



EMI TEST REPORT

Test Report No. : 26FE0203-YK-F2

Applicant : Pioneer Corporation

Type of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

Model No. : DEH-P9800BT (DEH-P980BT)

FCC ID : AJDK012

Test Standard : FCC Part15 Subpart C,
Section 15.209, Section 15.247: 2006

Test Result : Complied

1. This test report shall not be reproduced except in full, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this test report are traceable to the national or international standards.

Date of test: February 9 and 23, 2006

Tested by:

Takahiro Suzuki

&

Toyokazu Imamura

Approved by:

Osamu Watatani
Site Manager of Yamakita EMC Lab.

UL Apex Co., Ltd.

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(12.02.06)

Table of Contents	Page
1 Applicant Information	3
2 Product Description	4
3 Test Specification, Procedures and Results	5
4 System Test Configuration	7
5 Carrier Frequency Separation	9
6 20dB Bandwidth	9
7 Number of Hopping Frequency	9
8 Dwell time	9
9 Maximum Peak Output Power	9
10 Out of Band Emissions (Antenna Port Conducted)	9
11 Out of Band Emissions (Radiated)	10
 <u>Contents of Appendixes</u>	 11
APPENDIX 1: Photographs of test setup	12
APPENDIX 2: Test Data	13
APPENDIX 3: Test instruments	45

UL Apex Co., Ltd.

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(12.02.06)

1 Applicant Information

Company Name : Pioneer Corporation
Brand Name : Pioneer
Address : 25-1 Nishi-machi, Yamada-aza, Kawagoe-shi, Saitama, 350-8555, JAPAN
Telephone Number : +81-49-228-8015
Facsimile Number : +81-49-228-6497
Contact Person : Taichi Inoue

UL Apex Co., Ltd.

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(12.02.06)

2 Product Description

Type of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player
with Bluetooth Wireless Technology and FM/AM tuner

Model No. : DEH-P9800BT (DEH-P980BT)

Serial No. : Out of Band emission (Radiated): 16
Antenna port conducted test: 17

Rating : DC12V, 10A

Country of Manufacture : Japan

Receipt Date of Sample : February 9, 2006

Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)

The difference between Model: DEH-P9800BT and DEH-P980BT:

-DEH-P9800BT has function of AUTO TIME ALIGNMENT and AUTOMATIC EQUALIZER.

-DEH-P980BT has no function of AUTO TIME ALIGNMENT and AUTOMATIC EQUALIZER.

Clock frequency		System microcomputer: 15MHz Grill microcomputer: 5MHz Tuner: 39.9MHz (1 st IF: 10.7MHz, 2 nd IF: 700kHz) Bluetooth module: 26MHz (CPU clock: 26MHz to 120MHz)
Feature of EUT		Hands free system by linking with the mobile phone installed with Bluetooth
Equipment Type		Transceiver
Frequency band	Lower limit	2402MHz
	Upper limit	2480MHz
Channel spacing		1MHz/CH
Type of Modulation		FHSS, GFSK
Antenna Type		Ceramic patch Antenna (made by TDK): CABPB1240E
Antenna Connector Type		U.FL-R-SMT
Antenna Gain		+2 dBi max
Mode of Operation		Duplex
ITU code		F7D
Power Supply (Inner)		VCC_IO: DC 3.3V, VCC_RF: DC 2.8V
Operating Temperature Range		-10 to +60 deg.C.

FCC Part15.31 (e)

DEH-P9800BT (DEH-P980BT) 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 Apex Co., Ltd.

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(12.02.06)

3 Test Specification, Procedures and Results

3.1 Test specification

Test specification : FCC Part15 Subpart C: 2006
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
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
Carrier Frequency Separation	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247 (a)(1)	Conducted	N/A	*See data.	Complied
20dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247 (a)(1)	Conducted	N/A		Complied
Number of Hopping Frequency	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247 (a)(1)(iii)	Conducted	N/A		Complied
Dwell time	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247 (a)(1)(iii)	Conducted	N/A		Complied
Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247 (b)(1)	Conducted	N/A		Complied
Spurious Emission	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.209 Section15.247(d)	Conducted / Radiated	N/A	3.1dB (17360MHz, AV, Vertical, Tx 2480MHz)	Complied

The measurements also referred to FCC Public Notice DA 00-705 "Guidance on Measurement for Frequency Hopping Spread Spectrum Systems".

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

* No addition, exclusion nor deviation has been made from the standard.

UL Apex Co., Ltd.

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(12.02.06)

3.3 Uncertainty

Antenna port conducted test

The measurement uncertainty (with 95% confidence level) for this test is ± 0.4 dB.

Spurious emission test (Radiated)

The measurement uncertainty (with 95% confidence level) for this test using Biconical antenna is ± 4.5 dB.

The measurement uncertainty (with 95% confidence level) for this test using Logperiodic antenna is ± 4.3 dB.

The measurement uncertainty (with 95% confidence level) for this test using Horn antenna is ± 5.2 dB.

The data listed in this report meets the limits unless the uncertainty is taken into consideration.

3.4 Test Location

UL Apex Co., Ltd. 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. : IC3489A

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. : IC3489A-2

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. : IC3489A-B

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 EMS lab. (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		

UL Apex Co., Ltd.

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(12.02.06)

MF060b(12.02.06)

Description of EUT and support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID (Remark)
A	Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner	DEH-P9800BT (DEH-P980BT)	16 17 *2	PIONEER	AJDK012 (EUT)
B	Multi CD Player	CDX-P1270	DATM042307JP	PIONEER	-
C	Bridgeable 2ch Power Amplifier	GM-3200T	-	PIONEER	-
D	Wired Remote Controller	CD-MR70	DBSA000050UC	PIONEER	-
E1	Speaker	TS-X180	-	PIONEER	-
E2	Speaker	TS-X180	-	PIONEER	-
F1	4 ohm Dummy	RHA100N	-	PIONEER	-
F2	4 ohm Dummy	RHA100N	-	PIONEER	-
G	Hands free Microphone	CPM1064	-	PIONEER	-

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

*2) For Out of Band emission (Radiated), the model of serial No. 16 was under the test. The model of serial No. 17 was under the test for Antenna port conducted test.

List of cables used

No.	Name	Length (m)	Shield	Remark
1	IP-BUS cable	5.0	Shielded	-
2	B-Remote (System Remote Control) cable	2.0	Unshielded	-
3	Audio cable	1.5	Shielded	-
4	Extension cable for Wired Remote Controller	6.0	Shielded	-
5	Speaker cable	20.0	Unshielded	-
6	Speaker cable with 4 ohm Dummy	0.5	Unshielded	(x2)
7	Microphone cable	3.6	Shielded	-
8	DC cable (+)	0.6	Unshielded	-
9	DC cable (Accessory)	0.5	Unshielded	-
10	Illumination cable	0.2	Unshielded	-
11	Auto antenna cable	0.2	Unshielded	-
12	Mute cable	0.3	Unshielded	-
13	DC cable (GND)	0.4	Unshielded	-
14	AUX IN cable	3.0	Shielded	-
15	DC cable (GND)	0.9	Unshielded	-
16	Rear output cable	1.8	Shielded	-
17	Audio cable	1.5	Shielded	-
18	Speaker cable	0.5	Unshielded	(x2)
19	DC cable (+)	0.5	Unshielded	-
20	DC cable (GND)	0.15	Unshielded	-
21	DC cable (+)	0.5	Unshielded	-
22	DC cable (GND)	0.9	Unshielded	-
23	Antenna cable	0.15	Shielded	-
24	DC cable (GND)	5.0	Unshielded	-

UL Apex Co., Ltd.

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(12.02.06)

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: February 23, 2006

Test data: APPENDIX 2 Page 13
Test engineer : Toyokazu Imamura

6 20dB Bandwidth

Test Procedure

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

Summary of the test results: Pass
Date: February 23, 2006

Test data: APPENDIX 2 Page 14
Test engineer : Toyokazu Imamura

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: February 22, 2006

Test data: APPENDIX 2 Page 15 - 17
Test engineer : Toyokazu Imamura

8 Dwell time

Test Procedure

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

Summary of the test results: Pass
Date: February 23, 2006

Test data: APPENDIX 2 Page 18 - 23
Test engineer : Toyokazu Imamura

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: February 23, 2006

Test data: APPENDIX 2 Page 24
Test engineer : Toyokazu Imamura

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.

Summary of the test results: Pass
Date: February 23, 2006

Test data: APPENDIX 2 Page 25 - 30
Test engineer : Toyokazu Imamura

UL Apex Co., Ltd.

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(12.02.06)

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 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
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. 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.

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 radiated measurement.

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	QP: BW 120kHz	PK: RBW: 1MHz/VBW: 1MHz
IF Bandwidth		AV: RBW: 1MHz/VBW: 10Hz

11.5 Results

Summary of the test results : Pass
Test data : APPENDIX 2 Page 31 - 36 (30 - 1000MHz)
: APPENDIX 2 Page 37 - 42 (1 - 26.5GHz)

Date: February 9, 2006 Test engineer : Takahiro Suzuki

UL Apex Co., Ltd.

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(12.02.06)

APPENDIX 1: Photographs of test setup

Page 12 : Radiated emission

APPENDIX 2: Test Data

Page 13 : Carrier Frequency Separation
Page 14 : 20dB Bandwidth
Page 15 - 17 : Number of Hopping Frequency
Page 18 - 23 : Dwell time
Page 24 : Maximum Peak Output Power
Page 25 - 30 : Out of Band Emissions (Antenna Port Conducted)
Page 31 - 42 : Out of Band Emissions (Radiated)
31-36 : 30-1000MHz
37-42 : 1-26.5GHz
Page 43 - 44 : Occupied Bandwidth

APPENDIX 3: Test instruments

Page 45 : Test instruments

UL Apex Co., Ltd.

YAMAKITA EMC LAB.

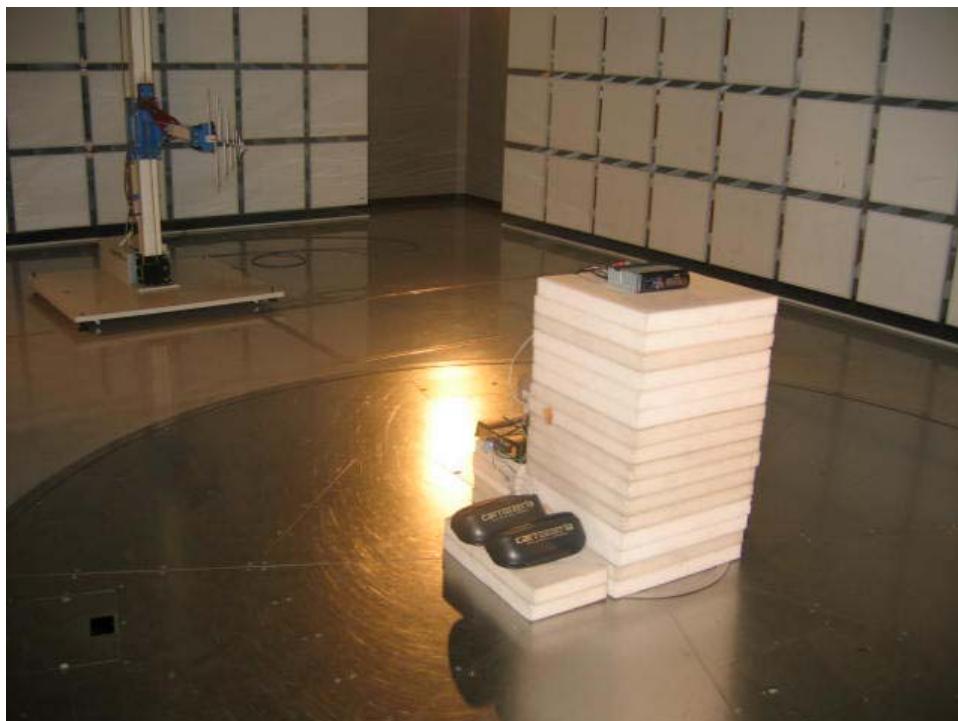
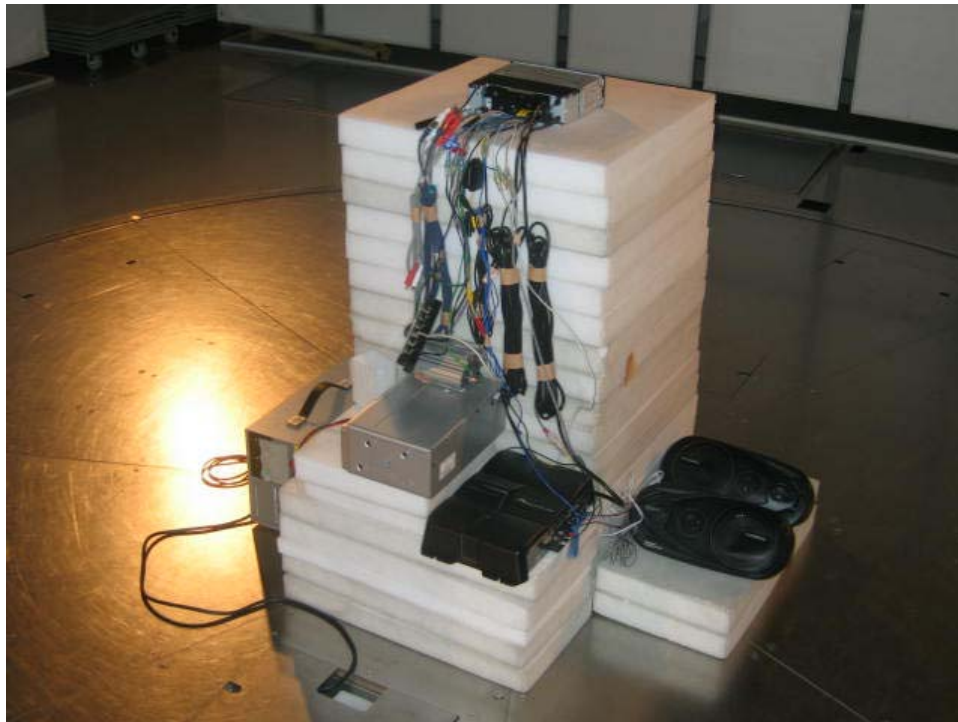
907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b(12.02.06)

Radiated emission



UL Apex Co., Ltd.

YAMAKITA EMC LAB.

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

Telephone: +81 465 77 1011

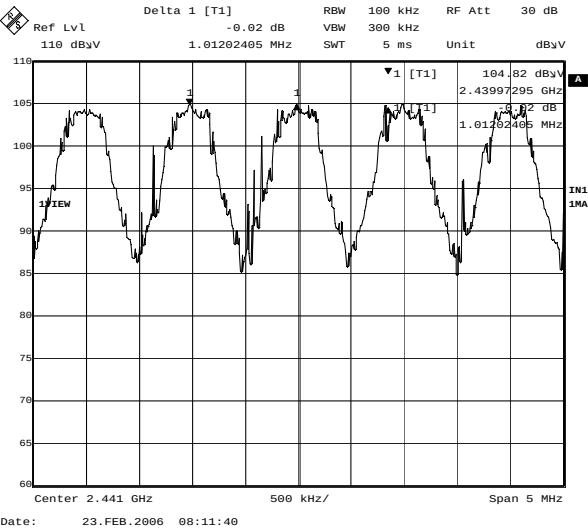
Facsimile: +81 465 77 2112

MF060b(12.02.06)

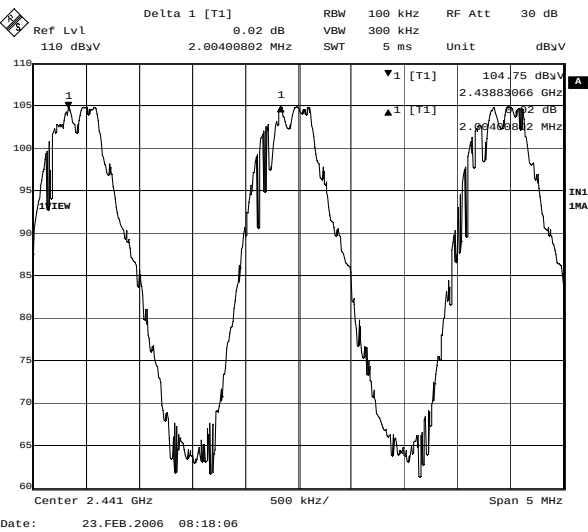
Channel Separation: FCC 15.247(a)(1)

COMPANY	: PIONEER CORPORATION	UL Apex Co.,Ltd. Yamakita No.2 Shielded Room
EQUIPMENT	: Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner	REPORT NO : 26FE0203-YK-F2
MODEL NUMBER	: DEH-P9800BT	REGULATION : Fcc Part15SubpartC 247(a)(1)
SERIAL NUMBER	: 17	DATE : 2006/02/23
FCC ID	: AJDK012	TEMP/HUMI : 22deg.C./41%
POWER	: DC12V	TEST MODE : Transmitting
		ENGINEER : Toyokazu Imamura

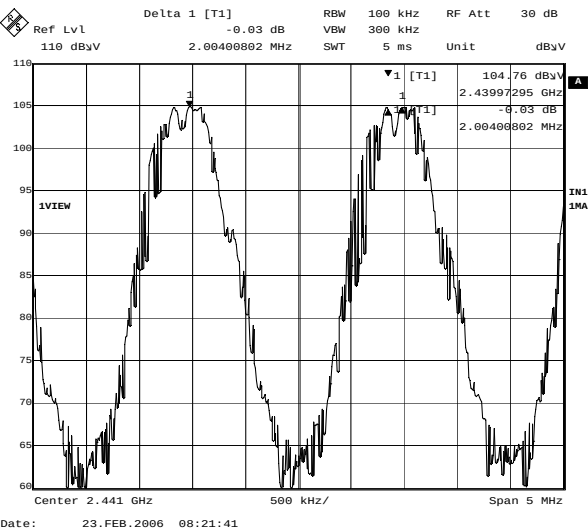
1. Hopping:1012.02kHz



2. Inquiry:2004.01kHz



2. Page:2004.01kHz



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

COMPANY : PIONEER CORPORATION

EQUIPMENT : Multi-CD control DSP High power C

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

FCC ID : AJDK012

POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)

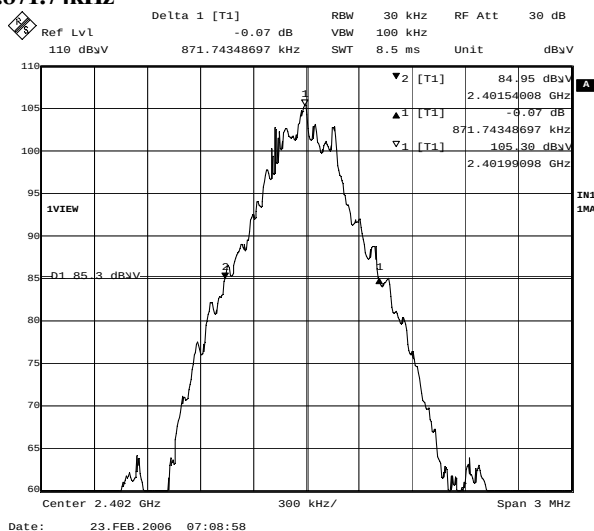
DATE : 2006/02/23

TEMP./HUMI : 22deg.C./41%

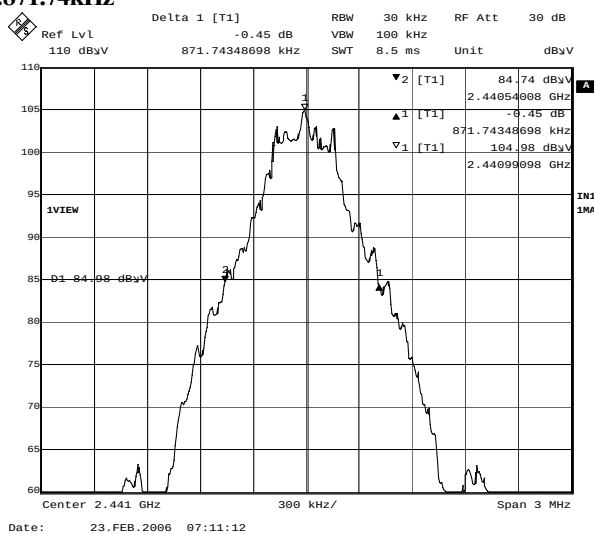
TEST MODE : Transmitting (Hopping off)

ENGINEER : Toyokazu Imamura

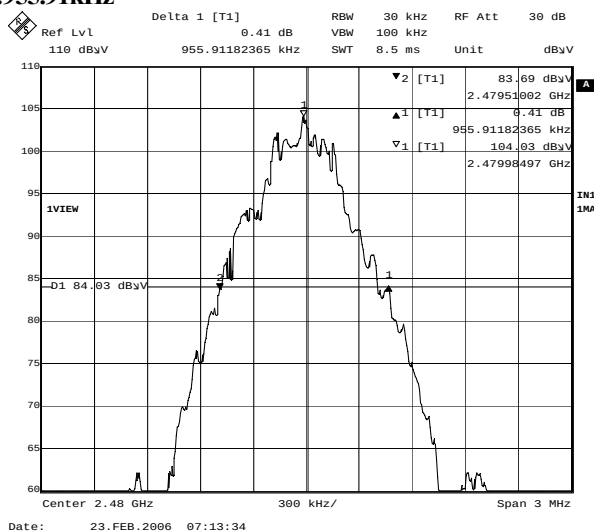
1. ch : 2402MHz/20dB Bandwidth:871.74kHz



2. ch : 2441MHz/20dB Bandwidth:871.74kHz



3. ch : 2480MHz/20dB Bandwidth:955.91kHz



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

DATE : 2006/02/23

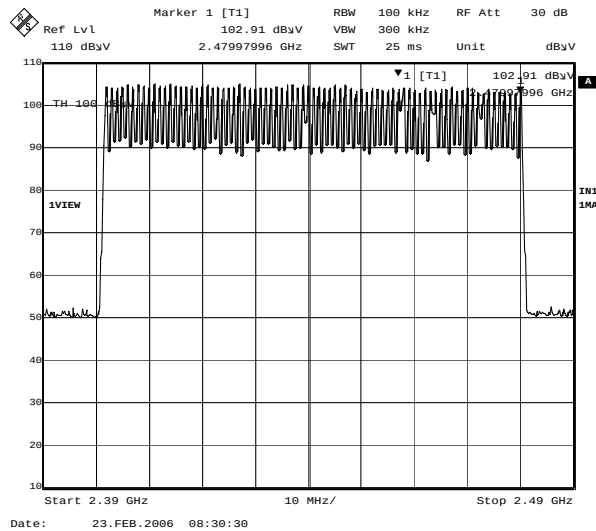
TEMP/HUMI : 22deg.C./41%

TEST MODE : Transmitting

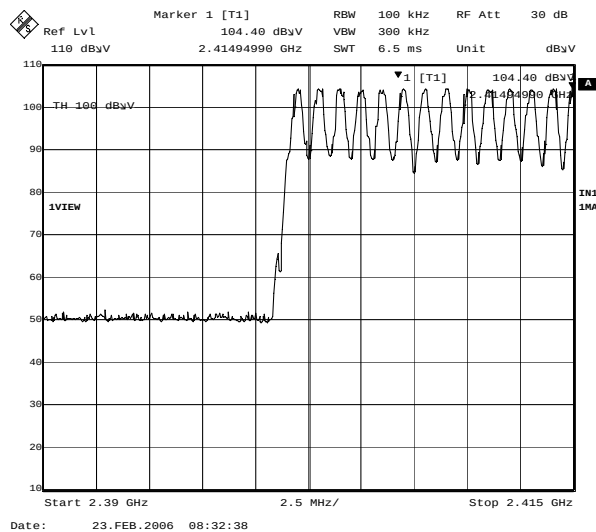
ENGINEER : Toyokazu Imamura

Hopping: 79ch

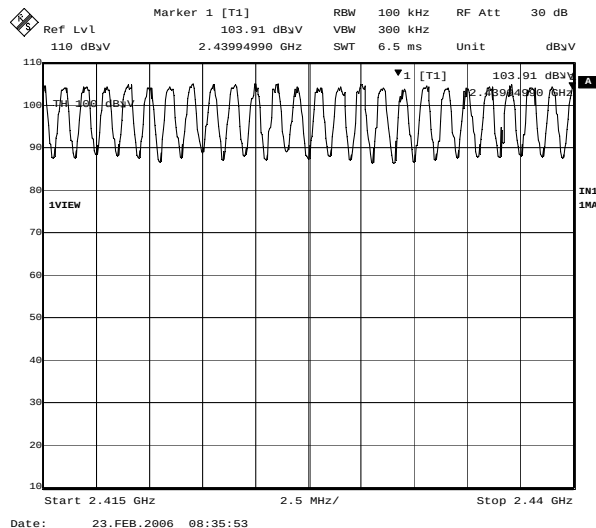
1.



2.



3.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

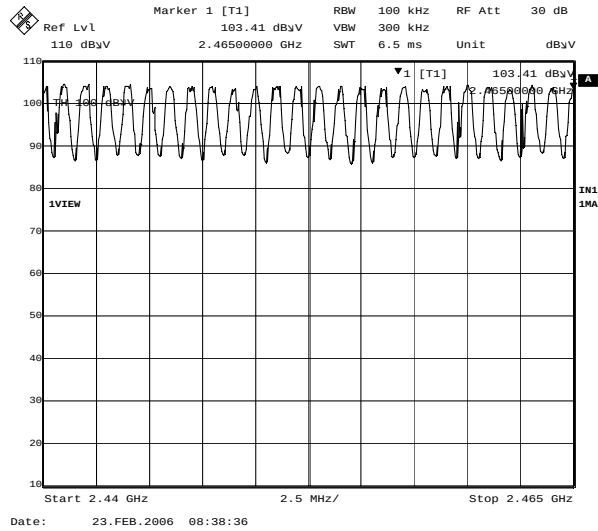
DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

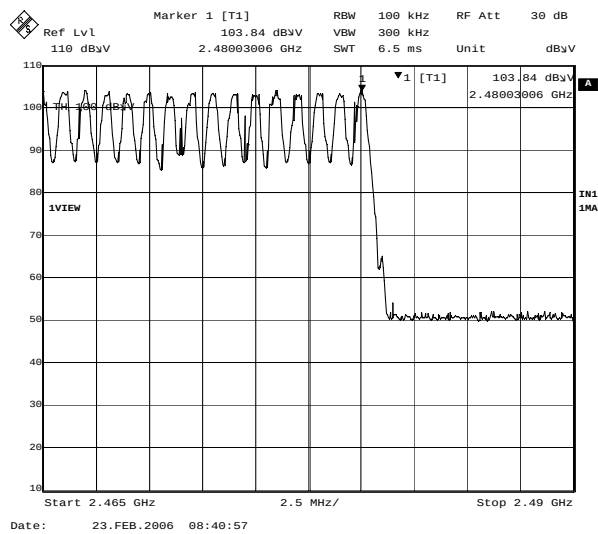
TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

4.



5.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

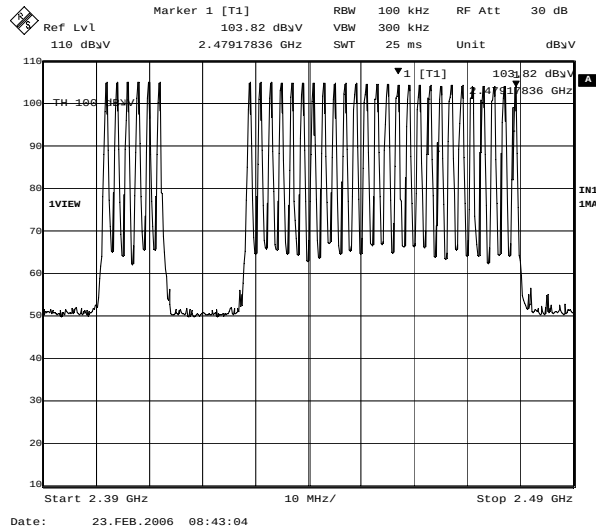
DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

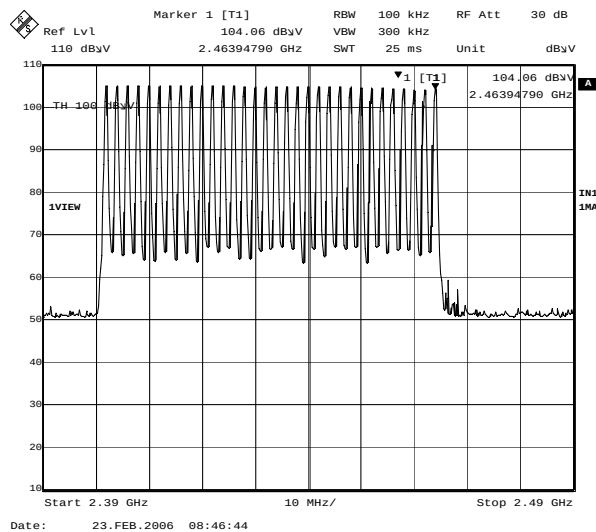
TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

1. Inquiry: 32ch



2. Page: 32ch



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

COMPANY : PIONEER CORPORATION

EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

FCC ID : AJDK012

POWER : DC12V

Hopping:

Count 1

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

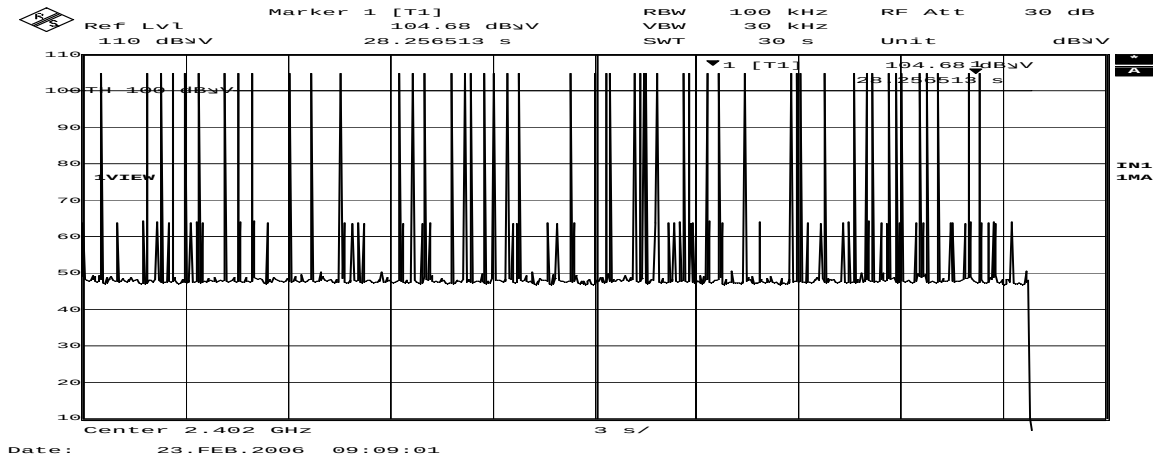
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

DATE : 2006/02/23

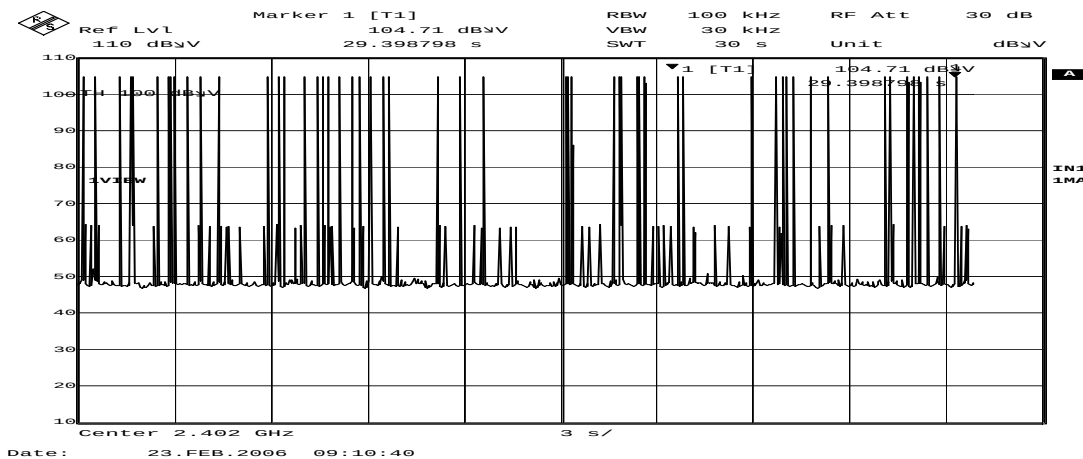
TEMP/HUMI : 22deg.C./41%

TEST MODE : Transmitting

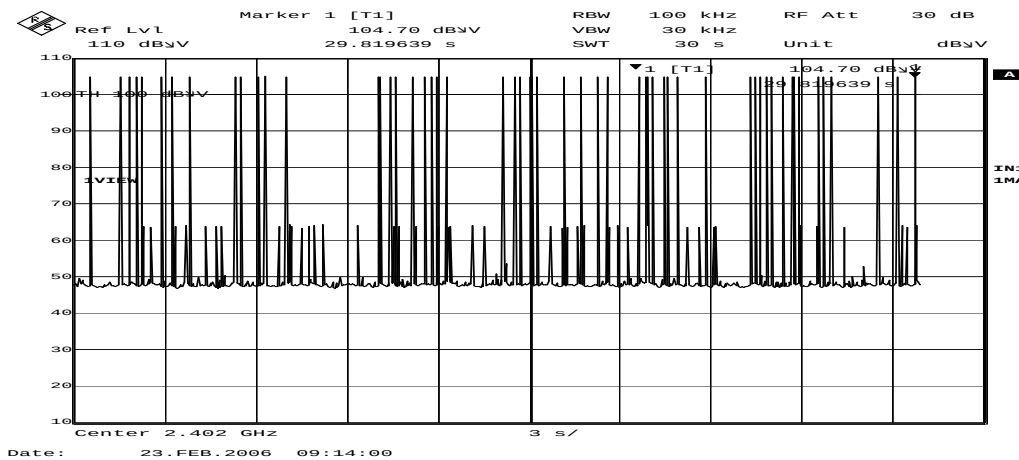
ENGINEER : Toyokazu Imamura



Count 2



Count 3



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

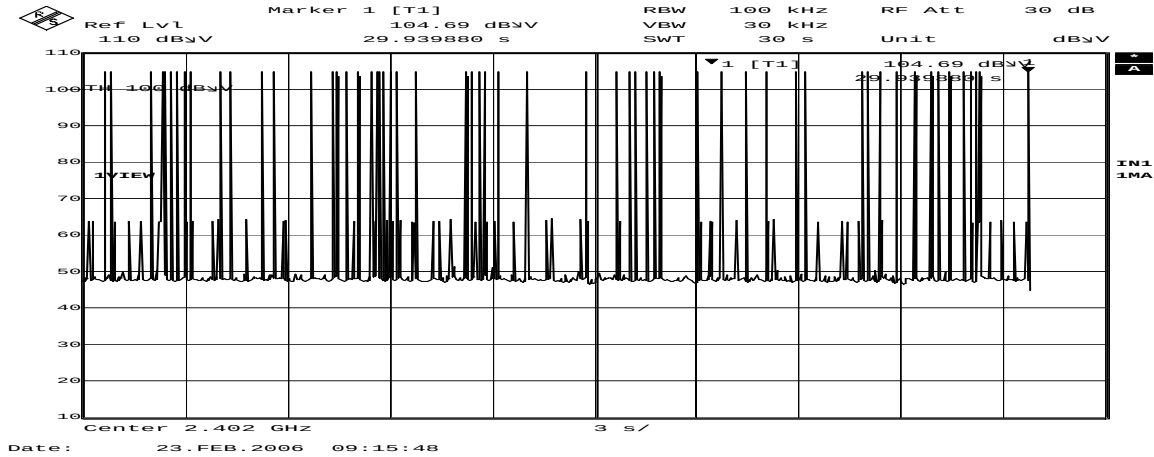
FCC ID : AJDK012

TEST MODE : Transmitting

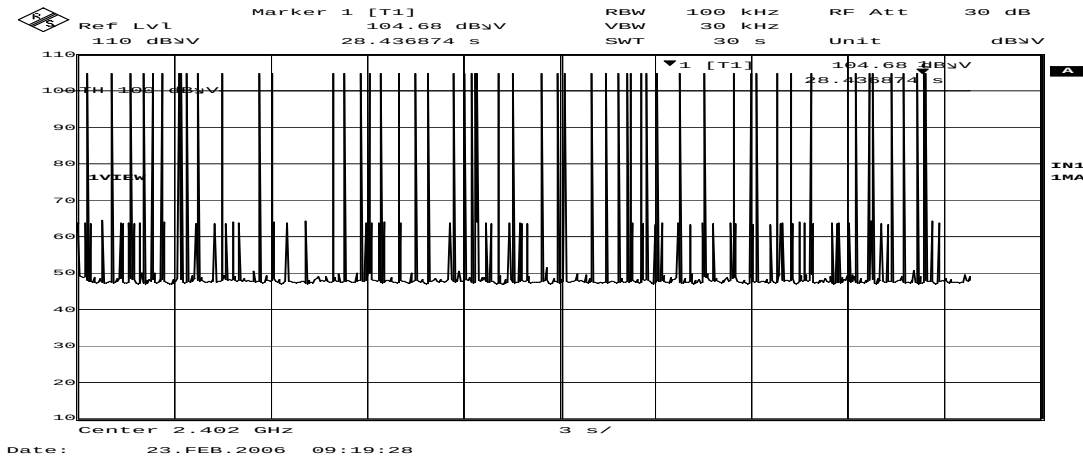
POWER : DC12V

ENGINEER : Toyokazu Imamura

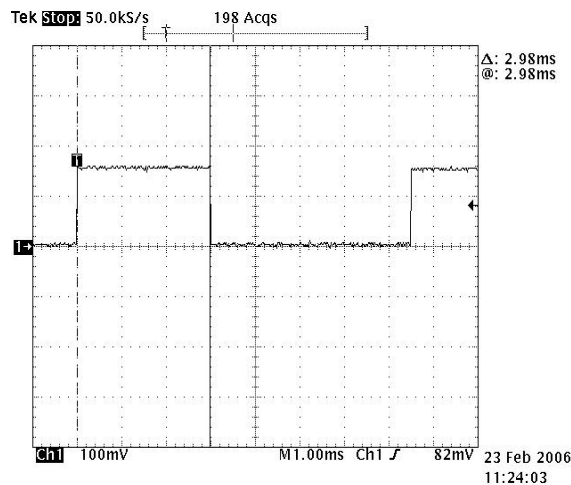
Count 4



Count 5



Duty cycle(Hopping)



$$\begin{aligned} \text{Dwell time} &= ((\text{Count 1} + \text{Count 2} + \text{Count 3} + \text{Count 4} + \text{Count 5}) / 5) / 30 * 0.4x * \text{Ton} \\ &= ((50 + 49 + 51 + 55 + 52) / 5) / 30 * 31.6 * 2.98[\text{ms}] \\ &= 161.34 [\text{ms}] \end{aligned}$$

$$\text{Note. } 0.4x = 0.4 * 79\text{ch} = 31.6[\text{s}]$$

$$\text{Limit : Dwell Time} < 0.4[\text{s}]$$

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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

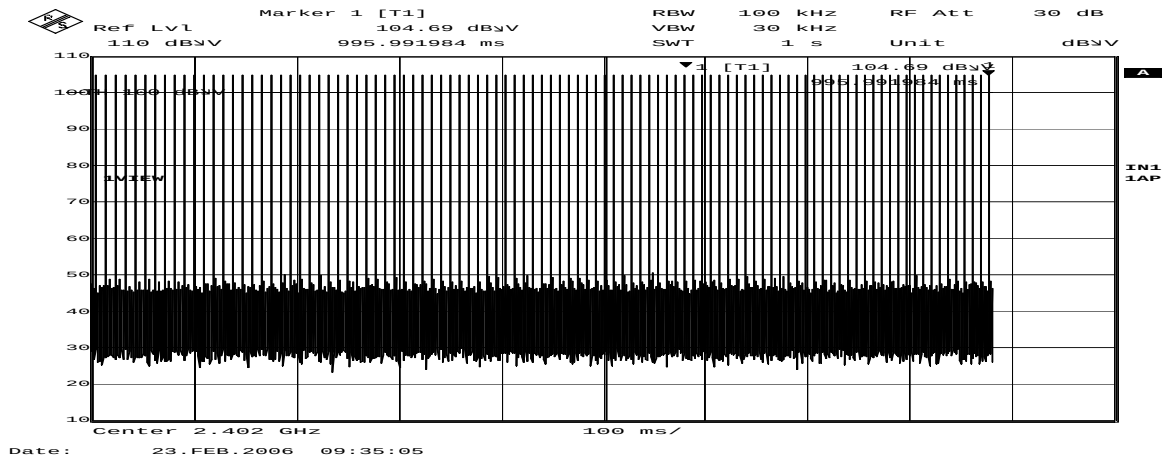
DATE : 2006/02/23

TEMP/HUMI : 22deg.C/41%

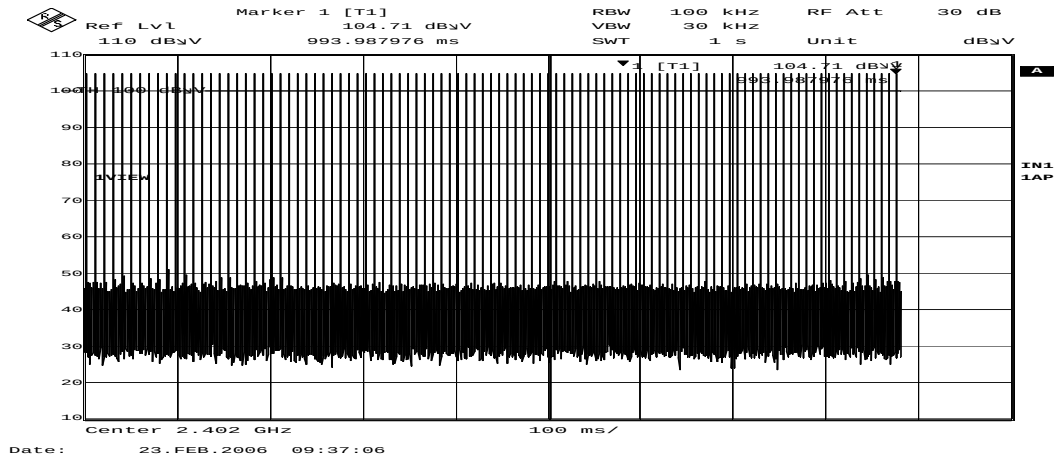
TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

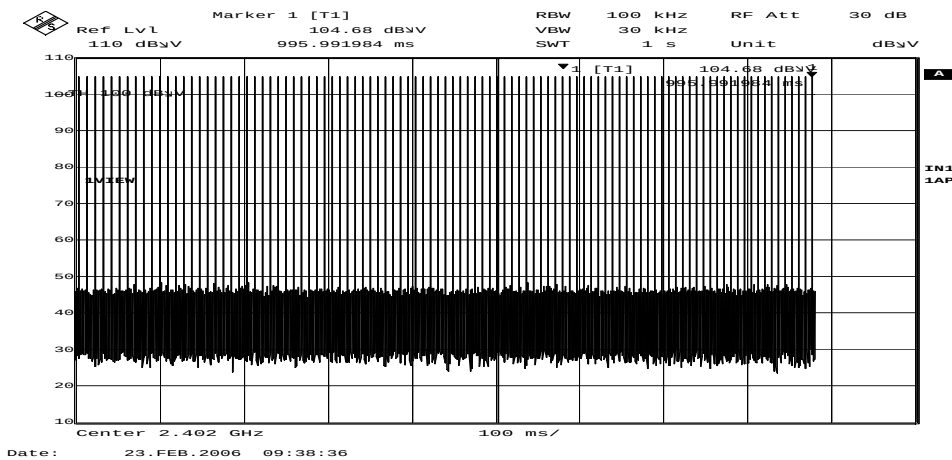
Inquiry:
Count 1



Count 2



Count 3



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

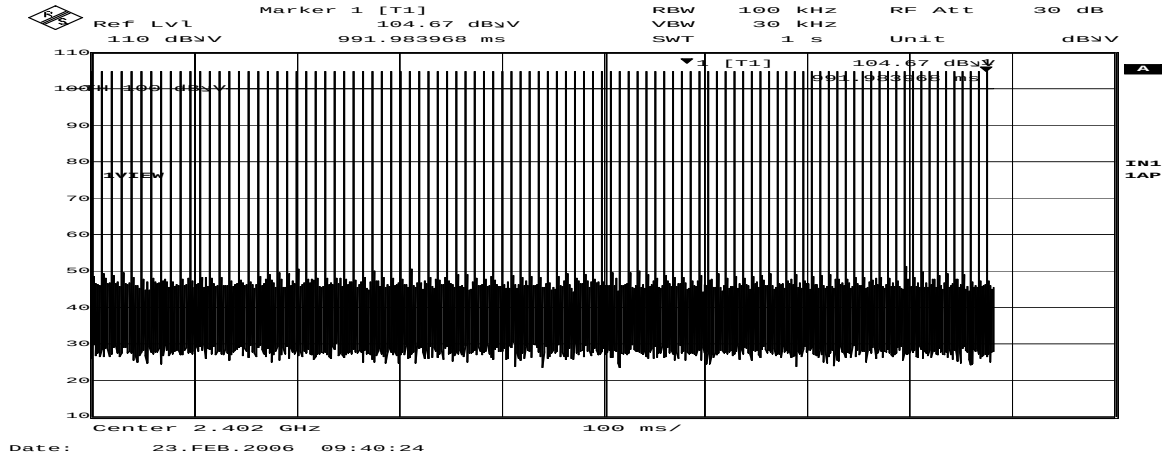
DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

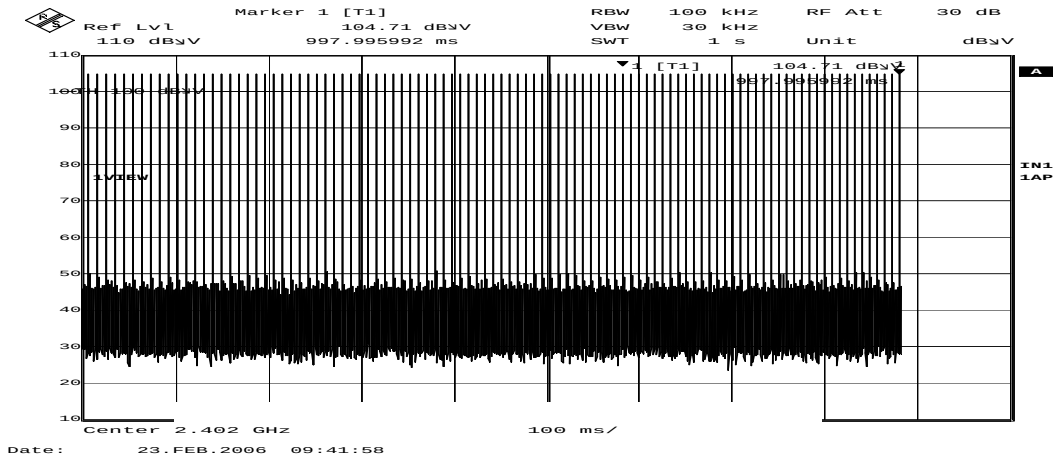
TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

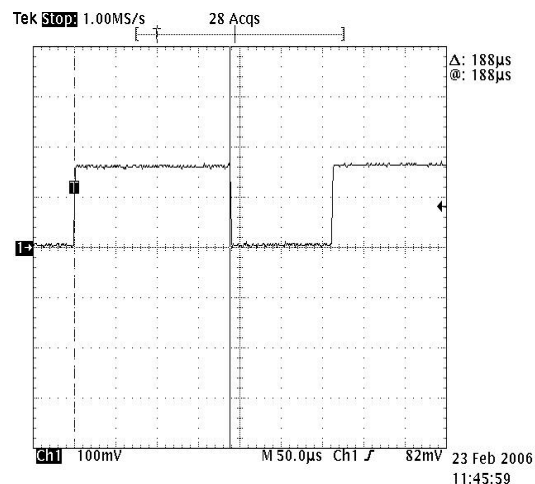
Count 4



Count 5



Duty cycle(Inquiry)



$$\begin{aligned} \text{Dwell time} &= (\text{Count 1} + \text{Count 2} + \text{Count 3} + \text{Count 4} + \text{Count 5}) / 5 * 0.4x * \text{Ton} \\ &= (100 + 100 + 100 + 100 + 100) / 5 * 12.8[s] * 188 [\mu s] \\ &= 240.64 [\text{ms}] \end{aligned}$$

Note.0.4x = 0.4 * 32ch = 12.8[s]

Limit : Dwell Time < 0.4[s]

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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

MODEL NUMBER: DEH-P9800BT

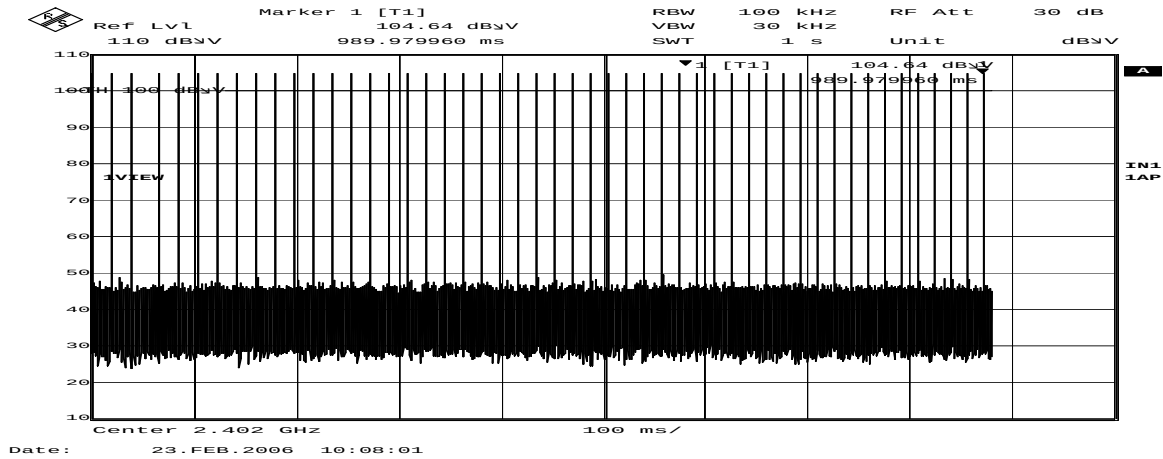
SERIAL NUMBER: 17

FCC ID : AJDK012

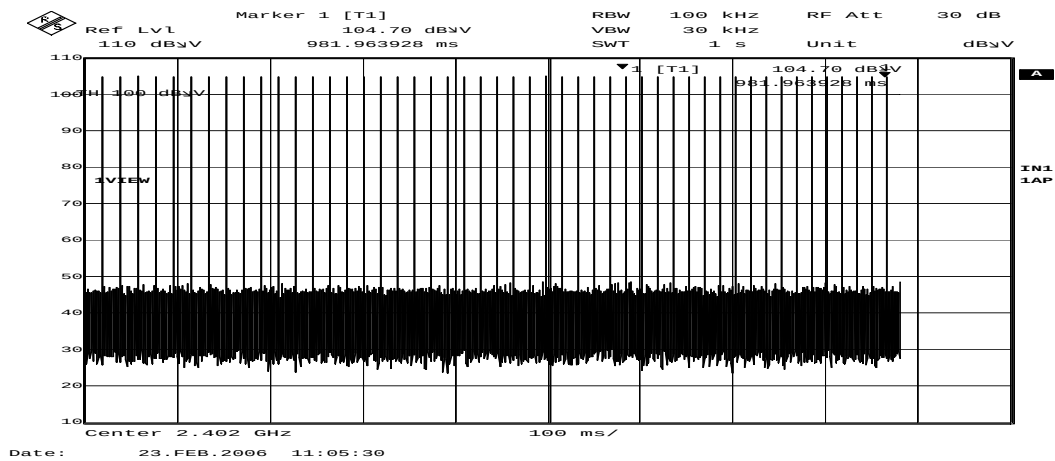
POWER : DC12V

Page:

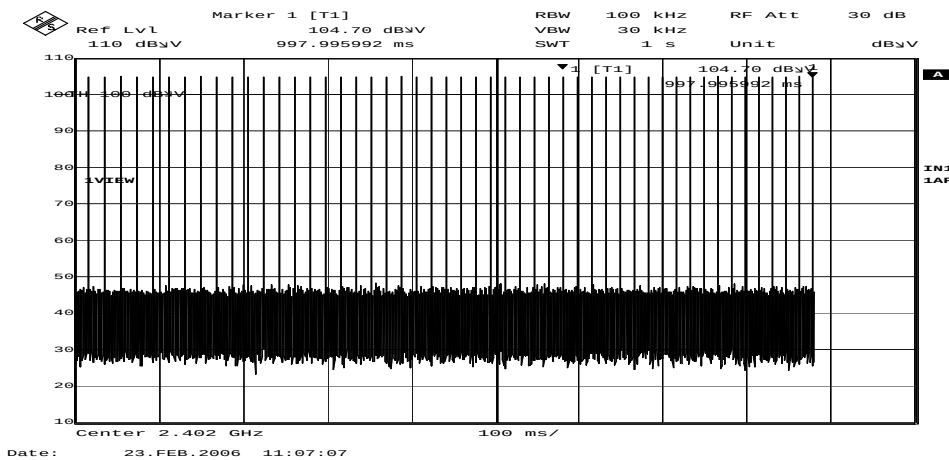
Count 1



Count 2



Count 3



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)

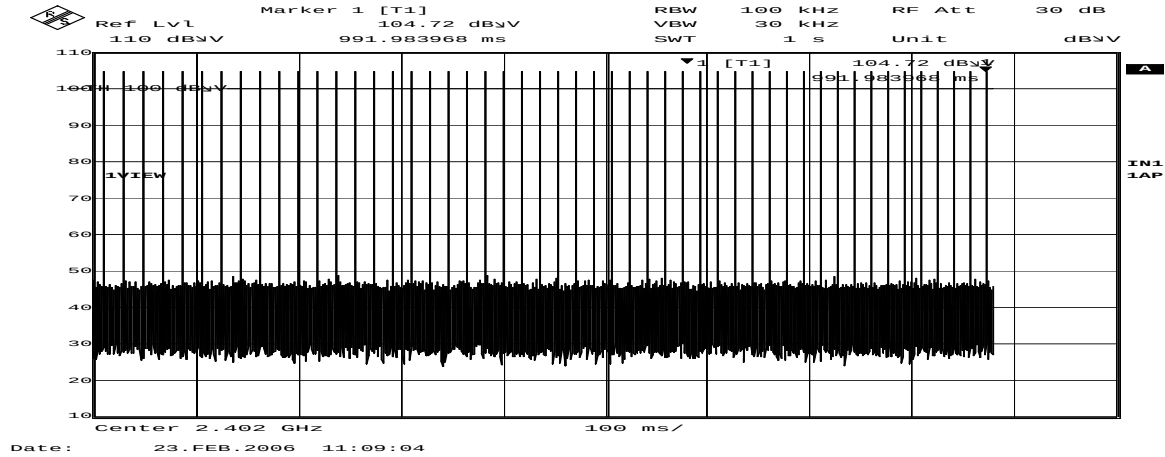
DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

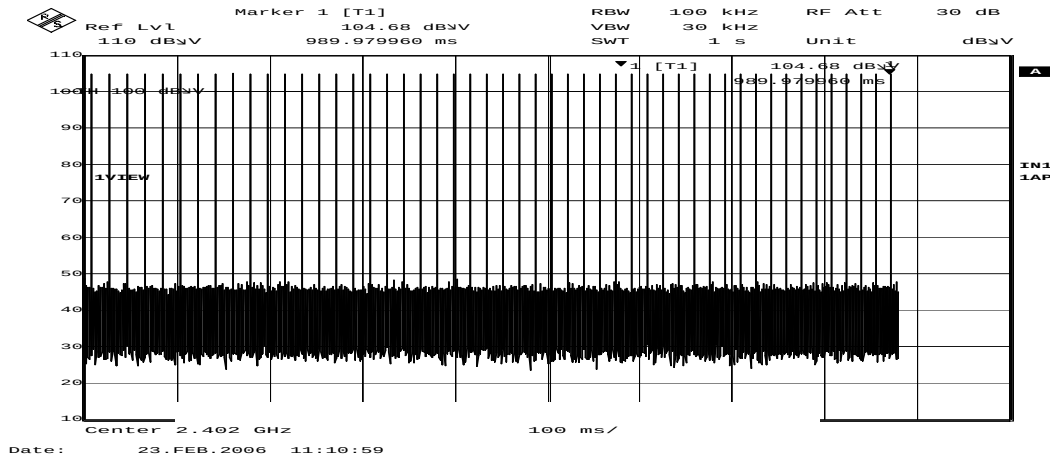
TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

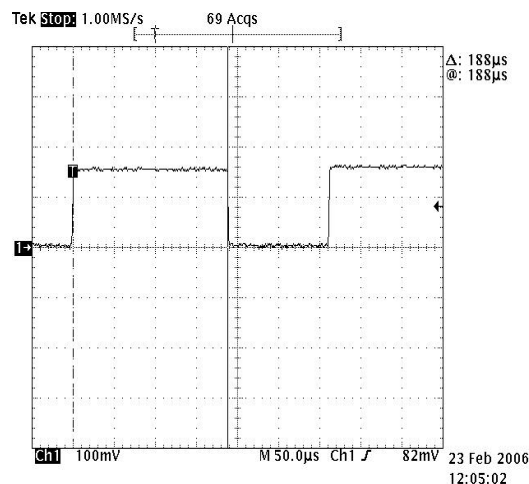
Count 4



Count 5



Duty cycle(Page)



$$\begin{aligned} \text{Dwell time} &= (\text{Count 1} + \text{Count 2} + \text{Count 3} + \text{Count 4} + \text{Count 5}) / 5 * 0.4x * \text{Ton} \\ &= (50 + 49 + 50 + 50 + 50) / 5 * 12.8[s] * 188 [\mu s] \\ &= 119.84 [ms] \end{aligned}$$

Note. $0.4x = 0.4 * 32ch = 12.8[s]$

Limit : Dwell Time < 0.4[s]

Maximum Peak Conducted Output Power

UL Apex Co.,Ltd
YAMAKITA No.2 Shielded Room

COMPANY : PIONEER CORPORATION

EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player
with Bluetooth Wireless Technology and FM/AM tuner

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

FCC ID : AJDK012

POWER : DC12V

TEST MODE : Transmitting

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(b)(1)

DATE : 2006/02/23

TEMP./HUMI : 22deg.C/41%

ENGINEER : Toyokazu Imamura

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-1.13	1.10	-0.03	20.96	20.99
Mid	2441.00	-1.30	1.10	-0.20	20.96	21.16
High	2480.00	-2.14	1.10	-1.04	20.96	22.00
Hopping	-	-1.29	1.10	-0.19	20.96	21.15
Inquiry	-	-1.30	1.10	-0.20	20.96	21.16
Page	-	-1.32	1.10	-0.22	20.96	21.18

Limit: 125mW=20.96dBm

P/M: Power Meter

CABLE LOSS:The Cable Prepared by The Client + KCC-D7

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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(d)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

TEST MODE : Transmitting/Receiving

ENGINEER : Toyokazu Imamura

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

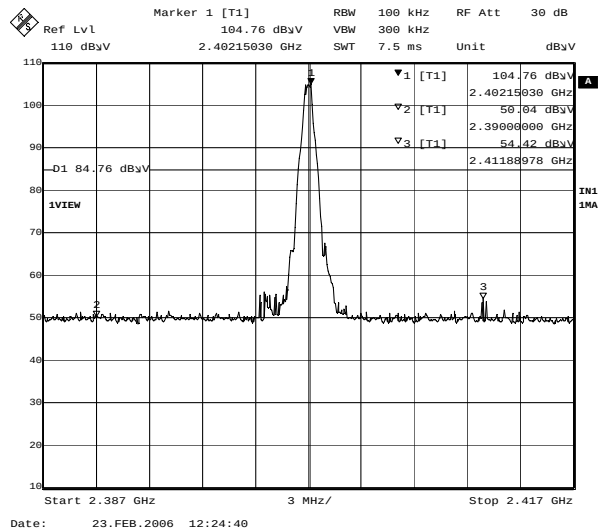
FCC ID : AJDK012

POWER : DC12V

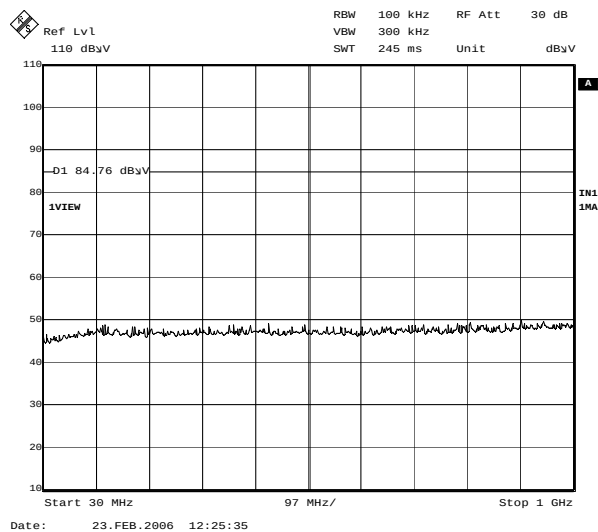
[Transmitting]

Ch:2402MHz

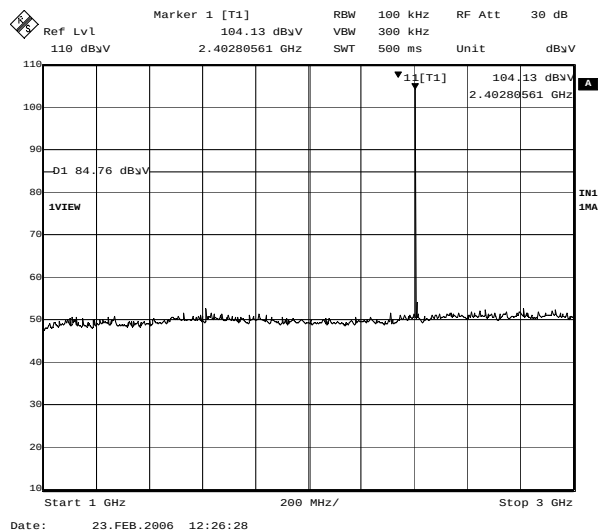
1.



2.



3.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(d)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

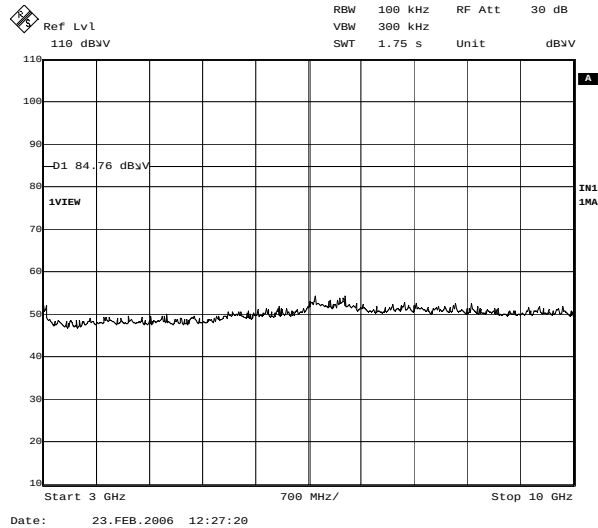
TEST MODE : Transmitting/Receiving

ENGINEER : Toyokazu Imamura

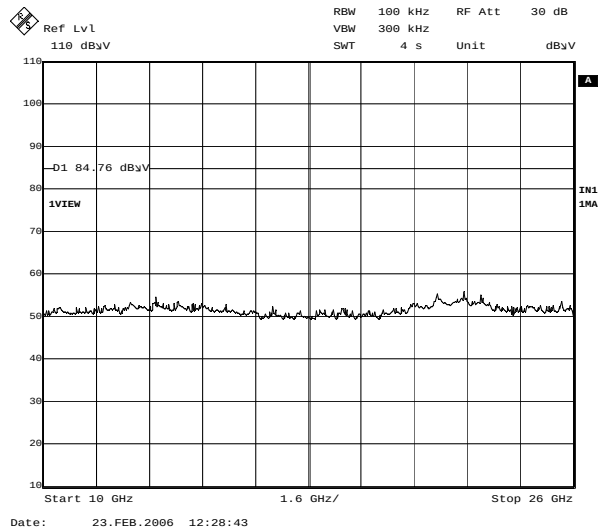
[Transmitting]

Ch:2402MHz

4.



5.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(d)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

TEST MODE : Transmitting/Receiving

ENGINEER : Toyokazu Imamura

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

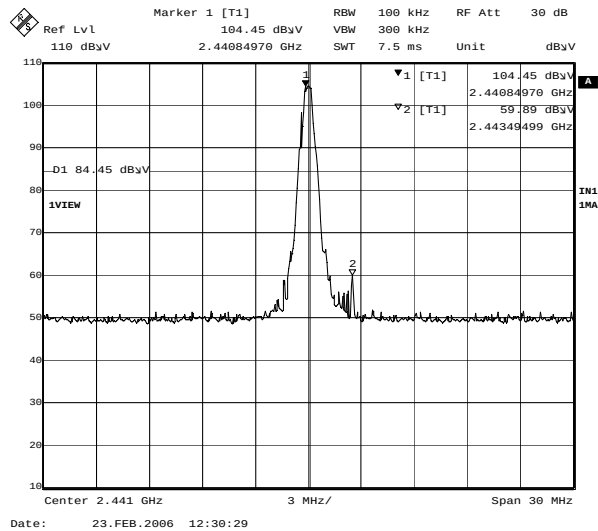
FCC ID : AJDK012

POWER : DC12V

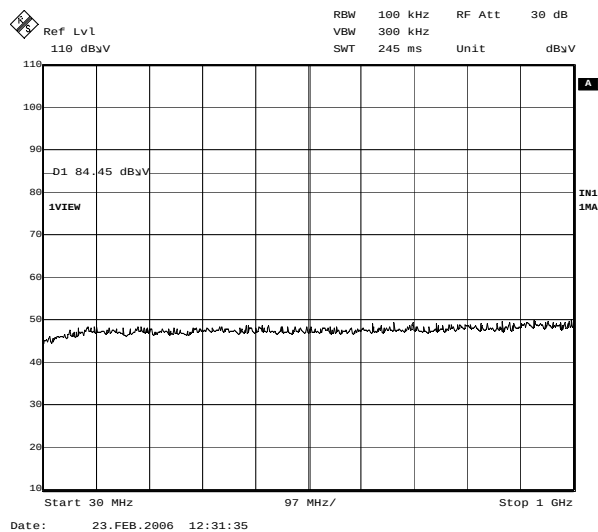
[Transmitting]

Ch:2441MHz

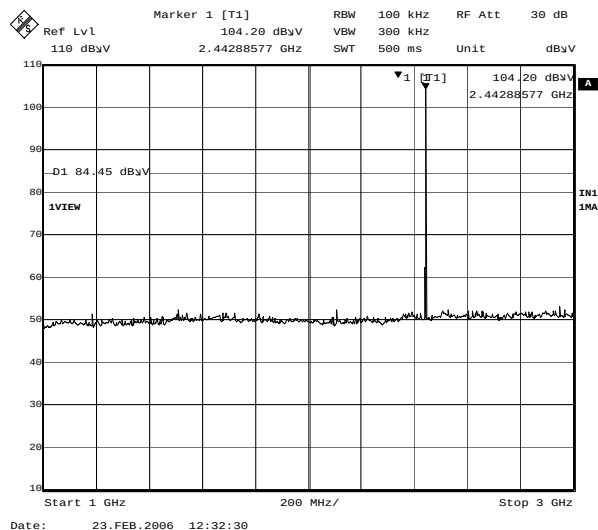
1.



2.



3.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(d)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

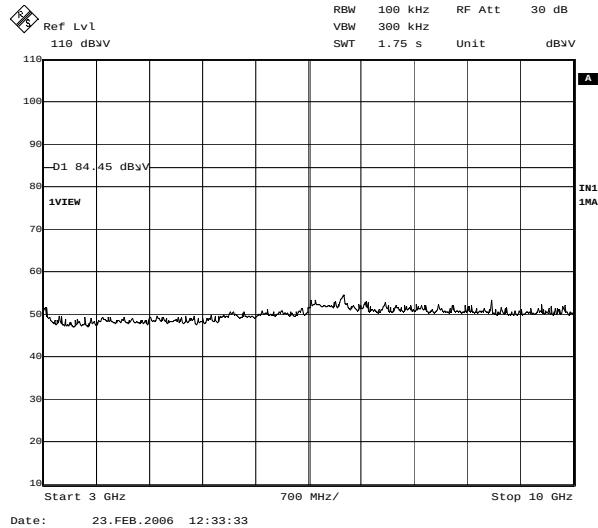
TEST MODE : Transmitting/Receiving

ENGINEER : Toyokazu Imamura

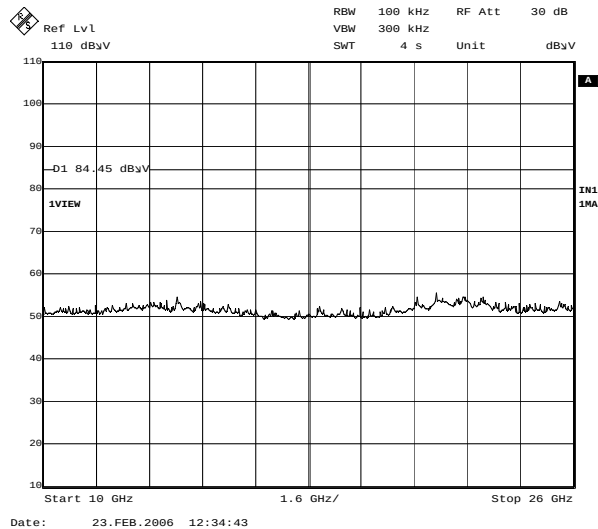
[Transmitting]

Ch:2441MHz

4.



5.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(d)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

TEST MODE : Transmitting/Receiving

ENGINEER : Toyokazu Imamura

MODEL NUMBER: DEH-P9800BT

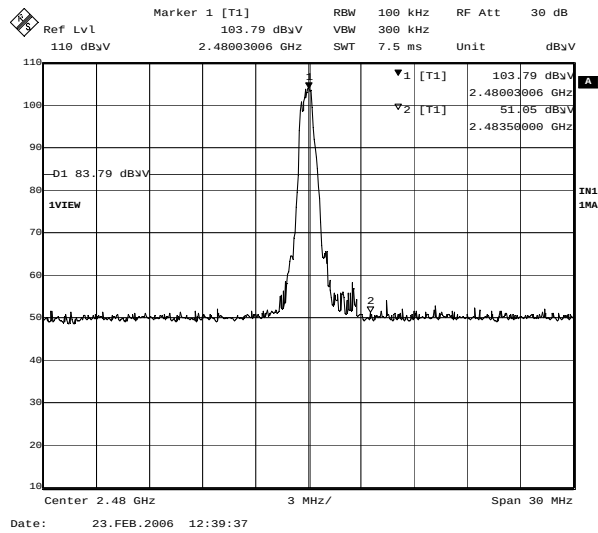
SERIAL NUMBER: 17

FCC ID : AJDK012

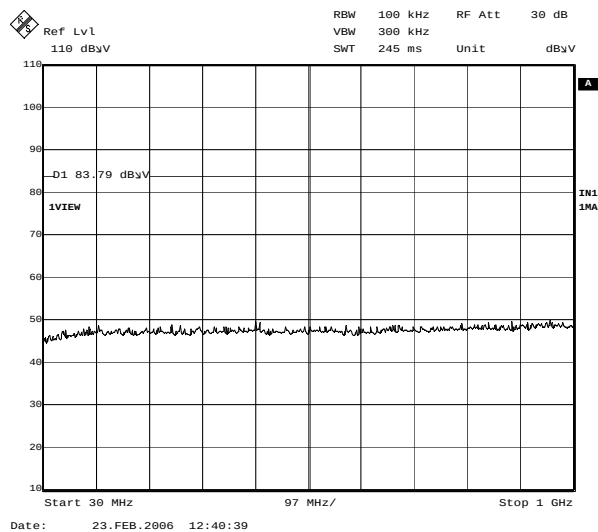
POWER : DC12V

[Transmitting]
Ch11:2480MHz

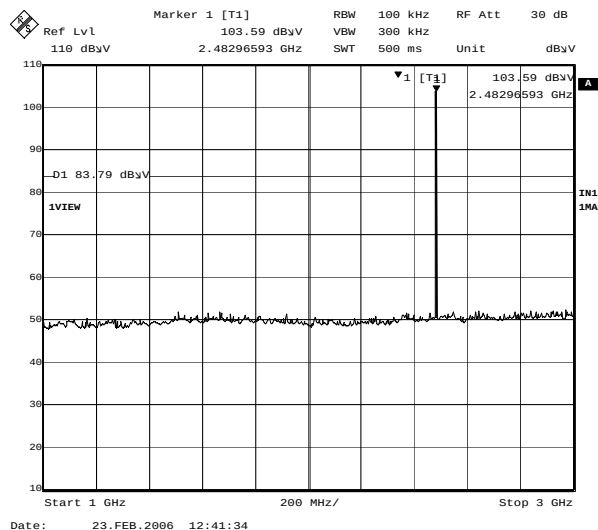
1.



2.



3.



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

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : Fcc Part15SubpartC 247(d)

DATE : 2006/02/23

TEMP/HUMI : 22deg.C./41%

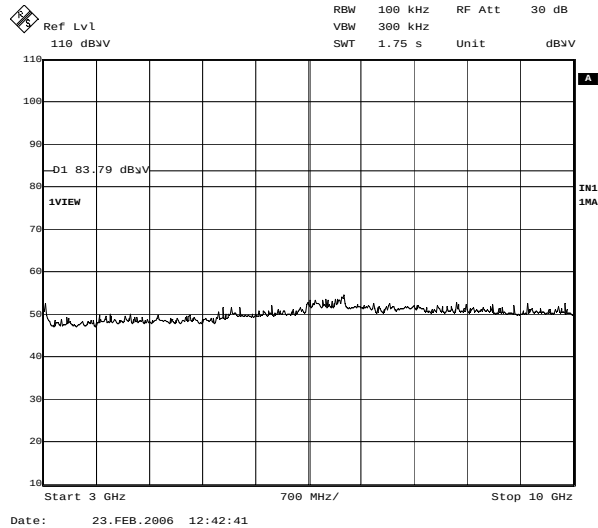
TEST MODE : Transmitting/Receiving

ENGINEER : Toyokazu Imamura

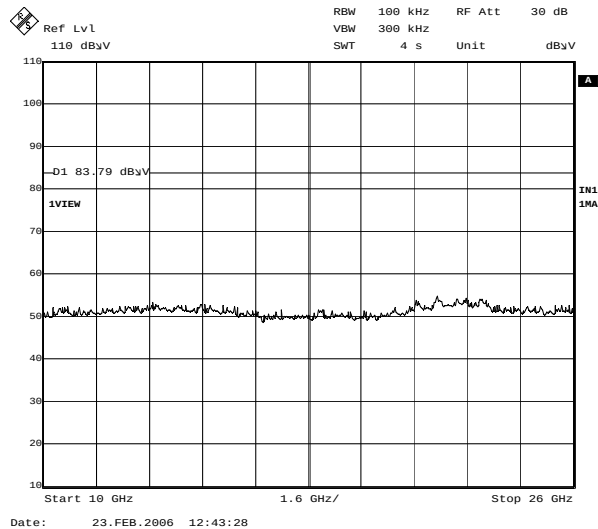
[Transmitting]

Ch:2480MHz

4.



5.



DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2402MHz
 Remarks :
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	45.17	BB	25.1	37.3	13.0	27.6	1.3	6.0	17.8	30.0	40.0	22.2	10.0
2.	135.52	BB	32.0	35.9	14.3	27.3	2.4	6.0	27.4	31.3	43.5	16.1	12.2
3.	186.66	BB	36.9	32.8	16.9	27.1	2.8	6.0	35.5	31.4	43.5	8.0	12.1
4.	207.95	BB	32.3	30.9	17.2	27.0	3.0	6.0	31.5	30.1	43.5	12.0	13.4
5.	351.80	BB	30.1	25.5	16.5	27.0	4.3	6.0	29.9	25.3	46.0	16.1	20.7
6.	799.81	BB	28.0	25.3	22.0	27.8	6.2	6.0	34.4	31.7	46.0	11.6	14.3

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 (8449D) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

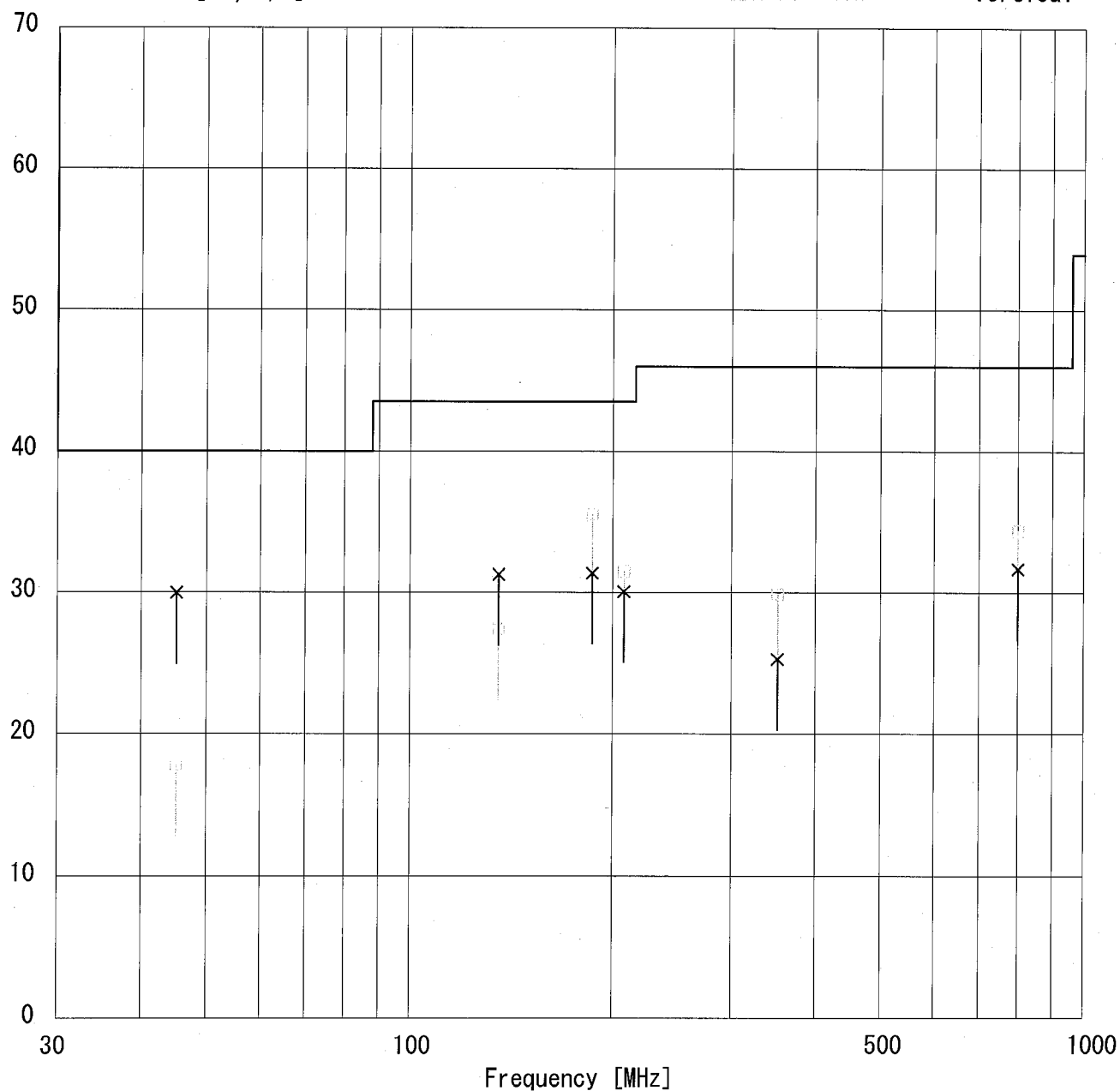
Applicant : PIONEER CORPORATION
Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
Model No. : DEH-P9800BT
Serial No. : 16
Power : DC12.0V
Mode : Tx:2402MHz
Remarks :
Date : 2/9/2006
Test Distance : 3 m
Temperature : 22 °C
Humidity : 43 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



Page:

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2441MHz
 Remarks :
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	45.14	BB	26.2	38.7	13.0	27.6	1.3	6.0	18.9	31.4	40.0	21.1	8.6
2.	135.48	BB	32.3	36.2	14.3	27.3	2.4	6.0	27.7	31.6	43.5	15.8	11.9
3.	186.57	BB	36.5	32.4	16.9	27.1	2.8	6.0	35.1	31.0	43.5	8.4	12.5
4.	207.93	BB	32.6	31.1	17.2	27.0	3.0	6.0	31.8	30.3	43.5	11.7	13.2
5.	351.92	BB	30.5	26.2	16.5	27.0	4.3	6.0	30.3	26.0	46.0	15.7	20.0
6.	799.70	BB	28.1	25.2	22.0	27.8	6.2	6.0	34.5	31.6	46.0	11.5	14.4

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 (8449D) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

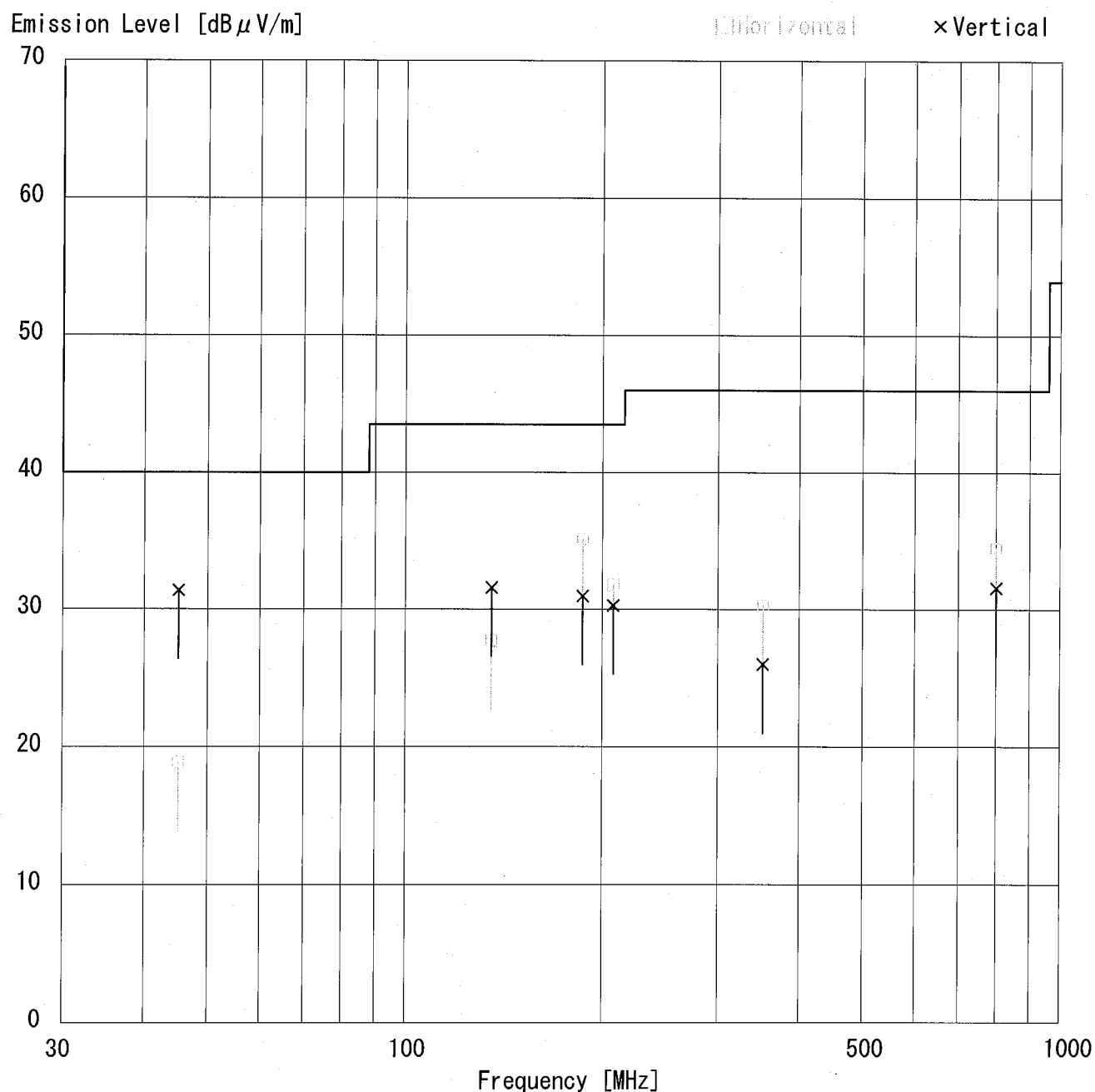
UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
Model No. : DEH-P9800BT
Serial No. : 16
Power : DC12.0V
Mode : Tx:2441MHz
Remarks :
Date : 2/9/2006
Test Distance : 3 m
Temperature : 22 °C
Humidity : 43 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki



Page:

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
Model No. : DEH-P9800BT
Serial No. : 16
Power : DC12.0V
Mode : Tx:2480MHz
Remarks :
Date : 2/9/2006
Test Distance : 3 m
Temperature : 22 °C
Humidity : 43 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	45.19	BB	25.3	36.8	13.0	27.6	1.3	6.0	18.0	29.5	40.0	22.0	10.5
2.	135.44	BB	31.4	37.2	14.3	27.3	2.4	6.0	26.8	32.6	43.5	16.7	10.9
3.	186.57	BB	36.3	32.9	16.9	27.1	2.8	6.0	34.9	31.5	43.5	8.6	12.0
4.	207.99	BB	31.8	30.9	17.2	27.0	3.0	6.0	31.0	30.1	43.5	12.5	13.4
5.	351.93	BB	30.6	26.2	16.5	27.0	4.3	6.0	30.4	26.0	46.0	15.6	20.0
6.	799.82	BB	27.6	24.6	22.0	27.8	6.2	6.0	34.0	31.0	46.0	12.0	15.0

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 (8449D) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

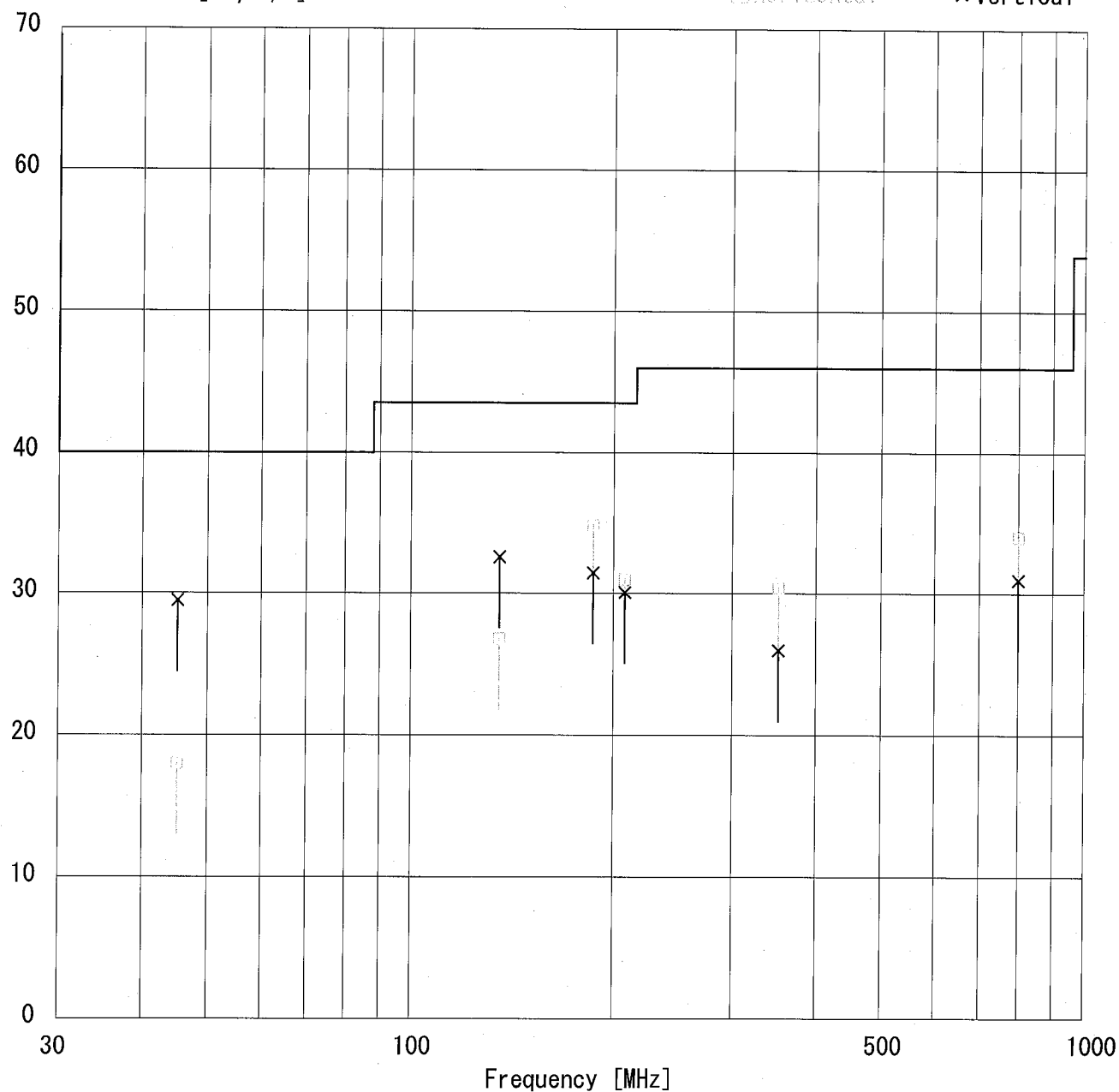
Applicant : PIONEER CORPORATION
Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
Model No. : DEH-P9800BT
Serial No. : 16
Power : DC12.0V
Mode : Tx:2480MHz
Remarks :
Date : 2/9/2006
Test Distance : 3 m
Temperature : 22 °C
Humidity : 43 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2402MHz
 Remarks : PK (RBW:1MHz, VBW:1MHz)
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	2390.00	BB	43.2	44.6	28.7	37.0	4.0	10.0	48.9	50.3	74.0	25.1	23.7
2.	4804.00	BB	43.9	44.1	32.9	36.5	5.5	0.5	46.3	46.5	74.0	27.7	27.5
3.	7206.00	BB	41.3	41.5	36.4	36.8	6.6	0.2	47.7	47.9	74.0	26.3	26.1
4.	9608.00	BB	42.1	41.4	38.4	37.1	7.4	0.5	51.3	50.6	74.0	22.7	23.4
5.	12010.00	BB	41.6	42.0	40.6	36.2	8.2	0.0	54.2	54.6	74.0	19.8	19.4
6.	14412.00	BB	43.8	42.3	43.0	35.0	8.9	0.3	61.0	59.5	74.0	13.0	14.5
7.	16814.00	BB	42.4	42.5	42.1	35.7	9.6	0.6	59.0	59.1	74.0	15.0	14.9
8.	19216.00	BB	43.7	43.6	38.4	34.7	10.2	0.0	57.6	57.5	74.0	16.4	16.5
9.	21618.00	BB	46.0	44.8	38.8	35.7	10.6	0.0	59.7	58.5	74.0	14.3	15.5
10.	24020.00	BB	46.7	46.6	39.1	34.9	11.0	0.0	61.9	61.8	74.0	12.1	12.2

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: R3271A (KSA-04)

Page:

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2402MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz)
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209(AV Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	2390.00	BB	32.5	32.6	28.7	37.0	4.0	10.0	38.2	38.3	54.0	15.8	15.7
2.	4804.00	BB	31.7	31.6	32.9	36.5	5.5	0.5	34.1	34.0	54.0	19.9	20.0
3.	7206.00	BB	31.0	31.7	36.4	36.8	6.6	0.2	37.4	38.1	54.0	16.6	15.9
4.	9608.00	BB	31.5	32.5	38.4	37.1	7.4	0.5	40.7	41.7	54.0	13.3	12.3
5.	12010.00	BB	30.2	30.8	40.6	36.2	8.2	0.0	42.8	43.4	54.0	11.2	10.6
6.	14412.00	BB	31.3	31.0	43.0	35.0	8.9	0.3	48.5	48.2	54.0	5.5	5.8
7.	16814.00	BB	31.7	33.1	42.1	35.7	9.6	0.6	48.3	49.7	54.0	5.7	4.3
8.	19216.00	BB	32.4	32.6	38.4	34.7	10.2	0.0	46.3	46.5	54.0	7.7	7.5
9.	21618.00	BB	33.7	33.8	38.8	35.7	10.6	0.0	47.4	47.5	54.0	6.6	6.5
10.	24020.00	BB	34.5	34.3	39.1	34.9	11.0	0.0	49.7	49.5	54.0	4.3	4.5

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: R3271A (KSA-04)

Page:

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2441MHz
 Remarks : PK(RBW:1MHz, VBW:1MHz)
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209(PK Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	4882.00	BB	42.8	42.3	33.1	36.5	5.5	0.5	45.4	44.9	74.0	28.6	29.1
2.	7323.00	BB	40.9	41.7	36.6	36.8	6.7	0.2	47.6	48.4	74.0	26.4	25.6
3.	9764.00	BB	42.2	41.9	38.5	37.1	7.4	0.3	51.3	51.0	74.0	22.7	23.0
4.	12205.00	BB	41.9	41.8	40.5	36.0	8.1	0.0	54.5	54.4	74.0	19.5	19.6
5.	14646.00	BB	43.6	42.1	43.0	35.3	8.9	0.5	60.7	59.2	74.0	13.3	14.8
6.	17087.00	BB	42.5	42.6	43.2	35.6	9.7	0.5	60.3	60.4	74.0	13.7	13.6
7.	19528.00	BB	43.8	43.9	37.9	35.2	10.5	0.0	57.0	57.1	74.0	17.0	16.9
8.	21969.00	BB	45.8	45.2	38.8	35.1	10.9	0.0	60.4	59.8	74.0	13.6	14.2
9.	24410.00	BB	46.8	46.8	39.2	35.0	11.1	0.0	62.1	62.1	74.0	11.9	11.9

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: R3271A (KSA-04)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2441MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz)
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209(AV Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	4882.00	BB	31.8	31.6	33.1	36.5	5.5	0.5	34.4	34.2	54.0	19.6	19.8
2.	7323.00	BB	30.9	31.4	36.6	36.8	6.7	0.2	37.6	38.1	54.0	16.4	15.9
3.	9764.00	BB	31.6	32.4	38.5	37.1	7.4	0.3	40.7	41.5	54.0	13.3	12.5
4.	12205.00	BB	29.8	30.6	40.5	36.0	8.1	0.0	42.4	43.2	54.0	11.6	10.8
5.	14646.00	BB	31.4	31.1	43.0	35.3	8.9	0.5	48.5	48.2	54.0	5.5	5.8
6.	17087.00	BB	31.8	32.6	43.2	35.6	9.7	0.5	49.6	50.4	54.0	4.4	3.6
7.	19528.00	BB	32.2	32.4	37.9	35.2	10.5	0.0	45.4	45.6	54.0	8.6	8.4
8.	21969.00	BB	33.6	33.7	38.8	35.1	10.9	0.0	48.2	48.3	54.0	5.8	5.7
9.	24410.00	BB	34.4	34.4	39.2	35.0	11.1	0.0	49.7	49.7	54.0	4.3	4.3

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: R3271A (KSA-04)

Page:

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2480MHz
 Remarks : PK(RBW:1MHz, VBW:1MHz)
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209(PK Detection)

Engineer : Takahiro Suzuki

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.	2483.50	BB	45.4	49.3	28.8	37.1	4.0	10.0	51.1	55.0	74.0	22.9	19.0
2.	4960.00	BB	43.7	43.4	33.3	36.4	5.6	0.5	46.7	46.4	74.0	27.3	27.6
3.	7440.00	BB	41.1	41.5	36.9	36.8	6.7	0.2	48.1	48.5	74.0	25.9	25.5
4.	9920.00	BB	42.3	42.0	38.6	37.0	7.4	0.2	51.5	51.2	74.0	22.5	22.8
5.	12400.00	BB	41.6	41.5	40.4	35.7	8.1	0.0	54.4	54.3	74.0	19.6	19.7
6.	14880.00	BB	43.4	42.5	42.3	35.7	9.0	0.7	59.7	58.8	74.0	14.3	15.2
7.	17360.00	BB	42.6	42.7	44.5	35.7	9.5	0.2	61.1	61.2	74.0	12.9	12.8
8.	19840.00	BB	43.6	43.5	38.2	35.0	10.5	0.0	57.3	57.2	74.0	16.7	16.8
9.	22320.00	BB	45.6	45.4	39.1	35.0	11.0	0.0	60.7	60.5	74.0	13.3	13.5
10.	24800.00	BB	46.5	46.9	39.4	34.7	11.5	0.0	62.7	63.1	74.0	11.3	10.9

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: R3271A (KSA-04)

Page:

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 26FE0203-YK-F2

Applicant : PIONEER CORPORATION
 Kind of Equipment : Multi-CD control DSP High power CD/MP3/WMA/AAC player with BT Wireless technology and FM/AM tuner
 Model No. : DEH-P9800BT
 Serial No. : 16
 Power : DC12.0V
 Mode : Tx:2480MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz)
 Date : 2/9/2006
 Test Distance : 3 m
 Temperature : 22 °C
 Humidity : 43 %
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	2483.50	BB	34.5	37.8	28.8	37.1	4.0	10.0	40.2	43.5	54.0	13.8	10.5
2.	4960.00	BB	31.5	31.4	33.3	36.4	5.6	0.5	34.5	34.4	54.0	19.5	19.6
3.	7440.00	BB	31.1	31.3	36.9	36.8	6.7	0.2	38.1	38.3	54.0	15.9	15.7
4.	9920.00	BB	31.5	32.2	38.6	37.0	7.4	0.2	40.7	41.4	54.0	13.3	12.6
5.	12400.00	BB	30.2	30.4	40.4	35.7	8.1	0.0	43.0	43.2	54.0	11.0	10.8
6.	14880.00	BB	31.3	31.2	42.3	35.7	9.0	0.7	47.6	47.5	54.0	6.4	6.5
7.	17360.00	BB	31.5	32.4	44.5	35.7	9.5	0.2	50.0	50.9	54.0	4.0	3.1
8.	19840.00	BB	32.1	32.0	38.2	35.0	10.5	0.0	45.8	45.7	54.0	8.2	8.3
9.	22320.00	BB	33.4	33.5	39.1	35.0	11.0	0.0	48.5	48.6	54.0	5.5	5.4
10.	24800.00	BB	34.2	34.1	39.4	34.7	11.5	0.0	50.4	50.3	54.0	3.6	3.7

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: R3271A (KSA-04)

Page:

Occupied Bandwidth(99%)

COMPANY : PIONEER CORPORATION
EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

FCC ID : AJDK012

POWER : DC12V

REGULATION : RSS-210

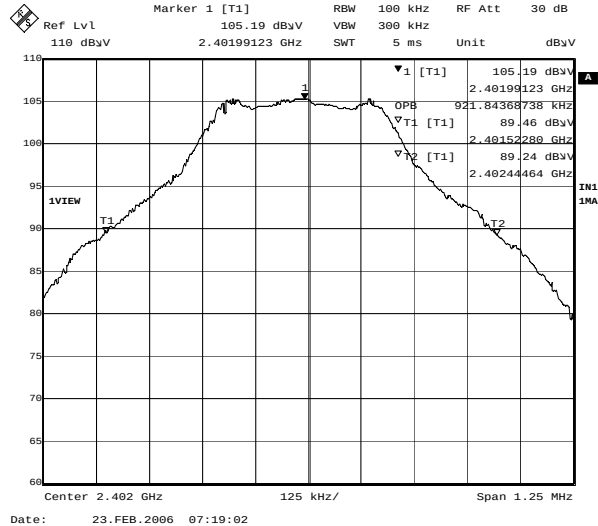
DATE : 2006/02/23

TEMP/HUMI : 22deg.C/41%

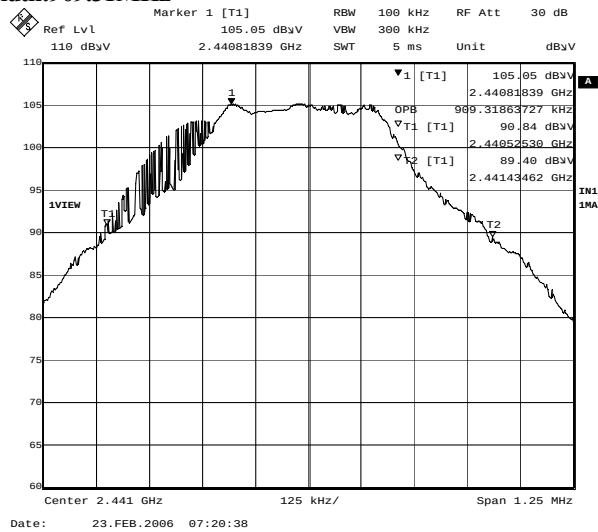
TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

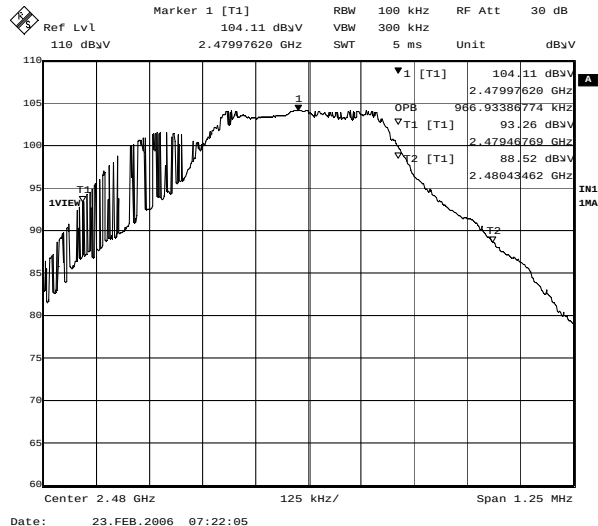
1. ch : 2402MHz/Occupied Bandwidth:921.84MHz



2. ch : 2441MHz/Occupied Bandwidth:909.31MHz



3. ch : 2480MHz/Occupied Bandwidth:966.93kHz



Occupied Bandwidth(99%)

COMPANY : PIONEER CORPORATION

EQUIPMENT : Multi-CD control DSP High power CD/MP3/WMA/AAC player with Bluetooth Wireless Technology and FM/AM tuner

MODEL NUMBER: DEH-P9800BT

SERIAL NUMBER: 17

FCC ID : AJDK012

POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.2 Shielded Room

REPORT NO : 26FE0203-YK-F2

REGULATION : RSS-210

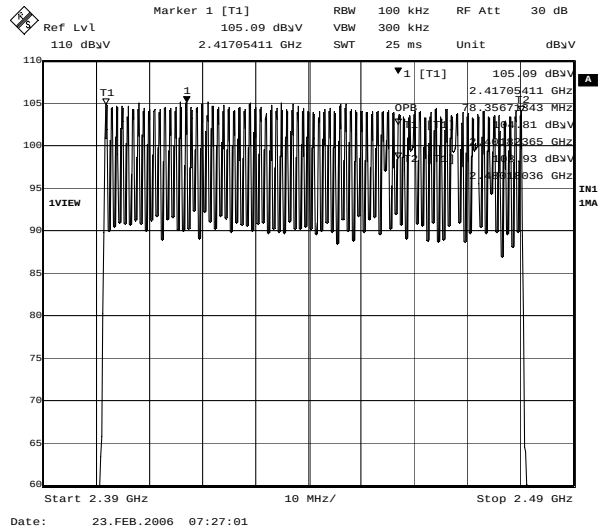
DATE : 2006/02/23

TEMP./HUMI : 22deg.C./41%

TEST MODE : Transmitting

ENGINEER : Toyokazu Imamura

4. Hopping/Occupied Bandwidth:78.36MHz



Test Report No : 26FE0203-YK-F2

APPENDIX 3 Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
KAEC-01(NSA)	Anechoic Chamber	JSE	Semi 3m	RE	2005/09/03 * 12
KAF-02	Pre Amplifier	Hewlett Packard	8449B	RE	2005/04/28 * 12
KAF-05	Pre Amplifier	Agilent	8447D	RE	2005/05/11 * 12
KAT6-01	Attenuator	INMET	18N-6dB	RE	2006/03/24 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/01/17 * 12
KCC-30/31/32 /34	Coaxial Cable	Fujikura/Suhner	5D-2W/S04272B	RE	2005/12/22 * 12
KCC-D3/D7	Coaxial Cable	Rosenberger/Advantest	2201/JUN-08-01-06 1	RE	2005/04/12 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	AT	Pre Check
KHA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2005/08/20 * 12
KHA-03	Horn Antenna	EMCO	3160-09	RE	2005/05/14 * 12
KLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/01/17 * 12
KPM-05	Power meter	Agilent	E4417A	RE	2006/02/16 * 12
KPSS-01	Power sensor	Agilent	E9327A	RE	2005/03/04 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	RE	2005/09/13 * 12
KTR-01	Test Receiver	Rohde & Schwarz	ES140	RE/AT	2005/08/05 * 12
KCC-D7	Coaxial Cable	Advantest	A01002	AT	2005/04/12 * 12
KST-09	Digitizing Oscilloscope	Tektronix	TDS420A	AT	2005/08/31 * 12
KOS-01	Digital Humidity Indicator	Custom	CTH-190	AT	2004/08/19 * 24
KOS-02	Digital Humidity Indicator	Custom	CTH-190	RE	2004/07/22 * 24

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)