# Certification of Compliance

CFR 47 Part 15 Subpart B

| | | | |
|---|---|---|---|
| **Test Report File No.** | 04-IST-0126 | **Date of Issue** | June 3, 2004 |
| **Model(s)** | RV4000 (Cinevision) | | |
| | SV294 (SENSORY SCIENCE) | | |
| | DF-S04 (DAEWOO) | | |
| | VR2940 (Go-Video) | | |
| | VR2945 (Go-Video) | | |
| **Kind of Product** | DVD Recorder + VCR | | |
| **Applicant** | Daewoo Electronics Corporation. | | |
| | 543, Dangjung-Dong, Kunpo-City, Kyounggi-DO, Korea | | |
| **Manufacturer** | Daewoo Electronics Corporation. | | |
| | 295, Gondan-dong, Kumi-city, Kyungsangbuk-do, Korea. | | |

**Test Result** ☒ **Positive** ☐ **Negative**

Reviewed By

J.H.LEE / EMC Group Manager

Approved By

G. Chung / Chief

- Investigations requested : Measurement to the relevant clauses of F.C.C rules and regulations Part 15 Subpart B – Unintentional Radiatiors
- The test report with appendix consists of 49 pages.
- The test result only responds to the tested sample.
- It is not allowed to copy this report even partly without the allowance of IST EMC Laboratory.
- This equipment as for has been shown to be capable of continued compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4 2001.

# TABLE OF CONTENTS



## Information of TUNERS

| **Manufacture** | **Manufacture Name** |
|---|---|
| LG Innotek Co., Ltd. | TADM-H201F |
| Korea ALPS | TMZH2-030A |

## Information of Loader

| **Manufacture** | **Manufacture Name** |
|---|---|
| BTC corp. | BDR-L04P |

# INFORMATIONS OF TEST LABORATORY

EMC LABORATORY of IST Co., Ltd. ***(FCC Filing Lab)***
San 21-8, Goan-Ri, Baekam-Myun, Yongin-City
Kyonggi-Do, 449-860, Korea
TEL : +82 31 333 4093 FAX : +82 31 333 4094

# ENVIRONMENTAL CONDITIONS

| | |
|---|---|
| Temperature | 22 ℃ |
| Humidity | 47 % |
| Atmospheric pressure | 1002 mbar |

# POWER SUPPLY SYSTEM USED

| | |
|---|---|
| Power supply system | 120Vac , 60Hz |

# PRODUCT INFORMATIONS

| | |
|---|---|
| Power requirements | 120Vac , 60Hz |
| Power consumption | 34W |
| Operating conditions | 41°F to 95°F(5°C to 35°C) , 5% to 90%(humidity) |
| Mass(approx.) | 13.5lbs(6.18kg) |
| Dimensions(approx.) | 16.9X3.54X14.0 inches(430X91X354mm) (wXhXd) |
| Signal system | NTSC |
| Antenna IN / RF OUT | Antenna or CATV input,75Ω / Channel 3 or 4 (Switchable) |
| Signal-to-noise ratio | 43dB(VCR) , More than 95dB(DVD) |
| Head system | 4 Head Video, 2 Head Hi-Fi helical scan azimuth system |
| Laser system | Semiconductor laser, wavelength 650mm |
| Inputs | Video/Audio(RCA jack) |
| Outputs | Video/Audio(RCA jack), S-video, component(RCA jack) |

- EMC suppression device is not used during the test.
- Please refer to user's manual.

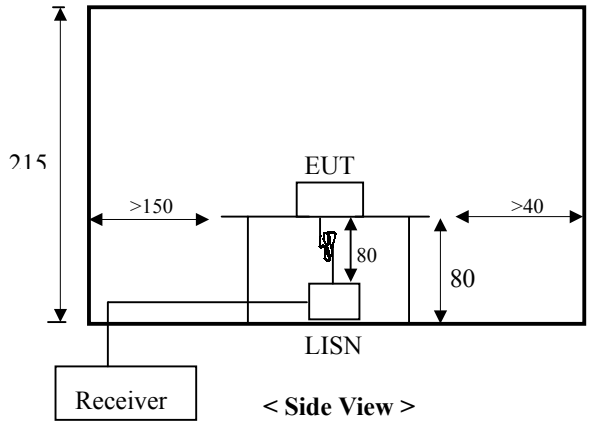
# DESCRIPTIONS OF TEST

## Conducted Emissions:

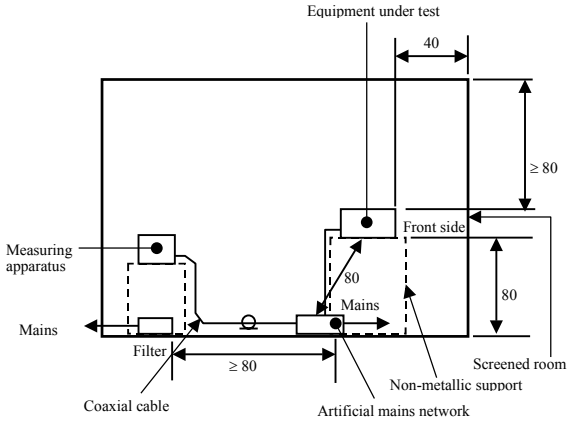
The measurement were performed over the frequency range of 0.45MHz to 30MHz using a 50Ω /50uH LISN as the input transducer to a Spectrum Analyzer or a Field Intensity Meter. The measurements were made with the detector set for "Peak" amplitude within an bandwidth of 10KHz or for "quasi-peak" within a bandwidth of 9KHz.

**- Procedure of Test**

The line-conducted facility is located inside a shielded room No.1. A 1m X 1.5m wooden table 80cm height is placed 40cm away from the vertical wall and 1.5m away from the other wall of the shielded room. The R/S ESH3-Z5 and EMCO 3825/2 LISN are bonded to bottom of the shielded room. The EUT is located on the wooden table with distance more than 80cm from the LISN and powered from the EMCO LISN .The peripheral equipment is powered from the other LISN. Power to the LISNs are filtered by a noise cut power line filters. All electrical cables are shielded by braided tinned steel tubing with inner ϕ 1.2cm. If the EUT is a DC-powered device, power will be derived from the source power supply it normally will be powered from and this supply lines will be connected to the EMCO LISN. All interconnecting cables more than 1m were shortened by non-inductive bundling to a 1m length. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating conditions. The RF output of the LISN was connected to the R/S receiver to determine the frequency producing the maximum emission from the EUT. The frequency producing the maximum level was reexamined using Quasi-Peak mode by manual measurement, after scanned by automatic Peak mode for frequency range from 0.45 to 30MHz. The bandwidth of the receiver was set to 10kHz. The EUT, peripheral equipment, and interconnecting cables were arranged and manipulated to maximize each EME emission.




< Side View >




< Concept Drawing >

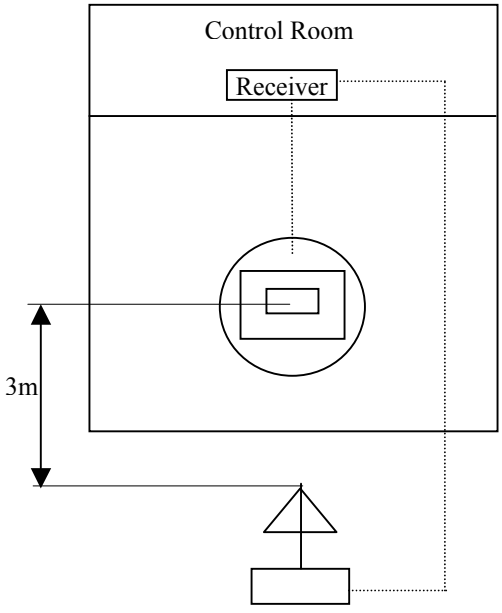
# DESCRIPTION OF TEST

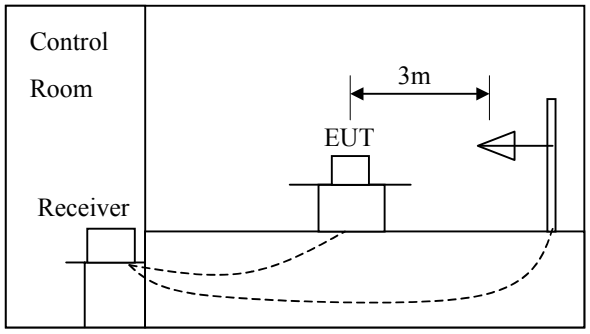
## Radiated Emissions:

The measurement was performed over the frequency range of 30MHz to 1GHz using antenna as the input transducer to a Spectrum analyzer or a Field Intensity Meter. The measurement was made with the detector set for "quasi-peak" within a bandwidth of 120KHz.

**- Procedure of Test**

Preliminary measurements were made at 3 meter using bi-conical and log-periodic antennas, and spectrum analyzer to determine the frequency producing the max. emission in anechoic chamber. Appropriate precaution was taken to ensure that all emission from the EUT were maximized and investigated. The system configuration, mode of operation, turn table azimuth and height with respect to the antenna were noted for each frequency found. The spectrum was scanned from 40MHz to 300MHz using S/B bi-conical antenna and 300 to 1000MHz using S/B log-periodic antenna. Above 1GHz, linearly polarized double ridge horn antennas were used. Final measurements were made at open site with 3-meters test distance using S/B bi-log antenna or horn antenna. The OATS have been verified in regular for its normalized site attenuations. The test equipment was placed on a wooden table. Sufficient time for the EUT, peripheral equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. Each frequency found during pre-scan measurements was re-examined by manual. The detector function was set to CISPR quasi-peak mode and the bandwidth of the receiver was set to 120kHz or 1MHz depending on the frequency of type of signal. The EUT, peripheral equipment and interconnecting cables were re-configured to the set-up producing the max. emission for the frequency and were placed on top of a 0.8-meter high nonmetallic 1 x 1.5 meter table. The EUT, peripheral equipment, and interconnecting cables were re-arranged and manipulated to maximize each emission. The turntable containing the system was rotated; the antenna height was varied 1 to 4 meters and stopped at the azimuth or height producing the maximum emission. Each emission was maximized by: varying the mode of operation to the EUT and/or peripheral equipment and changing the polarity of the antenna, whichever determined the worst-case emission.



# DESCRIPTION OF TEST

## Output Signal level measurements :

The RF output of the TV interface device was fed to the TV receiver via coaxial cable. The signal level was measured by direct connection to the spectrum analyzer with 50/75 ohm matching transformer between the spectrum analyzer and the TV interface device.
The RF output signal level measured RMS voltage was the highest RF level present at the output terminals during normal use of the device. Measurements were made of the levels of both the visual(61.25 MHz) and aural(71.25 MHz) of TV channel 3 and 4.
The voltage corresponding to the peak envelope power of the video modulated signal during maximum amplitude peaks across a resistance(R ohms) matching the rated output impedance of the device, must not exceed 346.4 times the square root of (R)[uV] for all other TV interface device. The voltage corresponding to peak envelope power of the audio modulated signal, if provided by the TV interface device, must not exceed 77.5 times the square root of (R)[uV] for all other TV interface device.(Sec 15.115 (b).(1).(ii))

## Output Terminal Conducted Spurious Emission :

The RF output signal was fed to the TV receiver with coaxial cable. The measurements were made by direct connection to the spectrum analyzer and TV interface device with 50/75 ohm matching transformer. The frequency range 30 to 1000MHz was investigated for significant emission. The maximum RMS voltage of any emission appearing on frequencies removed by than 4.6MHz below or 7.4MHz above the video carrier frequency on which the TV interface device is operated must not exceed 10.95 timed the square root of (R) [uV](Sec 15.115 (b).(2).(ii)) This represents the 30dB attenuation.

## Transfer Switch Isolation Measurement :

The measurements were made of the maximum RMS voltage at the antenna terminals of the switch for all positions of the transfer switch. The maximum voltage corresponds to the peak envelope power of the video signal during maximum amplitude peaks. In either position of the receiver transfer switch, the maximum voltage at the receiving antenna input terminals of the switch when terminated with a resistance (R ohms) matching the rated impedance of the antenna input of the switch, must not exceed 0.346 times the square root of (R) [uV]. (Sec 15.115 (c).(1).(ii))

# SUMMARY

■ Conducted Emission

The requirements are ● MET ○ Not MET

Minimum limit margin 6.3 dB at 29.325 MHz

Maximum limit exceeding

**Remarks : With live phase, for average detect mode**
**(RF Receiving +DVD REC mode, Tuner: TADM-H201F)**

■ Radiated Emission

The requirements are ● MET ○ Not MET

Minimum limit margin 3.0 dB at 116.7 MHz

Maximum limit exceeding

**Remarks : DVD Playback + VCR REC mode (Tuner: TADM-H201F)**

■ Output Signal Level Measurements

The requirements are ● MET ○ Not MET

Minimum limit margin

Maximum limit exceeding

**Remarks : Limits are kept with more than 10dB margin**

■ Output Terminal Conducted Spurious Emission

The requirements are ● MET ○ Not MET

Minimum limit margin

Maximum limit exceeding

**Remarks : Limits are kept with more than 10dB margin**

■ Transfer Switch Isolation Measurements

The requirements are ● MET ○ Not MET

Minimum limit margin

Maximum limit exceeding

**Remarks : Limits are kept with more than 3dB margin**

Prepared By

*Note :*

- ■ means the test is applicable, ☐ is not applicable.

I.Y.Lee / EMC Engineer

# TEST CONDITIONS AND DATA

## Conducted Emissions

**[Applicable]**

◆ Test Equipment Used

**The test equipment used is calibrated in regular for every year.**

| Model Name | Manufacturer | Descriptions |
|---|---|---|
| ESH3 | Rohde & Schwarz | Test Receiver |
| ESH3-Z2 | Rohde & Schwarz | Pulse Limiter |
| ESH3-Z5 | Rohde & Schwarz | LISN |
| EZM | Rohde & Schwarz | Spectrum Monitor |
| PM5418 | FLUKE | Pattern Generator |

◆ Auxiliary Equipment Used

| Model Name | Manufacturer | Descriptions |
|---|---|---|
| 14C5T BLU | Daewoo Electronics. | Color TV Receiver |

◆ Accessories including cables

| Name | Length | Port and Descriptions |
|---|---|---|
| RCA | 1.5m | Video / Audio |
| S-Video | 1.5m | |

◆ Environmental Conditions

| | |
|---|---|
| Temperature | 20 ℃ |
| Humidity | 49 % |
| Atmosphere pressure | 1002 mbar |

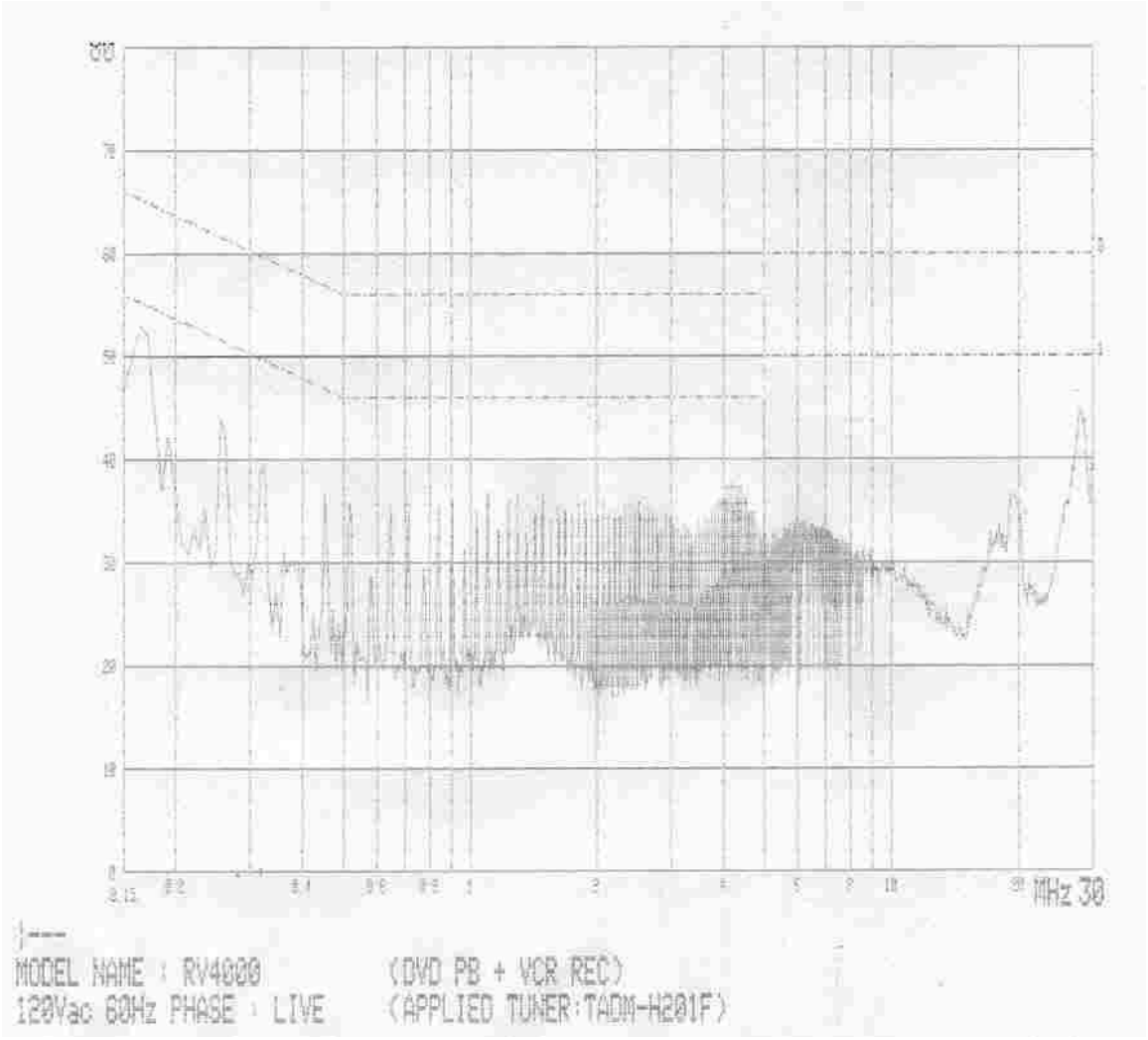
◆ Test Program DVD Playback + VCR REC, VCR Playback + DVD REC, RF Receiving + VCR REC, RF Receiving + DVD REC

◆ Test Area Shielded Room #3

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



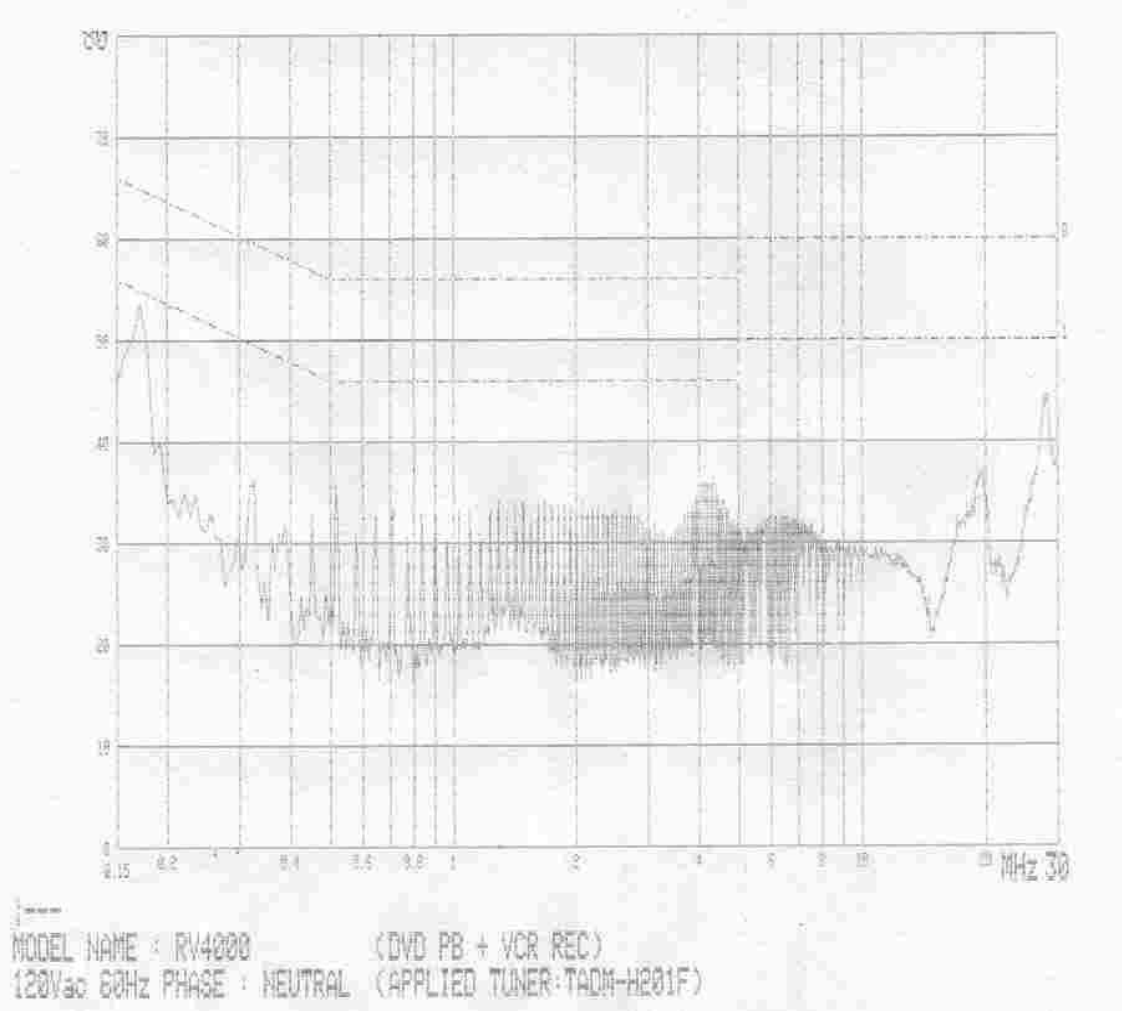

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.165 | 47.9 | 24.5 | 65.2 | 55.2 | 17.3 | 30.7 |
| 27.851 | 40.6 | 36.5 | 60.0 | 50.0 | 19.4 | 13.5 |

*Note :*

## Conducted Emissions

(Mains Terminal Disturbance Voltages)



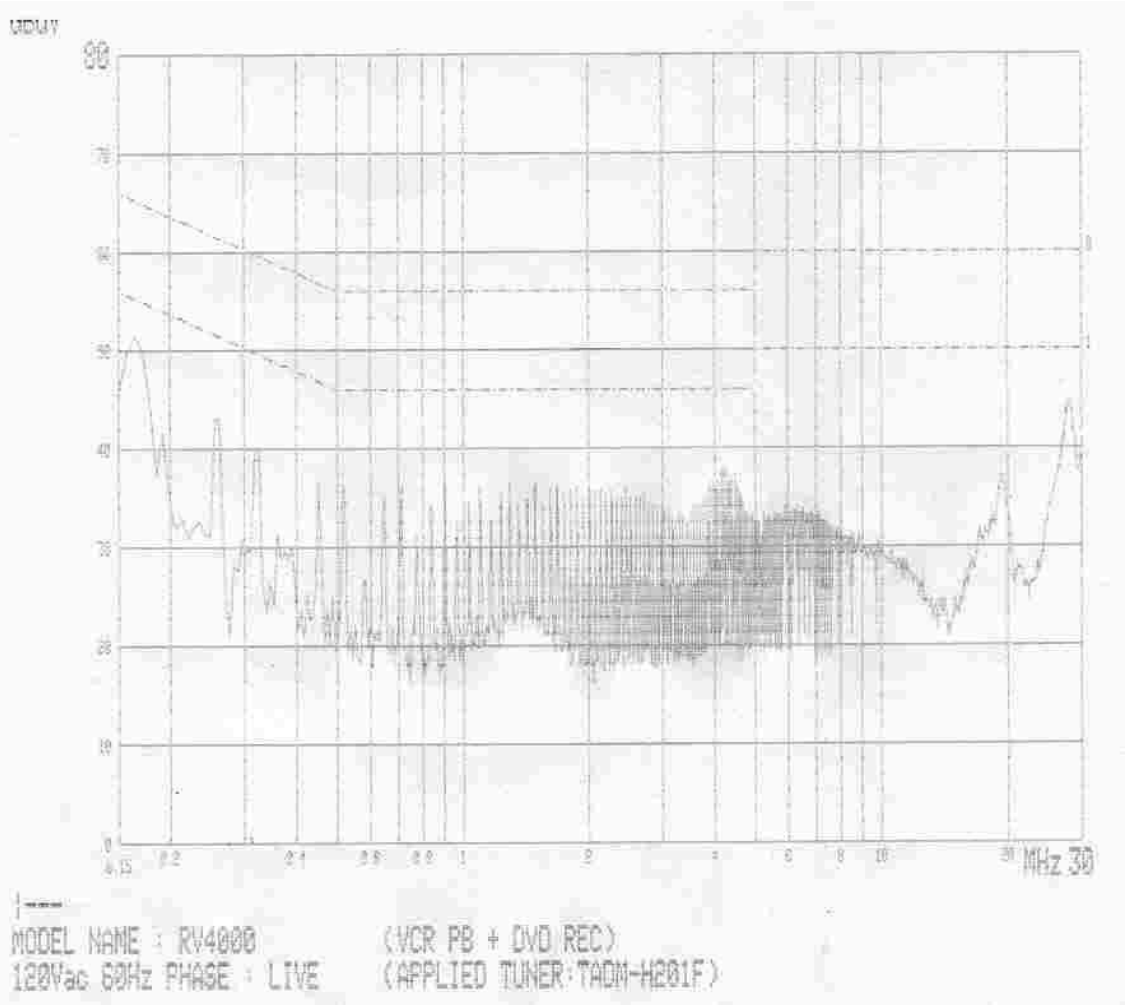

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.164 | 48.8 | 24.5 | 65.3 | 55.3 | 16.5 | 30.8 |
| 28.168 | 42.0 | 37.8 | 60.0 | 50.0 | 18.0 | 12.2 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



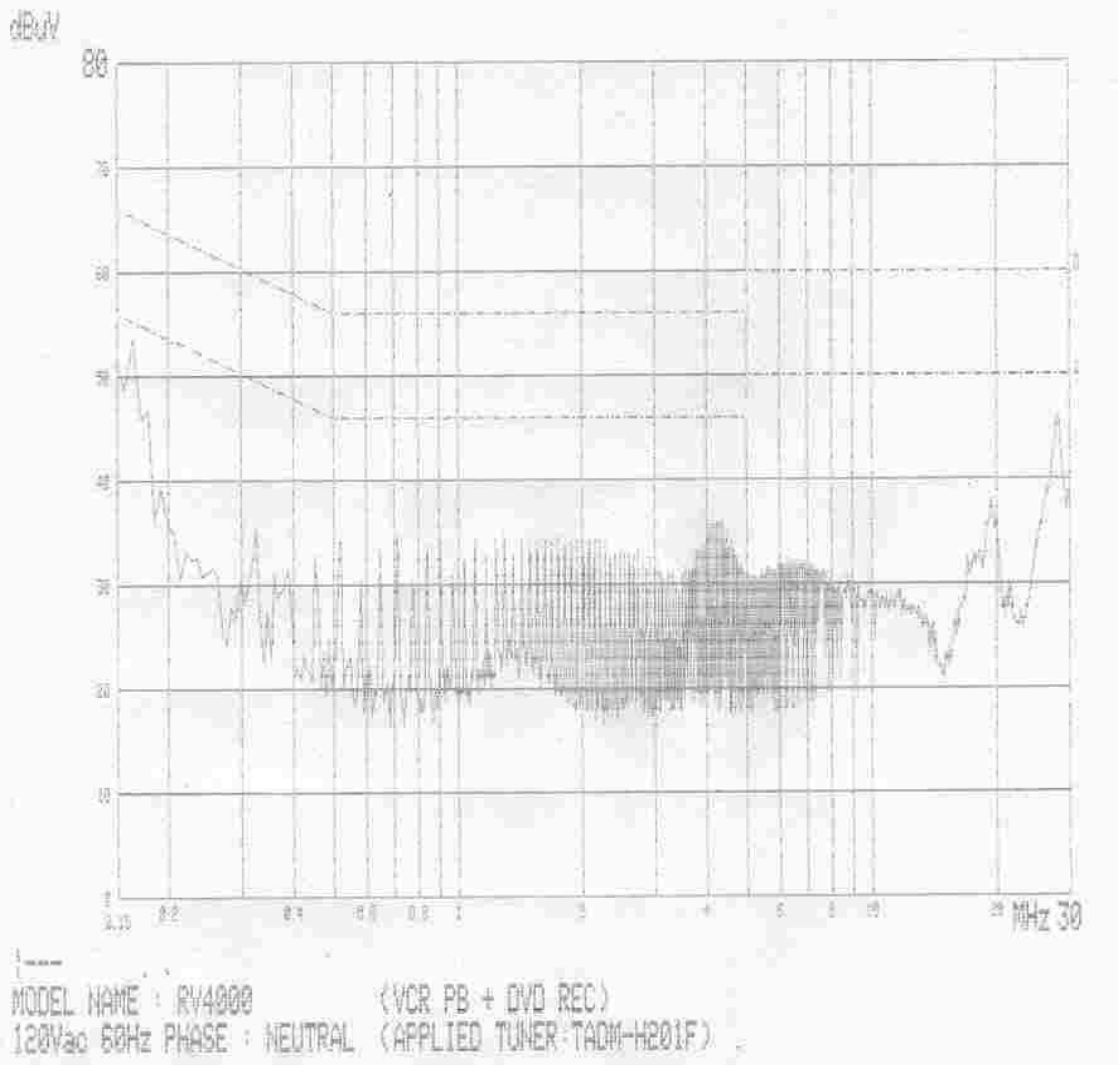

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.166 | 48.7 | 18.2 | 65.2 | 55.2 | 16.5 | 37.0 |
| 28.004 | 42.5 | 39.5 | 60.0 | 50.0 | 17.5 | 10.5 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



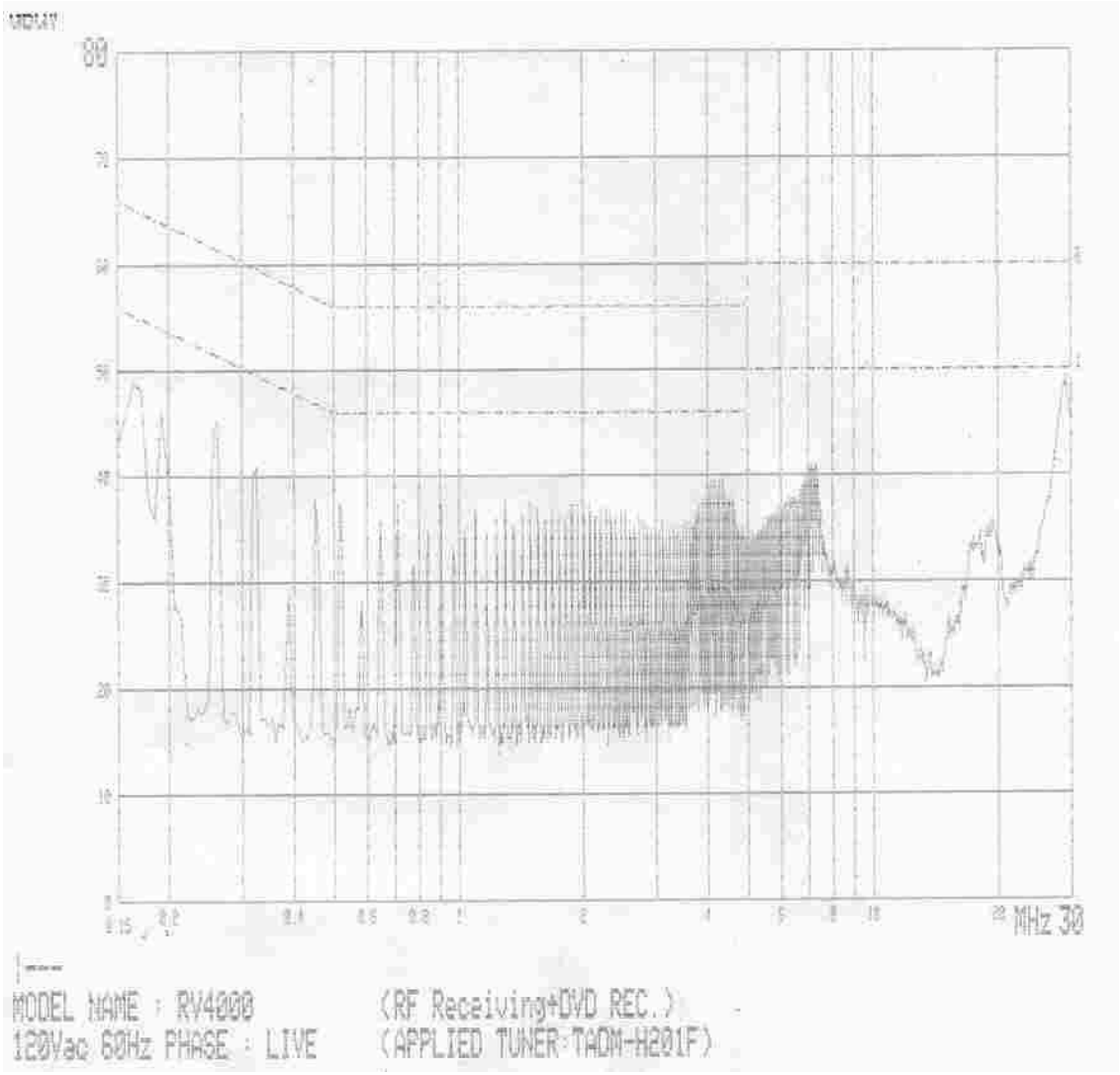

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.168 | 47.9 | 20.9 | 65.1 | 55.1 | 17.2 | 34.2 |
| 28.147 | 43.1 | 40.0 | 60.0 | 50.0 | 16.9 | 10.0 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



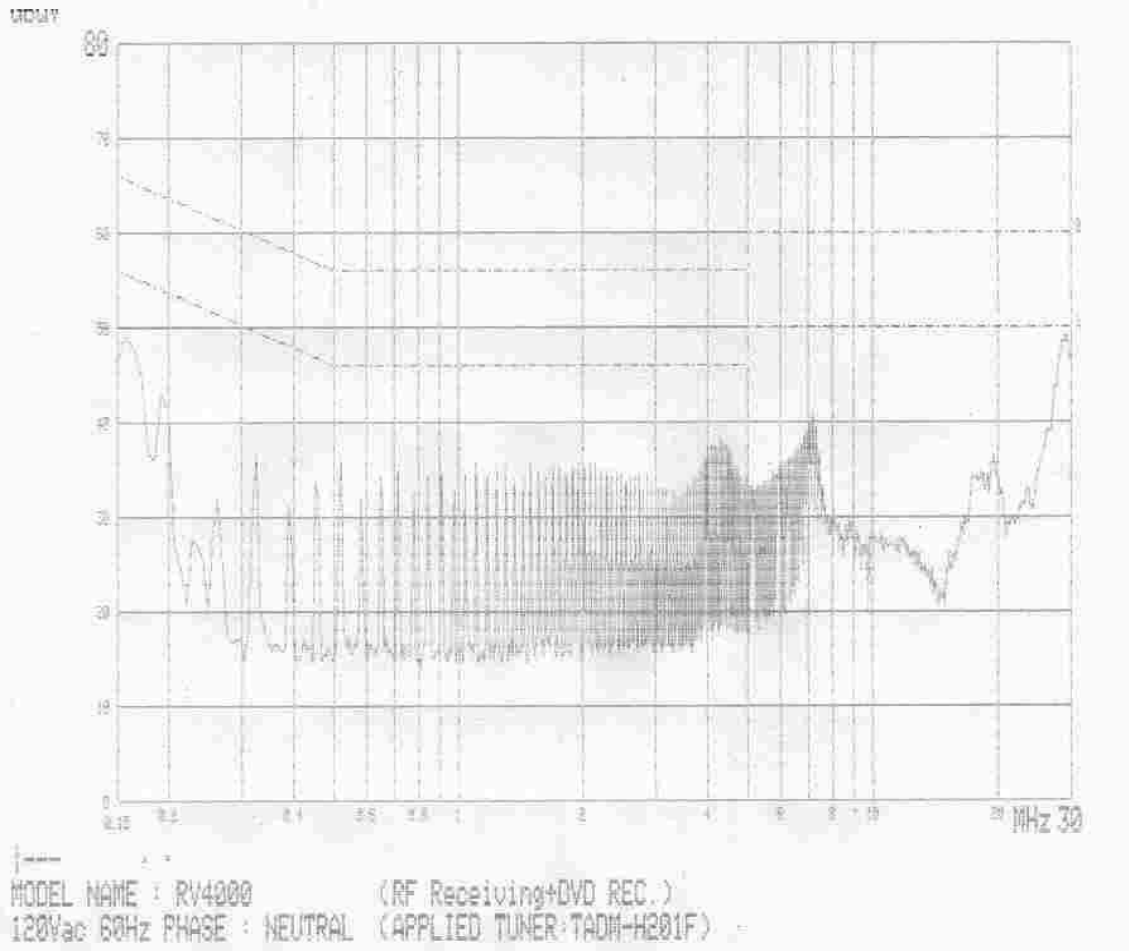

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.166 | 47.1 | 13.1 | 65.2 | 55.2 | 18.1 | 42.1 |
| 7.184 | 39.2 | 36.3 | 60.0 | 50.0 | 20.8 | 13.7 |
| 29.325 | 46.0 | 43.7 | 60.0 | 50.0 | 14.0 | 6.3 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



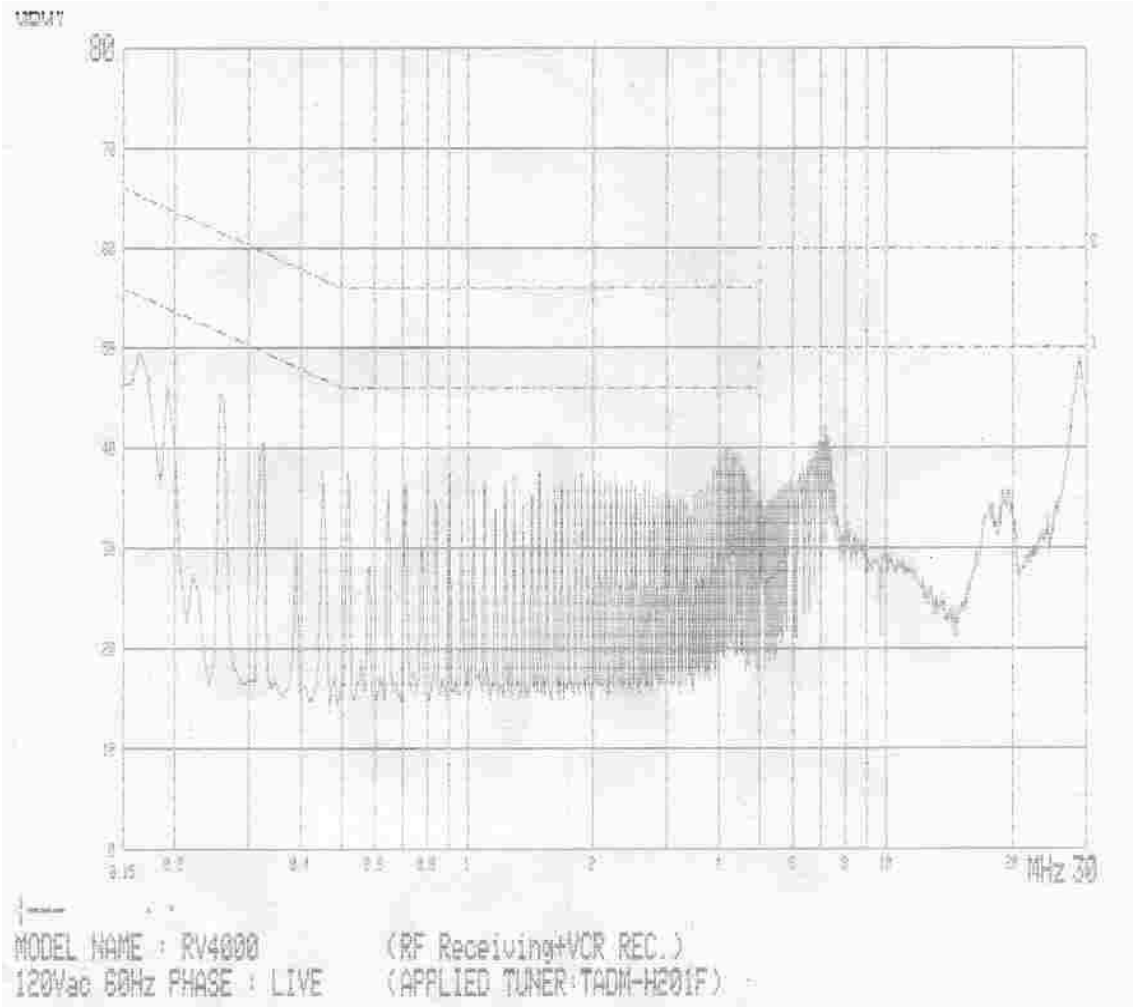

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.162 | 44.7 | 13.8 | 65.4 | 55.4 | 20.7 | 41.6 |
| 7.186 | 39.9 | 36.6 | 60.0 | 50.0 | 20.1 | 13.4 |
| 29.186 | 45.4 | 43.3 | 60.0 | 50.0 | 14.6 | 6.7 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



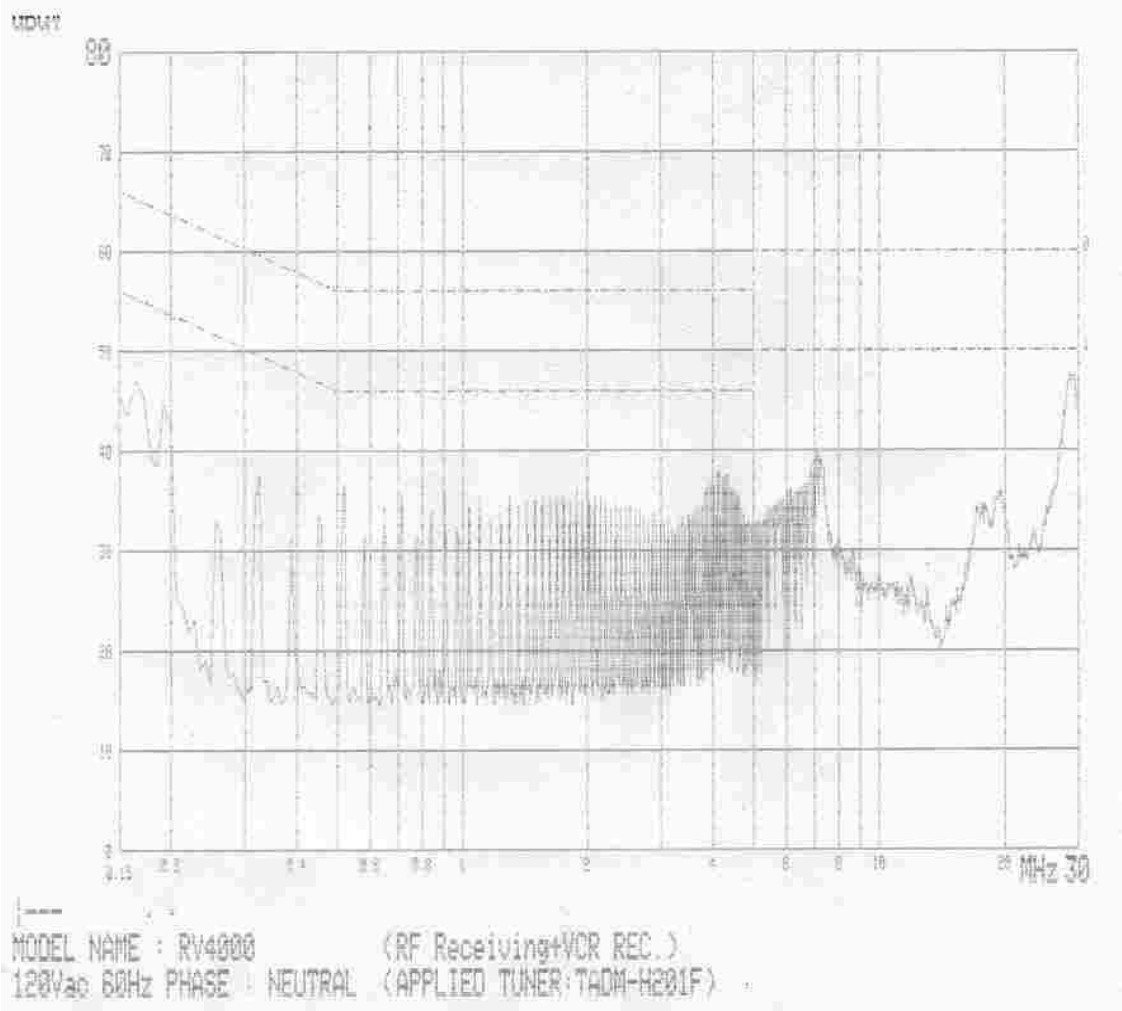

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.164 | 44.8 | 15.1 | 65.3 | 55.3 | 20.5 | 40.2 |
| 28.992 | 42.9 | 39.0 | 60.0 | 50.0 | 17.1 | 11.0 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



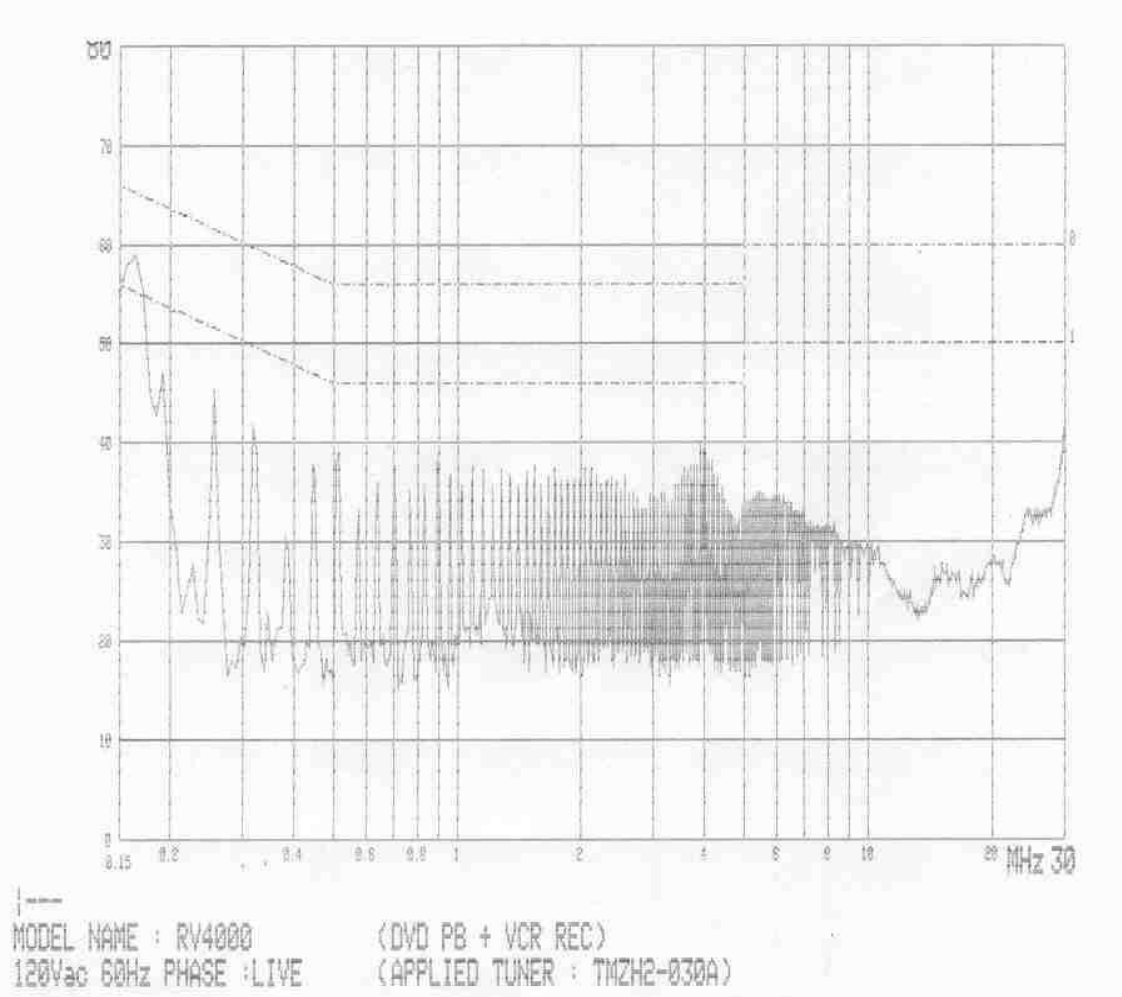

Tuner : TADM-H201F (LG)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.163 | 45.3 | 15.1 | 65.3 | 55.3 | 20.0 | 40.2 |
| 28.994 | 45.4 | 42.6 | 60.0 | 50.0 | 14.6 | 7.4 |

*Note :*

## Conducted Emissions

(Mains Terminal Disturbance Voltages)



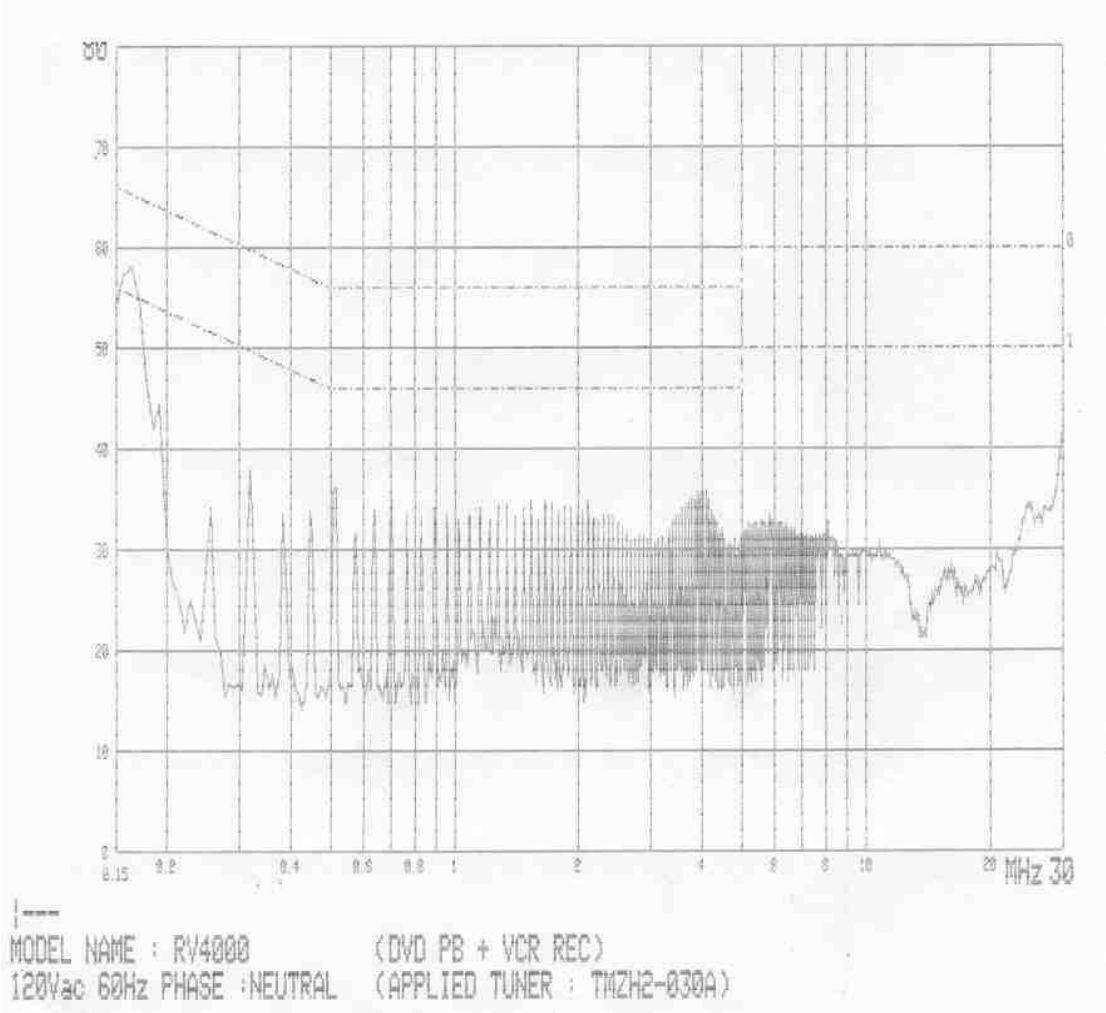

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.165 | 55.3 | 13.1 | 65.2 | 55.2 | 9.9 | 42.1 |
| 0.255 | 44.9 | 43.1 | 61.6 | 51.6 | 16.7 | 8.5 |
| 29.868 | 38.4 | 33.4 | 60.0 | 50.0 | 21.6 | 16.6 |

*Note :*

## Conducted Emissions

(Mains Terminal Disturbance Voltages)



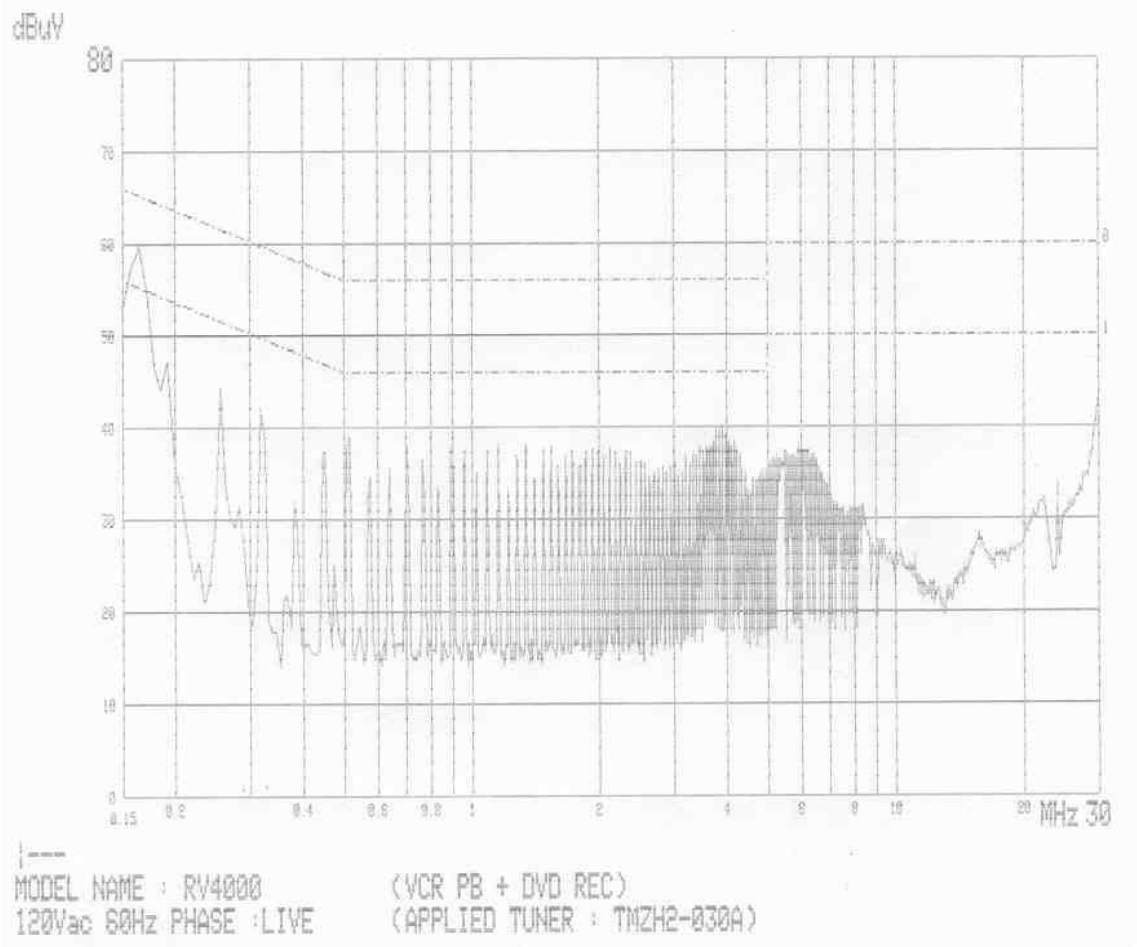

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.163 | 54.3 | 12.7 | 65.3 | 55.3 | 11.0 | 42.6 |
| 29.853 | 38.6 | 34.7 | 60.0 | 50.0 | 21.4 | 15.3 |

*Note :*

## Conducted Emissions

(Mains Terminal Disturbance Voltages)



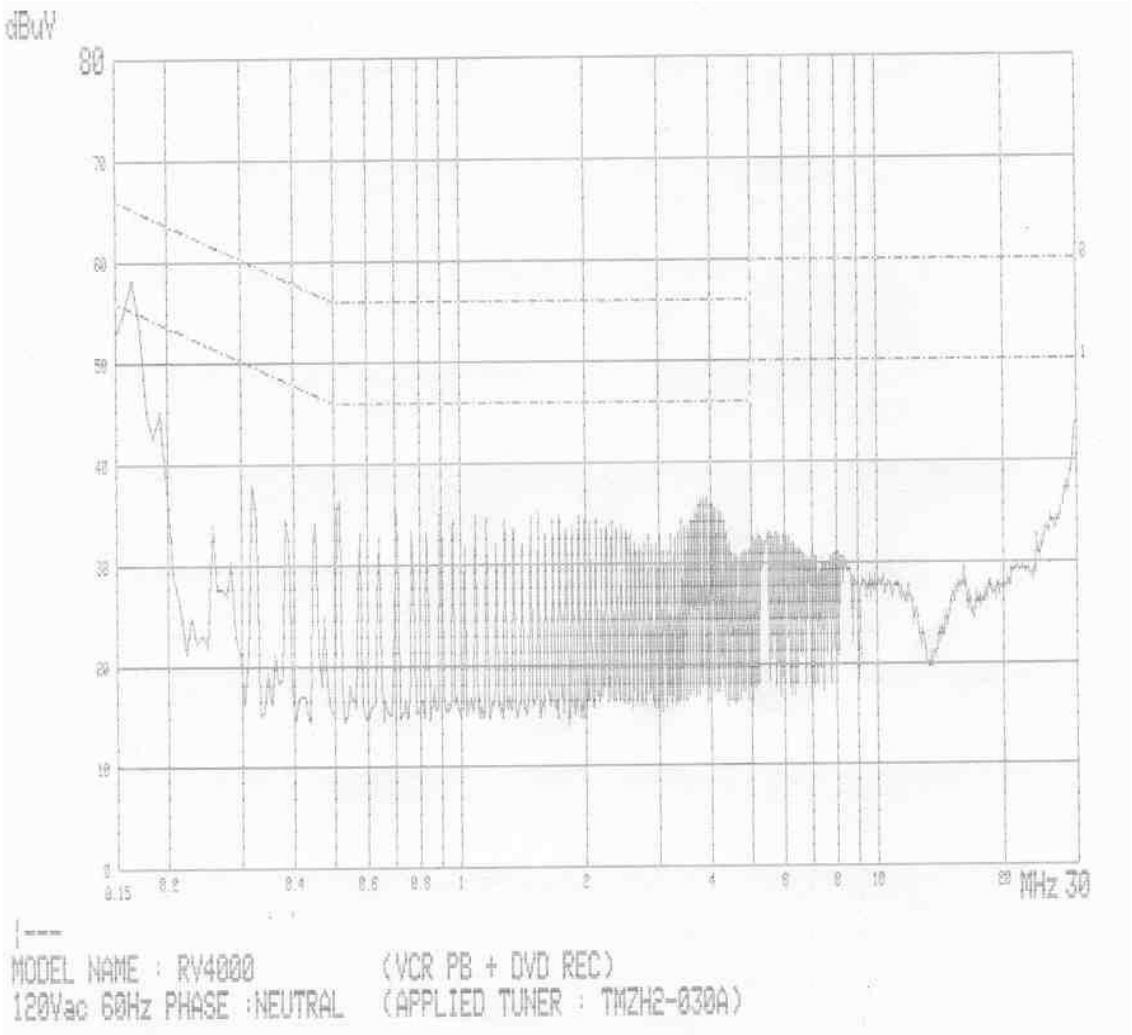

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.164 | 54.5 | 12.0 | 65.3 | 55.3 | 10.8 | 43.3 |
| 0.255 | 54.9 | 12.6 | 61.6 | 51.6 | 6.7 | 39.0 |
| 29.883 | 40.2 | 36.8 | 60.0 | 50.0 | 19.8 | 13.2 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



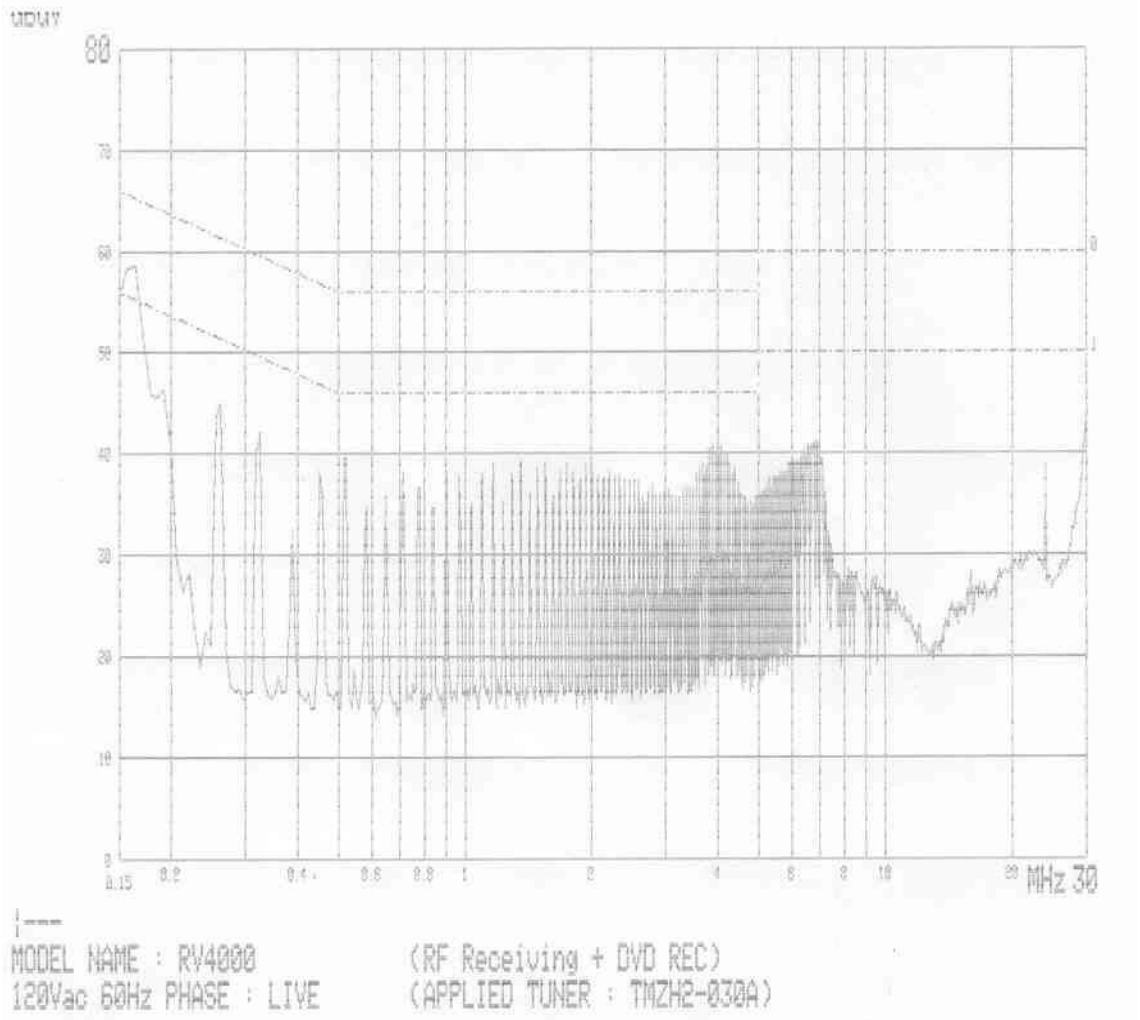

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.162 | 54.2 | 13.7 | 65.4 | 55.4 | 11.2 | 41.7 |
| 29.826 | 40.5 | 33.1 | 60.0 | 50.0 | 19.5 | 16.9 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



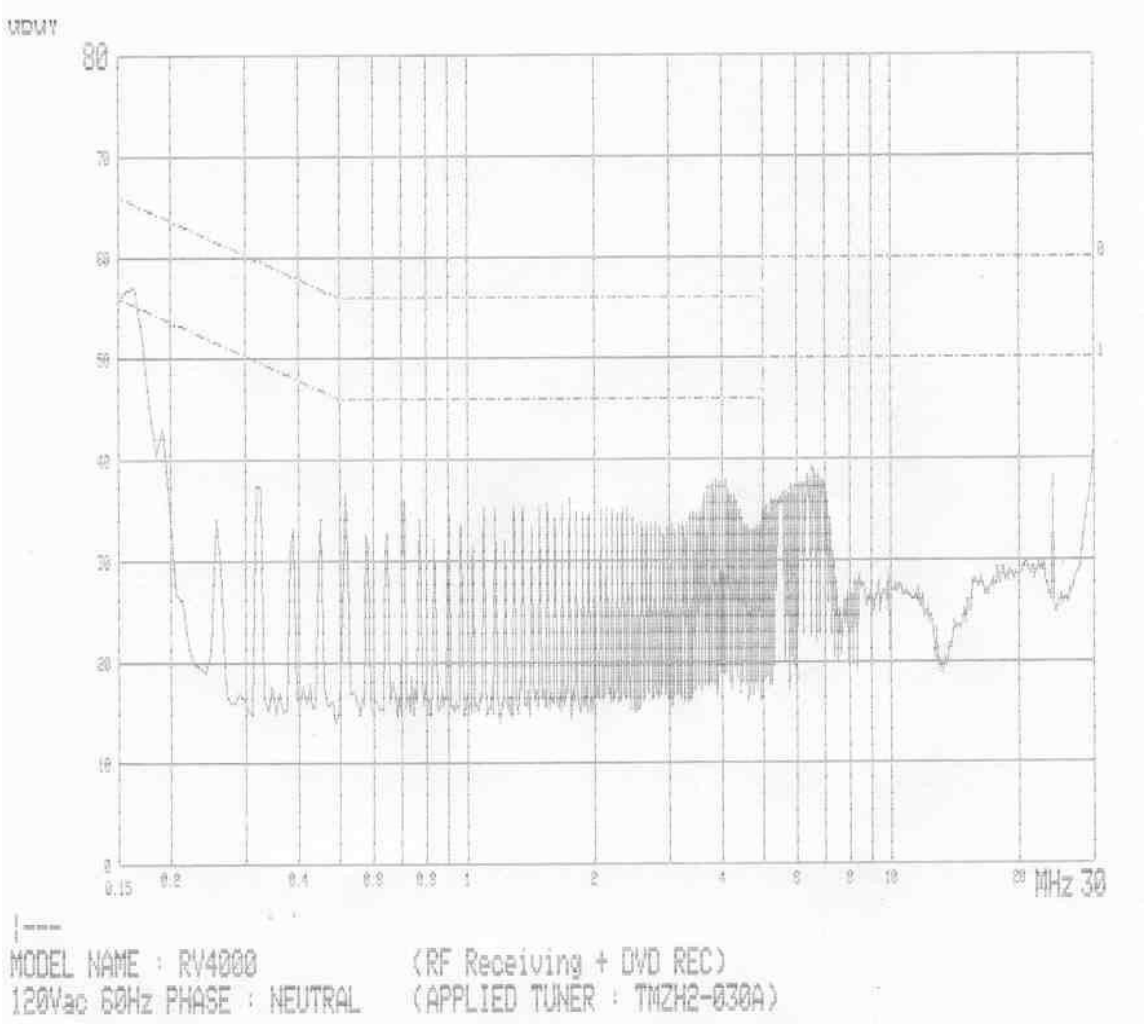

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.161 | 55.3 | 12.7 | 65.4 | 55.4 | 10.1 | 42.7 |
| 0.257 | 44.5 | 42.8 | 61.5 | 51.5 | 17.0 | 8.7 |
| 29.824 | 40.6 | 32.5 | 60.0 | 50.0 | 19.4 | 17.5 |

*Note :*

## Conducted Emissions

(Mains Terminal Disturbance Voltages)



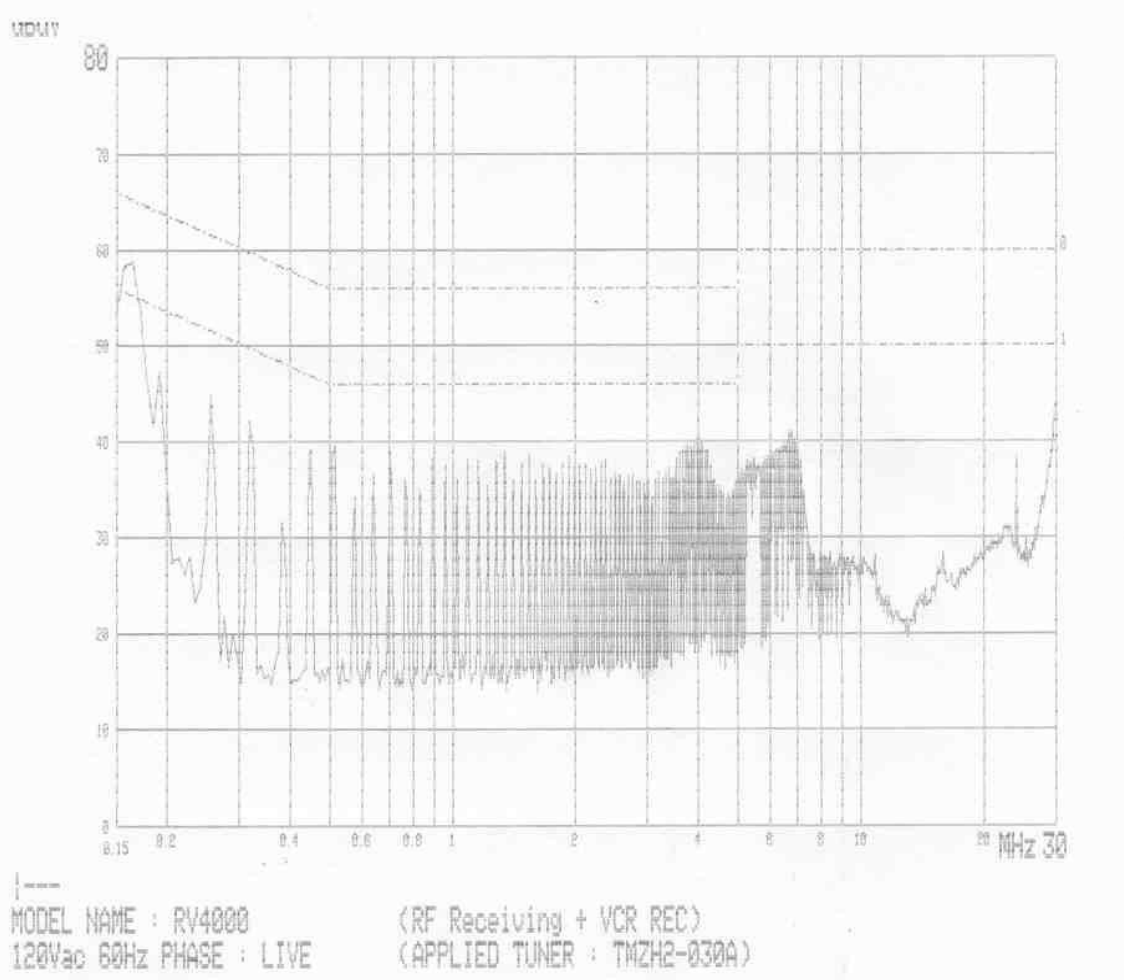

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.161 | 54.1 | 12.5 | 65.4 | 55.4 | 11.3 | 42.9 |
| 29.834 | 38.1 | 34.6 | 60.0 | 50.0 | 21.9 | 15.4 |

*Note :*

# Conducted Emissions

(Mains Terminal Disturbance Voltages)



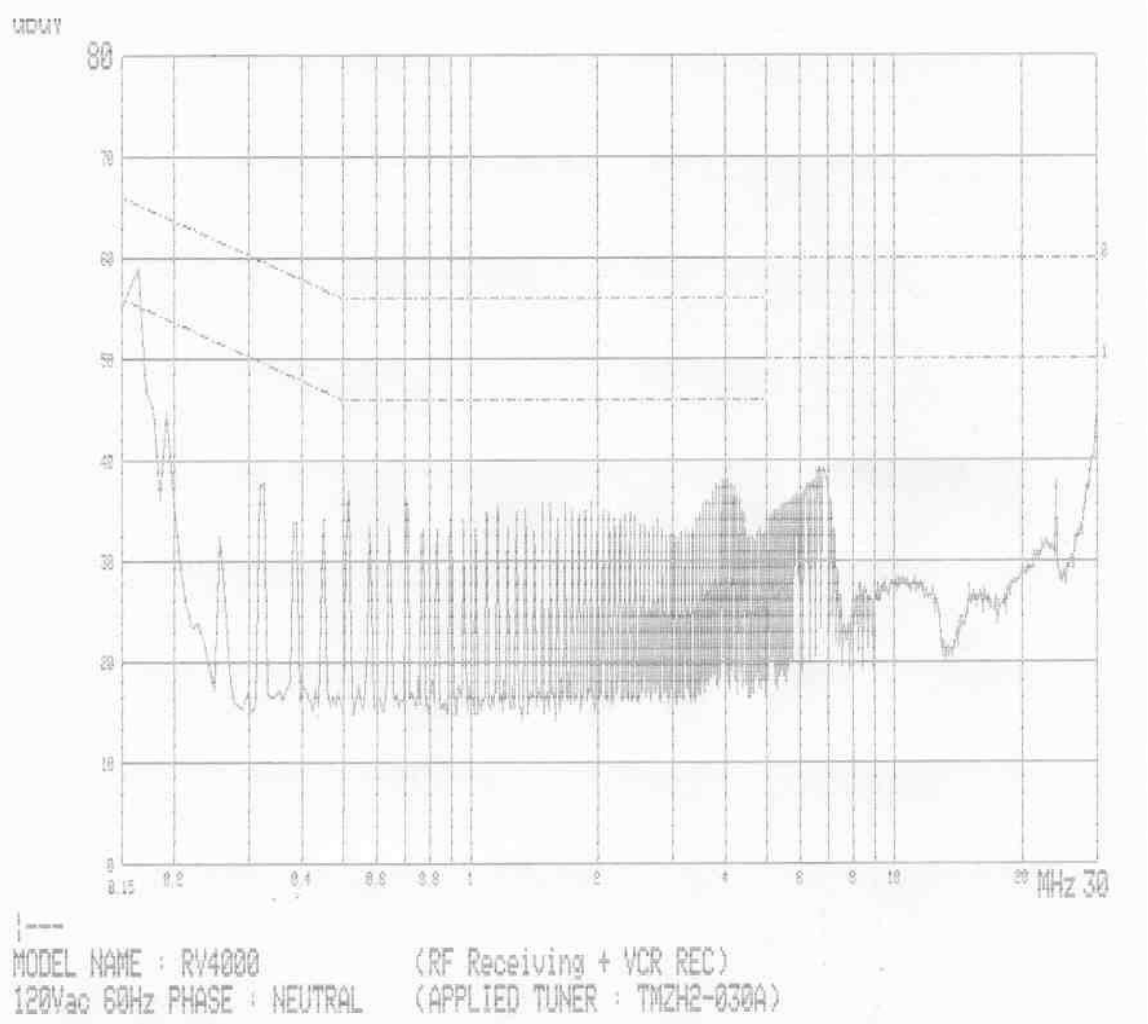

Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.163 | 55.2 | 12.3 | 65.3 | 55.3 | 10.1 | 43.0 |
| 0.256 | 44.5 | 42.8 | 61.6 | 51.6 | 17.1 | 8.8 |
| 29.851 | 39.6 | 33.8 | 60.0 | 50.0 | 20.4 | 16.2 |

*Note :*

## Conducted Emissions

(Mains Terminal Disturbance Voltages)




Tuner : TMZH2-030A (ALPS)

| Freq. [MHz] | Measurement [dB μV] | | Limit [dB μV] | | Margin [dB] | |
|---|---|---|---|---|---|---|
| | Q-peak | Average | Q-peak | Average | Q-peak | Average |
| 0.161 | 54.6 | 12.3 | 65.4 | 55.4 | 10.8 | 43.1 |
| 29.848 | 40.2 | 36.5 | 60.0 | 50.0 | 19.8 | 13.5 |

*Note :*

# TEST CONDITIONS AND DATA

**Radiated Emissions**

**[Applicable]**

◆ Test Equipment Used

**The test equipment used is calibrated in regular for every year.**

| Model Name | Manufacturer | Descriptions |
|---|---|---|
| ESVP | Rohde & Schwarz | Test Receiver |
| VULB9160 | Schwarzbeck | Antenna |
| EZM | Rohde & Schwarz | Spectrum Monitor |
| PM5418 | FLUKE | Pattern Generator |

◆ Auxiliary Equipment Used

| Model Name | Manufacturer | Descriptions |
|---|---|---|
| 14C5T BLU | Daewoo Electronics. | Color TV Receiver |

◆ Accessories including cables

| Name | Length | Port and Descriptions |
|---|---|---|
| RCA | 1.5m | Video / Audio |
| S-Video | 1.5m | |

◆ Environmental Conditions

| | |
|---|---|
| Temperature | 20℃ |
| Humidity | 50 % |
| Atmosphere pressure | 1002mbar |

◆ Test Program DVD Playback + VCR REC, VCR Playback + DVD REC, RF Receiving + VCR REC, RF Receiving + DVD REC

◆ Test Area Open Area Test Site #2

*Note :*

# Radiated Emissions

(Disturbance Radiation)

**[Applicable]**

**Tuner : TADM-H201F (LG)**

| System | CH | Freq. (MHz) | Pol. (H/V) | Limits (dBuV/m) | Result (dBuV/m) | Margin (dB) |
|---|---|---|---|---|---|---|
| DVD Playback | | 73.7 | H | 40.0 | 36.6 | 3.4 |
| + | | 110.6 | H | 43.5 | 36.7 | 6.8 |
| VCR record | | 116.7 | H | 43.5 | 40.5 | 3.0 |
| | | 147.4 | H | 43.5 | 37.4 | 6.1 |
| | | 258.0 | H | 46.0 | 41.9 | 4.1 |
| | | 294.9 | H | 46.0 | 36.3 | 9.7 |
| VCR Playback | | 73.7 | H | 40.0 | 36.1 | 3.9 |
| + | | 110.6 | H | 43.5 | 35.9 | 7.6 |
| DVD record | | 116.7 | H | 43.5 | 40.3 | 3.2 |
| | | 147.4 | H | 43.5 | 37.6 | 5.9 |
| | | 258.0 | H | 46.0 | 42.5 | 3.5 |
| | | 294.9 | H | 46.0 | 36.2 | 9.8 |
| RF Receiving | | 73.7 | H | 40.0 | 36.7 | 3.3 |
| + | | 83.0 | H | 40.0 | 32.9 | 7.1 |
| VCR record | | 110.6 | H | 43.5 | 36.7 | 6.8 |
| | | 116.7 | H | 43.5 | 40.3 | 3.2 |
| | | 147.4 | H | 43.5 | 37.5 | 6.0 |
| | | 258.0 | H | 46.0 | 42.1 | 3.9 |
| | | 294.9 | H | 46.0 | 36.9 | 9.1 |
| RF Receiving | | 73.7 | H | 40.0 | 36.8 | 3.2 |
| + | | 83.0 | H | 40.0 | 33.0 | 7.0 |
| DVD record | | 110.6 | H | 43.5 | 36.5 | 7.0 |
| | | 116.7 | H | 43.5 | 40.4 | 3.1 |
| | | 147.4 | H | 43.5 | 37.1 | 6.4 |
| | | 258.0 | H | 46.0 | 42.3 | 3.7 |
| | | 294.9 | H | 46.0 | 36.5 | 9.5 |

End of data

*Note :*

# Radiated Emissions

(Disturbance Radiation)

**[Applicable]**

**Tuner : TMZH2-030A(ALPS)**

| System | CH | Freq. (MHz) | Pol. (H/V) | Limits (dBuV/m) | Result (dBuV/m) | Margin (dB) |
|---|---|---|---|---|---|---|
| DVD Playback | | 58.0 | V | 40.0 | 36.8 | 3.2 |
| + | | 73.7 | H | 40.0 | 36.9 | 3.1 |
| VCR record | | 79.9 | H | 40.0 | 33.9 | 6.1 |
| | | 83.1 | H | 40.0 | 33.8 | 6.2 |
| | | 116.7 | H | 43.5 | 37.4 | 6.1 |
| | | 159.7 | H | 43.5 | 40.5 | 3.0 |
| | | 399.9 | H | 46.0 | 42.3 | 3.7 |
| | | 449.9 | H | 46.0 | 42.8 | 3.2 |
| VCR Playback | | 73.7 | H | 40.0 | 35.9 | 4.1 |
| + | | 110.6 | H | 43.5 | 35.7 | 7.8 |
| DVD record | | 116.7 | H | 43.5 | 36.6 | 6.9 |
| | | 122.9 | H | 43.5 | 34.2 | 9.3 |
| | | 159.7 | H | 43.5 | 40.4 | 3.1 |
| | | 449.9 | H | 46.0 | 42.8 | 3.2 |
| RF Receiving | | 58.0 | V | 40.0 | 36.8 | 3.2 |
| + | | 73.7 | H | 40.0 | 36.9 | 3.1 |
| VCR record | | 79.9 | H | 40.0 | 33.9 | 6.1 |
| | | 110.6 | H | 43.5 | 36.7 | 6.8 |
| | | 116.7 | H | 43.5 | 37.3 | 6.2 |
| | | 122.9 | H | 43.5 | 34.5 | 9.0 |
| | | 159.7 | H | 43.5 | 40.4 | 3.1 |
| | | 399.9 | H | 46.0 | 42.4 | 3.6 |
| | | 449.9 | H | 46.0 | 42.7 | 3.3 |
| RF Receiving | | 58.0 | V | 40.0 | 36.9 | 3.1 |
| + | | 73.7 | H | 40.0 | 36.8 | 3.2 |
| DVD record | | 83.1 | H | 40.0 | 33.6 | 6.4 |
| | | 110.6 | H | 43.5 | 36.6 | 6.9 |
| | | 116.7 | H | 43.5 | 37.2 | 6.3 |
| | | 122.9 | H | 43.5 | 34.7 | 8.8 |
| | | 159.7 | H | 43.5 | 40.5 | 3.0 |
| | | 399.9 | H | 46.0 | 42.0 | 4.0 |
| | | 449.9 | H | 46.0 | 42.9 | 3.1 |

End of data

*Note :*