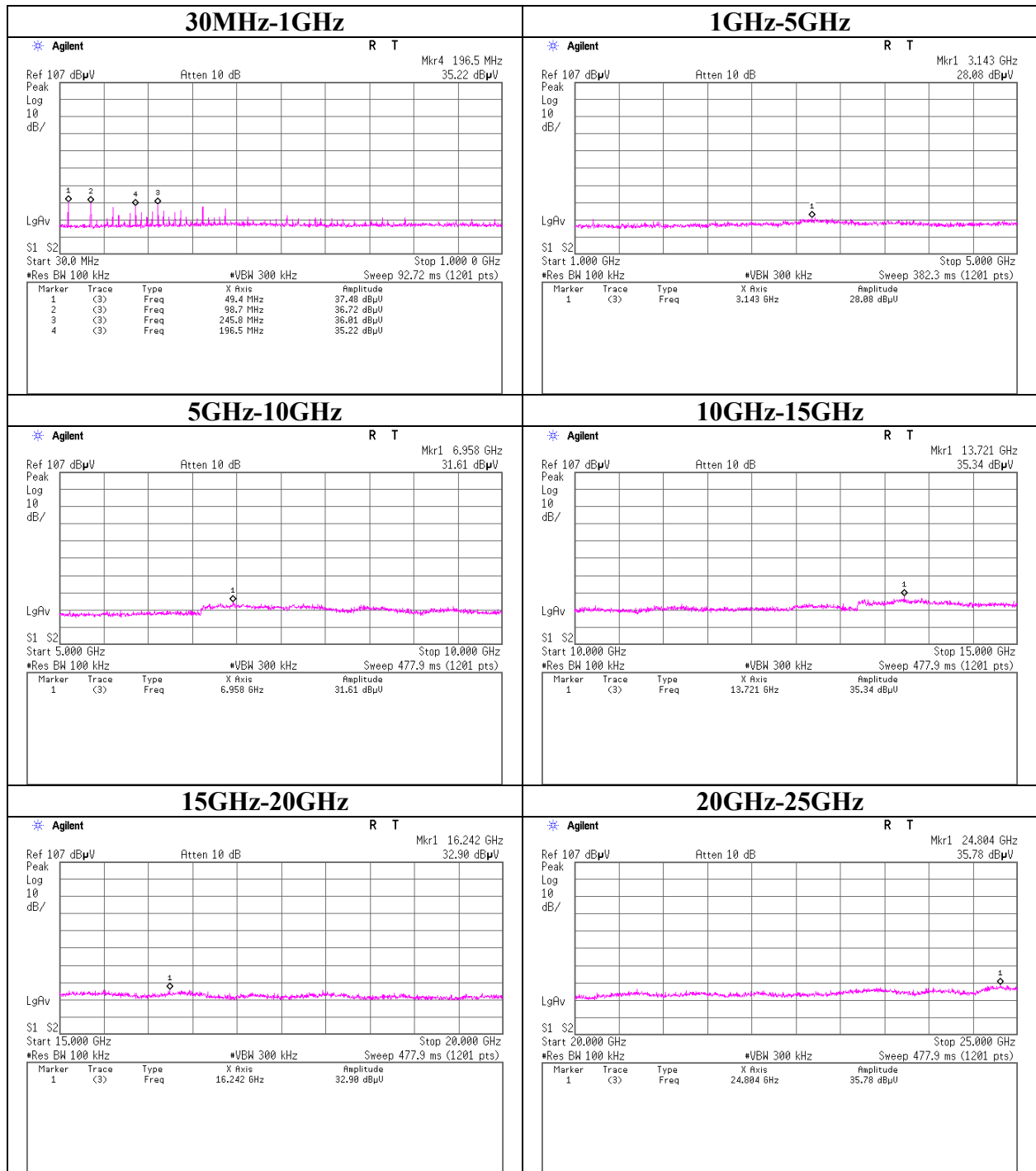
Conducted Spurious Emission
Tx, Ch: Mid



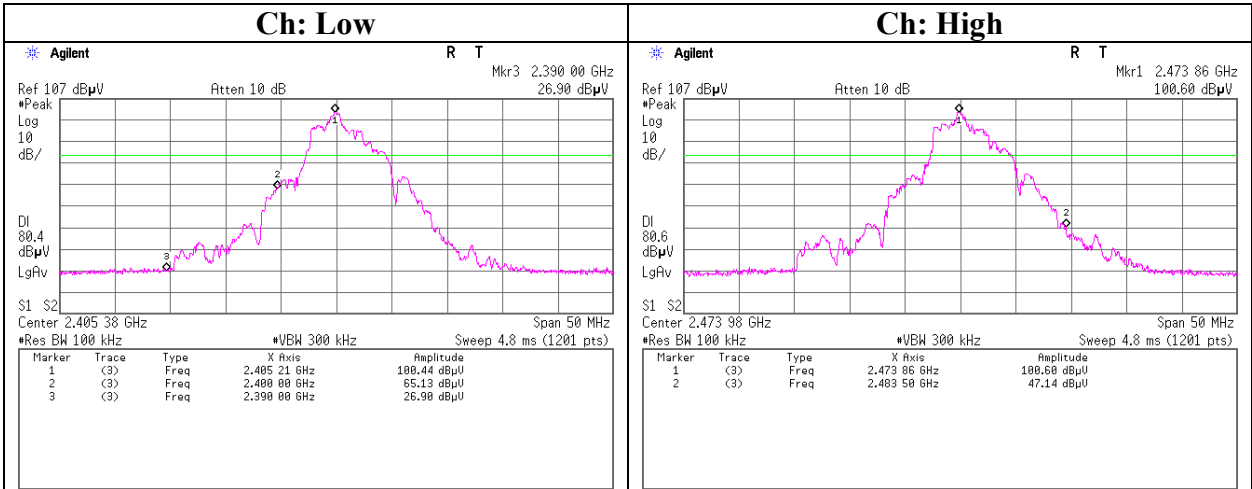
Conducted Spurious Emission
Tx, Ch: High



Conducted Spurious Emission
Rx, Ch: Mid



Conducted emission Band Edge compliance



Power Density

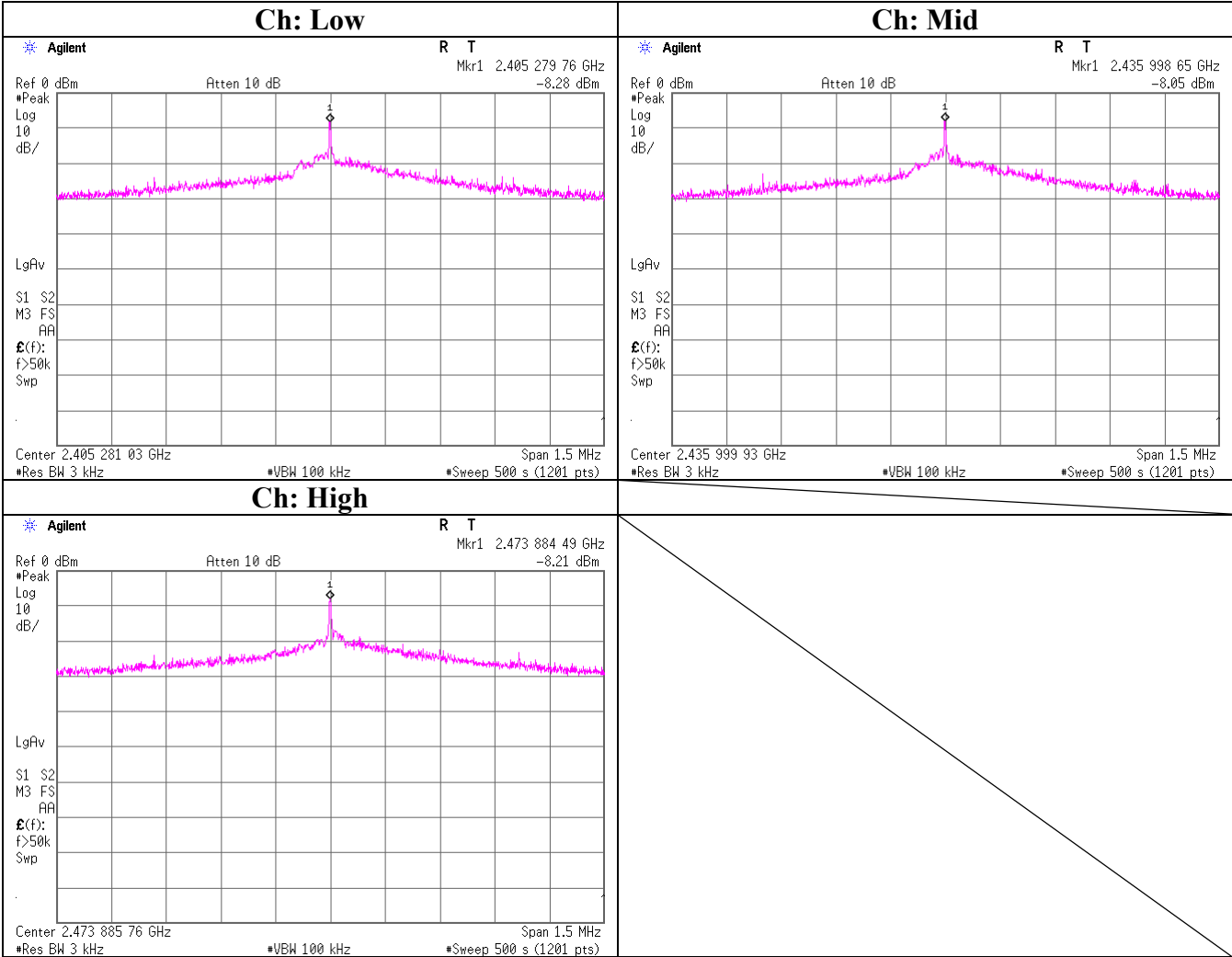
Company	: YAMAHA CORPORATION	UL Japan, Inc.
Equipment	: Portable Player Dock	Head Office EMC Lab. No.6 Shielded Room
Model No.	: PDX-60	Test Report No. : 29EE0176-HO-01
Serial No.	: ES-11	Regulation : FCC15.247(e)/RSS-210A8.2(b)
Power	: AC120V/60Hz	Test distance : -
Mode	: Tx (Ch L, M, H)	Date : 1/26/2009
		Temperature : 22deg.C.
		Humidity : 36%
		Engineer : Keisuke Kawamura

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2405.3	-8.28	1.85	10.09	3.7	8.0	4.3
Mid	2436.0	-8.05	1.85	10.09	3.9	8.0	4.1
High	2473.9	-8.21	1.86	10.09	3.7	8.0	4.3

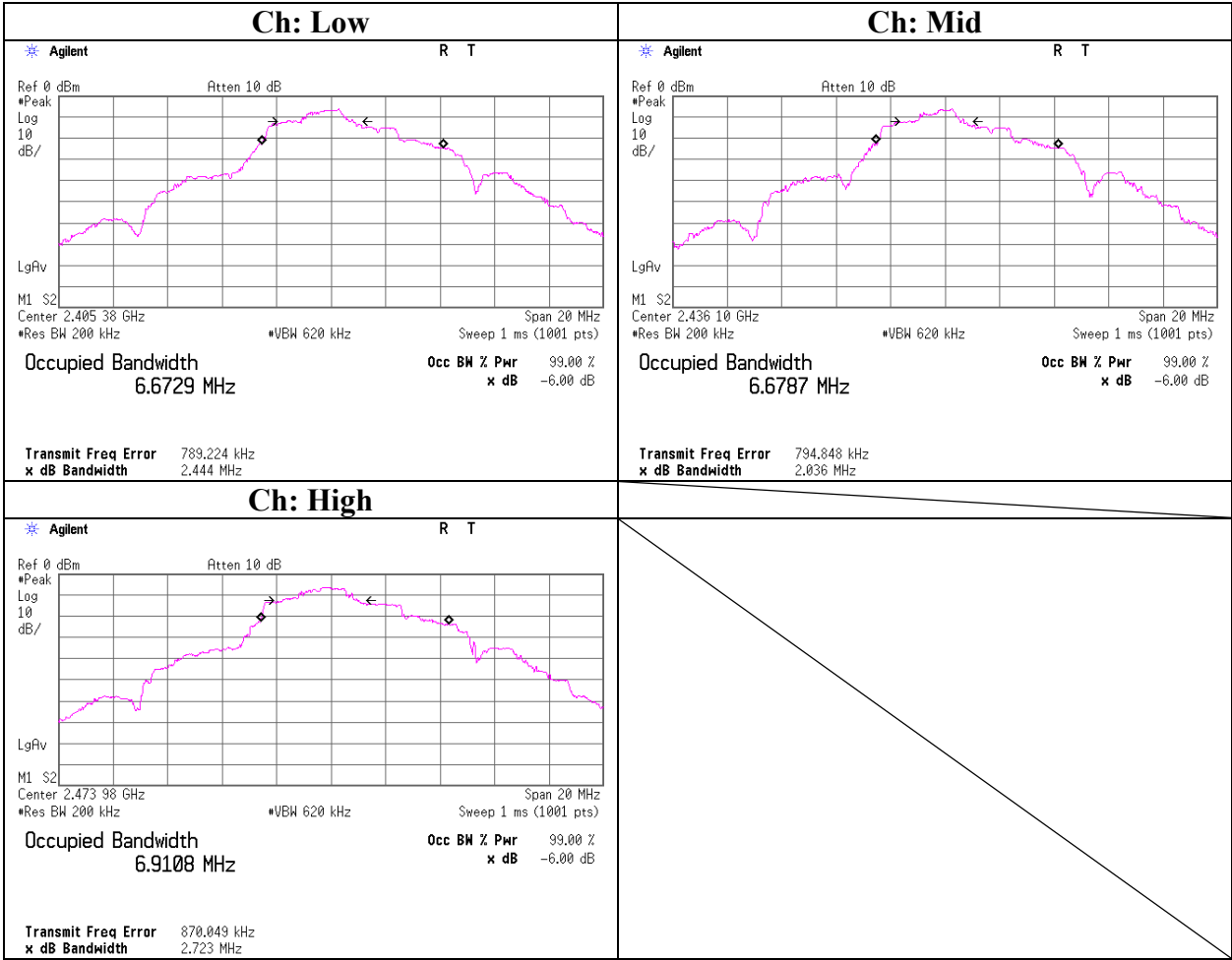
Sample Calculation:

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

Power Density



99%Occupied Bandwidth



APPENDIX 3: Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MOS-14	Thermo-Hygrometer	Custom	CTH-180	-	AT	2009/01/13 * 12
MPM-13	Power Meter	Anritsu	ML2495A	0824014	AT	2008/08/13 * 12
MPSE-18	Power sensor	Anritsu	MA2411B	0738174	AT	2008/08/13 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	-	AT	2008/03/04 * 12
MCC-66	Microwave Cable 1G-40GHz	Schner	SUCOFLEX102	28636/2	AT	2008/04/04 * 12
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	AT	2008/02/27 * 12
MAEC-02	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	CE/RE	2008/04/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	CE/RE	2008/12/08 * 12
MJM-05	Measure	PROMART	SEN1955	-	CE/RE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	-	CE/RE	-
MRENT-62	Spectrum Analyzer	Agilent	E4448A	MY46180856	CE/RE	2008/11/25 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	CE/RE	2008/04/02 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE(EUT)	2008/02/20 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	-	CE	2008/02/15 * 12
MHA-06	Horn Antenna 1- 18GHz	Schwarzbeck	BBHA9120D	254	RE	2008/01/19 * 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
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	7002	RE	2008/12/16 * 12
MCC-77	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278942/4	RE	2008/12/17 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA9103200 8	RE	2008/10/18 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2008/10/18 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2008/02/15 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2008/11/14 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2008/09/04 * 12
MHA-02	Horn Antenna 18-26.5GHz	EMCO	3160-09	1265	RE	2008/01/19 * 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