



EMI TEST REPORT

Test Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
Type of Equipment : Navigation system
Model No. : NR-204-6U
FCC ID : UJHNR20463AF34606
Test Standard : FCC Part15 Subpart C: 2007
Test Result : Complied

1. This test report shall not be reproduced except in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.

Date of test: September 11, 2006 and August 10, 2007

Tested by: J. Arai & G. Ishiwata
Tatsuya Arai & Go Ishiwata

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

UL Japan, Inc.

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1 Applicant Information

Company Name : Mitsubishi Electric Corporation
Brand Name : MITSUBISHI
Address : 2-2-3, Marunouchi, Chiyoda-ku, Tokyo-to, 669-1513 JAPAN
Telephone Number : +81-79-559-3541
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Contact Person : Shuichi Nishikawa

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2 Product Description

Type of Equipment : Navigation system
Model No. : NR-204-6U
Serial No. : Refer to 4.2.
Rating : DC12.6V
Country of Manufacture : Japan
Receipt Date of Sample : September 11, 2006 and July 26, 2007
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No modification by the test lab.

Model: NR-204-6U (referred to as the EUT in this report) is a Navigation system. NR-240-6U defines fully loaded with just about every conceivable navigation, DVD, AM/FM receiver, Bluetooth hands-free system and in-dash monitor feature. The motorized touch screen TFT panel displays radio, CD, DVD and navigation with easy-to-use menus and icons. The DVD-based navigation system uses GPS satellite positioning to provide turn-by-turn voice guidance with detailed on-screen maps.

Clock frequency : 26MHz
Equipment type : Transceiver
Frequency band : 2402-2480MHz
Bandwidth & Channel spacing: 79MHz & 1MHz
Type of modulation : FHSS
Antenna type : Pattern antenna
Antenna connector type : Dedicated connector (A053 545 37 28, Manufacturer: DaimlerChrysler AG)
Antenna gain : 2.32 dBi (MAX)
Mode of operation : Simplex
ITU code : F1D
Operating temperature range: -40 to +85 deg.C.

***FCC Part 15.31 (e)**

The module is provided stable power supply (DC 3.3V), and the power is not changed when voltage of the main unit is varied. Therefore, the equipment complies power supply regulation.

***FCC Part 15.203**

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the vehicle. Therefore, the equipment complies with the requirement.

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3 Test Specification, Procedures and Results

3.1 Test specification

Test specification : FCC Part15 Subpart C: 2007
 Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
 Section 15.209 Radiated emission limits, general requirements
 Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz,
 and 5725-5850MHz

3.2 Procedures & Results

Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results
Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A *1)	N/A	N/A
Carrier Frequency Separation	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	5.8dB (366.00MHz, QP, Horizontal, 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.

* Other than mentioned in 3.3, no addition, exclusion nor deviation has been made from the standard.

3.3 Addition to standard

Item	Test Procedure	Specification	Remarks	Worst Margin	Results
Occupied Bandwidth (99%)	ANSI C63.4:2003 13. Measurement of intentional radiators RSS-Gen 4.4.1	RSS-Gen 4.4.1	Conducted -		Complied

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3.3 Uncertainty

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

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

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

Spurious emission test (Radiated)

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

3.4 Test Location

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Telephone number : +81 465 77 1011

Facsimile number : +81 465 77 2112

NVLAP Lab. code : 200441-0

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

IC Registration No. : 2973B-1

No. 2 test site has been fully described in a report submitted to FCC office, and accepted on April 4, 2005 (Registration No.: 466226).

IC Registration No. : 2973B-3

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

IC Registration No. : 2973B-2

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

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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 (& Receiving at the same time)
- Low channel : 2402MHz
- Middle channel : 2441MHz
- High channel : 2480MHz
- 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.

Test also was not performed at Inquiry mode and Page mode since the EUT is a master device and these modes are not used under normal operation.

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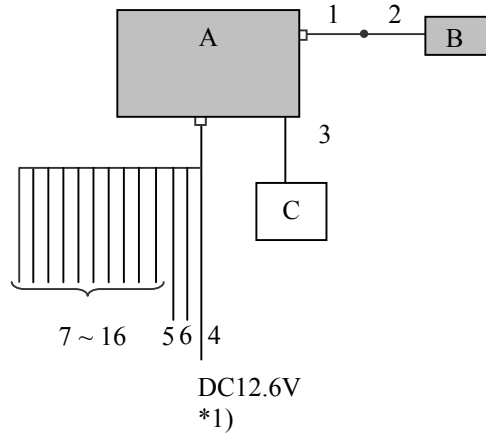
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4.2 Configuration of Tested System



* Test data was taken under worse case conditions.

Description of EUT and support equipment

No.	Item	Model number	Serial number *2)	Manufacturer	FCC ID (Remarks)
A	Navigation system	NR-204-6U	ME346066020001 ME346062170004	MITSUBISHI	UJHNR20463AF3460 6 (EUT)
B	Antenna	-	-	-	(EUT)
C	Test jig	-	-	-	-

*1) DC Power Supply (Model: PAN35-10A) was used for DC input.

*2) For Radiated emission test, the sample with serial ME346066020001 was used and ME346062170004 was used for the other tests.

List of cables used

No.	Name	Length (m)	Shield		Remark
			Connector	Cable	
1	Relay cable	0.25	Shielded	Shielded	-
2	Antenna cable	0.25	Shielded	Shielded	-
3	Signal cable	0.30	Unshielded	Unshielded	-
4	DC cable	0.95	Unshielded	Unshielded	-
5	Signal cable (H-CAN)	1.4	Unshielded	Unshielded	-
6	Signal cable (B-CAN)	1.4	Unshielded	Unshielded	-
7	Signal cable (CAN Hi)	0.95	Unshielded	Unshielded	-
8	Signal cable (Wake up)	0.95	Unshielded	Unshielded	-
9	Signal cable (Cradle)	0.95	Unshielded	Unshielded	-
10	Signal cable (Ext. FAN)	0.25	Unshielded	Unshielded	-
11	Signal cable (Speaker FR)	0.25	Unshielded	Unshielded	-
12	Signal cable (Speaker FL)	0.25	Unshielded	Unshielded	-
13	Signal cable (Speaker RR)	0.25	Unshielded	Unshielded	-
14	Signal cable (Speaker RL)	0.25	Unshielded	Unshielded	-
15	Signal cable (Microphone 1)	0.25	Unshielded	Unshielded	-
16	Signal cable (Microphone 2)	0.25	Unshielded	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: August 10, 2007

Test engineer : Tatsuya Arai

6 20dB Bandwidth & Occupied Bandwidth (99%)

Test Procedure

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

Summary of the test results: Pass

Date: August 10, 2007

Test engineer : Tatsuya Arai

7 Number of Hopping Frequency

Test Procedure

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

Summary of the test results: Pass

Date: August 10, 2007

Test engineer : Tatsuya Arai

8 Dwell time

Test Procedure

The Dwell time was measured with a spectrum analyzer connected to the antenna port.
Measurement was performed with the packet type of DH1, DH3 and DH5.

Summary of the test results: Pass

Date: August 10, 2007

Test engineer : Tatsuya Arai

9 Maximum Peak Output Power

Test Procedure

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

Summary of the test results: Pass

Date: August 10, 2007

Test engineer : Tatsuya Arai

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: August 10, 2007

Test engineer : Tatsuya Arai

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

11.3 Test conditions

Frequency range : 30MHz - 26GHz
 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 and 1m. The measuring antenna height was varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization.

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 IF Bandwidth	QP: BW 120kHz	PK: RBW: 1MHz/VBW: 1MHz, AV: RBW: 1MHz/VBW: 10Hz
Measuring antenna	Biconical (30-300MHz) Logperiodic (300MHz-1GHz)	Horn

The antenna of the EUT 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.

	Below 1GHz	Above 1GHz
Horizontal	X	X
Vertical	Z	Z

11.5 Band edge

Band edge level at 2400MHz is less than 20dB of peak point of the carrier. Refer to the data of Out of Band Emissions (Antenna Port Conducted).

Band edge level at 2390MHz and 2483.5MHz is below the limits of FCC 15.209. Refer to the data of Radiated emission.

11.6 Results

Summary of the test results : Pass

No noise was detected above the 5th order harmonics.

Date: September 11, 2006

Test engineer : Go Ishiwata

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APPENDIX 1: Photographs of test setup

Page 12	:	Radiated emission
Page 13	:	Pre-check of the worst position

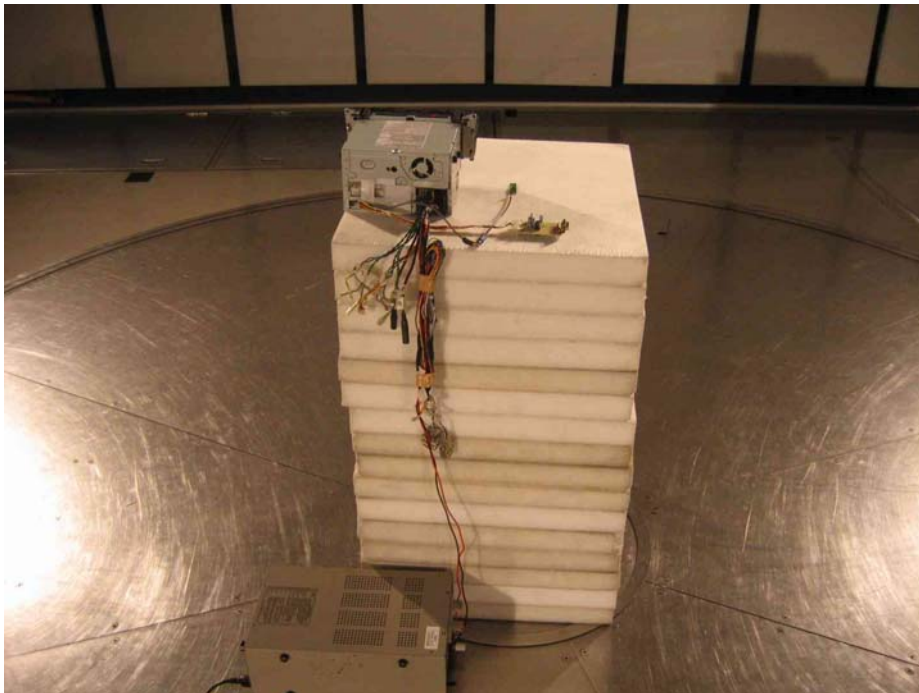
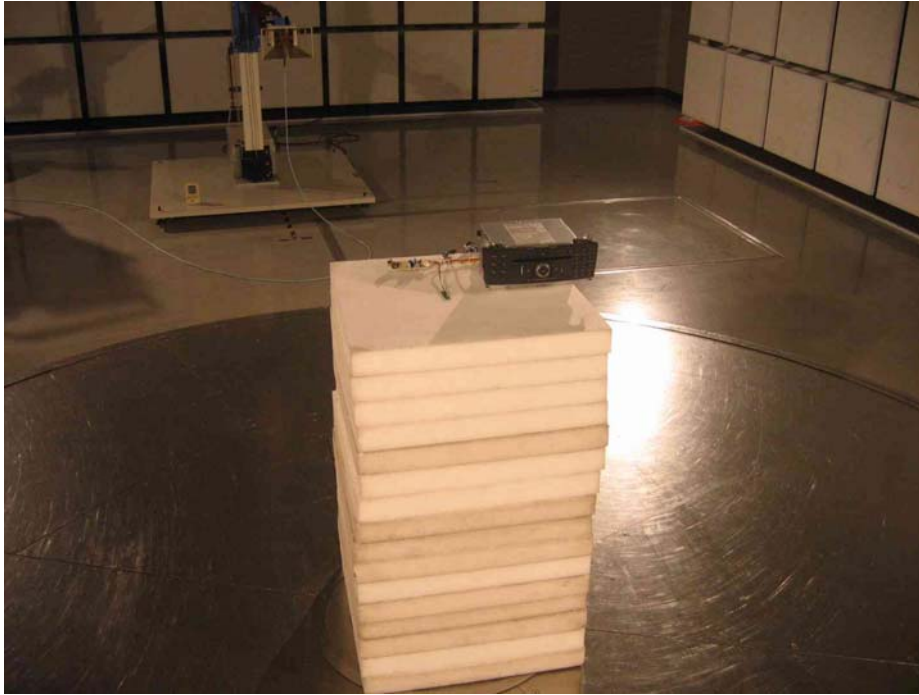
APPENDIX 2: Test Data

Page 14	:	Carrier Frequency Separation
Page 15 - 16	:	20dB Bandwidth
Page 17 - 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 - 40	:	Out of Band Emissions (Radiated)
Page 41 - 42	:	Occupied Bandwidth

APPENDIX 3: Test instruments

Page 43	:	Test instruments
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Radiated emission



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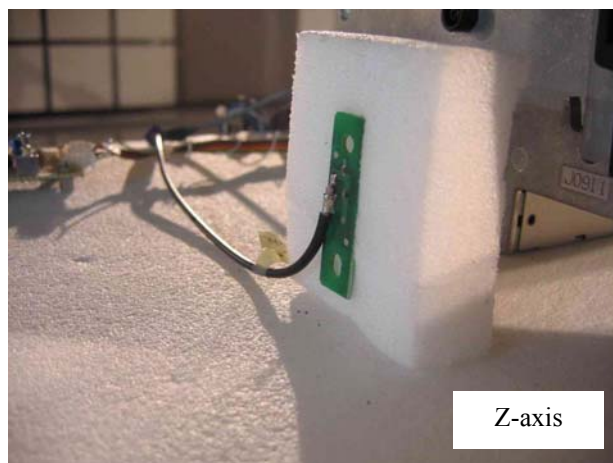
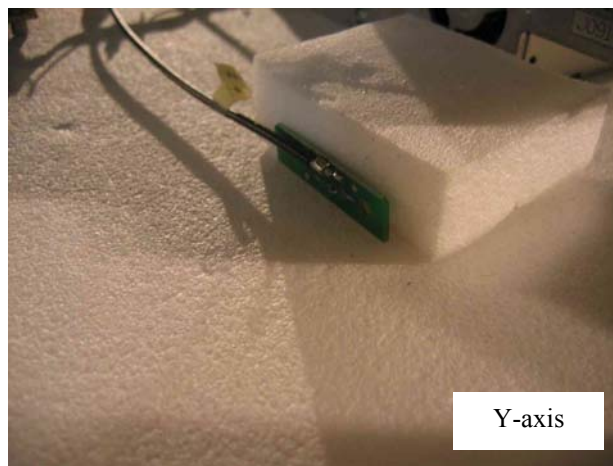
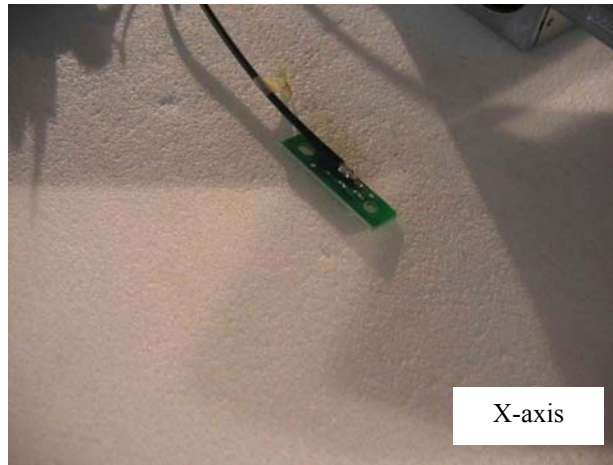
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Pre-check of the worst position



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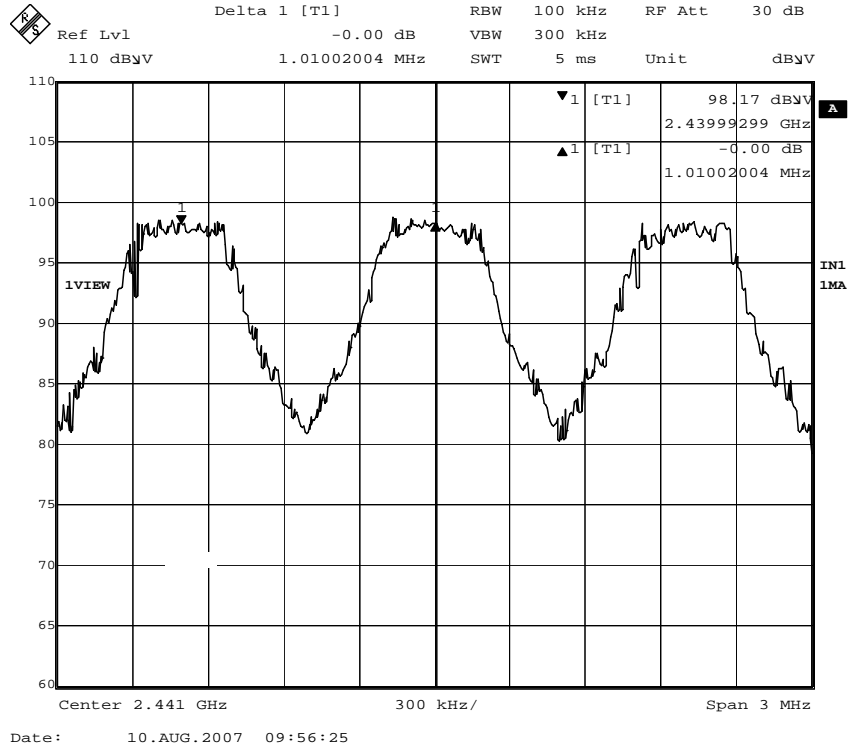
Facsimile: +81 465 77 2112

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Channel Separation: FCC 15.247(a)(1)

COMPANY : Mitsubishi Electric Corporation EQUIPMENT : Navigation system MODEL NUMBER : NR-204-6U SERIAL NUMBER : ME346062170004 FCC ID : UJHNR20463AF34606 POWER : DC12.6V	UL Japan, Inc. Yamakita No.4 Shielded Room REPORT NO : 27AE0127-YK-A REGULATION : Fcc Part15SubpartC 247(a)(1) DATE : 2007/08/10 TEMP./HUMI : 24deg.C./61% TEST MODE : Transmitting ENGINEER : Tatsuya Arai
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1. Hopping:1010.02kHz

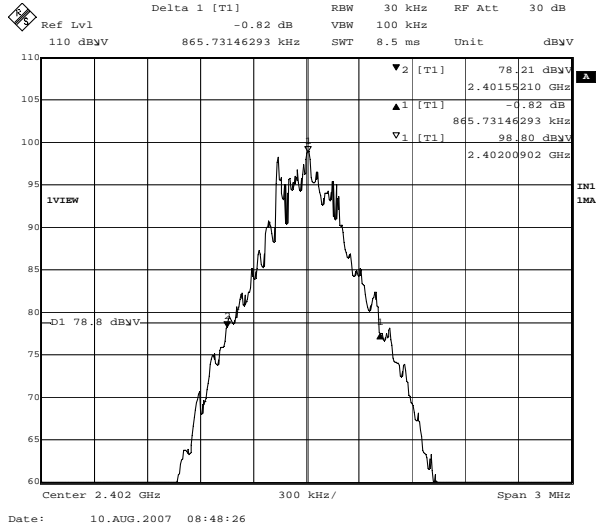


20dB Bandwidth: FCC 15.247(a)(1)

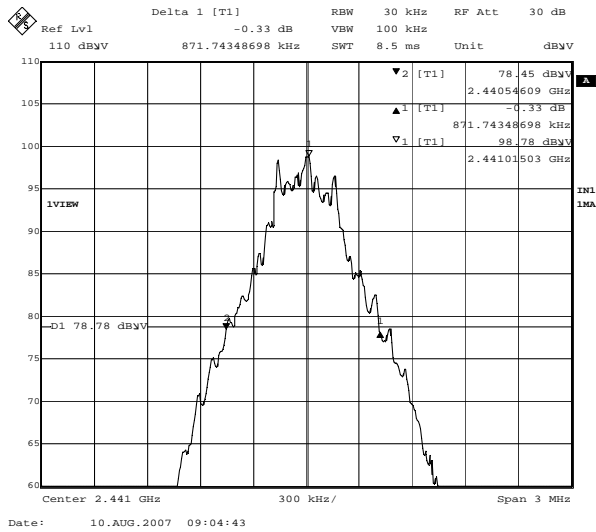
COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting (Hopping off)
ENGINEER : Tatsuya Arai

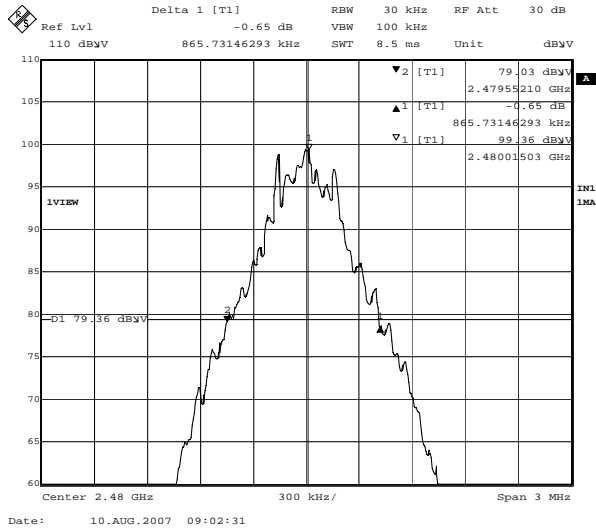
1. ch : 2402MHz/20dB Bandwidth:865.73kHz



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



3. ch : 2480MHz/20dB Bandwidth:865.73kHz

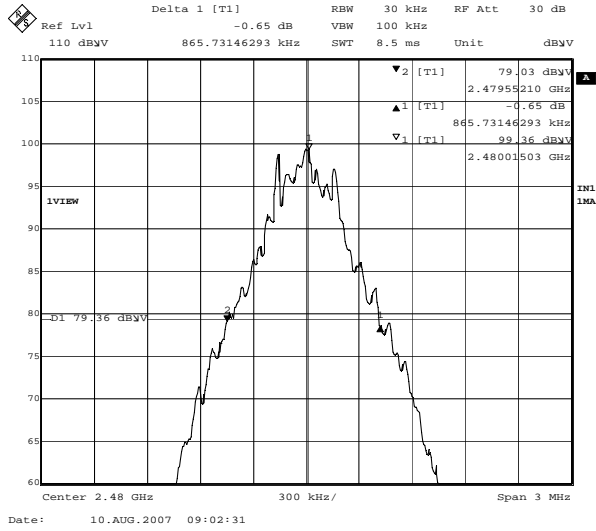


20dB Bandwidth: FCC 15.247(a)(1)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting (Hopping off)
ENGINEER : Tatsuya Arai

4. Inquiry/20dB Bandwidth:865.73kHz



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

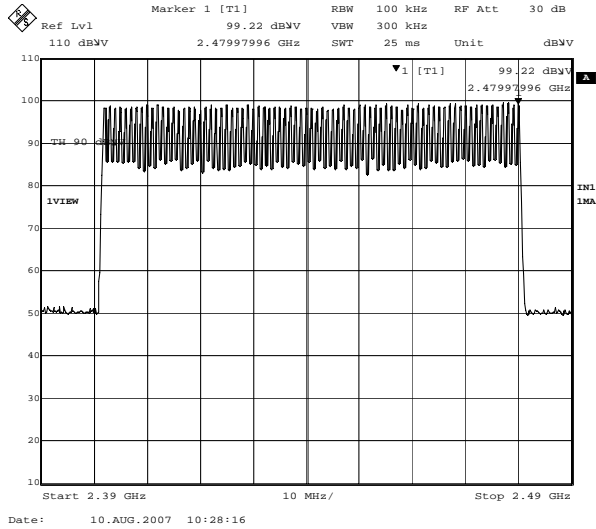
UL Japan, Inc. Yamakita No.4 Shielded Room

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

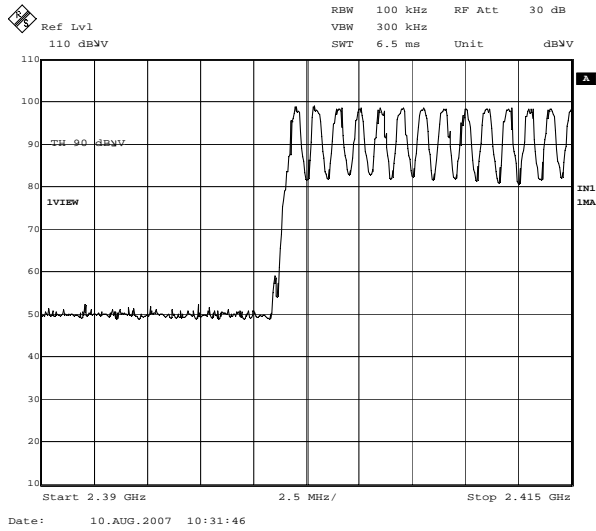
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Hopping: 79ch

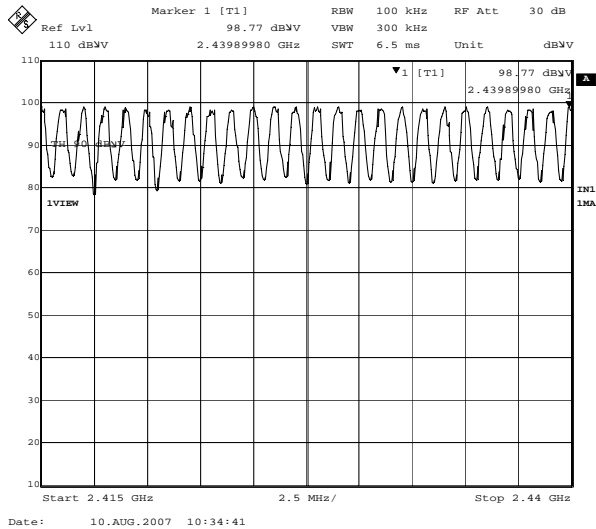
1.



2.



3.

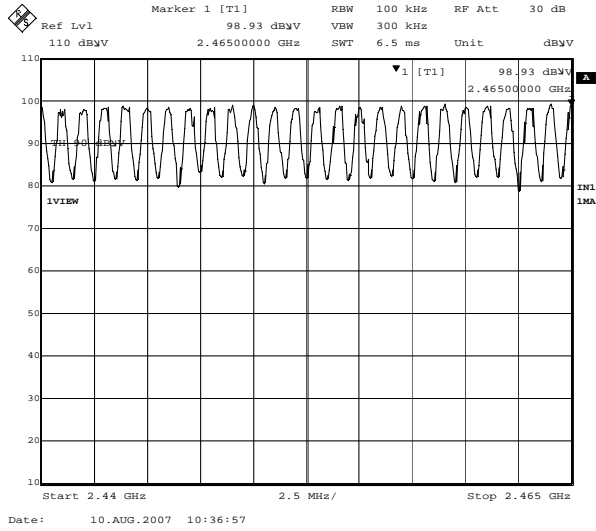


Channel Utilization: FCC 15.247(a)(1)(iii)

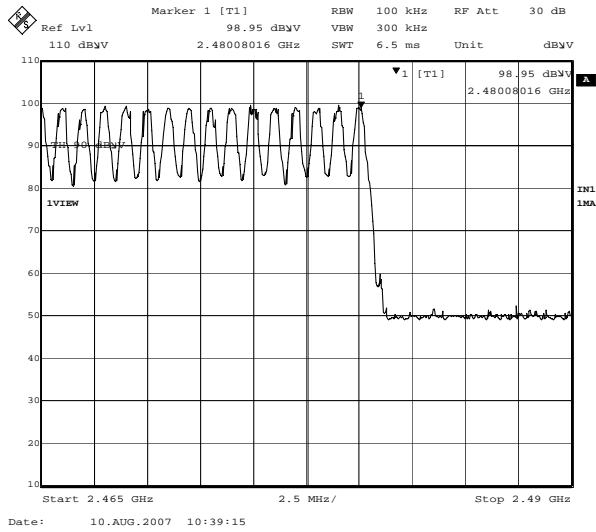
COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

4.



5.



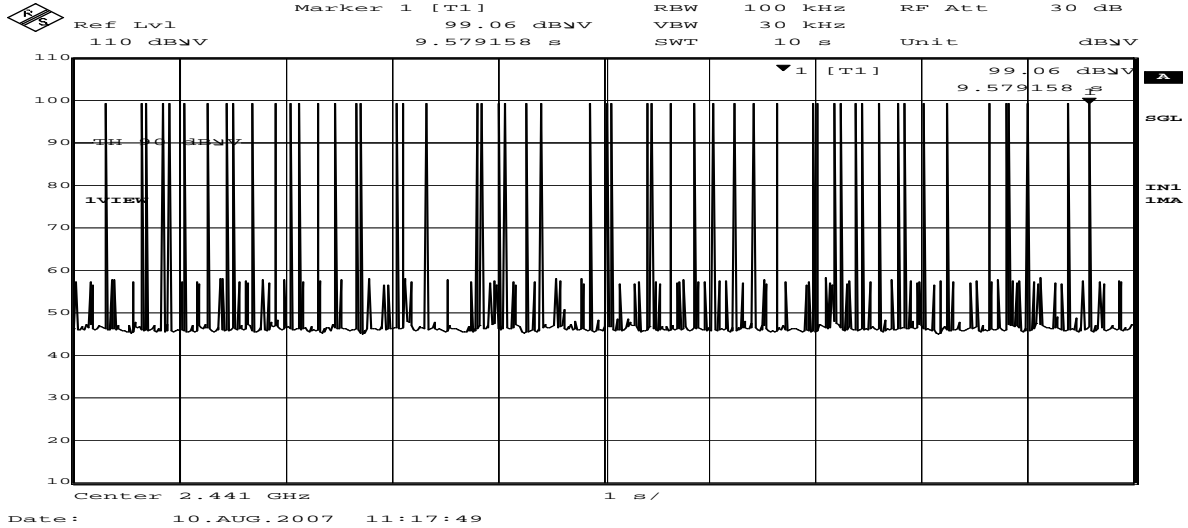
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER : NR-204-6U
SERIAL NUMBER : ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

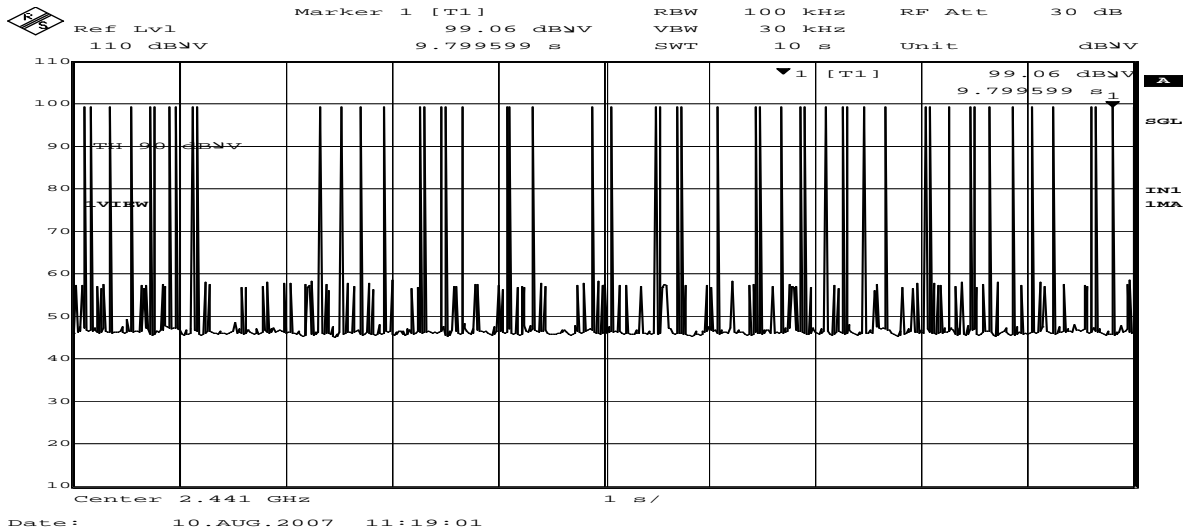
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AEE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Hopping (Packet Type: DH1)

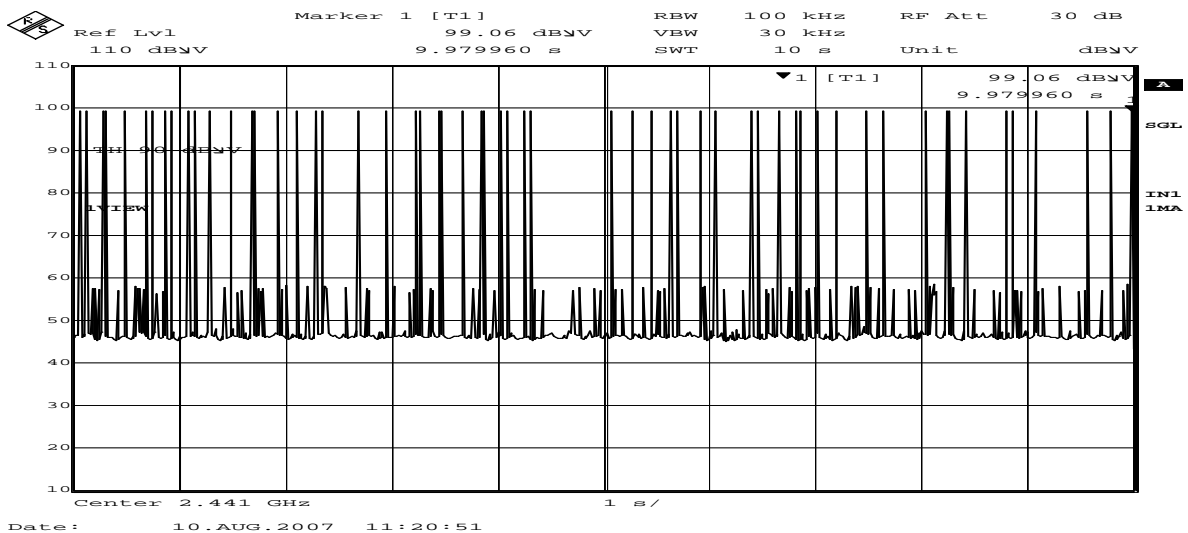
Count 1



Count 2



Count 3

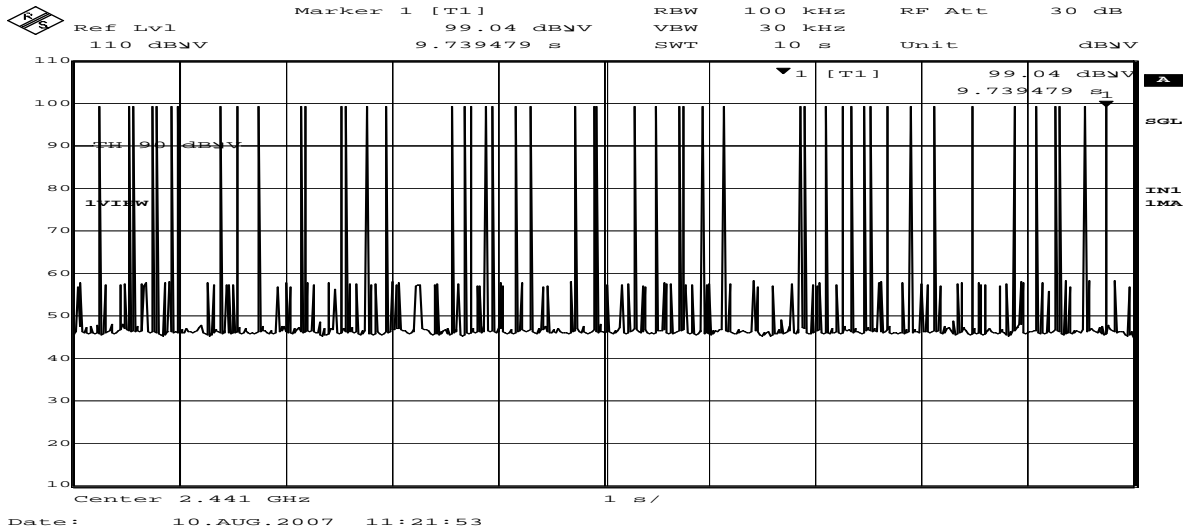


Dwell Time: FCC 15.247(a)(1)(iii)

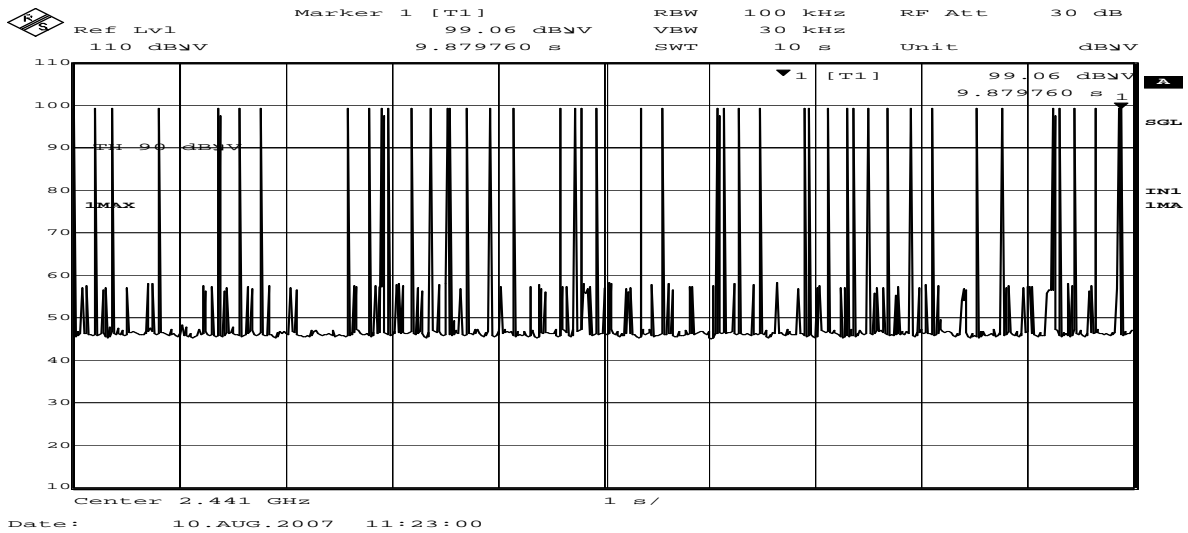
COMPANY : Mitsubishi Electric Corporation
 EQUIPMENT : Navigation system
 MODEL NUMBER: NR-204-6U
 SERIAL NUMBER: ME346062170004
 FCC ID : UJHNR20463AF34606
 POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
 REPORT NO : 27AEE0127-YK-A
 REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
 DATE : 2007/08/10
 TEMP./HUMI : 24deg.C./61%
 TEST MODE : Transmitting
 ENGINEER : Tatsuya Arai

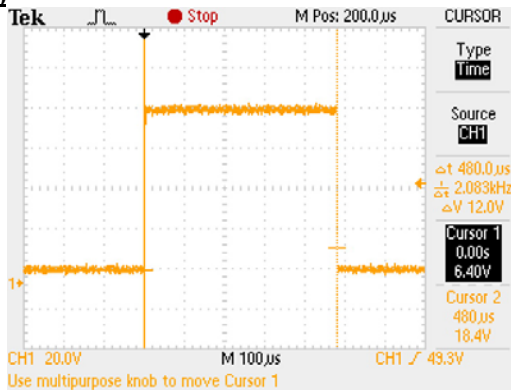
Count 4



Count 5



Duty cycle(Hopping - Packet Type: DH1)



Average times of rising in 10 sec. of sweep = (53 + 50 + 53 + 48 + 43) / 5 = 49.4
 Average times of rising in 1 sec. = 49.4 / 10s = 4.94
 Average times of rising in 0.4x = 0.4 * 79ch * 4.94 = 156.10
 Dwell time = 156.10 * 0.48 = 74.93 [ms]
 Limit : Dwell Time < 0.4[s]

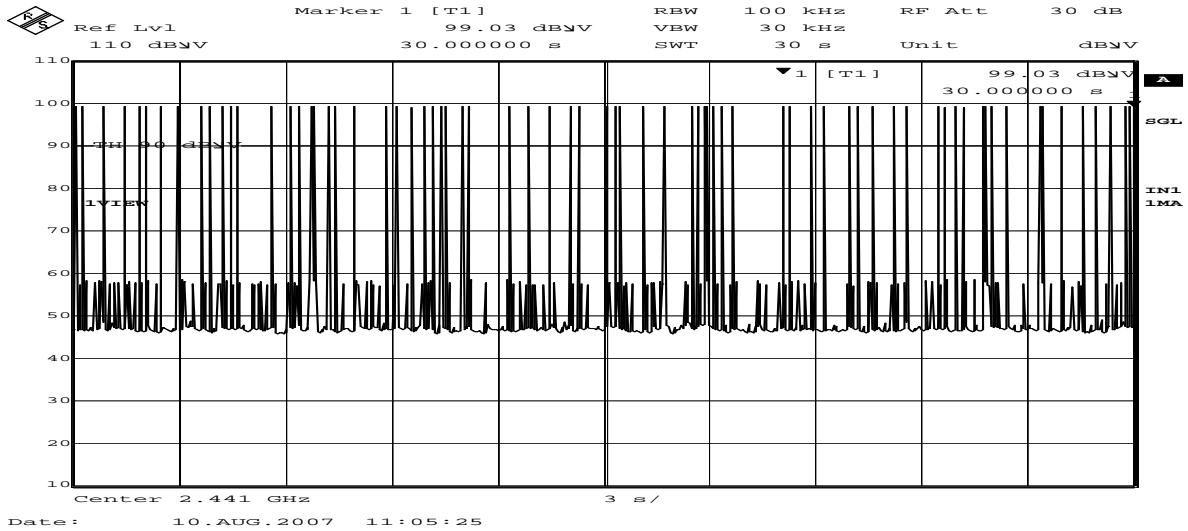
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

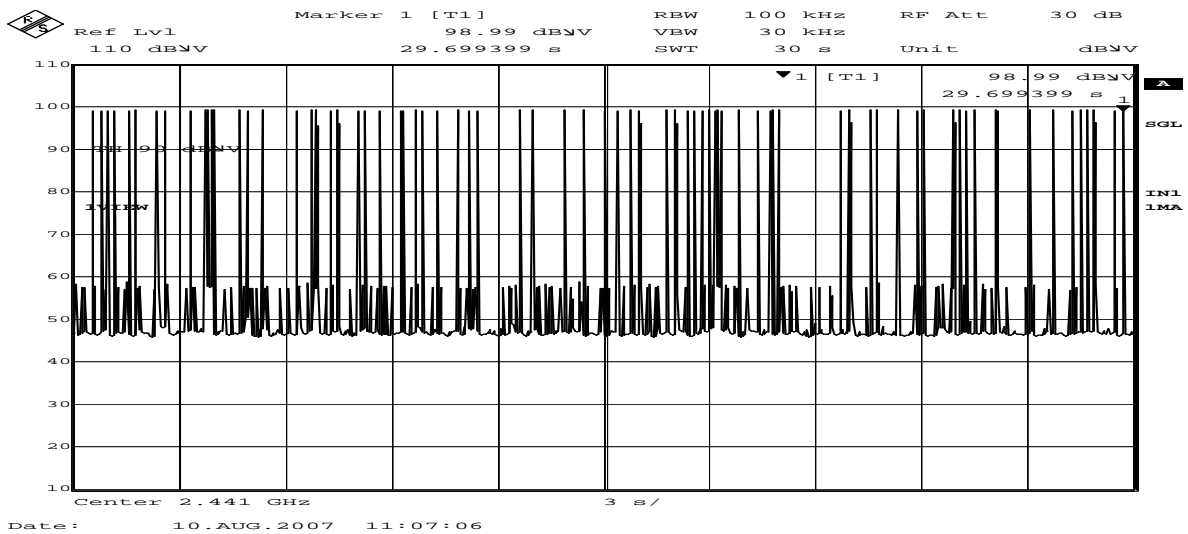
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AEE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Hopping (Packet Type: DH3)

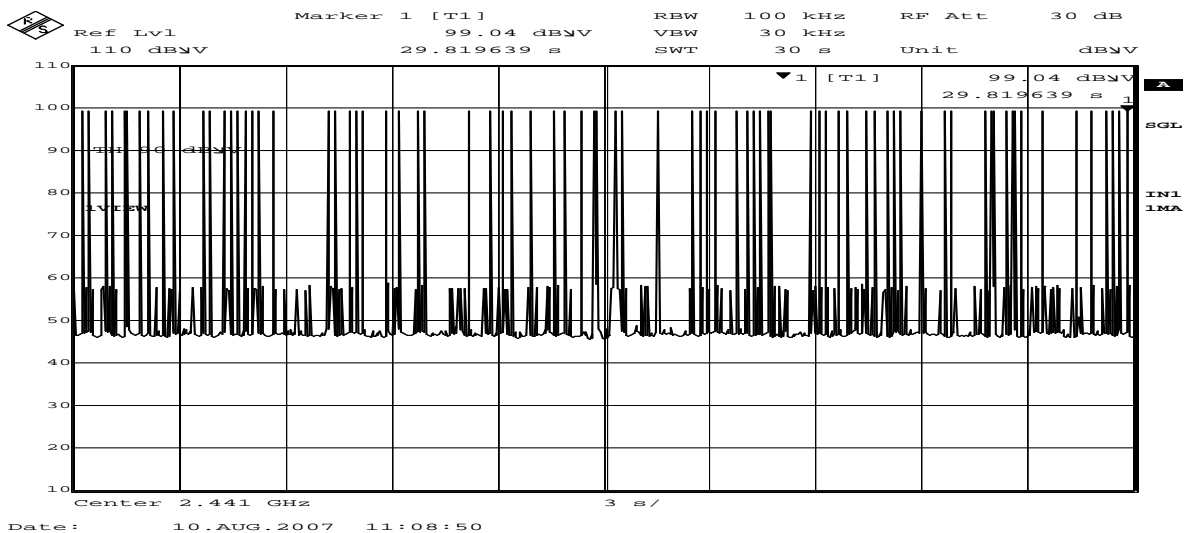
Count 1



Count 2



Count 3

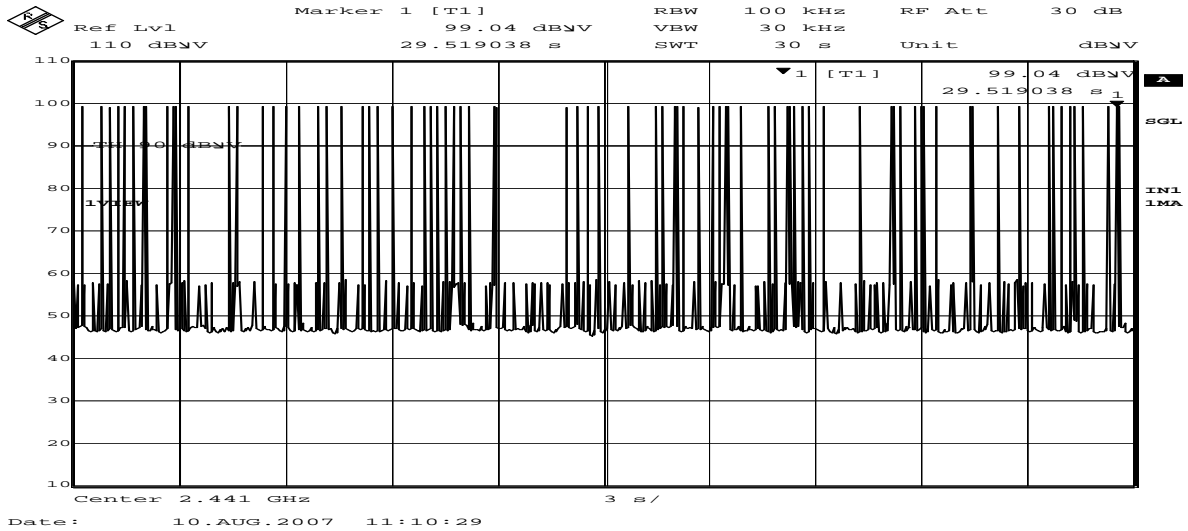


Dwell Time: FCC 15.247(a)(1)(iii)

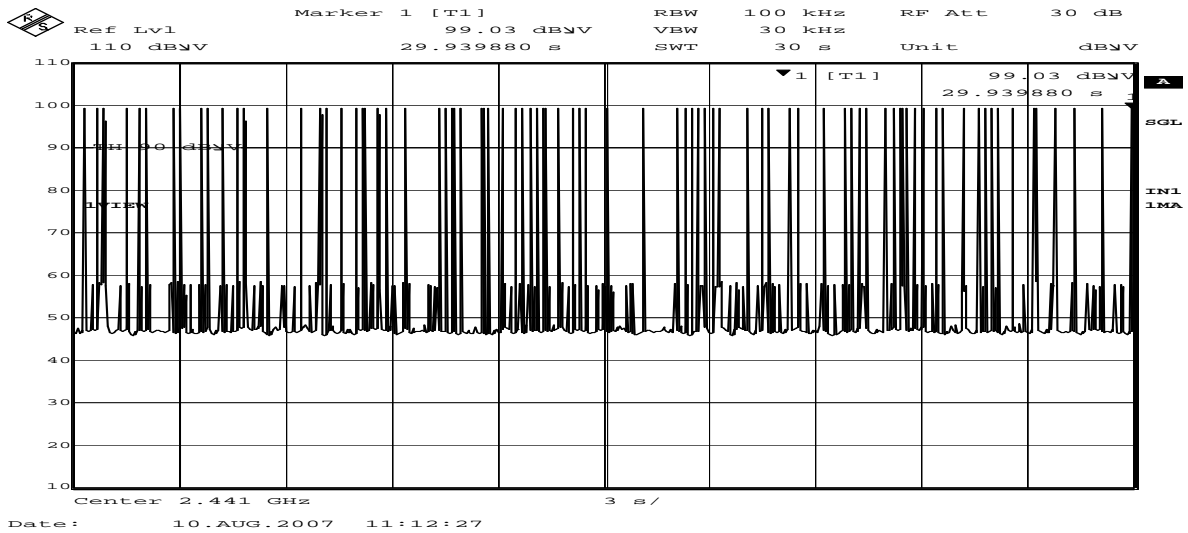
COMPANY : Mitsubishi Electric Corporation
 EQUIPMENT : Navigation system
 MODEL NUMBER: NR-204-6U
 SERIAL NUMBER: ME346062170004
 FCC ID : UJHNR20463AF34606
 POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
 REPORT NO : 27AEE0127-YK-A
 REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
 DATE : 2007/08/10
 TEMP./HUMI : 24deg.C./61%
 TEST MODE : Transmitting
 ENGINEER : Tatsuya Arai

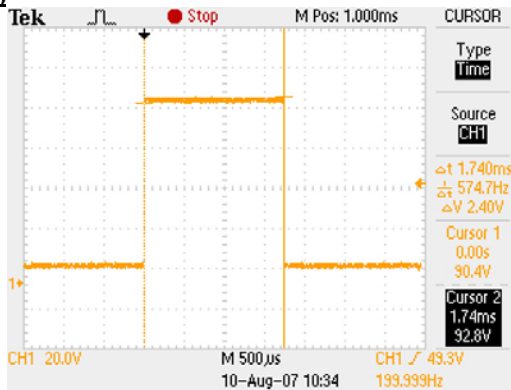
Count 4



Count 5



Duty cycle(Hopping - Packet Type: DH3)



Average times of rising in 30 sec. of sweep = $(69 + 69 + 73 + 70 + 77) / 5 = 71.6$
 Average times of rising in 1 sec. = $71.6 / 30s = 2.39$
 Average times of rising in 0.4x = $0.4 * 79ch * 2.39 = 75.52$
 Dwell time = $75.52 * 1.74 = 131.40 [ms]$
 Limit : Dwell Time < $0.4[s]$

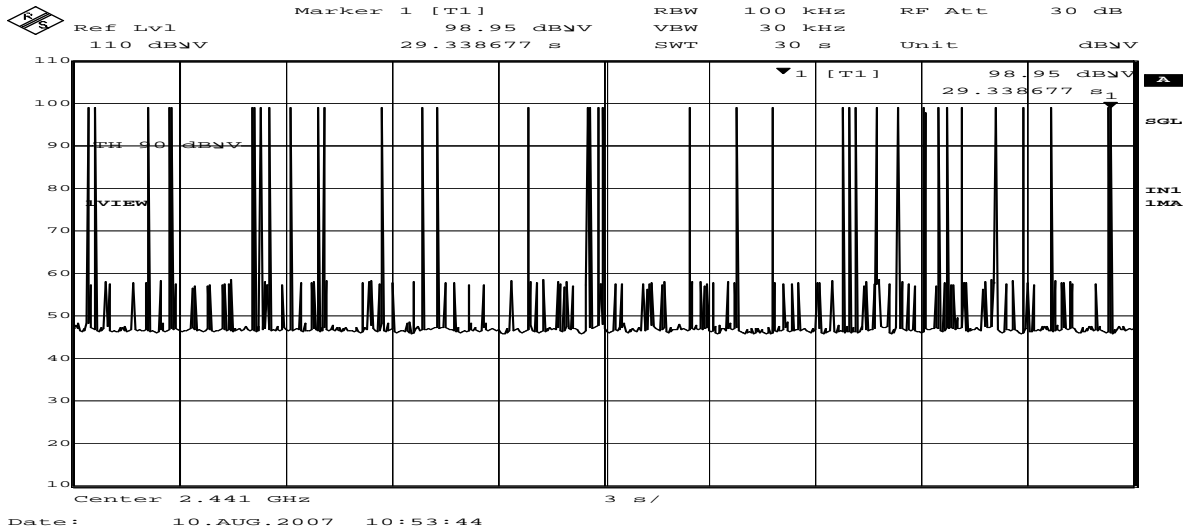
Dwell Time: FCC 15.247(a)(1)(iii)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER : NR-204-6U
SERIAL NUMBER : ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

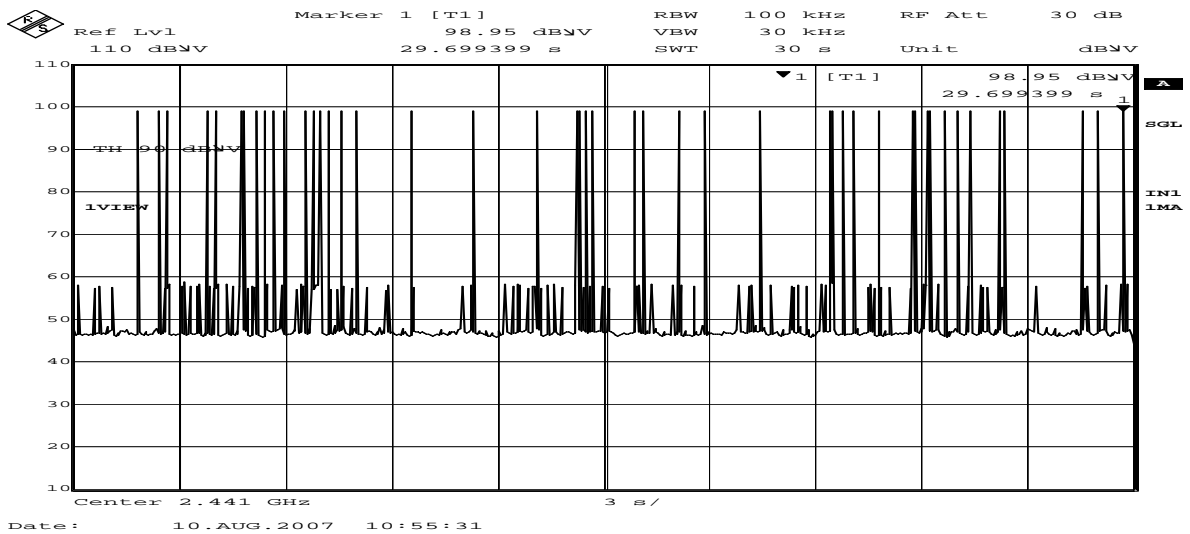
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AEE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

Hopping (Packet Type: DH5)

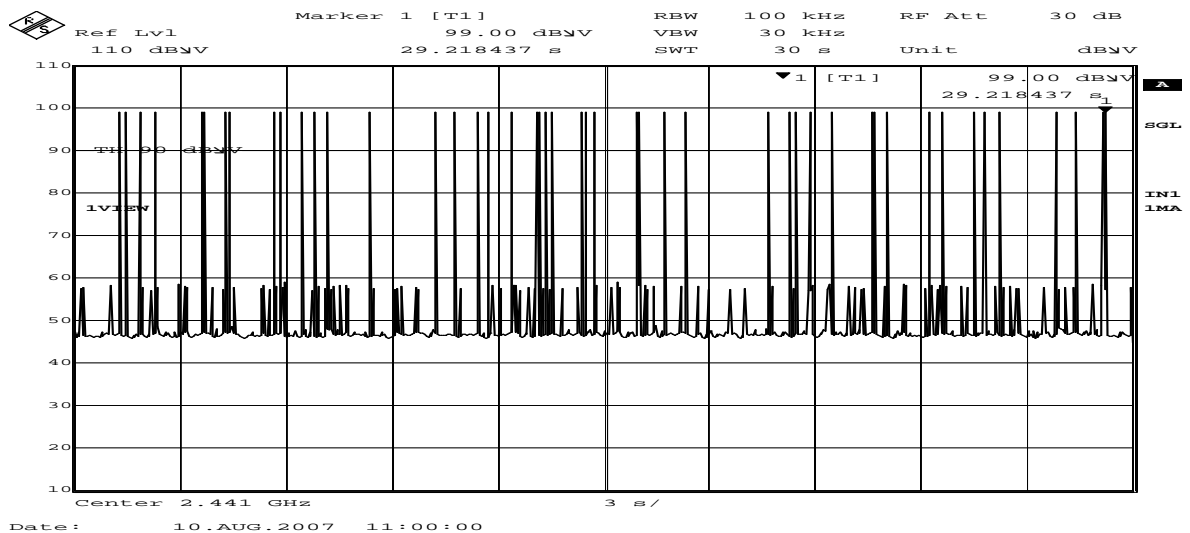
Count 1



Count 2



Count 3

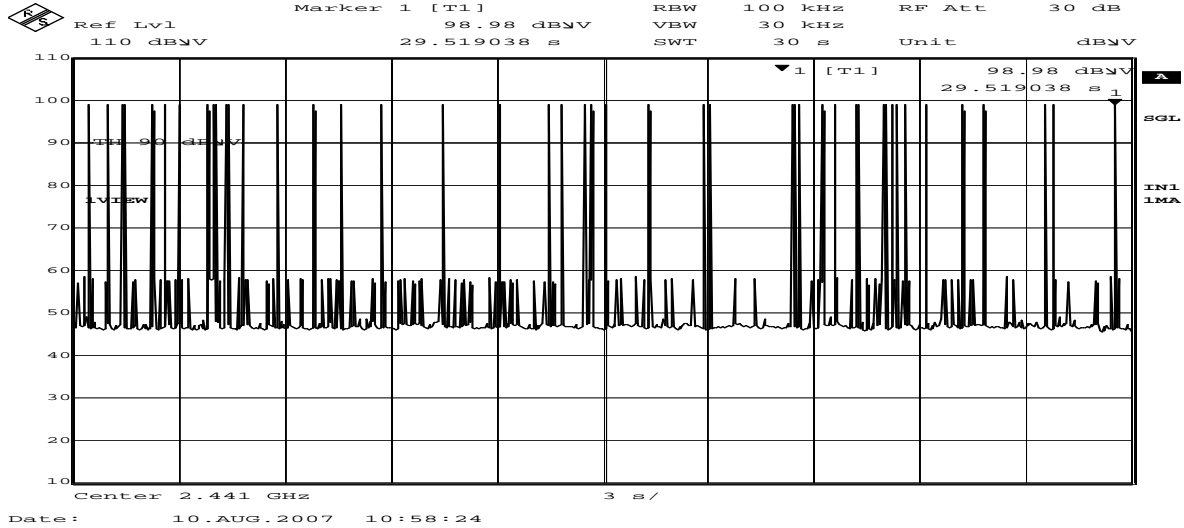


Dwell Time: FCC 15.247(a)(1)(iii)

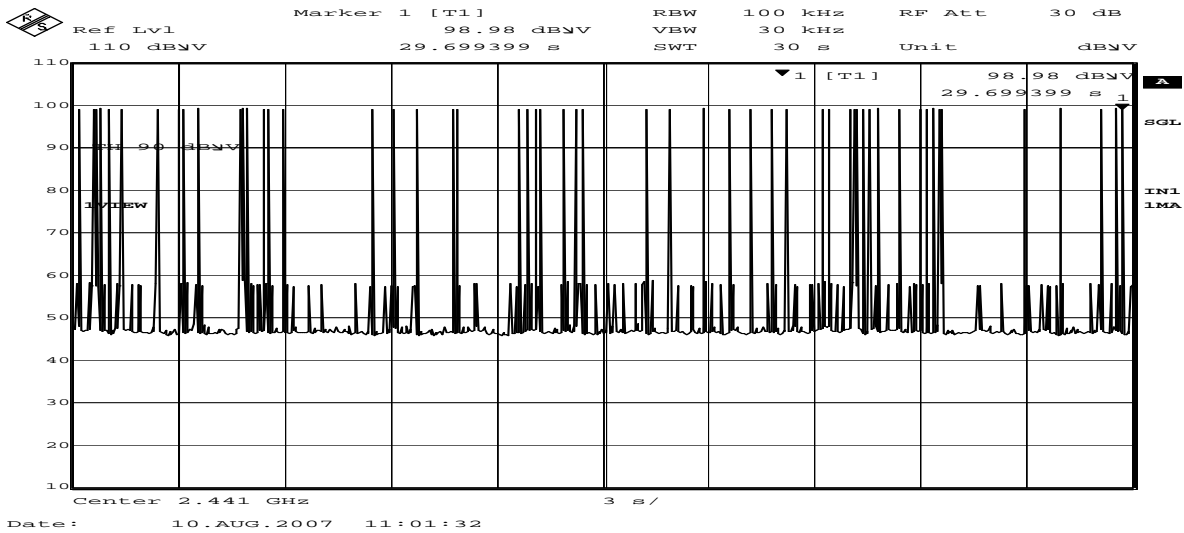
COMPANY : Mitsubishi Electric Corporation
 EQUIPMENT : Navigation system
 MODEL NUMBER: NR-204-6U
 SERIAL NUMBER: ME346062170004
 FCC ID : UJHNR20463AF34606
 POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
 REPORT NO : 27AEE0127-YK-A
 REGULATION : Fcc Part15SubpartC 247(a)(1)(iii)
 DATE : 2007/08/10
 TEMP./HUMI : 24deg.C./61%
 TEST MODE : Transmitting
 ENGINEER : Tatsuya Arai

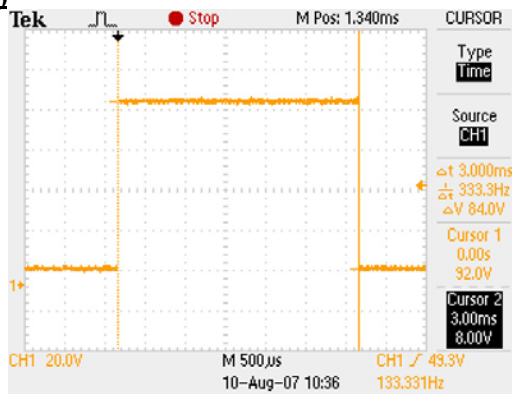
Count 4



Count 5



Duty cycle(Hopping - Packet Type: DHS)



Average times of rising in 30 sec. of sweep = $(33 + 41 + 42 + 39 + 50) / 5 = 41.0$
 Average times of rising in 1 sec. = $41.0 / 30s = 1.37$
 Average times of rising in 0.4x = $0.4 * 79ch * 1.37 = 43.29$
 Dwell time = $43.29 * 3.00 = 129.87 [ms]$
 Limit : Dwell Time < 0.4[s]

Maximum Peak Conducted Output Power

UL Japan, Inc.
YAMAKITA No.4 Shielded Room

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER : NR-204-6U
SERIAL NUMBER : ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V
TEST MODE : Transmitting

REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(b)(1)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C/61%

ENGINEER : Tatsuya Arai

CH	FREQ [GHz]	P/M Reading [dBm]	Cable Loss [dB]	Results [dBm]	Limit (125mW) [dBm]	MARGIN [dB]
Low	2402.00	-5.66	0.80	-4.86	20.96	25.82
Mid	2441.00	-6.83	0.80	-6.03	20.96	26.99
High	2480.00	-6.77	0.80	-5.97	20.96	26.93
Hopping	-	-6.10	0.80	-5.30	20.96	26.26

Limit: 125mW=20.96dBm

P/M: Power Meter

CABLE LOSS: The Cable Prepared by The Client

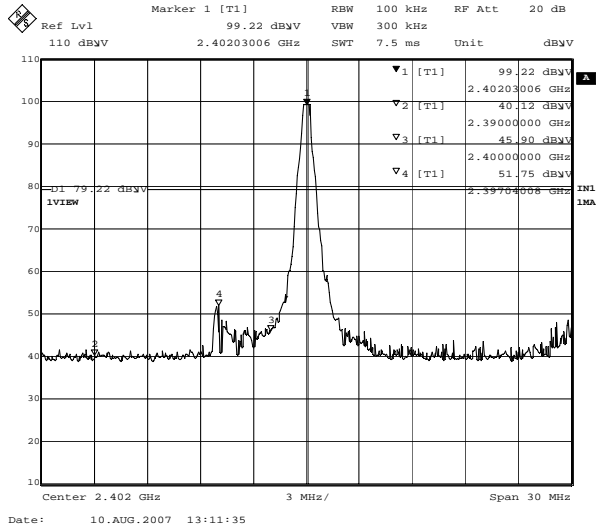
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

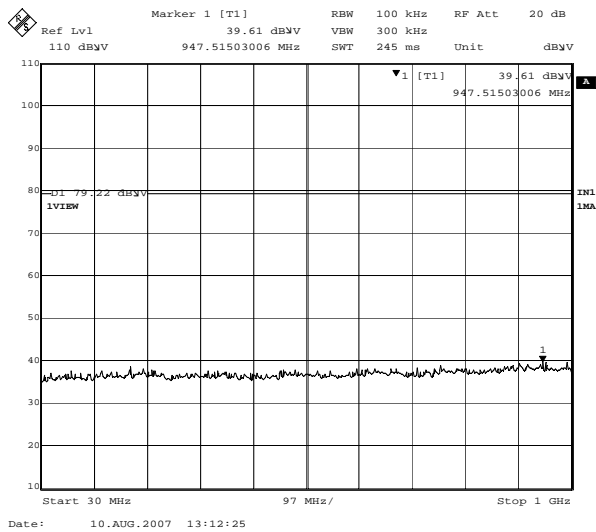
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting]
 Ch:2402MHz

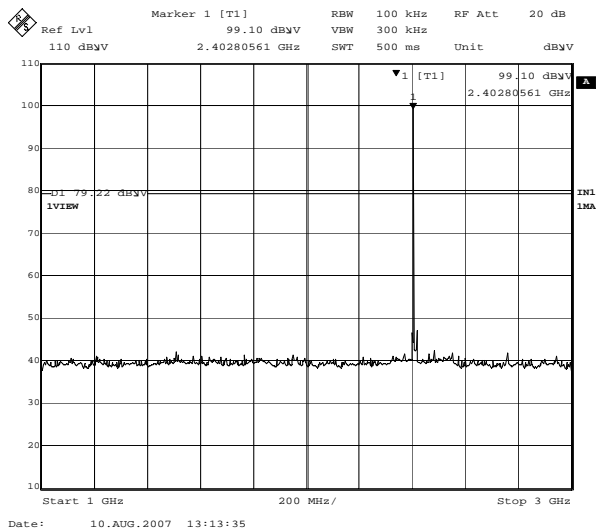
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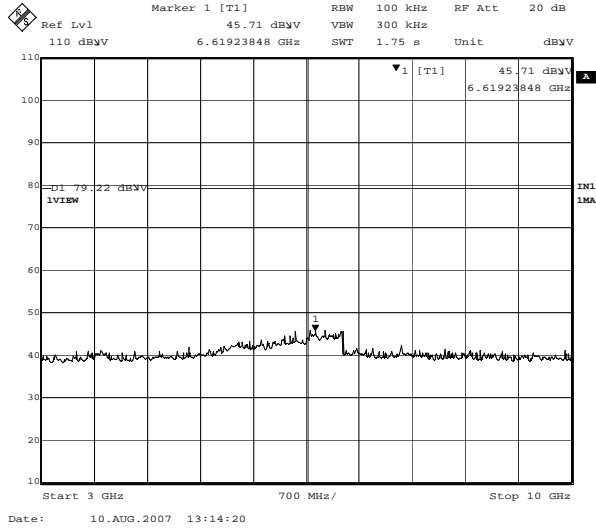
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

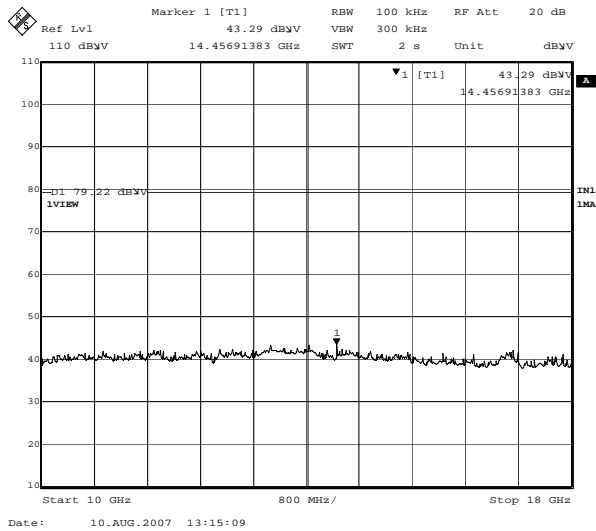
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting]
Ch:2402MHz

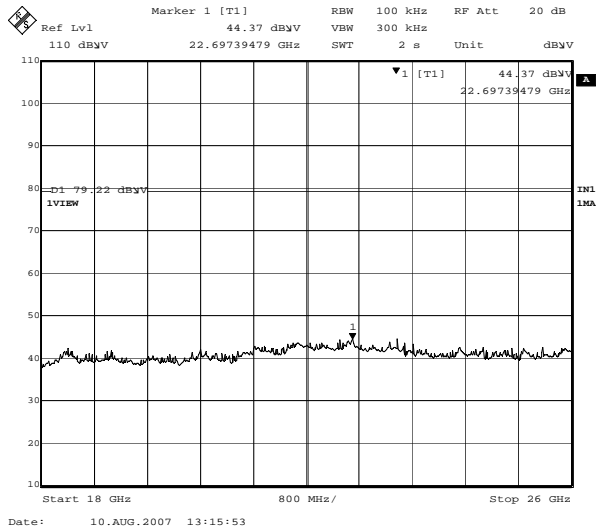
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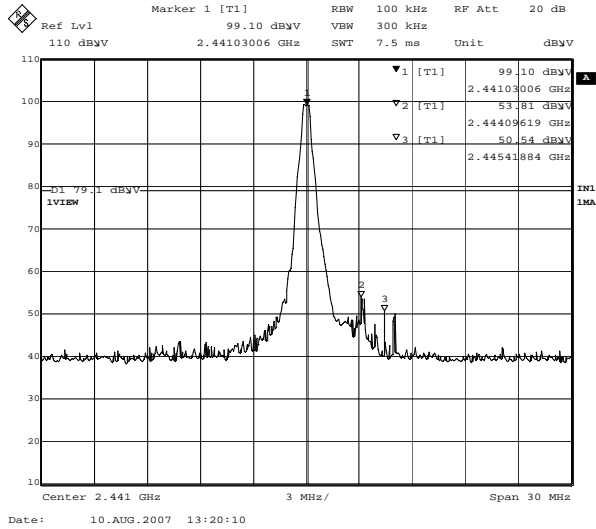
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

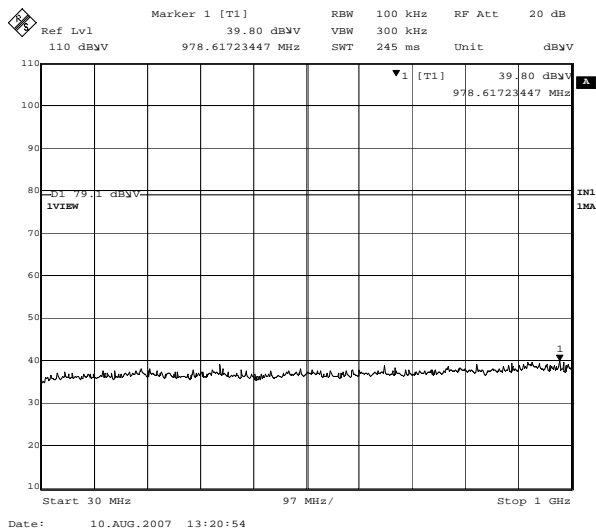
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting]
Ch:2441MHz

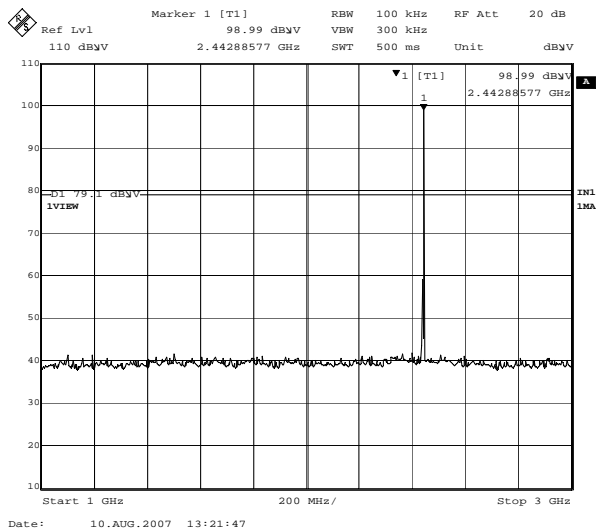
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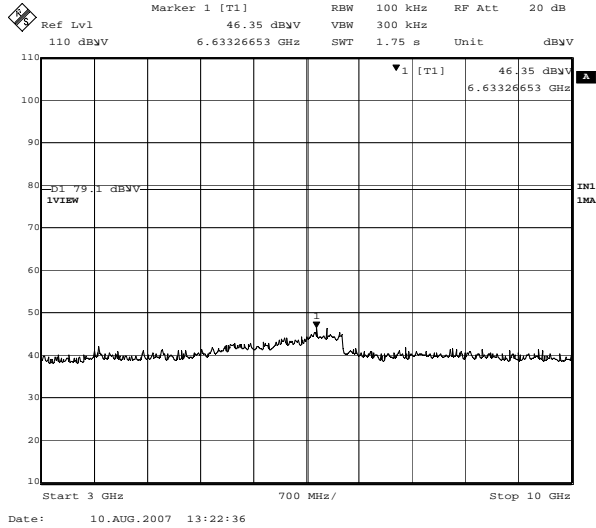
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : Mitsubishi Electric Corporation
 EQUIPMENT : Navigation system
 MODEL NUMBER: NR-204-6U
 SERIAL NUMBER: ME346062170004
 FCC ID : UJHNR20463AF34606
 POWER : DC12.6V

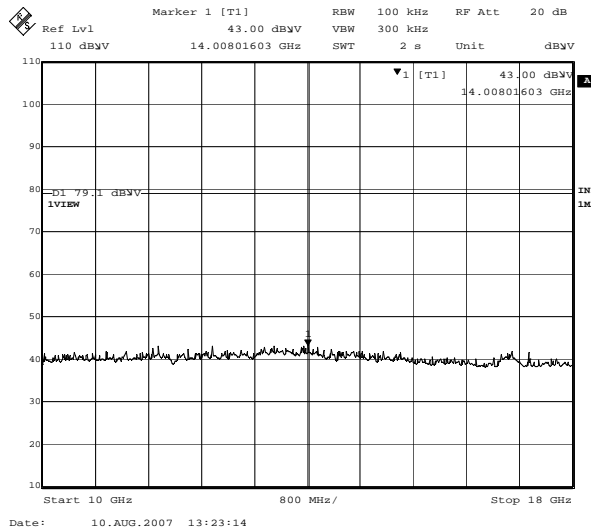
UL Japan, Inc. Yamakita No.4 Shielded Room
 REPORT NO : 27AE0127-YK-A
 REGULATION : Fcc Part15SubpartC 247(d)
 DATE : 2007/08/10
 TEMP./HUMI : 24deg.C./61%
 TEST MODE : Transmitting
 ENGINEER : Tatsuya Arai

[Transmitting]
 Ch:2441MHz

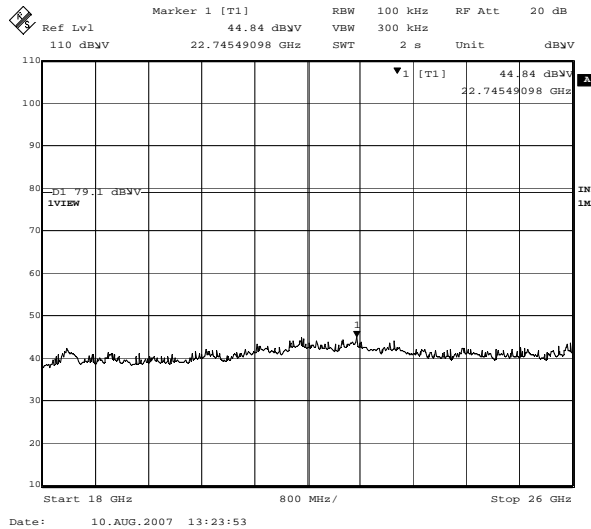
4.



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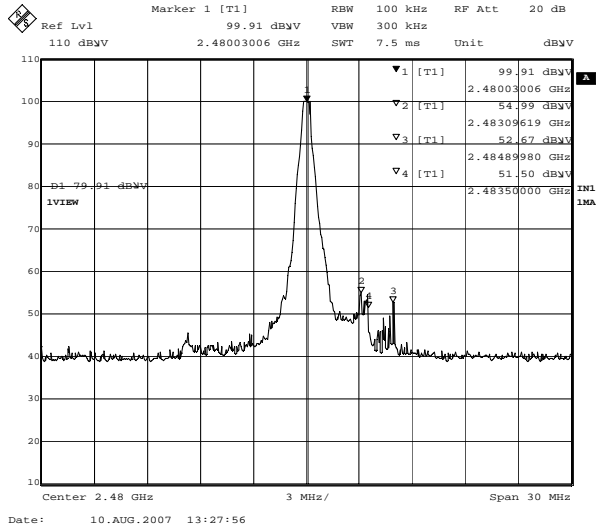
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

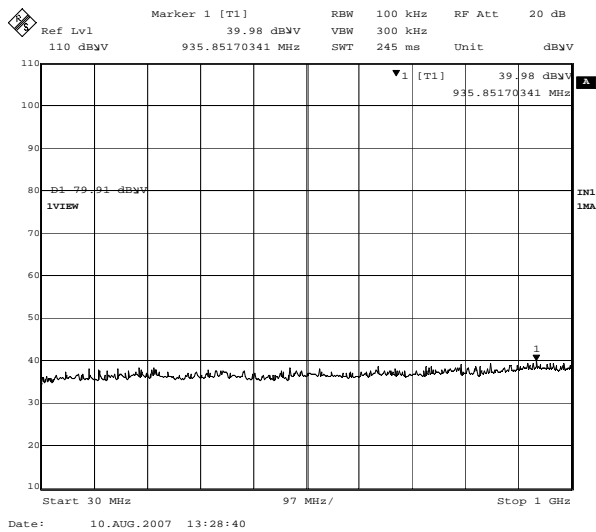
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting]
Ch11:2480MHz

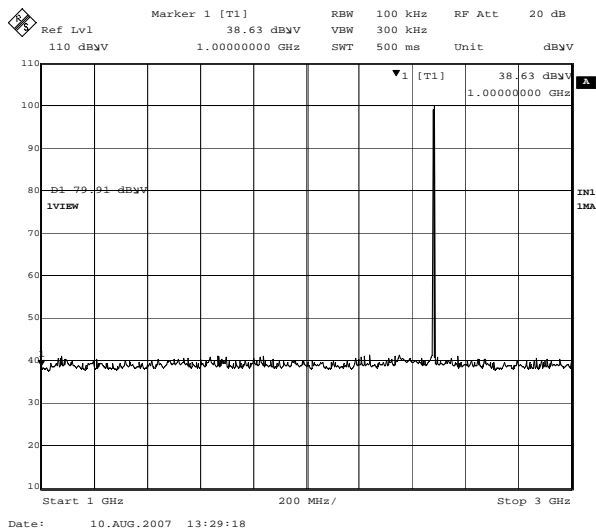
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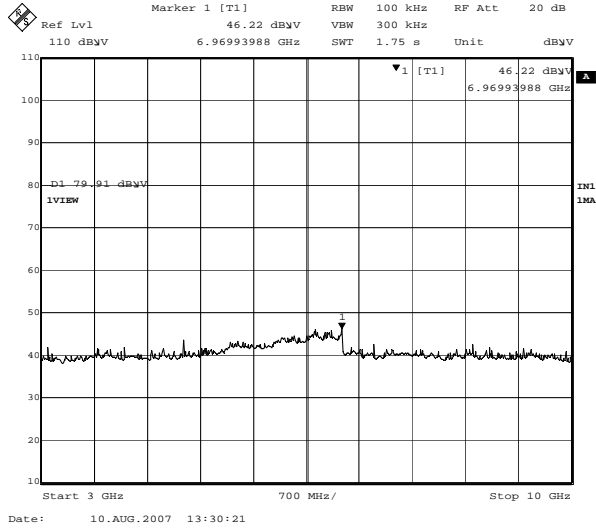
Out of Band Emission(Antenna Terminal Conducted): FCC 15.247(d)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

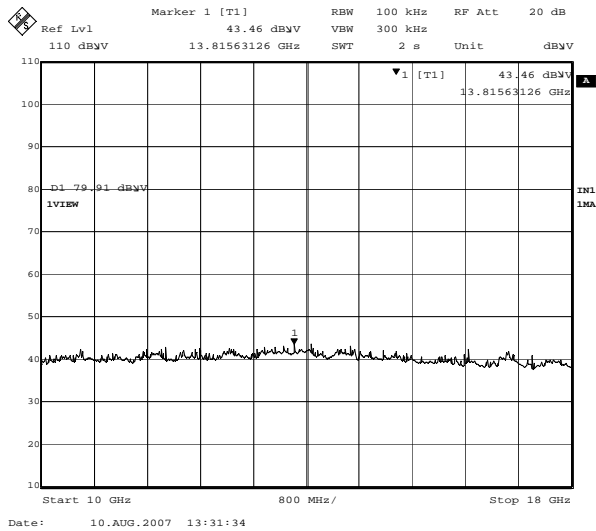
UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : Fcc Part15SubpartC 247(d)
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

[Transmitting]
Ch:2480MHz

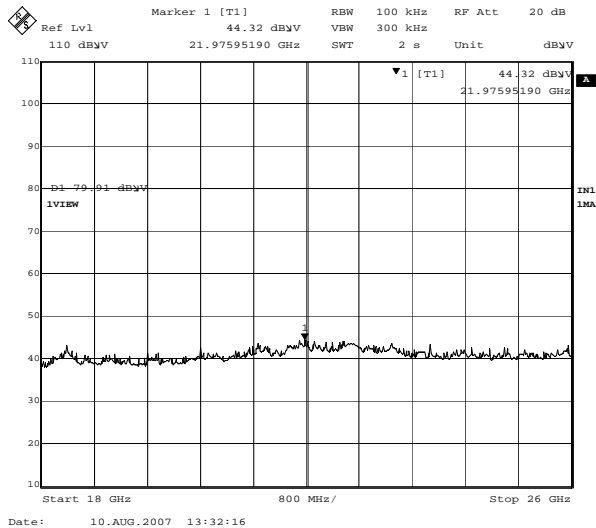
4.



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DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
Kind of Equipment : Navigation system
Model No. : NR-204-6U
Serial No. : ME346066020001
Power : DC12.6V
Mode : Transmitting 2402MHz
Remarks : ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
Date : 9/11/2006
Test Distance : 3 m
Temperature : 23 °C Engineer : Go Ishiwata
Humidity : 51 %
Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]		
1.	156.00	BB	34.6	28.7	15.4	28.2	2.6	6.0	30.4	24.5	43.5	13.1	19.0	
2.	327.46	BB	38.8	27.3	15.7	27.8	4.0	6.0	36.7	25.2	46.0	9.3	20.8	
3.	366.00	BB	40.7	31.7	16.9	28.2	4.5	6.0	39.9	30.9	46.0	6.1	15.1	

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz

■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
 Kind of Equipment : Navigation system
 Model No. : NR-204-6U
 Serial No. : ME346066020001
 Power : DC12.6V
 Mode : Transmitting 2402MHz
 Remarks : PK (RBW:1MHz, VBW:1MHz) ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
 Date : 9/11/2006
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Go Ishiwata
 Humidity : 51 %
 Regulation : FCC Part15C § 15.209 (PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1081.16	BB	46.7	47.5	23.8	37.6	2.9	10.0	45.8	46.6	74.0	28.2	27.4
2.	2390.00	BB	44.3	43.3	29.8	36.8	4.0	9.9	51.2	50.2	74.0	22.8	23.8
3.	4804.00	BB	45.7	45.1	33.8	37.1	5.8	0.5	48.7	48.1	74.0	25.3	25.9
4.	7206.00	BB	42.9	42.5	37.5	36.9	6.6	0.5	50.6	50.2	74.0	23.4	23.8
5.	9608.00	BB	43.2	42.8	38.9	37.0	7.6	1.0	53.7	53.3	74.0	20.3	20.7
6.	12010.00	BB	42.5	42.0	40.7	36.2	9.0	0.4	56.4	55.9	74.0	17.6	18.1

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
 Kind of Equipment : Navigation system
 Model No. : NR-204-6U
 Serial No. : ME346066020001
 Power : DC12.6V
 Mode : Transmitting 2402MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz) ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
 Date : 9/11/2006
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Go Ishiwata
 Humidity : 51 %
 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		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]		
1.	1081.16	BB	36.2	37.5	23.8	37.6	2.9	10.0	35.3	36.6	54.0	18.7	17.4	
2.	2390.00	BB	33.0	32.9	29.8	36.8	4.0	9.9	39.9	39.8	54.0	14.1	14.2	
3.	4804.00	BB	33.5	33.8	33.8	37.1	5.8	0.5	36.5	36.8	54.0	17.5	17.2	
4.	7206.00	BB	32.1	31.6	37.5	36.9	6.6	0.5	39.8	39.3	54.0	14.2	14.7	
5.	9608.00	BB	32.3	31.5	38.9	37.0	7.6	1.0	42.8	42.0	54.0	11.2	12.0	
6.	12010.00	BB	31.9	31.1	40.7	36.2	9.0	0.4	45.8	45.0	54.0	8.2	9.0	

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
Kind of Equipment : Navigation system
Model No. : NR-204-6U
Serial No. : ME346066020001
Power : DC12.6V
Mode : Transmitting 2441MHz
Remarks : PK (RBW:1MHz, VBW:1MHz) ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
Date : 9/11/2006
Test Distance : 3 m
Temperature : 23 °C Engineer : Go Ishiwata
Humidity : 51 %
Regulation : FCC Part15C § 15.209 (PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]		
1.	1081.11	BB	46.9	47.9	23.8	37.6	2.9	10.0	46.0	47.0	74.0	28.0	27.0	
2.	4882.00	BB	45.3	45.4	34.0	37.2	5.8	0.5	48.4	48.5	74.0	25.6	25.5	
3.	7323.00	BB	43.0	42.5	37.6	37.0	6.7	0.5	50.8	50.3	74.0	23.2	23.7	
4.	9764.00	BB	43.0	43.0	38.8	37.0	7.6	0.9	53.3	53.3	74.0	20.7	20.7	
5.	12205.00	BB	42.4	42.2	40.5	35.8	8.8	0.5	56.4	56.2	74.0	17.6	17.8	

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz

■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
Kind of Equipment : Navigation system
Model No. : NR-204-6U
Serial No. : ME346066020001
Power : DC12.6V
Mode : Transmitting 2441MHz
Remarks : AV (RBW:1MHz, VBW:10Hz) ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
Date : 9/11/2006
Test Distance : 3 m
Temperature : 23 °C Engineer : Go Ishiwata
Humidity : 51 %
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		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]		
1.	1081.11	BB	36.1	37.4	23.8	37.6	2.9	10.0	35.2	36.5	54.0	18.8	17.5	
2.	4882.00	BB	33.4	34.1	34.0	37.2	5.8	0.5	36.5	37.2	54.0	17.5	16.8	
3.	7323.00	BB	32.0	31.9	37.6	37.0	6.7	0.5	39.8	39.7	54.0	14.2	14.3	
4.	9764.00	BB	32.1	32.0	38.8	37.0	7.6	0.9	42.4	42.3	54.0	11.6	11.7	
5.	12205.00	BB	31.9	31.4	40.5	35.8	8.8	0.5	45.9	45.4	54.0	8.1	8.6	

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz

■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.

YAMAKITA No.1 ANECHOIC CHAMBER

Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
Kind of Equipment : Navigation system
Model No. : NR-204-6U
Serial No. : ME346066020001
Power : DC12.6V
Mode : Transmitting 2480MHz
Remarks : ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
Date : 9/11/2006
Test Distance : 3 m
Temperature : 23 °C Engineer : Go Ishiwata
Humidity : 51 %
Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]		
1.	156.01	BB	34.0	29.3	15.4	28.2	2.6	6.0	29.8	25.1	43.5	13.7	18.4	
2.	327.45	BB	38.5	37.3	15.7	27.8	4.0	6.0	36.4	35.2	46.0	9.6	10.8	
3.	366.00	BB	41.0	31.8	16.9	28.2	4.5	6.0	40.2	31.0	46.0	5.8	15.0	

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz

■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
 Kind of Equipment : Navigation system
 Model No. : NR-204-6U
 Serial No. : ME346066020001
 Power : DC12.6V
 Mode : Transmitting 2480MHz
 Remarks : PK (RBW:1MHz, VBW:1MHz) ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
 Date : 9/11/2006
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Go Ishiwata
 Humidity : 51 %
 Regulation : FCC Part15C § 15.209 (PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1081.12	BB	46.6	47.8	23.8	37.6	2.9	10.0	45.7	46.9	74.0	28.3	27.1
2.	2483.50	BB	50.6	48.9	29.7	36.8	4.0	9.9	57.4	55.7	74.0	16.6	18.3
3.	4960.00	BB	45.1	45.7	34.2	37.3	5.8	0.4	48.2	48.8	74.0	25.8	25.2
4.	7440.00	BB	43.2	42.6	37.8	37.0	6.7	0.5	51.2	50.6	74.0	22.8	23.4
5.	9920.00	BB	42.9	43.0	38.7	36.9	7.6	0.8	53.1	53.2	74.0	20.9	20.8
6.	12400.00	BB	42.7	42.3	40.4	35.4	8.6	0.6	56.9	56.5	74.0	17.1	17.5

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

■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

DATA OF RADIATION TEST

UL Apex Co.,Ltd.
YAMAKITA No.1 ANECHOIC CHAMBER
Report No. : 27AE0127-YK-A

Applicant : Mitsubishi Electric Corporation
 Kind of Equipment : Navigation system
 Model No. : NR-204-6U
 Serial No. : ME346066020001
 Power : DC12.6V
 Mode : Transmitting 2480MHz
 Remarks : AV (RBW:1MHz, VBW:10Hz) ANT:Ver⇒EUT:Z ANT:Hor⇒EUT:X
 Date : 9/11/2006
 Test Distance : 3 m
 Temperature : 23 °C Engineer : Go Ishiwata
 Humidity : 51 %
 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 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.	1081.12	BB	36.3	37.5	23.8	37.6	2.9	10.0	35.4	36.6	54.0	18.6	17.4
2.	2483.50	BB	38.6	37.3	29.7	36.8	4.0	9.9	45.4	44.1	54.0	8.6	9.9
3.	4960.00	BB	33.1	35.2	34.2	37.3	5.8	0.4	36.2	38.3	54.0	17.8	15.7
4.	7440.00	BB	31.8	31.7	37.8	37.0	6.7	0.5	39.8	39.7	54.0	14.2	14.3
5.	9920.00	BB	32.0	31.4	38.7	36.9	7.6	0.8	42.2	41.6	54.0	11.8	12.4
6.	12400.00	BB	32.0	31.7	40.4	35.4	8.6	0.6	46.2	45.9	54.0	7.8	8.1

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

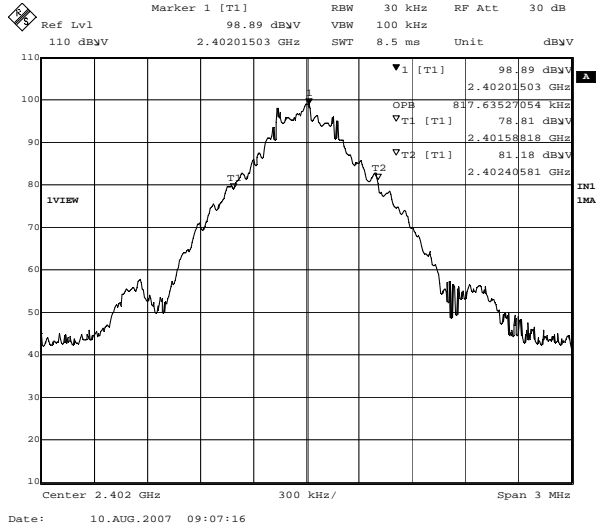
■ ANTENNA: KBA-03 (BBA9106) 30-299MHz/KLA-03 (USLP9143) 300-1000MHz
 ■ AMP: KAF-05 (8447D) ■ CABLE: KCC-30/31/32/34 ■ EMI RECEIVER: KTR-02 (ESCS30)

Occupied Bandwidth(99%)

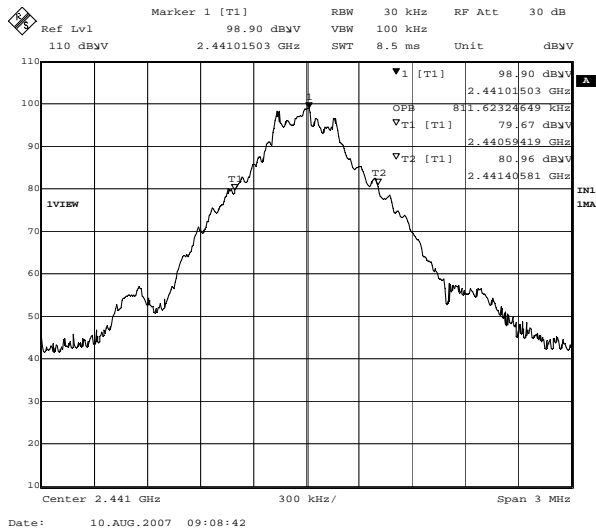
COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : RSS-210
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

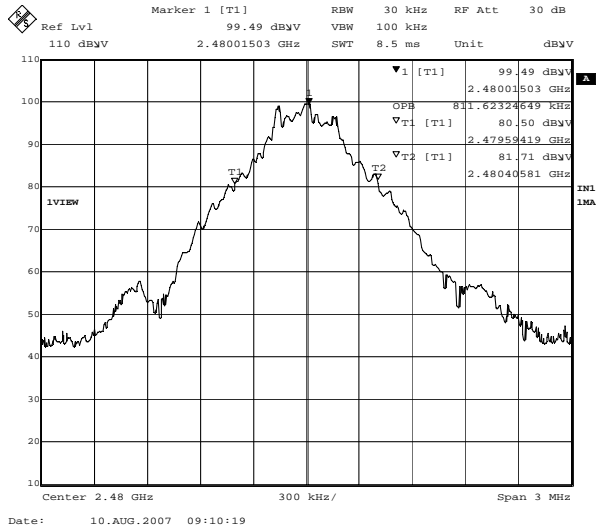
1. ch : 2402MHz/Occupied Bandwidth: 817.64kHz



2. ch : 2437MHz/Occupied Bandwidth: 811.62kHz



3. ch : 2462MHz/Occupied Bandwidth: 811.62kHz

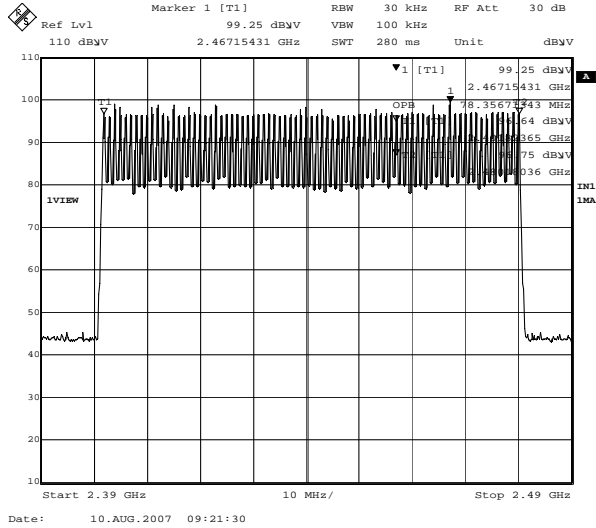


Occupied Bandwidth(99%)

COMPANY : Mitsubishi Electric Corporation
EQUIPMENT : Navigation system
MODEL NUMBER: NR-204-6U
SERIAL NUMBER: ME346062170004
FCC ID : UJHNR20463AF34606
POWER : DC12.6V

UL Japan, Inc. Yamakita No.4 Shielded Room
REPORT NO : 27AE0127-YK-A
REGULATION : RSS-210
DATE : 2007/08/10
TEMP./HUMI : 24deg.C./61%
TEST MODE : Transmitting
ENGINEER : Tatsuya Arai

4. Hopping/Occupied Bandwidth: 78.36MHz



**APPENDIX 3
Test Instruments**

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
YA-RE	Radiated emission(software)	UL Japan	RE(Ver.1.5)	RE	-
KTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE	2005/11/10 * 12
KAEC-01	Anechoic Chamber	JSE	Semi 3m	RE	2006/08/31 * 12
KAF-05	Pre Amplifier	Agilent	8447D	RE	2006/04/21 * 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/KRM-03	Coaxial Cable/RF Relay Matrix	Fujikura/Suhner/TSJ	5D-2W/S04272B/RFM-E421	RE	2005/12/22 * 12
KLA-03	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/01/17 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	RE	2006/09/05 * 12
KOS-02	Humidity Indicator	Custom	GTH-190	RE	2006/07/10 * 24
KAF-02	Pre Amplifier	Hewlett Packard	8449B	RE	2006/04/24 * 12
KAT10-S1	Attenuator	Agilent	8490D 010	RE	2006/04/11 * 12
KCC-D3/D7	Coaxial Cable	Rosenberger/Advantest	2201/JUN-08-01-061	RE	2006/04/11 * 12
KFL-01	Highpass Filter	Hewlett Packard	84300 80038	RE	2006/04/11 * 12
KHA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2006/08/17 * 12
KTR-01	Test Receiver	Rohde & Schwarz	ESI40	AT 1,2,3,4,6	2007/04/12 * 12
KDT-01	Coaxial Crystal Detector	Agilent	8473C	AT 4	Pre Check
KPM-05	Power meter	Agilent	E4417A	AT 5	2007/04/03 * 12
KPSS-01	Power sensor	Agilent	E9327A	AT 5	2007/03/13 * 12
KOS-07	Humidity Indicator	Custom	GTH-190	AT all	2006/10/06 * 24
KOSC-01	Oscilloscope	Tektronix	TDS-2022B	AT 4	2007/05/15 * 12

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

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

Test Item :

- RE: Out of Band Emission (Radiated)
- AT: Antenna terminal conducted test
 - 1: Carrier Frequency Separation
 - 2: 20dB Bandwidth
 - 3: Number of Hopping Frequency
 - 4: Dwell time
 - 5: Maximum Peak Output Power
 - 6: Out of Band Emission (Conducted)