

**MATSUSHITA-KOTOBUKI  
ELECTRONICS INDUSTRIES LTD.**

VIDEO DEVELOPMENT CENTER  
ADDRESS: 〒793 247 FUKUTAKE, SAJO, EHIME, JAPAN  
TELEPHONE: 0897-56-1111 FAX: 0897-56-8142

REPORT OF MEASUREMENTS-(Part I)  
REQUIRED IN ( X )SUBPART B(TV INTERFACE DEVICE)  
( ) ( )

Date: July 10, 1998

EXHIBIT #: 3  
FCC ID : ACJ927120AHP  
Our Ref. : MKS98-F008  
Model No. : NV-HD8070PX  
Sheet 1 of 15 Sheets

Name of Manufacturer: Matsushita-Kotobuki Electronics Industries Ltd.

Address of Manufacturer: 247 Fukutake, Saijo, Ehime, Japan

Device Under Measurement

FCC ID : ACJ927120AHP  
Model No. : NV-HD8070PX  
Trade Name : Panasonic  
Applicant : Matsushita Electric Ind. Co., Ltd.  
This device is a representative model of KG-18WPX chassis group.

Data Also Applied To

| FCC ID | Model No.(Trade Name) |
|--------|-----------------------|
| _____  | _____                 |
| _____  | _____                 |
| _____  | _____                 |

Device Description

Name of Device : ( X )Video Cassette Recorder, ( )Tuner Adapter  
Frequency : VHF 3 or 4 Ch.  
Video Line Terminals: ( X )Provided, ( )Not Provided  
Accessories : RF Out Cable(1.0 m),  
Video/Audio out Cable(1.5m)

Certification

On the basis of the measurement data contained in Part II, all devices bearing the  
afore mentioned FCC ID (model No., chassis No., and trade names) are stated by the  
undersigned to be capable of complying with the applicable sections of Part 15 of the  
FCC rules governing restricted radiation devices at the time of manufacture and may be  
expected to continue to comply under normal conditions and with usual maintenance.  
The undersigned also states that the device measured was an engineering prototype,  
pre production, or production unit. If changes are applied to future units and such  
changes adversely alter spurious radiation, an amended report of measurements will be  
supplied to the FCC.



K. Ishikawa  
Sr. Engineer

**MATSUSHITA-KOTOBUKI  
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Sheet 2 of 15 Sheets

Part 15 Subpart B, (TV Interface Device)- Part II

1) 15.107 Power Line Conducted Voltage

| Freq. (MHz) | Limits (dBuV) | Interference (dBuV) |                      |
|-------------|---------------|---------------------|----------------------|
|             |               | 1-end & Grounded    | The other-end & Gro. |
| 0.46        | 48            | 32.2                | 28.4                 |
| 0.78        | 48            | 31.5                | 30.4                 |
| 1.39        | 48            | 31.5                | 31.7                 |
| 2.36        | 48            | 23.4                | 24.1                 |
| 4.33        | 48            | 25.8                | 26.9                 |
| 28.64       | 48            | 30.0                | 29.4                 |

(Refer to Sheet 3,10,12 of 15 Sheets)

2) 15.109 Radiated Emission(Including Tuner)

| Freq. (MHz) | Limits (dBuV/m) | Emission (dBuV/m) |       |
|-------------|-----------------|-------------------|-------|
|             |                 | Horiz.            | Vert. |
| 57.27       | 40.0            | 27.3              | 23.6  |
| 61.43       | 40.0            | 28.9              | 28.7  |
| 114.55      | 43.5            | 31.6              | 25.3  |
| 128.86      | 43.5            | 30.4              | 25.1  |
| 910.00      | 46.0            | 36.1              | 35.1  |
| 1246.00     | 54.0            | 42.2              | 43.5  |

(Refer to Sheet 4,5,11,13,14,15 of 15 Sheets)

Note: Without Laurel Antenna  
With accessories

3) 15.111 Antenna Power Conducted Voltage

| Freq. (MHz) | Limits (dBuV) | Conducted Voltage (dBuV) |
|-------------|---------------|--------------------------|
| 833.0       | 51.8          | 38.9                     |
| 835.0       | 51.8          | 39.6                     |
| 839.0       | 51.8          | 40.3                     |
| 841.0       | 51.8          | 41.2                     |
| 845.0       | 51.8          | 41.7                     |
| 847.0       | 51.8          | 42.0                     |

(Refer to Sheet 6 of 15 Sheets)

4) 15.115(b)(1) Output Signal Level

| Ch | Limits (dBuV) |       | Level (dBuV) |       |
|----|---------------|-------|--------------|-------|
|    | Visual        | Aural | Visual       | Aural |
| 3  | 69.5          | 56.5  | 66.4         | 51.5  |
| 4  | 69.5          | 56.5  | 65.2         | 50.2  |

(Refer to Sheet 7 of 15 Sheets)

5) 15.115(b)(2) Output Terminal  
Conducted Interference

| Ch | Freq. (MHz) | Limits (dBuV) | Interference (dBuV) |
|----|-------------|---------------|---------------------|
| 3  | 52.25       | 39.5          | 17.2                |
|    | 70.25       | 39.5          | 25.9                |
|    | 118.00      | 39.5          | 20.9                |
|    | 122.50      | 39.5          | 37.2                |
|    | 127.00      | 39.5          | 21.5                |
| 4  | 183.75      | 39.5          | 23.7                |
|    | 58.25       | 39.5          | 16.2                |
|    | 76.25       | 39.5          | 23.0                |
|    | 130.00      | 39.5          | 22.6                |
|    | 134.50      | 39.5          | 34.4                |
|    | 139.00      | 39.5          | 21.7                |
|    | 201.75      | 39.5          | 17.6                |

(Refer to Sheet 8 of 15 Sheets)

6) 15.115 . Transfer SW Isolation

| Ch | Limits (dBuV) | Level (dBuV) |
|----|---------------|--------------|
| 3  | 9.5           | <3.9         |
| 4  | 9.5           | <3.9         |

(Refer to Sheet 9 of 15 Sheets)

MEASUREMENT SITE : MKS Site  
MEASUREMENT PROCEDURE : ANSI C63.4-1992

Note:(1) Detailed report: Refer to attached sheets.

I HEREBY STATE THAT: The measurements shown in Part II 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 qualifications of all persons taking them.

I FURTHER STATE THAT: On the basis of the measurements made, the device tested is capable of operation in compliance with the requirements of Part 15 of the FCC Rules under normal use and maintenance.

*T. Watanabe*

T. Watanabe  
Engineer

## 1) 15.107 Power Line Conducted Voltage

| Video Signal            | Freq. (MHz) | Meter Read. (dBUV) |                    | LISN Factor (dB) | Matching Pad Loss (Db) | Interference (dBUV) |                     |
|-------------------------|-------------|--------------------|--------------------|------------------|------------------------|---------------------|---------------------|
|                         |             | 1-end & Gro.       | The other-End&Gro. |                  |                        | 1-end & Gro.        | The other-End &Gro. |
| Multi Burst<br>1 V p-p  | 0.46        | 25.7               | 21.7               | 0.1              | 6.2                    | 32.0                | 28.0                |
|                         | 0.78        | 24.9               | 23.3               | 0.1              | 6.2                    | 31.2                | 29.6                |
|                         | 1.39        | 25.0               | 25.3               | 0.1              | 6.2                    | 31.3                | 31.6                |
|                         | 2.36        | 17.3               | 18.1               | 0.1              | 6.2                    | 23.6                | 24.4                |
|                         | 4.33        | 18.5               | 19.2               | 0.2              | 6.2                    | 24.9                | 25.6                |
|                         | 28.64       | 22.9               | 22.2               | 0.9              | 6.2                    | 30.0                | 29.3                |
| Multi Burst<br>5 V p-p  | 0.46        | 25.9               | 22.1               | 0.1              | 6.2                    | 32.2                | 28.4                |
|                         | 0.78        | 25.2               | 24.1               | 0.1              | 6.2                    | 31.5                | 30.4                |
|                         | 1.39        | 25.2               | 25.4               | 0.1              | 6.2                    | 31.5                | 31.7                |
|                         | 2.36        | 17.1               | 17.8               | 0.1              | 6.2                    | 23.4                | 24.1                |
|                         | 4.33        | 19.4               | 20.5               | 0.2              | 6.2                    | 25.8                | 26.9                |
|                         | 28.64       | 22.9               | 22.3               | 0.9              | 6.2                    | 30.0                | 29.4                |
| Internal<br>Signal      | 0.46        | 25.5               | 21.8               | 0.1              | 6.2                    | 31.8                | 28.1                |
|                         | 0.78        | 24.3               | 23.1               | 0.1              | 6.2                    | 30.6                | 29.4                |
|                         | 1.39        | 24.8               | 25.2               | 0.1              | 6.2                    | 31.1                | 31.5                |
|                         | 2.36        | 17.3               | 18.3               | 0.1              | 6.2                    | 23.6                | 24.6                |
|                         | 4.33        | 19.0               | 20.7               | 0.2              | 6.2                    | 25.4                | 27.1                |
|                         | 28.64       | 22.5               | 21.9               | 0.9              | 6.2                    | 29.6                | 29.0                |
| RF/CATV<br>Signal Input | 0.46        | 25.5               | 21.9               | 0.1              | 6.2                    | 31.8                | 28.2                |
|                         | 0.78        | 24.4               | 23.1               | 0.1              | 6.2                    | 30.7                | 29.4                |
|                         | 1.39        | 24.8               | 25.1               | 0.1              | 6.2                    | 31.1                | 31.4                |
|                         | 2.36        | 17.4               | 17.9               | 0.1              | 6.2                    | 23.7                | 24.2                |
|                         | 4.33        | 19.4               | 21.4               | 0.2              | 6.2                    | 25.8                | 27.8                |
|                         | 28.64       | 22.4               | 21.9               | 0.9              | 6.2                    | 29.5                | 29.0                |

Note:

## 1. Sample calculation at

M.B., 1 V p-p, 1-end & Gro. 0.46 MHz ;  $25.7 + 0.1 + 6.2 = 32.0$  (dBUV)

## 2. Measuring Instruments:

- a) Field strength meter - Kyoritsu Electric Work Co., Ltd.  
 Model : KNM-402C  
 (1) Detector function : CISPR Q-Peak  
 (2) IF band width : 9 kHz  
 (3) Input impedance : 75 ohms
- b) Line impedance stabilized network (LISN)  
 - Kyoritsu Electric Work CO., Ltd.  
 Model : KNW-406  
 50 ohms / 50 uH network
- c) Test Signal Generator - Shibasoku Co., Ltd.  
 (Multi Burst)  
 Model : 205
- d) Matching pad - Kyoritsu Electric Work Co., Ltd.  
 Model : KPD-401

3. The spectrum was checked from 0.45 MHz to 30 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

## 2) 15.109 Radiated Emission(Including Tuner, Without Accessories)

| Video Signal            | Frequency (MHz) | Meter Reading<br>Open Volt. (dBuV) |       | Correction<br>Factor (dB)<br>Open Vol. | Emission &<br>3 meters(dBuV) |       |
|-------------------------|-----------------|------------------------------------|-------|--|------------------------------|-------|
|                         |                 | Horiz.                             | Vert. |  | Horiz.                       | Vert. |
| Multi Burst<br>1 V p-p  | 57.27           | 14.6                               | 11.3  | 11.0                                   | 25.6                         | 22.3  |
|                         | 64.43           | 16.9                               | 16.1  | 9.0                                    | 25.9                         | 25.1  |
|                         | 114.55          | 14.9                               | 7.6   | 14.5                                   | 29.4                         | 22.1  |
|                         | 128.86          | 16.3                               | 10.3  | 16.0                                   | 32.3                         | 26.3  |
|                         | 910.00          | 2.8                                | 2.4   | 32.4                                   | 35.2                         | 34.8  |
|                         | 1246.00         | 6.2                                | 8.6   | 34.1                                   | 40.3                         | 42.7  |
| Multi Burst<br>5 V p-p  | 57.27           | 14.4                               | 13.1  | 11.0                                   | 25.4                         | 24.1  |
|                         | 64.43           | 17.3                               | 16.4  | 9.0                                    | 26.3                         | 25.4  |
|                         | 114.55          | 13.9                               | 5.8   | 14.5                                   | 28.4                         | 20.3  |
|                         | 128.86          | 16.6                               | 11.5  | 16.0                                   | 32.6                         | 27.5  |
|                         | 910.00          | 2.8                                | 2.4   | 32.4                                   | 35.2                         | 34.8  |
|                         | 1246.00         | 6.2                                | 8.6   | 34.1                                   | 40.3                         | 42.7  |
| Internal<br>Signal      | 57.27           | 15.3                               | 13.7  | 11.0                                   | 26.3                         | 24.7  |
|                         | 64.43           | 16.8                               | 16.2  | 9.0                                    | 25.8                         | 25.2  |
|                         | 114.55          | 14.6                               | 6.8   | 14.5                                   | 29.1                         | 21.3  |
|                         | 128.86          | 13.6                               | 10.1  | 16.0                                   | 29.6                         | 26.1  |
|                         | 910.00          | 2.8                                | 2.4   | 32.4                                   | 35.2                         | 34.8  |
|                         | 1246.00         | 6.2                                | 8.6   | 34.1                                   | 40.3                         | 42.7  |
| RF/CATV<br>Signal Input | 57.27           | 15.2                               | 13.7  | 11.0                                   | 26.2                         | 24.7  |
|                         | 64.43           | 17.1                               | 16.4  | 9.0                                    | 26.1                         | 25.4  |
|                         | 114.55          | 14.8                               | 7.1   | 14.5                                   | 29.3                         | 21.6  |
|                         | 128.86          | 13.9                               | 10.3  | 16.0                                   | 29.9                         | 26.3  |
|                         | 910.00          | 2.8                                | 2.4   | 32.4                                   | 35.2                         | 34.8  |
|                         | 1246.00         | 6.2                                | 8.6   | 34.1                                   | 40.3                         | 42.7  |

Note: 1. Sample calculation at

M.B., 1 V p-p, Horiz. 57.27 MHz ;  $14.6 + 11.0 = 25.6$  (dBuV/m)

## 2. Measuring Instruments:

- a) Field strength meter - Rohde & Schwarz  
(for 30 MHz to 1G Hz) Model : ESVP  
(1) Frequency range : 20 MHz to 1300 MHz  
(2) RF Input : 50 ohm  
(3) IF band width : 7.5 kHz/12 kHz/120k Hz/1MHz  
(4) Detector function : Average/CISPR Q-Peak/Peak
- b) Spectrum Analyzer - ADVANTEST Co., Ltd.  
(for more than 1G Hz) Model : R3261A  
(1) Frequency range : 9 kHz to 2.6G Hz  
(2) RF Input : 50 ohm  
(3) IF band width : 30 Hz to 1 MHz  
200 Hz/9 kHz/120 kHz  
(4) Detector function : CISPR Q-Peak/Peak
- c) Test Signal Generator - Shibasoku Co., Ltd.  
(Multi Burst) Model : TG-5, 2U2
- d) Receiving antenna - Schwarzbeck  
Model : VHA9103 30 - 300 MHz  
Model : UHALP9107 300 - 1000 MHz  
- The Electro-Mechanics Company  
Model : 3115 1 - 18G Hz

3. The spectrum was checked from 30 MHz to 1694 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

## 2) 15.109 Radiated Emission(Including Tuner, With Accessories)

| Video Signal            | Frequency (MHz) | Meter Reading Open Volt. (dBuV) |       | Correction Factor (dB) Open Vol. | Emission & 3 meters(dBuV) |       |
|-------------------------|-----------------|---------------------------------|-------|----------------------------------|---------------------------|-------|
|                         |                 | Horiz.                          | Vert. |                                  | Horiz.                    | Vert. |
| Multi Burst<br>1 V p-p  | 57.27           | 15.8                            | 12.2  | 11.0                             | 26.8                      | 23.2  |
|                         | 64.43           | 19.8                            | 19.0  | 9.0                              | 28.8                      | 28.0  |
|                         | 114.55          | 16.9                            | 10.7  | 14.5                             | 31.4                      | 25.2  |
|                         | 128.86          | 15.0                            | 9.7   | 16.0                             | 31.0                      | 25.7  |
|                         | 910.00          | 3.7                             | 3.0   | 32.4                             | 36.1                      | 35.4  |
|                         | 1246.00         | 8.1                             | 9.4   | 34.1                             | 42.2                      | 43.5  |
| Multi Burst<br>5 V p-p  | 57.27           | 16.3                            | 12.6  | 11.0                             | 27.3                      | 23.6  |
|                         | 64.43           | 19.9                            | 19.7  | 9.0                              | 28.9                      | 28.7  |
|                         | 114.55          | 17.1                            | 10.8  | 14.5                             | 31.6                      | 25.3  |
|                         | 128.86          | 14.4                            | 9.1   | 16.0                             | 30.4                      | 25.1  |
|                         | 910.00          | 3.7                             | 3.0   | 32.4                             | 36.1                      | 35.4  |
|                         | 1246.00         | 8.1                             | 9.4   | 34.1                             | 42.2                      | 43.5  |
| Internal<br>Signal      | 57.27           | 16.4                            | 14.6  | 11.0                             | 27.4                      | 25.6  |
|                         | 64.43           | 18.8                            | 18.3  | 9.0                              | 27.8                      | 27.3  |
|                         | 114.55          | 16.5                            | 10.3  | 14.5                             | 31.0                      | 24.8  |
|                         | 128.86          | 19.4                            | 12.7  | 16.0                             | 35.4                      | 28.7  |
|                         | 910.00          | 3.7                             | 3.0   | 32.4                             | 36.1                      | 35.4  |
|                         | 1246.00         | 8.1                             | 9.4   | 34.1                             | 42.2                      | 43.5  |
| RF/CATV<br>Signal Input | 57.27           | 16.5                            | 14.8  | 11.0                             | 27.5                      | 25.8  |
|                         | 64.43           | 19.0                            | 18.6  | 9.0                              | 28.0                      | 27.6  |
|                         | 114.55          | 16.7                            | 10.1  | 14.5                             | 31.2                      | 24.6  |
|                         | 128.86          | 19.6                            | 12.6  | 16.0                             | 35.6                      | 28.6  |
|                         | 910.00          | 3.7                             | 3.0   | 32.4                             | 36.1                      | 35.4  |
|                         | 1246.00         | 8.1                             | 9.4   | 34.1                             | 42.2                      | 43.5  |

Note: 1. Sample calculation at

M.B., 1 V p-p, Horiz. 57.27 MHz ;  $15.8 + 11.0 = 26.8$  (dBuV/m)

## 2. Measuring Instruments:

- a) Field strength meter - Rohde & Schwarz  
(for 30 MHz to 1G Hz) Model : ESVP  
(1) Frequency range : 20 MHz to 1300 MHz  
(2) RF Input : 50 ohm  
(3) IF band width : 7.5 kHz/12 kHz/120 kHz/1MHz  
(4) Detector function : Average/CISPR Q-Peak/Peak
- b) Spectrum Analyzer - ADVANTEST Co., Ltd.  
(for more than 1G Hz) Model : R3261A  
(1) Frequency range : 9 kHz to 2.6G Hz  
(2) RF Input : 50 ohm  
(3) IF band width : 30 Hz to 1 MHz  
200 Hz/9 kHz/120 kHz  
(4) Detector function : CISPR Q-Peak/Peak
- c) Test Signal Generator - Shibasoku Co., Ltd.  
(Multi Burst) Model : TG-5, 2U2
- d) Receiving antenna - Schwarzbeck  
Model : VHA9103 30 - 300 MHz  
Model : UHALP9107 300 - 1000 MHz  
- The Electro-Mechanics Company  
Model : 3115 1 - 18G Hz

3. The spectrum was checked from 30 MHz to 1694 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

## 3) 15.111 (a) Antenna Power Conducted Voltage

| Frequency<br>(MHz) | Meter Reading<br>(dBuV) | Matc. Pad Loss<br>(dB) | Interference<br>(dBuV) |
|--------------------|-------------------------|------------------------|------------------------|
| 833.0              | 30.1                    | 8.8                    | 38.9                   |
| 835.0              | 30.8                    | 8.8                    | 39.6                   |
| 839.0              | 31.5                    | 8.8                    | 40.3                   |
| 841.0              | 32.4                    | 8.8                    | 41.2                   |
| 845.0              | 32.9                    | 8.8                    | 41.7                   |
| 847.0              | 33.2                    | 8.8                    | 42.0                   |

Antenna Input Impedance: 75 ohms (Unbalanced)

Note:

1. Sample calculation at 833.0 MHz ; 30.1 + 8.8 = 38.9 (dBuV)

2. Measuring Instrument:

- a) Spectrum Analyzer - ADVANTEST Co., Ltd.  
 Model : R3261A  
 (1) Detector function : Peak  
 (2) Band width : 300 kHz
- b) Matching Pad - Anritsu Electric Co., Ltd.  
 Model : MB-009  
 (1) Frequency range : DC - 2G Hz

3. The spectrum was checked from 30 MHz to 1694 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

## 4) 15.115 (b) (1) Output Signal Level

| Video Signal           | ch | Measured Frequency(MHz) |       | Meter Reading (dBuV) |       | Pad Loss (dB) | Output Signal Level (dBuV) |       |
|------------------------|----|-------------------------|-------|----------------------|-------|---------------|----------------------------|-------|
|                        |    | Visual                  | Aural | Visual               | Aural |               | Visual                     | Aural |
| Multi Burst<br>1 V p-p | 3  | 61.25                   | 65.75 | 64.1                 | 49.2  | 2.3           | 66.4                       | 51.5  |
|                        | 4  | 67.25                   | 71.75 | 62.9                 | 47.9  | 2.3           | 65.2                       | 50.2  |
| Multi Burst<br>5 V p-p | 3  | 61.25                   | 65.75 | 64.1                 | 49.2  | 2.3           | 66.4                       | 51.5  |
|                        | 4  | 67.25                   | 71.75 | 62.9                 | 47.9  | 2.3           | 65.2                       | 50.2  |
| Internal<br>Signal     | 3  | 61.25                   | 65.75 | 64.1                 | 49.2  | 2.3           | 66.4                       | 51.5  |
|                        | 4  | 67.25                   | 71.75 | 62.9                 | 47.9  | 2.3           | 65.2                       | 50.2  |
| RF/CATV<br>Signal      | 3  | 61.25                   | 65.75 | 64.1                 | 49.2  | 2.3           | 66.4                       | 51.5  |
|                        | 4  | 67.25                   | 71.75 | 62.9                 | 47.9  | 2.3           | 65.2                       | 50.2  |

RF Output Impedance: 75 ohms (Unbalanced)

Note:

1. Sample calculation at

M.B., 1 V p-p, Visual, 3 Ch ; 64.1 + 2.3 = 66.4 (dBuV)

2. Measuring Instrument:

- a) Spectrum Analyzer - Anritsu Electric Co., Ltd.  
Model : MS62B  
(1) Detector function : Peak  
(2) Band width : 300 kHz
- b) Matching Pad - Anritsu Electric Co., Ltd.  
Model : MP614A  
(1) Frequency range : 10 - 1200 MHz
- c) Test Signal Generator - Shibasoku Co., Ltd.  
(Multi Burst) Model : 205

Part 15 Subpart B, (TV Interface Device)

5) 15.115 (b) (2) Output Terminal Conducted Interference

| Video Signal           | Ch                      | Freq. (MHz) | Meter Read. (dBuV) | Matc. Pad Loss (dB) | Att. Pad Loss(dB) | Gain of Amp.(dB) | Interference (dBuV) |      |
|------------------------|-------------------------|-------------|--------------------|---------------------|-------------------|------------------|---------------------|------|
| Multi Burst<br>1 V p-p | 3                       | 52.25       | 39.2               | 2.3                 | N/A               | 24.3             | 17.2                |      |
|                        |                         | 70.25       | 48.0               | 2.3                 | N/A               | 24.4             | 25.9                |      |
|                        |                         | 118.00      | 43.0               | 2.3                 | N/A               | 24.4             | 20.9                |      |
|                        |                         | 122.50      | 59.2               | 2.3                 | N/A               | 24.3             | 37.2                |      |
|                        |                         | 127.00      | 46.5               | 2.3                 | N/A               | 24.3             | 24.5                |      |
|                        |                         | 183.75      | 45.7               | 2.3                 | N/A               | 24.3             | 23.7                |      |
|                        | 4                       | 58.25       | 38.3               | 2.3                 | N/A               | 24.4             | 16.2                |      |
|                        |                         | 76.25       | 45.1               | 2.3                 | N/A               | 24.4             | 23.0                |      |
|                        |                         | 130.00      | 44.6               | 2.3                 | N/A               | 24.3             | 22.6                |      |
|                        |                         | 134.50      | 56.4               | 2.3                 | N/A               | 24.3             | 34.4                |      |
|                        |                         | 139.00      | 43.7               | 2.3                 | N/A               | 24.3             | 21.7                |      |
|                        |                         | 201.75      | 39.6               | 2.3                 | N/A               | 24.3             | 17.6                |      |
|                        | Multi Burst<br>5 V p-p  | 3           | 52.25              | 39.2                | 2.3               | N/A              | 24.3                | 19.2 |
|                        |                         |             | 70.25              | 48.0                | 2.3               | N/A              | 24.4                | 18.3 |
| 118.00                 |                         |             | 43.0               | 2.3                 | N/A               | 24.4             | 21.7                |      |
| 122.50                 |                         |             | 59.2               | 2.3                 | N/A               | 24.3             | 35.9                |      |
| 127.00                 |                         |             | 46.5               | 2.3                 | N/A               | 24.3             | 25.3                |      |
| 183.75                 |                         |             | 45.7               | 2.3                 | N/A               | 24.3             | 20.9                |      |
| 4                      |                         | 58.25       | 38.3               | 2.3                 | N/A               | 24.4             | 18.7                |      |
|                        |                         | 76.25       | 45.1               | 2.3                 | N/A               | 24.4             | 15.5                |      |
|                        |                         | 130.00      | 44.6               | 2.3                 | N/A               | 24.3             | 25.3                |      |
|                        |                         | 134.50      | 56.4               | 2.3                 | N/A               | 24.3             | 35.2                |      |
|                        |                         | 139.00      | 43.7               | 2.3                 | N/A               | 24.3             | 24.7                |      |
|                        |                         | 201.75      | 39.6               | 2.3                 | N/A               | 24.3             | 15.5                |      |
| Internal<br>Signal     |                         | 3           | 52.25              | 39.2                | 2.3               | N/A              | 24.3                | 19.2 |
|                        |                         |             | 70.25              | 48.0                | 2.3               | N/A              | 24.4                | 18.3 |
|                        | 118.00                  |             | 43.0               | 2.3                 | N/A               | 24.4             | 21.7                |      |
|                        | 122.50                  |             | 59.2               | 2.3                 | N/A               | 24.3             | 35.9                |      |
|                        | 127.00                  |             | 46.5               | 2.3                 | N/A               | 24.3             | 25.3                |      |
|                        | 183.75                  |             | 45.7               | 2.3                 | N/A               | 24.3             | 20.9                |      |
|                        | 4                       | 58.25       | 38.3               | 2.3                 | N/A               | 24.4             | 18.7                |      |
|                        |                         | 76.25       | 45.1               | 2.3                 | N/A               | 24.4             | 15.5                |      |
|                        |                         | 130.00      | 44.6               | 2.3                 | N/A               | 24.3             | 25.3                |      |
|                        |                         | 134.50      | 56.4               | 2.3                 | N/A               | 24.3             | 35.2                |      |
|                        |                         | 139.00      | 43.7               | 2.3                 | N/A               | 24.3             | 24.7                |      |
|                        |                         | 201.75      | 39.6               | 2.3                 | N/A               | 24.3             | 15.5                |      |
|                        | RF/CATV<br>Signal Input | 3           | 52.25              | 39.2                | 2.3               | N/A              | 24.3                | 19.2 |
|                        |                         |             | 70.25              | 48.0                | 2.3               | N/A              | 24.4                | 18.3 |
| 118.00                 |                         |             | 43.0               | 2.3                 | N/A               | 24.4             | 21.7                |      |
| 122.50                 |                         |             | 59.2               | 2.3                 | N/A               | 24.3             | 35.9                |      |
| 127.00                 |                         |             | 46.5               | 2.3                 | N/A               | 24.3             | 25.3                |      |
| 183.75                 |                         |             | 45.7               | 2.3                 | N/A               | 24.3             | 20.9                |      |
| 4                      |                         | 58.25       | 38.3               | 2.3                 | N/A               | 24.4             | 18.7                |      |
|                        |                         | 76.25       | 45.1               | 2.3                 | N/A               | 24.4             | 15.5                |      |
|                        |                         | 130.00      | 44.6               | 2.3                 | N/A               | 24.3             | 25.3                |      |
|                        |                         | 134.50      | 56.4               | 2.3                 | N/A               | 24.3             | 35.2                |      |
|                        |                         | 139.00      | 43.7               | 2.3                 | N/A               | 24.3             | 24.7                |      |
|                        |                         | 201.75      | 39.6               | 2.3                 | N/A               | 24.3             | 15.5                |      |

Note:

1. Sample calculation at

M.B., 1 V p-p, 3 Ch., 52.25 MHz ;  $39.2 + 2.3 - 24.3 = 17.2$  (dBuV)

2. Measuring Instrument:

- a) Spectrum Analyzer - Anritsu Electric Co., Ltd.
  - Model : MS62B
  - (1) Detector function : Peak
  - (2) Band width : 300 kHz
- b) Matching Pad - Anritsu Electric Co., Ltd.
  - Model : MP614A
  - (1) Frequency range : 10 - 1200 MHz
- c) Test Signal Generator - Shibasoku Co., Ltd.
  - (Multi Burst) Model : 205
- d) Amplifier - Hewlett Packard
  - Model : 8447F

3. The spectrum was checked from 30 MHz to 1000 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

## 6) 15.115 (c) Transfer Switch Isolation

| Video Signal           | Ch | Meter Read.(dBuV) | Matching Pad Loss(dB) | Gain of Amp.(dB) | Pad Loss (dB) | Level (dBuV) |
|------------------------|----|-------------------|-----------------------|------------------|---------------|--------------|
| Multi Burst<br>1 V p-p | 3  | <26.0             | 2.3                   | 24.4             | N/A           | <3.9         |
|                        | 4  | <26.0             | 2.3                   | 24.4             | N/A           | <3.9         |
| Multi Burst<br>5 V p-p | 3  | <26.0             | 2.3                   | 24.4             | N/A           | <3.9         |
|                        | 4  | <26.0             | 2.3                   | 24.4             | N/A           | <3.9         |
| Internal<br>Signal     | 3  | <26.0             | 2.3                   | 24.4             | N/A           | <3.9         |
|                        | 4  | <26.0             | 2.3                   | 24.4             | N/A           | <3.9         |
|                        | 3  |                   |                       |                  |               |              |
|                        | 4  |                   |                       |                  |               |              |

RF Output Impedance: 75 ohms (Unbalanced)

## Note:

## 1. Sample calculation at

$$\text{M.B., 1 V p-p, Visual, 3 Ch ; } <26.0 + 2.3 - 24.4 = <3.9 \text{ (dBuV)}$$

## 2. Measuring Instrument:

- a) Spectrum Analyzer - Anritsu Electric Co., Ltd.  
Model : MS62B  
(1) Detector function : Peak  
(2) Band width : 300 kHz
- b) Matching Pad - Anritsu Electric Co., Ltd.  
Model : MP614A  
(1) Frequency range : 10 - 1200 MHz
- c) Test Signal Generator - Shibusoku Co., Ltd.  
(Multi Burst) Model : 205
- d) Amplifier - Hewlett Packard  
Model : 8447F

## 3. The symbol of "&lt;" means "or less".

KNW-406 LISN

NO. 8-623-5

LISN FACTOR (K)

Frequency (MHz)

6  
5  
4  
3  
2  
1  
0

K  
(dB)

0.01

0.02

0.03

0.05

0.07

0.1

0.2

0.3

0.5

0.7

1

2

3

5

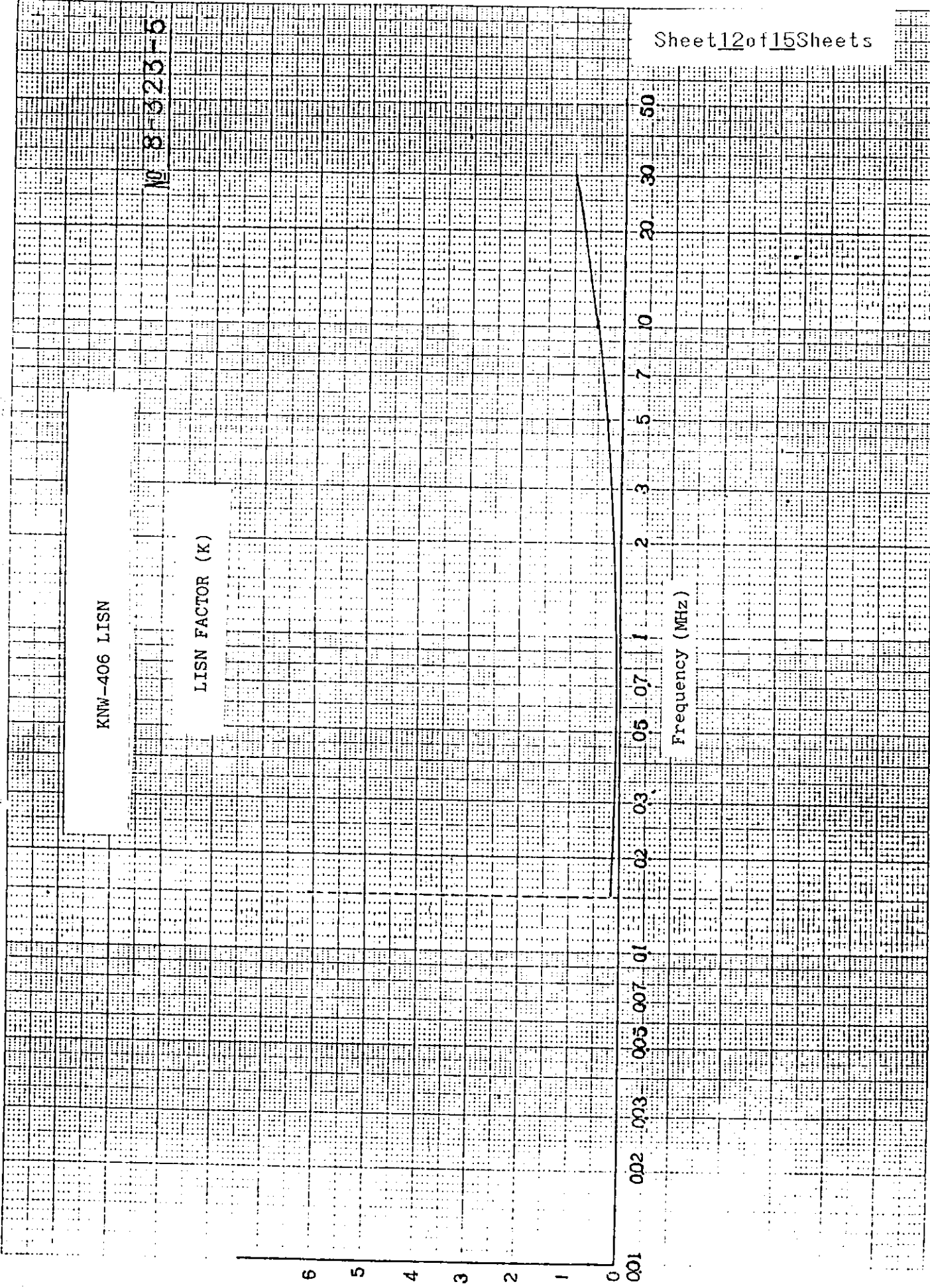
7

10

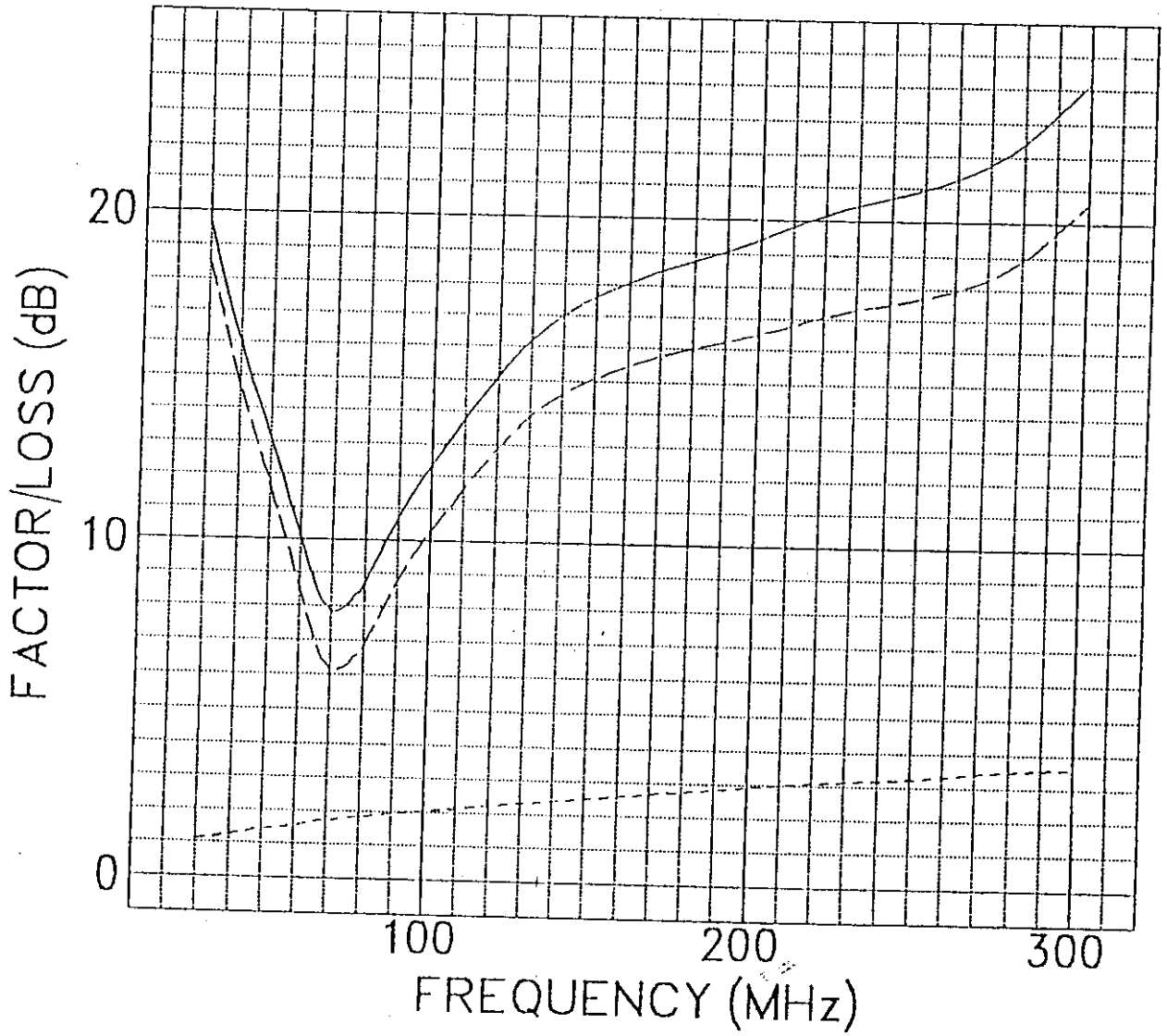
20

30

50



# CORRECTION FACTOR OF BBA9106



$E = V + K$

E : Field Strength

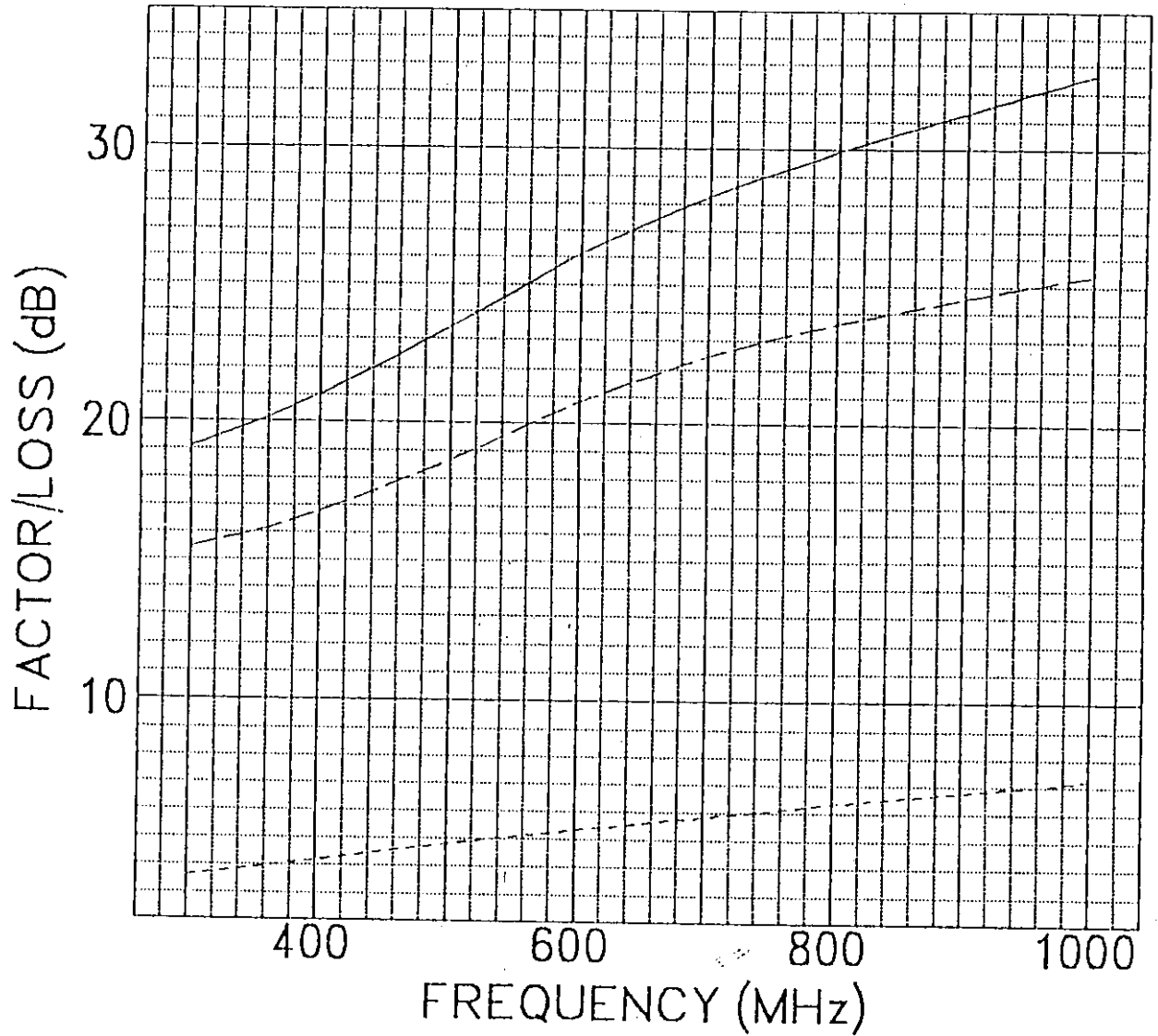
V : Correction Factor (dB)

———— : Correction Factor

----- : Antenna Factor

..... : Cable Loss

# CORRECTION FACTOR OF UHALP9107



$$E = V + K$$

E : Field Strength

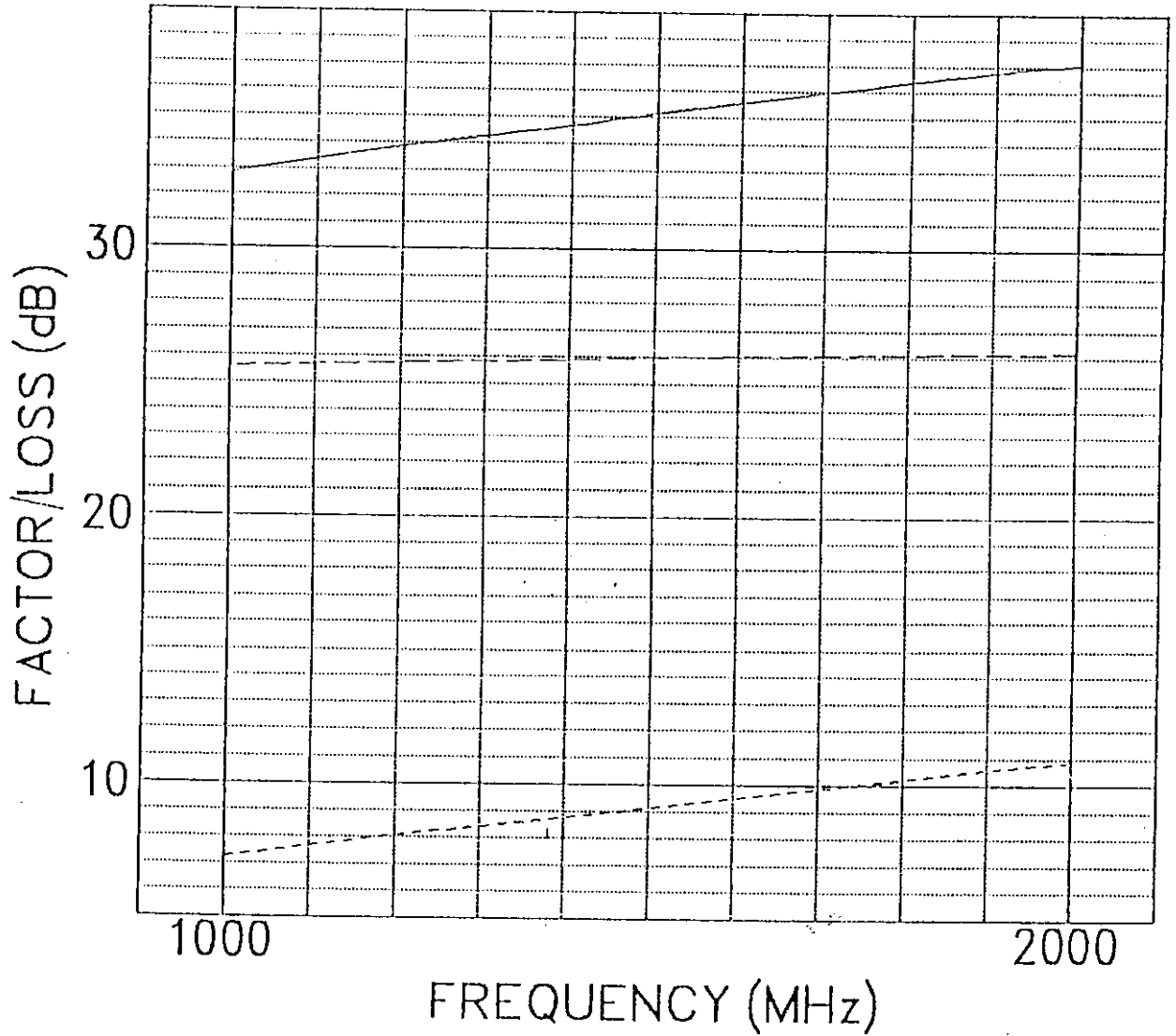
V : Correction Factor (dB)

————— : Correction Factor

----- : Antenna Factor

..... : Cable Loss

# CORRECTION FACTOR OF 3115



$$E = V + K$$

E : Field Strength

V : Correction Factor (dB)

———— : Correction Factor

----- : Antenna Factor

..... : Cable Loss