



EMI TEST REPORT

Test Report No. : 26FE0203-YK-F1

Applicant : Pioneer Corporation
Type of Equipment : Bluetooth adapter
Model No. : CD-BTB100
FCC ID : AJDK013
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 8 and 22, 2006

Tested by: T. Suzuki & T. Imamura
Takahiro Suzuki & Toyokazu Imamura

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

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MF060b(12.02.06)

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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

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2 Product Description

Type of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : Out of Band emission (Radiated): TPSEL000015
 Antenna port conducted test: TPSEL000005
 Rating : DC12V, 0.2A
 Country of Manufacture : Japan
 Receipt Date of Sample : February 8, 2006
 Condition of EUT : Production prototype
 (Not for Sale: This sample is equivalent to mass-produced items.)

Clock frequency	System microcomputer: 4.72MHz DAC: 11.2896MHz, 12.2880MHz 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	Chip Antenna (reverse-F)	
Antenna Connector Type	TS-7 series receptacle (SMK Corporation)	
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)

Bluetooth adapter, CD-BTB100 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.

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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		3.2dB (24800.00MHz, AV, Horizontal, Tx 2480MHz)

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.

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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.

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Telephone number : +81 465 77 1011

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NVLAP Lab. code : 200441-0

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

IC Registration No. : 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		

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4 System Test Configuration

4.1 Justification

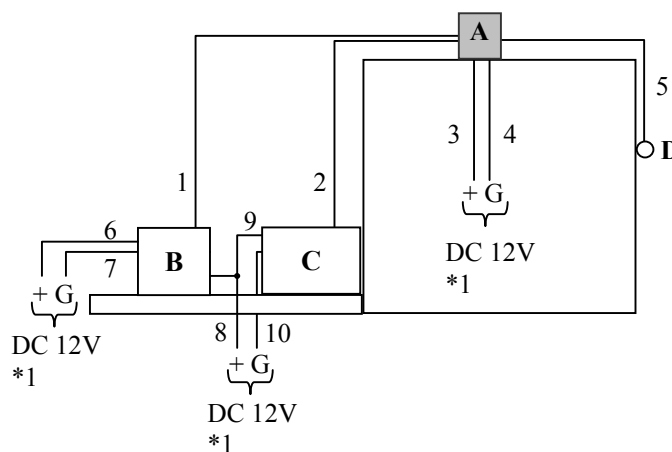
The system was configured in typical fashion (as a customer would normally use it) for testing.

- Test mode: Transmitting mode (Packet size: DH5)
- Low channel : 2402MHz
 - Middle channel : 2441MHz
 - High channel : 2480MHz
 - Inquiry
 - Page
 - Hopping

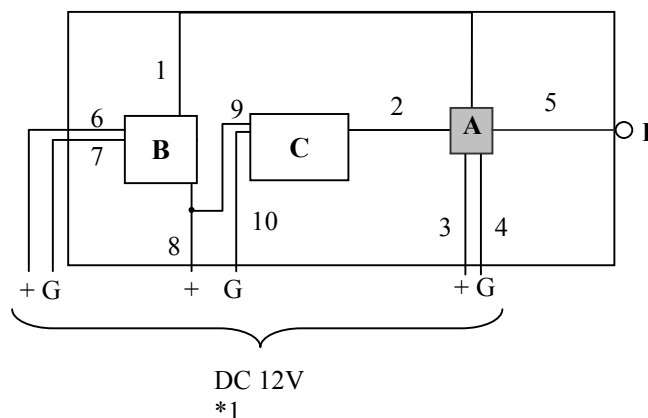
*Remarks: Test was not performed at AFH mode, because the decrease of number of channel (min: 20ch) at AFH mode does not influence on the output power and bandwidth of the EUT. However, the limit level 125mW of AFH mode was used for the test.

4.2 Configuration of Tested System

Front View



Top View



* Test data was taken under worse case conditions.

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Description of EUT and support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID (Remarks)
A	Bluetooth adapter	CD-BTB100	TPSEL000005 TPSEL000015 *2	Pioneer	AJDK013 (EUT)
B	Main unit	DEH-P7700MP	EITM167800U C	Pioneer	-
C	Multi CD Player	CDX-P600	NK000093	Pioneer	
D	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. TPSEL000015 was under the test. The model of serial No. TPSEL000005 was under the test for Antenna port conducted test.

List of cables used

No.	Name	Length (m)	Shield	Remark
1	IP-BUS cable (OUT)	3.0	Shielded	-
2	IP-BUS cable (IN)	6.0	Shielded	-
3	DC cable (+)	3.0	Unshielded	-
4	DC cable (GND)	1.5	Unshielded	-
5	Microphone cable	4.0	Shielded	-
6	DC cable for battery (+)	0.3	Unshielded	-
7	DC cable (GND)	0.4	Unshielded	-
8	DC cable for accessory (+)	0.2	Unshielded	-
9	DC cable	6.0	Unshielded	-
10	DC cable (GND)	0.9	Unshielded	-

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5 Carrier Frequency Separation

Test Procedure

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

Summary of the test results: Pass
Date: February 22, 2006

Test data: APPENDIX 2 Page 14
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 22, 2006

Test data: APPENDIX 2 Page 15
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 16 - 18
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 22, 2006

Test data: APPENDIX 2 Page 19 - 24
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 22, 2006

Test data: APPENDIX 2 Page 25
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 22, 2006

Test data: APPENDIX 2 Page 26 - 31
Test engineer : Toyokazu Imamura

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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

The equipment was previously checked at each position of three axes X, Y and Z. The position in which the maximum noise occurred was chosen to put into measurement. See the table below and photographs in page 13.

With the position, the noise levels of all the frequencies were measured.

Frequency	Below 1GHz	Above 1GHz
Antenna: Horizontal	Y	Y
Antenna: Vertical	Z	Z

11.5 Results

Summary of the test results : Pass
 Test data : APPENDIX 2 Page 32 - 37 (30 - 1000MHz)
 : APPENDIX 2 Page 38 - 43 (1 - 26.5GHz)

Date: February 8, 2006 Test engineer : Takahiro Suzuki

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APPENDIX 1: Photographs of test setup

Page 12	:	Radiated emission
Page 13	:	Pre check of worse-case position

APPENDIX 2: Test Data

Page 14	:	Carrier Frequency Separation
Page 15	:	20dB Bandwidth
Page 16 - 18	:	Number of Hopping Frequency
Page 19 - 24	:	Dwell time
Page 25	:	Maximum Peak Output Power
Page 26 - 31	:	Out of Band Emissions (Antenna Port Conducted)
Page 32 - 43	:	Out of Band Emissions (Radiated)
32-37	:	30-1000MHz
38-43	:	1-26.5GHz
Page 44 - 45	:	Occupied Bandwidth

APPENDIX 3: Test instruments

Page 46	:	Test instruments
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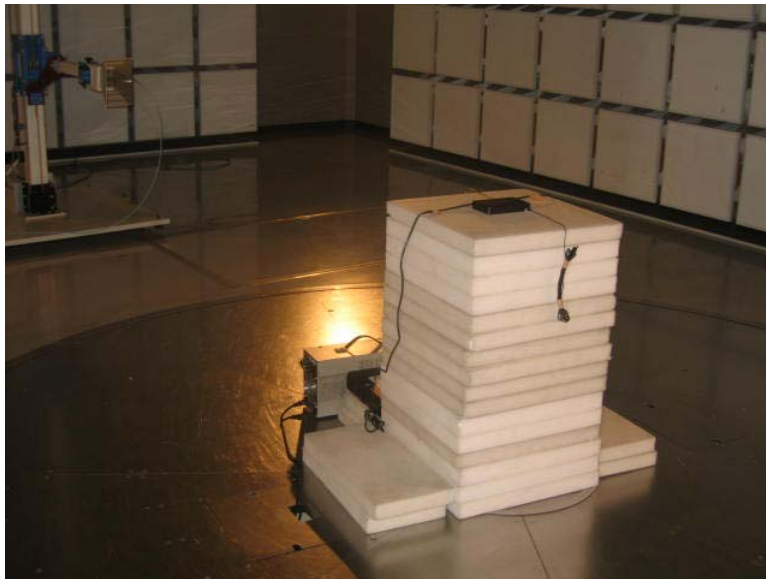
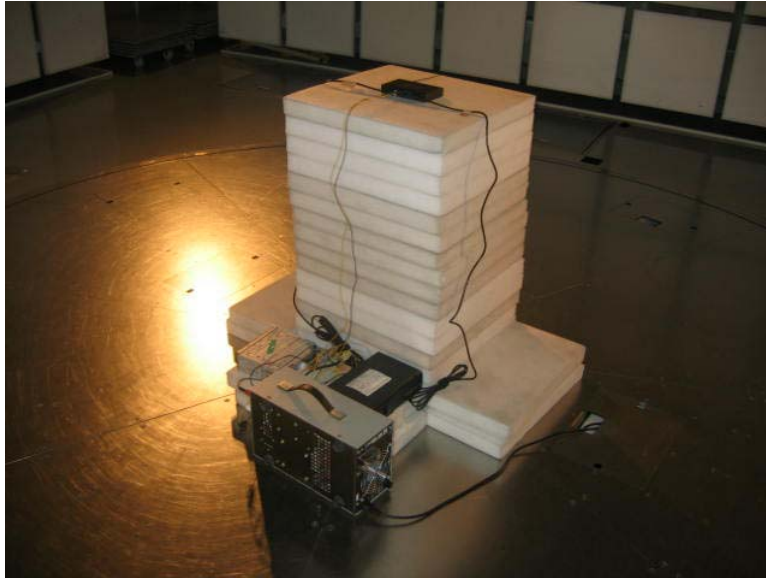
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Radiated emission



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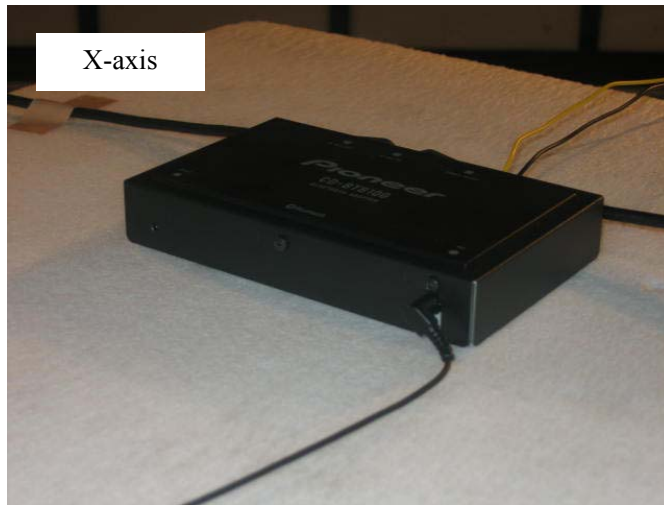
Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

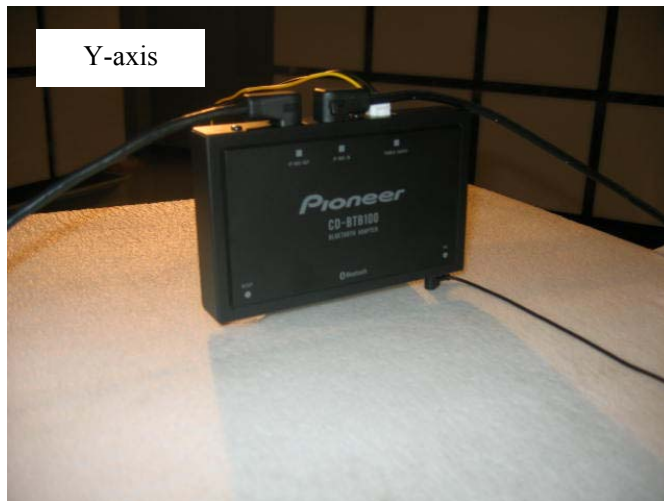
MF060b(12.02.06)

Pre check of worse-case position

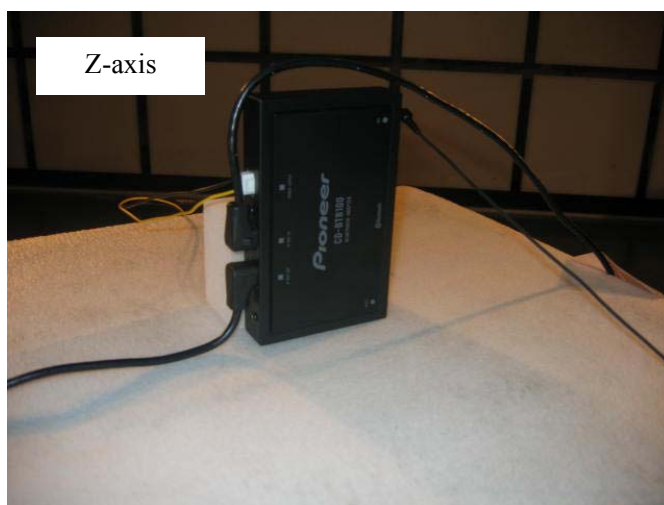
X-axis



Y-axis



Z-axis



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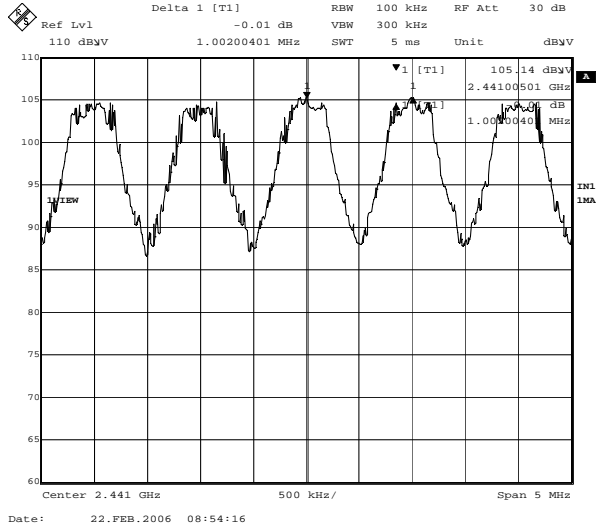
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Channel Separation: FCC 15.247(a)(1)

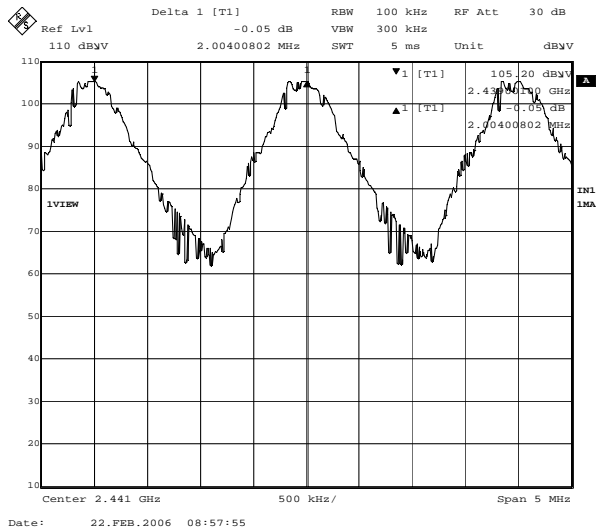
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(a)(1)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

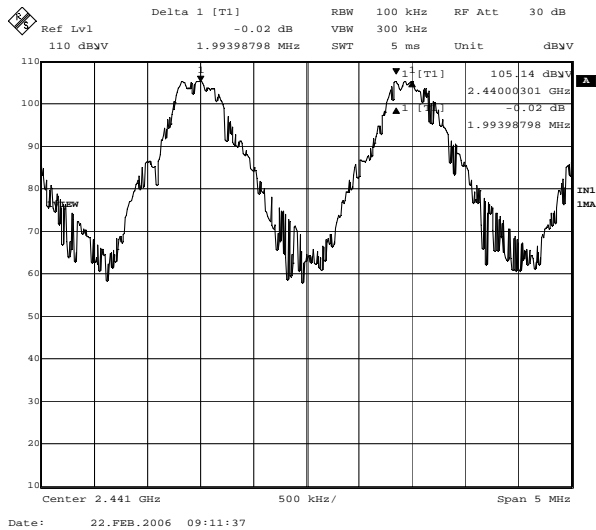
1. Hopping:1002.00kHz



2. Inquiry:2004.01kHz



3. Page:1993.99kHz

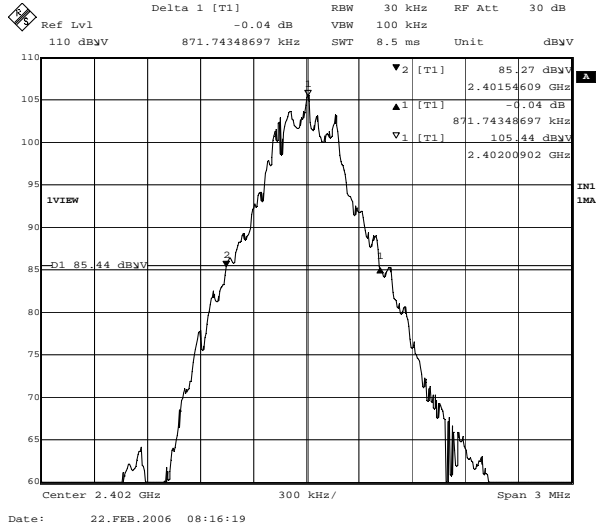


20dB Bandwidth: FCC 15.247(a)(1)

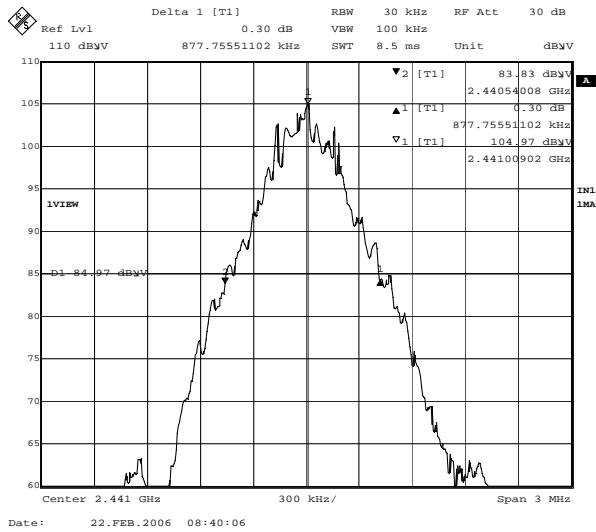
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(a)(1)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting (Hopping off)
ENGINEER : Toyokazu Imamura

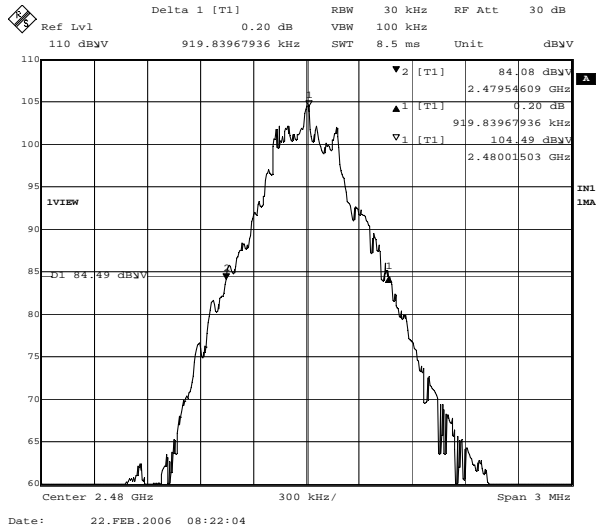
1. ch : 2402MHz/20dB Bandwidth:871.74kHz



2. ch : 2441MHz/20dB Bandwidth:877.76kHz



3. ch : 2480MHz/20dB Bandwidth:919.84kHz



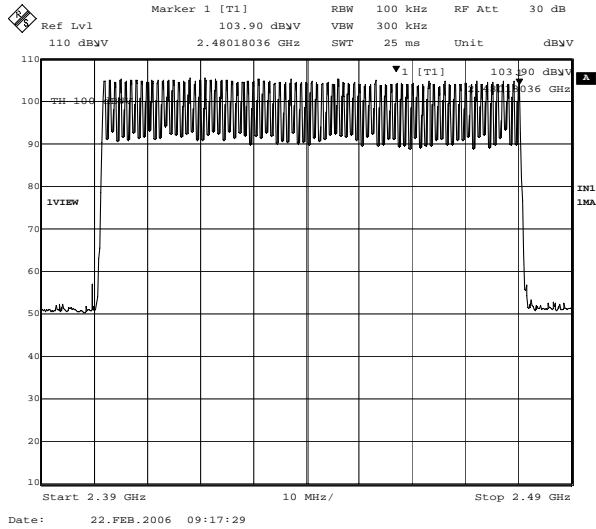
Channel Utilization: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

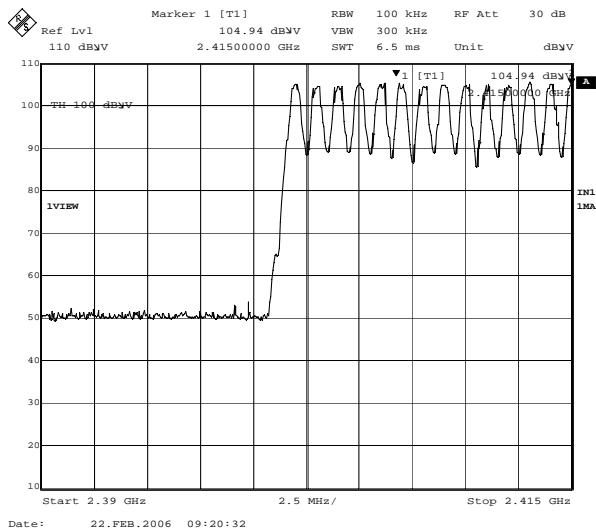
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

Hopping: 79ch

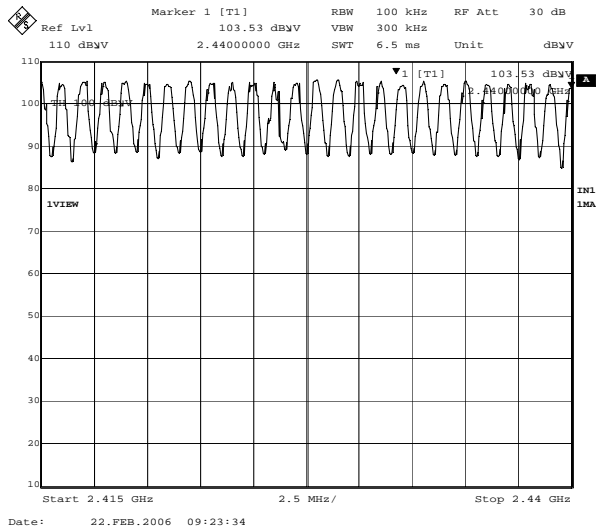
1.



2.



3.

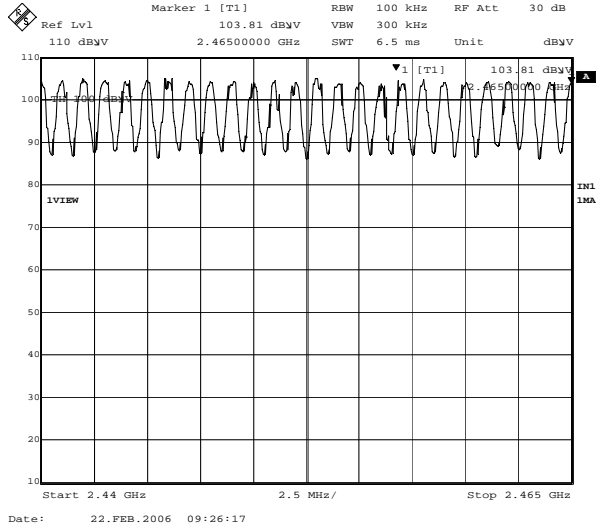


Channel Utilization: FCC 15.247(a)(1)(iii)

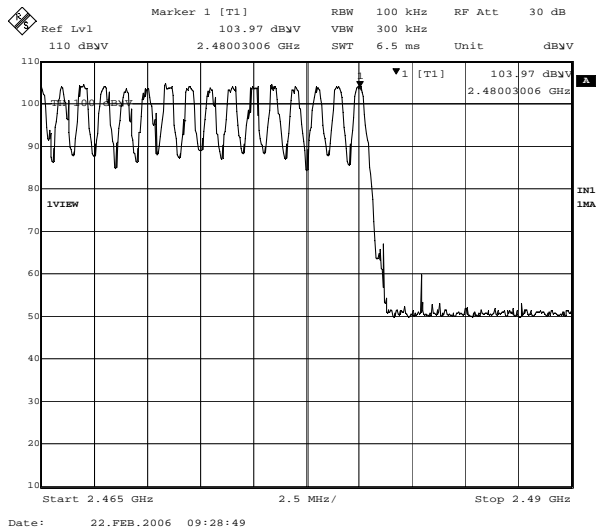
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

4.



5.

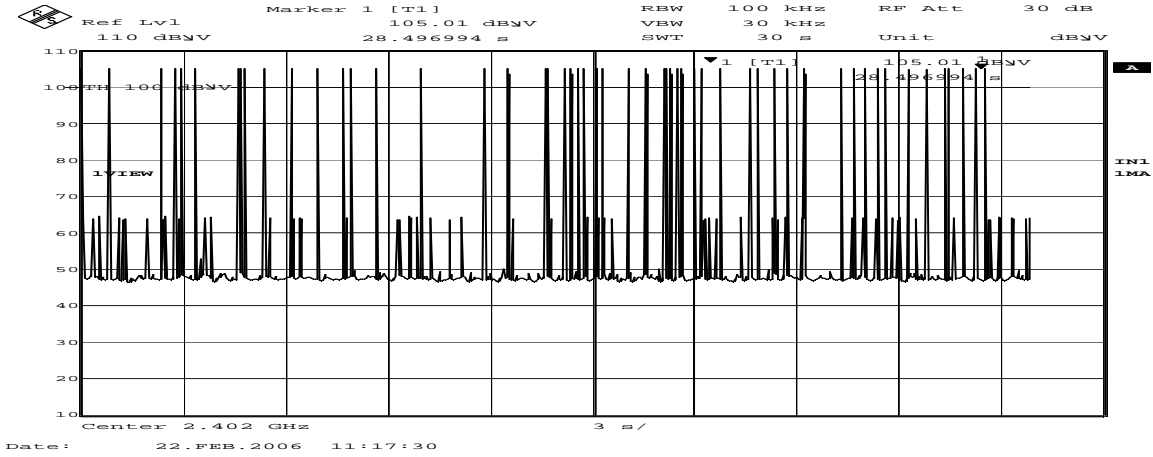


Dwell Time: FCC 15.247(a)(1)(iii)

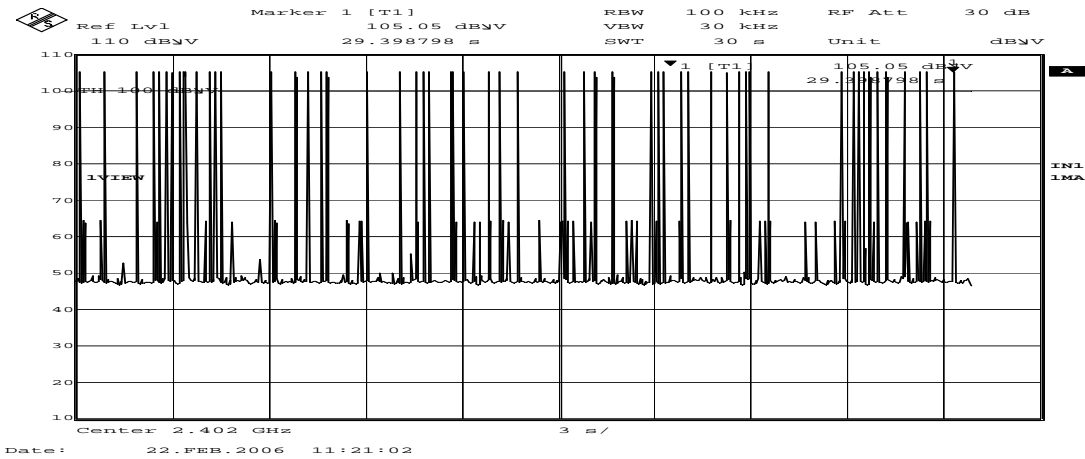
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
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FCC ID : AJDK013
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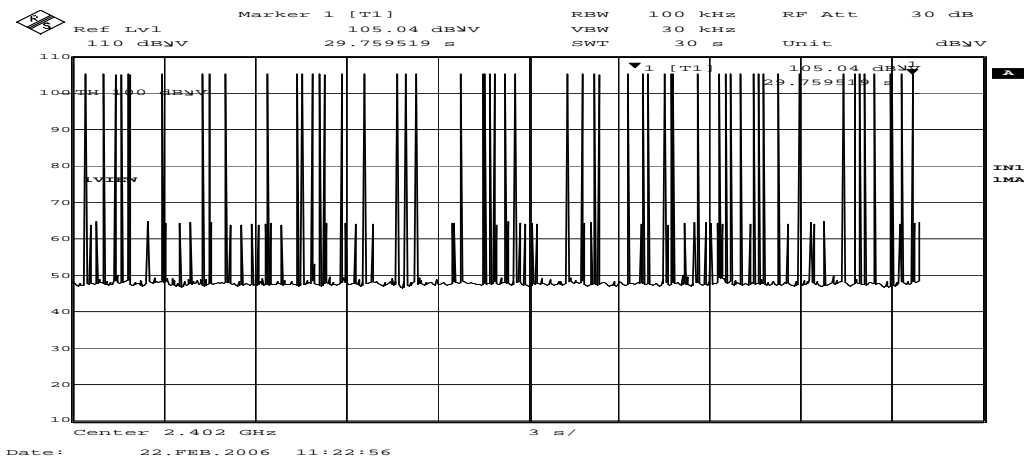
Hopping:
Count 1



Count 2



Count 3

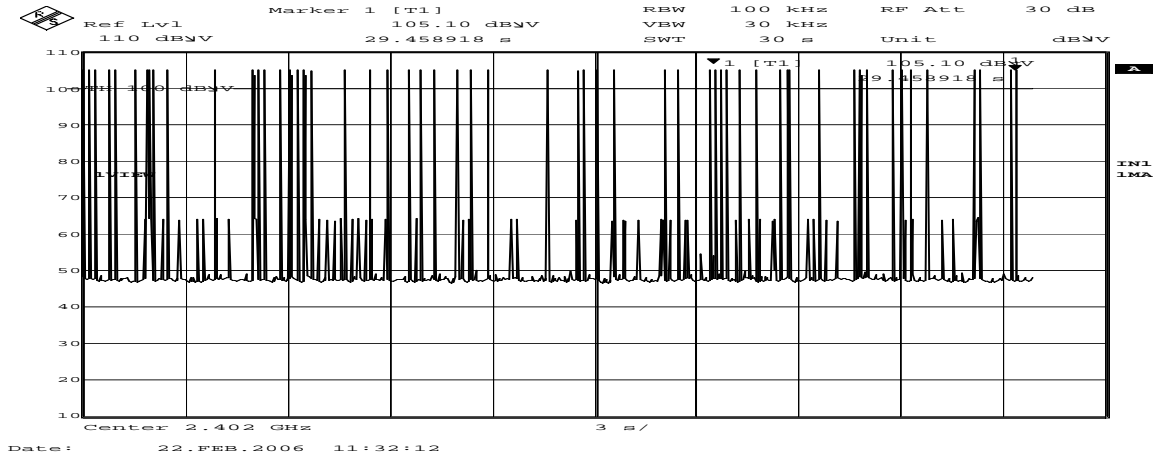


Dwell Time: FCC 15.247(a)(1)(iii)

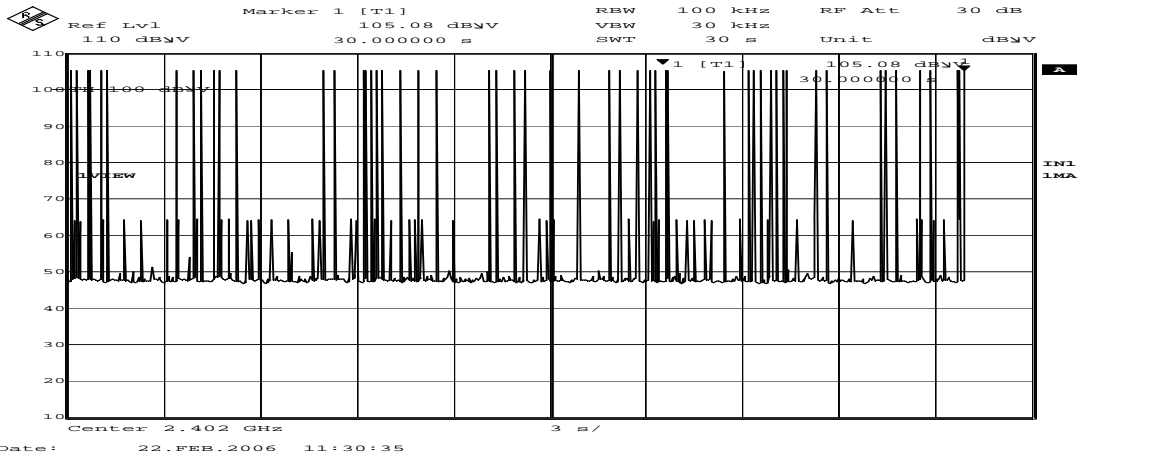
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TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

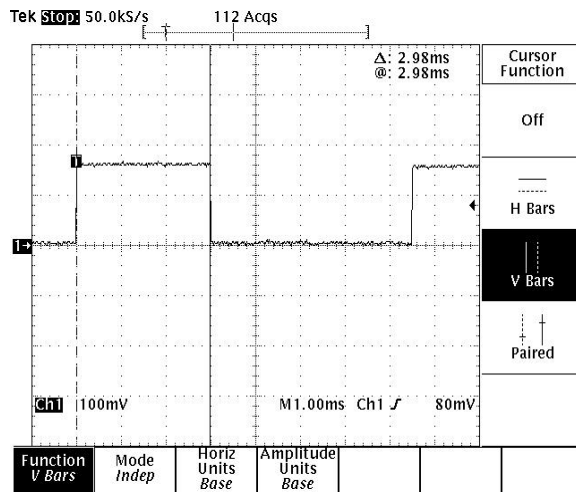
Count 4



Count 5



Duty cycle(Hopping)



$$\begin{aligned} \text{Dwell time} &= ((\text{Count 1} + \text{Count 2} + \text{Count 3} + \text{Count 4} + \text{Count 5}) / 5) / 30 * 0.4x * \text{Ton} \\ &= ((50 + 54 + 53 + 54 + 48) / 5) / 30 * 31.6 * 2.98[\text{ms}] \\ &= 162.60 [\text{ms}] \end{aligned}$$

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

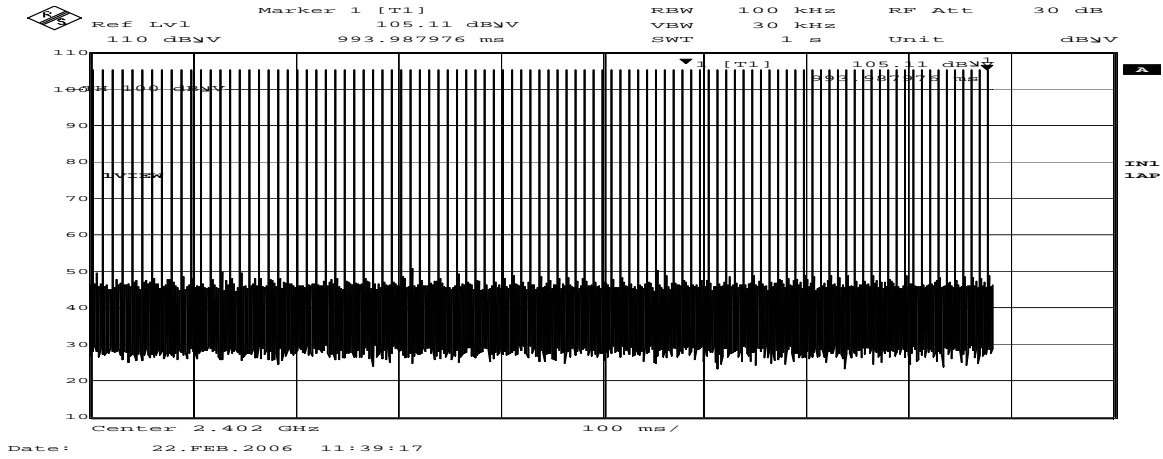
Limit : Dwell Time < 0.4[s]

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

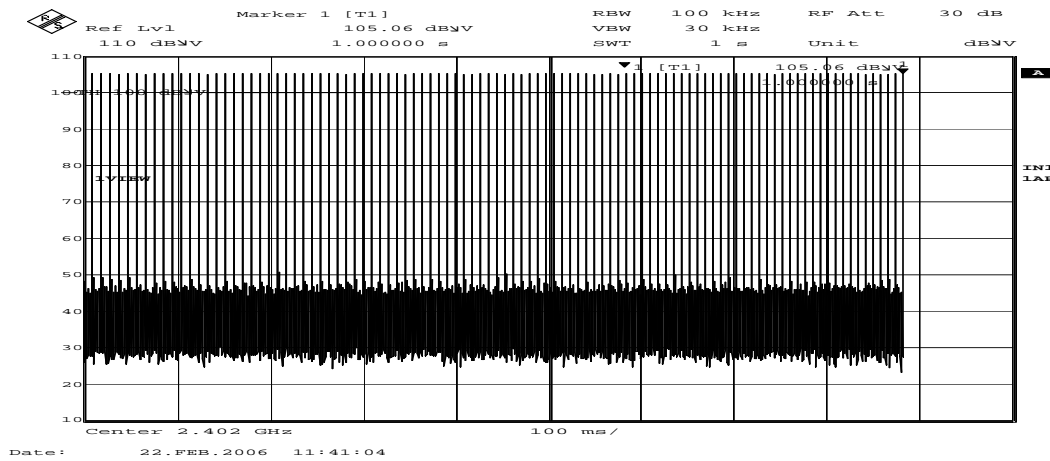
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

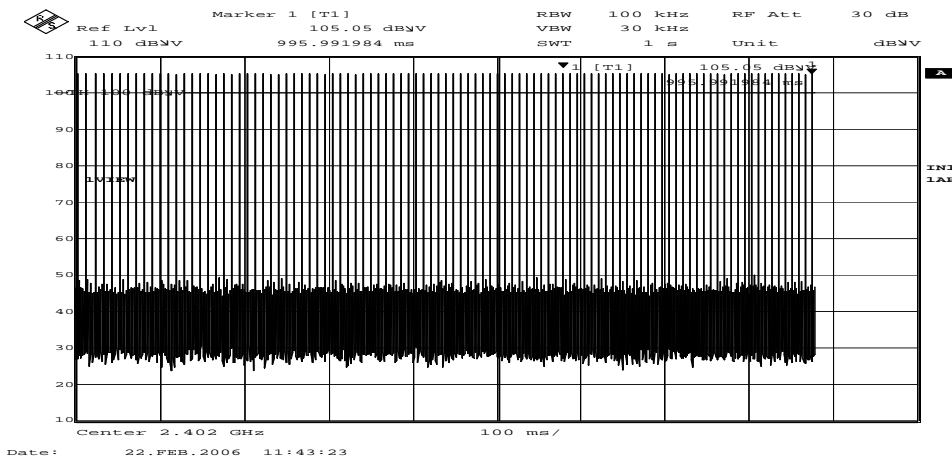
Inquiry:
Count 1



Count 2



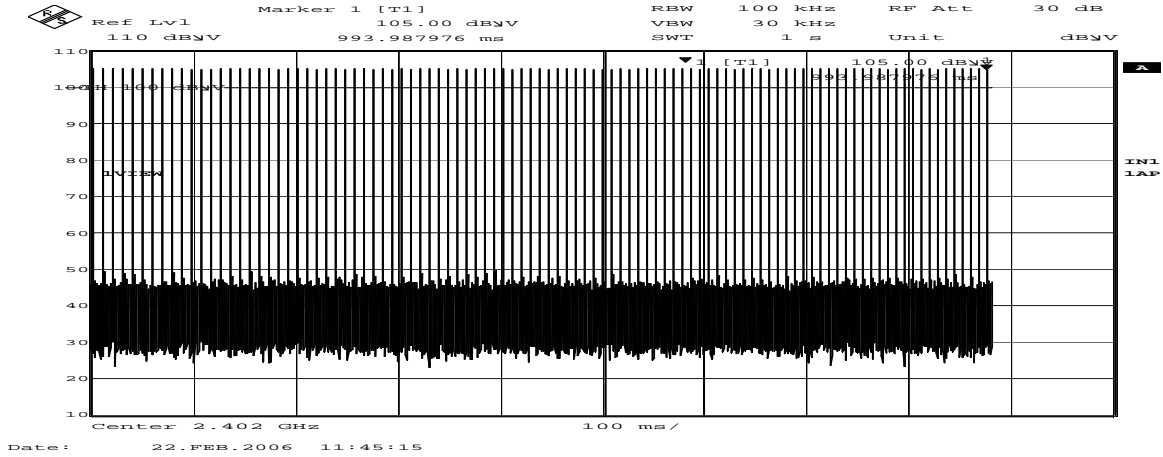
Count 3



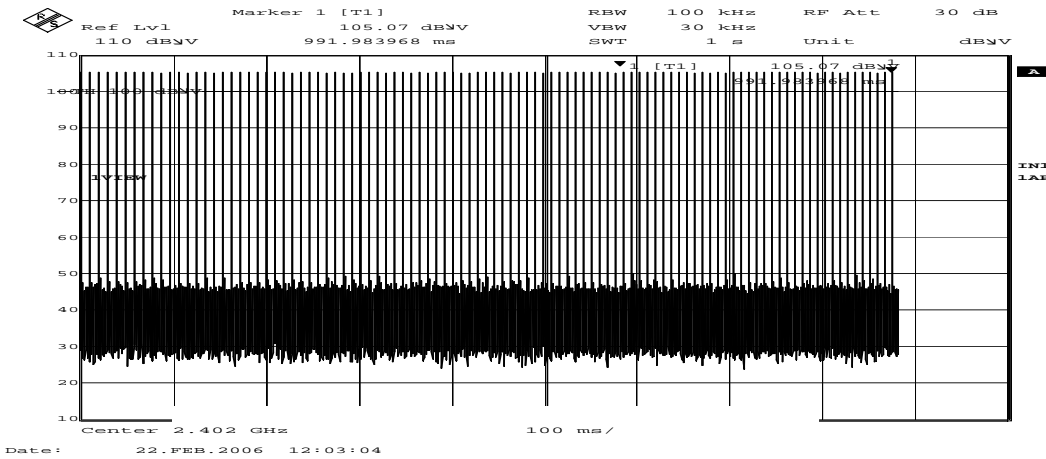
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY	: PIONEER CORPORATION	UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
EQUIPMENT	: Bluetooth adapter	REPORT NO
MODEL NUMBER	: CD-BTB100	: 26FE0203-YK-F1
SERIAL NUMBER	: TPSEL000005	REGULATION
FCC ID	: AJDK013	: Fcc Part15SubpartC 247(a)(1)(iii)
POWER	: DC12V	DATE
		: 2006/02/22
		TEMP./HUMI
		: 23deg.C./38%
		TEST MODE
		: Transmitting
		ENGINEER
		: Toyokazu Imamura

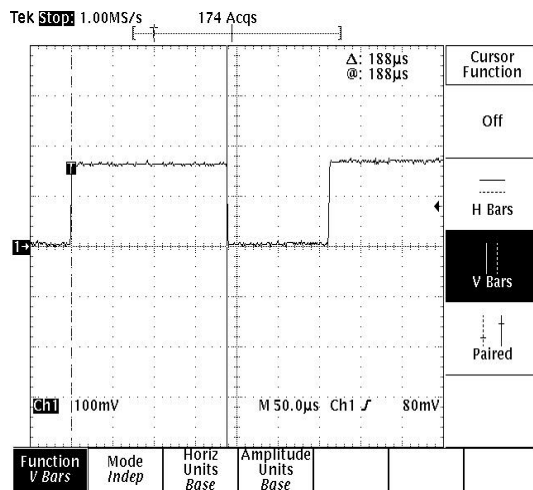
Count 4



Count 5



Duty cycle(Inquiry)



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

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

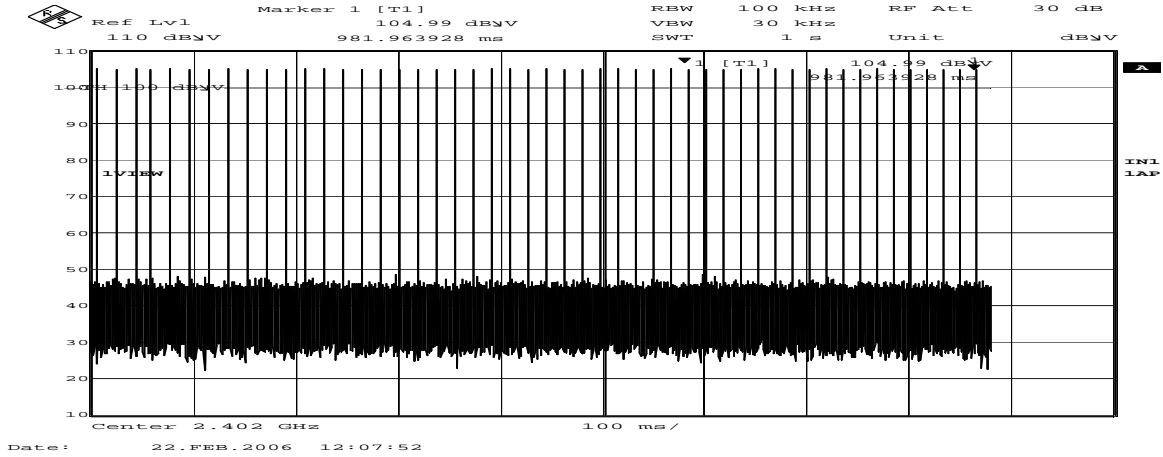
Limit : Dwell Time < 0.4[s]

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

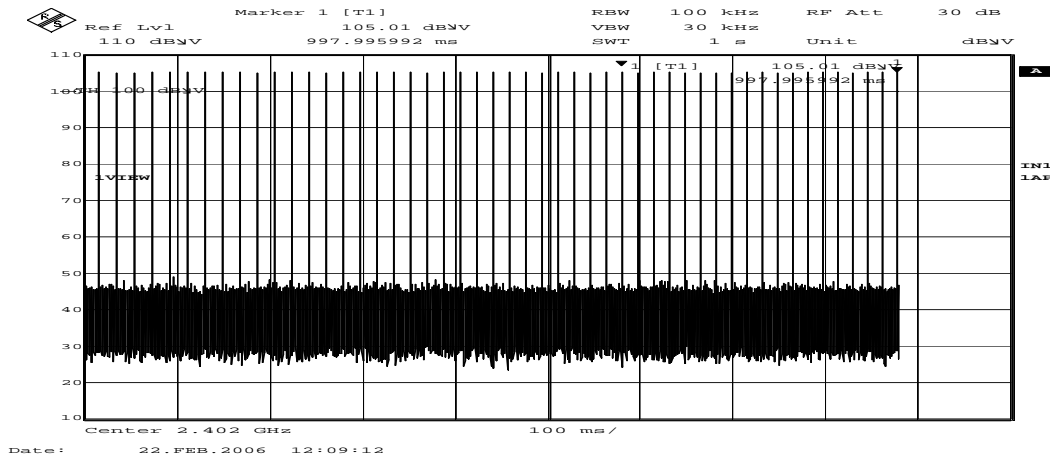
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

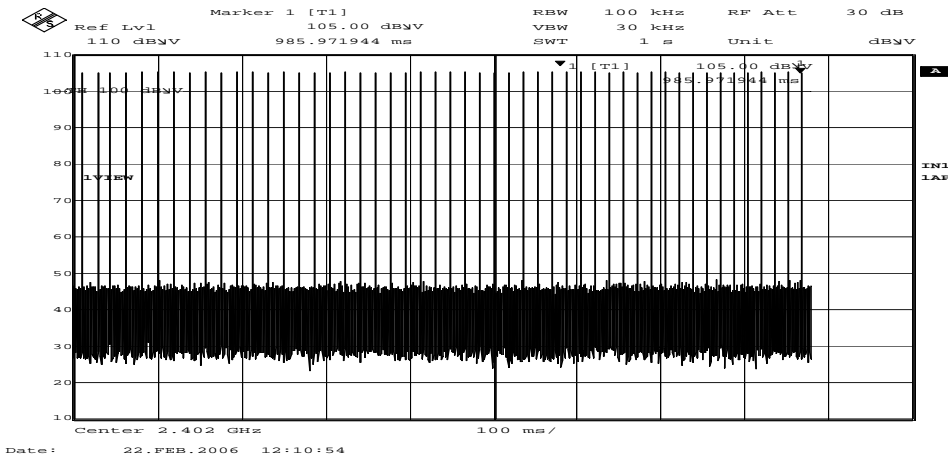
Page:
Count 1



Count 2



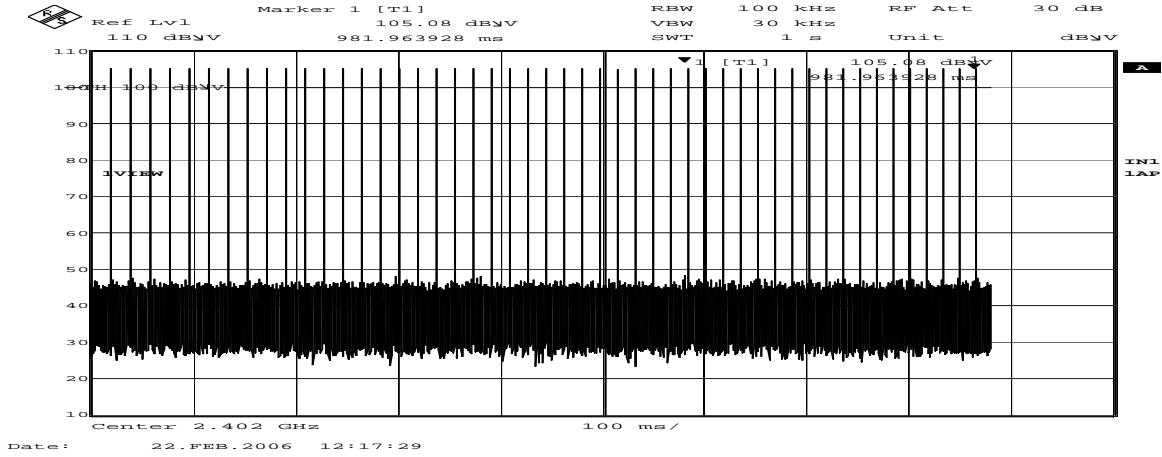
Count 3



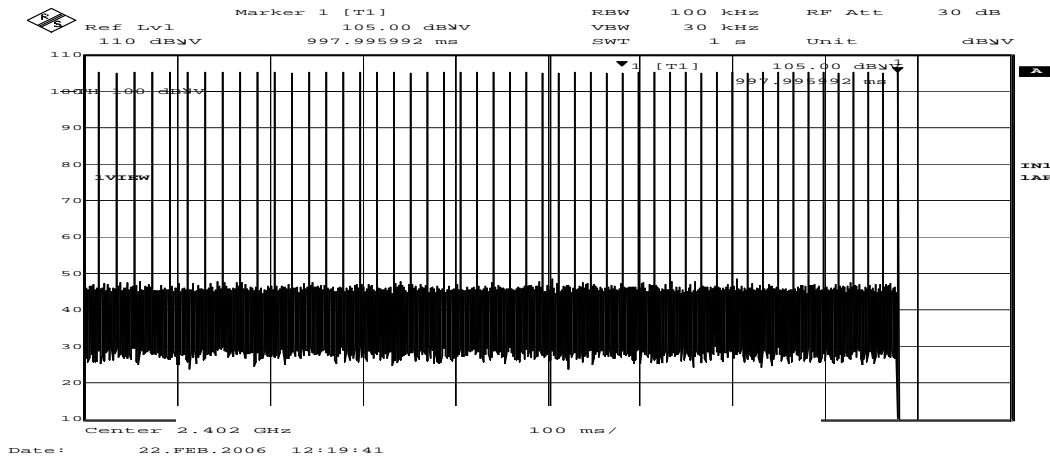
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : PIONEER CORPORATION	UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
EQUIPMENT : Bluetooth adapter	REPORT NO : 26FE0203-YK-F1
MODEL NUMBER : CD-BTB100	REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
SERIAL NUMBER : TPSEL000005	DATE : 2006/02/22
FCC ID : AJDK013	TEMP./HUMI : 23deg.C./38%
POWER : DC12V	TEST MODE : Transmitting
	ENGINEER : Toyokazu Imamura

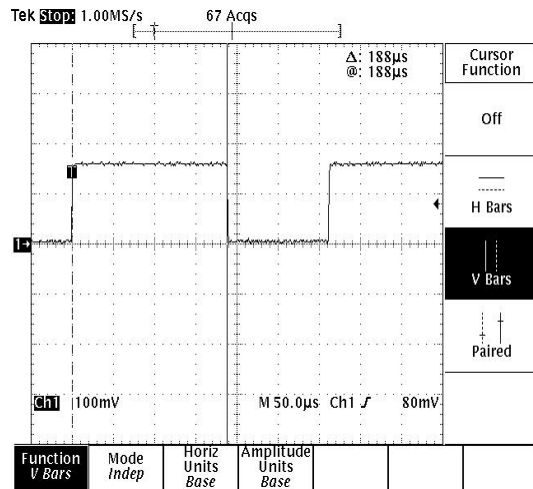
Count 4



Count 5



Duty cycle(Page)



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

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.1 Shielded Room

COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V
TEST MODE : Transmitting

REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(b)(1)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%

ENGINEER : Toyokazu Imamura

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-0.98	1.10	-1.15	20.96	31.15
Mid	2441.00	-1.26	1.10	-1.33	20.96	31.33
High	2480.00	-1.82	1.10	-2.24	20.96	32.24
Hopping	-	-1.08	1.10	-1.15	20.96	31.15
Inquiry	-	-1.09	1.10	-1.15	20.96	22.11
Page	-	-1.10	1.10	-1.14	20.96	22.10

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)

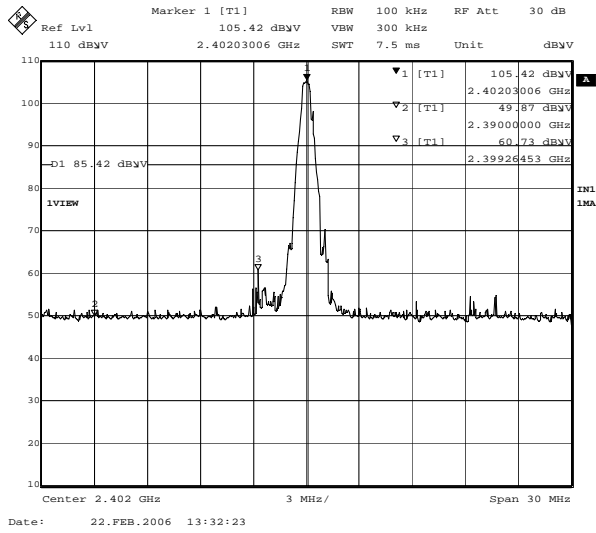
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room

COMPANY : PIONEER CORPORATION
 EQUIPMENT : Bluetooth adapter
 MODEL NUMBER: CD-BTB100
 SERIAL NUMBER: TPSEL000005
 FCC ID : AJDK013
 POWER : DC12V

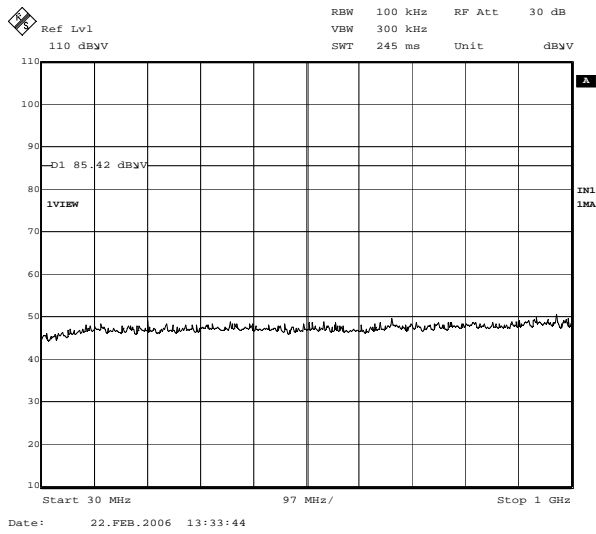
REPORT NO : 26FE0203-YK-F1
 REGULATION : Fcc Part15SubpartC 247(d)
 DATE : 2006/02/22
 TEMP./HUMI : 23deg.C./38%
 TEST MODE : Transmitting/Receiving
 ENGINEER : Toyokazu Imamura

[Transmitting]
 Ch:2402MHz

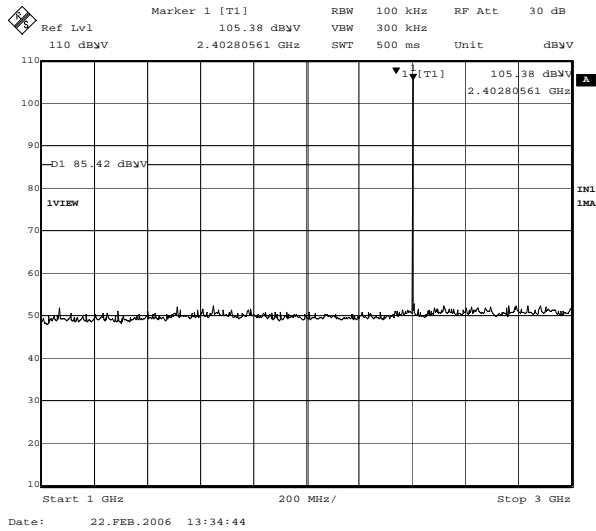
1.



2.



3.



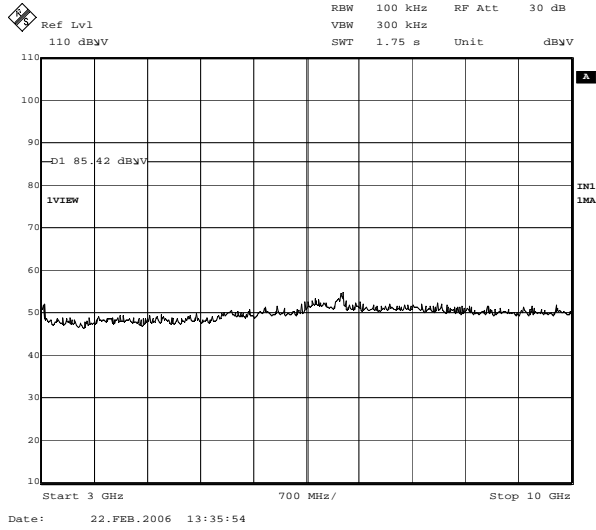
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

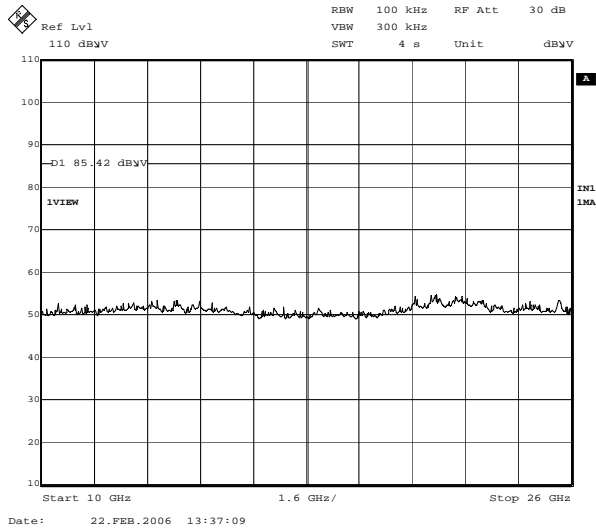
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting/Receiving
ENGINEER : Toyokazu Imamura

[Transmitting]
Ch:2402MHz

4.



5.



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

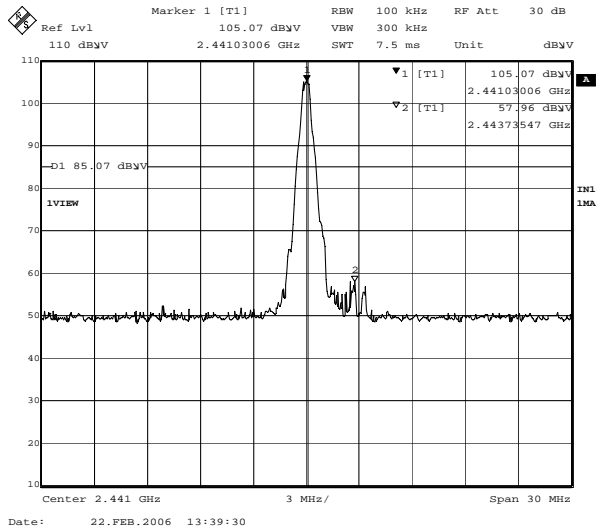
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room

COMPANY : PIONEER CORPORATION
 EQUIPMENT : Bluetooth adapter
 MODEL NUMBER: CD-BTB100
 SERIAL NUMBER: TPSEL000005
 FCC ID : AJDK013
 POWER : DC12V

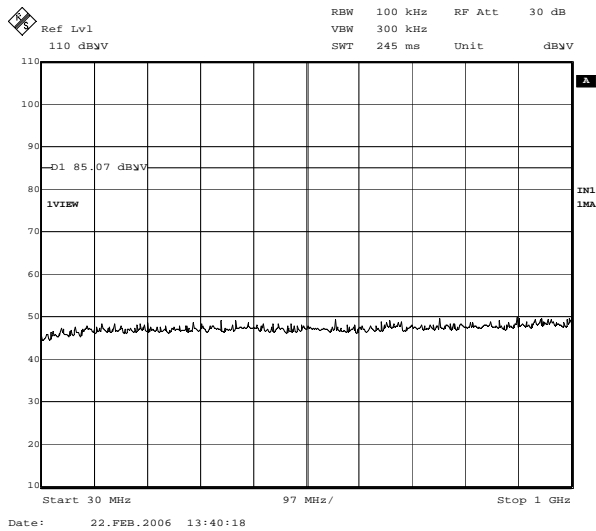
REPORT NO : 26FE0203-YK-F1
 REGULATION : Fcc Part15SubpartC 247(d)
 DATE : 2006/02/22
 TEMP./HUMI : 23deg.C./38%
 TEST MODE : Transmitting/Receiving
 ENGINEER : Toyokazu Imamura

[Transmitting]
 Ch:2441MHz

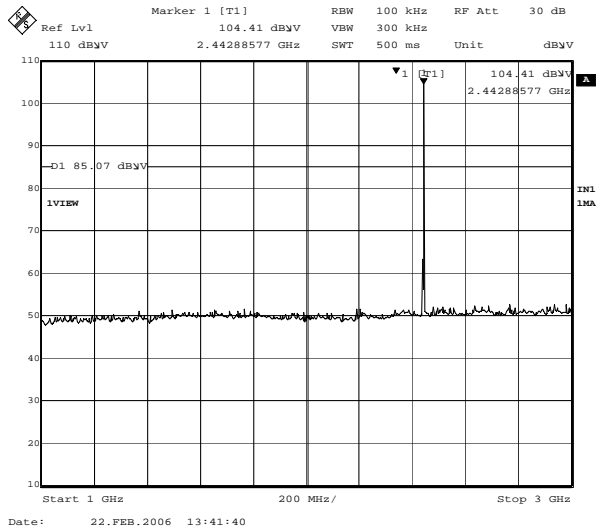
1.



2.



3.



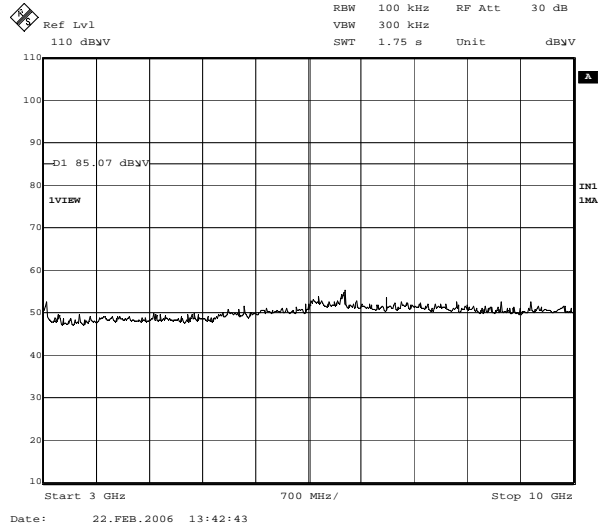
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

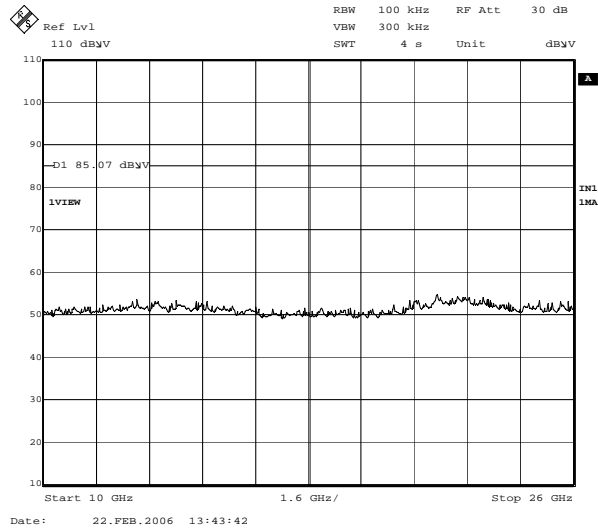
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting/Receiving
ENGINEER : Toyokazu Imamura

[Transmitting]
Ch:2441MHz

4.



5.



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

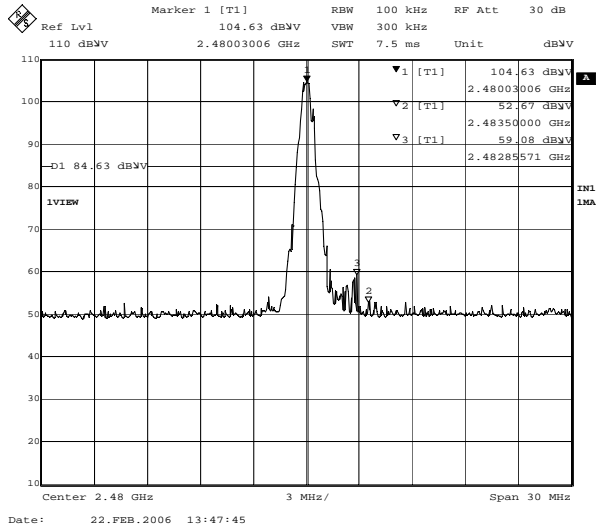
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room

COMPANY : PIONEER CORPORATION
 EQUIPMENT : Bluetooth adapter
 MODEL NUMBER: CD-BTB100
 SERIAL NUMBER: TPSEL000005
 FCC ID : AJDK013
 POWER : DC12V

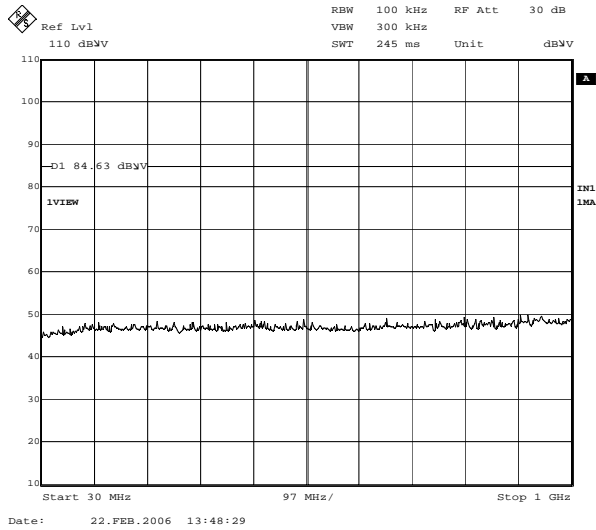
REPORT NO : 26FE0203-YK-F1
 REGULATION : Fcc Part15SubpartC 247(d)
 DATE : 2006/02/22
 TEMP./HUMI : 23deg.C./38%
 TEST MODE : Transmitting/Receiving
 ENGINEER : Toyokazu Imamura

[Transmitting]
 Ch11:2480MHz

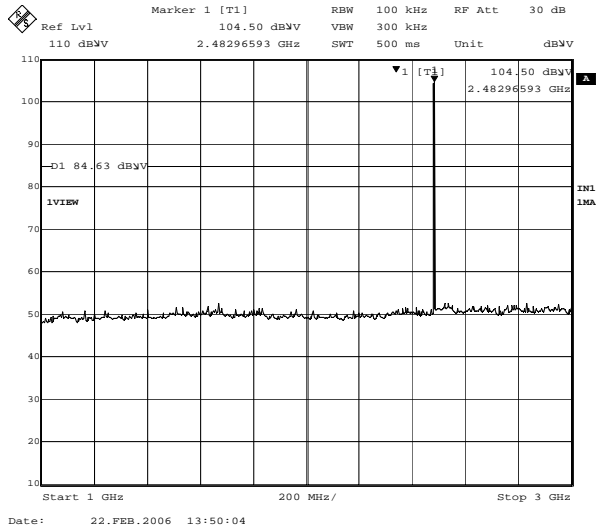
1.



2.



3.



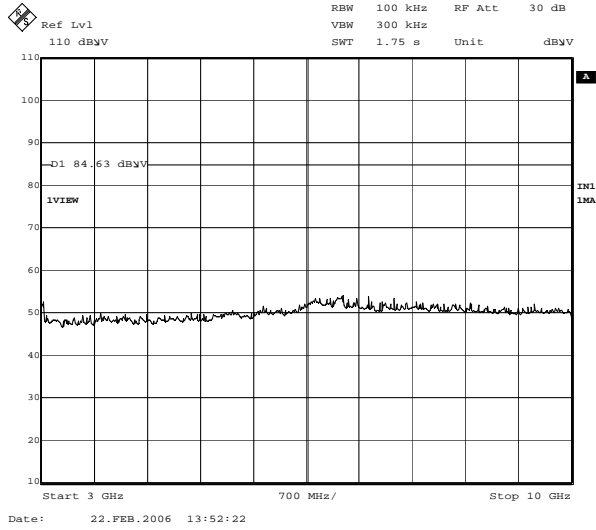
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

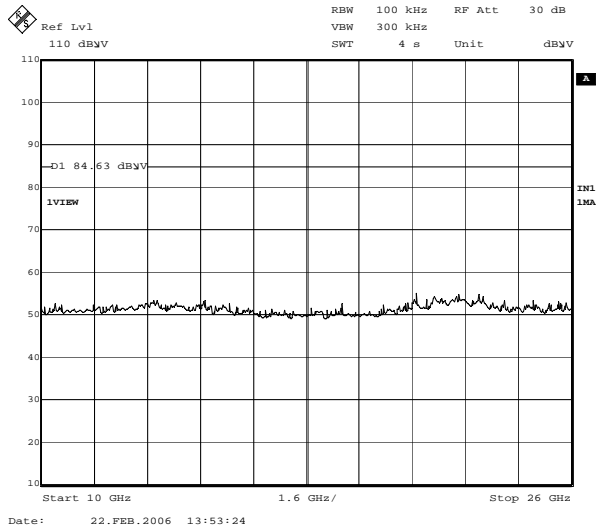
UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting/Receiving
ENGINEER : Toyokazu Imamura

[Transmitting]
Ch:2480MHz

4.



5.



DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2402MHz
 Remarks :
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	45.02	BB	22.9	23.0	13.1	27.6	1.3	6.0	15.7	15.8	40.0	24.3	24.2
2.	126.00	BB	23.1	23.2	13.8	27.4	2.3	6.0	17.8	17.9	43.5	25.7	25.6
3.	245.00	BB	22.3	23.2	17.5	27.0	3.3	6.0	22.1	23.0	46.0	23.9	23.0
4.	325.00	BB	21.9	22.2	15.6	26.9	4.0	6.0	20.6	20.9	46.0	25.4	25.1
5.	460.00	BB	23.2	22.8	18.3	27.7	5.1	6.0	24.9	24.5	46.0	21.1	21.5
6.	770.00	BB	24.1	23.8	21.4	27.8	6.1	6.0	29.8	29.5	46.0	16.2	16.5

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

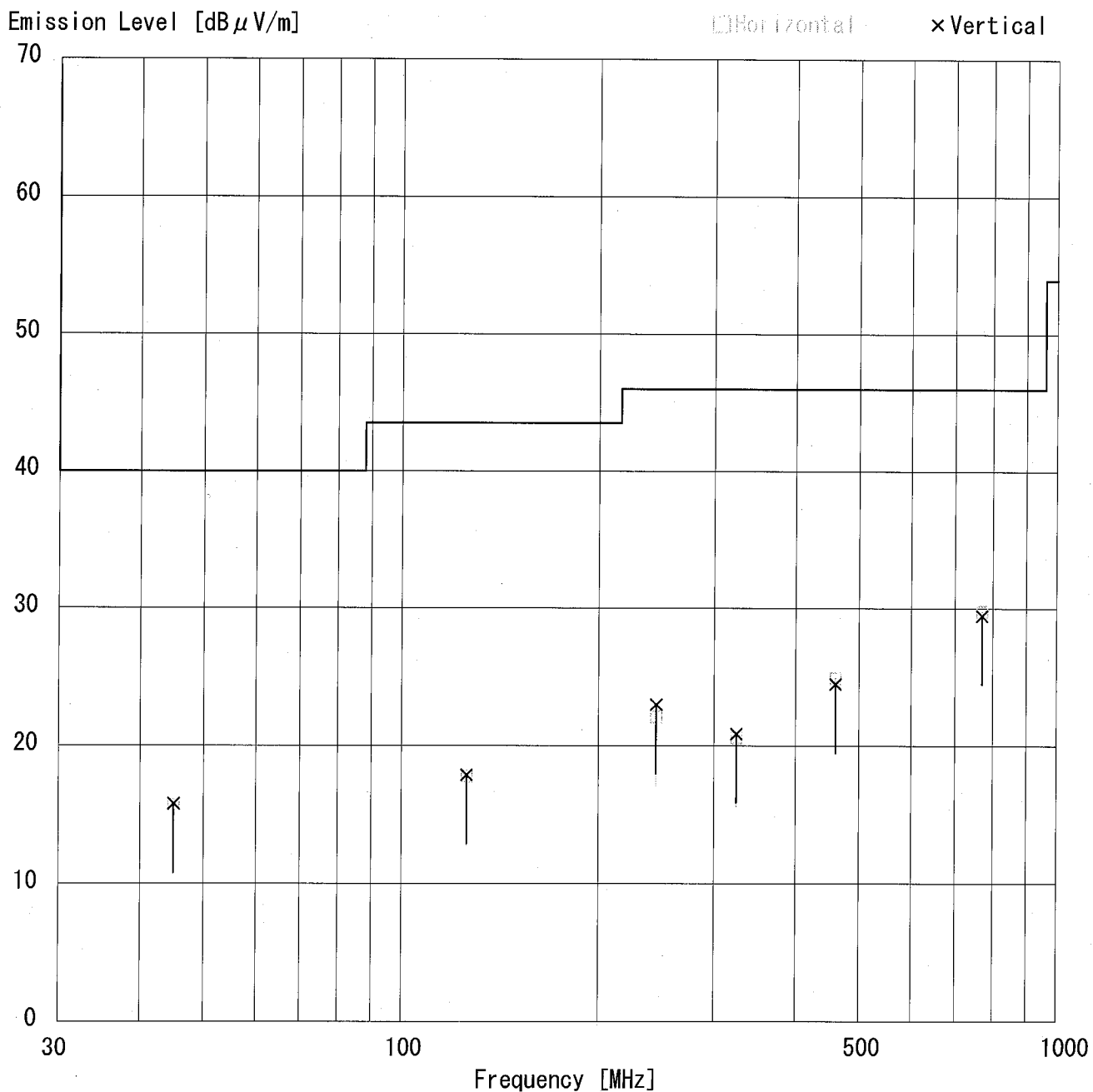
■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ CABLE: KCC-30/31/32/34 ■ PREAMP: KAF-05 (8449D) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth adapter
Model No. : CD-BTB100
Serial No. : TPSEL000015
Power : DC12.0V
Mode : Tx:2402MHz
Remarks :
Date : 2/8/2006
Test Distance : 3 m
Temperature : 21 °C
Humidity : 38 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki



DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2441MHz
 Remarks :
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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 μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	48.00	BB	23.1	23.6	12.0	27.7	1.4	6.0	14.8	15.3	40.0	25.2	24.7
2.	125.50	BB	23.1	23.6	13.8	27.4	2.3	6.0	17.8	18.3	43.5	25.7	25.2
3.	243.00	BB	21.8	22.9	17.5	27.0	3.3	6.0	21.6	22.7	46.0	24.4	23.3
4.	330.00	BB	23.0	23.5	15.7	26.9	4.1	6.0	21.9	22.4	46.0	24.1	23.6
5.	450.53	BB	23.9	23.1	18.3	27.8	5.0	6.0	25.4	24.6	46.0	20.6	21.4
6.	760.00	BB	24.2	23.7	21.2	27.9	6.0	6.0	29.5	29.0	46.0	16.5	17.0

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

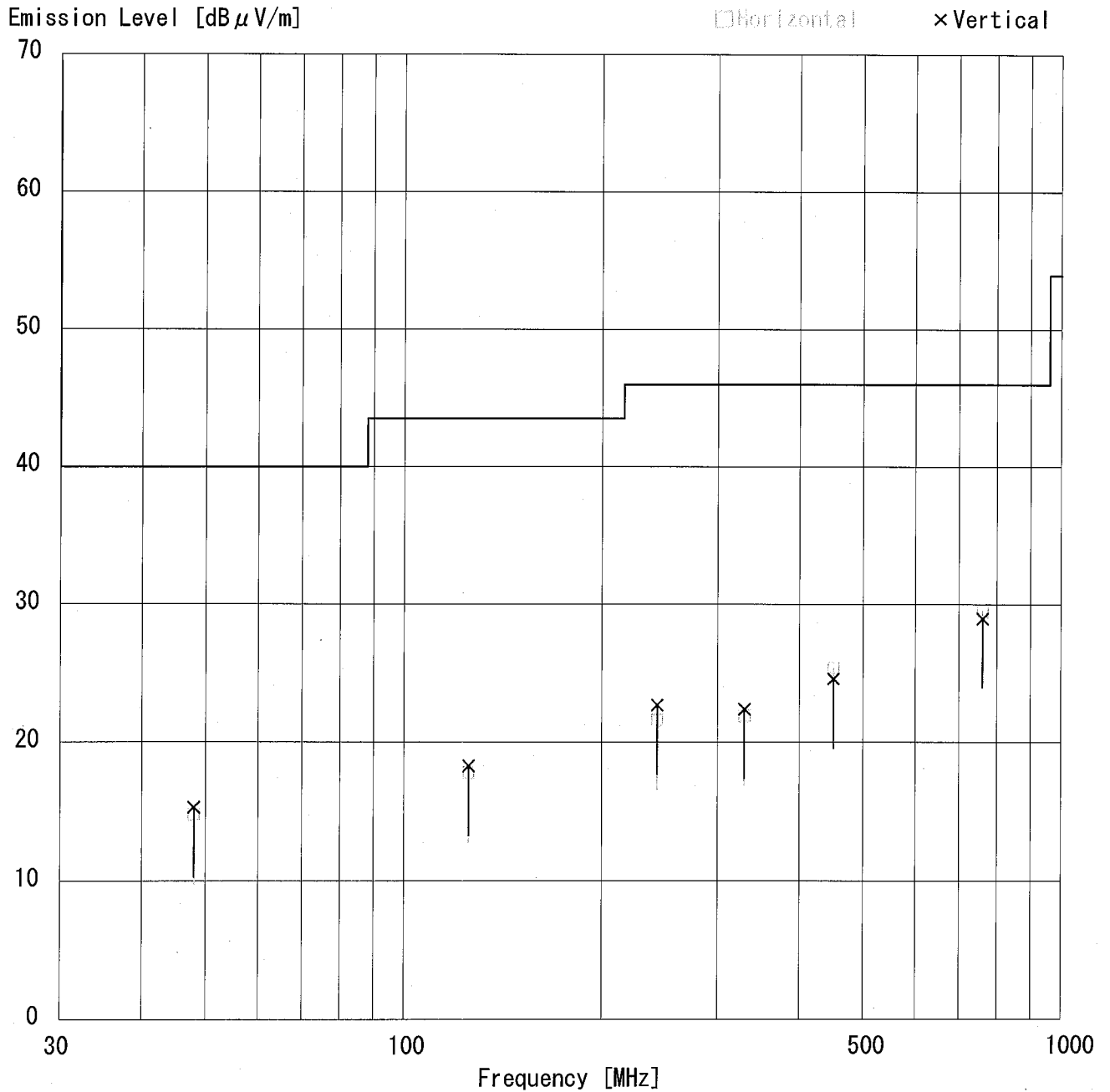
■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ CABLE: KCC-30/31/32/34 ■ PREAMP: KAF-05 (8449D) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth adapter
Model No. : CD-BTB100
Serial No. : TPSEL000015
Power : DC12.0V
Mode : Tx:2441MHz
Remarks :
Date : 2/8/2006
Test Distance : 3 m
Temperature : 21 °C
Humidity : 38 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki



DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2480MHz
 Remarks :
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	46.00	BB	23.7	24.1	12.7	27.6	1.3	6.0	16.1	16.5	40.0	23.9	23.5
2.	127.00	BB	22.5	23.1	13.9	27.4	2.3	6.0	17.3	17.9	43.5	26.2	25.6
3.	241.50	BB	22.3	22.9	17.4	27.0	3.3	6.0	22.0	22.6	46.0	24.0	23.4
4.	320.61	BB	22.8	22.9	15.4	26.9	4.0	6.0	21.3	21.4	46.0	24.7	24.6
5.	451.03	BB	23.4	22.8	18.3	27.8	5.0	6.0	24.9	24.3	46.0	21.1	21.7
6.	750.06	BB	23.9	23.8	21.0	27.9	6.0	6.0	29.0	28.9	46.0	17.0	17.1

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

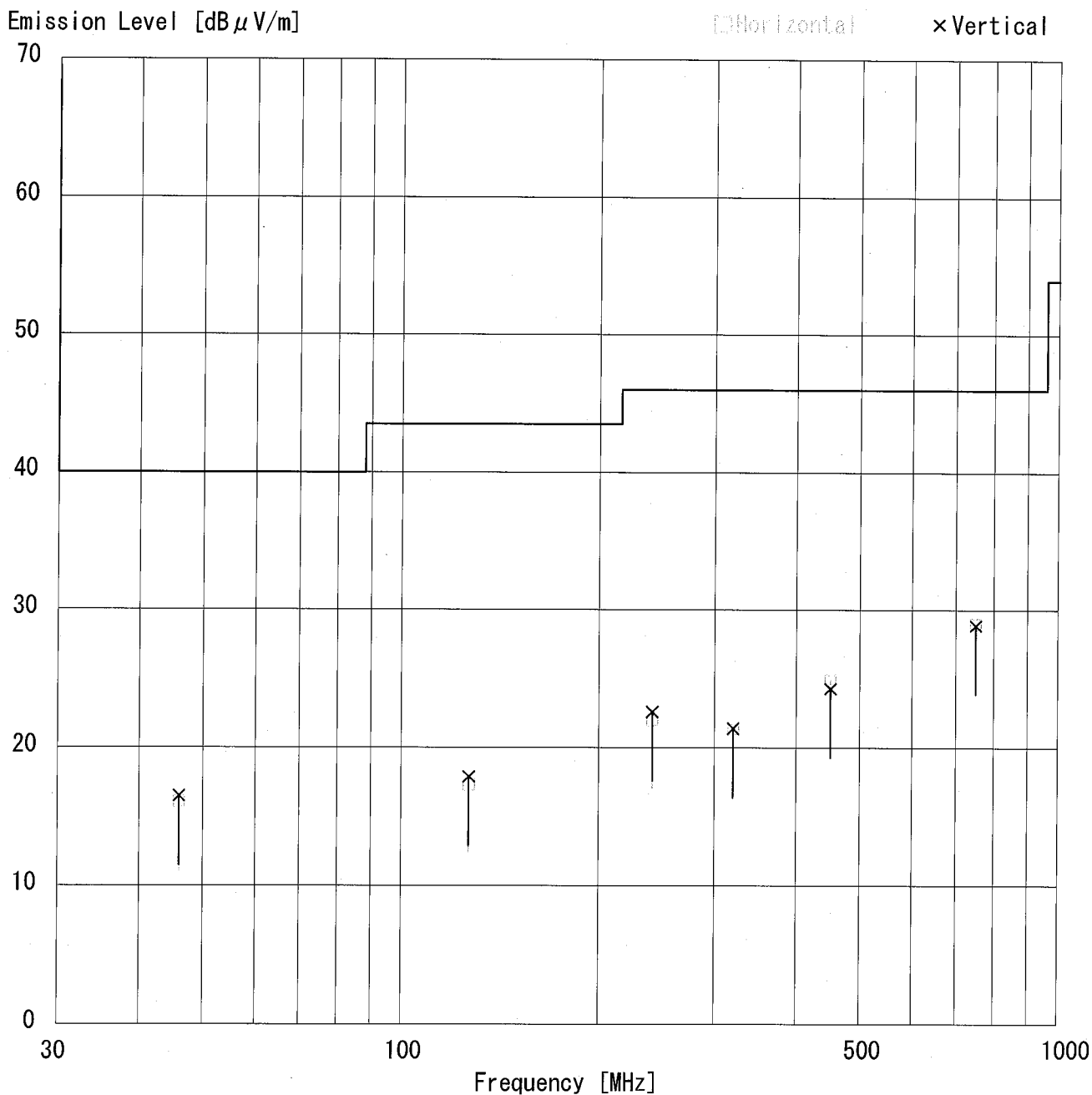
■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ CABLE: KCC-30/31/32/34 ■ PREAMP: KAF-05 (8449D) ■ EMI RECEIVER: KTR-01 (ES140)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
Kind of Equipment : Bluetooth adapter
Model No. : CD-BTB100
Serial No. : TPSEL000015
Power : DC12.0V
Mode : Tx:2480MHz
Remarks :
Date : 2/8/2006
Test Distance : 3 m
Temperature : 21 °C
Humidity : 38 %
Regulation : FCC Part15C § 15.209

Engineer : Takahiro Suzuki



DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2402MHz
 Remarks : PK (RBW:1MHz, VBW:1MHz)
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	42.9	43.0	28.7	37.0	4.0	10.0	48.6	48.7	74.0	25.4	25.3
2.	4804.00	BB	43.2	44.1	32.9	36.5	5.5	0.5	45.6	46.5	74.0	28.4	27.5
3.	7206.00	BB	39.7	39.3	36.4	36.8	6.6	0.2	46.1	45.7	74.0	27.9	28.3
4.	9608.00	BB	42.1	42.2	38.4	37.1	7.4	0.5	51.3	51.4	74.0	22.7	22.6
5.	12010.00	BB	41.7	41.8	40.6	36.2	8.2	0.0	54.3	54.4	74.0	19.7	19.6
6.	14412.00	BB	43.3	42.2	43.0	35.0	8.9	0.3	60.5	59.4	74.0	13.5	14.6
7.	16814.00	BB	42.5	42.8	42.1	35.7	9.6	0.6	59.1	59.4	74.0	14.9	14.6
8.	19216.00	BB	43.6	44.0	38.4	34.7	10.2	0.0	57.5	57.9	74.0	16.5	16.1
9.	21618.00	BB	45.8	45.0	38.8	35.7	10.6	0.0	59.5	58.7	74.0	14.5	15.3
10.	24020.00	BB	46.5	46.8	39.1	34.9	11.0	0.0	61.7	62.0	74.0	12.3	12.0

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-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2402MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz)
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	32.7	32.8	28.7	37.0	4.0	10.0	38.4	38.5	54.0	15.6	15.5
2.	4804.00	BB	31.6	32.8	32.9	36.5	5.5	0.5	34.0	35.2	54.0	20.0	18.8
3.	7206.00	BB	30.9	29.5	36.4	36.8	6.6	0.2	37.3	35.9	54.0	16.7	18.1
4.	9608.00	BB	31.4	32.2	38.4	37.1	7.4	0.5	40.6	41.4	54.0	13.4	12.6
5.	12010.00	BB	29.8	30.4	40.6	36.2	8.2	0.0	42.4	43.0	54.0	11.6	11.0
6.	14412.00	BB	31.0	30.8	43.0	35.0	8.9	0.3	48.2	48.0	54.0	5.8	6.0
7.	16814.00	BB	31.5	31.9	42.1	35.7	9.6	0.6	48.1	48.5	54.0	5.9	5.5
8.	19216.00	BB	32.0	32.0	38.4	34.7	10.2	0.0	45.9	45.9	54.0	8.1	8.1
9.	21618.00	BB	33.6	33.4	38.8	35.7	10.6	0.0	47.3	47.1	54.0	6.7	6.9
10.	24020.00	BB	34.4	34.5	39.1	34.9	11.0	0.0	49.6	49.7	54.0	4.4	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)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2441MHz
 Remarks : PK (RBW:1MHz, VBW:1MHz)
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	4882.00	BB	46.8	45.6	33.1	36.5	5.5	0.5	49.4	48.2	74.0	24.6	25.8
2.	7323.00	BB	39.6	39.5	36.6	36.8	6.7	0.2	46.3	46.2	74.0	27.7	27.8
3.	9764.00	BB	42.4	42.1	38.5	37.1	7.4	0.3	51.5	51.2	74.0	22.5	22.8
4.	12205.00	BB	41.8	41.7	40.5	36.0	8.1	0.0	54.4	54.3	74.0	19.6	19.7
5.	14646.00	BB	43.4	42.0	43.0	35.3	8.9	0.5	60.5	59.1	74.0	13.5	14.9
6.	17087.00	BB	42.4	42.7	43.2	35.6	9.7	0.5	60.2	60.5	74.0	13.8	13.5
7.	19528.00	BB	44.0	44.1	37.9	35.2	10.5	0.0	57.2	57.3	74.0	16.8	16.7
8.	21969.00	BB	45.7	45.1	38.8	35.1	10.9	0.0	60.3	59.7	74.0	13.7	14.3
9.	24410.00	BB	46.6	46.7	39.2	35.0	11.1	0.0	61.9	62.0	74.0	12.1	12.0

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 -F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2441MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz)
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C Engineer : Takahiro Suzuki
 Humidity : 38 %
 Regulation : FCC Part15C § 15.209 (AV Detection)

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					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4882.00	BB	31.7	32.6	33.1	36.5	5.5	0.5	34.3	35.2	54.0	19.7	18.8
2.	7323.00	BB	30.8	29.1	36.6	36.8	6.7	0.2	37.5	35.8	54.0	16.5	18.2
3.	9764.00	BB	31.5	32.3	38.5	37.1	7.4	0.3	40.6	41.4	54.0	13.4	12.6
4.	12205.00	BB	29.6	30.5	40.5	36.0	8.1	0.0	42.2	43.1	54.0	11.8	10.9
5.	14646.00	BB	31.2	31.0	43.0	35.3	8.9	0.5	48.3	48.1	54.0	5.7	5.9
6.	17087.00	BB	31.6	32.0	43.2	35.6	9.7	0.5	49.4	49.8	54.0	4.6	4.2
7.	19528.00	BB	32.1	32.2	37.9	35.2	10.5	0.0	45.3	45.4	54.0	8.7	8.6
8.	21969.00	BB	33.8	33.5	38.8	35.1	10.9	0.0	48.4	48.1	54.0	5.6	5.9
9.	24410.00	BB	34.5	34.3	39.2	35.0	11.1	0.0	49.8	49.6	54.0	4.2	4.4

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-02 (8449B) ■ SPECTRUMANALYZER: R3271A (KSA-04)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 26FE0203-YK-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2480MHz
 Remarks : PK (RBW:1MHz, VBW:1MHz)
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2483.50	BB	42.8	43.5	28.8	37.1	4.0	10.0	48.5	49.2	74.0	25.5	24.8
2.	4960.00	BB	43.5	43.7	33.3	36.4	5.6	0.5	46.5	46.7	74.0	27.5	27.3
3.	7440.00	BB	39.8	39.4	36.9	36.8	6.7	0.2	46.8	46.4	74.0	27.2	27.6
4.	9920.00	BB	42.5	42.2	38.6	37.0	7.4	0.2	51.7	51.4	74.0	22.3	22.6
5.	12400.00	BB	41.9	41.6	40.4	35.7	8.1	0.0	54.7	54.4	74.0	19.3	19.6
6.	14880.00	BB	43.2	42.1	42.3	35.7	9.0	0.7	59.5	58.4	74.0	14.5	15.6
7.	17360.00	BB	42.6	42.9	44.5	35.7	9.5	0.2	61.1	61.4	74.0	12.9	12.6
8.	19840.00	BB	44.1	44.5	38.2	35.0	10.5	0.0	57.8	58.2	74.0	16.2	15.8
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	46.7	46.8	39.4	34.7	11.5	0.0	62.9	63.0	74.0	11.1	11.0

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-F1

Applicant : PIONEER CORPORATION
 Kind of Equipment : Bluetooth adapter
 Model No. : CD-BTB100
 Serial No. : TPSEL000015
 Power : DC12.0V
 Mode : Tx:2480MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz)
 Date : 2/8/2006
 Test Distance : 3 m
 Temperature : 21 °C
 Humidity : 38 %
 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 μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2483.50	BB	32.3	32.2	28.8	37.1	4.0	10.0	38.0	37.9	54.0	16.0	16.1
2.	4960.00	BB	31.0	31.2	33.3	36.4	5.6	0.5	34.0	34.2	54.0	20.0	19.8
3.	7440.00	BB	30.7	29.4	36.9	36.8	6.7	0.2	37.7	36.4	54.0	16.3	17.6
4.	9920.00	BB	31.6	32.4	38.6	37.0	7.4	0.2	40.8	41.6	54.0	13.2	12.4
5.	12400.00	BB	29.8	30.6	40.4	35.7	8.1	0.0	42.6	43.4	54.0	11.4	10.6
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	32.1	44.5	35.7	9.5	0.2	50.0	50.6	54.0	4.0	3.4
8.	19840.00	BB	32.2	32.1	38.2	35.0	10.5	0.0	45.9	45.8	54.0	8.1	8.2
9.	22320.00	BB	34.0	33.6	39.1	35.0	11.0	0.0	49.1	48.7	54.0	4.9	5.3
10.	24800.00	BB	34.6	34.5	39.4	34.7	11.5	0.0	50.8	50.7	54.0	3.2	3.3

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

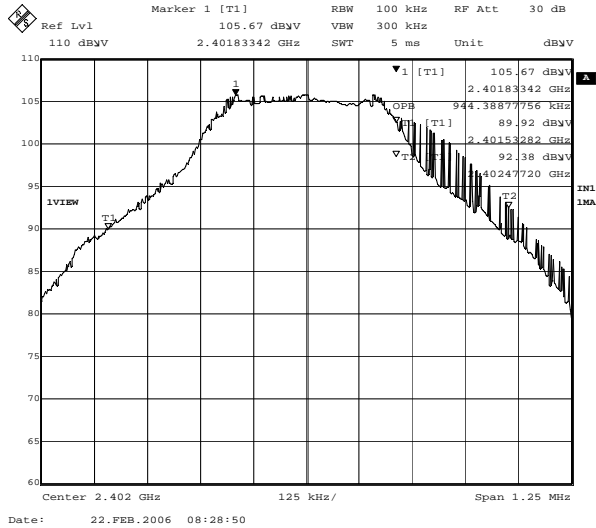
■ ANTENNA: KHA-01 (SAS-200 571) 1-18GHz/KHA-03 (3160-09) 18-26GHz
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: R3271A (KSA-04)

Occupied Bandwidth(99%)

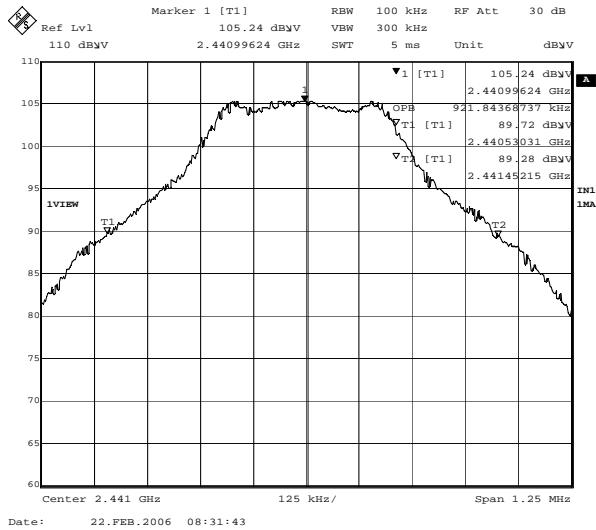
COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : RSS-210
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

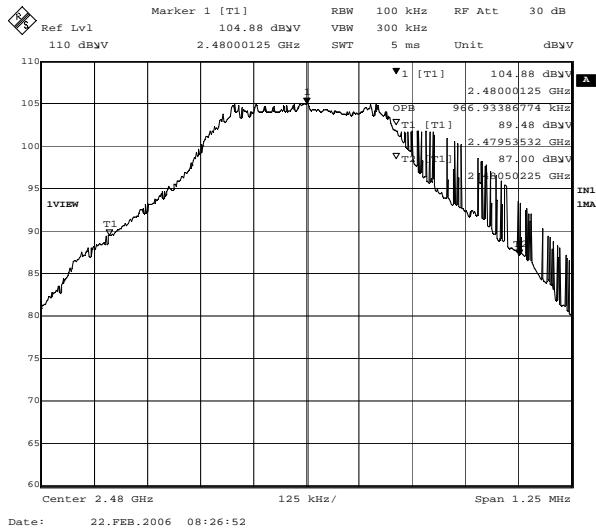
1. ch : 2402MHz/Occupied Bandwidth:944.39kHz



2. ch : 2441MHz/Occupied Bandwidth:921.84kHz



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

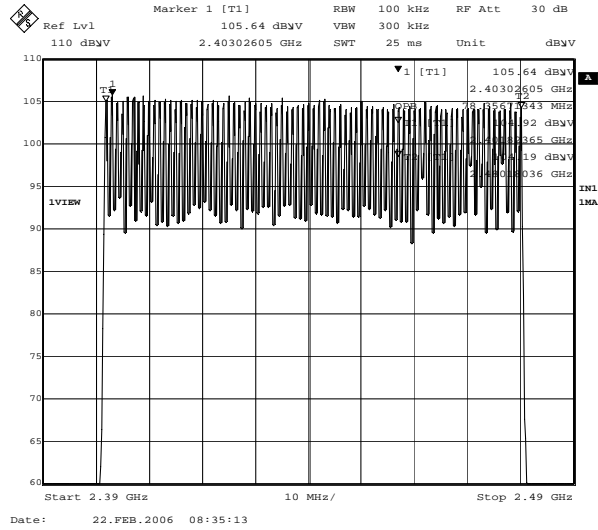


Occupied Bandwidth(99%)

COMPANY : PIONEER CORPORATION
EQUIPMENT : Bluetooth adapter
MODEL NUMBER: CD-BTB100
SERIAL NUMBER: TPSEL000005
FCC ID : AJDK013
POWER : DC12V

UL Apex Co.,Ltd. Yamakita No.1 Shielded Room
REPORT NO : 26FE0203-YK-F1
REGULATION : RSS-210
DATE : 2006/02/22
TEMP./HUMI : 23deg.C./38%
TEST MODE : Transmitting
ENGINEER : Toyokazu Imamura

4. Hopping/Occupied Bandwidth:78.36MHz



Test Report No :26FE0203-YK-F1

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	ESI40	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)