

(EMI)

TEST REPORT

REPORT NUMBER : TR 99-0074

APPLICANT : KYUSHU MATSUSHITA ELECTRIC CO.,LTD
Network Telecom Division

MODEL NUMBER : KX-DP702

REGULATION : FCC Rules and Regulations Part 15
Subpart B-Unitentional Radiators

ISSUE DATE : February 21, 2000

Kyushu Matsushita Electric Test Lab
EMC Center

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KME

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KME TEST LAB EMC CENTER.

SECTION 1. EMI TEST REPORT ON EUT**APPLICANT INFORMATION**

Company	: Kyushu Matsushita Electric Co., Ltd.
	Network Telecom Division
Address	: 1-62, 4-Chome, Minoshima
	Hakata-ku, Fukuoka 812-8531, Japan
Telephone number	: TEL 092-477-1347 (+81-92-477-1347)
Fax number	: FAX 092-477-1310 (+81-92-477-1310)

DESCRIPTION OF TEST ITEM

Kind of equipment	: Camera Unit
Condition of equipment	: Pre-Production
Type	: Desk-top Type
Trademark	: Panasonic
FCC ID	: ---
Model number	: KX-DP702 with PSLP1170
Serial number	: ES1
Power Supply	: AC 120V 60Hz

TEST PERFORMED

Location	: Kyushu Matsushita Electric Test Lab
	EMC Center Semi Anechoic Chamber
	(FCC File No.:31040/SIT/1300F2)
Address	: 441-13 Nagahasu Tateishi, Tosu
	Saga 841-8585, Japan
Receipt date	: February 15, 2000
Test date	: February 15, 2000
Regulation	: FCC Rules and Regulations Part 15 Class B
Test procedure	: ANSI C63.4-1992

SECTION 2. TEST CERTIFICATION

1. Measurement Results

The results obtained from The measuring of the above mentioned device are as shown in the attached sheets. The results in this report apply only to the sample(s) tested.

2. Summary of results

Test sample complies with FCC Rules and Regulations
Part 15 Subpart B-Unintentional Radiators(Class B).
Worst Margin (Radiated Emission)--72.023MHz (H) 6.2dB (at page 4)
Worst Margin(Conducted Emission)--1.2500MHz 4.2dB (at page 5)

3. These test results are traceable to the National and International Standards.

4. Measurement Uncertainty, at time of test, and at least 95% Confidence, was estimated to be as follows:

Radiated Emission Measurement : 5.46dB(3m)(30-300MHz)
4.76dB(3m)(300-1000MHz)
Conducted Emission Measurement: 2.40dB(0.09-1MHz)
2.63dB(1-30MHz)

Issue Date : February 21, 2000

Reviewed by : M. Horie

Certifying
Manager : At. Hara

RADIATED EMISSION

SECTION 3. TEST RESULTS EMISSION

3.1 Radiated Emission

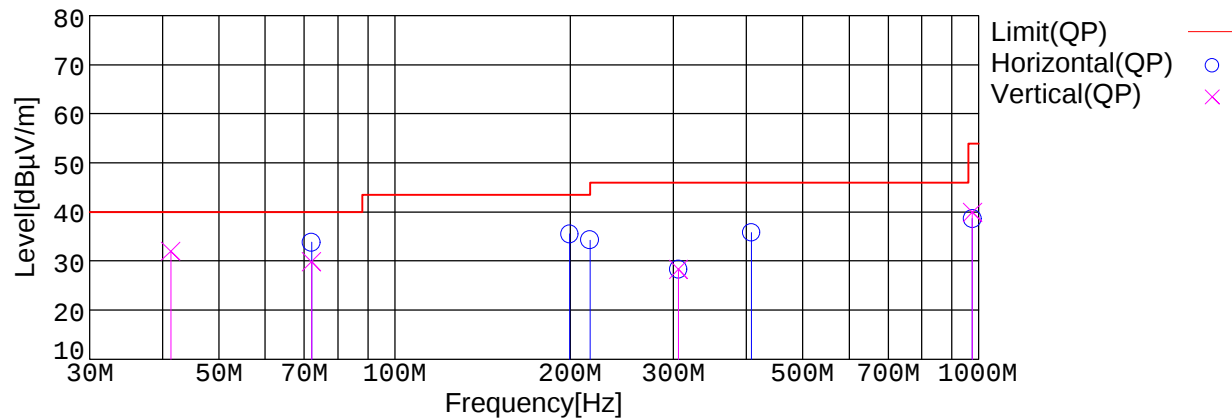
Model Name : Camera Unit
model No. : KX-DP702
Serial No. : ES1
Operator : M.Horie
Points : 10
Detector : QP
RBW : 120kHz

Test condition of instrument

Date : 2000/2/15 14:27
Temperature : 22deg
Humidity : 30%
EUT Warm-up Time : 30minutes
Distance : 3m
Test Mode : Pan and Tilt Mode
Comment : AC 120V 60Hz
Level=Emission Level=Meter Reading
Antenna Factor+Cable Loss(Cable,PreAmp)

The measurement was radiated the worst emissions condition.

Limit: [FCC Part 15] Class B<3m>



Frequency [MHz]	Meter Reading (QP) [dBμV]	Ant. Type	Antenna Factor [dB/m]	Cable & Preamp [dB]	Level(QP) [dBμV/m]	Angle[°]	Height [cm]	Pola.	Limit [dBμV/m]	Margin [dB]
41.344	42.2	BC	15.7	-25.9	32.0	260	101	Vert.	40.0	8.0
72.023	51.5	BC	7.5	-25.2	33.8	250	283	Hori.	40.0	6.2
72.023	47.6	BC	7.5	-25.2	29.9	295	125	Vert.	40.0	10.1
199.447	41.9	BC	16.8	-23.2	35.5	254	179	Hori.	43.5	8.0
216.061	40.5	BC	16.8	-23.0	34.3	206	169	Hori.	46.0	11.7
306.113	34.3	LP	16.3	-22.3	28.3	168	110	Hori.	46.0	17.7
306.113	34.3	LP	16.3	-22.3	28.3	176	195	Vert.	46.0	17.7
408.094	40.3	LP	17.8	-22.3	35.8	20	100	Hori.	46.0	10.2
975.788	32.9	LP	25.1	-19.4	38.6	232	121	Hori.	53.9	15.3
975.788	34.2	LP	25.1	-19.4	39.9	87	102	Vert.	53.9	14.0

BC: Biconical

LP: Log-peri

LINE CONDUCTION

3.2 AC LINE Conducted Emission

Model Name : Camera Unit
 model No. : KX-DP702
 Serial No. : ES1
 Operator : M.HORIE
 Points : 24
 Detector : QP
 RBW : 10kHz

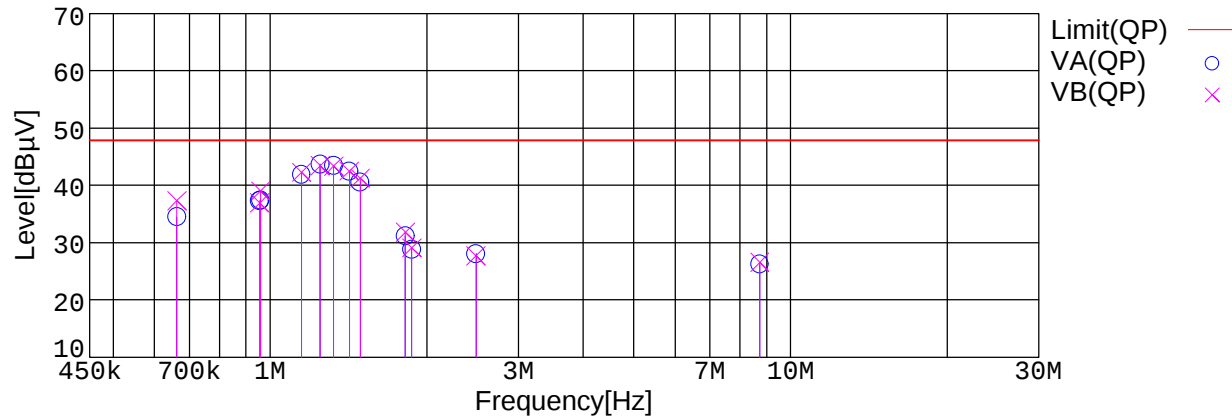
Test condition of instrument

Date : 2000/2/15 18:30
 Temperature : 20deg
 Humidity : 30%
 EUT Warm-up Time : 30minutes

Test Mode : Pan and Tilt Mode
 Comment : AC 120V 60Hz
 Level = Emission Level
 =Meter Reading+Factor(LISN,Cable)

The measurement was conducted the worst emissions condition.

Limit: [FCC Part15] Class B



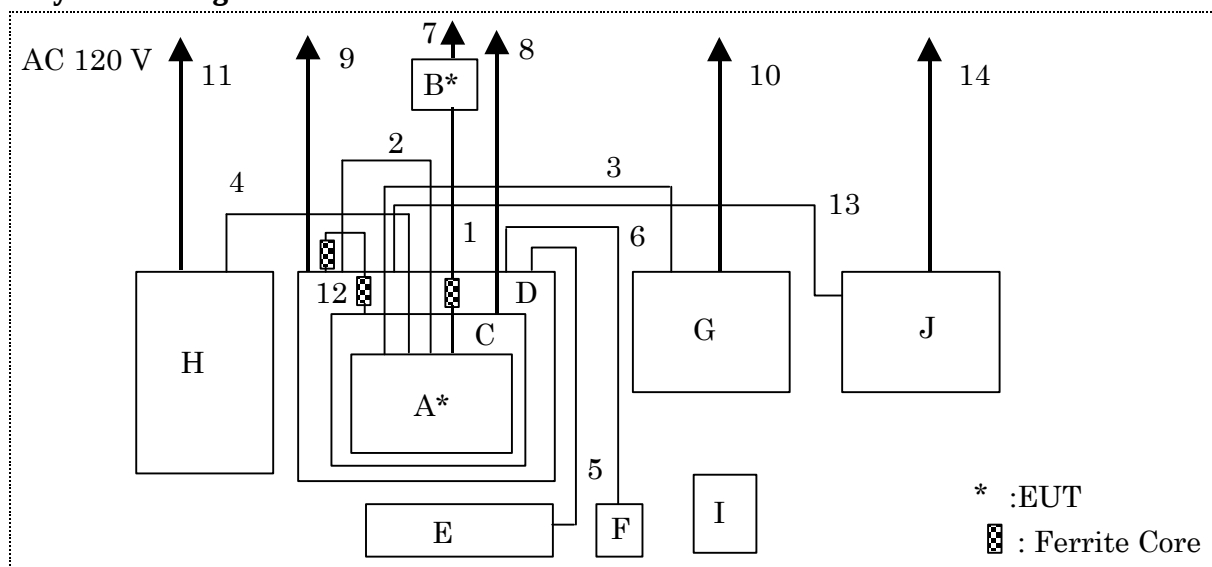
Frequency[MHz]	Meter Reading (QP)[dBμV]	Factor[dB]	Level(QP) [dBμV]	Line	Limit[dBμV]	Margin[dB]
0.6624	34.4	0.1	34.5	VA	47.9	13.4
0.9557	37.2	0.1	37.3	VA	47.9	10.6
0.9595	37.3	0.1	37.4	VA	47.9	10.5
1.1497	41.8	0.1	41.9	VA	47.9	6.0
1.2500	43.6	0.1	43.7	VA	47.9	4.2
1.3260	43.3	0.1	43.4	VA	47.9	4.5
1.4200	42.2	0.2	42.4	VA	47.9	5.5
1.4900	40.4	0.2	40.6	VA	47.9	7.3
1.8200	31.0	0.2	31.2	VA	47.9	16.7
1.8724	28.6	0.2	28.8	VA	47.9	19.1
2.4880	27.8	0.2	28.0	VA	47.9	19.9
8.7298	25.9	0.3	26.2	VA	47.9	21.7
0.6624	37.2	0.1	37.3	VB	47.9	10.6
0.9557	36.8	0.1	36.9	VB	47.9	11.0
0.9595	38.9	0.1	39.0	VB	47.9	8.9
1.1497	42.1	0.1	42.2	VB	47.9	5.7
1.2500	43.3	0.1	43.4	VB	47.9	4.5
1.3260	43.3	0.1	43.4	VB	47.9	4.5
1.4200	42.3	0.2	42.5	VB	47.9	5.4
1.4900	41.1	0.2	41.3	VB	47.9	6.6
1.8200	31.6	0.2	31.8	VB	47.9	16.1
1.8724	28.9	0.2	29.1	VB	47.9	18.8
2.4880	27.5	0.2	27.7	VB	47.9	20.2
8.7298	26.3	0.3	26.6	VB	47.9	21.3

SECTION 4. DESCRIPTION OF TEST EQUIPMENTS

4.1 CONSTRUCTION OF EQUIPMENT

The Construction of EUT during the test as follows.

System configuration



Symbols or number assigned to equipment or cables on this diagram is used on tables in section 4.2 to 4.3.

4.2 EUT AND SUPPORT EQUIPMENT USED

The EUT was supported by the following equipments during the test.
 Indication in the following left side column corresponds to section 4.1.

	Item	Model No. [Manufacturer]	Serial No.	FCC ID
A	Camera Unit [EUT]	KX-DP702 [KME]	ES(No.1)	---
B	Camera AC Adaptor [EUT]	PSLP1170 [Yokogawa Elecyric Cor.]	ES(No.1)	---
C	PC Monitor	P1528JB [DELL]	45921A2L4K44	BGB SD5561C
D	Personal Computer	Optiplex GXL 5100 [DELL]	SONH8	E2KSTNGRD
E	Key Board	SK-D100M [DELL]	M9601-002312	GYUR93SK
F	Mouse	Mouse Port Compatible Mouse 2.0A [DELL]	1463826	C3KSMP1
G	VCR	AG-W1-P [Panasonic]	F6TC00317	Verification
H	TV Monitor	TX-28WG25X [Panasonic]	ED6310007	---
I	Remote Control Unit	PSLP1149 [SMK]	-----	---
J	Dot Printer	KX-P2135 [Panasonic]	4HMCNB85276	ACJ526KX-P2130

4.3 CABLE(s) USED

The following cable(s) was used for the test.

Indication number in the following left side column corresponds to Section 4.1

Number	Name	Length	Shield	Con- nector	Ferrite core
1	Camera AC Adaptor Cable	1.8m	Yes	Metal	1
2	Camera Control Cable (RS-232C)	1.5m	Yes	Metal	None
3	Composite Video Cable	1.5m	Yes	Metal	None
4	S-Video Cable	2.0m	Yes	Metal	None
5	Key Board Cable	1.2m	Yes	Metal	None
6	Mouse Cable	1.9m	Yes	Metal	None
7	Camera AC Adaptor AC Cable	1.8m	None	Plastic	None
8	PC Monitor AC Cable	1.8m	None	Plastic	None
9	Personal Computer AC Cable	1.8m	None	Plastic	None
10	VCR AC Cable	1.8m	None	Plastic	None
11	TV Monitor AC Cable	1.8m	None	Plastic	None
12	RGB PC Monitor Cable	1.75m	Yes	Metal	2
13	Printer Cable	2.4m	Yes	Metal	None
14	Printer AC Cable	1.8m	None	Plastic	None

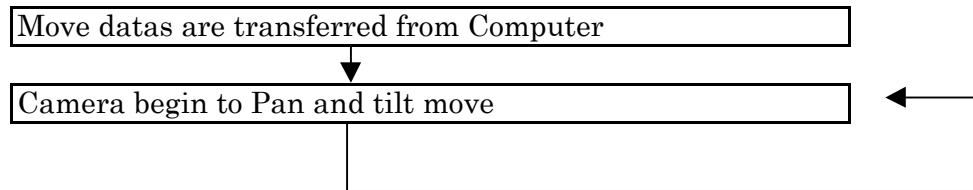
4.4 OPERATING CONDITIONS

The EUT was operated under the following conditions during the test.

TEST PROGRAM

Pan and Tilt mode

Cycle time 7s



4.5 Any deviations from, additions to or exclusions from the test method

No deviation.

SECTION 5. PHOTOGRAPHS OF MAXIMUM EMISSION SET-UP

5.1 Radiated Emission Test

Test setup in accordance with ANSI C63.4-1992



(Front view)



(Rear view)

5.2 Conducted Emission Test

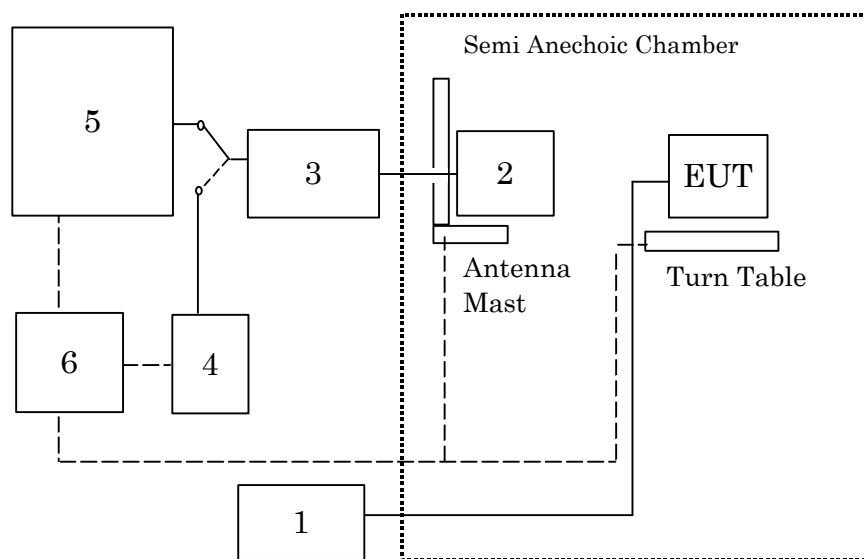
Test setup in accordance with ANSI C63.4-1992



(Front view)



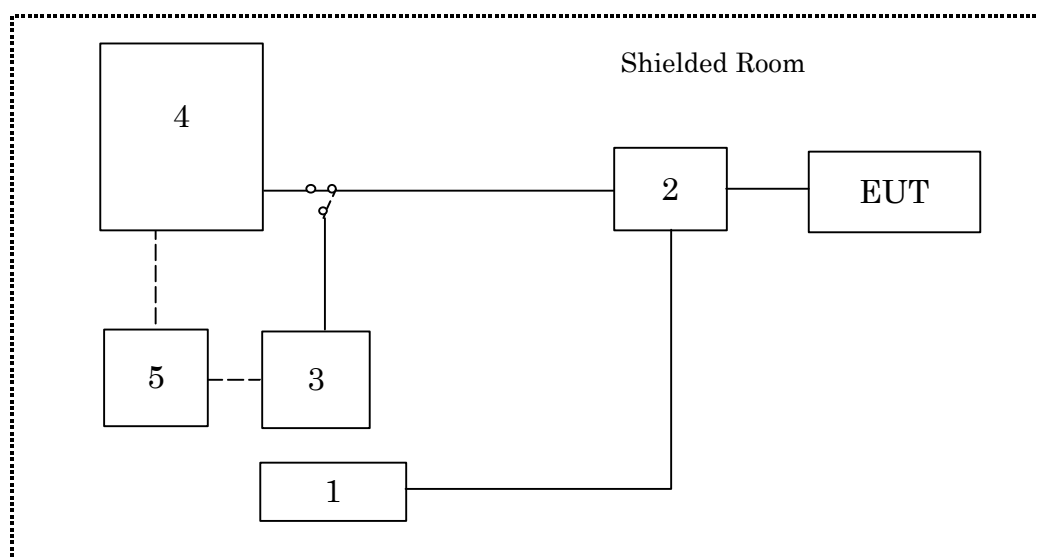
(Side view)



	Apparatus	Model No. (Manufacture)	Spec.	Calibration		Serial No.
				date	Interval	
1	3 or 1 phase AC SUPPLY	* FUK-23749-1 (NF)	50/60Hz MAX 3 Phase 460V, 1Phase 265V 3 Phase 36 kVA, 1 Phase 12 kVA	---	---	---
2	Antenna	VHA9103 UHA9105 * BBA9106 * UHALP9107 (Shwarzbeck)	30-300MHz (Dipole) 300-1000MHz(Dipole) 30-300MHz(Broad) 300-1000MHz(Broad)	Oct.1999 Oct.1999 Oct.1999 Oct.1999	1 year 1 year 1 year 1 year	VHA91031457 UHA91052101 91031448 1729
3	Pre-Amplifier	*8447D (hp)	0.1-1300MHz	Oct.1999	1 year	2727A05946
4	Spectrum Analyzer	R3371A (Advantest)	100Hz-26.5GHz	Oct.1999	1 year	68630014
5	EMI Receiver	*ESVS10 (R&S)	20-1000MHz (CISPR16)	Oct.1999	1 year	844594/005
6	Personal Computer	PC340 (IBM)	---	---	---	---
-	Semi-Anechoic Chamber	* 3m method(NSA) (RIKEN)	30-1000MHz	Sep.1999	1year	---
-	Cable	* EMF174-178 * EMF188 EMF184	30-1000MHz 30-1000MHz 30-1000MHz	Nov.1999 Nov.1999 Nov.1999	1year 1year 1year	--- --- ---
-	SW BOX	* PSU (R&S)	---	Nov.1999	1year	843526/008

* Used for final test

6.2 Conducted Emission



	Apparatus	Model No. (Manufacture)	Spec.	Calibration		Serial No.
				date	Interval	
1	3 or 1 phase AC SUPPLY	FUK-23749-1 (NF) *FUK-23749-3 (NF)	50/60Hz MAX 3 Phase 460 V 1 Phase 265 V MAX 3 Phase 36 kVA 1 Phase 12 kVA MAX 1 Phase 264 V 1 Phase 4 kVA	--- --- ---	--- --- ---	--- --- ---
2	LISN	*KNW407 (KYORITSU)	1 Phase 250 V /15A 0.15-30MHz (CISPR 16)	Oct.1999 Sep.1998	1 year 3 year	8-1345-3 8-1345-4
3	Spectrum Analyzer	R3261C (Advantest)	9kHz-2.6GHz	Nov.1998	3 year	61720502
4	EMI Receiver	*ESHS10 (R&S)	9KHz-30MHz (CISPR 16)	Oct.1999	1 year	844077/017
5	Personal Computer	*PC340 (IBM)	---	---	---	---
-	Shielded Room	* --- (RIKEN)	0.15-30MHz	---	---	---
-	Cable	*EMF164,165,167 EMF166	0.15-30MHz 0.15-30MHz	Oct.1999 Oct.1999	1year 1year	--- ---
-	SW BOX	*PSU (R&S)	---	Oct.1999	1year	---
-	R.F.Fuse	*MP612(ANRITSU)	---	Oct.1999	1year	---
-	50ohm Terminator	* ---	---	Jan.2000	1year	---

* Used for final test