

# **EXHIBIT A**

( EMI )

# TEST REPORT

**REPORT NUMBER** : **TR99-S0013I**

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

**MODEL NUMBER** : **KX-FM106**

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

**ISSUE DATE** : **May 10,1999**

**Kyushu Matsushita Electric**  
**EMC Testing Laboratory**

Corporate Quality Assurance Division  
Kyushu Matsushita Electric Co.,Ltd. ( KME )

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

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

The report must not be used to complain

**KME**

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

|                  |   |
|------------------|---|
| Company          | : Kyushu Matsushita Electric Co., Ltd.<br>FACSIMILE DIVISION    |
| Address          | : 1-62, 4-CHOME, MINOSHIMA<br>HAKATA-KU FUKUOKA, 812-8531 Japan |
| Telephone number | : TEL 092-477-1429 (+81-92-477-1429)                            |
| Fax number       | : FAX 092-477-1410 (+81-92-477-1410)                            |

**— DESCRIPTION OF TEST ITEM**

|                        |  |
|------------------------|--|
| Kind of equipment      | : Multi Function Plain Paper Facsimile |
| Condition of equipment | : Pre-Production                       |
| Type                   | : Desk-top Type                        |
| Trademark              | : Panasonic                            |
| FCC ID                 | : ACJKM/KX-FM106                       |
| Model number           | : KX-FM106                             |
| Serial number          | : ES1                                  |
| Power Supply           | : AC 120V 60Hz                         |

**— TEST PERFORMED**

|                |   |
|----------------|---|
| Location       | : Kyushu Matsushita Electric EMC Testing<br>Laboratory Open Area Test Site<br>(FCC File No.:31040/SIT/Kyushu) |
| Address        | : 1471 Murata-cho, Tosu-shi<br>Saga-ken, 841-8501 Japan   |
| Receipt date   | : May 1999  |
| Test date      | : May 7.8 1999  |
| 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)--56.588MHz (V) 5.9dB (at page 5)  
Worst Margin(Conducted Emission)--28.6420MHz 6.1dB (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)  
4.23dB(10m) (30-300MHz)  
4.76dB(3m) (300-1GHz)  
3.27dB(10m) (300-1GHz)  
Conducted Emission Measurement: 2.40dB(0.09-1MHz)  
2.63dB(1-30MHz)

Issue Date : May 10.1999

Certifying Manager

: 

May 10,1999

**SECTION 3. TEST RESULT**

**3.1 Radiated Emission**

The measurement was conducted the worst emmissions condition.

**3.2 Conducted Emission**

The measurement was conducted the worst emmissions condition.

Antenna used : Dipole Antenna

Emission Level=Level

=Meter Reading+Antenna Factor+Cable Loss (Cable, Pre-Amp)

Reviewed by:



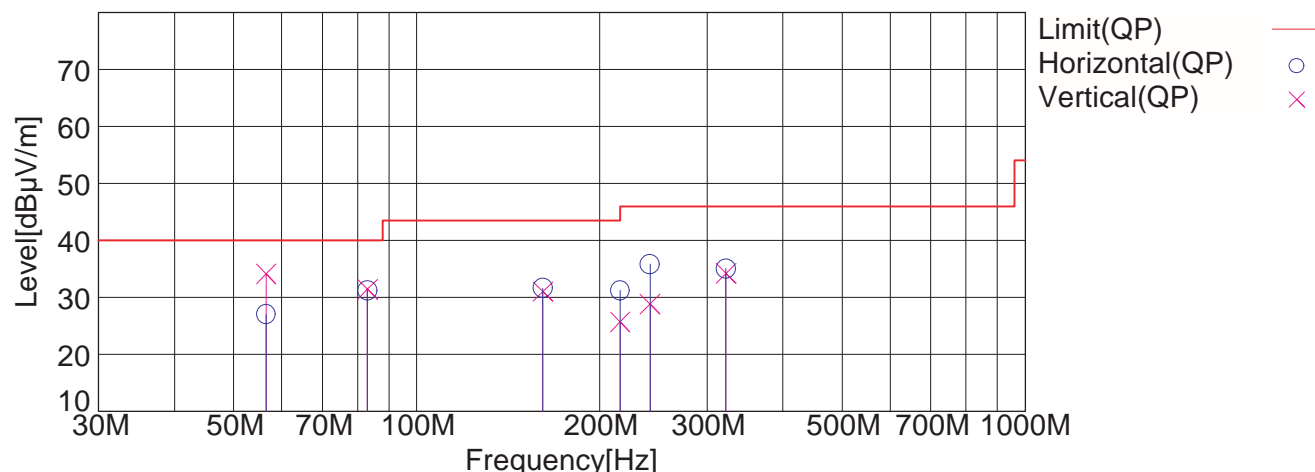
# RADIATED EMISSION

Model Name : Multi Function Plain Paper FAX  
 model No. : KX-FM106  
 Serial No. : ES1  
 Operator : H.SUGIYAMA  
 Points : 12  
 Detector : QP  
 RBW : 120kHz

## Test condition of instrument

Date : '99.05.08  
 Temperature : 30deg  
 Humidity : 65%  
 EUT Warm-up Time : 30minutes  
 Distance : 10m  
 Test Mode : Idling, Receiving, Transmitting, Copying,  
 Comment : Scanning, Printing, Receiving into P.C,  
 Transmitting from P.C, Mode

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] |
|-----------------|---------------------------|-----------|-----------------------|---------------------|---------------------|----------|-------------|-------|----------------|-------------|
| 56.588          | 58.0                      | DP        | 2.0                   | -25.9               | 34.1                | 20       | 300         | Vert. | 40.0           | 5.9         |
| 56.588          | 50.9                      | DP        | 2.0                   | -25.9               | 27.0                | 50       | 250         | Hori. | 40.0           | 13.0        |
| 83.002          | 51.2                      | DP        | 5.7                   | -25.5               | 31.4                | 50       | 250         | Vert. | 40.0           | 8.6         |
| 83.002          | 51.0                      | DP        | 5.7                   | -25.5               | 31.2                | 80       | 270         | Hori. | 40.0           | 8.8         |
| 161.292         | 44.6                      | DP        | 11.1                  | -24.7               | 31.0                | 90       | 150         | Vert. | 43.5           | 12.5        |
| 161.292         | 45.2                      | DP        | 11.1                  | -24.7               | 31.6                | 100      | 170         | Hori. | 43.5           | 11.9        |
| 216.040         | 36.2                      | DP        | 13.8                  | -24.3               | 25.7                | 100      | 170         | Vert. | 46.0           | 20.3        |
| 216.040         | 41.7                      | DP        | 13.8                  | -24.3               | 31.2                | 100      | 170         | Hori. | 46.0           | 14.8        |
| 241.923         | 37.9                      | DP        | 15.0                  | -24.1               | 28.8                | 95       | 110         | Vert. | 46.0           | 17.2        |
| 241.923         | 44.9                      | DP        | 15.0                  | -24.1               | 35.8                | 180      | 320         | Hori. | 46.0           | 10.2        |
| 322.565         | 39.3                      | DP        | 18.5                  | -23.6               | 34.2                | 180      | 120         | Vert. | 46.0           | 11.8        |
| 322.565         | 40.1                      | DP        | 18.5                  | -23.6               | 35.0                | 160      | 220         | Hori. | 46.0           | 11.0        |

DP: Dipole

# LINE CONDUCTION

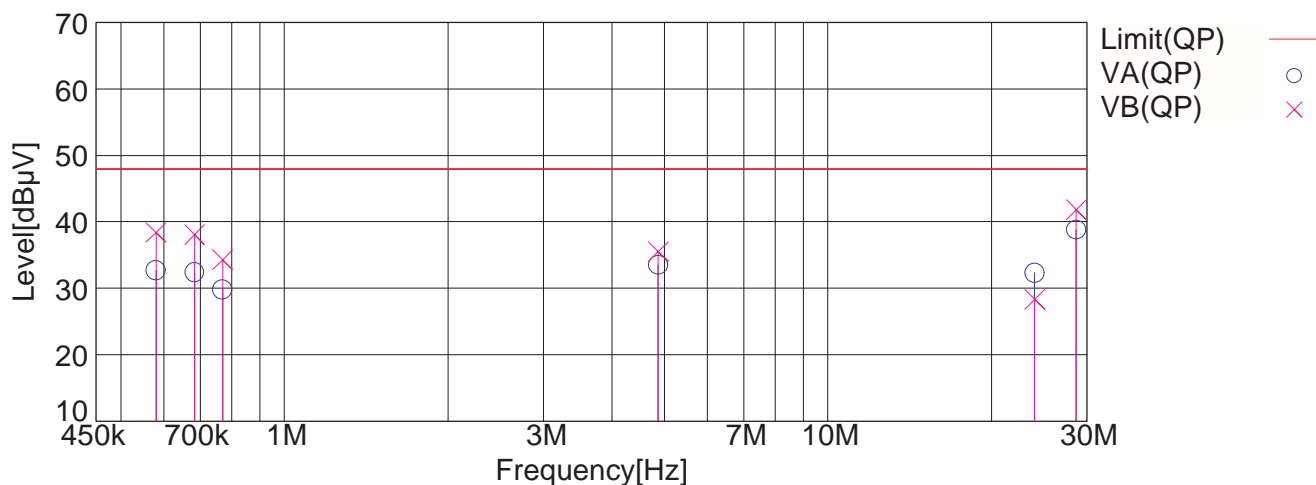
Model Name : Multi Function Plain Paper FAX  
 model No. : KX-FM106  
 Serial No. : ES1  
 Operator : H.SUGIYAMA  
 Points : 12  
 Detector : QP  
 RBW : 10kHz

## Test condition of instrument

Date : '99.05.07  
 Temperature : 25deg  
 Humidity : 68  
 EUT Warm-up Time : 30minutes

Test Mode : Idling,Receiving,Transmitting,Copying  
 Comment : Scanning,Printing,Receiving,into PC,  
 Transmitting from P.C, Mode

Limit: [FCC Part15] Class B



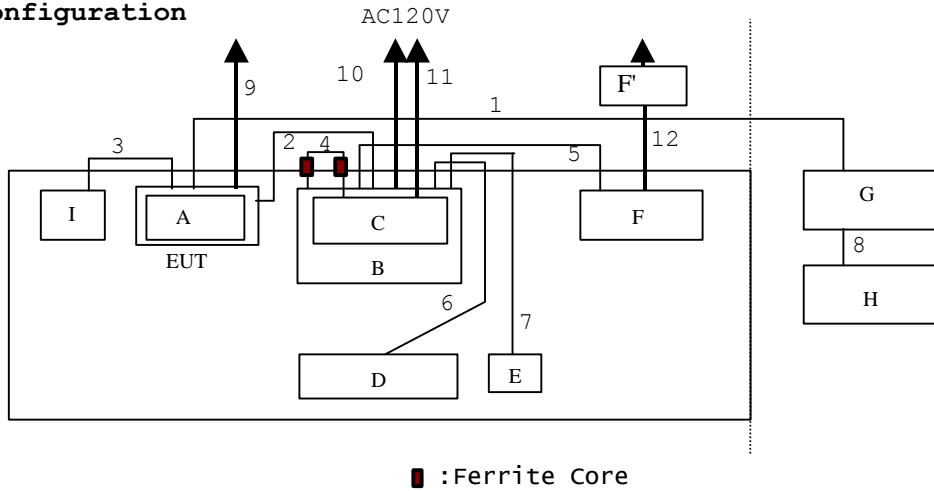
| Frequency[MHz] | Meter Reading (QP)[dBmV] | Factor[dB] | Level(QP) [dBmV] | Line | Limit[dBmV] | Margin[dB] |
|----------------|--------------------------|------------|------------------|------|-------------|------------|
| 0.5800         | 32.7                     | 0.0        | 32.7             | VA   | 47.9        | 15.2       |
| 0.5800         | 38.4                     | 0.0        | 38.4             | VB   | 47.9        | 9.5        |
| 0.6830         | 32.4                     | 0.0        | 32.4             | VA   | 47.9        | 15.5       |
| 0.6830         | 38.1                     | 0.0        | 38.1             | VB   | 47.9        | 9.8        |
| 0.7690         | 29.8                     | 0.0        | 29.8             | VA   | 47.9        | 18.1       |
| 0.7690         | 34.3                     | 0.0        | 34.3             | VB   | 47.9        | 13.6       |
| 4.8750         | 33.4                     | 0.1        | 33.5             | VA   | 47.9        | 14.4       |
| 4.8750         | 35.4                     | 0.1        | 35.5             | VB   | 47.9        | 12.4       |
| 24.0030        | 31.4                     | 0.9        | 32.3             | VA   | 47.9        | 15.6       |
| 24.0030        | 27.4                     | 0.9        | 28.3             | VB   | 47.9        | 19.6       |
| 28.6420        | 37.7                     | 1.1        | 38.8             | VA   | 47.9        | 9.1        |
| 28.6420        | 40.7                     | 1.1        | 41.8             | VB   | 47.9        | 6.1        |

**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 equipment during the test. Indication in the following left side column corresponds to section 4.1

|                            | Item  | Model No.<br>[Manufacturer]        | Serial No.   | FCC ID         |
|----------------------------|---|------------------------------------|--------------|----------------|
| A                          | Multi Function Plain Paper Facsimile<br>[EUT] | KX-FM106<br>[Panasonic]            | ---          | ACJKM7KX-FM106 |
| B                          | Personal Computer                             | PROLINEA4/100<br>[COMPAQ]          | 7428HKE40126 | CNT75MBF7LM    |
| C                          | Display                                       | PCXBV-YW<br>[digital]              | 1K61901128   | BEJCS581       |
| D                          | Keyboard                                      | RT6674TJP<br>[COMPAQ]              | 51442247     | AQ6ZG-RT687XT  |
| E                          | Mouse   | 13H6690<br>[IBM]                   | 23-B48163    | DZL210429      |
| F                          | Printer                                       | K10152<br>[CANON]                  | XAM53361     | AZDK10152      |
| F'                         | AC Adapter for Printer                        | AD-300<br>[CANON]                  | ---          | ---            |
| I                          | External Telephone                            | KX-TS10-W<br>[Panasonic]           | 7JBBA001023  | ---            |
| [Remotely Located Devices] |   |                                    |              |                |
| G                          | Telephone Line Simulator                      | LS1000<br>[Digital Design Systems] | ---          | ---            |
| H                          | Telephone Answering System with Fax           | KX-F800<br>[Panasonic]             | 5AAYA001062  | ---            |

**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.

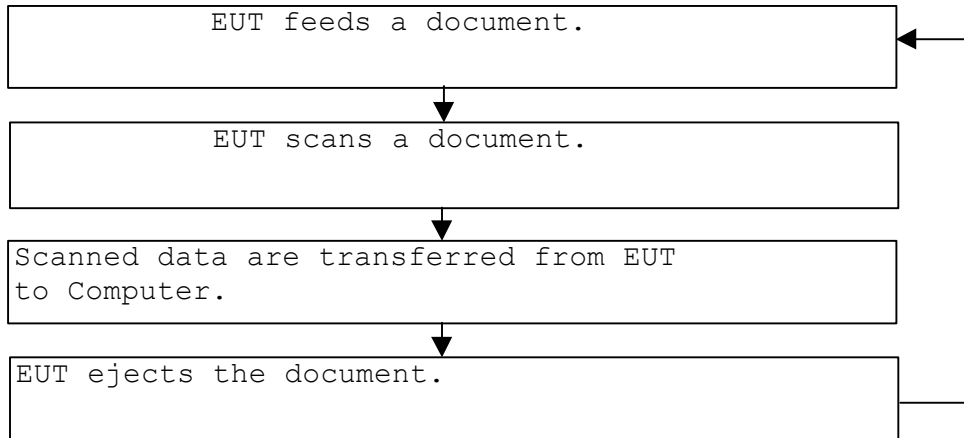
| Number | Name                                | Length | Shield | Con-<br>nector | Ferrite<br>core |
|--------|-------------------------------------|--------|--------|----------------|-----------------|
| 1      | Telephone Line Simulator            | 10m    | None   | Plastic        | None            |
| 2      | Parsonal Computer                   | 1.5m   | None   | Plastic        | None            |
| 3      | External Telephone                  | 2.0m   | None   | Plastic        | None            |
| 4      | Display                             | 1.7m   | Yes    | Plastic        | 2               |
| 5      | Printer                             | 1.5m   | Yes    | Plastic        | None            |
| 6      | Keyboard                            | 1.0m   | None   | Plastic        | None            |
| 7      | Mouse                               | 1.8m   | None   | Plastic        | None            |
| 8      | Telephone Answering System with Fax | 2.0m   | None   | Plastic        | None            |
| 9      | Power cord for EUT                  | 1.5m   | None   | Plastic        | None            |
| 10     | Power cord for PC                   | 1.5m   | None   | Plastic        | None            |
| 11     | Power cord for Display              | 1.5m   | None   | Plastic        | None            |
| 12     | Power cord for Printer              | 2.0m   | None   | Plastic        | None            |

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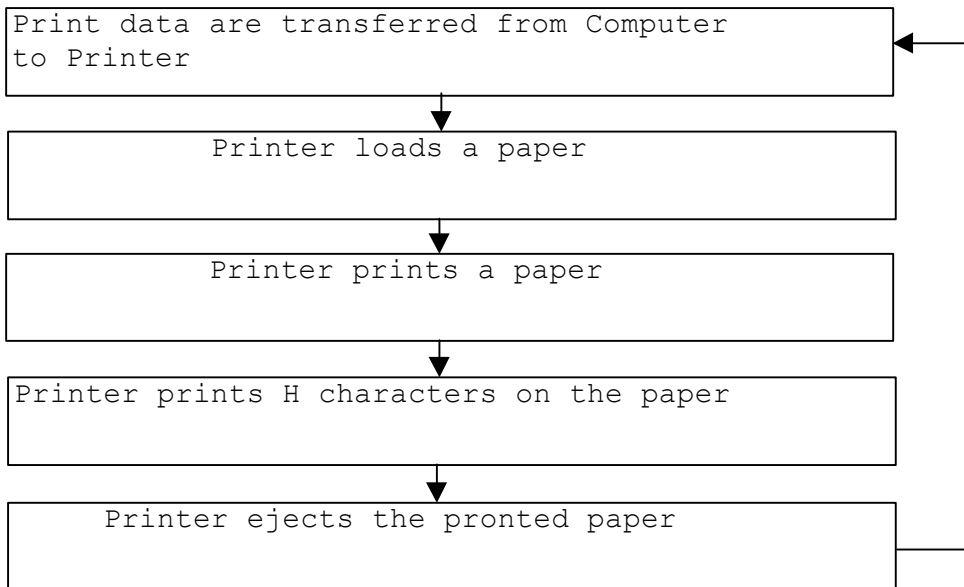
**4.4 OPERATING CONDITIONS**

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

TEST PROGRAM (Print mode)



TEST PROGRAM (Scan mode)



**4.5 Any deviations from, additions to or excusions from the test method**

No deviation.

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**SECTION 5. PHOTOGRAPHS OF MAXIMUM EMISSION SET-UP**

**Radiated Emission Test**

Test setup in accordance with ANSI C63.4-1992



Front view



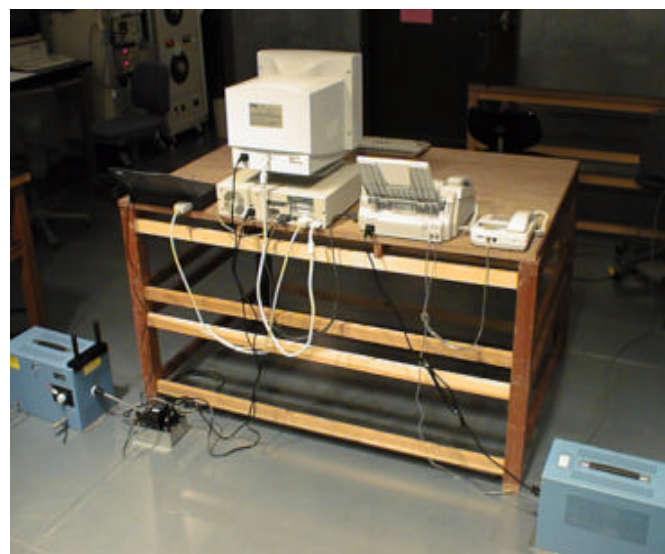
Rear view

**Conducted Emission Test**

Test setup in accordance with ANSI C63.4-1992



Front view

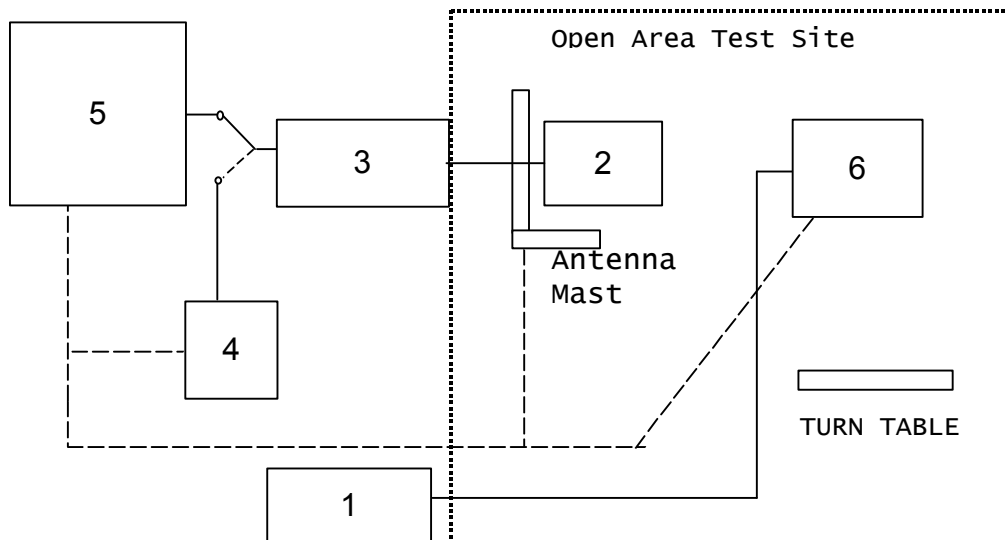


Rear view

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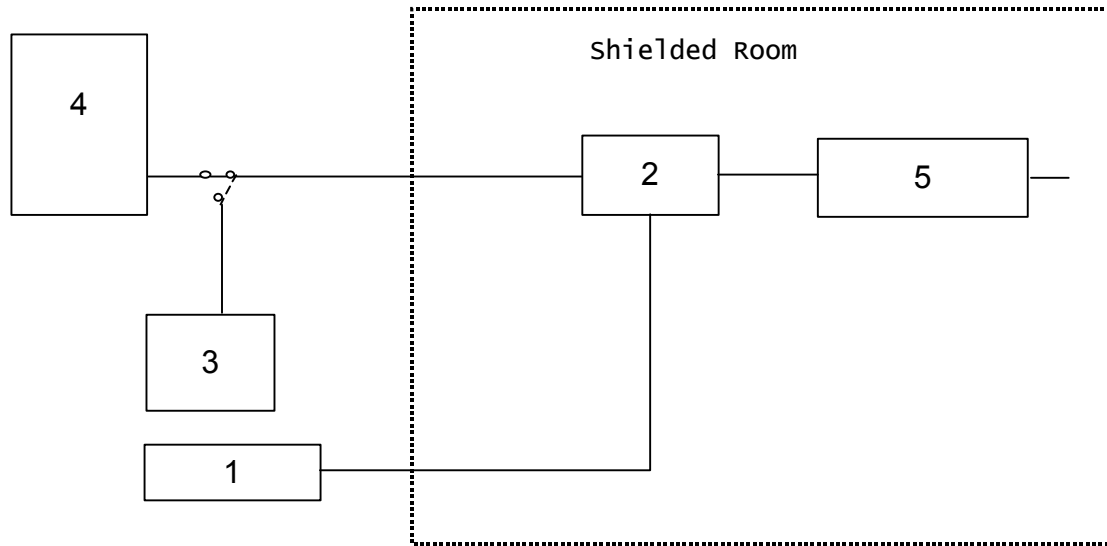
**SECTION 6. TEST ARRANGEMENT AND LIST OF INSTRUMENTS**

**6.1 TEST EQUIPMENTS OF RADIATED EMISSION MEASUREMENTS**



|   | Apparatus                 | Model No.<br>(Manufacture)  | Spec.   | Calibration<br>Untill            | Serial No.        |
|---|---------------------------|---|---|----------------------------------|-------------------|
| 1 | 3 or 1 phase<br>AC SUPPLY | ACF-N F-Class<br>(YAHATA DENKI)   | 50Hz/60Hz<br>MAX<br>1 264 v                                     | ---                              | ---               |
| 2 | Antenna                   | KBA-511A<br>(KYORITSU)<br>KBA-611<br>(KYORITSU)<br>KBA522<br>(KYORITSU) | 30-500MHz (Dipole)<br>500-1000MHz (Dipole)<br>25-80MHz (Dipole) | Jan.1999<br>Jan.1999<br>Oct.1999 | ---<br>---<br>--- |
| 3 | Pre-Amplifier             | 8447D<br>(hp)   | 0.1-1300MHz   | Feb.1999                         | 2443A04523        |
| 4 | Spectrum<br>Analyzer      | TR4135<br>(Advantest)   | 0.01-3600MHz  | Feb.1999                         | 51730129          |
| 5 | EMI Receiver              | ESVS10<br>(R&S)   | 20-1300MHz  | Feb.1999                         | 844106/014        |
| 6 | Main Unit<br>EUT          | KX-FM106<br>(ACJKM7KX-FM106)  | ---   | ---                              | ---               |

**6.2 TEST EQUIPMENTS OF RADIATED EMISSION MEASUREMENTS**



|   | Apparatus                 | Model No.<br>(Manufacture)   | Spec.                       | Calibration<br>Untill | Serial No.    |
|---|---------------------------|------------------------------|-----------------------------|-----------------------|---------------|
| 1 | 3 or 1 phase<br>AC SUPPLY | FUK-23749-2<br>(NF)          | 50Hz/60Hz<br>MAX<br>1 264 V | ---                   | ---           |
| 2 | LISN                      | KNW-407                      | 1 250 V<br>15A              | Feb.1999              | ---           |
| 3 | Spectrum<br>Analyzer      | TR4135<br>(Advantest)        | 10KHz-3.6GHz                | Feb.1999              | 67800024      |
| 4 | EMI Receiver              | ESHS30<br>(R&S)              | 9KHz-30MHz                  | Apr.2000              | SER842053/001 |
| 5 | Main Unit<br>EUT          | KX-FM106<br>(ACJKM7KX-FM106) | ---                         | ---                   | ---           |