

**MATSUSHITA-KOTOBUKI
ELECTRONICS INDUSTRIES LTD.**

SALUO DIVISION DEVELOPMENT ADMINISTRATION DEPT.
ADDRESS: 7793 247 FUKUTAKE, SALUO, EHIME, JAPAN
TELEPHONE 0897-55-1111 FAX 0897-55-6142

Date : Oct. 1, 1998

REPORT OF MEASUREMENTS-(Part I)

REQUIRED IN () SUBPART H (TV INTERFACE DEVICE)
(X) Part 18 (ISM EQUIPMENT)

EXHIBIT # : 3
FCC ID : ACJ5LU0035
OUR REF. : MKS98-F020
MODEL NO. : PV-A659D
Sheet 1 of 5 Sheets

Name of Manufacturer: Matsushita-Kotobuki Electronics Industries Ltd.

Address of Manufacturer: 110 Wakimachi, Mima, Tokushima, Japan

Device Under Measurement

FCC ID : ACJ5LU0035
Model No. : PV-A659D
Trade Name : Panasonic
Applicant : Matsushita Electric Ind. Co., Ltd.
This device is a representative model of KC-99LCD chassis group.

Data Also Applied To

FCC ID Model No. (Trade Name)

Device Description

Name of Device : () Video Cassette Recorder, () Tuner Adaptor
(X) Color LCD Electronic View Finder (Part of Video Camera)

Frequency : 87 kHz $\pm$ 10 kHz
Accessories : AC Adaptor (PV-A17)
RF Adaptor (PV-RF16), RF out cable (1.3 meter)

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 18 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

Part 18, (ISM EQUIPMENT) – Part II

Sheet 2 of 5 Sheets

Name of Device : Color LCD Electronic View Finder

FCC ID : ACJ5LU0035

Nominal Operating Frequency : 87 kHz $\pm$ 10 kHz

Rated Power Consumption : DC 6V / 8.5 W, (With Video Camera)

Maximum RF Energy : 2.5 W

Illumination : 1.1 W Fluorescent Lamp

Intended Use : Illumination, Consumer Equipment

Measurement Site : MKS Site

Measurement Procedure : FCC OST MP-5

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 18 of the FCC Rules under normal use and maintenance.


M. Yagi
Engineer

5) 18.307 Power Line Conducted Interference

Freq. (MHz)	Meter Reading (dBuV)		LISN Factor (dB)	Matching Pad Loss (dB)	Interference (dBuV)		Limits (dBuV)
	1-end & Gro.	The other- end & Gro.			1-end & Gro.	The other- end & Gro.	
0.49	27.3	28.2	0.1	6.2	33.6	34.5	48
0.55	21.5	23.1	0.1	6.2	27.8	29.4	48
0.64	19.4	22.2	0.1	6.2	25.7	28.5	48
0.73	22.6	21.9	0.1	6.2	28.9	28.2	48
0.96	17.1	17.8	0.1	6.2	23.4	24.1	48
3.56	15.7	18.0	0.2	6.2	22.1	24.4	48

Note:

1. Sample calculation at 1-end & Gro. 0.49 MHz; $27.3 + 0.1 + 6.2 = 33.6$ (dBuV)

2. Measuring Instruments:

a) Field strength meter – Kyoritsu Electric Work Co., Model KNM-402C

(1) Detector function : CISPR Q-Peak

(2) IF band width : 9 kHz

(3) Input impedance : 75 ohms

b) Line impedance stabilized net work (LISN)

– Kyoritsu Electric Work Co., Model KNW-406

50 ohms / 50 uH net work

c) Matching pad – Kyoritsu Electric Work Co., 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.

Sheet 5 of 5 Sheets

KNW-406 LISN

LISN FACTOR (K)

Frequency (MHz)

10 8 6 3 2 3 5

50 30 20 10 7 5 3 2 1 0

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

6 5 4 3 2 1 0

Technical Specification

EXHIBIT # : 4-1
FCC ID : ACJ5LU0035
OUR REF. : MKS98-F020
MODEL NO.: PV-A659D

Color LCD Electronic View Finder (Part of Video Camera)

Power Source	: Supplied from Video Camera
Power Consumption	: 8.5 W (With Video Camera)
Television System	: EIA Standard (525 lines, 60 fields) NTSC
Video Horizontal Resolution	: More than 250 lines
Illumination	: Built-in 1.1 W fluorescent lamp
Dimensions	: Approx. 15mm(W) × 110mm(D) × 84mm(H)
Weight	: Approx. 200 g
Color	: Black
Operating Humidity	: 10 % - 75 %
Operating Temperature	: 32° F - 104° F (0 °C - 40 °C)

EXHIBIT # : 4-2
FCC ID : ACJ5LU0035
OUR REF. : MKS98-F020
MODEL NO. : PV-A659D

1) Type(s) of emission

Not applicable

2) Frequency range

87 kHz $\pm$ 10 kHz

3) Range of operating power and description of means provided for variation of operating power

Not applicable

4) Maximum power rating as defined in the applicable rules

Not applicable

5) The voltage applied to and currents into the several elements of the final radio frequency amplifying device for normal operation over the power range.
Indicate whether these voltages and currents are DC or AC.

Input Voltage (circuit diagram Point No. 2) = 4.5 V (DC)
Input Current (circuit diagram Point No. 2) = 320 mA (DC)

6) Function of each electron tube, semiconductor or other active circuit device.

a. Switching transistor

Q9001, Q9002 : 2SD1119 $\times$ 2 or 2SD2150 $\times$ 2

b. Pulse transformer

T9001 : VLTW0053 or VLTW0054

Input Voltage : 4.5 V DC

Output Voltage : 850 V AC (at no load)

c. Choke coil

L9001 : SLF6028T680M

Inductance : 68 μ H

d. Fluorescent lamp

PL9001 : VLLW0021 or VLLW0022

Tube voltage : 275 V AC

Power consumption : 1.1 W

7) Complete circuit diagram

See EXHIBIT # 5

8) Operating Instruction manual. If the operating instruction manuals are not available when the application is filed a set of draft instructions should be provided and complete instruction manuals should be submitted as soon as available.

9) Tune up procedure over the power range or at specific operating power levels.

Not applicable

10) A description of all circuitry and devices provided for deterring and stabilizing frequency.

Oscillator circuit : Blocking oscillator DC-AC inverter

Pulse transformer : VLTW0053 or VLTW0054

Switching Transistor : Q9001,Q9002(2SD1119 $\times$ 2 or 2SD2150 $\times$ 2)

11) A description of any circuits for devices employed for suppression of spurious radiation,
for limiting modulation, and for limiting the
operating power.

Not applicable

12) A photograph or drawing of the equipment identification label,
silk-screened or molding showing the information to be placed there on.

See EXHIBIT # 1 and # 2.

