



RADIO TEST REPORT

Test Report No.: 28GE0180-YK-01-A

Applicant : Pioneer Corporation
Type of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
FCC ID : AJDK020
Test regulation : FCC Part15 Subpart C: 2008
Test result : Complied

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2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.

Date of test: February 25 and March 11, 25, 2008

Tested by:

T. Arai
Tatsuya Arai

&

A. Sato
Akira Sato

Approved by:

O. Watatani
Osamu Watatani
Manager of Yamakita EMC Lab.

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1 Applicant information

Company Name : Pioneer Corporation
Address : 25-1 Nishi-machi, Yamada-aza, Kawagoe-shi, Saitama, 350-8555, JAPAN
Telephone Number : +81 49 228 6345
Facsimile Number : +81 49 228 6494
Contact Person : Hideki Tanaka

2 Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : Refer to 4.2 in this report.
Rating : DC13.2V
Country of Mass-production : China
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No modification by the test lab.
Receipt Date of Sample : February 25, 2008

2.2 Product description

Model: AVIC-F900BT (referred to as the EUT in this report) is a Flash Memory Multi-Media AVN Navigation Sever System.

The difference between the EUT and its similar models, AVIC-F700BT: Refer to Appendix 4 in this report.

Equipment type : Transceiver
Frequency of operation : 2402-2480MHz
Clock frequency : CPU: 600MHz
Tuner: 39.9MHz (1st IF: 10.7MHz, 2nd IF: 700kHz)
Bluetooth Module: 26MHz
Bandwidth & channel spacing : 79MHz & 1MHz
Type of modulation : FHSS
Antenna model & type : Chip antenna (made by Mitsubishi Material): ACD1403-244ST13
Antenna gain with cable loss : +2.0dBi
Antenna connector type : U.FL-R-SMT (manufactured by Hirose)
ITU code : F1D
Operation temperature range : -10 to +60 deg.C.

FCC Part15.31 (e)

The equipment provides the Bluetooth module with stable power supply (DC 3.3 V), therefore, the equipment complies power supply regulation.

FCC Part15.203 Antenna requirement

The equipment and its antenna comply with this requirement since this antenna is built in the equipment and it cannot be replaced by end users.

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3 Test specification, procedures and results

3.1 Test specification

Test specification : FCC Part15 Subpart C: 2008 final revised on March 24, 2008
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.207 Conducted limits
Section 15.209 Radiated emission limits, general requirements
Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz,
and 5725-5850MHz

*The revision on March 24, 2008 does not influence the test specification applied to the EUT.

3.2 Procedures & results

Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results
Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	FCC Section 15.207	-	N/A *1)	N/A	N/A
Carrier Frequency Separation	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.247 (a)(1)	Conducted	N/A	*See data.	Complied
20dB Bandwidth	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.247 (a)(1)	Conducted	N/A		Complied
Number of Hopping Frequency	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.247 (a)(1)(iii)	Conducted	N/A		Complied
Dwell time	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.247 (a)(1)(iii)	Conducted	N/A		Complied
Maximum Peak Output Power	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.247 (b)(1)	Conducted	N/A		Complied
Band Edge Compliance	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.247 (d)	Radiated	N/A		Complied
Spurious Emission	FCC Public Notice DA 00-705 & ANSI C63.4:2003 13. Measurement of intentional radiators	FCC Section15.209 & Section15.247 (d)	Conducted/ Radiated	N/A	6.2dB (200.02MHz, Vertical, Tx 2480MHz)	Complied

*1) The test is not applicable since the EUT has no AC mains.

Note: UL Japan's EMI Work Procedures No.QPM05 and QPM15.

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3.3 Addition to standard

Item	Test Procedure	Specification	Remarks	Worst Margin	Results
Occupied Bandwidth (99%)	ANSI C63.4:2003 13. Measurement of intentional radiators RSS-Gen 4.6.1	RSS-Gen 4.6.1	Conducted	-	Complied

* Other than above, no addition, exclusion nor deviation has been made from the standard.

3.4 Uncertainty

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor k=2.

	No.1 open site (±)	No.2 open site (±)	No.1 anechoic chamber (±)
Radiated emission (3m)			
30-300MHz	4.5 dB	4.4 dB	4.5 dB
300-1000MHz	4.3 dB	4.3 dB	4.3 dB
1GHz<	5.7 dB	5.7 dB	5.7 dB

The data listed in this test report has enough margin, more than site margin.

Antenna port conducted test	(±)
Below 1GHz	0.4dB
1GHz and above	0.7dB

3.5 Test location

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 NVLAP Lab. code : 200441-0

No. 1 test site has been fully described in a report submitted to FCC office, and accepted on August 26, 2005 (Registration No.: 95486).

IC Registration No. : 2973B-1

No. 2 test site has been fully described in a report submitted to FCC office, and accepted on February 27, 2008 (Registration No.: 466226).

IC Registration No. : 2973B-3

No. 1 anechoic chamber has been fully described in a report submitted to FCC office, and accepted on November 2, 2005 (Registration No.: 95967).

IC Registration No. : 2973B-2

Test room	Width x Depth x Height (m)	Test room	Width x Depth x Height (m)
No.1 shielded room	8.0 x 5.0 x 2.5	No.1 Semi-anechoic chamber	10.0 x 7.5 x 5.7
No.2 shielded room	5.0 x 4.0 x 2.5		
No.3 shielded room	4.0 x 5.0 x 2.7		

Open test site	Maximum measurement distance
No.1 open test site	30m
No.2 open test site	10m

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4 System test configuration

4.1 Justification

The system was configured in typical fashion (as a customer would normally use it) for testing.

Test Item	Operating Mode	Tested frequency
Carrier Frequency Separation	Transmitting Hopping ON/Inquiry, Payload: PRBS9	2402MHz, 2441MHz, 2480MHz
20dB Bandwidth Maximum Peak Output Power	Transmitting Hopping OFF/Inquiry, Payload: PRBS9	2402MHz, 2441MHz, 2480MHz
Number of Hopping Frequency	Transmitting Hopping ON/Inquiry, Payload: PRBS9	-
Dwell time	Transmitting (Hopping ON) -DH1 -DH3 -DH5 - Inquiry	-
Spurious Emission (Conducted/Radiated)	Transmitting (DH5), Payload: PRBS9	2402MHz, 2441MHz, 2480MHz
Band Edge Compliance (Conducted)	Transmitting (DH5), Payload: PRBS9 -Hopping ON -Hopping OFF	2402MHz, 2480MHz
(Radiated)	Transmitting (DH5), Payload: PRBS9	2402MHz, 2480MHz
99% Occupied Bandwidth	Transmitting (DH5), Payload: PRBS9 -Hopping ON -Hopping OFF	2402MHz, 2441MHz, 2480MHz

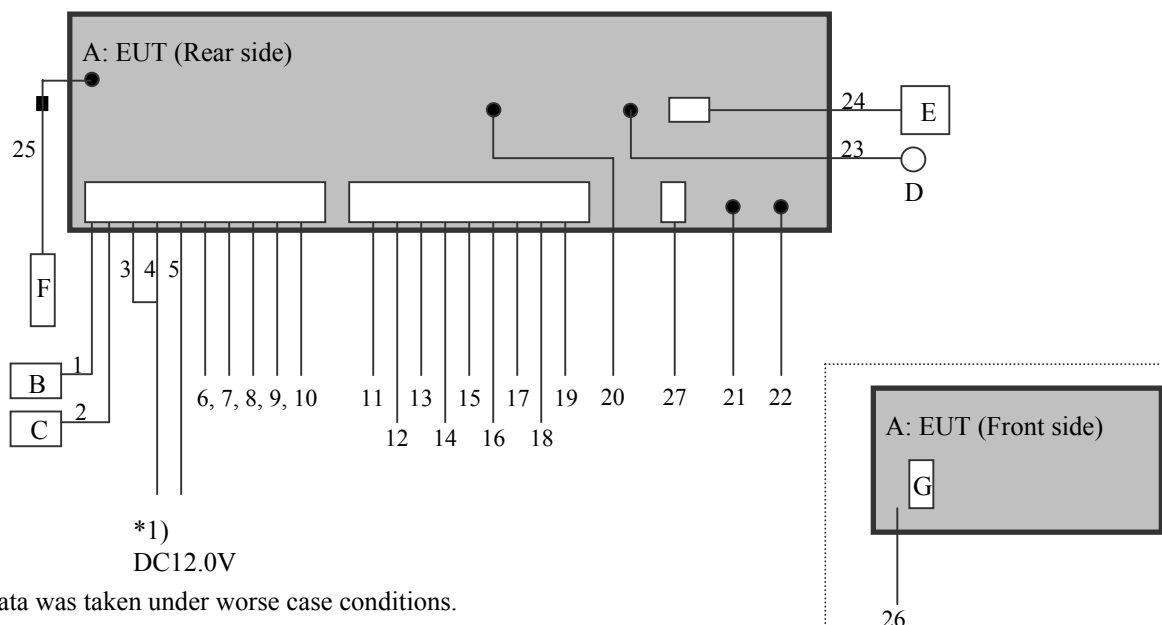
As a result of preliminary test, the formal test was performed with the above modes, which had the maximum payload (except Dwell time test)

*Remarks: Test was not performed at AFH mode, because the decrease of number of channel (min: 20ch) at AFH mode does not influence on the output power and bandwidth of the EUT.

However, the limit level 125mW of AFH mode was used for the test. The EUT has no EDR mode.

4.2 Configuration of tested system

■ : Ferrite core



* Test data was taken under worse case conditions.

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Description of EUT and support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Flash Memory Multi-Media AVN Navigation Server System	AVIC-F900BT	*2)	PIONEER	EUT
B	Dummy speaker (4ohm)	RHA250N	-	-	-
C	Dummy speaker (4ohm)	RHA250N	-	-	-
D	Hands free Microphone	CPM1064-A	-	HOSHIDEN	-
E	GPS Antenna	CXC8574-A	GKE	MITSUMI	-
F	USB memory	EMZ-USB128M	-	HAGIWARA SYS-COM	-
G	SD Card	SDSDB-512-J60	-	San Disk	-

*1) DC power supply (Model No.: PAN35-10A) was used for DC 12V input.

*2) Out of Band emission (Radiated): TP000036UC, other test: TP000068UC

List of cables used *3)

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	Speaker cable	1.15	Unshielded	Unshielded	(L, R)
2	Speaker cable	1.15	Unshielded	Unshielded	(L, R)
3	Accessory cable	2.65	Unshielded	Unshielded	-
4	Battery cable	2.75	Unshielded	Unshielded	-
5	Ground cable	2.9	Unshielded	Unshielded	-
6	Illumination Control cable	0.75	Unshielded	Unshielded	-
7	Antenna Control cable	0.75	Unshielded	Unshielded	-
8	Parking Brake cable	2.0	Unshielded	Unshielded	-
9	Car Speed Signal cable	6.0	Unshielded	Unshielded	-
10	Reverse Gear Signal cable	8.0	Unshielded	Unshielded	-
11	RCA cable (Front Output)	1.75	Unshielded	Unshielded	-
12	RCA cable (Rear Output)	1.75	Unshielded	Unshielded	-
13	RCA cable (Subwoofer Output)	1.75	Unshielded	Unshielded	-
14	RCA cable (Audio Input)	1.65	Unshielded	Unshielded	-
15	Video cable (Video Input)	1.65	Unshielded	Unshielded	-
16	Video cable (Rear View Camera In)	1.65	Unshielded	Unshielded	-
17	Video cable (Rear Monitor Output)	1.6	Unshielded	Unshielded	-
18	System Remote Control cable	0.25	Unshielded	Unshielded	-
19	Mute cable	0.25	Unshielded	Unshielded	-
20	Digital Out cable	6.8	Shielded	Unshielded	-
21	Wired Remote Control cable	1.1	Shielded	Unshielded	-
22	Coaxial cable (Antenna)	0.25	Shielded	Shielded	-
23	Microphone cable	4.0	Unshielded	Shielded	-
24	GPS Antenna cable	5.0	Unshielded	Shielded	-
25	USB cable	2.0	Shielded	Shielded	-
26	RCA cable (Audio, Video Input)	2.0	Unshielded	Unshielded	-
27	IP-BUS cable	3.0	Shielded	Shielded	-

*3) All cables used for the measurement are exclusive use or marketed.

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5 Carrier frequency separation

Test Procedure

The carrier frequency separation was measured with a spectrum analyzer connected to the antenna port.

Summary of the test results: Pass

Date : March 25, 2008 Test engineer : Tatsuya Arai

6 20dB bandwidth & Occupied bandwidth (99%)

Test Procedure

The bandwidth was measured with a spectrum analyzer connected to the antenna port.

The channel separation in Hopping mode and Inquiry mode was separated by 25kHz and 2/3 of the 20dB bandwidth.

Summary of the test results: Pass

Date : March 11 and 25, 2008 Test engineer : Tatsuya Arai

7 Number of hopping frequency

Test Procedure

The Number of Hopping Frequency was measured with a spectrum analyzer connected to the antenna port.

Summary of the test results: Pass

Date : March 25, 2008 Test engineer : Tatsuya Arai

8 Dwell time

Test Procedure

The Dwell time was measured with a spectrum analyzer connected to the antenna port.

Measurement was performed with the packet type of DH1, DH3 and DH5.

Summary of the test results: Pass

Date : March 25, 2008 Test engineer : Tatsuya Arai

9 Maximum peak output power

Test Procedure

The Maximum Peak Output Power was measured with a power meter connected to the antenna port.

Summary of the test results: Pass

Date : March 25, 2008 Test engineer : Tatsuya Arai

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10 Out of band emissions (Antenna port conducted)

Test Procedure

The Out of Band Emissions was measured with a spectrum analyzer connected to the antenna port.

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a conducted measurement.

Summary of the test results: Pass

Date : March 11 and 25, 2008

Test engineer : Tatsuya Arai

11 Out of band emissions (Radiated)

11.1 Operating environment

The test was carried out in No.1 anechoic chamber.

11.2 Test configuration

EUT was placed on a urethane platform of nominal size, 0.5m by 0.5m, raised 80cm above the conducting ground plane. A drawing of the set up is shown in the photos of Appendix 1.

11.3 Test conditions

Frequency range : 30MHz - 26.5GHz
Test distance : 3m (30MHz-18GHz), 1m (18-26.5GHz)
EUT operation mode : Transmitting

11.4 Test procedure

The Radiated Electric Field Strength intensity has been measured with a ground plane and at a distance of 3m or 1m. The measuring antenna height was varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. The measurements were performed for both vertical and horizontal antenna polarization. Measurements were performed with QP, PK, and AV detector.

The radiated emission measurements were made with the following detector function of the test receiver.

When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver	Spectrum Analyzer
Detector IF Bandwidth	QP: BW 120kHz	PK: RBW: 1MHz/VBW: 1MHz, AV RBW: 1MHz/VBW: 300Hz
Measuring antenna	Biconical (30-300MHz) Logperiodic (300MHz-1GHz)	Horn

The EUT was tested in the direction normally used.

11.5 Band edge

Band edge level at 2390MHz and 2483.5MHz is below the limits of FCC 15.209 and band edge level at 2400MHz is below the 20dBc. Refer to the data.

11.6 Results

Summary of the test results : Pass *No noise was detected above the 5th order harmonics.

Date : February 25, 2008

Test engineer : Akira Sato

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APPENDIX 1: Photographs of test setup

Page 11 : Radiated emission

APPENDIX 2: Test Data

Page 12 : Carrier frequency separation
Page 13 - 14 : 20dB bandwidth
Page 15 - 17 : Number of hopping frequency
Page 18 - 25 : Dwell time
Page 26 : Maximum peak output power
Page 27 - 36 : Out of band emissions (Antenna Port Conducted)
Page 37 - 45 : Out of band emissions (Radiated)
Page 46 : Duty cycle
Page 47 - 48 : Occupied bandwidth

APPENDIX 3: Test instruments

Page 49 : Test instruments

APPENDIX 4: The difference between AVIC-F700BT and AVIC-F900BT

Page 50 - 51 : The difference between AVIC-F700BT and AVIC-F900BT

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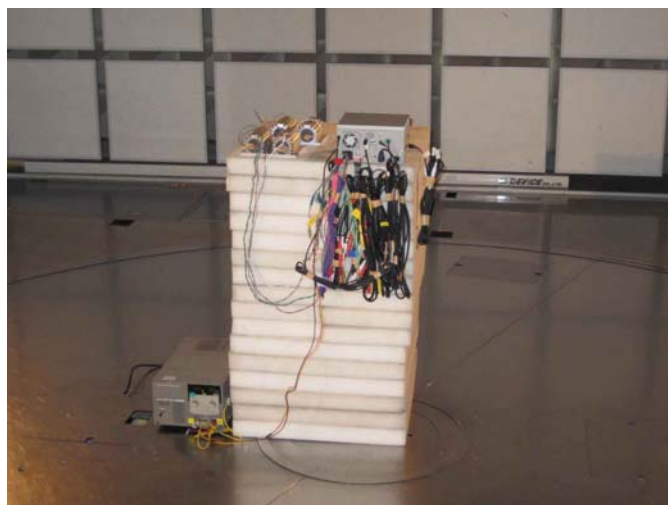
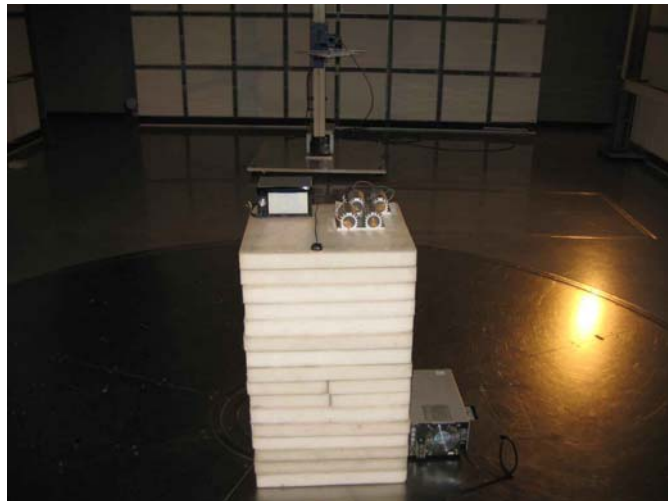
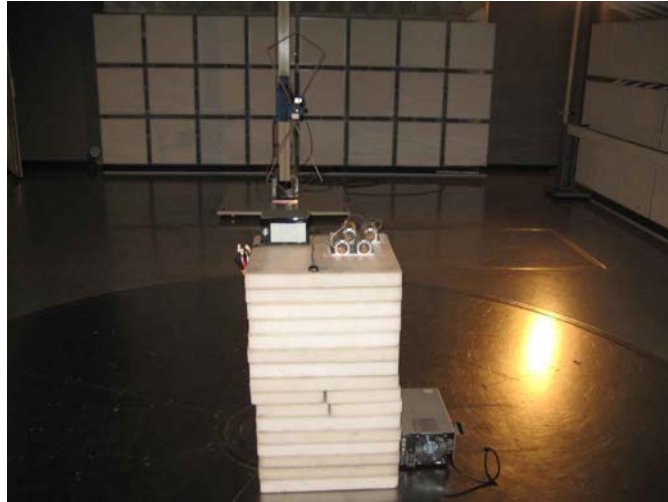
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Radiated emission



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Company:	PIONEER CORPORATION	Report No.:	28GE0180-YK-01-A
Kind of Equipment:	Flash Memory Multi-Media AVN Navigation Server System	Model No.:	AVIC-F900BT
Serial No.:	TP000068UC	Power:	DC12V

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

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Date:

Temp./Humid.:

Engineer:

Test mode:

No.4 shielded room

2008/3/25

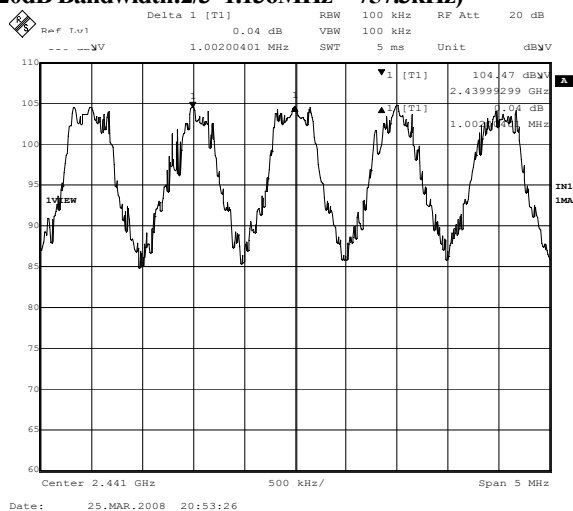
24 deg. C. / 42 %

Tatsuya Arai

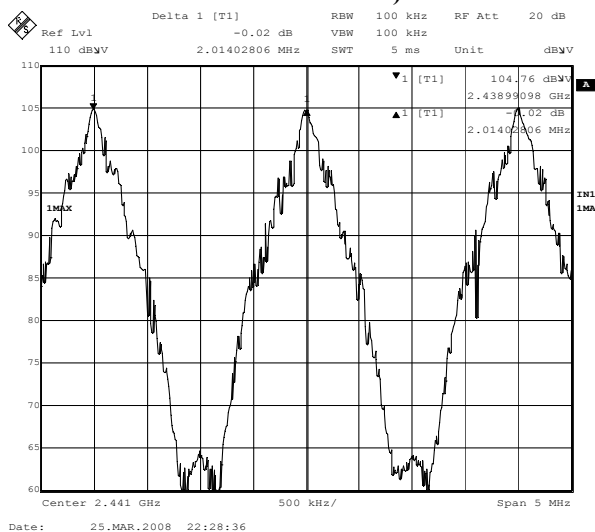
Transmitting

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

1. Hopping, DH5: 1.002MHz ($2/3 * 20\text{dB}$ Bandwidth: $2/3 * 1.136\text{MHz} = 757.3\text{kHz}$)



2. Inquiry: 2.014MHz ($2/3 * 20\text{dB}$ Bandwidth: $2/3 * 1.100\text{MHz} = 733.3\text{kHz}$)



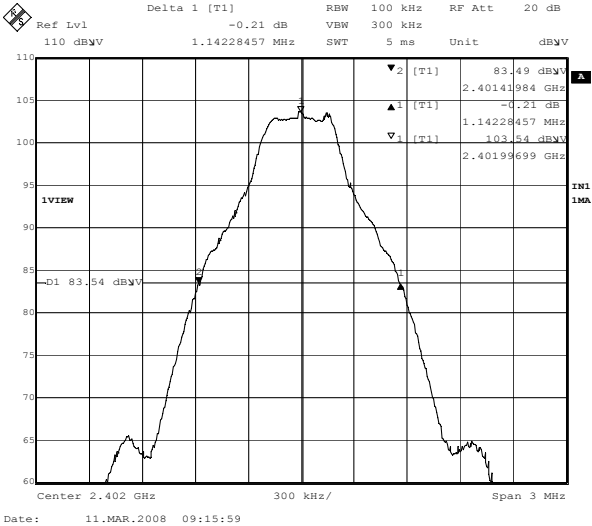
20dB Bandwidth (Regulation: FCC 15.247(a)(1))

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Date:
Temp./Humid.:
Engineer:
Test mode:

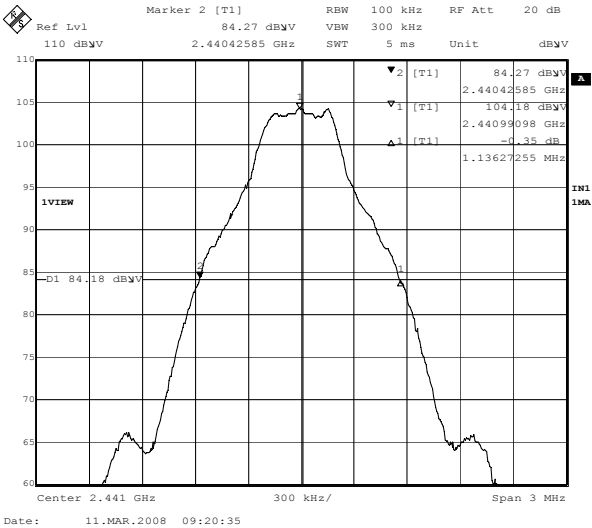
No.4 shielded room
2008/3/11
24 deg. C. / 35 %
Tatsuya Arai
Transmitting

[Hopping off, DHS]

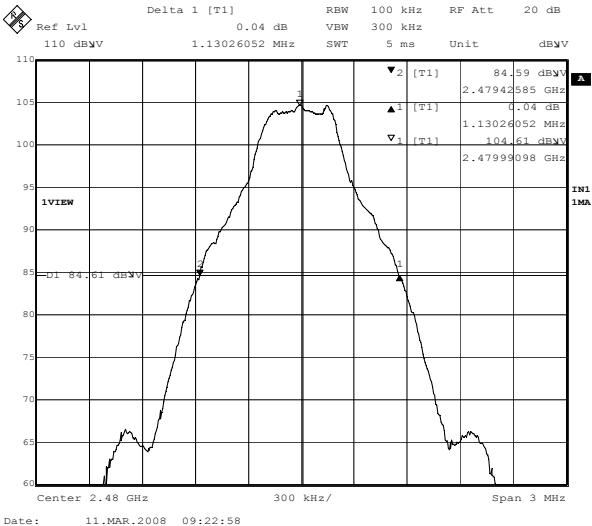
1. ch : 2402MHz/20dB Bandwidth:1.142MHz



2. ch : 2441MHz/20dB Bandwidth:1.136MHz



3. ch : 2480MHz/20dB Bandwidth:1.130MHz

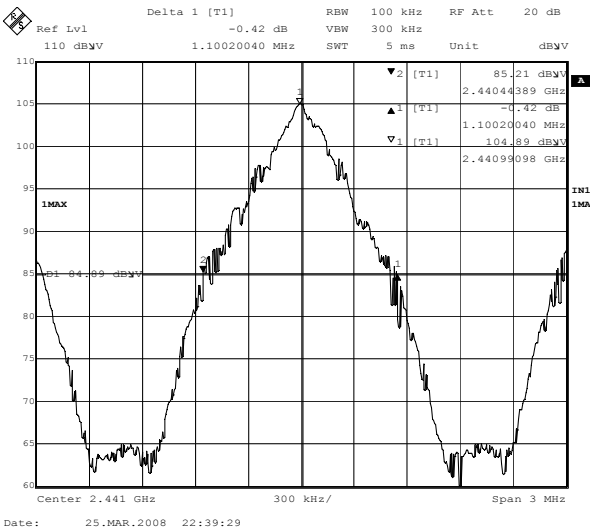


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Date:
Temp./Humid.:
Engineer:
Test mode:

No.4 shielded room
2008/3/25
24 deg. C. / 42 %
Tatsuya Arai
Transmitting

[Inquiry]

4. Inauriry/20dB Bandwidth:1.100MHz

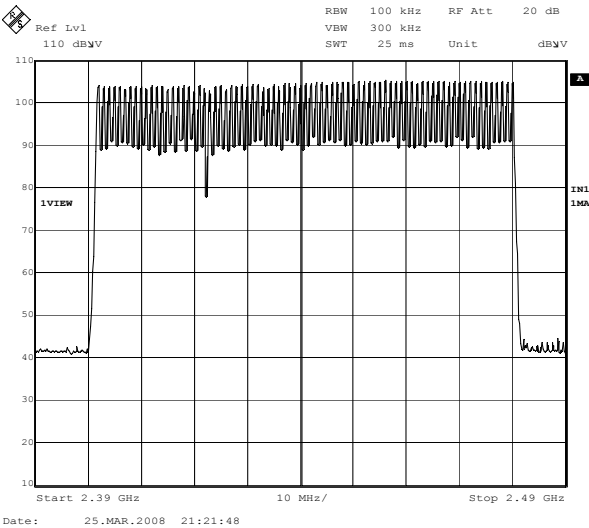


Channel Utilization (Regulation: FCC 15.247(a)(1)(iii))

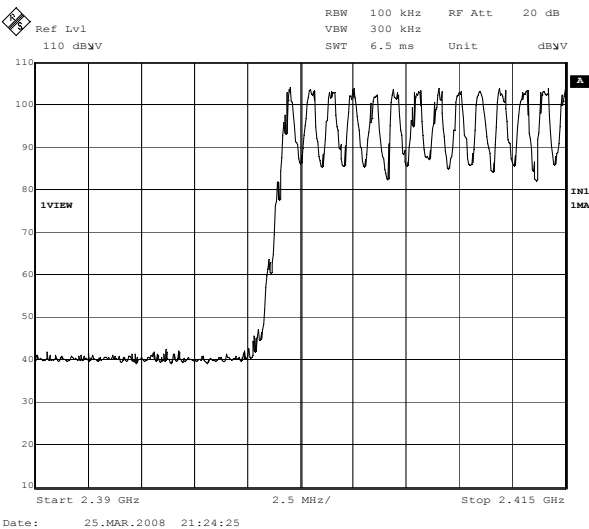
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Date:
Temp./Humid.:
Engineer:
Test mode:

No.4 shielded room
2008/3/25
24 deg. C. / 42 %
Tatsuya Arai
Transmitting

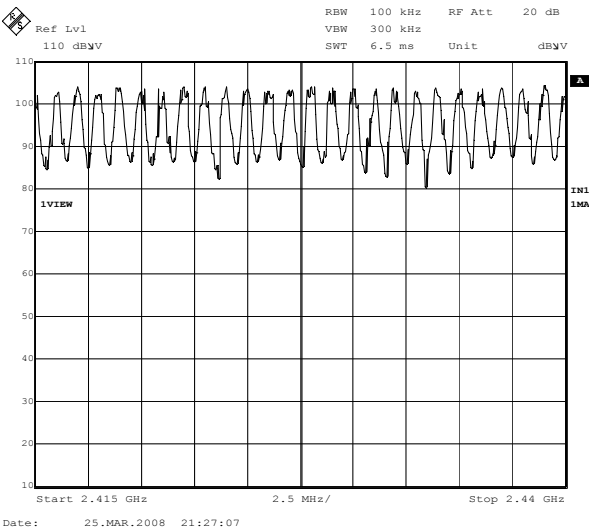
Hopping, DH5: 79ch
1.



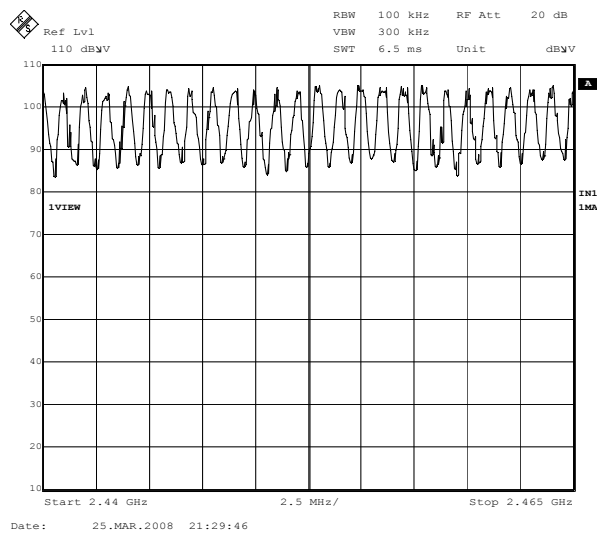
2.



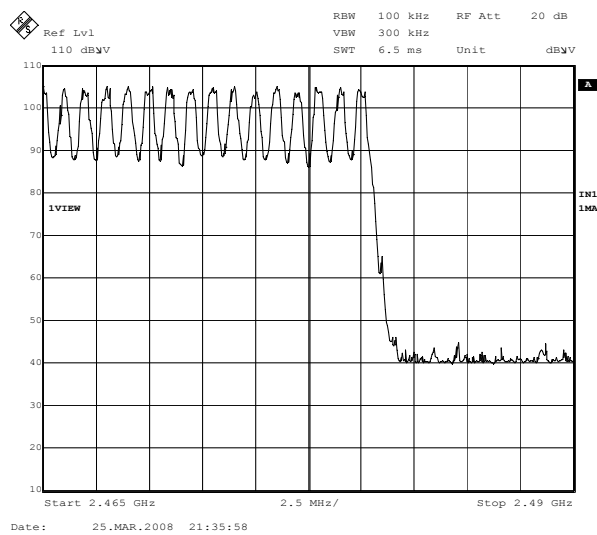
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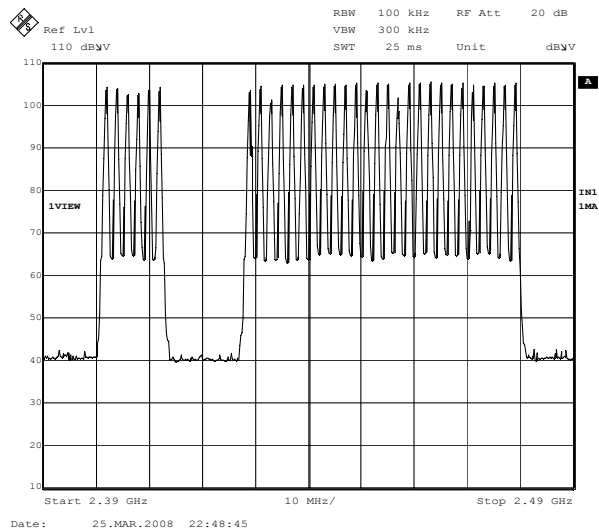
4.



5.



Inquiry: 32ch



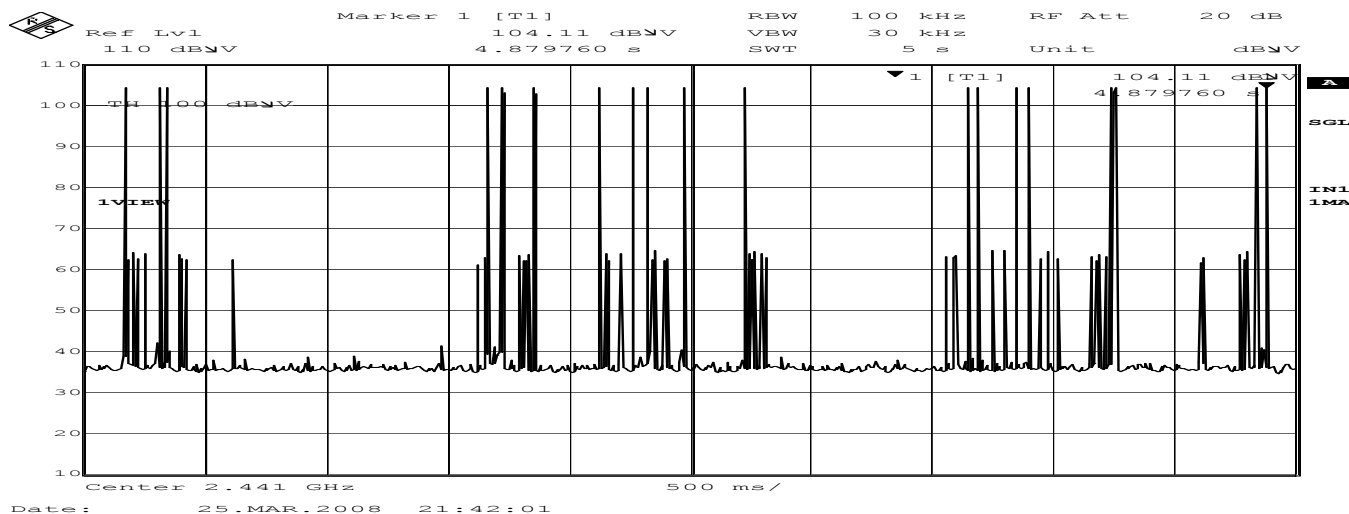
Company:	PIONEER CORPORATION	Report No.:	28GE0180-YK-01-A
Kind of Equipment:	Flash Memory Multi-Media AVN Navigation Server System	Model No.:	AVIC-F900BT
Serial No.:	TP000068UC	Power:	DC12V

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

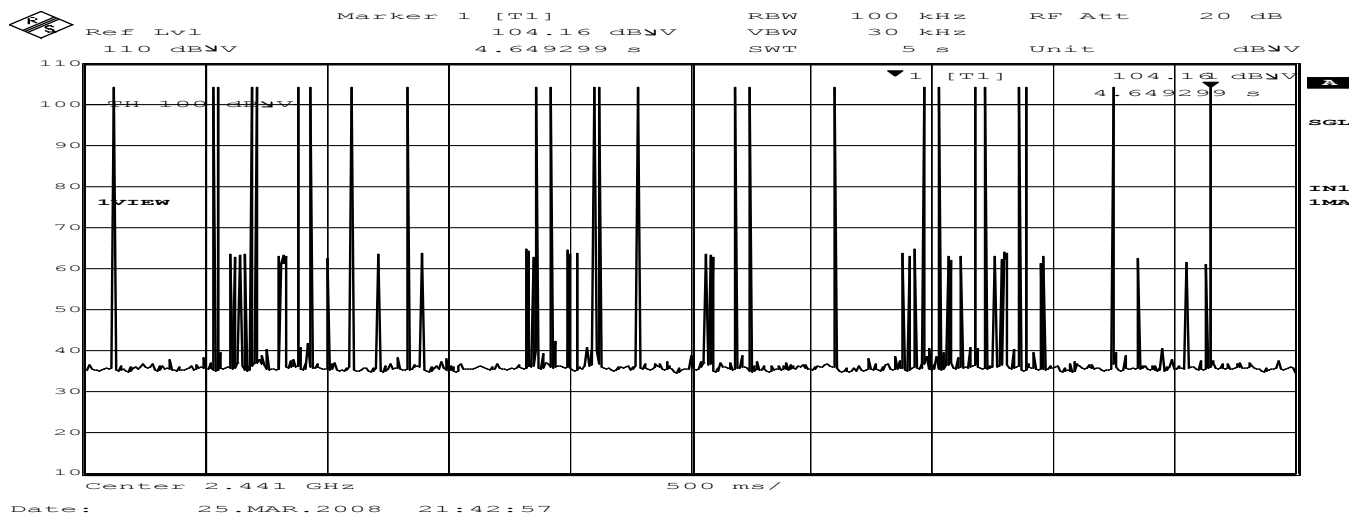
UL Japan, Inc. Yamakita EMC lab.	No.4	shielded room
Date:	2008/3/25	
Temp./Humid.:	24	deg. C. / 42 %
Engineer:	Tatsuya Arai	
Test mode:	Transmitting	

Hopping (DH1):

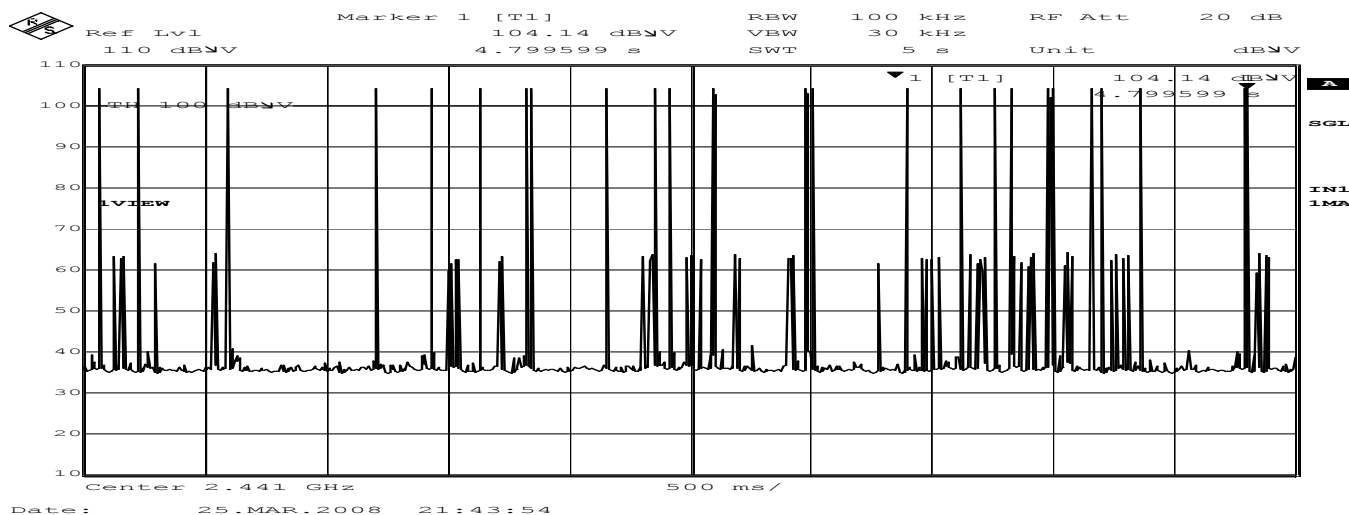
Count 1



Count 2



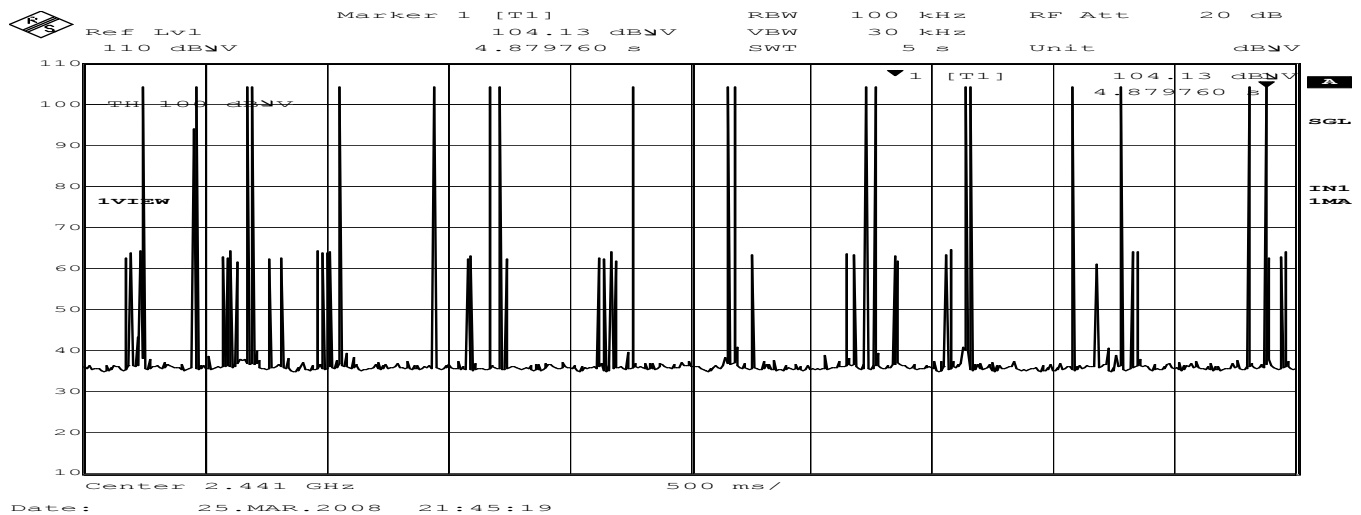
Count 3



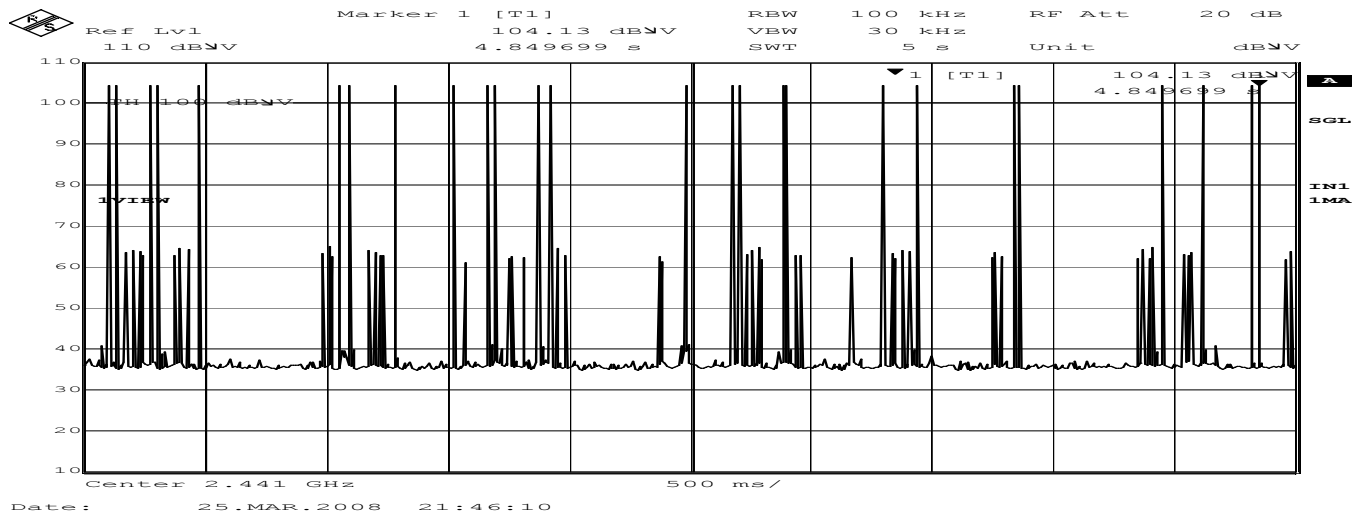
Company: PIONEER CORPORATION
 Kind of Equipment: Flash Memory Multi-Media AVN Navigation Server System
 Serial No.: TP000068UC

Report No.: 28GE0180-YK-01-A
 Model No.: AVIC-F900BT
 Power: DC12V

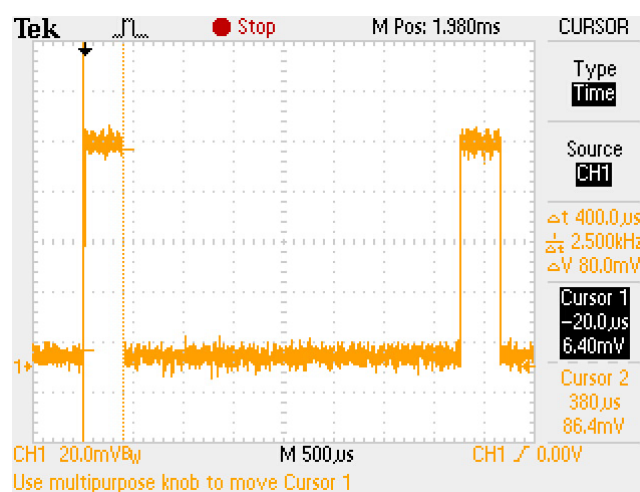
Count4



Count5



Duty cycle(Hopping DH1)



Average times of rising in 5 sec. of sweep = (18+ 25 + 23 + 19 + 25) / 5 = 22.0

Average times of rising in 1 sec. = 22.0 / 5s = 4.4

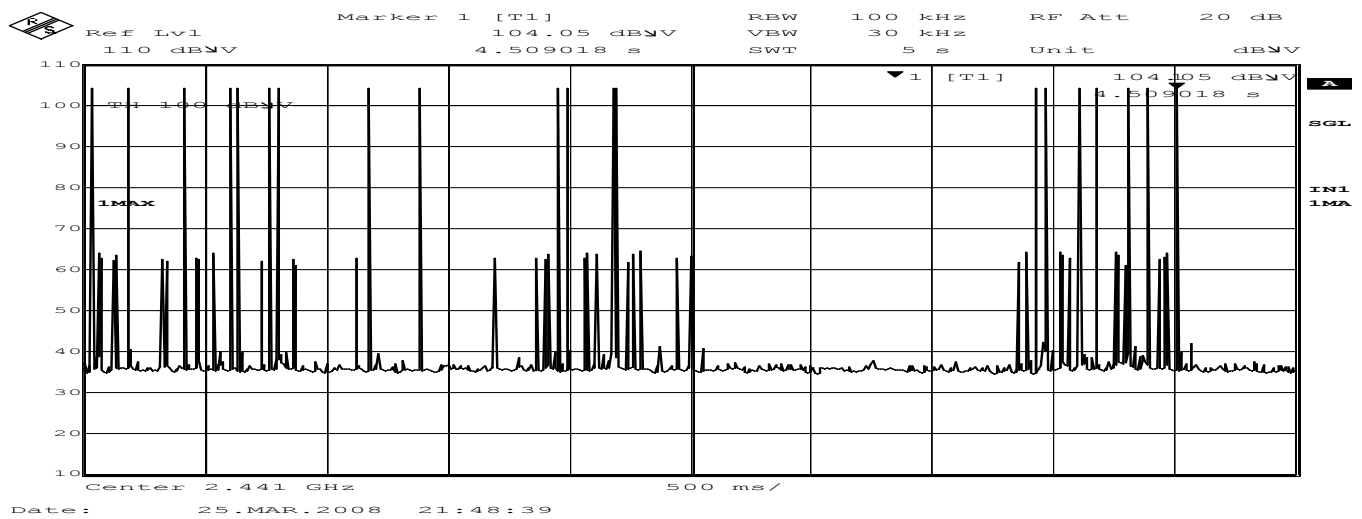
Average times of rising in 0.4x = 0.4 * 79ch * 4.4 = 139.04

Dwell time = 139.04 * 0.400 = 55.62 [ms]

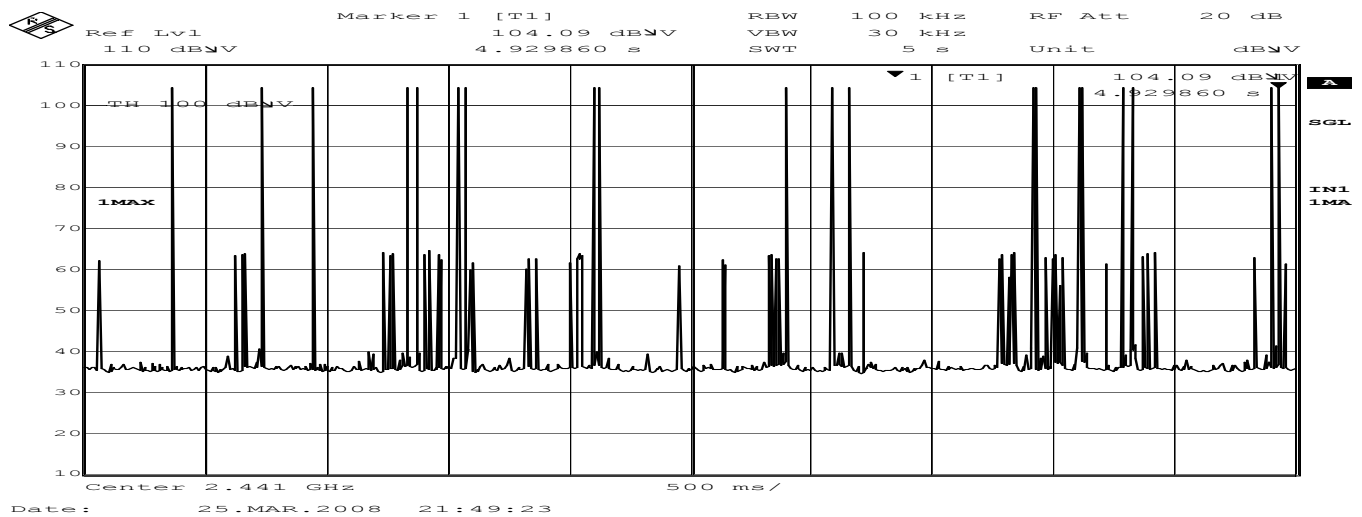
Limit : Dwell Time < 0.4[s]

Hopping (DH3):

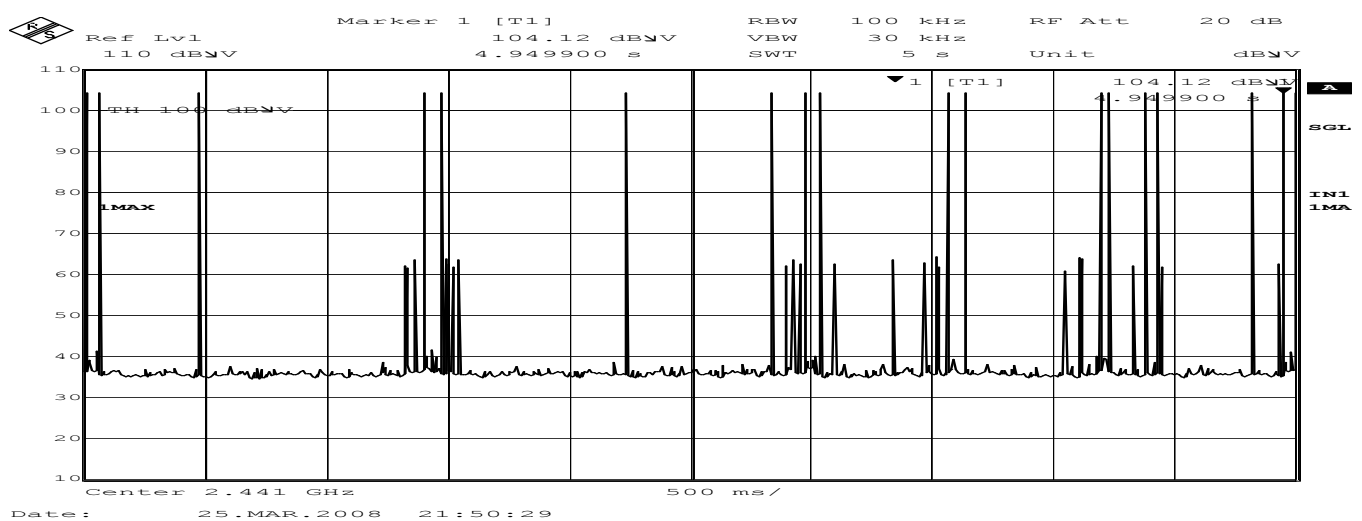
Count 1



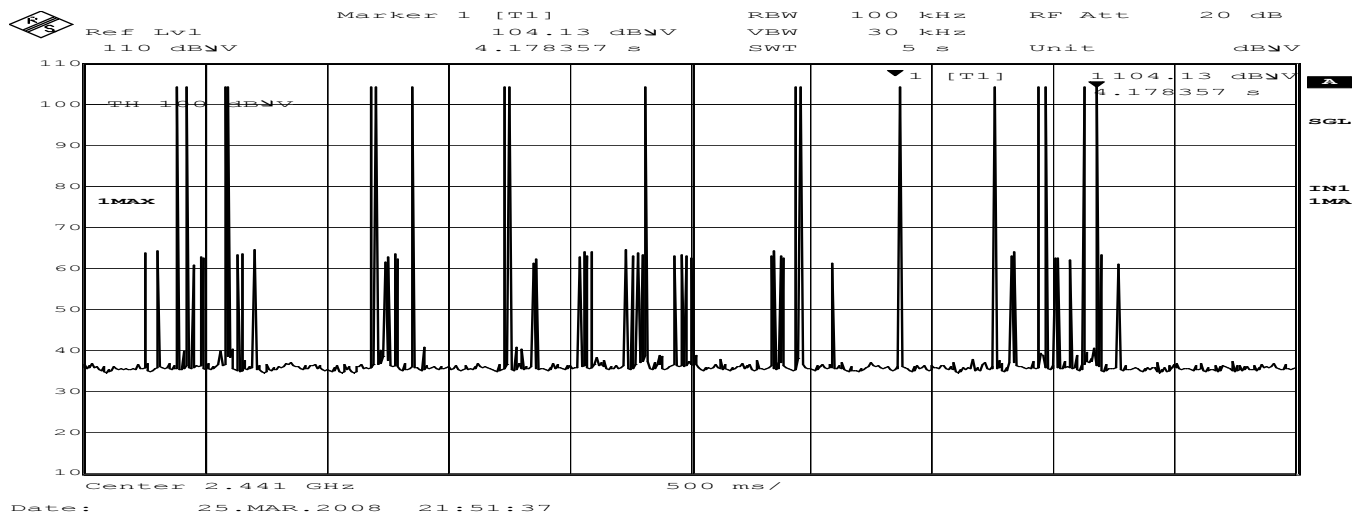
Count 2



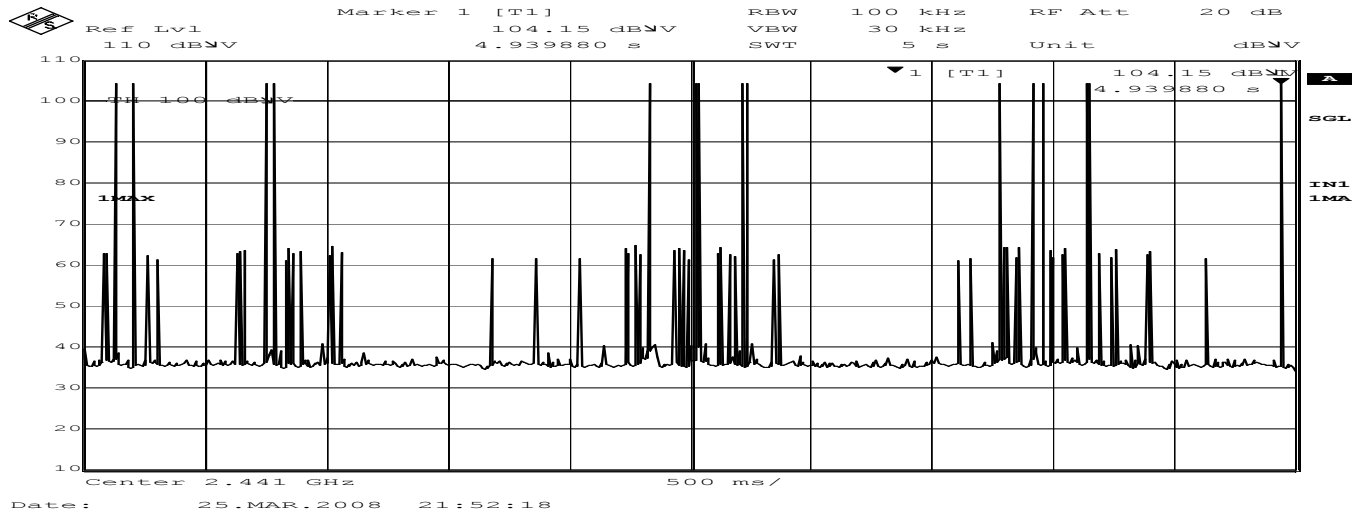
Count 3



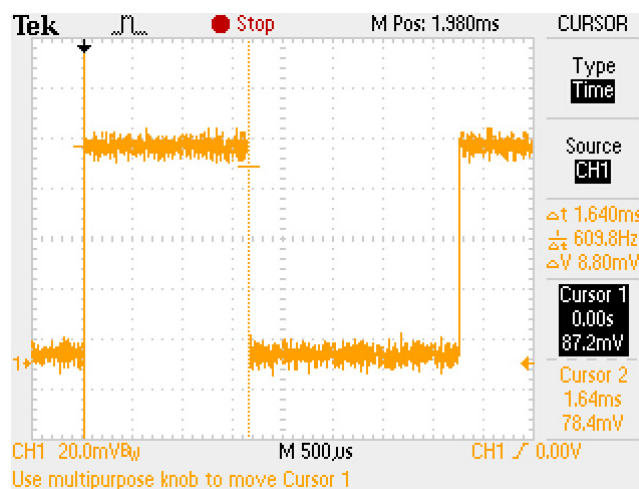
Count4



Count5



Duty cycle(Hopping DH3)



Average times of rising in 5 sec. of sweep = $(19 + 18 + 17 + 17 + 13) / 5 = 16.8$

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

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

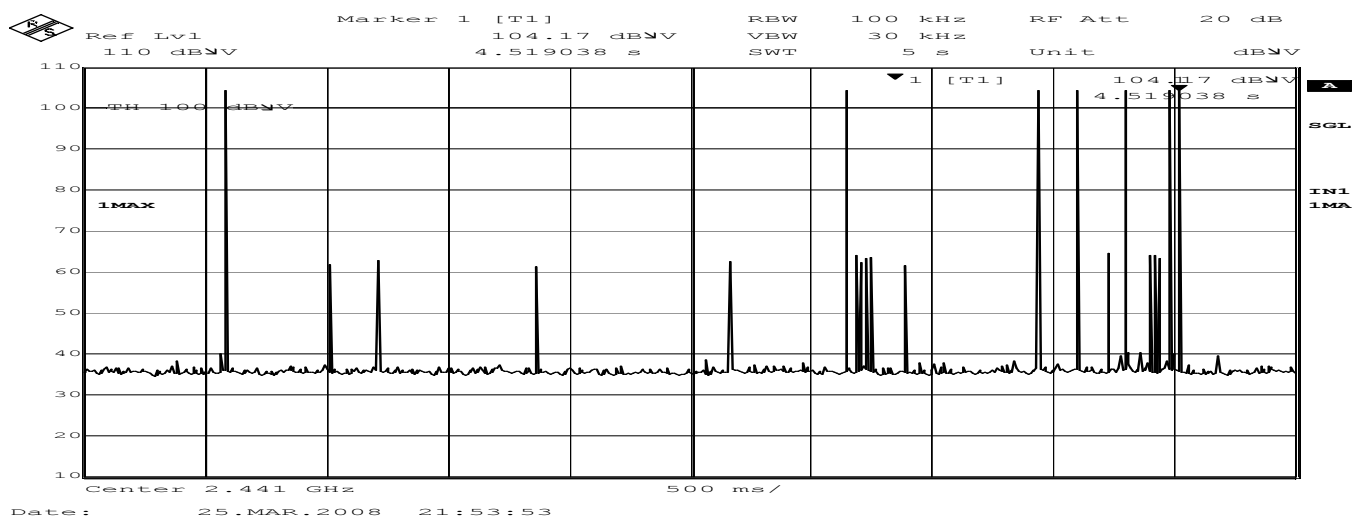
Dwell time = $106.18 * 1.64 = 174.14$ [ms]

Limit : Dwell Time < 0.4[s]

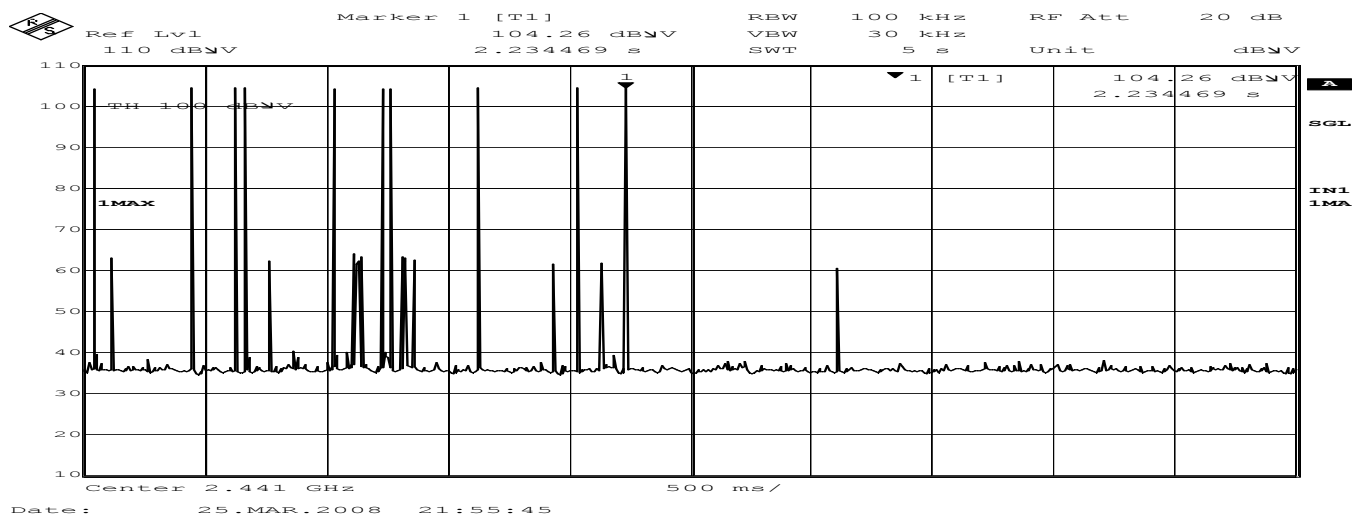
Company:	PIONEER CORPORATION	Report No.:	28GE0180-YK-01-A
Kind of Equipment:	Flash Memory Multi-Media AVN Navigation Server System	Model No.:	AVIC-F900BT
Serial No.:	TP000068UC	Power:	DC12V

Hopping (DHS):

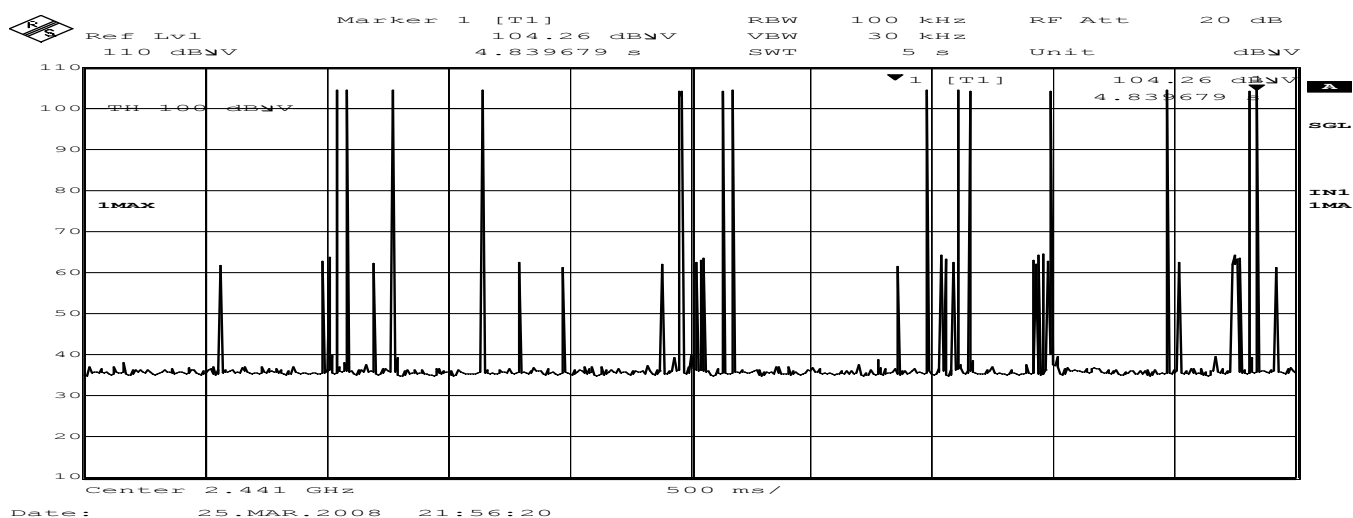
Count 1



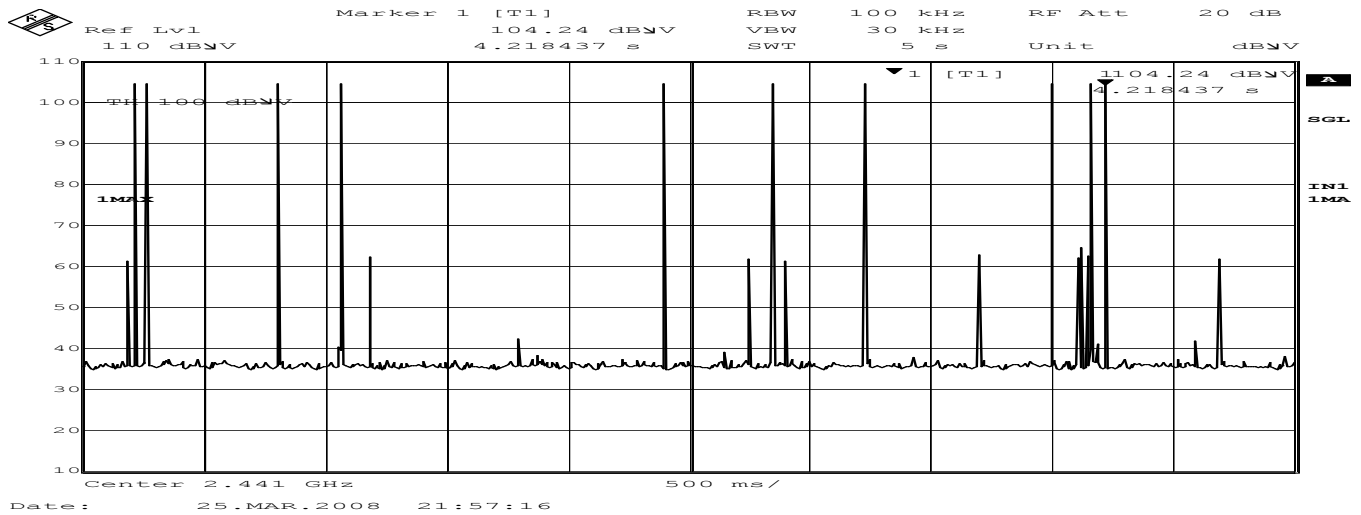
Count 2



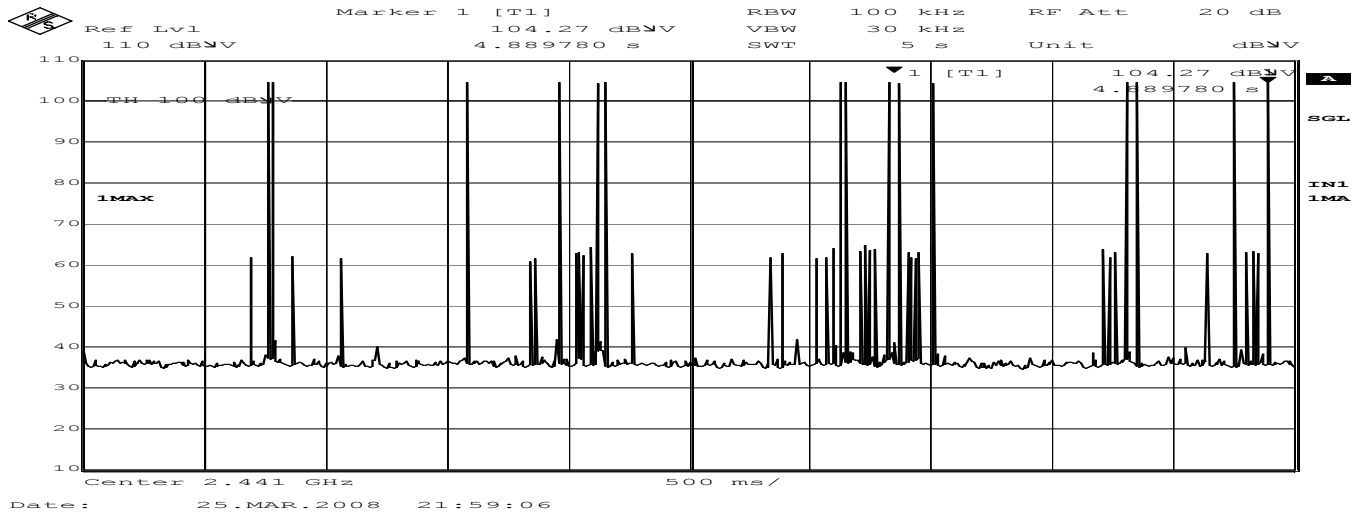
Count 3



Count4



Count5



Duty cycle(Hopping DH5)



Average times of rising in 5 sec. of sweep = $(7 + 10 + 14 + 10 + 15) / 5 = 11.2$

Average times of rising in 1 sec. = $11.2 / 5s = 2.24$

Average times of rising in 0.4x = $0.4 * 79ch * 2.24 = 70.78$

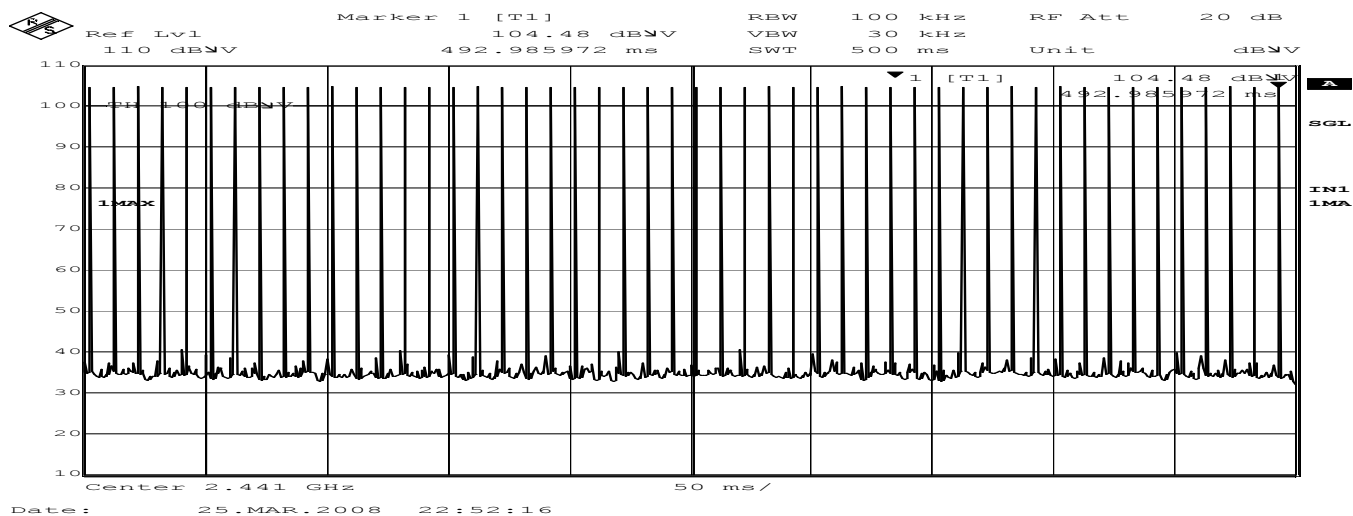
Dwell time = $70.78 * 2.90 = 205.26 [ms]$

Limit : Dwell Time < 0.4[s]

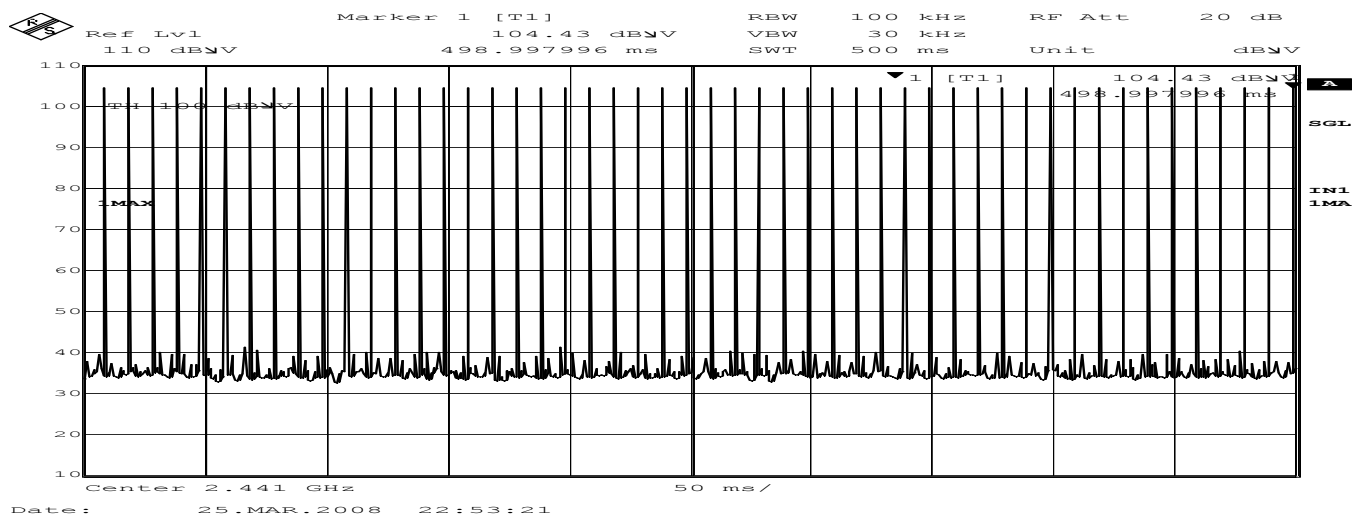
Company: PIONEER CORPORATION
Kind of Equipment: Flash Memory Multi-Media AVN Navigation Server System
Serial No.: TP000068UC

Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

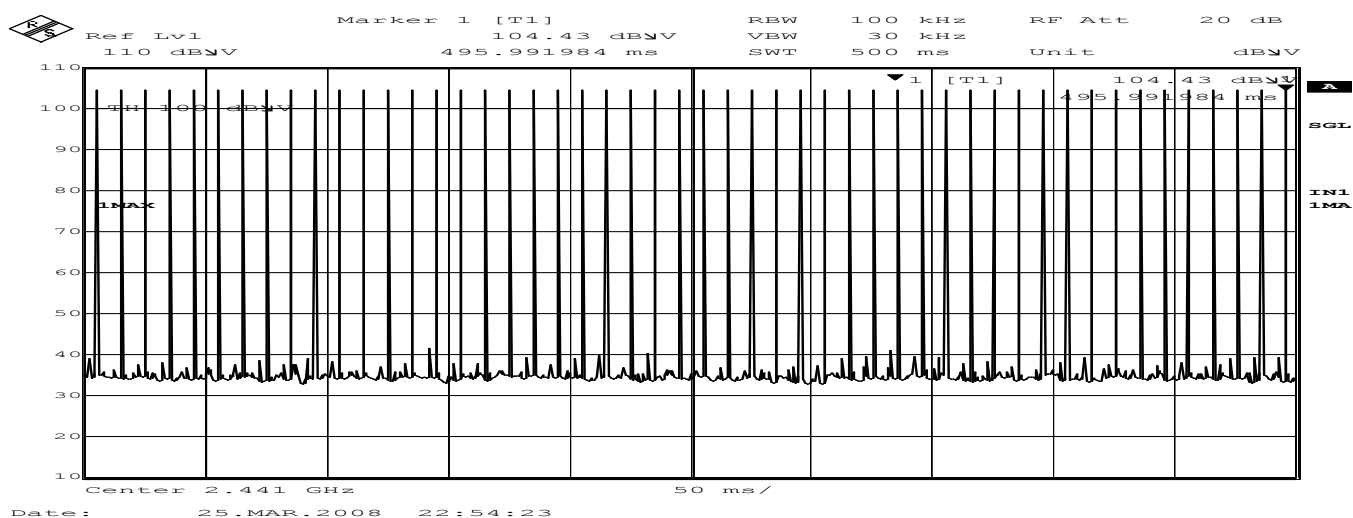
Inquiry:
Count 1



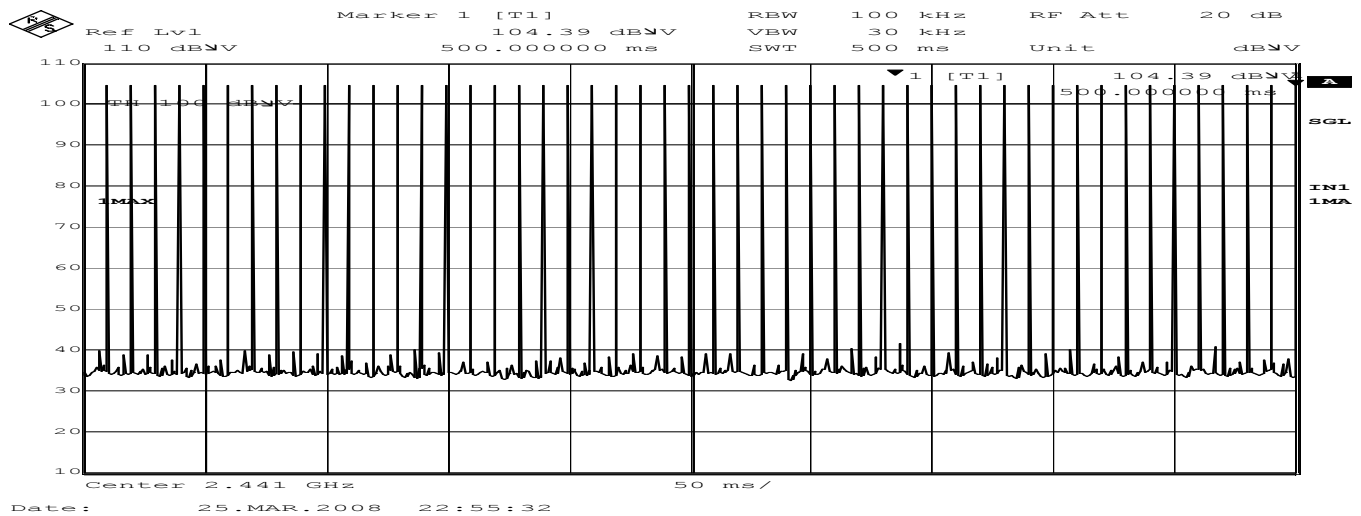
Count 2



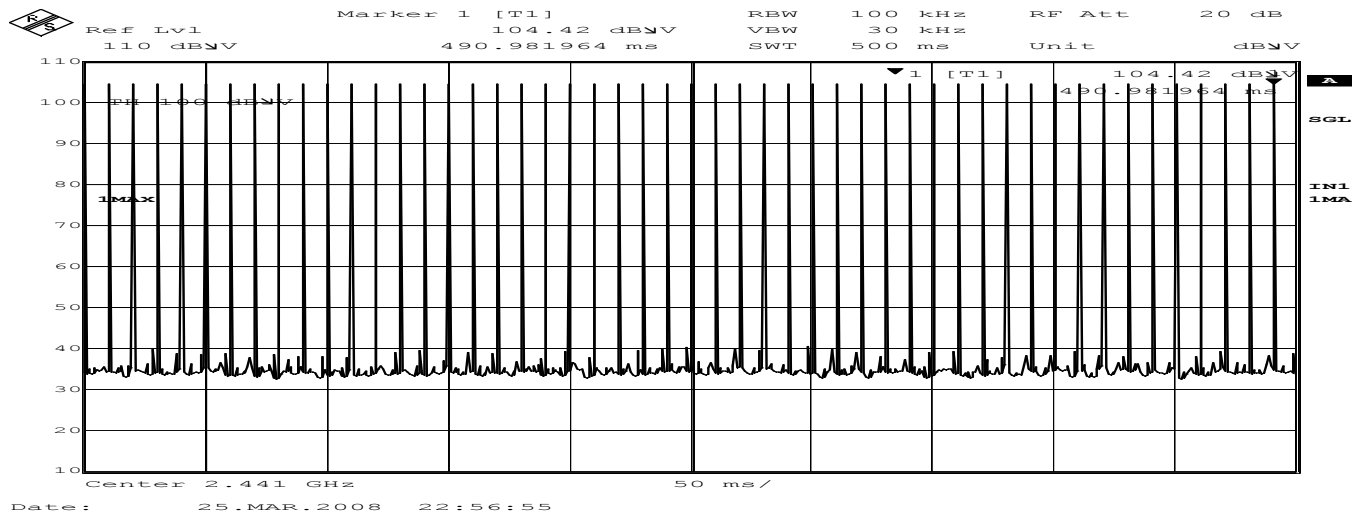
Count 3



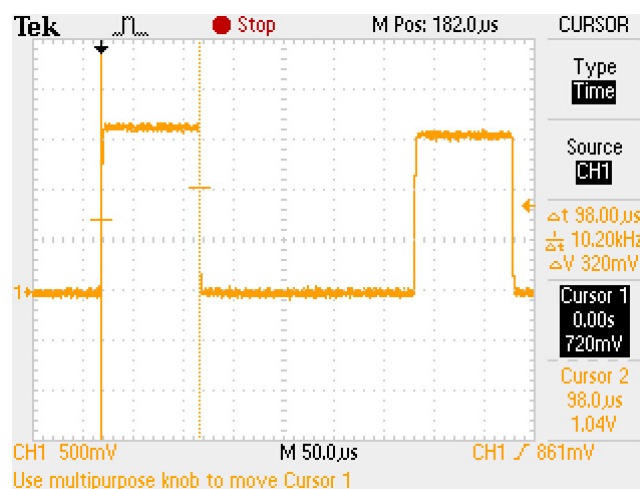
Count4



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. = $50.0 / 0.5 = 100.0$

Average times of rising in 0.4x = $0.4 * 32ch * 100.0 = 1280.0$

Dwell time = $1280.0 * 0.098 = 125.4$ [ms]

Limit : Dwell Time < 0.4[s]

Company:	PIONEER CORPORATION	Report No.:	28GE0180-YK-01-A
Kind of Equipment:	Flash Memory Multi-Media AVN Navigation Server System	Model No.:	AVIC-F900BT
Serial No.:	TP000068UC	Power:	DC12V

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

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

DATE : 2008.3.25
TEMP./HUMID : 24deg.C/42%
TEST MODE : Transmitting

ENGINEER : Tatsuya Arai

DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-2.27	1.53	-0.74	20.96	21.70
Mid	2441.00	-1.89	1.53	-0.36	20.96	21.32
High	2480.00	-1.55	1.53	-0.02	20.96	20.98
Inquiry	-	-1.38	1.53	0.15	20.96	20.81

Limit: 125mW=20.96dBm

P/M: Power Meter

CABLE LOSS:Customer's cable + KCC-D7

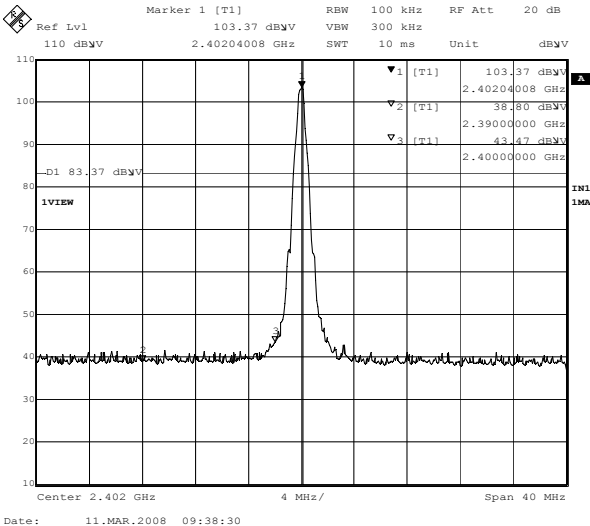
Out of Band Emission (Antenna Terminal Conducted) (Regulation: FCC 15.247(d))

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

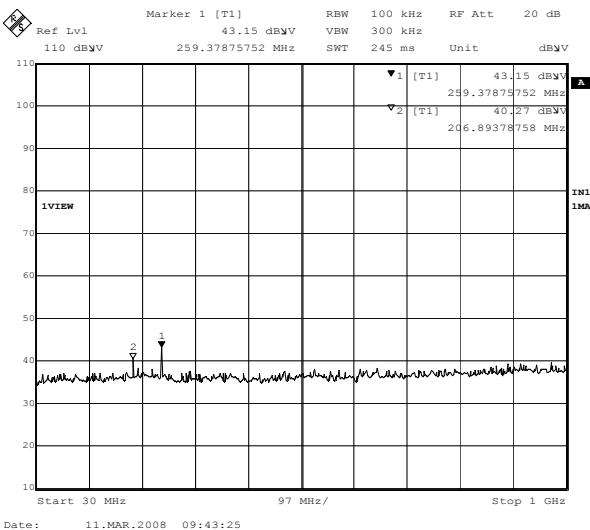
No.4 shielded room
2008/3/11
24 deg. C. / 35 %
Tatsuya Arai
Transmitting

[Transmitting DH5]
Ch:2402MHz

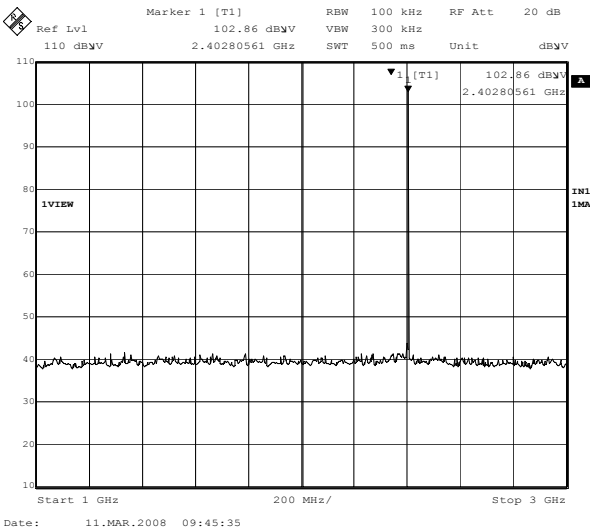
1.



2.



3.



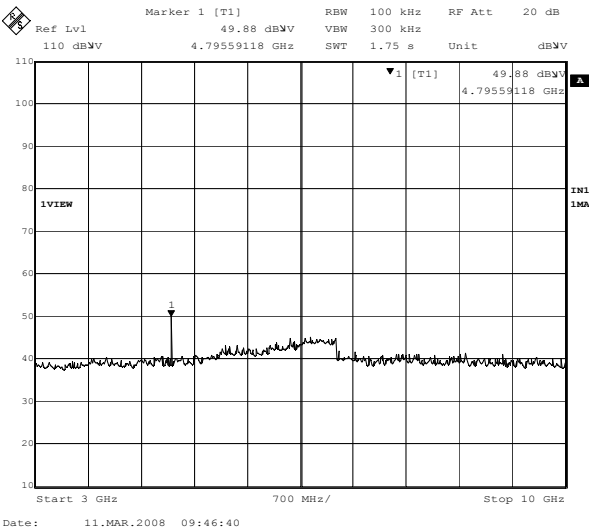
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

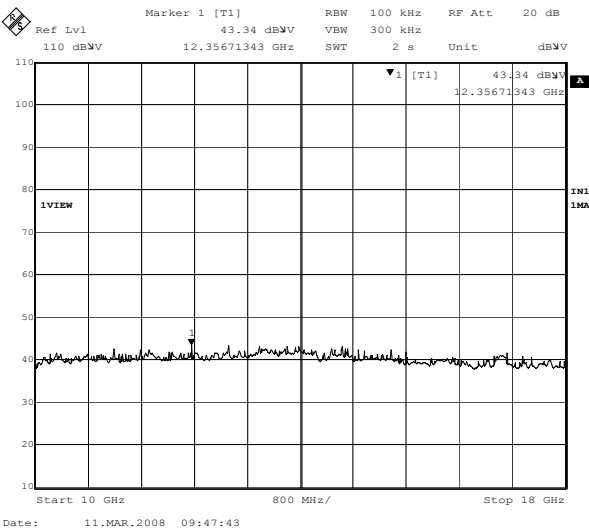
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DH5]
Ch:2402MHz

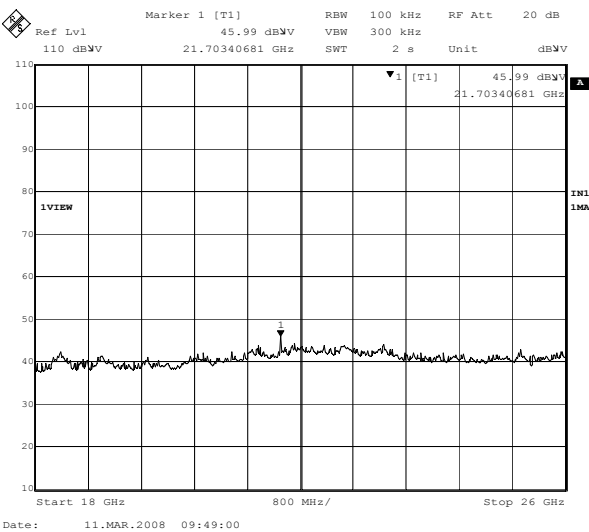
4.



5.



6.



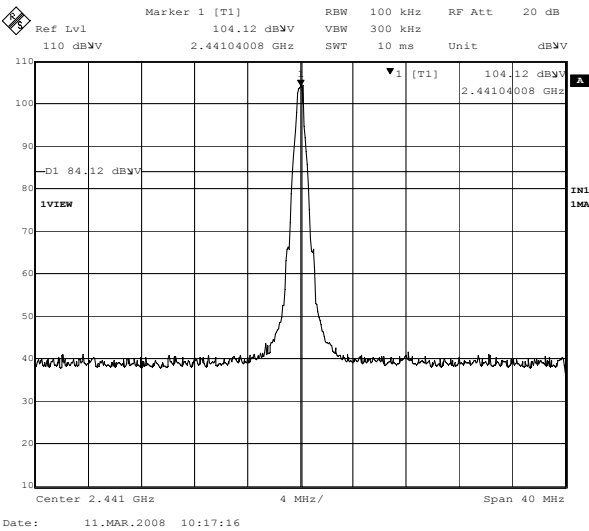
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

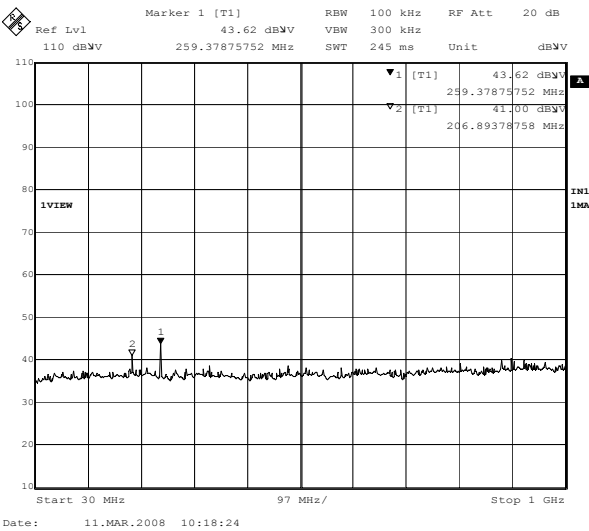
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DH5]
Ch:2441MHz

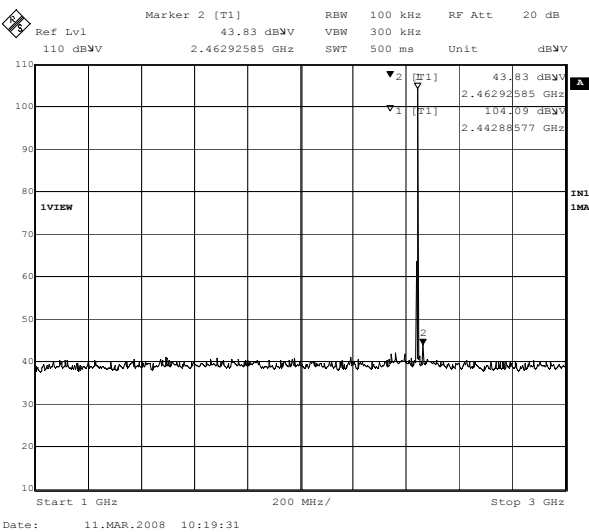
1.



2.



3.



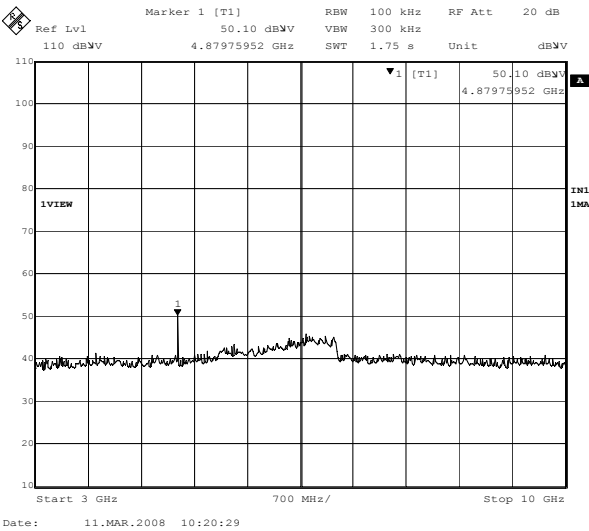
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

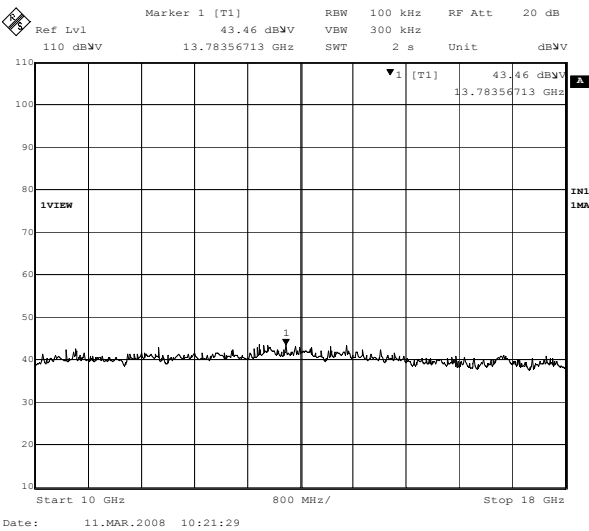
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DH5]
Ch:2441MHz

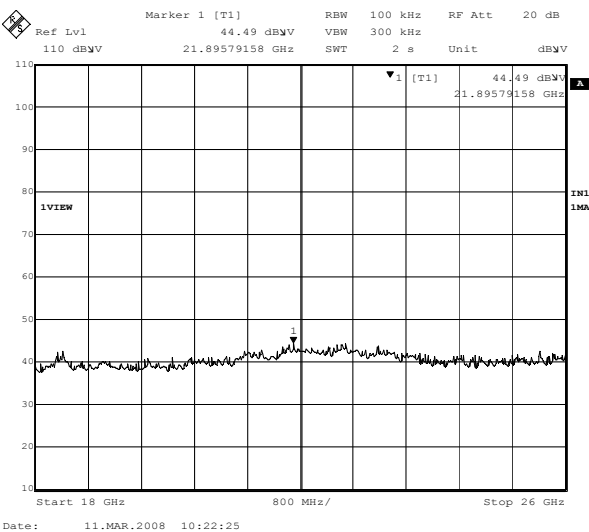
4.



5.



6.



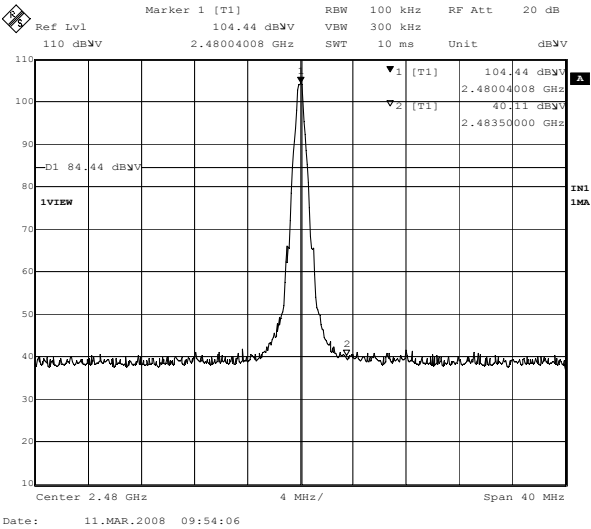
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

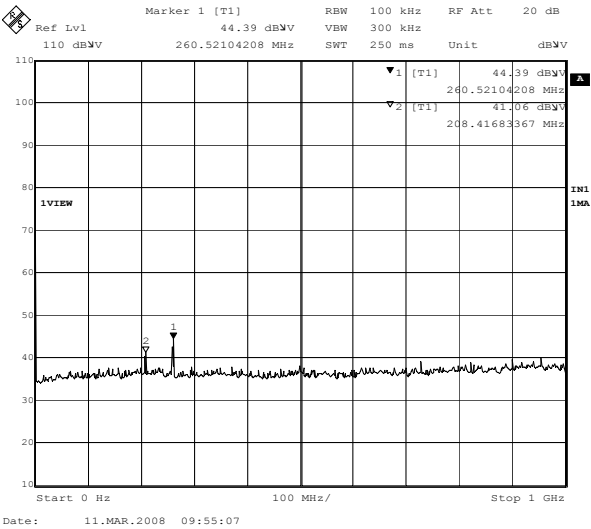
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DH5]
Ch:2480MHz

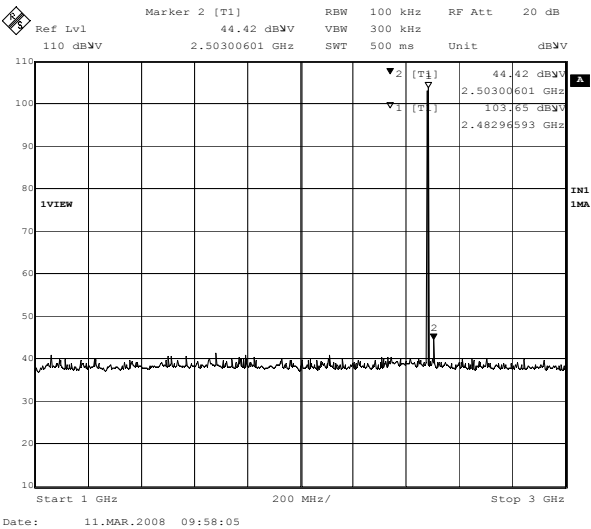
1.



2.



3.



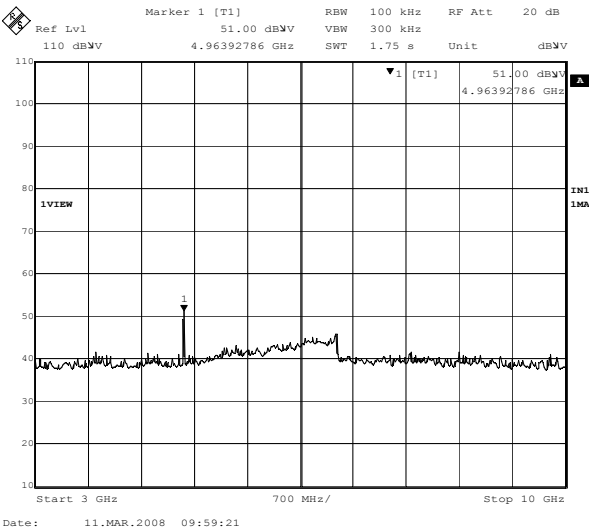
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

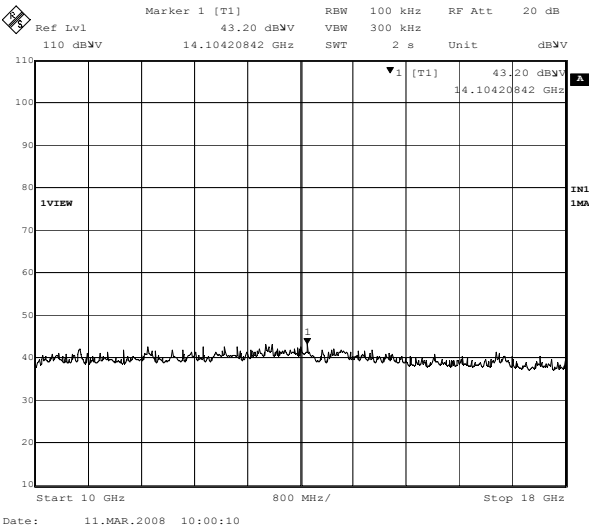
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DH5]
Ch:2480MHz

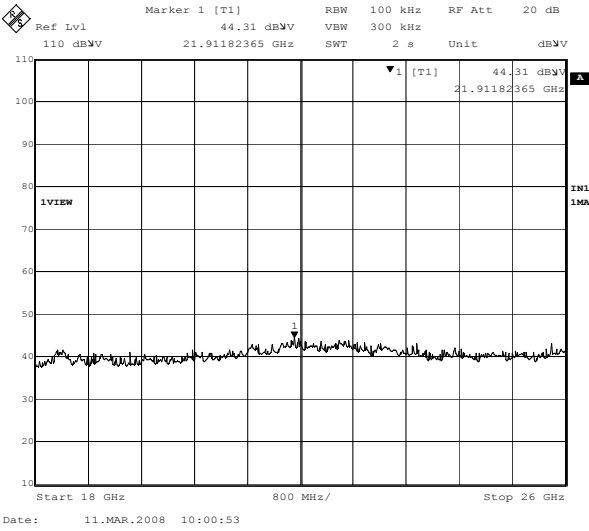
4.



5.



6.



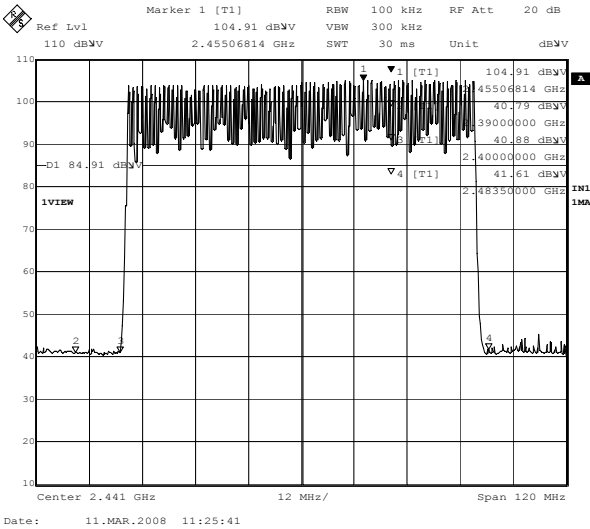
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

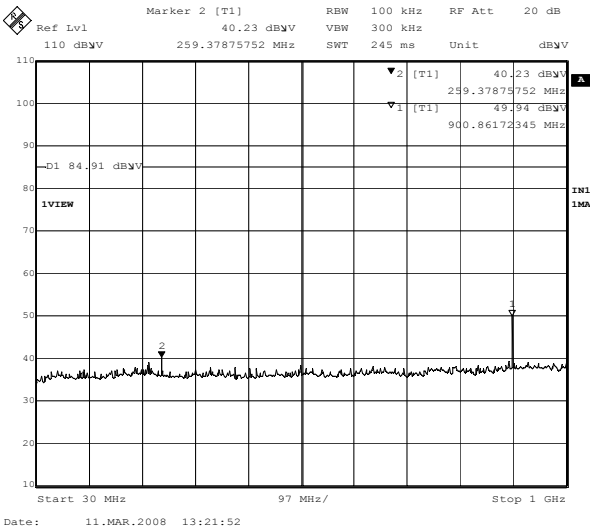
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DHS]
Hopping

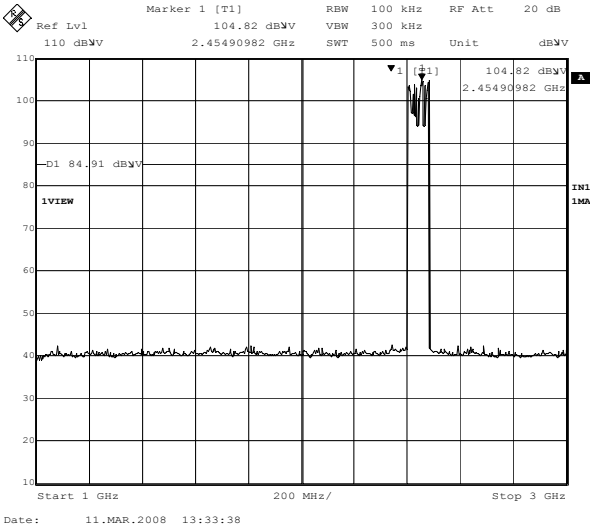
1.



2.



3.



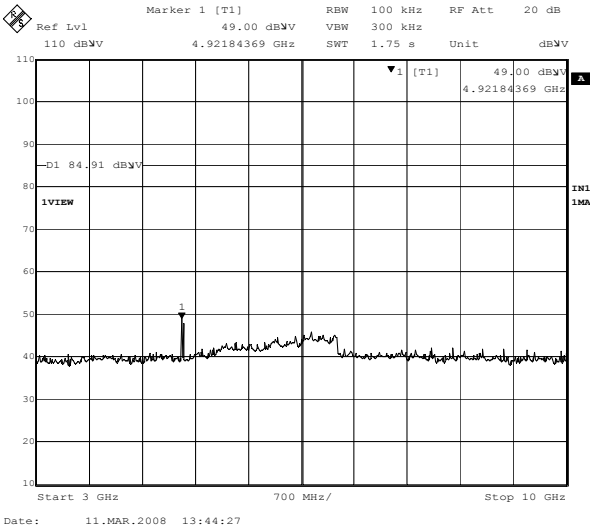
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

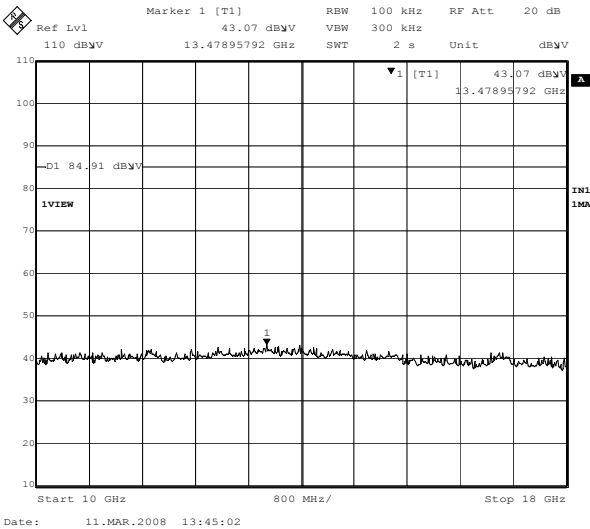
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting DH5]
Hopping

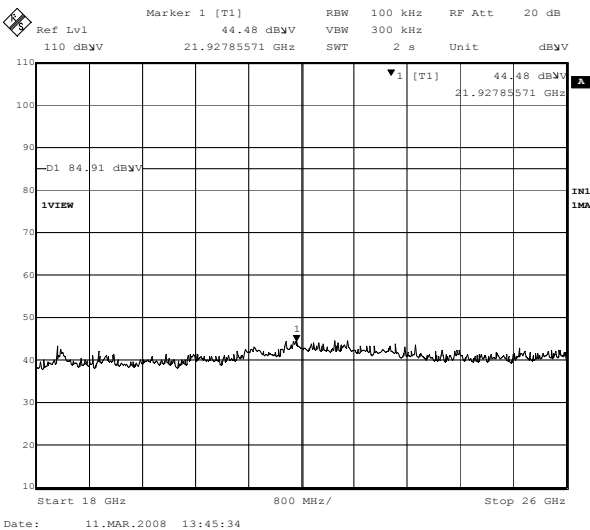
4.



5.



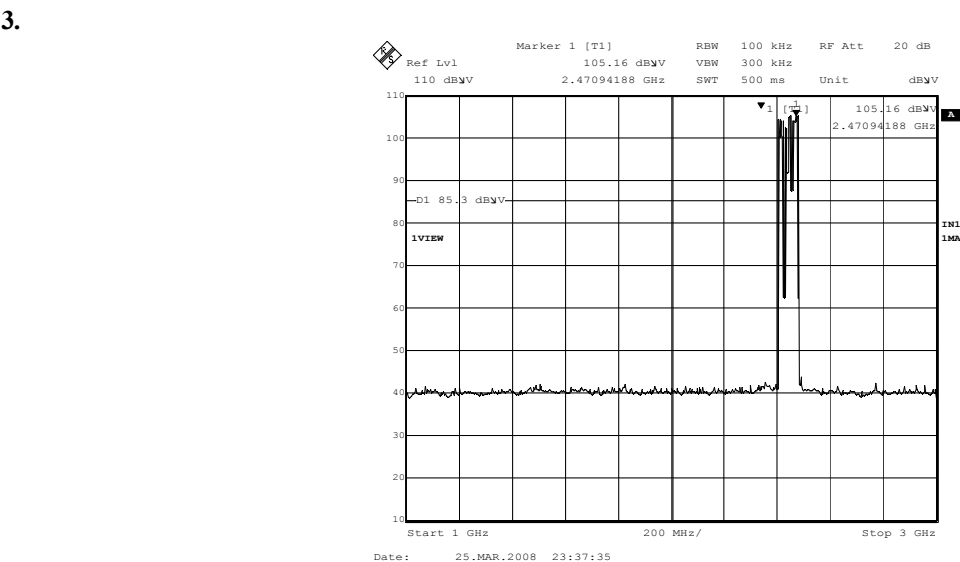
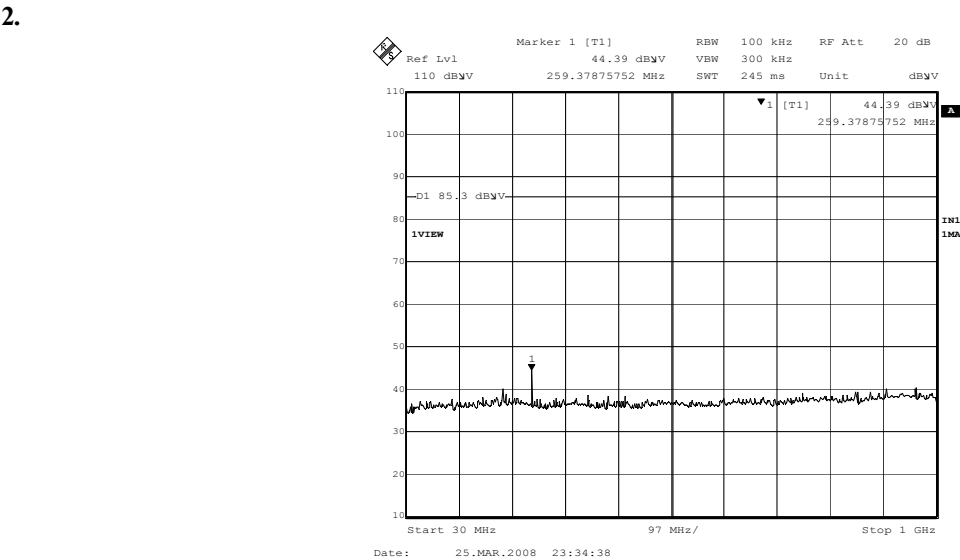
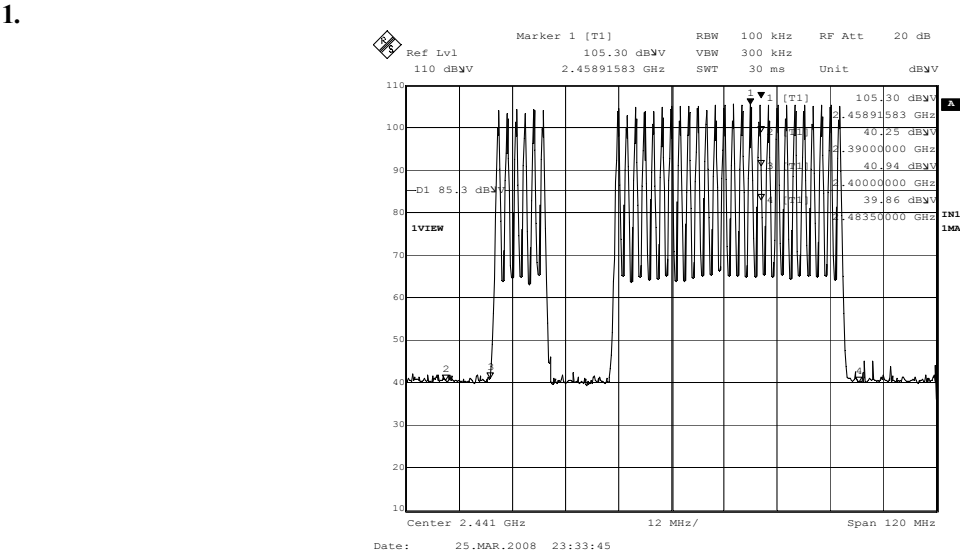
6.



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

No.4 shielded room
2008/3/25
24 deg. C. / 42 %
Tatsuya Arai
Transmitting

[Transmitting]
Inquiry



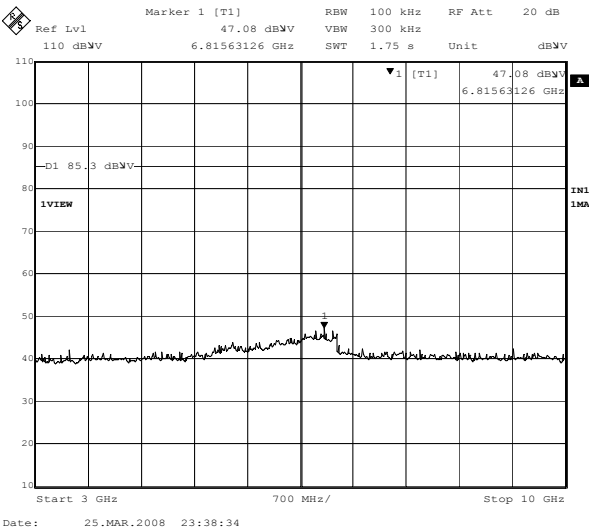
Company:
Kind of Equipment:
Serial No.:

PIONEER CORPORATION
Flash Memory Multi-Media AVN Navigation Server System
TP000068UC

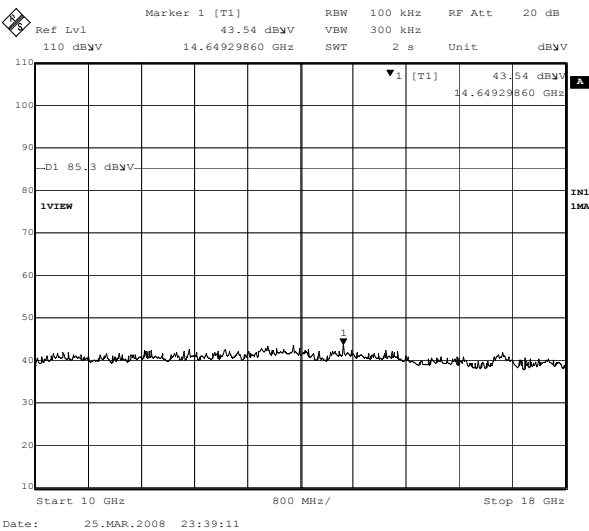
Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

[Transmitting]
Inquiry

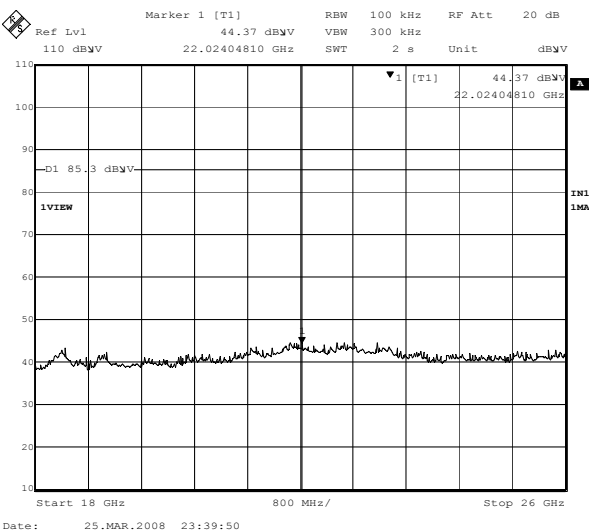
4.



5.



6.



DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2402MHz
Remarks : DH5
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C
Humidity : 34 %
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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	200.03	BB	35.4	39.0	16.8	27.9	3.0	5.8	33.1	36.7	43.5	10.4	6.8
2.	480.03	BB	38.4	33.6	18.3	28.9	5.5	5.9	39.2	34.4	46.0	6.8	11.6

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

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz / KLA-03 (USLP9143) 300-1000MHz

■ CABLE: KCC-30/31/32/34 ■ PREAMP: KAF-05 (8447D) ■ EMI RECEIVER: KTR-04 (ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2402MHz
Remarks : DH5_RBW:1MHz/VBW:1MHz (Peak)
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 34 %
Regulation : FCC Part15C § 15.209(a) (PK) 1-18GHz:3m/18-40GHz:1m

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.	1200.08	BB	48.7	51.8	23.9	38.1	4.6	0.0	39.1	42.2	74.0	34.9	31.8
2.	2390.00	BB	43.8	43.9	28.5	37.5	5.0	0.0	39.8	39.9	74.0	34.2	34.1
3.	4804.00	BB	42.3	42.3	32.9	37.8	5.7	0.0	43.1	43.1	74.0	30.9	30.9
4.	7206.00	BB	42.6	43.8	36.5	37.2	7.6	0.0	49.5	50.7	74.0	24.5	23.3
5.	9608.00	BB	45.6	45.0	37.7	37.4	7.7	0.0	53.6	53.0	74.0	20.4	21.0
6.	12010.00	BB	45.1	44.3	40.0	36.5	8.9	0.0	57.5	56.7	74.0	16.5	17.3

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

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz

■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (R3271A)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2402MHz
Remarks : DH5_RBW:1MHz/VBW:300Hz (Average)
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 34 %
Regulation : FCC Part15C § 15.209(a) 1-18GHz:3m/18-40GHz:1m

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.	1200.08	BB	38.1	42.7	23.9	38.1	4.6	0.0	28.5	33.1	54.0	25.5	20.9
2.	2390.00	BB	33.0	33.3	28.5	37.5	5.0	0.0	29.0	29.3	54.0	25.0	24.7
3.	4804.00	BB	31.1	31.7	32.9	37.8	5.7	0.0	31.9	32.5	54.0	22.1	21.5
4.	7206.00	BB	31.6	31.5	36.5	37.2	7.6	0.0	38.5	38.4	54.0	15.5	15.6
5.	9608.00	BB	34.8	34.8	37.7	37.4	7.7	0.0	42.8	42.8	54.0	11.2	11.2
6.	12010.00	BB	34.2	33.8	40.0	36.5	8.9	0.0	46.6	46.2	54.0	7.4	7.8

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

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz

■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (R3271A)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2441MHz
Remarks : DH5
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C
Humidity : 34 %
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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	200.00	BB	35.3	39.5	16.8	27.9	3.0	5.8	33.0	37.2	43.5	10.5	6.3
2.	480.03	BB	38.4	33.6	18.3	28.9	5.5	5.9	39.2	34.4	46.0	6.8	11.6

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

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz / KLA-03 (USLP9143) 300-1000MHz

■ CABLE: KCC-30/31/32/34 ■ PREAMP: KAF-05 (8447D) ■ EMI RECEIVER: KTR-04 (ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2441MHz
Remarks : DH5_RBW:1MHz/VBW:1MHz (Peak)
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 34 %
Regulation : FCC Part15C § 15.209(a) (PK) 1-18GHz:3m/18-40GHz:1m

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.	1199.88	BB	48.9	51.3	23.9	38.1	4.5	0.0	39.2	41.6	74.0	34.8	32.4
2.	2400.06	BB	49.0	48.6	28.5	37.5	5.0	0.0	45.0	44.6	74.0	29.0	29.4
3.	4882.00	BB	40.7	43.1	33.1	37.7	5.8	0.0	41.9	44.3	74.0	32.1	29.7
4.	7323.00	BB	41.4	44.9	36.7	37.6	7.7	0.0	48.2	51.7	74.0	25.8	22.3
5.	9764.00	BB	47.7	45.3	37.7	37.1	7.7	0.0	56.0	53.6	74.0	18.0	20.4
6.	12205.00	BB	44.9	44.7	40.2	36.4	9.0	0.0	57.7	57.5	74.0	16.3	16.5

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

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz

■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (R3271A)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2441MHz
Remarks : DH5_RBW:1MHz/VBW:300Hz (Average)
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 34 %
Regulation : FCC Part15C § 15.209(a) 1-18GHz:3m/18-40GHz:1m

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.	1199.88	BB	38.0	43.0	23.9	38.1	4.5	0.0	28.3	33.3	54.0	25.7	20.7
2.	2400.06	BB	41.9	42.0	28.5	37.5	5.0	0.0	37.9	38.0	54.0	16.1	16.0
3.	4882.00	BB	30.7	30.7	33.1	37.7	5.8	0.0	31.9	31.9	54.0	22.1	22.1
4.	7323.00	BB	31.4	31.6	36.7	37.6	7.7	0.0	38.2	38.4	54.0	15.8	15.6
5.	9764.00	BB	35.3	35.2	37.7	37.1	7.7	0.0	43.6	43.5	54.0	10.4	10.5
6.	12205.00	BB	34.1	34.0	40.2	36.4	9.0	0.0	46.9	46.8	54.0	7.1	7.2

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

■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz

■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (R3271A)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2480MHz
Remarks : DH5
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C
Humidity : 34 %
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 [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	200.02	BB	35.0	39.6	16.8	27.9	3.0	5.8	32.7	37.3	43.5	10.8	6.2
2.	480.04	BB	35.5	33.6	18.3	28.9	5.5	5.9	36.3	34.4	46.0	9.7	11.6

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

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz / KLA-03 (USLP9143) 300-1000MHz

■ CABLE: KCC-30/31/32/34 ■ PREAMP: KAF-05 (8447D) ■ EMI RECEIVER: KTR-04 (ESVS10)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2480MHz
Remarks : DH5_RBW:1MHz/VBW:1MHz (Peak)
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 34 %
Regulation : FCC Part15C § 15.209(a) (PK) 1-18GHz:3m/18-40GHz:1m

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.	1200.31	BB	48.9	51.4	23.9	38.1	4.6	0.0	39.3	41.8	74.0	34.7	32.2
2.	2400.00	BB	48.7	49.1	28.5	37.5	5.0	0.0	44.7	45.1	74.0	29.3	28.9
3.	2483.50	BB	45.0	45.2	28.3	37.6	5.1	0.0	40.8	41.0	74.0	33.2	33.0
4.	4960.00	BB	43.0	43.0	33.4	37.6	5.8	0.0	44.6	44.6	74.0	29.4	29.4
5.	7440.00	BB	41.0	44.0	36.8	38.0	7.9	0.0	47.7	50.7	74.0	26.3	23.3
6.	9920.00	BB	46.9	46.7	37.7	36.7	7.7	0.0	55.6	55.4	74.0	18.4	18.6
7.	12400.00	BB	44.9	44.0	40.3	36.3	9.1	0.0	58.0	57.1	74.0	16.0	16.9

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

■ ANTENNA:KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz

■ CABLE:KCC-D3/D7 ■ PREAMP:KAF-02 (8449B) ■ SPECTRUMANALYZER:KSA-04 (R3271A)

DATA OF RADIATION TEST

UL Japan, Inc.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 28GE0180-YK-01-A

Applicant : PIONEER CORPORATION
Kind of Equipment : Flash Memory Multi-Media AVN Navigation Server System
Model No. : AVIC-F900BT
Serial No. : TP000036UC
Power : DC12V
Mode : Transmitting 2480MHz
Remarks : DH5_RBW:1MHz/VBW:300Hz (Average)
Date : 2/25/2008
Test Distance : 3 m
Temperature : 22 °C Engineer : Akira Sato
Humidity : 34 %
Regulation : FCC Part15C § 15.209(a) 1-18GHz:3m/18-40GHz:1m

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.	1200.31	BB	37.8	42.6	23.9	38.1	4.6	0.0	28.2	33.0	54.0	25.8	21.0
2.	2400.00	BB	41.7	41.1	28.5	37.5	5.0	0.0	37.7	37.1	54.0	16.3	16.9
3.	2483.50	BB	40.2	42.9	28.3	37.6	5.1	0.0	36.0	38.7	54.0	18.0	15.3
4.	4960.00	BB	31.4	30.5	33.4	37.6	5.8	0.0	33.0	32.1	54.0	21.0	21.9
5.	7440.00	BB	29.2	31.7	36.8	38.0	7.9	0.0	35.9	38.4	54.0	18.1	15.6
6.	9920.00	BB	35.9	35.8	37.7	36.7	7.7	0.0	44.6	44.5	54.0	9.4	9.5
7.	12400.00	BB	33.7	34.0	40.3	36.3	9.1	0.0	46.8	47.1	54.0	7.2	6.9

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

■ ANTENNA:KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz

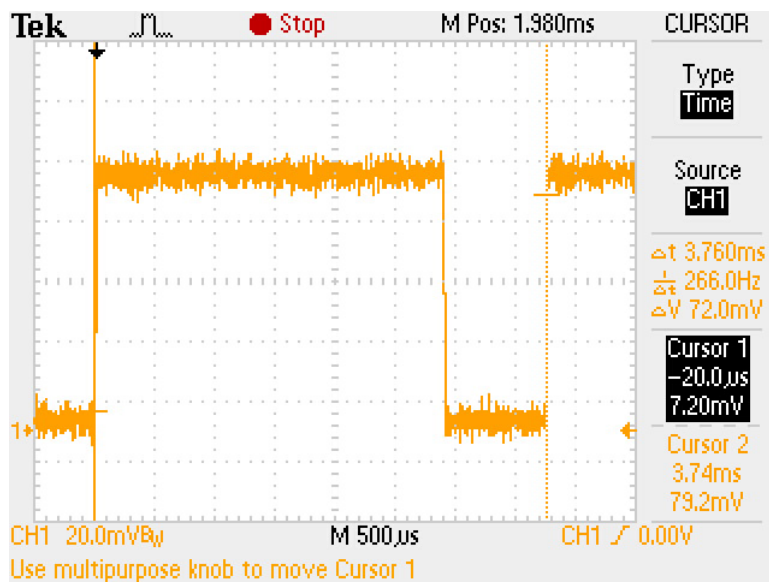
■ CABLE:KCC-D3/D7 ■ PREAMP:KAF-02 (8449B) ■ SPECTRUMANALYZER:KSA-04 (R3271A)

Company:	PIONEER CORPORATION	Report No.:	28GE0180-YK-01-A
Kind of Equipment:	Flash Memory Multi-Media AVN Navigation Server System	Model No.:	AVIC-F900BT
Serial No.:	TP000068UC	Power:	DC12V

Duty Cycle

UL Japan, Inc. Yamakita EMC lab.	No.4	shielded room
Date:	2008/3/25	
Temp./Humid.:	24	deg. C. / 42 %
Engineer:	Tatsuya Arai	
Test mode:	Transmitting	

Fundamental (band edge) and Harmonics



Duty Cycle: 3.76ms

AV Detector VBW: $1000 \text{ ms} / 3760 \text{ ms} = 266.0 \text{ Hz} \rightarrow 300 \text{ Hz}$

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

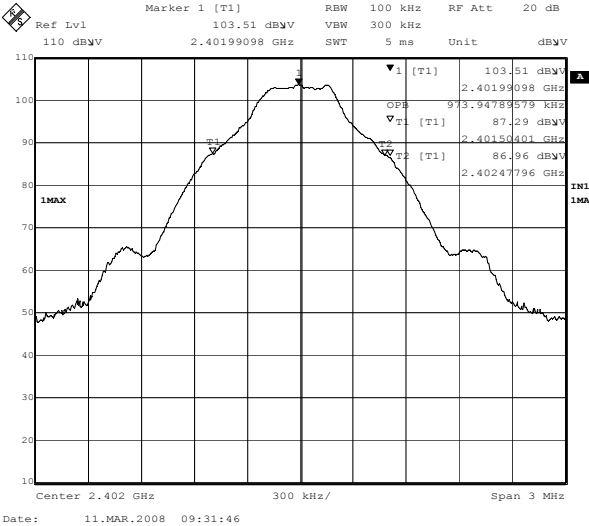
Occupied Bandwidth (99%) (Regulation: RSS-Gen 4.6.1)

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

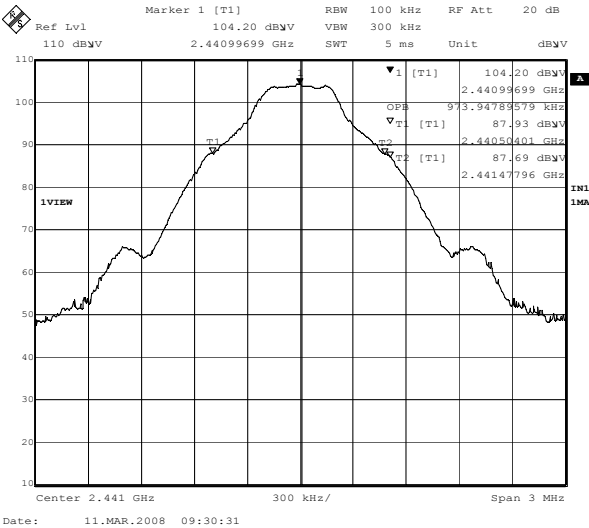
No.4 shielded room
2008/3/11
24 deg. C. / 35 %
Tatsuya Arai
Transmitting

[Hopping off, DH5]

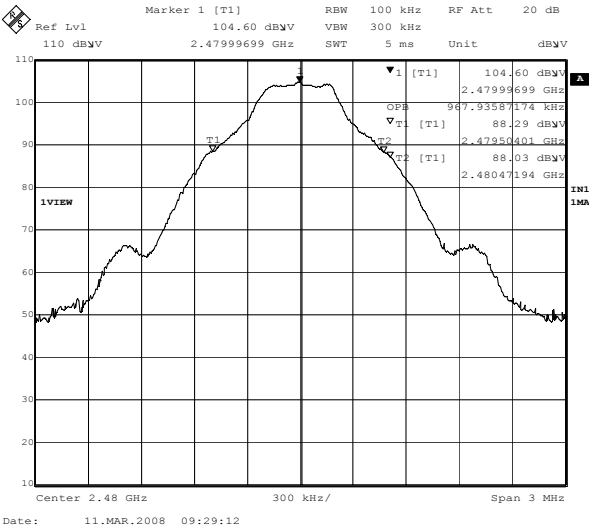
1. ch : 2402MHz/Occupied Bandwidth:980.0kHz



2. ch : 2441MHz/Occupied Bandwidth:973.9kHz



3. ch : 2480MHz/Occupied Bandwidth:973.9kHz



Report No.: 28GE0180-YK-01-A
Model No.: AVIC-F900BT
Power: DC12V

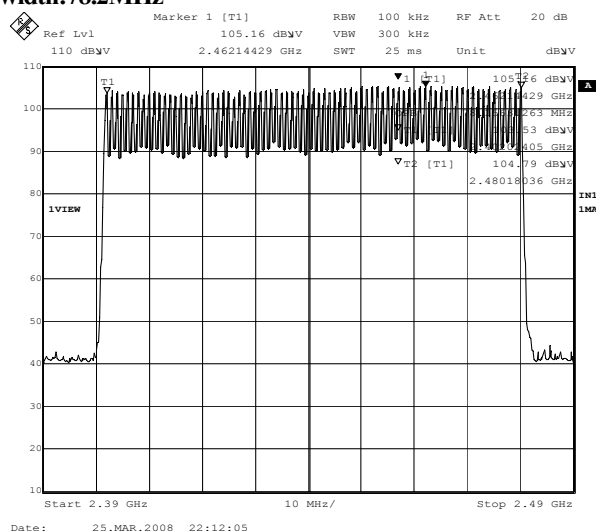
No.4 shielded room

2008/3/25

24 deg. C. / 42 %

Tatsuya Arai

Transmitting



APPENDIX 3 Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
YA-RE	Radiated emission(software)	UL Japan	RE(Ver.1.5)	RE	-
KAEC-01	Anechoic Chamber	JSE	Semi 3m	RE	2007/08/26 * 12
KAF-05	Pre Amplifier	Agilent	8447D	RE	2007/04/13 * 12
KAT6-01	Attenuator	INMET	18N-6dB	RE	2008/03/17 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/12/27 * 12
KCC-30/31/32 /34/KRM-03	Coaxial Cable/RF Relay Matrix	Fujikura/Suhner/TSJ	5D-2W/S04272B/RFM- E421	RE	2007/11/01 * 12
KLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2007/12/27 * 12
KOS-02	Humidity Indicator	Custom	CTH-190	RE	2006/07/10 * 24
KSA-04	Spectrum Analyzer	Advantest	R3271A	RE	2007/09/25 * 12
KTR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2007/10/30 * 12
KJM-01	Measure	TAJIMA	GL19-55	RE	-
KCC-D3/D7	Coaxial Cable	Rosenberger/Advantest	2201/JUN-08-01-061	RE	2007/04/11 * 12
KAF-02	Pre Amplifier	Hewlett Packard	8449B	RE	2007/04/24 * 12
KHA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2007/08/14 * 12
KHA-03	Horn Antenna	EMCO	3160-09	RE	2007/04/14 * 12
KPM-07	Power Meter	Agilent	E4416A	AT 5	2007/05/29 * 12
KPSS-03	Power sensor	Agilent	E9327A	AT 5	2007/05/31 * 12
KOSC-01	Oscilloscope	Tektronix	TDS-2022B	AT 4.5	2007/05/15 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	AT 4.5	Pre Check
KCC-D7	Coaxial Cable	Advantest	A01002	AT all	2007/04/11 * 12
KTR-01	Test Receiver	Rohde & Schwarz	ESI40	AT 1,2,3,4,6	2007/04/12 * 12
KOS-07	Humidity Indicator	Custom	CTH-190	AT all	2006/10/06 * 24

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

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

Test Item :

RE: Out of Band Emission (Radiated)

AT: Antenna terminal conducted test

1: Carrier Frequency Separation

2: Bandwidth

3: Number of Hopping Frequency

4: Dwell time

5: Maximum Peak Output Power

6: Out of Band Emission (Conducted)

The difference between AVIC-F700BT and AVIC-F900BT

Comparison item	“O” or “X”	The difference between AVIC-F700BT and AVIC-F900BT
1) Circuit Layout	X	AVIC-F700BT : circuit for CD-drive. no circuit for CD/DVD drive, MSN-Direct, Gyro and G-Sensor. AVIC-F900BT : circuit for CD/DVD drive , MSN-Direct, Gyro and G-Sensor. no circuit for CD drive.
2) P.C.B.	O	-----
3) Usage of Parts - wire, module and material	X	AVIC-F700BT : CD-drive. CD/DVD drive, MSN-Direct, Gyro and G-Sensor. AVIC-F900BT : CD/DVD drive , MSN-Direct, Gyro and G-Sensor. CD drive.
4) Location of Parts-wire and structure	O	-----
5) Product color	grill: X	AVIC-F700BT : Metallic Black AVIC-F900BT : Glossy Black (Refer the attached photo)
	Buttons: X	AVIC-F700BT : Silver AVIC-F900BT : Dark Silver (Refer the attached photo)
6) Interface	X	AVIC-F700BT : no speed pulse connector AVIC-F900BT : speed pulse connector
7) Remote Controller	O	-----
8)Max current consumption	O	AVIC-F700BT : 10.0A AVIC-F900BT : 10.0A
9)Power source	O	14.4V DC
Remarks: If it is same, please mark “O”. If no, please mark “X” and explain the difference point.		

Product color

AVIC-F700BT



AVIC-F900BT

