



Certification EMI TEST REPORT

Test Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Type of equipment : DVD Recorder with Video Cassette Recorder
Model number : DVRC802E
FCC ID : A7RM2H6A
Test standard : FCC Part 15 Subpart B
ICES-003 Issue No.4 Class B
Test result : Complied

Similar model :

Model No.	Brand name	Model No.	Brand name
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

1. This test report shall not be reproduced except in full or partial, 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.
5. This test report does not constitute an endorsement by NIST/NVLAP or U.S. Government.

Date of test : June 17 to 22, 2005

Tested by:

Tsubasa Takayama
Engineer of EMC Service

Tomoyuki Yamashita
Engineer of EMC Service

Approved by:

Hiroya Tabata
Leader of EMC Service

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Section 1 : Client information

Company name : Orion Electric Co., Ltd.
Address : 41-1 Iehisa-cho, Takefu-shi, Fukui-ken, 915-8555 JAPAN
Telephone number : +81 778 23 0019
Facsimile number : +81 778 23 7799
Contact person : Yoshimasa Tanikawa

Section 2 : Equipment under test (E.U.T.)**2.1 Identification of E.U.T.**

Type of equipment : DVD Recorder with Video Cassette Recorder
Brand Name : ELECTROHOME
Model number : DVRC802E
FCC ID : A7RM2H6A
Rating : AC 120 V / 60 Hz
Manufacturer : 1. World Electric (Thailand) Ltd.
236 Moo 2 Nongchark, Banbung, Chonburi 20170, Thailand
2. Korat Denki Ltd.
149 Moo 10 Tambol Chokchai, Amphur Chokchai, Nakhonratchasima
30190, Thailand
228 Moo 3 Tambol Nongbuasala, Amphur Muang, Nakhonratchasima
30000, Thailand
3. Orion America, Inc.
Hwy 41 North, Orion Place, Princeton, Indiana 47670, U.S.A
Receipt Date of Sample : June 15, 2005
Condition of EUT : Production Prototype
(Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product description

Model: DVRC802E (referred to as the EUT in this report) is a DVD Recorder with Video Cassette Recorder.
The EUT specifications is as follows.

Tuner type : Quartz PLL frequency synthesized
I / F : 45.75 MHz (Picture), 41.25 MHz (Sound)
Receiving channel : VHF 2 – 13 ch / UHF 14 – 69 ch / CATV 1 – 125 ch
Antenna input : 75 ohm
Video signal : NTSC color
Power source : AC 120 V / 60 Hz, 27W
I / O terminal (Video) : RCA in 1Vp-p 75 ohm, RCA out 1 Vp-p 75 ohm
I / O terminal (Audio) : RCA in –8 dB 47 k ohm, RCA out –8 dB 1 k ohm

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Section 3 : Test specification, procedures and results

3.1 Test specification

Test specification: FCC Part 15 Subpart B
 Title : FCC 47 CFR Part 15 Radio Frequency Device
 Subpart B Unintentional Radiators

Test Specification : ICES-003 Issue No. 4
 Title : Spectrum Management
 Interference-Causing Equipment Standard
 Digital Apparatus
 *ICES-003 (Issue No. 4) is based on FCC Part 15.

3.2 Procedures & results

Item	Test procedure	Limits	Worst margin	Result
Conducted emission	ANSI C63.4:2003	CISPR 22	17.2 dB (0.7993 MHz, L1, TV Reception + Rec. 25dBmV)	Complied
Radiated emission	ANSI C63.4:2003 IEEE 187:1990	30–88 MHz: 100 uV/m 88–216 MHz: 150 uV/m 216–960 MHz: 200 uV/m above 960 MHz: 500 uV/m	2.1 dB (945.00 MHz, Vertical: TV Reception + Rec. 25dBmV / VCR Play + Rec.)	Complied
Antenna terminal voltage	ANSI C63.4:2003	2 nW (at 75 ohm)	26.6 dB (1164.99000 MHz, TV tuning)	Complied
RF output level	ANSI C63.4:2003	Video signal: 3000 uV Aural signal: 671 uV	4.1 dB (61.25 MHz, 3ch, AV Input 2 + Rec.)	Complied
Spurious emission		94.8 uV	19.8 dB (220.9900 MHz, 4ch, TV Reception + Rec. 25dBmV)	Complied
Transfer switch	ANSI C63.4:2003	9.5 dB	4.7 dB (67.2500 MHz, 4ch, DVD Play + Rec.)	Complied
Picture sensitivity	ANSI C63.4:2003	8 dB	5.0 dB	Complied
Noise figure	FCC/OET MP:2:1986	14 dB	6.0 dB (133.25 MHz, 16ch)	Complied

For ICES-003, only the tests, which relate to the digital device of conducted emission and radiated emission, were performed.

3.3 Additions or deviations to standard

No addition, deviation or exclusion has been made from standards.

3.4 Confirmation

UL Apex Co., Ltd. hereby confirms that E.U.T., in the configuration tests, complies with the specifications
 FCC Part15 Subpart B and ICES-003 Issue No. 4.

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3.5 Uncertainty**Conducted emission (150 kHz – 30 MHz)**

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.74 dB.

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

Radiated emission

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ± 4.4 dB.

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ± 4.8 dB.

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ± 5.8 dB.

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

Antenna terminal voltage

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.

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

RF output level test / spurious emission test

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.

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

Antenna transfer switch

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.

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

Picture sensitivity test

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.0 dB.

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

Noise Figure Test

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.2 dB.

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

3.7 Test location

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Test room	Width x Depth x Height (m)	Test room	Width x Depth x Height (m)
No.1 shielded room	5.5 x 6.4 x 2.7	No.7 shielded room	9.3 x 3.4 x 2.7
No.2 shielded room	4.5 x 3.6 x 2.7	No.1 EMS lab. (Full-anechoic chamber)	5.0 x 8.0 x 3.5
No.3 shielded room	3.6 x 7.2 x 2.4	No.2 EMS lab. (Full-anechoic chamber)	4.0 x 7.0 x 3.5
No.4 shielded room	5.5 x 5.0 x 2.4		
No.5 shielded room	5.5 x 4.3 x 2.5		
No.6 shielded room	5.2 x 3.2 x 2.9		

*NVLAP Lab. code : 200109-0

No.1 and No.3 sites have been fully described in a report submitted to FCC office, and listed on September 25, 2003.
(Registration number: 90412)

No.2 site has been fully described in a report submitted to FCC office, and listed on August 29, 2003.
(Registration number: 90411)

3.8 Test setup, Data of EMI & Test instruments

Please refer to Appendix 1 to 3.

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Section 4 : Operation of E.U.T. during tests

4.1 Operating modes

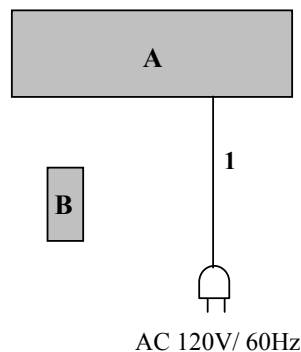
The EUT exercise program used during testing was designed exercise the various system components in a manner similar to typical use.

The sequence in used :
 * TV Reception + Rec. mode (0 dBmV input / 25 dBmV input)
 * AV Input 1 + Rec. mode / AV Input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)
 * VCR Play + Rec. mode
 * DVD Play + Rec. mode

Operation : The EUT was tested at above operation mode.

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

4.2 Configuration and peripherals



* Cabling was taken into consideration and test data was taken under worse case conditions.

Description of EUT and support equipment

Sign	Item	Model number	Serial number	Manufacturer	FCC ID	Remark
A	DVD Recorder with Video Cassette Recorder	DVRC802E	—	Orion Electric Co., Ltd.	A7RM2H6A	EUT
B	Remote Controller	—	—	Orion Electric Co., Ltd.	-	EUT

List of cable used

No.	Item	Length (m)	Shield	Backshell material
1	AC Power Cable	1.6	Unshielded	Polyvinyl chloride

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Section 5 : Conducted emission

5.1 Operation environment

The test was carried out No.3 shielded room.

Date : June 20, 2005

Temperature : See data

Humidity : See data

5.2 Test configuration

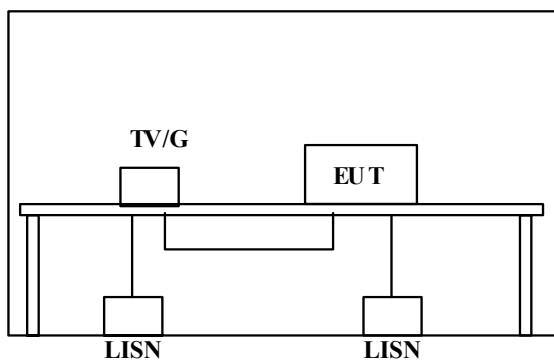
EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting plane. The rear of EUT was aligned and flushed with rear of tabletop. All other surfaces of tabletop was at least 80 cm from any other grounded conducting surface. I/O cables and AC cable were bundled in center. I/O cables were hanged at a 40cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, were individually connected through a LISN to the input power source. All unused 50 ohm connectors of the LISN were resistively terminated in 50 ohm when not connected to the measuring equipment.

A drawing of the set up is shown in figure 1 and photographs in Appendix 1.

Figure 1. Conducted emission

TV Reception + Rec. mode (0 dBmV input / 25 dBmV input)

Shielded room



RF in: TV signal generator connected
 Front video in: 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-video out: 75 ohm terminated with S-video output cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated
 Rear audio in: 47 k ohm terminated

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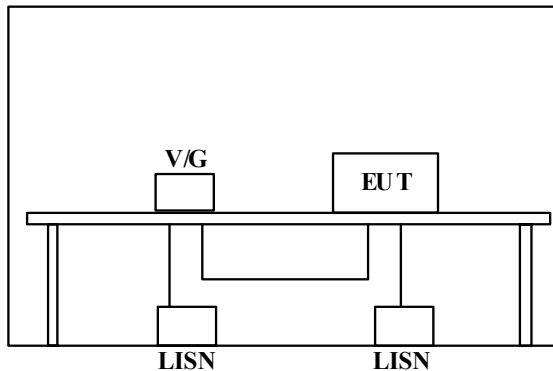
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AV Input 1 + Rec. mode/ AV Input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)

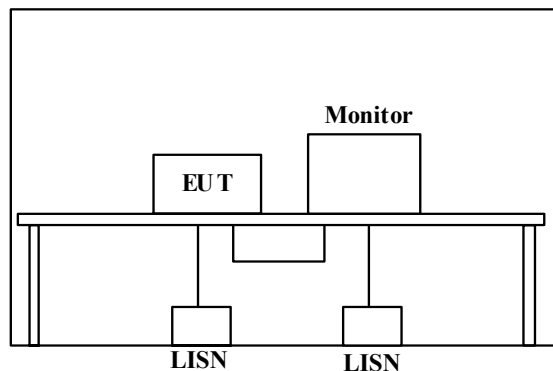
Shielded room



RF in: 75 ohm terminated
 Front video in: Video signal generator connected or 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-video out: 75 ohm terminated with S-video output cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: video signal generator connected or 75 ohm terminated
 Rear audio in: 47 k ohm terminated

VCR Play + Rec. mode / DVD Play + Rec. mode

Shielded room



RF in: 75 ohm terminated with RF input cable
 Front video in: 75 ohm terminated with video cable
 Front audio in: 47 k ohm terminated with audio cable
 Rear video out: monitor connected
 Rear audio out: monitor connected
 S-video out: 75 ohm terminated with S-video output cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated with video cable
 Rear audio in: 47 k ohm terminated with audio cable
 S-video in: 75 ohm terminated with S-video input cable

5.3 Test conditions

Frequency range : 0.15 MHz – 30 MHz
EUT position : Table top
EUT operation mode : TV Reception + Rec., AV Input 1+ Rec., AV Input 2 + Rec.,
VCR Play + Rec., DVD Play + Rec.

5.4 Test procedure

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT within a shielded room. The EUT was connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection has been performed. The measurements have been performed with a quasi-peak detector and if required, with an average detector.

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

Detector Type : QP
IF Bandwidth : 10 kHz

5.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

Section 6 : Radiated emission

6.1 Operation environment

The test was carried out in No.3 open site.

Date : June 17 and 20, 2005

Temperature : See data

Humidity : See data

6.2 Test configuration

EUT was placed on a platform of nominal size, 1 m by 1.8 m, raised 80 cm above the conducting ground plane. The rear of EUT was aligned and flushed with rear of tabletop. AC cable was bundled in center. I/O cables were hanged 40 cm height to the ground plane. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

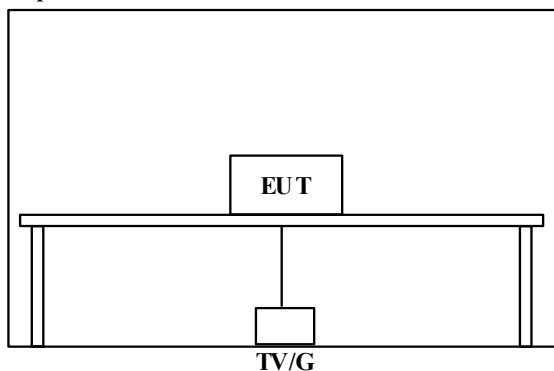
A drawing of the set up is shown in figure 2 and photographs in Appendix 1.

Figure 2. Radiated emission



TV Reception + Rec. mode (0 dBmV / 25 dBmV)

Open test site



RF in: TV signal generator connected or 75 ohm terminated
 Front video in: 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-video out: 75 ohm terminated with S-video output cable
 Component (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated
 Rear audio in: 47 k ohm terminated

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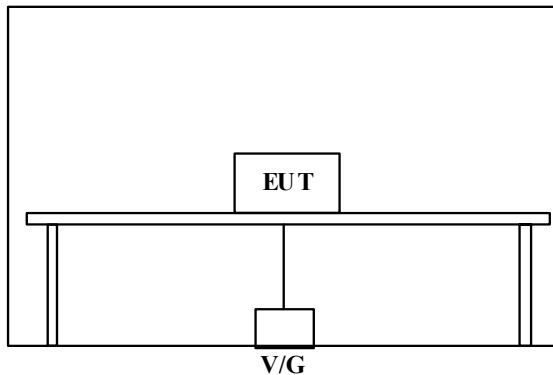
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AV Input 1 + Rec. mode/ AV Input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)

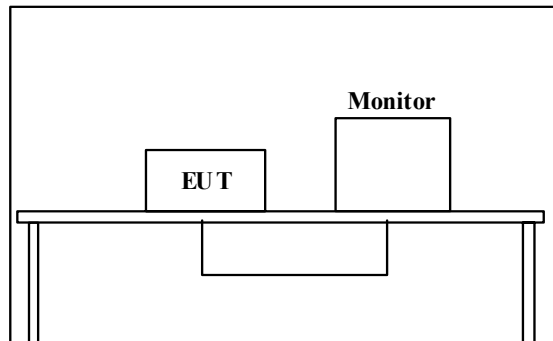
Open test site



RF in: 75 ohm terminated
 Front video in: Video signal generator connected or 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-video out: 75 ohm terminated with S-video output cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: video signal generator connected or 75 ohm terminated
 Rear audio in: 47 k ohm terminated

VCR Play + Rec. mode / DVD Play + Rec. mode

Open test site



RF in: 75 ohm terminated with RF input cable
 Front video in: 75 ohm terminated with video cable
 Front audio in: 47 k ohm terminated with audio cable
 Rear video out: monitor connected
 Rear audio out: monitor connected
 S-video out: 75 ohm terminated with S-video output cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated with video cable
 Rear audio in: 47 k ohm terminated with audio cable
 S-video in: 75 ohm terminated with S-video input cable

6.3 Test conditions

Frequency range : 30 MHz – 5000 MHz
Test distance : 3 m
EUT position : Table top
EUT operation mode : TV Reception + Rec., AV Input 1+ Rec., AV Input 2 + Rec.,
VCR Play + Rec., DVD Play + Rec.

6.4 Test procedure

The Radiated Electric Field Strength intensity has been measured on an open test site with a ground plane and at a distance of 3 m.

Pre check measurements were performed within a search coil at high level of 80MHz – 90MHz, 270MHz – 290MHz and 500MHz – 700MHz in a shielded room to distinguish disturbances of EUT from the ambient noise. The measuring antenna height was varied between 1 and 4 m 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.

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

	<u>30-1000 MHz (Test receiver)</u>	<u>1000-5000 MHz (Spectrum analyzer)</u>
Detector Type	: QP	: PK : AV
IF Bandwidth	: 120kHz	: RBW 1MHz / VBW 1MHz : RBW 1MHz/ VBW 10Hz

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

6.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

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Section 7 : Antenna terminal voltage

7.1 Operation environment

The test was carried out in No.7 shielded room.

Date : June 21, 2005

Temperature : See data

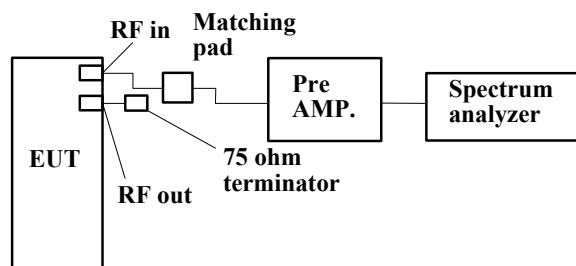
Humidity : See data

7.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

A drawing of the set up is shown in figure 3 and photographs in Appendix 1.

Figure 3. Antenna terminal voltage



7.3 Test conditions

Frequency range : 30 MHz – 5000 MHz

EUT position : Table top

EUT operation mode : Tuning (TV tuning / CATV tuning)

7.4 Test procedure

Connect EUT and spectrum analyzer through pre-amplifier. Set EUT to CH investigation mode then measure the voltage of local leakage from antenna terminal. Spectrum analyzer should be hold in maximum mode during the measurement.

Detector Type : Peak (30-5000 MHz)

At frequency between 2000 MHz and 5000 MHz, 75/50ohm conversion loss of impedance is used in speculation.

7.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

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Section 8 : RF output level / spurious emission

8.1 Operation environment

The test was carried out in No.7 shielded room.

Date : June 22, 2005

Temperature : See data

Humidity : See data

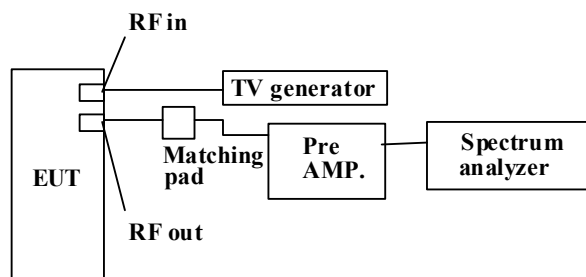
8.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

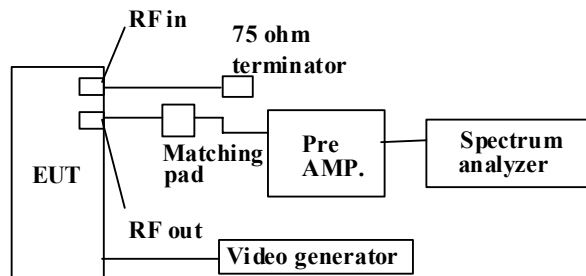
A drawing of the set up is shown in figure 4 and photographs in Appendix 1.

Figure 4. RF output level

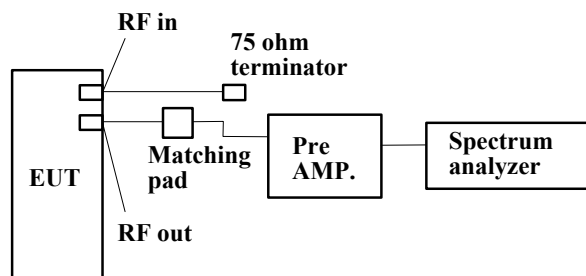
TV Reception + Rec. mode (0dBmV / 25dBmV)



AV Input 1 + Rec. mode / AV Input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)



VCR Play + Rec. mode and DVD Play + Rec. mode



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8.3 Test conditions

EUT position : Table top
EUT operation mode : TV Reception + Rec., AV Input 1+ Rec., AV Input 2 + Rec.,
VCR Play + Rec., DVD Play + Rec.

8.4 Test procedure

EUT was connected spectrum analyzer through matching pad by accessory cable. RF channel selected 3ch or 4ch. Picture carrier, sound carrier and spurious levels are measured. Both sound carrier levels (upper and lower side bands) of modulator output are measured.

Detector Type : Peak

8.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

Section 9 : Antenna transfer switch

9.1 Operation environment

The test was carried out in No.7 shielded room.

Date : June 22, 2005

Temperature : See data

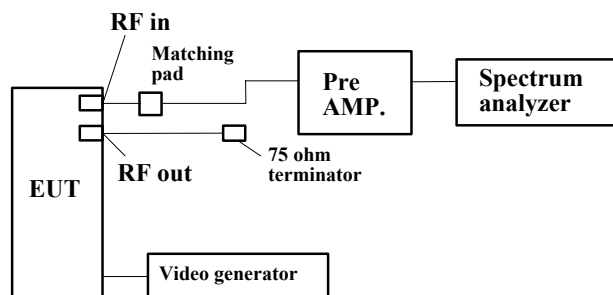
Humidity : See data

9.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

A drawing of the set up is shown in figure 5 and photographs in Appendix 1.

Figure 5. Transfer switch



9.3 Test conditions

EUT position : Table top

EUT operation mode : AV Input 1+ Rec., AV Input 2 + Rec., VCR Play + Rec., DVD Play + Rec.

9.4 Test procedure

EUT was connected spectrum analyzer through matching pad by accessory cable. RF channel selected 3ch or 4ch. The EUT exercised AV input + Rec. mode and Playback mode during the test, and interference signals were measured from RF input terminal.

Detector Type : Peak

9.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

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Section 10 : Picture sensitivity

10.1 Operation environment

The test was carried out in No.7 shielded room.

Date : June 21, 2005

Temperature : See data

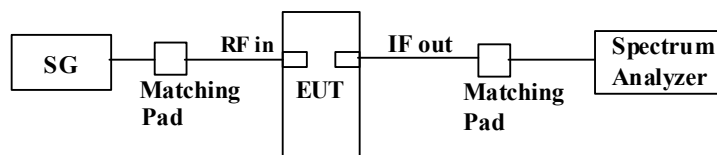
Humidity : See data

10.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

A drawing of the set up is shown in figure 6 and photographs in Appendix 1.

Figure 6. Picture sensitivity



10.3 Test conditions

EUT position : Table top

EUT operation mode : TV Reception

10.4 Test procedure

Signal generator setup is as follows, (Example: 2ch – 55.25 MHz, AM, 1 kHz, 30 %)

The EUT was tuned to appropriate channel.

Output level of signal generator was adjusted to near the frequency output level of EUT output.

EUT output level was adjusted to maximum output level by frequency adjustment of signal generator.

Signal generator output level was adjusted to reference output level of EUT and output level had read.

10.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tomoyuki Yamashita

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Section 11 : Noise figure

11.1 Operating environment

The test was carried out in No.7 shielded room.

Date : June 21, 2005

Temperature : See data

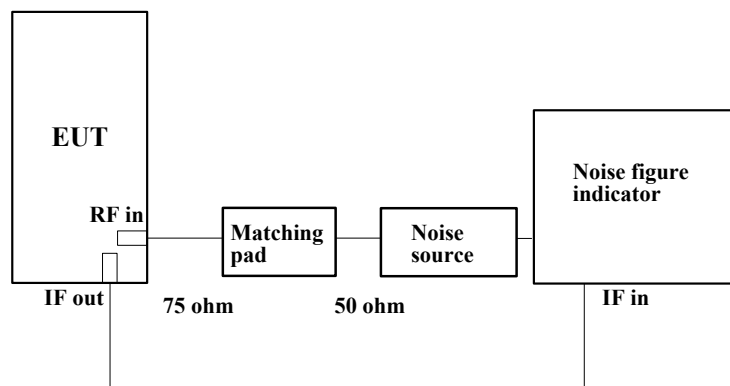
Humidity : See data

11.2 Test configuration

The EUT was placed on a non-metallic table.

A drawing of the set up is shown in figure 7 and photographs in Appendix 1.

Figure 7. Noise figure



11.3 Test condition

EUT position : Table top

EUT operation mode : TV Reception

11.4 Test procedure

This test should be performed in a shielded room or an low noise environment. Connect solid state noise source to antenna input terminal of EUT. Connect IF output terminal of EUT to noise meter. Measurement has been performed for VHF,UHF, Mid-band and Super-band receiver range.

11.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tomoyuki Yamashita

UL Apex Co., Ltd.

Yokowa EMC Lab.

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Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Appendix 1 : Photographs of test set up

Page 20 :	Test set up of conducted emission
Page 21 :	Test set up of radiated emission
Page 22 :	Test set up of antenna terminal voltage
Page 23 :	Test set up of RF output level / spurious emission
Page 24 :	Test set up of antenna transfer switch
Page 25 :	Test set up of picture sensitivity
Page 26 :	Test set up of noise figure

Appendix 2 : Data of EMI tests

Page 27 - 44 :	Conducted emission
Page 45 - 91 :	Radiated emission
Page 92- 93 :	Antenna terminal voltage
Page 94 - 114 :	RF output level / spurious emission
Page 115 - 126 :	Antenna transfer switch
Page 127 :	Picture sensitivity
Page 128 :	Noise figure

Appendix 3 : Test instruments

Page 129 :	Test instruments
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Conducted emission



UL Apex Co., Ltd.

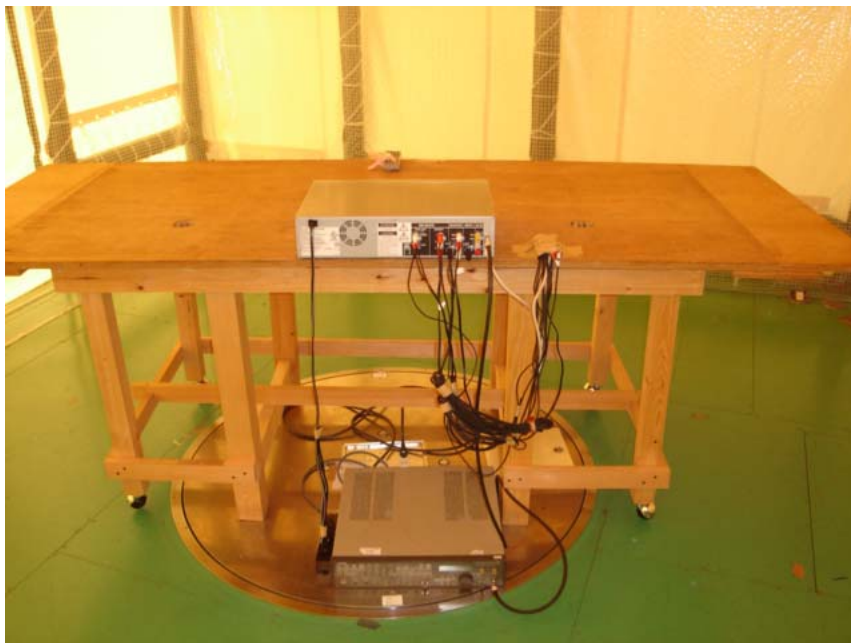
Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Radiated emission



UL Apex Co., Ltd.

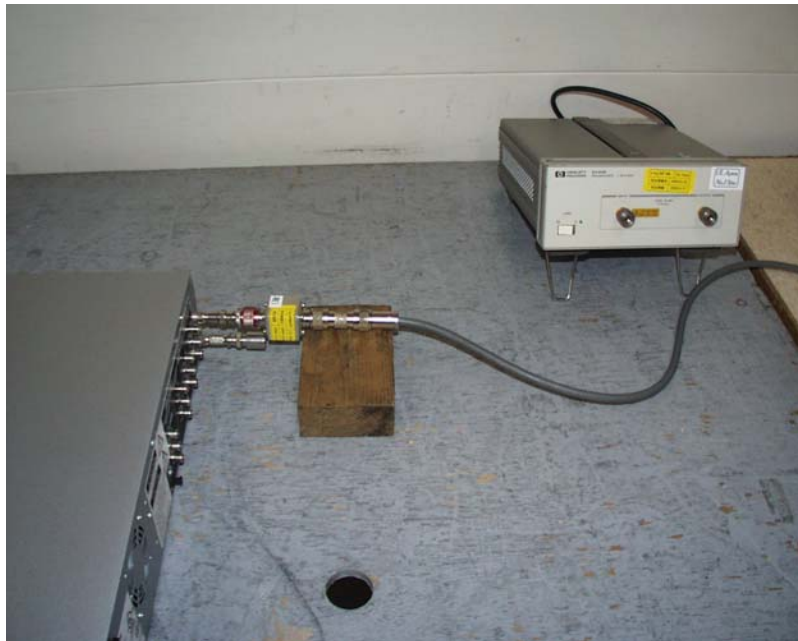
Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Antenna terminal voltage



UL Apex Co., Ltd.

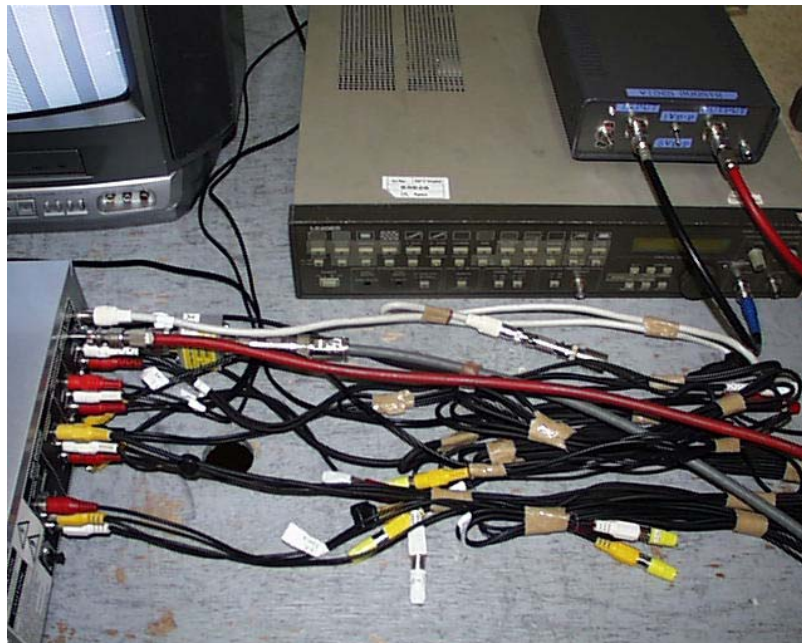
Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

RF output level / spurious emission



UL Apex Co., Ltd.

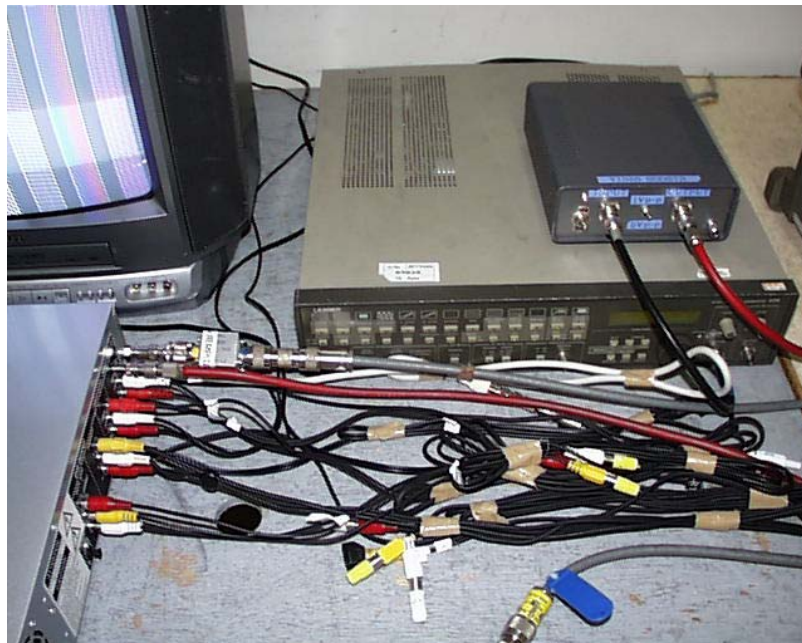
Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Antenna transfer switch



UL Apex Co., Ltd.

Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Picture sensitivity



UL Apex Co., Ltd.
Yokowa EMC Lab.

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Facsimile: +81 596 39 0232

Noise figure



UL Apex Co., Ltd.

Yokowa EMC Lab.

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Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB μ V]	AV [dB]
1.	0.1949	38.5	-	39.4	-	0.0	0.2	0.0	39.6	-	63.8	53.8	24.2	-
2.	0.7993	36.6	-	38.4	-	0.1	0.3	0.0	38.8	-	56.0	46.0	17.2	-
3.	2.2041	33.5	-	34.6	-	0.1	0.3	0.0	35.0	-	56.0	46.0	21.0	-
4.	5.0958	22.2	-	23.9	-	0.2	0.4	0.0	24.5	-	60.0	50.0	35.5	-
5.	9.7688	22.7	-	23.4	-	0.4	0.5	0.0	24.3	-	60.0	50.0	35.7	-
6.	28.6835	14.1	-	15.0	-	1.0	0.7	0.0	16.7	-	60.0	50.0	43.3	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

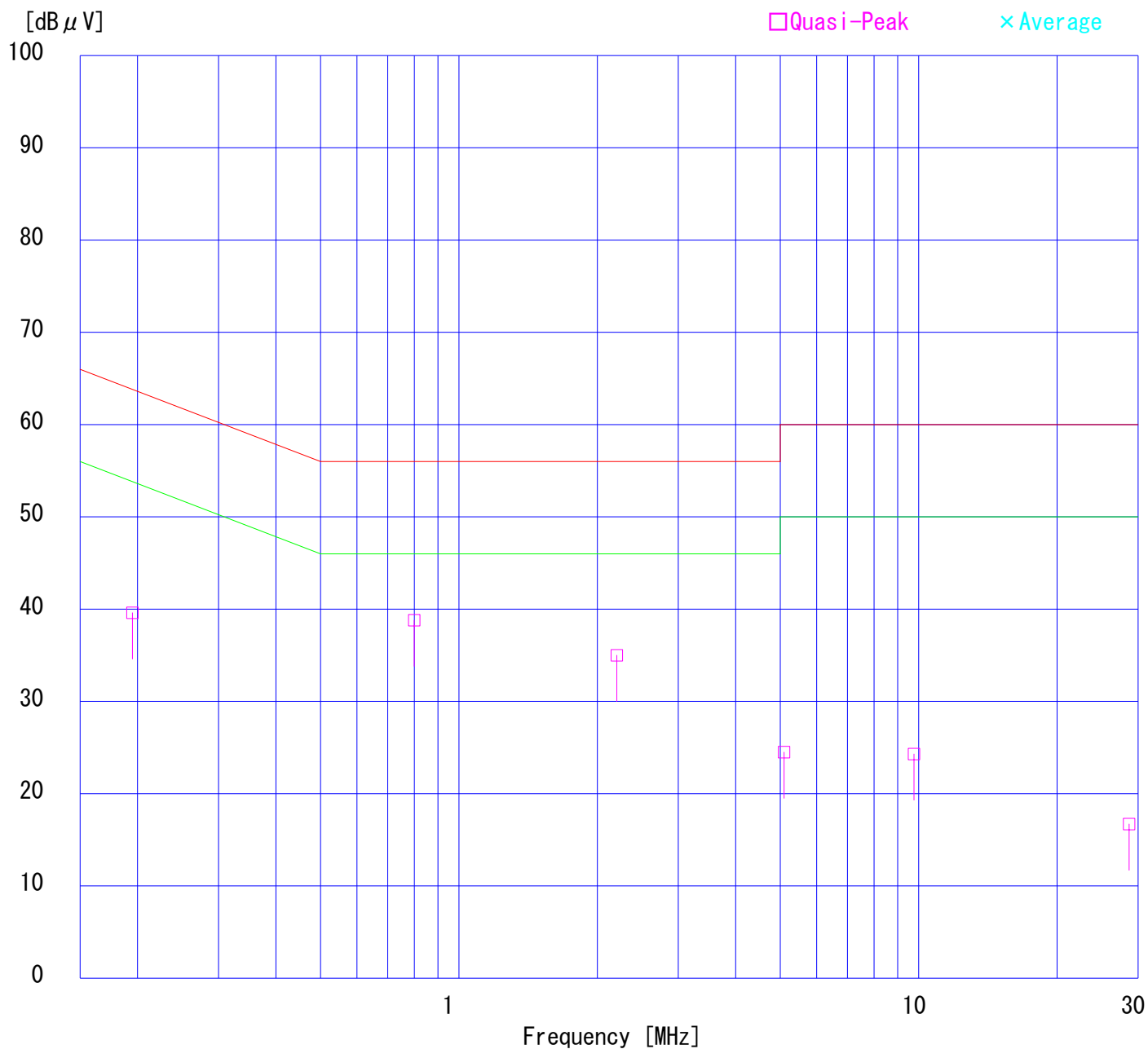
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.3 SHIELD TEST ROOM
Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

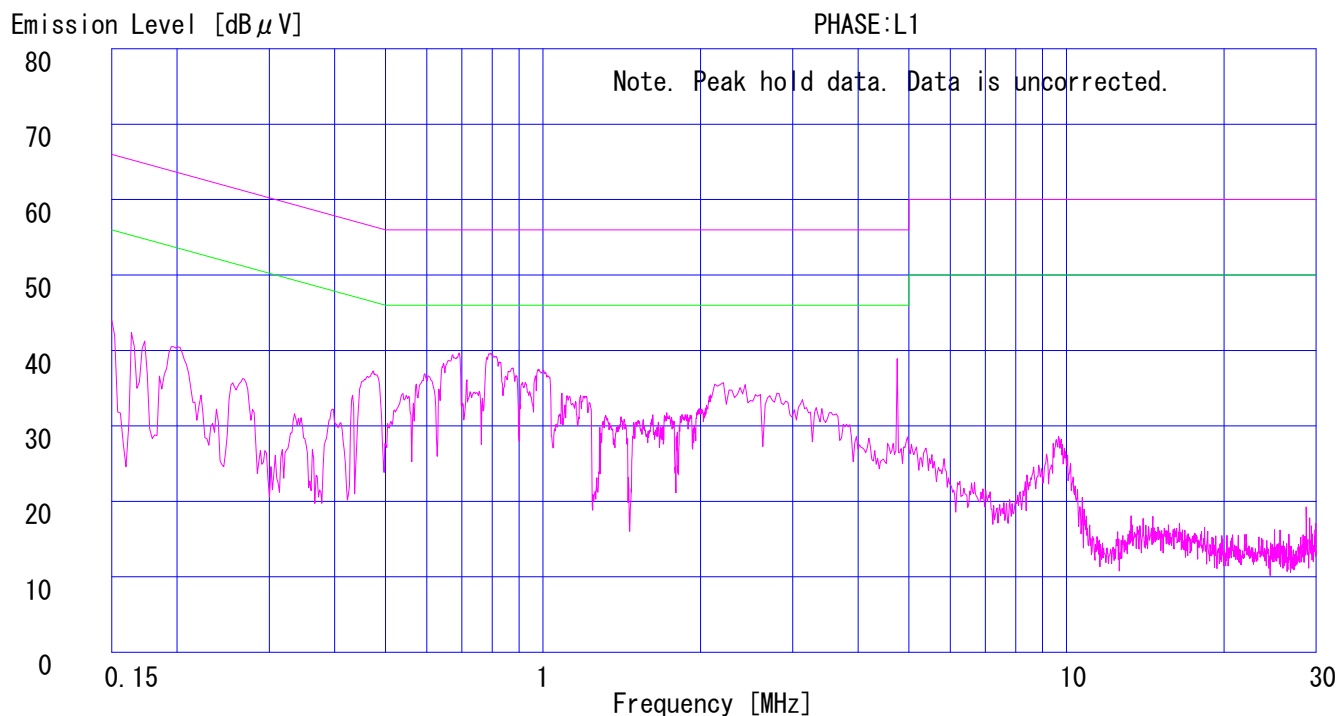
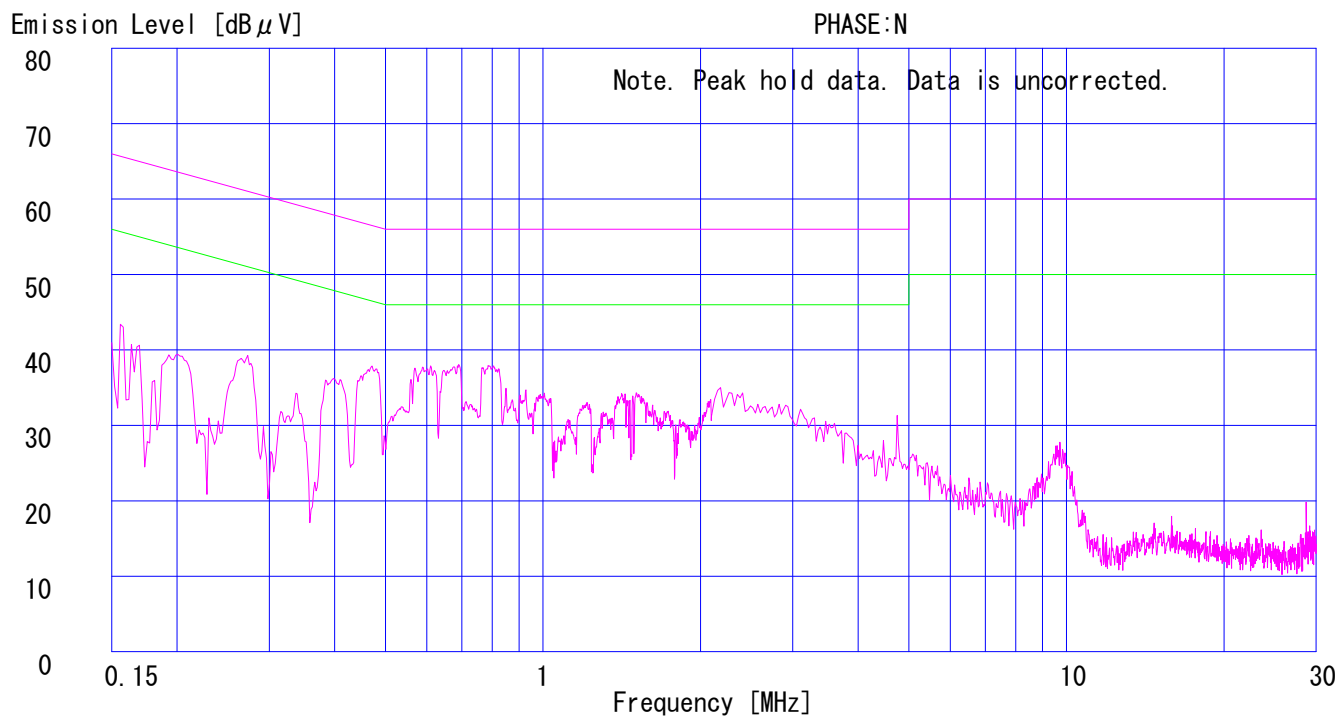
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

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Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

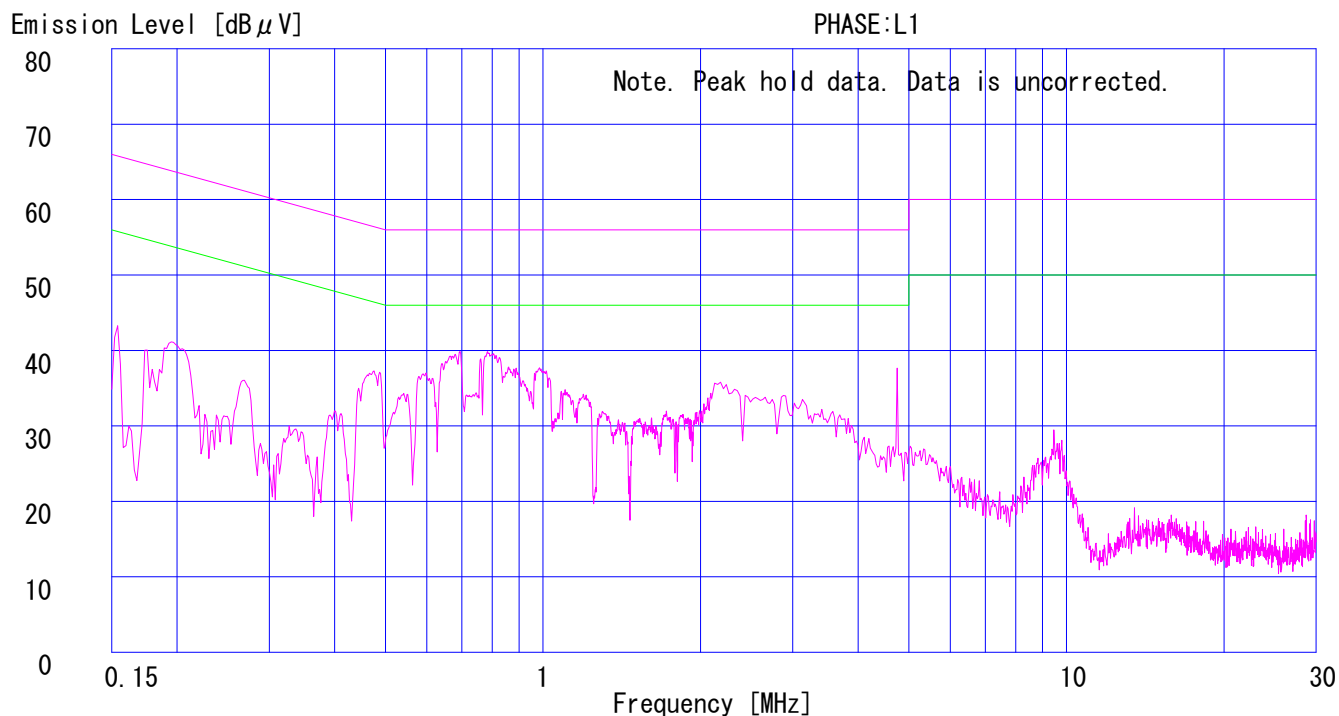
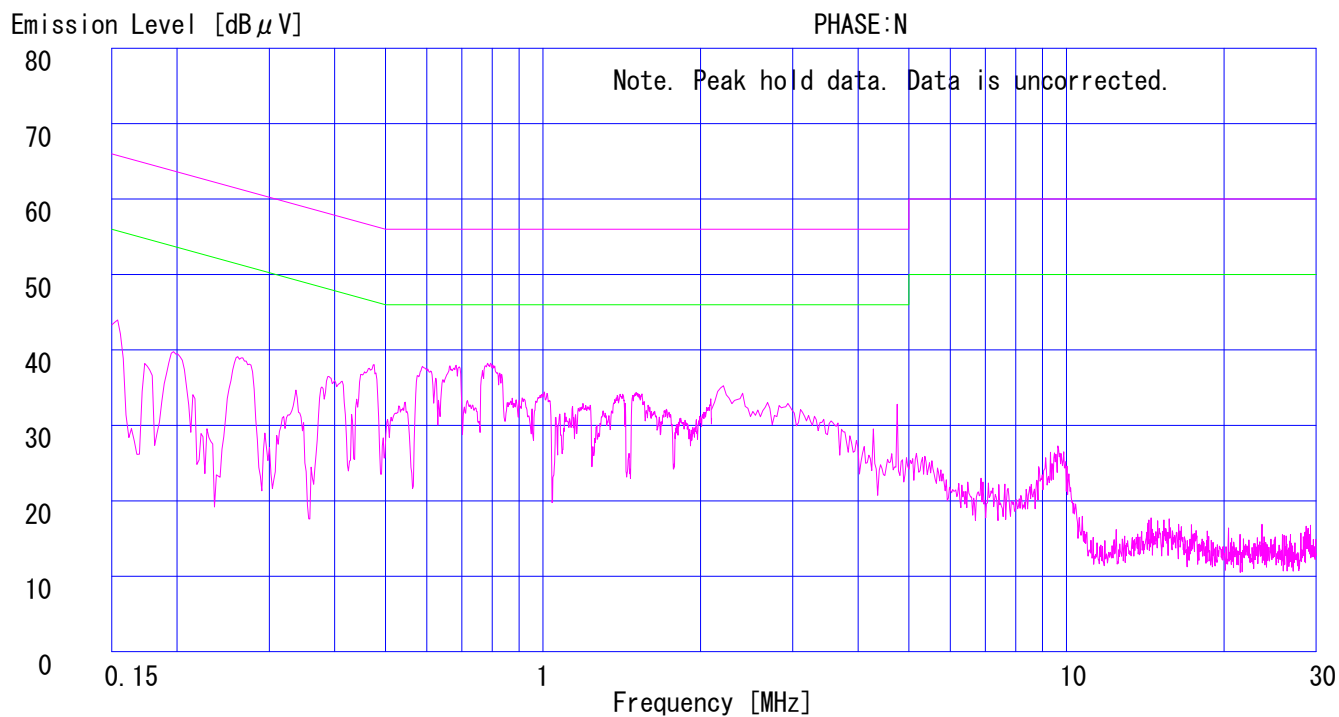
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (0dBmV)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB μ V]	AV [dB]
1.	0.1948	38.4	-	39.7	-	0.0	0.2	0.0	39.9	-	63.8	53.8	23.9	-
2.	0.7958	36.5	-	38.2	-	0.1	0.3	0.0	38.6	-	56.0	46.0	17.4	-
3.	2.2159	33.5	-	34.5	-	0.1	0.3	0.0	34.9	-	56.0	46.0	21.1	-
4.	5.0672	22.3	-	23.4	-	0.2	0.4	0.0	24.0	-	60.0	50.0	36.0	-
5.	15.3721	16.7	-	16.7	-	0.7	0.5	0.0	17.9	-	60.0	50.0	42.1	-
6.	29.2350	21.0	-	19.1	-	1.0	0.7	0.0	22.7	-	60.0	50.0	37.3	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

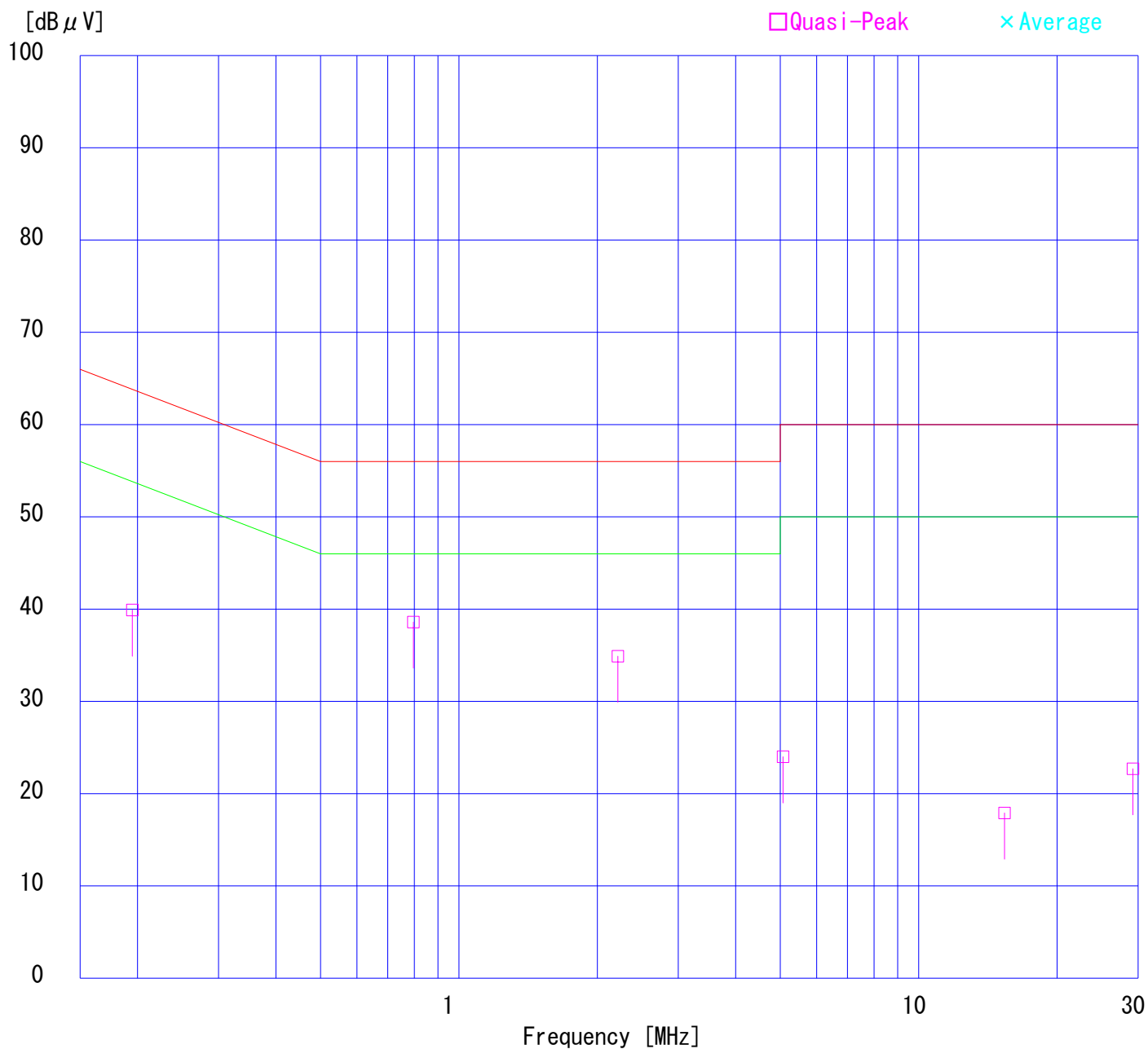
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.3 SHIELD TEST ROOM
Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

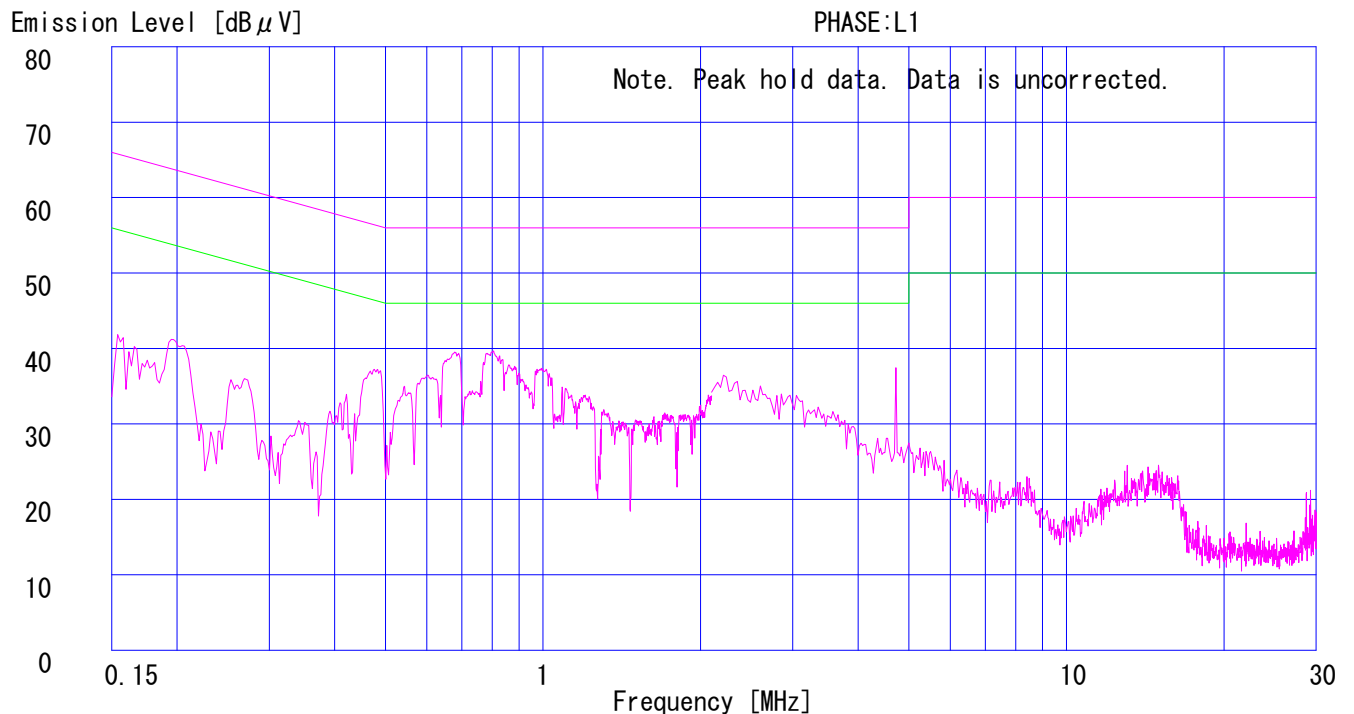
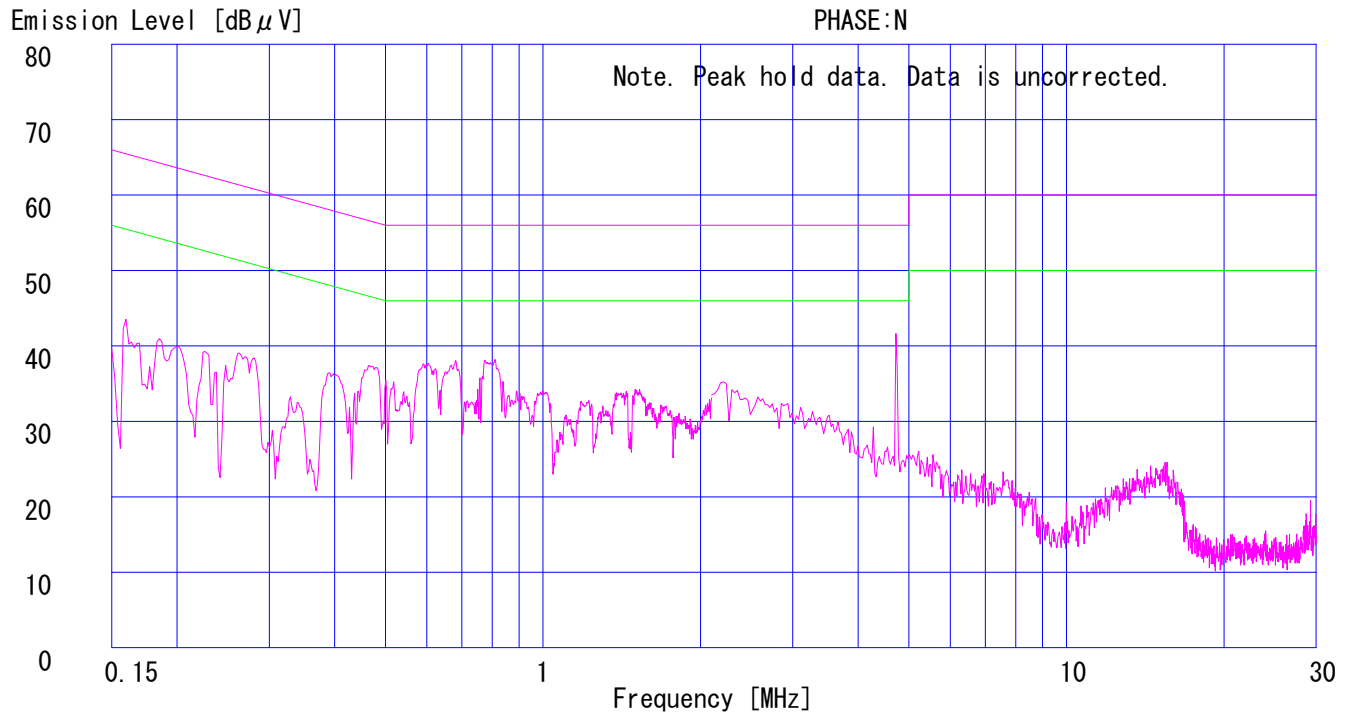
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

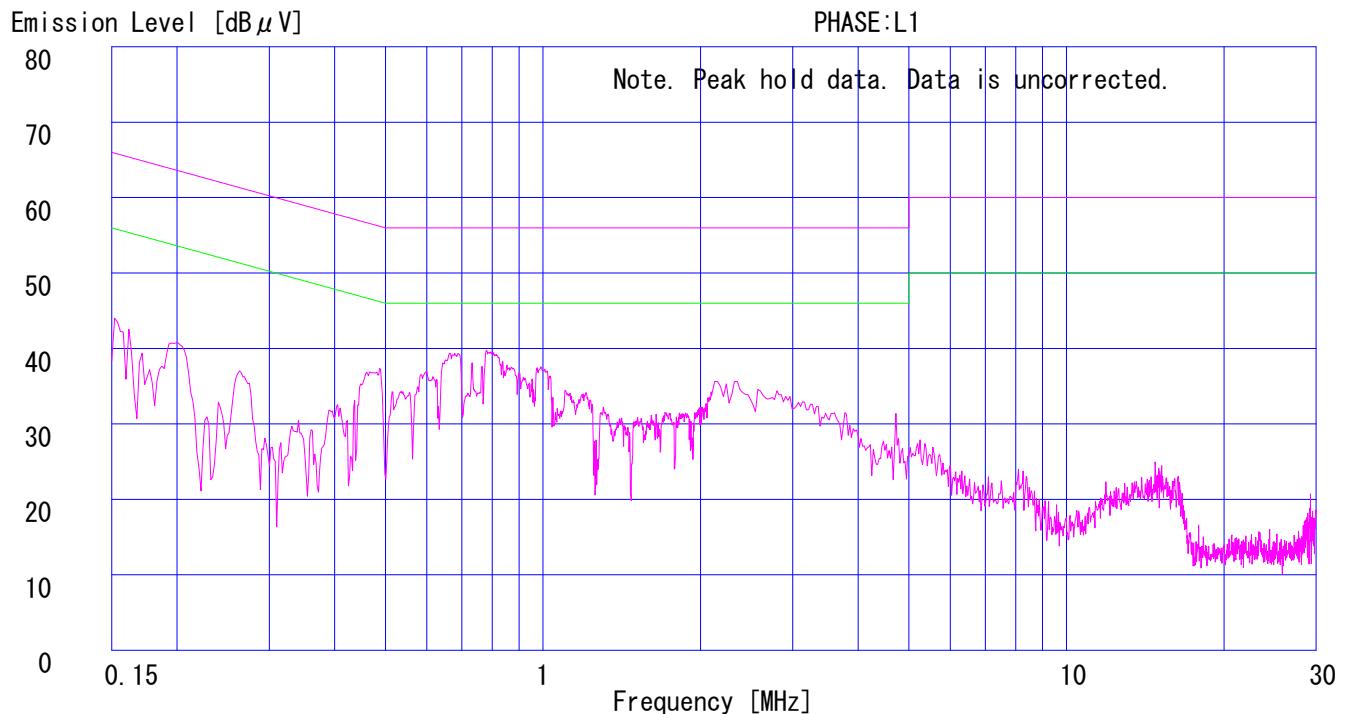
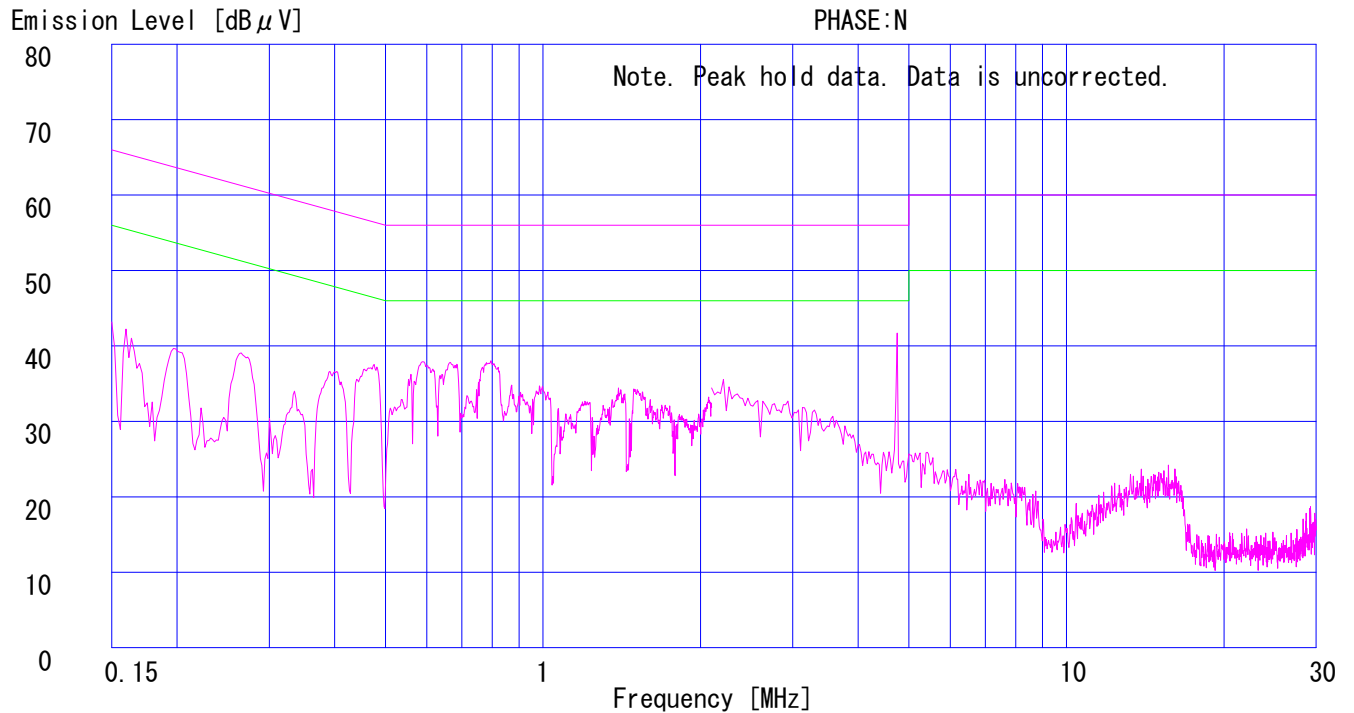
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (1Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB]	AV [dB]
1.	0.1981	38.5	-	39.7	-	0.0	0.2	0.0	39.9	-	63.7	53.7	23.8	-
2.	0.7890	36.5	-	38.2	-	0.1	0.3	0.0	38.6	-	56.0	46.0	17.4	-
3.	2.2070	33.3	-	34.3	-	0.1	0.3	0.0	34.7	-	56.0	46.0	21.3	-
4.	5.1820	22.4	-	23.9	-	0.2	0.4	0.0	24.5	-	60.0	50.0	35.5	-
5.	14.3179	21.1	-	21.2	-	0.7	0.5	0.0	22.4	-	60.0	50.0	37.6	-
6.	29.2345	18.4	-	19.3	-	1.0	0.7	0.0	21.0	-	60.0	50.0	39.0	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

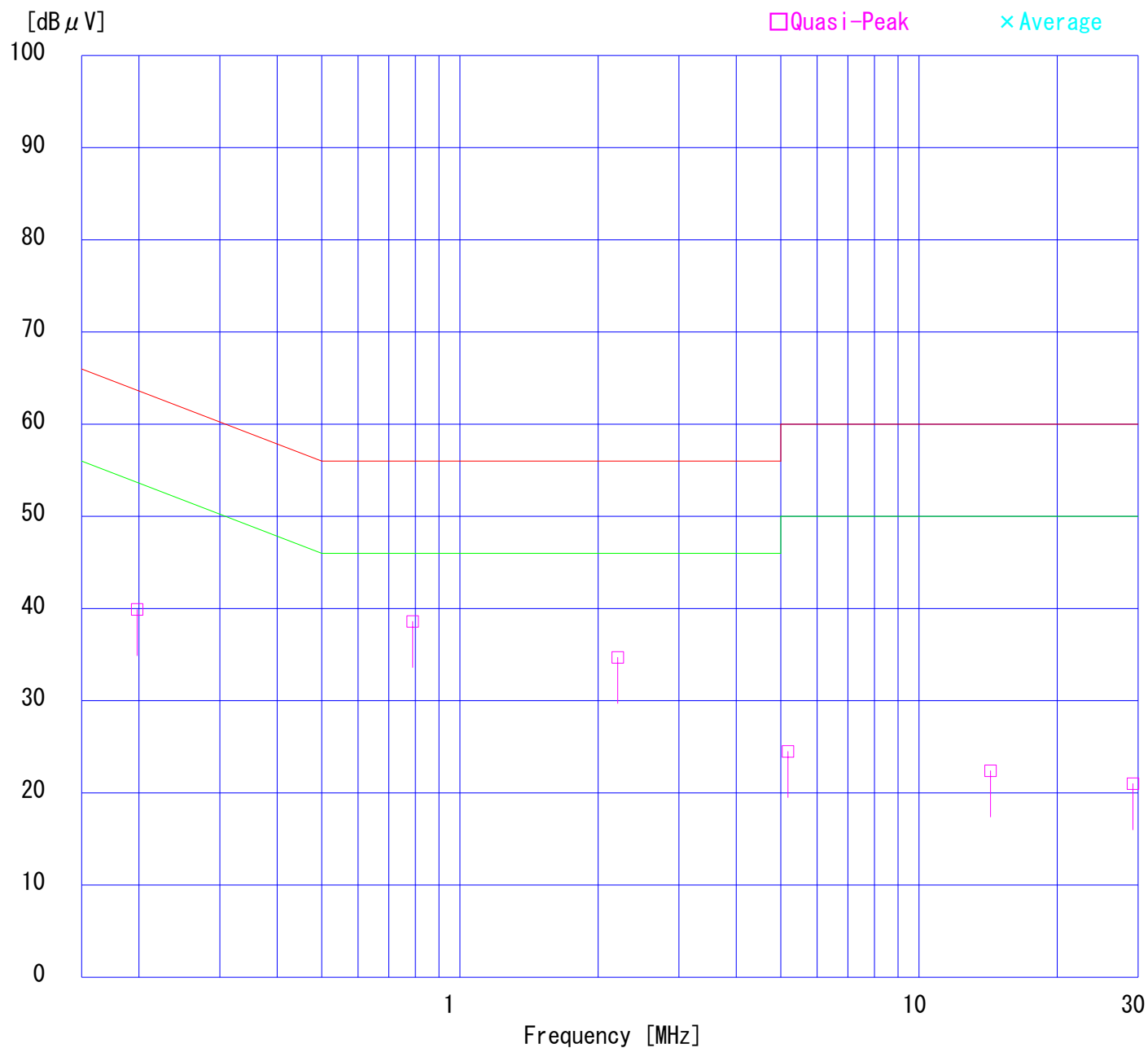
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.3 SHIELD TEST ROOM
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Applicant : Orion Electric Co., Ltd.
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Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

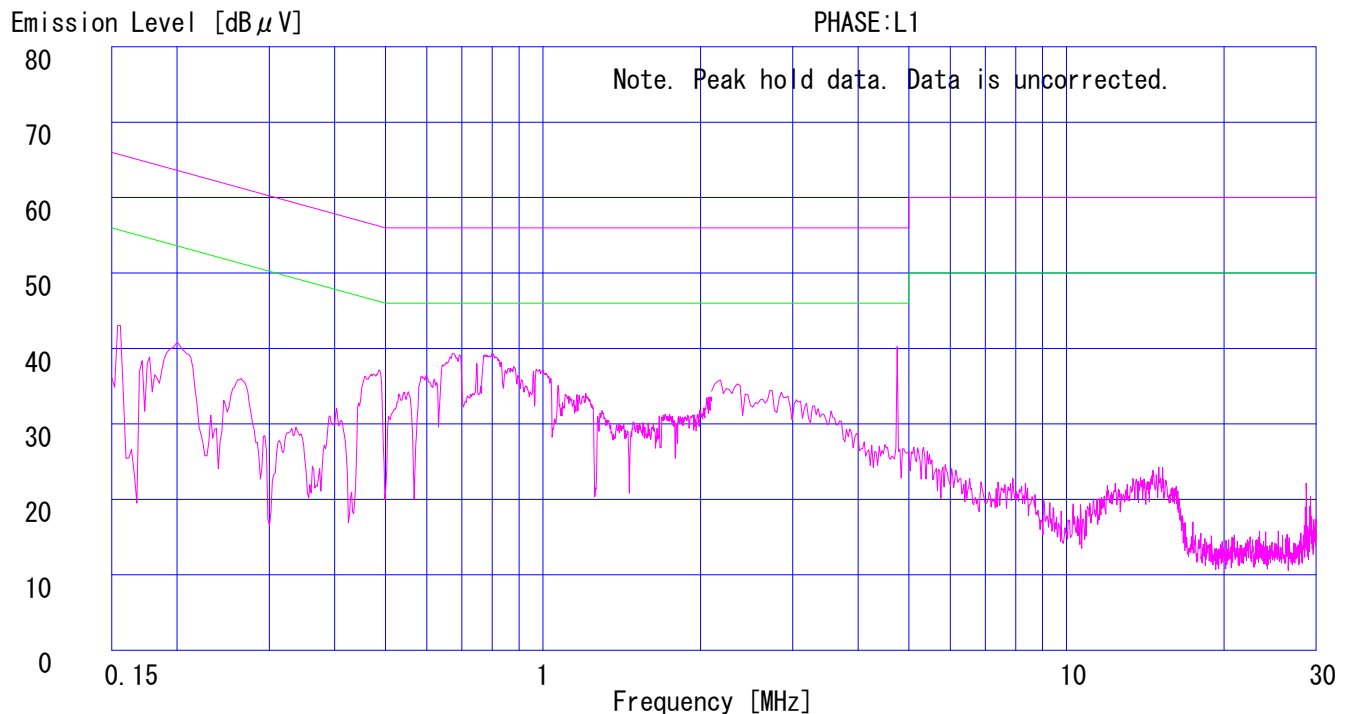
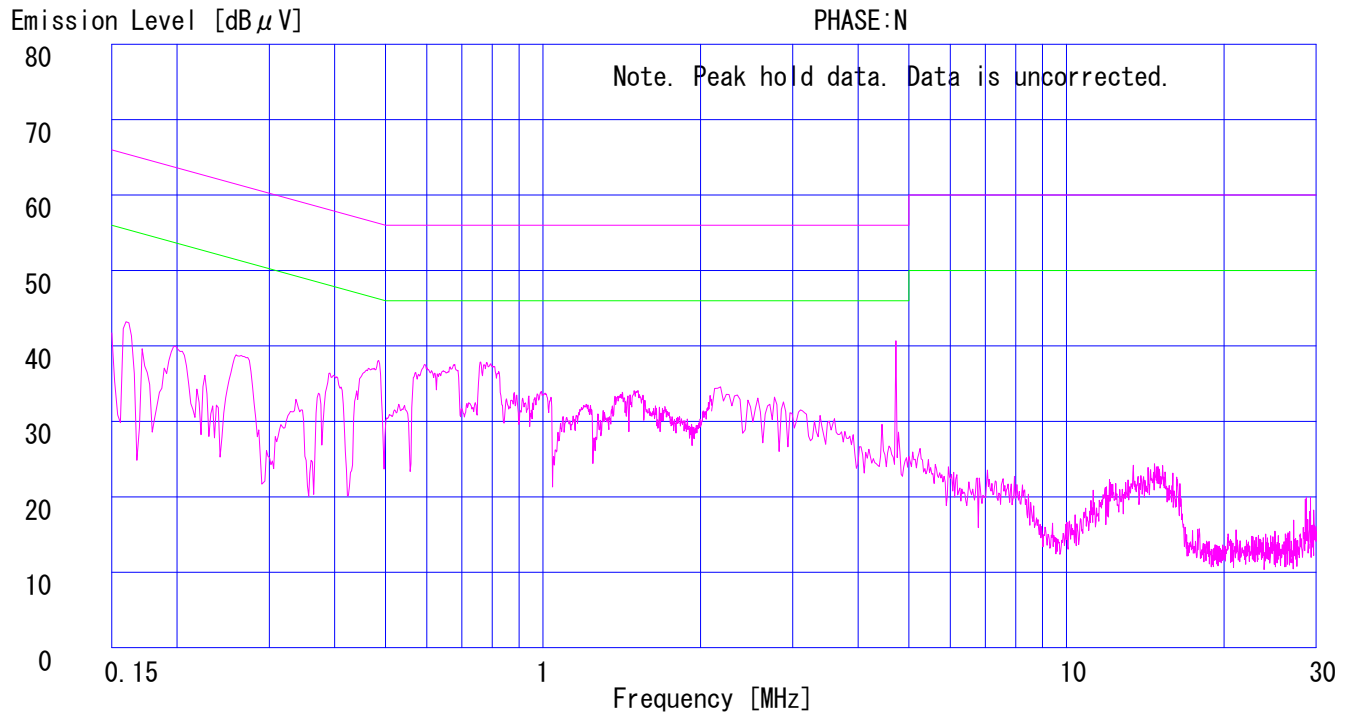
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

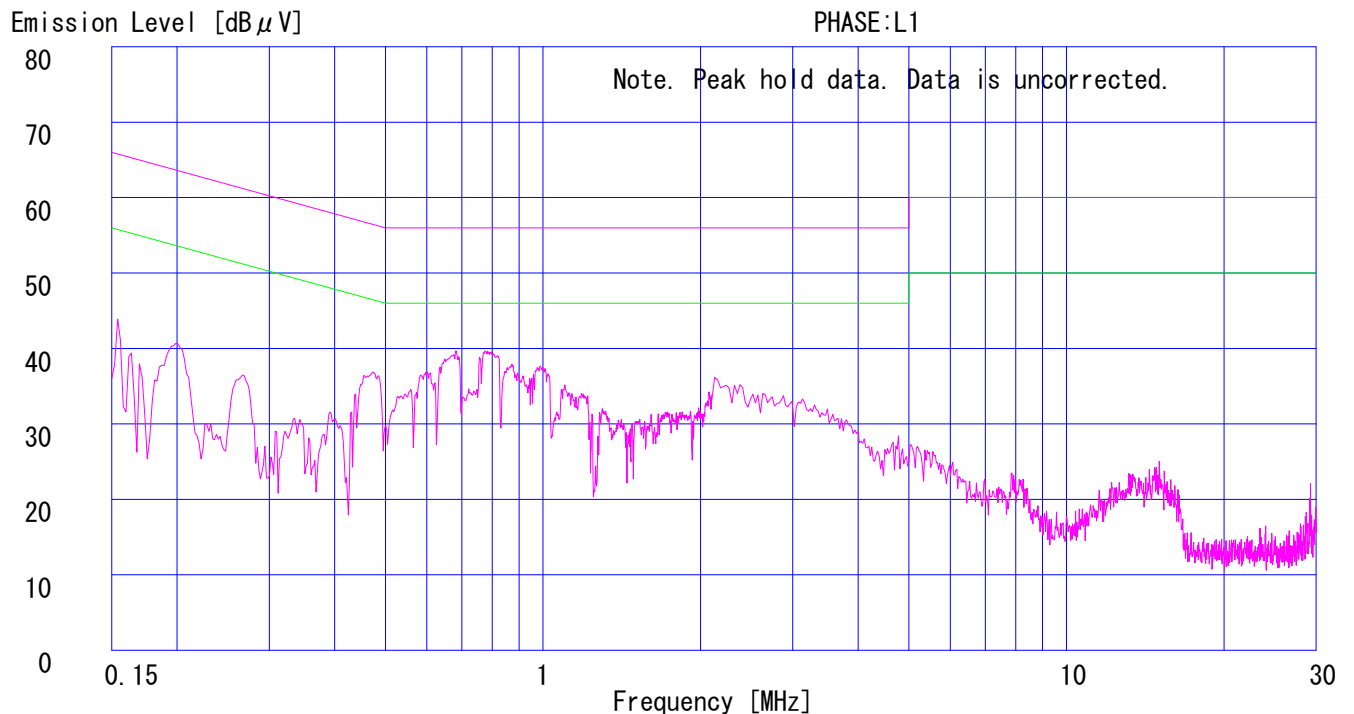
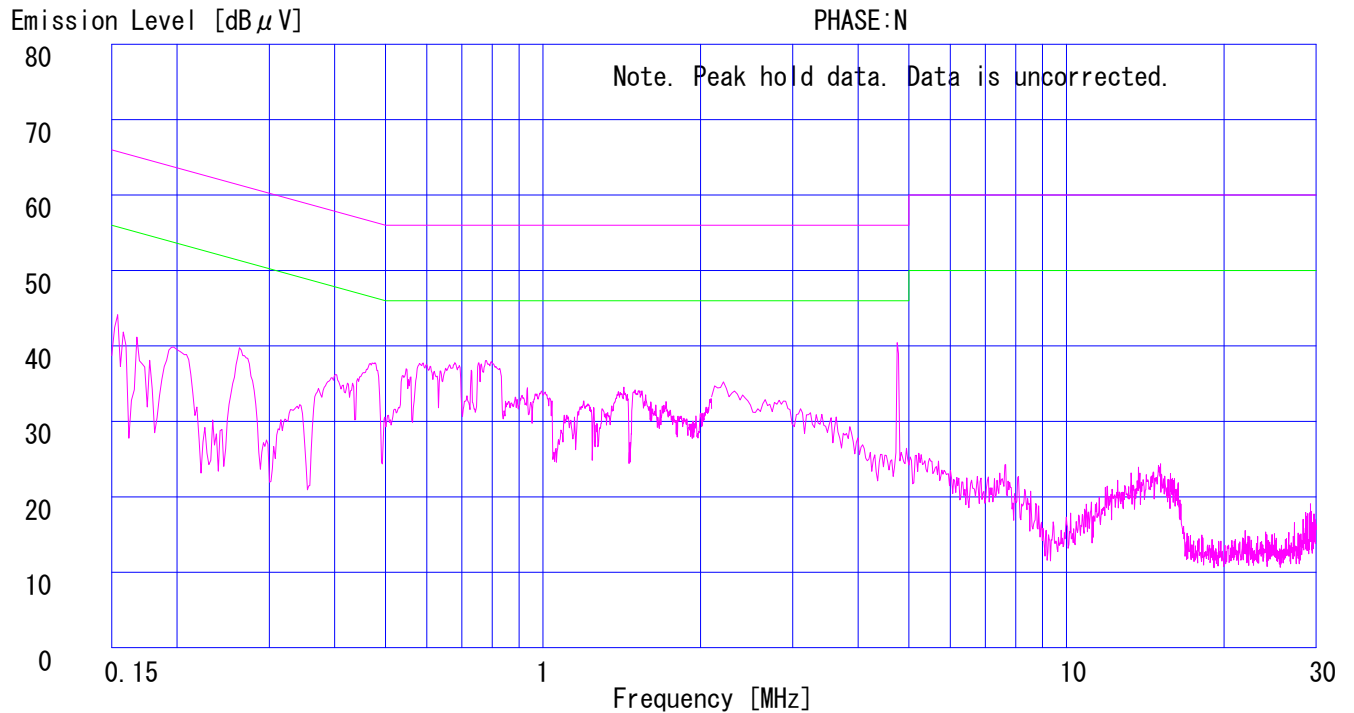
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (1Vp-p)
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB]	AV [dB]
1.	0.2069	37.0	-	38.2	-	0.1	0.2	0.0	38.5	-	63.3	53.3	24.8	-
2.	0.7068	35.5	-	37.6	-	0.1	0.3	0.0	38.0	-	56.0	46.0	18.0	-
3.	2.1826	32.5	-	33.6	-	0.1	0.3	0.0	34.0	-	56.0	46.0	22.0	-
4.	5.0686	19.6	-	21.5	-	0.2	0.4	0.0	22.1	-	60.0	50.0	37.9	-
5.	16.6885	25.4	-	25.3	-	0.8	0.5	0.0	26.7	-	60.0	50.0	33.3	-
6.	28.6352	30.6	-	31.4	-	1.0	0.7	0.0	33.1	-	60.0	50.0	26.9	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

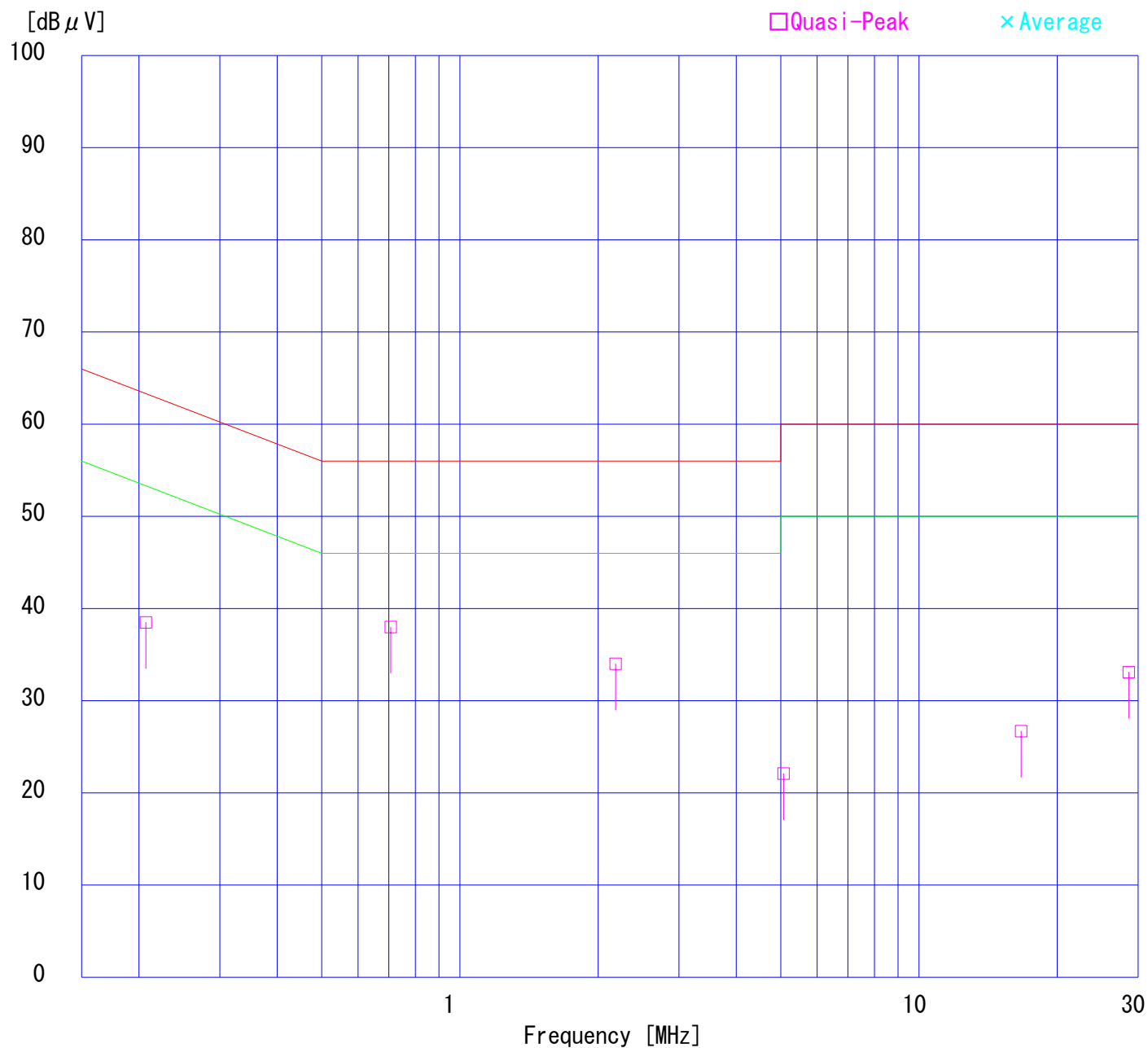
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.3 SHIELD TEST ROOM
Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
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Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

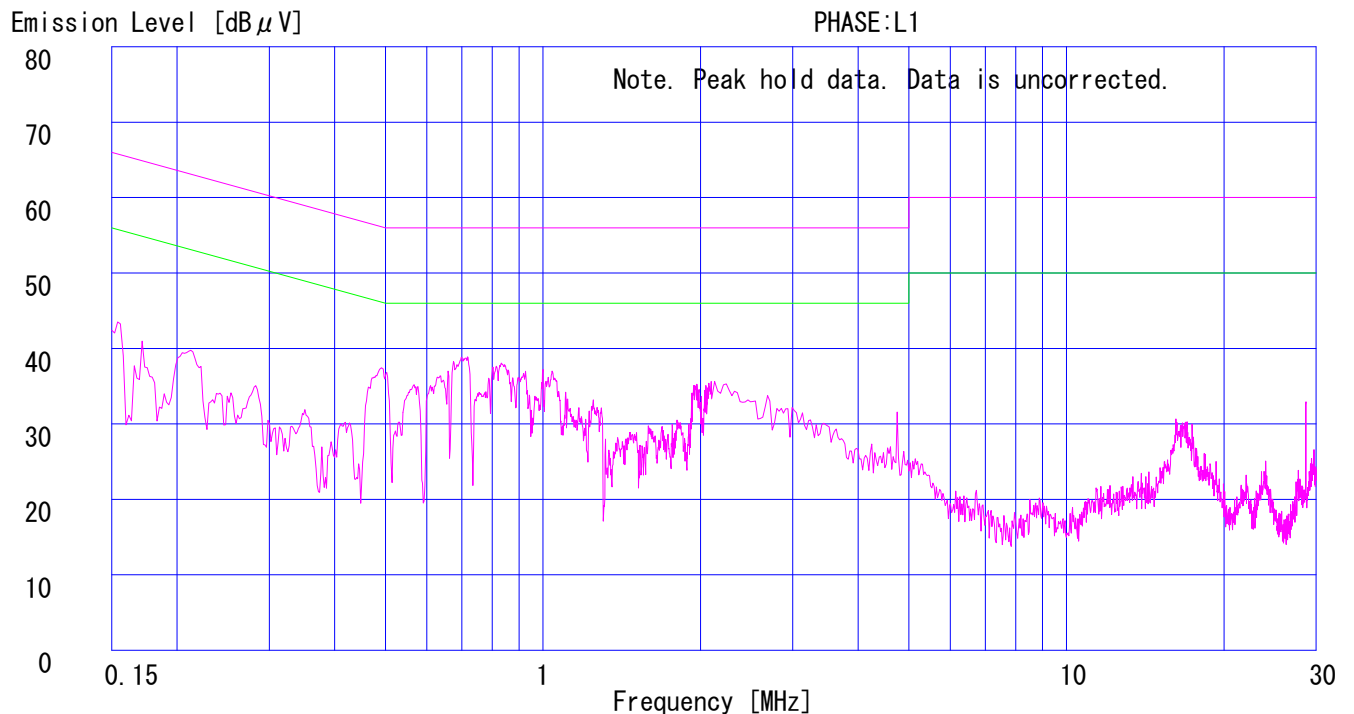
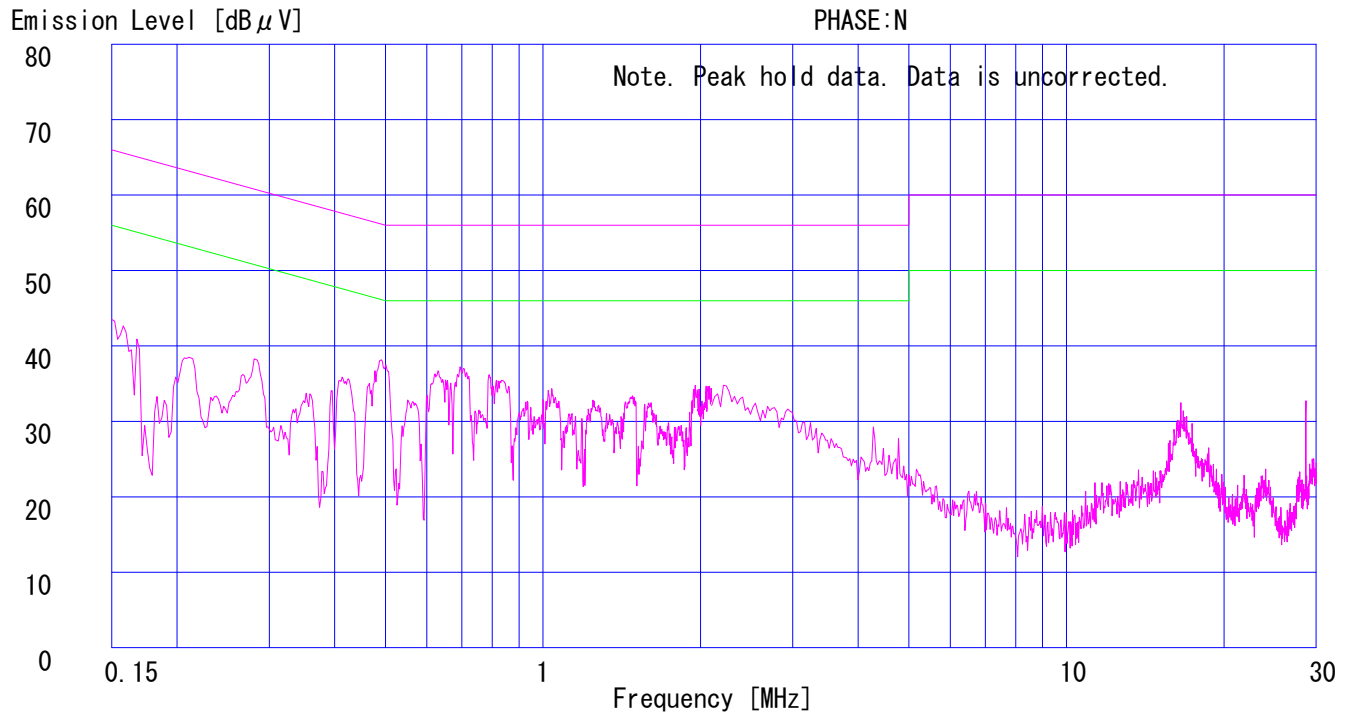
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B(2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μ V]	AV	QP [dB μ V]	AV				QP [dB]	AV [dB μ V]	QP [dB μ V]	AV [dB μ V]	QP [dB μ V]	AV [dB]
1.	0.1989	37.8	-	39.3	-	0.1	0.2	0.0	39.6	-	63.7	53.7	24.1	-
2.	0.6725	34.2	-	36.4	-	0.1	0.3	0.0	36.8	-	56.0	46.0	19.2	-
3.	1.0025	30.0	-	33.8	-	0.1	0.3	0.0	34.2	-	56.0	46.0	21.8	-
4.	5.1095	16.9	-	18.7	-	0.2	0.4	0.0	19.3	-	60.0	50.0	40.7	-
5.	17.3830	27.3	-	27.0	-	0.8	0.5	0.0	28.6	-	60.0	50.0	31.4	-
6.	28.6350	28.4	-	29.0	-	1.0	0.7	0.0	30.7	-	60.0	50.0	29.3	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

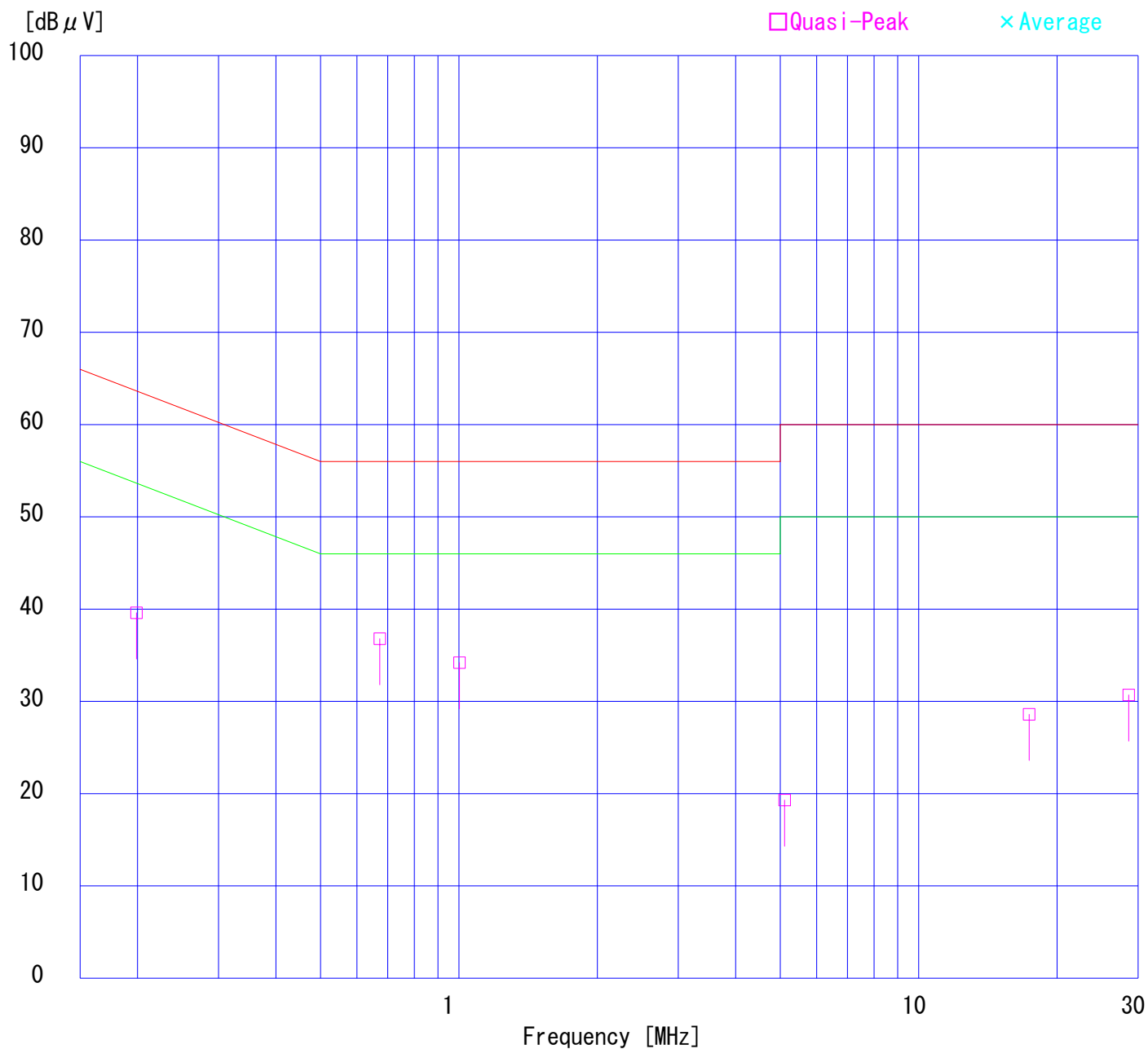
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.3 SHIELD TEST ROOM
Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation : FCC Part15B CLASS B (2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

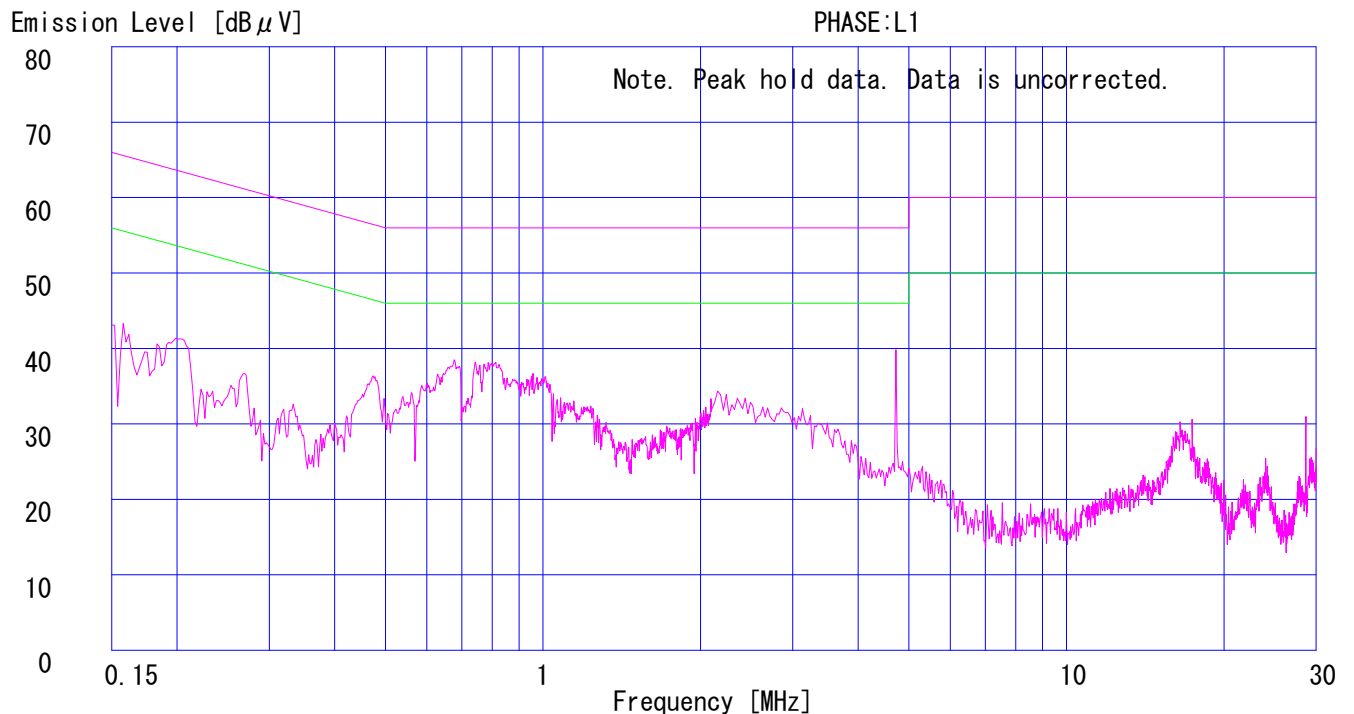
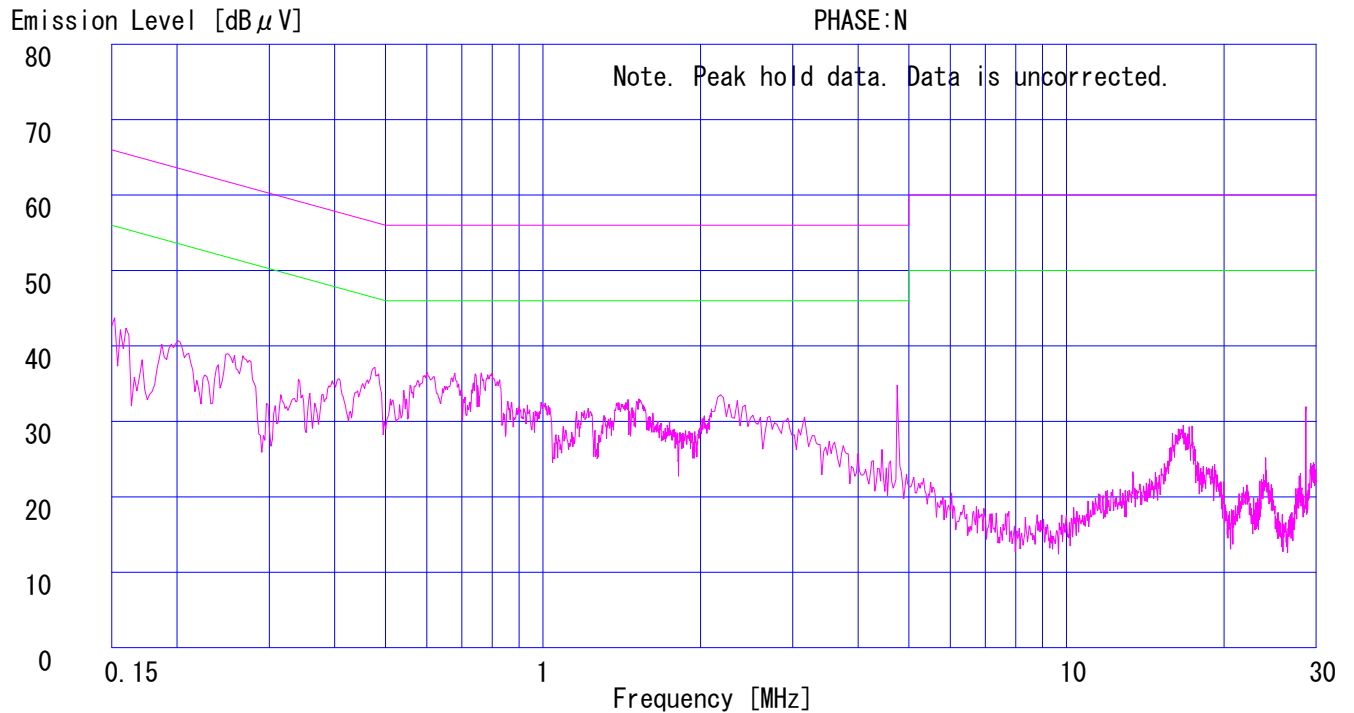
UL Apex Co., Ltd.

YOKOWA No.3 SHIELD TEST ROOM

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Phase : Single Phase
Temperature : 23 °C
Humidity : 64 %
Regulation 1 : FCC Part15B CLASS B(2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/06/20
TEMP./HUMID. : 24deg.C / 53%
ENGINEER : Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

The measurement above 101Hz, measurement of TV detectors is performed only when the result of PK detector exceeded the limit of 14V.																	
CH.	FREQ	READING(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)					
	[MHz]	HOR.	VER.		TYPE	[dBuV]	HOR.	VER.		[QP]		HOR.	VER.				
		[dBuV]					[dBuV/m]			[dBuV/m]		[dB]					
VHF																	
2	101	23.2	23.0		BC	-9.8	13.4	13.2		43.5		30.1	30.3				
	202				BC					43.5		>15.0					
	303				LO					46.0							
	404				LO					46.0							
	505				LO					46.0							
	606				LO					46.0							
	707				LO					46.0							
	808				LO					46.0							
	909				LO					46.0							
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB] [dB]	
	1010				HO					74.0	54.0	>27.0	>10.0				
	1111				HO					74.0	54.0						
	1212				HO					74.0	54.0						
	1313				HO					74.0	54.0						
	1414				HO					74.0	54.0						
1515	HO				74.0					54.0							
1616	HO				74.0					54.0							
CH.	FREQ	READING(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)					
	[MHz]	HOR. VER.			TYPE		HOR. VER.			[QP]		HOR. VER.					
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]					
3	107	22.6	22.7		BC	-8.9	13.7	13.8		43.5		29.8	29.7				
	214				BC					43.5		>15.0					
	321				LO					46.0							
	428				LO					46.0							
	535				LO					46.0							
	642				LO					46.0							
	749				LO					46.0							
	856				LO					46.0							
	963				LO					54.0							
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB] [dB]	
	1070				HO					74.0	54.0	>27.0	>10.0				
	1177				HO					74.0	54.0						
	1284				HO					74.0	54.0						
	1391				HO					74.0	54.0						
	1498				HO					74.0	54.0						
1605	HO				74.0					54.0							
CH.	FREQ	READING(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)					
	[MHz]	HOR. VER.			TYPE		HOR. VER.			[QP]		HOR. VER.					
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]					
4	113	22.2	22.5		BC	-7.9	14.3	14.6		43.5		29.2	28.9				
	226				BC					46.0		>15.0					
	339				LO					46.0							
	452				LO					46.0							
	565				LO					46.0							
	678				LO					46.0							
	791				LO					46.0							
	904				LO					46.0							
					READING(PK)					READING(AV)						ANT	C.Factor
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB] [dB]	
	1017				HO					74.0	54.0	>27.0	>10.0				
	1130				HO					74.0	54.0						
	1243				HO					74.0	54.0						
	1356				HO					74.0	54.0						
	1469				HO					74.0	54.0						
	1582				HO					74.0	54.0						

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/06/20
TEMP./HUMID. : 24deg.C / 53%
ENGINEER : Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB] [dB]			
VHF																	
5	123	22.0	22.3			BC	-6.5	15.5	15.8			43.5		28.0	27.7		
	246					BC						46.0		>15.0			
	369					LO						46.0					
	492					LO						46.0					
	615					LO						46.0					
	738					LO						46.0					
	861					LO						46.0					
	984					LO						54.0					
		READING(PK) HOR. VER. [dBuV]		READING(AV) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]		RESULT(AV) HOR. VER. [dBuV/m]		LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]		MARGIN(AV) HOR. VER. [dB] [dB]	
	1107					HO						74.0	54.0	>27.0	>10.0		
	1230					HO						74.0	54.0				
	1353					HO						74.0	54.0				
	1476					HO						74.0	54.0				
	1599					HO						74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB] [dB]			
6	129	22.5	22.1			BC	-6.2	16.3	15.9			43.5		27.2	27.6		
	258					BC						46.0		>15.0			
	387					LO						46.0					
	516					LO						46.0					
	645					LO						46.0					
	774					LO						46.0					
	903					LO						46.0					
		READING(PK) HOR. VER. [dBuV]		READING(AV) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]		RESULT(AV) HOR. VER. [dBuV/m]		LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]		MARGIN(AV) HOR. VER. [dB] [dB]	
	1032					HO						74.0	54.0	>27.0	>10.0		
	1161					HO						74.0	54.0				
	1290					HO						74.0	54.0				
	1419					HO						74.0	54.0				
	1548					HO						74.0	54.0				
	1677					HO						74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB] [dB]			
7	221	21.9	21.5			BC	-2.1	19.8	19.4			46.0		26.2	26.6		
	442					LO						46.0		>15.0			
	663					LO						46.0					
	884					LO						46.0					
		READING(PK) HOR. VER. [dBuV]				READING(AV) HOR. VER. [dBuV]						ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]			
	1105					HO						74.0	54.0	>27.0	>10.0		
	1326					HO						74.0	54.0				
	1547					HO						74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]										ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			
8	227	22.6	21.9			BC	-2.1	20.5	19.8			46.0		25.5	26.2		
	454					LO						46.0		>15.0			
	681					LO						46.0					
	908					LO						46.0					
		READING(PK) HOR. VER. [dBuV]				READING(AV) HOR. VER. [dBuV]						ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]			
	1135					HO						74.0	54.0	>27.0	>10.0		
	1362					HO						74.0	54.0				
	1589					HO						74.0	54.0				

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/06/20
TEMP./HUMID. : 24deg.C / 53%
ENGINEER : Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.	VER.	[dB]	[dB]		
VHF																		
9	233	22.5	22.0			BC	-1.9	20.6	20.1			46.0			25.4	25.9		
	466					LO						46.0			>15.0			
	699									46.0								
	932									46.0								
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE		HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]	
	1165					HO						74.0	54.0	>27.0		>10.0		
1398	HO						74.0					54.0						
1631	HO						74.0					54.0						
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.	VER.	[dB]	[dB]		
		[dBuV]					[dBuV]	[dBuV/m]				[dBuV/m]			[dB]	[dB]		
10	239	22.1	22.0			BC	-1.7	20.4	20.3			46.0			25.6	25.7		
	478					LO						46.0			>15.0			
	717									46.0								
	956									46.0								
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE		HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]	
	1195					HO						74.0	54.0	>27.0		>10.0		
1434	HO						74.0					54.0						
1673	HO						74.0					54.0						
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.	VER.	[dB]	[dB]		
		[dBuV]					[dBuV]	[dBuV/m]				[dBuV/m]			[dB]	[dB]		
11	245	22.0	21.8			BC	-1.6	20.4	20.2			46.0			25.6	25.8		
	490					LO						46.0			>15.0			
	735									46.0								
	980									54.0								
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE		HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]	
	1225					HO						74.0	54.0	>27.0		>10.0		
1470	HO						74.0					54.0						
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.	VER.	[dB]	[dB]		
		[dBuV]					[dBuV]	[dBuV/m]				[dBuV/m]			[dB]	[dB]		
12	251	21.7	21.8			BC	-1.4	20.3	20.4			46.0			25.7	25.6		
	502					LO						46.0			>15.0			
	753									46.0								
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE		HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]	
		1004					HO						74.0	54.0	>27.0		>10.0	
1255	HO						74.0	54.0										
1506	HO						74.0	54.0										
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.	VER.	[dB]	[dB]		
		[dBuV]					[dBuV]	[dBuV/m]				[dBuV/m]			[dB]	[dB]		
13	257	23.0	23.1			BC	-1.0	22.0	22.1			46.0			24.0	23.9		
	514					LO						46.0			>15.0			
	771									46.0								
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE		HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]	
		1028					HO						74.0	54.0	>27.0		>10.0	
1285	HO						74.0	54.0										
1542	HO						74.0	54.0										

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/06/20
TEMP/HUMID. : 24deg.C / 53%
ENGINEER : Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
UHF											
14	517	25.9 26.0		LO	3.2	29.1 29.2		46.0		16.9 16.8	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1034 1551			HO HO				74.0 74.0	54.0 54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
19	547	23.9 23.5		LO	3.5	27.4 27.0		46.0		18.6 19.0	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1094 1641			HO HO				74.0 74.0	54.0 54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
28	601	23.4 25.3		LO	4.4	27.8 29.7		46.0		18.2 16.3	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1202			HO				74.0	54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
36	649	23.0 25.3		LO	5.2	28.2 30.5		46.0		17.8 15.5	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1298			HO				74.0	54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
44	697	22.0 22.2		LO	5.9	27.9 28.1		46.0		18.1 17.9	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1394			HO				74.0	54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
53	751	20.8 21.4		LO	7.6	28.4 29.0		46.0		17.6 17.0	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1502			HO				74.0	54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
61	799	20.1 20.1		LO	9.2	29.3 29.3		46.0		16.7 16.7	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1598			HO				74.0	54.0	>27.0	>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]	
69	847	20.1 19.8		LO	9.6	29.7 29.4		46.0		16.3 16.6	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]
	1694			HO				74.0	54.0	>27.0	>10.0

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/06/20
TEMP./HUMID. : 24deg.C / 53%
ENGINEER : Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT		MARGIN(QP)			
	[MHz]	HOR.	VER.	[dBuV]		TYPE	[dBuV]	HOR.	VER.	[dBuV/m]		[Qp]		HOR.	VER.	[dB]	[dB]
CATV																	
1	119	22.0	22.6			BC	-7.0	15.0	15.6			43.5		28.5	27.9		
	238					BC						46.0		>15.0			
	357					LO						46.0					
	476					LO						46.0					
	595					LO						46.0					
	714					LO						46.0					
	833					LO						46.0					
	952	LO	46.0														
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
	[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]		
	1071					HO						74.0	54.0	>27.0	>10.0		
	1190					HO						74.0	54.0				
	1309					HO						74.0	54.0				
	1428					HO						74.0	54.0				
	1547					HO						74.0	54.0				
	1666					HO						74.0	54.0				
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT		MARGIN(QP)			
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[dBuV/m]		[dB]		[dB]	
95	137	21.9	22.1			BC	-5.5	16.4	16.6			43.5		27.1	26.9		
	274					BC						46.0		>15.0			
	411					LO						46.0					
	548					LO						46.0					
	685					LO						46.0					
	822					LO						46.0					
	959					LO						46.0					
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
	1096					HO						74.0	54.0	>27.0	>10.0		
	1233					HO						74.0	54.0				
	1370					HO						74.0	54.0				
	1507					HO						74.0	54.0				
	1644					HO						74.0	54.0				
						HO						74.0	54.0				
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT		MARGIN(QP)			
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[dBuV/m]		[dB]		[dB]	
97	149	22.7	23.2			BC	-4.8	17.9	18.4			43.5		25.6	25.1		
	298					BC						46.0		>15.0			
	447					LO						46.0					
	596					LO						46.0					
	745					LO						46.0					
	894					LO						46.0					
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
		1043					HO						-	-	>27.0	>10.0	
1192		HO					-						-				
1341		HO					-						-				
1490		HO					-						-				
1639		HO					-						-				
		HO					-						-				
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT		MARGIN(QP)			
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[dBuV/m]		[dB]		[dB]	
99	161	22.0	21.8			BC	-4.2	17.8	17.6			43.5		25.7	25.9		
	322					LO						46.0		>15.0			
	483					LO						46.0					
	644					LO						46.0					
	805					LO						46.0					
	966					LO						46.0					
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
		1127					HO						74.0	54.0	>27.0	>10.0	
1288		HO					74.0						54.0				
1449		HO					74.0						54.0				
1610		HO					74.0						54.0				

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/06/20
TEMP./HUMID. : 24deg.C / 53%
ENGINEER : Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)					
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.	VER.				
		[dBuV]						[dBuV/m]				[dBuV/m]	[dB]	[dB]				
CATV																		
14	167	22.3	22.2			BC	-3.8	18.5	18.4			43.5	25.0	25.1				
	334					LO						46.0	>15.0					
	501					LO						46.0						
	668					LO						46.0						
	835					LO						46.0						
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]				[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	[dB]	[dB]
	1002					HO						74.0	54.0	>27.0	>10.0			
	1169					HO						74.0	54.0					
	1336					HO						74.0	54.0					
	1503					HO						74.0	54.0					
	1670					HO						74.0	54.0					
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)					
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]	[dB]		[dB]			
18	191	22.4	21.7			BC	-2.8	19.6	18.9			43.5	23.9	24.6				
	382					LO						46.0	>15.0					
	573					LO						46.0						
	764					LO						46.0						
	955					LO						46.0						
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]				[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	[dB]	[dB]
	1146					HO						74.0	54.0	>27.0	>10.0			
	1337					HO						74.0	54.0					
	1528					HO						74.0	54.0					
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)					
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]	[dB]					
22	215	24.4	22.6			BC	-2.4	22.0	20.2			43.5	21.5	23.3				
	430					LO						46.0	>15.0					
	645					LO						46.0						
	860					LO						46.0						
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]				[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	[dB]	[dB]
	1075					HO						74.0	54.0	>27.0	>10.0			
	1290					HO						74.0	54.0					
	1505					HO						74.0	54.0					
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)					
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]	[dB]					
23	263	22.4	22.3			BC	-0.6	21.8	21.7			46.0	46.0	24.2	24.3			
	526					LO						46.0	46.0					
	789					LO						46.0	46.0					
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]				[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	[dB]	[dB]
	1052					HO						74.0	54.0	>27.0	>10.0			
	1315					HO						74.0	54.0					
	1578					HO						74.0	54.0					
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)					
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]	[dB]					
29	299	22.5	21.0			BC	1.9	24.4	22.9			46.0	46.0	21.6	23.1			
	598					LO						46.0	46.0	>15.0				
	897					LO						46.0	46.0					
		READING(PK)		READING(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)		
		HOR.	VER.	HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	[PK]	[AV]	HOR.	VER.	HOR.	VER.	
		[dBuV]		[dBuV]				[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	[dB]	[dB]
	1196					HO						74.0	54.0	>27.0	>10.0			
1495	HO						74.0					54.0						

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.3 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : DVRC802E
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25KE0175-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
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For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
CATV														
36	341	21.8	22.8		LO	-0.2	21.6	22.6		46.0	46.0	24.4	23.4	
	682				LO					46.0	46.0	>15.0		
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1023				HO					74.0	54.0	>27.0		>10.0
	1364				HO					74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
37	347	22.5	22.6		LO	-0.1	22.4	22.5		46.0	46.0	23.6	23.5	
	694				LO					46.0	46.0	>15.0		
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1041				HO					74.0	54.0	>27.0		>10.0
	1388				HO					74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
65	515	22.1	22.6		LO	3.1	25.2	25.7		46.0	46.0	20.8	20.3	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1030				HO					74.0	54.0	>27.0		>10.0
	1545				HO					74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
94	689	20.6	20.7		LO	5.8	26.4	26.5		46.0	46.0	19.6	19.5	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1378				HO					74.0	54.0	>27.0		>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
100	695	20.8	20.9		LO	5.9	26.7	26.8		46.0	46.0	19.3	19.2	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1390				HO					74.0	54.0	>27.0		>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
113	773	20.2	20.4		LO	8.3	28.5	28.7		46.0	46.0	17.5	17.3	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1546				HO					74.0	54.0	>27.0		>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
125	845	21.0	23.3		LO	9.6	30.6	32.9		46.0	46.0	15.4	13.1	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1690				HO					74.0	54.0	>27.0		>10.0

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec(0dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	945.00	BB	25.1	30.9	26.1	27.1	7.8	6.0	37.9	43.7	46.0	8.1	2.3

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

Expect for the above table : adequate margin data below the limits.
ANT.TYPE :30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

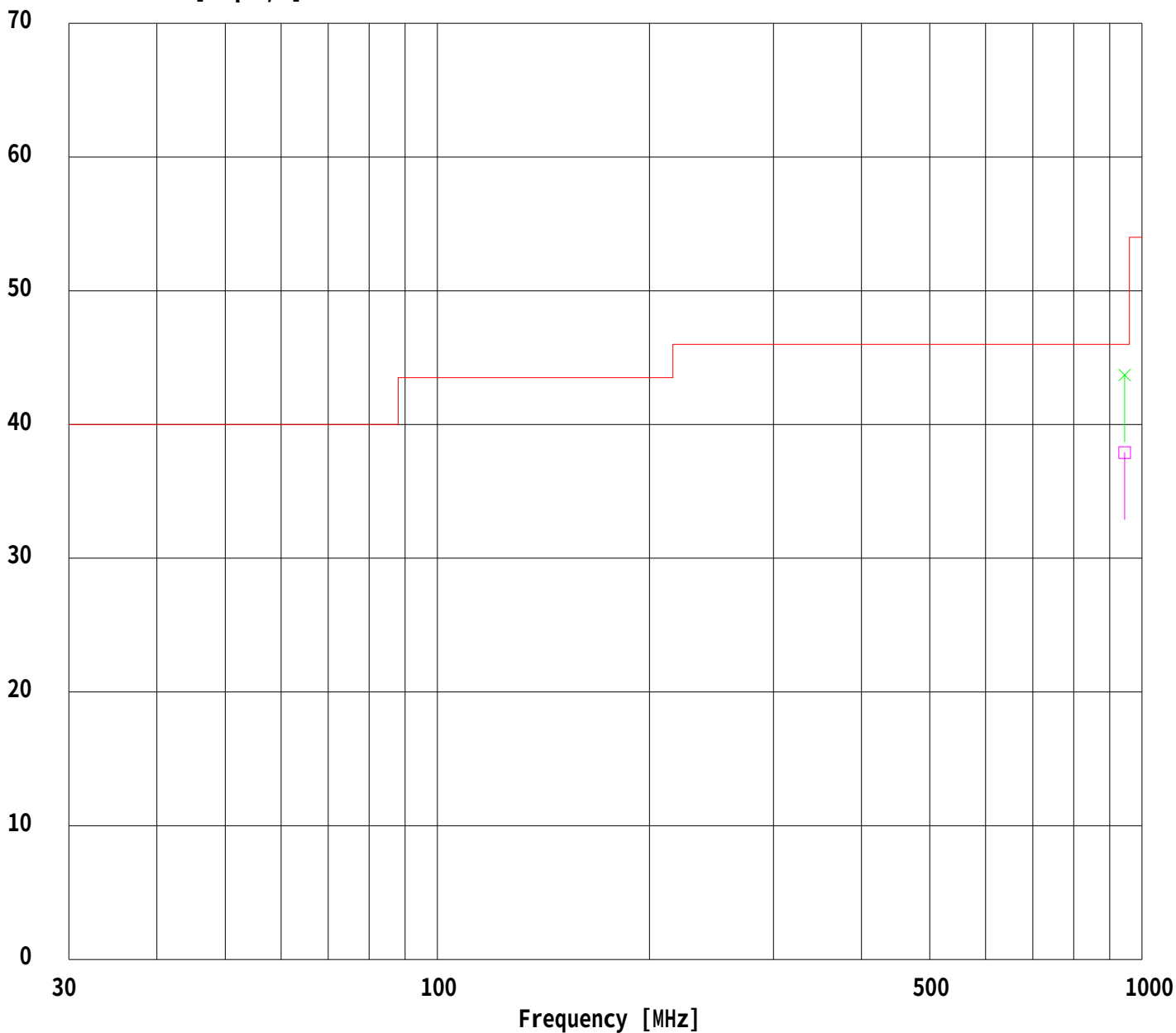
Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec(0dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec(25dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	85.88	BB	37.4	29.9	7.1	28.0	1.9	5.9	24.3	16.8	40.0	15.7	23.2
2.	112.02	BB	29.6	32.3	12.1	28.0	2.2	5.9	21.8	24.5	43.5	21.7	19.0
3.	270.01	BB	34.0	32.6	18.5	27.8	3.7	6.0	34.4	33.0	46.0	11.6	13.0
4.	615.25	BB	27.6	25.1	20.8	27.6	5.9	5.9	32.6	30.1	46.0	13.4	15.9
5.	913.90	BB	22.8	29.9	25.0	26.9	7.6	5.9	34.4	41.5	46.0	11.6	4.5
6.	945.00	BB	24.4	31.1	26.1	27.1	7.8	6.0	37.2	43.9	46.0	8.8	2.1

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

Except for the above table: adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

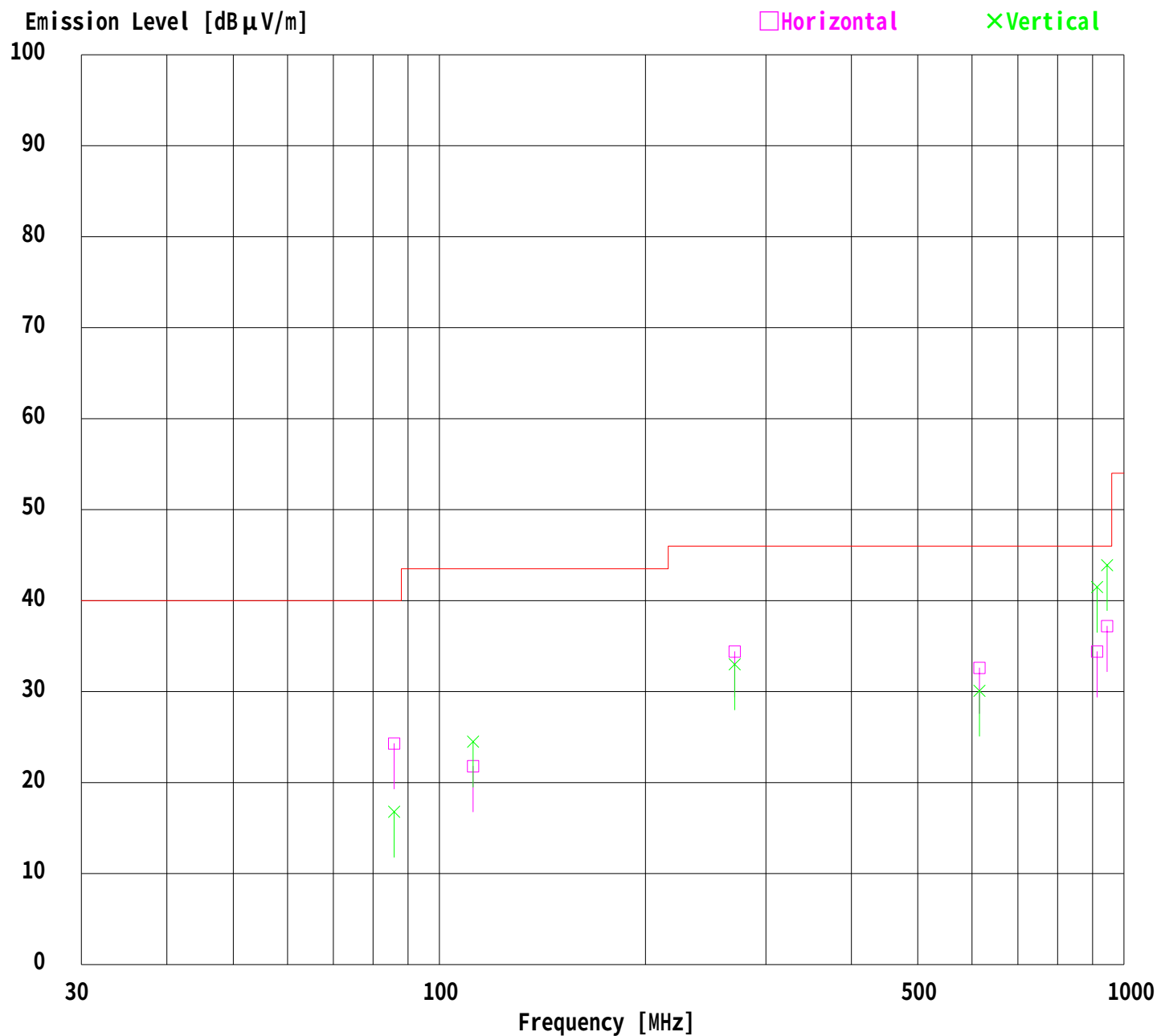
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec(25dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

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.	1214.99	BB	44.8	55.2	24.1	39.7	3.6	0.0	32.8	43.2	54.0	21.2	10.8
2.	1349.98	BB	42.9	51.5	24.2	39.5	3.8	0.0	31.4	40.0	54.0	22.6	14.0
3.	1889.98	BB	38.9	42.0	24.4	38.6	4.8	0.0	29.5	32.6	54.0	24.5	21.4

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, . 300-1000MHz. Logperiodic

DATA OF RADIATION TEST

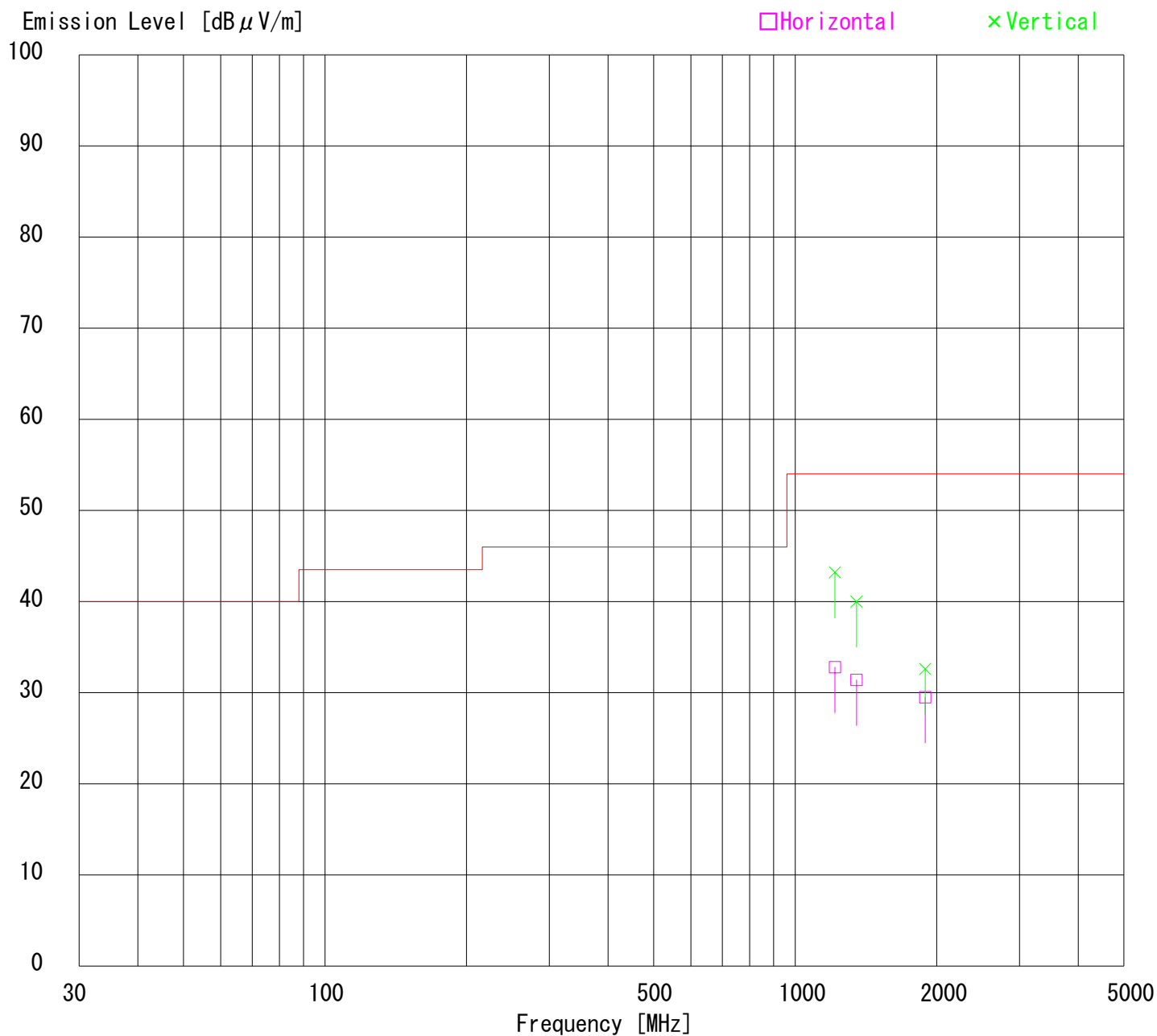
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama

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.	1214.99	BB	55.1	67.0	24.1	39.7	3.6	0.0	43.1	55.0	74.0	30.9	19.0
2.	1349.98	BB	54.5	62.4	24.2	39.5	3.8	0.0	43.0	50.9	74.0	31.0	23.1
3.	1889.98	BB	51.1	58.1	24.4	38.6	4.8	0.0	41.7	48.7	74.0	32.3	25.3

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, . 300-1000MHz. Logperiodic

DATA OF RADIATION TEST

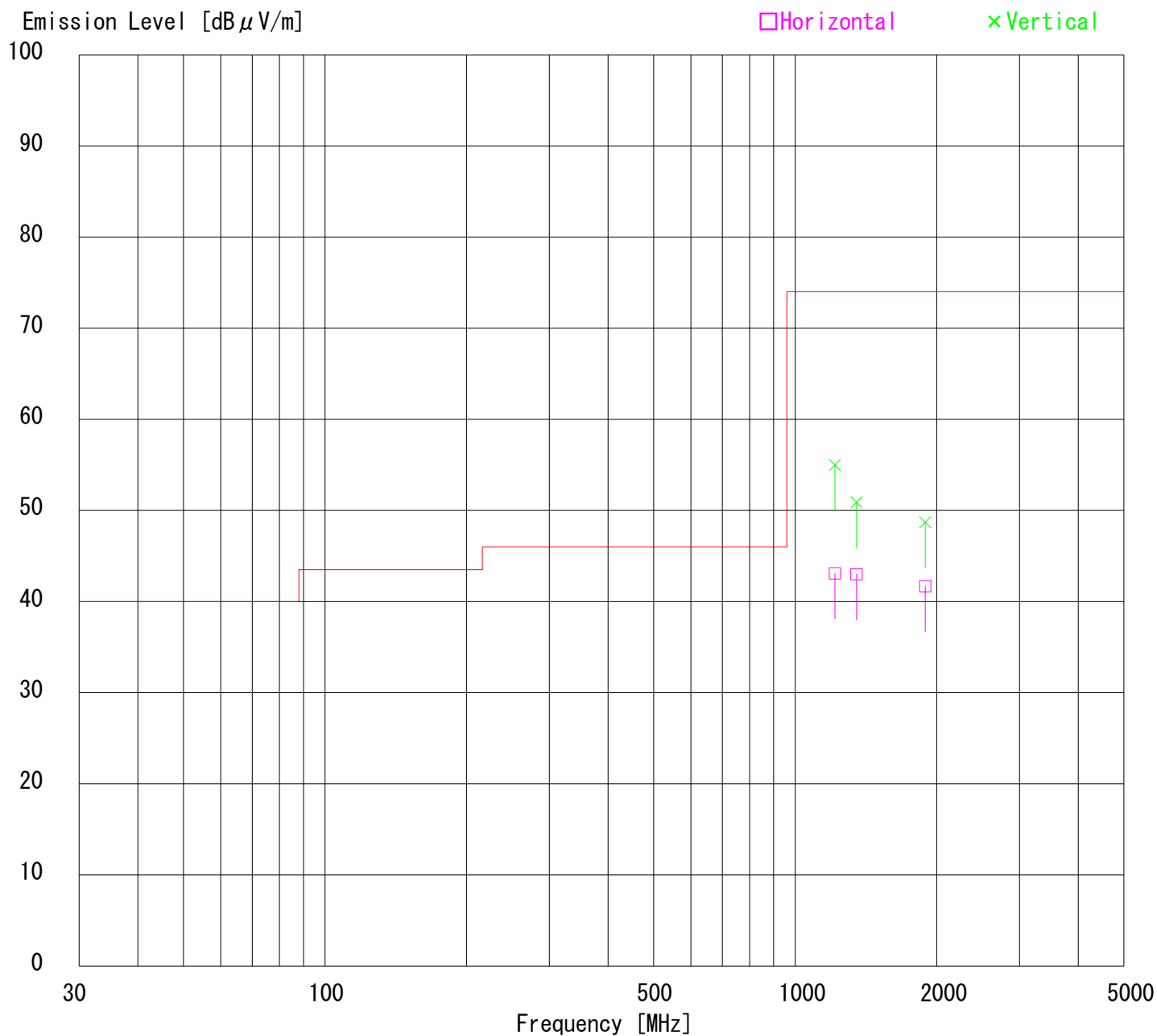
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec (25dBmV)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(1Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	945.00	BB	23.3	30.1	26.1	27.1	7.8	6.0	36.1	42.9	46.0	9.9	3.1

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

Except for the above table: adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

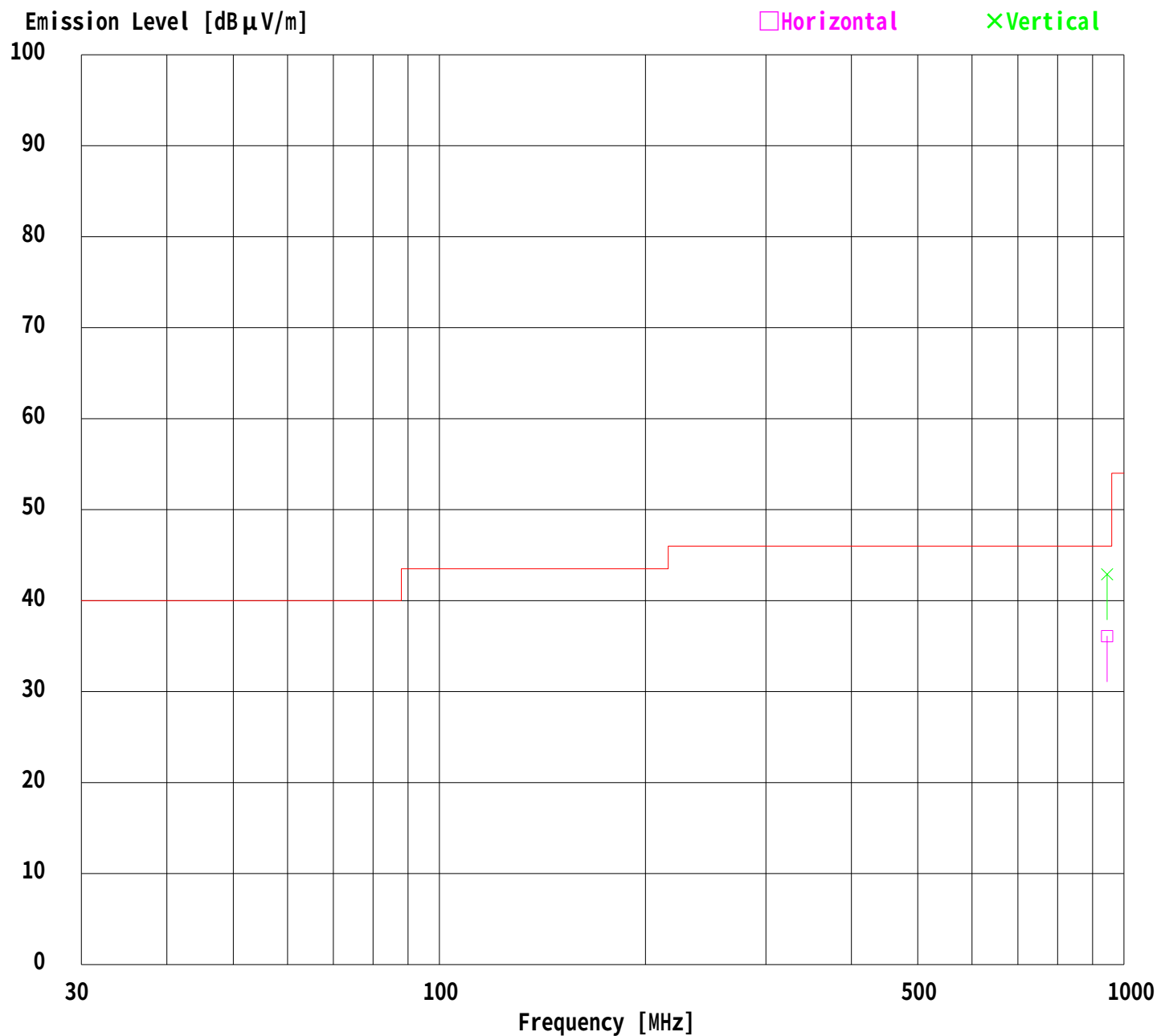
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(1Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	85.84	BB	29.4	32.0	7.1	28.0	1.9	5.9	16.3	18.9	40.0	23.7	21.1
2.	112.01	BB	28.9	27.8	12.1	28.0	2.2	5.9	21.1	20.0	43.5	22.4	23.5
3.	270.01	BB	36.1	35.0	18.5	27.8	3.7	6.0	36.5	35.4	46.0	9.5	10.6
4.	615.26	BB	23.9	26.7	20.8	27.6	5.9	5.9	28.9	31.7	46.0	17.1	14.3
5.	913.91	BB	23.9	24.9	25.0	26.9	7.6	5.9	35.5	36.5	46.0	10.5	9.5
6.	945.00	BB	25.1	30.8	26.1	27.1	7.8	6.0	37.9	43.6	46.0	8.1	2.4

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

Except for the above table: adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

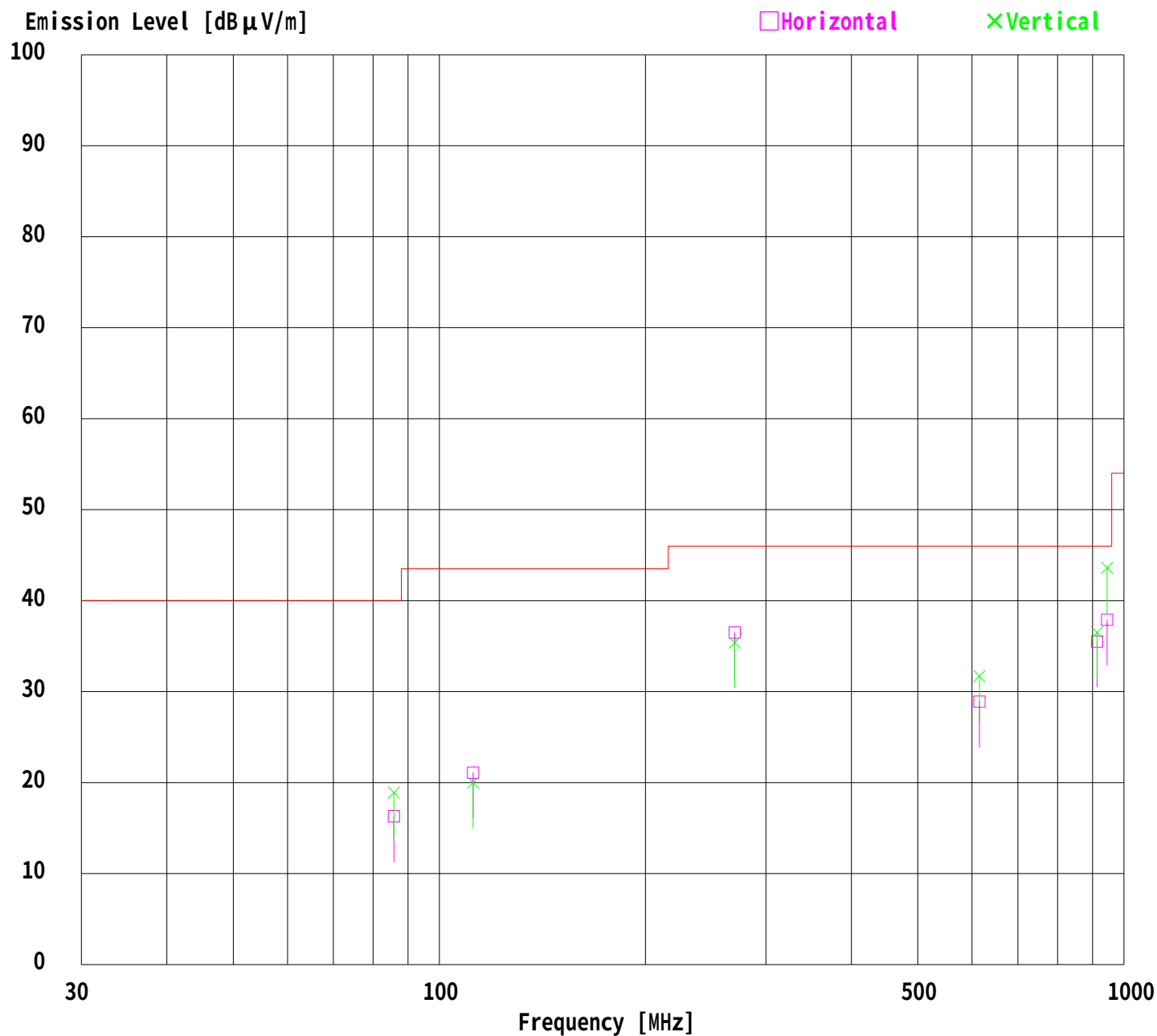
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
 Kind of Equipment : DVD Recorder with Video Cassette Recorder
 Model No. : DVRC802E
 Serial No. : -
 Power : AC120V/60Hz
 Mode : AV Input1+Rec (5Vp-p)
 Remarks :
 Date : 6/20/2005
 Test Distance : 3 m
 Temperature : 25 °C
 Humidity : 53 %
 Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama

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.	1214.99	BB	45.4	53.8	24.1	39.7	3.6	0.0	33.4	41.8	54.0	20.6	12.2
2.	1349.98	BB	42.1	50.1	24.2	39.5	3.8	0.0	30.6	38.6	54.0	23.4	15.4
3.	1889.98	BB	38.4	41.1	24.4	38.6	4.8	0.0	29.0	31.7	54.0	25.0	22.3

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, . 300-1000MHz. Logperiodic

DATA OF RADIATION TEST

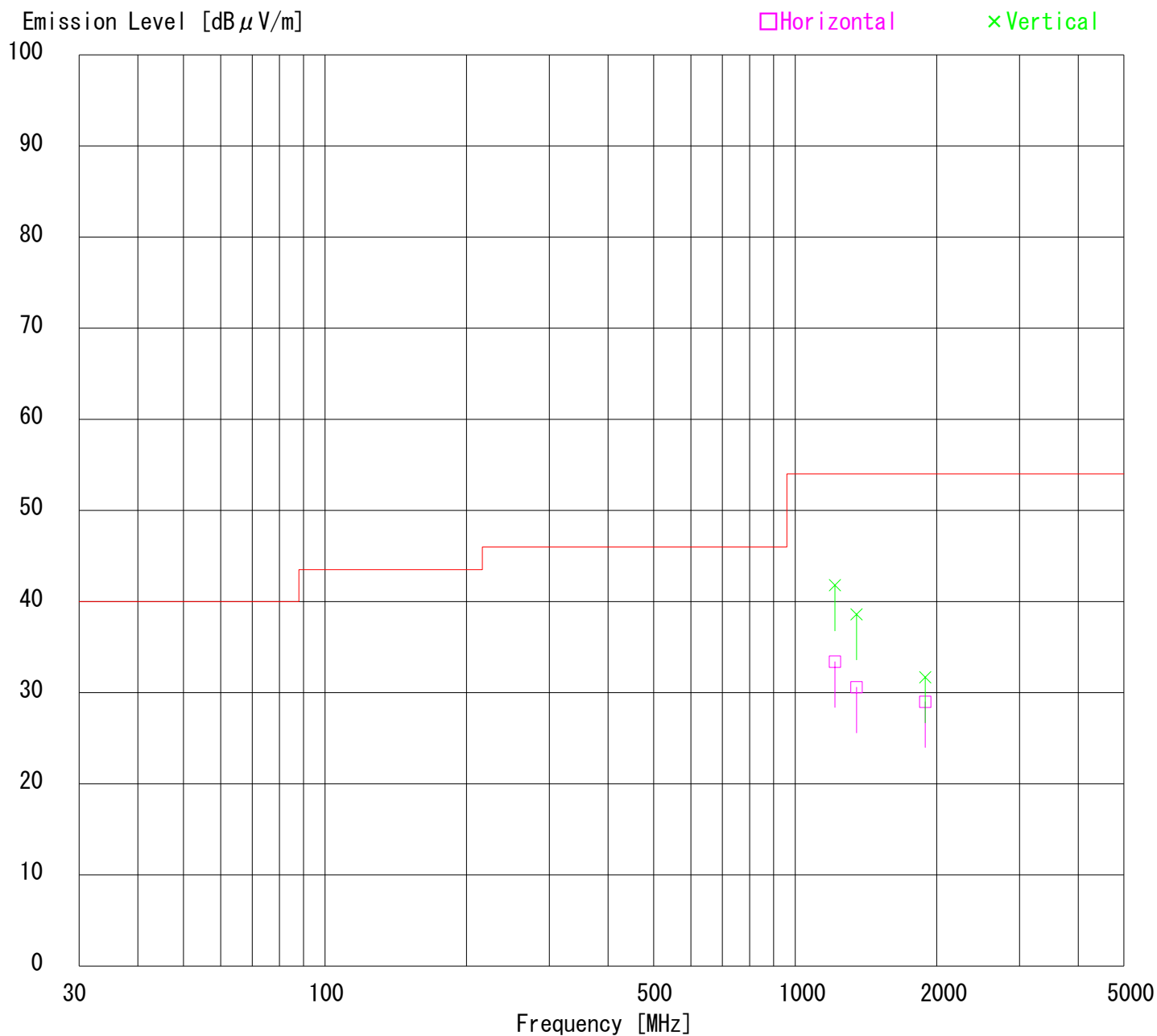
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B(Peak Limit / Upper1GHz)

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.	1214.99	BB	58.0	66.9	24.1	39.7	3.6	0.0	46.0	54.9	74.0	28.0	19.1
2.	1349.98	BB	53.2	60.7	24.2	39.5	3.8	0.0	41.7	49.2	74.0	32.3	24.8
3.	1889.98	BB	54.2	58.2	24.4	38.6	4.8	0.0	44.8	48.8	74.0	29.2	25.2

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, . 300-1000MHz. Logperiodic

DATA OF RADIATION TEST

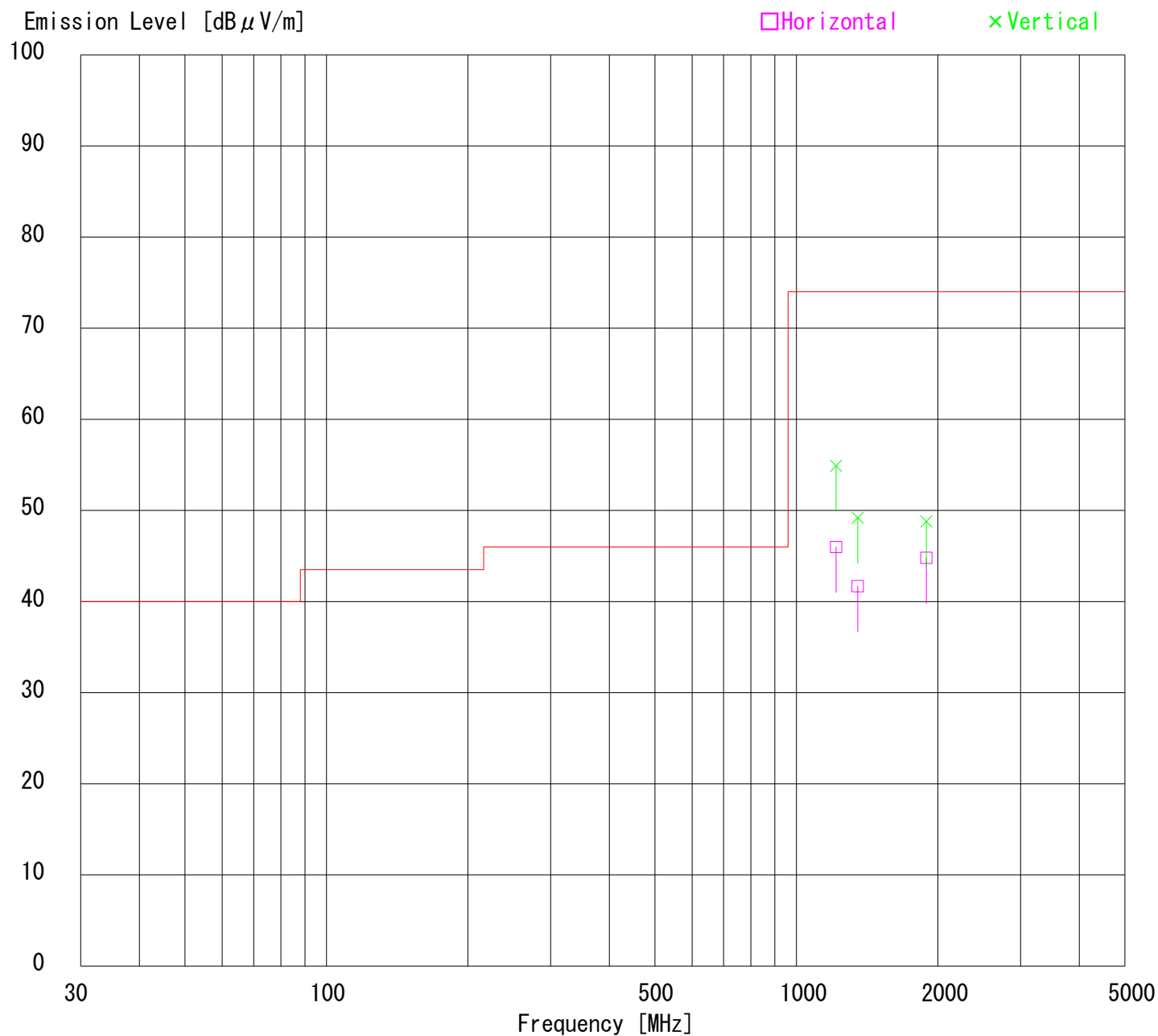
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (1Vp-p)
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	945.02	BB	25.0	29.6	26.1	27.1	7.8	6.0	37.8	42.4	46.0	8.2	3.6

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

DATA OF RADIATION TEST

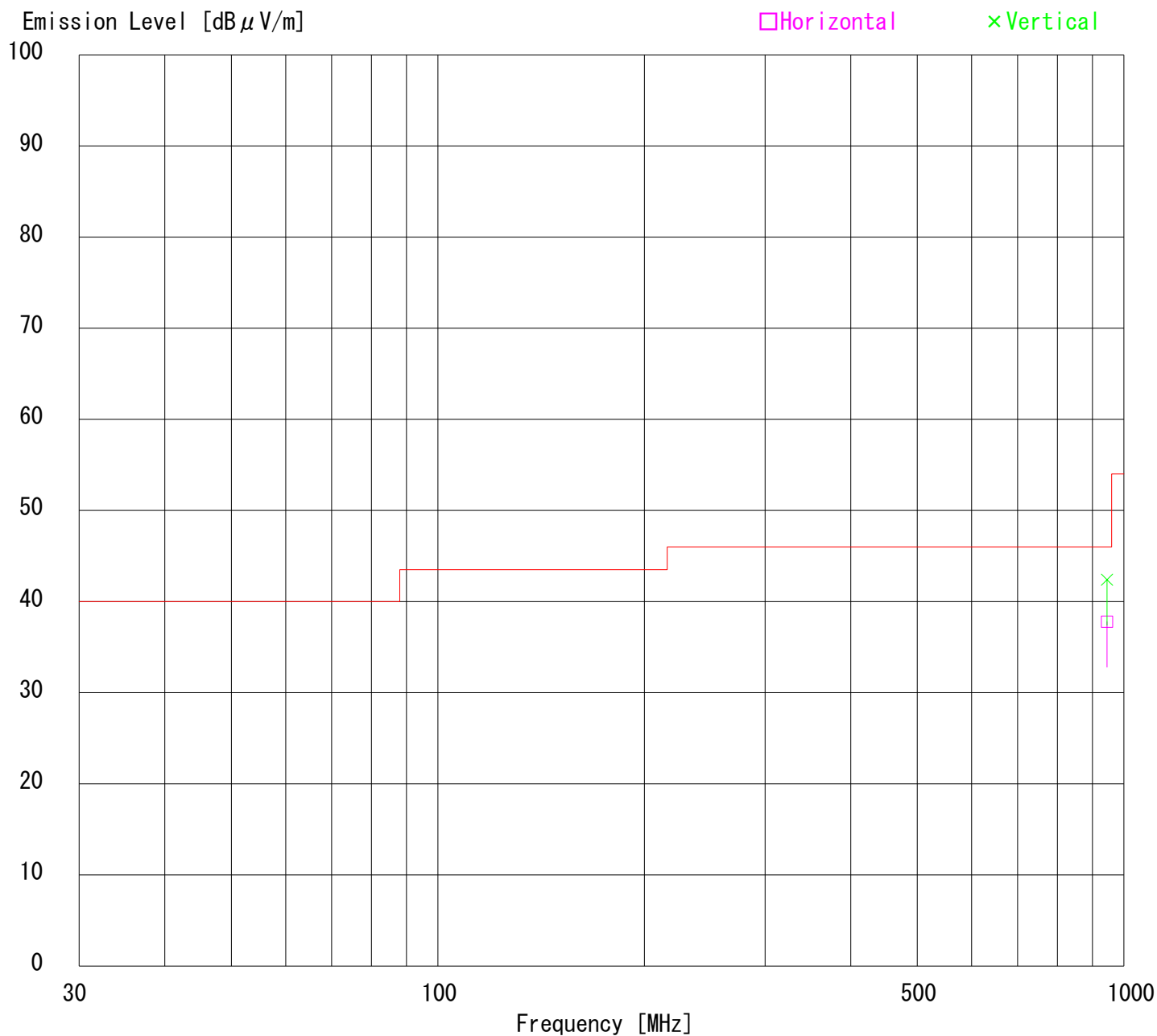
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (1Vp-p)
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	85.92	BB	37.4	43.5	7.1	28.0	1.9	5.9	24.3	30.4	40.0	15.7	9.6
2.	112.00	BB	25.7	30.9	12.1	28.0	2.2	5.9	17.9	23.1	43.5	25.6	20.4
3.	270.00	BB	36.6	32.8	18.5	27.8	3.7	6.0	37.0	33.2	46.0	9.0	12.8
4.	615.26	BB	25.5	29.1	20.8	27.6	5.9	5.9	30.5	34.1	46.0	15.5	11.9
5.	913.91	BB	23.6	30.4	25.0	26.9	7.6	5.9	35.2	42.0	46.0	10.8	4.0
6.	945.00	BB	23.5	30.2	26.1	27.1	7.8	6.0	36.3	43.0	46.0	9.7	3.0

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

DATA OF RADIATION TEST

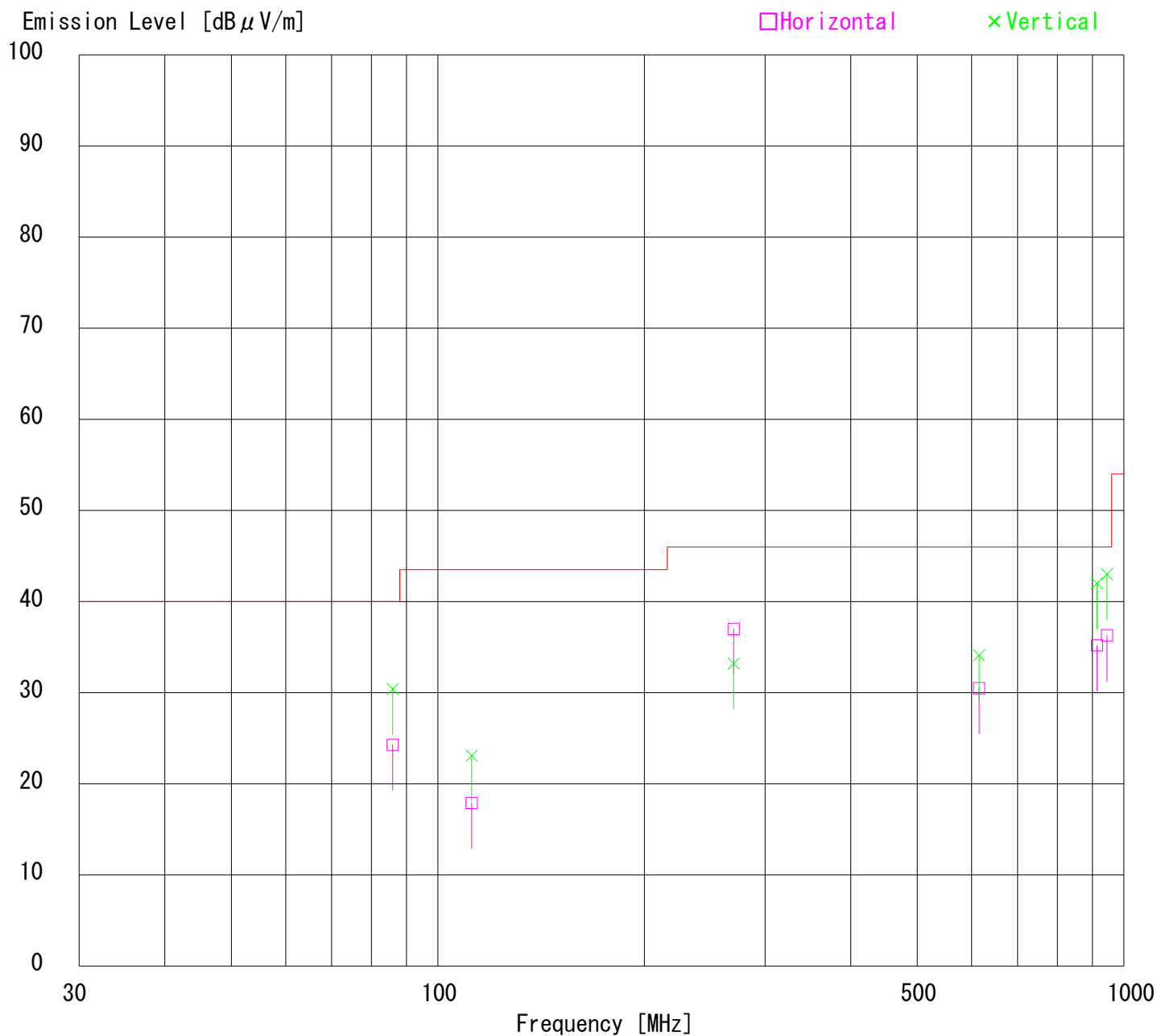
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

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.	1214.99	BB	46.0	54.7	24.1	39.7	3.6	0.0	34.0	42.7	54.0	20.0	11.3
2.	1349.98	BB	42.4	50.7	24.2	39.5	3.8	0.0	30.9	39.2	54.0	23.1	14.8
3.	1889.98	BB	37.4	40.5	24.4	38.6	4.8	0.0	28.0	31.1	54.0	26.0	22.9

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, . 300-1000MHz. Logperiodic

DATA OF RADIATION TEST

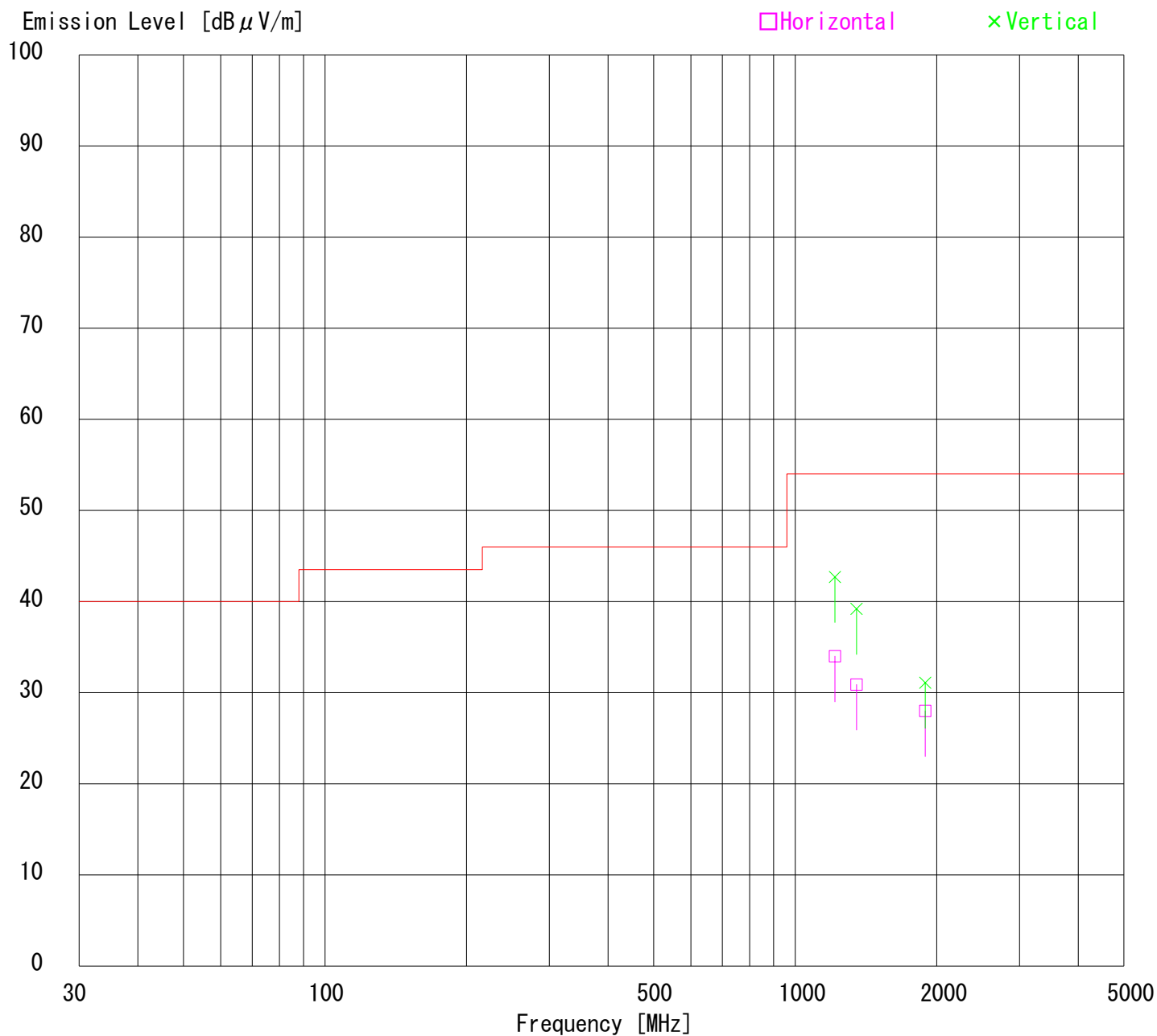
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

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.	1214.99	BB	59.4	68.3	24.1	39.7	3.6	0.0	47.4	56.3	74.0	26.6	17.7
2.	1349.98	BB	52.9	61.3	24.2	39.5	3.8	0.0	41.4	49.8	74.0	32.6	24.2
3.	1889.98	BB	53.9	58.5	24.4	38.6	4.8	0.0	44.5	49.1	74.0	29.5	24.9

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, . 300-1000MHz. Logperiodic

DATA OF RADIATION TEST

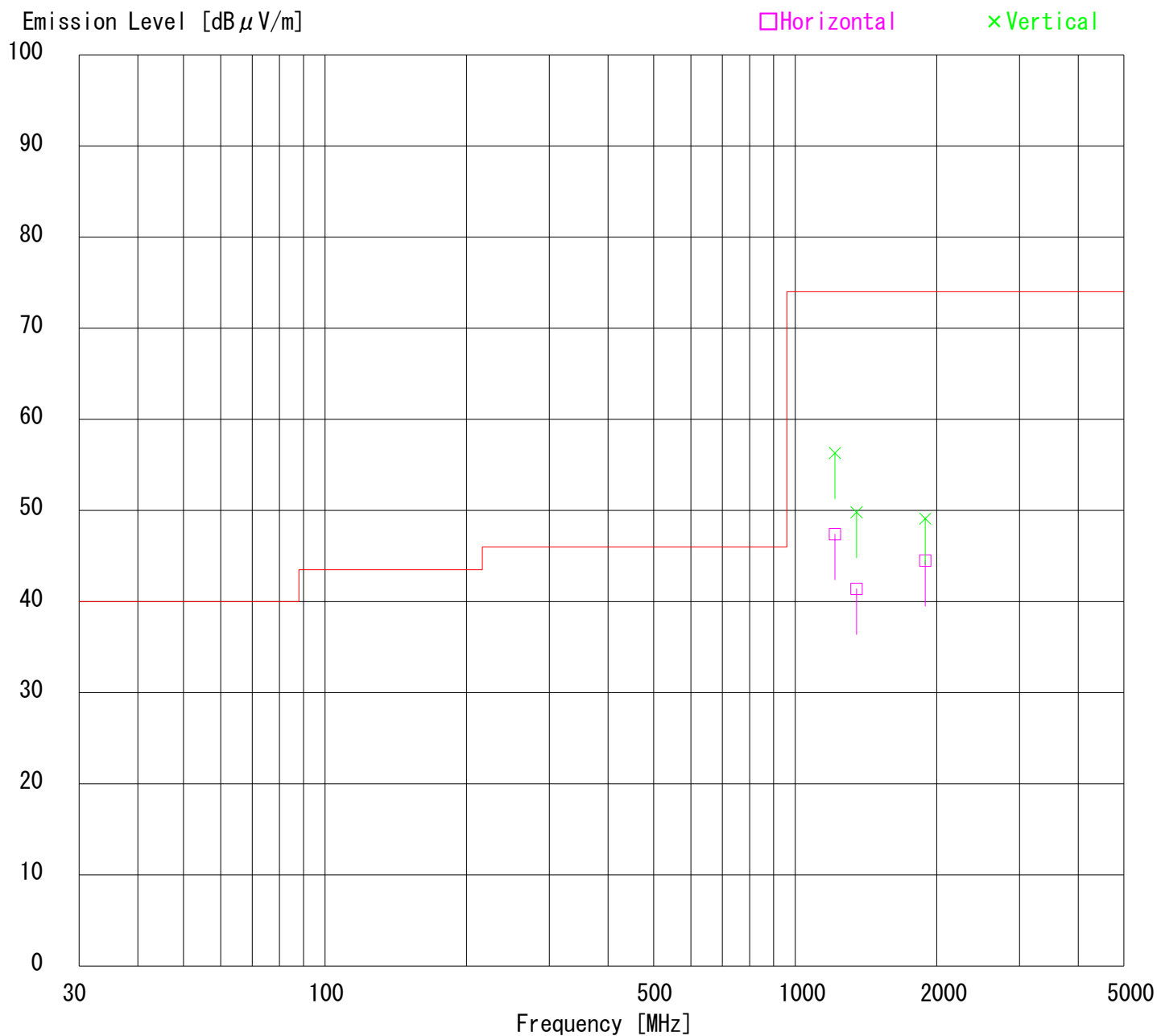
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input2+Rec (5Vp-p)
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	62.16	BB	36.5	38.5	8.0	28.1	1.6	5.9	23.9	25.9	40.0	16.1	14.1
2.	93.27	BB	46.7	40.0	8.5	28.0	2.0	5.9	35.1	28.4	43.5	8.4	15.1
3.	124.42	BB	31.2	37.9	13.8	27.9	2.3	5.9	25.3	32.0	43.5	18.2	11.5
4.	270.01	BB	37.8	33.0	18.5	27.8	3.7	6.0	38.2	33.4	46.0	7.8	12.6
5.	384.70	BB	23.8	30.4	17.7	28.0	4.5	6.0	24.0	30.6	46.0	22.0	15.4
6.	732.85	BB	26.1	31.2	22.7	27.2	6.6	5.9	34.1	39.2	46.0	11.9	6.8
7.	945.00	BB	23.5	31.1	26.1	27.1	7.8	6.0	36.3	43.9	46.0	9.7	2.1

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

Except for the above table: adequate margin data below the limits.
ANT.TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

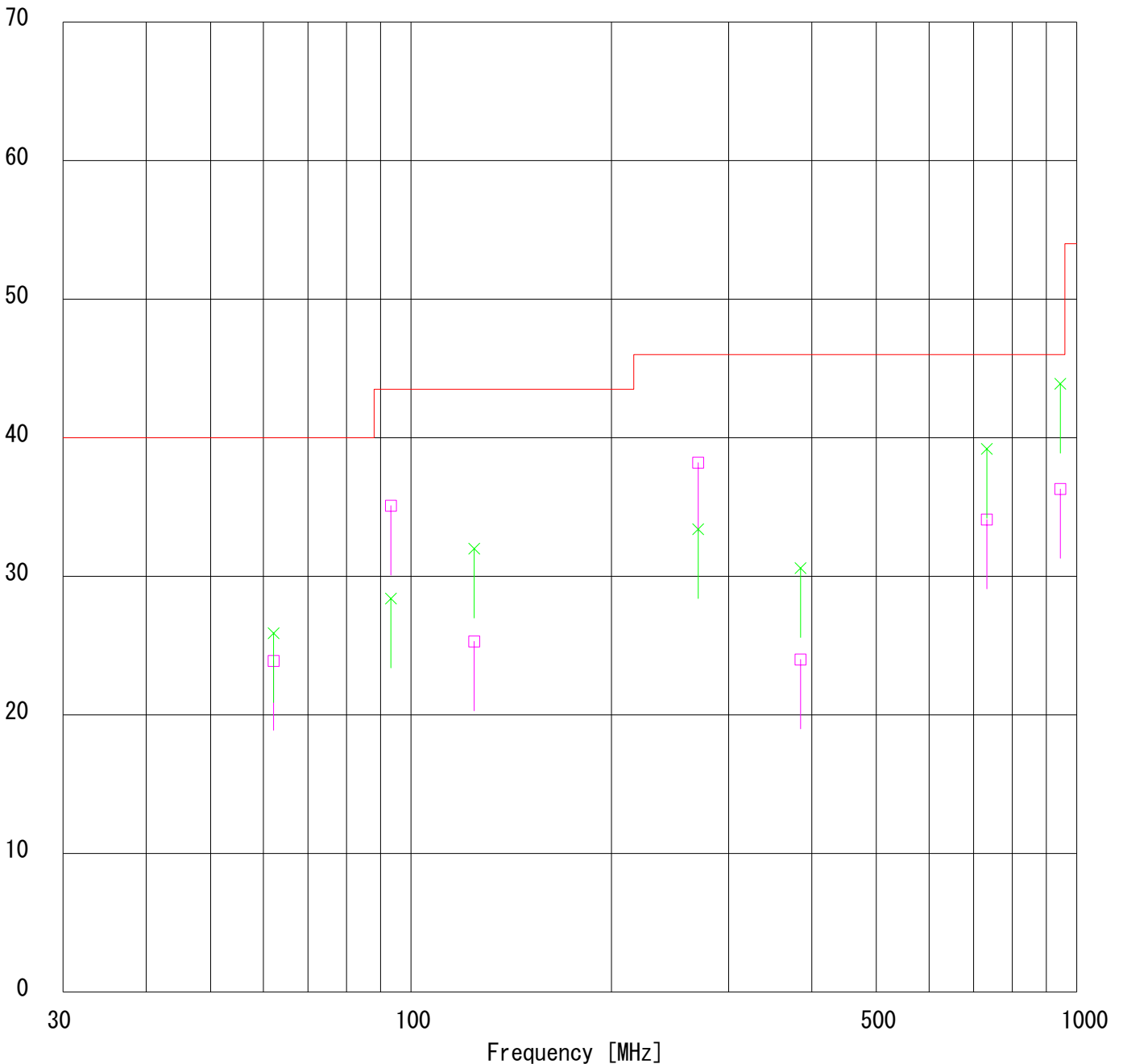
Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

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.	1214.99	BB	43.8	53.6	24.1	39.7	3.6	0.0	31.8	41.6	54.0	22.2	12.4
2.	1349.98	BB	41.5	47.5	24.2	39.5	3.8	0.0	30.0	36.0	54.0	24.0	18.0
3.	1889.98	BB	37.0	40.2	24.4	38.6	4.8	0.0	27.6	30.8	54.0	26.4	23.2
4.	2024.98	BB	38.1	49.8	24.5	38.4	5.0	0.0	29.2	40.9	54.0	24.8	13.1

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, .300-1000MHz. Logperiodic

DATA OF RADIATION TEST

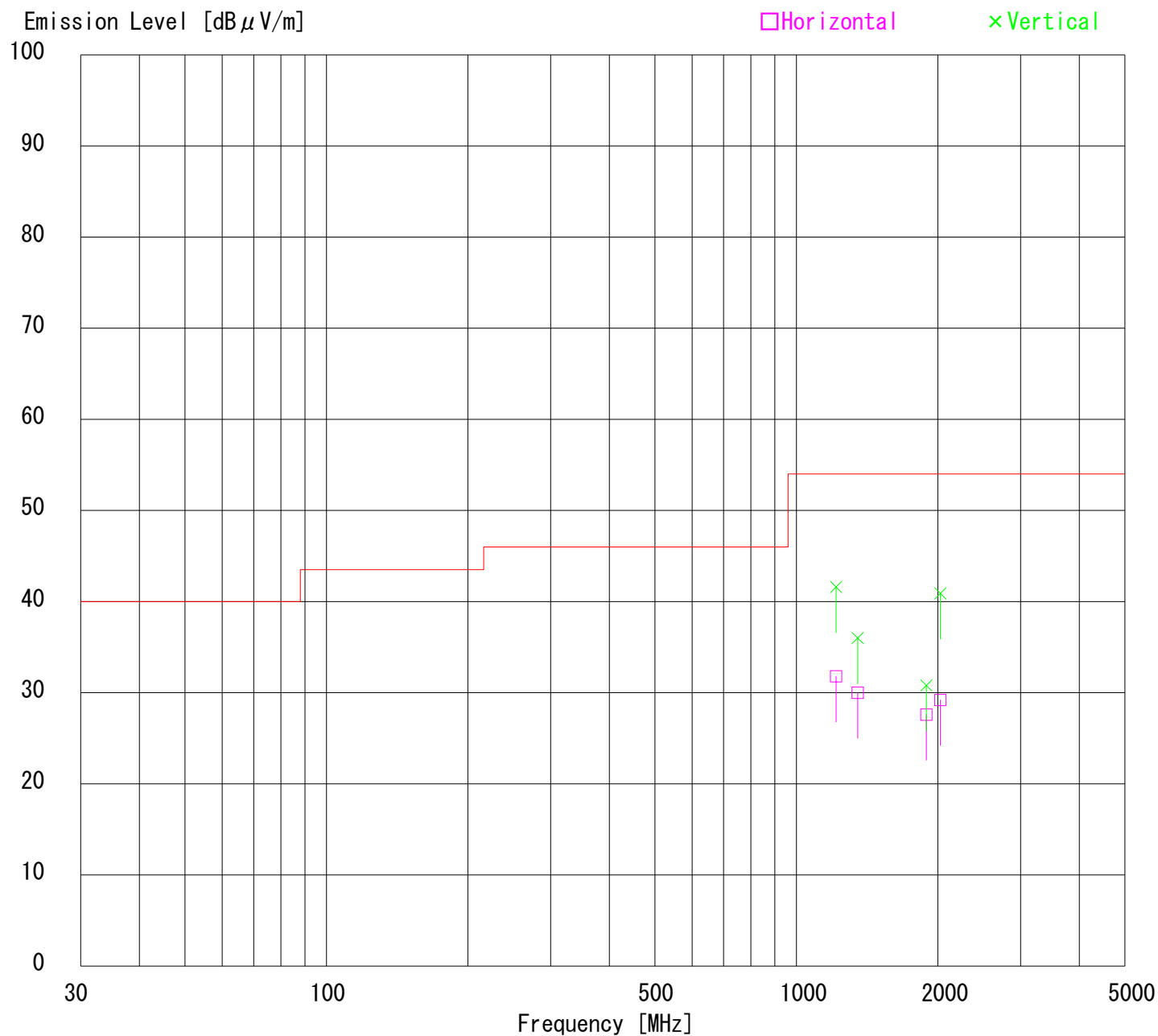
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B(Peak Limit / Upper1GHz)

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.	1214.99	BB	56.3	63.9	24.1	39.7	3.6	0.0	44.3	51.9	74.0	29.7	22.1
2.	1349.98	BB	51.4	59.1	24.2	39.5	3.8	0.0	39.9	47.6	74.0	34.1	26.4
3.	1889.98	BB	49.3	50.2	24.4	38.6	4.8	0.0	39.9	40.8	74.0	34.1	33.2
4.	2024.98	BB	49.9	60.9	24.5	38.4	5.0	0.0	41.0	52.0	74.0	33.0	22.0

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

Except for the above table: adequate margin data below the limits.
ANT. TYPE:30-300MHz.Biconical,.300-1000MHz.Logperiodic

DATA OF RADIATION TEST

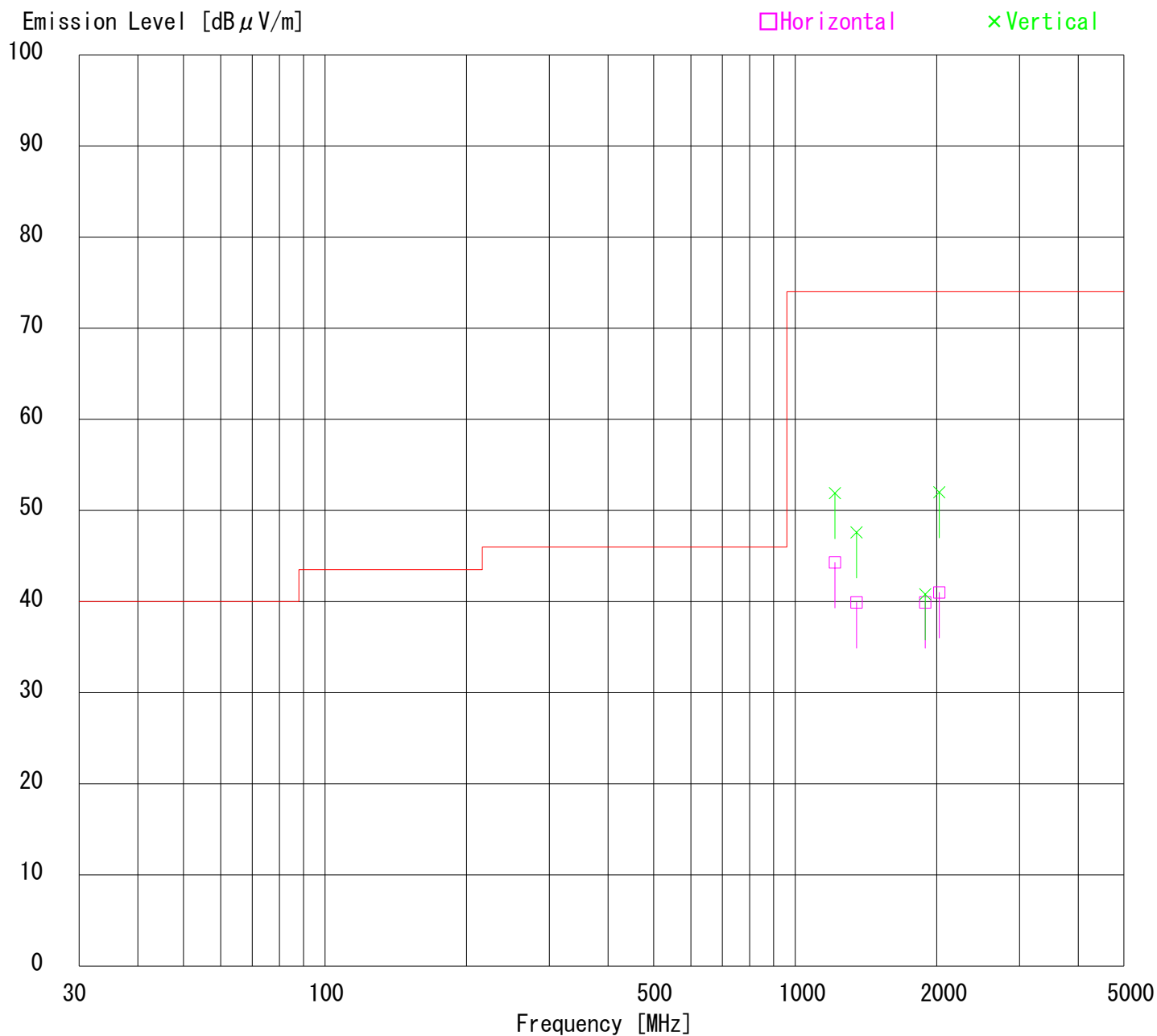
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : VCR+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

Applicant : Orion Electric Co., Ltd.
 Kind of Equipment : DVD Recorder with Video Cassette Recorder
 Model No. : DVRC802E
 Serial No. : -
 Power : AC120V/60Hz
 Mode : DVD+Rec
 Remarks :
 Date : 6/17/2005
 Test Distance : 3 m
 Temperature : 24 °C
 Humidity : 62 %
 Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

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.	62.16	BB	39.5	41.2	8.0	28.1	1.6	5.9	26.9	28.6	40.0	13.1	11.4
2.	93.23	BB	37.5	43.5	8.5	28.0	2.0	5.9	25.9	31.9	43.5	17.6	11.6
3.	124.29	BB	34.5	38.3	13.8	27.9	2.3	5.9	28.6	32.4	43.5	14.9	11.1
4.	270.00	BB	35.6	30.3	18.5	27.8	3.7	6.0	36.0	30.7	46.0	10.0	15.3
5.	384.70	BB	23.7	31.4	17.7	28.0	4.5	6.0	23.9	31.6	46.0	22.1	14.4
6.	732.87	BB	24.7	30.1	22.7	27.2	6.6	5.9	32.7	38.1	46.0	13.3	7.9
7.	945.00	BB	23.8	28.3	26.1	27.1	7.8	6.0	36.6	41.1	46.0	9.4	4.9

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

Except for the above table: adequate margin data below the limits.
 ANT.TYPE:30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW

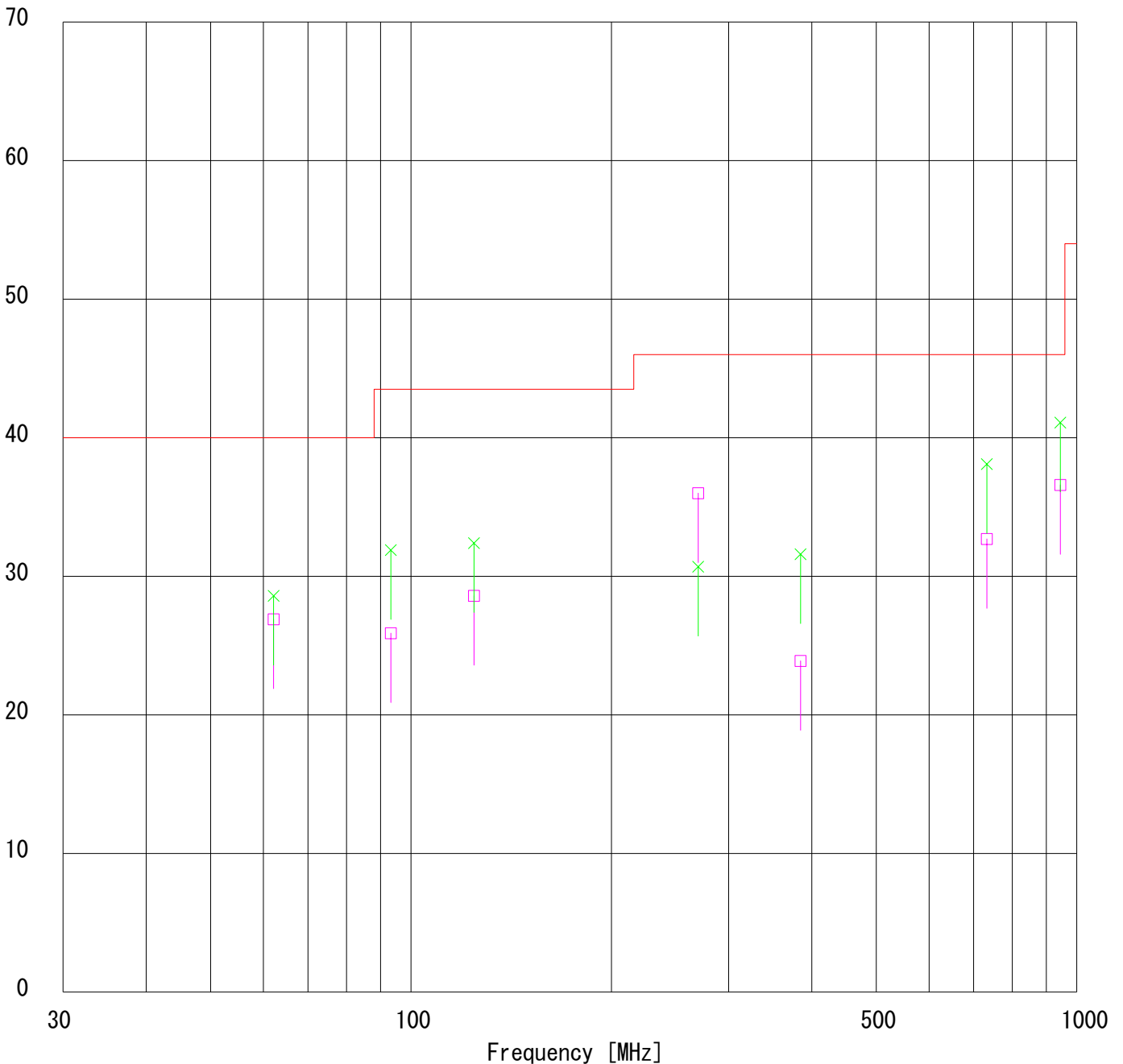
Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/17/2005
Test Distance : 3 m
Temperature : 24 °C
Humidity : 62 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

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.	1214.99	BB	42.3	51.0	24.1	39.7	3.6	0.0	30.3	39.0	54.0	23.7	15.0
2.	1349.98	BB	38.0	45.8	24.2	39.5	3.8	0.0	26.5	34.3	54.0	27.5	19.7
3.	1889.98	BB	36.0	40.2	24.4	38.6	4.8	0.0	26.6	30.8	54.0	27.4	23.2
4.	2024.98	BB	36.1	47.0	24.5	38.4	5.0	0.0	27.2	38.1	54.0	26.8	15.9

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

Except for the above table: adequate margin data below the limits.
ANT. TYPE: 30-300MHz. Biconical, .300-1000MHz. Logperiodic

DATA OF RADIATION TEST

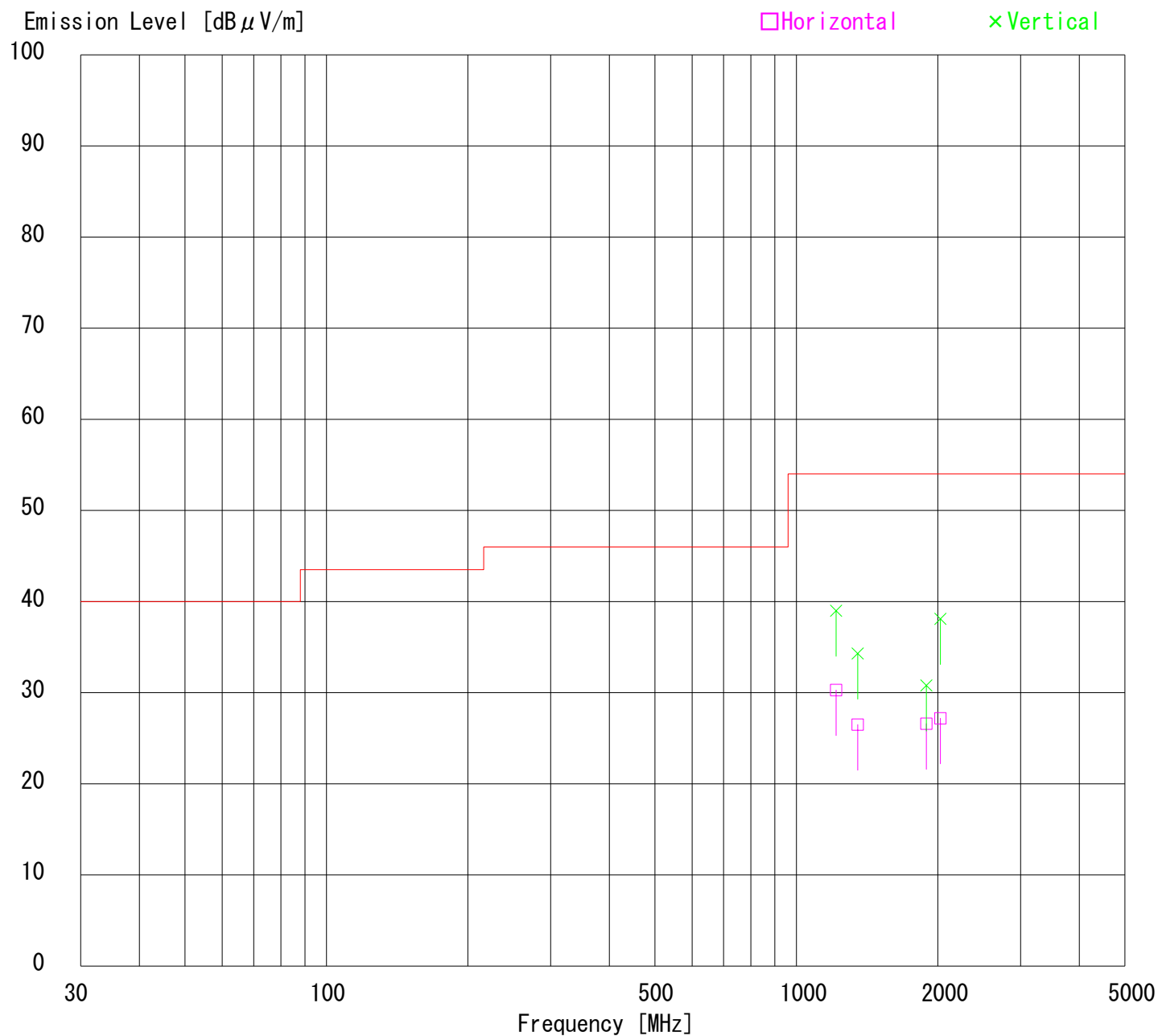
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B(Peak Limit / Upper1GHz)

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.	1214.99	BB	54.6	63.2	24.1	39.7	3.6	0.0	42.6	51.2	74.0	31.4	22.8
2.	1349.98	BB	49.8	56.6	24.2	39.5	3.8	0.0	38.3	45.1	74.0	35.7	28.9
3.	1889.98	BB	48.4	50.4	24.4	38.6	4.8	0.0	39.0	41.0	74.0	35.0	33.0
4.	2024.98	BB	48.7	56.7	24.5	38.4	5.0	0.0	39.8	47.8	74.0	34.2	26.2

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

Except for the above table: adequate margin data below the limits.

ANT. TYPE: 30-300MHz. Biconical, .300-1000MHz. Logperiodic

DATA OF RADIATION TEST

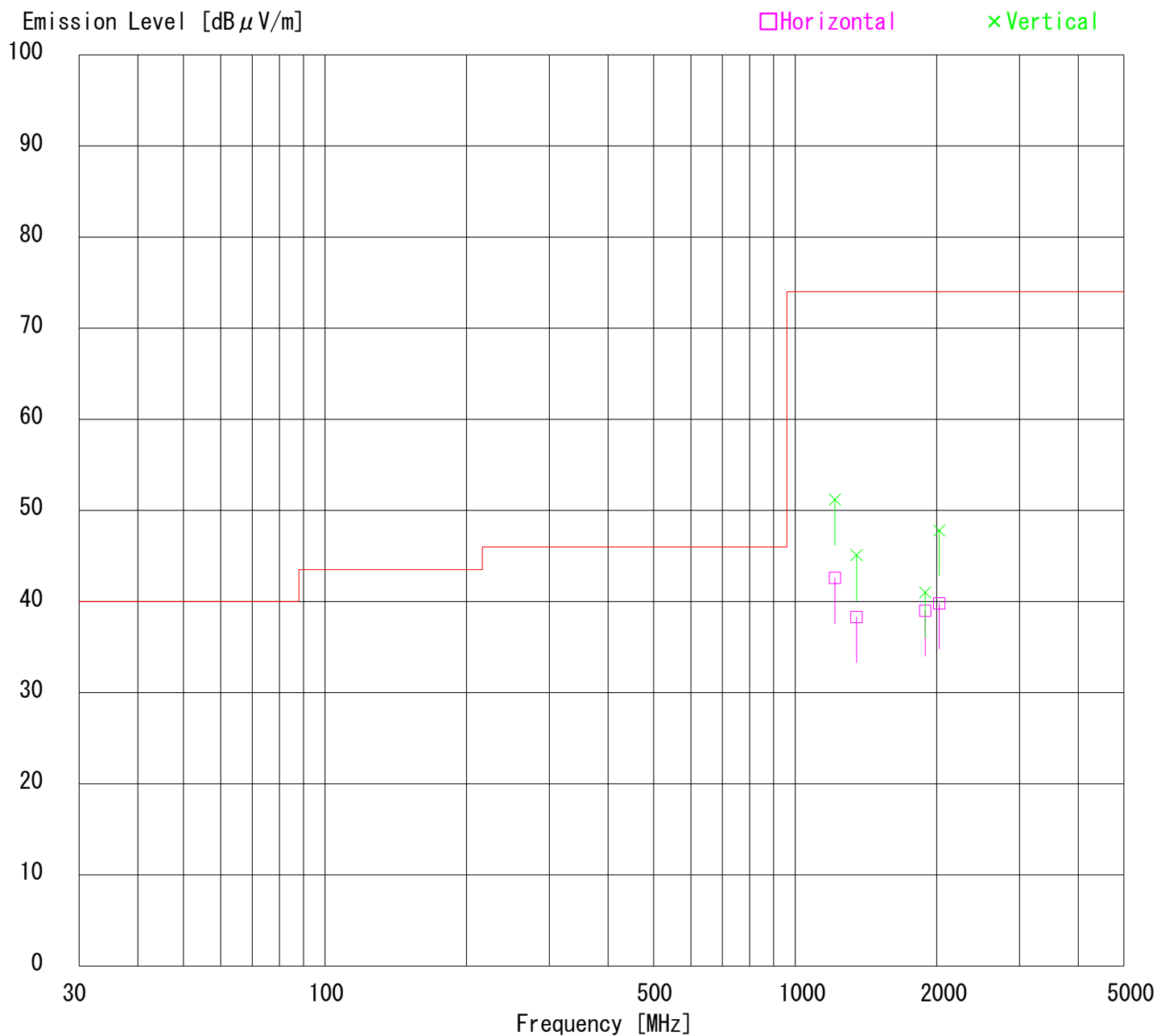
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25KE0175-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : DVD+Rec
Remarks :
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B (Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(5Vp-p)
Remarks : Test Channel #3
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B

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.	61.25	BB	22.7	23.6	8.2	28.1	1.6	5.9	10.3	11.2	40.0	29.7	28.8
2.	65.75	BB	23.0	23.8	7.3	28.1	1.7	5.9	9.8	10.6	40.0	30.2	29.4
3.	122.50	BB	23.1	23.5	13.7	27.9	2.3	5.9	17.1	17.5	43.5	26.4	26.0
4.	245.00	BB	22.8	22.9	17.3	27.8	3.5	5.9	21.7	21.8	46.0	24.3	24.2

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

Expect for the above table : adequate margin data below the limits.

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

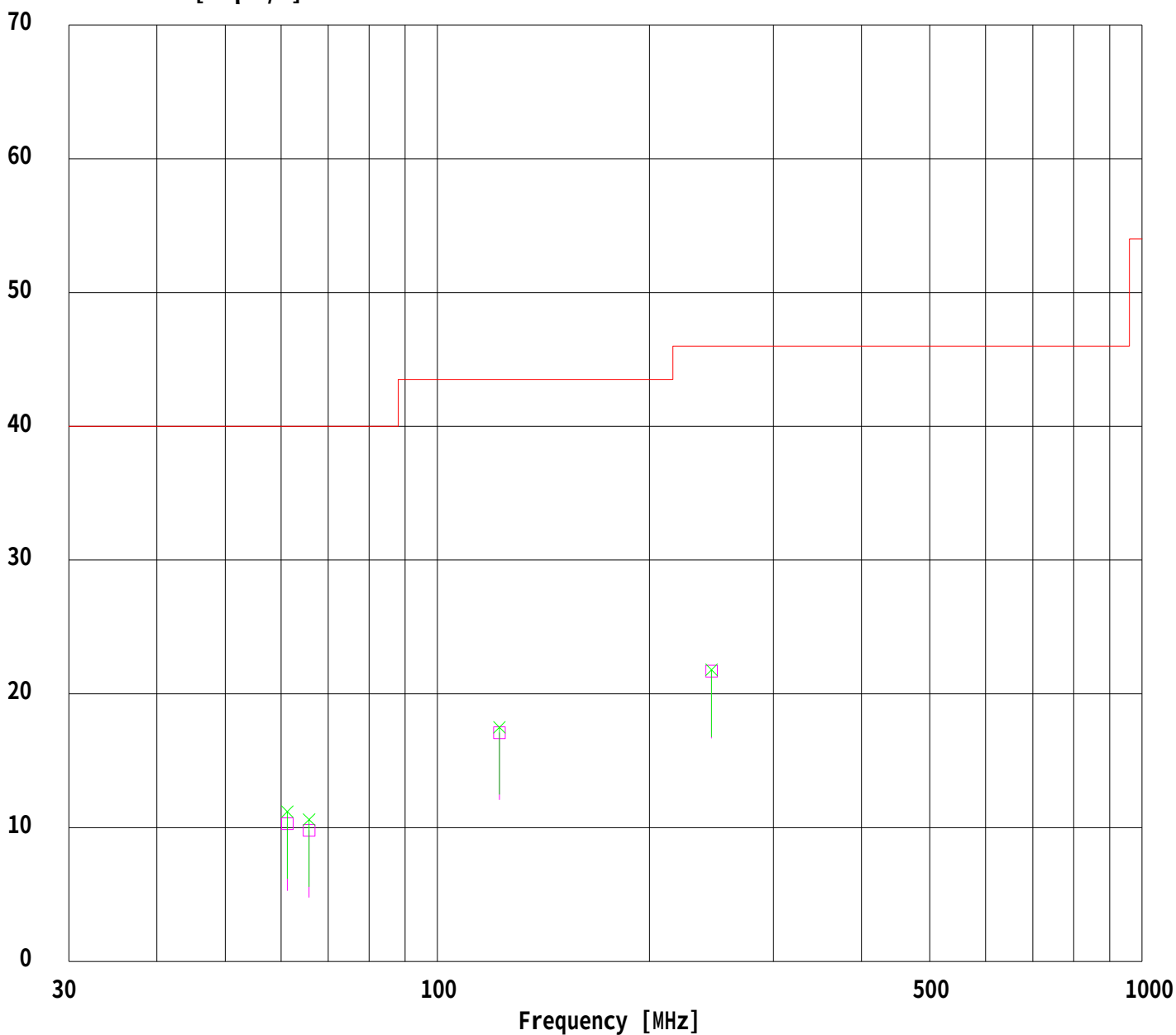
Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(5Vp-p)
Remarks : Test Channel #3
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(5Vp-p)
Remarks : Test Channel #4
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C Engineer : Tsubasa Takayama
Humidity : 53 %
Regulation : FCC Part15B CLASS B

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.	67.25	BB	22.9	23.4	7.0	28.1	1.7	5.9	9.4	9.9	40.0	30.6	30.1
2.	71.75	BB	23.6	24.0	6.5	28.1	1.8	5.9	9.7	10.1	40.0	30.3	29.9
3.	134.50	BB	23.4	23.3	14.4	27.9	2.4	5.9	18.2	18.1	43.5	25.3	25.4
4.	201.75	BB	22.5	23.0	17.1	27.8	3.1	5.9	20.8	21.3	43.5	22.7	22.2

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

Expect for the above table : adequate margin data below the limits.

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No.: 25KE0175-YW-1

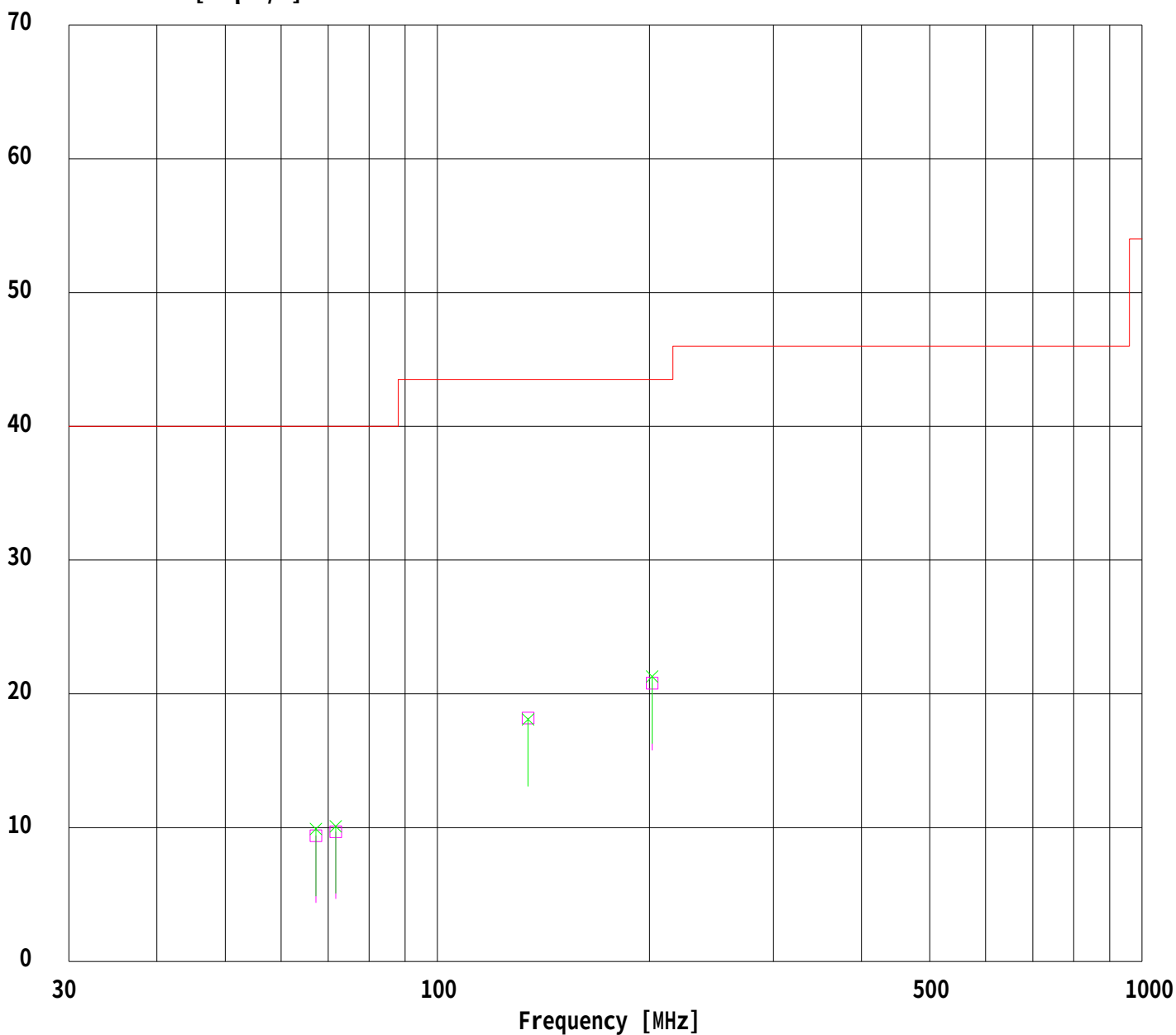
Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD Recorder with Video Cassette Recorder
Model No. : DVRC802E
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input1+Rec(5Vp-p)
Remarks : Test Channel #4
Date : 6/20/2005
Test Distance : 3 m
Temperature : 25 °C
Humidity : 53 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF ANTENNA TERMINAL TEST

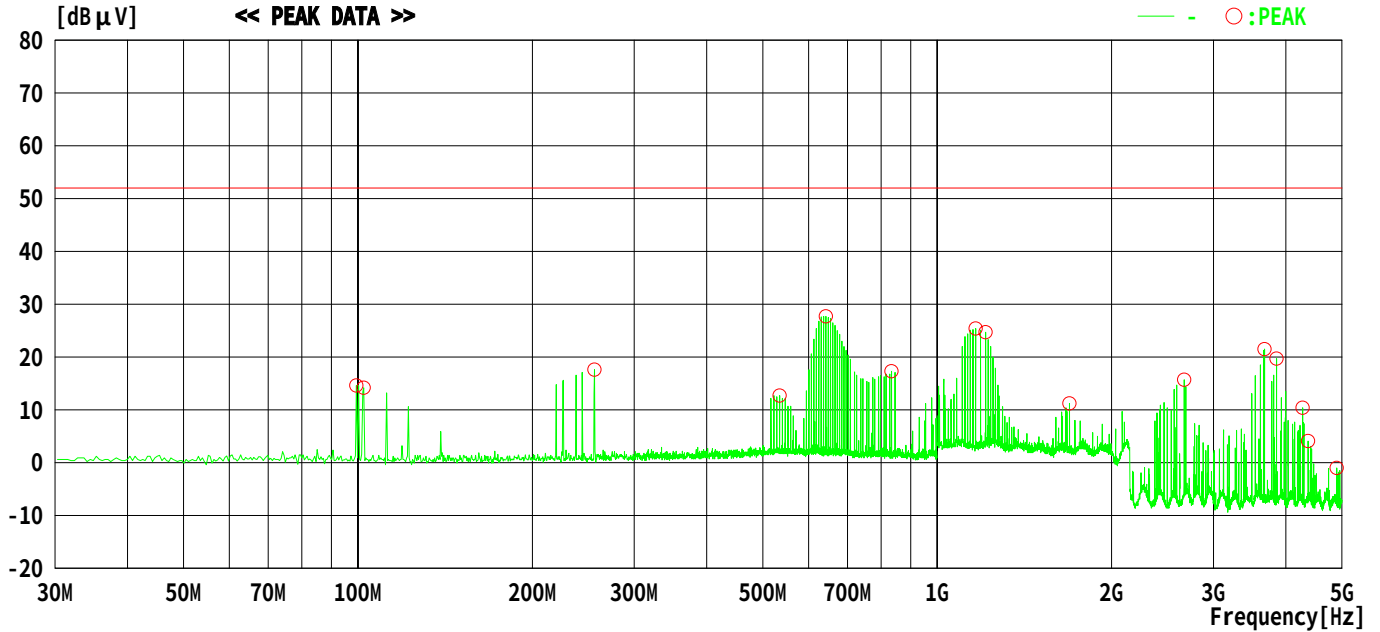
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
OPERATION MODE : TV Tuning Mode

REPORT NO : 25KE0175-YW-1
DATE : June 21,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

TEMP./HUMID. : 23°C/41%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING Peak [dB μV]	C. F [dB]	RESULT Peak [dB μV]	LIMIT Peak [dB μV]	MARGIN - [dB μV]	MARGIN [dB]	PHASE
1	99.39970	35.2	-20.6	14.6	52.0	----	37.4	----
2	102.34970	34.8	-20.6	14.2	52.0	----	37.8	----
3	256.17210	38.0	-20.4	17.6	52.0	----	34.4	----
4	534.57040	33.0	-20.3	12.7	52.0	----	39.3	----
5	642.56710	48.2	-20.5	27.7	52.0	----	24.3	----
6	834.14830	38.0	-20.7	17.3	52.0	----	34.7	----
7	1164.99000	51.5	-26.1	25.4	52.0	----	26.6	----
8	1212.84400	50.8	-26.1	24.7	52.0	----	27.3	----
9	1692.84300	37.2	-26.0	11.2	52.0	----	40.8	----
10	2669.95500	49.8	-34.1	15.7	52.0	----	36.3	----
11	3674.23600	56.0	-34.5	21.5	52.0	----	30.5	----
12	3852.79500	54.2	-34.5	19.7	52.0	----	32.3	----
13	4275.72500	44.8	-34.4	10.4	52.0	----	41.6	----
14	4370.02000	38.5	-34.4	4.1	52.0	----	47.9	----
15	4897.21400	33.2	-34.2	-1.0	52.0	----	53.0	----

CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP. GAIN

DATA OF ANTENNA TERMINAL TEST

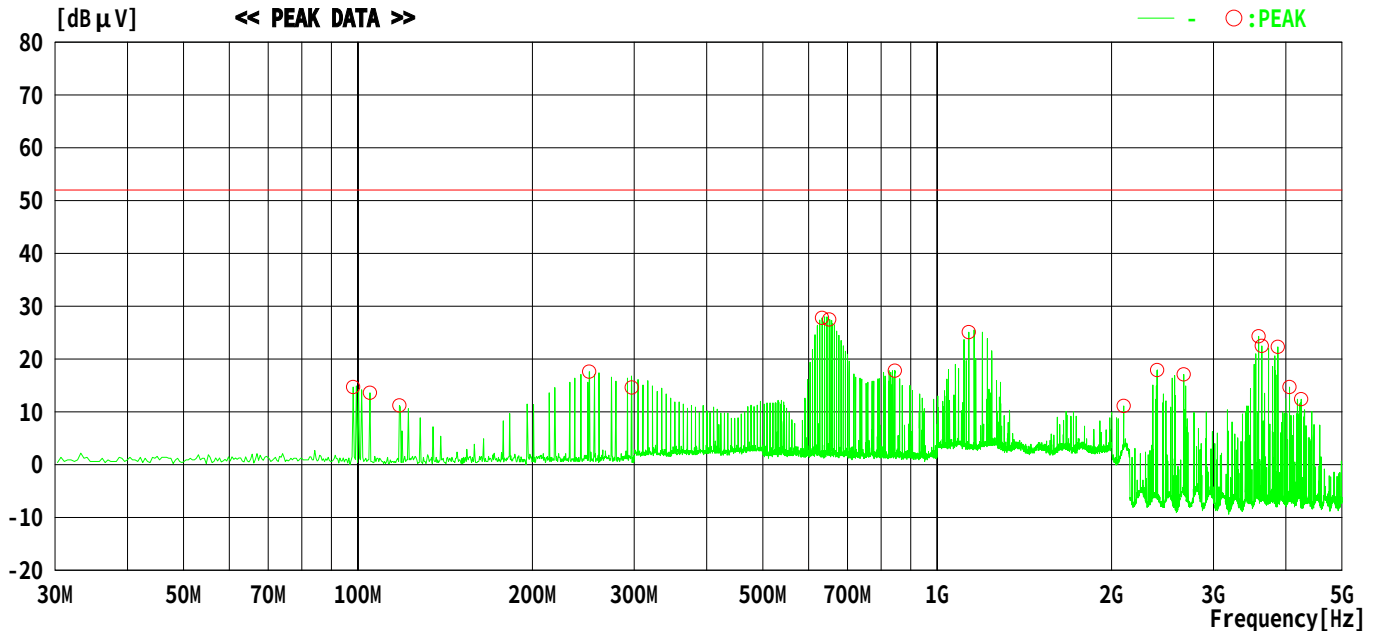
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
OPERATION MODE : CATV Tuning Mode

REPORT NO : 25KE0175-YW-1
DATE : June 21,2005
REGULATION : FCC Part 15 Subpart B
TEST ENGINEER : Tsubasa Takayama

TEMP./HUMID. : 23°C/41%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING Peak [dB μV]	C.F [dB]	RESULT Peak [dB μV]	LIMIT Peak [dB μV]	MARGIN - [dB μV]	MARGIN [dB]	PHASE
1	98.13543	35.2	-20.5	14.7	52.0	----	37.3	-
2	104.87820	34.2	-20.6	13.6	52.0	----	38.4	-
3	117.94240	31.8	-20.6	11.2	52.0	----	40.8	-
4	250.69350	38.0	-20.4	17.6	52.0	----	34.4	-
5	297.04950	35.0	-20.4	14.6	52.0	----	37.4	-
6	633.13880	48.2	-20.4	27.8	52.0	----	24.2	-
7	651.13820	48.0	-20.5	27.5	52.0	----	24.5	-
8	845.29160	38.5	-20.7	17.8	52.0	----	34.2	-
9	1134.27800	51.2	-26.1	25.1	52.0	----	26.9	-
10	2098.56800	37.2	-26.1	11.1	52.0	----	40.9	-
11	2397.11800	52.0	-34.1	17.9	52.0	----	34.1	-
12	2665.67000	51.2	-34.1	17.1	52.0	----	34.9	-
13	3588.52800	58.8	-34.5	24.3	52.0	----	27.7	-
14	3634.23900	57.0	-34.5	22.5	52.0	----	29.5	-
15	3874.22200	56.8	-34.5	22.3	52.0	----	29.7	-
16	4058.56700	49.2	-34.5	14.7	52.0	----	37.3	-
17	4250.00800	46.8	-34.4	12.4	52.0	----	39.6	-

CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

RF Output Level

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : TV Reception + REC
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC15B SubpartB
Date : June 22, 2005
Temp / Humid : 23deg.C / 41%
Engineer : Tsubasa Takayama

TV Reception + REC (0dBmV)

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	84.0	19.8	64.2	69.5	5.3
4	67.25	83.2	19.7	63.5	69.5	6.0
Audio Signal						
3	56.75	69.9	19.8	50.1	56.5	6.4
	65.75	68.5	19.7	48.8	56.5	7.7
4	62.75	69.2	19.7	49.5	56.5	7.0
	71.75	68.2	19.6	48.6	56.5	7.9

TV Reception + REC (25dBmV)

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	84.0	19.8	64.2	69.5	5.3
4	67.25	83.2	19.7	63.5	69.5	6.1
Audio Signal						
3	56.75	69.9	19.8	50.1	56.5	6.4
	65.75	69.0	19.7	49.3	56.5	7.2
4	62.75	69.2	19.7	49.5	56.5	7.1
	71.75	68.0	19.6	48.4	56.5	8.1

RF Output Level

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : AV INPUT 1 + REC
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC15B SubpartB
Date : June 22, 2005
Temp / Humid : 23deg.C / 41%
Engineer : Tsubasa Takayama

AV Input1 + REC (1Vp-p)

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	84.0	19.8	64.2	69.5	5.3
4	67.25	83.2	19.7	63.5	69.5	6.0
Audio Signal						
3	56.75	70.6	19.8	50.8	56.5	5.7
	65.75	69.2	19.7	49.5	56.5	7.0
4	62.75	69.7	19.7	50.0	56.5	6.5
	71.75	68.4	19.6	48.8	56.5	7.8

AV Input1 + REC (5Vp-p)

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	84.1	19.8	64.3	69.5	5.2
4	67.25	83.3	19.7	63.6	69.5	6.0
Audio Signal						
3	56.75	70.2	19.8	50.4	56.5	6.1
	65.75	69.1	19.7	49.4	56.5	7.1
4	62.75	69.5	19.7	49.8	56.5	6.7
	71.75	68.1	19.6	48.5	56.5	8.0

RF Output Level

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : AV INPUT 2 + REC
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC15B SubpartB
Date : June 22, 2005
Temp / Humid : 23deg.C / 41%
Engineer : Tsubasa Takayama

AV Input2 + REC (1Vp-p)

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	85.2	19.8	65.4	69.5	4.1
4	67.25	83.6	19.7	63.9	69.5	5.6
Audio Signal						
3	56.75	70.0	19.8	50.2	56.5	6.3
	65.75	68.9	19.7	49.2	56.5	7.3
4	62.75	69.6	19.7	49.9	56.5	6.6
	71.75	68.7	19.6	49.1	56.5	7.4

AV Input2 + REC (5Vp-p)

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	85.1	19.8	65.3	69.5	4.2
4	67.25	84.5	19.7	64.8	69.5	4.7
Audio Signal						
3	56.75	70.5	19.8	50.7	56.5	5.8
	65.75	69.1	19.7	49.4	56.5	7.1
4	62.75	69.5	19.7	49.8	56.5	6.7
	71.75	67.9	19.6	48.3	56.5	8.2

RF Output Level

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : VCR PLAYBACK + REC
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC15B SubpartB
Date : June 22, 2005
Temp / Humid : 23deg.C / 41%
Engineer : Tsubasa Takayama

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	83.9	19.8	64.1	69.5	5.4
4	67.25	83.5	19.7	63.8	69.5	5.7
Audio Signal						
3	56.75	70.6	19.8	50.8	56.5	5.7
	65.75	69.0	19.7	49.3	56.5	7.2
4	62.75	69.7	19.7	50.0	56.5	6.5
	71.75	68.4	19.6	48.8	56.5	7.8

RF Output Level

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : DVD PLAY + REC
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC15B SubpartB
Date : June 22, 2005
Temp / Humid : 23deg.C / 41%
Engineer : Tsubasa Takayama

Ch	Frequency [MHz]	Meter Reading [dB μ V]	Correction Factor [dB]	Result [dB]	Limits [dB μ V]	Margin [dB]
Video Signal						
3	61.25	83.9	19.8	64.1	69.5	5.4
4	67.25	63.6	19.7	43.9	69.5	25.6
Audio Signal						
3	56.75	70.2	19.8	50.4	56.5	6.1
	65.75	68.6	19.7	48.9	56.5	7.6
4	62.75	69.5	19.7	49.8	56.5	6.7
	71.75	68.0	19.6	48.4	56.5	8.2

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

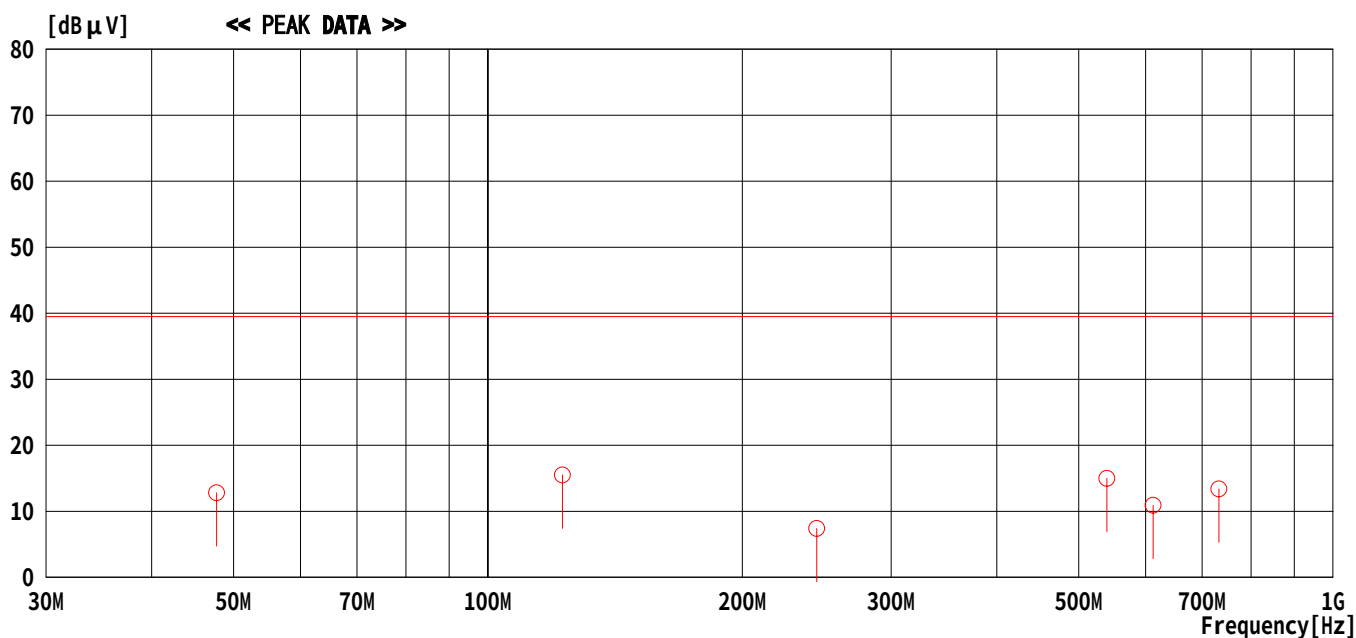
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : TV Reception + Rec (0dBmV : 3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

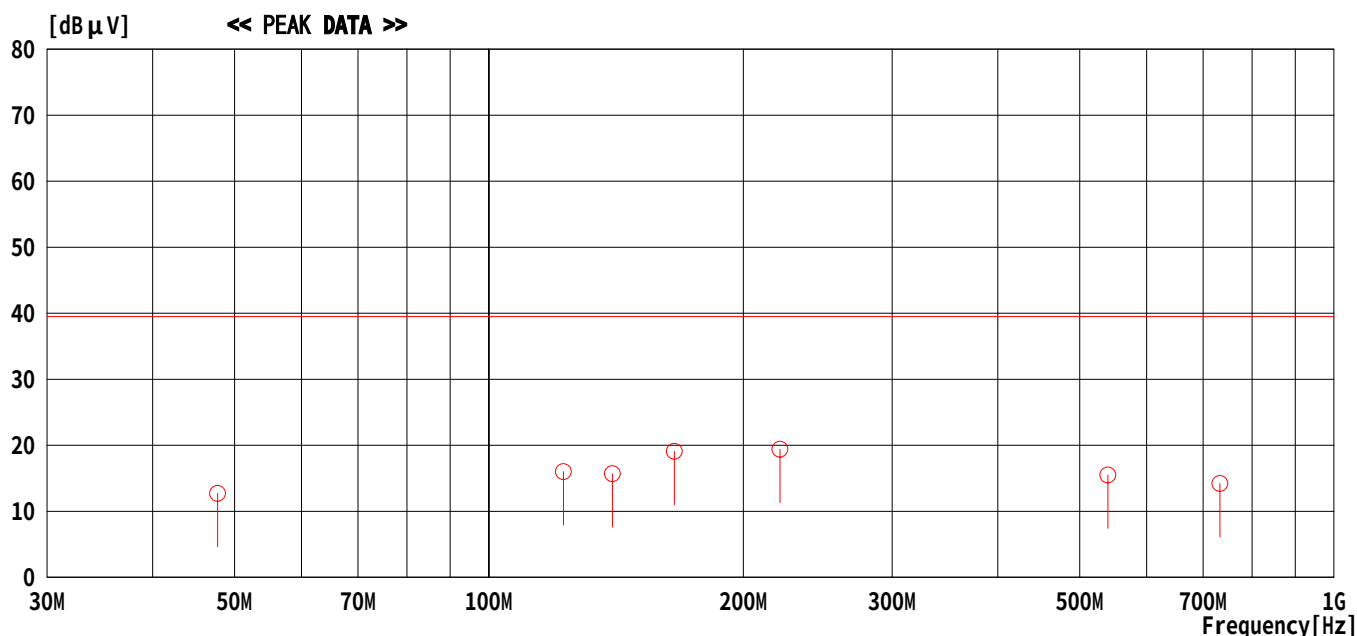
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : TV Reception + Rec (25dBmV : 3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

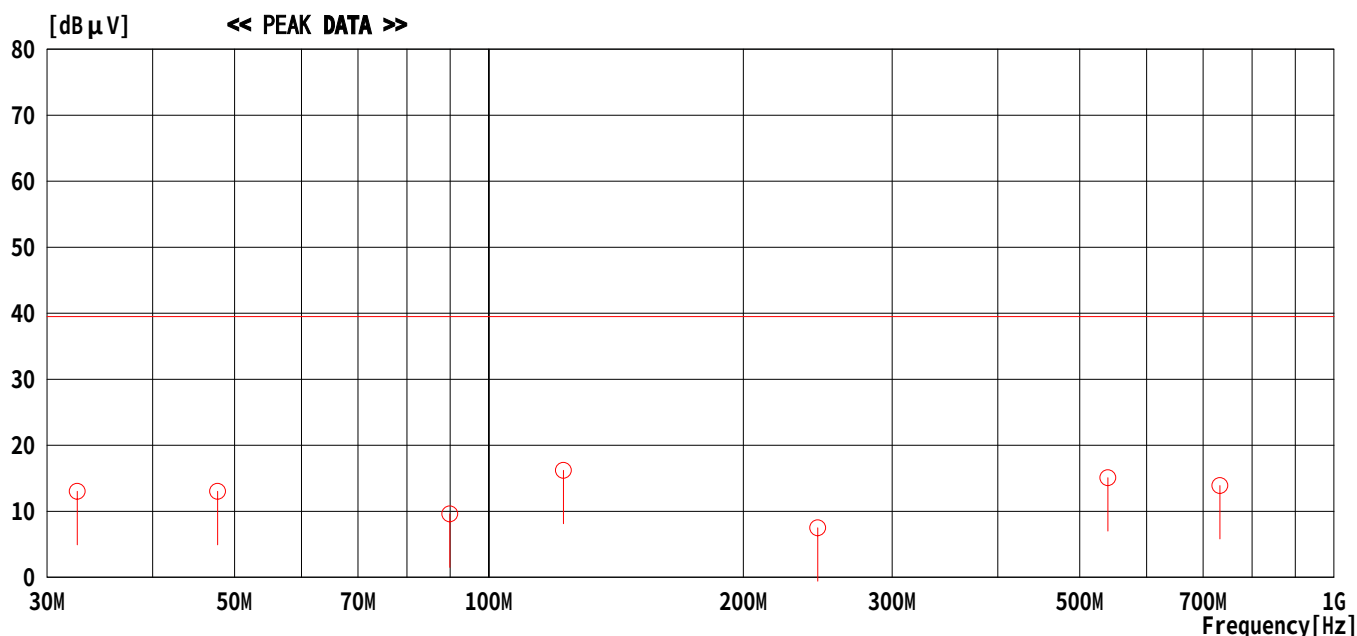
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 1 + Rec (1Vp-p : 3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

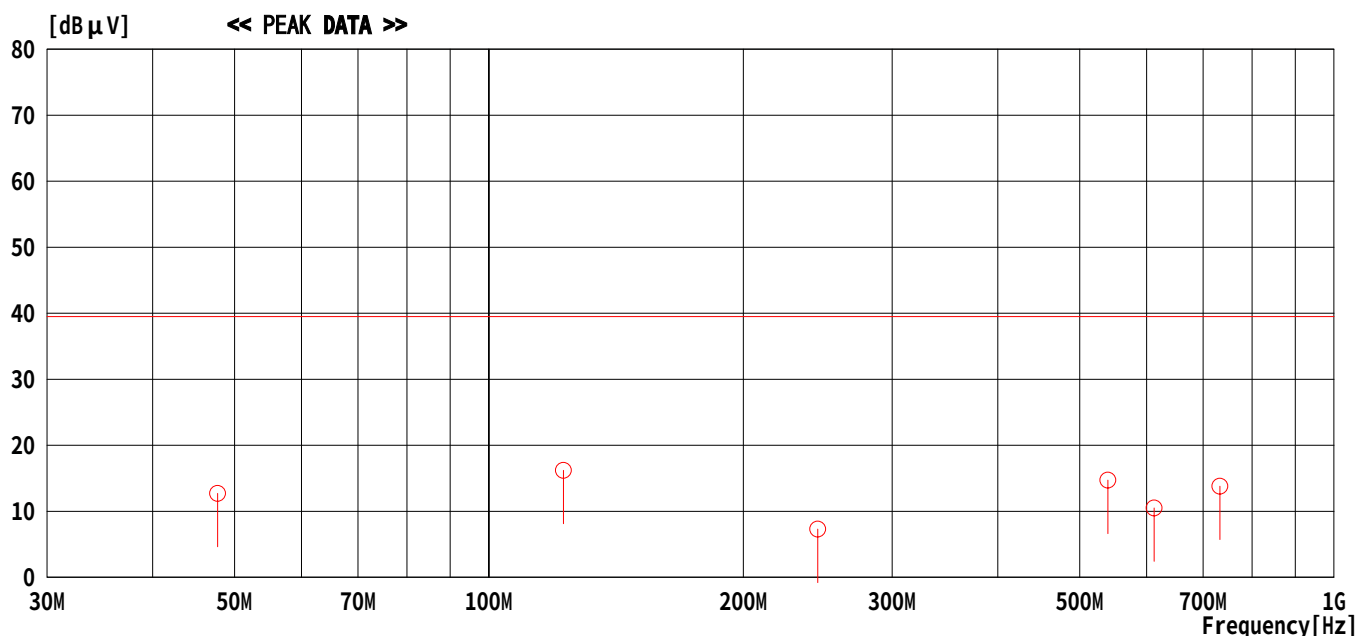
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 1 + Rec (5Vp-p : 3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

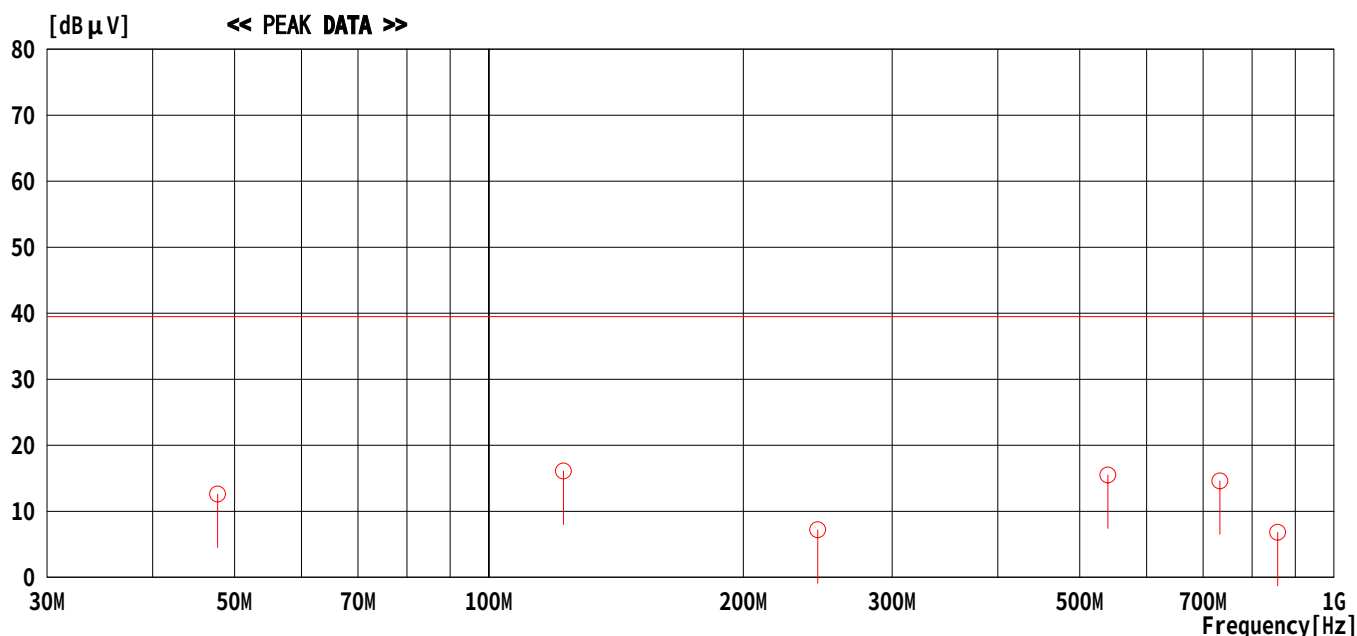
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 2 + Rec (1Vp-p : 3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

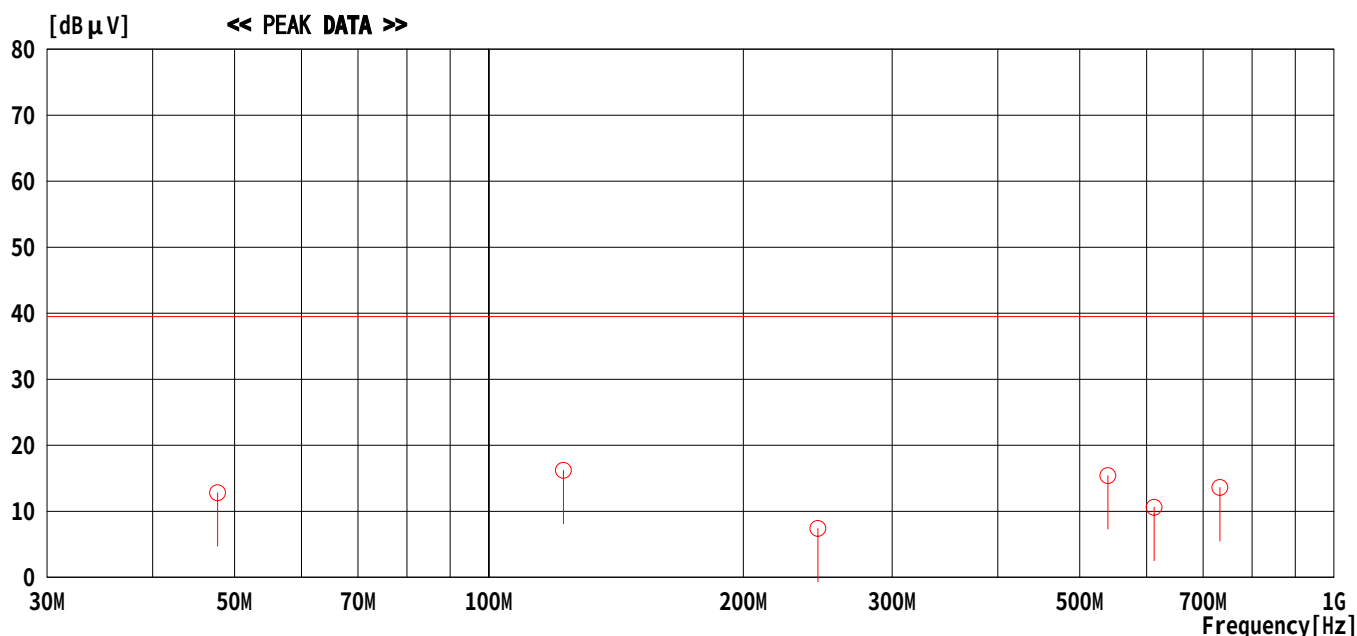
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 2 + Rec (5Vp-p : 3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

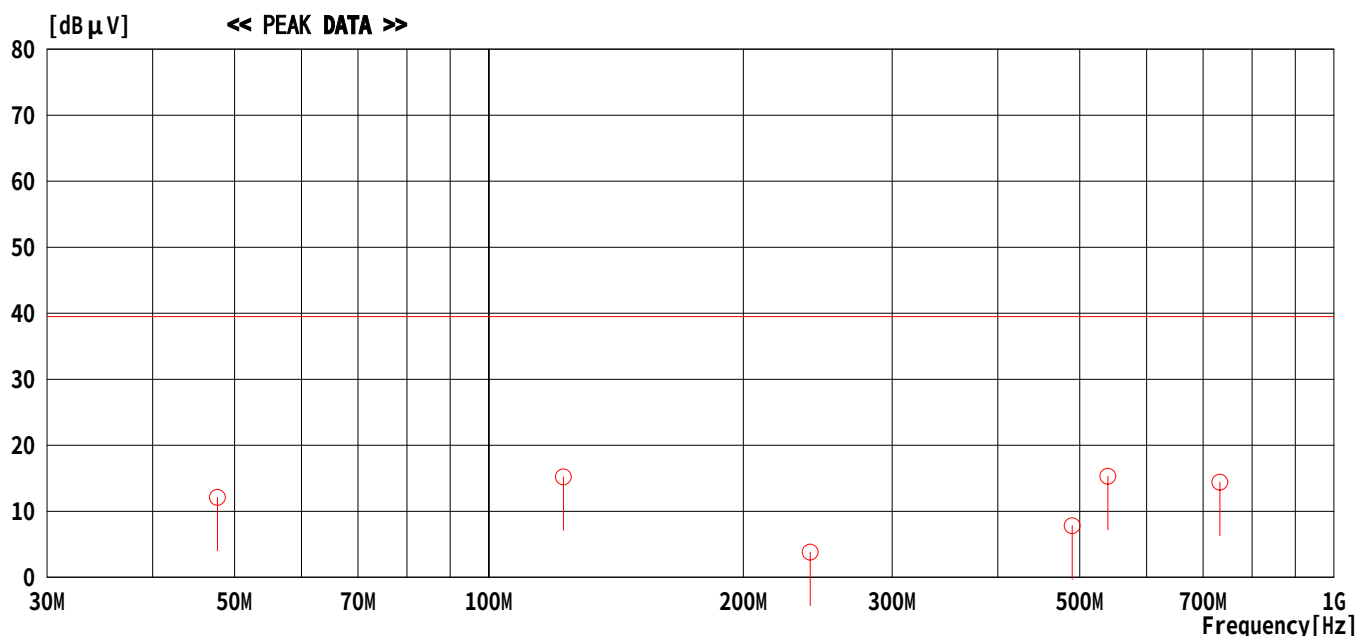
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR PLAYBACK PLAY + Rec (3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

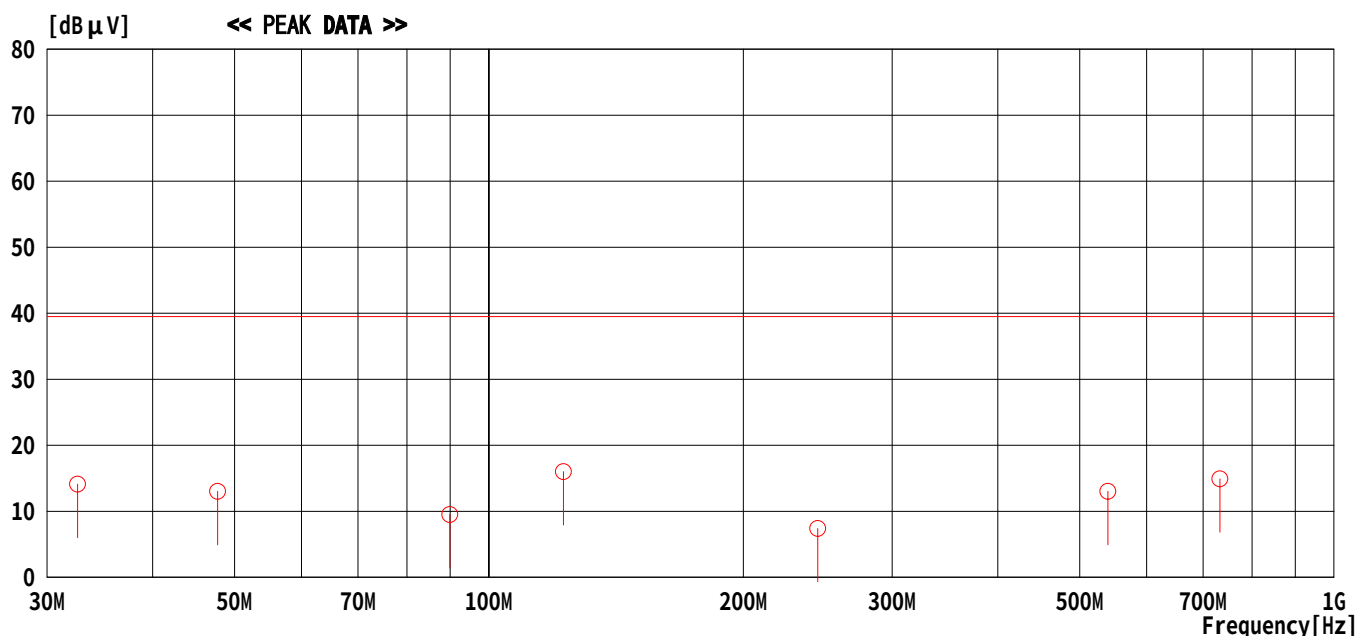
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD PLAY + Rec (3ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

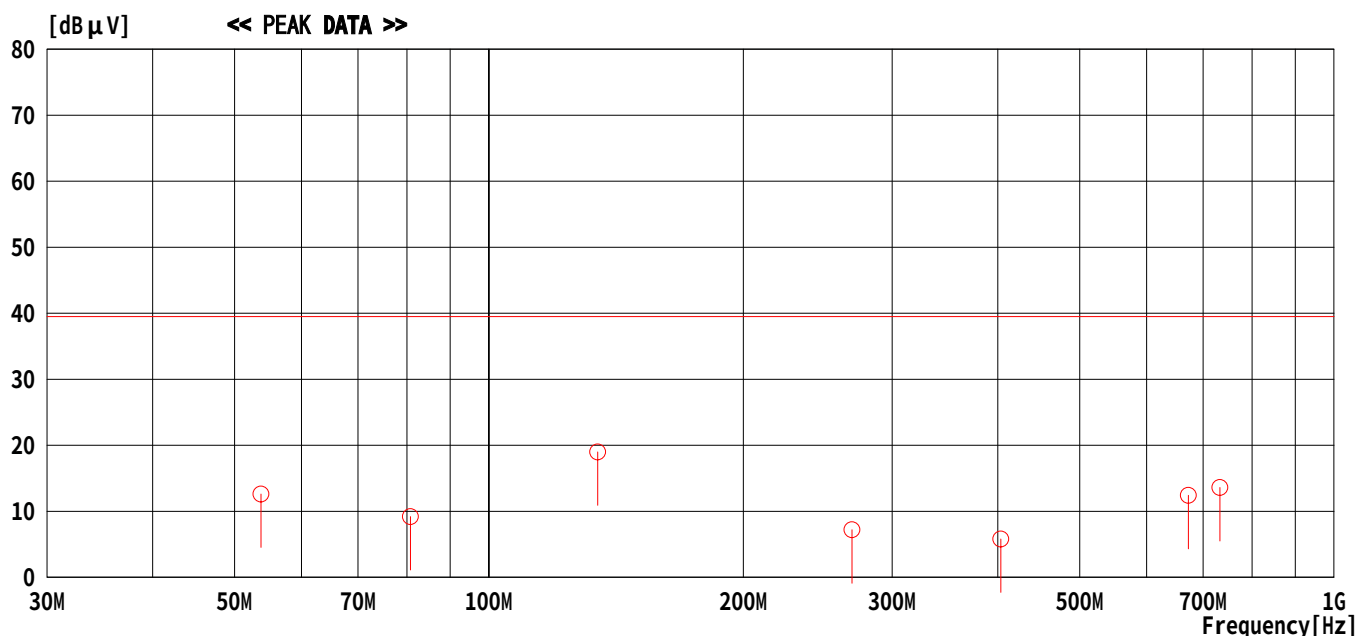
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : TV Reception + Rec (0dBmV : 4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

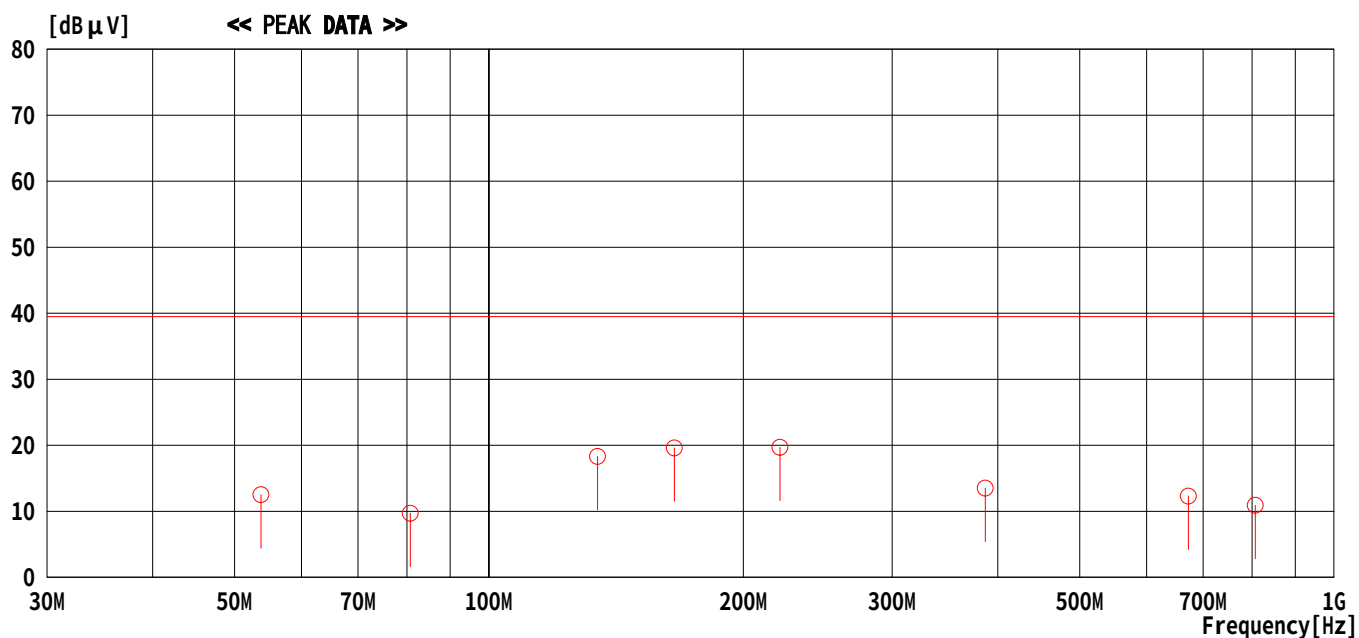
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : TV Reception + Rec (25dBmV : 4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

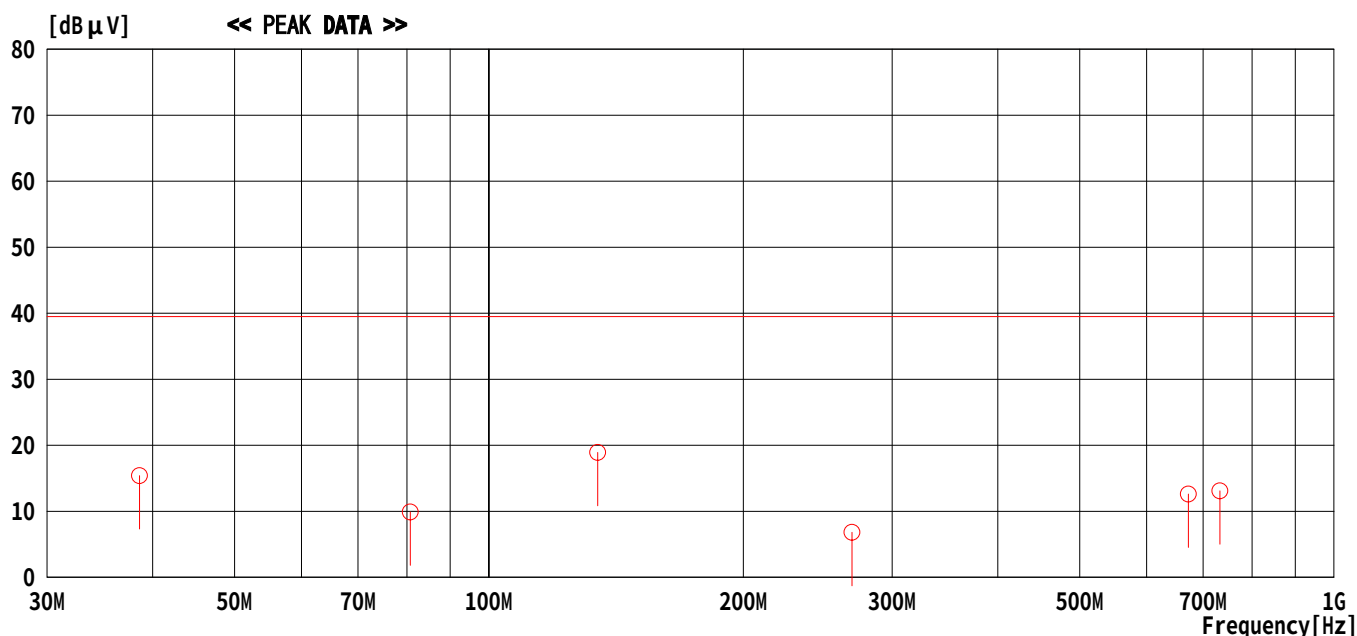
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 1 + Rec (1Vp-p : 4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

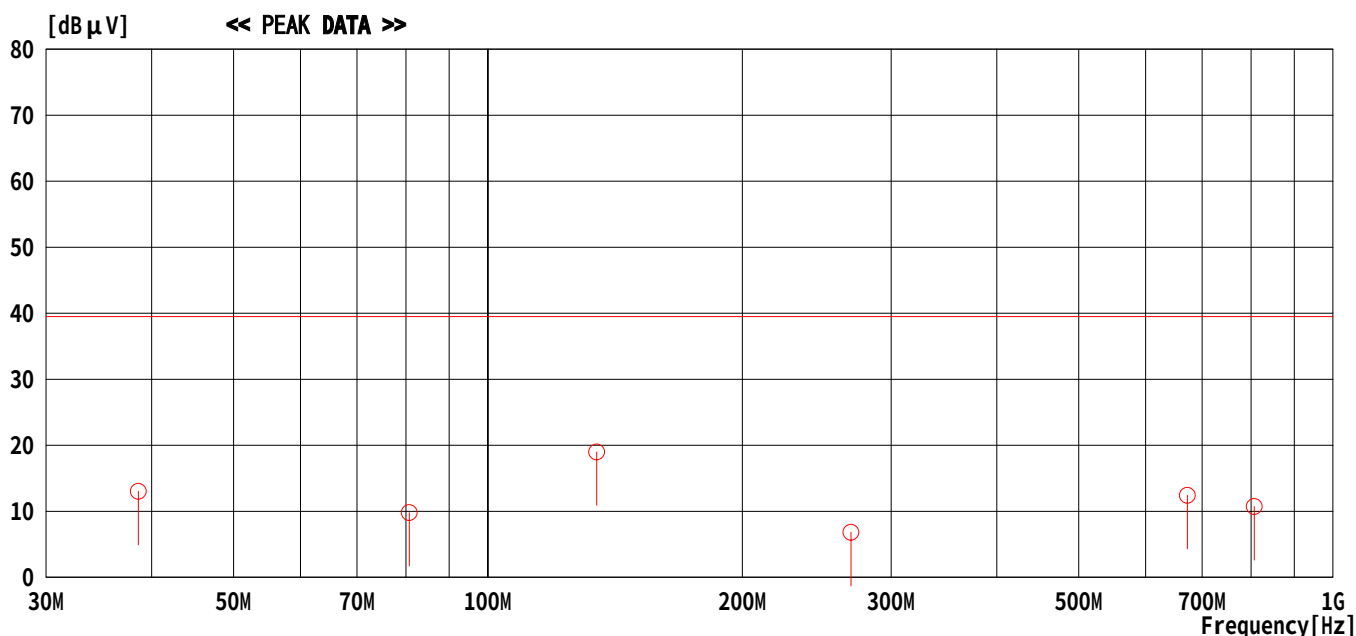
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 1 + Rec (5Vp-p : 4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

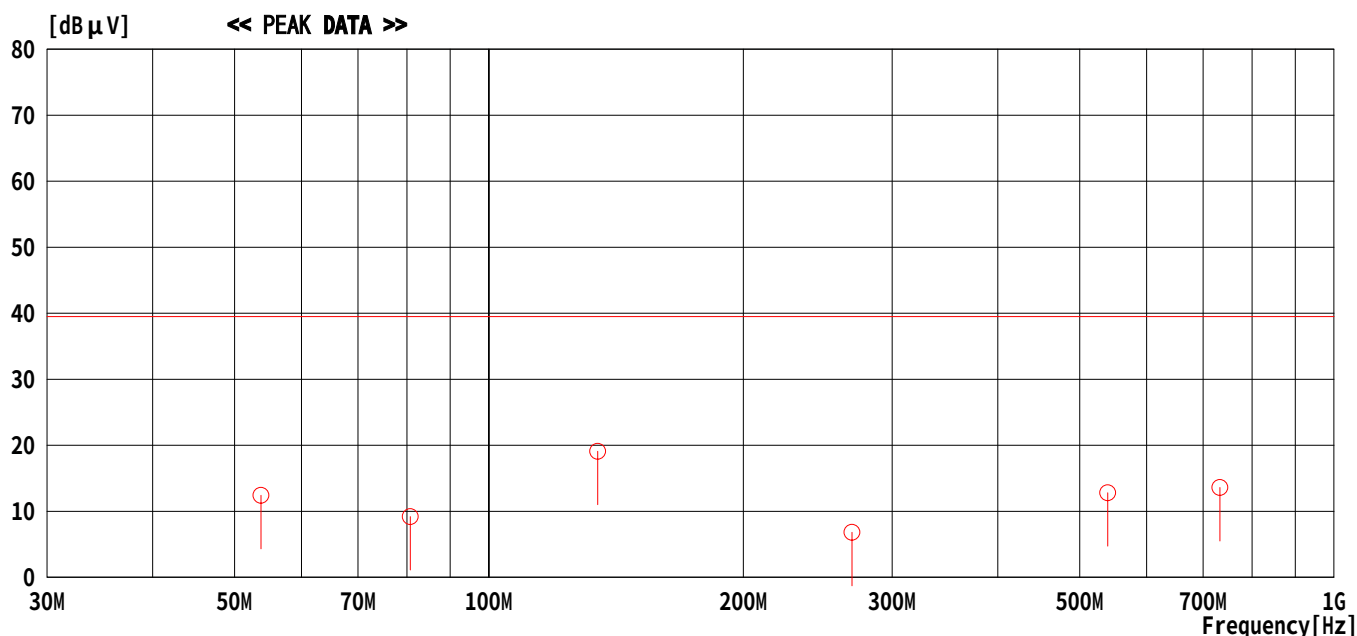
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 2 + Rec (1Vp-p : 4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

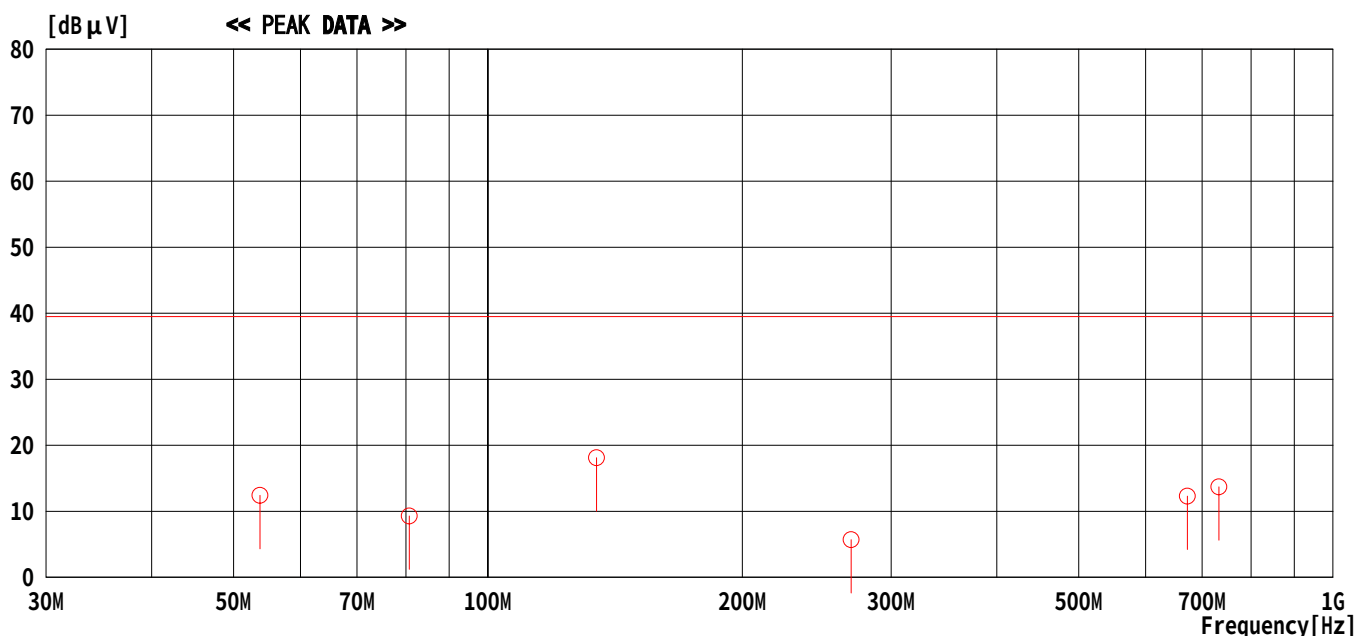
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV INPUT 2 + Rec (5Vp-p : 4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

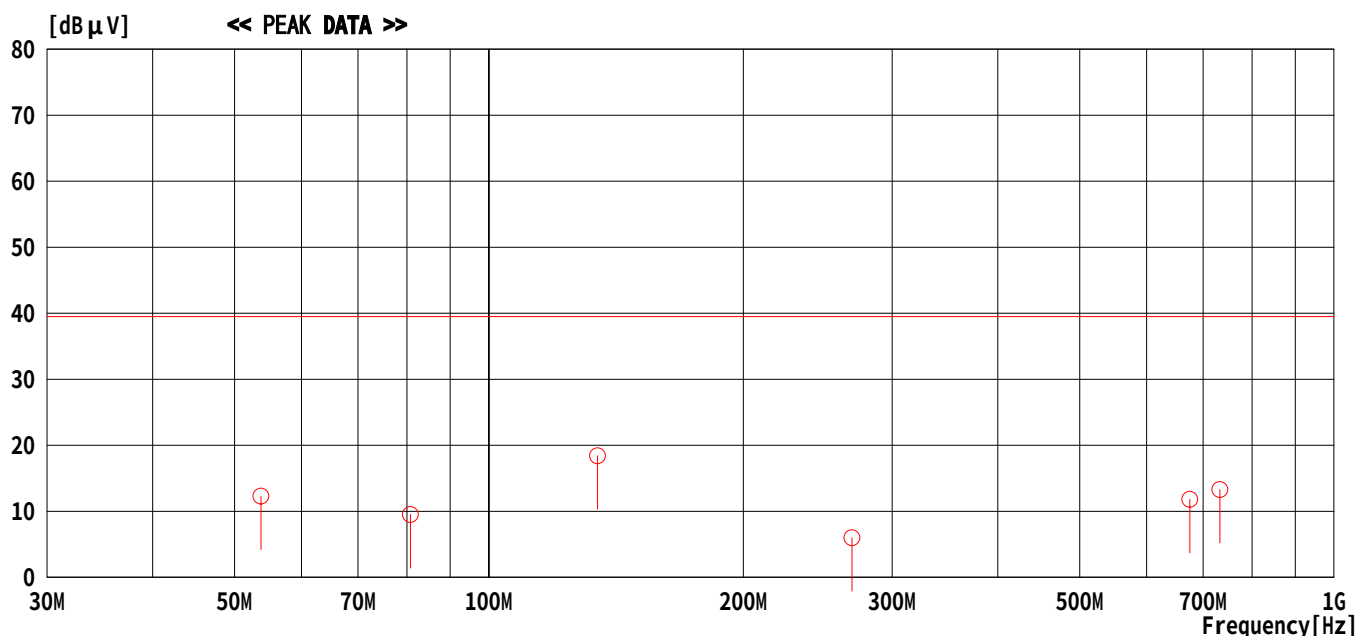
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR PLAYBACK PLAY + Rec (4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF RF SPURIOUS TEST

UL Apex Co.,Ltd.

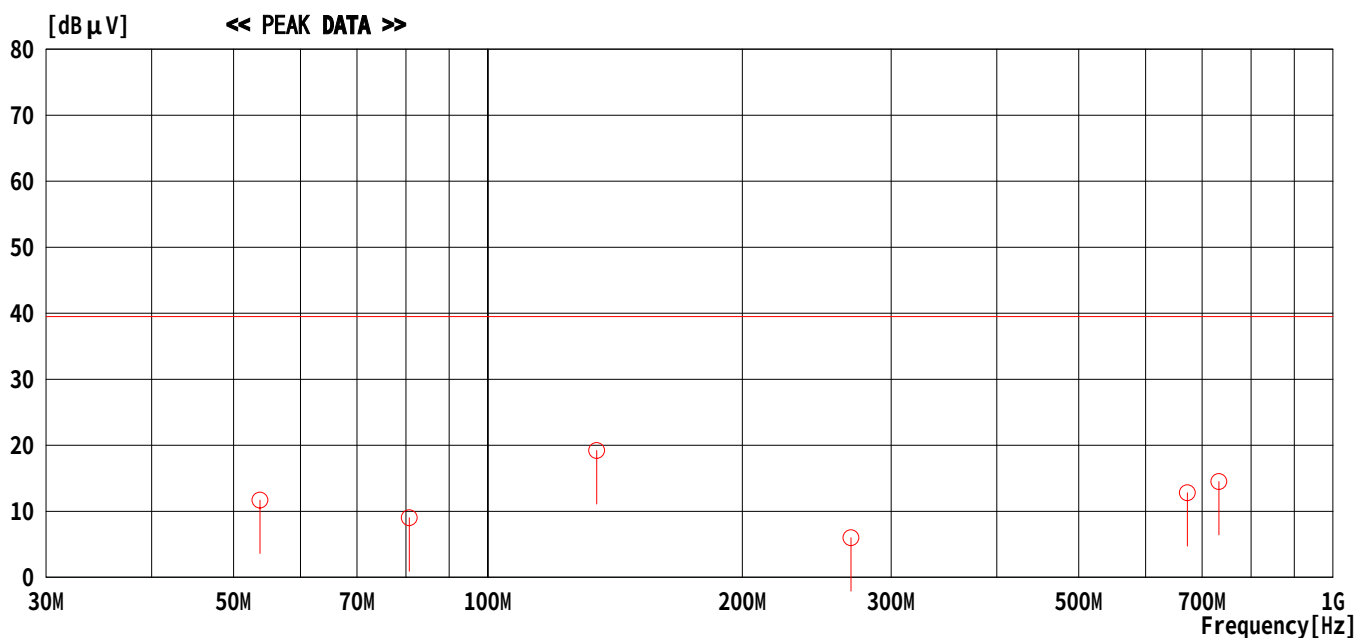
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD PLAY + Rec (4ch)

LIMIT : FCC 15B RF OUT SPURIOUS

— - ○:PEAK



CALCULATION: READING + MATCHING PAD LOSS + CABLE LOSS - AMP. GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

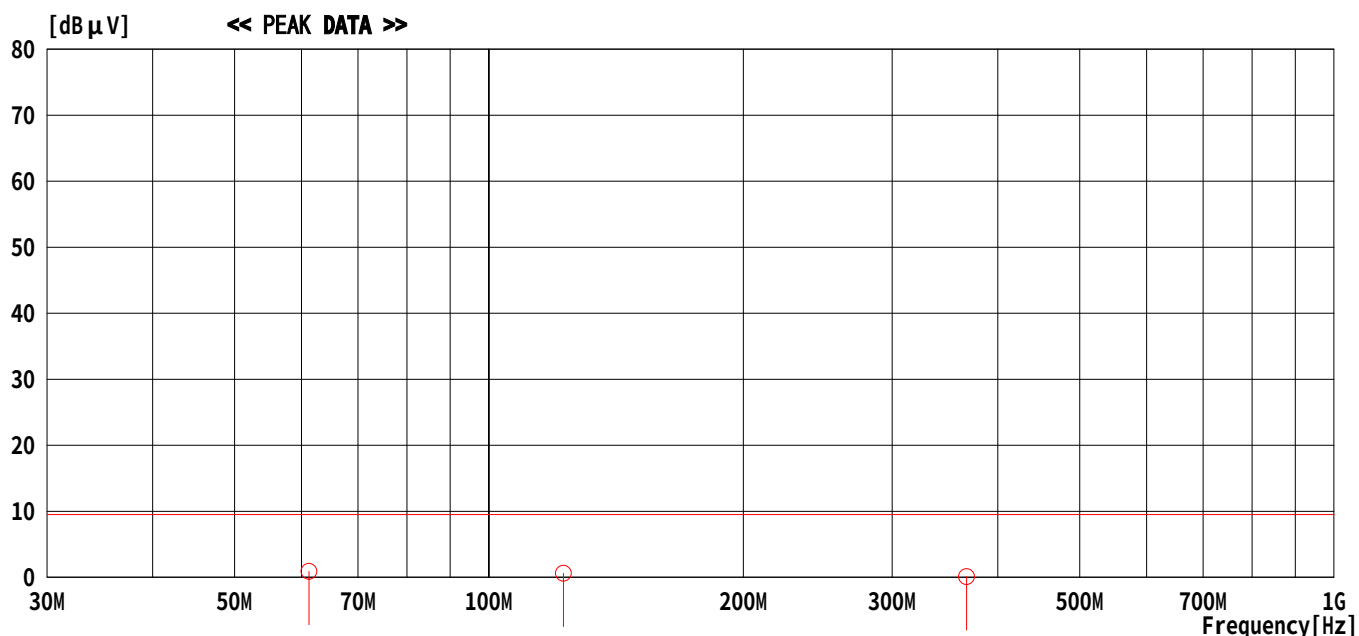
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input1 + Rec (1Vp-p : 3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	61.2500	21.4	----	-20.5	0.9	----	9.5	----	8.6	----	-
2	122.5000	21.2	----	-20.6	0.6	----	9.5	----	8.9	----	-
3	183.7500	19.8	----	-20.5	-0.7	----	9.5	----	10.2	----	-
4	245.0000	20.1	----	-20.4	-0.3	----	9.5	----	9.8	----	-
5	306.2500	19.7	----	-20.4	-0.7	----	9.5	----	10.2	----	-
6	367.5000	20.4	----	-20.3	0.1	----	9.5	----	9.4	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

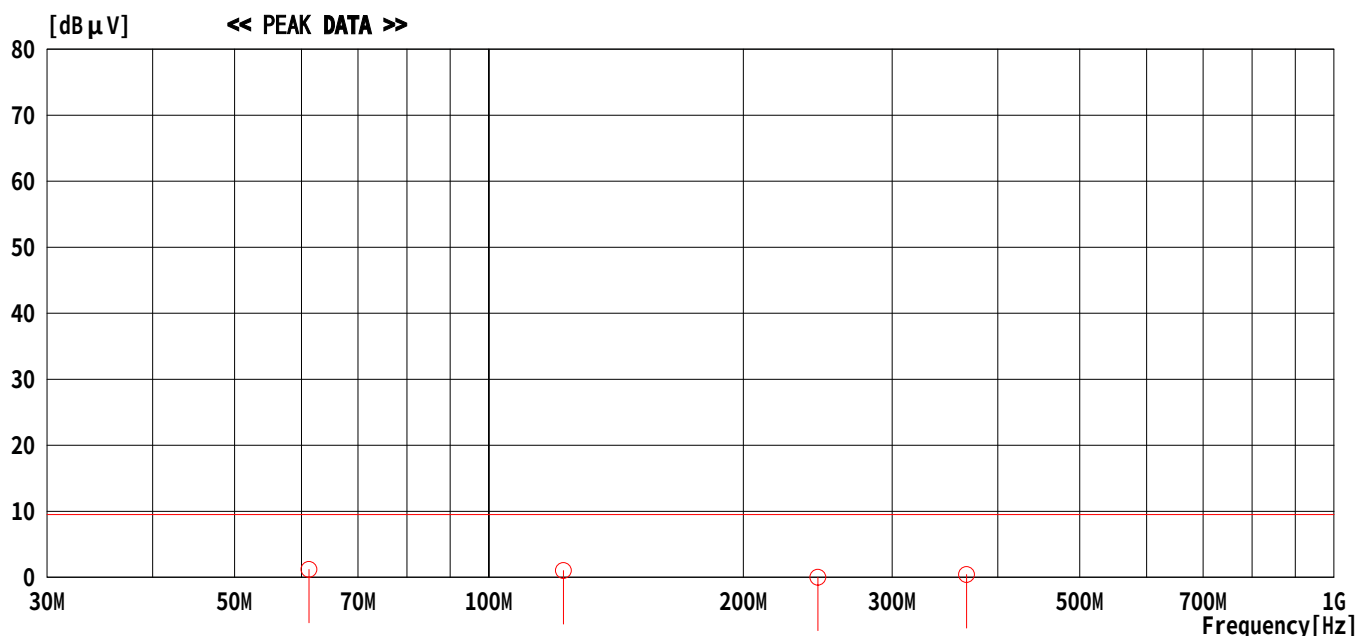
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input1 + Rec (5Vp-p : 3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

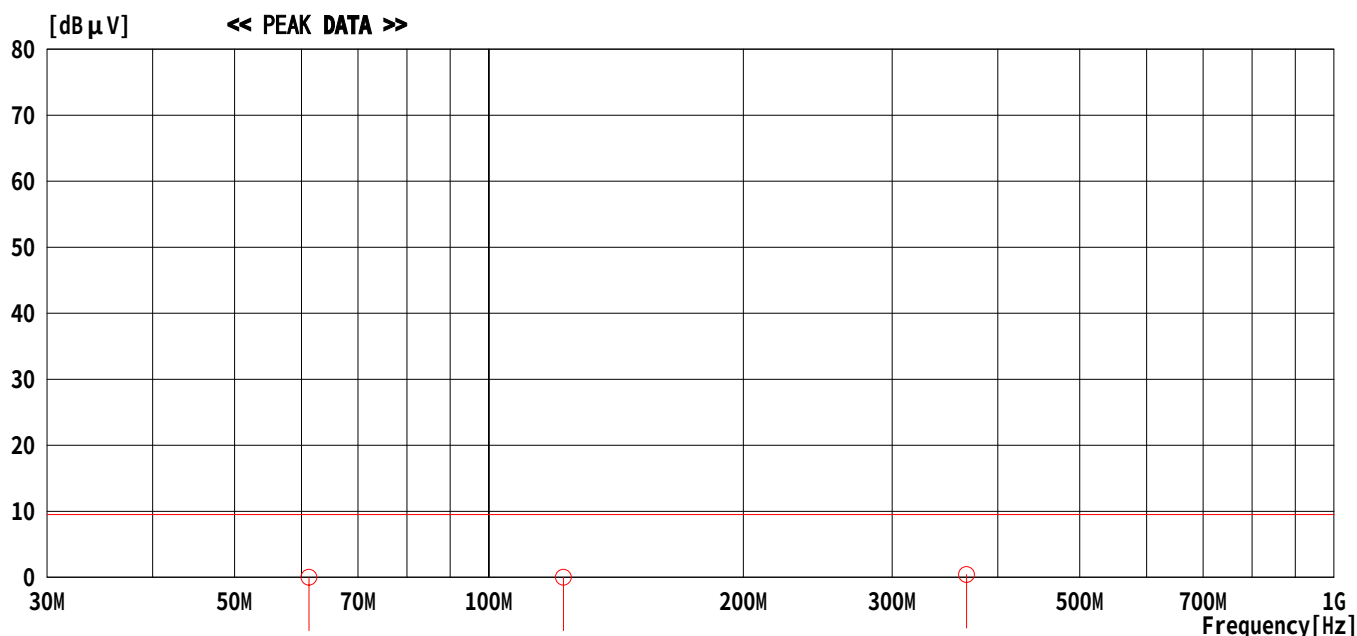
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input2 + Rec (1Vp-p : 3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

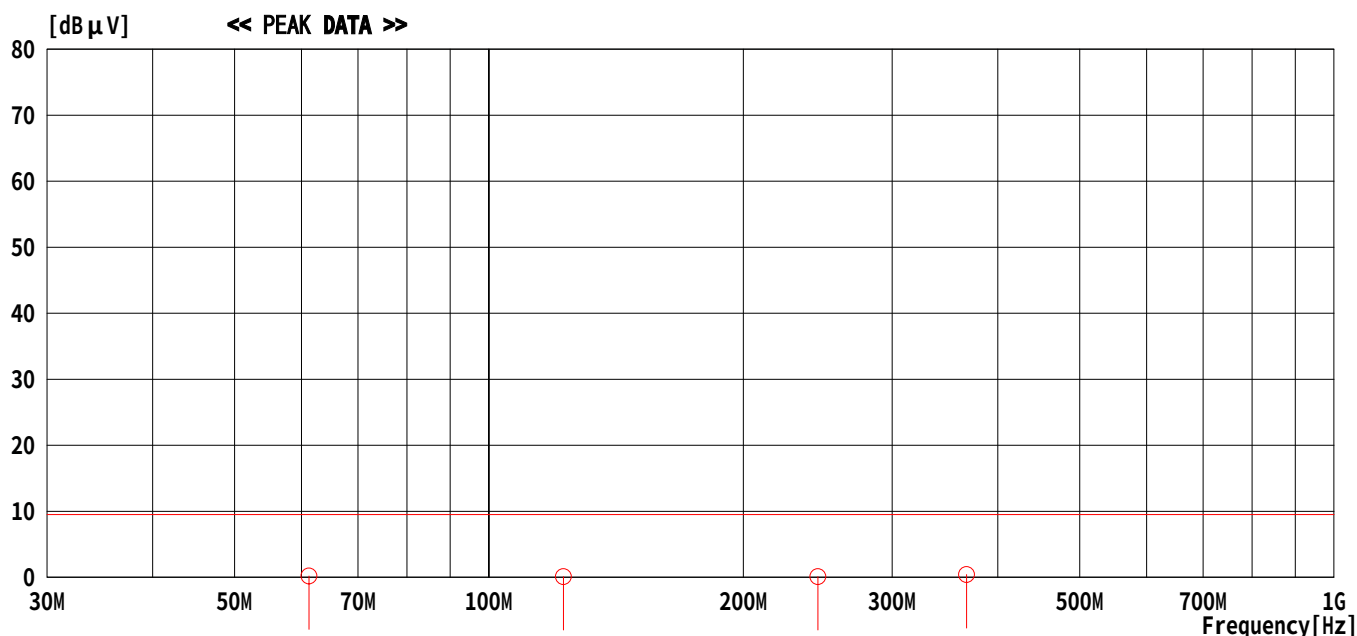
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input2 + Rec (5Vp-p : 3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	61.2500	20.7	----	-20.5	0.2	----	9.5	----	9.3	----	-
2	122.5000	20.7	----	-20.6	0.1	----	9.5	----	9.4	----	-
3	183.7500	20.2	----	-20.5	-0.3	----	9.5	----	9.8	----	-
4	245.0000	20.5	----	-20.4	0.1	----	9.5	----	9.4	----	-
5	306.2500	20.0	----	-20.4	-0.4	----	9.5	----	9.9	----	-
6	367.5000	20.7	----	-20.3	0.4	----	9.5	----	9.1	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

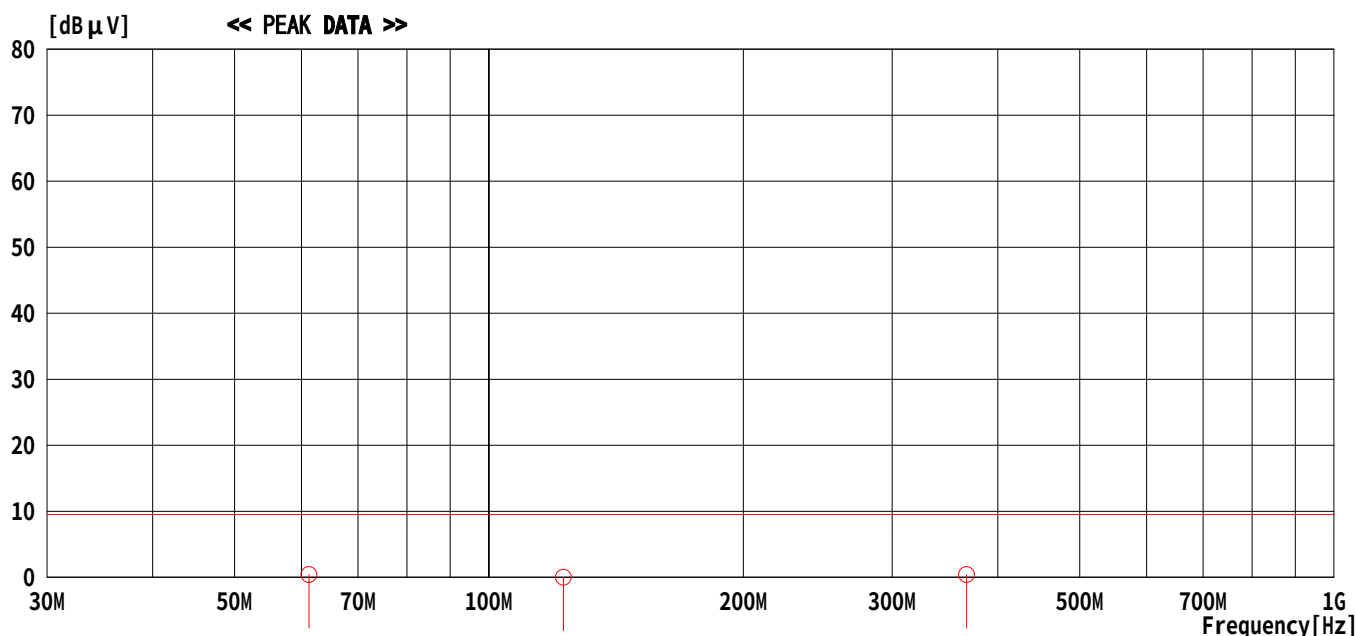
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR PLAYBACK + Rec (3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	61.2500	20.9	----	-20.5	0.4	----	9.5	----	9.1	----	-
2	122.5000	20.6	----	-20.6	0.0	----	9.5	----	9.5	----	-
3	183.7500	20.1	----	-20.5	-0.4	----	9.5	----	9.9	----	-
4	245.0000	20.2	----	-20.4	-0.2	----	9.5	----	9.7	----	-
5	306.2500	19.8	----	-20.4	-0.6	----	9.5	----	10.1	----	-
6	367.5000	20.7	----	-20.3	0.4	----	9.5	----	9.1	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

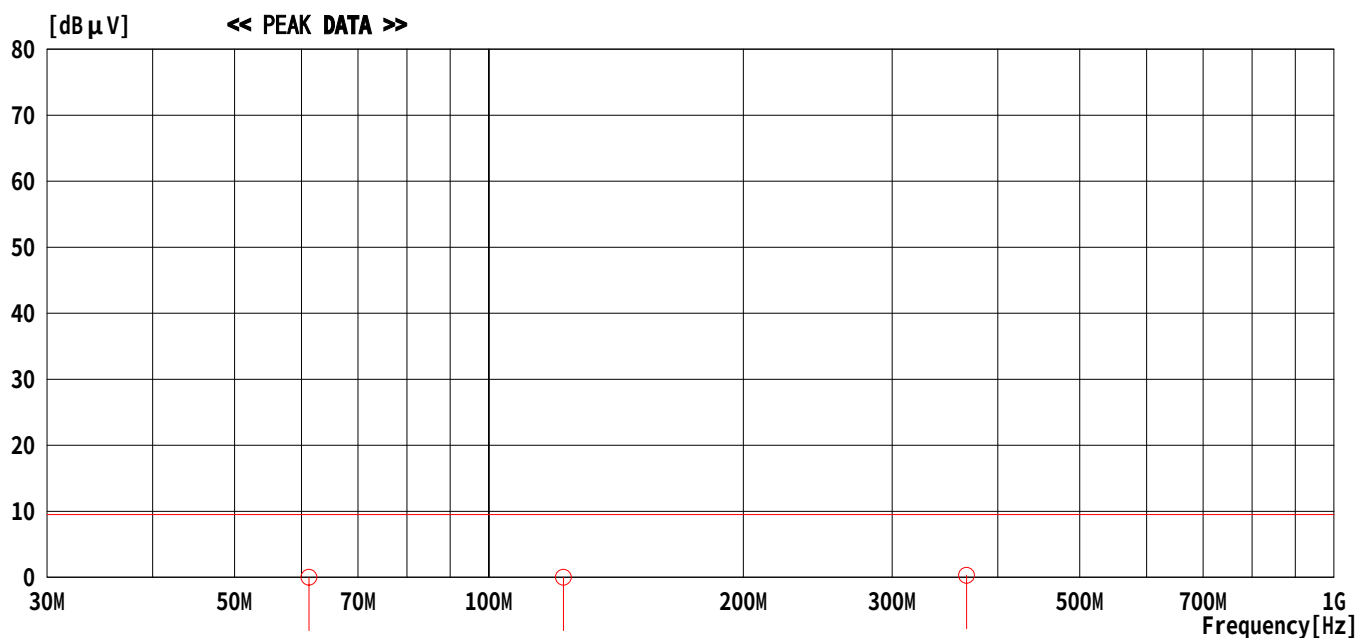
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD PALY + Rec (3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	61.2500	20.5	----	-20.5	0.0	----	9.5	----	9.5	----	-
2	122.5000	20.6	----	-20.6	0.0	----	9.5	----	9.5	----	-
3	183.7500	20.2	----	-20.5	-0.3	----	9.5	----	9.8	----	-
4	245.0000	20.2	----	-20.4	-0.2	----	9.5	----	9.7	----	-
5	306.2500	19.8	----	-20.4	-0.6	----	9.5	----	10.1	----	-
6	367.5000	20.6	----	-20.3	0.3	----	9.5	----	9.2	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

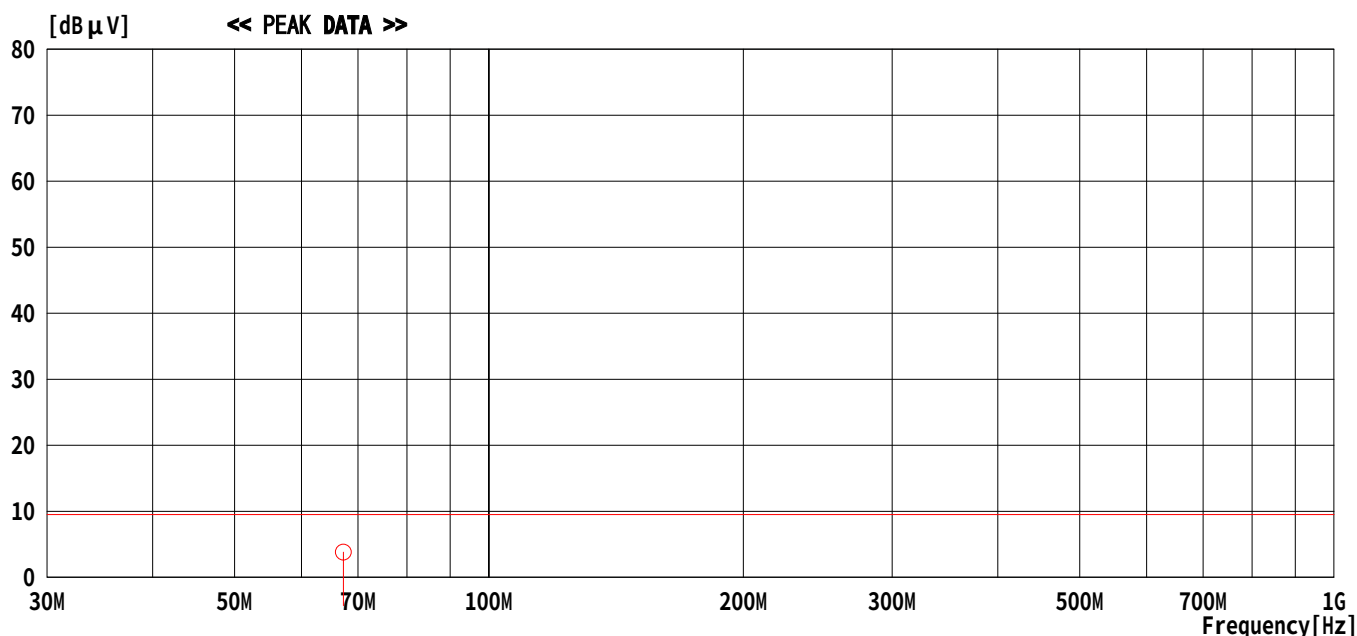
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input1 + Rec (1Vp-p : 4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	67.2500	24.2	----	-20.4	3.8	----	9.5	----	5.7	----	-
2	134.5000	19.8	----	-20.6	-0.8	----	9.5	----	10.3	----	-
3	201.7500	19.8	----	-20.4	-0.6	----	9.5	----	10.1	----	-
4	269.0000	20.0	----	-20.4	-0.4	----	9.5	----	9.9	----	-
5	336.2500	20.2	----	-20.3	-0.1	----	9.5	----	9.6	----	-
6	403.5000	20.2	----	-20.3	-0.1	----	9.5	----	9.6	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

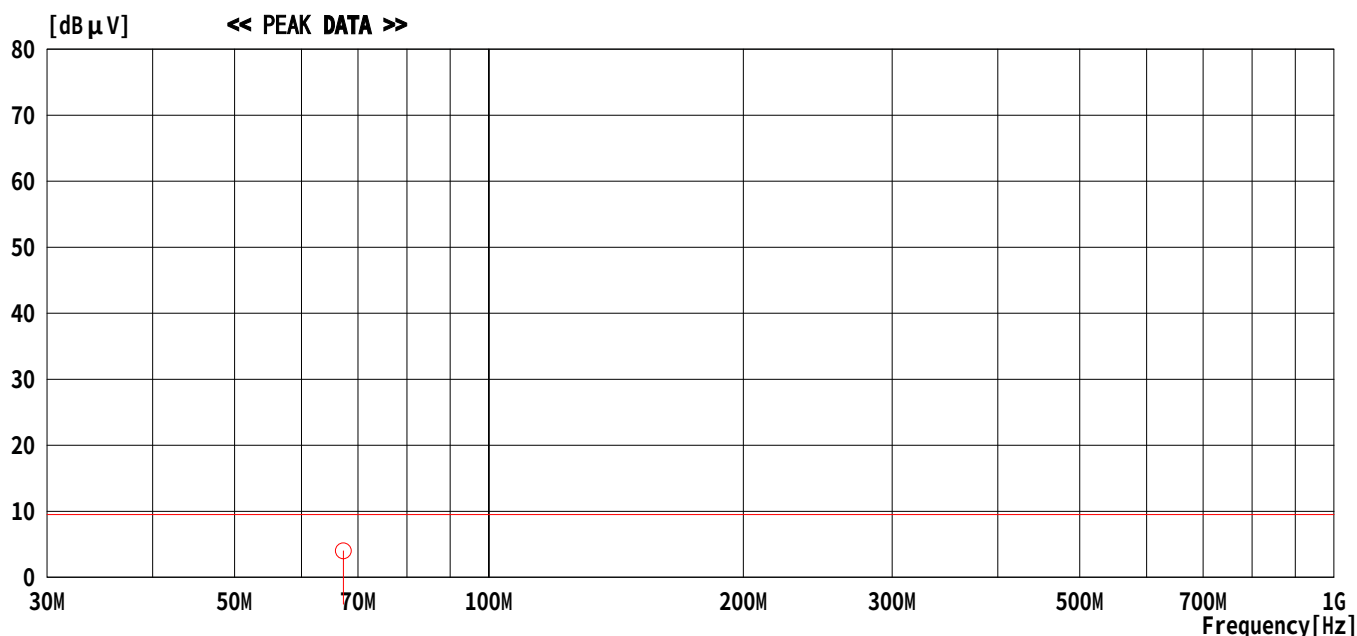
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input1 + Rec (5Vp-p : 4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	67.2500	24.4	----	-20.4	4.0	----	9.5	----	5.5	----	-
2	134.5000	19.9	----	-20.6	-0.7	----	9.5	----	10.2	----	-
3	201.7500	19.9	----	-20.4	-0.5	----	9.5	----	10.0	----	-
4	269.0000	20.1	----	-20.4	-0.3	----	9.5	----	9.8	----	-
5	336.2500	20.1	----	-20.3	-0.2	----	9.5	----	9.7	----	-
6	403.5000	20.2	----	-20.3	-0.1	----	9.5	----	9.6	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

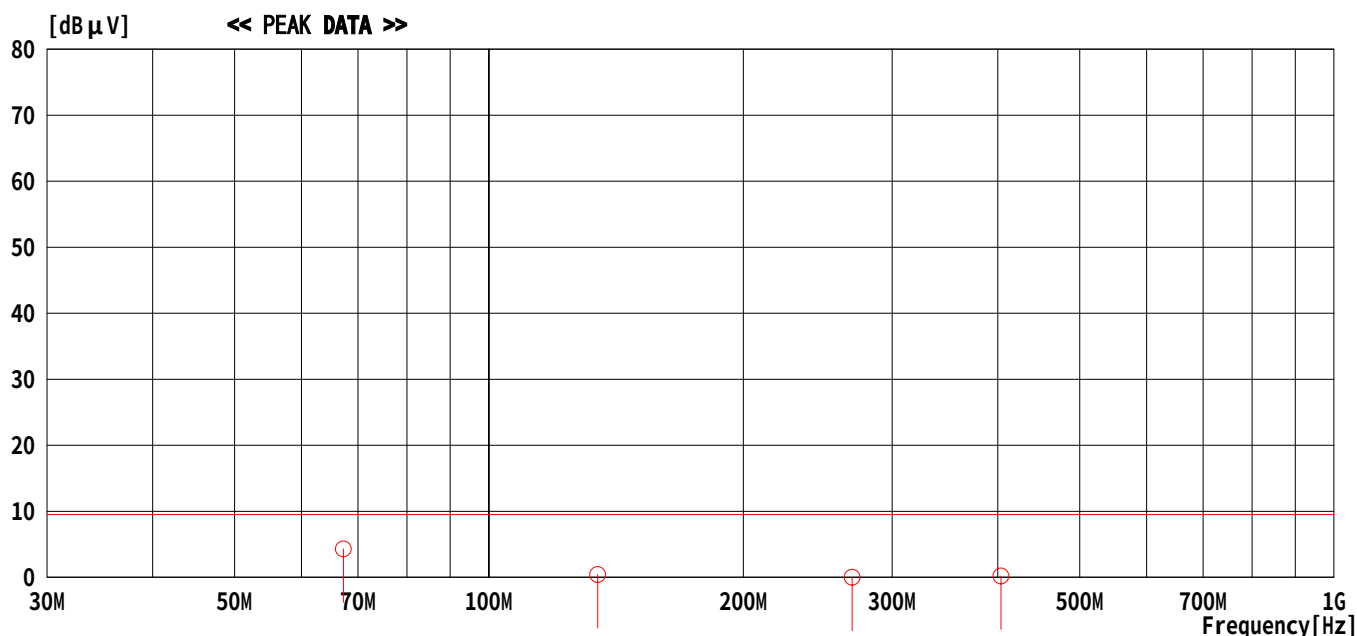
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input2 + Rec (1Vp-p : 4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	67.2500	24.7	----	-20.4	4.3	----	9.5	----	5.2	----	-
2	134.5000	21.0	----	-20.6	0.4	----	9.5	----	9.1	----	-
3	201.7500	19.7	----	-20.4	-0.7	----	9.5	----	10.2	----	-
4	269.0000	20.4	----	-20.4	0.0	----	9.5	----	9.5	----	-
5	336.2500	19.6	----	-20.3	-0.7	----	9.5	----	10.2	----	-
6	403.5000	20.5	----	-20.3	0.2	----	9.5	----	9.3	----	-

CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

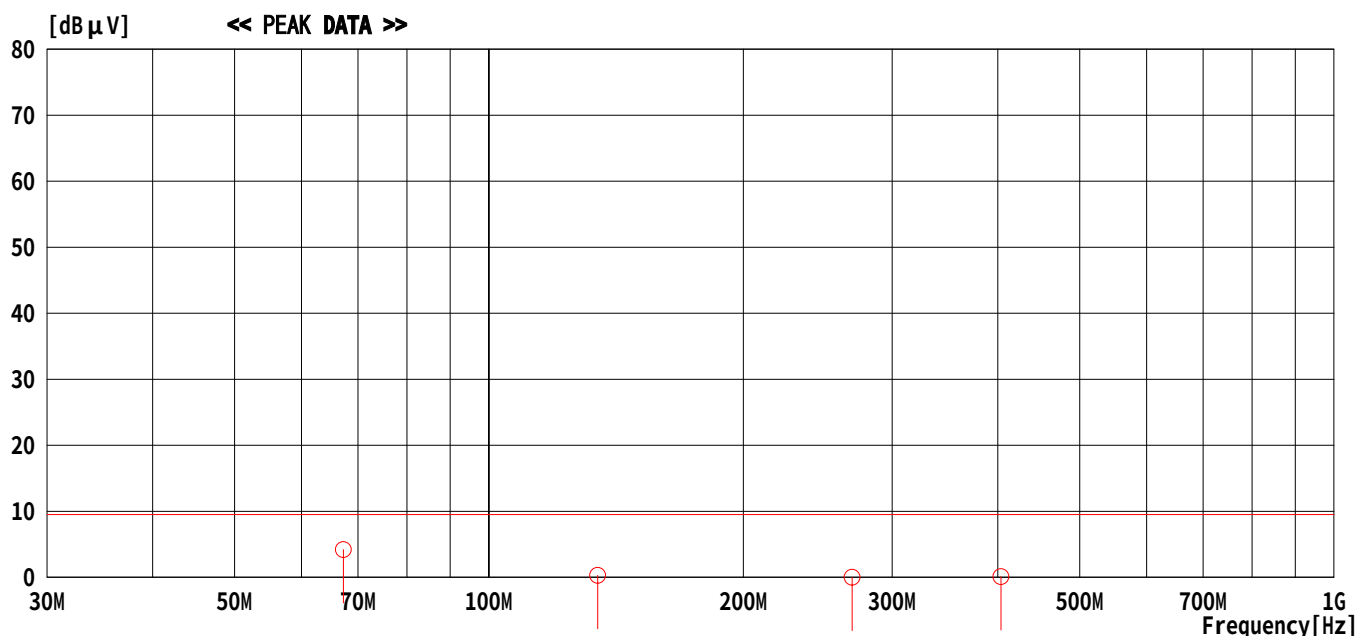
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : Av Input2 + Rec (5Vp-p : 4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	67.2500	24.6	----	-20.4	4.2	----	9.5	----	5.3	----	-
2	134.5000	20.9	----	-20.6	0.3	----	9.5	----	9.2	----	-
3	201.7500	19.7	----	-20.4	-0.7	----	9.5	----	10.2	----	-
4	269.0000	20.4	----	-20.4	0.0	----	9.5	----	9.5	----	-
5	336.2500	19.7	----	-20.3	-0.6	----	9.5	----	10.1	----	-
6	403.5000	20.4	----	-20.3	0.1	----	9.5	----	9.4	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

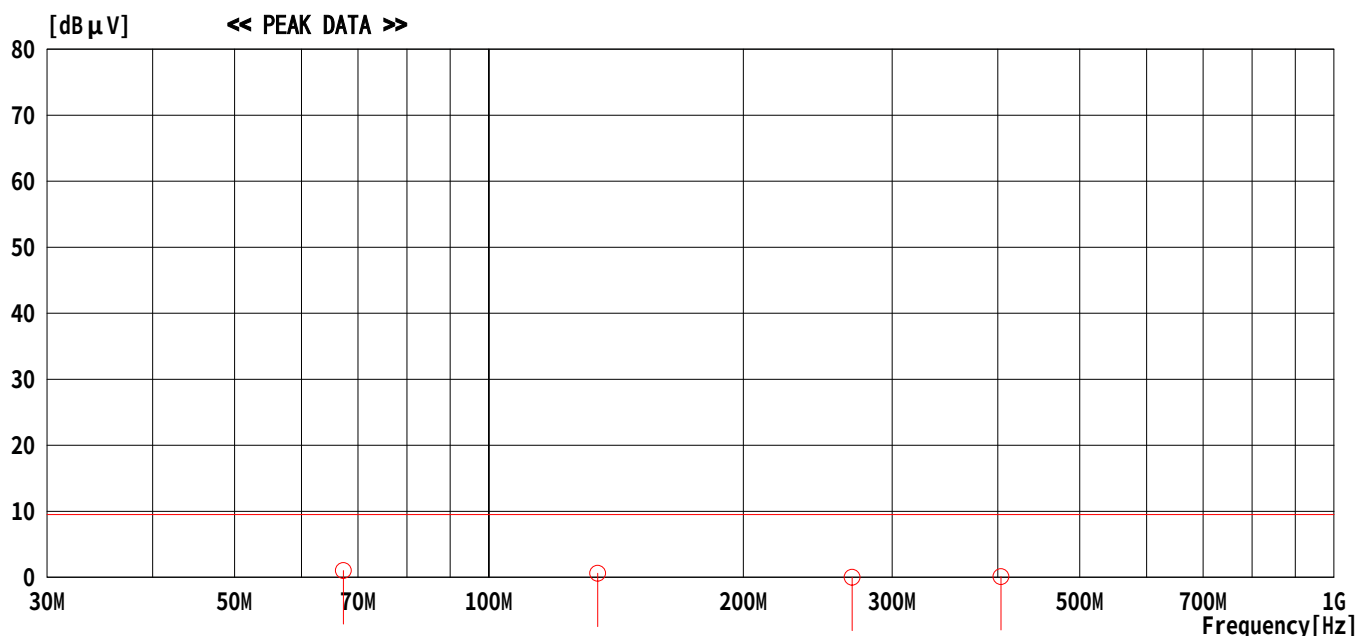
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR PLAYBACK + Rec (4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	67.2500	21.4	----	-20.4	1.0	----	9.5	----	8.5	----	-
2	134.5000	21.2	----	-20.6	0.6	----	9.5	----	8.9	----	-
3	201.7500	19.5	----	-20.4	-0.9	----	9.5	----	10.4	----	-
4	269.0000	20.4	----	-20.4	0.0	----	9.5	----	9.5	----	-
5	336.2500	19.8	----	-20.3	-0.5	----	9.5	----	10.0	----	-
6	403.5000	20.4	----	-20.3	0.1	----	9.5	----	9.4	----	-

CALCULATION:READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

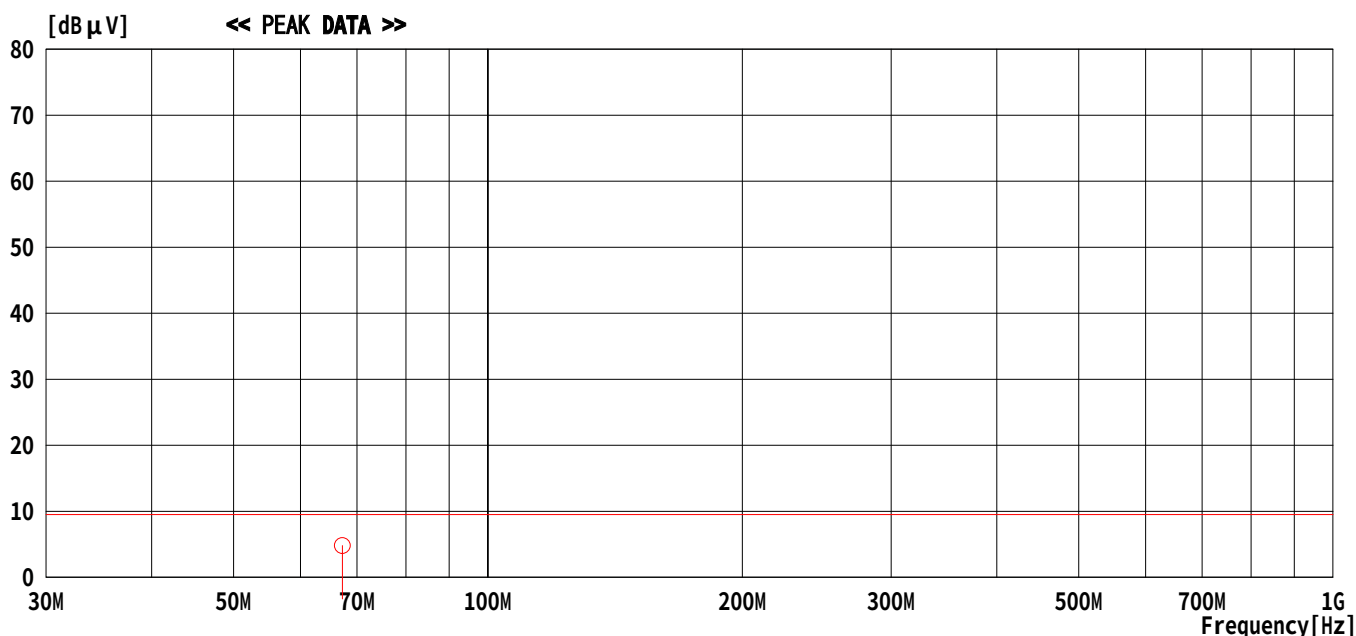
COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : DVRC802E
TEMP./HUMID. : 24°C/41%

REPORT NO : 25KE0175-YW-1
DATE : June 22 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD PALY + Rec (4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

— - ○:PEAK



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	[dB]	[dB]	
1	67.2500	25.2	----	-20.4	4.8	----	9.5	----	4.7	----	-
2	134.5000	19.8	----	-20.6	-0.8	----	9.5	----	10.3	----	-
3	201.7500	19.7	----	-20.4	-0.7	----	9.5	----	10.2	----	-
4	269.0000	20.0	----	-20.4	-0.4	----	9.5	----	9.9	----	-
5	336.2500	20.0	----	-20.3	-0.3	----	9.5	----	9.8	----	-
6	403.5000	20.2	----	-20.3	-0.1	----	9.5	----	9.6	----	-

CALCULATION: READING+MATCHING PAD LOSS+CABLE LOSS-AMP.GAIN

Picture Sensitivity Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co.,Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : TV Reception
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC Part15 SubpartB
Date : June 21, 2005
Temp / Humid : 23deg.C / 45%
Engineer : Tomoyuki Yamashita

Ch [VHF]	Frequency [MHz]	Sensitivity [MHz]		Ch [UHF]	Frequency [MHz]	Sensitivity [MHz]	
		[dBμV]	[μV]			[dB μ V]	[μ V]
2	55.25	20.0	10.0	14	471.25	21.6	12.0
3	61.25	18.7	8.6	20	507.25	22.0	12.6
4	67.25	18.4	8.3	26	543.25	22.8	13.8
5	77.25	17.9	7.9	32	579.25	22.9	14.0
6	83.25	17.6	7.6	38	615.25	23.5	15.0
7	175.25	20.8	11.0	44	651.25	23.6	15.1
8	181.25	20.6	10.7	50	687.25	23.2	14.5
9	187.25	20.7	10.8	56	723.25	22.5	13.3
10	193.25	20.7	10.8	62	759.25	23.5	15.0
11	199.25	20.8	11.0	69	801.25	23.7	15.3
12	205.25	21.2	11.5	-	-	-	
13	211.25	21.5	11.9	-	-	-	-
Average VHF			10.0	Average UHF			14.1
Average UHF/VHF : 20 log UHF[μV] / VHF[μV]=				3.0		[Limit : 8.0dB]	

Noise Figure Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co.,Ltd.
Equipment : DVD/VCR
Model Number : DVRC802E
Power : 120V/60Hz
Description : TV Reception
Remarks : -

Report Number : 25KE0175-YW-1
Regulation : FCC Part15 SubpartB
Date : June 21, 2005
Temp / Humid : 23deg.C / 45%
Engineer : Tomoyuki Yamashita

Ch	Frequency [MHz]	Meter Reading [dB]	Correction Factor [dB]	Noise Figure [dB]	Limits [dB]	Margin [dB]
TV VHF Fundamental						
2	55.25	5.0	0.2	4.8	14.0	9.2
3	61.25	4.2	0.2	4.0	14.0	10.0
4	67.25	3.8	0.2	3.6	14.0	10.4
5	77.25	3.1	0.2	2.9	14.0	11.1
6	83.25	2.8	0.2	2.6	14.0	11.4
7	175.25	4.9	0.2	4.7	14.0	9.3
8	181.25	4.8	0.2	4.6	14.0	9.4
9	187.25	4.7	0.2	4.5	14.0	9.5
10	193.25	4.8	0.2	4.6	14.0	9.4
11	199.25	4.8	0.2	4.6	14.0	9.4
12	205.25	4.8	0.2	4.6	14.0	9.4
13	211.25	4.8	0.2	4.6	14.0	9.4
TV UHF Fundamental						
14	471.25	5.9	0.3	5.6	14.0	8.4
20	507.25	6.1	0.3	5.8	14.0	8.2
26	543.25	6.2	0.3	5.9	14.0	8.1
32	579.25	6.4	0.3	6.1	14.0	7.9
38	615.25	7.2	0.3	6.9	14.0	7.1
44	651.25	7.4	0.3	7.1	14.0	6.9
50	687.25	6.5	0.3	6.2	14.0	7.8
56	723.25	6.3	0.4	5.9	14.0	8.1
62	759.25	6.5	0.4	6.1	14.0	7.9
69	801.25	7.3	0.4	6.9	14.0	7.1
Mid band						
14	121.25	3.2	0.2	3.0	14.0	11.0
16	133.25	8.2	0.2	8.0	14.0	6.0
18	145.25	6.6	0.2	6.4	14.0	7.6
20	157.25	5.9	0.2	5.7	14.0	8.3
22	169.25	5.2	0.2	5.0	14.0	9.0
Super band						
23	217.25	4.9	0.2	4.7	14.0	9.3
26	235.25	5.0	0.2	4.8	14.0	9.2
29	253.25	5.2	0.2	5.0	14.0	9.0
32	271.25	5.3	0.2	5.1	14.0	8.9
36	295.25	5.3	0.2	5.1	14.0	8.9

Test Report No : 25KE0175-YW-1

APPENDIX 3

Test Instruments

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
APVBT01	VIDEO BOOSTER	UL Apex	-	RF, ATS	-
APTVG01	TV Generator	Leader	408NPS	RF, ATS	Pre Check
APSPA04	Spectrum Analyzer	Advantest	R3265	AT, RF, ATS, PS	2005/05/06 * 12
IP-06	Matching Pad	TME	ZT-301	PS, NF, PS	2005/05/17 * 12
IP-03	Matching Pad	TME	ZT-130	AT, RF, ATS, PS	2004/09/10 * 12
APNFM01	Noise Figure Indicator	Elena	ENF-2005	NF	2004/10/04 * 12
APNFS01	Noise Source	Elena	MC1100	NF	-
AV01-01	Signal Generator	Rohde & Schwarz	SMY01	PS	2005/02/23 * 12
AF-05	Pre Amplifier	Hewlett Packard	8447D	AT, RF, ATS	2005/05/31 * 12
AF-06	Pre Amplifier	Agilent	HP8449B	AT	2005/01/18 * 12
APCBL-01	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/12/27 * 12
APCBL-02	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/12/27 * 12
OS-02	Digital Humidity Indicator	SATO	PC-5000TRH- II	AT, RF, ATS, PS, NF	2004/04/06 * 24
HA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2005/04/06 * 12
AF-07	Pre Amplifier	Agilent	HP8449B	RE	2005/03/15 * 12
AF-01	Pre Amplifier	Hewlett Packard	8447D	RE	2005/03/25 * 12
AT-06	Attenuator	Anritsu	MP721B	RE	2005/03/22 * 12
BA-06	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/01/29 * 12
LA-07	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	RE	2005/01/29 * 12
LS-04	LISN(AMN)	Rohde & Schwarz	ESH3-Z5	CE (EUT)	2004/10/29 * 12
LS-07	LISN(AMN)	Schwarzbeck	NSLK8126	CE	2004/10/29 * 12
SA-06	Spectrum Analyzer	Advantest	R3273	CE, RE	2004/11/02 * 12
TA-03	Terminator	TME	CT-01	CE	2005/05/06 * 12
TR-05	Test Receiver	Rohde & Schwarz	ESHS10	CE	2004/10/21 * 12
TR-06	Test Receiver	Rohde & Schwarz	ESVS10	RE	2004/10/29 * 12
CC-3ORC	Yokowa No.3 open coaxial(0.01-1000MHz)	UL Apex	CC-31,CC-32,CC-33, CC-34,CC-35,CC-36, CC-37,SW-31,SW-32	RE	2005/03/25 * 12
CC-3S	Yokowa No.3 shield coaxial(0.01-1000MHz)	UL Apex	CC-34,CC-35,CC-36, CC-38,SW-31,SW-32	CE	2005/03/25 * 12
YOATS-03	Open Test Site	JSE	3m, 10m	RE	2005/05/04 * 12
OS-11	Digital Humidity Indicator	SATO	PC-5000TRH	CE	2004/04/20 * 24
OS-16	Digital Humidity Indicator	SATO	PC-5000TRH	RE	2004/05/07 * 24
CC-C3	Microwave Cable	-	-	RE	2004/12/16 * 12
APTVG04	TV Generator	Leader	408	RE	Pre Check

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

Test Item :

CE: Conducted emission
 RE: Radiated emission
 AT: Antenna terminal disturbance voltage
 RF: RF output level & spurious
 ATS: Antenna transfer switch
 PS: Picture sensitivity
 NF: Noise figure