EMI TEST REPORT

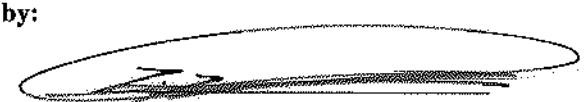
Test Report No. : 24KE0255-YW-1

Applicant :	**Orion Electric Co., Ltd.**
Type of equipment :	**DVD/VCR**
Model number :	**DVD2100-C**
Test standard :	**FCC Part 15 Subpart B** **ICES-003 Issue No.4 Class B**
Test result :	**Complied**

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

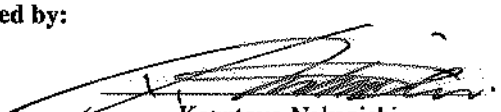
Date of test : June 24 to 30, 2004

Tested by:



Tsubasa Takayama
EMC Service

Approved by:



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Site Manager of EMC Service

UL Apex Co., Ltd.
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Contents

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/VCR
Brand Name	:	Disney
Model number	:	DVD2100-C
Rating	:	AC 120 V / 60 Hz
Manufacturer	:	1. World Electric (Thailand) Ltd. 236 Moo 2 Nongchark, Banbung, Chonburi 20170, Thailand 2. Korat Denki Ltd. 149 Moo 10 Tambol Chokchai, Amphur Chokchai, Nakhonratchasima 30190, Thailand 228 Moo 3 Tambol Nongbuasala, Amphur Muang, Nakhonratchasima 30000, Thailand 3. Orion America, Inc. Hwy 41 North, Orion Place, Princeton, Indiana 47670, U.S.A
Receipt Date of Sample	:	June 18, 2004
Condition of EUT	:	Production Prototype (Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product description

Model: DVD2100-C (referred to as the EUT in this report) is a DVD/VCR.
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

2.3 Similar apparatus

There are similar apparatuses as follows;
DVD2100-P

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 C63.4:2001 IEEE 213:1987	CISPR 22	18.6 dB (0.1500 MHz, L1, VCR Playback)	Complied
Radiated emission	ANSI C63.4:2001 IEEE 187:1990	30–88 MH: 100 uV/m 88–216 MHz: 150 uV/m 216–960 MHz: 200 uV/m above 960 MHz: 500 uV/m	7.1 dB (945.00 MHz, Vertical, VCR Playback/ 270.00 MHz, Horizontal, DVD Play)	Complied
Antenna terminal voltage	ANSI C63.4:2001	2 nW (at 75 ohm)	25.2 dB (627.71040 MHz, CATV Tuning)	Complied
RF output level	ANSI C63.4:2001	Video signal: 3000 uV Aural signal: 671 uV	5.0 dB (67.25 MHz, VCR Playback)	Complied
Spurious emission		94.8 uV	22.2 dB (331.4200 MHz, 3ch: TV Reception + Rec. 25dBmV)	Complied
Transfer switch	ANSI C63.4:2001	9.5 dB	7.0 dB (269.0000 MHz, VCR Playback: 4ch)	Complied
Picture sensitivity	ANSI C63.4:2001	8 dB	3.5 dB	Complied
Noise figure	FCC/OET MP:2:1986	14 dB	6.7 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.

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 has enough margin, more than site margin.

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

UL Apex Co., Ltd. Yokowa EMC Lab. No.1, No.2, No.3 shielded room, No.2 and No.3 open site
108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN
TEL : +81 596 39 1485
FAX : +81 596 39 0232

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.

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

4.1 Operating modes

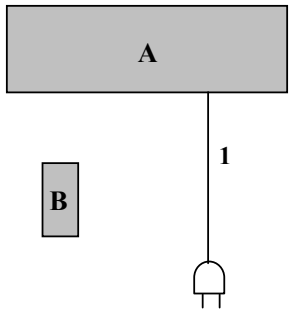
The EUT exercise program used during testing was designed exercise the various system components in a manner similar to typical use.

The sequence in used : * TV Reception + Rec. mode (0 dBmV input / 25 dBmV input)
* VCR Playback 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	Remark
A	DVD/VCR	DVD2100-C	–	Orion Electric Co., Ltd.	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

Section 5 : Conducted emission

5.1 Operation environment

The test was carried out in a shielded room the size of 5.5 x 6.4 x 2.7m.

Date : June 29, 2004
Temperature : See data
Humidity : See data

5.2 Test configuration

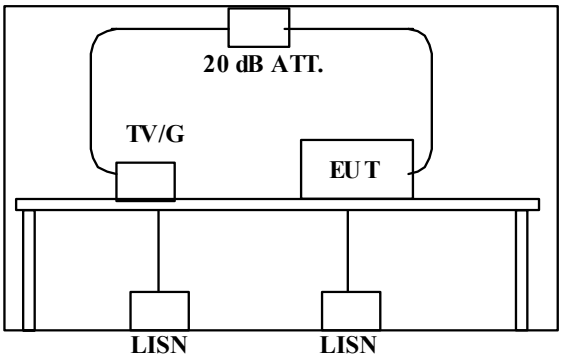
EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting plane. The rear of EUT was aligned and flushed with rear of tabletop. All other surfaces of tabletop was at least 80 cm from any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

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

Figure 1. Conducted emission

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

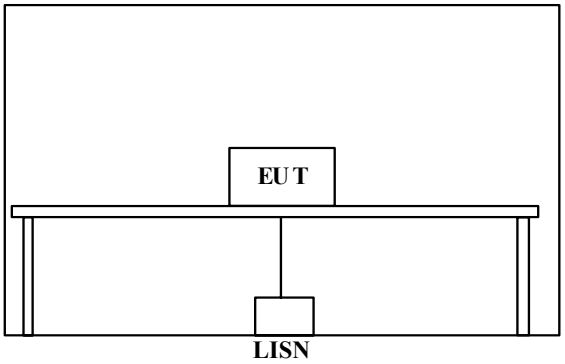
Shielded room



RF in: TV signal generator connected
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
RF output: 75 ohm terminated with RF output cable
Coaxial out: 75 ohm terminated with coaxial cable

VCR Playback mode

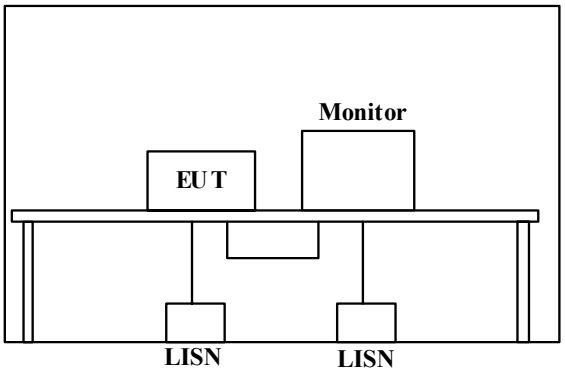
Shielded room



RF in: 75 ohm terminated with RF input 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
RF output: 75 ohm terminated with RF output cable
Coaxial out: 75 ohm terminated with coaxial cable

DVD Play mode

Shielded room



RF in: 75 ohm terminated with RF input cable
Rear video out: monitor connected
Rear audio out: monitor connected
S-Video out: 75 ohm terminated with S-Video cable
RF output: 75 ohm terminated with RF output cable
Coaxial out: 75 ohm terminated with coaxial cable

5.3 Test conditions

Frequency range : 0.15 MHz – 30 MHz
EUT position : Table top
EUT operation mode: TV Reception + Rec., VCR Playback, 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.
EUT and desired signal generator should connect through 20 dB attenuator.
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

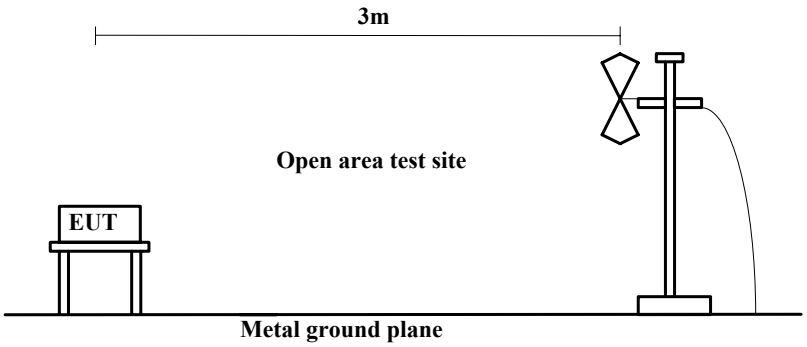
The test was carried out in an open site.

Date : June 24, 26 and 30, 2004
Temperature : See data
Humidity : See data

6.2 Test configuration

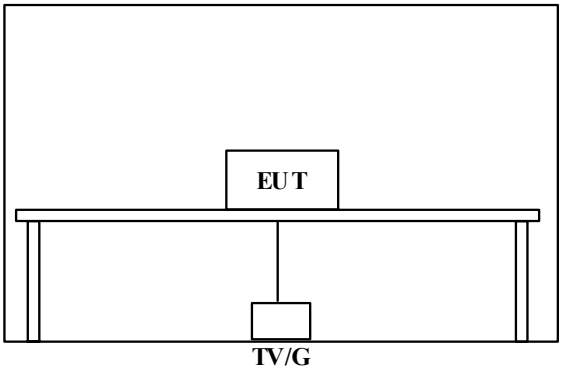
EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of EUT was aligned and flushed with rear of tabletop. AC cable was bundled in center. I/O cables were hanged 40 cm height to the ground plane. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.
A drawing of the set up is shown in figure 2 and photographs in Appendix 1.

Figure 2. Radiated emission



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

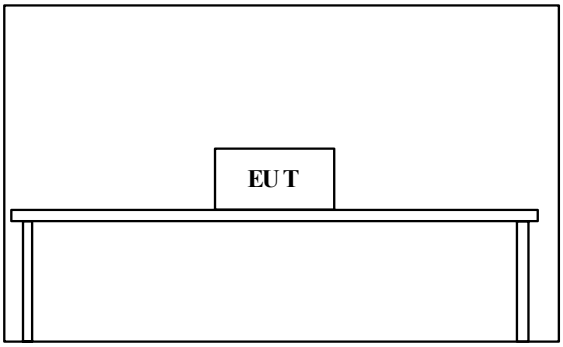
Open test site



RF in: TV signal generator connected
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
RF output: 75 ohm terminated with RF output cable
Coaxial out: 75 ohm terminated with coaxial cable

VCR Playback mode

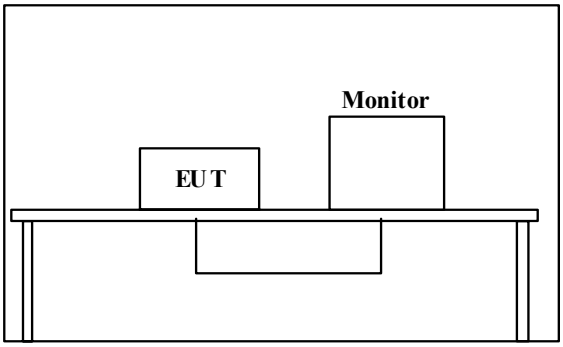
Open test site



RF in: 75 ohm terminated with RF input 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
RF output: 75 ohm terminated with RF output cable
Coaxial out: 75 ohm terminated with coaxial cable

DVD Play mode

Open test site



RF in: 75 ohm terminated with RF input cable
Rear video out: monitor connected
Rear audio out: monitor connected
S-Video out: 75 ohm terminated with S-Video cable
RF output: 75 ohm terminated with RF output cable
Coaxial out: 75 ohm terminated with coaxial cable

6.3 Test conditions

Frequency range : 30 MHz – 2000 MHz
Test distance : 3 m
EUT position : Table top
EUT operation mode: TV Reception + Rec., VCR Playback, 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.

	30-1000MHz (Test receiver)	1000-2000MHz (Spectrum analyzer)	
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

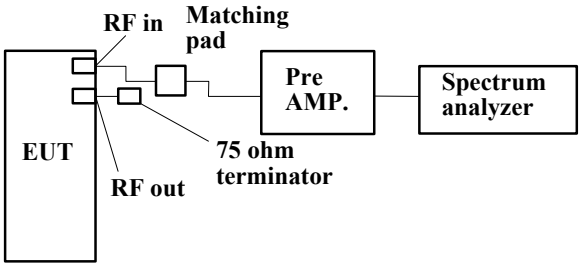
The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : June 29, 2004
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 – 2000 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 (30-2000 MHz)

7.5 Test result

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

Test engineer: Tsubasa Takayama

Section 8 : RF output level / spurious emission

8.1 Operation environment

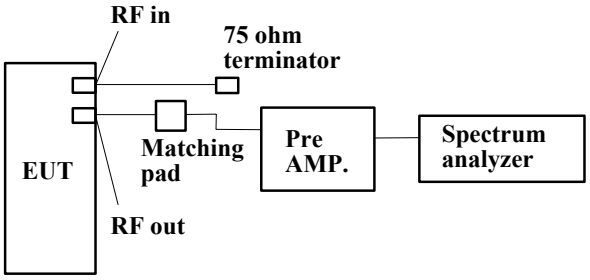
The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : June 29, 2004
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



8.3 Test conditions

EUT position : Table top
EUT operation mode: TV Reception + Rec., VCR Playback, 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

Section 9 : Antenna transfer switch

9.1 Operation environment

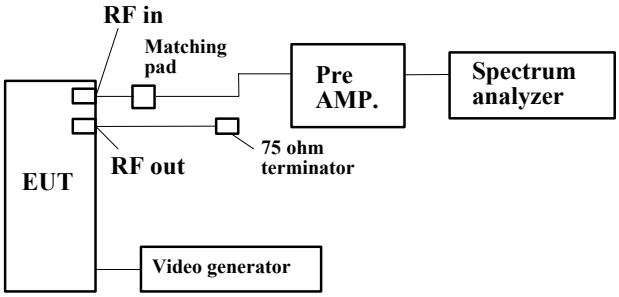
The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : June 29, 2004
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: VCR Playback, 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

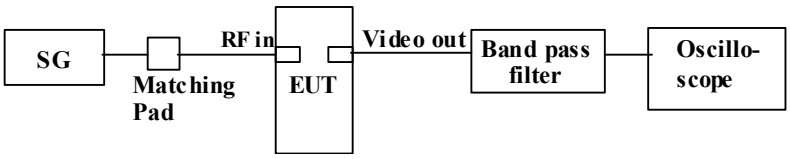
The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : June 29, 2004
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

Section 11 : Noise figure

11.1 Operating environment

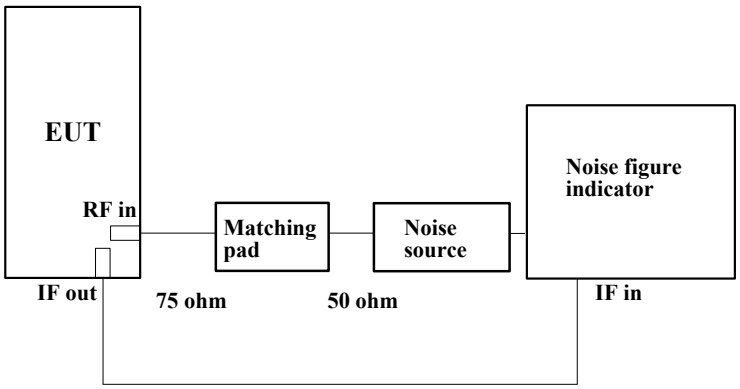
The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : June 29, 2004
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 through ceramic condenser. 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

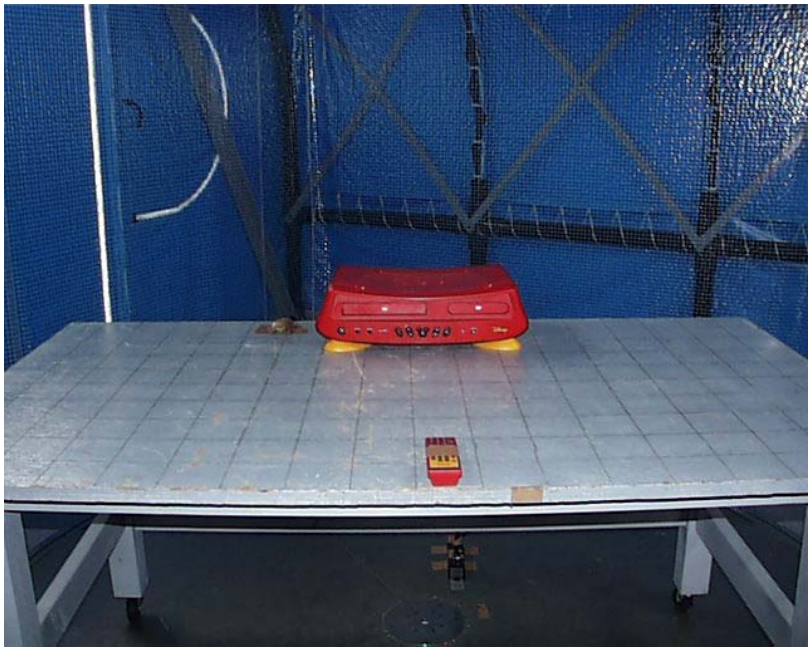
Appendix 1 : Photographs of test set up

Appendix 2 : Data of EMI tests

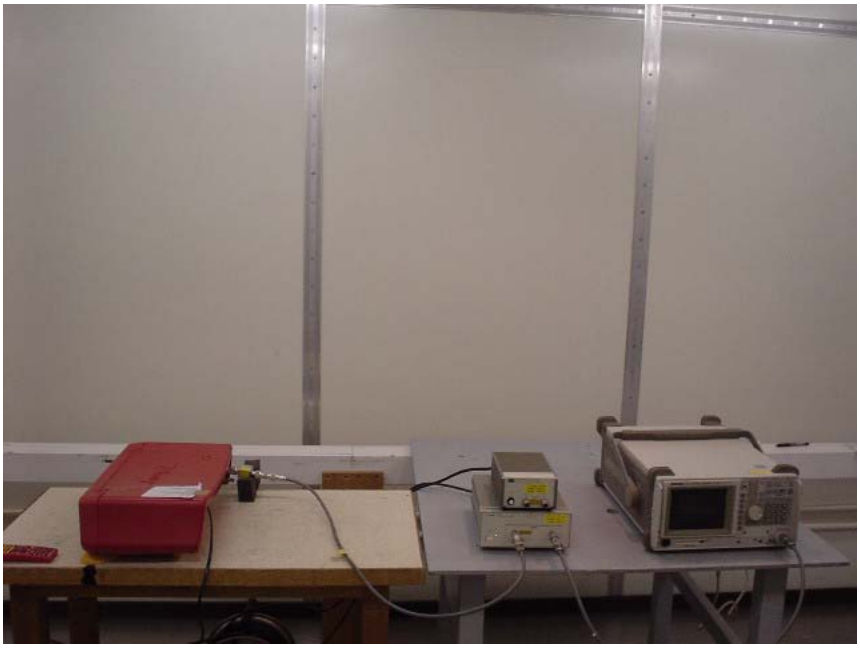
Appendix 3 : Test instruments

Conducted emission

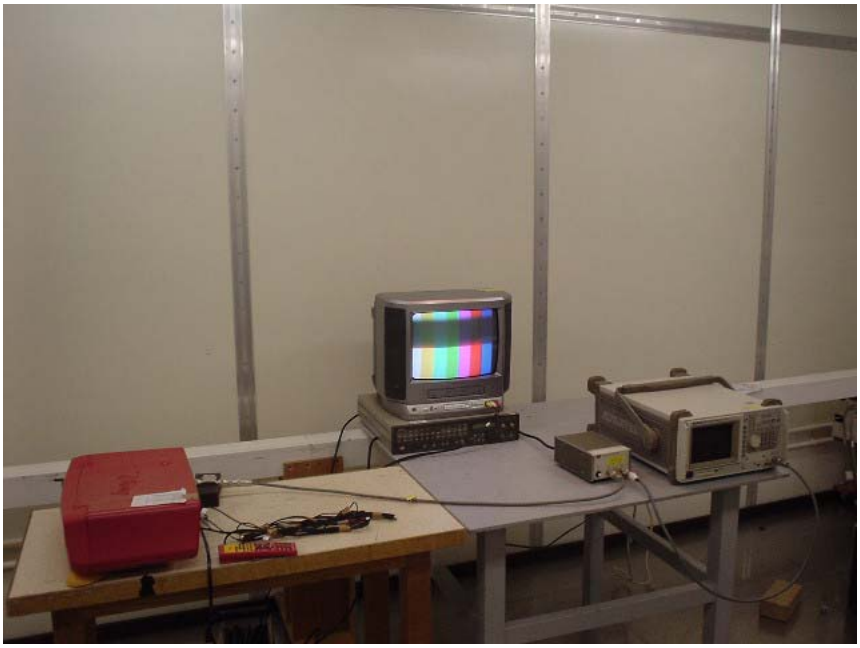
Radiated emission



Antenna terminal voltage



RF output level / spurious emission



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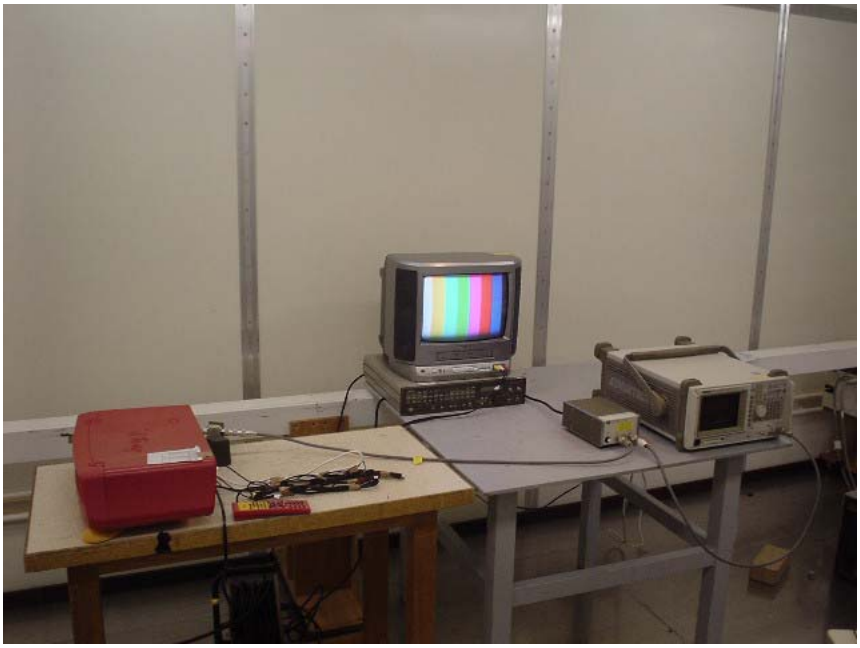
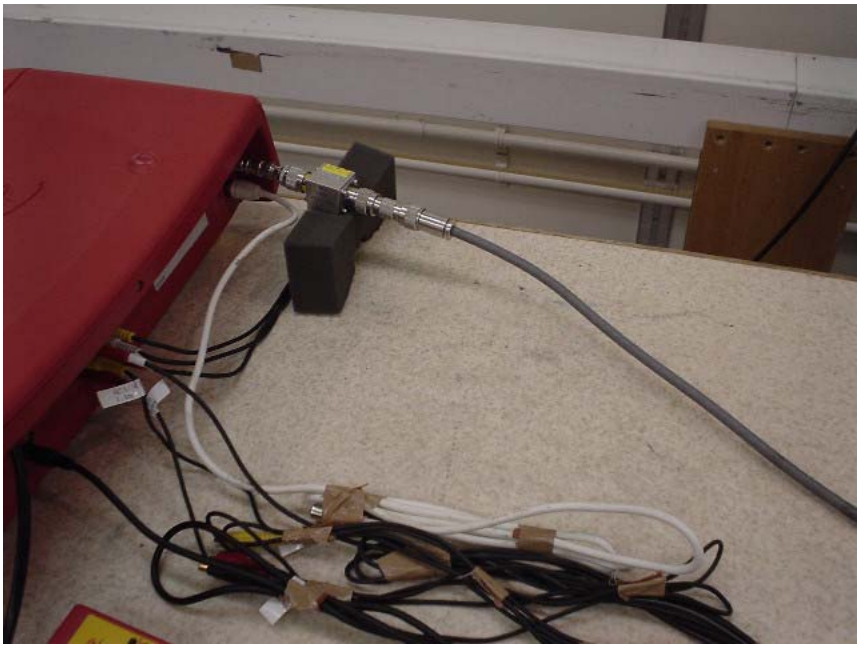
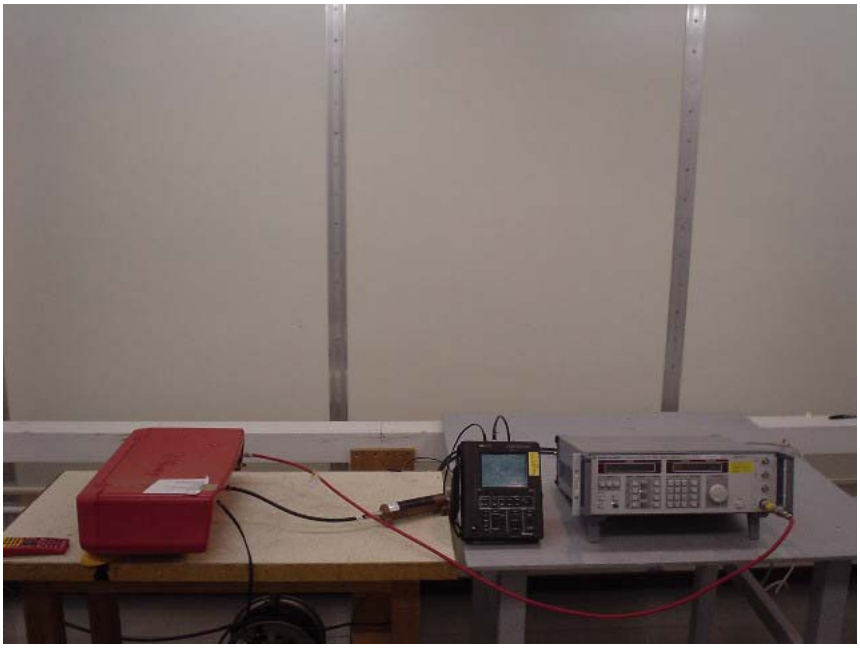
Telephone: +81 596 39 1485
Facsimile: +81 596 39 0232

Antenna transfer switch



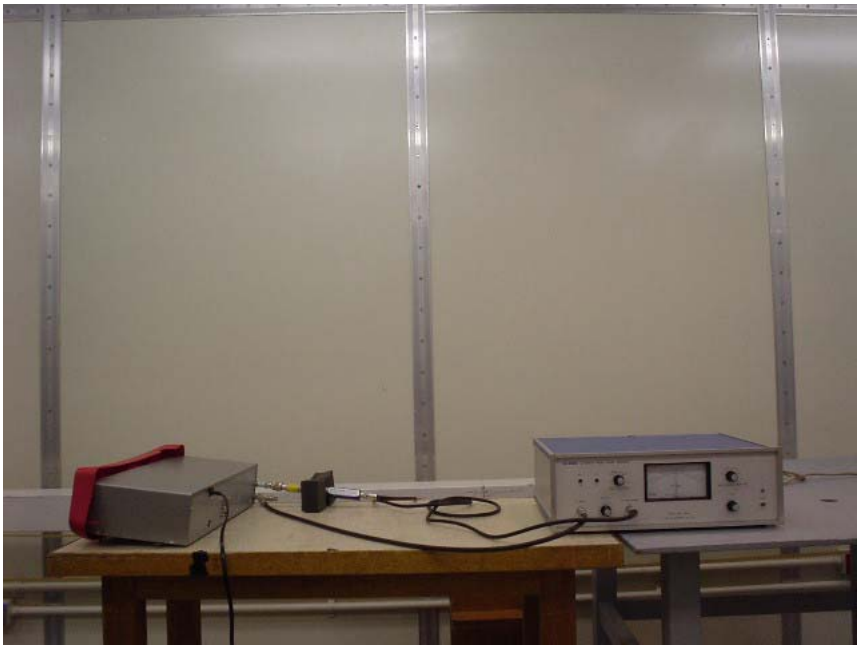


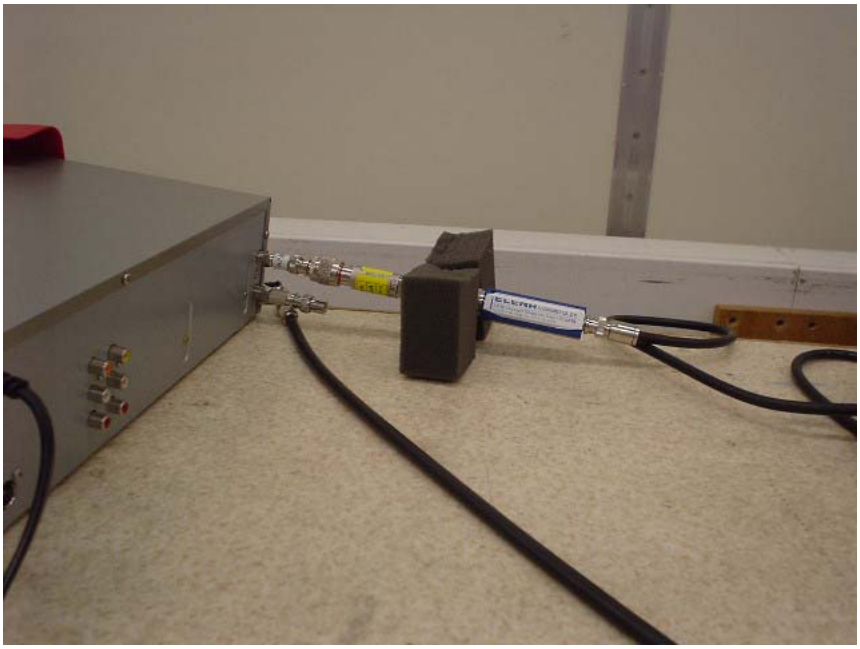
Picture sensitivity



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.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(0dBm)		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

No.	FREQ.	READING(N) QP	READING(N) AV	READING(L1) QP	READING(L1) AV	LISN FACTOR	CABLE LOSS	ATTEN.	RESULT QP	RESULT AV	LIMITS QP	LIMITS AV	MARGIN QP	MARGIN AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	46.7	-	47.1	-	0.1	0.1	0.0	47.3	-	66.0	56.0	18.7	-
2.	0.2308	37.8	-	38.2	-	0.2	0.1	0.0	38.5	-	62.4	52.4	23.9	-
3.	0.5025	22.9	-	24.4	-	0.2	0.2	0.0	24.8	-	56.0	46.0	31.2	-
4.	1.0621	25.2	-	25.8	-	0.2	0.2	0.0	26.2	-	56.0	46.0	29.8	-
5.	18.4321	28.4	-	28.5	-	1.6	0.7	0.0	30.8	-	60.0	50.0	29.2	-
6.	23.0406	25.6	-	25.3	-	1.7	0.8	0.0	28.1	-	60.0	50.0	31.9	-

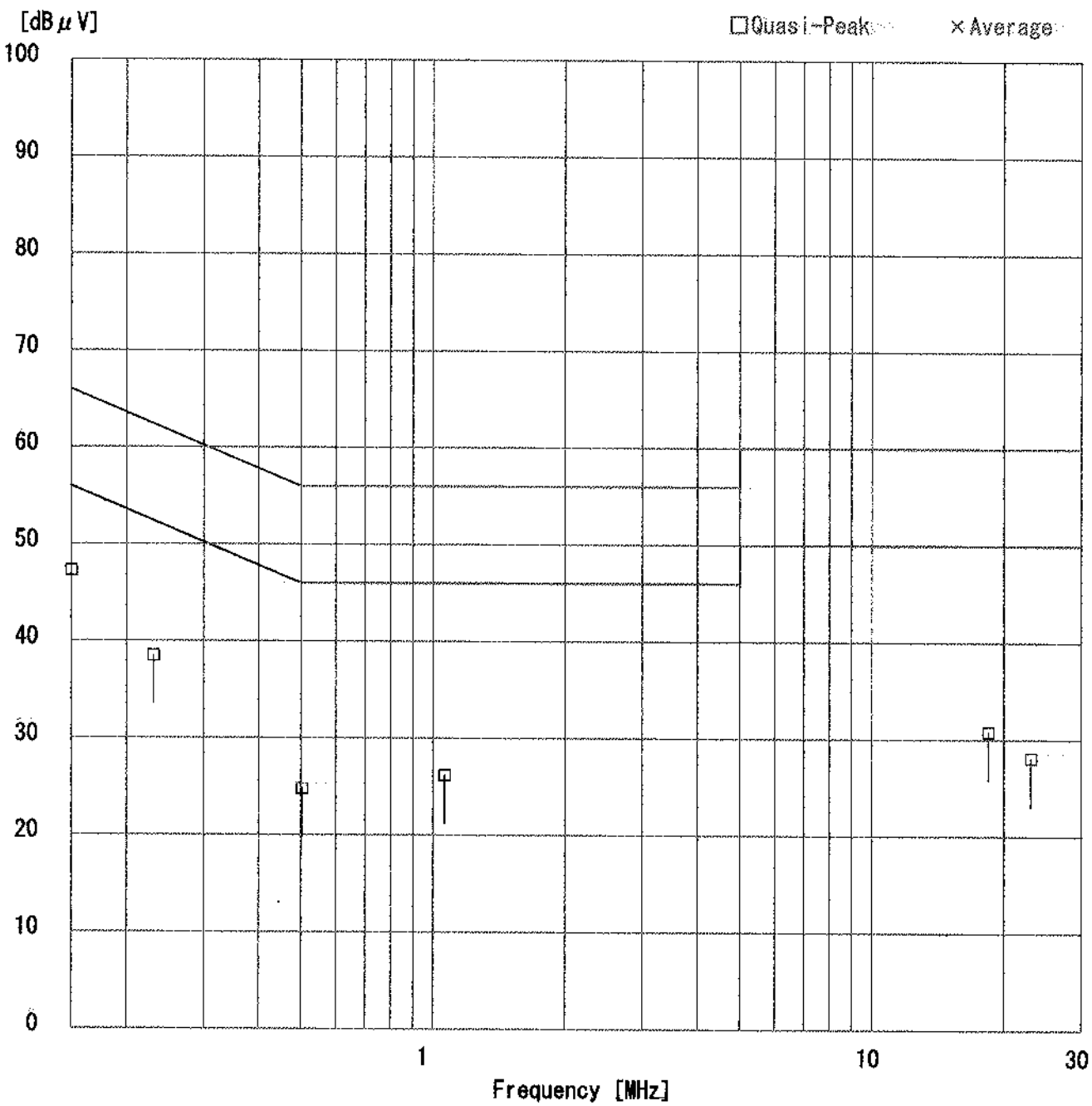
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No. : 24KE0255-Y-1

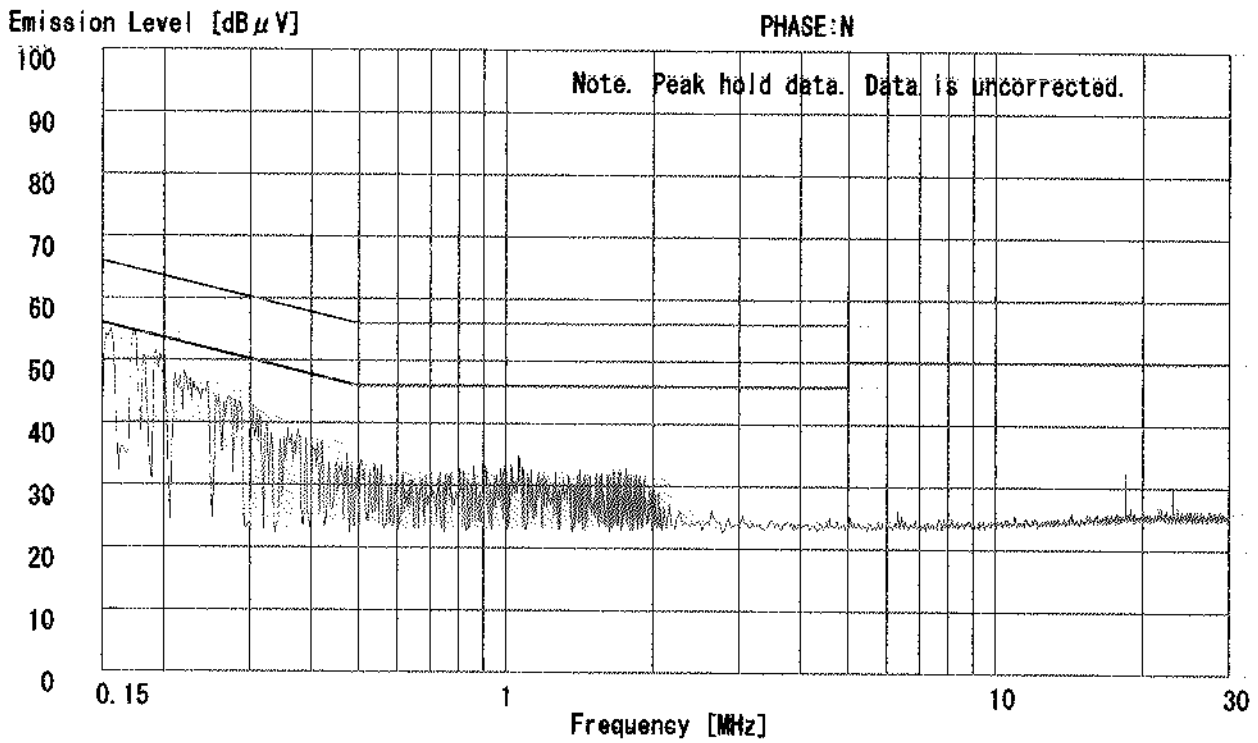
Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(0dBm)		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

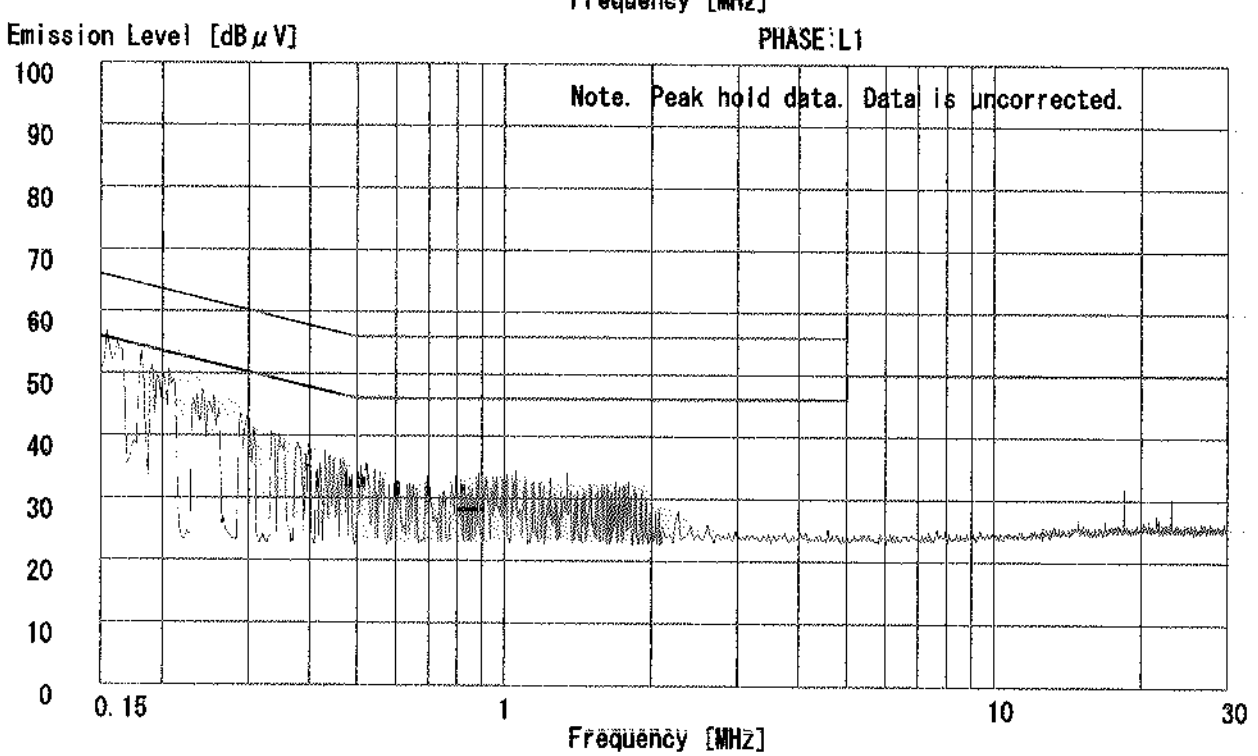


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No. : 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(0dBm)		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation 1	: FCC Part15 CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(25dBm)		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

No.	FREQ.	READING(N) QP	READING(N) AV	READING(L1) QP	READING(L1) AV	LISN FACTOR	CABLE LOSS	ATTEN.	RESULT QP	RESULT AV	LIMITS QP	LIMITS AV	MARGIN QP	MARGIN AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	46.7	-	47.0	-	0.1	0.1	0.0	47.2	-	66.0	56.0	18.8	-
2.	0.2316	37.6	-	38.0	-	0.2	0.1	0.0	38.3	-	62.4	52.4	24.1	-
3.	0.5023	22.8	-	24.3	-	0.2	0.2	0.0	24.7	-	56.0	46.0	31.3	-
4.	1.0601	26.3	-	25.9	-	0.2	0.2	0.0	26.7	-	56.0	46.0	29.3	-
5.	18.4316	28.4	-	28.3	-	1.6	0.7	0.0	30.7	-	60.0	50.0	29.3	-
6.	23.0406	25.7	-	25.4	-	1.7	0.8	0.0	28.2	-	60.0	50.0	31.8	-

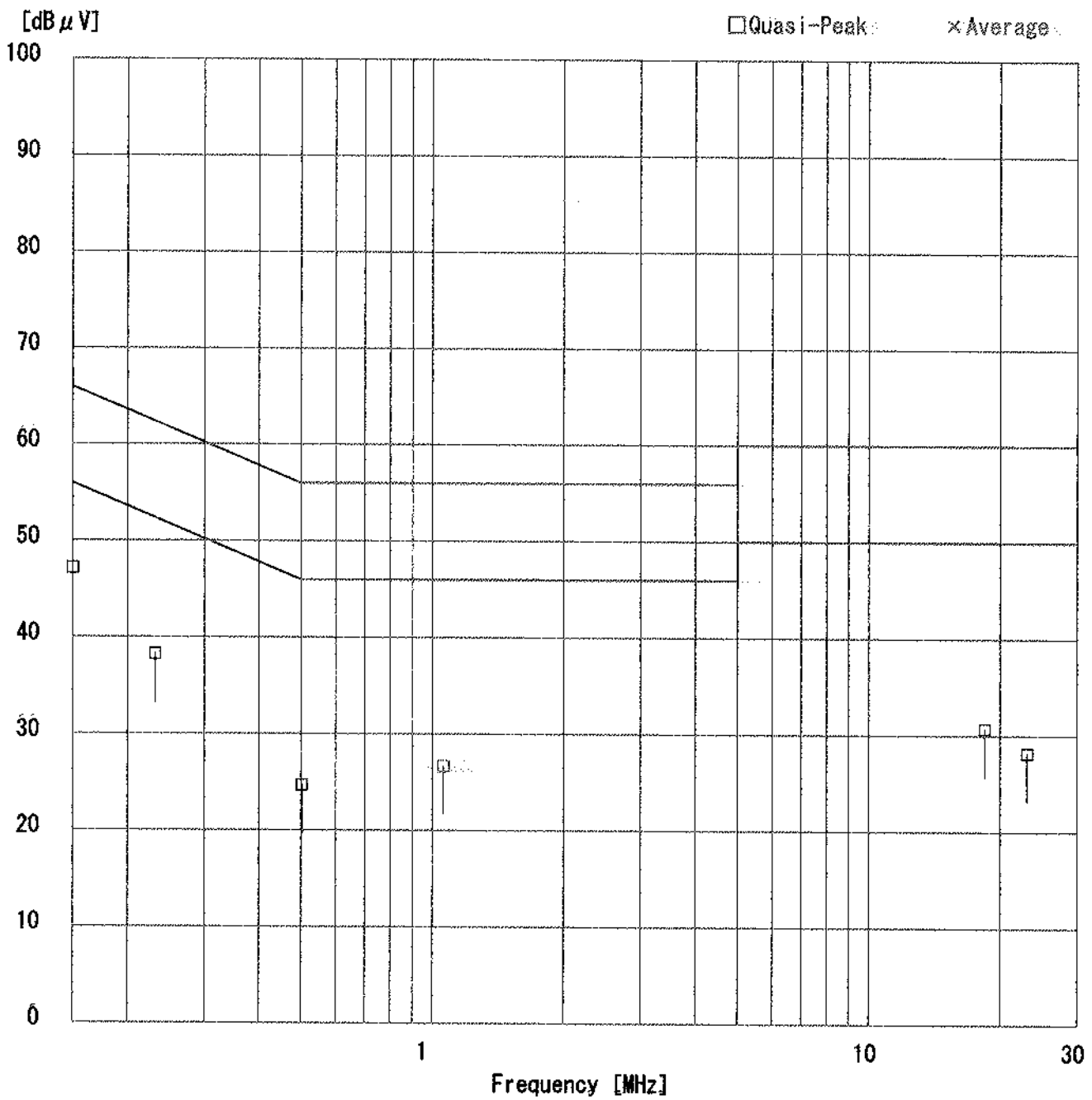
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

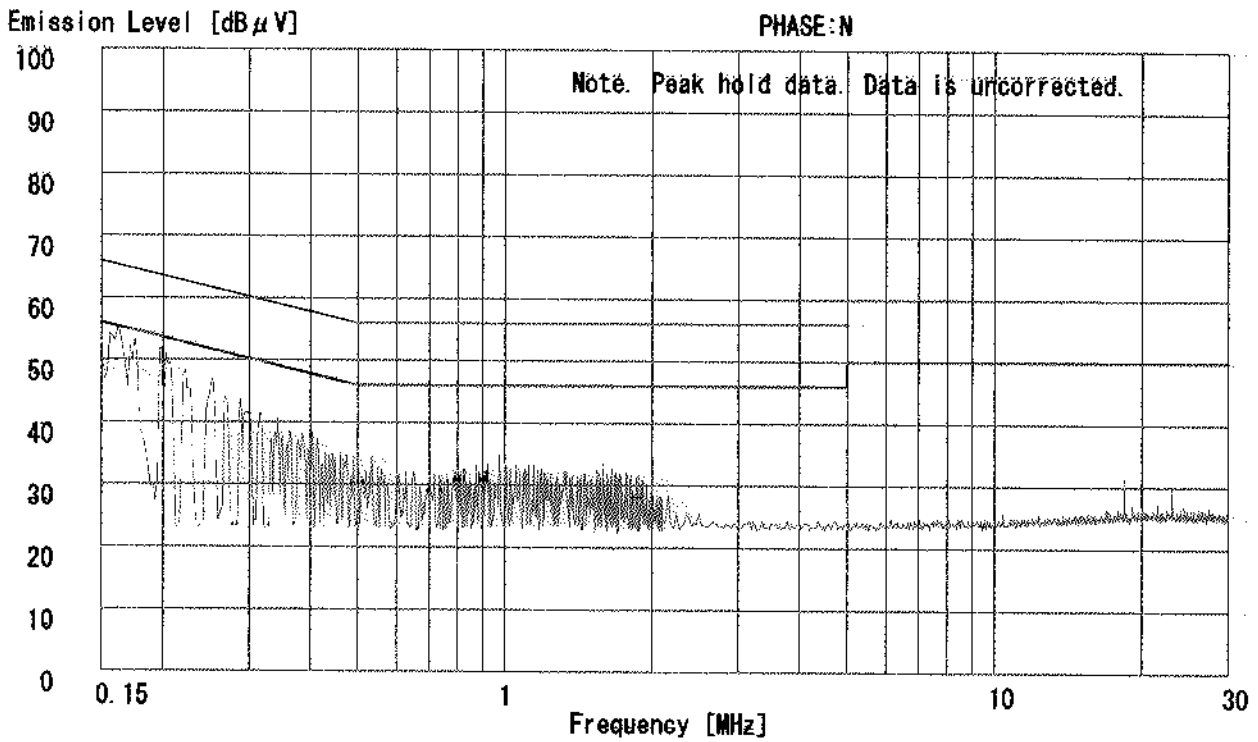
Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(25dBm)		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

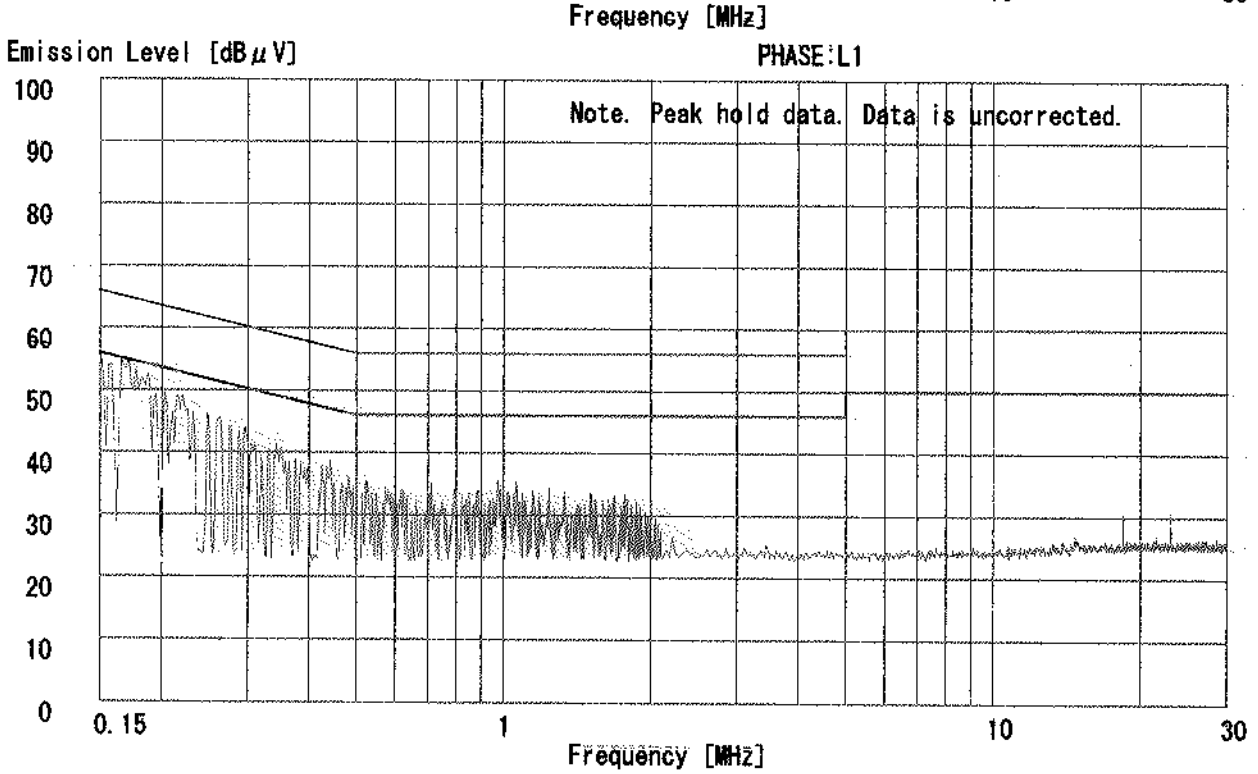


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(25dBm)		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation 1	: FCC Part15 CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

No.	FREQ.	READING(N)		READING(L1)		LISN FACTOR	CABLE LOSS	ATTEN.	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV				QP	AV	QP	AV	QP	AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	46.8	-	47.2	-	0.1	0.1	0.0	47.4	-	66.0	56.0	18.6	-
2.	0.2324	38.3	-	38.5	-	0.2	0.1	0.0	38.8	-	62.4	52.4	23.6	-
3.	0.5027	25.1	-	26.4	-	0.2	0.2	0.0	26.8	-	56.0	46.0	29.2	-
4.	1.2641	24.7	-	23.9	-	0.2	0.2	0.0	25.1	-	56.0	46.0	30.9	-
5.	13.2048	19.0	-	18.4	-	1.0	0.6	0.0	20.6	-	60.0	50.0	39.4	-
6.	28.6352	22.5	-	22.1	-	1.5	0.9	0.0	24.9	-	60.0	50.0	35.1	-

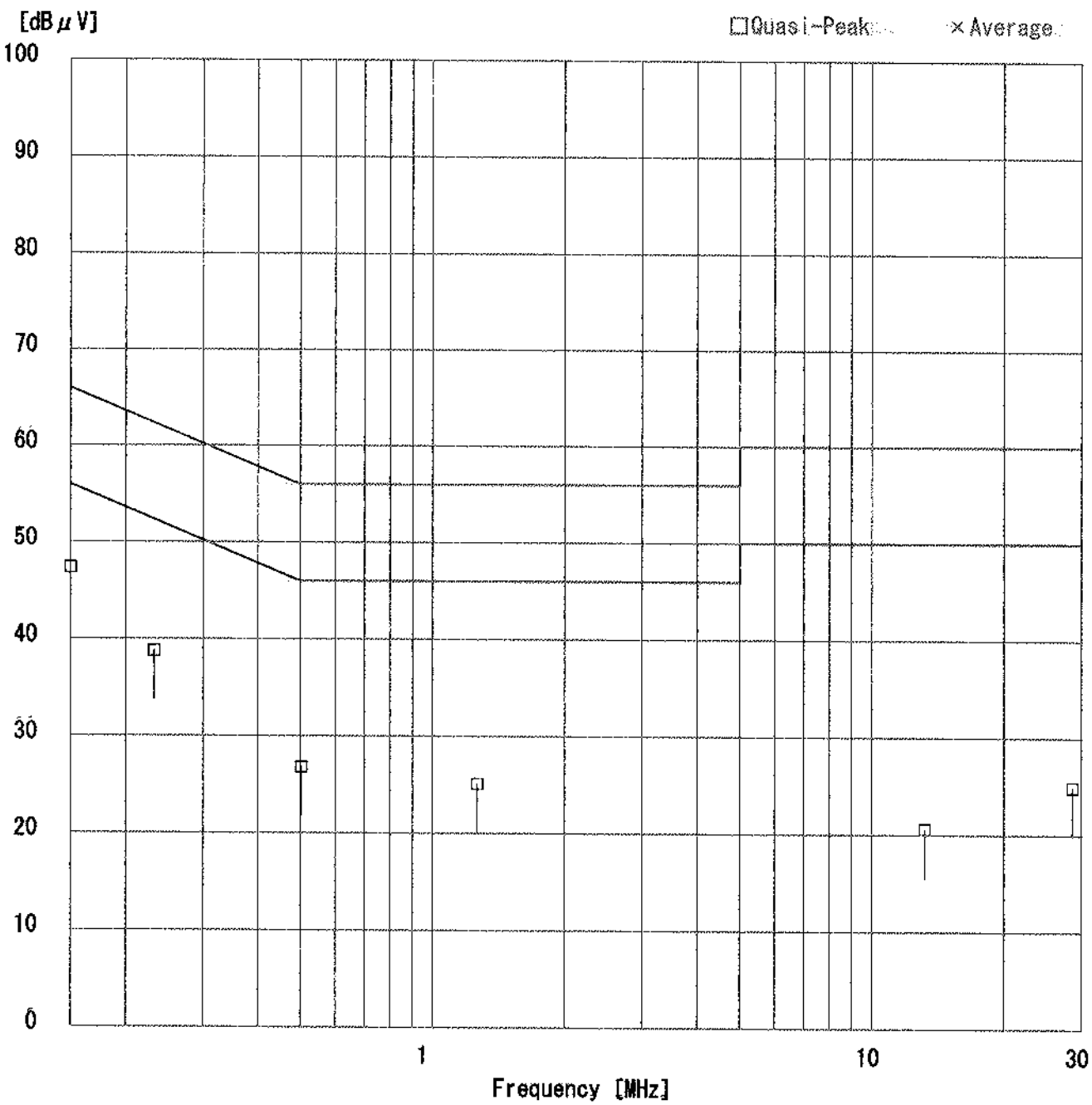
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

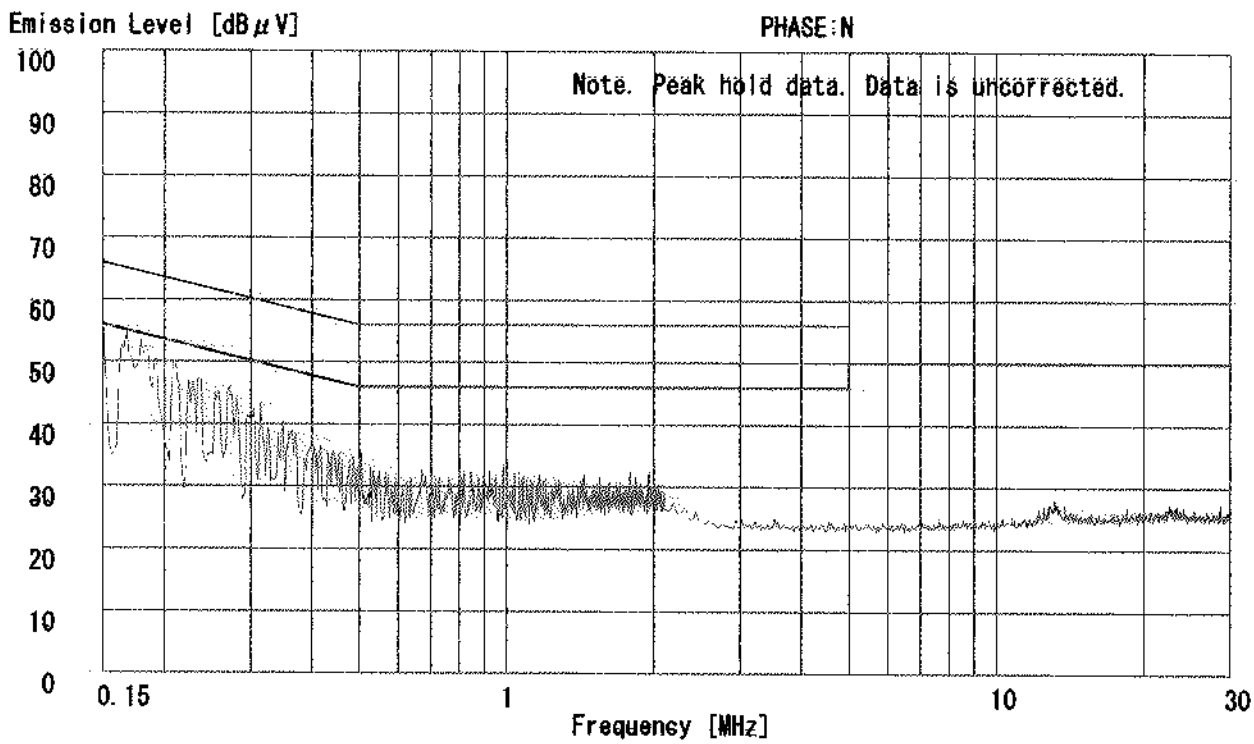
Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

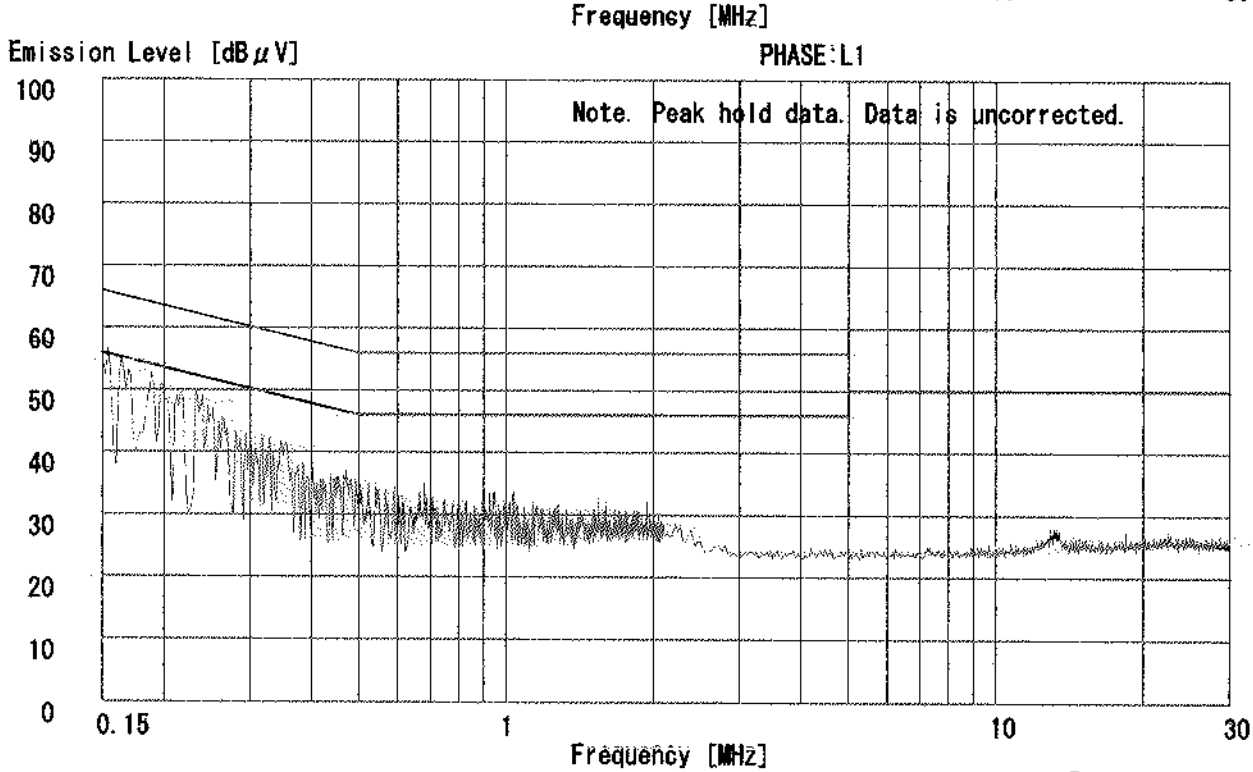


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No. : 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation 1	: FCC Part15 CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No. : 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

No.	FREQ.	READING(N) QP	READING(N) AV	READING(L1) QP	READING(L1) AV	LISN FACTOR	CABLE LOSS	ATTEN.	RESULT QP	RESULT AV	LIMITS QP	LIMITS AV	MARGIN QP	MARGIN AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	46.7	-	47.0	-	0.1	0.1	0.0	47.2	-	66.0	56.0	18.8	-
2.	0.2330	42.3	-	38.8	-	0.2	0.1	0.0	42.6	-	62.3	52.3	19.7	-
3.	0.5021	26.0	-	26.3	-	0.2	0.2	0.0	26.7	-	56.0	46.0	29.3	-
4.	1.0552	23.3	-	23.1	-	0.2	0.2	0.0	23.7	-	56.0	46.0	32.3	-
5.	13.1847	23.0	-	23.3	-	1.0	0.6	0.0	24.9	-	60.0	50.0	35.1	-
6.	28.6359	23.3	-	23.1	-	1.5	0.9	0.0	25.7	-	60.0	50.0	34.3	-

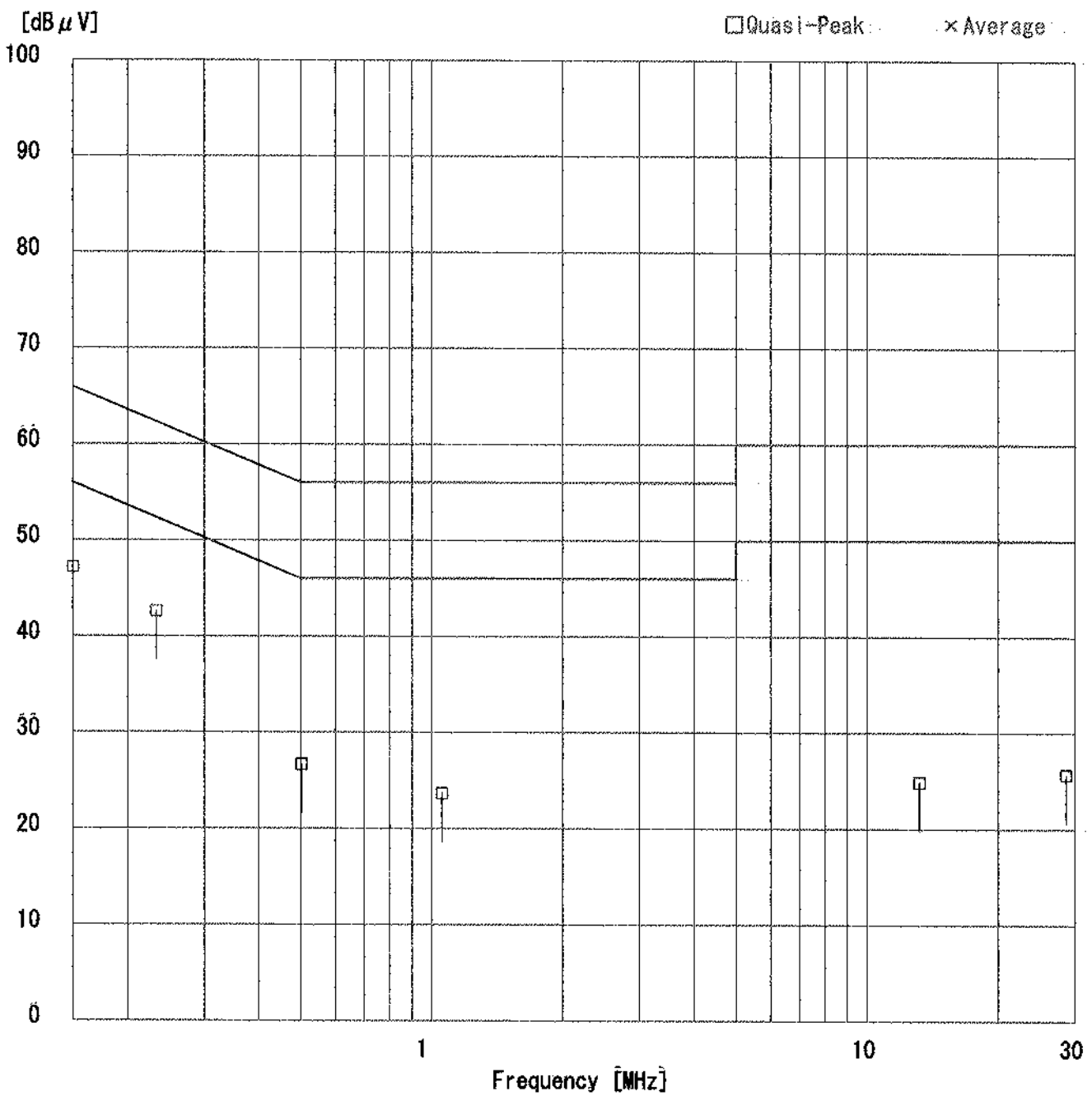
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No. : 24KE0255-Y-1

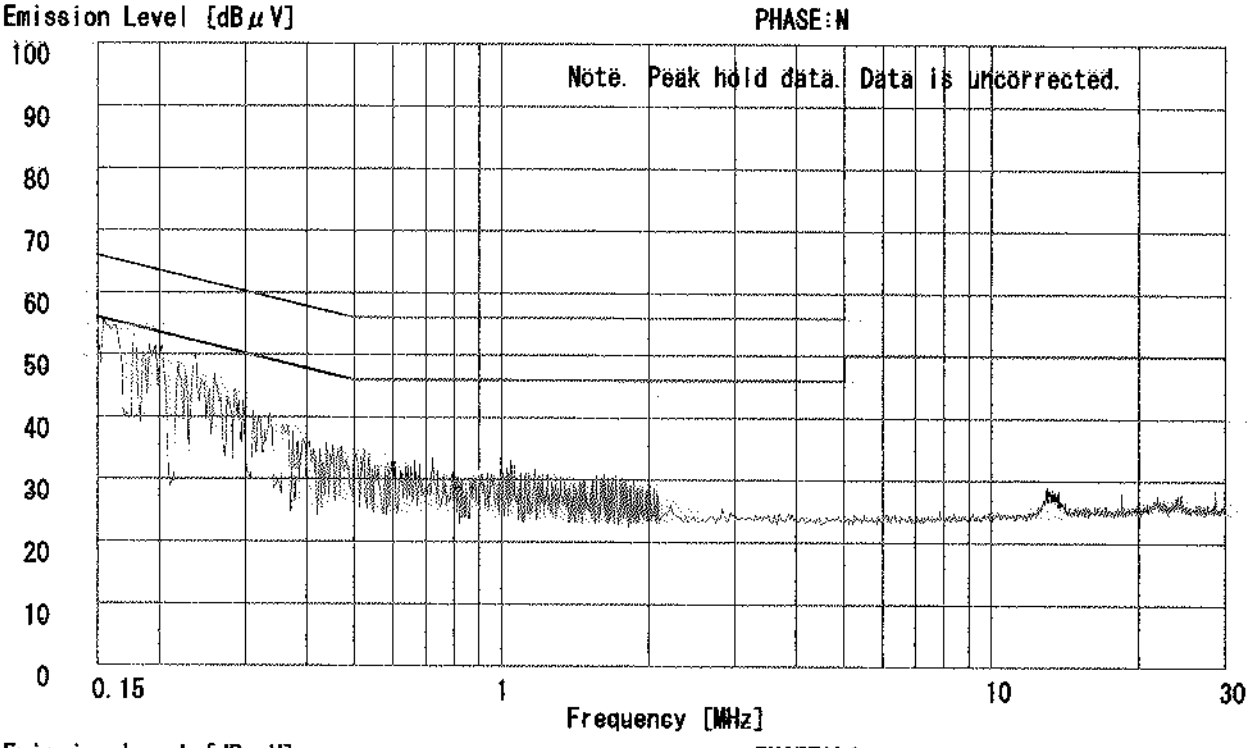
Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation	: FCC Part15 CLASS B(2003)		

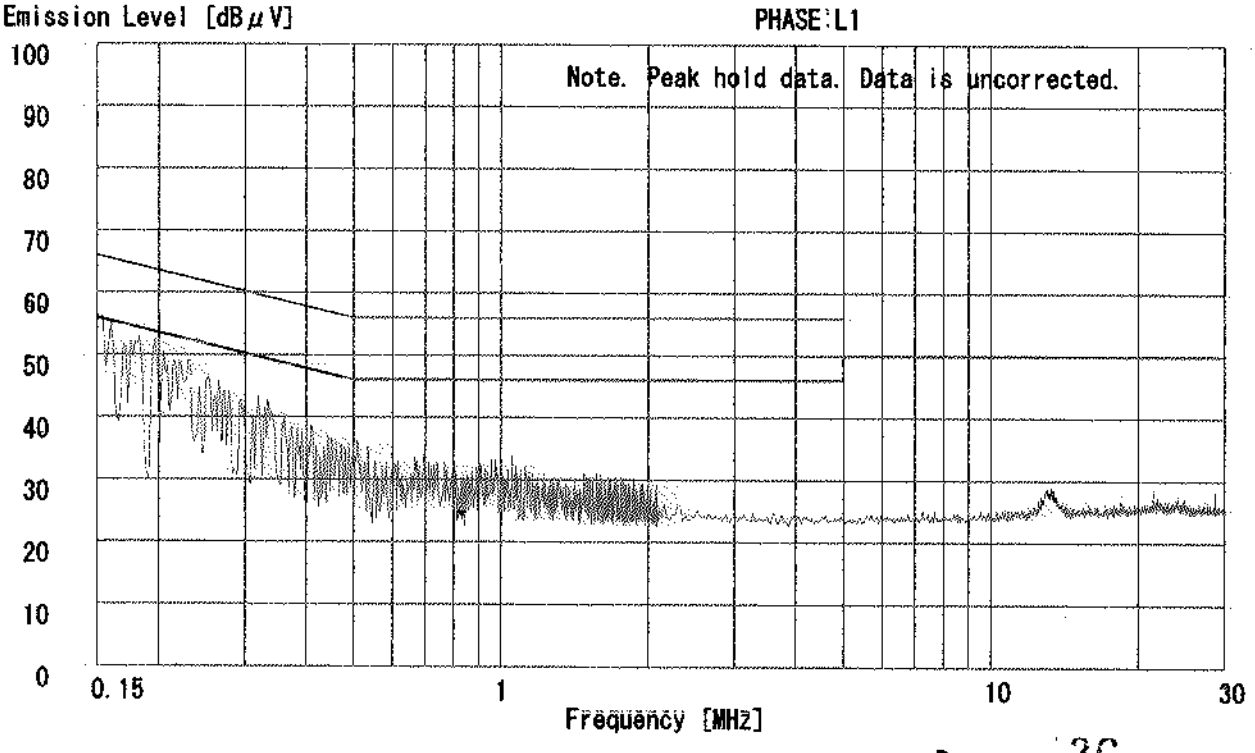


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD ROOM
Report No.: 24KE0255-Y-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: --		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/29/2004		
Phase	: Single Phase		
Temperature	: 25 ℃	Engineer	: Tsubasa Takayama
Humidity	: 51 %		
Regulation 1	: FCC Part15 CLASS B(2003)		
Regulation 2	: None		





DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co., Ltd.	REPORT No.	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		ENGINEER	: Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain
For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	READING(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
VHF										
2	101	26.1	28.2	BC	-11.0	15.1	17.2	43.5	28.4	26.3
	202	22.6	22.5	BC	-4.0	18.6	18.5	43.5	24.9	25.0
	303			LO	-5.9			46.0	>15.0	
	404			LO	-4.2			46.0		
	505			LO	-1.1			46.0		
	606			LO	0.9			46.0		
	707			LO	2.7			46.0		
	808			LO	4.2			46.0		
	909			LO	5.8			46.0		

		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	READING(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1010					HO	-12.0					74.0	54.0	>27.0		>10.0	
	1111					HO	-11.4					74.0	54.0				
	1212					HO	-10.9					74.0	54.0				
	1313					HO	-10.4					74.0	54.0				
	1414					HO	-9.8					74.0	54.0				
	1515					HO	-9.2					74.0	54.0				
	1616					HO	-8.3					74.0	54.0				

CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	READING(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
3	107	25.9	25.9	BC	-10.0	15.9	15.9	43.5	27.6	27.6
	214	22.8	22.7	BC	-3.8	19.0	18.9	43.5	24.5	24.6
	321			LO	-5.6			46.0	>15.0	
	428			LO	-3.5			46.0		
	535			LO	-0.5			46.0		
	642			LO	1.5			46.0		
	749			LO	3.3			46.0		
	856			LO	4.7			46.0		
	963			LO	7.8			54.0		

		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	READING(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1070					HO	-11.7					74.0	54.0	>27.0		>10.0	
	1177					HO	-11.1					74.0	54.0				
	1284					HO	-10.5					74.0	54.0				
	1391					HO	-9.9					74.0	54.0				
	1498					HO	-9.4					74.0	54.0				
	1605					HO	-8.4					74.0	54.0				

CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	READING(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
4	113	25.6	25.3	BC	-8.8	16.8	16.5	43.5	26.7	27.0
	226			BC	-3.7			46.0	>15.0	
	339			LO	-5.4			46.0		
	452			LO	-2.7			46.0		
	565			LO	0.0			46.0		
	678			LO	2.2			46.0		
	791			LO	4.0			46.0		
	904			LO	5.6			46.0		

		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	READING(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1017					HO	-11.9					74.0	54.0	>27.0		>10.0	
	1130					HO	-11.3					74.0	54.0				
	1243					HO	-10.7					74.0	54.0				
	1356					HO	-10.1					74.0	54.0				
	1469					HO	-9.5					74.0	54.0				
	1582					HO	-8.6					74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co., Ltd.	REPORT No.	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		ENGINEER	: Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain
For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
VHF										
5	123	27.1	27.3	BC	-7.5	19.6	19.8	43.5	23.9	23.7
	246			BC	-3.5			46.0		
	369			LO	-4.7			46.0		
	492			LO	-1.5			46.0		
	615			LO	0.9			46.0	>15.0	
	738			LO	3.2			46.0		
	861			LO	5.0			46.0		
	984			LO	8.5			54.0		

		READINNG(PK) HOR. [dBuV]	VER. [dBuV]	READINNG(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1107					HO	-11.4					74.0	54.0				
	1230					HO	-10.8					74.0	54.0				
	1353					HO	-10.2					74.0	54.0	>27.0		>10.0	
	1476					HO	-9.5					74.0	54.0				
	1599					HO	-8.4					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
6	129	25.1	25.6	BC	-7.0	18.1	18.6	43.5	25.4	24.9
	258			BC	-3.1			46.0		
	387			LO	-4.4			46.0		
	516			LO	-1.0			46.0	>15.0	
	645			LO	1.5			46.0		
	774			LO	3.7			46.0		
	903			LO	5.6			46.0		

		READINNG(PK) HOR. [dBuV]	VER. [dBuV]	READINNG(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1032					HO	-11.9					74.0	54.0				
	1161					HO	-11.2					74.0	54.0				
	1290					HO	-10.5					74.0	54.0	>27.0		>10.0	
	1419					HO	-9.8					74.0	54.0				
	1548					HO	-8.9					74.0	54.0				
	1677					HO	-7.7					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
7	221	22.5	22.7	BC	-3.8	18.7	18.9	46.0	27.3	27.1
	442			LO	-3.1			46.0		
	663			LO	1.9			46.0	>15.0	
	884			LO	5.5			46.0		

		READINNG(PK) HOR. [dBuV]	VER. [dBuV]	READINNG(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1105					HO	-11.5					74.0	54.0				
	1326					HO	-10.3					74.0	54.0	>27.0		>10.0	
	1547					HO	-8.9					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
8	227	23.1	23.3	BC	-3.7	19.4	19.6	46.0	26.6	26.4
	454			LO	-2.6			46.0		
	681			LO	2.2			46.0	>15.0	
	908			LO	5.8			46.0		

		READINNG(PK) HOR. [dBuV]	VER. [dBuV]	READINNG(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dB/m]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1135					HO	-11.3					74.0	54.0				
	1362					HO	-10.1					74.0	54.0	>27.0		>10.0	
	1589					HO	-8.5					74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co., Ltd.	REPORT No.	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		ENGINEER	: Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain
For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READINNG(QP) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR.	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
VHF										
9	233	25.1	24.5	BC	-3.6	21.5	20.9	46.0	24.5	25.1
	466			LO	-2.3			46.0	>15.0	
	699			LO	2.6			46.0		
	932			LO	6.7			46.0		

	FREQ [MHz]	READINNG(PK) HOR.	VER. [dBuV]	READINNG(AV) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR.	VER. [dBuV/m]	RESULT(AV) HOR.	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1165					HO	-11.2					74.0	54.0	>27.0		>10.0	
	1398					HO	-9.9					74.0	54.0				
	1631					HO	-8.1					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR.	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
10	239	24.3	24.5	BC	-3.5	20.8	21.0	46.0	25.2	25.0
	478			LO	-2.0			46.0	>15.0	
	717			LO	2.8			46.0		
	956			LO	7.5			46.0		

	FREQ [MHz]	READINNG(PK) HOR.	VER. [dBuV]	READINNG(AV) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR.	VER. [dBuV/m]	RESULT(AV) HOR.	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1195					HO	-11.1					74.0	54.0	>27.0		>10.0	
	1434					HO	-9.8					74.0	54.0				
	1673					HO	-7.8					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR.	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
11	245	25.2	24.3	BC	-3.5	21.7	20.8	46.0	24.3	25.2
	490			LO	-1.5			46.0	>15.0	
	735			LO	3.2			46.0		
	980			LO	8.4			54.0		

	FREQ [MHz]	READINNG(PK) HOR.	VER. [dBuV]	READINNG(AV) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR.	VER. [dBuV/m]	RESULT(AV) HOR.	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1225					HO	-10.8					74.0	54.0	>27.0		>10.0	
	1470					HO	-9.5					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR.	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
12	251	24.4	23.2	BC	-3.5	20.9	19.7	46.0	25.1	26.3
	502			LO	-1.2			46.0	>15.0	
	753			LO	3.5			46.0		

	FREQ [MHz]	READINNG(PK) HOR.	VER. [dBuV]	READINNG(AV) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR.	VER. [dBuV/m]	RESULT(AV) HOR.	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1004					HO	-12.0					74.0	54.0	>27.0		>10.0	
	1255					HO	-10.6					74.0	54.0				
	1506					HO	-9.3					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR.	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
13	257	26.1	26.4	BC	-3.1	23.0	23.3	46.0	23.0	22.7
	514			LO	-1.0			46.0	>15.0	
	771			LO	3.7			46.0		

	FREQ [MHz]	READINNG(PK) HOR.	VER. [dBuV]	READINNG(AV) HOR.	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR.	VER. [dBuV/m]	RESULT(AV) HOR.	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1028					HO	-11.9					74.0	54.0	>27.0		>10.0	
	1285					HO	-10.5					74.0	54.0				
	1542					HO	-9.0					74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co., Ltd.	REPORT No.	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		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	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
UHF																
14	517	29.5	30.1			LO	-1.0	28.5	29.1			46.0		17.5	16.9	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1034					HO	-11.9					74.0	54.0	>27.0		>10.0
	1551					HO	-8.9					74.0	54.0			
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
19	547	29.4	28.1			LO	-0.3	29.1	27.8			46.0		16.9	18.2	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1094					HO	-11.5					74.0	54.0	>27.0		>10.0
	1641					HO	-8.0					74.0	54.0			
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
28	601	29.1	30.3			LO	0.7	29.8	31.0			46.0	-	16.2	15.0	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1202					HO	-10.9					74.0	54.0	>27.0		>10.0
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
36	649	29.1	29.5			LO	1.6	30.7	31.1			46.0	-	15.3	14.9	
		READINNG(PK) HOR.	#NAME?	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1298					HO	-10.5					74.0	54.0	>27.0		>10.0
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
44	697	30.3	29.6			LO	2.6	32.9	32.2			46.0	-	13.1	13.8	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1394					HO	-9.9					74.0	54.0	>27.0		>10.0
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
53	751	30.4	30.1			LO	3.4	33.8	33.5			46.0	-	12.2	12.5	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1502					HO	-9.3					74.0	54.0	>27.0		>10.0
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
61	799	30.1	30.2			LO	4.1	34.2	34.3			46.0	-	11.8	11.7	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1598					HO	-8.4					74.0	54.0	>27.0		>10.0
CH.	FREQ	READINNG(QP) HOR.	VER.			ANT TYPE	C.Factor	RESULT(QP) HOR.	VER.			LIMIT [QP]		MARGIN(QP) HOR.	VER.	
	[MHz]	[dBuV]					[dB/m]	[dBuV/m]				[dBuV/m]		[dB]	[dB]	
69	847	30.5	28.6			LO	4.5	35.0	33.1			46.0	-	11.0	12.9	
		READINNG(PK) HOR.	VER.	READINNG(AV) HOR.	VER.	ANT TYPE	C.Factor	RESULT(PK) HOR.	VER.	RESULT(AV) HOR.	VER.	LIMIT [PK]	LIMIT [AV]	MARGIN(PK) HOR.	VER.	MARGIN(AV) HOR. VER.
		[dBuV]		[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB] [dB]
	1694					HO	-7.6					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.	REPORT No.	: 24KE0255-YW-I
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		ENGINEER	: Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain
For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	READINNG(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
CATV										
1	119	25.9	26.5	BC	-7.7	18.2	18.8	43.5	25.3	24.7
	238			BC	-3.5			46.0		
	357			LO	-5.0			46.0		
	476			LO	-2.1			46.0		
	595			LO	0.6			46.0	>15.0	
	714			LO	2.9			46.0		
	833			LO	4.6			46.0		
	952			LO	7.4			46.0		

		READINNG(PK) HOR. [dBuV]	READINNG(PK) VER. [dBuV]	READINNG(AV) HOR. [dBuV]	READINNG(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1071					HO	-11.7					74.0	54.0				
	1190					HO	-11.1					74.0	54.0				
	1309					HO	-10.4					74.0	54.0	>27.0		>10.0	
	1428					HO	-9.8					74.0	54.0				
	1547					HO	-8.9					74.0	54.0				
	1666					HO	-7.8					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	READINNG(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
95	137	27.5	28.1	BC	-6.4	21.1	21.7	43.5	22.4	21.8
	274			BC	-2.2			46.0		
	411			LO	-4.0			46.0		
	548			LO	-0.3			46.0	>15.0	
	685			LO	2.3			46.0		
	822			LO	4.4			46.0		
	959			LO	7.5			46.0		

		READINNG(PK) HOR. [dBuV]	READINNG(PK) VER. [dBuV]	READINNG(AV) HOR. [dBuV]	READINNG(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1096					HO	-11.5					74.0	54.0				
	1233					HO	-10.8					74.0	54.0				
	1370					HO	-10.0					74.0	54.0	>27.0		>10.0	
	1507					HO	-9.2					74.0	54.0				
	1644					HO	-8.0					74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	READINNG(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
97	149	27.3	27.5	BC	-6.0	21.3	21.5	43.5	22.2	22.0
	298			BC	-1.0			46.0		
	447			LO	-2.8			46.0		
	596			LO	0.6			46.0	>15.0	
	745			LO	3.3			46.0		
	894			LO	5.5			46.0		

		READINNG(PK) HOR. [dBuV]	READINNG(PK) VER. [dBuV]	READINNG(AV) HOR. [dBuV]	READINNG(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1043					HO	-11.8			-	-	74.0	54.0				
	1192					HO	-11.1			-	-	74.0	54.0				
	1341					HO	-10.2			-	-	74.0	54.0	>27.0		>10.0	
	1490					HO	-9.4			-	-	74.0	54.0				
	1639					HO	-8.0			-	-	74.0	54.0				

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	READINNG(QP) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	RESULT(QP) VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	MARGIN(QP) VER. [dB]
99	161	25.1	26.3	BC	-5.6	19.5	20.7	43.5	24.0	22.8
	322			LO	-5.6			46.0		
	483			LO	-1.7			46.0		
	644			LO	1.5			46.0	>15.0	
	805			LO	4.2			46.0		
	966			LO	7.9			46.0		

		READINNG(PK) HOR. [dBuV]	READINNG(PK) VER. [dBuV]	READINNG(AV) HOR. [dBuV]	READINNG(AV) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	RESULT(AV) VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	MARGIN(PK) VER. [dB]	MARGIN(AV) HOR. [dB]	MARGIN(AV) VER. [dB]
	1127					HO	-11.3					74.0	54.0				
	1288					HO	-10.5					74.0	54.0				
	1449					HO	-9.7					74.0	54.0	>27.0		>10.0	
	1610					HO	-8.3					74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co., Ltd.	REPORT No.	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		ENGINEER	: Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain
For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
CATV										
14	167	27.3	28.5	BC	-5.1	22.2	23.4	43.5	21.3	20.1
	334			LO	-5.4			46.0		
	501			LO	-1.2			46.0	>15.0	
	668			LO	2.1			46.0		
	835			LO	4.6			46.0		
		READINNG(PK) HOR. [dBuV]	VER. [dBuV]	READINNG(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1002					HO	-12.0					74.0	54.0				
	1169					HO	-11.2					74.0	54.0				
	1336					HO	-10.2					74.0	54.0	>27.0		>10.0	
	1503					HO	-9.3					74.0	54.0				
	1670					HO	-7.8					74.0	54.0				
CH.	FREQ [MHz]	READINNG(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
18	191	27.3	25.1	BC	-3.8	23.5	21.3	43.5	20.0	22.2
	382			LO	-4.4			46.0		
	573			LO	0.2			46.0	>15.0	
	764			LO	3.5			46.0		
	955			LO	7.5			46.0		
		READINNG(PK) HOR. [dBuV]	VER. [dBuV]	READINNG(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1146					HO	-11.2					74.0	54.0				
	1337					HO	-10.2					74.0	54.0	>27.0		>10.0	
	1528					HO	-9.1					74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
22	215	25.1	26.3	BC	-3.8	21.3	22.5	43.5	22.2	21.0
	430			LO	-3.4			46.0		
	645			LO	1.5			46.0	>15.0	
	860			LO	4.9			46.0		
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1075					HO	-11.6					74.0	54.0				
	1290					HO	-10.5					74.0	54.0	>27.0		>10.0	
	1505					HO	-9.3					74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
23	263	26.1	25.7	BC	-2.8	23.3	22.9	46.0	46.0	22.7	23.1
	526			LO	-0.7			46.0	46.0		
	789			LO	3.8			46.0	46.0		
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1052					HO	-11.8					74.0	54.0				
	1315					HO	-10.4					74.0	54.0	>27.0		>10.0	
	1578					HO	-8.6					74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [QP] [dBuV/m]	MARGIN(QP) HOR. [dB]	VER. [dB]
29	299	27.3	24.5	BC	-0.9	26.4	23.6	46.0	46.0	19.6	22.4
	598			LO	0.7			46.0	46.0		
	897			LO	5.5			46.0	46.0	>15.0	
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1196					HO	-11.1					74.0	54.0				
	1495					HO	-9.4					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.	REPORT No.	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	REGULATION	: FCC PART15 B
MODEL No.	: DVD2100-C	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: June 26, 2004
		TEMP./HUMID.	: 27℃/42%
		ENGINEER	: Tsubasa Takayama

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain
For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
CATV														
36	341	24.0	23.5		LO	-5.4	18.6	18.1		46.0	46.0	27.4	27.9	
	682				LO	2.2				46.0	46.0	>15.0		
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1023					HO	-11.9					74.0	54.0	>27.0		>10.0	
	1364					HO	-10.1					74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
37	347	23.6	23.3		LO	-5.2	18.4	18.1		46.0	46.0	27.6	27.9	
	694				LO	2.5				46.0	46.0	>15.0		
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1041					HO	-11.8					74.0	54.0	>27.0		>10.0	
	1388					HO	-9.9					74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
65	515	27.6	28.1		LO	-1.0	26.6	27.1		46.0	46.0	19.4	18.9	
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1030					HO	-11.9					74.0	54.0	>27.0		>10.0	
	1545					HO	-8.9					74.0	54.0				
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
94	689	27.3	28.1		LO	2.4	29.7	30.5		46.0	46.0	16.3	15.5	
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1378					HO	-10.0					74.0	54.0	>27.0		>10.0	
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
100	695	28.8	27.6		LO	2.5	31.3	30.1		46.0	46.0	14.7	15.9	
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1390					HO	-9.9					74.0	54.0	>27.0		>10.0	
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
113	773	29.1	28.3		LO	3.7	32.8	32.0		46.0	46.0	13.2	14.0	
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1546					HO	-8.9					74.0	54.0	>27.0		>10.0	
CH.	FREQ [MHz]	READING(QP) HOR. [dBuV]	VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. [dBuV/m]	VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. [dB]	VER. [dB]	
125	845	27.4	27.5		LO	4.5	31.9	32.0		46.0	46.0	14.1	14.0	
		READING(PK) HOR. [dBuV]	VER. [dBuV]	READING(AV) HOR. [dBuV]	VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	VER. [dBuV/m]	RESULT(AV) HOR. [dBuV/m]	VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. [dB]	VER. [dB]	MARGIN(AV) HOR. [dB]	VER. [dB]
	1690					HO	-7.6					74.0	54.0	>27.0		>10.0	

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(0dBm)		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	675.00	BB	26.4	31.0	20.9	27.4	6.1	6.0	32.0	36.6	46.0	14.0	9.4

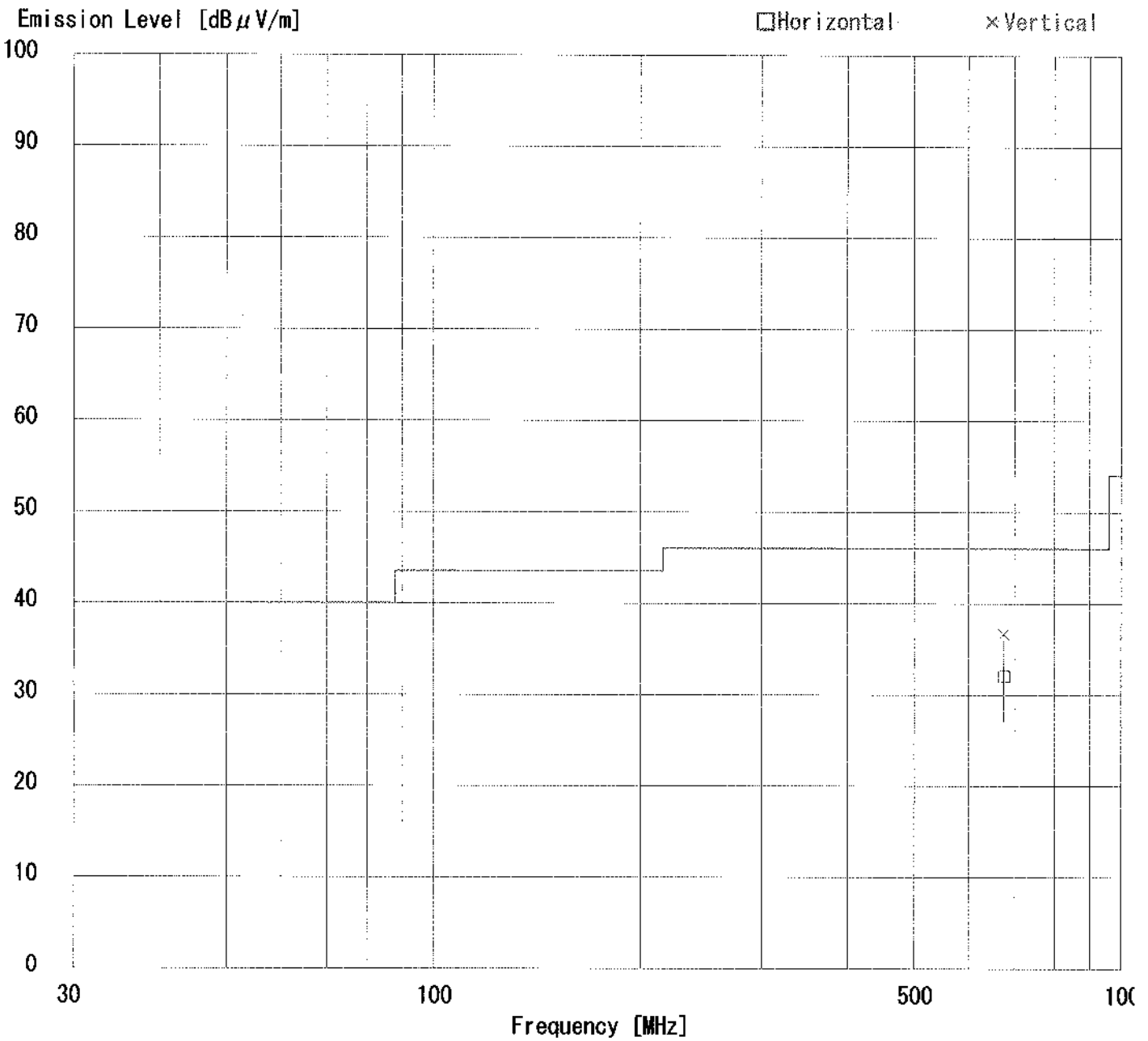
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No. : 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(0dBm)		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(25dBm)		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	85.90	BB	31.2	29.4	7.7	28.2	1.8	5.9	18.4	16.6	40.0	21.6	23.4
2.	135.00	BB	32.1	33.1	14.3	28.2	2.3	5.9	26.4	27.4	43.5	17.1	16.1
3.	219.39	BB	33.5	27.5	16.7	28.0	3.1	6.0	31.3	25.3	46.0	14.7	20.7
4.	270.00	BB	31.2	29.0	18.3	27.9	3.5	6.0	31.1	28.9	46.0	14.9	17.1
5.	337.50	BB	32.1	36.0	17.6	27.9	4.0	6.0	31.8	35.7	46.0	14.2	10.3
6.	405.00	BB	27.7	33.1	18.7	27.9	4.5	6.0	29.0	34.4	46.0	17.0	11.6
7.	540.00	BB	26.1	33.4	19.9	27.8	5.4	6.0	29.6	36.9	46.0	16.4	9.1
8.	675.00	BB	26.5	31.4	20.9	27.4	6.1	6.0	32.1	37.0	46.0	13.9	9.0
9.	945.00	BB	23.8	25.3	25.1	27.1	7.5	6.0	35.3	36.8	46.0	10.7	9.2

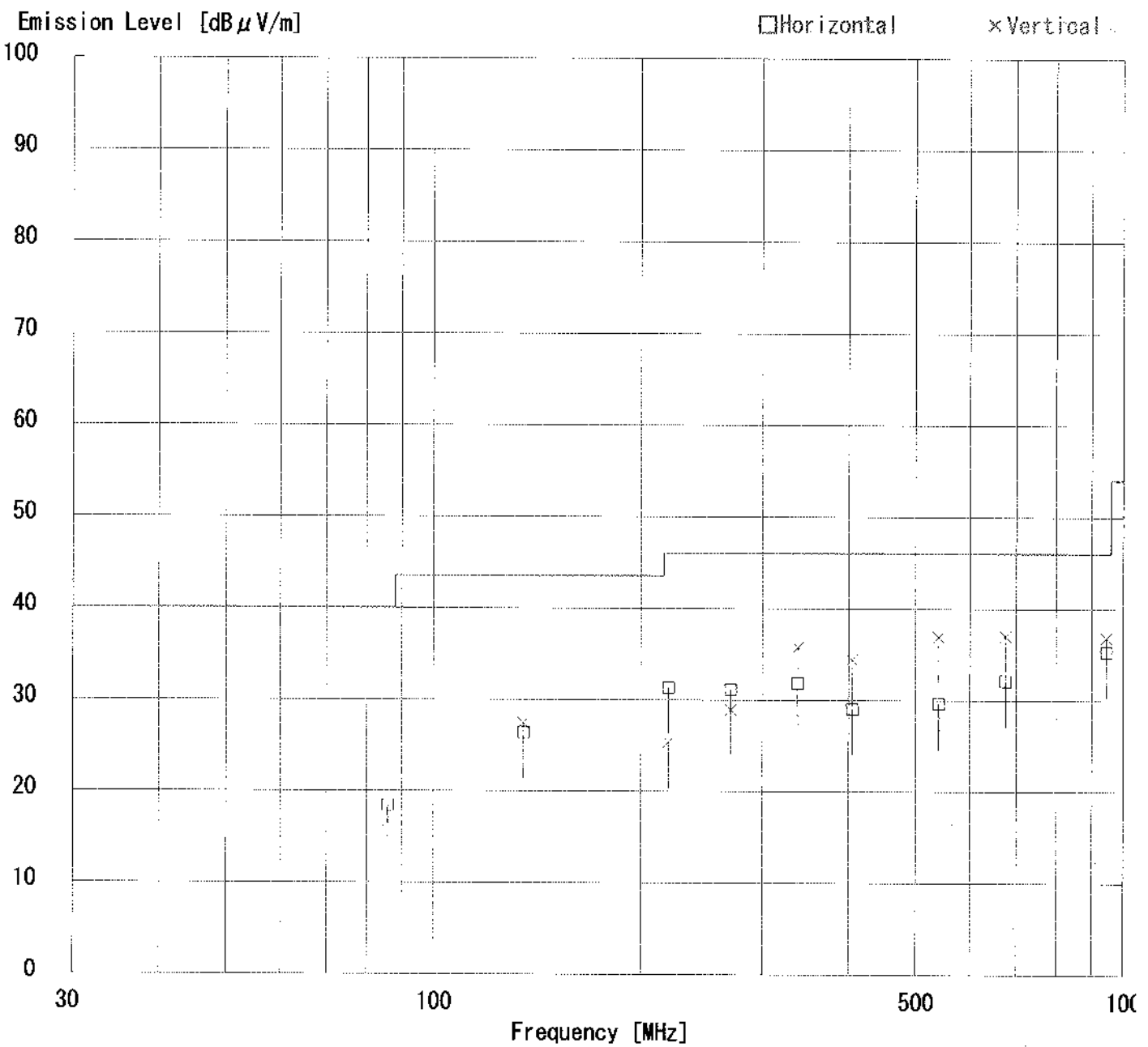
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception+Rec(25dBm)		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP. GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	85.90	BB	33.0	32.4	7.7	28.2	1.8	5.9	20.2	19.6	40.0	19.8	20.4
2.	135.00	BB	26.2	32.6	14.3	28.2	2.3	5.9	20.5	26.9	43.5	23.0	16.6
3.	188.99	BB	31.0	29.3	16.4	28.0	2.8	5.9	28.1	26.4	43.5	15.4	17.1
4.	219.39	BB	32.8	28.6	16.7	28.0	3.1	6.0	30.6	26.4	46.0	15.4	19.6
5.	270.00	BB	31.4	32.6	18.3	27.9	3.5	6.0	31.3	32.5	46.0	14.7	13.5
6.	320.60	BB	34.0	33.1	17.4	27.9	3.8	6.0	33.3	32.4	46.0	12.7	13.6
7.	405.00	BB	27.0	33.9	18.7	27.9	4.5	6.0	28.3	35.2	46.0	17.7	10.8
8.	540.00	BB	27.4	32.8	19.9	27.8	5.4	6.0	30.9	36.3	46.0	15.1	9.7
9.	675.00	BB	25.3	30.8	20.9	27.4	6.1	6.0	30.9	36.4	46.0	15.1	9.6
10.	945.00	BB	23.0	27.1	25.1	27.1	7.5	6.0	34.5	38.9	46.0	11.5	7.1

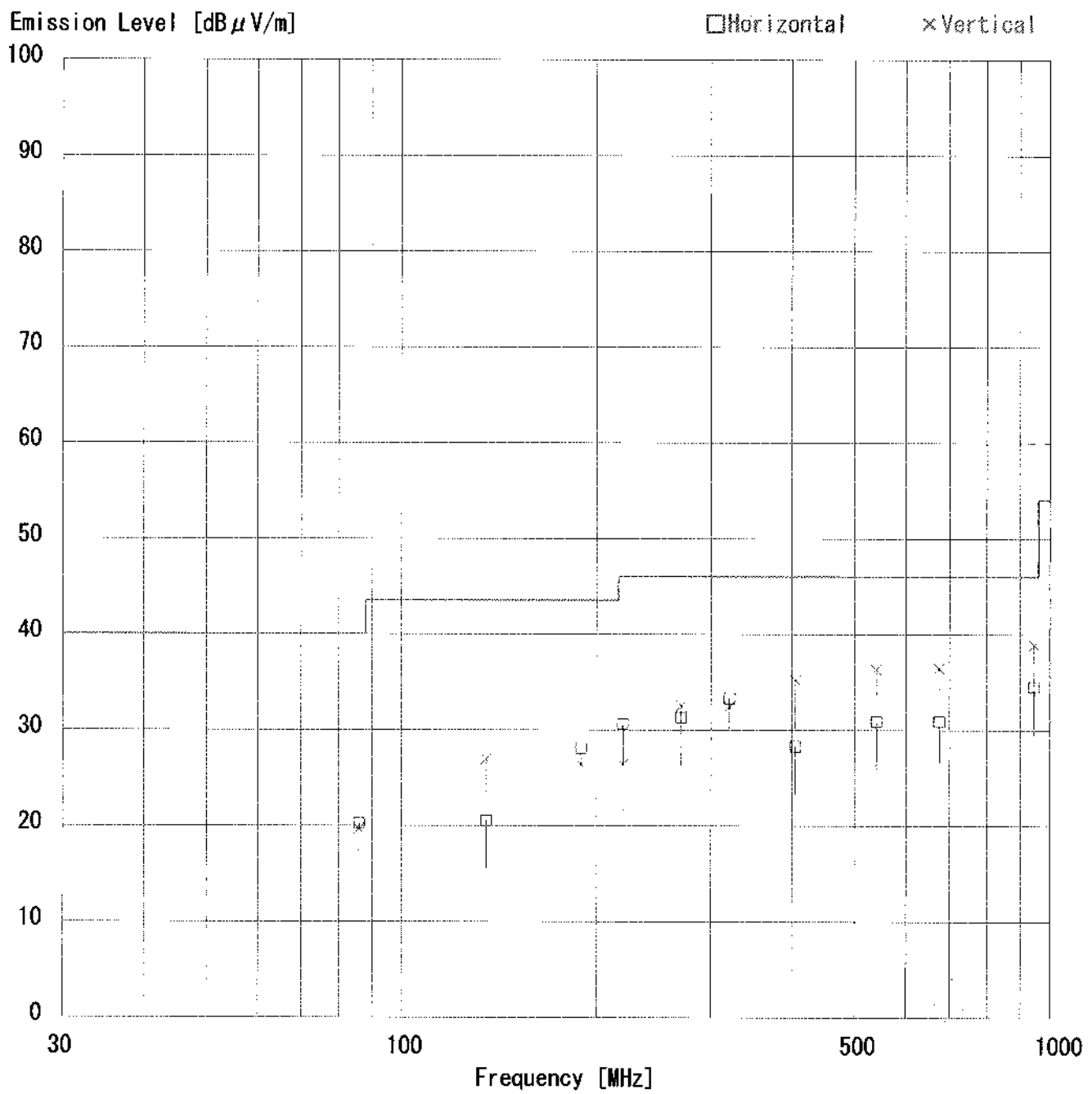
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No. : 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	84.00	BB	43.3	42.8	7.3	28.2	1.8	5.9	30.1	29.6	40.0	9.9	10.4
2.	135.02	BB	32.5	36.4	14.3	28.2	2.3	5.9	26.8	30.7	43.5	16.7	12.8
3.	216.01	BB	37.5	35.1	16.7	28.0	3.0	5.9	35.1	32.7	46.0	10.9	13.3
4.	270.00	BB	39.0	38.8	18.3	27.9	3.5	6.0	38.9	38.7	46.0	7.1	7.3
5.	303.75	BB	30.9	36.2	17.1	27.9	3.7	6.0	29.8	35.1	46.0	16.2	10.9
6.	405.00	BB	31.0	32.8	18.7	27.9	4.5	6.0	32.3	34.1	46.0	13.7	11.9
7.	472.50	BB	31.0	31.5	19.4	27.9	5.0	6.0	33.5	34.0	46.0	12.5	12.0
8.	540.00	BB	27.4	32.0	19.9	27.8	5.4	6.0	30.9	35.5	46.0	15.1	10.5
9.	589.87	BB	25.8	31.4	20.2	27.6	5.6	6.0	30.0	35.6	46.0	16.0	10.4
10.	675.00	BB	26.6	28.4	20.9	27.4	6.1	6.0	32.2	34.0	46.0	13.8	12.0
11.	945.00	BB	24.0	24.0	25.1	27.1	7.5	6.0	35.5	35.5	46.0	10.5	10.5

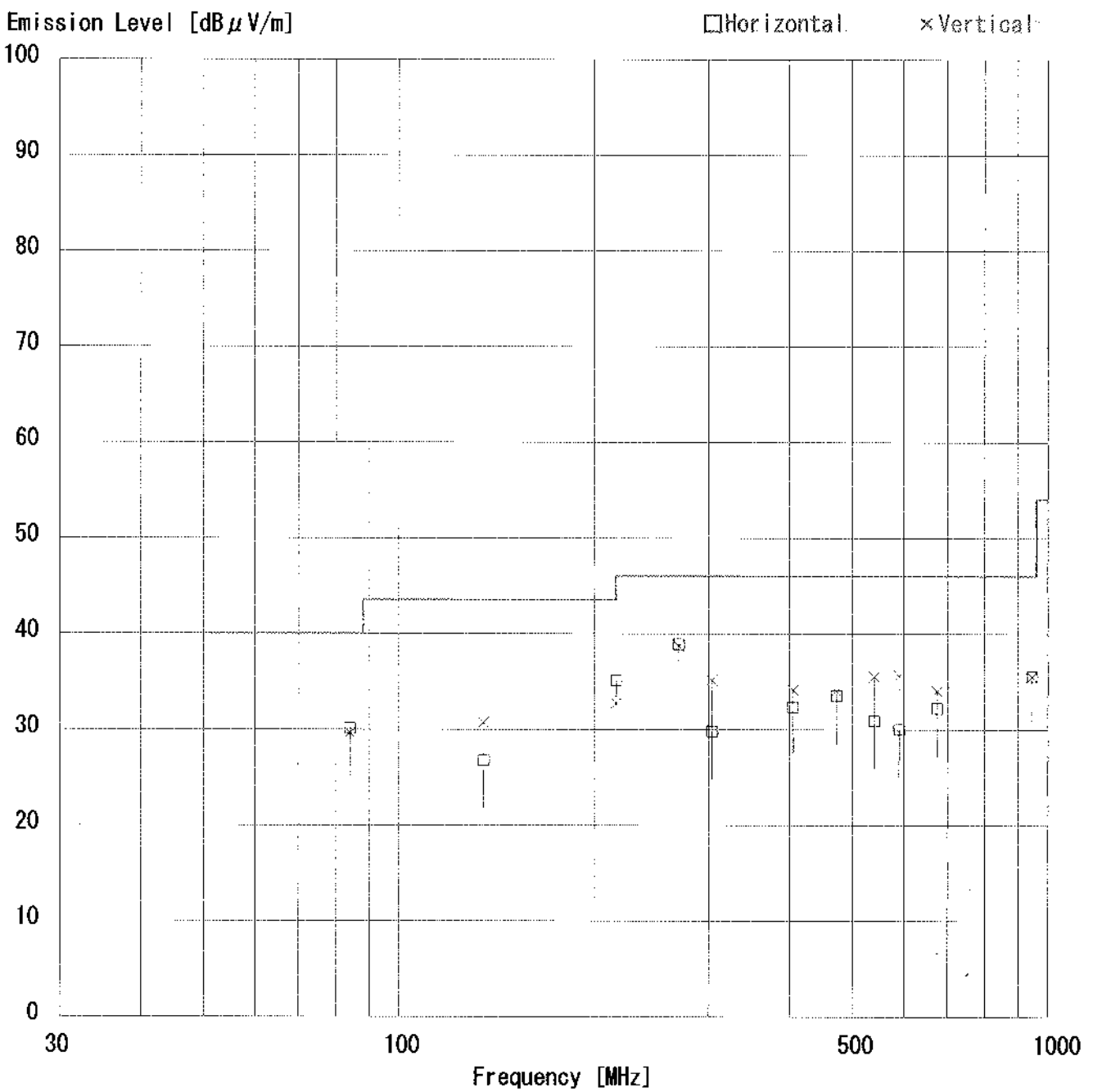
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 24 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.
Kind of Equipment	: DVD/VCR
Model No.	: DVD2100-C
Serial No.	: -
Power	: AC120V/60Hz
Mode	: DVD Play
Remarks	: Test Channel #3
Date	: 6/24/2004
Test Distance	: 3 m
Temperature	: 23 °C
Humidity	: 34 %
Regulation	: FCC Part15B CLASS B

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	61.25	BB	23.5	25.0	7.4	28.4	1.5	5.9	9.9	11.4	40.0	30.1	28.6
2.	65.75	BB	25.4	26.9	7.0	28.3	1.5	5.9	11.5	13.0	40.0	28.5	27.0
3.	122.50	BB	24.3	23.4	13.6	28.2	2.2	5.9	17.8	16.9	43.5	25.7	26.6
4.	245.00	BB	21.9	22.5	17.0	27.9	3.3	6.0	20.3	20.9	46.0	25.7	25.1

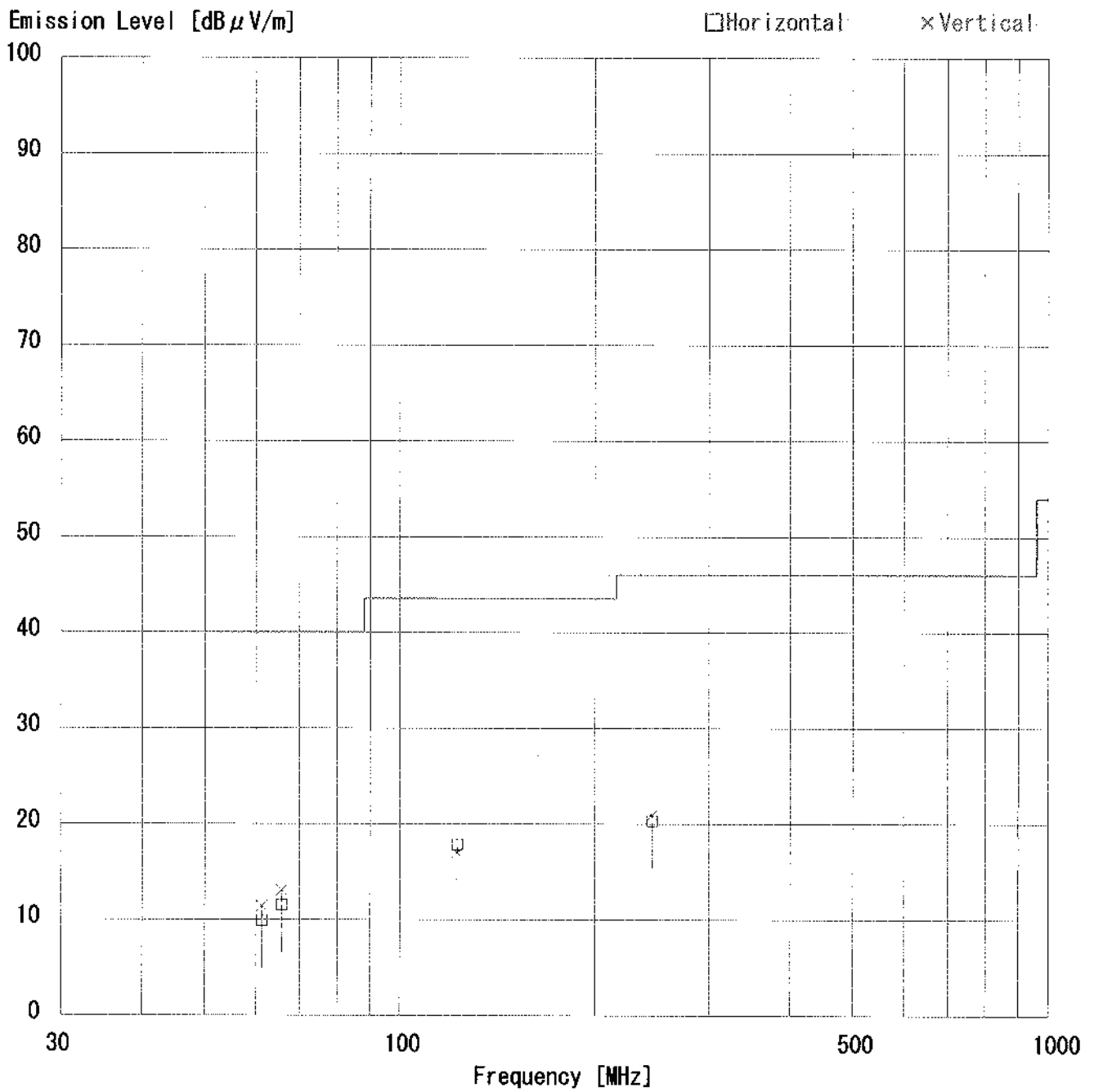
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	: Test Channel #3		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 23 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	: Test Channel #4		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 23 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	67.25	BB	24.2	24.4	6.8	28.3	1.6	5.9	10.2	10.4	40.0	29.8	29.6
2.	71.75	BB	23.4	23.4	6.6	28.3	1.6	5.9	9.2	9.2	40.0	30.8	30.8
3.	134.50	BB	26.7	26.5	14.3	28.2	2.3	5.9	21.0	20.8	43.5	22.5	22.7
4.	201.75	BB	23.0	23.7	16.5	28.0	2.9	5.9	20.3	21.0	43.5	23.2	22.5

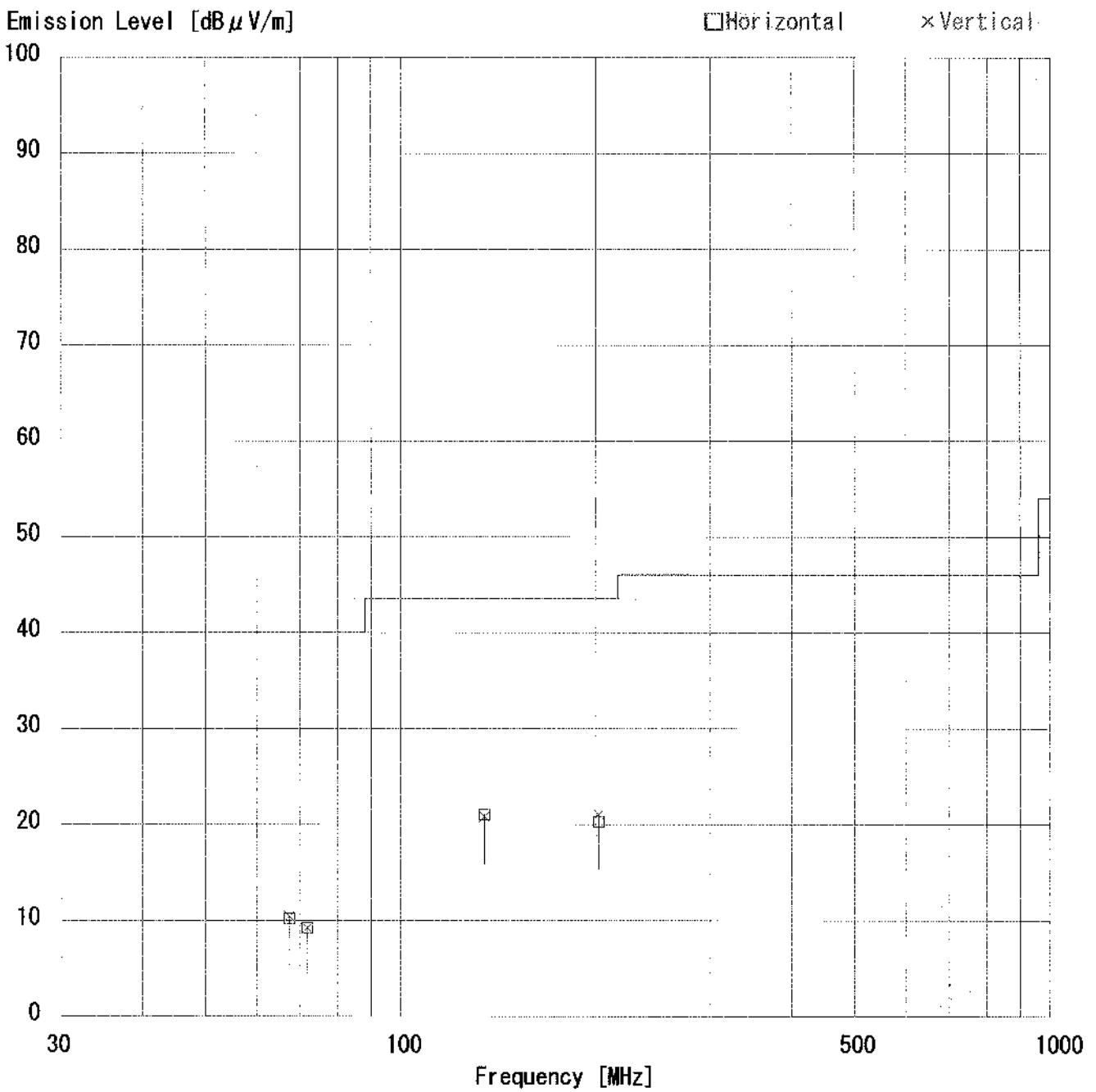
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.3 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	: Test Channel #4		
Date	: 6/24/2004		
Test Distance	: 3 m		
Temperature	: 23 ℃	Engineer	: Tsubasa Takayama
Humidity	: 34 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No. : 24KE0255-YW-1

Applicant	:	Orion Electric Co.,Ltd.	
Kind of Equipment	:	DVD/VCR	
Model No.	:	DVD2100-C	
Serial No.	:	-	
Power	:	AC120V/60Hz	
Mode	:	DVD Play	
Remarks	:		
Date	:	6/30/2004	
Test Distance	:	3 m	
Temperature	:	28 ℃	Engineer : Tsubasa Takayama
Humidity	:	60 %	
Regulation	:	FCC Part15B CLASS B(Peak Limit / Upper1GHz)	

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1214.99	BB	45.3	48.1	25.9	35.2	2.9	0.0	38.9	41.7	74.0	35.1	32.3
2.	1349.90	BB	42.5	48.2	26.6	35.0	3.1	0.0	37.2	42.9	74.0	36.8	31.1
3.	1889.00	BB	41.7	45.8	30.0	34.4	3.8	0.0	41.1	45.2	74.0	32.9	28.8

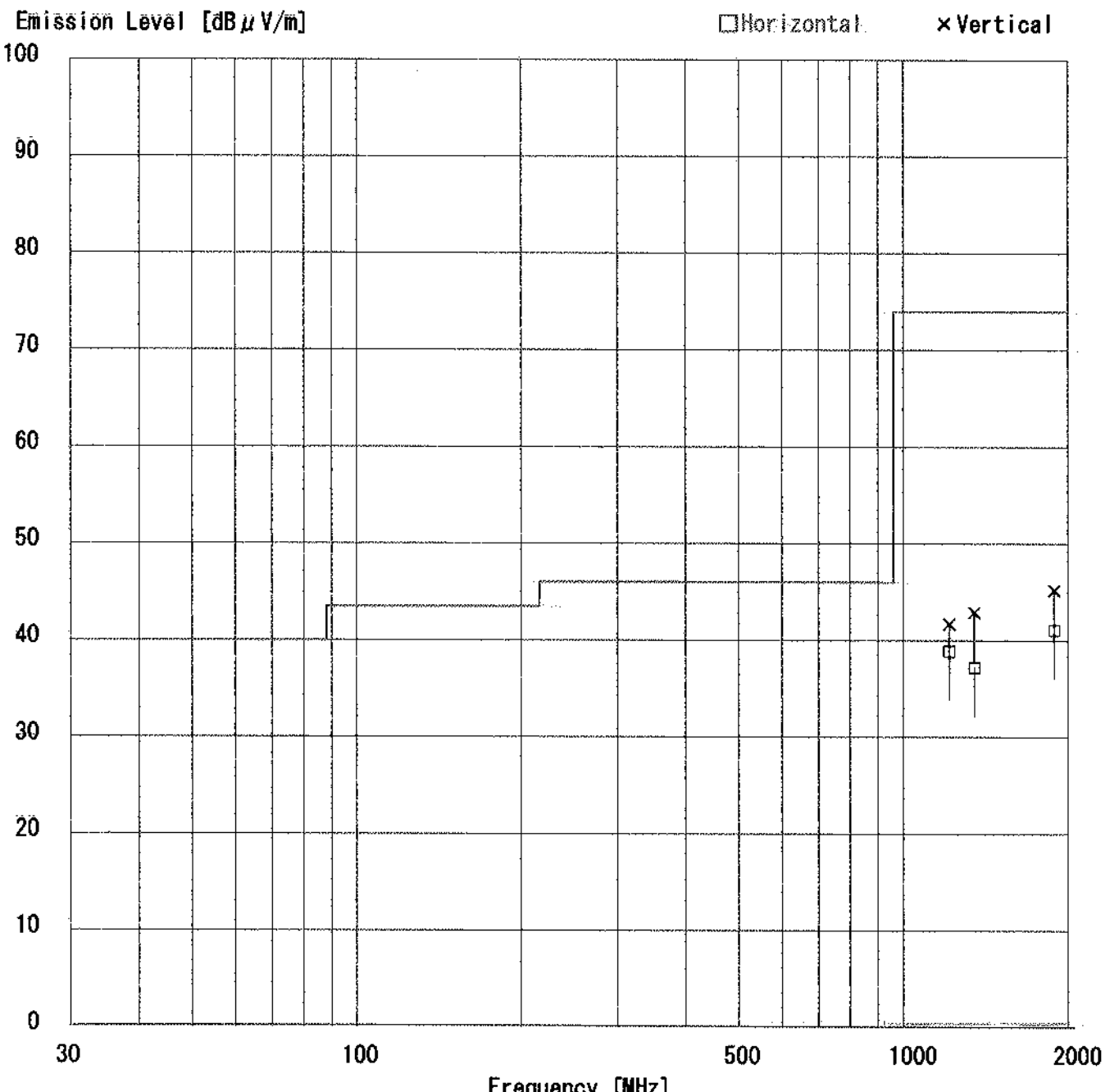
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Except for the above table: adequate margin data below the limits.
ANT.TYPE:1GHz-2GHz DRG Horn Antenna

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/30/2004		
Test Distance	: 3 m		
Temperature	: 28 ℃	Engineer	: Tsubasa Takayama
Humidity	: 60 %		
Regulation	: FCC Part15B CLASS B(Peak Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant : Orion Electric Co.,Ltd.
Kind of Equipment : DVD/VCR
Model No. : DVD2100-C
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 6/30/2004
Test Distance : 3 m
Temperature : 28 ℃ Engineer : Tsubasa Takayama
Humidity : 60 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)

No.	FREQ. [MHz]	ANT TYPE	READING HOR [dBμV]	READING VER [dBμV]	ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT HOR [dBμV/m]	RESULT VER [dBμV/m]	LIMITS [dBμV/m]	MARGIN HOR [dB]	MARGIN VER [dB]
1.	1214.99	BB	37.0	41.3	25.9	35.2	2.9	0.0	30.6	34.9	54.0	23.4	19.1
2.	1349.90	BB	34.2	38.5	26.6	35.0	3.1	0.0	28.9	33.2	54.0	25.1	20.8
3.	1889.00	BB	32.7	37.3	30.0	34.4	3.8	0.0	32.1	36.7	54.0	21.9	17.3

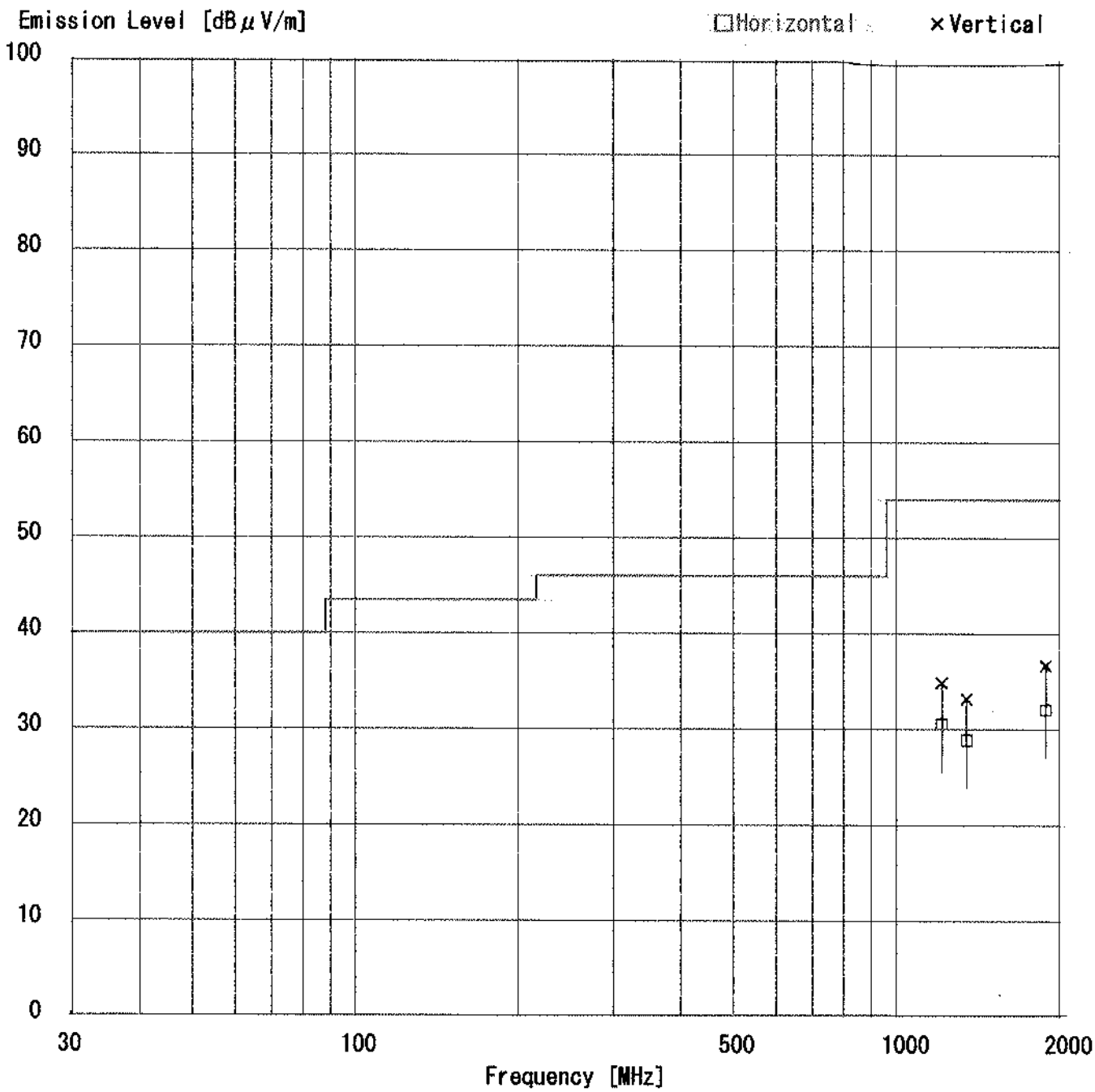
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Except for the above table: adequate margin data below the limits.
ANT.TYPE:1GHz-2GHz DRG Horn Antenna

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No.: 24KE0255-YW-1

Applicant	: Orion Electric Co.,Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: DVD2100-C		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 6/30/2004		
Test Distance	: 3 m		
Temperature	: 28 ℃	Engineer	: Tsubasa Takayama
Humidity	: 60 %		
Regulation	: FCC Part15B CLASS B(Average Limit / Upper1GHz)		



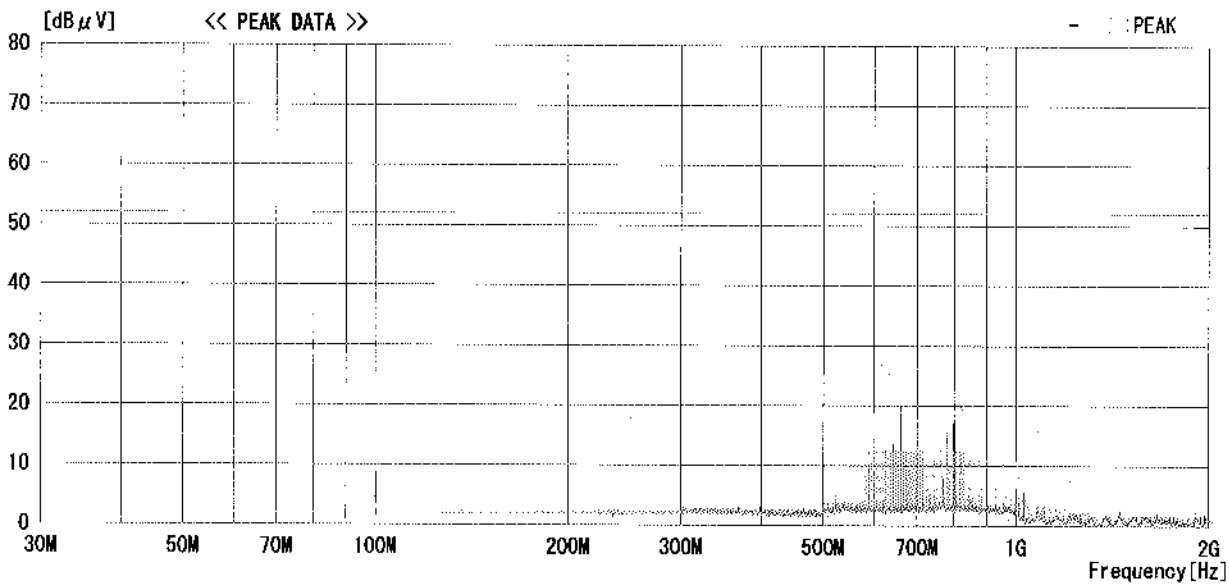
DATA OF ANTENNA TERMINAL TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-2
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: BETS-7 3.4
OPERATION MODE	: TV Tuning mode	TEST ENGINEER	: Tsubasa Takayama

TEMP./HUMID. : 26℃/68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING PEAK [dBμV]	C.F [dB]	RESULT [dBμV]	LIMIT QP [dBμV]	LIMIT AV [dBμV]	MARGIN QP [dB]	MARGIN AV [dB]	PHASE
1	106.56390	36.5	-19.6	16.9	52.0	----	35.1	----	-
2	250.69350	37.8	-19.0	18.8	52.0	----	33.2	----	-
3	624.85330	46.2	-20.2	26.0	52.0	----	26.0	----	-
4	840.57710	39.5	-19.7	19.8	52.0	----	32.2	----	-
5	1081.42500	46.5	-29.8	16.7	52.0	----	35.3	----	-
6	1658.56000	40.8	-28.9	11.9	52.0	----	40.1	----	-

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

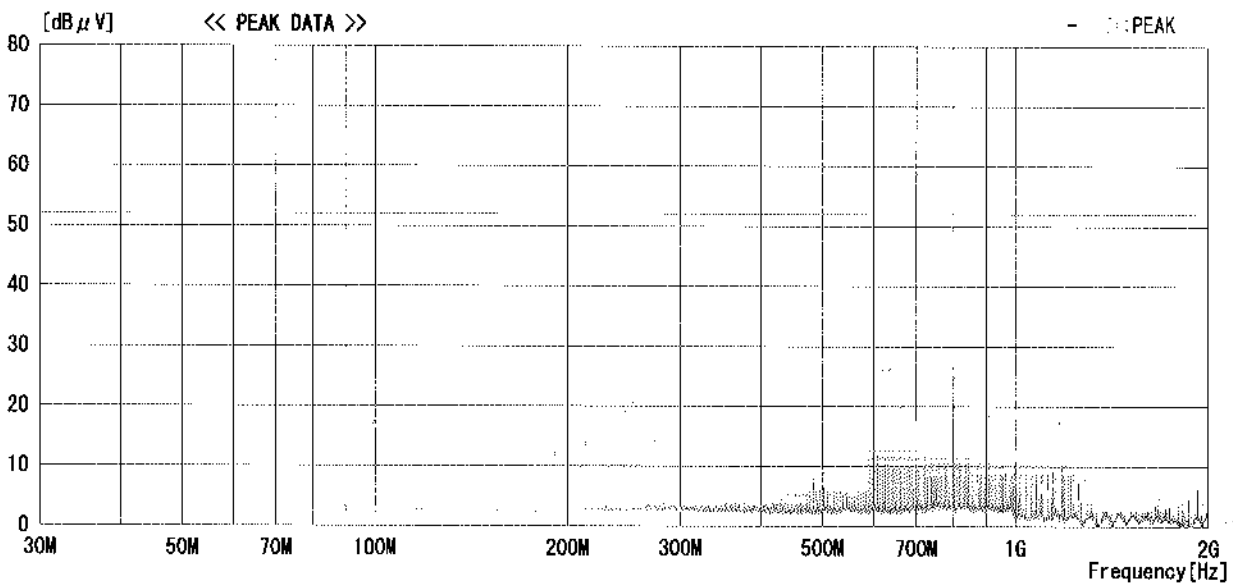
DATA OF ANTENNA TERMINAL TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29, 2004
MODEL	: DVD2100-C	REGULATION	: FCC 15B
OPERATION MODE	: CATV Tuning mode	TEST ENGINEER	: Tsubasa Takayama

TEMP./HUMID. : 26℃/68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING PEAK [dBμV]	C.F [dB]	RESULT [dBμV]	LIMIT QP [dBμV]	LIMIT AV [dBμV]	MARGIN QP [dB]	MARGIN AV [dB]	PHASE
1	99.82113	37.5	-19.6	17.9	52.0	----	34.1	----	-
2	249.42920	38.8	-19.0	19.8	52.0	----	32.2	----	-
3	627.71040	47.0	-20.2	26.8	52.0	----	25.2	----	-
4	811.43310	45.5	-19.8	25.7	52.0	----	26.3	----	-
5	909.58000	39.0	-19.6	19.4	52.0	----	32.6	----	-
6	1147.13400	47.0	-29.7	17.3	52.0	----	34.7	----	-

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	:	24KE0255-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	DVD2100-C	Date	:	June 29, 2004
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	24℃/34%
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	82.2	20.0	62.2	69.5	7.3
4	67.25	83.9	19.9	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	68.4	20.0	48.4	56.5	8.1
	65.75	67.2	20.0	47.2	56.5	9.3
4	62.75	68.2	20.0	48.2	56.5	8.3
	71.75	67.0	20.0	47.0	56.5	9.5

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	24KE0255-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	DVD2100-C	Date	:	June 29, 2004
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	24℃/34%
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	82.9	20.0	62.9	69.5	6.6
4	67.25	84.0	19.9	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	68.4	20.0	48.4	56.5	8.1
	65.75	67.3	20.0	47.3	56.5	9.2
4	62.75	68.8	20.0	48.8	56.5	7.7
	71.75	67.8	20.0	47.8	56.5	8.7

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	24KE0255-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	DVD2100-C	Date	:	June 29, 2004
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	24℃/34%
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	83.1	20.0	63.1	69.5	6.4
4	67.25	84.4	19.9	64.5	69.5	5.0

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	68.2	20.0	48.2	56.5	8.3
	65.75	67.1	20.0	47.1	56.5	9.4
4	62.75	68.2	20.0	48.2	56.5	8.3
	71.75	67.2	20.0	47.2	56.5	9.3

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	24KE0255-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	DVD2100-C	Date	:	June 29, 2004
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	24℃/34%
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	83.2	20.0	63.2	69.5	6.3
4	67.25	84.1	19.9	64.2	69.5	5.3

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	68.3	20.0	48.3	56.5	8.2
	65.75	67.2	20.0	47.2	56.5	9.3
4	62.75	68.4	20.0	48.4	56.5	8.1
	71.75	67.7	20.0	47.7	56.5	8.8

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29, 2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23℃/43%	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
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	32.6200	33.7	----	-20.2	13.5	----	39.5	----	26.0	----	-
2	47.8400	31.4	----	-20.0	11.4	----	39.5	----	28.1	----	-
3	89.9200	29.2	----	-19.8	9.4	----	39.5	----	30.1	----	-
4	122.3100	33.0	----	-19.5	13.5	----	39.5	----	26.0	----	-
5	331.4200	36.1	----	-19.1	17.0	----	39.5	----	22.5	----	-
6	734.7300	32.0	----	-20.0	12.0	----	39.5	----	27.5	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	32.6200	33.6	----	-20.2	13.4	----	39.5	----	26.1	----	-
2	47.8400	32.4	----	-20.0	12.4	----	39.5	----	27.1	----	-
3	89.9200	29.0	----	-19.8	9.2	----	39.5	----	30.3	----	-
4	122.3100	33.3	----	-19.5	13.8	----	39.5	----	25.7	----	-
5	331.4200	36.4	----	-19.1	17.3	----	39.5	----	22.2	----	-
6	734.7300	32.3	----	-20.0	12.3	----	39.5	----	27.2	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	32.6200	30.6	----	-20.2	10.4	----	39.5	----	29.1	----	-
2	47.8400	32.3	----	-20.0	12.3	----	39.5	----	27.2	----	-
3	89.9200	28.0	----	-19.8	8.2	----	39.5	----	31.3	----	-
4	122.3100	30.8	----	-19.5	11.3	----	39.5	----	28.2	----	-
5	489.7600	30.3	----	-20.1	10.2	----	39.5	----	29.3	----	-
6	734.7300	33.6	----	-20.0	13.6	----	39.5	----	25.9	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23℃/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD play : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	54.2300	35.5	----	-20.0	15.5	----	39.5	----	24.0	----	-
2	47.8400	32.0	----	-20.0	12.0	----	39.5	----	27.5	----	-
3	74.8200	30.3	----	-19.9	10.4	----	39.5	----	29.1	----	-
4	122.3100	31.5	----	-19.5	12.0	----	39.5	----	27.5	----	-
5	489.7600	30.3	----	-20.1	10.2	----	39.5	----	29.3	----	-
6	734.7300	33.6	----	-20.0	13.6	----	39.5	----	25.9	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	38.6200	34.5	----	-20.1	14.4	----	39.5	----	25.1	----	-
2	53.0000	32.1	----	-20.0	12.1	----	39.5	----	27.4	----	-
3	80.8300	32.3	----	-19.9	12.4	----	39.5	----	27.1	----	-
4	134.5000	32.0	----	-19.5	12.5	----	39.5	----	27.0	----	-
5	489.7200	29.0	----	-20.1	8.9	----	39.5	----	30.6	----	-
6	672.3000	31.2	----	-20.1	11.1	----	39.5	----	28.4	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	38.6200	33.4	----	-20.1	13.3	----	39.5	----	26.2	----	-
2	53.0000	32.6	----	-20.0	12.6	----	39.5	----	26.9	----	-
3	80.8300	32.3	----	-19.9	12.4	----	39.5	----	27.1	----	-
4	134.5000	31.8	----	-19.5	12.3	----	39.5	----	27.2	----	-
5	489.7200	28.3	----	-20.1	8.2	----	39.5	----	31.3	----	-
6	672.3000	32.1	----	-20.1	12.0	----	39.5	----	27.5	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29, 2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR playback : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	38.6200	31.9	-----	-20.1	11.8	-----	39.5	-----	27.7	-----	-
2	53.0000	31.9	-----	-20.0	11.9	-----	39.5	-----	27.6	-----	-
3	80.8300	30.0	-----	-19.9	10.1	-----	39.5	-----	29.4	-----	-
4	134.5000	31.3	-----	-19.5	11.8	-----	39.5	-----	27.7	-----	-
5	489.7200	27.2	-----	-20.1	7.1	-----	39.5	-----	32.4	-----	-
6	672.3000	31.9	-----	-20.1	11.8	-----	39.5	-----	27.7	-----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD play : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	53.8300	32.0	----	-20.0	12.0	----	39.5	----	27.5	----	-
2	60.1200	35.1	----	-20.0	15.1	----	39.5	----	24.4	----	-
3	80.7800	28.6	----	-19.9	8.7	----	39.5	----	30.8	----	-
4	134.5000	31.3	----	-19.5	11.8	----	39.5	----	27.7	----	-
5	479.7500	27.0	----	-20.0	7.0	----	39.5	----	32.5	----	-
6	672.3400	32.3	----	-20.1	12.2	----	39.5	----	27.3	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29, 2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23℃/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	61.2500	22.1	----	-20.0	2.1	----	9.5	----	7.4	----	-
2	122.5000	21.4	----	-19.5	1.9	----	9.5	----	7.6	----	-
3	183.7500	21.1	----	-19.2	1.9	----	9.5	----	7.6	----	-
4	245.0000	21.1	----	-19.0	2.1	----	9.5	----	7.4	----	-
5	306.2500	20.1	----	-19.0	1.1	----	9.5	----	8.4	----	-
6	367.5000	19.9	----	-19.3	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.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29, 2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23℃/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD Play : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	61.2500	22.3	----	-20.0	2.3	----	9.5	----	7.2	----	-
2	122.5000	21.4	----	-19.5	1.9	----	9.5	----	7.6	----	-
3	183.7500	21.1	----	-19.2	1.9	----	9.5	----	7.6	----	-
4	245.0000	21.0	----	-19.0	2.0	----	9.5	----	7.5	----	-
5	306.2500	20.1	----	-19.0	1.1	----	9.5	----	8.4	----	-
6	367.5000	19.9	----	-19.3	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.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23℃/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	67.2500	21.0	----	-19.9	1.1	----	9.5	----	8.4	----	-
2	134.5000	21.2	----	-19.5	1.7	----	9.5	----	7.8	----	-
3	201.7500	21.2	----	-19.1	2.1	----	9.5	----	7.4	----	-
4	269.0000	21.4	----	-18.9	2.5	----	9.5	----	7.0	----	-
5	336.2500	20.2	----	-19.1	1.1	----	9.5	----	8.4	----	-
6	403.5000	20.0	----	-19.6	0.4	----	9.5	----	9.1	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 24KE0255-YW-1
EQUIPMENT	: DVD/VCR	DATE	: June 29,2004
MODEL	: DVD2100-C	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23℃/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD Play : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		QP	AV		QP	AV	QP	AV	QP	AV	
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	67.2500	21.1	-----	-19.9	1.2	-----	9.5	-----	8.3	-----	-
2	134.5000	21.2	-----	-19.5	1.7	-----	9.5	-----	7.8	-----	-
3	201.7500	21.0	-----	-19.1	1.9	-----	9.5	-----	7.6	-----	-
4	269.0000	21.2	-----	-18.9	2.3	-----	9.5	-----	7.2	-----	-
5	336.2500	20.0	-----	-19.1	0.9	-----	9.5	-----	8.6	-----	-
6	403.5000	20.0	-----	-19.6	0.4	-----	9.5	-----	9.1	-----	-

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

Picture Sensitvity Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company	: Orion Electric Co., Ltd.	Report Number	: 24KE0255-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15 SubpartB
Model Number	: DVD2100-C	Date	: June 29,2004
Power	: AC120 V / 60Hz	Temp / Humid	: 26°/ 46%
Description	: TV Reception	Engineer	: Tsubasa Takayama
Remarks	: -		

Ch [VHF]	Frequency [MHz]	Sensitivity [MHz] [dBμV]	[μV]	Ch [UHF]	Frequency [MHz]	Sensitivity [MHz] [dB μ V]	[μ V]
2	55.25	20.0	10.0	14	471.25	21.1	11.4
3	61.25	16.5	6.7	20	507.25	21.8	12.3
4	67.25	16.1	6.4	26	543.25	22.0	12.6
5	77.25	16.8	6.9	32	579.25	23.2	14.5
6	83.25	17.4	7.4	38	615.25	24.1	16.0
7	175.25	18.8	8.7	44	651.25	24.1	16.0
8	181.25	18.8	8.7	50	687.25	24.1	16.0
9	187.25	18.7	8.6	56	723.25	21.9	12.4
10	193.25	18.9	8.8	62	759.25	22.2	12.9
11	199.25	18.5	8.4	69	801.25	22.2	12.9
12	205.25	18.4	8.3	-	-	-	
13	211.25	18.6	8.5	-	-	-	-
Average VHF			8.1	Average UHF			13.7
Average UHF/VHF : 20 log UHF[μV] / VHF[μV]=				4.5			[Limit : 8.0dB]

Noise Figure Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company	: Orion Electric Co., Ltd.	Report Number	: 24KE0255-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15 SubpartB
Model Number	: DVD2100-C	Date	: June 29,2004
Power	: AC120 V / 60Hz	Temp / Humid	: 26°/ 46%
Description	: TV Reception	Engineer	: Tsubasa Takayama
Remarks	: -		

Ch	Frequency [MHz]	Meter Reading [dB]	Correction Factor [dB]	Noise Figure [dB]	Limits [dB]	Margin [dB]
TV VHF Fundamental						
2	55.25	7.0	0.2	6.8	14.0	7.2
3	61.25	4.9	0.2	4.7	14.0	9.3
4	67.25	4.3	0.2	4.1	14.0	9.9
5	77.25	4.7	0.2	4.5	14.0	9.5
6	83.25	4.8	0.2	4.6	14.0	9.4
7	175.25	4.2	0.2	4.0	14.0	10.0
8	181.25	4.2	0.2	4.0	14.0	10.0
9	187.25	4.0	0.2	3.8	14.0	10.2
10	193.25	4.0	0.2	3.8	14.0	10.2
11	199.25	4.0	0.2	3.8	14.0	10.2
12	205.25	3.8	0.2	3.6	14.0	10.4
13	211.25	3.8	0.2	3.6	14.0	10.4
TV UHF Fundamental						
14	471.25	5.8	0.3	5.5	14.0	8.5
20	507.25	5.6	0.3	5.3	14.0	8.7
26	543.25	6.0	0.3	5.7	14.0	8.3
32	579.25	7.0	0.3	6.7	14.0	7.3
38	615.25	7.6	0.3	7.3	14.0	6.7
44	651.25	7.0	0.3	6.7	14.0	7.3
50	687.25	6.5	0.3	6.2	14.0	7.8
56	723.25	6.0	0.4	5.6	14.0	8.4
62	759.25	5.8	0.4	5.4	14.0	8.6
69	801.25	5.8	0.4	5.4	14.0	8.6
Mid band						
14	121.25	3.0	0.2	2.8	14.0	11.2
16	133.25	6.0	0.2	5.8	14.0	8.2
18	145.25	5.0	0.2	4.8	14.0	9.2
20	157.25	4.2	0.2	4.0	14.0	10.0
22	169.25	4.0	0.2	3.8	14.0	10.2
Super band						
23	217.25	3.8	0.2	3.6	14.0	10.4
26	235.25	3.9	0.2	3.7	14.0	10.3
29	253.25	3.9	0.2	3.7	14.0	10.3
32	271.25	4.0	0.2	3.8	14.0	10.2
36	295.25	4.0	0.2	3.8	14.0	10.2

APPENDIX 3
Test Instruments

Control No.	Instrument	Manufacturer	Model No.	Test Item	Calibration Data * 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
APMAT05	Matching Pad	TME	ZT-130	AT, RF, ATS	2003/12/16 * 12
APNFM01	Noise Figure Indicator	Elena	ENF-2005	NF	2002/09/27 * 24
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	2004/01/22 * 12
APBPF01	Band pass filter	Erika Fiedler	BP	PS	Pre Check
APPRA01	Pre Amplifier	Anritsu	MH648A	AT, RF, ATS	2003/10/03 * 12
APPRA05	Pre Amplifier	Hewlett Packard	8449B	AT	2003/12/10 * 12
APCBL-01	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/01/08 * 12
APCBL-02	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/01/08 * 12
OS-15	Digital Humidity Indicator	SATO	PC-5000TRH	RF, ATS, PS, NF	2004/05/06 * 12
AF-04	Pre Amplifier	Hewlett Packard	8449B	RE	2003/11/04 * 12
LS-01	LISN(AMN)	Rohde & Schwarz	ESH2-Z5	CE	2003/10/31 * 12
SA-07	Spectrum Analyzer	Advantest	R3273	CE	2003/12/08 * 12
TR-01	Test Receiver	Rohde & Schwarz	ESHS20	CE	2004/05/11 * 12
CC-1S	Yokowa No.1 shield coaxial(0.01MHz-1000MHz)	UL Apex	CC-14,CC-15,CC-16,,CC-18,CC-19,SW-11,SW-12	CE	2004/03/28 * 12
OS-05	Digital Humidity Indicator	SATO	PC-5000TRH	CE	2004/04/22 * 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
HA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2004/04/10 * 12
LA-05	Logperiodic Antenna	Schwarzbeck	UHALP9108-A	RE	2003/10/19 * 12
LS-03	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2003/10/31 * 12
SA-05	Spectrum Analyzer	Advantest	R3271	RE	2003/12/21 * 12
TA-04	Terminator	TME	CT-01	CE	2004/05/02 * 12
TR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2004/05/21 * 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
YOATS-02	Open Test Site	JSE	3m, 10m	RE	2003/08/14 * 12
OS-10	Digital Humidity Indicator	SATO	PC-5000TRH	RE	2004/05/06 * 12
CC-C15	Microwave Cable	Suhner	SUCOFLEX	RE	2004/05/02 * 12
CC-C17	Microwave Cable	Suhner	SUCOFLEX	RE	2004/05/02 * 12
APTVG04	TV Generator	Leader	408	CE	Pre Check

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

Test Item:

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