

# Data of Conducted Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Shielded room  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Type of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12.0V (AC120V/60Hz)  
 Mode : Transmitting (2402MHz DH5)  
 Remarks :  
 Date : 1/28/2010  
 Phase : Single Phase  
 Temperature : 20 °C  
 Humidity : 42 %  
 Limit : FCC Part15C § 15. 207. (CISPR Pub. 22 )

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB]	AV [dB]
1.	0.1967	33.7	-	33.6	-	0.1	0.2	0.0	34.0	-	63.7	53.7	29.7	-
2.	0.4128	26.9	-	27.0	-	0.1	0.3	0.0	27.4	-	57.6	47.6	30.2	-
3.	0.6154	23.3	-	23.3	-	0.1	0.3	0.0	23.7	-	56.0	46.0	32.3	-
4.	1.4386	16.4	-	16.7	-	0.1	0.4	0.0	17.2	-	56.0	46.0	38.8	-
5.	1.6521	14.4	-	14.8	-	0.1	0.4	0.0	15.3	-	56.0	46.0	40.7	-
6.	1.8543	13.9	-	14.1	-	0.1	0.4	0.0	14.6	-	56.0	46.0	41.4	-

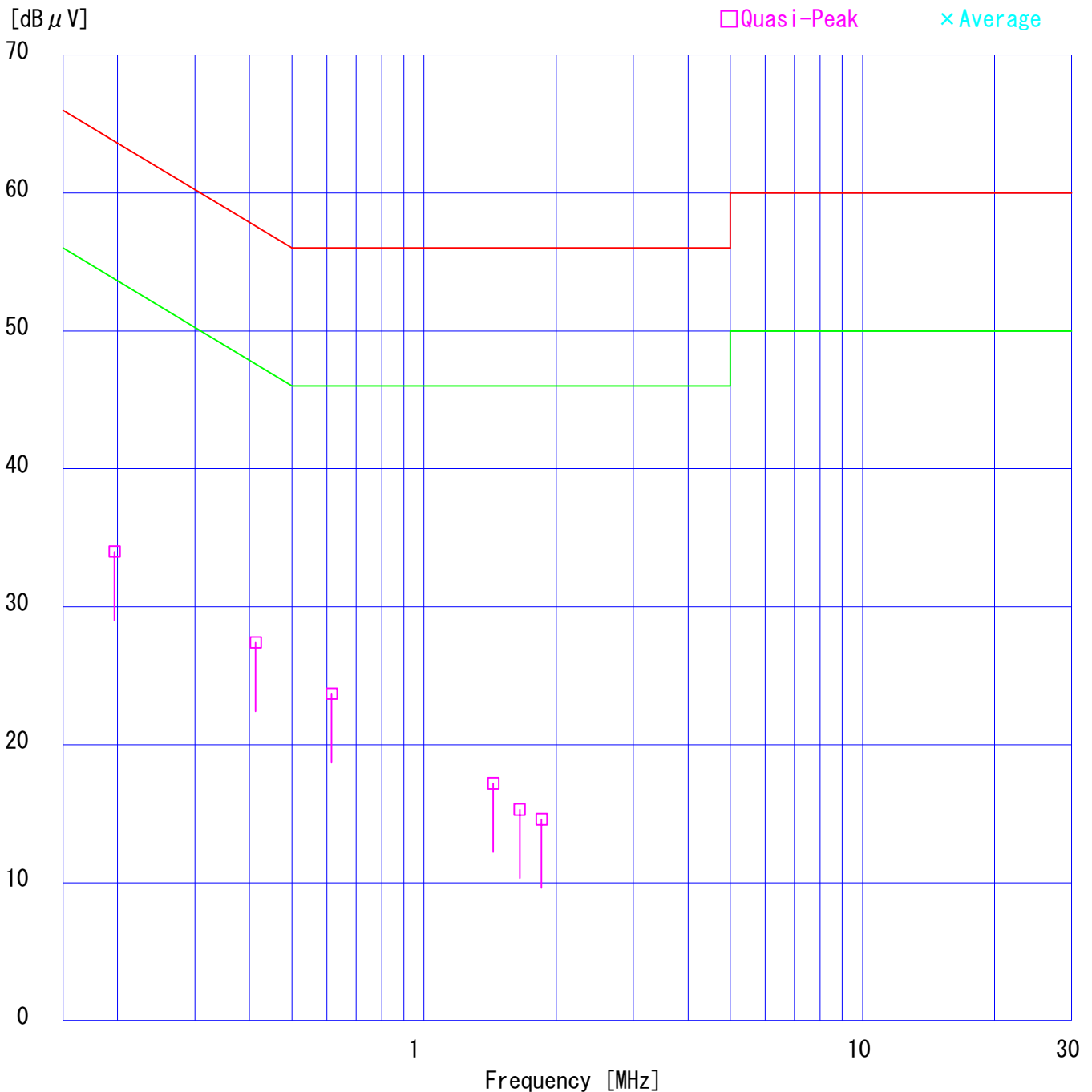
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■ ISN:KLS-02 ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 ■ EMI RECEIVER:KTR-02

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Engineer : Minoru Nakatake



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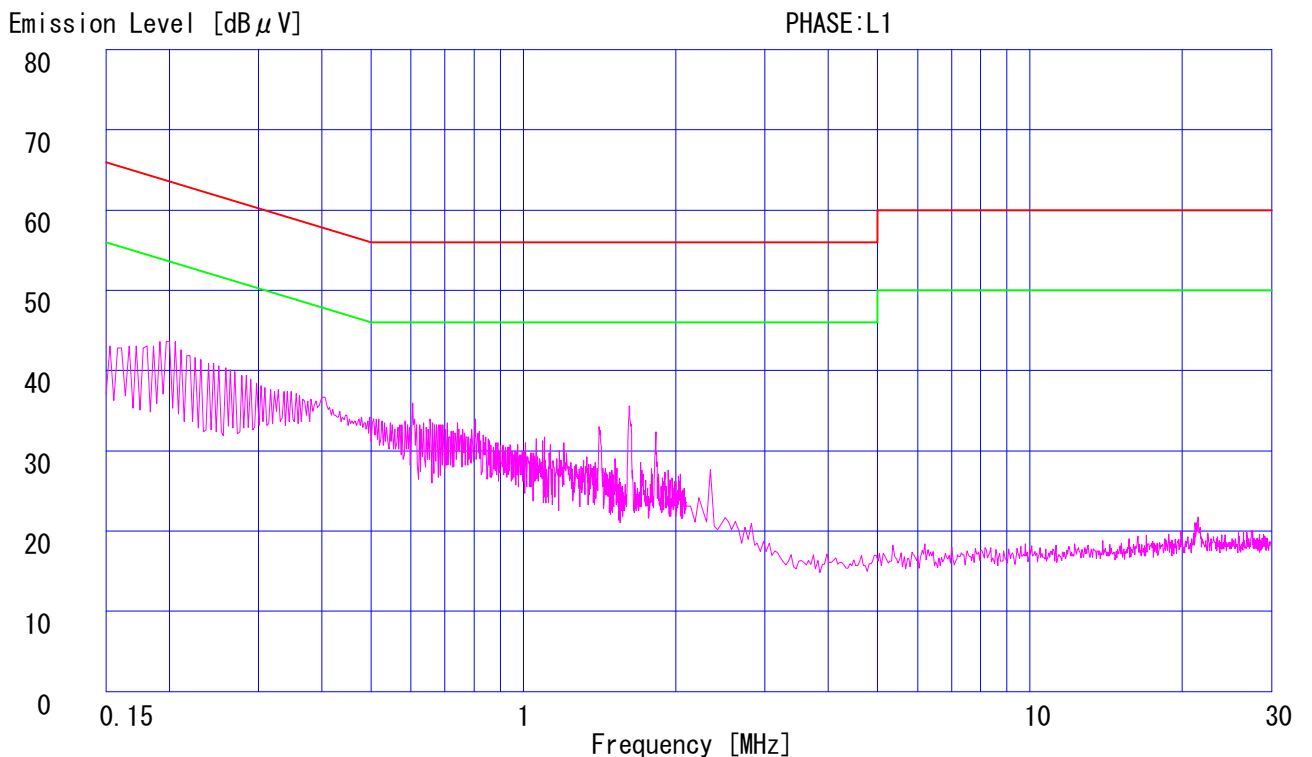
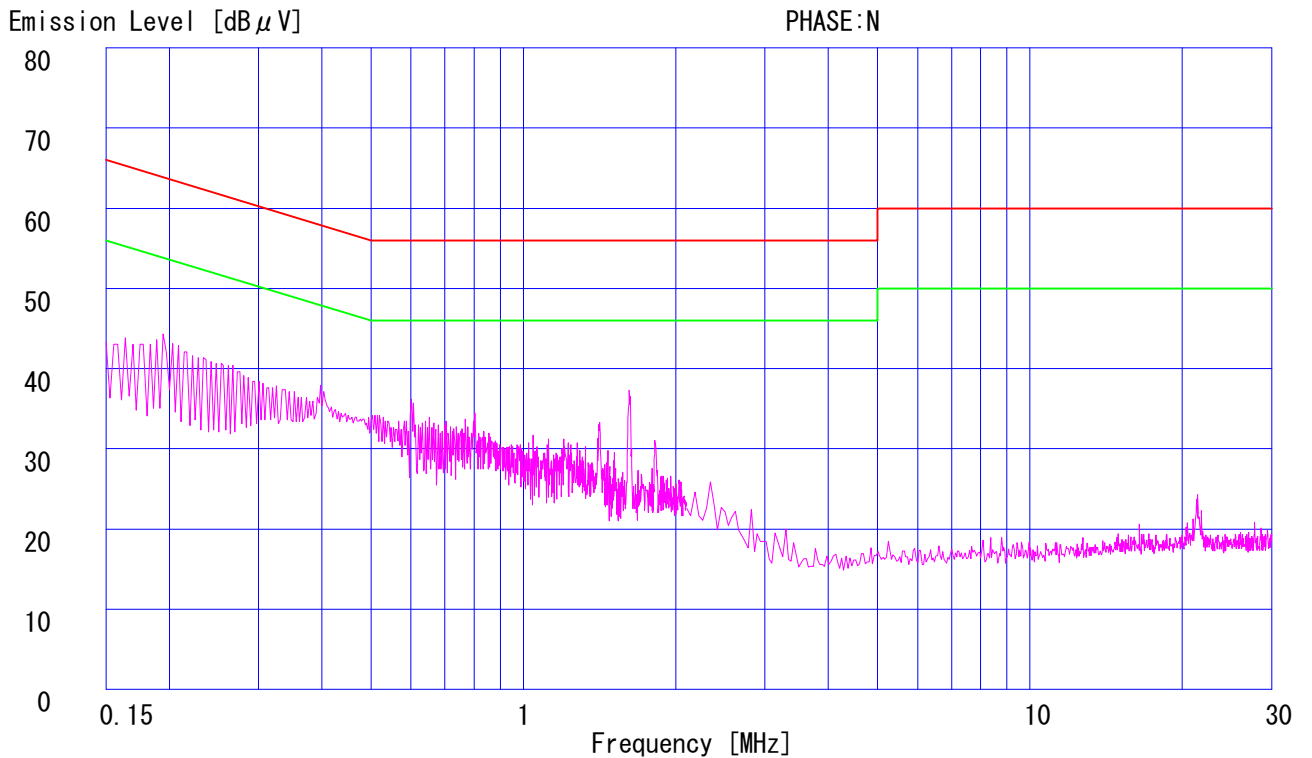
UL Japan, Inc.

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Date : 1/28/2010  
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Temperature : 20 °C  
Humidity : 42 %  
Limit 1 : FCC Part15C § 15.207. (CISPR Pub.22 )  
Limit 2 : None

Engineer : Minoru Nakatake



# Data of Conducted Disturbance Test

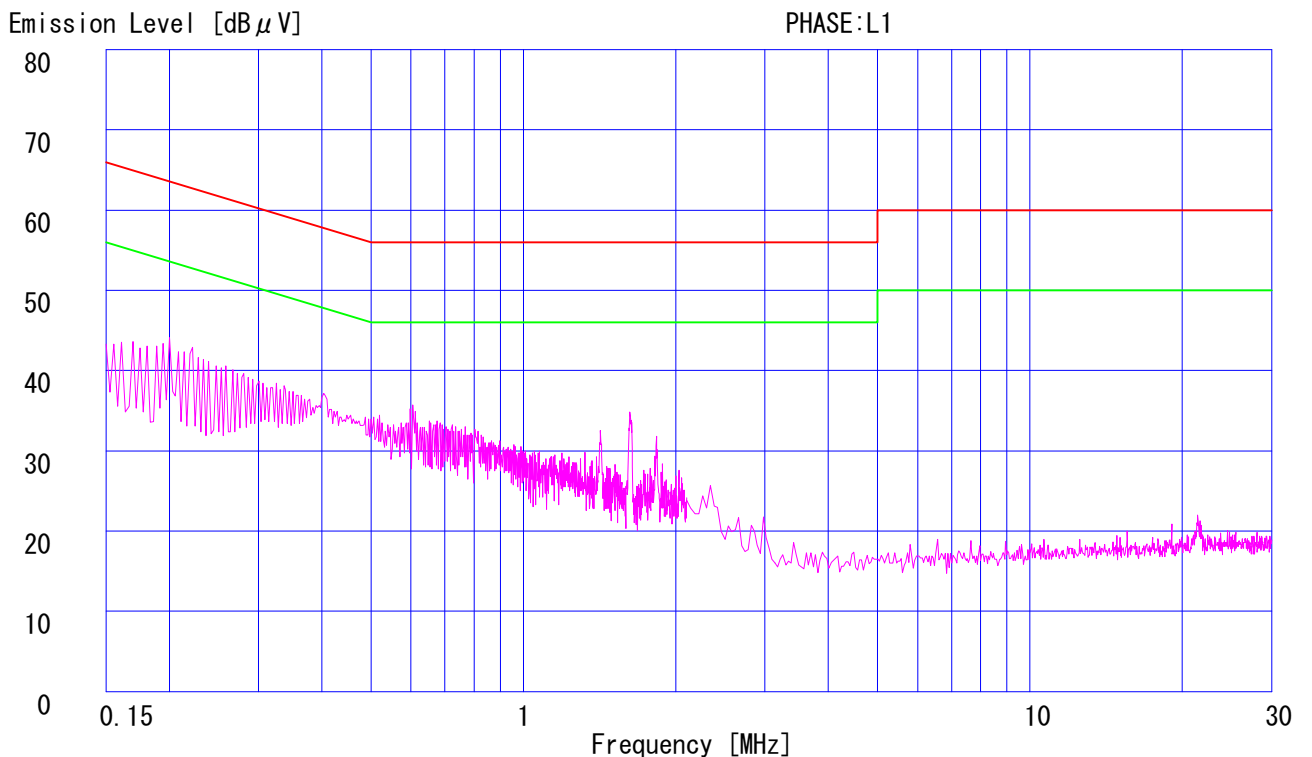
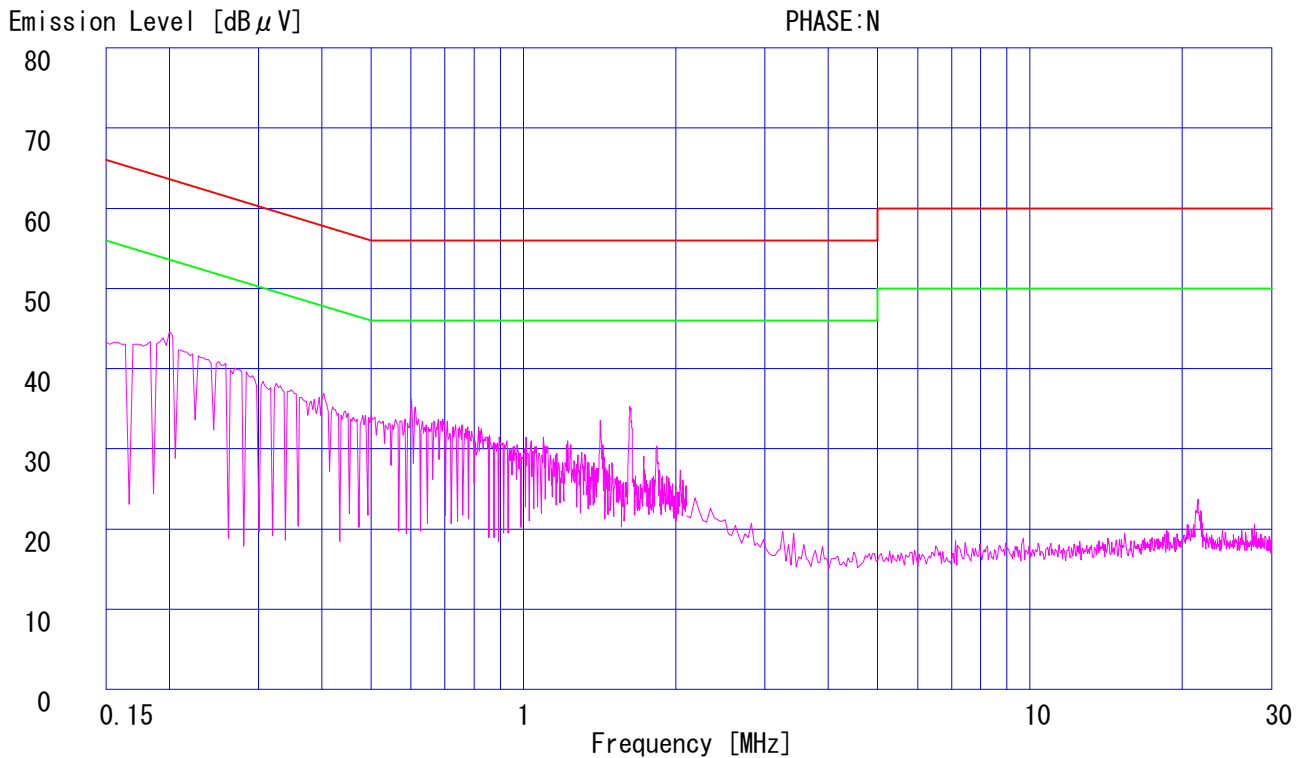
UL Japan, Inc.

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Report No. : 30AE0214-YK-01-B

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Type of Equipment : Wireless Lens Control Receiver Module  
Model No. : RX PCB  
Serial No. : 0907ND004  
Power : DC12.0V (AC120V/60Hz)  
Mode : Transmitting (2441MHz DH5)  
Remarks :  
Date : 1/28/2010  
Phase : Single Phase  
Temperature : 20 °C  
Humidity : 42 %  
Limit 1 : FCC Part15C § 15.207. (CISPR Pub.22 )  
Limit 2 : None

Engineer : Minoru Nakatake



# Data of Conducted Disturbance Test

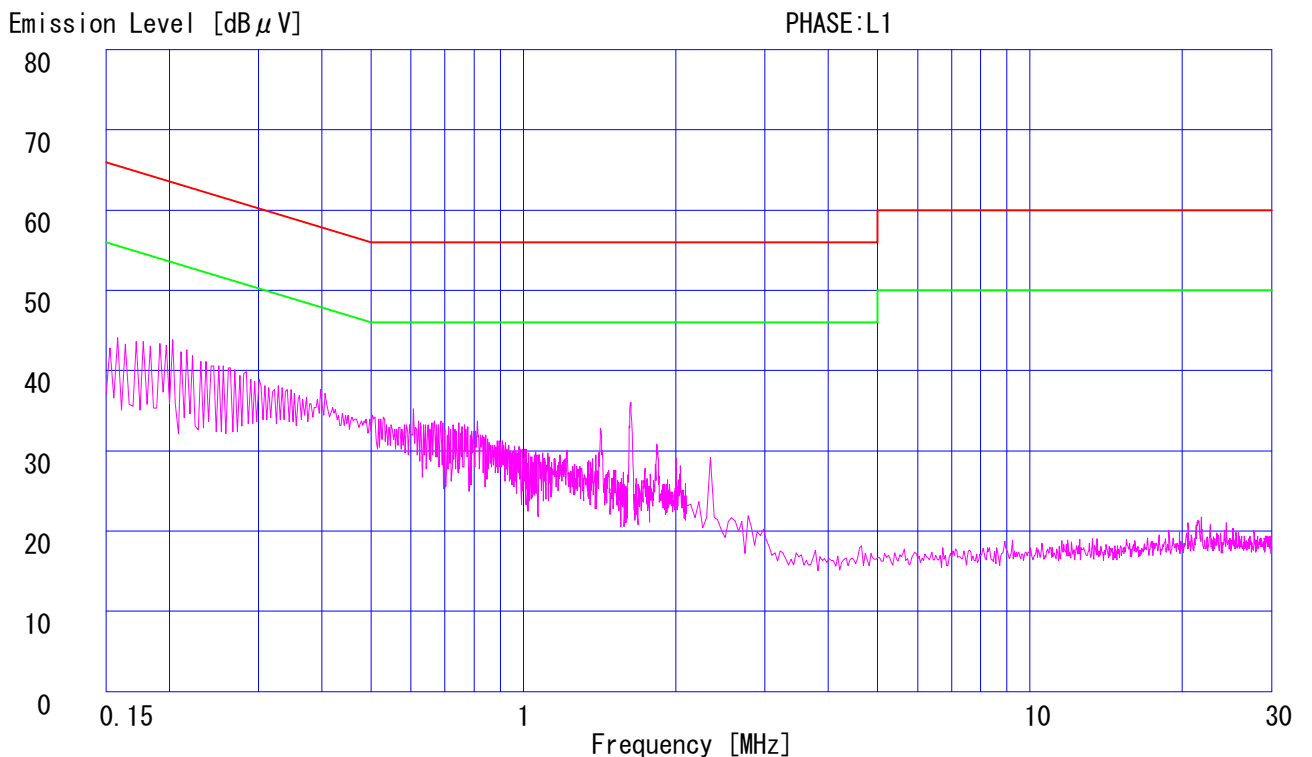
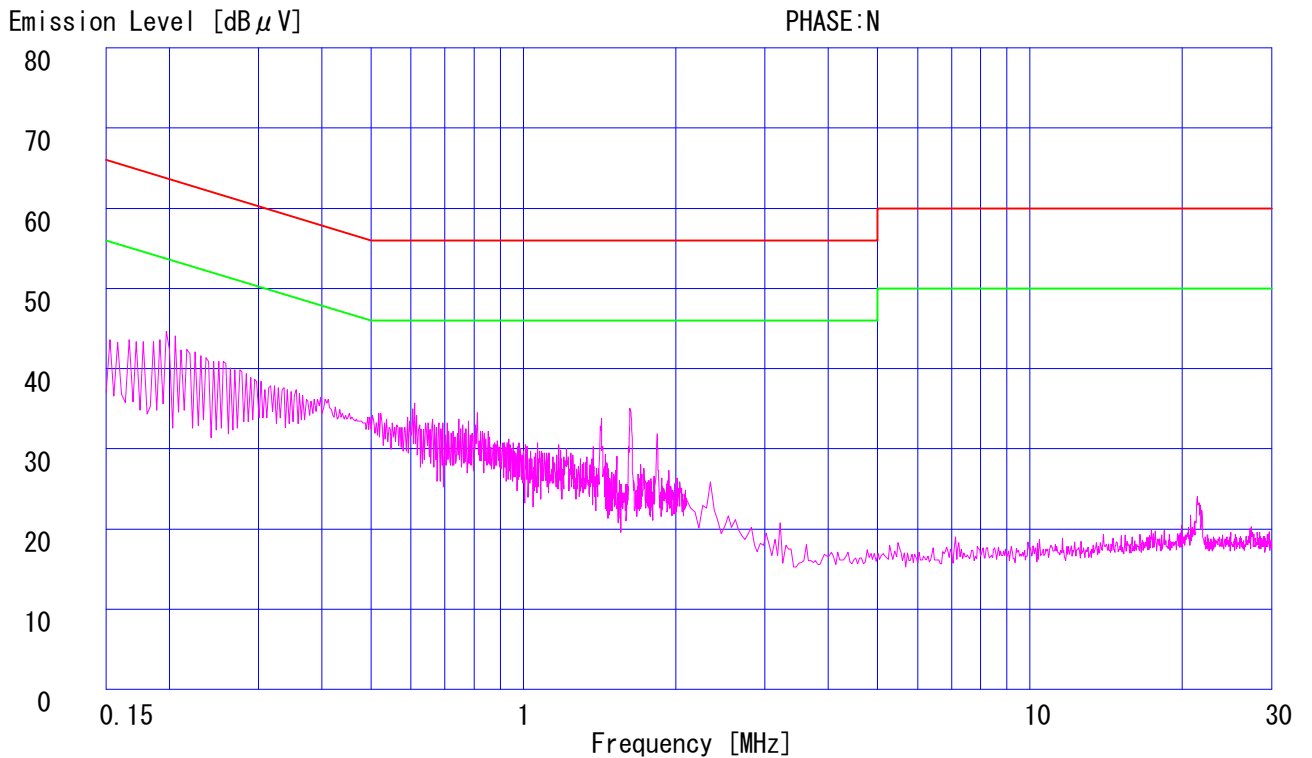
UL Japan, Inc.

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Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
Type of Equipment : Wireless Lens Control Receiver Module  
Model No. : RX PCB  
Serial No. : 0907ND004  
Power : DC12.0V (AC120V/60Hz)  
Mode : Transmitting (2480MHz DH5)  
Remarks :  
Date : 1/28/2010  
Phase : Single Phase  
Temperature : 20 °C  
Humidity : 42 %  
Limit 1 : FCC Part15C § 15.207. (CISPR Pub.22 )  
Limit 2 : None

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 Type of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12.0V (AC120V/60Hz)  
 Mode : Transmitting (2402MHz 3DH5)  
 Remarks :  
 Date : 1/28/2010  
 Phase : Single Phase  
 Temperature : 20 °C  
 Humidity : 42 %  
 Limit : FCC Part15C § 15. 207. (CISPR Pub. 22 )

Engineer : Minoru Nakatake

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB]	AV [dB]
1.	0.1949	33.8	-	33.7	-	0.1	0.2	0.0	34.1	-	63.8	53.8	29.7	-
2.	0.4113	27.0	-	27.1	-	0.1	0.3	0.0	27.5	-	57.6	47.6	30.1	-
3.	0.6163	23.3	-	23.4	-	0.1	0.3	0.0	23.8	-	56.0	46.0	32.2	-
4.	1.4404	16.5	-	16.8	-	0.1	0.4	0.0	17.3	-	56.0	46.0	38.7	-
5.	1.6538	14.5	-	14.9	-	0.1	0.4	0.0	15.4	-	56.0	46.0	40.6	-
6.	1.8540	13.9	-	14.2	-	0.1	0.4	0.0	14.7	-	56.0	46.0	41.3	-

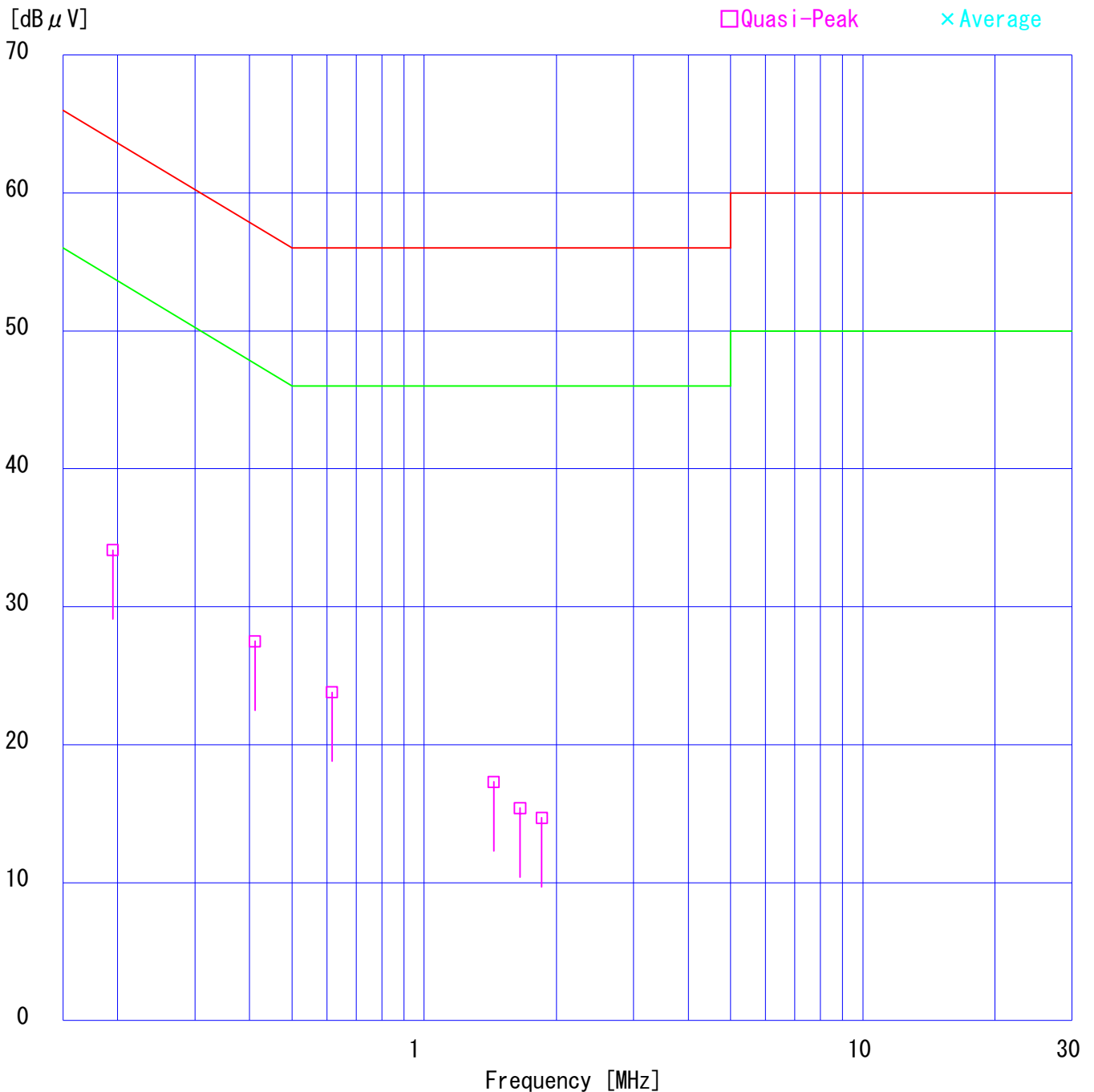
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■ ISN:KLS-02 ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 ■ EMI RECEIVER:KTR-02

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Temperature : 20 °C  
Humidity : 42 %  
Limit : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Engineer : Minoru Nakatake



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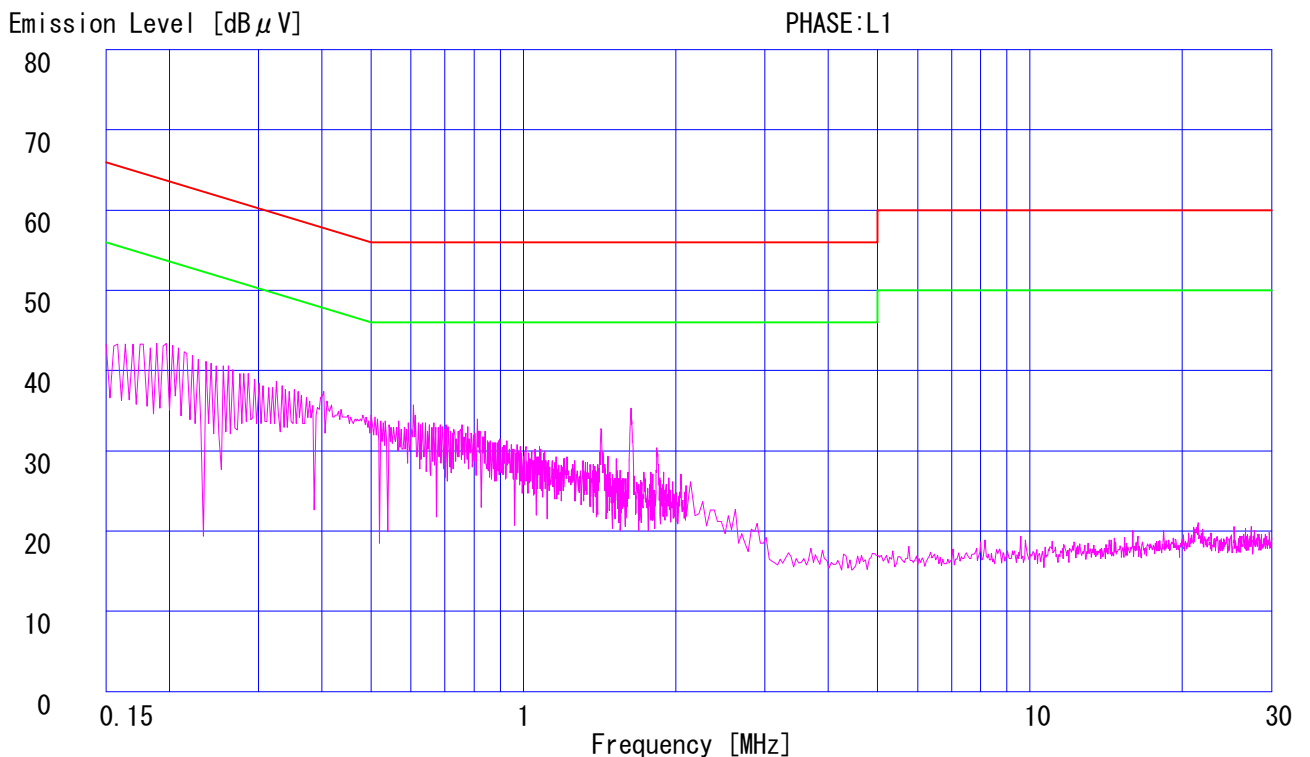
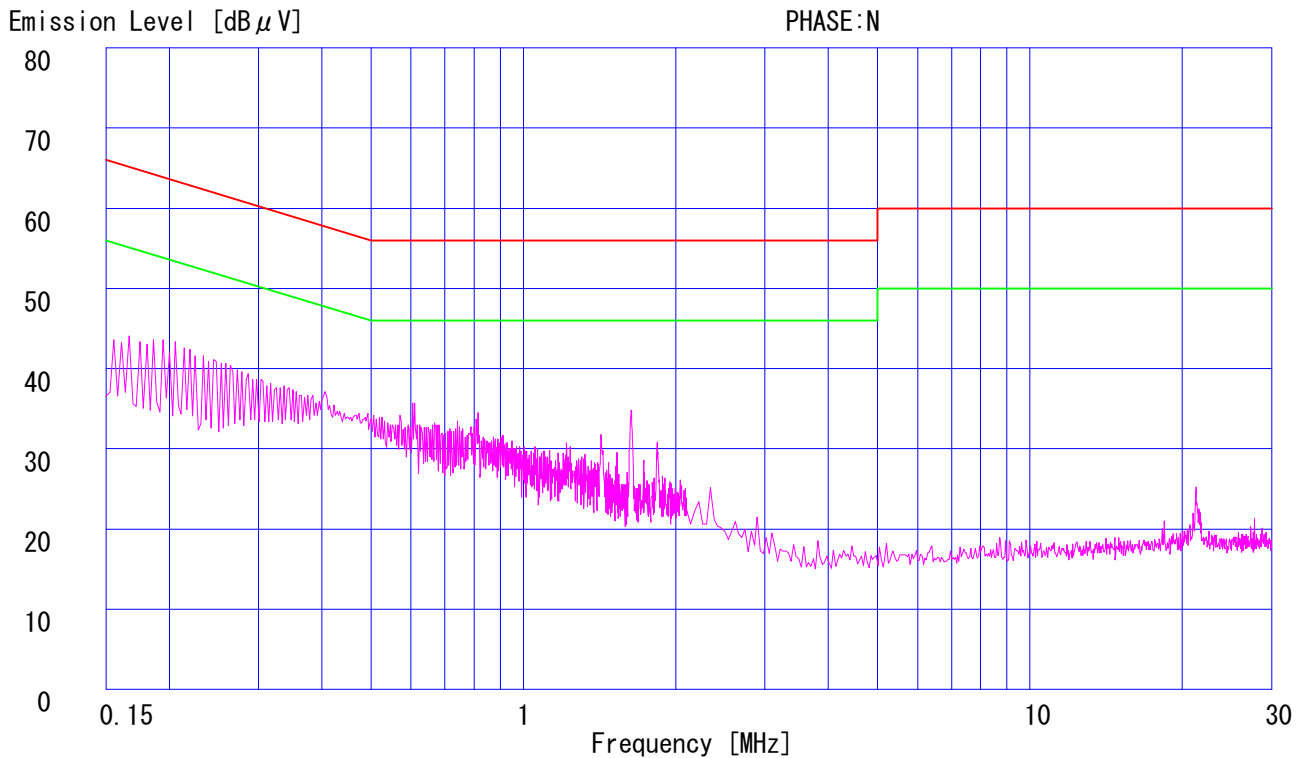
UL Japan, Inc.

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Model No. : RX PCB  
Serial No. : 0907ND004  
Power : DC12.0V (AC120V/60Hz)  
Mode : Transmitting (2402MHz 3DH5)  
Remarks :  
Date : 1/28/2010  
Phase : Single Phase  
Temperature : 20 °C  
Humidity : 42 %  
Limit 1 : FCC Part15C § 15.207. (CISPR Pub.22 )  
Limit 2 : None

Engineer : Minoru Nakatake





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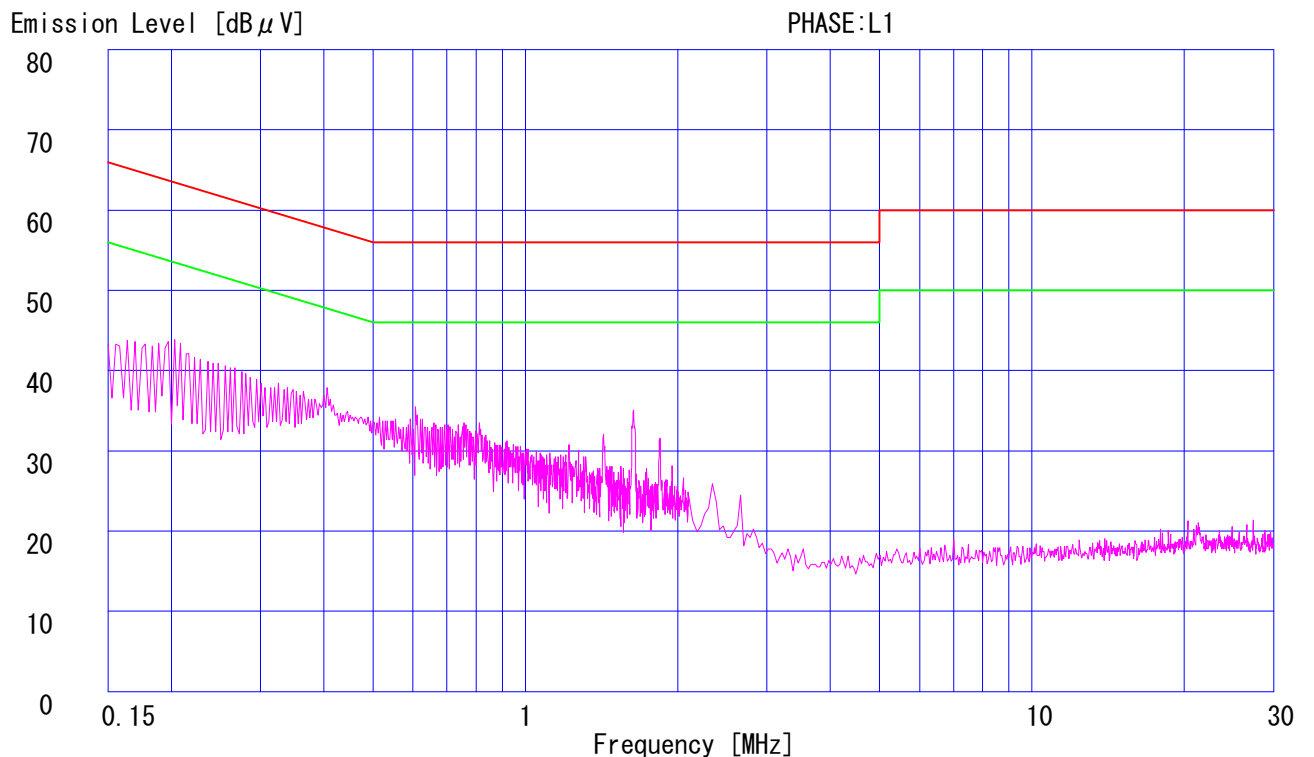
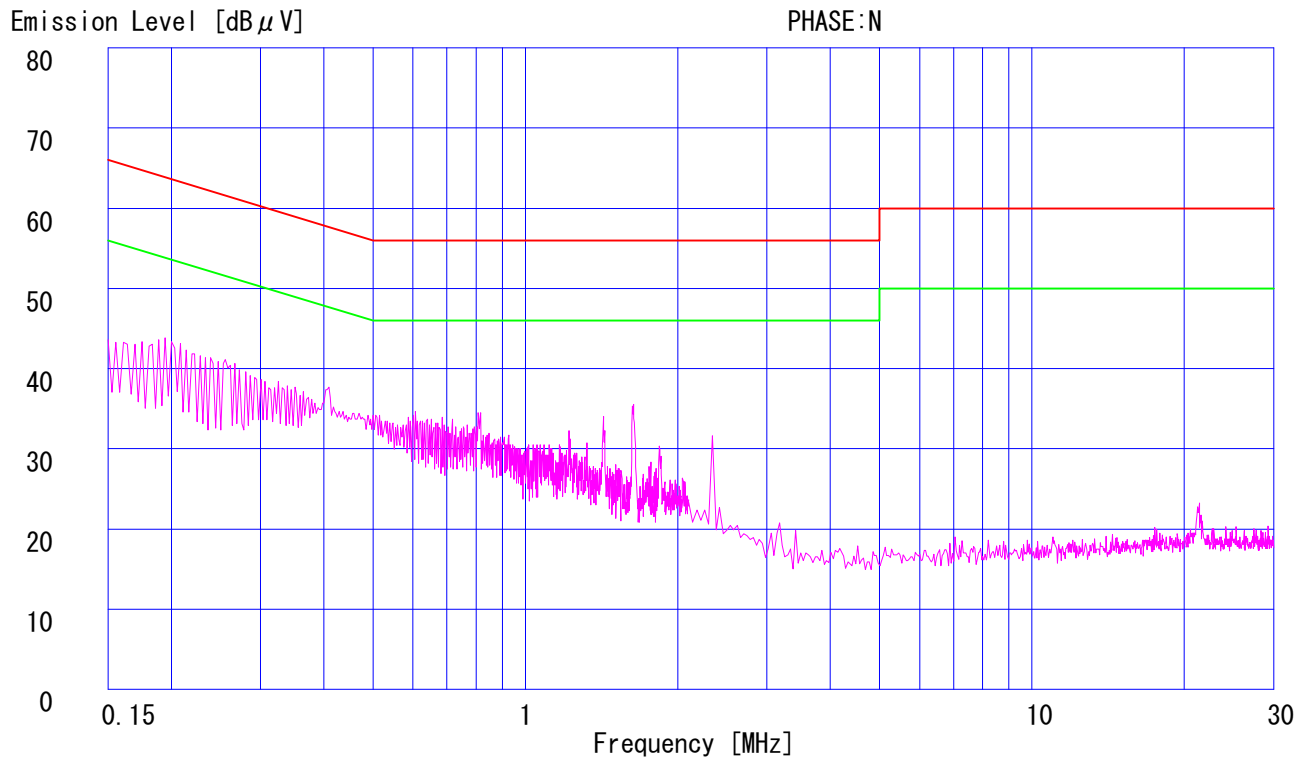
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Model No. : RX PCB  
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Power : DC12.0V (AC120V/60Hz)  
Mode : Transmitting (2441MHz 3DH5)  
Remarks :  
Date : 1/28/2010  
Phase : Single Phase  
Temperature : 20 °C  
Humidity : 42 %  
Limit 1 : FCC Part15C § 15.207. (CISPR Pub.22 )  
Limit 2 : None

Engineer : Minoru Nakatake



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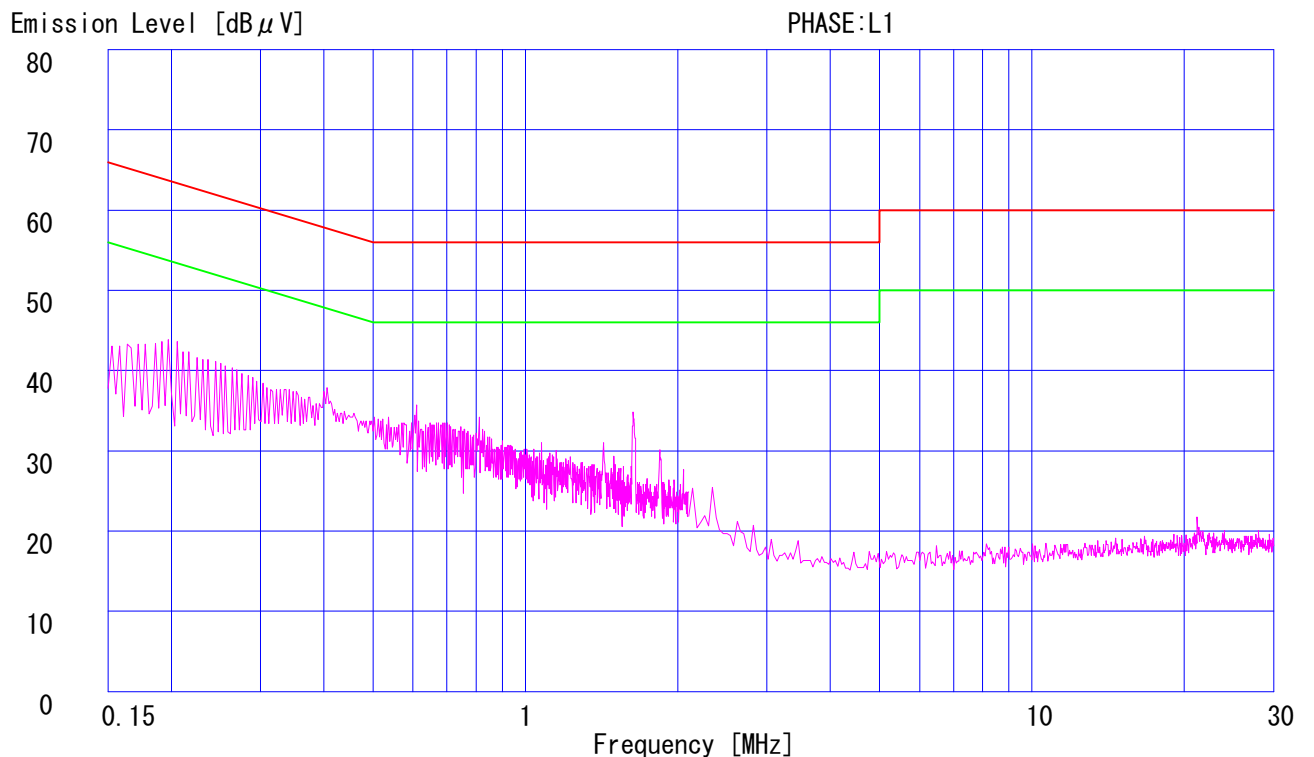
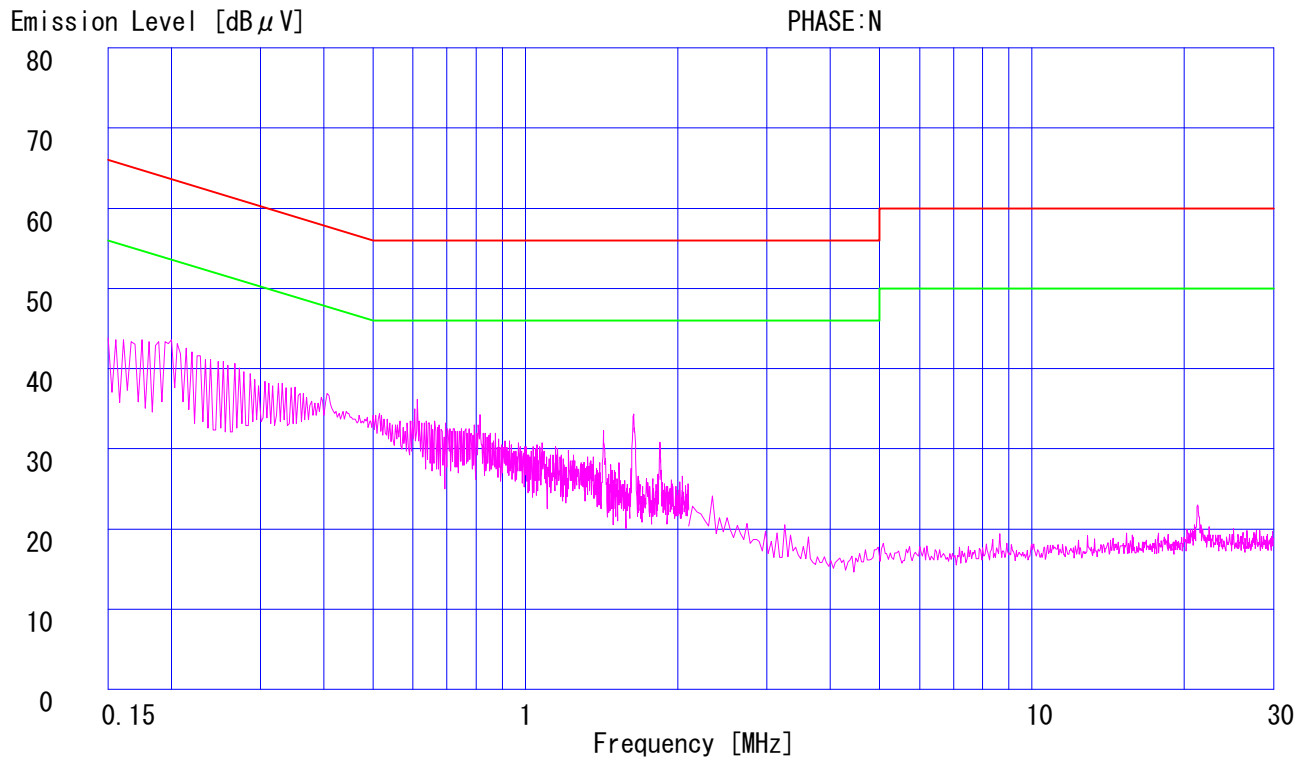
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Type of Equipment : Wireless Lens Control Receiver Module  
Model No. : RX PCB  
Serial No. : 0907ND004  
Power : DC12.0V (AC120V/60Hz)  
Mode : Transmitting (2480MHz 3DH5)  
Remarks :  
Date : 1/28/2010  
Phase : Single Phase  
Temperature : 20 °C  
Humidity : 42 %  
Limit 1 : FCC Part15C § 15.207. (CISPR Pub.22 )  
Limit 2 : None

Engineer : Minoru Nakatake

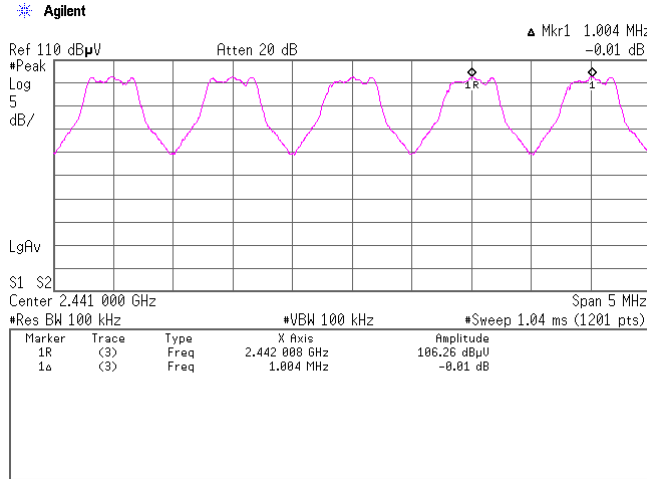


**Channel Separation (Regulation: FCC 15.247(a)(1))**

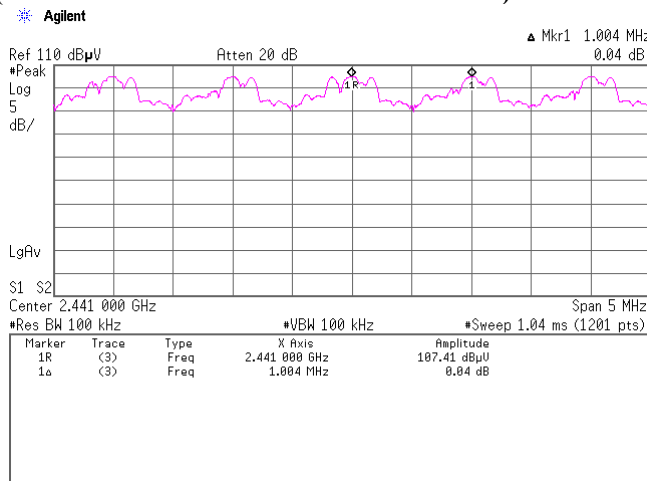
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
 Date: 2010/02/01  
 Temp./Humid.: 21 deg. C. / 31 %  
 Engineer: Minoru Nakatake  
 Test mode: Transmitting

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

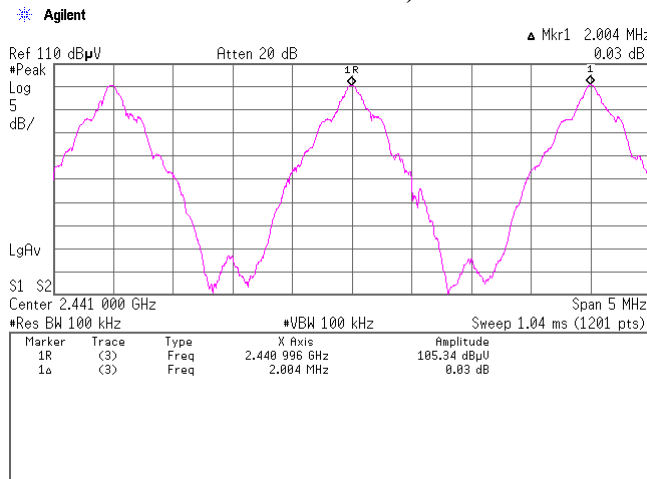
**1. Hopping, DH5: 1.004MHz ( $2/3 * 20\text{dB Bandwidth}: 2/3 * 945.0\text{kHz} = 630.0\text{kHz}$ )**



**2. Hopping, 3DH5: 1.004MHz ( $2/3 * 20\text{dB Bandwidth}: 2/3 * 1.275\text{MHz} = 850.0\text{kHz}$ )**



**3. Inquiry: 2.004MHz ( $2/3 * 20\text{dB Bandwidth}: 2/3 * 817.5\text{kHz} = 545.0\text{kHz}$ )**

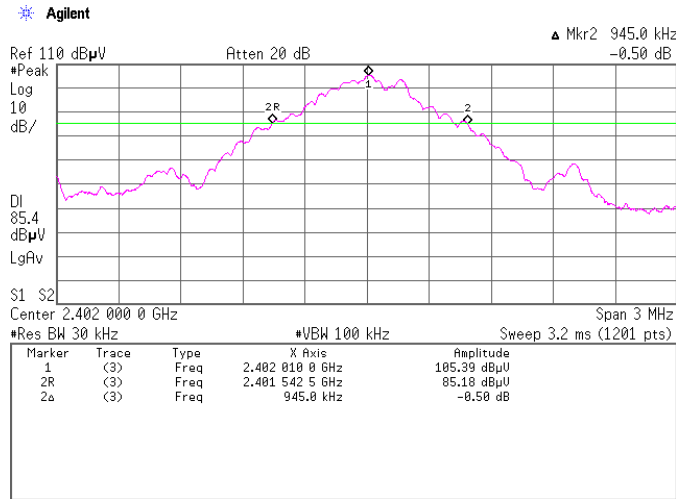


**20dB Bandwidth (Regulation: FCC 15.247(a)(1))**

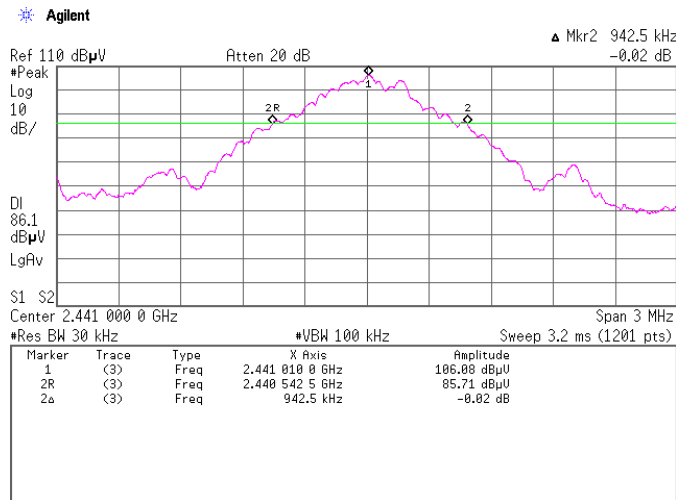
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
 Date: 2010/02/01  
 Temp./Humid.: 21 deg. C. / 31 %  
 Engineer: Minoru Nakatake  
 Test mode: Transmitting

[Hopping off, DHS]

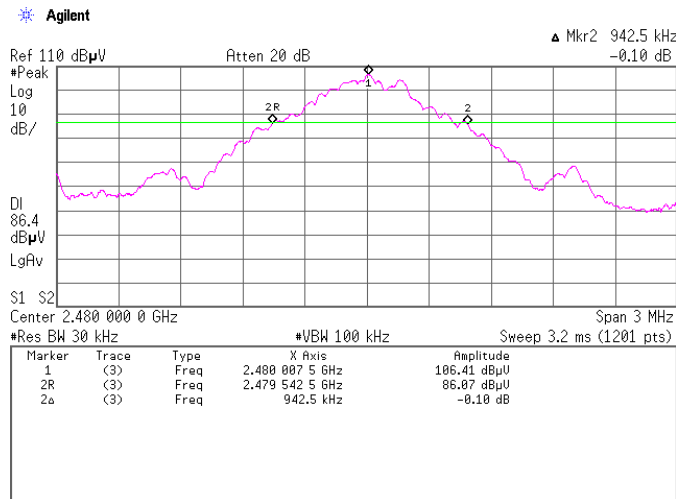
1. ch : 2402MHz/20dB Bandwidth:945.0kHz



2. ch : 2441MHz/20dB Bandwidth:942.5kHz

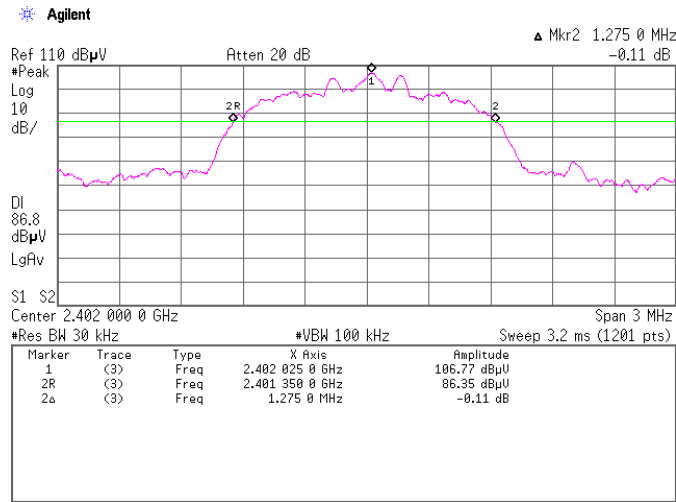


3. ch : 2480MHz/20dB Bandwidth:942.5kHz

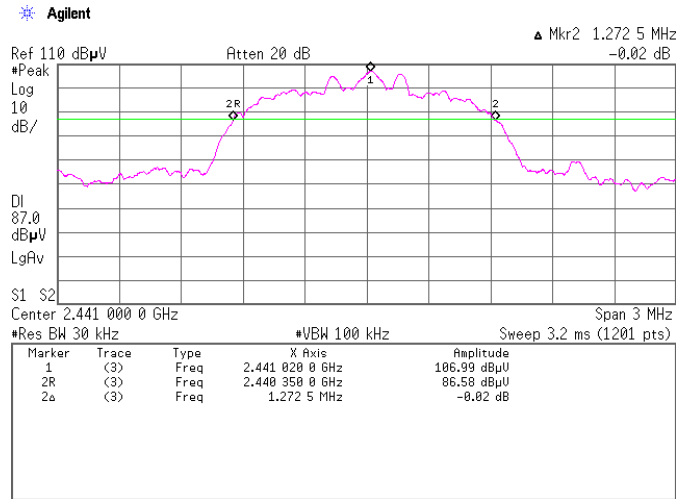


[Hopping off, 3DH5]

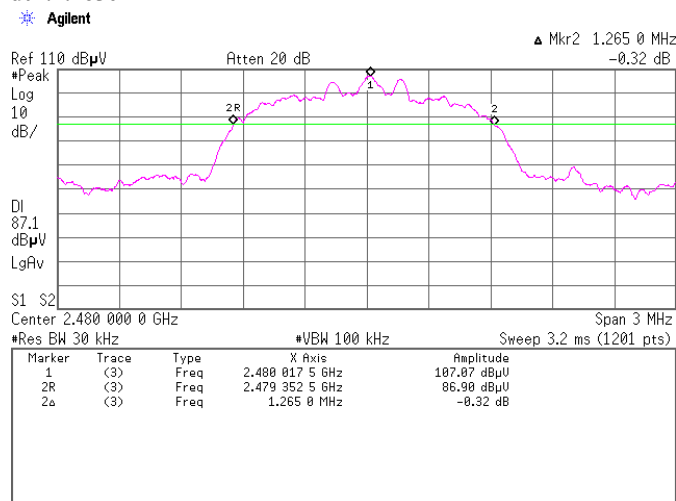
4. ch : 2402MHz/20dB Bandwidth:1.2750MHz



5. ch : 2441MHz/20dB Bandwidth:1.2725MHz

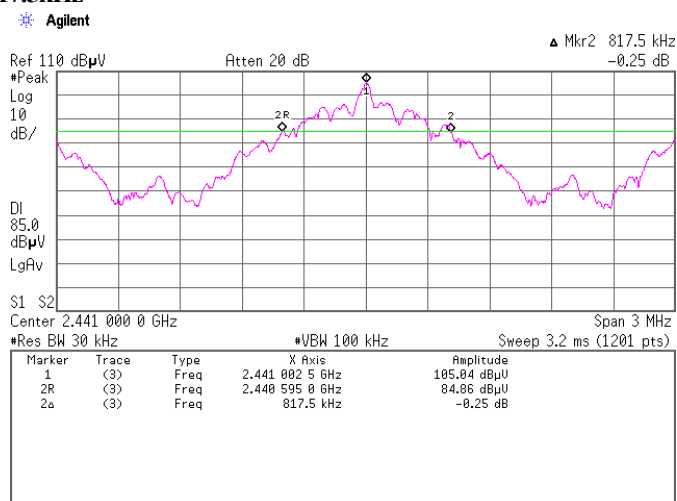


6. ch : 2480MHz/20dB Bandwidth:1.2650MHz



[Inquiry]

7. Inquiry/20dB Bandwidth:817.5kHz

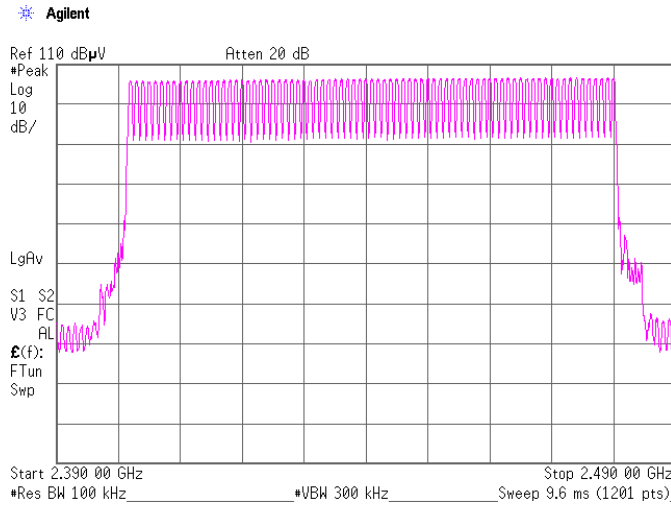


### Channel Utilization (Regulation: FCC 15.247(a)(1)(iii))

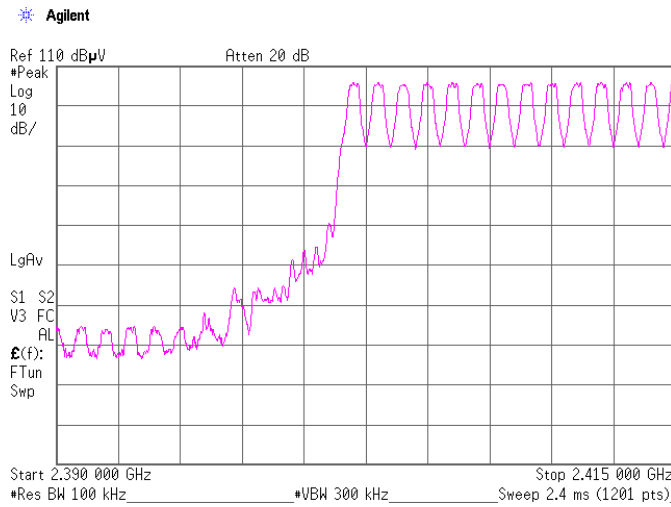
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
Date: 2010/02/01  
Temp./Humid.: 21 deg. C. / 31 %  
Engineer: Minoru Nakatake  
Test mode: Transmitting

#### Hopping, DH5: 79ch

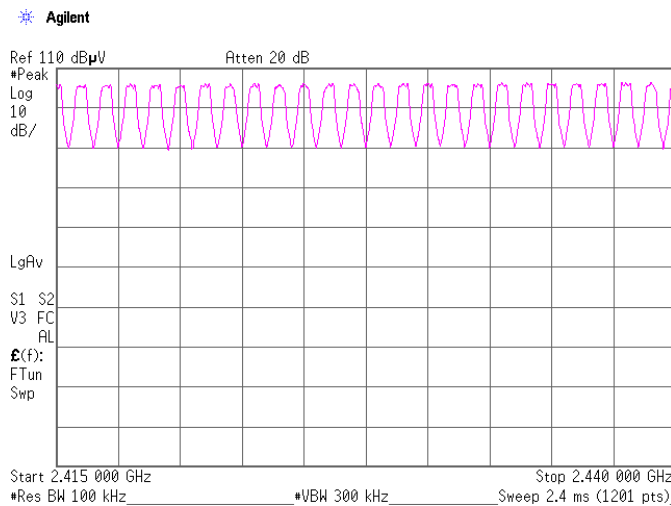
1.



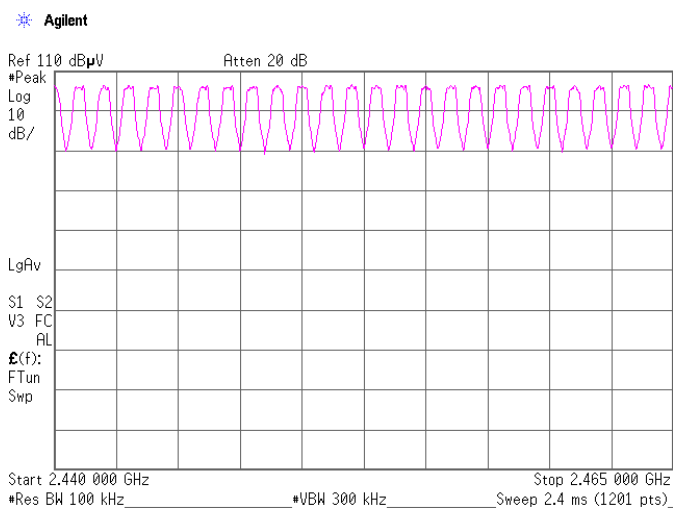
2.



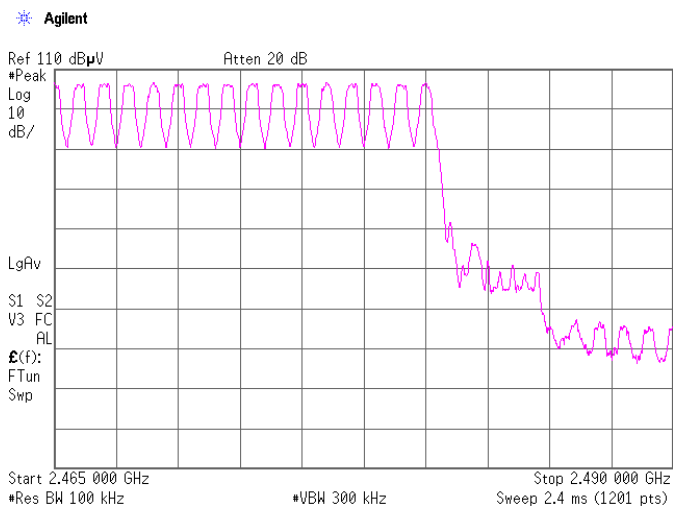
3.



4.



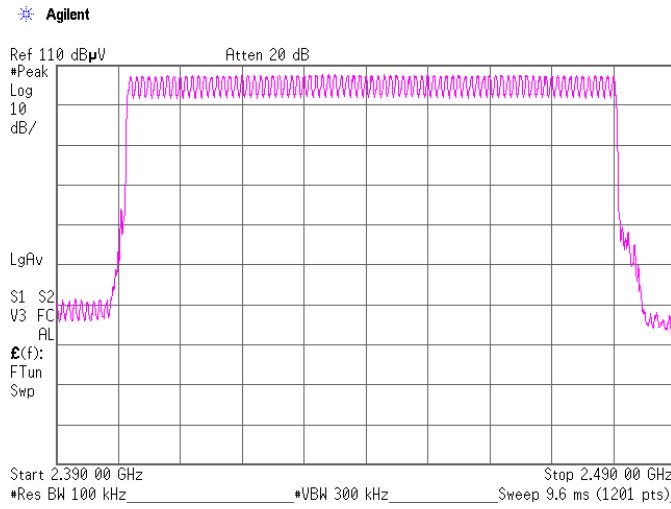
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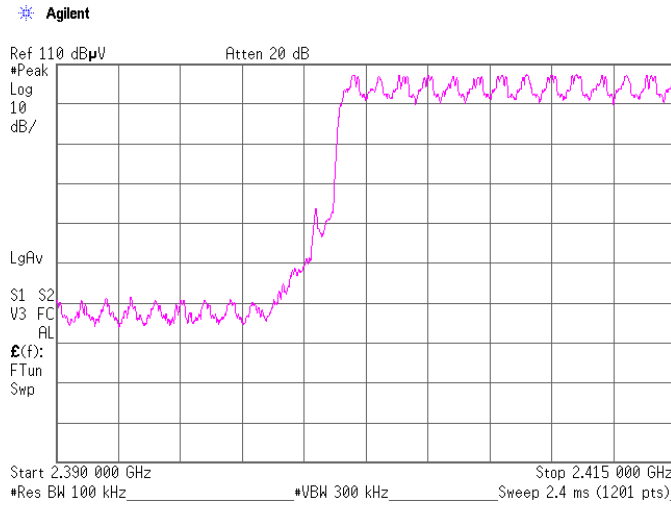


**Hopping, 3DH5: 79ch**

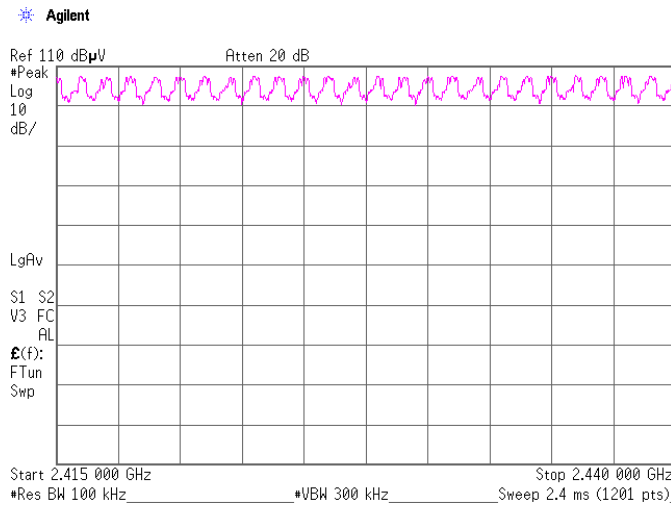
1.



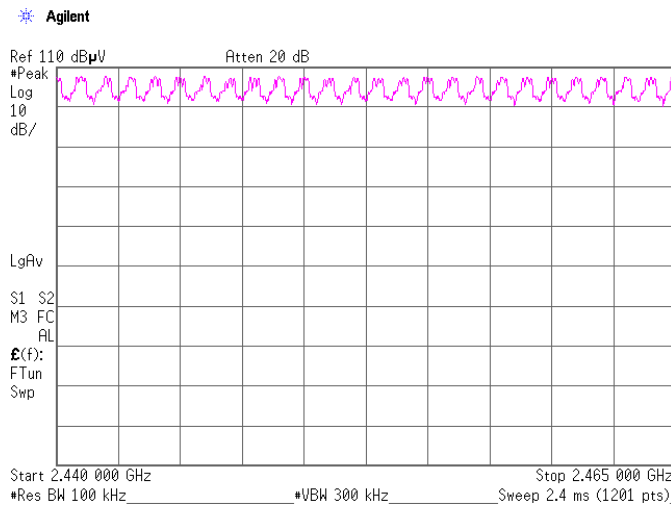
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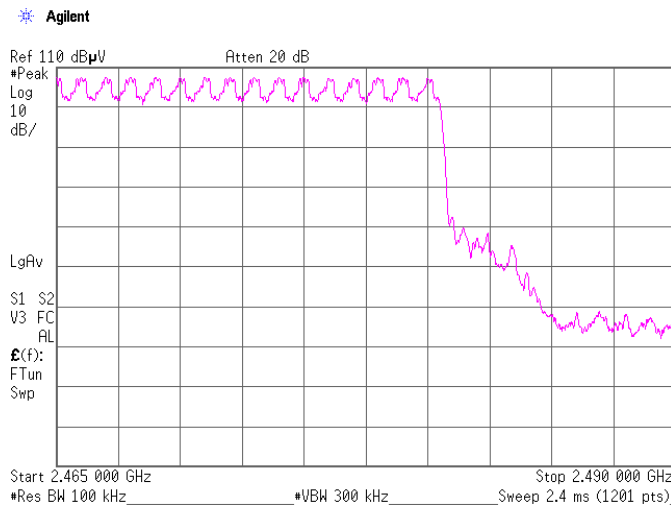
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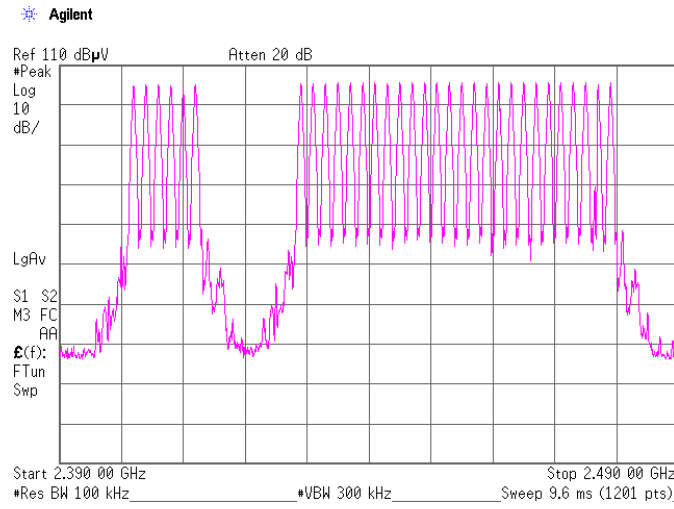
4.



5.



1. Inquiry: 32ch

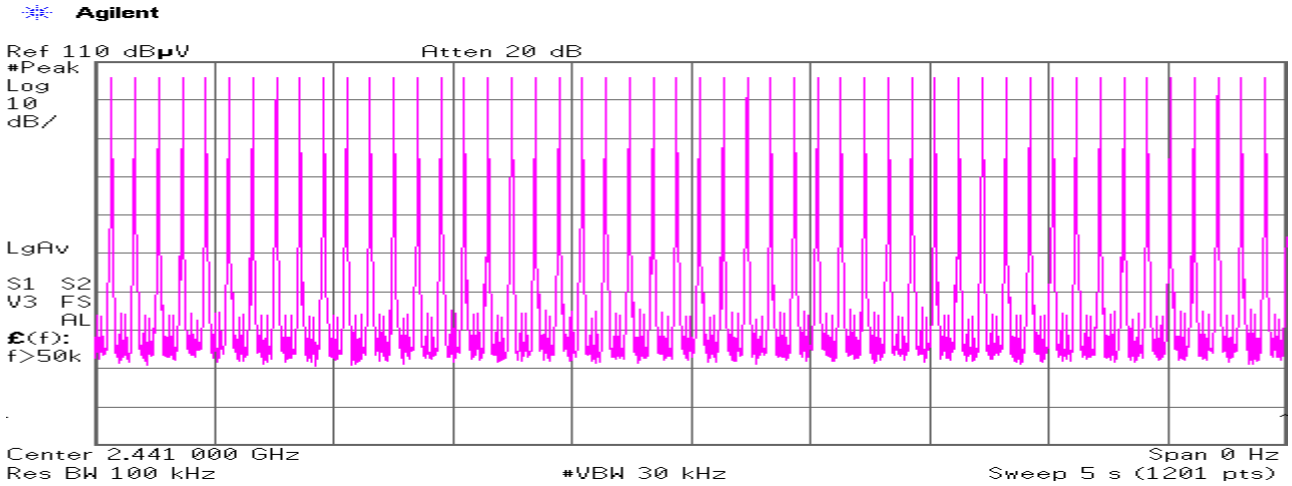


**Dwell Time (Regulation: FCC 15.247(a)(1)(iii))**

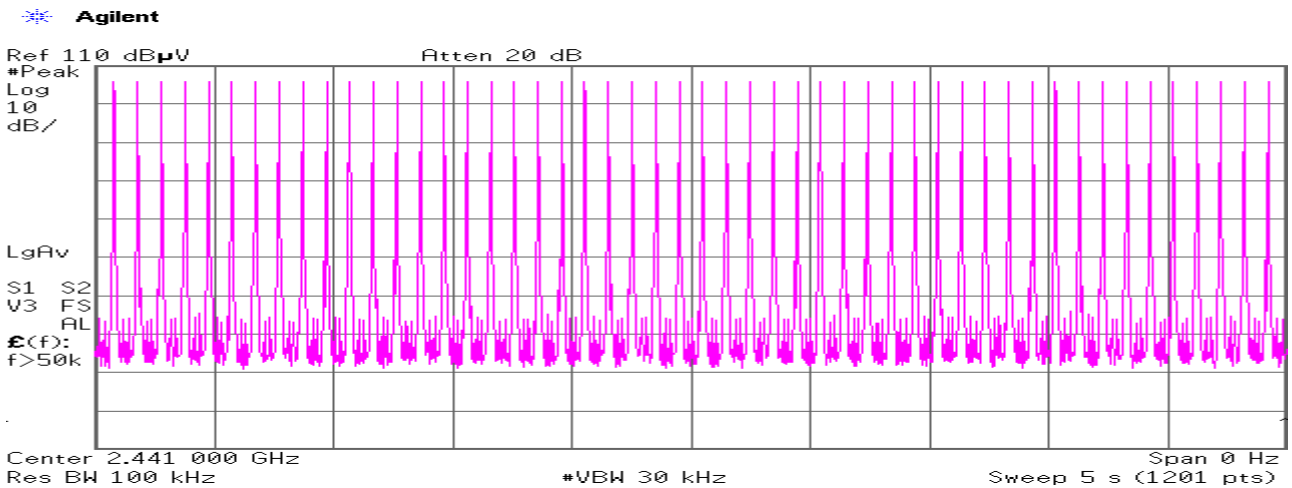
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
 Date: 2010/02/03  
 Temp./Humid.: 21 deg. C. / 28 %  
 Engineer: Minoru Nakatake  
 Test mode: Transmitting

**Hopping (DH1):**

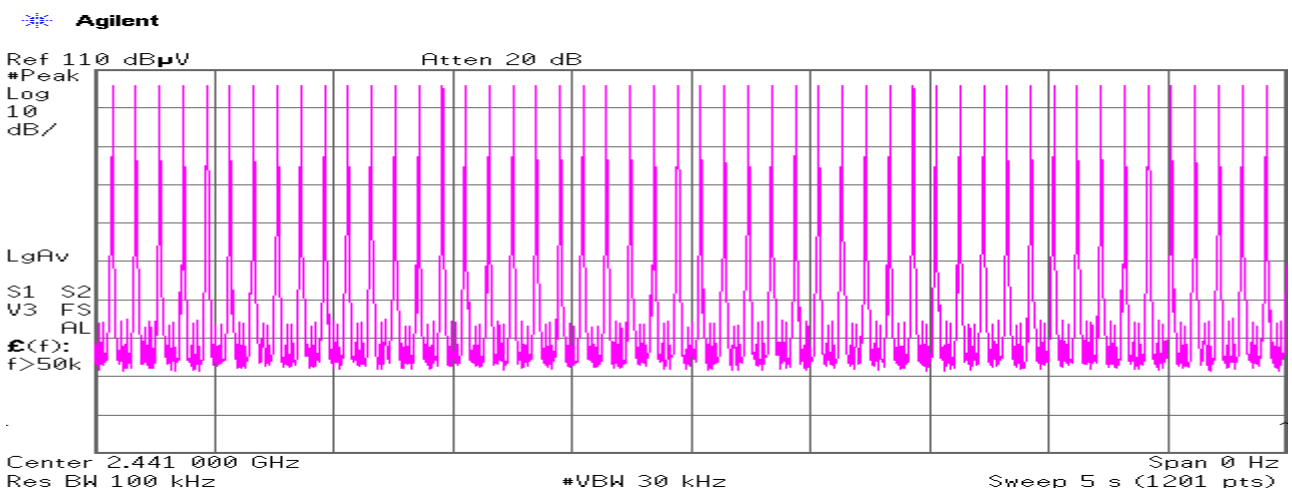
**Count 1**



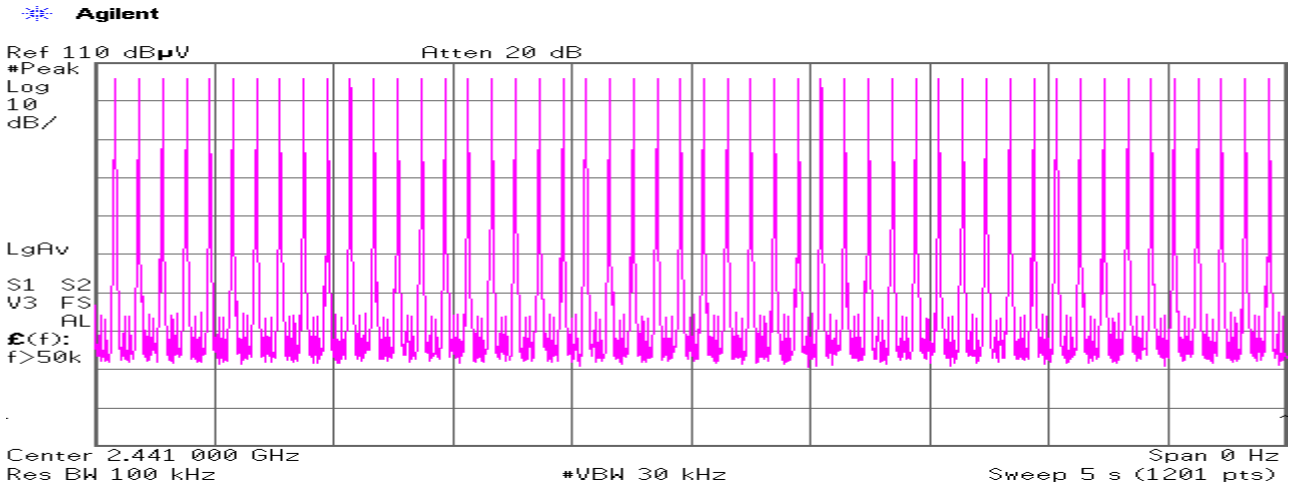
**Count 2**



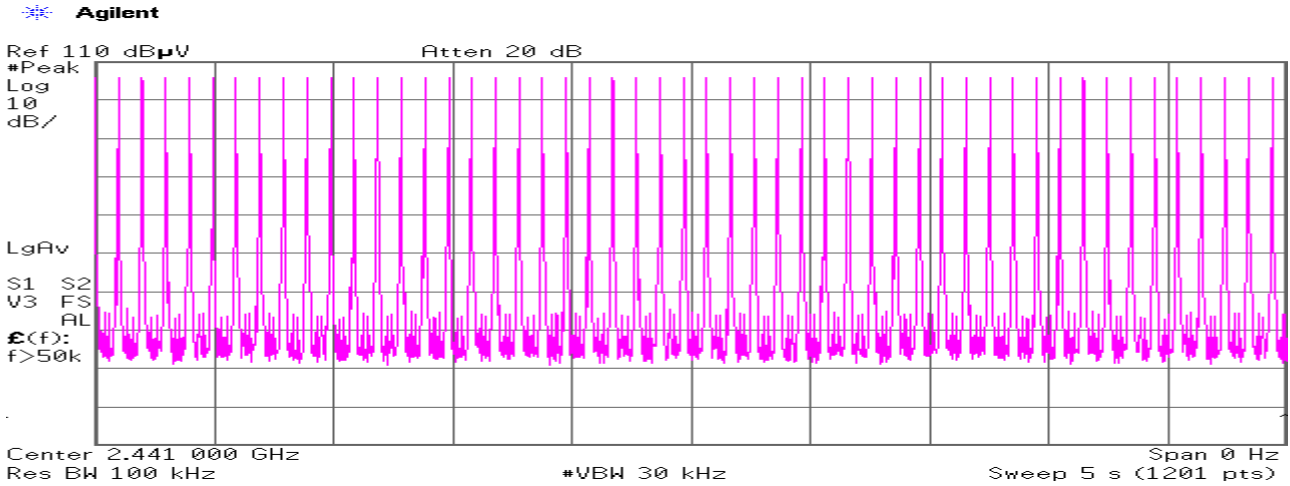
**Count 3**



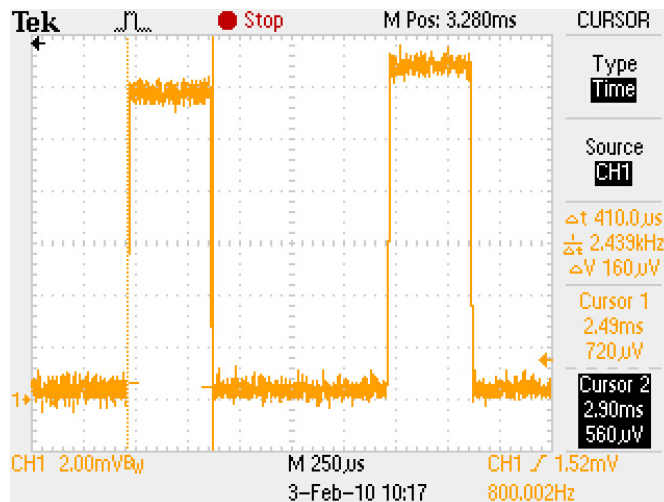
**Count 4**



**Count 5**



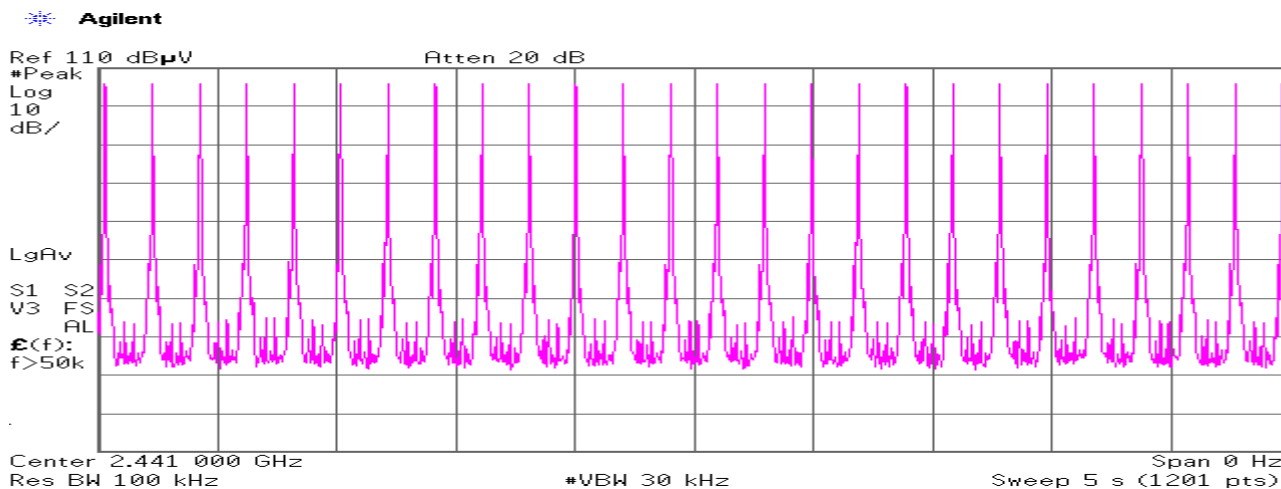
**Duty cycle(Hopping DH1)**



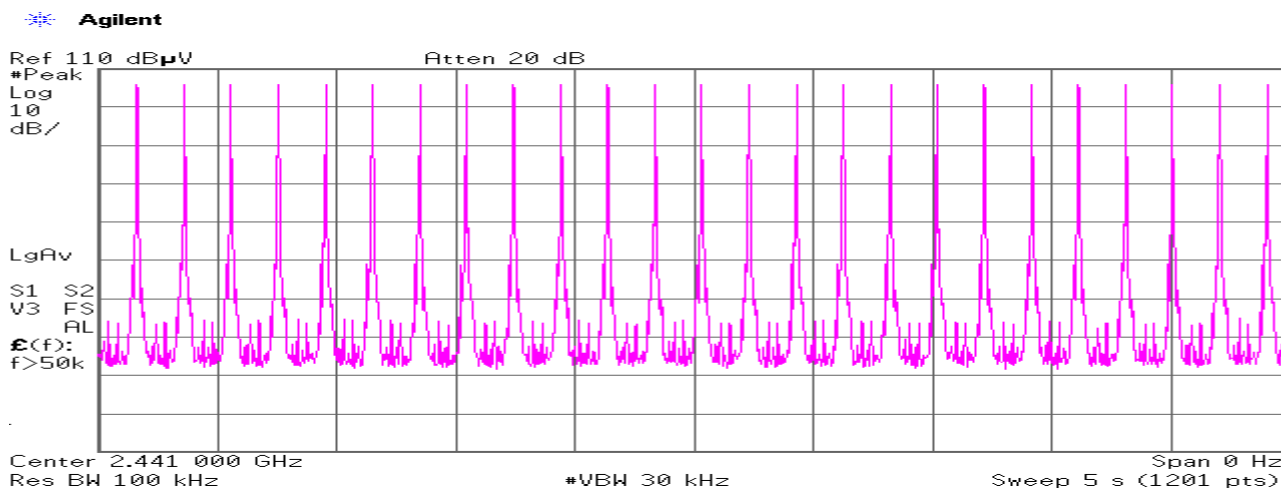
Average times of rising in 5 sec. of sweep =  $(50 + 50 + 50 + 50 + 51) / 5 = 50.2$   
 Average times of rising in 1 sec. =  $50.2 / 5s = 10.04$   
 Average times of rising in 0.4x =  $0.4 * 79ch * 10.04 = 317.264$   
 Dwell time =  $317.264 * 0.410 = 130.08$  [ms]  
 Limit : Dwell Time < 0.4[s]

**Hopping (DH3):**

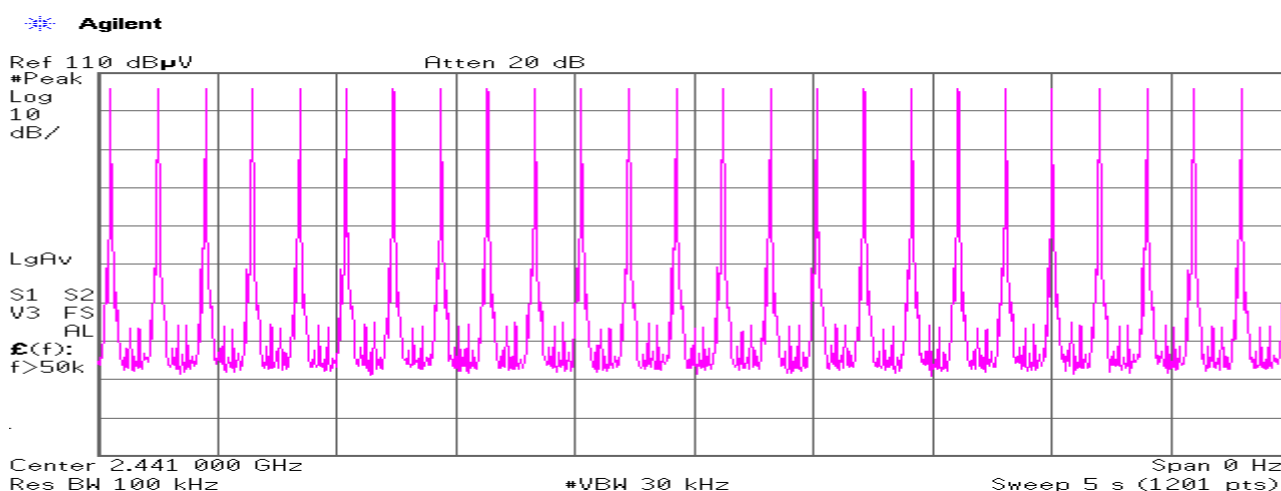
**Count 1**



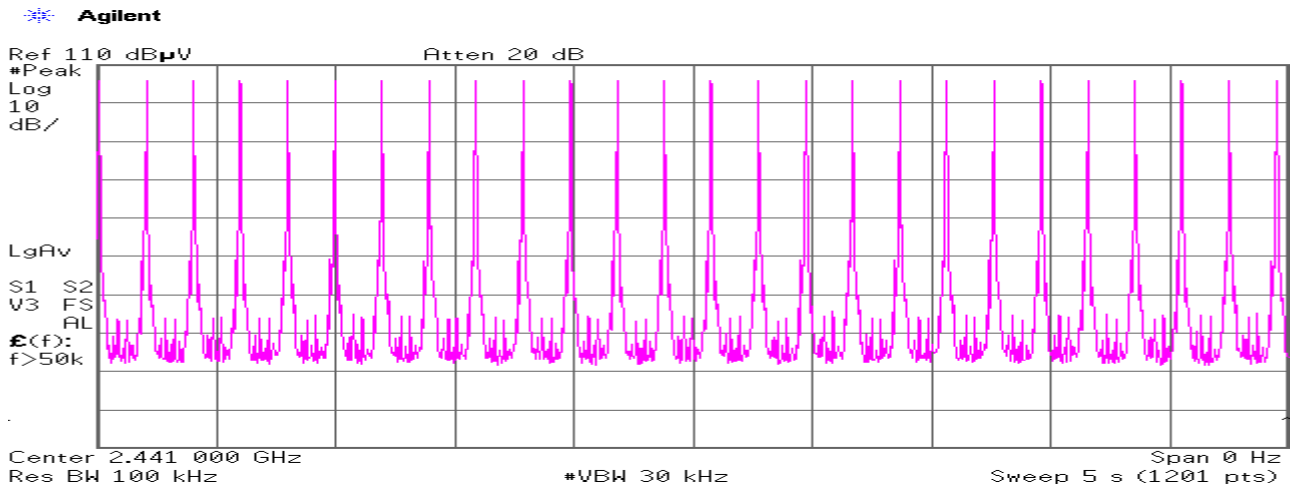
**Count 2**



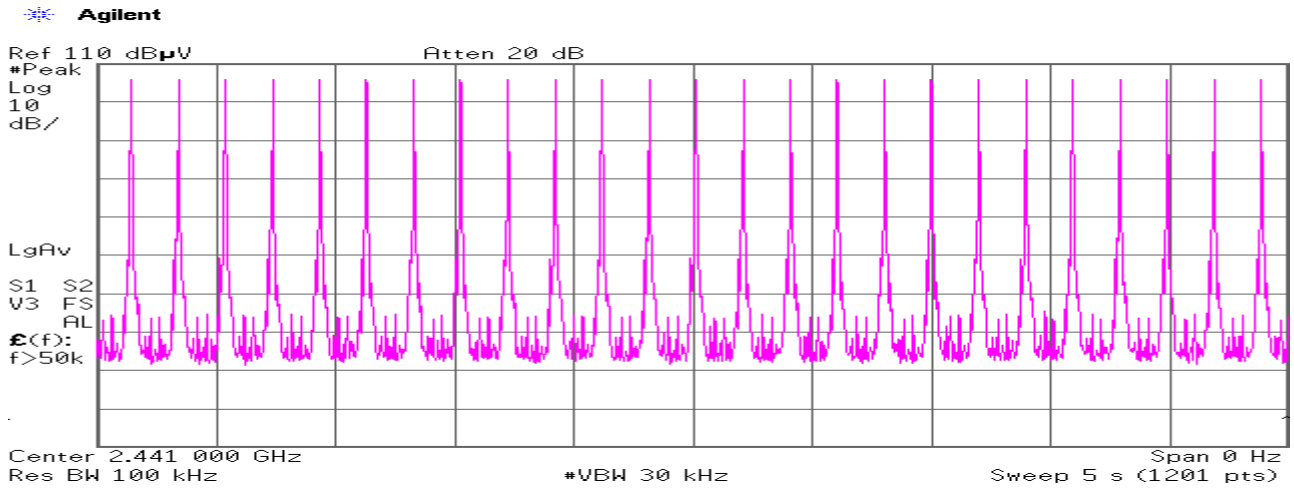
**Count 3**



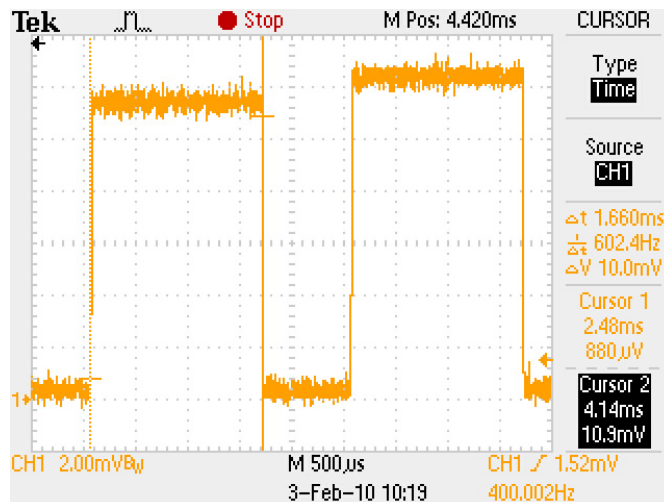
**Count 4**



**Count 5**



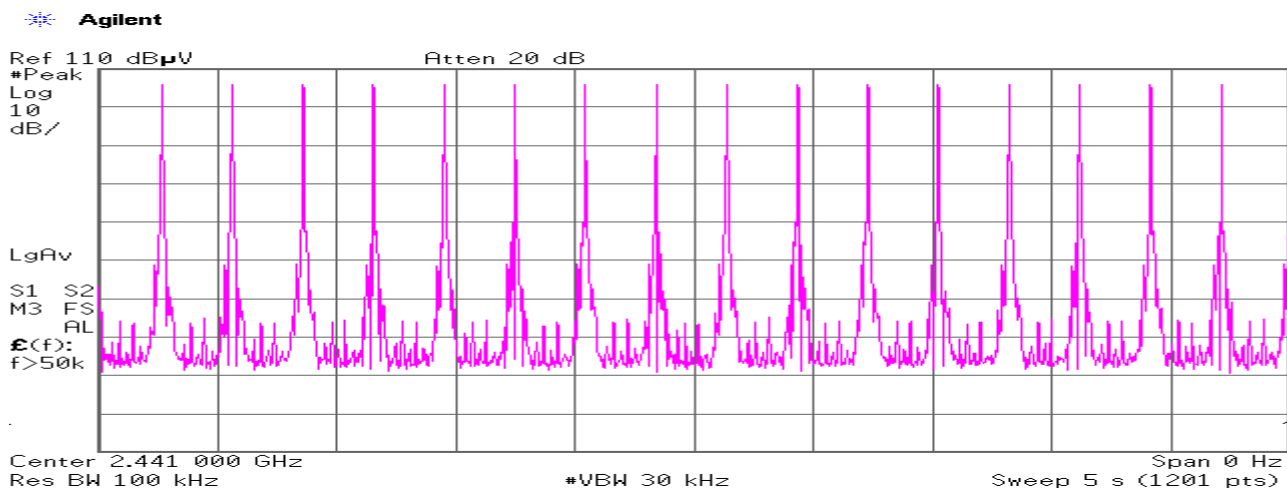
**Duty cycle(Hopping DH3)**



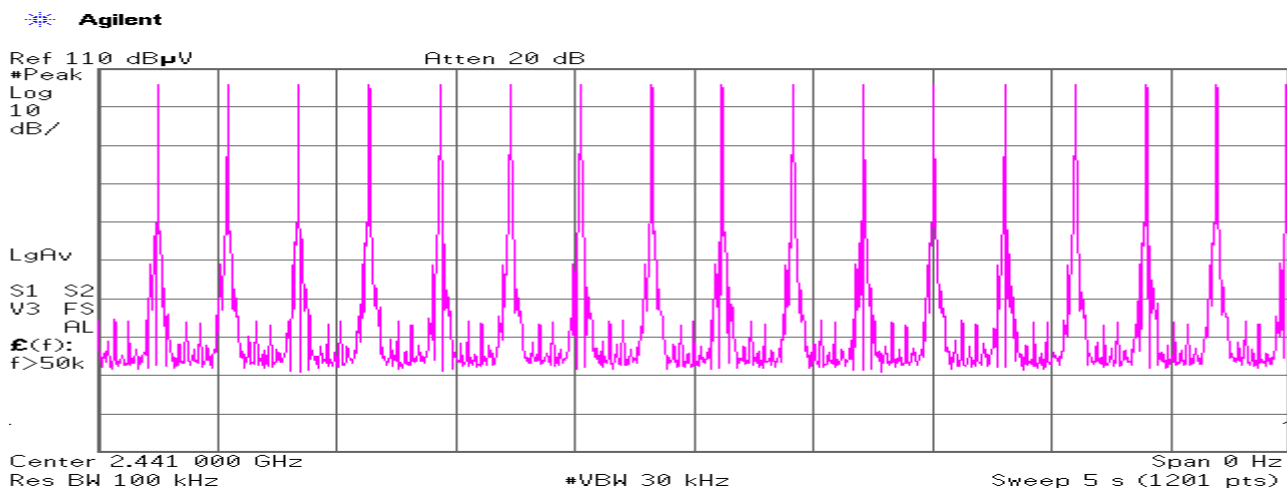
Average times of rising in 5 sec. of sweep = (26 + 25 + 26+ 26 + 25) / 5 = 25.6  
 Average times of rising in 1 sec. = 25.6 / 5s = 5.12  
 Average times of rising in 0.4x = 0.4 \* 79ch \* 5.12 = 161.792  
 Dwell time = 161.792 \* 1.66 = 268.57 [ms]  
 Limit : Dwell Time < 0.4[s]

**Hopping (DHS):**

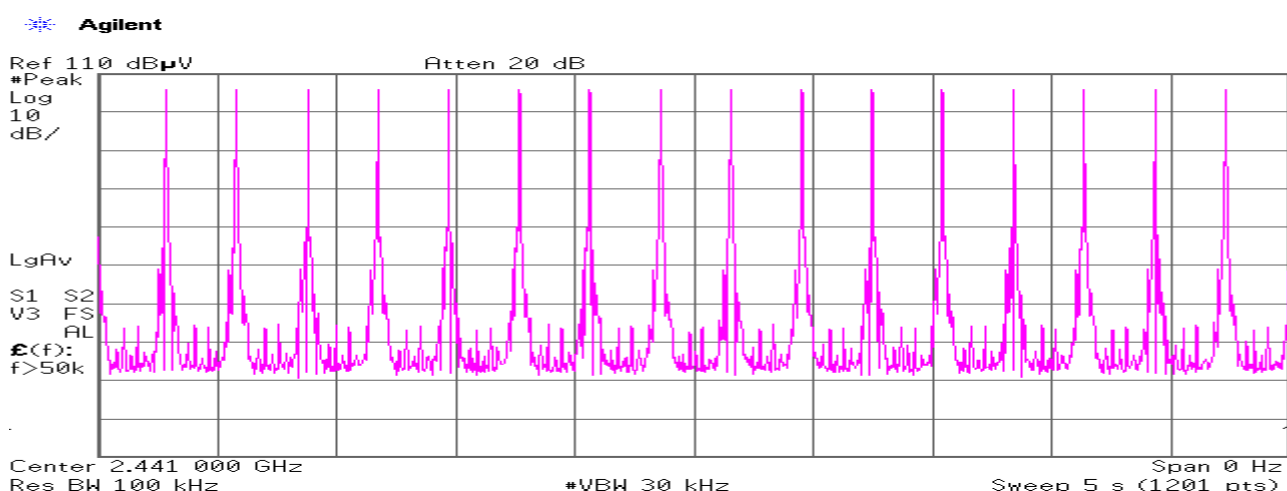
**Count 1**



**Count 2**

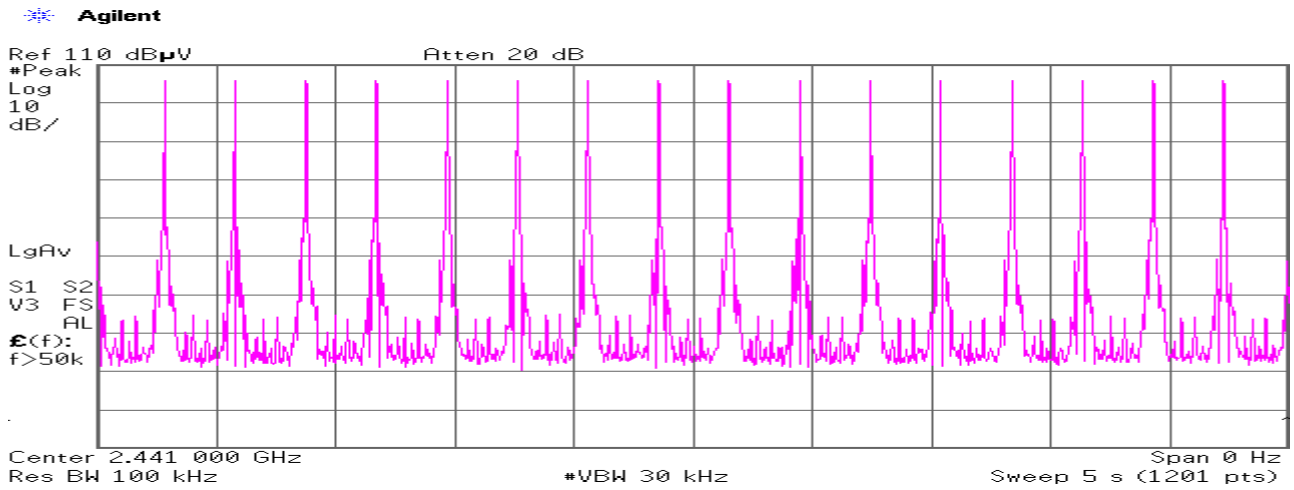


**Count 3**

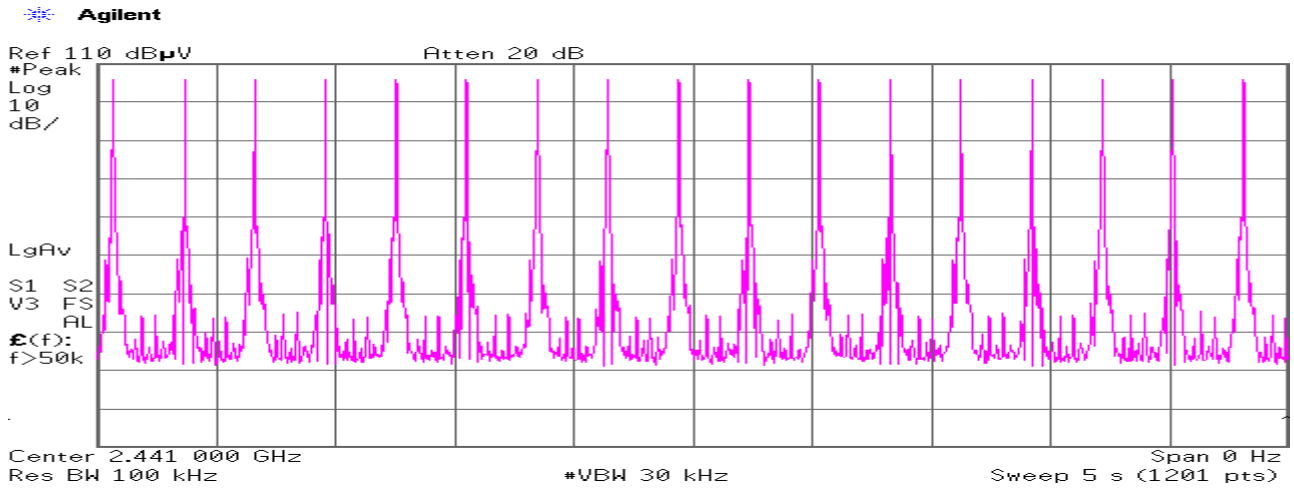




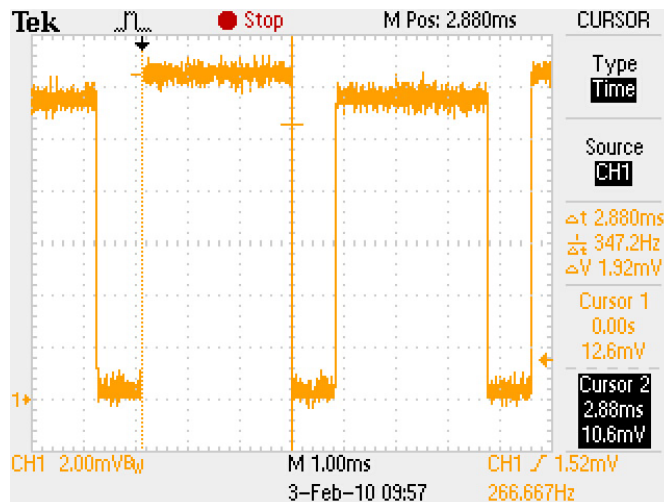
**Count 4**



**Count 5**



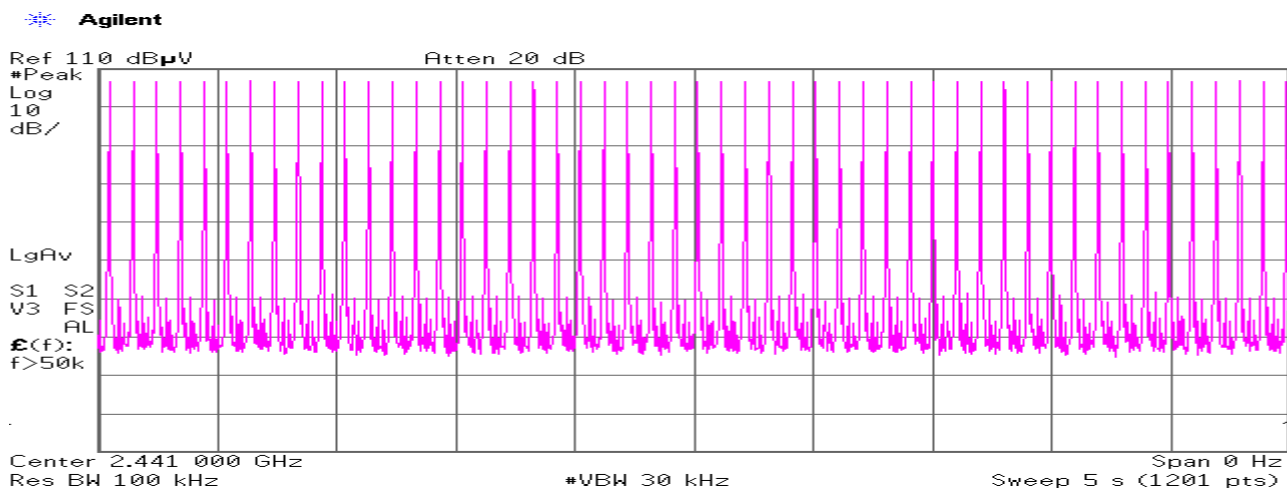
**Duty cycle(Hopping DH5)**



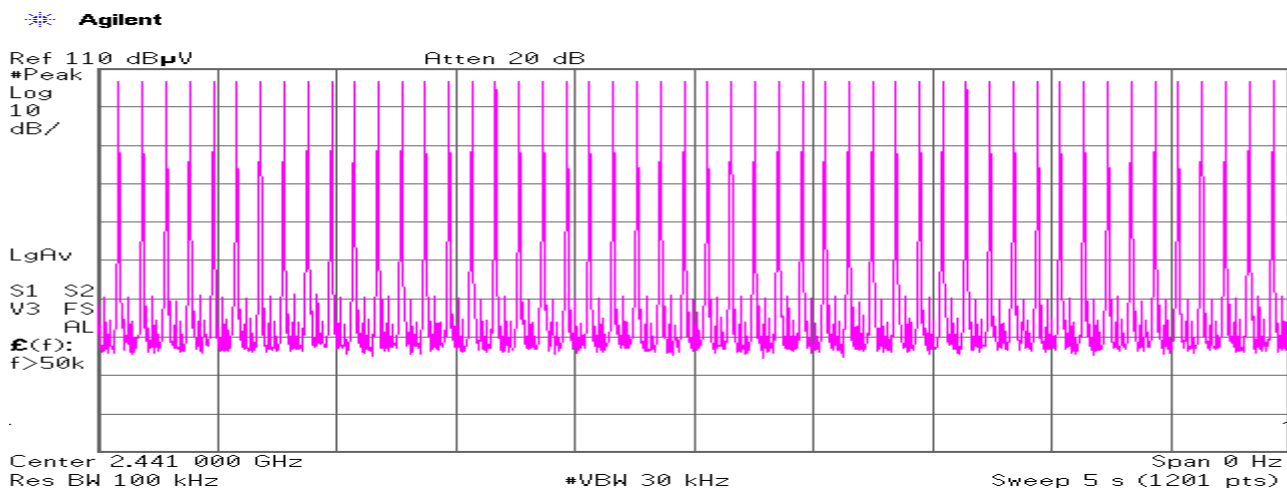
Average times of rising in 5 sec. of sweep =  $(16 + 17 + 16 + 16 + 17) / 5 = 16.4$   
 Average times of rising in 1 sec. =  $16.4 / 5s = 3.28$   
 Average times of rising in 0.4x =  $0.4 * 79ch * 3.28 = 103.648$   
 Dwell time =  $103.648 * 2.88 = 298.51 [ms]$   
 Limit : Dwell Time < 0.4[s]

**Hopping (3DH1):**

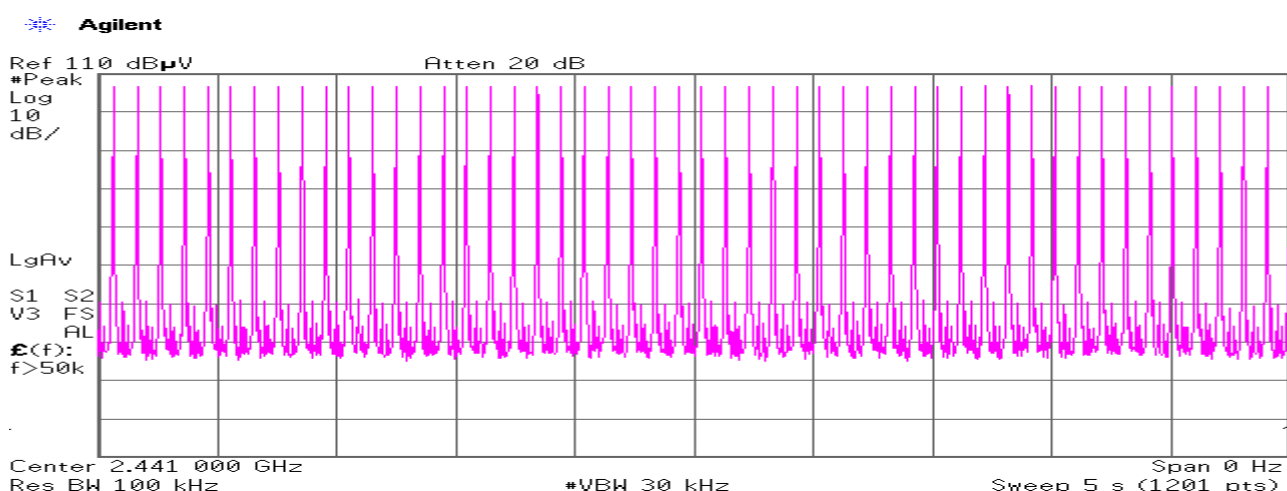
**Count 1**



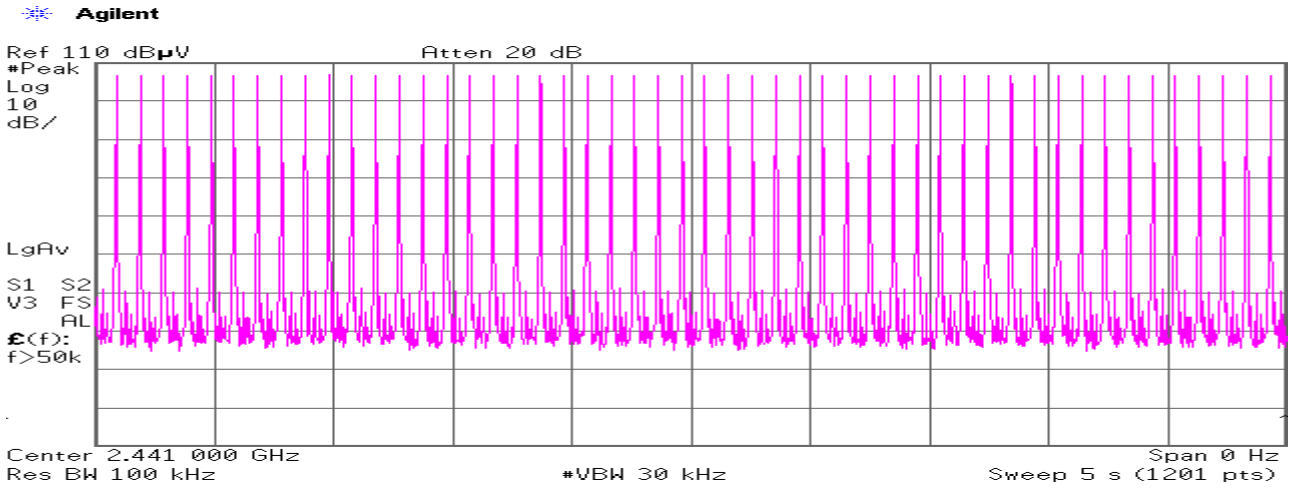
**Count 2**



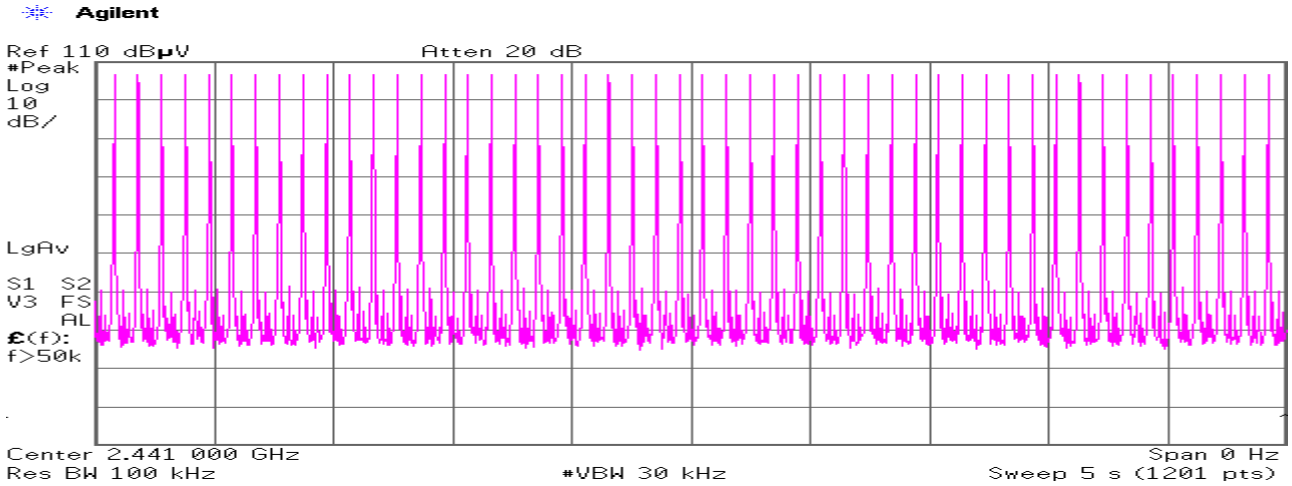
**Count 3**



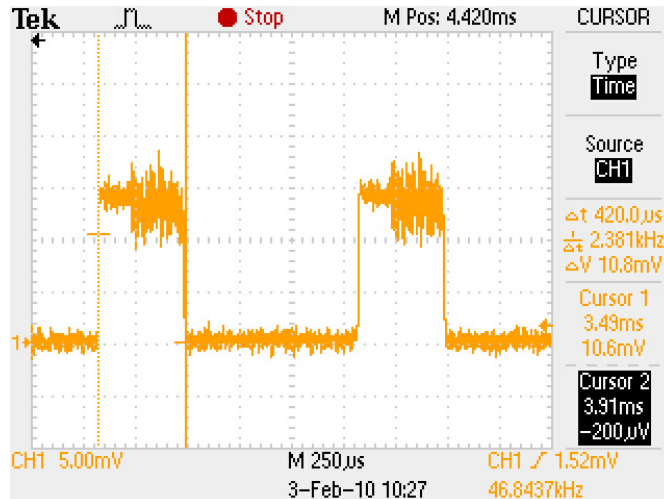
**Count 4**



**Count 5**



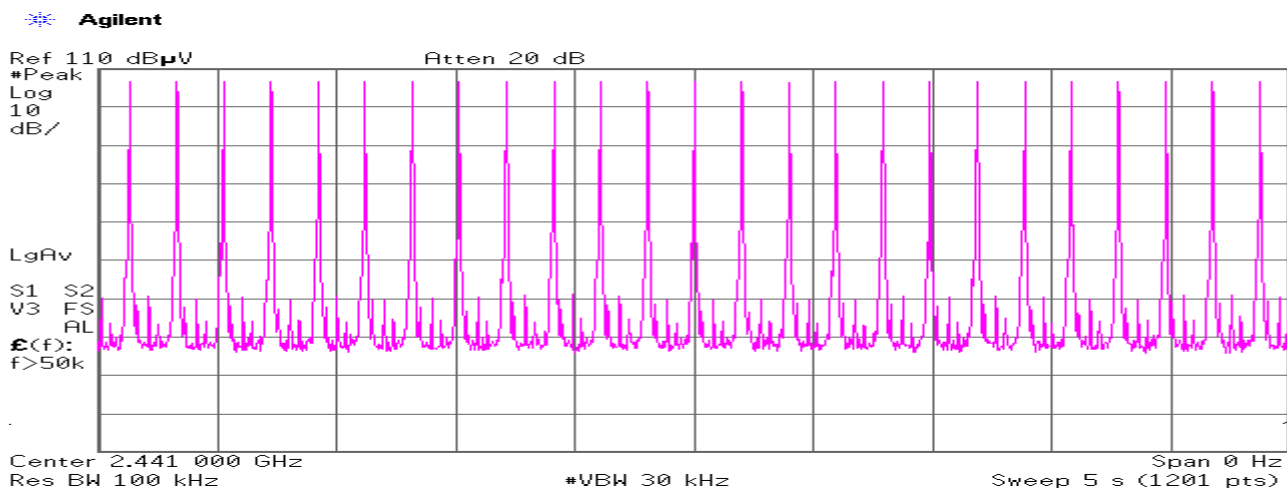
**Duty cycle(Hopping 3DH1)**



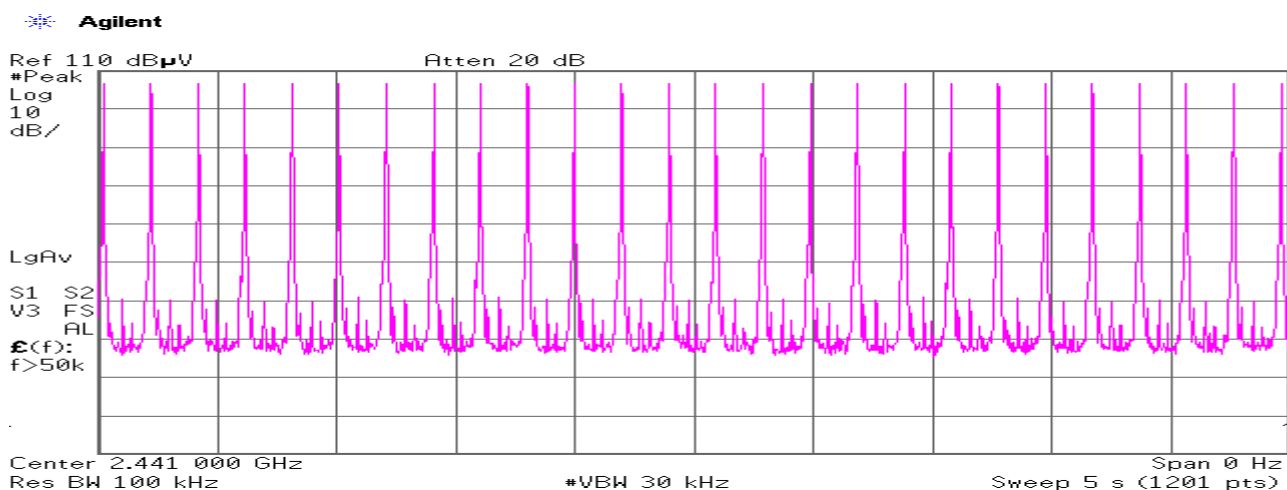
Average times of rising in 5 sec. of sweep =  $(51 + 50 + 50 + 50 + 50) / 5 = 50.2$   
 Average times of rising in 1 sec. =  $50.2 / 5s = 10.04$   
 Average times of rising in 0.4x =  $0.4 * 79ch * 10.04 = 317.264$   
 Dwell time =  $317.264 * 0.42 = 133.25 [ms]$   
 Limit : Dwell Time < 0.4[s]

**Hopping (3DH3):**

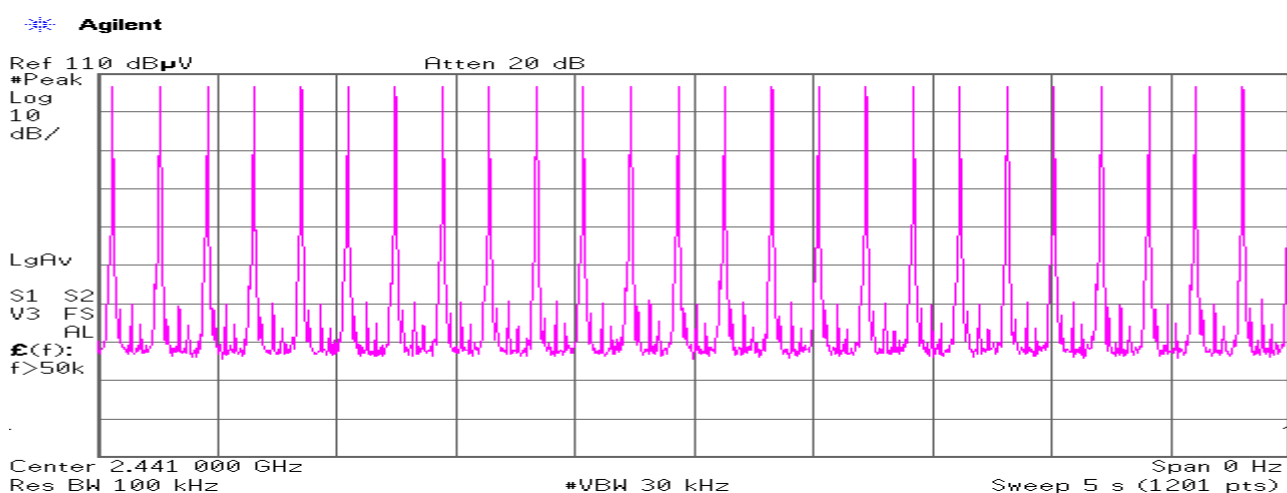
**Count 1**



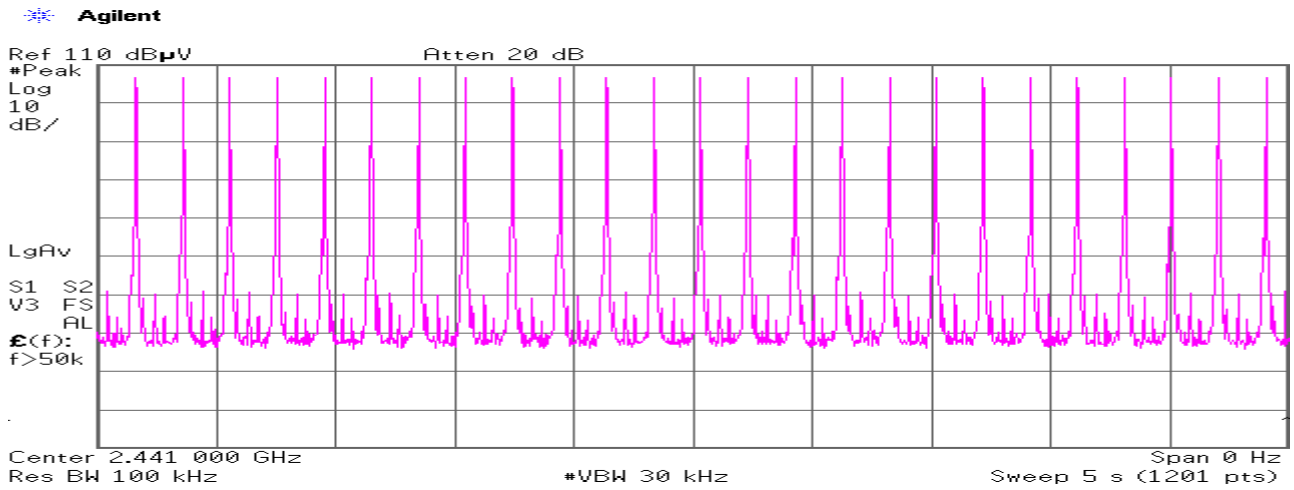
**Count 2**



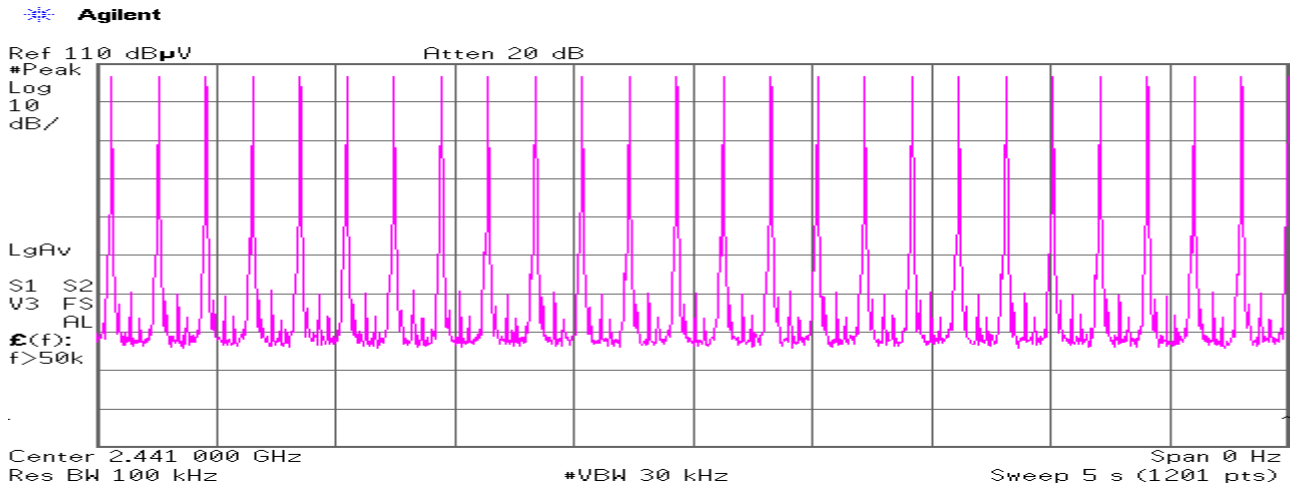
**Count 3**



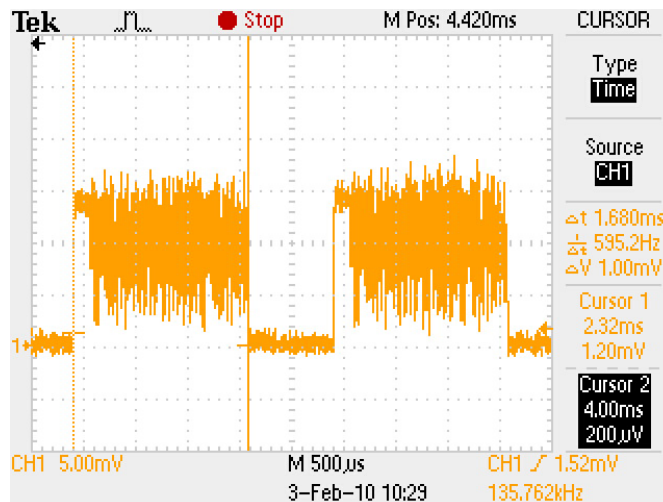
**Count 4**



**Count 5**



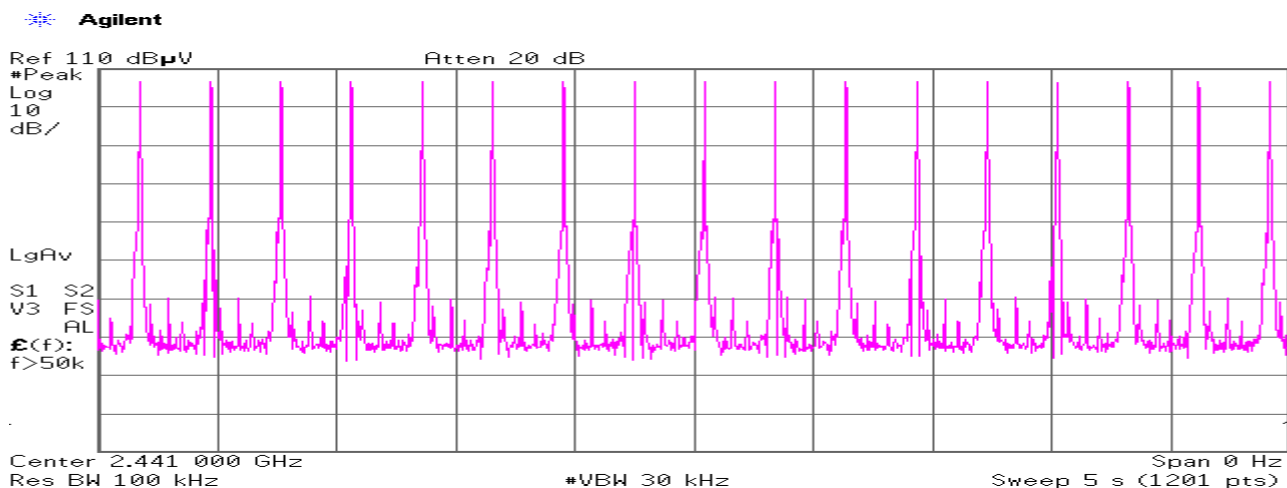
**Duty cycle(Hopping 3DH3)**



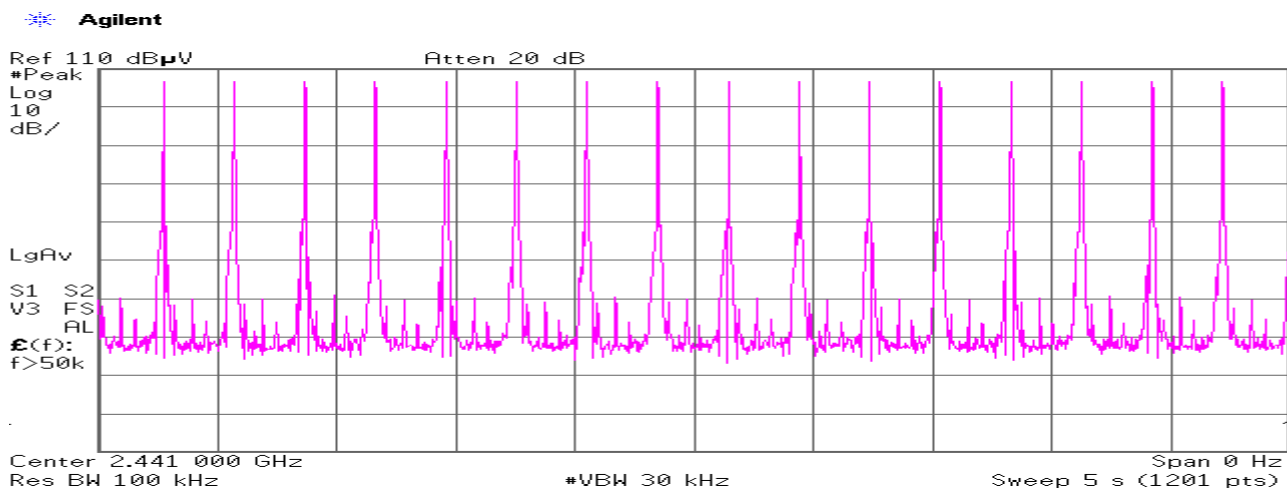
Average times of rising in 5 sec. of sweep =  $(25 + 26 + 26 + 25 + 26) / 5 = 25.6$   
 Average times of rising in 1 sec. =  $25.6 / 5s = 5.12$   
 Average times of rising in 0.4x =  $0.4 * 79ch * 5.12 = 161.792$   
 Dwell time =  $161.792 * 1.68 = 271.81 [ms]$   
 Limit : Dwell Time < 0.4[s]

**Hopping (3DH5):**

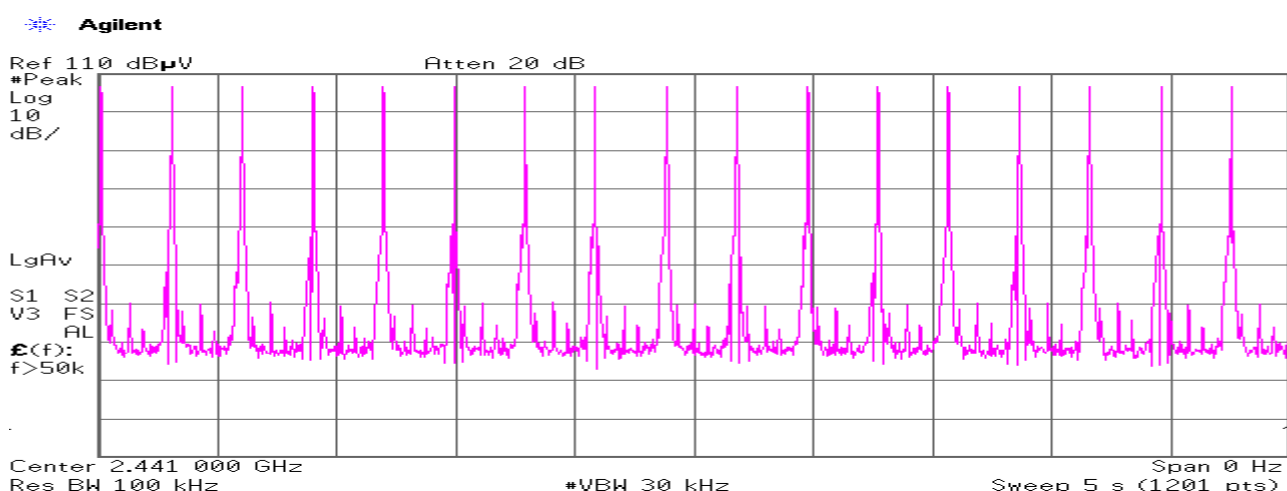
**Count 1**



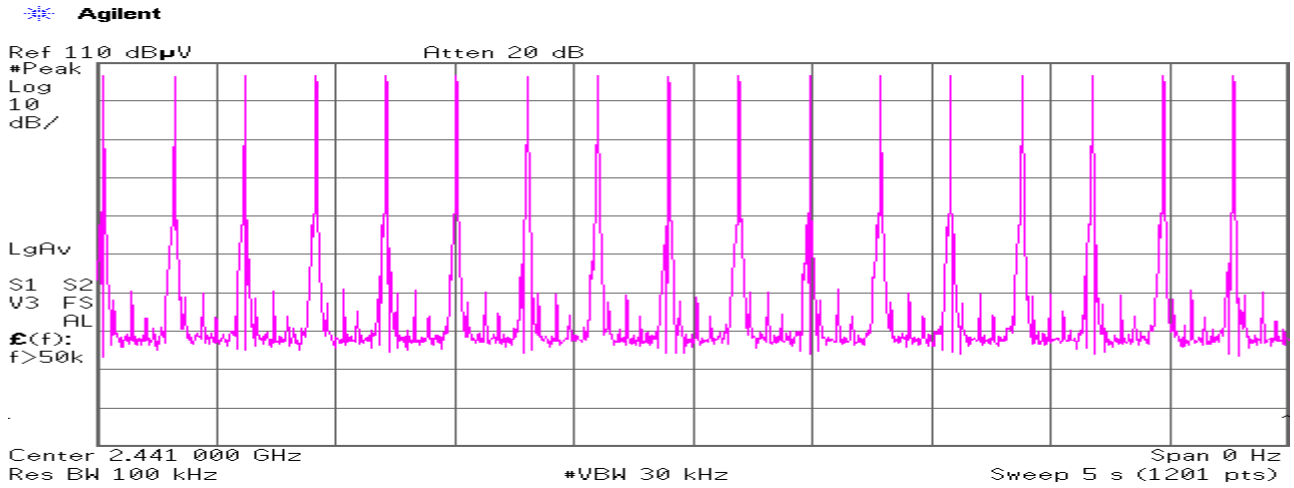
**Count 2**



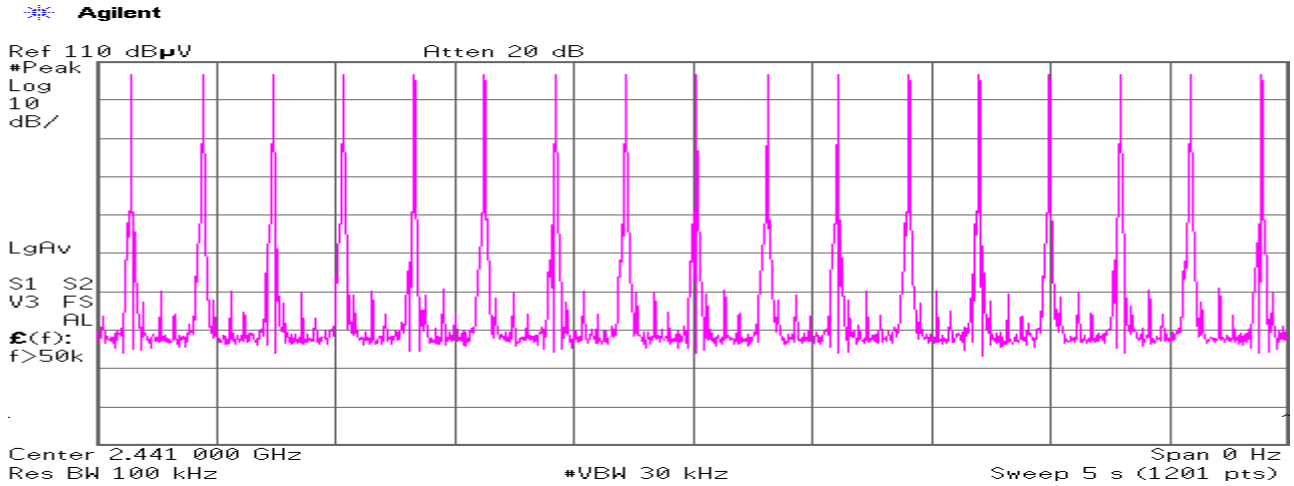
**Count 3**



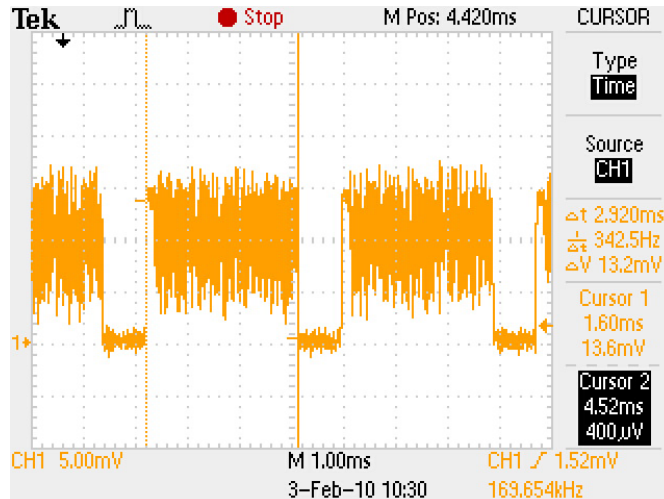
**Count 4**



**Count 5**

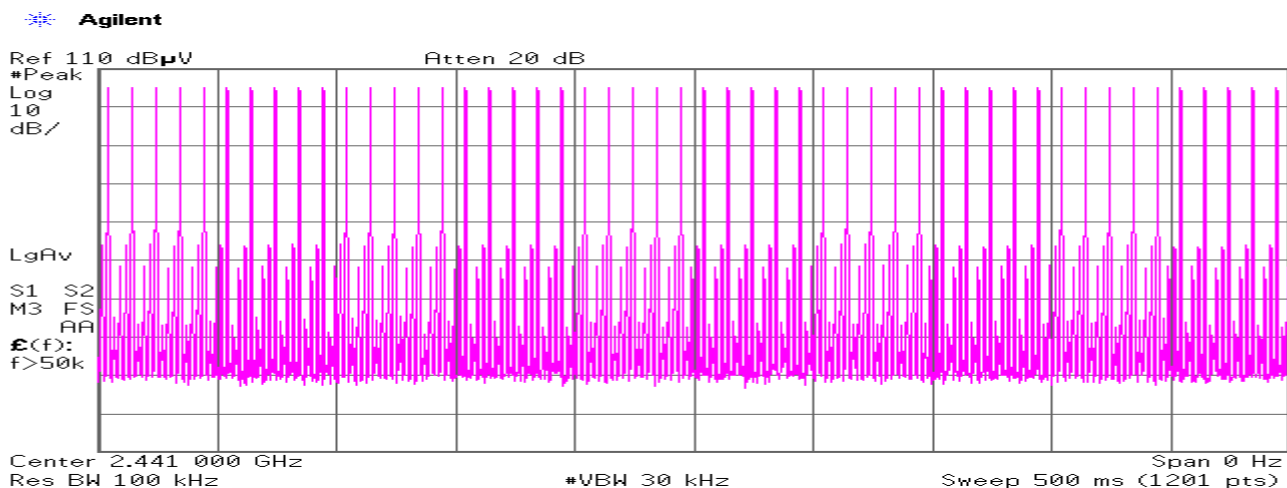


**Duty cycle(Hopping 3DH5)**

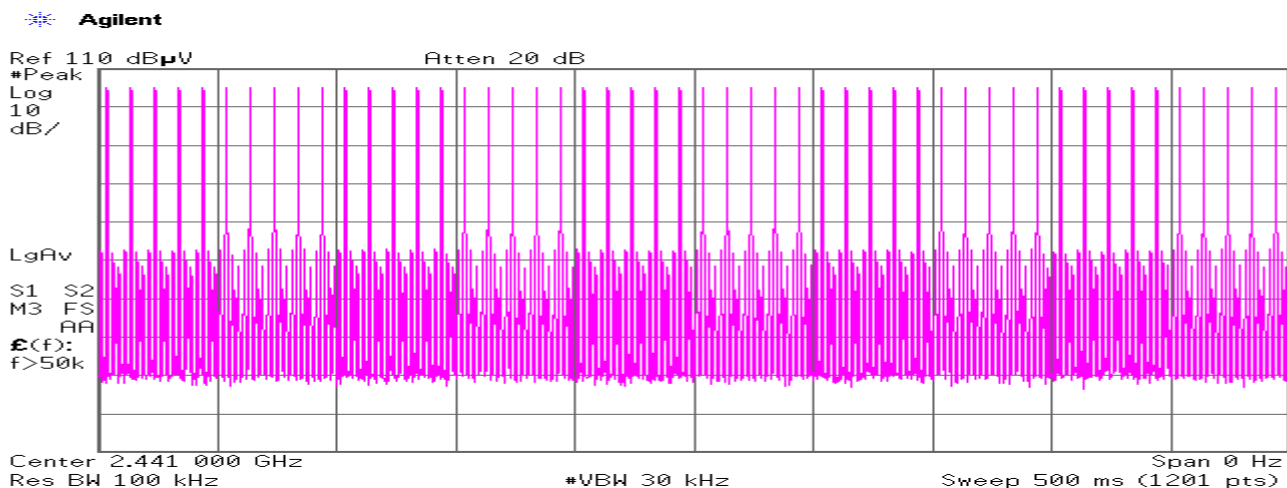


Average times of rising in 5 sec. of sweep =  $(17 + 16 + 17 + 17 + 17) / 5 = 16.8$   
 Average times of rising in 1 sec. =  $16.8 / 5s = 3.36$   
 Average times of rising in 0.4x =  $0.4 * 79ch * 3.36 = 106.176$   
 Dwell time =  $106.176 * 2.92 = 310.03 [ms]$   
 Limit : Dwell Time < 0.4[s]

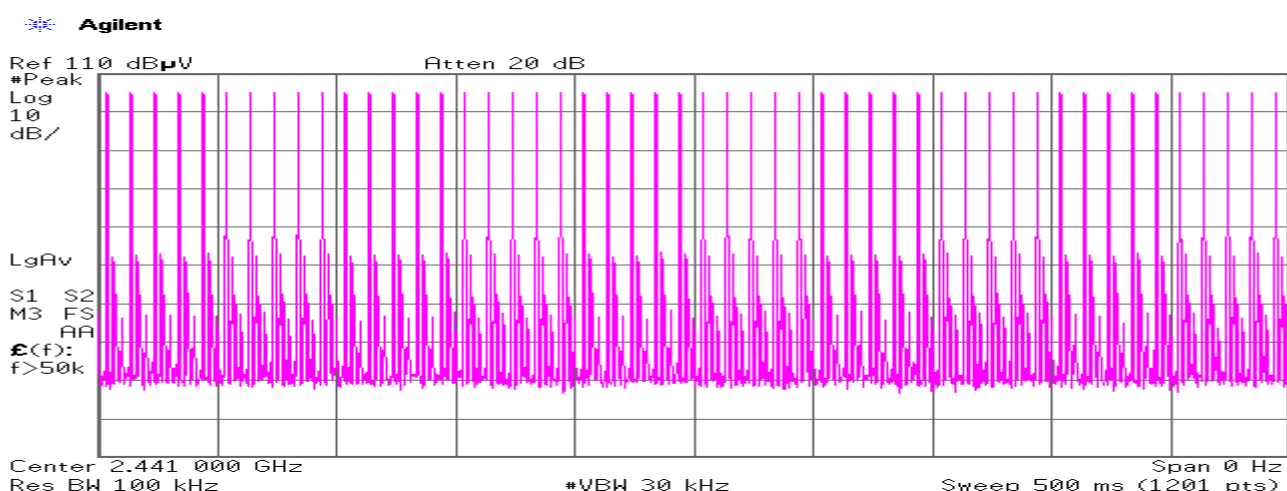
**Inquiry:**  
**Count 1**



**Count 2**

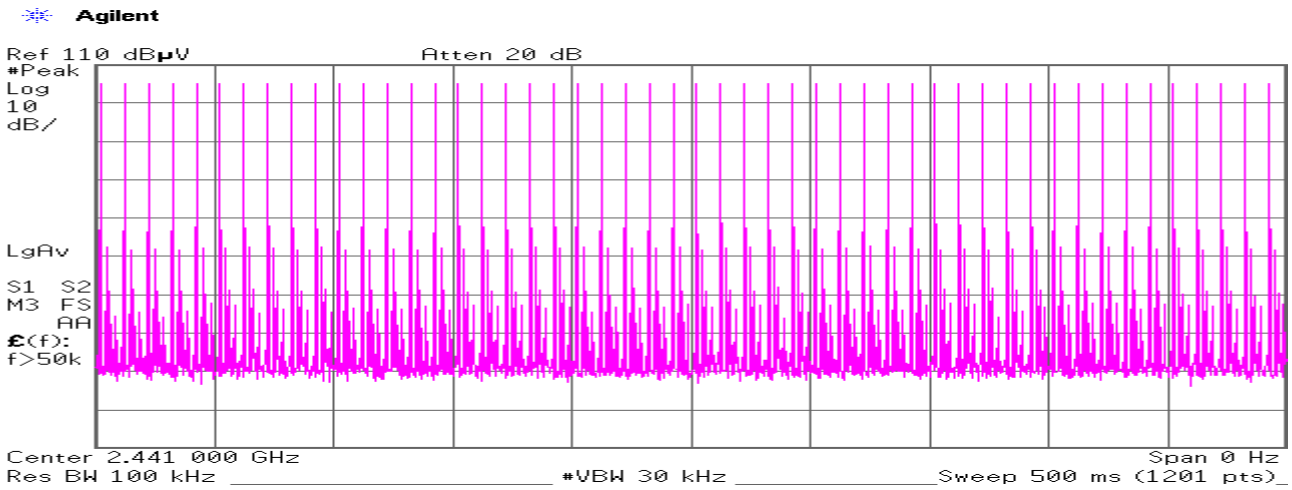


**Count 3**

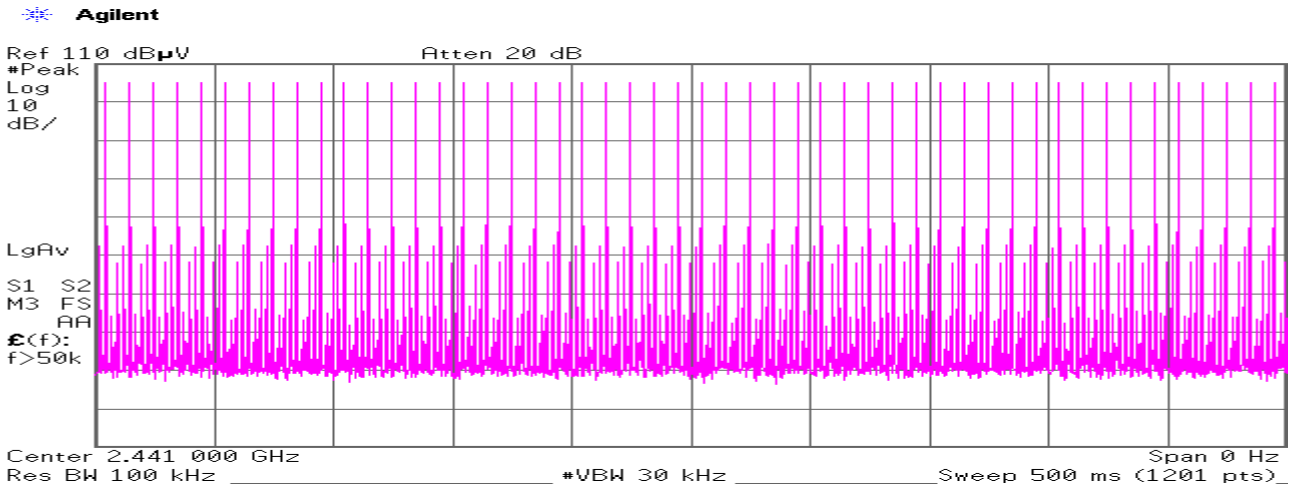




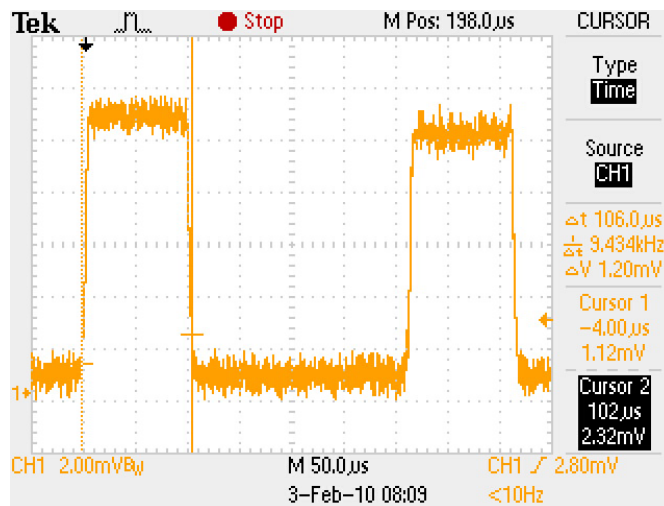
**Count 4**



**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 =  $1280.0 * 0.106 = 135.68 [ms]$

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: 2010.02.04  
 TEMP./HUMID.: 20deg.C/26%  
 TEST MODE: Transmitting

ENGINEER: Minoru Nakatake

DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-1.46	1.77	0.31	20.96	20.65
Mid	2441.00	-0.93	1.78	0.85	20.96	20.11
High	2480.00	-0.66	1.79	1.13	20.96	19.83
Inquiry	-	-1.47	1.78	0.31	20.96	20.65

P/M: Power Meter

CABLE LOSS:Customer's cable + KCC-D20

2DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	0.87	1.77	2.64	20.96	18.32
Mid	2441.00	1.20	1.78	2.98	20.96	17.98
High	2480.00	1.03	1.79	2.82	20.96	18.14

P/M: Power Meter

CABLE LOSS:Customer's cable + KCC-D20

3DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	0.89	1.77	2.66	20.96	18.30
Mid	2441.00	1.24	1.78	3.02	20.96	17.94
High	2480.00	1.09	1.79	2.88	20.96	18.08

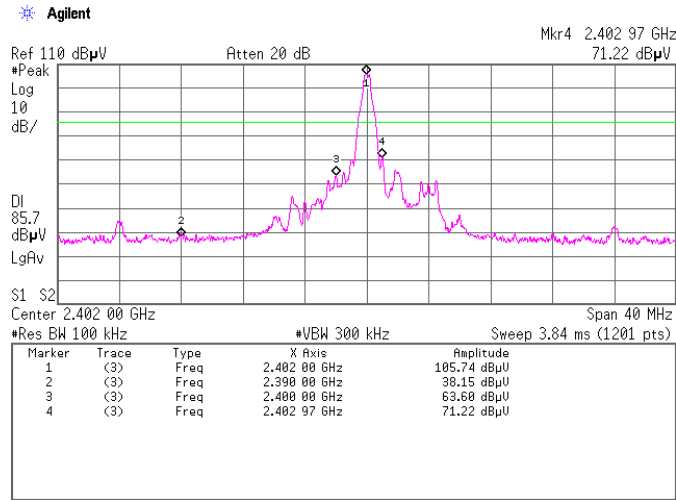
P/M: Power Meter

CABLE LOSS:Customer's cable + KCC-D20

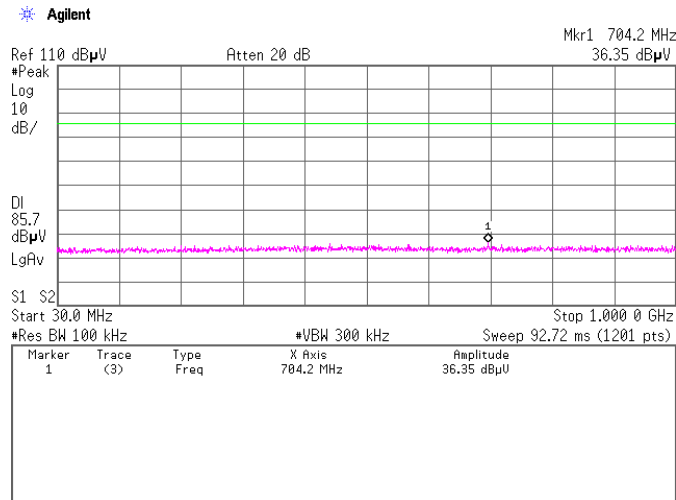
**Out of Band Emission (Antenna Terminal Conducted) (Regulation: FCC 15.247(d))**

UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
 Date: 2010/02/02  
 Temp/Humid.: 23 deg. C. / 24 %  
 Engineer: Minoru Nakatake  
 Test mode: Transmitting

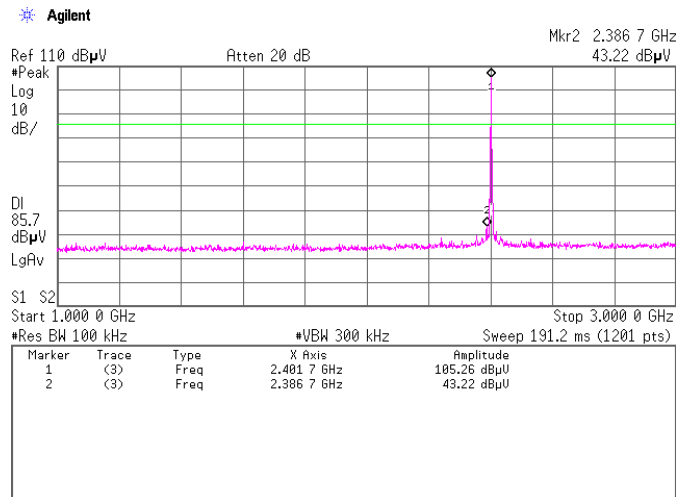
[Transmitting DH5]  
 Ch:2402MHz  
 1.



2.

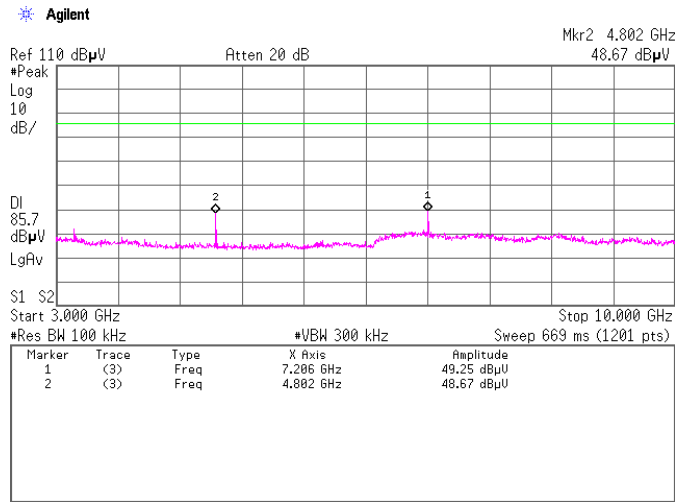


3.

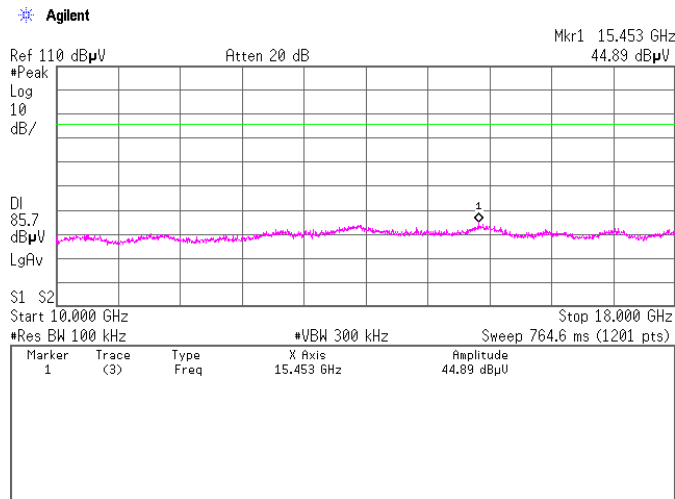


[Transmitting DH5]  
Ch:2402MHz

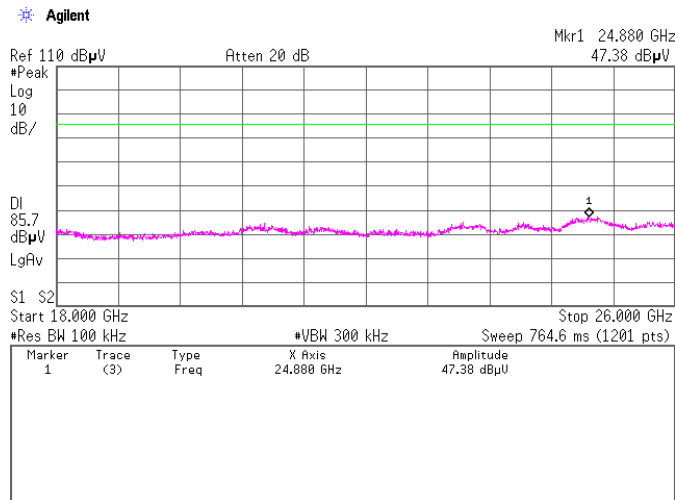
4.



5.

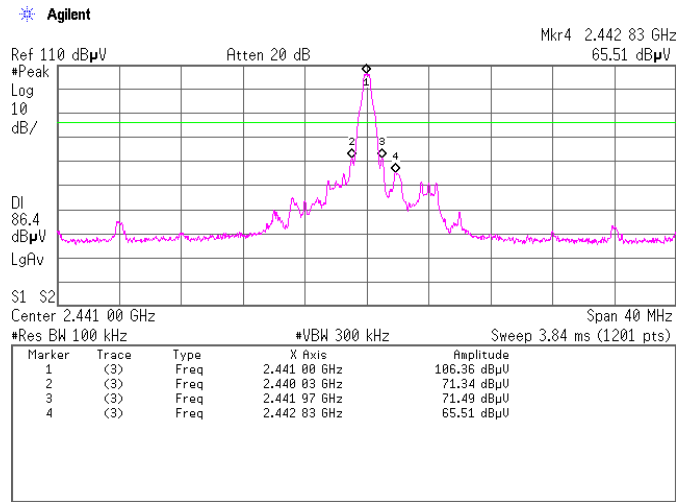


6.

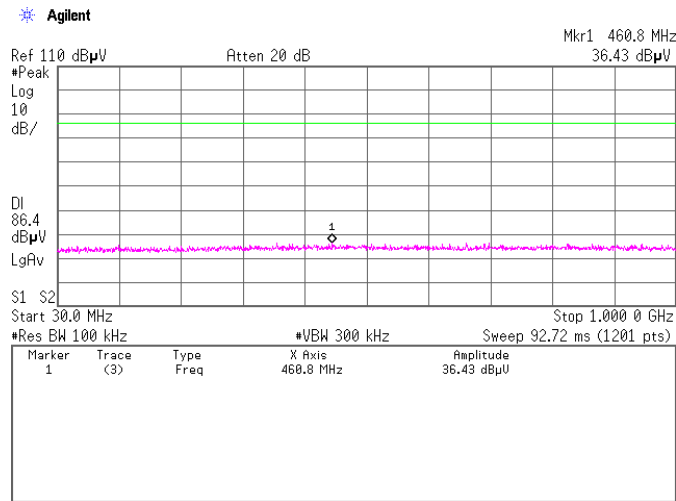


[Transmitting DH5]  
Ch:2441MHz

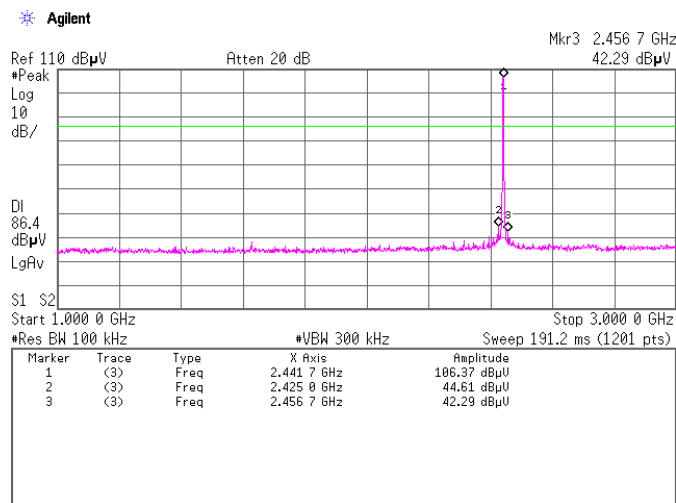
1.



2.

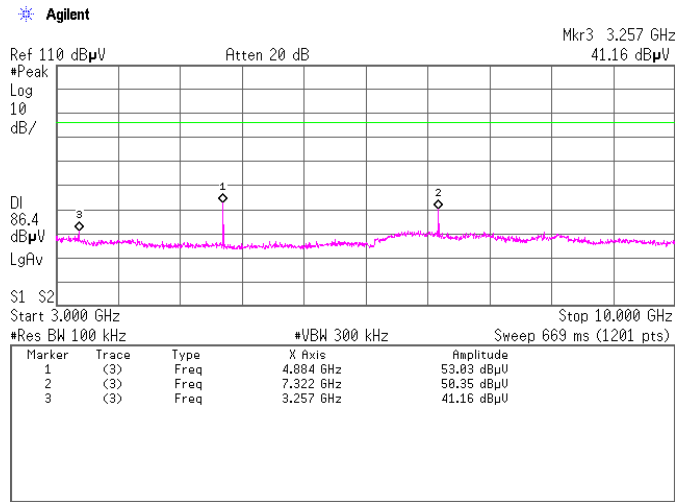


3.

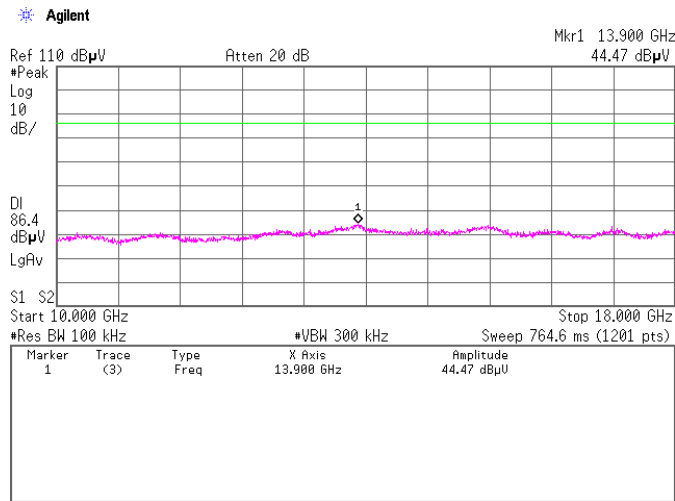


[Transmitting DH5]  
Ch:2441MHz

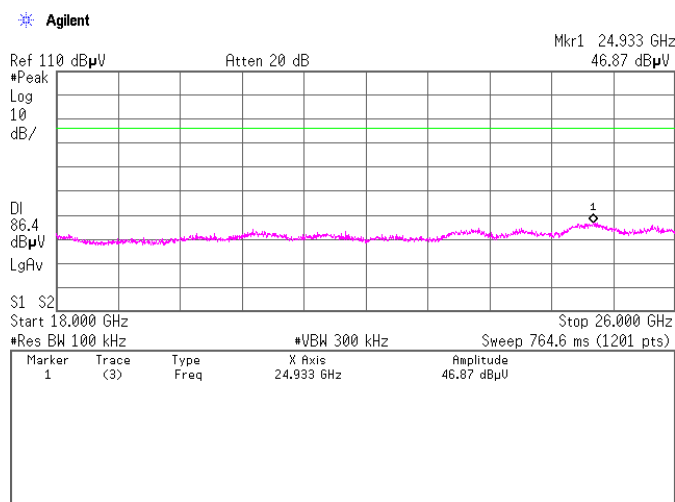
4.



5.

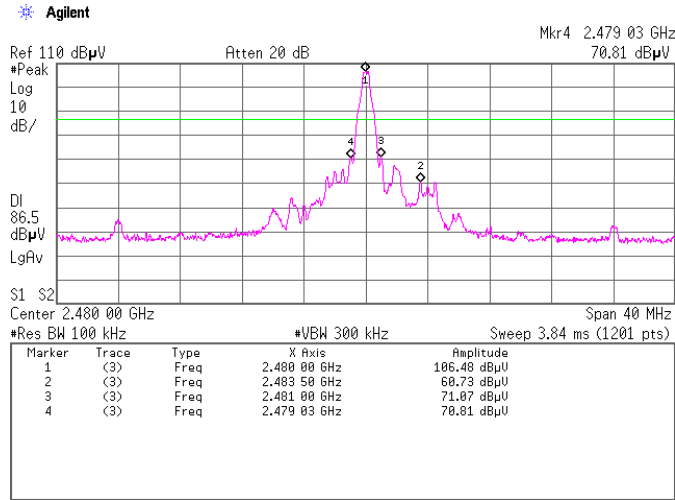


6.

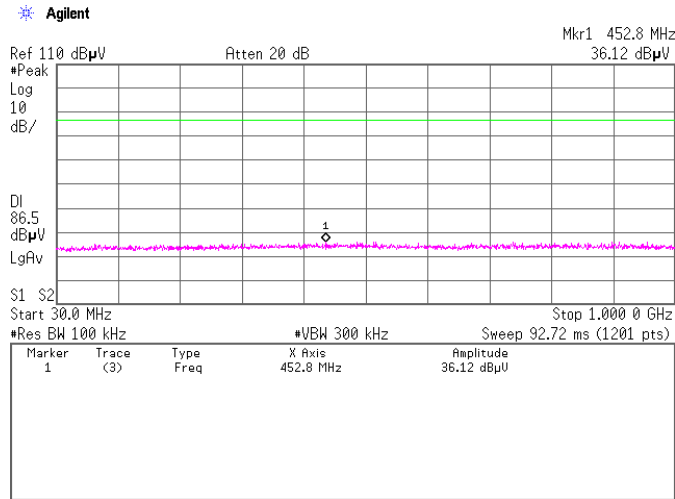


[Transmitting DH5]  
Ch:2480MHz

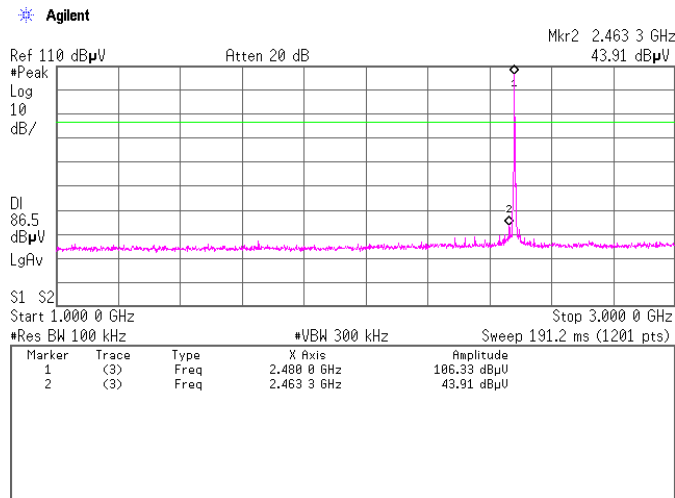
1.



2.

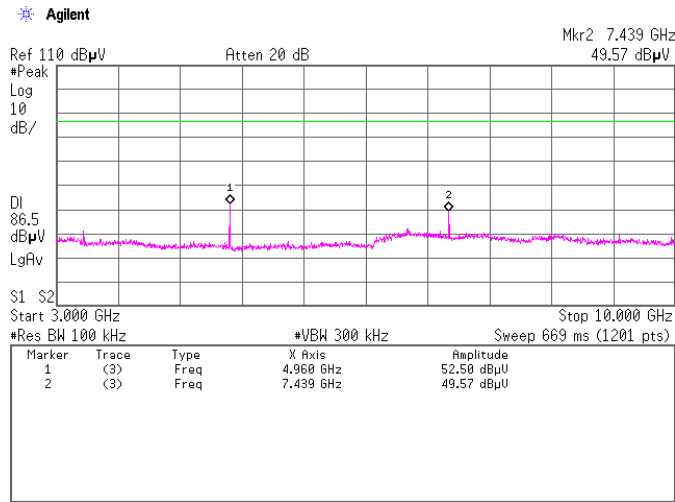


3.

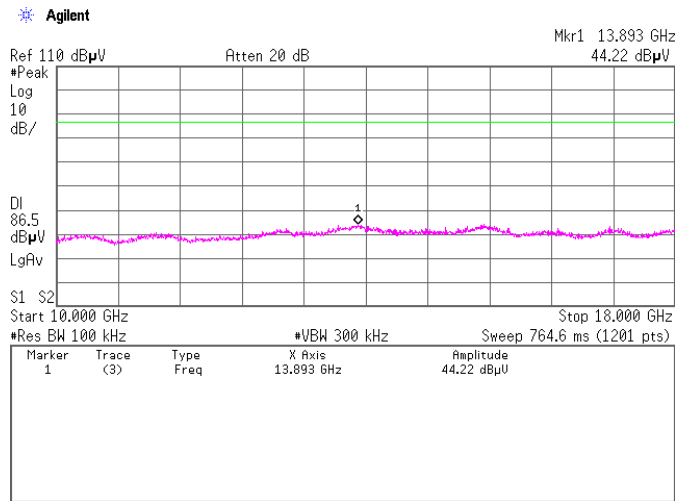


[Transmitting DH5]  
Ch:2480MHz

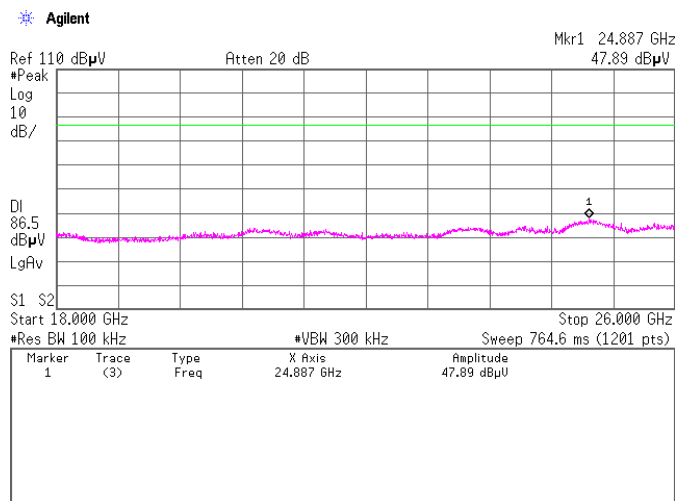
4.



5.



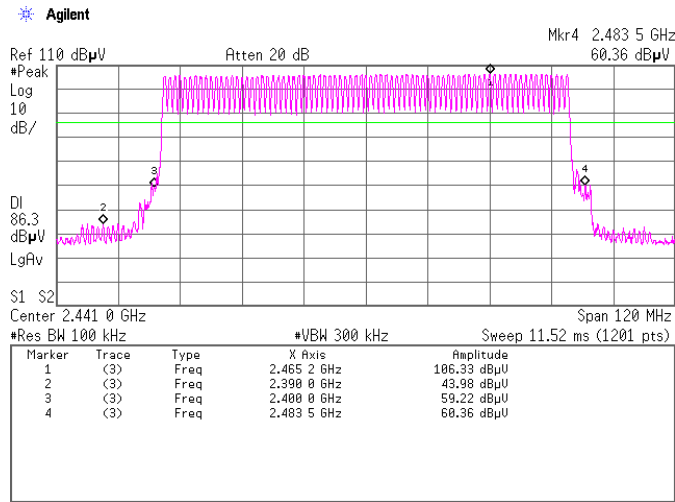
6.



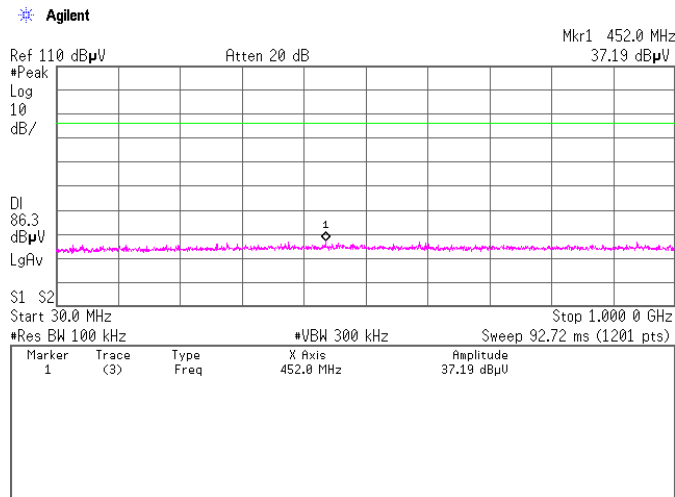


[Transmitting DH5]  
Hopping

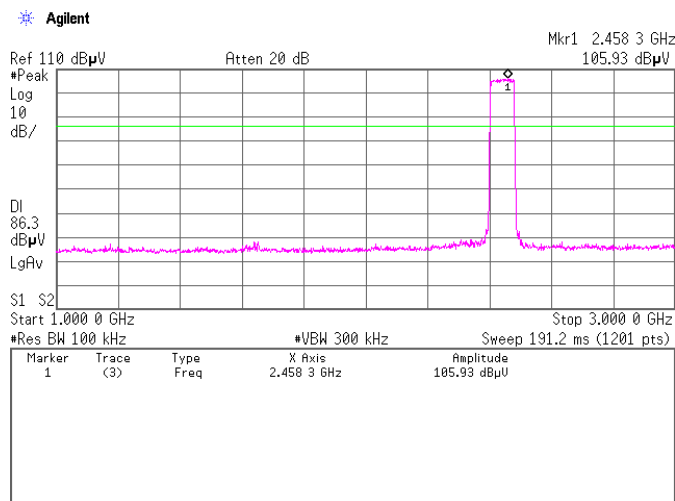
1.



2.

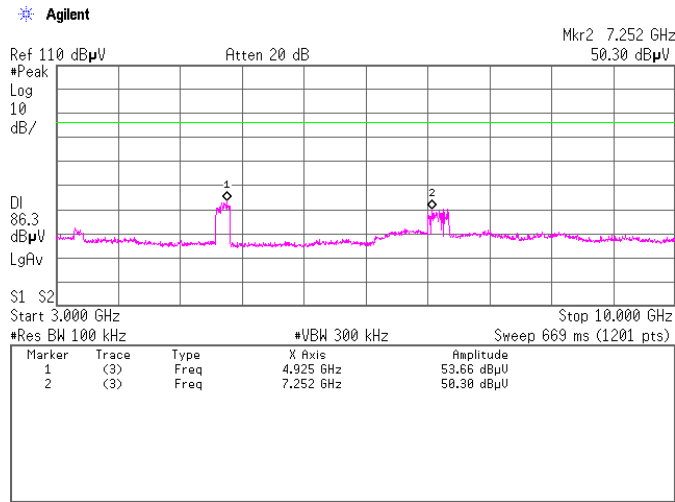


3.

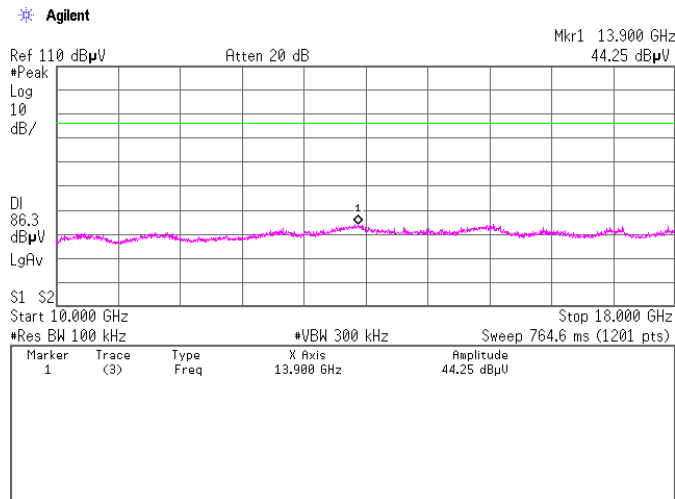


[Transmitting DH5]  
Hopping

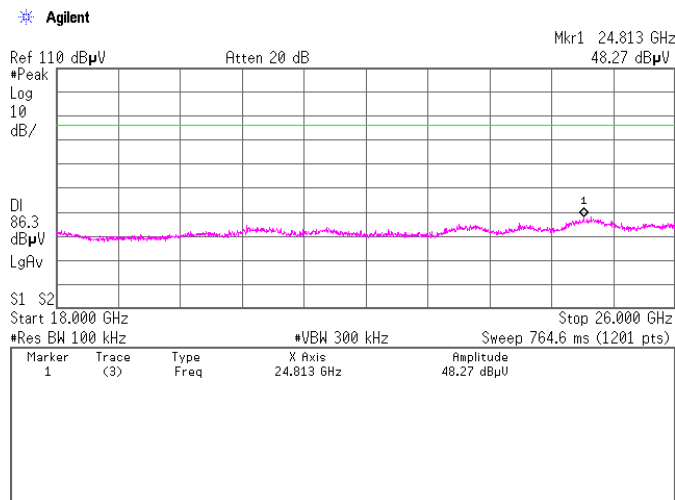
4.



5.

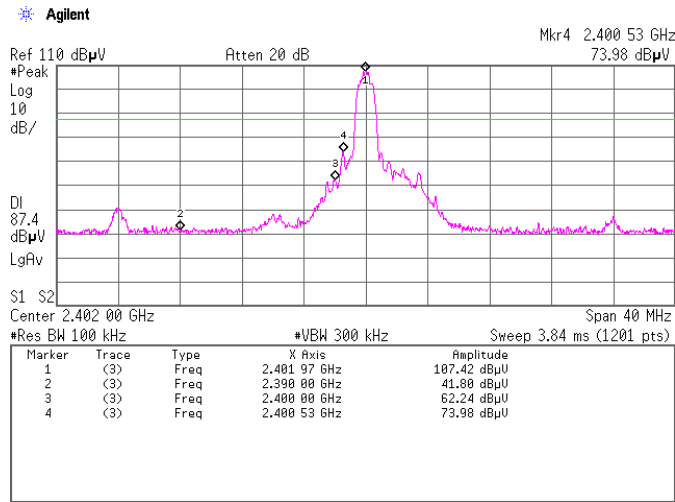


6.

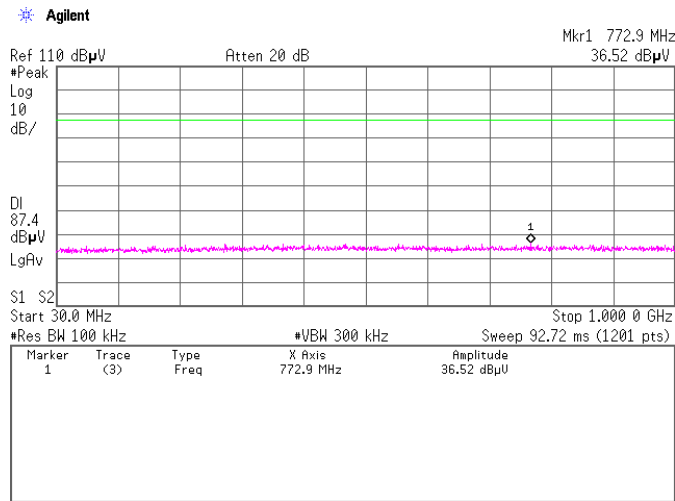


[Transmitting 3DH5]  
Ch:2402MHz

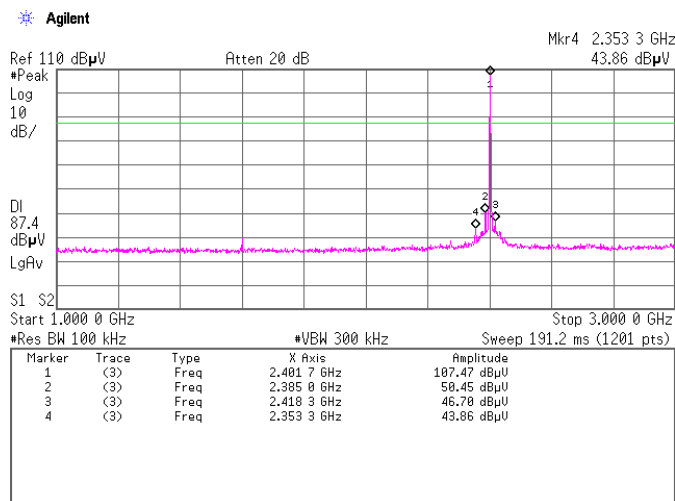
1.



2.

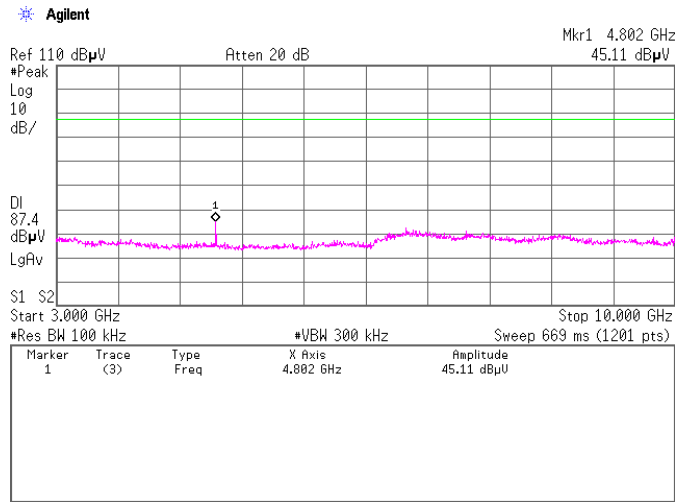


3.

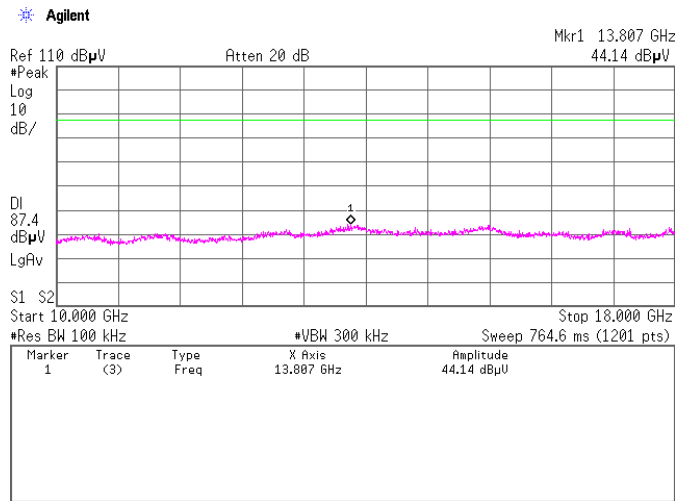


[Transmitting 3DH5]  
Ch:2402MHz

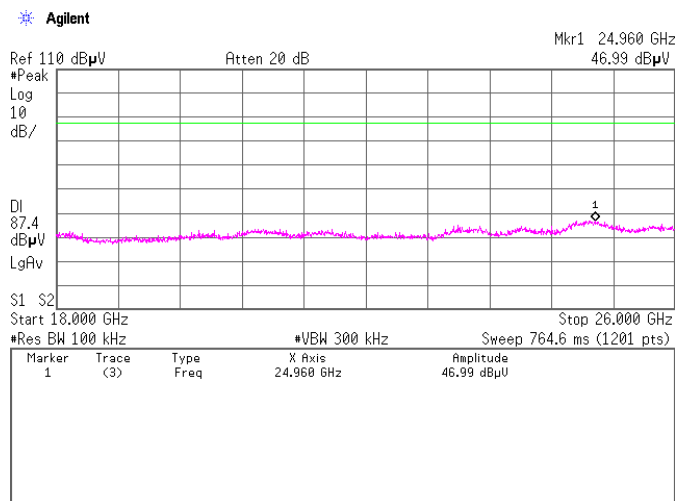
4.



5.

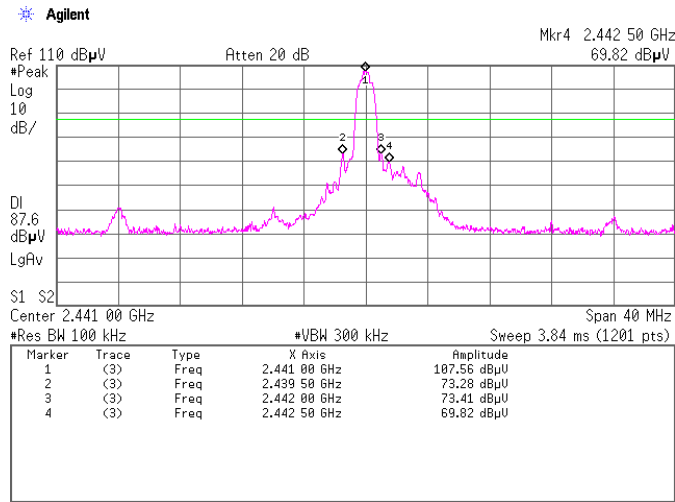


6.

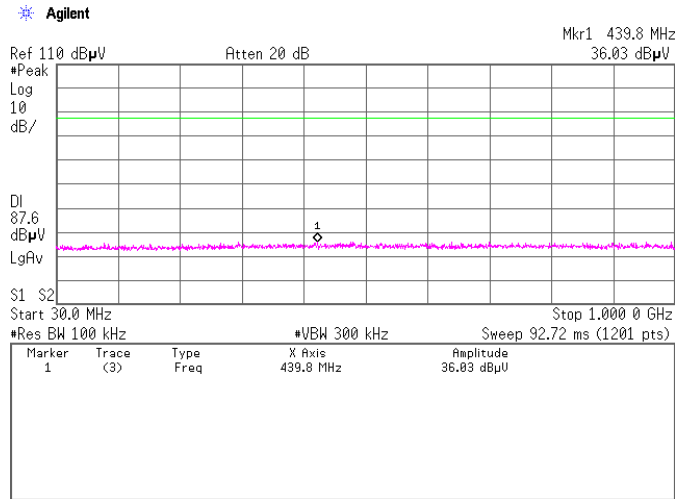


[Transmitting 3DH5]  
Ch:2441MHz

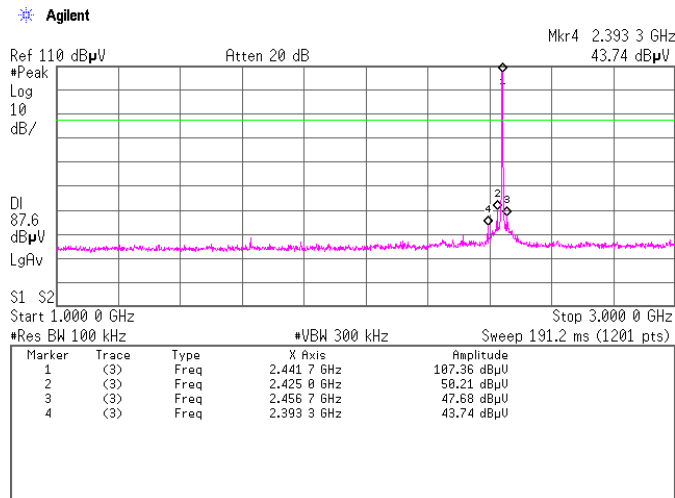
1.



2.

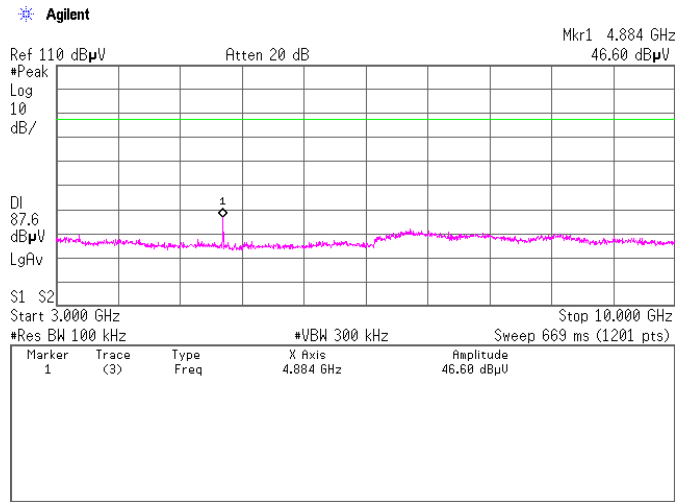


3.

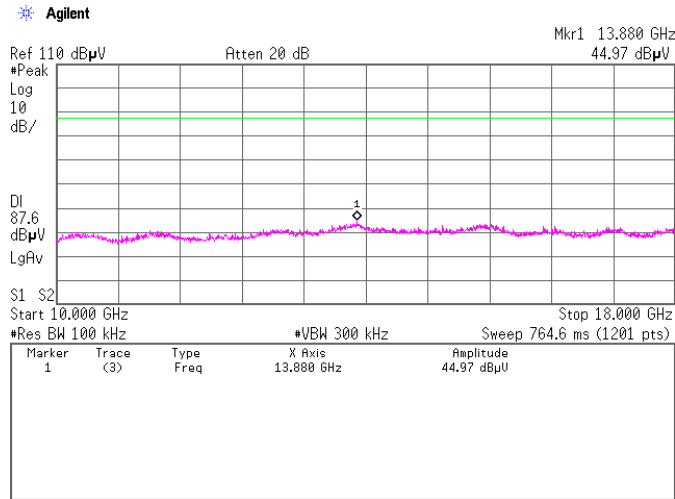


[Transmitting 3DH5]  
Ch:2441MHz

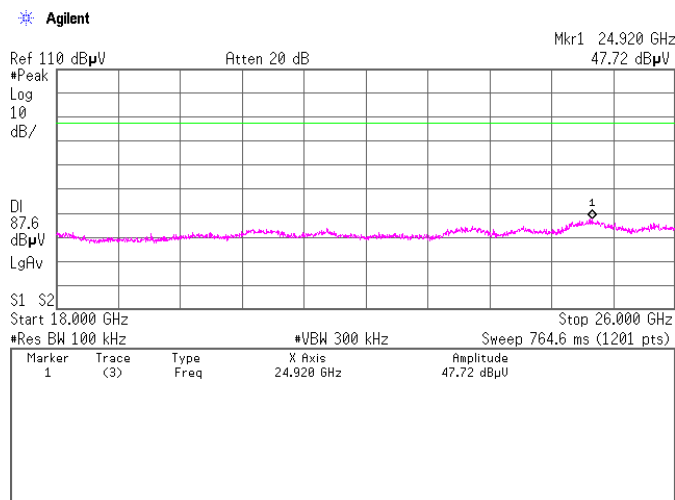
4.



5.

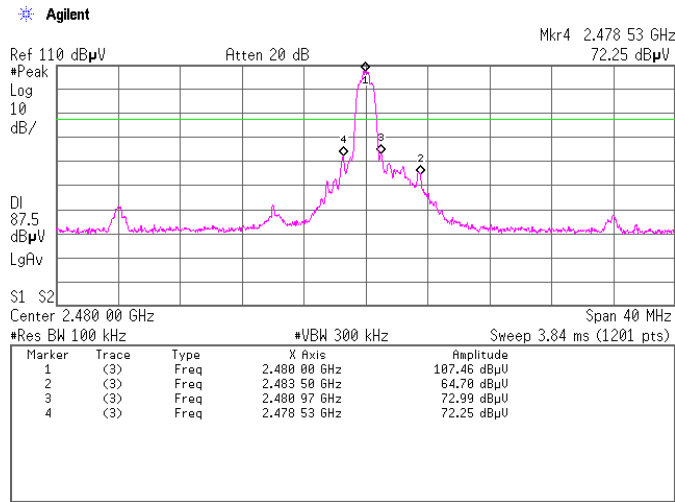


6.

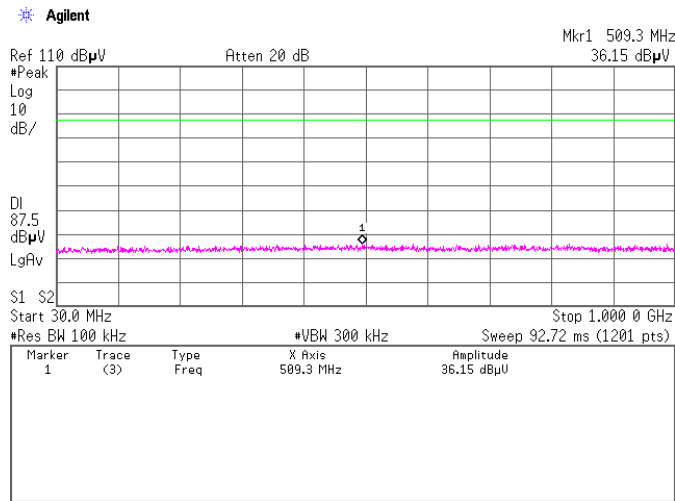


[Transmitting 3DH5]  
Ch:2480MHz

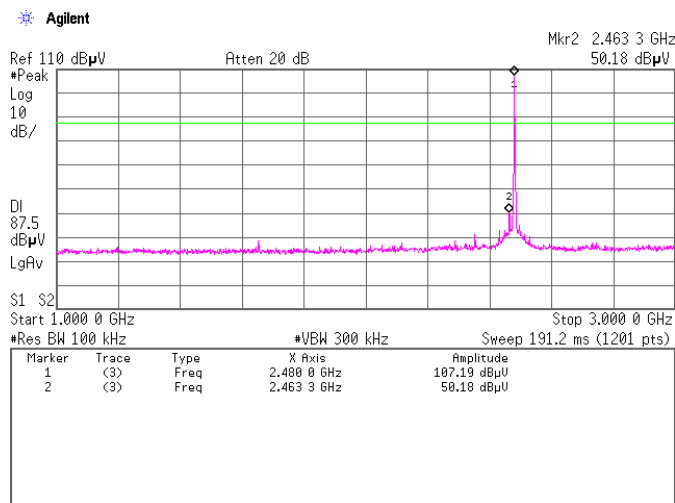
1.



2.

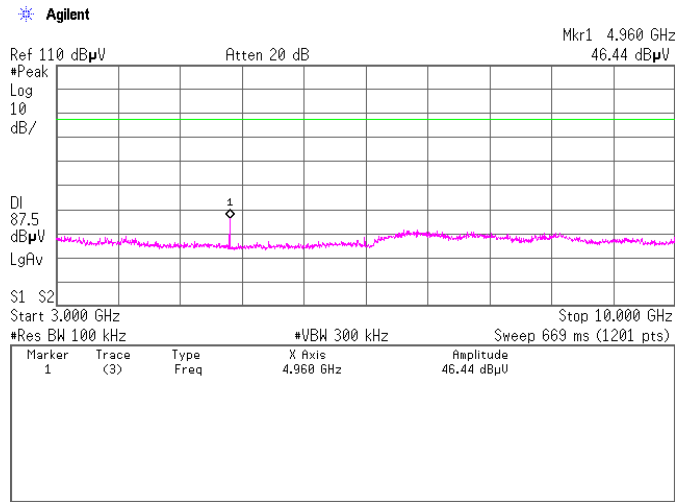


3.

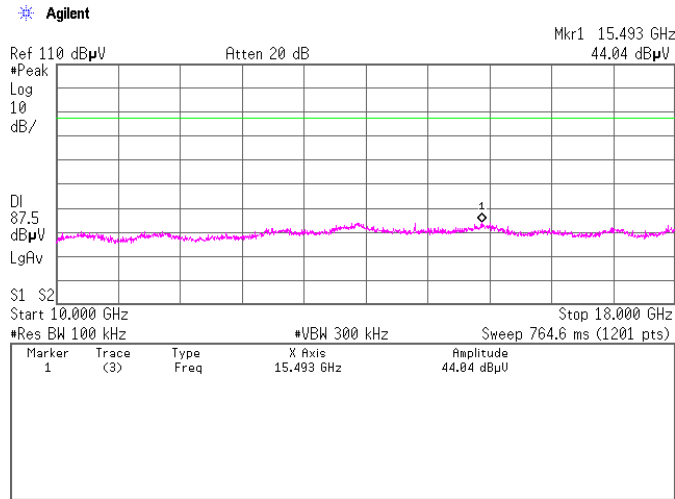


[Transmitting 3DH5]  
Ch:2480MHz

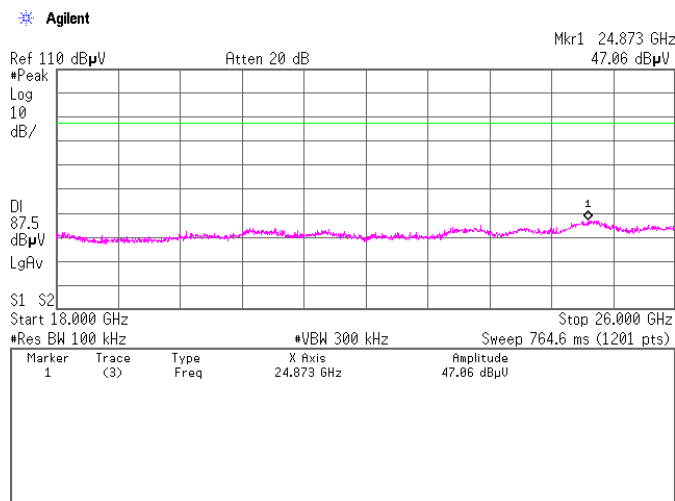
4.



5.



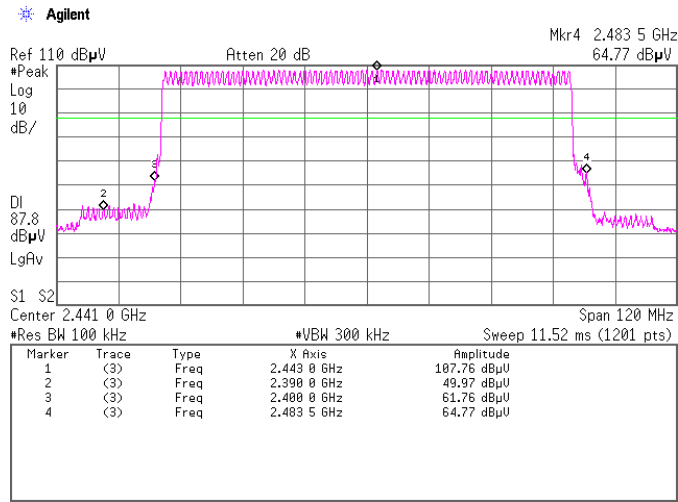
6.



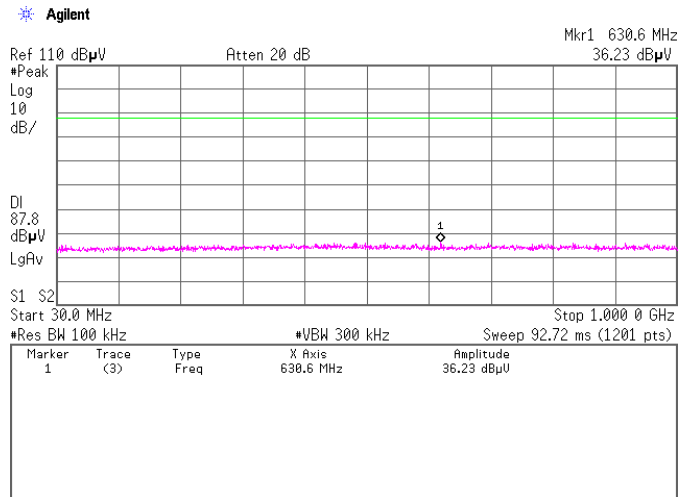


[Transmitting 3DH5]  
Hopping

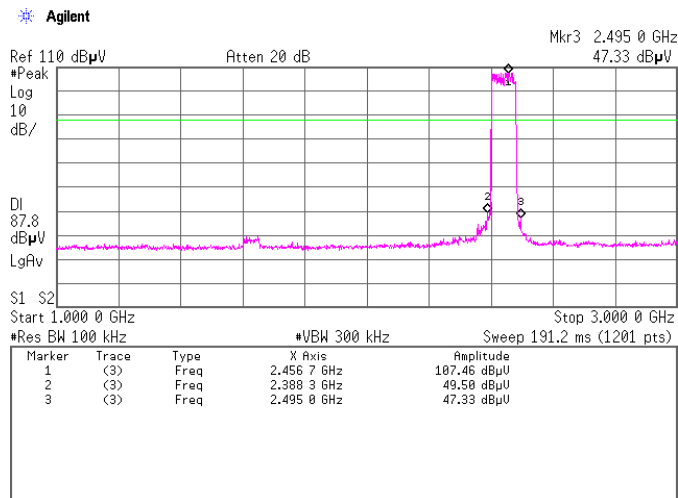
1.



2.

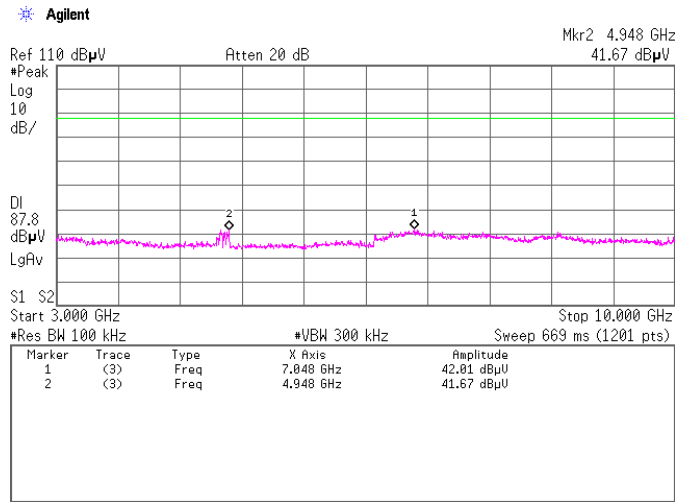


3.

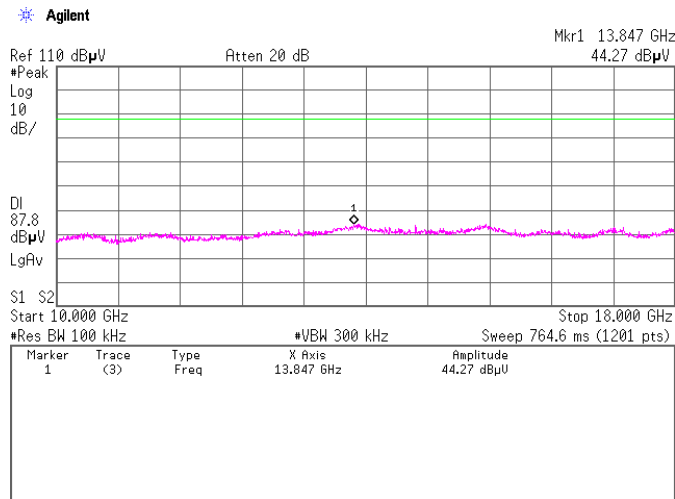


[Transmitting3 DH5]  
Hopping

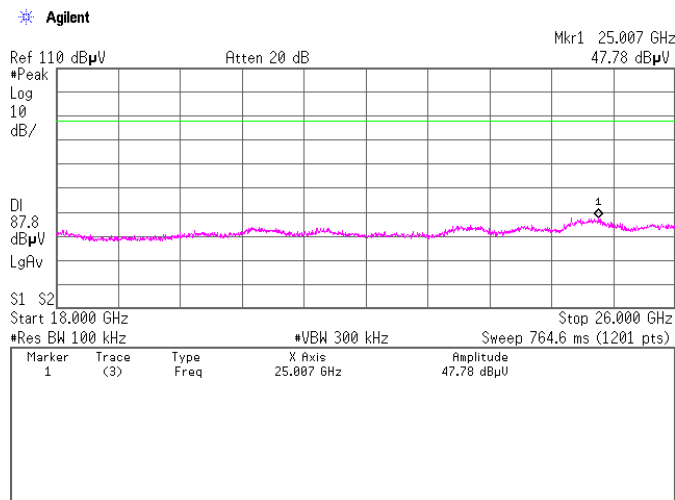
4.



5.

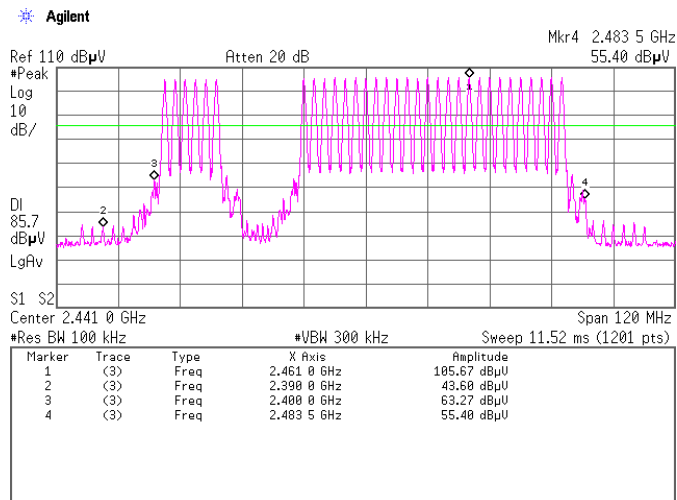


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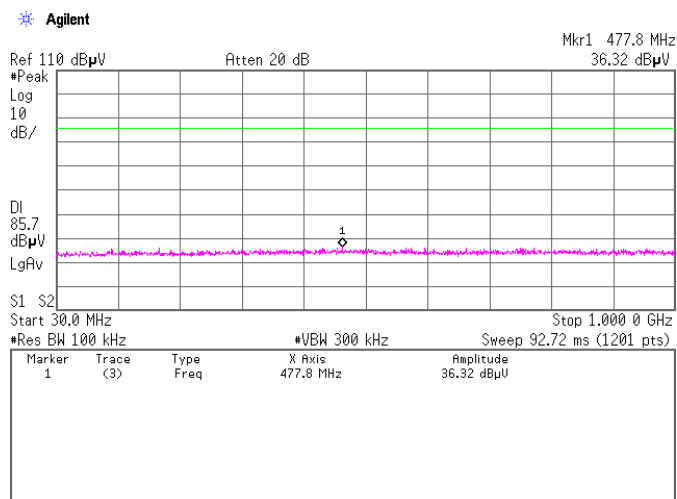


**[Transmitting]**  
**Inquiry**

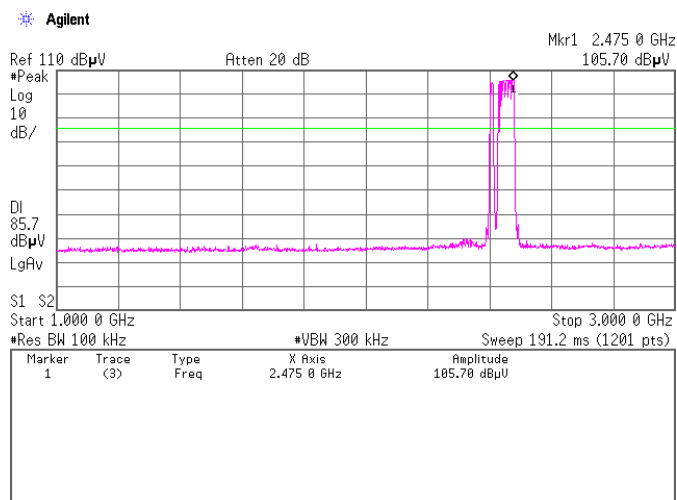
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2.

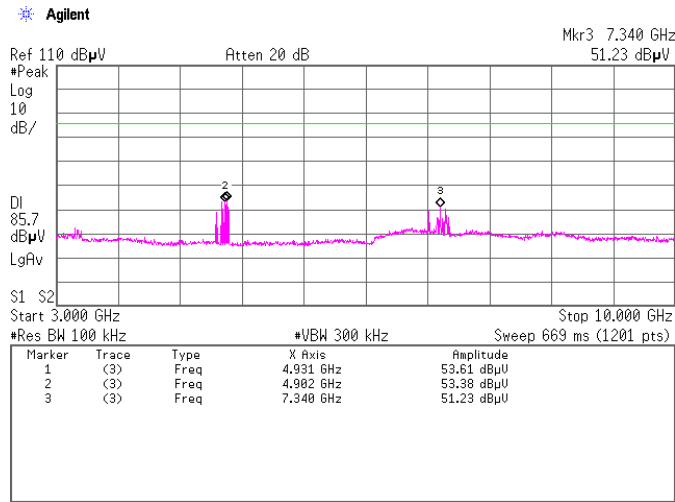


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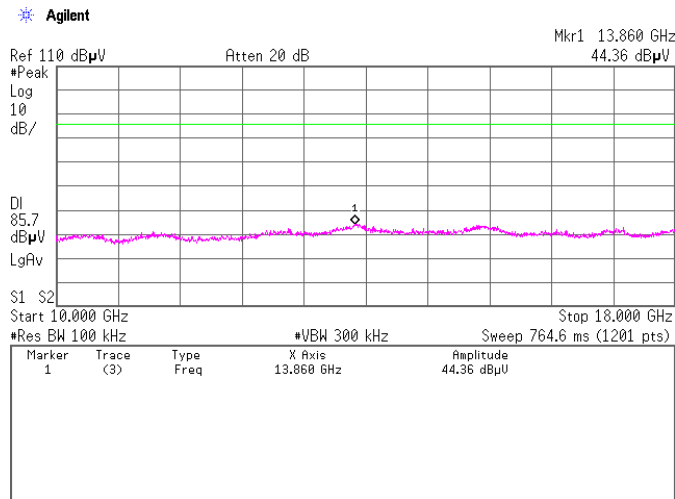


[Transmitting]  
Inquiry

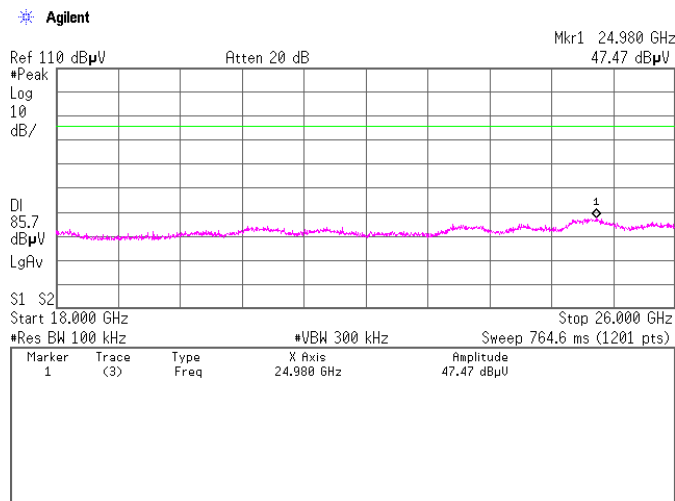
4.



5.



6.



# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2402MHz DH5)  
 Remarks : HOR:X / VER:X  
 Date : 1/26/2010  
 Test Distance : 3 m  
 Temperature : 21 °C  
 Humidity : 33 %  
 Regulation : FCC Part15C § 15.209

Engineer : Akira Sato

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.	40.01	BB	21.1	22.0	14.2	28.6	1.3	6.0	14.0	14.9	40.0	26.0	25.1
2.	60.02	BB	21.1	23.2	7.9	28.5	1.6	6.0	8.1	10.2	40.0	31.9	29.8
3.	80.01	BB	21.5	21.9	6.4	28.5	1.9	6.0	7.3	7.7	40.0	32.7	32.3
4.	100.02	BB	21.0	21.3	10.3	28.4	2.1	6.0	11.0	11.3	43.5	32.5	32.2
5.	180.01	BB	20.6	20.5	16.2	28.2	3.0	6.0	17.6	17.5	43.5	25.9	26.0
6.	580.01	BB	20.6	20.7	19.2	29.1	6.6	3.0	20.3	20.4	46.0	25.7	25.6

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

■ ANT:KBA-03 (<300MHz)/KLA-03 ■ AMP:KAF-05 ■ RECEIVER:KTR-04

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2441MHz DH5)  
 Remarks : HOR:X / VER:X  
 Date : 1/26/2010  
 Test Distance : 3 m  
 Temperature : 21 °C  
 Humidity : 33 %  
 Regulation : FCC Part15C § 15.209

Engineer : Akira Sato

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.	40.00	BB	21.3	21.8	14.2	28.6	1.3	6.0	14.2	14.7	40.0	25.8	25.3
2.	60.01	BB	21.5	22.6	7.9	28.5	1.6	6.0	8.5	9.6	40.0	31.5	30.4
3.	80.00	BB	23.0	23.1	6.4	28.5	1.9	6.0	8.8	8.9	40.0	31.2	31.1
4.	100.01	BB	21.1	21.1	10.3	28.4	2.1	6.0	11.1	11.1	43.5	32.4	32.4
5.	180.01	BB	20.6	20.7	16.2	28.2	3.0	6.0	17.6	17.7	43.5	25.9	25.8
6.	580.01	BB	20.6	20.7	19.2	29.1	6.6	3.0	20.3	20.4	46.0	25.7	25.6

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

■ ANT:KBA-03 (<300MHz)/KLA-03 ■ AMP:KAF-05 ■ RECEIVER:KTR-04

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2480MHz DH5)  
 Remarks : HOR:X / VER:X  
 Date : 1/26/2010  
 Test Distance : 3 m  
 Temperature : 21 °C  
 Humidity : 33 %  
 Regulation : FCC Part15C § 15.209

Engineer : Akira Sato

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.	40.01	BB	21.2	21.7	14.2	28.6	1.3	6.0	14.1	14.6	40.0	25.9	25.4	
2.	60.01	BB	21.5	23.6	7.9	28.5	1.6	6.0	8.5	10.6	40.0	31.5	29.4	
3.	80.02	BB	23.0	21.9	6.4	28.5	1.9	6.0	8.8	7.7	40.0	31.2	32.3	
4.	100.01	BB	21.1	21.0	10.3	28.4	2.1	6.0	11.1	11.0	43.5	32.4	32.5	
5.	180.01	BB	20.6	20.6	16.2	28.2	3.0	6.0	17.6	17.6	43.5	25.9	25.9	
6.	580.01	BB	20.5	20.5	19.2	29.1	6.6	3.0	20.2	20.2	46.0	25.8	25.8	

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

■ ANT:KBA-03 (<300MHz)/KLA-03 ■ AMP:KAF-05 ■ RECEIVER:KTR-04

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2402MHz 3DH5)  
 Remarks : HOR:X / VER:X  
 Date : 1/26/2010  
 Test Distance : 3 m  
 Temperature : 21 °C  
 Humidity : 33 %  
 Regulation : FCC Part15C § 15.209

Engineer : Akira Sato

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.	40.01	BB	21.3	21.5	14.2	28.6	1.3	6.0	14.2	14.4	40.0	25.8	25.6	
2.	59.99	BB	21.4	23.2	7.9	28.5	1.6	6.0	8.4	10.2	40.0	31.6	29.8	
3.	80.03	BB	23.2	20.2	6.4	28.5	1.9	6.0	9.0	6.0	40.0	31.0	34.0	
4.	100.01	BB	21.1	21.1	10.3	28.4	2.1	6.0	11.1	11.1	43.5	32.4	32.4	
5.	180.01	BB	20.6	20.5	16.2	28.2	3.0	6.0	17.6	17.5	43.5	25.9	26.0	
6.	580.01	BB	20.5	20.5	19.2	29.1	6.6	3.0	20.2	20.2	46.0	25.8	25.8	

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

■ ANT:KBA-03 (<300MHz) /KLA-03 ■ AMP:KAF-05 ■ RECEIVER:KTR-04



# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2441MHz 3DH5)  
 Remarks : HOR:X / VER:X  
 Date : 1/26/2010  
 Test Distance : 3 m  
 Temperature : 21 °C  
 Humidity : 33 %  
 Regulation : FCC Part15C § 15.209

Engineer : Akira Sato

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.	40.02	BB	21.2	21.5	14.2	28.6	1.3	6.0	14.1	14.4	40.0	25.9	25.6	
2.	60.00	BB	21.3	23.3	7.9	28.5	1.6	6.0	8.3	10.3	40.0	31.7	29.7	
3.	80.01	BB	22.5	22.3	6.4	28.5	1.9	6.0	8.3	8.1	40.0	31.7	31.9	
4.	100.01	BB	21.1	21.2	10.3	28.4	2.1	6.0	11.1	11.2	43.5	32.4	32.3	
5.	180.01	BB	20.6	20.7	16.2	28.2	3.0	6.0	17.6	17.7	43.5	25.9	25.8	
6.	580.03	BB	20.6	20.6	19.2	29.1	6.6	3.0	20.3	20.3	46.0	25.7	25.7	

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

■ ANT:KBA-03 (<300MHz)/KLA-03 ■ AMP:KAF-05 ■ RECEIVER:KTR-04

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2480MHz 3DH5)  
 Remarks : HOR:X / VER:X  
 Date : 1/26/2010  
 Test Distance : 3 m  
 Temperature : 21 °C  
 Humidity : 33 %  
 Regulation : FCC Part15C § 15.209

Engineer : Akira Sato

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.	40.00	BB	21.2	21.6	14.2	28.6	1.3	6.0	14.1	14.5	40.0	25.9	25.5	
2.	60.00	BB	21.6	23.7	7.9	28.5	1.6	6.0	8.6	10.7	40.0	31.4	29.3	
3.	80.01	BB	23.2	22.0	6.4	28.5	1.9	6.0	9.0	7.8	40.0	31.0	32.2	
4.	100.00	BB	22.0	21.5	10.3	28.4	2.1	6.0	12.0	11.5	43.5	31.5	32.0	
5.	180.01	BB	20.6	20.7	16.2	28.2	3.0	6.0	17.6	17.7	43.5	25.9	25.8	
6.	580.01	BB	20.5	20.5	19.2	29.1	6.6	3.0	20.2	20.2	46.0	25.8	25.8	

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

■ ANT:KBA-03 (<300MHz) /KLA-03 ■ AMP:KAF-05 ■ RECEIVER:KTR-04

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2402MHz DH5)  
 Remarks : PK:RBW=1MHz, VBW=1MHz, Axis:Y  
 Date : 1/25/2010  
 Test Distance : 3 m  
 Temperature : 20 °C  
 Humidity : 28 %  
 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		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	2390.00	BB	42.4	42.8	28.0	36.5	7.2	0.0	41.1	41.5	74.0	32.9	32.5	
2.	2397.44	BB	51.2	53.6	28.0	36.5	7.2	0.0	49.9	52.3	74.0	24.1	21.7	
3.	4804.00	BB	42.1	42.9	32.2	36.2	8.4	0.0	46.5	47.3	74.0	27.5	26.7	
4.	7206.00	BB	43.0	42.4	36.6	36.2	9.0	0.0	52.4	51.8	74.0	21.6	22.2	
5.	9608.00	BB	45.7	44.9	38.8	36.3	10.0	0.0	58.2	57.4	74.0	15.8	16.6	
6.	12010.00	BB	44.2	44.1	38.7	35.6	10.7	0.0	58.0	57.9	74.0	16.0	16.1	

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-D13/D16 ■AMP:KAF-02 ■RECEIVER:KSA-04  
 \*\* : enough margin compared to another polarized wave data.

## DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.

YAMAKITA No.1 Semi-Anechoic chamber

Report No. : 30AE0214-YK-01-B

Company : CANON INC.

Equipment : Wireless Lens Control Receiver Module

Model : RX PCB

Sample No. : 0907ND004

Power : DC12V

Mode : Transmitting 2402MHz(DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/01/25

Temperature : 20deg.C

Humidity : 28%

ENGINEER : Yasumasa Owaki

### AV calculation value SPECTRUM ANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1	2390.00	42.4	42.8	28.0	36.5	7.2	0.0	-30.81	10.3	10.7	54.0	43.7	43.3	1M
2	2397.44	42.5	45.7	28.0	36.5	7.2	0.0	0.00	41.2	44.4	54.0	12.8	9.6	300
3	4804.00	42.1	42.9	32.2	36.2	8.4	0.0	-30.81	15.7	16.5	54.0	38.3	37.5	1M
4	7206.00	30.3	30.2	36.6	36.2	9.0	0.0	0.00	39.7	39.6	54.0	14.3	14.4	300
5	9608.00	30.6	30.4	38.8	36.3	10.0	0.0	0.00	43.1	42.9	54.0	10.9	11.1	300
6	12010.00	44.2	44.1	38.7	35.6	10.7	0.0	-30.81	27.2	27.1	54.0	26.8	26.9	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation:  $20 \cdot \log(2.88[\text{ms}]/100[\text{ms}]) = -30.81$  See Dwell Time data

AV calculation is in accordance with FCC Public Notice DA00-705.

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2441MHz DH5)  
 Remarks : PK:RBW=1MHz, VBW=1MHz, Axis:Y  
 Date : 1/25/2010  
 Test Distance : 3 m  
 Temperature : 20 °C  
 Humidity : 28 %  
 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		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	4882.00	BB	42.9	43.9	32.2	36.1	8.4	0.0	47.4	48.4	74.0	26.6	25.6	
2.	7323.00	BB	42.9	42.7	36.9	36.3	9.0	0.0	52.5	52.3	74.0	21.5	21.7	
3.	9764.00	BB	45.8	45.3	38.9	36.2	10.1	0.0	58.6	58.1	74.0	15.4	15.9	
4.	12205.00	BB	43.9	43.9	39.0	35.2	10.7	0.0	58.4	58.4	74.0	15.6	15.6	

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-D13/D16 ■ AMP:KAF-02 ■ RECEIVER:KSA-04  
 \*\* : enough margin compared to another polarized wave data.

# DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.  
YAMAKITA No.1 Semi-Anechoic chamber  
Report No. : 30AE0214-YK-01-B

Company : CANON INC.  
Equipment : Wireless Lens Control Receiver Module  
Model : RX PCB  
Sample No. : 0907ND004  
Power : DC12V  
Mode : Transmitting 2441MHz(DH5)

Regulation : FCC Part15C Section 15.209  
Test Distance : 3m  
Date : 2010/01/25  
Temperature : 20deg.C  
Humidity : 28%

ENGINEER : Yasumasa Owaki

## AV calculation value SPECTRUM ANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1	4882.00	42.9	43.9	32.2	36.1	8.4	0.0	-30.81	16.6	17.6	54.0	37.4	36.4	1M
2	7323.00	42.9	42.7	36.9	36.3	9.0	0.0	-30.81	21.7	21.5	54.0	32.3	32.5	1M
3	9764.00	29.9	29.7	38.9	36.2	10.1	0.0	0.00	42.7	42.5	54.0	11.3	11.5	300
4	12205.00	43.9	43.9	39.0	35.2	10.7	0.0	-30.81	27.6	27.6	54.0	26.4	26.4	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation:  $20 \cdot \log(2.88[\text{ms}]/100[\text{ms}]) = -30.81$  See Dwell Time data

AV calculation is in accordance with FCC Public Notice DA00-705.

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2480MHz DH5)  
 Remarks : PK:RBW=1MHz, VBW=1MHz, Axis:Y  
 Date : 1/25/2010  
 Test Distance : 3 m  
 Temperature : 20 °C  
 Humidity : 28 %  
 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.	2483.50	BB	56.7	58.4	28.0	36.5	7.3	0.0	55.5	57.2	74.0	18.5	16.8
2.	2484.25	BB	56.1	57.5	28.0	36.5	7.3	0.0	54.9	56.3	74.0	19.1	17.7
3.	4960.00	BB	43.1	43.8	32.3	36.1	8.5	0.0	47.8	48.5	74.0	26.2	25.5
4.	7440.00	BB	43.4	42.9	37.2	36.3	9.0	0.0	53.3	52.8	74.0	20.7	21.2
5.	9920.00	BB	46.2	46.0	39.1	36.2	10.1	0.0	59.2	59.0	74.0	14.8	15.0
6.	12400.00	BB	42.8	43.4	39.3	34.9	10.7	0.0	57.9	58.5	74.0	16.1	15.5

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-D13/D16 ■AMP:KAF-02 ■RECEIVER:KSA-04  
 \*\* : enough margin compared to another polarized wave data.

# DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.  
YAMAKITA No.1 Semi-Anechoic chamber  
Report No. : 30AE0214-YK-01-B

Company : CANON INC.  
Equipment : Wireless Lens Control Receiver Module  
Model : RX PCB  
Sample No. : 0907ND004  
Power : DC12V  
Mode : Transmitting 2480MHz(DH5)

Regulation : FCC Part15C Section 15.209  
Test Distance : 3m  
Date : 2010/01/25  
Temperature : 20deg.C  
Humidity : 28%

ENGINEER : Yasumasa Owaki

## AV calculation value SPECTRUM ANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER [dBuV]						HOR [dB]	VER [dB]				
1	2483.50	56.7	58.4	28.0	36.5	7.3	0.0	-30.81	24.7	26.4	54.0	29.3	27.6	1M
2	2484.25	56.1	57.5	28.0	36.5	7.3	0.0	-30.81	24.1	25.5	54.0	29.9	28.5	1M
3	4960.00	43.1	43.8	32.3	36.1	8.5	0.0	-30.81	17.0	17.7	54.0	37.0	36.3	1M
4	7440.00	43.4	42.9	37.2	36.3	9.0	0.0	-30.81	22.5	22.0	54.0	31.5	32.0	1M
5	9920.00	29.8	29.7	39.1	36.2	10.1	0.0	0.00	42.8	42.7	54.0	11.2	11.3	300
6	12400.00	42.8	43.4	39.3	34.9	10.7	0.0	-30.81	27.1	27.7	54.0	26.9	26.3	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation:  $20 \cdot \log(2.88[\text{ms}]/100[\text{ms}]) = -30.81$  See Dwell Time data

AV calculation is in accordance with FCC Public Notice DA00-705.



# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2402MHz 3DH5)  
 Remarks : PK:RBW=1MHz, VBW=1MHz, Axis:Y  
 Date : 1/25/2010  
 Test Distance : 3 m  
 Temperature : 20 °C  
 Humidity : 28 %  
 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	43.5	45.7	28.0	36.5	7.2	0.0	42.2	44.4	74.0	31.8	29.6
2.	2396.29	BB	48.8	52.4	28.0	36.5	7.2	0.0	47.5	51.1	74.0	26.5	22.9
3.	4804.00	BB	40.8	44.9	32.2	36.2	8.4	0.0	45.2	49.3	74.0	28.8	24.7
4.	7206.00	BB	42.0	42.2	36.6	36.2	9.0	0.0	51.4	51.6	74.0	22.6	22.4
5.	9608.00	BB	44.9	45.6	38.8	36.3	10.0	0.0	57.4	58.1	74.0	16.6	15.9
6.	12010.00	BB	43.2	44.0	38.7	35.6	10.7	0.0	57.0	57.8	74.0	17.0	16.2

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-D13/D16 ■AMP:KAF-02 ■RECEIVER:KSA-04  
 \*\* : enough margin compared to another polarized wave data.

## DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.

YAMAKITA No.1 Semi-Anechoic chamber

Report No. : 30AE0214-YK-01-B

Company : CANON INC.

Equipment : Wireless Lens Control Receiver Module

Model : RX PCB

Sample No. : 0907ND004

Power : DC12V

Mode : Transmitting 2402MHz(3DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/01/25

Temperature : 20deg.C

Humidity : 28%

ENGINEER : Yasumasa Owaki

### AV calculation value SPECTRUM ANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1	2390.00	43.5	45.7	28.0	36.5	7.2	0.0	-30.69	11.5	13.7	54.0	42.5	40.3	1M
2	2396.29	37.7	41.3	28.0	36.5	7.2	0.0	0.00	36.4	40.0	54.0	17.6	14.0	300
3	4804.00	40.8	44.9	32.2	36.2	8.4	0.0	-30.69	14.5	18.6	54.0	39.5	35.4	1M
4	7206.00	29.9	30.3	36.6	36.2	9.0	0.0	0.00	39.3	39.7	54.0	14.7	14.3	300
5	9608.00	29.8	30.2	38.8	36.3	10.0	0.0	0.00	42.3	42.7	54.0	11.7	11.3	300
6	12010.00	43.2	44.0	38.7	35.6	10.7	0.0	-30.69	26.3	27.1	54.0	27.7	26.9	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation:  $20 \cdot \log(2.92[\text{ms}]/100[\text{ms}]) = -30.69$  See Dwell Time data

AV calculation is in accordance with FCC Public Notice DA00-705.

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2441MHz 3DH5)  
 Remarks : PK:RBW=1MHz, VBW=1MHz, Axis:Y  
 Date : 1/25/2010  
 Test Distance : 3 m  
 Temperature : 20 °C  
 Humidity : 28 %  
 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		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	4882.00	BB	41.4	43.0	32.2	36.1	8.4	0.0	45.9	47.5	74.0	28.1	26.5	
2.	7323.00	BB	42.4	42.5	36.9	36.3	9.0	0.0	52.0	52.1	74.0	22.0	21.9	
3.	9764.00	BB	45.1	46.0	38.9	36.2	10.1	0.0	57.9	58.8	74.0	16.1	15.2	
4.	12205.00	BB	43.3	43.1	39.0	35.2	10.7	0.0	57.8	57.6	74.0	16.2	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-D13/D16 ■ AMP:KAF-02 ■ RECEIVER:KSA-04  
 \*\* : enough margin compared to another polarized wave data.

## DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.  
YAMAKITA No.1 Semi-Anechoic chamber  
Report No. : 30AE0214-YK-01-B

Company : CANON INC.  
Equipment : Wireless Lens Control Receiver Module  
Model : RX PCB  
Sample No. : 0907ND004  
Power : DC12V  
Mode : Transmitting 2441MHz(3DH5)

Regulation : FCC Part15C Section 15.209  
Test Distance : 3m  
Date : 2010/01/25  
Temperature : 20deg.C  
Humidity : 28%

ENGINEER : Yasumasa Owaki

### AV calculation value SPECTRUM ANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1	4882.00	41.4	43.0	32.2	36.1	8.4	0.0	-30.69	15.2	16.8	54.0	38.8	37.2	1M
2	7323.00	42.4	42.5	36.9	36.3	9.0	0.0	-30.69	21.3	21.4	54.0	32.7	32.6	1M
3	9764.00	29.7	29.6	38.9	36.2	10.1	0.0	0.00	42.5	42.4	54.0	11.5	11.6	300
4	12205.00	43.3	43.1	39.0	35.2	10.7	0.0	-30.69	27.1	26.9	54.0	26.9	27.1	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

Duty Factor calculation:  $20 \cdot \log(2.92[\text{ms}]/100[\text{ms}]) = -30.6\%$  See Dwell Time data

AV calculation is in accordance with FCC Public Notice DA00-705.

# Data of Radiated Disturbance Test

UL Japan, Inc.  
YAMAKITA No.1 Semi-anechoic chamber  
Report No. : 30AE0214-YK-01-B

Applicant : CANON INC.  
 Kind of Equipment : Wireless Lens Control Receiver Module  
 Model No. : RX PCB  
 Serial No. : 0907ND004  
 Power : DC12V  
 Mode : Transmitting (2480MHz 3DH5)  
 Remarks : PK:RBW=1MHz, VBW=1MHz, Axis:Y  
 Date : 1/25/2010  
 Test Distance : 3 m  
 Temperature : 20 °C  
 Humidity : 28 %  
 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.	2483.50	BB	63.1	64.3	28.0	36.5	7.3	0.0	61.9	63.1	74.0	12.1	10.9
2.	2496.42	BB	47.9	47.7	28.0	36.5	7.3	0.0	46.7	46.5	74.0	27.3	27.5
3.	4960.00	BB	42.7	42.5	32.3	36.1	8.5	0.0	47.4	47.2	74.0	26.6	26.8
4.	7440.00	BB	42.8	43.3	37.2	36.3	9.0	0.0	52.7	53.2	74.0	21.3	20.8
5.	9920.00	BB	45.8	45.6	39.1	36.2	10.1	0.0	58.8	58.6	74.0	15.2	15.4
6.	12400.00	BB	42.9	43.4	39.3	34.9	10.7	0.0	58.0	58.5	74.0	16.0	15.5

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-D13/D16 ■AMP:KAF-02 ■RECEIVER:KSA-04  
 \*\* : enough margin compared to another polarized wave data.

## DATA OF RADIATION TEST (Above 1GHz)

UL Japan, Inc.

YAMAKITA No.1 Semi-Anechoic chamber

Report No. : 30AE0214-YK-01-B

Company : CANON INC.

Equipment : Wireless Lens Control Receiver Module

Model : RX PCB

Sample No. : 0907ND004

Power : DC12V

Mode : Transmitting 2480MHz(3DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/01/25

Temperature : 20deg.C

Humidity : 28%

ENGINEER : Yasumasa Owaki

### AV calculation value SPECTRUM ANALYZER RBW:1MHz

No.	FREQ [MHz]	READING		ANT Factor [dB]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN [dB]	Duty Factor	RESULT		LIMIT [dBuV/m]	MARGIN		VBW [Hz]
		HOR [dBuV]	VER						HOR [dBuV/m]	VER		HOR [dB]	VER	
1	2483.50	63.1	64.3	28.0	36.5	7.3	0.0	-30.69	31.2	32.4	54.0	22.8	21.6	1M
2	2496.42	47.9	47.7	28.0	36.5	7.3	0.0	-30.69	16.0	15.8	54.0	38.0	38.2	1M
3	4960.00	42.7	42.5	32.3	36.1	8.5	0.0	-30.69	16.7	16.5	54.0	37.3	37.5	1M
4	7440.00	42.8	43.3	37.2	36.3	9.0	0.0	-30.69	22.0	22.5	54.0	32.0	31.5	1M
5	9920.00	29.5	29.5	39.1	36.2	10.1	0.0	0.00	42.5	42.5	54.0	11.5	11.5	300
6	12400.00	42.9	43.4	39.3	34.9	10.7	0.0	-30.69	27.3	27.8	54.0	26.7	26.2	1M

Sample Calculation :

RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + ATT + Duty Factor

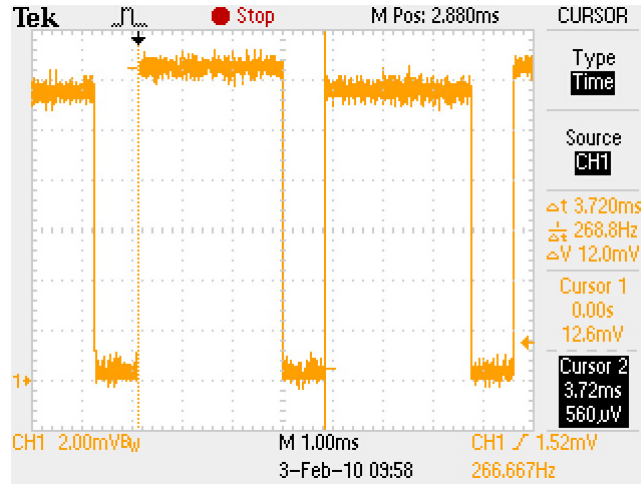
Duty Factor calculation:  $20 \cdot \log(2.92[\text{ms}]/100[\text{ms}]) = -30.69$  See Dwell Time data

AV calculation is in accordance with FCC Public Notice DA00-705.

**Duty Cycle**

UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
 Date: 2010/02/03  
 Temp./Humid.: 21 deg. C. / 28 %  
 Engineer: Minoru Nakatake  
 Test mode: Transmitting

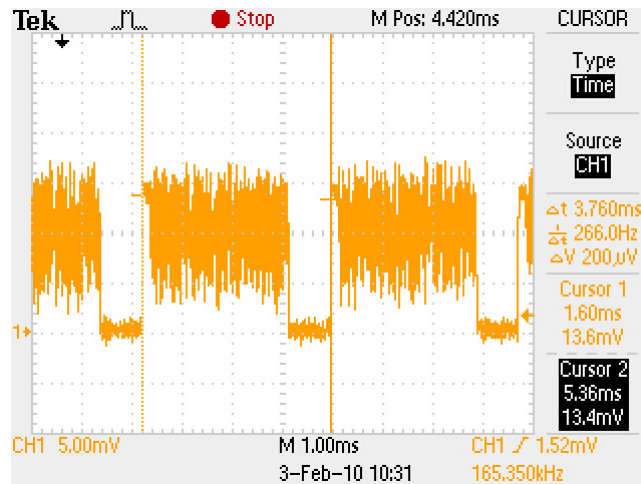
[DH5]



**Duty Cycle: 3.72ms**

**AV Detector VBW:  $1000 / 3.72\text{ms} = 268.81\text{Hz} \rightarrow 300\text{Hz}$**

[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.

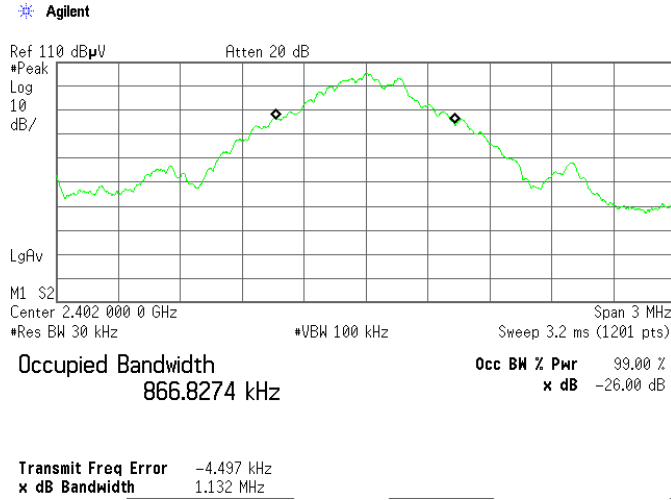
This purpose of the Duty Cycle calculation measures the pulse timing that we ensure Spectrum Analyzer can detect the pulse emission correctly. Therefore, if the pulse train can happen by 50msec(20Hz) or less, the average value measurement by setting the repetition frequency is done more correctly than 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)**

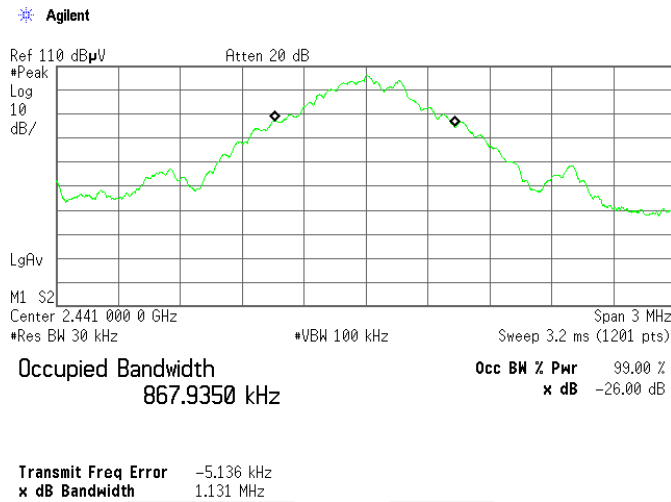
UL Japan, Inc. Yamakita EMC lab. No.2 shielded room  
Date: 2010/02/03  
Temp/Humid.: 21 deg. C. / 28 %  
Engineer: Minoru Nakatake  
Test mode: Transmitting

[Hopping off, DHS]

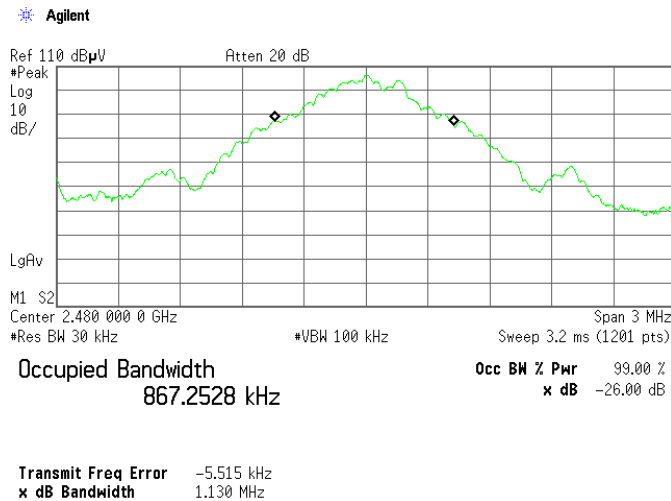
1. ch : 2402MHz



2. ch : 2441MHz

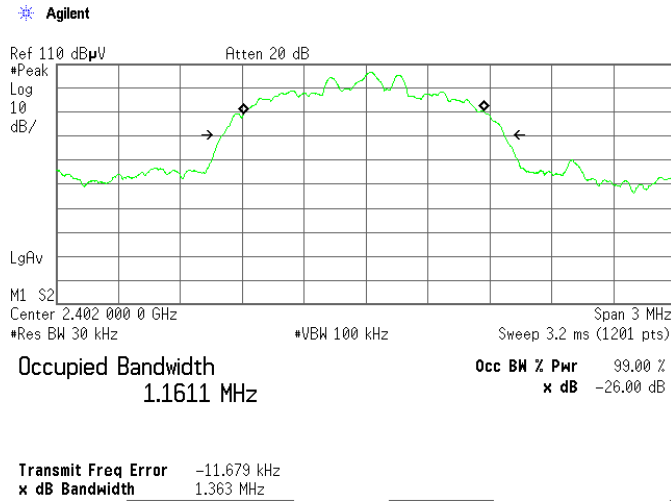


3. ch : 2480MHz

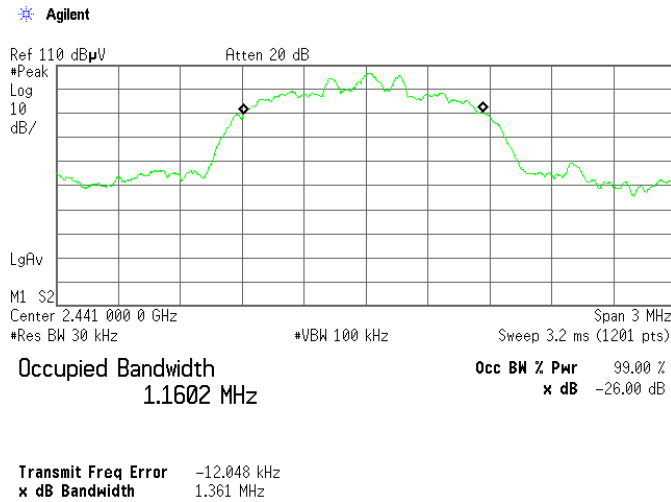




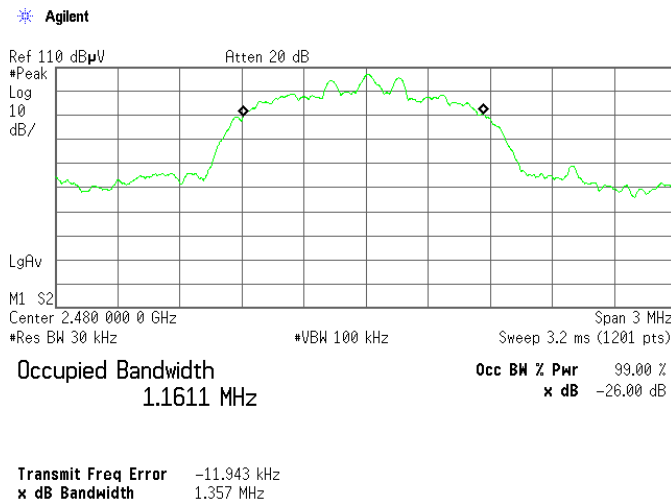
[Hopping off, 3DH5]  
4. ch : 2402MHz



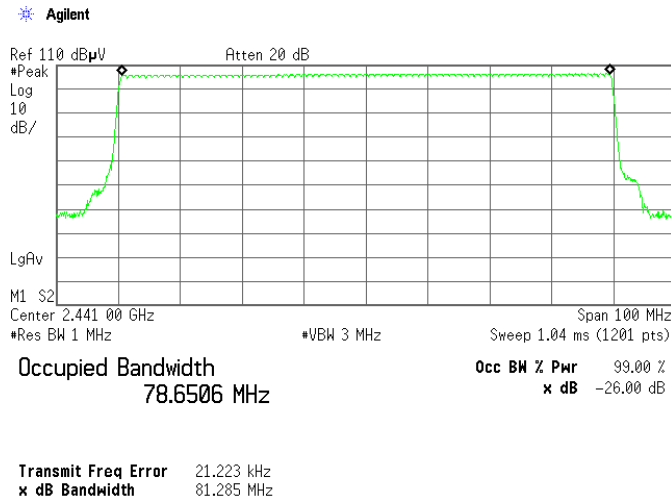
5. ch : 2441MHz



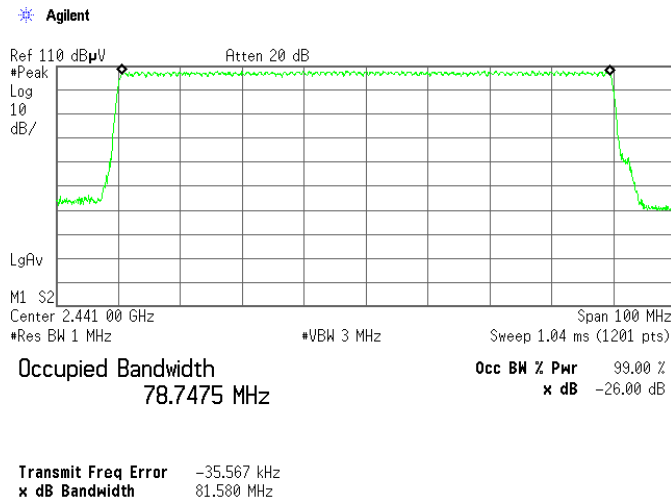
6. ch : 2480MHz



**7. Hopping, DH5**



**8. Hopping, 3DH5**



### 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.2.0)	-	CE	-
KLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	8127344	CE	2009/08/18 * 12
KCC-14/15/16/18/KPL-01/KRM-01	Coaxial Cable/Pulse Limiter/RF Relay Matrix	Fujikura/Suhner/PMM/TSJ	5D-2W(10m)/8D-2W(10m)/S04272B(2m)/S04272B(2m)/P L01/-	-/9909017	CE	2009/05/26 * 12
KSA-10	Spectrum Analyzer	Advantest	R3265A	45060268	CE	2010/01/21 * 12
KTR-02	Test Receiver	Rohde & Schwarz	ESCS30	830986/017	CE	2009/09/16 * 12
KJM-10	Measure	KOMELON	KMC-36	-	CE	-
KOS-04	Humidity Indicator	SATO	PC-5000TRH	B-08	CE	2009/07/23 * 12
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	2009/03/27 * 12
KAT6-01	Attenuator	INMET	18N-6dB	-	RE	2009/03/10 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1926	RE	2009/12/28 * 12
KLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	170	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
KAF-02	Pre Amplifier	Hewlett Packard	8449B	3008A01268	RE	2009/04/24 * 12
KAT3-08	Attenuator	JFW IND. INC.	50HF-003N	-	RE	2009/08/18 * 12
KCC-D13/D16	Coaxial cable	Suhner/INSULATED WIRE INC	SUCOFLEX104(10m)/KPS-1501-200-KPS(0.5m)	200723/4/04202005	RE	2009/04/27 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	95060087	RE	2010/01/12 * 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
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
KCC-D20	Coaxial Cable	SUHNER	SUCOFLEX102	31110/2	AT 1,2,3,4,6,7	2009/07/30 * 12
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
KOS-02	Humidity Indicator	Custom	CTH-190	K-02	RE	2009/07/23 * 12
KJM-07	Measure	KOMELON	KMC-36	-	RE	-
KDT-01	Coaxial Crystal Detector	Agilent	8473C	1822A05320	AT 7	Pre Check
KTR-04	Test Receiver	Rohde & Schwarz	ESVS10	825475/006	RE	2009/03/03 * 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