JAPAN QUALITY ASSURANCE ORGANIZATION
21-25, KINUTA 1-CHOME, SETAGAYA-KU, TOKYO 157 JAPAN
PHONE (03) 3416-0111, TELEX 242-2531 JQA J FAX (03) 3416-9691

FCC ID : APYTCG037

# TEST REPORT
# FOR TV INTERFACE DEVICES UNDER FCC PART 15

Date : July 2, 1999
Issued at : TOKYO, JAPAN

JQA APPLICATION NO. : 80-90183

APPLICANT : SHARP CORPORATION
174, Hayakawa-cho, Yaita-shi, Tochigi 329-2193, Japan.

MANUFACTURER : SHARP CORPORATION
174, Hayakawa-cho, Yaita-shi, Tochigi 329-2193, Japan.

TYPE OF EQUIPMENT : Video Cassette Recorder

REGULATION APPLIED : FCC Rules and Regulations Part 15 Subpart B (1989)

MEASUREMENT PROCEDURES USED : ANSI C63.4-1992

PLACE OF MEASUREMENT : JQA EMC Engineering Department (Anechoic Chamber No.3)
(Expiration date of FCC test facility filing : June 04, 2002)

The test results are only applicable to the test item as described below.
This report should not be reproduced, except in full, without the approval of the JQA EMC Engineering Department.

Masaaki Takahashi, Manager
Testing Division
EMC Engineering Department

Model No. : VC-H998U
Serial No. : 906000001

# Table of Contents

Model No. : VC-H998U
Serial No. : 906000001

1. Description of EUT

| | | |
|---|---|---|
| 1.1) | Category | : TV Interface Device |
| 1.2) | Equipment Authorization | : Certification |
| 1.3) | FCC ID | : APYTCG037 |
| 1.4) | Brand Name | : SHARP |
| 1.5) | Model No. | : VC-H998U |
| 1.6) | Serial No. | : 906000001 |
| 1.7) | Date of Manufacture | : June, 1999 |
| 1.8) | Highest Frequency Used | : 67.25 MHz |
| 1.9) | Rating Power Supply | : AC 120 V, 60 Hz |
| 1.10) | RF Output Channels | : Channel No.3 and Channel No.4 |
| 1.11) | RF Output Terminal | : F-type Connector / 75 ohms (Unbalanced) |

2. Test Condition of EUT

| | | |
|---|---|---|
| 2.1) | Operating Condition | : Playing Mode / Recording Mode |
| 2.2) | Grounding | : None |
| 2.3) | Warm-up Time | : 5 minutes |
| 2.4) | Power Supply | : AC 120 V, 60 Hz |

Model No. : VC-H998U
Serial No. : 906000001

3. All Terminals of EUT

3.1) Input Terminals

| | Description of Terminal | Type of Connector | Number of Terminals |
|---|---|---|---|
| Rear Side : | RF Terminal | F-type Connector | 1 |
| | Audio Terminal | Phono Jack | 2 |
| | Video Terminal | Phono Jack | 1 |
| Front Side : | Audio Terminal | Phono Jack | 2 |
| | Video Terminal | Phono Jack | 1 |

Note: Each input terminals of EUT were terminated with the terminator of specified impedances.

3.2) Output Terminals

| | Description of Terminal | Type of Connector | Number of Terminals |
|---|---|---|---|
| Rear Side : | RF Terminal | F-type Connector | 1 |
| | Audio Terminal | Phono Jack | 2 |
| | Video Terminal | Phono Jack | 1 |

Front Side : None

Note: Each output terminals of EUT were connected to the cable terminated with the specified impedances.

Model No. : VC-H998U
Serial No. : 906000001

4. Type of Connected Cables

| Description of Cable | Shielded | Length | Number of Cables | Supplied |
|---|---|---|---|---|
| RF Cable | Yes | 1.0 m | 1 | Yes |
| Audio/video Cable | Yes | 1.0 m | 1 | No |

Notes: 1) Each input terminals of EUT were terminated with the terminator of specified impedances.
2) Each output terminals of EUT were connected to the cable terminated with the specified impedances.

5. Testing Signal Sources

5.1) Internal Modulation Sources : NTSC TV Signal Recording Tape

5.2) Video Modulation Sources : VITS (1 Vp-p and 5 Vp-p)

5.3) RF Modulation Sources : NTSC Colorbar (70 dB/uV at 193.25 MHz)

6. Configuration of EUT

Model No. : VC-H998U
Serial No. : 906000001

7. Summary of Measurement Result

The EUT was complied with the requirements of FCC Rules and Regulations Part 15 Subpart B (1989) as detailed from page 7 to page 48.

| | |
|---|---|
| §15.107(a) AC Powerline Conducted Emissions Measurement | : PASSED |
| Margins with respect to the Limit | : 13.5 dB at 0.45 MHz |
| §15.109(a) Radiated Emissions Measurement | : PASSED |
| Margins with respect to the Limit | : 10.5 dB at 45.8 MHz |
| §15.115(b)(1)(ii) Output Signal Level Measurement | : PASSED |
| Margins with respect to the Limit | : 2.7 dB at 61.27 MHz |
| §15.115(b)(2)(ii) Spurious Conducted Level Measurement | : PASSED |
| Margins with respect to the Limit | : 6.3 dB at 77.2 MHz |
| §15.115(c)(1)(ii) Antenna Transfer Switch Measurement | : PASSED |
| Margins with respect to the Limit | : 7.9 dB at 61.22 MHz |

I HEREBY STATE THAT:
The measurements shown in the reports of this form were made in accordance with the procedures indicated and the energy emitted by this equipment was found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements and vouch for the qualification of all persons taking them.

Testing Supervisor : Toshiyuki Itoi

Toshiyuki Itoi, Deputy Manager
Testing Division
EMC Engineering Department

Model No. : VC-H998U
Serial No. : 906000001

Date : June 30, 1999
Temp. : 24 °C; Humi. : 42 %

# 8. §15.107(a) AC Powerline Conducted Emissions Measurement

Tested by : T. Aoki

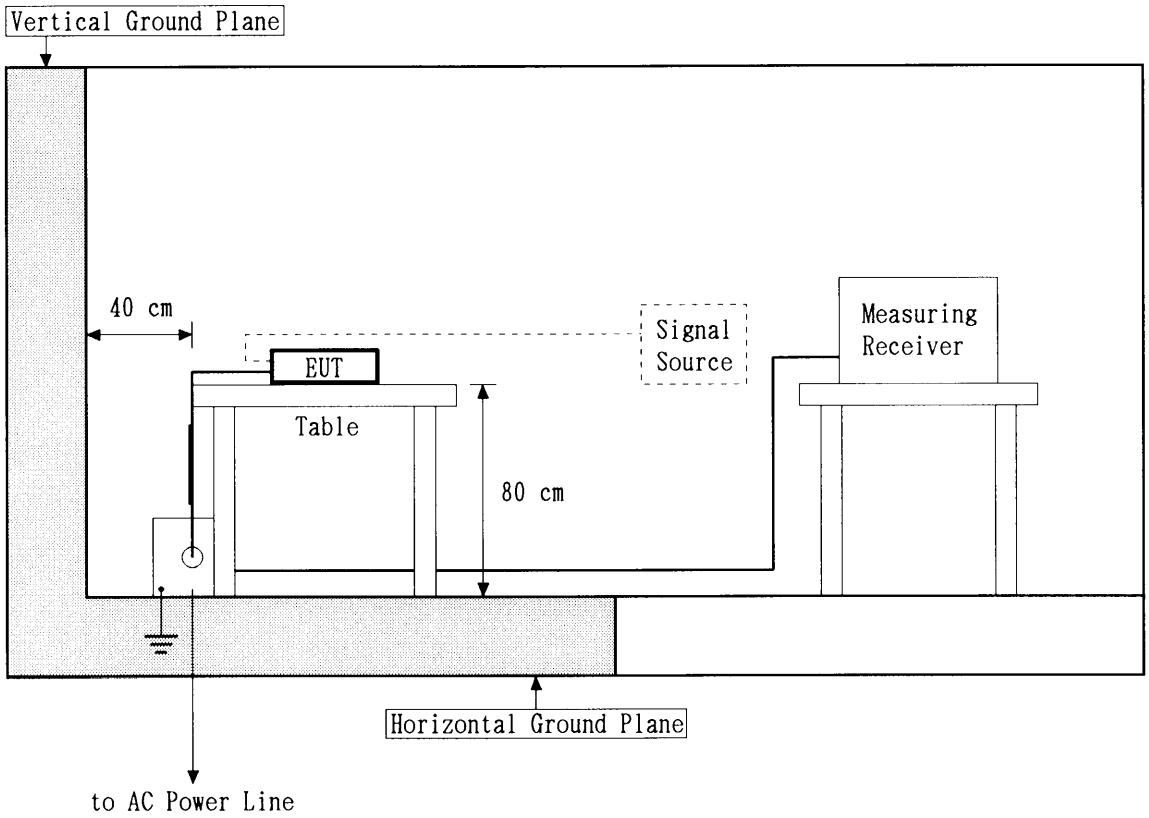
Takashi Aoki, Deputy Manager
Testing Division
EMC Engineering Department

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Configuration of EUT

Side View



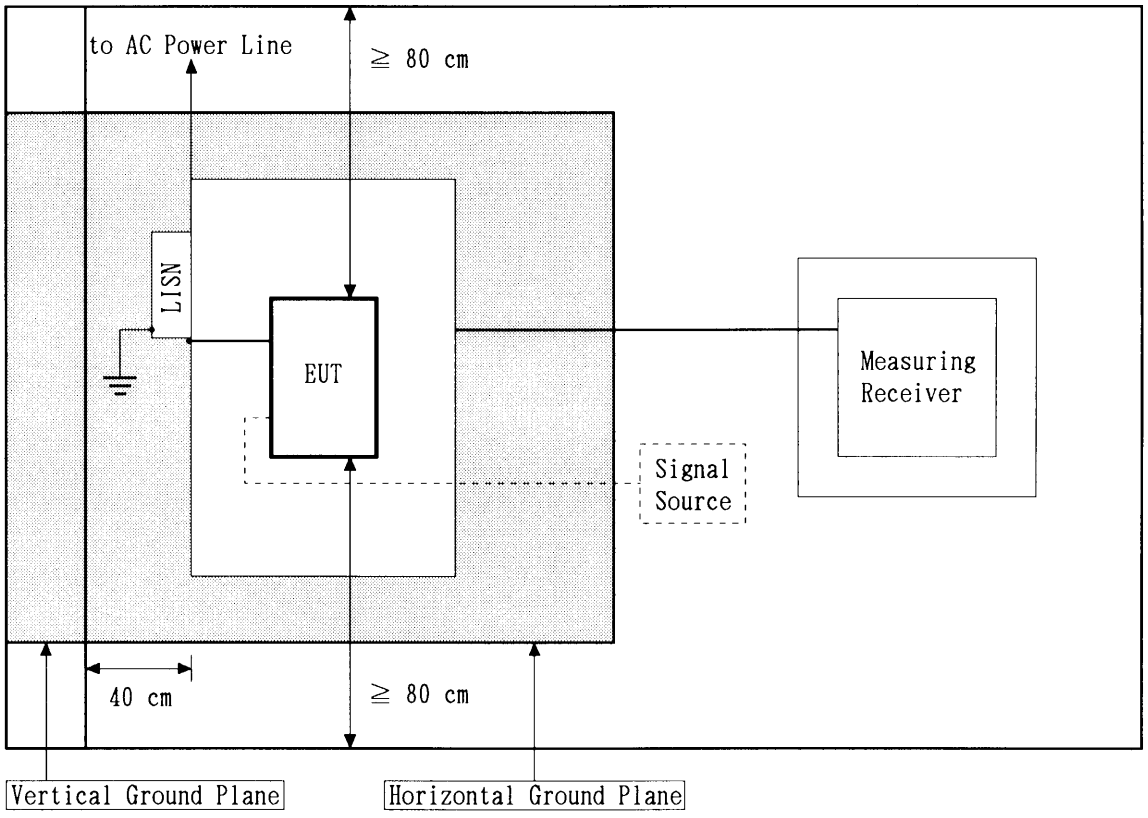

Note: The same configuration of cables and terminators which were connected to VCR was applied to all applicable measurements, shown as photograph in page 19 and 20.

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Configuration of EUT

Top View



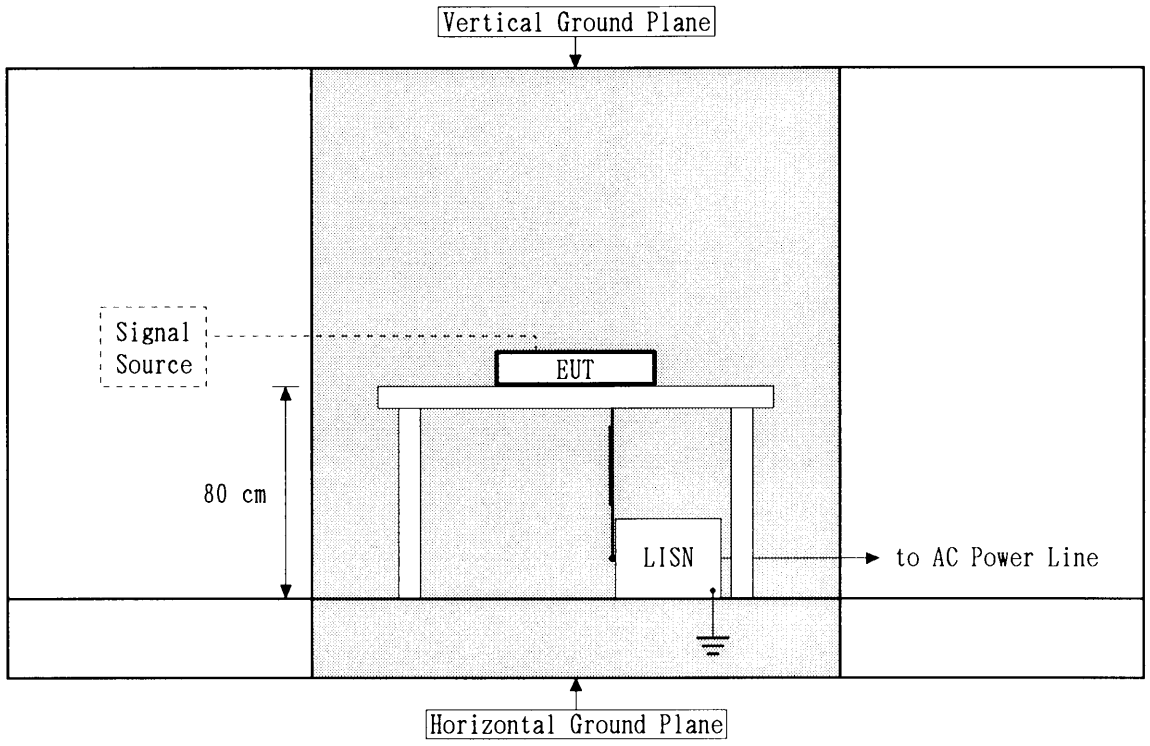

Note: The same configuration of cables and terminators which were connected to VCR was applied to all applicable measurements, shown as photograph in page 19 and 20.

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Configuration of EUT

Front View




Note: The same configuration of cables and terminators which were connected to VCR was applied to all applicable measurements, shown as photograph in page 19 and 20.

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

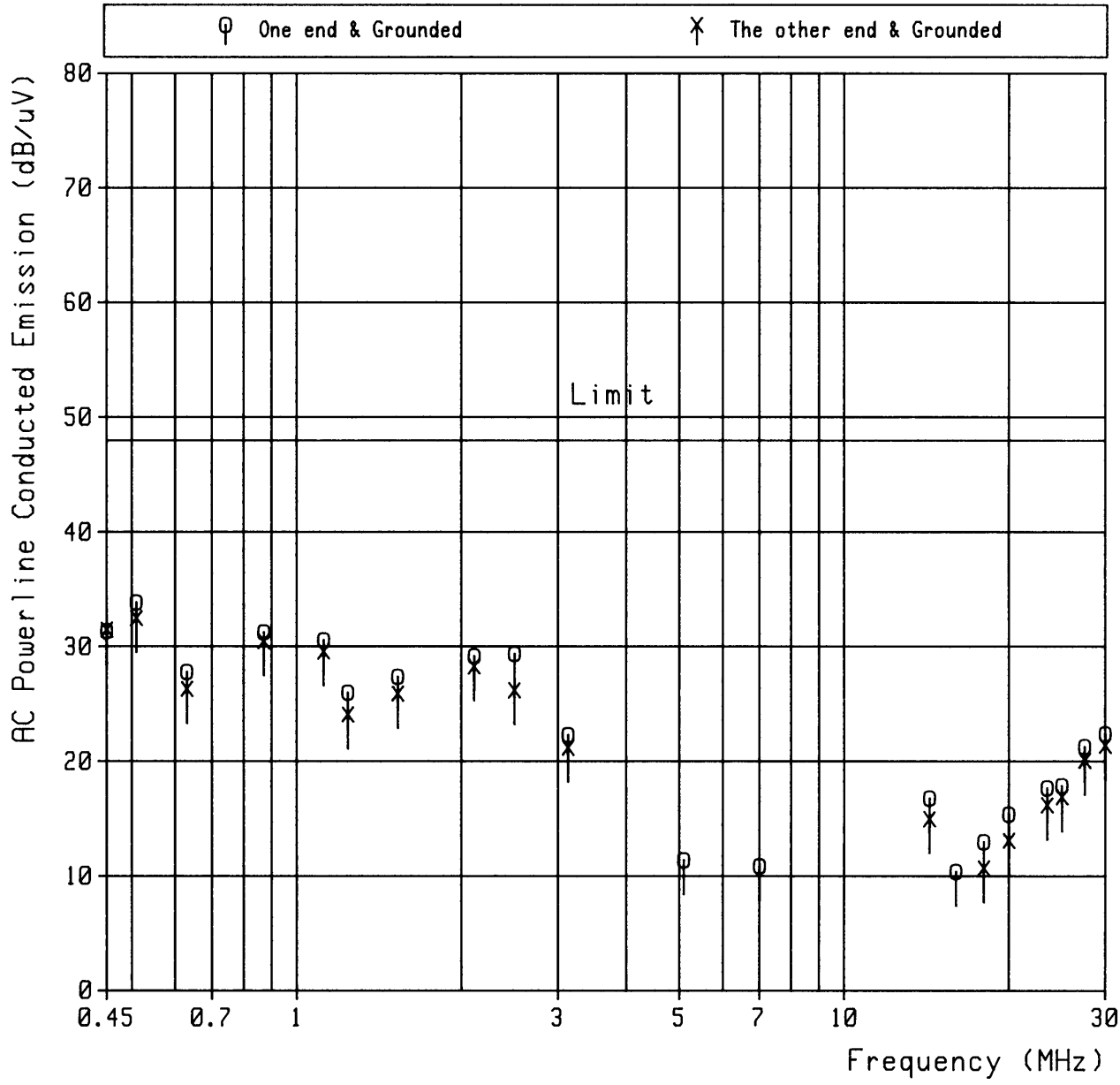
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | | Result (dB/uV) | | Limit (dB/uV) |
|---|---|---|---|---|---|---|
| | | V-A | V-B | V-A | V-B | |
| 0.45 | 0.2 | 31.2 | 31.3 | 31.4 | 31.5 | 48.0 |
| 0.51 | 0.2 | 33.7 | 32.3 | 33.9 | 32.5 | 48.0 |
| 0.63 | 0.2 | 27.6 | 26.1 | 27.8 | 26.3 | 48.0 |
| 0.87 | 0.2 | 31.1 | 30.3 | 31.3 | 30.5 | 48.0 |
| 1.12 | 0.2 | 30.4 | 29.4 | 30.6 | 29.6 | 48.0 |
| 1.24 | 0.2 | 25.8 | 23.9 | 26.0 | 24.1 | 48.0 |
| 1.53 | 0.2 | 27.2 | 25.7 | 27.4 | 25.9 | 48.0 |
| 2.11 | 0.2 | 29.0 | 28.1 | 29.2 | 28.3 | 48.0 |
| 2.50 | 0.2 | 29.2 | 26.0 | 29.4 | 26.2 | 48.0 |
| 3.13 | 0.2 | 22.1 | 21.0 | 22.3 | 21.2 | 48.0 |
| 5.09 | 0.2 | 11.2 | < 10.0 | 11.4 | < 10.2 | 48.0 |
| 7.00 | 0.2 | 10.7 | < 10.0 | 10.9 | < 10.2 | 48.0 |
| 9.00 | 0.2 | < 10.0 | < 10.0 | < 10.2 | < 10.2 | 48.0 |
| 11.00 | 0.2 | < 10.0 | < 10.0 | < 10.2 | < 10.2 | 48.0 |
| 13.00 | 0.3 | < 10.0 | < 10.0 | < 10.3 | < 10.3 | 48.0 |
| 14.32 | 0.3 | 16.5 | 14.7 | 16.8 | 15.0 | 48.0 |
| 16.00 | 0.3 | 10.1 | < 10.0 | 10.4 | < 10.3 | 48.0 |
| 18.00 | 0.4 | 12.6 | 10.3 | 13.0 | 10.7 | 48.0 |
| 20.00 | 0.4 | 15.0 | 12.7 | 15.4 | 13.1 | 48.0 |
| 23.50 | 0.5 | 17.2 | 15.7 | 17.7 | 16.2 | 48.0 |
| 25.00 | 0.5 | 17.4 | 16.4 | 17.9 | 16.9 | 48.0 |
| 27.50 | 0.6 | 20.7 | 19.5 | 21.3 | 20.1 | 48.0 |
| 30.00 | 0.6 | 21.8 | 20.8 | 22.4 | 21.4 | 48.0 |

Notes: 1) The spectrum was checked from 0.45 MHz to 30 MHz.
2) V-A : One end & Grounded ; V-B : The other end & Grounded
3) The symbol of '<' means 'or less'.
4) Correction Factor includes a LISN factor and a cable (2.0 m) loss.
5) A sample calculation was made at 0.51 MHz.
Correction Factor + Meter Reading = 0.2 + 33.7 = 33.9 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

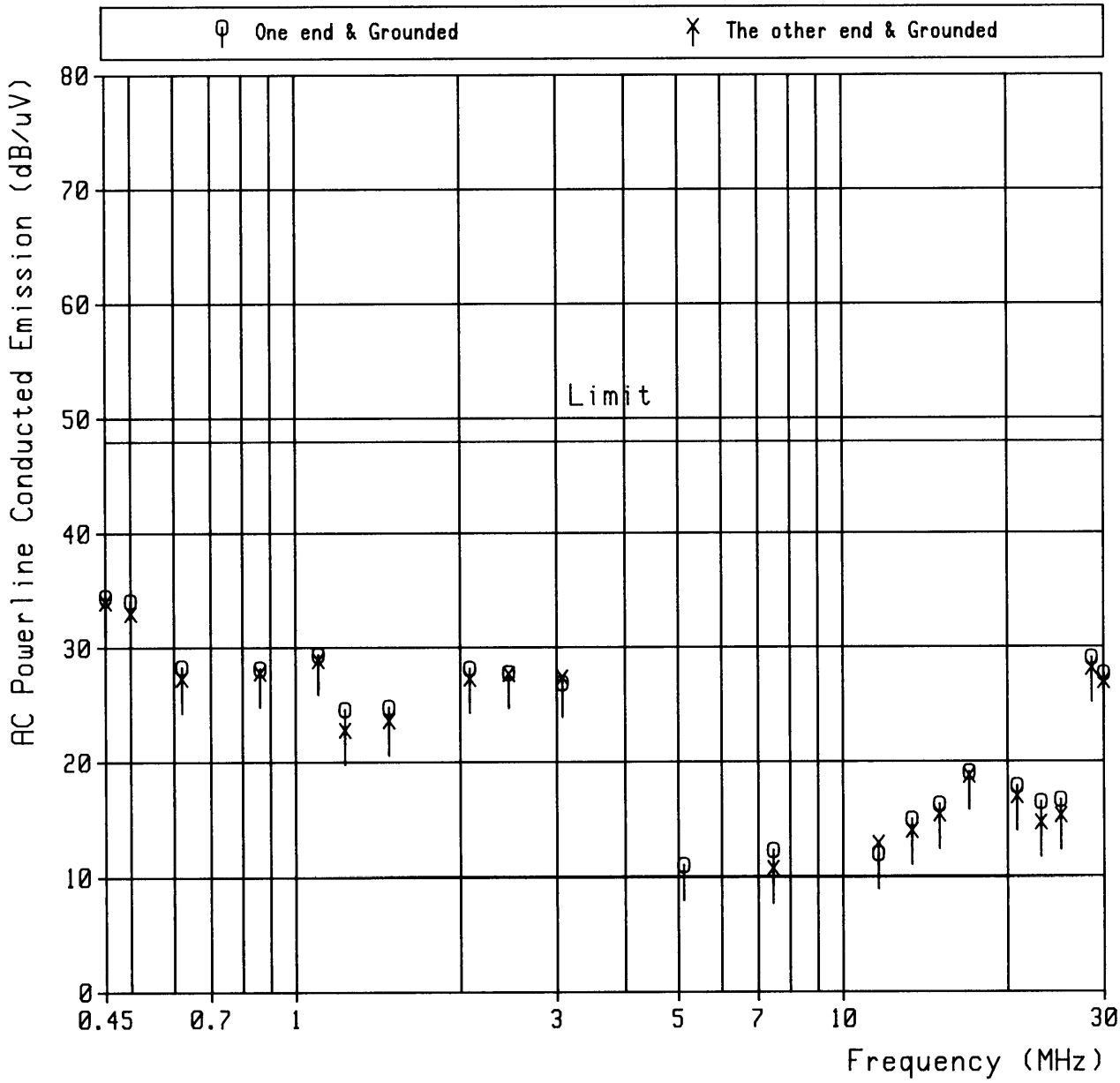
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | | Result (dB/uV) | | Limit (dB/uV) |
|---|---|---|---|---|---|---|
| | | V-A | V-B | V-A | V-B | |
| 0.45 | 0.2 | 34.3 | 33.8 | 34.5 | 34.0 | 48.0 |
| 0.50 | 0.2 | 33.9 | 32.8 | 34.1 | 33.0 | 48.0 |
| 0.62 | 0.2 | 28.1 | 27.1 | 28.3 | 27.3 | 48.0 |
| 0.86 | 0.2 | 28.0 | 27.6 | 28.2 | 27.8 | 48.0 |
| 1.10 | 0.2 | 29.2 | 28.7 | 29.4 | 28.9 | 48.0 |
| 1.23 | 0.2 | 24.4 | 22.6 | 24.6 | 22.8 | 48.0 |
| 1.48 | 0.2 | 24.6 | 23.4 | 24.8 | 23.6 | 48.0 |
| 2.08 | 0.2 | 28.0 | 27.1 | 28.2 | 27.3 | 48.0 |
| 2.45 | 0.2 | 27.6 | 27.5 | 27.8 | 27.7 | 48.0 |
| 3.07 | 0.2 | 26.7 | 27.2 | 26.9 | 27.4 | 48.0 |
| 5.11 | 0.2 | 10.8 | < 10.0 | 11.0 | < 10.2 | 48.0 |
| 7.45 | 0.2 | 12.1 | 10.5 | 12.3 | 10.7 | 48.0 |
| 11.60 | 0.2 | 11.8 | 12.7 | 12.0 | 12.9 | 48.0 |
| 13.36 | 0.3 | 14.7 | 13.7 | 15.0 | 14.0 | 48.0 |
| 15.00 | 0.3 | 16.0 | 15.1 | 16.3 | 15.4 | 48.0 |
| 17.00 | 0.3 | 18.8 | 18.5 | 19.1 | 18.8 | 48.0 |
| 20.80 | 0.4 | 17.5 | 16.6 | 17.9 | 17.0 | 48.0 |
| 23.00 | 0.5 | 16.0 | 14.2 | 16.5 | 14.7 | 48.0 |
| 25.00 | 0.5 | 16.2 | 14.8 | 16.7 | 15.3 | 48.0 |
| 28.51 | 0.6 | 28.5 | 27.6 | 29.1 | 28.2 | 48.0 |
| 30.00 | 0.6 | 27.1 | 26.4 | 27.7 | 27.0 | 48.0 |

Notes: 1) The spectrum was checked from 0.45 MHz to 30 MHz.
2) V-A : One end & Grounded ; V-B : The other end & Grounded
3) The symbol of '<' means 'or less'.
4) Correction Factor includes a LISN factor and a cable (2.0 m) loss.
5) A sample calculation was made at 0.45 MHz.
Correction Factor + Meter Reading = 0.2 + 34.3 = 34.5 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

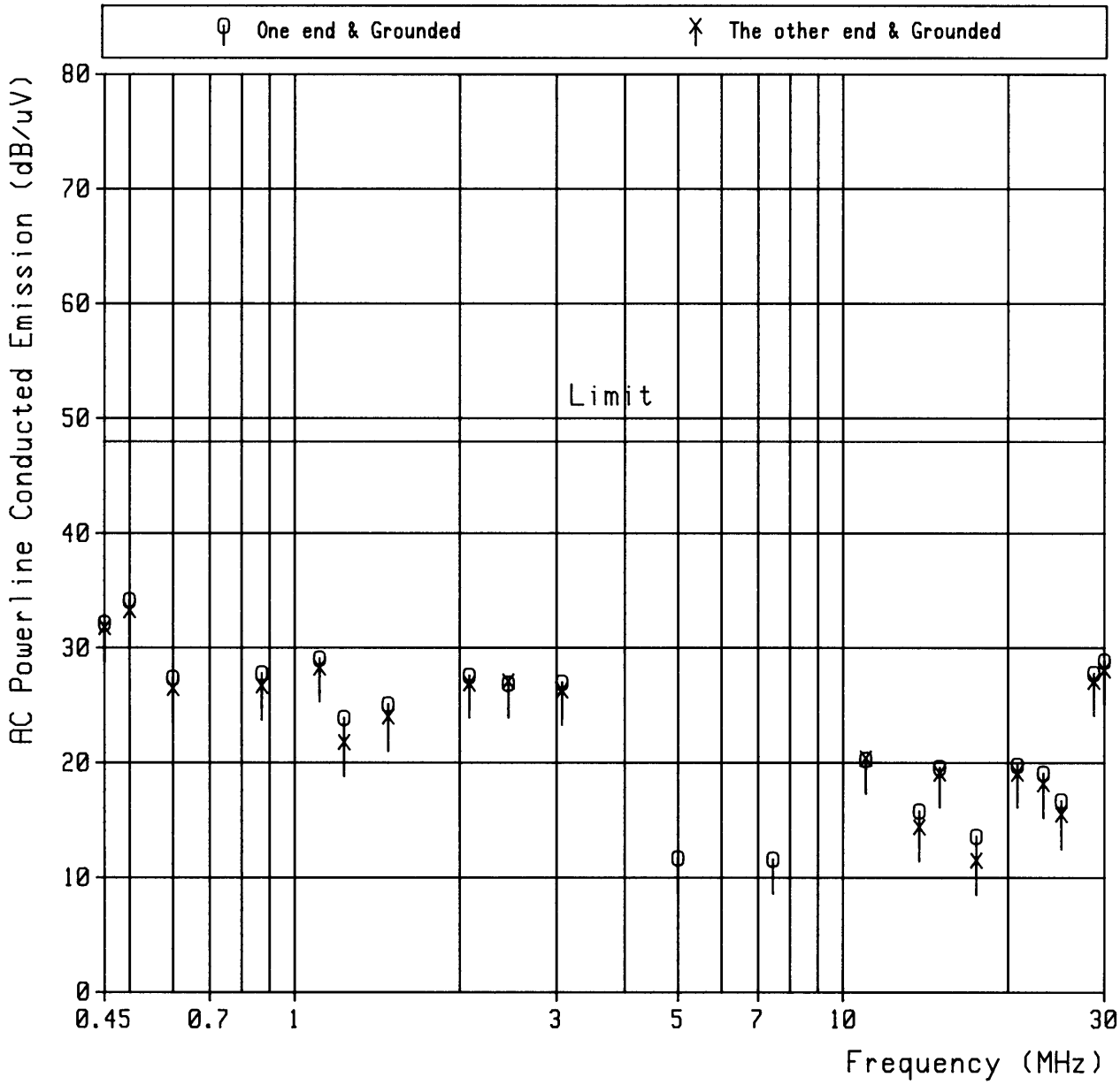
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | | Result (dB/uV) | | Limit (dB/uV) |
|---|---|---|---|---|---|---|
| | | V-A | V-B | V-A | V-B | |
| 0.45 | 0.2 | 32.0 | 31.6 | 32.2 | 31.8 | 48.0 |
| 0.50 | 0.2 | 34.0 | 33.1 | 34.2 | 33.3 | 48.0 |
| 0.60 | 0.2 | 27.2 | 26.3 | 27.4 | 26.5 | 48.0 |
| 0.87 | 0.2 | 27.6 | 26.5 | 27.8 | 26.7 | 48.0 |
| 1.11 | 0.2 | 28.9 | 28.1 | 29.1 | 28.3 | 48.0 |
| 1.23 | 0.2 | 23.7 | 21.6 | 23.9 | 21.8 | 48.0 |
| 1.48 | 0.2 | 24.9 | 23.8 | 25.1 | 24.0 | 48.0 |
| 2.08 | 0.2 | 27.4 | 26.7 | 27.6 | 26.9 | 48.0 |
| 2.45 | 0.2 | 26.7 | 26.9 | 26.9 | 27.1 | 48.0 |
| 3.07 | 0.2 | 26.8 | 26.1 | 27.0 | 26.3 | 48.0 |
| 5.00 | 0.2 | 11.5 | < 10.0 | 11.7 | < 10.2 | 48.0 |
| 7.45 | 0.2 | 11.4 | < 10.0 | 11.6 | < 10.2 | 48.0 |
| 11.00 | 0.2 | 20.1 | 20.2 | 20.3 | 20.4 | 48.0 |
| 13.77 | 0.3 | 15.5 | 14.1 | 15.8 | 14.4 | 48.0 |
| 15.00 | 0.3 | 19.3 | 18.8 | 19.6 | 19.1 | 48.0 |
| 17.50 | 0.3 | 13.3 | 11.2 | 13.6 | 11.5 | 48.0 |
| 20.80 | 0.4 | 19.4 | 18.7 | 19.8 | 19.1 | 48.0 |
| 23.20 | 0.5 | 18.6 | 17.7 | 19.1 | 18.2 | 48.0 |
| 25.00 | 0.5 | 16.2 | 15.0 | 16.7 | 15.5 | 48.0 |
| 28.68 | 0.6 | 27.2 | 26.5 | 27.8 | 27.1 | 48.0 |
| 30.00 | 0.6 | 28.3 | 27.5 | 28.9 | 28.1 | 48.0 |

Notes: 1) The spectrum was checked from 0.45 MHz to 30 MHz.
2) V-A : One end & Grounded ; V-B : The other end & Grounded
3) The symbol of '<' means 'or less'.
4) Correction Factor includes a LISN factor and a cable (2.0 m) loss.
5) A sample calculation was made at 0.50 MHz.
Correction Factor + Meter Reading = 0.2 + 34.0 = 34.2 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.107(a) AC Powerline Conducted Emissions Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

Date : June 29, 1999
Temp. : 24 °C; Humi. : 42 %

# 9. §15.109(a) Radiated Emissions Measurement

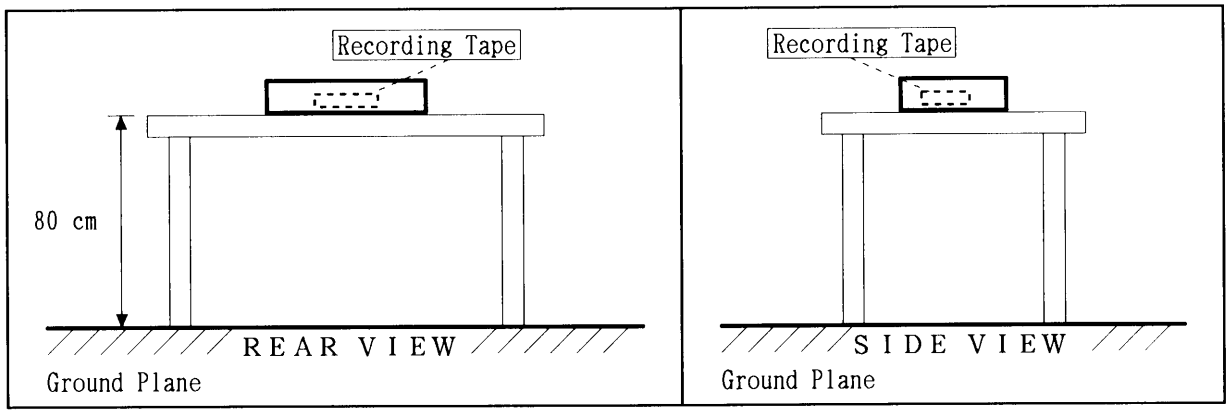
Tested by : T. Aoki

Takashi Aoki, Deputy Manager
Testing Division
EMC Engineering Department

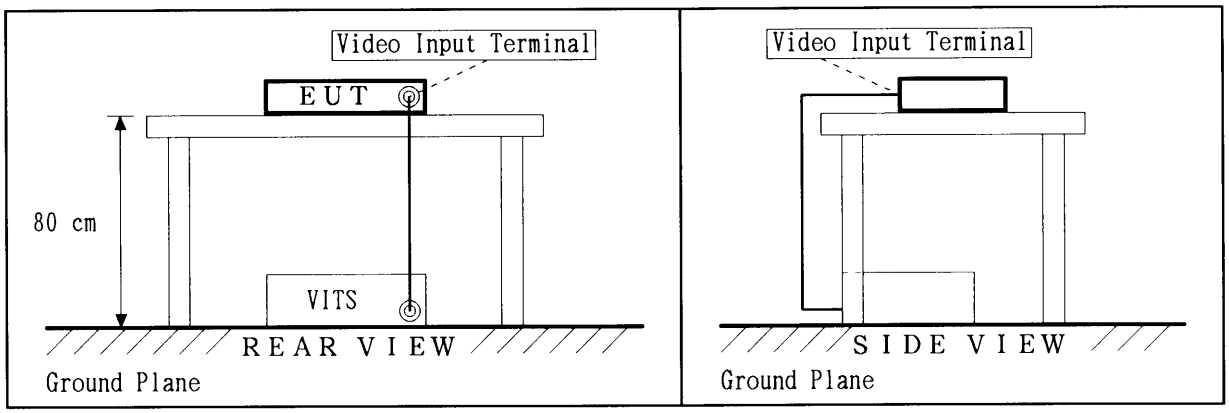
Model No. : VC-H998U
Serial No. : 906000001

Configuration of Testing Signal Sources

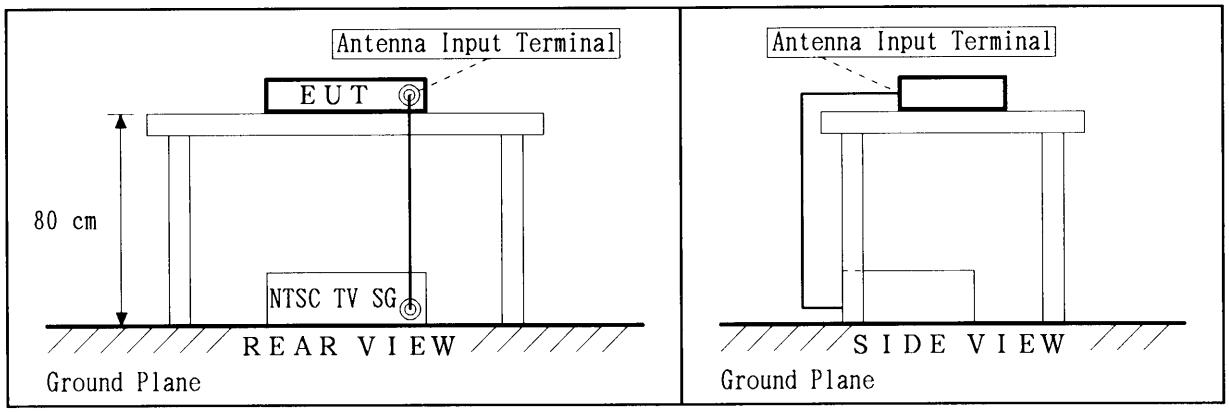
Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)




Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)



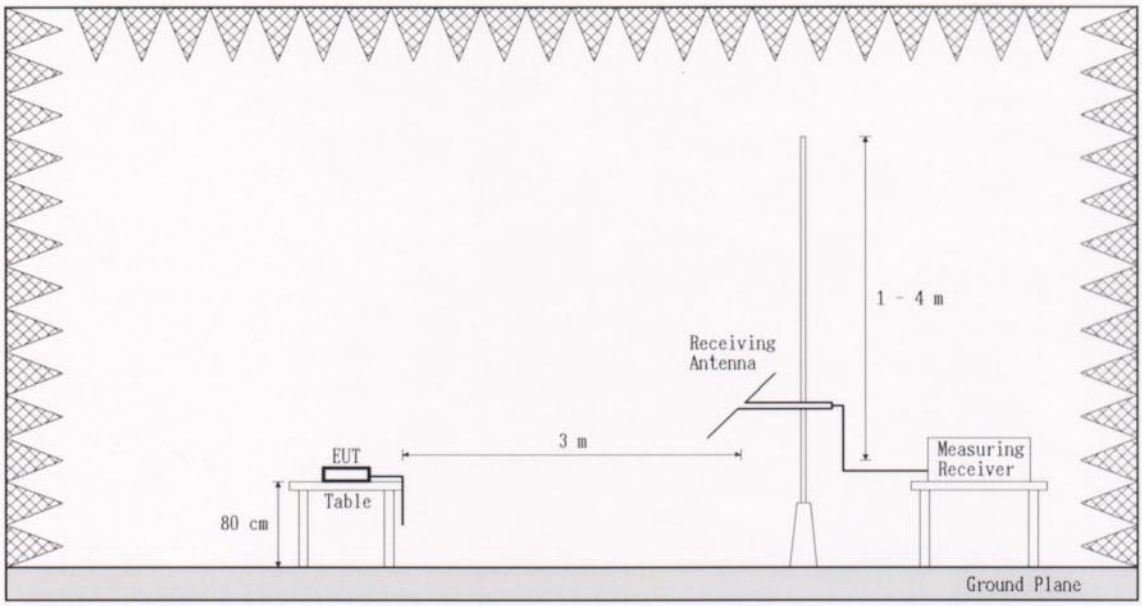

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)



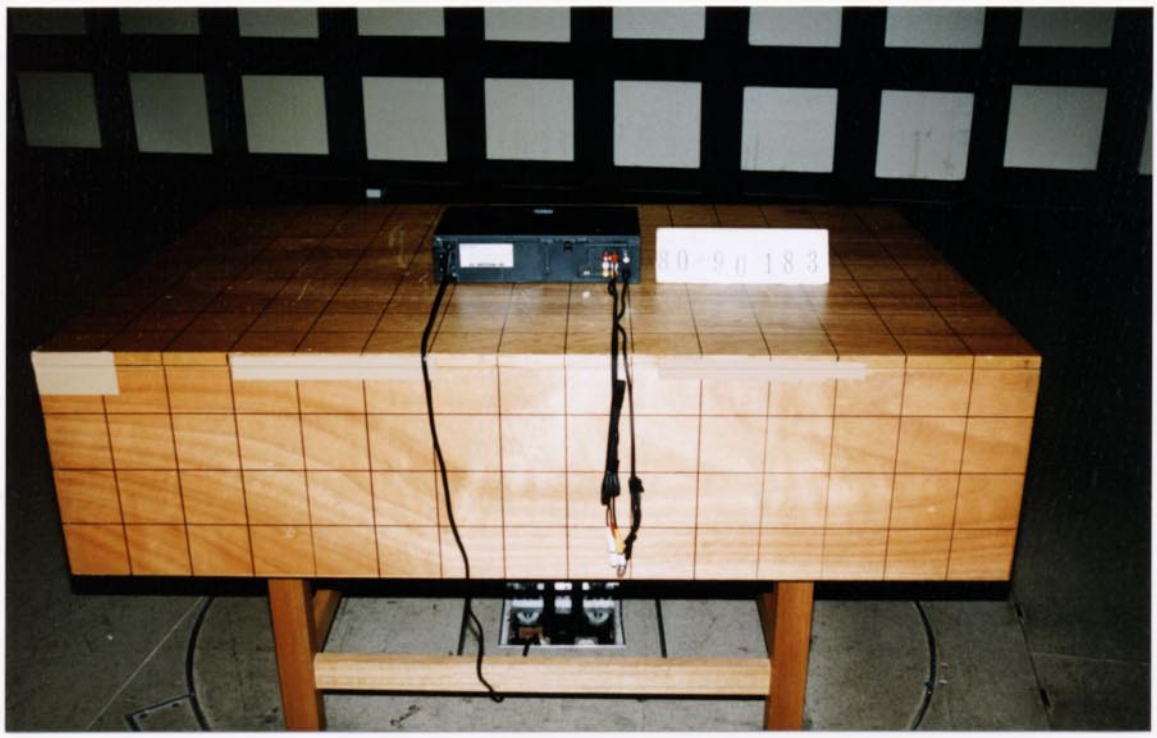
Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Configuration of EUT




Arrangement of Interface Cables
Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)



Model No. : VC-H998U
Serial No. : 906000001

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)


Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)

Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

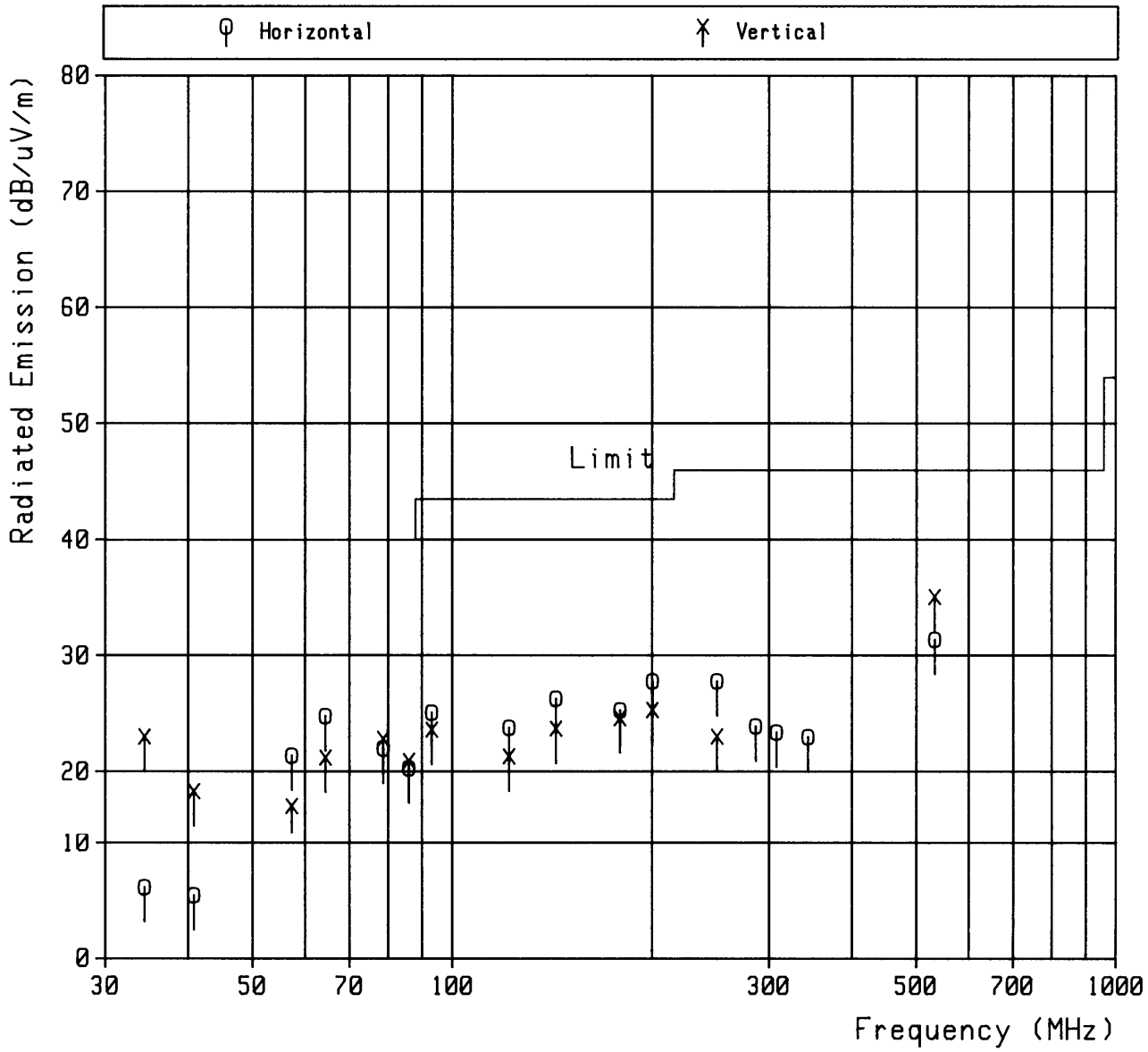
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | | Result (dB/uV/m) | | Limit (dB/uV/m) |
|---|---|---|---|---|---|---|
| | | Horizontal | Vertical | Horizontal | Vertical | |
| 34.4 | 0.2 | 6.0 | 22.8 | 6.2 | 23.0 | 40.0 |
| 40.8 | 1.7 | 3.8 | 16.6 | 5.5 | 18.3 | 40.0 |
| 57.3 | 4.8 | 16.6 | 12.2 | 21.4 | 17.0 | 40.0 |
| 64.4 | 5.9 | 18.9 | 15.3 | 24.8 | 21.2 | 40.0 |
| 78.7 | 7.7 | 14.3 | 15.1 | 22.0 | 22.8 | 40.0 |
| 86.0 | 8.6 | 11.7 | 12.3 | 20.3 | 20.9 | 40.0 |
| 93.1 | 9.3 | 15.8 | 14.3 | 25.1 | 23.6 | 43.5 |
| 121.7 | 11.8 | 12.0 | 9.5 | 23.8 | 21.3 | 43.5 |
| 143.2 | 13.3 | 13.0 | 10.4 | 26.3 | 23.7 | 43.5 |
| 179.0 | 15.4 | 9.9 | 9.2 | 25.3 | 24.6 | 43.5 |
| 200.4 | 16.5 | 11.3 | 8.8 | 27.8 | 25.3 | 43.5 |
| 250.6 | 18.6 | 9.2 | 4.4 | 27.8 | 23.0 | 46.0 |
| 286.4 | 19.9 | 4.0 | < 0.0 | 23.9 | < 19.9 | 46.0 |
| 307.8 | 20.6 | 2.8 | < 0.0 | 23.4 | < 20.6 | 46.0 |
| 343.6 | 21.7 | 1.3 | < 0.0 | 23.0 | < 21.7 | 46.0 |
| 400.0 | 23.2 | < 0.0 | < 0.0 | < 23.2 | < 23.2 | 46.0 |
| 533.0 | 26.0 | 5.4 | 9.1 | 31.4 | 35.1 | 46.0 |
| 650.0 | 28.1 | < 0.0 | < 0.0 | < 28.1 | < 28.1 | 46.0 |
| 850.0 | 31.4 | < 0.0 | < 0.0 | < 31.4 | < 31.4 | 46.0 |
| 1000.0 | 33.6 | < 0.0 | < 0.0 | < 33.6 | < 33.6 | 54.0 |

Notes: 1) Measured Distance : 3.0 m
2) The spectrum was checked from 30 MHz to 1000 MHz.
3) The symbol of '<' means 'or less'.
4) Correction Factor includes an antenna factor and a cable (14.0 m) loss.
5) A sample calculation was made at 533.0 MHz.
Correction Factor + Meter Reading = 26.0 + 9.1 = 35.1 dB/uV/m

Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

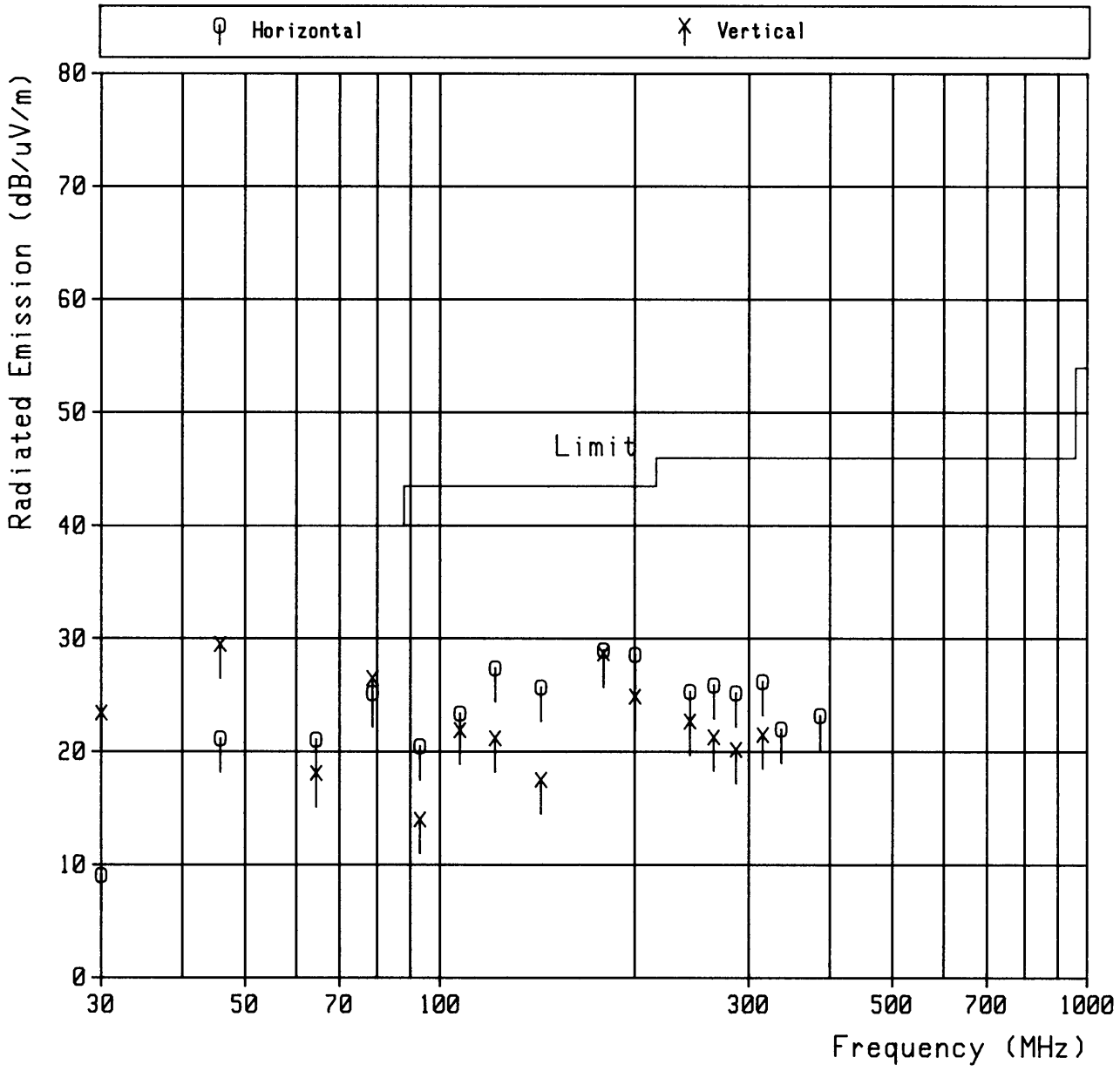
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | | Result (dB/uV/m) | | Limit (dB/uV/m) |
|---|---|---|---|---|---|---|
| | | Horizontal | Vertical | Horizontal | Vertical | |
| 30.0 | -1.1 | 10.2 | 24.5 | 9.1 | 23.4 | 40.0 |
| 45.8 | 2.8 | 18.4 | 26.7 | 21.2 | 29.5 | 40.0 |
| 64.4 | 5.9 | 15.2 | 12.2 | 21.1 | 18.1 | 40.0 |
| 78.7 | 7.7 | 17.5 | 18.8 | 25.2 | 26.5 | 40.0 |
| 93.1 | 9.3 | 11.2 | 4.7 | 20.5 | 14.0 | 43.5 |
| 107.4 | 10.6 | 12.8 | 11.3 | 23.4 | 21.9 | 43.5 |
| 121.7 | 11.8 | 15.6 | 9.4 | 27.4 | 21.2 | 43.5 |
| 143.2 | 13.3 | 12.4 | 4.2 | 25.7 | 17.5 | 43.5 |
| 179.0 | 15.4 | 13.6 | 13.3 | 29.0 | 28.7 | 43.5 |
| 200.4 | 16.5 | 12.1 | 8.4 | 28.6 | 24.9 | 43.5 |
| 243.4 | 18.3 | 7.0 | 4.4 | 25.3 | 22.7 | 46.0 |
| 264.9 | 19.1 | 6.8 | 2.2 | 25.9 | 21.3 | 46.0 |
| 286.4 | 19.9 | 5.3 | 0.3 | 25.2 | 20.2 | 46.0 |
| 315.0 | 20.8 | 5.4 | 0.7 | 26.2 | 21.5 | 46.0 |
| 336.5 | 21.5 | 0.5 | < 0.0 | 22.0 | < 21.5 | 46.0 |
| 386.6 | 22.8 | 0.4 | < 0.0 | 23.2 | < 22.8 | 46.0 |
| 450.0 | 24.3 | < 0.0 | < 0.0 | < 24.3 | < 24.3 | 46.0 |
| 550.0 | 26.3 | < 0.0 | < 0.0 | < 26.3 | < 26.3 | 46.0 |
| 650.0 | 28.1 | < 0.0 | < 0.0 | < 28.1 | < 28.1 | 46.0 |
| 850.0 | 31.4 | < 0.0 | < 0.0 | < 31.4 | < 31.4 | 46.0 |
| 1000.0 | 33.6 | < 0.0 | < 0.0 | < 33.6 | < 33.6 | 54.0 |

Notes: 1) Measured Distance : 3.0 m
2) The spectrum was checked from 30 MHz to 1000 MHz.
3) The symbol of '<' means 'or less'.
4) Correction Factor includes an antenna factor and a cable (14.0 m) loss.
5) A sample calculation was made at 45.8 MHz.
Correction Factor + Meter Reading = 2.8 + 26.7 = 29.5 dB/uV/m

Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

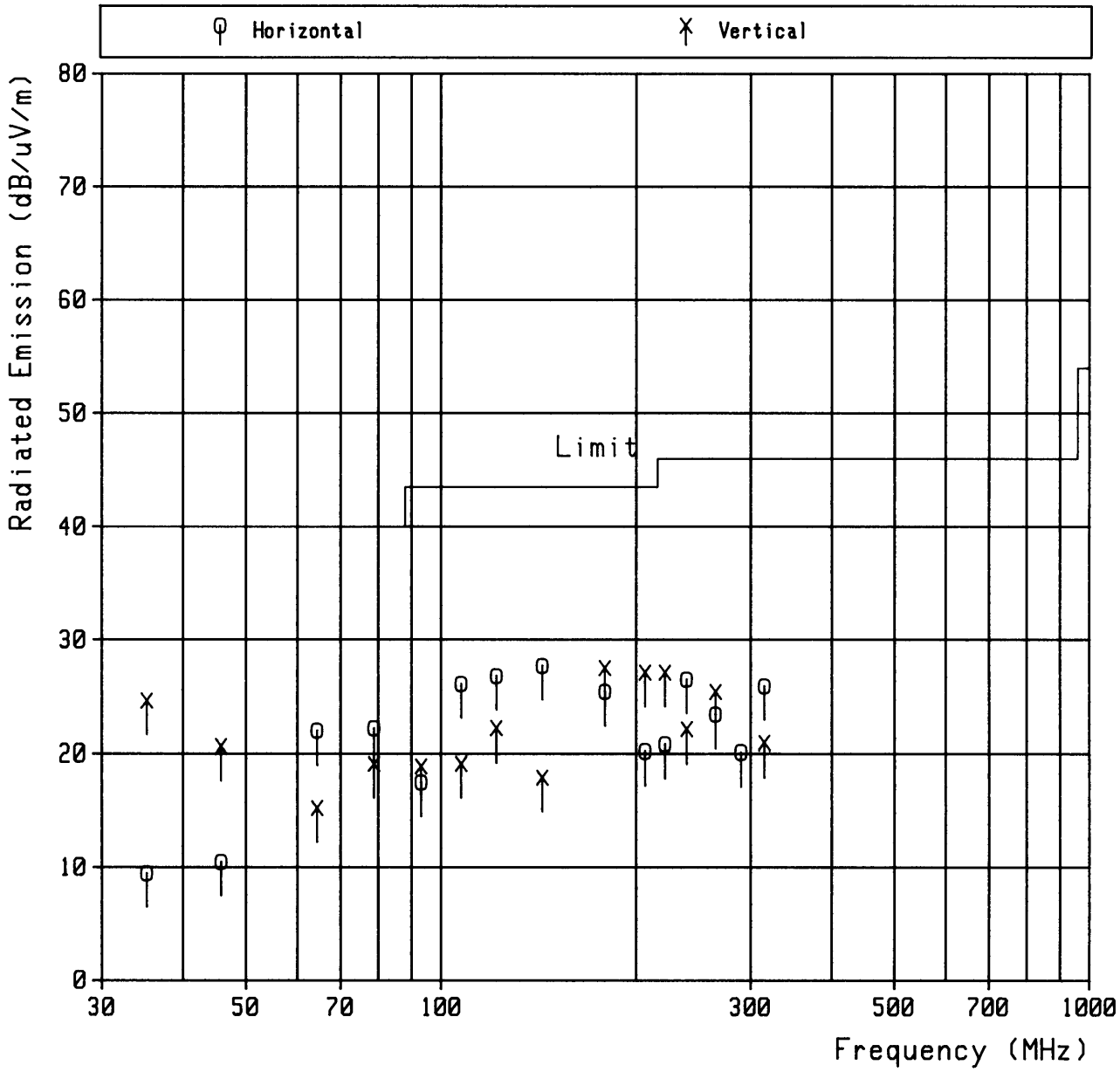
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | | Result (dB/uV/m) | | Limit (dB/uV/m) |
|---|---|---|---|---|---|---|
| | | Horizontal | Vertical | Horizontal | Vertical | |
| 35.2 | 0.4 | 9.1 | 24.2 | 9.5 | 24.6 | 40.0 |
| 45.8 | 2.8 | 7.7 | 17.8 | 10.5 | 20.6 | 40.0 |
| 64.4 | 5.9 | 16.1 | 9.3 | 22.0 | 15.2 | 40.0 |
| 78.8 | 7.8 | 14.4 | 11.3 | 22.2 | 19.1 | 40.0 |
| 93.1 | 9.3 | 8.2 | 9.6 | 17.5 | 18.9 | 43.5 |
| 107.4 | 10.6 | 15.5 | 8.5 | 26.1 | 19.1 | 43.5 |
| 121.7 | 11.8 | 15.0 | 10.4 | 26.8 | 22.2 | 43.5 |
| 143.2 | 13.3 | 14.4 | 4.6 | 27.7 | 17.9 | 43.5 |
| 179.0 | 15.4 | 10.0 | 12.1 | 25.4 | 27.5 | 43.5 |
| 206.4 | 16.7 | 3.5 | 10.4 | 20.2 | 27.1 | 43.5 |
| 221.5 | 17.4 | 3.4 | 9.7 | 20.8 | 27.1 | 46.0 |
| 239.0 | 18.1 | 8.4 | 4.0 | 26.5 | 22.1 | 46.0 |
| 264.9 | 19.1 | 4.3 | 6.3 | 23.4 | 25.4 | 46.0 |
| 290.0 | 20.0 | 0.1 | < 0.0 | 20.1 | < 20.0 | 46.0 |
| 315.0 | 20.8 | 5.1 | 0.1 | 25.9 | 20.9 | 46.0 |
| 350.7 | 21.9 | < 0.0 | < 0.0 | < 21.9 | < 21.9 | 46.0 |
| 450.0 | 24.3 | < 0.0 | < 0.0 | < 24.3 | < 24.3 | 46.0 |
| 550.0 | 26.3 | < 0.0 | < 0.0 | < 26.3 | < 26.3 | 46.0 |
| 650.0 | 28.1 | < 0.0 | < 0.0 | < 28.1 | < 28.1 | 46.0 |
| 850.0 | 31.4 | < 0.0 | < 0.0 | < 31.4 | < 31.4 | 46.0 |
| 1000.0 | 33.6 | < 0.0 | < 0.0 | < 33.6 | < 33.6 | 54.0 |

Notes: 1) Measured Distance : 3.0 m
2) The spectrum was checked from 30 MHz to 1000 MHz.
3) The symbol of '<' means 'or less'.
4) Correction Factor includes an antenna factor and a cable (14.0 m) loss.
5) A sample calculation was made at 35.2 MHz.
Correction Factor + Meter Reading = 0.4 + 24.2 = 24.6 dB/uV/m

Model No. : VC-H998U
Serial No. : 906000001

§15.109(a) Radiated Emissions Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

Date : June 30, 1999
Temp. : 24 °C; Humi. : 42 %

# 10. §15.115(b)(1)(ii) Output Signal Level Measurement

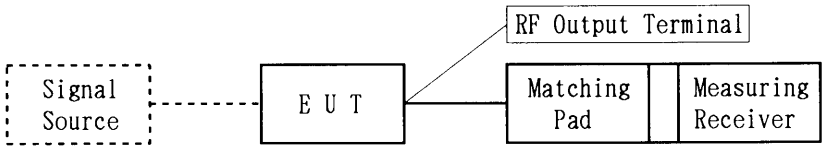
Tested by : T. Aoki

Takashi Aoki, Deputy Manager
Testing Division
EMC Engineering Department

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(1)(ii) Output Signal Level Measurement

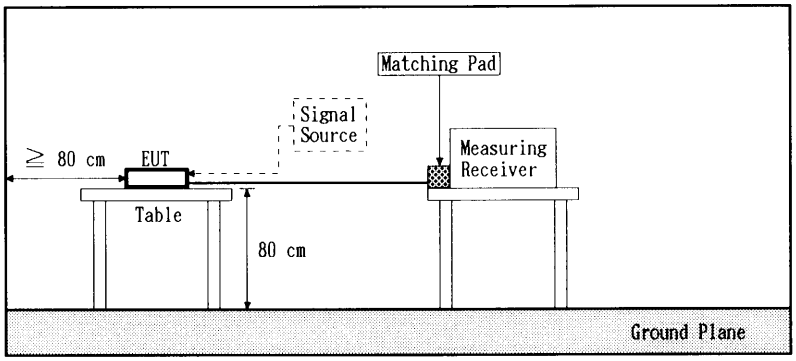
Block Diagram



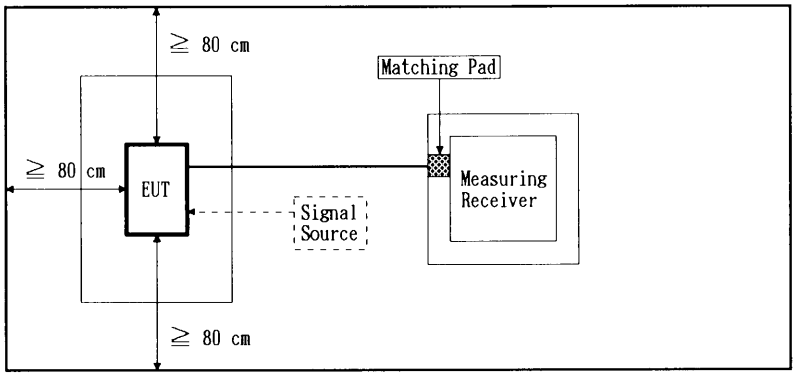

Note: Antenna input terminal of EUT was terminated with the terminator of specified impedances.

Configuration of EUT

Side View




Top View




Note: The same configuration of cables and terminators which were connected to VCR was applied to all applicable measurements, shown as photograph in page 19 and 20.

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(1)(ii) Output Signal Level Measurement (Visual)

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

| RF Output Channel | Frequency (MHz) | Matching Pad Loss (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 61.26 | 7.8 | 58.8 | 66.6 | 69.5 |
| 4 | 67.27 | 7.8 | 58.5 | 66.3 | 69.5 |

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

| RF Output Channel | Frequency (MHz) | Matching Pad Loss (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 61.27 | 7.8 | 59.0 | 66.8 | 69.5 |
| 4 | 67.25 | 7.8 | 58.5 | 66.3 | 69.5 |

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

| RF Output Channel | Frequency (MHz) | Matching Pad Loss (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 61.26 | 7.8 | 58.8 | 66.6 | 69.5 |
| 4 | 67.25 | 7.8 | 58.7 | 66.5 | 69.5 |

Notes: 1) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
2) Impedance at the RF output terminal : 75 ohms (Unbalanced)
3) A sample calculation was made at 61.27 MHz.
Matching Pad Loss + Meter Reading = 7.8 + 59.0 = 66.8 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(1)(ii) Output Signal Level Measurement (Aural)

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

| RF Output Channel | Frequency (MHz) | Matching Pad Loss (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 65.79 | 7.8 | 43.6 | 51.4 | 56.5 |
| 4 | 71.73 | 7.8 | 42.2 | 50.0 | 56.5 |

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

| RF Output Channel | Frequency (MHz) | Matching Pad Loss (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 65.74 | 7.8 | 42.7 | 50.5 | 56.5 |
| 4 | 71.74 | 7.8 | 42.7 | 50.5 | 56.5 |

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

| RF Output Channel | Frequency (MHz) | Matching Pad Loss (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 65.74 | 7.8 | 43.4 | 51.2 | 56.5 |
| 4 | 71.73 | 7.8 | 43.3 | 51.1 | 56.5 |

Notes: 1) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
2) Impedance at the RF output terminal : 75 ohms (Unbalanced)
3) A sample calculation was made at 65.79 MHz.
Matching Pad Loss + Meter Reading = 7.8 + 43.6 = 51.4 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

Date : June 30, 1999
Temp. : 24 °C; Humi. : 42 %

# 11. §15.115(b)(2)(ii) Spurious Conducted Level Measurement

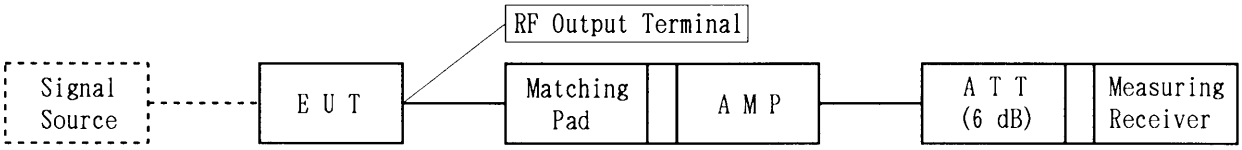
Tested by : T. Aoki

Takashi Aoki, Deputy Manager
Testing Division
EMC Engineering Department

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

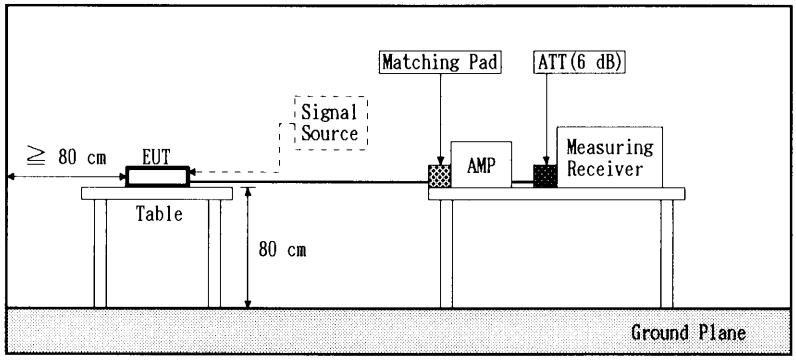
Block Diagram



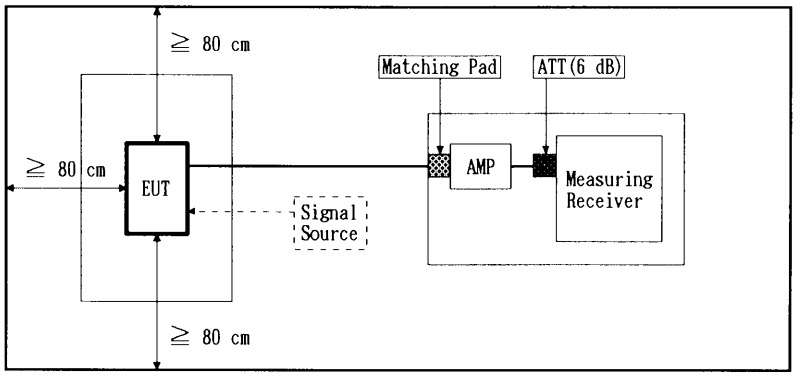

Note: Antenna input terminal of EUT was terminated with the terminator of specified impedances.

Configuration of EUT

Side View




Top View




Note: The same configuration of cables and terminators which were connected to VCR was applied to all applicable measurements, shown as photograph in page 19 and 20.

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

RF Output Channel : No.3

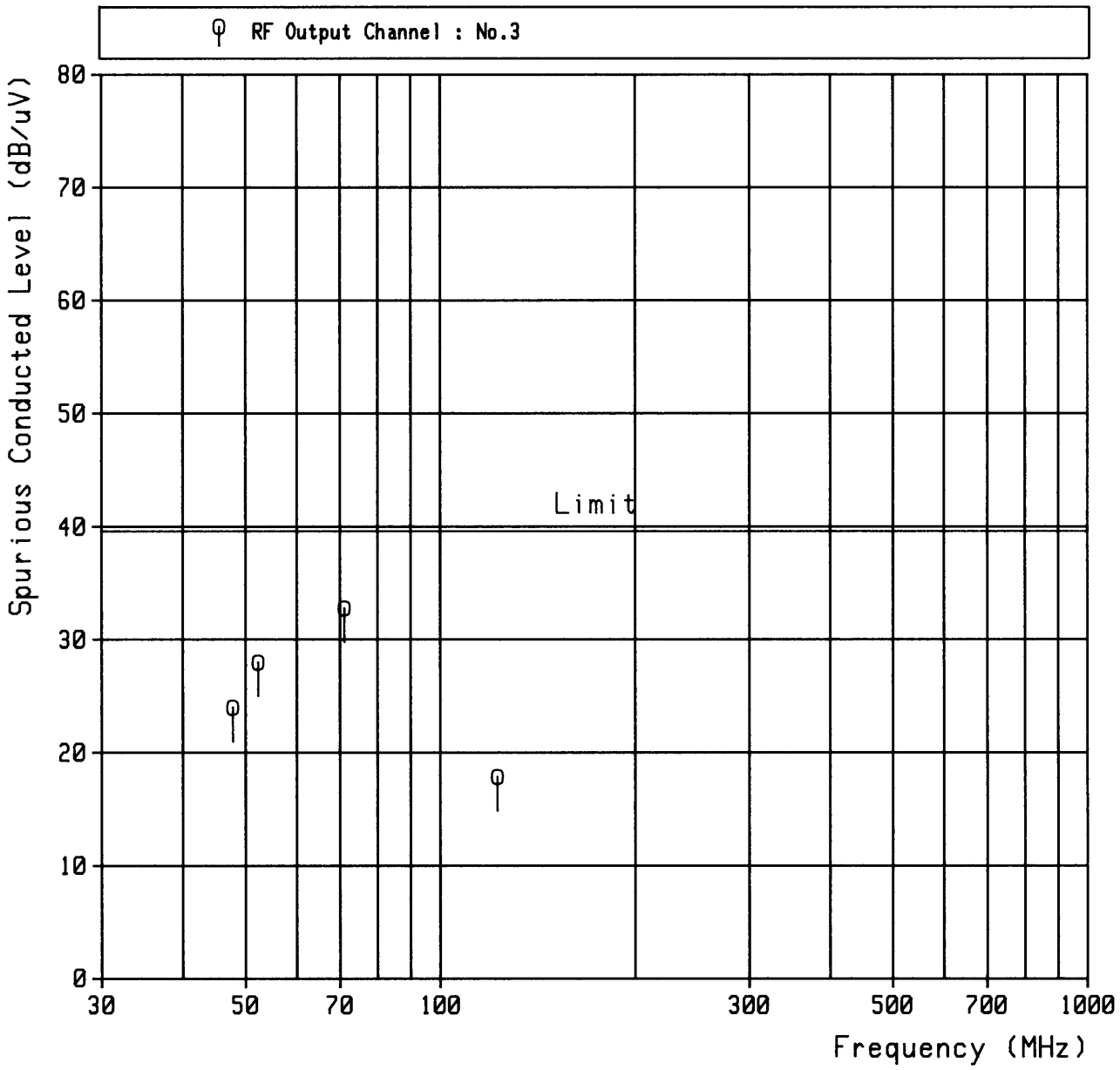
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|
| 30.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 38.7 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 47.8 | -13.2 | 37.2 | 24.0 | 39.6 |
| 52.3 | -13.2 | 41.2 | 28.0 | 39.6 |
| 71.1 | -13.2 | 46.0 | 32.8 | 39.6 |
| 100.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 122.5 | -13.1 | 31.0 | 17.9 | 39.6 |
| 183.8 | -13.0 | < 30.0 | < 17.0 | 39.6 |
| 245.0 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 306.1 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 367.4 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 428.8 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 490.0 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 551.3 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 612.5 | -12.6 | < 30.0 | < 17.4 | 39.6 |
| 673.8 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 735.0 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 796.3 | -12.0 | < 30.0 | < 18.0 | 39.6 |
| 857.5 | -12.1 | < 30.0 | < 17.9 | 39.6 |
| 918.8 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 980.0 | -12.6 | < 30.0 | < 17.4 | 39.6 |

Notes: 1) The spectrum was checked from 30 MHz to 1000 MHz.
2) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
3) Impedance at the RF output terminal : 75 ohms (Unbalanced)
4) The symbol of '<' means 'or less'.
5) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
6) A sample calculation was made at 71.1 MHz.
Correction Factor + Meter Reading = -13.2 + 46.0 = 32.8 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

RF Output Channel : No.4

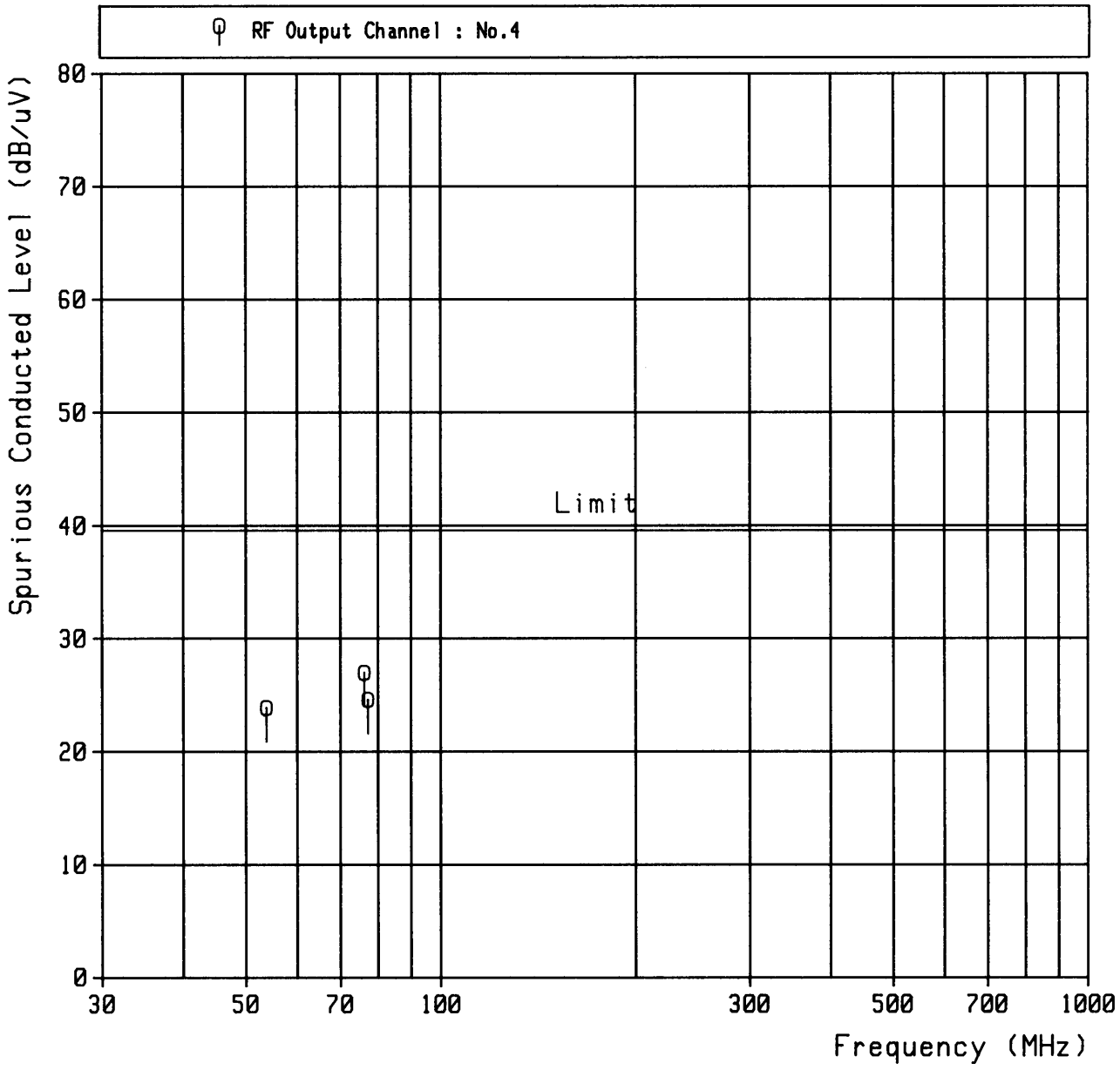
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|
| 30.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 44.8 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 53.8 | -13.2 | 37.1 | 23.9 | 39.6 |
| 76.2 | -13.2 | 40.2 | 27.0 | 39.6 |
| 77.2 | -13.2 | 37.8 | 24.6 | 39.6 |
| 80.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 100.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 134.5 | -13.1 | < 30.0 | < 16.9 | 39.6 |
| 201.6 | -13.0 | < 30.0 | < 17.0 | 39.6 |
| 269.0 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 336.1 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 403.3 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 470.8 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 538.0 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 605.3 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 672.5 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 739.8 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 807.0 | -11.9 | < 30.0 | < 18.1 | 39.6 |
| 874.3 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 941.5 | -12.5 | < 30.0 | < 17.5 | 39.6 |

Notes: 1) The spectrum was checked from 30 MHz to 1000 MHz.
2) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
3) Impedance at the RF output terminal : 75 ohms (Unbalanced)
4) The symbol of '<' means 'or less'.
5) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
6) A sample calculation was made at 76.2 MHz.
Correction Factor + Meter Reading = -13.2 + 40.2 = 27.0 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

RF Output Channel : No.3

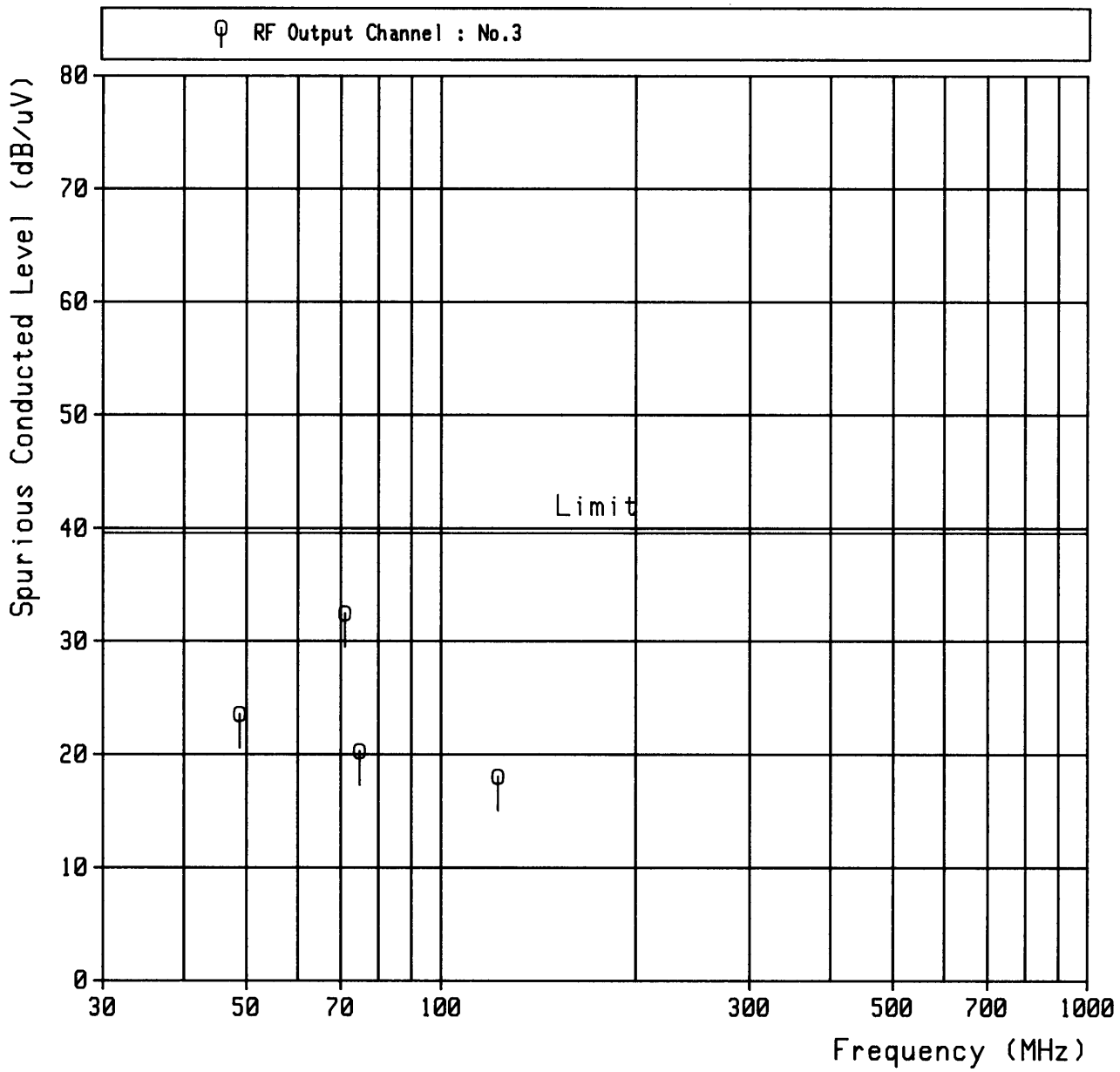
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|
| 30.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 38.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 48.8 | -13.2 | 36.8 | 23.6 | 39.6 |
| 71.0 | -13.2 | 45.7 | 32.5 | 39.6 |
| 74.8 | -13.2 | 33.5 | 20.3 | 39.6 |
| 83.8 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 100.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 122.5 | -13.1 | 31.2 | 18.1 | 39.6 |
| 183.7 | -13.0 | < 30.0 | < 17.0 | 39.6 |
| 245.0 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 306.2 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 367.3 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 428.8 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 490.0 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 551.3 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 612.5 | -12.6 | < 30.0 | < 17.4 | 39.6 |
| 673.8 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 735.0 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 796.3 | -12.0 | < 30.0 | < 18.0 | 39.6 |
| 857.5 | -12.1 | < 30.0 | < 17.9 | 39.6 |
| 918.8 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 980.0 | -12.6 | < 30.0 | < 17.4 | 39.6 |

Notes: 1) The spectrum was checked from 30 MHz to 1000 MHz.
2) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
3) Impedance at the RF output terminal : 75 ohms (Unbalanced)
4) The symbol of '<' means 'or less'.
5) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
6) A sample calculation was made at 71.0 MHz.
Correction Factor + Meter Reading = -13.2 + 45.7 = 32.5 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

RF Output Channel : No.4

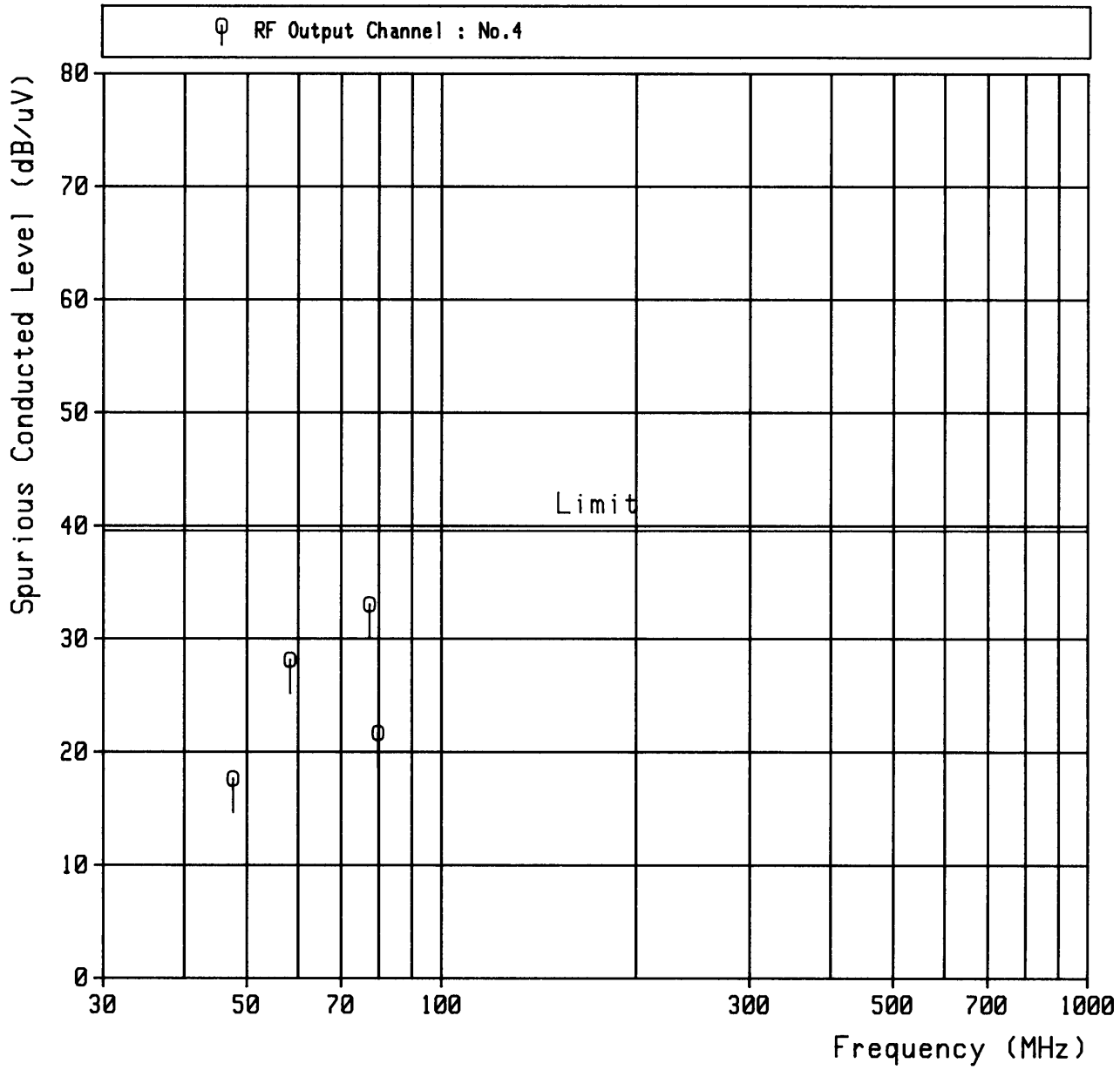
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|
| 30.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 36.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 47.6 | -13.2 | 30.9 | 17.7 | 39.6 |
| 58.3 | -13.2 | 41.4 | 28.2 | 39.6 |
| 77.4 | -13.2 | 46.3 | 33.1 | 39.6 |
| 79.8 | -13.2 | 34.9 | 21.7 | 39.6 |
| 100.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 134.4 | -13.1 | < 30.0 | < 16.9 | 39.6 |
| 201.7 | -13.0 | < 30.0 | < 17.0 | 39.6 |
| 269.0 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 336.1 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 403.3 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 470.8 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 538.0 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 605.3 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 672.5 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 739.8 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 807.0 | -11.9 | < 30.0 | < 18.1 | 39.6 |
| 874.3 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 941.5 | -12.5 | < 30.0 | < 17.5 | 39.6 |

Notes: 1) The spectrum was checked from 30 MHz to 1000 MHz.
2) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
3) Impedance at the RF output terminal : 75 ohms (Unbalanced)
4) The symbol of '<' means 'or less'.
5) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
6) A sample calculation was made at 77.4 MHz.
Correction Factor + Meter Reading = -13.2 + 46.3 = 33.1 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

RF Output Channel : No.3

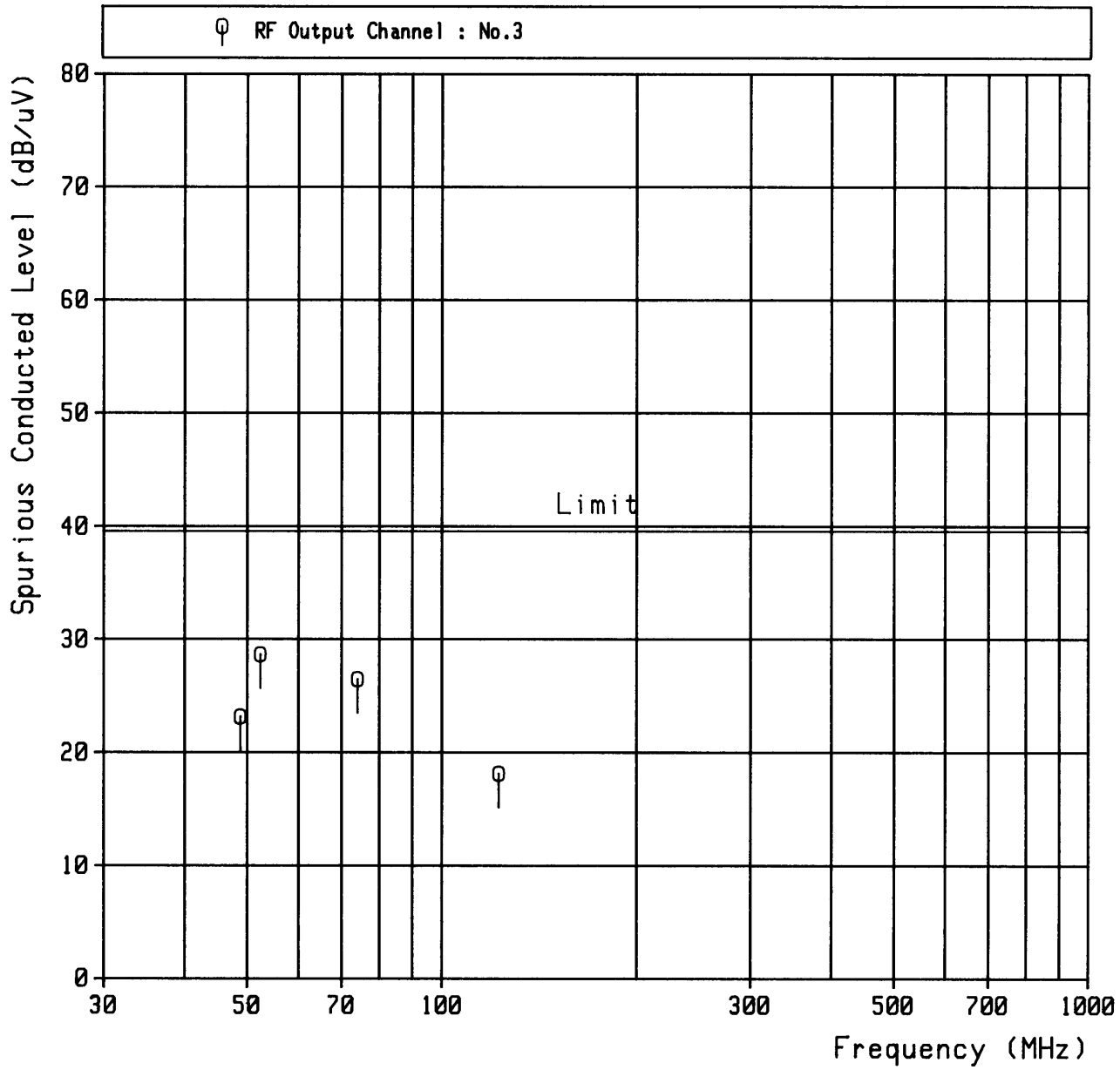
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|
| 30.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 38.7 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 48.8 | -13.2 | 36.4 | 23.2 | 39.6 |
| 52.4 | -13.2 | 41.9 | 28.7 | 39.6 |
| 74.1 | -13.2 | 39.7 | 26.5 | 39.6 |
| 84.1 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 100.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 122.5 | -13.1 | 31.3 | 18.2 | 39.6 |
| 183.7 | -13.0 | < 30.0 | < 17.0 | 39.6 |
| 245.0 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 306.2 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 367.3 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 428.8 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 490.0 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 551.3 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 612.5 | -12.6 | < 30.0 | < 17.4 | 39.6 |
| 673.8 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 735.0 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 796.3 | -12.0 | < 30.0 | < 18.0 | 39.6 |
| 857.5 | -12.1 | < 30.0 | < 17.9 | 39.6 |
| 918.8 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 980.0 | -12.6 | < 30.0 | < 17.4 | 39.6 |

Notes:
1) The spectrum was checked from 30 MHz to 1000 MHz.
2) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
3) Impedance at the RF output terminal : 75 ohms (Unbalanced)
4) The symbol of '<' means 'or less'.
5) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
6) A sample calculation was made at 52.4 MHz.
Correction Factor + Meter Reading = -13.2 + 41.9 = 28.7 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

RF Output Channel : No.4

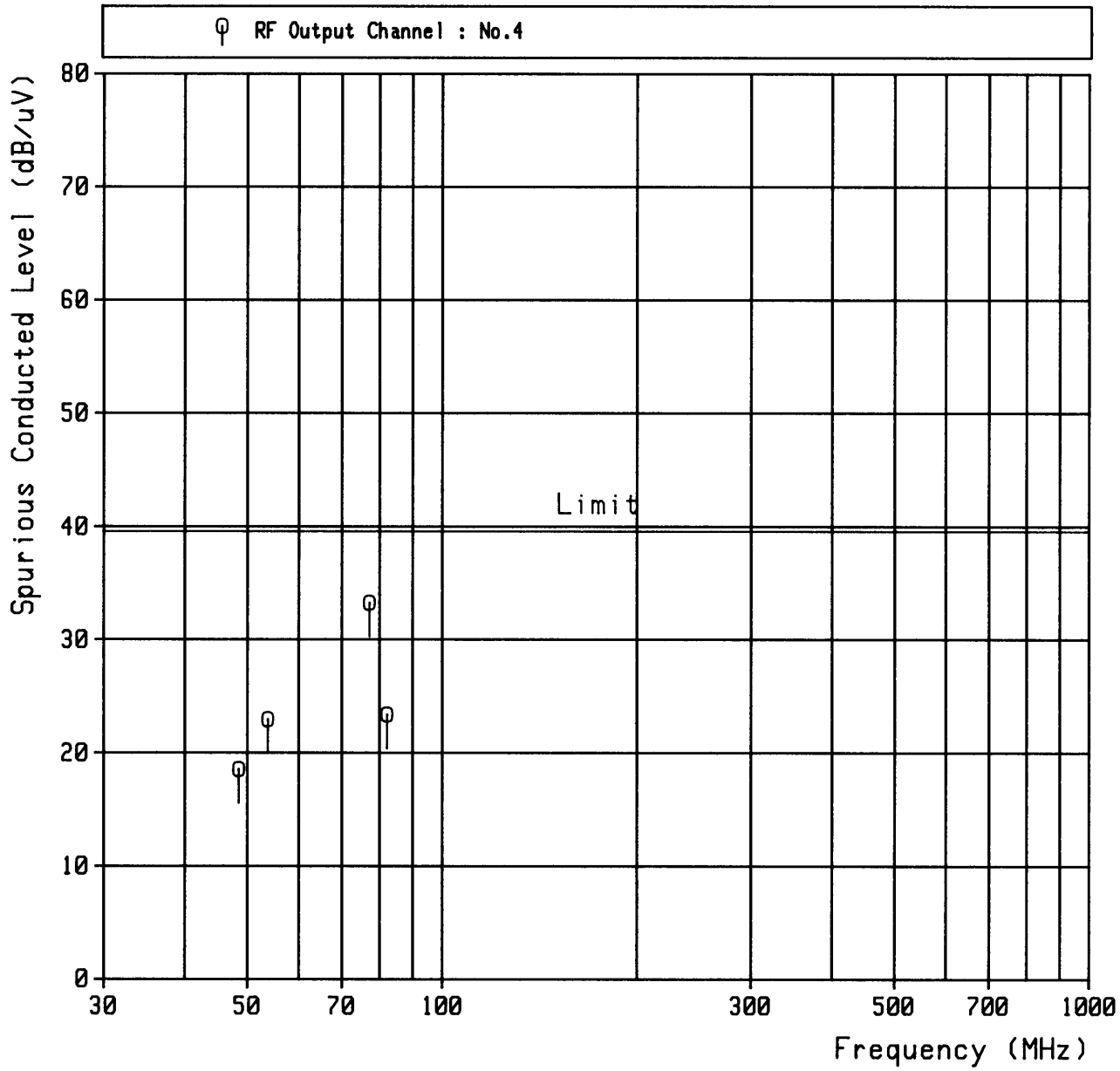
| Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|
| 30.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 36.1 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 48.5 | -13.2 | 31.8 | 18.6 | 39.6 |
| 53.8 | -13.2 | 36.2 | 23.0 | 39.6 |
| 77.2 | -13.2 | 46.5 | 33.3 | 39.6 |
| 82.2 | -13.2 | 36.6 | 23.4 | 39.6 |
| 100.0 | -13.2 | < 30.0 | < 16.8 | 39.6 |
| 134.4 | -13.1 | < 30.0 | < 16.9 | 39.6 |
| 201.7 | -13.0 | < 30.0 | < 17.0 | 39.6 |
| 269.0 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 336.3 | -12.9 | < 30.0 | < 17.1 | 39.6 |
| 403.3 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 470.8 | -12.8 | < 30.0 | < 17.2 | 39.6 |
| 538.0 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 605.3 | -12.7 | < 30.0 | < 17.3 | 39.6 |
| 672.5 | -12.4 | < 30.0 | < 17.6 | 39.6 |
| 739.8 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 807.0 | -11.9 | < 30.0 | < 18.1 | 39.6 |
| 874.3 | -12.2 | < 30.0 | < 17.8 | 39.6 |
| 941.5 | -12.5 | < 30.0 | < 17.5 | 39.6 |

Notes:
1) The spectrum was checked from 30 MHz to 1000 MHz.
2) Spectrum Analyzer ; SPAN : 10 MHz, RES BW : 100 kHz, VBW : 300 kHz, SWP : 20 msec
3) Impedance at the RF output terminal : 75 ohms (Unbalanced)
4) The symbol of '<' means 'or less'.
5) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
6) A sample calculation was made at 77.2 MHz.
Correction Factor + Meter Reading = -13.2 + 46.5 = 33.3 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

§15.115(b)(2)(ii) Spurious Conducted Level Measurement

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode



Model No. : VC-H998U
Serial No. : 906000001

Date : June 30, 1999
Temp. : 24 °C; Humi. : 42 %

# 12. §15.115(c)(1)(ii) Antenna Transfer Switch Measurement

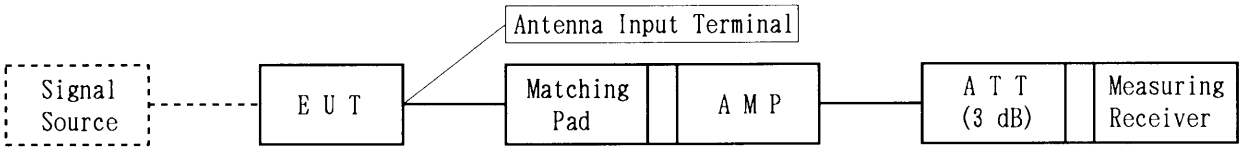
Tested by : T. Aoki

Takashi Aoki, Deputy Manager
Testing Division
EMC Engineering Department

Model No. : VC-H998U
Serial No. : 906000001

§15.115(c)(1)(ii) Antenna Transfer Switch Measurement

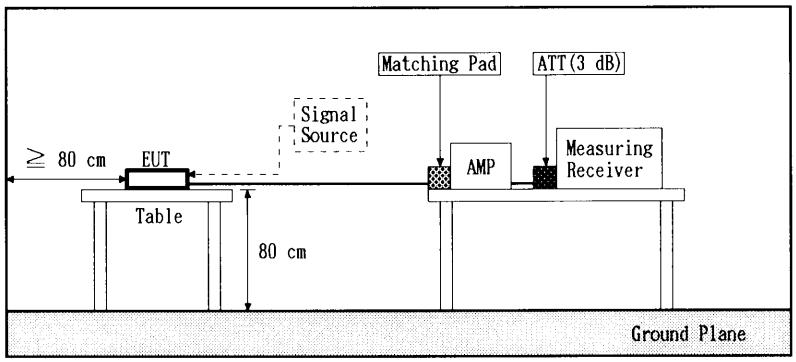
Block Diagram



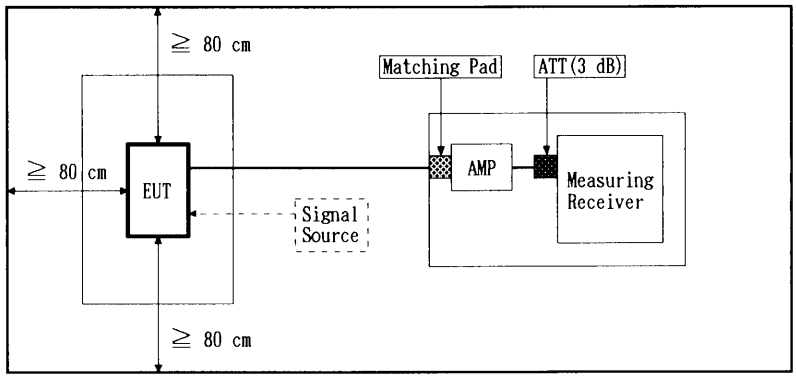

Note: RF output terminal of EUT was connected to the cable terminated with the specified impedances.

Configuration of EUT

Side View




Top View




Note: The same configuration of cables and terminators which were connected to VCR was applied to all applicable measurements, shown as photograph in page 19 and 20.

Model No. : VC-H998U
Serial No. : 906000001

§15.115(c)(1)(ii) Antenna Transfer Switch Measurement

Testing Signal Sources : Internal Modulation Sources (NTSC TV Signal Recording Tape)
Operating Condition : Playing Mode

| RF Output Channel | Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 61.22 | -16.2 | 17.8 | 1.6 | 9.5 |
| 4 | 67.21 | -16.2 | < 15.0 | < -1.2 | 9.5 |

Testing Signal Sources : Video Modulation Sources (VITS : 1 Vp-p and 5 Vp-p)
Operating Condition : Recording Mode

| RF Output Channel | Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|
| 3 | 61.22 | -16.2 | 17.5 | 1.3 | 9.5 |
| 4 | 67.21 | -16.2 | 15.2 | -1.0 | 9.5 |

Testing Signal Sources : RF Modulation Sources (NTSC Colorbar : 70 dB/uV at 193.25 MHz)
Operating Condition : Recording Mode

| RF Output Channel | Frequency (MHz) | Correction Factor (dB) | Meter Reading (dB/uV) | Result (dB/uV) | Limit (dB/uV) |
|---|---|---|---|---|---|

# Not Applicable

Notes: 1) Spectrum Analyzer ; SPAN : 1 MHz, RES BW : 10kHz, VBW : 10kHz, SWP : 30 msec
2) Impedance at the Antenna input terminal : 75 ohms (Unbalanced)
3) The symbol of '<' means 'or less'.
4) Correction Factor includes a gain of preamplifier, a matching pad loss and an attenuation pad loss.
5) A sample calculation was made at 61.22 MHz.
Correction Factor + Meter Reading = -16.2 + 17.8 = 1.6 dB/uV

Model No. : VC-H998U
Serial No. : 906000001

13. Test Equipment Used

| Equipment | Manufacturer | Model No. [ Serial No. ] | Last Cal. [ Cal. Interval ] |
|---|---|---|---|
| Measuring Receiver | Rohde & Schwarz | ESH 3 [ 872994/035 ] | May, 1999 [ 1 year ] |
| Measuring Receiver | Rohde & Schwarz | ESVP [ 881487/004 ] | May, 1999 [ 1 year ] |
| Spectrum Analyzer | Hewlett Packard | 8566B [ 2140A01091 ] | April, 1999 [ 1 year ] |
| Line Impedance Stabilized Network | Kyoritsu Electrical Works | KNW-407 [ 8-1130-6 ] | April, 1999 [ 1 year ] |
| Dipole Antenna | Kyoritsu Electrical Works | KBA-511 [ 0-170-1 ] | November, 1998 [ 1 year ] |
| Dipole Antenna | Kyoritsu Electrical Works | KBA-611 [ 0-147-14 ] | November, 1998 [ 1 year ] |
| Preamplifier | Hewlett Packard | 8447D [ 1937A02168 ] | July, 1998 [ 1 year ] |
| Vertical Internal Test Signal Generator (VITS) | Anritsu | MG318A [ M08128 ] | June, 1999 [ 1 year ] |
| Color TV Pattern Generator | Philips Consumer Electronics | PM 5418 TNSI [ LO 609096 ] | June, 1999 [ 1 year ] |
| Matching Pad | Wiltron | 12N50/75B [ 90400 ] | June, 1999 [ 1 year ] |
| 6 dB Attenuation Pad | Weinschel | 1 [ AD8054 ] | June, 1999 [ 1 year ] |
| 3 dB Attenuation Pad | Weinschel | 1 [ AD9615 ] | June, 1999 [ 1 year ] |