Certification EMI TEST REPORT

Test Report No. : 25FE0207-YW-1

Applicant : Orion Electric Co., Ltd.

Type of equipment : DVD Player with Video Cassette Recorder

Model number : MVD4541

FCC ID : A7RM2F3A

Test standard : FCC Part 15 Subpart B
ICES-003 Issue No.4 Class B

Test result : Complied

Similar model :

Model No.	Brand name	Model No.	Brand name
VRDVD4100C	SANSUI	-	-
DVCR-810A	BROKSONIC	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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 : January 26 to 31, 2005

Tested by:

Tsubasa Takayama
Engineer of EMC Service

Seigo Kekehi
Engineer of EMC Service

Approved by:

Hiroya Tabata
Leader of EMC Service

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

Contents

UL Apex Co., Ltd.
Yokowa EMC Lab.
108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN
Telephone: +81 596 39 1485
Facsimile: +81 596 39 0232

Section 1 : Client information

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

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

2.1 Identification of E.U.T.

Type of equipment	:	DVD Player with Video Cassette Recorder
Brand Name	:	MEMOREX
Model number	:	MVD4541
FCC ID	:	A7RM2F3A
Rating	:	AC 120 V / 60 Hz
Manufacturer	:	1. World Electric (Thailand) Ltd. 236 Moo 2 Nongchark, Banbung, Chonburi 20170, Thailand 2. Korat Denki Ltd. 149 Moo 10 Tambol Chokchai, Amphur Chokchai, Nakhonratchasima 30190, Thailand 228 Moo 3 Tambol Nongbuasala, Amphur Muang, Nakhonratchasima 30000, Thailand 3. Orion America, Inc. Hwy 41 North, Orion Place, Princeton, Indiana 47670, U.S.A
Receipt Date of Sample	:	January 22, 2005
Condition of EUT	:	Production Prototype (Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product description

Model: MVD4541 (referred to as the EUT in this report) is a DVD Player with Video Cassette Recorder. The EUT specifications is as follows.

Tuner type	:	Quartz PLL frequency synthesized
I / F	:	45.75 MHz (Picture), 41.25 MHz (Sound)
Receiving channel	:	VHF 2 – 13 ch / UHF 14 – 69 ch / CATV 1 – 125 ch
Antenna input	:	75 ohm
Video signal	:	NTSC color
Power source	:	AC 120 V / 60 Hz, 18W
I / O terminal (Video)	:	RCA in 1Vp-p 75 ohm, RCA out 1 Vp-p 75 ohm
I / O terminal (Audio)	:	RCA in –8 dB 47 k ohm, RCA out –8 dB 1 k ohm

Section 3 : Test specification, procedures and results

3.1 Test specification

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

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

3.2 Procedures & results

Item	Test procedure	Limits	Worst margin	Result
Conducted emission	ANSI C63.4:2003	CISPR 22	17.9 dB (8.4495 MHz, L1, AV Input + Rec. 5Vp-p)	Complied
Radiated emission	ANSI C63.4:2003 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	2.1 dB (945.00 MHz, Vertical, DVD Play)	Complied
Antenna terminal voltage	ANSI C63.4:2003	2 nW (at 75 ohm)	23.5 dB (645.70980 MHz, CATV tuning)	Complied
RF output level	ANSI C63.4:2003	Video signal: 3000 uV Aural signal: 671 uV	5.8 dB (67.25 MHz, AV Input + Rec. 5Vp-p)	Complied
Spurious emission		94.8 uV	16.6 dB (846.1000 MHz, 4ch, AV Input + Rec. 1Vp-p/ 5Vp-p)	Complied
Transfer switch	ANSI C63.4:2003	9.5 dB	4.9 dB (367.5000 MHz, 3ch, DVD Play)	Complied
Picture sensitivity	ANSI C63.4:2003	8 dB	5.7 dB	Complied
Noise figure	FCC/OET MP:2:1986	14 dB	6.2 dB (16ch, 133.25 MHz)	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 meets the limits unless the uncertainty is taken into consideration.

Antenna terminal voltage

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.
The data listed in this test report has enough margin, more than site margin.

RF output level test / spurious emission test

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.
The data listed in this test report has enough margin, more than site margin.

Antenna transfer switch

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.
The data listed in this test report has enough margin, more than site margin.

Picture sensitivity test

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.0 dB.
The data listed in this test report has enough margin, more than site margin.

Noise Figure Test

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.2 dB.
The data listed in this test report has enough margin, more than site margin.

3.7 Test location

UL Apex Co., Ltd. Yokowa EMC Lab.
108 Yokowa-cho, Ise-shi, Mie-ken, 516-1106 JAPAN
TEL : +81 596 39 1485
FAX : +81 596 39 0232

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

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

*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

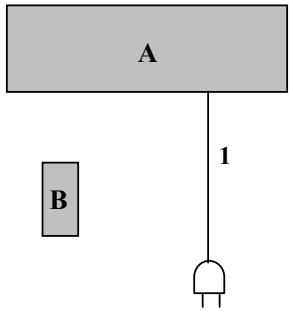
The EUT exercise program used during testing was designed exercise the various system components in a manner similar to typical use.

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

Operation : The EUT was tested at above operation mode.

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

4.2 Configuration and peripherals



AC 120V/ 60Hz

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

Description of EUT and support equipment

Sign	Item	Model number	Serial number	Manufacturer	FCC ID	Remark
A	DVD Player with Video Cassette Recorder	MVD4541	–	Orion Electric Co., Ltd.	A7RM2F3A	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 No.1 shielded room.

Date : January 30, 2005
Temperature : See data
Humidity : See data

5.2 Test configuration

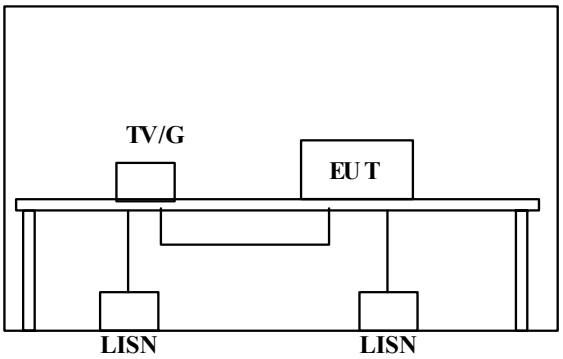
EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting plane. The rear of EUT was aligned and flushed with rear of tabletop. All other surfaces of tabletop was at least 80 cm from any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

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

Figure 1. Conducted emission

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

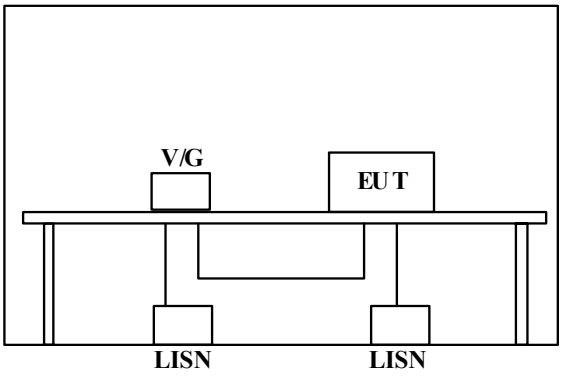
Shielded room



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

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

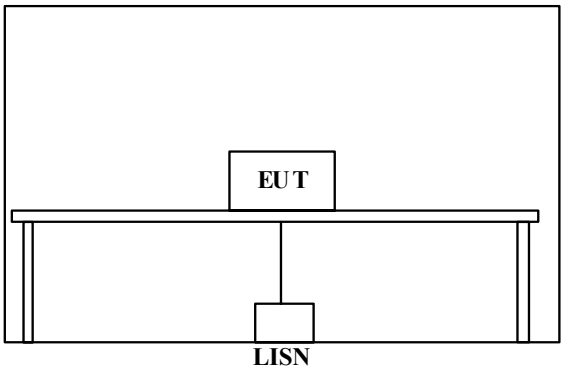
Shielded room



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

VCR Play mode

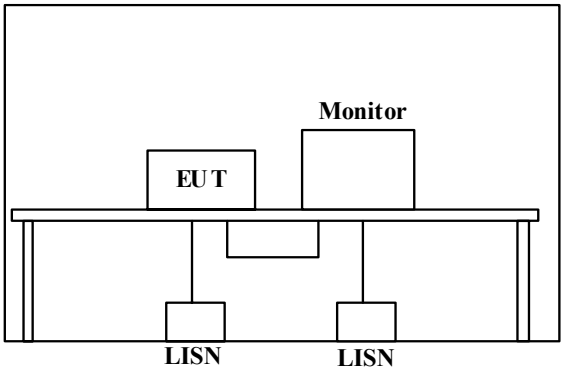
Shielded room



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

DVD Play mode

Shielded room



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

5.3 Test conditions

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

5.4 Test procedure

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT within a shielded room. The EUT was connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection has been performed. The measurements have been performed with a quasi-peak detector and if required, with an average detector.
The conducted emission measurements were made with the following detector function of the test receiver.
Detector Type : QP
IF Bandwidth : 10 kHz

5.5 Test result

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

Test engineer: Seigo Kakehi

Section 6 : Radiated emission

6.1 Operation environment

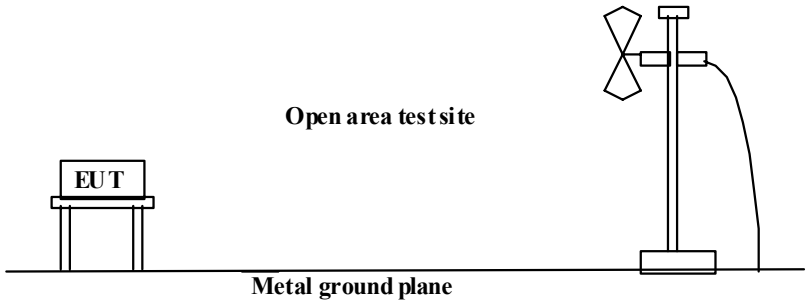
The test was carried out in No.2 open site.

Date : January 26 and 31, 2005
Temperature : See data
Humidity : See data

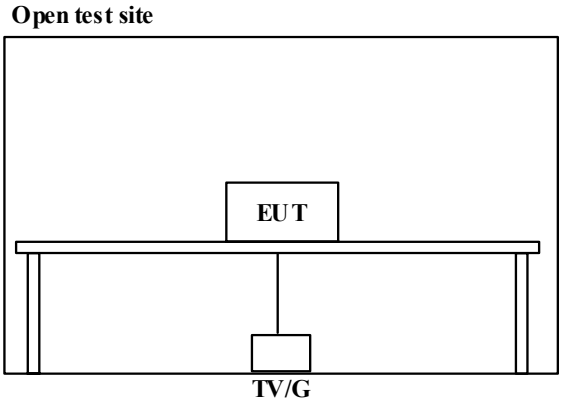
6.2 Test configuration

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



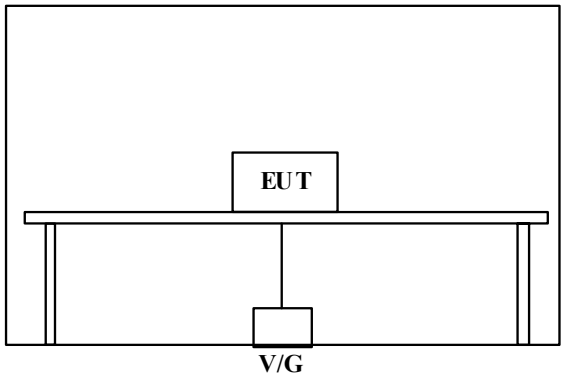
TV Reception + Rec. mode (0 dBmV / 25 dBmV)



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

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

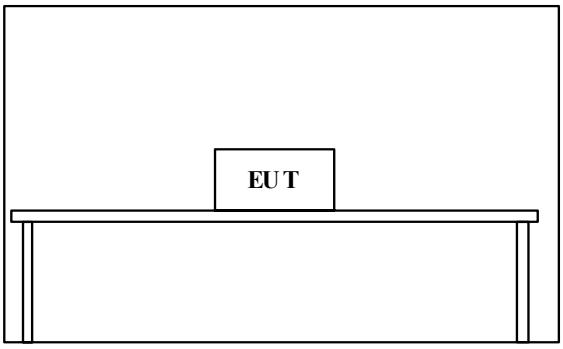
Open test site



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

VCR Play mode

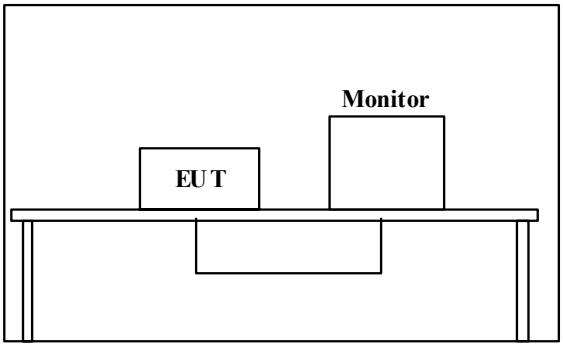
Open test site



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

DVD Play mode

Open test site



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

6.3 Test conditions

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

6.4 Test procedure

The Radiated Electric Field Strength intensity has been measured on an open test site with a ground plane and at a distance of 3 m.
Pre check measurements were performed within a search coil at high level of 80MHz – 90MHz, 270MHz – 290MHz and 500MHz – 700MHz in a shielded room to distinguish disturbances of EUT from the ambient noise. Measurements were performed with quasi-peak detector, peak detector and average detector.
The measuring antenna height was varied between 1 and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. The measurements were performed for both vertical and horizontal antenna polarization.
The radiated emission measurements were made with the following detector function of the test receiver and spectrum analyzer.

	30-1000MHz (Test receiver)	1000-5000MHz (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

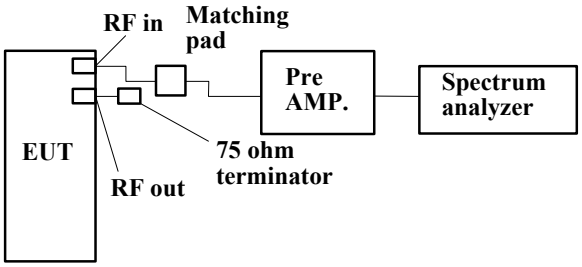
The test was carried out in No.7 shielded room.

Date : January 28, 2005
Temperature : See data
Humidity : See data

7.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.
A drawing of the set up is shown in figure 3 and photographs in Appendix 1.

Figure 3. Antenna terminal voltage



7.3 Test conditions

Frequency range : 30 MHz – 5000 MHz
EUT position : Table top
EUT operation mode : Tuning (TV receiver / CATV receiver)

7.4 Test procedure

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

Detector Type : Peak (30-5000 MHz)

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

7.5 Test result

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

Test engineer: Tsubasa Takayama

Section 8 : RF output level / spurious emission

8.1 Operation environment

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

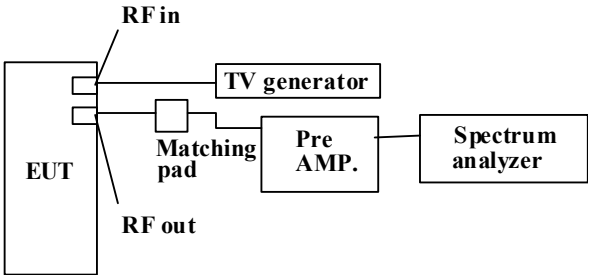
Date : January 29, 2005
Temperature : See data
Humidity : See data

8.2 Test configuration

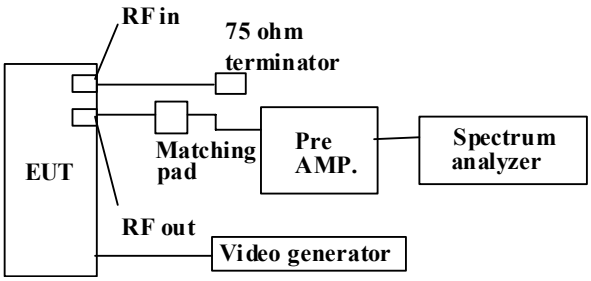
The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.
A drawing of the set up is shown in figure 4 and photographs in Appendix 1.

Figure 4. RF output level

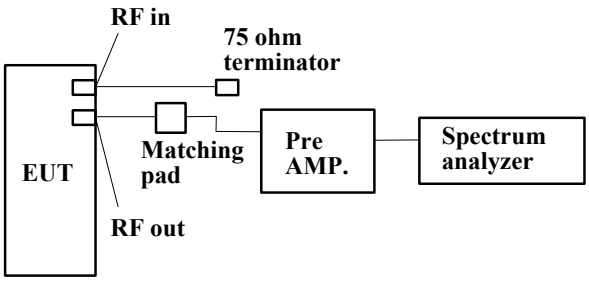
TV Reception + Rec. mode



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



VCR Play mode and DVD Play mode



8.3 Test conditions

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

8.4 Test procedure

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

Detector Type : Peak

8.5 Test result

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

Test engineer: Tsubasa Takayama

Section 9 : Antenna transfer switch

9.1 Operation environment

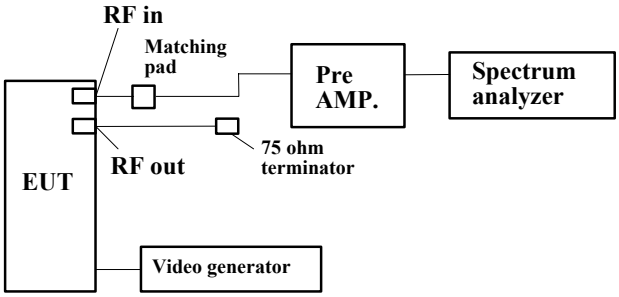
The test was carried out in No.7 shielded room.

Date : January 29, 2005
Temperature : See data
Humidity : See data

9.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.
A drawing of the set up is shown in figure 5 and photographs in Appendix 1.

Figure 5. Transfer switch



9.3 Test conditions

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

9.4 Test procedure

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

Detector Type : Peak

9.5 Test result

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

Test engineer: Tsubasa Takayama

Section 10 : Picture sensitivity

10.1 Operation environment

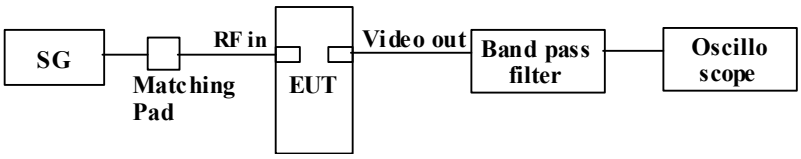
The test was carried out in No.7 shielded room.

Date : January 29, 2005
Temperature : See data
Humidity : See data

10.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.
A drawing of the set up is shown in figure 6 and photographs in Appendix 1.

Figure 6. Picture sensitivity



10.3 Test conditions

EUT position : Table top
EUT operation mode : TV Reception

10.4 Test procedure

Signal generator setup is as follows, (Example: 2ch – 55.25 MHz, AM, 1 kHz, 30 %)
The EUT was tuned to appropriate channel.
Output level of signal generator was adjusted to near the frequency output level of EUT output.
EUT output level was adjusted to maximum output level by frequency adjustment of signal generator.
Signal generator output level was adjusted to reference output level of EUT and output level had read.

10.5 Test result

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

Test engineer: Tsubasa Takayama

Section 11 : Noise figure

11.1 Operating environment

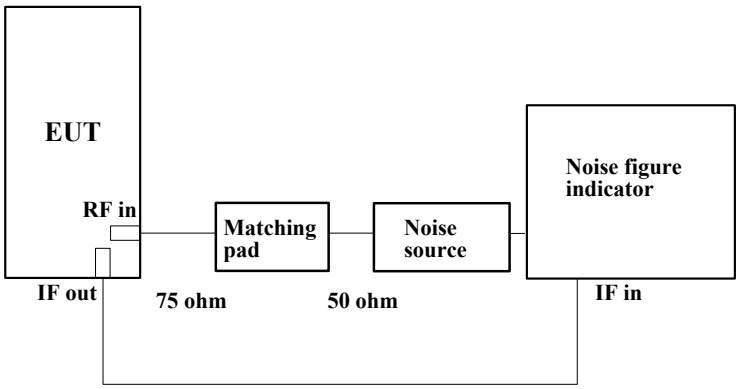
The test was carried out in No.7 shielded room.

Date : January 29, 2005
Temperature : See data
Humidity : See data

11.2 Test configuration

The EUT was placed on a non-metallic table.
A drawing of the set up is shown in figure 7 and photographs in Appendix 1.

Figure 7. Noise figure



11.3 Test condition

EUT position : Table top
EUT operation mode : TV Reception

11.4 Test procedure

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

11.5 Test result

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

Test engineer: Tsubasa Takayama

Appendix 1 : Photographs of test set up

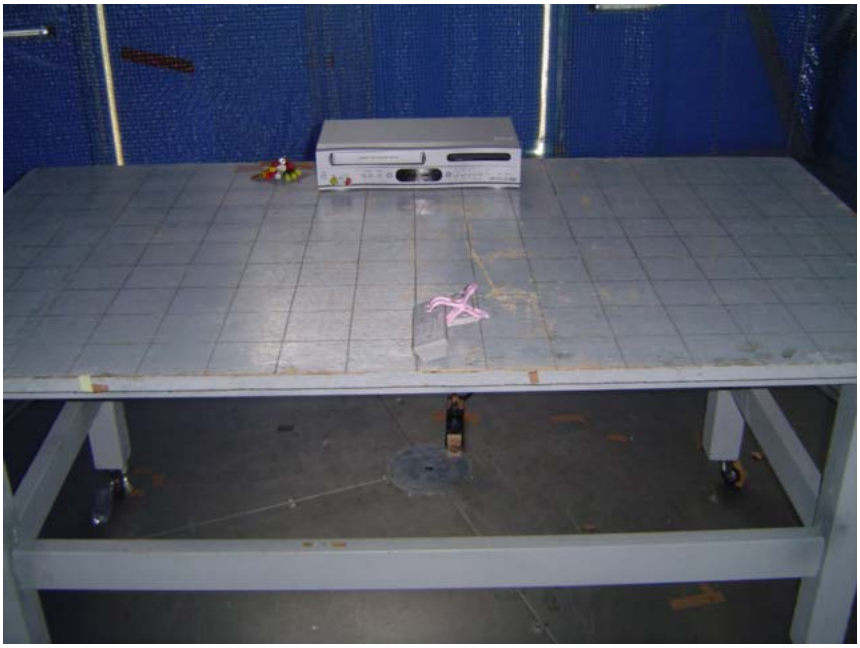
Appendix 2 : Data of EMI tests

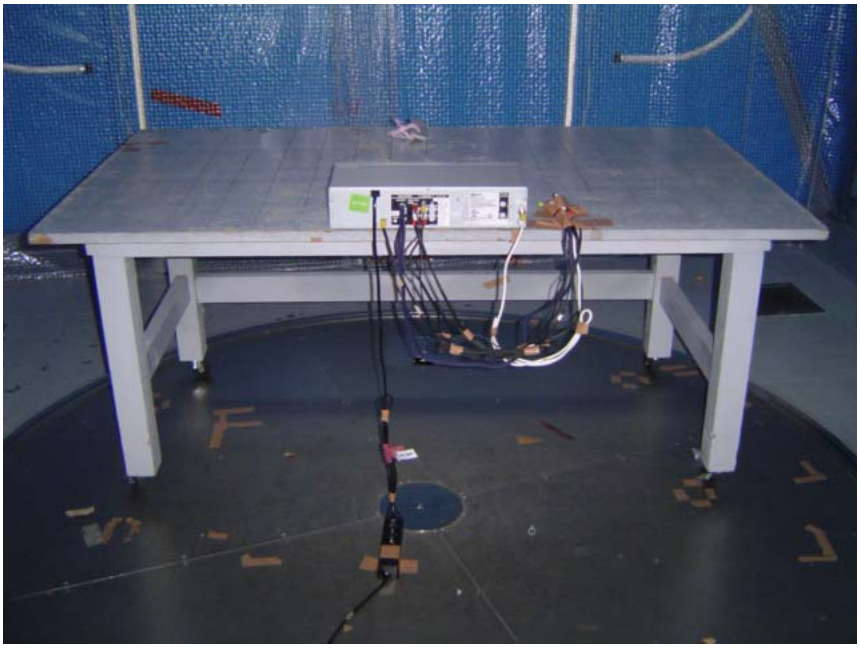
Appendix 3 : Test instruments

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

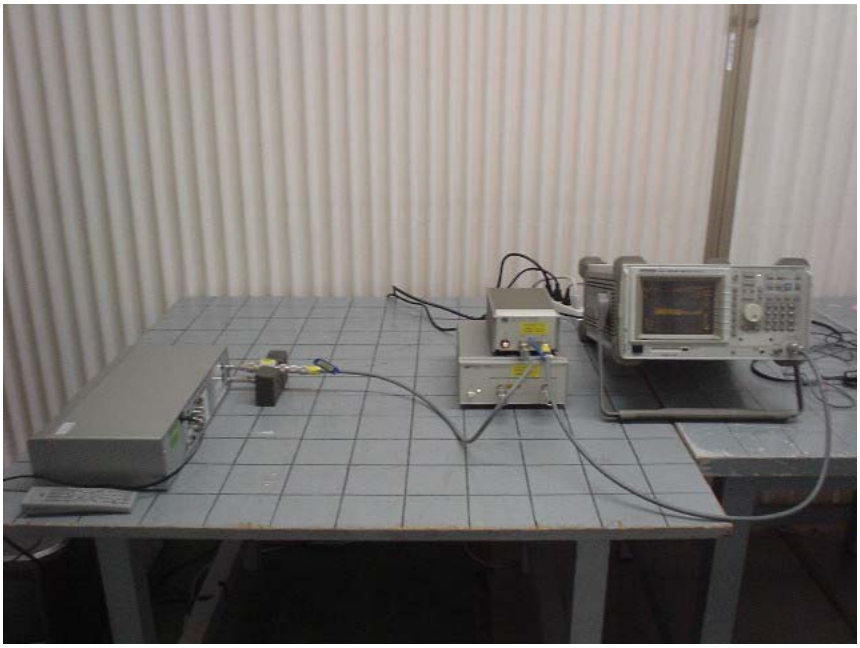
Conducted emission

Radiated emission





Antenna terminal voltage

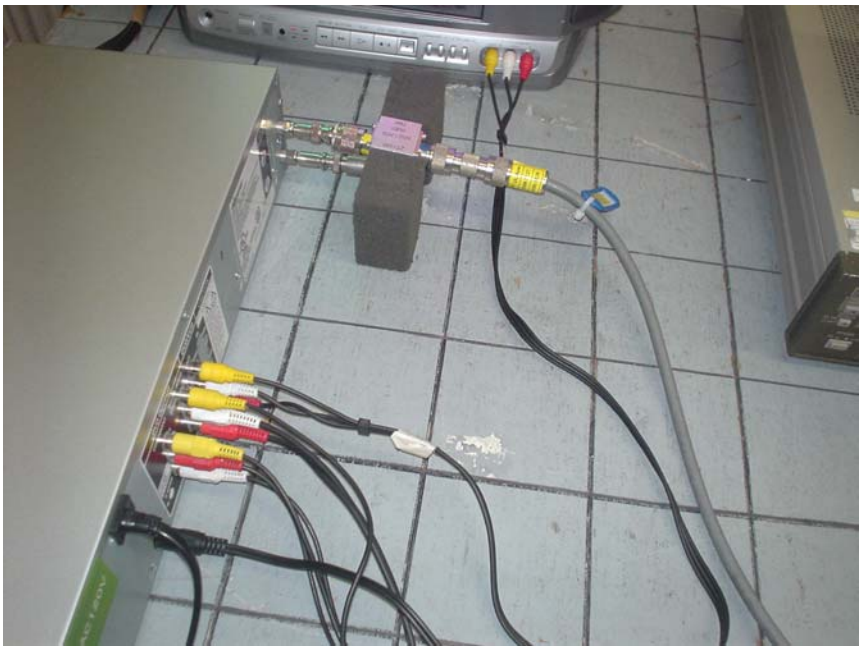


UL Apex Co., Ltd.
Yokowa EMC Lab.
108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN
Telephone: +81 596 39 1485
Facsimile: +81 596 39 0232

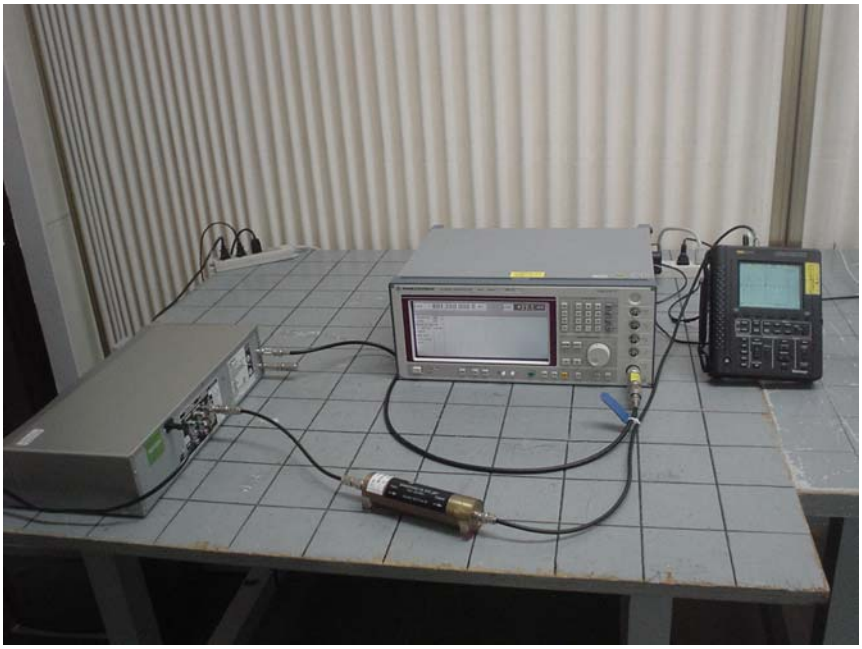
RF output level / spurious emission

UL Apex Co., Ltd.
Yokowa EMC Lab.
108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN
Telephone: +81 596 39 1485
Facsimile: +81 596 39 0232

Antenna transfer switch



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 TEST ROOM
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **TV Reception + Rec**
Remarks : **0dBmV**
Date : **1/30/2005**
Phase : **Single Phase**
Temperature : **25 °C** **Engineer : Seigo Kakehi**
Humidity : **30 %**
Regulation : **FCC Part15B CLASS B(2003)**

No.	FREQ.	READING(N)		READING(L1)		LISN	CABLE	ATTEN.	RESULT		LIMITS		MARGIN	
		QP	AV	QP	AV	FACTOR	LOSS		QP	AV	QP	AV	QP	AV
	[MHz]	[dBμV]		[dBμV]		[dB]	[dB]	[dB]	[dB]		[dBμV]		[dB]	
1.	0.1500	44.6	-	44.8	-	0.0	0.1	0.0	44.9	-	66.0	56.0	21.1	-
2.	0.1669	42.9	-	43.3	-	0.0	0.1	0.0	43.4	-	65.1	55.1	21.7	-
3.	1.2908	29.7	-	29.0	-	0.1	0.2	0.0	30.0	-	56.0	46.0	26.0	-
4.	3.5785	23.1	-	23.6	-	0.2	0.3	0.0	24.1	-	56.0	46.0	31.9	-
5.	10.7512	23.8	-	23.1	-	0.6	0.5	0.0	24.9	-	60.0	50.0	35.1	-
6.	18.4319	20.8	-	20.7	-	1.0	0.7	0.0	22.5	-	60.0	50.0	37.5	-
7.	28.6348	18.7	-	18.5	-	1.2	0.9	0.0	20.8	-	60.0	50.0	39.2	-

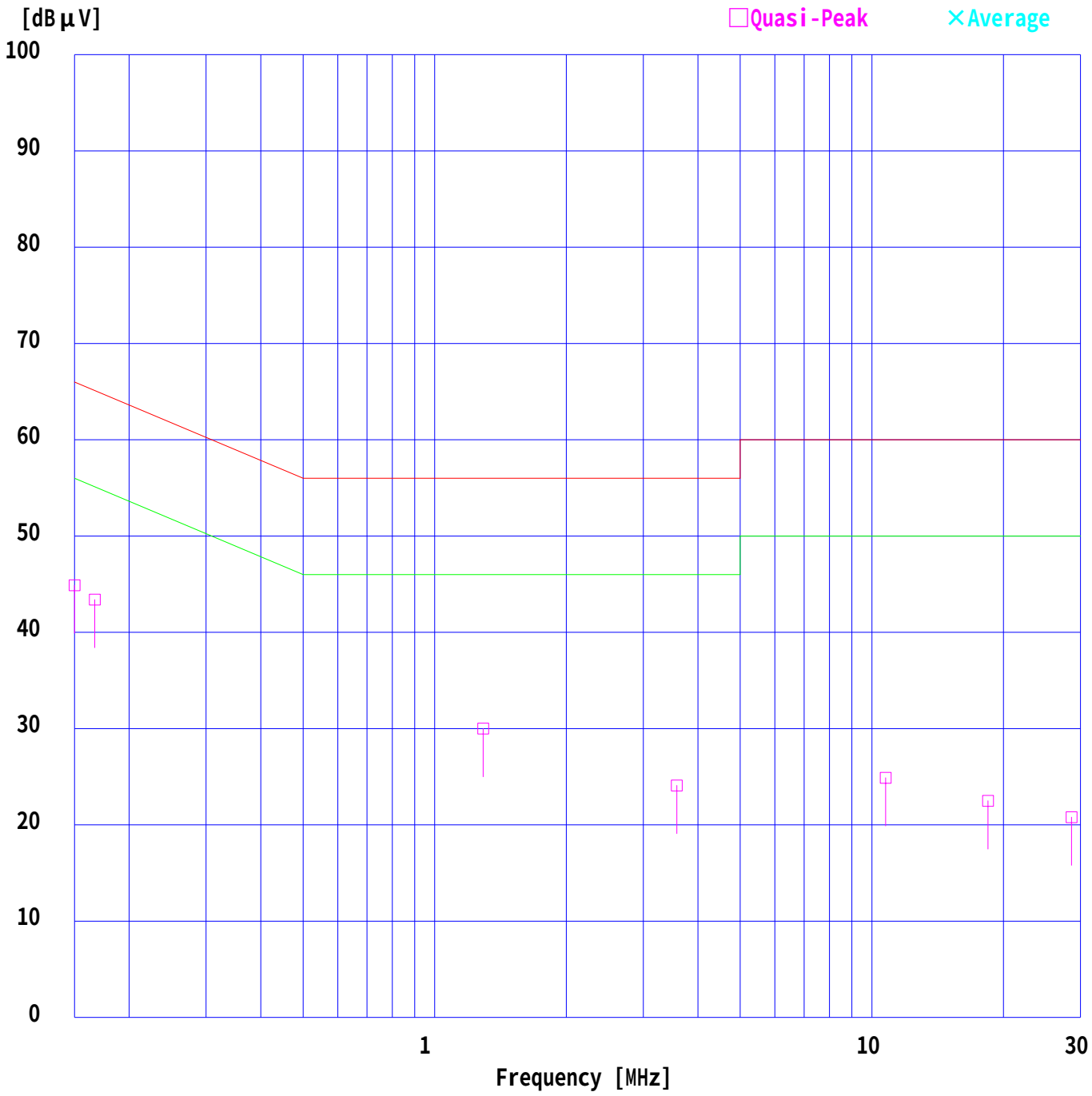
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

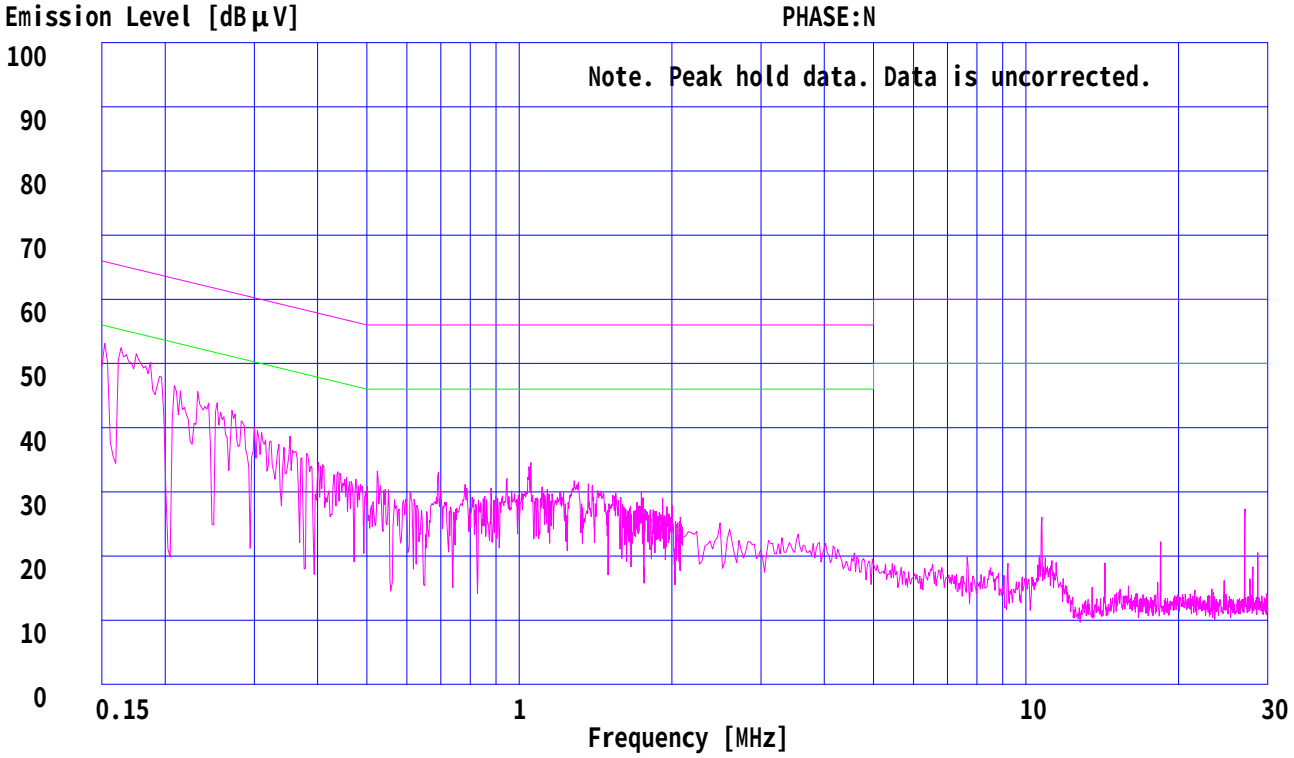
Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 0dBmV		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation	: FCC Part15B CLASS B(2003)		

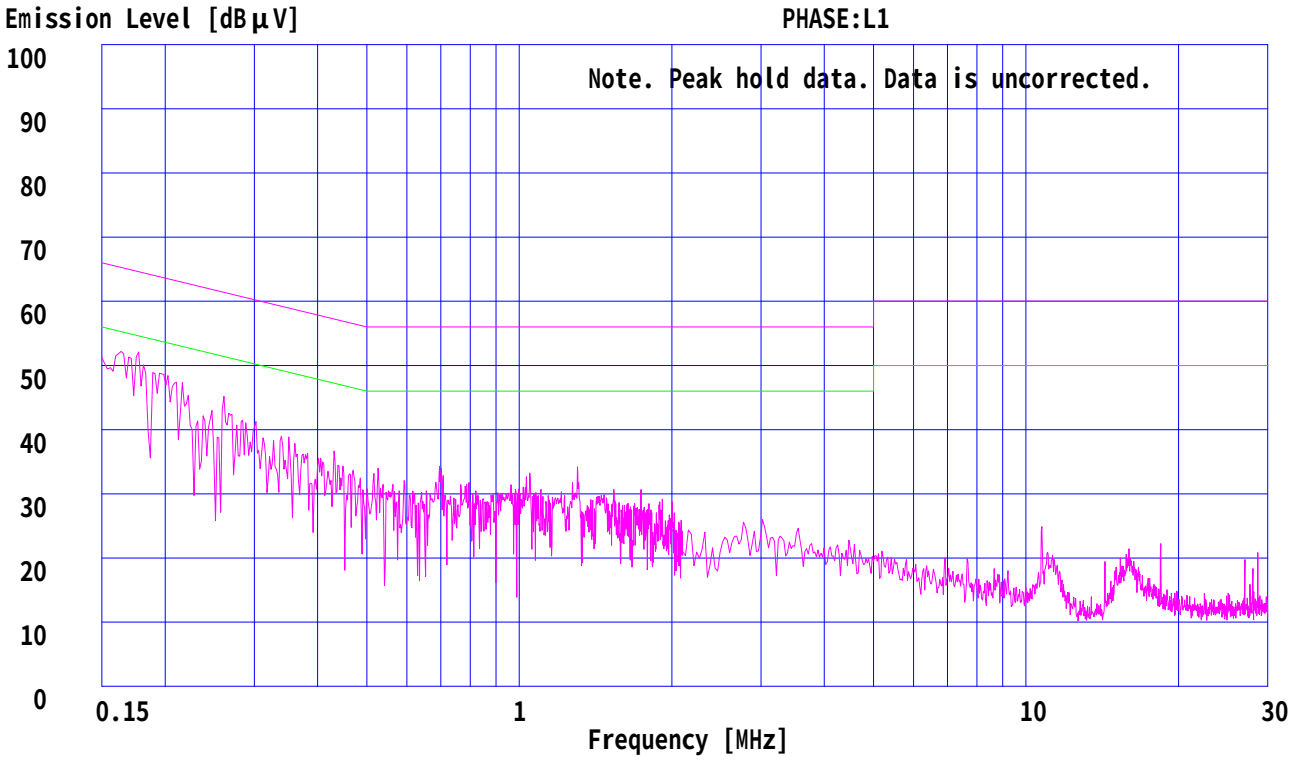


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 0dBmV		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation 1	: FCC Part15B CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : MVD4541
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception + Rec
Remarks : 25dBmV
Date : 1/30/2005
Phase : Single Phase
Temperature : 25 °C **Engineer : Seigo Kakehi**
Humidity : 30 %
Regulation : FCC Part15B 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]		[dBμV]		[dB]
1.	0.1500	44.6	-	44.3	-	0.0	0.1	0.0	44.7	-	66.0	56.0	21.3	-
2.	0.1691	42.6	-	43.0	-	0.0	0.1	0.0	43.1	-	65.0	55.0	21.9	-
3.	1.2908	29.7	-	28.5	-	0.1	0.2	0.0	30.0	-	56.0	46.0	26.0	-
4.	3.5776	22.0	-	23.5	-	0.2	0.3	0.0	24.0	-	56.0	46.0	32.0	-
5.	10.7502	23.2	-	22.7	-	0.6	0.5	0.0	24.3	-	60.0	50.0	35.7	-
6.	18.4320	20.2	-	20.2	-	1.0	0.7	0.0	21.9	-	60.0	50.0	38.1	-
7.	28.6348	18.6	-	18.3	-	1.2	0.9	0.0	20.7	-	60.0	50.0	39.3	-

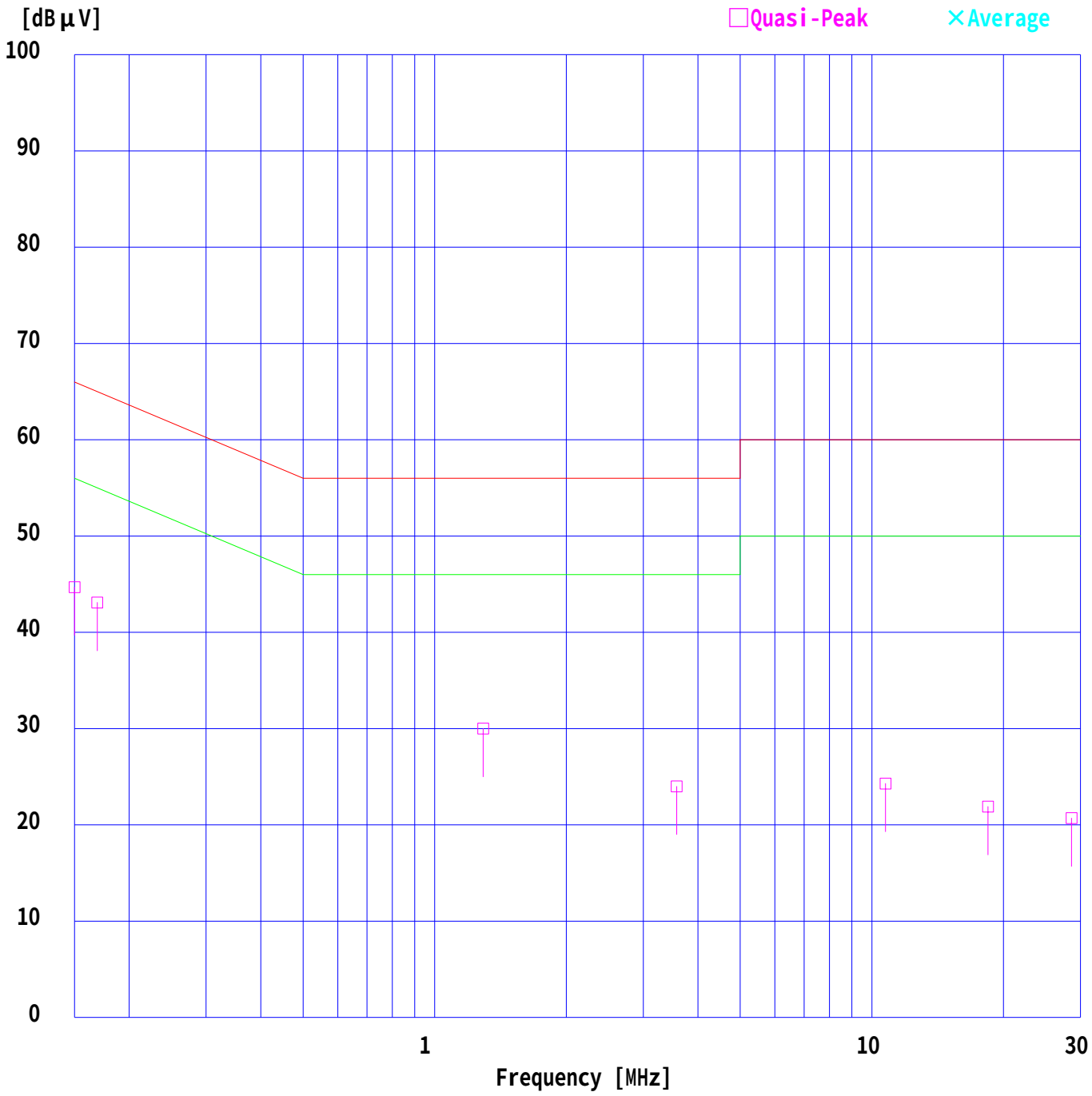
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

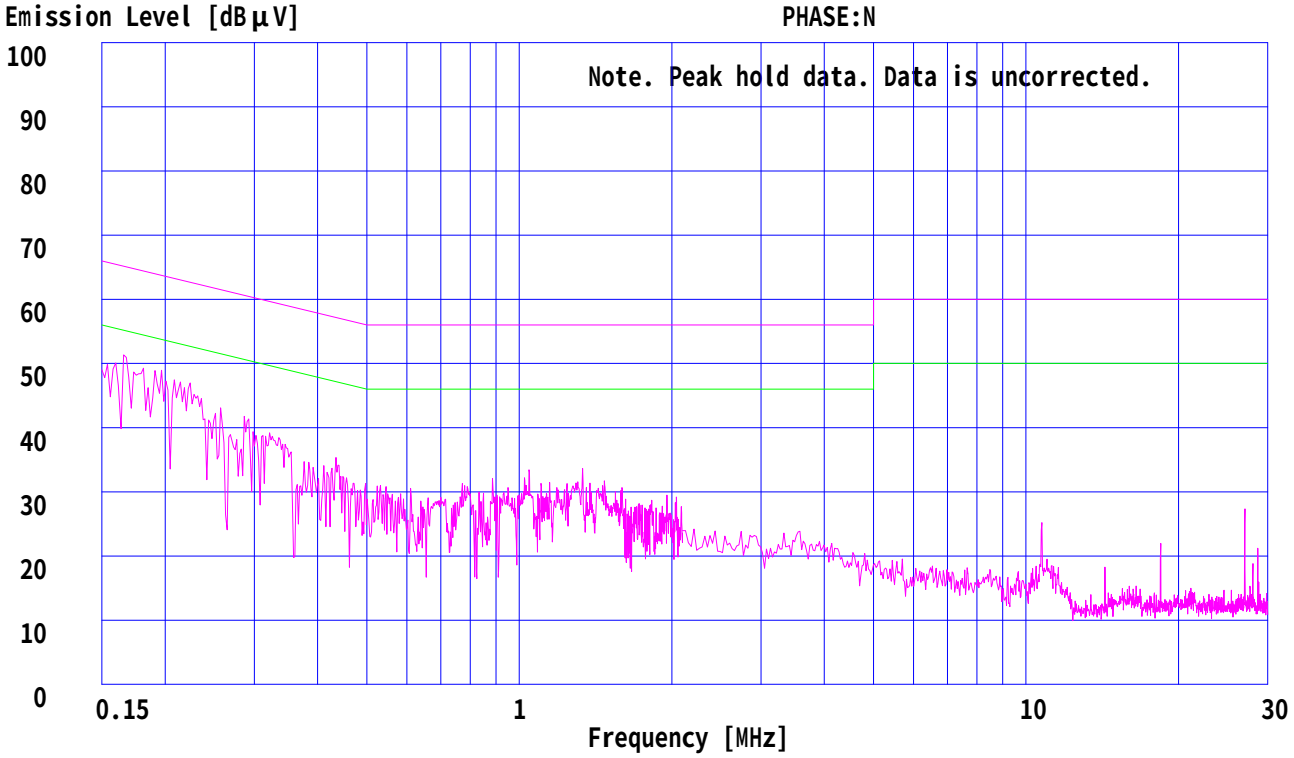
Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 25dBmV		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation	: FCC Part15B CLASS B(2003)		

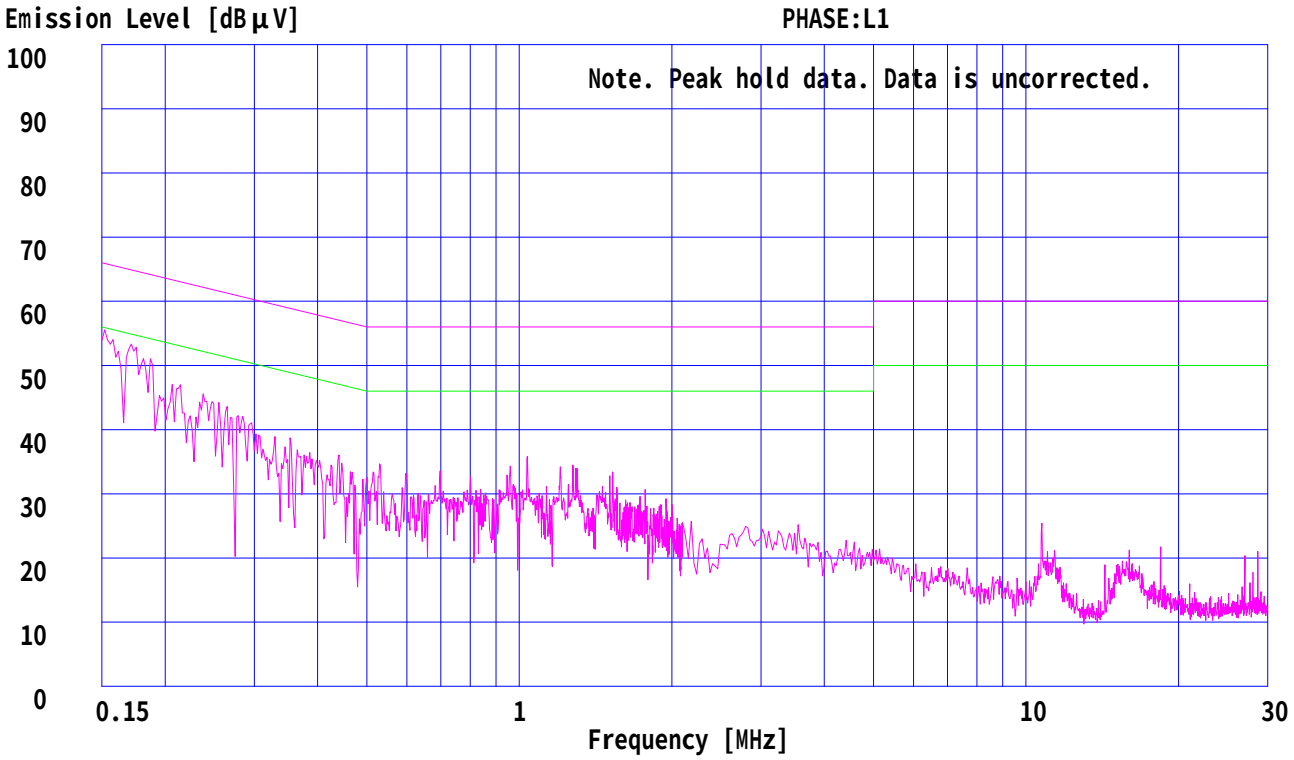


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 25dBmV		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation 1	: FCC Part15B CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : MVD4541
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input + Rec
Remarks : 1Vp-p
Date : 1/30/2005
Phase : Single Phase
Temperature : 25 °C **Engineer : Seigo Kakehi**
Humidity : 30 %
Regulation : FCC Part15B 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]		[dBμV]		[dB]
1.	0.1500	44.5	-	44.9	-	0.0	0.1	0.0	45.0	-	66.0	56.0	21.0	-
2.	0.1666	42.8	-	43.4	-	0.0	0.1	0.0	43.5	-	65.1	55.1	21.6	-
3.	1.2752	29.2	-	27.9	-	0.1	0.2	0.0	29.5	-	56.0	46.0	26.5	-
4.	5.1081	16.7	-	16.9	-	0.3	0.3	0.0	17.5	-	60.0	50.0	42.5	-
5.	8.4480	39.9	-	39.5	-	0.5	0.4	0.0	40.8	-	60.0	50.0	19.2	-
6.	16.8693	27.2	-	27.0	-	0.9	0.6	0.0	28.7	-	60.0	50.0	31.3	-
7.	18.4315	35.3	-	35.0	-	1.0	0.7	0.0	37.0	-	60.0	50.0	23.0	-

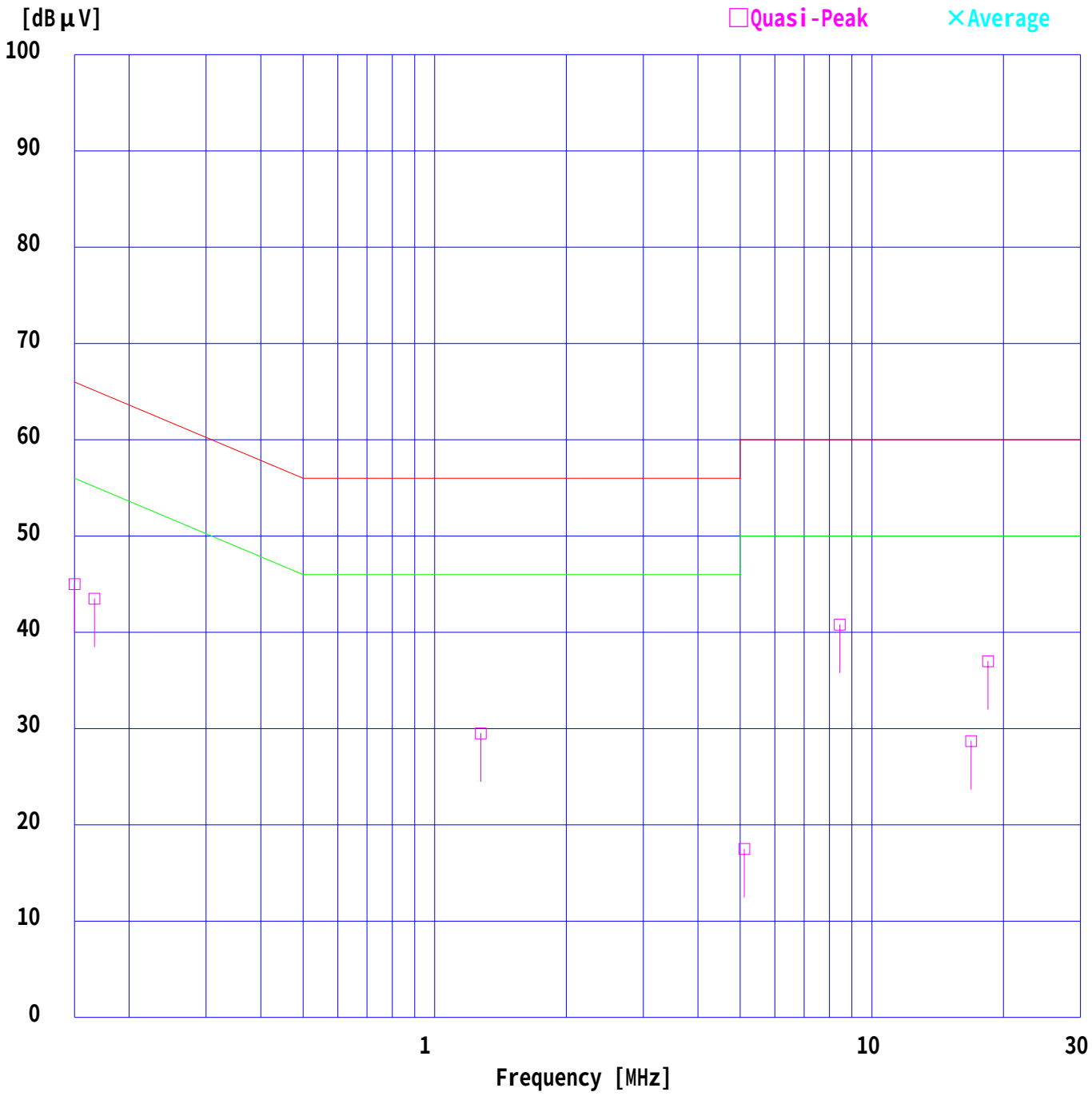
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

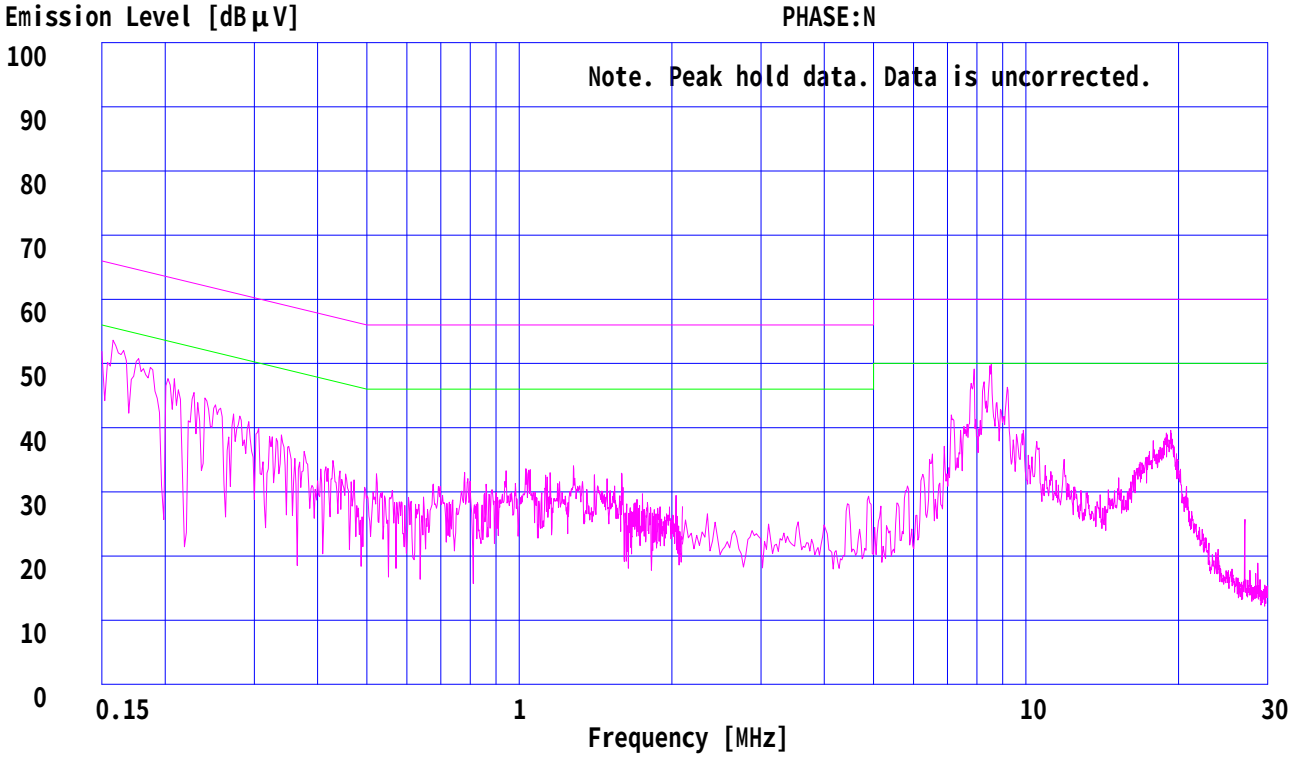
Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 1Vp-p		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation	: FCC Part15B CLASS B(2003)		

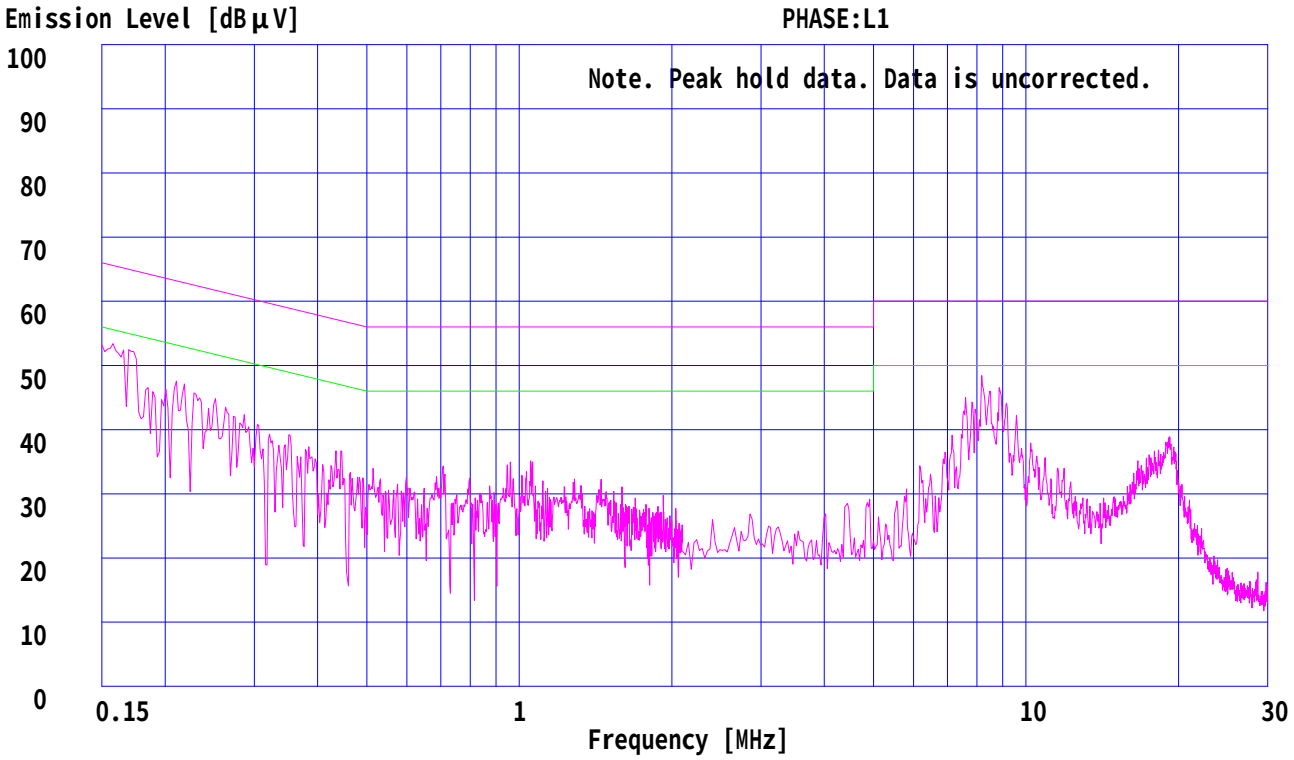


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 1Vp-p		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation 1	: FCC Part15B CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : MVD4541
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input + Rec
Remarks : 5Vp-p
Date : 1/30/2005
Phase : Single Phase
Temperature : 25 °C **Engineer : Seigo Kakehi**
Humidity : 30 %
Regulation : FCC Part15B 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]		[dBμV]		[dB]
1.	0.1500	44.5	-	44.7	-	0.0	0.1	0.0	44.8	-	66.0	56.0	21.2	-
2.	0.1666	42.9	-	43.4	-	0.0	0.1	0.0	43.5	-	65.1	55.1	21.6	-
3.	1.2752	29.4	-	27.7	-	0.1	0.2	0.0	29.7	-	56.0	46.0	26.3	-
4.	5.1081	17.3	-	18.8	-	0.3	0.3	0.0	19.4	-	60.0	50.0	40.6	-
5.	8.4495	40.6	-	41.1	-	0.5	0.5	0.0	42.1	-	60.0	50.0	17.9	-
6.	16.8726	30.4	-	28.1	-	0.9	0.6	0.0	31.9	-	60.0	50.0	28.1	-
7.	18.4312	36.2	-	36.1	-	1.0	0.7	0.0	37.9	-	60.0	50.0	22.1	-

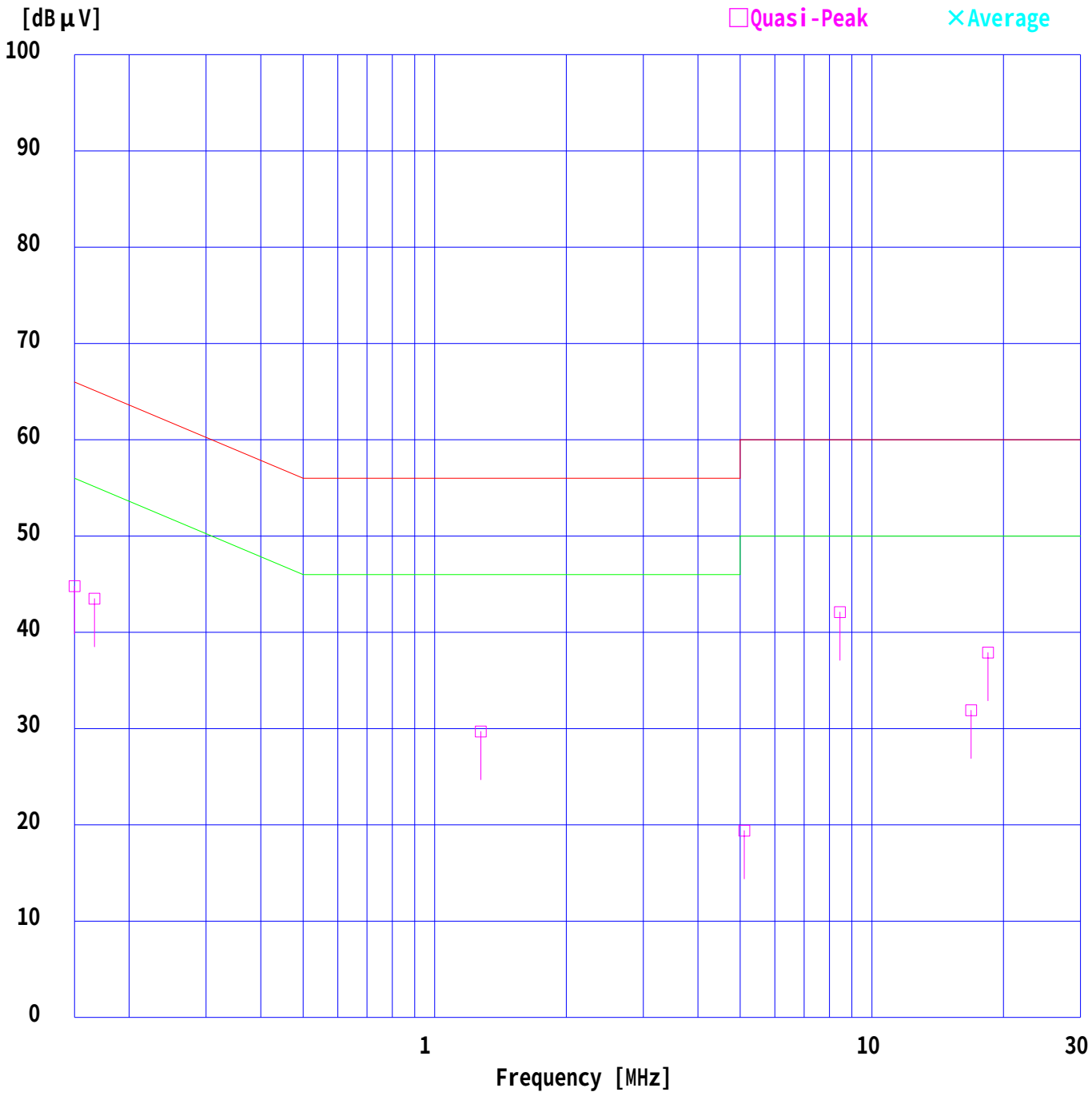
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

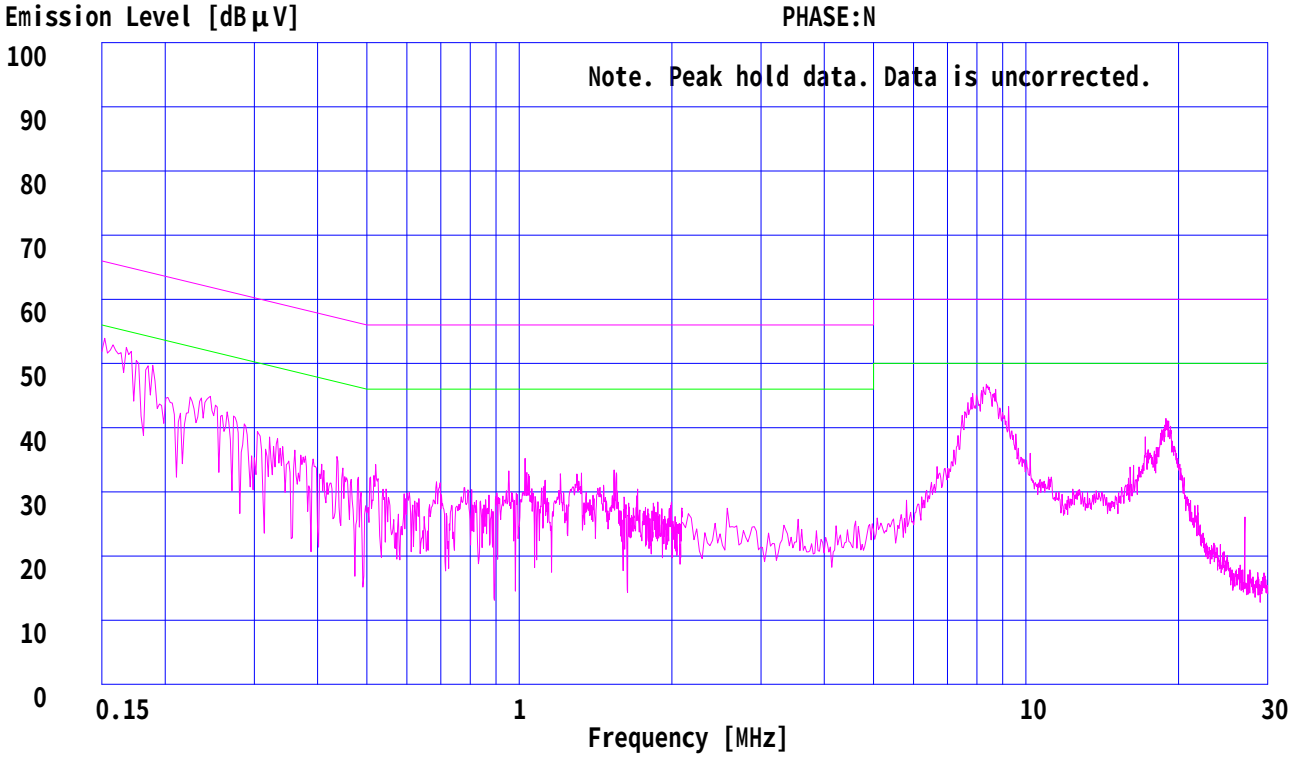
Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 5Vp-p		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation	: FCC Part15B CLASS B(2003)		

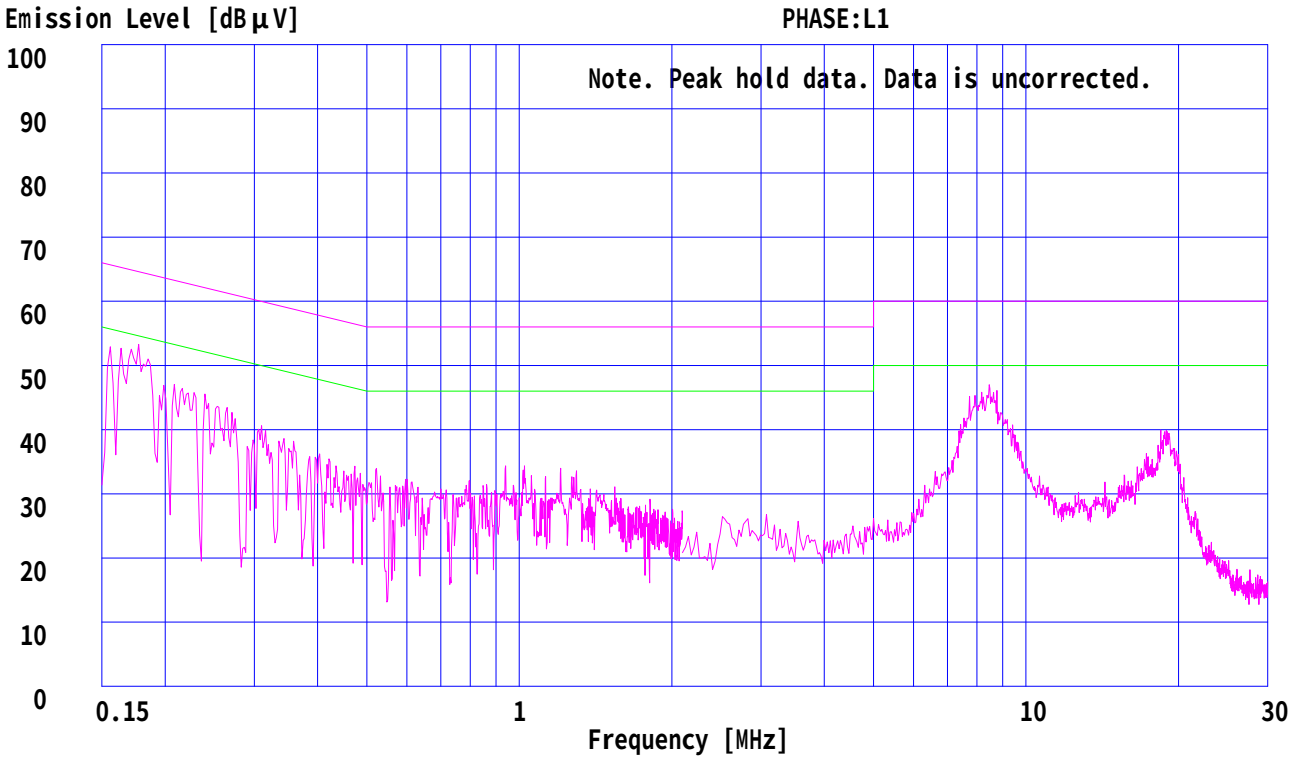


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 5Vp-p		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation 1	: FCC Part15B CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **VCR Playback**
Remarks :
Date : **1/30/2005**
Phase : **Single Phase**
Temperature : **25 °C** **Engineer : Seigo Kakehi**
Humidity : **30 %**
Regulation : **FCC Part15B 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	44.2	-	44.5	-	0.0	0.1	0.0	44.6	-	66.0	56.0	21.4	-
2.	0.1805	40.9	-	41.2	-	0.0	0.1	0.0	41.3	-	64.5	54.5	23.2	-
3.	1.0874	25.8	-	24.7	-	0.1	0.2	0.0	26.1	-	56.0	46.0	29.9	-
4.	2.9291	17.7	-	19.3	-	0.2	0.3	0.0	19.8	-	56.0	46.0	36.2	-
5.	6.8606	10.9	-	11.6	-	0.4	0.4	0.0	12.4	-	60.0	50.0	47.6	-
6.	16.0101	10.7	-	14.5	-	0.9	0.6	0.0	16.0	-	60.0	50.0	44.0	-
7.	18.4315	22.5	-	22.2	-	1.0	0.7	0.0	24.2	-	60.0	50.0	35.8	-

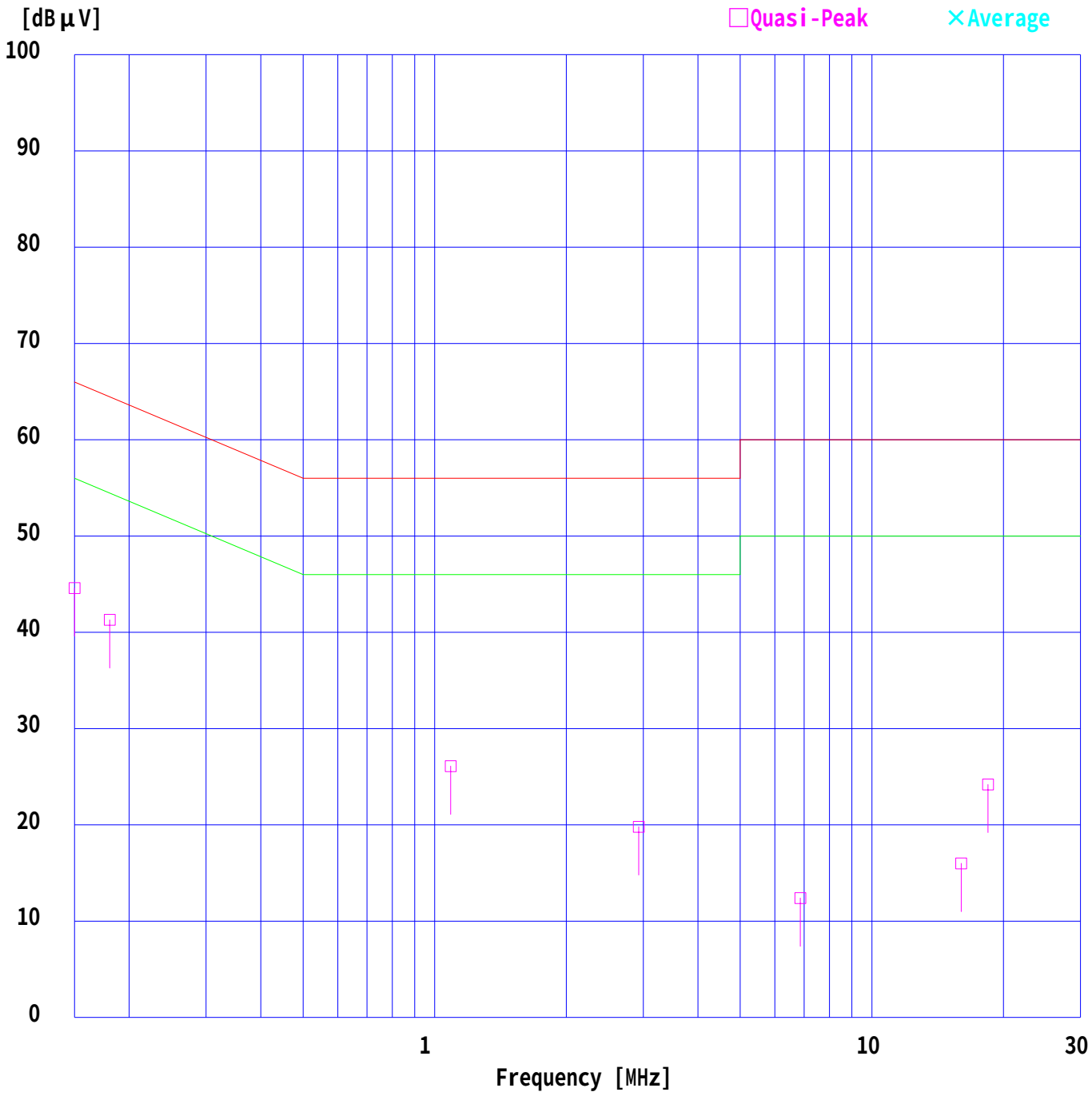
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No.: 25FE0207-YW-1

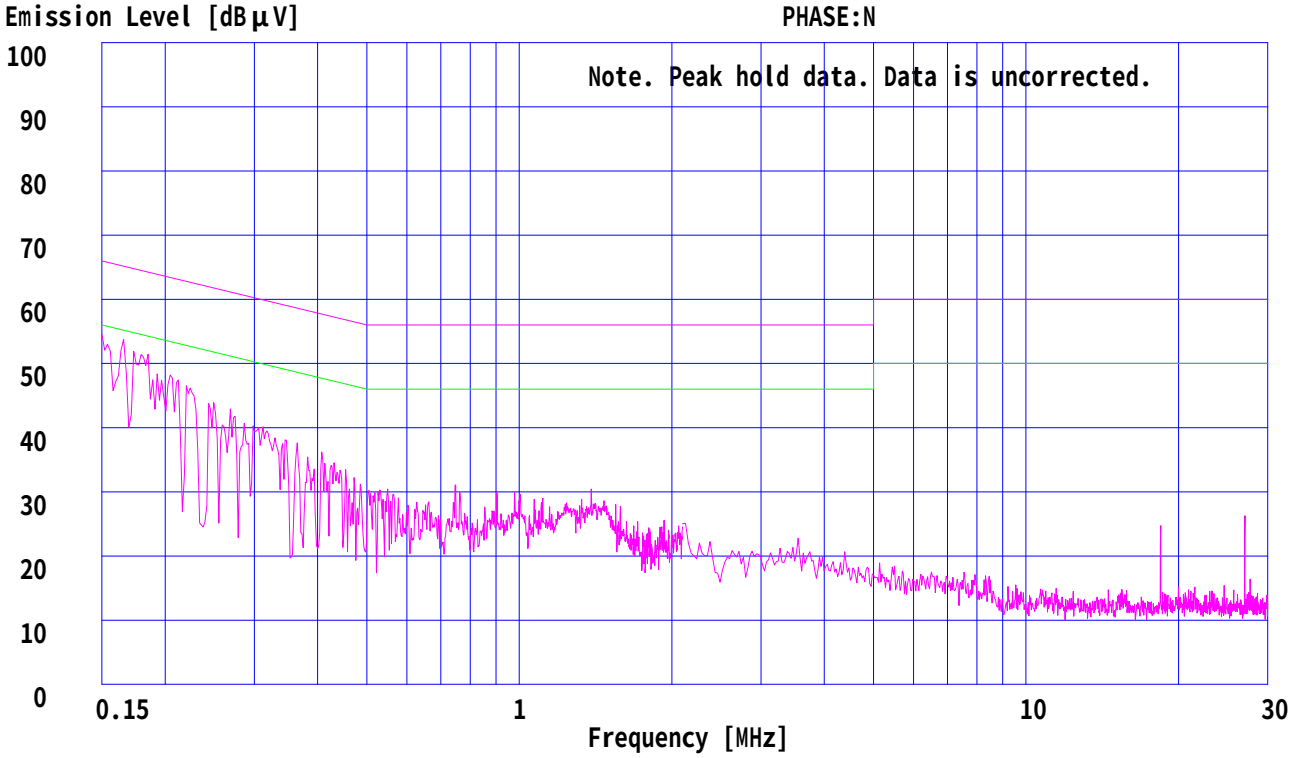
Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation	: FCC Part15B CLASS B(2003)		

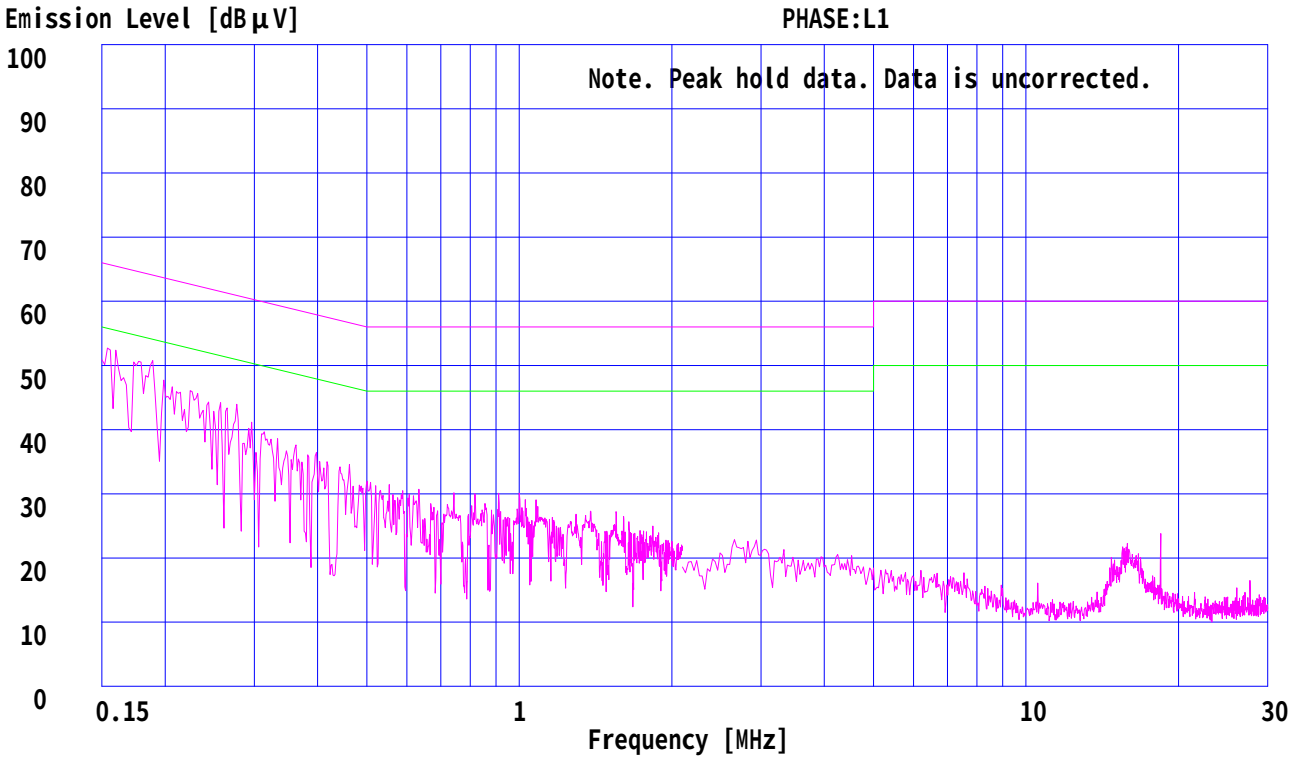


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	:		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation 1	: FCC Part15B CLASS B(2003)		
Regulation 2	: None		





DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **DVD Play**
Remarks :
Date : **1/30/2005**
Phase : **Single Phase**
Temperature : **25 °C** **Engineer** : **Seigo Kakehi**
Humidity : **30 %**
Regulation : **FCC Part15B 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]	[dBμV]		[dBμV]		[dB]	
1.	0.1500	44.5	-	44.2	-	0.0	0.1	0.0	44.6	-	66.0	56.0	21.4	-
2.	0.1681	43.4	-	42.9	-	0.0	0.1	0.0	43.5	-	65.1	55.1	21.6	-
3.	1.2780	27.5	-	28.5	-	0.1	0.2	0.0	28.8	-	56.0	46.0	27.2	-
4.	3.5464	25.9	-	27.2	-	0.2	0.3	0.0	27.7	-	56.0	46.0	28.3	-
5.	6.3884	18.4	-	18.3	-	0.3	0.4	0.0	19.1	-	60.0	50.0	40.9	-
6.	17.7332	34.8	-	35.5	-	1.0	0.7	0.0	37.2	-	60.0	50.0	22.8	-
7.	25.8116	26.4	-	26.9	-	1.2	0.8	0.0	28.9	-	60.0	50.0	31.1	-

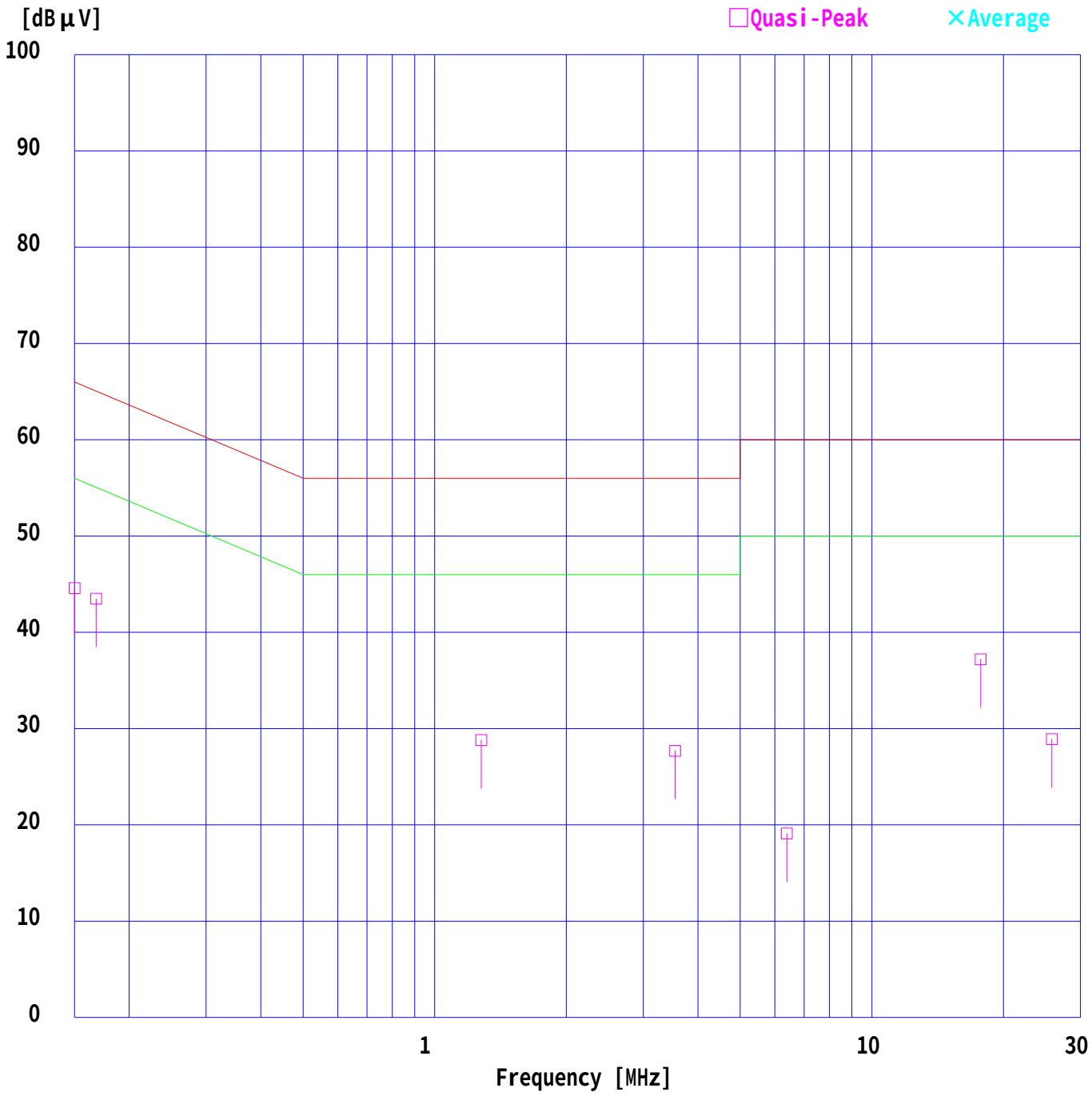
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

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

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

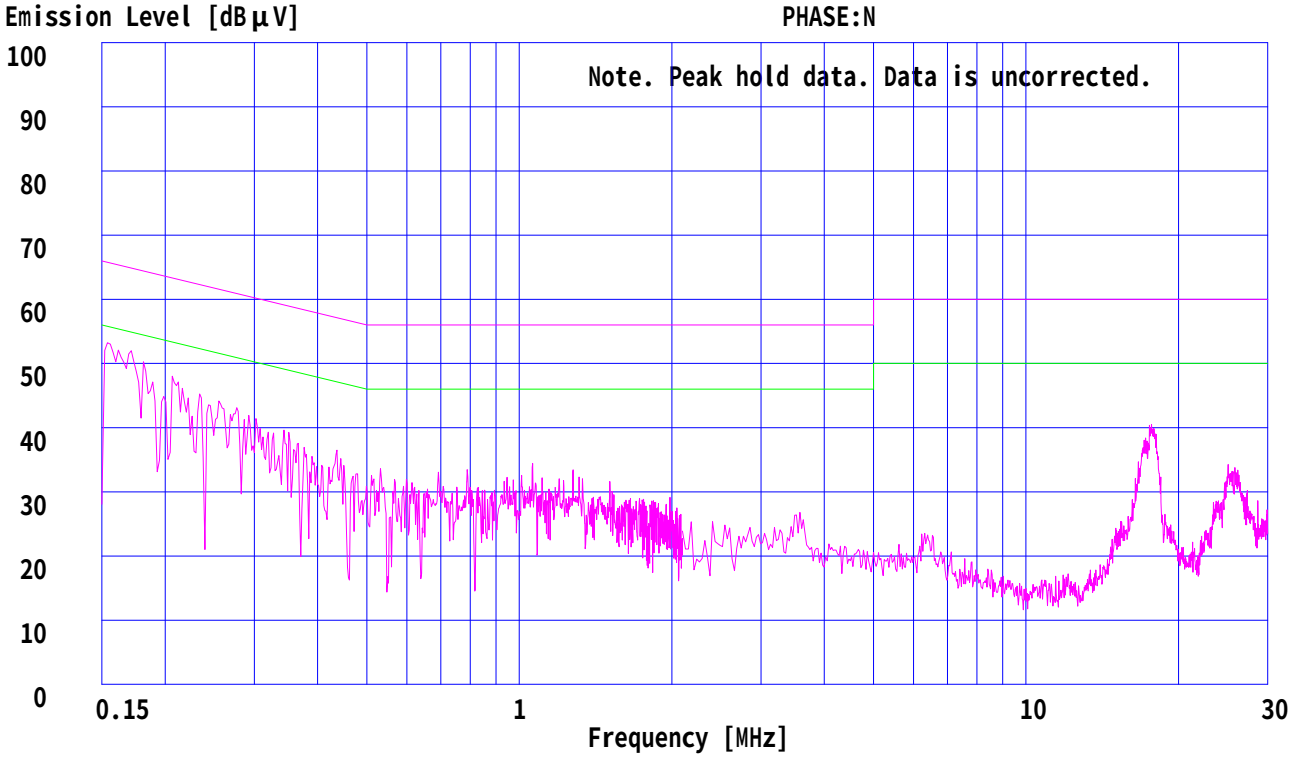
Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation	: FCC Part15B CLASS B(2003)		

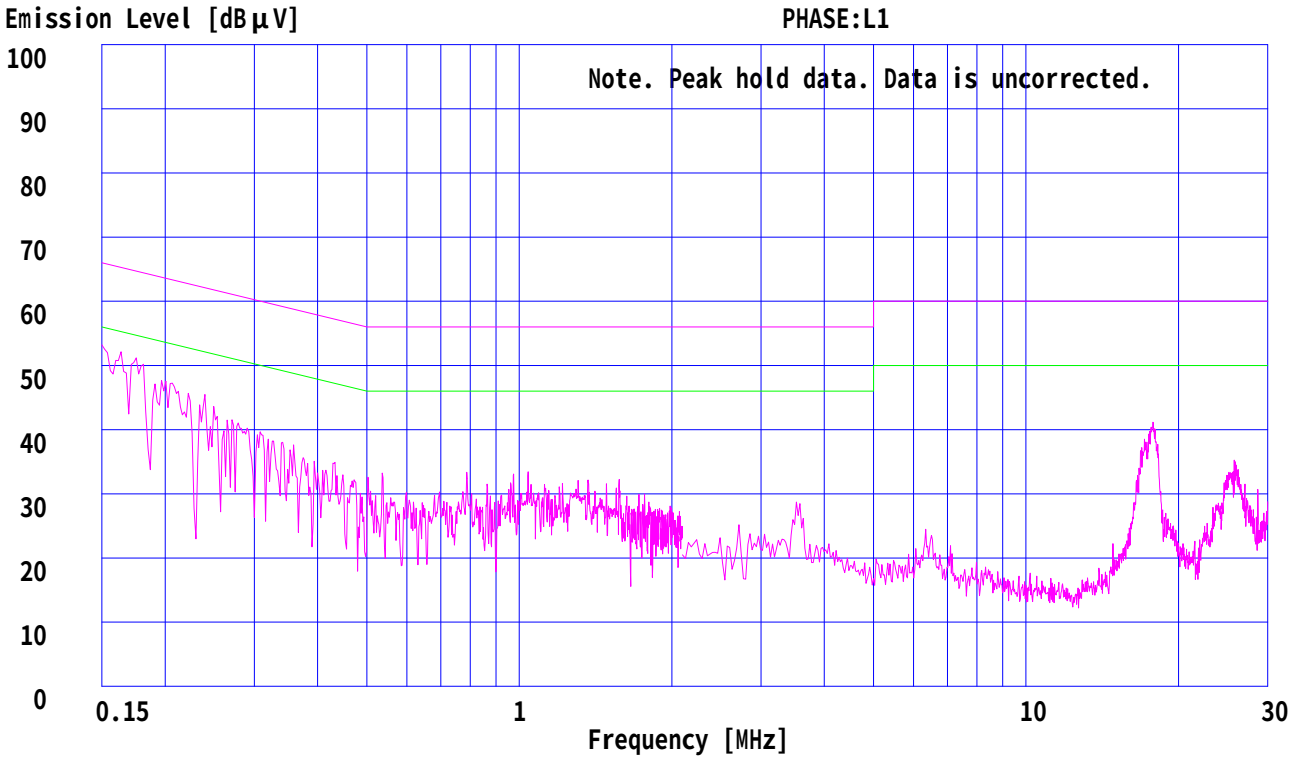


DATA OF CONDUCTION TEST CHART

UL Apex Co., Ltd.
YOKOWA No.1 SHIELD TEST ROOM
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	:		
Date	: 1/30/2005		
Phase	: Single Phase		
Temperature	: 25 °C	Engineer	: Seigo Kakehi
Humidity	: 30 %		
Regulation 1	: FCC Part15B 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.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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	31.2	36.1	BC	-10.8	20.4	25.3	43.5	23.1	18.2
	202			BC				43.5		
	303			LO				46.0		
	404			LO				46.0		
	505			LO				46.0	>15.0	
	606			LO				46.0		
	707			LO				46.0		
	808			LO				46.0		
	909			LO				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						74.0	54.0				
1111					HO						74.0	54.0				
1212					HO						74.0	54.0				
1313					HO						74.0	54.0	>27.0		>10.0	
1414					HO						74.0	54.0				
1515					HO						74.0	54.0				
1616					HO						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	26.6	29.0	BC	-9.8	16.8	19.2	43.5	26.7	24.3
	214			BC				43.5		
	321			LO				46.0		
	428			LO				46.0		
	535			LO				46.0	＞15.0	
	642			LO				46.0		
	749			LO				46.0		
	856			LO				46.0		
	963			LO				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						74.0	54.0				
1177					HO						74.0	54.0				
1284					HO						74.0	54.0				
1391					HO						74.0	54.0	>27.0		>10.0	
1498					HO						74.0	54.0				
1605					HO						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	28.6	32.8	BC	-9.0	19.6	23.8	43.5	23.9	19.7
	226			BC				46.0		
	339			LO				46.0		
	452			LO				46.0		
	565			LO				46.0	＞15.0	
	678			LO				46.0		
	791			LO				46.0		
	904			LO				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						74.0	54.0				
1130					HO						74.0	54.0				
1243					HO						74.0	54.0				
1356					HO						74.0	54.0	>27.0		>10.0	
1469					HO						74.0	54.0				
1582					HO						74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co.,Ltd.	REPORT No.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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														
5	123	26.7	29.8		BC	-7.7	19.0	22.1		43.5		24.5	21.4	
	246				BC					46.0				
	369				LO					46.0				
	492				LO					46.0				
	615				LO					46.0		>15.0		
	738				LO					46.0				
	861				LO					46.0				
	984				LO					54.0				
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [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]
	1107				HO					74.0	54.0			
	1230				HO					74.0	54.0			
	1353				HO					74.0	54.0	>27.0		>10.0
	1476				HO					74.0	54.0			
	1599				HO					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]	
6	129	25.7	27.4		BC	-7.2	18.5	20.2		43.5		25.0	23.3	
	258				BC					46.0				
	387				LO					46.0				
	516				LO					46.0		>15.0		
	645				LO					46.0				
	774				LO					46.0				
	903				LO					46.0				
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [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]
	1032				HO					74.0	54.0			
	1161				HO					74.0	54.0			
	1290				HO					74.0	54.0	>27.0		>10.0
	1419				HO					74.0	54.0			
	1548				HO					74.0	54.0			
	1677				HO					74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. [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]	
7	221	22.6	25.3		BC	-3.5	19.1	21.8		46.0		26.9	24.2	
	442				LO					46.0				
	663				LO					46.0		>15.0		
	884				LO					46.0				
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [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]
	1105				HO					74.0	54.0			
	1326				HO					74.0	54.0	>27.0		>10.0
	1547				HO					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]	
8	227	23.1	23.3		BC	-3.3	19.8	20.0		46.0		26.2	26.0	
	454				LO					46.0				
	681				LO					46.0		>15.0		
	908				LO					46.0				
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	READING(AV) HOR. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) VER. [dBuV/m]	RESULT(AV) HOR. [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]
	1135				HO					74.0	54.0			
	1362				HO					74.0	54.0	>27.0		>10.0
	1589				HO					74.0	54.0			

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co.,Ltd.	REPORT No.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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										
9	233	23.2	24.3	BC	-3.3	19.9	21.0	46.0	26.1	25.0
	466			LO				46.0	>15.0	
	699			LO				46.0		
	932			LO				46.0		

	FREQ [MHz]	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]
	1165					HO						74.0	54.0	>27.0		>10.0	
	1398					HO						74.0	54.0				
	1631					HO						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]
10	239	23.0	25.7	BC	-3.2	19.8	22.5	46.0	26.2	23.5
	478			LO				46.0	>15.0	
	717			LO				46.0		
	956			LO				46.0		

	FREQ [MHz]	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]
	1195					HO						74.0	54.0	>27.0		>10.0	
	1434					HO						74.0	54.0				
	1673					HO						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]
11	245	23.7	23.2	BC	-3.2	20.5	20.0	46.0	25.5	26.0
	490			LO				46.0	>15.0	
	735			LO				46.0		
	980			LO				54.0		

	FREQ [MHz]	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]
	1225					HO						74.0	54.0	>27.0		>10.0	
	1470					HO						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]
12	251	23.3	22.9	BC	-3.0	20.3	19.9	46.0	25.7	26.1
	502			LO				46.0	>15.0	
	753			LO				46.0		

	FREQ [MHz]	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]
	1004					HO						74.0	54.0	>27.0		>10.0	
	1255					HO						74.0	54.0				
	1506					HO						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]
13	257	23.3	24.3	BC	-2.7	20.6	21.6	46.0	25.4	24.4
	514			LO				46.0	>15.0	
	771			LO				46.0		

	FREQ [MHz]	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]
	1028					HO						74.0	54.0	>27.0		>10.0	
	1285					HO						74.0	54.0				
	1542					HO						74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co.,Ltd.	REPORT No.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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]	
UHF														
14	517	28.2	32.5		LO	-0.5	27.7	32.0		46.0		18.3	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]
	1034					HO						74.0	54.0	>27.0		>10.0	
	1551					HO						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]	
19	547	25.2	32.0		LO	0.3	25.5	32.3		46.0		20.5	13.7	
		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]
	1094					HO						74.0	54.0	>27.0		>10.0	
	1641					HO						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]	
28	601	30.5	35.7		LO	1.8	32.3	37.5		46.0	-	13.7	8.5	
		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]
	1202					HO						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]	
36	649	28.2	32.3		LO	3.0	31.2	35.3		46.0	-	14.8	10.7	
		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]
	1298					HO						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]	
44	697	24.4	29.2		LO	4.1	28.5	33.3		46.0	-	17.5	12.7	
		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]
	1394					HO						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]	
53	751	28.9	28.8		LO	4.8	33.7	33.6		46.0	-	12.3	12.4	
		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]
	1502					HO						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]	
61	799	30.8	29.7		LO	5.1	35.9	34.8		46.0	-	10.1	11.2	
		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]
	1598					HO						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]	
69	847	27.1	32.2		LO	5.8	32.9	38.0		46.0	-	13.1	8.0	
		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]
	1694					HO						74.0	54.0	>27.0		>10.0	

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co.,Ltd.	REPORT No.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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]
CATV										
1	119	29.8	38.5	BC	-8.0	21.8	30.5	43.5	21.7	13.0
	238			BC				46.0		
	357			LO				46.0		
	476			LO				46.0		
	595			LO				46.0	>15.0	
	714			LO				46.0		
	833			LO				46.0		
	952			LO				46.0		

	FREQ [MHz]	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]
	1071					HO						74.0	54.0				
	1190					HO						74.0	54.0				
	1309					HO						74.0	54.0	>27.0		>10.0	
	1428					HO						74.0	54.0				
	1547					HO						74.0	54.0				
	1666					HO						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]
95	137	24.5	25.1	BC	-6.5	18.0	18.6	43.5	25.5	24.9
	274			BC				46.0		
	411			LO				46.0		
	548			LO				46.0	>15.0	
	685			LO				46.0		
	822			LO				46.0		
	959			LO				46.0		

	FREQ [MHz]	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]
	1096					HO						74.0	54.0				
	1233					HO						74.0	54.0				
	1370					HO						74.0	54.0	>27.0		>10.0	
	1507					HO						74.0	54.0				
	1644					HO						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]
97	149	25.8	28.7	BC	-5.7	20.1	23.0	43.5	23.4	20.5
	298			BC				46.0		
	447			LO				46.0		
	596			LO				46.0	>15.0	
	745			LO				46.0		
	894			LO				46.0		

	FREQ [MHz]	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]
	1043					HO				-	-	74.0	54.0				
	1192					HO				-	-	74.0	54.0				
	1341					HO				-	-	74.0	54.0	>27.0		>10.0	
	1490					HO				-	-	74.0	54.0				
	1639					HO				-	-	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]
99	161	25.9	28.5	BC	-5.0	20.9	23.5	43.5	22.6	20.0
	322			LO				46.0		
	483			LO				46.0		
	644			LO				46.0	>15.0	
	805			LO				46.0		
	966			LO				46.0		

	FREQ [MHz]	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]
	1127					HO						74.0	54.0				
	1288					HO						74.0	54.0				
	1449					HO						74.0	54.0	>27.0		>10.0	
	1610					HO						74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co.,Ltd.	REPORT No.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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]
CATV										
14	167	23.6	24.1	BC	-4.6	19.0	19.5	43.5	24.5	24.0
	334			LO				46.0	>15.0	
	501			LO				46.0		
	668			LO				46.0		
	835			LO				46.0		
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) 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]
	1002			HO				74.0	54.0	>27.0		>10.0	
	1169			HO				74.0	54.0				
	1336			HO				74.0	54.0				
	1503			HO				74.0	54.0				
	1670			HO				74.0	54.0				
CH.	FREQ [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]
18	191	24.7	25.3	BC	-3.9	20.8	21.4	43.5	22.7	22.1
	382			LO				46.0	>15.0	
	573			LO				46.0		
	764			LO				46.0		
	955			LO				46.0		
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) 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]
	1146			HO				74.0	54.0	>27.0		>10.0	
	1337			HO				74.0	54.0				
	1528			HO				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]
22	215	24.1	24.6	BC	-3.6	20.5	21.0	43.5	23.0	22.5
	430			LO				46.0	>15.0	
	645			LO				46.0		
	860			LO				46.0		
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) 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]
	1075			HO				74.0	54.0	>27.0		>10.0	
	1290			HO				74.0	54.0				
	1505			HO				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]
23	263	25.4	26.3	BC	-2.3	23.1	24.0	46.0	46.0	22.9	22.0
	526			LO				46.0	46.0		
	789			LO				46.0	46.0		
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) 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]
	1052			HO				74.0	54.0	>27.0		>10.0	
	1315			HO				74.0	54.0				
	1578			HO				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]
29	299	24.6	25.4	BC	-0.1	24.5	25.3	46.0	46.0	21.5	20.7
	598			LO				46.0	46.0	>15.0	
	897			LO				46.0	46.0		
		READING(PK) HOR. [dBuV]	READING(PK) VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. [dBuV/m]	RESULT(PK) 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]
	1196			HO				74.0	54.0	>27.0		>10.0	
	1495			HO				74.0	54.0				

DATA OF RADIATION TEST

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

COMPANY	: Orion Electric Co.,Ltd.	REPORT No.	: 25FE0207-YW-1
EQUIPMENT	: DVD Player with Video Cassette Recorder	REGULATION	: FCC PART15 B
MODEL No.	: MVD4541	TEST DISTANCE	: 3m
POWER	: AC120V/60Hz	ATTENUATION	: 101-847MHz 6dB
DESCRIPTION	: TV Reception		1030-1694MHz 0dB
		DATE	: 2005/01/31
		TEMP./HUMID.	: 15deg.C / 34%
		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	23.8	25.4			LO	-4.3	19.5	21.1			46.0	46.0	26.5	24.9		
	682					LO						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						74.0	54.0	>27.0		>10.0	
	1364					HO						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	23.1	24.8			LO	-4.3	18.8	20.5			46.0	46.0	27.2	25.5		
	694					LO						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						74.0	54.0	>27.0		>10.0	
	1388					HO						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	23.8	26.4			LO	-0.5	23.3	25.9			46.0	46.0	22.7	20.1		
		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						74.0	54.0	>27.0		>10.0	
	1545					HO						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	22.7	22.3			LO	3.9	26.6	26.2			46.0	46.0	19.4	19.8		
		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						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	25.0	29.8			LO	4.1	29.1	33.9			46.0	46.0	16.9	12.1		
		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						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	30.5	26.3			LO	5.0	35.5	31.3			46.0	46.0	10.5	14.7		
		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						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	28.7	32.0			LO	5.7	34.4	37.7			46.0	46.0	11.6	8.3		
		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						74.0	54.0	>27.0		>10.0	

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **TV Reception + Rec**
Remarks : **0dBmV**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	337.53	BB	46.0	40.6	14.9	29.9	4.6	6.0	41.6	36.2	46.0	4.4	9.8

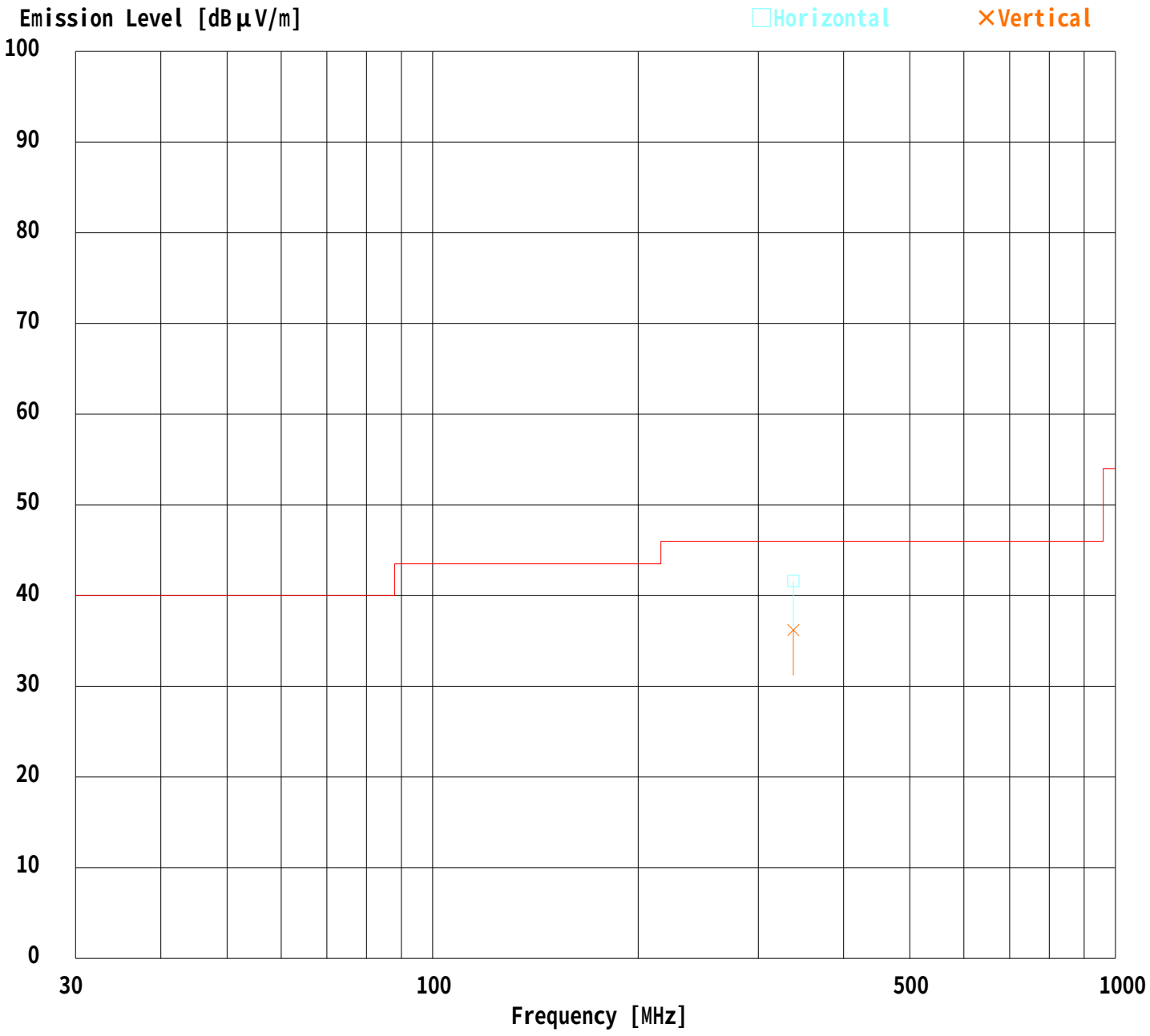
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 0dBmV		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **TV Reception + Rec**
Remarks : **25dBmV**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	73.71	BB	38.0	43.6	6.8	29.8	2.0	5.9	22.9	28.5	40.0	17.1	11.5
2.	108.00	BB	48.6	46.5	11.7	29.7	2.4	5.9	38.9	36.8	43.5	4.6	6.7
3.	120.00	BB	35.4	33.9	13.4	29.7	2.5	5.9	27.5	26.0	43.5	16.0	17.5
4.	135.00	BB	32.3	31.7	14.5	29.8	2.6	5.9	25.5	24.9	43.5	18.0	18.6
5.	189.00	BB	31.2	34.8	16.9	29.9	3.2	5.9	27.3	30.9	43.5	16.2	12.6
6.	202.48	BB	39.4	41.5	17.0	29.9	3.3	5.9	35.7	37.8	43.5	7.8	5.7
7.	216.00	BB	32.9	34.5	17.0	29.9	3.5	5.9	29.4	31.0	43.5	14.1	12.5
8.	270.00	BB	36.7	36.9	18.1	29.9	4.0	6.0	34.9	35.1	46.0	11.1	10.9
9.	337.53	BB	46.2	41.0	14.9	29.9	4.6	6.0	41.8	36.6	46.0	4.2	9.4
10.	405.00	BB	40.0	42.0	16.2	30.0	5.1	6.0	37.3	39.3	46.0	8.7	6.7
11.	674.98	BB	33.3	36.0	20.6	29.9	6.9	6.0	36.9	39.6	46.0	9.1	6.4
12.	810.03	BB	32.3	33.8	20.8	29.9	7.7	6.0	36.9	38.4	46.0	9.1	7.6
13.	945.00	BB	29.9	31.2	22.5	28.9	8.6	6.0	38.1	39.4	46.0	7.9	6.6

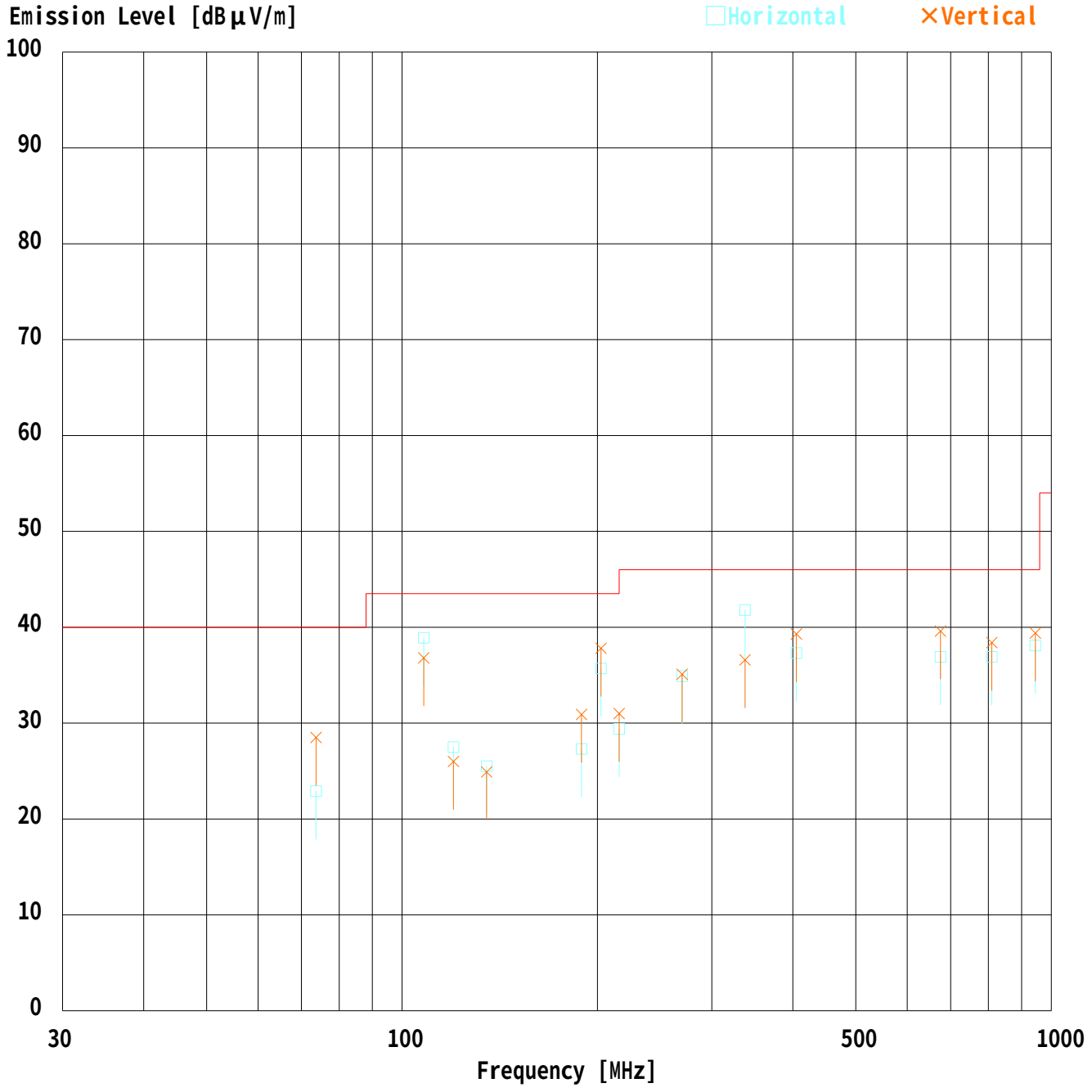
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 25dBmV		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **TV Reception + Rec**
Remarks : **25dBmV**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.02	BB	45.7	47.5	25.3	35.6	2.5	0.0	37.9	39.7	54.0	16.1	14.3
2.	1620.02	BB	41.1	42.8	28.2	35.0	3.0	0.0	37.3	39.0	54.0	16.7	15.0

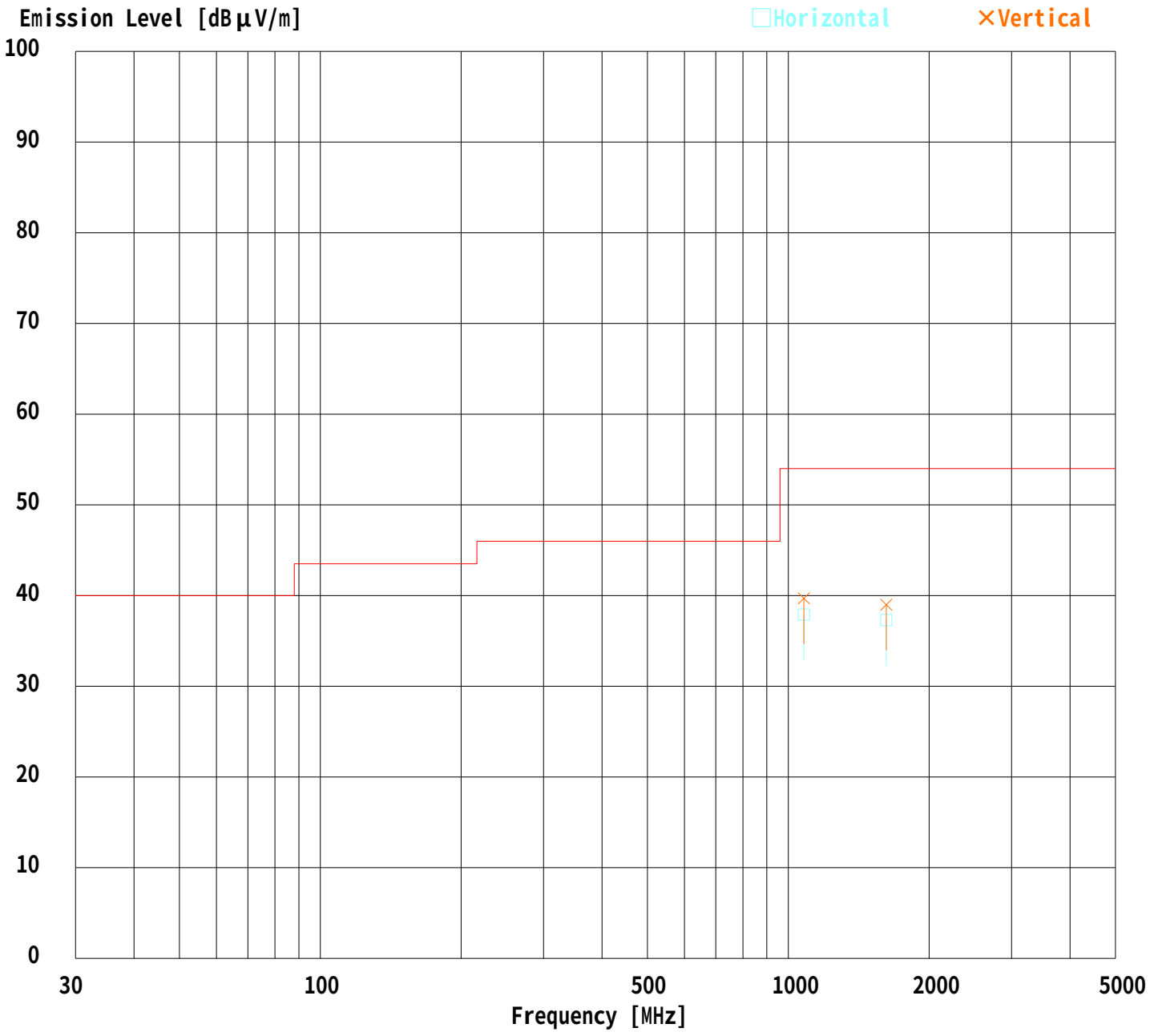
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 25dBmV		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Average Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **TV Reception + Rec**
Remarks : **25dBmV**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.02	BB	51.9	52.5	25.3	35.6	2.5	0.0	44.1	44.7	74.0	29.9	29.3
2.	1620.02	BB	49.7	50.5	28.2	35.0	3.0	0.0	45.9	46.7	74.0	28.1	27.3

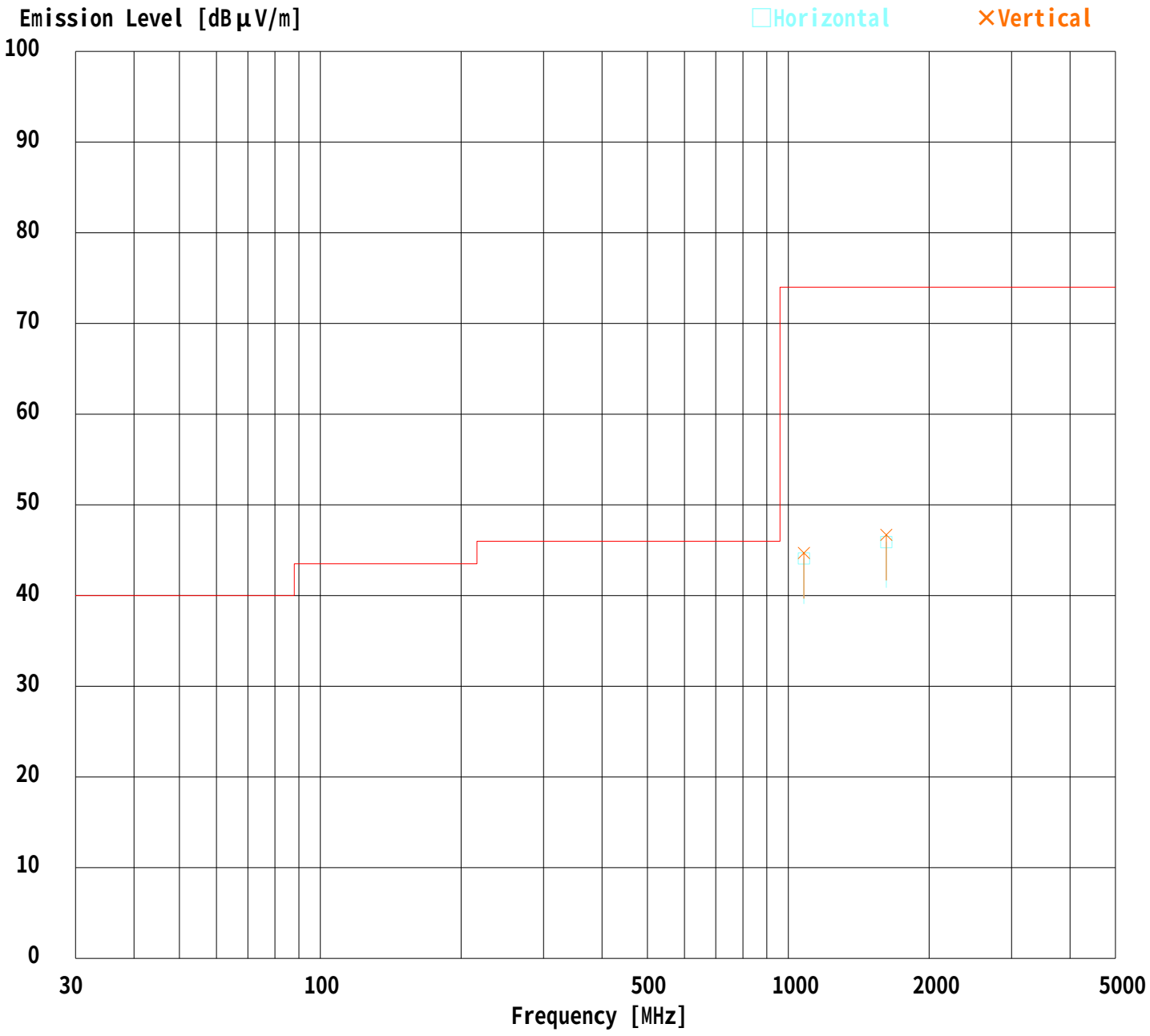
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: TV Reception + Rec		
Remarks	: 25dBmV		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Peak Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **AV Input + Rec**
Remarks : **1Vp-p**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	108.00	BB	47.8	49.7	11.7	29.7	2.4	5.9	38.1	40.0	43.5	5.4	3.5

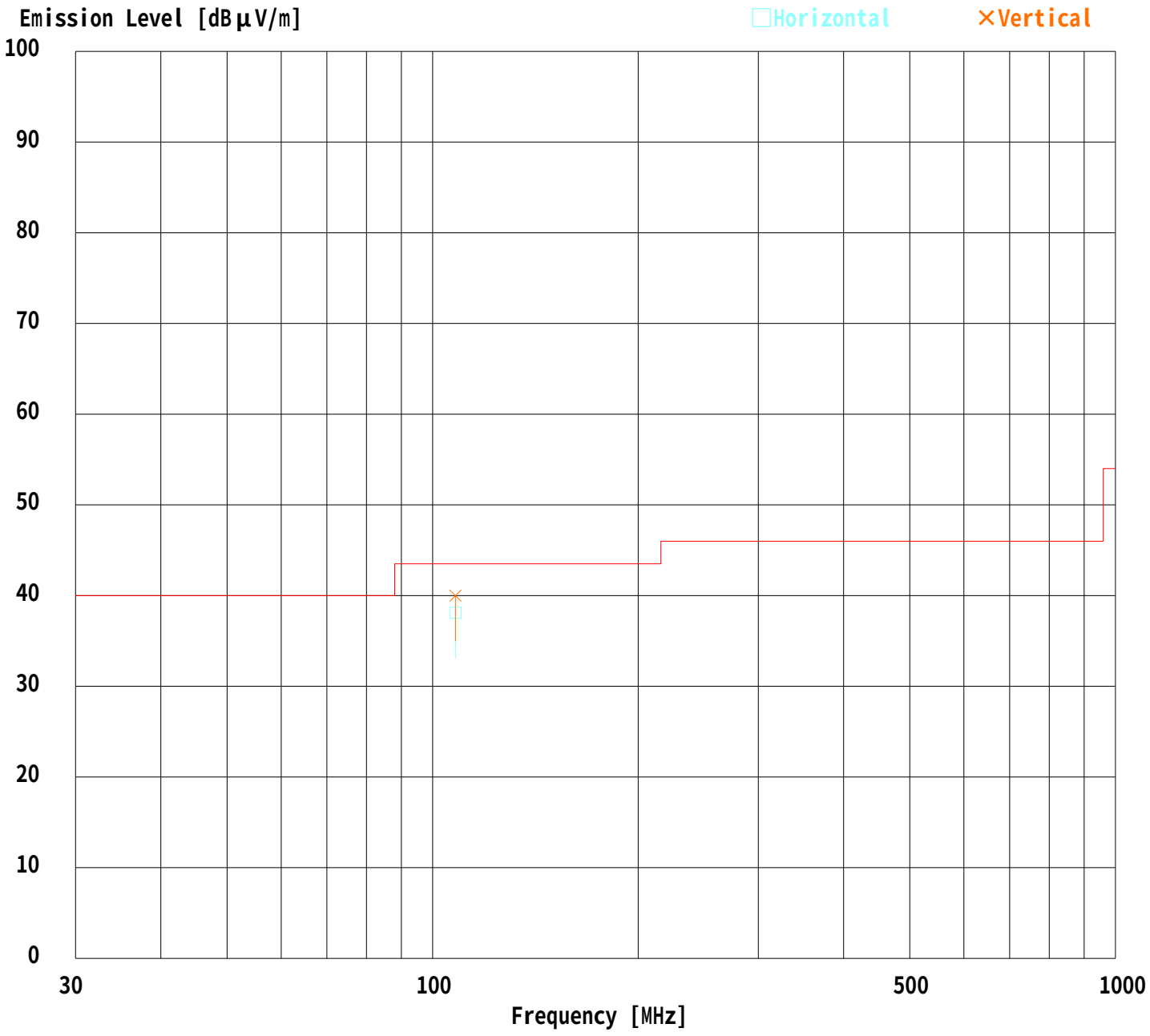
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 1Vp-p		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **AV Input + Rec**
Remarks : **5Vp-p**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	108.00	BB	48.0	50.0	11.7	29.7	2.4	5.9	38.3	40.3	43.5	5.2	3.2
2.	120.00	BB	34.2	34.0	13.4	29.7	2.5	5.9	26.3	26.1	43.5	17.2	17.4
3.	135.00	BB	31.8	32.2	14.5	29.8	2.6	5.9	25.0	25.4	43.5	18.5	18.1
4.	189.00	BB	31.2	31.8	16.9	29.9	3.2	5.9	27.3	27.9	43.5	16.2	15.6
5.	202.48	BB	38.0	36.7	17.0	29.9	3.3	5.9	34.3	33.0	43.5	9.2	10.5
6.	216.00	BB	32.0	31.9	17.0	29.9	3.5	5.9	28.5	28.4	43.5	15.0	15.1
7.	270.00	BB	36.5	36.8	18.1	29.9	4.0	6.0	34.7	35.0	46.0	11.3	11.0
8.	337.53	BB	44.9	41.3	14.9	29.9	4.6	6.0	40.5	36.9	46.0	5.5	9.1
9.	405.00	BB	38.7	39.7	16.2	30.0	5.1	6.0	36.0	37.0	46.0	10.0	9.0
10.	674.98	BB	35.6	35.6	20.6	29.9	6.9	6.0	39.2	39.2	46.0	6.8	6.8
11.	810.03	BB	31.1	33.9	20.8	29.9	7.7	6.0	35.7	38.5	46.0	10.3	7.5
12.	945.00	BB	29.9	31.3	22.5	28.9	8.6	6.0	38.1	39.5	46.0	7.9	6.5

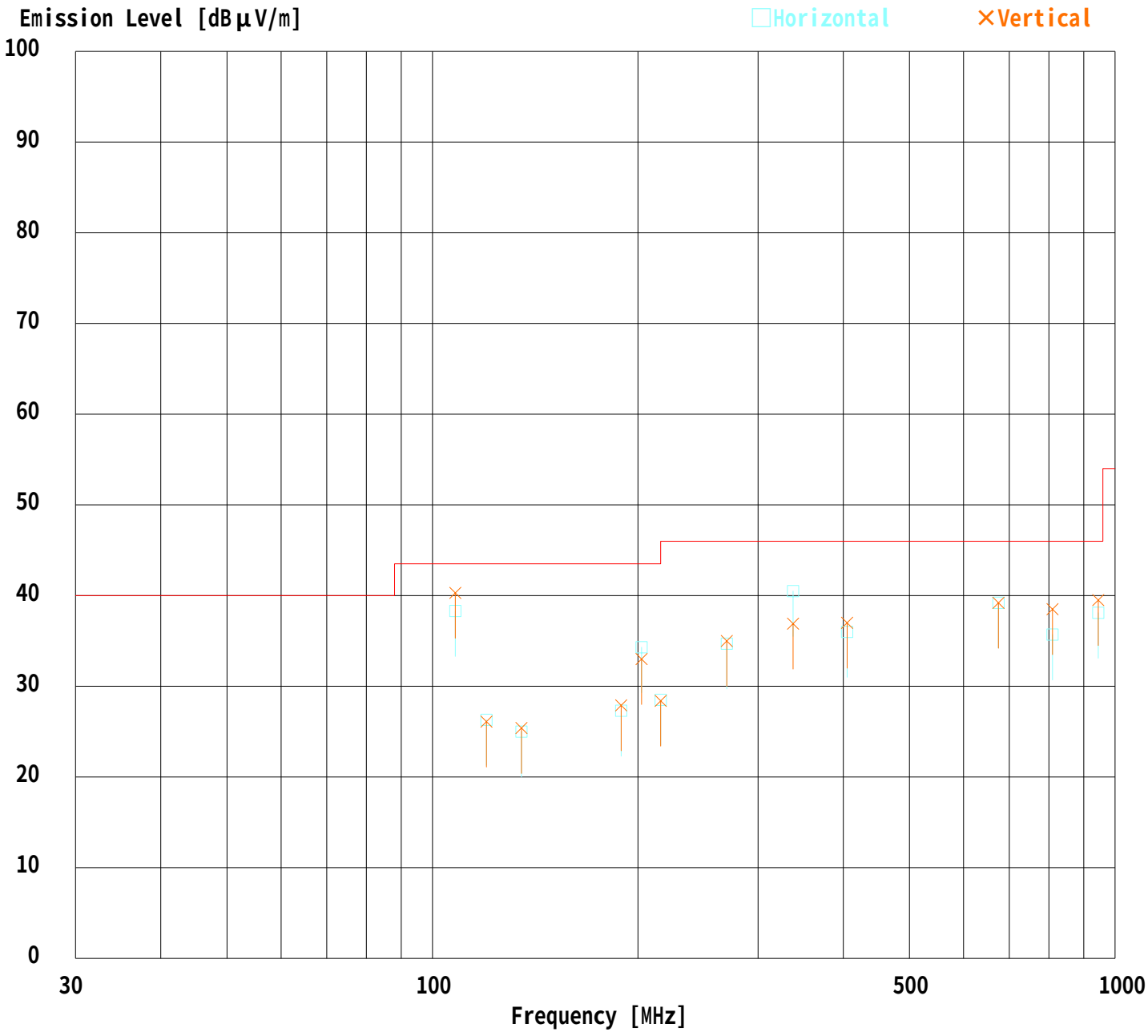
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 5Vp-p		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 °C	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **AV Input + Rec**
Remarks : **5V p-p**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.12	BB	44.7	46.7	25.3	35.6	2.5	0.0	36.9	38.9	54.0	17.1	15.1
2.	1620.02	BB	41.0	41.8	28.2	35.0	3.0	0.0	37.2	38.0	54.0	16.8	16.0

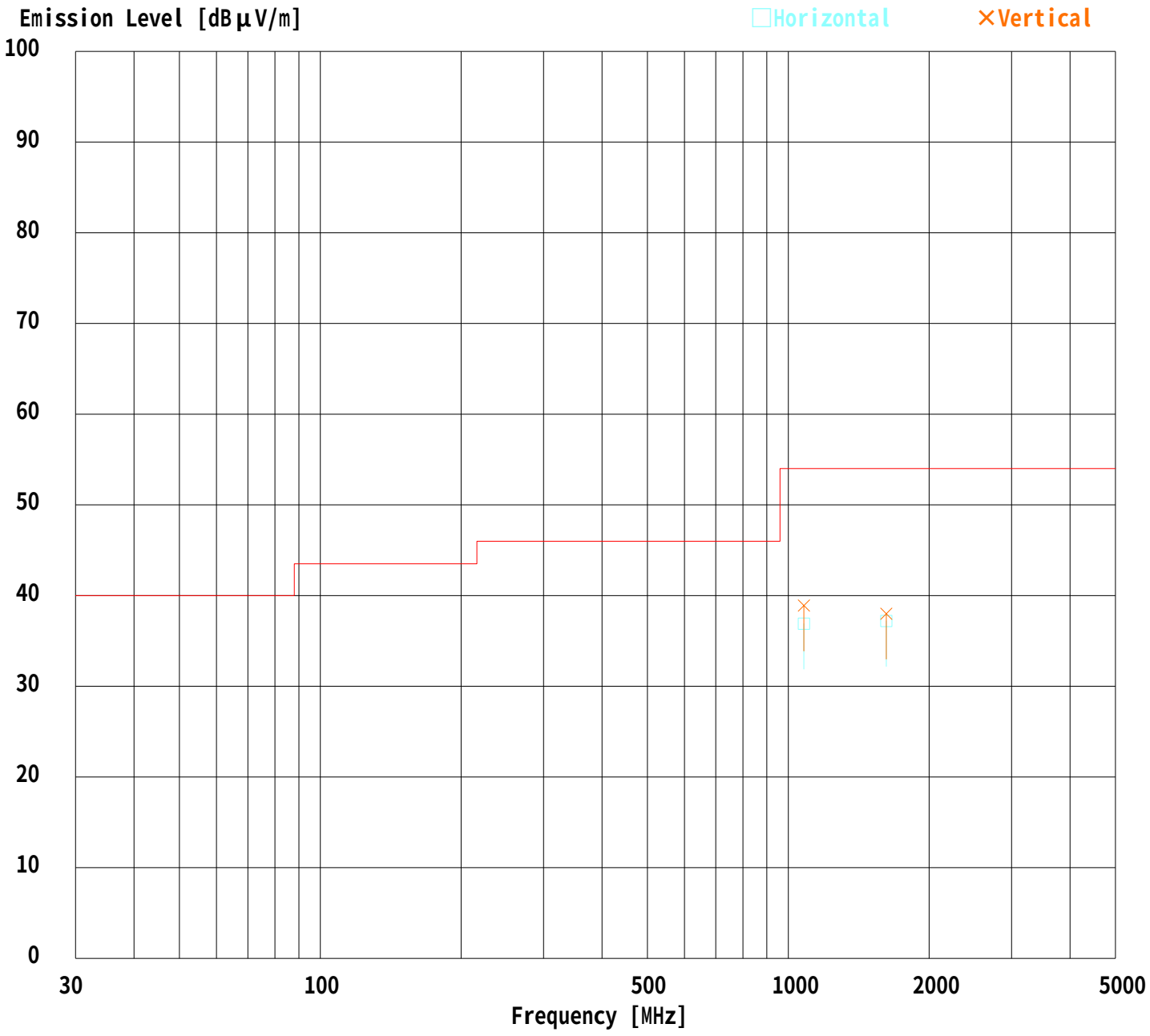
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 5V p-p		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Average Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **AV Input + Rec**
Remarks : **5Vp-p**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.01	BB	50.1	51.1	25.3	35.6	2.5	0.0	42.3	43.3	74.0	31.7	30.7
2.	1620.02	BB	49.2	50.3	28.2	35.0	3.0	0.0	45.4	46.5	74.0	28.6	27.5

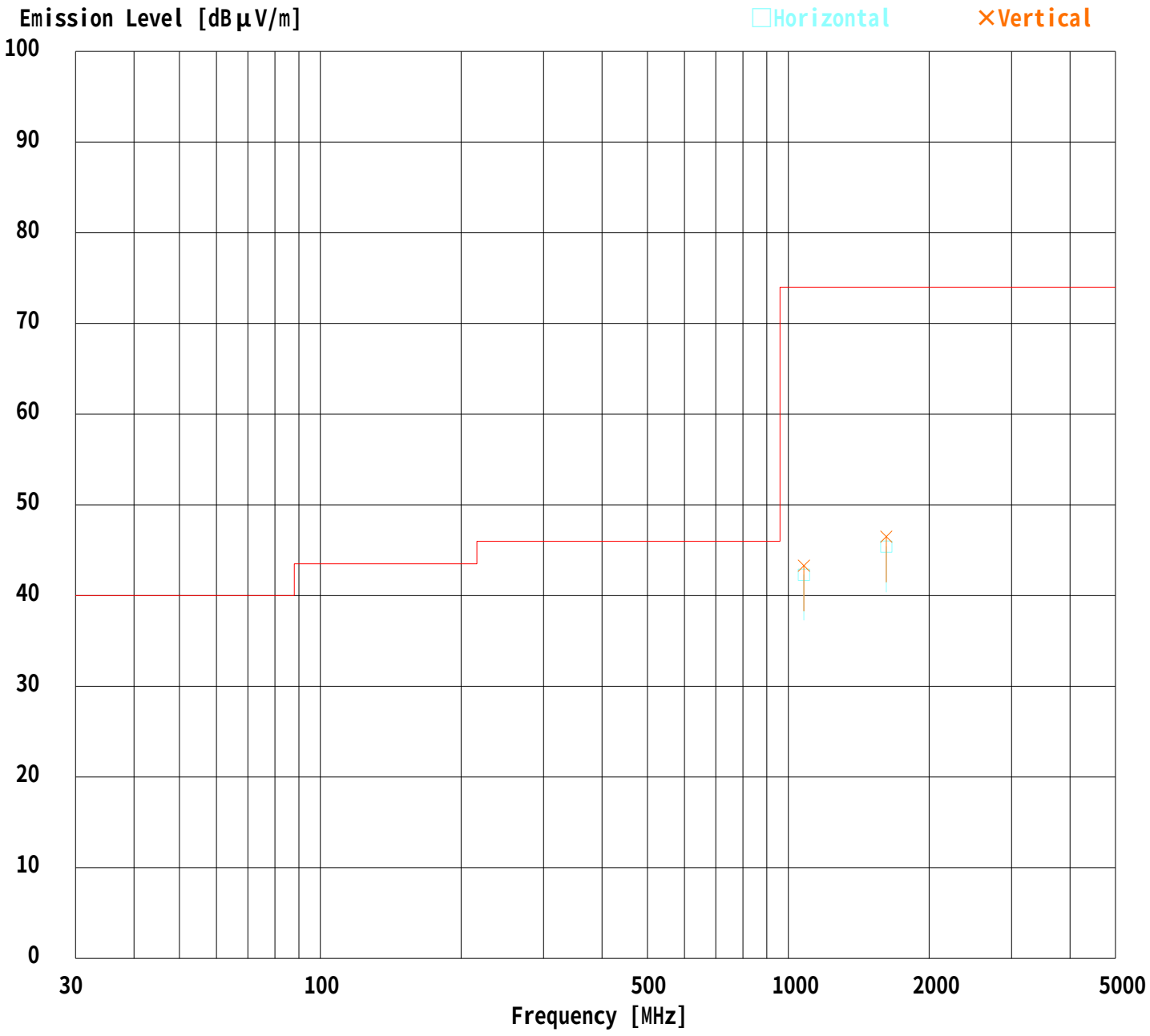
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: AV Input + Rec		
Remarks	: 5Vp-p		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Peak Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **VCR Playback**
Remarks : **-**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	108.00	BB	42.0	43.8	11.7	29.7	2.4	5.9	32.3	34.1	43.5	11.2	9.4
2.	110.57	BB	33.6	36.6	12.1	29.7	2.4	5.9	24.3	27.3	43.5	19.2	16.2
3.	135.00	BB	30.0	31.6	14.5	29.8	2.6	5.9	23.2	24.8	43.5	20.3	18.7
4.	202.50	BB	33.0	32.0	17.0	29.9	3.3	5.9	29.3	28.3	43.5	14.2	15.2
5.	216.00	BB	34.0	30.0	17.0	29.9	3.5	5.9	30.5	26.5	43.5	13.0	17.0
6.	270.00	BB	39.0	37.9	18.1	29.9	4.0	6.0	37.2	36.1	46.0	8.8	9.9
7.	337.53	BB	40.0	36.7	14.9	29.9	4.6	6.0	35.6	32.3	46.0	10.4	13.7
8.	405.00	BB	38.4	36.0	16.2	30.0	5.1	6.0	35.7	33.3	46.0	10.3	12.7
9.	675.00	BB	34.4	36.1	20.7	29.9	6.9	6.0	38.1	39.8	46.0	7.9	6.2
10.	810.00	BB	29.7	35.1	20.8	29.9	7.7	6.0	34.3	39.7	46.0	11.7	6.3
11.	945.00	BB	29.6	34.5	22.5	28.9	8.6	6.0	37.8	42.7	46.0	8.2	3.3

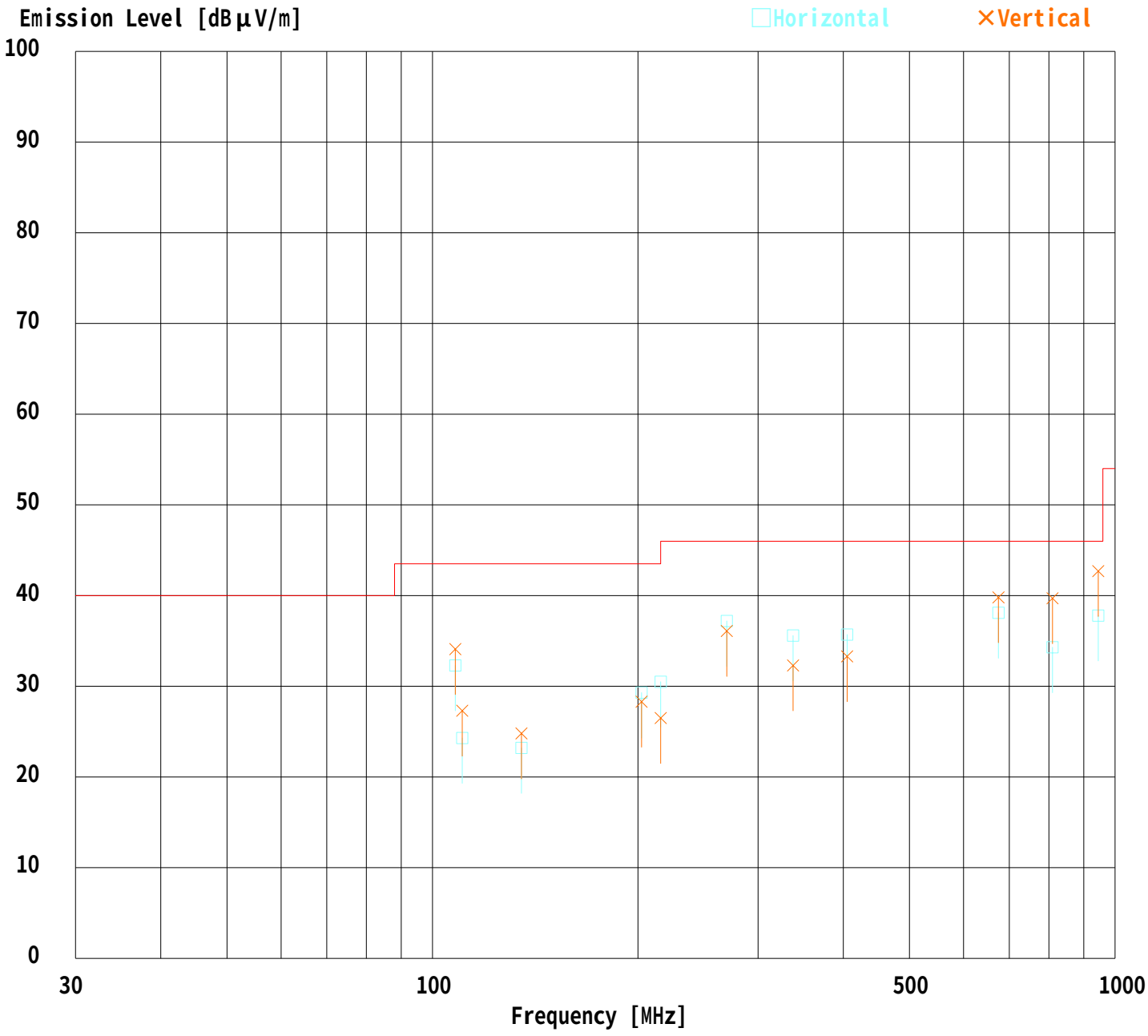
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	: -		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **VCR Playback**
Remarks : **-**
Date : **1/26/2005**
Test Distance : **m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.02	BB	45.7	47.3	25.3	35.6	2.5	0.0	37.9	39.5	54.0	16.1	14.5
2.	1620.02	BB	41.1	41.8	28.2	35.0	3.0	0.0	37.3	38.0	54.0	16.7	16.0

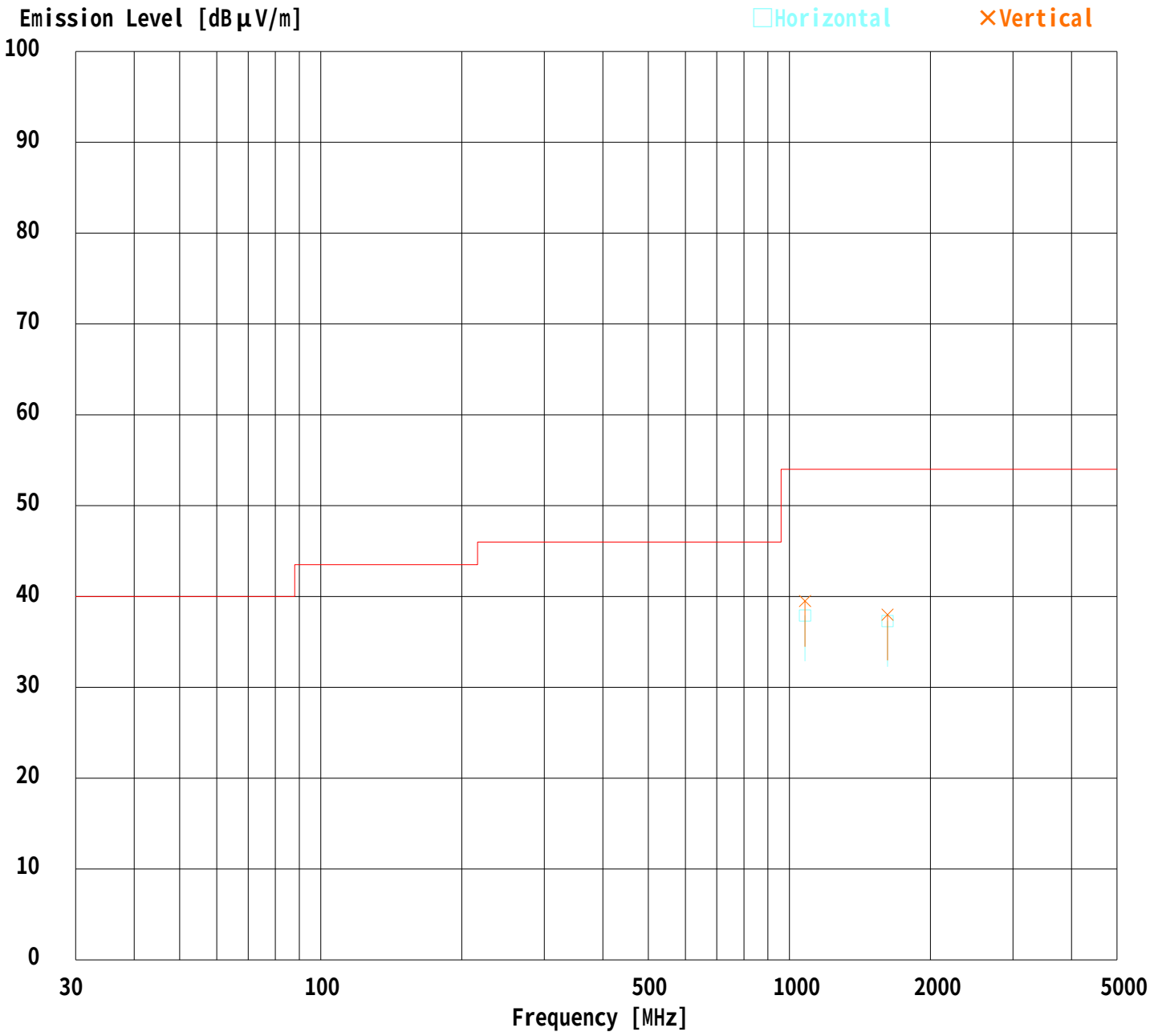
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	: -		
Date	: 1/26/2005		
Test Distance	: m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Average Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **VCR Playback**
Remarks : **-**
Date : **1/26/2005**
Test Distance : **m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.02	BB	51.2	51.5	25.3	35.6	2.5	0.0	43.4	43.7	74.0	30.6	30.3
2.	1620.02	BB	49.3	51.2	28.2	35.0	3.0	0.0	45.5	47.4	74.0	28.5	26.6

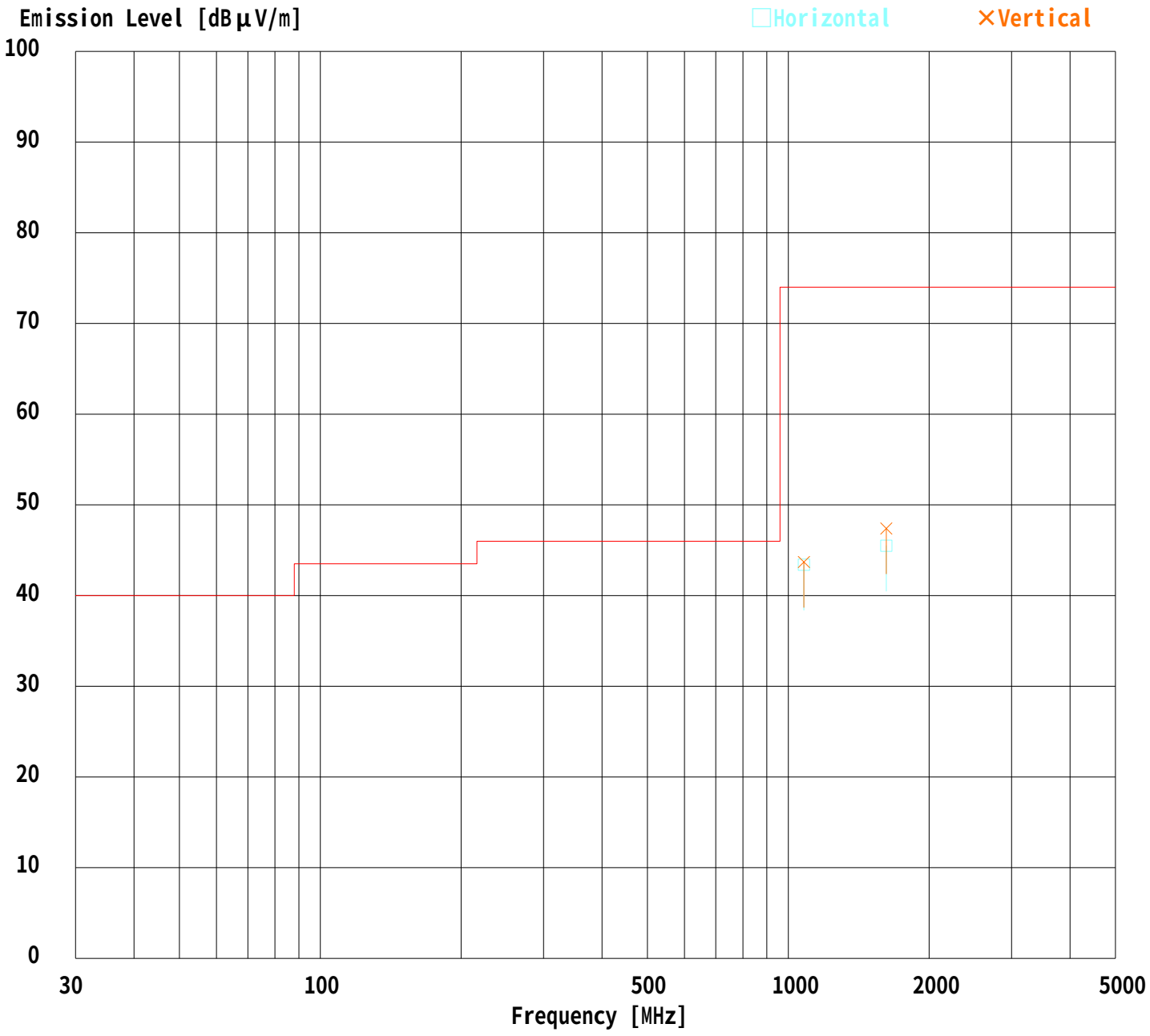
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: VCR Playback		
Remarks	: -		
Date	: 1/26/2005		
Test Distance	: m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Peak Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **DVD Play**
Remarks : **-**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	98.32	BB	37.7	34.5	10.3	29.7	2.3	5.9	26.5	23.3	43.5	17.0	20.2
2.	108.00	BB	38.4	46.4	11.7	29.7	2.4	5.9	28.7	36.7	43.5	14.8	6.8
3.	110.64	BB	32.6	38.8	12.1	29.7	2.4	5.9	23.3	29.5	43.5	20.2	14.0
4.	135.00	BB	28.0	35.6	14.5	29.8	2.6	5.9	21.2	28.8	43.5	22.3	14.7
5.	180.00	BB	29.8	33.0	16.8	29.9	3.1	5.9	25.7	28.9	43.5	17.8	14.6
6.	202.50	BB	38.7	33.3	17.0	29.9	3.3	5.9	35.0	29.6	43.5	8.5	13.9
7.	216.00	BB	32.6	31.9	17.0	29.9	3.5	5.9	29.1	28.4	43.5	14.4	15.1
8.	270.00	BB	42.3	40.0	18.1	29.9	4.0	6.0	40.5	38.2	46.0	5.5	7.8
9.	337.50	BB	42.2	45.1	14.9	29.9	4.6	6.0	37.8	40.7	46.0	8.2	5.3
10.	405.00	BB	37.6	37.8	16.2	30.0	5.1	6.0	34.9	35.1	46.0	11.1	10.9
11.	675.03	BB	32.7	35.4	20.7	29.9	6.9	6.0	36.4	39.1	46.0	9.6	6.9
12.	810.00	BB	31.1	36.5	20.8	29.9	7.7	6.0	35.7	41.1	46.0	10.3	4.9
13.	945.00	BB	30.1	35.7	22.5	28.9	8.6	6.0	38.3	43.9	46.0	7.7	2.1

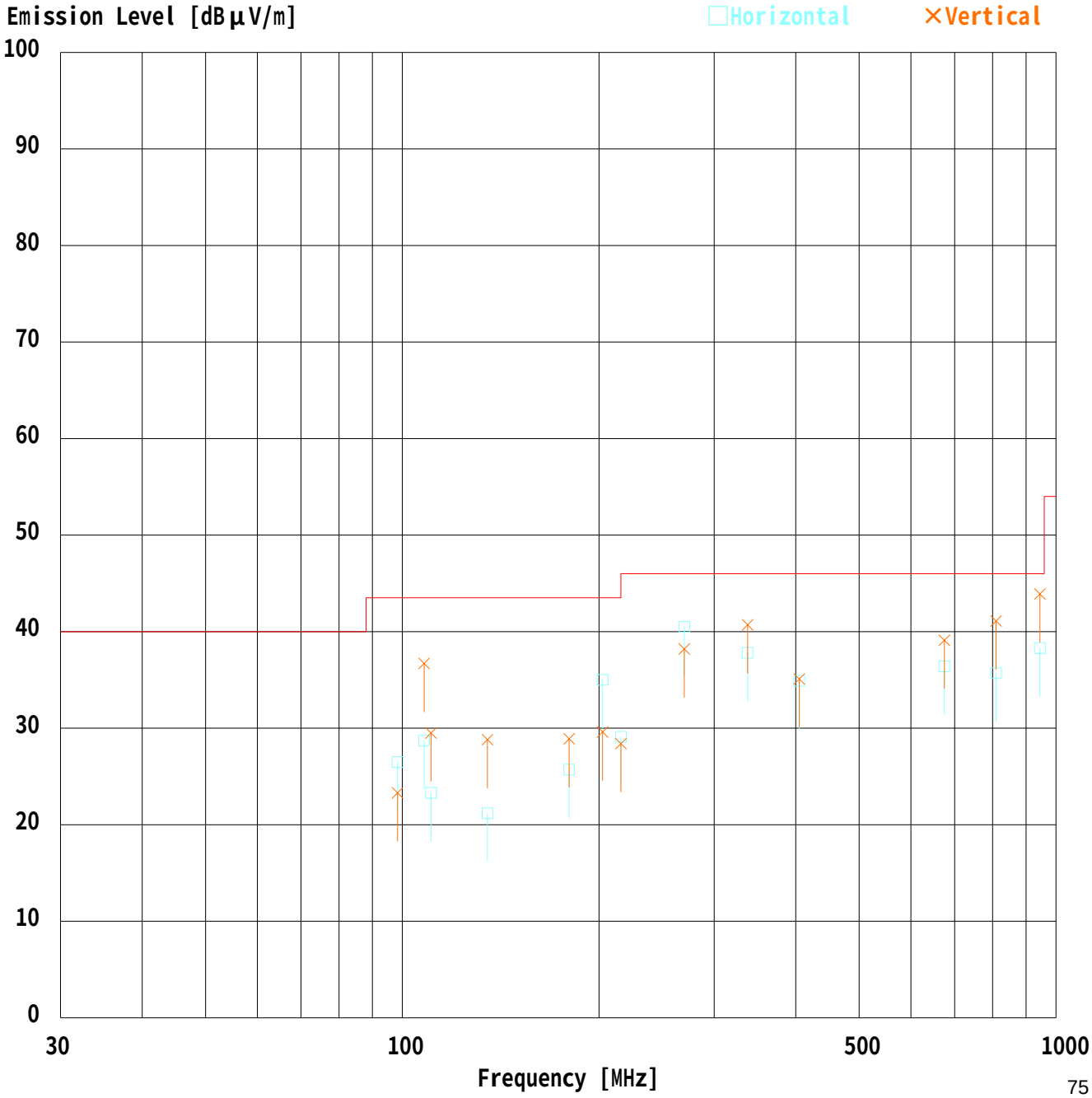
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	: -		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **DVD Play**
Remarks : **-**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.00	BB	46.7	48.4	25.3	35.6	2.5	0.0	38.9	40.6	54.0	15.1	13.4
2.	1215.11	BB	45.7	45.6	26.0	35.5	2.6	0.0	38.8	38.7	54.0	15.2	15.3
3.	1755.01	BB	43.7	45.7	29.1	34.9	3.1	0.0	41.0	43.0	54.0	13.0	11.0

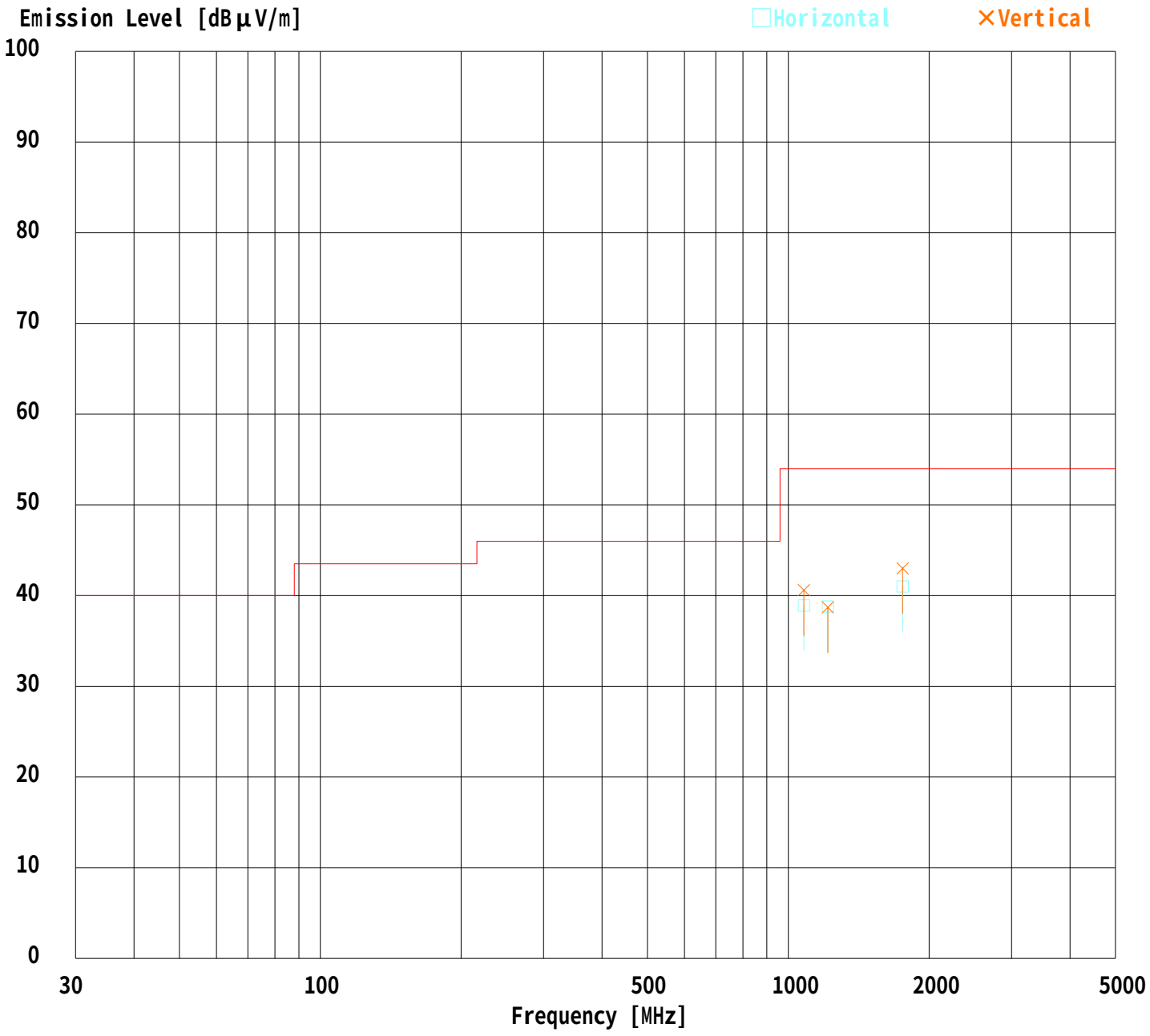
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	: -		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Average Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120V/60Hz**
Mode : **DVD Play**
Remarks : **-**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	1080.00	BB	52.0	53.2	25.3	35.6	2.5	0.0	44.2	45.4	74.0	29.8	28.6
2.	1215.11	BB	53.6	54.3	26.0	35.5	2.6	0.0	46.7	47.4	74.0	27.3	26.6
3.	1755.01	BB	50.5	50.6	29.1	34.9	3.1	0.0	47.8	47.9	74.0	26.2	26.1

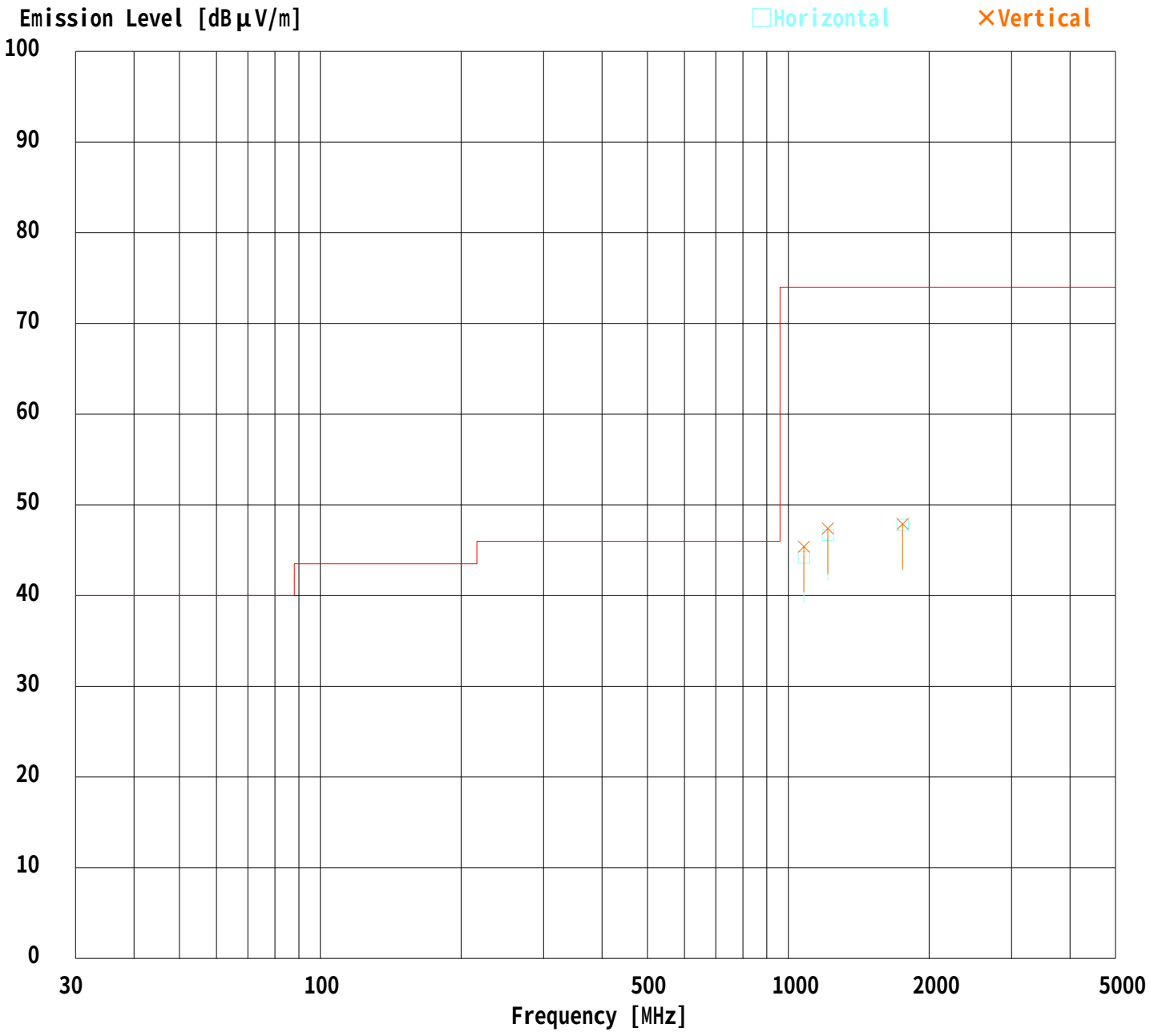
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120V/60Hz		
Mode	: DVD Play		
Remarks	: -		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 21 ℃	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B(Peak Limit / Upper1GHz)		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : **Orion Electric Co., Ltd.**
Kind of Equipment : **DVD/VCR**
Model No. : **MVD4541**
Serial No. : **-**
Power : **AC120/60Hz**
Mode : **DVD Play**
Remarks : **Test Channel #3**
Date : **1/26/2005**
Test Distance : **3 m**
Temperature : **21 ℃** **Engineer : Tsubasa Takayama**
Humidity : **41 %**
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.	61.25	BB	26.7	28.3	8.4	29.8	1.8	5.9	13.0	14.6	40.0	27.0	25.4
2.	65.75	BB	27.0	25.1	7.6	29.8	1.9	5.9	12.6	10.7	40.0	27.4	29.3
3.	122.50	BB	24.1	24.4	13.6	29.7	2.5	5.9	16.4	16.7	43.5	27.1	26.8
4.	245.00	BB	23.0	23.0	17.1	29.9	3.7	5.9	19.8	19.8	46.0	26.2	26.2

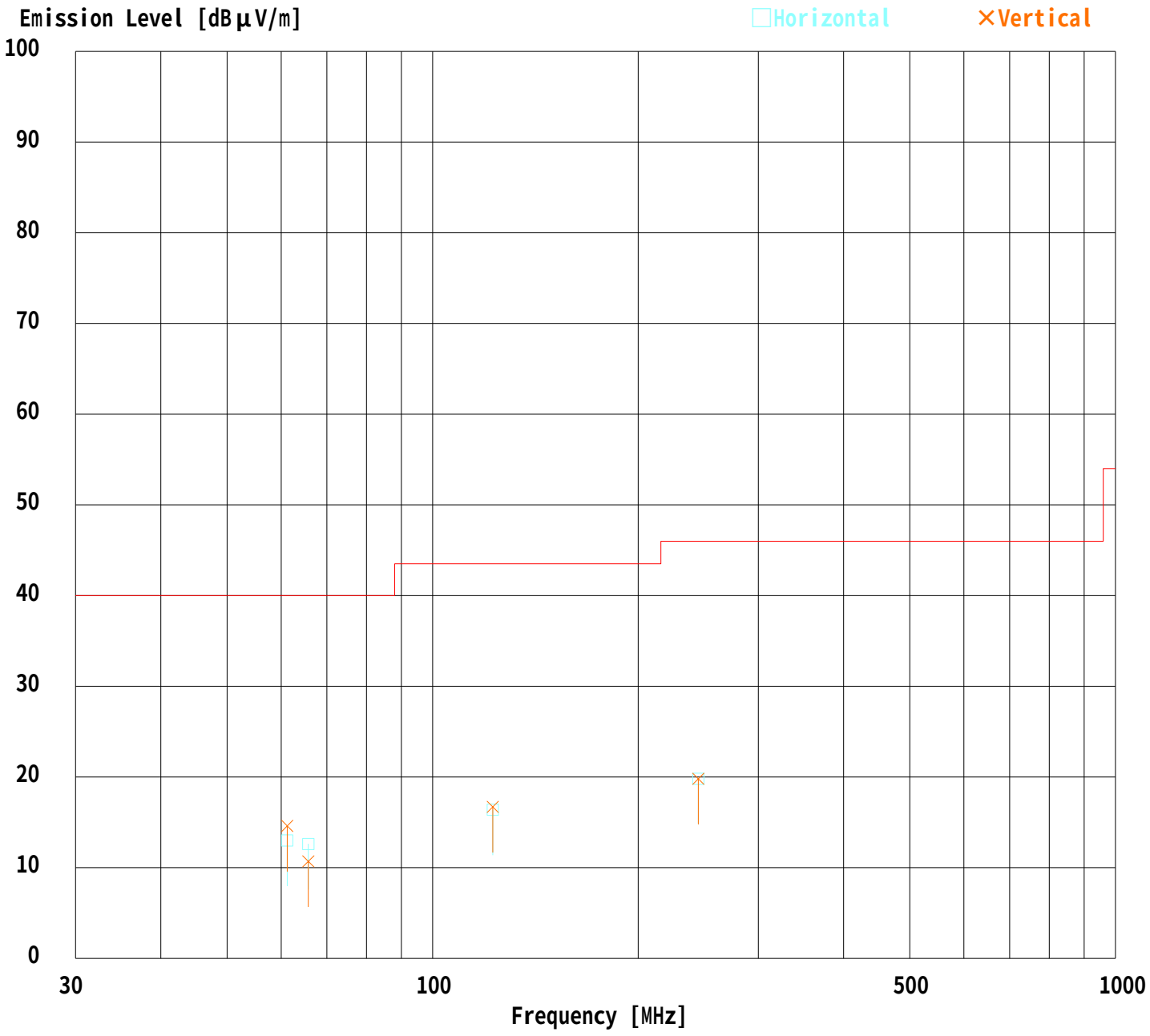
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120/60Hz		
Mode	: DVD Play		
Remarks	: Test Channel #3		
Date	: 1/26/2004		
Test Distance	: 3 m		
Temperature	: 21 °C	Engineer	: Tsubasa Takayama
Humidity	: 41 %		
Regulation	: FCC Part15B CLASS B		



DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : MVD4541
Serial No. : -
Power : AC120/60Hz
Mode : DVD Play
Remarks : Test Channel #4
Date : 1/26/2005
Test Distance : 3 m
Temperature : 23 ℃ **Engineer : Tsubasa Takayama**
Humidity : 58 %
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	26.1	26.0	7.4	29.8	1.9	5.9	11.5	11.4	40.0	28.5	28.6
2.	71.75	BB	24.5	24.1	6.9	29.8	2.0	5.9	9.5	9.1	40.0	30.5	30.9
3.	134.50	BB	22.8	24.5	14.5	29.8	2.6	5.9	16.0	17.7	43.5	27.5	25.8
4.	201.75	BB	23.0	22.8	17.0	29.9	3.3	5.9	19.3	19.1	43.5	24.2	24.4

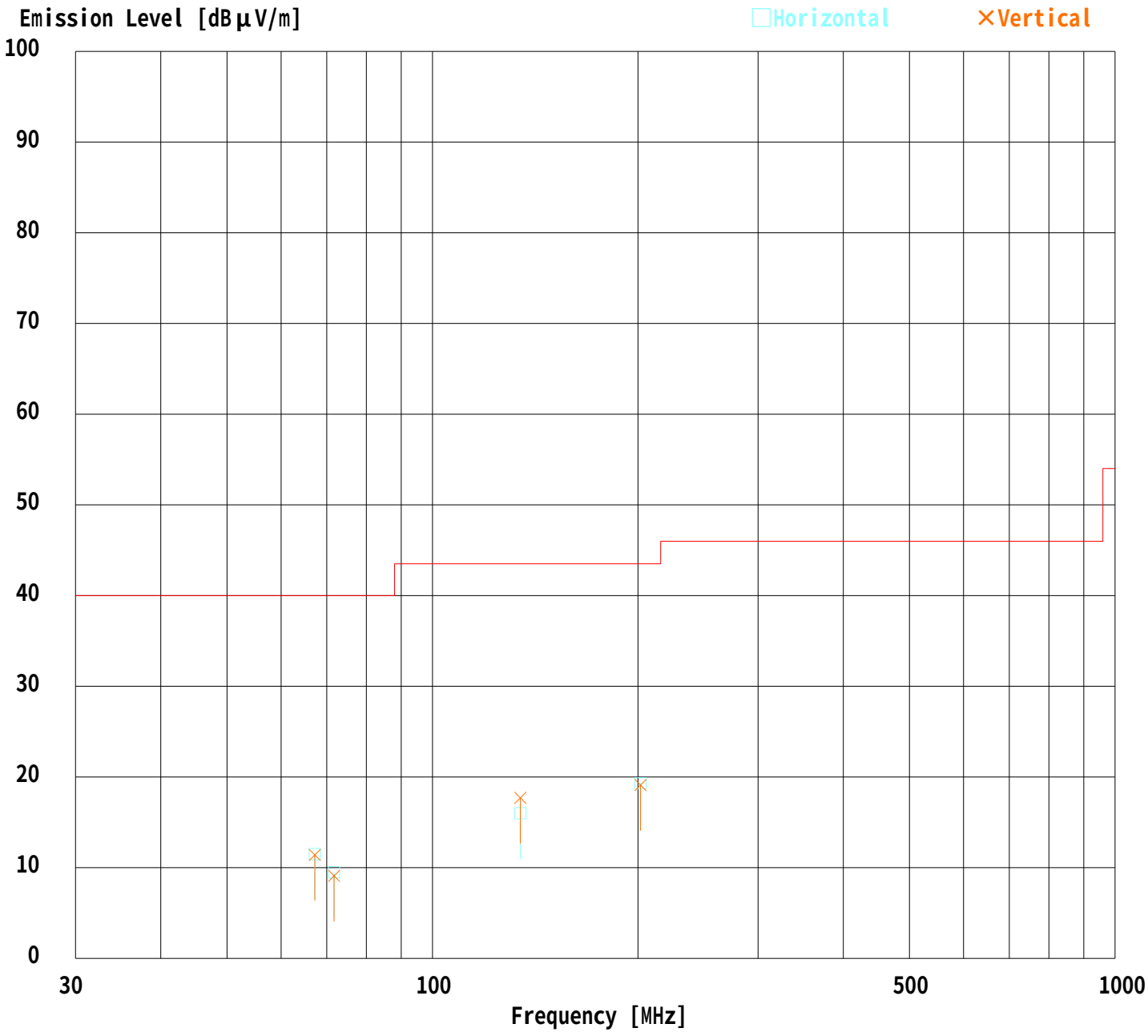
CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

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

DATA OF RADIATION TEST

UL Apex Co., Ltd.
YOKOWA No.2 OPEN TEST SITE
Report No.: 25FE0207-YW-1

Applicant	: Orion Electric Co., Ltd.		
Kind of Equipment	: DVD/VCR		
Model No.	: MVD4541		
Serial No.	: -		
Power	: AC120/60Hz		
Mode	: DVD Play		
Remarks	: Test Channel #4		
Date	: 1/26/2005		
Test Distance	: 3 m		
Temperature	: 23 °C	Engineer	: Tsubasa Takayama
Humidity	: 58 %		
Regulation	: FCC Part15B CLASS B		



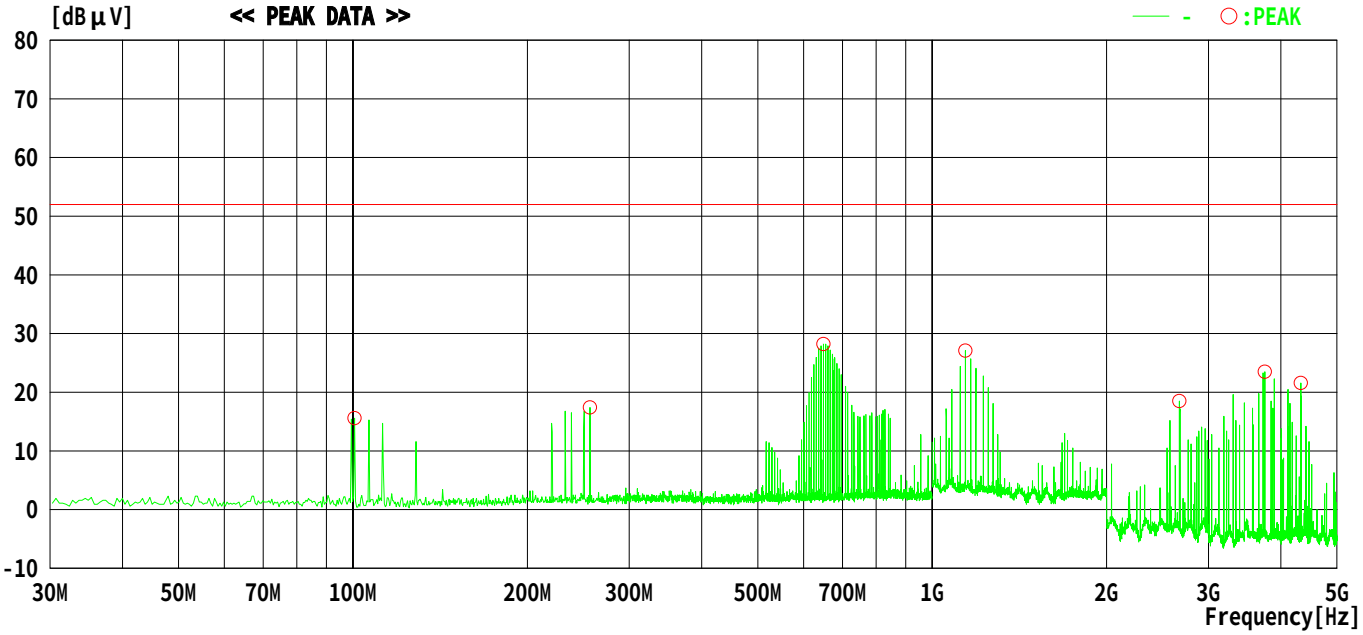
DATA OF ANTENNA TERMINAL TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co.,Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 28,2005
MODEL	: MVD4541	REGULATION	: FCC 15B SubpartB
OPERATION MODE	: TV Tuning mode	TEST ENGINEER	: Tsubasa Takayama

TEMP./HUMID. : 26°C/68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING Peak [dBµV]	C.F [dB]	RESULT Peak [dBµV]	LIMIT Peak [dBµV]	LIMIT - [dBµV]	MARGIN [dB]	MARGIN [dB]	PHASE
1	100.66400	36.2	-20.6	15.6	52.0	----	36.4	----	-
2	256.59350	37.0	-19.6	17.4	52.0	----	34.6	----	-
3	648.85260	48.5	-20.3	28.2	52.0	----	23.8	----	-
4	1141.42000	53.2	-26.1	27.1	52.0	----	24.9	----	-
5	2671.38400	50.8	-32.3	18.5	52.0	----	33.5	----	-
6	3752.80200	56.2	-32.7	23.5	52.0	----	28.5	----	-
7	4330.01600	54.2	-32.6	21.6	52.0	----	30.4	----	-

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

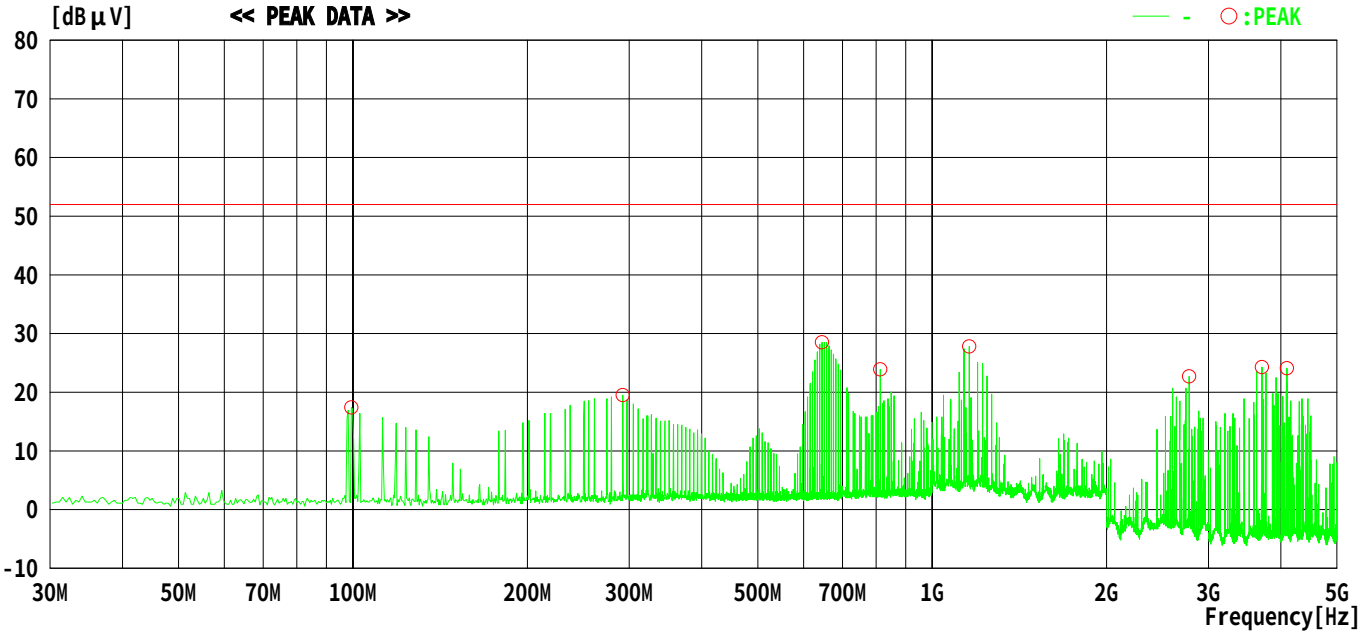
DATA OF ANTENNA TERMINAL TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co.,Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 28,2005
MODEL	: MVD4541	REGULATION	: FCC 15B SubpartB
OPERATION MODE	: CATV Tuning mode	TEST ENGINEER	: Tsubasa Takayama

TEMP./HUMID. : 26°C/68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING Peak [dBµV]	C.F [dB]	RESULT Peak [dBµV]	LIMIT Peak [dBµV]	LIMIT - [dBµV]	MARGIN [dB]	MARGIN [dB]	PHASE
1	99.39970	38.0	-20.6	17.4	52.0	----	34.6	----	-
2	292.41390	39.0	-19.5	19.5	52.0	----	32.5	----	-
3	645.70980	48.8	-20.3	28.5	52.0	----	23.5	----	-
4	813.57600	43.8	-19.9	23.9	52.0	----	28.1	----	-
5	1159.27600	53.8	-26.0	27.8	52.0	----	24.2	----	-
6	2778.51900	55.0	-32.3	22.7	52.0	----	29.3	----	-
7	3711.37600	57.0	-32.7	24.3	52.0	----	27.7	----	-
8	4097.13600	56.8	-32.7	24.1	52.0	----	27.9	----	-

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

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	25FE0207-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	MVD4541	Date	:	January 29, 2005
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	22℃/51%
Description	:	TV Reception + Rec(0dBmV)	Engineer	:	Tsubasa Takayama

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.3	20.9	63.4	69.5	6.2
4	67.25	83.5	20.7	62.8	69.5	6.7

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.7	20.9	48.8	56.5	7.7
	65.75	68.5	20.8	47.7	56.5	8.8
4	62.75	69.3	20.9	48.4	56.5	8.1
	71.75	68.0	20.7	47.3	56.5	9.2

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	25FE0207-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	MVD4541	Date	:	January 29, 2005
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	22℃/51%
Description	:	TV Reception + Rec(25dBmV)	Engineer	:	Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.5	20.9	63.6	69.5	5.9
4	67.25	83.6	20.7	62.9	69.5	6.6

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.7	20.9	48.8	56.5	7.7
	65.75	68.5	20.8	47.7	56.5	8.8
4	62.75	69.2	20.9	48.3	56.5	8.2
	71.75	67.9	20.7	47.2	56.5	9.3

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	25FE0207-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	MVD4541	Date	:	January 29, 2005
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	22℃/51%
Description	:	AV Input + Rec(1Vp-p)	Engineer	:	Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.3	20.9	63.4	69.5	6.1
4	67.25	83.7	20.7	63.0	69.5	6.5

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	70.4	20.9	49.5	56.5	7.0
	65.75	69.1	20.8	48.3	56.5	8.2
4	62.75	68.9	20.9	48.0	56.5	8.5
	71.75	67.6	20.7	46.9	56.5	9.6

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	25FE0207-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	MVD4541	Date	:	January 29, 2005
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	22℃/51%
Description	:	AV Input + Rec(5Vp-p)	Engineer	:	Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.1	20.9	63.2	69.5	6.3
4	67.25	84.4	20.7	63.7	69.5	5.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.8	20.9	48.9	56.5	7.6
	65.75	68.5	20.8	47.7	56.5	8.8
4	62.75	68.7	20.9	47.8	56.5	8.7
	71.75	67.4	20.7	46.7	56.5	9.8

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	25FE0207-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	MVD4541	Date	:	January 29, 2005
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	22℃/51%
Description	:	VCR Playback	Engineer	:	Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.5	20.9	63.6	69.5	5.9
4	67.25	83.0	20.7	62.3	69.5	7.2

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.5	20.9	48.6	56.5	7.9
	65.75	68.3	20.8	47.5	56.5	9.0
4	62.75	68.3	20.9	47.4	56.5	9.1
	71.75	67.2	20.7	46.5	56.5	10.0

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	:	Orion Electric Co.,Ltd.	Report Number	:	25FE0207-YW-1
Equipment	:	DVD/VCR	Regulation	:	FCC Prat15B Subpart B
Model number	:	MVD4541	Date	:	January 29, 2005
Power	:	AC 120 V / 60 Hz	Temp./Humid	:	22℃/51%
Description	:	DVD Play	Engineer	:	Tsubasa Takayama

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.3	20.9	63.4	69.5	6.1
4	67.25	83.6	20.7	62.9	69.5	6.6

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	70.5	20.9	49.6	56.5	6.9
	65.75	69.2	20.8	48.4	56.5	8.1
4	62.75	69.5	20.9	48.6	56.5	7.9
	71.75	68.7	20.7	48.0	56.5	8.5

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	47.8600	32.2	----	-20.9	11.3	----	39.5	----	28.2	----	-
2	74.8400	29.8	----	-20.7	9.1	----	39.5	----	30.4	----	-
3	122.6400	35.9	----	-20.5	15.4	----	39.5	----	24.1	----	-
4	489.7000	27.5	----	-20.3	7.2	----	39.5	----	32.3	----	-
5	612.3000	31.8	----	-20.3	11.5	----	39.5	----	28.0	----	-
6	944.7000	36.5	----	-19.5	17.0	----	39.5	----	22.5	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	47.8600	32.5	----	-20.9	11.6	----	39.5	----	27.9	----	-
2	74.8400	30.1	----	-20.7	9.4	----	39.5	----	30.1	----	-
3	122.6400	36.5	----	-20.5	16.0	----	39.5	----	23.5	----	-
4	489.7000	28.9	----	-20.3	8.6	----	39.5	----	30.9	----	-
5	612.3000	31.3	----	-20.3	11.0	----	39.5	----	28.5	----	-
6	944.7000	36.7	----	-19.5	17.2	----	39.5	----	22.3	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	47.8600	32.5	----	-20.9	11.6	----	39.5	----	27.9	----	-
2	74.8400	29.8	----	-20.7	9.1	----	39.5	----	30.4	----	-
3	122.6400	35.5	----	-20.5	15.0	----	39.5	----	24.5	----	-
4	489.7000	27.8	----	-20.3	7.5	----	39.5	----	32.0	----	-
5	612.3000	31.4	----	-20.3	11.1	----	39.5	----	28.4	----	-
6	809.7000	35.8	----	-19.9	15.9	----	39.5	----	23.6	----	-
7	944.7000	36.6	----	-19.5	17.1	----	39.5	----	22.4	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : AV Input+Rec.(5Vp-p) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	47.8600	32.7	----	-20.9	11.8	----	39.5	----	27.7	----	-
2	74.8400	29.6	----	-20.7	8.9	----	39.5	----	30.6	----	-
3	122.6400	35.8	----	-20.5	15.3	----	39.5	----	24.2	----	-
4	489.7000	28.6	----	-20.3	8.3	----	39.5	----	31.2	----	-
5	612.3000	30.8	----	-20.3	10.5	----	39.5	----	29.0	----	-
6	809.7000	34.3	----	-19.9	14.4	----	39.5	----	25.1	----	-
7	944.7000	36.8	----	-19.5	17.3	----	39.5	----	22.2	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	47.8600	32.0	----	-20.9	11.1	----	39.5	----	28.4	----	-
2	74.8400	29.8	----	-20.7	9.1	----	39.5	----	30.4	----	-
3	122.6400	35.9	----	-20.5	15.4	----	39.5	----	24.1	----	-
4	489.7000	28.3	----	-20.3	8.0	----	39.5	----	31.5	----	-
5	612.3000	31.0	----	-20.3	10.7	----	39.5	----	28.8	----	-
6	809.7000	35.0	----	-19.9	15.1	----	39.5	----	24.4	----	-
7	944.7000	36.1	----	-19.5	16.6	----	39.5	----	22.9	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD Play : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	47.8600	32.4	----	-20.9	11.5	----	39.5	----	28.0	----	-
2	74.8400	29.2	----	-20.7	8.5	----	39.5	----	31.0	----	-
3	122.6400	35.9	----	-20.5	15.4	----	39.5	----	24.1	----	-
4	489.7000	28.7	----	-20.3	8.4	----	39.5	----	31.1	----	-
5	612.3000	31.0	----	-20.3	10.7	----	39.5	----	28.8	----	-
6	809.7000	36.3	----	-19.9	16.4	----	39.5	----	23.1	----	-
7	944.7000	36.0	----	-19.5	16.5	----	39.5	----	23.0	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	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
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	53.7900	32.3	----	-20.9	11.4	----	39.5	----	28.1	----	-
2	80.7400	28.4	----	-20.6	7.8	----	39.5	----	31.7	----	-
3	134.6400	33.2	----	-20.4	12.8	----	39.5	----	26.7	----	-
4	403.1000	26.7	----	-20.0	6.7	----	39.5	----	32.8	----	-
5	672.3000	31.3	----	-20.3	11.0	----	39.5	----	28.5	----	-
6	809.7000	33.6	----	-19.9	13.7	----	39.5	----	25.8	----	-
7	944.7000	34.4	----	-19.5	14.9	----	39.5	----	24.6	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	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
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	53.7900	31.7	----	-20.9	10.8	----	39.5	----	28.7	----	-
2	80.7400	28.1	----	-20.6	7.5	----	39.5	----	32.0	----	-
3	134.6400	32.6	----	-20.4	12.2	----	39.5	----	27.3	----	-
4	403.1000	25.7	----	-20.0	5.7	----	39.5	----	33.8	----	-
5	672.3000	31.5	----	-20.3	11.2	----	39.5	----	28.3	----	-
6	809.7000	35.4	----	-19.9	15.5	----	39.5	----	24.0	----	-
7	944.7000	34.0	----	-19.5	14.5	----	39.5	----	25.0	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	53.7900	32.0	----	-20.9	11.1	----	39.5	----	28.4	----	-
2	80.7400	28.5	----	-20.6	7.9	----	39.5	----	31.6	----	-
3	134.6400	32.5	----	-20.4	12.1	----	39.5	----	27.4	----	-
4	459.7000	26.0	----	-20.1	5.9	----	39.5	----	33.6	----	-
5	672.3000	31.2	----	-20.3	10.9	----	39.5	----	28.6	----	-
6	846.1000	42.8	----	-19.9	22.9	----	39.5	----	16.6	----	-
7	944.7000	34.3	----	-19.5	14.8	----	39.5	----	24.7	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

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

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	53.7900	32.2	----	-20.9	11.3	----	39.5	----	28.2	----	-
2	80.7400	28.1	----	-20.6	7.5	----	39.5	----	32.0	----	-
3	134.6400	32.6	----	-20.4	12.2	----	39.5	----	27.3	----	-
4	403.1000	26.3	----	-20.0	6.3	----	39.5	----	33.2	----	-
5	672.3000	31.3	----	-20.3	11.0	----	39.5	----	28.5	----	-
6	846.1000	42.8	----	-19.9	22.9	----	39.5	----	16.6	----	-
7	944.7000	34.2	----	-19.5	14.7	----	39.5	----	24.8	----	-

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

DATA OF RF SUPRIOUS TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	53.7900	32.1	----	-20.9	11.2	----	39.5	----	28.3	----	-
2	80.7400	28.2	----	-20.6	7.6	----	39.5	----	31.9	----	-
3	134.6400	33.0	----	-20.4	12.6	----	39.5	----	26.9	----	-
4	459.7000	26.5	----	-20.1	6.4	----	39.5	----	33.1	----	-
5	672.3000	31.8	----	-20.3	11.5	----	39.5	----	28.0	----	-
6	809.7000	35.2	----	-19.9	15.3	----	39.5	----	24.2	----	-
7	944.7000	34.3	----	-19.5	14.8	----	39.5	----	24.7	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 22°C/51%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD Play : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	53.7900	32.2	----	-20.9	11.3	----	39.5	----	28.2	----	-
2	80.7400	28.0	----	-20.6	7.4	----	39.5	----	32.1	----	-
3	134.6400	33.3	----	-20.4	12.9	----	39.5	----	26.6	----	-
4	479.7000	25.3	----	-20.3	5.0	----	39.5	----	34.5	----	-
5	672.3000	31.0	----	-20.3	10.7	----	39.5	----	28.8	----	-
6	809.7000	35.4	----	-19.9	15.5	----	39.5	----	24.0	----	-
7	944.7000	35.3	----	-19.5	15.8	----	39.5	----	23.7	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : AV Input 1Vp-p: 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	61.2500	23.7	----	-20.9	2.8	----	9.5	----	6.7	----	-
2	122.5000	21.9	----	-20.5	1.4	----	9.5	----	8.1	----	-
3	183.7500	20.0	----	-20.0	0.0	----	9.5	----	9.5	----	-
4	245.0000	20.0	----	-19.7	0.3	----	9.5	----	9.2	----	-
5	306.2500	19.5	----	-19.5	0.0	----	9.5	----	9.5	----	-
6	367.5000	19.6	----	-19.7	-0.1	----	9.5	----	9.6	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : AV Input 5Vp-p: 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	61.2500	23.7	----	-20.9	2.8	----	9.5	----	6.7	----	-
2	122.5000	22.5	----	-20.5	2.0	----	9.5	----	7.5	----	-
3	183.7500	20.5	----	-20.0	0.5	----	9.5	----	9.0	----	-
4	245.0000	19.9	----	-19.7	0.2	----	9.5	----	9.3	----	-
5	306.2500	21.0	----	-19.5	1.5	----	9.5	----	8.0	----	-
6	367.5000	20.9	----	-19.7	1.2	----	9.5	----	8.3	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	61.2500	21.0	----	-20.9	0.1	----	9.5	----	9.4	----	-
2	122.5000	21.5	----	-20.5	1.0	----	9.5	----	8.5	----	-
3	183.7500	21.3	----	-20.0	1.3	----	9.5	----	8.2	----	-
4	245.0000	20.8	----	-19.7	1.1	----	9.5	----	8.4	----	-
5	306.2500	20.8	----	-19.5	1.3	----	9.5	----	8.2	----	-
6	367.5000	20.6	----	-19.7	0.9	----	9.5	----	8.6	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : DVD Play : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	61.2500	23.1	----	-20.9	2.2	----	9.5	----	7.3	----	-
2	122.5000	23.4	----	-20.5	2.9	----	9.5	----	6.6	----	-
3	183.7500	24.4	----	-20.0	4.4	----	9.5	----	5.1	----	-
4	245.0000	23.8	----	-19.7	4.1	----	9.5	----	5.4	----	-
5	306.2500	23.9	----	-19.5	4.4	----	9.5	----	5.1	----	-
6	367.5000	24.3	----	-19.7	4.6	----	9.5	----	4.9	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : AV Input 1Vp-p: 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	67.2500	21.6	----	-20.7	0.9	----	9.5	----	8.6	----	-
2	134.5000	21.6	----	-20.4	1.2	----	9.5	----	8.3	----	-
3	201.7500	20.0	----	-19.8	0.2	----	9.5	----	9.3	----	-
4	269.0000	20.4	----	-19.6	0.8	----	9.5	----	8.7	----	-
5	336.2500	20.2	----	-19.6	0.6	----	9.5	----	8.9	----	-
6	403.5000	20.1	----	-20.0	0.1	----	9.5	----	9.4	----	-

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

DATA OF ANTENNA TRANSFER SWITCH TEST

UL Apex Co.,Ltd.

COMPANY	: Orion Electric Co., Ltd.	REPORT NO	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : AV Input 5Vp-p: 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	67.2500	21.8	----	-20.7	1.1	----	9.5	----	8.4	----	-
2	134.5000	21.5	----	-20.4	1.1	----	9.5	----	8.4	----	-
3	201.7500	20.3	----	-19.8	0.5	----	9.5	----	9.0	----	-
4	269.0000	20.3	----	-19.6	0.7	----	9.5	----	8.8	----	-
5	336.2500	19.6	----	-19.6	0.0	----	9.5	----	9.5	----	-
6	403.5000	19.8	----	-20.0	-0.2	----	9.5	----	9.7	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback: 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	67.2500	21.4	----	-20.7	0.7	----	9.5	----	8.8	----	-
2	134.5000	22.1	----	-20.4	1.7	----	9.5	----	7.8	----	-
3	201.7500	20.4	----	-19.8	0.6	----	9.5	----	8.9	----	-
4	269.0000	19.3	----	-19.6	-0.3	----	9.5	----	9.8	----	-
5	336.2500	19.9	----	-19.6	0.3	----	9.5	----	9.2	----	-
6	403.5000	20.8	----	-20.0	0.8	----	9.5	----	8.7	----	-

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	: 25FE0207-YW-1
EQUIPMENT	: DVD/VCR	DATE	: January 29, 2005
MODEL	: MVD4541	REGULATION	: FCC Part15 Subpart B
TEMP./HUMID.	: 23°C/43%	TEST ENGINEER	: Tsubasa Takayama

OPERATION MODE : VCR Playback: 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak	-		Peak	-	Peak	-			
	[MHz]	[dBµV]	[dBµV]	[dB]	[dBµV]	[dBµV]	[dBµV]	[dBµV]	[dB]	[dB]	
1	67.2500	20.7	----	-20.7	0.0	----	9.5	----	9.5	----	-
2	134.5000	21.6	----	-20.4	1.2	----	9.5	----	8.3	----	-
3	201.7500	19.8	----	-19.8	0.0	----	9.5	----	9.5	----	-
4	269.0000	19.9	----	-19.6	0.3	----	9.5	----	9.2	----	-
5	336.2500	19.9	----	-19.6	0.3	----	9.5	----	9.2	----	-
6	403.5000	20.0	----	-20.0	0.0	----	9.5	----	9.5	----	-

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	: 25FE0207-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15 SubpartB
Model Number	: MVD4541	Date	: January 29, 2005
Power	: 120V/60Hz	Temp / Humid	: 25deg.C / 31%
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	21.3	11.6
3	61.25	18.9	8.8	20	507.25	21.8	12.3
4	67.25	18.4	8.3	26	543.25	21.9	12.4
5	77.25	18.1	8.0	32	579.25	23.1	14.3
6	83.25	18.0	7.9	38	615.25	22.0	12.6
7	175.25	21.2	11.5	44	651.25	23.6	15.1
8	181.25	21.1	11.4	50	687.25	22.3	13.0
9	187.25	20.7	10.8	56	723.25	20.9	11.1
10	193.25	20.2	10.2	62	759.25	22.3	13.0
11	199.25	20.0	10.0	69	801.25	22.1	12.7
12	205.25	20.5	10.6	-	-	-	
13	211.25	20.5	10.6	-	-	-	-
Average VHF			9.8	Average UHF			12.8
Average UHF/VHF : 20 log UHF[μV] / VHF[μV]=			2.3			[Limit : 8.0dB]	

Noise Figure Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company	: Orion Electric Co.,Ltd.	Report Number	: 25FE0207-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15 SubpartB
Model Number	: MVD4541	Date	: January 29, 2005
Power	: 120V/60Hz	Temp / Humid	: 25deg.C / 31%
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	6.2	0.2	6.0	14.0	8.0
3	61.25	4.6	0.2	4.4	14.0	9.6
4	67.25	3.7	0.2	3.5	14.0	10.5
5	77.25	3.1	0.2	2.9	14.0	11.1
6	83.25	2.9	0.2	2.7	14.0	11.3
7	175.25	5.5	0.2	5.3	14.0	8.7
8	181.25	4.9	0.2	4.7	14.0	9.3
9	187.25	4.8	0.2	4.6	14.0	9.4
10	193.25	4.6	0.2	4.4	14.0	9.6
11	199.25	4.8	0.2	4.6	14.0	9.4
12	205.25	4.6	0.2	4.4	14.0	9.6
13	211.25	4.6	0.2	4.4	14.0	9.6
TV UHF Fundamental						
14	471.25	5.3	0.3	5.0	14.0	9.0
20	507.25	5.7	0.3	5.4	14.0	8.6
26	543.25	5.7	0.3	5.4	14.0	8.6
32	579.25	5.7	0.3	5.4	14.0	8.6
38	615.25	6.0	0.3	5.7	14.0	8.3
44	651.25	6.8	0.3	6.5	14.0	7.5
50	687.25	5.6	0.3	5.3	14.0	8.7
56	723.25	5.2	0.4	4.8	14.0	9.2
62	759.25	5.3	0.4	4.9	14.0	9.1
69	801.25	5.6	0.4	5.2	14.0	8.8
Mid band						
14	121.25	3.7	0.2	3.5	14.0	10.5
16	133.25	8.0	0.2	7.8	14.0	6.2
18	145.25	6.5	0.2	6.3	14.0	7.7
20	157.25	5.7	0.2	5.5	14.0	8.5
22	169.25	5.6	0.2	5.4	14.0	8.6
Super band						
23	217.25	4.5	0.2	4.3	14.0	9.7
26	235.25	4.7	0.2	4.5	14.0	9.5
29	253.25	4.9	0.2	4.7	14.0	9.3
32	271.25	5.0	0.2	4.8	14.0	9.2
36	295.25	5.0	0.2	4.8	14.0	9.2

APPENDIX 3
Test Instruments

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
APVBT01	VIDEO BOOSTER	UL Apex	-	CE, RE, RF, ATS	-
APTVG01	TV Generator	Leader	408NPS	CE, RE, RF, ATS	Pre Check
APSPA04	Spectrum Analyzer	Advantest	R3265	AT, RF, ATS	2004/05/14 * 12
IP-06	Matching Pad	TME	ZT-301	PS, NF	2004/05/06 * 12
IP-03	Matching Pad	TME	ZT-130	AT, RF, ATS	2004/09/10 * 12
APNFM01	Noise Figure Indicator	Elena	ENF-2005	NF	2004/10/04 * 12
APNFS01	Noise Source	Elena	MC1100	NF	-
AV01-01	Signal Generator	Rohde & Schwarz	SMY01	PS	2004/02/19 * 12
SS-05	Digitizing Oscilloscope	Sony Tektronix	2221	PS	2005/01/11 * 12
APBPF01	Band pass filter	Erika Fiedler	BP	PS	Pre Check
AF-05	Pre Amplifier	Hewlett Packard	8447D	AT, RF, ATS	2004/05/31 * 12
AF-04	Pre Amplifier	Hewlett Packard	8449B	AT	2005/01/18 * 12
APCBL-01	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/12/27 * 12
APCBL-02	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/12/27 * 12
OS-15	Digital Humidity Indicator	SATO	PC-5000TRH	RF, ATS, PS, NF	2004/05/06 * 12
LS-04	LISN(AMN)	Rohde & Schwarz	ESH3-Z5	CE	2004/10/29 * 12
LS-01	LISN(AMN)	Rohde & Schwarz	ESH2-Z5	CE	2005/01/17 * 12
SA-07	Spectrum Analyzer	Advantest	R3273	CE	2004/07/26 * 12
TA-03	Terminator	TME	CT-01	CE	2004/05/02 * 12
TR-01	Test Receiver	Rohde & Schwarz	ESHS20	CE	2004/12/24 * 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
AF-04	Pre Amplifier	Hewlett Packard	8449B	RE	2005/01/18 * 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	2004/10/18 * 12
TR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2004/12/22 * 12
CC-2ORC	Yokowa No.2 open coaxial(0.01-1000MHz)	UL Apex	CC-21,CC-22,CC-23, CC-24,CC-25,CC-26, CC-27,SW-21,SW-22	RE	2004/03/28 * 12
YOATS-02	Open Test Site	JSE	3m、10m	RE	2004/08/15 * 12
CC-C1	Microwave Cable	Suhner/storm	-	RE	2004/12/15 * 12

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

Test Item :

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