

## EMC TEST REPORT

*for*

### NEC Corporation

1753, Shimonumabe, Nakahara-Ku, Kawasaki-City, Kanagawa 211-8666, Japan

Equipment Under Test: MODEM-A

Model Name: NWA-055300-004

Standard: FCC Part 15 Subpart B Class B Computer Peripheral

Tokin Report No.: TDI11X291

Date of Issue: November 9, 2011

*Approved by*



Hiro Shida  
General Manager.

Tokin EMC Engineering Co., Ltd.

9/11/2011

**-- ATTENTION --**

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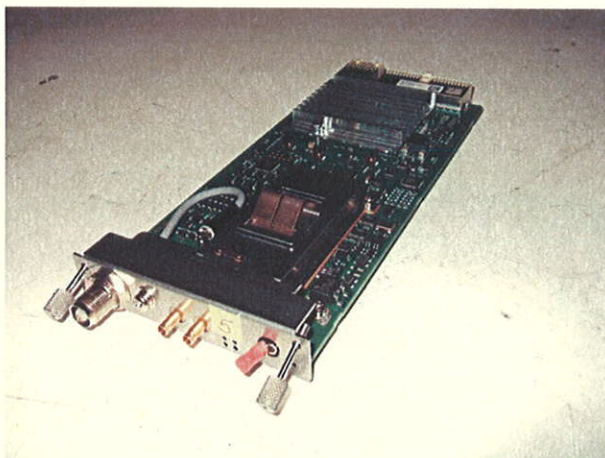
NVLAP Lab. Code: 200221-0

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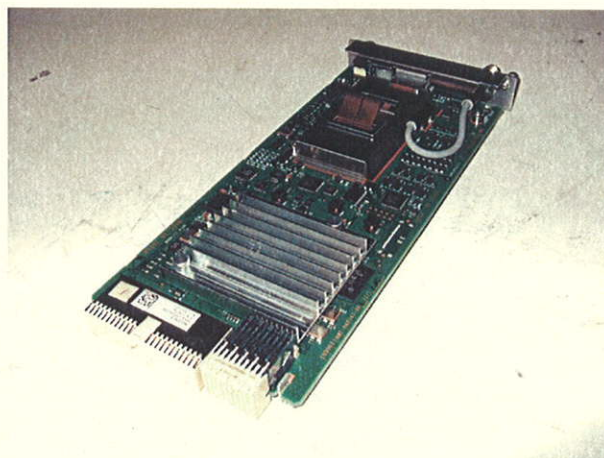
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## 1 DESCRIPTION OF DEVICE

A) Kind of Equipment: MODEM-A



Front



Rear

B) FCC ID: DI4NWA-055300-004

C) Model Name: NWA-055300-004

D) Serial No.: 019674

E) Type of Sample Tested: Mass-production

F) Dimension: Width 95.8mm x Depth 233.3mm x Height 20.8mm

G) High Frequency Used:

| Model name                          | Dimension             |
|-------------------------------------|-----------------------|
| 6.112/ 12.224/ 24.448/<br>48.896MHz | Modulation Processing |
| 350/ 140MHz                         | IF Converting         |
| 5MHz                                | Ref CLK               |

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*S. Takahashi*

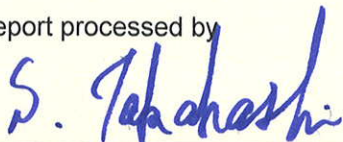
Shou Takahashi  
9/Nov./2011

Tested by

*Takumi Tsukagoshi*  
Takumi Tsukagoshi, Engineer

- H) Rating Power Supply: DC -48V, 7.0A (IDU : Indoor Unit)  
DC 12V, 1.5A (MODEM-A)
- I) Tested Voltage: DC -57 to -40.5V(IDU : Indoor Unit)
- J) Date of Manufacture: July 2011
- K) Manufacturer: NEC Corporation  
1753, Shimonumabe, Nakahara-Ku, Kawasaki-City,  
Kanagawa 211-8666, Japan
- L) Attachment options: None
- M) Description of Operating: Normal Operation Mode
- N) Date of Sample Received: October 19, 2011
- O) Test Engineer: Takumi Tsukagoshi

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## 2 TEST FACILITY

The semi anechoic chamber and conducted measurement facility are used for these testing, where are located following address. This chamber's FCC Test firm registration number: 883015. This laboratory is accredited by NVLAP for NVLAP Lab. Code : 200221-0.

Tokin EMC Engineering Co., Ltd.

Tsukuba Testing Laboratory, Semi Anechoic Chamber and No.3

Address ; 28-1, Hanashimashinden, Tsukuba-city, Ibaraki 305-0875, Japan

## 3 SUMMARY OF RESULTS

### 3.1 Electromagnetic Emission

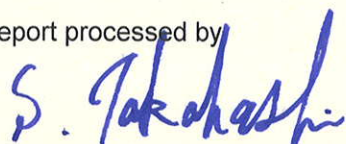
RFI Voltage Measurement .....**PASS**

RFI Field Strength Measurement .....**PASS**

Test results are traceable to PTB, NMI and NPL.

### 3.2 Modifications to The EUT :      None

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## 4 TESTED SYSTEM DETAILS

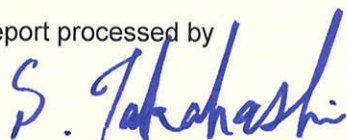
### 4.1 Peripherals and Others :

| Description                 | Model Name    | Serial No. | Manufacturer | FCC ID |
|-----------------------------|---------------|------------|--------------|--------|
| IDU : Indoor Unit           | MDP-400MB-1CC | 1003       | NEC          | ---    |
| ODU : Outdoor Unit          | TRP-8G-1D     | 1001/1003  | NEC          | ---    |
| <b>Associated Equipment</b> |               |            |              |        |
| Note PC                     | TP00007A      | R9-1WEM8   | lenovo       | DOC    |
| AC Adapter                  | 3626FJJ       | ---        | lenovo       | DOC    |

### 4.2 Type of Cables Used:

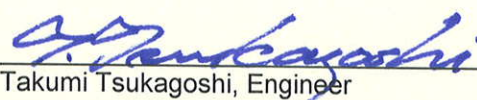
| No. | Description                                                     | Length | Type of shield | Model name                    | Manufacturer |
|-----|-----------------------------------------------------------------|--------|----------------|-------------------------------|--------------|
| a   | DC Power Cable 1, 2<br>(IDU[EUT/AE]~Power Supply)               | 4.0m   | Non-shielded   | DK-3100S-04H-F<br>A : twisted | ---          |
| b   | IF IN/OUT Cable<br>(IDU~ODU)                                    | 5.0m   | Shielded       | TNC-N:5D<br>coaxial           | ---          |
| c   | ODU Cable (ODU~ODU)                                             | 1.0m   | Shielded       | SMA:SJ                        | ---          |
| d   | LCT Cable, NMS Cable,<br>NE/1 Cable, MC2 Cable<br>(IDU~Outside) | 20m    | Shielded       | RJ45                          | ---          |
| e   | MC3 Cable, MC4 Cable<br>(IDU~Outside)                           | 3.0m   | Non-shielded   | LC:Optical                    | ---          |
| f   | ALM/SC/CLK Cable<br>(IDU~Outside)                               | 3.0m   | Shielded       | D-sub44                       | ---          |
| g   | 2M IN/OUT Cable<br>(IDU~Outside)                                | 3.0m   | Shielded       | MDR68                         | ---          |
| h   | XIF IN/OUT Cable<br>(IDU~Outside)                               | 3.0m   | Shielded       | IEC mini :coaxial             | ---          |
| j   | STM1-1 Cable,STM1-2 Cable<br>(IDU~Outside/Analyzer)             | 3.0m   | Non-shielded   | LC:Optical                    | ---          |
| k   | ALM/EOW/NE2 Cable<br>(IDU~Outside)                              | 3.0m   | Shielded       | D-sub44                       | ---          |
| l   | PC DC Power Cable                                               | 2.3m   | Non-shielded   | ---                           | ---          |
| m   | PC AC Power Cable                                               | 1.2m   | Non-shielded   | ---                           | ---          |

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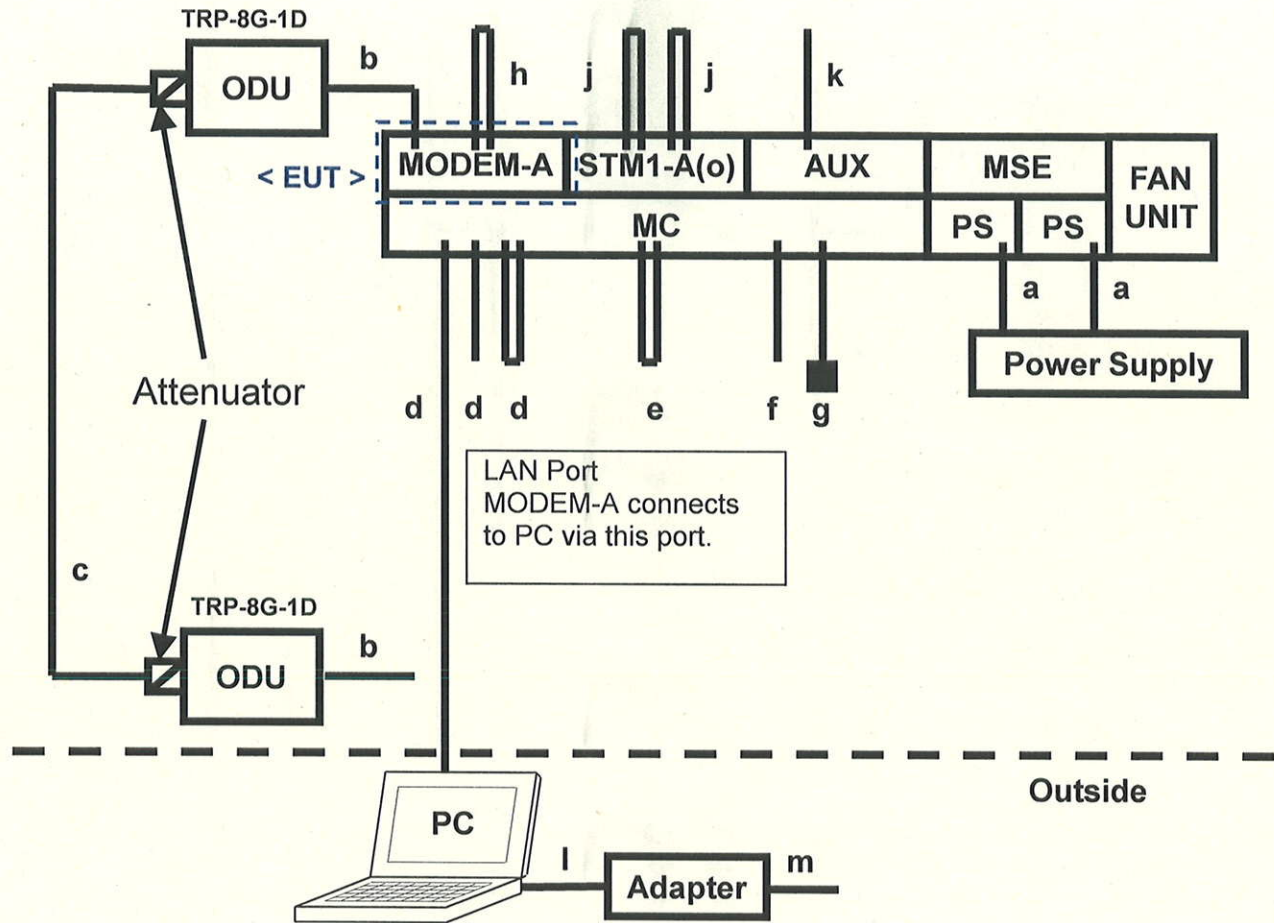


Figure 4-1 System Configuration Diagram

## 5 TECHNICAL COUNTERMEASURE:

- Two turned ferrite core were attached to the DC Power Cable.  
(SWIWA E04SR301334)

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Takumi Tsukagoshi, Engineer

## 6 TEST RESULTS

### 6.1 RFI Voltage Measurement

#### 6.1.1 Measurement Instrumentation Used

( model/serial no./manufacturer/Tokin control no./last calibration/next calibration )

< Main Ports >

EMI Test Receiver..... ( ESU8/100212/ROHDE & SCHWARZ/RE072/27 Feb.'11/Feb.'12 )

L.I.S.N. .... ( KNW-407/8-1866-9/Kyoritsu/LI074/16 Jun.'11/Jun.'12 )

10dB attenuator ..... ( CFA-S01A/---/Tamagawa Electronics/ME620/16 Jun.'11/Jun.'12 )

Spectrum analyzer ..... ( ESU8/100212/ROHDE & SCHWARZ/RE072/27 Feb.'11/Feb.'12 )

Coaxial cable ..... ( RG-223,U/---/SUNNER/DK286/14 Apr.'11/Apr.'12 )

Software..... ( Software Data Calculation Software 2.04/---/AES/ SW003-1/---/--- )

Semi Anechoic Chamber .. ( Tsukuba No.3 AC/---/Tokin/SA029/---/--- )

The measurement instrumentation used, are calibrated according to Quality Manual.

#### 6.1.2 Measurement Procedure

The power line conducted interference measurements were performed according to ANSI C63.4-2009 ( In-house Test Procedure : FCC Part 15 Test Procedure / Document No. IS-QR-030 / Revision No. 2-4 ) in a Semi Anechoic Chamber No.3. The EUT placed on a non-conductive table such that it is 0.8m above the horizontal ground reference plane. Mains cable is longer than 1.0m, the excess folded at the centre into a bundle no longer than 0.4m. The EUT separated from any other ground plane at least 0.4m. There were no deviations from the standard. The EUT was plugged into the LISN and the frequency range of interest scanned.

Reported are maximized emission levels.

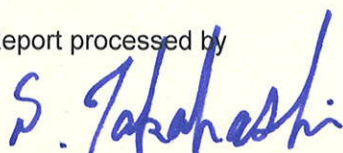
These tests were performed at 9kHz of 6dB bandwidth.

Test results were obtained from following equation.

$$\text{Result (dB}\mu\text{V)} = \text{Level (dB}\mu\text{V)} + \text{Total Factor (dB)}$$

#### 6.1.3 Deviation from the specification: None

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## 6.1.4 Test Data

**Table 6.1-1** RFI Voltage Measurement Results (Q-Peak & Average Measurement)

Operating Mode: Normal Operation Mode

Date of Measurement: October 25, 2011

Test Procedure: ANSI C63.4-2009

Temperature: 22 degrees C

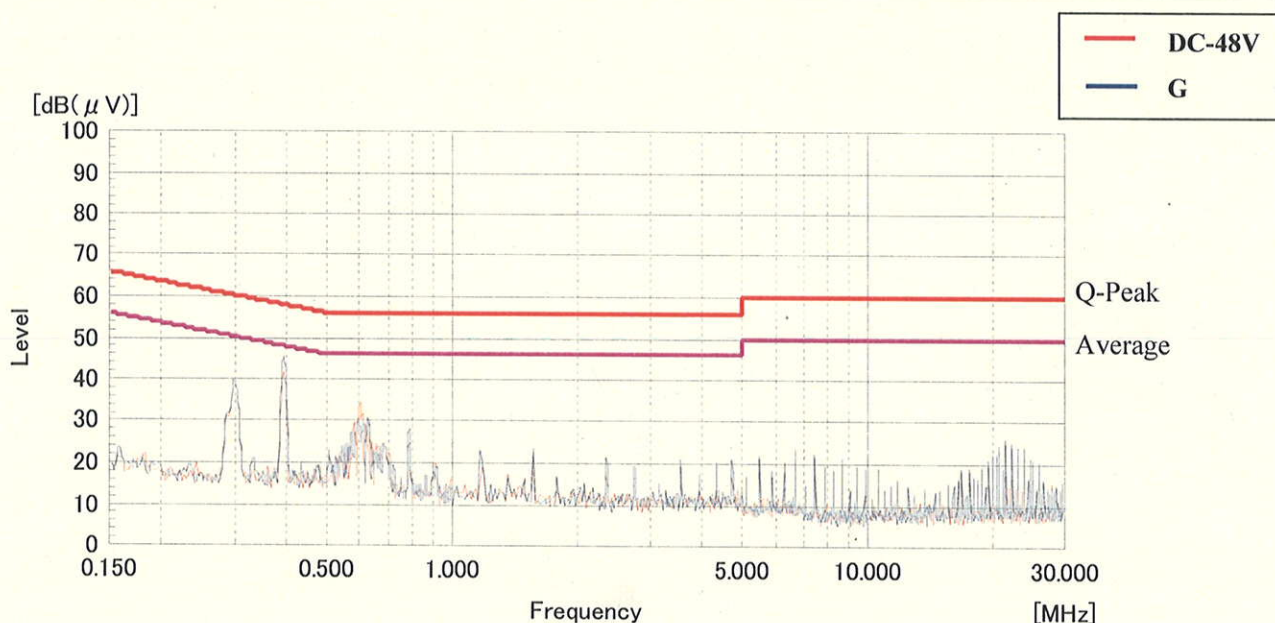
Test Condition: Power input DC-48V

Humidity: 56 %

Remarks: DC Power Cable 1 side

Limit: FCC 15.107

|        | Frequency<br>(MHz) | Level        |              | Total<br>Factor<br>(dB) | Result       |              | Limit        |              | Margin     |            |
|--------|--------------------|--------------|--------------|-------------------------|--------------|--------------|--------------|--------------|------------|------------|
|        |                    | QP<br>(dBμV) | AV<br>(dBμV) |                         | QP<br>(dBμV) | AV<br>(dBμV) | QP<br>(dBμV) | AV<br>(dBμV) | QP<br>(dB) | AV<br>(dB) |
| DC-48V | 0.301              | 28.1         | 26.7         | 10.1                    | 38.2         | 36.8         | 60.2         | 50.2         | 22.0       | 13.4       |
|        | 0.392              | 30.0         | 30.0         | 10.0                    | 40.0         | 40.0         | 58.0         | 48.0         | 18.0       | 8.0        |
|        | 0.600              | 17.0         | 14.4         | 10.0                    | 27.0         | 24.4         | 56.0         | 46.0         | 29.0       | 21.6       |
|        | 0.789              | 11.9         | 11.6         | 10.0                    | 21.9         | 21.6         | 56.0         | 46.0         | 34.1       | 24.4       |
|        | 1.575              | 8.4          | 8.0          | 10.0                    | 18.4         | 18.0         | 56.0         | 46.0         | 37.6       | 28.0       |
|        | 20.001             | 10.6         | 9.9          | 10.7                    | 21.3         | 20.6         | 60.0         | 50.0         | 38.7       | 29.4       |
| G      | 0.392              | 34.0         | 34.0         | 10.0                    | 44.0         | 44.0         | 58.0         | 48.0         | 14.0       | 4.0        |
|        | 0.299              | 28.6         | 27.6         | 10.0                    | 38.6         | 37.6         | 60.3         | 50.3         | 21.7       | 12.7       |
|        | 0.600              | 17.2         | 14.6         | 10.0                    | 27.2         | 24.6         | 56.0         | 46.0         | 28.8       | 21.4       |
|        | 0.788              | 16.9         | 16.8         | 10.0                    | 26.9         | 26.8         | 56.0         | 46.0         | 29.1       | 19.2       |
|        | 1.576              | 12.0         | 11.8         | 10.1                    | 22.1         | 21.9         | 56.0         | 46.0         | 33.9       | 24.1       |
|        | 21.662             | 14.7         | 14.7         | 10.8                    | 25.5         | 25.5         | 60.0         | 50.0         | 34.5       | 24.5       |



**Figure 6.1-1** Pre-Scan Data

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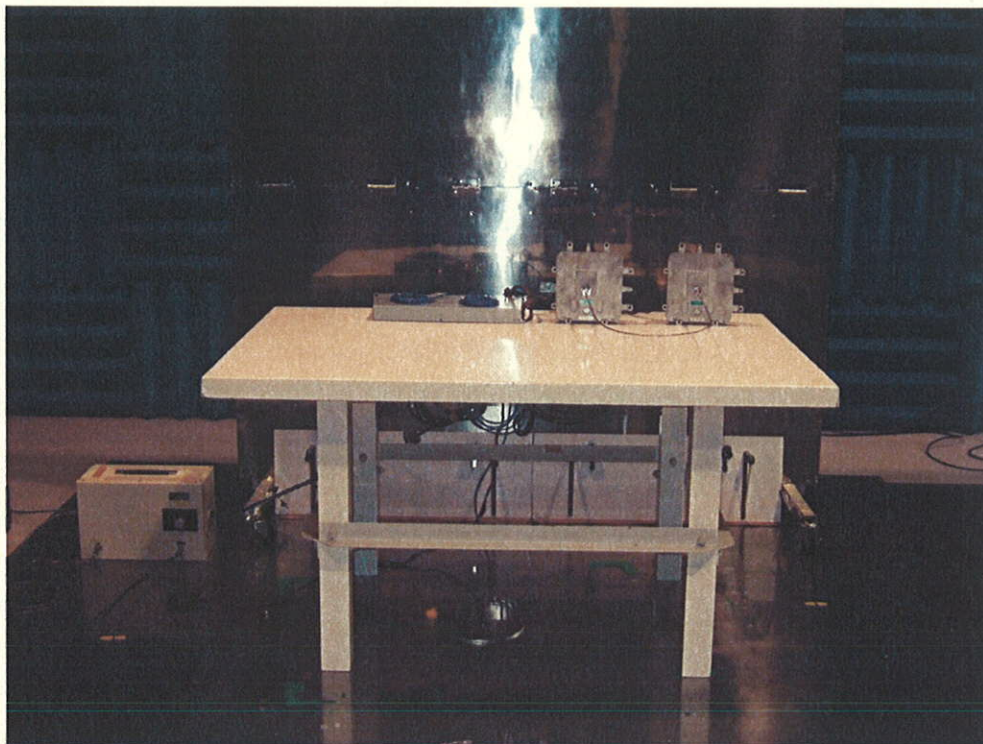
*S. Takahashi*

*Takumi Tsukagoshi*

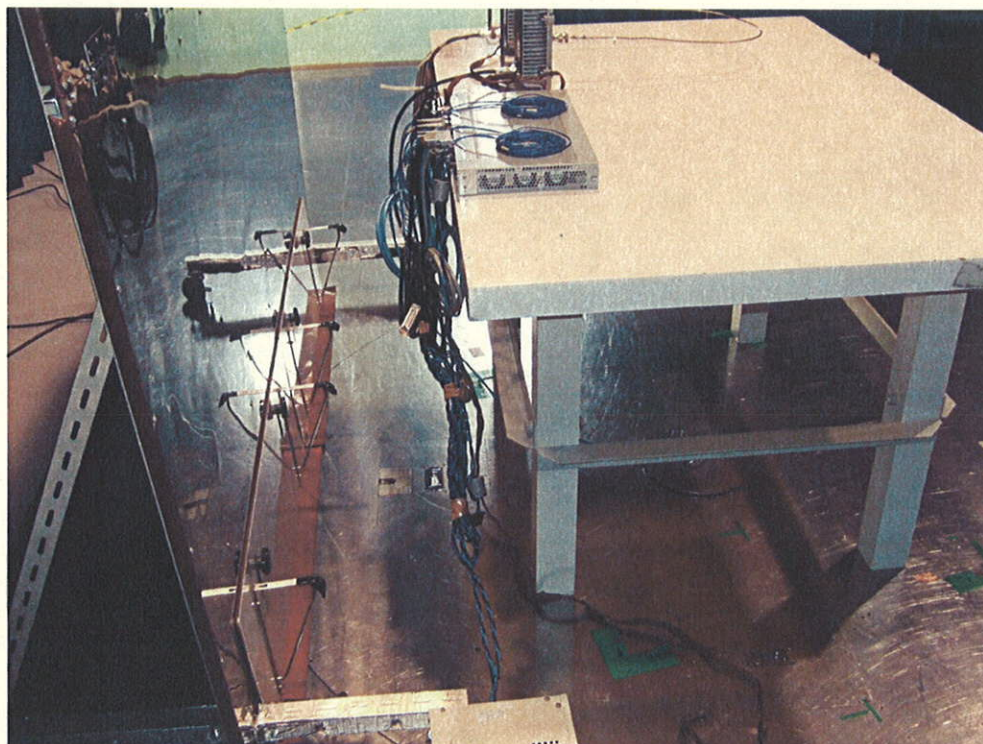
Shou Takahashi  
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Takumi Tsukagoshi, Engineer

### 6.1.5 Measurement Photos



**Photo 6.1-1** RFI Voltage Measurement Results



**Photo 6.1-2** RFI Voltage Measurement Results

## 6.2 RFI Field Strength Measurement

### 6.2.1 Measurement Instrumentation Used

( model/serial no./manufacturer/Tokin control no./last calibration/next calibration )

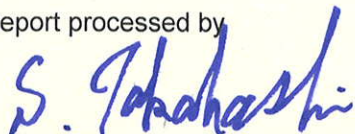
< 30MHz to 1000MHz >

EMI Test Receiver ..... ( ESU8/100212/ROHDE & SCHWARZ/RE072/27 Feb.'11/Feb.'12 )  
 Biconical Antenna..... ( BBA9106/2171/Schwarzbeck/TB028/07 Apr.'11/Apr.'12 )  
 50ohm 6dB attenuator..... ( UFA-01/1/Tamagawa/ME553/07 Apr.'11/Apr.'12 )  
 Pre-Amplifier ..... ( 8447D/2432A03554/Hewlett Packard/AM003/29 Aug.'11/Aug.'12 )  
 Spectrum Analyzer..... ( ESU8/100212/ROHDE & SCHWARZ/RE072/27 Feb.'11/Feb.'12 )  
 Coaxial Cable..... ( ---/---/HUBER+SUHNER/DKT49/17 Aug.'11/Aug.'12 )  
 Software ..... ( Software Data Calculation Software TEPTO 3.00/---/AES/SW020-3/---/--- )  
 Semi Anechoic Chamber .... ( Tsukuba No.3 AC/---/Tokin/SA029/01 May.'11/Apr.'12 )

< 1000MHz to 6000MHz >

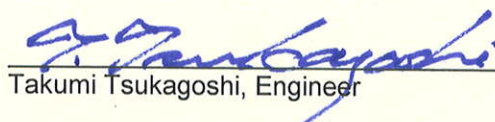
Double Ridged Guide  
 Horn Antenna .... ( BBHA9120A/378/Schwarzbeck/AN040/30 Mar.'11/Mar.'12 )  
 EMI Test Receiver ..... ( ESU8/100212/ROHDE & SCHWARZ/RE072/27 Feb.'11/Feb.'12 )  
 Pre-Amplifier ..... ( TPA0108-40/0609/TOYO Corporation/AM043/09 Mar.'11/Mar.'12 )  
 Spectrum Analyzer..... ( ESU8/100212/ROHDE & SCHWARZ/RE072/27 Feb.'11/Feb.'12 )  
 Coaxial Cable..... ( SUCOFLEX\_104A/43881-4A/SUCOFLEX  
 /DK271/05 Apr.'11/Apr.'12 )  
 Coaxial Cable..... ( SUCOFLEX\_104A/43023-4A/SUCOFLEX  
 /DK272/06 Apr.'11/Apr.'12 )  
 Coaxial Cable..... ( SUCOFLEX\_104A/43024-4A/SUCOFLEX  
 /DK273/05 Apr.'11/Apr.'12 )  
 Software ..... ( Software Data Calculation Software TEPTO 3.00/---/AES/SW020-3/---/--- )  
 Semi Anechoic Chamber .... ( Tsukuba No.3 AC/1GHz-6GHz/---/SA032/2009/06 Mar.'11/Mar.'12 )

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9/Nov./2011

Tested by

  
Takumi Tsukagoshi, Engineer

## 6.2.2 Measurement Procedure

Final test was performed according to ANSI C63.4-2009 (In-house Test Procedure : FCC Part 15 Test Procedure / Document No. IS-QR-030 / Revision No.2-4) at semi anechoic chamber No.3. There were no deviations from the standard.

The EUT placed upon a non-conductive table 0.8m above the horizontal ground reference plane. The turntable was separated from the antenna distance 3 meter. Cables were placed in a position to produce maximum emissions as determined by experimentation, and operation mode was selected for maximum.

The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities. Reported are maximized emission levels.

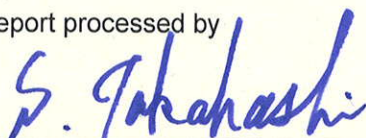
These tests were performed at 120kHz of 6dB bandwidth.

Test results were obtained from following equation.

$$\text{Result (dB}\mu\text{V/m)} = \text{Level (dB}\mu\text{V)} + \text{Ant. Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amp. Gain (dB)}$$

## 6.2.3 Deviation from the specification: None

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Tested by



Takumi Tsukagoshi, Engineer

## 6.2.4 Test Data

**Table 6.2-1** RFI Field Strength Measurement Results (Q-Peak Measurement)

Operating Mode: Normal Operation Mode

Date of Measurement: October 24, 2011

Test Procedure: ANSI C63.4-2009

Temperature: 22 degrees C

Test Condition: Power input DC-48V

Humidity: 56 %

< 30MHz to 1000MHz >

| Frequency<br>(MHz) | Level          |      | Cable<br>Loss<br>(dB) | Amp.<br>Gain<br>(dB) | Ant.<br>Factor<br>(dB/m) | Result           |                | Result         |                | 3Meter<br>Limit<br>(dBμV/m) | Margin       |              |
|--------------------|----------------|------|-----------------------|----------------------|--------------------------|------------------|----------------|----------------|----------------|-----------------------------|--------------|--------------|
|                    | Ver.<br>(dBμV) | Hor. |                       |                      |                          | Ver.<br>(dBμV/m) | Hor.<br>(μV/m) | Ver.<br>(μV/m) | Hor.<br>(μV/m) |                             | Ver.<br>(dB) | Hor.<br>(dB) |
| 67.61              | 38.0           |      | 1.5                   | -27.5                | 12.6                     | 24.6             |                | 17.0           |                | 40.0                        | 15.4         |              |
| 187.76             |                | 28.8 | 2.6                   | -27.4                | 22.2                     |                  | 26.2           |                | 20.4           | 43.5                        |              | 17.3         |
| 480.00             | 36.8           |      | 4.2                   | -27.3                | 18.0                     | 31.7             |                | 38.5           |                | 46.0                        | 14.3         |              |
| 500.00             | 36.8           | 36.3 | 4.3                   | -27.3                | 18.4                     | 32.2             | 31.7           | 40.7           | 38.5           | 46.0                        | 13.8         | 14.3         |
| 583.22             |                | 26.1 | 4.7                   | -27.0                | 19.7                     |                  | 23.5           |                | 15.0           | 46.0                        |              | 22.5         |
| 640.65             |                | 38.3 | 4.9                   | -26.9                | 20.4                     |                  | 36.7           |                | 68.4           | 46.0                        |              | 9.3          |
| 671.88             | 37.1           |      | 5.0                   | -26.8                | 20.8                     | 36.1             |                | 63.8           |                | 46.0                        | 9.9          |              |
| 773.43             |                | 34.3 | 5.4                   | -26.7                | 21.5                     |                  | 34.5           |                | 53.1           | 46.0                        |              | 11.5         |
| 773.45             | 35.8           |      | 5.4                   | -26.7                | 21.5                     | 36.0             |                | 63.1           |                | 46.0                        | 10.0         |              |
| 820.31             | 31.1           | 32.0 | 5.6                   | -26.6                | 21.9                     | 32.0             | 32.9           | 39.8           | 44.2           | 46.0                        | 14.0         | 13.1         |

### Class B limit (FCC 15.109)

Radiated Emission – 3 meter distance

| Frequency (MHz) | dBμV/m | μV/m |
|-----------------|--------|------|
| 30 - 88         | 40.0   | 100  |
| 88 - 216        | 43.5   | 150  |
| 216 - 960       | 46.0   | 200  |
| > 960           | 54.0   | 500  |

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9/Nov./2011

Tested by

*Takumi Tsukagoshi*

Takumi Tsukagoshi, Engineer

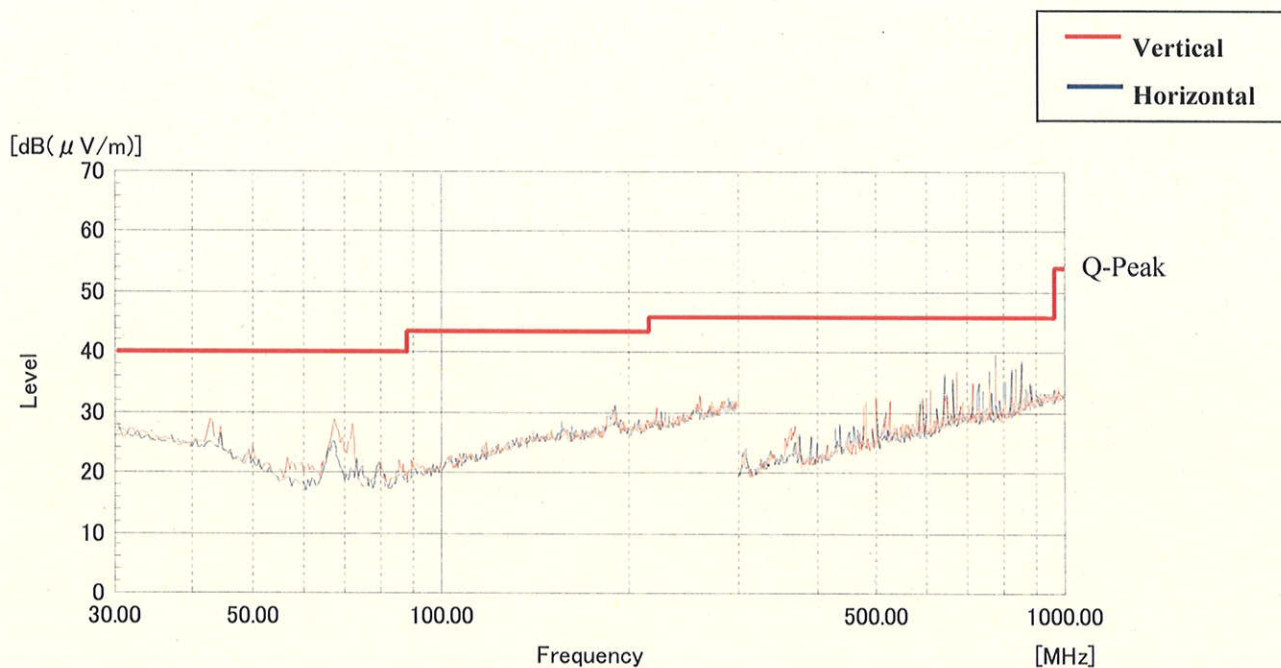


Figure 6.2-1 Pre-Scan Data

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Tested by

*Takumi Tsukagoshi*  
Takumi Tsukagoshi, Engineer

**Table 6.2-2** RFI Field Strength Measurement Results ( Peak & Average Measurement )

Operating Mode: Normal Operation Mode

Date of Measurement: October 24, 2011

Test Procedure: ANSI C63.4-2009

Temperature: 22 degrees C

Test Condition: Power input DC-48V

Humidity: 56 %

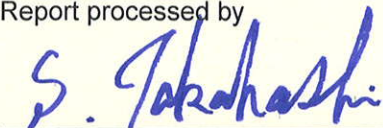
&lt; 1000MHz to 6000MHz &gt;

| Frequency<br>(MHz) | Level<br>Ver. Hor.<br>(dBμV) | Cable<br>Loss<br>(dB) | Amp.<br>Gain<br>(dB) | Ant.<br>Factor<br>(dB/m) | Distance<br>Cor.<br>(dB) | Result<br>Ver. Hor.<br>(dBμV/m) | Result<br>Ver. Hor.<br>(μV/m) | 3Meter<br>Limit<br>(dBμV/m) | Margin<br>Ver. Hor.<br>(dB) |
|--------------------|------------------------------|-----------------------|----------------------|--------------------------|--------------------------|---------------------------------|-------------------------------|-----------------------------|-----------------------------|
| <b>Peak</b>        |                              |                       |                      |                          |                          |                                 |                               |                             |                             |
| 1250.00            | 57.1                         | 4.2                   | -46.0                | 25.8                     | 0.6                      | 41.7                            | 121.6                         | 74.0                        | 32.3                        |
| 1250.08            | 58.5                         | 4.2                   | -46.0                | 25.8                     | 0.6                      | 43.1                            | 142.9                         | 74.0                        | 30.9                        |
| 1937.49            | 56.1                         | 5.3                   | -46.0                | 26.5                     | 0.6                      | 42.5                            | 133.4                         | 74.0                        | 31.5                        |
| 1976.77            | 55.6                         | 5.4                   | -46.1                | 26.5                     | 0.6                      | 42.0                            | 125.9                         | 74.0                        | 32.0                        |
| 2500.01            | 58.3                         | 6.0                   | -46.8                | 26.8                     | 0.6                      | 44.9                            | 175.8                         | 74.0                        | 29.1                        |
| 2599.99            | 54.0                         | 6.2                   | -46.8                | 26.6                     | 0.6                      | 40.6                            | 107.2                         | 74.0                        | 33.4                        |
| 2733.34            | 55.3                         | 6.3                   | -47.0                | 26.8                     | 0.6                      | 42.0                            | 125.9                         | 74.0                        | 32.0                        |
| 3749.99            | 54.7                         | 7.5                   | -47.1                | 28.6                     | 0.6                      | 44.3                            | 164.1                         | 74.0                        | 29.7                        |
| 4312.50            | 52.9                         | 8.0                   | -46.7                | 28.8                     | 0.6                      | 43.6                            | 151.4                         | 74.0                        | 30.4                        |
| 4437.38            | 56.1                         | 8.1                   | -46.6                | 28.9                     | 0.6                      | 47.1                            | 226.5                         | 74.0                        | 26.9                        |
| 4437.57            | 52.7                         | 8.1                   | -46.6                | 28.9                     | 0.6                      | 43.7                            | 153.1                         | 74.0                        | 30.3                        |
| <b>Average</b>     |                              |                       |                      |                          |                          |                                 |                               |                             |                             |
| 1250.00            | 51.4                         | 4.2                   | -46.0                | 25.8                     | 0.6                      | 36.0                            | 63.1                          | 54.0                        | 18.0                        |
| 1250.08            | 54.3                         | 4.2                   | -46.0                | 25.8                     | 0.6                      | 38.9                            | 88.1                          | 54.0                        | 15.1                        |
| 1937.49            | 51.6                         | 5.3                   | -46.0                | 26.5                     | 0.6                      | 38.0                            | 79.4                          | 54.0                        | 16.0                        |
| 1976.77            | 50.8                         | 5.4                   | -46.1                | 26.5                     | 0.6                      | 37.2                            | 72.4                          | 54.0                        | 16.8                        |
| 2500.01            | 51.4                         | 6.0                   | -46.8                | 26.8                     | 0.6                      | 38.0                            | 79.4                          | 54.0                        | 16.0                        |
| 2599.99            | 47.2                         | 6.2                   | -46.8                | 26.6                     | 0.6                      | 33.8                            | 49.0                          | 54.0                        | 20.2                        |
| 2733.34            | 49.9                         | 6.3                   | -47.0                | 26.8                     | 0.6                      | 36.6                            | 67.6                          | 54.0                        | 17.4                        |
| 3749.99            | 48.8                         | 7.5                   | -47.1                | 28.6                     | 0.6                      | 38.4                            | 83.2                          | 54.0                        | 15.6                        |
| 4312.50            | 47.0                         | 8.0                   | -46.7                | 28.8                     | 0.6                      | 37.7                            | 76.7                          | 54.0                        | 16.3                        |
| 4437.38            | 48.5                         | 8.1                   | -46.6                | 28.9                     | 0.6                      | 39.5                            | 94.4                          | 54.0                        | 14.5                        |
| 4437.57            | 46.8                         | 8.1                   | -46.6                | 28.9                     | 0.6                      | 37.8                            | 77.6                          | 54.0                        | 16.2                        |

**Class B limit (FCC 15.109)**  
Radiated Emission – 3 meter distance

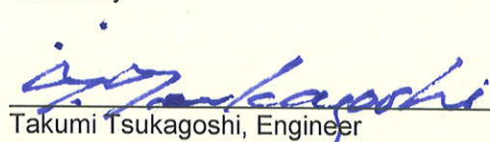
|          | Frequency (MHz) | dBμV/m | μV/m |
|----------|-----------------|--------|------|
| Peak:    | > 1000          | 74.0   | 5000 |
| Average: | > 1000          | 54.0   | 500  |

Report processed by



Shou Takahashi  
9/Nov./2011

Tested by



Takumi Tsukagoshi, Engineer

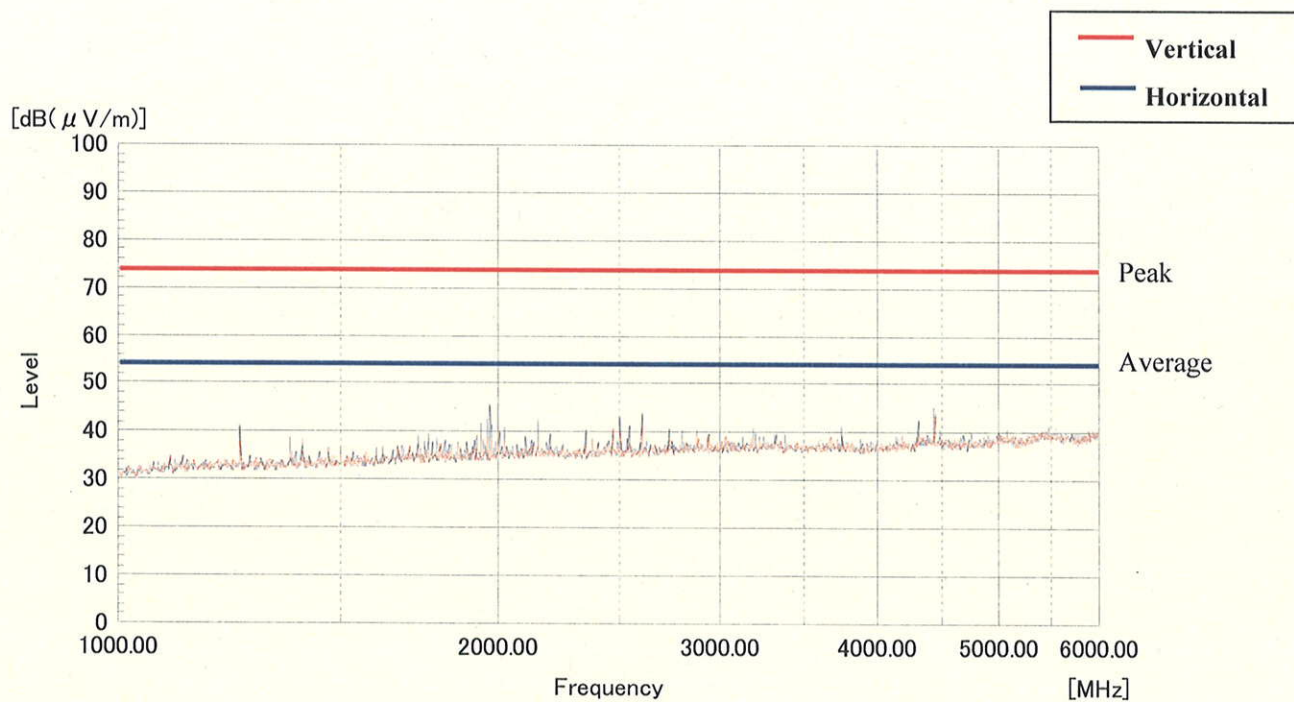


Figure 6.2-2 Pre-Scan Data

Report processed by

*S. Takahashi*

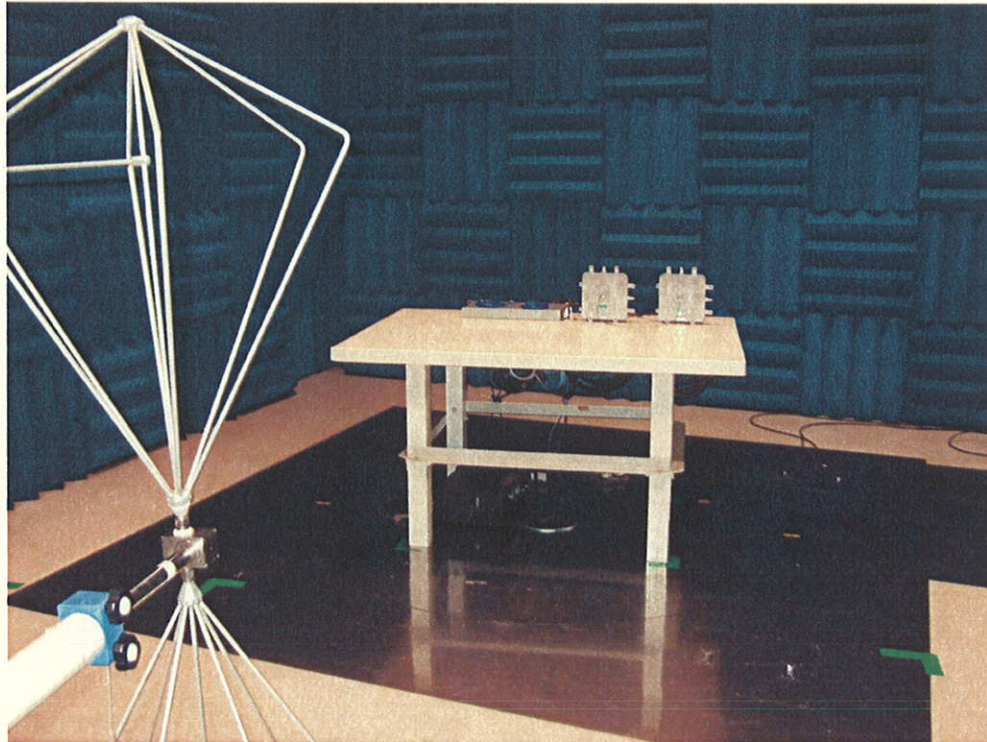
Shou Takahashi  
9/Nov./2011

Tested by

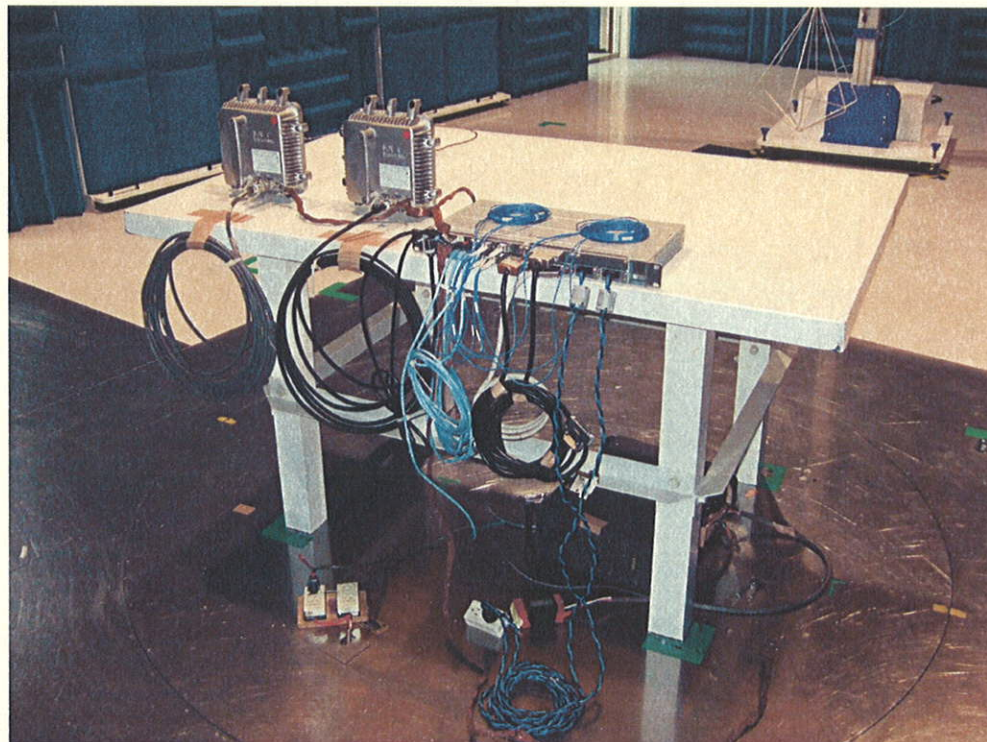
*Takumi Tsukagoshi*

Takumi Tsukagoshi, Engineer

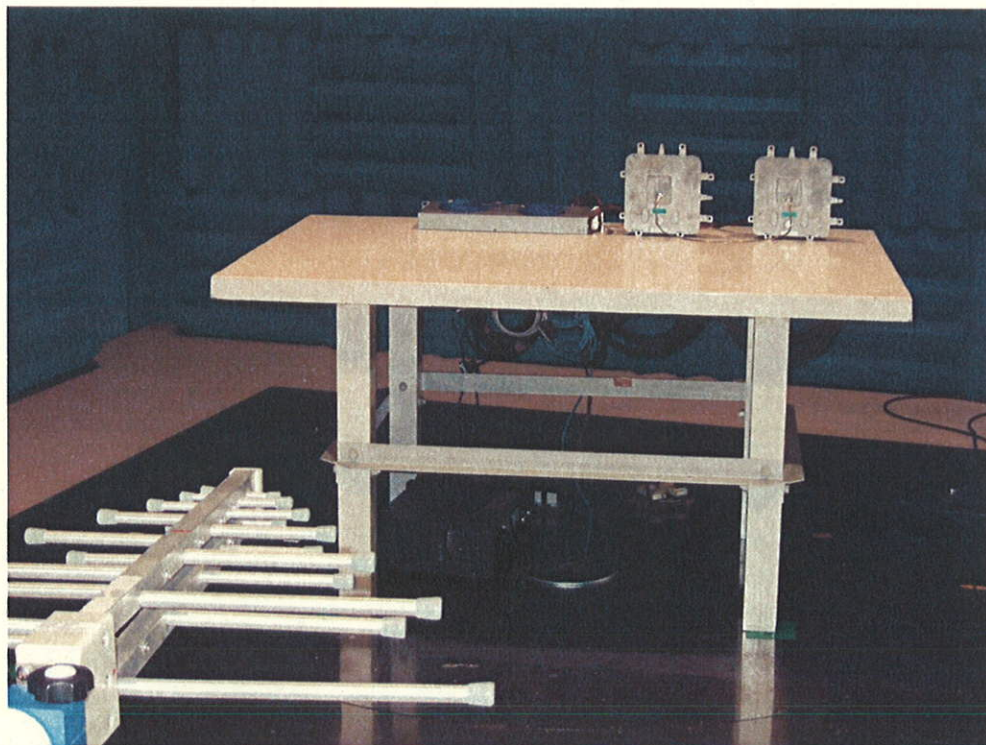
### 6.2.5 Measurement Photos



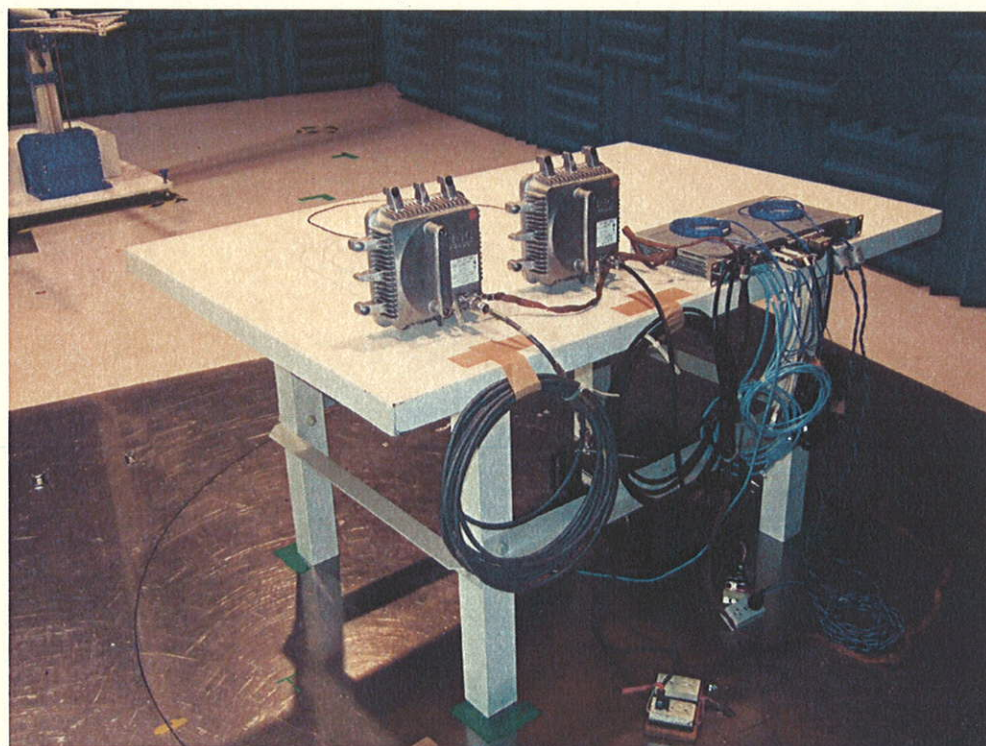
**Photo 6.2-1** RFI Field Strength Measurement Results —30MHz to 300MHz



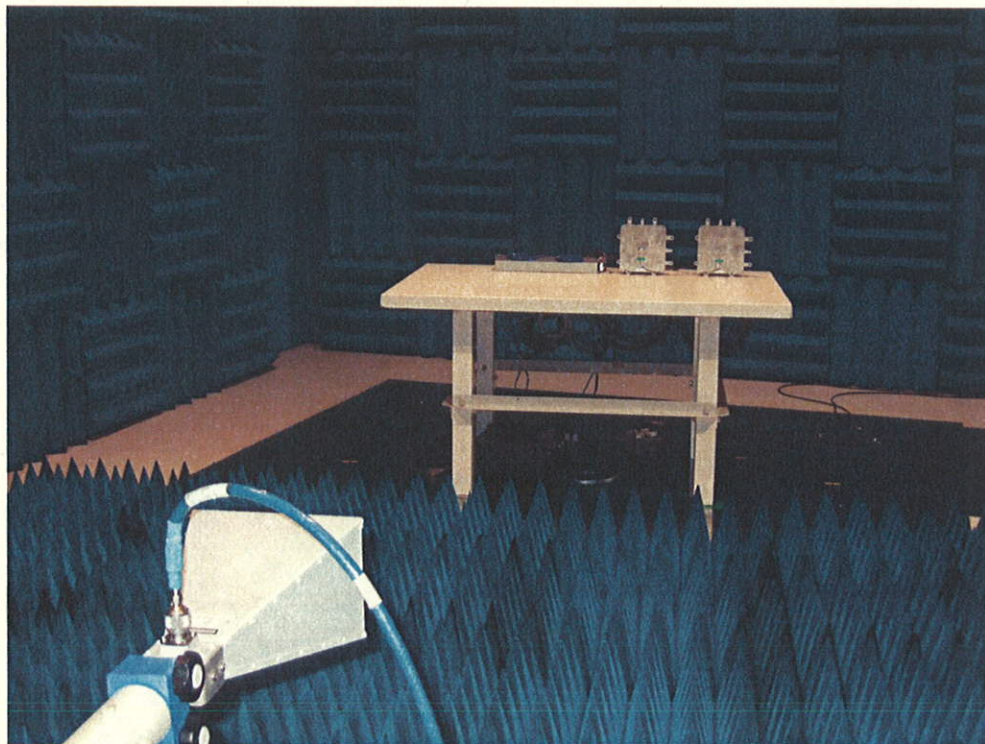
**Photo 6.2-2** RFI Field Strength Measurement Results —30MHz to 300MHz



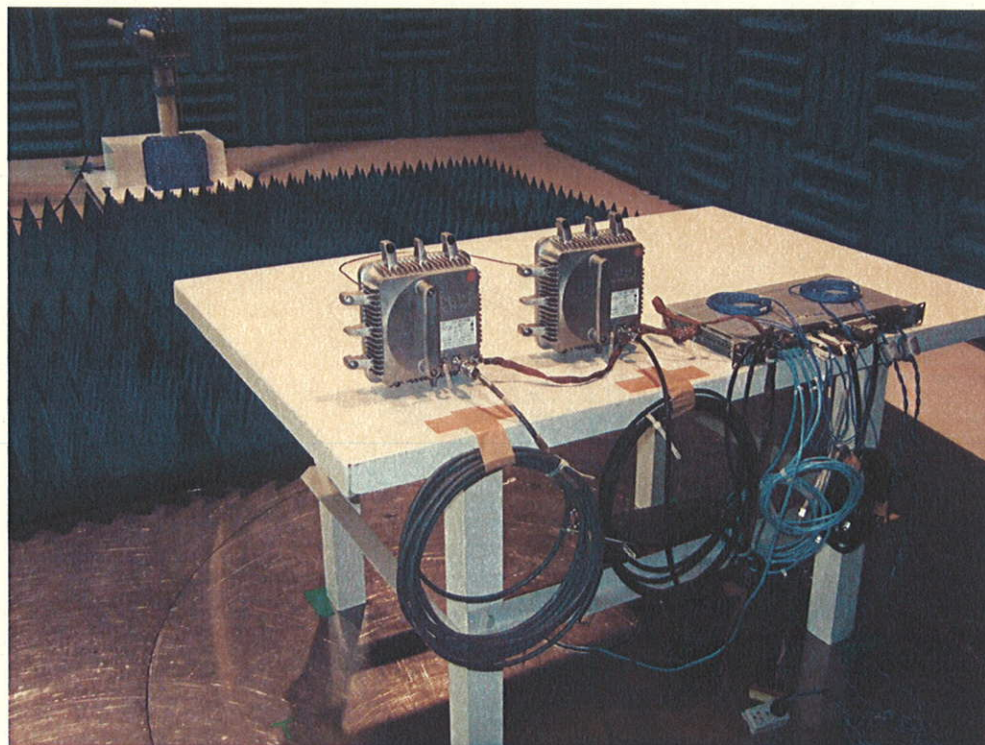
**Photo 6.2-3** RFI Field Strength Measurement Results \* —300MHz to 1000MHz



**Photo 6.2-4** RFI Field Strength Measurement Results —300MHz to 1000MHz



**Photo 6.2-5** RFI Field Strength Measurement Results —1000MHz to 6000MHz



**Photo 6.2-6** RFI Field Strength Measurement Results —1000MHz to 6000MHz



**Photo 6.2-7** RFI Field Strength Measurement Results —*Worst Case*

## 6.3 Minimum Margin

Table 6.3-1 Minimum Margin

### RFI Voltage Measurement

*Normal Operation*

Mode : 0.392 MHz, 4.0 dB

### RFI Field Strength Measurement

*Normal Operation*

Mode : 646.65 MHz, 9.3 dB

Antenna Height: 2.26 m ( *Horizontal* / polarization)  
Turntable Degrees: 40 deg

## 6.4 Calculation of RFI Field Strength Measurement

Table 6.4-1 Calculation of RFI Field Strength Measurement

Test results of RFI Field Strength Measurement use the following calculation.

$$< E = V + AF + CL - AG >$$

|     |                              |          |
|-----|------------------------------|----------|
| E:  | Radiated Emission Level      | (dBμV/m) |
| V:  | Field Strength Meter Reading | (dBμV)   |
| AF: | Antenna Factor               | (dB/m)   |
| CL: | Cable Loss                   | (dB)     |
| AG: | Amplifier Gain               | (dB)     |

Report processed by

*S. Takahashi*

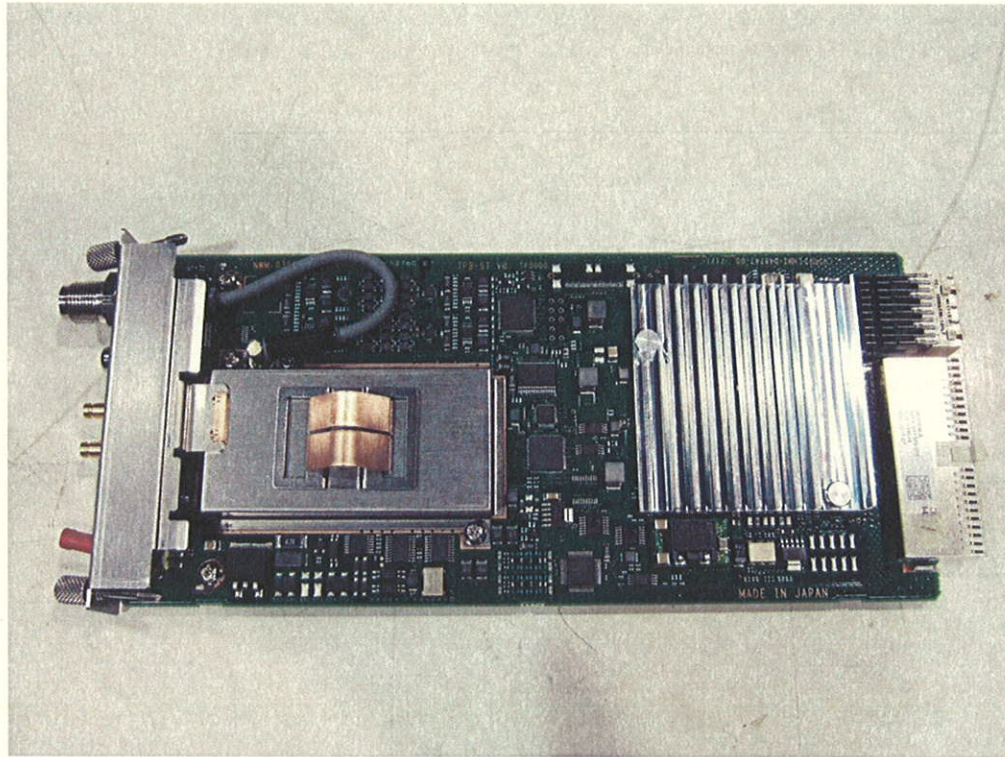
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9/Nov./2011

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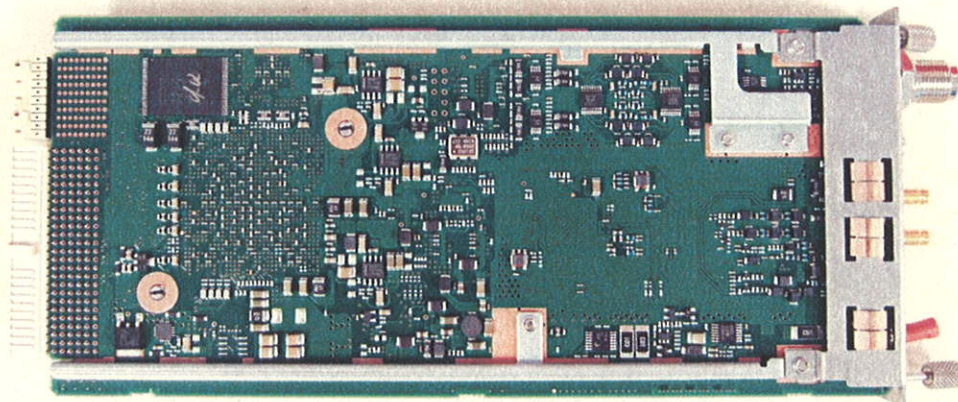
*T. Tsukagoshi*

Takumi Tsukagoshi, Engineer

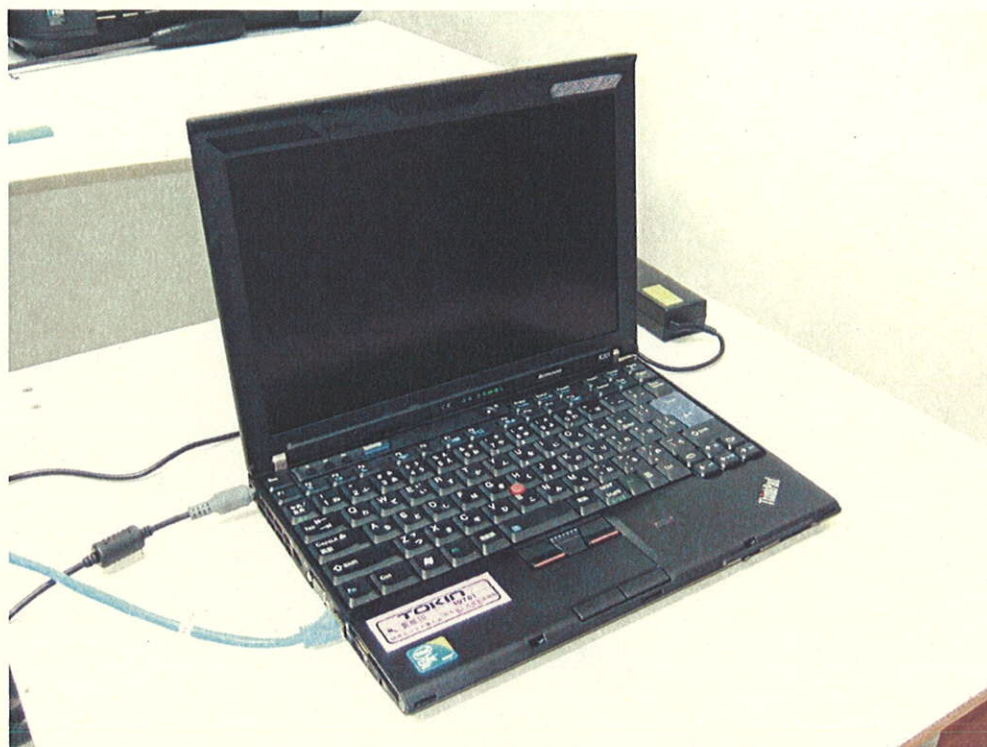
## 6.5 Photos of EUT and Associated Equipment



**Photo 6.5-1** EUT (The Face Side)



**Photo 6.5-2** EUT (The Reverse Side)



**Photo 6.5-3** Associated Equipment (Note PC)