

(EMI)

TEST REPORT

REPORT NUMBER : **TR 00-S0003**

APPLICANT : **KYUSHU MATSUSHITA ELECTRIC CO.,LTD**
PRINTER DIVISION

MODEL NUMBER : **KX-P1150**

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

ISSUE DATE : **April. 19 2000**

Kyushu Matsushita Electric Test Lab
EMC Center

Kyushu Matsushita Electric Test Lab Co.,Ltd.

1471 Murata-cho, Tosu,
Saga 841-8501, Japan

TEL 0942-81-2793 (+81-942-81-2793)
FAX 0942-81-2794 (+81-942-81-2794)

KME

TABLE OF CONTENTS

	Page
SECTION 1. EMI TEST REPORT ON EUT -----	3
SECTION 2. TEST CERTIFICATION -----	3
SECTION 3. TEST RESULTS -----	4,5,
SECTION 4. DESCRIPTION OF TEST EQUIPMENT	
4.1 CONSTRUCTION OF EQUIPMENT -----	6
4.2 EUT AND SUPPORT EQUIPMENT USED-----	6
4.3 CABLE(S) USED -----	7
4.4 OPERATING CONDITIONS -----	8
4.5 Any deviations from, additons to or excusions ----- from the test method	8
SECTION 5. PHOTOGRAPHS OF MAXIMUM EMISSION SET-UP ---	9
SECTION 6. TEST ARRANGEMENT AND LIST OF INSTRUMENTS	10.11

It is not allowed to copy this report even partly
without the permission of KME TEST LAB EMC CENTER

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

Company	: Kyushu Matsushita Electric Co., Ltd. Printer Division
Address	: 1471 Murata-cho, Tosu, Saga, 841-8501 Japan
Telephone number	: TEL 0942-81-2793 (+81-42-81-2793)
Fax number	: FAX 0942-81-2794 (+81-42-81-2794)

DESCRIPTION OF TEST ITEM

Kind of equipment	: DOT MATRIX PRINTER
Condition of equipment	: Pre-Production
Type	: Desk-top Type
Trademark	: Panasonic
FCC ID	: ACJ5Z6KX-P2080
Model number	: KX-P1150
Serial number	: 0AMCEC19087
Power Supply	: AC 120V 60Hz

TEST PERFORMED

Location	: Kyushu Matsushita Electric Test Lab EMC Center Open Area Test Site (FCC File No.:90754)
Address	: 1471 Murata-cho, Tosu, Saga, 841-8501 Japan
Receipt date	: April 17 2000
Test date	: April 17 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)--118.507MHz (V) 10.1dB (at page 5)
Worst Margin(Conducted Emission)--0.45MHz 12.5dB (at page 6)

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)(300-1GHz)

Conducted Emission Measurement:
2.40dB(0.09 - 1MHz)
2.63dB(1-30MHz)

Issue Date : April 19 2000

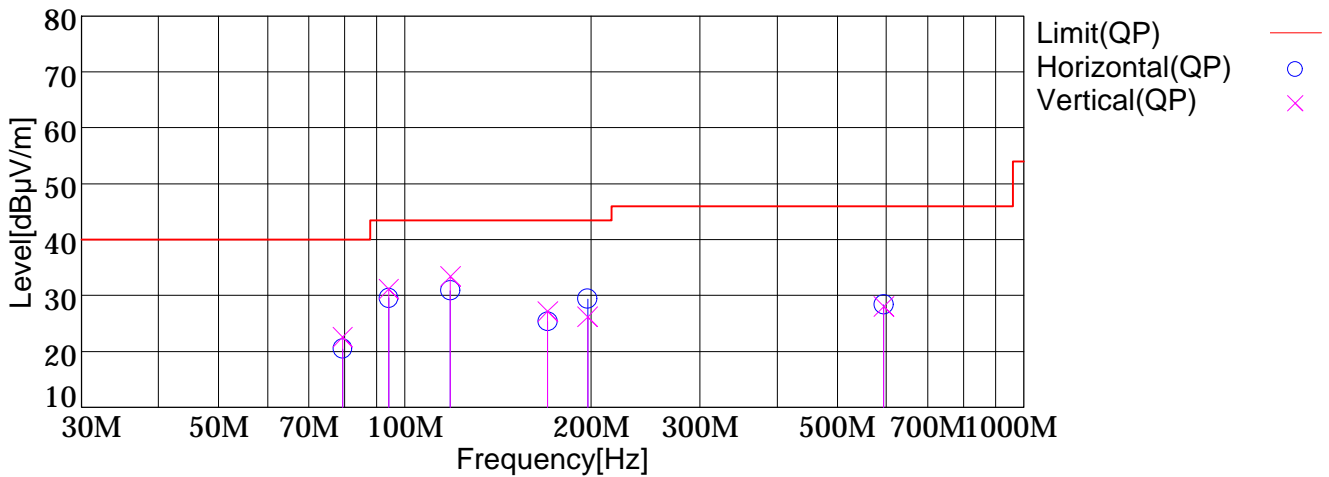
Reviewed by: M. Horie

Certifying Manager: G. Hara

RADIATED EMISSION

		Test condition of instrument	
Model Name	: Dot Matrix Printer	Date	: 2000/4/17
model No.	: KX-P1150	Temperature	: 25deg
Serial No.	: 0AMCEC19087	Humidity	: 68%
Operator	: H.SUGIYAMA	EUT Warm-up Time	: 30minutes
Points	: 12	Distance	: 3m
Detector	: QP	Test Mode	: Parallel Mode
RBW	: 120KHz	Comment	: AC 120V 60Hz

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]
79.371	36.8	DP	0.0	-16.3	20.5	15	150	Hori.	40.0	19.5
79.371	38.8	DP	0.0	-16.2	22.6	120	250	Vert.	40.0	17.4
94.184	44.4	DP	0.0	-14.8	29.6	60	200	Hori.	43.5	13.9
94.184	44.7	DP	0.0	-13.5	31.2	30	150	Vert.	43.5	12.3
118.507	42.8	DP	0.0	-11.9	30.9	30	150	Hori.	43.5	12.6
118.507	43.6	DP	0.0	-10.2	33.4	30	100	Vert.	43.5	10.1
170.192	32.9	DP	0.0	-7.6	25.3	30	215	Hori.	43.5	18.2
170.192	38.5	DP	0.0	-11.4	27.1	180	215	Vert.	43.5	16.4
197.506	35.4	DP	0.0	-6.0	29.4	120	260	Hori.	43.5	14.1
197.506	38.3	DP	0.0	-12.1	26.2	185	155	Vert.	43.5	17.3
594.003	19.1	DP	0.0	9.2	28.3	150	213	Hori.	46.0	17.7
594.003	22.4	DP	0.0	5.6	28.0	160	110	Vert.	46.0	18.0

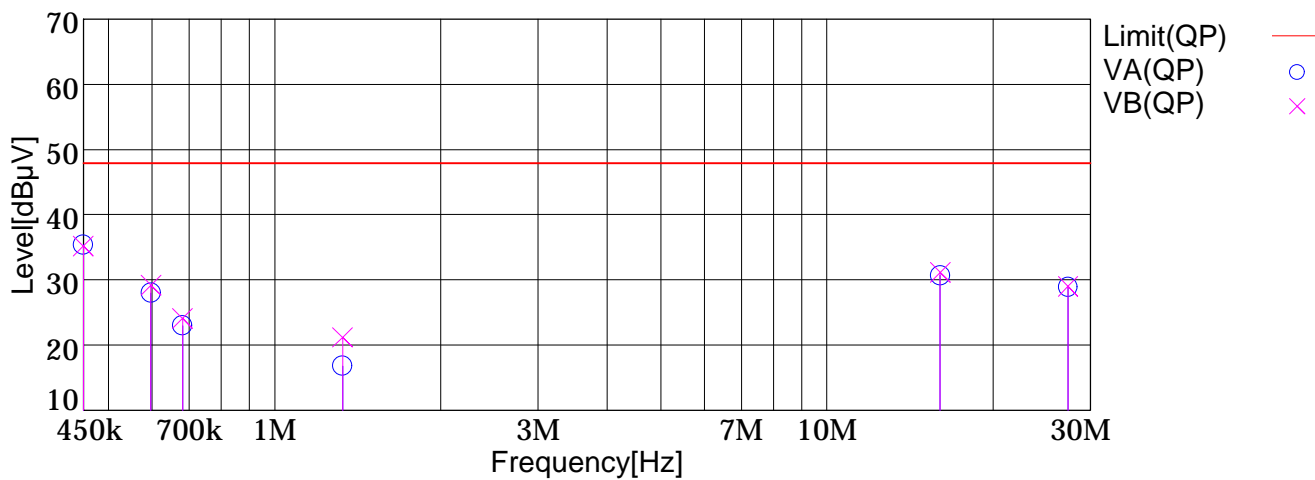
DP: Dipole

LINE CONDUCTION

Model Name : Dot Matrix Printer
 model No. : KX-P1150
 Serial No. : 0AMCEC19087
 Operator : H.SGIYAMA
 Points : 12
 Detector : QP
 RBW : 9KHz

Test condition of instrument
 Date : 2000/4/17
 Temperature : 25deg
 Humidity : 61%
 EUT Warm-up Time : 30minutes
 Test Mode : Parallel Mode
 Comment : AC 120V 60Hz

Limit: [FCC Part15] Class B



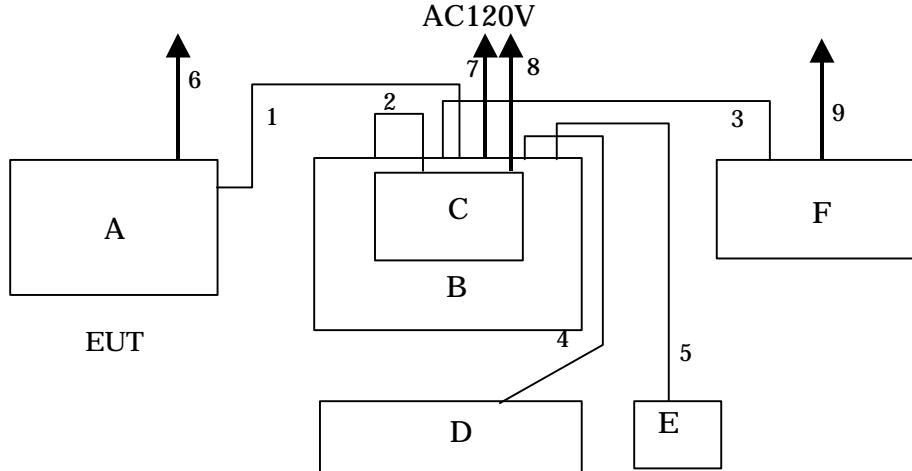
Frequency[MHz]	Meter Reading (QP)[dBµV]	Factor[dB]	Level(QP) [dBµV]	Line	Limit[dBµV]	Margin[dB]
0.4500	35.3	0.1	35.4	VA	47.9	12.5
0.4500	35.1	0.1	35.2	VB	47.9	12.7
0.5970	27.9	0.1	28.0	VA	47.9	19.9
0.5970	29.1	0.1	29.2	VB	47.9	18.7
0.6810	22.9	0.1	23.0	VA	47.9	24.9
0.6810	24.0	0.1	24.1	VB	47.9	23.8
1.3280	16.7	0.1	16.8	VA	47.9	31.1
1.3280	21.1	0.1	21.2	VB	47.9	26.7
16.0450	30.3	0.4	30.7	VA	47.9	17.2
16.0450	30.7	0.4	31.1	VB	47.9	16.8
27.3470	28.2	0.7	28.9	VA	47.9	19.0
27.3470	28.3	0.7	29.0	VB	47.9	18.9

SECTION 4. DESCRIPTION OF TEST EQUIPMENT

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 I/D
A	Dot Matrix Printer [EUT]	KX-P1150 [Kyushu Matsushita Electric Co., Ltd]	0AMCEC19087	ACJ5Z6KX-P2080
B	Personal Computer	Type 9576 [IBM Australia Ltd]	900A7089576	AN09576
C	Display	C1381i [Matsushita Electric Ind. Co., Ltd]	KH22333114	ACJ928KMX-F413
D	Keyboard	1391401 [IBM by Lexmark Int'l.inc.]	-----	AN09576
E	Mouse	33G5430 [IBM]	-----	DZ33G5430
F	Dot Matrix Printer	KX-P3200 [Kyushu Matsushita Electric Co., Ltd]	5LMDMA01050	ACJ5Z6KX-P3200

4.3 CABLE(s) USED

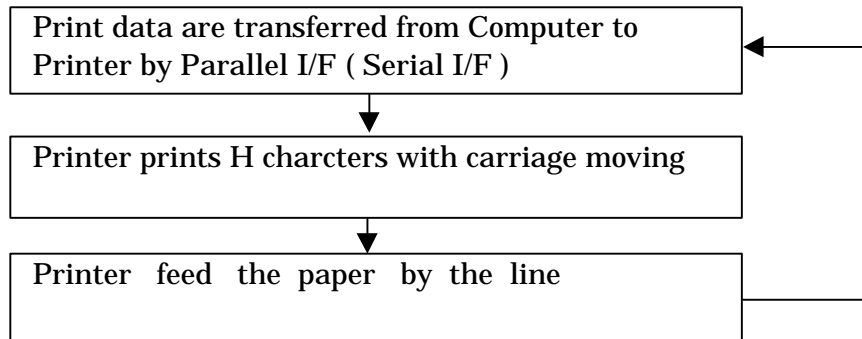
The following cable(s) was used for the test.

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

Number	Name	Length	Shield	Con- nector	Ferrite core
1	Dot Matrix Printer [EUT]	2.0m	Yes	MetaIic	None
2	Display	1.8m	Yes	MetaIic	None
3	Printer	2.0m	Yes	MetaIic	None
4	Keyboard	2.6m	Yes	MetaIic	None
5	Mouse	2.7m	Yes	MetaIic	None
6	Power cord for EUT	1.5m	None	Plastic	None
7	Power cord for PC	2.0m	None	Plastic	None
8	Power cord for Display	1.8m	None	Plastic	None
9	Power cord for Printer	1.7m	None	Plastic	None

4.4 OPERATING CONDITIONS

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



4.5 Any deviations from, additons to or excusions from the test method

No deviation.

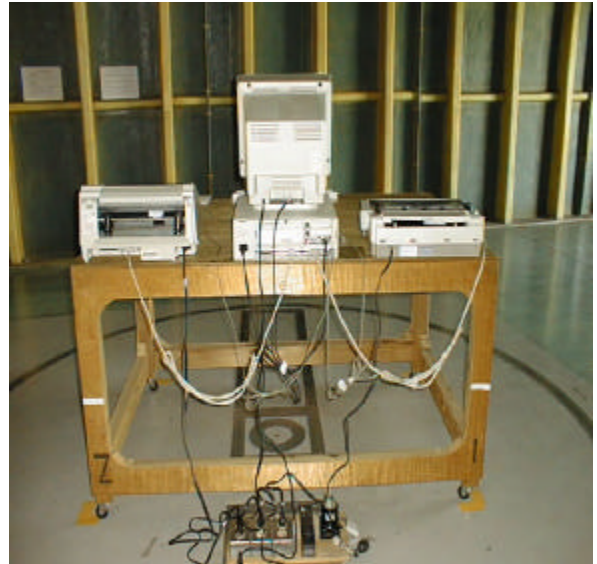
SECTION 5. PHOTOGRAPHS OF MAXIMUM EMISSION SET-UP

Radiated Emission Test

Test setup in accordance with ANSI C63.4-1992



Front view



Rear view

Conducted Emission Test

Test setup in accordance with ANSI C63.4-1992



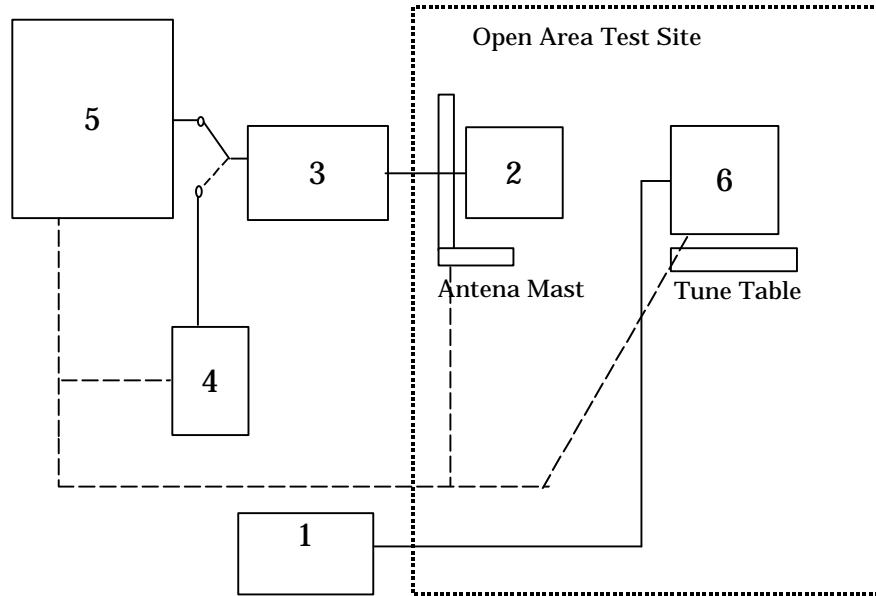
Front view



Side view

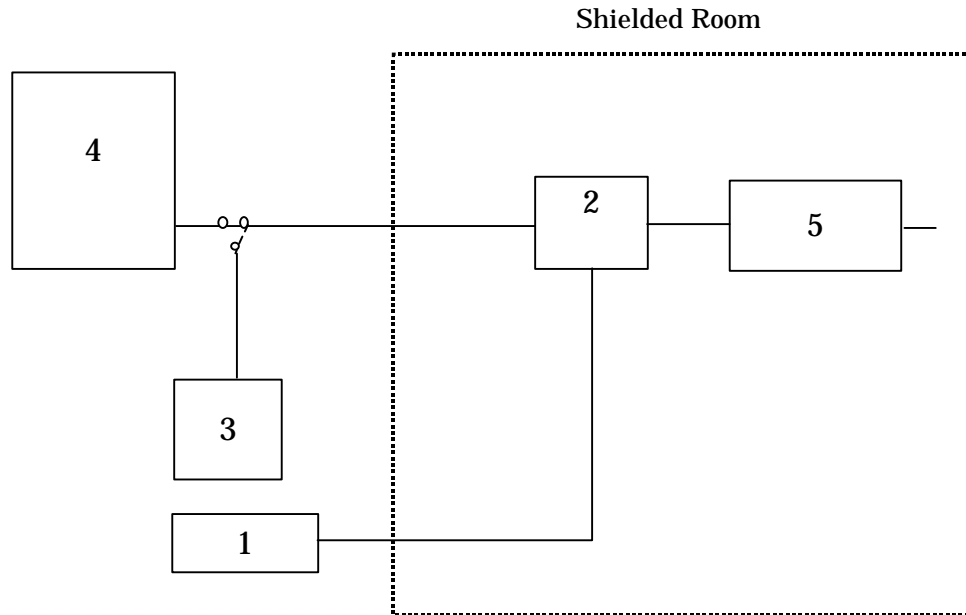
SECTION 6. TEST ARRANGEMENT AND LIST OF INSTRUMENTS

6.1 TEST EQUIPMENTS OF RADIATED EMISSION MEASUREMENTS



	Apparatus	Model No. (Manufacture)	Spec.	Calibration Untill	Serial No.
1	3 or 1 phase AC SUPPLY	ACF-N F-Class (YAHATA DENKI)	50Hz/60Hz MAX 1 Phase 264 V	---	---
2	Antenna	KBA-511A (KYORITSU) KBA-611 (KYORITSU)	30-500MHz(Dipole) 500-1000MHz(Dipole)	Jan.2001 Jan.2001	--- ---
3	Pre-Amplifier	8447D (hp)	0.1-1300MHz	Jan.2001	2443A04523
4	Spectrum Analyzer	TR4135 (Advantest)	0.01 - 3600MHz	Feb.2001	51730129
5	EMI Receiver	ESVS10 (R & S)	20-1300MHz	Feb.2001	844106/014
6	Main Unit EUT	KX-P1150 (ACJ5Z6KX-P2080)	---	---	---

6.2 TEST EQUIPMENTS OF RADIATED EMISSION MEASUREMENTS



	Apparatus	Model No. (Manufacture)	Spec.	Calibration Untill	Serial No.
1	3 or 1 phase AC SUPPLY	FUK-23749-2 (NF)	50Hz/60Hz MAX 1 phase 264 V	---	---
2	LISN	KNW-407	1 phase 250 V 15A	Feb.2001	---
3	Spectrum Analyzer	TR4135 (Advantest)	10KHz - 3.6GHz	Jan.2001	67800024
4	EMI Receiver	ESHS10 (R & S)	9KHz - 30MHz	May.2001	SER842053/001
5	Main Unit EUT	KX-P1150 (ACJ5Z6KX-P2080)	---	---	---