

APPENDIX 2: Data of EMI test

Conducted Emission

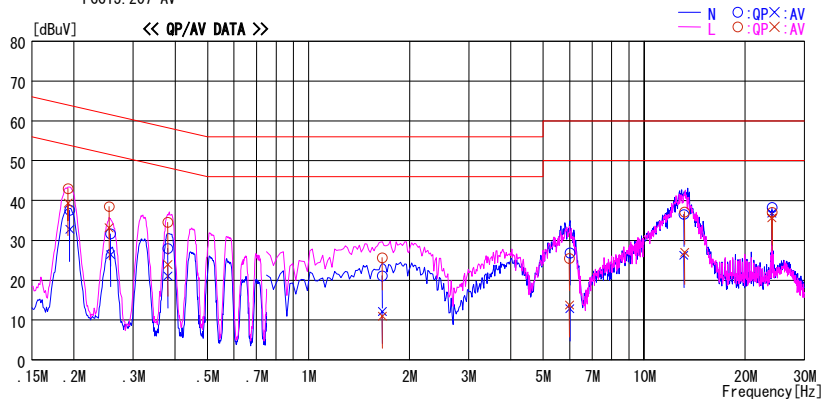
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company : YAMAHA Corporation
 Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER
 Model No. : YBA-10
 Serial No. : E10697XZ
 Report No. : 28EE0230-HO-2
 Power : AC 120V / 60Hz
 Temp./Humi. : 22deg. C / 33%
 Operator : Motoya Imura

Mode / Remarks : BT DH5 Tx 2402MHz

LIMIT : FCC15.207 QP
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.19420	37.4	32.6	0.2	37.6	32.8	63.9	53.9	26.3	21.1	N
0.25720	31.3	26.1	0.3	31.6	26.4	61.5	51.5	29.9	25.1	N
0.33094	27.7	20.8	0.3	28.0	21.1	58.3	48.3	30.3	27.2	N
1.65820	20.5	11.5	0.6	21.1	12.1	56.0	46.0	34.9	33.9	N
6.01430	25.7	11.7	1.1	26.8	12.8	60.0	50.0	33.2	37.2	N
13.12512	34.7	24.4	1.8	36.5	26.2	60.0	50.0	23.5	23.9	N
24.02840	35.7	34.3	2.5	38.2	36.8	60.0	50.0	21.8	13.2	N
0.19210	42.8	39.1	0.2	43.0	39.3	63.9	53.9	20.9	14.6	L
0.25455	38.2	32.9	0.3	38.5	33.2	61.6	51.6	23.1	18.4	L
0.38080	34.2	23.7	0.3	34.5	24.0	58.3	48.3	23.8	24.3	L
1.65840	25.0	10.4	0.6	25.6	11.0	56.0	46.0	30.4	35.0	L
5.99550	24.4	12.7	1.1	25.5	13.8	60.0	50.0	34.5	36.2	L
13.20670	35.3	25.2	1.8	37.1	27.0	60.0	50.0	22.9	23.0	L
24.02830	34.5	33.1	2.5	37.0	35.6	60.0	50.0	23.0	14.4	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 round off to one or two decimal places, so some differences might be observed.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company	: YAMAHA Corporation	Report No.	: 28EE0230-HO-2
Kind of EUT	: Bluetooth WIRELESS AUDIO RECEIVER	Power	: AC 120V / 60Hz
Model No.	: YBA-10	Temp./Humi.	: 22deg.C / 33%
Serial No.	: E10697XZ	Operator	: Motoya Imura

Mode / Remarks : BT DH5 Tx 2441MHz

LIMIT : FCC15.207 OP
FCC15.207 AV

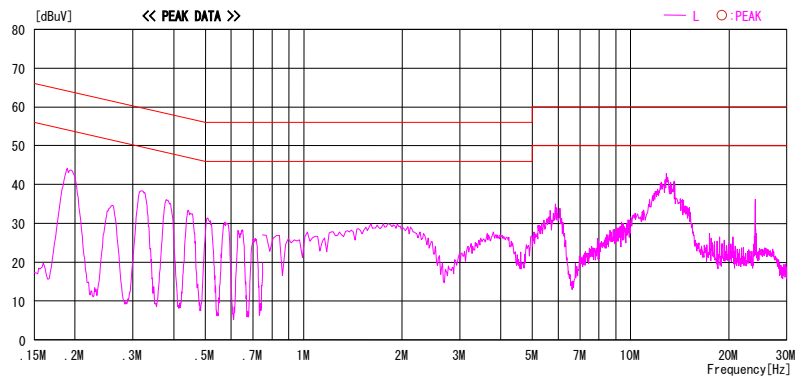
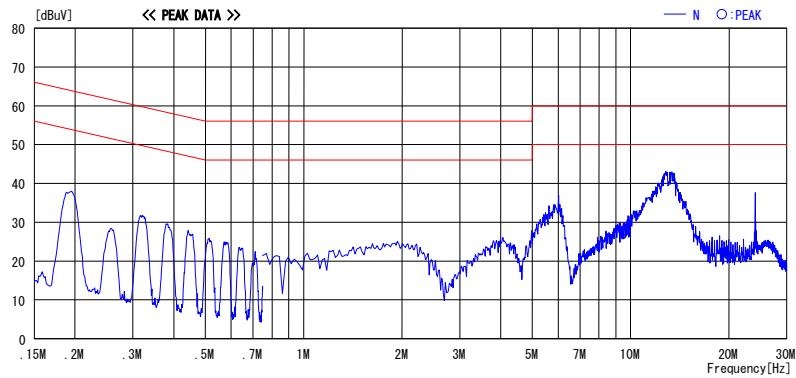


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C.F(dB) (LISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company	: YAMAHA Corporation	Report No.	: 28EE0230-HO-2
Kind of EUT	: Bluetooth WIRELESS AUDIO RECEIVER	Power	: AC 120V / 60Hz
Model No.	: YBA-10	Temp./Humi.	: 22deg.C / 33%
Serial No.	: E10697XZ	Operator	: Motoya Imura

Mode / Remarks: BT DH5 Tx 2480MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

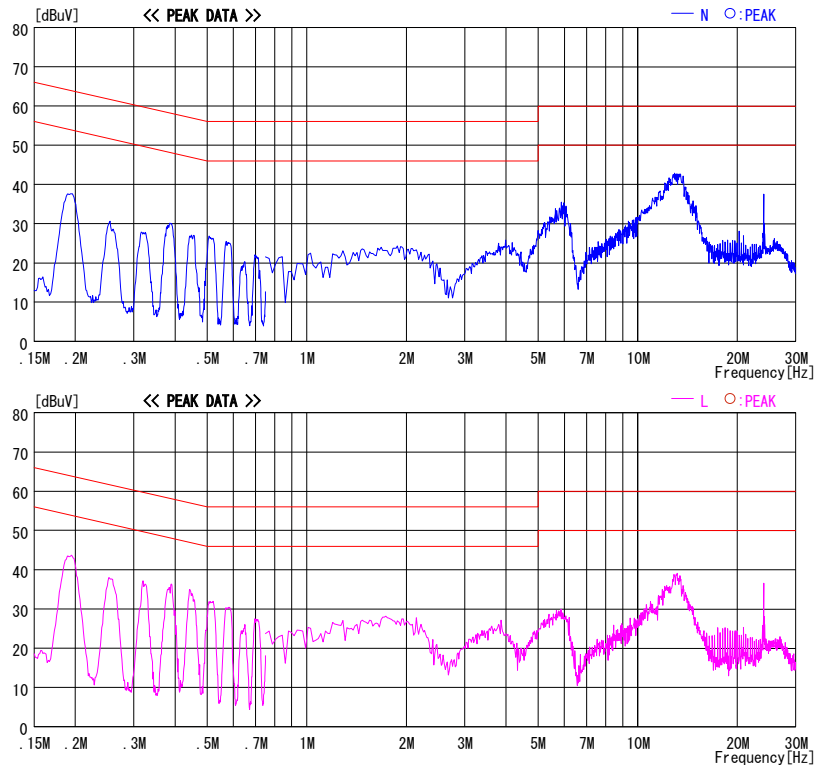


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company : YAMAHA Corporation	Report No. : 28EE0230-HO-2
Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER	Power : AC 120V / 60Hz
Model No. : YBA-10	Temp./Humi. : 22deg. C / 33%
Serial No. : E10697XZ	Operator : Motoya Imura

Mode / Remarks : BT Rx 2441MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

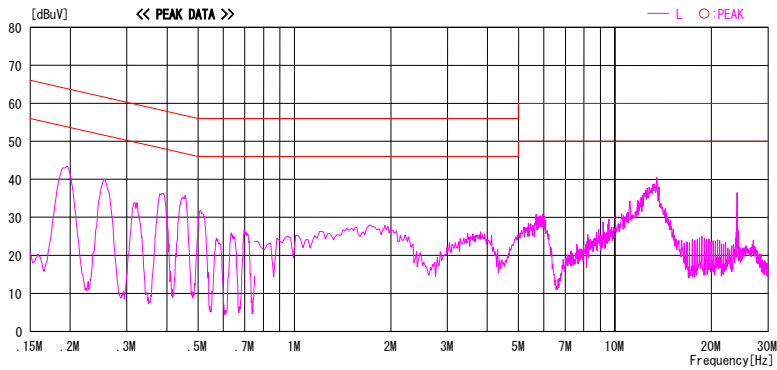
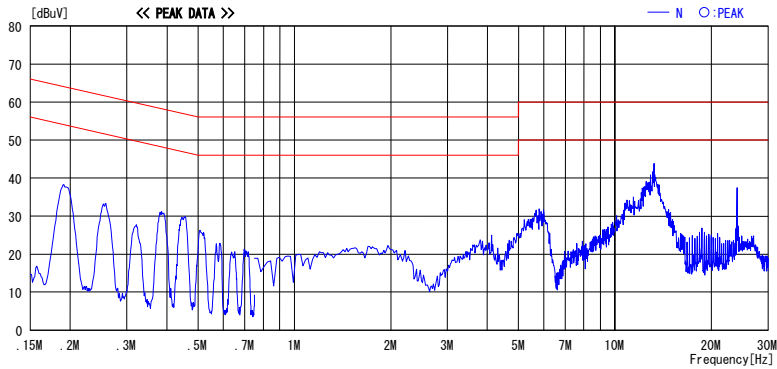


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

Conducted Emission

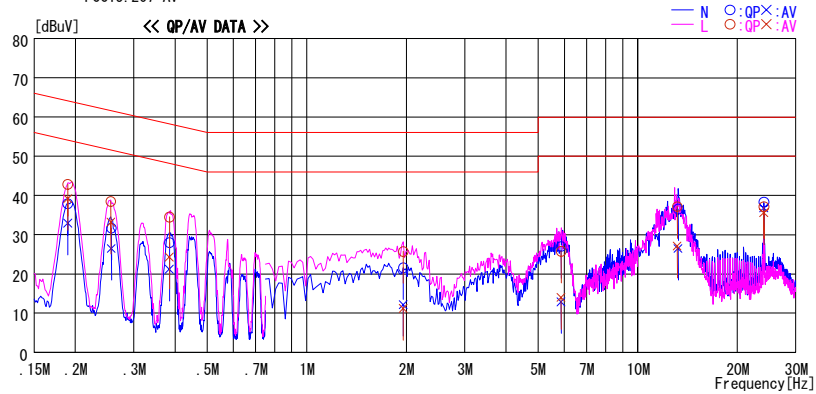
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company : YAMAHA Corporation
 Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER
 Model No. : YBA-10
 Serial No. : E10697XZ
 Report No. : 28EE0230-HO-2
 Power : AC 120V / 60Hz
 Temp./Humi. : 22deg.C / 33%
 Operator : Motoya Imura

Mode / Remarks: BT 3DH5 Tx 2402MHz

LIMIT : FCC15.207 QP
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]	
0.18968	37.7	32.7	0.2	37.9	32.9	64.1	54.1	26.2	21.2	N
0.25670	31.4	26.2	0.3	31.7	26.5	61.5	51.5	29.8	25.0	N
0.38447	27.7	20.9	0.3	28.0	21.2	58.2	48.2	30.2	27.0	N
1.95491	21.0	11.6	0.6	21.6	12.2	56.0	46.0	34.4	33.8	N
5.86622	25.9	11.8	1.1	27.0	12.9	60.0	50.0	33.0	37.1	N
13.24649	34.7	24.7	1.8	36.5	26.5	60.0	50.0	23.5	23.5	N
24.02822	35.8	34.3	2.5	38.3	36.8	60.0	50.0	21.7	13.2	N
0.18968	42.6	39.0	0.2	42.8	39.2	64.1	54.1	21.3	14.9	L
0.25581	38.2	32.9	0.3	38.5	33.2	61.6	51.6	23.1	18.4	L
0.38447	34.2	24.0	0.3	34.5	24.3	58.2	48.2	23.7	23.9	L
1.95491	25.1	10.6	0.6	25.7	11.2	56.0	46.0	30.3	34.8	L
5.86622	24.7	12.9	1.1	25.8	14.0	60.0	50.0	34.2	36.0	L
13.16633	35.4	25.3	1.8	37.2	27.1	60.0	50.0	22.8	22.9	L
24.02822	34.6	33.1	2.5	37.1	35.6	60.0	50.0	22.9	14.4	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 round off to one or two decimal places, so some differences might be observed.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company : YAMAHA Corporation	Report No. : 28EE0230-HO-2
Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER	Power : AC 120V / 60Hz
Model No. : YBA-10	Temp./Humi. : 22deg. C / 33%
Serial No. : E10697XZ	Operator : Motoya Imura

Mode / Remarks: BT 3DH5 Tx 2441MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

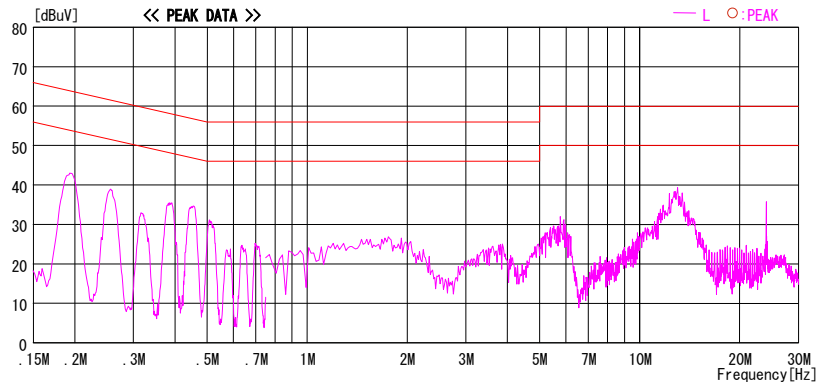
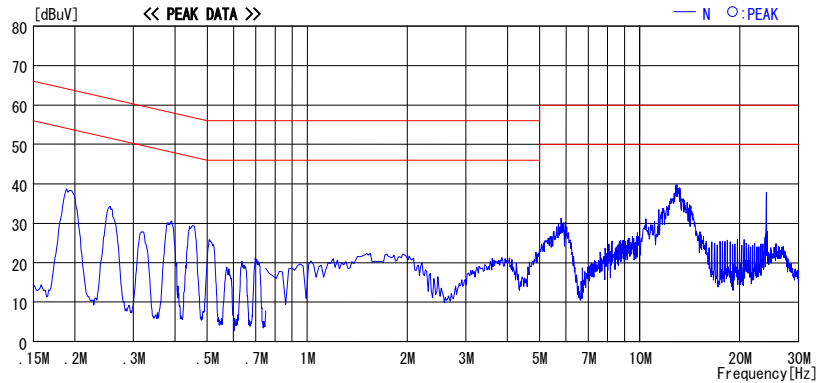


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT [dBuV] = READING [dBuV] + C. F [dB] (LISN LOSS + CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.1 Semi Anechoic Chamber
 Date : 2008/02/12

Company : YAMAHA Corporation	Report No. : 28EE0230-HO-2
Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER	Power : AC 120V / 60Hz
Model No. : YBA-10	Temp./Humi. : 22deg. C / 33%
Serial No. : E10697XZ	Operator : Motoya Imura

Mode / Remarks : BT 3DHS Tx 2480MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

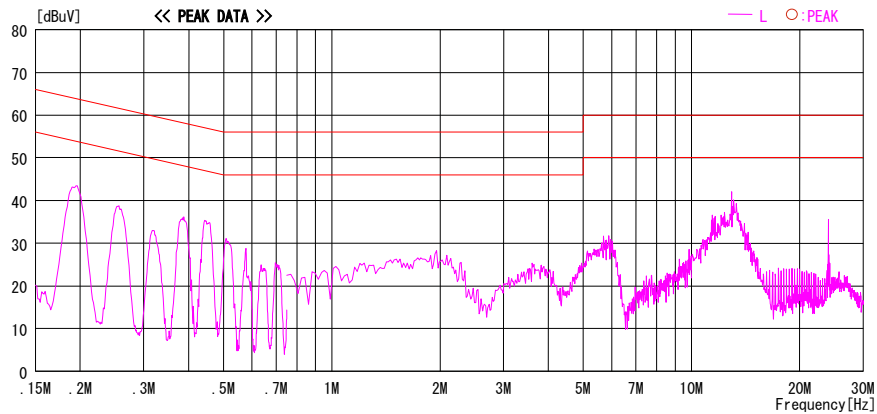
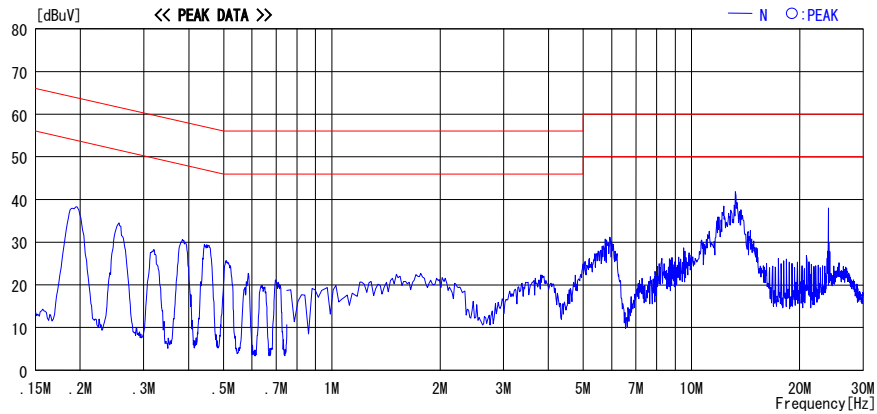


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)
 Except for the above table : adequate margin data below the limits.

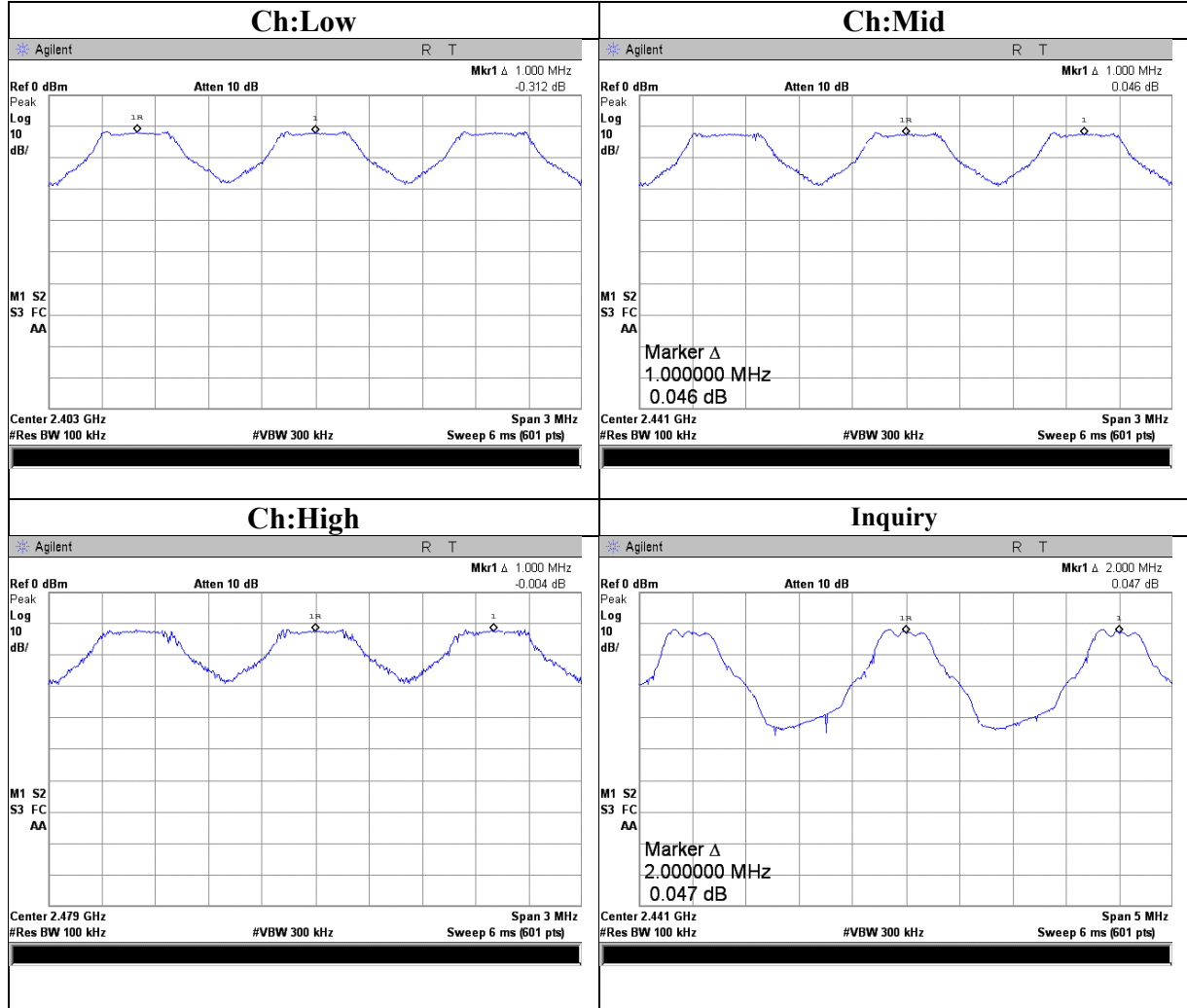
Carrier Frequency Separation
DH5

Company YAMAHA Corporation
Equipment Bluetooth WIRELESS AUDIO RECEIVER
Model YBA-10
S/N E10717XZ
Power AC 120V / 60Hz
Mode Bluetooth Tx Hopping On
DH5

UL Japan, Inc.
Head Office EMC Lab. No.11 measurement room
Regulation FCC15.247(a)(1) / RSS-210 A8.1(b)
Test Distance -
Date 02/18/2008
Temperature 23 deg.C.
Humidity 33 %
Engineer Shinya Watanabe

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	0.628 [MHz] (two-thirds of 20dB Bandwidth (0.942 [MHz])) or 25[kHz] (whichever is greater)
Mid	2441.0	1.000	0.628 [MHz] (two-thirds of 20dB Bandwidth (0.942 [MHz])) or 25[kHz] (whichever is greater)
High	2480.0	1.000	0.632 [MHz] (two-thirds of 20dB Bandwidth (0.948 [MHz])) or 25[kHz] (whichever is greater)
Inquiry	2441.0	2.000	0.482 [MHz] (two-thirds of 20dB Bandwidth (0.723 [MHz])) or 25[kHz] (whichever is greater)

Carrier Frequency Separation
DH5

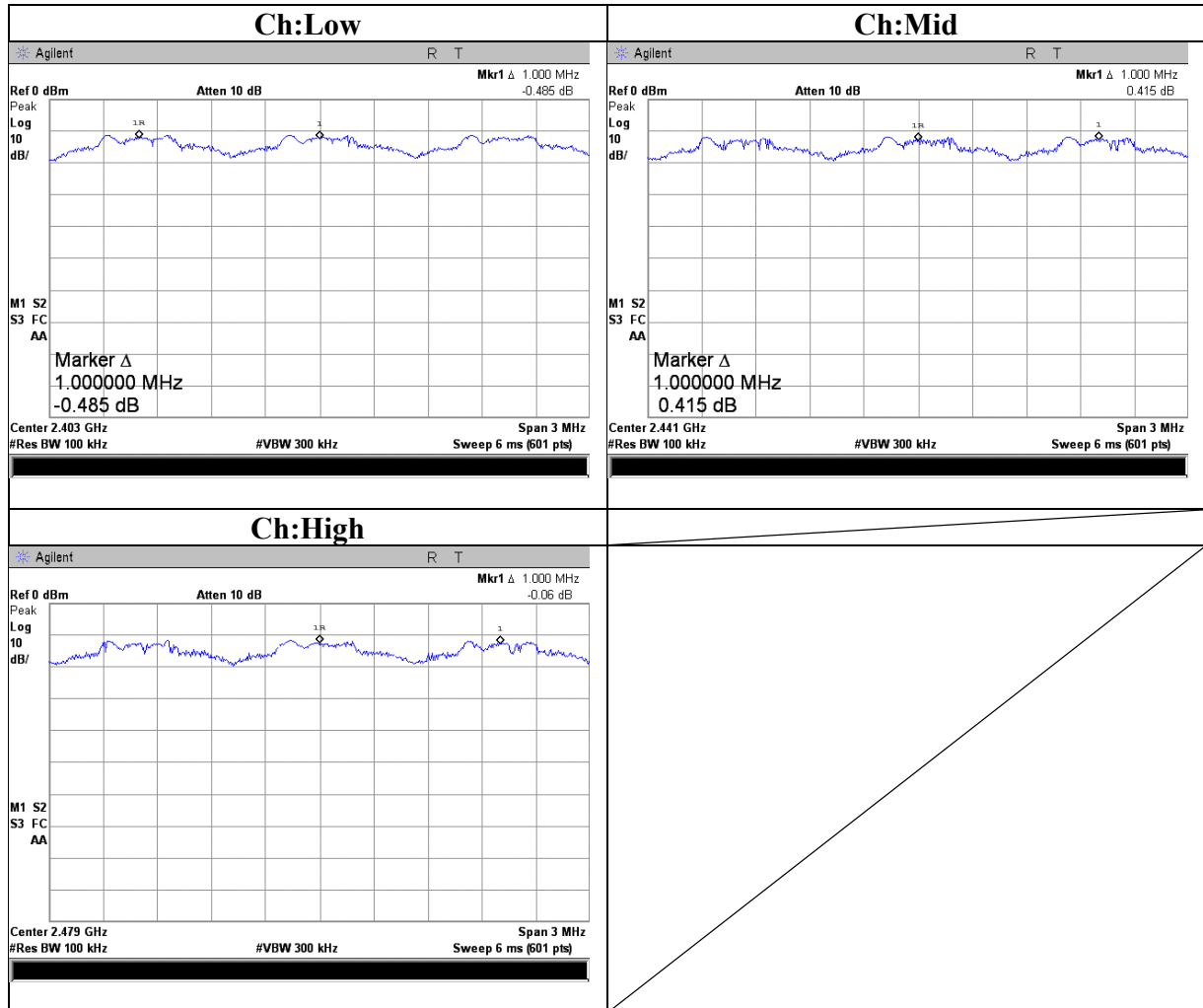


Carrier Frequency Separation
3DH5

		UL Japan, Inc.
Company	YAMAHA Corporation	Head Office EMC Lab. No.11 measurement room
Equipment	Bluetooth WIRELESS AUDIO RECEIVER	Regulation FCC15.247(a)(1) / RSS-210 A8.1(b)
Model	YBA-10	Test Distance -
S/N	E10717XZ	Date 02/18/2008
Power	AC 120V / 60Hz	Temperature 23 deg.C.
Mode	Bluetooth Tx Hopping On	Humidity 33 %
	3DH5	Engineer Shinya Watanabe

Ch	Freq. [MHz]	Channel separation [MHz]	Limit
Low	2402.0	1.000	0.856 [MHz] (two-thirds of 20dB Bandwidth (1.284 [MHz])) or 25[kHz] (whichever is greater)
Mid	2441.0	1.000	0.854 [MHz] (two-thirds of 20dB Bandwidth (1.281 [MHz])) or 25[kHz] (whichever is greater)
High	2480.0	1.000	0.854 [MHz] (two-thirds of 20dB Bandwidth (1.281 [MHz])) or 25[kHz] (whichever is greater)

Carrier Frequency Separation
3DH5

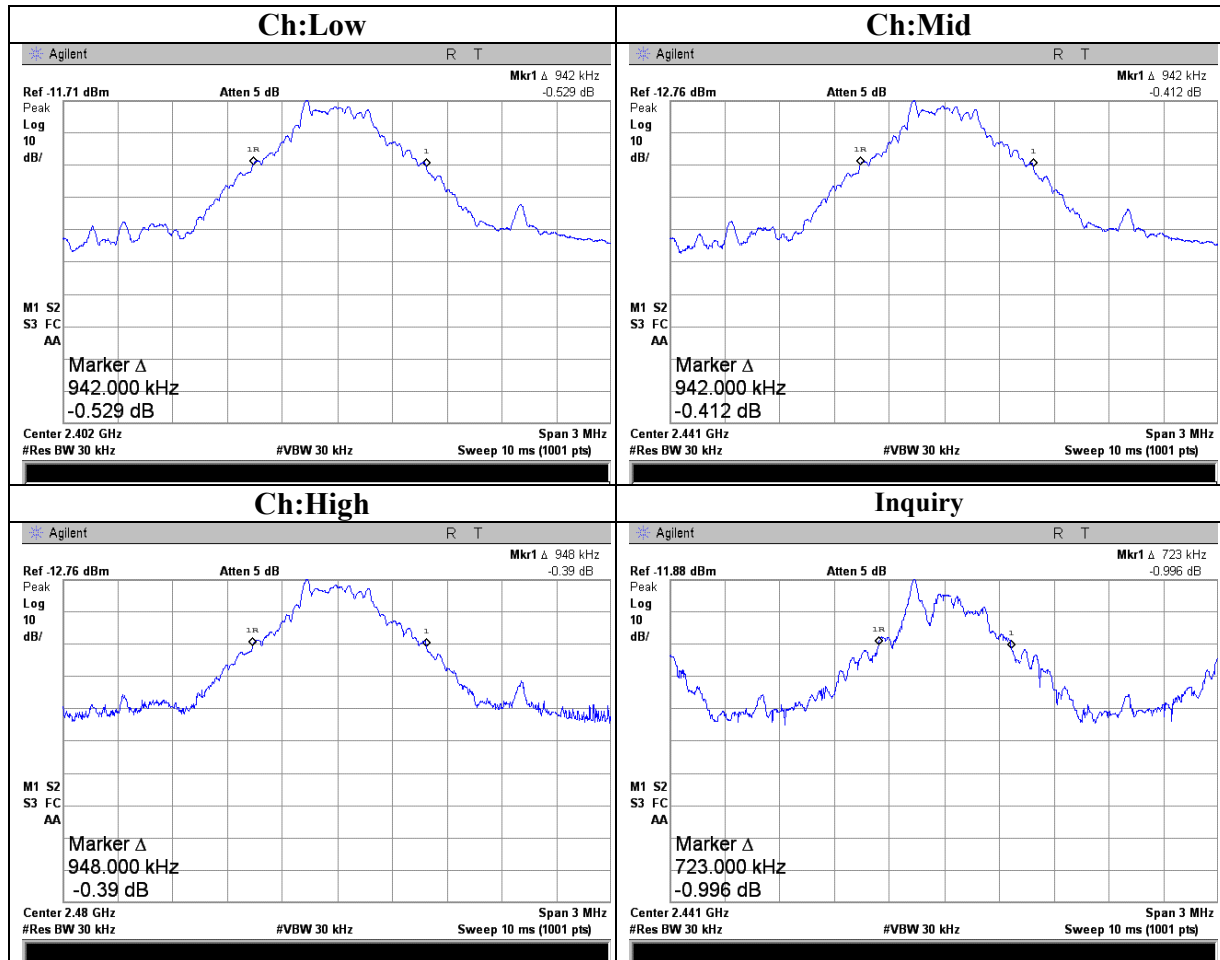


20dB Bandwidth
DH5

Company	YAMAHA Corporation	UL Japan, Inc.	
Equipment	Bluetooth WIRELESS AUDIO RECEIVER	Head Office EMC Lab. No.11 measurement room	
Model	YBA-10	Regulation	FCC15.247(a)(1) / RSS-210 A8.1(a)
S/N	E10717XZ	Test Distance	-
Power	AC 120V / 60Hz	Date	02/18/2008
Mode	Bluetooth Tx Hopping Off / Inquiry, DH5	Temperature	23 deg.C.
		Humidity	33 %
		Engineer	Shinya Watanabe

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	0.942	-
Mid	2441.0	0.942	-
High	2480.0	0.948	-
Inquiry	2441.0	0.723	-

**20dB Bandwidth
DH5**



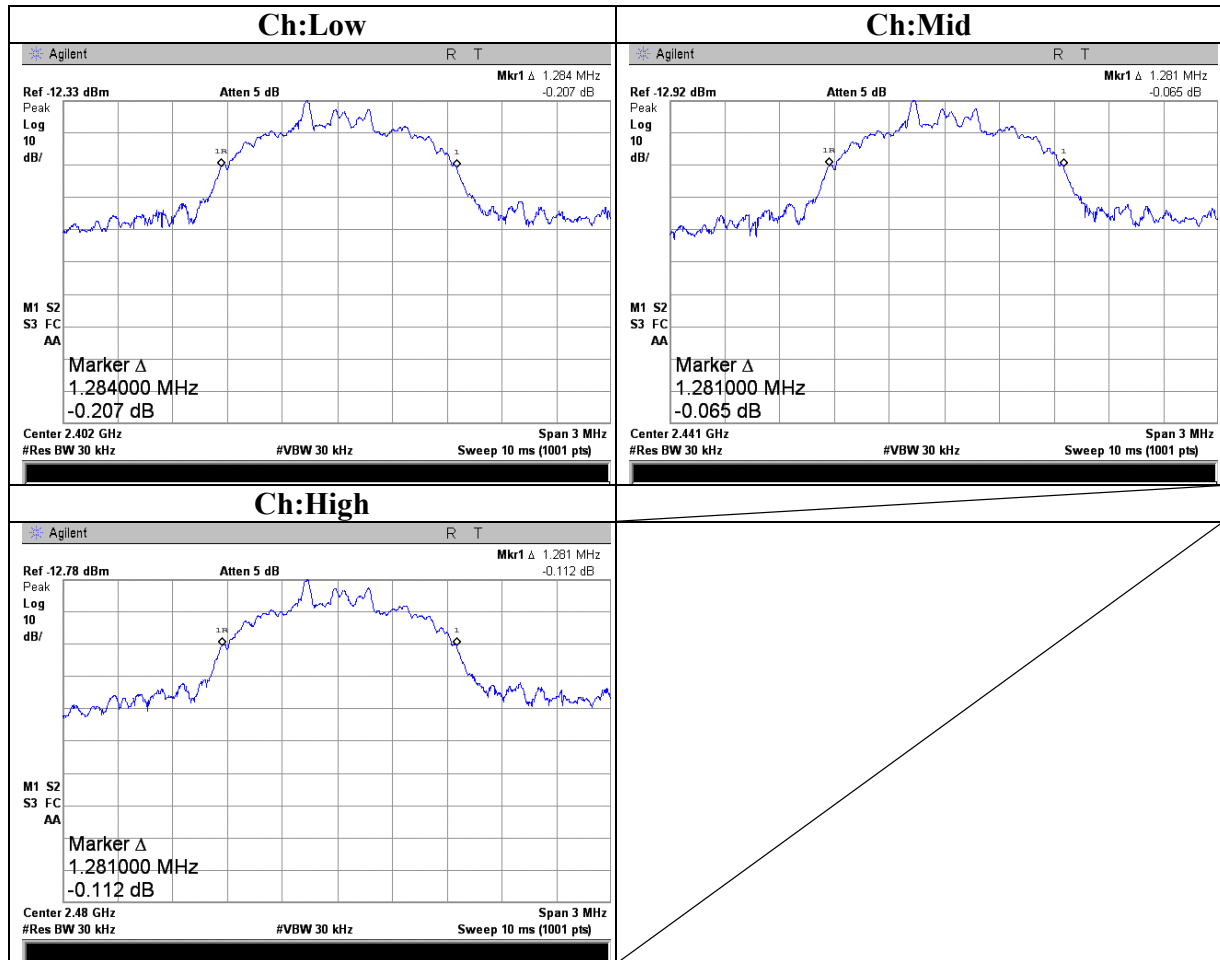
20dB Bandwidth
3DH5

Company	YAMAHA Corporation	Regulation	FCC15.247(a)(1) / RSS-210 A8.1(a)
Equipment	Bluetooth WIRELESS AUDIO RECEIVER	Test Distance	-
Model	YBA-10	Date	02/18/2008
S/N	E10717XZ	Temperature	23 deg.C.
Power	AC 120V / 60Hz	Humidity	33 %
Mode	Bluetooth Tx Hopping Off, 3DH5	Engineer	Shinya Watanabe

UL Japan, Inc.
Head Office EMC Lab. No.11 measurement room

Ch	Freq. [MHz]	20dB Bandwidth [MHz]	Limit [MHz]
Low	2402.0	1.284	-
Mid	2441.0	1.281	-
High	2480.0	1.281	-

20dB Bandwidth
3DH5



Number of Hopping Frequency
DH5

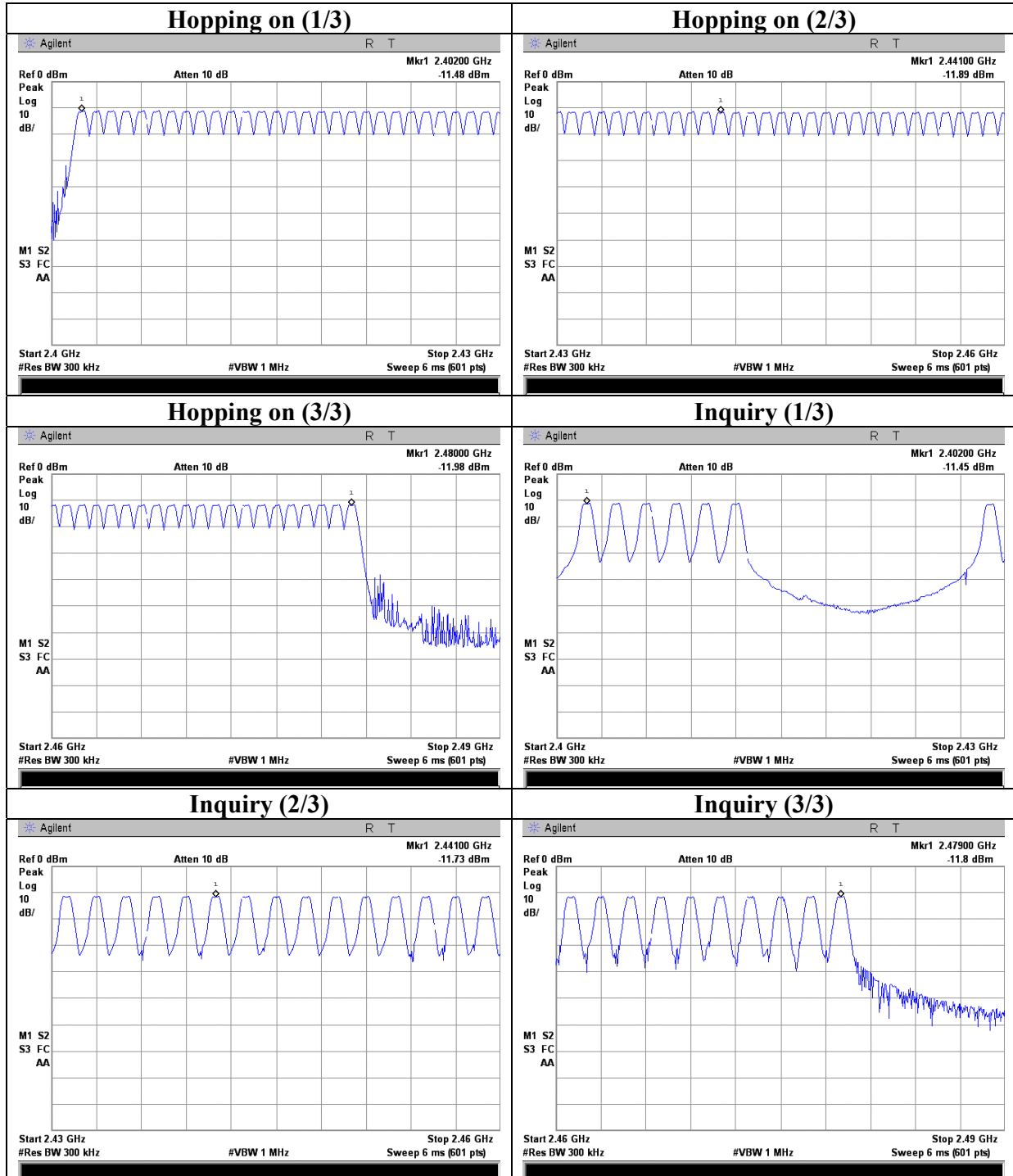
Company YAMAHA Corporation
Equipment Bluetooth WIRELESS AUDIO RECEIVER
Model YBA-10
S/N E10717XZ
Power AC 120V / 60Hz
Mode Bluetooth Tx Hopping On / Inquiry, DH5

UL Japan, Inc.
Head Office EMC Lab. No.11 measurement room
Regulation FCC15.247(a)(1)(iii) / RSS-210 A8.1(d)
Test Distance -
Date 02/18/2008
Temperature 23 deg.C.
Humidity 33 %
Engineer Shinya Watanabe

Mode	Number of channel [time]	Limit [time]
Tx(Hoppng on)	79	≥ 15

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

Number of Hopping Frequency
DH5



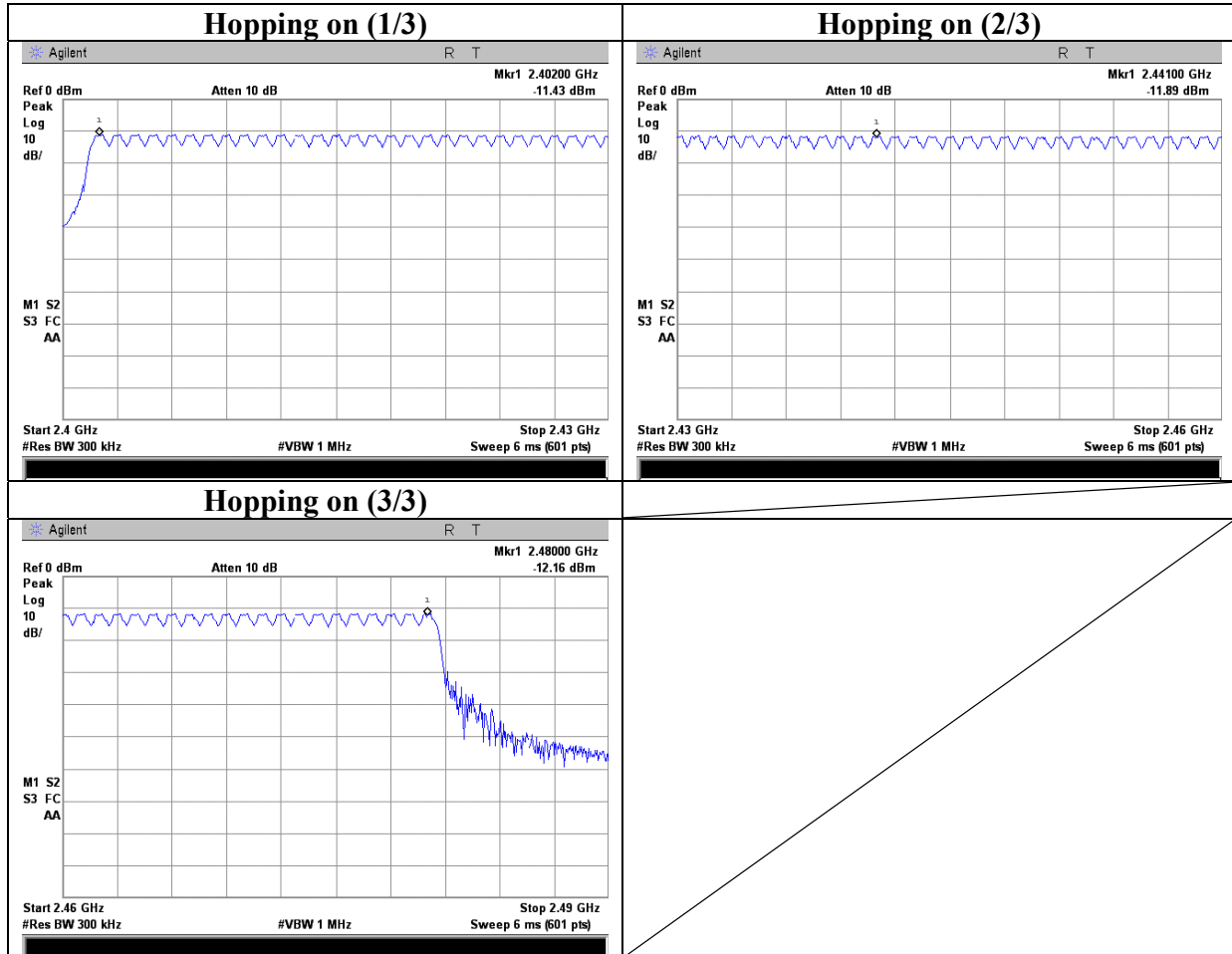
Number of Hopping Frequency
3DH5

Company YAMAHA Corporation
Equipment Bluetooth WIRELESS AUDIO RECEIVER
Model YBA-10
S/N E10717XZ
Power AC 120V / 60Hz
Mode Bluetooth Tx Hopping On, 3DH5

UL Japan, Inc.
Head Office EMC Lab. No.11 measurement room
Regulation FCC15.247(a)(1)(iii) / RSS-210 A8.1(d)
Test Distance -
Date 02/18/2008
Temperature 23 deg.C.
Humidity 33 %
Engineer Shinya Watanabe

Mode	Number of channel [time]	Limit [time]
Tx(Hoppng on)	79	≥ 15

Number of Hopping Frequency
3DH5



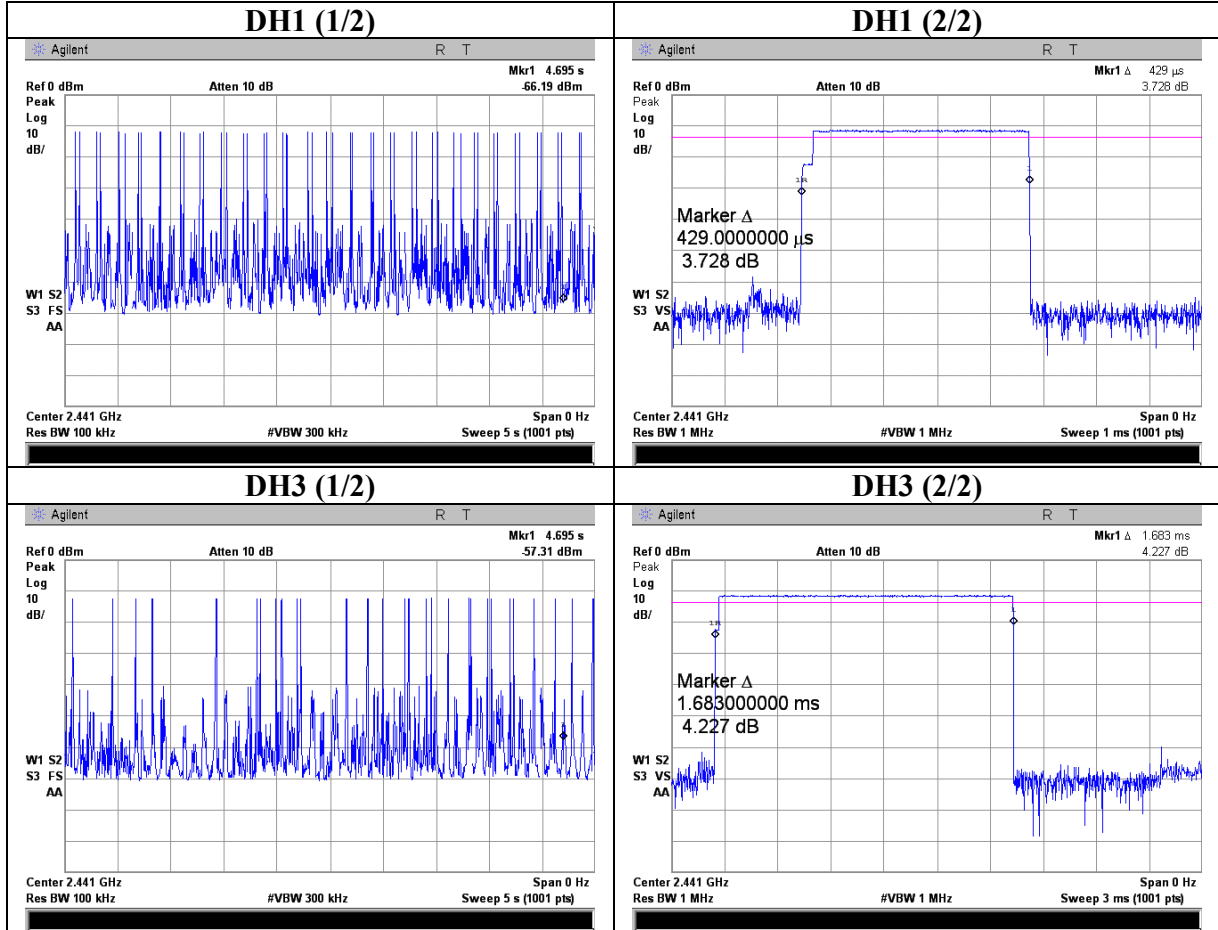
Dwell time

		UL Japan, Inc.
Company	YAMAHA Corporation	Head Office EMC Lab. No.11 measurement room
Equipment	Bluetooth WIRELESS AUDIO RECEIVER	Regulation FCC15.247(a)(1)(iii) / RSS-210 A8.1(d)
Model	YBA-10	Test Distance -
S/N	E10717XZ	Date 02/18/2008
Power	AC 120V / 60Hz	Temperature 23 deg.C.
Mode	Bluetooth Tx Hopping On / Inquiry	Humidity 33 %
		Engineer Shinya Watanabe

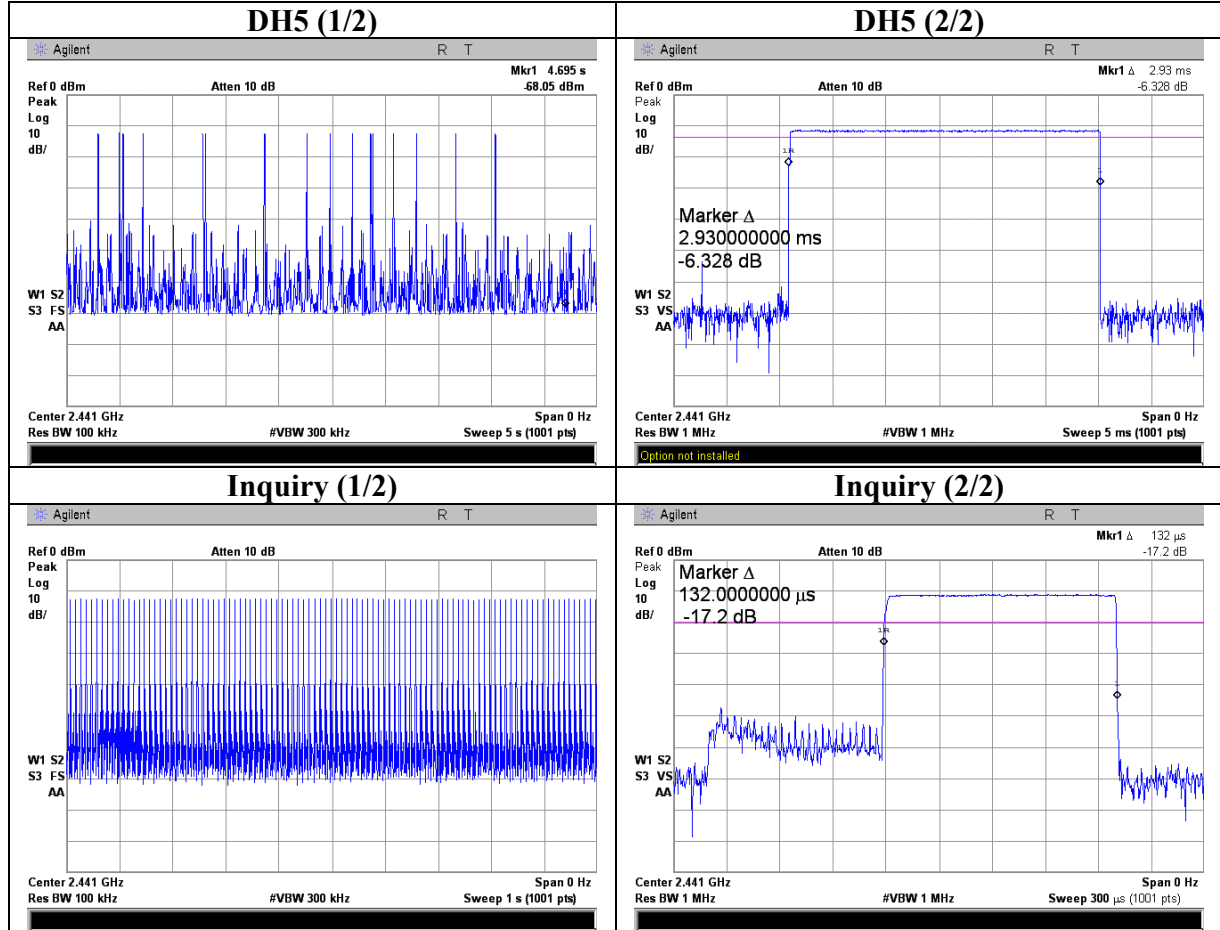
Mode	Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period	Length of transmission time [msec]	Result [msec]	Limit [msec]
DH1	48 times* / 5 sec. x 31.6 sec. = 304 times	0.429	130	400
DH3	28 times* / 5 sec. x 31.6 sec. = 177 times	1.683	298	400
DH5	15 times* / 5 sec. x 31.6 sec. = 95 times	2.930	278	400
Inquiry	100 times / 1 sec. x 12.8 sec. = 1280 times	0.132	169	400

*: Average of 5times measurement

Dwell time



Dwell time



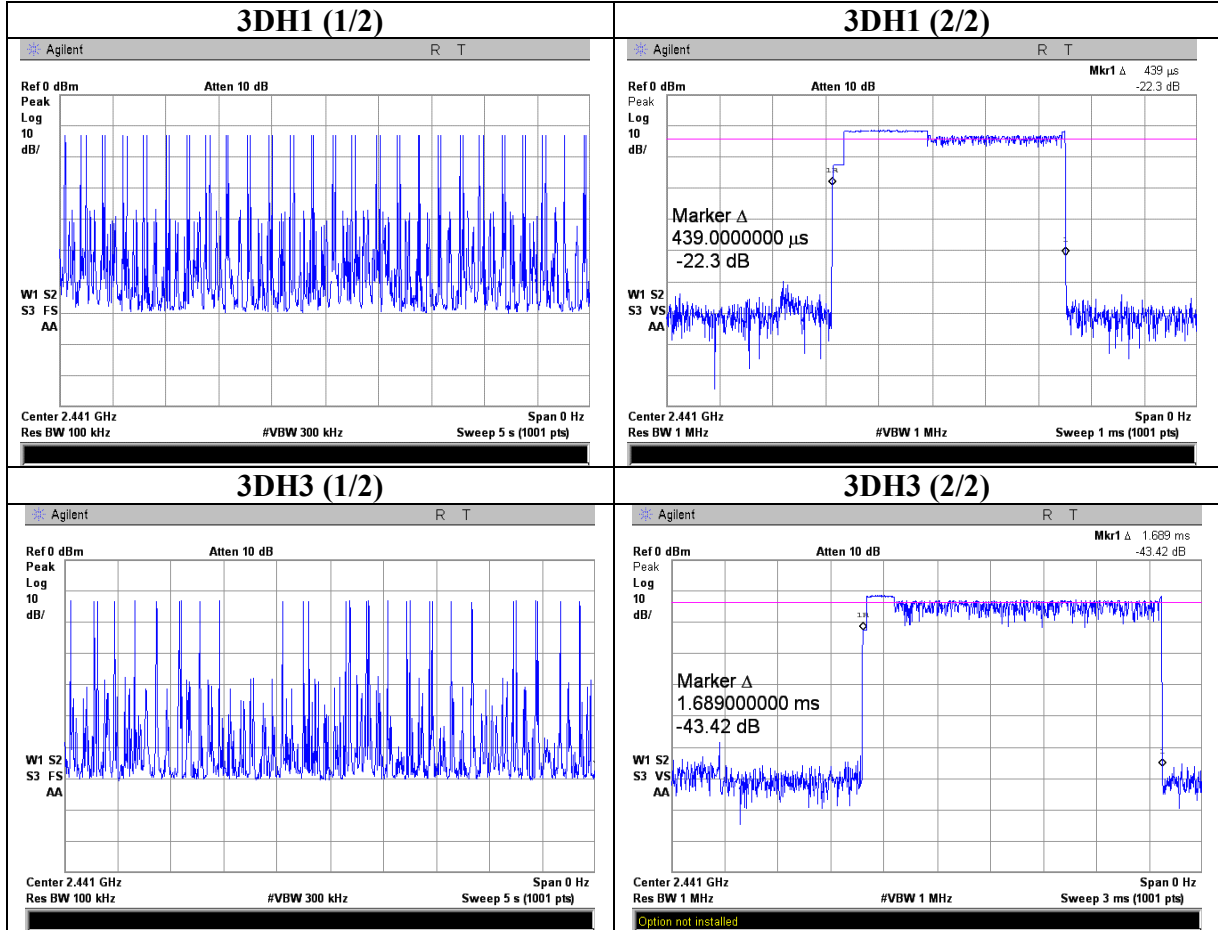
Dwell time

		UL Japan, Inc.	
		Head Office EMC Lab. No.11 measurement room	
Company	YAMAHA Corporation	Regulation	FCC15.247(a)(1)(iii) / RSS-210 A8.1(d)
Equipment	Bluetooth WIRELESS AUDIO RECEIVER	Test Distance	-
Model	YBA-10	Date	02/18/2008
S/N	E10717XZ	Temperature	23 deg.C.
Power	AC 120V / 60Hz	Humidity	33 %
Mode	Bluetooth Tx Hopping On	Engineer	Shinya Watanabe

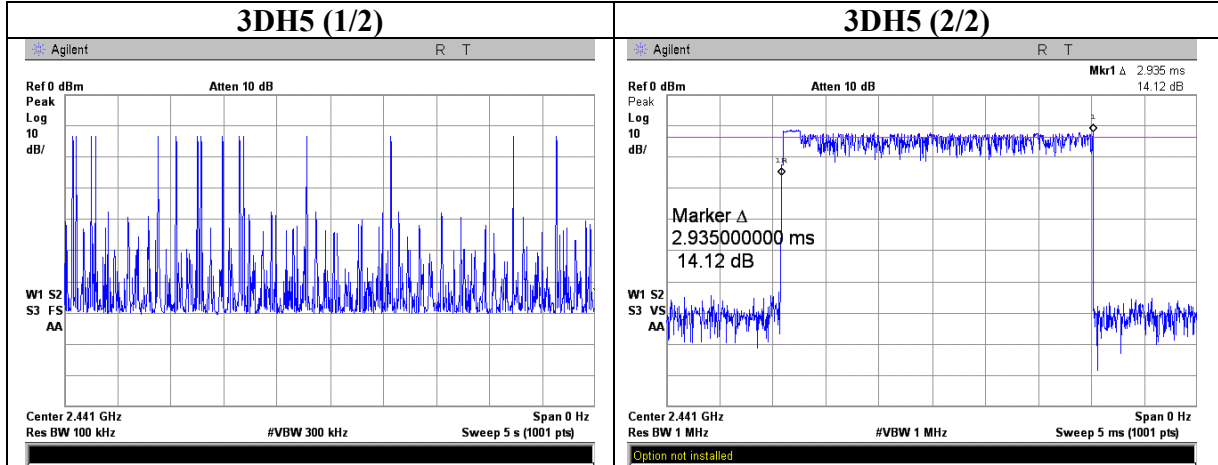
Mode	Number of transmission in a 31.6(79 Hopping x 0.4)	Length of transmission time [msec]	Result [msec]	Limit [msec]
3DH1	48 times* / 5 sec. x 31.6 sec. = 304 times	0.439	133	400
3DH3	25 times* / 5 sec. x 31.6 sec. = 158 times	1.689	267	400
3DH5	15 times* / 5 sec. x 31.6 sec. = 95 times	2.935	279	400

*: Average of 5times measurement

Dwell time



Dwell time



Maximum Peak Output Power

Company : YAMAHA Corporation Equipment : Bluetooth Wireless Audio Receiver Model No. : YBA-10 Serial No. : E10717XZ Power : DC 5V Mode : Tx DH5, 3DH5, Hopping off	UL Japan, Inc. Head Office EMC Lab. No.6 Shielded Room Test Report No. : 28EE0230-HO-02 Regulation : FCC15.247(b)(1)/RSS-210A8.4(2) Test distance : - Date : 02/15/2008 Temperature : 24 deg. C Humidity : 31 % Engineer : Shinya Watanabe
---	--

[DH5]

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-10.96	0.75	10.02	-0.19	0.96	20.97	125	21.16
Mid	2441.0	-11.14	0.76	10.02	-0.36	0.92	20.97	125	21.33
High	2480.0	-11.26	0.76	10.02	-0.48	0.90	20.97	125	21.45
Inquiry	2441.0	-11.07	0.76	10.02	-0.29	0.94	20.97	125	21.26

[3DH5]

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]	
Low	2402.0	-10.94	0.75	10.02	-0.17	0.96	20.97	125	21.14
Mid	2441.0	-11.13	0.76	10.02	-0.35	0.92	20.97	125	21.32
High	2480.0	-11.27	0.76	10.02	-0.49	0.89	20.97	125	21.46

Sample Calculation:

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

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

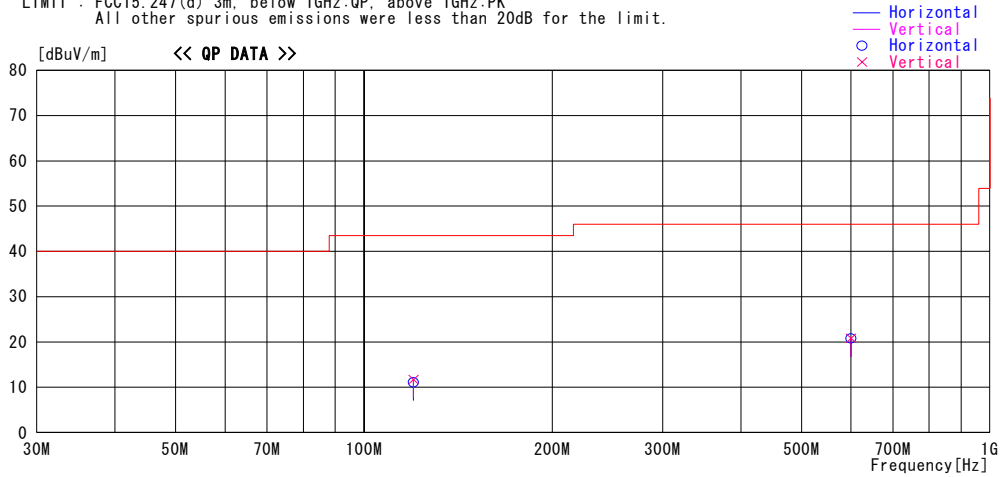
Radiated Spurious Emission (below 1GHz)
Tx, Ch. Low (DH5)
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/14

Company : YAMAHA Corporation Report No. : 28EE0230-HO-02
Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER Power : DC 5.0V (AC 120V / 60Hz)
Model No. : YBA-10 Temp./Humi. : 23deg.C. / 31%
Serial No. : E10687XZ Operator : Takumi Shimada

Mode / Remarks : BT, DH5, Tx, 2402MHz, Max-axis(Hor:Y, Ver:Z)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor [dB/m]	Gain [dB]					[dBuV/m]	[dB]
120.000	22.2	QP	12.6	-23.7	11.1	0	300	Hori.	43.5	32.4
120.000	22.8	QP	12.6	-23.7	11.7	90	100	Vert.	43.5	31.8
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Hori.	46.0	25.2
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Vert.	46.0	25.2

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.

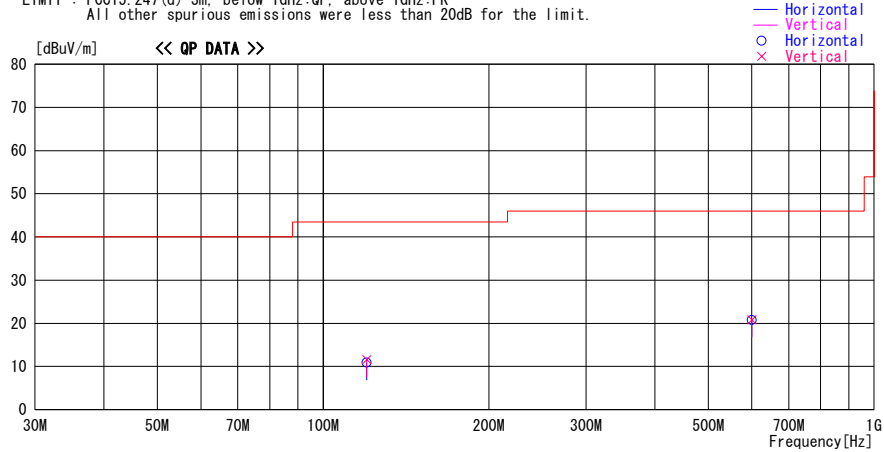
Radiated Spurious Emission (below 1GHz)
Tx, Ch. Mid (DH5)
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
 Date : 2008/02/14

Company : YAMAHA Corporation
 Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER
 Model No. : YBA-10
 Serial No. : E10687XZ
 Report No. : 28EE0230-HO-02
 Power : DC 5.0V (AC 120V / 60Hz)
 Temp./Humi. : 23deg.C. / 31%
 Operator : Takumi Shimada

Mode / Remarks : BT, DH5, Tx, 2441MHz, Max-axis(Hor:Y, Ver:Z)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
120.000	22.0	QP	12.6	-23.7	10.9	0	100	Hori.	43.5	32.6
120.000	22.7	QP	12.6	-23.7	11.6	90	100	Vert.	43.5	31.9
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Vert.	46.0	25.2
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Hori.	46.0	25.2

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 round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Tx, Ch. High (DH5)
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
 Date : 2008/02/14

Company : YAMAHA Corporation
 Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER
 Model No. : YBA-10
 Serial No. : E10687XZ
 Report No. : 28EE0230-HO-02
 Power : DC 5.0V (AC 120V / 60Hz)
 Temp./Humi. : 23deg.C / 31%
 Operator : Takumi Shimada

Mode / Remarks : BT, DH5, Tx, 2480MHz, Max-axis(Hor:Y, Ver:Z)

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

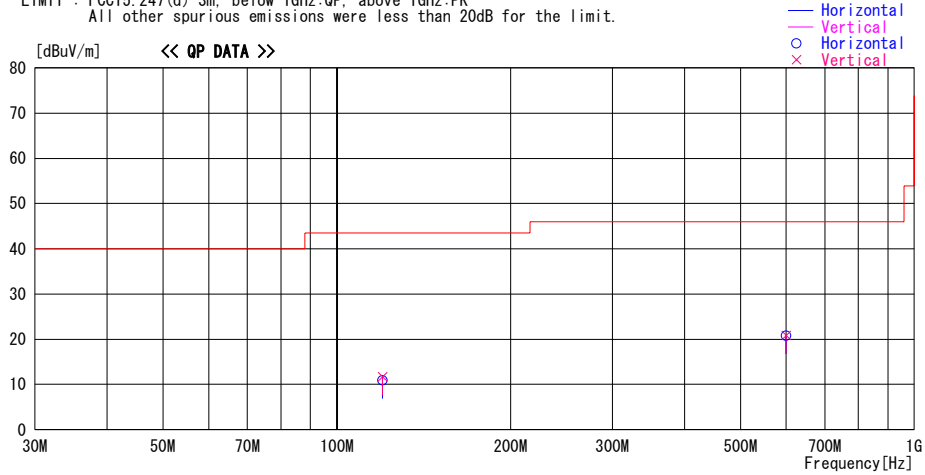


CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

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

Radiated Spurious Emission (below 1GHz)

Tx, Ch. Low (3DH5)

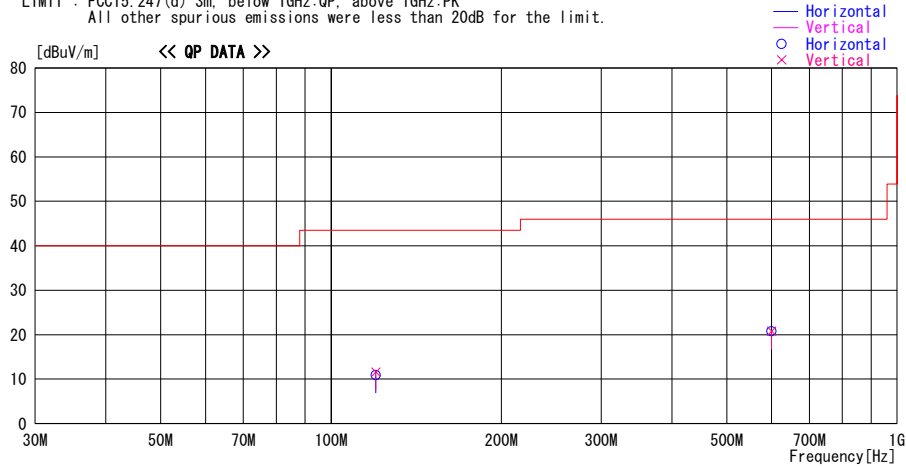
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/14

Company : YAMAHA Corporation Report No. : 28EE0230-HO-02
Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER Power : DC 5.0V (AC 120V / 60Hz)
Model No. : YBA-10 Temp./Humi. : 23deg. C. / 31%
Serial No. : E10687XZ Operator : Takumi Shimada

Mode / Remarks : BT, 3DH5, Tx, 2402MHz, Max-axis(Hor:Y, Ver:Z)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss& Gain [dB]						
120.000	22.0	QP	12.6	-23.7	10.9	0	400	Hori.	43.5	32.6
120.000	22.7	QP	12.6	-23.7	11.6	90	100	Vert.	43.5	31.9
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Vert.	46.0	25.2
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Hori.	46.0	25.2

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 round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (below 1GHz)
Tx, Ch. Mid (3DH5)
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
 Date : 2008/02/14

Company : YAMAHA Corporation
 Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER
 Model No. : YBA-10
 Serial No. : E10687XZ
 Report No. : 28EE0230-HO-02
 Power : DC 5.0V (AC 120V / 60Hz)
 Temp./Humi. : 23deg.C. / 31%
 Operator : Takumi Shimada

Mode / Remarks : BT, 3DH5, Tx, 2441MHz, Max-axis(Hor:Y, Ver:Z)

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

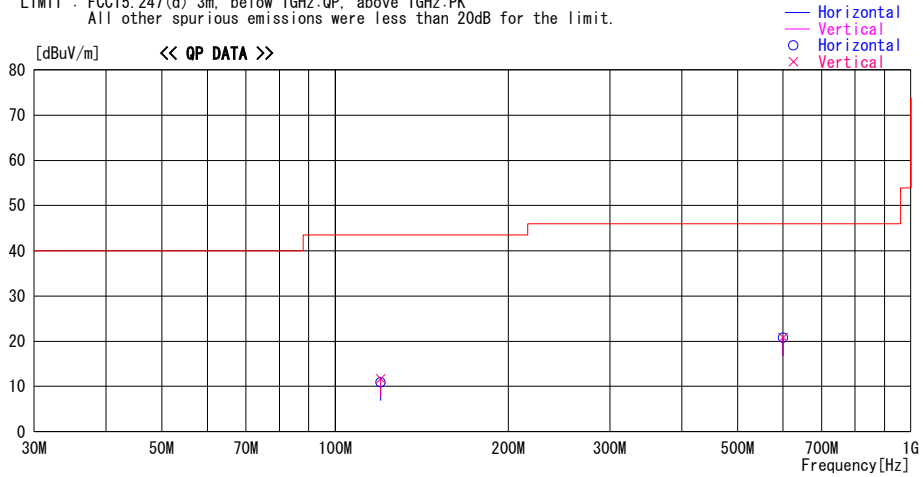


CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

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

Radiated Spurious Emission (below 1GHz)

Tx, Ch. High (3DH5)

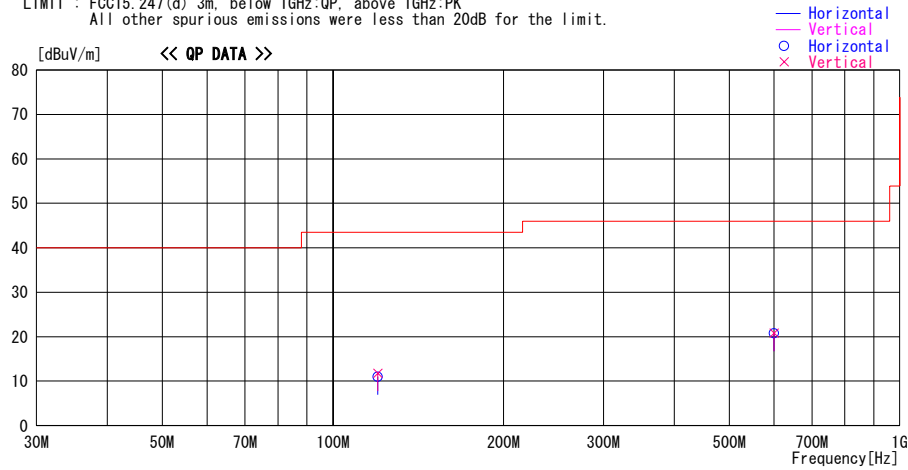
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/14

Company : YAMAHA Corporation	Report No. : 28EE0230-HO-02
Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER	Power : DC 5.0V (AC 120V / 60Hz)
Model No. : YBA-10	Temp./Humi. : 23deg. C. / 31%
Serial No. : E10687XZ	Operator : Takumi Shimada

Mode / Remarks : BT, 3DH5, Tx, 2480MHz, Max-axis(Hor:Y, Ver:Z)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss& Gain [dB]						
120.000	22.1	QP	12.6	-23.7	11.0	0	400	Hori.	43.5	32.5
120.000	22.9	QP	12.6	-23.7	11.8	90	100	Vert.	43.5	31.7
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Vert.	46.0	25.2
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Hori.	46.0	25.2

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 round 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

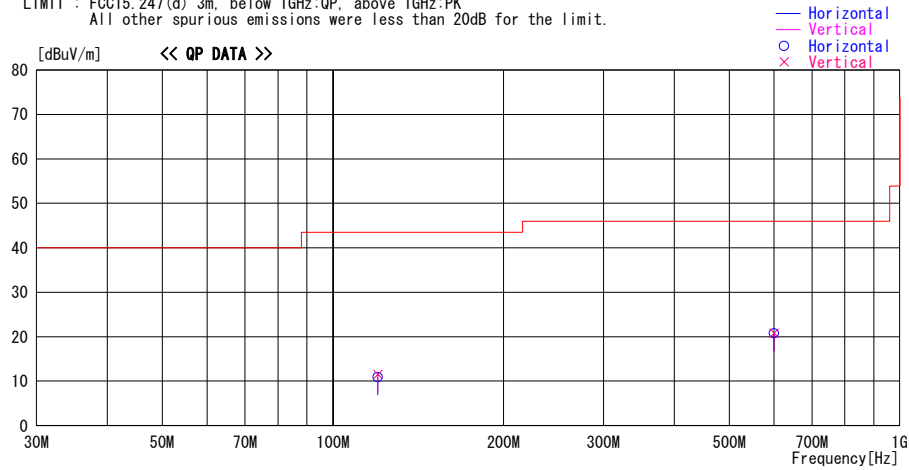
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2008/02/14

Company : YAMAHA Corporation
 Kind of EUT : Bluetooth WIRELESS AUDIO RECEIVER
 Model No. : YBA-10
 Serial No. : E10687XZ
 Report No. : 28EE0230-HO-02
 Power : DC 5.0V (AC 120V / 60Hz)
 Temp./Humi. : 23deg. C. / 31%
 Operator : Takumi Shimada

Mode / Remarks : BT, Rx, 2441MHz, Max-axis(Hor:Y, Ver:Z)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	Loss & Gain [dB]						
120.000	22.0	QP	12.6	-23.7	10.9	0	400	Hori.	43.5	32.6
120.000	22.6	QP	12.6	-23.7	11.5	70	100	Vert.	43.5	32.0
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Vert.	46.0	25.2
600.000	21.9	QP	19.3	-20.4	20.8	0	100	Hori.	46.0	25.2

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 round off to one or two decimal places, so some differences might be observed.

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Low (DH5)

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : YAMAHA Corporation
Equipment : Bluetooth WIRELESS AUDIO RECEIVER
Model No. : YBA-10
Sample No. : E10687XZ
Power : DC 5.0V (AC 120V / 60Hz)
Mode : Bluetooth DH5 2402MHz
Remarks : Hor Y , Ver Z-axis

REPORT NO : 28EE0230-HO-02
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/13/2008 : 02/14/2008
TEMPERATURE : 22deg.C : 24deg.C
HUMIDITY : 30% : 38%
ENGINEER : Takumi Shimada : Shinya Watanabe
(Below 10GHz) (Above 10GHz)

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	2390.0	63.6	64.0	27.3	31.5	3.0	0.0	62.4	62.8	73.9	11.5	11.1
2**	2400.0	80.2	80.4	27.3	31.5	3.0	0.0	79.0	79.2	73.9	-	-
3	4804.0	37.2	39.1	31.5	30.8	4.3	0.8	43.0	44.9	73.9	30.9	29.0
4	7206.0	39.1	38.7	35.8	31.3	5.0	0.7	49.3	48.9	73.9	24.6	25.0
5	9608.0	40.3	40.4	38.2	31.9	6.0	1.1	53.7	53.8	73.9	20.2	20.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	43.1	42.2	38.9	32.4	6.7	0.0	46.8	45.9	73.9	27.1	28.0
7	14412.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16814.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19216.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21618.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24020.0	46.6	46.4	38.7	30.5	9.3	0.0	54.6	54.4	73.9	19.3	19.5

** Reference data

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	2390.0	38.2	38.9	27.3	31.5	3.0	0.0	37.0	37.7	53.9	16.9	16.2
2**	2400.0	65.2	65.1	27.3	31.5	3.0	0.0	64.0	63.9	53.9	-	-
3	4804.0	26.1	26.5	31.5	30.8	4.3	0.8	31.9	32.3	53.9	22.0	21.6
4	7206.0	27.8	28.1	35.8	31.3	5.0	0.7	38.0	38.3	53.9	15.9	15.6
5	9608.0	28.1	28.3	38.2	31.9	6.0	1.1	41.5	41.7	53.9	12.4	12.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	31.5	31.2	38.9	32.4	6.7	0.0	35.2	34.9	53.9	18.7	19.0
7	14412.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16814.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19216.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21618.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24020.0	34.7	34.7	38.7	30.5	9.3	0.0	42.7	42.7	53.9	11.2	11.2

** Reference data

20dBc(Fundamental 2402MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2402.0	100.6	99.9	27.3	31.5	3.0	0.0	99.4	98.7	-	-	-
2	2400.0	59.9	60.1	27.3	31.5	3.0	0.0	58.7	58.9	Funda-20dB	20.7	19.8

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 (above 1GHz)
Tx, Ch. Mid (DH5)

Company	: YAMAHA Corporation	REPORT NO	: 28EE0230-HO-02
Equipment	: Bluetooth WIRELESS AUDIO RECEIVER	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model No.	: YBA-10	TEST DISTANCE	: 3/1m
Sample No.	: E10687XZ	DATE	: 02/13/2008 : 02/14/2008
Power	: DC 5.0V (AC 120V / 60Hz)	TEMPERATURE	: 22deg.C : 24deg.C
Mode	: Bluetooth DHS 2441MHz	HUMIDITY	: 30% : 38%
Remarks	: Hor Y , Ver Z-axis	ENGINEER	: Takumi Shimada : Shinya Watanabe (Below 10GHz) (Above 10GHz)

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	4882.0	38.0	37.2	31.7	30.7	4.3	0.8	44.1	43.3	73.9	29.8	30.6
2	7323.0	41.6	42.1	35.9	31.3	5.1	0.7	52.0	52.5	73.9	21.9	21.4
3	9764.0	40.2	40.8	38.2	32.1	6.0	1.2	53.5	54.1	73.9	20.4	19.8
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	42.2	42.5	39.0	32.2	6.7	0.0	46.2	46.5	73.9	27.7	27.4
5	14646.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	17087.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	19528.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	21969.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	24410.0	45.8	46.4	38.8	30.3	9.4	0.0	54.2	54.8	73.9	19.7	19.1

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	4882.0	26.8	26.2	31.7	30.7	4.3	0.8	32.9	32.3	53.9	21.0	21.6
2	7323.0	30.2	31.8	35.9	31.3	5.1	0.7	40.6	42.2	53.9	13.3	11.7
3	9764.0	29.0	28.5	38.2	32.1	6.0	1.2	42.3	41.8	53.9	11.6	12.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	31.0	31.0	39.0	32.2	6.7	0.0	35.0	35.0	53.9	18.9	18.9
5	14646.0	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17087.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19528.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21969.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24410.0	34.9	34.8	38.8	30.3	9.4	0.0	43.3	43.2	53.9	10.6	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 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 (above 1GHz)
Tx, Ch. High (DH5)

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : YAMAHA Corporation
Equipment : Bluetooth WIRELESS AUDIO RECEIVER
Model No. : YBA-10
Sample No. : E10687XZ
Power : DC 5.0V (AC 120V / 60Hz)
Mode : Bluetooth DH5 2480MHz
Remarks : Hor Y , Ver Z-axis

REPORT NO : 28EE0230-HO-02
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/13/2008 : 02/14/2008
TEMPERATURE : 22deg.C : 24deg.C
HUMIDITY : 30% : 38%
ENGINEER : Takumi Shimada : Shinya Watanabe
(Below 10GHz) (Above 10GHz)

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 [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1**	2483.5	71.8	73.4	27.4	31.5	3.1	0.0	70.8	72.4	73.9	-	-
2***	2483.5	54.3	53.5	27.4	31.5	3.1	0.0	53.3	52.5	73.9	20.6	21.4
3	4960.0	38.5	38.1	31.8	30.7	4.4	0.8	44.8	44.4	73.9	29.1	29.5
4	7440.0	44.0	43.3	36.1	31.3	5.2	0.7	54.7	54.0	73.9	19.2	19.9
5	9920.0	41.4	41.5	38.2	32.2	6.0	1.2	54.6	54.7	73.9	19.3	19.2
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	41.9	42.3	39.1	32.1	6.7	0.0	46.1	46.5	73.9	27.8	27.4
7	14880.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	17360.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19840.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	22320.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24800.0	47.5	47.3	38.9	30.1	9.4	0.0	56.2	56.0	73.9	17.7	17.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1**	2483.5	49.7	49.8	27.4	31.5	3.1	0.0	48.7	48.8	53.9	-	-
2***	2483.5	40.0	37.9	27.4	31.5	3.1	0.0	39.0	36.9	53.9	14.9	17.0
3	4960.0	26.3	25.8	31.8	30.7	4.4	0.8	32.6	32.1	53.9	21.3	21.8
4	7440.0	33.6	32.2	36.1	31.3	5.2	0.7	44.3	42.9	53.9	9.6	11.0
5	9920.0	29.4	29.2	38.2	32.2	6.0	1.2	42.6	42.4	53.9	11.3	11.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	30.1	30.1	39.1	32.1	6.7	0.0	34.3	34.3	53.9	19.6	19.6
7	14880.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	17360.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19840.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	22320.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24800.0	35.8	35.8	38.9	30.1	9.4	0.0	44.5	44.5	53.9	9.4	9.4

**Reference data

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

***Marker DeltaMethod(Test distance 3meters)

S/A Reading

Step	Fundamental(2480.0MHz)	Polarity		Hor [dBuV]		Ver [dBuV]	
		Detector	RBW	PK	AV	PK	AV
				1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.0MHz)	1MHz	97.4	83.1	98.1	82.5	
Step 2)	Fundamental(2480.0MHz)	30kHz	93.2	-	94.7	-	
	Band-edge(2483.5MHz)	30kHz	50.1	-	50.1	-	
	Amplitude delta *1	-	43.1	43.1	44.6	44.6	
Step 3)	Field strength of band-edge *2	-	54.3	40.0	53.5	37.9	

*1 Amplitude delta = Fundamental(RBW:30kHz, VBW:1MHz) - Band-edge(RBW:30kHz, VBW:1MHz)

*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

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

Test report No. : 28EE0230-HO-02-A-R1
Page : 55 of 71
Issued date : February 29, 2008
Revised date : April 1, 2008
FCC ID : A6RYBA10A

Radiated Spurious Emission (above 1GHz)
Tx, Ch. Low (3DH5)

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : YAMAHA Corporation
Equipment : Bluetooth WIRELESS AUDIO RECEIVER
Model No. : YBA-10
Sample No. : E10687XZ
Power : DC 5.0V (AC 120V / 60Hz)
Mode : Bluetooth 3DH5 2402MHz
Remarks : Hor Y, Ver Z-axis

REPORT NO : 28EE0230-HO-02
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/13/2008 : 02/14/2008
TEMPERATURE : 22deg.C : 24deg.C
HUMIDITY : 30% : 38%
ENGINEER : Takumi Shimada : Shinya Watanabe
(Below 10GHz) (Above 10GHz)

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	2390.0	64.5	64.5	27.3	31.5	3.0	0.0	63.3	63.3	73.9	10.6	10.6
2**	2400.0	82.8	82.5	27.3	31.5	3.0	0.0	81.6	81.3	73.9	-	-
3	4804.0	38.1	37.1	31.5	30.8	4.3	0.8	43.9	42.9	73.9	30.0	31.0
4	7206.0	38.6	39.6	35.8	31.3	5.0	0.7	48.8	49.8	73.9	25.1	24.1
5	9608.0	39.1	39.0	38.2	31.9	6.0	1.1	52.5	52.4	73.9	21.4	21.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	42.8	42.5	38.9	32.4	6.7	0.0	46.5	46.2	73.9	27.4	27.7
7	14412.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16814.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19216.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21618.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24020.0	45.8	46.1	38.7	30.5	9.3	0.0	53.8	54.1	73.9	20.1	19.8

** Reference data

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	2390.0	37.5	37.7	27.3	31.5	3.0	0.0	36.3	36.5	53.9	17.6	17.4
2**	2400.0	64.8	64.5	27.3	31.5	3.0	0.0	63.6	63.3	53.9	-	-
3	4804.0	26.2	26.5	31.5	30.8	4.3	0.8	32.0	32.3	53.9	21.9	21.6
4	7206.0	28.2	28.0	35.8	31.3	5.0	0.7	38.4	38.2	53.9	15.5	15.7
5	9608.0	27.7	27.5	38.2	31.9	6.0	1.1	41.1	40.9	53.9	12.8	13.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12010.0	31.5	31.6	38.9	32.4	6.7	0.0	35.2	35.3	53.9	18.7	18.6
7	14412.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16814.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19216.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21618.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24020.0	34.7	34.7	38.7	30.5	9.3	0.0	42.7	42.7	53.9	11.2	11.2

** Reference data

20dBc(Fundamental 2402MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2402.0	100.3	99.8	27.3	31.5	3.0	0.0	99.1	98.6	-	-	-
2	2400.0	61.3	61.3	27.3	31.5	3.0	0.0	60.1	60.1	Funda-20dB	19.0	18.5

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

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. Mid (3DH5)**

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company	: YAMAHA Corporation	REPORT NO	: 28EE0230-HO-02
Equipment	: Bluetooth WIRELESS AUDIO RECEIVER	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model No.	: YBA-10	TEST DISTANCE	: 3/1m
Sample No.	: E10687XZ	DATE	: 02/13/2008 : 02/14/2008
Power	: DC 5.0V (AC 120V / 60Hz)	TEMPERATURE	: 22deg.C : 24deg.C
Mode	: Bluetooth 3DH5 2441MHz	HUMIDITY	: 30% : 38%
Remarks	: Hor Y , Ver Z-axis	ENGINEER	: Takumi Shimada : Shinya Watanabe (Below 10GHz) (Above 10GHz)

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 [dBuV]	VER					HOR [dBuV/m]	VER		HOR [dB]	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	39.0	39.0	31.7	30.7	4.3	0.8	45.1	45.1	73.9	28.8	28.8
2	7323.0	40.7	41.2	35.9	31.3	5.1	0.7	51.1	51.6	73.9	22.8	22.3
3	9764.0	40.6	40.5	38.2	32.1	6.0	1.2	53.9	53.8	73.9	20.0	20.1
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	42.2	42.4	39.0	32.2	6.7	0.0	46.2	46.4	73.9	27.7	27.5
5	14646.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	17087.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	19528.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	21969.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	24410.0	46.2	46.4	38.8	30.3	9.4	0.0	54.6	54.8	73.9	19.3	19.1

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 [dBuV]	VER					HOR [dBuV/m]	VER		HOR [dB]	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4882.0	27.1	27.2	31.7	30.7	4.3	0.8	33.2	33.3	53.9	20.7	20.6
2	7323.0	28.6	29.6	35.9	31.3	5.1	0.7	39.0	40.0	53.9	14.9	13.9
3	9764.0	29.4	29.3	38.2	32.1	6.0	1.2	42.7	42.6	53.9	11.2	11.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12205.0	30.5	30.5	39.0	32.2	6.7	0.0	34.5	34.5	53.9	19.4	19.4
5	14646.0	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17087.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19528.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21969.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24410.0	34.9	35.0	38.8	30.3	9.4	0.0	43.3	43.4	53.9	10.6	10.5

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 (above 1GHz)
Tx, Ch. High (3DH5)**

UL Japan, Inc.
Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : YAMAHA Corporation
Equipment : Bluetooth WIRELESS AUDIO RECEIVER
Model No. : YBA-10
Sample No. : E10687XZ
Power : DC 5.0V (AC 120V / 60Hz)
Mode : Bluetooth 3DH5 2480MHz
Remarks : Hor Y , Ver Z-axis

REPORT NO : 28EE0230-HO-02
REGULATION : FCC15.247(d)/RSS-210A8.5
TEST DISTANCE : 3/1m
DATE : 02/13/2008 : 02/14/2008
TEMPERATURE : 22deg.C : 24deg.C
HUMIDITY : 30% : 38%
ENGINEER : Takumi Shimada : Shinya Watanabe
(Below 10GHz) (Above 10GHz)

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 [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1**	2483.5	73.7	76.1	27.4	31.5	3.1	0.0	72.7	75.1	73.9	-	-
2***	2483.5	57.3	57.4	27.4	31.5	3.1	0.0	56.3	56.4	73.9	17.6	17.5
3	4960.0	38.0	37.5	31.8	30.7	4.4	0.8	44.3	43.8	73.9	29.6	30.1
4	7440.0	43.2	42.2	36.1	31.3	5.2	0.7	53.9	52.9	73.9	20.0	21.0
5	9920.0	40.3	40.2	38.2	32.2	6.0	1.2	53.5	53.4	73.9	20.4	20.5
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	42.7	42.3	39.1	32.1	6.7	0.0	46.9	46.5	73.9	27.0	27.4
7	14880.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	17360.0	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19840.0	NS	NS	-	-	-	-	-	-	73.9	-	-
10	22320.0	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24800.0	43.0	43.1	38.9	30.1	9.4	0.0	51.7	51.8	73.9	22.2	22.1

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 [dBuV]	VER [dBuV]					HOR [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1**	2483.5	48.4	50.0	27.4	31.5	3.1	0.0	47.4	49.0	53.9	-	-
2***	2483.5	40.7	41.5	27.4	31.5	3.1	0.0	39.7	40.5	53.9	14.2	13.4
3	4960.0	26.2	26.0	31.8	30.7	4.4	0.8	32.5	32.3	53.9	21.4	21.6
4	7440.0	31.3	30.9	36.1	31.3	5.2	0.7	42.0	41.6	53.9	11.9	12.3
5	9920.0	28.9	28.7	38.2	32.2	6.0	1.2	42.1	41.9	53.9	11.8	12.0
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12400.0	30.5	30.4	39.1	32.1	6.7	0.0	34.7	34.6	53.9	19.2	19.3
7	14880.0	NS	NS	-	-	-	-	-	-	53.9	-	-
8	17360.0	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19840.0	NS	NS	-	-	-	-	-	-	53.9	-	-
10	22320.0	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24800.0	32.0	31.9	38.9	30.1	9.4	0.0	40.7	40.6	53.9	13.2	13.3

**Reference data

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

***Marker DeltaMethod(Test distance 3meters)

S/A Reading

	Polarity	Hor [dBuV]		Ver [dBuV]	
		Detector		Detector	
		PK	AV	PK	AV
		RBW		VBW	
		1MHz	10Hz	1MHz	10Hz
Step 1)	Fundamental(2480.0MHz)	96.8	80.2	96.4	80.5
Step 2)	Fundamental(2480.0MHz)	90.6	-	92.3	-
	Band-edge(2483.5MHz)	51.1	-	53.3	-
	Amplitude delta *1	39.5	39.5	39.0	39.0
Step 3)	Field strength of band-edge *2	57.3	40.7	57.4	41.5

*1 Amplitude delta = Fundamental(RBW:30kHz ,VBW:1MHz) - Band-edge(RBW:30kHz ,VBW:1MHz)

*2 Field strength of band-edge = Fundamental(RBW:1MHz) - Amplitude delta

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

UL Japan, Inc.
 Head Office EMC Lab. No.3Semi Anechoic Chamber

Company : YAMAHA Corporation Equipment : Bluetooth WIRELESS AUDIO RECEIVER Model No. : YBA-10 Sample No. : E10687XZ Power : DC 5.0V (AC 120V / 60Hz) Mode : Bluetooth Rx 2441MHz Remarks : Hor Y , Ver Z-axis	REPORT NO : 28EE0230-HO-02 REGULATION : FCC15.247(d)/RSS-210A8.5 TEST DISTANCE : 3/1m DATE : 02/13/2008 TEMPERATURE : 22deg.C HUMIDITY : 30% ENGINEER : Takumi 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	2441.0	40.2	39.6	27.4	31.5	3.1	0.0	39.2	38.6	73.9	34.7	35.3
2	4882.0	39.0	38.1	31.7	30.7	3.9	0.0	43.9	43.0	73.9	30.0	30.9
3	7323.0	38.9	38.0	35.9	31.3	4.6	0.0	48.1	47.2	73.9	25.8	26.7
4	9764.0	40.7	40.8	38.2	32.1	5.4	0.0	52.2	52.3	73.9	21.7	21.6

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
		[dBuV]						[dBuV/m]		[dB]		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2441.0	28.6	28.3	27.4	31.5	3.1	0.0	27.6	27.3	53.9	26.3	26.6
2	4882.0	26.9	26.7	31.7	30.7	3.9	0.0	31.8	31.6	53.9	22.1	22.3
3	7323.0	27.9	27.1	35.9	31.3	4.6	0.0	37.1	36.3	53.9	16.8	17.6
4	9764.0	28.9	29.1	38.2	32.1	5.4	0.0	40.4	40.6	53.9	13.5	13.3

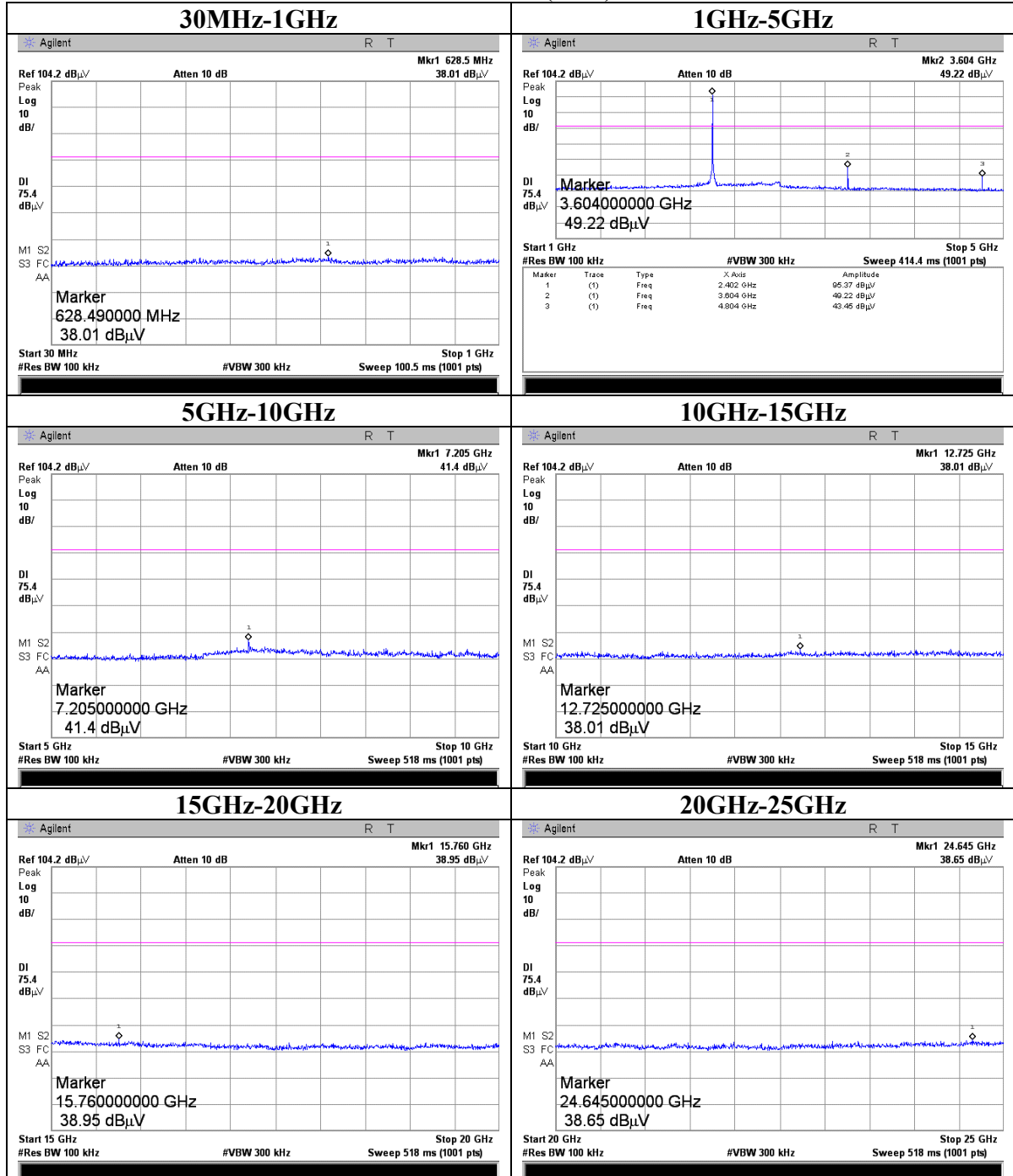
* Reference data

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

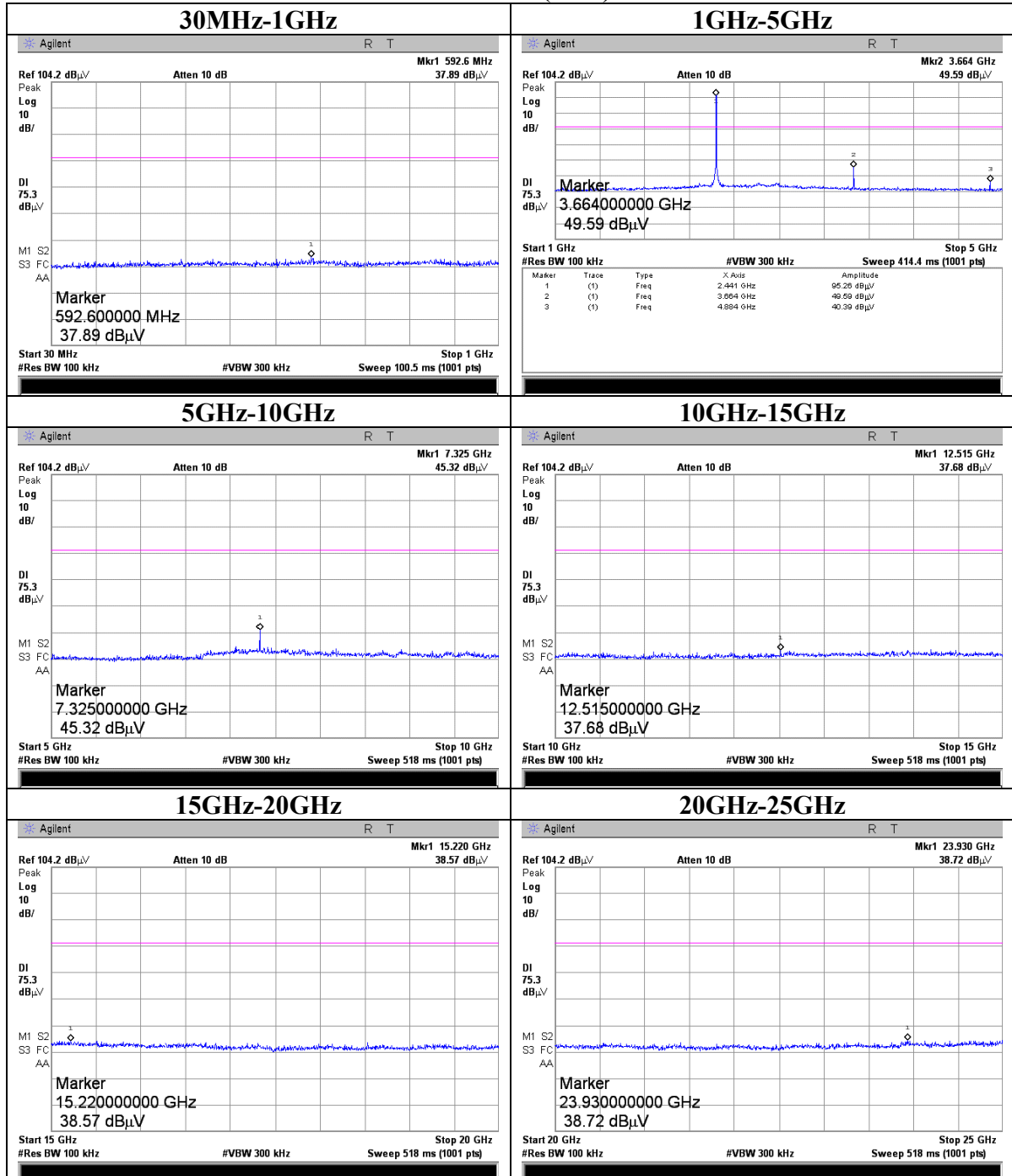
*The test result is round off to one or two decimal places, so some differences might be observed.

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

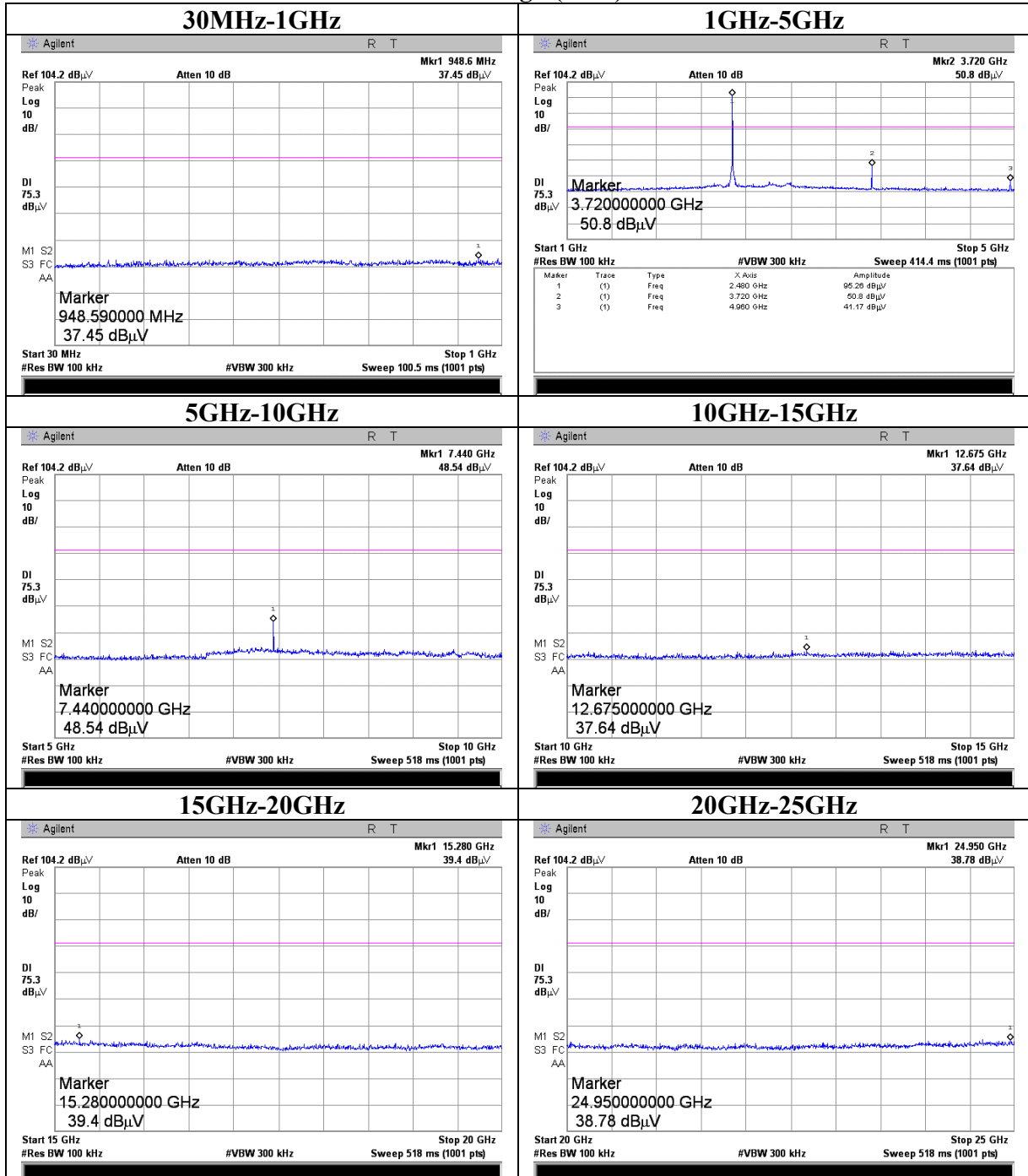
Conducted Spurious Emission
Tx Ch:Low (DH5)



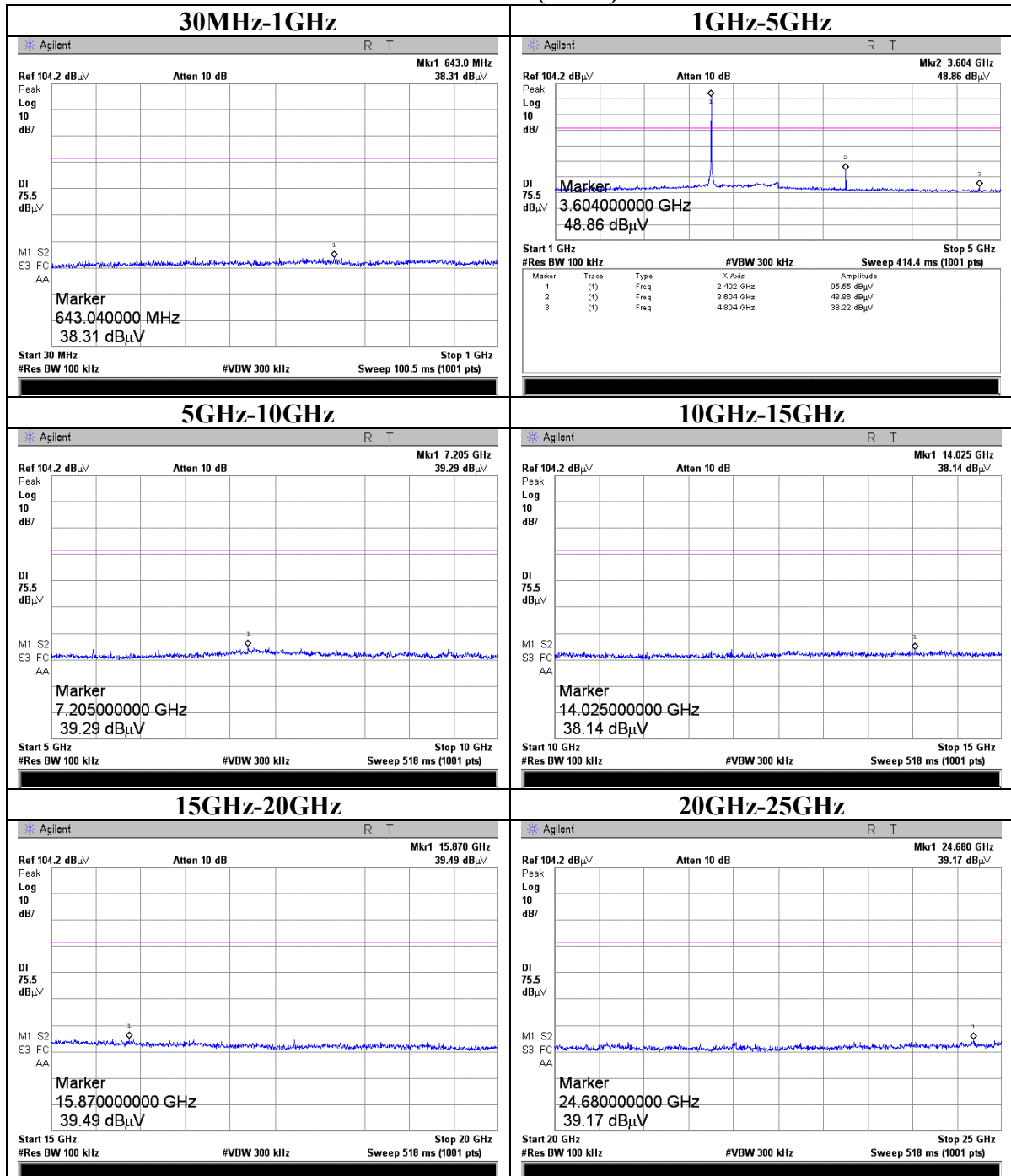
Conducted Spurious Emission
Tx Ch:Mid (DH5)



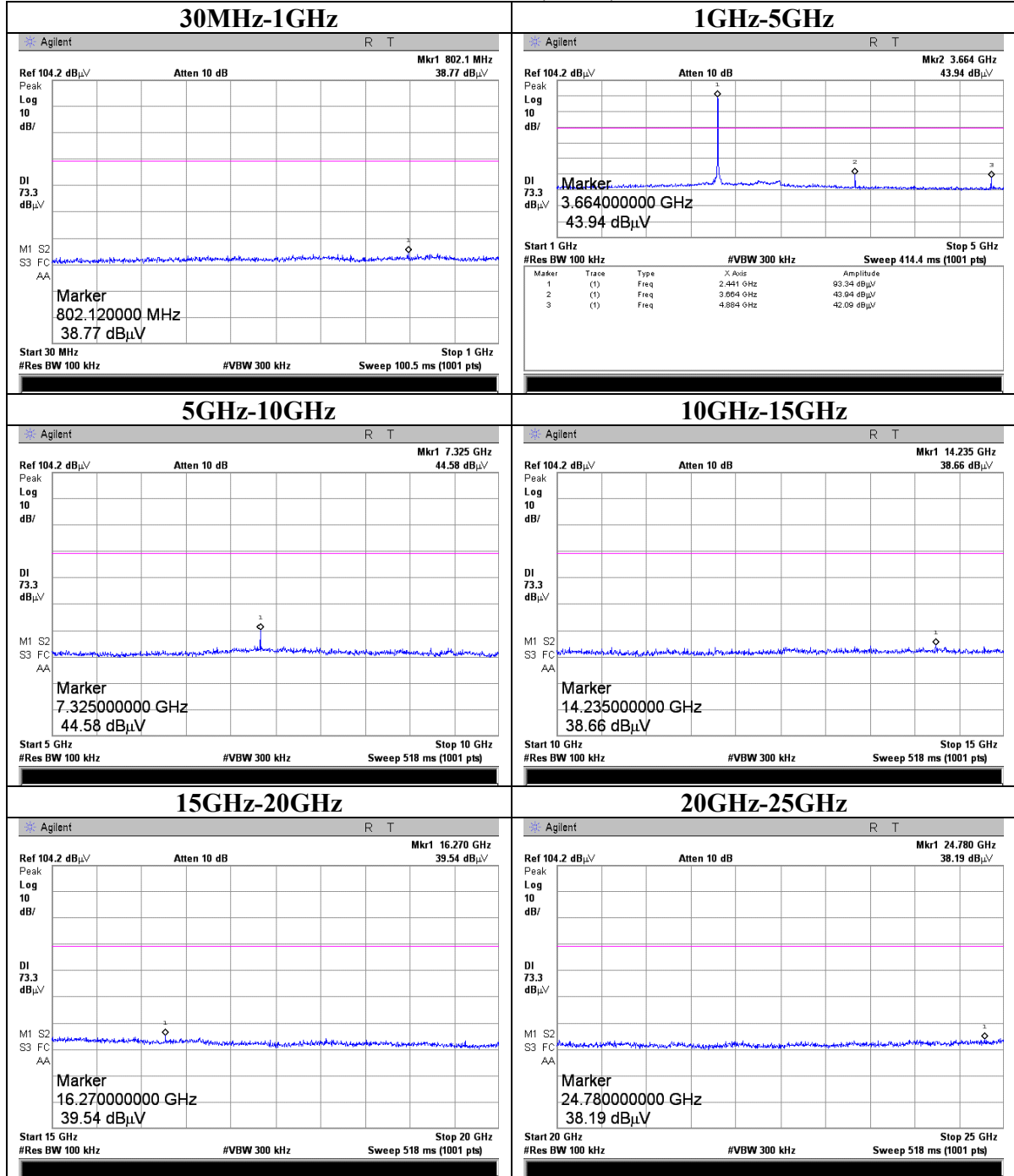
Conducted Spurious Emission
Tx Ch:High (DH5)



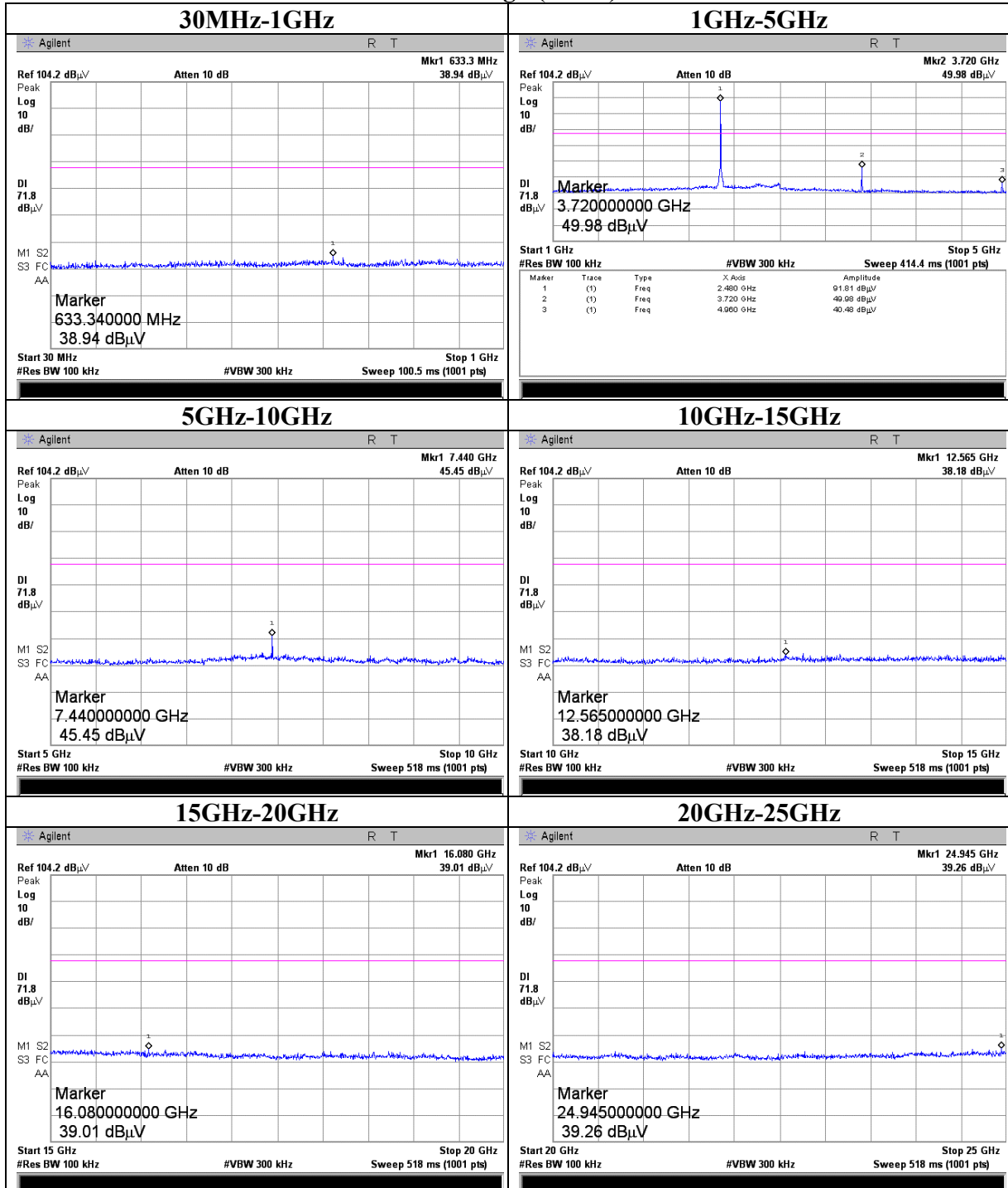
Conducted Spurious Emission
Tx Ch:Low (3DH5)



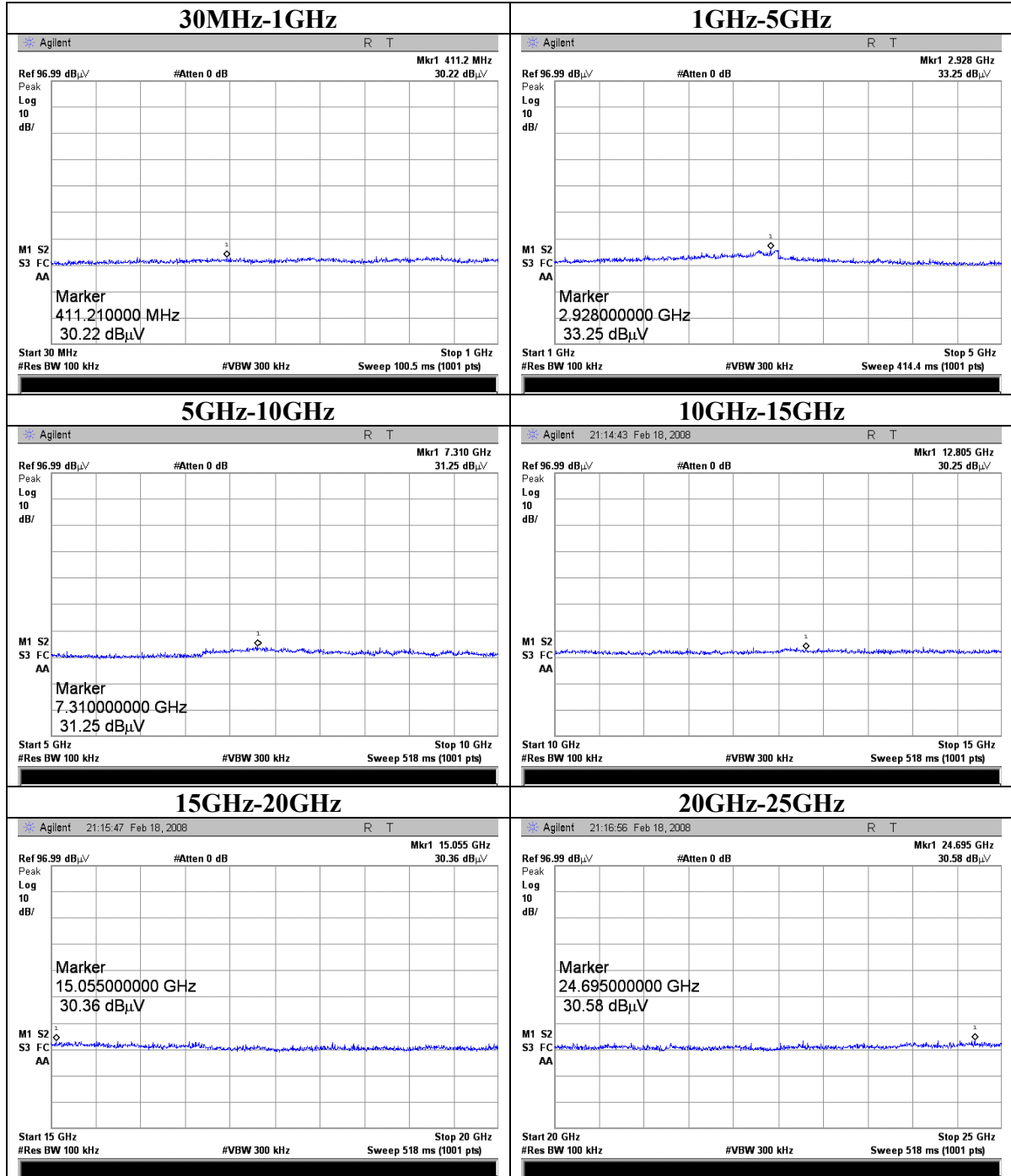
Conducted Spurious Emission
Tx Ch:Mid (3DH5)



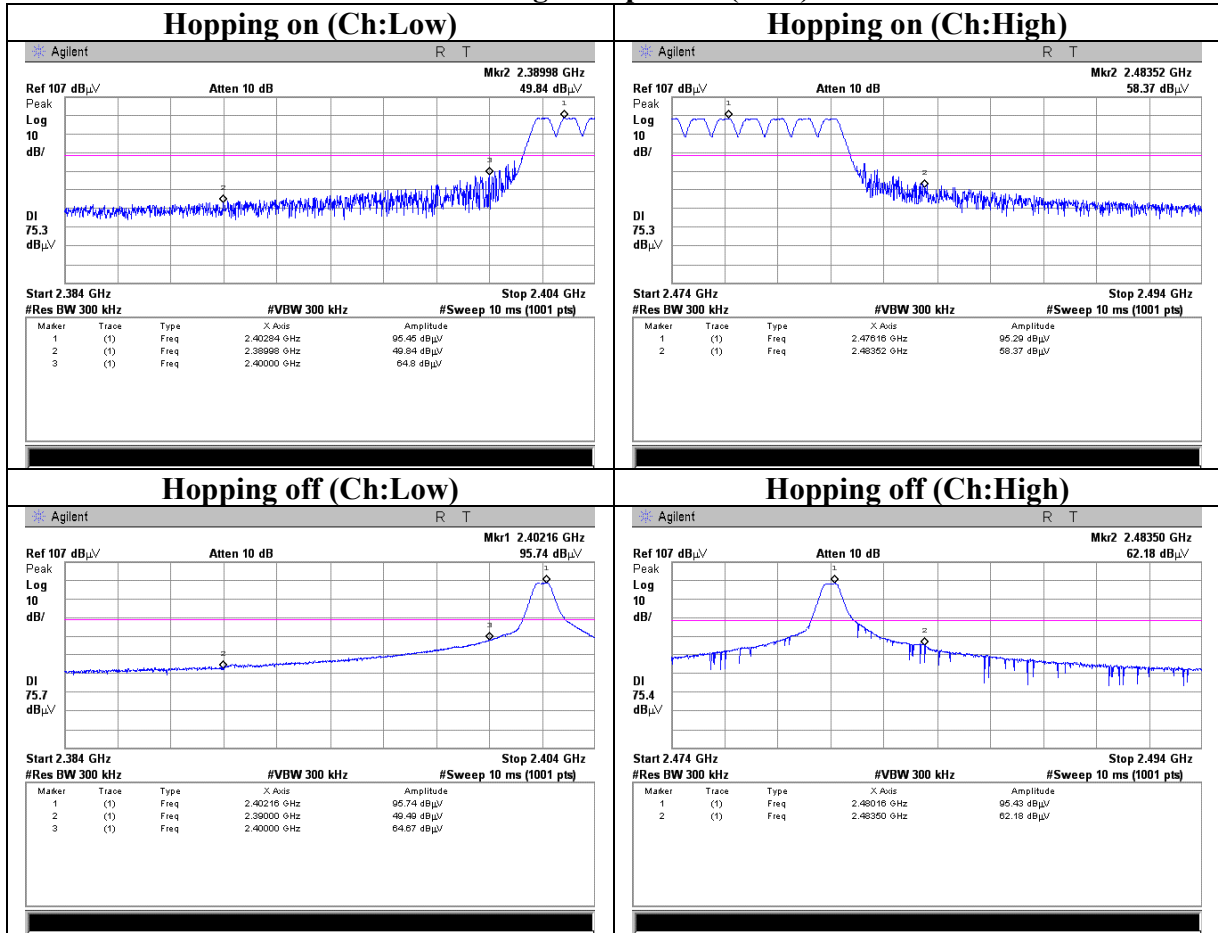
Conducted Spurious Emission
Tx Ch:High (3DH5)



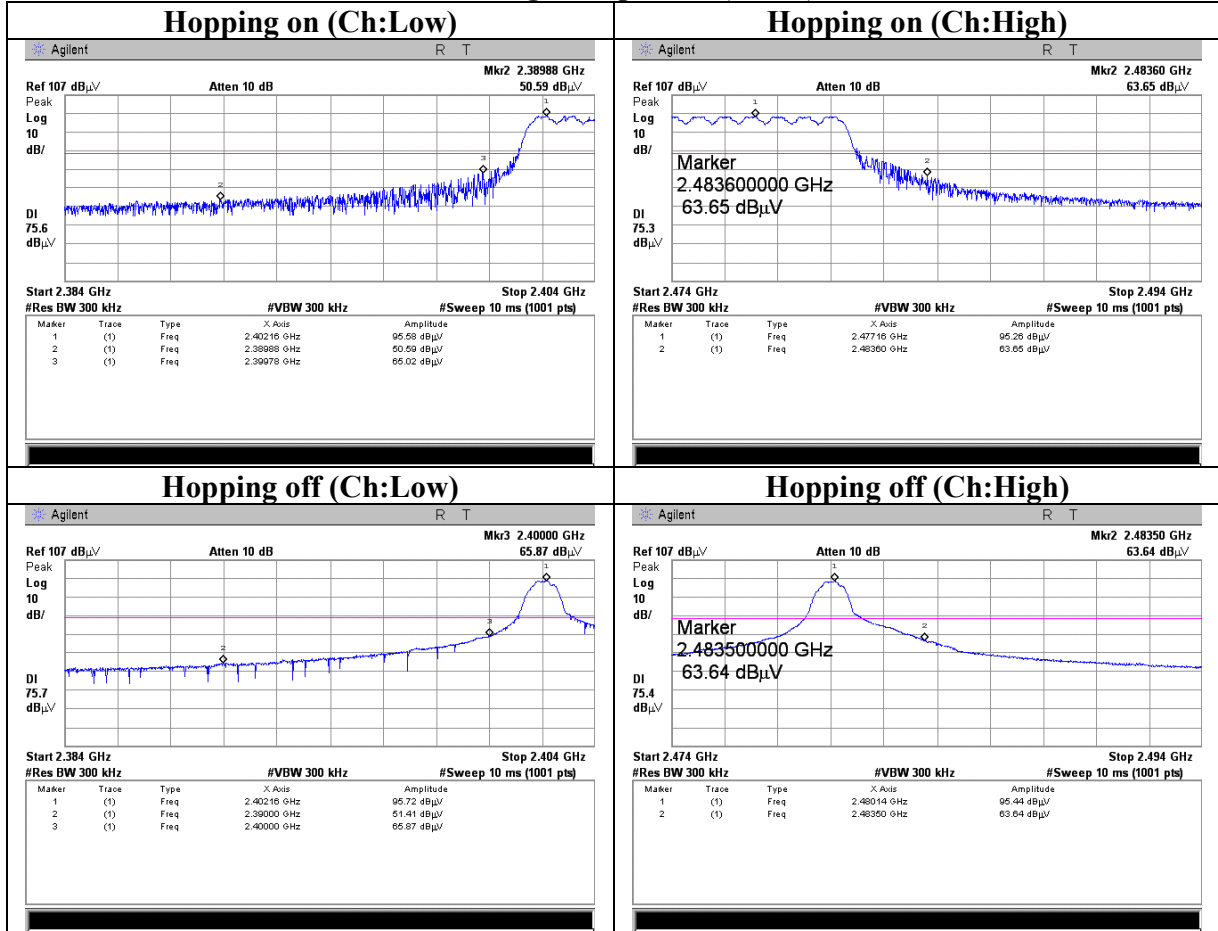
Conducted Spurious Emission
Rx Ch:Mid



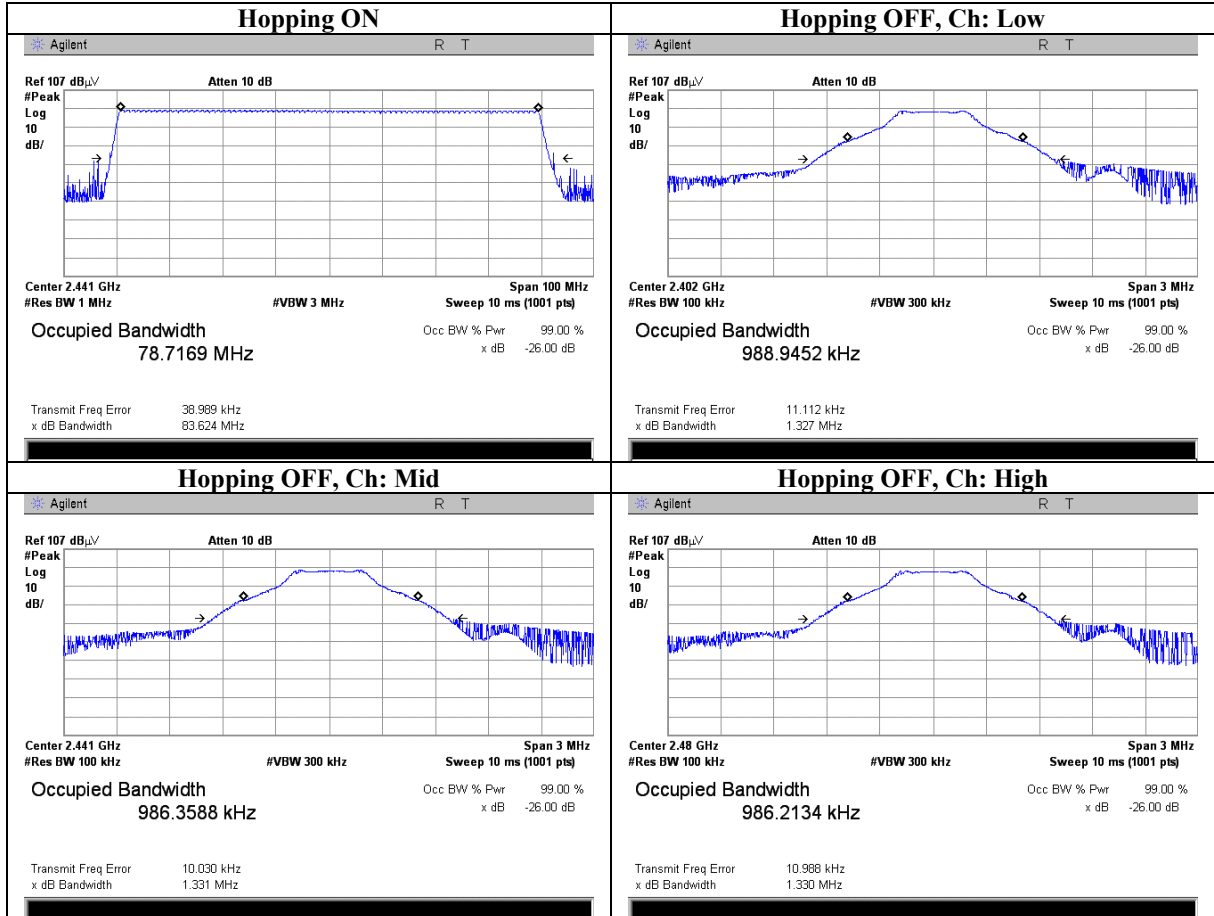
Conducted Spurious Emission
Band Edge compliance (DH5)



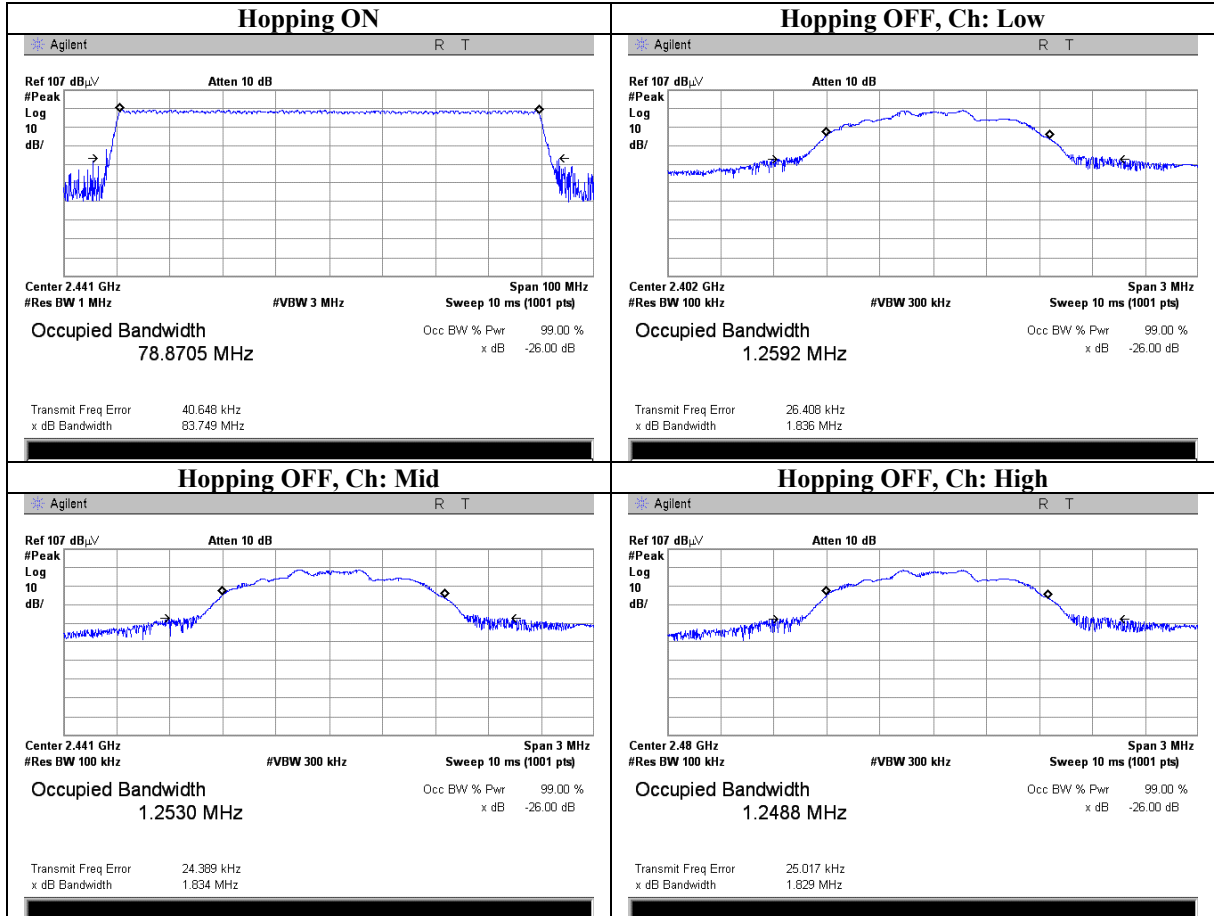
Conducted Spurious Emission
Band Edge compliance (3DH5)



99% Occupied Bandwidth
DH5



99% Occupied Bandwidth
3DH5



APPENDIX 3:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	CE	2007/11/23 * 12
MLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2007/06/29 * 12
MLS-03	LISN(AMN)	Schwarzbeck	NSLK8127	CE(AE)	2007/06/29 * 12
MTA-07	Terminator	MCL	BTRM-50	CE	2008/02/04 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/ Agilent/TSJ	-	CE	2007/12/27 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	CE	2007/10/19 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	CE	2007/11/12 * 12
MJM-01	Measure	KDS	ES19-55	CE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	CE	-
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/03/05 * 12
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2007/04/14 * 12
MCC-56	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/29 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/02 * 12
MSA-09	Spectrum Analyzer	Advantest	R3273	RE	2007/12/21 * 12
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE	-
MCC-78	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MHF-19	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	RE	2007/12/10 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	RE	2008/01/10 * 12
MJM-06	Measure	PROMART	SEN1955	RE	-
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2008/01/12 * 12
MLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2008/01/12 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE	2007/02/03 * 12
MCC-51	Coaxial cable	UL Japan	-	RE	2007/07/26 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	RE	2007/03/16 * 12
MAT-30	Attenuator(6dB)	TME	UFA-01	RE	2007/03/05 * 12
MPM-08	Power Meter	Anritsu	ML2495A	AT	2007/09/12 * 12
MPSE-11	Power sensor	Anritsu	MA2411B	AT	2007/09/12 * 12
MAT-23	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	AT	2007/03/07 * 12
MCC-06	Microwave Cable 1G-26.5GHz 1m	Suhner	SUCOFLEX 104	AT	2008/02/05 * 12
MOS-04	Digital Humidity Indicator	N.T	NT-1800	AT	2007/11/12 * 12
MOS-19	Thermo-Hygrometer	Custom	CTH-201	AT	2007/12/05 * 12
MSA-06	Spectrum Analyser	Agilent	E4407B	AT	2007/04/10 * 12

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

Test report No. : 28EE0230-HO-02-A-R1
Page : 71 of 71
Issued date : February 29, 2008
Revised date : April 1, 2008
FCC ID : A6RYBA10A

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