

JAPAN QUALITY ASSURANCE ORGANIZATION

2096, Ohata, Tsuru-shi, Yamanashi 402-0045 JAPAN PHONE +81 554 43 5517, FAX +81 554 43 6316

JQA File No: 441-41220
Issue Date : February 7, 2005

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<u>EMI TEST REPORT</u> <u>Class II Permissive change for</u> (FCC ID:BJI-F615, IC ID:1004C-F615)

It is changed that ferrite core is added to the cable between transmitter and antenna. Therefore the measurement was carried out radiated spurious emission and AC Power line conducted emission under the EUT is build-in the specific host.

JOA File No : 441-41220

Model No. : F615

Type of Equipment : 802.11b/g Mini-PCI

Regulations Applied : CFR 47 FCC Rules and Regulations Part 15

: Industry Canada RSS-210 Issue 5(inc. Amendment)

FCC ID : BJI-F615 IC : 1004C-F615

Applicant : TOSHIBA TEC CORPORATION.

Address : 6-78, Minami-Cho, Mishima, Shizuoka, 411-8520 Japan

Manufacturer : TOSHIBA TEC CORPORATION.

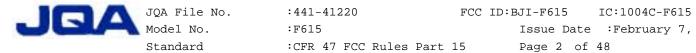
Address : 6-78, Minami-Cho, Mishima, Shizuoka, 411-8520 Japan

Received date of EUT : January 31, 2005

Final Judgment : Passed

Test results in this report are obtained in use of equipment that is traceable to National Institute of Advanced Industrial Science and Technology (AIST) of Japan and National Institute of Information and Communications Technology (NICT) of Japan.

The test results only respond to the tested sample. This report should not be reproduced except in full, without the written approval of JQA EMC Engineering Dept. Testing Div.

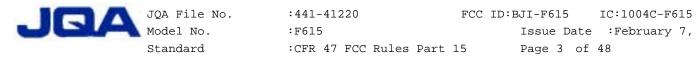


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Test instruments List

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2 Test Data

| 2.1 Channel Separation | N/A |
|---|---------|
| 2.2 Minimum Hopping Channel | N/A |
| 2.3 Occupied Bandwidth | N/A |
| 2.4 Dwell Time | N/A |
| 2.5 Peak Output Power (Conduction) | N/A |
| 2.6 Peak Output Power (Radiation) | N/A |
| 2.7 Peak Power Density (Conduction) | N/A |
| 2.8 Peak Power Density (Radiation) | N/A |
| 2.9 Spurious Emissions (Conduction) | N/A |
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1 DOCUMENTATION

1.1 TEST REGULATION

FCC Rules and Regulations Part 15 Subpart B and C Radiated Spurious Emissions and Industry Canada IC RSS-210 (inc. amendment)

Test procedure :

The tests were performed with reference to the FCC Public Notice DA 00-705, released March 30, 2000. The test set-up was made in accordance to the general provisions of ANSIC63.4-2003.

1.2 GENERAL INFORMATION

1.2.1 Test facility:

1) Test Facility located at EMC Engineering Dept. Testing Div. :

- No.2 and 3 Anechoic Chambers (3 meters Site).

- Shielded Enclosure.

Expiration date of FCC test facility filing: May 27, 2005

Open Area Test Site Industry Canada No.: IC4126-4

2) EMC Engineering Dept. Testing Div. 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: 200189-0 (Effective through: June 30, 2005)

1.2.2 Description of the Equipment Under Test (EUT) :

1) Type of Equipment : 802.11b/g Mini-PCI

2) Product Type : Production

: Transceiver(DSSS type) 3) Category

4) EUT Authorization : Certification

5) FCC ID : BJI-F615 : 1004C-F615 TC

6) Trade Name : TOSHIBA : F615 7) Model No.

8) Operating Frequency Range : 2412 MHz - 2462 MHz

: 2462 MHz 9) Highest Frequency Used in the EUT

10) Serial No. : -

12) Date of Manufacture : None

13) Power Rating : 3.3VDC(*)

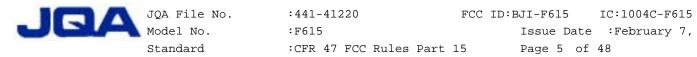
The DC power is supplied from the PCI-bus on the host (MULTI FUNCTION DIGITAL SYSTEM).

14) EUT Grounding : None

1.2.3 Definitions for symbols used in this test report:

x - indicates that the listed condition, standard or equipment is applicable for this report.

- indicates that the listed condition, standard or equipment is not applicable for this report.



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1.3 TEST CONDITION

1.3.1 The measurement of Channel Separation

 $\underline{}$ - was performed.

 \underline{x} - was not applicable.

Used test instruments:

| Number of test instruments |
|----------------------------|
| (Refer to Appendix) |
| N/A |
| |

1.3.2 The measurement of Minimum Hopping Channel

___ - was performed.

x - was not applicable.

Used test instruments:

| Туре | N | Number of | | test | instruments |
|------|---|-----------|----|-------|-------------|
| | | Refer | to | Apper | ndix) |

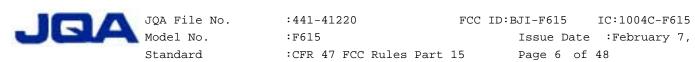
Test Receiver N/A Spectrum Analyzer N/A Cable N/A Attenuator N/A Antenna N/A

1.3.3 The measurement of Occupied Bandwidth

___ - was performed.

 \underline{x} - was not applicable.

| Type | Number of test instruments |
|-------------------|----------------------------|
| | (Refer to Appendix) |
| Test Receiver | N/A |
| Spectrum Analyzer | N/A |
| Cable | N/A |
| Attenuator | N/A |
| Antenna | N/A |



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1.3.4 The measurement of Dwell Time

___ - was performed.

 \underline{x} - was not applicable.

Used test instruments:

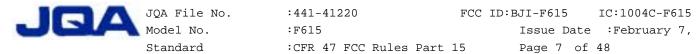
| Type | Number of test instruments |
|-------------------|----------------------------|
| | (Refer to Appendix) |
| Test Receiver | N/A |
| Spectrum Analyzer | N/A |
| Cable | N/A |
| Attenuator | N/A |
| Antenna | N/A |

1.3.5 The measurement of Peak Output Power and Density (Conduction)

___ - was performed.

 \underline{x} - was not applicable.

| Type | Number of test instruments |
|-------------------------|----------------------------|
| | (Refer to Appendix) |
| Test Receiver | N/A |
| Spectrum Analyzer | N/A |
| Cable | N/A |
| Attenuator | N/A |
| Antenna | N/A |
| Digitizing Oscilloscope | N/A |
| RF Detector | N/A |
| Signal Generator | N/A |



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1.3.6 The measurement of Peak Output Power and Density (Radiation)

| | was | performed | in | the | following | test | site. |
|--|-----|-----------|----|-----|-----------|------|-------|
|--|-----|-----------|----|-----|-----------|------|-------|

 \underline{x} - was not applicable.

Test location:

JQA Safety & EMC Center EMC Engineering Department TSURU EMC Branch 2096 Ohata, Tsuru-shi Yamanashi-ken 402-0045, JAPAN

| - Anechoic Chamber | - 3 meters |
|--------------------|---------------------------|
| - Open Site No.1 | $\overline{}$ - 10 meters |
| - Open Site No.2 | $\overline{}$ - 30 meters |

Validation of Site Attenuation:

1) Last Confirmed Date : N/A 2) Interval : N/A

| Туре | Number of test instruments |
|-------------------|----------------------------|
| | (Refer to Appendix) |
| Test Receiver | N/A |
| Spectrum Analyzer | N/A |
| Cable | N/A |
| Attenuator | N/A |
| Antenna | N/A |
| Power Meter | N/A |
| Power Sensor | N/A |
| Signal Generator | N/A |



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| 1.3.7 | The | measurement | οf | Spurious | Emissions | (Conduction) |) |
|-------|-----|-------------|----|----------|-----------|--------------|---|
|-------|-----|-------------|----|----------|-----------|--------------|---|

___ - was performed.

x - was not applicable.

Used test instruments:

| Туре | Number of test instruments |
|-------------------|----------------------------|
| | (Refer to Appendix) |
| Test Receiver | N/A |
| Spectrum Analyzer | N/A |
| Cable | N/A |
| Attenuator | N/A |

1.3.8 The measurement of Spurious Emissions (Radiation)(9 kHz - 30 MHz)

- was performed in the following test site.

x - was not applicable.

Test location:

JQA Safety & EMC Center EMC Engineering Department TSURU EMC Branch 2096 Ohata, Tsuru-shi Yamanashi-ken 402-0045, JAPAN

____- Anechoic Chamber

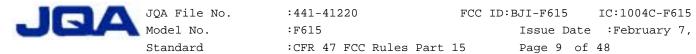
__-3 meters

___- Open Site No.1 ___- Open Site No.2 ___- 10 meters - 30 meters

Validation of Site Attenuation:

1) Last Confirmed Date : N/A
2) Interval : N/A

| Туре | Number of test instruments |
|---------------|----------------------------|
| | (Refer to Appendix) |
| Test Receiver | N/A |
| Cable | N/A |
| Antenna | N/A |



RF Amplifier

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1.3.9 The measurement of Spurious Emissions (Radiation) (30 MHz - 1000 MHz) \underline{x} - was performed in the following test site. was not applicable. Test location: JQA Safety & EMC Center EMC Engineering Department TSURU EMC Branch 2096 Ohata, Tsuru-shi Yamanashi-ken 402-0045, JAPAN $_{
m x}$ - Anechoic Chamber \underline{x} - 3 meters ___- Open Site No.1 ___- 10 meters - Open Site No.2 - 30 meters Validation of Site Attenuation: 1) Last Confirmed Date: 2004/5 2) Interval : 1 year Used test instruments: Number of test instruments Type (Refer to Appendix) TR06 Test Receiver Cable CA01 AN06, AN08 Antenna

N/A



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1.3.10 The measurement of Spurious Emissions (Radiation) (Above 1000 MHz) \underline{x} - was performed in the following test site. was not applicable. Test location: JQA Safety & EMC Center EMC Engineering Department TSURU EMC Branch 2096 Ohata, Tsuru-shi Yamanashi-ken 402-0045, JAPAN $_{
m x}$ - Anechoic Chamber x - 3 meters ___- Open Site No.1 __- 10 meters - Open Site No.2 - 30 meters Validation of Site Attenuation : 1) Last Confirmed Date: 2004/5 2) Interval : 1 year

Used test instruments:

Type Number of test instruments (Refer to Appendix)

Test Receiver TR07 Spectrum Analyzer N/A

Cable CA11, CA13 AN10, AN12 Antenna

AM09 RF Amplifier Band Reject Filter AU16 High Pass Filter AU17



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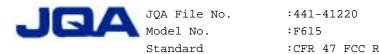
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1.3.11 The measurement of AC Power Line Conducted Emissions \underline{x} - was performed in the following test site. was not applicable. Test location: JQA Safety & EMC Center EMC Engineering Department TSURU EMC Branch 2096 Ohata, Tsuru-shi Yamanashi-ken 402-0045, JAPAN ___ - Shielded Room A - Shielded Room B x - Anechoic Chamber - Open Site No.1 - Open Site No.2 Used test instruments: Number of test instruments Type (Refer to Appendix) TR06 Test Receiver Spectrum Analyzer CA03 Cable NE01 AMN(for EUT) NE02 AMN(for Peripheral) AU01 Termination



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EUT MODIFICATION / Deviation from Standard 1.4

1.4.1 EUT MODIFICATION

| v - No | modifications | word done | Juated bur | TO7 +0 | aghiour | gompliango | +0 (| ממכוד | D 1 | 0770] | _ |
|--------|---------------|-----------|------------|--------|---------|------------|------|--------|-----|-------|---|
| x - NC | modifications | were cond | luctea by | JUA EO | acnieve | compliance | LO (| ::tass | в | evel | S |

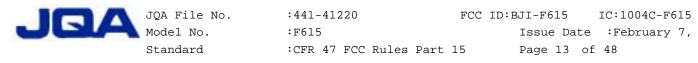
_- To achieve compliance to Class B levels, the following changes were made by JQA during the compliance test.

| The modifications will be implement | ted in all production models of this equipment. |
|-------------------------------------|---|
| | |
| Applicant : | Date : |
| Typed Name : | Position : |
| | |

1.4.2 Deviation from Standard:

 \underline{x} - No deviations from the standard described in clause 1.1.

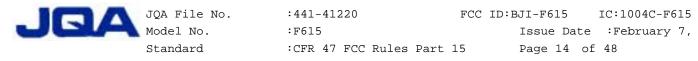
____ The following deviations were employed from the standard described in clause 1.1:



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1.5 TEST RESULTS

| Channel Separation | | Applicable | $\underline{\mathbf{x}}$ - Not | ${\tt Applicable}$ |
|--|--------|---------------|--------------------------------|--------------------|
| [§15.247(a)(1)], [§6.2.2(o)(a1)] | | | | |
| The requirements are | | PASSED | NOT | PASSED |
| Remarks: | | | | |
| | | | | |
| Minimum Hopping Channel | | Applicable | x - NOT | ${\tt Applicable}$ |
| [§15.247(a)(1)(iii)], [§6.2.2(o)(a3)] | | | | |
| The requirements are | | PASSED | NOT | PASSED |
| Remarks: | | | | |
| | | | | |
| Occupied Bandwidth | | Applicable | x - NOT | Applicable |
| [§15.247(a)(2)], [§5.9.1] | | | | |
| The requirements are | | | NOT | |
| Remarks: It is considered that this requirement | dose r | not affect by | equipment mod | difications. |
| | | | | |
| Dwell Time | | Applicable | x - NOT | Applicable |
| $[\S15.247(a)(1)(iii)/(g)], [\S6.2.2(o)(a3)/$ | | | | |
| The requirements are | | PASSED | NOT | PASSED |
| Remarks: | | | | |
| | | | | |
| Peak Output Power (Conduction) | | Applicable | x - NOT | Applicable |
| [§15.247(b)(3)], [§6.2.2(o)(b)] | | | | |
| The requirements are | | | NOT | |
| Remarks: It is considered that this requirement | dose r | not affect by | equipment mod | difications. |
| Park Outrook Parker (Parker) | | 3 | 2700 | 31 <i>i</i> 11- |
| Peak Output Power (Radiation) | | Applicable | x - NOT | Applicable |
| [§15.247(b)(1)], [§6.2.2(o)(b)] | | D. CCED | 3700 | DI CCED |
| The requirements are | | PASSED | NOT | PASSED |
| Remarks: | | | | |
| Peak Power Density (Conduction) | _ | Annliashla | x - NOT | Annlianhla |
| [§15.247(d)], [§6.2.2(o)(b)] | | Applicable | _ <u>x</u> - NO1 | Applicable |
| The requirements are | _ | PASSED | _ мот | PASSED |
| - | | | | |
| Remarks: It is considered that this requirement | uose I | iot arrect by | edarbillette (1100 | allicacions. |
| Peak Power Density (Radiation) | _ | Applicable | x - NOT | Applicable |
| [§15.247(d)], [§6.2.2(o)(b)] | | FF == 0010 | | FF |
| The requirements are | _ | PASSED | - NOT | PASSED |
| Remarks: | | | | _ |



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| Spurious Emissions (Conduction) | Applicable | $\underline{\mathrm{x}}$ - NOT Applicable |
|---|---------------------------------------|---|
| [§15.247(c)], [§6.2.2(o)(e1)] | | |
| The requirements are | PASSED | NOT PASSED |
| Remarks: It is considered that this requirement | dose not affect by | equipment modifications. |
| | | |
| Spurious Emissions (Radiation) | $\underline{\mathbf{x}}$ - Applicable | NOT Applicable |
| [§15.247(c), §15.35(b), §15.209(a)], [§6. | .2.2(o)(e1)] | |
| The requirements are | x - PASSED | NOT PASSED |
| Remarks: | | |
| | | |
| AC Power Line Conducted Emissions | $\underline{\mathbf{x}}$ - Applicable | NOT Applicable |
| [§15.207(a)], [§6.6] | | |
| The requirements are | x - PASSED | NOT PASSED |
| Remarks: | | |
| | | |
| RF Exposure Compliance | Applicable | $\underline{\hspace{1cm} \hspace{1cm} \hspace{1cm} \hspace{1cm} \hspace{1cm} \hspace{1cm} \hspace{1cm}}$ - NOT Applicable |
| [§15.247(b)(5)], [§14] | | |
| The requirements are | PASSED | NOT PASSED |
| Remarks: It is considered that this requirement | dose not affect by e | equipment modifications. |
| | | |
| Spurious Emissions for Receiver | $\underline{\mathbf{x}}$ - Applicable | NOT Applicable |
| (Radiation)[§15.109(a)], [§7.3] | | |
| The requirements are | x - PASSED | - NOT PASSED |
| Remarks: | | |
| | | |
| AC Power Line Conducted Emissions | $\underline{\mathbf{x}}$ - Applicable | NOT Applicable |
| for Receiver [§15.107(a)], [§7.4] | | |
| The requirements are | x - PASSED | NOT PASSED |
| Remarks: | | |



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1.6 SUMMARY

General Remarks:

The EUT was tested according to the requirements of FCC Rules and Regulations Part 15 Subpart B, Subpart C and IC RSS-210 issue 5 (including Amendment) under the test configuration, as shown in clause 1.7 to 1.10.

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

Final Judgment:

The "as received" sample;

x - fulfill the test requirements of the regulation mentioned on clause 1.1.

- fulfill the test requirements of the regulation mentioned on clause 1.1, but with certain qualifications.

- doesn't fulfill the test regulation mentioned on clause 1.1.

Begin of testing: January 31, 2005

End of testing : February 1, 2005

- JAPAN QUALITY ASSURANCE ORGANIZATION -

Tested by:

Manager

TSURU EMC Branch

JQA EMC Engineering Dept.

Approved by:

Takaharu Hada

Director

TSURU EMC Branch

JQA EMC Engineering Dept.



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1.7 TEST CONFIGURATION / OPERATION OF EUT

1.7.1 Test Configuration

The equipment under test (EUT) consists of :

| Symbol | Item | Manufacturer | Model No. | FCC ID | Serial No. |
|--------|--------------------|-------------------|-----------|----------|------------|
| A(*1) | 802.11b/g Mini-PCI | TOSHIBA TEC CORP. | F615 | BJI-F615 | - |

The measurement was carried out with the following support equipment connected:

| The meabarement was carried out when the relativisting papers of arbitraries connected | | | | | | | | | | | |
|--|----------------------------------|-------------------|--------------|----------|----------------|--|--|--|--|--|--|
| Symbol | Item | Manufacturer | Model No. | FCC ID | Serial No. | | | | | | |
| B(*2) | MULTI FUNCTION DIGITAL SYSTEM | TOSHIBA TEC CORP. | DP-8500 | N/A | - | | | | | | |
| С | Personal Computer | TOSHIBA | PAS5280PNKW | DoC | 92033364J | | | | | | |
| D | AC Adapter | TOSHIBA | PA3160U-1ACA | N/A | 0221 A 0015127 | | | | | | |
| E | Bluetooth Module | TOSHIBA TEC CORP. | F616 | BJI-F616 | - | | | | | | |
| F | Antenna | TOSHIBA TEC CORP. | GN-3010 | N/A | - | | | | | | |

Type of Cable:

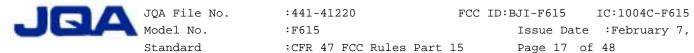
| Symbol | Description | Identification | Connector | Cable | Ferrite | Length |
|--------|---------------|---------------------|-----------|----------|---------|--------|
| | | (Manufacturer etc.) | Shielded | Shielded | Core | (m) |
| | | | YES / NO | YES / NO | | |
| 1 | AC Cable(EUT) | _ | NO | NO | NO | 2.2 |
| 2 | DC Cable(PC) | - | NO | NO | NO | 1.8 |
| 3 | AC Cable(PC) | - | NO | NO | NO | 1.9 |
| 4 | USB Cable | _ | YES | NO | YES | 0.7 |
| 5 | LAN Cable | _ | YES | NO | YES | 3.0 |

- (*1) The DC power is supplied from the PCI-bus on the host (MULTI FUNCTION DIGITAL SYSTEM below symbol "B").
- (*2) The MULTI FUNCTION DIGITAL SYSTEM has the following serial modes:
 - DP-8500 (printing speed: 85ppm)
 - DP-7200 (printing speed: 72ppm)
 - DP-6000 (printing speed: 60ppm)
 - DP-5200 (printing speed: 52ppm)

DP-8500 is controlled by two beams, the other models are controlled by one beam.

It is not different for these model except for printing speed depending on software.

Therefore measurements ware performed to be used the specific host(DP-8500: high spec. model).



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1.7.2 Operating condition

Power supply Voltage : 120VAC, 60 Hz for the HOST

The tests have been carried out the following mode.

| (1-1) | 801.11b | Mode, | TX | (1ch: | 2412 | MHz) |
|-------|---------|-------|----|--------|------|------|
| (1-2) | 801.11b | Mode, | TX | (6ch: | 2437 | MHz) |
| (1-3) | 801.11b | Mode, | TX | (11ch: | 2462 | MHz) |
| (1-4) | 801.11b | Mode, | RX | (1ch: | 2412 | MHz) |
| (1-5) | 801.11b | Mode, | RX | (6ch: | 2437 | MHz) |
| (1-6) | 801.11b | Mode, | RX | (11ch: | 2462 | MHz) |
| | | | | | | |
| (2-1) | 801.11g | Mode, | TX | (1ch: | 2412 | MHz) |
| (2-2) | 801.11g | Mode, | TX | (6ch: | 2437 | MHz) |
| (2-3) | 801.11g | Mode, | TX | (11ch: | 2462 | MHz) |
| (2-4) | 801.11g | Mode, | RX | (1ch: | 2412 | MHz) |
| (2-5) | 801.11g | Mode, | RX | (6ch: | 2437 | MHz) |

(2-6) 801.11g Mode, RX (11ch: 2462 MHz)





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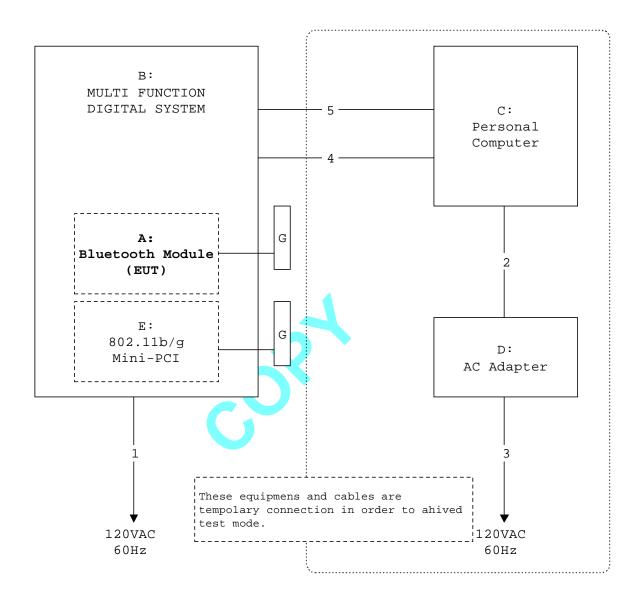
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1.8 EUT ARRANGEMENT (DRAWINGS)





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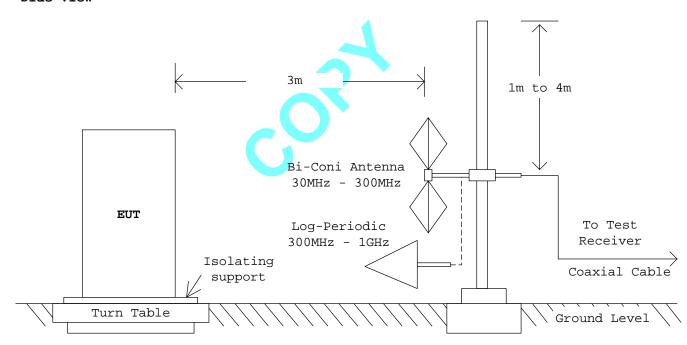
1.9 PRELIMINARY TEST AND TEST-SETUP (DRAWINGS)

1.9.10 Radiated Emission (30 MHz - 1000 MHz):

According to description of ANSI C63.4-2003 sec.13.1.4, the preliminary radiated emissions measurement were carried out. The preliminary radiated measurements were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT.

The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for the final radiated emissions measurements.

- Side View -





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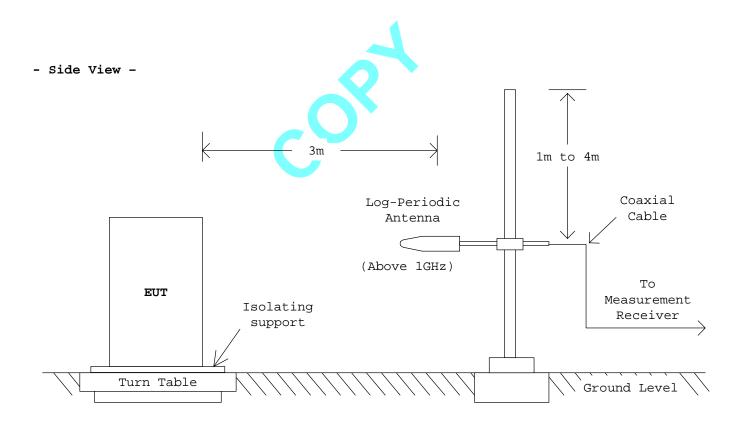
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1.9.11 Radiated Emission (Above 1 GHz):

According to description of ANSI C63.4-2003 sec.13.1.4, the preliminary radiated emissions measurements were carried out. The preliminary radiated measurements were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT.

The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for the final radiated emissions measurements.





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1.9.12 AC Power Line Conducted Emission (150 kHz - 30 MHz) :

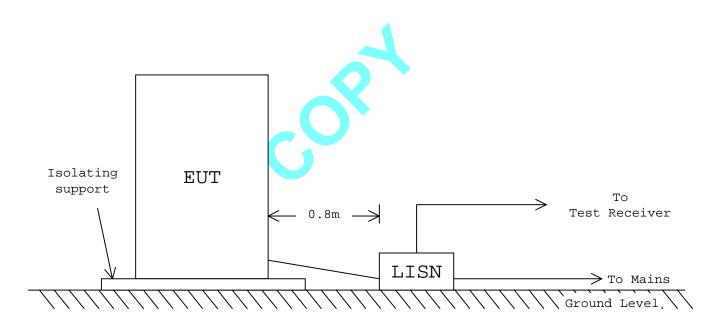
According to description of ANSI C63.4-2003 sec.13.1.3, the AC power line preliminary conducted emissions measurements were carried out.

The preliminary conducted measurements were performed using the spectrum analyzer to observe the emission characteristics of the EUT.

The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for final AC power line conducted emissions measurements.

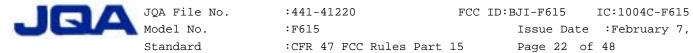
Anechoic Chamber

- Side View -



*EUT : Equipment Under Test

*LISN : Line Impedance Stabilization Network



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1.10 TEST ARRANGEMENT (PHOTOGRAPHS)

PHOTOGRAPHS OF EUT CONFIGURATION FOR RADIATED EMISSIONS MEASUREMENT

Photograph present configuration with maximum emission



- Front View -



- Rear View -



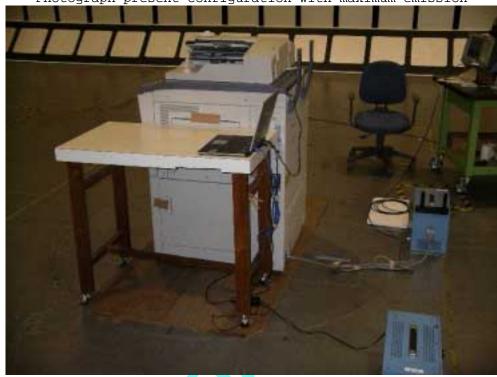
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PHOTOGRAPHS OF EUT CONFIGURATION FOR AC POWER LINE CONDUCTED EMISSION MEASUREMENT

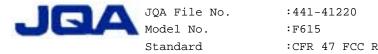
Photograph present configuration with maximum emission



- Side View -



- Rear View -



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2. TEST DATA

- 2.1 Channel Separation Not Applicable
- 2.2 Minimum Hopping Channel Not Applicable
- 2.3 Occupied Bandwidth Not Applicable
- 2.4 Dwell Time Not Applicable
- 2.5 Peak Output Power (Conduction) Not Applicable
- 2.6 Peak Output Power (Radiation) Not Applicable
- 2.7 Peak Power Density (Conduction) Not Applicable
- 2.8 Peak Power Density (Radiation) Not Applicable
- 2.9 Spurious Emissions (Conduction) Not Applicable



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2.10 Spurious Emissions (Radiation)

Date : _____ January 31, 2005

Temp.: 21 °C Humi.: 26 %

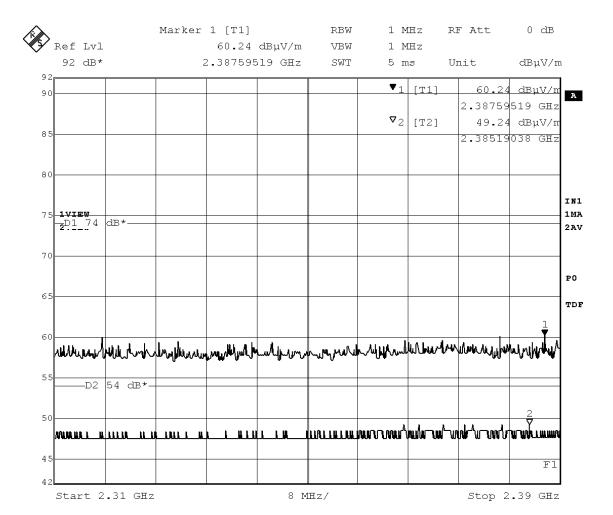
2.10.1 Band Edge Compliance

2.10.1.1 801.11b Mode

Mode of EUT : (1-1) 801.11b Mode, TX(1ch: 2412 MHz)

Test Port : Enclosure

Antenna Polarization: Horizontal





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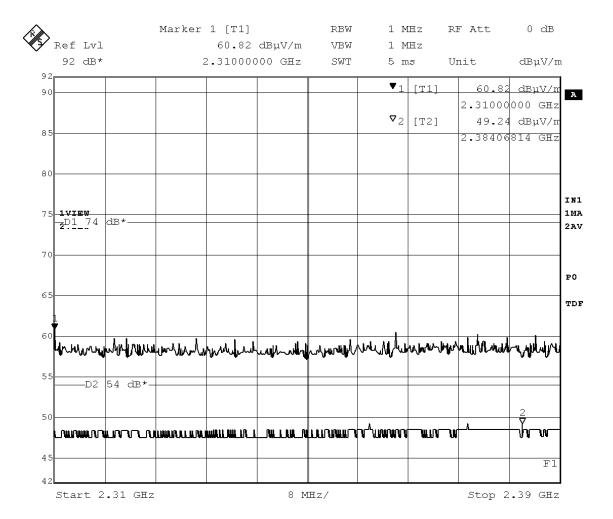
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Mode of EUT : (1-1) 801.11b Mode, TX(1ch: 2412 MHz)

Test Port : Enclosure

Antenna Polarization: Vertical





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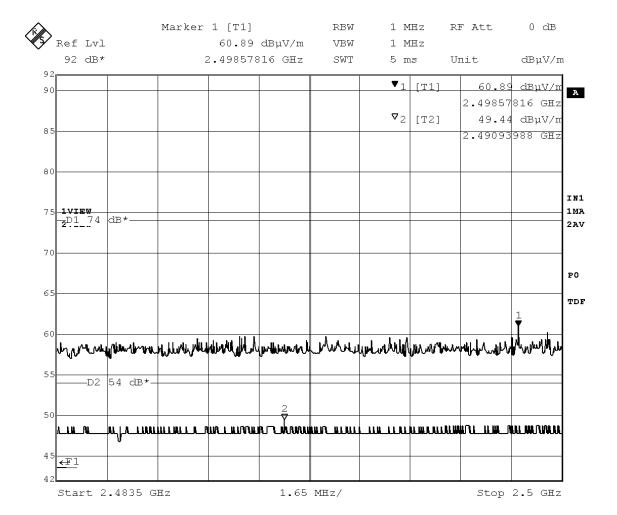
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Mode of EUT : (1-3) 801.11b Mode, TX (11ch: 2462 MHz)

Test Port : Enclosure

Antenna Polarization: Horizontal





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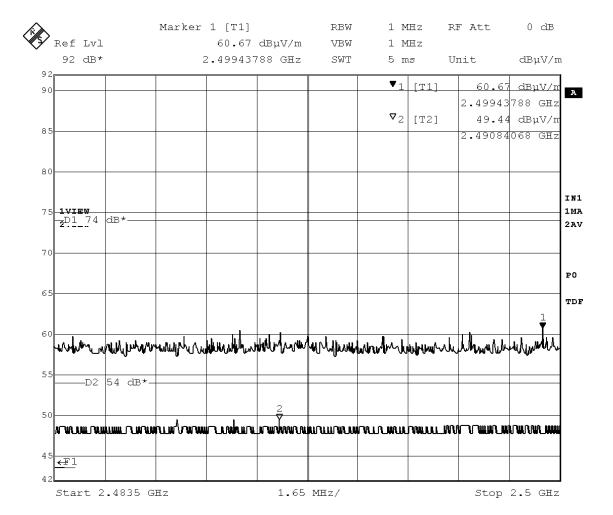
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Mode of EUT : (1-3) 801.11b Mode, TX (11ch: 2462 MHz)

Test Port : Enclosure

Antenna Polarization: Vertical





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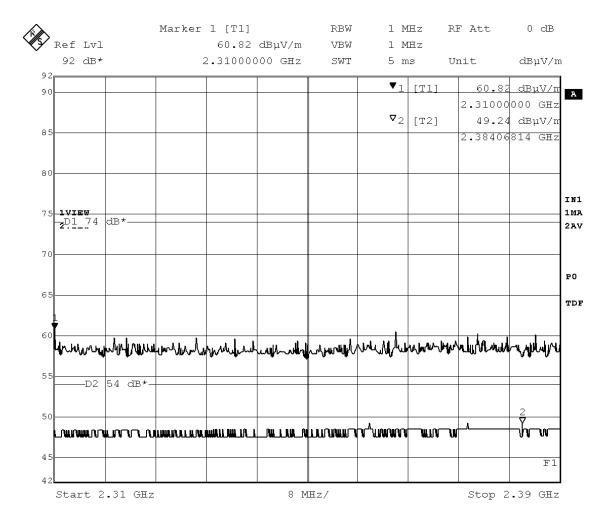
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2.10.1.2 801.11g Mode

Mode of EUT : (2-1) 801.11g Mode, TX(1ch: 2412 MHz)

Test Port : Enclosure

Antenna Polarization: Horizontal





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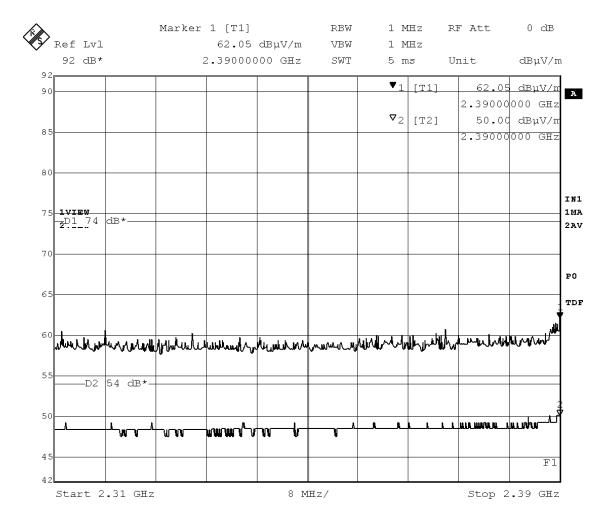
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Mode of EUT : (2-1) 801.11g Mode, TX(1ch: 2412 MHz)

Test Port : Enclosure

Antenna Polarization: Vertical





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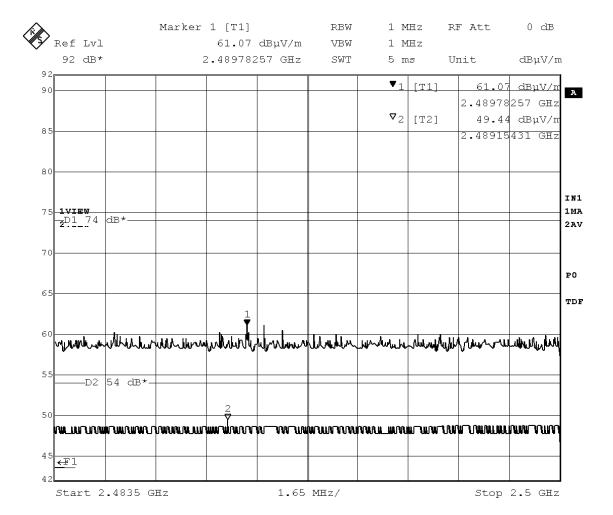
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Mode of EUT : (2-3) 801.11g Mode, TX (11ch: 2462 MHz)

Test Port : Enclosure

Antenna Polarization: Horizontal





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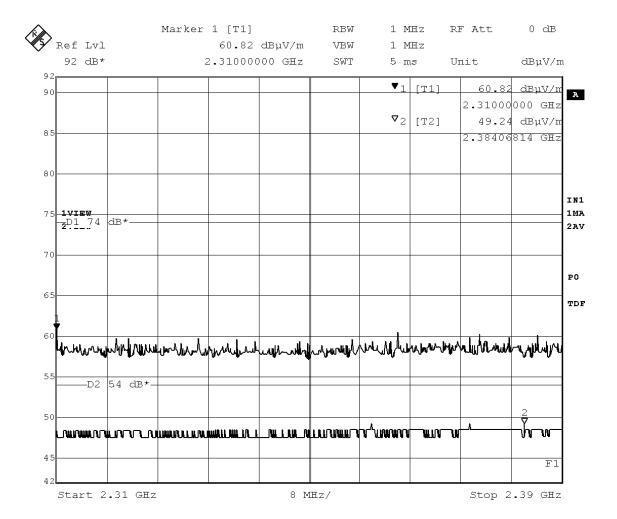
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Mode of EUT : (2-3) 801.11g Mode, TX (11ch: 2462 MHz)

Test Port : Enclosure

Antenna Polarization: Vertical



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2.10.2 Other Spurious Emissions

2.10.2.1 801.11b Mode

Test Port : Enclosure

Spurious Emissions in the frequency range from 30 MHz to 1000 MHz

Mode of EUT: 801.11b Mode, TX (Worst Case)

Date : February 1, 2005

Temp.: 22°C Humi.: 32% Atmo.: 942hPa

| Frequency | Antenna Factor | Meter Ro (dBu | _ | Limits | Emissio (dBu | n Level V/m) | Marg (dB | |
|-----------|-------------------|------------------|------|----------|-----------------|-----------------|-------------|------|
| (MHz) | (dB/m) | Horiz. | Ver. | (dBµV/m) | Horiz. | Ver. | Horiz. | Ver. |
| 30.0 | 19.0 | 4.3 | 12.3 | 40.0 | 23.3 | 31.3 | 16.7 | 8.7 |
| 50.0 | 12.1 | 19.8 | 25.2 | 40.0 | 31.9 | 37.3 | 8.1 | 2.7 |
| 110.0 | 12.9 | 19.0 | 20.0 | 43.5 | 31.9 | 32.9 | 11.6 | 10.6 |
| 195.1 | 18.4 | 16.8 | 19.5 | 43.5 | 35.2 | 37.9 | 8.3 | 5.6 |
| 210.0 | 18.7 | 15.8 | 18.3 | 43.5 | 34.5 | 37.0 | 9.0 | 6.5 |
| 250.0 | 19.3 | 19.5 | 17.0 | 46.0 | 38.8 | 36.3 | 7.2 | 9.7 |

Notes: 1) Test Location : Anechoic Chamber

- 2) Test Distance : 3 m
- 3) The spectrum was checked from 30 MHz to 1000 MHz.
- 4) Antenna factor includes the cable loss for 33 meter.
- 5) The symbol of "<" means "or less".
- 6) The symbol of ">" means "more than".
- 7) A sample calculation was made at 30.0 MHz

Af + Mr = $19.0 + 12.3 = 31.3 \text{ dB}\mu\text{V/m}$

Af : Antenna Factor Mr : Meter Reading

8) Setting of measuring instrument :

Detector Function : CISPR Quasi-Peak

IF Bandwidth : 120 kHz



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Peak 24.2 19.6

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Spurious Emissions in the frequency above 1000 MHz

| Mode of Frequency | | (1-1) 801 Correction | | • | • | | | MHz) mits | E | Emissi | on | Level | s | Ma | rgi | ns |
|-------------------|--------|-------------------------|--------|--------|------|------|------|--------------|---|--------|-----|-------|---|------|-----|-----|
| | Factor | Factor | zation | (d | lBuV |) | (dB | uV/m) | | (dE | 3uV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | AV | I | Peak | AV | Peak | | AV | | Peak | | AV | | Pea |
| 4.8240 | 0.0 | 8.8 | H/V · | < 28.0 | < 4 | 41.0 | 54.0 | 74.0 | < | 36.8 | < | 49.8 | > | 17.2 | > | 24. |
| 7.2360 | 0.0 | 13.4 | H/V < | < 28.0 | < 4 | 41.0 | 54.0 | 74.0 | < | 41.4 | < | 54.4 | > | 12.6 | > | 19. |

9.6480 0.0 12.0600 0.0 14.4720 0.0 H/V < 28.0 < 41.0 54.0 74.0 < 47.4 < 60.4 > 6.6 > 13.6

Mode of EUT: (1-2) 801.11b Mode, TX (6ch: 2437 MHz)

| Frequency | P-A | Correction | Polari- | N | Meter Reading | | Lir | Limits | | Emission Levels | | | | Margins | | | |
|-----------|--------|------------|---------|-----|---------------|---|----------|--------|----------|-----------------|------|---|------|---------|------|---|------|
| | Factor | Factor | zation | | (dBuV) | | (dBuV/m) | | (dBuV/m) | | | | | (dB) | | | |
| (GHz) | (dB) | (dB) | | | AV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| | | | | | | | | | | | | | | | | | |
| 4.8740 | 0.0 | 8.9 | H/V < | < : | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 36.9 | < | 49.9 | > | 17.1 | > | 24.1 |
| 7.3110 | 0.0 | 13.5 | H/V < | < : | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 41.5 | < | 54.5 | > | 12.5 | > | 19.5 |
| 9.7480 | 0.0 | 16.6 | H/V < | < : | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 44.6 | < | 57.6 | > | 9.4 | > | 16.4 |
| 12.1850 | 0.0 | 18.3 | H/V < | < : | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 46.3 | < | 59.3 | > | 7.7 | > | 14.7 |
| 14.6220 | 0.0 | 19.5 | H/V < | < : | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 47.5 | < | 60.5 | > | 6.5 | > | 13.5 |

Mode of EUT : (1-3) 801.11b Mode, TX (11ch: 2462 MHz)

| Frequency P-A | | Correction Polari- | |] | Meter Reading | | | Lir | Limits | | | Emission Levels | | | | | ins |
|---------------|--------|--------------------|--------|---|---------------|---|------|----------|--------|---|------|-----------------|------|---|------|---|------|
| | Factor | Factor | zation | | (dBuV) | | (dB | (dBuV/m) | | | | | (dB) | | | | |
| (GHz) | (dB) | (dB) | | | AV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| | | | | | | | | | | | | | | | | | |
| 4.9240 | 0.0 | 8.9 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 36.9 | < | 49.9 | > | 17.1 | > | 24.1 |
| 7.3860 | 0.0 | 13.6 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 41.6 | < | 54.6 | > | 12.4 | > | 19.4 |
| 9.8480 | 0.0 | 16.6 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 44.6 | < | 57.6 | > | 9.4 | > | 16.4 |
| 12.3100 | 0.0 | 18.4 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 46.4 | < | 59.4 | > | 7.6 | > | 14.6 |
| 14.7720 | 0.0 | 19.6 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 47.6 | < | 60.6 | > | 6.4 | > | 13.4 |

- Notes: 1) The spectrum was checked from 1.0 GHz to 26.5 GHz.
 - 2) The cable loss, amp. gain and antenna factor are included in the correction factor.
 - 3) The symbol of "<"means "or less".
 - 4) The symbol of ">"means "or greater".
 - 5) A sample calculation(Peak) was made at 4.824 (GHz).

PA + Cf + Mr = 0 + 8.8 + 41 = 49.8 (dBuV/m)

PA = Peak to Average Factor(P-A Factor)

Cf = Correction Factor

Mr = Meter Reading

6) Measuring Instrument Setting :

Detector function Resolution Bandwidth Video Bandwidth 1 MHz -Average(AV) Peak 1 MHz 1 MHz

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2.10.2.2 801.11g Mode

Test Port : Enclosure

Spurious Emissions in the frequency range from 30 MHz to 1000 MHz

Mode of EUT : 801.11g Mode, TX (Worst Case)

Date : February 1, 2005

Temp. : 22°C Humi.: 32% Atmo.: 942hPa

| Frequency | Antenna Factor | Meter Ro (dВµ) | _ | Limits | Emission (dBµ | n Level V/m) | Marg (dB | |
|-----------|-------------------|-------------------|------|----------|------------------|-----------------|-------------|------|
| (MHz) | (dB/m) | Horiz. | Ver. | (dBµV/m) | Horiz. | Ver. | Horiz. | Ver. |
| 30.0 | 19.0 | 4.3 | 12.3 | 40.0 | 23.3 | 31.3 | 16.7 | 8.7 |
| 50.0 | 12.1 | 19.8 | 25.2 | 40.0 | 31.9 | 37.3 | 8.1 | 2.7 |
| 110.0 | 12.9 | 19.0 | 20.0 | 43.5 | 31.9 | 32.9 | 11.6 | 10.6 |
| 195.1 | 18.4 | 16.8 | 19.5 | 43.5 | 35.2 | 37.9 | 8.3 | 5.6 |
| 210.0 | 18.7 | 15.8 | 18.3 | 43.5 | 34.5 | 37.0 | 9.0 | 6.5 |
| 250.0 | 19.3 | 19.5 | 17.0 | 46.0 | 38.8 | 36.3 | 7.2 | 9.7 |

Notes: 1) Test Location : Anechoic Chamber

- 2) Test Distance : 3 m
- 3) The spectrum was checked from 30 MHz to 1000 MHz.
- 4) Antenna factor includes the cable loss for 33 meter.
- 5) The symbol of "<" means "or less".
- 6) The symbol of ">" means "more than".
- 7) A sample calculation was made at 30.0 MHz

Af + Mr = $19.0 + 12.3 = 31.3 \, dB\mu V/m$

Af : Antenna Factor Mr : Meter Reading

8) Setting of measuring instrument :

Detector Function : CISPR Quasi-Peak

IF Bandwidth : 120 kHz



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Spurious Emissions in the frequency above 1000 MHz

| Mode of | EUT : | (2-1) 801 | 1.11g Mc | de, T | X(1ch: | 2412 | MHz) | | | | | | |
|-----------|--------|------------|----------|---------|---------|-------------|--------|-----------|----------|---------|--------|--|--|
| Frequency | P-A | Correction | Meter | Reading | Li | mits | Emissi | on Levels | Ма | Margins | | | |
| | Factor | Factor | zation | (c | iBuV) | (dBuV/m) (d | | | BuV/m) | | (dB) | | |
| (GHz) | (dB) | (dB) | | AV | Peak | AV | Peak | AV | Peak | AV | Peak | | |
| 4.8240 | 0.0 | 8.8 | H/V < | 28.0 | < 41.0 | 54.0 | 74.0 | < 36.8 | < 49.8 > | 17.2 | > 24.2 | | |
| 7.2360 | 0.0 | 13.4 | H/V < | 28.0 | < 41.0 | 54.0 | 74.0 | < 41.4 | < 54.4 > | 12.6 | > 19.6 | | |
| 9.6480 | 0.0 | 16.5 | H/V < | 28.0 | < 41.0 | 54.0 | 74.0 | < 44.5 | < 57.5 > | 9.5 | > 16.5 | | |
| 12.0600 | 0.0 | 18.2 | H/V < | 28.0 | < 41.0 | 54.0 | 74.0 | < 46.2 | < 59.2 > | 7.8 | > 14.8 | | |
| 14.4720 | 0.0 | 19.4 | H/V < | 28.0 | < 41.0 | 54.0 | 74.0 | < 47.4 | < 60.4 > | 6.6 | > 13.6 | | |

| Mode of Frequency | | (2-2) 801 Correction | _ | de, TX Meter B | • | | MHz) | | on Levels | Marg | jins | | |
|----------------------|--------|-------------------------|--------|-------------------|--------|------|-------|--------|-----------|--------|------|--|--|
| | Factor | Factor | zation | (dB | uV) | (dB | uV/m) | (dE | BuV/m) | (dB) | | | |
| (GHz) | (dB) | (dB) | | AV | Peak | AV | Peak | AV | Peak | AV | Peak | | |
| 4.8740 | 0.0 | 8.9 | H/V < | : 28.0 < | < 41.0 | 54.0 | 74.0 | < 36.9 | < 49.9 > | 17.1 > | 24.1 | | |
| 7.3110 | 0.0 | 13.5 | , . | 28.0 | | | | | < 54.5 > | | | | |
| 9.7480 | 0.0 | 16.6 | H/V < | < 28.0 < | < 41.0 | 54.0 | 74.0 | < 44.6 | < 57.6 > | 9.4 > | 16.4 | | |
| 12.1850 | 0.0 | 18.3 | H/V < | 28.0 < | < 41.0 | 54.0 | 74.0 | < 46.3 | < 59.3 > | 7.7 > | 14.7 | | |
| 14.6220 | 0.0 | 19.5 | H/V < | 28.0 < | < 41.0 | 54.0 | 74.0 | < 47.5 | < 60.5 > | 6.5 > | 13.5 | | |

Mode of EUT : (2-3) 801.11g Mode, TX (11ch: 2462 MHz) Correction Dolari Motor Donding

| Frequency P-A | | Correction Polari- | | | Meter | Re | eading | Lin | Limits | | | Emission Levels | | | | | ıns | | |
|---------------|---------|--------------------|--------|--------|-------|--------|--------|------|----------|------|---|-----------------|------|------|---|------|-----|------|--|
| | | Factor | Factor | zation | | (dBuV) | | (dB | (dBuV/m) | | | | (dB) | | | | | | |
| | (GHz) | (dB) | (dB) | | | AV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak | |
| | | | | | | | | | | | | | | | | | | | |
| | 4.9240 | 0.0 | 8.9 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 36.9 | < | 49.9 | > | 17.1 | > | 24.1 | |
| | 7.3860 | 0.0 | 13.6 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 41.6 | < | 54.6 | > | 12.4 | > | 19.4 | |
| | 9.8480 | 0.0 | 16.6 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 44.6 | < | 57.6 | > | 9.4 | > | 16.4 | |
| | 12.3100 | 0.0 | 18.4 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 46.4 | < | 59.4 | > | 7.6 | > | 14.6 | |
| | 14.7720 | 0.0 | 19.6 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 47.6 | < | 60.6 | > | 6.4 | > | 13.4 | |
| | | | | | | | | | | | | | | | | | | | |

- Notes: 1) The spectrum was checked from 1.0 GHz to 26.5 GHz.
 - 2) The cable loss, amp. gain and antenna factor are included in the correction factor.
 - 3) The symbol of "<"means "or less".
 - 4) The symbol of ">"means "or greater".
 - 5) A sample calculation(Peak) was made at 4.824 (GHz).

PA + Cf + Mr = 0 + 8.8 + 41 = 49.8 (dBuV/m)

PA = Peak to Average Factor(P-A Factor)

Cf = Correction Factor

Mr = Meter Reading

6) Measuring Instrument Setting:

<u>Detector function</u> <u>Resolution Bandwidth</u> <u>Video Bandwidth</u> 1 MHz -Average(AV) 1 MHz Peak 1 MHz

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2.11 AC Power Line Conducted Emissions

Date: February 1, 2005 Temp.: 22 °C Humi.: 32 %

Mode of EUT: All modes have been checked and the worst case listed.

| Frequenc | y AMN | Met | ter Read | ding (dE | βµV) | Lim | nits | Emissior | Level | Mar | gin C | Comment |
|----------|-------|------|----------|----------|------|------|------|----------|-------|------|-------|---------|
| | Facto | r V | -A | Λ- | -B | (dE | βµV) | (dB | μV) | (d | B) | |
| (MHz) | (dB) | Q.P | AVE | Q.P | AVE | Q.P | AVE | Q.P | AVE | Q.P | AVE | |
| 0.15 | 0.1 | 28.5 | - | 27.7 | - | 66.0 | 56.0 | 28.6 | - | 37.4 | - | |
| 0.19 | 0.1 | 33.7 | - | 35.6 | - | 64.0 | 54.0 | 35.7 | - | 28.3 | - | |
| 0.30 | 0.1 | 22.0 | - | 22.0 | - | 60.2 | 50.2 | 22.1 | - | 38.1 | - | |
| 0.50 | 0.1 | 15.3 | - | 15.3 | - | 56.0 | 46.0 | 15.4 | - | 40.6 | - | |
| 1.00 | 0.1 | 13.5 | - | 14.4 | - | 56.0 | 46.0 | 14.5 | - | 41.5 | - | |
| 2.29 | 0.1 | 16.7 | - | 16.7 | - | 56.0 | 46.0 | 16.8 | - | 39.2 | - | |
| 3.82 | 0.1 | 18.5 | - | 18.5 | - | 56.0 | 46.0 | 18.6 | - | 37.4 | - | |
| 8.27 | 0.1 | 43.6 | - | 43.7 | - | 60.0 | 50.0 | 43.8 | - | 16.2 | - | |
| 10.47 | 0.2 | 38.2 | - | 38.2 | - | 60.0 | 50.0 | 38.4 | - | 21.6 | - | |
| 12.43 | 0.2 | 36.7 | - | 37.0 | - | 60.0 | 50.0 | 37.2 | - | 22.8 | - | |
| 14.01 | 0.3 | 36.7 | - | 36.7 | - | 60.0 | 50.0 | 37.0 | - | 23.0 | - | |
| 21.40 | 0.4 | 19.0 | - | 19.0 | - | 60.0 | 50.0 | 19.4 | - | 40.6 | - | |
| 30.00 | 0.6 | 25.3 | - | 29.2 | | 60.0 | 50.0 | 29.8 | - | 30.2 | - | |

Notes: 1) Test Location: Anechoic Chamber

- 2) The spectrum was checked from 0.15 MHz to 30 MHz
- 3) AMN(Artificial Mains Network) factor includes the cable loss for 5 meter.
- 4) The symbol of "<" means "or less".
- 5) The symbol of ">" means "more than".
- 6) The symbol of "-" means "Not applicable".
- 7) V-A: One end & Ground V-B : The other end & Ground
- 8) Q.P : Quasi-Peak Detector AVE : Average Detector
- 9) A sample calculation was made at $\,$ 0.15 MHz $\,$

 $Amn + Mr = 0.1 + 28.5 = 28.6 dB\mu V$

Amn : AMN Factor Mr : Meter Reading

10) Setting of measuring instrument :

Detector Function : CISPR Quasi-Peak / Average

IF Bandwidth : 9 kHz / 10 kHz (0.15 MHz - 30 MHz)

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2.12RF Exposure Compliance

Not Applicable

2.13 Spurious Emissions for Receiver (Radiation)

Date : February 1, 2005
Temp.: 22 °C Humi.: 32 %

2.13.1 801.11b Mode

Test Port : Enclosure

Spurious Emissions in the frequency range from 30 MHz to 1000 MHz

Mode of EUT : 801.11b Mode, RX (Worst Case)

| Frequency | Antenna Factor | Meter Re (dВµ | _ | Limits | Emissio (dBµ | n Level V/m) | Marg (dB | |
|-----------|-------------------|------------------|------|----------|-----------------|-----------------|-------------|------|
| (MHz) | (dB/m) | Horiz. | Ver. | (dBµV/m) | Horiz. | Ver. | Horiz. | Ver. |
| 30.0 | 19.0 | 4.3 | 12.3 | 40.0 | 23.3 | 31.3 | 16.7 | 8.7 |
| 50.0 | 12.1 | 19.8 | 25.2 | 40.0 | 31.9 | 37.3 | 8.1 | 2.7 |
| 110.0 | 12.9 | 19.0 | 20.0 | 43.5 | 31.9 | 32.9 | 11.6 | 10.6 |
| 195.1 | 18.4 | 15.8 | 18.3 | 43.5 | 34.2 | 36.7 | 9.3 | 6.8 |
| 210.0 | 18.7 | 19.5 | 17.0 | 43.5 | 38.2 | 35.7 | 5.3 | 7.8 |
| 250.0 | 19.3 | 16.8 | 19.5 | 46.0 | 36.1 | 38.8 | 9.9 | 7.2 |
| 325.1 | 16.7 | 18.1 | 18.0 | 46.0 | 34.8 | 34.7 | 11.2 | 11.3 |
| 375.0 | 18.2 | 19.9 | 13.4 | 46.0 | 38.1 | 31.6 | 7.9 | 14.4 |
| 466.6 | 20.2 | 19.1 | 12.9 | 46.0 | 39.3 | 33.1 | 6.7 | 12.9 |
| 620.0 | 22.8 | 18.1 | 19.9 | 46.0 | 40.9 | 42.7 | 5.1 | 3.3 |
| 700.0 | 23.7 | 16.5 | 12.8 | 46.0 | 40.2 | 36.5 | 5.8 | 9.5 |
| 901.9 | 25.8 | 11.0 | 8.8 | 46.0 | 36.8 | 34.6 | 9.2 | 11.4 |

Notes: 1) Test Location : Anechoic Chamber

- 2) Test Distance : 3 \mbox{m}
- 3) The spectrum was checked from 30 MHz to 1000 MHz.
- 4) Antenna factor includes the cable loss for 33 meter.
- 5) The symbol of "<" means "or less".
- 6) The symbol of ">" means "more than".
- 7) A sample calculation was made at 30.0 MHz

 $Af + Mr = 19.0 + 12.3 = 31.3 dB\mu V/m$

Af : Antenna Factor Mr : Meter Reading

8) Setting of measuring instrument :

Detector Function : CISPR Quasi-Peak

IF Bandwidth : 120 kHz

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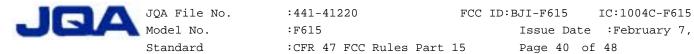
Spurious Emissions in the frequency above 1000 MHz

Mode of EUT : (1-4) 801.11b Mode, RX (1ch: 2412 MHz)

| Frequency | P-A | Correction | Polari- | Met | er I | Rea | ading | Lim | nits | E | Cmissi | on | Level | s | Ma | rgi | ins |
|-----------|--------|------------|---------|-----|------|-----|-------|------|-------|---|--------|-----|-------|---|------|-----|------|
| | Factor | Factor | zation | | (dB | 3uV |) | (dB | uV/m) | | (dE | BuV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | Α' | 7 | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| 1.0200 | 0.0 | -6.7 | V | 45. | 8 | | 49.2 | 54.0 | 74.0 | | 39.1 | | 42.5 | | 14.9 | | 31.5 |
| 1.3440 | 0.0 | -3.6 | H/V < | 28. | 0 < | < 4 | 41.0 | 54.0 | 74.0 | < | 24.4 | < | 37.4 | > | 29.6 | > | 36.6 |
| 1.6000 | 0.0 | -1.2 | V | 34. | 7 | ! | 50.0 | 54.0 | 74.0 | | 33.5 | | 48.8 | | 20.5 | | 25.2 |
| 1.9200 | 0.0 | -0.1 | V | 43. | 3 | | 47.6 | 54.0 | 74.0 | | 43.2 | | 47.5 | | 10.8 | | 26.5 |
| 2.0160 | 0.0 | 0.6 | V | 30. | 0 | | 41.1 | 54.0 | 74.0 | | 30.6 | | 41.7 | | 23.4 | | 32.3 |
| 2.4000 | 0.0 | 2.2 | V | 38. | 2 | | 45.4 | 54.0 | 74.0 | | 40.4 | | 47.6 | | 13.6 | | 26.4 |
| 2.6880 | 0.0 | 2.9 | H/V < | 28. | 0 < | < 4 | 41.0 | 54.0 | 74.0 | < | 30.9 | < | 43.9 | > | 23.1 | > | 30.1 |
| 3.3600 | 0.0 | 5.5 | H/V < | 28. | 0 < | < 4 | 41.0 | 54.0 | 74.0 | < | 33.5 | < | 46.5 | > | 20.5 | > | 27.5 |
| 5.2800 | 0.0 | 9.6 | V | 35. | 6 | | 42.9 | 54.0 | 74.0 | | 45.2 | | 52.5 | | 8.8 | | 21.5 |

Mode of EUT : (1-5) 801.11b Mode, RX (6ch: 2437 MHz)

| Frequency | P-A | Correction | ıPolari- | | Meter | Re | eading | Lir | nits | I | Emissi | on | Level | s | Ma | rgi | ns |
|-----------|--------|------------|----------|---|-------|-------------|--------|------|-------|---|--------|-----|-------|---|------|-----|------|
| | Factor | Factor | zation | | (c | l Bu | V) | (dB | uV/m) | | (dI | 3uV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | | AV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| 1.0200 | 0.0 | -6.7 | V | | 45.8 | | 49.2 | 54.0 | 74.0 | | 39.1 | | 42.5 | | 14.9 | | 31.5 |
| 1.3940 | 0.0 | -3.2 | H/V | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 24.8 | < | 37.8 | > | 29.2 | > | 36.2 |
| 1.6000 | 0.0 | -1.2 | V | | 34.7 | | 50.0 | 54.0 | 74.0 | | 33.5 | | 48.8 | | 20.5 | | 25.2 |
| 1.9200 | 0.0 | -0.1 | V | | 43.3 | | 47.6 | 54.0 | 74.0 | | 43.2 | | 47.5 | | 10.8 | | 26.5 |
| 2.0910 | 0.0 | 1.2 | H/V | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 29.2 | < | 42.2 | > | 24.8 | > | 31.8 |
| 2.4000 | 0.0 | 2.2 | V | | 38.2 | | 45.4 | 54.0 | 74.0 | | 40.4 | | 47.6 | | 13.6 | | 26.4 |
| 2.7880 | 0.0 | 3.4 | H/V | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 31.4 | < | 44.4 | > | 22.6 | > | 29.6 |
| 3.4850 | 0.0 | 5.8 | H/V | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 33.8 | < | 46.8 | > | 20.2 | > | 27.2 |
| 5.2800 | 0.0 | 9.6 | V | | 35.6 | | 42.9 | 54.0 | 74.0 | | 45.2 | | 52.5 | | 8.8 | | 21.5 |



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Mode of EUT: (1-6) 801.11b Mode, RX (11ch: 2462 MHz)

| Frequency | P-A | Correction | nPolari- | | Meter | Re | eading | Lir | nits | E | Emissi | on | Level | S | Ma | rgi | ns |
|-----------|--------|------------|----------|---|-------|-----|--------|------|-------|---|--------|-----|-------|---|------|-----|------|
| | Factor | Factor | zation | | (c | lBu | V) | (dB | uV/m) | | (dI | 3uV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | | AV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| 1.0200 | 0.0 | -6.7 | V | | 45.8 | | 49.2 | 54.0 | 74.0 | | 39.1 | | 42.5 | | 14.9 | | 31.5 |
| 1.4440 | 0.0 | -2.8 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 25.2 | < | 38.2 | > | 28.8 | > | 35.8 |
| 1.6000 | 0.0 | -1.2 | V | | 34.7 | | 50.0 | 54.0 | 74.0 | | 33.5 | | 48.8 | | 20.5 | | 25.2 |
| 1.9200 | 0.0 | -0.1 | V | | 43.3 | | 47.6 | 54.0 | 74.0 | | 43.2 | | 47.5 | | 10.8 | | 26.5 |
| 2.1660 | 0.0 | 1.7 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 29.7 | < | 42.7 | > | 24.3 | > | 31.3 |
| 2.4000 | 0.0 | 2.2 | V | | 38.2 | | 45.4 | 54.0 | 74.0 | | 40.4 | | 47.6 | | 13.6 | | 26.4 |
| 2.8880 | 0.0 | 3.9 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 31.9 | < | 44.9 | > | 22.1 | > | 29.1 |
| 3.6100 | 0.0 | 6.1 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 34.1 | < | 47.1 | > | 19.9 | > | 26.9 |
| 5.2800 | 0.0 | 9.6 | V | | 35.6 | | 42.9 | 54.0 | 74.0 | | 45.2 | | 52.5 | | 8.8 | | 21.5 |

- Notes: 1) The spectrum was checked from 1.0 GHz to 26.5 GHz.
 - 2) The cable loss, amp. gain and antenna factor are included in the correction factor.
 - 3) The symbol of "<"means "or less".
 - 4) The symbol of ">"means "or greater".
 - 5) A sample calculation(Peak) was made at 1.02 (GHz).

PA + Cf + Mr = 0 + -6.7 + 49.2 = 42.5 (dBuV/m)

PA = Peak to Average Factor(P-A Factor)

Cf = Correction Factor

Mr = Meter Reading

6) Measuring Instrument Setting :

<u>Detector function</u> <u>Resolution Bandwidth Video Bandwidth</u> 1 MHz Average(AV) Peak 1 MHz 1 MHz

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2.13.2 801.11g Mode

Test Port : Enclosure

Spurious Emissions in the frequency range from 30 MHz to 1000 MHz

Mode of EUT : 801.11g Mode, RX (Worst Case)

| Frequency | | | _ | Limits | | n Level | Marg | |
|-----------|--------|--------|------|----------|--------|---------|--------|------|
| | Factor | (dBµV | J) | | (dBµ | V/m) | (dB |) |
| (MHz) | (dB/m) | Horiz. | Ver. | (dBµV/m) | Horiz. | Ver. | Horiz. | Ver. |
| 30.0 | 19.0 | 4.3 | 12.3 | 40.0 | 23.3 | 31.3 | 16.7 | 8.7 |
| 50.0 | 12.1 | 19.8 | 25.2 | 40.0 | 31.9 | 37.3 | 8.1 | 2.7 |
| 110.0 | 12.9 | 19.0 | 20.0 | 43.5 | 31.9 | 32.9 | 11.6 | 10.6 |
| 195.1 | 18.4 | 15.8 | 18.3 | 43.5 | 34.2 | 36.7 | 9.3 | 6.8 |
| 210.0 | 18.7 | 19.5 | 17.0 | 43.5 | 38.2 | 35.7 | 5.3 | 7.8 |
| 250.0 | 19.3 | 16.8 | 19.5 | 46.0 | 36.1 | 38.8 | 9.9 | 7.2 |
| 325.1 | 16.7 | 18.1 | 18.0 | 46.0 | 34.8 | 34.7 | 11.2 | 11.3 |
| 375.0 | 18.2 | 19.9 | 13.4 | 46.0 | 38.1 | 31.6 | 7.9 | 14.4 |
| 466.6 | 20.2 | 19.1 | 12.9 | 46.0 | 39.3 | 33.1 | 6.7 | 12.9 |
| 620.0 | 22.8 | 18.1 | 19.9 | 46.0 | 40.9 | 42.7 | 5.1 | 3.3 |
| 700.0 | 23.7 | 16.5 | 12.8 | 46.0 | 40.2 | 36.5 | 5.8 | 9.5 |
| 901.9 | 25.8 | 11.0 | 8.8 | 46.0 | 36.8 | 34.6 | 9.2 | 11.4 |

Notes: 1) Test Location : Anechoic Chamber

- 2) Test Distance : 3 m
- 3) The spectrum was checked from 30 MHz to 1000 MHz.
- 4) Antenna factor includes the cable loss for 33 meter.
- 5) The symbol of "<" means "or less".
- 6) The symbol of ">" means "more than".
- 7) A sample calculation was made at 30.0 MHz

Af + Mr = $19.0 + 12.3 = 31.3 \text{ dB}\mu\text{V/m}$

Af : Antenna Factor Mr : Meter Reading

8) Setting of measuring instrument :

Detector Function : CISPR Quasi-Peak

IF Bandwidth : 120 kHz

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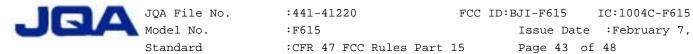
Spurious Emissions in the frequency above 1000 MHz

Mode of EUT : (2-4) 801.11g Mode, RX (1ch: 2412 MHz)

| Frequency | P-A | Correction | Polari- | Met | er I | Rea | ading | Lim | nits | E | Cmissi | on | Level | s | Ma | rgi | ins |
|-----------|--------|------------|---------|-----|------|-----|-------|------|-------|---|--------|-----|-------|---|------|-----|------|
| | Factor | Factor | zation | | (dB | 3uV |) | (dB | uV/m) | | (dE | BuV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | Α' | 7 | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| 1.0200 | 0.0 | -6.7 | V | 45. | 8 | | 49.2 | 54.0 | 74.0 | | 39.1 | | 42.5 | | 14.9 | | 31.5 |
| 1.3440 | 0.0 | -3.6 | H/V < | 28. | 0 < | < 4 | 41.0 | 54.0 | 74.0 | < | 24.4 | < | 37.4 | > | 29.6 | > | 36.6 |
| 1.6000 | 0.0 | -1.2 | V | 34. | 7 | ! | 50.0 | 54.0 | 74.0 | | 33.5 | | 48.8 | | 20.5 | | 25.2 |
| 1.9200 | 0.0 | -0.1 | V | 43. | 3 | | 47.6 | 54.0 | 74.0 | | 43.2 | | 47.5 | | 10.8 | | 26.5 |
| 2.0160 | 0.0 | 0.6 | V | 30. | 0 | | 41.1 | 54.0 | 74.0 | | 30.6 | | 41.7 | | 23.4 | | 32.3 |
| 2.4000 | 0.0 | 2.2 | V | 38. | 2 | | 45.4 | 54.0 | 74.0 | | 40.4 | | 47.6 | | 13.6 | | 26.4 |
| 2.6880 | 0.0 | 2.9 | H/V < | 28. | 0 < | < 4 | 41.0 | 54.0 | 74.0 | < | 30.9 | < | 43.9 | > | 23.1 | > | 30.1 |
| 3.3600 | 0.0 | 5.5 | H/V < | 28. | 0 < | < 4 | 41.0 | 54.0 | 74.0 | < | 33.5 | < | 46.5 | > | 20.5 | > | 27.5 |
| 5.2800 | 0.0 | 9.6 | V | 35. | 6 | | 42.9 | 54.0 | 74.0 | | 45.2 | | 52.5 | | 8.8 | | 21.5 |

Mode of EUT : (2-5) 801.11g Mode, RX (6ch: 2437 MHz)

| Frequency | P-A | Correction | Polari- | Meter Reading | | Lin | mits | Ε | Emissi | on | Level | s | Ma | rgi | ins | |
|-----------|--------|------------|---------|---------------|------|------|------|--------|--------|------|-------|------|----|------|-----|------|
| | Factor | Factor | zation | | (dBı | ıV) | (dE | BuV/m) | | (dI | 3uV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | ΑV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| 1.0200 | 0.0 | -6.7 | V | 45. | 8 | 49.2 | 54.0 | 74.0 | | 39.1 | | 42.5 | | 14.9 | | 31.5 |
| 1.3940 | 0.0 | -3.2 | H/V < | 28. | 0 < | 41.0 | 54.0 | 74.0 | < | 24.8 | < | 37.8 | > | 29.2 | > | 36.2 |
| 1.6000 | 0.0 | -1.2 | V | 34. | 7 | 50.0 | 54.0 | 74.0 | | 33.5 | | 48.8 | | 20.5 | | 25.2 |
| 1.9200 | 0.0 | -0.1 | V | 43. | 3 | 47.6 | 54.0 | 74.0 | | 43.2 | | 47.5 | | 10.8 | | 26.5 |
| 2.0910 | 0.0 | 1.2 | H/V < | 28. | 0 < | 41.0 | 54.0 | 74.0 | < | 29.2 | < | 42.2 | > | 24.8 | > | 31.8 |
| 2.4000 | 0.0 | 2.2 | V | 38. | 2 | 45.4 | 54.0 | 74.0 | | 40.4 | | 47.6 | | 13.6 | | 26.4 |
| 2.7880 | 0.0 | 3.4 | H/V < | 28. | 0 < | 41.0 | 54.0 | 74.0 | < | 31.4 | < | 44.4 | > | 22.6 | > | 29.6 |
| 3.4850 | 0.0 | 5.8 | H/V < | 28. | 0 < | 41.0 | 54.0 | 74.0 | < | 33.8 | < | 46.8 | > | 20.2 | > | 27.2 |
| 5.2800 | 0.0 | 9.6 | V | 35. | 6 | 42.9 | 54.0 | 74.0 | | 45.2 | | 52.5 | | 8.8 | | 21.5 |



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Mode of EUT: (2-6) 801.11g Mode, RX (11ch: 2462 MHz)

| Frequency | P-A | Correction | nPolari- | | Meter | Re | eading | Lir | nits | E | Emissi | on | Level | S | Ma | rgi | ns |
|-----------|--------|------------|----------|---|-------|-----|--------|------|-------|---|--------|-----|-------|---|------|-----|------|
| | Factor | Factor | zation | | (c | lBu | V) | (dB | uV/m) | | (dI | 3uV | /m) | | (| dВ |) |
| (GHz) | (dB) | (dB) | | | AV | | Peak | AV | Peak | | AV | | Peak | | AV | | Peak |
| 1.0200 | 0.0 | -6.7 | V | | 45.8 | | 49.2 | 54.0 | 74.0 | | 39.1 | | 42.5 | | 14.9 | | 31.5 |
| 1.4440 | 0.0 | -2.8 | H/V · | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 25.2 | < | 38.2 | > | 28.8 | > | 35.8 |
| 1.6000 | 0.0 | -1.2 | V | | 34.7 | | 50.0 | 54.0 | 74.0 | | 33.5 | | 48.8 | | 20.5 | | 25.2 |
| 1.9200 | 0.0 | -0.1 | V | | 43.3 | | 47.6 | 54.0 | 74.0 | | 43.2 | | 47.5 | | 10.8 | | 26.5 |
| 2.1660 | 0.0 | 1.7 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 29.7 | < | 42.7 | > | 24.3 | > | 31.3 |
| 2.4000 | 0.0 | 2.2 | V | | 38.2 | | 45.4 | 54.0 | 74.0 | | 40.4 | | 47.6 | | 13.6 | | 26.4 |
| 2.8880 | 0.0 | 3.9 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 31.9 | < | 44.9 | > | 22.1 | > | 29.1 |
| 3.6100 | 0.0 | 6.1 | H/V < | < | 28.0 | < | 41.0 | 54.0 | 74.0 | < | 34.1 | < | 47.1 | > | 19.9 | > | 26.9 |
| 5.2800 | 0.0 | 9.6 | V | | 35.6 | | 42.9 | 54.0 | 74.0 | | 45.2 | | 52.5 | | 8.8 | | 21.5 |

Notes: 1) The spectrum was checked from 1.0 GHz to 26.5 GHz.

- 2) The cable loss, amp. gain and antenna factor are included in the correction factor.
- 3) The symbol of "<"means "or less".
- 4) The symbol of ">"means "or greater".
- 5) A sample calculation(Peak) was made at 1.02 (GHz).

PA + Cf + Mr = 0 + -6.7 + 49.2 = 42.5 (dBuV/m)

PA = Peak to Average Factor(P-A Factor)

Cf = Correction Factor

Mr = Meter Reading

6) Measuring Instrument Setting :

<u>Detector function</u> <u>Resolution Bandwidth Video Bandwidth</u> 1 MHz Average(AV) Peak 1 MHz 1 MHz

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2.14 AC Power Line Conducted Emissions for Receiver

:F615

Date: February 1, 2005

Temp.: 22 °C Humi.: 32 %

Issue Date : February 7, 2005

Mode of EUT: All modes have been checked and the worst case listed.

| Frequenc | | | | ding (dB | μV) | Lim | nits | Emission | Level | Mar | gin | Comment |
|----------|--------|------|-----|----------|-----|------|------|----------|-------|------|-----|---------|
| | Facto: | r V | -A | V- | -B | (dE | βµV) | (dB | μV) | (d | B) | |
| (MHz) | (dB) | Q.P | AVE | Q.P | AVE | Q.P | AVE | Q.P | AVE | Q.P | AVE | |
| 0.15 | 0.1 | 28.5 | - | 27.7 | - | 66.0 | 56.0 | 28.6 | - | 37.4 | - | |
| 0.19 | 0.1 | 33.7 | - | 35.6 | - | 64.0 | 54.0 | 35.7 | - | 28.3 | - | |
| 0.30 | 0.1 | 22.0 | - | 22.0 | - | 60.2 | 50.2 | 22.1 | - | 38.1 | _ | |
| 0.50 | 0.1 | 15.3 | - | 15.3 | - | 56.0 | 46.0 | 15.4 | - | 40.6 | _ | |
| 1.00 | 0.1 | 13.5 | - | 14.4 | - | 56.0 | 46.0 | 14.5 | - | 41.5 | - | |
| 2.29 | 0.1 | 16.7 | - | 16.7 | - | 56.0 | 46.0 | 16.8 | - | 39.2 | - | |
| 3.82 | 0.1 | 18.5 | - | 18.5 | - | 56.0 | 46.0 | 18.6 | - | 37.4 | - | |
| 8.27 | 0.1 | 43.6 | - | 43.7 | - | 60.0 | 50.0 | 43.8 | - | 16.2 | - | |
| 10.47 | 0.2 | 38.2 | - | 38.2 | - | 60.0 | 50.0 | 38.4 | - | 21.6 | - | |
| 12.43 | 0.2 | 36.7 | - | 37.0 | - | 60.0 | 50.0 | 37.2 | - | 22.8 | - | |
| 14.01 | 0.3 | 36.7 | - | 36.7 | - | 60.0 | 50.0 | 37.0 | - | 23.0 | - | |
| 21.40 | 0.4 | 19.0 | - | 19.0 | - | 60.0 | 50.0 | 19.4 | - | 40.6 | - | |
| 30.00 | 0.6 | 25.3 | - | 29.2 | - | 60.0 | 50.0 | 29.8 | - | 30.2 | - | |

Notes: 1) Test Location : Anechoic Chamber

- 2) The spectrum was checked from 0.15 MHz to 30 MHz
- 3) AMN(Artificial Mains Network) factor includes the cable loss for 5 meter.
- 4) The symbol of "<" means "or less".
- 5) The symbol of ">" means "more than".
- 6) The symbol of "-" means "Not applicable".
- 7) V-A: One end & Ground V-B: The other end & Ground
- 8) Q.P : Quasi-Peak Detector AVE : Average Detector
- 9) A sample calculation was made at 0.15 MHz

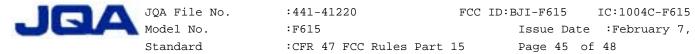
 $Amn + Mr = 0.1 + 28.5 = 28.6 dB\mu V$

Amn : AMN Factor Mr : Meter Reading

10) Setting of measuring instrument :

Detector Function : CISPR Quasi-Peak / Average

IF Bandwidth : 9 kHz / 10 kHz (0.15 MHz - 30 MHz)



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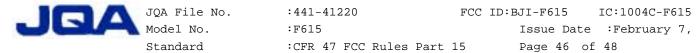
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Appendix

Test Instruments List





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| Receivers |
|-----------|
| |
| |

| No. | Type | Model | Manufacturer | Serial | Last | Cal. | Interval |
|------|---------------|--------|-----------------|------------|------|------|----------|
| TR01 | Test Receiver | ESH2 | Rohde & Schwarz | 880370/016 | May | 2004 | 1 Year |
| TR02 | Test Receiver | ESH3 | Rohde & Schwarz | 881460/030 | May | 2004 | 1 Year |
| TR03 | Test Receiver | ESHS10 | Rohde & Schwarz | 835871/004 | May | 2004 | 1 Year |
| TR04 | Test Receiver | ESV | Rohde & Schwarz | 872148/039 | May | 2004 | 1 Year |
| TR05 | Test Receiver | ESVS10 | Rohde & Schwarz | 826148/002 | May | 2004 | 1 Year |
| TR06 | Test Receiver | ESI7 | Rohde & Schwarz | 100059 | Nov | 2004 | 1 Year |
| TR07 | Test Receiver | ESI26 | Rohde & Schwarz | 100043 | Aug | 2004 | 1 Year |

Spectrum Analyzers

| No. | Type | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|-------------------|--------|-----------------|------------|-----------|----------|
| SA01 | Spectrum Analyzer | 8560E | Hewlett Packard | 3240A00189 | Oct. 2004 | 1 Year |
| SA02 | Spectrum Analyzer | 8566B | Hewlett Packard | 2140A01091 | Oct. 2004 | 1 Year |
| SA03 | RF Pre-selector | 85685A | Hewlett Packard | 2648A00522 | Oct. 2004 | 1 Year |
| SA04 | Spectrum Analyzer | 8566B | Hewlett Packard | 2747A05855 | Apr. 2004 | 1 Year |
| SA05 | RF Pre-selector | 85685A | Hewlett Packard | 2901A00933 | Apr. 2004 | 1 Year |
| SA06 | Spectrum Analyzer | R3132 | ADVANTEST | 120500072 | Sep. 2004 | 1 Year |
| SA07 | Spectrum Analyzer | R3182 | ADVANTEST | 120600581 | Mar. 2004 | 1 Year |

Antennas

| No. | Туре | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|-------------------|-----------|------------------|-------------|-----------|----------|
| AN01 | Loop Antenna | HFH2-Z2 | Rohde & Schwarz | 881058/61 | May. 2004 | 1 Year |
| AN02 | Dipole Antenna | KBA-511 | Kyoritsu | 0-170-1 | Nov. 2004 | 1 Year |
| AN03 | Dipole Antenna | KBA-511A | Kyoritsu | 0-201-13 | Nov. 2004 | 1 Year |
| AN04 | Dipole Antenna | KBA-611 | Kyoritsu | 0-147-14 | Nov. 2004 | 1 Year |
| AN05 | Dipole Antenna | KBA-611 | Kyoritsu | 0-210-5 | Nov. 2004 | 1 Year |
| AN06 | Biconical Antenna | BBA9106 | Schwarzbeck | VHA91031516 | May 2004 | 1 Year |
| AN07 | Biconical Antenna | BBA9106 | Schwarzbeck | - | Nov. 2004 | 1 Year |
| AN08 | Log-peri. Antenna | UHALP9108 | Schwarzbeck | 0278 | May 2004 | 1 Year |
| AN09 | Log-peri. Antenna | UHALP9107 | Schwarzbeck | - | Nov. 2004 | 1 Year |
| AN10 | Log-peri. Antenna | HL025 | Rohde & Schwarz | 340182/015 | Jan. 2005 | 1 Year |
| AN11 | Horn Antenna | 3115 | EMC Test Systems | 6442 | Jan. 2005 | 1 Year |
| AN12 | Horn Antenna | 3116 | EMC Test Systems | 2547 | May 2003 | 2 Year |

 JQA File No.
 :441-41220
 FCC ID:BJI-F615
 IC:1004C-F615

 Model No.
 :F615
 Issue Date
 :February 7,

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Networks

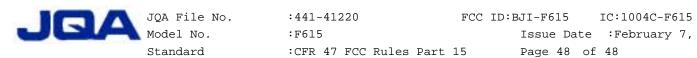
| No. | Type | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|-----------------|----------|--------------|----------|-----------|----------|
| NE01 | LISN | KNW-407 | Kyoritsu | 8-833-5 | Nov. 2004 | 1 Year |
| NE02 | LISN | KNW-407 | Kyoritsu | 8-757-1 | Jun. 2004 | 1 Year |
| NE03 | LISN | KNW-407 | Kyoritsu | 8-1130-6 | Apr. 2004 | 1 Year |
| NE04 | LISN | KNW-242C | Kyoritsu | 8-837-13 | Apr. 2004 | 1 Year |
| NE05 | Absorbing Clamp | MDS21 | Luthi | 03293 | Aug. 2004 | 1 Year |

Cables

| No. | Туре | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|-------------------|----------------|-----------------|----------|-----------|----------|
| CA01 | RF Cable | 20D/5D-2W | Fujikura | - | May 2004 | 1 Year |
| CA02 | RF Cable | 5D-2W | Fujikura | - | Feb. 2004 | 1 Year |
| CA03 | RF Cable | 3D-2W | Fujikura | - | May 2004 | 1 Year |
| CA04 | RF Cable | 3D-2W | Fujikura | - | Apr. 2004 | 1 Year |
| CA05 | RF Cable | 3D-2W | Fujikura | - | Apr. 2004 | 1 Year |
| CA06 | RF Cable | RG213/U | Rohde & Schwarz | - | Apr. 2004 | 1 Year |
| CA07 | RF Cable(10m) | S 04272B | Suhner | - | May 2004 | 1 Year |
| CA08 | RF Cable(2m 18GHz |) SUCOFLEX 104 | Suhner | - | May 2004 | 1 Year |
| CA09 | RF Cable(1m 18GHz |)SUCOFLEX 104 | Suhner | - | May 2004 | 1 Year |
| CA10 | RF Cable(1m N) | S 04272B | Suhner | - | May 2004 | 1 Year |
| CA11 | RF Cable(1m 26GHz |)SUCOFLEX 104 | Suhner | 182811/4 | Dec. 2004 | 1 Year |
| CA12 | RF Cable(4m 26GHz |) SUCOFLEX 104 | Suhner | 190630 | Dec. 2004 | 1 Year |
| CA13 | RF Cable(10m) | F130-S1S1-394 | MEGA PHASE | 10510 | Dec. 2004 | 1 Year |
| CA14 | RF Cable(7m) | 3D-2W | Fujikura | - | Apr. 2004 | 1 Year |
| CA15 | RF Cable(7m) | RG223/U | Suhner | _ | May 2004 | 1 Year |

Amplifiers

| No. | Type | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|--------------|------------------------|-----------------|------------|-----------|----------|
| AM01 | AF Amplifier | P-500L | Accuphase | BOY806 | Feb. 2004 | 1 Year |
| AM02 | RF Amplifier | 8447D | Hewlett Packard | 1937A02168 | May 2004 | 1 Year |
| AM03 | RF Amplifier | 8447D | Hewlett Packard | 2944A07289 | May 2004 | 1 Year |
| AM05 | RF Amplifier | DBP-0102N533 | DBS Microwave | 012 | Jun. 2004 | 1 Year |
| AM06 | RF Amplifier | WJ-6882-814 | Watkins-Johnson | 0414 | Jun. 2004 | 1 Year |
| AM07 | RF Amplifier | WJ-5315-556 | Watkins-Johnson | 106 | Jun. 2004 | 1 Year |
| AM08 | RF Amplifier | WJ-5320-307 | Watkins-Johnson | 645 | Jun. 2004 | 1 Year |
| AM09 | RF Amplifier | JS4-00102600 -28-5A | MITEQ | 669167 | Apr. 2004 | 1 Year |



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Signal Generators

| No. | Type | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|-----------------------|----------|-----------------------------|------------|-----------|----------|
| SG01 | Function Generator | 3325B | Hewlett Packard | 2847A03284 | Jul. 2004 | 1 Year |
| SG02 | Function Generator | VP-7422A | Matsushita Communication | 050351E122 | Jul. 2004 | 1 Year |
| SG03 | Signal Generator | 8664A | Hewlett Packard | 3035A00140 | Jun. 2004 | 1 Year |
| SG04 | Signal Generator | 8664A | Hewlett Packard | 3438A00756 | Jun. 2004 | 1 Year |
| SG05 | Signal Generator | 6061A | Gigatronics | 5130593 | Mar. 2004 | 1 Year |

Auxiliary Equipment

| No. | Туре | Model | Manufacturer | Serial | Last Cal. | Interval |
|------|----------------------------|--------------------|-----------------|------------|-----------|----------|
| AU01 | Termination(50) | BNC-P-1.5 | TDC | _ | Mar. 2004 | 1 Year |
| AU02 | Termination(50) | - | Suhner | - | Jan. 2005 | 1 Year |
| AU03 | Power Meter | 436A | Hewlett Packard | 1725A01930 | Apr. 2004 | 1 Year |
| AU04 | Power Sensor | 8482A | Hewlett Packard | 1551A01013 | Apr. 2004 | 1 Year |
| AU05 | Power Sensor | 8485A | Hewlett Packard | 2942A08969 | Apr. 2004 | 1 Year |
| AU06 | FM Linear Detector | MS61A | Anritsu | M77486 | Oct. 2004 | 1 Year |
| AU07 | Level Meter | ML422C | Anritsu | M87571 | Jun. 2004 | 1 Year |
| AU08 | Measuring Amplifier | 2636 | В & К | 1614851 | May 2004 | 1 Year |
| AU09 | - | 4134 | B & K | 1269477 | May 2004 | 1 Year |
| AU10 | Preamplifier | 2639 | B & K | 1268763 | May 2004 | 1 Year |
| AU11 | Pistonphone | 4220 | B & K | 1165008 | Mar. 2004 | 1 Year |
| AU12 | Artificial Mouth | 4227 | B & K | 1274869 | N/A | N/A |
| AU13 | Frequency Counter | 53131A | Hewlett Packard | 3546A11807 | May 2004 | 1 Year |
| AU14 | Oven | _ | Ohnishi | - | May 2004 | 1 Year |
| AU15 | DC Power Supply | 6628A | Hewlett Packard | 3224A00284 | Jun. 2004 | 1 Year |
| AU16 | Band Reject Filter | BRM12294 | Micro-tronics | 003 | Jan. 2004 | 1 Year |
| AU17 | High Pass Filter | F-100-4000 -5-R | RLC Electronics | 0149 | Feb. 2004 | 1 Year |
| AU18 | Attenuator | 43KC-10 | Anritsu | - | Feb. 2004 | 1 Year |
| AU19 | Attenuator | 43KC-20 | Anritsu | - | Feb. 2004 | 1 Year |
| AU20 | Attenuator | 355D | Hewlett Packard | 219-10782 | Apr. 2004 | 1 Year |
| AU21 | FFT Analyzer | R9211C | Advantest | 02020253 | Jun. 2004 | 1 Year |
| AU22 | Noise Meter | MN-446 | Meguro | 53030478 | Apr. 2004 | 1 Year |
| AU23 | Digitizing Oscilloscope | 54502A | Hewlett Packard | 2934A05573 | May 2004 | 1 Year |
| AU24 | RF Detector | 75KC50 | Anritsu | 305002 | Jul. 2004 | 1 Year |