



Certification EMI TEST REPORT

Test Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Type of equipment : DVD Player with Video Cassette Recorder
Model number : SD-V393SU
FCC ID : A7RM2H2A
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
SD-V330SC	TOSHIBA	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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 : February 1 to 5, 2005

Tested by:

Tsubasa Takayama
Engineer of EMC Service

Approved by:

Hiroya Tabata
Leader of EMC Service

UL Apex Co., Ltd.
Yokowa EMC Lab.

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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 : Hiroshi Tsujimoto

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

2.1 Identification of E.U.T.

Type of equipment : DVD Player with Video Cassette Recorder
Brand Name : TOSHIBA
Model number : SD-V393SU
FCC ID : A7RM2H2A
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 : January 28, 2005
Condition of EUT : Production Prototype
(Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product description

Model: SD-V393SU (referred to as the EUT in this report) is a DVD Player 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, 18W
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 (6.3424 MHz, L1, AV Input 1 + Rec. 1Vp-p)	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	4.0 dB (945.00 MHz, Vertical, DVD Play)	Complied
Antenna terminal voltage	ANSI C63.4:2003	2 nW (at 75 ohm)	26.9 dB (3548.53100 MHz, CATV tuning)	Complied
RF output level	ANSI C63.4:2003	Video signal: 3000 uV Aural signal: 671 uV	4.2 dB (61.25 MHz, 3ch, TV Reception + Rec. 25dBmV)	Complied
Spurious emission		94.8 uV	14.8 dB (60.2100 MHz, DVD Play, 3ch)	Complied
Transfer switch	ANSI C63.4:2003	9.5 dB	8.0 dB (201.7500 MHz, AV Input 2 + Rec. 5Vp-p, 4ch ; 201.7500 MHz/ 269.0000 MHz, DVD Play 4ch)	Complied
Picture sensitivity	ANSI C63.4:2003	8 dB	5.9 dB	Complied
Noise figure	FCC/OET MP:2:1986	14 dB	6.1 dB (615.25 MHz, 38ch)	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.	5.0 x 8.0 x 3.5
No.3 shielded room	3.6 x 7.2 x 2.4	(Full-anechoic chamber)	
No.4 shielded room	5.5 x 5.0 x 2.4	No.2 EMS lab.	4.0 x 7.0 x 3.5
No.5 shielded room	5.5 x 4.3 x 2.5	(Full-anechoic chamber)	
No.6 shielded room	5.2 x 3.2 x 2.9		

No.2 open site

This site has been fully described in a report submitted to FCC office, and listed on August 29, 2003.

(Registration number: 90411)

No.3 open site

This site has been fully described in a report submitted to FCC office, and listed on September 25, 2003.

(Registration number: 90412)

*NVLAP Lab. Code : 200109-0

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

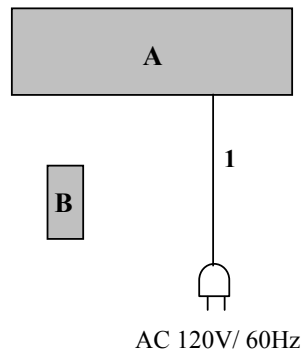
The EUT exercise program used during testing was designed exercise the various system components in a manner similar to typical use.

The sequence in used : * TV Reception + Rec. mode (0 dBmV input / 25 dBmV input)
* AV Input 1+ Rec. / AV Input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)
* VCR Play mode
* DVD Play 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 Player with Video Cassette Recorder	SD-V393SU	—	Orion Electric Co., Ltd.	A7RM2H2A	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 in No.2 shielded room.

Date : February 3, 2005
Temperature : See data
Humidity : See data

5.2 Test configuration

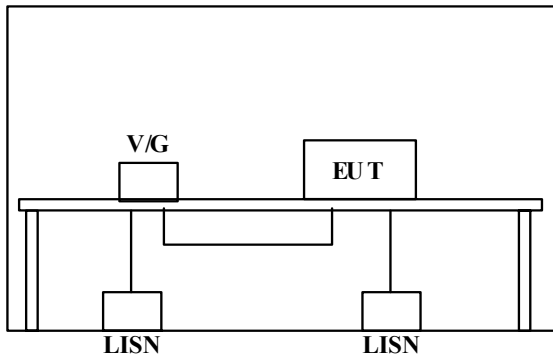
EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting plane. The rear of EUT was aligned and flushed with rear of tabletop. All other surfaces of tabletop was at least 80 cm from any 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)

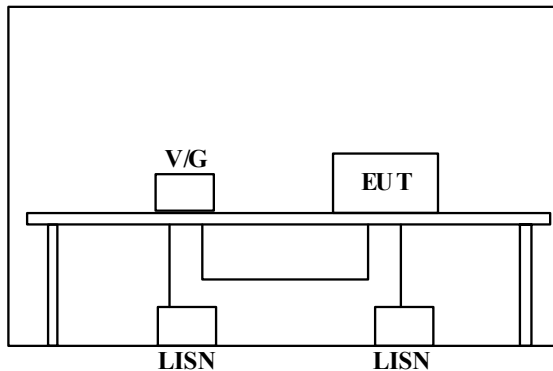
Shielded room



RF in: video generator connected with RF input cable
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated
Front video in: 75 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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated
Rear audio in: 47k ohm terminated

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

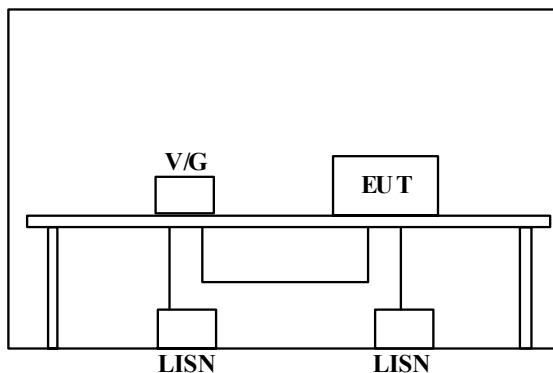
Shielded room



RF in: video generator connected
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated
Front video in: video generator connected with video cable
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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated
Rear audio in: 47k ohm terminated

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

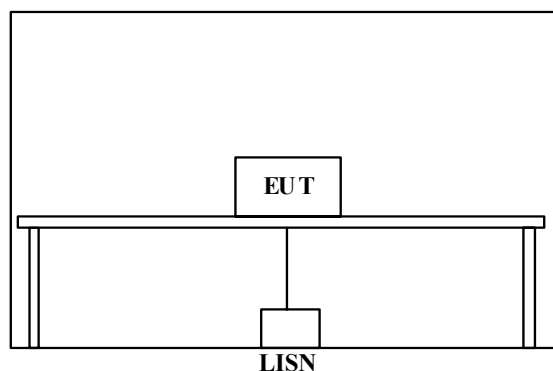
Shielded room



RF in: video generator connected
RF out: 75ohm terminated with RF output cable
Rear video in: video generator connected with video cable
Front video in: 75 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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated
Rear audio in: 47k ohm terminated

VCR Play mode

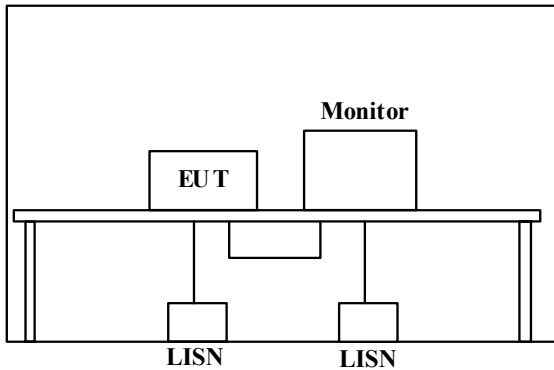
Shielded room



RF in: video generator connected with RF input cable
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated with video cable
Front video in: 75 ohm terminated with video cable
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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated with audio cable
Rear audio in: 47k ohm terminated audio cable

DVD Play mode

Shielded room



RF in: video generator connected with RF input cable
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated with video cable
Front video in: 75 ohm terminated with video cable
Rear video out: monitor connected with video cable
Rear audio out: monitor connected with audio cable
S-Video out: 75 ohm terminated with S-Video cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated with audio cable
Rear audio in: 47k ohm terminated audio 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, DVD Play

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.2 and No.3 open site.

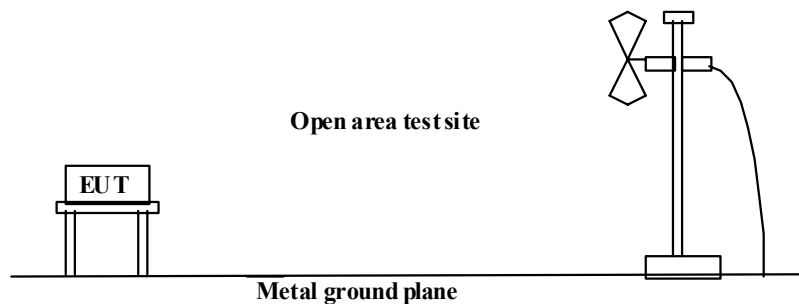
Date : February 4, 2005
Temperature : See data
Humidity : See data

6.2 Test configuration

EUT was placed on a platform of nominal size, 1 m by 1.5 m or 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.

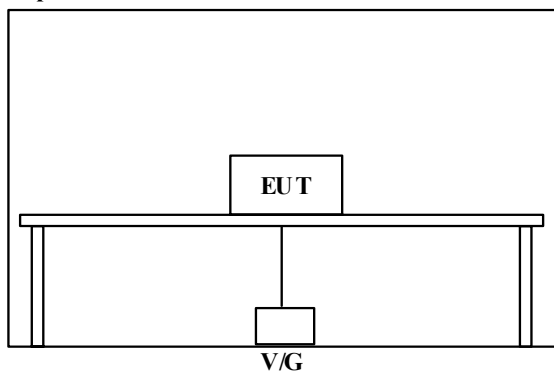
A drawing of the set up is shown in figure 2 and photographs in Appendix 1.

Figure 2. Radiated emission



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

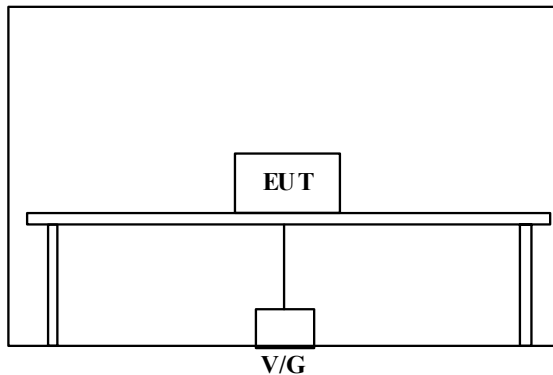
Open test site



RF in: video generator connected with RF input cable
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated
Front video in: 75 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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated
Rear audio in: 47k ohm terminated

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

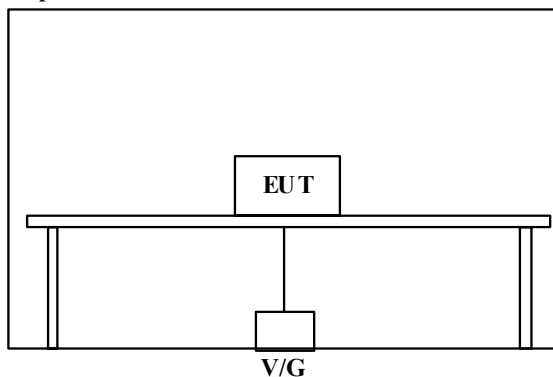
Open test site



RF in: video generator connected
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated
Front video in: video generator connected with video cable
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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated
Rear audio in: 47k ohm terminated

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

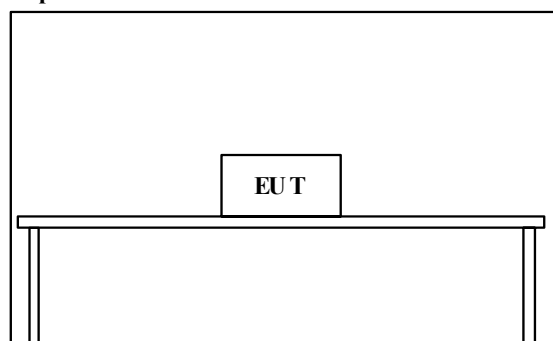
Open test site



RF in: video generator connected
RF out: 75ohm terminated with RF output cable
Rear video in: video generator connected with video cable
Front video in: 75 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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated
Rear audio in: 47k ohm terminated

VCR Play mode

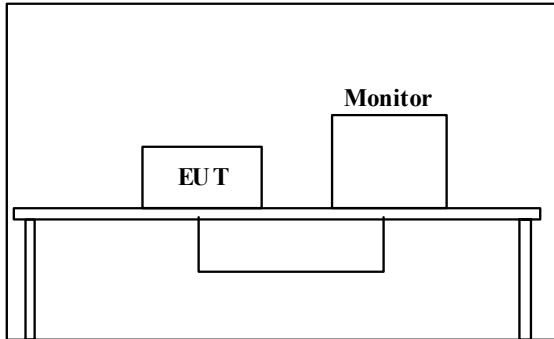
Open test site



RF in: video generator connected with RF input cable
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated with video cable
Front video in: 75 ohm terminated with video cable
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 cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated with audio cable
Rear audio in: 47k ohm terminated audio cable

DVD Play mode

Open test site



RF in: video generator connected with RF input cable
RF out: 75ohm terminated with RF output cable
Rear video in: 75 ohm terminated with video cable
Front video in: 75 ohm terminated with video cable
Rear video out: monitor connected with video cable
Rear audio out: monitor connected with audio cable
S-Video out: 75 ohm terminated with S-Video cable
Component: 75 ohm terminated with component cable
Coaxial out: 75 ohm terminated with coaxial cable
Front audio in: 47k ohm terminated with audio cable
Rear audio in: 47k ohm terminated audio 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, DVD Play

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. Measurements were performed with quasi-peak detector, peak detector and average detector. 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>30-1000MHz (Test receiver)</u>	<u>1000-5000MHz (Spectrum analyzer)</u>
Detector Type	: QP	: PK : AV
IF Bandwidth	: 120kHz	: RBW 1MHz / VBW 1MHz : RBW 1MHz/ VBW 10Hz

6.5 Test result

Passed

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

Test engineer: Tsubasa Takayama

Section 7 : Antenna terminal voltage

7.1 Operation environment

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

Date : February 1, 2005

Temperature : See data

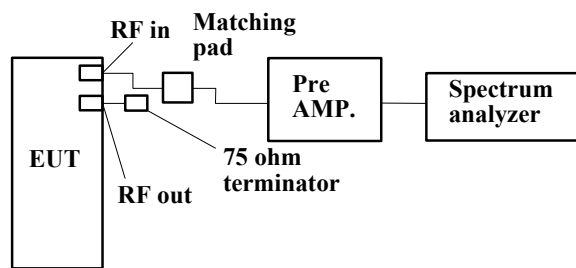
Humidity : See data

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 receiver / CATV receiver)

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 2000MHz 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 : February 2 and 4, 2005

Temperature : See data

Humidity : See data

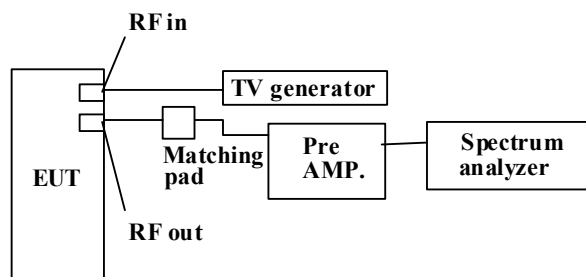
8.2 Test configuration

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

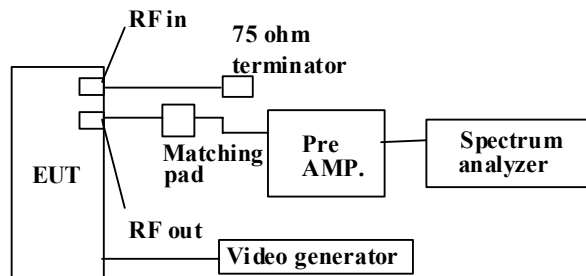
A drawing of the set up is shown in figure 4 and photographs in Appendix 1.

Figure 4. RF output level

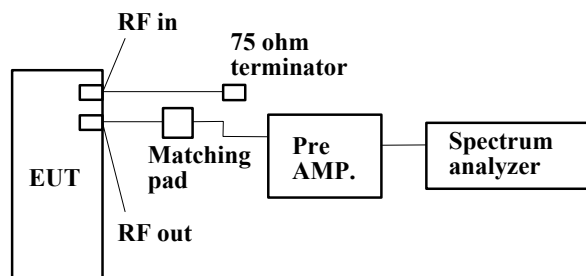
TV Reception + Rec. mode



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



VCR Play mode and DVD Play 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, DVD Play

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

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Section 9 : Antenna transfer switch

9.1 Operation environment

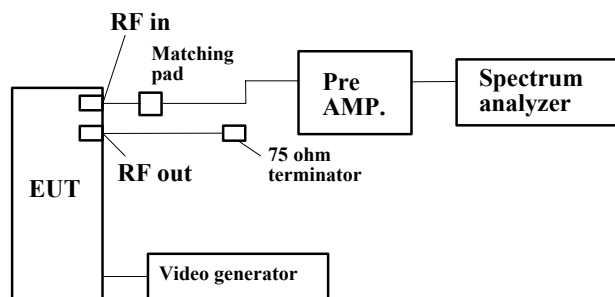
The test was carried out in No.7 shielded room.

Date : February 2, 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, DVD Play

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

Section 10 : Picture sensitivity

10.1 Operation environment

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

Date : February 5, 2005

Temperature : See data

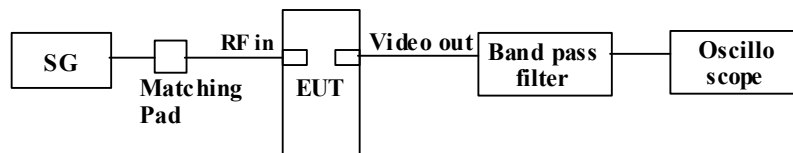
Humidity : See data

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: Tsubasa Takayama

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

Section 11 : Noise figure

11.1 Operating environment

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

Date : February 5, 2005

Temperature : See data

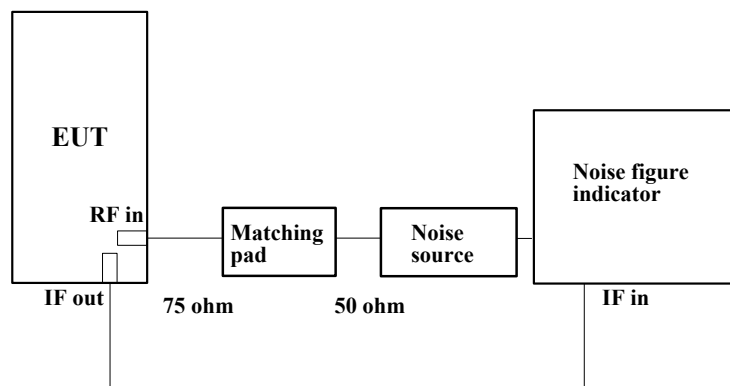
Humidity : See data

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: Tsubasa Takayama

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

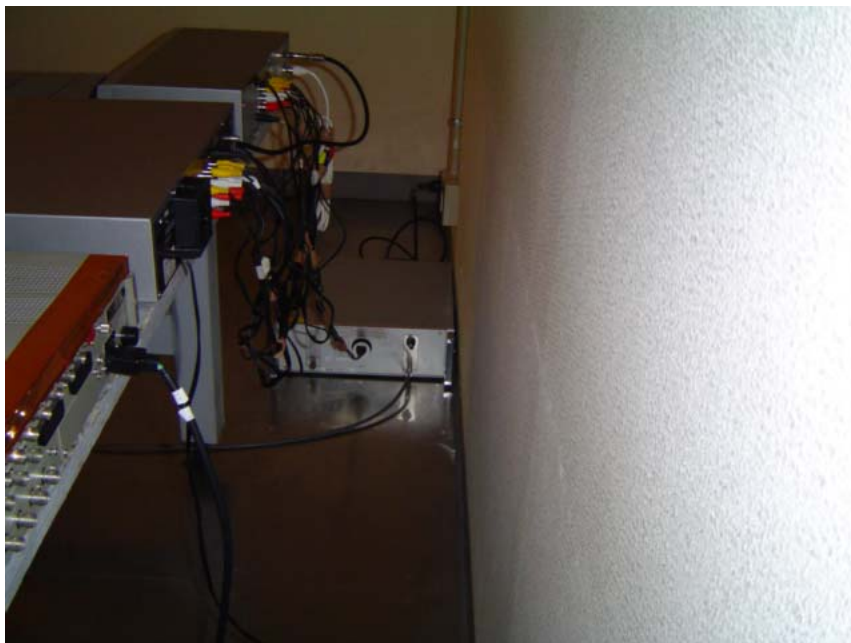
Appendix 2 : Data of EMI tests

Page 27 - 50 :	Conducted emission
Page 51 - 93 :	Radiated emission
Page 94 - 95 :	Antenna terminal voltage
Page 96 - 119 :	RF output level / spurious emission
Page 120 - 131 :	Antenna transfer switch
Page 132 :	Picture sensitivity
Page 133 :	Noise figure

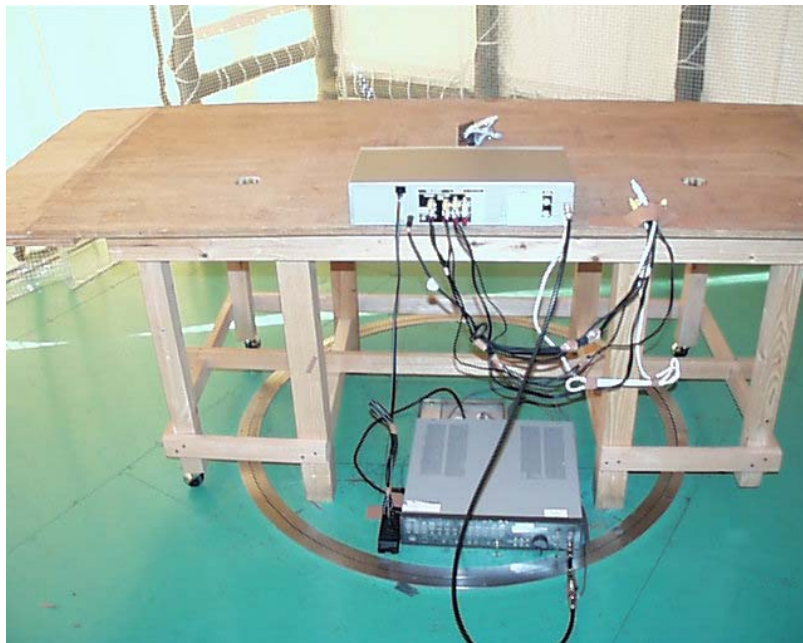
Appendix 3 : Test instruments

Page 134 :	Test instruments
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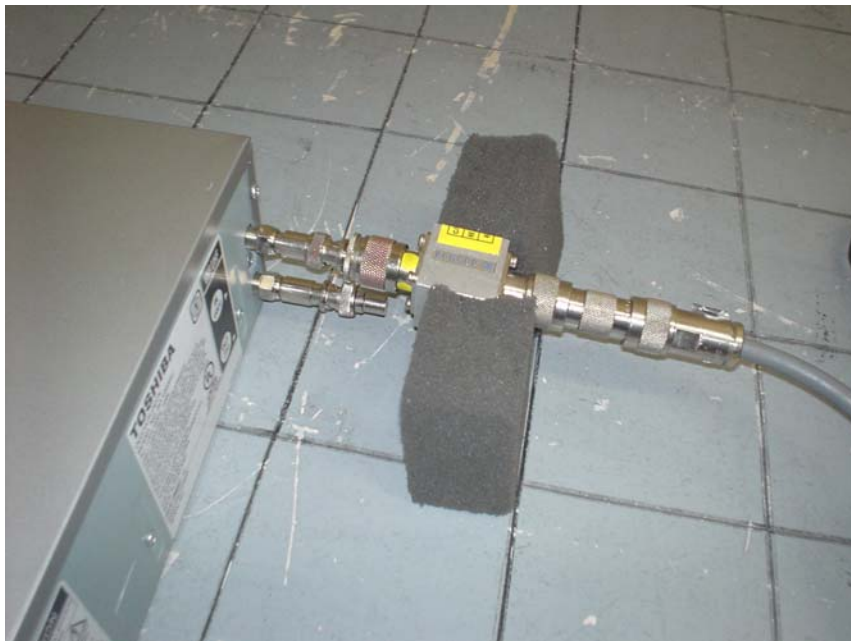
Conducted emission



Radiated emission



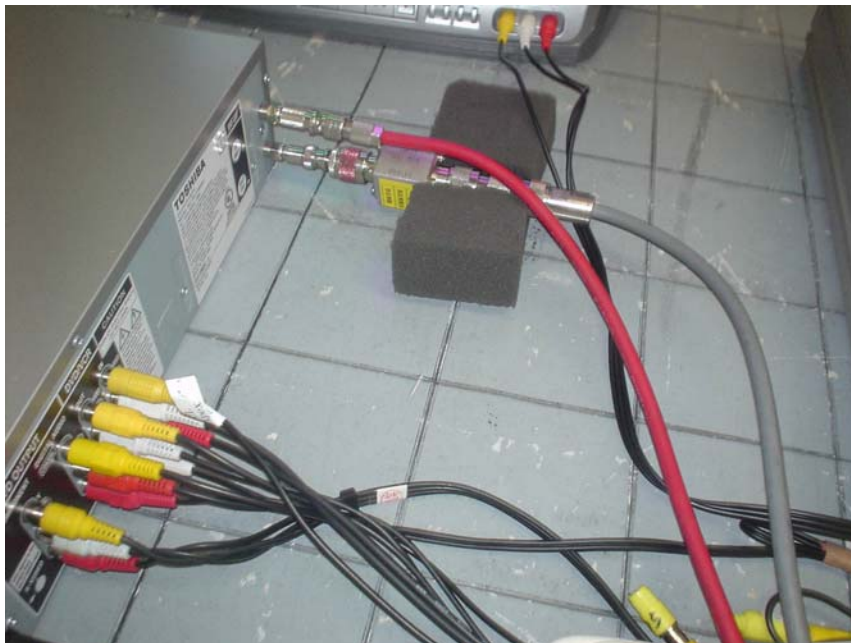
Antenna terminal voltage



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RF output level / spurious emission



Antenna transfer switch



Picture sensitivity



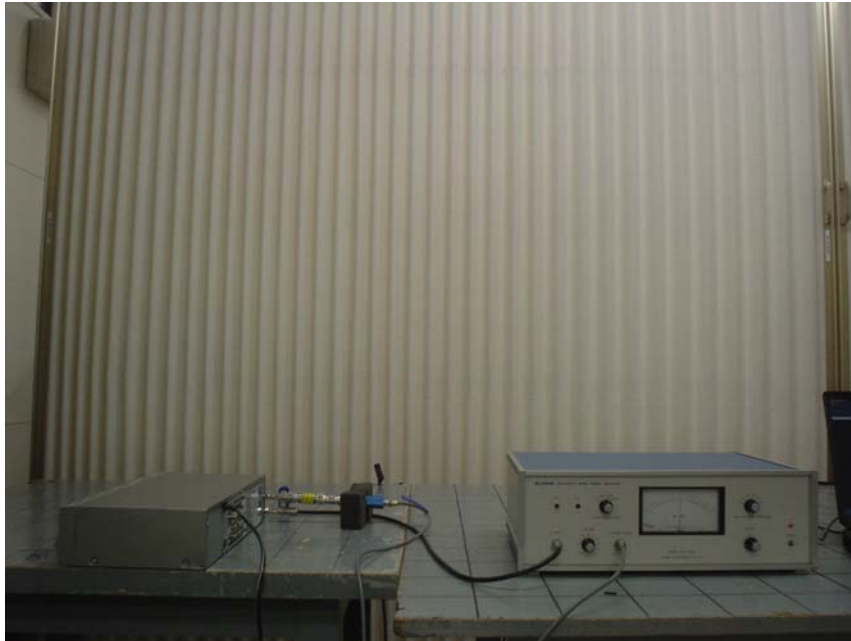
UL Apex Co., Ltd.
Yokowa EMC Lab.

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

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Noise figure



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 0dBmV
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1509	45.5	-	45.3	-	0.0	0.2	0.0	45.7	-	66.0	56.0	20.3	-
2.	0.1986	39.9	-	39.7	-	0.0	0.2	0.0	40.1	-	63.7	53.7	23.6	-
3.	0.6720	28.9	-	31.3	-	0.1	0.2	0.0	31.6	-	56.0	46.0	24.4	-
4.	1.0026	29.9	-	28.7	-	0.1	0.3	0.0	30.3	-	56.0	46.0	25.7	-
5.	7.3578	30.3	-	30.7	-	0.8	0.4	0.0	31.9	-	60.0	50.0	28.1	-
6.	25.3360	28.5	-	28.1	-	1.7	0.8	0.0	31.0	-	60.0	50.0	29.0	-

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

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

DATA OF CONDUCTION TEST

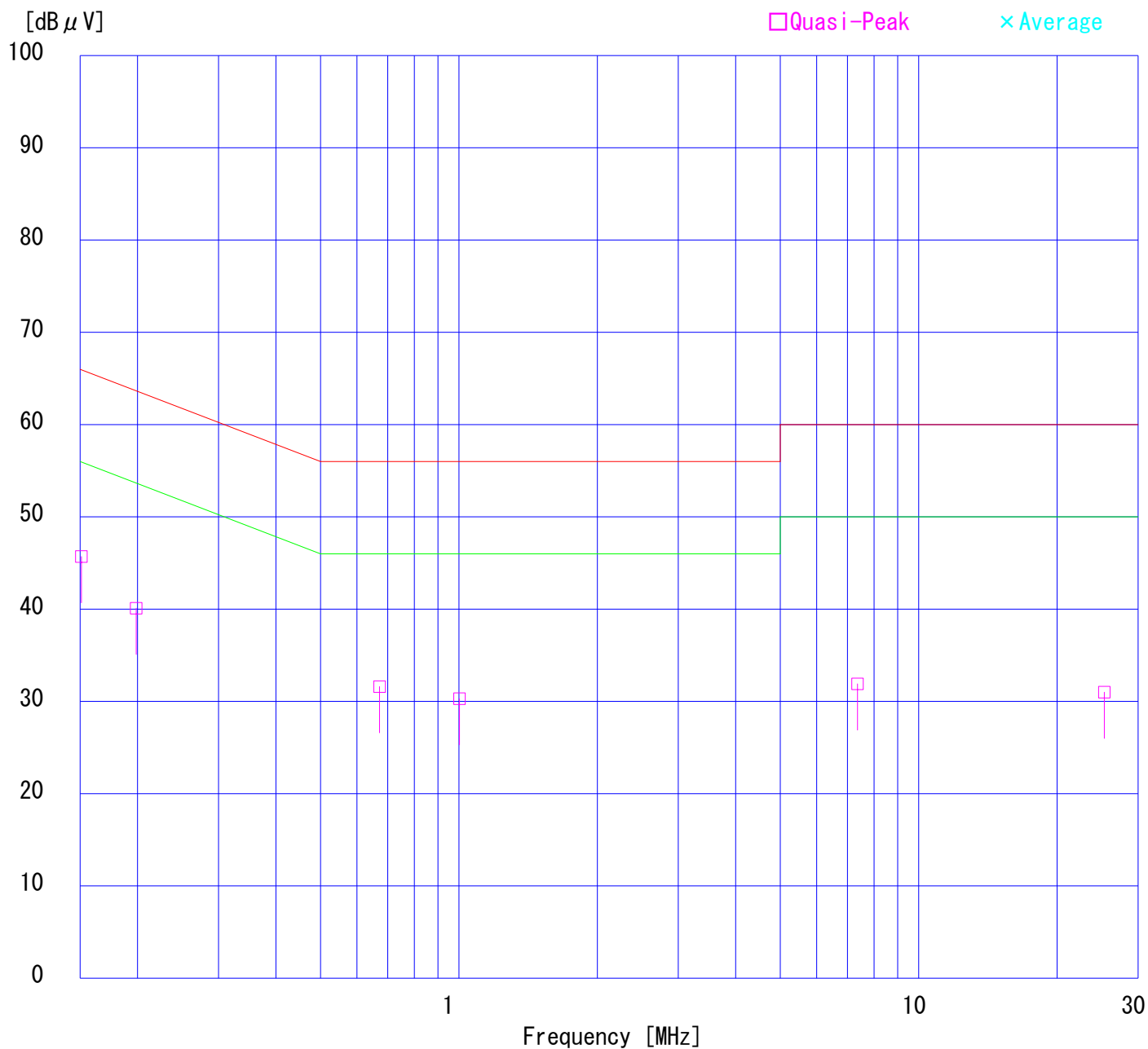
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 0dBmV
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

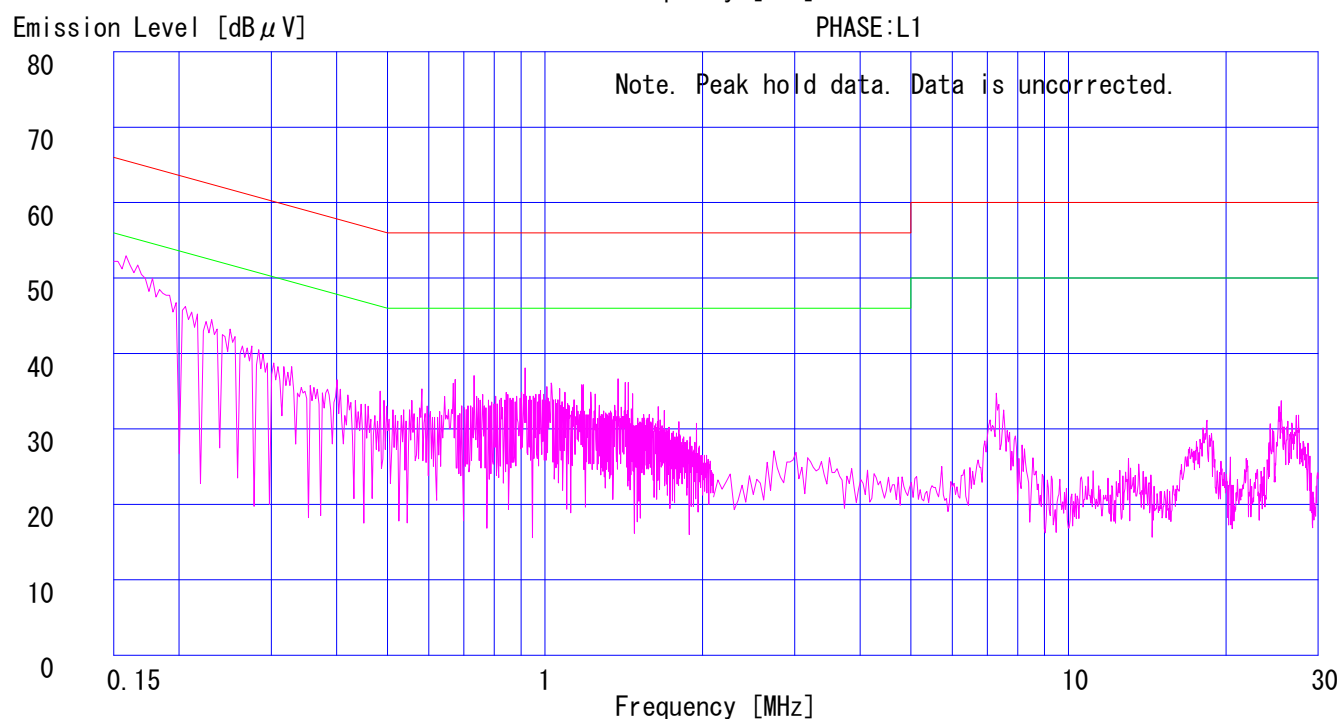
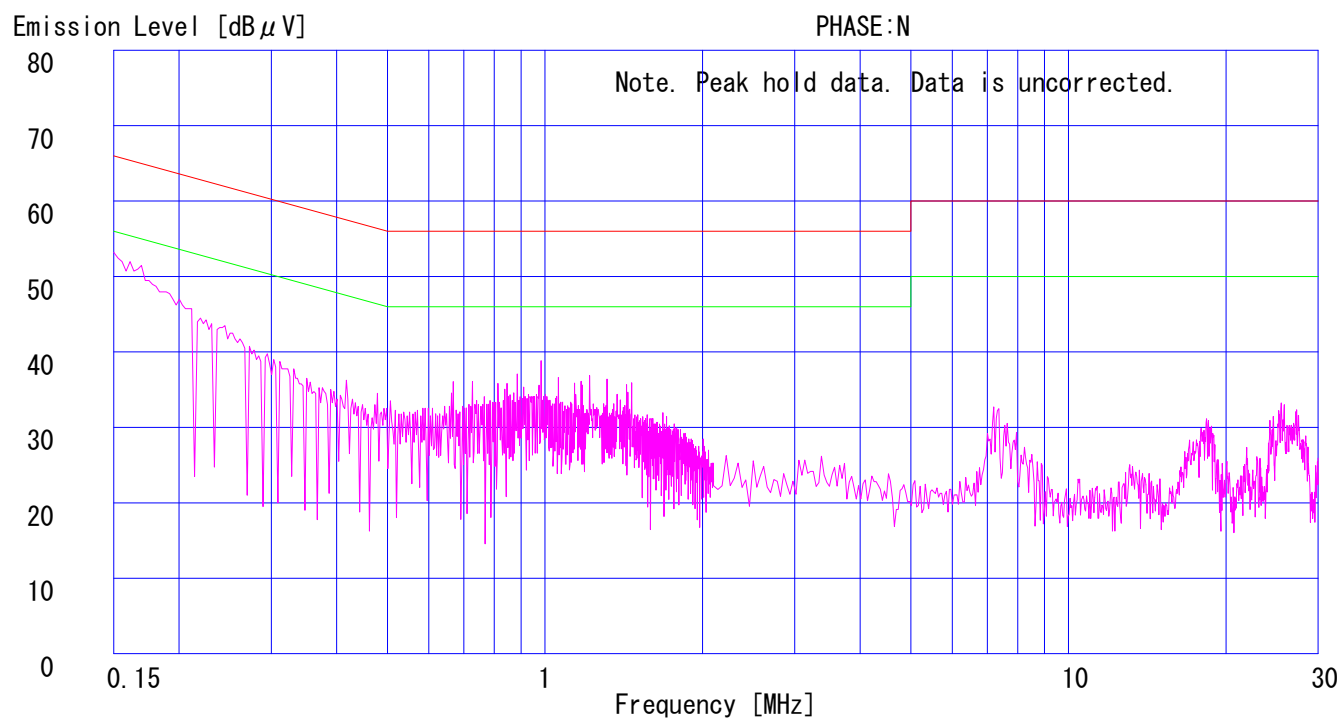
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 0dBmV
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1503	45.5	-	45.3	-	0.0	0.2	0.0	45.7	-	66.0	56.0	20.3	-
2.	0.3067	30.9	-	30.7	-	0.1	0.2	0.0	31.2	-	60.1	50.1	28.9	-
3.	0.9310	29.0	-	30.0	-	0.1	0.2	0.0	30.3	-	56.0	46.0	25.7	-
4.	1.1581	28.7	-	29.6	-	0.1	0.3	0.0	30.0	-	56.0	46.0	26.0	-
5.	7.3859	30.6	-	30.7	-	0.8	0.4	0.0	31.9	-	60.0	50.0	28.1	-
6.	25.7029	25.5	-	25.3	-	1.7	0.8	0.0	28.0	-	60.0	50.0	32.0	-

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

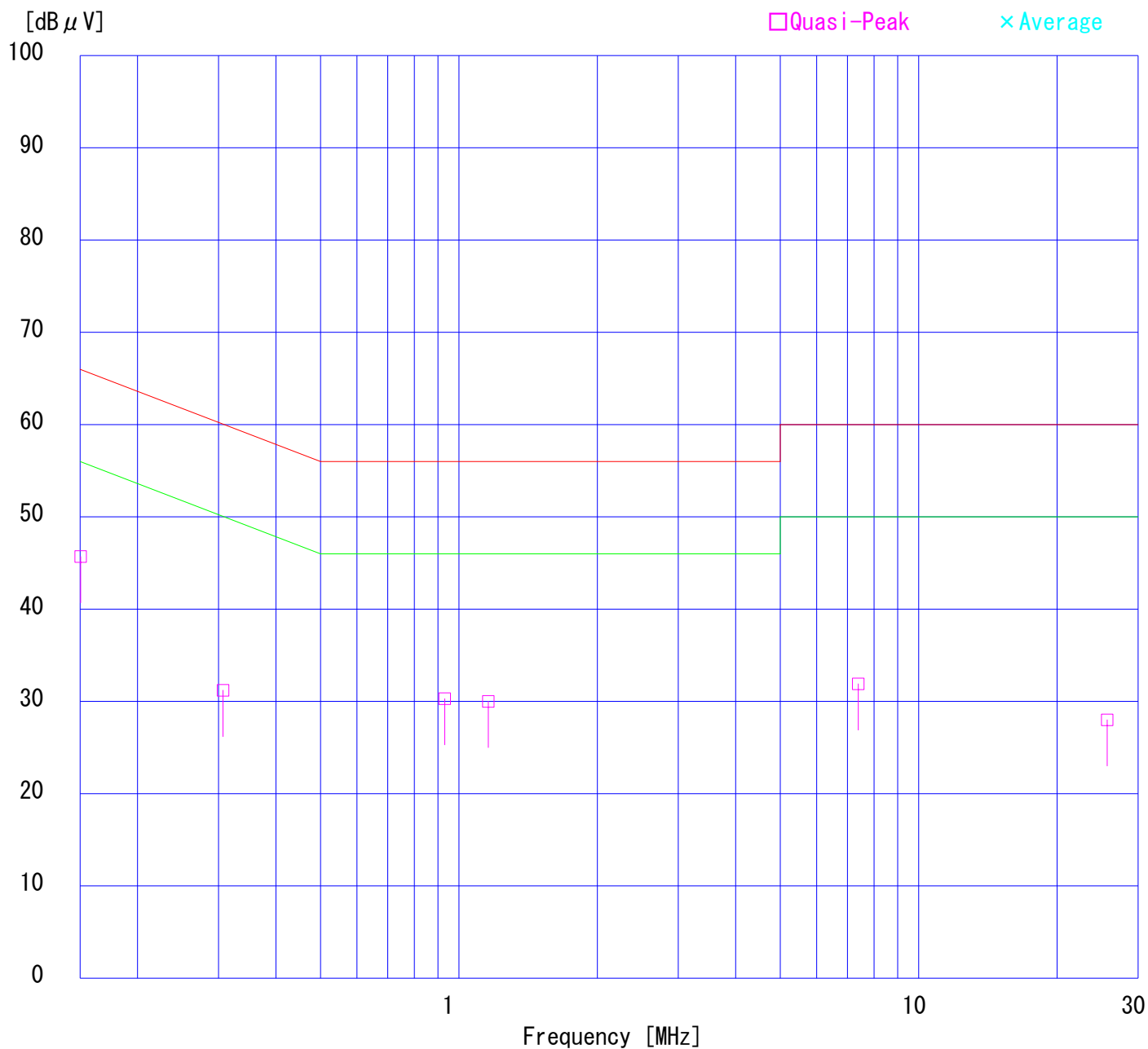
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.2 SHIELD TEST ROOM
Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

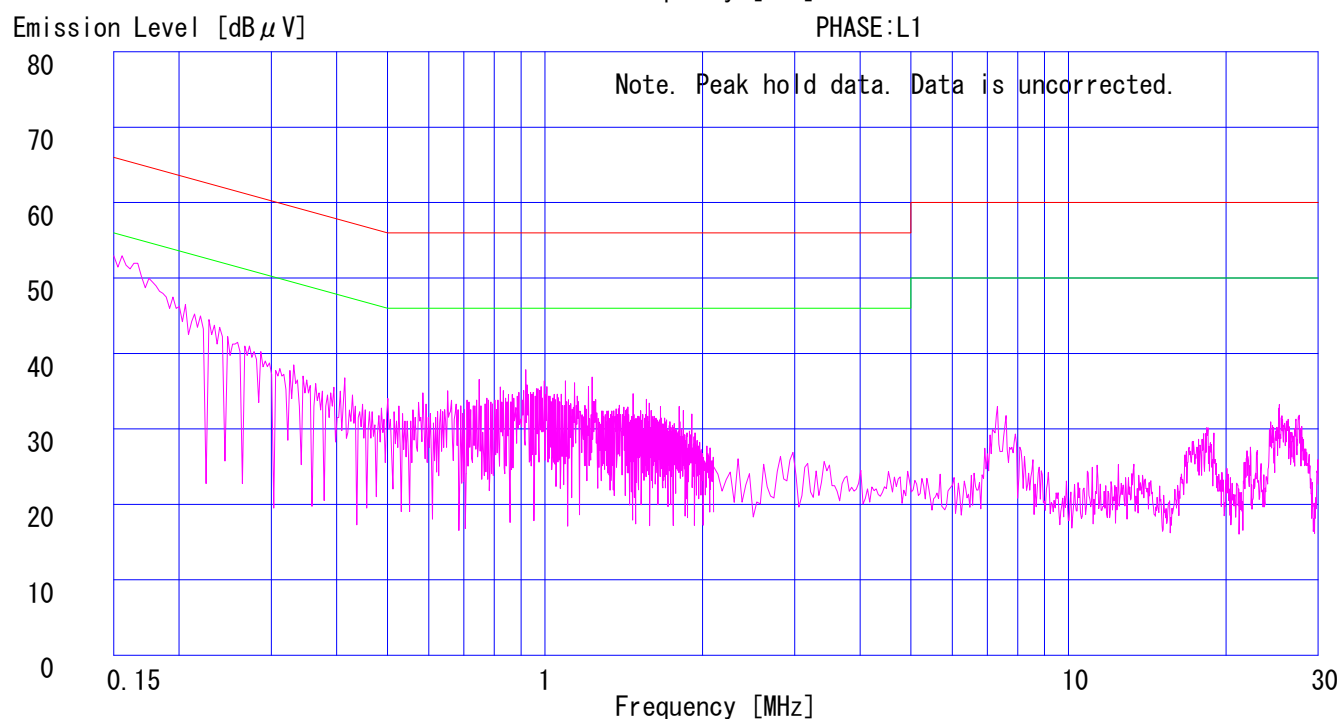
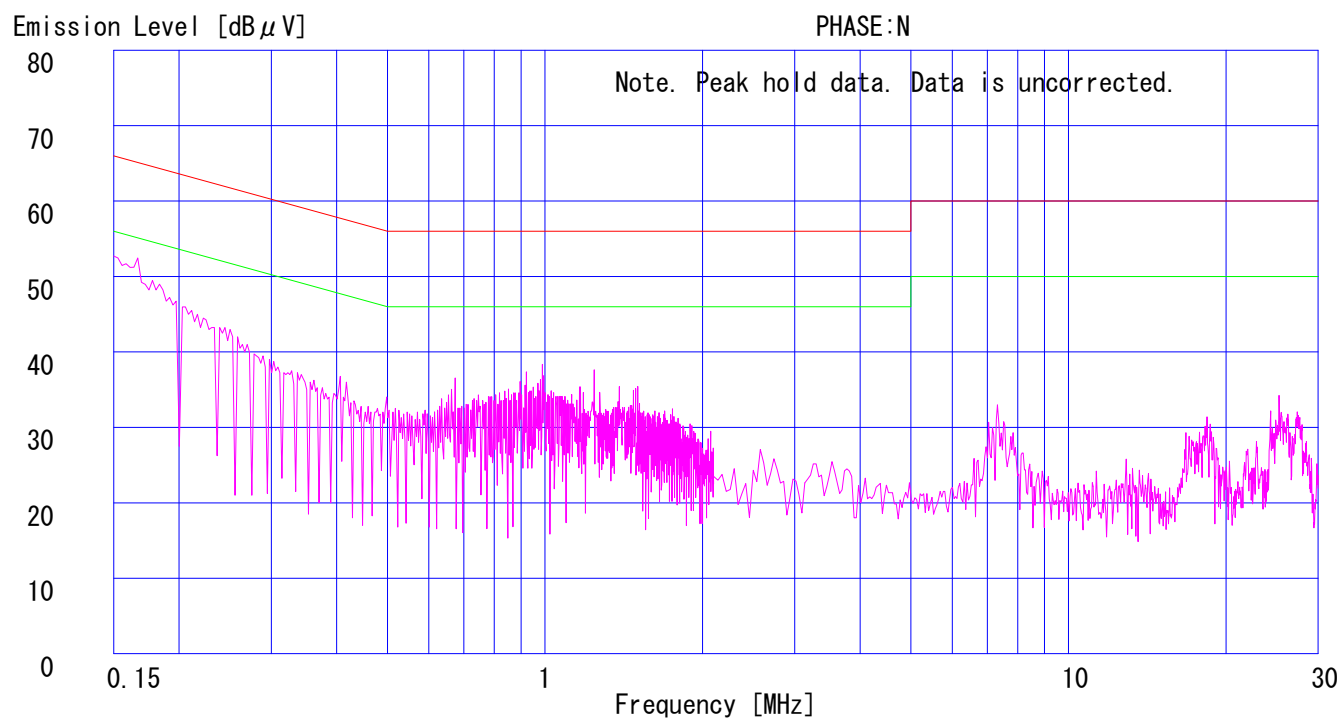
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 1Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1506	45.5	-	45.5	-	0.0	0.2	0.0	45.7	-	66.0	56.0	20.3	-
2.	0.1689	43.7	-	43.6	-	0.0	0.2	0.0	43.9	-	65.0	55.0	21.1	-
3.	0.9148	29.2	-	31.1	-	0.1	0.2	0.0	31.4	-	56.0	46.0	24.6	-
4.	1.2793	30.8	-	28.4	-	0.1	0.3	0.0	31.2	-	56.0	46.0	24.8	-
5.	4.9988	30.8	-	31.7	-	0.5	0.4	0.0	32.6	-	56.0	46.0	23.4	-
6.	6.3424	40.0	-	41.7	-	0.7	0.4	0.0	42.8	-	60.0	50.0	17.2	-
7.	15.6584	33.0	-	33.1	-	1.3	0.6	0.0	35.0	-	60.0	50.0	25.0	-

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

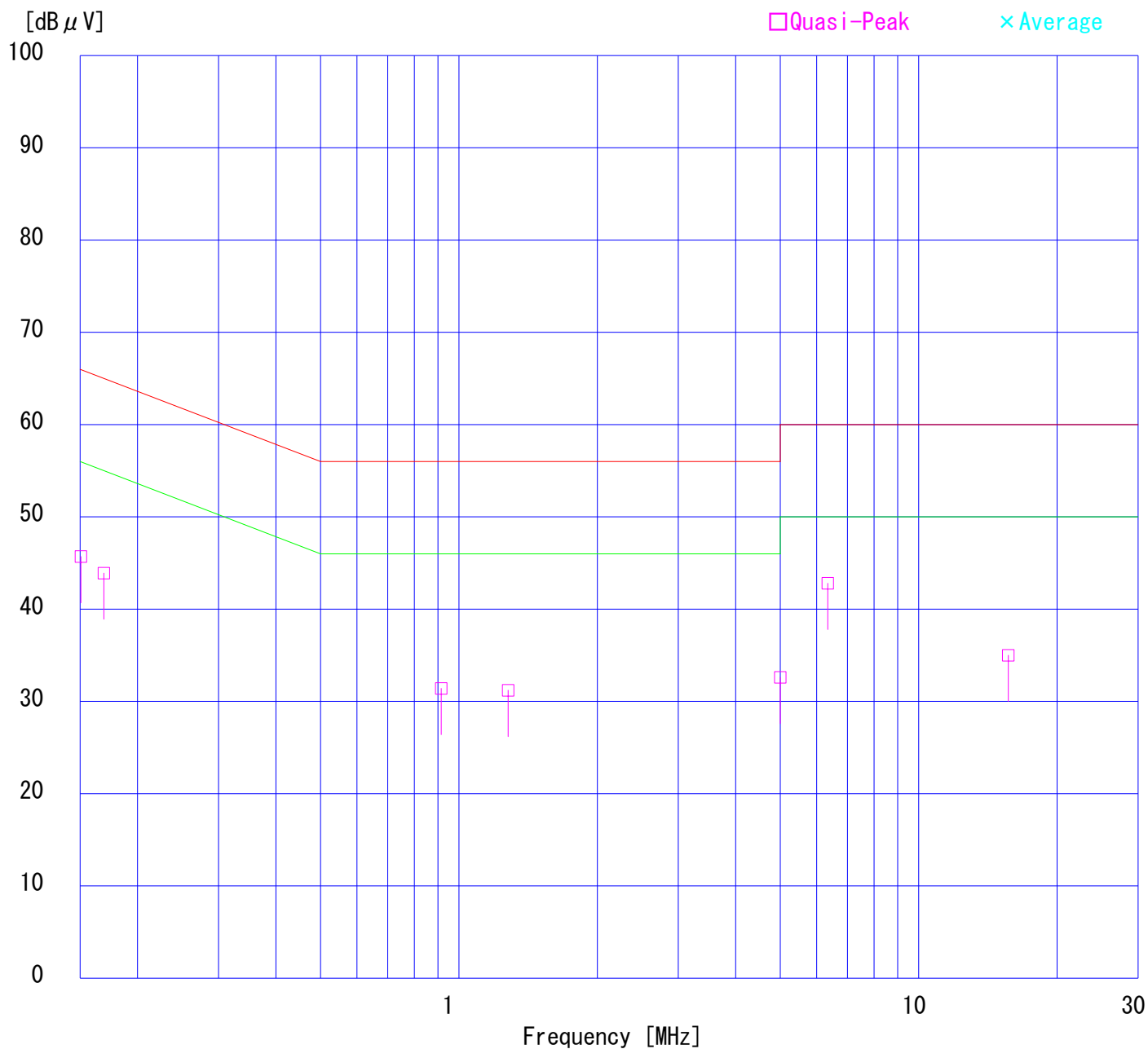
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.2 SHIELD TEST ROOM
Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 1Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

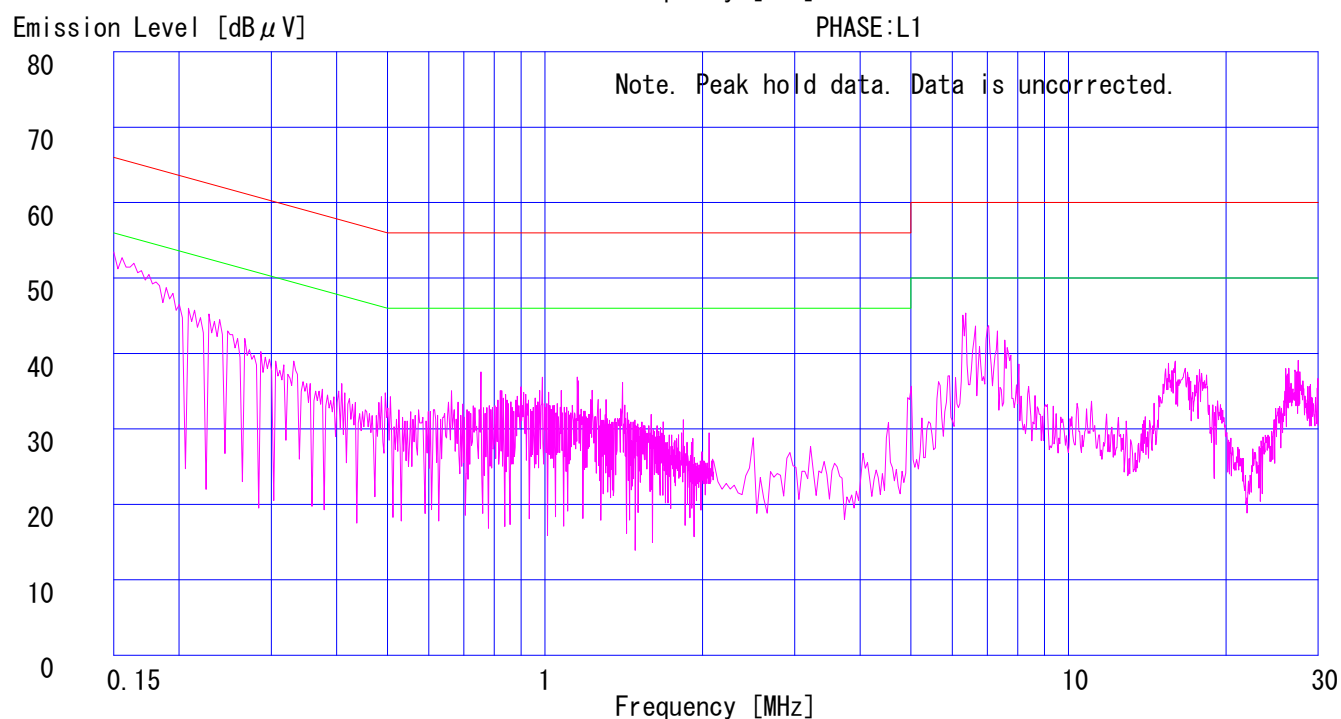
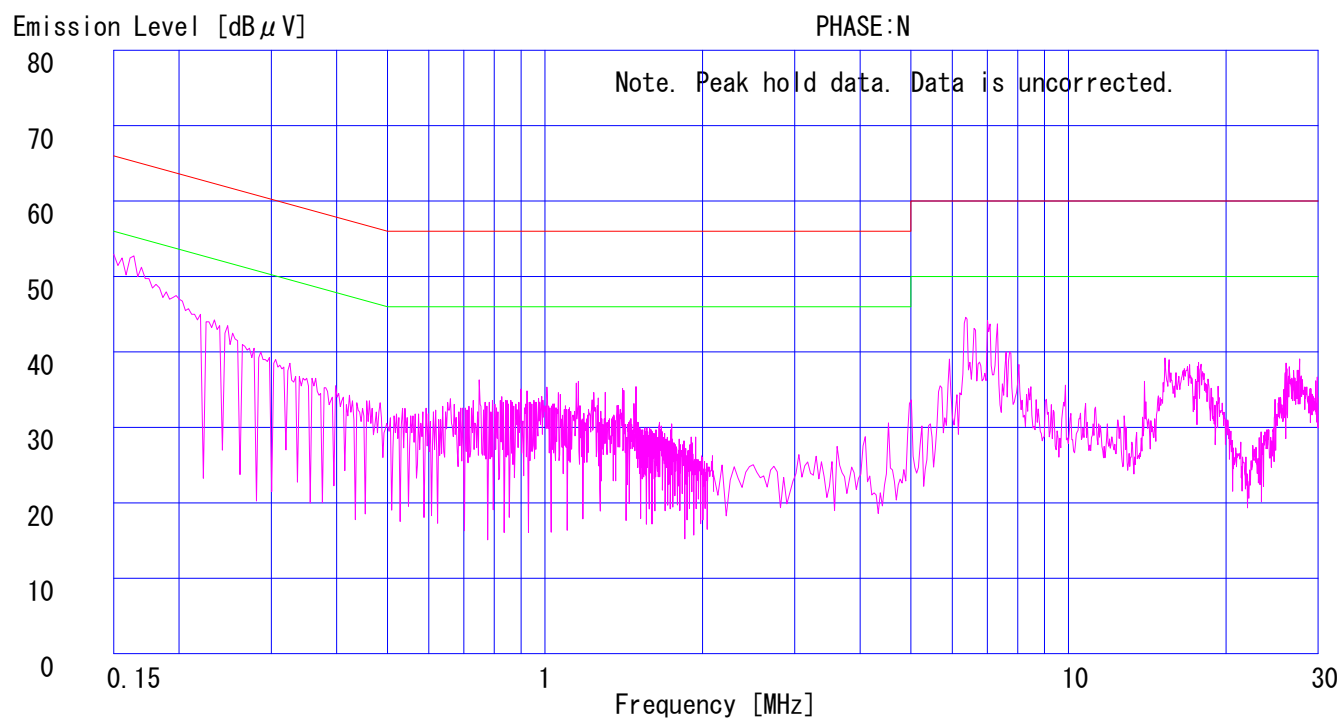
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 1Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1510	45.5	-	45.4	-	0.0	0.2	0.0	45.7	-	65.9	55.9	20.2	-
2.	0.1701	43.4	-	43.5	-	0.0	0.2	0.0	43.7	-	65.0	55.0	21.3	-
3.	0.7588	29.0	-	29.7	-	0.1	0.2	0.0	30.0	-	56.0	46.0	26.0	-
4.	1.0047	30.9	-	29.2	-	0.1	0.3	0.0	31.3	-	56.0	46.0	24.7	-
5.	6.5829	35.2	-	35.6	-	0.7	0.4	0.0	36.7	-	60.0	50.0	23.3	-
6.	15.5268	32.7	-	32.9	-	1.3	0.6	0.0	34.8	-	60.0	50.0	25.2	-

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

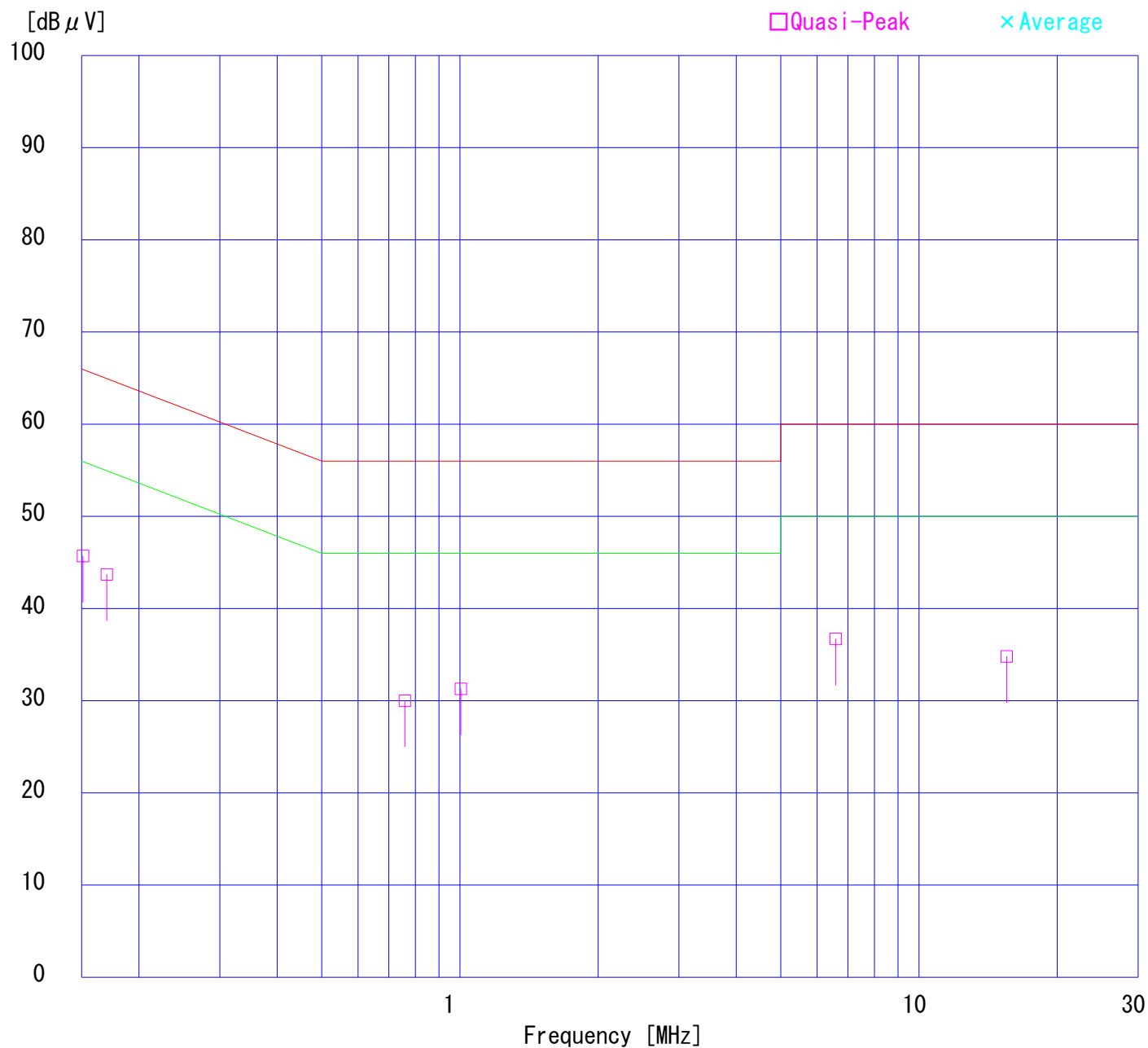
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.2 SHIELD TEST ROOM
Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

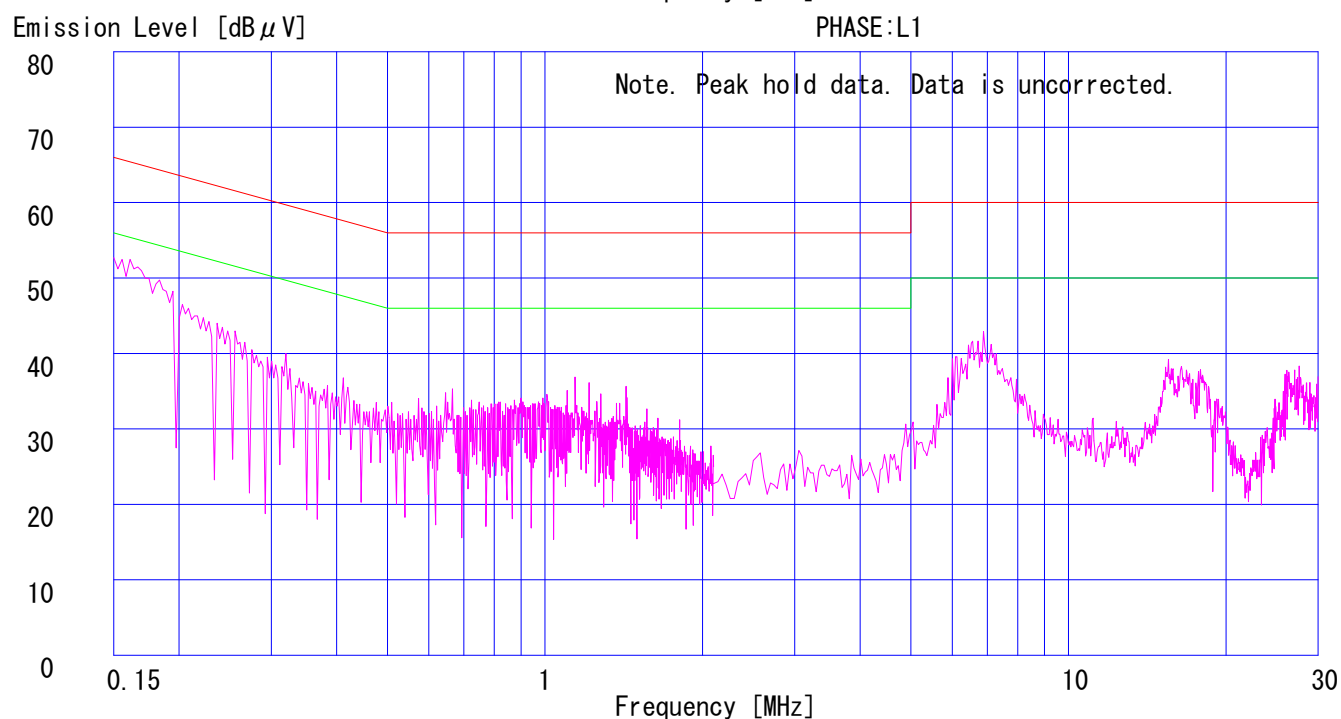
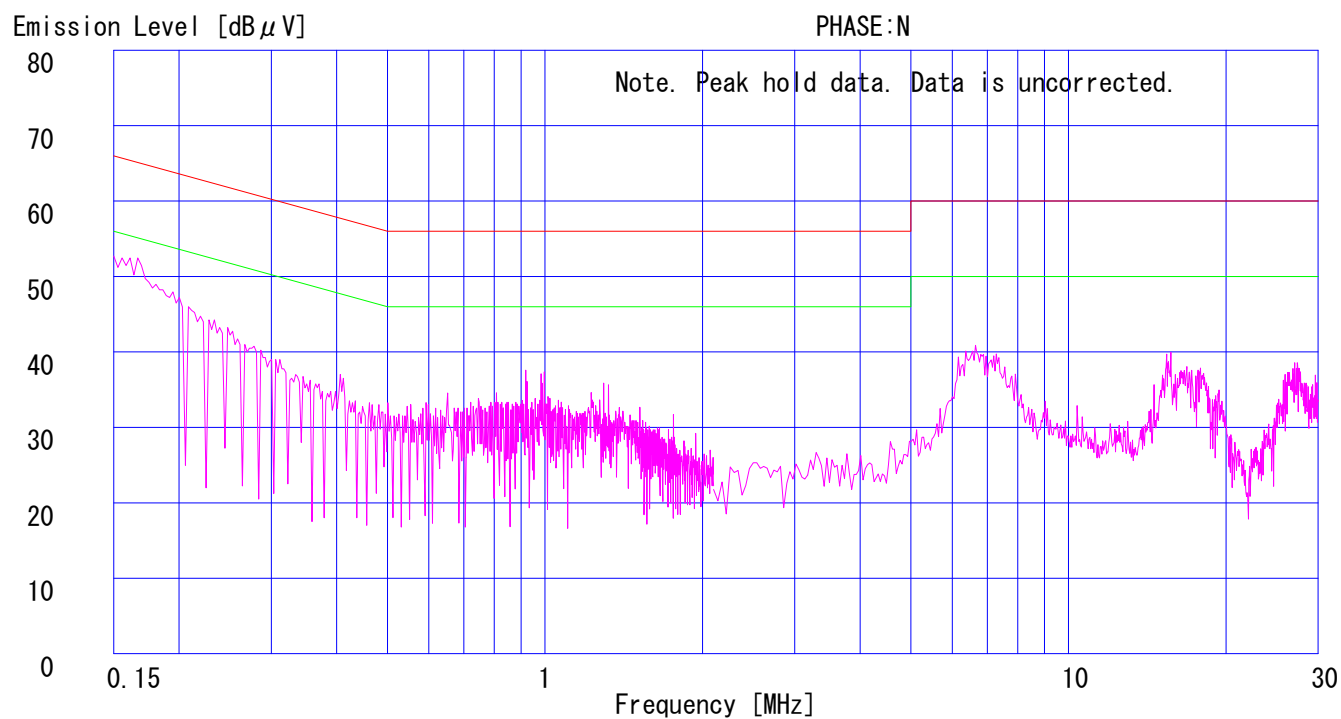
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AVinput 2 + Rec
Remarks : 1Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1507	45.7	-	45.7	-	0.0	0.2	0.0	45.9	-	66.0	56.0	20.1	-
2.	0.1692	43.8	-	43.6	-	0.0	0.2	0.0	44.0	-	65.0	55.0	21.0	-
3.	0.9239	28.9	-	30.8	-	0.1	0.2	0.0	31.1	-	56.0	46.0	24.9	-
4.	1.0044	30.6	-	29.7	-	0.1	0.3	0.0	31.0	-	56.0	46.0	25.0	-
5.	6.5382	41.1	-	41.0	-	0.7	0.4	0.0	42.2	-	60.0	50.0	17.8	-
6.	18.1360	32.6	-	32.3	-	1.5	0.7	0.0	34.8	-	60.0	50.0	25.2	-

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

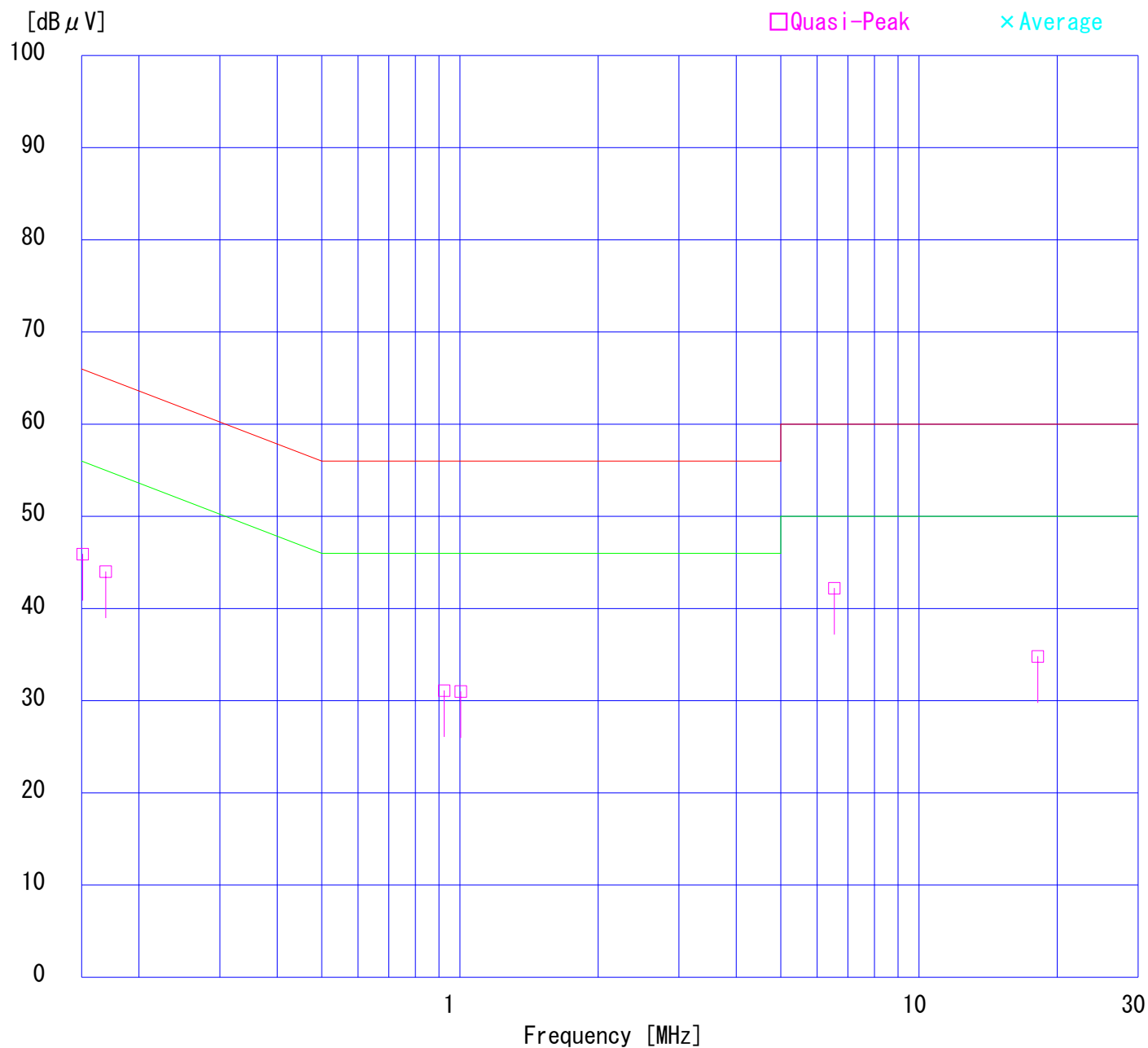
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.2 SHIELD TEST ROOM
Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AVinput 2 + Rec
Remarks : 1Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

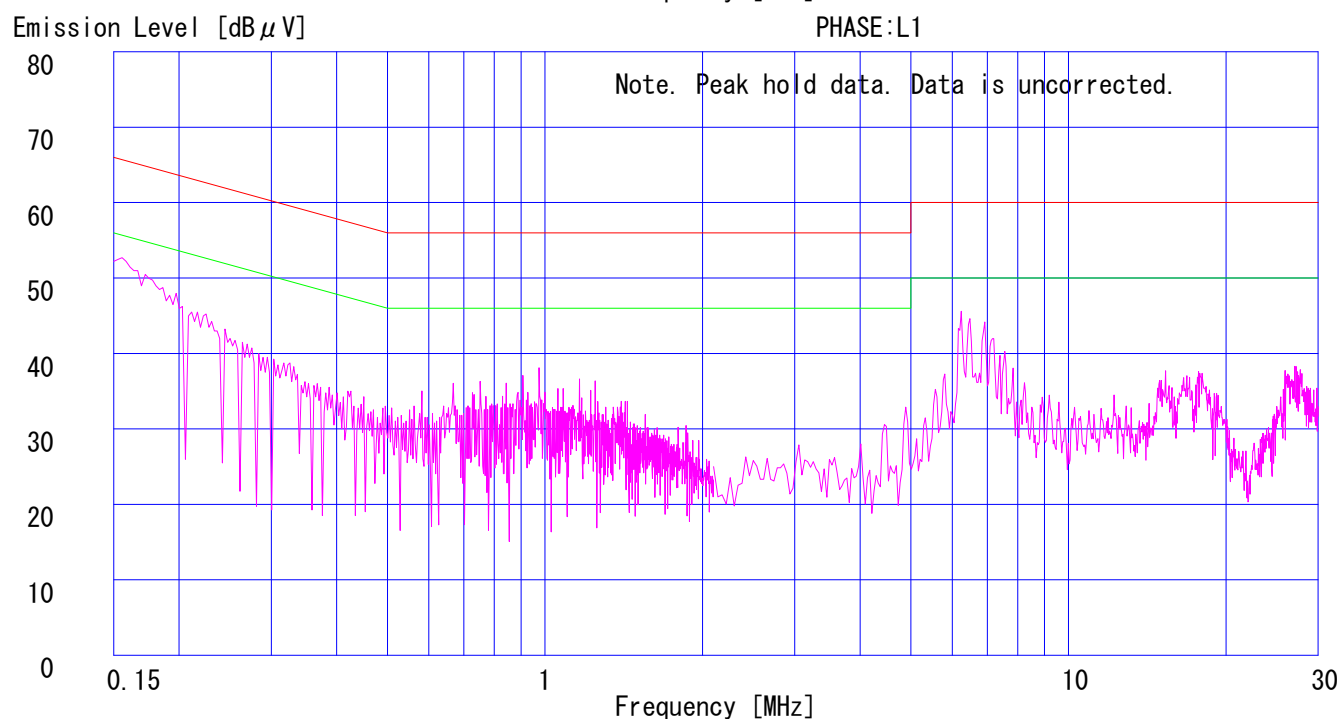
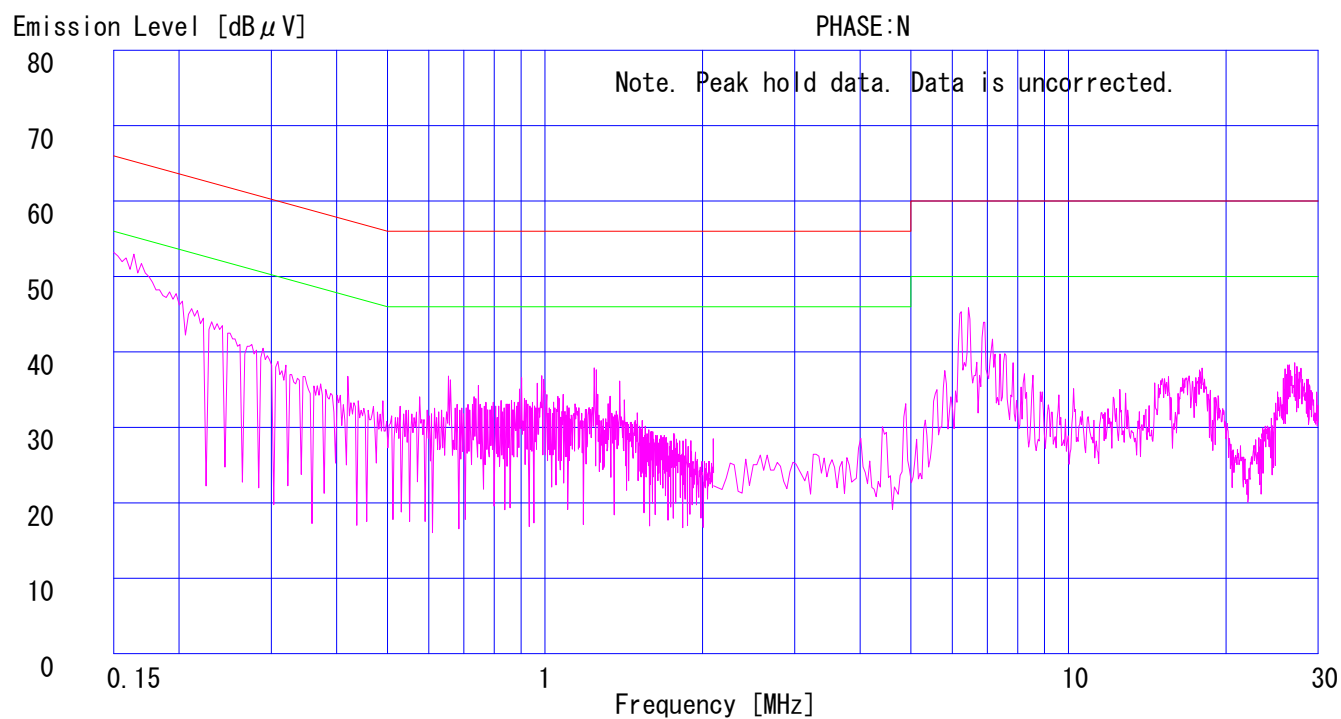
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AVinput 2 + Rec
Remarks : 1Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AVinput 2 + Rec
Remarks : 5Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1509	45.6	-	45.6	-	0.0	0.2	0.0	45.8	-	66.0	56.0	20.2	-
2.	0.1677	43.9	-	43.9	-	0.0	0.2	0.0	44.1	-	65.1	55.1	21.0	-
3.	0.9250	29.7	-	30.9	-	0.1	0.2	0.0	31.2	-	56.0	46.0	24.8	-
4.	1.0174	30.6	-	30.3	-	0.1	0.3	0.0	31.0	-	56.0	46.0	25.0	-
5.	6.3778	35.1	-	35.5	-	0.7	0.4	0.0	36.6	-	60.0	50.0	23.4	-
6.	17.9918	32.9	-	32.4	-	1.5	0.7	0.0	35.1	-	60.0	50.0	24.9	-

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

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

DATA OF CONDUCTION TEST

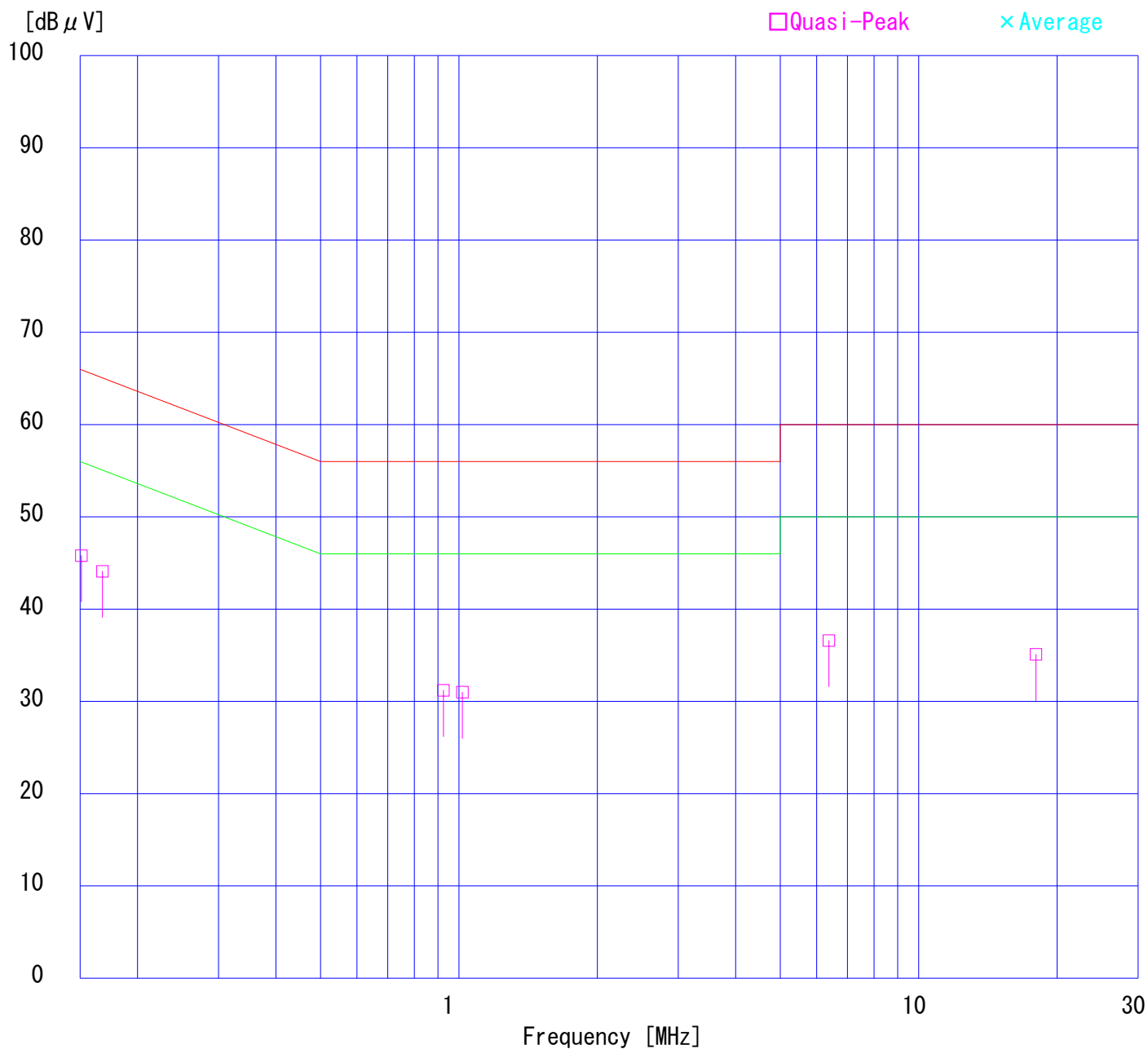
UL Apex Co., Ltd.

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Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

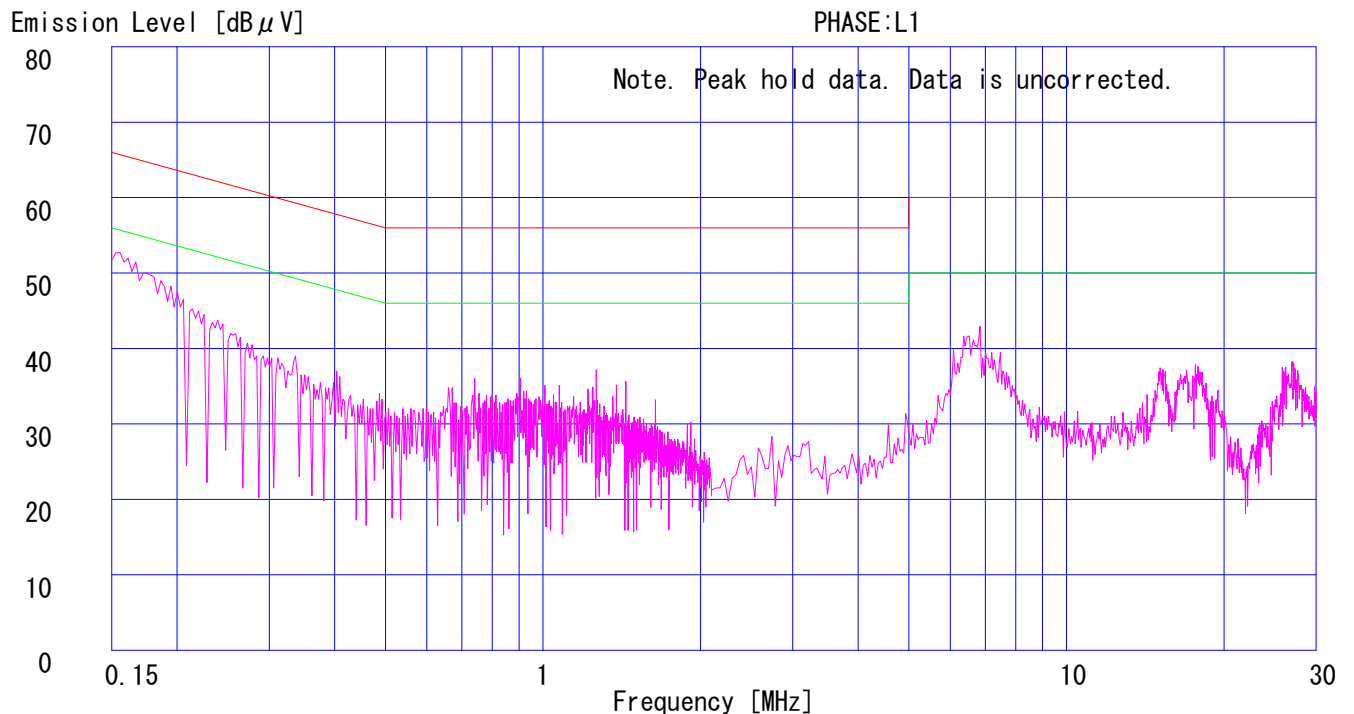
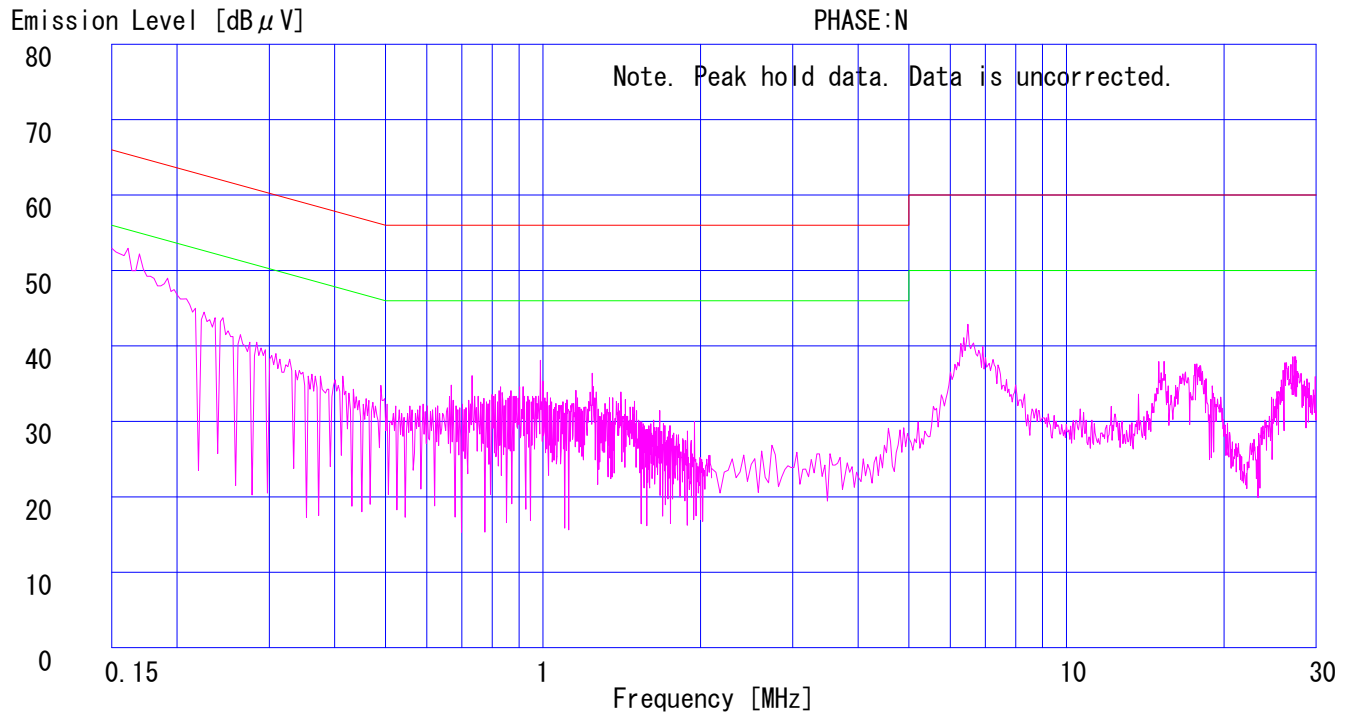
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Serial No. : -
Power : AC120V/60Hz
Mode : AVinput 2 + Rec
Remarks : 5Vp-p
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1503	45.4	-	45.3	-	0.0	0.2	0.0	45.6	-	66.0	56.0	20.4	-
2.	0.1785	42.3	-	42.4	-	0.0	0.2	0.0	42.6	-	64.6	54.6	22.0	-
3.	0.7123	29.3	-	31.0	-	0.1	0.2	0.0	31.3	-	56.0	46.0	24.7	-
4.	1.0696	30.6	-	29.4	-	0.1	0.3	0.0	31.0	-	56.0	46.0	25.0	-
5.	7.1565	28.3	-	28.5	-	0.8	0.4	0.0	29.7	-	60.0	50.0	30.3	-
6.	26.1327	32.9	-	32.6	-	1.7	0.8	0.0	35.4	-	60.0	50.0	24.6	-

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

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

DATA OF CONDUCTION TEST

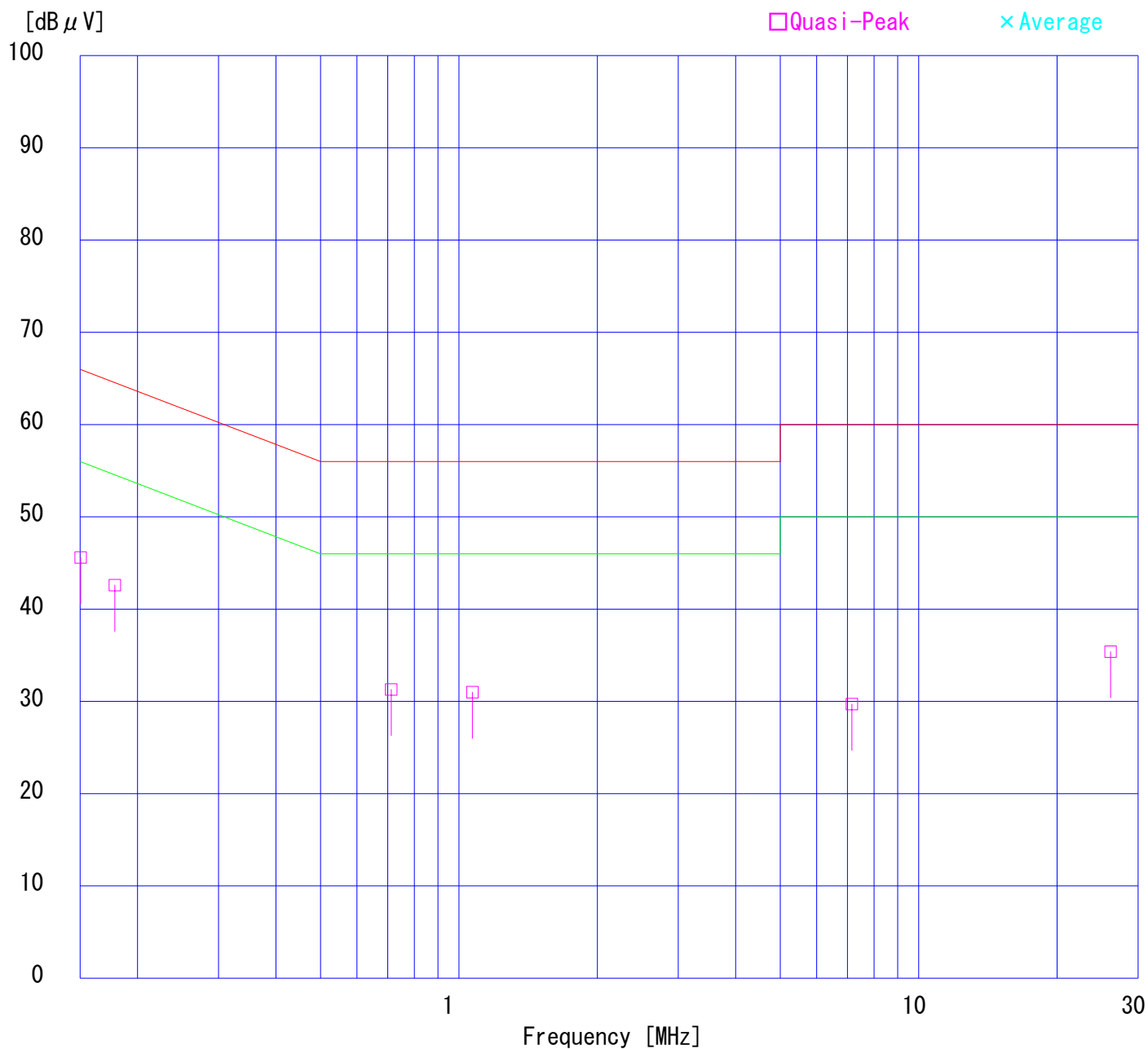
UL Apex Co., Ltd.

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Remarks :
Date : 2/3/2005
Phase : Single Phase
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Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

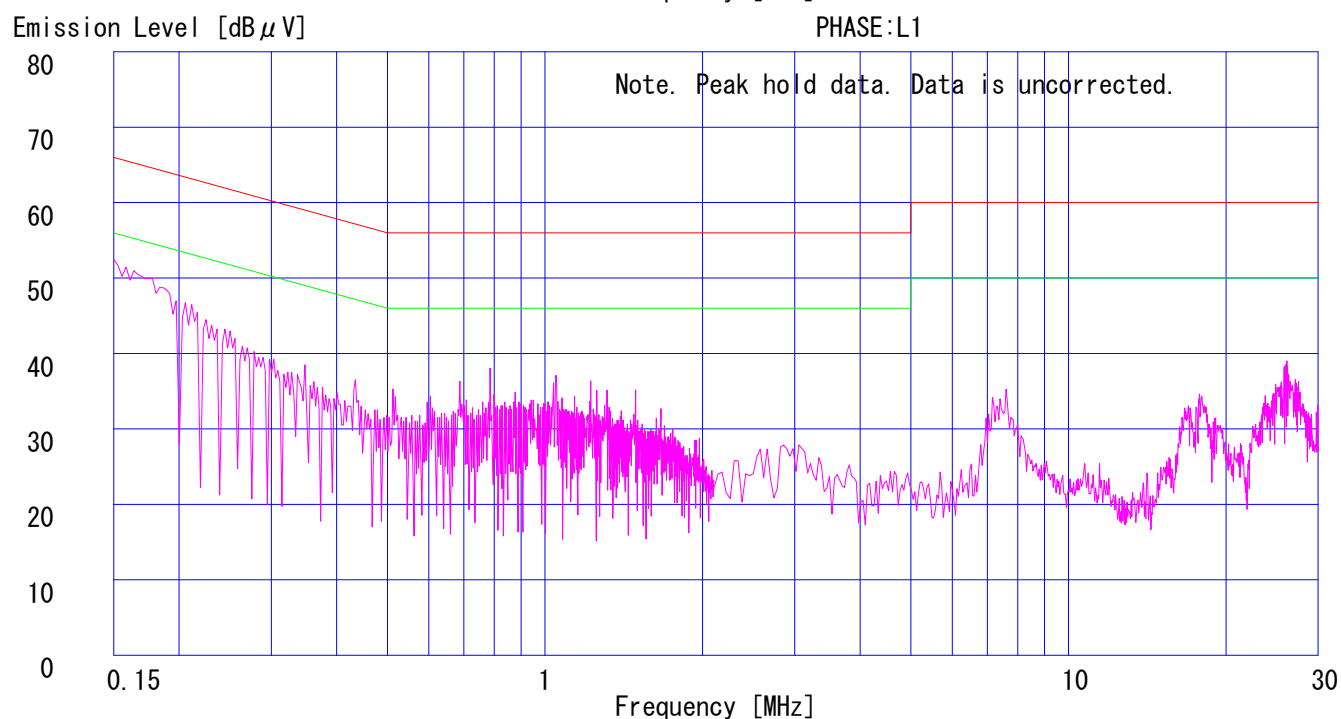
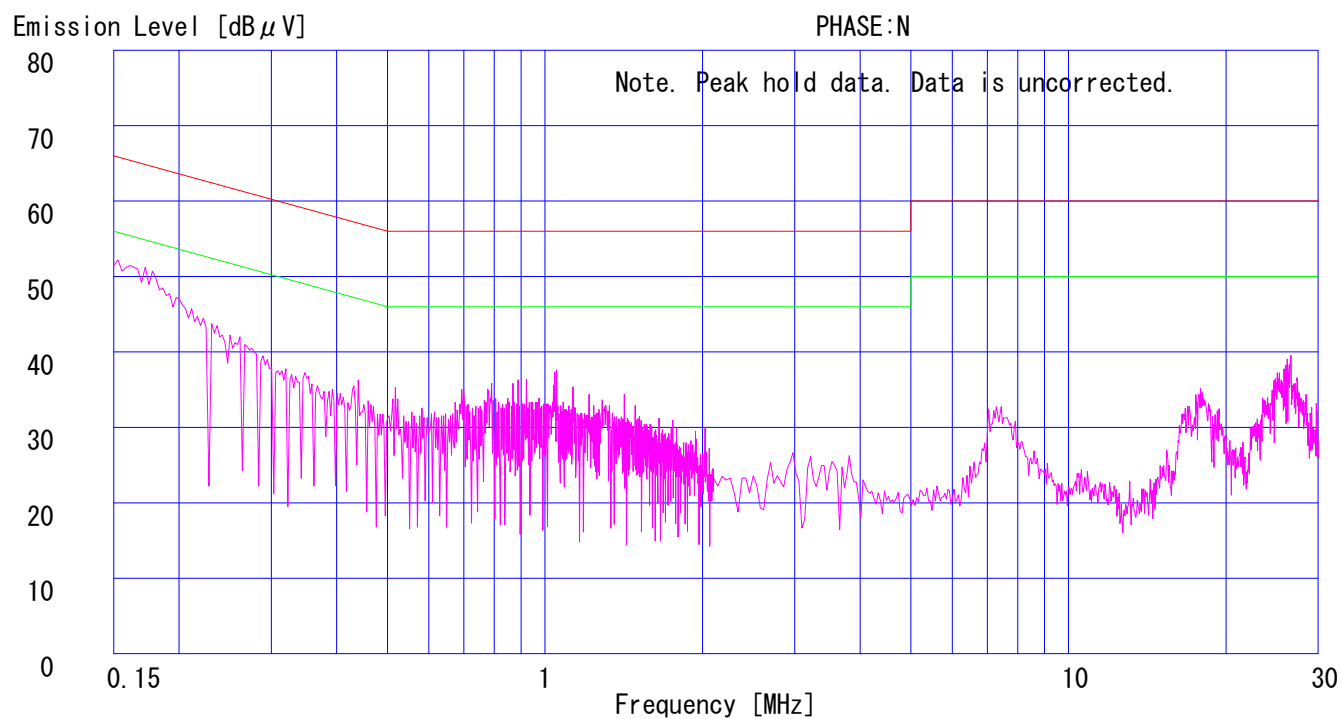
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Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

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Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
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.	0.1531	45.4	-	45.1	-	0.0	0.2	0.0	45.6	-	65.8	55.8	20.2	-
2.	0.1990	40.1	-	39.8	-	0.0	0.2	0.0	40.3	-	63.7	53.7	23.4	-
3.	0.9303	28.6	-	30.3	-	0.1	0.2	0.0	30.6	-	56.0	46.0	25.4	-
4.	1.0181	30.6	-	29.4	-	0.1	0.3	0.0	31.0	-	56.0	46.0	25.0	-
5.	7.1583	27.8	-	27.4	-	0.8	0.4	0.0	29.0	-	60.0	50.0	31.0	-
6.	26.2026	32.6	-	32.1	-	1.7	0.8	0.0	35.1	-	60.0	50.0	24.9	-

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

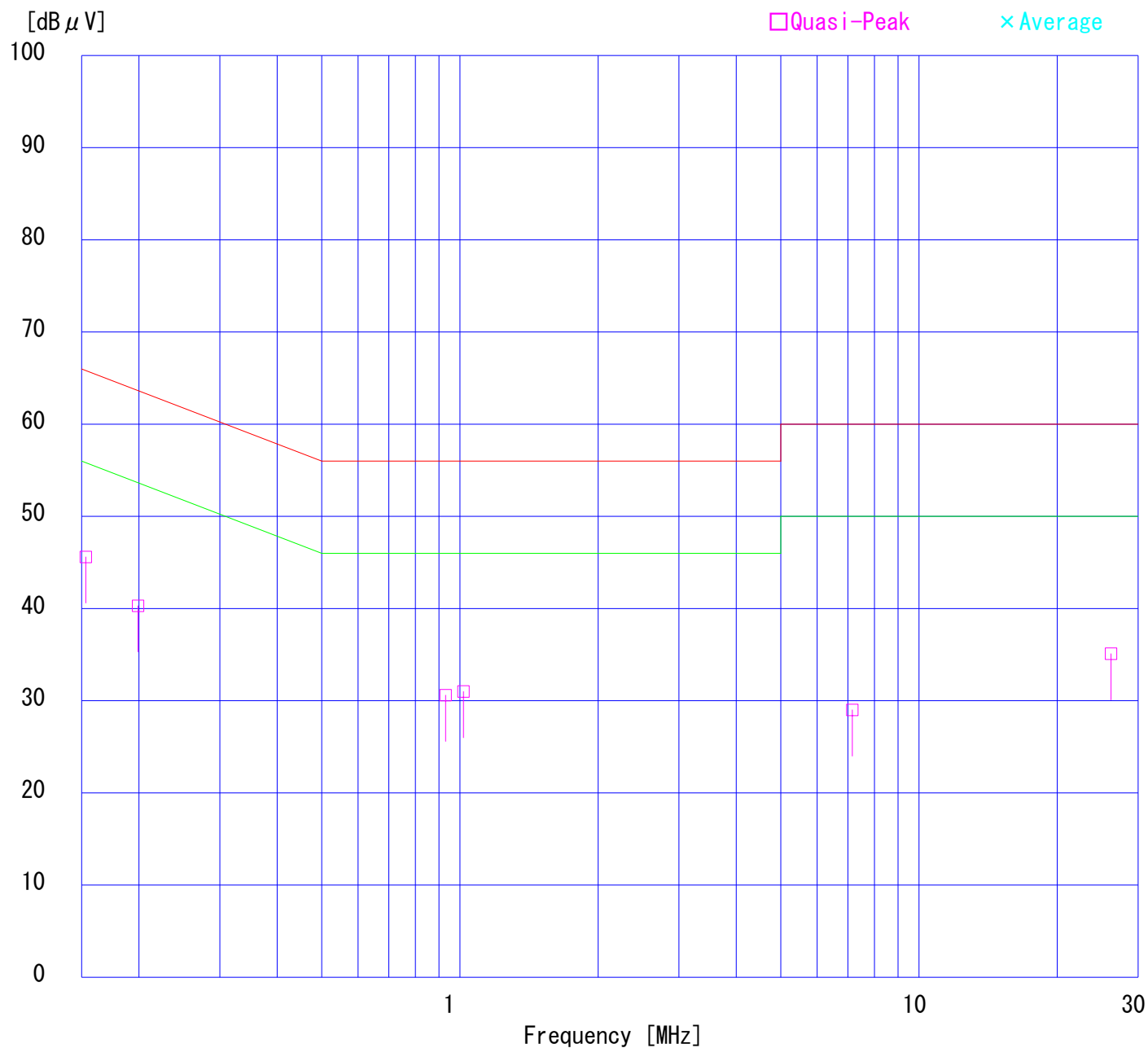
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DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
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Remarks :
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation : FCC Part15B CLASS B(2003)

Engineer : Tsubasa Takayama



DATA OF CONDUCTION TEST CHART

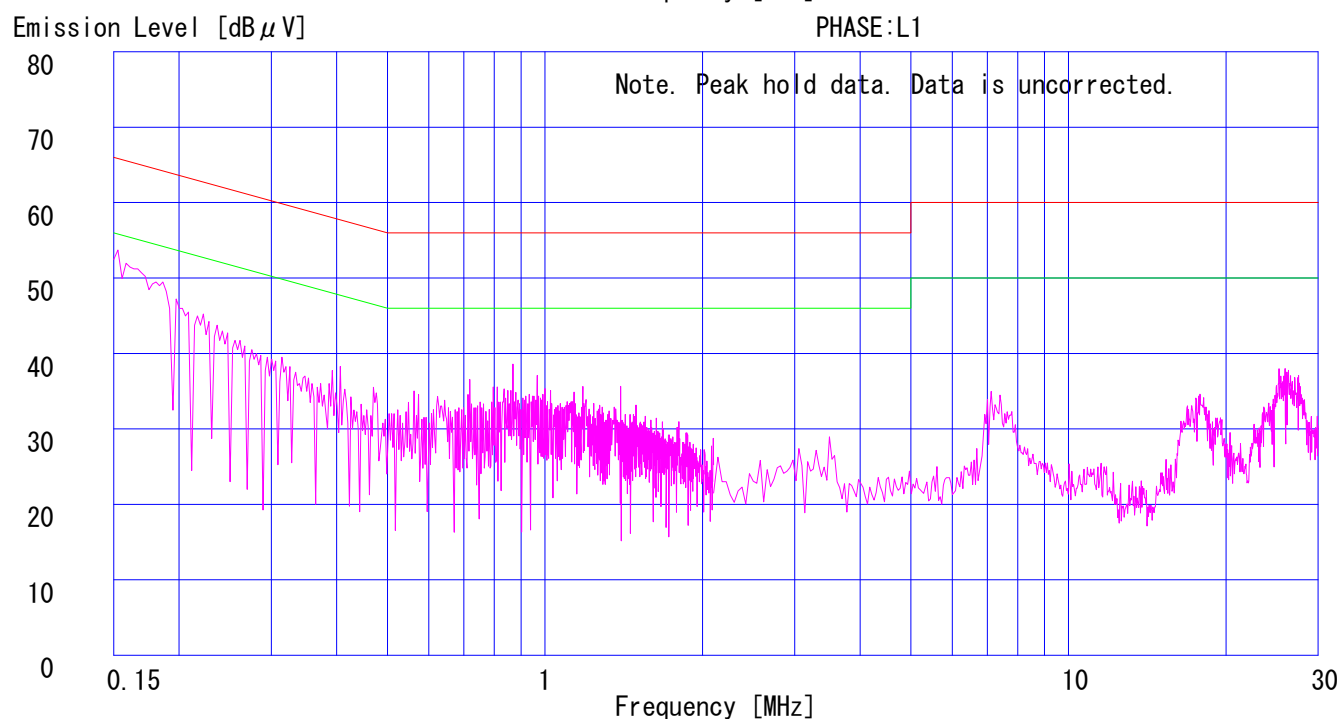
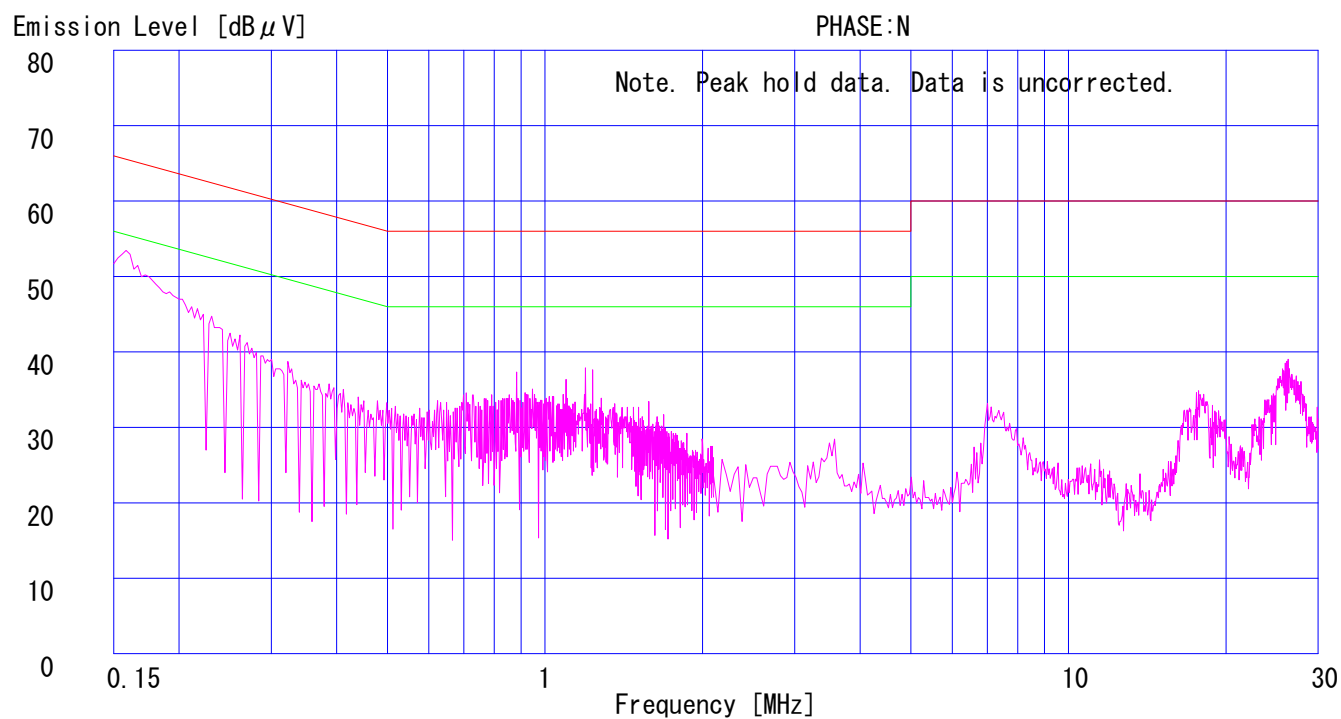
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Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/3/2005
Phase : Single Phase
Temperature : 16 °C
Humidity : 56 %
Regulation 1 : FCC Part15B CLASS B (2003)
Regulation 2 : None

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/02/04
TEMP./HUMID. : 14deg.C / 43%
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]	[dBuV/m]	[dB]			
VHF																	
2	101	29.1	27.6			BC	-10.8	18.3	16.8			43.5		25.2	26.7		
	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.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	HOR.	VER.						
		[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	[dBuV]	HOR.	VER.			[QP]	HOR.		VER.		
		[dBuV]						[dBuV/m]				[dBuV/m]	[dBuV/m]	[dB]			
3	107	28.1	28.1			BC	-9.8	18.3	18.3			43.5		25.2	25.2		
	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.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	HOR.	VER.						
		[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	[dBuV]	HOR.	VER.			[QP]	HOR.		VER.		
		[dBuV]						[dBuV/m]				[dBuV/m]	[dBuV/m]	[dB]			
4	113	27.8	29.2			BC	-9.0	18.8	20.2			43.5		24.7	23.3		
	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)					
		HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	HOR.	VER.						
		[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.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/02/04
TEMP./HUMID. : 14deg.C / 43%
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]								
VHF																							
5	123	25.4	29.5			BC	-7.7	17.7	21.8			43.5		25.8	21.7								
	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)		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]							
	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	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)										
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[dBuV/m]		[dB]	[dB]								
6	129	25.4	26.5			BC	-7.2	18.2	19.3			43.5		25.3	24.2								
	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)		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]							
	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	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)										
	[MHz]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[dBuV/m]		[dB]	[dB]								
7	221	23.0	24.3			BC	-3.5	19.5	20.8			46.0		26.5	25.2								
	442					LO						46.0		> 15.0									
	663					LO						46.0											
	884					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]						
	1105					HO						74.0	54.0	>27.0	>10.0								
	1326					HO						74.0	54.0										
	1547					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]								
8	227	23.6	24.6			BC	-3.3	20.3	21.3			46.0		25.7	24.7								
	454					LO						46.0		>15.0									
	681					LO						46.0											
	908					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]						
	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.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/02/04
TEMP./HUMID. : 14deg.C / 43%
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]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]		[dB]	[dB]		
VHF																	
9	233	22.9	23.6			BC	-3.3	19.6	20.3			46.0		26.4	25.7		
	466					LO						46.0		>15.0			
	699					LO					46.0						
	932					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]	
	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]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]		[dB]		[dB]	
10	239	23.0	23.3			BC	-3.2	19.8	20.1			46.0		26.2	25.9		
	478					LO						46.0		>15.0			
	717					LO					46.0						
	956					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]	
	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]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]		[dB]		[dB]	
11	245	22.9	23.8			BC	-3.2	19.7	20.6			46.0		26.3	25.4		
	490					LO						46.0		>15.0			
	735					LO					46.0						
	980					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]	
	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]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]		[dB]		[dB]	
12	251	23.0	23.3			BC	-3.0	20.0	20.3			46.0		26.0	25.7		
	502					LO						46.0		>15.0			
	753					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]	
		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]	[dBuV]				TYPE	[dBuV]	[dBuV/m]				[QP]		[dB]		[dB]	
13	257	25.6	26.0			BC	-2.7	22.9	23.3			46.0		23.1	22.7		
	514					LO						46.0		>15.0			
	771					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]	
		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.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/02/04
TEMP/HUMID. : 14deg.C / 43%
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]
UHF											
14	517	30.1 34.4		LO	-0.5	29.6 33.9		46.0		16.4 12.1	
		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]
	1034			HO				74.0	54.0	>27.0	>10.0
	1551			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.	
		[dBuV]				[dBuV/m]		[dBuV/m]		[dB]	[dB]
19	547	29.9 37.9		LO	0.3	30.2 38.2		46.0		15.8 7.8	
		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]
	1094			HO				74.0	54.0	>27.0	>10.0
	1641			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.	
		[dBuV]				[dBuV/m]		[dBuV/m]		[dB]	[dB]
28	601	29.4 33.7		LO	1.8	31.2 35.5		46.0	-	14.8 10.5	
		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]
	1202			HO				74.0	54.0	>27.0	>10.0
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]
36	649	24.9 30.8		LO	3.0	27.9 33.8		46.0	-	18.1 12.2	
		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]
	1298			HO				74.0	54.0	>27.0	>10.0
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]
44	697	25.6 31.4		LO	4.1	29.7 35.5		46.0	-	16.3 10.5	
		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]
	1394			HO				74.0	54.0	>27.0	>10.0
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]
53	751	26.5 28.5		LO	4.8	31.3 33.3		46.0	-	14.7 12.7	
		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]
	1502			HO				74.0	54.0	>27.0	>10.0
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]
61	799	26.8 28.1		LO	5.1	31.9 33.2		46.0	-	14.1 12.8	
		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]
	1598			HO				74.0	54.0	>27.0	>10.0
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]
69	847	24.1 26.6		LO	5.8	29.9 32.4		46.0	-	16.1 13.6	
		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]
	1694			HO				74.0	54.0	>27.0	>10.0

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/02/04
TEMP/HUMID. : 14deg.C / 43%
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																		
1	119	24.7	28.6			BC	-8.0	16.7	20.6			43.5		26.8	22.9			
	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	24.3	27.1			BC	-6.5	17.8	20.6			43.5		25.7	22.9			
	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	24.1	26.1			BC	-5.7	18.4	20.4			43.5		25.1	23.1			
	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						74.0	54.0	>27.0	>10.0			
	1192					HO						74.0	54.0					
	1341					HO						74.0	54.0					
	1490					HO						74.0	54.0					
	1639					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]		
99	161	23.6	24.8			BC	-5.0	18.6	19.8			43.5		24.9	23.7			
	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.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
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DATE : 2005/02/04
TEMP./HUMID. : 14deg.C / 43%
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	24.3	24.8			BC	-4.6	19.7	20.2			43.5		23.8	23.3			
	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	23.8	24.3			BC	-3.9	19.9	20.4			43.5		23.6	23.1			
	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]		[dB]		
22	215	25.2	24.4			BC	-3.6	21.6	20.8			43.5		21.9	22.7			
	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]		[dB]		
23	263	26.2	23.8			BC	-2.3	23.9	21.5			46.0	46.0	22.1	24.5			
	526					LO						46.0	46.0	>15.0				
	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]		[dB]		
29	299	23.6	23.6			BC	-0.1	23.5	23.5			46.0	46.0	22.5	22.5			
	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.2 Open Test Site

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD Player with Video Cassette Recorder
MODEL No. : SD-V393SU
POWER : AC120V/60Hz
DESCRIPTION : TV Reception + Rec

REPORT No. : 25FE0296-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : 2005/02/04
TEMP/HUMID. : 14deg.C / 43%
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]		
CATV														
36	341	23.6	24.2		LO	-4.3	19.3	19.9		46.0	46.0	26.7	26.1	
	682				LO					46.0	46.0	>15.0		
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]		
	1023			HO					74.0	54.0	>27.0		>10.0	
	1364			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.		
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		
37	347	22.8	23.0		LO	-4.3	18.5	18.7		46.0	46.0	27.5	27.3	
	694				LO					46.0	46.0	>15.0		
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]		
	1041			HO					74.0	54.0	>27.0		>10.0	
	1388			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.		
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		
65	515	28.9	29.8		LO	-0.5	28.4	29.3		46.0	46.0	17.6	16.7	
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]		
	1030			HO				74.0	54.0	>27.0		>10.0		
	1545			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.		
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		
94	689	22.9	22.9		LO	3.9	26.8	26.8		46.0	46.0	19.2	19.2	
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]		
	1378			HO				74.0	54.0	>27.0		>10.0		
CH.	FREQ	READING(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)		
	[MHz]	HOR. VER.			TYPE	[dBuV]	HOR. VER.			[QP]		HOR. VER.		
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		
100	695	22.7	22.7		LO	4.1	26.8	26.8		46.0	46.0	19.2	19.2	
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]		
	1390			HO				74.0	54.0	>27.0		>10.0		
CH.	FREQ	READING(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)		
	[MHz]	HOR. VER.			TYPE	[dBuV]	HOR. VER.			[QP]		HOR. VER.		
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		
113	773	22.7	22.7		LO	5.0	27.7	27.7		46.0	46.0	18.3	18.3	
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]		
	1546			HO				74.0	54.0	>27.0		>10.0		
CH.	FREQ	READING(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)		
	[MHz]	HOR. VER.			TYPE	[dBuV]	HOR. VER.			[QP]		HOR. VER.		
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		
125	845	25.6	27.8		LO	5.7	31.3	33.5		46.0	46.0	14.7	12.5	
		READING(PK)	READING(AV)		C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)			
		HOR. VER.	HOR. VER.	ANT		HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.			
		[dBuV]	[dBuV]	TYPE	[dBuV]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 0dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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		MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]			HOR [dB]	VER [dB]
1.	405.00	BB	35.4	39.4	17.9	27.9	4.5	6.0	35.9	39.9	46.0	10.1	6.1	

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

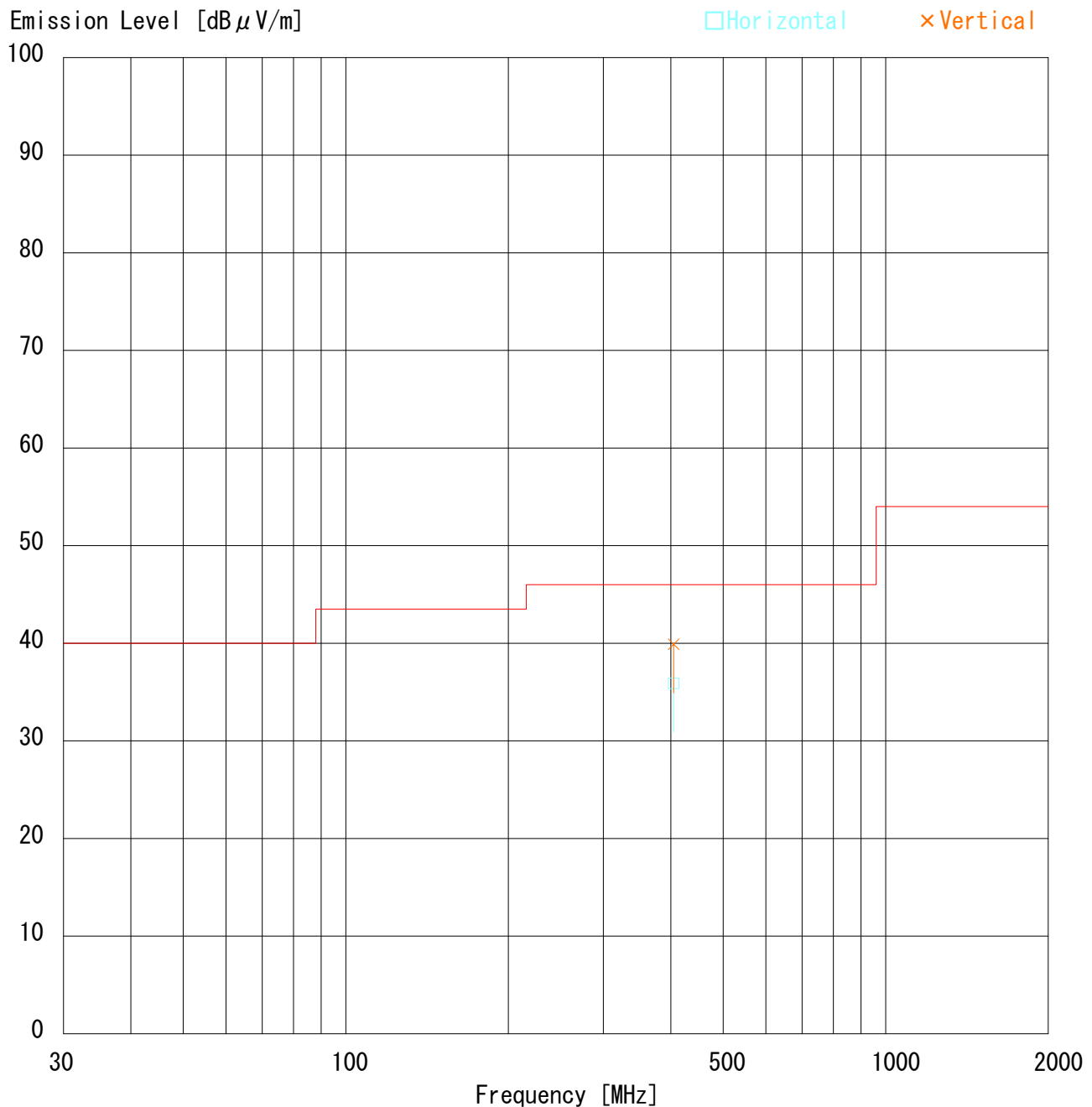
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 0dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 °C
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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.	37.84	BB	25.7	29.0	15.6	28.5	1.1	6.0	19.9	23.2	40.0	20.1	16.8
2.	135.00	BB	31.2	33.7	14.4	28.2	2.3	5.9	25.6	28.1	43.5	17.9	15.4
3.	202.50	BB	33.9	34.6	17.1	28.0	2.9	5.9	31.8	32.5	43.5	11.7	11.0
4.	216.00	BB	30.7	28.6	17.2	28.0	3.0	5.9	28.8	26.7	43.5	14.7	16.8
5.	270.00	BB	36.3	31.4	18.5	27.9	3.5	6.0	36.4	31.5	46.0	9.6	14.5
6.	324.00	BB	35.1	29.2	16.9	27.9	3.9	6.0	34.0	28.1	46.0	12.0	17.9
7.	350.21	BB	34.6	25.4	17.2	27.9	4.1	6.0	34.0	24.8	46.0	12.0	21.2
8.	405.01	BB	35.4	40.0	17.9	27.9	4.5	6.0	35.9	40.5	46.0	10.1	5.5
9.	459.01	BB	36.4	33.3	18.8	27.9	4.9	6.0	38.2	35.1	46.0	7.8	10.9
10.	513.00	BB	30.6	29.4	19.5	27.9	5.2	6.0	33.4	32.2	46.0	12.6	13.8
11.	675.00	BB	30.7	32.6	22.0	27.4	6.1	6.0	37.4	39.3	46.0	8.6	6.7
12.	945.02	BB	23.7	25.1	26.1	27.1	7.5	6.0	36.2	37.6	46.0	9.8	8.4

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

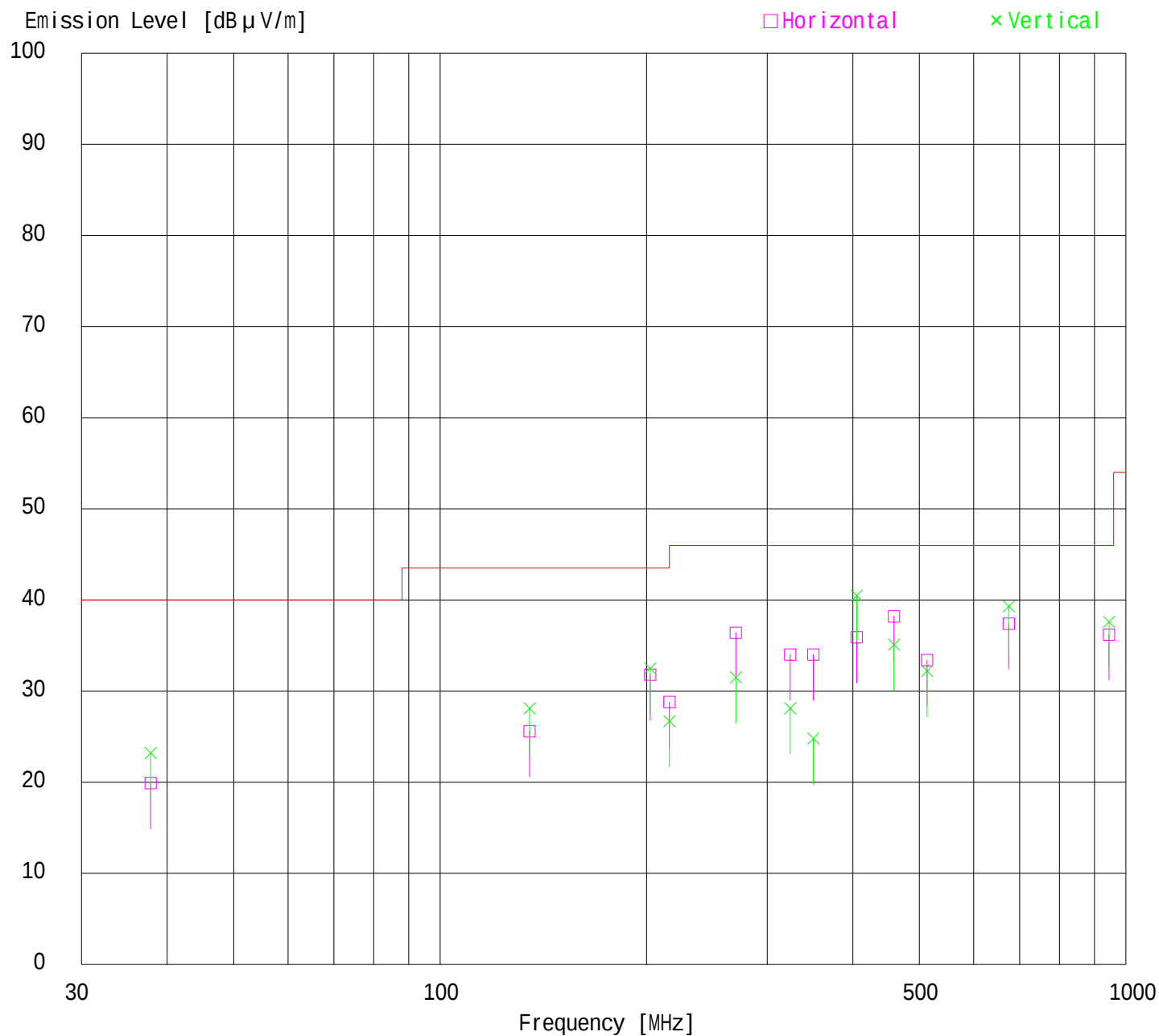
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.05	BB	49.6	54.3	25.3	40.0	3.4	0.0	38.3	43.0	54.0	15.7	11.0
2.	1214.91	BB	45.9	46.4	26.0	39.8	3.6	0.0	35.7	36.2	54.0	18.3	17.8
3.	2637.50	BB	39.0	36.5	31.5	38.6	6.0	0.0	37.9	35.4	54.0	16.1	18.6

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

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

ANT.TYPE: 1-5GHz Horn

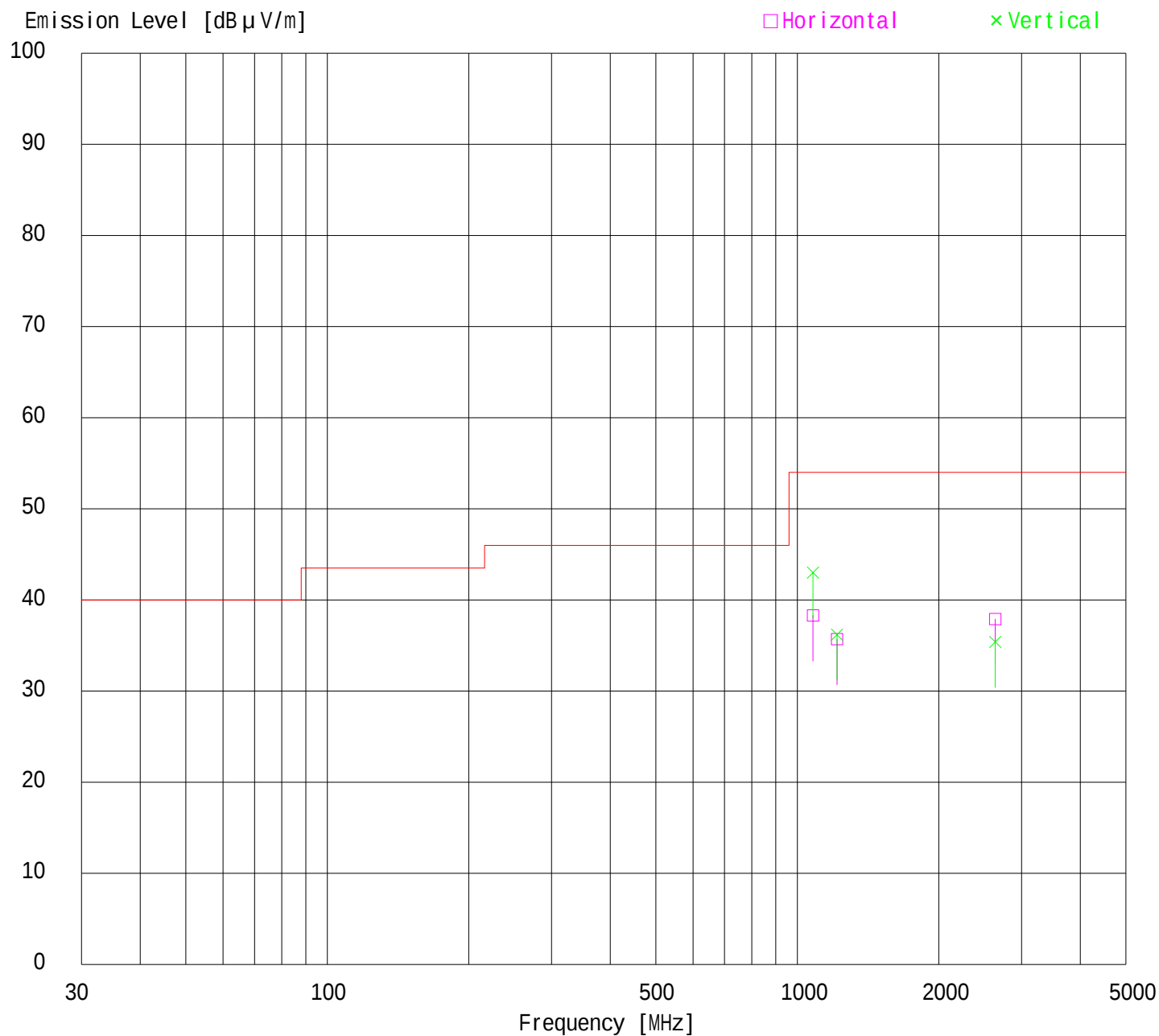
DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.05	BB	55.4	58.8	25.3	40.0	3.4	0.0	44.1	47.5	74.0	29.9	26.5
2.	1214.91	BB	54.3	60.3	26.0	39.8	3.6	0.0	44.1	50.1	74.0	29.9	23.9
3.	2637.50	BB	51.9	48.7	31.5	38.6	6.0	0.0	50.8	47.6	74.0	23.2	26.4

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

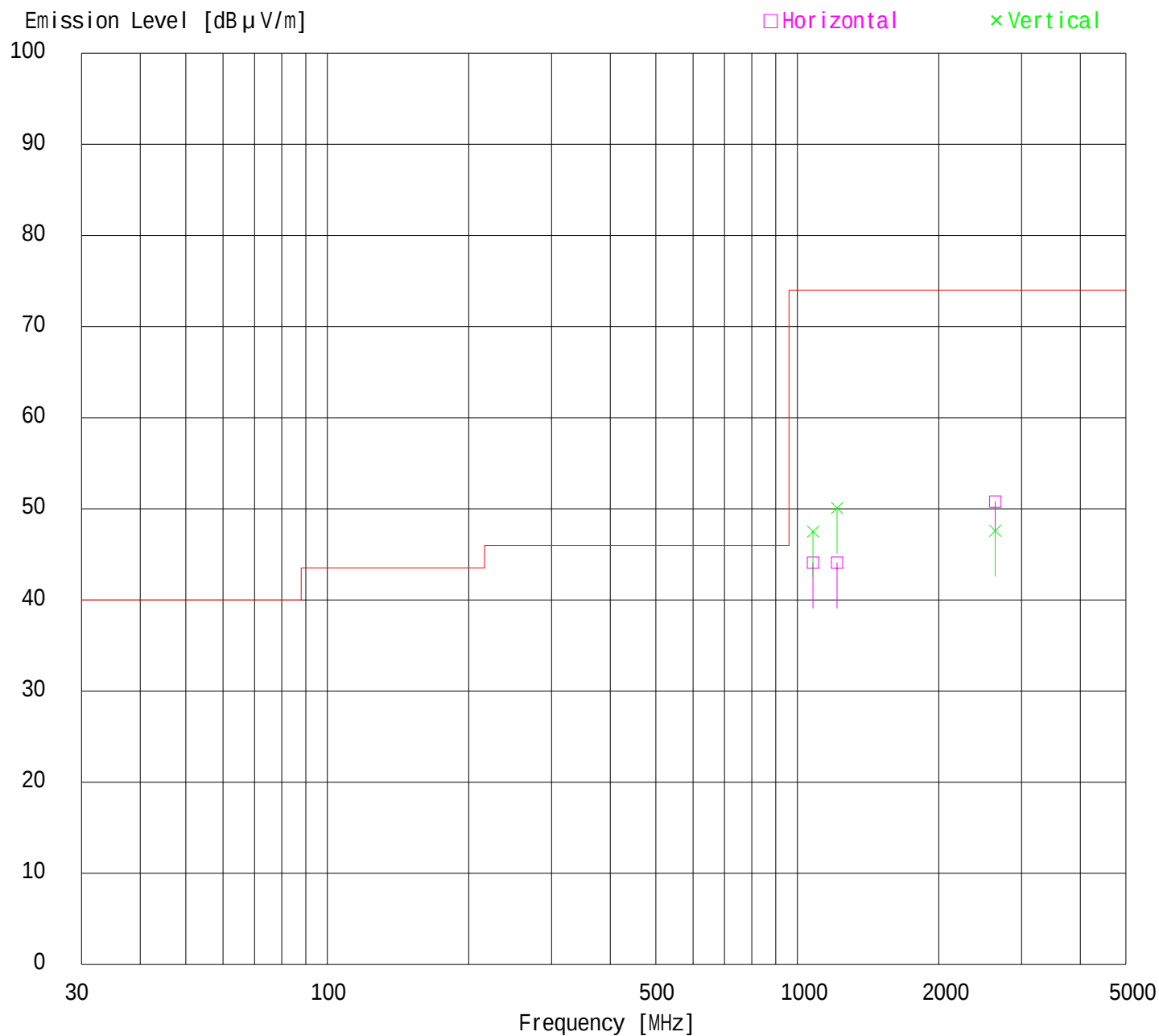
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 1V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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		MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]			HOR [dB]	VER [dB]
1.	675.00	BB	32.6	30.1	22.0	27.4	6.1	6.0	39.3	36.8	46.0	6.7	9.2	

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

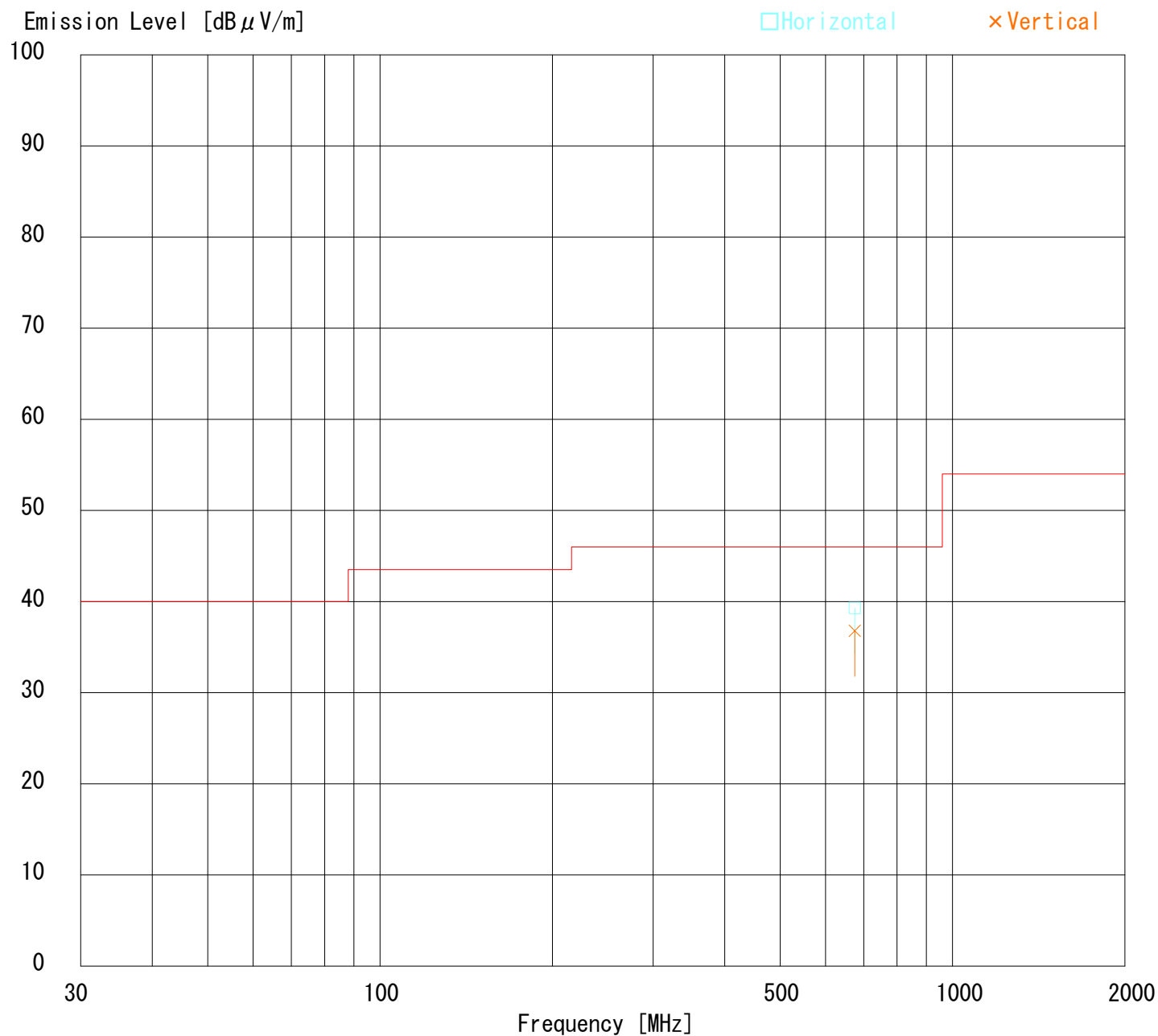
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 1V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 °C
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
 Kind of Equipment : DVD Player with Video Cassette Recorder
 Model No. : SD-V393SU
 Serial No. : -
 Power : AC120V/60Hz
 Mode : AV input 1 + Rec
 Remarks : 5V p-p
 Date : 2/4/2005
 Test Distance : 3 m
 Temperature : 23
 Humidity : 32 %
 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.	86.94	BB	23.1	24.5	7.3	28.2	1.8	5.9	9.9	11.3	40.0	30.1	28.7
2.	135.00	BB	32.8	31.7	14.4	28.2	2.3	5.9	27.2	26.1	43.5	16.3	17.4
3.	202.51	BB	35.1	34.3	17.1	28.0	2.9	5.9	33.0	32.2	43.5	10.5	11.3
4.	216.00	BB	31.1	29.9	17.2	28.0	3.0	5.9	29.2	28.0	43.5	14.3	15.5
5.	270.00	BB	33.5	31.7	18.5	27.9	3.5	6.0	33.6	31.8	46.0	12.4	14.2
6.	324.00	BB	35.0	32.9	16.9	27.9	3.9	6.0	33.9	31.8	46.0	12.1	14.2
7.	405.01	BB	34.8	37.0	17.9	27.9	4.5	6.0	35.3	37.5	46.0	10.7	8.5
8.	459.00	BB	36.4	32.0	18.8	27.9	4.9	6.0	38.2	33.8	46.0	7.8	12.2
9.	513.00	BB	29.7	30.1	19.5	27.9	5.2	6.0	32.5	32.9	46.0	13.5	13.1
10.	675.00	BB	30.6	33.1	22.0	27.4	6.1	6.0	37.3	39.8	46.0	8.7	6.2
11.	944.98	BB	23.3	25.7	26.1	27.1	7.5	6.0	35.8	38.2	46.0	10.2	7.8

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

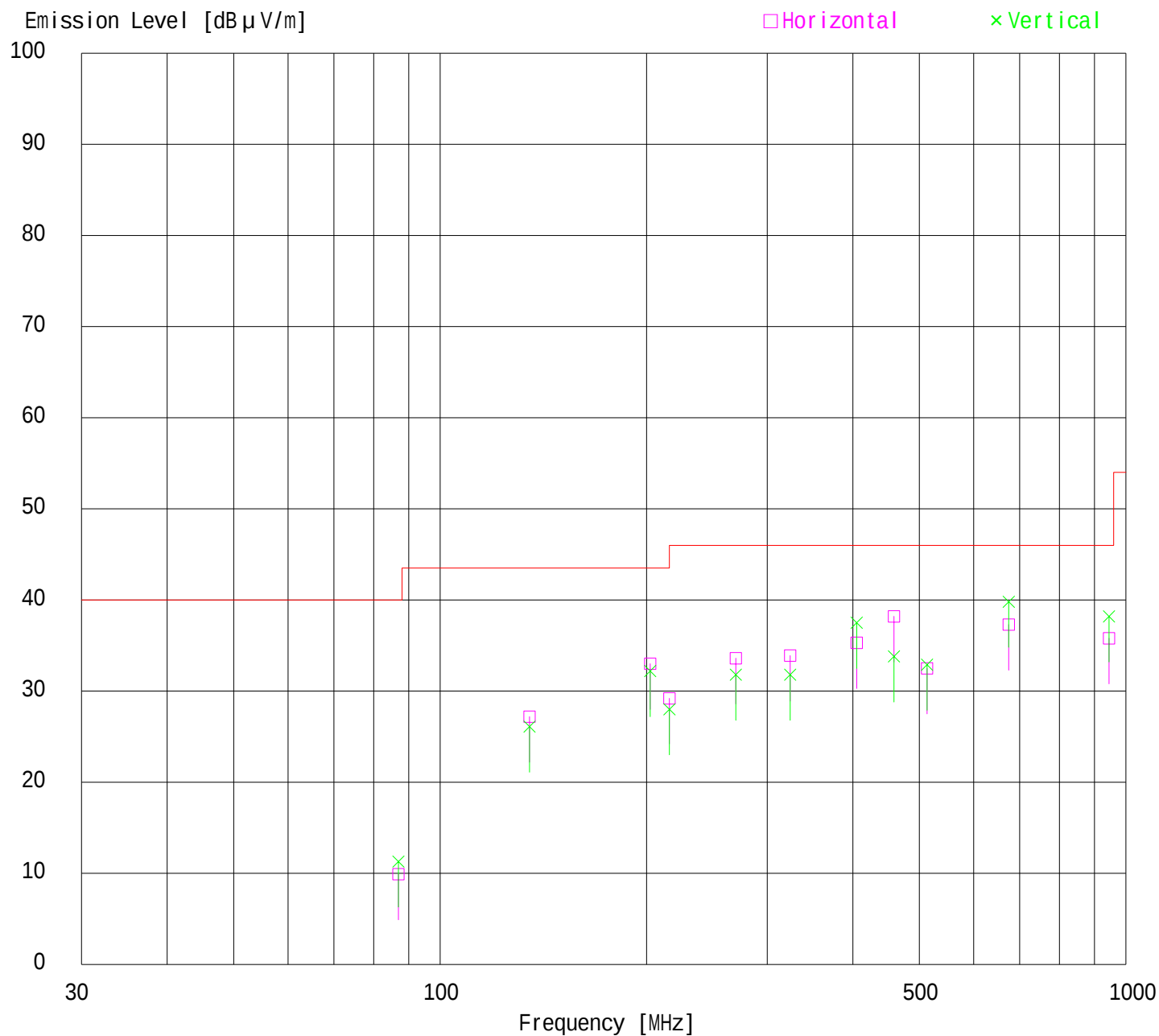
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.00	BB	47.5	53.9	25.3	40.0	3.4	0.0	36.2	42.6	54.0	17.8	11.4
2.	1215.00	BB	48.0	48.9	26.0	39.8	3.6	0.0	37.8	38.7	54.0	16.2	15.3
3.	2647.75	BB	38.3	37.6	31.5	38.6	6.0	0.0	37.2	36.5	54.0	16.8	17.5

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

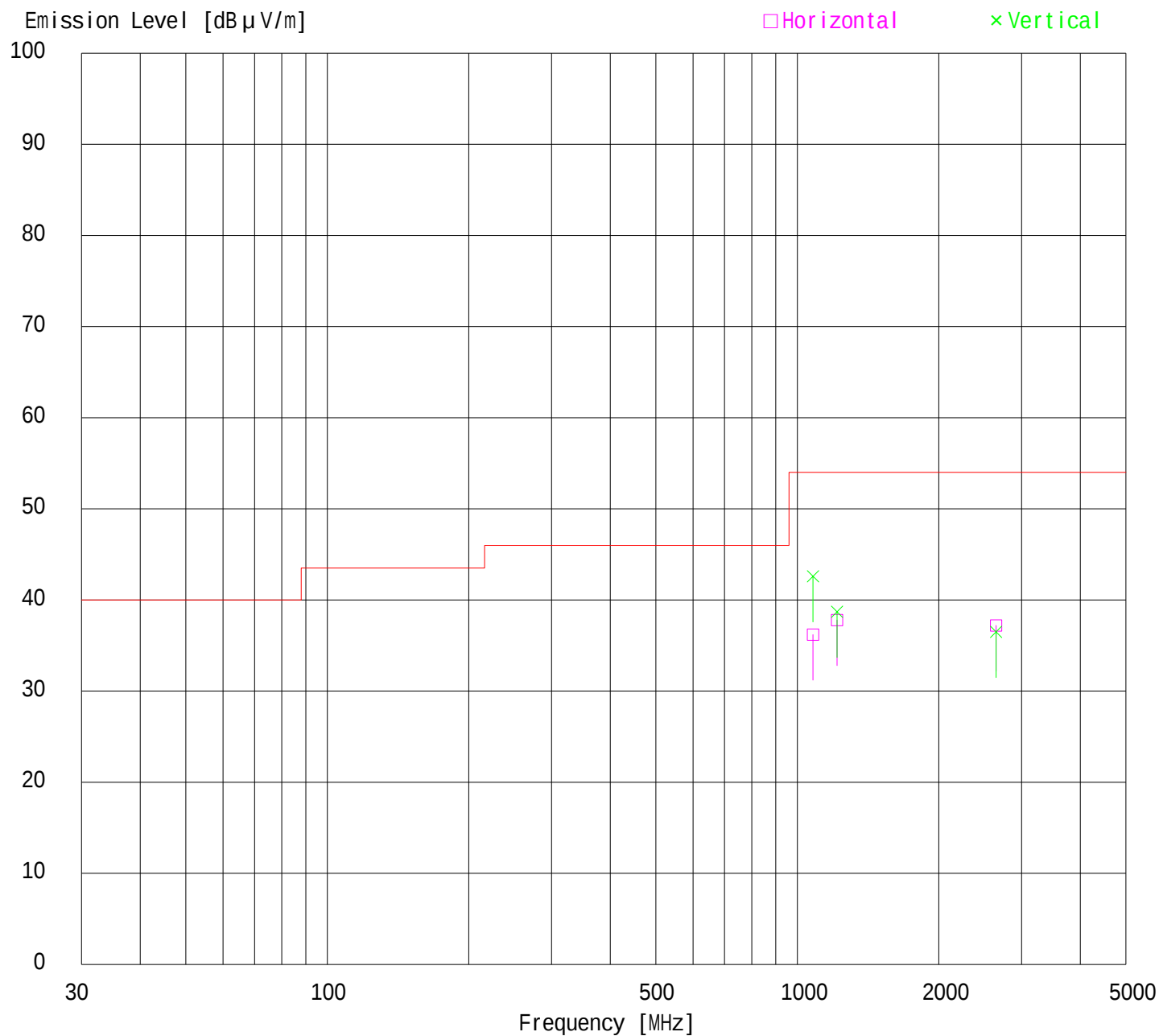
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.00	BB	53.8	58.5	25.3	40.0	3.4	0.0	42.5	47.2	74.0	31.5	26.8
2.	1215.00	BB	53.1	55.2	26.0	39.8	3.6	0.0	42.9	45.0	74.0	31.1	29.0
3.	2647.75	BB	49.5	49.2	31.5	38.6	6.0	0.0	48.4	48.1	74.0	25.6	25.9

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

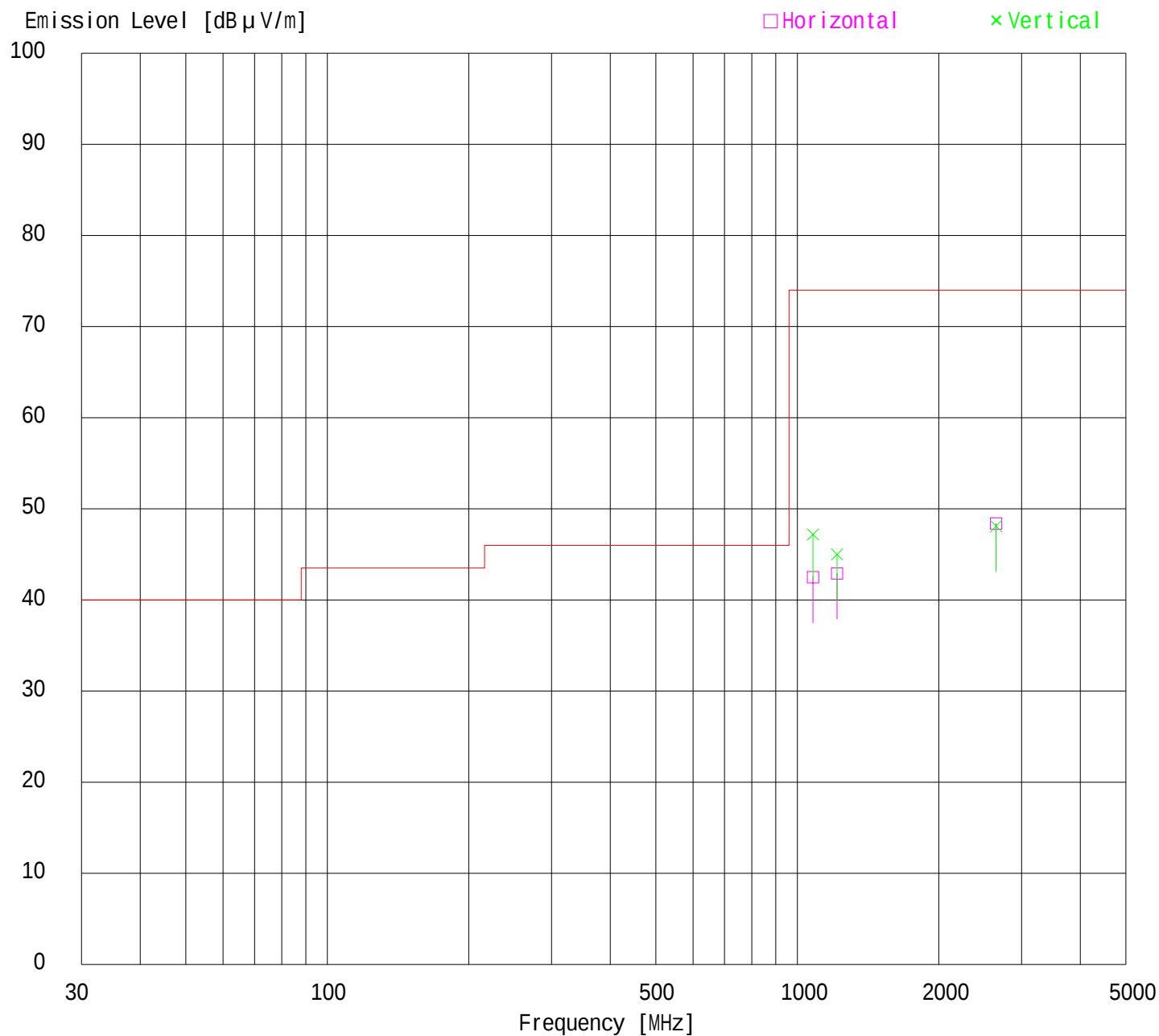
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 1 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 1V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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		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	22.7	28.1	26.1	27.1	7.5	6.0	35.2	40.6	46.0	10.8	5.4	

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

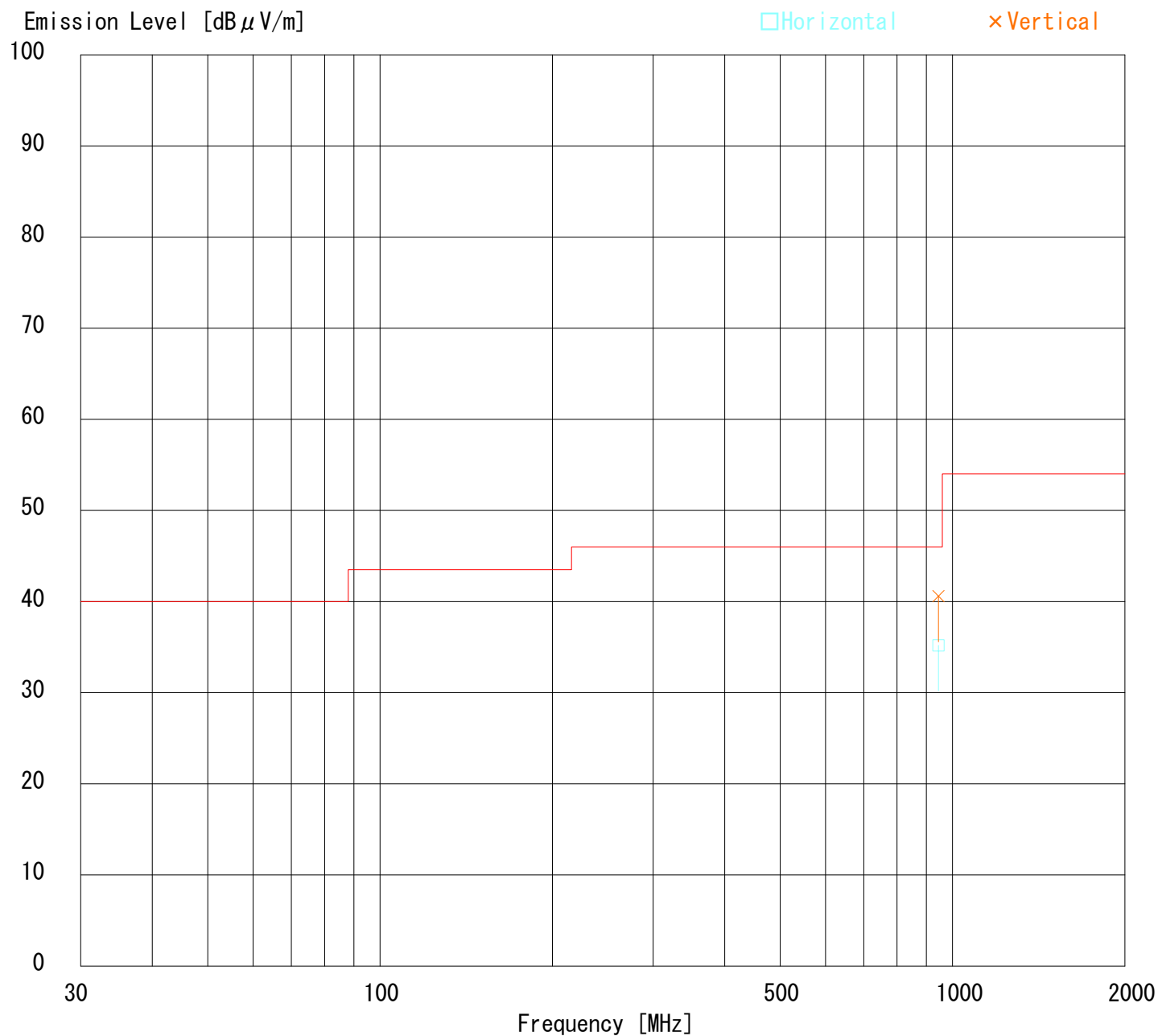
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 1V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 °C
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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.	86.96	BB	23.6	24.1	7.3	28.2	1.8	5.9	10.4	10.9	40.0	29.6	29.1
2.	135.00	BB	36.4	31.1	14.4	28.2	2.3	5.9	30.8	25.5	43.5	12.7	18.0
3.	202.52	BB	31.9	32.8	17.1	28.0	2.9	5.9	29.8	30.7	43.5	13.7	12.8
4.	216.01	BB	31.1	30.1	17.2	28.0	3.0	5.9	29.2	28.2	46.0	16.8	17.8
5.	270.00	BB	33.8	33.1	18.5	27.9	3.5	6.0	33.9	33.2	46.0	12.1	12.8
6.	324.00	BB	34.2	31.9	16.9	27.9	3.9	6.0	33.1	30.8	46.0	12.9	15.2
7.	405.01	BB	36.5	37.4	17.9	27.9	4.5	6.0	37.0	37.9	46.0	9.0	8.1
8.	459.00	BB	34.6	31.7	18.8	27.9	4.9	6.0	36.4	33.5	46.0	9.6	12.5
9.	513.00	BB	28.9	29.7	19.5	27.9	5.2	6.0	31.7	32.5	46.0	14.3	13.5
10.	675.00	BB	32.8	31.0	22.0	27.4	6.1	6.0	39.5	37.7	46.0	6.5	8.3
11.	945.00	BB	24.1	28.4	26.1	27.1	7.5	6.0	36.6	40.9	46.0	9.4	5.1

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

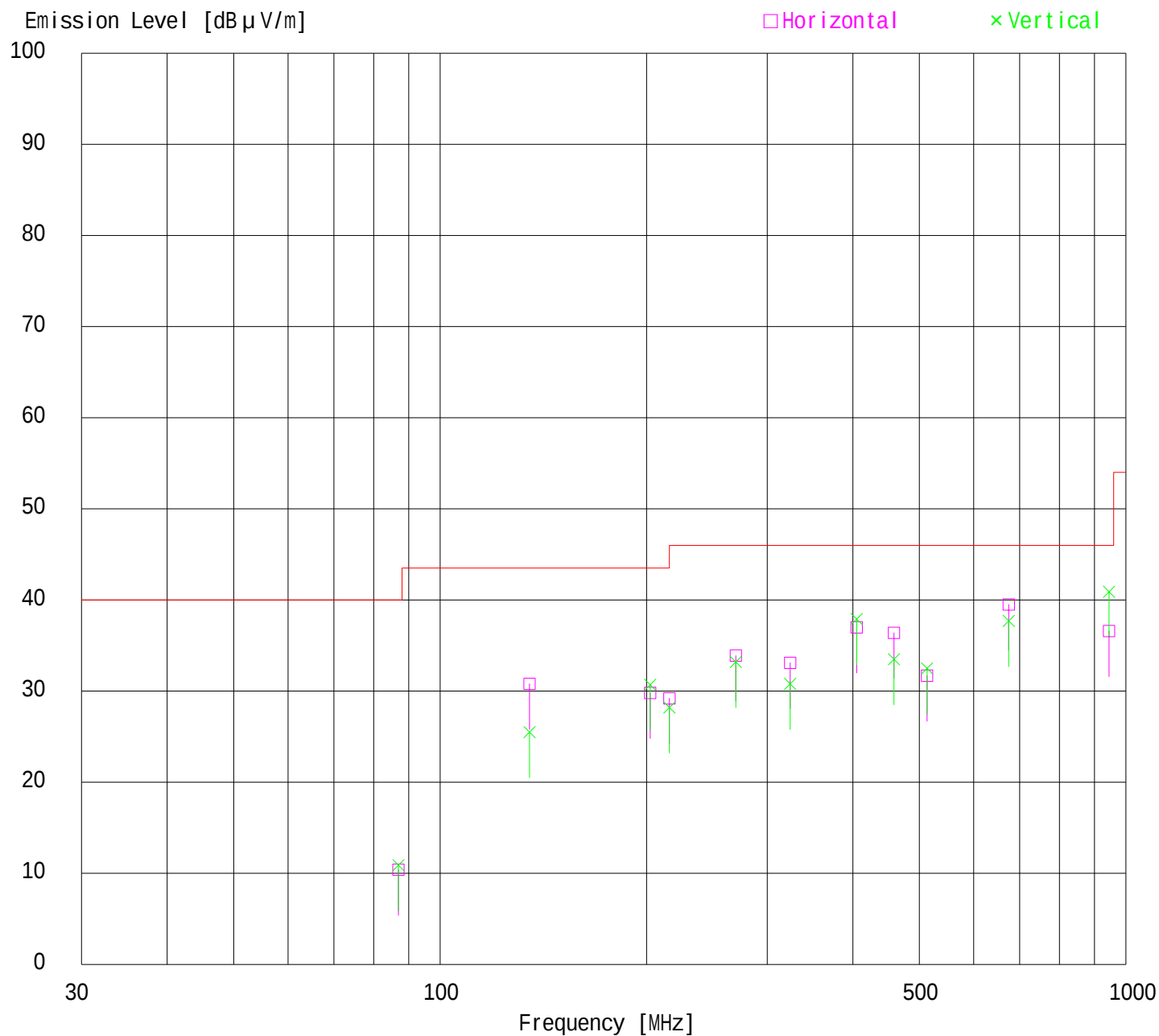
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.00	BB	47.0	54.0	25.3	40.0	3.4	0.0	35.7	42.7	54.0	18.3	11.3
2.	1215.06	BB	46.1	48.8	26.0	39.8	3.6	0.0	35.9	38.6	54.0	18.1	15.4
3.	2644.16	BB	40.7	38.3	31.5	38.6	6.0	0.0	39.6	37.2	54.0	14.4	16.8

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

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

ANT.TYPE: 1-5GHz Horn

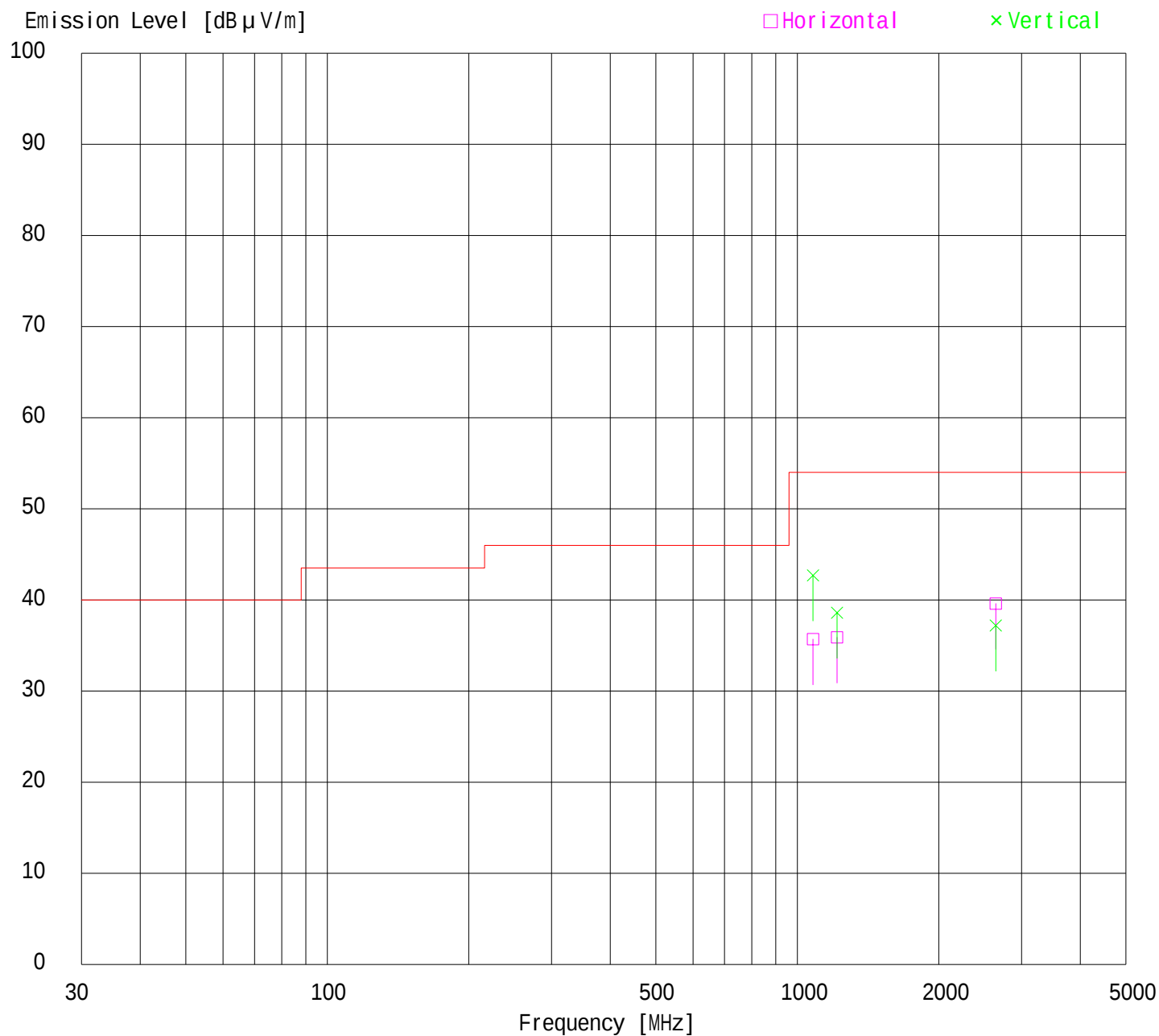
DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.00	BB	54.0	58.6	25.3	40.0	3.4	0.0	42.7	47.3	74.0	31.3	26.7
2.	1215.06	BB	52.2	59.2	26.0	39.8	3.6	0.0	42.0	49.0	74.0	32.0	25.0
3.	2644.16	BB	53.0	50.2	31.5	38.6	6.0	0.0	51.9	49.1	74.0	22.1	24.9

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

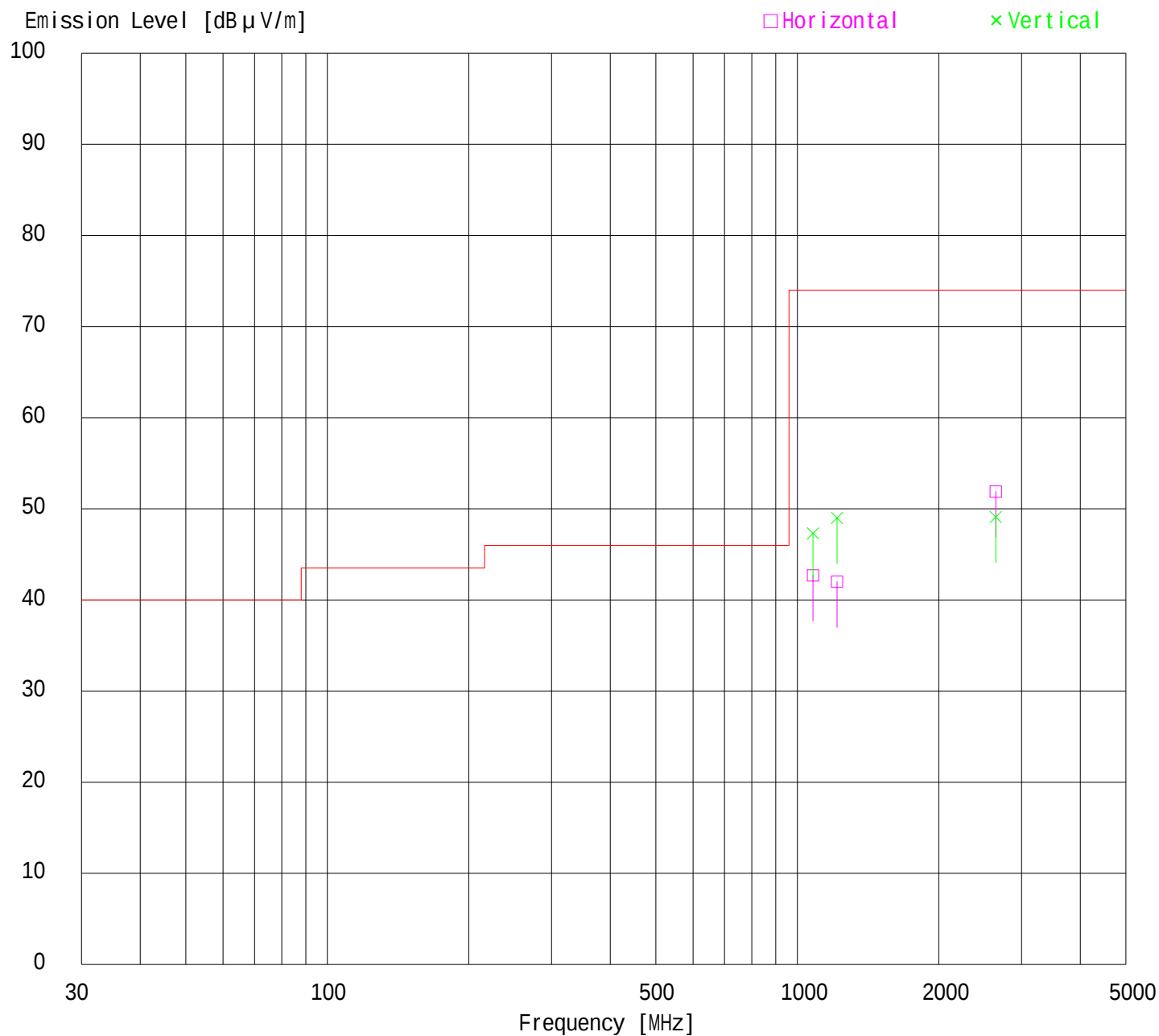
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : AV input 2 + Rec
Remarks : 5V p-p
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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.	37.91	BB	24.5	26.1	15.6	28.5	1.1	6.0	18.7	20.3	40.0	21.3	19.7
2.	135.00	BB	33.6	36.7	14.4	28.2	2.3	5.9	28.0	31.1	43.5	15.5	12.4
3.	202.51	BB	33.9	28.8	17.1	28.0	2.9	5.9	31.8	26.7	43.5	11.7	16.8
4.	216.00	BB	33.9	30.1	17.2	28.0	3.0	5.9	32.0	28.2	43.5	11.5	15.3
5.	270.00	BB	39.8	40.2	18.5	27.9	3.5	6.0	39.9	40.3	46.0	6.1	5.7
6.	324.00	BB	33.6	37.8	16.9	27.9	3.9	6.0	32.5	36.7	46.0	13.5	9.3
7.	405.00	BB	37.6	37.6	17.9	27.9	4.5	6.0	38.1	38.1	46.0	7.9	7.9
8.	459.00	BB	34.6	36.4	18.8	27.9	4.9	6.0	36.4	38.2	46.0	9.6	7.8
9.	513.03	BB	28.9	31.3	19.5	27.9	5.2	6.0	31.7	34.1	46.0	14.3	11.9
10.	675.00	BB	30.0	33.7	22.0	27.4	6.1	6.0	36.7	40.4	46.0	9.3	5.6
11.	945.00	BB	23.7	25.6	26.1	27.1	7.5	6.0	36.2	38.1	46.0	9.8	7.9

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

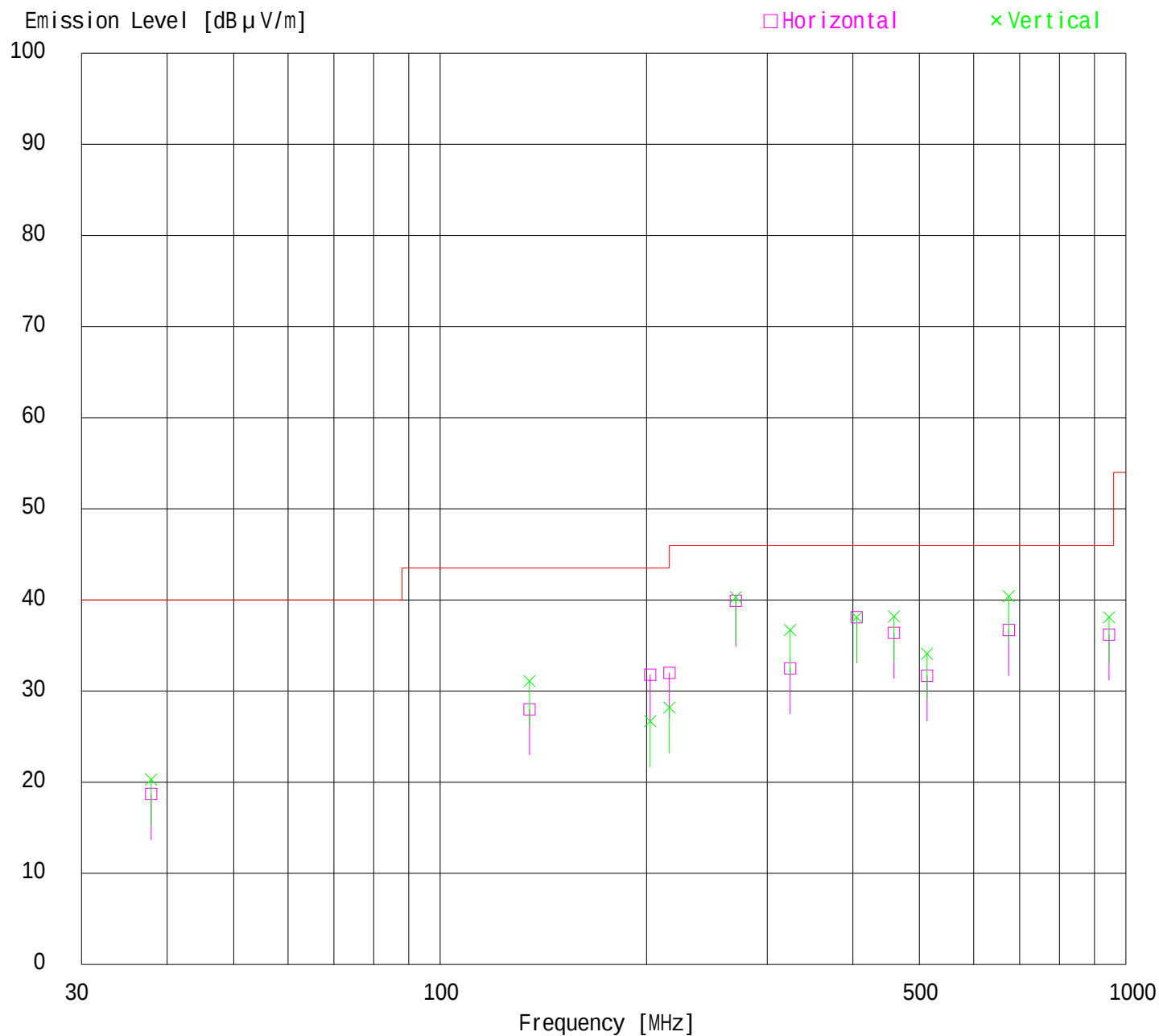
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.00	BB	51.4	54.6	25.3	40.0	3.4	0.0	40.1	43.3	54.0	13.9	10.7
2.	1215.00	BB	48.1	48.9	26.0	39.8	3.6	0.0	37.9	38.7	54.0	16.1	15.3
3.	2639.90	BB	36.5	35.6	31.5	38.6	6.0	0.0	35.4	34.5	54.0	18.6	19.5

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

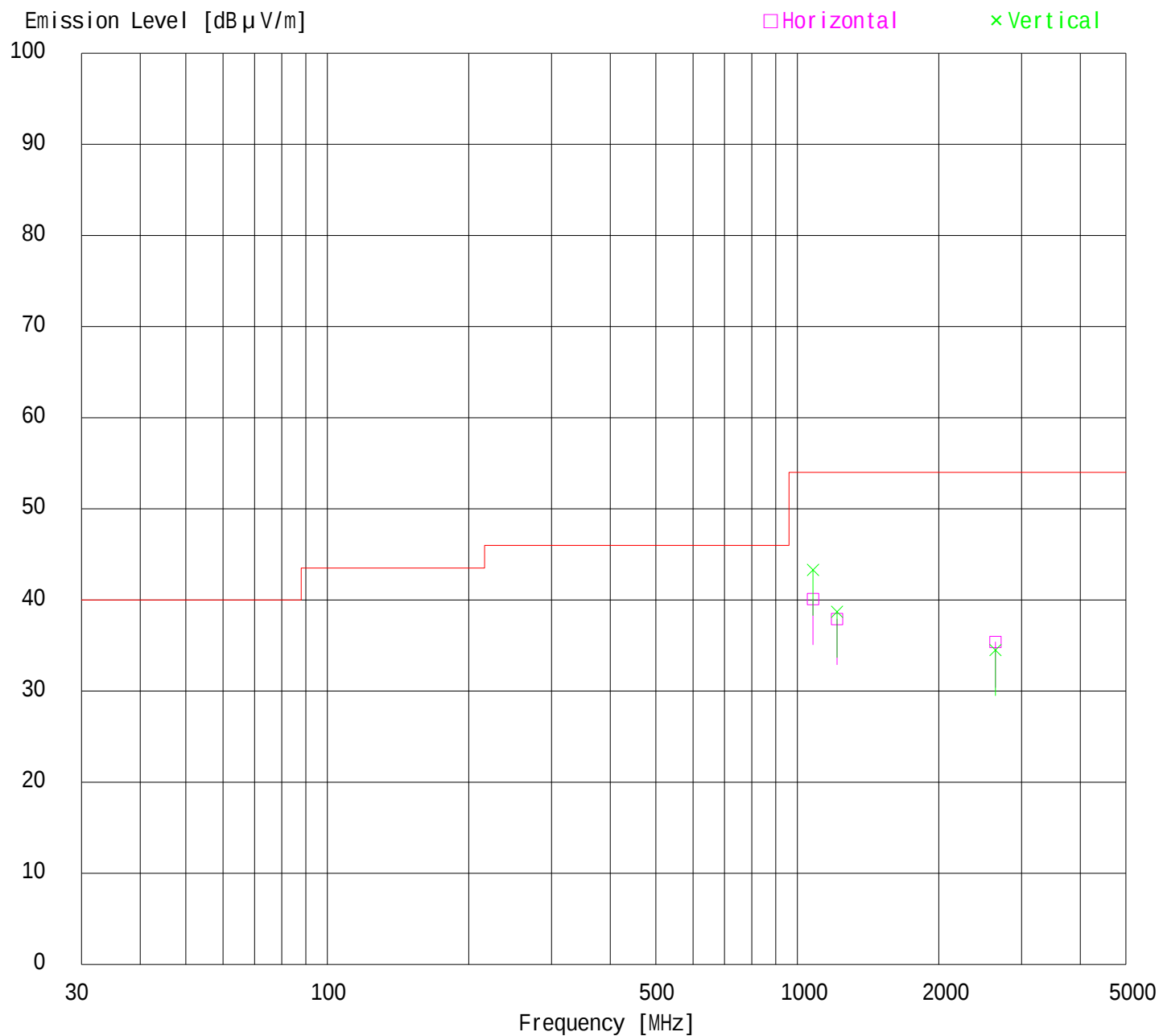
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1080.00	BB	53.8	57.9	25.3	40.0	3.4	0.0	42.5	46.6	74.0	31.5	27.4
2.	1215.00	BB	53.2	54.5	26.0	39.8	3.6	0.0	43.0	44.3	74.0	31.0	29.7
3.	2639.90	BB	48.3	48.2	31.5	38.6	6.0	0.0	47.2	47.1	74.0	26.8	26.9

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

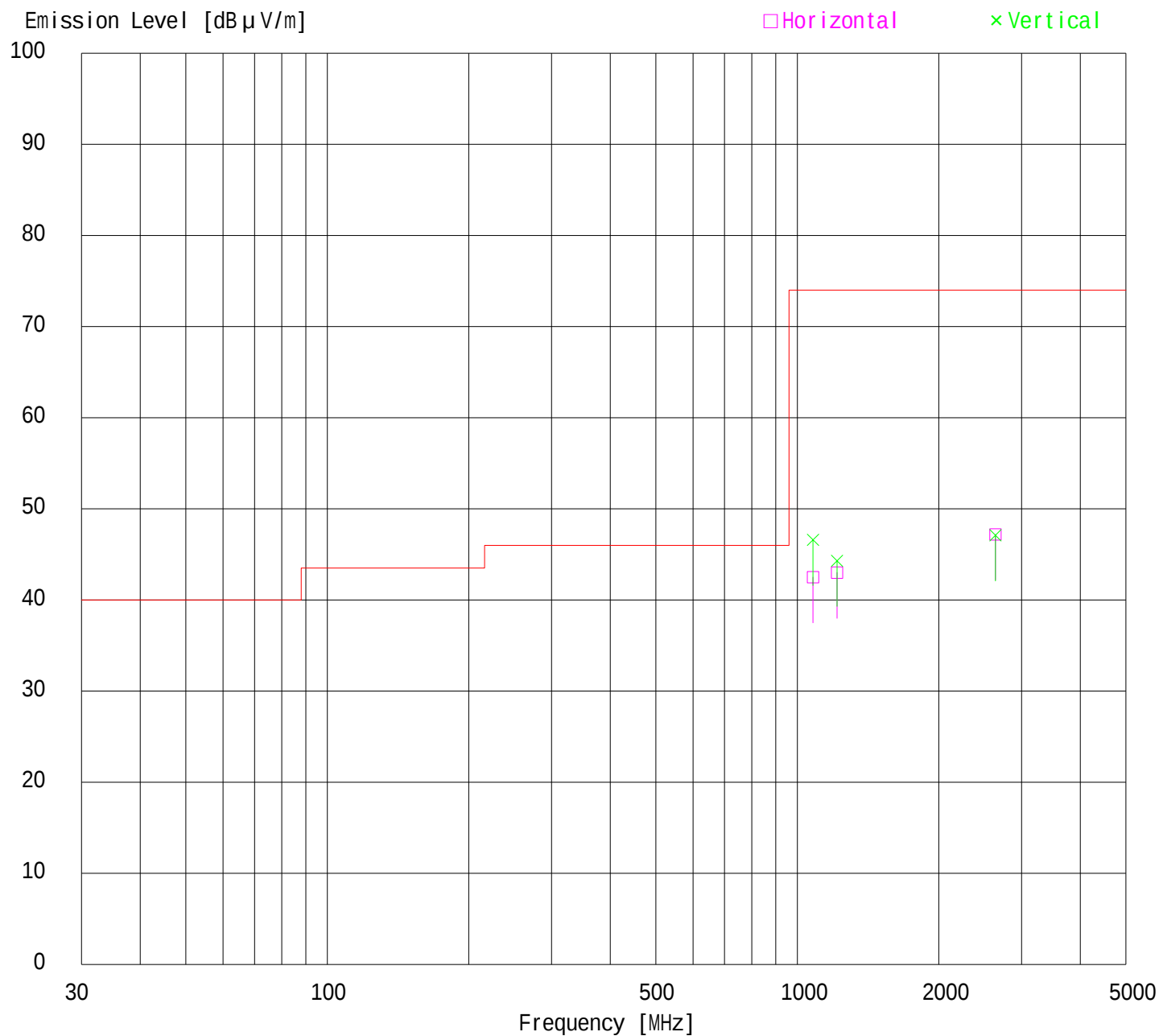
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Playback
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
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. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
 Kind of Equipment : DVD Player with Video Cassette Recorder
 Model No. : SD-V393SU
 Serial No. : -
 Power : AC120V/60Hz
 Mode : DVD Play
 Remarks :
 Date : 2/4/2005
 Test Distance : 3 m
 Temperature : 23
 Humidity : 32 %
 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 μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	86.93	BB	25.1	31.3	7.3	28.2	1.8	5.9	11.9	18.1	40.0	28.1	21.9
2.	135.00	BB	32.7	34.7	14.4	28.2	2.3	5.9	27.1	29.1	43.5	16.4	14.4
3.	202.51	BB	39.1	33.6	17.1	28.0	2.9	5.9	37.0	31.5	43.5	6.5	12.0
4.	216.02	BB	35.9	28.8	17.2	28.0	3.0	5.9	34.0	26.9	46.0	12.0	19.1
5.	270.01	BB	40.6	39.9	18.5	27.9	3.5	6.0	40.7	40.0	46.0	5.3	6.0
6.	286.86	BB	29.8	29.7	19.6	27.9	3.6	6.0	31.1	31.0	46.0	14.9	15.0
7.	324.00	BB	34.0	36.5	16.9	27.9	3.9	6.0	32.9	35.4	46.0	13.1	10.6
8.	405.01	BB	36.6	35.6	17.9	27.9	4.5	6.0	37.1	36.1	46.0	8.9	9.9
9.	459.00	BB	34.0	33.3	18.8	27.9	4.9	6.0	35.8	35.1	46.0	10.2	10.9
10.	513.00	BB	30.8	32.8	19.5	27.9	5.2	6.0	33.6	35.6	46.0	12.4	10.4
11.	675.00	BB	33.1	30.7	22.0	27.4	6.1	6.0	39.8	37.4	46.0	6.2	8.6
12.	945.00	BB	25.8	29.5	26.1	27.1	7.5	6.0	38.3	42.0	46.0	7.7	4.0

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

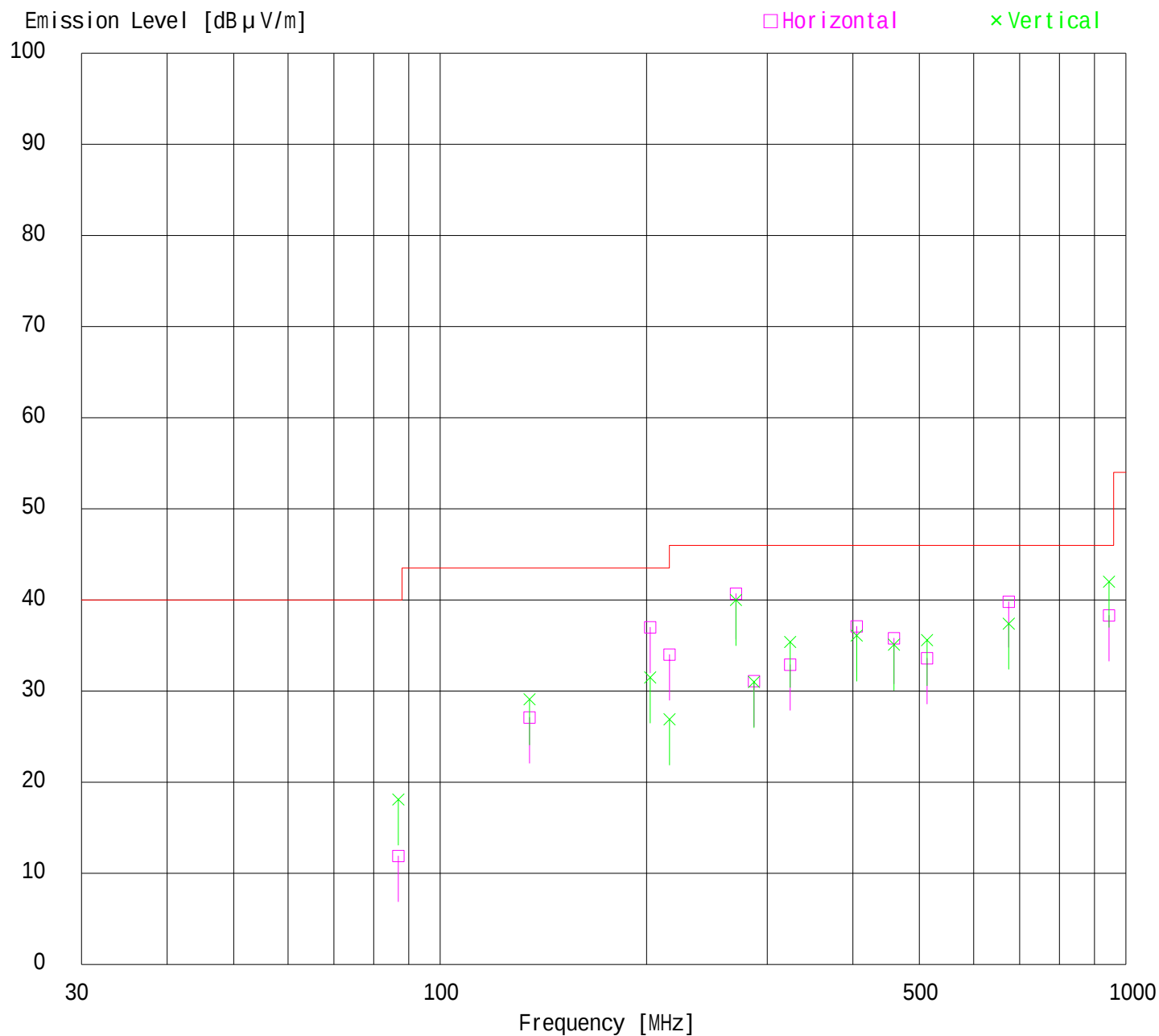
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
Regulation : FCC Part15B CLASS B

Engineer : Tsubasa Takayama



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)

No.	FREQ.	ANT TYPE	READING		ANT FACTOR	AMP GAIN	CABLE LOSS	ATTEN.	RESULT		LIMITS	MARGIN	
	[MHz]		HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1079.98	BB	50.5	52.9	25.3	40.0	3.4	0.0	39.2	41.6	54.0	14.8	12.4
2.	1214.92	BB	48.6	46.5	26.0	39.8	3.6	0.0	38.4	36.3	54.0	15.6	17.7
3.	2648.40	BB	36.5	37.4	31.5	38.6	6.0	0.0	35.4	36.3	54.0	18.6	17.7

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

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

ANT.TYPE: 1-5GHz Horn

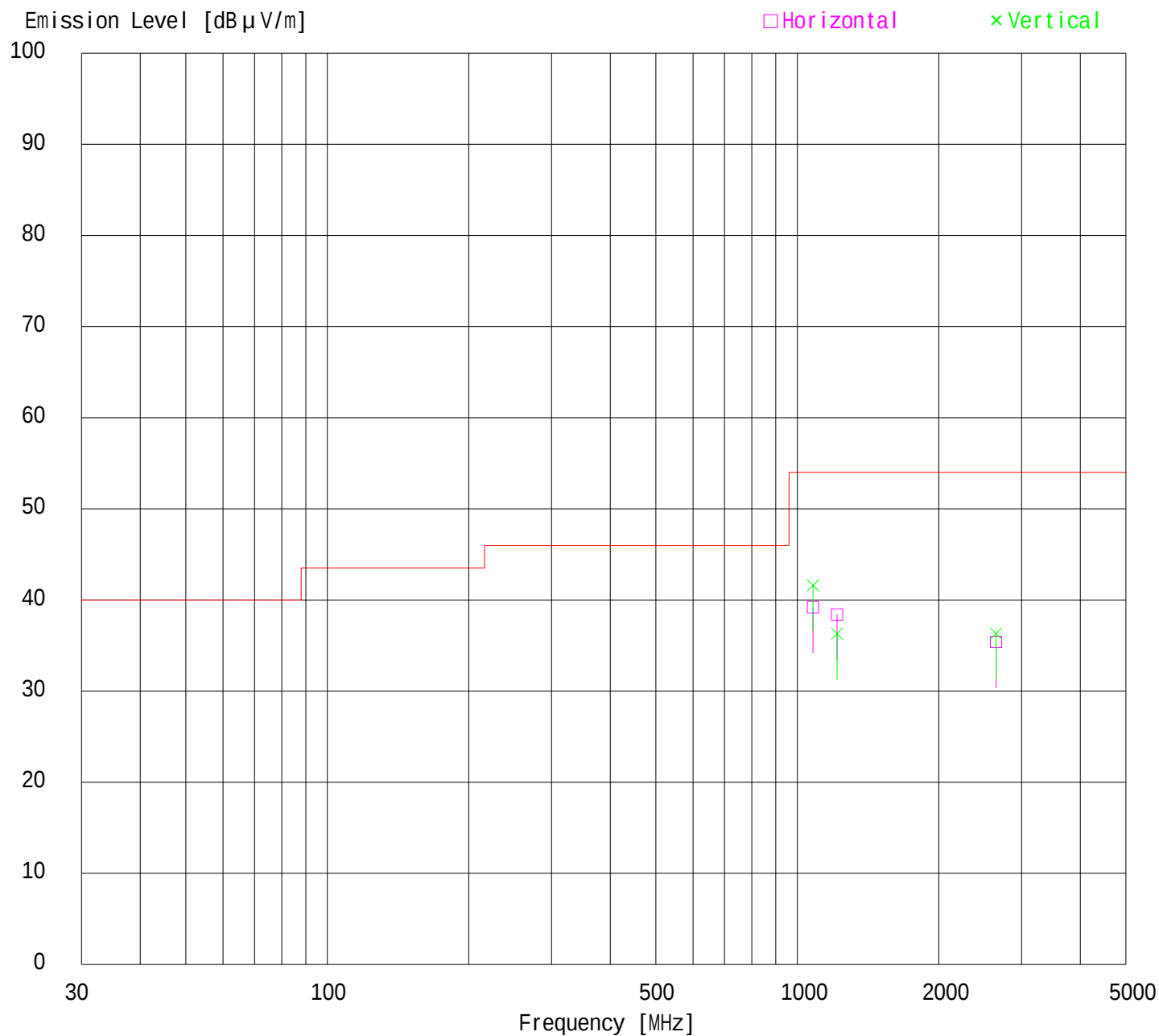
DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23 Engineer : Tsubasa Takayama
Humidity : 32 %
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.	1079.98	BB	56.4	59.0	25.3	40.0	3.4	0.0	45.1	47.7	74.0	28.9	26.3
2.	1214.92	BB	54.9	52.4	26.0	39.8	3.6	0.0	44.7	42.2	74.0	29.3	31.8
3.	2648.40	BB	49.2	49.8	31.5	38.6	6.0	0.0	48.1	48.7	74.0	25.9	25.3

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

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

ANT.TYPE: 1-5GHz Horn

DATA OF RADIATION TEST

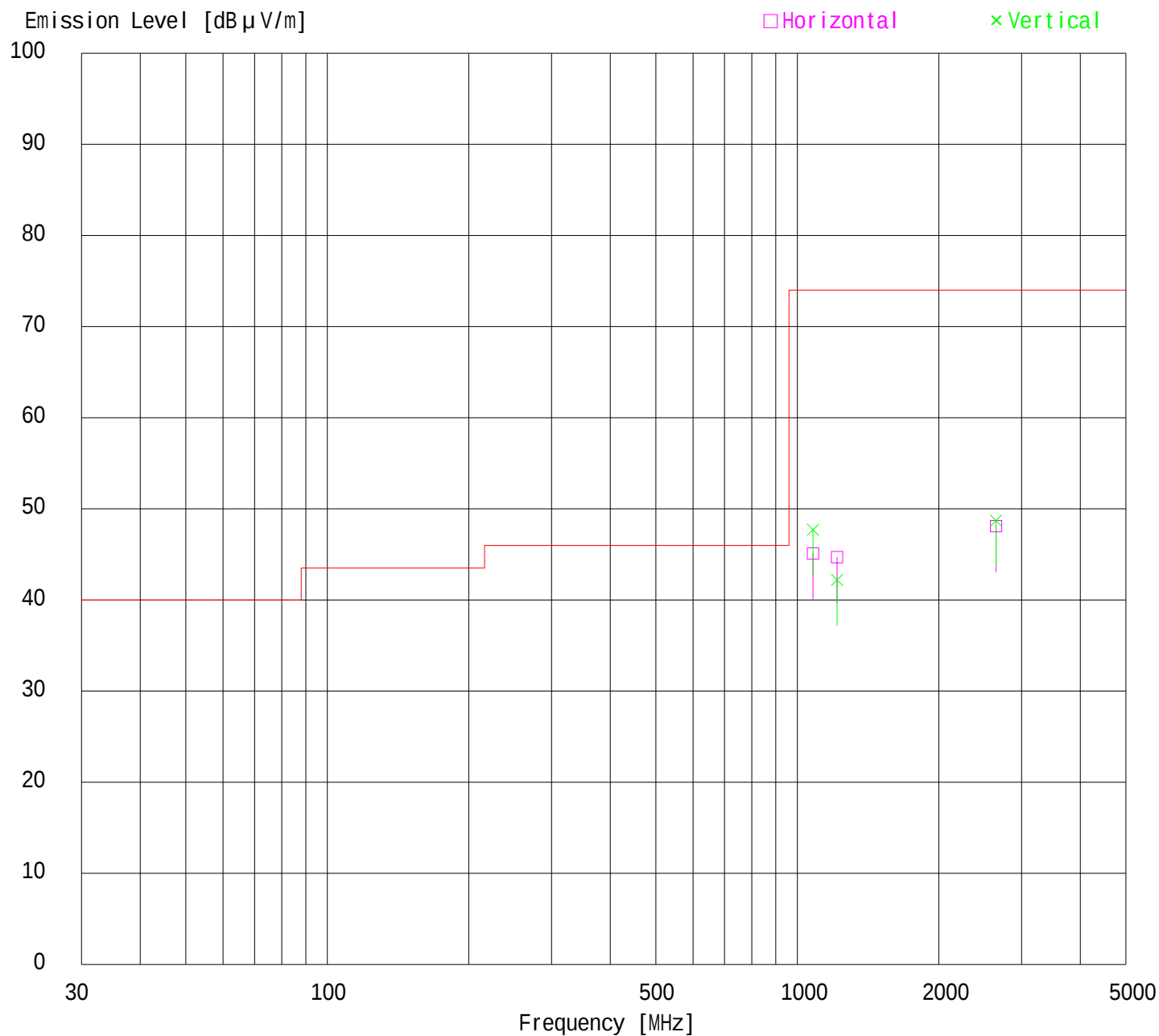
UL Apex Co., Ltd.

YOKOWA No.3 OPEN TEST SITE

Report No. : 25FE0296-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD Player with Video Cassette Recorder
Model No. : SD-V393SU
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 2/4/2005
Test Distance : 3 m
Temperature : 23
Humidity : 32 %
Regulation : FCC Part15B CLASS B(Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama



DATA OF ANTENNA TERMINAL TEST

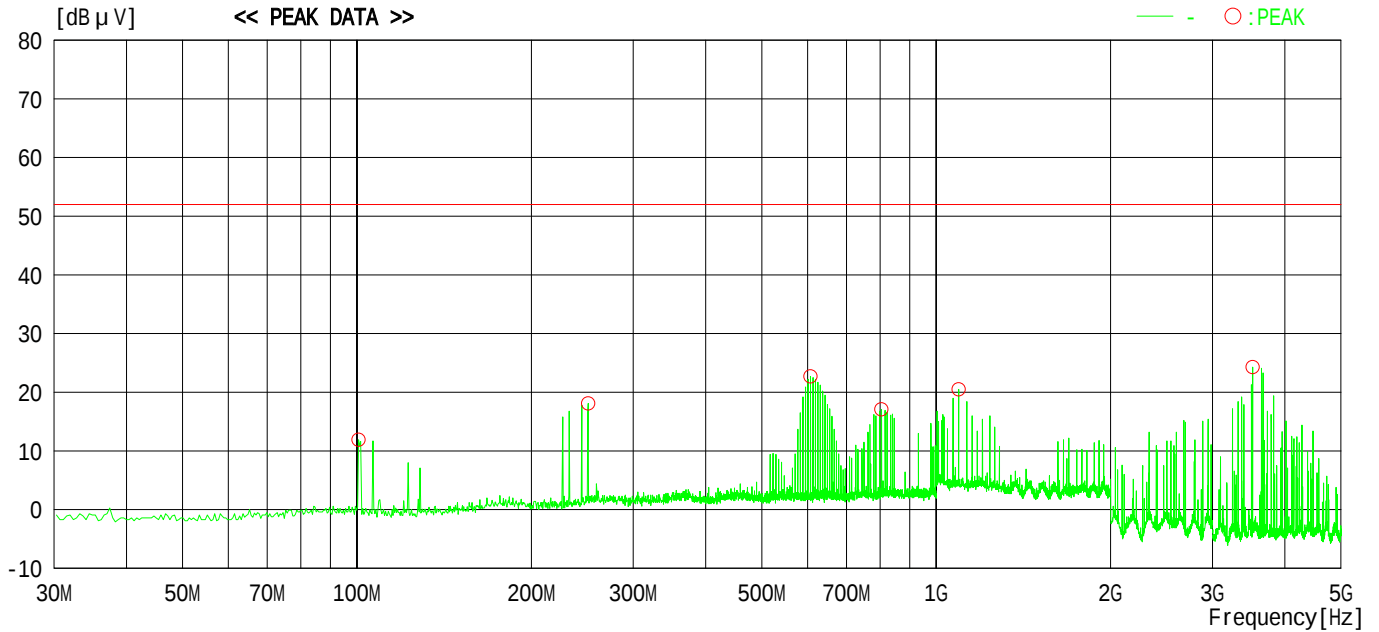
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
OPERATION MODE : TV Tuning mode

REPORT NO : 25FE0296-YW-1
DATE : February 01,2005
REGULATION : FCC 15B SubpartB
TEST ENGINEER : Tsubasa Takayama

TEMP./HUMID. : 26 /68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING Peak [dB μ V]	C.F [dB]	RESULT Peak [dB μ V]	LIMIT Peak [dB μ V]	MARGIN - [dB μ V]	MARGIN [dB]	PHASE
1	100.66400	32.5	-20.6	11.9	52.0	----	40.1	----
2	250.69350	37.8	-19.7	18.1	52.0	----	33.9	----
3	606.85390	43.0	-20.3	22.7	52.0	----	29.3	----
4	804.57570	37.0	-19.9	17.1	52.0	----	34.9	----
5	1093.56700	46.5	-26.0	20.5	52.0	----	31.5	----
6	3518.53300	57.0	-32.7	24.3	52.0	----	27.7	----

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

DATA OF ANTENNA TERMINAL TEST

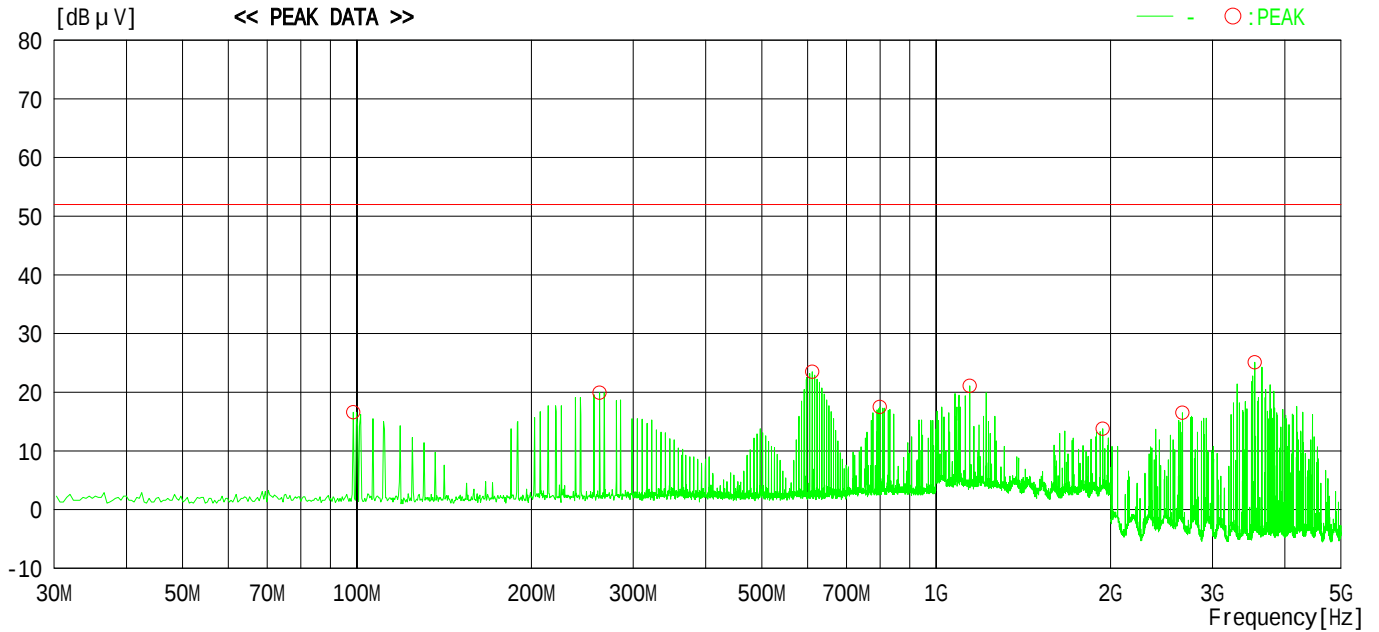
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co.,Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
OPERATION MODE : CATV Tuning mode

REPORT NO : 25FE0296-YW-1
DATE : February 01,2005
REGULATION : FCC 15B SubpartB
TEST ENGINEER : Tsubasa Takayama

TEMP./HUMID. : 26 /68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING Peak [dB μ V]	C.F [dB]	RESULT Peak [dB μ V]	LIMIT Peak [dB μ V]	MARGIN - [dB μ V]	MARGIN [dB]	PHASE
1	98.55685	37.2	-20.6	16.6	52.0	----	35.4	----
2	262.49330	39.5	-19.6	19.9	52.0	----	32.1	----
3	610.85380	43.8	-20.3	23.5	52.0	----	28.5	----
4	799.43260	37.5	-20.0	17.5	52.0	----	34.5	----
5	1142.84900	47.2	-26.1	21.1	52.0	----	30.9	----
6	1939.96800	39.5	-25.7	13.8	52.0	----	38.2	----
7	2661.38400	48.8	-32.3	16.5	52.0	----	35.5	----
8	3548.53100	57.8	-32.7	25.1	52.0	----	26.9	----

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

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: TV Reception + Rec (0dBmV)	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	86.1	20.9	65.2	69.5	4.3
4	67.25	84.4	20.7	63.7	69.5	5.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	72.0	20.9	51.1	56.5	5.4
	65.75	70.4	20.8	49.6	56.5	6.9
4	62.75	70.0	20.9	49.1	56.5	7.4
	71.75	68.9	20.7	48.2	56.5	8.3

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: TV Reception + Rec (25dBmV)	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	86.2	20.9	65.3	69.5	4.2
4	67.25	84.8	20.7	64.1	69.5	5.4

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.7	20.9	50.8	56.5	5.7
	65.75	70.4	20.8	49.6	56.5	6.9
4	62.75	70.2	20.9	49.3	56.5	7.2
	71.75	69.2	20.7	48.5	56.5	8.0

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: AV Input 1 + Rec (1Vp-p)	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.5	20.9	64.6	69.5	4.9
4	67.25	84.4	20.7	63.7	69.5	5.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.3	20.9	50.4	56.5	6.1
	65.75	70.1	20.8	49.3	56.5	7.2
4	62.75	70.4	20.9	49.5	56.5	7.0
	71.75	69.2	20.7	48.5	56.5	8.0

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: AV Input 1 + Rec (5Vp-p)	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.2	20.9	64.3	69.5	5.2
4	67.25	84.5	20.7	63.8	69.5	5.7

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.3	20.9	50.4	56.5	6.1
	65.75	70.0	20.8	49.2	56.5	7.3
4	62.75	70.9	20.9	50.0	56.5	6.5
	71.75	69.3	20.7	48.6	56.5	7.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: AV Input 2 + Rec (1Vp-p)	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.3	20.9	64.4	69.5	5.1
4	67.25	84.8	20.7	64.1	69.5	5.4

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.2	20.9	50.3	56.5	6.2
	65.75	70.3	20.8	49.5	56.5	7.0
4	62.75	70.4	20.9	49.5	56.5	7.0
	71.75	69.4	20.7	48.7	56.5	7.8

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Prat15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: AV Input 2 + Rec (5Vp-p)	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.4	20.9	64.5	69.5	5.0
4	67.25	84.4	20.7	63.7	69.5	5.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.6	20.9	50.7	56.5	5.8
	65.75	70.2	20.8	49.4	56.5	7.1
4	62.75	70.8	20.9	49.9	56.5	6.6
	71.75	69.3	20.7	48.6	56.5	7.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: VCR Playback	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.2	20.9	64.3	69.5	5.2
4	67.25	84.5	20.7	63.8	69.5	5.7

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.0	20.9	50.1	56.5	6.4
	65.75	69.7	20.8	48.9	56.5	7.6
4	62.75	70.1	20.9	49.2	56.5	7.3
	71.75	68.9	20.7	48.2	56.5	8.3

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0296-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: SD-V393SU	Date	: February 4, 2005
Power	: AC 120 V / 60 Hz	Temp./Humid	: 22 deg. C. / 51%
Description	: DVD Play	Engineer	: Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	85.5	20.9	64.6	69.5	4.9
4	67.25	84.7	20.7	64.0	69.5	5.5

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	71.3	20.9	50.4	56.5	6.1
	65.75	70.1	20.8	49.3	56.5	7.2
4	62.75	70.6	20.9	49.7	56.5	6.8
	71.75	69.4	20.7	48.7	56.5	7.8

DATA OF RF SUPRIIOUS TEST

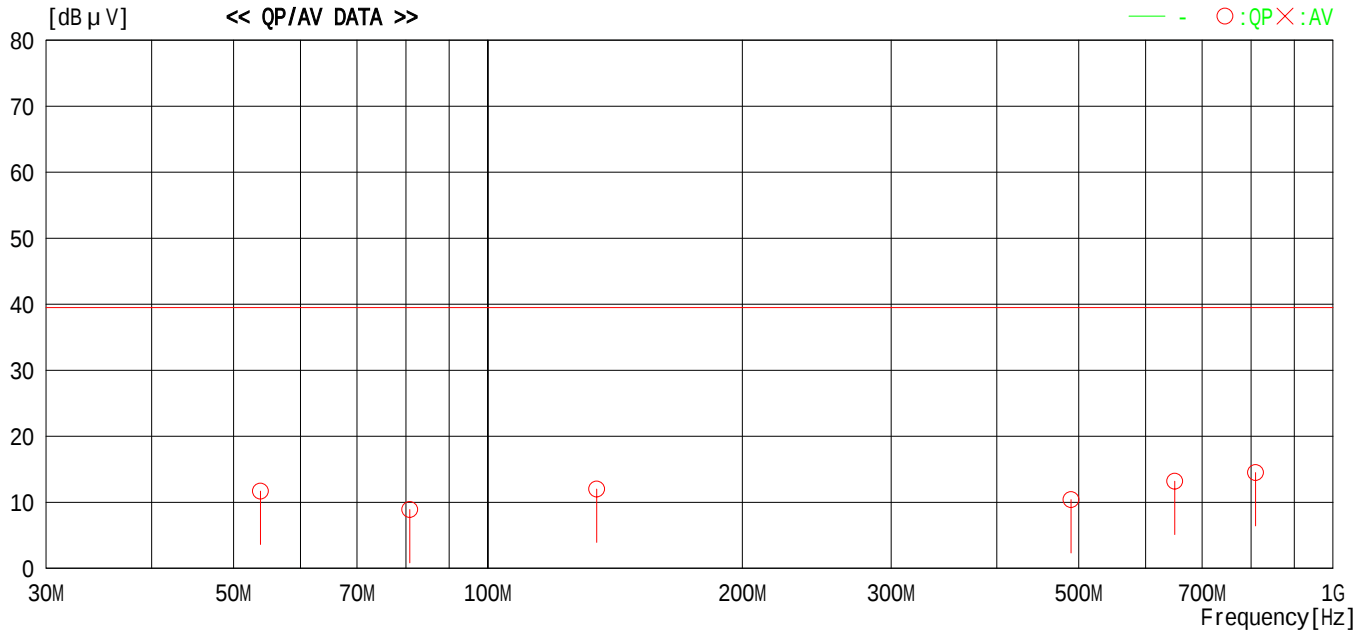
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
	[MHz]	Peak	-		Peak	-	Peak	-	[dB]	[dB]	
		[dB μ V]	[dB μ V]	[dB]	[dB μ V]	[dB μ V]	[dB μ V]	[dB μ V]			
1	53.8200	32.6	----	-20.9	11.7	----	39.5	----	27.8	----	-
2	80.8100	29.5	----	-20.6	8.9	----	39.5	----	30.6	----	-
3	134.5100	32.4	----	-20.4	12.0	----	39.5	----	27.5	----	-
4	489.7000	30.7	----	-20.3	10.4	----	39.5	----	29.1	----	-
5	649.7300	33.5	----	-20.3	13.2	----	39.5	----	26.3	----	-
6	809.7300	34.4	----	-19.9	14.5	----	39.5	----	25.0	----	-

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

DATA OF RF SUPRIIOUS TEST

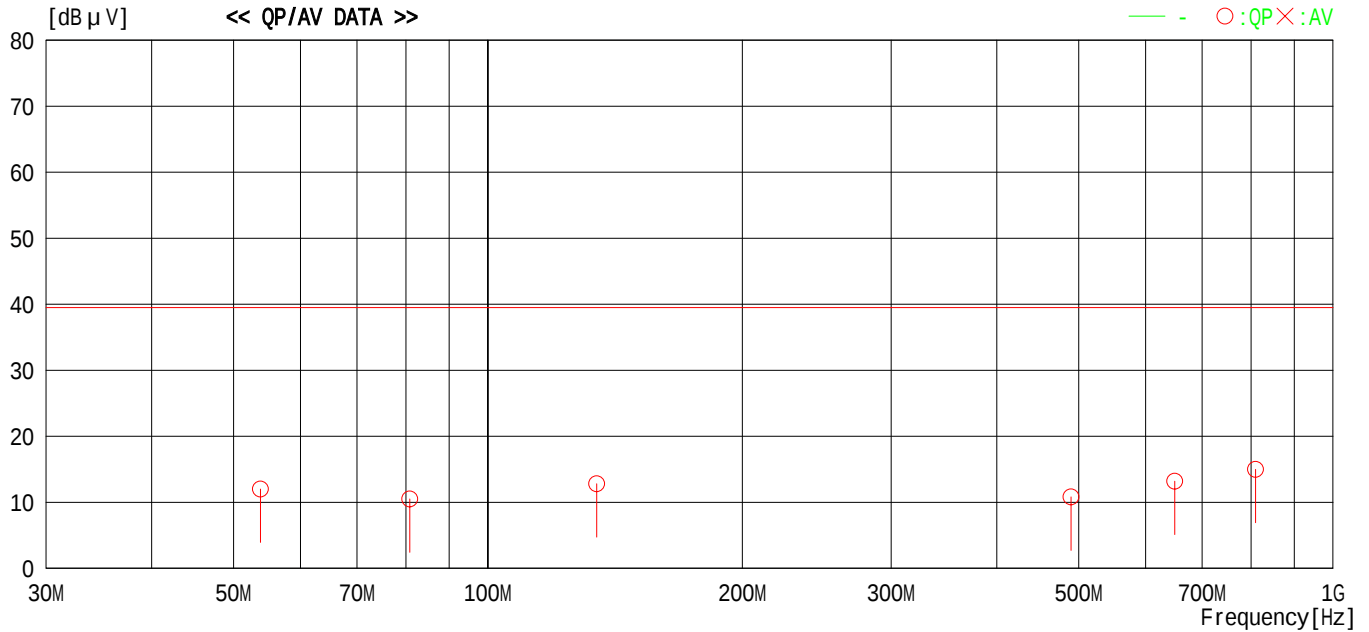
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS



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

DATA OF RF SUPRIOUS TEST

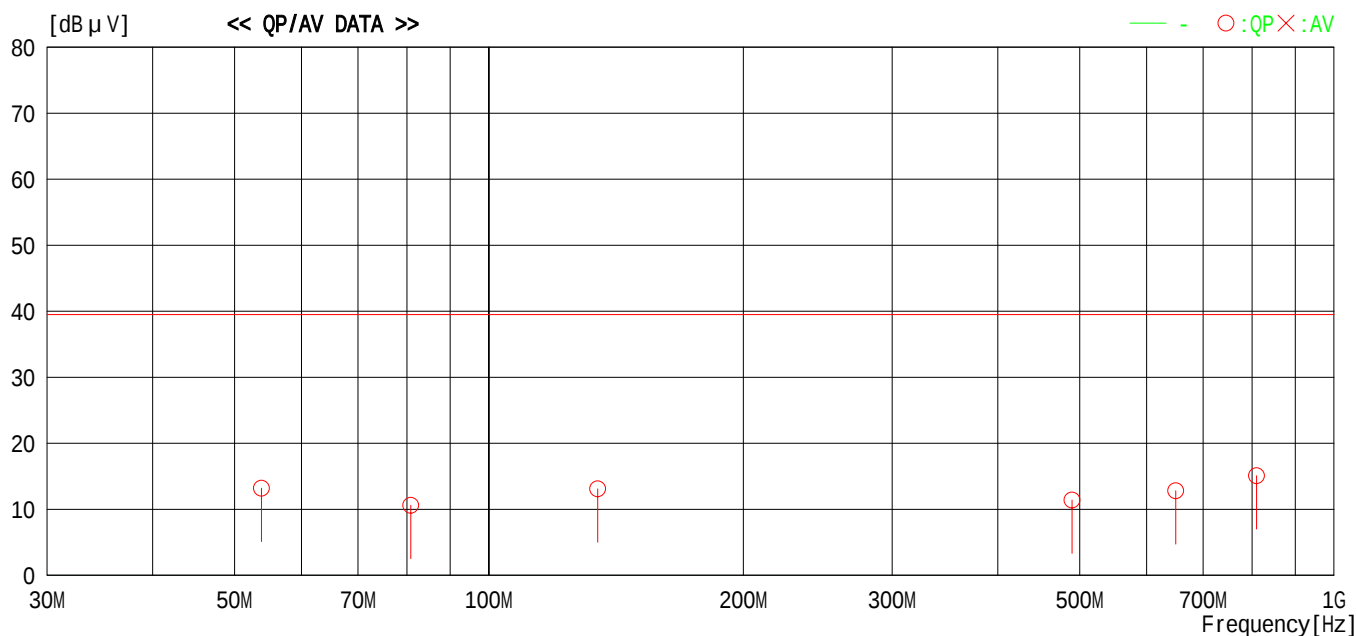
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input1+Rec (1V p-p:3ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8200	34.1	----	-20.9	13.2	----	39.5	----	26.3	----	-
2	80.8100	31.2	----	-20.6	10.6	----	39.5	----	28.9	----	-
3	134.5100	33.5	----	-20.4	13.1	----	39.5	----	26.4	----	-
4	489.7000	31.7	----	-20.3	11.4	----	39.5	----	28.1	----	-
5	649.7300	33.1	----	-20.3	12.8	----	39.5	----	26.7	----	-
6	809.7300	35.0	----	-19.9	15.1	----	39.5	----	24.4	----	-

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

DATA OF RF SUPRIOUS TEST

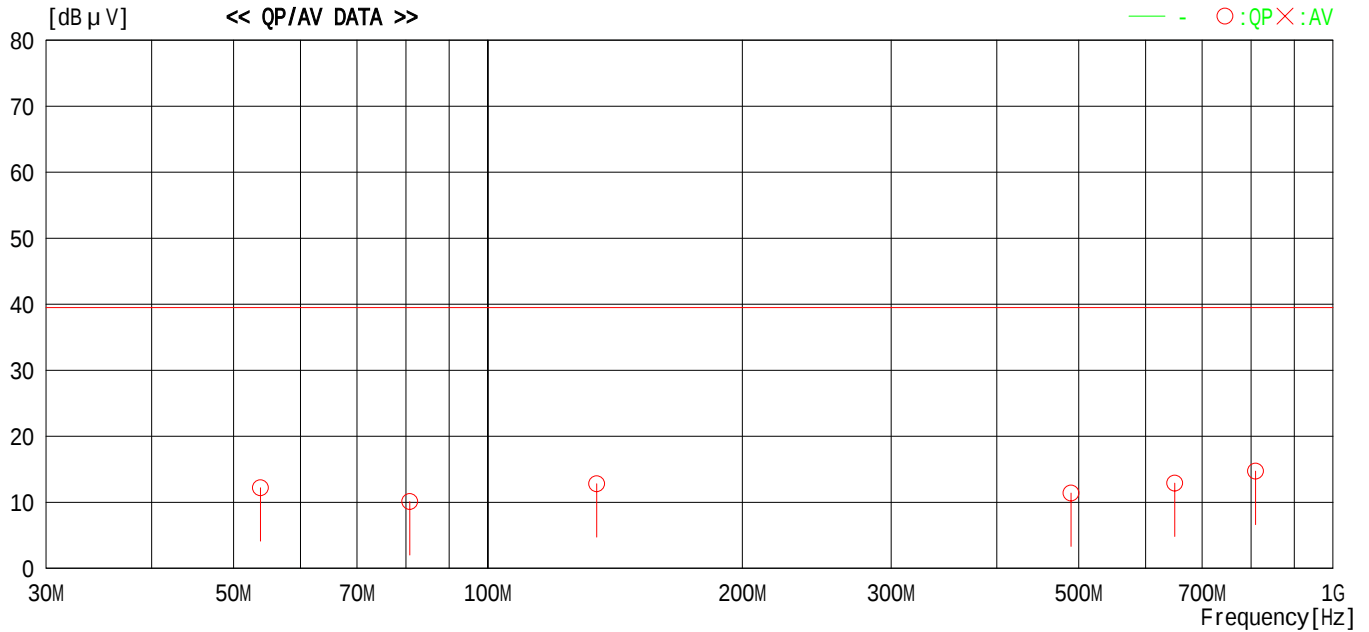
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input1+Rec (5V p-p:3ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8200	33.1	----	-20.9	12.2	----	39.5	----	27.3	----	-
2	80.8100	30.7	----	-20.6	10.1	----	39.5	----	29.4	----	-
3	134.5100	33.2	----	-20.4	12.8	----	39.5	----	26.7	----	-
4	489.7000	31.7	----	-20.3	11.4	----	39.5	----	28.1	----	-
5	649.7300	33.2	----	-20.3	12.9	----	39.5	----	26.6	----	-
6	809.7300	34.6	----	-19.9	14.7	----	39.5	----	24.8	----	-

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

DATA OF RF SUPRIOUS TEST

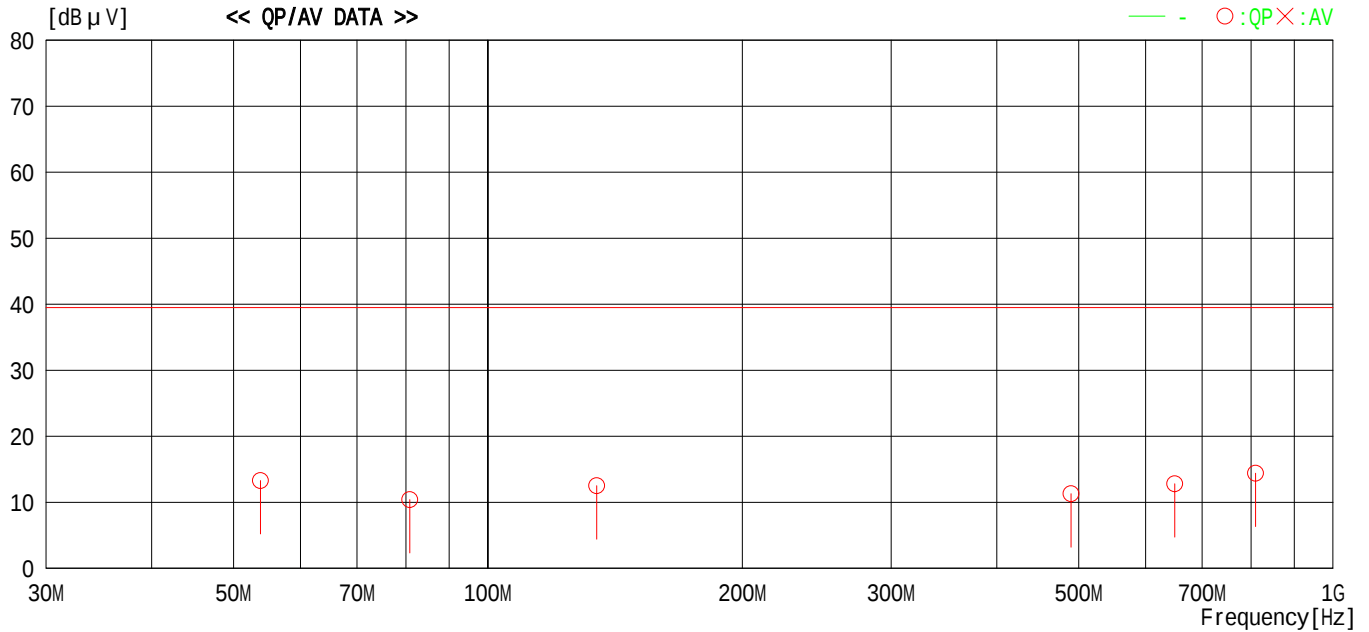
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input2+Rec (1V p-p:3ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8200	34.2	----	-20.9	13.3	----	39.5	----	26.2	----	-
2	80.8100	31.0	----	-20.6	10.4	----	39.5	----	29.1	----	-
3	134.5100	32.9	----	-20.4	12.5	----	39.5	----	27.0	----	-
4	489.7000	31.6	----	-20.3	11.3	----	39.5	----	28.2	----	-
5	649.7300	33.1	----	-20.3	12.8	----	39.5	----	26.7	----	-
6	809.7300	34.3	----	-19.9	14.4	----	39.5	----	25.1	----	-

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

DATA OF RF SUPRIIOUS TEST

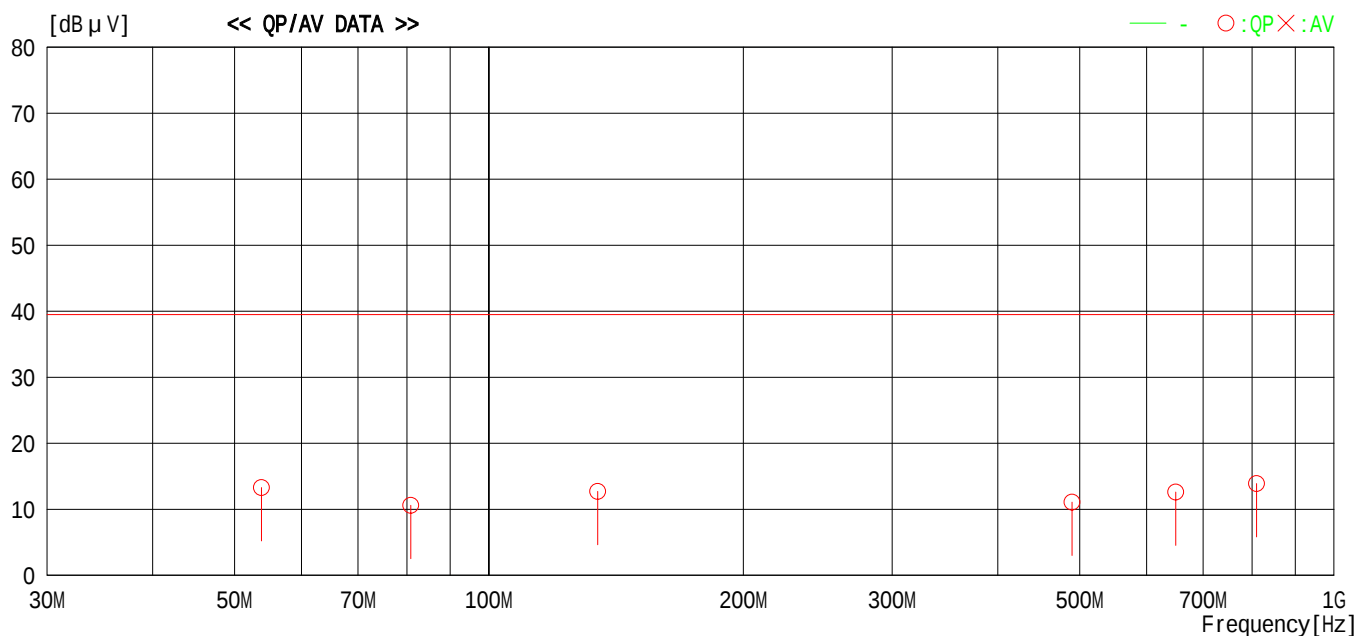
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input2+Rec (5V p-p:3ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8200	34.2	----	-20.9	13.3	----	39.5	----	26.2	----	-
2	80.8100	31.2	----	-20.6	10.6	----	39.5	----	28.9	----	-
3	134.5100	33.1	----	-20.4	12.7	----	39.5	----	26.8	----	-
4	489.7000	31.4	----	-20.3	11.1	----	39.5	----	28.4	----	-
5	649.7300	32.9	----	-20.3	12.6	----	39.5	----	26.9	----	-
6	809.7300	33.8	----	-19.9	13.9	----	39.5	----	25.6	----	-

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

DATA OF RF SUPRIIOUS TEST

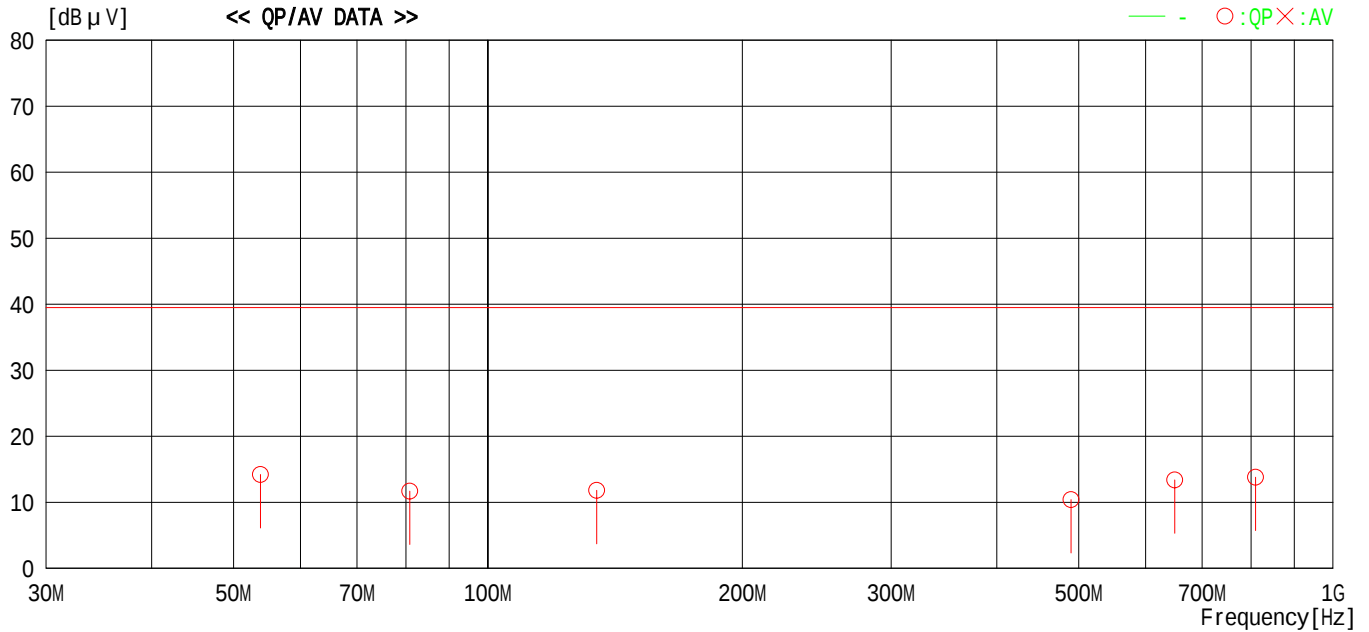
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR Playback (3ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8200	35.1	----	-20.9	14.2	----	39.5	----	25.3	----	-
2	80.8100	32.3	----	-20.6	11.7	----	39.5	----	27.8	----	-
3	134.5100	32.2	----	-20.4	11.8	----	39.5	----	27.7	----	-
4	489.7000	30.7	----	-20.3	10.4	----	39.5	----	29.1	----	-
5	649.7300	33.7	----	-20.3	13.4	----	39.5	----	26.1	----	-
6	809.7300	33.7	----	-19.9	13.8	----	39.5	----	25.7	----	-

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

DATA OF RF SUPRIIOUS TEST

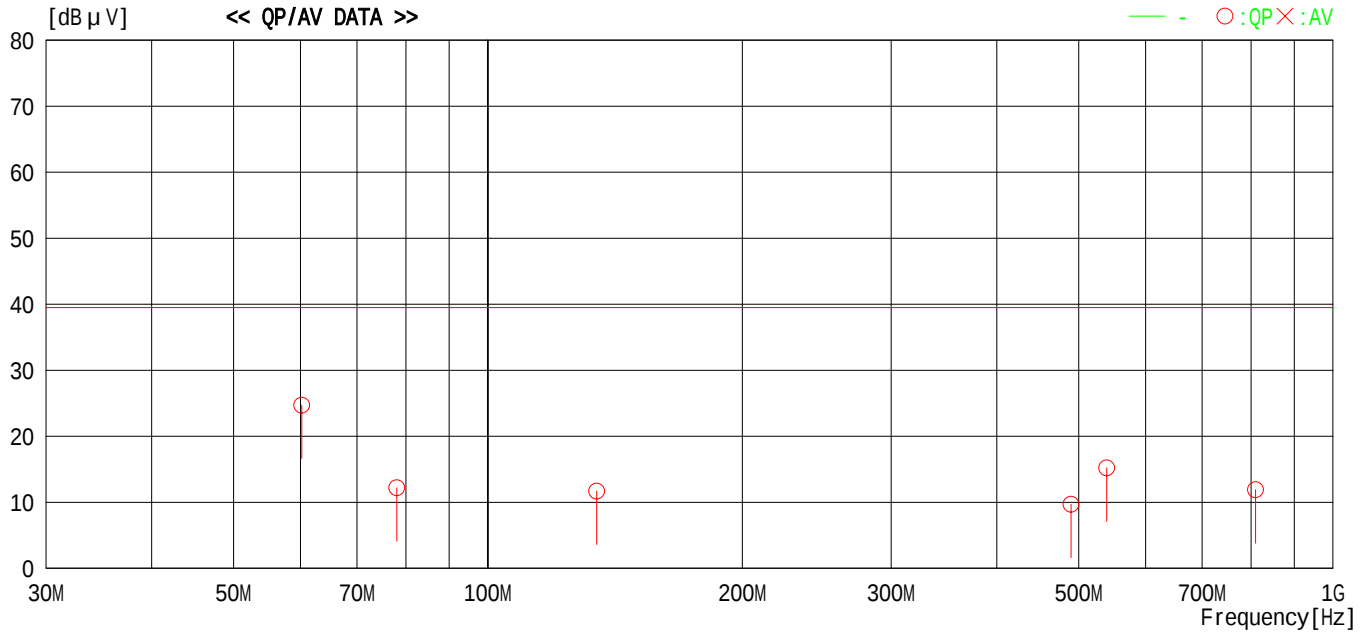
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD Play (3ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING Peak [dB μV]	READING - [dB μV]	C.F [dB]	RESULT Peak [dB μV]	RESULT - [dB μV]	LIMIT Peak [dB μV]	LIMIT - [dB μV]	MARGIN [dB]	MARGIN [dB]	PHASE
1	60.2100	45.6	----	-20.9	24.7	----	39.5	----	14.8	----	-
2	78.0000	32.8	----	-20.6	12.2	----	39.5	----	27.3	----	-
3	134.5100	32.1	----	-20.4	11.7	----	39.5	----	27.8	----	-
4	489.7000	30.0	----	-20.3	9.7	----	39.5	----	29.8	----	-
5	539.7400	35.6	----	-20.4	15.2	----	39.5	----	24.3	----	-
6	809.7300	31.8	----	-19.9	11.9	----	39.5	----	27.6	----	-

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

DATA OF RF SUPRIIOUS TEST

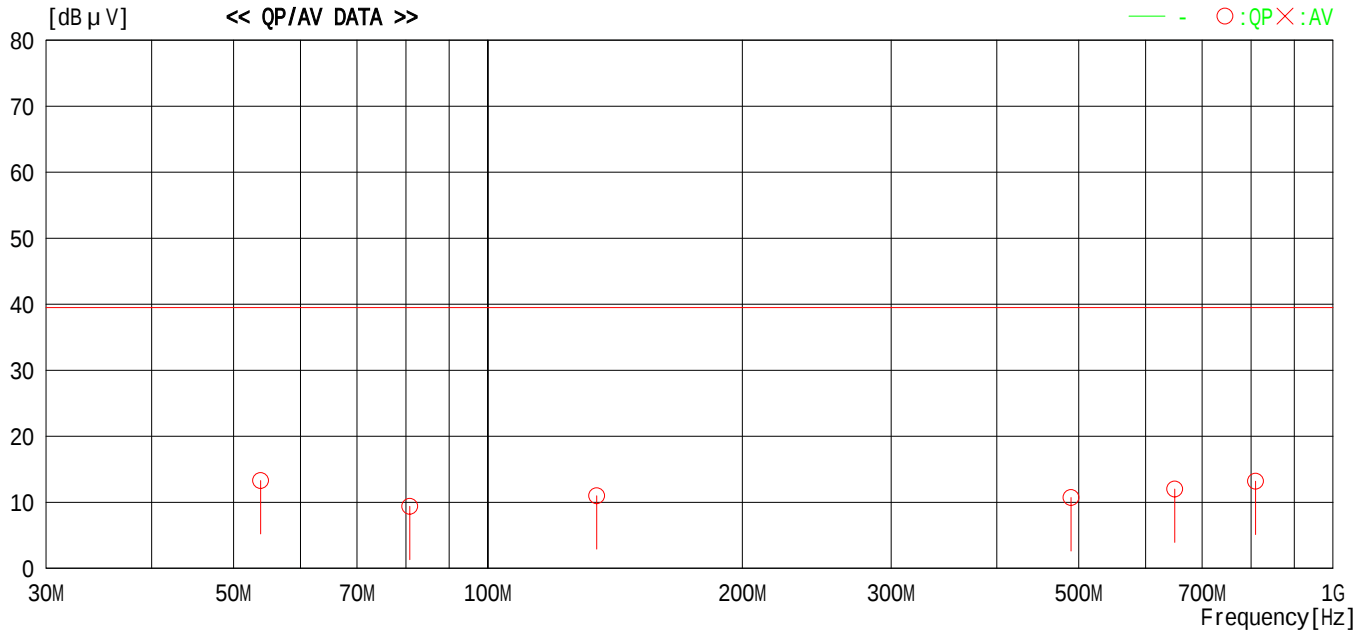
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	34.2	----	-20.9	13.3	----	39.5	----	26.2	----	-
2	80.8100	30.0	----	-20.6	9.4	----	39.5	----	30.1	----	-
3	134.4700	31.4	----	-20.4	11.0	----	39.5	----	28.5	----	-
4	489.7400	31.0	----	-20.3	10.7	----	39.5	----	28.8	----	-
5	649.7300	32.3	----	-20.3	12.0	----	39.5	----	27.5	----	-
6	809.7400	33.1	----	-19.9	13.2	----	39.5	----	26.3	----	-

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

DATA OF RF SUPRIIOUS TEST

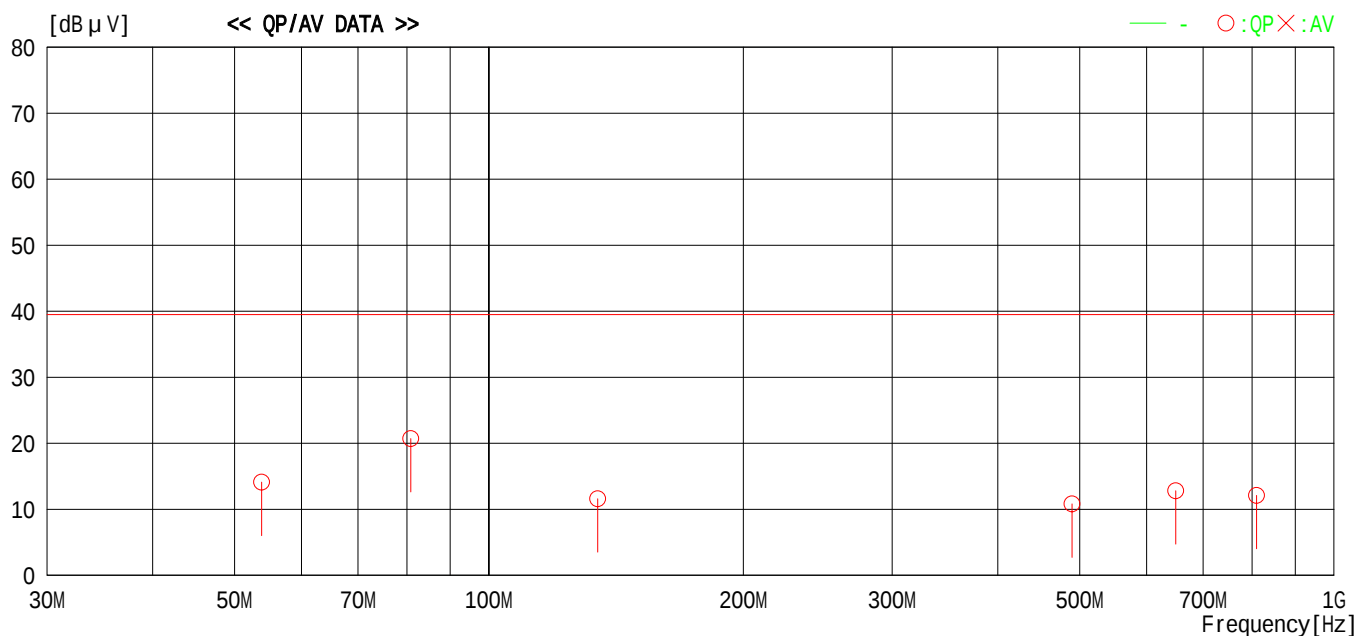
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	35.0	----	-20.9	14.1	----	39.5	----	25.4	----	-
2	80.8100	41.3	----	-20.6	20.7	----	39.5	----	18.8	----	-
3	134.4700	32.0	----	-20.4	11.6	----	39.5	----	27.9	----	-
4	489.7400	31.1	----	-20.3	10.8	----	39.5	----	28.7	----	-
5	649.7300	33.1	----	-20.3	12.8	----	39.5	----	26.7	----	-
6	809.7400	32.0	----	-19.9	12.1	----	39.5	----	27.4	----	-

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

DATA OF RF SUPRIIOUS TEST

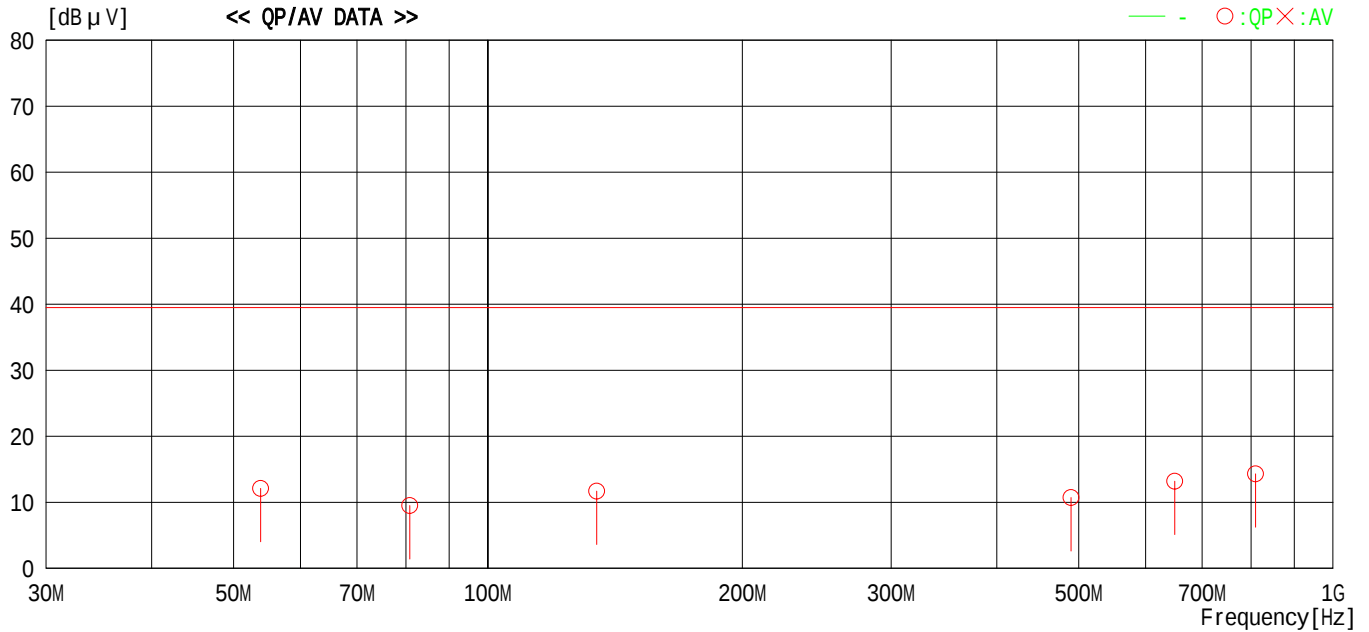
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input1+Rec (1V-p-p:4ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	33.0	----	-20.9	12.1	----	39.5	----	27.4	----	-
2	80.8100	30.1	----	-20.6	9.5	----	39.5	----	30.0	----	-
3	134.4700	32.1	----	-20.4	11.7	----	39.5	----	27.8	----	-
4	489.7400	31.0	----	-20.3	10.7	----	39.5	----	28.8	----	-
5	649.7300	33.5	----	-20.3	13.2	----	39.5	----	26.3	----	-
6	809.7400	34.2	----	-19.9	14.3	----	39.5	----	25.2	----	-

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

DATA OF RF SUPRIIOUS TEST

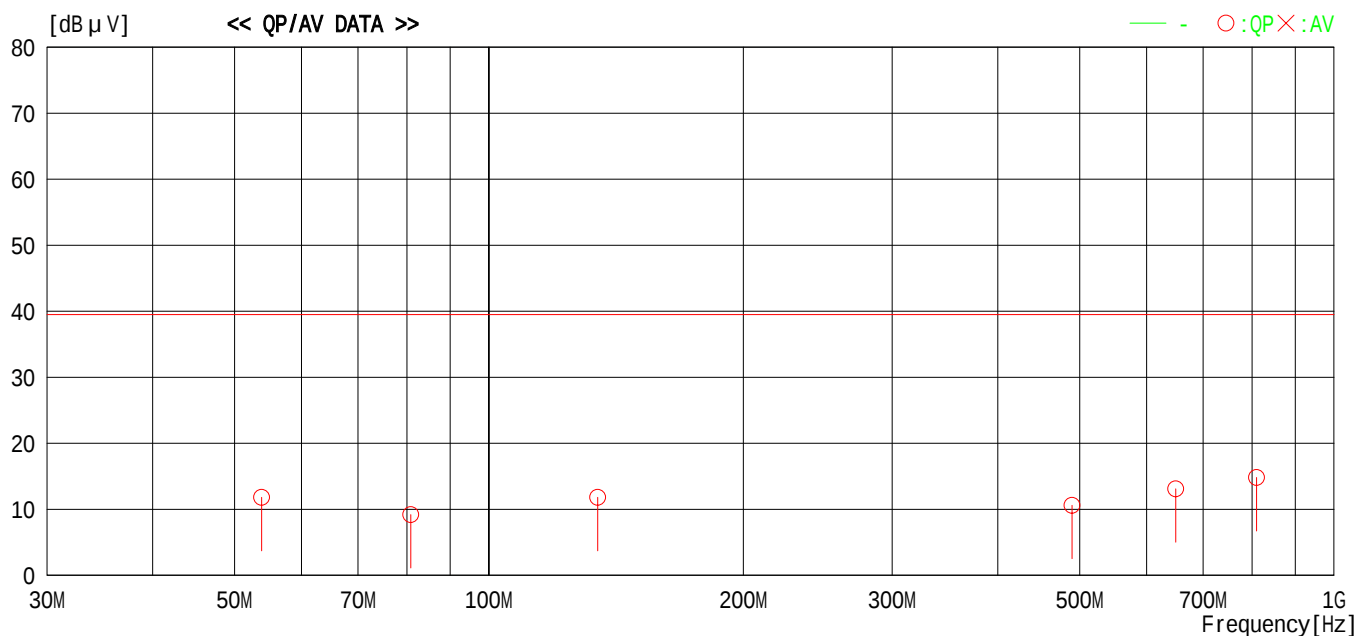
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input1+Rec (5V-p-p:4ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	32.7	----	-20.9	11.8	----	39.5	----	27.7	----	-
2	80.8100	29.8	----	-20.6	9.2	----	39.5	----	30.3	----	-
3	134.4700	32.2	----	-20.4	11.8	----	39.5	----	27.7	----	-
4	489.7400	30.9	----	-20.3	10.6	----	39.5	----	28.9	----	-
5	649.7300	33.4	----	-20.3	13.1	----	39.5	----	26.4	----	-
6	809.7400	34.7	----	-19.9	14.8	----	39.5	----	24.7	----	-

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

DATA OF RF SUPRIIOUS TEST

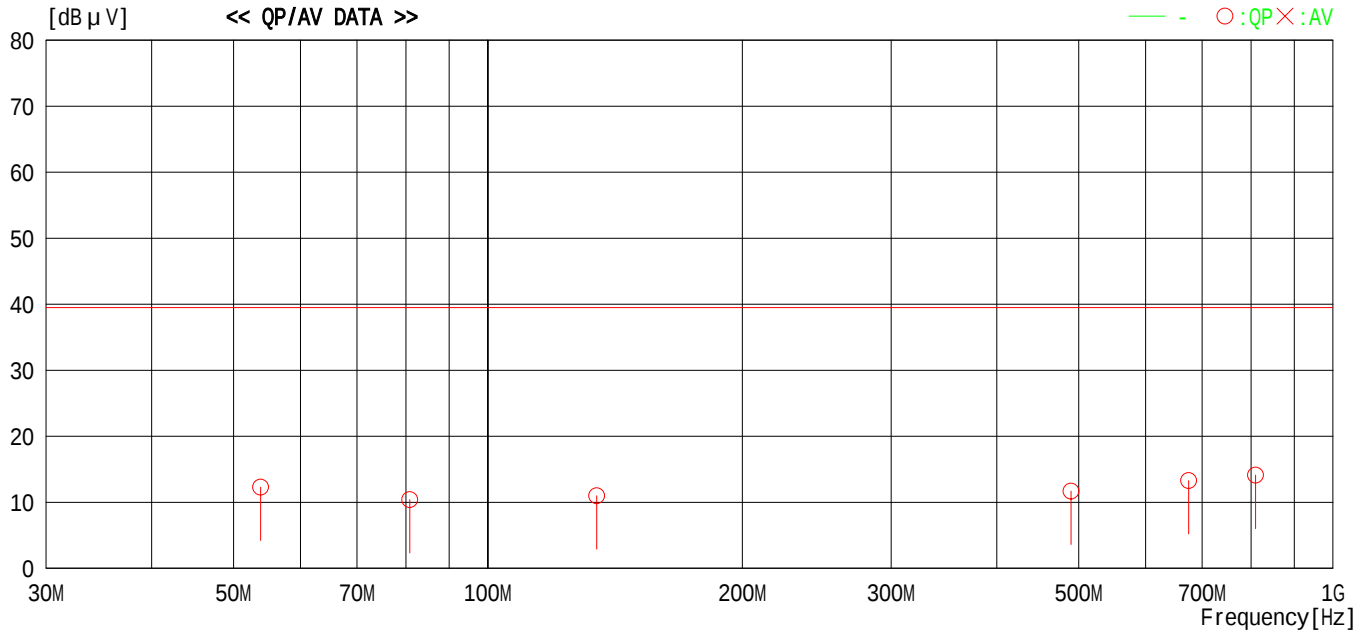
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input2+Rec (1V-p-p:4ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	33.2	----	-20.9	12.3	----	39.5	----	27.2	----	-
2	80.8100	31.0	----	-20.6	10.4	----	39.5	----	29.1	----	-
3	134.4700	31.4	----	-20.4	11.0	----	39.5	----	28.5	----	-
4	489.7400	32.0	----	-20.3	11.7	----	39.5	----	27.8	----	-
5	674.9000	33.6	----	-20.3	13.3	----	39.5	----	26.2	----	-
6	809.7400	34.0	----	-19.9	14.1	----	39.5	----	25.4	----	-

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

DATA OF RF SUPRIOUS TEST

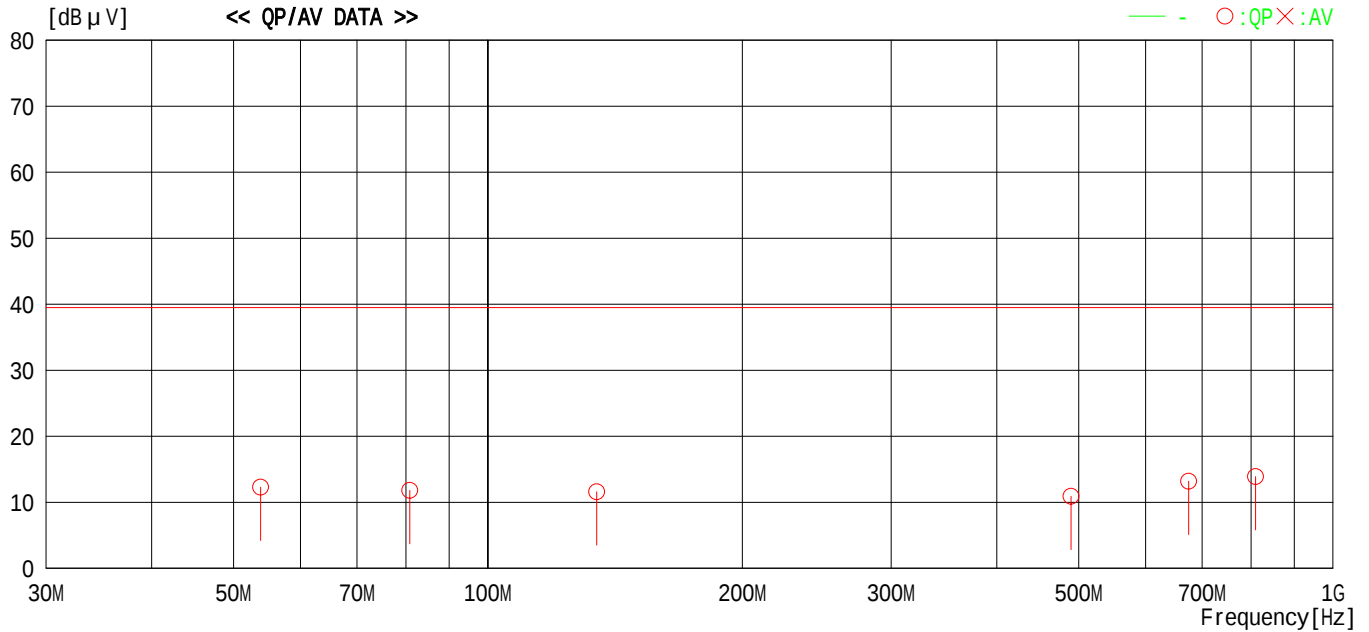
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : AV Input2+Rec (5V-p-p:4ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	33.2	----	-20.9	12.3	----	39.5	----	27.2	----	-
2	80.8100	32.4	----	-20.6	11.8	----	39.5	----	27.7	----	-
3	134.4700	32.0	----	-20.4	11.6	----	39.5	----	27.9	----	-
4	489.7400	31.2	----	-20.3	10.9	----	39.5	----	28.6	----	-
5	674.9000	33.5	----	-20.3	13.2	----	39.5	----	26.3	----	-
6	809.7400	33.8	----	-19.9	13.9	----	39.5	----	25.6	----	-

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

DATA OF RF SUPRIOUS TEST

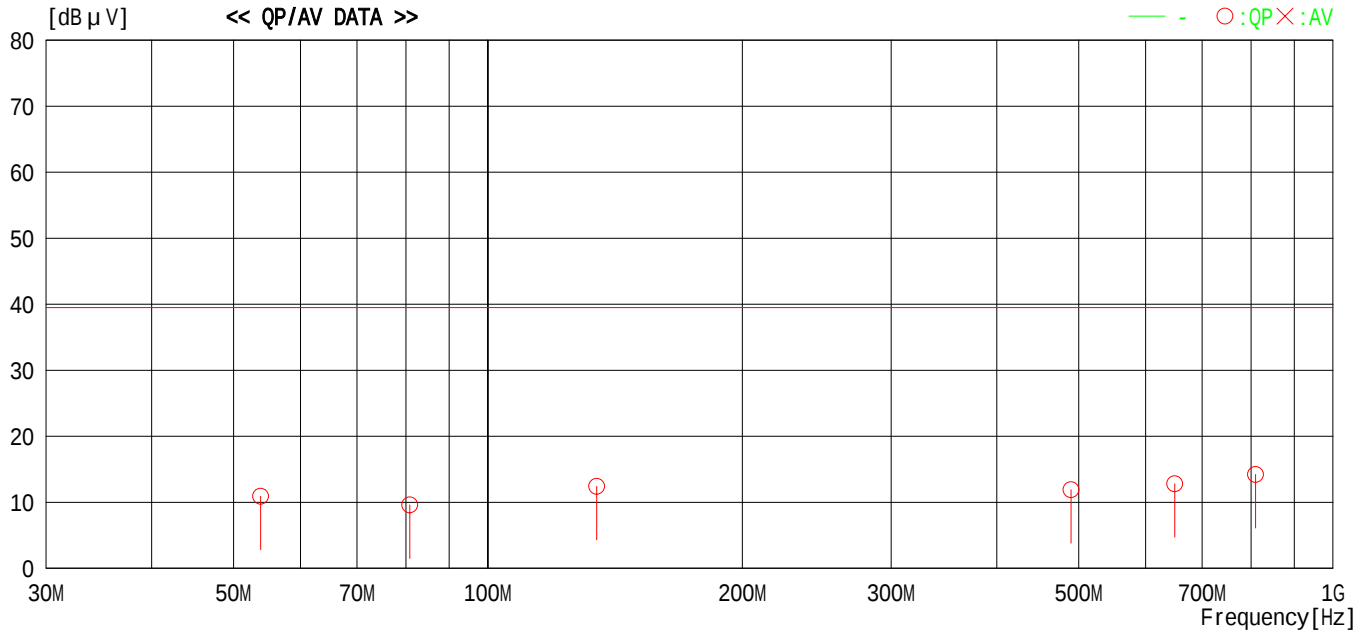
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR Playback (4ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	53.8300	31.8	----	-20.9	10.9	----	39.5	----	28.6	----	-
2	80.8100	30.2	----	-20.6	9.6	----	39.5	----	29.9	----	-
3	134.4700	32.8	----	-20.4	12.4	----	39.5	----	27.1	----	-
4	489.7400	32.2	----	-20.3	11.9	----	39.5	----	27.6	----	-
5	649.7300	33.1	----	-20.3	12.8	----	39.5	----	26.7	----	-
6	809.7400	34.1	----	-19.9	14.2	----	39.5	----	25.3	----	-

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

DATA OF RF SUPRIIOUS TEST

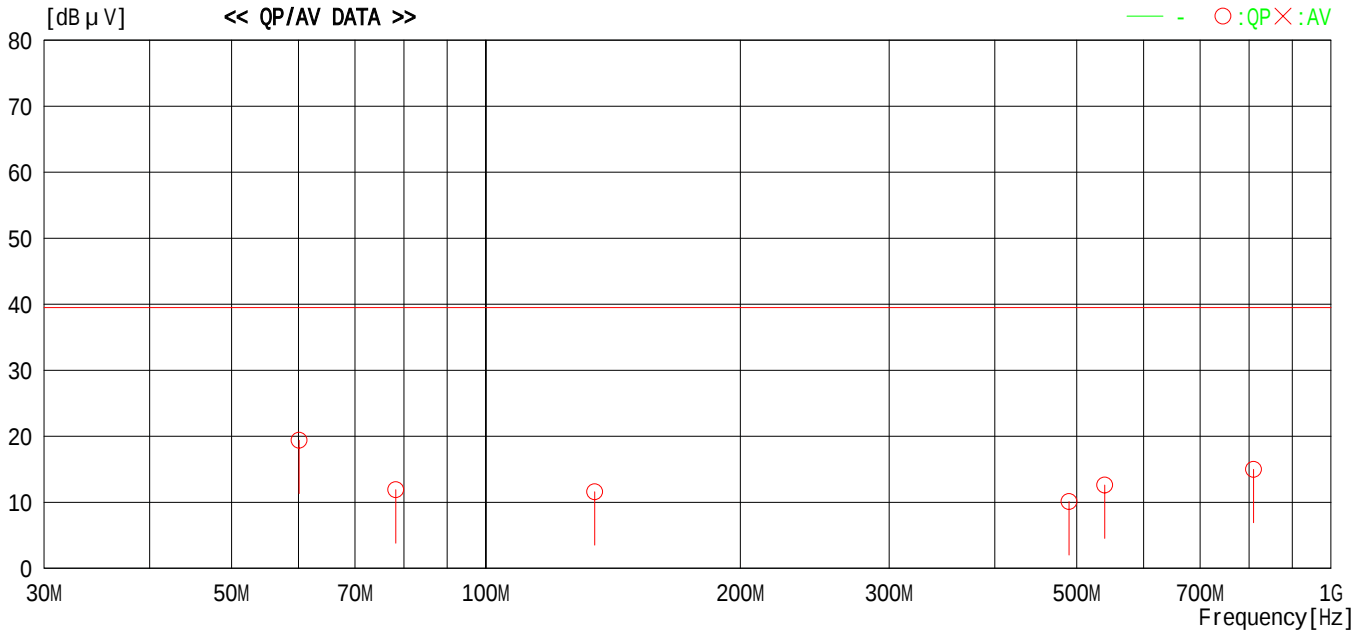
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD Play (4ch)

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	60.1200	40.3	----	-20.9	19.4	----	39.5	----	20.1	----	-
2	78.2300	32.5	----	-20.6	11.9	----	39.5	----	27.6	----	-
3	134.4700	32.0	----	-20.4	11.6	----	39.5	----	27.9	----	-
4	489.7400	30.4	----	-20.3	10.1	----	39.5	----	29.4	----	-
5	539.7300	33.0	----	-20.4	12.6	----	39.5	----	26.9	----	-
6	809.7400	34.9	----	-19.9	15.0	----	39.5	----	24.5	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

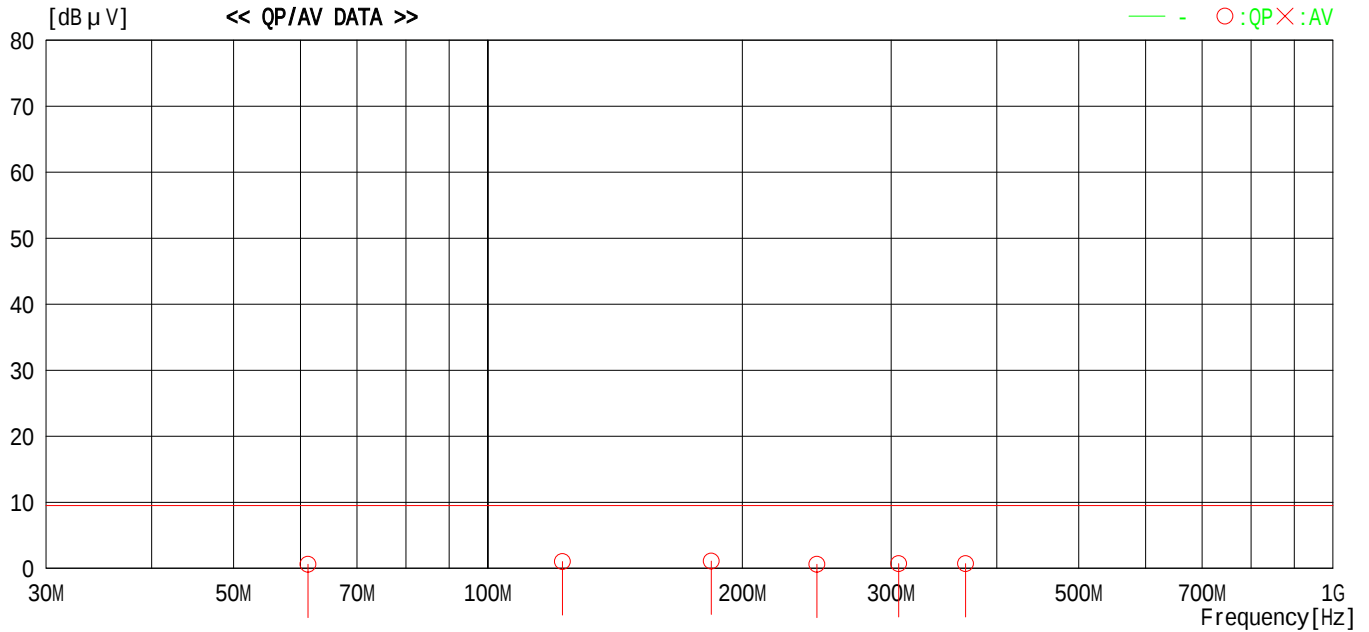
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	61.2500	21.5	----	-20.9	0.6	----	9.5	----	8.9	----	-
2	122.5000	21.5	----	-20.5	1.0	----	9.5	----	8.5	----	-
3	183.7500	21.1	----	-20.0	1.1	----	9.5	----	8.4	----	-
4	245.0000	20.3	----	-19.7	0.6	----	9.5	----	8.9	----	-
5	306.2500	20.2	----	-19.5	0.7	----	9.5	----	8.8	----	-
6	367.5000	20.4	----	-19.7	0.7	----	9.5	----	8.8	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

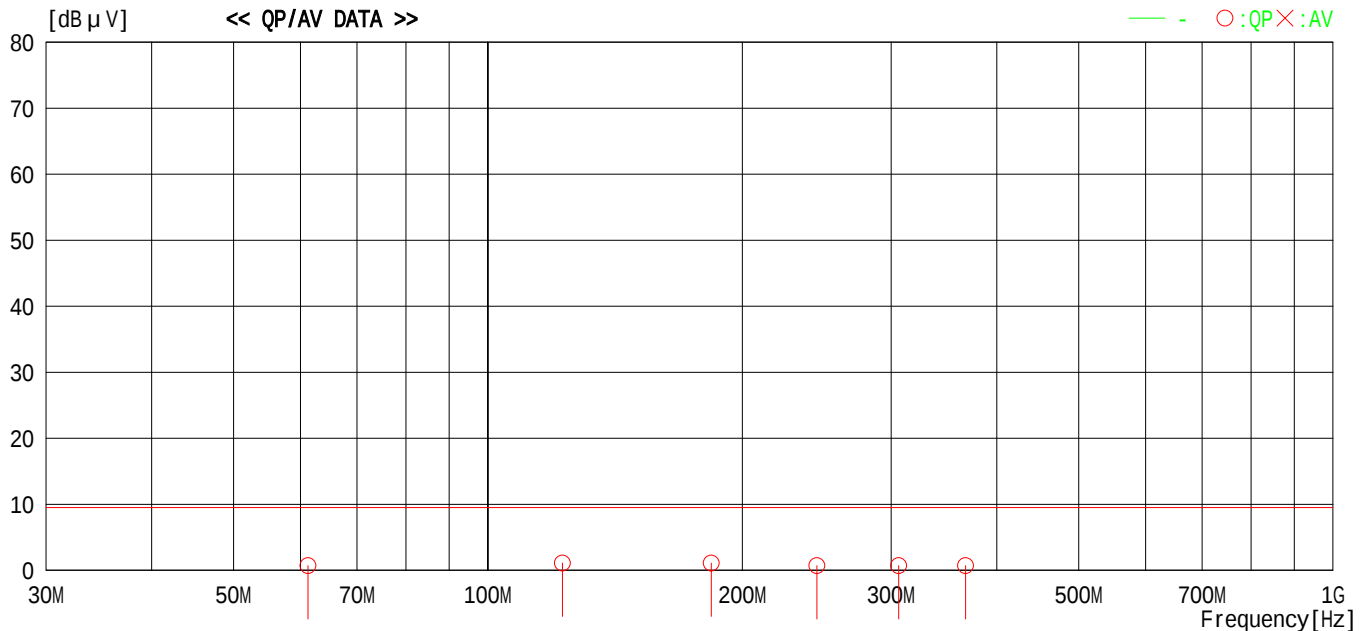
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	61.2500	21.6	----	-20.9	0.7	----	9.5	----	8.8	----	-
2	122.5000	21.6	----	-20.5	1.1	----	9.5	----	8.4	----	-
3	183.7500	21.1	----	-20.0	1.1	----	9.5	----	8.4	----	-
4	245.0000	20.4	----	-19.7	0.7	----	9.5	----	8.8	----	-
5	306.2500	20.2	----	-19.5	0.7	----	9.5	----	8.8	----	-
6	367.5000	20.4	----	-19.7	0.7	----	9.5	----	8.8	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

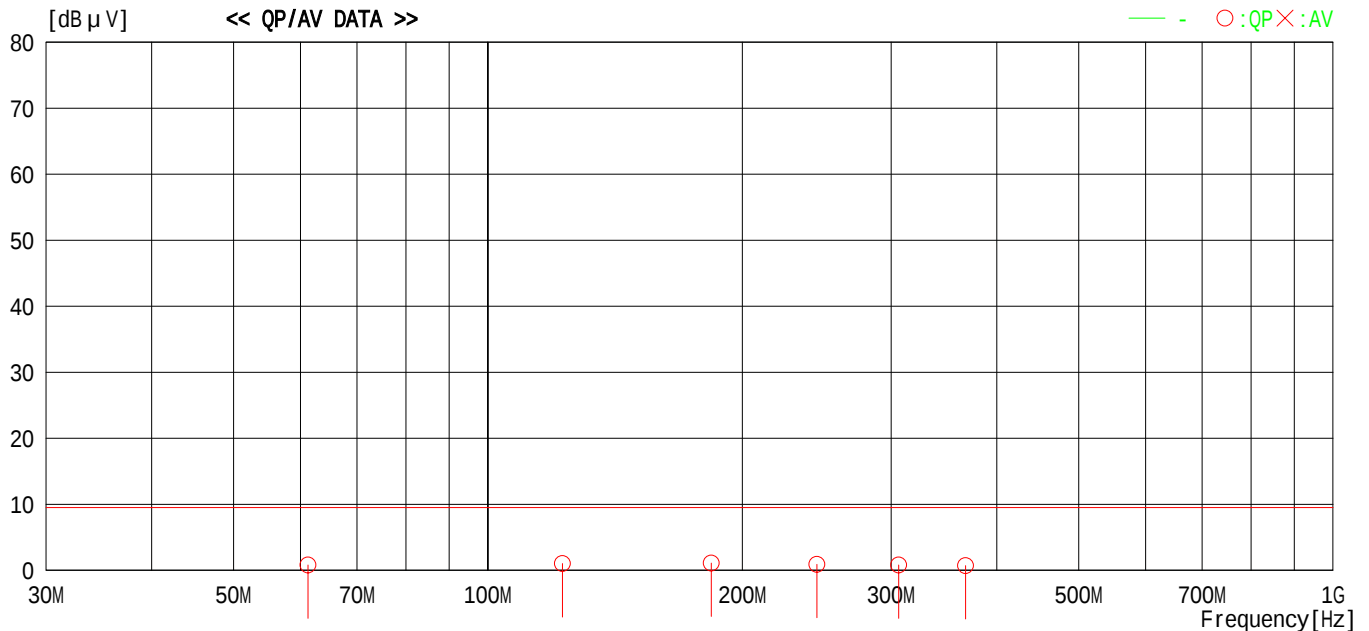
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	61.2500	21.7	----	-20.9	0.8	----	9.5	----	8.7	----	-
2	122.5000	21.5	----	-20.5	1.0	----	9.5	----	8.5	----	-
3	183.7500	21.1	----	-20.0	1.1	----	9.5	----	8.4	----	-
4	245.0000	20.6	----	-19.7	0.9	----	9.5	----	8.6	----	-
5	306.2500	20.3	----	-19.5	0.8	----	9.5	----	8.7	----	-
6	367.5000	20.4	----	-19.7	0.7	----	9.5	----	8.8	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

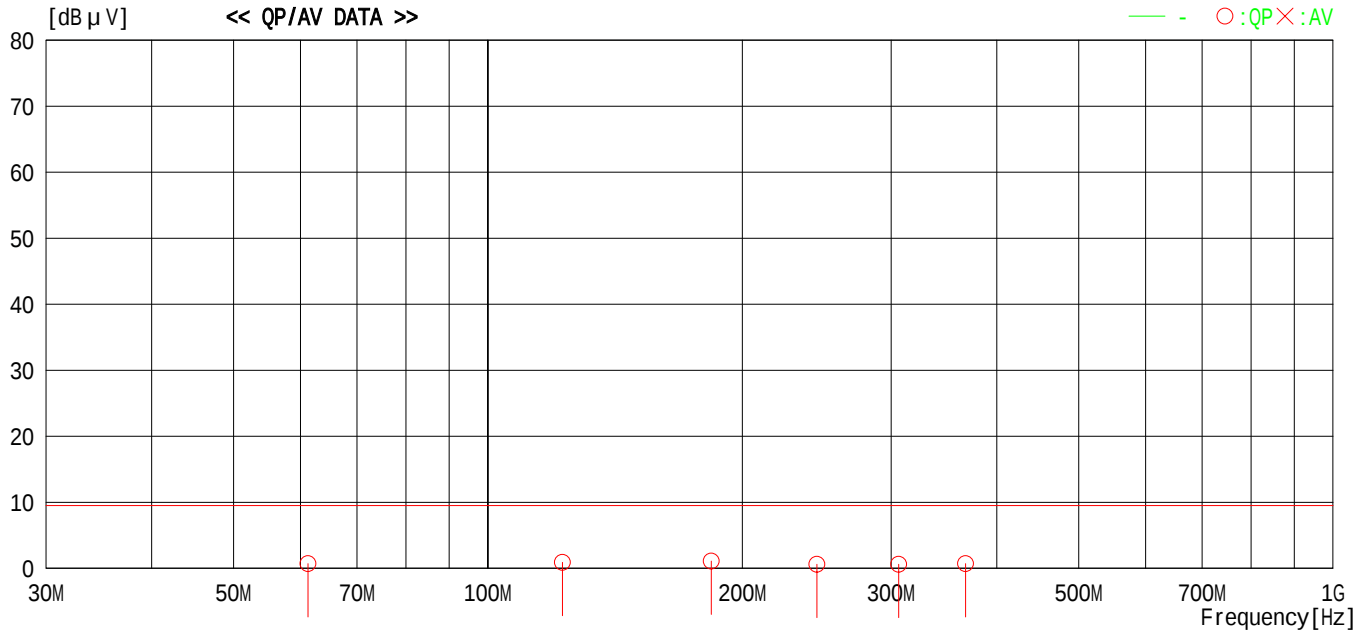
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	61.2500	21.6	----	-20.9	0.7	----	9.5	----	8.8	----	-
2	122.5000	21.4	----	-20.5	0.9	----	9.5	----	8.6	----	-
3	183.7500	21.1	----	-20.0	1.1	----	9.5	----	8.4	----	-
4	245.0000	20.3	----	-19.7	0.6	----	9.5	----	8.9	----	-
5	306.2500	20.1	----	-19.5	0.6	----	9.5	----	8.9	----	-
6	367.5000	20.4	----	-19.7	0.7	----	9.5	----	8.8	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

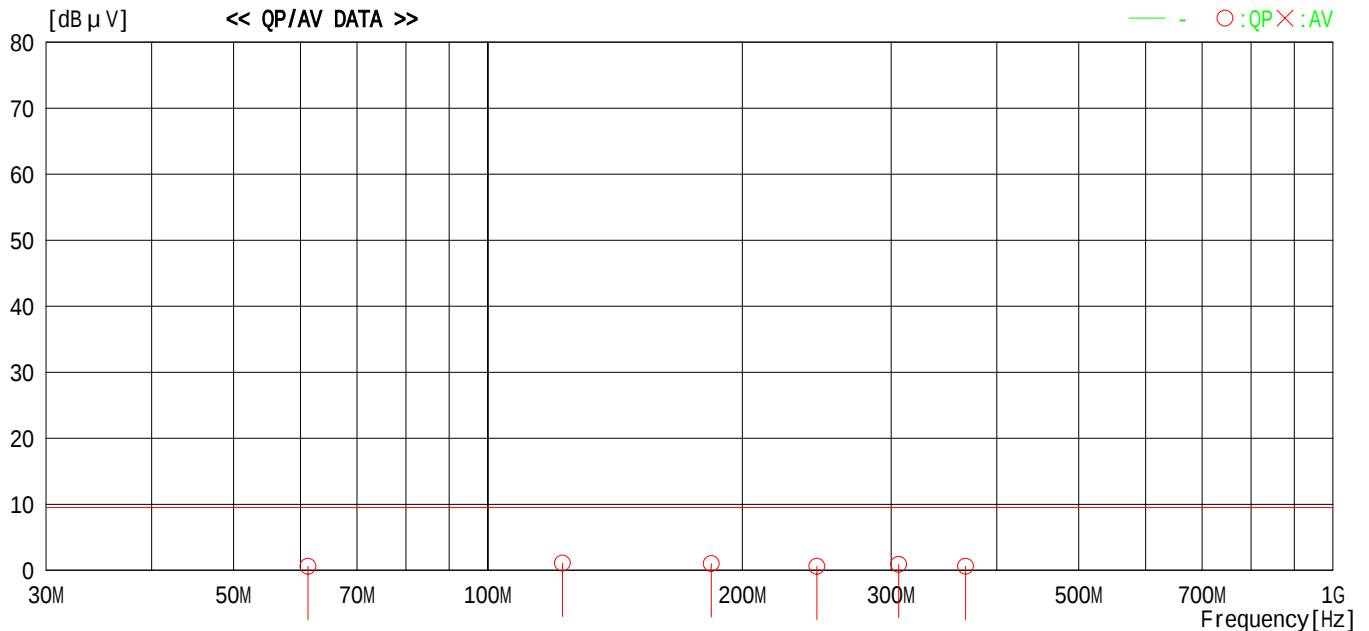
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR Playback (3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	61.2500	21.5	----	-20.9	0.6	----	9.5	----	8.9	----	-
2	122.5000	21.6	----	-20.5	1.1	----	9.5	----	8.4	----	-
3	183.7500	21.0	----	-20.0	1.0	----	9.5	----	8.5	----	-
4	245.0000	20.3	----	-19.7	0.6	----	9.5	----	8.9	----	-
5	306.2500	20.4	----	-19.5	0.9	----	9.5	----	8.6	----	-
6	367.5000	20.3	----	-19.7	0.6	----	9.5	----	8.9	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

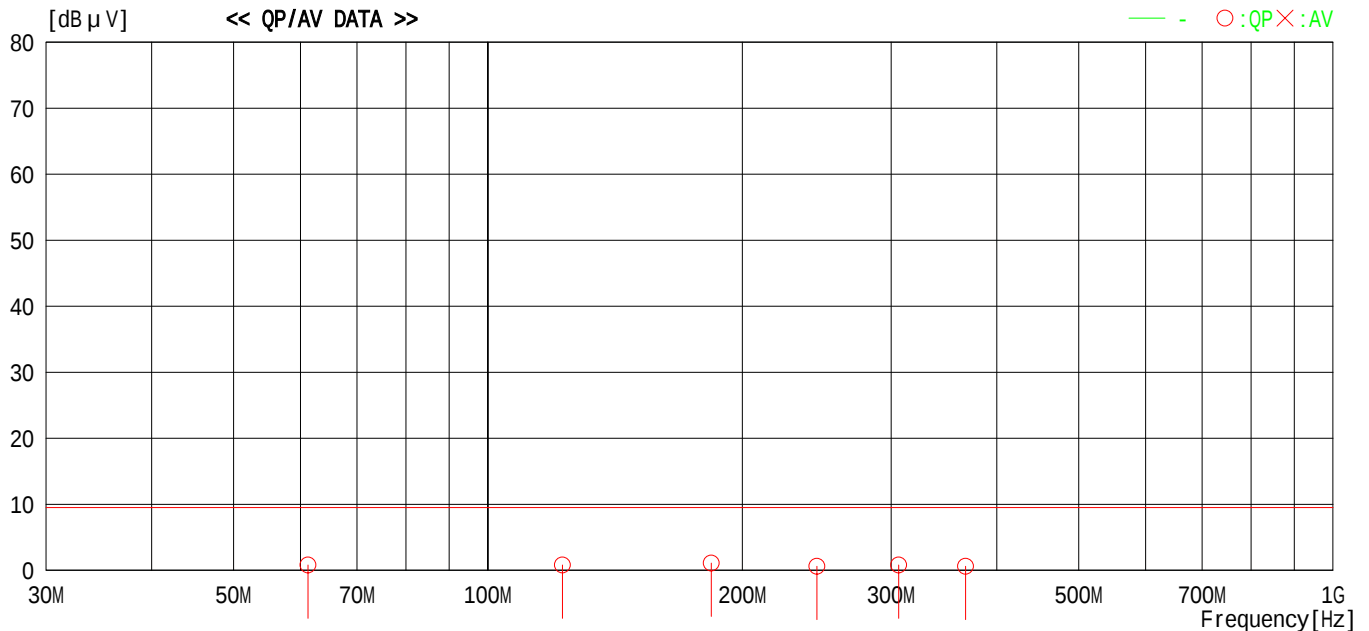
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD Play (3ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	61.2500	21.7	----	-20.9	0.8	----	9.5	----	8.7	----	-
2	122.5000	21.3	----	-20.5	0.8	----	9.5	----	8.7	----	-
3	183.7500	21.1	----	-20.0	1.1	----	9.5	----	8.4	----	-
4	245.0000	20.3	----	-19.7	0.6	----	9.5	----	8.9	----	-
5	306.2500	20.3	----	-19.5	0.8	----	9.5	----	8.7	----	-
6	367.5000	20.3	----	-19.7	0.6	----	9.5	----	8.9	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

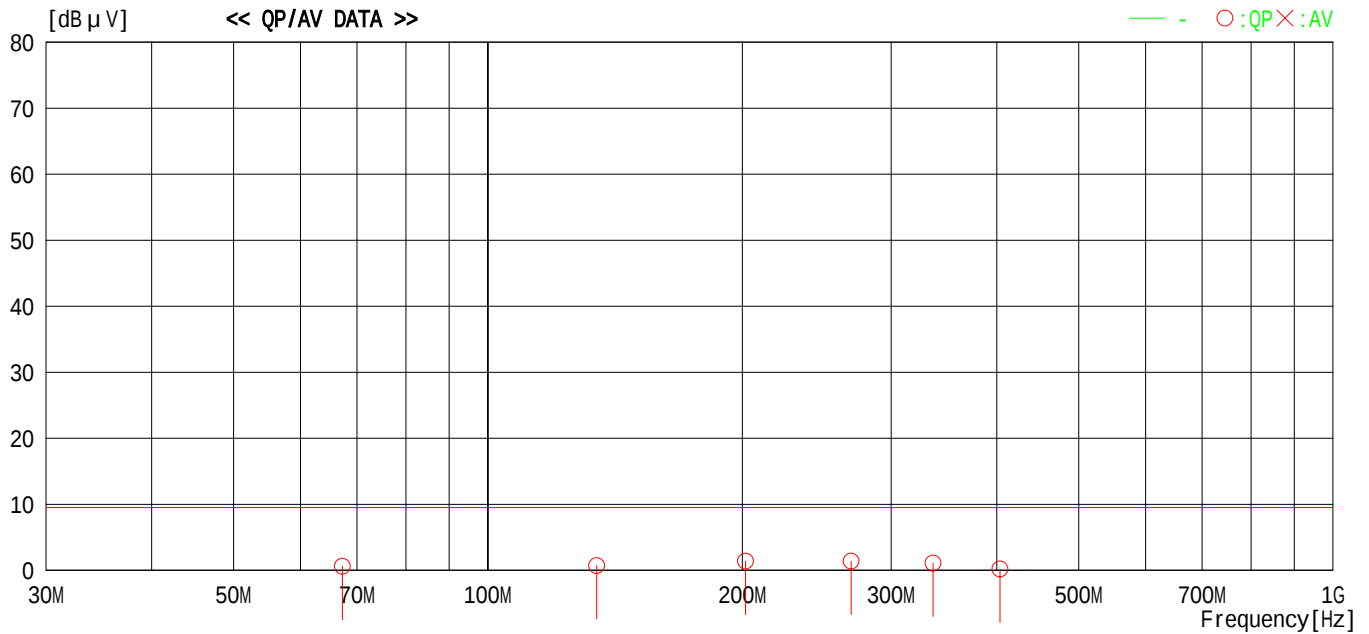
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	67.2500	21.3	----	-20.7	0.6	----	9.5	----	8.9	----	-
2	134.5000	21.1	----	-20.4	0.7	----	9.5	----	8.8	----	-
3	201.7500	21.2	----	-19.8	1.4	----	9.5	----	8.1	----	-
4	269.0000	21.0	----	-19.6	1.4	----	9.5	----	8.1	----	-
5	336.2500	20.7	----	-19.6	1.1	----	9.5	----	8.4	----	-
6	403.5000	20.2	----	-20.0	0.2	----	9.5	----	9.3	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

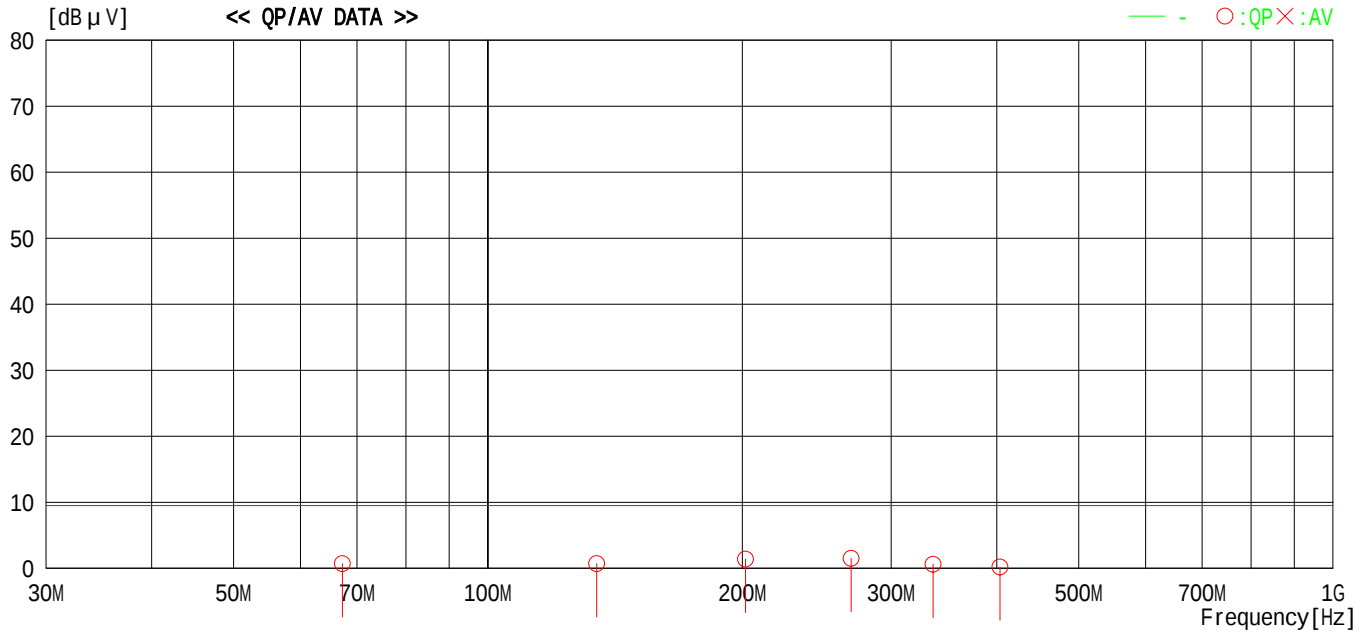
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	67.2500	21.4	----	-20.7	0.7	----	9.5	----	8.8	----	-
2	134.5000	21.1	----	-20.4	0.7	----	9.5	----	8.8	----	-
3	201.7500	21.2	----	-19.8	1.4	----	9.5	----	8.1	----	-
4	269.0000	21.1	----	-19.6	1.5	----	9.5	----	8.0	----	-
5	336.2500	20.2	----	-19.6	0.6	----	9.5	----	8.9	----	-
6	403.5000	20.2	----	-20.0	0.2	----	9.5	----	9.3	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

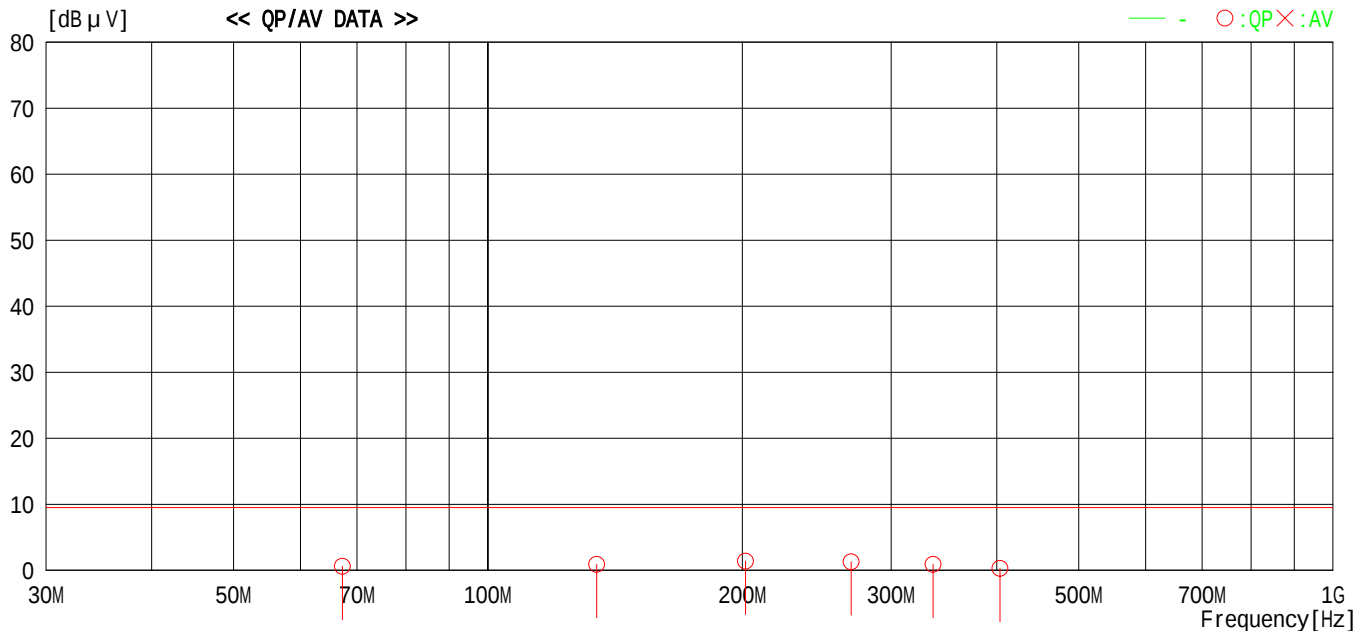
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	67.2500	21.3	----	-20.7	0.6	----	9.5	----	8.9	----	-
2	134.5000	21.3	----	-20.4	0.9	----	9.5	----	8.6	----	-
3	201.7500	21.2	----	-19.8	1.4	----	9.5	----	8.1	----	-
4	269.0000	20.9	----	-19.6	1.3	----	9.5	----	8.2	----	-
5	336.2500	20.5	----	-19.6	0.9	----	9.5	----	8.6	----	-
6	403.5000	20.3	----	-20.0	0.3	----	9.5	----	9.2	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

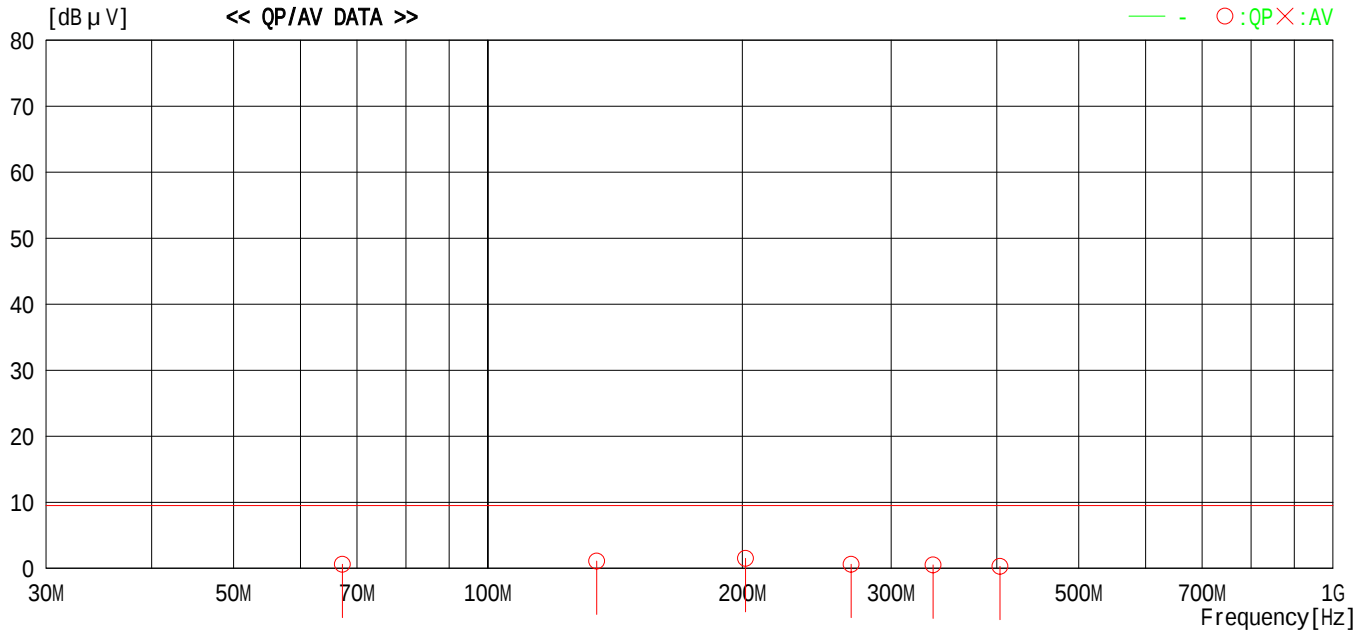
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

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

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	67.2500	21.3	----	-20.7	0.6	----	9.5	----	8.9	----	-
2	134.5000	21.5	----	-20.4	1.1	----	9.5	----	8.4	----	-
3	201.7500	21.3	----	-19.8	1.5	----	9.5	----	8.0	----	-
4	269.0000	20.2	----	-19.6	0.6	----	9.5	----	8.9	----	-
5	336.2500	20.1	----	-19.6	0.5	----	9.5	----	9.0	----	-
6	403.5000	20.3	----	-20.0	0.3	----	9.5	----	9.2	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

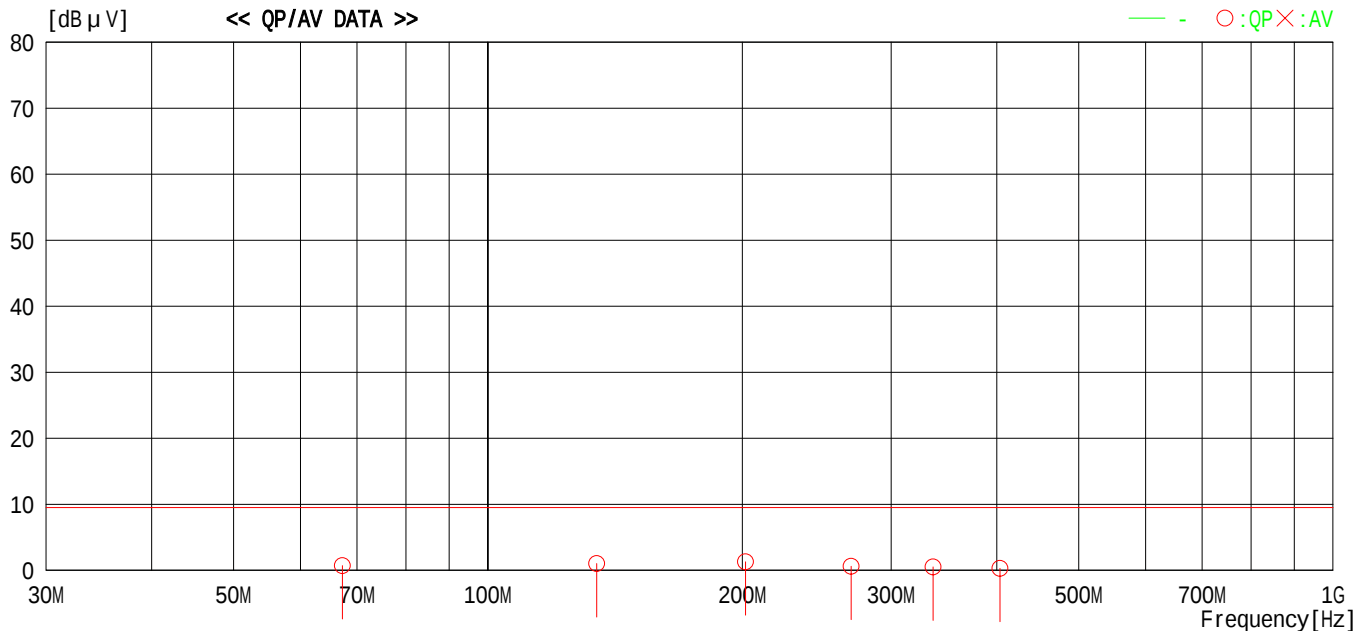
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : VCR Playback (4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	67.2500	21.4	----	-20.7	0.7	----	9.5	----	8.8	----	-
2	134.5000	21.4	----	-20.4	1.0	----	9.5	----	8.5	----	-
3	201.7500	21.1	----	-19.8	1.3	----	9.5	----	8.2	----	-
4	269.0000	20.2	----	-19.6	0.6	----	9.5	----	8.9	----	-
5	336.2500	20.1	----	-19.6	0.5	----	9.5	----	9.0	----	-
6	403.5000	20.3	----	-20.0	0.3	----	9.5	----	9.2	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

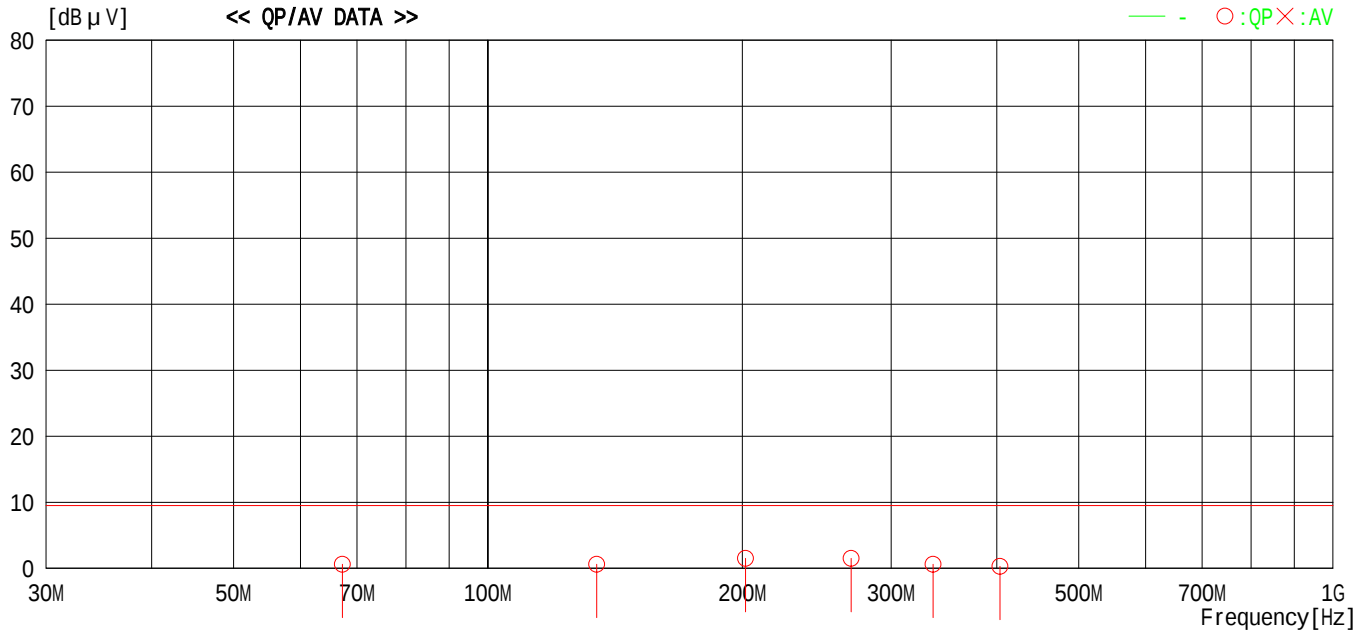
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : SD-V393SU
TEMP./HUMID. : 26 /68%

REPORT NO : 25FE0296-YW-1
DATE : February 2 ,2005
REGULATION : FCC Part15 Subpart B
TEST ENGINEER : Tsubasa Takayama

OPERATION MODE : DVD Play (4ch)

LIMIT : FCC15B ANTENNA TRANSFER SWITCH



NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μ V]	- [dB μ V]		Peak [dB μ V]	- [dB μ V]	Peak [dB μ V]	- [dB μ V]	[dB]	[dB]	
1	67.2500	21.3	----	-20.7	0.6	----	9.5	----	8.9	----	-
2	134.5000	21.0	----	-20.4	0.6	----	9.5	----	8.9	----	-
3	201.7500	21.3	----	-19.8	1.5	----	9.5	----	8.0	----	-
4	269.0000	21.1	----	-19.6	1.5	----	9.5	----	8.0	----	-
5	336.2500	20.2	----	-19.6	0.6	----	9.5	----	8.9	----	-
6	403.5000	20.3	----	-20.0	0.3	----	9.5	----	9.2	----	-

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 : SD-V393SU
Power : 120V/60Hz
Description : TV Reception
Remarks : -

Report Number : 25FE0296-YW-1
Regulation : FCC Part15 SubpartB
Date : February 5, 2005
Temp / Humid : 23deg.C / 32%
Engineer : Tsubasa Takayama

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	20.7	10.8
3	61.25	18.8	8.7	20	507.25	20.9	11.1
4	67.25	18.4	8.3	26	543.25	17.6	7.6
5	77.25	17.8	7.8	32	579.25	22.0	12.6
6	83.25	17.3	7.3	38	615.25	23.4	14.8
7	175.25	19.9	9.9	44	651.25	22.3	13.0
8	181.25	19.6	9.5	50	687.25	21.5	11.9
9	187.25	19.7	9.7	56	723.25	21.0	11.2
10	193.25	19.3	9.2	62	759.25	20.8	11.0
11	199.25	19.2	9.1	69	801.25	20.9	11.1
12	205.25	19.8	9.8	-	-	-	-
13	211.25	19.7	9.7	-	-	-	-
Average VHF			9.1	Average UHF			11.5
Average UHF/VHF : $20 \log \text{UHF}[\mu\text{V}] / \text{VHF}[\mu\text{V}] =$				2.1 [Limit : 8.0dB]			

Noise Figure Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co.,Ltd.
Equipment : DVD/VCR
Model Number : SD-V393SU
Power : 120V/60Hz
Description : TV Reception
Remarks : -

Report Number : 25FE0296-YW-1
Regulation : FCC Part15 SubpartB
Date : February 5, 2005
Temp / Humid : 23deg.C / 32%
Engineer : Tsubasa Takayama

Ch	Frequency [MHz]	Meter Reading [dB]	Correction Factor [dB]	Noise Figure [dB]	Limits [dB]	Margin [dB]
TV VHF Fundamental						
2	55.25	6.4	0.2	6.2	14.0	7.8
3	61.25	5.2	0.2	5.0	14.0	9.0
4	67.25	4.6	0.2	4.4	14.0	9.6
5	77.25	3.8	0.2	3.6	14.0	10.4
6	83.25	3.2	0.2	3.0	14.0	11.0
7	175.25	5.4	0.2	5.2	14.0	8.8
8	181.25	5.2	0.2	5.0	14.0	9.0
9	187.25	5.1	0.2	4.9	14.0	9.1
10	193.25	5.0	0.2	4.8	14.0	9.2
11	199.25	5.0	0.2	4.8	14.0	9.2
12	205.25	5.0	0.2	4.8	14.0	9.2
13	211.25	5.0	0.2	4.8	14.0	9.2
TV UHF Fundamental						
14	471.25	5.8	0.3	5.5	14.0	8.5
20	507.25	6.0	0.3	5.7	14.0	8.3
26	543.25	6.3	0.3	6.0	14.0	8.0
32	579.25	7.0	0.3	6.7	14.0	7.3
38	615.25	8.2	0.3	7.9	14.0	6.1
44	651.25	7.0	0.3	6.7	14.0	7.3
50	687.25	6.4	0.3	6.1	14.0	7.9
56	723.25	6.2	0.4	5.8	14.0	8.2
62	759.25	6.3	0.4	5.9	14.0	8.1
69	801.25	6.3	0.4	5.9	14.0	8.1
Mid band						
14	121.25	3.9	0.2	3.7	14.0	10.3
16	133.25	8.0	0.2	7.8	14.0	6.2
18	145.25	6.8	0.2	6.6	14.0	7.4
20	157.25	6.1	0.2	5.9	14.0	8.1
22	169.25	5.6	0.2	5.4	14.0	8.6
Super band						
23	217.25	4.9	0.2	4.7	14.0	9.3
26	235.25	4.9	0.2	4.7	14.0	9.3
29	253.25	5.0	0.2	4.8	14.0	9.2
32	271.25	5.0	0.2	4.8	14.0	9.2
36	295.25	5.0	0.2	4.8	14.0	9.2

Test Report No : 25FE0296-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	2004/05/14 * 12
IP-06	Matching Pad	TME	ZT-301	PS, NF	2004/05/06 * 12
APMAT05	Matching Pad	TME	ZT-130	AT, RF, ATS	2004/12/22 * 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	2004/02/19 * 12
SS-05	Digitizing Oscilloscope	Sony Tektronix	2221	PS	2005/01/11 * 12
APBPF01	Band pass filter	Erika Fiedler	BP	PS	Pre Check
AF-05	Pre Amplifier	Hewlett Packard	8447D	AT, RF, ATS	2004/05/31 * 12
APPRA05	Pre Amplifier	Hewlett Packard	8449B	AT	2004/12/04 * 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-15	Digital Humidity Indicator	SATO	PC-5000TRH	CE, RF, ATS, PS, NF	2004/05/06 * 12
LS-10	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2004/05/02 * 12
AF-03	Pre Amplifier	Anritsu	MH648A	RE	2004/03/28 * 12
AT-04	Attenuator	Anritsu	MP721B	RE	2004/03/26 * 12
BA-04	Biconical Antenna	Schwarzbeck	BBA9106	RE	2004/04/10 * 12
LA-05	Logperiodic Antenna	Schwarzbeck	UHALP9108-A	RE	2004/10/18 * 12
LS-03	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2004/10/29 * 12
SA-05	Spectrum Analyzer	Advantest	R3271	CE, RE	2004/12/20 * 12
TR-03	Test Receiver	Rohde & Schwarz	ESHS30	CE	2004/05/21 * 12
TR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2004/12/22 * 12
CC-2ORC	Yokowa No.2 open coaxial(0.01-1000MHz)	UL Apex	CC-21,CC-22,CC-23, CC-24,CC-25,CC-26, CC-27,SW-21,SW-22	RE	2004/03/28 * 12
CC-2S	Yokowa No.2 shield coaxial(0.01MHz-1000MHz)	UL Apex	CC-24,CC-25,CC-26, CC-28,CC-29,SW-21, SW-22	CE	2004/03/28 * 12
YOATS-02	Open Test Site	JSE	3m, 10m	RE	2004/08/15 * 12
OS-10	Digital Humidity Indicator	SATO	PC-5000TRH	RE	2004/05/06 * 12
AF-01	Pre Amplifier	Hewlett Packard	8447D	RE	2004/03/28 * 12
AF-06	Pre Amplifier	Agilent	HP8449B	RE	2005/01/18 * 12
AT-06	Attenuator	Anritsu	MP721B	RE	2004/03/27 * 12
BA-06	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/01/29 * 12
LA-07	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	RE	2005/01/29 * 12
SA-06	Spectrum Analyzer	Advantest	R3273	RE	2004/11/02 * 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	2004/03/28 * 12
CC-C3	Microwave Cable	-	-	RE	2004/12/16 * 12
YOATS-03	Open Test Site	JSE	3m, 10m	RE	2004/08/15 * 12
OS-16	Digital Humidity Indicator	SATO	PC-5000TRH	RE	2004/05/07 * 12
HA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2004/04/10 * 12

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