

MATSUSHITA-KOTOBUKI ELECTRONICS INDUSTRIES LTD.

SAIJO DIVISION

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Date: Mar. 10, 2000

Report of Measurements (Part I)

REQUIRED IN () SUBPART B (TV INTERFACE DEVICE)
(X) SUBPART B (CLASS B PERIPHERALS)

EXHIBIT # : 3-1
FCC ID : ACJ927132K
OUR REF. : MKES-F003
MODEL NO. : PT-L759U
Sheet 1 of 14 Sheets

Name of Manufacturer: Matsushita-Kotobuki Electronics Industries Ltd.

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

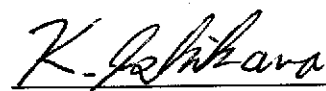
Device Under Measurement

FCC ID : ACJ927132K
Model No. : PT-L759U
Trade Name : Panasonic
Applicant : Matsushita Electric Ind. Co., Ltd.

This device is a representative model of SP-35XB 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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RGB Mode

Part 15 Subpart B. (Class B Peripherals) - Part II

EXHIBIT # : 3-1
FCC ID : ACJ927132K
OUR REF. : MKES00-F003
MODEL NO. : PT-L759U
Sheet 2 of 14 Sheets

1) 15.107 Power Line Conducted Voltage

Freq. (MHz)	Limits (dBuV)	Interference (dBuV)	
		1-end & Grounded	The other- End & Gro.
0.91	48.0	29.4	28.7
1.19	48.0	27.7	27.0
2.01	48.0	30.3	28.5
2.65	48.0	29.6	27.8
13.14	48.0	29.9	28.2
28.13	48.0	30.4	29.7

(Refer to Sheet 4, 8, 11 of 14 Sheets)

2) 15.109 Radiated Emission

Freq. (MHz)	Limits (dBuV/m)	Emission (dBuV/m)	
		Horiz.	Vert.
31.80	40.0	24.2	30.6
111.39	43.5	32.8	28.9
299.07	46.0	39.6	36.5
330.00	46.0	38.6	28.9
354.68	46.0	35.4	37.5
715.95	46.0	41.3	36.1

(Refer to Sheet 6, 9, 10, 12, 13, 14 of 14 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

MATSUSHITA-KOTOBUKI ELECTRONICS INDUSTRIES LTD.

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S-Video Mode

Part 15 Subpart B. (Class B Peripherals) - Part II

EXHIBIT # : 3-1
FCC ID : ACJ927132K
OUR REF. : MKES00-F003
MODEL NO. : PT-L759U
Sheet 3 of 14 Sheets

1) 15.107 Power Line Conducted Voltage

Freq. (MHz)	Limits (dBuV)	Interference (dBuV)	
		1-end & Grounded	The other- End & Gro.
0.91	48.0	27.9	27.5
1.28	48.0	28.3	27.4
2.74	48.0	27.5	26.8
3.56	48.0	28.3	27.2
13.32	48.0	26.9	25.4
28.24	48.0	29.9	28.7

(Refer to Sheet 5, 8, 11 of 14 Sheets)

2) 15.109 Radiated Emission

Freq. (MHz)	Limits (dBuV/m)	Emission (dBuV/m)	
		Horiz.	Vert.
31.80	40.0	24.1	29.9
111.39	43.5	30.7	28.4
299.07	46.0	38.7	34.8
330.00	46.0	37.8	29.0
354.68	46.0	34.8	36.4
715.95	46.0	40.0	34.7

(Refer to Sheet 7, 9, 10, 12, 13, 14 of 14 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

EXHIBIT # : 3-1
 FCC ID : ACJ927132K
 OUR REF. : MKES00-F003
 MODEL NO.: PT-L759U
 Sheet 4 of 14 Sheets

1) 15.107 Power Line Conducted Voltage

Mode	Freq. (MHz)	Meter Reading (dBuV)		LISN Factor (dB)	Matchin g Pad Loss (dB)	Interference (dBuV)	
		1-end & Grounded	The other- End & Gro.			1-end & Grounded	The other- End & Gro
RGB	0.91	23.1	22.4	0.1	6.2	29.4	28.7
	1.19	21.4	20.7	0.1	6.2	27.7	27.0
	2.01	23.9	22.1	0.2	6.2	30.3	28.5
	2.65	23.1	21.3	0.3	6.2	29.6	27.8
	13.14	23.1	21.4	0.6	6.2	29.9	28.2
	28.13	23.2	22.5	1.0	6.2	30.4	29.7

Note:

1. Sample calculation at

RGB Mode 1-end & Gro., 0.91 MHz ; $23.1 + 0.1 + 6.2 = 29.4$ (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.

EXHIBIT # : 3-1
FCC ID : ACJ927132K
OUR REF. : MKES00-F003
MODEL NO.: PT-L759U
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2) 15.107 Power Line Conducted Voltage

Mode	Freq. (MHz)	Meter Reading (dBuV)		LISN Factor (dB)	Matchin g Pad Loss (dB)	Interference (dBuV)	
		1-end & Grounded	The other- End & Gro.			1-end & Grounded	The other- End & Gro
S-Video	0.91	21.6	21.2	0.1	6.2	27.9	27.5
	1.28	22.0	21.1	0.1	6.2	28.3	27.4
	2.74	21.0	20.3	0.3	6.2	27.5	26.8
	3.56	21.8	20.7	0.3	6.2	28.3	27.2
	13.32	20.1	18.6	0.6	6.2	26.9	25.4
	28.24	22.7	21.5	1.0	6.2	29.9	28.7

Note:

1. Sample calculation at

S-Video Mode 1-end & Gro., 0.91 MHz ; $21.6 + 0.1 + 6.2 = 27.9$ (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.

EXHIBIT # : 3-1
 FCC ID : ACJ927132K
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 MODEL NO. : PT-L759U
 Sheet 6 of 14 Sheets

3) 15.109 Radiated Emission

Mode	Freq. (MHz)	Meter Reading Open Volt. (dBuV)		Correction Factor (dB) Open Vol.	Emission at 3 meters (DbuV)	
		Horiz.	Vert.		Horiz.	Vert.
RGB	31.80	5.2	11.6	19.0	24.2	30.6
	111.39	18.8	14.9	14.0	32.8	28.9
	299.07	15.6	12.5	24.0	39.6	36.5
	330.00	19.0	9.3	19.6	38.6	28.9
	354.68	15.4	17.5	20.0	35.4	37.5
	715.95	12.7	7.5	28.6	41.3	36.1

Note:

1. Sample calculation at

RGB Mode Horiz., 31.80 MHz ; 5.2 + 19.0 = 24.2 (dBuV/m)

2. Measuring Instruments:

a) Field strength meter

- Hewlett Packard company

Model: HP 8546A

(1) Frequency range : 9 kHz to 6.5 GHz

(2) RF Input : 50 ohm

(3) IF band width : 200 Hz/ 9 kHz/ 120 kHz/ 1MHz

(4) Detector function : Average/CISPR Q-Peak/Peak

b) 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.

EXHIBIT # : 3-1
 FCC ID : ACJ927132K
 OUR REF. : MKES00-F003
 MODEL NO. : PT-L759U
 Sheet 7 of 14 Sheets

4) 15.109 Radiated Emission

Mode	Freq. (MHz)	Meter Reading Open Volt. (dBuV)		Correction Factor (dB) Open Vol.	Emission at 3 meters (DbuV)	
		Horiz.	Vert.		Horiz.	Vert.
S-Video	31.80	5.1	10.9	19.0	24.1	29.9
	111.39	16.7	14.4	14.0	30.7	28.4
	299.07	14.7	10.8	24.0	38.7	34.8
	330.00	18.2	9.4	19.6	37.8	29.0
	354.68	14.8	16.4	20.0	34.8	36.4
	715.95	11.4	6.1	28.6	40.0	34.7

Note:

1. Sample calculation at

S-Video Mode Horiz., 31.80 MHz ; $5.1 + 19.0 = 24.1$ (dBuV/m)

2. Measuring Instruments:

a) Field strength meter

- Hewlett Packard company

Model: HP 8546A

(1) Frequency range : 9 kHz to 6.5 GHz

(2) RF Input : 50 ohm

(3) IF band width : 200 Hz/ 9 kHz/ 120 kHz/ 1MHz

(4) Detector function : Average/CISPR Q-Peak/Peak

b) 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.

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MODEL NO. : PT-L759U
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15.107 POWER LINE CONDUCTED VOLTAGE

- CONFIGURATION OF THE EQUIPMENT UNDER TEST -
(Arrangement of interface cable on the test table)



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FCC ID : ACJ927132K
OUR REF. : MKES00-F003
MODEL NO.: PT-L759U
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15.109 RADIATED EMISSION

- CONFIGURATION OF THE EQUIPMENT UNDER TEST -
(Arrangement of interface cable on the test table)



EXHIBIT # : 3-1
FCC ID : ACJ927132K
OUR REF. : MKES00-F003
MODEL NO. : PT-L759U
Sheet 10 of 14 Sheets

15.109 RADIATED EMISSION

- CONFIGURATION OF THE EQUIPMENT UNDER TEST -

(Arrangement of interface cable on the test table)

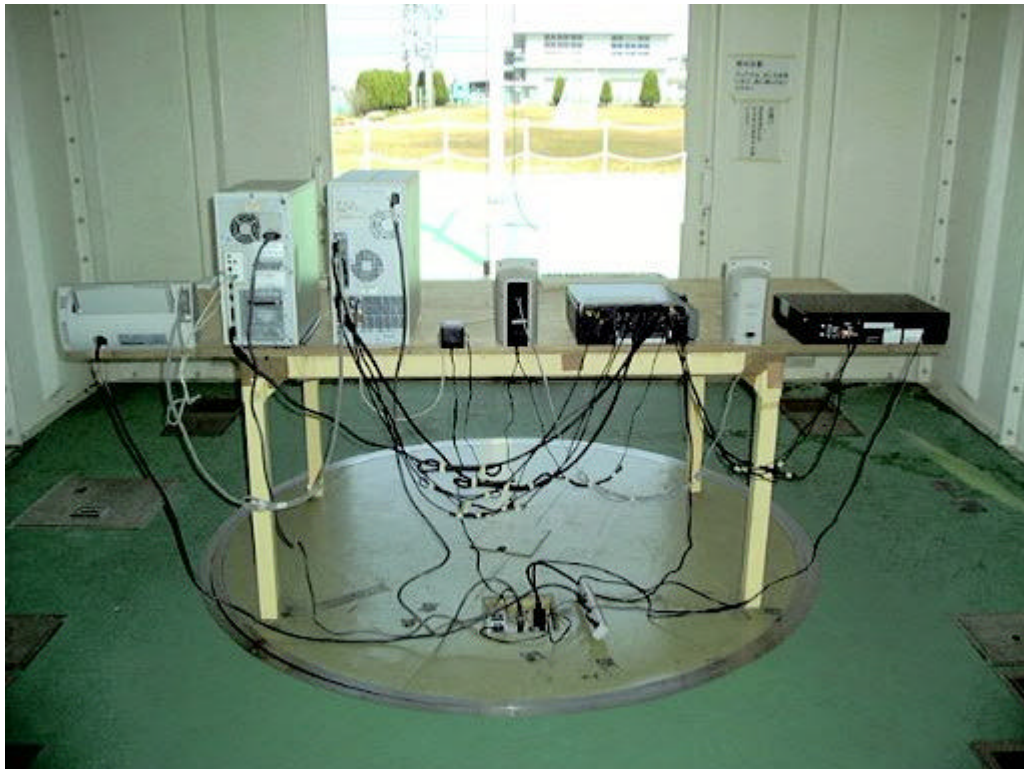
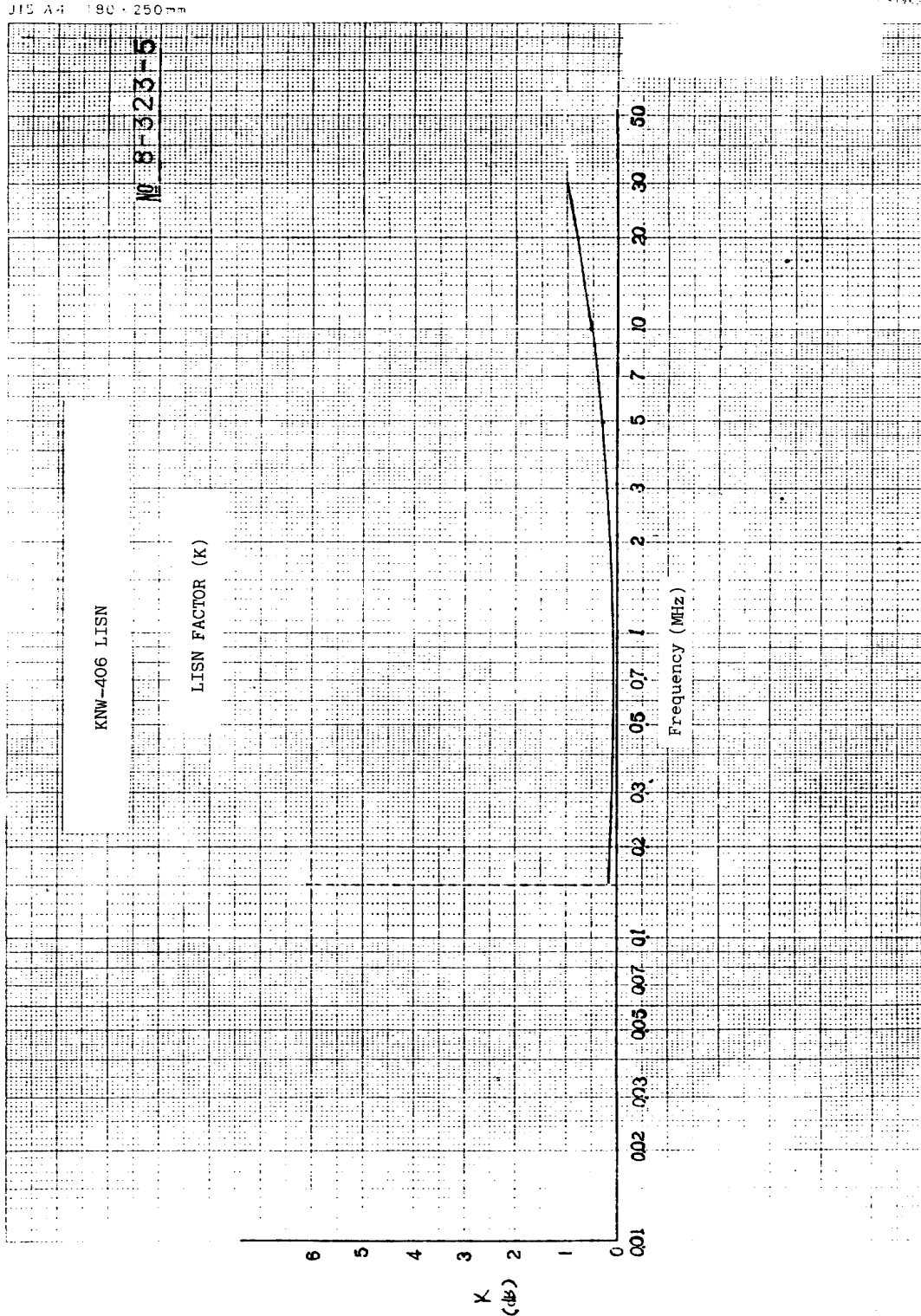
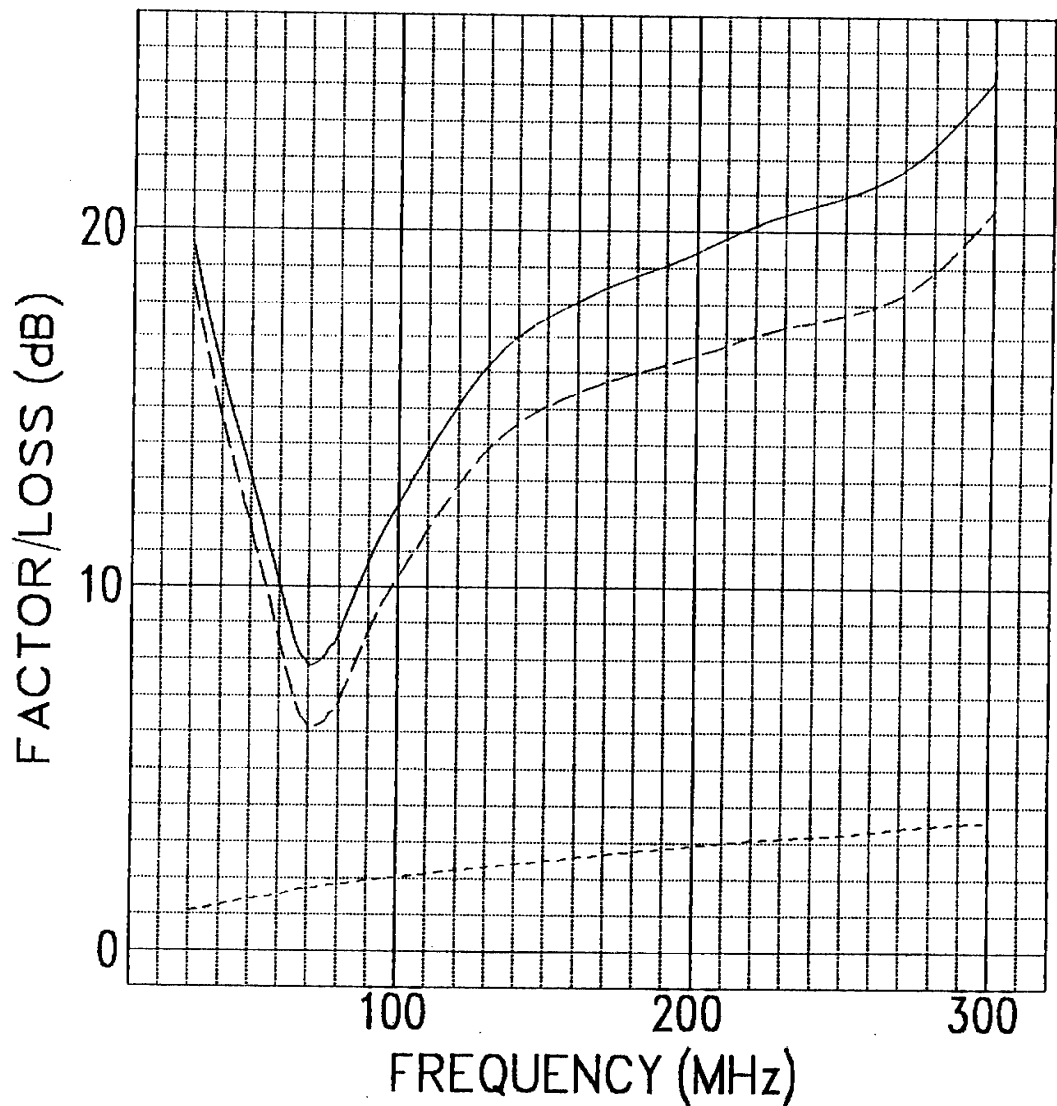


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 MODEL NO.: PT-L759U
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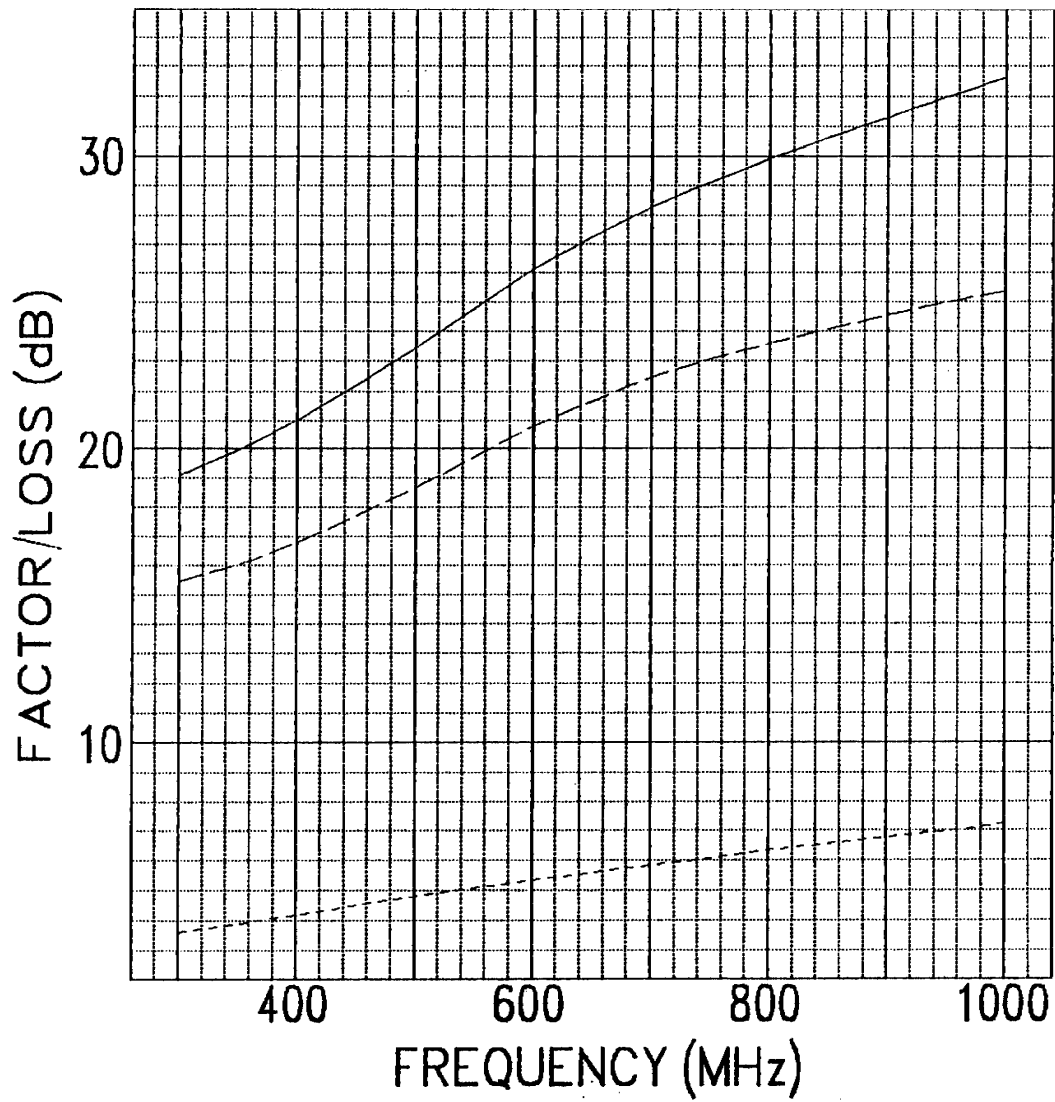
CORRECTION FACTOR OF BBA9106



$E = V + K$
 E : Field Strength
 V : Correction Factor (dB)

——— : Correction Factor
 - - - - : Antenna Factor
 : Cable Loss

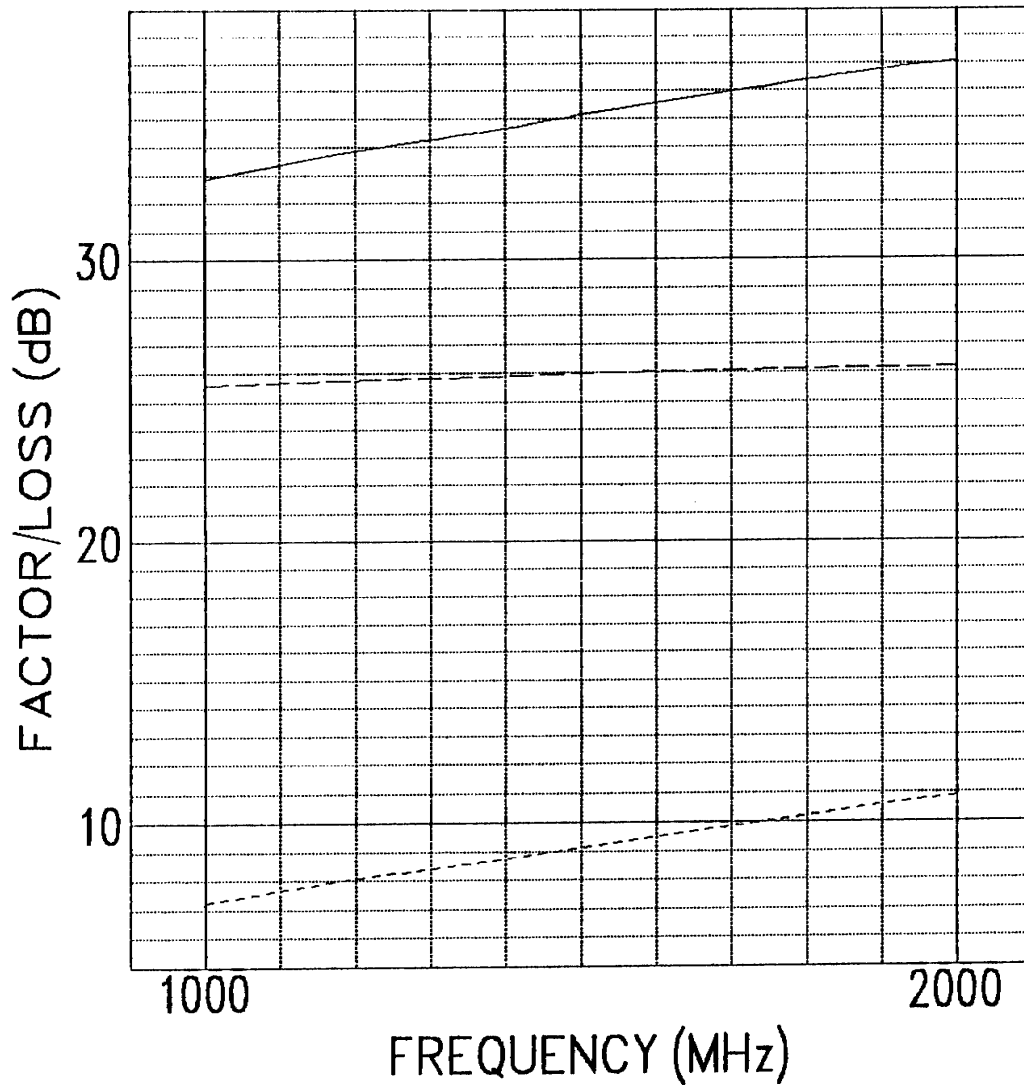
CORRECTION FACTOR OF UHALP9107



$E = V + K$
 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