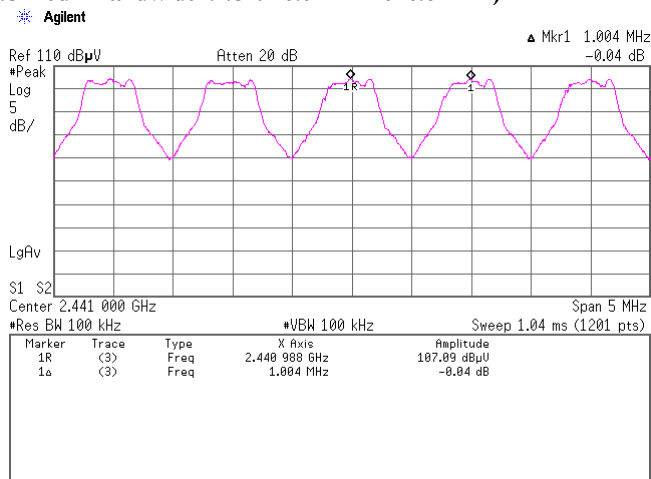


Channel Separation (Regulation: FCC 15.247(a)(1))

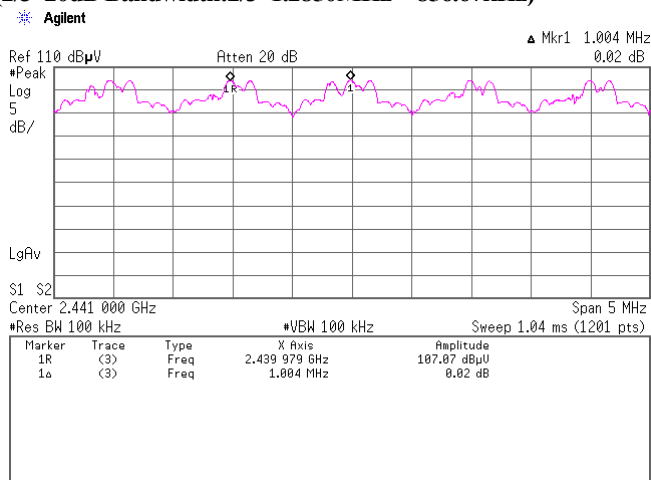
UL Japan, Inc. Yamakita EMC lab.	No.4	shielded room
Date:	2010/06/21	
Temp./Humid.:	26	deg. C. / 61 %
Engineer:	Minoru Nakatake	
Test mode:	Transmitting	

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

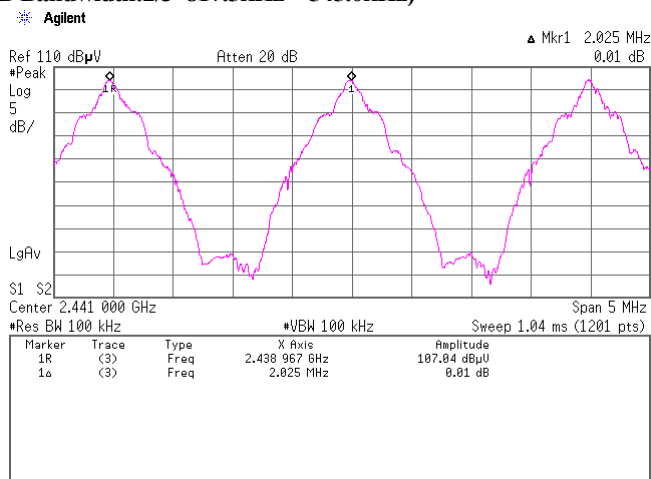
1. Hopping, DH5: 1.004MHz ($2/3 * 20\text{dB}$ Bandwidth: $2/3 * 940.0\text{kHz} = 626.67\text{kHz}$)



2. Hopping, 3DH5: 1.004MHz ($2/3 * 20\text{dB}$ Bandwidth: $2/3 * 1.2850\text{MHz} = 856.67\text{kHz}$)



3. Inquiry: 2.025MHz ($2/3 * 20\text{dB}$ 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.

Date:

Temp/Humid.:

Engineer:

Test mode:

No.4 shielded room

2010/06/21

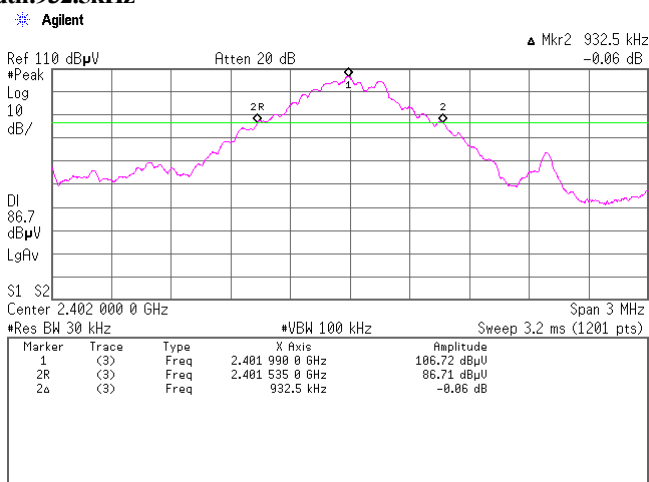
26 deg. C. / 61 %

Minoru Nakatake

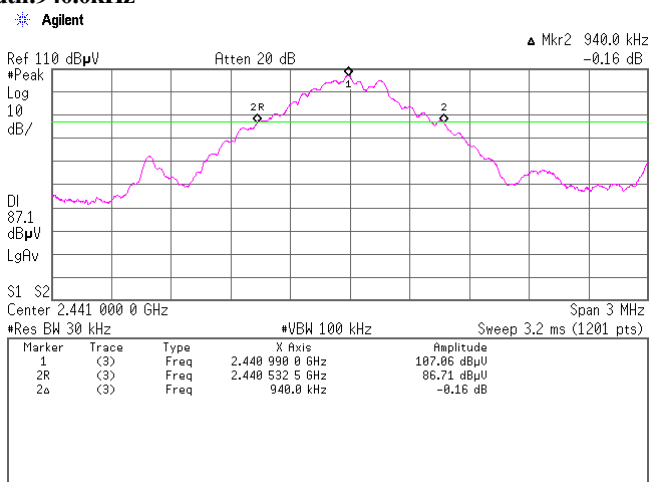
Transmitting

[Hopping off, DHS]

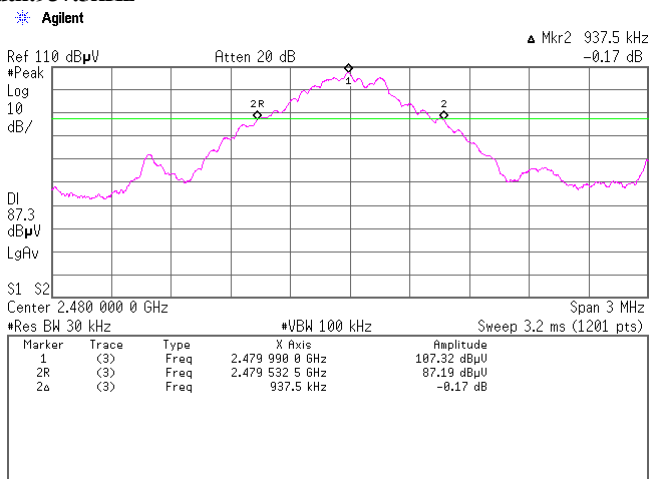
1. ch : 2402MHz/20dB Bandwidth:932.5kHz



2. ch : 2441MHz/20dB Bandwidth:940.0kHz

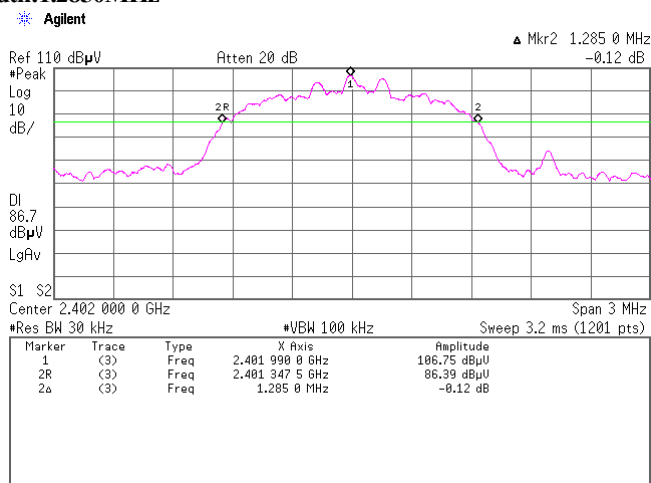


3. ch : 2480MHz/20dB Bandwidth:937.5kHz

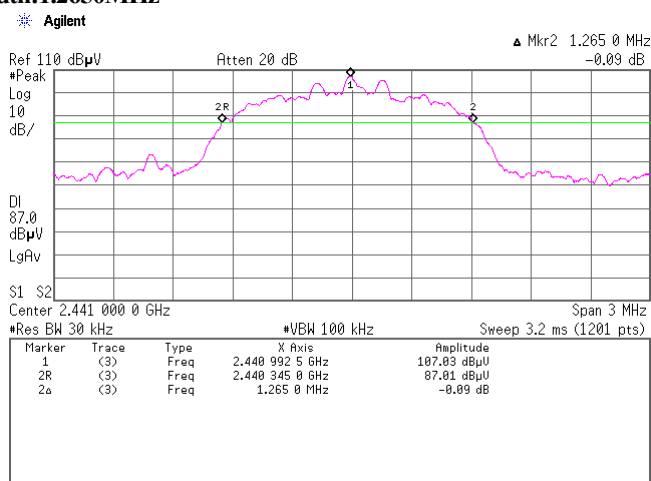


[Hopping off, 3DH5]

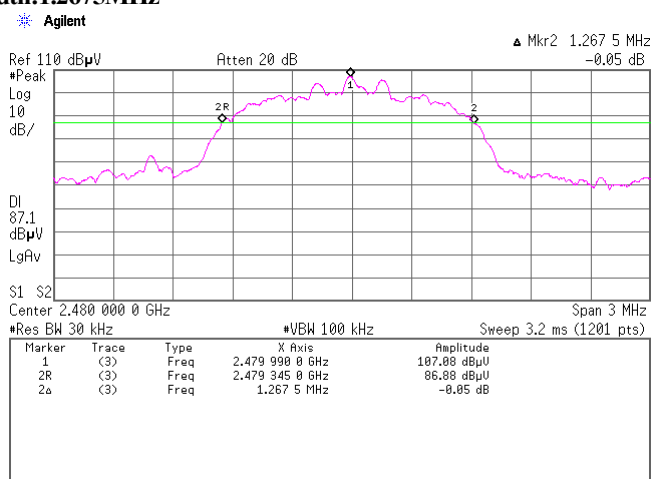
4. ch : 2402MHz/20dB Bandwidth:1.2850MHz



5. ch : 2441MHz/20dB Bandwidth:1.2650MHz

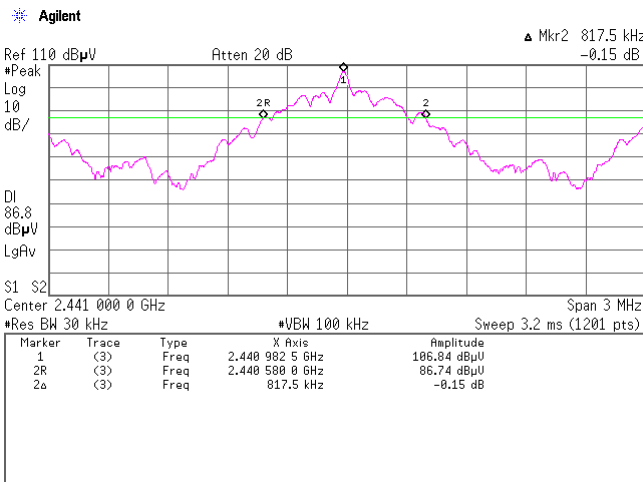


6. ch : 2480MHz/20dB Bandwidth:1.2675MHz



[Inquiry]

7. Inquiry/20dB Bandwidth:817.5kHz



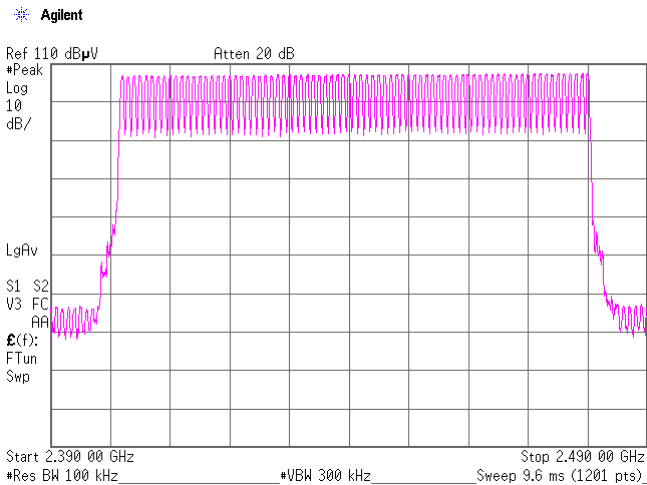
Channel Utilization (Regulation: FCC 15.247(a)(1)(iii))

UL Japan, Inc. Yamakita EMC lab.
Date:
Temp./Humid.:
Engineer:
Test mode:

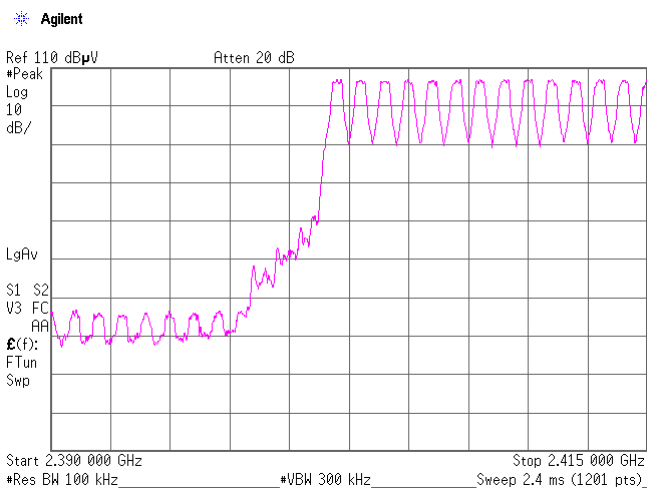
No.4 shielded room
2010/06/21
26 deg. C. / 61 %
Minoru Nakatake
Transmitting

Hopping, DH5: 79ch

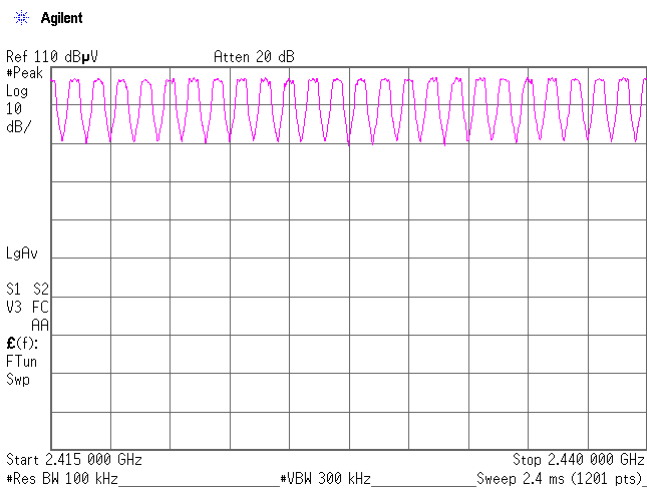
1.



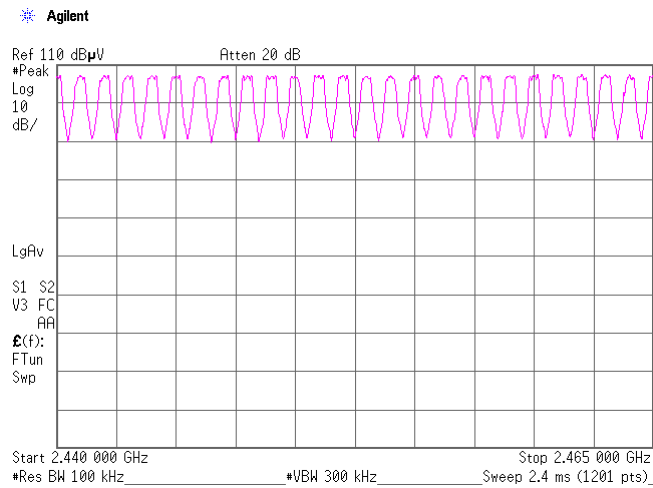
2.



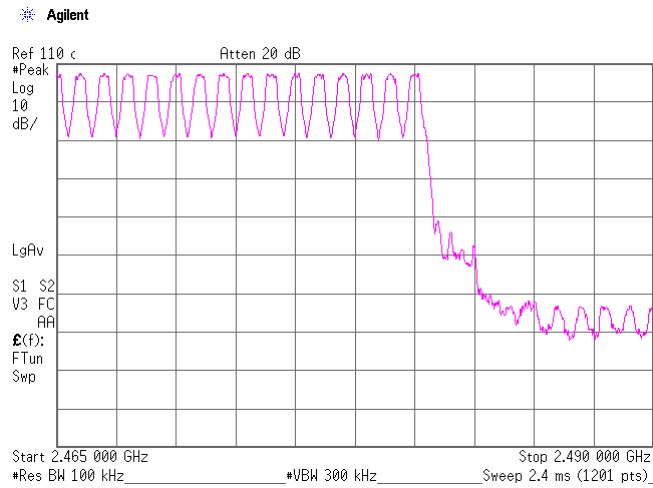
3.



4.

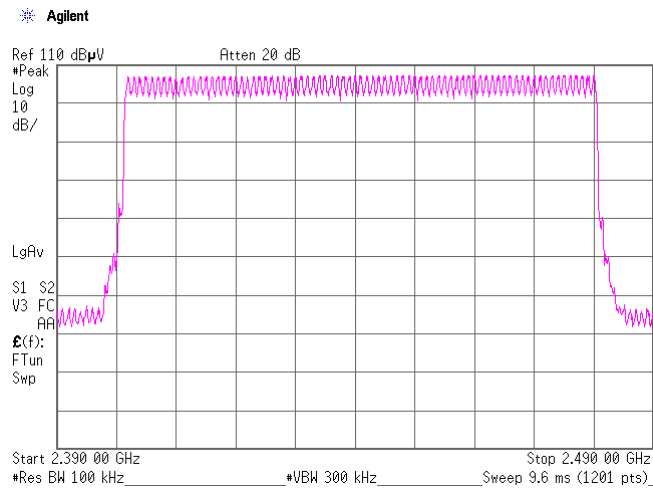


5.

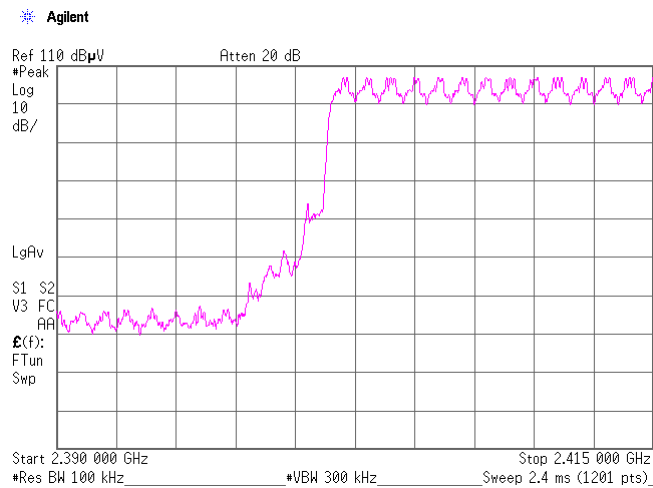


Hopping, 3DH5: 79ch

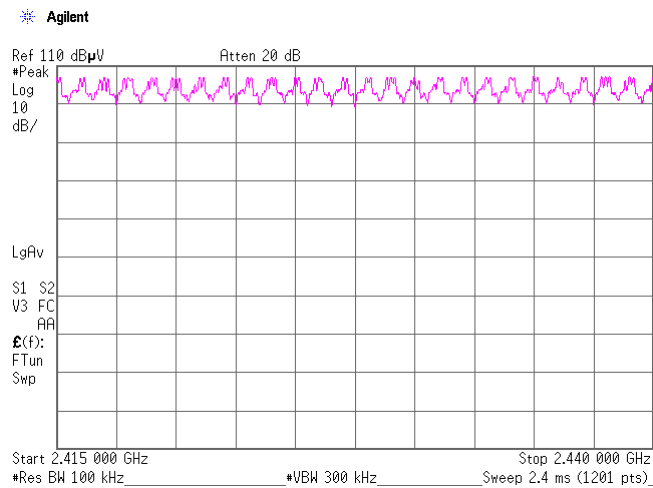
1.



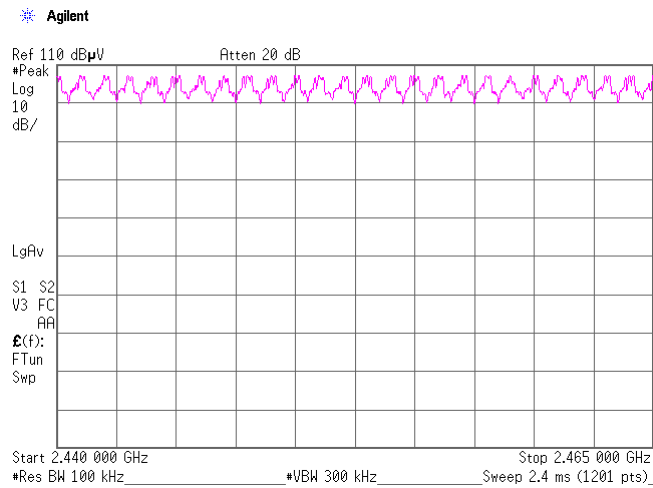
2.



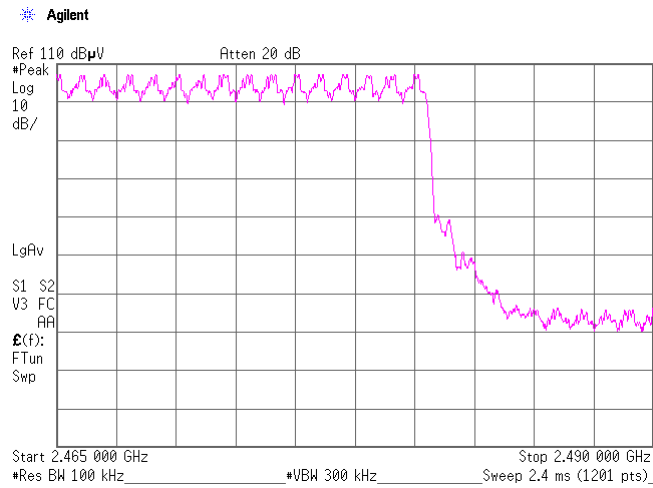
3.



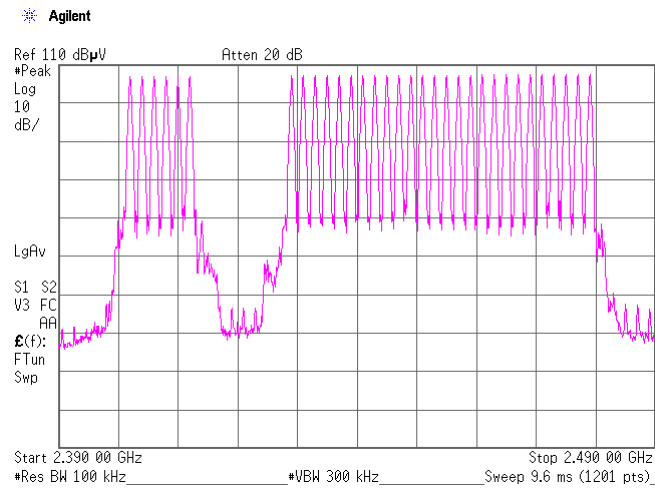
4.



5.



1. Inquiry: 32ch

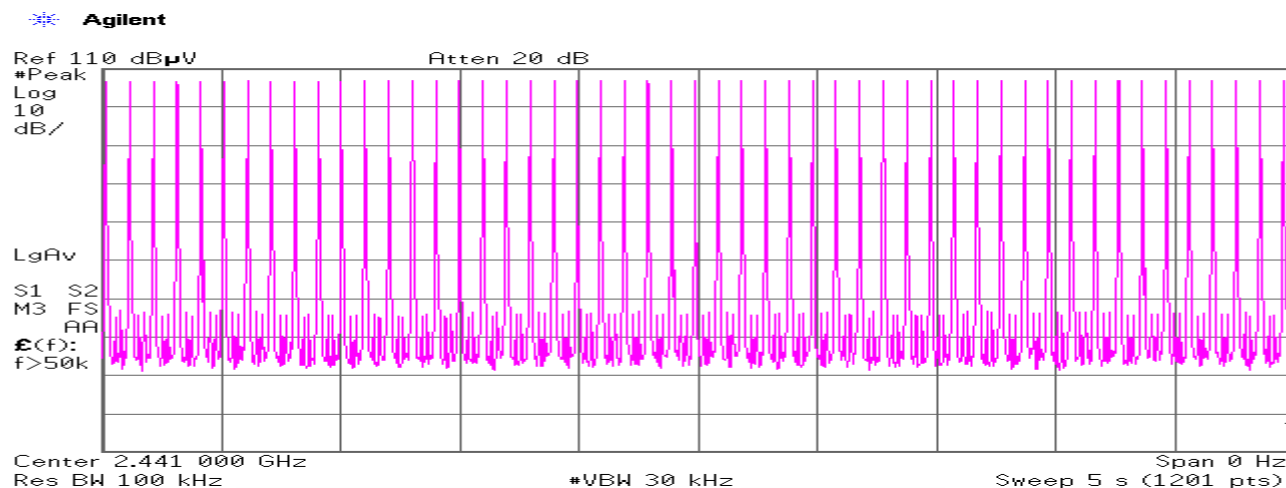


Dwell Time (Regulation: FCC 15.247(a)(1)(iii))

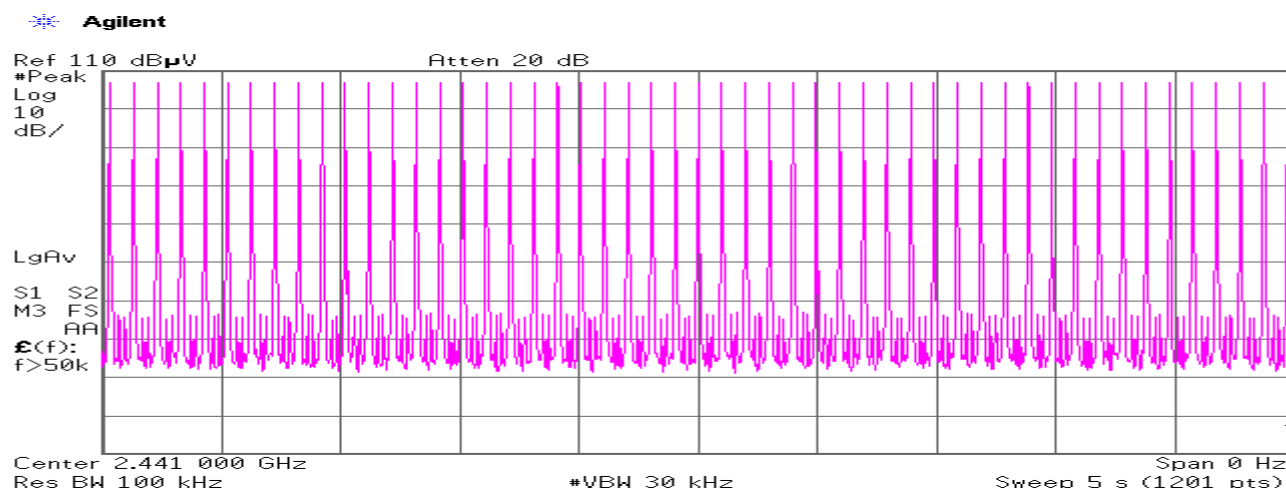
UL Japan, Inc. Yamakita EMC lab.	No.4	shielded room
Date:	2010/06/21	
Temp./Humid.:	26	deg. C. / 64 %
Engineer:	Minoru Nakatake	
Test mode:	Transmitting	

Hopping (DH1):

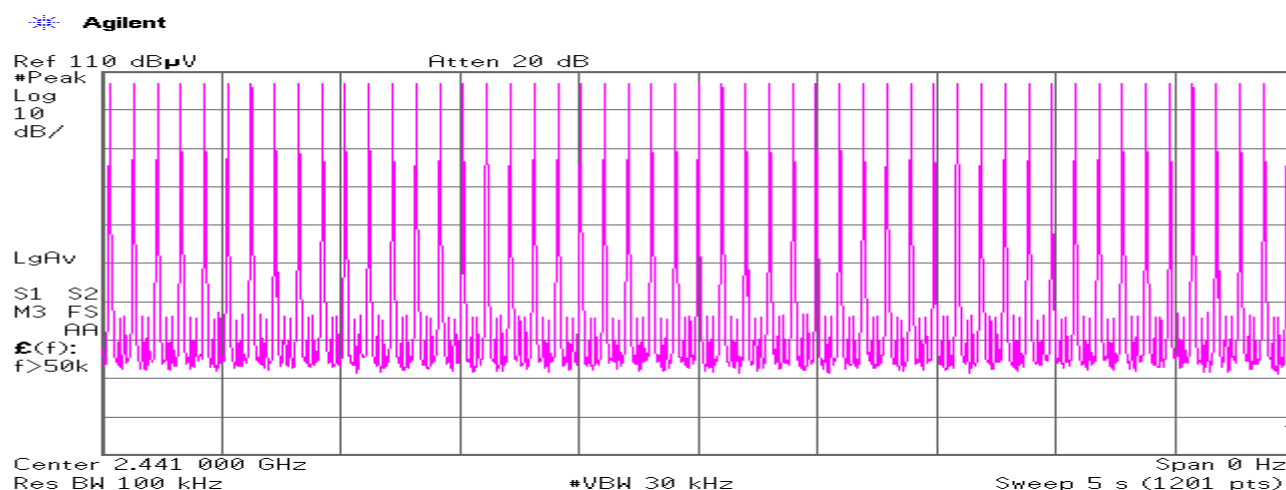
Count 1



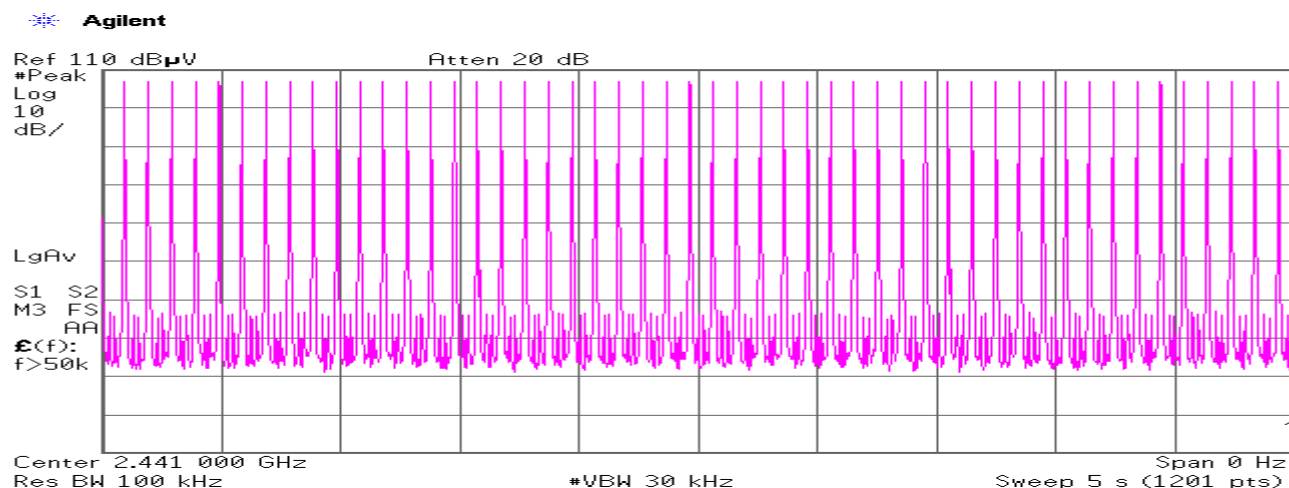
Count 2



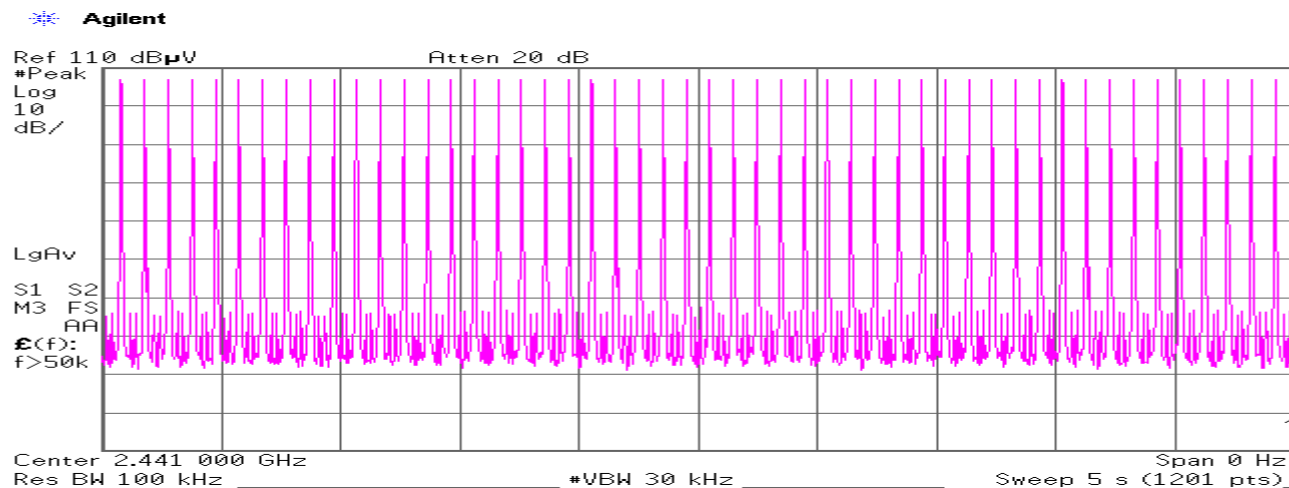
Count 3



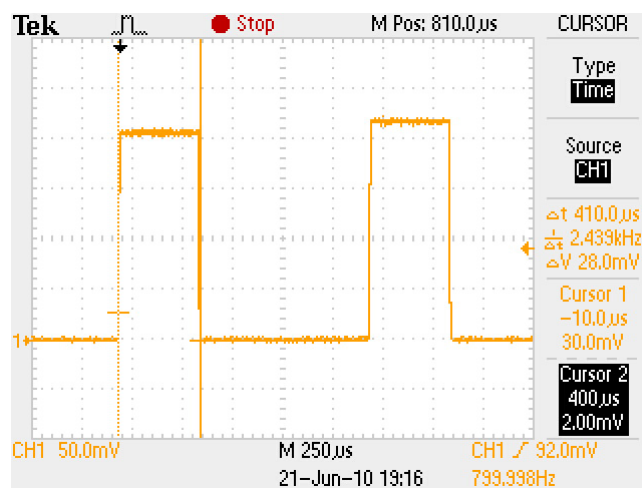
Count4



Count5



Duty cycle(Hopping DH1)



Average times of rising in 5 sec. of sweep = (51+ 51 + 51 + 50 + 50) / 5 = 50.6

Average times of rising in 1 sec. = 50.6 / 5s = 10.12

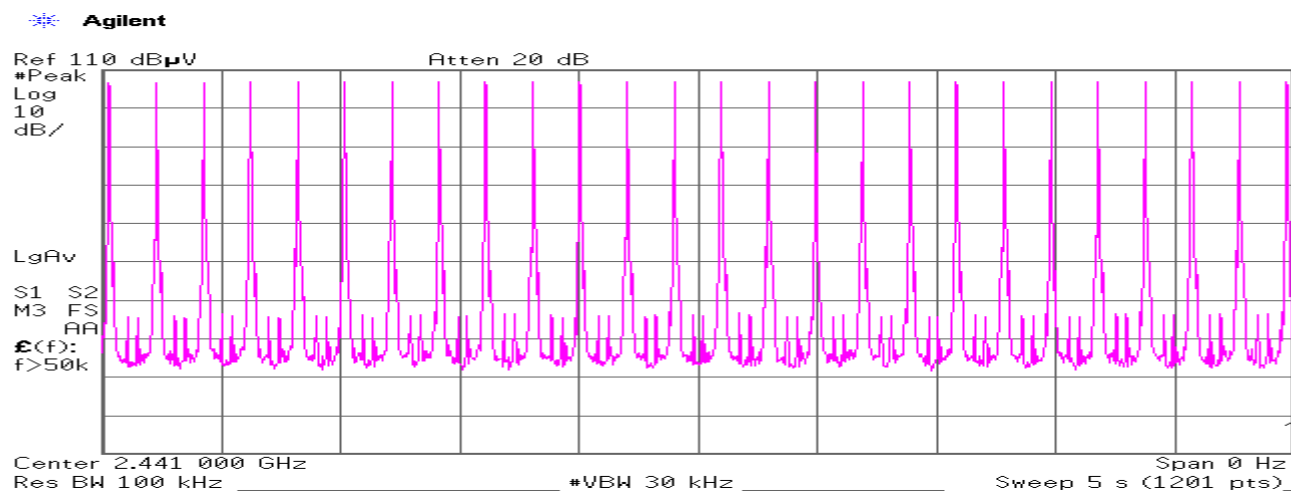
Average times of rising in 0.4x = 0.4 * 79ch * 10.12 = 319.79

Dwell time = 319.79 * 0.410 = 131.11 [ms]

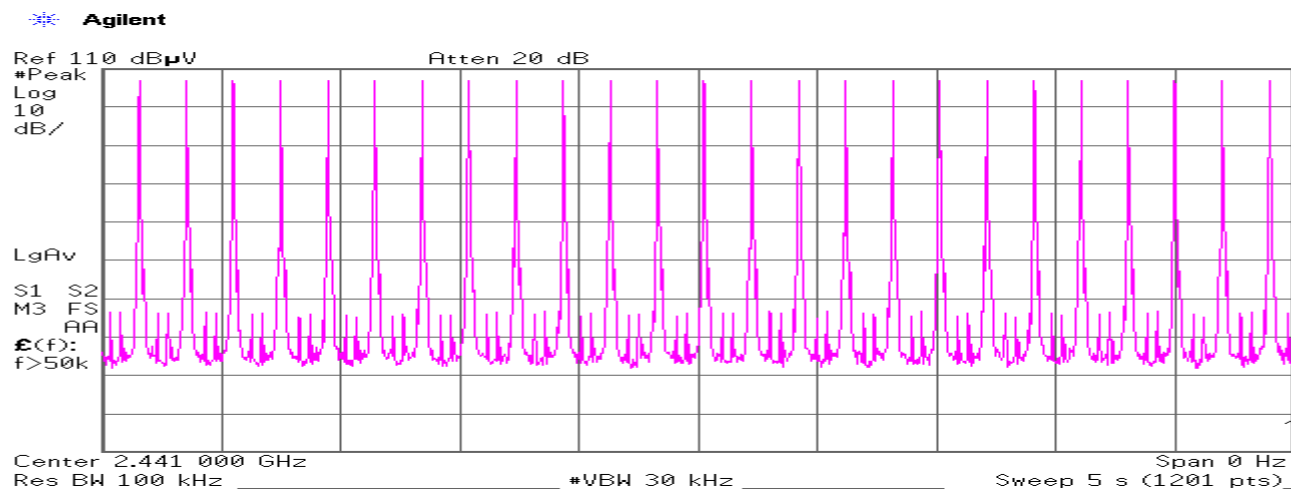
Limit : Dwell Time < 0.4[s]

Hopping (DH3):

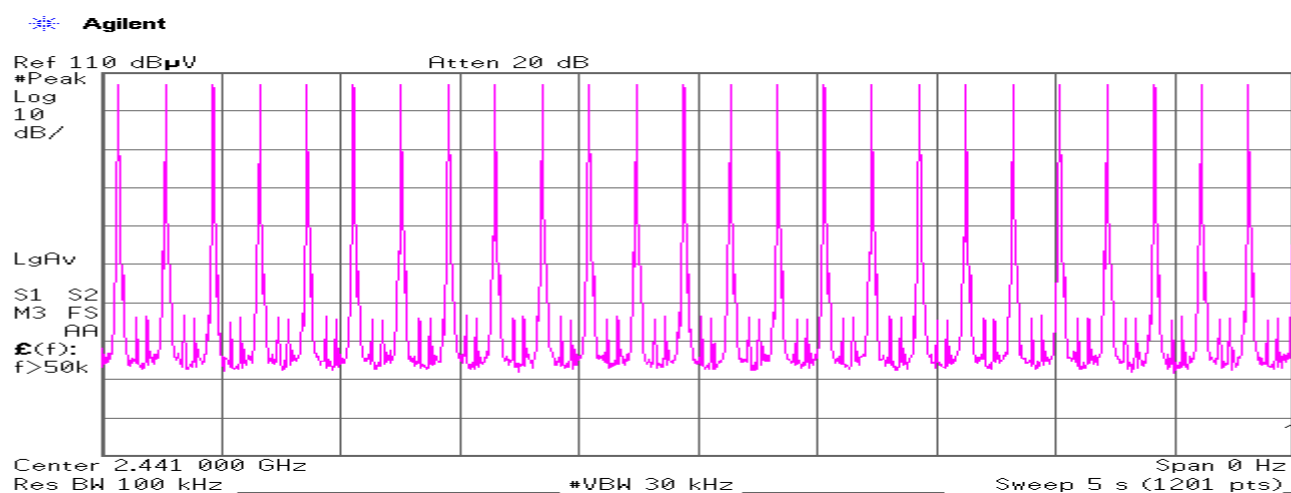
Count 1



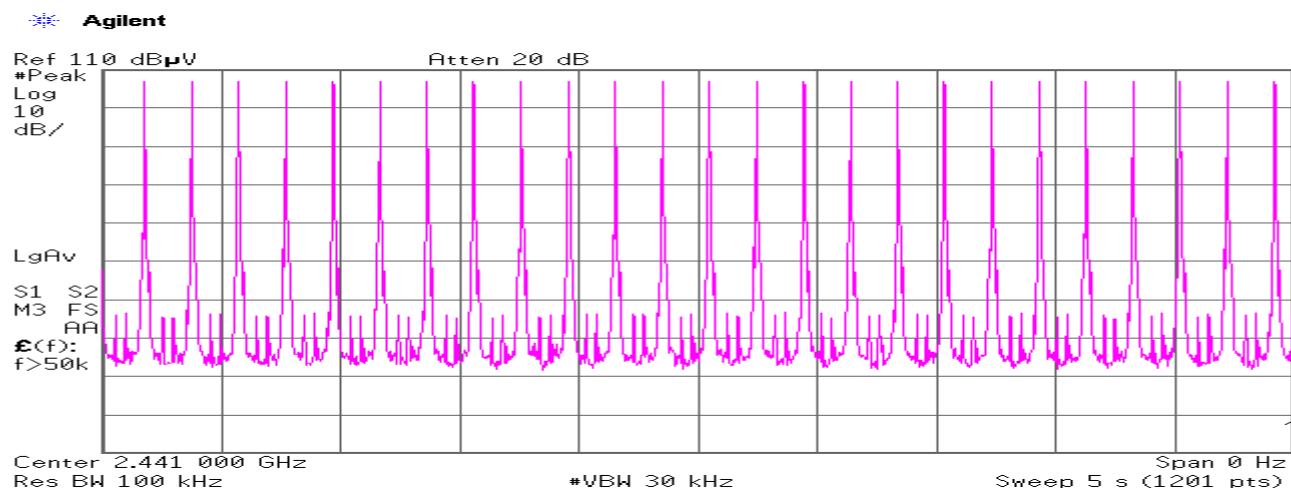
Count 2



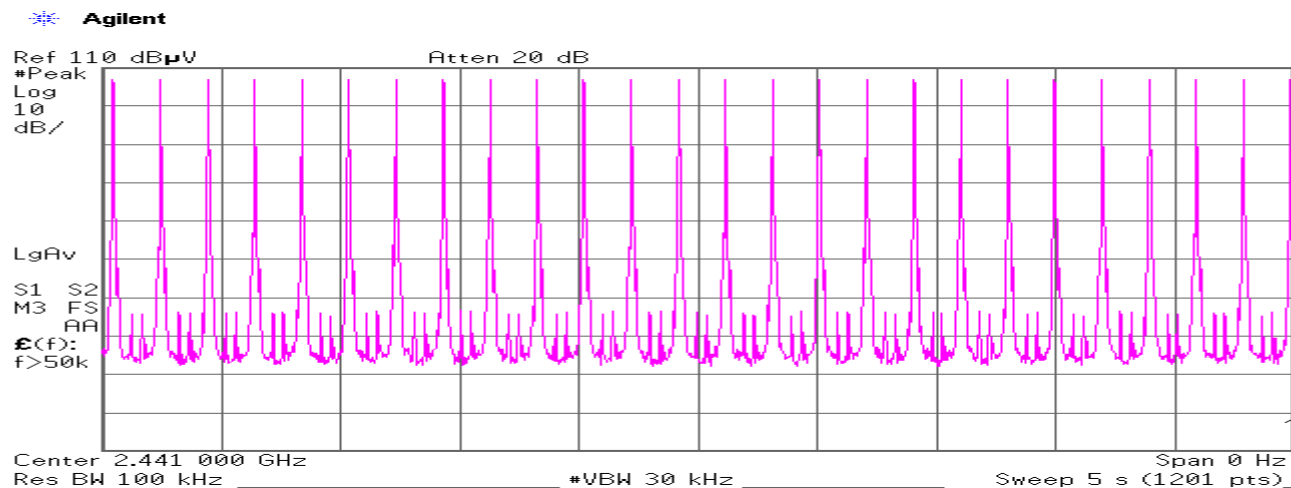
Count 3



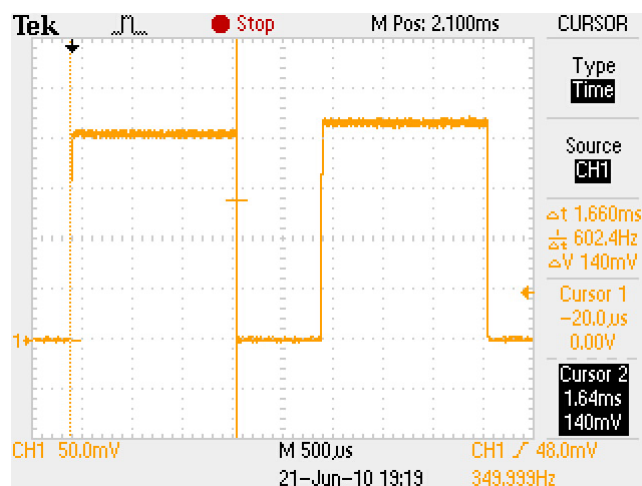
Count4



Count5



Duty cycle(Hopping DH3)



Average times of rising in 5 sec. of sweep = (26 + 25 + 25 + 25 + 26) / 5 = 25.4

Average times of rising in 1 sec. = 25.4 / 5s = 5.08

Average times of rising in 0.4x = 0.4 * 79ch * 5.08 = 160.53

Dwell time = 160.53 * 1.66 = 266.48 [ms]

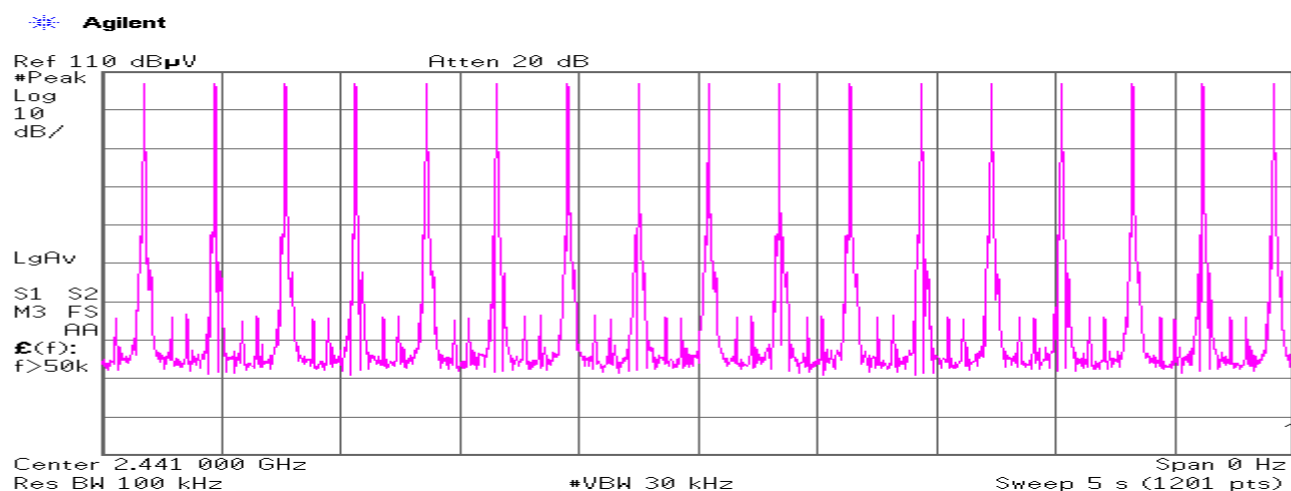
Limit : Dwell Time < 0.4[s]

Company: Sony EMCS Corporation Kisarazu TEC
Kind of Equipment: AV Navigation
Serial No.: 40

Report No.: 30JE0058-YK-01-A
Model No.: XNV-770BT
Power: DC 12.0V

Hopping (DHS):

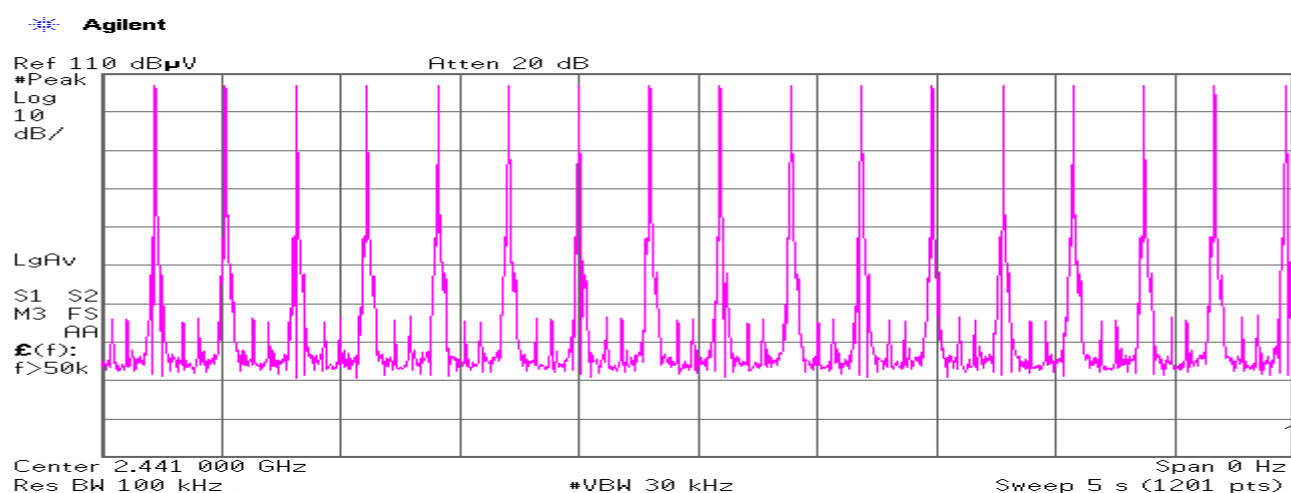
Count 1



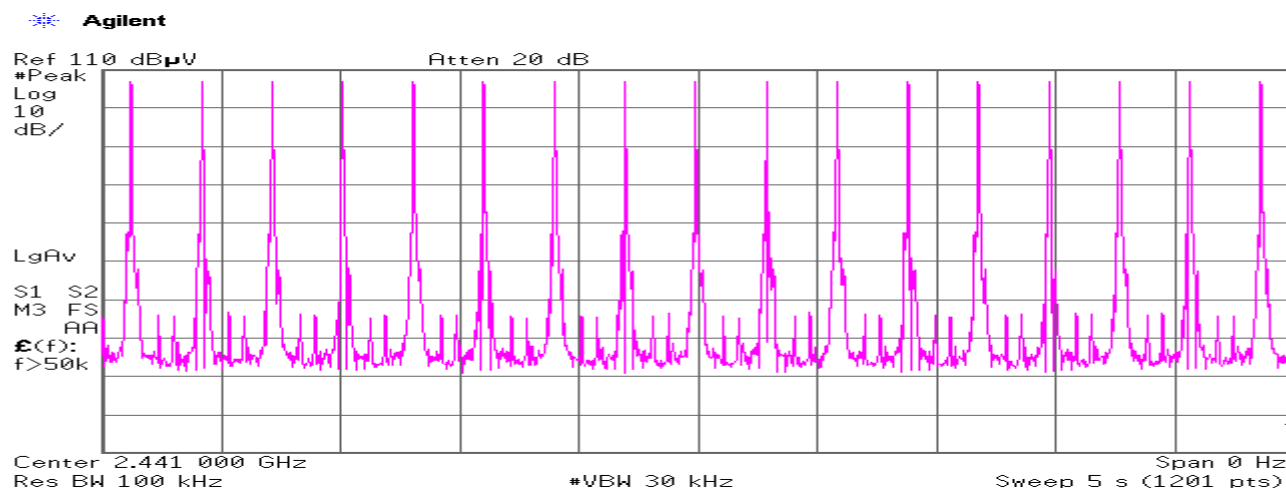
Count 2



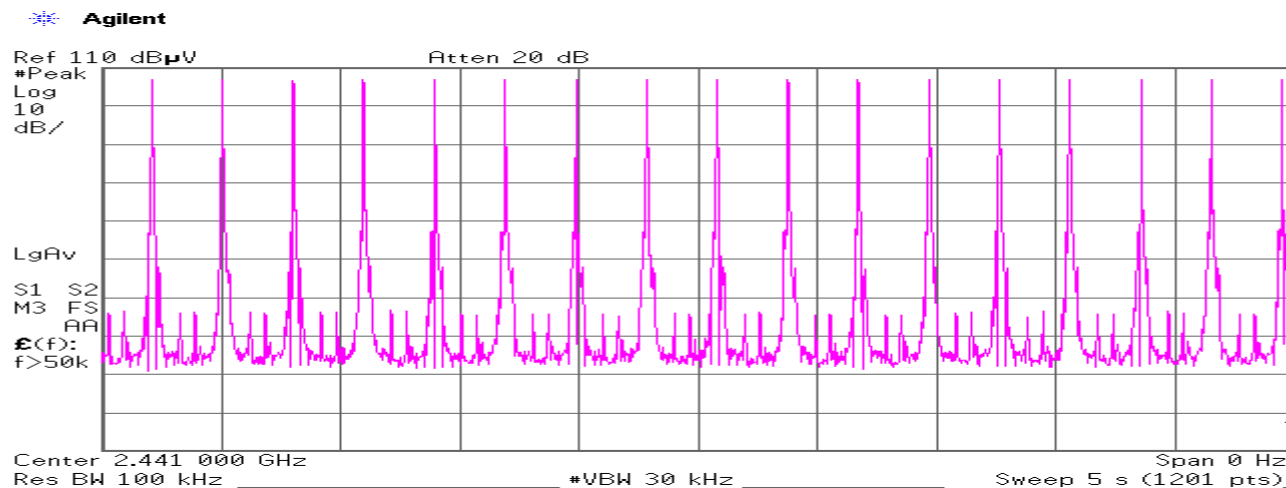
Count 3



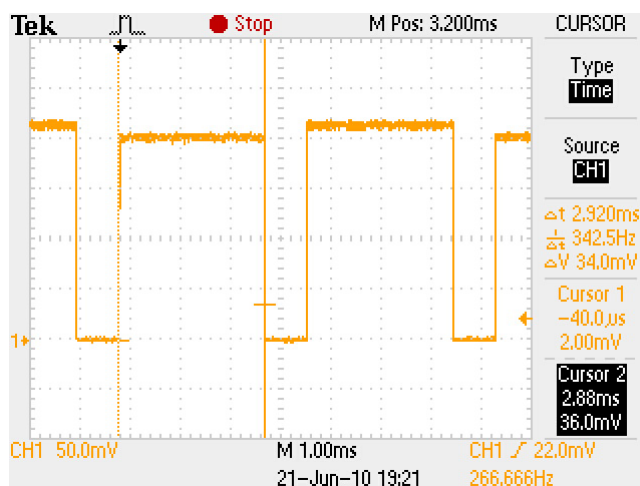
Count4



Count5



Duty cycle(Hopping DH5)



Average times of rising in 5 sec. of sweep = $(17 + 16 + 17 + 17 + 17) / 5 = 16.8$

Average times of rising in 1 sec. = $16.8 / 5s = 3.36$

Average times of rising in 0.4x = $0.4 * 79ch * 3.36 = 106.18$

Dwell time = $106.18 * 2.92 = 310.05$ [ms]

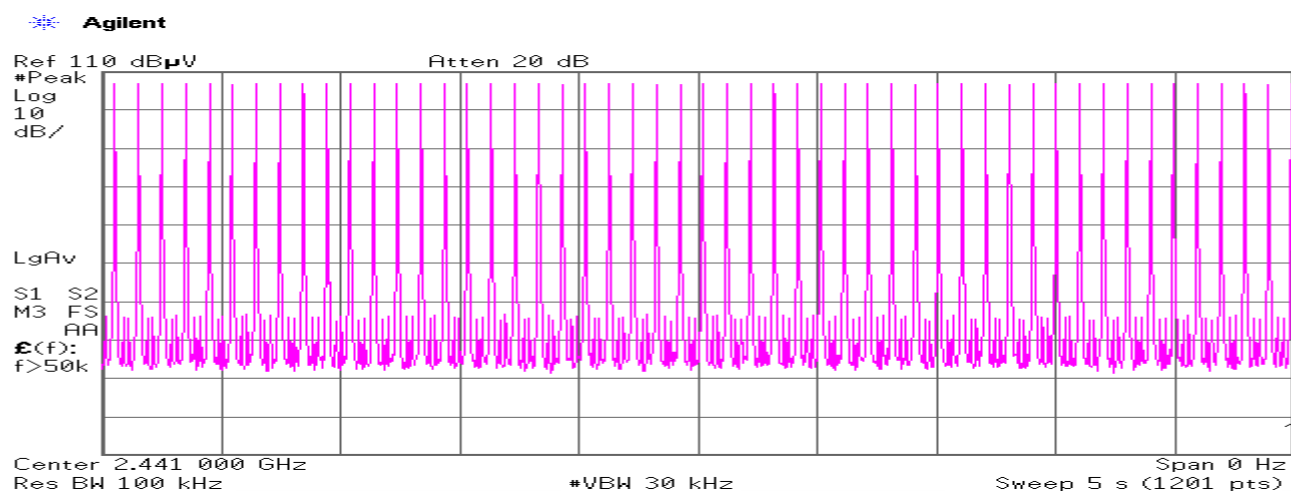
Limit : Dwell Time < 0.4[s]

Company: Sony EMCS Corporation Kisarazu TEC
Kind of Equipment: AV Navigation
Serial No.: 40

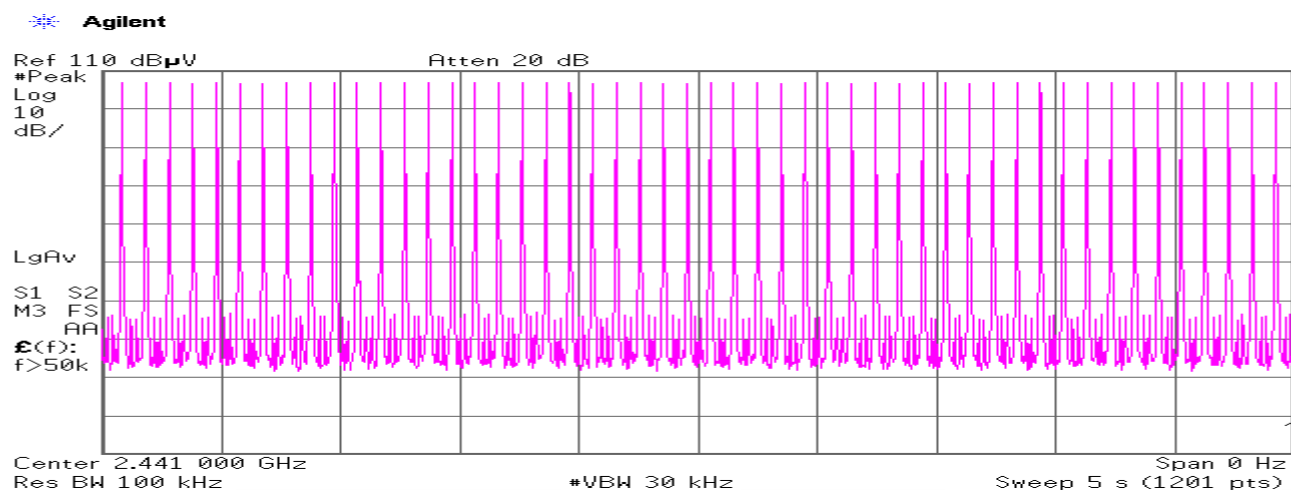
Report No.: 30JE0058-YK-01-A
Model No.: XNV-770BT
Power: DC 12.0V

Hopping (3DH1):

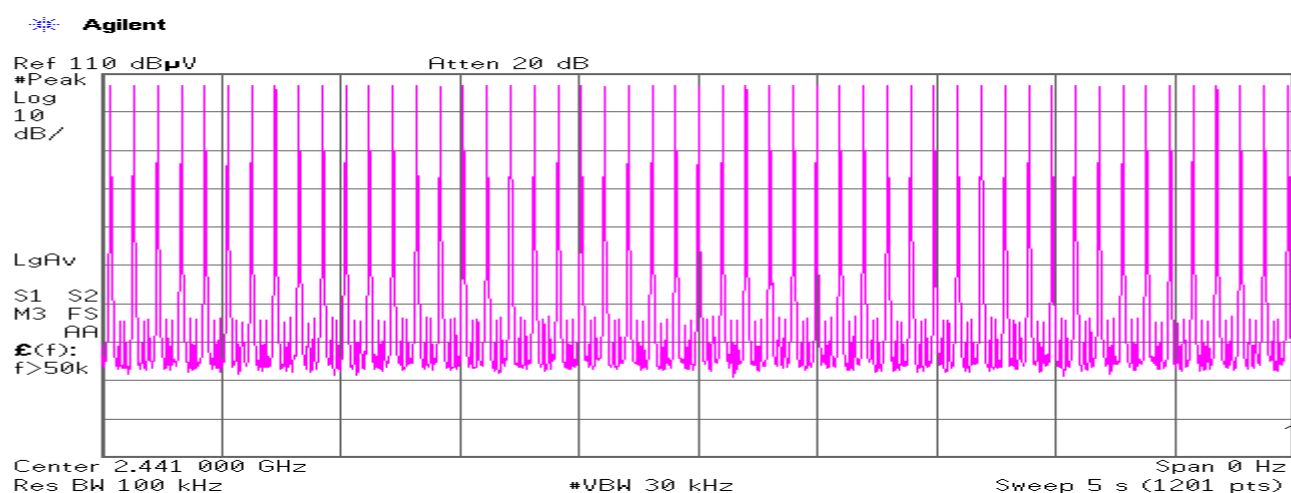
Count 1



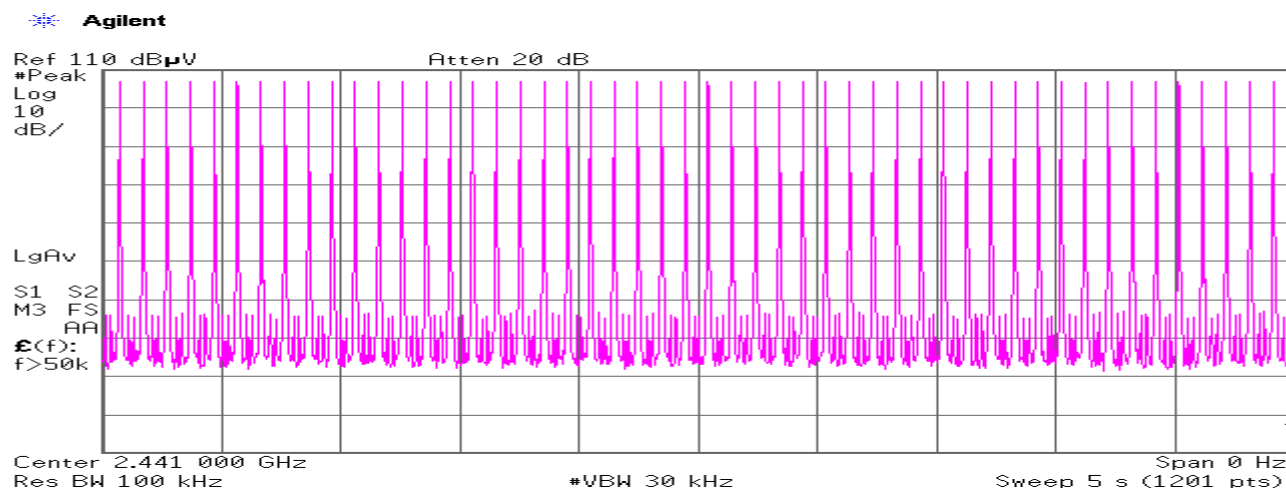
Count 2



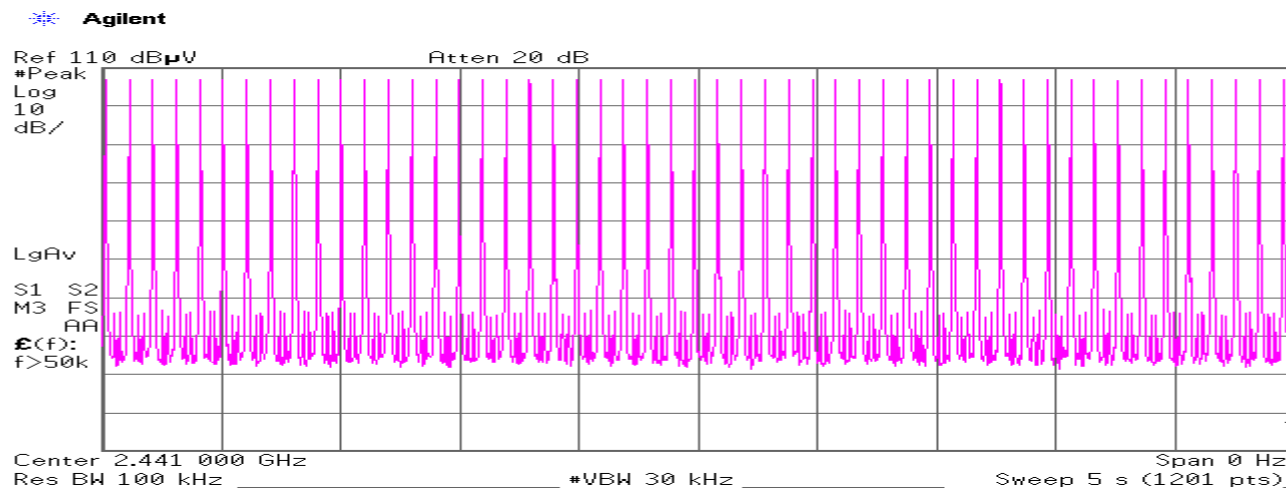
Count 3



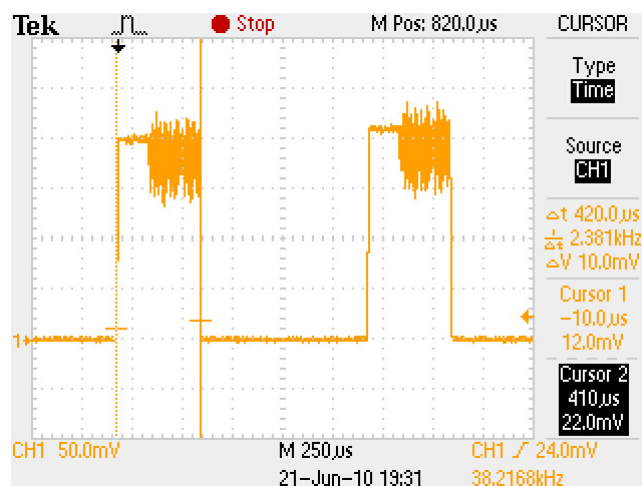
Count4



Count5



Duty cycle(Hopping 3DH1)



Average times of rising in 5 sec. of sweep = $(51 + 50 + 51 + 50 + 51) / 5 = 50.6$

Average times of rising in 1 sec. = $50.6 / 5s = 10.12$

Average times of rising in 0.4x = $0.4 * 79ch * 10.12 = 319.79$

Dwell time = $319.79 * 0.42 = 134.31 [ms]$

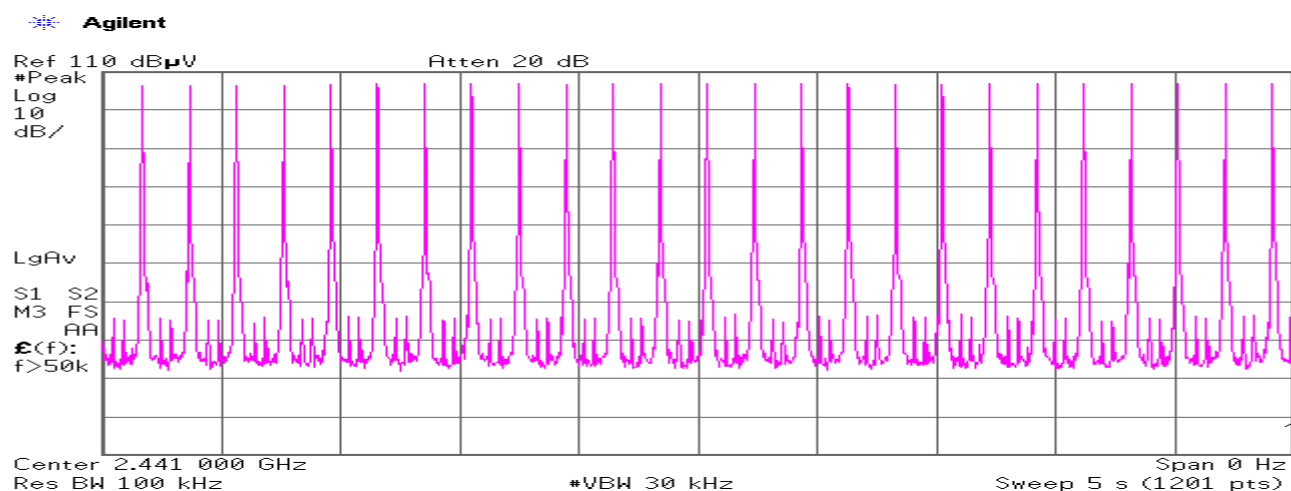
Limit : Dwell Time < 0.4[s]

Company: Sony EMCS Corporation Kisarazu TEC
Kind of Equipment: AV Navigation
Serial No.: 40

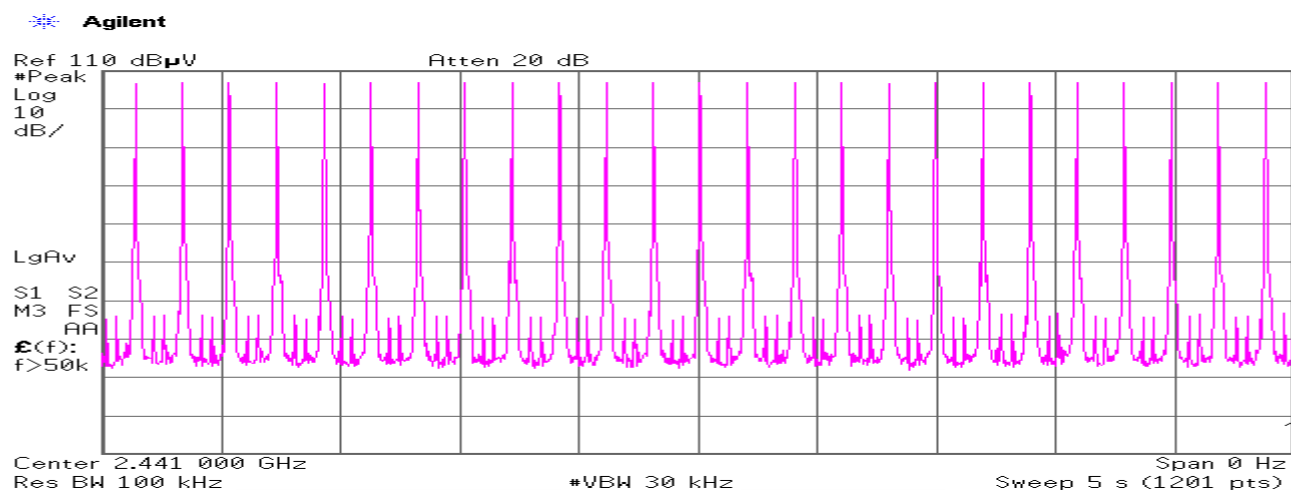
Report No.: 30JE0058-YK-01-A
Model No.: XNV-770BT
Power: DC 12.0V

Hopping (3DH3):

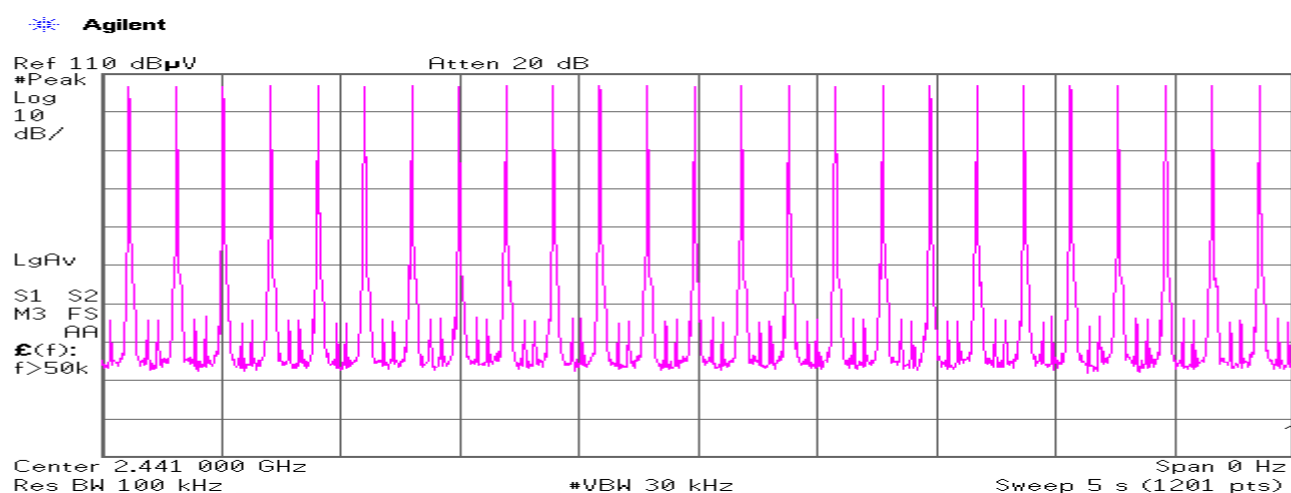
Count 1



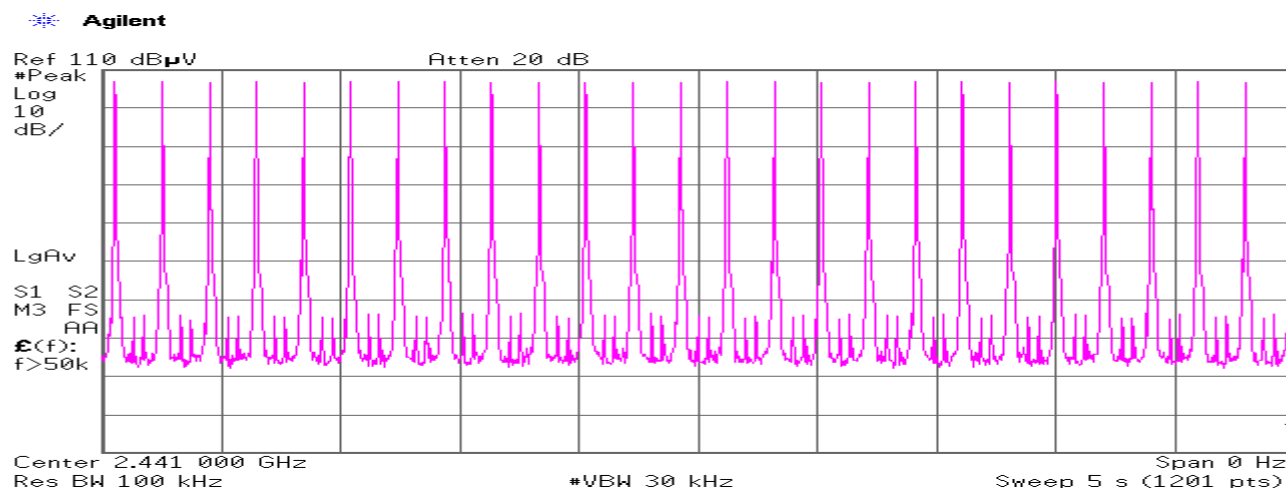
Count 2



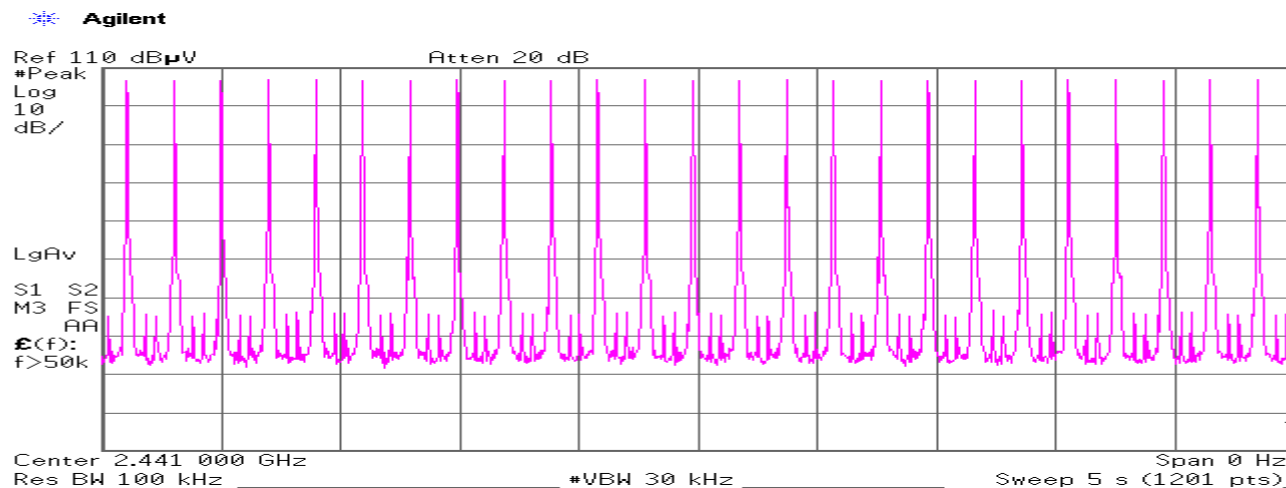
Count 3



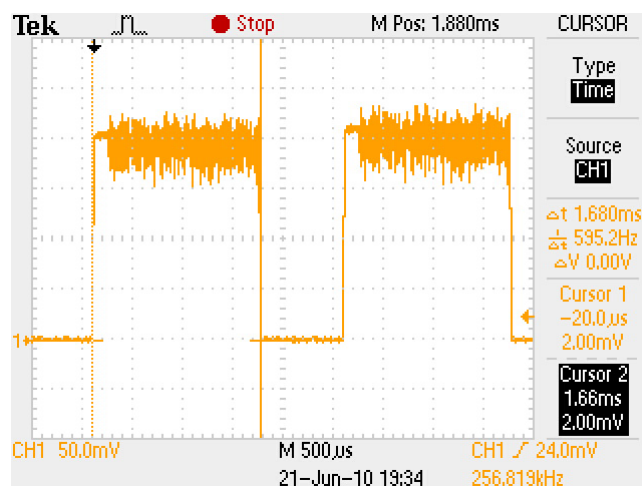
Count4



Count5



Duty cycle(Hopping 3DH3)



Average times of rising in 5 sec. of sweep = (25 + 25 + 25 + 26 + 25) / 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 * 1.68 = 267.56 [ms]

Limit : Dwell Time < 0.4[s]

Company: Sony EMCS Corporation Kisarazu TEC
Kind of Equipment: AV Navigation
Serial No.: 40

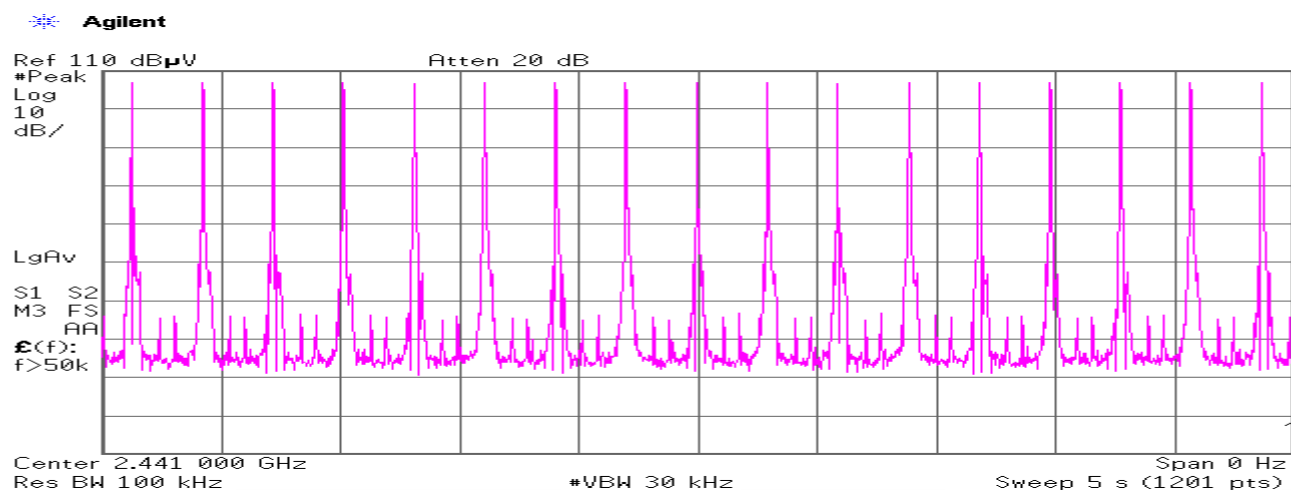
Report No.: 30JE0058-YK-01-A
Model No.: XNV-770BT
Power: DC 12.0V

Hopping (3DH5):

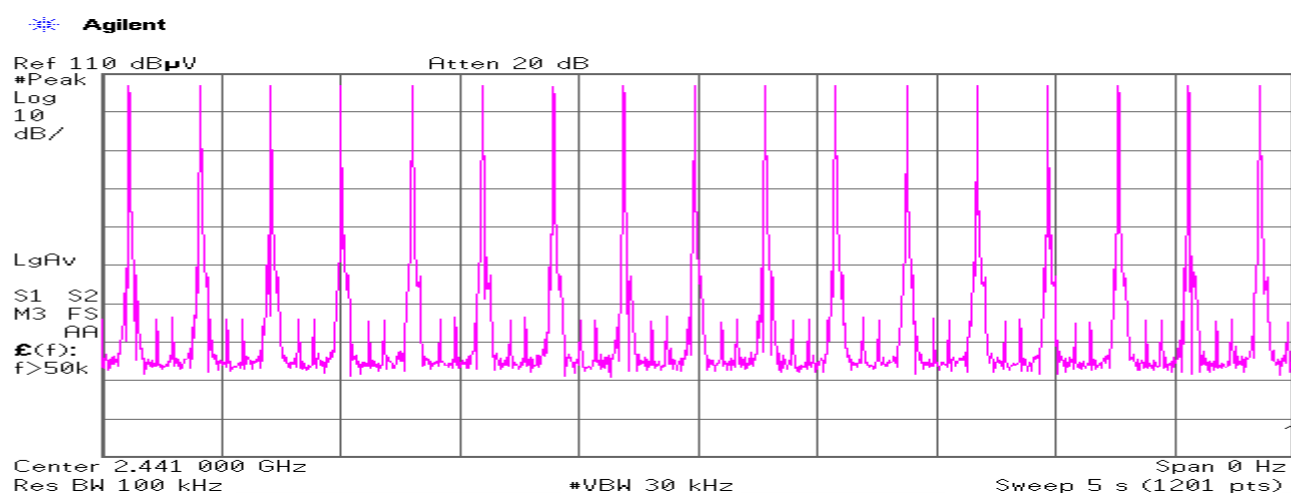
Count 1



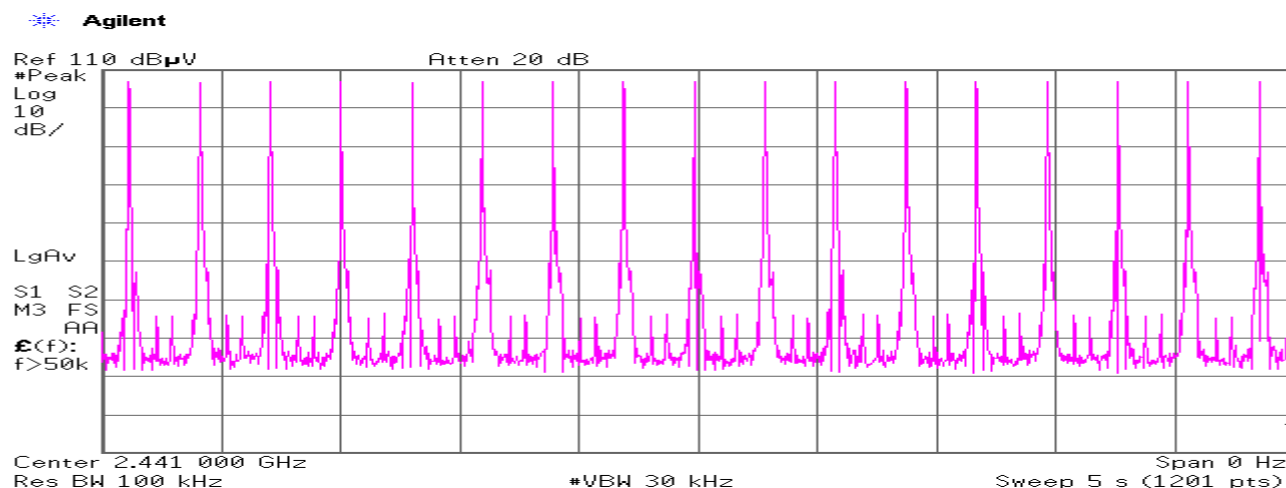
Count 2



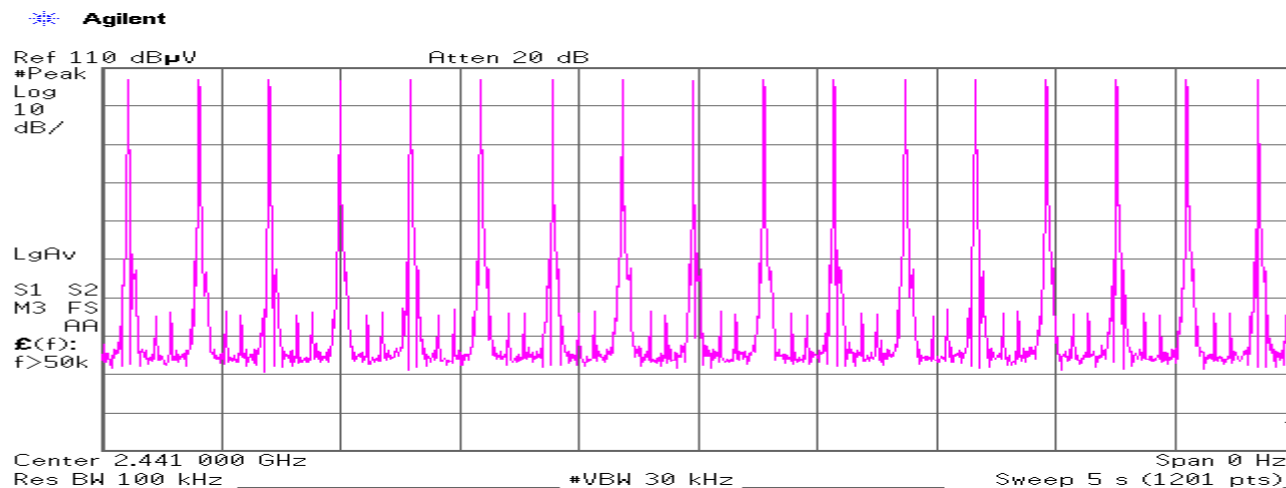
Count 3



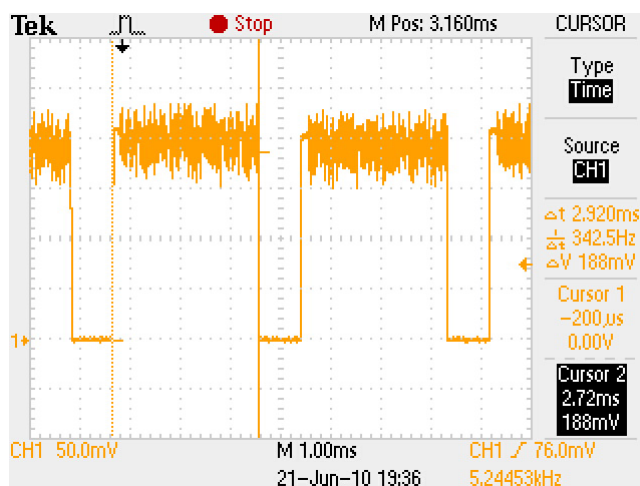
Count4



Count5



Duty cycle(Hopping 3DH5)



Average times of rising in 5 sec. of sweep = $(17 + 17 + 17 + 17 + 17) / 5 = 17.0$

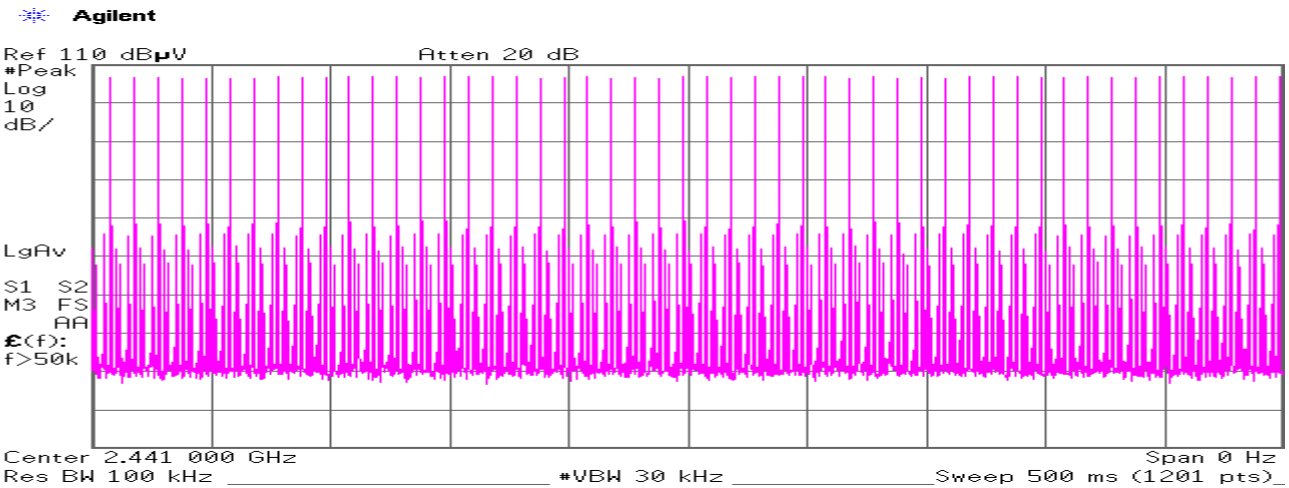
Average times of rising in 1 sec. = $17.0 / 5s = 3.4$

Average times of rising in 0.4x = $0.4 * 79ch * 3.4 = 107.44$

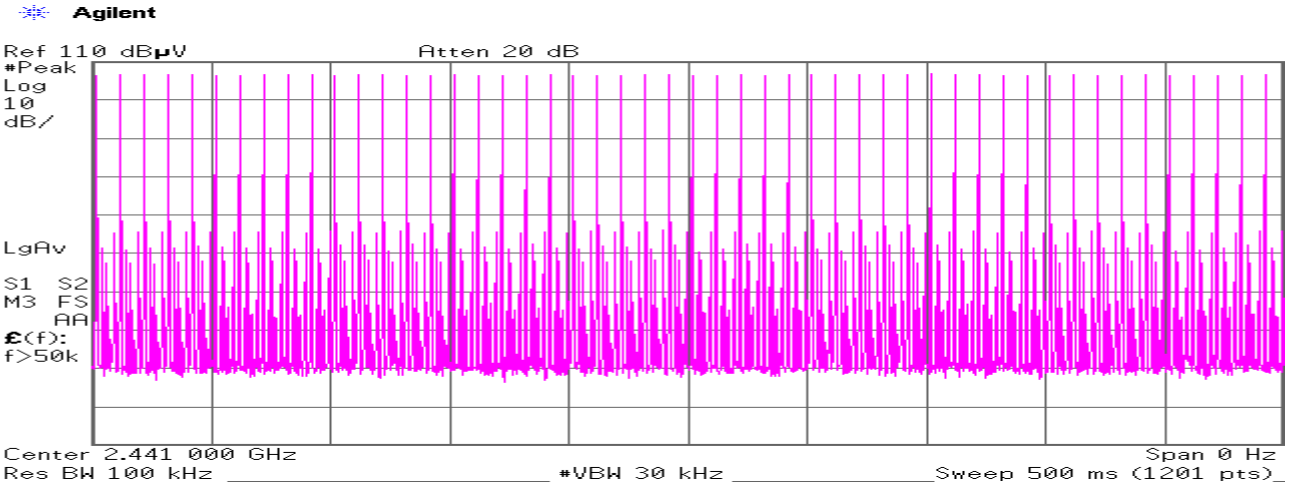
Dwell time = $107.44 * 2.92 = 313.72$ [ms]

Limit : Dwell Time < 0.4[s]

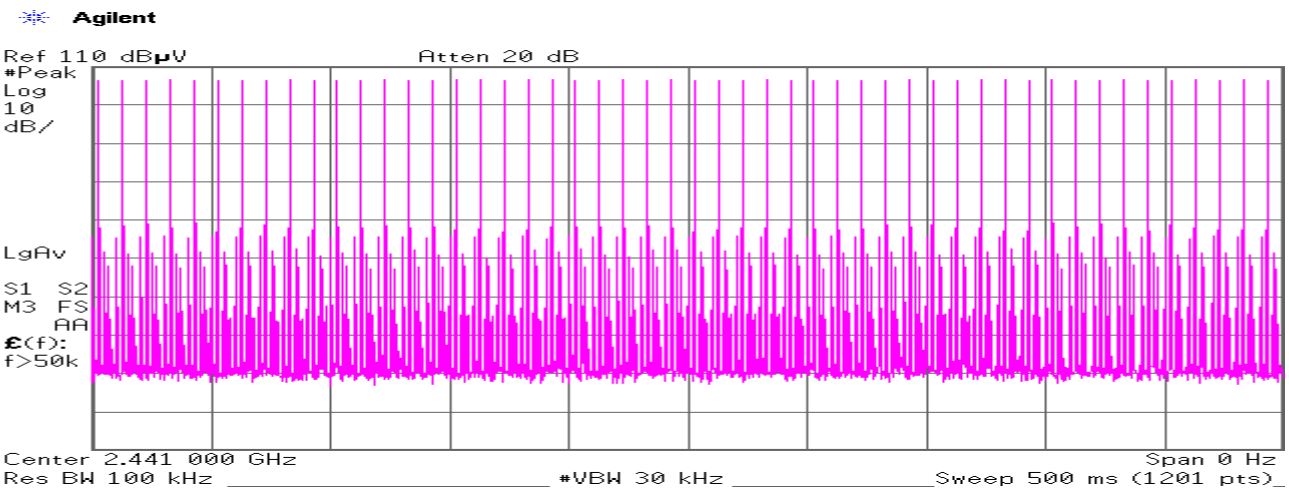
Inquiry:
Count 1



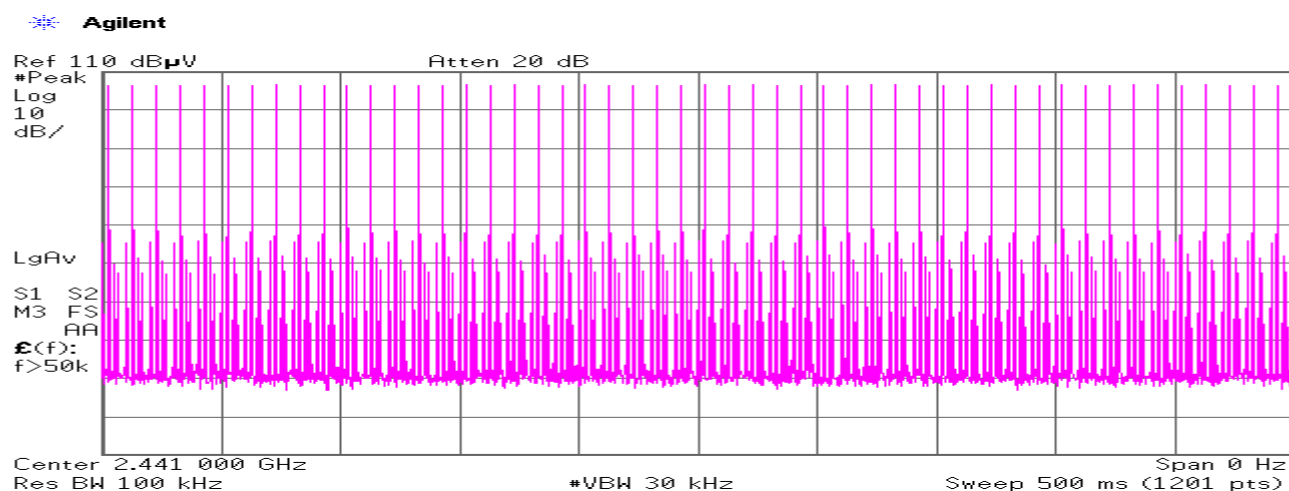
Count 2



Count 3



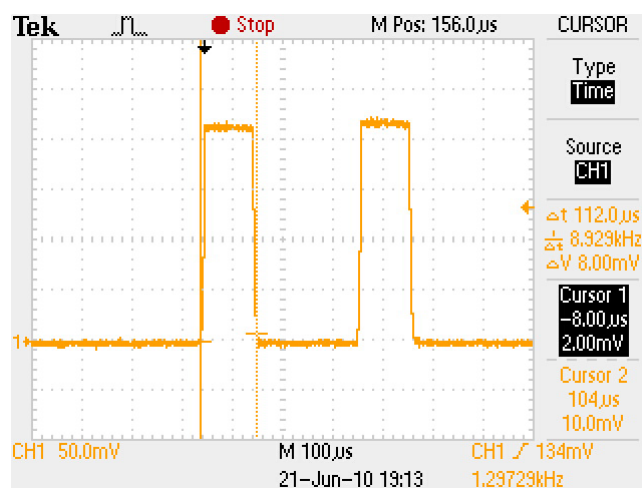
Count4



Count5



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 = $1280.0 * 0.112 = 143.36 [ms]$

Limit : Dwell Time < 0.4[s]

Company: Sony EMCS Corporation Kisarazu TEC
Kind of Equipment: AV Navigation
Serial No.: 40

Report No.: 30JE0058-YK-01-A
Model No.: XNV-770BT
Power: DC 12.0V

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

UL Japan, Inc Yamakita EMC lab.
No.4 Shielded Room

DATE: 2010.6.23
TEMP./HUMID.: 26deg.C/68%
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	-0.02	0.81	0.79	20.96	20.17
Mid	2441.00	0.27	0.82	1.09	20.96	19.87
High	2480.00	0.46	0.82	1.28	20.96	19.68
Inquiry	-	0.43	0.82	1.25	20.96	19.71

P/M: Power Meter

CABLE LOSS:KCC-D23

2DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-1.24	0.81	-0.43	20.96	21.39
Mid	2441.00	-0.91	0.82	-0.09	20.96	21.05
High	2480.00	-0.81	0.82	0.01	20.96	20.95

P/M: Power Meter

CABLE LOSS:KCC-D23

3DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	0.86	0.81	1.67	20.96	19.29
Mid	2441.00	1.19	0.82	2.01	20.96	18.95
High	2480.00	1.17	0.82	1.99	20.96	18.97

P/M: Power Meter

CABLE LOSS:KCC-D23

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

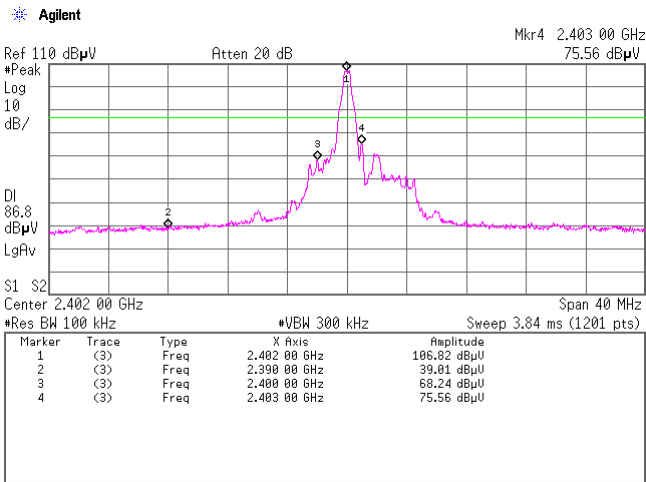
UL Japan, Inc. Yamakita EMC lab.
Date:
Temp./Humid.:
Engineer:
Test mode:

No.4 shielded room
2010/06/22
22 deg. C. / 66 %
Minoru Nakatake
Transmitting

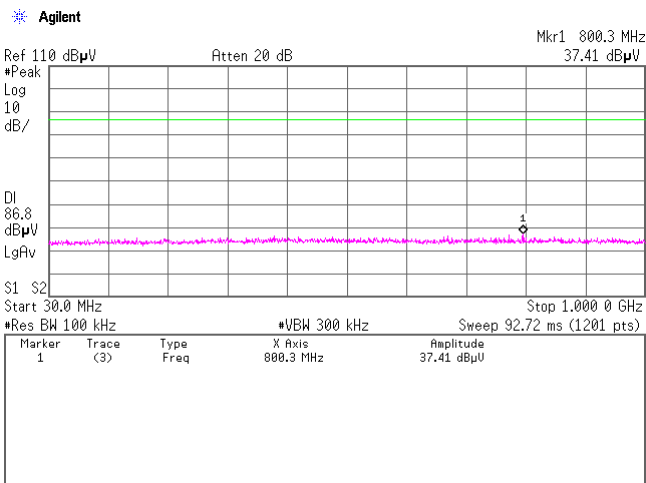
[Transmitting DH5]

Ch:2402MHz

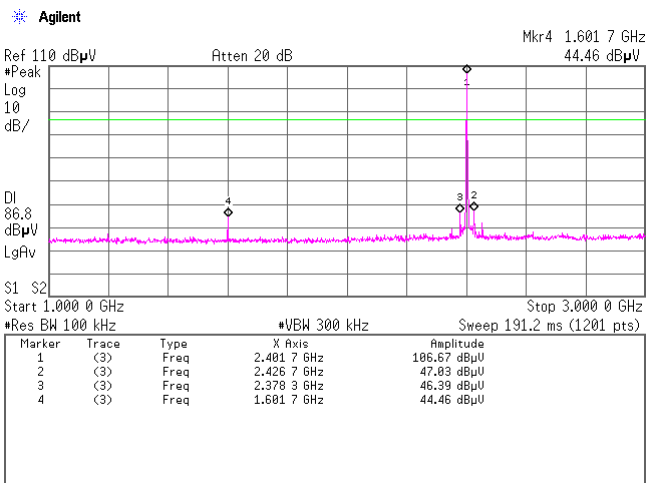
1.



2.



3.



Company:
Kind of Equipment:
Serial No.:

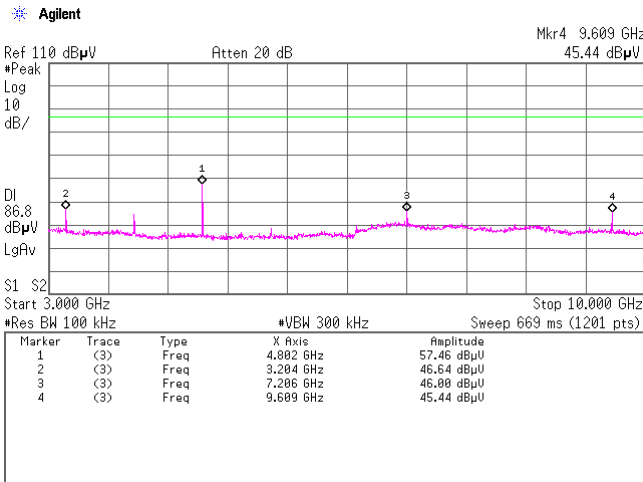
Sony EMCS Corporation Kisarazu TEC
AV Navigation
40

Report No.:
Model No.:
Power:

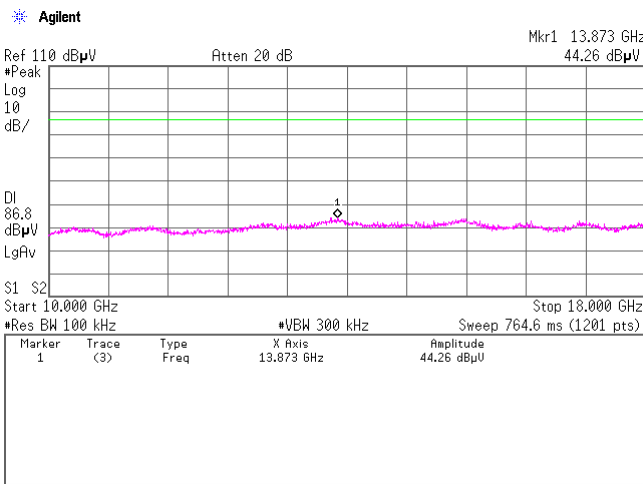
30JE0058-YK-01-A
XNV-770BT
DC 12.0V

[Transmitting DHS]
Ch:2402MHz

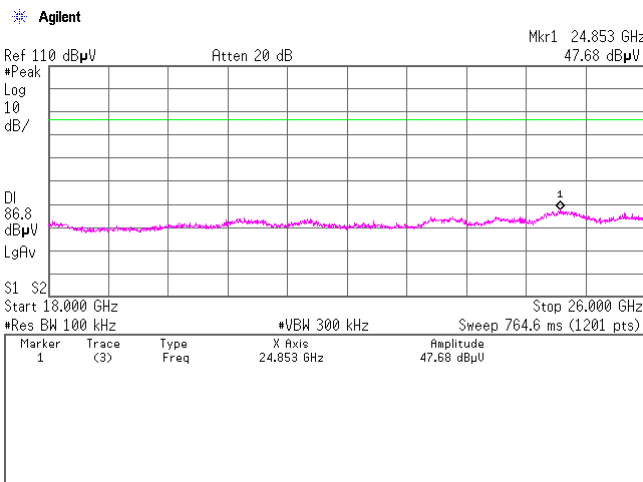
4.



5.



6.



Company:
Kind of Equipment:
Serial No.:

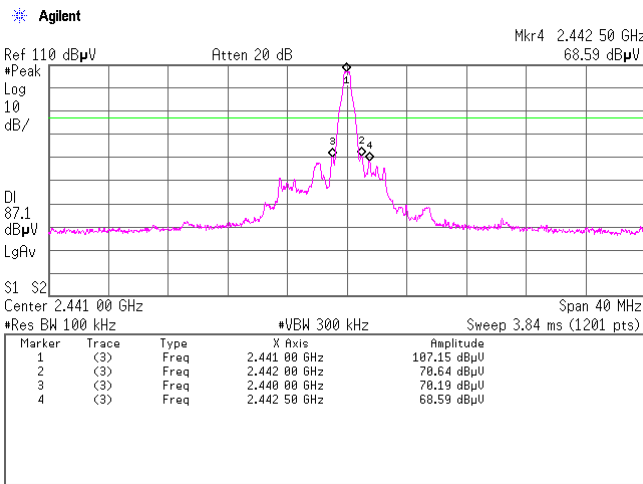
Sony EMCS Corporation Kisarazu TEC
AV Navigation
40

Report No.:
Model No.:
Power:

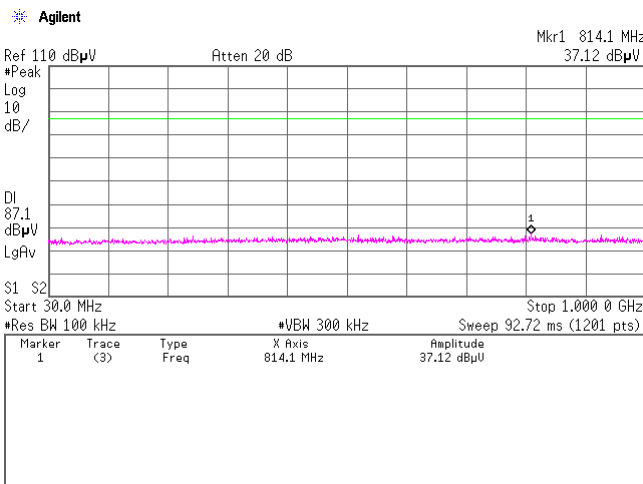
30JE0058-YK-01-A
XNV-770BT
DC 12.0V

[Transmitting DH5]
Ch:2441MHz

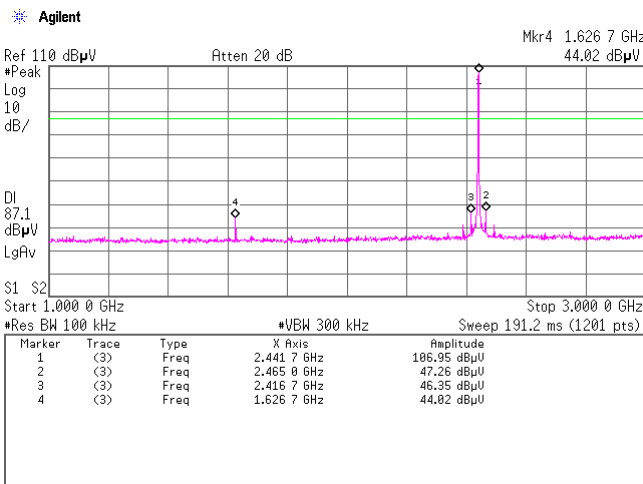
1.



2.

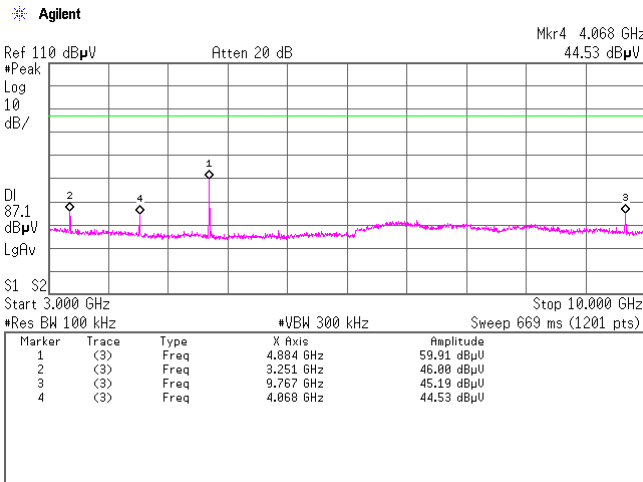


3.

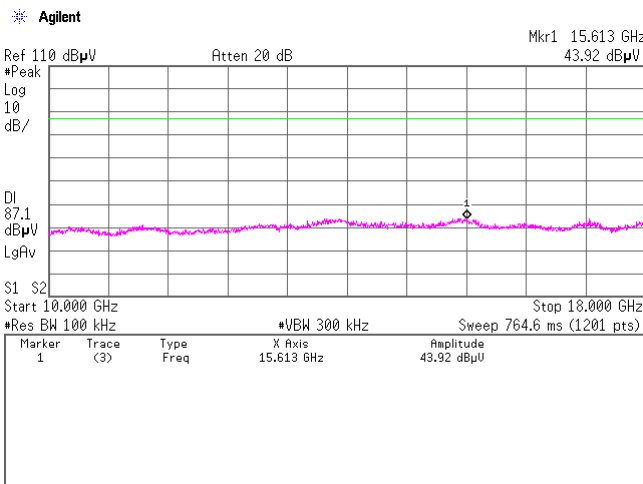


[Transmitting DHS]
Ch:2441MHz

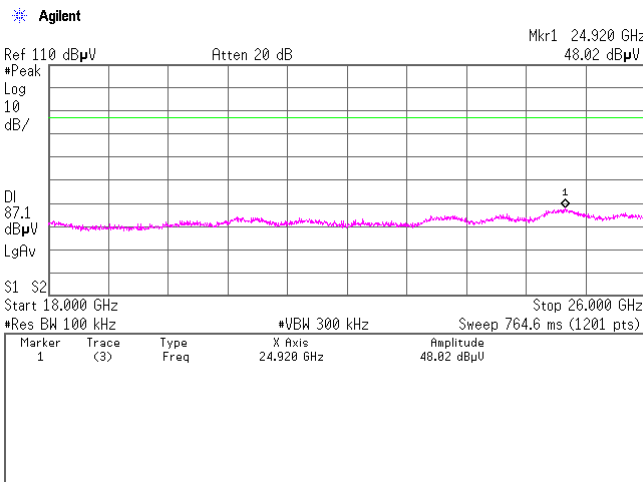
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5.

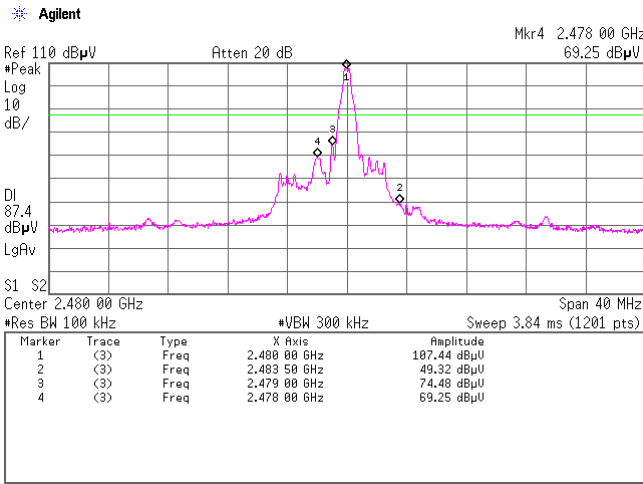


6.

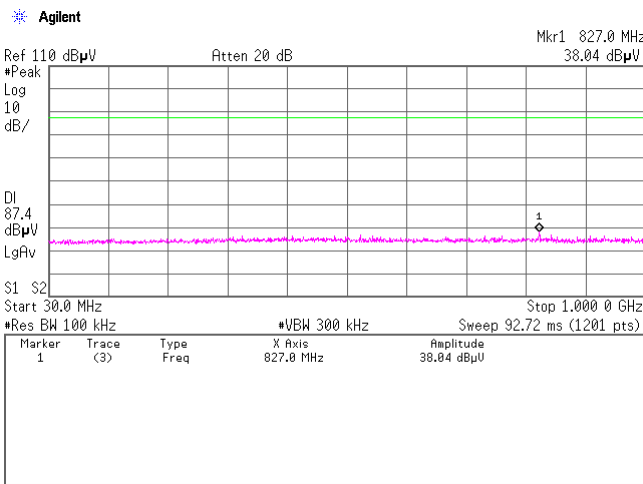


[Transmitting DH5]
Ch:2480MHz

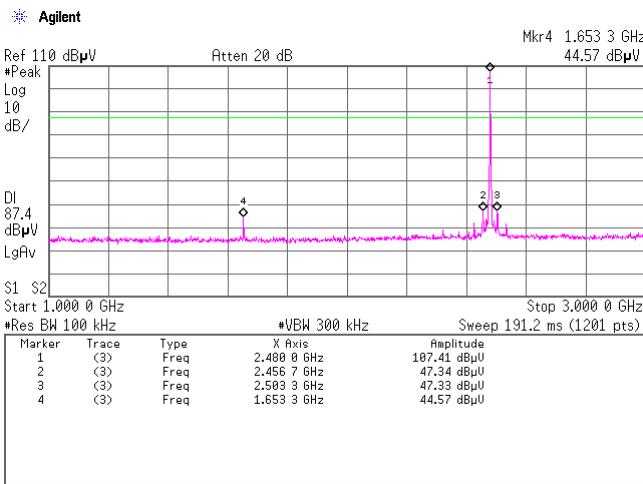
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2.

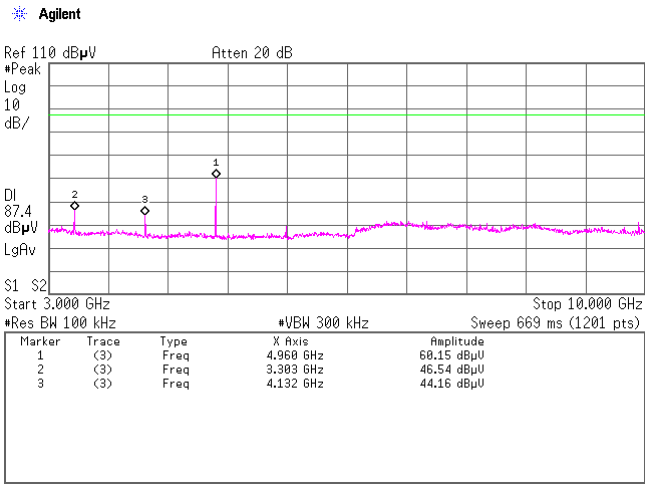


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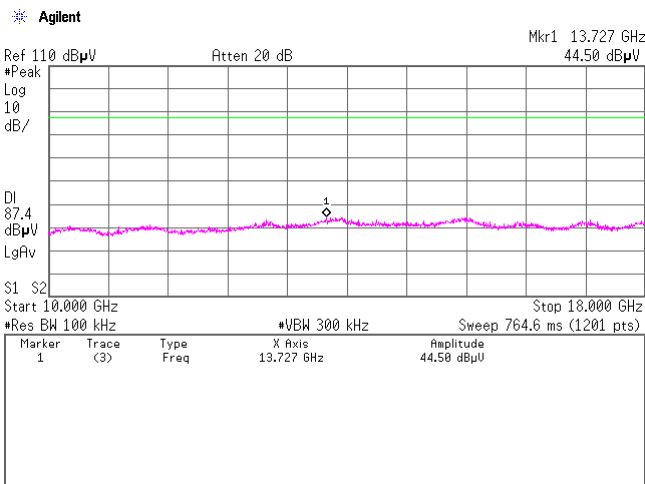


[Transmitting DHS]
Ch:2480MHz

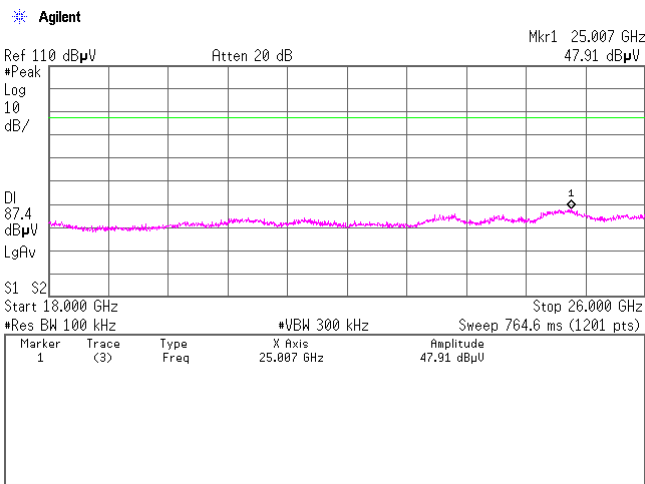
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5.

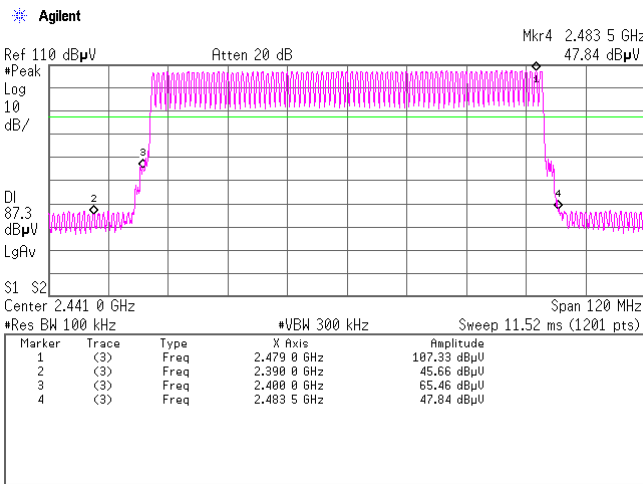


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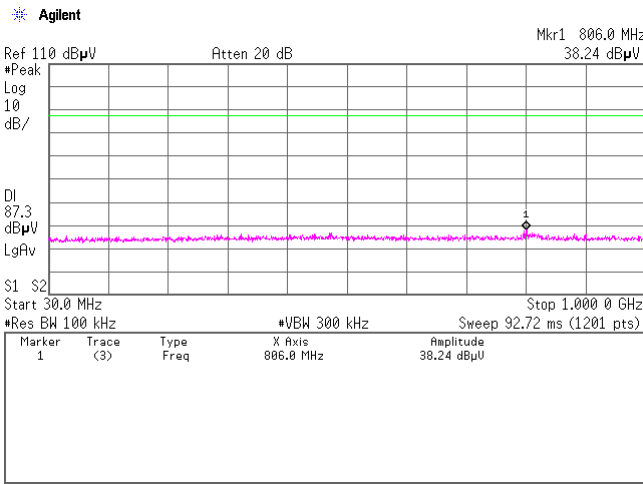


[Transmitting DH5]
Hopping

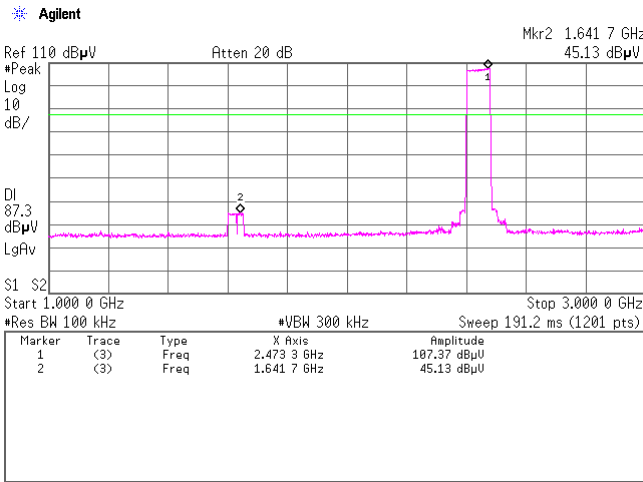
1.



2.



3.



Company:
Kind of Equipment:
Serial No.:

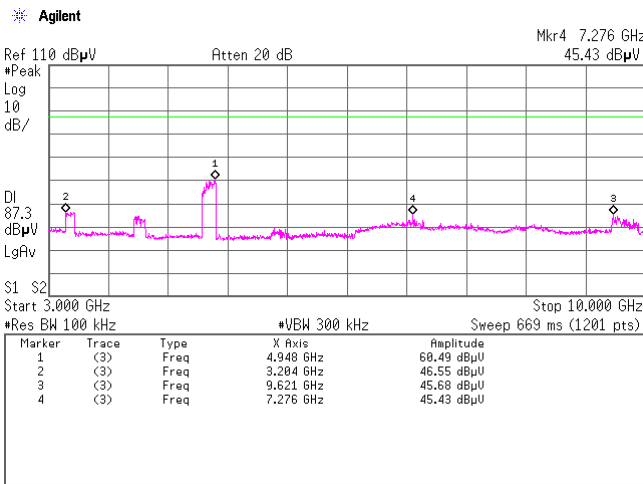
Sony EMCS Corporation Kisarazu TEC
AV Navigation
40

Report No.:
Model No.:
Power:

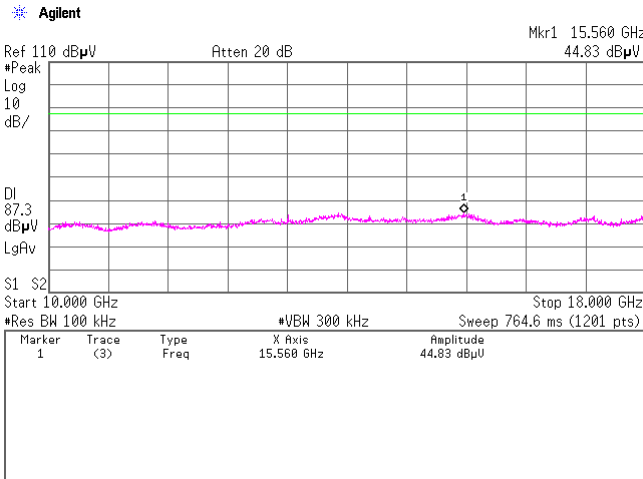
30JE0058-YK-01-A
XNV-770BT
DC 12.0V

[Transmitting DH5]
Hopping

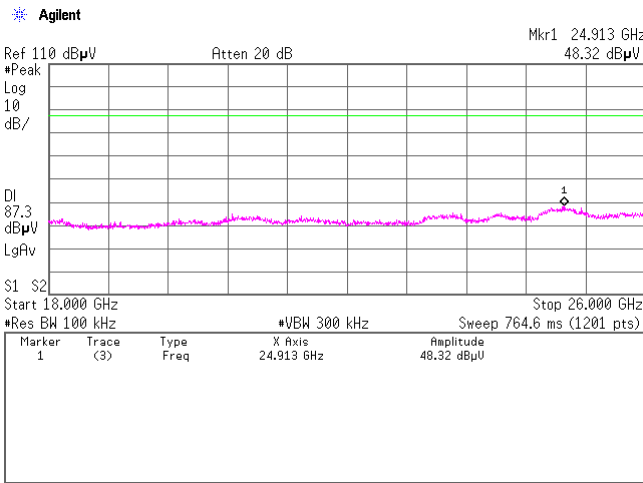
4.



5.



6.



Company:
Kind of Equipment:
Serial No.:

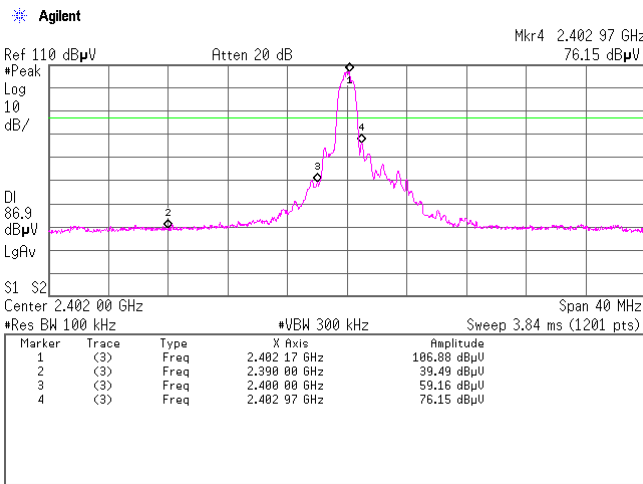
Sony EMCS Corporation Kisarazu TEC
AV Navigation
40

Report No.:
Model No.:
Power:

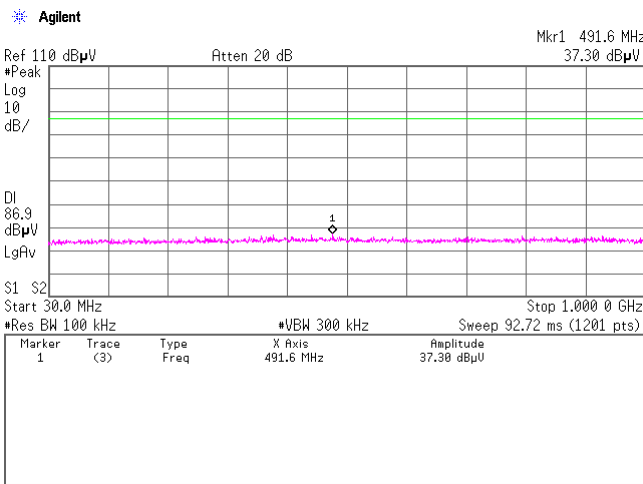
30JE0058-YK-01-A
XNV-770BT
DC 12.0V

[Transmitting 3DH5]
Ch:2402MHz

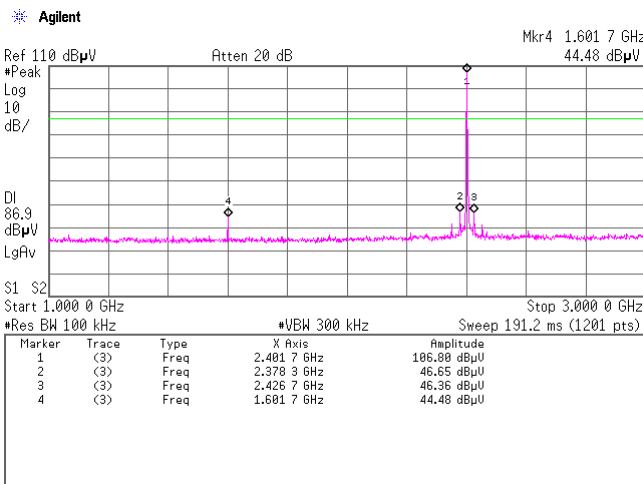
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2.

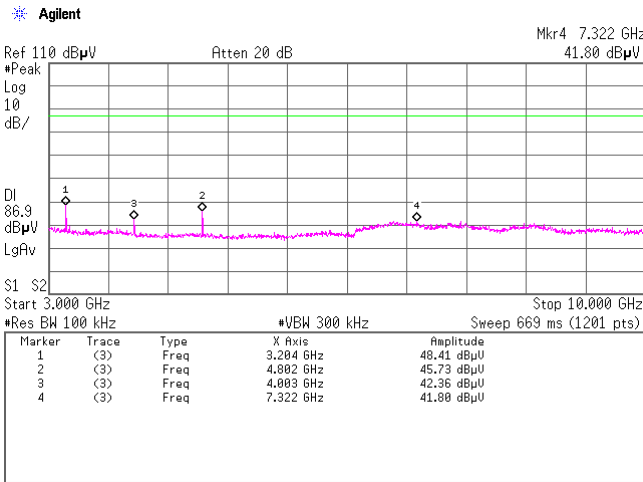


3.

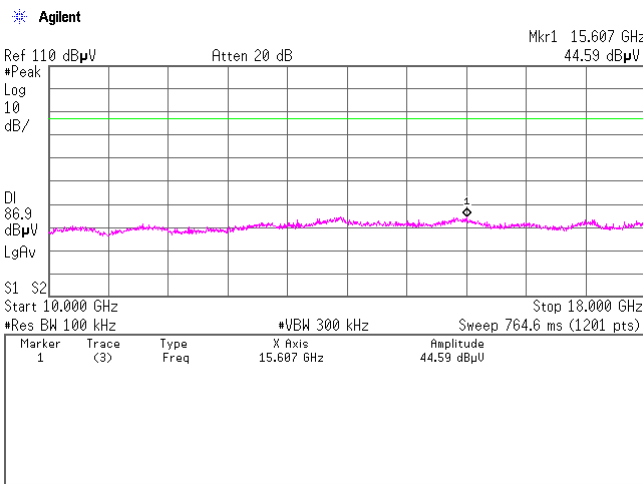


[Transmitting 3DH5]
Ch:2402MHz

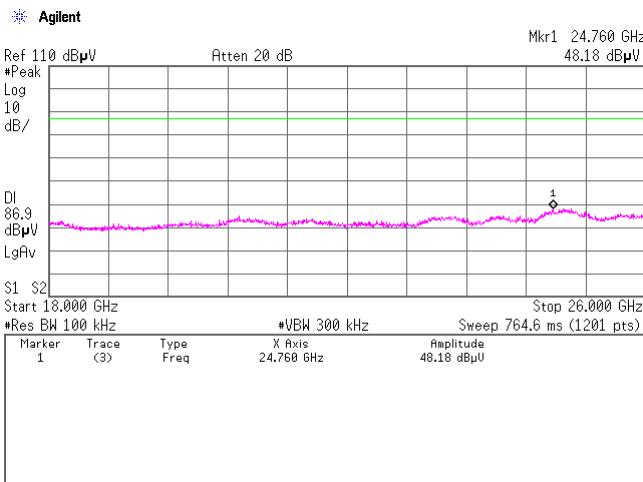
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5.

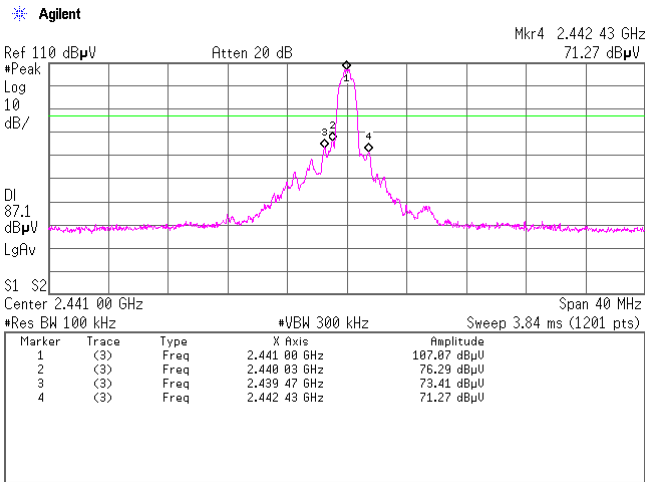


6.

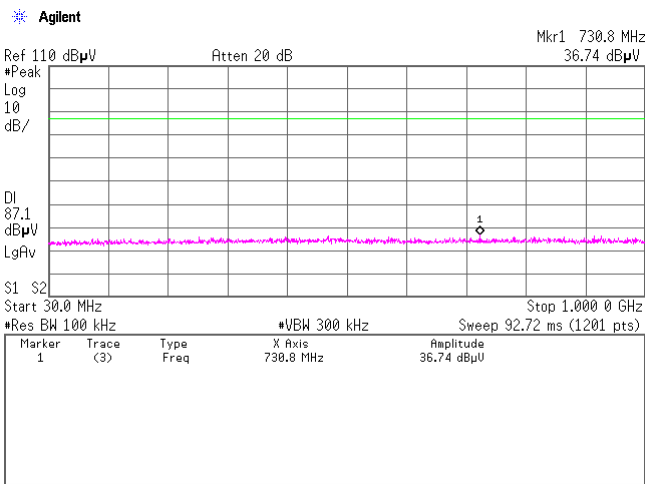


[Transmitting 3DH5]
Ch:2441MHz

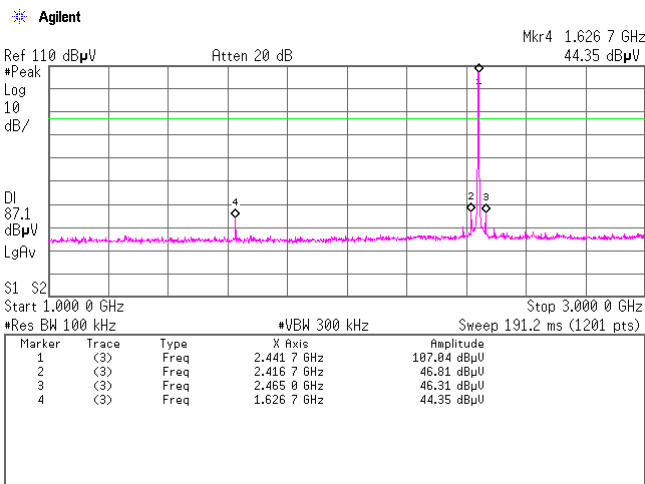
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2.

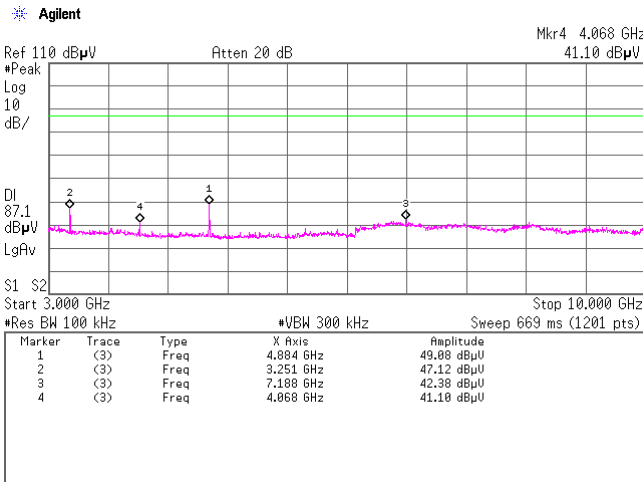


3.

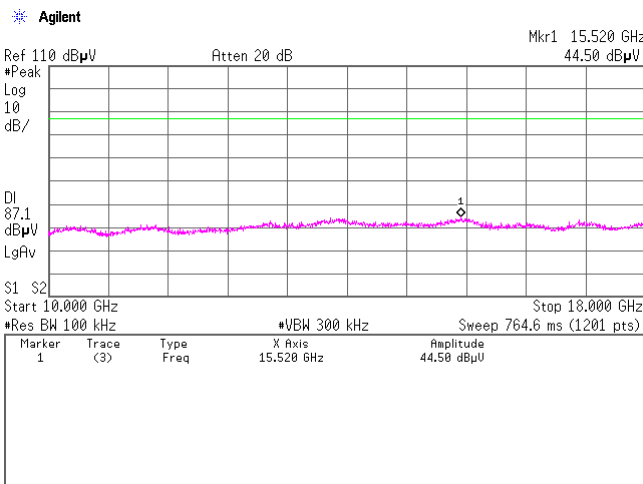


[Transmitting 3DH5]
Ch:2441MHz

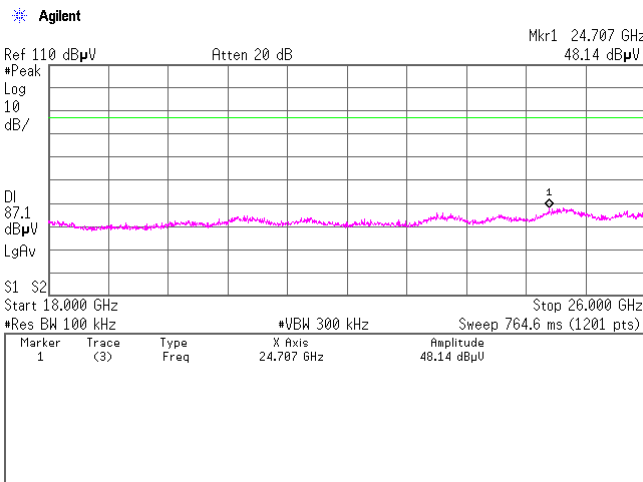
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5.



6.



Company:
Kind of Equipment:
Serial No.:

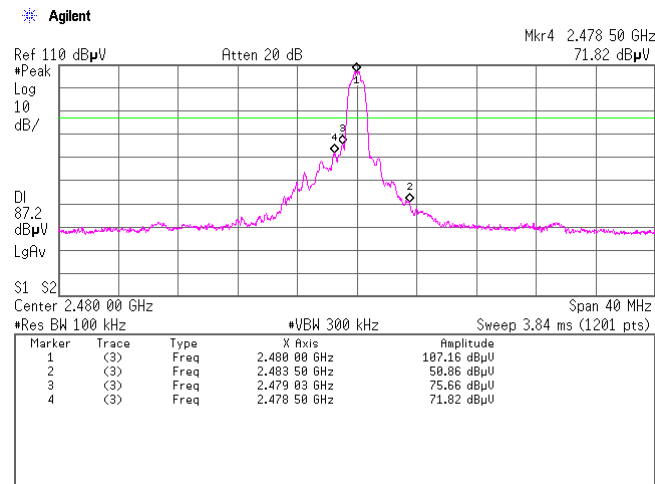
Sony EMCS Corporation Kisarazu TEC
AV Navigation
40

Report No.:
Model No.:
Power:

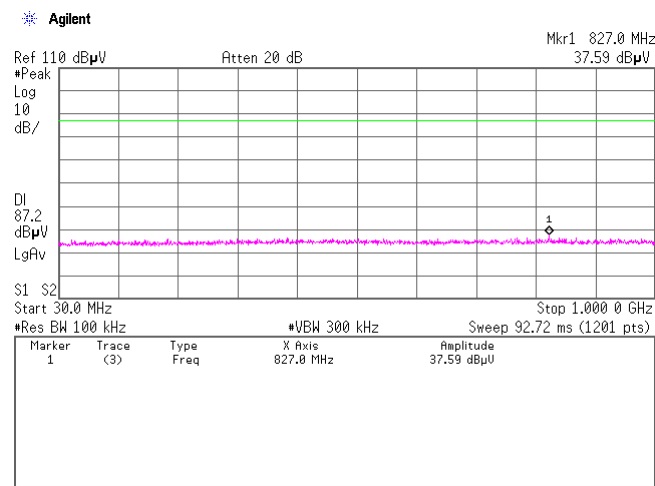
30JE0058-YK-01-A
XNV-770BT
DC 12.0V

[Transmitting 3DH5]
Ch:2480MHz

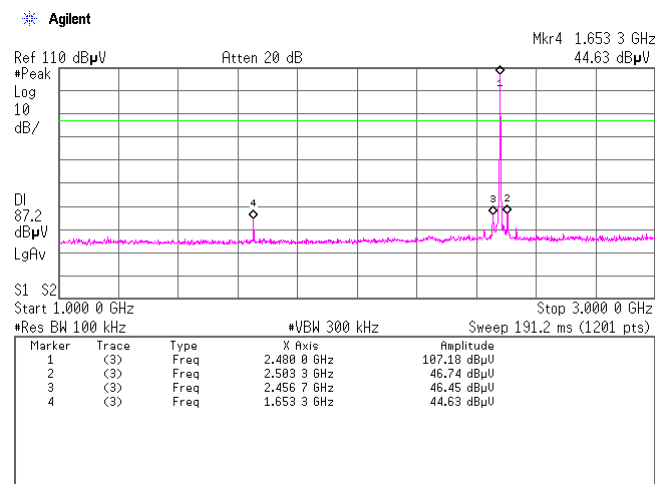
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2.

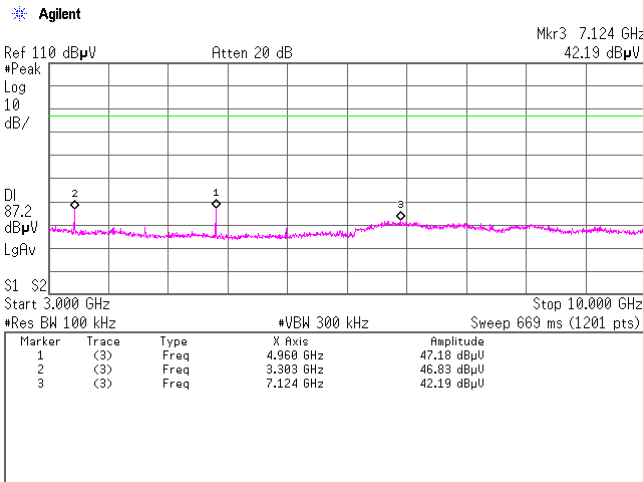


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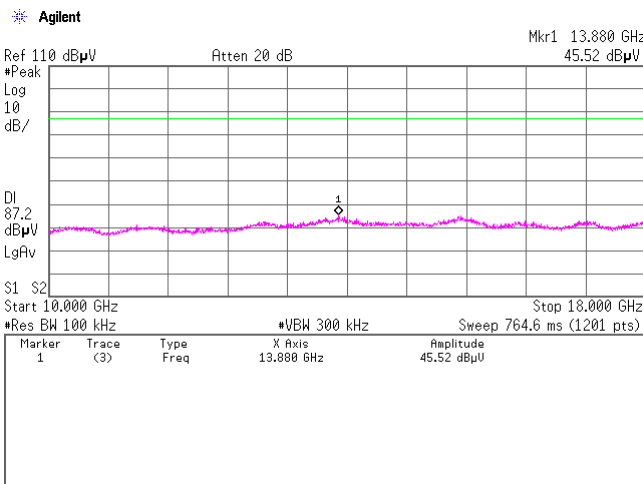


[Transmitting 3DH5]
Ch:2480MHz

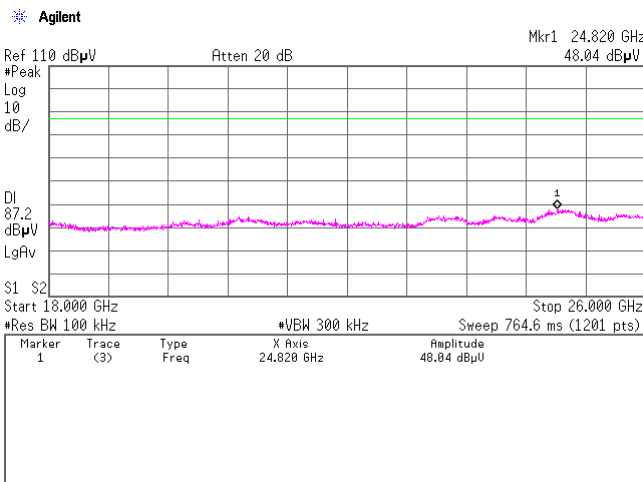
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5.

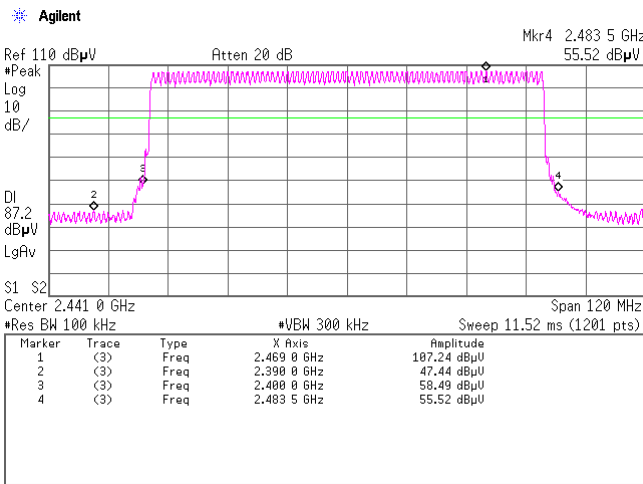


6.

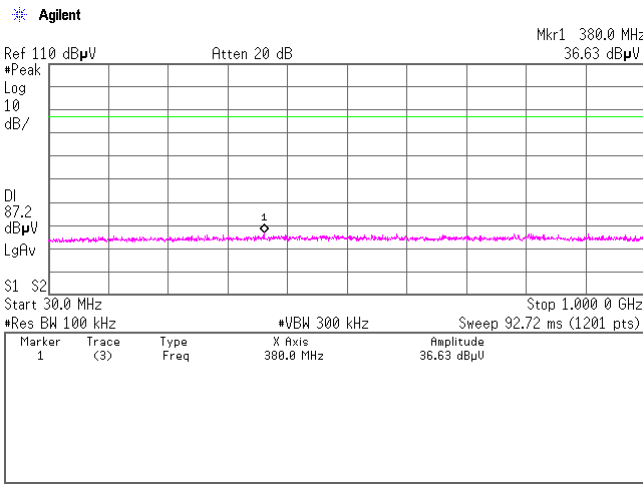


[Transmitting 3DH5]
Hopping

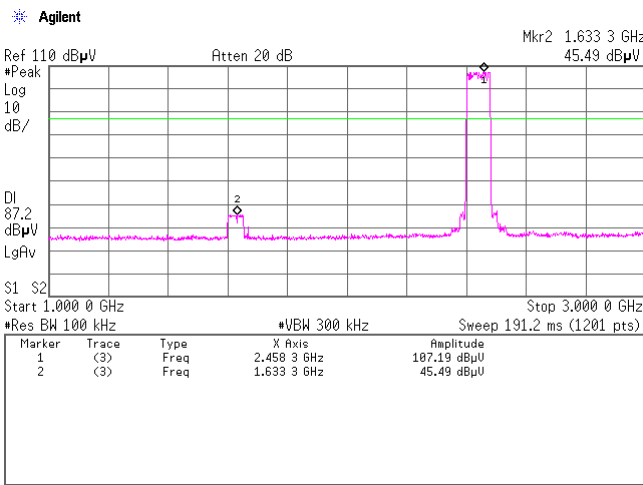
1.



2.

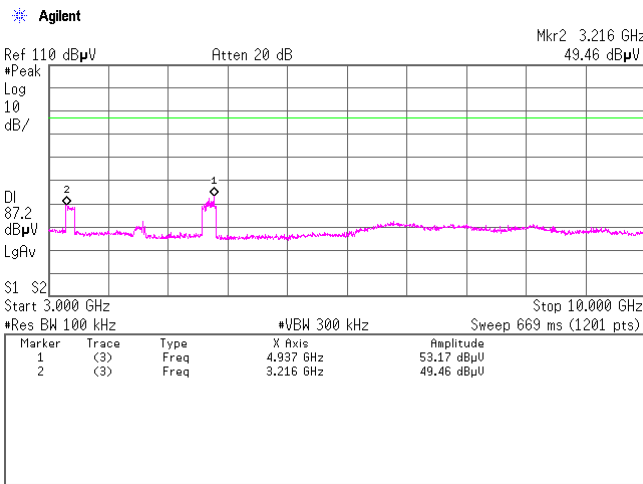


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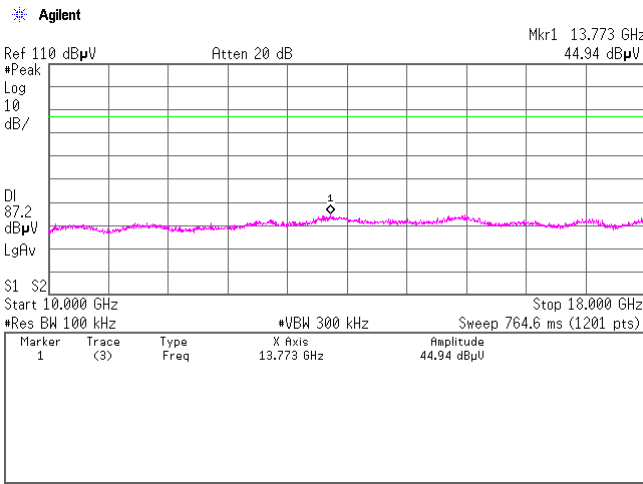


[Transmitting3 DH5]
Hopping

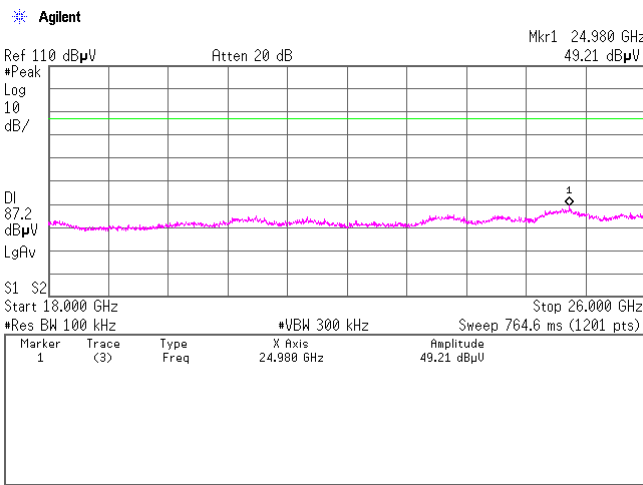
4.



5.

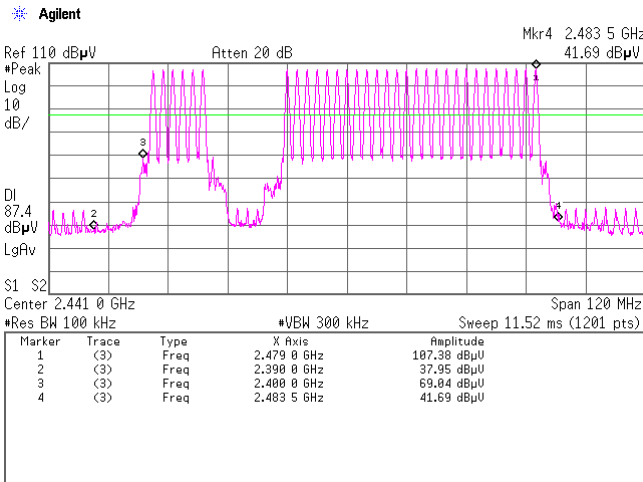


6.

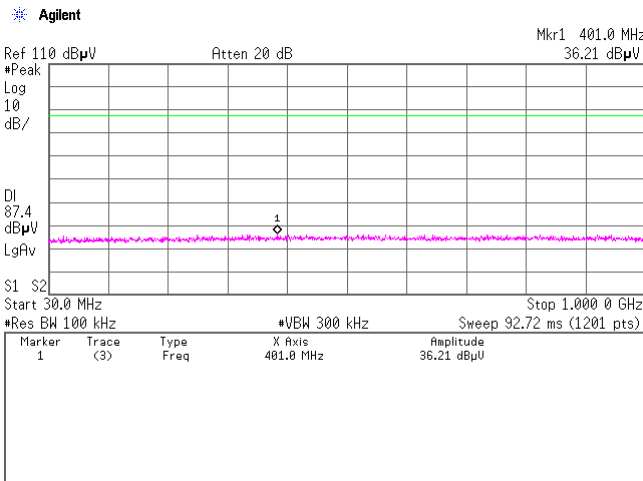


[Transmitting]
Inquiry

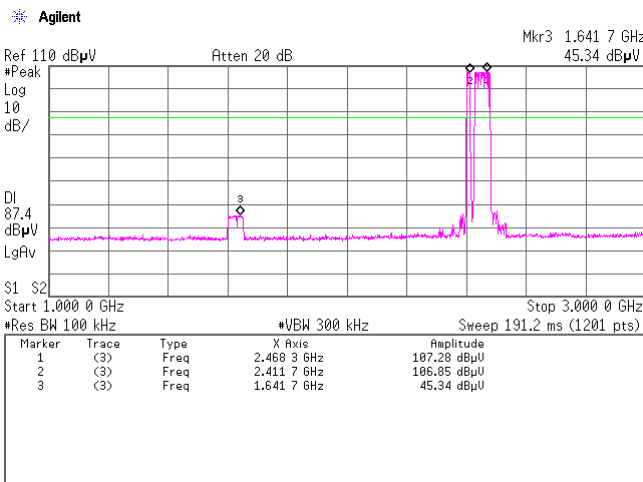
1.



2.



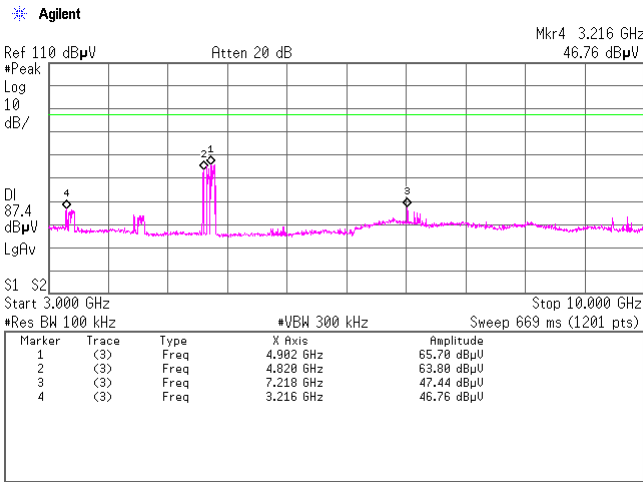
3.



Revised date: August 5, 2010

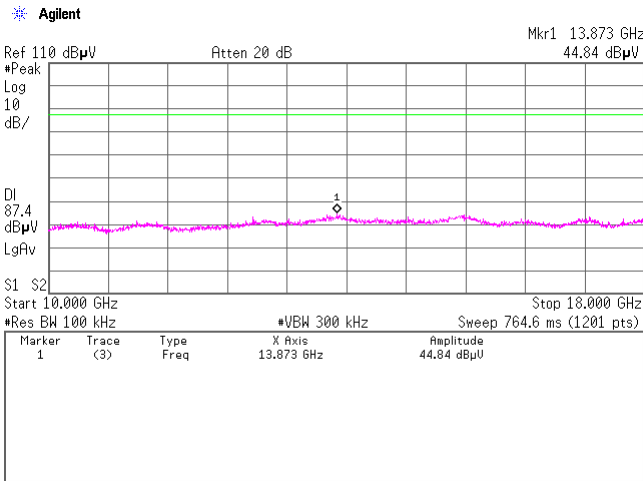
[Transmitting]
Inquiry

4.

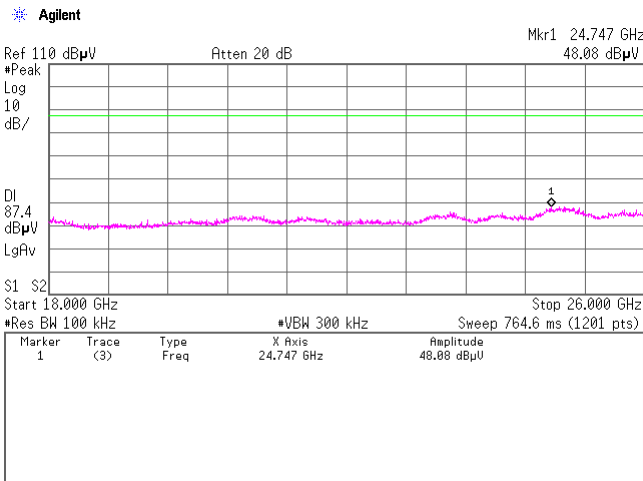


* The spurious emissions were not detected at Radiated emission test since these are hopping emissions.

5.



6.



Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12.0V
 Mode : Transmitting (2402MHz DH5)
 Remarks : Monitor Angle: H:Angle3, V:Angle3
 Date : 6/19/2010
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 60 %
 Regulation : FCC Part15C § 15.209

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	83.51	BB	40.4	42.3	7.0	28.6	1.9	6.0	26.7	28.6	40.0	13.3	11.4
2.	216.00	BB	34.6	26.0	16.9	27.9	3.3	6.0	32.9	24.3	43.5	10.6	19.2
3.	288.76	BB	33.0	27.9	19.2	27.6	4.0	6.0	34.6	29.5	46.0	11.4	16.5
4.	486.00	BB	36.0	33.0	18.5	28.9	5.8	3.0	34.4	31.4	46.0	11.6	14.6

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

Except for the above table : adequate margin data below the limits.

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

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12.0V
 Mode : Transmitting (2441MHz DH5)
 Remarks : Monitor Angle: H:Angle3, V:Angle3
 Date : 6/19/2010
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 60 %
 Regulation : FCC Part15C § 15.209

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	83.51	BB	40.8	41.8	7.0	28.6	1.9	6.0	27.1	28.1	40.0	12.9	11.9
2.	216.00	BB	34.5	25.6	16.9	27.9	3.3	6.0	32.8	23.9	43.5	10.7	19.6
3.	288.76	BB	33.7	28.5	19.2	27.6	4.0	6.0	35.3	30.1	46.0	10.7	15.9
4.	486.00	BB	35.6	33.9	18.5	28.9	5.8	3.0	34.0	32.3	46.0	12.0	13.7

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

Except for the above table : adequate margin data below the limits.

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

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12.0V
 Mode : Transmitting (2480MHz DH5)
 Remarks : Monitor Angle: H:Angle3, V:Angle3
 Date : 6/19/2010
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 60 %
 Regulation : FCC Part15C § 15.209

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	83.51	BB	40.4	41.4	7.0	28.6	1.9	6.0	26.7	27.7	40.0	13.3	12.3
2.	216.00	BB	34.6	26.8	16.9	27.9	3.3	6.0	32.9	25.1	43.5	10.6	18.4
3.	288.76	BB	33.8	28.5	19.2	27.6	4.0	6.0	35.4	30.1	46.0	10.6	15.9
4.	486.00	BB	35.7	34.4	18.5	28.9	5.8	3.0	34.1	32.8	46.0	11.9	13.2

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

Except for the above table : adequate margin data below the limits.

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

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12.0V
 Mode : Transmitting (2402MHz 3DH5)
 Remarks : Monitor Angle: H:Angle3, V:Angle3
 Date : 6/19/2010
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 60 %
 Regulation : FCC Part15C § 15.209

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	83.51	BB	40.6	41.6	7.0	28.6	1.9	6.0	26.9	27.9	40.0	13.1	12.1
2.	216.00	BB	34.6	26.4	16.9	27.9	3.3	6.0	32.9	24.7	43.5	10.6	18.8
3.	288.76	BB	33.6	28.3	19.2	27.6	4.0	6.0	35.2	29.9	46.0	10.8	16.1
4.	486.00	BB	35.8	34.4	18.5	28.9	5.8	3.0	34.2	32.8	46.0	11.8	13.2

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

Except for the above table : adequate margin data below the limits.

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

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12.0V
 Mode : Transmitting (2441MHz 3DH5)
 Remarks : Monitor Angle: H:Angle3, V:Angle3
 Date : 6/19/2010
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 60 %
 Regulation : FCC Part15C § 15.209

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	83.51	BB	40.1	41.0	7.0	28.6	1.9	6.0	26.4	27.3	40.0	13.6	12.7
2.	216.00	BB	34.1	26.2	16.9	27.9	3.3	6.0	32.4	24.5	43.5	11.1	19.0
3.	288.76	BB	33.9	28.4	19.2	27.6	4.0	6.0	35.5	30.0	46.0	10.5	16.0
4.	486.00	BB	35.6	33.6	18.5	28.9	5.8	3.0	34.0	32.0	46.0	12.0	14.0

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

Except for the above table : adequate margin data below the limits.

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

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12.0V
 Mode : Transmitting (2480MHz 3DH5)
 Remarks : Monitor Angle: H:Angle3, V:Angle3
 Date : 6/19/2010
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 60 %
 Regulation : FCC Part15C § 15.209

Engineer : Yasumasa Owaki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	83.51	BB	40.4	41.4	7.0	28.6	1.9	6.0	26.7	27.7	40.0	13.3	12.3
2.	216.00	BB	34.1	25.8	16.9	27.9	3.3	6.0	32.4	24.1	43.5	11.1	19.4
3.	288.76	BB	34.4	28.8	19.2	27.6	4.0	6.0	36.0	30.4	46.0	10.0	15.6
4.	486.00	BB	35.8	33.4	18.5	28.9	5.8	3.0	34.2	31.8	46.0	11.8	14.2

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

Except for the above table : adequate margin data below the limits.

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

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12V
 Mode : Transmitting (2402MHz DH5)
 Remarks : Peak (RBW:1MHz/VBW:3MHz)
 Date : 6/22/2010
 Test Distance : 3 m
 Temperature : 22 °C Engineer : Akira Sato
 Humidity : 66 %
 Regulation : FCC Part15C § 15.209(PK Detection)

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1426.51	BB	52.7	52.5	25.0	37.2	3.1	0.0	43.6	43.4	74.0	30.4	30.6
2.	2378.30	BB	42.0	41.4	27.0	36.7	4.1	0.0	36.4	35.8	74.0	37.6	38.2
3.	2390.00	BB	44.6	42.7	27.0	36.7	4.1	0.0	39.0	37.1	74.0	35.0	36.9
4.	4804.00	BB	50.4	55.6	30.5	36.2	5.7	0.0	50.4	55.6	74.0	23.6	18.4
5.	7206.00	BB	50.3	50.5	35.3	36.4	7.2	0.0	56.4	56.6	74.0	17.6	17.4
6.	9608.00	BB	48.8	49.6	37.7	36.6	8.1	0.0	58.0	58.8	74.0	16.0	15.2
7.	12010.00	BB	48.9	49.3	37.8	35.8	9.4	0.0	60.3	60.7	74.0	13.7	13.3

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 ■SPEANA:KSA-08

DATA OF RADIATION TEST (Above 1GHz)

Revised date: August 5, 2010

UL Japan, Inc.

Yamakita EMC Lab. No.1 Semi Anechoic Chamber

Report No. : 30JE0058-YK-01-A

Company : Sony EMCS corporation Kisarazu TEC

Equipment : AV Navigation

Model : XNV-770BT

Sample No. : 40

Power : DC12V

Mode : Transmitting 2402MHz(DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/6/22

Temperature : 22deg.C

Humidity : 66%

Engineer : Akira Sato

AV calculation value SPECTRUMANALYZER 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 [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]	
1*	1426.51	48.1	46.4	25.0	37.2	3.1	0.0	0.00	39.0	37.3	54.0	15.0	16.7	10
2*	2378.30	35.2	35.0	27.0	36.7	4.1	0.0	0.00	29.6	29.4	54.0	24.4	24.6	10
3	2390.00	37.8	37.7	27.0	36.7	4.1	0.0	-30.69	1.5	1.4	54.0	52.5	52.6	300
4	4804.00	44.7	51.2	30.5	36.2	5.7	0.0	-30.69	14.0	20.5	54.0	40.0	33.5	300
5	7206.00	34.8	33.0	35.3	36.4	7.2	0.0	-30.69	10.2	8.4	54.0	43.8	45.6	300
6	9608.00	34.2	32.6	37.7	36.6	8.1	0.0	-30.69	12.7	11.1	54.0	41.3	42.9	300
7	12010.00	34.7	33.6	37.8	35.8	9.4	0.0	-30.69	15.4	14.3	54.0	38.6	39.7	300

Sample Calculation :

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

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

See Dwell Time data

We can not use VBW:10Hz at the restricted band.

So we calculated duty cycle and applied its VBW for pulse emission based on this calculation. Refer to P76.

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
Kind of Equipment : AV Navigation
Model No. : XNV-770BT
Serial No. : 40
Power : DC12V
Mode : Transmitting (2441MHz DH5)
Remarks : Peak (RBW:1MHz/VBW:3MHz)
Date : 6/22/2010
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 66 %
Regulation : FCC Part15C § 15.209(PK Detection)

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1426.55	BB	53.1	52.0	25.0	37.2	3.1	0.0	44.0	42.9	74.0	30.0	31.1
2.	4882.00	BB	52.3	57.6	30.8	36.2	5.8	0.0	52.7	58.0	74.0	21.3	16.0
3.	7323.00	BB	50.4	50.5	35.3	36.4	7.2	0.0	56.5	56.6	74.0	17.5	17.4
4.	9764.00	BB	48.0	47.9	37.9	36.5	8.2	0.0	57.6	57.5	74.0	16.4	16.5
5.	12205.00	BB	49.3	49.0	38.0	35.5	13.0	0.0	64.8	64.5	74.0	9.2	9.5

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 ■ SPEANA:KSA-08

DATA OF RADIATION TEST (Above 1GHz)

Revised date: August 5, 2010

UL Japan, Inc.

Yamakita EMC Lab. No.1 Semi Anechoic Chamber

Report No. : 30JE0058-YK-01-A

Company : Sony EMCS corporation Kisarazu TEC

Equipment : AV Navigation

Model : XNV-770BT

Sample No. : 40

Power : DC12V

Mode : Transmitting 2441MHz(DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/06/22

Temperature : 22deg.C

Humidity : 66%

Engineer : Akira Sato

AV calculation value SPECTRUMANALYZER 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 [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]	
1*	1426.55	48.0	46.5	25.0	37.2	3.1	0.0	0.00	38.9	37.4	54.0	15.1	16.6	10
2	4882.00	47.1	54.4	30.8	36.2	5.8	0.0	-30.69	16.8	24.1	54.0	37.2	29.9	300
3	7323.00	33.8	33.7	35.3	36.4	7.2	0.0	-30.69	9.2	9.1	54.0	44.8	44.9	300
4	9764.00	33.4	33.5	37.9	36.5	8.2	0.0	-30.69	12.3	12.4	54.0	41.7	41.6	300
5	12205.00	33.5	33.6	38.0	35.5	9.5	0.0	-30.69	14.8	14.9	54.0	39.2	39.1	300

Sample Calculation :

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

Duty Factor calculation: $20 \times \log(2.92[\text{ms}]/100[\text{ms}]) = -30.69[\text{dB}]$

See Dwell Time data

We can not use VBW:10Hz at the restricted band.

So we calculated duty cycle and applied its VBW for pulse emission based on this calculation. Refer to P76.

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12V
 Mode : Transmitting (2480MHz DH5)
 Remarks : Peak (RBW:1MHz/VBW:3MHz)
 Date : 6/22/2010
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 66 %
 Regulation : FCC Part15C § 15.209(PK Detection)

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1426.42	BB	53.6	51.3	25.0	37.2	3.1	0.0	44.5	42.2	74.0	29.5	31.8
2.	1652.63	BB	53.5	56.3	25.5	37.0	3.4	0.0	45.4	48.2	74.0	28.6	25.8
3.	2483.50	BB	51.9	49.6	27.2	36.7	4.2	0.0	46.6	44.3	74.0	27.4	29.7
4.	4960.00	BB	52.0	58.8	31.0	36.1	5.8	0.0	52.7	59.5	74.0	21.3	14.5
5.	7440.00	BB	50.0	48.9	35.4	36.5	7.1	0.0	56.0	54.9	74.0	18.0	19.1
6.	9920.00	BB	48.1	48.6	38.2	36.4	8.2	0.0	58.1	58.6	74.0	15.9	15.4
7.	12400.00	BB	49.2	45.0	38.3	35.1	9.6	0.0	62.0	57.8	74.0	12.0	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-D24/D25 ■ AMP:KAF-02 ■ SPEANA:KSA-08

DATA OF RADIATION TEST (Above 1GHz)

Revised date: August 5, 2010

UL Japan, Inc.

Yamakita EMC Lab. No.1 Semi Anechoic Chamber

Report No. : 30JE0058-YK-01-A

Company : Sony EMCS corporation Kisarazu TEC

Equipment : AV Navigation

Model : XNV-770BT

Sample No. : 40

Power : DC12V

Mode : Transmitting 2480MHz(DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/06/22

Temperature : 22deg.C

Humidity : 66%

Engineer : Akira Sato

AV calculation value SPECTRUMANALYZER 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 [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]	
1*	1426.42	47.8	46.1	25.0	37.2	3.1	0.0	0.00	38.7	37.0	54.0	15.3	17.0	10
2*	1652.63	49.4	52.6	25.5	37.0	3.4	0.0	-30.69	10.6	13.8	54.0	43.4	40.2	10
3	2483.50	43.2	38.5	27.2	36.7	4.2	0.0	-30.69	7.2	2.5	54.0	46.8	51.5	300
4	4960.00	45.7	55.3	31.0	36.1	5.8	0.0	-30.69	15.7	25.3	54.0	38.3	28.7	300
5	7440.00	33.3	33.1	35.4	36.5	7.1	0.0	-30.69	8.6	8.4	54.0	45.4	45.6	300
6	9920.00	33.4	34.4	38.2	36.4	8.2	0.0	-30.69	12.7	13.7	54.0	41.3	40.3	300
7	12400.00	33.3	33.2	38.3	35.1	9.6	0.0	-30.69	15.4	15.3	54.0	38.6	38.7	300

Sample Calculation :

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

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

See Dwell Time data

We can not use VBW:10Hz at the restricted band.

So we calculated duty cycle and applied its VBW for pulse emission based on this calculation. Refer to P76.

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12V
 Mode : Transmitting (2402MHz 3DH5)
 Remarks : Peak (RBW:1MHz/VBW:3MHz)
 Date : 6/22/2010
 Test Distance : 3 m
 Temperature : 22 °C Engineer : Akira Sato
 Humidity : 66 %
 Regulation : FCC Part15C § 15.209(PK Detection)

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1426.30	BB	53.0	52.0	25.0	37.2	3.1	0.0	43.9	42.9	74.0	30.1	31.1
2.	1602.02	BB	53.3	56.3	25.4	37.0	3.3	0.0	45.0	48.0	74.0	29.0	26.0
3.	2378.30	BB	44.2	43.3	27.0	36.7	4.1	0.0	38.6	37.7	74.0	35.4	36.3
4.	2390.00	BB	46.1	45.3	27.0	36.7	4.1	0.0	40.5	39.7	74.0	33.5	34.3
5.	4804.00	BB	47.0	49.4	30.5	36.2	5.7	0.0	47.0	49.4	74.0	27.0	24.6
6.	7206.00	BB	50.2	50.4	35.3	36.4	7.2	0.0	56.3	56.5	74.0	17.7	17.5
7.	9608.00	BB	48.4	46.4	37.7	36.6	8.1	0.0	57.6	55.6	74.0	16.4	18.4
8.	12010.00	BB	48.7	49.1	37.8	35.8	9.4	0.0	60.1	60.5	74.0	13.9	13.5

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 ■ SPEANA:KSA-08

DATA OF RADIATION TEST (Above 1GHz)

Revised date: August 5, 2010

UL Japan, Inc.

Yamakita EMC Lab. No.1 Semi Anechoic Chamber

Report No. : 30JE0058-YK-01-A

Company : Sony EMCS corporation Kisarazu TEC

Equipment : AV Navigation

Model : XNV-770BT

Sample No. : 40

Power : DC12V

Mode : Transmitting 2402MHz(3DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/06/22

Temperature : 22deg.C

Humidity : 66%

Engineer : Akira Sato

AV calculation value SPECTRUMANALYZER 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 [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]	
1*	1426.30	47.8	44.9	25.0	37.2	3.1	0.0	0.00	38.7	35.8	54.0	15.3	18.2	10
2*	1602.02	47.1	51.8	25.4	37.0	3.3	0.0	0.00	38.8	43.5	54.0	15.2	10.5	10
3*	2378.30	35.3	36.6	27.0	36.7	4.1	0.0	0.00	29.7	31.0	54.0	24.3	23.0	10
4	2390.00	37.4	37.5	27.0	36.7	4.1	0.0	-30.69	1.1	1.2	54.0	52.9	52.8	300
5	4804.00	34.0	38.9	30.5	36.2	5.7	0.0	-30.69	3.3	8.2	54.0	50.7	45.8	300
6	7206.00	33.6	33.5	35.3	36.4	7.2	0.0	-30.69	9.0	8.9	54.0	45.0	45.1	300
7	9608.00	33.4	33.1	37.7	36.6	8.1	0.0	-30.69	11.9	11.6	54.0	42.1	42.4	300
8	12010.00	33.6	33.5	37.8	35.8	9.4	0.0	-30.69	14.3	14.2	54.0	39.7	39.8	300

Sample Calculation :

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

Duty Factor calculation: $20 \times \log(2.92[\text{ms}]/100[\text{ms}]) = -30.69[\text{dB}]$

See Dwell Time data

We can not use VBW:10Hz at the restricted band.

So we calculated duty cycle and applied its VBW for pulse emission based on this calculation. Refer to P76.

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12V
 Mode : Transmitting (2441MHz 3DH5)
 Remarks : Peak (RBW:1MHz/VBW:3MHz)
 Date : 6/22/2010
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 66 %
 Regulation : FCC Part15C § 15.209(PK Detection)

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1426.50	BB	52.8	51.6	25.0	37.2	3.1	0.0	43.7	42.5	74.0	30.3	31.5
2.	1626.83	BB	52.9	53.4	25.5	37.0	3.3	0.0	44.7	45.2	74.0	29.3	28.8
3.	4882.00	BB	48.0	49.5	30.8	36.2	5.8	0.0	48.4	49.9	74.0	25.6	24.1
4.	7323.00	BB	49.9	49.9	35.3	36.4	7.2	0.0	56.0	56.0	74.0	18.0	18.0
5.	9764.00	BB	47.6	47.9	37.9	36.5	8.2	0.0	57.2	57.5	74.0	16.8	16.5
6.	12205.00	BB	49.2	49.9	38.0	35.5	9.5	0.0	61.2	61.9	74.0	12.8	12.1

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-D24/D25 ■ AMP:KAF-02 ■ SPEANA:KSA-08

DATA OF RADIATION TEST (Above 1GHz)

Revised date: August 5, 2010

UL Japan, Inc.

Yamakita EMC Lab. No.1 Semi Anechoic Chamber

Report No. : 30JE0058-YK-01-A

Company : Sony EMCS corporation Kisarazu TEC

Equipment : AV Navigation

Model : XNV-770BT

Sample No. : 40

Power : DC12V

Mode : Transmitting 2441MHz(3DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/06/22

Temperature : 22deg.C

Humidity : 66%

Engineer : Akira Sato

AV calculation value SPECTRUMANALYZER 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 [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]	
1*	1426.50	47.6	44.9	25.0	37.2	3.1	0.0	0.00	38.5	35.8	54.0	15.5	18.2	10
2*	1626.83	49.0	50.0	25.5	37.0	3.3	0.0	-30.69	10.1	11.1	54.0	43.9	42.9	10
3	4882.00	35.7	41.0	30.8	36.2	5.8	0.0	-30.69	5.4	10.7	54.0	48.6	43.3	300
4	7323.00	33.7	33.6	35.3	36.4	7.2	0.0	-30.69	9.1	9.0	54.0	44.9	45.0	300
5	9764.00	33.3	33.3	37.9	36.5	8.2	0.0	-30.69	12.2	12.2	54.0	41.8	41.8	300
6	12205.00	33.5	33.6	38.0	35.5	9.5	0.0	-30.69	14.8	14.9	54.0	39.2	39.1	300

Sample Calculation :

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

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

See Dwell Time data

We can not use VBW:10Hz at the restricted band.

So we calculated duty cycle and applied its VBW for pulse emission based on this calculation. Refer to P76.

Data of Radiated Disturbance Test

UL Japan, Inc.

YAMAKITA No.1 Semi-anechoic chamber

Report No. : 30JE0058-YK-01-A

Applicant : Sony EMCS Corporation Kisarazu TEC
 Kind of Equipment : AV Navigation
 Model No. : XNV-770BT
 Serial No. : 40
 Power : DC12V
 Mode : Transmitting (2480MHz 3DH5)
 Remarks : Peak (RBW:1MHz/VBW:3MHz)
 Date : 6/22/2010
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 66 %
 Regulation : FCC Part15C § 15.209(PK Detection)

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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1426.29	BB	51.8	51.8	25.0	37.2	3.1	0.0	42.7	42.7	74.0	31.3	31.3
2.	1652.73	BB	53.9	52.7	25.5	37.0	3.4	0.0	45.8	44.6	74.0	28.2	29.4
3.	2483.50	BB	54.7	51.4	27.2	36.7	4.2	0.0	49.4	46.1	74.0	24.6	27.9
4.	4960.00	BB	47.8	48.4	31.0	36.1	5.8	0.0	48.5	49.1	74.0	25.5	24.9
5.	7440.00	BB	50.1	49.1	35.4	36.5	7.1	0.0	56.1	55.1	74.0	17.9	18.9
6.	9920.00	BB	48.0	48.1	38.2	36.4	8.2	0.0	58.0	58.1	74.0	16.0	15.9
7.	12400.00	BB	50.2	49.2	38.3	35.1	9.6	0.0	63.0	62.0	74.0	11.0	12.0

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 ■ SPEANA:KSA-08

DATA OF RADIATION TEST (Above 1GHz)

Revised date: August 5, 2010

UL Japan, Inc.

Yamakita EMC Lab. No.1 Semi Anechoic Chamber

Report No. : 30JE0058-YK-01-A

Company : Sony EMCS corporation Kisarazu TEC

Equipment : AV Navigation

Model : XNV-770BT

Sample No. : 40

Power : DC12V

Mode : Transmitting 2480MHz(3DH5)

Regulation : FCC Part15C Section 15.209

Test Distance : 3m

Date : 2010/06/22

Temperature : 22deg.C

Humidity : 66%

Engineer : Akira Sato

AV calculation value SPECTRUMANALYZER 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 [dBuV/m]	VER [dBuV/m]		HOR [dB]	VER [dB]	
1*	1426.29	47.1	46.5	25.0	37.2	3.1	0.0	0.00	38.0	37.4	54.0	16.0	16.6	10
2*	1652.73	49.7	48.6	25.5	37.0	3.4	0.0	0.00	41.6	40.5	54.0	12.4	13.5	10
3	2483.50	44.3	39.7	27.2	36.7	4.2	0.0	-30.69	8.3	3.7	54.0	45.7	50.3	300
4	4960.00	36.9	37.4	31.0	36.1	5.8	0.0	-30.69	6.9	7.4	54.0	47.1	46.6	300
5	7440.00	33.2	34.4	35.4	36.5	7.1	0.0	-30.69	8.5	9.7	54.0	45.5	44.3	300
6	9920.00	33.4	34.6	38.2	36.4	8.2	0.0	-30.69	12.7	13.9	54.0	41.3	40.1	300
7	12400.00	33.2	33.9	38.3	35.1	9.6	0.0	-30.69	15.3	16.0	54.0	38.7	38.0	300

Sample Calculation :

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

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

See Dwell Time data

We can not use VBW:10Hz at the restricted band.

So we calculated duty cycle and applied its VBW for pulse emission based on this calculation. Refer to P76.

Duty Cycle

UL Japan, Inc. Yamakita EMC lab.

Date:

Temp./Humid.:

Engineer:

Test mode:

No.4 shielded room

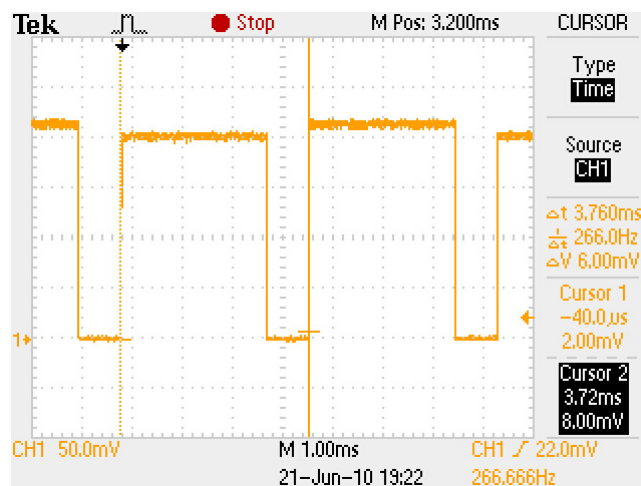
2010/06/21

26 deg. C. / 61 %

Minoru Nakatake

Transmitting

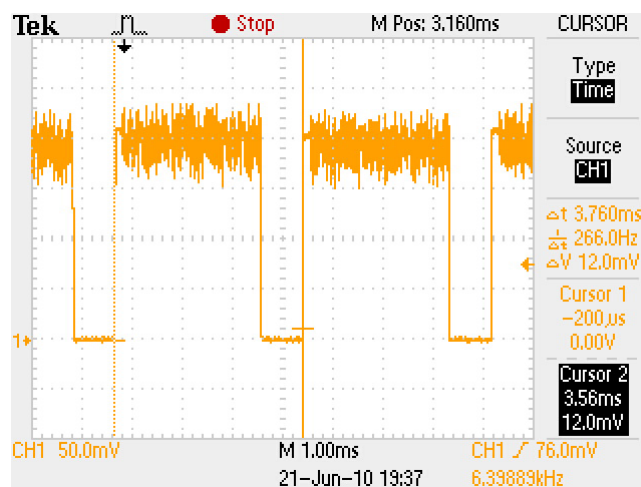
[DH5]



Duty Cycle: 3.76ms

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

[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.

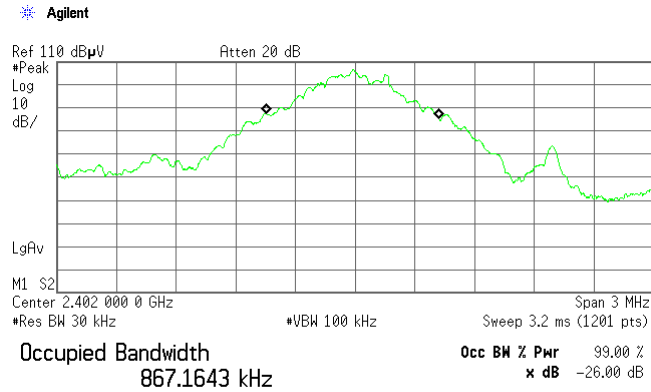
Occupied Bandwidth (99%) (Regulation: RSS-Gen 4.6.1)

UL Japan, Inc. Yamakita EMC lab.
Date:
Temp./Humid.:
Engineer:
Test mode:

No.4 shielded room
2010/06/23
26 deg. C. / 68 %
Minoru Nakatake
Transmitting

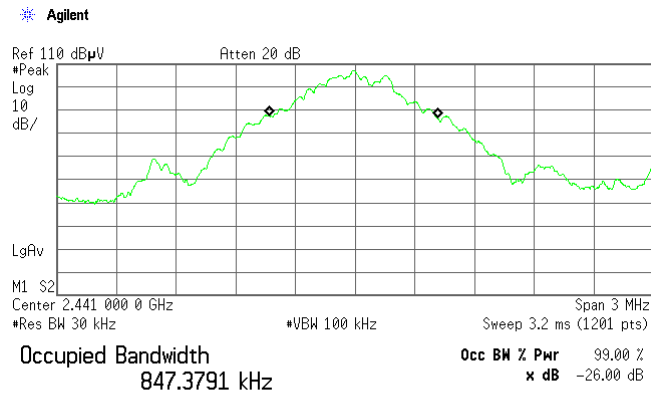
[Hopping off, DHS]

1. ch : 2402MHz



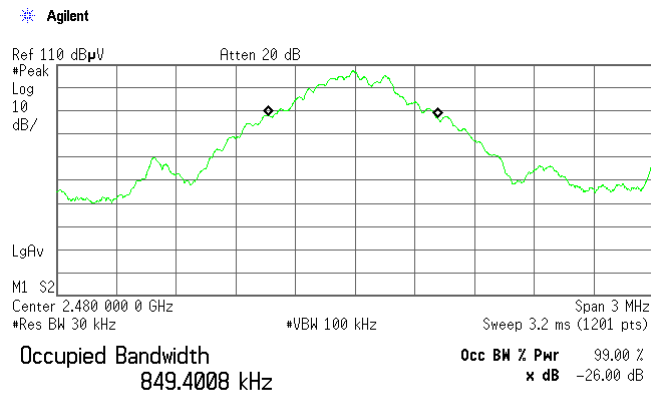
Transmit Freq Error -11.090 kHz
x dB Bandwidth 1.129 MHz

2. ch : 2441MHz



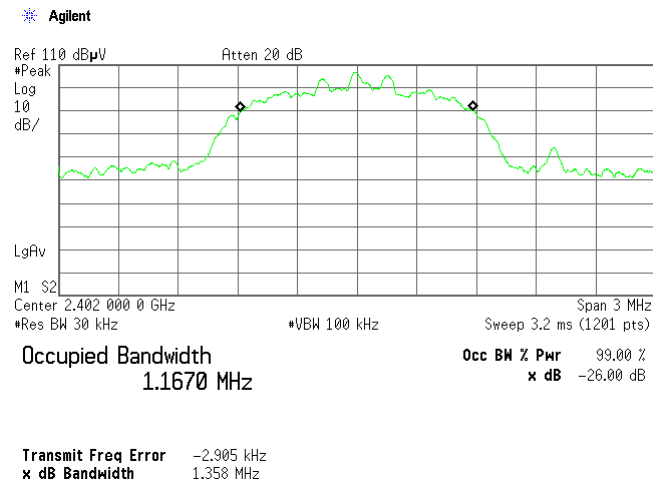
Transmit Freq Error -9.103 kHz
x dB Bandwidth 1.126 MHz

3. ch : 2480MHz

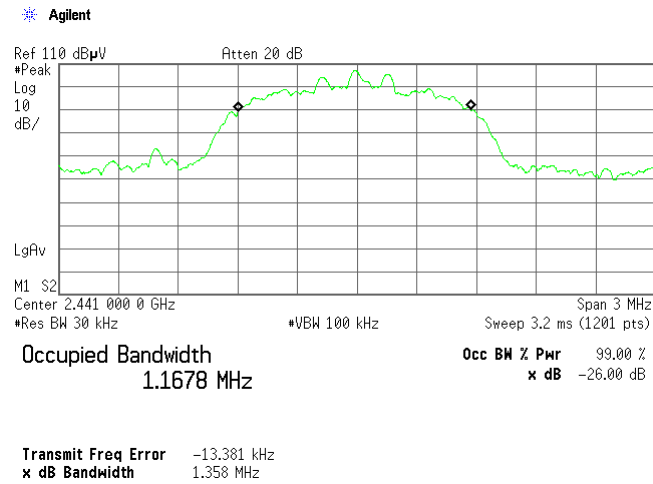


Transmit Freq Error -9.804 kHz
x dB Bandwidth 1.125 MHz

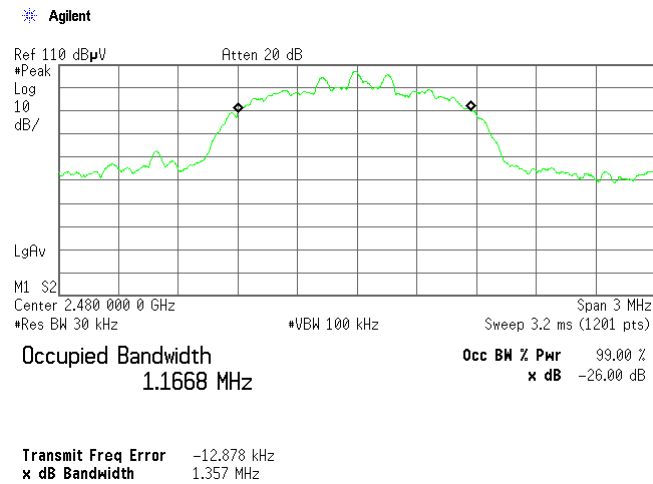
[Hopping off, 3DH5]
4. ch : 2402MHz



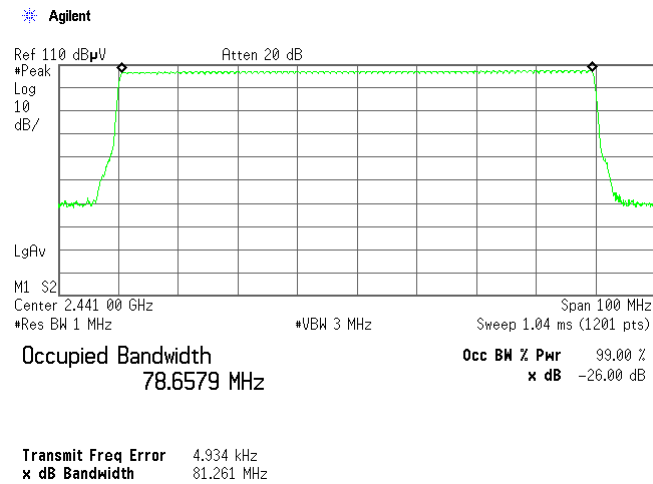
5. ch : 2441MHz



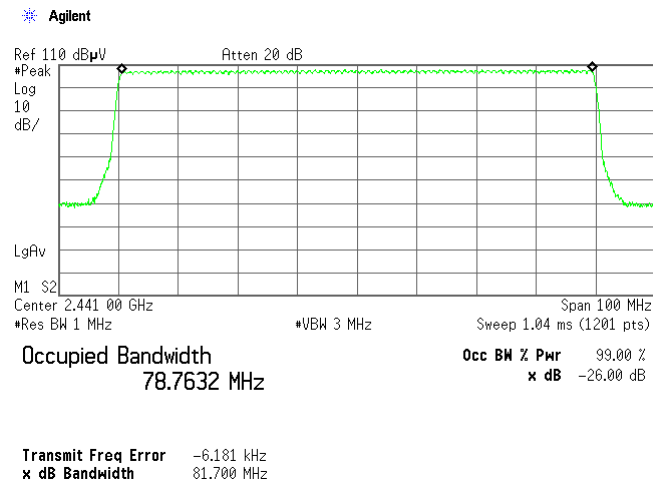
6. ch : 2480MHz



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-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
KAT3-08	Attenuator	JFW IND. INC.	50HF-003N	-	RE	2009/08/18 * 12
KAT6-01	Attenuator	INMET	18N-6dB	-	RE	2010/03/29 * 12
KBA-05	Biconical Antenna	Schwarzbeck	BBA9106	2513	RE	2010/06/12 * 12
KLA-06	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	125	RE	2010/06/12 * 12
KCC-30/31/32 /34/37/KRM-0 3	Coaxial Cable/RF Relay Matrix	Fujikura/Suhner/TSJ	5D-2W/S04272B/R FM-E421	-/01055	RE	2009/10/27 * 12
KAF-02	Pre Amplifier	Hewlett Packard	8449B	3008A01268	RE	2010/04/23 * 12
KHA-02	Horn Antenna	Schwarzbeck	BBHA9120D	230	RE	2010/04/05 * 12
KHA-04	Horn Antenna	EMCO	3160-09	1278	RE	2010/04/05 * 12
KCC-D24/D25	Coaxial Cable	Suhner	SUCOFLEX 102	32718/2 / 32709/2	RE	2010/04/20 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	95060087	RE	2010/01/12 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	830245/011	RE	2009/11/18 * 12
KJM-07	Measure	KOMELON	KMC-36	-	RE	-
KOS-02	Humidity Indicator	Custom	CTH-190	K-02	RE	2009/07/23 * 12
KCC-D23	Microwave cable	Hirose Electric	U.FL-2LP-066J1- A-(200)	-	AT all	Pre Check
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
KOSC-01	Oscilloscope	Tektronix	TDS-2022B	C050588	AT 7	2010/05/12 * 12
KOS-07	Humidity Indicator	Custom	CTH-190	K-07	AT all	2009/07/29 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	1822A05320	AT 7	Pre Check

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