

MATSUSHITA-KOTOBUKI ELECTRONICS INDUSTRIES LTD.

SAIJO DIVISION

ADDRESS: 〒793-8510 247 FUKUTAKE, SAIJO, EHIME, JAPAN

TELEPHONE: +81-897-56-1111

FAX: +81-897-56-8142

Date: Jun. 15, 1999

Report of Measurements (Part I)

REQUIRED IN () SUBPART B (TV INTERFACE DEVICE)

(X) SUBPART B (DIGITAL DEVICE)

EXHIBIT # : 3-1

FCC ID : ACJ927123K

OUR REF. : MKES99-F014

MODEL NO. : PV-DV950D

Sheet 1 of 9 Sheets

Name of Manufacturer: Matsushita-Kotobuki Electronics Industries Ltd.

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

Device Under Measurement

FCC ID : ACJ927123K

Model No. : PV-DV950D

Trade Name : Panasonic

Applicant : Matsushita Electric Ind. Co., Ltd.

This device is a representative model of P19 chassis group.

Certification

On the basis of the measurement data contained in Part II, all devices bearing the aforementioned 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
ELECTRONICS INDUSTRIES LTD.**
SAIJO DIVISION

ADDRESS: 〒793-8510 247 FUKUTAKE, SAIJO, EHIME, JAPAN
TELEPHONE: +81-897-56-1111 FAX: +81-897-56-8142

Part 15 Subpart B. (Digital Device) - Part II

Sheet 2 of 9 Sheets

1) 15.107 Power Line Conducted Voltage

Freq. (MHz)	Limits (dBuV)	Interference (dBuV)	
		1-end & Grounded	The other- End & Gro.
0.55	48.0	30.4	30.2
0.66	48.0	30.8	30.4
11.40	48.0	25.2	26.4
12.30	48.0	28.2	30.0
18.00	48.0	29.0	28.3
22.50	48.0	29.8	29.2

(Refer to Sheet 3, 5, 7 of 9 Sheets)

2) 15.109 Radiated Emission

Freq. (MHz)	Limits (dBuV/m)	Emission (dBuV/m)	
		Horiz.	Vert.
81.00	40.0	36.6	32.8
162.00	43.5	38.5	32.5
191.25	43.5	40.3	35.6
393.75	46.0	42.7	38.7
438.75	46.0	42.4	37.4
461.25	46.0	42.3	36.7

(Refer to Sheet 4, 6, 8, 9 of 9 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
Engineer

1) 15.107 Power Line Conducted Voltage

Freq. (MHz)	Meter Reading (dBuV)		LISN Factor (dB)	Matching Pad Loss (dB)	Interference (dBuV)	
	1-end & Grounded	The other- End & Gro.			1-end & Grounded	The other- End & Gro
0.55	24.1	23.9	0.1	6.2	30.4	30.2
0.66	24.5	24.1	0.1	6.2	30.8	30.4
11.40	18.5	19.7	0.5	6.2	25.2	26.4
12.30	21.4	23.2	0.6	6.2	28.2	30.0
18.00	22.1	21.4	0.7	6.2	29.0	28.3
22.50	22.6	22.0	1.0	6.2	29.8	29.2

Note:

1. Sample calculation at

1-end & Gro., 0.55 MHz ; 24.1 + 0.1 + 6.2 = 30.4 (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, KNW-407
50 ohms / 50 uh network

c) 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

Freq. (MHz)	Meter Reading Open Volt. (dBuV)		Correction Factor (dB) Open Vol.	Emission at 3 meters (dBuV)	
	Horiz.	Vert.		Horiz.	Vert.
81.00	27.8	24.0	8.8	36.6	32.8
162.00	20.3	14.3	18.2	38.5	32.5
191.25	21.2	16.5	19.1	40.3	35.6
393.75	22.0	18.0	20.7	42.7	38.7
438.75	20.6	15.6	21.8	42.4	37.4
461.25	19.7	14.1	22.6	42.3	36.7

Note:

1. Sample calculation at

$$\text{Horiz., 81.00 MHz ; } 27.8 + 8.8 = 36.6 \text{ (dBuV/m)}$$

2. Measuring Instruments:

- a) Field strength meter – Rohde & Schwarz
 (for 30 MHz to 1 G Hz) Model : ESVP
 (1) Frequency range : 20 MHz to 1300 MHz
 (2) RF Input : 50 ohms
 (3) IF band width : 7.5 kHz / 12 kHz /
 120 kHz / 1 MHz
 (4) Detector function: Average/
 CISPR Q-PERK/PERK
- c) 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 1000 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

15.107 POWER LINE CONDUCTED VOLTAGE

- CONFIGURATION OF THE EQUIPMENT UNDER TEST -

(Arrangement of interface cable on the test table)

EXHIBIT # : 3-1
FCC ID : ACJ927123K
OUR REF. : MKES99-F014
MODEL NO. : PV-DV950D
Sheet 5 of 9 Sheets



Sheet 7 of 9 Sheets

KNW-406 LISO

LISO FACTOR (K)

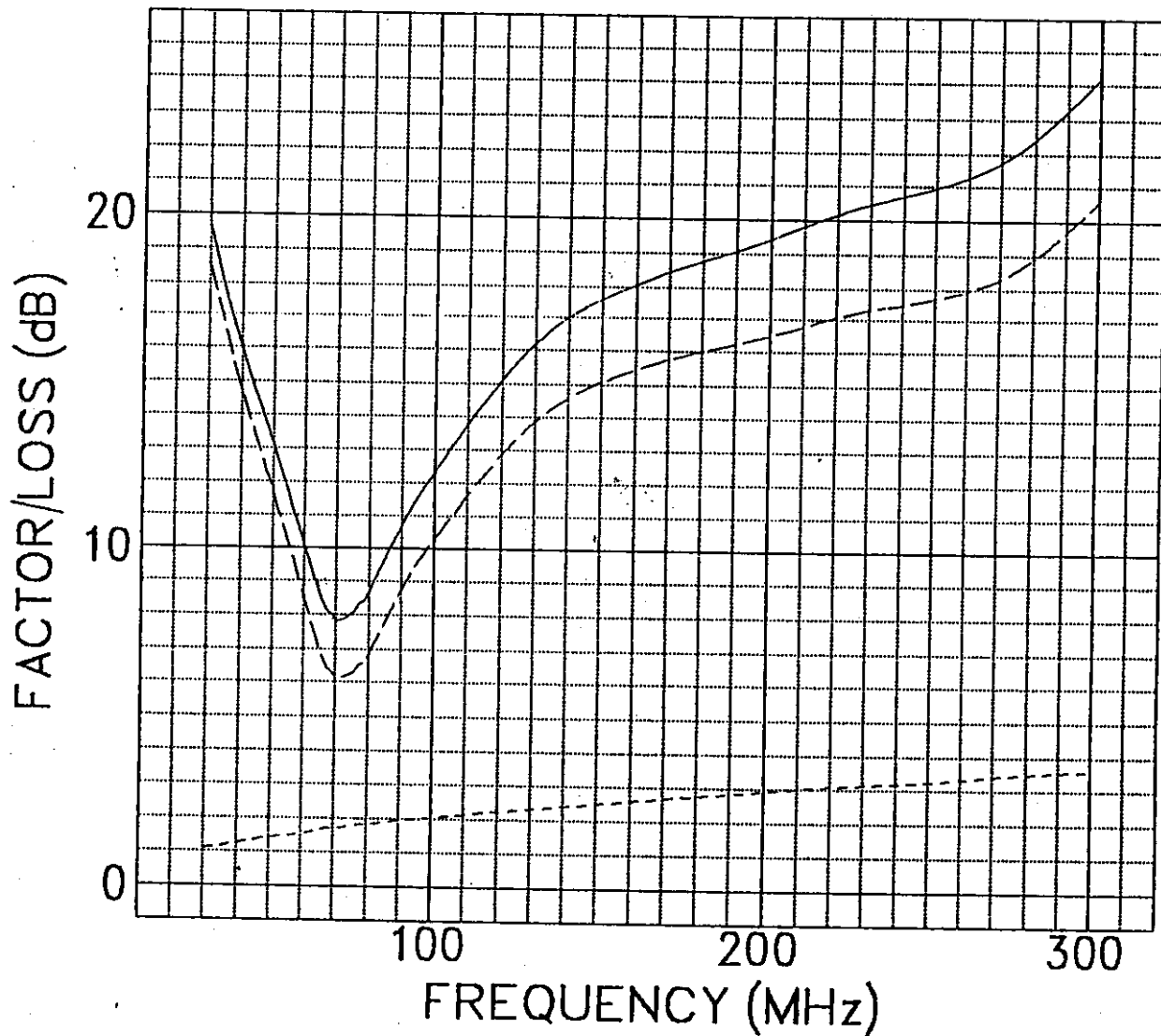
NO 8-323-5

Frequency (MHz)

001 002 003 005 007 01 02 03 05 07 1 2 3 5 7 10 20 30 50

0 1 2 3 4 5 6

CORRECTION FACTOR OF BBA9106



$$E = V + K$$

E : Field Strength

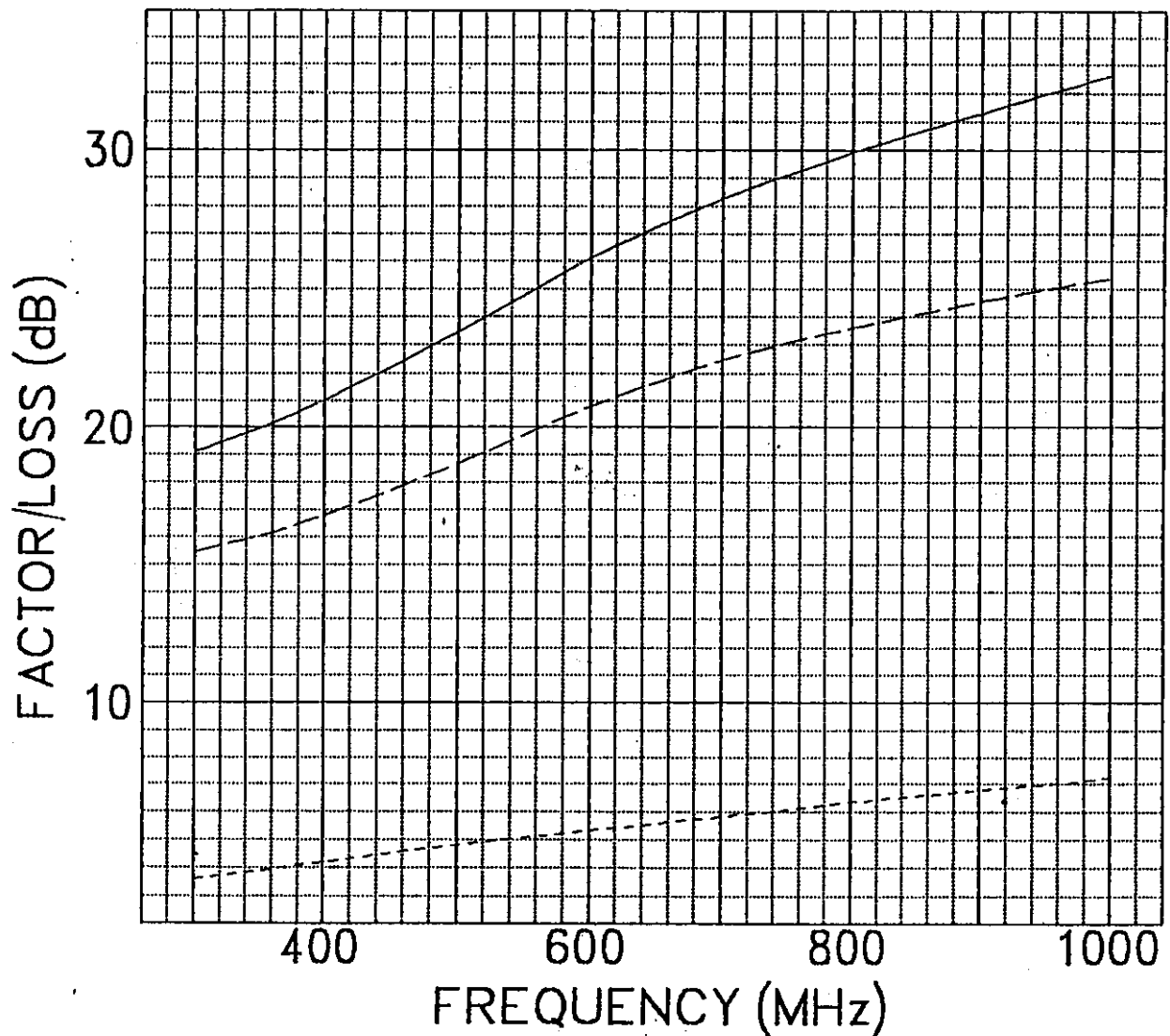
V : Correction Factor (dB)

———— : 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