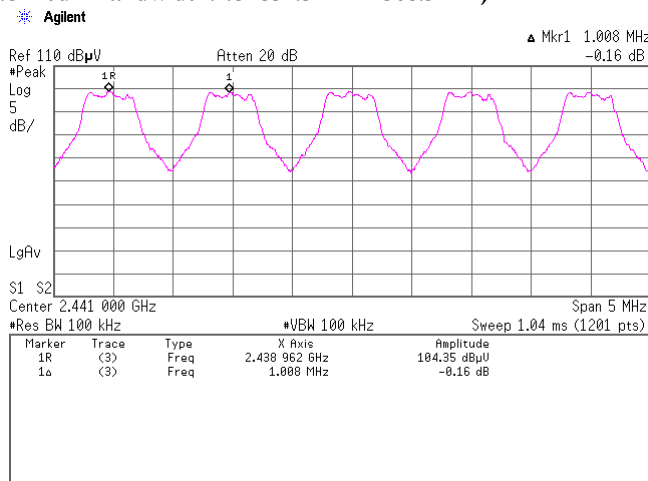


Channel Separation (Regulation: FCC 15.247(a)(1))

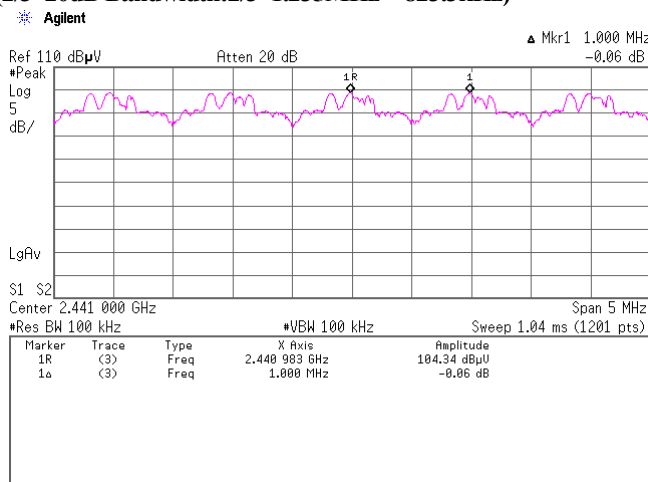
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room
 Date: 2010.3.4
 Temp./Humid.: 21 deg. C. / 36 %
 Engineer: Akira Sato
 Test mode: Transmitting

Limit: $\geq 25\text{kHz}$ or $2/3 * 20\text{dB Bandwidth}$ (Power: No greater than 125mW)

1. Hopping, DH5: 1.008MHz ($2/3 * 20\text{dB Bandwidth} : 2/3 * 852.5\text{kHz} = 568.3\text{kHz}$)



2. Hopping, 3DH5: 1.000MHz ($2/3 * 20\text{dB Bandwidth} : 2/3 * 1.235\text{MHz} = 823.3\text{kHz}$)

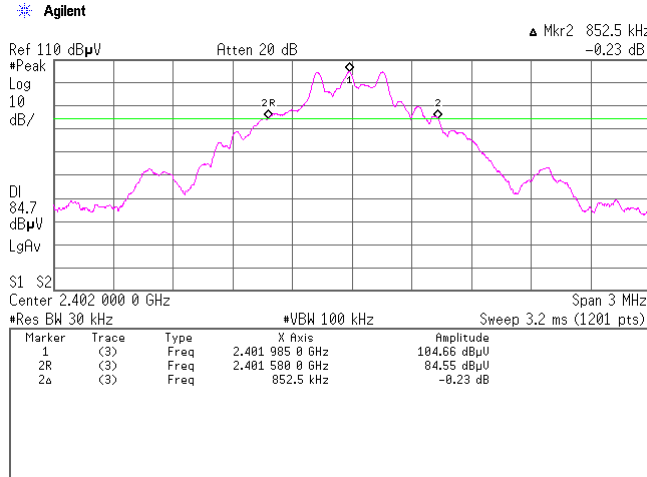


20dB Bandwidth (Regulation: FCC 15.247(a)(1))

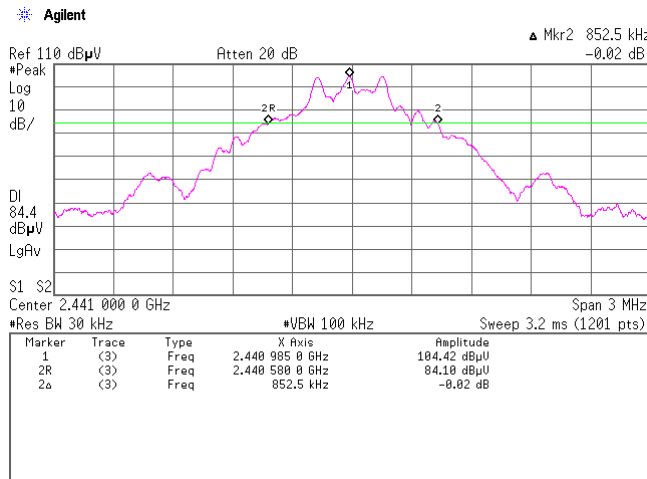
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room
 Date: 2010.3.4
 Temp./Humid.: 21 deg. C. / 36 %
 Engineer: Akira Sato
 Test mode: Transmitting

[Hopping off, DHS]

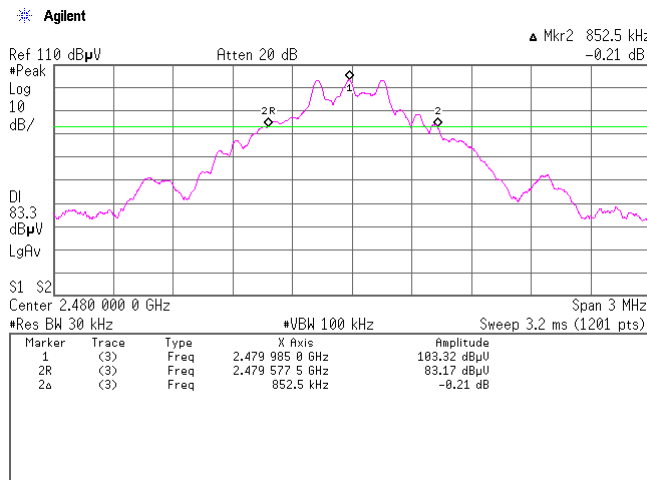
1. ch : 2402MHz/20dB Bandwidth:852.5kHz



2. ch : 2441MHz/20dB Bandwidth:852.5kHz

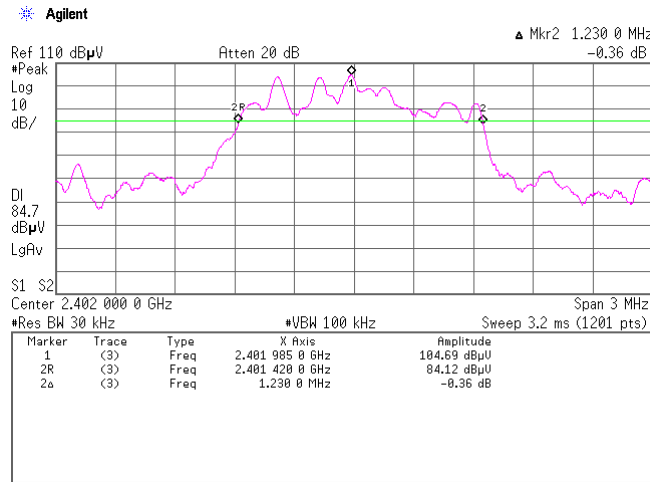


3. ch : 2480MHz/20dB Bandwidth:852.5kHz

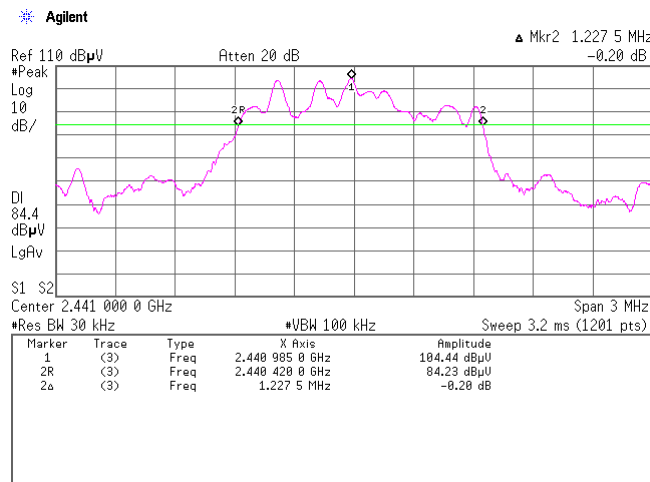


[Hopping off, 3DH5]

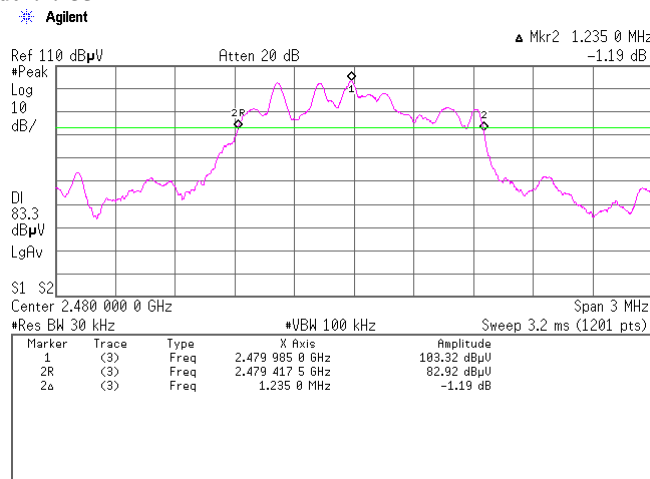
4. ch : 2402MHz/20dB Bandwidth:1.230MHz



5. ch : 2441MHz/20dB Bandwidth:1.2275MHz



6. ch : 2480MHz/20dB Bandwidth:1.235MHz

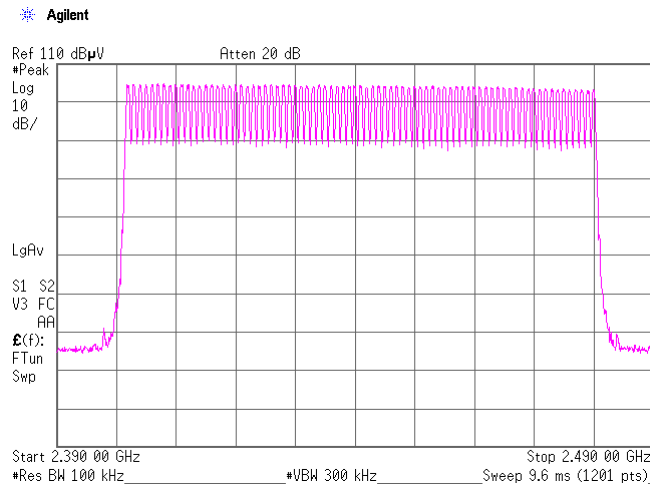


Channel Utilization (Regulation: FCC 15.247(a)(1)(iii))

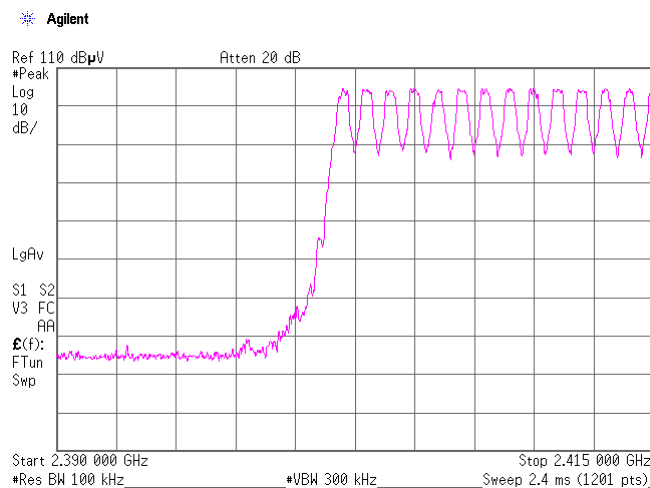
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room
 Date: 2010.3.4
 Temp./Humid.: 21 deg. C. / 36 %
 Engineer: Akira Sato
 Test mode: Transmitting

Hopping, DH5: 79ch

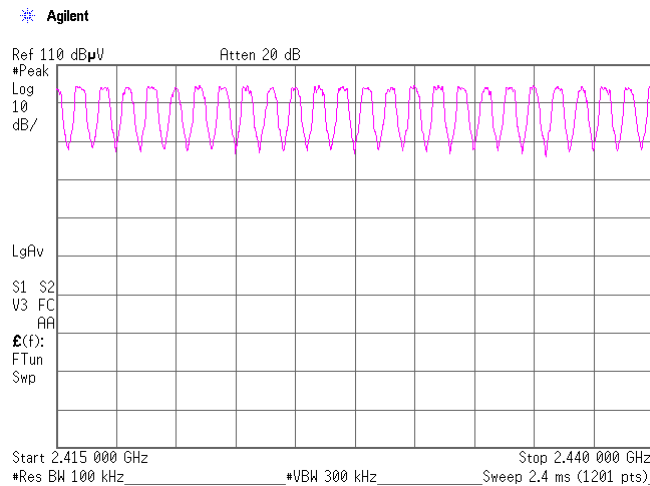
1.



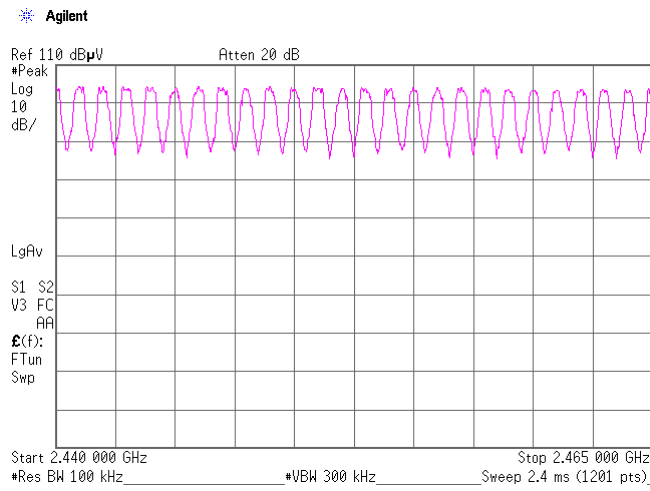
2.



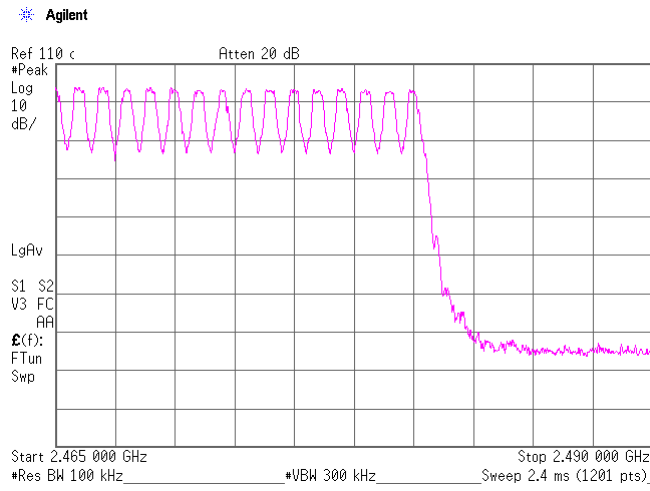
3.



4.

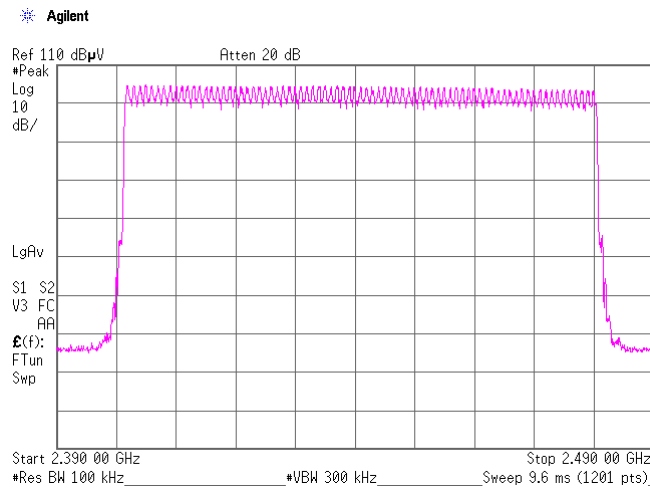


5.

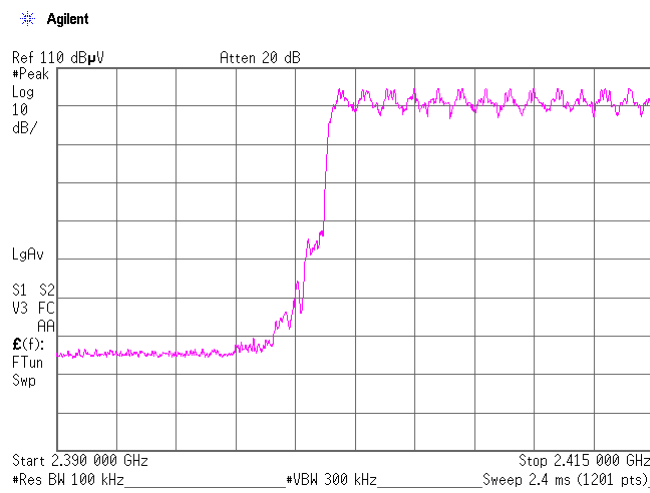


Hopping, 3DH5: 79ch

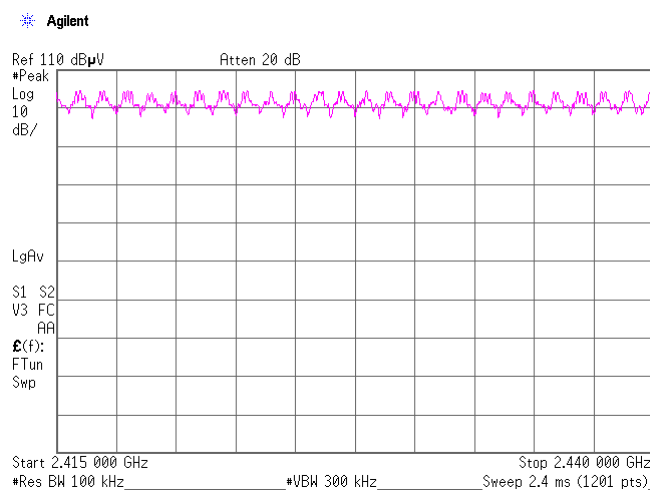
1.



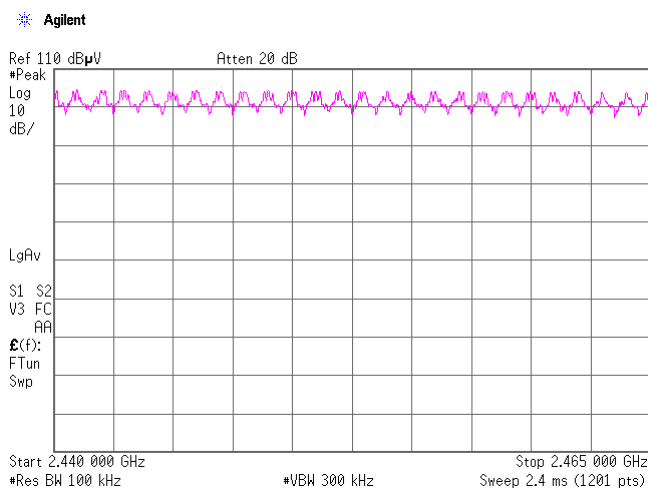
2.



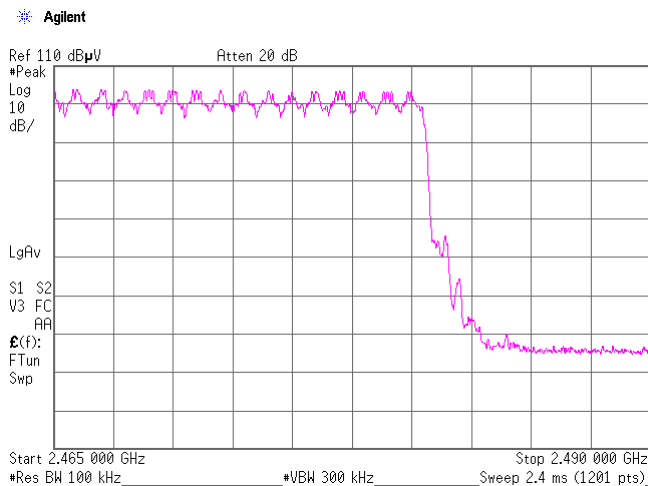
3.



4.



5.



Company: Clarion Co., Ltd.
Kind of Equipment: Car Audio
Serial No.: PF3302BA 136

Report No.: 30DE0216-YK-B
Model No.: PF-3302B-A
Power: DC12.0V

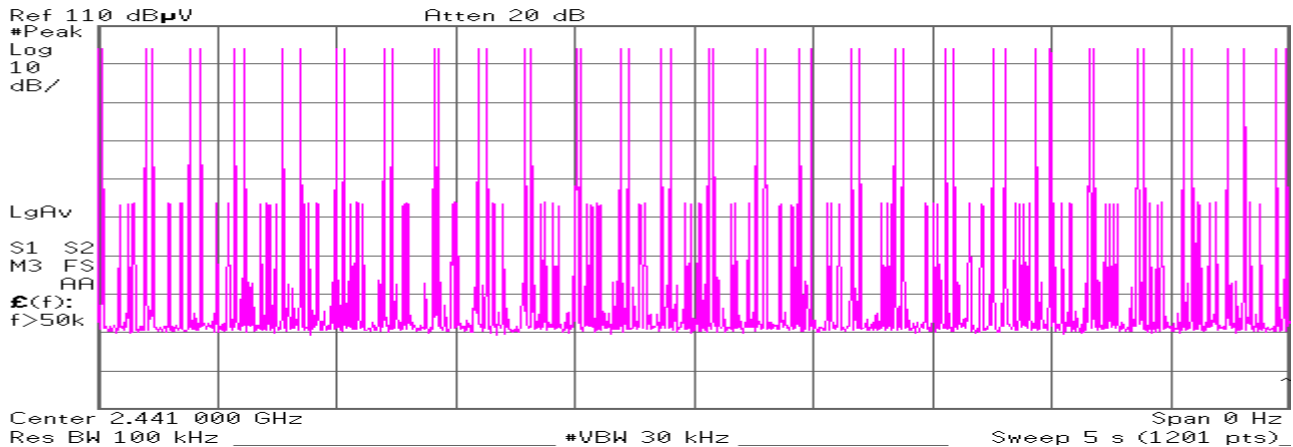
Dwell Time (Regulation: FCC 15.247(a)(1)(iii))

UL Japan, Inc. Yamakita EMC lab. No.2 shielded room
Date: 2010.3.4
Temp/Humid.: 21 deg. C. / 36 %
Engineer: Akira Sato
Test mode: Transmitting

Hopping (DH1):

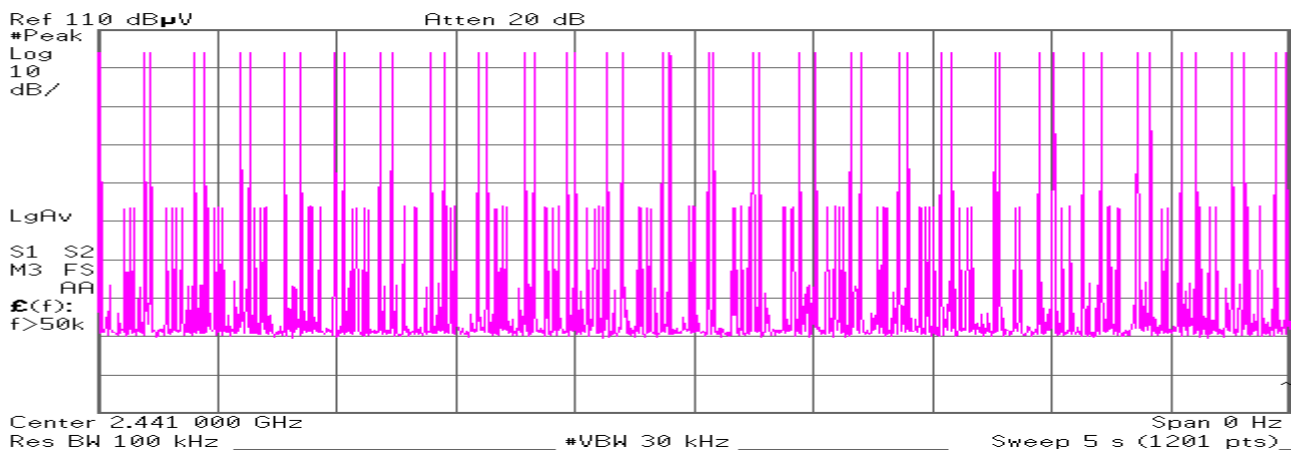
Count 1

Agilent



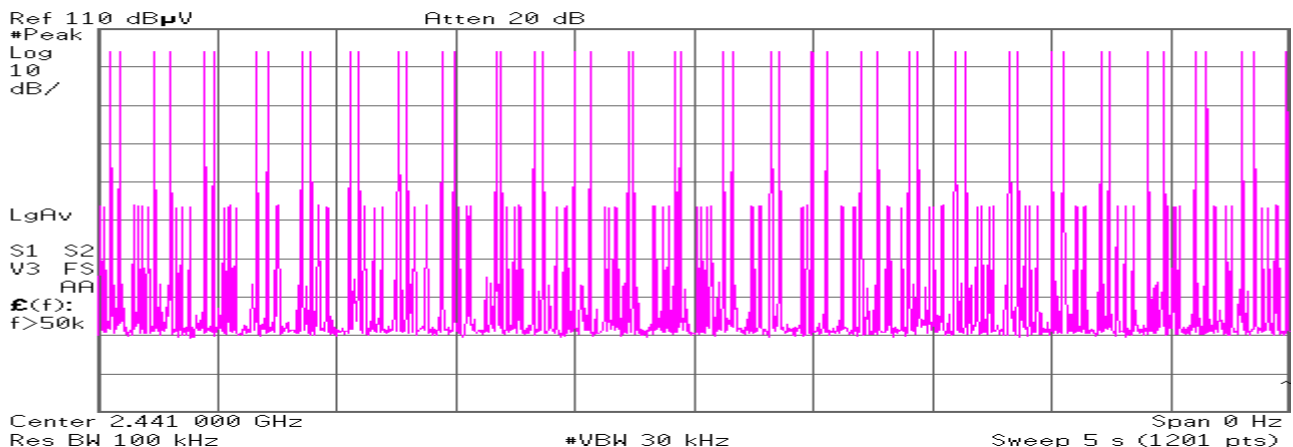
Count 2

Agilent

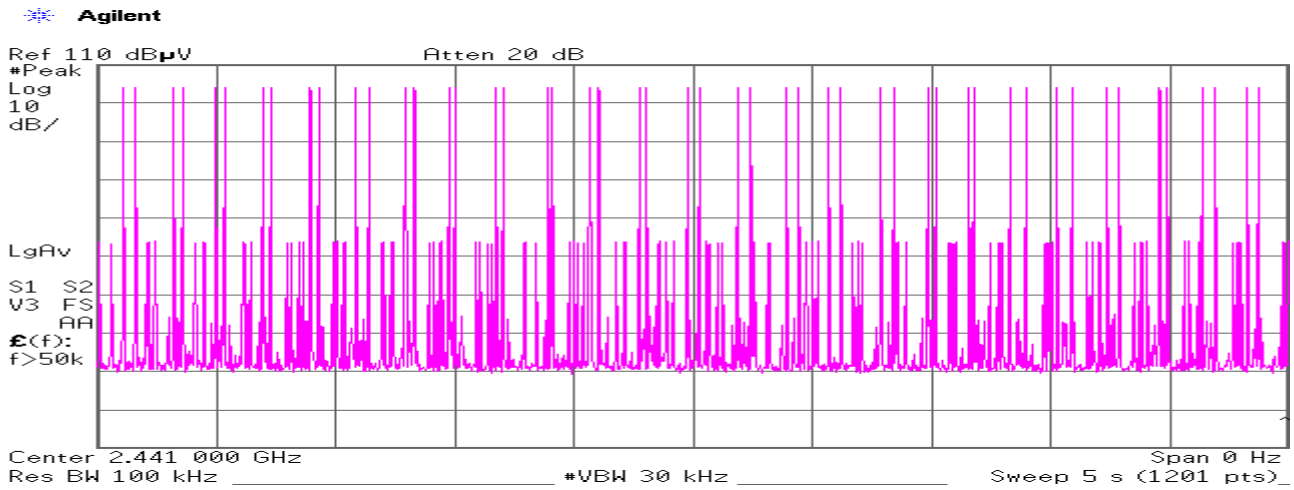


Count 3

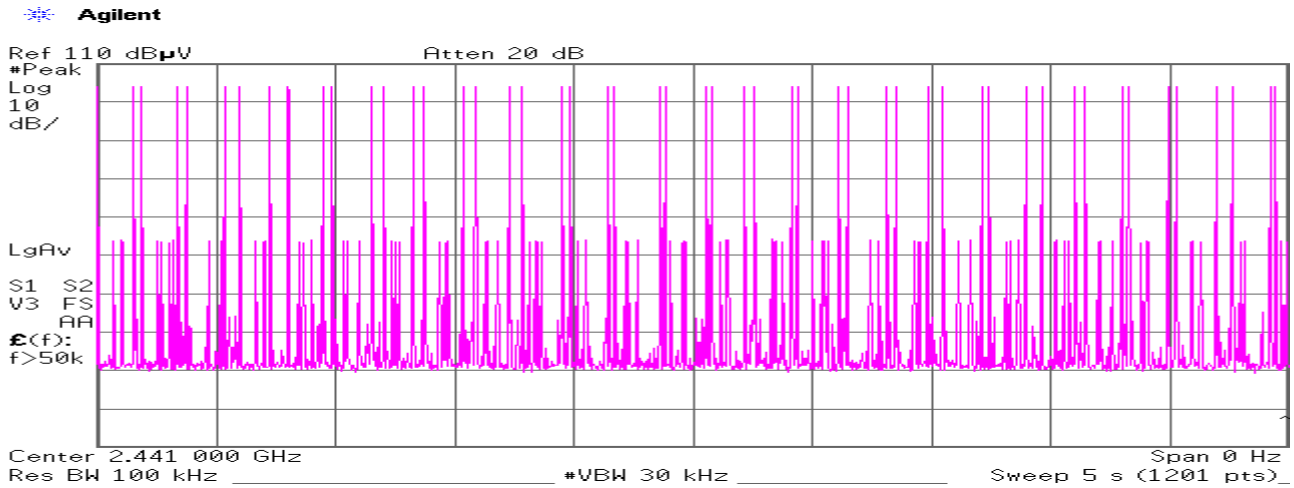
Agilent



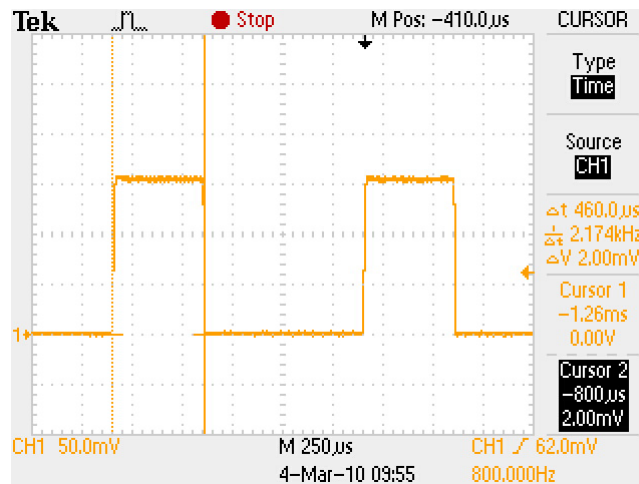
Count 4



Count 5



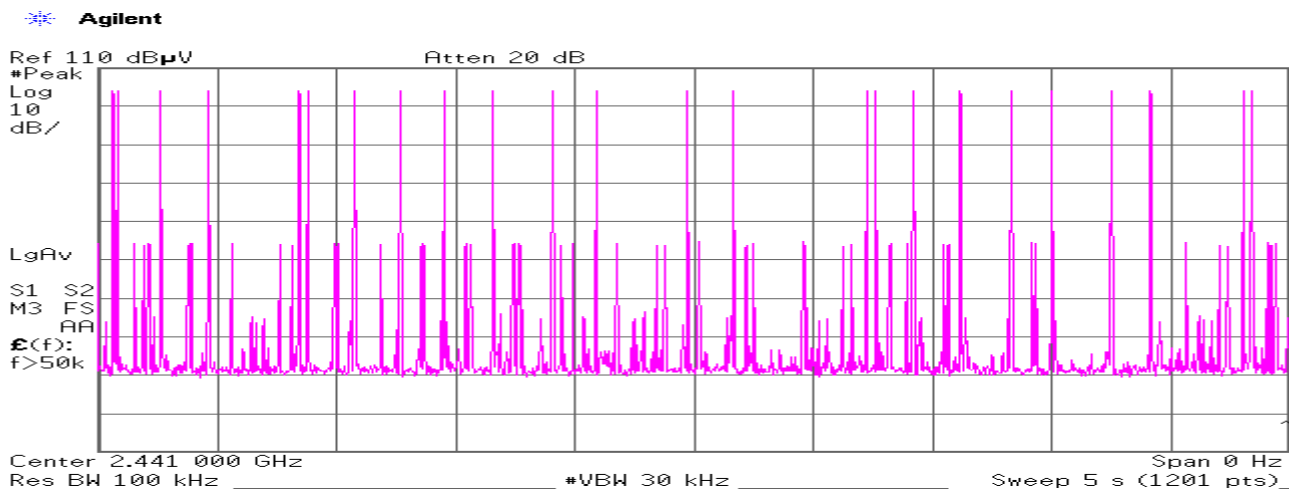
Duty cycle(Hopping DH1)



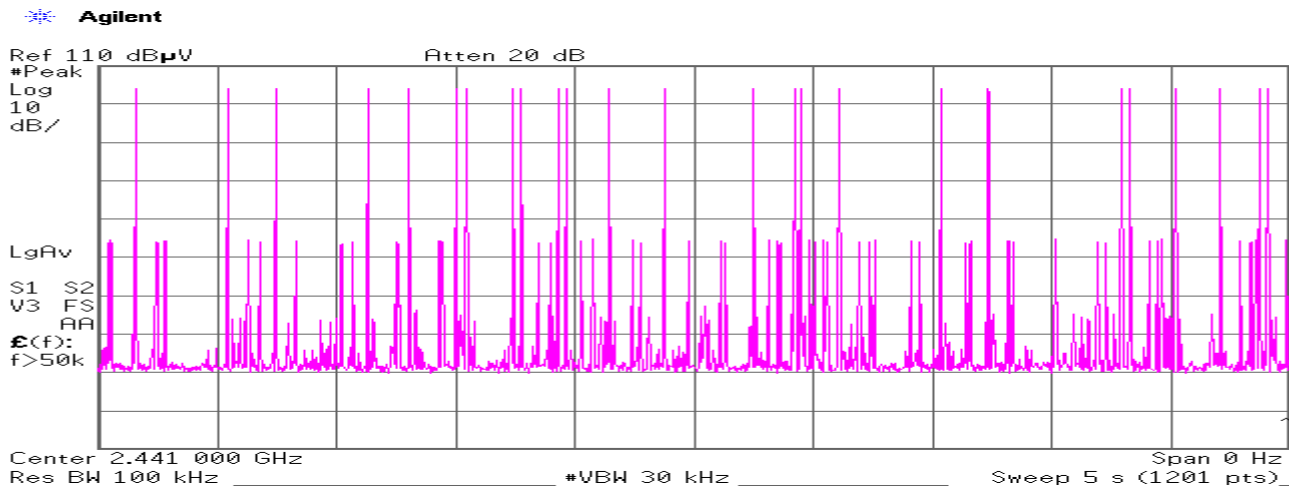
Average times of rising in 5 sec. of sweep = $(52 + 51 + 51 + 50 + 51) / 5 = 51.0$
 Average times of rising in 1 sec. = $51.0 / 5s = 10.2$
 Average times of rising in 0.4x = $0.4 * 79ch * 10.2 = 322.32$
 Dwell time = $322.32 * 0.460 = 148.27 [ms]$
 Limit : Dwell Time < 0.4[s]

Hopping (DH3):

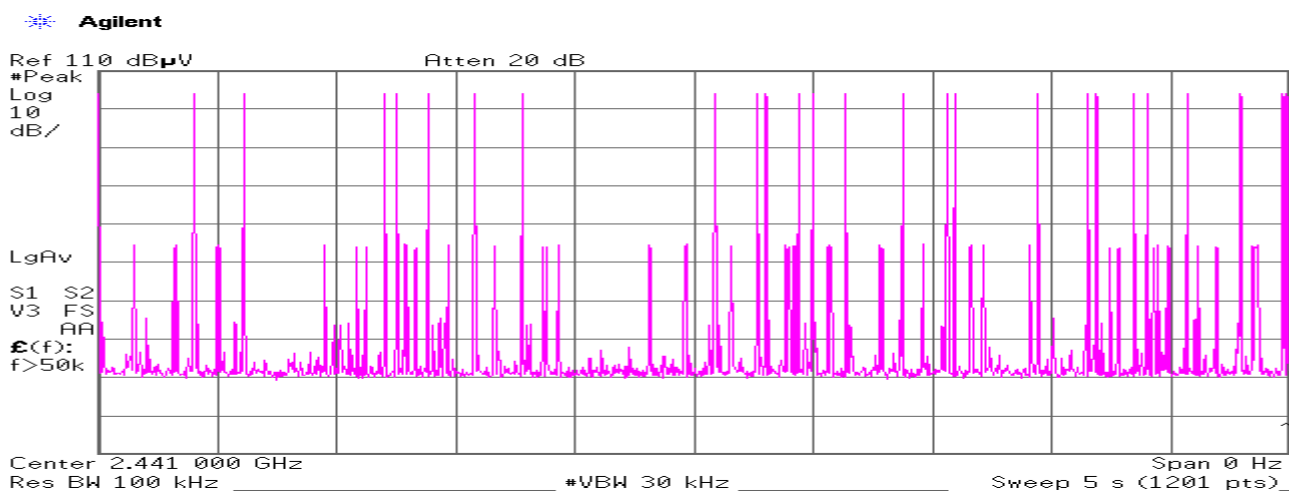
Count 1



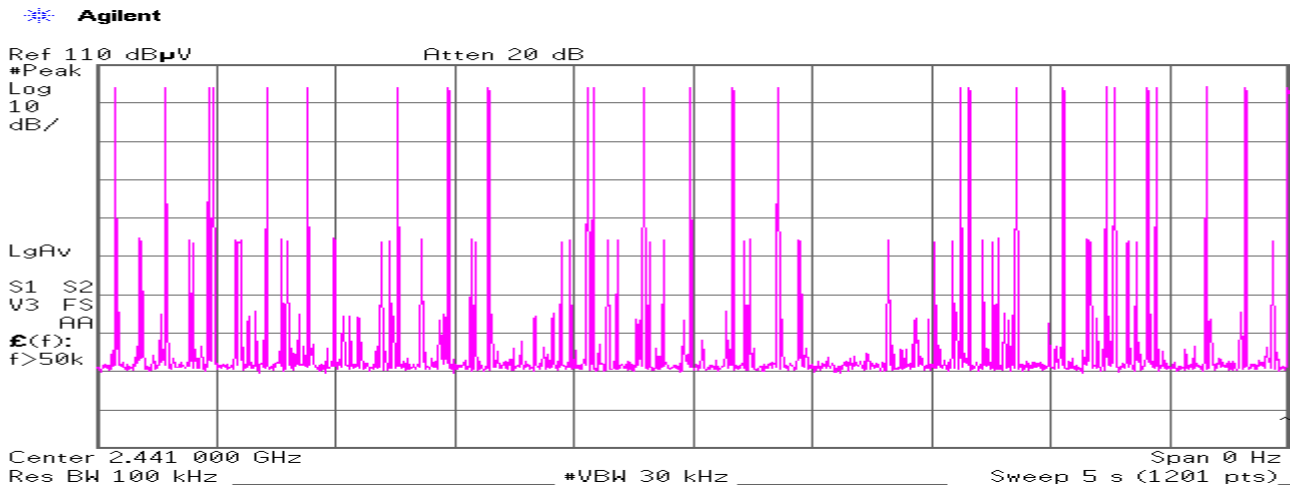
Count 2



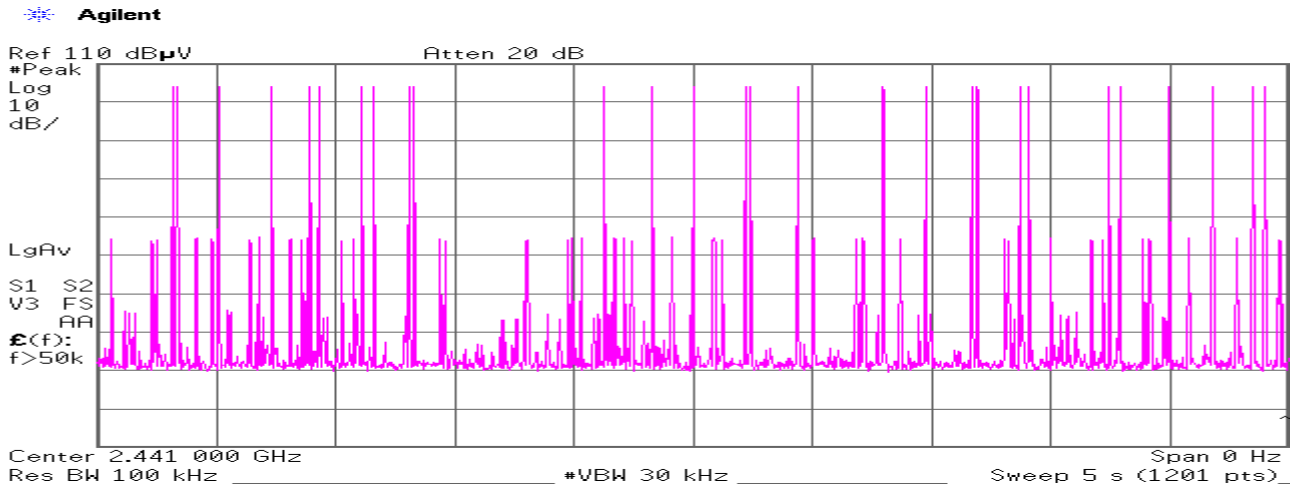
Count 3



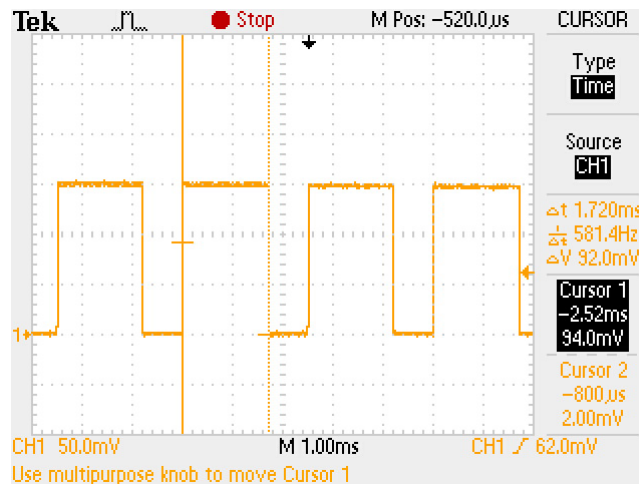
Count 4



Count 5



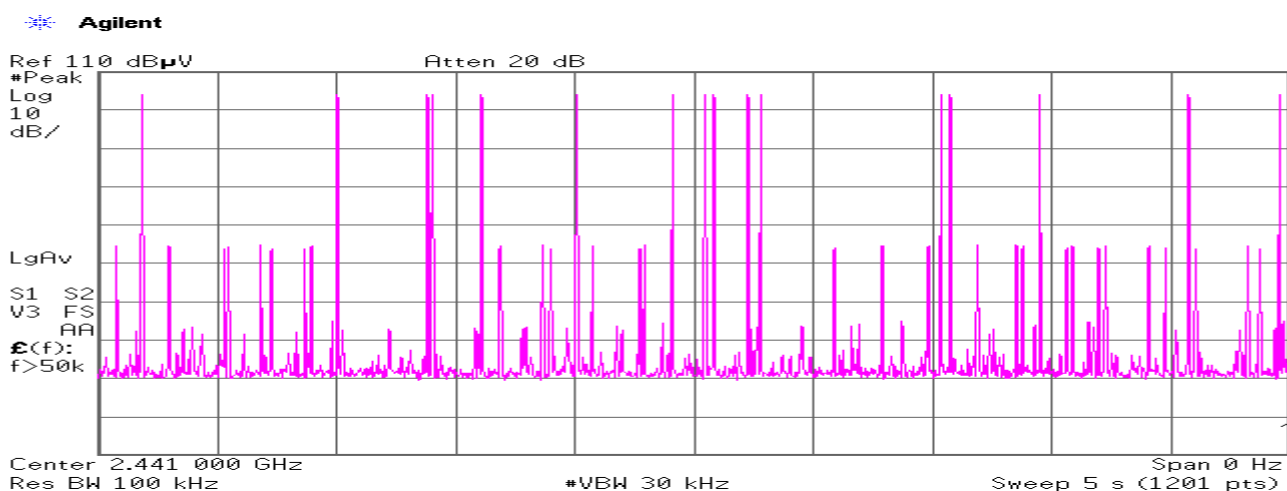
Duty cycle(Hopping DH3)



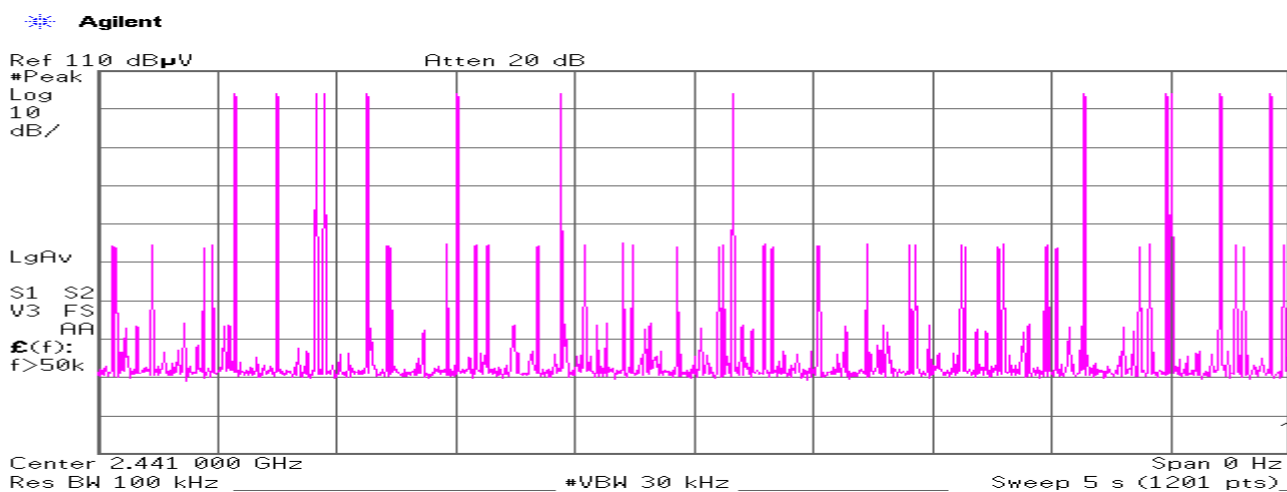
Average times of rising in 5 sec. of sweep = (24 + 25 + 26 + 26 + 28) / 5 = 25.8
 Average times of rising in 1 sec. = 25.8 / 5s = 5.16
 Average times of rising in 0.4x = 0.4 * 79ch * 5.16 = 163.06
 Dwell time = 163.06 * 1.72 = 280.46 [ms]
 Limit : Dwell Time < 0.4[s]

Hopping (DH5):

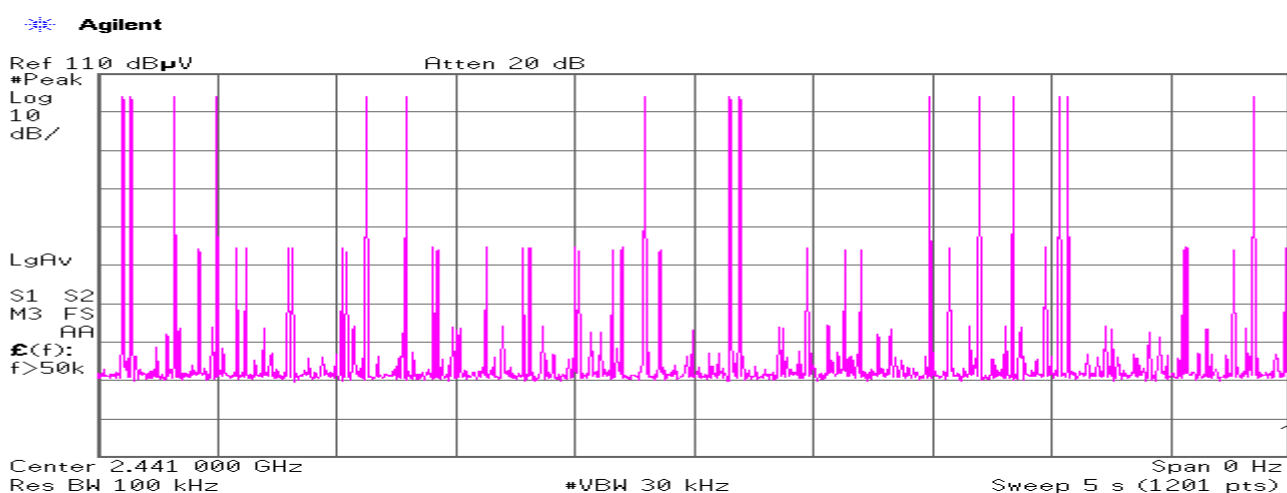
Count 1



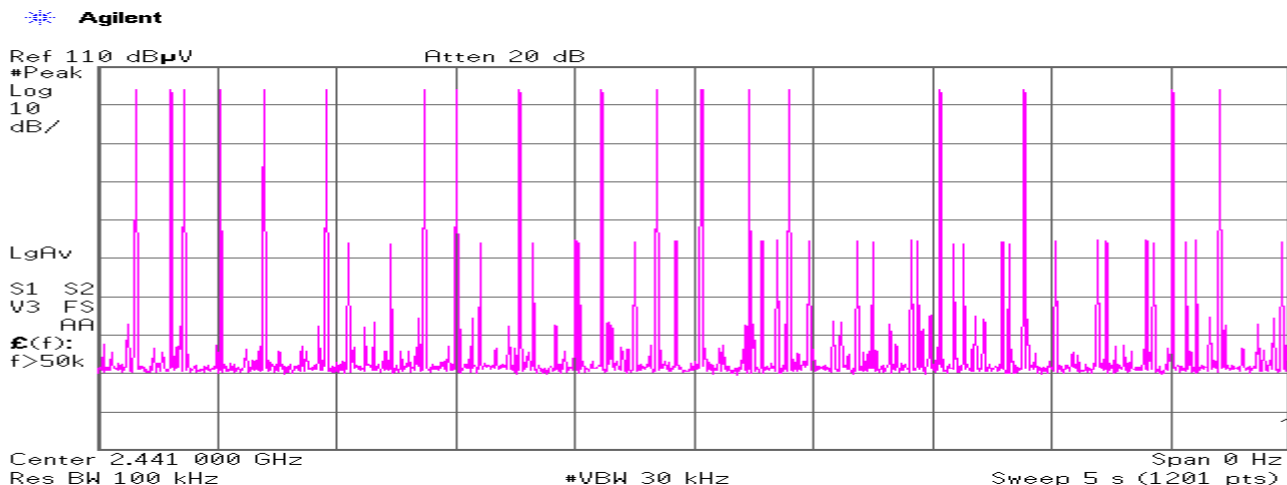
Count 2



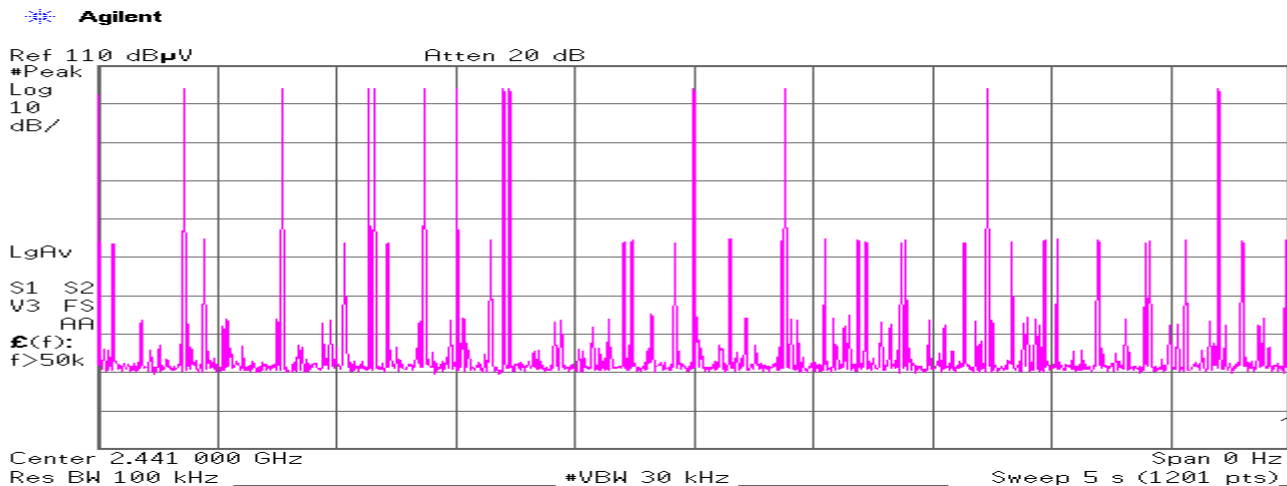
Count 3



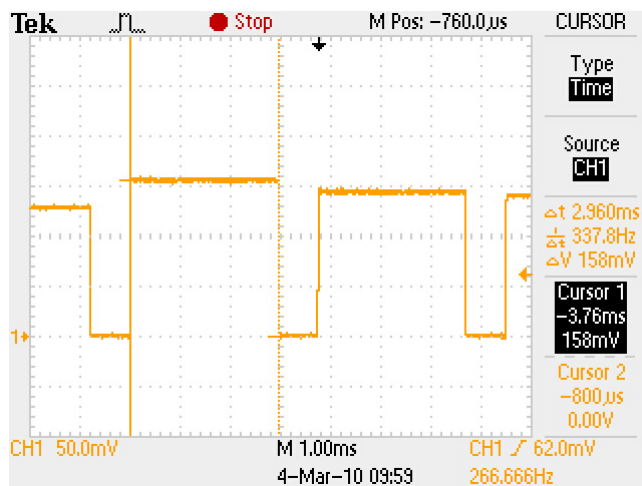
Count 4



Count 5



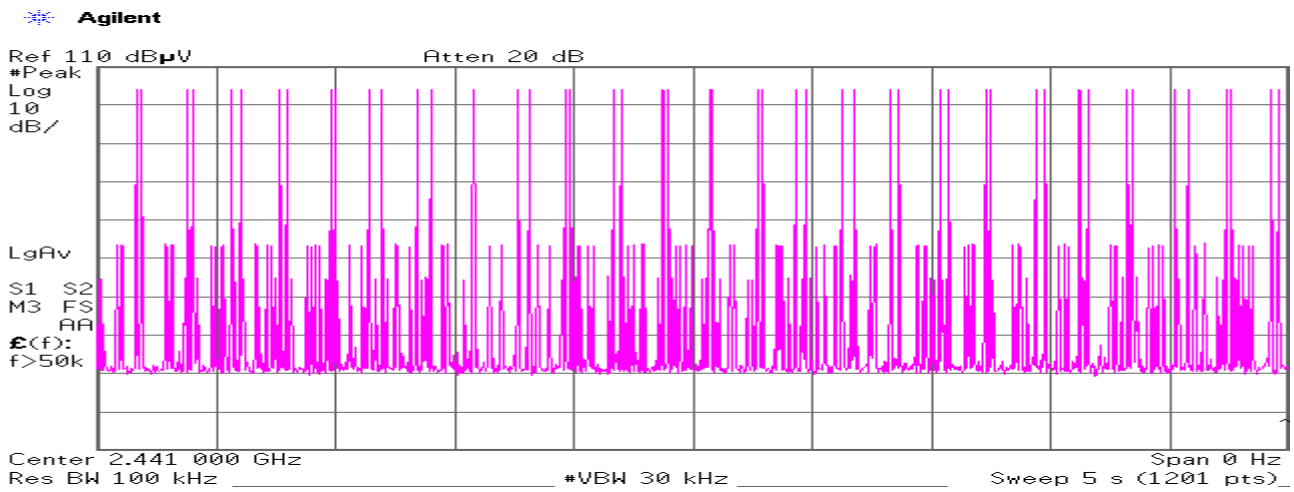
Duty cycle(Hopping DH5)



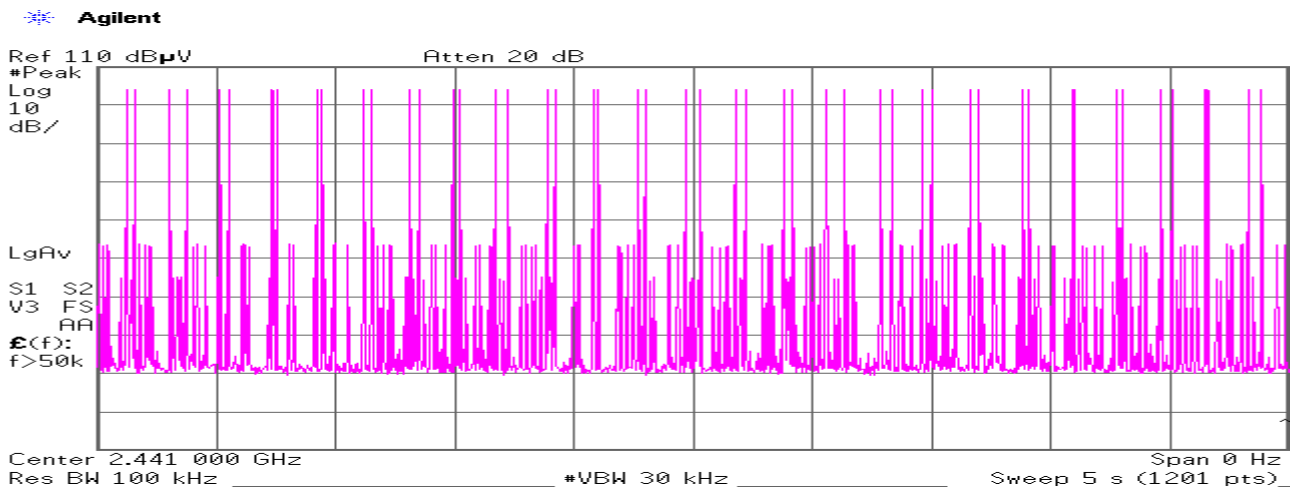
Average times of rising in 5 sec. of sweep = $(16 + 13 + 15 + 18 + 13) / 5 = 15.0$
 Average times of rising in 1 sec. = $15.0 / 5s = 3.0$
 Average times of rising in 0.4x = $0.4 * 79ch * 3.0 = 94.8$
 Dwell time = $94.8 * 2.96 = 280.61 [ms]$
 Limit : Dwell Time < 0.4[s]

Hopping (3DH1):

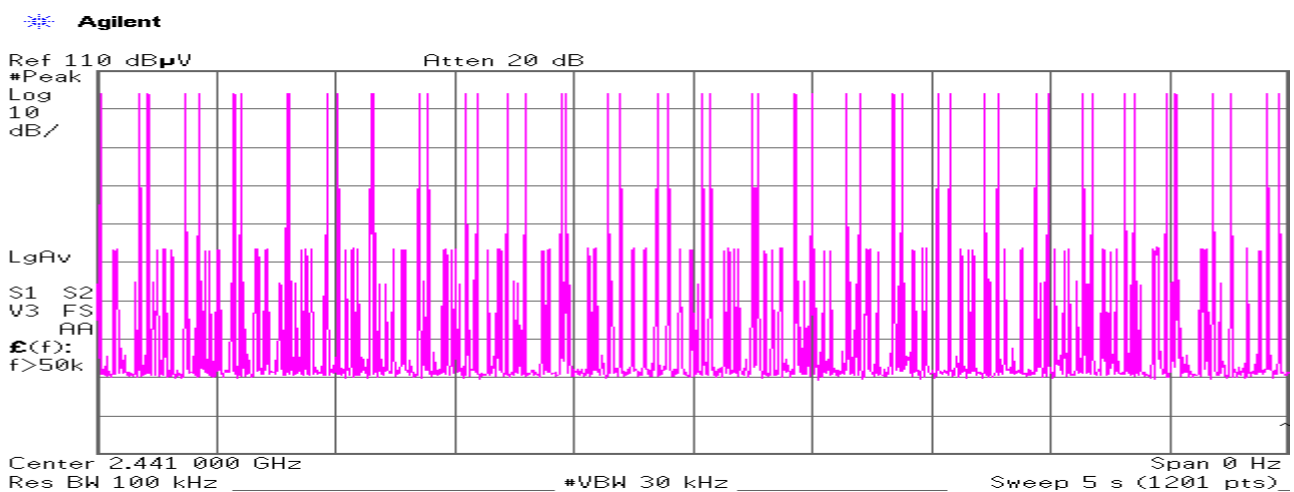
Count 1



Count 2

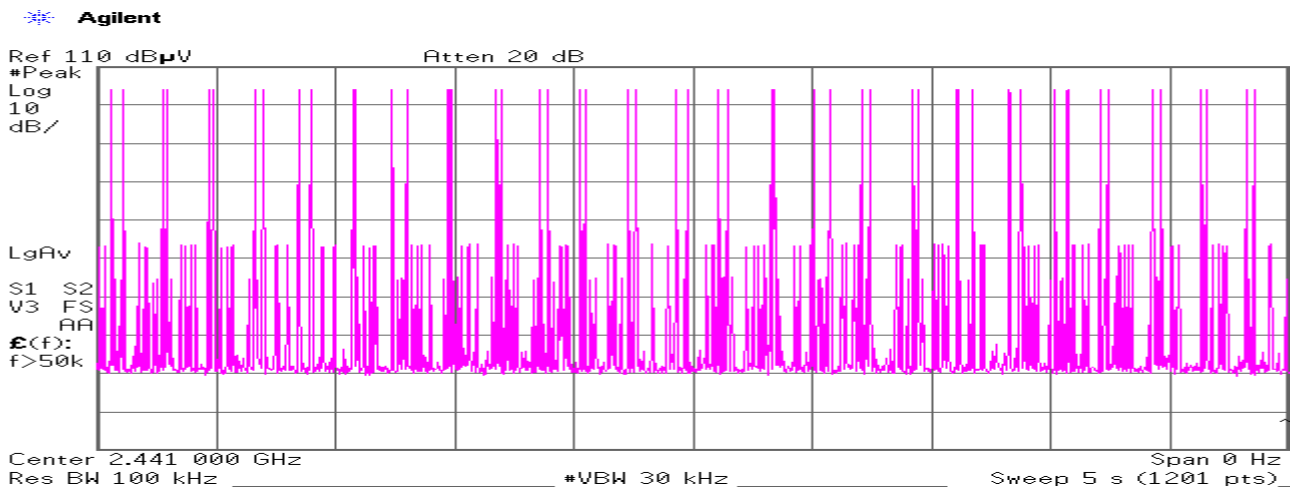


Count 3

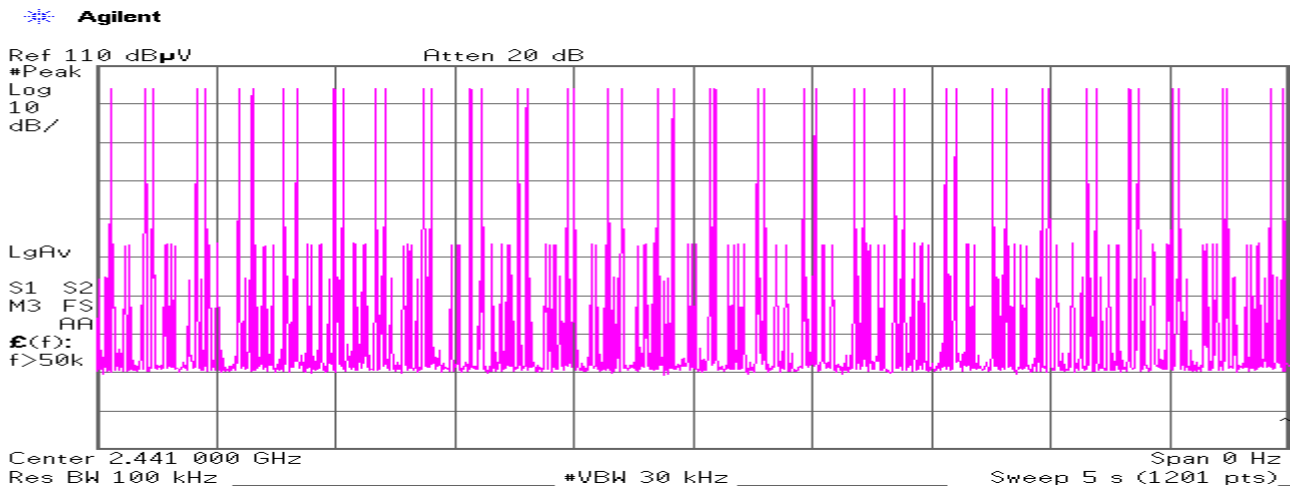


Revised date: April 16, 2010

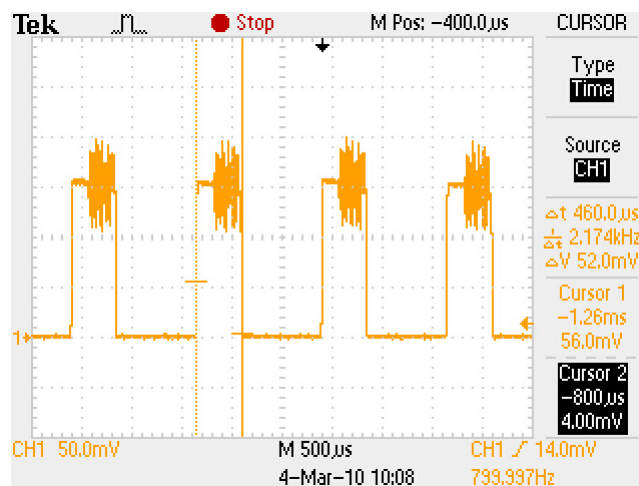
Count 4



Count 5



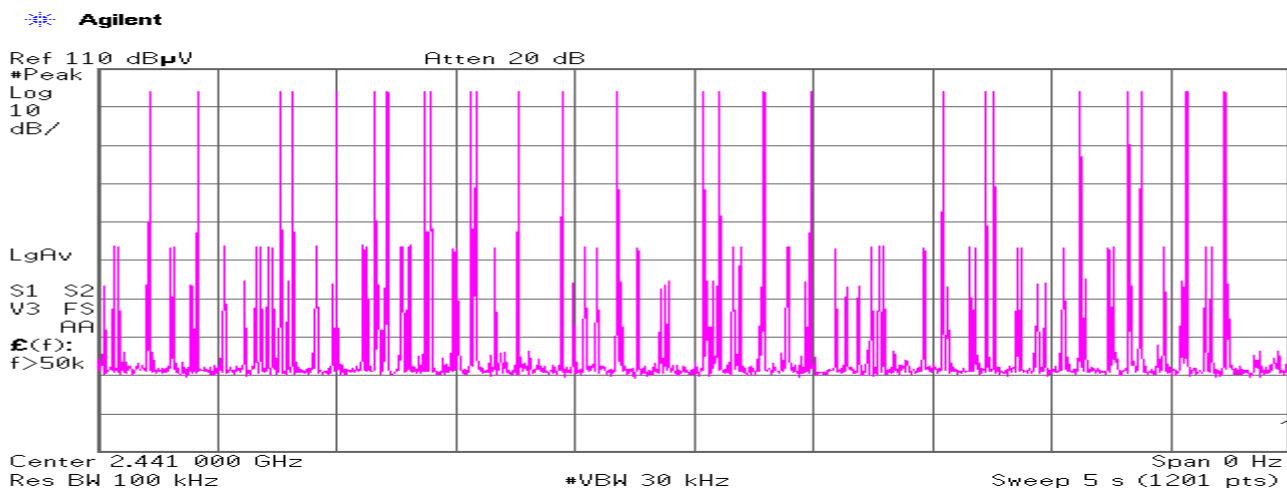
Duty cycle(Hopping 3DH1)



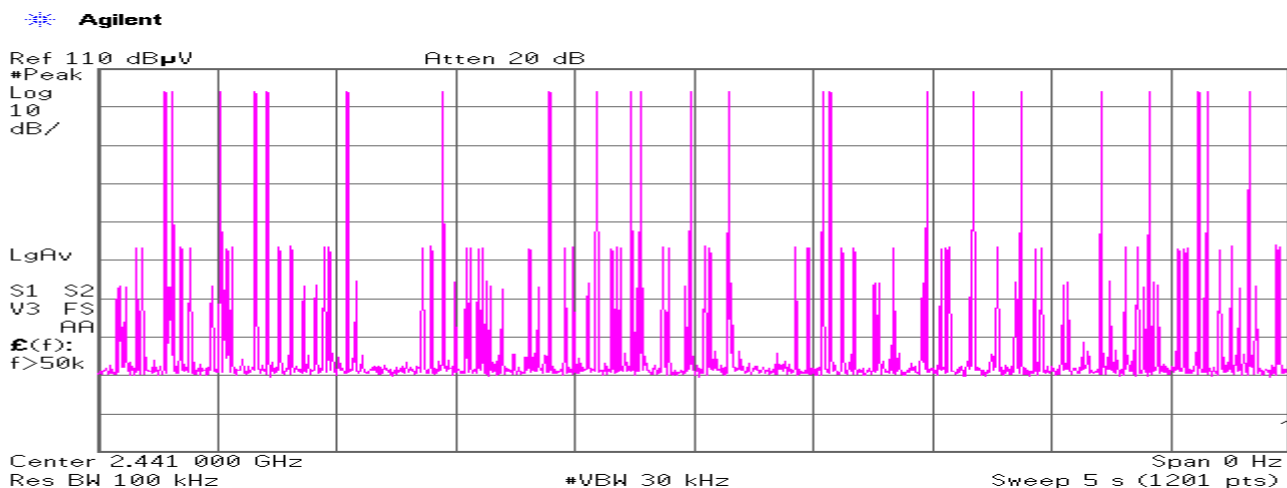
Average times of rising in 5 sec. of sweep = (48 + 48 + 49 + 47 + 51) / 5 = 48.6
 Average times of rising in 1 sec. = 48.6 / 5s = 9.72
 Average times of rising in 0.4x = 0.4 * 79ch * 9.72 = 307.15
 Dwell time = 307.15 * 0.46 = 141.29 [ms]
 Limit : Dwell Time < 0.4[s]

Hopping (3DH3):

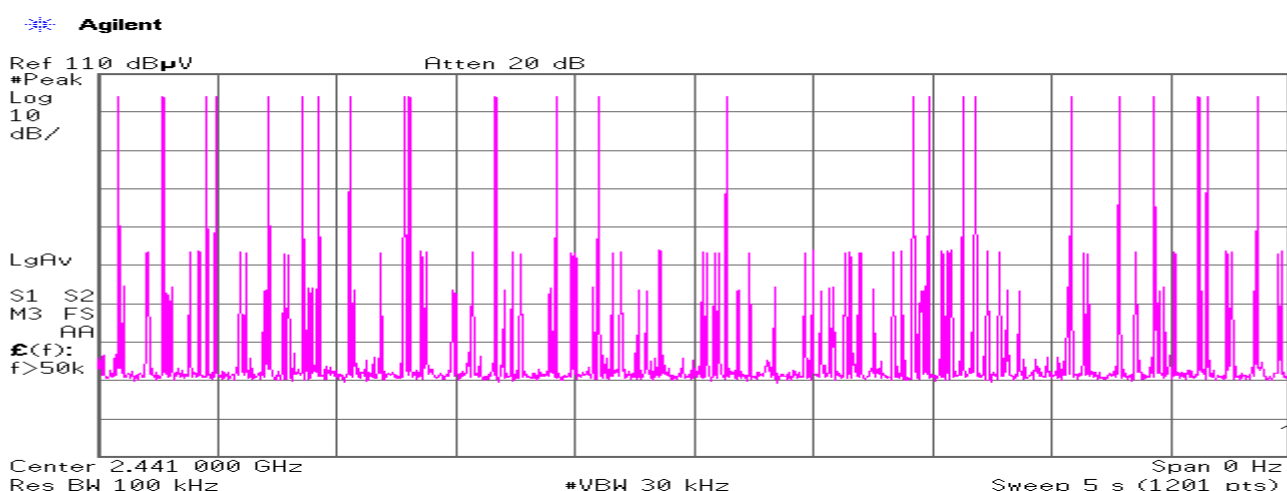
Count 1



Count 2

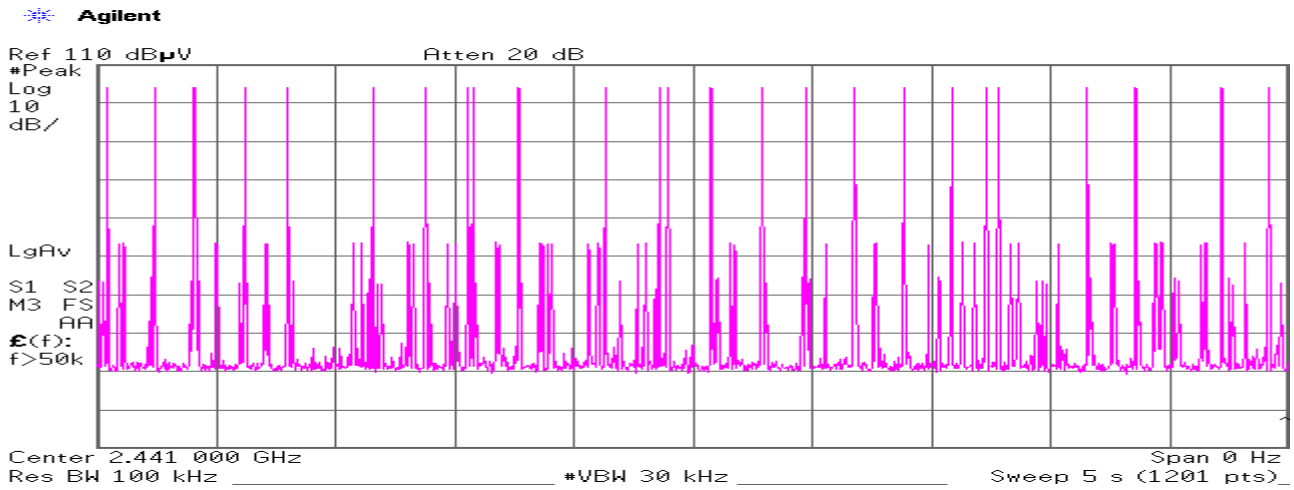


Count 3

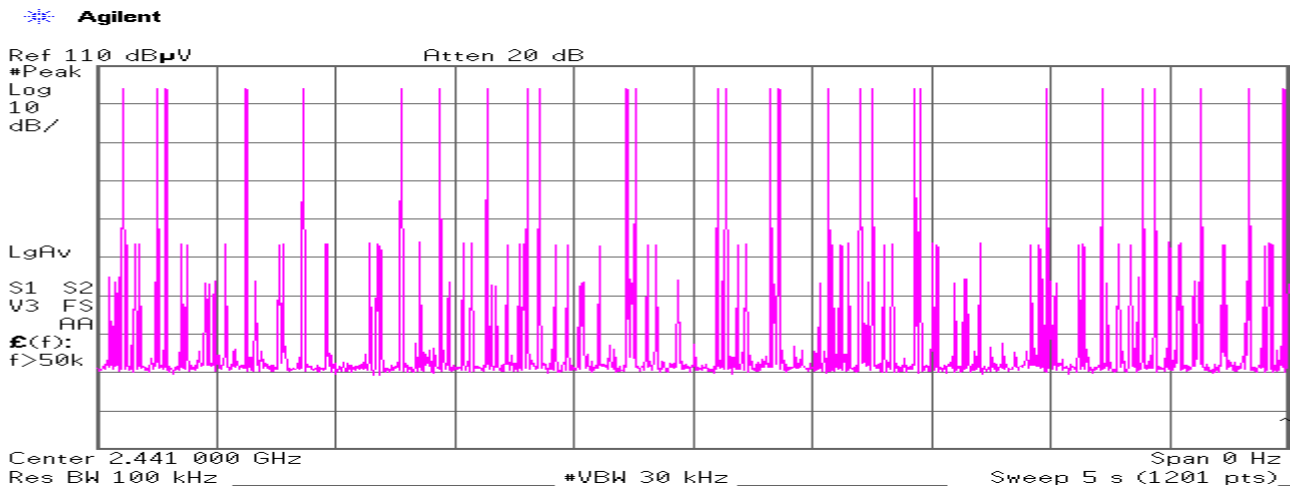


Revised date: April 16, 2010

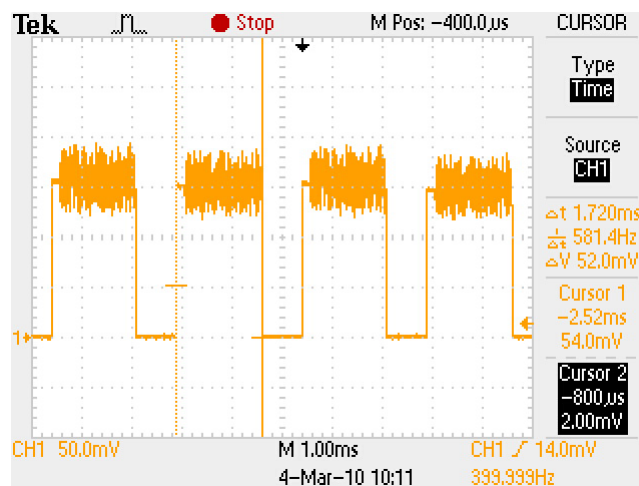
Count 4



Count 5



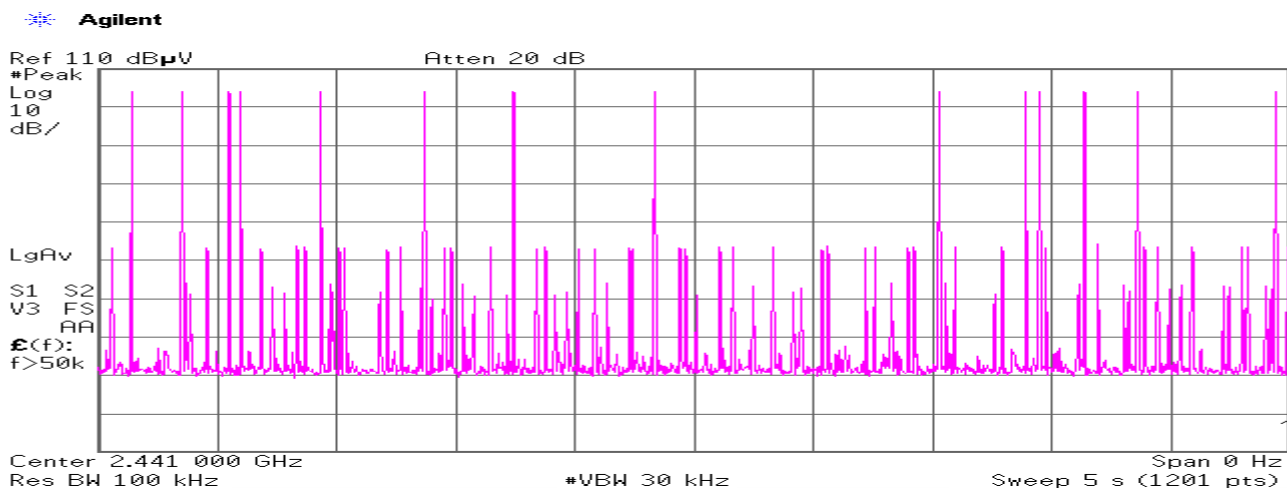
Duty cycle(Hopping 3DH3)



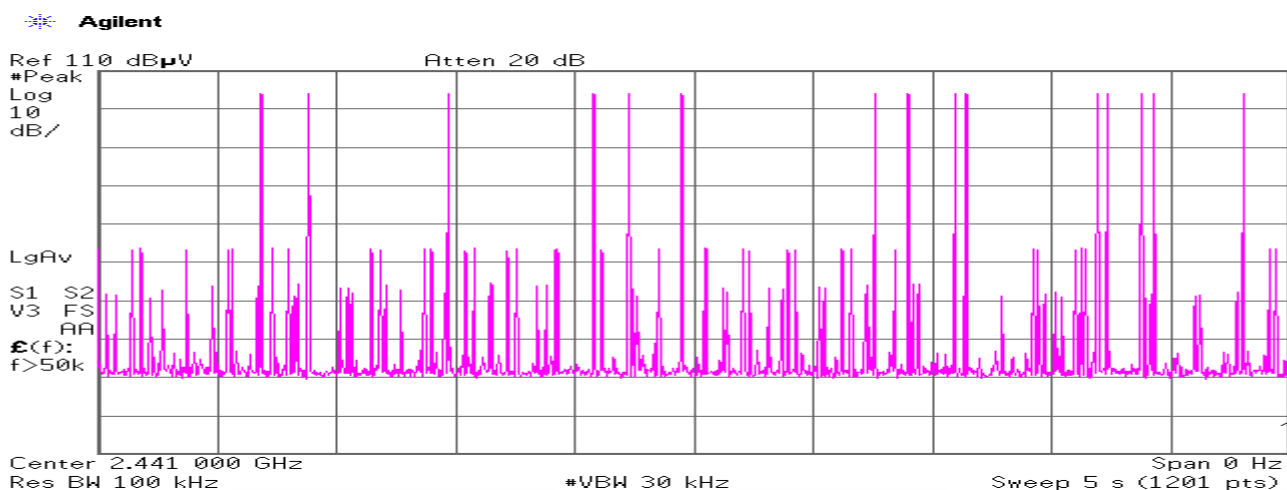
Average times of rising in 5 sec. of sweep = (26 + 23 + 24 + 25 + 28) / 5 = 25.2
 Average times of rising in 1 sec. = 25.2 / 5s = 5.04
 Average times of rising in 0.4x = 0.4 * 79ch * 5.04 = 159.26
 Dwell time = 159.26 * 1.72 = 273.93 [ms]
 Limit : Dwell Time < 0.4[s]

Hopping (3DH5):

Count 1



Count 2

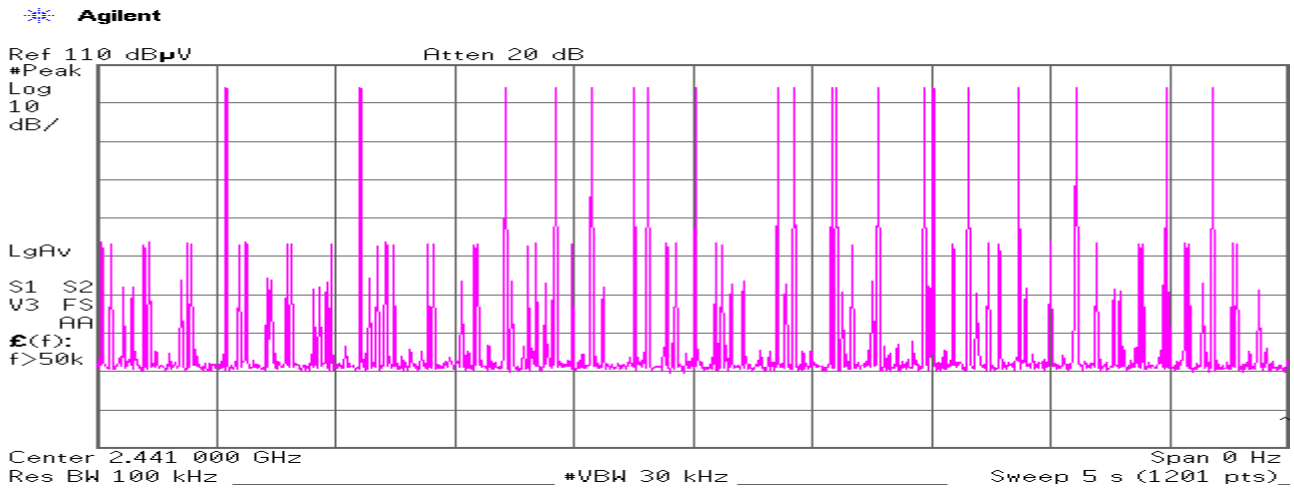


Count 3

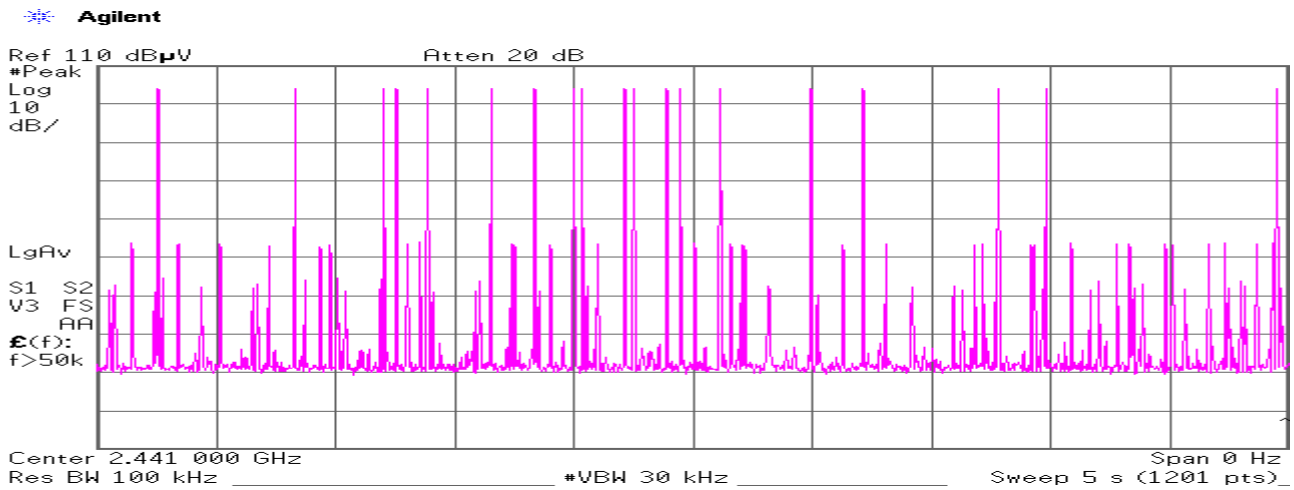


Revised date: April 16, 2010

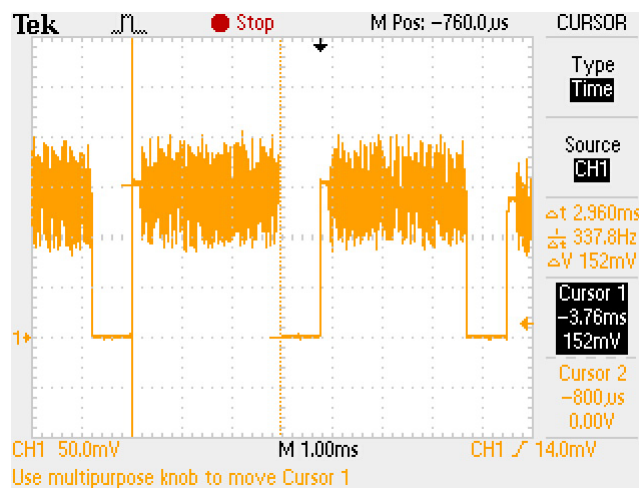
Count 4



Count 5



Duty cycle(Hopping 3DH5)



Average times of rising in 5 sec. of sweep = $(14 + 15 + 16 + 20 + 19) / 5 = 16.8$
 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 = $106.18 * 2.96 = 314.29$ [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: 2010.3.8
 TEMP./HUMID.: 21deg.C/33%
 TEST MODE: Transmitting
 ENGINEER: Akira Sato

DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-2.02	0.70	-1.32	20.96	22.28
Mid	2441.00	-2.54	0.70	-1.84	20.96	22.80
High	2480.00	-3.59	0.70	-2.89	20.96	23.85

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	-0.31	0.70	0.39	20.96	20.57
Mid	2441.00	-0.83	0.70	-0.13	20.96	21.09
High	2480.00	-1.86	0.70	-1.16	20.96	22.12

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	-0.27	0.70	0.43	20.96	20.53
Mid	2441.00	-0.80	0.70	-0.10	20.96	21.06
High	2480.00	-1.82	0.70	-1.12	20.96	22.08

Limit: 125mW=20.96dBm

P/M: Power Meter

CABLE LOSS:Customer's cable

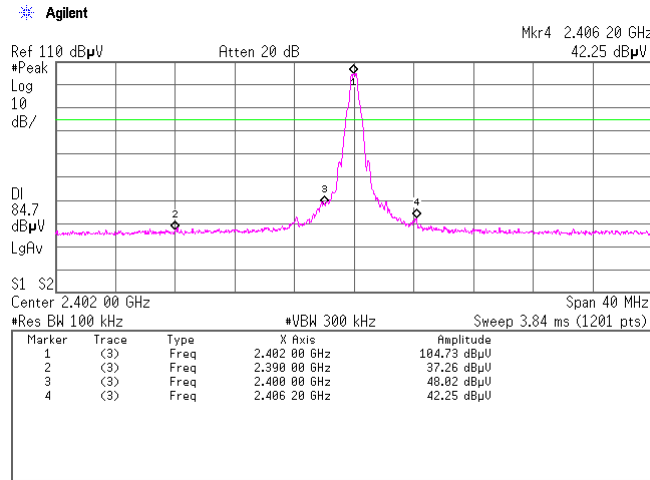
Out of Band Emission (Antenna Terminal Conducted) (Regulation: FCC 15.247(d))

UL Japan, Inc. Yamakita EMC lab. No.2 shielded room
 Date: 2010.3.4
 Temp./Humid.: 21 deg. C. / 36 %
 Engineer: Akira Sato
 Test mode: Transmitting

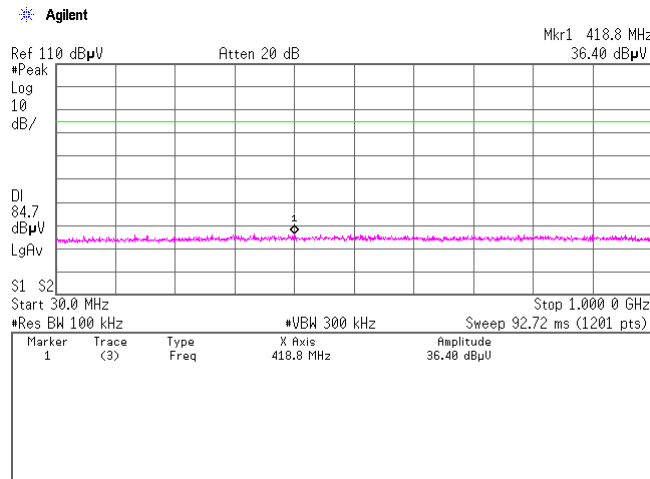
[Transmitting DH5]

Ch:2402MHz

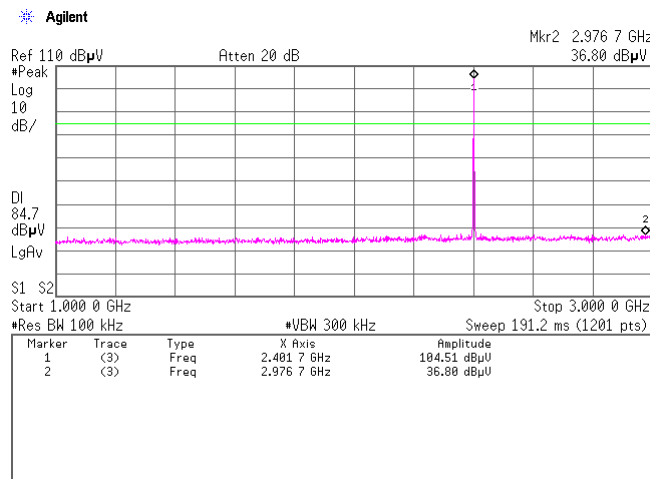
1.



2.

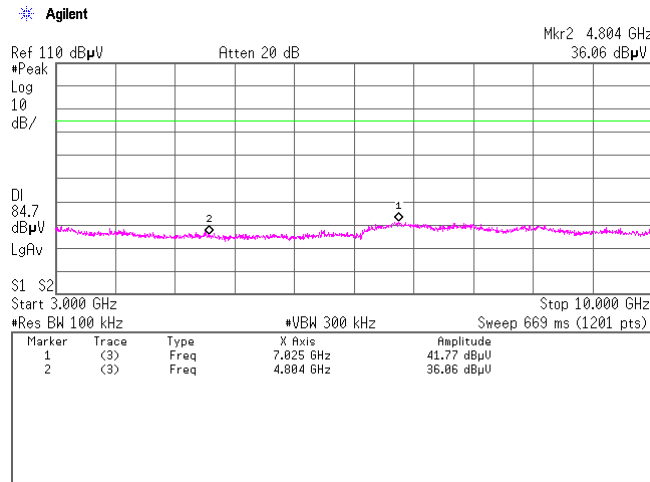


3.

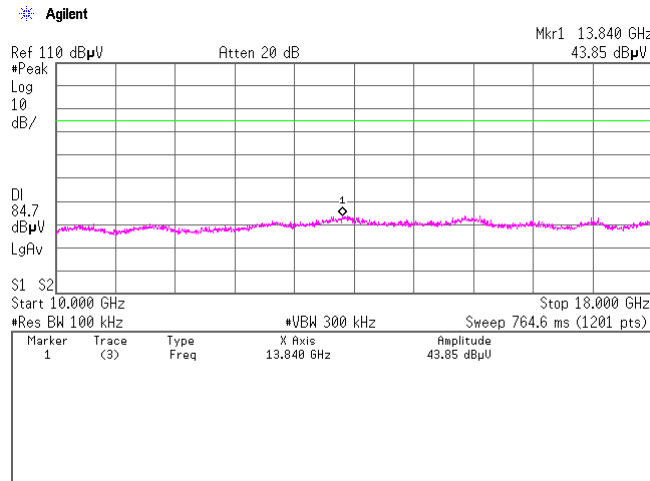


[Transmitting DH5]
 Ch:2402MHz

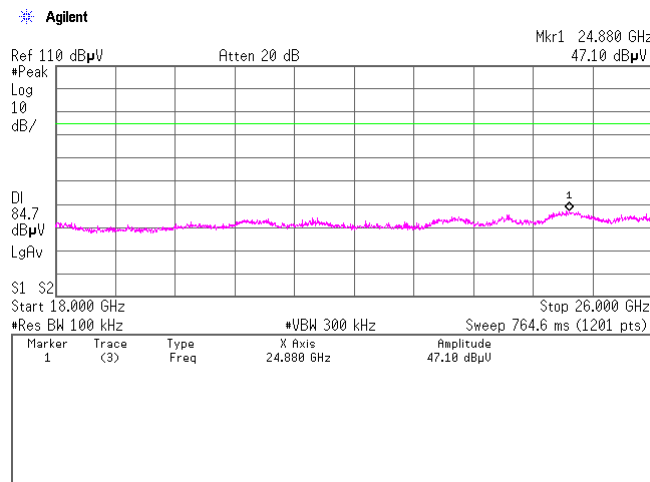
4.



5.

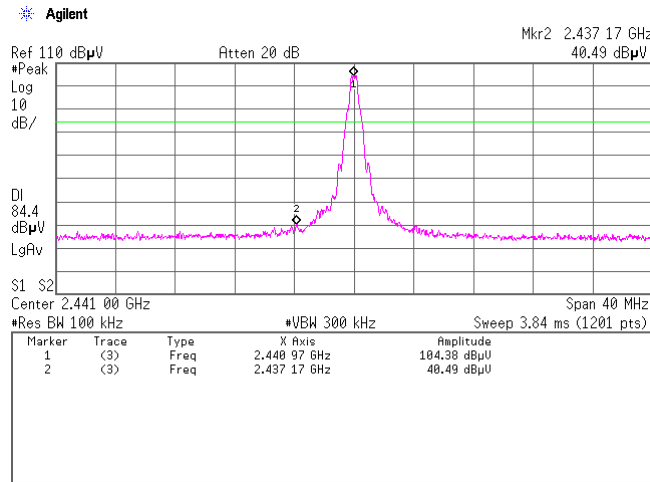


6.

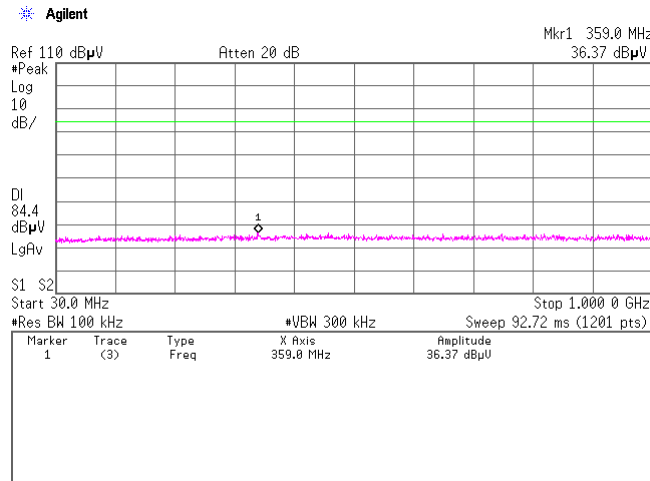


[Transmitting DH5]
 Ch:2441MHz

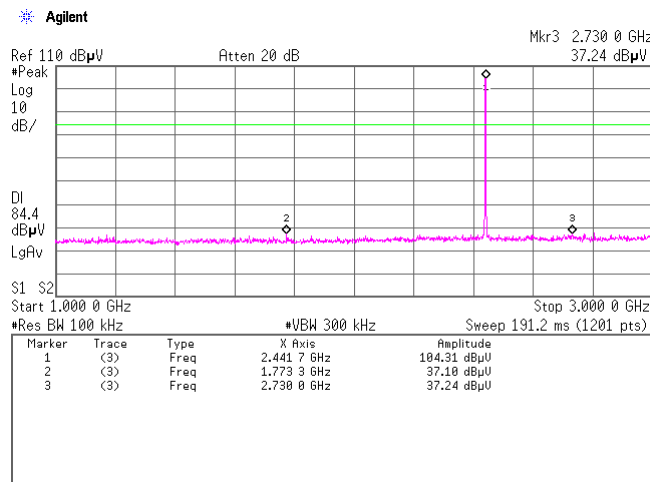
1.



2.

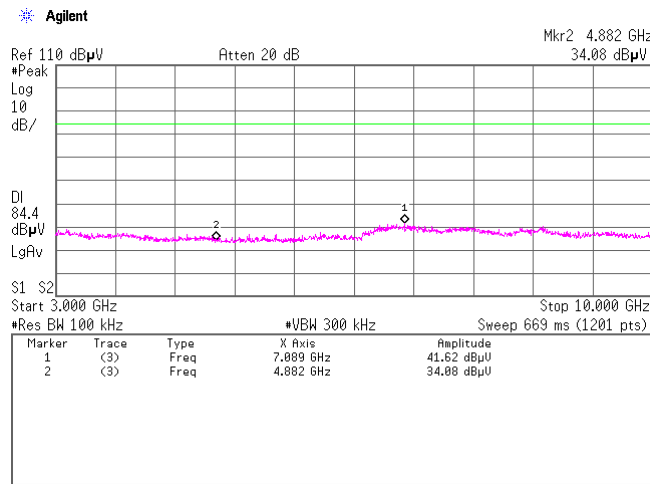


3.

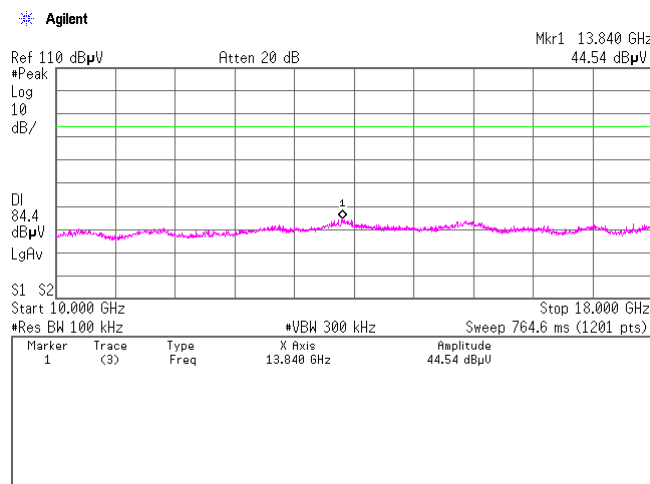


[Transmitting DH5]
Ch:2441MHz

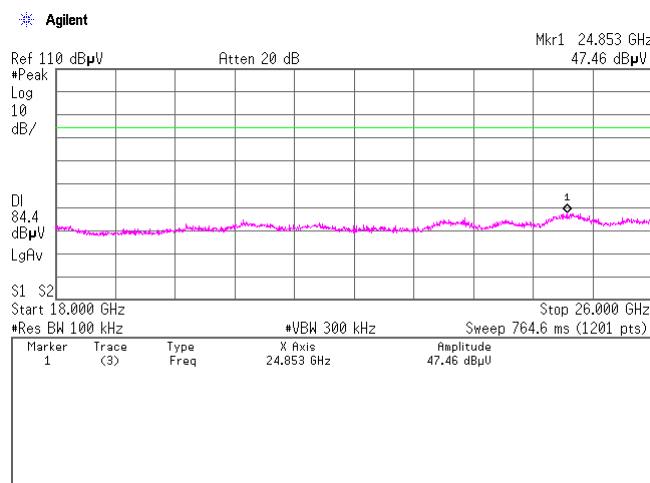
4.



5.

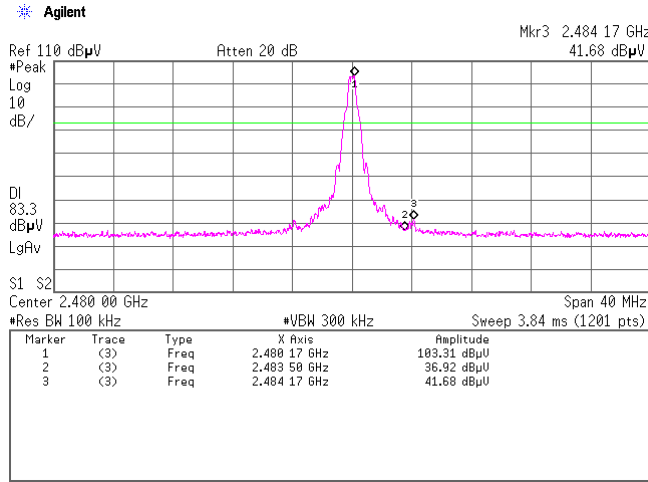


6.

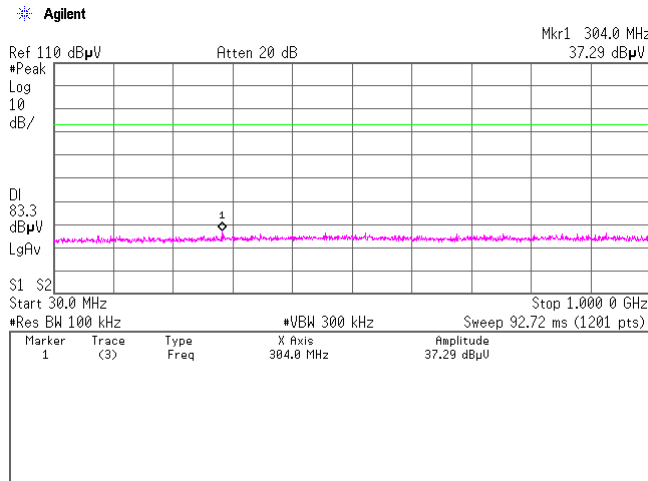


[Transmitting DH5]
Ch:2480MHz

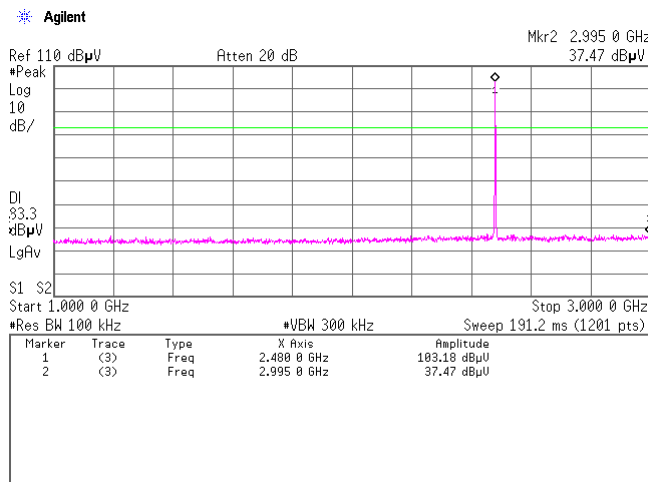
1.



2.

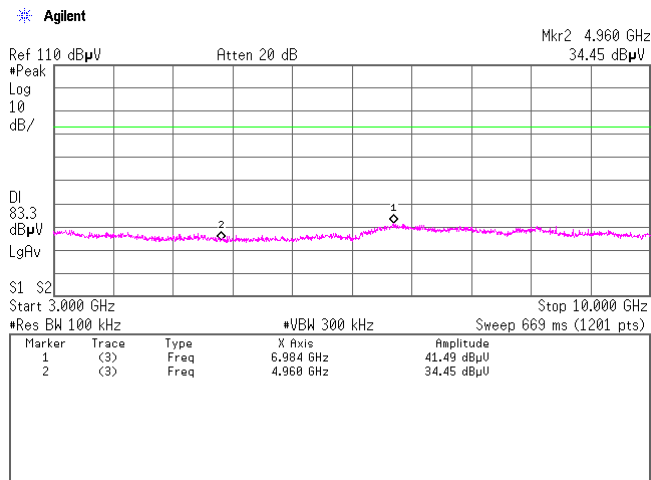


3.

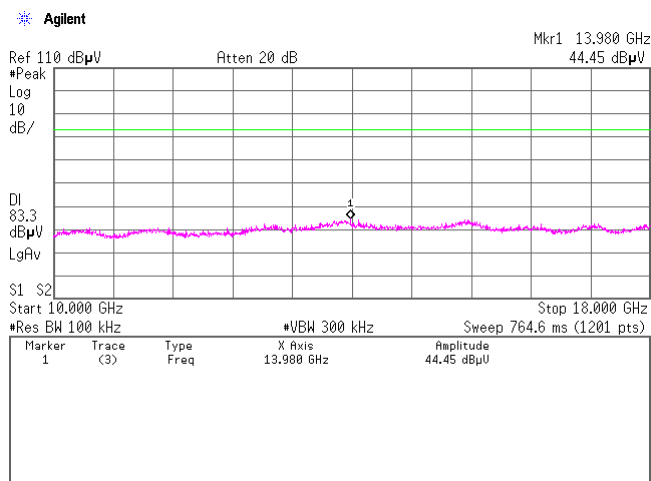


[Transmitting DH5]
Ch:2480MHz

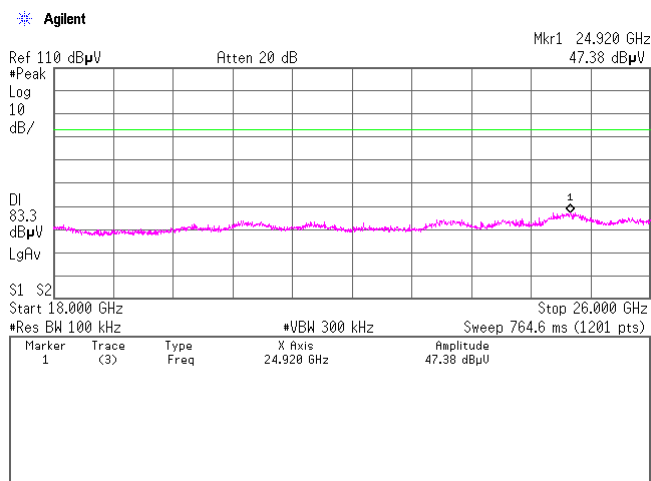
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5.

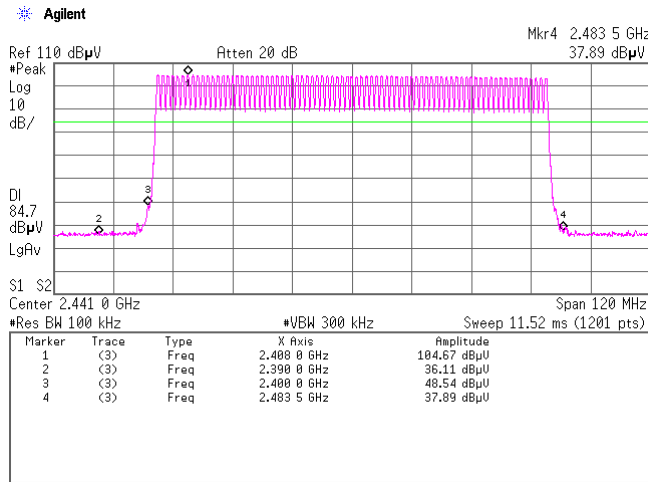


6.

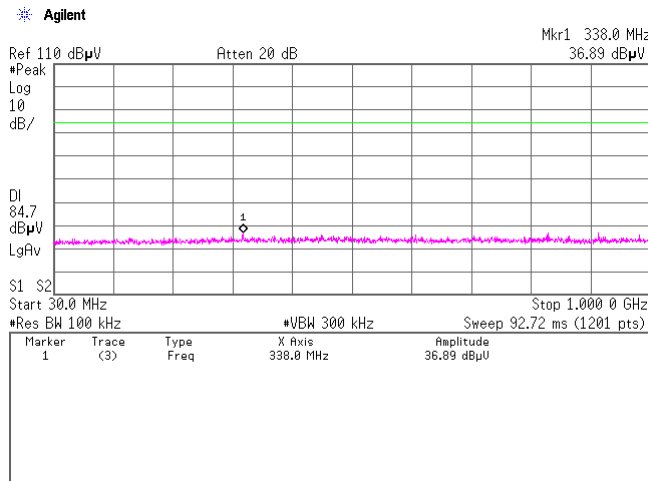


[Transmitting DH5]
Hopping

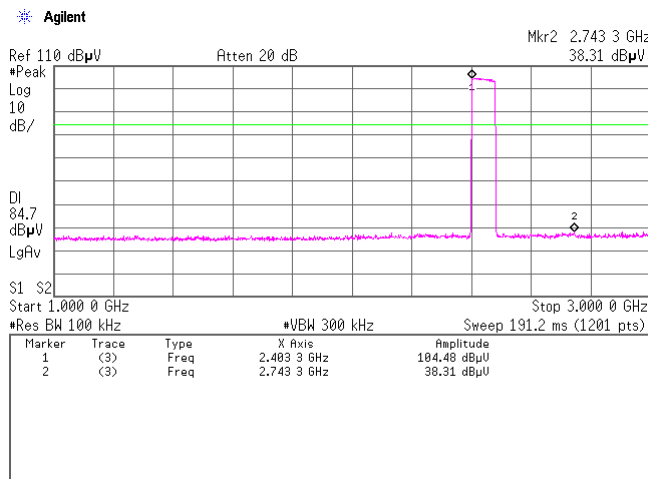
1.



2.

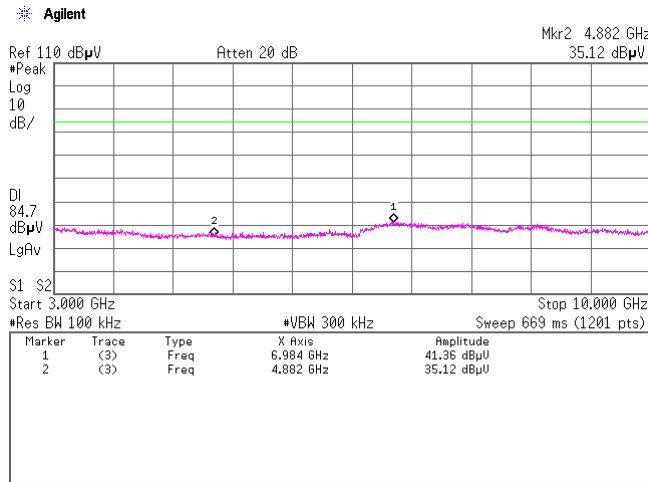


3.

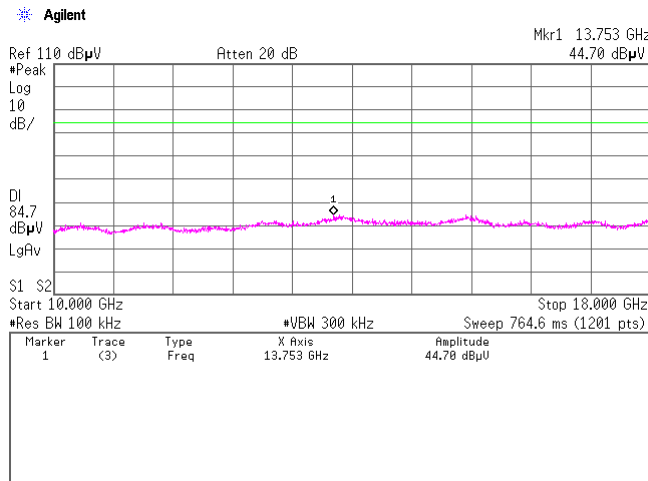


[Transmitting DH5]
Hopping

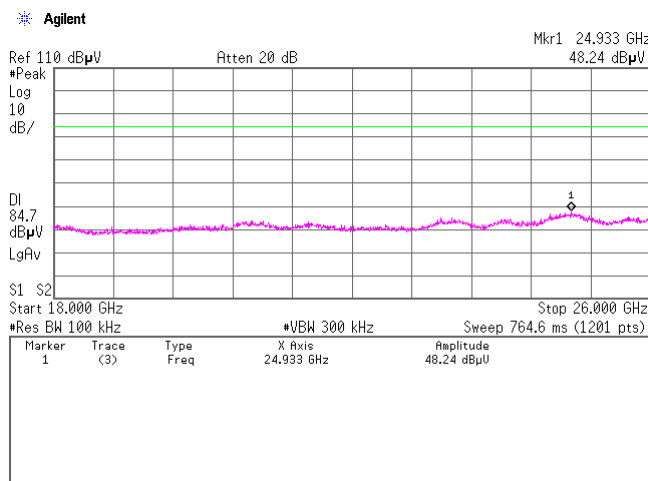
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5.

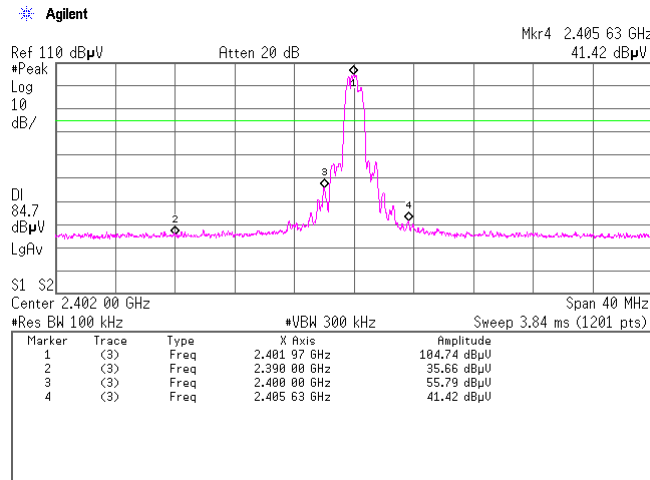


6.

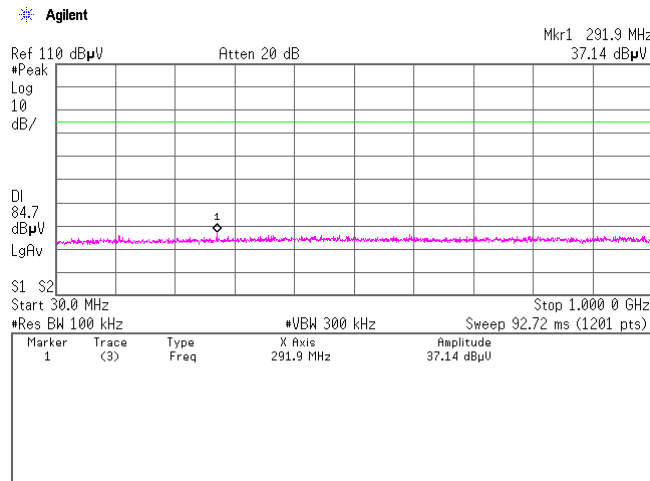


[Transmitting 3DH5]
Ch:2402MHz

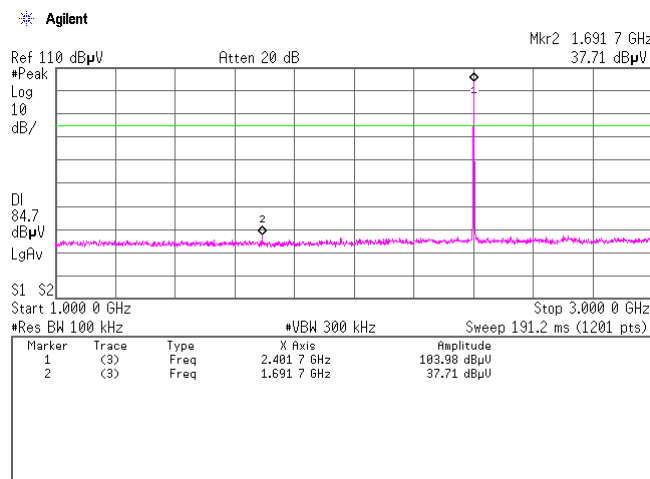
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2.

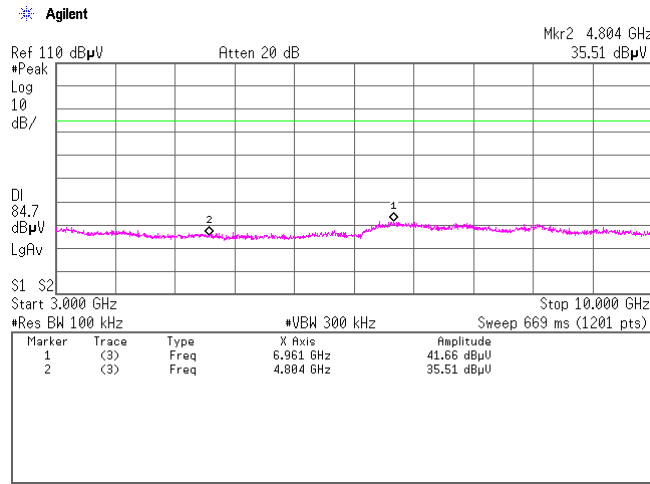


3.

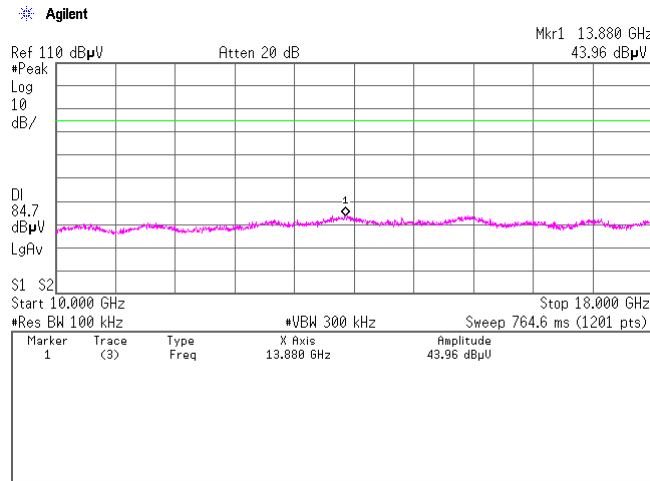


[Transmitting 3DH5]
 Ch:2402MHz

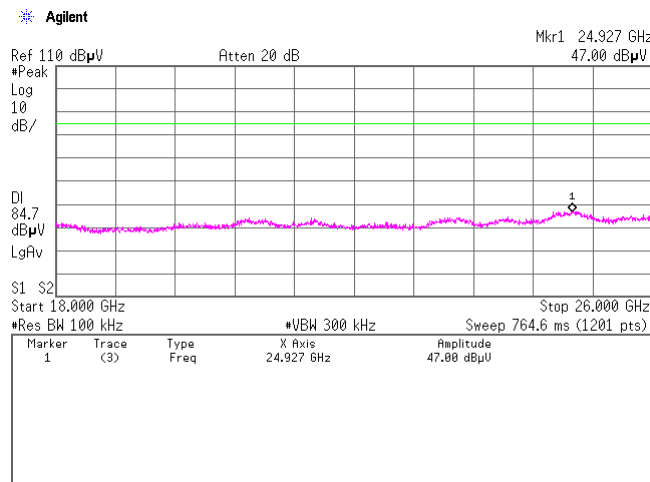
4.



5.

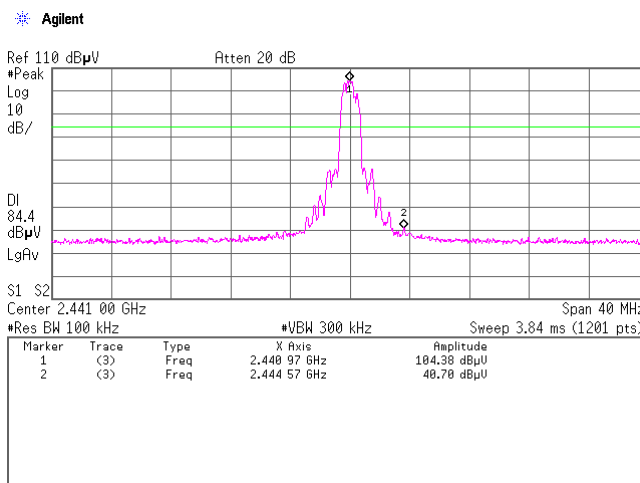


6.

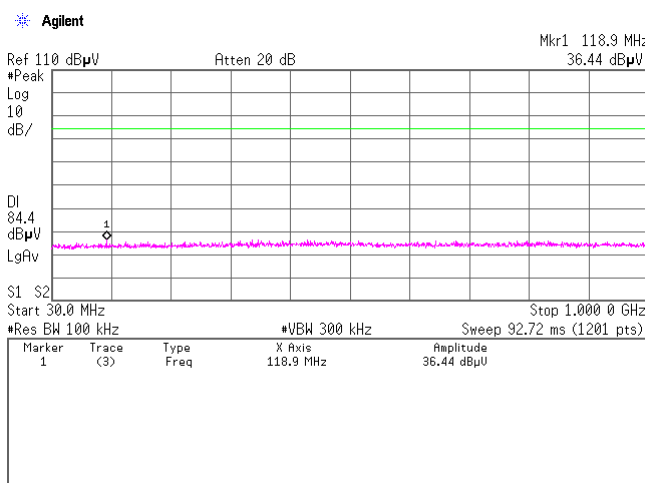


[Transmitting 3DH5]
Ch:2441MHz

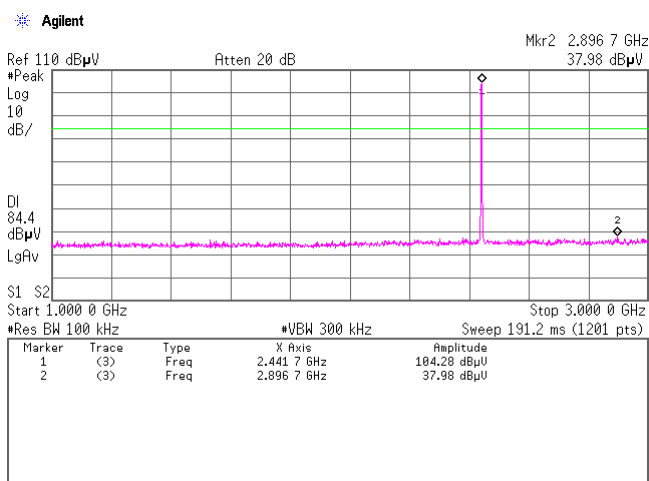
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2.

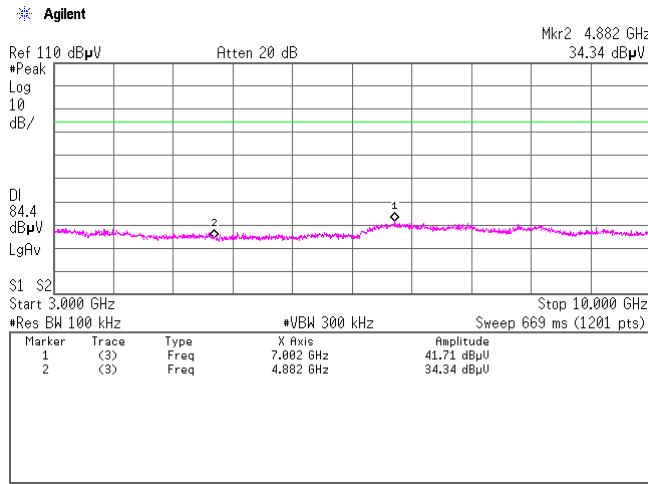


3.

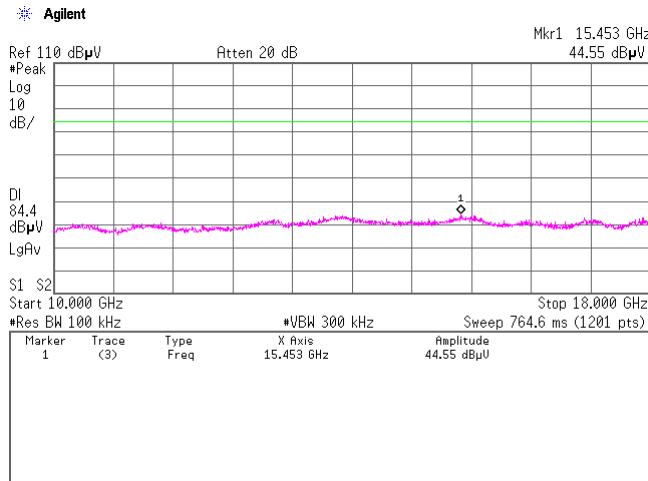


[Transmitting 3DH5]
Ch:2441MHz

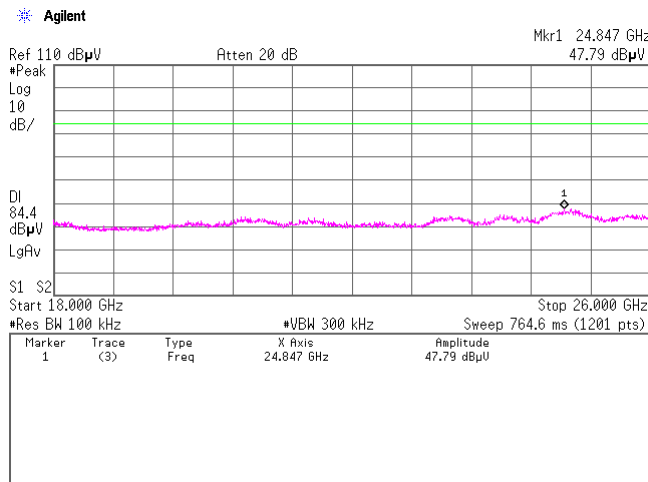
4.



5.

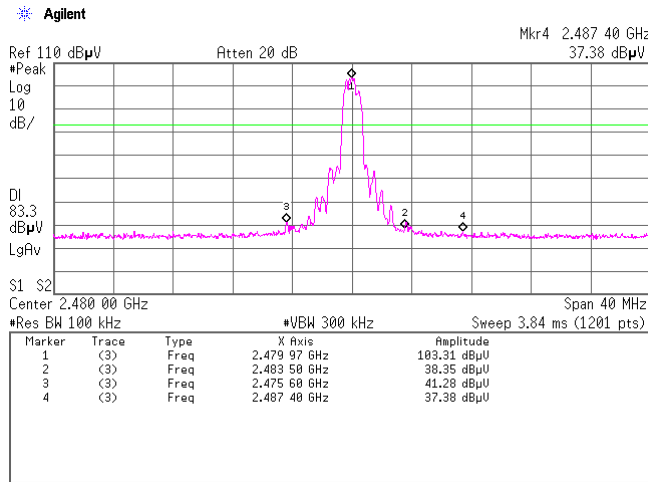


6.

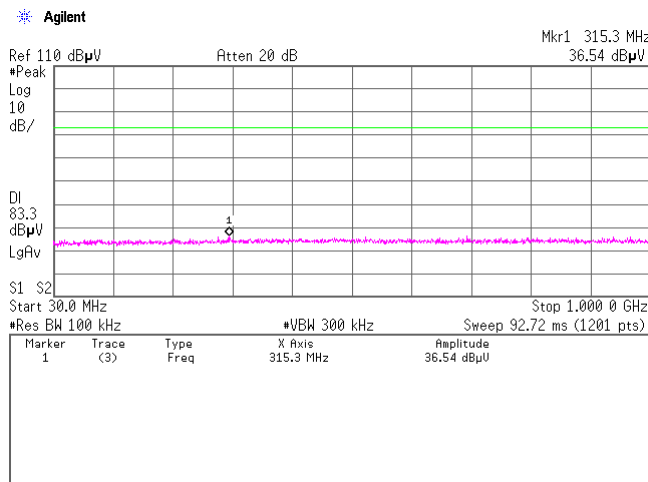


[Transmitting 3DH5]
Ch:2480MHz

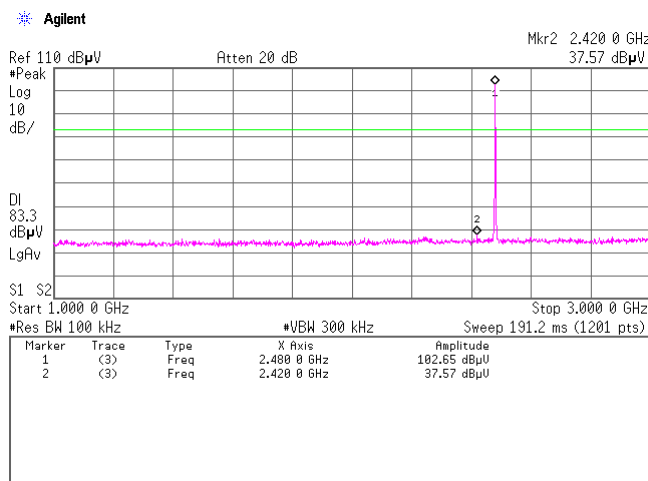
1.



2.

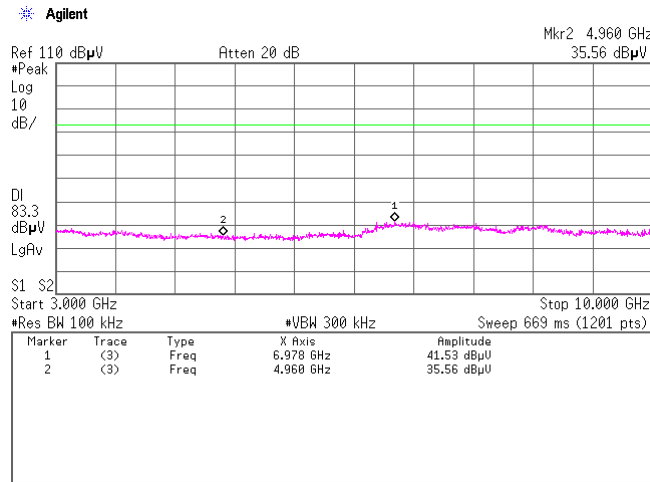


3.

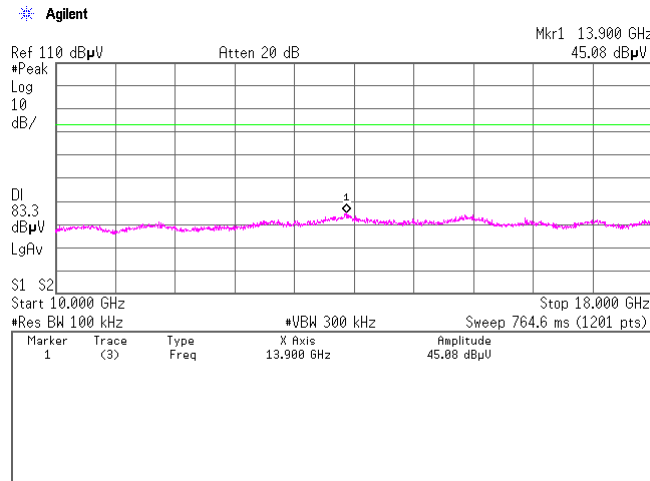


[Transmitting 3DH5]
Ch:2480MHz

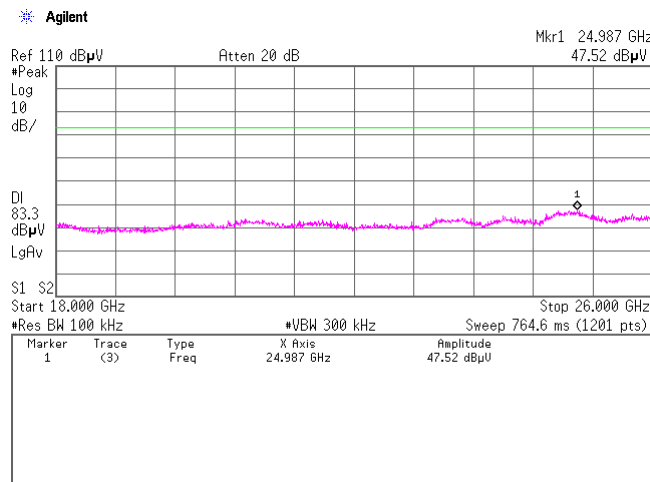
4.



5.

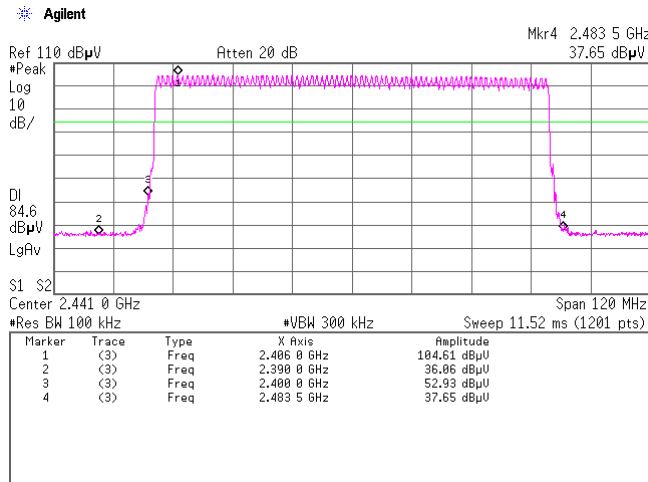


6.

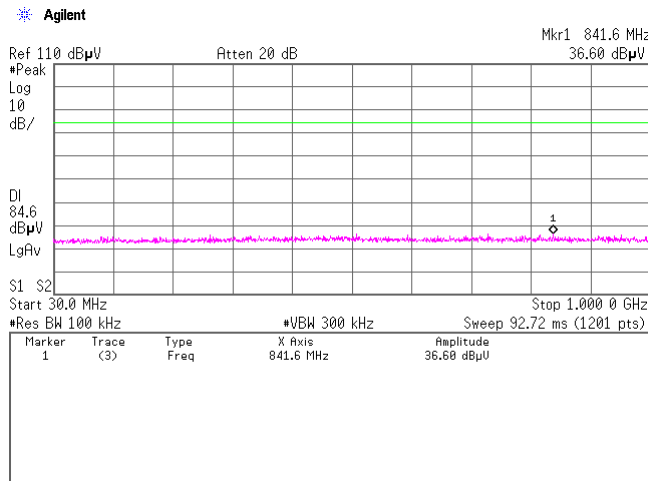


[Transmitting 3DH5]
Hopping

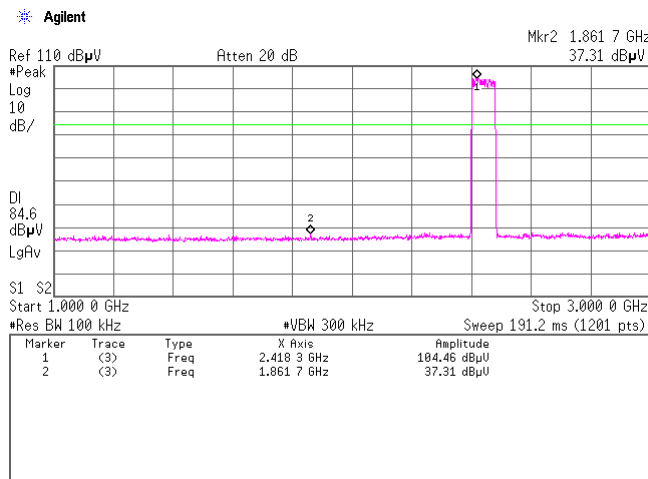
1.



2.

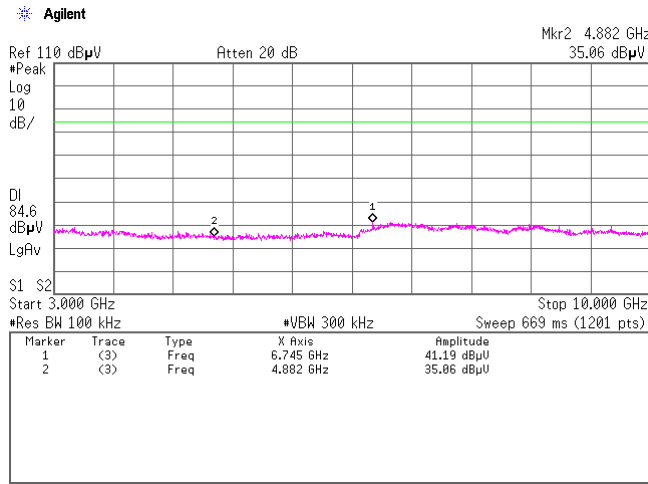


3.

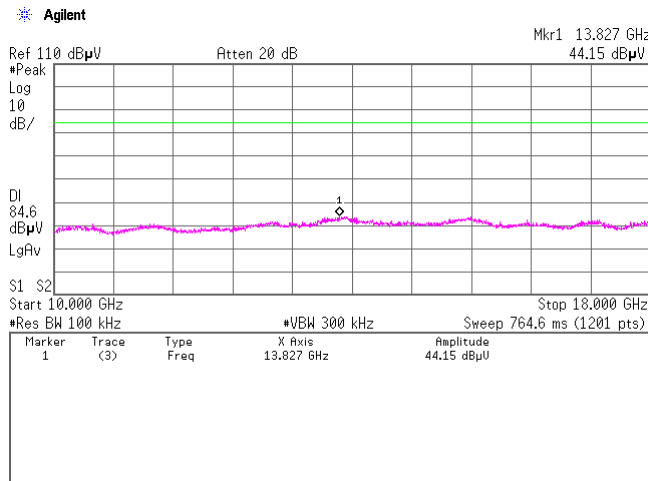


[Transmitting3 DHS]
Hopping

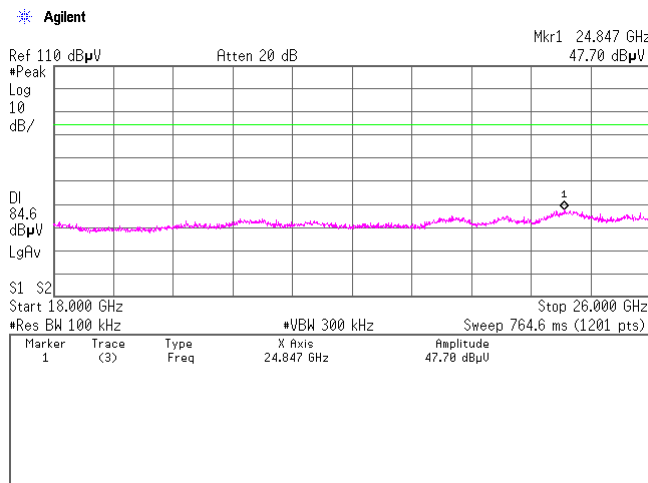
4.



5.



6.



Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2402MHz)DH5
 Remarks : -
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15.209

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	480.03	BB	31.0	40.5	18.4	28.8	5.8	2.8	29.2	38.7	46.0	16.8	7.3
2.	519.32	BB	24.7	31.4	18.9	29.1	6.1	2.8	23.4	30.1	46.0	22.6	15.9
3.	934.76	BB	31.1	31.4	23.1	28.7	7.9	2.9	36.3	36.6	46.0	9.7	9.4

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KBA-01 (<300MHz)/KLA-01 ■ AMP:KAF-05 ■ RECEIVER:MTR-06

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2441MHz)DH5
 Remarks : -
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15.209

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	480.03	BB	31.5	40.6	18.4	28.8	5.8	2.8	29.7	38.8	46.0	16.3	7.2	
2.	519.32	BB	25.1	32.0	18.9	29.1	6.1	2.8	23.8	30.7	46.0	22.2	15.3	
3.	934.78	BB	30.8	31.7	23.1	28.7	7.9	2.9	36.0	36.9	46.0	10.0	9.1	

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KBA-01 (<300MHz)/KLA-01 ■ AMP:KAF-05 ■ RECEIVER:MTR-06

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2480MHz)DH5
 Remarks : -
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	480.03	BB	31.9	40.5	18.4	28.8	5.8	2.8	30.1	38.7	46.0	15.9	7.3	
2.	519.31	BB	25.0	32.0	18.9	29.1	6.1	2.8	23.7	30.7	46.0	22.3	15.3	
3.	934.75	BB	30.4	31.6	23.1	28.7	7.9	2.9	35.6	36.8	46.0	10.4	9.2	

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KBA-01 (<300MHz)/KLA-01 ■ AMP:KAF-05 ■ RECEIVER:MTR-06

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting (2402MHz) 3DH5
 Remarks : -
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	480.03	BB	32.3	40.6	18.4	28.8	5.8	2.8	30.5	38.8	46.0	15.5	7.2	
2.	519.31	BB	24.8	32.5	18.9	29.1	6.1	2.8	23.5	31.2	46.0	22.5	14.8	
3.	934.77	BB	30.8	31.7	23.1	28.7	7.9	2.9	36.0	36.9	46.0	10.0	9.1	

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT: KBA-01 (<300MHz) / KLA-01 ■ AMP: KAF-05 ■ RECEIVER: MTR-06

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2441MHz) 3DH5
 Remarks : -
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	480.03	BB	31.3	40.6	18.4	28.8	5.8	2.8	29.5	38.8	46.0	16.5	7.2	
2.	519.31	BB	25.3	32.3	18.9	29.1	6.1	2.8	24.0	31.0	46.0	22.0	15.0	
3.	934.77	BB	30.6	32.1	23.1	28.7	7.9	2.9	35.8	37.3	46.0	10.2	8.7	

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KBA-01 (<300MHz)/KLA-01 ■ AMP:KAF-05 ■ RECEIVER:MTR-06

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2480MHz) 3DH5
 Remarks : -
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15.209

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	480.02	BB	32.2	40.7	18.4	28.8	5.8	2.8	30.4	38.9	46.0	15.6	7.1	
2.	519.32	BB	24.9	32.2	18.9	29.1	6.1	2.8	23.6	30.9	46.0	22.4	15.1	
3.	934.78	BB	31.3	31.5	23.1	28.7	7.9	2.9	36.5	36.7	46.0	9.5	9.3	

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KBA-01 (<300MHz)/KLA-01 ■ AMP:KAF-05 ■ RECEIVER:MTR-06

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2402MHz)DH5
 Remarks : PK:RBW=1MHz, VBW=3MHz
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(PK Detection)

Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	44.2	44.5	28.0	36.5	4.2	0.0	39.9	40.2	74.0	34.1	33.8
2.	3149.20	BB	49.3	48.7	28.9	36.4	4.8	0.0	46.6	46.0	74.0	27.4	28.0
3.	4804.00	BB	43.8	42.9	32.2	36.2	5.9	0.0	45.7	44.8	74.0	28.3	29.2
4.	7206.00	BB	42.5	42.5	36.6	36.2	7.3	0.0	50.2	50.2	74.0	23.8	23.8
5.	9608.00	BB	45.1	45.6	38.8	36.3	8.6	0.0	56.2	56.7	74.0	17.8	17.3
6.	12010.00	BB	43.9	44.6	38.7	35.6	9.6	0.0	56.6	57.3	74.0	17.4	16.7

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04
 ** : enough margin compared to another polarized wave data.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting (2402MHz) DH5
 Remarks : AV:RBW=1MHz, VBW=300Hz (No. 2:VBW=10Hz *1)
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(AV Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	33.5	33.7	28.0	36.5	4.2	0.0	29.2	29.4	54.0	24.8	24.6
2.	3149.20	BB	40.4	39.1	28.9	36.4	4.8	0.0	37.7	36.4	54.0	16.3	17.6
3.	4804.00	BB	34.1	32.9	32.2	36.2	5.9	0.0	36.0	34.8	54.0	18.0	19.2
4.	7206.00	BB	30.5	30.3	36.6	36.2	7.3	0.0	38.2	38.0	54.0	15.8	16.0
5.	9608.00	BB	30.7	30.3	38.8	36.3	8.6	0.0	41.8	41.4	54.0	12.2	12.6
6.	12010.00	BB	31.0	31.1	38.7	35.6	9.6	0.0	43.7	43.8	54.0	10.3	10.2

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KHA-02 (<18GHz)/KHA-04 ■ CABLE:KCC-D24/D25 ■ AMP:KAF-02 ■ RECEIVER:KSA-04

** : enough margin compared to another polarized wave data.

*1) This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2441MHz)DH5
 Remarks : PK:RBW=1MHz, VBW=3MHz
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(PK Detection)

Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.50	BB	51.4	48.7	28.0	36.5	4.2	0.0	47.1	44.4	74.0	26.9	29.6
2.	3149.23	BB	49.4	48.6	28.9	36.4	4.8	0.0	46.7	45.9	74.0	27.3	28.1
3.	4882.00	BB	42.9	42.0	32.2	36.1	6.0	0.0	45.0	44.1	74.0	29.0	29.9
4.	7323.00	BB	42.6	43.2	36.9	36.3	7.4	0.0	50.6	51.2	74.0	23.4	22.8
5.	9764.00	BB	45.8	46.4	38.9	36.2	8.6	0.0	57.1	57.7	74.0	16.9	16.3
6.	12205.00	BB	43.6	43.7	39.0	35.2	9.7	0.0	57.1	57.2	74.0	16.9	16.8

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04
 ** : enough margin compared to another polarized wave data.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting (2441MHz) DH5
 Remarks : AV:RBW=1MHz, VBW=300Hz (No. 1, 2:VBW=10Hz *1)
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(AV Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.50	BB	43.8	40.1	28.0	36.5	4.2	0.0	39.5	35.8	54.0	14.5	18.2
2.	3149.23	BB	39.8	38.4	28.9	36.4	4.8	0.0	37.1	35.7	54.0	16.9	18.3
3.	4882.00	BB	32.4	32.2	32.2	36.1	6.0	0.0	34.5	34.3	54.0	19.5	19.7
4.	7323.00	BB	30.7	30.6	36.9	36.3	7.4	0.0	38.7	38.6	54.0	15.3	15.4
5.	9764.00	BB	30.0	29.9	38.9	36.2	8.6	0.0	41.3	41.2	54.0	12.7	12.8
6.	12205.00	BB	31.5	31.5	39.0	35.2	9.7	0.0	45.0	45.0	54.0	9.0	9.0

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KHA-02 (<18GHz)/KHA-04 ■ CABLE:KCC-D24/D25 ■ AMP:KAF-02 ■ RECEIVER:KSA-04

** : enough margin compared to another polarized wave data.

*1) This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2480MHz)DH5
 Remarks : PK:RBW=1MHz, VBW=3MHz
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(PK Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.42	BB	51.7	48.9	28.0	36.5	4.2	0.0	47.4	44.6	74.0	26.6	29.4
2.	2483.50	BB	49.4	49.8	28.0	36.5	4.2	0.0	45.1	45.5	74.0	28.9	28.5
3.	3149.22	BB	49.7	48.5	28.9	36.4	4.8	0.0	47.0	45.8	74.0	27.0	28.2
4.	4960.00	BB	42.1	42.5	32.3	36.1	6.0	0.0	44.3	44.7	74.0	29.7	29.3
5.	7440.00	BB	43.3	42.4	37.2	36.3	7.4	0.0	51.6	50.7	74.0	22.4	23.3
6.	9920.00	BB	46.3	46.2	39.1	36.2	8.6	0.0	57.8	57.7	74.0	16.2	16.3
7.	12400.00	BB	43.2	43.9	39.3	34.9	9.7	0.0	57.3	58.0	74.0	16.7	16.0

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04
 ** : enough margin compared to another polarized wave data.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2480MHz)DH5
 Remarks : AV:RBW=1MHz, VBW=300Hz (No. 1, 3:VBW=10Hz *1)
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(AV Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.42	BB	42.2	41.1	28.0	36.5	4.2	0.0	37.9	36.8	54.0	16.1	17.2
2.	2483.50	BB	43.6	44.3	28.0	36.5	4.2	0.0	39.3	40.0	54.0	14.7	14.0
3.	3149.22	BB	40.3	38.8	28.9	36.4	4.8	0.0	37.6	36.1	54.0	16.4	17.9
4.	4960.00	BB	32.0	33.2	32.3	36.1	6.0	0.0	34.2	35.4	54.0	19.8	18.6
5.	7440.00	BB	30.7	30.8	37.2	36.3	7.4	0.0	39.0	39.1	54.0	15.0	14.9
6.	9920.00	BB	30.1	30.1	39.1	36.2	8.6	0.0	41.6	41.6	54.0	12.4	12.4
7.	12400.00	BB	31.5	31.4	39.3	34.9	9.7	0.0	45.6	45.5	54.0	8.4	8.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04

** : enough margin compared to another polarized wave data.

*1) This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2402MHz) 3DH5
 Remarks : PK:RBW=1MHz, VBW=3MHz
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(PK Detection)

Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	44.3	44.3	28.0	36.5	4.2	0.0	40.0	40.0	74.0	34.0	34.0
2.	3149.18	BB	49.5	48.7	28.9	36.4	4.8	0.0	46.8	46.0	74.0	27.2	28.0
3.	4804.00	BB	42.0	42.8	32.2	36.2	5.9	0.0	43.9	44.7	74.0	30.1	29.3
4.	7206.00	BB	42.0	43.0	36.6	36.2	7.3	0.0	49.7	50.7	74.0	24.3	23.3
5.	9608.00	BB	45.5	45.8	38.8	36.3	8.6	0.0	56.6	56.9	74.0	17.4	17.1
6.	12010.00	BB	43.3	43.6	38.7	35.6	9.6	0.0	56.0	56.3	74.0	18.0	17.7

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04
 ** : enough margin compared to another polarized wave data.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting (2402MHz) 3DH5
 Remarks : AV:RBW=1MHz, VBW=300Hz (No. 2:VBW=10Hz *1)
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(AV Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	33.4	33.4	28.0	36.5	4.2	0.0	29.1	29.1	54.0	24.9	24.9
2.	3149.18	BB	39.1	39.2	28.9	36.4	4.8	0.0	36.4	36.5	54.0	17.6	17.5
3.	4804.00	BB	31.6	34.6	32.2	36.2	5.9	0.0	33.5	36.5	54.0	20.5	17.5
4.	7206.00	BB	30.3	29.9	36.6	36.2	7.3	0.0	38.0	37.6	54.0	16.0	16.4
5.	9608.00	BB	30.4	29.8	38.8	36.3	8.6	0.0	41.5	40.9	54.0	12.5	13.1
6.	12010.00	BB	30.5	30.6	38.7	35.6	9.6	0.0	43.2	43.3	54.0	10.8	10.7

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KHA-02 (<18GHz)/KHA-04 ■ CABLE:KCC-D24/D25 ■ AMP:KAF-02 ■ RECEIVER:KSA-04

** : enough margin compared to another polarized wave data.

*1) This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2441MHz) 3DH5
 Remarks : PK:RBW=1MHz, VBW=3MHz
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(PK Detection)

Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.56	BB	51.8	49.4	28.0	36.5	4.2	0.0	47.5	45.1	74.0	26.5	28.9
2.	3149.24	BB	49.7	49.0	28.9	36.4	4.8	0.0	47.0	46.3	74.0	27.0	27.7
3.	4882.00	BB	42.7	42.0	32.2	36.1	6.0	0.0	44.8	44.1	74.0	29.2	29.9
4.	7323.00	BB	42.5	42.8	36.9	36.3	7.4	0.0	50.5	50.8	74.0	23.5	23.2
5.	9764.00	BB	45.8	45.9	38.9	36.2	8.6	0.0	57.1	57.2	74.0	16.9	16.8
6.	12205.00	BB	43.5	43.0	39.0	35.2	9.7	0.0	57.0	56.5	74.0	17.0	17.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04
 ** : enough margin compared to another polarized wave data.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting (2441MHz) 3DH5
 Remarks : AV:RBW=1MHz, VBW=300Hz (No. 1, 2:VBW=10Hz *1)
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(AV Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.56	BB	42.8	39.4	28.0	36.5	4.2	0.0	38.5	35.1	54.0	15.5	18.9
2.	3149.24	BB	39.2	40.9	28.9	36.4	4.8	0.0	36.5	38.2	54.0	17.5	15.8
3.	4882.00	BB	32.4	32.7	32.2	36.1	6.0	0.0	34.5	34.8	54.0	19.5	19.2
4.	7323.00	BB	30.2	30.5	36.9	36.3	7.4	0.0	38.2	38.5	54.0	15.8	15.5
5.	9764.00	BB	29.9	30.0	38.9	36.2	8.6	0.0	41.2	41.3	54.0	12.8	12.7
6.	12205.00	BB	31.0	31.1	39.0	35.2	9.7	0.0	44.5	44.6	54.0	9.5	9.4

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KHA-02 (<18GHz)/KHA-04 ■ CABLE:KCC-D24/D25 ■ AMP:KAF-02 ■ RECEIVER:KSA-04

** : enough margin compared to another polarized wave data.

*1) This noise is not pulse emission, therefore measurement was performed with 10Hz VBW according to DA00-705.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2480MHz) 3DH5
 Remarks : PK:RBW=1MHz, VBW=3MHz
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(PK Detection)

Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.38	BB	51.5	49.4	28.0	36.5	4.2	0.0	47.2	45.1	74.0	26.8	28.9
2.	2483.50	BB	49.2	48.7	28.0	36.5	4.2	0.0	44.9	44.4	74.0	29.1	29.6
3.	3149.25	BB	49.1	49.4	28.9	36.4	4.8	0.0	46.4	46.7	74.0	27.6	27.3
4.	4960.00	BB	40.1	43.0	32.3	36.1	6.0	0.0	42.3	45.2	74.0	31.7	28.8
5.	7440.00	BB	42.6	42.7	37.2	36.3	7.4	0.0	50.9	51.0	74.0	23.1	23.0
6.	9920.00	BB	46.3	45.9	39.1	36.2	8.6	0.0	57.8	57.4	74.0	16.2	16.6
7.	12400.00	BB	42.8	43.5	39.3	34.9	9.7	0.0	56.9	57.6	74.0	17.1	16.4

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ ANT:KHA-02 (<18GHz)/KHA-04 ■ CABLE:KCC-D24/D25 ■ AMP:KAF-02 ■ RECEIVER:KSA-04
 ** : enough margin compared to another polarized wave data.

Data of Radiated Disturbance Test

UL Japan, Inc.
YAMAKITA No.1 Semi-anechoic chamber
Report No. : 30DE0216-YK-B

Applicant : Clarion Co., Ltd.
 Kind of Equipment : Car Audio
 Model No. : PF-3302B-A
 Serial No. : PF3302BA 137
 Power : DC12V
 Mode : Transmitting(2480MHz) 3DH5
 Remarks : AV:RBW=1MHz, VBW=300Hz (No. 1, 3:VBW=10Hz *1)
 Date : 3/12/2010
 Test Distance : 3 m
 Temperature : 20 °C
 Humidity : 35 %
 Regulation : FCC Part15C § 15. 209(AV Detection)
 Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2400.38	BB	43.9	40.8	28.0	36.5	4.2	0.0	39.6	36.5	54.0	14.4	17.5
2.	2483.50	BB	40.1	40.6	28.0	36.5	4.2	0.0	35.8	36.3	54.0	18.2	17.7
3.	3149.25	BB	39.0	38.8	28.9	36.4	4.8	0.0	36.3	36.1	54.0	17.7	17.9
4.	4960.00	BB	29.4	34.0	32.3	36.1	6.0	0.0	31.6	36.2	54.0	22.4	17.8
5.	7440.00	BB	30.5	30.6	37.2	36.3	7.4	0.0	38.8	38.9	54.0	15.2	15.1
6.	9920.00	BB	29.8	29.9	39.1	36.2	8.6	0.0	41.3	41.4	54.0	12.7	12.6
7.	12400.00	BB	31.0	31.0	39.3	34.9	9.7	0.0	45.1	45.1	54.0	8.9	8.9

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.
 Except for the above table : adequate margin data below the limits.

■ANT:KHA-02(<18GHz)/KHA-04 ■CABLE:KCC-D24/D25 ■AMP:KAF-02 ■RECEIVER:KSA-04

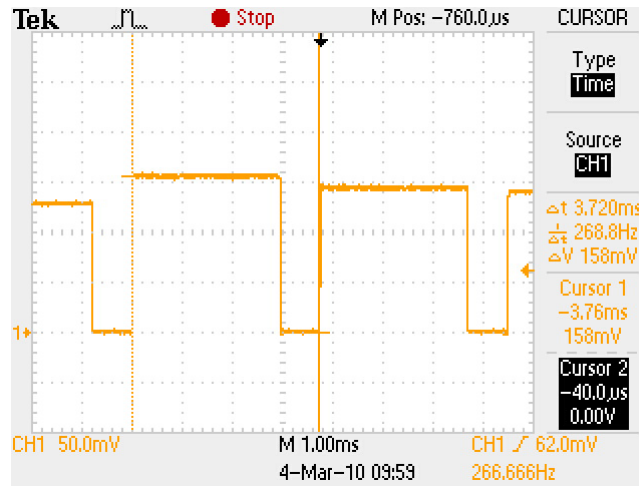
** : enough margin compared to another polarized wave data.

*1) 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.2 shielded room
 Date: 2010.3.4
 Temp./Humid.: 21 deg. C. / 36 %
 Engineer: Akira Sato
 Test mode: Transmitting

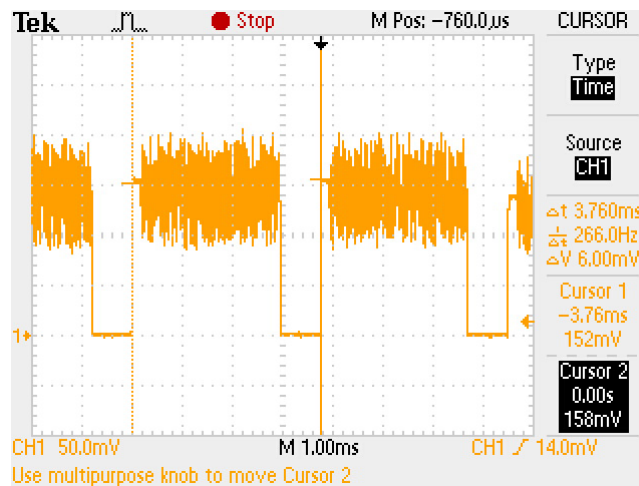
[DH5]



Duty Cycle: 3.72ms

AV Detector VBW: $1000 / 3.72\text{ms} = 268.82\text{Hz} \rightarrow 300\text{Hz}$

[3DH5]



Duty Cycle: 3.76ms

AV Detector VBW: $1000 / 3.76\text{ms} = 265.96\text{Hz} \rightarrow 300\text{Hz}$

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

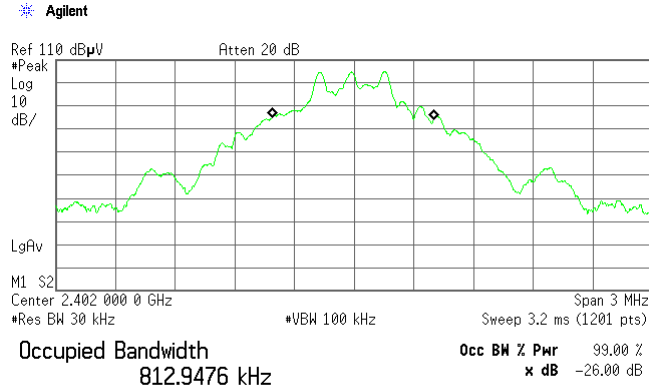
This purpose of the Duty Cycle calculation measures the pulse timing that we ensure Spectrum Analyzer can detect the pulse emission correctly. Therefore, if the pulse train can happen by 50msec(20Hz) or less, the average value measurement by setting the repetition frequency is done more correctly than 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: 2010.3.8
 Temp/Humid.: 21 deg. C. / 33 %
 Engineer: Akira Sato
 Test mode: Transmitting

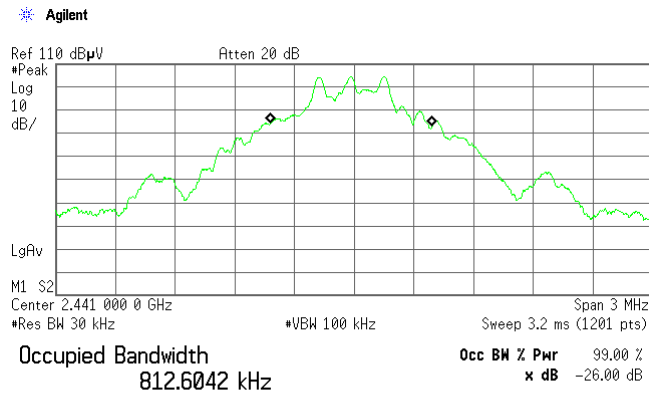
[Hopping off, DHS]

1. ch : 2402MHz/Occupied Bandwidth



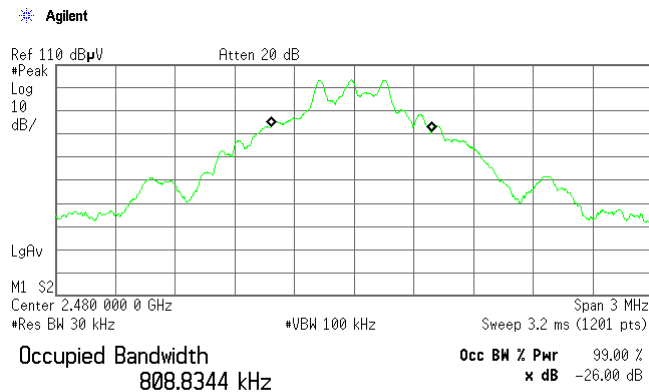
Transmit Freq Error **-6.741 kHz**
 x dB Bandwidth **1.031 MHz**

2. ch : 2441MHz/Occupied Bandwidth



Transmit Freq Error **-12.819 kHz**
 x dB Bandwidth **1.032 MHz**

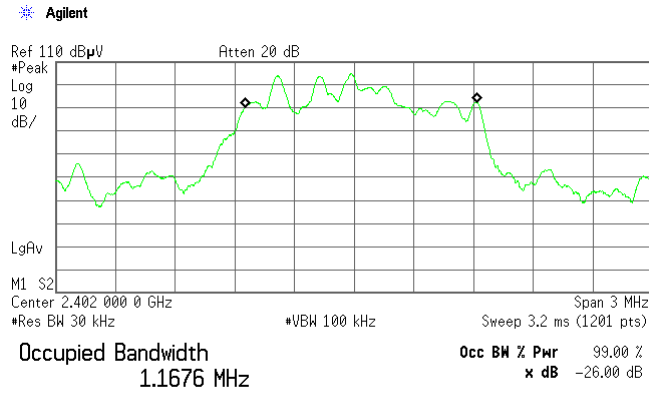
3. ch : 2480MHz/Occupied Bandwidth



Transmit Freq Error **-11.845 kHz**
 x dB Bandwidth **1.029 MHz**

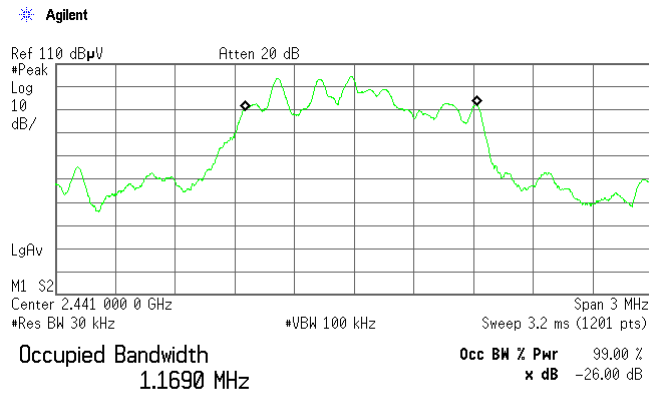
[Hopping off, 3DH5]

4. ch : 2402MHz/Occupied Bandwidth



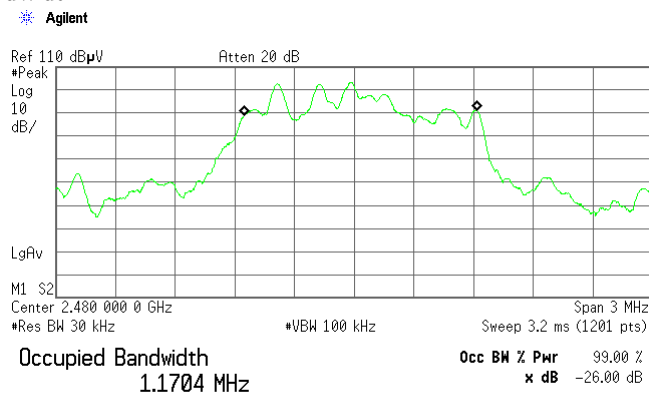
Transmit Freq Error 37.083 kHz
 x dB Bandwidth 1.279 MHz

5. ch : 2441MHz/Occupied Bandwidth



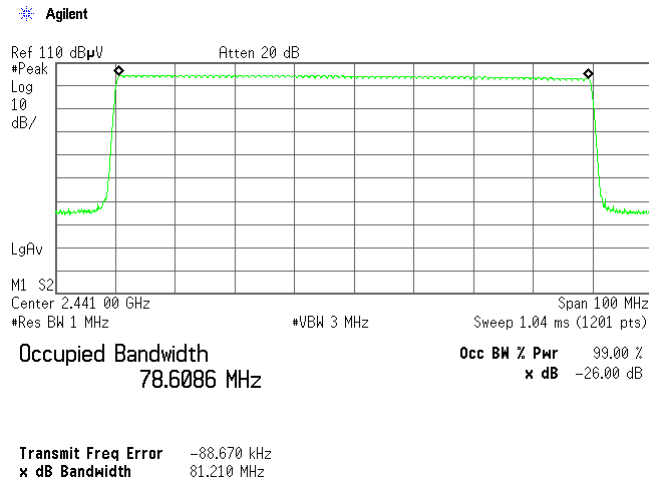
Transmit Freq Error 35.833 kHz
 x dB Bandwidth 1.266 MHz

6. ch : 2480MHz/Occupied Bandwidth

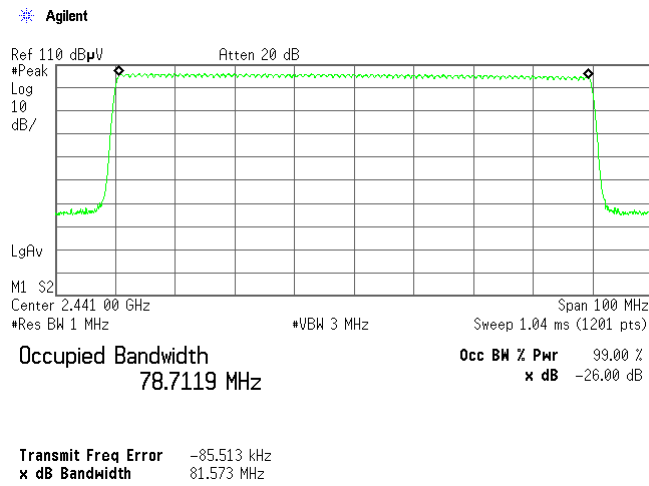


Transmit Freq Error 34.966 kHz
 x dB Bandwidth 1.278 MHz

7. Hopping, DH5/Occupied Bandwidth



8. Hopping, 3DH5/Occupied Bandwidth



APPENDIX 3 Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
CUST-YA-RE	Radiated emission(software)	UL Japan	RE(Ver.2.0)	-	RE	-
KAEC-01(NSA)	Anechoic Chamber	JSE	Semi 3m	1	RE	2009/08/20 * 12
KAF-05	Pre Amplifier	Agilent	8447D	2944A10150	RE	2010/03/29 * 12
KAT3-09	Attenuator	JFW IND. INC.	50HF-003N	-	RE	2009/08/18 * 12
KAT6-03	Attenuator	INMET	18N-6dB	-	RE	2010/03/29 * 12
KBA-01	Biconical Antenna	Schwarzbeck	BBA9106	1748	RE	2009/07/12 * 12
KLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	136	RE	2009/12/28 * 12
KCC-30/31/32 /34/37/KRM-03	Coaxial Cable/RF Relay Matrix	Fujikura/Suhner/TSJ	5D-2W/S04272B/RFM-E421	-/01055	RE	2009/10/27 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	830245/011	RE	2009/11/18 * 12
KAF-02	Pre Amplifier	Hewlett Packard	8449B	3008A01268	RE	2009/04/24 * 12
KHA-02	Horn Antenna	Schwarzbeck	BBHA9120D	230	RE	2009/04/24 * 12
KHA-04	Horn Antenna	EMCO	3160-09	1278	RE	2009/04/24 * 12
KCC-D24/D25	Coaxial Cable	Suhner	SUCOFLEX 102	32718/2 / 32709/2	RE	2009/04/23 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	95060087	RE	2010/01/12 * 12
KJM-07	Measure	KOMELON	KMC-36	-	RE	-
KOS-02	Humidity Indicator	Custom	CTH-190	K-02	RE	2009/07/23 * 12
KCC-D20	Coaxial Cable	SUHNER	SUCOFLEX102	31110/2	AT 1,2,3,4,6,7	2009/07/30 * 12
KPM-08	Power meter	Anritsu	ML2495A	6K00003356	AT 5	2009/10/30 * 12
KPSS-04	Power sensor	Anritsu	MA2411B	012088	AT 5	2009/10/30 * 12
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	RE/AT 1,2,3,4,6	2010/01/27 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	1822A05320	AT 7	Pre Check
KOSC-01	Oscilloscope	Tektronix	TDS-2022B	C050588	AT 7	2009/05/20 * 12
KOS-01	Humidity Indicator	Custom	CTH-190	K-01	AT all	2009/07/29 * 12

The expiration date of the calibration is the end of the expired month .
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

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

Test Item :

- RE: Out of Band Emission (Radiated)
- AT: Antenna terminal conducted test
- 1: Carrier Frequency Separation
- 2: 20dB Bandwidth
- 3: Number of Hopping Frequency
- 4: Dwell time
- 5: Maximum Peak Output Power
- 6: Out of Band Emission (Conducted)
- 7: Duty cycle