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Section 1 : Client information

Company name : ORION ELECTRIC CO., LTD.
Brand Name : SANSUI
Address : 41-1 Iehisa-cho, Takefu-shi, Fukui 915-8555, JAPAN
Telephone number : +81-778-23-0019
Facsimile number : +81-778-23-7799
Contact person : Hiroshi Tsujimoto
Section manager
Engineering headquarters
Administration section

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

2.1 Identification of E.U.T.

Type of equipment : DVD/VCR
Model number : VRDVD4000
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 Thombol Chokchai, Amphur Chokchai, Nakhonratchasima
30190, Thailand
3. ORION AMERICA, INC.
Hwy 41 North, Orion Place, Princeton, Indiana 47670, U.S.A
Receipt Date of Sample : December 04, 2001
Condition of EUT : Production Prototype

2.2 Product description

ORION ELECTRIC CO., LTD., Model: VRDVD4000 (referred to as the EUT in this report) is a DVD/VCR.
The EUT specifications is as follows.

| | | |
|------------------------|---|--|
| Tuner type | : | Quartz PLL frequency synthesized |
| I / F | : | 45.75 MHz (Picture), 41.25 MHz (Sound) |
| Receiving channel | : | VHF 2 – 13 ch / UHF 14 – 69 ch / CATV 1 – 125 ch |
| Antenna input | : | 75 ohm |
| Video signal | : | NTSC color |
| Power source | : | AC 120 V / 60 Hz |
| | | Operation: 20 W |
| | | Stand by: 3 W |
| I / O terminal (Video) | : | RCA in 1Vp-p 75 ohm, RCA out 1 Vp-p 75 ohm |
| I / O terminal (Audio) | : | RCA in – 8 dBm 50 k ohm, RCA out – 8 dBm 1 k ohm |

2.3 Similar apparatus

There are no similar apparatus.

Section 3 : Test specification, methods & procedures

3.1 Test specification

Test specification : FCC Part 15 Subpart B

Title : FCC 47 CFR Part 15 Radio Frequency Device
Subpart B Unintentional Radiators (Subpart C Intentional Radiators)

3.2 Methods & procedures

| No. | Item | Test procedure | Limits | Remarks |
|-----|--------------------------|---|---|---------|
| 1 | Conducted interference | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 250 uV | LISN |
| 2 | Radiated emission | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 30–88 MHz: 100 uV/m 88–216 MHz: 150 uV/m 216–960 MHz: 200 uV/m above 960 MHz: 500 uV/m | 3 m |
| 3 | Antenna terminal voltage | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 2 nW (at 75 ohm) | — |
| 4 | RF output level | ANSI C63.4:1992 IEEE 213:1987 | Video signal: 3000 uV Aural signal: 671 uV | — |
| | Spurious emission | IEEE 187:1990 | 94.8 uV | — |
| 5 | Transfer switch | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 9.5 dB | — |
| 6 | Picture sensitivity | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 8 dB | — |
| 7 | Noise figure | FCC/OET MP:2:1986 | 14 dB | — |

3.3 Additions or deviations to standard

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

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.

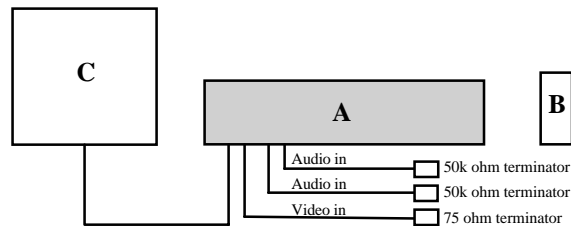
The sequence in used :
* Receive mode (0 dBmV input / 25 dBmV input)
* AV input mode (1 Vp-p input / 5 Vp-p input)
* DVD play mode
* VCR playback mode

Operation : The EUT tested above operation mode
(Using a video tape with a typical TV signal recorded on it, if necessary.)

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

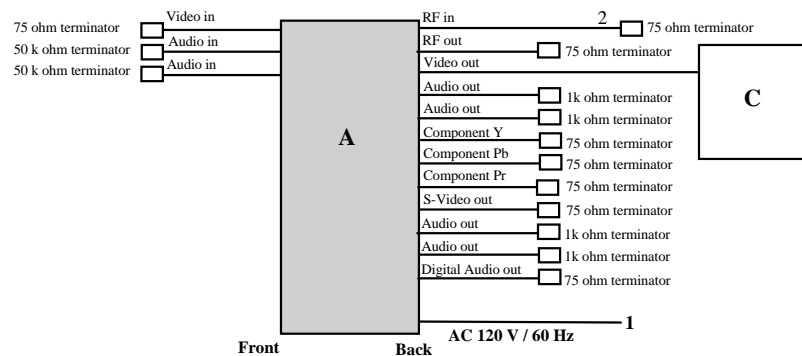
4.2 Configuration and peripherals

Front View



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

Top View



* 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 |
|------|--------------------|--------------|---------------|--------------------------|
| A | DVD/VCR | VRDVD4000 | – | ORION ELECTRIC CO., LTD. |
| B | Remote Controller | – | – | ORION ELECTRIC CO., LTD. |
| C | Evaluation monitor | VX-S135U | 671-9313106A | AIWA CO., LTD. |

Meshed column are represented

List of cable used

| No. | Item | Length (m) | Shielding | Manufacturer |
|-----|-----------------|------------|------------|--------------------|
| 1 | AC power cable | 1.8 | Unshielded | – |
| 2 | RF output cable | 1.0 | Shielded | Supplies accessory |

Section 5 : Summary of test results

5.1 Test results

| No. | Item | Test procedure | Limits | Worst margin | Results |
|-----|--------------------------|---|---|-------------------------|---------|
| 1 | Conducted interference | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 250 uV | 12.5 dB (0.45 MHz) | Passed |
| 2 | Radiated emission | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 30–88 MHz: 100 uV/m 88–216 MHz: 150 uV/m 216–960 MHz: 200 uV/m above 960 MHz: 500 uV/m | 3.1 dB (513.04 MHz) | Passed |
| 3 | Antenna terminal voltage | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 2 nW (at 75 ohm) | 17.4 dB (1285 MHz) | Passed |
| 4 | RF output level | ANSI C63.4:1992 IEEE 213:1987 | Video signal: 3000 uV Aural signal: 671 uV | 1.5 dB (61.25 MHz) | Passed |
| | Spurious emission | IEEE 187:1990 | 94.8 uV | 15.5 dB (220.05 MHz) | Passed |
| 5 | Transfer switch | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 9.5 dB | 2.6 dB (61.25 MHz) | Passed |
| 6 | Picture sensitivity | ANSI C63.4:1992 IEEE 213:1987 IEEE 187:1990 | 8 dB | 3.6 dB | Passed |
| 7 | Noise figure | FCC/OET MP:2:1986 | 14 dB | 6.2 dB (77.25 MHz) | Passed |

A-PEX INTERNATIONAL hereby confirms that E.U.T., in the configuration tests, complies with the specifications FCC Part15 Subpart B.

5.2 Test instruments

Please refer to the list of test instruments in Section 6.

5.3 Test location

A-PEX International Co.,Ltd. Kanto office EMC Laboratory
Newstage Yokohama Bldg. 1F 1-1-32 Shin-Urashima-cho, Kanagawa-ku, Yokohama-shi, Kanagawa
221-0031, JAPAN
TEL : +81-45-450-1515
FAX : +81-45-450-1534

A-PEX International Co.,Ltd. Yokowa Laboratory
108 Yokowa-cho, Ise-shi, Mie 516-1106, JAPAN
TEL : +81-596-39-1485
FAX : +81-596-39-0232

5.4 Photographs of test set up

Please refer to Appendix 1.

5.5 Test data

Please refer to Appendix 2.

Section 6 : Test instruments

| Instruments | Manufacturer | Model No. | Control No. | Test Item | Calibration date | Validity |
|------------------------|-----------------|-----------|-------------|-----------|--------------------|--------------------|
| LISN | Schwarzbeck | NSLK8127 | APLSN05 | CE | January 18, 2001 | January 17, 2002 |
| Test receiver | Rohde & Schwarz | ESS | APRCV05 | CE | June 04, 2001 | June 03, 2002 |
| TV generator | Leader | 408 | APTVG04 | CE | Pre check | - |
| Coaxial cable | Fujikura | 5D2W | APCBL02 | CE | August 07, 2001 | August 06, 2002 |
| Spectrum analyzer | Advantest | R3365 | YTSPA01 | AT | April 03, 2001 | April 02, 2002 |
| Matching pad | TME | ZT-204 | APMAT04 | AT | October 23, 2001 | October 22, 2002 |
| Matching pad | TME | ZT-130 | APMAT05 | AT | October 23, 2001 | October 22, 2002 |
| Pre amplifier | Anritsu | MH648A | APPRA01 | AT | August 09, 2001 | August 08, 2002 |
| Pre amplifier | Hewlett Packard | 8449B | APPRA05 | AT | August 09, 2001 | August 08, 2002 |
| Coaxial cable | Fujikura | 5D2W | APCBL06 | AT | August 07, 2001 | August 06, 2002 |
| Coaxial cable | Fujikura | 5D2W | APCBL07 | AT | August 07, 2001 | August 06, 2002 |
| Signal generator | Rohde & Schwarz | SMY01 | YTSSG02 | PS | May 07, 2001 | May 06, 2002 |
| Oscillo scope | Tektronix | TDS410A | APOSC01 | PS | April 27, 2001 | April 26, 2002 |
| Band Pass Filter | Erika Fiedlar | BP | APBPF01 | PS | Pre check | - |
| Noise figure indicator | Elena | ENF-2005 | APNFM01 | NF | September 27, 2000 | September 26, 2002 |
| Noise source | Elena | MC1100 | APNFS01 | NF | September 27, 2000 | September 26, 2002 |

| Instruments | Manufacturer | Model No. | Control No. | Test Item | Calibration date | Validity |
|---|-----------------|---|-------------|-----------|--------------------|--------------------|
| Pre amplifier | Anritsu | MH648A | AF-03 | RE | March 31, 2001 | March 30, 2002 |
| Attenuator | Anritsu | MP721B | AT-04 | RE | March 31, 2001 | March 30, 2002 |
| Biconical antenna | Schwarzbeck | BBA9106 | BA-05 | RE | May 01, 2001 | April 30, 2002 |
| Logperiodic antenna | Schwarzbeck | UKLP9140-A | LA-08 | RE | May 01, 2001 | April 30, 2002 |
| Spectrum analyzer | Hewlett Packard | 8567A | SA-03 | RE | March 31, 2001 | March 30, 2002 |
| Test receiver | Rohde & Schwarz | ESVS10 | TR-04 | RE | April 24, 2001 | April 23, 2002 |
| Yokowa No. 2 open coaxial cable (0.01 – 1000 MHz) | A-Pex | CC-21, CC-22, CC-23, CC-24, CC-25, CC-26, CC-27, SW-21, SW-22 | CC-2ORC | RE | March 31, 2001 | March 30, 2002 |
| Open test site | JSE | 10 m | YOATS-02 | RE | May 04, 2001 | May 03, 2002 |
| Pre amplifier | Hewlett Packard | 8449B | AF-04 | RE | November 03, 2001 | November 02, 2002 |
| Horn antenna | A.H Systems | SAS200/571 | HA-01 | RE | May 20, 2001 | May 19, 2002 |
| Spectrum analyzer | Advantest | R3271 | SA-05 | RE | February 01, 2001 | January 31, 2002 |
| Microwave cable | Suhner | CC-C2,C8 | CC-C28G | RE | September 14, 2001 | September 13, 2002 |

* The abbreviation in the test item column stands for:

CE: Conducted emission, RE: Radiated emission, AT: Antenna terminal voltage,
RF: RF output level / spurious emission, TS :Antenna transfer switch,
PS: Picture sensitivity, NF: Noise figure

A-pex International Co., Ltd. Kanto Office EMC Laboratory.

Newstage Yokohama Bldg.1F 1-1-32 Shin-Urashima-cho, Kanagawa-ku, Yokohama-shi, Kanagawa 221-0031, JAPAN
Telephone : +81 45 450 1515 Facsimile: +81 45 450 1534

Section 7 : Conducted interference

7.1 Operation environment

The test was carried out in a screened room the size of $6 \times 7 \times 2.4$ m, at Kanto office EMC laboratory.

Date : December 11, 2001
Temperature : 24.0 °C
Humidity : 35 %

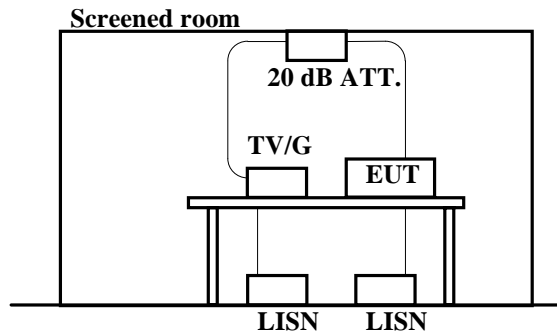
7.2 Test configuration

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, including peripherals aligned and flush 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 cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30 cm to 40 cm long and were hanged at a 40 cm 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 interference

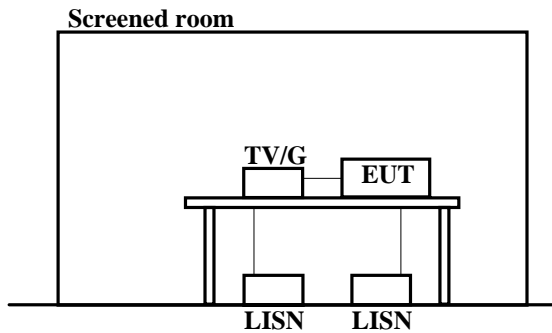
Receive + Rec. mode (0 dBmV input / 25 dBmV input)



Note:

RF in: TV signal generator connected
Front video in: 75 ohm terminated with video cable
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
Rear digital audio out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

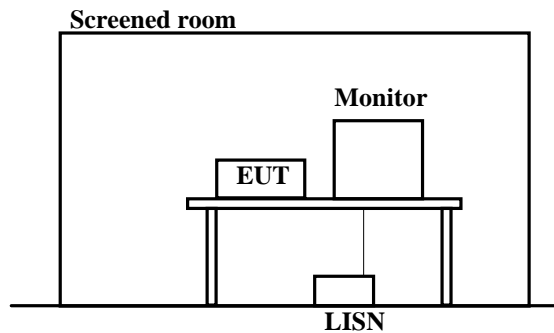
AV input + Rec. mode (1 Vp-p input / 5 Vp-p input)



Note:

RF in: 75 ohm terminated with cable
Front video in: Video generator connected
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
Rear digital audio out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

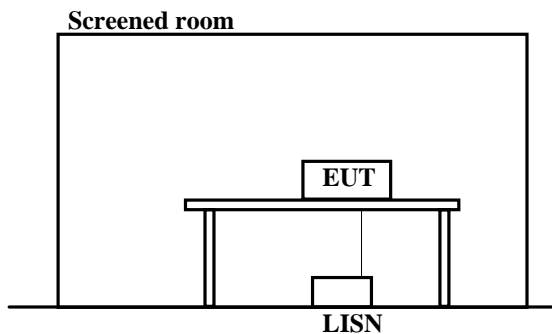
DVD play mode



Note:

RF in: 75 ohm terminated with cable
Front video in: 75 ohm terminated with video cable
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
Rear digital audio out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

VCR playback mode



Note:

RF in: 75 ohm terminated with cable
Front video in: 75 ohm terminated with video cable
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
Rear digital audio out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

7.3 Test conditions

Frequency range : 0.45 MHz – 30 MHz
EUT position : Table top

7.4 Test procedure

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT within a screened 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 EUT was put into operation at receive mode, AV input mode, DVD play mode and VCR playback mode. EUT and desired signal generator should connect through 20 dB attenuator.

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

Detector Type : Quasi-Peak
IF Bandwidth : 10 kHz

7.5 Test result

Passed

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

Test engineer : Hisayuki Kioka

Section 8 : Radiated emission

8.1 Operation environment

The test was carried out in an open area test site the size of 10 × 20 m, at Yokowa EMC laboratory.

Date : December 06, 2001

Temperature : 22.0 °C

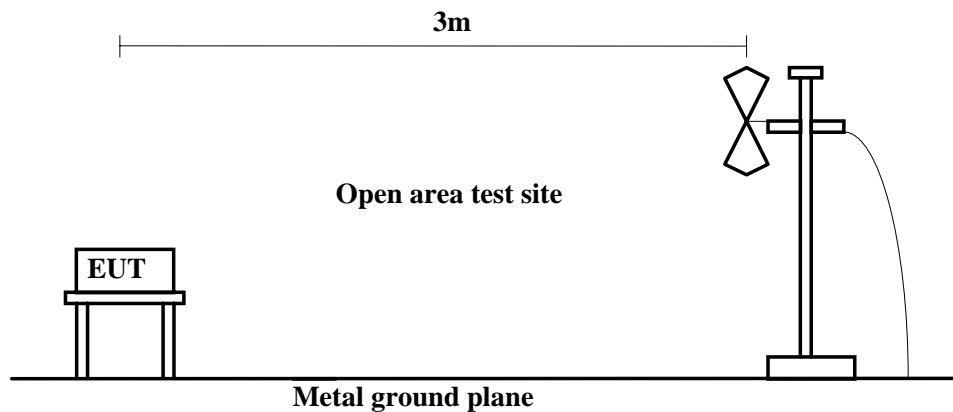
Humidity : 41 %

8.2 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, including peripherals was aligned and flush with rear of tabletop. I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30 cm to 40 cm long and 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.

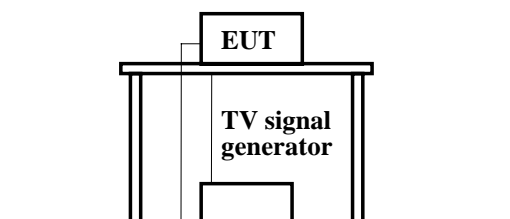
A drawing of the set up is shown in figure 2 and photographs in Appendix 1.

Figure 2. Radiated emission



Receive + Rec. mode (0 dBmV / 25 dBmV)

Open area test site

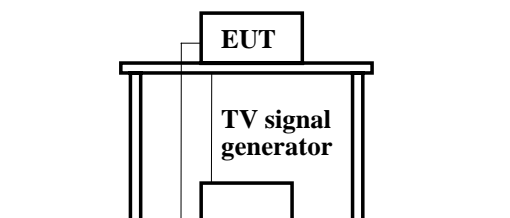


Note:

RF in: TV signal generator connected
Front video in: 75 ohm terminated with video cable
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

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

Open area test site

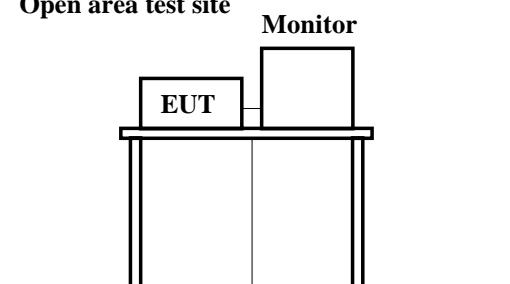


Note:

RF in: 75 ohm terminated with cable
Front video in: Video generator connected
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

DVD play mode

Open area test site

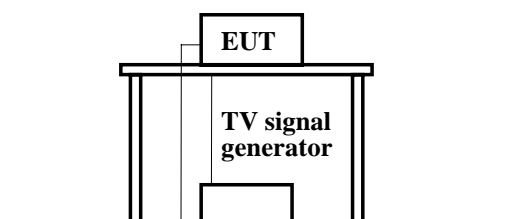


Note:

RF in: 75 ohm terminated with cable
Front video in: 75 ohm terminated with video cable
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

VCR playback mode

Open area test site



Note:

RF in: 75 ohm terminated with cable
Front video in: 75 ohm terminated with video cable
Front audio in: 50 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
Rear S-video out: 75 ohm terminated with video cable
Rear component out: 75 ohm terminated with audio cable
RF output: 75 ohm terminated with RF output cable

8.3 Test conditions

Frequency range : 30 MHz – 2000 MHz
Test distance : 3 m
EUT position : Table top

8.4 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 screened room or used search coil for ambient noise at high-level, especially.

Measurements were performed with a quasi-peak detector.

The measuring antenna height was varied between 1 to 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 EUT was put into operation at receive mode, AV input mode, DVD play mode and VCR playback mode.

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

Detector Type : QP (30-1000 MHz) / Ave. (1000-2000MHz)
IF Bandwidth : 120 kHz / 1 MHz

8.5 Test result

Passed

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

Test engineer : Hiroya Tabata

Section 9 : Antenna terminal voltage

9.1 Operation environment

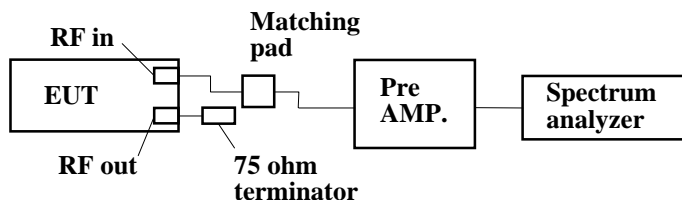
The test was carried out in a screened room the size of $6 \times 7 \times 2.4$ m, at Kanto office EMC laboratory.

Date : December 11, 2001
Temperature : 24.0 °C
Humidity : 35 %

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 3 and photographs in Appendix 1.

Figure 3. Antenna terminal voltage



9.3 Test conditions

Frequency range : 30 MHz – 2000 MHz
EUT position : Table top

9.4 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. Measurement should be performed for TV receiver mode and CATV receiver mode.

Detector Type : Peak (30-1000 MHz)

9.5 Test result

Passed

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

Test engineer : Hisayuki Kioka

Section 10 : RF output level / spurious emission

10.1 Operation environment

The test was carried out in a screened room the size of $6 \times 7 \times 2.4$ m, at Kanto office EMC laboratory.

Date : December 12, 2001

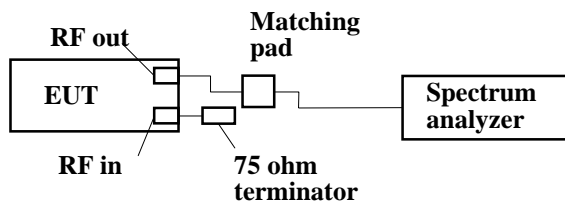
Temperature : 23.0 °C

Humidity : 38 %

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 4 and photographs in Appendix 1.

Figure 4. RF output level



10.3 Test conditions

EUT position : Table top

10.4 Test procedure

EUT was connected spectrum analyzer through matching pad by accessory cable. RF channel selected 3 ch or 4 ch. 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

10.5 Test result

Passed

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

Test engineer : Hisayuki Kioka

Section 11 : Antenna transfer switch

11.1 Operation environment

The test was carried out in a screened room the size of $6 \times 7 \times 2.4$ m, at Kanto office EMC laboratory.

Date : December 11, 2001

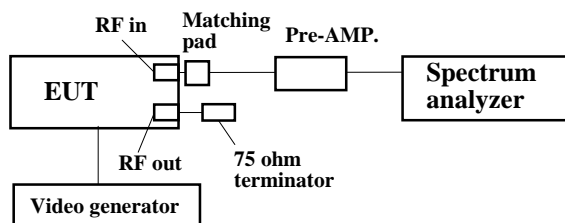
Temperature : 24.0 °C

Humidity : 35 %

11.2 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



11.3 Test conditions

EUT position : Table top

11.4 Test procedure

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

Detector Type : Peak

11.5 Test result

Passed

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

Test engineer : Hisayuki Kioka

Section 12 : Picture sensitivity

12.1 Operation environment

The test was carried out in a screened room the size of $6 \times 7 \times 2.4$ m, at Kanto office EMC laboratory.

Date : December 13, 2001

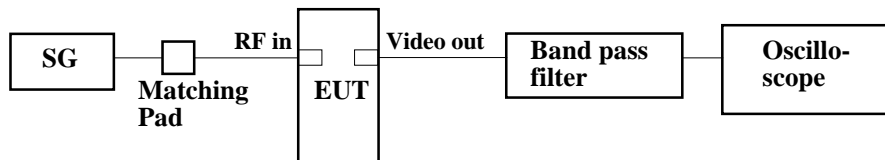
Temperature : 23.4 °C

Humidity : 34 %

12.2 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



12.3 Test conditions

EUT position : Table top

12.4 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.

12.5 Test result

Passed

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

Test engineer : Hisayuki Kioka

Section 13 : Noise figure

13.1 Operating environment

The test was carried out in a screened room the size of $6 \times 7 \times 2.4$ m, at Kanto office EMC laboratory.

Date : December 13, 2001

Temperature : 23.4 °C

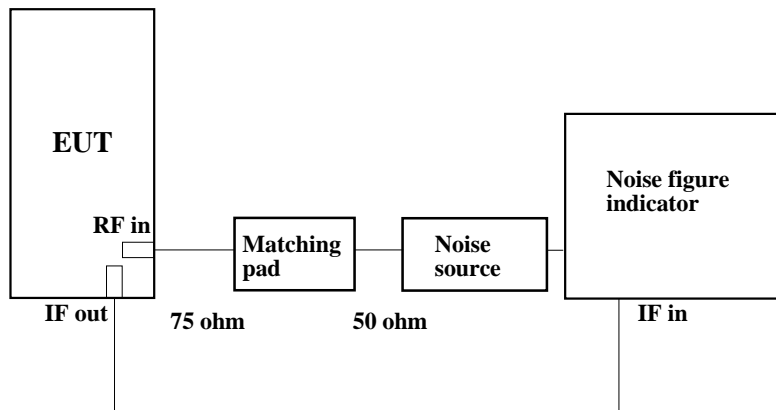
Humidity : 34 %

13.2 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



13.3 Test procedure

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

13.4 Test result

Passed

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

Test engineer : Hisayuki Kioka