

**MATSUSHITA—KOTOBUKI
ELECTRONICS INDUSTRIES LTD.**

VIDEO DEVELOPMENT CENTER
ADDRESS: 〒793-8510 247 FUKUTAKE, SAIGO, EHIME, JAPAN
TELEPHONE: 0897-56-1111 FAX: 0897-56-8142

Date: Apr. 27, 1998

Report of Measurements (Part I)

REQUIRED IN () SUBPART B (TV INTERFACE DEVICE)
(X) SUBPART B (DIGITAL DEVICE)

EXHIBIT # : 3-1
FCC ID : ACJ927118K
OUR REF. : MKS98-F006
MODEL NO. : PT-L556U
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 : ACJ927118K
Model No. : PT-L556U
Trade Name : Panasonic
Applicant : Matsushita Electric Ind. Co., Ltd.
This device is a representative model of SP-25S 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

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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.
0.60	48.0	27.8	27.4
0.80	48.0	26.5	25.7
0.90	48.0	27.9	27.5
1.10	48.0	35.8	35.6
7.01	48.0	32.7	31.7
29.93	48.0	21.8	21.4

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

2) 15.109 Radiated Emission

Freq. (MHz)	Limits (dBuV/m)	Emission (dBuV/m)	
		Horiz.	Vert.
40.00	40.0	21.8	25.8
46.20	40.0	24.8	34.7
79.99	40.0	27.8	33.8
119.98	43.5	27.6	37.0
159.97	43.5	31.8	32.4
215.99	43.5	33.2	33.3

(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

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.
40.00	5.8	9.8	16.0	21.8	25.8
46.20	10.3	20.2	14.5	24.8	34.7
79.99	19.1	25.1	8.7	27.8	33.8
119.98	12.6	22.0	15.0	27.6	37.0
159.97	13.7	14.3	18.1	31.8	32.4
215.99	13.2	13.3	20.0	33.2	33.3

Note:

1. Sample calculation at

$$\text{Horiz., 40.00 MHz ; } 5.8 + 16.0 = 21.8 \text{ (dBuV/m)}$$

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

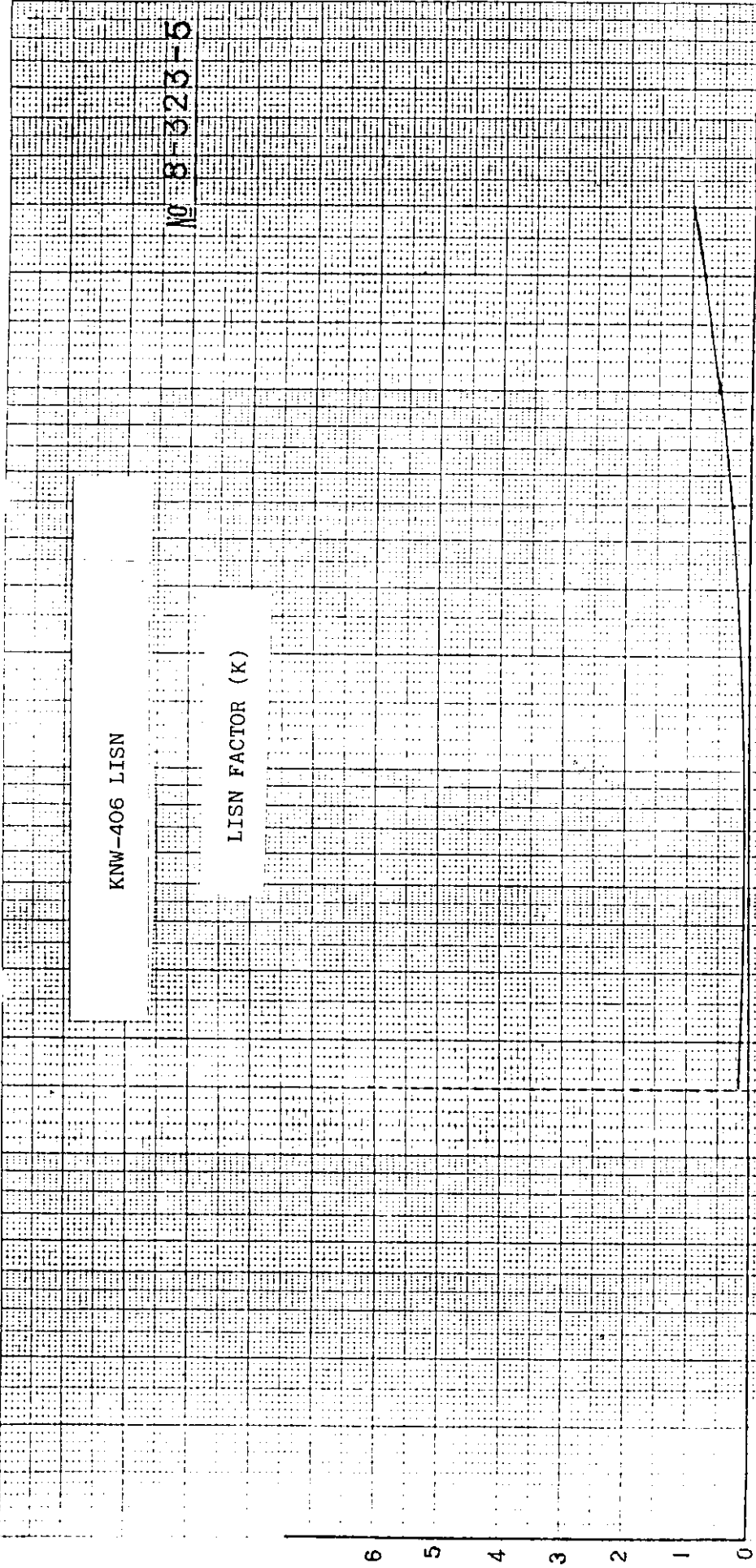
3. The Spectrum was checked from 30 MHz to 1000 MHz and the six highest emissions relative to the appropriate limit were measured and reported.

KNW-406 LISN

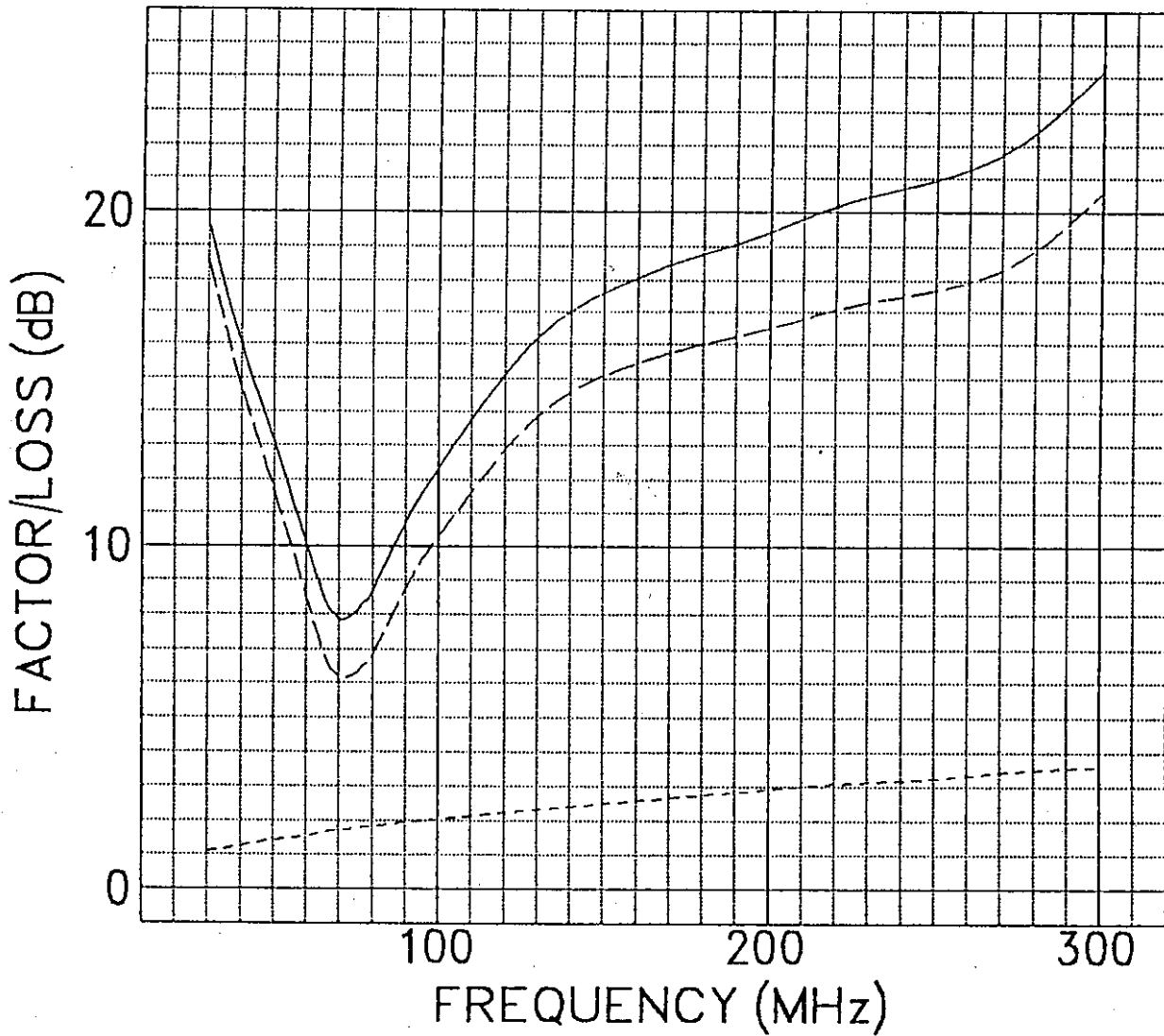
No. 8-323-5

LISN FACTOR (K)

Frequency (MHz)



CORRECTION FACTOR OF BBA9106



$E = V + K$

E : Field Strength

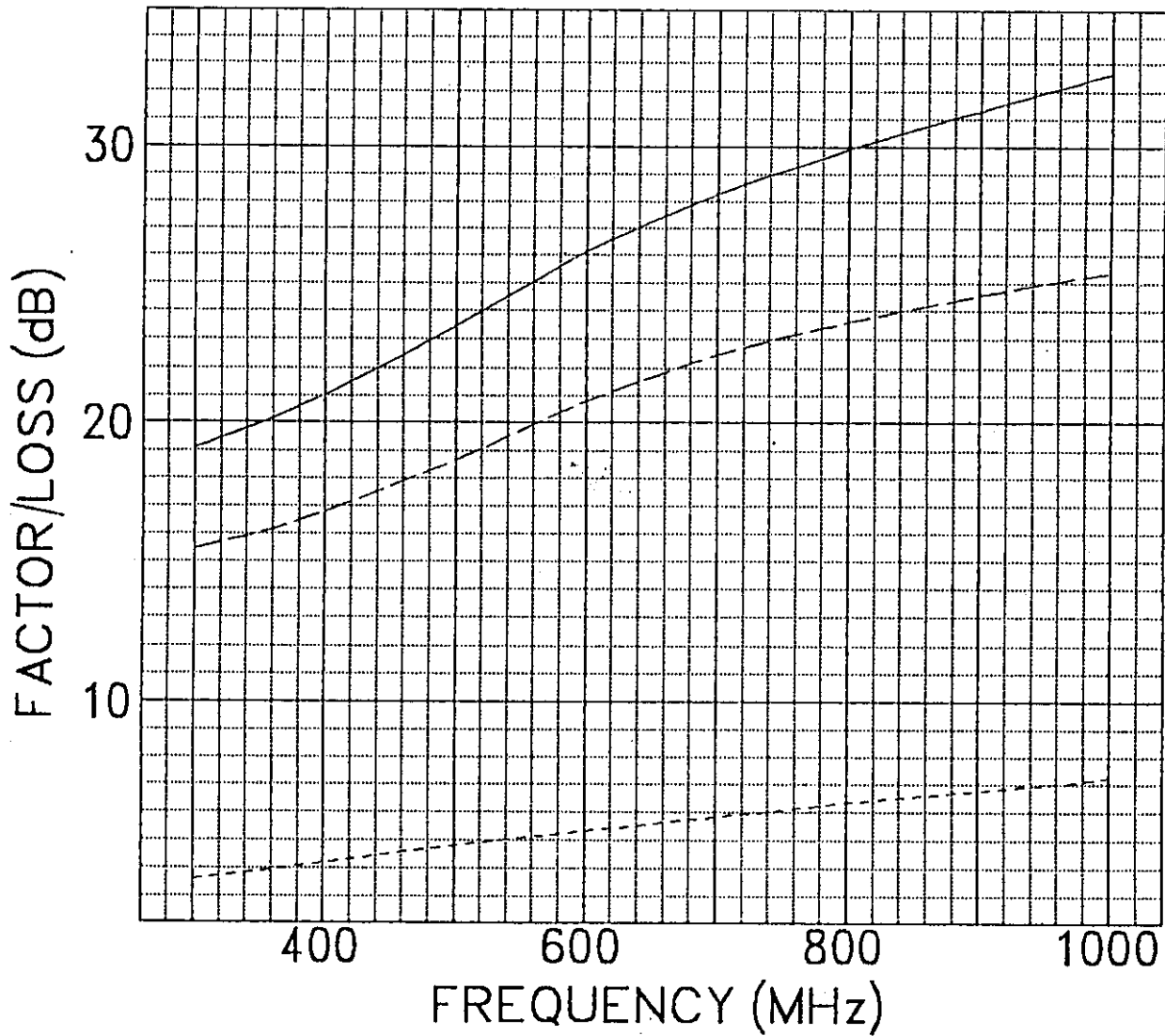
V : Correction Factor (dB)

———— : Correction Factor

----- : Antenna Factor

..... : Cable Loss

CORRECTION FACTOR OF UHALP9107



$$E = V + K$$

E : Field Strength

V : Correction Factor (dB)

————— : Correction Factor

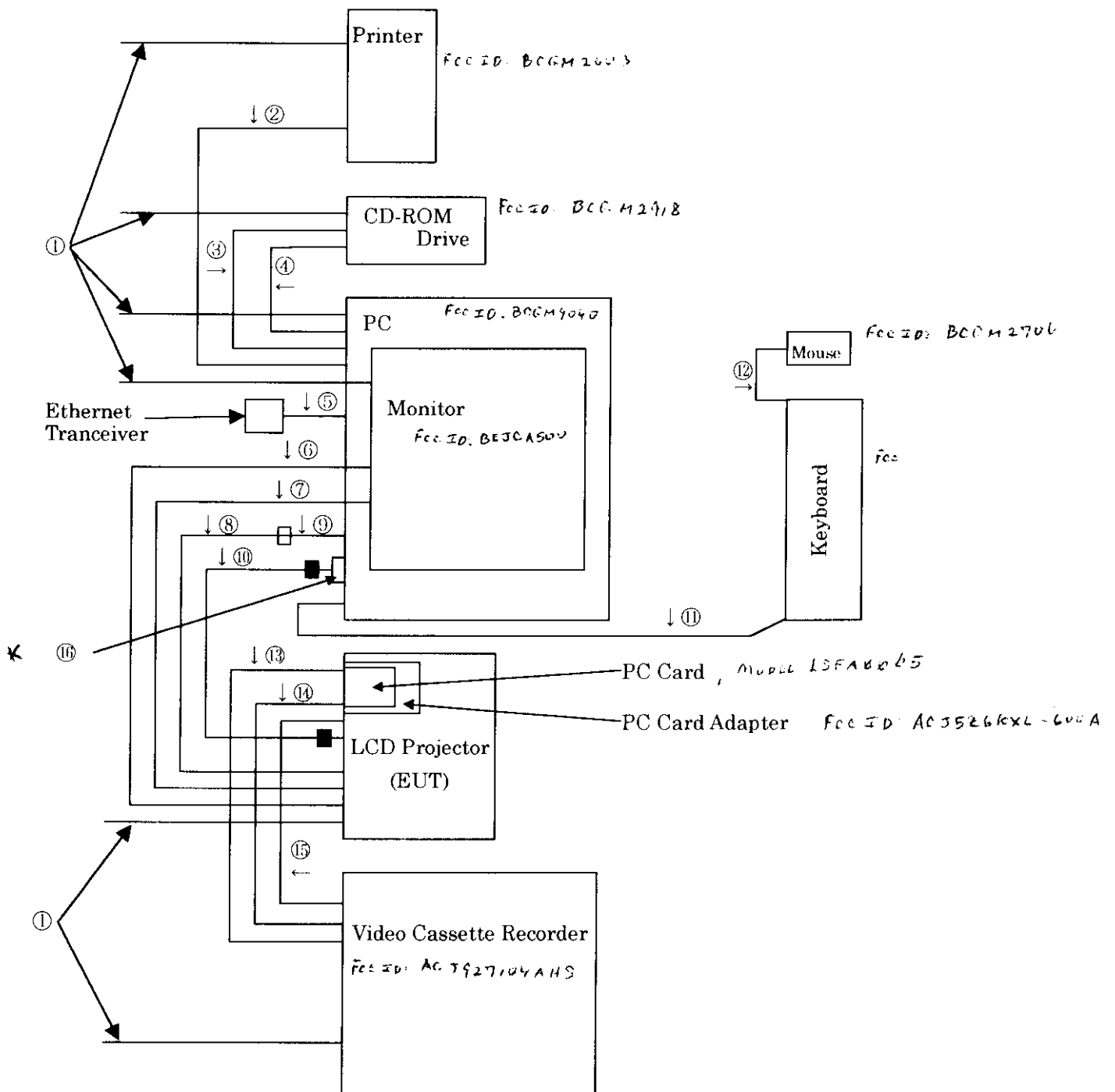
----- : Antenna Factor

- · - · - · : Cable Loss

Block Diagram of System for Measurements

EXHIBIT # : 3-2
 FCC ID : ACJ927118K
 OUR REF. : MKS98-F006
 MODEL NO. : PT-L556U

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List of Frequency

The CLOCK of LCD Projector

CIRCUIT Name	CLOCK
BALLAST	4.00 MHz
SYSTEM CONTROL	14.32 MHz
VIDEO SIGNAL	503 kHz
	3.58 MHz
PLL	14.30 MHz
LCD DRIVE TIMING CONTROL	36.00 MHz
PC CARD CONTROL	12.50 MHz

The CLOCK of PLL1/2 BLOCK

VIDEO SIGNAL		CLOCK (MHz)
VIDEO MODE	PAL	15.16
	SECAM	15.16
	PAL-N	15.16
	PAL-M	15.64
	NTSC	15.64
	NTSC4.43	15.64
RGB MODE	VGA @60Hz	25.18
	VGA @72Hz	31.50
	VGA @75Hz	31.50
	VGA @85Hz	36.00
	MAC 13"	30.24
	SVGA @56Hz	36.00
	SVGA @60Hz	40.00
	SVGA @72Hz	50.00
	SVGA @75Hz	49.50
	SVGA @85Hz	56.25
	MAC 16"	57.28
	XGA @60Hz	65.00
	XGA @70Hz	75.00
	XGA @75Hz	78.75
MAC 19"	80.00	
PC CARD MODE	—	38.00
NO SIGNAL	—	38.00