DATA OF CONDUCTION TEST

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2441MHz DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation	: FCC Part15C §15.207.(CISPR Pub.22)		

No.	FREQ.	READING(N)		READING(L1)		LISN	CABLE	ATTEN.	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV	FACTOR	LOSS		QP	AV	QP	AV	QP	AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	34.6	-	34.1	-	0.1	0.1	0.0	34.8	-	66.0	56.0	31.2	-
2.	0.1750	34.4	-	33.7	-	0.1	0.1	0.0	34.6	-	64.7	54.7	30.1	-
3.	0.2000	34.0	-	33.3	-	0.1	0.1	0.0	34.2	-	63.6	53.6	29.4	-
4.	0.2500	32.0	-	31.4	-	0.1	0.1	0.0	32.2	-	61.8	51.8	29.6	-
5.	0.5000	25.8	-	25.9	-	0.2	0.2	0.0	26.3	-	56.0	46.0	29.7	-
6.	19.1462	21.7	-	23.6	-	0.9	1.6	0.0	26.1	-	60.0	50.0	33.9	-

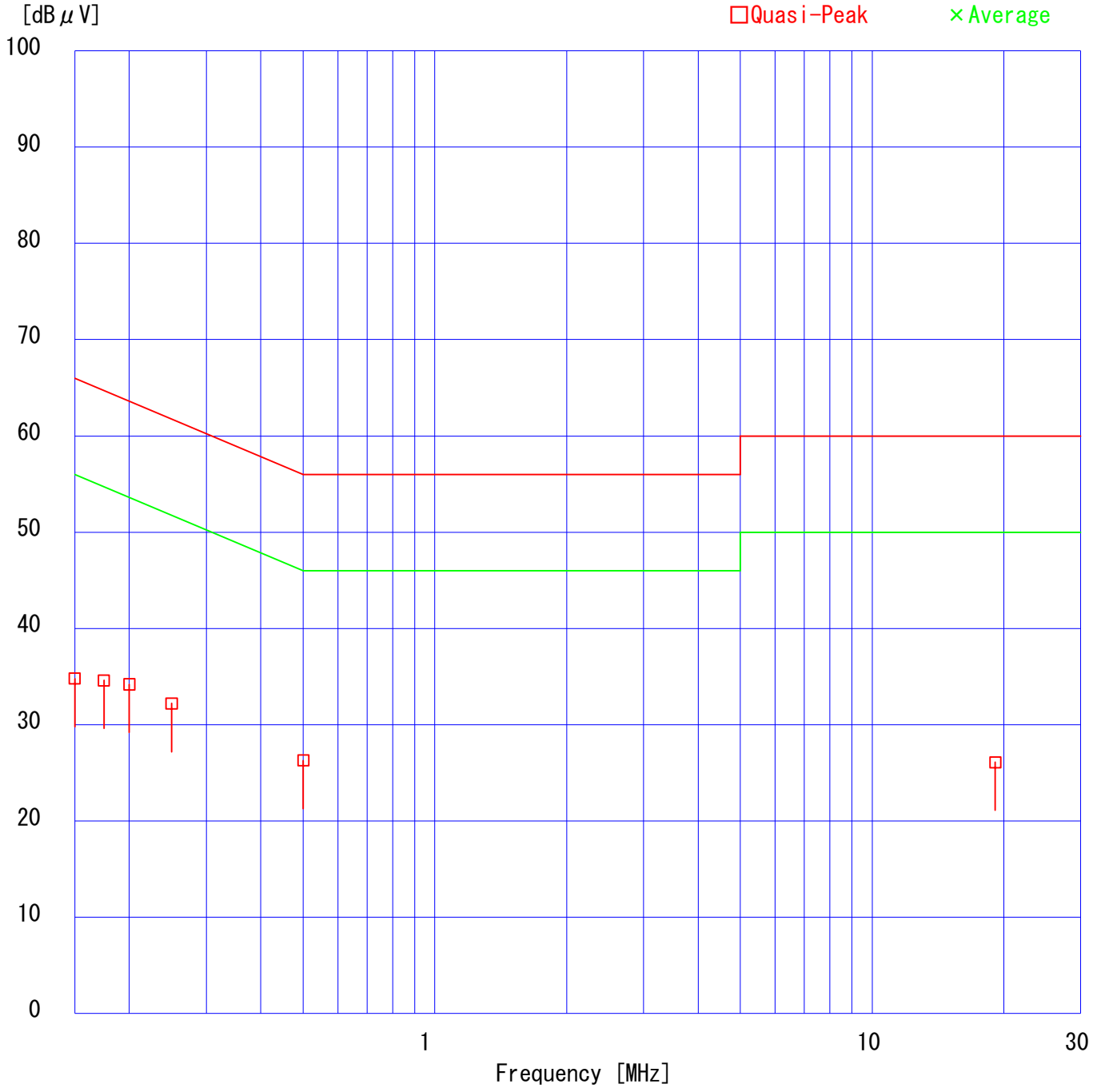
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■LISN:KLS-01(NNLK8126) ■COAXIAL CABLE:KCC-14/15/16/18
■PULSE LIMTTER:KPL-01(PL01) ■EMI RECEIVER:KTR-02(ESCS30)

DATA OF CONDUCTION TEST

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

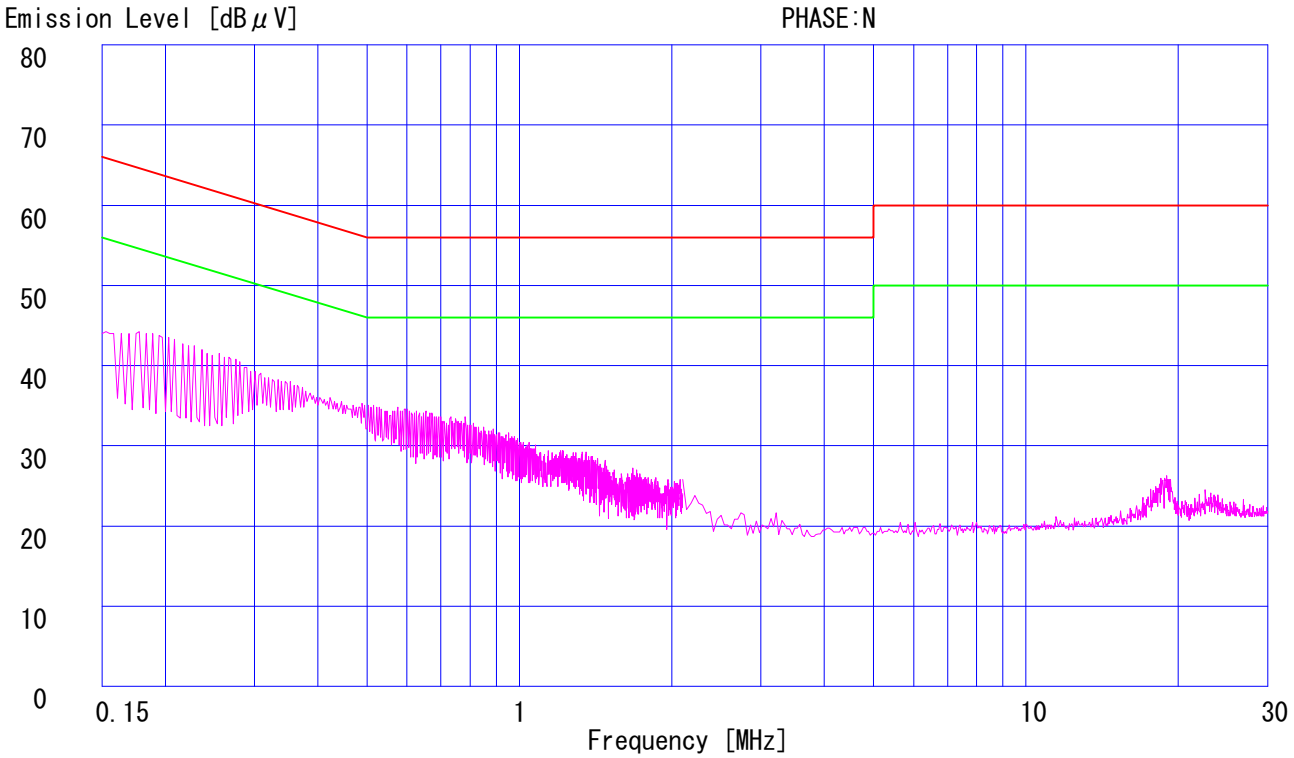
Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2441MHz DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation	: FCC Part15C §15.207.(CISPR Pub.22)		

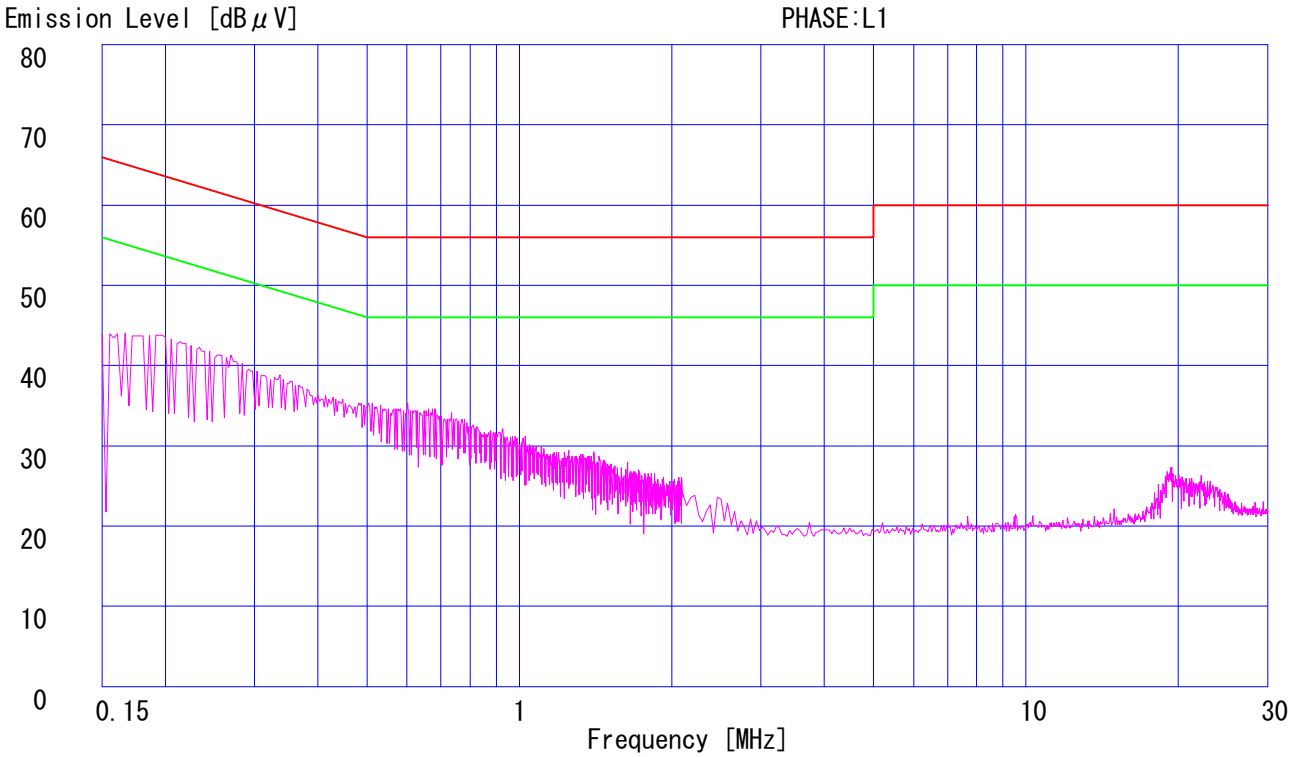


DATA OF CONDUCTION TEST CHART

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2441MHz DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation 1	: FCC Part15C §15.207.(CISPR Pub.22)		
Regulation 2	: None		

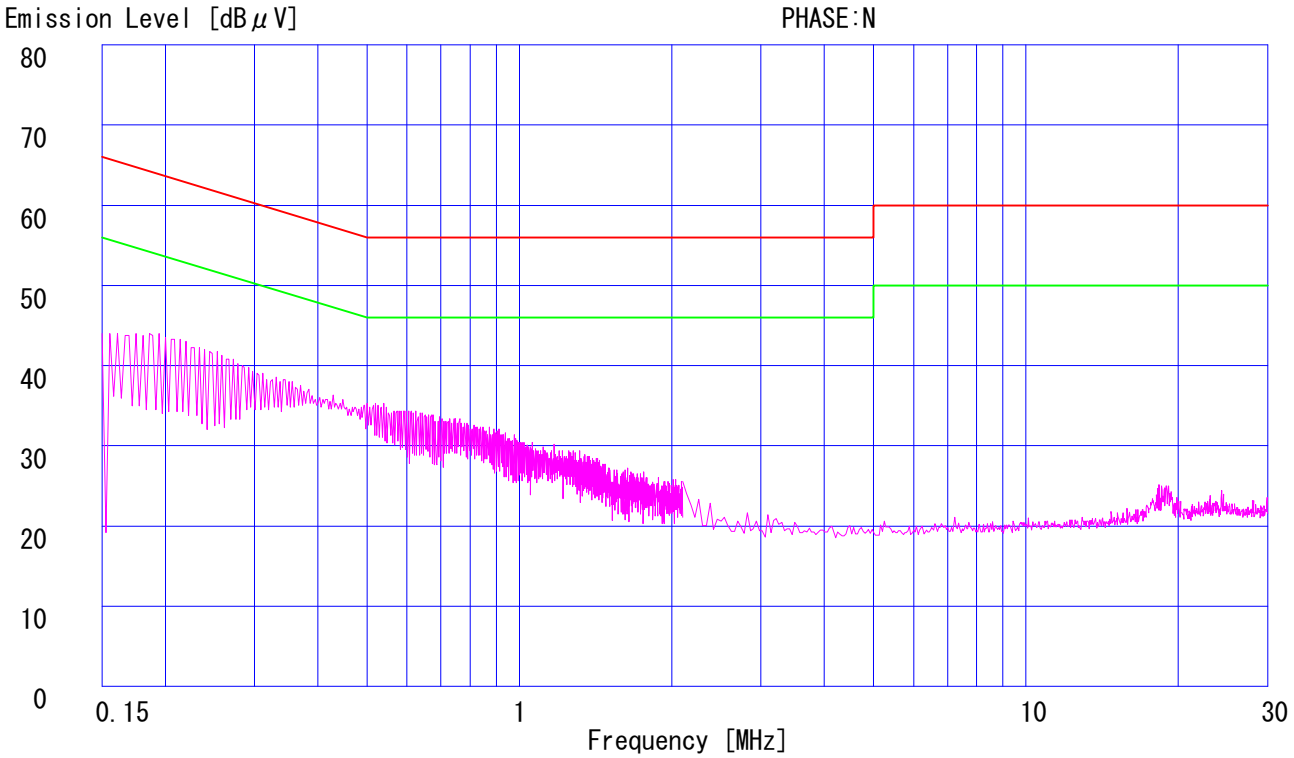


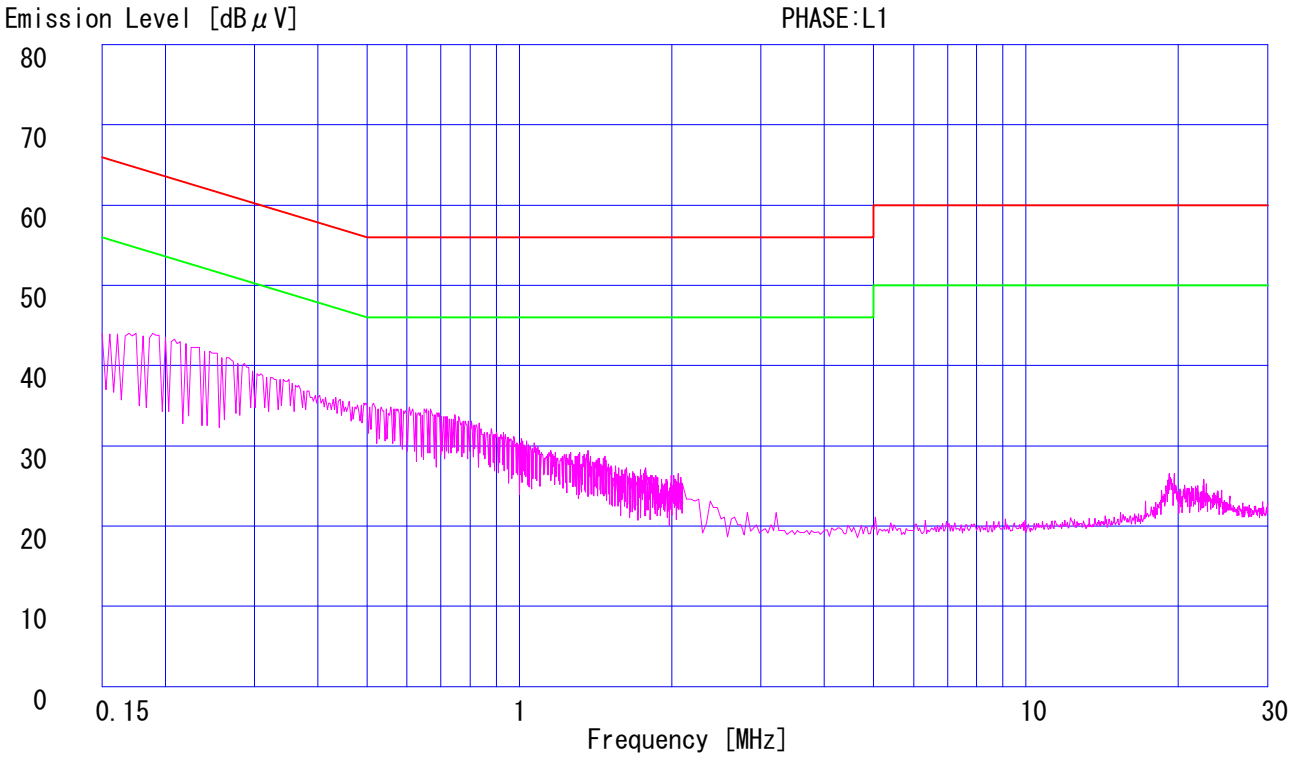


DATA OF CONDUCTION TEST CHART

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2402MHz DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation 1	: FCC Part15C §15.207.(CISPR Pub.22)		
Regulation 2	: None		

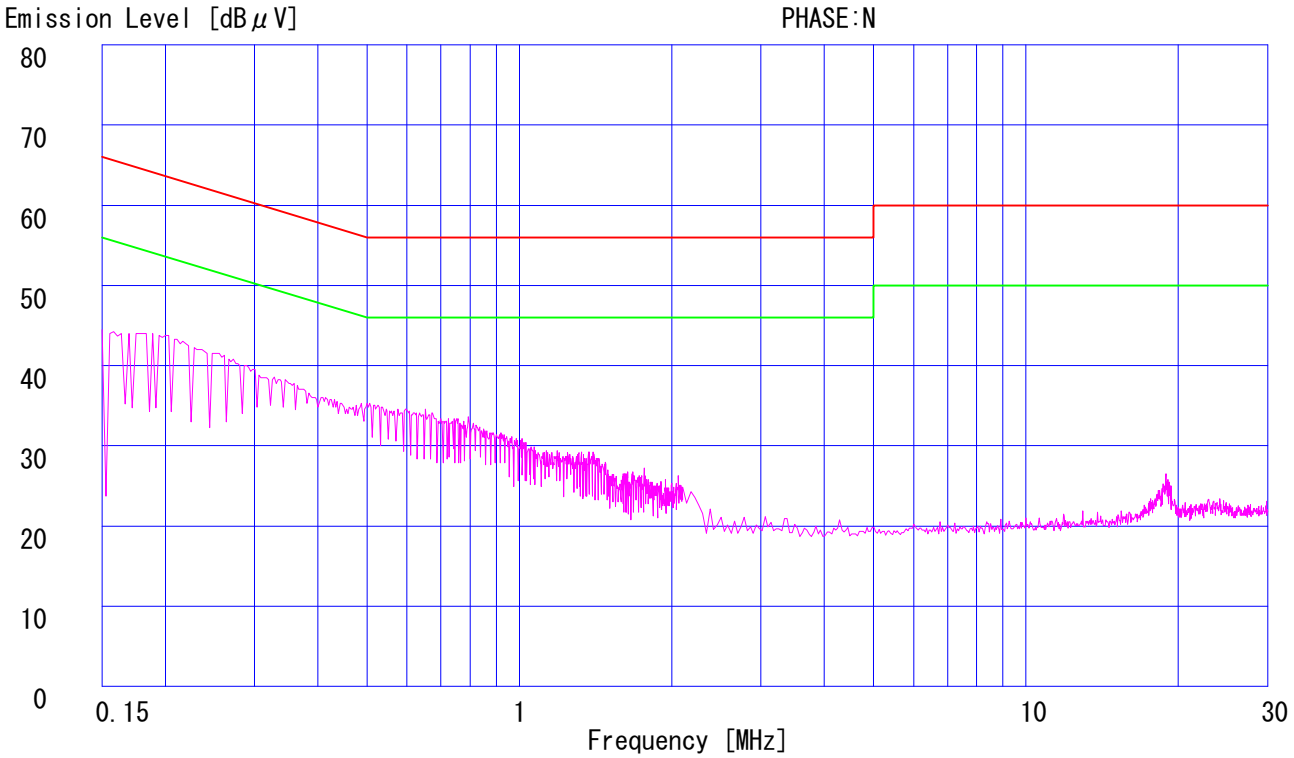


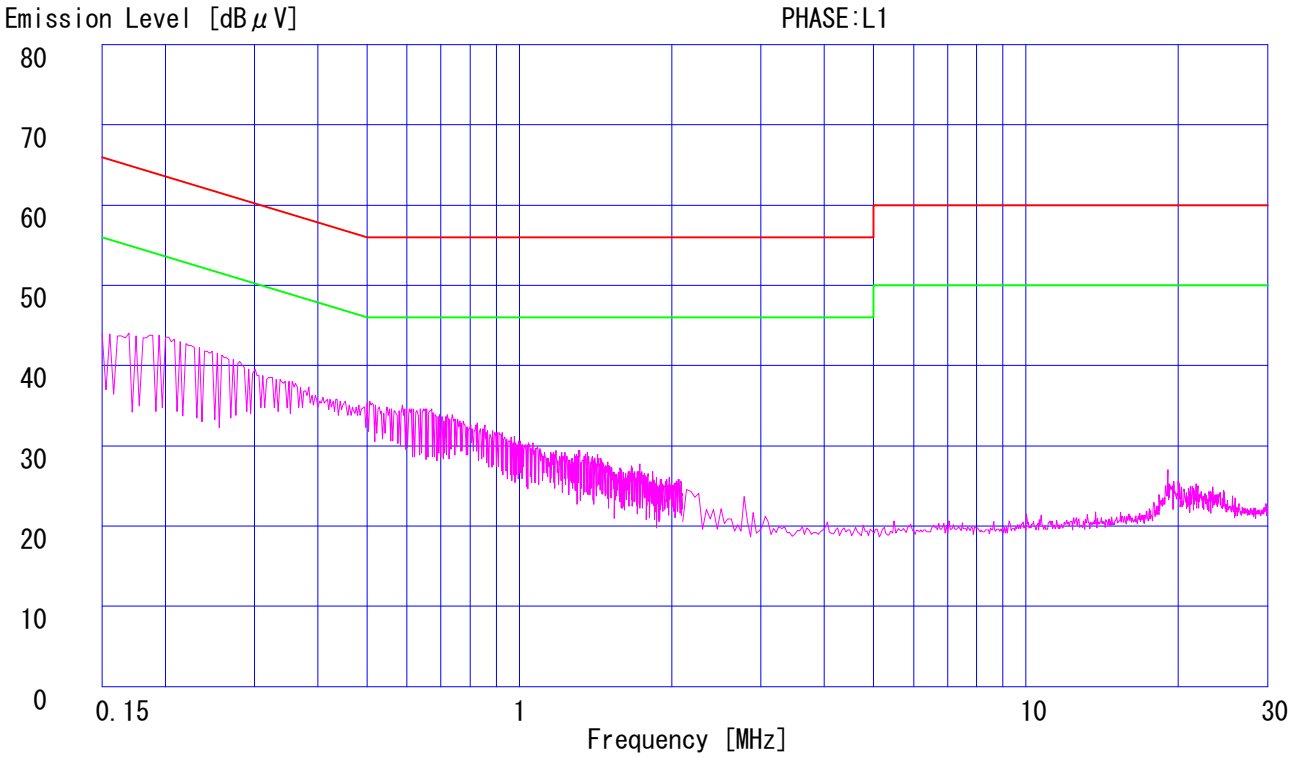


DATA OF CONDUCTION TEST CHART

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2480MHz DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation 1	: FCC Part15C §15.207.(CISPR Pub.22)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adapter
Model No. : AS-BT100
Serial No. : HCI119
Power : AC120V/60Hz
Mode : Transmitting 2441MHz 3DH5
Remarks : -
Date : 12/16/2008
Phase : Single Phase
Temperature : 22 ℃ Engineer : Makoto Hosaka
Humidity : 33 %
Regulation : FCC Part15C §15.207.(CISPR Pub.22)

No.	FREQ.	READING(N)		READING(L1)		LISN	CABLE	ATTEN.	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV	FACTOR	LOSS		QP	AV	QP	AV	QP	AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	34.6	-	34.5	-	0.1	0.1	0.0	34.8	-	66.0	56.0	31.2	-
2.	0.1750	34.4	-	34.3	-	0.1	0.1	0.0	34.6	-	64.7	54.7	30.1	-
3.	0.2000	34.0	-	34.0	-	0.1	0.1	0.0	34.2	-	63.6	53.6	29.4	-
4.	0.2500	32.0	-	32.1	-	0.1	0.1	0.0	32.3	-	61.8	51.8	29.5	-
5.	0.5000	25.8	-	25.7	-	0.2	0.2	0.0	26.2	-	56.0	46.0	29.8	-
6.	18.9439	22.7	-	23.5	-	0.9	1.6	0.0	26.0	-	60.0	50.0	34.0	-

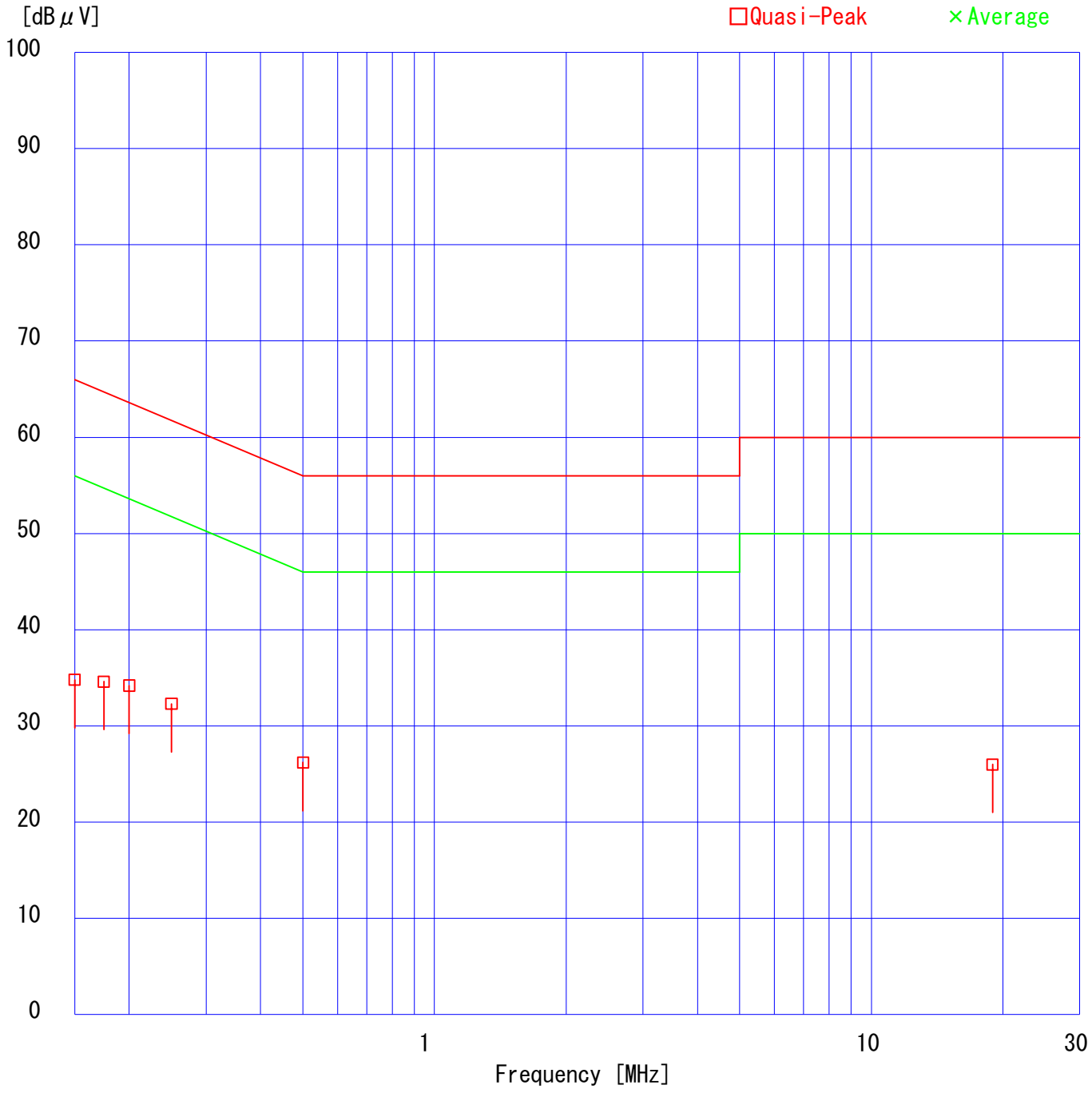
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■LISN:KLS-01(NNLK8126) ■COAXIAL CABLE:KCC-14/15/16/18
■PULSE LIMTTER:KPL-01(PL01) ■EMI RECEIVER:KTR-02(ESCS30)

DATA OF CONDUCTION TEST

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

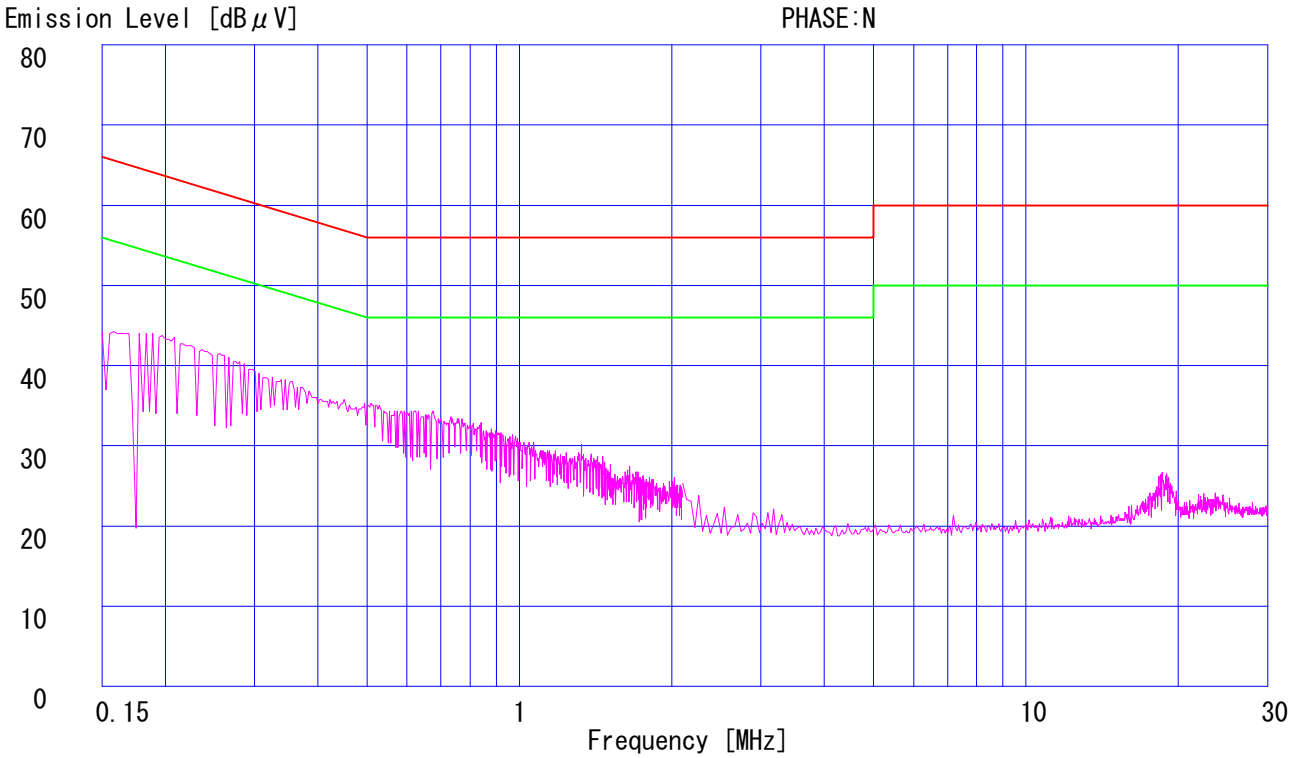
Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2441MHz 3DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation	: FCC Part15C §15.207.(CISPR Pub.22)		

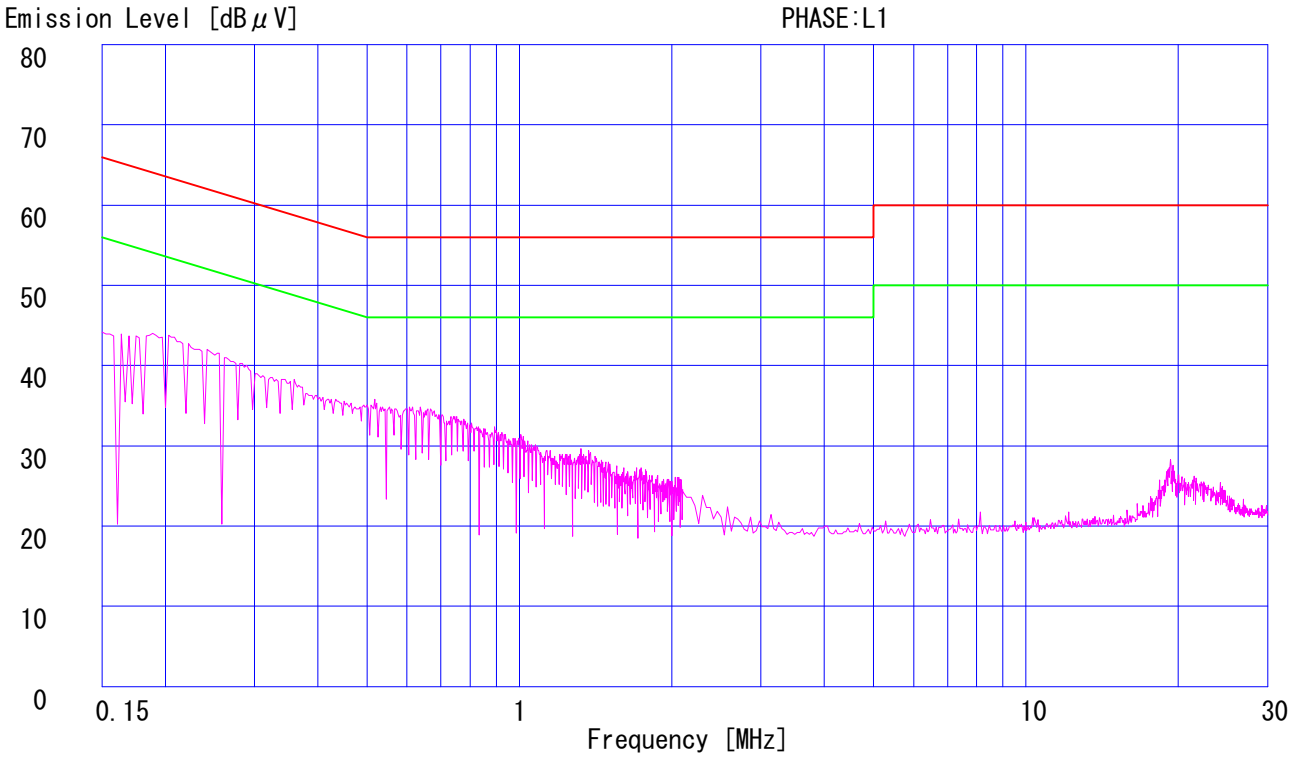


DATA OF CONDUCTION TEST CHART

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2441MHz 3DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation 1	: FCC Part15C §15.207.(CISPR Pub.22)		
Regulation 2	: None		

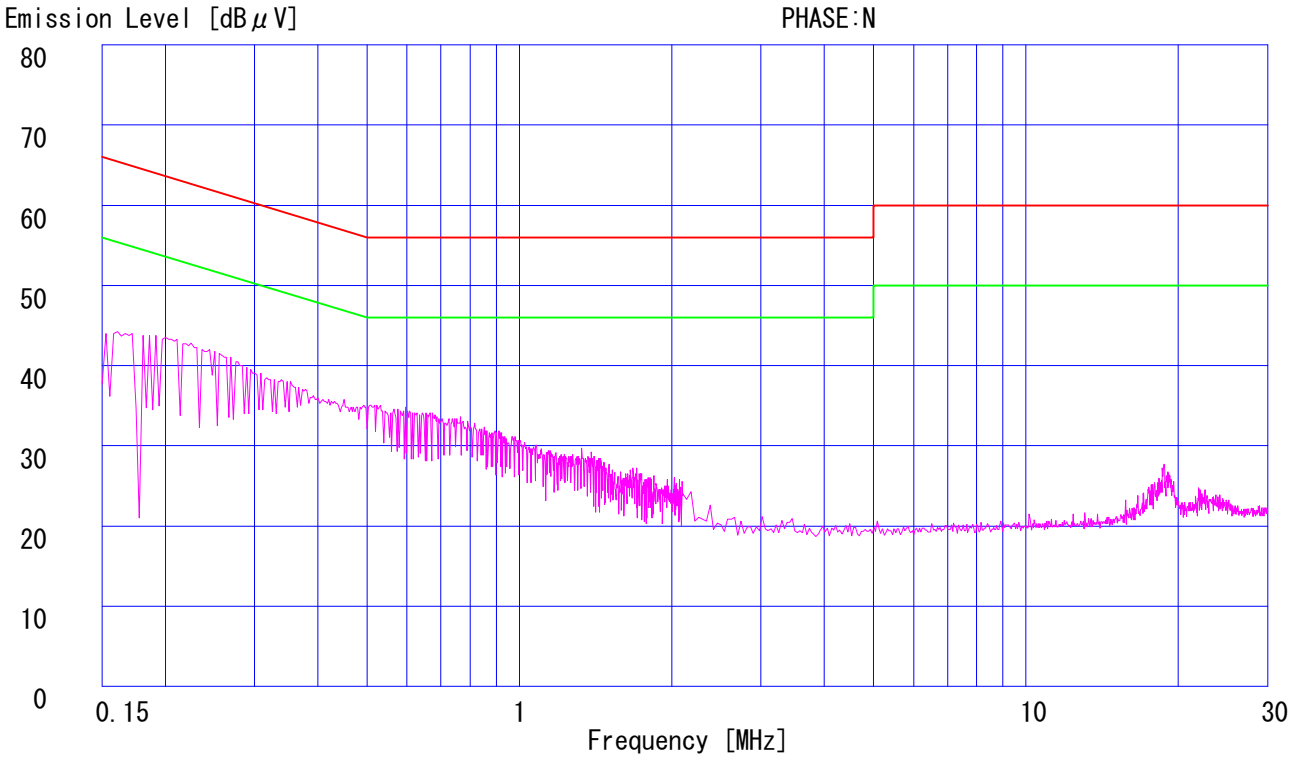


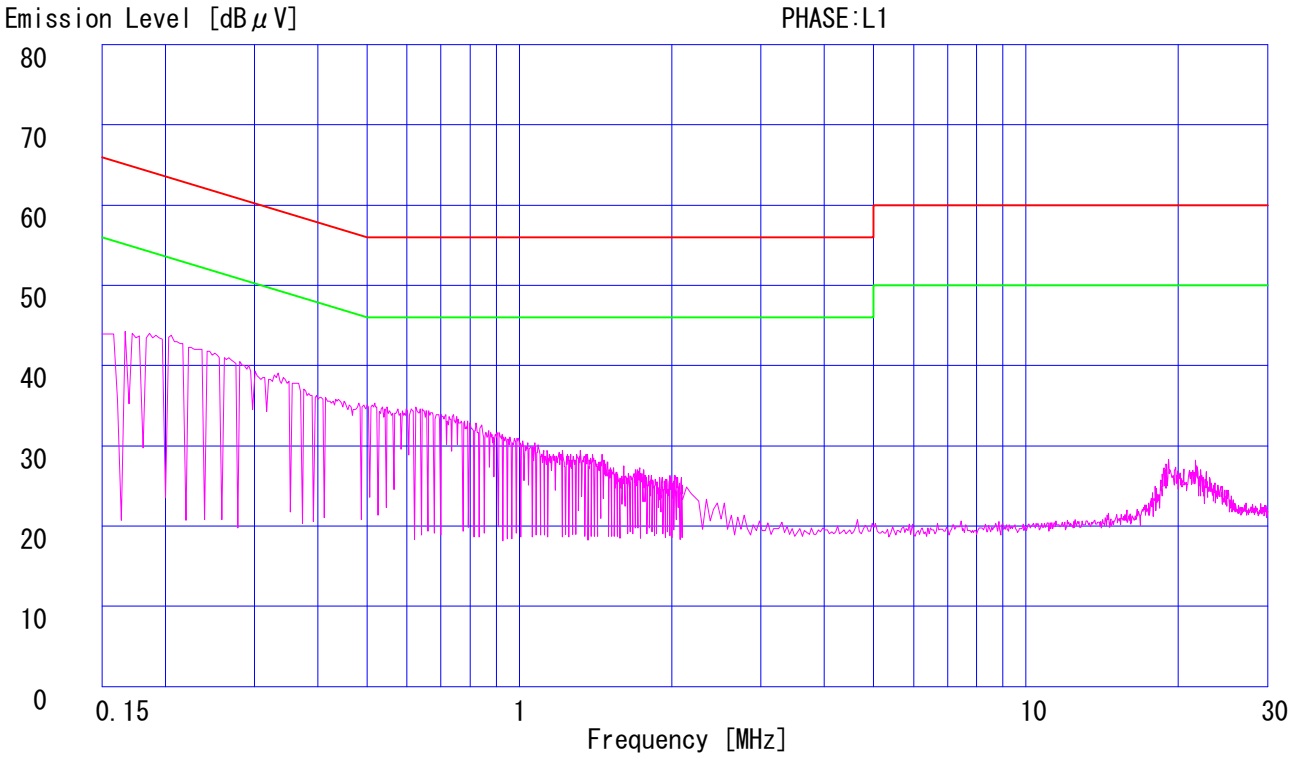


DATA OF CONDUCTION TEST CHART

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2402MHz 3DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation 1	: FCC Part15C §15.207.(CISPR Pub.22)		
Regulation 2	: None		

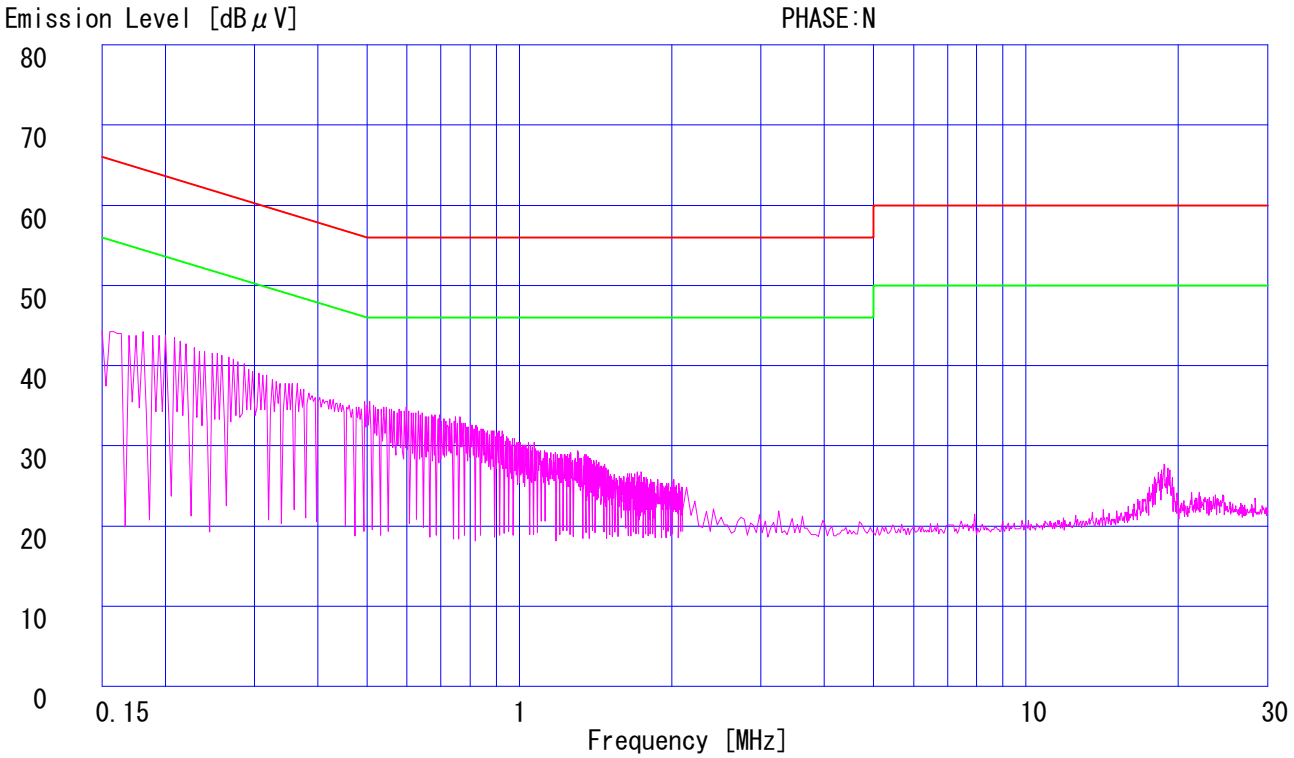


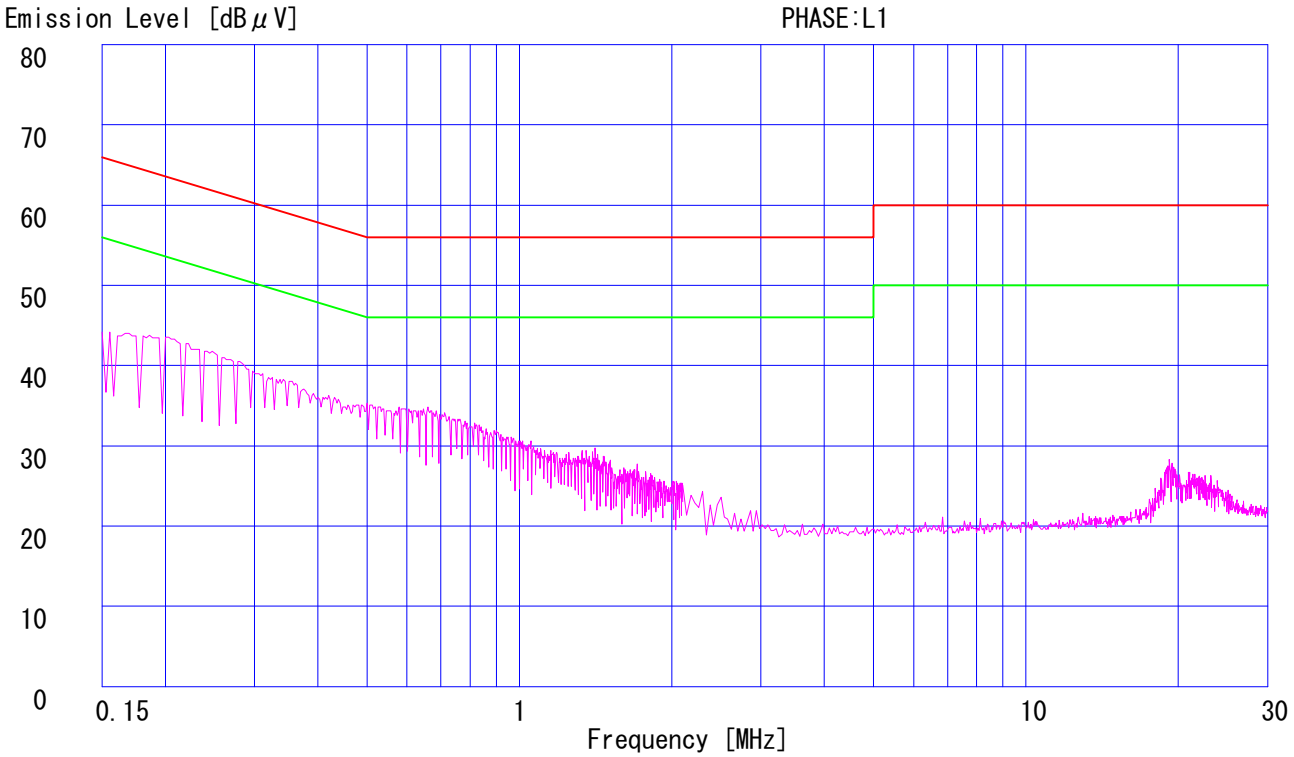


DATA OF CONDUCTION TEST CHART

UL Japan, Inc.
YAMAKITA No.1 SHIELD ROOM
Report No.: 29EE0038-YK-01-B-R1

Applicant	: PIONEER CORPORATION		
Kind of Equipment	: Bluetooth Adapter		
Model No.	: AS-BT100		
Serial No.	: HCI119		
Power	: AC120V/60Hz		
Mode	: Transmitting 2480MHz 3DH5		
Remarks	: -		
Date	: 12/16/2008		
Phase	: Single Phase		
Temperature	: 22 ℃	Engineer	: Makoto Hosaka
Humidity	: 33 %		
Regulation 1	: FCC Part15C §15.207.(CISPR Pub.22)		
Regulation 2	: None		





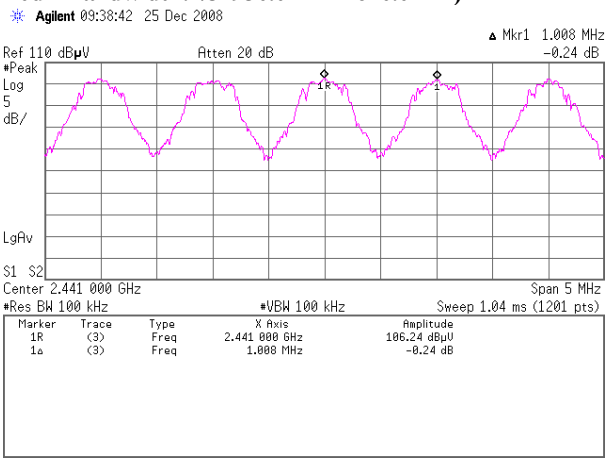
Company:	PIONEER CORPORATION	Report No.:	29EE0038-YK-01-B-R1
Kind of Equipment:	Bluetooth Adapter	Model No.:	AS-BT100
Serial No.:	HCI119	Power:	DC 5 V

Channel Separation (Regulation: FCC 15.247(a)(1))

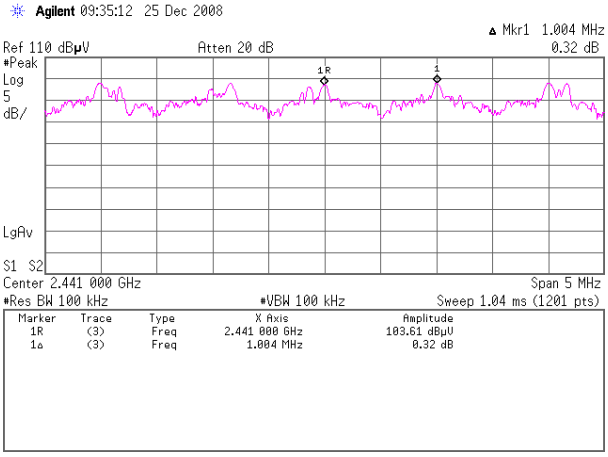
UL Japan, Inc. Yamakita EMC lab.	No.2 shielded room
Date:	2008/12/25
Temp./Humid.:	22 deg. C. / 35 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

Limit: ≥25kHz or 2/3 * 20dB Bandwidth (Power: No greater than 125mW)
No limit applies to 20dB Bandwidth.

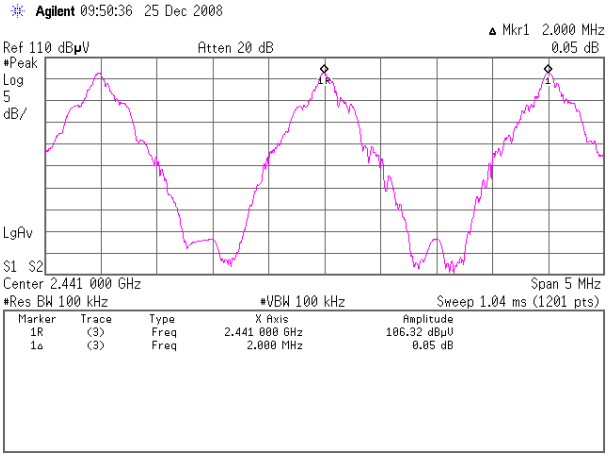
1. Hopping, DH5: 1.008MHz (2/3*20dB Bandwidth:2/3*930.0kHz = 620.0kHz)



2. Hopping, 3DH5: 1.004MHz (2/3*20dB Bandwidth:2/3*1.273MHz = 848.7kHz)



3. Inquiry: 2.000MHz (2/3*20dB Bandwidth:2/3*822.5kHz = 548.3kHz)

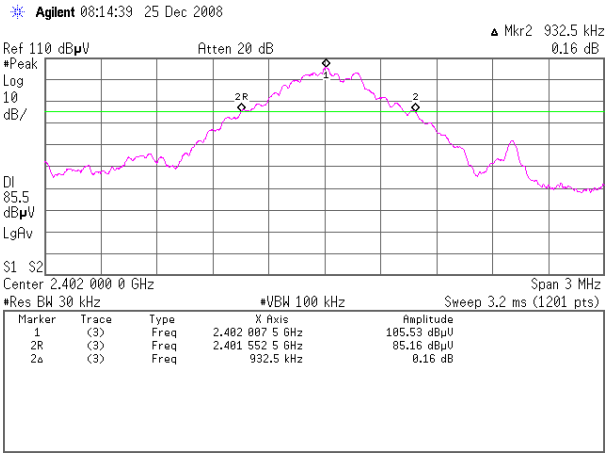


20dB Bandwidth (Regulation: FCC 15.247(a)(1))

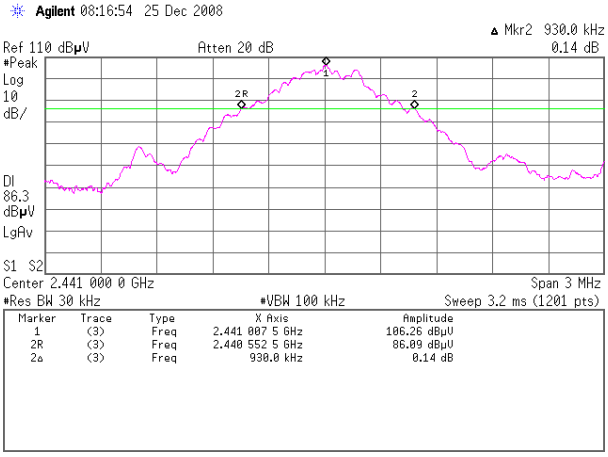
UL Japan, Inc. Yamakita EMC lab.	No.2 shielded room
Date:	2008/12/25
Temp./Humid.:	22 deg. C. / 35 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

[Hopping off, DH5]

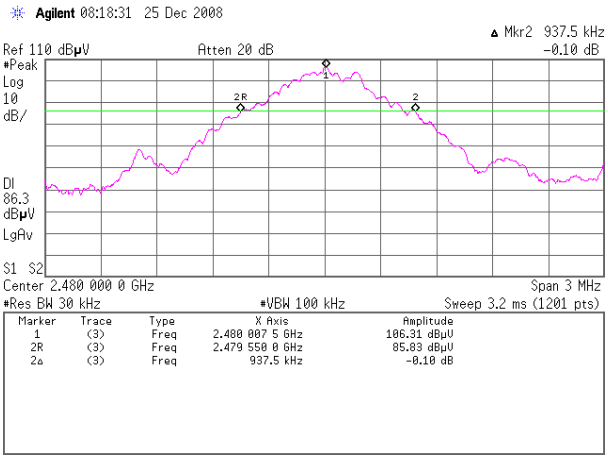
1. ch : 2402MHz/20dB Bandwidth: 932.5kHz



2. ch : 2441MHz/20dB Bandwidth: 930.0kHz

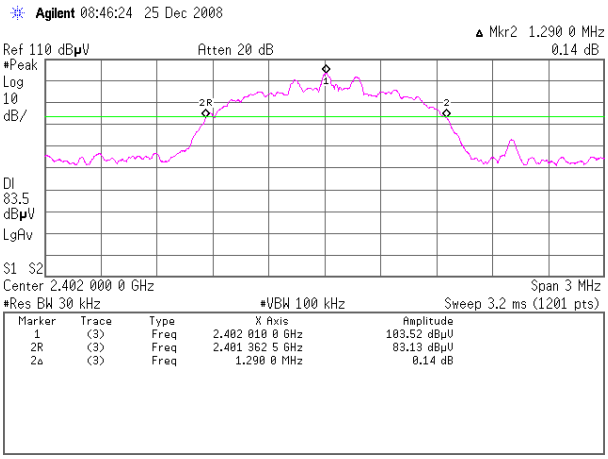


3. ch : 2480MHz/20dB Bandwidth: 937.5kHz

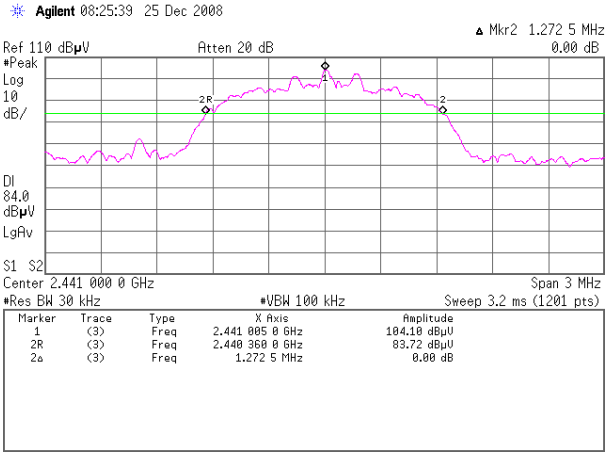


[Hopping off, 3DH5]

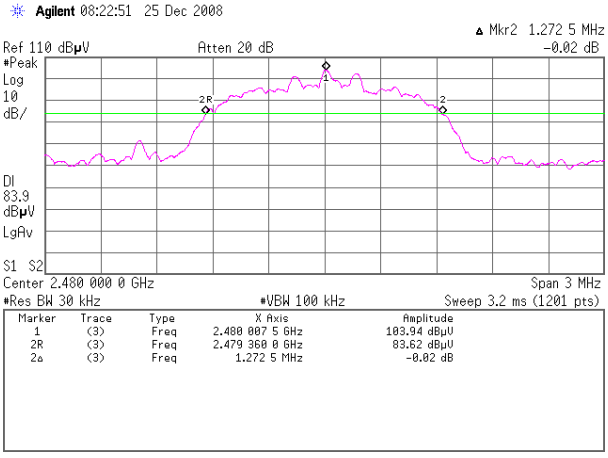
4. ch : 2402MHz/20dB Bandwidth: 1.290MHz



5. ch : 2441MHz/20dB Bandwidth: 1.273MHz

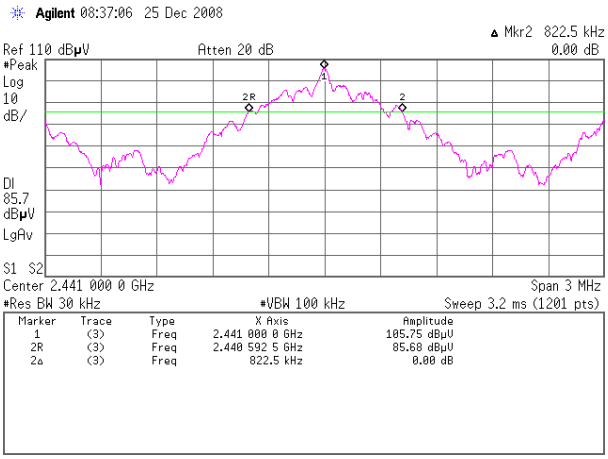


6. ch : 2480MHz/20dB Bandwidth: 1.273MHz



[Inquiry]

7. Inauiry/20dB Bandwidth: 822.5kHz

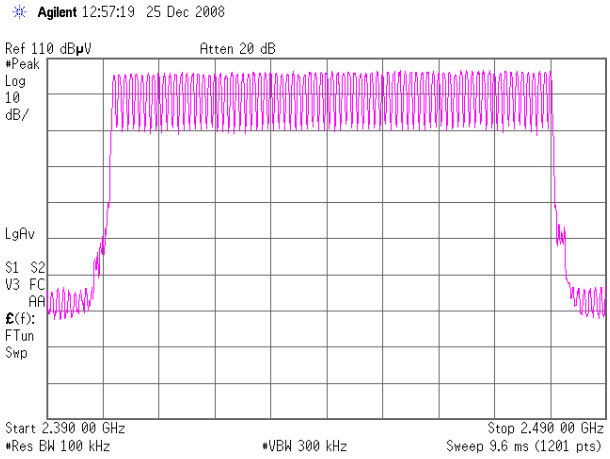


Channel Utilization (Regulation: FCC 15.247(a)(1)(iii))

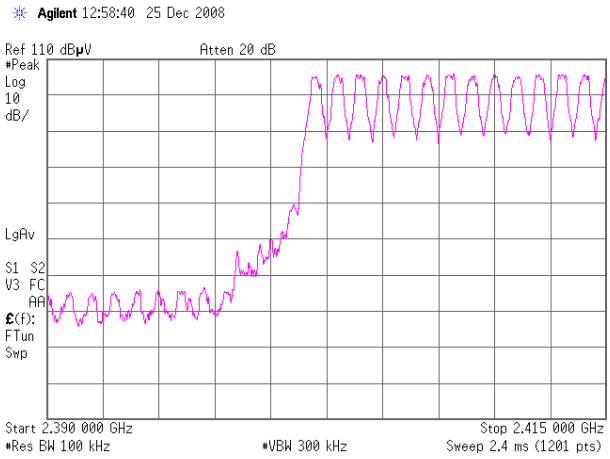
UL Japan, Inc. Yamakita EMC lab.	No.2 shielded room
Date:	2008/12/25
Temp./Humid.:	22 deg. C. / 35 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

Hopping, DH5: 79ch

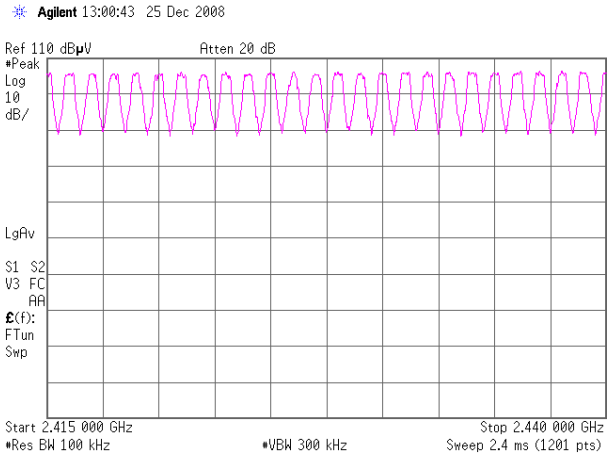
1.



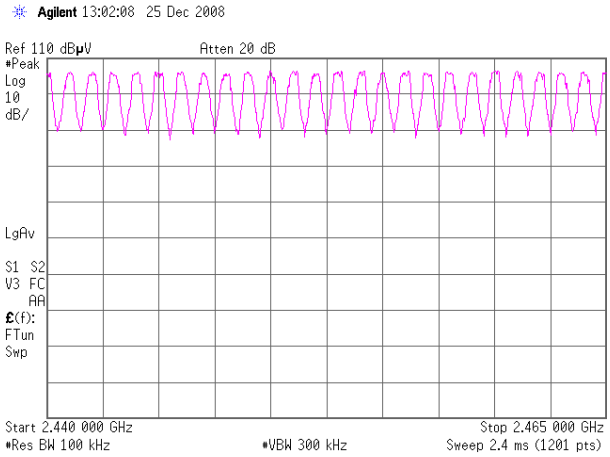
2.



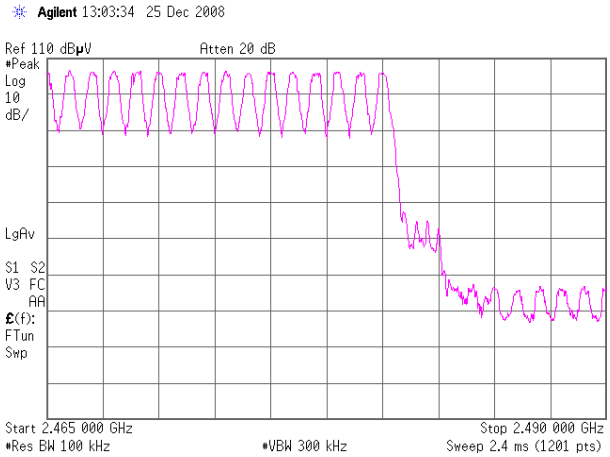
3.



4.

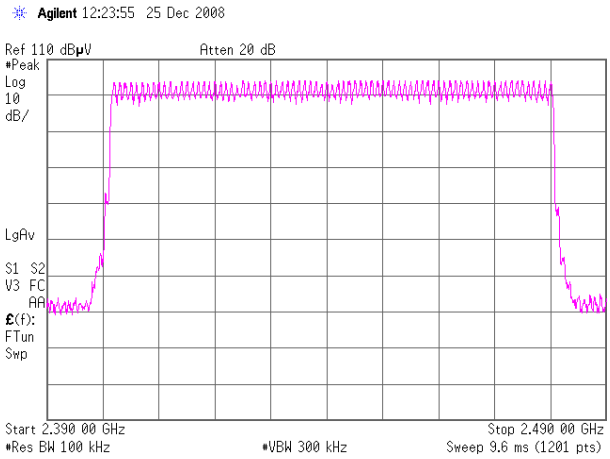

Agilent 13:02:08 25 Dec 2008
Ref 110 dBµV
Atten 20 dB
#Peak
Log
10
dB/
LgAv
S1 S2
V3 FC
AA
£(f):
FTun
Swp
Start 2.440 000 GHz
Stop 2.465 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.4 ms (1201 pts)

5.

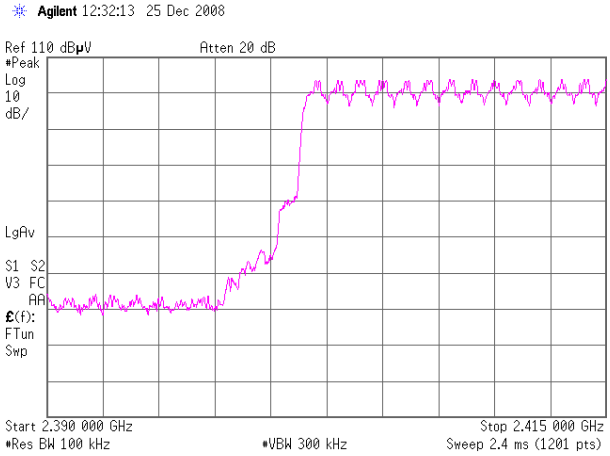

Agilent 13:03:34 25 Dec 2008
Ref 110 dBµV
Atten 20 dB
#Peak
Log
10
dB/
LgAv
S1 S2
V3 FC
AA
£(f):
FTun
Swp
Start 2.465 000 GHz
Stop 2.490 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.4 ms (1201 pts)

Hopping, 3DH5: 79ch

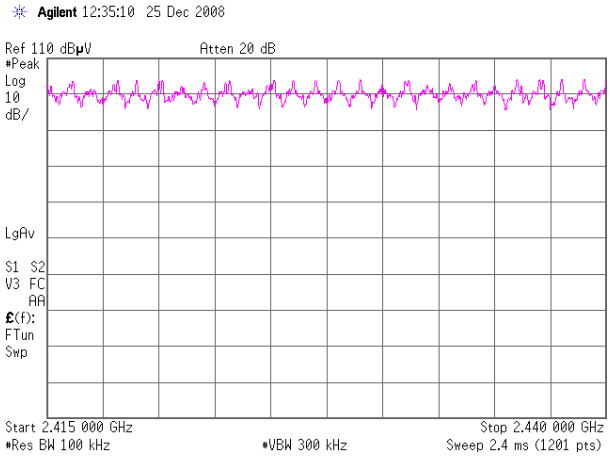
1.



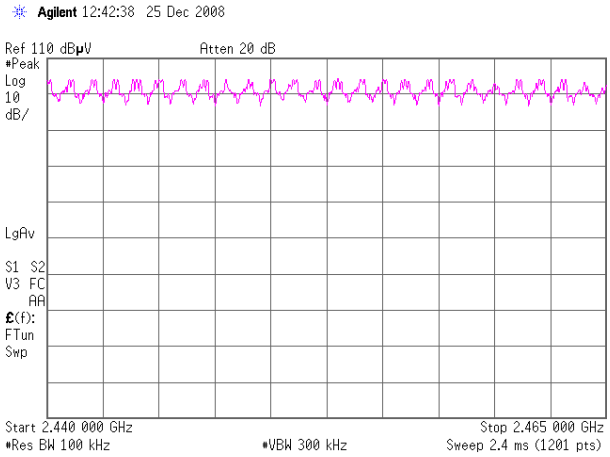
2.



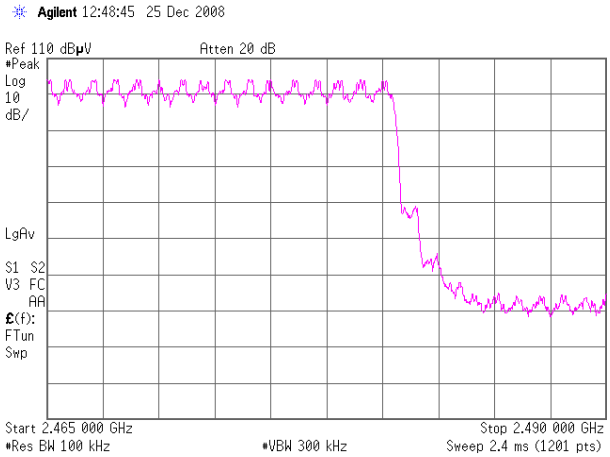
3.



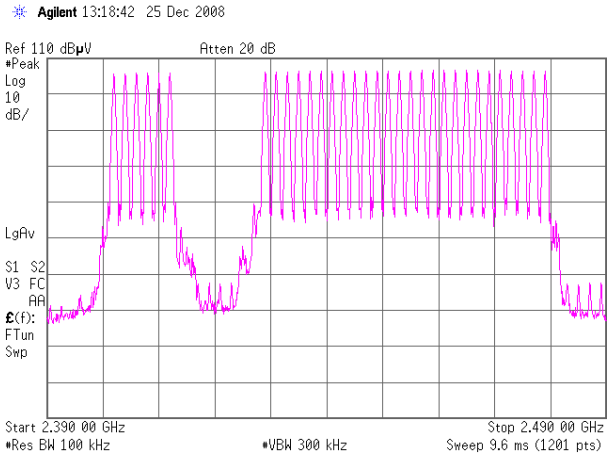
4.


Agilent 12:42:38 25 Dec 2008
Ref 110 dBµV
Atten 20 dB
#Peak
Log
10
dB/
LgAv
S1 S2
V3 FC
AA
£(f):
FTun
Swp
Start 2.440 000 GHz
Stop 2.465 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.4 ms (1201 pts)

5.


Agilent 12:48:45 25 Dec 2008
Ref 110 dBµV
Atten 20 dB
#Peak
Log
10
dB/
LgAv
S1 S2
V3 FC
AA
£(f):
FTun
Swp
Start 2.465 000 GHz
Stop 2.490 000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.4 ms (1201 pts)

1. Inquiry: 32ch

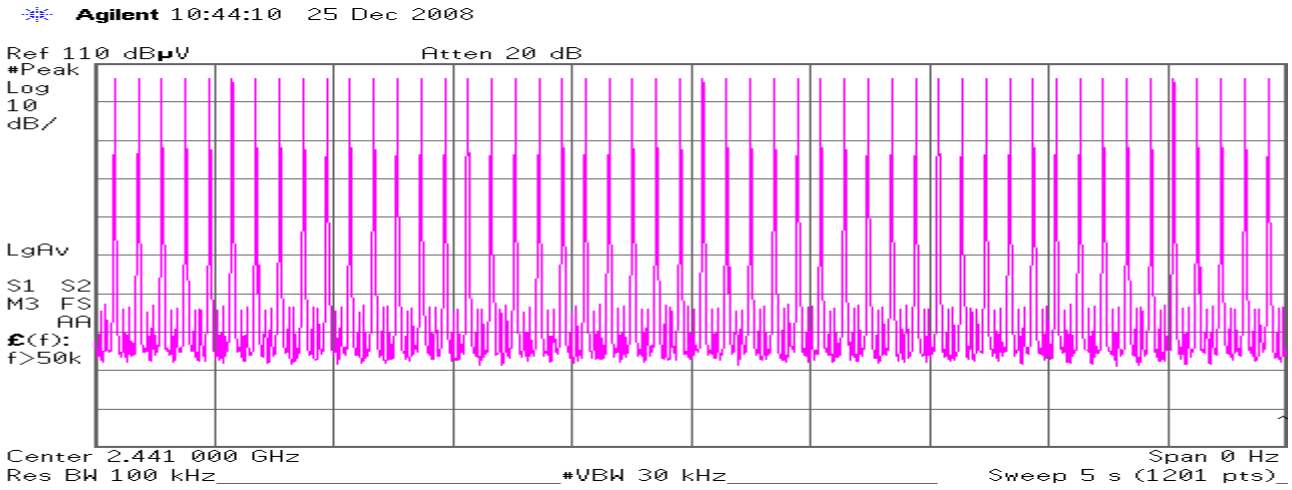


Dwell Time (Regulation: FCC 15.247(a)(1)(iii))

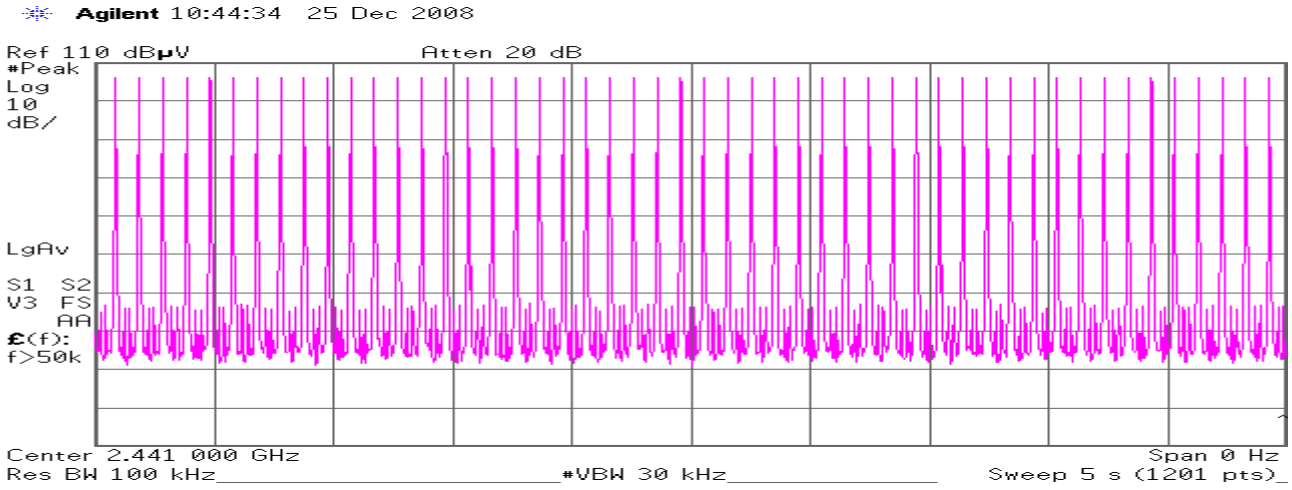
UL Japan, Inc. Yamakita EMC lab.	No.2 shielded room
Date:	2008/12/25
Temp./Humid.:	22 deg. C. / 35 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

Hopping (DH1):

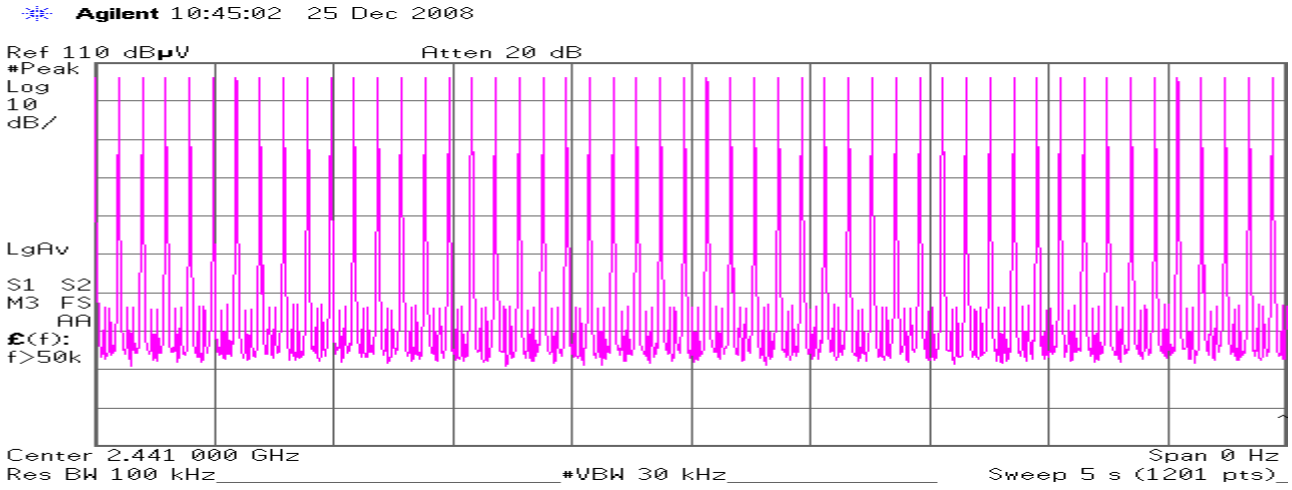
Count 1



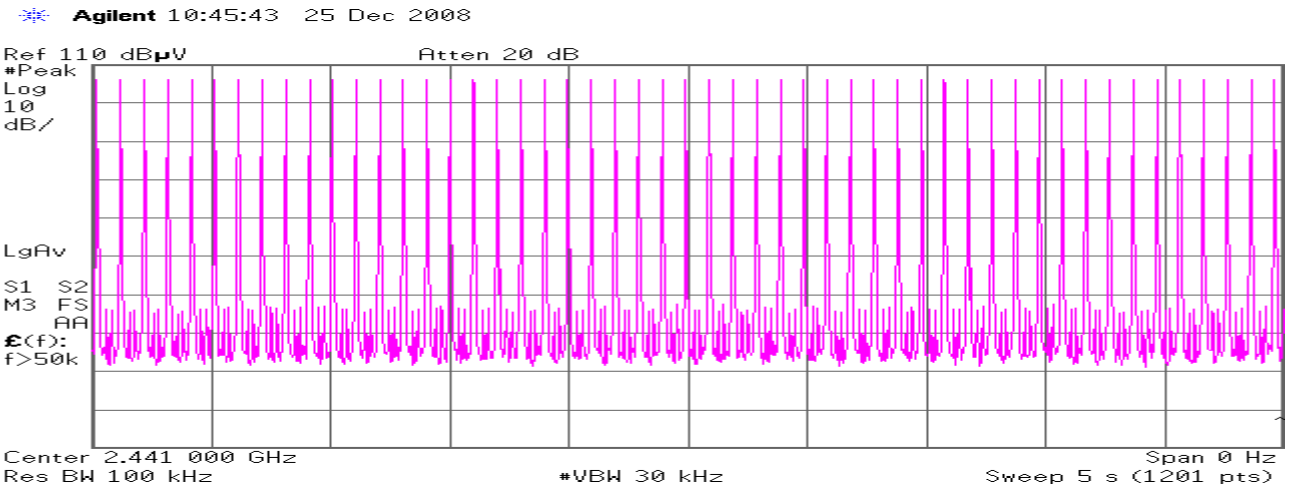
Count 2



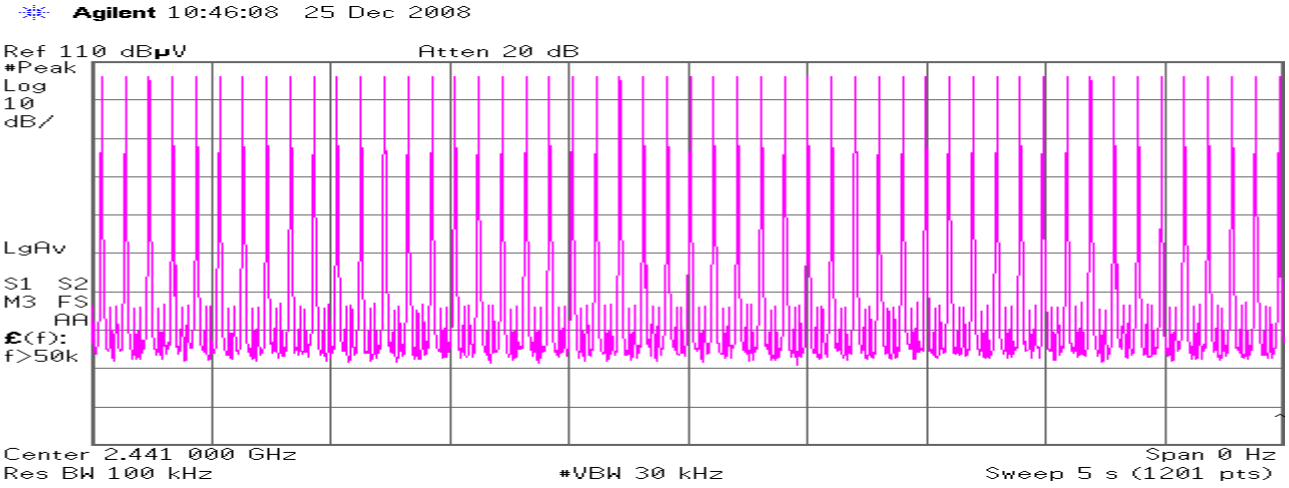
Count 3



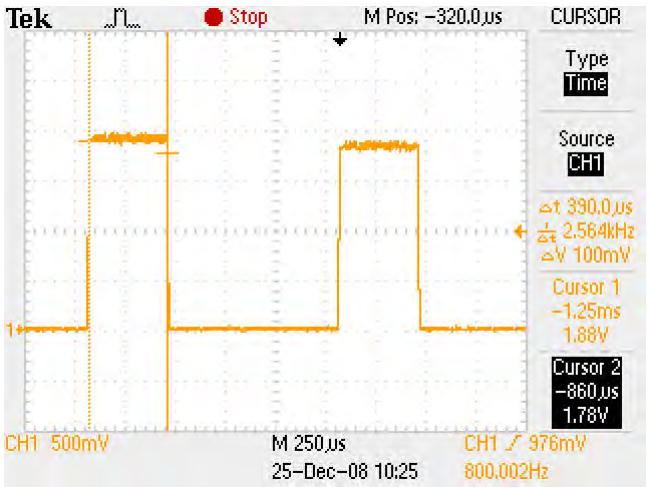
Count 4



Count 5



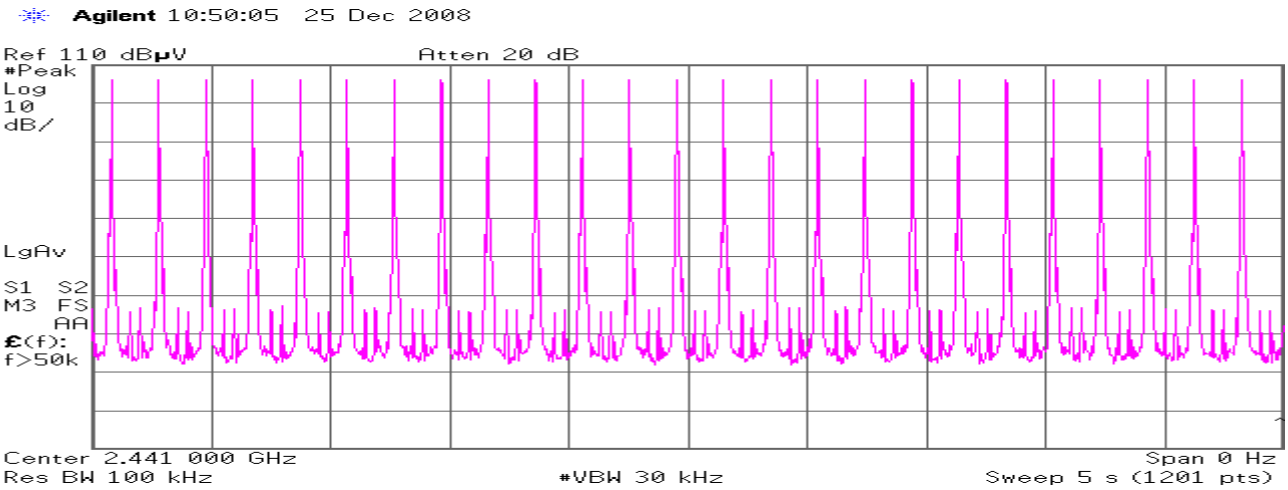
Duty cycle(Hopping DH1)



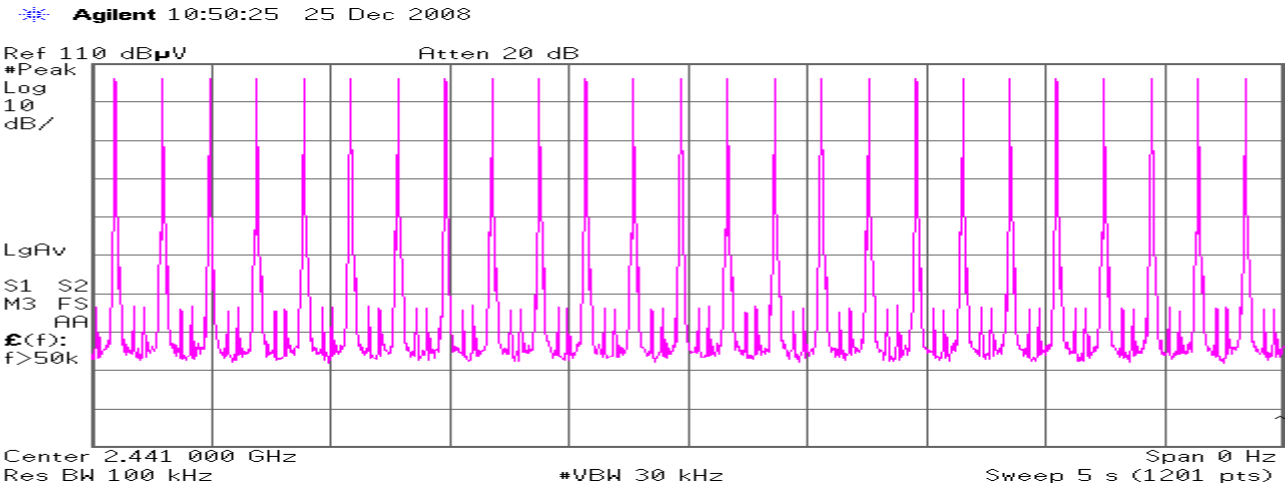
Average times of rising in 5 sec. of sweep = (50+ 50 + 51 + 51 + 51) / 5 = 50.6
Average times of rising in 1 sec. = 50.6 / 5s = 10.12
Average times of rising in 0.4x = 0.4 * 79ch * 10.12 = 319.792
Dwell time = 319.79 * 0.390 = 124.72 [ms]
Limit : Dwell Time < 0.4[s]

Hopping (DH3):

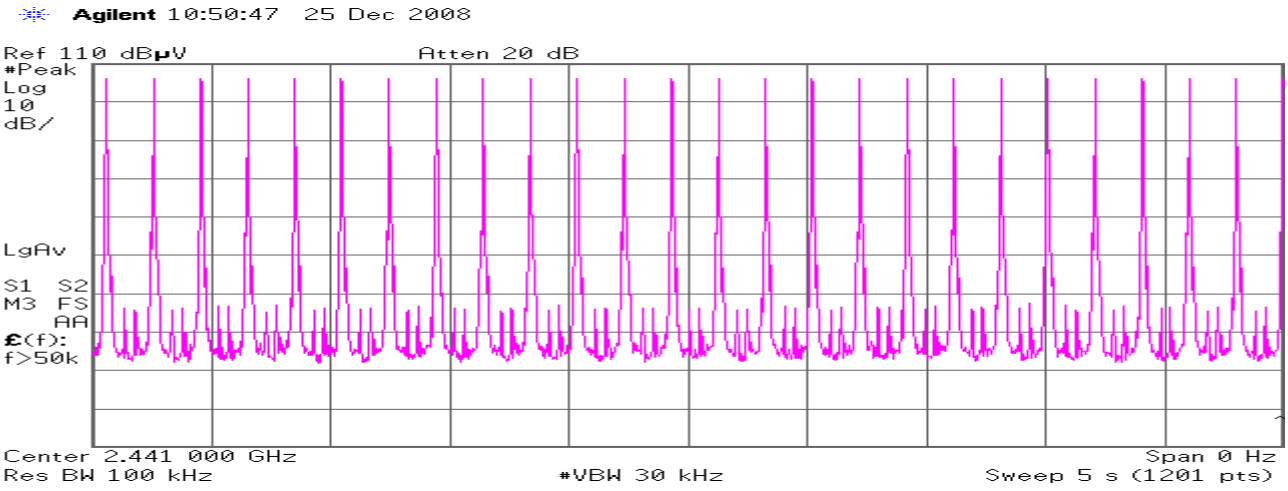
Count 1



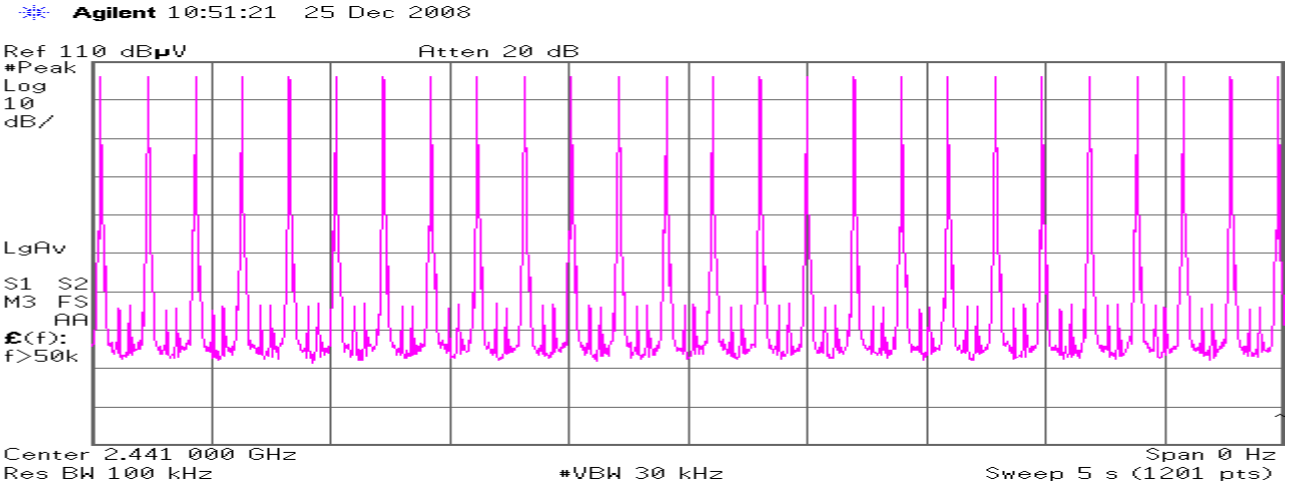
Count 2



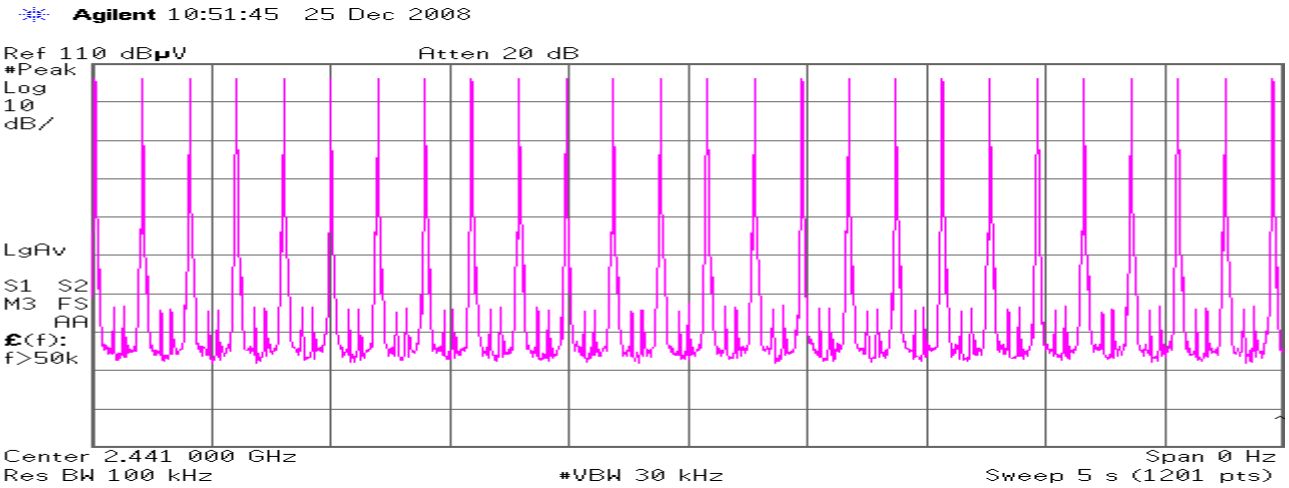
Count 3



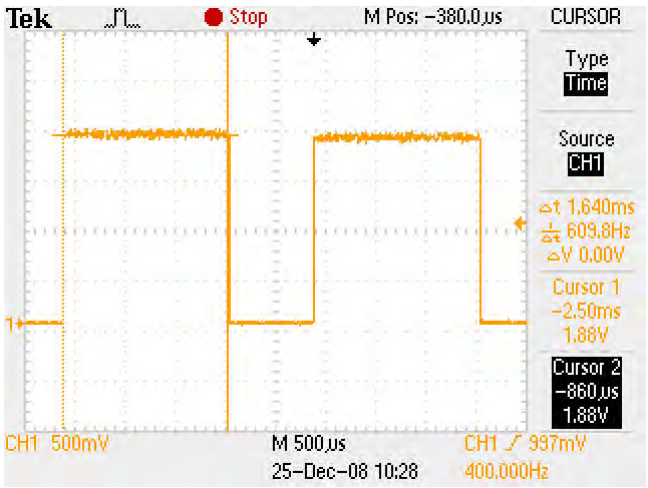
Count 4



Count 5



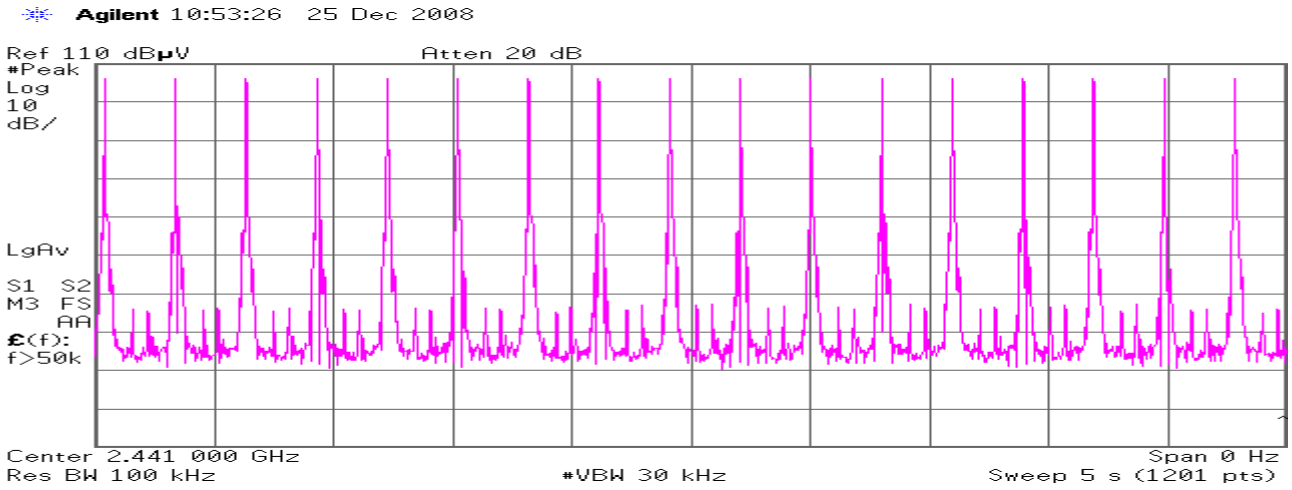
Duty cycle(Hopping DH3)



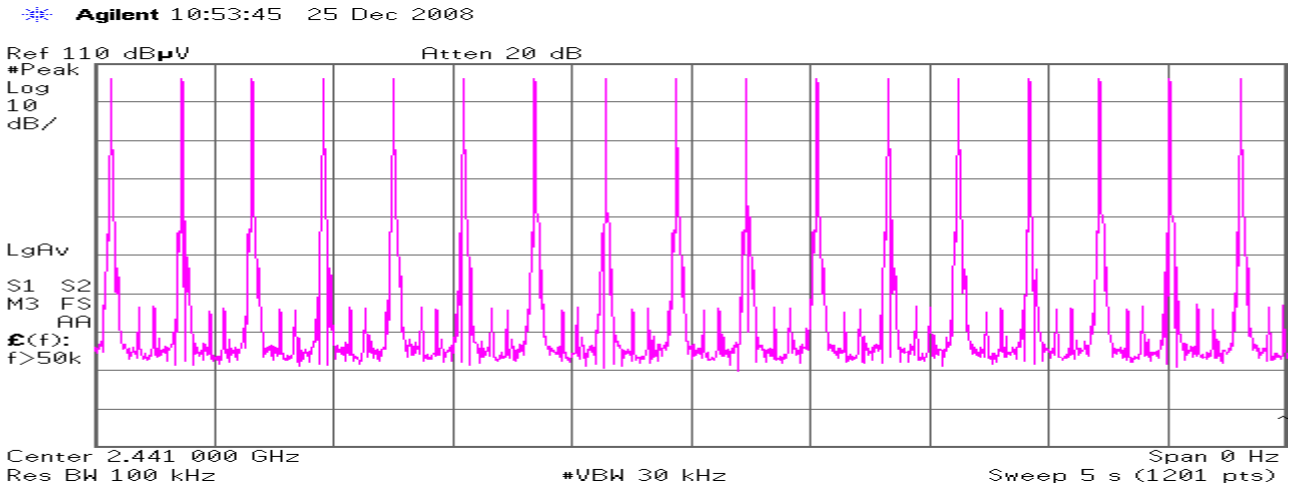
Average times of rising in 5 sec. of sweep = (25 + 25 + 25+ 26 + 26) / 5 = 25.4
Average times of rising in 1 sec. = 25.4 / 5s = 5.08
Average times of rising in 0.4x = 0.4 * 79ch * 5.08 = 160.528
Dwell time = 160.53 * 1.64 = 263.27 [ms]
Limit : Dwell Time < 0.4[s]

Hopping (DH5):

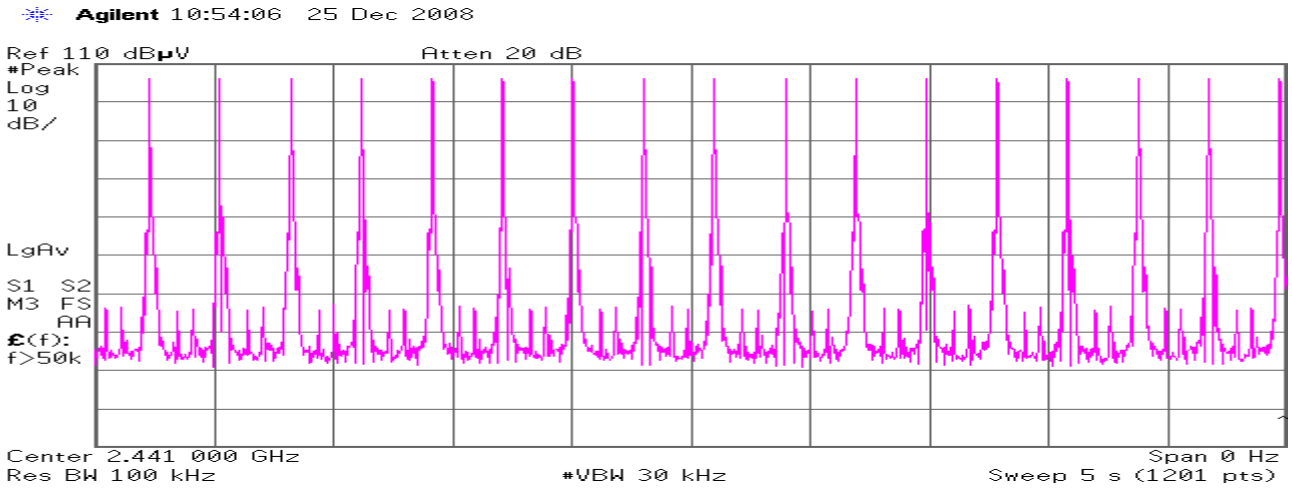
Count 1



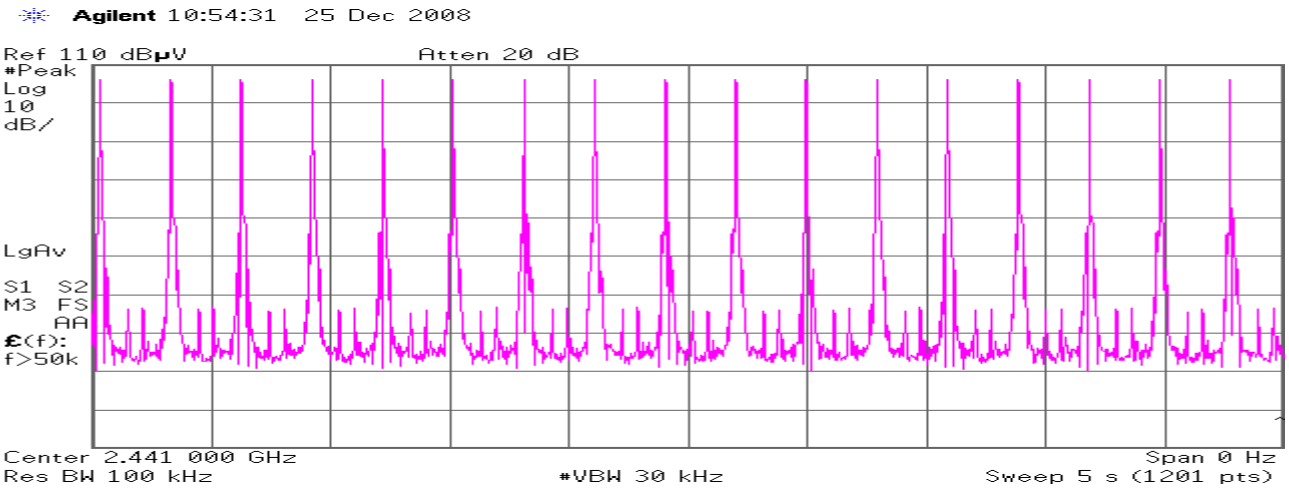
Count 2



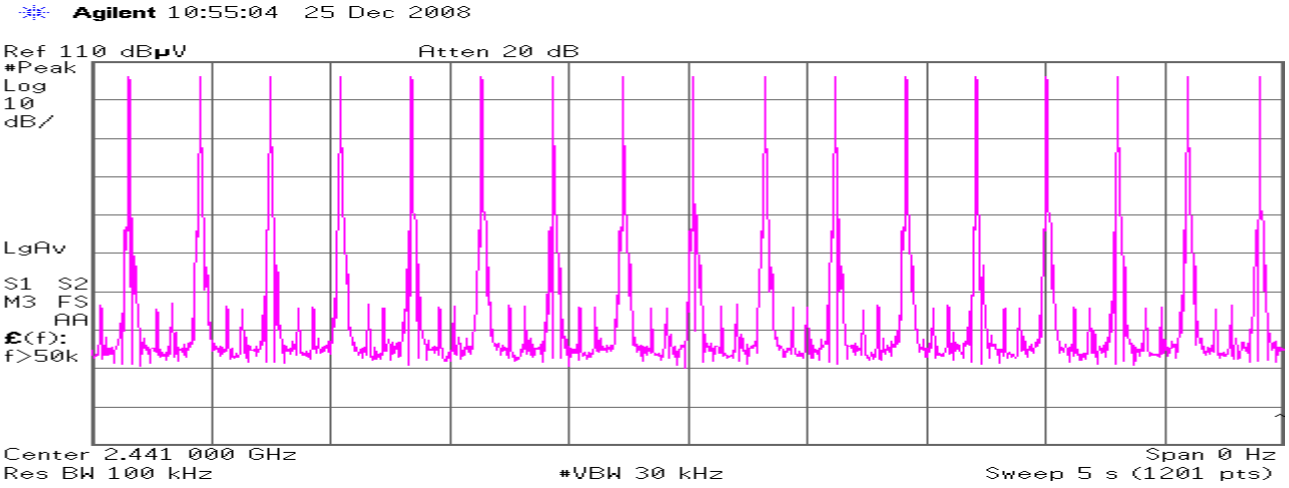
Count 3



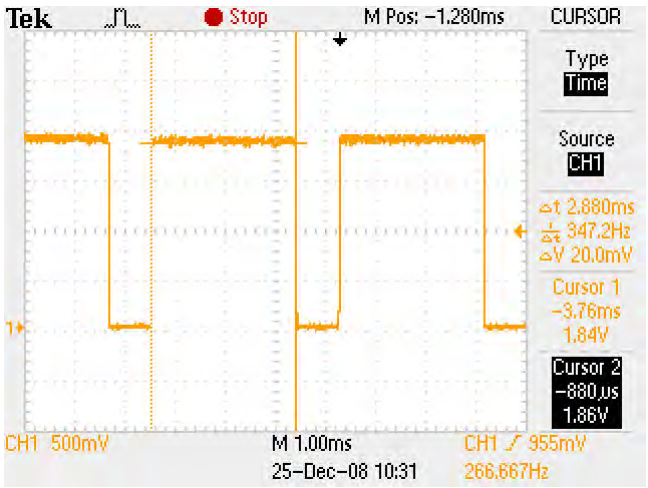
Count 4



Count 5



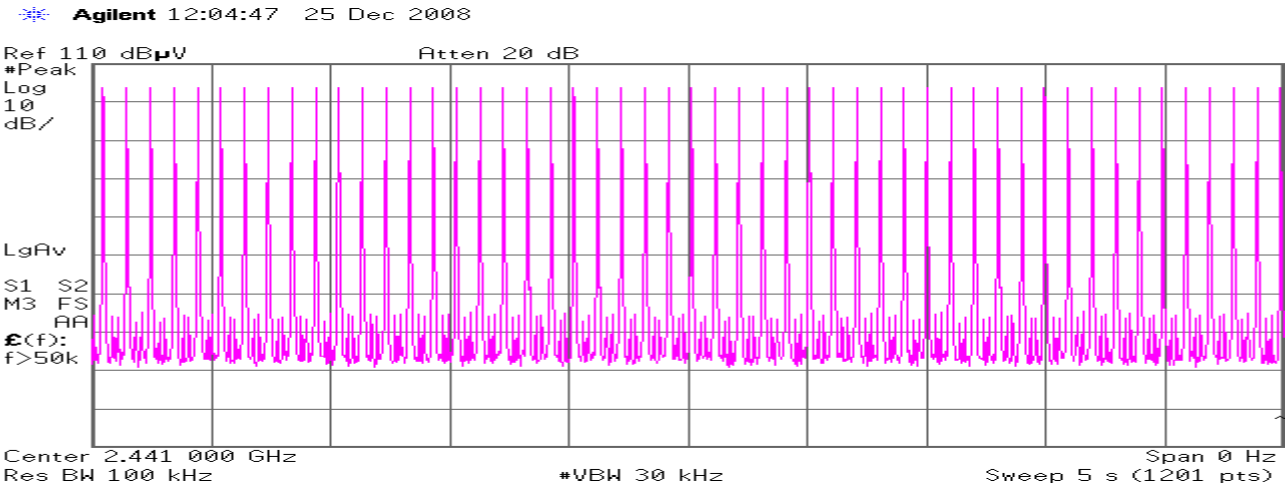
Duty cycle(Hopping DH5)



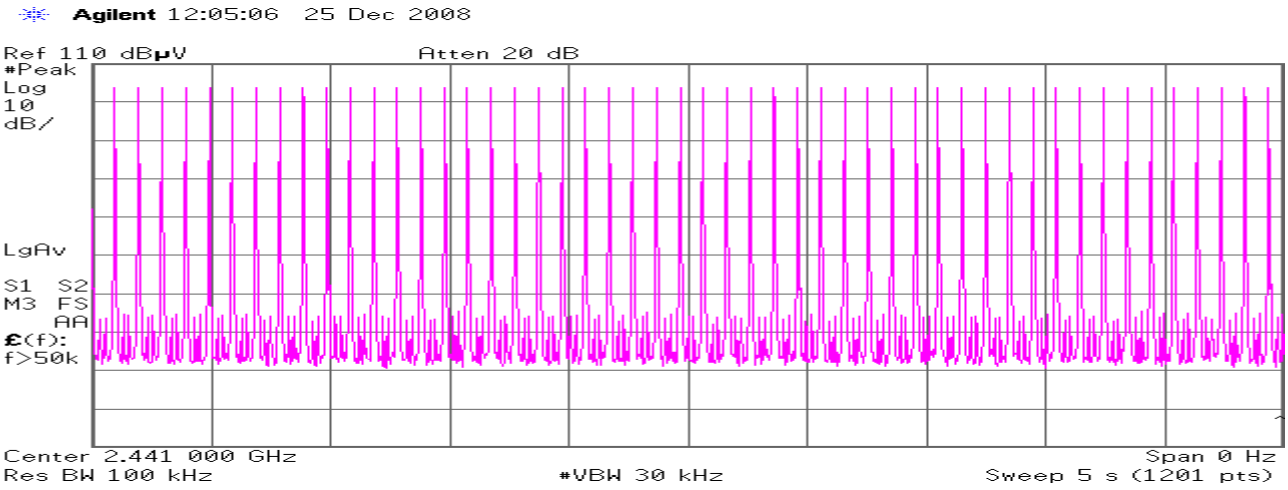
Average times of rising in 5 sec. of sweep = (17 + 17 + 17 + 17 + 17) / 5 = 17
Average times of rising in 1 sec. = 17 / 5s = 3.4
Average times of rising in 0.4x = 0.4 * 79ch * 3.4 = 107.44
Dwell time = 107.44 * 2.88 = 309.43 [ms]
Limit : Dwell Time < 0.4[s]

Hopping (3DH1):

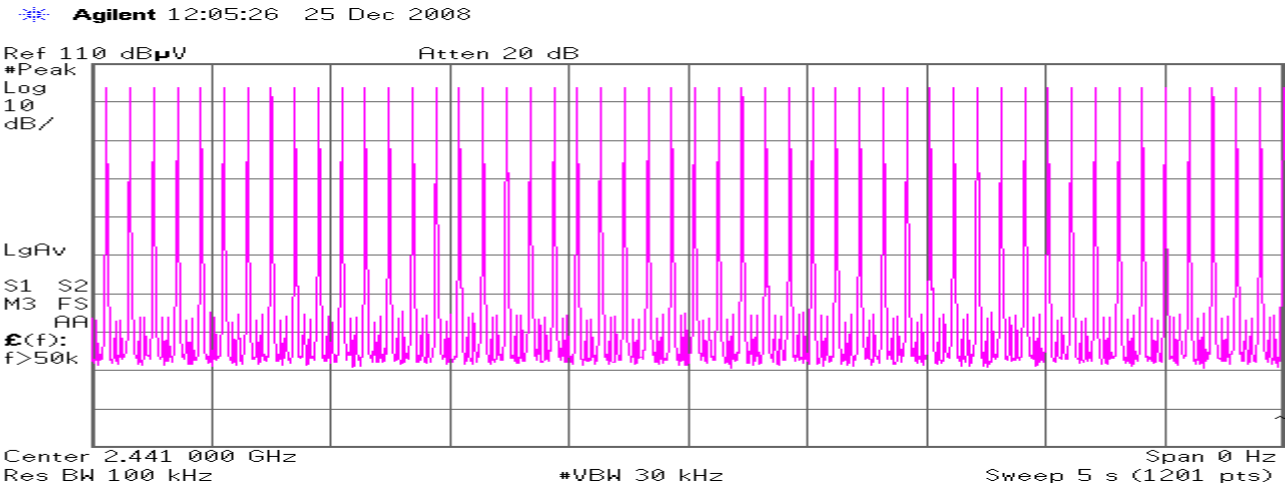
Count 1



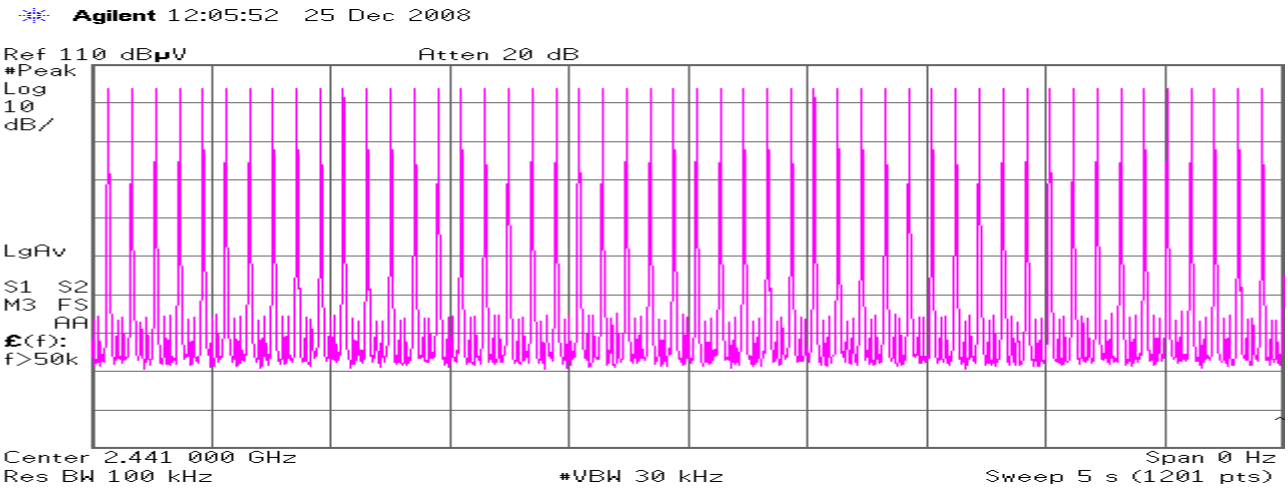
Count 2



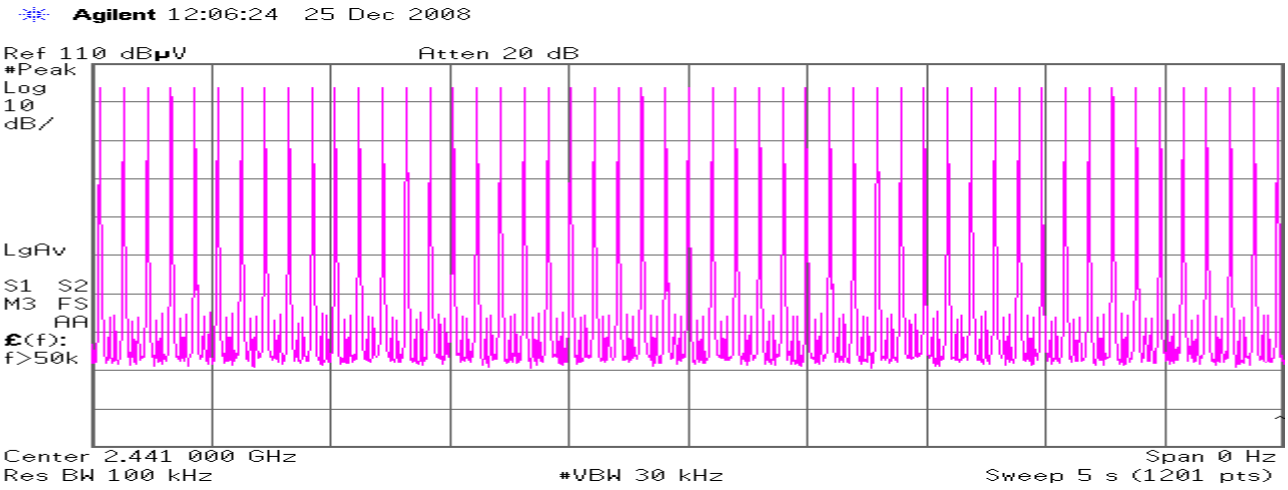
Count 3



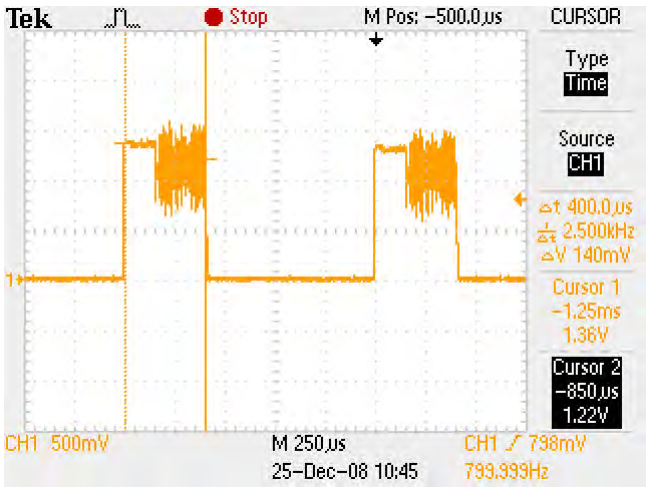
Count 4



Count 5



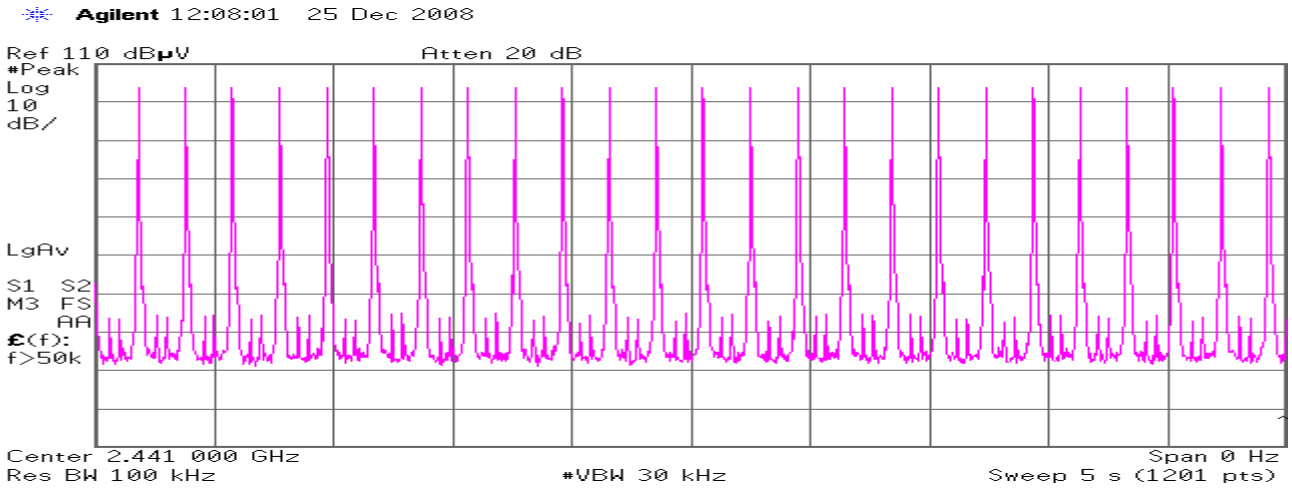
Duty cycle(Hopping 3DH1)



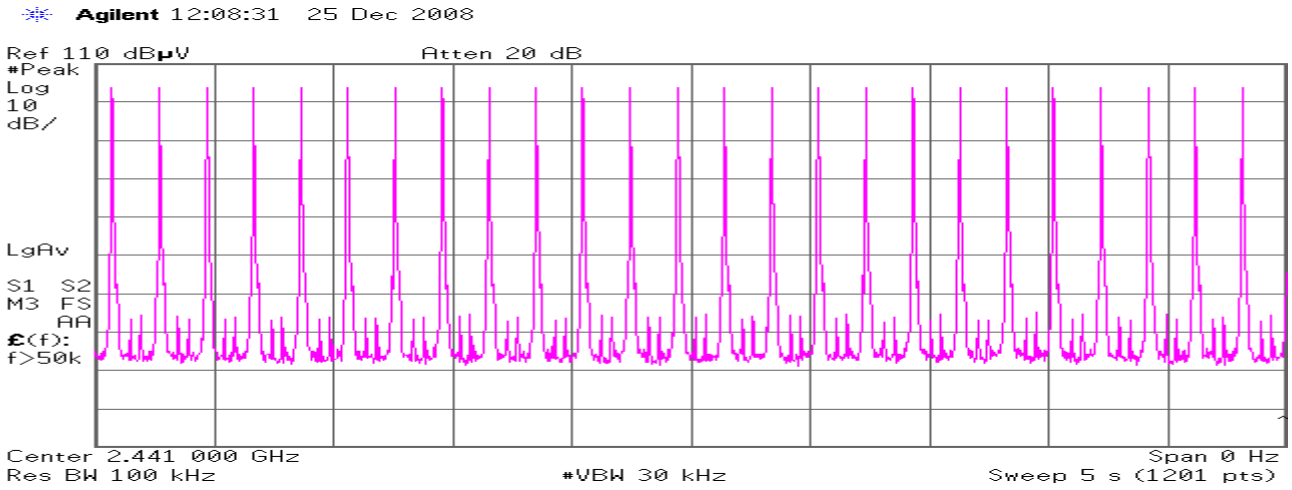
Average times of rising in 5 sec. of sweep = (51 + 50 + 51 + 50 + 51) / 5 = 50.6
Average times of rising in 1 sec. = 50.6 / 5s = 10.12
Average times of rising in 0.4x = 0.4 * 79ch * 10.12 = 319.79
Dwell time = 319.79 * 0.4 = 127.92 [ms]
Limit : Dwell Time < 0.4[s]

Hopping (3DH3):

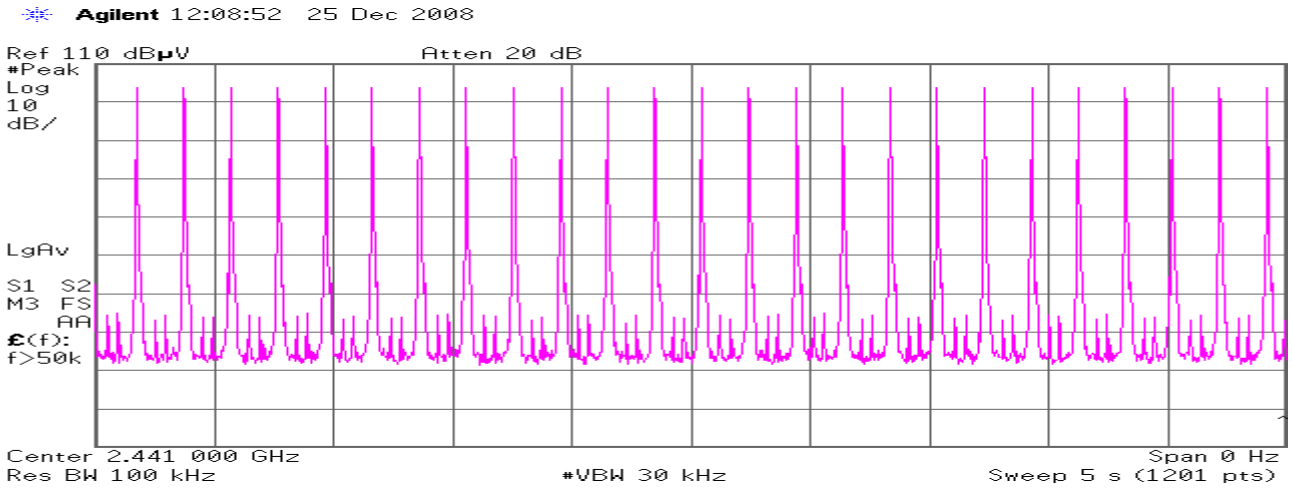
Count 1



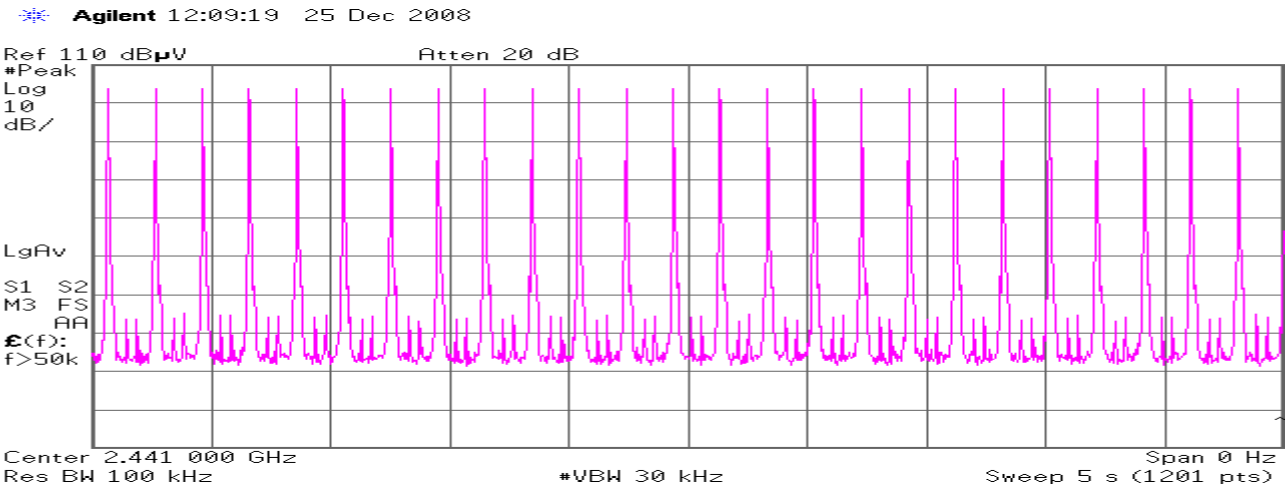
Count 2



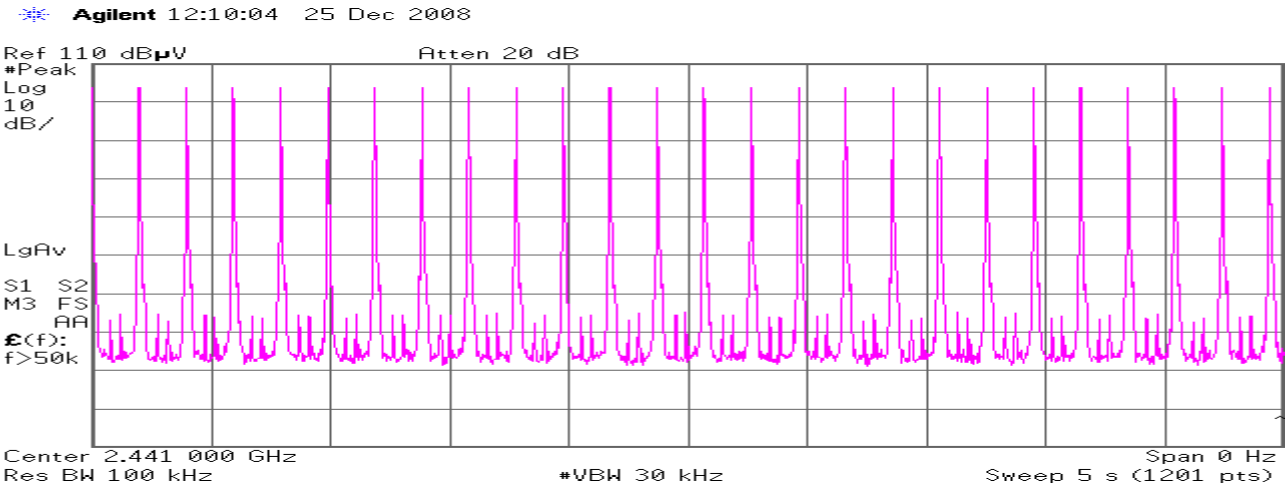
Count 3



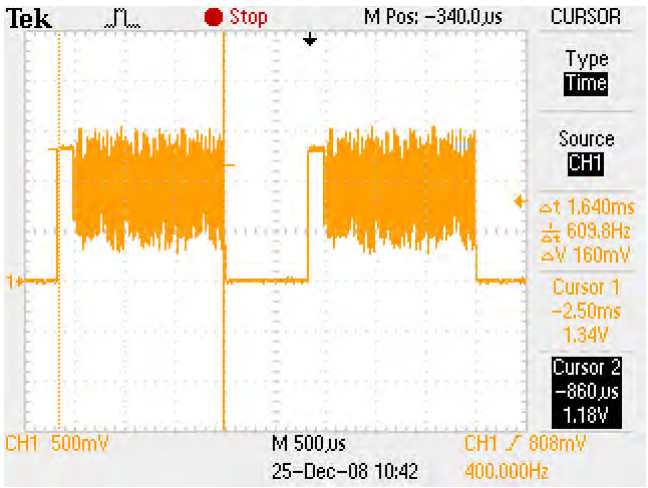
Count 4



Count 5



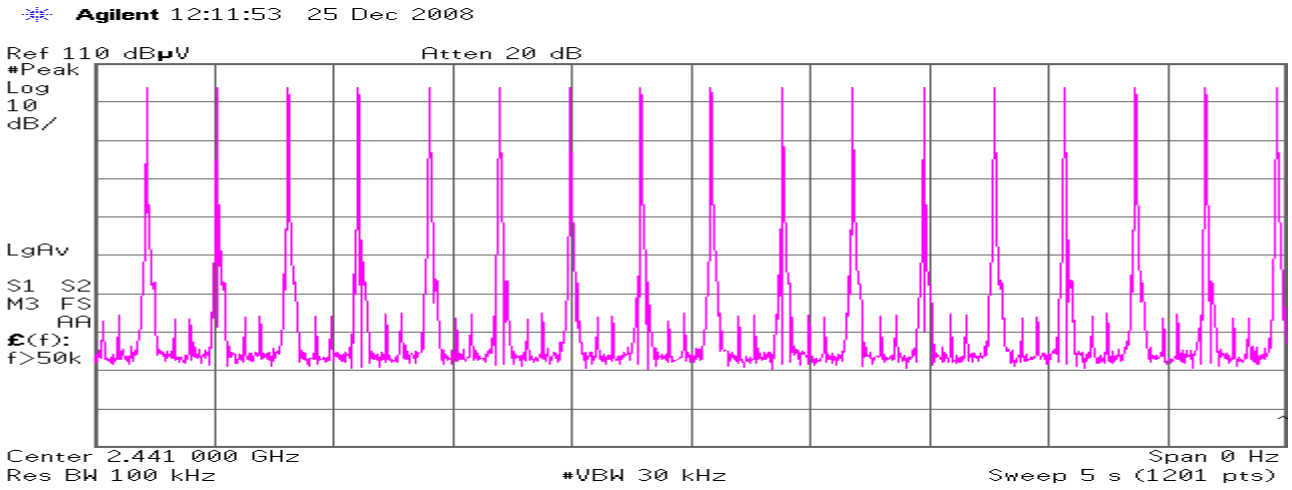
Duty cycle(Hopping 3DH3)



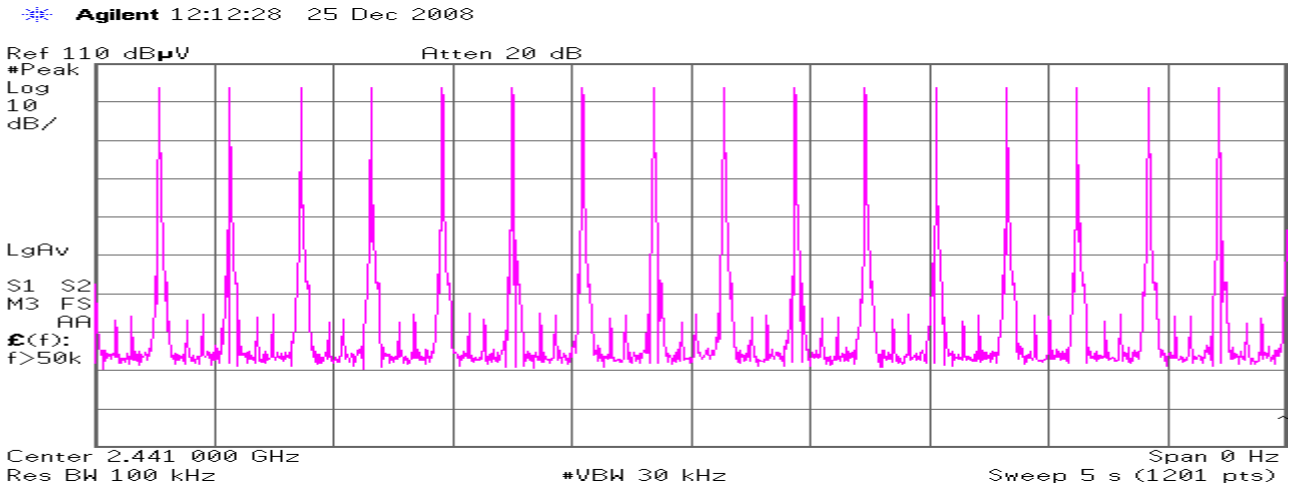
Average times of rising in 5 sec. of sweep = (25 + 25 + 25 + 25 + 26) / 5 = 25.2
Average times of rising in 1 sec. = 25.2 / 5s = 5.04
Average times of rising in 0.4x = 0.4 * 79ch * 5.04= 159.26
Dwell time = 159.26 * 1.64 = 261.19 [ms]
Limit : Dwell Time < 0.4[s]

Hopping (3DH5):

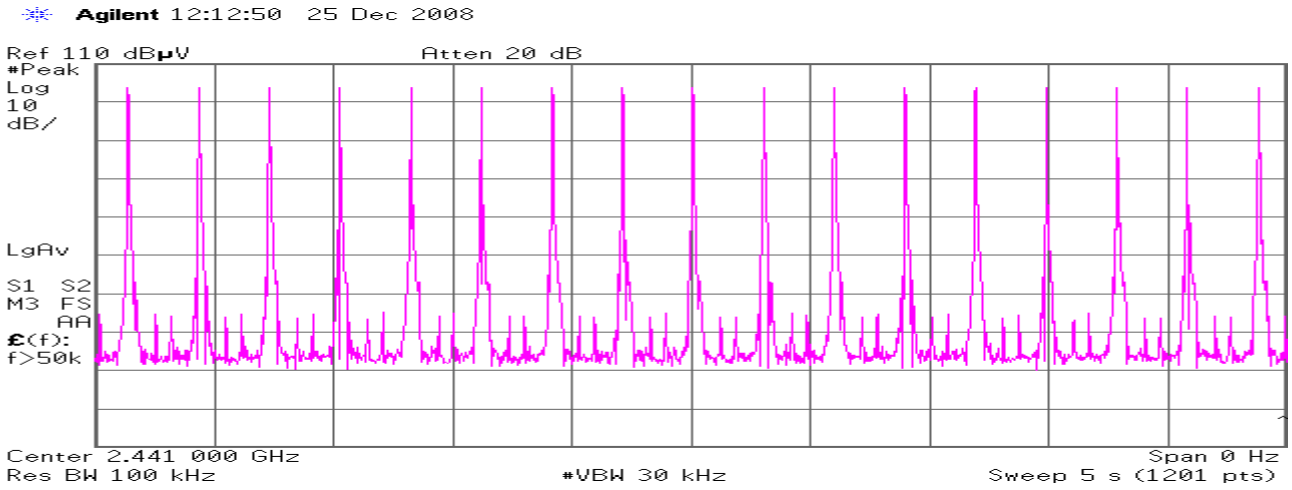
Count 1



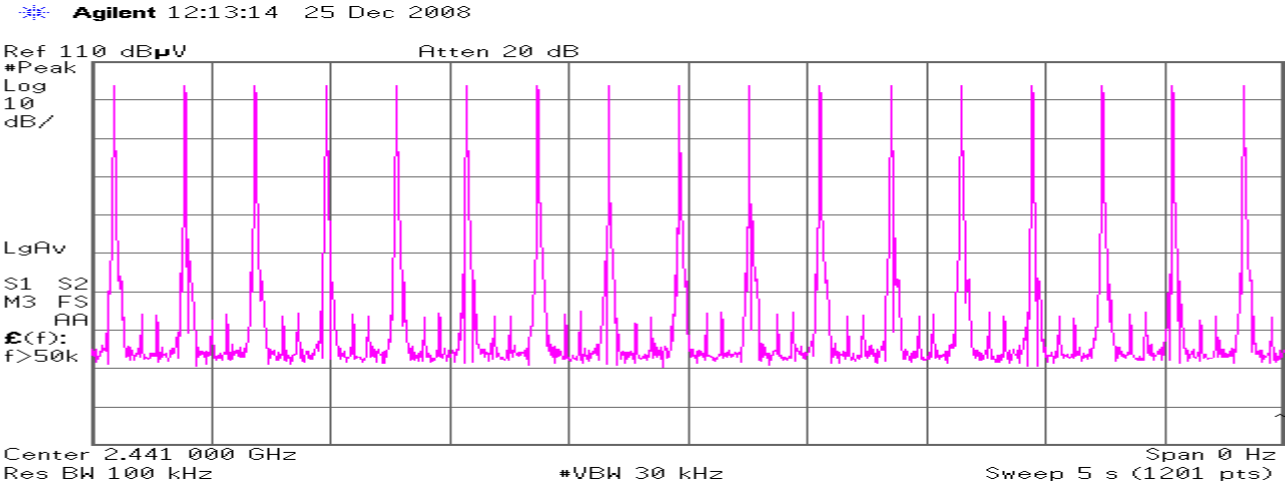
Count 2



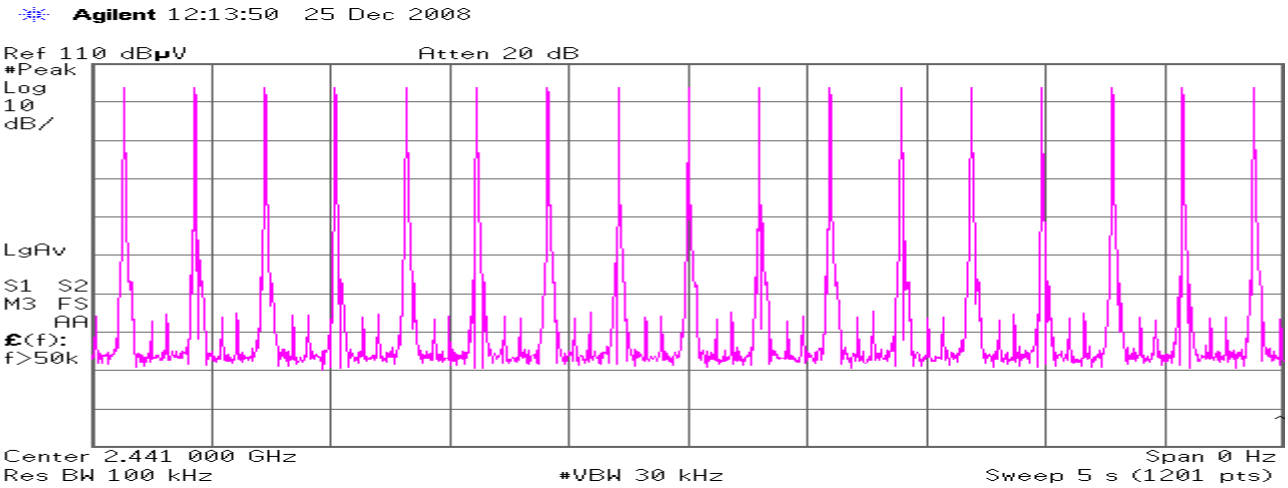
Count 3



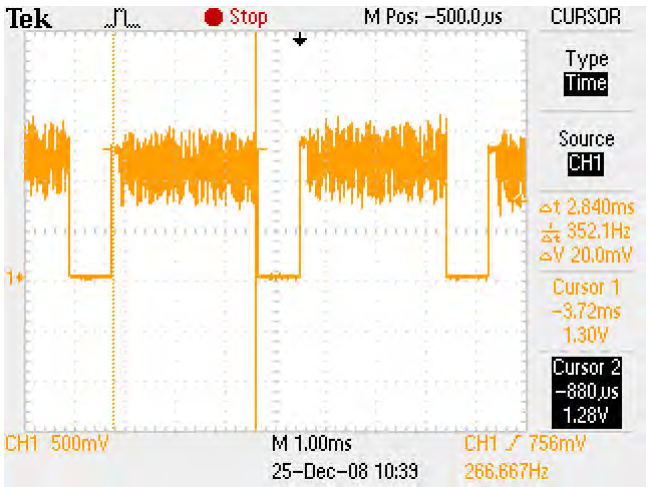
Count 4



Count 5



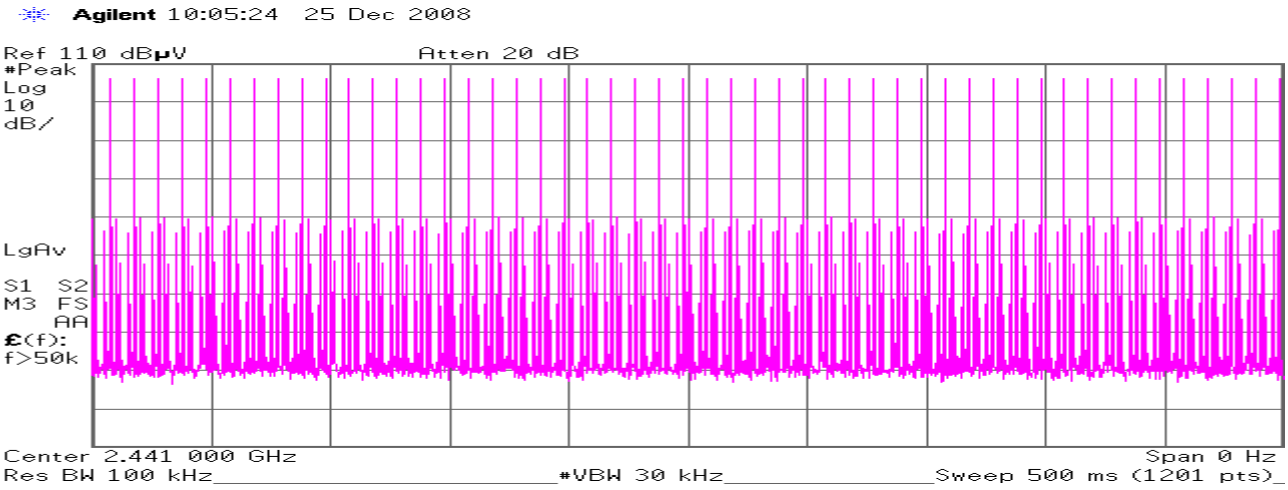
Duty cycle(Hopping 3DH5)



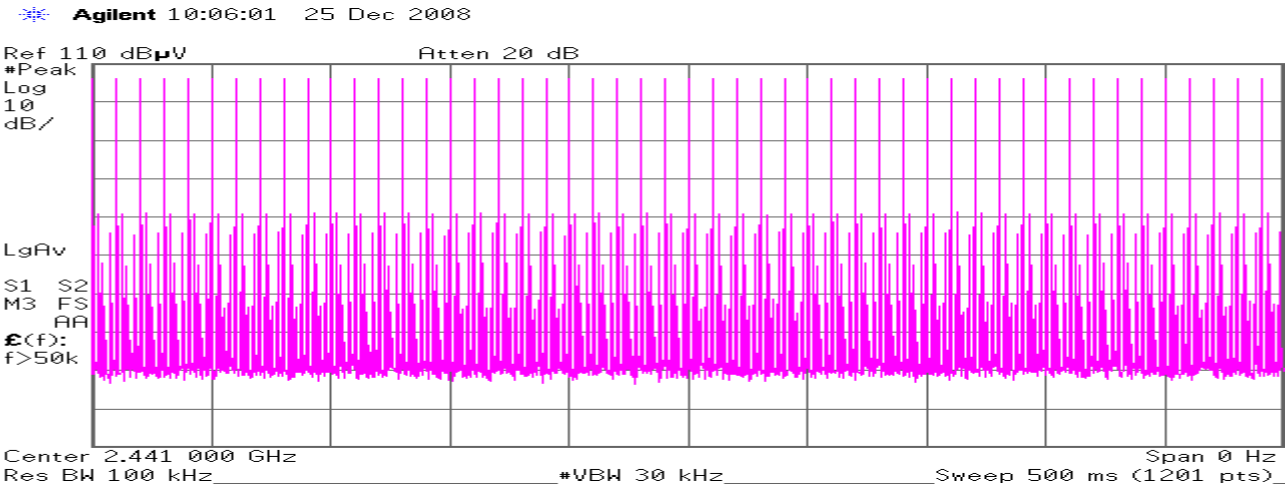
Average times of rising in 5 sec. of sweep = (17 + 16 + 17 + 17 + 17) / 5 = 16.8
Average times of rising in 1 sec. = 16.8 / 5s = 3.36
Average times of rising in 0.4x = 0.4 * 79ch * 3.36 = 106.18
Dwell time = 106.18 * 2.84 = 301.55 [ms]
Limit : Dwell Time < 0.4[s]

Inquiry:

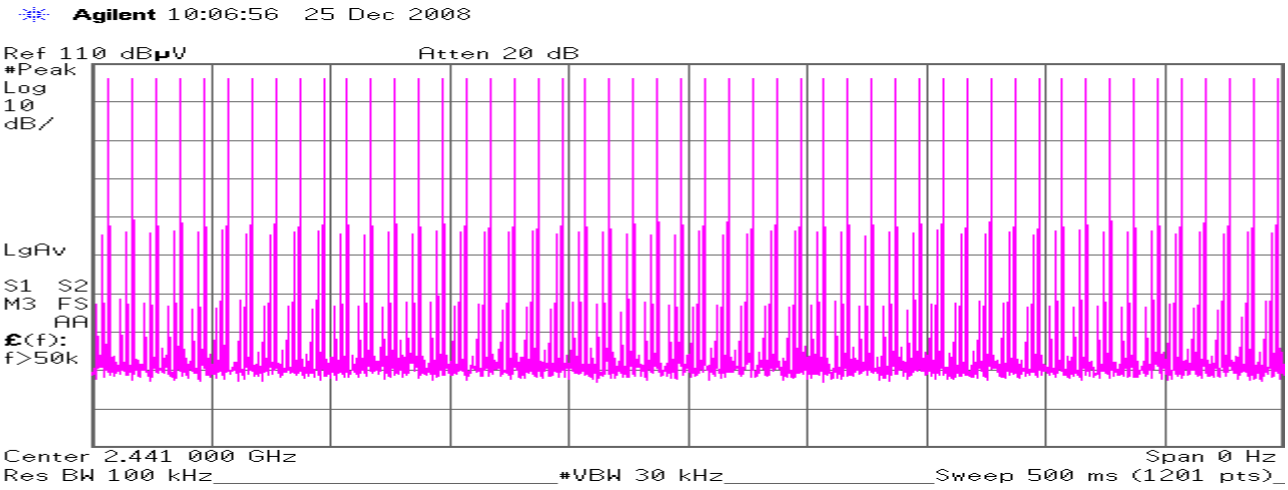
Count 1



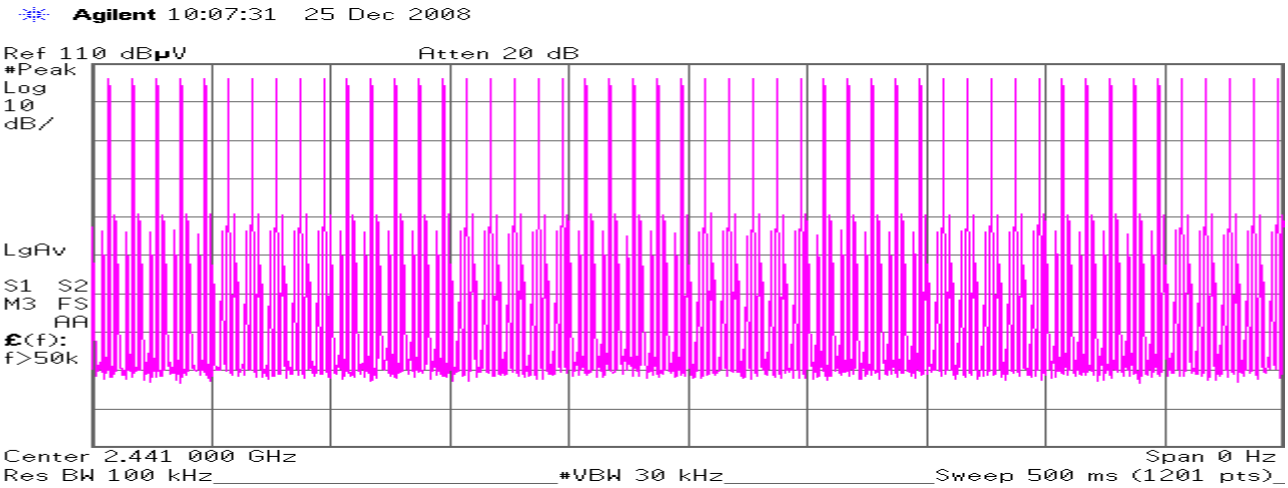
Count 2



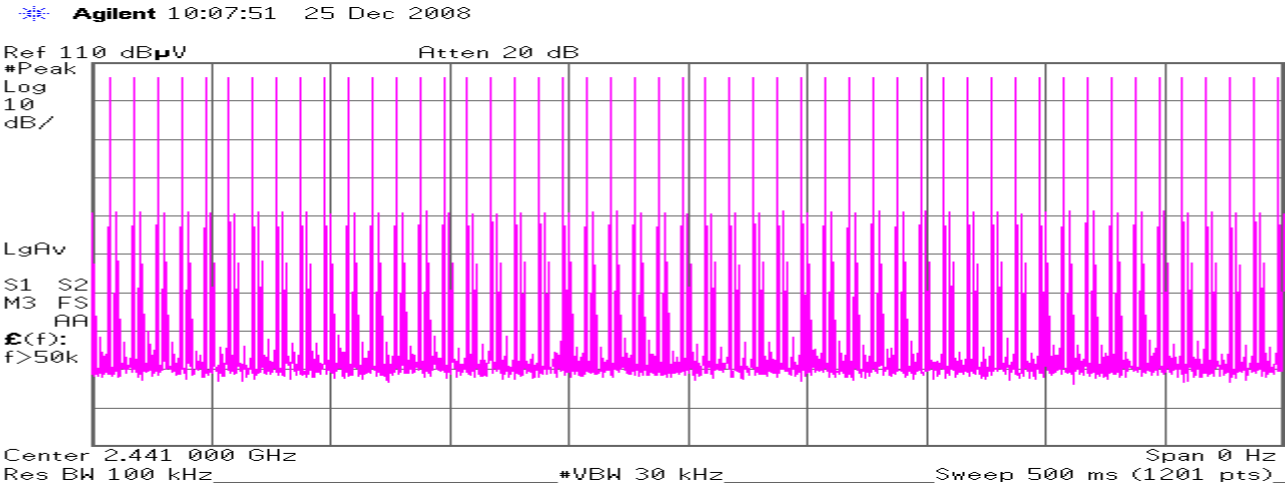
Count 3



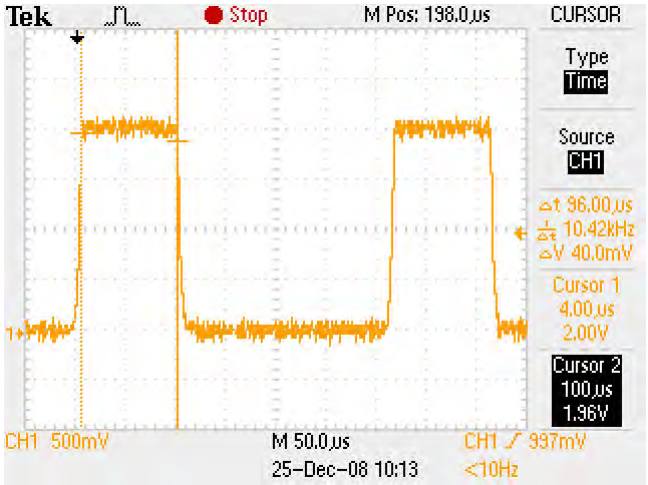
Count 4



Count 5



Duty cycle(Inquiry)



Average times of rising in 0.5 sec. of sweep = (50 + 50 + 50 + 50 + 50) / 5 = 50.0
Average times of rising in 1 sec. = 50.0 / 0.5s = 100.0
Average times of rising in 0.4x = 0.4 * 32ch * 100.0 = 1280.0
Dwell time = 1280.0 * 0.096 = 122.88 [ms]
Limit : Dwell Time < 0.4[s]

Maximum Peak Conducted Output Power (Regulation: FCC 15.247(b)(1))

UL Japan, Inc Yamakita EMC lab.
No.2 Shielded Room

DATE: 2008/12/26
TEMP./HUMID.: 22deg.C/36%
TEST MODE: Transmitting

ENGINEER: Tatsuya Arai

DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-0.49	1.00	0.51	20.96	20.45
Mid	2441.00	0.25	1.00	1.25	20.96	19.71
High	2480.00	0.41	1.00	1.41	20.96	19.55
Inquiry	-	0.26	1.00	1.26	20.96	19.70

Limit: 125mW=20.96dBm
P/M: Power Meter
CABLE LOSS:Customer's cable

2DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-1.89	1.00	-0.89	20.96	21.85
Mid	2441.00	-1.28	1.00	-0.28	20.96	21.24
High	2480.00	-1.32	1.00	-0.32	20.96	21.28

Limit: 125mW=20.96dBm
P/M: Power Meter
CABLE LOSS:Customer's cable

3DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-1.90	1.00	-0.90	20.96	21.86
Mid	2441.00	-1.25	1.00	-0.25	20.96	21.21
High	2480.00	-1.20	1.00	-0.20	20.96	21.16

Limit: 125mW=20.96dBm
P/M: Power Meter
CABLE LOSS:Customer's cable

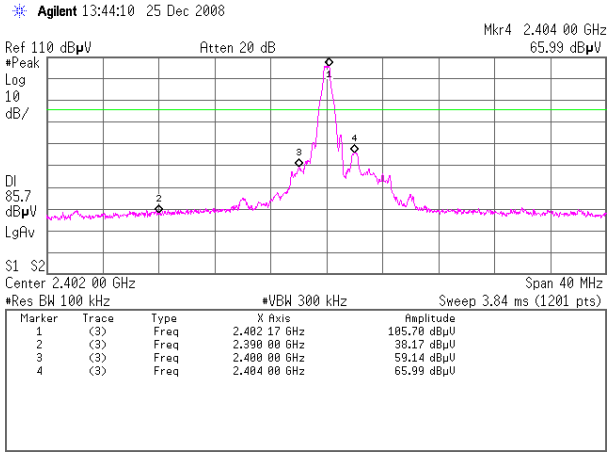
Out of Band Emission (Antenna Terminal Conducted) (Regulation: FCC 15.247(d))

UL Japan, Inc. Yamakita EMC lab.	No.2 shielded room
Date:	2008/12/26
Temp./Humid.:	22 deg. C. / 36 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

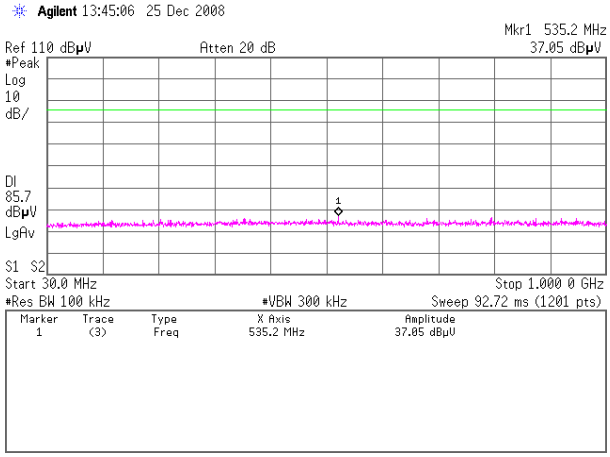
[Transmitting DH5]

Ch:2402MHz

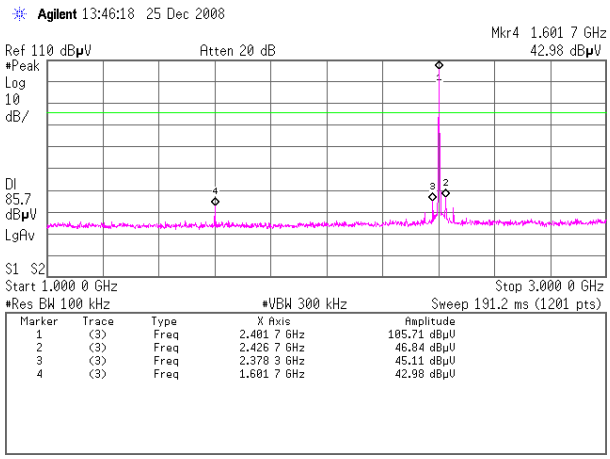
1.



2.



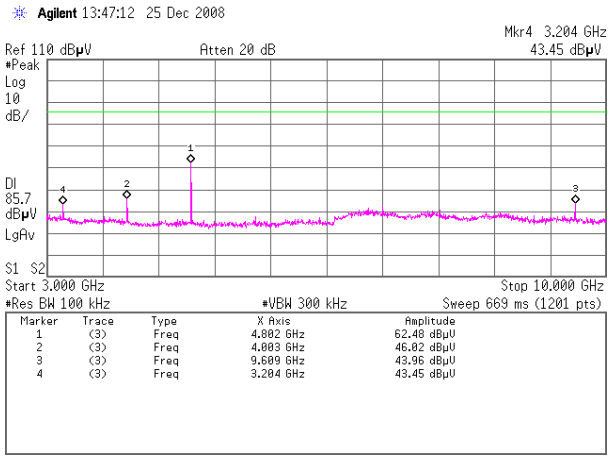
3.



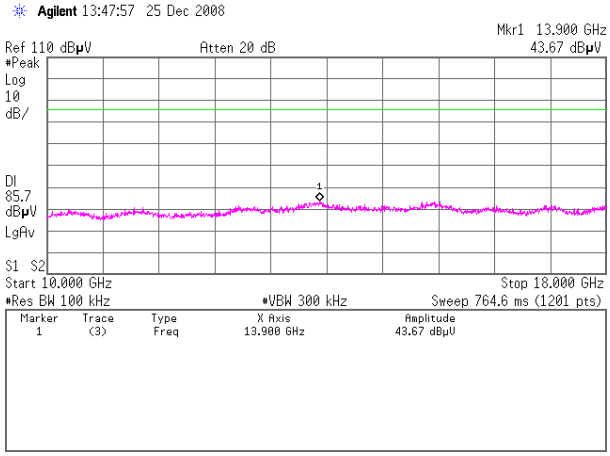
[Transmitting DH5]

Ch:2402MHz

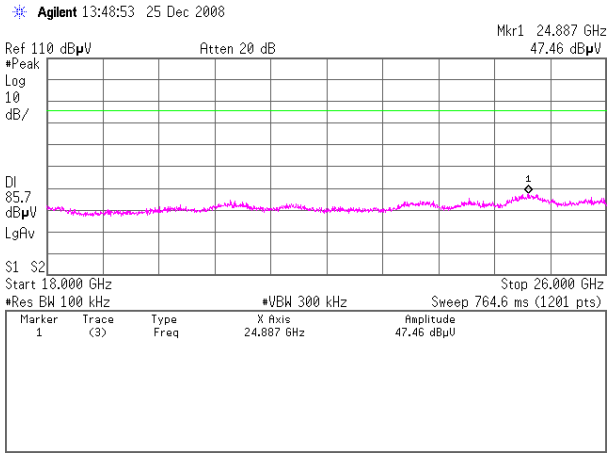
4.



5.



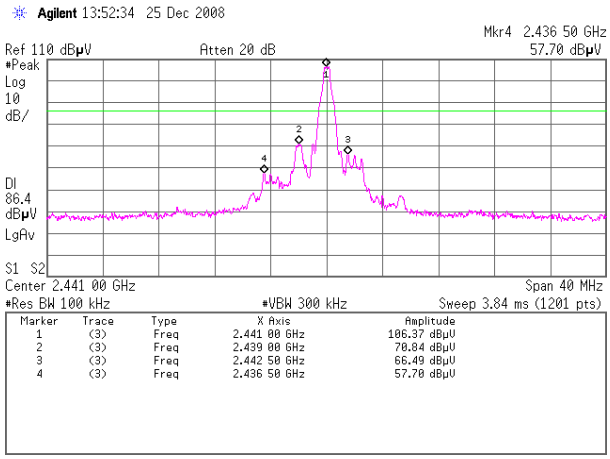
6.



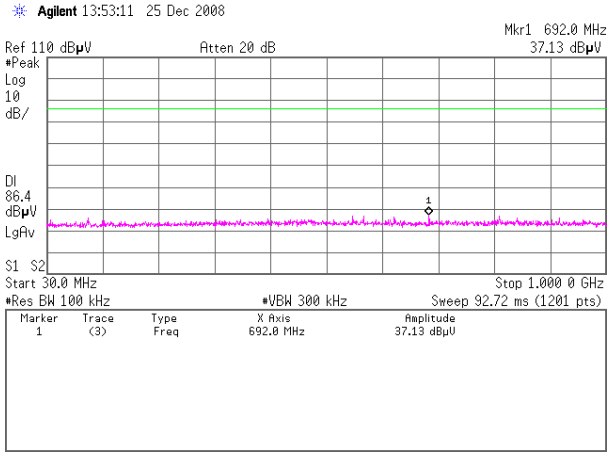
[Transmitting DH5]

Ch:2441MHz

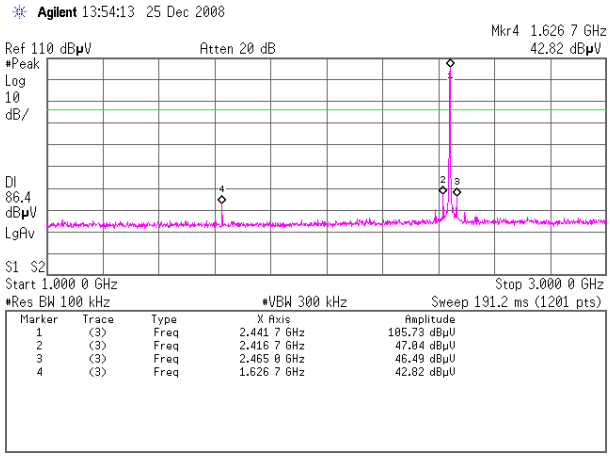
1.



2.



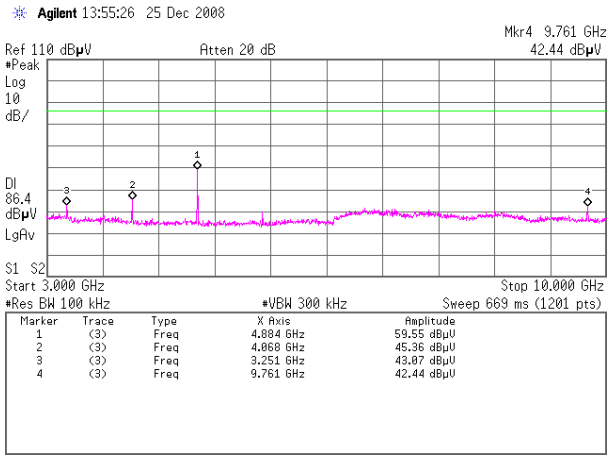
3.



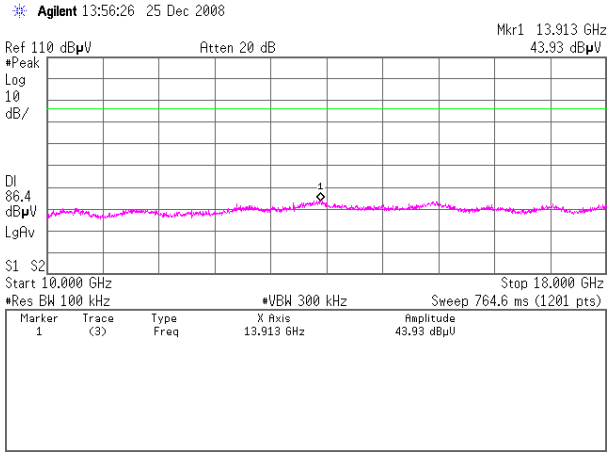
[Transmitting DH5]

Ch:2441MHz

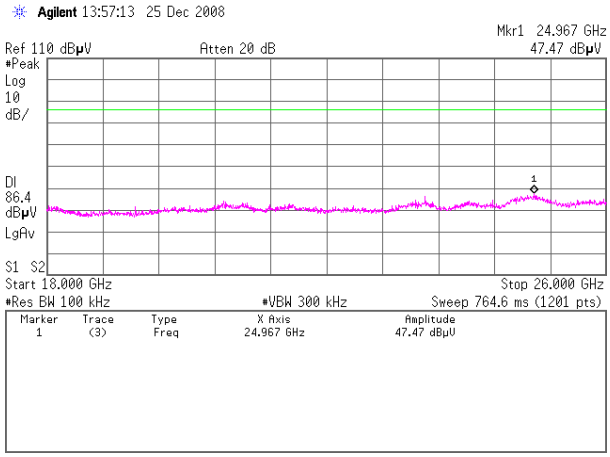
4.



5.



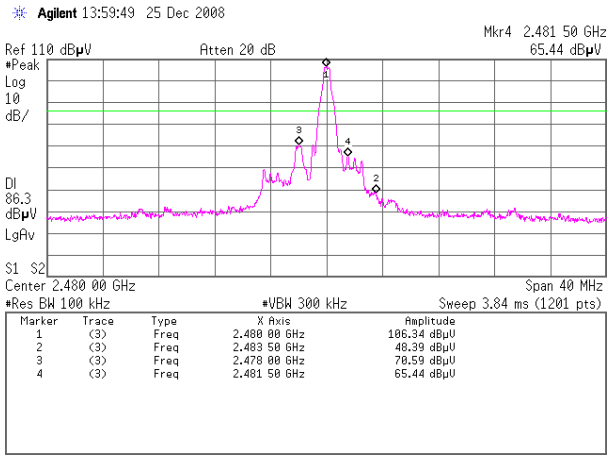
6.



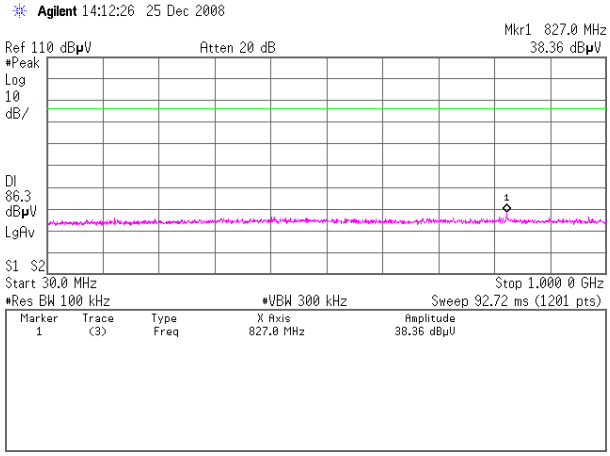
[Transmitting DH5]

Ch:2480MHz

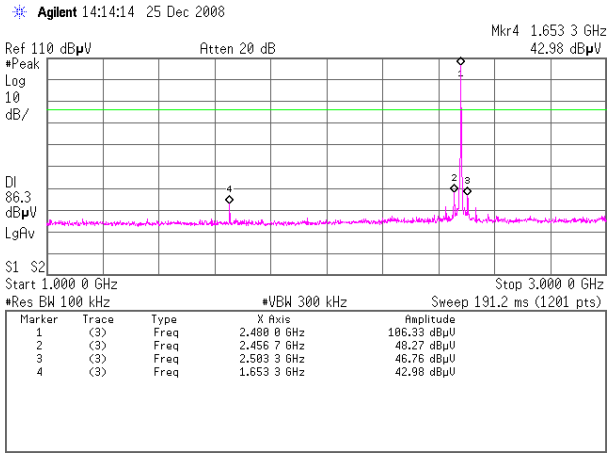
1.



2.



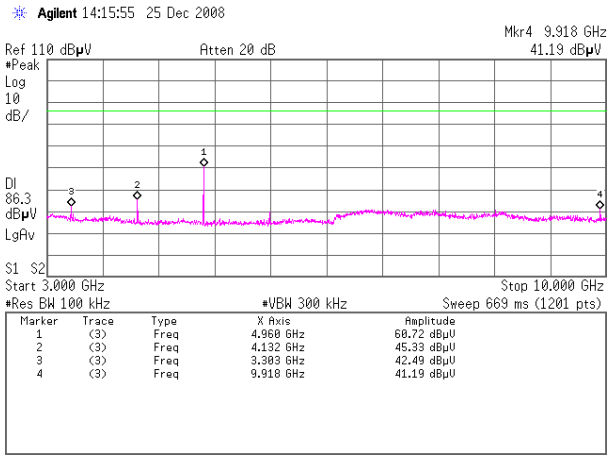
3.



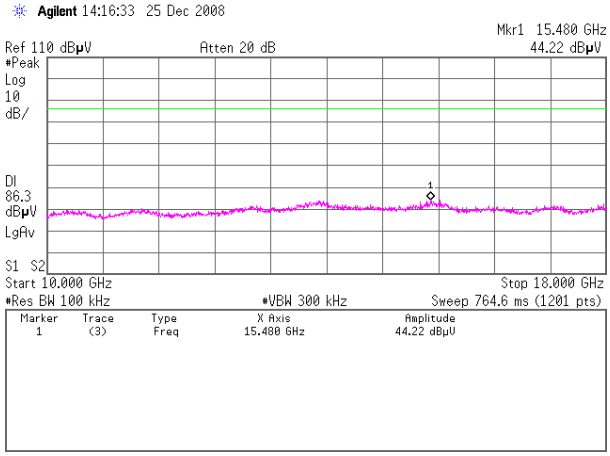
[Transmitting DH5]

Ch:2480MHz

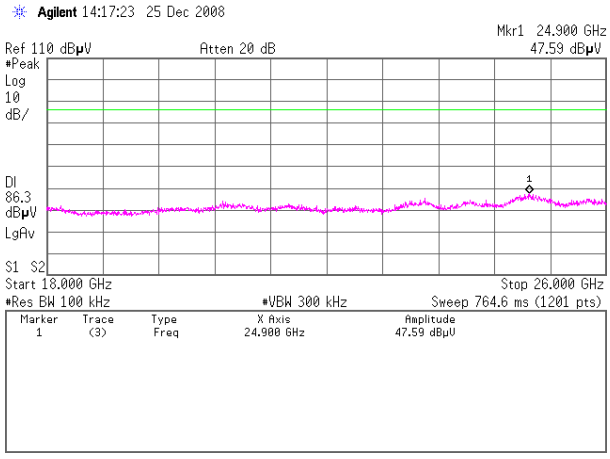
4.



5.



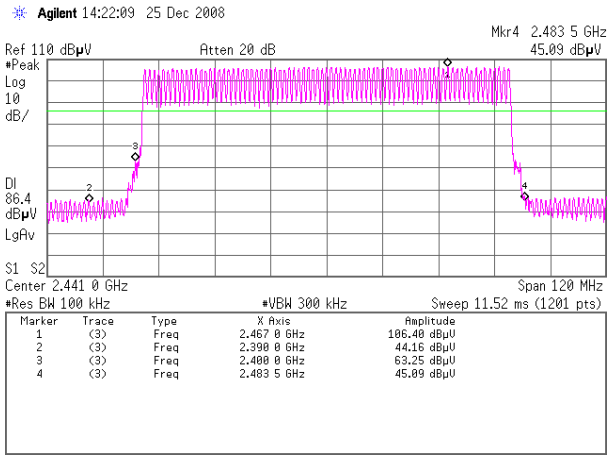
6.



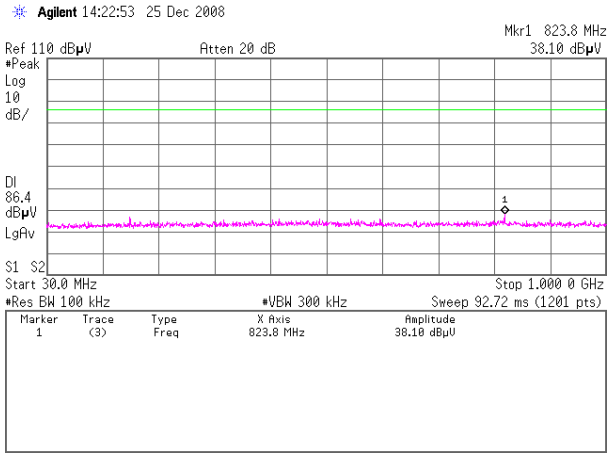
[Transmitting DH5]

Hopping

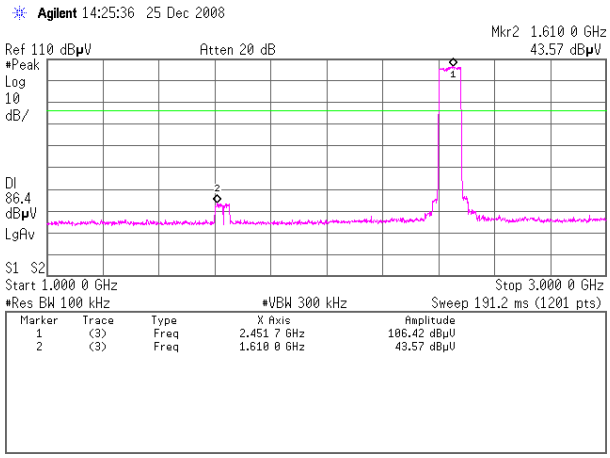
1.



2.



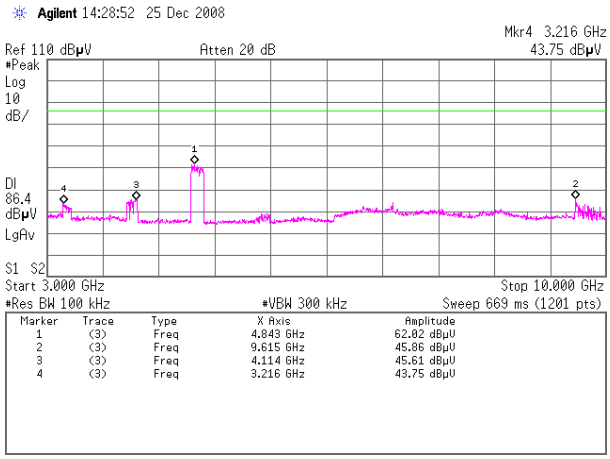
3.



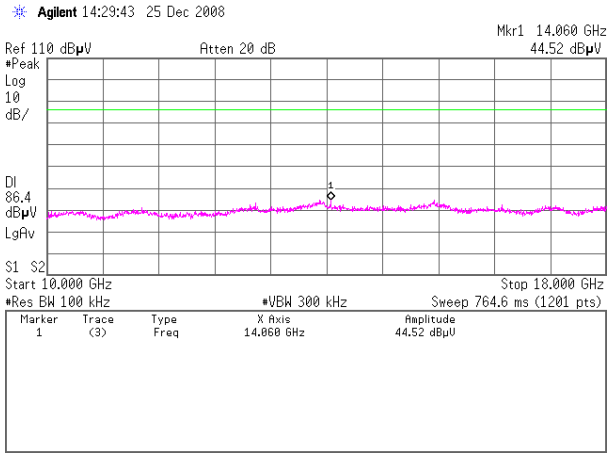
[Transmitting DH5]

Hopping

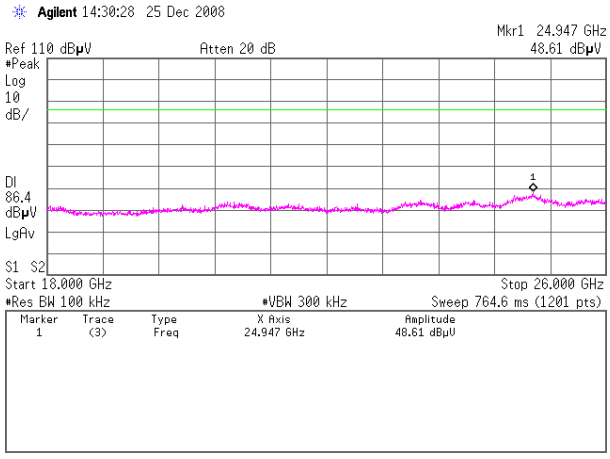
4.



5.



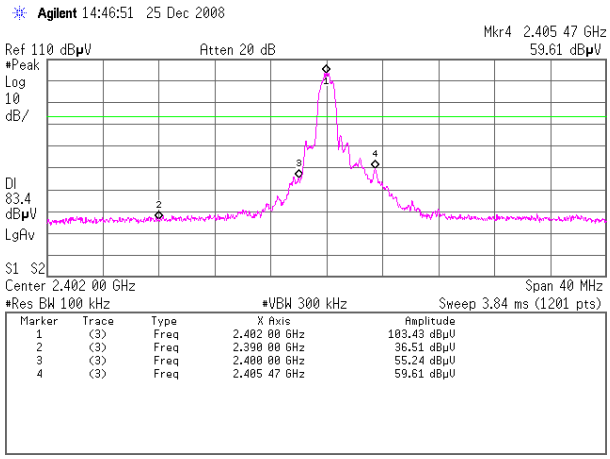
6.



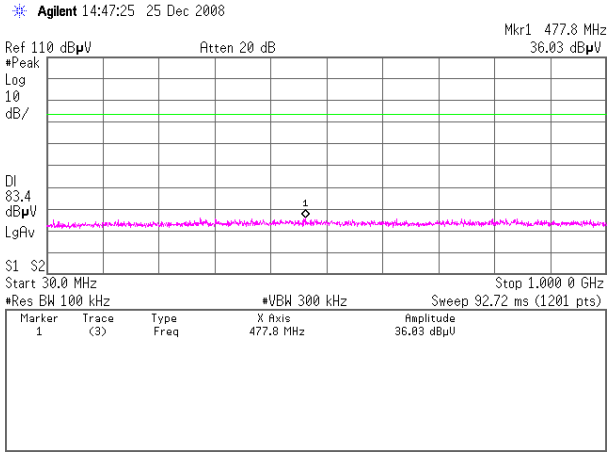
[Transmitting 3DH5]

Ch:2402MHz

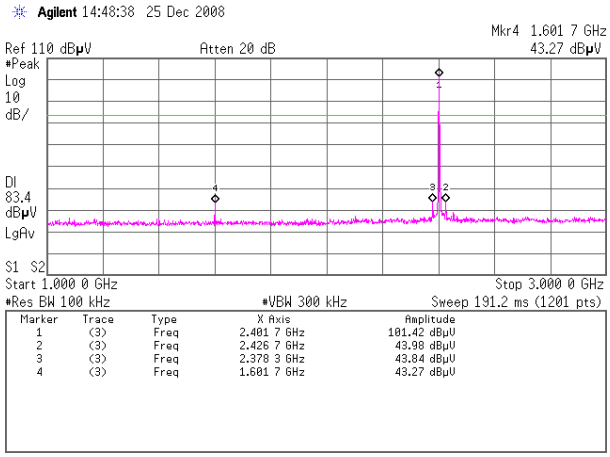
1.



2.



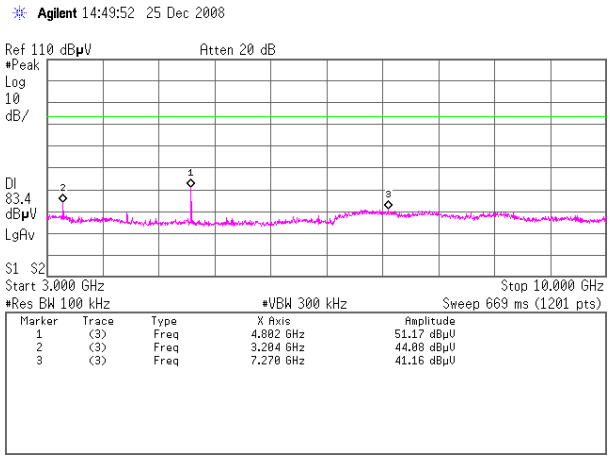
3.



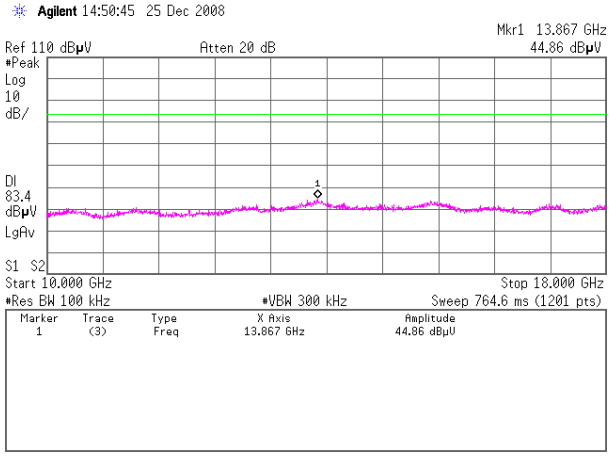
[Transmitting 3DH5]

Ch:2402MHz

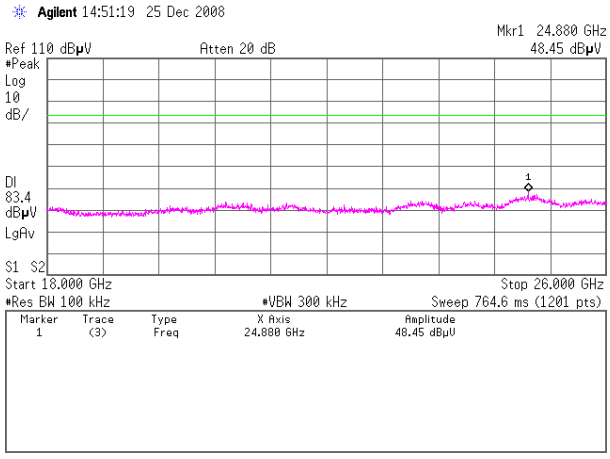
4.



5.



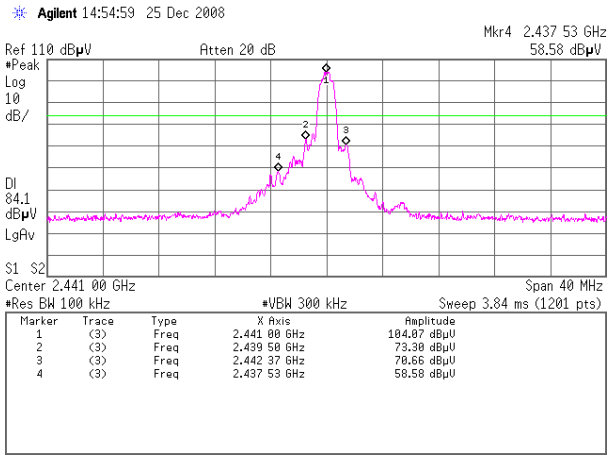
6.



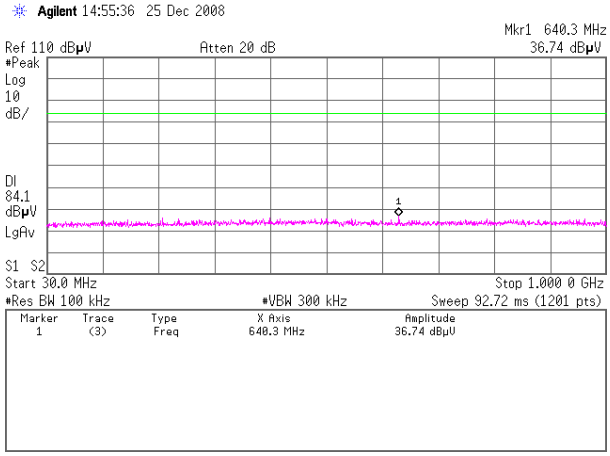
[Transmitting 3DH5]

Ch:2441MHz

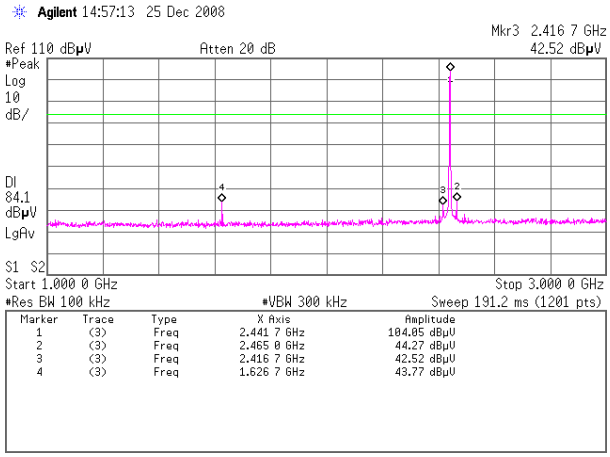
1.



2.



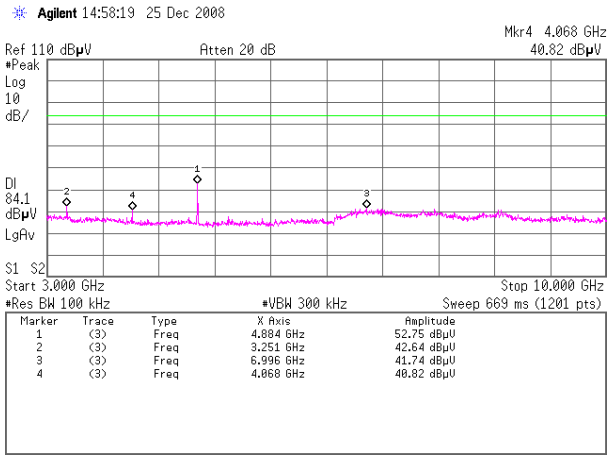
3.



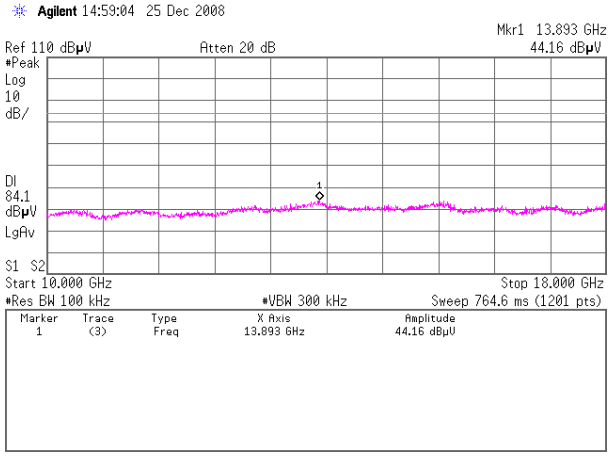
[Transmitting 3DH5]

Ch:2441MHz

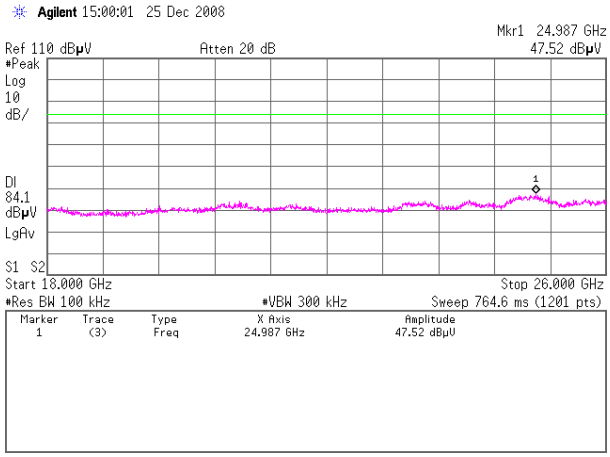
4.



5.



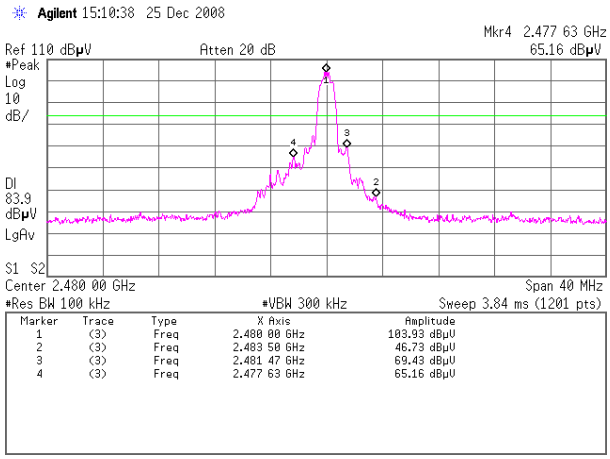
6.



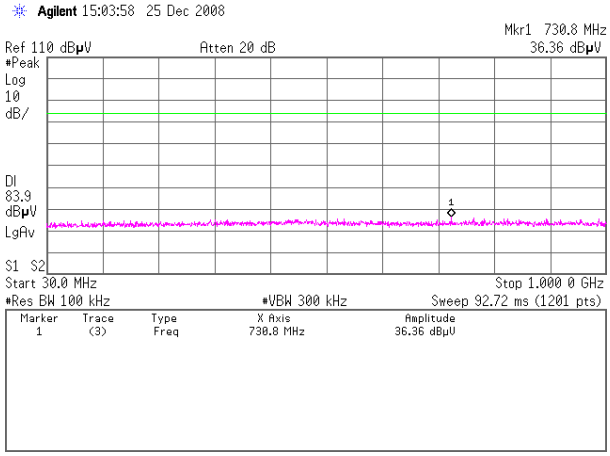
[Transmitting 3DH5]

Ch:2480MHz

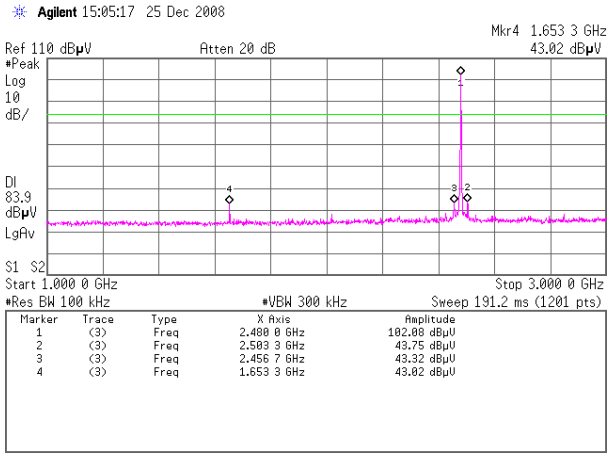
1.



2.



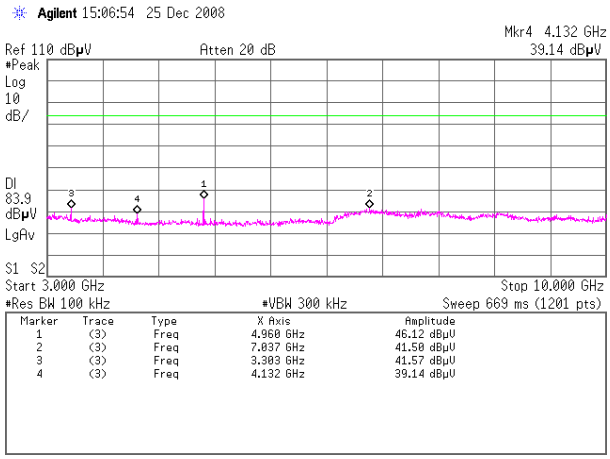
3.



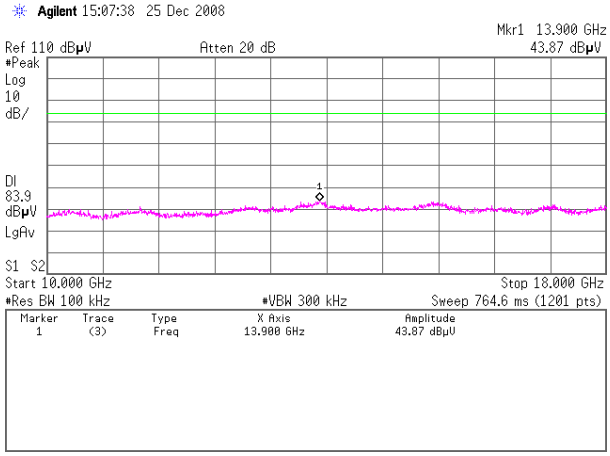
[Transmitting 3DH5]

Ch:2480MHz

4.



5.



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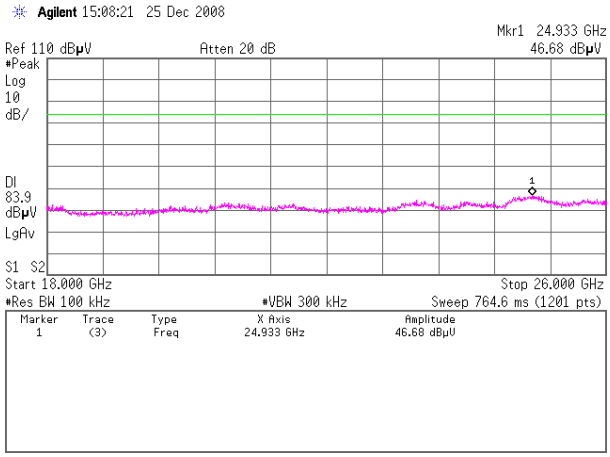
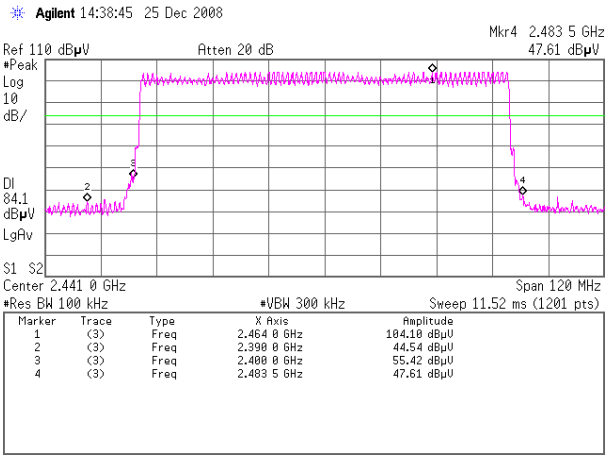


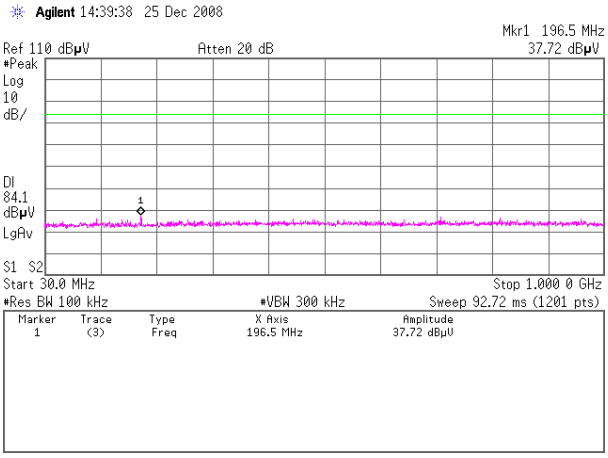
[Transmitting 3DH5]

Hopping

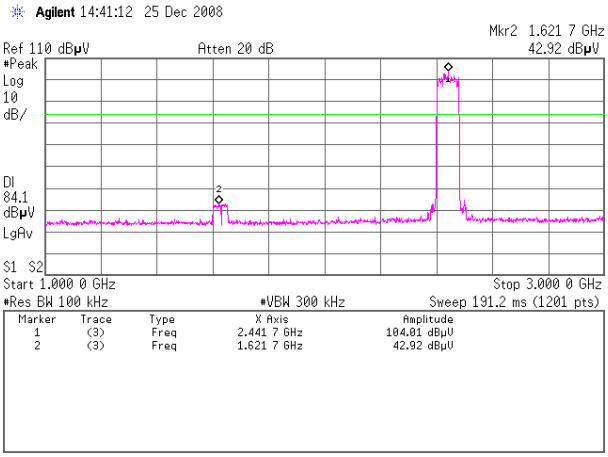
1.



2.



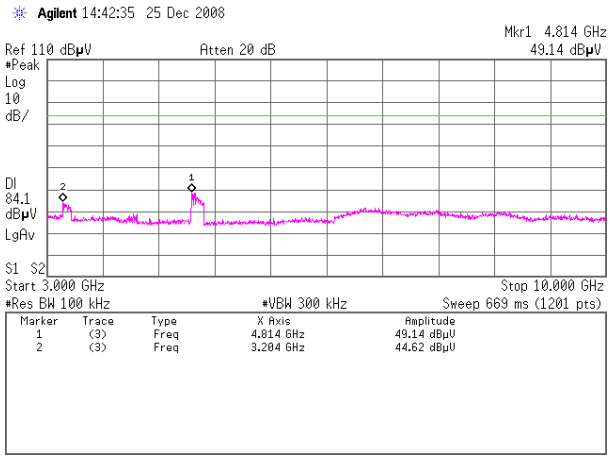
3.



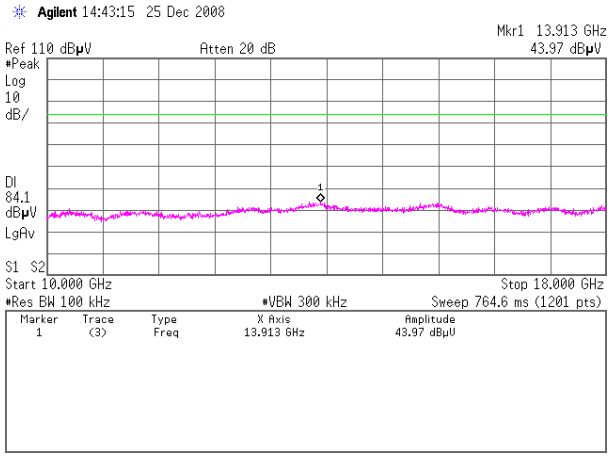
[Transmitting 3DH5]

Hopping

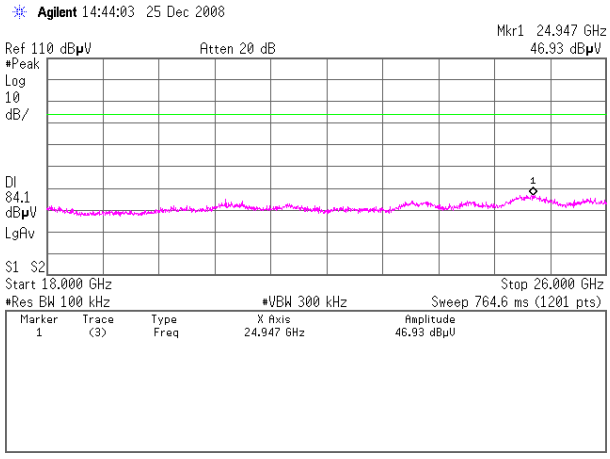
4.



5.



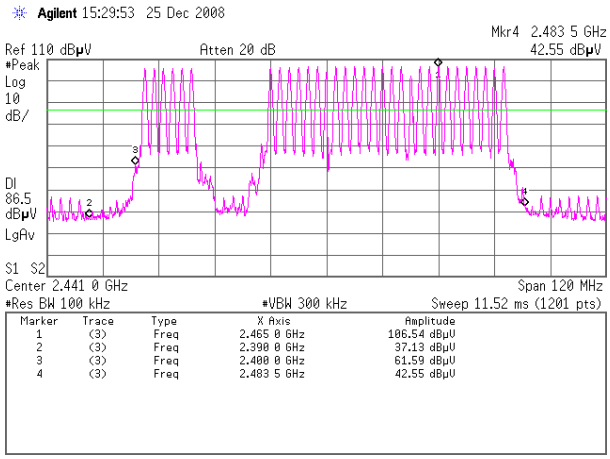
6.



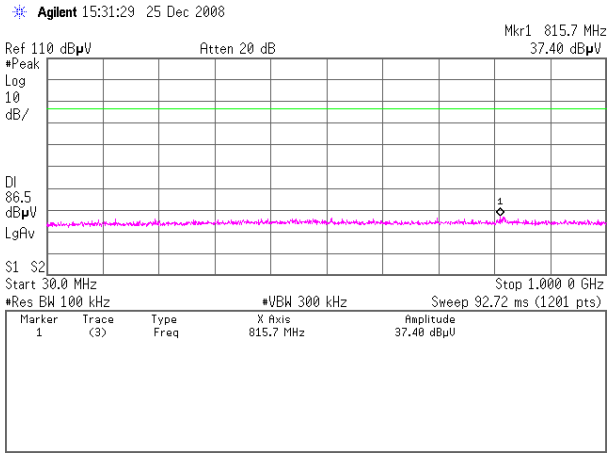
[Transmitting]

Inquiry

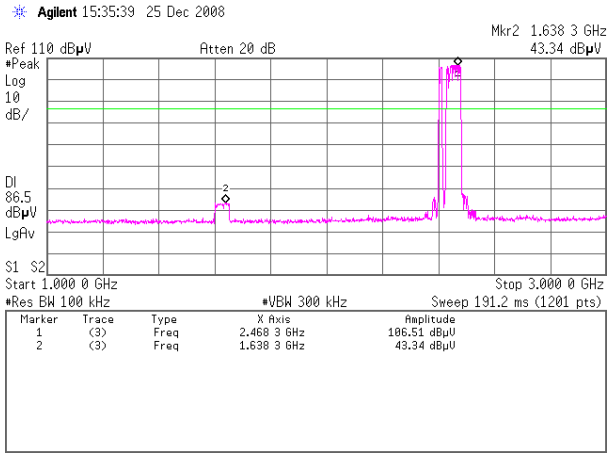
1.



2.



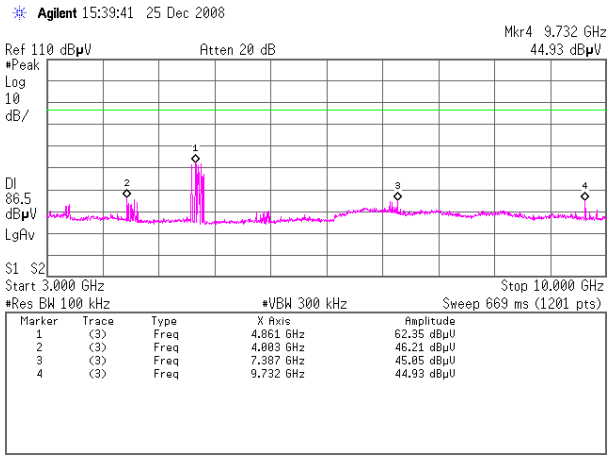
3.



[Transmitting]

Inquiry

4.



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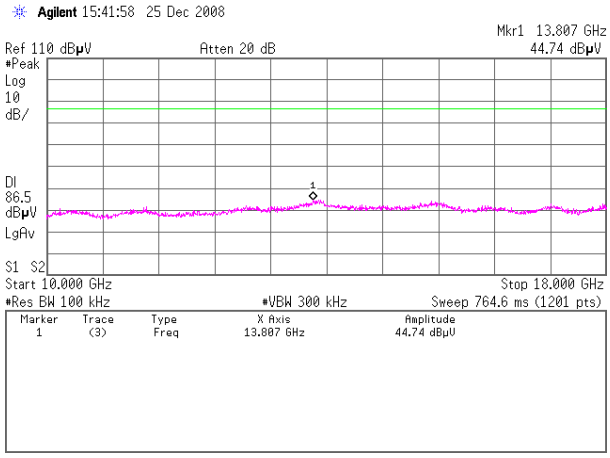
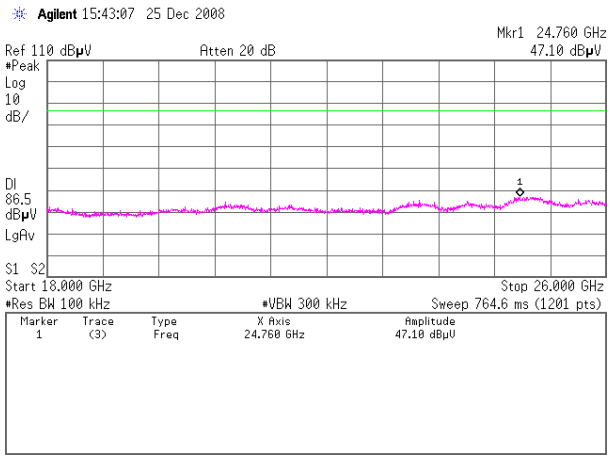


6.



DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2402MHz DH5
Remarks : -
Date : 12/17/2008
Test Distance : 3 m
Temperature : 21 ℃ Engineer : Makoto Hosaka
Humidity : 42 %
Regulation : FCC Part15C §15.209

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	45.35	BB	21.1	25.0	11.7	27.7	1.4	6.0	12.5	16.4	40.0	27.5	23.6
2.	51.89	BB	21.8	23.4	9.8	27.7	1.5	6.0	11.4	13.0	40.0	28.6	27.0
3.	96.01	BB	21.7	26.7	9.4	27.5	2.1	6.0	11.7	16.7	43.5	31.8	26.8

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-03(USLP9143)300-1000MHz
■CABLE:KCC-30/31/32/34■PREAMP:KAF-05(8447D)■EMI RECEIVER:KTR-04(ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2441MHz DH5
Remarks : -
Date : 12/17/2008
Test Distance : 3 m
Temperature : 21 ℃ Engineer : Makoto Hosaka
Humidity : 42 %
Regulation : FCC Part15C §15.209

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	45.35	BB	21.3	25.3	11.7	27.7	1.4	6.0	12.7	16.7	40.0	27.3	23.3
2.	51.89	BB	21.9	23.3	9.8	27.7	1.5	6.0	11.5	12.9	40.0	28.5	27.1
3.	96.01	BB	21.7	27.1	9.4	27.5	2.1	6.0	11.7	17.1	43.5	31.8	26.4

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-03(USLP9143)300-1000MHz
■CABLE:KCC-30/31/32/34■PREAMP:KAF-05(8447D)■EMI RECEIVER:KTR-04(ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2480MHz DH5
Remarks : -
Date : 12/17/2008
Test Distance : 3 m
Temperature : 21 ℃ Engineer : Makoto Hosaka
Humidity : 42 %
Regulation : FCC Part15C §15.209

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	45.35	BB	21.2	25.4	11.7	27.7	1.4	6.0	12.6	16.8	40.0	27.4	23.2
2.	51.89	BB	21.9	23.2	9.8	27.7	1.5	6.0	11.5	12.8	40.0	28.5	27.2
3.	96.01	BB	21.5	26.6	9.4	27.5	2.1	6.0	11.5	16.6	43.5	32.0	26.9

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-03(USLP9143)300-1000MHz
■CABLE:KCC-30/31/32/34■PREAMP:KAF-05(8447D)■EMI RECEIVER:KTR-04(ESVS10)

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DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2402MHz DH5
Remarks : PK(RBW:1MHz, VBW:1MHz)
Date : 12/17/2008
Test Distance : 3 m
Temperature : 19 ℃ Engineer : Tatsuya Arai
Humidity : 34 %
Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1602.04	BB	46.8	48.0	25.9	35.9	3.6	0.0	40.4	41.6	74.0	33.6	32.4
2.	2390.00	BB	45.4	45.6	28.8	35.4	4.3	0.0	43.1	43.3	74.0	30.9	30.7
3.	2400.00	BB	56.7	54.0	28.8	35.3	4.3	0.0	54.5	51.8	74.0	19.5	22.2
4.	4804.00	BB	53.7	51.9	33.6	34.1	5.6	0.0	58.8	57.0	74.0	15.2	17.0
5.	7206.00	BB	45.2	45.0	36.1	34.7	6.5	0.0	53.1	52.9	74.0	20.9	21.1
6.	9608.00	BB	46.0	46.2	37.6	35.3	7.3	0.0	55.6	55.8	74.0	18.4	18.2

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-01&KHA-03
■CABLE:KCC-D3/D16■AMP:KAF-07(8449B)■EMI RECEIVER:KTR-01(ESI40)

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DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 29EE0038-YK-01-B-R1

Company : PIONEER CORPORATION
Equipment : Bluetooth Adapter
Model : AS-BT100
Sample No. : HCI119
Power : DC5V
Mode : Transmitting 2402MHz(DH5)

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/12/17
Temperature : 19deg.C
Humidity : 34%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz (Outside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
1	2400.00	49.0	45.9	28.8	35.3	4.3	0.0	0.00	46.8	43.7	54.0	7.2	10.3	300
2	7206.00	31.0	31.3	36.1	34.7	6.5	0.0	0.00	38.9	39.2	54.0	15.1	14.8	300

AV calculation value SPECTRUMANALYZER RBW:1MHz (Inside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
3*	1602.04	35.7	37.5	25.9	35.9	3.6	0.0	0.00	29.3	31.1	54.0	24.7	22.9	10
4	2390.00	45.4	45.6	28.8	35.4	4.3	0.0	-24.79	18.3	18.5	54.0	35.7	35.5	1M
5	4804.00	53.7	51.9	33.6	34.1	5.6	0.0	-24.79	34.0	32.2	54.0	20.0	21.8	1M
6	9608.00	46.0	46.2	37.6	35.3	7.3	0.0	-24.79	30.8	31.0	54.0	23.2	23.0	1M

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + Cabele Loss + ATT + Duty Factor
Duty Factor calculation: 20*log (2.88[ms]*2/100[ms])=-24.79[dB] See Dwell Time data
*) ON time of some channel during 100ms: Twice
This is the worst case in hopping sequence of Bluetooth.

AV calculation is in accordance with FCC Public Notice DA00-705.
* This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2441MHz DH5
Remarks : PK(RBW:1MHz, VBW:1MHz)
Date : 12/17/2008
Test Distance : 3 m
Temperature : 19 ℃ Engineer : Tatsuya Arai
Humidity : 34 %
Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1626.67	BB	47.3	47.6	26.1	35.9	3.7	0.0	41.2	41.5	74.0	32.8	32.5
2.	4882.00	BB	56.3	53.8	33.8	34.1	5.6	0.0	61.6	59.1	74.0	12.4	14.9
3.	7323.00	BB	44.6	45.4	36.2	34.8	6.6	0.0	52.6	53.4	74.0	21.4	20.6
4.	9764.00	BB	46.6	46.4	37.6	35.4	7.4	0.0	56.2	56.0	74.0	17.8	18.0

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-01&KHA-03
■CABLE:KCC-D3/D16■AMP:KAF-07(8449B)■EMI RECEIVER:KTR-01(ESI40)

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 29EE0038-YK-01-B-R1

Company : PIONEER CORPORATION
Equipment : Bluetooth Adapter
Model : AS-BT100
Sample No. : HCI119
Power : DC5V
Mode : Transmitting 2441MHz(DH5)

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/12/17
Temperature : 19deg.C
Humidity : 34%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz (Outside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
1*	1626.67	36.3	38.0	26.1	35.9	3.7	0.0	0.00	30.2	31.9	54.0	23.8	22.1	10
2	9764.00	32.1	32.4	37.6	35.4	7.4	0.0	0.00	41.7	42.0	54.0	12.3	12.0	300

AV calculation value SPECTRUMANALYZER RBW:1MHz (Inside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
3	4882.00	56.3	53.8	33.8	34.1	5.6	0.0	-24.79	36.8	34.3	54.0	17.2	19.7	1M
4	7323.00	44.6	45.4	36.2	34.8	6.6	0.0	-24.79	27.8	28.6	54.0	26.2	25.4	1M

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + Cabele Loss + ATT + Duty Factor
Duty Factor calculation: 20*log (2.88[ms]*2/100[ms])=-24.79[dB] See Dwell Time data
*) ON time of some channel during 100ms: Twice
This is the worst case in hopping sequence of Bluetooth.

AV calculation is in accordance with FCC Public Notice DA00-705.
* This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2480MHz DH5
Remarks : PK(RBW:1MHz, VBW:1MHz)
Date : 12/17/2008
Test Distance : 3 m
Temperature : 19 ℃ Engineer : Tatsuya Arai
Humidity : 34 %
Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1652.66	BB	39.8	41.0	26.3	35.9	3.7	0.0	33.9	35.1	74.0	40.1	38.9
2.	2483.50	BB	45.3	44.5	28.8	35.3	4.4	0.0	43.2	42.4	74.0	30.8	31.6
3.	4960.00	BB	52.5	50.8	34.1	34.1	5.7	0.0	58.2	56.5	74.0	15.8	17.5
4.	7440.00	BB	44.5	44.5	36.3	34.8	6.6	0.0	52.6	52.6	74.0	21.4	21.4
5.	9920.00	BB	46.4	46.1	37.6	35.4	7.5	0.0	56.1	55.8	74.0	17.9	18.2

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-01&KHA-03
■CABLE:KCC-D3/D16■AMP:KAF-07(8449B)■EMI RECEIVER:KTR-01(ESI40)

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 29EE0038-YK-01-B-R1

Company : PIONEER CORPORATION
Equipment : Bluetooth Adapter
Model : AS-BT100
Sample No. : HCI119
Power : DC5V
Mode : Transmitting 2480MHz(DH5)

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/12/17
Temperature : 19deg.C
Humidity : 34%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz (Outside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
1*	1652.66	33.1	34.8	26.3	35.9	3.7	0.0	0.00	27.2	28.9	54.0	26.8	25.1	10
2	9920.00	32.0	32.0	37.6	35.4	7.5	0.0	0.00	41.7	41.7	54.0	12.3	12.3	300

AV calculation value SPECTRUMANALYZER RBW:1MHz (Inside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
3	2483.50	45.3	44.5	28.8	35.3	4.4	0.0	-24.79	18.4	17.6	54.0	35.6	36.4	1M
4	4960.00	52.5	50.8	34.1	34.1	5.7	0.0	-24.79	33.4	31.7	54.0	20.6	22.3	1M
5	7440.00	44.5	44.5	36.3	34.8	6.6	0.0	-24.79	27.8	27.8	54.0	26.2	26.2	1M

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + Cabele Loss + ATT + Duty Factor
Duty Factor calculation: 20*log (2.88[ms]*2/100[ms])=-24.79[dB] See Dwell Time data
*) ON time of some channel during 100ms: Twice
This is the worst case in hopping sequence of Bluetooth.

AV calculation is in accordance with FCC Public Notice DA00-705.
* This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER COPRORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2402MHz 3DH5
Remarks : -
Date : 12/17/2008
Test Distance : 3 m
Temperature : 21 ℃ Engineer : Makoto Hosaka
Humidity : 42 %
Regulation : FCC Part15C §15.209

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	45.35	BB	21.2	24.5	11.7	27.7	1.4	6.0	12.6	15.9	40.0	27.4	24.1
2.	52.23	BB	21.8	23.7	9.7	27.7	1.5	6.0	11.3	13.2	40.0	28.7	26.8
3.	96.01	BB	21.8	26.5	9.4	27.5	2.1	6.0	11.8	16.5	43.5	31.7	27.0

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-03(USLP9143)300-1000MHz
■CABLE:KCC-30/31/32/34■PREAMP:KAF-05(8447D)■EMI RECEIVER:KTR-04(ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2441MHz 3DH5
Remarks : -
Date : 12/17/2008
Test Distance : 3 m
Temperature : 21 ℃ Engineer : Makoto Hosaka
Humidity : 42 %
Regulation : FCC Part15C §15.209

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	45.35	BB	21.2	24.6	11.7	27.7	1.4	6.0	12.6	16.0	40.0	27.4	24.0
2.	52.23	BB	22.0	23.6	9.7	27.7	1.5	6.0	11.5	13.1	40.0	28.5	26.9
3.	96.01	BB	21.6	27.0	9.4	27.5	2.1	6.0	11.6	17.0	43.5	31.9	26.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-03(USLP9143)300-1000MHz
■CABLE:KCC-30/31/32/34■PREAMP:KAF-05(8447D)■EMI RECEIVER:KTR-04(ESVS10)

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DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2480MHz 3DH5
Remarks : -
Date : 12/17/2008
Test Distance : 3 m
Temperature : 21 ℃ Engineer : Makoto Hosaka
Humidity : 42 %
Regulation : FCC Part15C §15.209

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	45.35	BB	21.1	24.9	11.7	27.7	1.4	6.0	12.5	16.3	40.0	27.5	23.7
2.	52.26	BB	21.5	24.1	9.7	27.7	1.5	6.0	11.0	13.6	40.0	29.0	26.4
3.	96.01	BB	22.1	26.7	9.4	27.5	2.1	6.0	12.1	16.7	43.5	31.4	26.8

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-03(USLP9143)300-1000MHz
■CABLE:KCC-30/31/32/34■PREAMP:KAF-05(8447D)■EMI RECEIVER:KTR-04(ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2402MHz 3DH5
Remarks : PK(RBW:1MHz, VBW:1MHz)
Date : 12/17/2008
Test Distance : 3 m
Temperature : 19 ℃ Engineer : Tatsuya Arai
Humidity : 34 %
Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1602.03	BB	48.4	47.0	25.9	35.9	3.6	0.0	42.0	40.6	74.0	32.0	33.4
2.	2390.00	BB	45.4	45.5	28.8	35.4	4.3	0.0	43.1	43.2	74.0	30.9	30.8
3.	2400.00	BB	60.9	57.4	28.8	35.3	4.3	0.0	58.7	55.2	74.0	15.3	18.8
4.	4804.00	BB	48.4	45.9	33.6	34.1	5.6	0.0	53.5	51.0	74.0	20.5	23.0
5.	7206.00	BB	45.1	45.3	36.1	34.7	6.5	0.0	53.0	53.2	74.0	21.0	20.8
6.	9608.00	BB	45.9	46.1	37.6	35.3	7.3	0.0	55.5	55.7	74.0	18.5	18.3

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-01&KHA-03
■CABLE:KCC-D3/D16■AMP:KAF-07(8449B)■EMI RECEIVER:KTR-01(ESI40)

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DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 29EE0038-YK-01-B-R1

Company : PIONEER CORPORATION
Equipment : Bluetooth Adapter
Model : AS-BT100
Sample No. : HCI119
Power : DC5V
Mode : Transmitting 2402MHz(3DH5)

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/12/17
Temperature : 19deg.C
Humidity : 34%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz (Outside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
1	2400.00	48.5	44.7	28.8	35.3	4.3	0.0	0.00	46.3	42.5	54.0	7.7	11.5	300
2	7206.00	31.1	31.0	36.1	34.7	6.5	0.0	0.00	39.0	38.9	54.0	15.0	15.1	300
3	9608.00	32.2	32.1	37.6	35.3	7.3	0.0	0.00	41.8	41.7	54.0	12.2	12.3	300

AV calculation value SPECTRUMANALYZER RBW:1MHz (Inside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
4*	1602.03	40.0	39.7	25.9	35.9	3.6	0.0	0.00	33.6	33.3	54.0	20.4	20.7	10
5	2390.00	45.4	45.5	28.8	35.4	4.3	0.0	-24.91	18.2	18.3	54.0	35.8	35.7	1M
6	4804.00	48.4	45.9	33.6	34.1	5.6	0.0	-24.91	28.6	26.1	54.0	25.4	27.9	1M

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + Cabele Loss + ATT + Duty Factor
Duty Factor calculation: 20*log (2.84[ms]*2/100[ms])=-24.91[dB] See Dwell Time data
*) ON time of some channel during 100ms: Twice
This is the worst case in hopping sequence of Bluetooth.

AV calculation is in accordance with FCC Public Notice DA00-705.
* This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2441MHz 3DH5
Remarks : PK(RBW:1MHz, VBW:1MHz)
Date : 12/17/2008
Test Distance : 3 m
Temperature : 19 ℃ Engineer : Tatsuya Arai
Humidity : 34 %
Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1626.67	BB	45.4	41.1	26.1	35.9	3.7	0.0	39.3	35.0	74.0	34.7	39.0
2.	4882.00	BB	50.6	48.6	33.8	34.1	5.6	0.0	55.9	53.9	74.0	18.1	20.1
3.	7323.00	BB	45.0	45.3	36.2	34.8	6.6	0.0	53.0	53.3	74.0	21.0	20.7
4.	9764.00	BB	46.6	46.0	37.6	35.4	7.4	0.0	56.2	55.6	74.0	17.8	18.4

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-01&KHA-03
■CABLE:KCC-D3/D16■AMP:KAF-07(8449B)■EMI RECEIVER:KTR-01(ESI40)

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 29EE0038-YK-01-B-R1

Company : PIONEER CORPORATION
Equipment : Bluetooth Adapter
Model : AS-BT100
Sample No. : HCI119
Power : DC5V
Mode : Transmitting 2441MHz(3DH5)

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/12/17
Temperature : 19deg.C
Humidity : 34%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz (Outside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
1*	1626.76	32.0	34.9	26.1	35.9	3.7	0.0	0.00	25.9	28.8	54.0	28.1	25.2	10
2	9764.00	32.4	32.2	37.6	35.4	7.4	0.0	0.00	42.0	41.8	54.0	12.0	12.2	300

AV calculation value SPECTRUMANALYZER RBW:1MHz (Inside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
3	4882.00	50.6	48.6	33.8	34.1	5.6	0.0	-24.91	31.0	29.0	54.0	23.0	25.0	1M
4	7323.00	45.0	45.3	36.2	34.8	6.6	0.0	-24.91	28.1	28.4	54.0	25.9	25.6	1M

Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + Cabele Loss + ATT + Duty Factor
Duty Factor calculation: 20*log (2.84[ms]*2/100[ms])=-24.91[dB] See Dwell Time data
*) ON time of some channel during 100ms: Twice
This is the worst case in hopping sequence of Bluetooth.

AV calculation is in accordance with FCC Public Notice DA00-705.
* This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No.: 29EE0038-YK-01-B-R1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth Adaptor
Model No. : AS-BT100
Serial No. : HCI119
Power : DC5V
Mode : Transmitting 2480MHz 3DH5
Remarks : PK(RBW:1MHz, VBW:1MHz)
Date : 12/17/2008
Test Distance : 3 m
Temperature : 19 ℃ Engineer : Tatsuya Arai
Humidity : 34 %
Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1652.77	BB	46.5	47.3	26.3	35.9	3.7	0.0	40.6	41.4	74.0	33.4	32.6
2.	2483.50	BB	44.9	43.8	28.8	35.3	4.4	0.0	42.8	41.7	74.0	31.2	32.3
3.	4960.00	BB	48.3	47.6	34.1	34.1	5.7	0.0	54.0	53.3	74.0	20.0	20.7
4.	7440.00	BB	45.3	45.4	36.3	34.8	6.6	0.0	53.4	53.5	74.0	20.6	20.5
5.	9920.00	BB	45.9	45.8	37.6	35.4	7.5	0.0	55.6	55.5	74.0	18.4	18.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-01&KHA-03
■CABLE:KCC-D3/D16■AMP:KAF-07(8449B)■EMI RECEIVER:KTR-01(ESI40)

DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.
YAMAKITA NO.1 ANECHOIC CHAMBER
Report No. : 29EE0038-YK-01-B-R1

Company : PIONEER CORPORATION
Equipment : Bluetooth Adapter
Model : AS-BT100
Sample No. : HCI119
Power : DC5V
Mode : Transmitting 2480MHz(3DH5)

Regulation : FCC Part15C Section 15.209
Test Distance : 3m
Date : 2008/12/17
Temperature : 19deg.C
Humidity : 34%

ENGINEER : Tatsuya Arai

AV calculation value SPECTRUMANALYZER RBW:1MHz (Outside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
1*	1652.64	33.7	36.3	26.3	35.9	3.7	0.0	0.00	27.8	30.4	54.0	26.2	23.6	10
2	9920.00	32.1	32.2	37.6	35.4	7.5	0.0	0.00	41.8	41.9	54.0	12.2	12.1	300

AV calculation value SPECTRUMANALYZER RBW:1MHz (Inside Restricted Band)

No.	FREQ	READING		ANT	AMP	CABLE	ATTEN	Duty	RESULT		LIMIT	MARGIN		VBW
		HOR	VER	Factor	GAIN	LOSS		Factor	HOR	VER		HOR	VER	
	[MHz]	[dBuV]		[dB]	[dB]	[dB]	[dB]		[dBuV/m]		[dBuV/m]	[dB]		[Hz]
3	2483.50	44.9	43.8	28.8	35.3	4.4	0.0	-24.91	17.9	16.8	54.0	36.1	37.2	1M
4	4960.00	48.3	47.6	34.1	34.1	5.7	0.0	-24.91	29.1	28.4	54.0	24.9	25.6	1M
5	7440.00	45.3	45.4	36.3	34.8	6.6	0.0	-24.91	28.5	28.6	54.0	25.5	25.4	1M

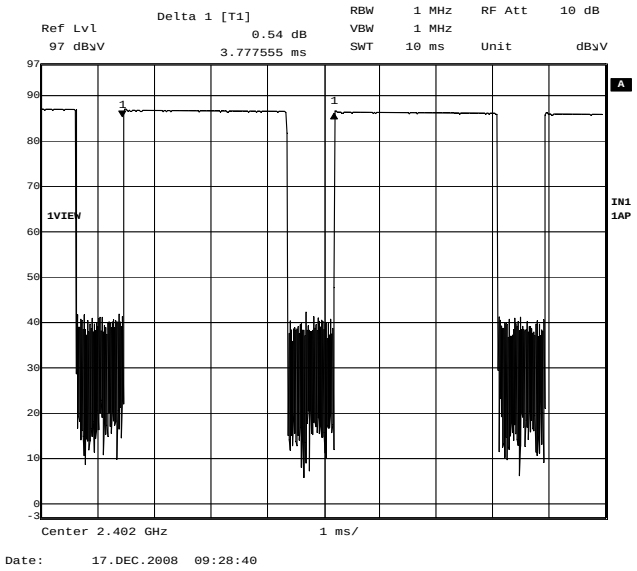
Sample Calculation :
RESULT=Reading + ANT Factor - Amp Gain + Cabele Loss + ATT + Duty Factor
Duty Factor calculation: 20*log (2.84[ms]*2/100[ms])=-24.91[dB] See Dwell Time data
*) ON time of some channel during 100ms: Twice
This is the worst case in hopping sequence of Bluetooth.

AV calculation is in accordance with FCC Public Notice DA00-705.
* This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

Duty Cycle

UL Japan, Inc. Yamakita EMC lab.	No.1 Anechoic Chamber
Date:	2008/12/17
Temp./Humid.:	19 deg. C. / 34 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

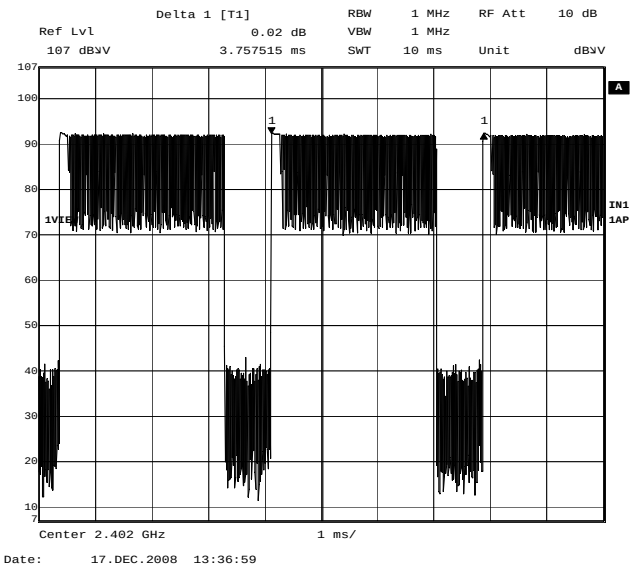
[DH5]



Duty Cycle: 3.78ms

AV Detector VBW: 1000 / 3.78ms = 264.55Hz → 300Hz

[3DH5]



Duty Cycle: 3.76ms

AV Detector VBW: 1000 / 3.76ms = 265.96Hz → 300Hz

*** All the measured noise was pulse emission.**
*** Duty cycle was within 100msec.**

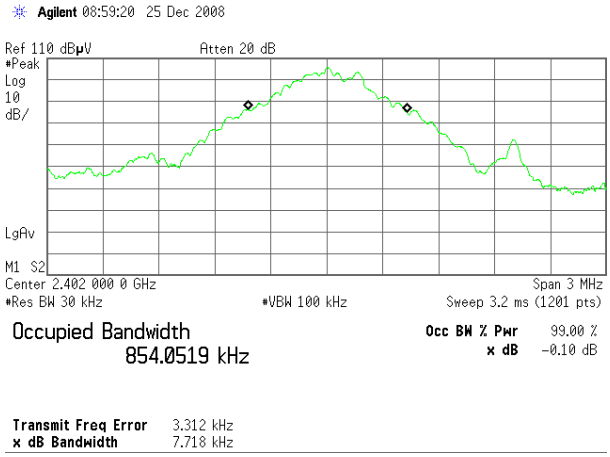
This purpose of the Duty Cycle calculation measures the pulse timing that we ensure Spectrum Analyzer can detect the pulse emission correctly. Therefore, if the pulse train can happen by 50msec(20Hz) or less, the average value measurement by setting the repetition frequency is done more correctly than VBW=10Hz that DA 00-705 accepts for AV detect. For instance, if pulse cycle is every 10msec, we set VBW = 100Hz(=1000/10) in order not to overlook a pulse unexpectedly.

Occupied Bandwidth (99%) (Regulation: RSS-Gen 4.6.1)

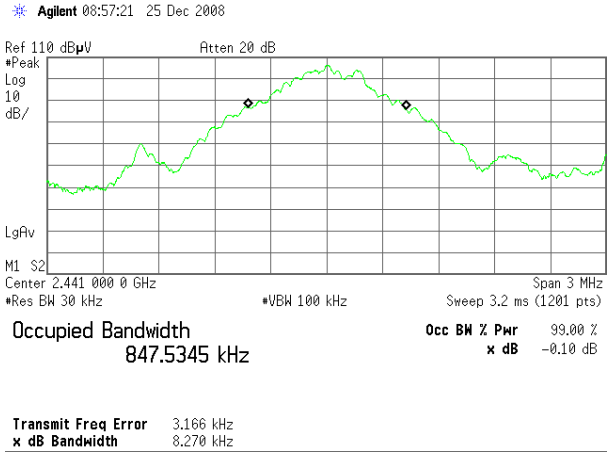
UL Japan, Inc. Yamakita EMC lab.	No.2 shielded room
Date:	2008/12/25
Temp./Humid.:	22 deg. C. / 35 %
Engineer:	Tatsuya Arai
Test mode:	Transmitting

[Hopping off, DH5]

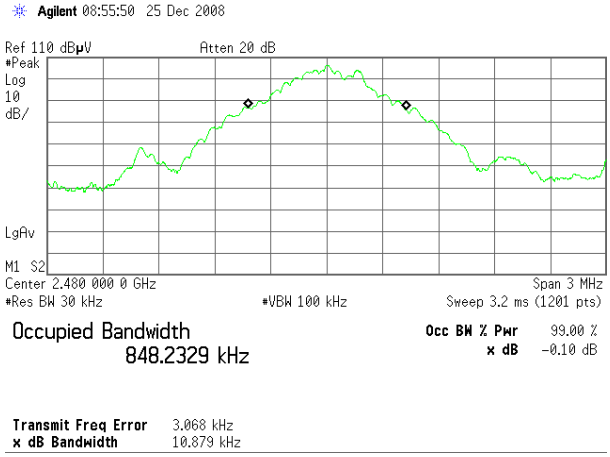
1. ch : 2402MHz/Occupied Bandwidth: 854.0519kHz



2. ch : 2441MHz/Occupied Bandwidth: 847.5345kHz

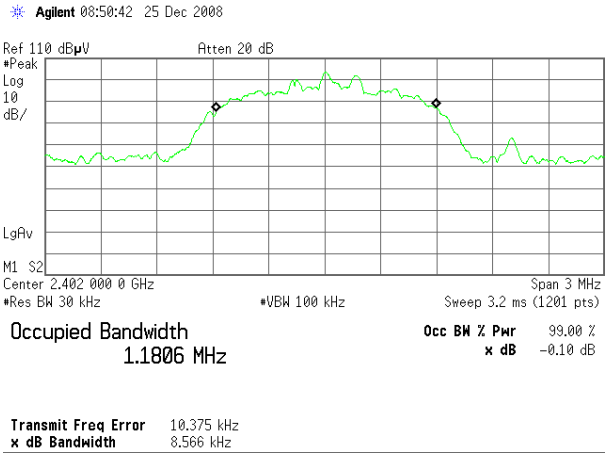


3. ch : 2480MHz/Occupied Bandwidth: 848.2329kHz

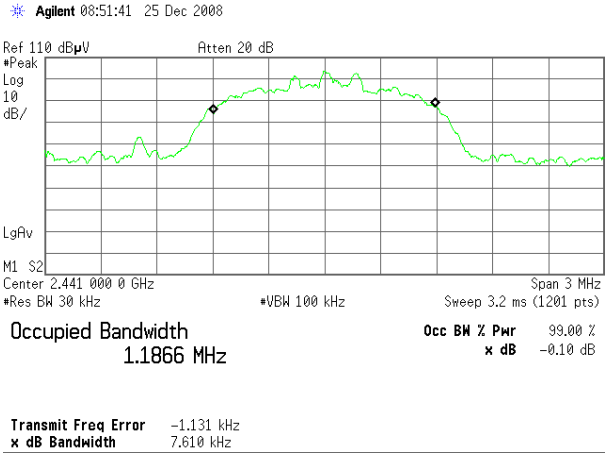


[Hopping off, 3DH5]

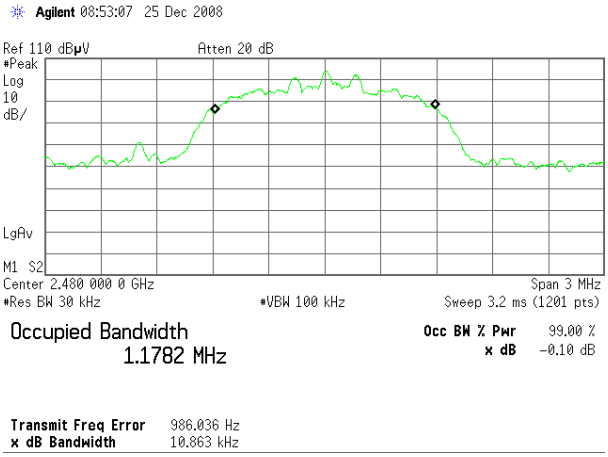
4. ch : 2402MHz/Occupied Bandwidth: 1.1806MHz



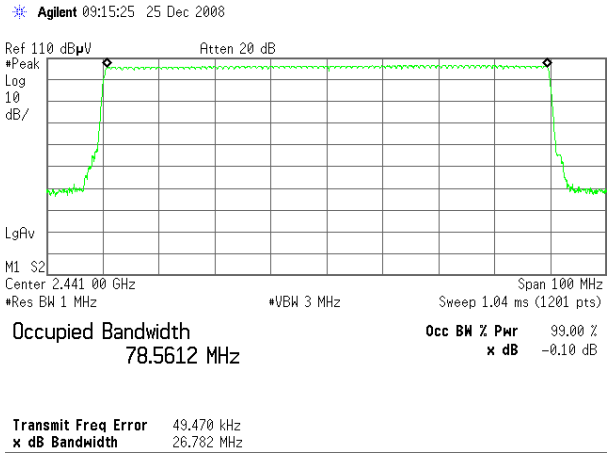
5. ch : 2441MHz/Occupied Bandwidth: 1.1866MHz



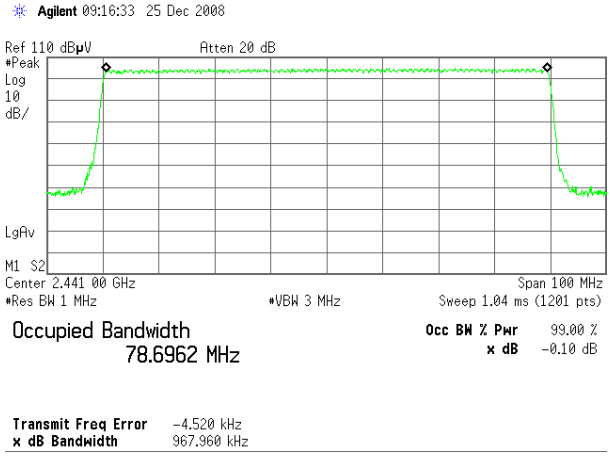
6. ch : 2480MHz/Occupied Bandwidth: 1.1782MHz



7. Hopping, DH5/Occupied Bandwidth: 78.5612MHz



8. Hopping, 3DH5/Occupied Bandwidth: 78.6962MHz



APPENDIX 3
Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
CUST-YA-CE	Conducted emission(software)	UL Japan	CE(Ver.1.6)	-	CE	-
CUST-YA-RE	Radiated emission(software)	UL Japan	RE(Ver.1.5)	-	RE	-
KCC-14/15/16/18/KPL-01/KRM-01	Coaxial Cable/Pulse Limitter/RF Relay Matrix	Fujikura/Suhner/PMM/TSJ	5D-2W/8D-2W/S04272B/S04272B/PL01/-	-/9909017	CE	2008/05/15 * 12
KLS-01	LISN(AMN)	Schwarzbeck	NSLK8126	8126354	CE	2008/04/07 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	95060087	CE	2008/09/29 * 12
KTR-02	Test Receiver	Rohde & Schwarz	ESCS30	830986/017	CE	2008/09/12 * 12
KOS-04	Humidity Indicator	SATO	PC-5000TRH	B-08	CE	2008/07/07 * 12
KJM-08	Measure	KOMELON	KMC-36	-	CE	-
KAEC-01(NSA)	Anechoic Chamber	JSE	Semi 3m	1	RE	2008/08/06 * 12
KAF-08	Pre Amplifier	Anritsu	MH648A	M90147	RE	2008/06/03 * 12
KAT6-01	Attenuator	INMET	18N-6dB	-	RE	2008/03/17 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1926	RE	2008/12/28 * 12
KLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	170	RE	2008/12/28 * 12
KCC-30/31/32/34/KRM-03	Coaxial Cable/RF Relay Matrix	Fujikura/Suhner/TSJ	5D-2W/S04272B/RFM-E421	-/01055	RE	2008/10/22 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	95060087	RE	2008/09/29 * 12
KTR-04	Test Receiver	Rohde & Schwarz	ESVS10	825475/006	RE	2008/10/20 * 12
KAF-07	Pre Amplifier	Hewlett Packard	8449B	3008A01002	RE	2007/12/10 * 12
KCC-D3/D16	Coaxial Cable	Rosenberger/INSULATED WIRE INC	2201/KPS-1501-200-KPS	001/04202005	RE	2008/04/16 * 12
KHA-01	Horn Antenna	A.H.Systems	SAS-200/571	354	RE	2008/08/11 * 12
KHA-03	Horn Antenna	EMCO	3160-09	1239	RE	2008/04/30 * 12
KTR-01	Test Receiver	Rohde & Schwarz	ESI40	100054/040	RE/AT	2008/04/18 * 12
KOS-02	Humidity Indicator	Custom	CTH-190	K-02	RE	2008/07/07 * 12
KJM-07	Measure	KOMELON	KMC-36	-	RE	-
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	AT	2008/01/11 * 12
KOSC-01	Oscilloscope	Tektronix	TDS-2022B	C050588	AT	2008/05/07 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	1822A05320	AT	Pre Check
KPM-05	Power meter	Agilent	E4417A	GB41290718	AT	2008/03/21 * 12
KPSS-01	Power sensor	Agilent	E9327A	US40440544	AT	2008/03/27 * 12
KOS-01	Humidity Indicator	Custom	CTH-190	K-01	AT	2008/07/14 * 12
KCC-D20	Coaxial Cable	SUHNER	SUCOFLEX102	31110/2	AT	2008/07/09 * 12

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

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

Test Item :

CE: Conducted emission ,
RE: Radiated emission ,
AT: Antenna terminal disturbance voltage