



RADIO TEST REPORT

Test Report No.: 28DE0085-YK-01-A

Applicant : Pioneer Corporation
Type of Equipment : CD RDS Receiver
Model No. : FH-P800BT
FCC ID : AJDK017
Test Standard : FCC Part15 Subpart C: 2007
Test Result : Complied

1. This test report shall not be reproduced except in full or partial, without the written approval of UL Japan, Inc.
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: December 12 and 18, 2007

Tested by: T. Arai
Tatsuya Arai

Approved by: Osamu Watatani
Osamu Watatani
Manager of Yamakita EMC Lab.

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

Table of Contents	Page
1 Applicant Information	3
2 Equipment under test (E.U.T.)	3
3 Test Specification, Procedures and Results	4
4 System Test Configuration	6
5 Carrier Frequency Separation	8
6 20dB Bandwidth & Occupied Bandwidth (99%)	8
7 Number of Hopping Frequency	8
8 Dwell time	8
9 Maximum Peak Output Power	8
10 Out of Band Emissions (Antenna Port Conducted)	9
11 Out of Band Emissions (Radiated)	9
<u>Contents of Appendixes</u>	10
APPENDIX 1: Photographs of test setup	11
APPENDIX 2: Test Data	12
APPENDIX 3: Test instruments	49

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

1 Applicant Information

Company Name : Pioneer Corporation
Address : 25-1 Nishi-machi, Yamada-aza, Kawagoe-shi, Saitama, 350-8555, JAPAN
Telephone Number : +81-49-228-6275
Facsimile Number : +81-49-228-6497
Contact Person : Motohiro Ikawa

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

2.1 Identification of E.U.T.

Type of Equipment : CD RDS Receiver
Model No. : FH-P800BT
Serial No. : GKTR990034PUC (Radiated emission test), GKTR990031PUC (other test)
Rating : DC14.4V
Country of Manufacture : Malaysia
Receipt Date of Sample : December 12, 2007
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.

2.2 Product Description

Model: FH-P800BT (referred to as the EUT in this report) is a CD RDS Receiver.

The difference between Model: FH-P800BT and FH-P8000BT (derived model):

	FH-P800BT	FH-P8000BT
Built-in audio amplifier control function	Attached	None

Equipment type : Transceiver
Frequency of operation : 2402-2480MHz
Clock frequency : System microcomputer: 20MHz
Grill microcomputer: 10MHz
DAC: 11.2896MHz, 12.2880MHz
Tuner: 39.9MHz (1st IF: 10.7MHz, 2nd IF: 700kHz)
Bluetooth module: 26MHz (CPU clock: 26MHz to 120MHz)
Bandwidth & channel spacing : 79MHz & 1MHz
Type of modulation : FHSS, GFSK
Antenna type : Ceramic patch antenna (made by TDK): CABPB1240E
Antenna connector type : Coaxial connector (manufactured by I-PEX): 20279 Type
Antenna gain : +2dBi max
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 2.8 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.

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

3 Test Specification, Procedures and Results

3.1 Test specification

Test specification : FCC Part15 Subpart C: 2007
 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

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	Section 15.207	-	N/A *1)	N/A	N/A
Carrier Frequency Separation	FCC Public Notice DA 00-705	Section15.247 (a)(1)	Conducted	N/A	*See data.	Complied
20dB Bandwidth	FCC Public Notice DA 00-705	Section15.247 (a)(1)	Conducted	N/A		Complied
Number of Hopping Frequency	FCC Public Notice DA 00-705	Section15.247 (a)(1)(iii)	Conducted	N/A		Complied
Dwell time	FCC Public Notice DA 00-705	Section15.247 (a)(1)(iii)	Conducted	N/A		Complied
Maximum Peak Output Power	FCC Public Notice DA 00-705	Section15.247 (b)(1)	Conducted	N/A		Complied
Spurious Emission	FCC Public Notice DA 00-705	Section15.209 Section15.247 (d)	Conducted/ Radiated	N/A		9.7dB (9608.00MHz, AV, Horizontal, Tx 2402MHz)

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

In case any questions arise about test procedure, ANSI C63.4: 2003 is also referred.

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

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.

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

3.3 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

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

Radiated Emission Test

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

3.4 Test Location

UL Japan, Inc. Yamakita EMC Lab.

907, Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken 258-0124 JAPAN

Telephone number : +81 465 77 1011

Facsimile number : +81 465 77 2112

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 April 4, 2005 (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

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

4 System Test Configuration

4.1 Justification

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

Test mode: Transmitting
- Low channel : 2402MHz
- Middle channel : 2441MHz
- High channel : 2480MHz
- Hopping
- Inquiry
- Page

*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.

UL Japan, Inc.

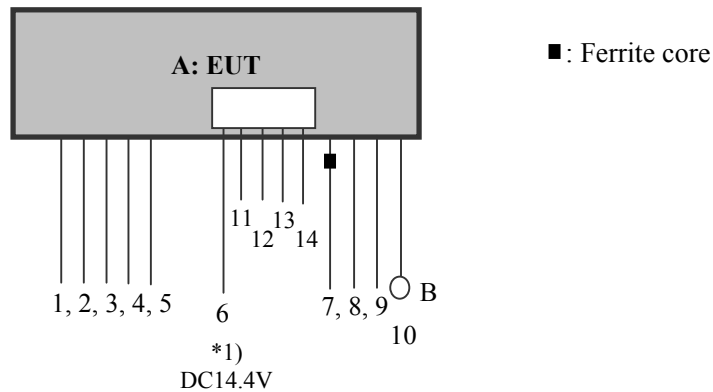
YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

4.2 Configuration of Tested System



* Test data was taken under worse case conditions.

Description of EUT and support equipment

No.	Item	Model number	Serial number *2)	Manufacturer	FCC ID (Remark)
A	CD RDS Receiver	FH-P800BT	GKTR990034PUC GKTR990031PUC	PIONEER	AJDK017 (EUT)
B	Hands free Microphone	CPM1064	-	PIONEER	-

*1) DC power supply (Model No.: PAN35-10A) was used for DC 14.4V input.

*2) Out of Band emission (Radiated): GKTR990034PUC, other test: GKTR990031PUC

List of cables used *3)

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	Antenna cable	1.0	Shielded	Shielded	-
2	IP-BUS cable	6.0	Shielded	Shielded	-
3	RCA cable	1.5	Shielded	Shielded	
4	RCA cable	1.5	Shielded	Shielded	
5	RCA cable	2.0	Shielded	Shielded	
6-1	Accessory cable	1.1	Unshielded	Unshielded	-
6-2	Battery cable	1.1	Unshielded	Unshielded	-
6-3	Ground cable	1.1	Unshielded	Unshielded	-
7	USB cable	1.5	Shielded	Shielded	
8	Wired Remote Control cable	4.0	Shielded	Shielded	-
9	Audio cable	1.8	Shielded	Shielded	-
10	Microphone cable	4.0	Shielded	Shielded	-
11	Speaker cable	0.15	Unshielded	Unshielded	(x8)
12	Mute cable	0.15	Unshielded	Unshielded	-
13	System Remote Control cable	0.15	Unshielded	Unshielded	-
14	Illumination Control cable	0.15	Unshielded	Unshielded	-

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

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (09.01.08)

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 : December 12, 2007 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 : December 12, 2007 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 : December 12, 2007 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 : December 12, 2007 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 : December 12, 2007 Test engineer : Tatsuya Arai

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

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 : December 12, 2007 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: 200Hz, 1kHz (See data)
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 : December 18, 2007 Test engineer : Tatsuya Arai

UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011 Facsimile: +81 465 77 2112

MF060b (09.01.08)

APPENDIX 1: Photographs of test setup

Page 11 : Radiated emission

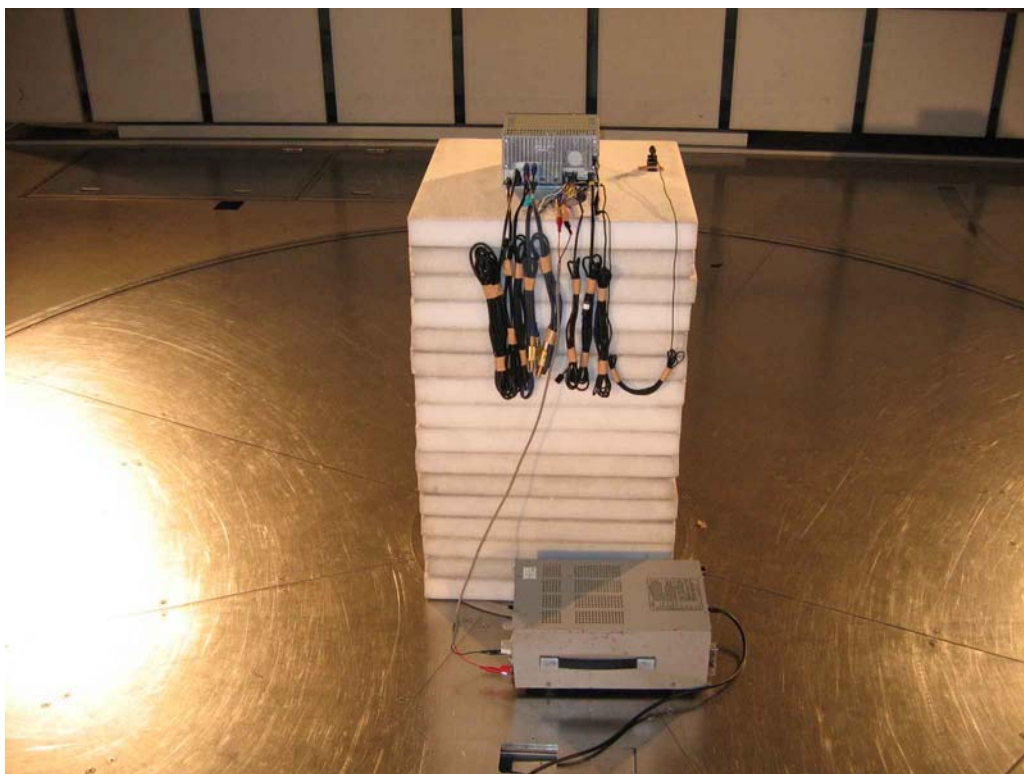
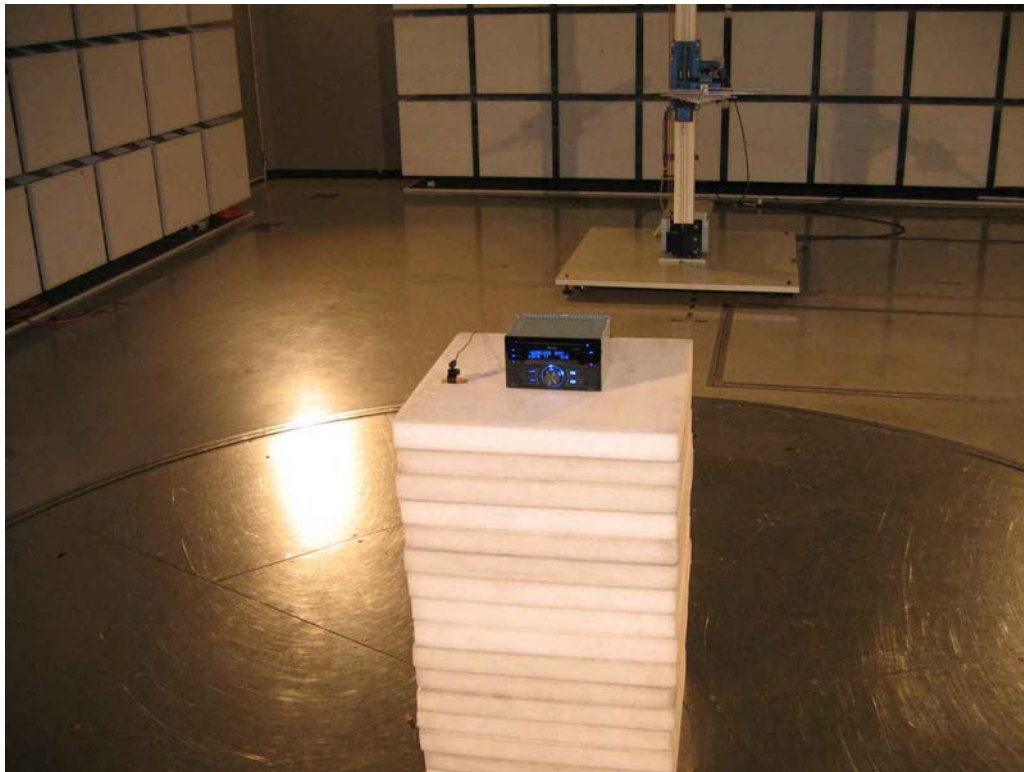
APPENDIX 2: Test Data

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

Radiated emission



UL Japan, Inc.

YAMAKITA EMC LAB.

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (09.01.08)

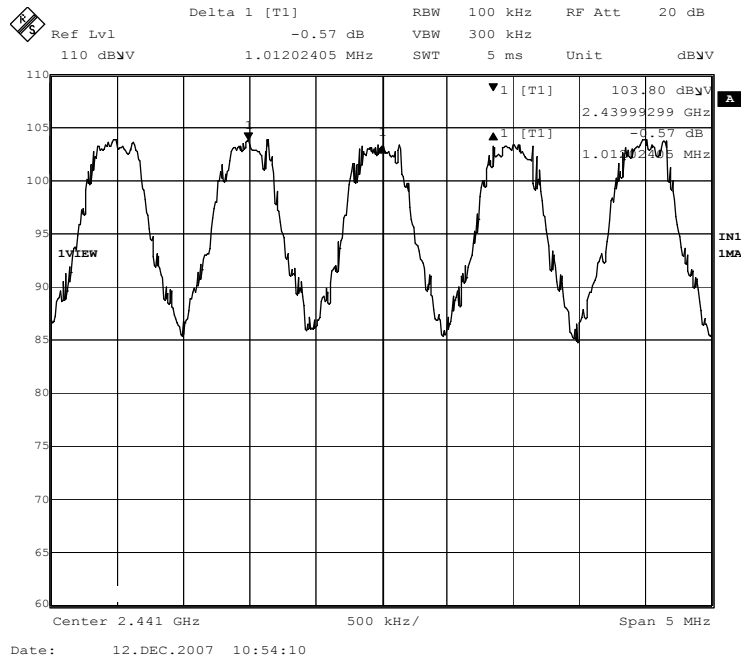
Channel Separation: FCC 15.247(a)(1)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

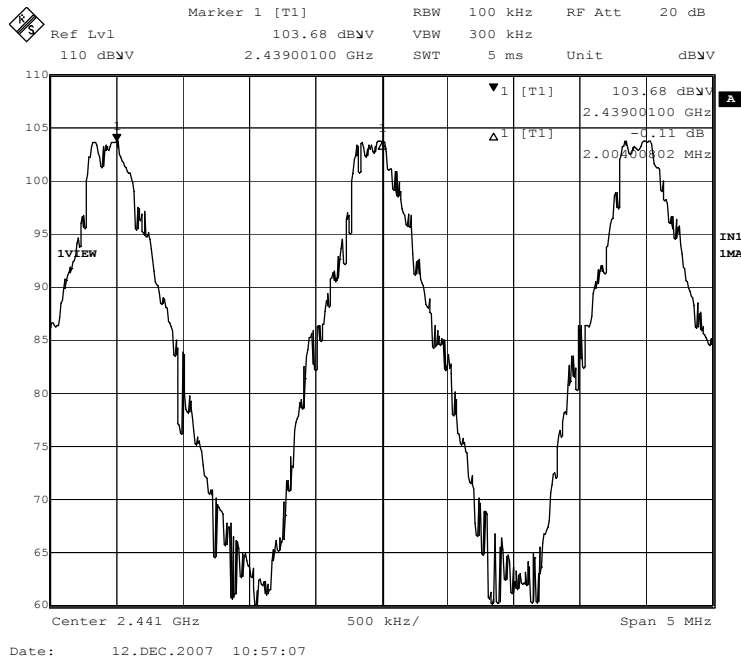
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Arai Tatsuya

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

1. Hopping, DH5: 1.012MHz ($2/3 * 20\text{dB}$ Bandwidth: $2/3 * 1.118\text{MHz} = 745.3\text{kHz}$)



2. Inquiry: 2.004MHz ($2/3 * 20\text{dB}$ Bandwidth: $2/3 * 1.088\text{MHz} = 725.3\text{kHz}$)



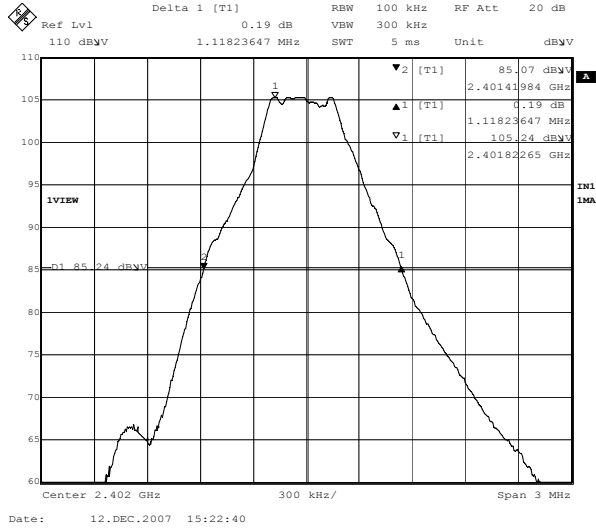
20dB Bandwidth: FCC 15.247(a)(1)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

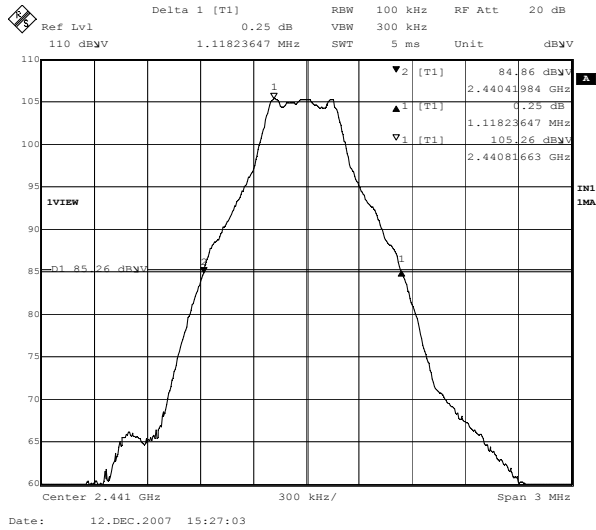
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)
DATE : 2007.12.12
TEMP/HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Hopping off, DH5]

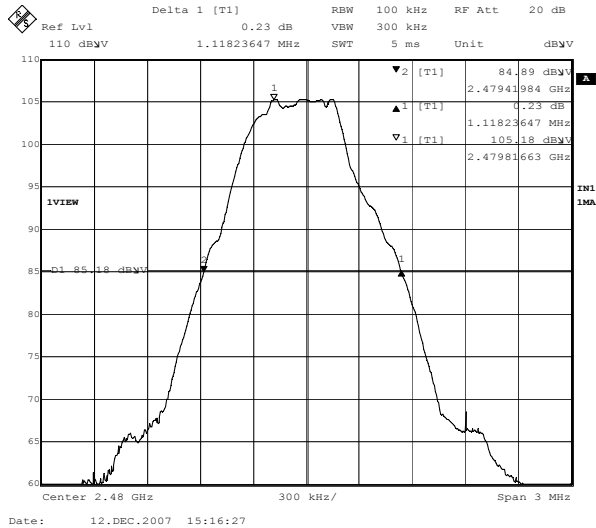
1. ch : 2402MHz/20dB Bandwidth:1.118MHz



2. ch : 2441MHz/20dB Bandwidth:1.118MHz



3. ch : 2480MHz/20dB Bandwidth:1.118MHz



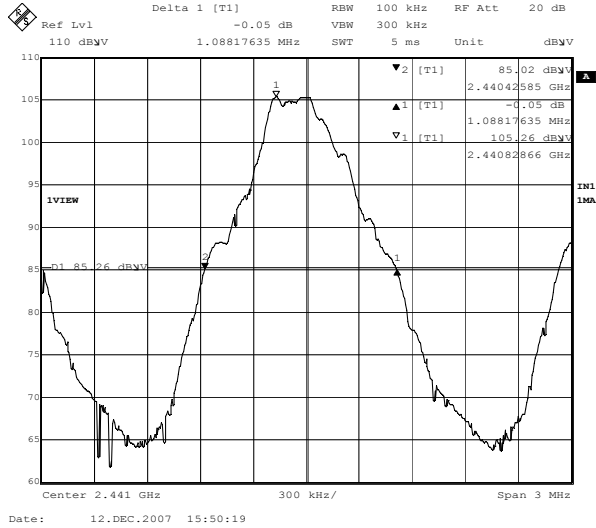
20dB Bandwidth: FCC 15.247(a)(1)

COMPANY : PIONEER CORPORATION
 EQUIPMENT : CD RDS Receiver
 MODEL NUMBER: FH-P800BT
 SERIAL NUMBER: GKTR990031PUC
 FCC ID : AJDK017
 POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
 REPORT NO : 28DE0085-YK-01-A
 REGULATION : Fcc Part15SubpartC 247(a)(1)
 DATE : 2007.12.12
 TEMP./HUMI : 24deg.C./41%
 TEST MODE : Transmitting
 ENGINEER : Tatsuya Arai

[Inquiry]

4. Inaquiry/20dB Bandwidth:1.088MHz



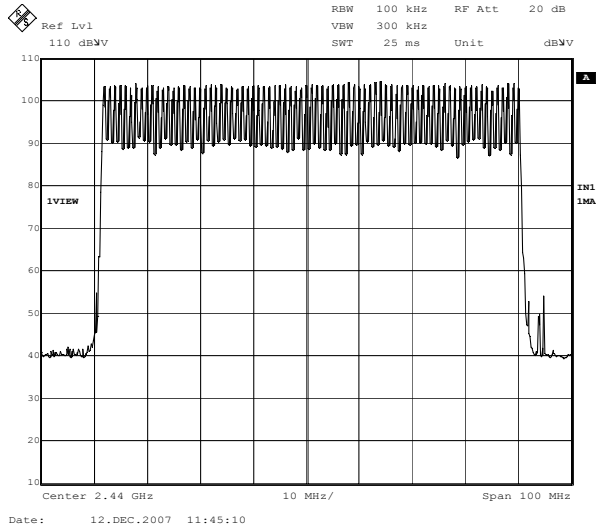
Channel Utilization: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

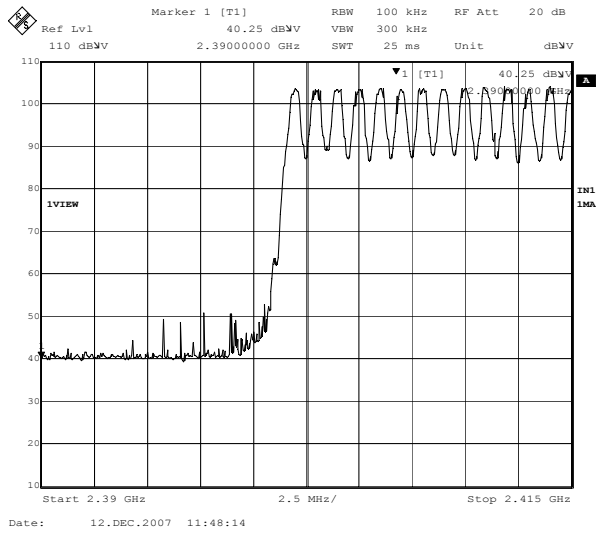
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Hopping, DH5: 79ch

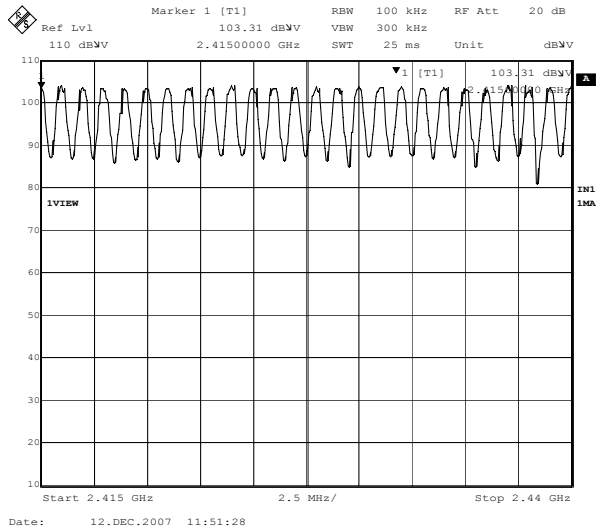
1.



2.



3.

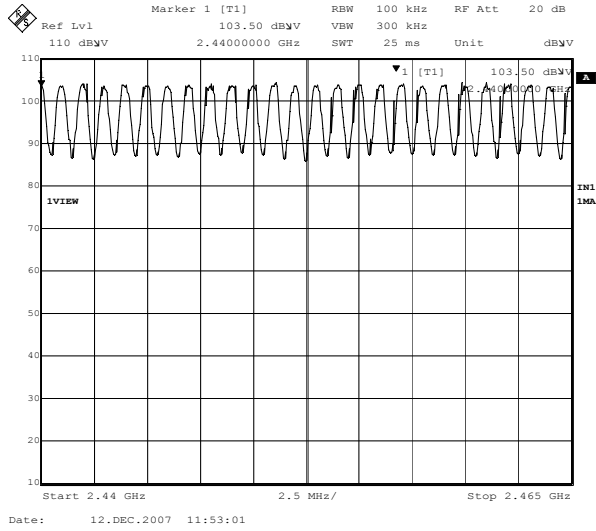


Channel Utilization: FCC 15.247(a)(1)(iii)

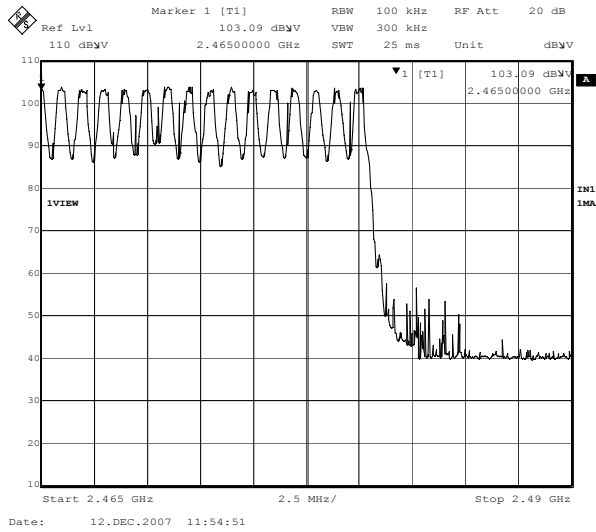
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

4.



5.

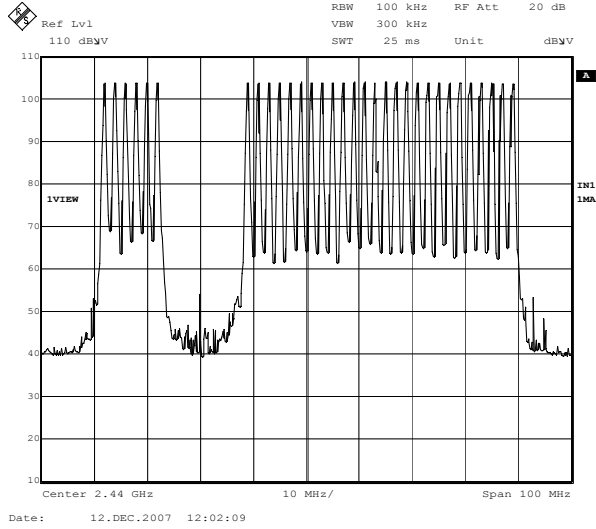


Channel Utilization: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

1. Inquiry: 32ch



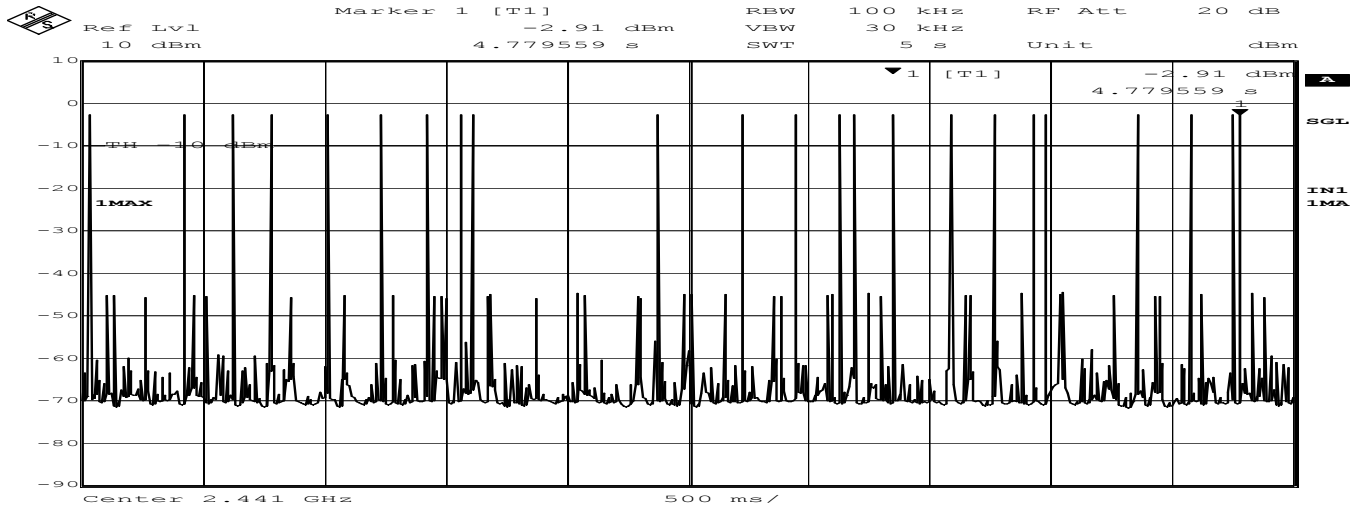
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

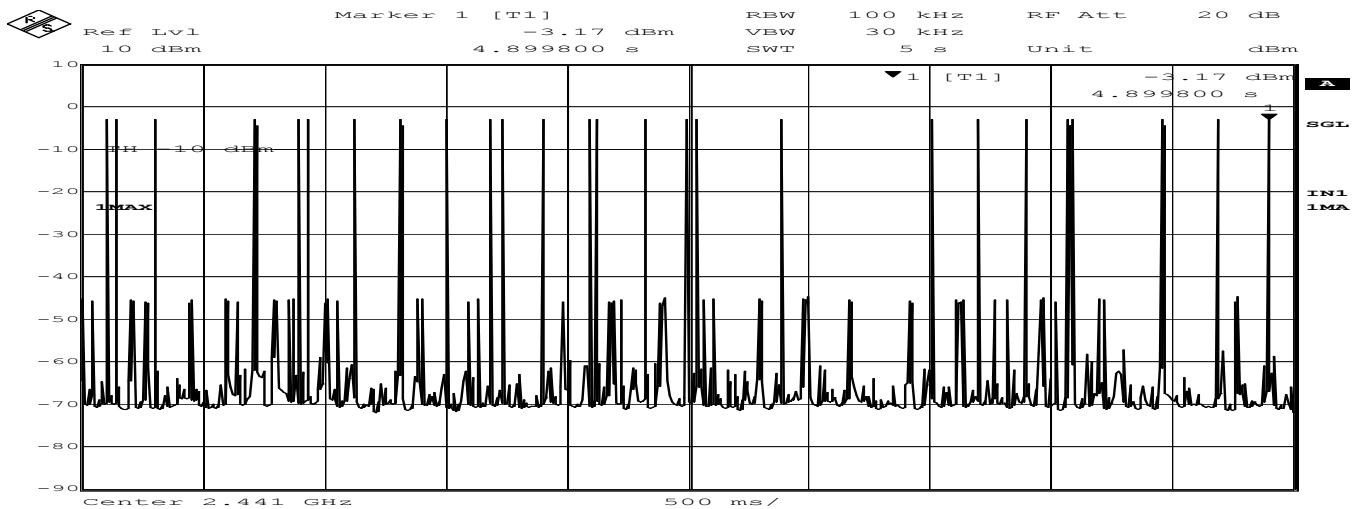
Hopping (DH1):

Count 1



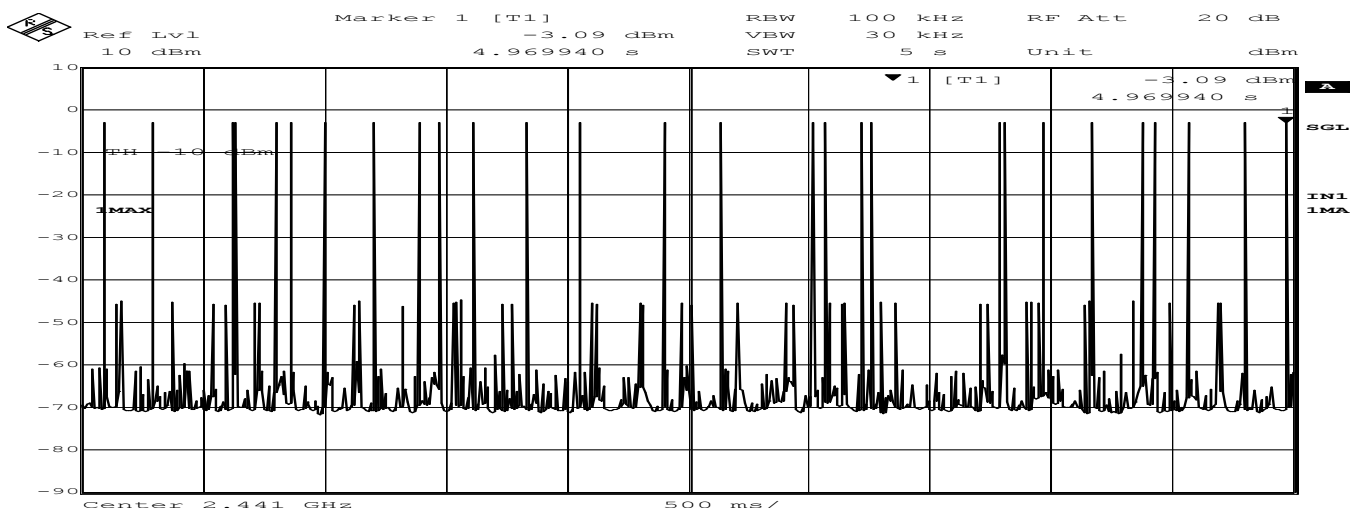
Date: 12.DEC.2007 08:58:00

Count 2



Date: 12.DEC.2007 08:59:07

Count 3



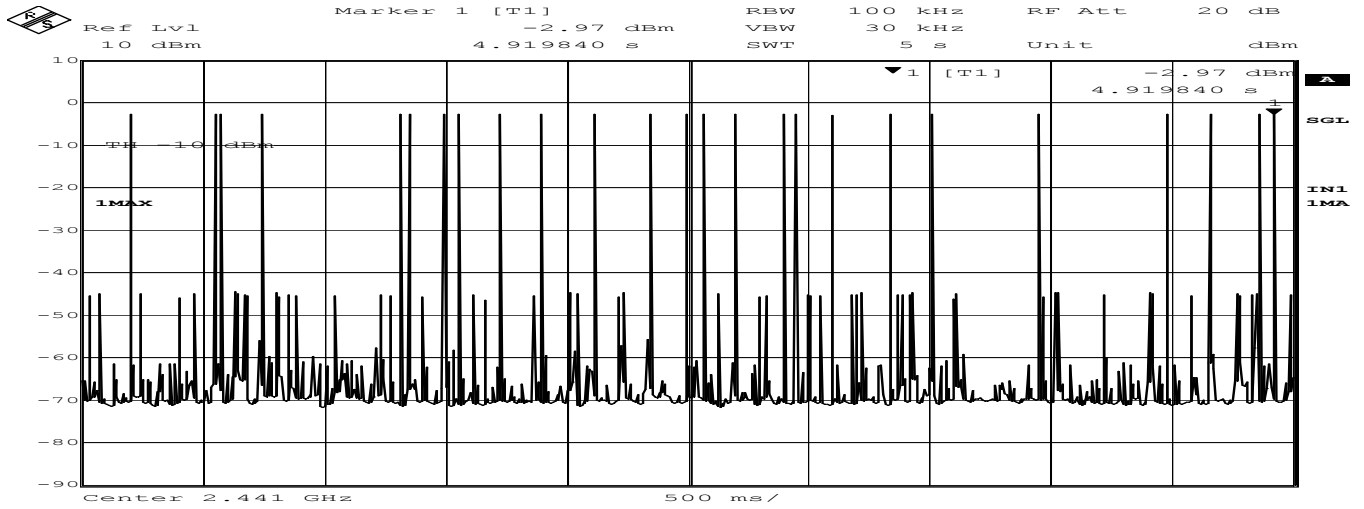
Date: 12.DEC.2007 09:09:26

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

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

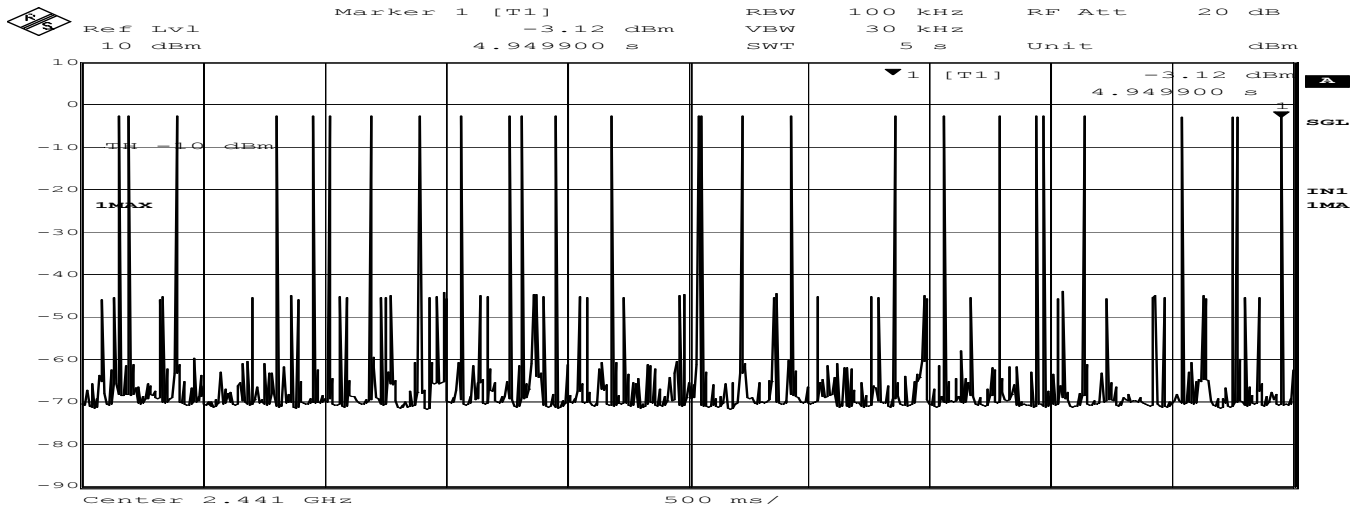
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Count 4



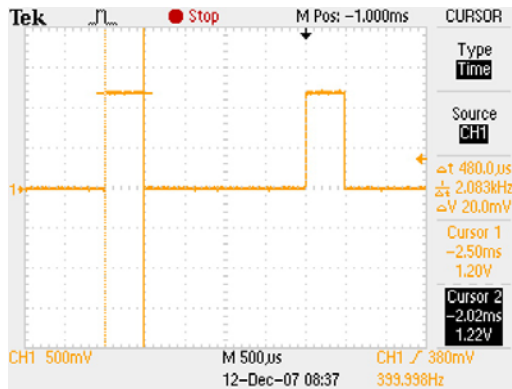
Date: 12.DEC.2007 09:10:02

Count 5



Date: 12.DEC.2007 09:11:02

Duty cycle(Hopping DH1)



Average times of rising in 5 sec. of sweep = (23 + 25 + 27 + 25 + 26) / 5 = 25.2

Average times of rising in 1 sec. = 25.2 / 5s = 5.04

Average times of rising in 0.4x = 0.4 * 79ch * 5.04 = 159.26

Dwell time = 159.26 * 0.48 = 76.44 [ms]

Limit : Dwell Time < 0.4[s]

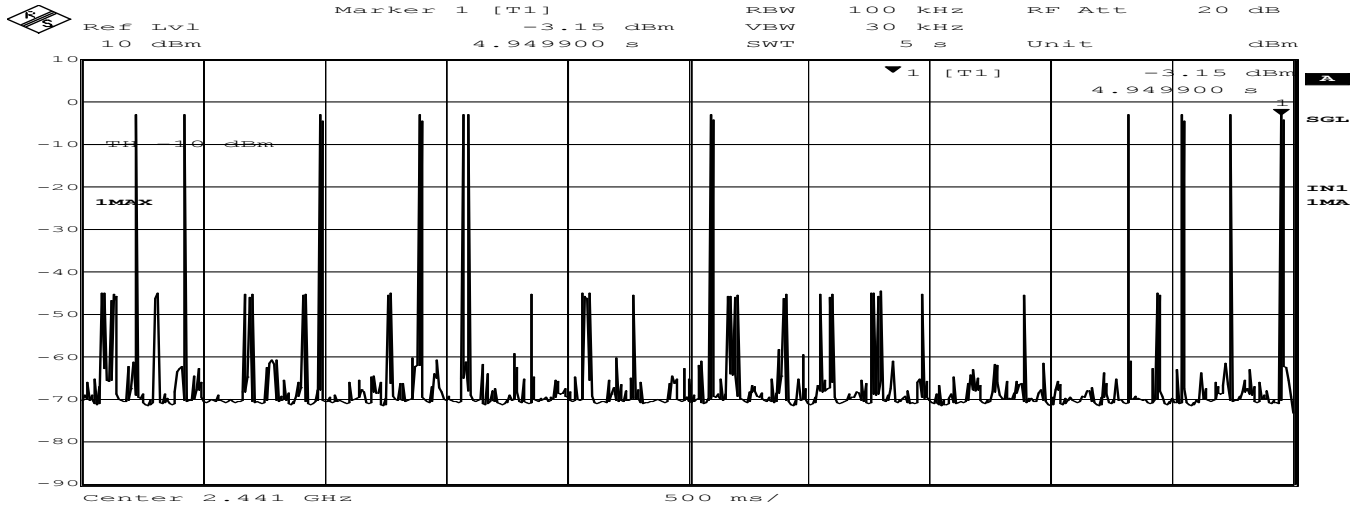
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

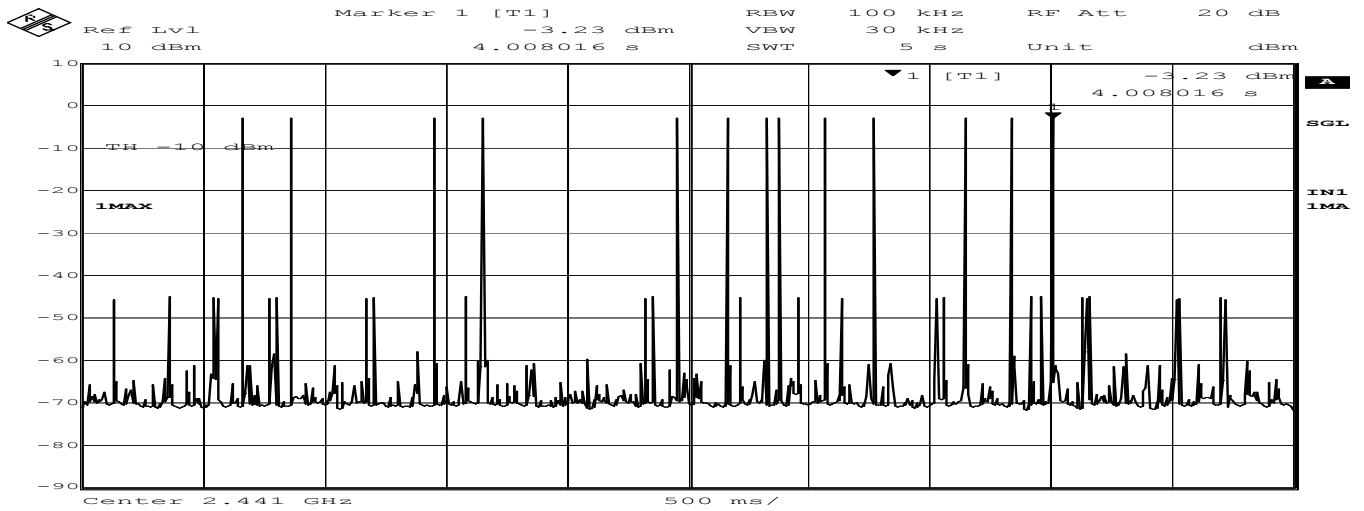
Hopping (DH3):

Count 1



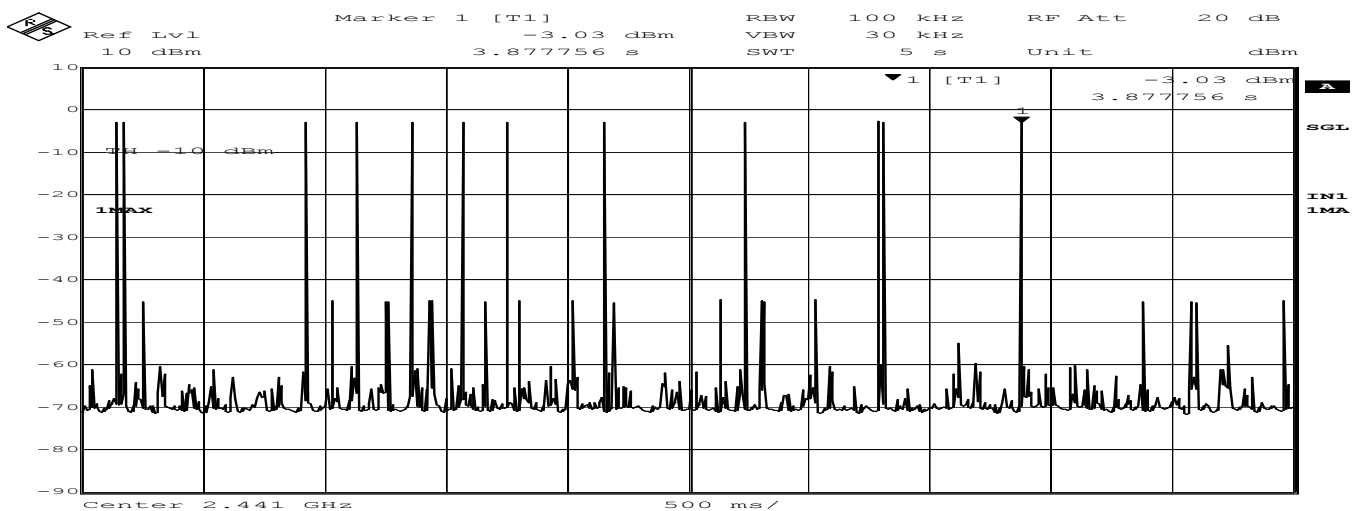
Date: 12.DEC.2007 09:12:51

Count 2



Date: 12.DEC.2007 09:13:29

Count 3



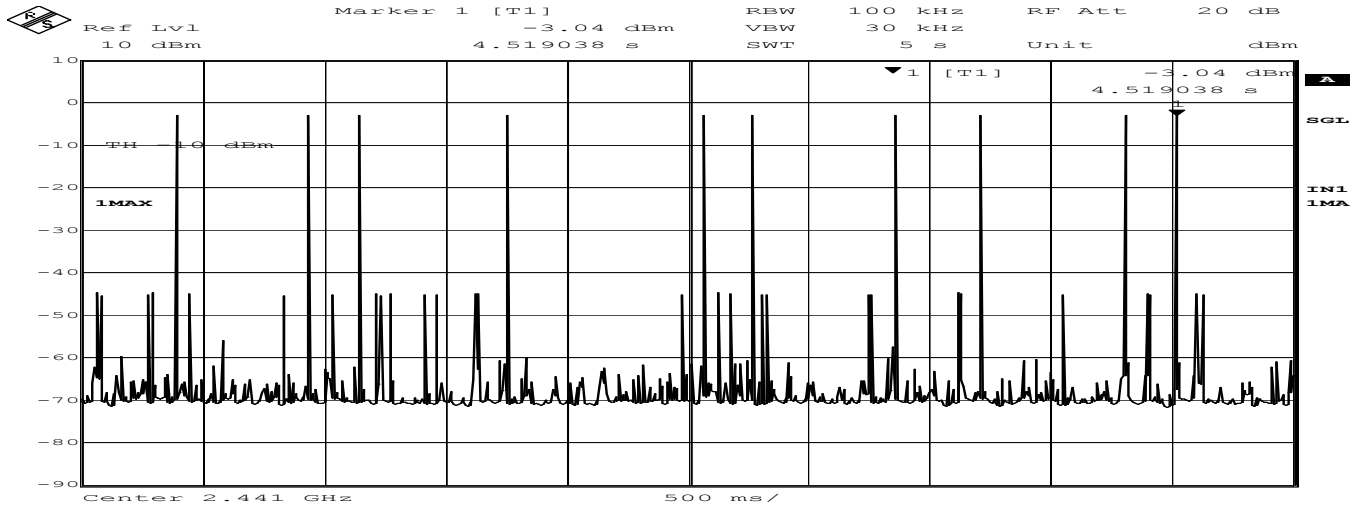
Date: 12.DEC.2007 09:14:07

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

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

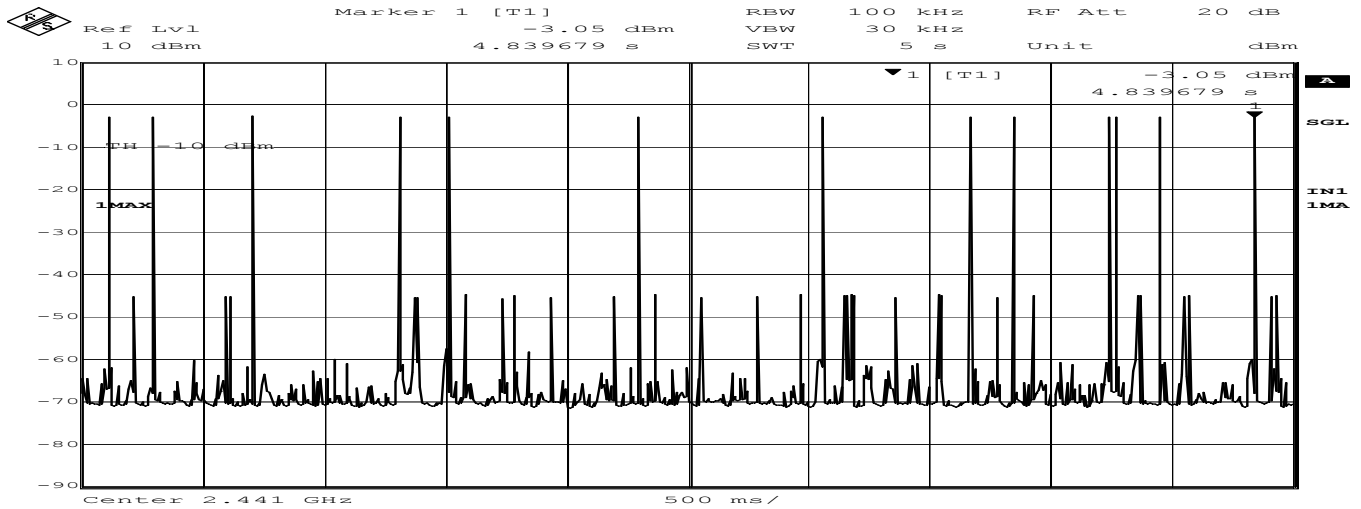
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Count 4



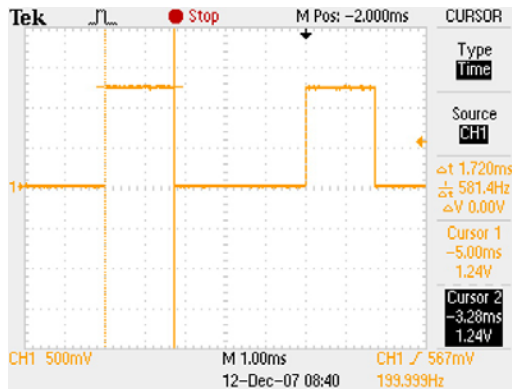
Date: 12.DEC.2007 09:14:41

Count 5



Date: 12.DEC.2007 09:15:17

Duty cycle(Hopping DH3)



Average times of rising in 5 sec. of sweep = (11 + 13 + 12 + 10 + 13) / 5 = 11.80
 Average times of rising in 1 sec. = 11.80 / 5s = 2.36
 Average times of rising in 0.4x = 0.4 * 79ch * 2.36 = 74.58
 Dwell time = 74.58 * 1.72 = 128.28 [ms]
 Limit : Dwell Time < 0.4[s]

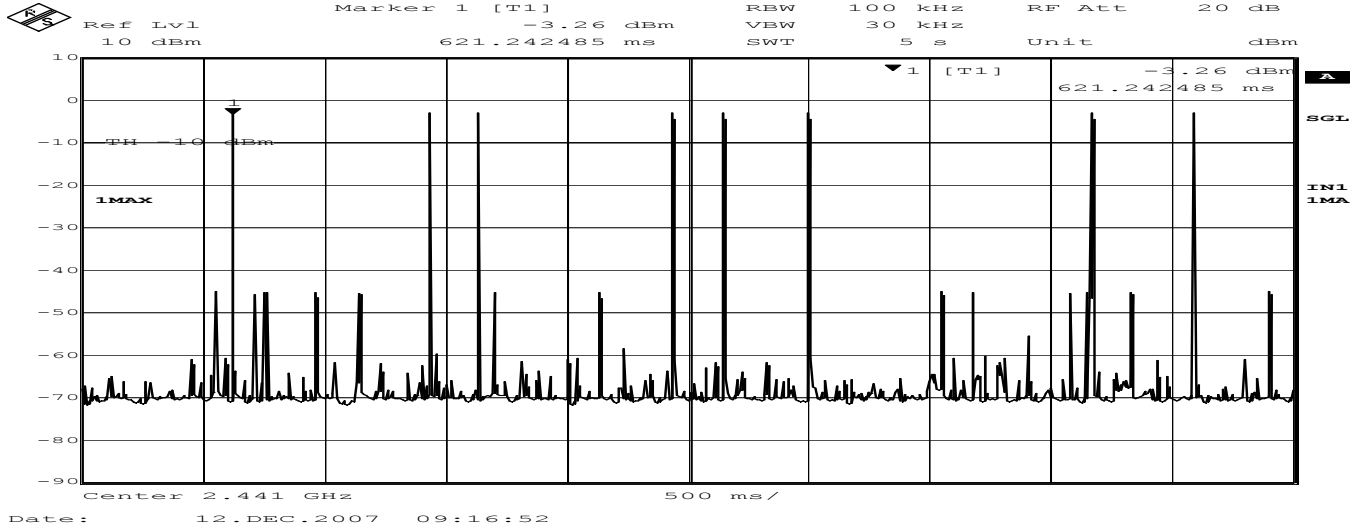
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

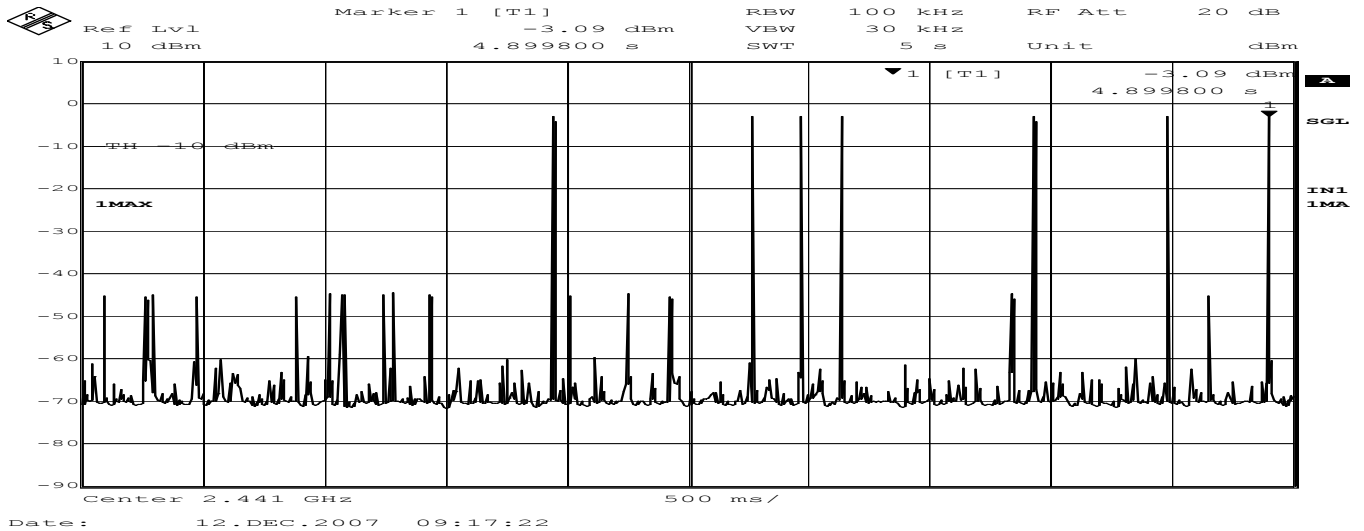
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP/HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Hopping (DH5):

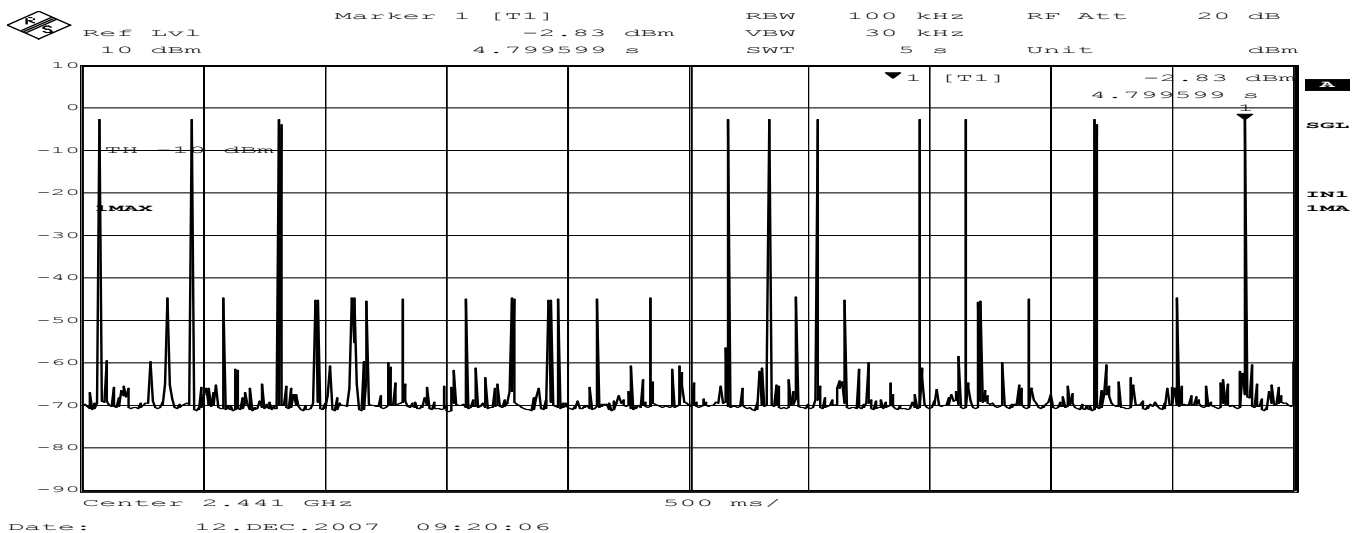
Count 1



Count 2



Count 3

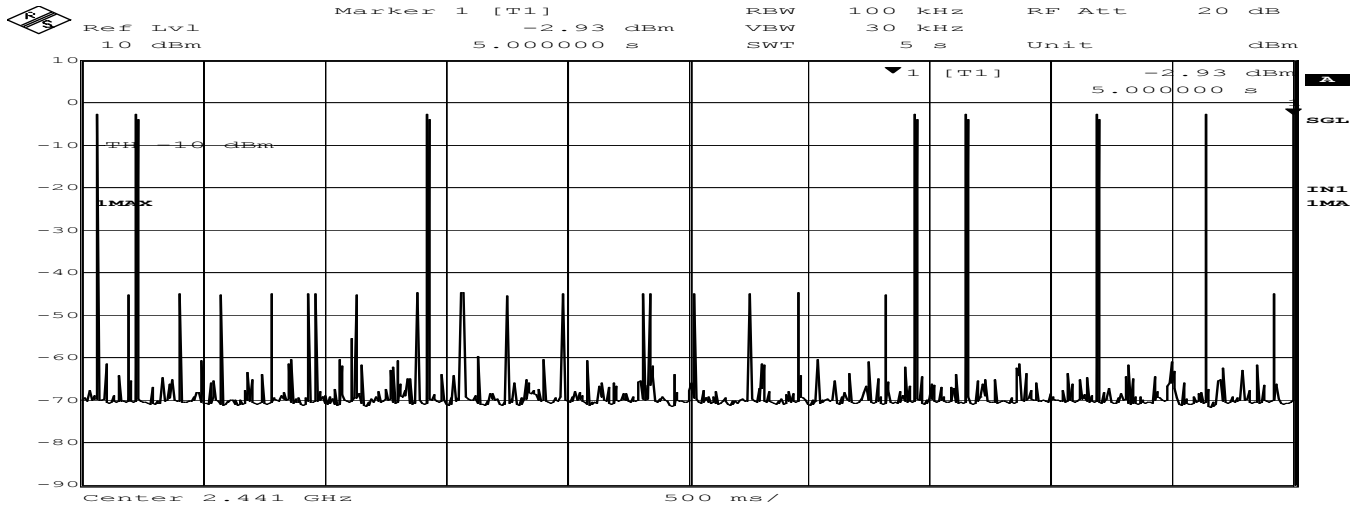


Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

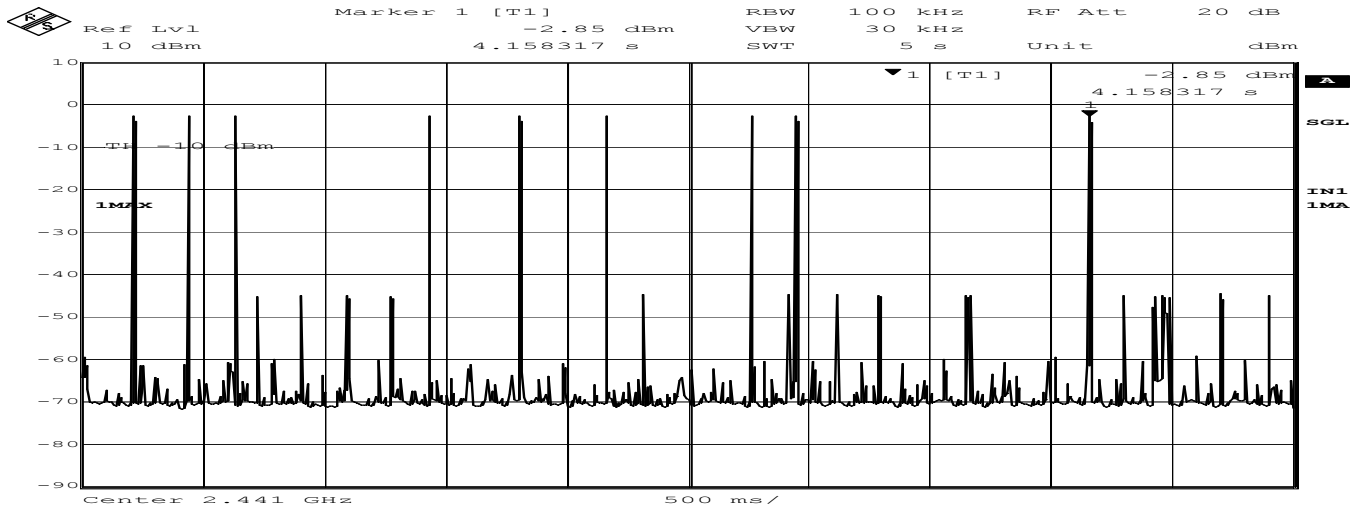
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Count 4



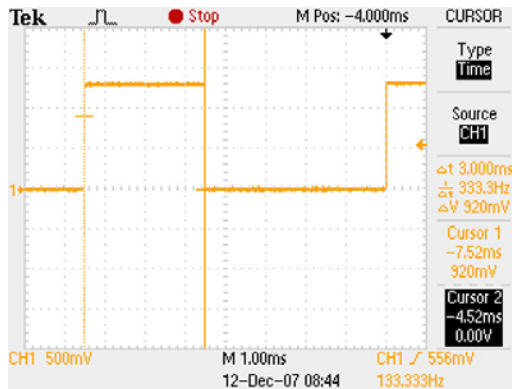
Date: 12.DEC.2007 09:18:44

Count 5



Date: 12.DEC.2007 09:19:22

Duty cycle(Hopping DH5)



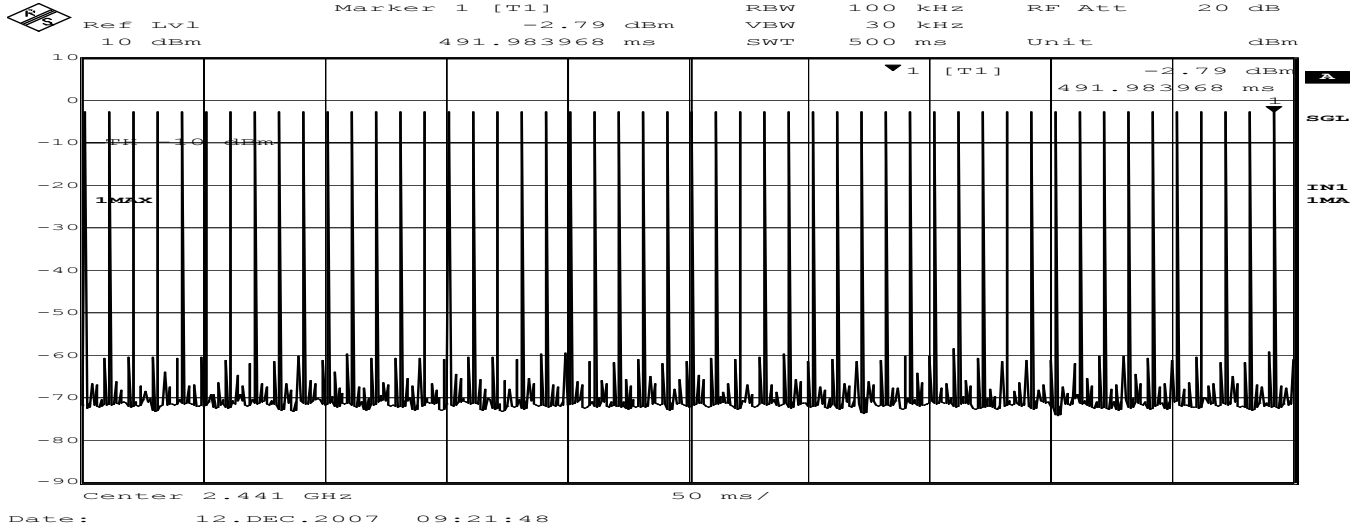
Average times of rising in 5 sec. of sweep = (8 + 7 + 10 + 8 + 9) / 5 = 8.4
 Average times of rising in 1 sec. = 8.4 / 5s = 1.68
 Average times of rising in 0.4x = 0.4 * 79ch * 1.68 = 53.09
 Dwell time = 53.09 * 3.00 = 159.27 [ms]
 Limit : Dwell Time < 0.4[s]

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

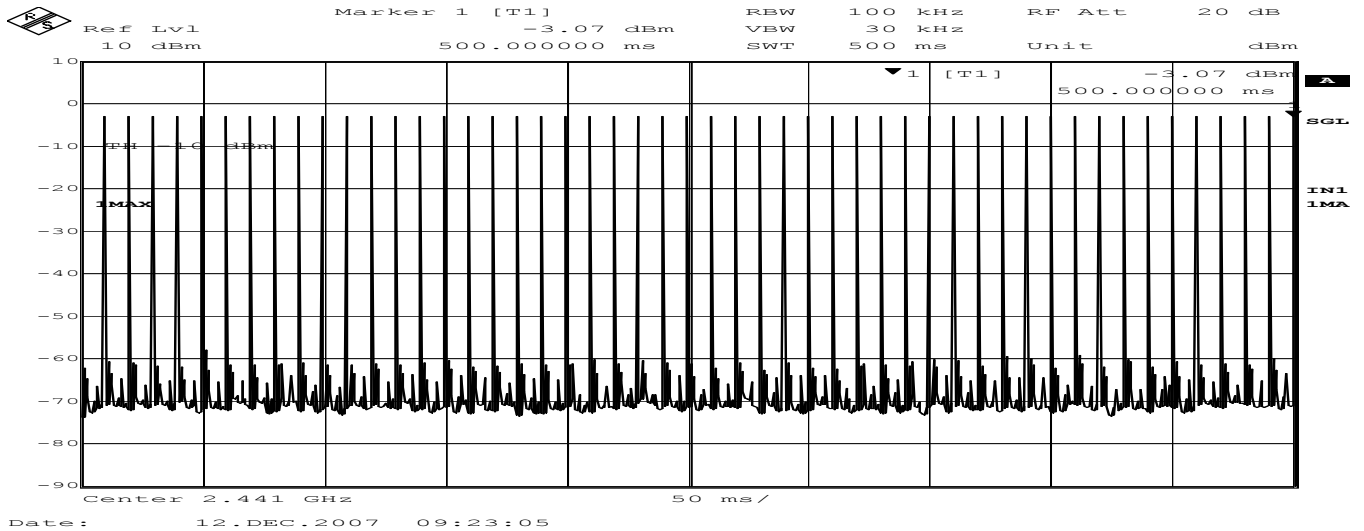
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

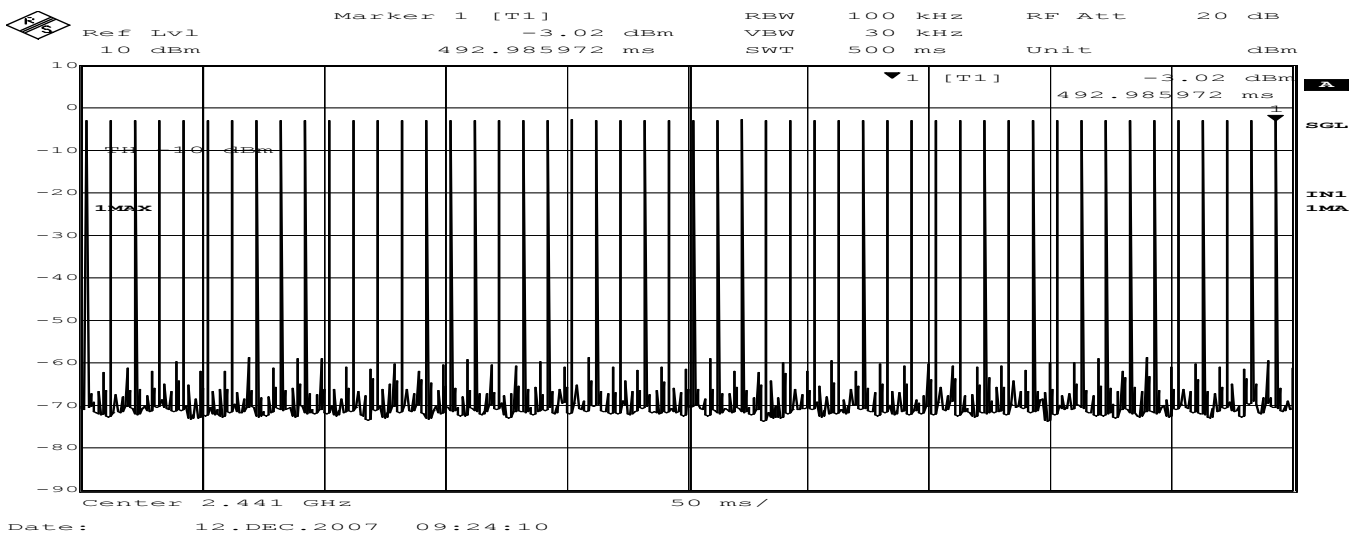
Inquiry:
Count 1



Count 2



Count 3

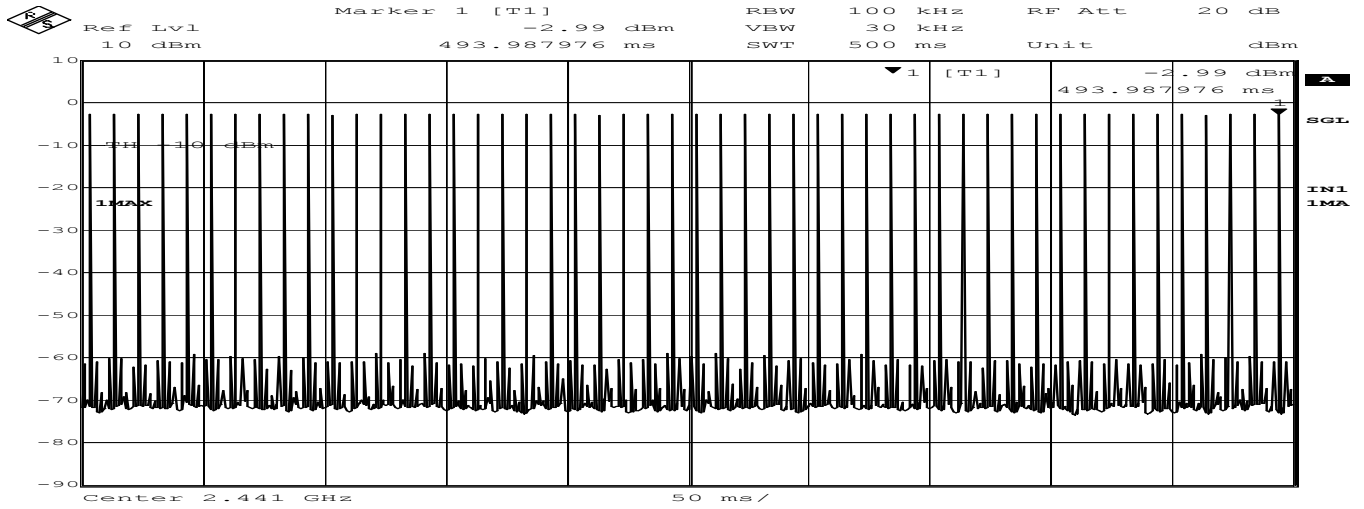


Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : AC120V/60Hz

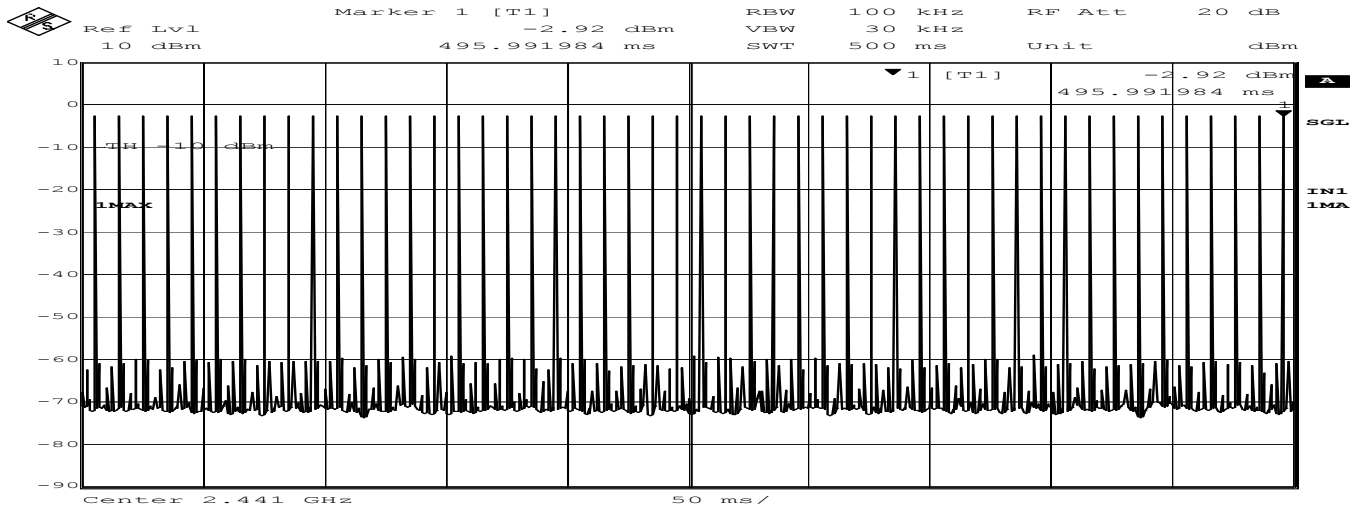
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./42%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Count 4



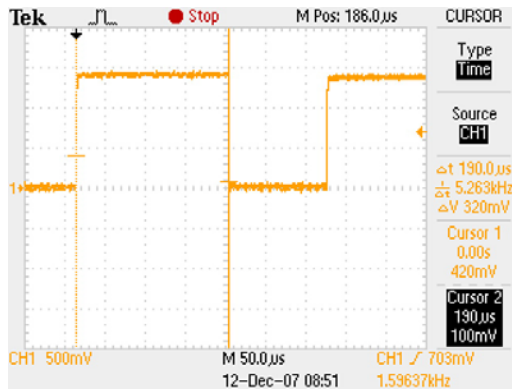
Date: 12.DEC.2007 09:25:17

Count 5



Date: 12.DEC.2007 09:26:14

Duty cycle(Inquiry)



Average times of rising in 0.5 sec. of sweep = (50+ 50 + 50 + 50 + 50) / 5 = 50.00
 Average times of rising in 1 sec. = 50.00 / 0.5s = 100.00
 Average times of rising in 0.4x = 0.4 * 32ch * 100.00 = 1280.00
 Dwell time = 1280.00 * 0.19 = 243.20 [ms]
 Limit : Dwell Time < 0.4[s]

Maximum Peak Conducted Output Power

UL Japan, Inc.
YAMAKITA No.2 Shielded Room

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER : FH-P800BT
SERIAL NUMBER : GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V
TEST MODE : Transmitting

REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(b)(1)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C/41%

ENGINEER : Tatsuya Arai

DH5

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-1.41	1.39	-0.02	20.96	20.98
Mid	2441.00	-1.24	1.41	0.17	20.96	20.79
High	2480.00	-1.66	1.45	-0.21	20.96	21.17
Inquiry	-	-1.21	1.41	0.20	20.96	20.76

Limit: 125mW=20.96dBm

P/M: Power Meter

CABLE LOSS:The Cable Prepared by The Client + KCC-D16

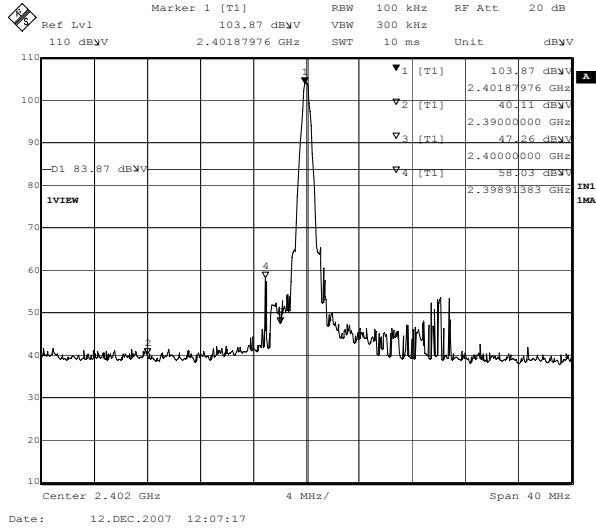
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

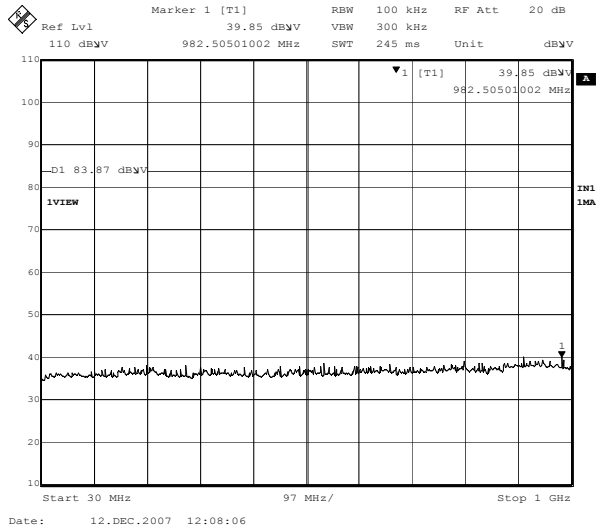
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting DH5]
Ch:2402MHz

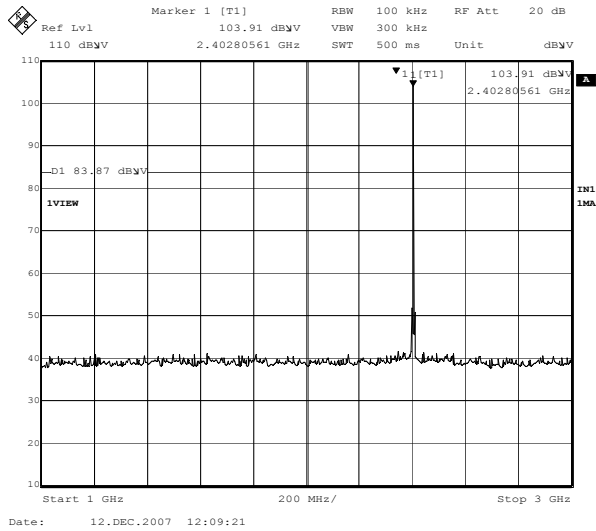
1.



2.



3.



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

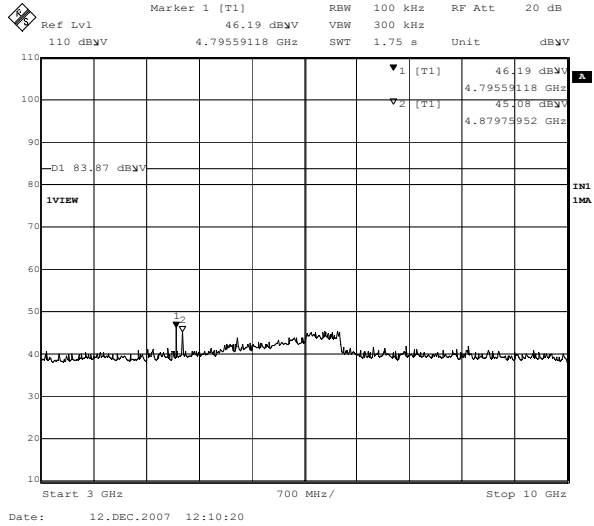
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

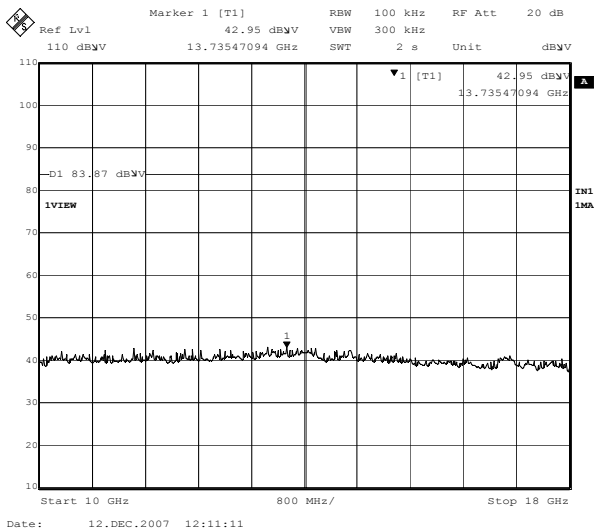
[Transmitting DH5]

Ch:2402MHz

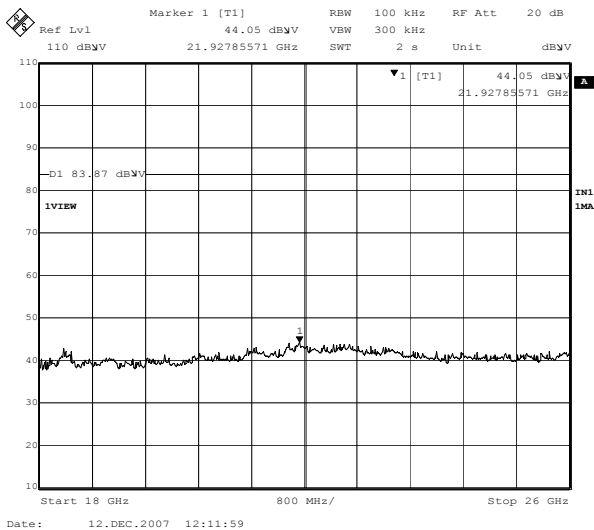
4.



5.



6.



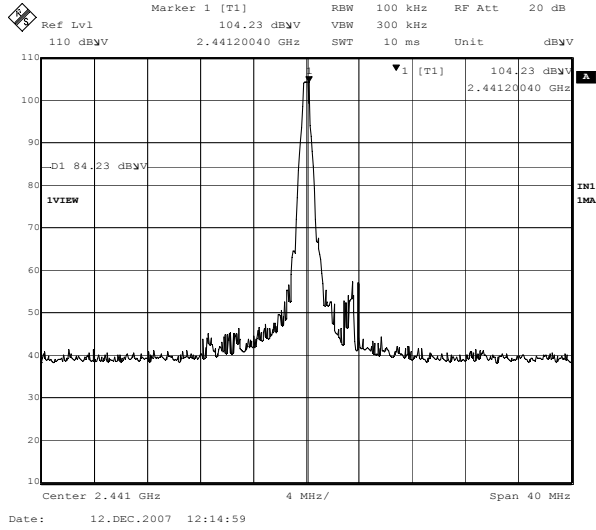
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

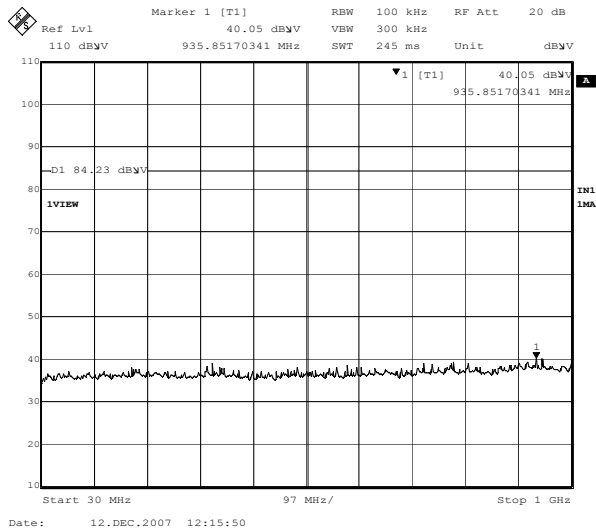
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting DH5]
Ch:2441MHz

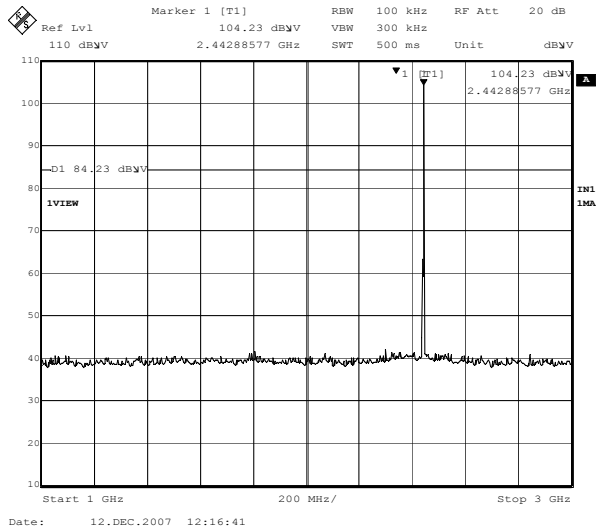
1.



2.



3.



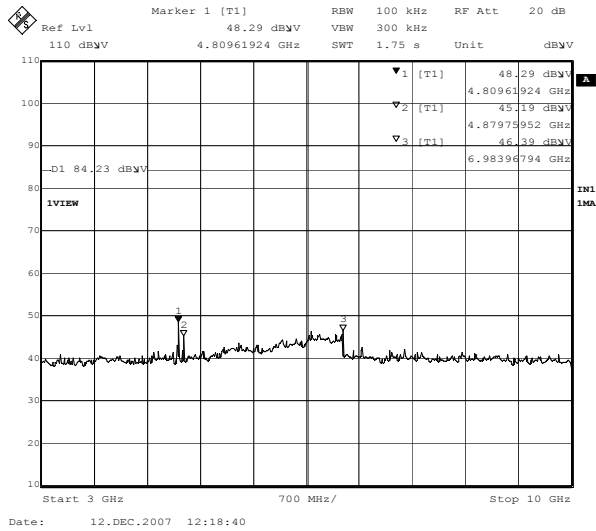
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

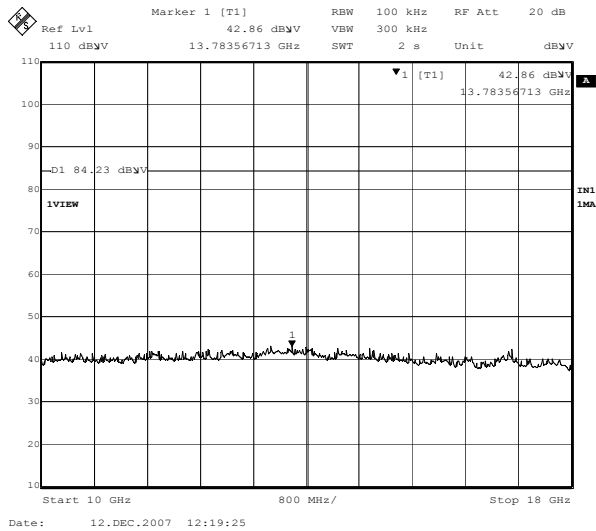
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting DH5]
Ch:2441MHz

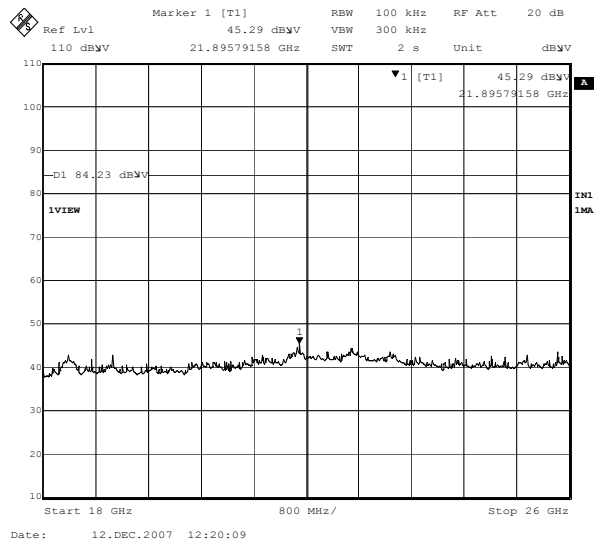
4.



5.



6.



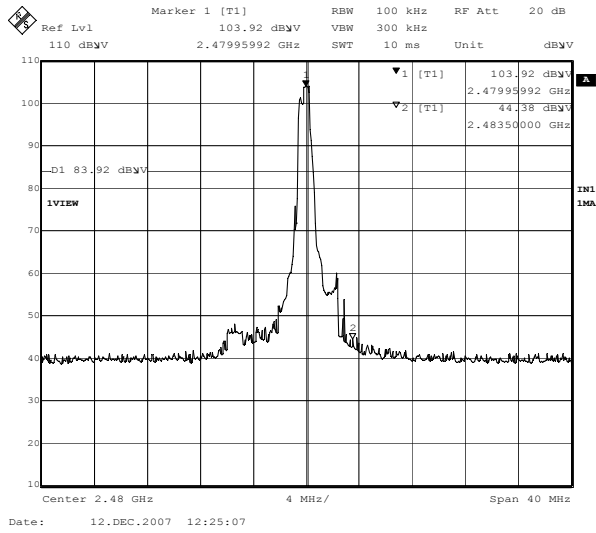
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

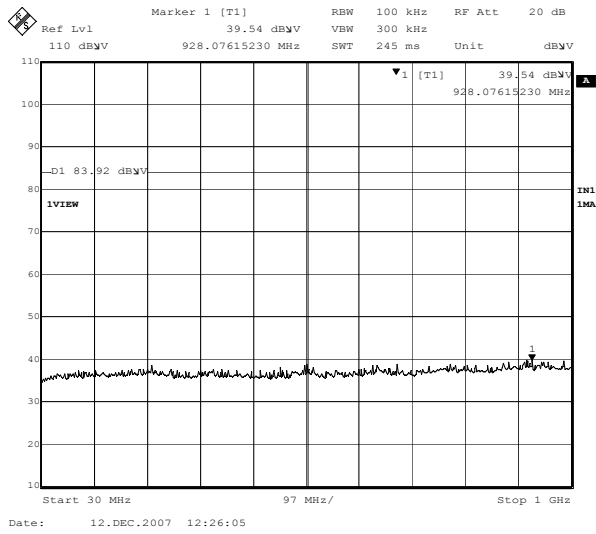
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting DH5]
Ch:2480MHz

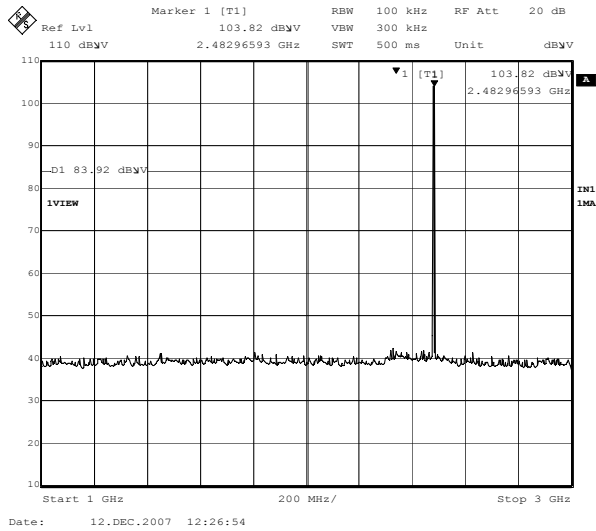
1.



2.



3.



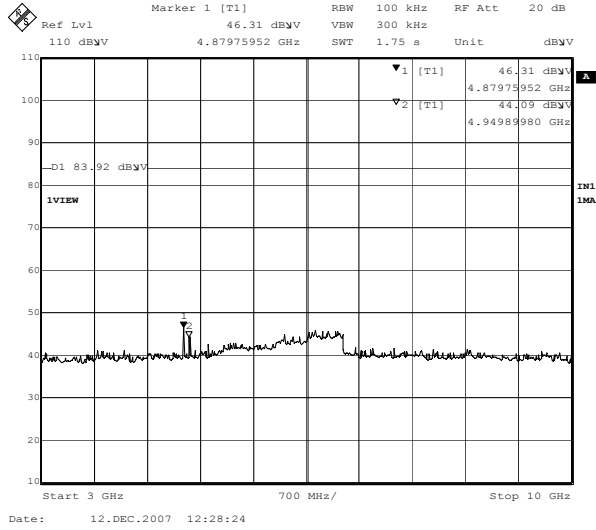
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

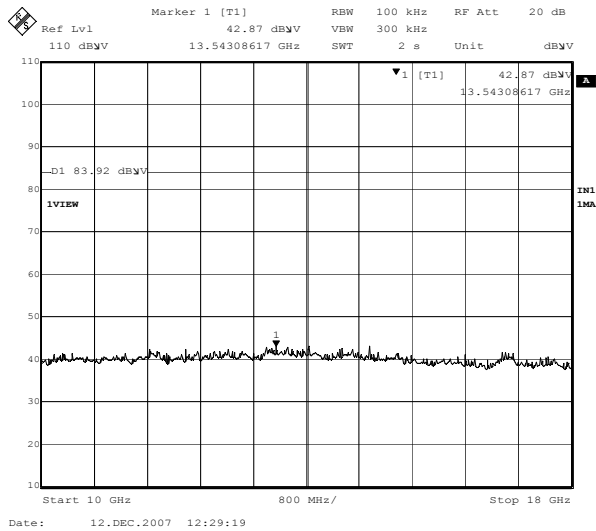
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting DH5]
Ch:2480MHz

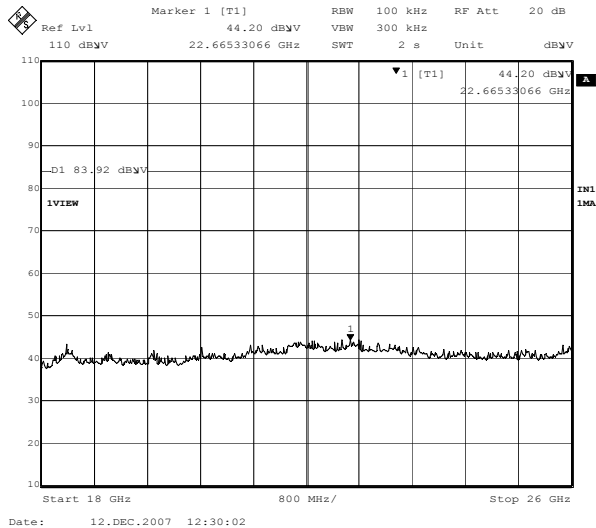
4.



5.



6.



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

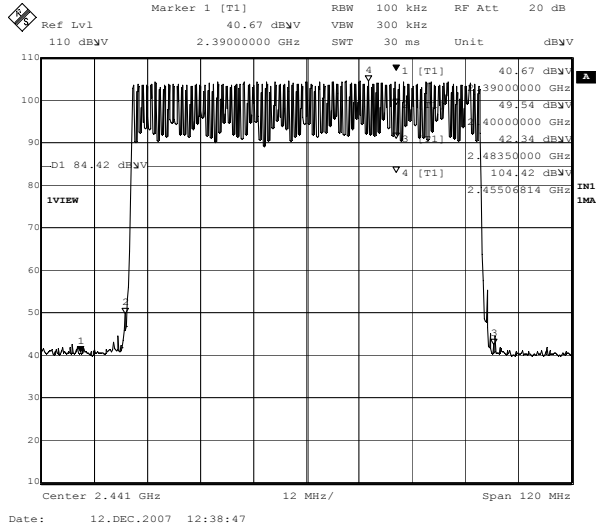
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

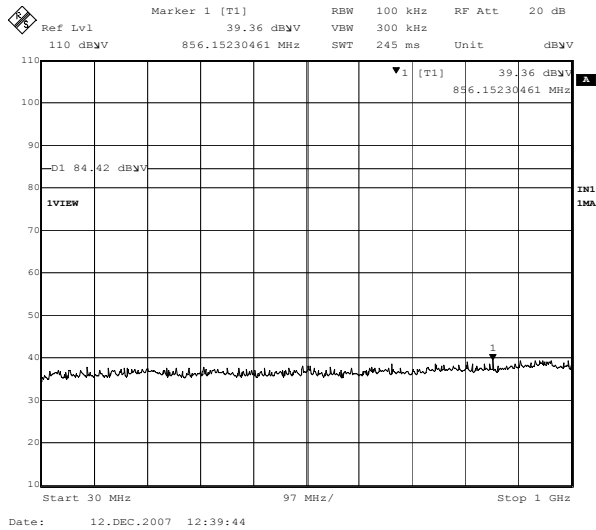
[Transmitting DH5]

Hopping

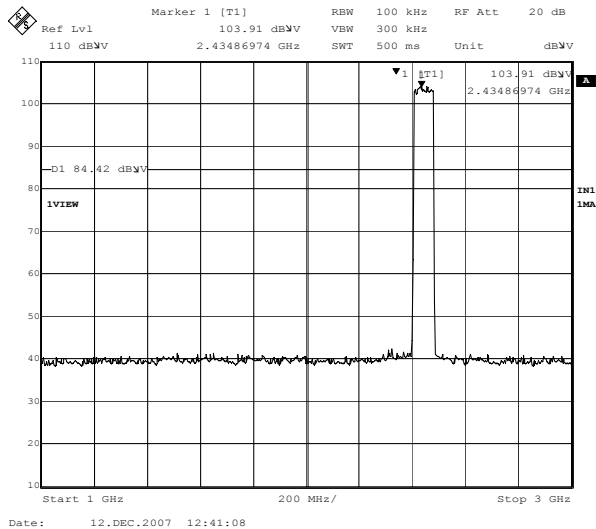
1.



2.



3.



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

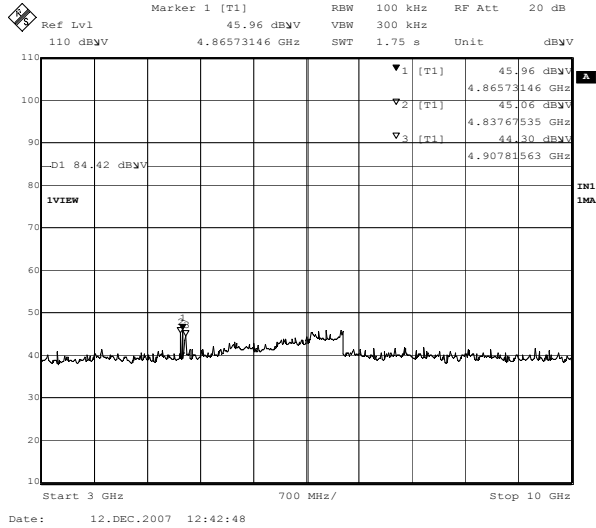
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

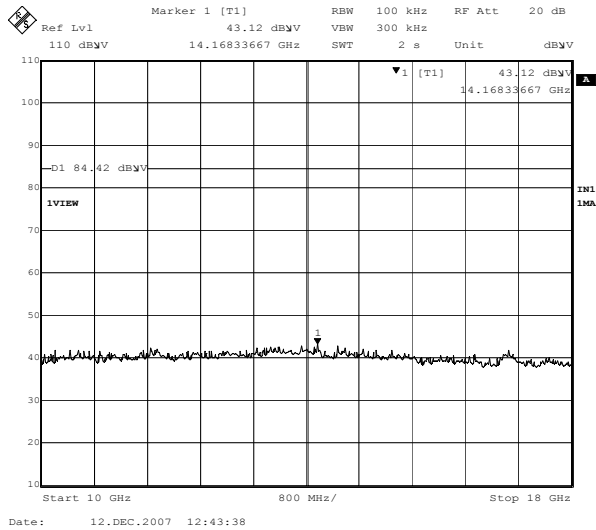
[Transmitting DH5]

Hopping

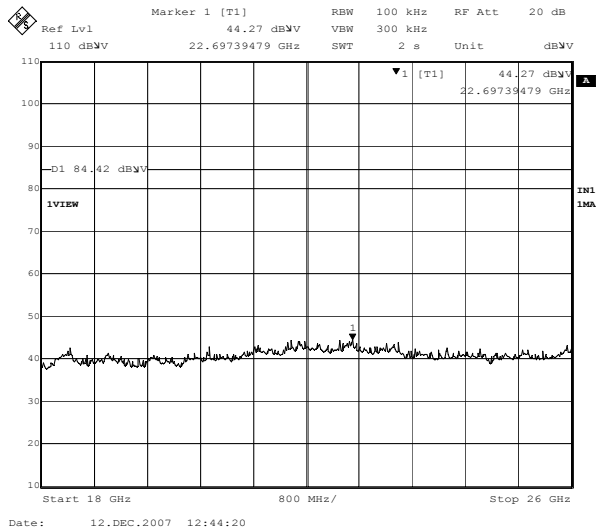
4.



5.



6.



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

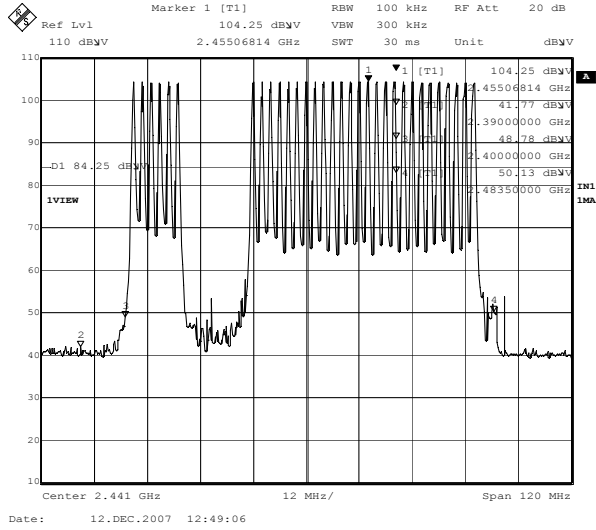
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

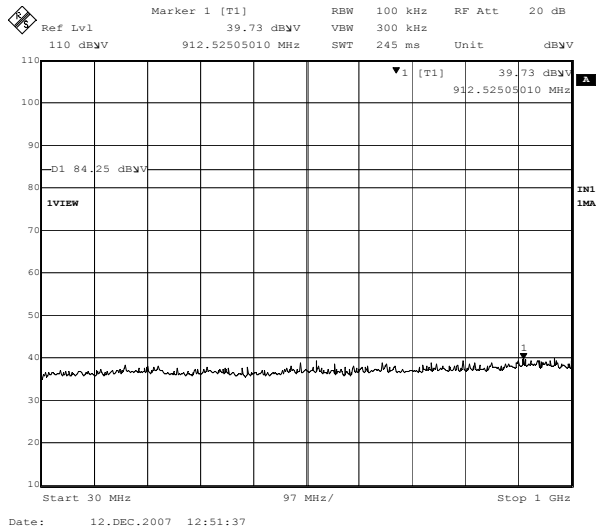
[Transmitting]

Inquiry

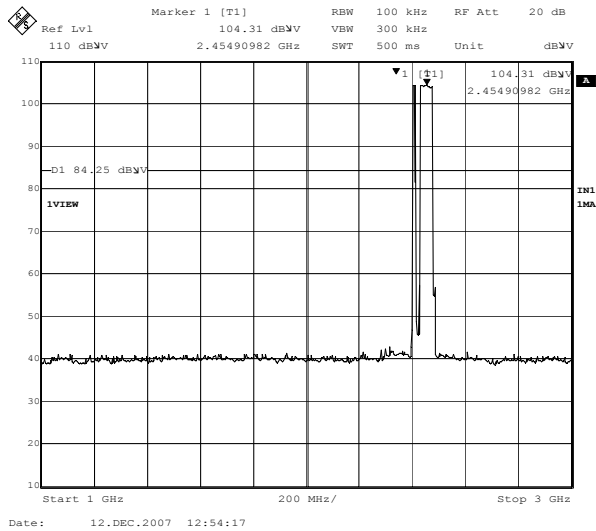
1.



2.



3.



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

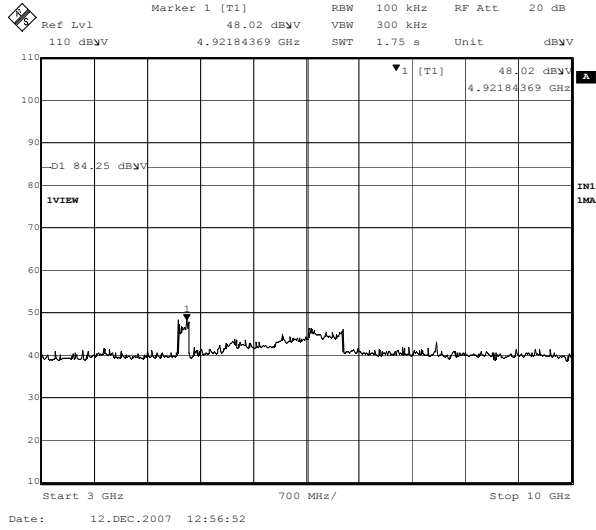
COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

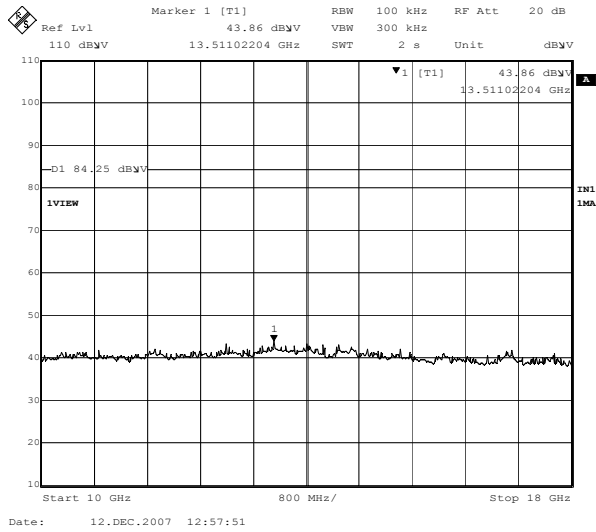
[Transmitting]

Inquiry

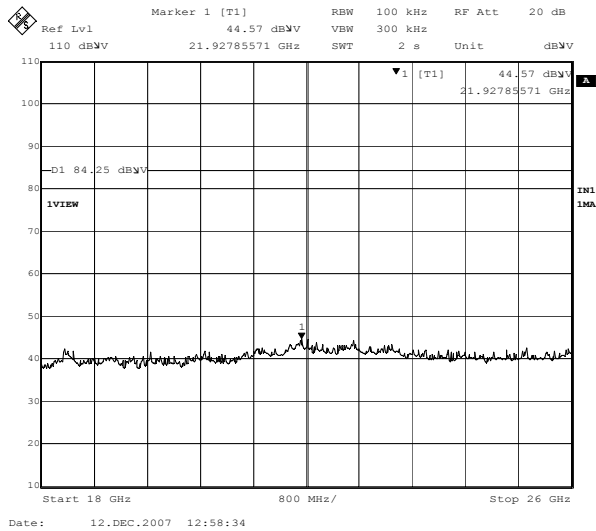
4.



5.



6.



DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2402MHz
 Remarks :
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 41 %
 Regulation : FCC Part15C § 15.209

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	192.03	BB	27.9	27.8	16.7	28.0	2.9	5.8	25.3	25.2	43.5	18.2	18.3	
2.	240.02	BB	29.7	27.0	17.5	27.7	3.3	5.8	28.6	25.9	46.0	17.4	20.1	
3.	384.02	BB	30.9	31.9	16.6	28.2	5.0	5.9	30.2	31.2	46.0	15.8	14.8	
4.	475.62	BB	26.8	27.1	17.8	28.9	5.5	5.9	27.1	27.4	46.0	18.9	18.6	

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. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2402MHz
 Remarks : RBW:1MHz/VBW:1MHz
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 41 %
 Regulation : FCC Part15C § 15.209(a) (PK) 1-18GHz:3m/18-40GHz:1m
 Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	46.6	46.8	28.5	35.4	5.0	0.0	44.7	44.9	74.0	29.3	29.1
2.	2443.04	BB	48.5	47.8	28.4	35.3	5.1	0.0	46.7	46.0	74.0	27.3	28.0
3.	4804.00	BB	46.5	46.7	32.9	34.1	5.7	0.0	51.0	51.2	74.0	23.0	22.8
4.	7206.00	BB	45.5	45.7	36.5	34.7	7.6	0.0	54.9	55.1	74.0	19.1	18.9
5.	9608.00	BB	47.2	47.1	37.7	35.3	7.7	0.0	57.3	57.2	74.0	16.7	16.8

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-07 (8449B) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2402MHz
 Remarks : RBW:1MHz/VBW:200Hz, DATA No. 2:RBW:1MHz/VBW:1kHz
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Tatsuya Arai
 Humidity : 41 %
 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		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	2390.00	BB	33.5	34.0	28.5	35.4	5.0	0.0	31.6	32.1	54.0	22.4	21.9	
2.	2443.04	BB	37.8	39.5	28.4	35.3	5.1	0.0	36.0	37.7	54.0	18.0	16.3	
3.	4804.00	BB	35.8	35.4	32.9	34.1	5.7	0.0	40.3	39.9	54.0	13.7	14.1	
4.	7206.00	BB	33.3	33.0	36.5	34.7	7.6	0.0	42.7	42.4	54.0	11.3	11.6	
5.	9608.00	BB	34.2	34.1	37.7	35.3	7.7	0.0	44.3	44.2	54.0	9.7	9.8	

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-07 (8449B) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2441MHz
 Remarks :
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 41 %
 Regulation : FCC Part15C § 15.209

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER	HOR [dB]	VER		
1.	192.03	BB	28.3	28.0	16.7	28.0	2.9	5.8	25.7	25.4	43.5	17.8	18.1	
2.	240.02	BB	29.1	26.6	17.5	27.7	3.3	5.8	28.0	25.5	46.0	18.0	20.5	
3.	384.02	BB	30.4	31.6	16.6	28.2	5.0	5.9	29.7	30.9	46.0	16.3	15.1	
4.	475.62	BB	26.5	26.7	17.8	28.9	5.5	5.9	26.8	27.0	46.0	19.2	19.0	

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

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

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2441MHz
 Remarks : RBW:1MHz/VBW:1MHz
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 41 %
 Regulation : FCC Part15C § 15.209 (a) (PK) 1-18GHz:3m/18-40GHz:1m
 Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	2482.12	BB	49.0	48.2	28.3	35.3	5.1	0.0	47.1	46.3	74.0	26.9	27.7	
2.	4882.00	BB	47.1	45.7	33.1	34.1	5.8	0.0	51.9	50.5	74.0	22.1	23.5	
3.	7323.00	BB	45.6	45.6	36.7	34.8	7.7	0.0	55.2	55.2	74.0	18.8	18.8	
4.	9764.00	BB	46.9	47.2	37.7	35.4	7.7	0.0	56.9	57.2	74.0	17.1	16.8	

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-07 (8449B) ■ EMI RECEIVER:KTR-01 (ES140)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2441MHz
 Remarks : RBW:1MHz/VBW:200Hz, DATA No. 1:RBW:1MHz/VBW:1kHz
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Tatsuya Arai
 Humidity : 41 %
 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		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	2482.12	BB	39.3	38.4	28.3	35.3	5.1	0.0	37.4	36.5	54.0	16.6	17.5	
2.	4882.00	BB	35.3	33.6	33.1	34.1	5.8	0.0	40.1	38.4	54.0	13.9	15.6	
3.	7323.00	BB	32.9	32.9	36.7	34.8	7.7	0.0	42.5	42.5	54.0	11.5	11.5	
4.	9764.00	BB	34.0	33.9	37.7	35.4	7.7	0.0	44.0	43.9	54.0	10.0	10.1	

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-07 (8449B) ■ EMI RECEIVER:KTR-01 (ES140)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2480MHz
 Remarks :
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 41 %
 Regulation : FCC Part15C § 15.209

Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	192.03	BB	27.6	28.0	16.7	28.0	2.9	5.8	25.0	25.4	43.5	18.5	18.1	
2.	240.02	BB	29.0	26.4	17.5	27.7	3.3	5.8	27.9	25.3	46.0	18.1	20.7	
3.	384.02	BB	30.5	31.7	16.6	28.2	5.0	5.9	29.8	31.0	46.0	16.2	15.0	
4.	475.62	BB	26.7	26.7	17.8	28.9	5.5	5.9	27.0	27.0	46.0	19.0	19.0	

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

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

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2480MHz
 Remarks : RBW:1MHz/VBW:1MHz
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C
 Humidity : 41 %
 Regulation : FCC Part15C § 15.209(a) (PK) 1-18GHz:3m/18-40GHz:1m
 Engineer : Tatsuya Arai

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2404.08	BB	46.7	49.1	28.5	35.3	5.0	0.0	44.9	47.3	74.0	29.1	26.7
2.	2483.50	BB	55.0	50.9	28.3	35.3	5.1	0.0	53.1	49.0	74.0	20.9	25.0
3.	4960.00	BB	46.2	46.4	33.4	34.1	5.8	0.0	51.3	51.5	74.0	22.7	22.5
4.	7440.00	BB	45.4	45.5	36.8	34.8	7.9	0.0	55.3	55.4	74.0	18.7	18.6
5.	9920.00	BB	46.4	47.6	37.7	35.4	7.7	0.0	56.4	57.6	74.0	17.6	16.4

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-07 (8449B) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Japan, Inc.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 28DE0085-YK-01-A

Applicant : PIONEER CORPORATION
 Kind of Equipment : CD RDS Receiver
 Model No. : FH-P800BT
 Serial No. : GKTR990034PUC
 Power : DC14.4V
 Mode : Transmitting 2480MHz
 Remarks : RBW:1MHz/VBW:200Hz, DATA No.1:RBW:1MHz/VBW:1kHz
 Date : 12/18/2007
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Tatsuya Arai
 Humidity : 41 %
 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		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	2404.08	BB	35.2	41.2	28.5	35.3	5.0	0.0	33.4	39.4	54.0	20.6	14.6	
2.	2483.50	BB	45.6	39.7	28.3	35.3	5.1	0.0	43.7	37.8	54.0	10.3	16.2	
3.	4960.00	BB	35.9	35.0	33.4	34.1	5.8	0.0	41.0	40.1	54.0	13.0	13.9	
4.	7440.00	BB	32.7	32.8	36.8	34.8	7.9	0.0	42.6	42.7	54.0	11.4	11.3	
5.	9920.00	BB	33.8	33.8	37.7	35.4	7.7	0.0	43.8	43.8	54.0	10.2	10.2	

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

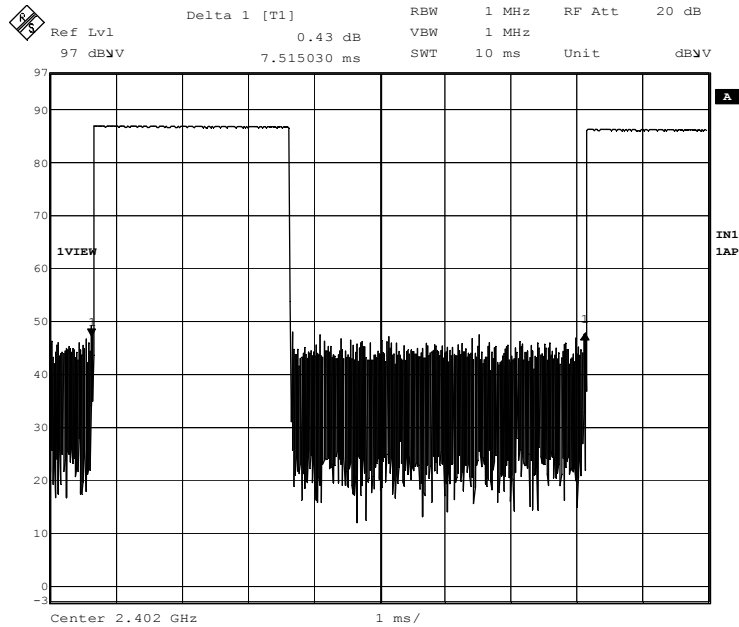
■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-07 (8449B) ■ EMI RECEIVER: KTR-01 (ES140)

Duty Cycle

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990034PUC
POWER : DC14.4V

REPORT NO : 28DE0085-YK-01-A
DATE : 2007/12/18
TEMP./HUMI : 23deg.C./41%
TEST MODE : Tx2402MHz
ENGINEER : Tatsuya Arai

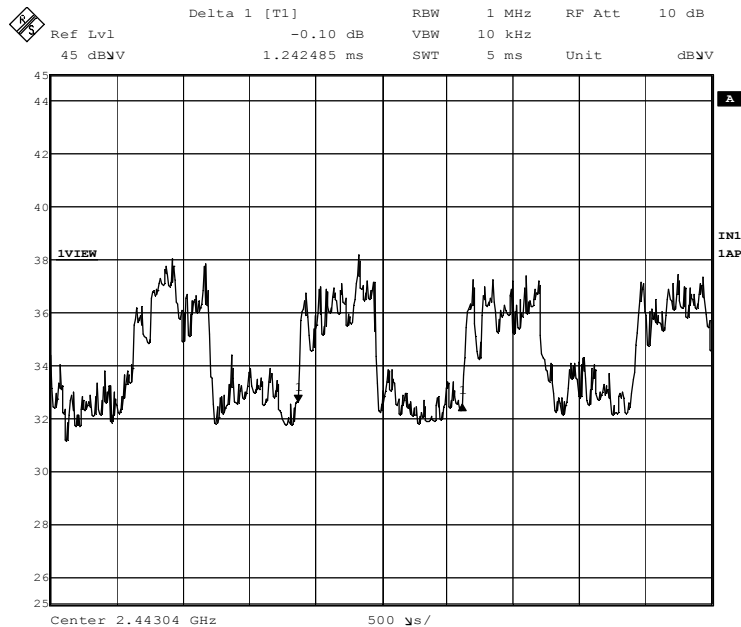
Fundamental (band edge) and Harmonics



Duty Cycle: 6.27ms

AV Detector VBW: $1 / 7.52\text{ms} = 132.98\text{Hz} \rightarrow 200\text{Hz}$

Other than Fundamental (band edge) and Harmonics



Duty Cycle: 6.27ms

AV Detector VBW: $1 / 1.24\text{ms} = 806.45\text{Hz} \rightarrow 1\text{kHz}$

* All the measured noise was pulse emission.

* Duty cycle was within 100msec.

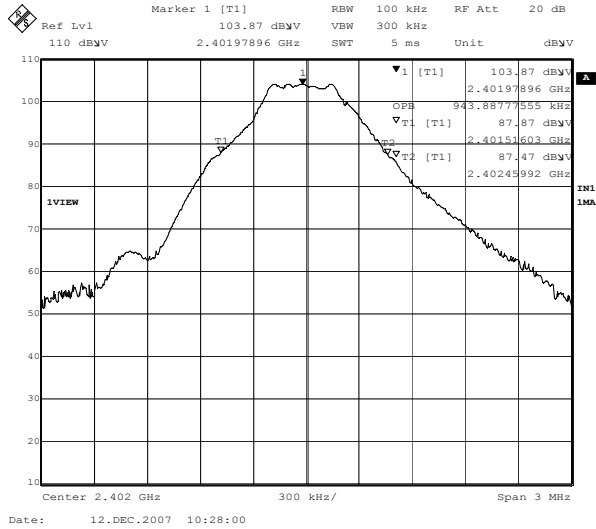
Occupied Bandwidth(99%)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

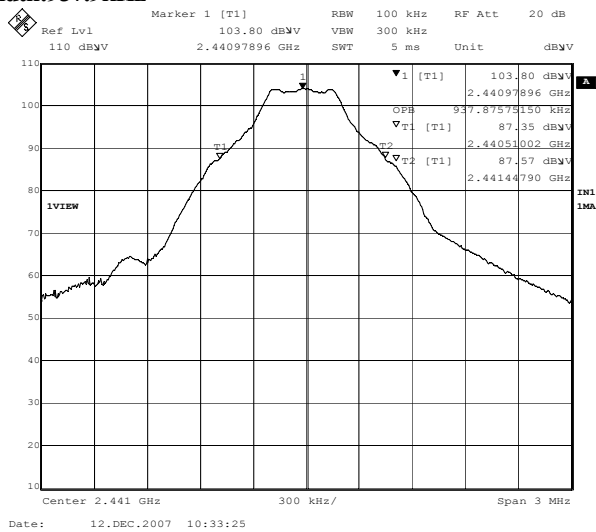
UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : RSS-210
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Hopping off, DH5]

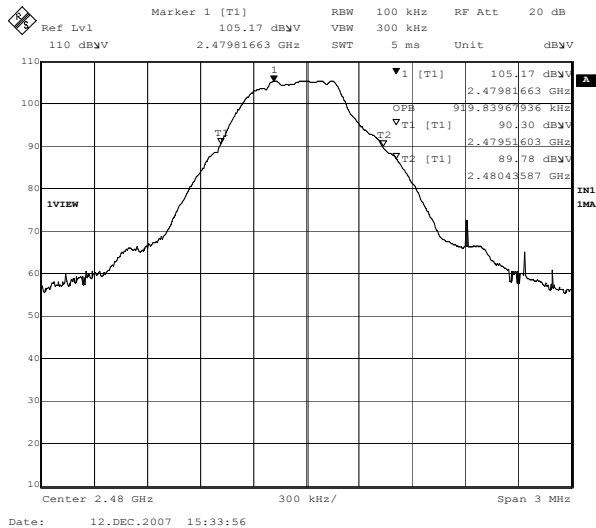
1. ch : 2402MHz/Occupied Bandwidth:943.9kHz



2. ch : 2441MHz/Occupied Bandwidth:937.9kHz



3. ch : 2480MHz/Occupied Bandwidth:919.8kHz

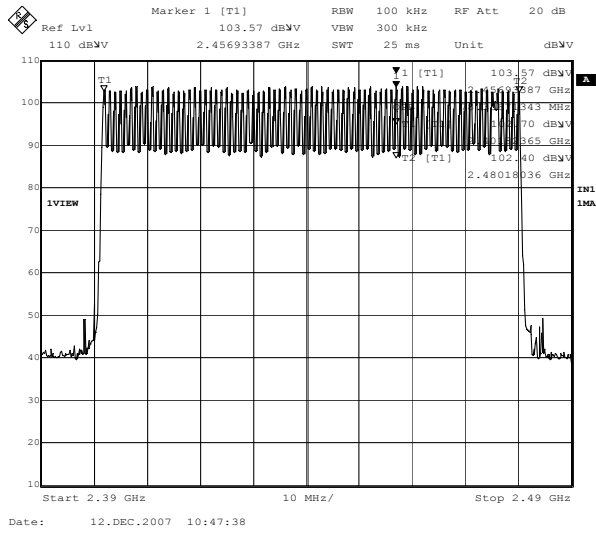


Occupied Bandwidth(99%)

COMPANY : PIONEER CORPORATION
EQUIPMENT : CD RDS Receiver
MODEL NUMBER: FH-P800BT
SERIAL NUMBER: GKTR990031PUC
FCC ID : AJDK017
POWER : DC14.4V

UL Japan, Inc. Yamakita No.2 Shielded Room
REPORT NO : 28DE0085-YK-01-A
REGULATION : RSS-210
DATE : 2007.12.12
TEMP./HUMI : 24deg.C./41%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

4. Hopping, DH5/Occupied Bandwidth:78.4MHz



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	2007/03/28 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2007/01/06 * 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	2007/01/06 * 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-01	Test Receiver	Rohde & Schwarz	ESI40	RE/AT 1,2,3,4,6	2007/04/12 * 12
KJM-01	Measure	TAJIMA	GL19-55	RE	-
KTR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2007/10/30 * 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
KAF-07	Pre Amplifier	Hewlett Packard	8449B	RE	2007/12/10 * 12
KCC-D3/D7	Coaxial Cable	Rosenberger/Advantest	2201/JUN-08-01-061	RE	2007/04/11 * 12
KCC-D16	Coaxial Cable	INSULATED WIRE INC	KPS-1501-200-KPS	AT all	2007/02/05 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	AT 4	Pre Check
KPM-05	Power meter	Agilent	E4417A	AT 5	2007/04/03 * 12
KPSS-01	Power sensor	Agilent	E9327A	AT 5	2007/03/13 * 12
KOS-01	Humidity Indicator	Custom	CTH-190	AT all	2006/07/14 * 24
KOSC-01	Oscilloscope	Tektronix	TDS-2022B	AT 4	2007/05/15 * 12

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

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

Test Item :

- 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)