

Issue Date : June 30, 1999  
Page 1 of 21**EMC ~~EMISSION~~ - TEST REPORT**

JQA APPLICATION No. : KL8090215

Model/Type No. : KX-TC1400

Name of Product : 900 MHz Cordless Telephone (Handset)

FCC ID : ACJ96NKX-TC1400

Applicant : Kyushu Matsushita Electric Co., Ltd.

Address : 1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka 812-8531, Japan

Manufacturer : Kyushu Matsushita Electric Co., Ltd.

Address : 1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka 812-8531, Japan

**Final Judgement** : **Passed**

**TEST RESULTS IN THIS REPORT** are obtained in use of equipment that is traceable to Electro-technical Lab. of MITI Japan and Communications Research Lab. of PTT Japan.

**THE TEST RESULTS** only responds to the test sample. This test report shall not be reproduced except in full.

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KITA-KANSAI TESTING CENTER  
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LAB CODE: 200191-0

DIRECTORY

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| Conducted Emission                         | 450 kHz - 30 MHz  | <u>N/A</u>     |
| Radiated Emission                          | 9 kHz - 10 GHz    | <u>19 - 21</u> |
| Emission within the Frequency Band         | 902 MHz - 928 MHz | <u>None</u>    |

## TEST REGULATION

FCC Rules and Regulations Part 15 Subpart A and C (April 17, 1997)

- Class A Digital Device
- Class B Digital Device
- \* - Intentional Radiator
- Receiver (employing superheterodyne techniques)

\* The test was performed as only radiated emission (fundamental, harmonics and spurious emission for transmitting) at the applicant's request.

### Test procedure:

Radiated emission test was performed according to the procedures in ANSI C63.4-1992.

## GENERAL INFORMATION

### Test facility:

- 1) Test Facility located at Kita-Kansai : 1st and 2nd Open Sites (3 m Site)  
Test Facility located at Kameoka Open Site (3, 10 and 30 m, on common plane)  
FCC filing No. : 31040/SIT 1300F2
- 2) KITA-KANSAI TESTING CENTER is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance established in Title 15, Part 285 Code of Federal Regulations.  
NVLAP Lab Code: 200191-0
- 3) Average Measurement Method  
FCC filing No. : 950523A 1300F2

### Description of the Equipment Under Test (EUT):

- 1) Name : 900 MHz Cordless Telephone (Handset)
- 2) Model/Type No. : KX-TC1400
- 3) Product Type : Pre-Production
- 4) Category : Intentional Radiator
- 5) EUT Authorization :  - Verification  - Certification  - D.o.C
- 6) Transmitting Frequency : 926.100 MHz - 927.550 MHz
- 7) Power Rating : DC 3.6V (Ni-Cd Battery Pack : Model No. KX-A36)

### Definitions for symbols used in this test report:

- Black box indicates that the listed condition, standard or equipment is applicable for this Report.
- Blank box indicates that the listed condition, standard or equipment is not applicable for this Report.

### TEST CONDITIONS

**The measurement of the Conducted Emission (Disturbance Voltage)**  
was performed in the following test site.

#### Test location:

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Minoh-Shi, Osaka, 562-0027, Japan

○ - Shielded room

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - Shielded room

○ - On metal plane of open site

#### Used test instruments and sites:

| Model No.    | Device I.D No. | Last Cal. Date | Cal. Interval |
|--------------|----------------|----------------|---------------|
| ○ - ESH 3    | A - 1          |                |               |
| ○ - ESH 2    | A - 2          |                |               |
| ○ - ESH 2    | A - 3          |                |               |
| ○ - KNW-407  | D - 6          |                |               |
| ○ - KNW-408  | D - 11         |                |               |
| ○ - KNW-242  | D - 7          |                |               |
| ○ - ESH3-Z5  | D - 12         |                |               |
| ○ - KNW-341C | D - 13         |                |               |
| ○ - KNW-408  | D - 14         |                |               |
| ○ - KNW-244C | D - 77         |                |               |
| ○ - KNW-408  | D - 78         |                |               |
| ○ - ESH2-Z5  | D - 10         |                |               |
| ○ - ESH2-Z3  | D - 17         |                |               |
| ○ - 8568B    | A - 10         |                |               |
| ○ - 8566B    | A - 13         |                |               |
| ○ - 8593A    | A - 15         |                |               |
| ○ - Cable    | H - 8          |                |               |

#### Environmental conditions:

Temperature: \_\_\_\_\_ °C      Humidity: \_\_\_\_\_ %

**The measurement of the Radiated Emission (Magnetic Field)**  
was performed in the frequency range of 9 kHz - 30 MHz, in the following test site.

**Test location:**

**KITA-KANSAI Testing Center**

7-7, Ishimaru, 1-Chome, Minoh-Shi, Osaka, 562-0027, Japan

- - 1st site (3 meters)
- - 2nd site (3 meters)

**KAMEOKA EMC Branch**

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

- - 3 meters
- - 10 meters
- - 30 meters

**Used test instruments:**

| Model No.   | Device I.D No. | Last Cal. Date | Cal. Interval |
|-------------|----------------|----------------|---------------|
| ○ - ESH 3   | A - 1          |                |               |
| ● - ESH 2   | A - 2          | May, 1999      | 1 Year        |
| ○ - ESH 2   | A - 3          |                |               |
| ● - HFH2-Z2 | C - 2          | February, 1999 | 1 Year        |
| ○ - HFH2-Z2 | C - 3          |                |               |

**Environmental conditions:**

Temperature: 24 °C      Humidity: 53 %

**The measurement of the Radiated Emission (Electric Field)**

was performed in horizontal and vertical polarization, in the frequency range of 30 MHz - 1000 MHz, in the following test site.

**Test location:**

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Minoh-Shi, Osaka, 562-0027, Japan

● - 1st site (3 meters)

○ - 2nd site (3 meters)

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - 3 meters

○ - 10 meters

**Validation of Site Attenuation:**

1) Last Confirmed Date: November 27, 1998

2) Interval : 1 Year

**Used test instruments:**

| Model No.      | Device I.D No. | Last Cal. Date | Cal. Interval |
|----------------|----------------|----------------|---------------|
| ● - ESV/ESV-Z3 | A - 7 / A - 17 | December, 1998 | 1 Year        |
| ○ - ESV/ESV-Z3 | A - 6 / A - 18 |                |               |
| ○ - ESV/ESV-Z3 | A - 5 / A - 16 |                |               |
| ○ - ESV/ESV-Z3 | A - 4 / A - 20 |                |               |
| ○ - ESV/ESV-Z3 | A - 8 / A - 19 |                |               |
| ● - KBA-511A   | C - 12         | November, 1998 | 1 Year        |
| ● - KBA-611    | C - 22         | November, 1998 | 1 Year        |
| ○ - KBA-511A   | C - 13         | November, 1998 | 1 Year        |
| ○ - KBA-611    | C - 19         |                |               |
| ○ - KBA-511A   | C - 11         |                |               |
| ○ - KBA-611    | C - 21         |                |               |
| ● - Cable      | H - 5          |                |               |

**Environmental conditions:**

Temperature: 24 °C Humidity: 53 %

**The measurement of the Radiated Emission (Electric Field)**

was performed in horizontal and vertical polarization, in the frequency range of 1 GHz - 10 GHz, in the following test site.

**Test location:**

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Minoh-Shi, Osaka, 562-0027, Japan

● - 1st site (3 meters)

○ - 2nd site (3 meters)

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - 3 meters

○ - 10 meters

**Used test instruments:**

| Model No.        | Device I.D No. | Last Cal. Date | Cal. Interval |
|------------------|----------------|----------------|---------------|
| ● - 8566B        | A - 13         | October, 1998  | 1 Year        |
| ○ - 8593A        | A - 15         |                |               |
| ○ - ESV          | A - 5          |                |               |
| ● - 4T-10        | D - 73         | May, 1999      | 1 Year        |
| ○ - 4T-10        | D - 74         |                |               |
| ● - WJ-6611-513  | A - 23         | May, 1999      | 1 Year        |
| ● - WJ-6882-824  | A - 21         | May, 1999      | 1 Year        |
| ● - DBL-0618N515 | A - 33         | October, 1998  | 1 Year        |
| ● - 91888-2      | C - 41 - 1     | May, 1999      | 1 Year        |
| ● - 91889-2      | C - 41 - 2     | May, 1999      | 1 Year        |
| ● - 94613-1      | C - 41 - 3     | May, 1999      | 1 Year        |
| ● - 91891-2      | C - 41 - 4     | May, 1999      | 1 Year        |
| ○ - 94614-1      | C - 41 - 5     |                |               |
| ○ - 3160-09      | C - 48         |                |               |
| ○ - TRA-603D     | D - 24         |                |               |
| ○ - 8494H/8595H  | D - 76         |                |               |
| ○ - MZ5010C      | D - 81         |                |               |
| ● - Cable        | C - 40 - 11    | May, 1999      | 1 Year        |
| ● - Cable        | C - 40 - 12    | May, 1999      | 1 Year        |

**Setting of the spectrum analyzer:**

RES B.W : 1 MHz      Video B.W : 1 MHz  
SCALE : LINEAR      Sweep Time: 20 msec

**Environmental conditions:**

Temperature: 24 °C      Humidity: 53 %

JQA Application No. : KL8090215  
Model No. : KX-TC1400  
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**The measurement of the Emission within the frequency band**  
was performed in the frequency range of 902 MHz - 928 MHz, in the following test site.

**Test location:**

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Minoh-Shi, Osaka, 562-0027, Japan

- 1st site
- 2nd site
- Shielded room

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

- Open site
- Shielded room

**Used test instruments:**

| Model No.                           | Device I.D No. | Last Cal. Date | Cal. Interval |
|-------------------------------------|----------------|----------------|---------------|
| <input type="radio"/> - 8568B       | A - 10         |                |               |
| <input type="radio"/> - 8566B       | A - 13         |                |               |
| <input type="radio"/> - 8593A       | A - 15         |                |               |
| <input type="radio"/> - 8673D       | B - 2          |                |               |
| <input type="radio"/> - TR5212      | B - 30         |                |               |
| <input type="radio"/> - KBA-511A    | C - 16         |                |               |
| <input type="radio"/> - KBA-611     | C - 18         |                |               |
| <input type="radio"/> - 2-10        | D - 40         |                |               |
| <input type="radio"/> - TRA-603D    | D - 24         |                |               |
| <input type="radio"/> - 8494H/8595H | D - 76         |                |               |

**Setting of the spectrum analyzer:**

RES B.W.:                      Video B.W.:  
SCALE :                        Sweep Time:

**Environmental conditions:**

Temperature: \_\_\_\_\_ °C    Humidity: \_\_\_\_\_ %

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### CONFIGURATION OF EUT

The Equipment Under Test (EUT) consists of:

| Description                             | Applicant<br>(Manufacturer)  | Model No.<br>(Serial No.) | FCC ID          |
|---|--|---------------------------|-----------------|
| 900 MHz Cordless<br>Telephone (Handset) | Kyushu Matsushita Electric Co., Ltd.<br>(Kyushu Matsushita Electric Co., Ltd.) | KX-TC1400<br>(--)         | ACJ96NKX-TC1400 |

The measurement was carried out with the following equipment connected:

| Description | Grantee/Distributor | Model No.<br>(Serial No.) | FCC ID |
|-------------|---------------------|---------------------------|--------|
| None        |                     |                           |        |

Type of Interference Cable(s) and the AC Power Cord used with the EUT:

| No. | Cable | Shielded | Ferrite Core | Length |
|-----|-------|----------|--------------|--------|
|     | None  |          |              |        |

### Operation - mode of the EUT:

The EUT was operated during the test under the following specification:

Transmitting to the Base Unit.

### Test system:

There is not any interface port on the EUT.

### Special accessories:

None

### The used (generated) frequencies in the EUT:

|                        |                             |
|------------------------|-----------------------------|
| Fundamental oscillator |                             |
| Transmitting           | : 463.050 MHz - 463.775 MHz |
| Local                  | : 445.700 MHz - 446.425 MHz |
| Transmitting frequency | : 926.100 MHz - 927.550 MHz |
| Local frequency        | : 891.400 MHz - 892.850 MHz |
| Intermediate frequency | : 10.7 MHz (lower side)     |



TEST RESULTS

Conducted Emission 450 kHz - 30 MHz

The requirements are  - KEPT  - NOT KEPT  
Min. limit margin \_\_\_\_\_ dB at \_\_\_\_\_ MHz  
Max. limit exceeding \_\_\_\_\_ dB at \_\_\_\_\_ MHz  
Uncertainty of measurement results \_\_\_\_\_ dB(2 $\sigma$ ) \_\_\_\_\_ dB(2 $\sigma$ )

Remarks: Not Applicable

Radiated Emission 9 kHz - 10 GHz

The requirements are  - KEPT  - NOT KEPT  
Min. limit margin + 6.0 dB at 926.100 MHz  
Max. limit exceeding \_\_\_\_\_ dB at \_\_\_\_\_ MHz  
Uncertainty of measurement results 9 kHz - 30 MHz + 2.5 dB(2 $\sigma$ ) - 2.5 dB(2 $\sigma$ )  
30 MHz - 1 GHz + 4.1 dB(2 $\sigma$ ) - 4.2 dB(2 $\sigma$ )  
1 GHz - 10 GHz + 3.1 dB(2 $\sigma$ ) - 3.2 dB(2 $\sigma$ )

Remarks: \_\_\_\_\_

Emission within the frequency band 902 MHz - 928 MHz

The requirements are  - KEPT  - NOT KEPT  
Results Refer to pages \_\_\_\_\_  
Uncertainty of measurement results \_\_\_\_\_ ppm(2 $\sigma$ )

Remarks: The test was not performed at the applicant's request.

SUMMARY

GENERAL REMARKS :

The EUT was tested according to the requirements of FCC Rules and Regulations Part 15 Subpart A and C (April 17, 1997) under the test configuration, as shown in page 14.

The test was performed as only radiated emission (fundamental, harmonics and spurious emission for transmitting) at the applicant's request.

The conclusion for the test items of which are required by the applied regulation is indicated under the final judgement.

FINAL JUDGEMENT :

The "as received" sample;

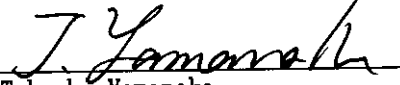
- - fulfill the test requirements of the regulation mentioned on page 3.
- - fulfill the test requirements of the regulation mentioned on page 3, but with certain qualifications.
- - doesn't fulfill the test regulation mentioned on page 3.

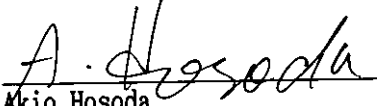
Begin of testing : June 22, 1999

End of testing : June 22, 1999

- JAPAN QUALITY ASSURANCE ORGANIZATION -

Approved Signatory :

  
Takashi Yamanaka  
Manager  
EMC Div.  
JQA KITA-KANSAI Testing Center

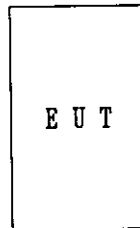
  
Akio Hosoda  
Project Manager  
EMC Div.  
JQA KITA-KANSAI Testing Center

JQA Application No. : KL8090215  
Model No. : KX-TC1400  
FCC ID : ACJ96NKX-TC1400

Regulation : CFR 47 FCC Rules Part 15  
Issue Date : June 30, 1999

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Test System-Arrangement (Drawings)



Power Supply : DC 3.6V (Ni-Cd Battery Pack KX-A36)

## Preliminary Test and Test-setup(Drawings)

### Radiated Emission (Magnetic Field) 9 kHz - 30 MHz:

The preliminary test was performed according to the description of ANSI C63.4-1992 Sec.8.3.1.1 (Preliminary Radiated Emissions Tests) and Sec.6.2.1 (Tabletop Equipment Tests).

The preliminary test was carried out to investigate the frequency of the emission that has the highest amplitude relative to the limits within normal operating modes, cable positions, and a typical system configuration. In order to find out to the maximum emission, the preliminary test and a final test were performed in accordance with the following steps.

Step 1: One operation mode of the test system was setting.

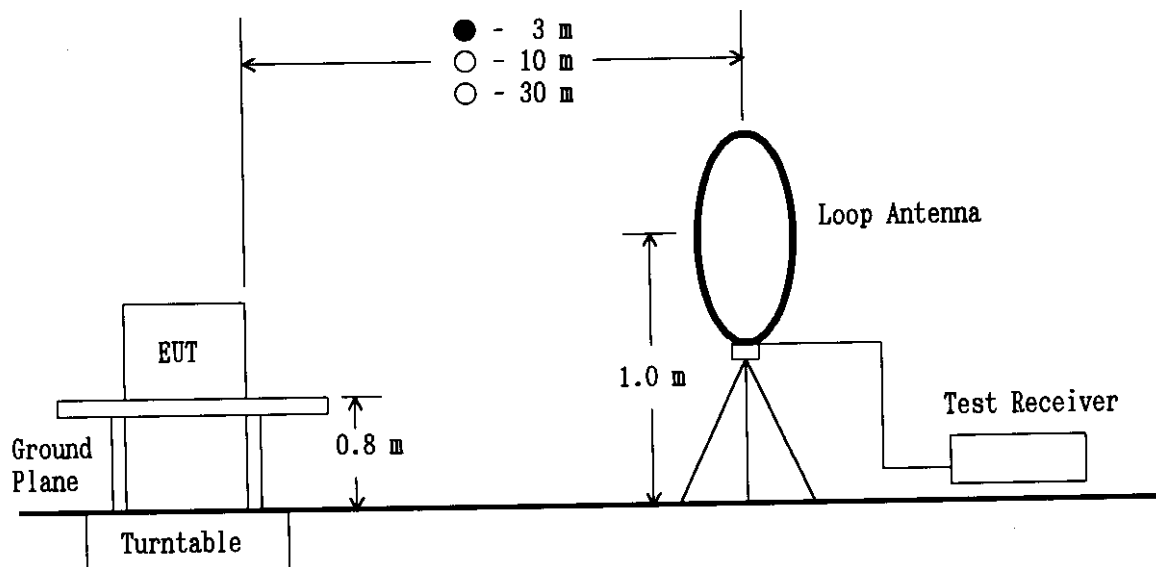
Step 2: In order to investigate the frequencies of maximum emissions, the loop antenna position was approached to the EUT and the significant frequency of the emission's circumstance from the test system were investigated. These data were recorded in the specified frequency band (9 kHz - 30 MHz).

Step 3: Using a test receiver and a loop antenna, the emission's circumstance from the test system was measured in according with ANSI C63.4-1992 Sec.8.3.1.2 (Final Radiated Emissions Tests) at each frequency which was found the higher emission referred to level vs. frequency on the list and which was measured by the loop antenna. The maximum emission was found by rotating three orthogonal axes under a typical system configuration.

Step 4: Return to step 1, if the other operation mode was possible to be setting.

Step 5: The worst result was reported arranging data of which was obtained and performed by one or plural operation modes as the final test.

At the worst point that has the highest amplitude relative to the limit the repeatability of the level was reconfirmed. The photographs of the tests system setup on the worst point were taken and recorded.



Radiated Emission (Electric Field) 30 MHz - 1000 MHz:

The preliminary test was performed according to the description of ANSI C63.4-1992 Sec.8.3.1.1 (Preliminary Radiated Emissions Tests) and Sec.6.2.1 (Tabletop Equipment Tests).

The preliminary test was carried out to investigate the frequency of the emission that has the highest amplitude relative to the limits within normal operating modes, cable positions, and a typical system configuration. In order to find out to the maximum emission, the preliminary test and a final test were performed in accordance with the following steps.

Step 1: One operation mode of the test system was setting.

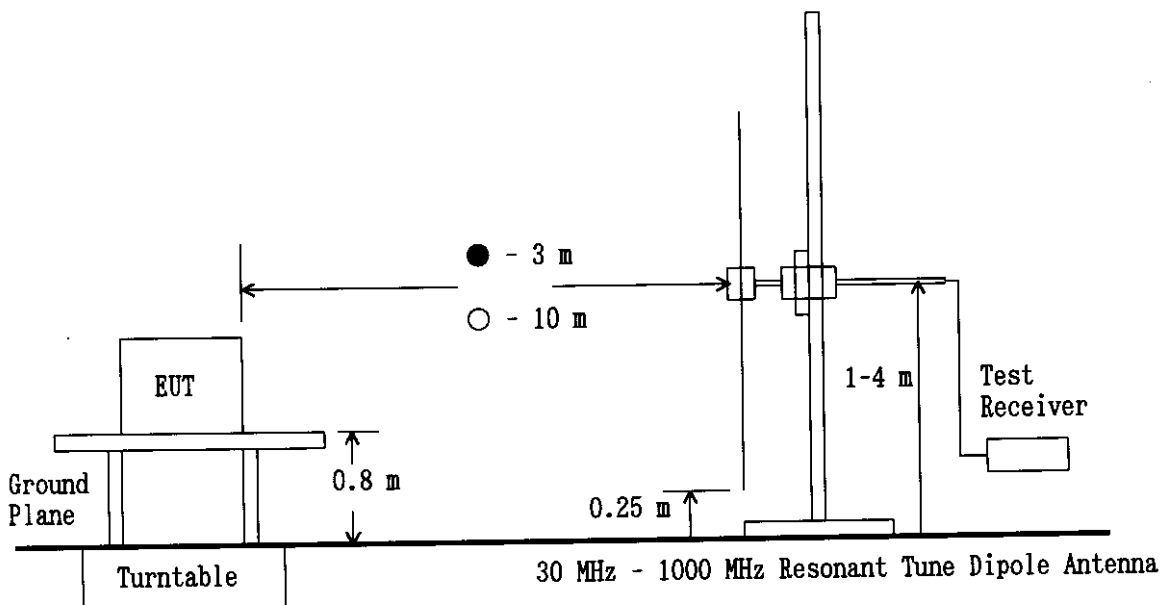
Step 2: Using a test receiver and a test antenna probe, the significant frequency of the emission's circumstance from the test system were investigated. These data were recorded every one of 22 divided bands in the specified frequency band (30 MHz - 1000 MHz).

Step 3: Using a test receiver and a resonant tuned dipole antenna, the emission's circumstance from the test system was measured in according with ANSI C63.4-1992 Sec.8.3.1.2 (Final Radiated Emissions Tests) at each frequency which was found the higher emission referred to level vs. frequency on the list and which was measured by the resonant tuned dipole antenna. The maximum emission was found by three orthogonal axes under a typical system configuration.

Step 4: Return to step 1, if the other operation mode was possible to be setting.

Step 5: The worst result was reported arranging data of which was obtained and performed by one or plural operation modes as the final test.

At the worst point that has the highest amplitude relative to the limit the repeatability of the level was reconfirmed. The photographs of the tests system setup on the worst point were taken and recorded.



Radiated Emission (Electric Field) 1 GHz - 10 GHz:

The preliminary test was performed according to the description of ANSI C63.4-1992 Sec.8.3.1.1 (Preliminary Radiated Emissions Tests) and Sec.6.2.1 (Tabletop Equipment Tests).

The preliminary test was carried out to investigate the frequency of the emission that has the highest amplitude relative to the limits within normal operating modes, cable positions, and a typical system configuration. In order to find out to the maximum emission, the preliminary test and a final test were performed in accordance with the following steps.

Step 1: One operation mode of the test system was setting.

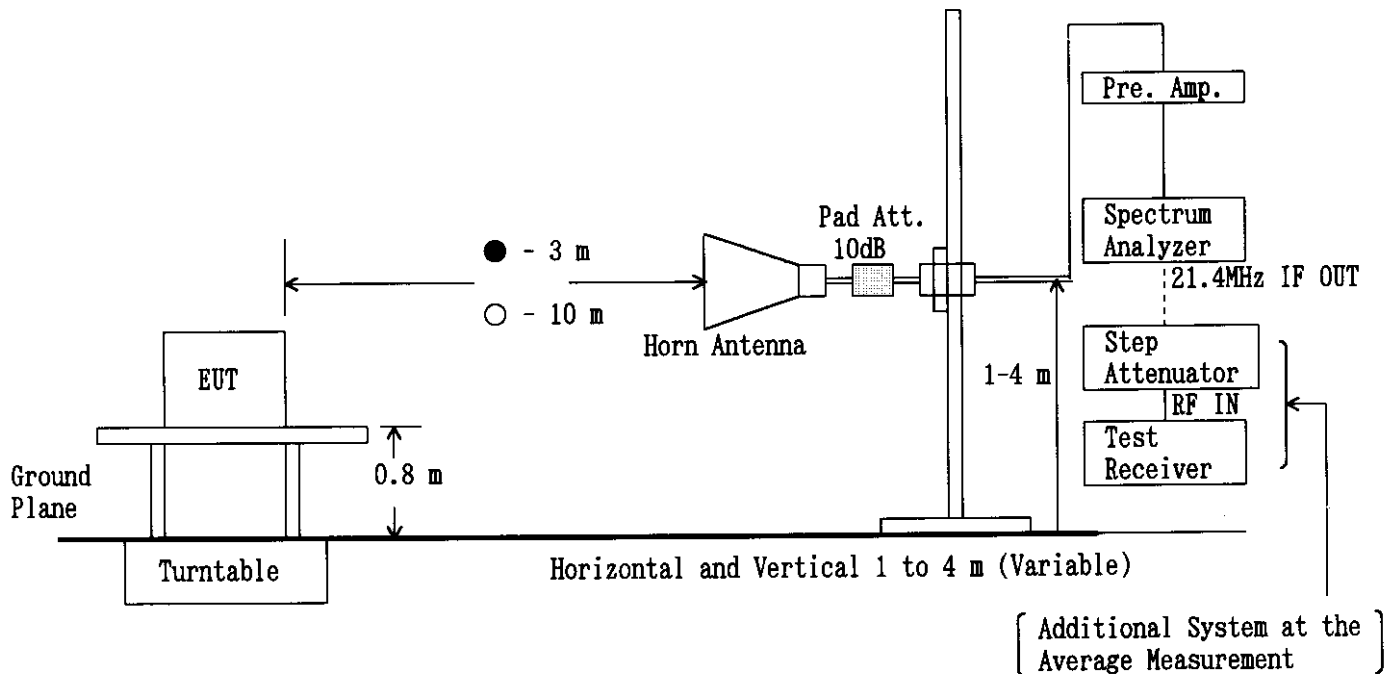
Step 2: In order to investigate the frequencies of maximum emissions, the horn antenna position was approached to the EUT and the significant frequency of the emission's circumstance from the test system were investigated. These data were recorded in the specified frequency band (1 GHz - 10 GHz).

Step 3: The emission's circumstance from the test system was measured in accordance with ANSI C63.4-1992, Sec.8.3.1.2 (Final Radiated Emissions Tests) at each frequency which was found higher emission referred to level vs. frequency on the list and which was measured in the specified distance using the horn antenna. The maximum emission was found by rotating three orthogonal axes under a typical system configuration.

Step 4: Return to step 1, if the other operation mode was possible to be setting.

Step 5: The worst result was reported arranging data of which was obtained and performed by one or plural operation modes as the final test.

At the worst point that has the highest amplitude relative to the limit the repeatability of the level was reconfirmed. The photographs of the tests system setup on the worst point were taken and recorded.



Spectrum Analyzer Setting:

| Detector | Peak  | *)Average |
|----------|-------|-----------|
| RES BW   | 1 MHz | 3 MHz     |
| VIDEO BW | 1 MHz | 3 MHz     |
| SPAN     | 0 Hz  | 0 Hz      |

Test Receiver Setting:

|          |         |
|----------|---------|
| SCALE    | LINEAR  |
| I.F.B.W. | 1 MHz   |
| Detector | Average |

\*) For the average measurement, it is made using a test receiver and a step attenuator.

## Electromagnetic Radiation Disturbance Measurement Intentional Radiator

Operating Frequency : 926.100 MHz

Test Date: June 22, 1999  
 Temp.: 24 °C ; Humi.: 53 %

| Frequency<br>[MHz] | Antenna<br>Factor<br>[dB(1/m)] | Corr.<br>Factor<br>[dB] | Meter Readings<br>[dB(μV)] |        | Limits<br>[dB(μV/m)] | Results<br>[dB(μV/m)] |        | Margin<br>[dB] | Remarks<br>(Note 2) |
|--------------------|--------------------------------|-------------------------|----------------------------|--------|----------------------|-----------------------|--------|----------------|---------------------|
|                    |                                |                         | Hori.                      | Vert.  |                      | Hori.                 | Vert.  |                |                     |
| <b>Fundamental</b> |                                |                         |                            |        |                      |                       |        |                |                     |
| 926.100            | 29.2                           | 6.8                     | 52.0                       | 45.0   | 94.0                 | 88.0                  | 51.0   | + 6.0          | B                   |
| <b>Harmonics</b>   |                                |                         |                            |        |                      |                       |        |                |                     |
| 1852.200           | 21.6                           | -38.6                   | 40.0                       | 42.0   | 54.0                 | 23.0                  | 25.0   | +29.0          | C                   |
| 2778.300           | 21.5                           | -31.5                   | < 30.0                     | < 30.0 | 54.0                 | < 20.0                | < 20.0 | >+34.0         | C                   |
| 3704.400           | 34.4                           | -30.9                   | < 30.0                     | < 30.0 | 54.0                 | < 33.5                | < 33.5 | >+20.5         | C                   |
| 4630.500           | 36.2                           | -31.1                   | < 30.0                     | < 30.0 | 54.0                 | < 35.1                | < 35.1 | >+18.9         | C                   |
| 5556.600           | 37.0                           | -31.0                   | < 30.0                     | < 30.0 | 54.0                 | < 36.0                | < 36.0 | >+18.0         | C                   |
| 6482.700           | 36.4                           | -30.0                   | < 30.0                     | < 30.0 | 54.0                 | < 36.4                | < 36.4 | >+17.6         | C                   |
| 7408.800           | 37.1                           | -29.4                   | < 30.0                     | < 30.0 | 54.0                 | < 37.7                | < 37.7 | >+16.3         | C                   |
| 8334.900           | 40.8                           | -27.7                   | < 30.0                     | < 30.0 | 54.0                 | < 43.1                | < 43.1 | >+10.9         | C                   |
| 9261.000           | 39.4                           | -27.7                   | < 30.0                     | < 30.0 | 54.0                 | < 41.7                | < 41.7 | >+12.3         | C                   |
| <b>Spurious</b>    |                                |                         |                            |        |                      |                       |        |                |                     |
| 463.050            | 22.5                           | 4.5                     | 9.0                        | 10.0   | 46.0                 | 36.0                  | 37.0   | + 9.0          | B                   |
| 1389.150           | 21.4                           | -34.8                   | 36.0                       | 33.0   | 54.0                 | 22.6                  | 19.6   | +31.4          | C                   |
| 2315.250           | 21.4                           | -31.8                   | 31.0                       | 31.0   | 54.0                 | 20.6                  | 20.6   | +33.4          | C                   |
| 3241.350           | 21.9                           | -31.1                   | < 30.0                     | < 30.0 | 54.0                 | < 20.8                | < 20.8 | >+33.2         | C                   |
| 4167.450           | 35.2                           | -30.8                   | < 30.0                     | < 30.0 | 54.0                 | < 34.4                | < 34.4 | >+19.6         | C                   |
| 5093.550           | 37.0                           | -31.4                   | < 30.0                     | < 30.0 | 54.0                 | < 35.6                | < 35.6 | >+18.4         | C                   |
| 6019.650           | 36.8                           | -30.2                   | < 30.0                     | < 30.0 | 54.0                 | < 36.6                | < 36.6 | >+17.4         | C                   |
| 6945.750           | 36.5                           | -30.0                   | < 30.0                     | < 30.0 | 54.0                 | < 36.5                | < 36.5 | >+17.5         | C                   |
| 7871.850           | 41.0                           | -27.8                   | < 30.0                     | < 30.0 | 54.0                 | < 43.2                | < 43.2 | >+10.8         | C                   |
| 8797.950           | 40.7                           | -27.8                   | < 30.0                     | < 30.0 | 54.0                 | < 42.9                | < 42.9 | >+11.1         | C                   |

Operating Frequency : 927.550 MHz

| Frequency<br>[MHz] | Antenna<br>Factor<br>[dB(1/m)] | Corr.<br>Factor<br>[dB] | Meter Readings<br>[dB(μV)] |        | Limits<br>[dB(μV/m)] | Results<br>[dB(μV/m)] |        | Margin<br>[dB] | Remarks<br>(Note 2) |
|--------------------|--------------------------------|-------------------------|----------------------------|--------|----------------------|-----------------------|--------|----------------|---------------------|
|                    |                                |                         | Hori.                      | Vert.  |                      | Hori.                 | Vert.  |                |                     |
| Fundamental        |                                |                         |                            |        |                      |                       |        |                |                     |
| 927.550            | 29.2                           | 6.8                     | 51.0                       | 45.0   | 94.0                 | 87.0                  | 81.0   | + 7.0          | B                   |
| Harmonics          |                                |                         |                            |        |                      |                       |        |                |                     |
| 1855.100           | 21.6                           | -38.6                   | 38.0                       | 40.0   | 54.0                 | 21.0                  | 23.0   | +31.0          | C                   |
| 2782.650           | 21.5                           | -31.5                   | < 30.0                     | < 30.0 | 54.0                 | < 20.0                | < 20.0 | >+34.0         | C                   |
| 3710.200           | 34.4                           | -30.9                   | < 30.0                     | < 30.0 | 54.0                 | < 33.5                | < 33.5 | >+20.5         | C                   |
| 4637.750           | 36.2                           | -31.1                   | < 30.0                     | < 30.0 | 54.0                 | < 35.1                | < 35.1 | >+18.9         | C                   |
| 5565.300           | 37.1                           | -31.0                   | < 30.0                     | < 30.0 | 54.0                 | < 36.1                | < 36.1 | >+17.9         | C                   |
| 6492.850           | 36.4                           | -30.0                   | < 30.0                     | < 30.0 | 54.0                 | < 36.4                | < 36.4 | >+17.6         | C                   |
| 7420.400           | 37.2                           | -29.4                   | < 30.0                     | < 30.0 | 54.0                 | < 37.8                | < 37.8 | >+16.2         | C                   |
| 8347.950           | 40.8                           | -27.7                   | < 30.0                     | < 30.0 | 54.0                 | < 43.1                | < 43.1 | >+10.9         | C                   |
| 9275.500           | 39.4                           | -27.7                   | < 30.0                     | < 30.0 | 54.0                 | < 41.7                | < 41.7 | >+12.3         | C                   |
| Spurious           |                                |                         |                            |        |                      |                       |        |                |                     |
| 463.775            | 22.6                           | 4.5                     | 9.0                        | 10.0   | 46.0                 | 36.1                  | 37.1   | + 8.9          | B                   |
| 1391.325           | 21.4                           | -34.8                   | 35.0                       | 32.0   | 54.0                 | 21.6                  | 18.6   | +32.4          | C                   |
| 2318.875           | 21.4                           | -31.8                   | 33.0                       | 32.0   | 54.0                 | 22.6                  | 21.6   | +31.4          | C                   |
| 3246.425           | 21.9                           | -31.1                   | < 30.0                     | < 30.0 | 54.0                 | < 20.8                | < 20.8 | >+33.2         | C                   |
| 4173.975           | 35.2                           | -30.8                   | < 30.0                     | < 30.0 | 54.0                 | < 34.4                | < 34.4 | >+19.6         | C                   |
| 5101.525           | 37.0                           | -31.3                   | < 30.0                     | < 30.0 | 54.0                 | < 35.7                | < 35.7 | >+18.3         | C                   |
| 6029.075           | 36.8                           | -30.2                   | < 30.0                     | < 30.0 | 54.0                 | < 36.6                | < 36.6 | >+17.4         | C                   |
| 6956.625           | 36.5                           | -30.0                   | < 30.0                     | < 30.0 | 54.0                 | < 36.5                | < 36.5 | >+17.5         | C                   |
| 7884.175           | 41.0                           | -27.8                   | < 30.0                     | < 30.0 | 54.0                 | < 43.2                | < 43.2 | >+10.8         | C                   |
| 8811.725           | 40.7                           | -27.8                   | < 30.0                     | < 30.0 | 54.0                 | < 42.9                | < 42.9 | >+11.1         | C                   |

Sample of calculated result at 926.100 MHz, as the Minimum Margin point:

Antenna Factor = 29.2 dB(1/m)  
Corr. Factor = 6.8 dB  
+ ) Meter Reading = 52.0 dB( $\mu$ V)  
Result = 88.0 dB( $\mu$ V/m)

Minimum Margin : 94.0 - 88.0 = 6.0(dB)

The point shown on "\_\_\_" is the Minimum Margin Point.

Note 1:

- 1) The highest frequency generated or used in the EUT: 927.550 MHz
- 2) The upper frequency of measurement range : 9275.500 MHz
- 3) The spectrum was scanned 9 kHz to 9275.5 MHz and all emissions not reported were more than 20dB below the applied limits.
- 4) Corr. Factor (30 MHz - 1 GHz) : Cable Loss(dB)  
Corr. Factor (1 GHz - 10 GHz) : Cable Loss(dB) + 10dB Pad Attenuator(dB) - Pre-Amplifier Gain(dB)

Remarks:

| Note 2 | Detector Function | IF Bandwidth |
|--------|-------------------|--------------|
| A      | CISPR QP          | 9 kHz        |
| B      | CISPR QP          | 120 kHz      |

| Note 2 | Detector Function | RES. B.W      | V.B.W   | Sweep T | Span |
|--------|-------------------|---------------|---------|---------|------|
| C      | Peak (SP)         | 1 MHz         | 1 MHz   | 20 msec | 0 Hz |
| D      | Peak (SP)         | 100 kHz       | 100 kHz | 20 msec | 0 Hz |
| *) E   | Average (ESV)     | 1 MHz (3 MHz) | 3 MHz   | 20 msec | 0 Hz |

( ): Setting of spectrum analyzer

\*) For the average measurement method, it is made measurement using a test receiver, a step attenuator and a spectrum analyzer.

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