



## EMI TEST REPORT

Test Report No. : 25HE0105-HO-1

Applicant : FUJITSU LIMITED  
Type of Equipment : Personal Computer  
Model No. : P1510  
Test standard : FCC Part 15 Subpart C  
Section 15.207, Section 15.247: 2005  
FCC ID : EJE-WL0033  
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with the above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this report are traceable to the national or international standards.

Date of test: April 14 to June 3, 2005

Tested by:

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## **SECTION 1: Client information**

Company Name : FUJITSU LIMITED  
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Telephone Number : +81-42-370-7630  
Facsimile Number : +81-42-370-7588  
Contact Person : Tsuyoshi Uchihara

## **SECTION 2: Equipment under test (E.U.T.)**

### **2.1 Identification of E.U.T.**

Type of Equipment : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Rating : AC120V/60Hz (AC Adapter)  
Country of Manufacture : Japan  
Receipt Date of Sample : April 3, 2005  
Condition of EUT : Engineering prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)

### **2.2 Product Description**

Remarks : This Wireless Module consists of 1 chip each of 5GHz band.  
Please refer to 25FE0105-HO-2 for IEEE802.11a Low / Mid Band.

Equipment Type : Transceiver  
Frequency of operation : 11bg: 2412-2462MHz  
11a: 5150-5350MHz/5745 - 5825MHz  
Channel Spacing : 5MHz(11bg), 20MHz (11a)  
Duty Cycle : over 90%  
Type of Modulation : DSSS, OFDM  
Mode of operation : Duplex  
Antenna Type : Monopole Antenna (M/N: YCE-5008)  
Antenna Gain : IEEE802.11b/g: Main -4.78 dBi /AUX -1.49 dBi  
IEEE802.11a: Main Antenna: 0.90dBi, AUX Antenna -0.97 dBi  
(This antenna gain are values in which antenna was mounted to the PC)  
Antenna Connector Type : U-FL  
Operating voltage (inner) : DC3.3V  
Operating temperature range : 0-+70 deg.C.

### **FCC 15.31 (e)**

This EUT provides stable voltage(DC3.3V) constantly to RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

### **FCC Part 15.203 Antenna requirement**

This EUT has the external (particular) antenna connector, and the installation is to be done by the professionals. Therefore, the equipment complies with the antenna requirement of Section 15.203.

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## SECTION 3: Test specification, procedures & results

### 3.1 Test Specification

Test Specification : FCC Part15 Subpart C : 2005  
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators  
Section 15.207 Conducted limits : 2005  
Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz : 2005

### 3.2 Procedures and results

| No. | Item                      | Test Procedure                                                     | Specification                        | Remarks                | Deviation | Worst margin *0                                               | Results  |
|-----|---------------------------|--------------------------------------------------------------------|--------------------------------------|------------------------|-----------|---------------------------------------------------------------|----------|
| 1   | Conducted emission        | ANSI C63.4:2003<br>7. AC powerline conducted emission measurements | Section 15.207                       | -                      | N/A       | 8.4dB<br>0.1584MHz,<br>Phase L (AV)<br>IEEE802.11b<br>High Ch | Complied |
| 2   | 6dB Bandwidth             | ANSI C63.4:2003<br>13. Measurement of intentional radiators        | Section 15.247(a)(2)                 | Conducted              | N/A       | See data.                                                     | Complied |
| 3   | Maximum Peak Output Power | ANSI C63.4:2003<br>13. Measurement of intentional radiators        | Section 15.247(b)(3)                 | Conducted              | N/A       | See data.                                                     | Complied |
| 4   | Spurious Emission         | ANSI C63.4:2003<br>13. Measurement of intentional radiators        | Section 15.247 (d)<br>Section 15.209 | Conducted/<br>Radiated | N/A       | 2.1dB<br>239.979MHz,HOR<br>IEEE802.11g<br>High Ch             | Complied |
| 5   | Restricted Band Edges     | ANSI C63.4:2003<br>13. Measurement of intentional radiators        | Section 15.247 (d)                   | Conducted/<br>Radiated | N/A       | See data.                                                     | Complied |
| 6   | Power Density             | ANSI C63.4:2003<br>13. Measurement of intentional radiators        | Section 15.247 (e)                   | Conducted              | N/A       | See data.                                                     | Complied |

Note: UL Apex's EMI Work Procedures No.QPM05 and QPM15.

\*0) The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

#### Uncertainty:

\*In case of the margin below the EMC Head Office's uncertainty.

The data listed in this report meets the limits unless the uncertainty is taken into consideration.

#### Conducted Emission

The measurement uncertainty (with a 95% confidence level) for this test is  $\pm 1.3$ dB.

#### Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is  $\pm 4.5$ dB(3m)/  $\pm 4.7$ dB(10m).

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is  $\pm 5.2$ dB(3m)/  $\pm 3.8$ dB(10m).

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is  $\pm 6.6$ dB.

#### Other test except Conducted Emission and Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test is  $\pm 3.0$ dB.

\*These tests were also referred to "Guidance on Measurement for Digital Transmission Systems Section15.247".

\*These tests were performed without any deviations from test procedure except for additions or exclusions.

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### 3.3 Addition to standards

| No. | Item                    | Test Procedure                                                                                               | Specification                                                                                                | Remarks   | Deviation | Worst margin | Results |
|-----|-------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------|-----------|--------------|---------|
| 1   | 99% Occupied Band Width | RSS-210(issue 5):<br>2001<br>+ Amendment:2002<br>+ Amendment2:2003<br>+ Amendment3:2004<br>+ Amendment4:2004 | RSS-210(issue 5):<br>2001<br>+ Amendment:2002<br>+ Amendment2:2003<br>+ Amendment3:2004<br>+ Amendment4:2004 | Conducted | N/A       | N/A          | N/A     |

### 3.4 Test Location

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|                            | FCC Registration Number | IC Registration Number | Width x Depth x Height (m) | Size of reference ground plane (m) / horizontal conducting plane | Other rooms      |
|----------------------------|-------------------------|------------------------|----------------------------|------------------------------------------------------------------|------------------|
| No.1 semi-anechoic chamber | 313583                  | IC4247                 | 19.2 x 11.2 x 7.7m         | 7.0 x 6.0m                                                       | Preparation room |
| No.2 semi-anechoic chamber | 846015                  | IC4247-2               | 7.5 x 5.8 x 5.2m           | 4.0 x 4.0m                                                       | -                |
| No.3 shielded room         | -                       | -                      | 4.7 x 7.5 x 2.7m           | 4.7 x 7.5m                                                       | -                |
| No.4 measurement room      | -                       | -                      | 3.1 x 5.0 x 2.7m           | N/A                                                              | -                |

\* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1 and No.2 semi-anechoic and No.3 shielded room.

### 3.5 Test set up, Test instruments and Data of EMI

Refer to APPENDIX 1 to 3.

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## **SECTION 4: Operation of E.U.T. during testing**

### **4.1 Operating Modes**

The EUT was operating in a manner similar to typical use during the tests.

PacketType : Maximum  
Payload : PN9  
Operation : **(IEEE802.11b/11g)**  
Low Channel :2412MHz(Ch1)  
Mid Channel :2437MHz(Ch6)  
High channel :2462MHz(Ch11)  
**(IEEE802.11a)**  
Low Channel :5745MHz(Ch1)  
Mid Channel :5785MHz(Ch6)  
High channel :5825MHz(Ch11)

Conditions : 1) Data Rate:IEEE802.11b:1,2,5.5,11Mbps  
IEEE802.11g (Normal):6,9,12,18,24,36,48,54 Mbps  
IEEE802.11a (Normal):6,9,12,18,24,36,48,54 Mbps  
2) Antenna: AUX (A), Main (B) (same type)  
\*We pre-confirmed the above conditions on EUT and performed the final test with the following conditions;

|                         | IEEE802.11b         | IEEE802.11g         | IEEE802.11a         | IEEE802.11a         |
|-------------------------|---------------------|---------------------|---------------------|---------------------|
| Conducted emission test | 1)Rate:11 Mbps      | 1)Rate:54 Mbps      | 1)Rate:24 Mbps      | -                   |
|                         | 2) Main Antenna (A) | 2) Main Antenna (A) | 2) Main Antenna (A) | -                   |
| Radiated emission test  | 1)Rate:11Mbps       | 1)Rate:54 Mbps      | 1)Rate: 24 Mbps     | -                   |
|                         | 2) Main Antenna (A) | 2) Main Antenna (A) | 2) Main Antenna (A) | -                   |
| Other tests             | 1)Rate:11Mbps       | 1)Rate:54 Mbps      | 1)Rate: 24 Mbps     | 1)Rate: 54 Mbps     |
|                         | 2) Main Antenna (A) | 2) Main Antenna (A) | 2) Main Antenna (A) | 2) Main Antenna (A) |

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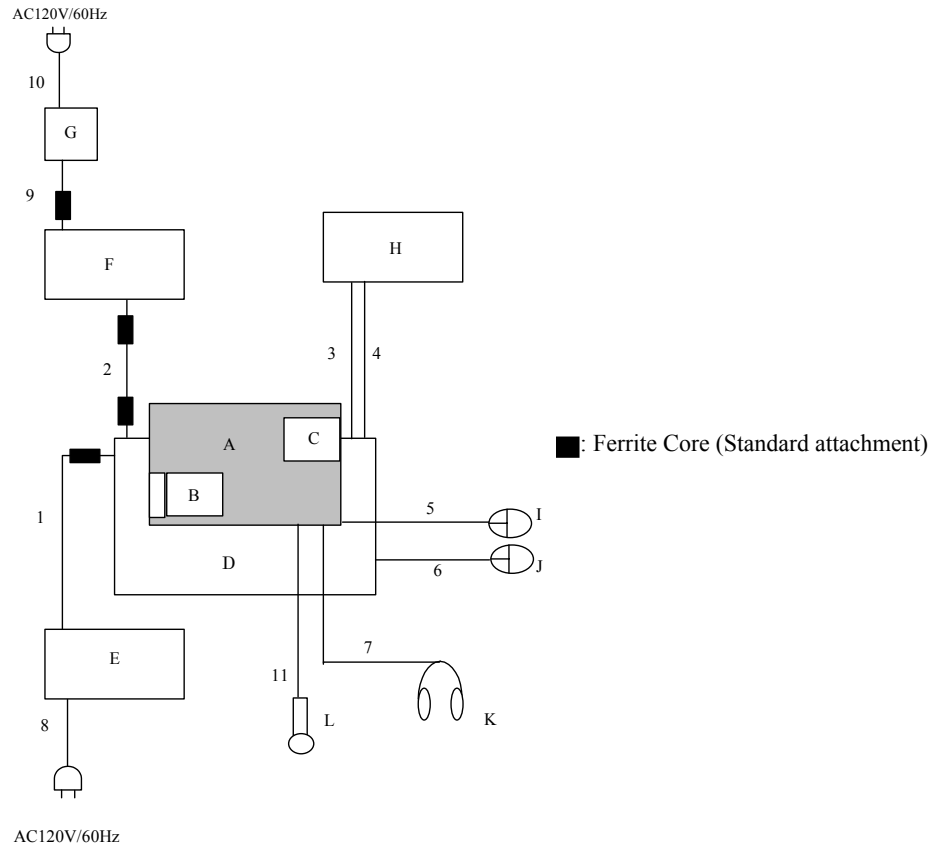
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## 4.2 Configuration and peripherals



\* Cabling was taken into consideration and test data was taken under worse case conditions.

#### Description of EUT and Support equipment

| No. | Item              | Model number | Serial number   | Manufacturer    | FCC ID     | Remarks |
|-----|-------------------|--------------|-----------------|-----------------|------------|---------|
| A   | Personal Computer | P1510        | R5100030        | FUJITSU LIMITED | EJE-WL0033 | EUT     |
| B   | PC Card           | -            | -               | IO DATA         | -          | -       |
| C   | SD Card           | -            | -               | IO DATA         | -          | -       |
| D   | Port Replicator   | -            | 30              | FUJITSU LIMITED | -          | -       |
| E   | AC Adapter        | CA01007-0730 | 01208879C       | FUJITSU LIMITED | -          | -       |
| F   | LCD Monitor       | PLE430-B1S   | 05205G4538698   | Iiyama          | -          | -       |
| G   | AC Adapter        | ADPC12416BB  | 12416B042126921 | Iiyama          | -          | -       |
| H   | Personal Computer | PGMJ140M     | 09632777        | SHARP           | -          | -       |
| I   | Mouse             | M-UB48       | LZE02650788     | Logitech        | -          | -       |
| J   | Mouse             | M-UB48       | LZE02601001     | Logitech        | -          | -       |
| K   | Headset           | LT-100       | 0010D           | Panasonic       | -          | -       |
| L   | Microphone        | -            | -               | Fujitsu         | -          | -       |

#### List of cables used

| No. | Name             | Length (m) | Shield | Backshell Material |
|-----|------------------|------------|--------|--------------------|
| 1   | DC Cable         | 1.8        | N      | Polyvinyl chloride |
| 2   | Monitor Cable    | 1.8        | Y      | Polyvinyl chloride |
| 3   | LAN Cable        | 2.9        | N      | Polyvinyl chloride |
| 4   | TEL Line         | 2.0        | N      | Polyvinyl chloride |
| 5   | Mouse Cable      | 0.7        | N      | Polyvinyl chloride |
| 6   | Mouse Cable      | 0.7        | N      | Polyvinyl chloride |
| 7   | Headset Cable    | 3.0        | N      | Polyvinyl chloride |
| 8   | AC Cable         | 2.0        | N      | Polyvinyl chloride |
| 9   | DC Cable         | 1.2        | N      | Polyvinyl chloride |
| 10  | AC Cable         | 1.8        | N      | Polyvinyl chloride |
| 11  | Microphone Cable | 1.6        | N      | Polyvinyl chloride |

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## **SECTION 5: Conducted Emission**

### **Test Procedure**

EUT was placed on a platform of nominal size, 1.5m by 1.0m, raised 80cm above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from a Line Impedance Stabilization Network (LISN)/ Artificial mains Network (AMN) and excess AC cable was bundled in center .

#### 1) For the tests on EUT with other peripherals (as a whole system)

I/O cable and AC cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane.

#### 2) For the tests on EUT itself (as a stand alone equipment)

Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN /(AMN) to the input power source. All unused 50ohm connectors of the LISN(AMN) were resistively terminated in 50ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber or a Measurement Room.

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

The measurements have been performed with a CISPR quasi-peak detector (IF BW 9 kHz).

Measurement range: 0.15-30MHz

**Test data** : **APPENDIX 3**

**Test result** : **Pass**

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## **SECTION 6: Spurious Emission**

### **[Conducted]**

#### **Test Procedure**

The Out of Band Emission was measured with a spectrum analyzer connected to the antenna port.

**Test data : APPENDIX 3**

**Test result : Pass**

### **[Radiated]**

#### **Test Procedure**

EUT was placed on the size, 1.0m by 1.0m, raised 80cm above the conducting ground plane.

The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).

The height of the measuring varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver or the Spectrum Analyzer.

In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

20dBc was applied to the frequency over the limit of FCC 15.209 and outside the restricted band of 15.205.

|                 |                                      |                                                        |
|-----------------|--------------------------------------|--------------------------------------------------------|
| Frequency       | Below 1GHz                           | Above 1GHz                                             |
| Instrument used | Test Receiver / Spectrum Analyzer    | Spectrum Analyzer                                      |
| Detector        | QP: BW 120kHz(T/R)                   | PK: RBW:1MHz/VBW: 1MHz                                 |
| IF Bandwidth    | 20dBc : RBW:100kHz/VBW: 300kHz (S/A) | AV: RBW:1MHz/VBW:10Hz<br>20dBc : RBW:100kHz/VBW:300kHz |

**Test data : APPENDIX 3**

**Test result : Pass**

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

\* The level was confirmed with both PC of Tablet type and Note type, and the test was made with the worst-case conditions.

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## **SECTION 7: Bandwidth**

### **Test Procedure**

The bandwidth was measured with a spectrum analyzer connected to the antenna port.

|             |              |
|-------------|--------------|
| Test data   | : APPENDIX 3 |
| Test result | : Pass       |

## **SECTION 8: Maximum Peak Output Power**

### **Test Procedure**

The Maximum Peak Output Power was measured with a spectrum analyzer connected to the antenna port.  
The test was made with the spectrum analyzer that has a function of channel-power measurement.

|             |              |
|-------------|--------------|
| Test data   | : APPENDIX 3 |
| Test result | : Pass       |

## **SECTION 9: Peak Power Density**

### **Test Procedure**

The Peak Power Density was measured with a spectrum analyzer connected to the antenna port.

|             |              |
|-------------|--------------|
| Test data   | : APPENDIX 3 |
| Test result | : Pass       |

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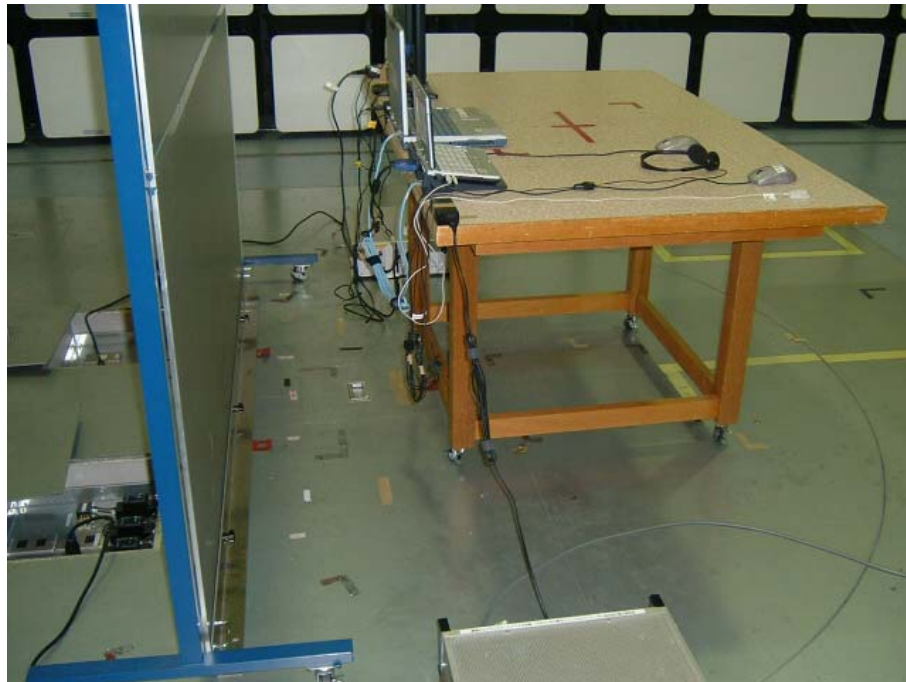
## **APPENDIX 1: Photographs of test setup**

### **Conducted Emission**

**Front**



**Side**



### **Spurious Emission (Radiated)**

**Front**



**Rear**



**Worst Case Position (Y-axis:Horizontal / X-axis:Vertical)**

**X-axis**



**Y-axis**



**Z-axis**



## APPENDIX 2: Test instruments

### EMI test equipment

| Control No. | Instrument                       | Manufacturer             | Model No                  | Test Item | Calibration Date *<br>Interval(month) |
|-------------|----------------------------------|--------------------------|---------------------------|-----------|---------------------------------------|
| MAEC-01     | Anechoic Chamber                 | TDK                      | Semi Anechoic Chamber 10m | RE        | 2004/11/13 * 12                       |
| MTR-01      | Test Receiver                    | Rohde & Schwarz          | ESI40                     | RE        | 2004/11/12 * 12                       |
| MCC-18      | Microwave Cable 1G-26.5GHz       | Suhner                   | SUCOFLEX 104              | RE        | 2005/02/03 * 12                       |
| MCC-26      | Microwave Cable 1G-26.5GHz       | Suhner                   | SUCOFLEX104               | RE        | 2004/08/26 * 12                       |
| MPA-05      | Pre Amplifier                    | TSJ                      | TSJ 1-26.5GHz PreAmp      | RE        | 2004/06/12 * 12                       |
| MHA-06      | Horn Antenna                     | Schwarzbeck              | BBHA9120D                 | RE        | 2005/01/10 * 12                       |
| MAT-20      | Attenuator(10dB)(above1GHz)      | HIROSE ELECTRIC CO.,LTD. | AT-110                    | RE        | 2005/01/11 * 12                       |
| MHF-02      | High Pass Filter                 | Tokimec                  | TF323DCA                  | RE        | 2004/09/18 * 12                       |
| MAEC-02     | Anechoic Chamber                 | TDK                      | Semi Anechoic Chamber 3m  | RE / CE   | 2005/04/11 * 12                       |
| MRENT-14    | Spectrum Analyzer                | Advantest                | R3273                     | RE / CE   | 2005/02/21 * 12                       |
| MCC-04      | Microwave Cable 1G-50GHz         | Storm                    | 421-011 ( 90-1394-079 )   | RE        | 2005/01/05 * 12                       |
| MCC-19      | Microwave Cable 1G-26.5GHz       | Suhner                   | SUCOFLEX 104              | RE        | 2005/02/03 * 12                       |
| MPA-01      | Pre Amplifier                    | Agilent                  | 8449B                     | RE        | 2005/02/05 * 12                       |
| MHA-06      | Horn Antenna                     | Schwarzbeck              | BBHA9120D                 | RE        | 2005/01/10 * 12                       |
| MCC-05      | Microwave Cable 1G-50GHz         | Storm                    | 421-011 ( 90-1394-079 )   | RE        | 2005/01/05 * 12                       |
| MBF-03      | SHF Bandpass Filter              | M-City                   | 13GHz BPF                 | RE        | 2005/05/20 * 12                       |
| MHA-02      | Horn Antenna                     | EMCO                     | 3160-09                   | RE        | 2005/01/10 * 12                       |
| MTR-02      | Test Receiver                    | Rohde & Schwarz          | ESCS30                    | RE/CE     | 2005/02/02 * 12                       |
| MCC-13      | Coaxial Cable                    | Fujikura/Agilent         | -                         | CE        | 2005/02/24 * 12                       |
| MLS-06      | LISN(AMN)                        | Schwarzbeck              | NSLK8127                  | CE(EUT)   | 2005/02/04 * 12                       |
| MLS-07      | LISN(AMN)                        | Schwarzbeck              | NSLK8127                  | CE        | 2005/02/04 * 12                       |
| MTA-04      | Termination                      | MCL                      | NTRM-50                   | CE        | 2005/02/03 * 12                       |
| MCC-12      | Coaxial Cable                    | Fujikura/Agilent         | -                         | RE        | 2005/02/24 * 12                       |
| MPA-06      | Pre Amplifier                    | Hewlett Packard          | 8447D                     | RE        | 2004/08/29 * 12                       |
| MAT-07      | Attenuator(6dB)                  | Weinschel Corp           | 2                         | RE        | 2004/12/16 * 12                       |
| MBA-02      | Biconical Antenna                | Schwarzbeck              | BBA9106                   | RE        | 2004/10/14 * 12                       |
| MLA-02      | Logperiodic Antenna              | Schwarzbeck              | USLP9143                  | RE        | 2004/10/14 * 12                       |
| MHA-04      | Horn Antenna                     | EMCO                     | 3160-10                   | RE        | 2005/01/10 * 12                       |
| MPA-03      | Microwave System Power Amplifier | Agilent                  | 83050A                    | RE        | 2005/05/11 * 12                       |
| MCC-17      | Microwave Cable 1G-50GHz         | Suhner                   | SUCOFLEX 101              | RE        | 2005/02/03 * 12                       |
| MCC-27      | Microwave Cable 1G-50GHz         | Suhner                   | SUCOFLEX101               | RE        | 2004/08/26 * 12                       |
| MSA-03      | Spectrum Analyzer                | Agilent                  | E4448A                    | AT        | 2004/06/12 * 12                       |
| MCC-06      | Microwave Cable 1G-26.5GHz       | Suhner                   | SUCOFLEX 104              | AT        | 2005/02/03 * 12                       |
| MCC-36      | Microwave Cable                  | Mitachi Co., Ltd.        | U.FL-2LP-066-A-(200)      | AT        | 2004/07/22 * 12                       |
| MAT-22      | Attenuator(10dB)(above1GHz)      | Orient Microwave         | BX10-0476-00              | AT        | 2005/03/16 * 12                       |

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

#### Test Item:

CE: Conducted emission  
RE: Spurious emission(Radiated)  
AT: Other tests

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### APPENDIX 3: Data of EMI test

#### Conducted Emission

#### DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks : 11b 2412MHz 11Mbps / Main Antenna

LIMIT : FCC15C §15.207 (QP)  
FCC15C §15.207 (AV)

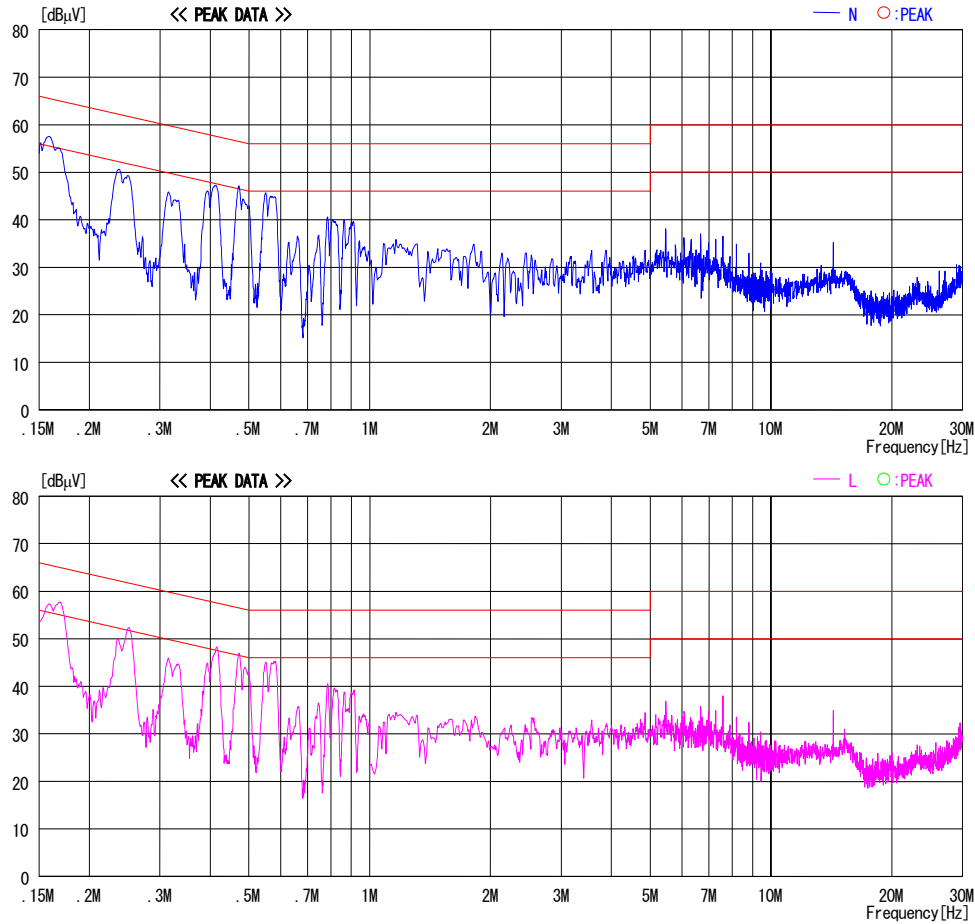


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11b 2437MHz 11Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

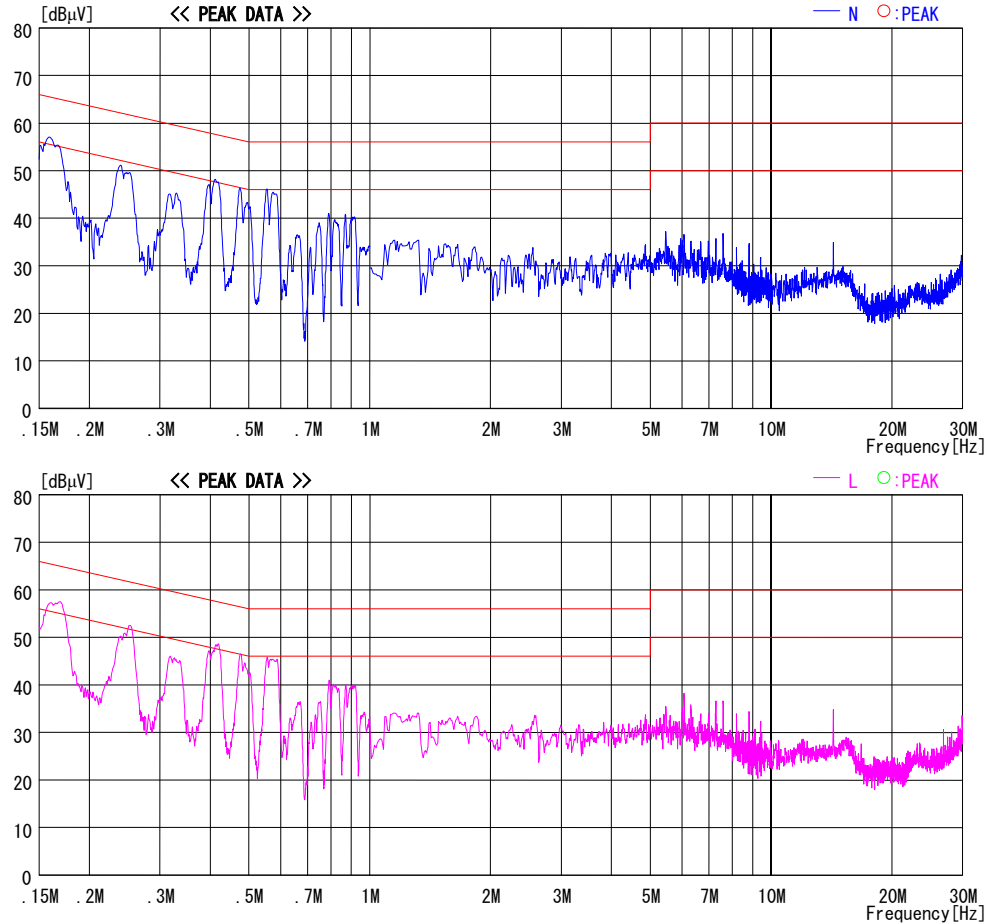


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11b 2462MHz 11Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

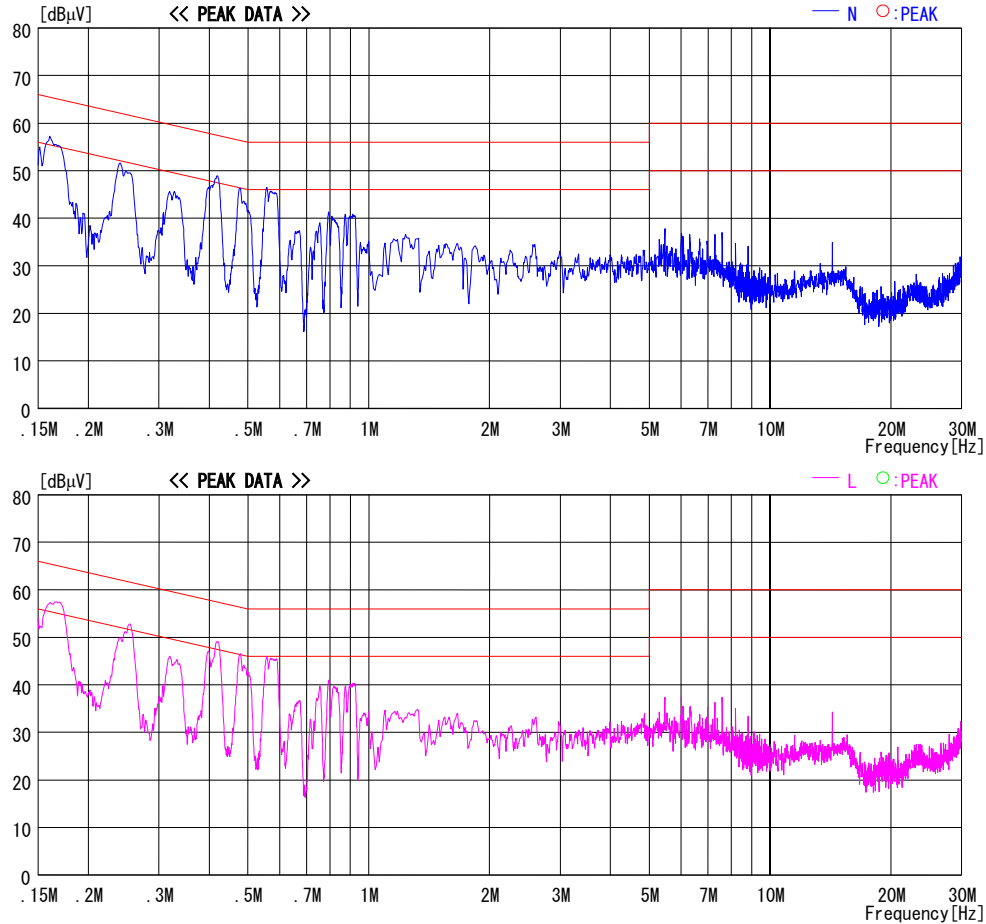


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

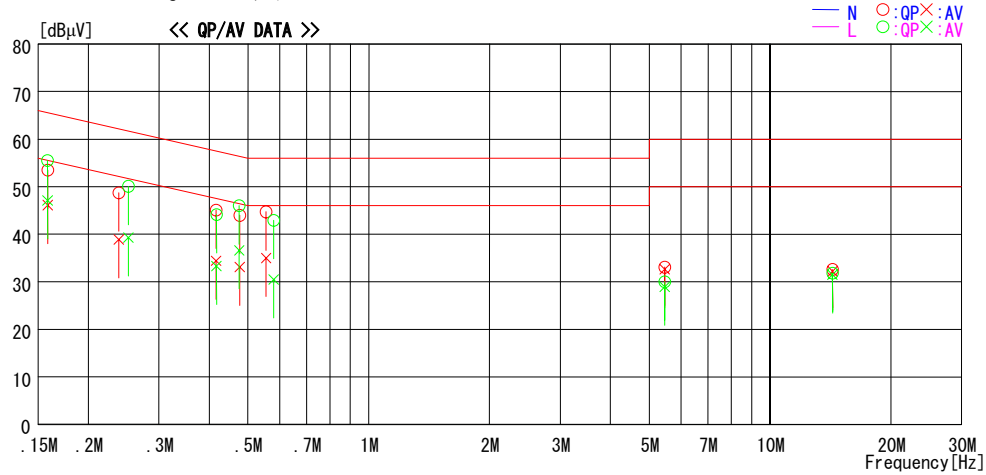
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11b 2462MHz 11Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)



| NO | FREQ<br>[MHz] | READING      |              | C. F | RESULT       |              | LIMIT        |              | MARGIN     |            | PHASE |
|----|---------------|--------------|--------------|------|--------------|--------------|--------------|--------------|------------|------------|-------|
|    |               | QP<br>[dBμV] | AV<br>[dBμV] |      | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dB] | AV<br>[dB] |       |
| 1  | 0.1585        | 53.4         | 46.0         | 0.1  | 53.5         | 46.1         | 65.5         | 55.5         | 12.0       | 9.4        | N     |
| 2  | 0.2382        | 48.6         | 38.8         | 0.1  | 48.7         | 38.9         | 62.2         | 52.2         | 13.5       | 13.3       | N     |
| 3  | 0.4165        | 45.0         | 34.3         | 0.1  | 45.1         | 34.4         | 57.5         | 47.5         | 12.4       | 13.1       | N     |
| 4  | 0.4771        | 43.9         | 33.0         | 0.1  | 44.0         | 33.1         | 56.4         | 46.4         | 12.4       | 13.3       | N     |
| 5  | 0.5552        | 44.5         | 34.8         | 0.2  | 44.7         | 35.0         | 56.0         | 46.0         | 11.3       | 11.0       | N     |
| 6  | 5.4653        | 32.3         | 31.8         | 0.8  | 33.1         | 32.6         | 60.0         | 50.0         | 26.9       | 17.4       | N     |
| 7  | 14.3194       | 31.1         | 30.7         | 1.5  | 32.6         | 32.2         | 60.0         | 50.0         | 27.4       | 17.8       | N     |
| 8  | 0.1584        | 55.4         | 47.0         | 0.1  | 55.5         | 47.1         | 65.5         | 55.5         | 10.0       | 8.4        | L     |
| 9  | 0.2519        | 50.0         | 39.2         | 0.1  | 50.1         | 39.3         | 61.7         | 51.7         | 11.6       | 12.4       | L     |
| 10 | 0.4174        | 44.0         | 33.2         | 0.1  | 44.1         | 33.3         | 57.5         | 47.5         | 13.4       | 14.2       | L     |
| 11 | 0.4757        | 45.9         | 36.5         | 0.1  | 46.0         | 36.6         | 56.4         | 46.4         | 10.4       | 9.8        | L     |
| 12 | 0.5796        | 42.7         | 30.3         | 0.2  | 42.9         | 30.5         | 56.0         | 46.0         | 13.1       | 15.5       | L     |
| 13 | 5.4647        | 29.2         | 28.1         | 0.8  | 30.0         | 28.9         | 60.0         | 50.0         | 30.0       | 21.1       | L     |
| 14 | 14.3181       | 30.3         | 30.0         | 1.5  | 31.8         | 31.5         | 60.0         | 50.0         | 28.2       | 18.5       | L     |

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11g 2412MHz 54Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

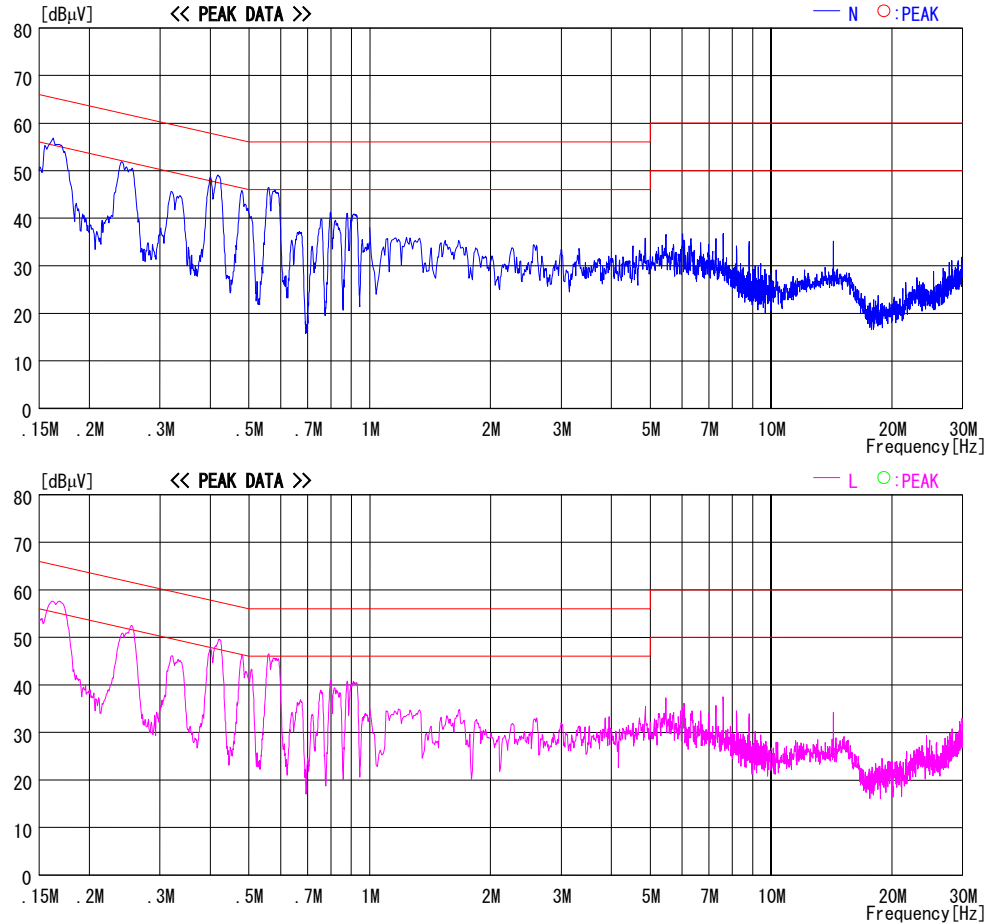


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11g 2437MHz 54Mbps / Main Antenna

LIMIT : FCC15C §15.207 (QP)  
FCC15C §15.207 (AV)

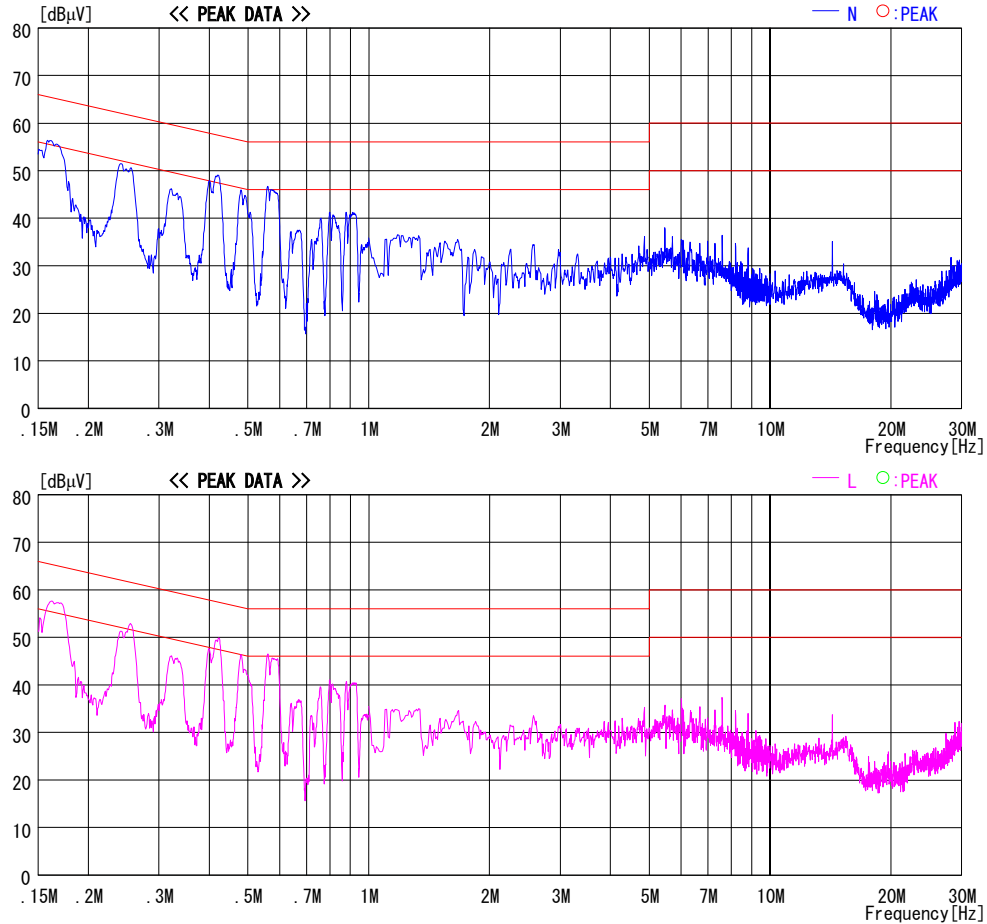


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
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Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11g 2462MHz 54Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

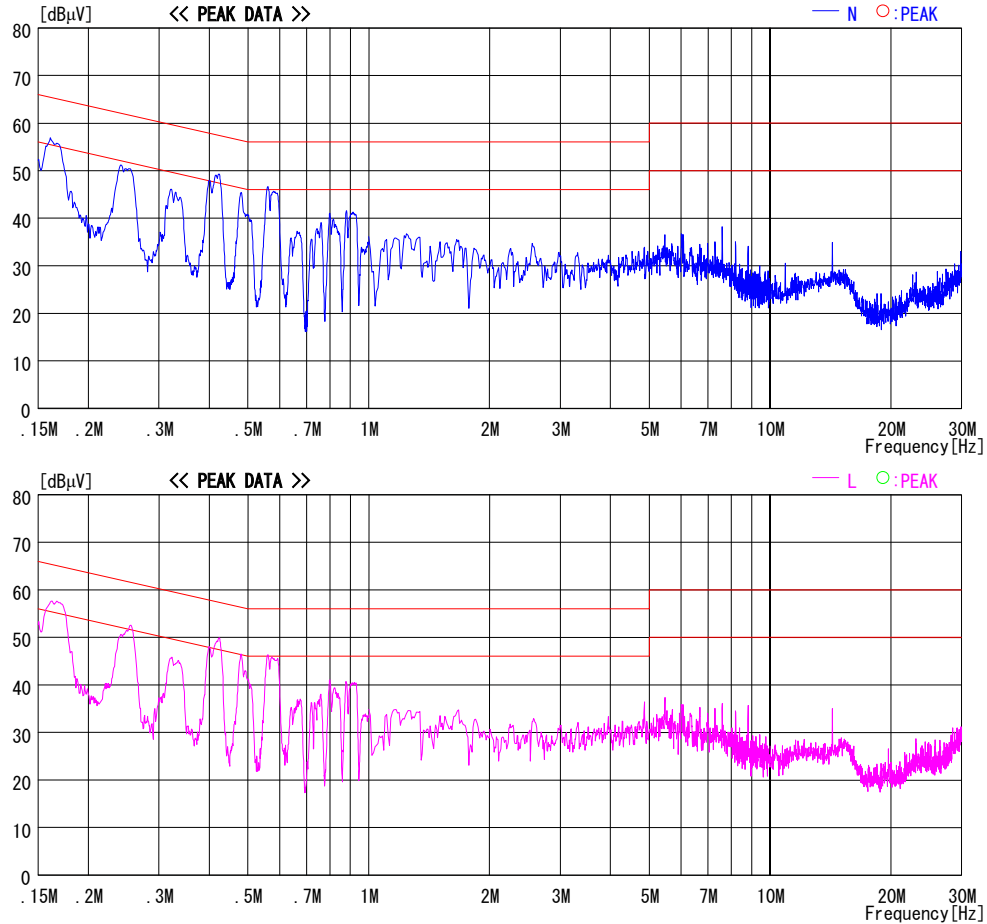


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

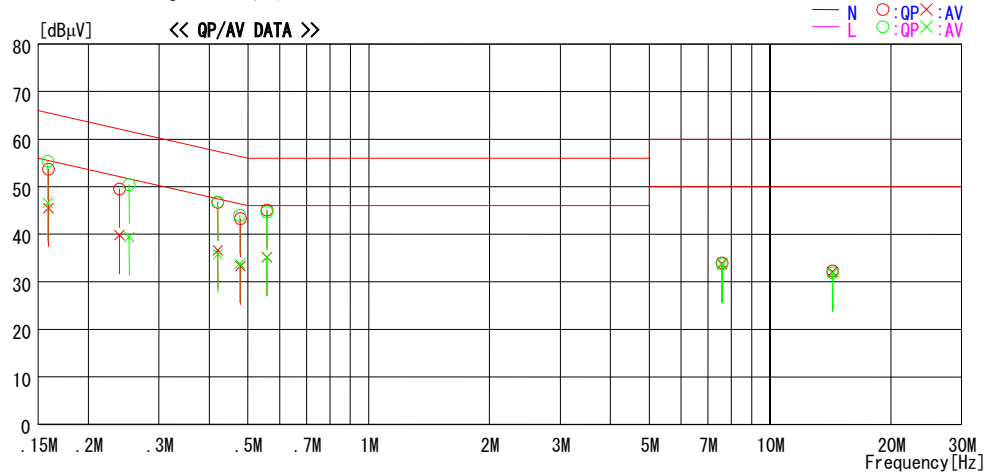
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11g 2462MHz 54Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)



| NO | FREQ<br>[MHz] | READING      |              | C. F | RESULT       |              | LIMIT        |              | MARGIN     |            | PHASE |
|----|---------------|--------------|--------------|------|--------------|--------------|--------------|--------------|------------|------------|-------|
|    |               | QP<br>[dBμV] | AV<br>[dBμV] |      | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dB] | AV<br>[dB] |       |
| 1  | 0.1591        | 53.6         | 45.4         | 0.1  | 53.7         | 45.5         | 65.5         | 55.5         | 11.8       | 10.0       | N     |
| 2  | 0.2392        | 49.4         | 39.7         | 0.1  | 49.5         | 39.8         | 62.1         | 52.1         | 12.6       | 12.3       | N     |
| 3  | 0.4206        | 46.6         | 36.5         | 0.1  | 46.7         | 36.6         | 57.4         | 47.4         | 10.7       | 10.8       | N     |
| 4  | 0.4785        | 43.2         | 33.2         | 0.1  | 43.3         | 33.3         | 56.4         | 46.4         | 13.1       | 13.1       | N     |
| 5  | 0.5579        | 44.9         | 35.0         | 0.2  | 45.1         | 35.2         | 56.0         | 46.0         | 10.9       | 10.8       | N     |
| 6  | 7.5928        | 33.0         | 32.8         | 1.0  | 34.0         | 33.8         | 60.0         | 50.0         | 26.0       | 16.2       | N     |
| 7  | 14.3172       | 30.8         | 30.6         | 1.5  | 32.3         | 32.1         | 60.0         | 50.0         | 27.7       | 17.9       | N     |
| 8  | 0.1585        | 55.3         | 46.5         | 0.1  | 55.4         | 46.6         | 65.5         | 55.5         | 10.1       | 8.9        | L     |
| 9  | 0.2529        | 50.3         | 39.3         | 0.1  | 50.4         | 39.4         | 61.7         | 51.7         | 11.3       | 12.3       | L     |
| 10 | 0.4207        | 46.7         | 35.7         | 0.1  | 46.8         | 35.8         | 57.4         | 47.4         | 10.6       | 11.6       | L     |
| 11 | 0.4768        | 43.9         | 33.7         | 0.1  | 44.0         | 33.8         | 56.4         | 46.4         | 12.4       | 12.6       | L     |
| 12 | 0.5574        | 44.5         | 34.9         | 0.2  | 44.7         | 35.1         | 56.0         | 46.0         | 11.3       | 10.9       | L     |
| 13 | 7.5931        | 32.8         | 32.6         | 1.0  | 33.8         | 33.6         | 60.0         | 50.0         | 26.2       | 16.4       | L     |
| 14 | 14.3186       | 30.4         | 30.3         | 1.5  | 31.9         | 31.8         | 60.0         | 50.0         | 28.1       | 18.2       | L     |

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11a High Band 5745MHz 24Mbps / Main

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

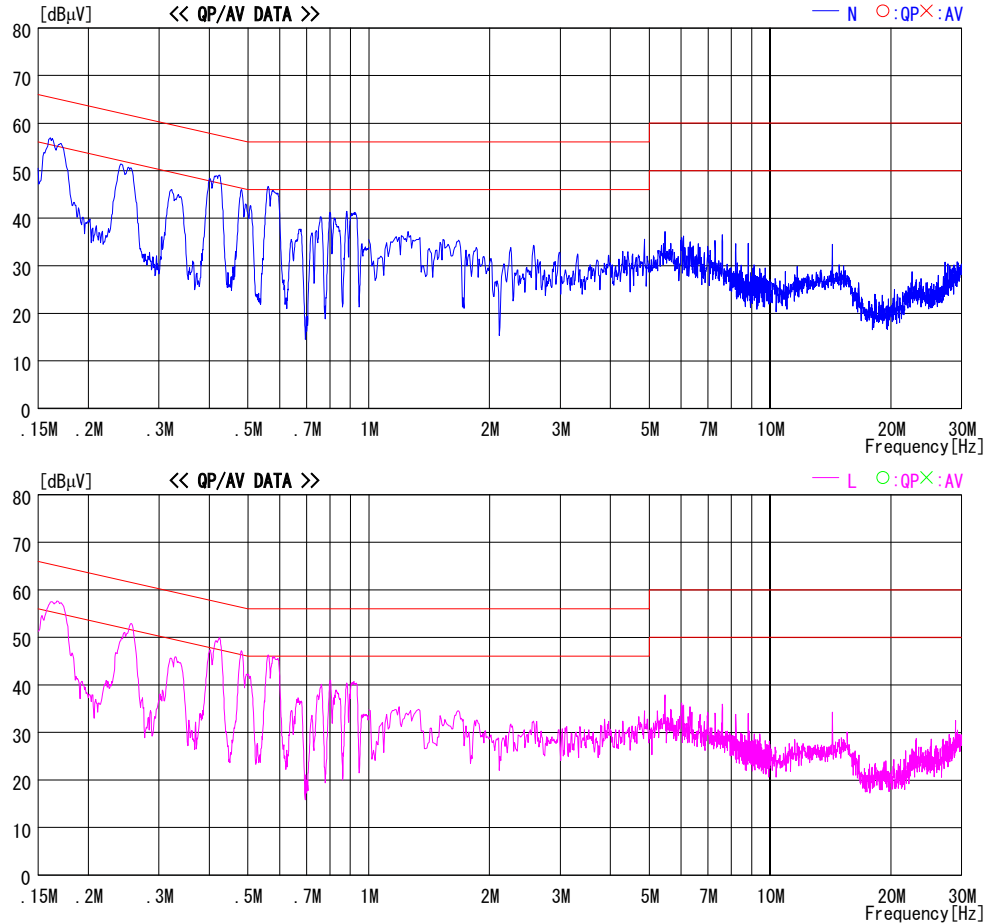


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11a High Band 5785MHz 24Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

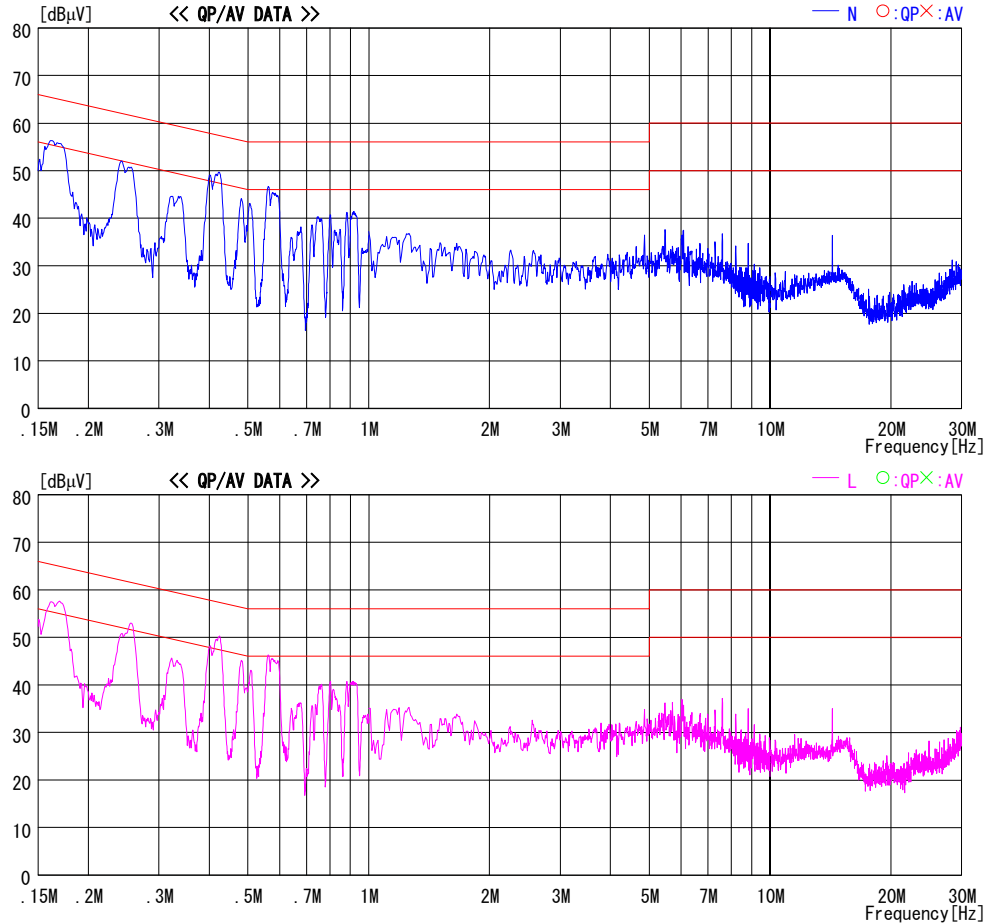


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11a High Band 5825MHz 24Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)

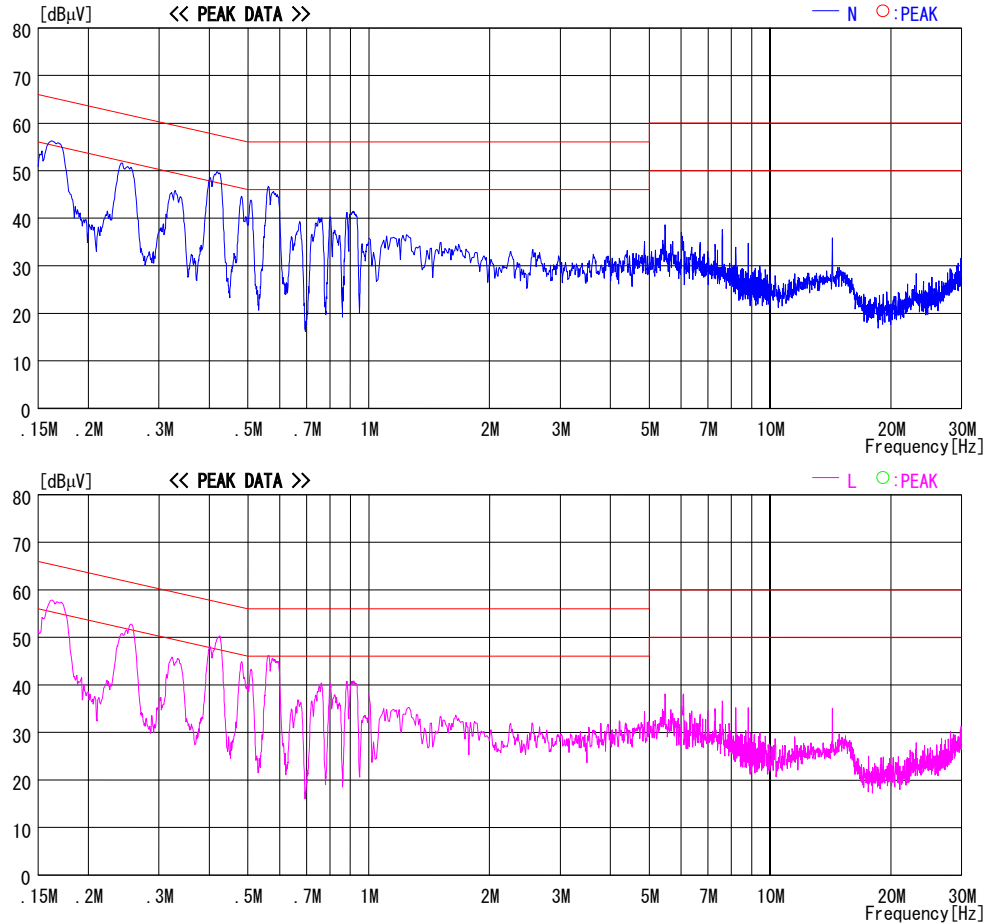


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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## DATA OF CONDUCTED EMISSION TEST

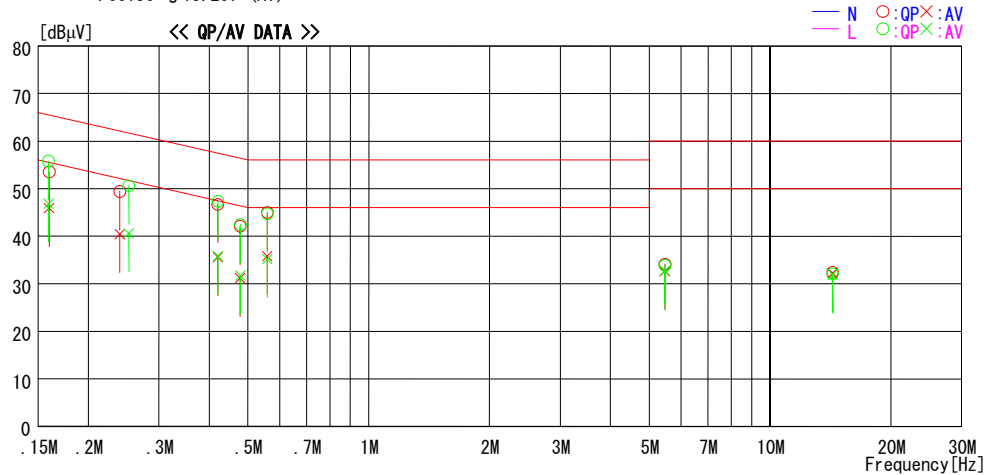
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz  
Temp°C/Humi% : 25deg. C / 46%  
Operator : Norihisa Hashimoto

Mode / Remarks: 11a High Band 5825MHz 24Mbps / Main Antenna

LIMIT : FCC15C § 15.207 (QP)  
FCC15C § 15.207 (AV)



| NO | FREQ<br>[MHz] | READING      |              | C. F | RESULT       |              | LIMIT        |              | MARGIN     |            | PHASE |
|----|---------------|--------------|--------------|------|--------------|--------------|--------------|--------------|------------|------------|-------|
|    |               | QP<br>[dBμV] | AV<br>[dBμV] |      | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dB] | AV<br>[dB] |       |
| 1  | 0.1598        | 53.5         | 45.8         | 0.1  | 53.6         | 45.9         | 65.5         | 55.5         | 11.9       | 9.6        | N     |
| 2  | 0.2395        | 49.3         | 40.3         | 0.1  | 49.4         | 40.4         | 62.1         | 52.1         | 12.7       | 11.7       | N     |
| 3  | 0.4207        | 46.6         | 35.5         | 0.1  | 46.7         | 35.6         | 57.4         | 47.4         | 10.7       | 11.8       | N     |
| 4  | 0.4781        | 42.0         | 31.1         | 0.1  | 42.1         | 31.2         | 56.4         | 46.4         | 14.3       | 15.2       | N     |
| 5  | 0.5582        | 44.8         | 35.6         | 0.2  | 45.0         | 35.8         | 56.0         | 46.0         | 11.0       | 10.2       | N     |
| 6  | 5.4684        | 33.3         | 31.8         | 0.8  | 34.1         | 32.6         | 60.0         | 50.0         | 25.9       | 17.4       | N     |
| 7  | 14.3191       | 30.9         | 30.7         | 1.5  | 32.4         | 32.2         | 60.0         | 50.0         | 27.6       | 17.8       | N     |
| 8  | 0.1593        | 55.7         | 46.7         | 0.1  | 55.8         | 46.8         | 65.5         | 55.5         | 9.7        | 8.7        | L     |
| 9  | 0.2524        | 50.5         | 40.5         | 0.1  | 50.6         | 40.6         | 61.7         | 51.7         | 11.1       | 11.1       | L     |
| 10 | 0.4210        | 47.3         | 35.7         | 0.1  | 47.4         | 35.8         | 57.4         | 47.4         | 10.0       | 11.6       | L     |
| 11 | 0.4786        | 42.3         | 31.6         | 0.1  | 42.4         | 31.7         | 56.4         | 46.4         | 14.0       | 14.7       | L     |
| 12 | 0.5584        | 44.5         | 35.0         | 0.2  | 44.7         | 35.2         | 56.0         | 46.0         | 11.3       | 10.8       | L     |
| 13 | 5.4685        | 33.1         | 31.9         | 0.8  | 33.9         | 32.7         | 60.0         | 50.0         | 26.1       | 17.3       | L     |
| 14 | 14.3186       | 30.6         | 30.4         | 1.5  | 32.1         | 31.9         | 60.0         | 50.0         | 27.9       | 18.1       | L     |

CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

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### **6dB Bandwidth(DSSS and other forms of modulation)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.4 Measurement Room

|            |                                          |               |                    |
|------------|------------------------------------------|---------------|--------------------|
| COMPANY    | : Fujitsu Limited                        | REPORT NO     | : 25HE0105-HO      |
| EQUIPMENT  | : Personal Computer                      | REGULATION    | : FCC 15.247(a)(2) |
| MODEL      | : P1510                                  | TEST DISTANCE | : -                |
| SAMPLE NO. | : R5100030                               | DATE          | : 05/11/2005       |
| POWER      | : AC120V/60Hz                            | TEMPERATURE   | : 26deg.C          |
| MODE       | : Tx IEEE 802.11a/b/g                    | HUMIDITY      | : 36%              |
|            | : Main Antenna , Continuous Transmitting | ENGINEER      | : Mitsuru Fujimura |

#### **[ IEEE802.11b : 11Mbps ] Antenna: Main (A)**

| Ch   | Freq.  | 6dB Bandwidth | Limit |
|------|--------|---------------|-------|
|      | [MHz]  | [MHz]         | [kHz] |
| Low  | 2412.0 | 9.031         | 500.0 |
| Mid  | 2437.0 | 9.030         | 500.0 |
| High | 2462.0 | 9.029         | 500.0 |

#### **[ IEEE802.11g : 54Mbps ] Antenna: Main (A)**

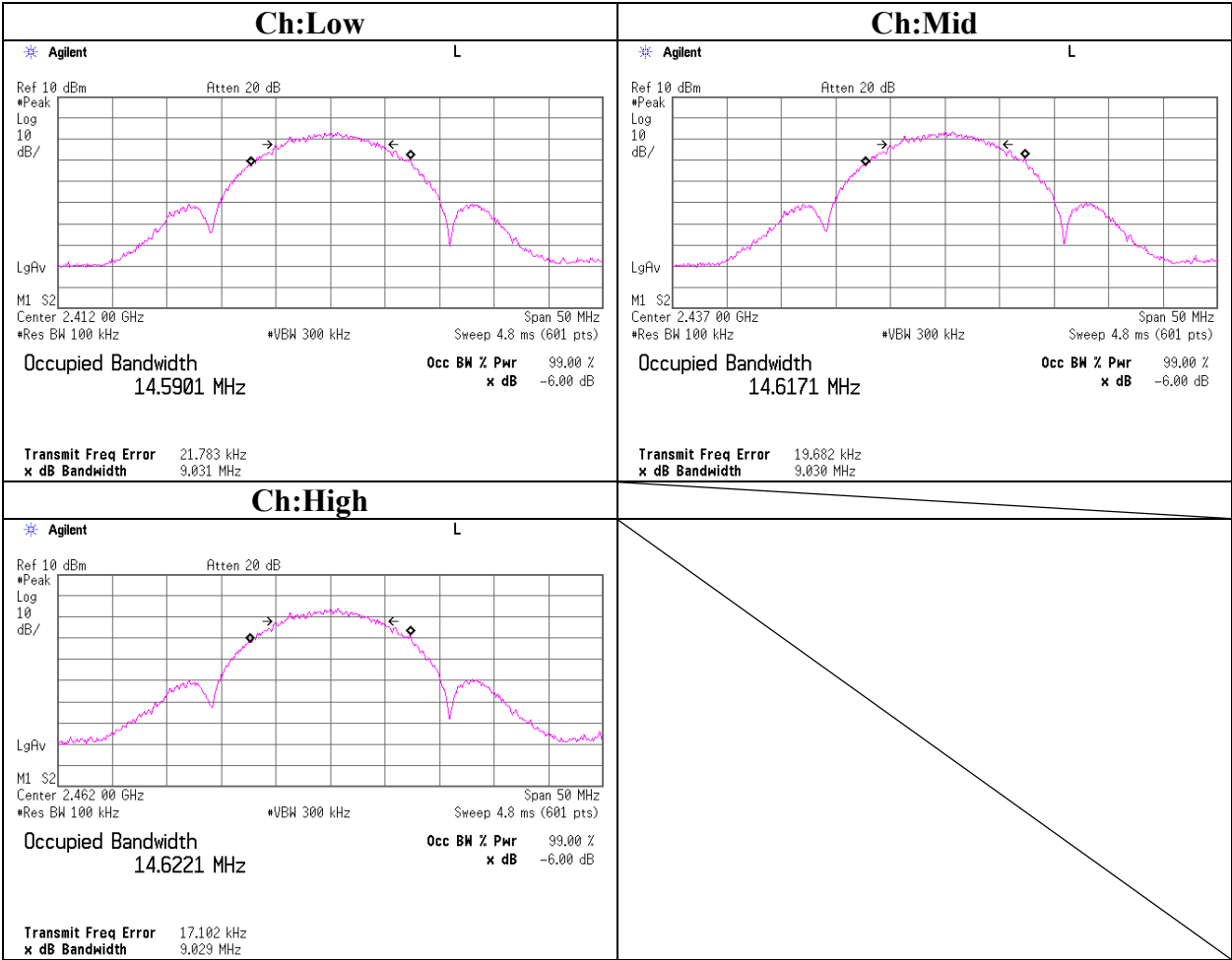
| Ch   | Freq.  | 6dB Bandwidth | Limit |
|------|--------|---------------|-------|
|      | [MHz]  | [MHz]         | [kHz] |
| Low  | 2412.0 | 16.479        | 500.0 |
| Mid  | 2437.0 | 16.480        | 500.0 |
| High | 2462.0 | 15.254        | 500.0 |

#### **[ IEEE802.11a : 24Mbps ] Antenna: Main (A)**

| Ch  | Freq.  | 6dB Bandwidth | Limit |
|-----|--------|---------------|-------|
|     | [MHz]  | [MHz]         | [kHz] |
| 149 | 5745.0 | 16.505        | 500.0 |
| 157 | 5785.0 | 16.511        | 500.0 |
| 165 | 5825.0 | 16.511        | 500.0 |

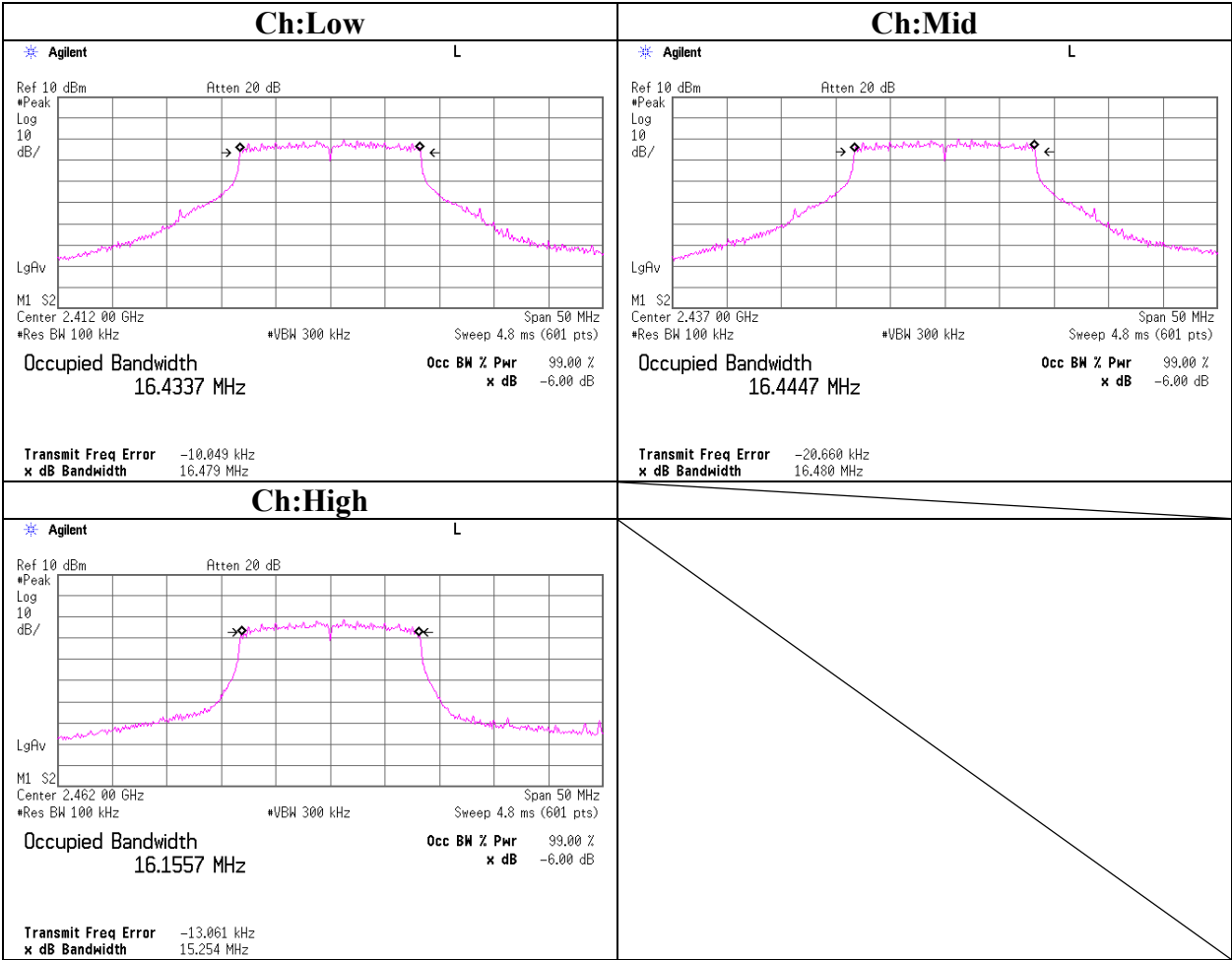
6dB Bandwidth(DSSS and other forms of modulation)

IEEE802.11b 11Mbps Antenna: Main



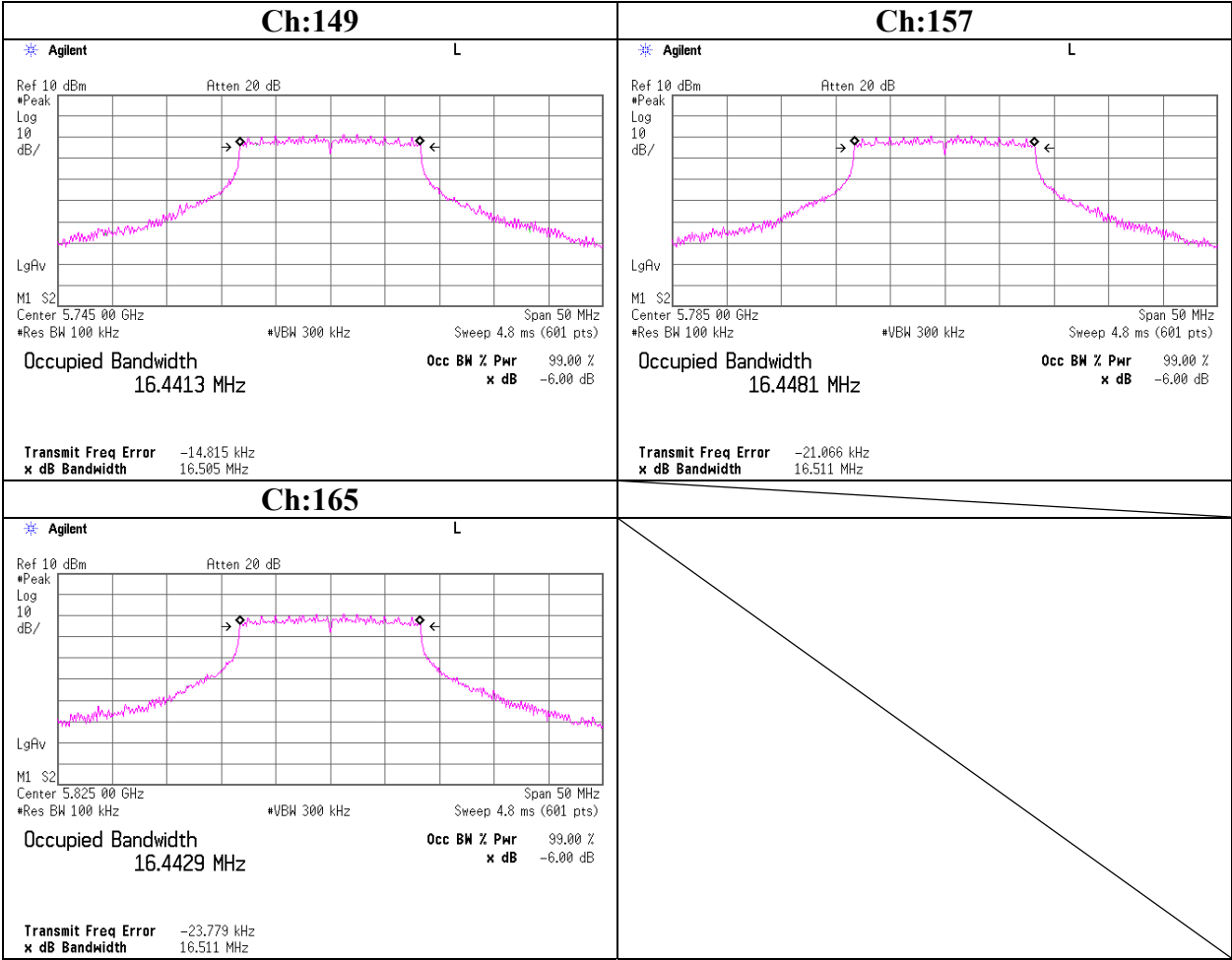
6dB Bandwidth(DSSS and other forms of modulation)

IEEE802.11g 54Mbps Antenna: Main



6dB Bandwidth(DSSS and other forms of modulation)

IEEE802.11a 24Mbps Antenna: Main



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**Antenna: Main**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3 Measurement Room

|                                          |                               |
|------------------------------------------|-------------------------------|
| COMPANY : Fujitsu Limited                | REPORT NO : 25HE0105-HO       |
| EQUIPMENT : Personal Computer            | REGULATION : FCC 15.247(b)(3) |
| MODEL : P1510                            | TEST DISTANCE : -             |
| SAMPLE NC: R5100030                      | DATE : 27/04/2005             |
| POWER : AC120V/60Hz                      | TEMPERATURE : 24deg.C         |
| MODE : Tx IEEE 802.11b/g, 11a(High Band) | HUMIDITY : 52%                |
| : Main Antenna , Continuous Transmitting | ENGINEER : Mitsuru Fujimura   |

| [IEEE802.11b: 11Mbps Main Antenna ] |                |                         |                       |                |                 |                |                |
|-------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 1                                   | 2412.0         | 8.69                    | 1.04                  | 10.00          | 19.73           | 30.00          | 10.27          |
| 6                                   | 2437.0         | 8.99                    | 1.01                  | 10.00          | 20.00           | 30.00          | 10.00          |
| 11                                  | 2462.0         | 9.20                    | 0.99                  | 10.00          | 20.19           | 30.00          | 9.81           |

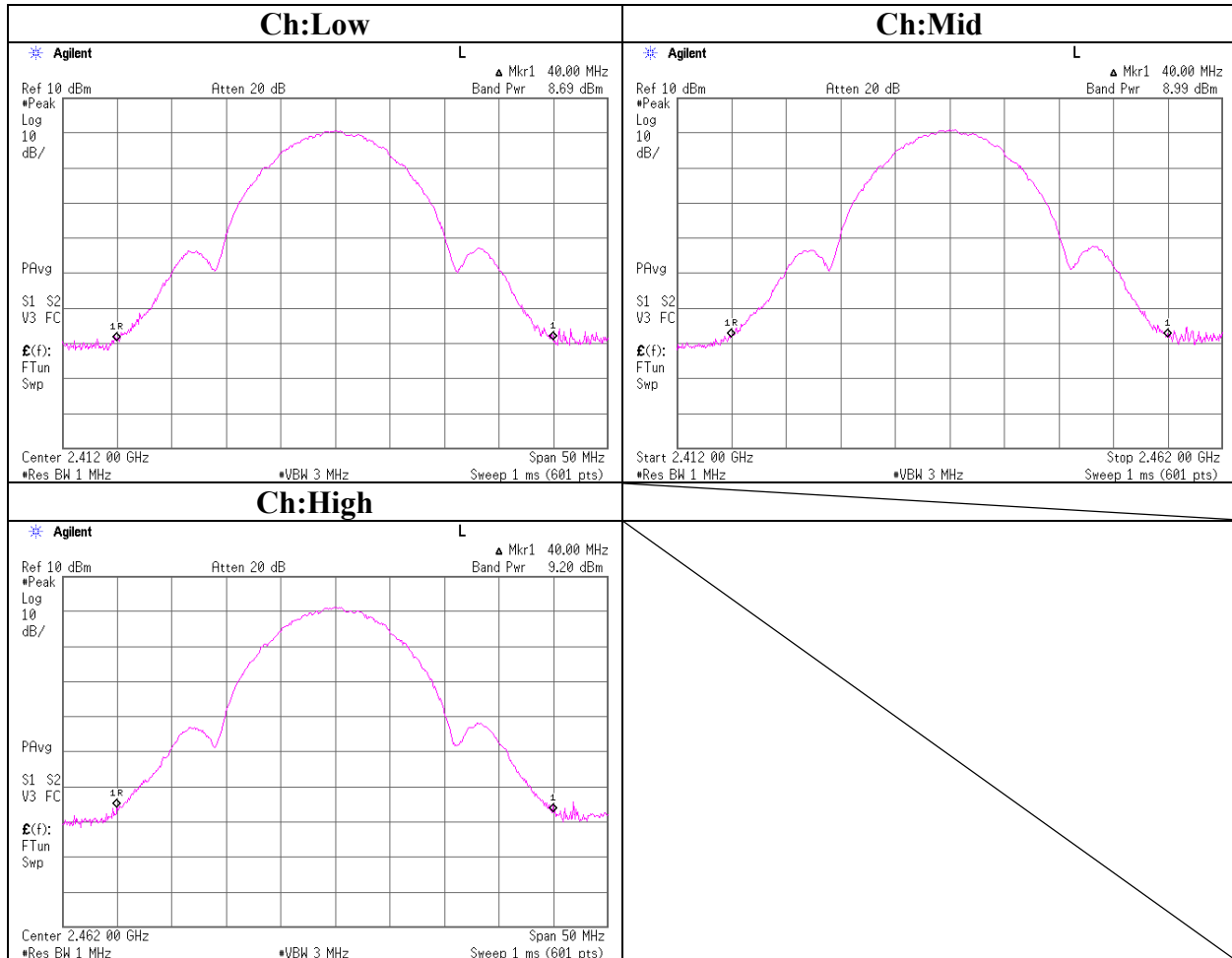
| [IEEE802.11g: 54Mbps Main Antenna ] |                |                         |                       |                |                 |                |                |
|-------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 1                                   | 2412.0         | 8.20                    | 1.04                  | 10.00          | 19.24           | 30.00          | 10.76          |
| 6                                   | 2437.0         | 9.16                    | 1.01                  | 10.00          | 20.17           | 30.00          | 9.83           |
| 11                                  | 2462.0         | 6.69                    | 0.99                  | 10.00          | 17.68           | 30.00          | 12.32          |

| [IEEE802.11a: 24Mbps Main Antenna ] |                |                         |                       |                |                 |                |                |
|-------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 149                                 | 5745.0         | 8.74                    | 1.20                  | 10.00          | 19.94           | 30.00          | 10.06          |
| 157                                 | 5785.0         | 8.64                    | 1.16                  | 10.00          | 19.80           | 30.00          | 10.20          |
| 165                                 | 5825.0         | 8.87                    | 1.19                  | 10.00          | 20.06           | 30.00          | 9.94           |

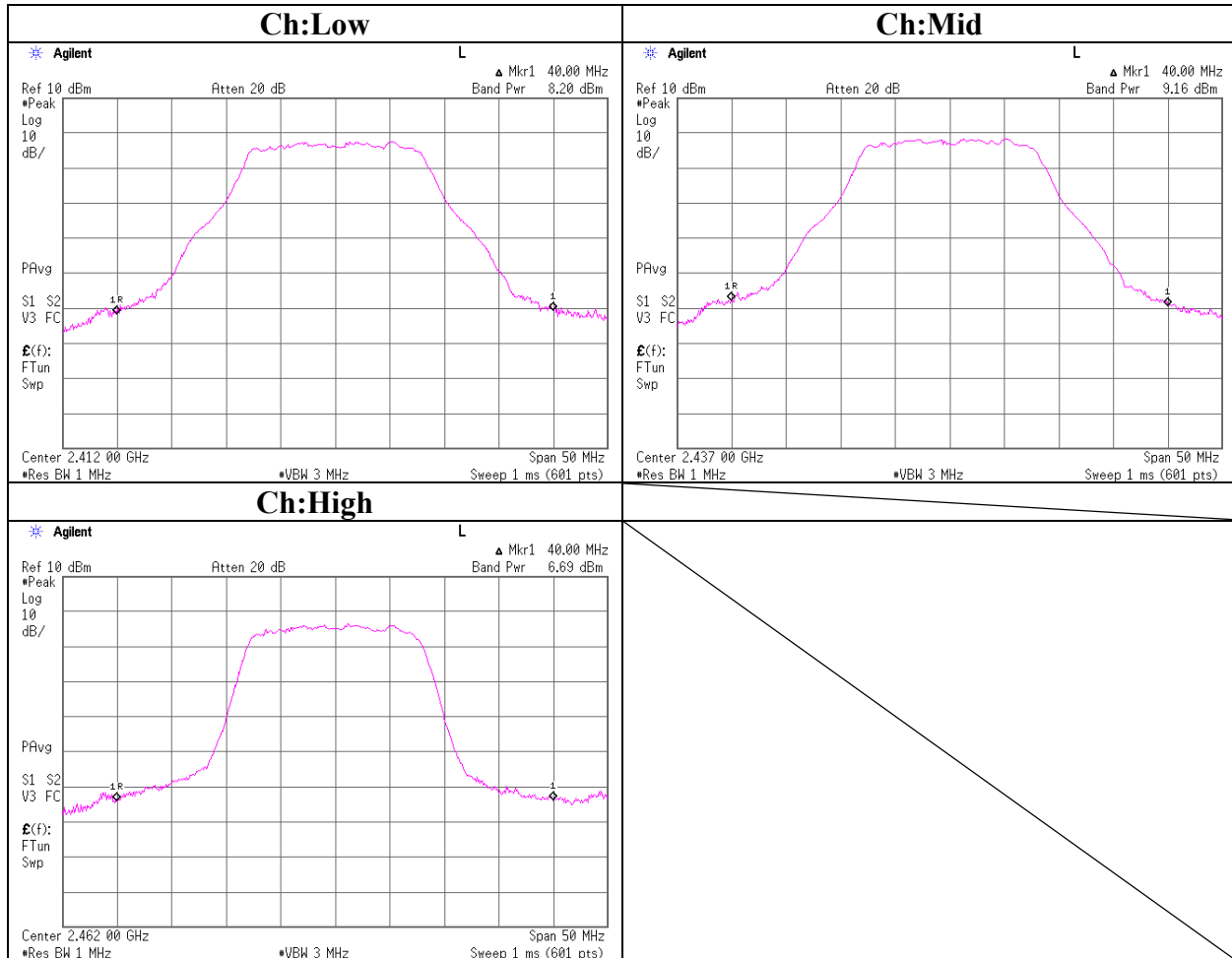
| [IEEE802.11a: 54Mbps Main Antenna ] |                |                         |                       |                |                 |                |                |
|-------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 149                                 | 5745.0         | 6.51                    | 1.20                  | 10.00          | 17.71           | 30.00          | 12.29          |
| 157                                 | 5785.0         | 5.71                    | 1.16                  | 10.00          | 16.87           | 30.00          | 13.13          |
| 165                                 | 5825.0         | 5.95                    | 1.19                  | 10.00          | 17.14           | 30.00          | 12.86          |

Sample Calculation:  
Result = Reading + Cable Loss + Attenuator  
\* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

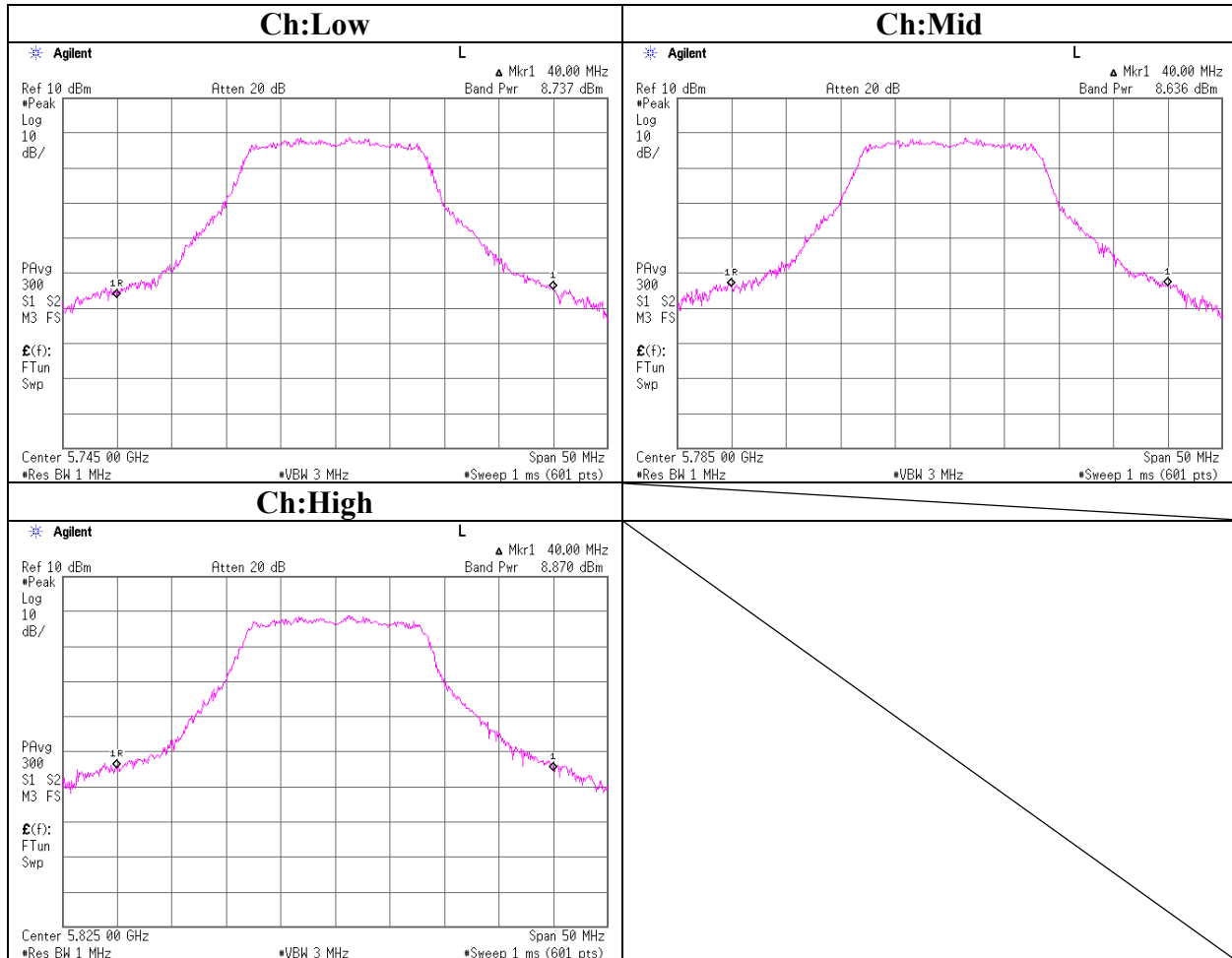
**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Main**



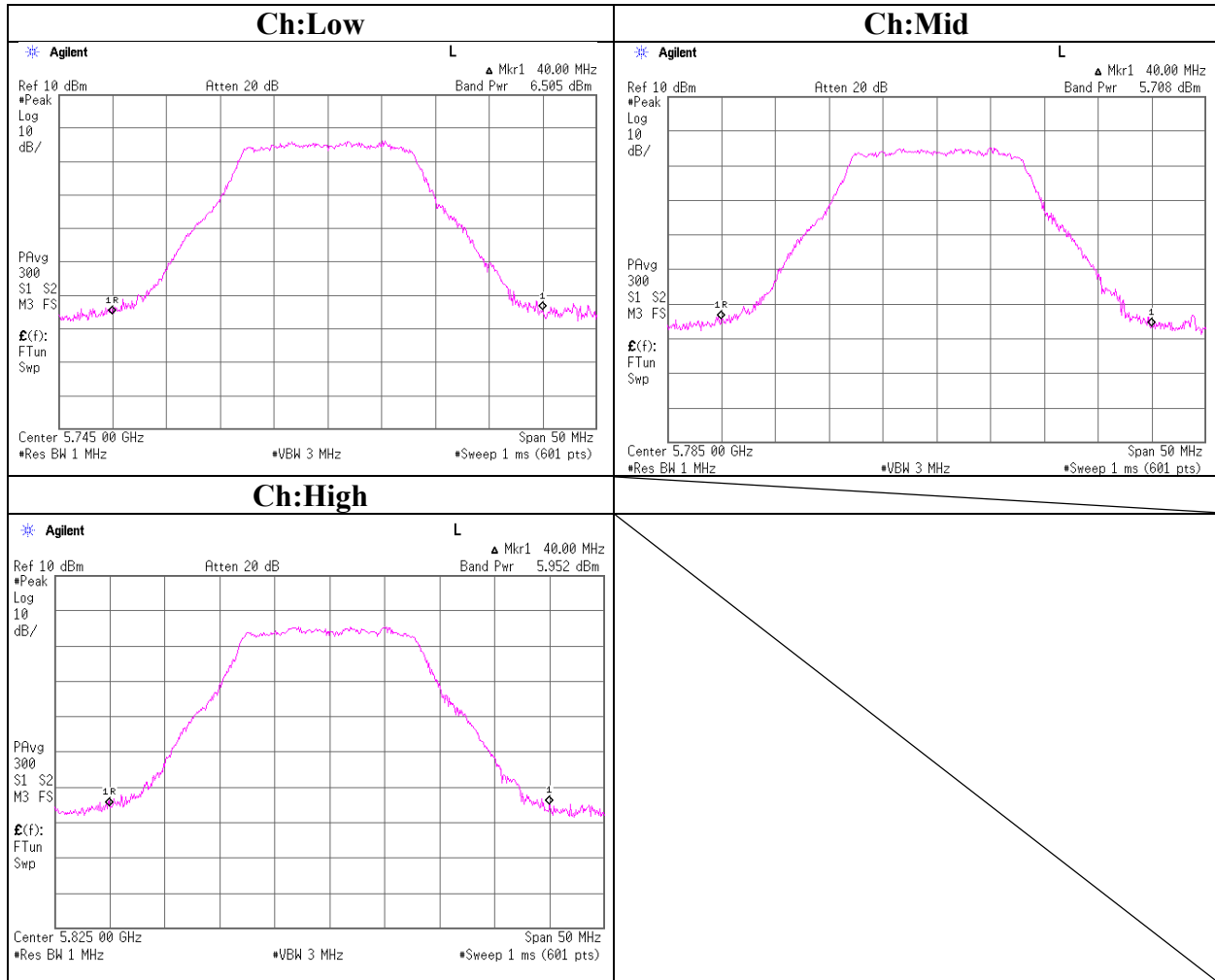
**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Main**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11a (High Band) 24Mbps Antenna :Main**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11a 54Mbps Antenna: Main**



## Maximum Peak OutPut Power (DSSS and other forms of modulation)

### Antenna: Aux

COMPANY : Fujitsu Limited  
EQUIPMENT : Personal Computer  
MODEL : P1510  
SAMPLE NO: R5100030  
POWER : AC120V/60Hz  
MODE : Tx IEEE 802.11b/g, 11a(High Band)  
: Aux Antenna , Continuous Transmitting

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3 Measurement Room  
REPORT NO : 25HE0105-HO  
REGULATION : FCC 15.247(b)(3)  
TEST DISTANCE : -  
DATE : 27/04/2005  
TEMPERATURE : 24deg.C  
HUMIDITY : 52%  
ENGINEER : Mitsuru Fujimura

| [IEEE802.11b: Aux Antenna (11Mbps )] |                |                         |                       |                |                 |                |                |
|--------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                   | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 1                                    | 2412.0         | 8.58                    | 1.04                  | 10.00          | 19.62           | 30.00          | 10.38          |
| 6                                    | 2437.0         | 8.69                    | 1.01                  | 10.00          | 19.70           | 30.00          | 10.30          |
| 11                                   | 2462.0         | 9.06                    | 0.99                  | 10.00          | 20.05           | 30.00          | 9.95           |

| [IEEE802.11g: Aux Antenna (54Mbps )] |                |                         |                       |                |                 |                |                |
|--------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                   | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 1                                    | 2412.0         | 8.06                    | 1.04                  | 10.00          | 19.10           | 30.00          | 10.90          |
| 6                                    | 2437.0         | 8.82                    | 1.01                  | 10.00          | 19.83           | 30.00          | 10.17          |
| 11                                   | 2462.0         | 6.62                    | 0.99                  | 10.00          | 17.61           | 30.00          | 12.39          |

| [IEEE802.11a: Aux Antenna (24Mbps )] |                |                         |                       |                |                 |                |                |
|--------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                   | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 149                                  | 5745.0         | 8.70                    | 1.20                  | 10.00          | 19.90           | 30.00          | 10.10          |
| 157                                  | 5785.0         | 8.53                    | 1.16                  | 10.00          | 19.69           | 30.00          | 10.31          |
| 165                                  | 5825.0         | 8.79                    | 1.19                  | 10.00          | 19.98           | 30.00          | 10.02          |

| [IEEE802.11a: Aux Antenna ( 54Mbps)] |                |                         |                       |                |                 |                |                |
|--------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Ch                                   | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
| 149                                  | 5745.0         | 6.20                    | 1.20                  | 10.00          | 17.40           | 30.00          | 12.60          |
| 157                                  | 5785.0         | 5.64                    | 1.16                  | 10.00          | 16.80           | 30.00          | 13.20          |
| 165                                  | 5825.0         | 5.86                    | 1.19                  | 10.00          | 17.05           | 30.00          | 12.95          |

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

\* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

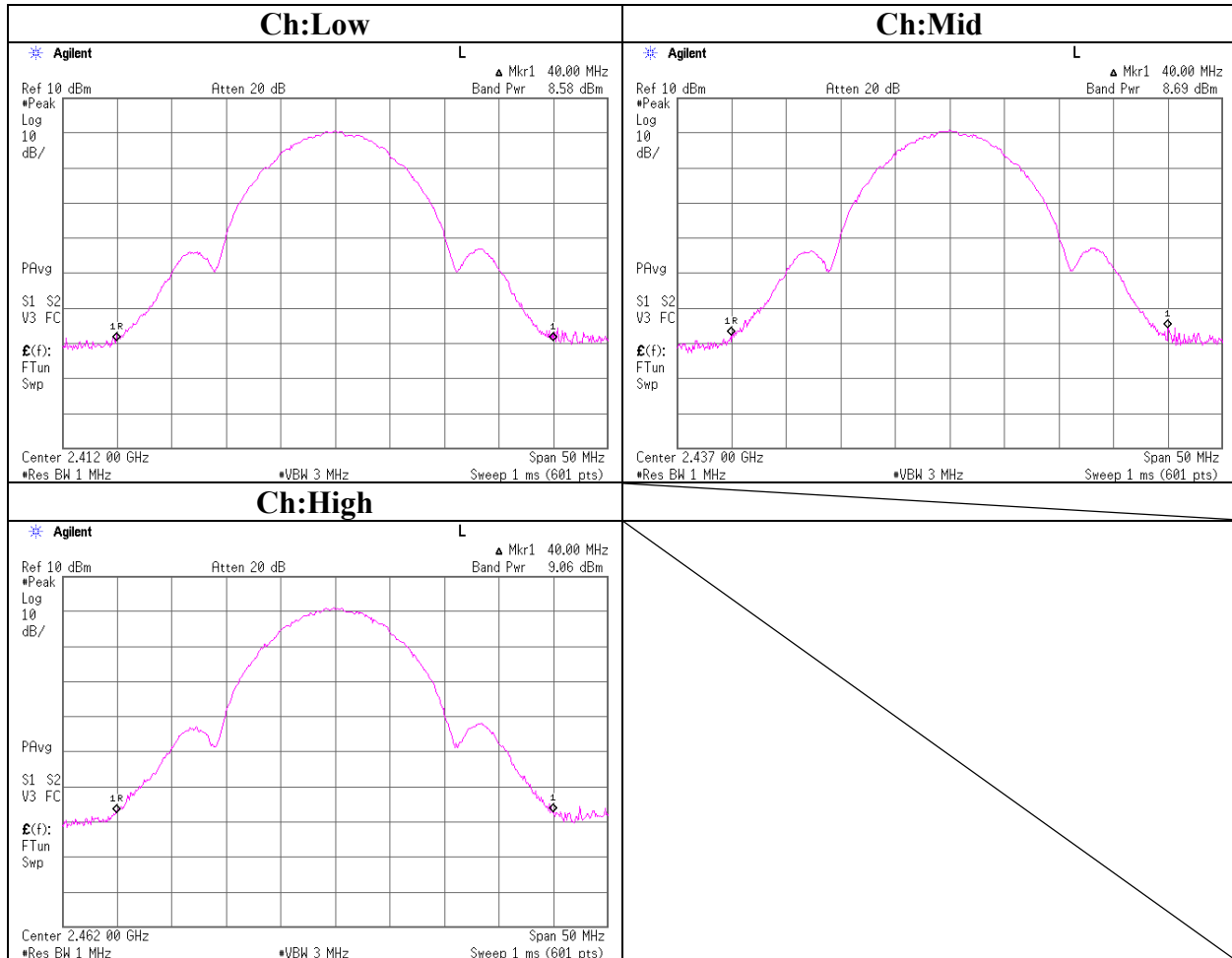
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

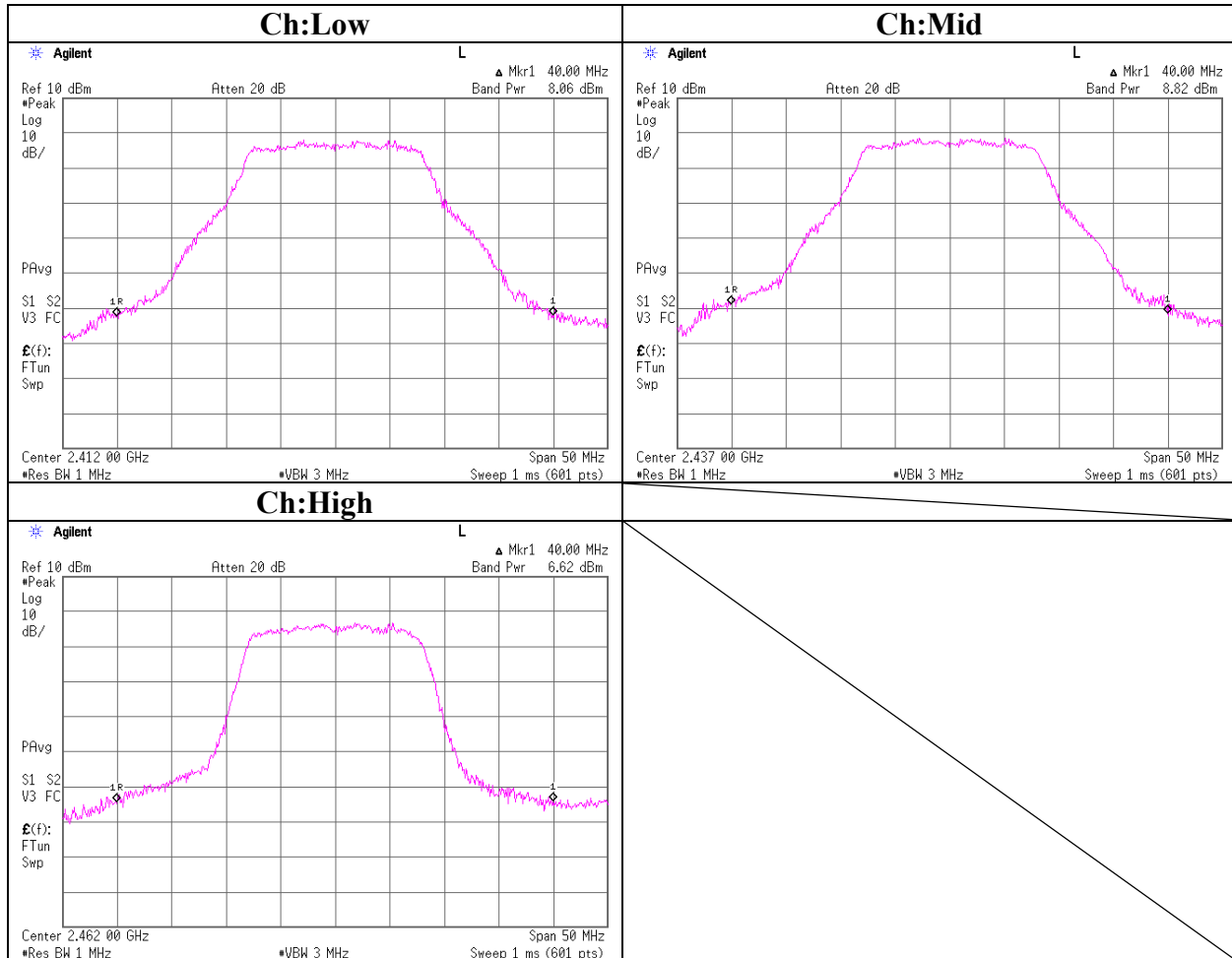
Facsimile : +81 596 24 8124

MF060b(01.06.05)

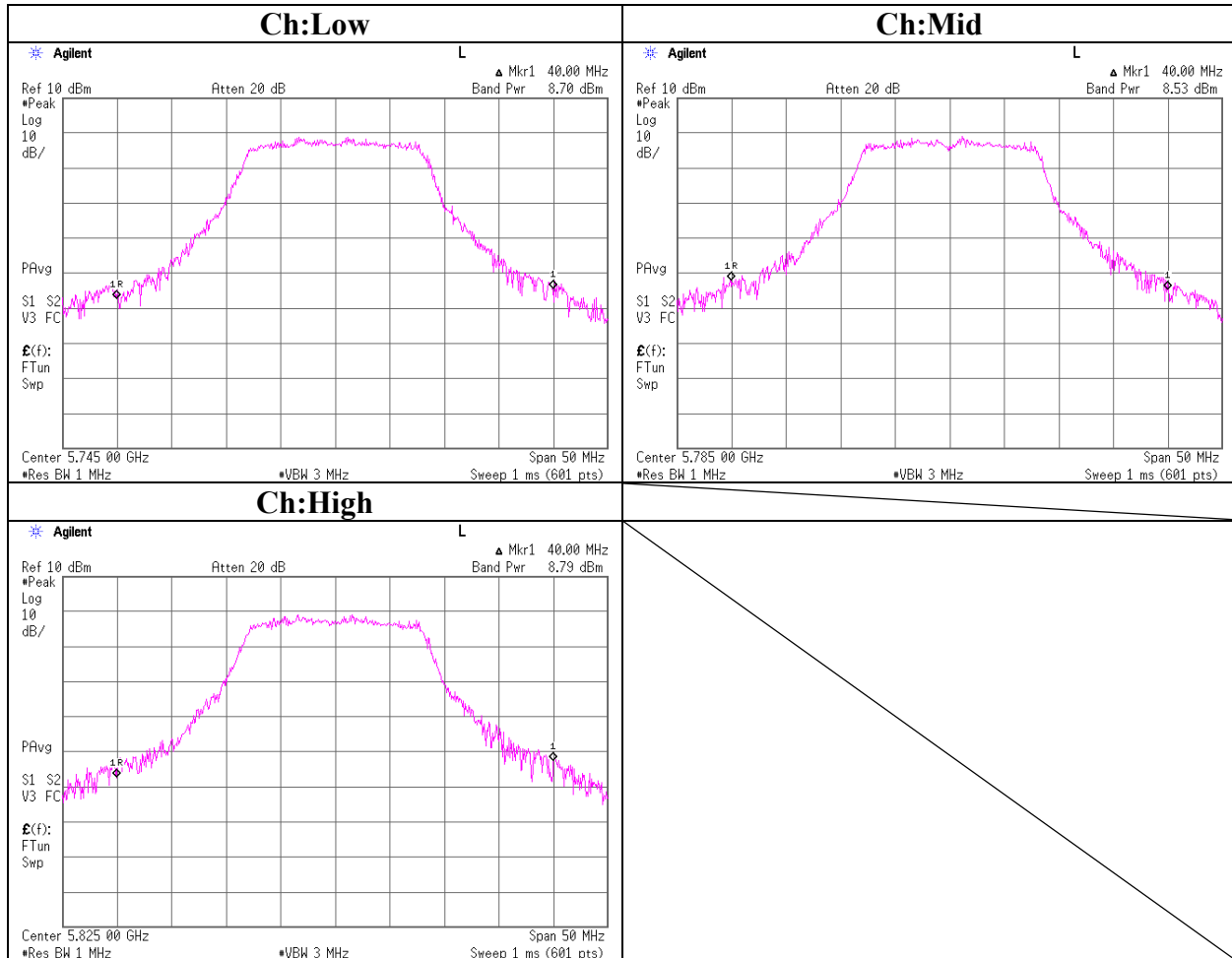
**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Aux**



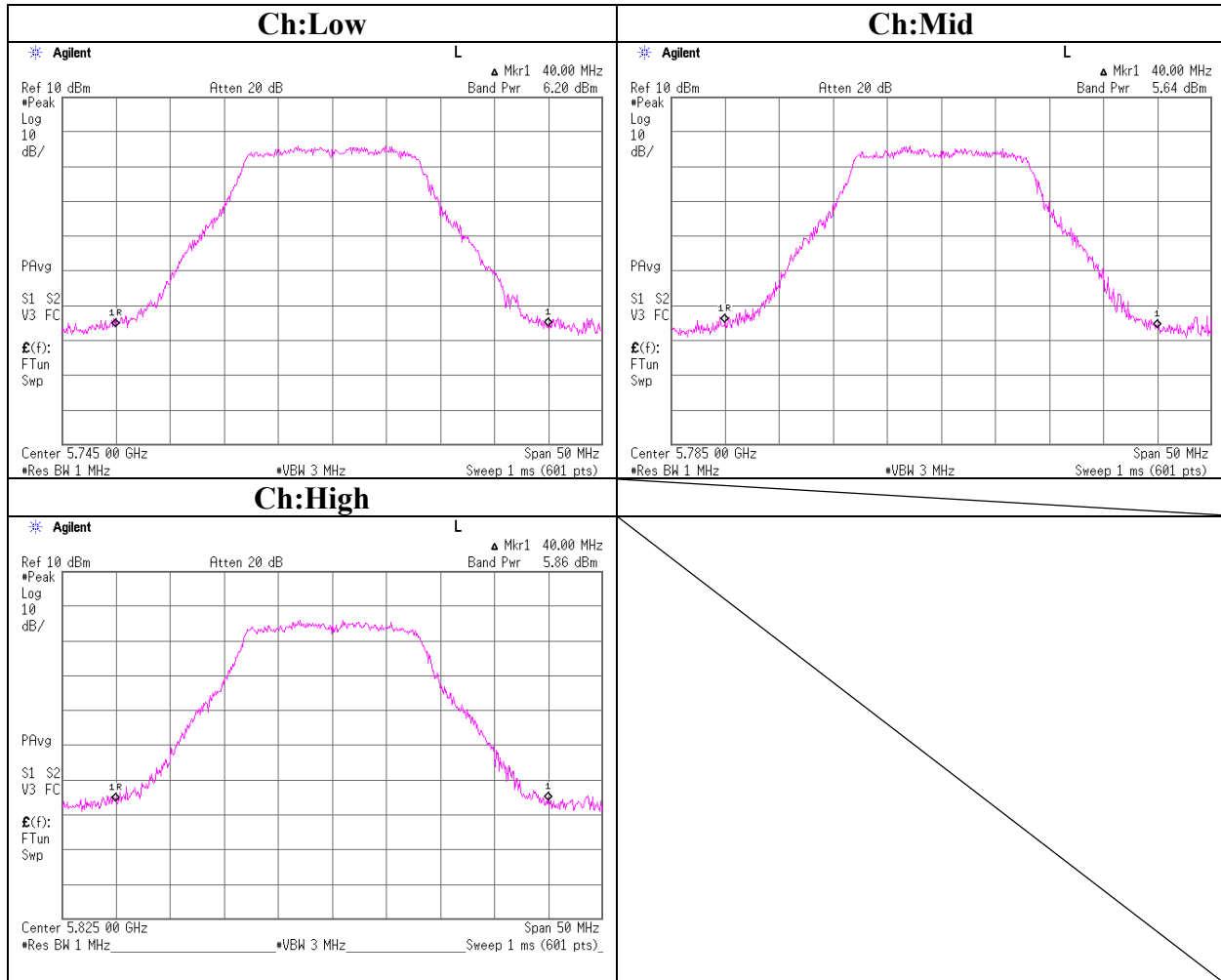
**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Aux**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11a (High Band) 24Mbps Antenna :Aux**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11a 54Mbps Antenna: Aux**



## Peak Transmit Power (Pre-check Data)

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3 Measurement Room

COMPANY : Fujitsu Limited  
EQUIPMENT : Personal Computer  
MODEL : P1510  
SAMPLE NO. : R5100030  
POWER : AC120V/60Hz  
MODE : Tx IEEE 802.11b/g  
: Continuous Transmitting

REPORT NO : 25HE0105-HO  
REGULATION : FCC 15.247(b)(3)  
TEST DISTANCE : -  
DATE : 27/04/2005  
TEMPERATURE : 24deg.C  
HUMIDITY : 52%  
ENGINEER : Mitsuru Fujimura

### [The worst data rate in SAR result]

| [IEEE802.11a: Aux Antenna (12Mbps)] |                |                         |                       |                |                 |
|-------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                                  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 149                                 | 5745.0         | 8.02                    | 1.20                  | 10.00          | 19.22           |
| 157                                 | 5785.0         | 8.02                    | 1.16                  | 10.00          | 19.18           |
| 165                                 | 5825.0         | 8.07                    | 1.19                  | 10.00          | 19.26           |

### [The worst data rate in SAR result]

| [IEEE802.11a: Aux Antenna (18Mbps)] |                |                         |                       |                |                 |
|-------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                                  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 149                                 | 5745.0         | 8.02                    | 1.20                  | 10.00          | 19.22           |
| 157                                 | 5785.0         | 7.71                    | 1.16                  | 10.00          | 18.87           |
| 165                                 | 5825.0         | 8.11                    | 1.19                  | 10.00          | 19.30           |

### Reference DATA for SAR test

| [IEEE802.11b : Main Antenna ] |                    |                         |                       |                |                 |
|-------------------------------|--------------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                            | Data rate<br>[bps] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 6                             | DBPSK 1            | 5.63                    | 1.01                  | 10.00          | 16.64           |
| 6                             | DQPSK 2            | 6.41                    | 1.01                  | 10.00          | 17.42           |
| 6                             | CCK 5.5            | 7.68                    | 1.01                  | 10.00          | 18.69           |
| 6                             | CCK 11             | 8.99                    | 1.01                  | 10.00          | 20.00           |

### Reference DATA for SAR test

| [IEEE802.11b : Aux Antenna ] |                    |                         |                       |                |                 |
|------------------------------|--------------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                           | Data rate<br>[bps] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 6                            | DBPSK 1            | 5.41                    | 1.01                  | 10.00          | 16.42           |
| 6                            | DQPSK 2            | 6.07                    | 1.01                  | 10.00          | 17.08           |
| 6                            | CCK 5.5            | 7.22                    | 1.01                  | 10.00          | 18.23           |
| 6                            | CCK 11             | 8.69                    | 1.01                  | 10.00          | 19.70           |

| [IEEE802.11g : Main Antenna] |                    |                         |                       |                |                 |
|------------------------------|--------------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                           | Data rate<br>[bps] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 6                            | BPSK 6             | 8.52                    | 1.01                  | 10.00          | 19.53           |
| 6                            | BPSK 9             | 8.58                    | 1.01                  | 10.00          | 19.59           |
| 6                            | QPSK 12            | 8.85                    | 1.01                  | 10.00          | 19.86           |
| 6                            | QPSK 18            | 7.97                    | 1.01                  | 10.00          | 18.98           |
| 6                            | 16QAM 24           | 8.47                    | 1.01                  | 10.00          | 19.48           |
| 6                            | 16QAM 36           | 8.52                    | 1.01                  | 10.00          | 19.53           |
| 6                            | 64QAM 48           | 8.46                    | 1.01                  | 10.00          | 19.47           |
| 6                            | 64QAM 54           | 9.16                    | 1.01                  | 10.00          | 20.17           |

| [IEEE802.11g : Aux Antenna ] |                    |                         |                       |                |                 |
|------------------------------|--------------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                           | Data rate<br>[bps] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 6                            | BPSK 6             | 8.31                    | 1.01                  | 10.00          | 19.32           |
| 6                            | BPSK 9             | 7.99                    | 1.01                  | 10.00          | 19.00           |
| 6                            | QPSK 12            | 7.80                    | 1.01                  | 10.00          | 18.81           |
| 6                            | QPSK 18            | 7.89                    | 1.01                  | 10.00          | 18.90           |
| 6                            | 16QAM 24           | 8.45                    | 1.01                  | 10.00          | 19.46           |
| 6                            | 16QAM 36           | 8.46                    | 1.01                  | 10.00          | 19.47           |
| 6                            | 64QAM 48           | 8.45                    | 1.01                  | 10.00          | 19.46           |
| 6                            | 64QAM 54           | 8.82                    | 1.01                  | 10.00          | 19.83           |

## Peak Transmit Power (SAR Test Data)

UL Apex Co., Ltd.  
Head Office EMC Lab. No.3 Measurement Room

COMPANY : Fujitsu Limited  
EQUIPMENT : Personal Computer  
MODEL : P1510  
SAMPLE NO. : R5100030  
POWER : AC120V/60Hz  
MODE : Tx 11a(High Band)  
: Continuous Transmitting

REPORT NO : 25HE0105-HO  
REGULATION : FCC 15.247(b)(3)  
TEST DISTANCE : -  
DATE : 27/04/2005  
TEMPERATURE : 24deg.C  
HUMIDITY : 52%  
ENGINEER : Mitsuru Fujimura

| [IEEE802.11a : Main Antenna] |                     |                         |                       |                |                 |
|------------------------------|---------------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                           | Data rate<br>[Mbps] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 157                          | BPSK 6              | 8.36                    | 1.16                  | 10.00          | 19.52           |
| 157                          | BPSK 9              | 8.28                    | 1.16                  | 10.00          | 19.44           |
| 157                          | QPSK 12             | 8.02                    | 1.16                  | 10.00          | 19.18           |
| 157                          | QPSK 18             | 7.99                    | 1.16                  | 10.00          | 19.15           |
| 157                          | 16QAM 24            | 8.64                    | 1.16                  | 10.00          | 19.80           |
| 157                          | 16QAM 36            | 7.33                    | 1.16                  | 10.00          | 18.49           |
| 157                          | 64QAM 48            | 7.29                    | 1.16                  | 10.00          | 18.45           |
| 157                          | 64QAM 54            | 5.71                    | 1.16                  | 10.00          | 16.87           |

| [IEEE802.11a : Aux Antenna] |                     |                         |                       |                |                 |
|-----------------------------|---------------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                          | Data rate<br>[Mbps] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 157                         | BPSK 6              | 8.01                    | 1.16                  | 10.00          | 19.17           |
| 157                         | BPSK 9              | 7.97                    | 1.16                  | 10.00          | 19.13           |
| 157                         | QPSK 12             | 7.57                    | 1.16                  | 10.00          | 18.73           |
| 157                         | QPSK 18             | 7.71                    | 1.16                  | 10.00          | 18.87           |
| 157                         | 16QAM 24            | 8.53                    | 1.16                  | 10.00          | 19.69           |
| 157                         | 16QAM 36            | 7.06                    | 1.16                  | 10.00          | 18.22           |
| 157                         | 64QAM 48            | 6.99                    | 1.16                  | 10.00          | 18.15           |
| 157                         | 64QAM 54            | 5.64                    | 1.16                  | 10.00          | 16.80           |

[The worst data rate in SAR result]

| [IEEE802.11g: Main Antenna (12Mbps)] |                |                         |                       |                |                 |
|--------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                                   | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 1                                    | 2412.0         | 7.53                    | 1.04                  | 10.00          | 18.57           |
| 6                                    | 2437.0         | 8.85                    | 1.01                  | 10.00          | 19.86           |
| 11                                   | 2462.0         | 6.18                    | 0.99                  | 10.00          | 17.17           |

[The worst data rate in SAR result]

| [IEEE802.11g: Aux Antenna(18Mbps)] |                |                         |                       |                |                 |
|------------------------------------|----------------|-------------------------|-----------------------|----------------|-----------------|
| Ch                                 | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] |
| 1                                  | 2412.0         | 7.12                    | 1.04                  | 10.00          | 18.16           |
| 6                                  | 2437.0         | 7.89                    | 1.01                  | 10.00          | 18.90           |
| 11                                 | 2462.0         | 5.98                    | 0.99                  | 10.00          | 16.97           |

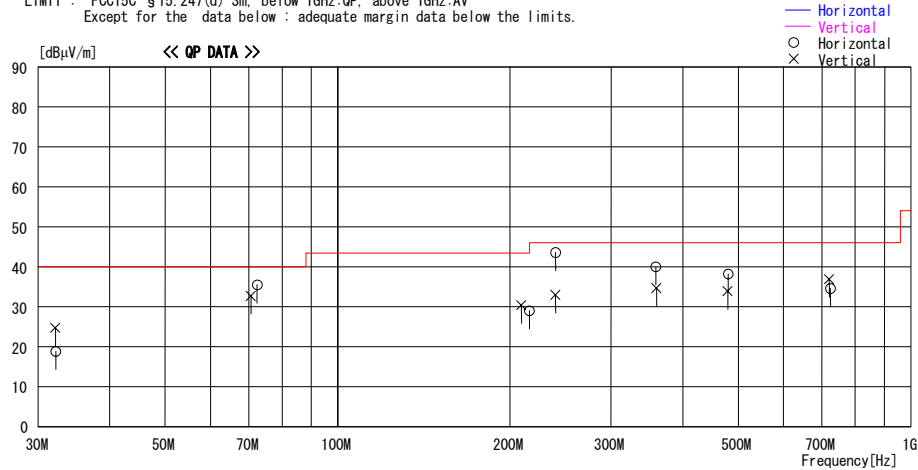
**Radiated Spurious Emission(DSSS and other forms of modulation)(below 1GHz)**  
(11b, Tx. Ch.: Low)

**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber  
Date : 2005/05/31 22:58:17

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 26deg. C / 47%  
Operator : Kenichi Adachi  
Mode / Remarks : 11b 2412MHz 11Mbps/MAIN Antenna/Hor Y Ver X(MAX-Axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dBμV] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBμV/m] | LIMIT<br>[dBμV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------|-------------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                         |                         |              |              |                    |                   |                |                 |                |
| 1                      | 32.232        | 22.2                    | 17.9                    | 6.9          | 28.1         | 18.9               | 40.0              | 21.1           | 100             | 174            |
| 2                      | 72.354        | 49.1                    | 6.8                     | 7.5          | 27.9         | 35.5               | 40.0              | 4.5            | 241             | 0              |
| 3                      | 216.197       | 29.6                    | 17.2                    | 9.4          | 27.2         | 29.0               | 46.0              | 17.0           | 180             | 350            |
| 4                      | 239.987       | 43.8                    | 17.3                    | 9.6          | 27.1         | 43.6               | 46.0              | 2.4            | 137             | 114            |
| 5                      | 359.345       | 40.4                    | 16.6                    | 10.5         | 27.5         | 40.0               | 46.0              | 6.0            | 100             | 53             |
| 6                      | 480.501       | 36.9                    | 18.5                    | 11.1         | 28.3         | 38.2               | 46.0              | 7.8            | 181             | 73             |
| 7                      | 724.234       | 29.9                    | 20.9                    | 12.4         | 28.6         | 34.6               | 46.0              | 11.4           | 103             | 150            |
| ----- Vertical -----   |               |                         |                         |              |              |                    |                   |                |                 |                |
| 8                      | 32.164        | 27.9                    | 18.0                    | 6.9          | 28.1         | 24.7               | 40.0              | 15.3           | 100             | 75             |
| 9                      | 70.581        | 46.2                    | 6.9                     | 7.5          | 27.9         | 32.7               | 40.0              | 7.3            | 110             | 100            |
| 10                     | 209.098       | 31.2                    | 17.2                    | 9.3          | 27.3         | 30.4               | 43.5              | 13.1           | 100             | 164            |
| 11                     | 239.989       | 33.2                    | 17.3                    | 9.6          | 27.1         | 33.0               | 46.0              | 13.0           | 145             | 18             |
| 12                     | 359.991       | 35.1                    | 16.6                    | 10.5         | 27.5         | 34.7               | 46.0              | 11.3           | 294             | 359            |
| 13                     | 479.559       | 32.6                    | 18.5                    | 11.1         | 28.3         | 33.9               | 46.0              | 12.1           | 209             | 75             |
| 14                     | 720.845       | 32.2                    | 20.9                    | 12.4         | 28.6         | 36.9               | 46.0              | 9.1            | 100             | 18             |

CHART:WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN  
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN  
Page:

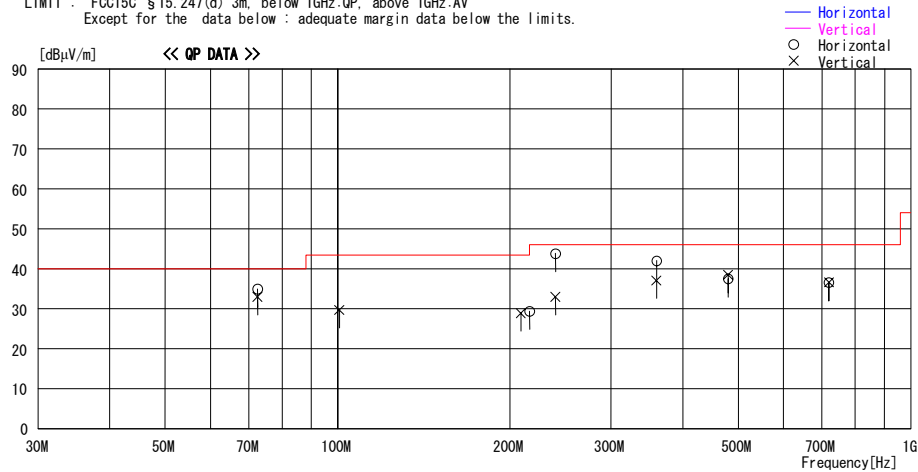
**Radiated Spurious Emission(DSSS and other forms of modulation)(below 1GHz)**  
(11b, Tx. Ch.: Mid)

**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber  
Date : 2005/06/01 00:22:08

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 26deg. C / 47%  
Operator : Kenichi Adachi  
Mode / Remarks : 11b 2437MHz 11Mbps/MAIN Antenna/Hor Y Ver X (MAX Axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dBμV] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBμV/m] | LIMIT<br>[dBμV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------|-------------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                         |                         |              |              |                    |                   |                |                 |                |
| 1                      | 72.432        | 48.5                    | 6.8                     | 7.5          | 27.9         | 34.9               | 40.0              | 5.1            | 250             | 18             |
| 2                      | 216.272       | 30.0                    | 17.2                    | 9.4          | 27.2         | 29.4               | 46.0              | 16.6           | 151             | 8              |
| 3                      | 239.990       | 44.0                    | 17.3                    | 9.6          | 27.1         | 43.8               | 46.0              | 2.2            | 137             | 117            |
| 4                      | 359.989       | 42.4                    | 16.6                    | 10.5         | 27.5         | 42.0               | 46.0              | 4.0            | 100             | 62             |
| 5                      | 479.969       | 36.2                    | 18.5                    | 11.1         | 28.3         | 37.5               | 46.0              | 8.5            | 195             | 84             |
| 6                      | 719.989       | 31.9                    | 20.9                    | 12.4         | 28.6         | 36.6               | 46.0              | 9.4            | 111             | 253            |
| ----- Vertical -----   |               |                         |                         |              |              |                    |                   |                |                 |                |
| 7                      | 72.432        | 46.6                    | 6.8                     | 7.5          | 27.9         | 33.0               | 40.0              | 7.0            | 163             | 246            |
| 8                      | 100.791       | 39.1                    | 10.3                    | 8.1          | 27.8         | 29.7               | 43.5              | 13.8           | 133             | 354            |
| 9                      | 208.899       | 29.7                    | 17.2                    | 9.3          | 27.3         | 28.9               | 43.5              | 14.6           | 228             | 174            |
| 10                     | 239.989       | 33.2                    | 17.3                    | 9.6          | 27.1         | 33.0               | 46.0              | 13.0           | 145             | 17             |
| 11                     | 359.981       | 37.5                    | 16.6                    | 10.5         | 27.5         | 37.1               | 46.0              | 8.9            | 138             | 218            |
| 12                     | 479.983       | 37.2                    | 18.5                    | 11.1         | 28.3         | 38.5               | 46.0              | 7.5            | 100             | 149            |
| 13                     | 719.991       | 31.9                    | 20.9                    | 12.4         | 28.6         | 36.6               | 46.0              | 9.4            | 100             | 18             |

CHART:WITHOUT FACTOR ANT TYPE: ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN  
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN

Page:

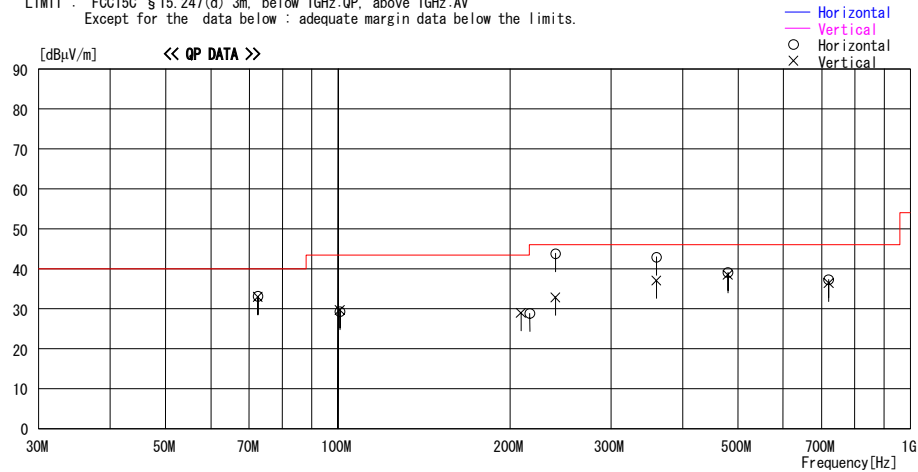
**Radiated Spurious Emission(DSSS and other forms of modulation)**  
(11b, Tx. Ch.: High)

**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber  
Date : 2005/06/01 01:08:02

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 26deg. C / 47%  
Operator : Kenichi Adachi  
Mode / Remarks : 11b 2462MHz 11Mbps/MAIN Antenna/Hor Y Ver X (MAX Axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



| No.        | FREQ<br>[MHz] | READING<br>QP<br>[dBμV] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBμV/m] | LIMIT<br>[dBμV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------|---------------|-------------------------|-------------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| Horizontal |               |                         |                         |              |              |                    |                   |                |                 |                |
| 1          | 72.432        | 46.7                    | 6.8                     | 7.5          | 27.9         | 33.1               | 40.0              | 6.9            | 258             | 0              |
| 2          | 100.792       | 38.7                    | 10.3                    | 8.1          | 27.8         | 29.3               | 43.5              | 14.2           | 302             | 225            |
| 3          | 216.301       | 29.4                    | 17.2                    | 9.4          | 27.2         | 28.8               | 46.0              | 17.2           | 157             | 8              |
| 4          | 239.979       | 44.0                    | 17.3                    | 9.6          | 27.1         | 43.8               | 46.0              | 2.2            | 136             | 113            |
| 5          | 359.992       | 43.3                    | 16.6                    | 10.5         | 27.5         | 42.9               | 46.0              | 3.1            | 100             | 62             |
| 6          | 479.989       | 37.8                    | 18.5                    | 11.1         | 28.3         | 39.1               | 46.0              | 6.9            | 190             | 71             |
| 7          | 719.990       | 32.6                    | 20.9                    | 12.4         | 28.6         | 37.3               | 46.0              | 8.7            | 112             | 243            |
| Vertical   |               |                         |                         |              |              |                    |                   |                |                 |                |
| 8          | 72.434        | 46.6                    | 6.8                     | 7.5          | 27.9         | 33.0               | 40.0              | 7.0            | 164             | 246            |
| 9          | 100.792       | 39.1                    | 10.3                    | 8.1          | 27.8         | 29.7               | 43.5              | 13.8           | 133             | 353            |
| 10         | 208.890       | 29.8                    | 17.2                    | 9.3          | 27.3         | 29.0               | 43.5              | 14.5           | 228             | 174            |
| 11         | 239.989       | 33.1                    | 17.3                    | 9.6          | 27.1         | 32.9               | 46.0              | 13.1           | 144             | 18             |
| 12         | 359.991       | 37.5                    | 16.6                    | 10.5         | 27.5         | 37.1               | 46.0              | 8.9            | 138             | 219            |
| 13         | 479.984       | 37.2                    | 18.5                    | 11.1         | 28.3         | 38.5               | 46.0              | 7.5            | 100             | 150            |
| 14         | 719.988       | 31.7                    | 20.9                    | 12.4         | 28.6         | 36.4               | 46.0              | 9.6            | 100             | 18             |

CHART:WITH FACTOR ANT TYPE: -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN  
Page:

## Radiated Spurious Emission(DSSS and other forms of modulation)

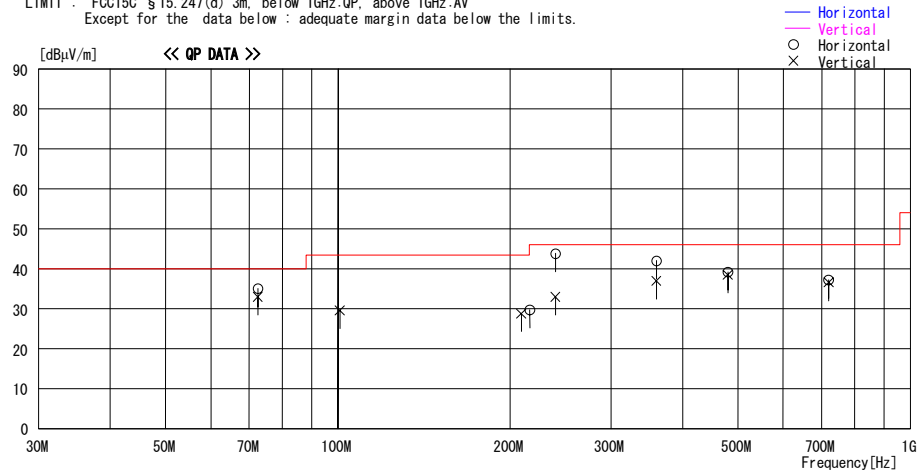
(11g, Tx. Ch.: Low)

### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber  
Date : 2005/06/01 01:40:07

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 26deg. C / 47%  
Operator : Kenichi Adachi  
Mode / Remarks : 11g 2412MHz 54Mbps/MAIN Antenna/Hor Y Ver X(MAX-Axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dBμV] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBμV/m] | LIMIT<br>[dBμV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------|-------------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                         |                         |              |              |                    |                   |                |                 |                |
| 1                      | 72.432        | 48.6                    | 6.8                     | 7.5          | 27.9         | 35.0               | 40.0              | 5.0            | 256             | 8              |
| 2                      | 216.253       | 30.3                    | 17.2                    | 9.4          | 27.2         | 29.7               | 46.0              | 16.3           | 150             | 10             |
| 3                      | 239.991       | 44.0                    | 17.3                    | 9.6          | 27.1         | 43.8               | 46.0              | 2.2            | 137             | 110            |
| 4                      | 359.990       | 42.4                    | 16.6                    | 10.5         | 27.5         | 42.0               | 46.0              | 4.0            | 100             | 64             |
| 5                      | 479.985       | 37.9                    | 18.5                    | 11.1         | 28.3         | 39.2               | 46.0              | 6.8            | 191             | 73             |
| 6                      | 719.990       | 32.5                    | 20.9                    | 12.4         | 28.6         | 37.2               | 46.0              | 8.8            | 131             | 248            |
| ----- Vertical -----   |               |                         |                         |              |              |                    |                   |                |                 |                |
| 7                      | 72.432        | 46.6                    | 6.8                     | 7.5          | 27.9         | 33.0               | 40.0              | 7.0            | 164             | 247            |
| 8                      | 100.792       | 39.0                    | 10.3                    | 8.1          | 27.8         | 29.6               | 43.5              | 13.9           | 132             | 353            |
| 9                      | 209.098       | 29.6                    | 17.2                    | 9.3          | 27.3         | 28.8               | 43.5              | 14.7           | 228             | 170            |
| 10                     | 239.990       | 33.2                    | 17.3                    | 9.6          | 27.1         | 33.0               | 46.0              | 13.0           | 145             | 18             |
| 11                     | 359.991       | 37.4                    | 16.6                    | 10.5         | 27.5         | 37.0               | 46.0              | 9.0            | 138             | 220            |
| 12                     | 479.984       | 37.2                    | 18.5                    | 11.1         | 28.3         | 38.5               | 46.0              | 7.5            | 100             | 150            |
| 13                     | 719.988       | 31.9                    | 20.9                    | 12.4         | 28.6         | 36.6               | 46.0              | 9.4            | 100             | 18             |

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN  
Page:

## Radiated Spurious Emission(DSSS and other forms of modulation)

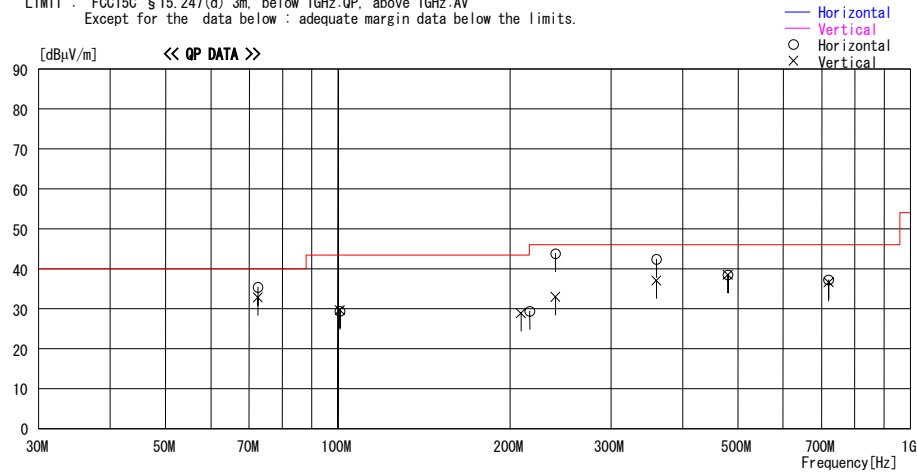
(11g, Tx. Ch.: Mid)

### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber  
Date : 2005/06/01 02:01:11

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 26deg. C / 47%  
Operator : Kenichi Adachi  
Mode / Remarks : 11g 2437MHz 54Mbps/MAIN Antenna/Hor Y Ver X(MAX-Axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



| No.        | FREQ<br>[MHz] | READING<br>QP<br>[dBμV] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBμV/m] | LIMIT<br>[dBμV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------|---------------|-------------------------|-------------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| Horizontal |               |                         |                         |              |              |                    |                   |                |                 |                |
| 1          | 72.432        | 49.0                    | 6.8                     | 7.5          | 27.9         | 35.4               | 40.0              | 4.6            | 259             | 8              |
| 2          | 100.792       | 38.8                    | 10.3                    | 8.1          | 27.8         | 29.4               | 43.5              | 14.1           | 304             | 224            |
| 3          | 216.270       | 30.0                    | 17.2                    | 9.4          | 27.2         | 29.4               | 46.0              | 16.6           | 150             | 7              |
| 4          | 239.986       | 44.0                    | 17.3                    | 9.6          | 27.1         | 43.8               | 46.0              | 2.2            | 136             | 114            |
| 5          | 359.988       | 42.8                    | 16.6                    | 10.5         | 27.5         | 42.4               | 46.0              | 3.6            | 100             | 62             |
| 6          | 479.969       | 37.2                    | 18.5                    | 11.1         | 28.3         | 38.5               | 46.0              | 7.5            | 190             | 72             |
| 7          | 719.989       | 32.5                    | 20.9                    | 12.4         | 28.6         | 37.2               | 46.0              | 8.8            | 116             | 245            |
| Vertical   |               |                         |                         |              |              |                    |                   |                |                 |                |
| 8          | 72.436        | 46.5                    | 6.8                     | 7.5          | 27.9         | 32.9               | 40.0              | 7.1            | 100             | 109            |
| 9          | 100.792       | 39.1                    | 10.3                    | 8.1          | 27.8         | 29.7               | 43.5              | 13.8           | 100             | 13             |
| 10         | 208.890       | 29.7                    | 17.2                    | 9.3          | 27.3         | 28.9               | 43.5              | 14.6           | 228             | 170            |
| 11         | 239.988       | 33.2                    | 17.3                    | 9.6          | 27.1         | 33.0               | 46.0              | 13.0           | 145             | 18             |
| 12         | 359.981       | 37.5                    | 16.6                    | 10.5         | 27.5         | 37.1               | 46.0              | 8.9            | 138             | 220            |
| 13         | 479.984       | 37.2                    | 18.5                    | 11.1         | 28.3         | 38.5               | 46.0              | 7.5            | 100             | 149            |
| 14         | 719.988       | 31.9                    | 20.9                    | 12.4         | 28.6         | 36.6               | 46.0              | 9.4            | 100             | 18             |

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN

Page:

UL Apex Co., Ltd.

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MF060b(01.06.05)

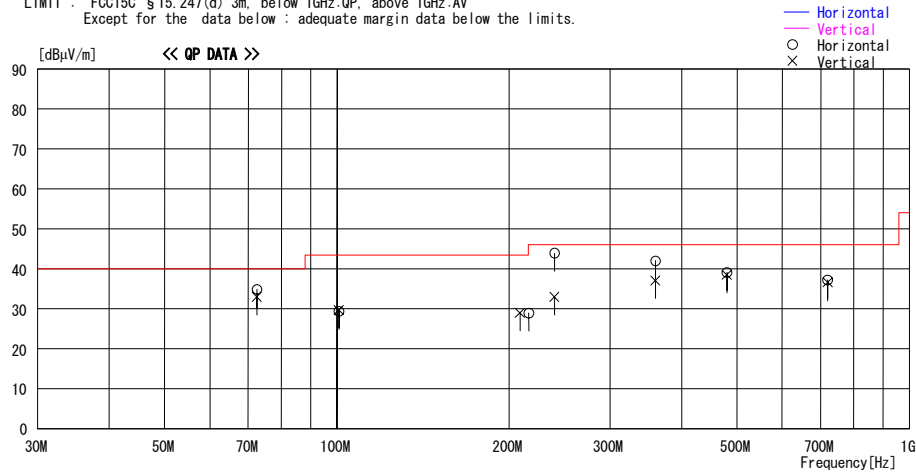
**Radiated Spurious Emission(DSSS and other forms of modulation)**  
(11g, Tx. Ch.: High)

**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber  
Date : 2005/06/01 02:36:44

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030  
Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 26deg. C / 47%  
Operator : Kenichi Adachi  
Mode / Remarks : 11g 2462MHz 54Mbps/MAIN Antenna/Hor Y Ver X(MAX-Axis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dBμV] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dBμV/m] | LIMIT<br>[dBμV/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------|-------------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                         |                         |              |              |                    |                   |                |                 |                |
| 1                      | 72.432        | 48.4                    | 6.8                     | 7.5          | 27.9         | 34.8               | 40.0              | 5.2            | 256             | 0              |
| 2                      | 100.792       | 38.8                    | 10.3                    | 8.1          | 27.8         | 29.4               | 43.5              | 14.1           | 304             | 225            |
| 3                      | 216.298       | 29.5                    | 17.2                    | 9.4          | 27.2         | 28.9               | 46.0              | 17.1           | 156             | 8              |
| 4                      | 239.979       | 44.1                    | 17.3                    | 9.6          | 27.1         | 43.9               | 46.0              | 2.1            | 136             | 118            |
| 5                      | 359.991       | 42.4                    | 16.6                    | 10.5         | 27.5         | 42.0               | 46.0              | 4.0            | 100             | 62             |
| 6                      | 479.989       | 37.8                    | 18.5                    | 11.1         | 28.3         | 39.1               | 46.0              | 6.9            | 191             | 72             |
| 7                      | 719.990       | 32.5                    | 20.9                    | 12.4         | 28.6         | 37.2               | 46.0              | 8.8            | 112             | 246            |
| ----- Vertical -----   |               |                         |                         |              |              |                    |                   |                |                 |                |
| 8                      | 72.436        | 46.6                    | 6.8                     | 7.5          | 27.9         | 33.0               | 40.0              | 7.0            | 164             | 247            |
| 9                      | 100.792       | 39.1                    | 10.3                    | 8.1          | 27.8         | 29.7               | 43.5              | 13.8           | 133             | 353            |
| 10                     | 208.889       | 29.8                    | 17.2                    | 9.3          | 27.3         | 29.0               | 43.5              | 14.5           | 228             | 172            |
| 11                     | 239.988       | 33.2                    | 17.3                    | 9.6          | 27.1         | 33.0               | 46.0              | 13.0           | 145             | 18             |
| 12                     | 359.981       | 37.5                    | 16.6                    | 10.5         | 27.5         | 37.1               | 46.0              | 8.9            | 138             | 220            |
| 13                     | 479.984       | 37.2                    | 18.5                    | 11.1         | 28.3         | 38.5               | 46.0              | 7.5            | 100             | 149            |
| 14                     | 719.988       | 31.9                    | 20.9                    | 12.4         | 28.6         | 36.6               | 46.0              | 9.4            | 100             | 18             |

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - AMP. GAIN  
Page:

## Radiated Spurious Emission(DSSS and other forms of modulation)

(11a, Tx. High Band Ch.: Low)

### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2005/06/03 22:29:08

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 25.6deg.C / 63%  
Operator : Mitsuru Fujimura

Mode / Remarks : 11a 5745MHz 24Mbps/Main Antenna/Hor Y Ver X(MAXAxis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
All other spurious emissions were less than 20dB for the limit.

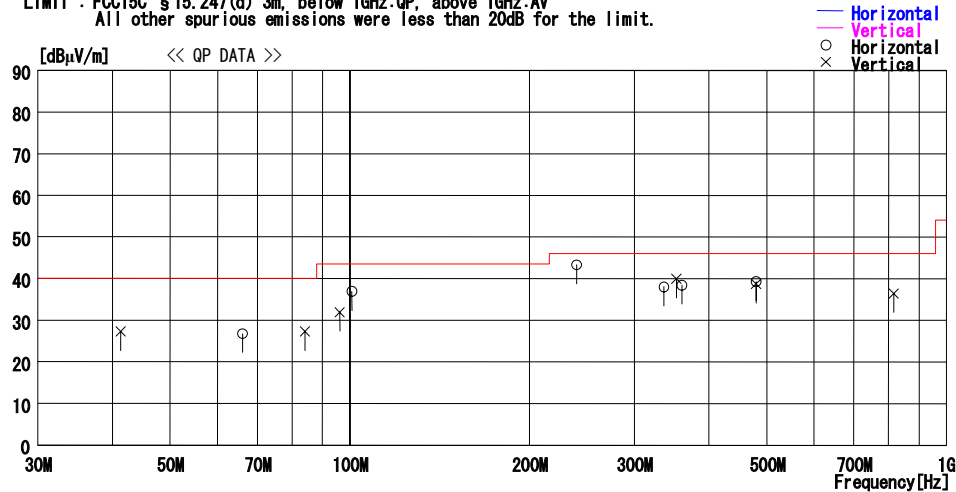


CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - AMP. GAIN

Page:

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MF060b(01.06.05)

## Radiated Spurious Emission(DSSS and other forms of modulation)

(11a, Tx. High Band Ch.: Mid)

### DATA OF RADIATED EMISSION TEST

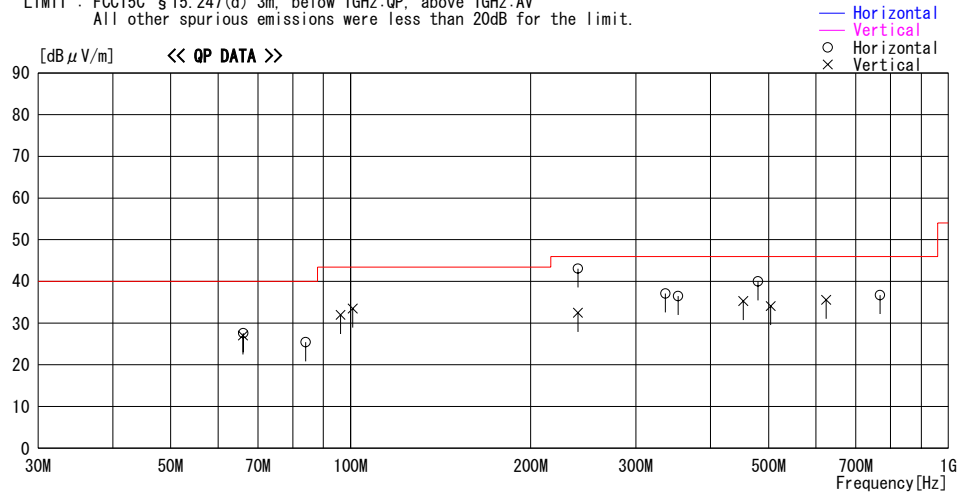
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2005/06/04 00:03:29

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 25.6deg. C / 63%  
Operator : Mitsuru Fujimura

Mode / Remarks : 11a 5785MHz 24Mbps/Main Antenna/Hor Y Ver X(MAXAxis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
All other spurious emissions were less than 20dB for the limit.



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dB $\mu$ V] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dB $\mu$ V/m] | LIMIT<br>[dB $\mu$ V/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------------|-------------------------|--------------|--------------|--------------------------|-------------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                               |                         |              |              |                          |                         |                |                 |                |
| 1                      | 66.068        | 41.7                          | 7.4                     | 6.3          | 27.8         | 27.6                     | 40.0                    | 12.4           | 380             | 360            |
| 2                      | 84.104        | 39.2                          | 7.4                     | 6.5          | 27.7         | 25.4                     | 40.0                    | 14.6           | 200             | 46             |
| 3                      | 240.012       | 45.3                          | 17.1                    | 7.6          | 26.9         | 43.1                     | 46.0                    | 2.9            | 141             | 279            |
| 4                      | 336.013       | 39.9                          | 16.2                    | 8.0          | 27.0         | 37.1                     | 46.0                    | 8.9            | 100             | 222            |
| 5                      | 352.812       | 38.7                          | 16.8                    | 8.1          | 27.1         | 36.5                     | 46.0                    | 9.5            | 100             | 131            |
| 6                      | 480.013       | 40.7                          | 18.8                    | 8.5          | 28.0         | 40.0                     | 46.0                    | 6.0            | 180             | 138            |
| 7                      | 768.015       | 33.6                          | 21.5                    | 9.7          | 28.1         | 36.7                     | 46.0                    | 9.3            | 100             | 113            |
| ----- Vertical -----   |               |                               |                         |              |              |                          |                         |                |                 |                |
| 8                      | 66.036        | 41.1                          | 7.4                     | 6.3          | 27.8         | 27.0                     | 40.0                    | 13.0           | 100             | 161            |
| 9                      | 96.110        | 43.3                          | 9.7                     | 6.6          | 27.6         | 32.0                     | 43.5                    | 11.5           | 100             | 360            |
| 10                     | 100.806       | 43.9                          | 10.5                    | 6.7          | 27.6         | 33.5                     | 43.5                    | 10.0           | 100             | 1              |
| 11                     | 240.010       | 34.7                          | 17.1                    | 7.6          | 26.9         | 32.5                     | 46.0                    | 13.5           | 158             | 274            |
| 12                     | 453.603       | 35.8                          | 18.8                    | 8.6          | 27.9         | 35.3                     | 46.0                    | 10.7           | 100             | 288            |
| 13                     | 504.012       | 34.6                          | 18.9                    | 8.8          | 28.2         | 34.1                     | 46.0                    | 11.9           | 100             | 158            |
| 14                     | 624.013       | 34.5                          | 19.9                    | 9.4          | 28.2         | 35.6                     | 46.0                    | 10.4           | 100             | 179            |

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS (CABLE+ATTEN. ) - AMP. GAIN

Page:

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MF060b(01.06.05)

## Radiated Spurious Emission(DSSS and other forms of modulation)

(11a, Tx. High Band Ch.: High)

### DATA OF RADIATED EMISSION TEST

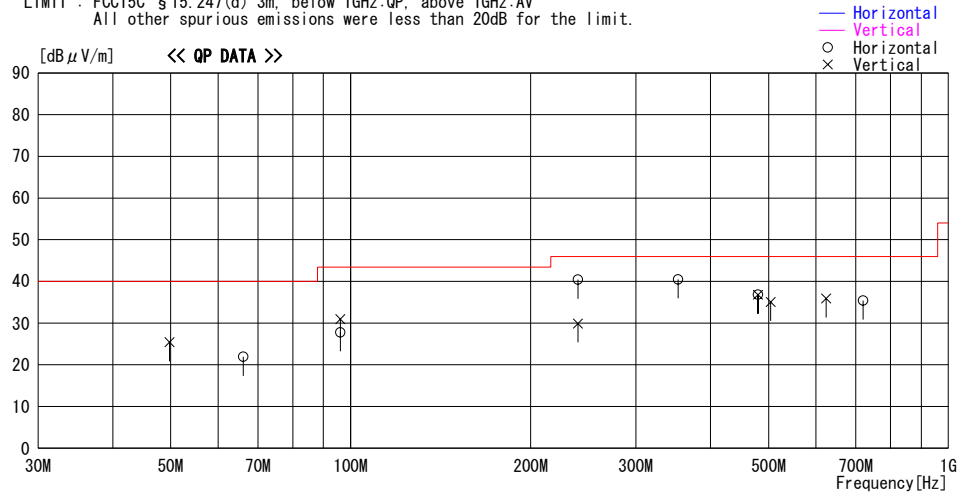
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2005/06/04 01:45:50

Applicant : Fujitsu Limited  
Kind of EUT : Personal Computer  
Model No. : P1510  
Serial No. : R5100030

Report No. : 25HE0105-HO  
Power : AC120V/60Hz (AC Adaptor)  
Temp./Humi. : 25.6deg. C / 63%  
Operator : Mitsuru Fujimura

Mode / Remarks : 11a 5825MHz 24Mbps/Main Antenna/Hor Y Ver X(MAXAxis)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
All other spurious emissions were less than 20dB for the limit.



| No.                    | FREQ<br>[MHz] | READING<br>QP<br>[dB $\mu$ V] | ANT<br>FACTOR<br>[dB/m] | LOSS<br>[dB] | GAIN<br>[dB] | RESULT<br>[dB $\mu$ V/m] | LIMIT<br>[dB $\mu$ V/m] | MARGIN<br>[dB] | ANTENNA<br>[cm] | TABLE<br>[DEG] |
|------------------------|---------------|-------------------------------|-------------------------|--------------|--------------|--------------------------|-------------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- |               |                               |                         |              |              |                          |                         |                |                 |                |
| 1                      | 66.071        | 36.0                          | 7.4                     | 6.3          | 27.8         | 21.9                     | 40.0                    | 18.1           | 258             | 223            |
| 2                      | 96.050        | 39.1                          | 9.7                     | 6.6          | 27.6         | 27.8                     | 43.5                    | 15.7           | 334             | 267            |
| 3                      | 240.010       | 42.6                          | 17.1                    | 7.6          | 26.9         | 40.4                     | 46.0                    | 5.6            | 134             | 315            |
| 4                      | 352.812       | 42.7                          | 16.8                    | 8.1          | 27.1         | 40.5                     | 46.0                    | 5.5            | 105             | 261            |
| 5                      | 480.012       | 37.5                          | 18.8                    | 8.5          | 28.0         | 36.8                     | 46.0                    | 9.2            | 222             | 126            |
| 6                      | 720.012       | 33.1                          | 20.8                    | 9.7          | 28.2         | 35.4                     | 46.0                    | 10.6           | 113             | 246            |
| ----- Vertical -----   |               |                               |                         |              |              |                          |                         |                |                 |                |
| 7                      | 49.764        | 36.7                          | 10.2                    | 6.2          | 27.7         | 25.4                     | 40.0                    | 14.6           | 152             | 270            |
| 8                      | 96.107        | 42.3                          | 9.7                     | 6.6          | 27.6         | 31.0                     | 43.5                    | 12.5           | 141             | 1              |
| 9                      | 240.006       | 32.1                          | 17.1                    | 7.6          | 26.9         | 29.9                     | 46.0                    | 16.1           | 152             | 270            |
| 10                     | 480.013       | 37.5                          | 18.8                    | 8.5          | 28.0         | 36.8                     | 46.0                    | 9.2            | 100             | 360            |
| 11                     | 504.009       | 35.6                          | 18.9                    | 8.8          | 28.2         | 35.1                     | 46.0                    | 10.9           | 100             | 166            |
| 12                     | 624.010       | 34.8                          | 19.9                    | 9.4          | 28.2         | 35.9                     | 46.0                    | 10.1           | 100             | 183            |

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
CALCULATION : READING + ANT FACTOR + LOSS (CABLE+ATTEN. ) - AMP. GAIN  
Page:

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MF060b(01.06.05)

## Radiated Spurious Emission(DSSS and other forms of modulation)

UL Apex Co., Ltd.

Head Office EMC Lab. No.2 Semi Anechoic Chambe

|                                                   |                                                     |  |
|---------------------------------------------------|-----------------------------------------------------|--|
| Company : Fujitsu Limited                         | REPORT NO : 25HE0105-HO                             |  |
| Equipment : Personal Computer                     | REGULATION : Fcc Part15 Subpart C 15.247(d)         |  |
| Model : P1510                                     | TEST DISTANCE : 3m (below 10GHz) / 1m (above 10GHz) |  |
| Sample No. : R5100030                             | DATE : 04/14/2005 04/23/2005                        |  |
| Power : AC120V/60Hz                               | TEMPERATURE : 21deg.C 21deg.C                       |  |
| Mode : W-LAN IEEE802.11b, Tx 2412MHz, 11Mbps      | HUMIDITY : 37% 34%                                  |  |
| Remarks : EUT-Max axis Hor : Y-axis, Ver : X axis | ENGINEER : Mitsuru Fujimura Kenichi Adachi          |  |
| : Main Antenna                                    |                                                     |  |

### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                            | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                              | 1663.7        | 56.1        | 53.8 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 47.6     | 45.3 | 74.0                    | 26.4   | 28.7 |
| 2                                                                                              | 2312.0        | 50.7        | 49.9 | 30.4                    | 39.8                | 5.5                   | 0.0                         | 46.8     | 46.0 | 74.0                    | 27.2   | 28.0 |
| 3*                                                                                             | 2400.0        | 75.0        | 66.9 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 71.3     | 63.2 | 74.0                    | 2.7    | 10.8 |
| 4                                                                                              | 4824.0        | 46.5        | 46.9 | 35.2                    | 41.2                | 8.3                   | 1.0                         | 49.8     | 50.2 | 74.0                    | 24.2   | 23.8 |
| 5*                                                                                             | 6432.0        | 52.6        | 50.9 | 36.6                    | 41.2                | 9.4                   | 0.9                         | 58.3     | 56.6 | 74.0                    | 15.7   | 17.4 |
| 6                                                                                              | 7235.9        | 44.4        | 44.7 | 37.7                    | 40.4                | 10.1                  | 0.4                         | 52.2     | 52.5 | 74.0                    | 21.8   | 21.5 |
| 7                                                                                              | 9648.0        | 42.5        | 42.5 | 37.0                    | 39.5                | 12.3                  | 0.2                         | 52.5     | 52.5 | 74.0                    | 21.5   | 21.5 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 8                                                                                              | 12060.0       | 42.5        | 42.7 | 41.6                    | 36.1                | 14.3                  | 0.0                         | 52.8     | 53.0 | 74.0                    | 21.2   | 21.0 |
| 9                                                                                              | 14472.0       | 41.9        | 42.0 | 41.8                    | 34.6                | 15.2                  | 0.0                         | 54.8     | 54.9 | 74.0                    | 19.2   | 19.1 |
| 10                                                                                             | 16884.0       | 44.7        | 43.4 | 45.2                    | 35.0                | 16.6                  | 0.0                         | 62.0     | 60.7 | 74.0                    | 12.0   | 13.3 |
| 11                                                                                             | 19296.0       | 43.4        | 43.9 | 41.6                    | 34.1                | 18.6                  | 0.0                         | 60.0     | 60.5 | 74.0                    | 14.0   | 13.5 |
| 12                                                                                             | 21708.0       | 43.9        | 44.0 | 40.4                    | 34.7                | 19.4                  | 0.0                         | 59.5     | 59.6 | 74.0                    | 14.5   | 14.5 |
| 13                                                                                             | 24120.0       | 44.7        | 44.5 | 41.0                    | 35.6                | 21.6                  | 0.0                         | 62.2     | 62.0 | 74.0                    | 11.8   | 12.0 |

### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                            | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                              | 1663.7        | 44.1        | 41.4 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 35.6     | 32.9 | 54.0                    | 18.4   | 21.1 |
| 2                                                                                              | 2312.0        | 39.9        | 39.2 | 30.4                    | 39.8                | 5.5                   | 0.0                         | 36.0     | 35.3 | 54.0                    | 18.1   | 18.8 |
| 3*                                                                                             | 2400.0        | 69.4        | 67.7 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 65.7     | 64.0 | 54.0                    | -      | -    |
| 4                                                                                              | 4824.0        | 33.9        | 33.7 | 35.2                    | 41.2                | 8.3                   | 1.0                         | 37.2     | 37.0 | 54.0                    | 16.8   | 17.0 |
| 5*                                                                                             | 6432.0        | 49.9        | 44.6 | 36.6                    | 41.2                | 9.4                   | 0.9                         | 55.6     | 50.3 | 54.0                    | -      | -    |
| 6                                                                                              | 7235.9        | 31.9        | 31.9 | 37.7                    | 40.4                | 10.1                  | 0.4                         | 39.7     | 39.7 | 54.0                    | 14.3   | 14.3 |
| 7                                                                                              | 9648.0        | 30.5        | 30.9 | 37.0                    | 39.5                | 12.3                  | 0.2                         | 40.5     | 40.9 | 54.0                    | 13.5   | 13.1 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 8                                                                                              | 12060.0       | 31.1        | 31.1 | 41.6                    | 36.1                | 14.3                  | 0.0                         | 41.4     | 41.4 | 54.0                    | 12.6   | 12.6 |
| 9                                                                                              | 14472.0       | 29.9        | 30.1 | 41.8                    | 34.6                | 15.2                  | 0.0                         | 42.8     | 43.0 | 54.0                    | 11.2   | 11.0 |
| 10                                                                                             | 16884.0       | 32.3        | 32.3 | 45.2                    | 35.0                | 16.6                  | 0.0                         | 49.6     | 49.6 | 54.0                    | 4.4    | 4.4  |
| 11                                                                                             | 19296.0       | 31.2        | 31.2 | 41.6                    | 34.1                | 18.6                  | 0.0                         | 47.8     | 47.8 | 54.0                    | 6.2    | 6.2  |
| 12                                                                                             | 21708.0       | 31.7        | 31.7 | 40.4                    | 34.7                | 19.4                  | 0.0                         | 47.3     | 47.3 | 54.0                    | 6.7    | 6.7  |
| 13                                                                                             | 24120.0       | 32.6        | 32.6 | 41.0                    | 35.6                | 21.6                  | 0.0                         | 50.1     | 50.1 | 54.0                    | 3.9    | 3.9  |

\* Reference data

### 20dBc(Fundamental 2402MHz) (RBW: 100kHz, VBW: 300kHz)

| No.                                                                                     | FREQ<br>[MHz] | S/A READING |       | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>20dBc<br>[dBuV/m] | MARGIN |      |
|-----------------------------------------------------------------------------------------|---------------|-------------|-------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|----------------------------|--------|------|
|                                                                                         |               | HOR         | VER   |                         |                     |                       |                             | HOR      | VER  |                            | HOR    | VER  |
|                                                                                         |               | [dBuV]      |       |                         |                     |                       |                             | [dBuV/m] |      |                            | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss |               |             |       |                         |                     |                       |                             |          |      |                            |        |      |
| 0                                                                                       | 2412.0        | 102.9       | 102.6 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 99.2     | 98.9 | -                          | -      | -    |
| 3                                                                                       | 2400.0        | 68.7        | 66.9  | 30.5                    | 39.9                | 5.7                   | 0.0                         | 65.0     | 63.2 | Funda-20dB                 | 14.2   | 15.7 |
| 5                                                                                       | 6432.0        | 51.5        | 49.8  | 36.6                    | 41.2                | 9.4                   | 0.0                         | 56.3     | 54.6 | Funda-20dB                 | 22.9   | 24.3 |

Test Distance(above 10GHz) 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Band-Pass Fiter was not used for factor 0.0dB of the above table.

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MF060b(01.06.05)

## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

|                                                   |                                                   |  |
|---------------------------------------------------|---------------------------------------------------|--|
| Company : Fujitsu Limited                         | REPORT NO : 25HE0105-HO                           |  |
| Equipment : Personal Computer                     | REGULATION : Fcc Part15 Subpart C 15.247(d)       |  |
| Model : P1510                                     | TEST DISTANCE : 3(below 10GHz) / 1m (above 10GHz) |  |
| Sample No. : R5100030                             | DATE : 04/14/2005 04/23/2005                      |  |
| Power : AC 120 V / 60 Hz                          | TEMPERATURE : 21deg.C 21deg.C                     |  |
| Mode : W-LAN IEEE802.11b, Tx 2437MHz, 11Mbps      | HUMIDITY : 37% 34%                                |  |
| Remarks : EUT-Max axis Hor : Y-axis, Ver : X axis | ENGINEER : Mitsuru Fujimura Kenichi Adachi        |  |
| : Main Antenna                                    |                                                   |  |

### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                               | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|---------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                   |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                   |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                 | 1663.7        | 58.9        | 53.4 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 50.4     | 44.9 | 74.0                    | 23.6   | 29.1 |
| 2                                                                                                 | 2335.9        | 51.9        | 52.1 | 30.4                    | 39.8                | 5.7                   | 0.0                         | 48.2     | 48.4 | 74.0                    | 25.8   | 25.6 |
| 3                                                                                                 | 4874.0        | 46.5        | 46.2 | 35.5                    | 41.2                | 8.4                   | 1.0                         | 50.2     | 49.9 | 74.0                    | 23.8   | 24.1 |
| 4*                                                                                                | 6498.7        | 54.2        | 50.1 | 36.5                    | 41.2                | 9.5                   | 1.0                         | 60.0     | 55.9 | 74.0                    | 14.0   | 18.1 |
| 5                                                                                                 | 7311.0        | 44.3        | 45.1 | 37.9                    | 40.4                | 10.2                  | 0.5                         | 52.5     | 53.3 | 74.0                    | 21.5   | 20.7 |
| 6                                                                                                 | 9748.0        | 42.9        | 42.5 | 36.9                    | 39.5                | 12.4                  | 0.2                         | 52.9     | 52.5 | 74.0                    | 21.1   | 21.5 |
| Test distance 1meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 7                                                                                                 | 12185.0       | 43.1        | 42.7 | 41.6                    | 36.0                | 14.4                  | 0.0                         | 53.6     | 53.2 | 74.0                    | 20.4   | 20.8 |
| 8                                                                                                 | 14622.0       | 42.1        | 43.0 | 42.1                    | 35.1                | 15.3                  | 0.0                         | 54.9     | 55.8 | 74.0                    | 19.1   | 18.2 |
| 9                                                                                                 | 17059.0       | 44.4        | 44.4 | 45.3                    | 34.9                | 16.6                  | 0.0                         | 61.9     | 61.9 | 74.0                    | 12.1   | 12.1 |
| 10                                                                                                | 19496.0       | 44.4        | 43.6 | 41.4                    | 34.3                | 18.9                  | 0.0                         | 60.9     | 60.1 | 74.0                    | 13.1   | 13.9 |
| 11                                                                                                | 21933.0       | 44.9        | 44.2 | 40.5                    | 34.2                | 19.3                  | 0.0                         | 61.0     | 60.3 | 74.0                    | 13.0   | 13.7 |
| 12                                                                                                | 24370.0       | 44.0        | 44.1 | 41.1                    | 35.7                | 21.6                  | 0.0                         | 61.5     | 61.6 | 74.0                    | 12.5   | 12.4 |

### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                               | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|---------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                   |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                   |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                 | 1663.7        | 44.6        | 41.6 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 36.1     | 33.1 | 54.0                    | 17.9   | 20.9 |
| 2                                                                                                 | 2335.9        | 44.2        | 46.4 | 30.4                    | 39.8                | 5.7                   | 0.0                         | 40.5     | 42.7 | 54.0                    | 13.5   | 11.3 |
| 3                                                                                                 | 4874.0        | 32.8        | 31.7 | 35.5                    | 41.2                | 8.4                   | 1.0                         | 36.5     | 35.4 | 54.0                    | 17.5   | 18.6 |
| 4*                                                                                                | 6498.7        | 51.2        | 44.2 | 36.5                    | 41.2                | 9.5                   | 1.0                         | 57.0     | 50.0 | 54.0                    | -      | -    |
| 5                                                                                                 | 7311.0        | 31.7        | 32.0 | 37.9                    | 40.4                | 10.2                  | 0.5                         | 39.9     | 40.2 | 54.0                    | 14.1   | 13.8 |
| 6                                                                                                 | 9748.0        | 30.7        | 30.7 | 36.9                    | 39.5                | 12.4                  | 0.2                         | 40.7     | 40.7 | 54.0                    | 13.4   | 13.3 |
| Test distance 1meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 7                                                                                                 | 12185.0       | 31.3        | 30.9 | 41.6                    | 36.0                | 14.4                  | 0.0                         | 41.8     | 41.4 | 54.0                    | 12.2   | 12.7 |
| 8                                                                                                 | 14622.0       | 30.3        | 30.1 | 42.1                    | 35.1                | 15.3                  | 0.0                         | 43.1     | 42.9 | 54.0                    | 10.9   | 11.1 |
| 9                                                                                                 | 17059.0       | 32.5        | 32.5 | 45.3                    | 34.9                | 16.6                  | 0.0                         | 50.0     | 50.0 | 54.0                    | 4.0    | 4.0  |
| 10                                                                                                | 19496.0       | 31.4        | 31.4 | 41.4                    | 34.3                | 18.9                  | 0.0                         | 47.9     | 47.9 | 54.0                    | 6.1    | 6.1  |
| 11                                                                                                | 21933.0       | 32.2        | 32.2 | 40.5                    | 34.2                | 19.3                  | 0.0                         | 48.3     | 48.3 | 54.0                    | 5.7    | 5.7  |
| 12                                                                                                | 24370.0       | 31.7        | 31.7 | 41.1                    | 35.7                | 21.6                  | 0.0                         | 49.2     | 49.2 | 54.0                    | 4.8    | 4.8  |

\* Reference data

### 20dBc(Fundamental 2402MHz) (RBW: 100kHz, VBW: 300kHz)

| No.                                                                                     | FREQ<br><br>[MHz] | S/A READING |       | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>20dBc<br>[dBuV/m] | MARGIN |      |
|-----------------------------------------------------------------------------------------|-------------------|-------------|-------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|----------------------------|--------|------|
|                                                                                         |                   | HOR         | VER   |                         |                     |                       |                             | HOR      | VER  |                            | HOR    | VER  |
|                                                                                         |                   | [dBuV]      |       |                         |                     |                       |                             | [dBuV/m] |      |                            | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss |                   |             |       |                         |                     |                       |                             |          |      |                            |        |      |
| 0                                                                                       | 2437.0            | 102.4       | 100.7 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 98.7     | 97.0 | -                          | -      | -    |
| 4                                                                                       | 6498.7            | 53.1        | 48.6  | 36.6                    | 41.2                | 9.4                   | 0.0                         | 57.9     | 53.4 | Funda-20dB                 | 20.8   | 23.6 |

Test Distance(above 10GHz) 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Band-Pass Filter was not used for factor 0.0dB of the above table.

## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

|                                                   |                                                    |  |
|---------------------------------------------------|----------------------------------------------------|--|
| Company : Fujitsu Limited                         | REPORT NO : 25HE0105-HO                            |  |
| Equipment : Personal Computer                     | REGULATION : Fcc Part15 Subpart C 15.247(d)        |  |
| Model : P1510                                     | TEST DISTANCE : 3m (below 10GHz) /1m (above 10GHz) |  |
| Sample No. : R5100030                             | DATE : 04/14/2005 04/23/2005                       |  |
| Power : AC 120 V / 60 Hz                          | TEMPERATURE : 21deg.C 21deg.C                      |  |
| Mode : W-LAN IEEE802.11b, Tx 2462MHz, 11Mbps      | HUMIDITY : 37% 34%                                 |  |
| Remarks : EUT-Max axis Hor : Y-axis, Ver : X axis | ENGINEER : Mitsuru Fujimura Kenichi Adachi         |  |
| : Main Antenna                                    |                                                    |  |

### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                               | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|---------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                   |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                   |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                 | 1663.3        | 59.6        | 52.5 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 51.1     | 44.0 | 74.0                    | 22.9   | 30.0 |
| 2                                                                                                 | 2484.3        | 52.7        | 51.6 | 30.5                    | 40.1                | 5.8                   | 0.0                         | 48.9     | 47.8 | 74.0                    | 25.1   | 26.2 |
| 3                                                                                                 | 4924.1        | 46.7        | 46.2 | 35.8                    | 41.3                | 8.4                   | 1.0                         | 50.6     | 50.1 | 74.0                    | 23.4   | 23.9 |
| 4*                                                                                                | 6565.3        | 54.3        | 49.9 | 36.6                    | 41.1                | 9.4                   | 1.0                         | 60.2     | 55.8 | 74.0                    | 13.8   | 18.2 |
| 5                                                                                                 | 7386.0        | 44.4        | 44.4 | 38.0                    | 40.3                | 10.7                  | 0.1                         | 52.9     | 52.9 | 74.0                    | 21.1   | 21.1 |
| 6                                                                                                 | 9848.0        | 42.6        | 43.2 | 36.8                    | 39.6                | 12.6                  | 0.1                         | 52.5     | 53.1 | 74.0                    | 21.5   | 20.9 |
| Test distance 1meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 7                                                                                                 | 12310.0       | 42.7        | 41.9 | 41.7                    | 35.9                | 14.4                  | 0.0                         | 53.4     | 52.6 | 74.0                    | 20.6   | 21.4 |
| 8                                                                                                 | 14772.0       | 42.6        | 42.0 | 42.4                    | 35.6                | 15.5                  | 0.0                         | 55.4     | 54.8 | 74.0                    | 18.6   | 19.2 |
| 9                                                                                                 | 17234.0       | 45.2        | 45.0 | 44.9                    | 35.0                | 16.7                  | 0.0                         | 62.3     | 62.1 | 74.0                    | 11.7   | 11.9 |
| 10                                                                                                | 19696.0       | 43.8        | 44.2 | 41.2                    | 34.6                | 19.1                  | 0.0                         | 60.0     | 60.4 | 74.0                    | 14.0   | 13.7 |
| 11                                                                                                | 22158.0       | 44.3        | 44.5 | 40.5                    | 34.1                | 19.5                  | 0.0                         | 60.7     | 60.9 | 74.0                    | 13.3   | 13.1 |
| 12                                                                                                | 24620.0       | 44.0        | 44.0 | 41.1                    | 35.5                | 21.6                  | 0.0                         | 61.7     | 61.7 | 74.0                    | 12.3   | 12.3 |

### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                               | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|---------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                   |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                   |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                 | 1663.3        | 41.0        | 44.5 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 32.5     | 36.0 | 54.0                    | 21.5   | 18.0 |
| 2                                                                                                 | 2484.3        | 38.2        | 37.2 | 30.5                    | 40.1                | 5.8                   | 0.0                         | 34.4     | 33.4 | 54.0                    | 19.6   | 20.6 |
| 3                                                                                                 | 4924.1        | 33.8        | 33.8 | 35.8                    | 41.3                | 8.4                   | 1.0                         | 37.7     | 37.7 | 54.0                    | 16.3   | 16.3 |
| 4*                                                                                                | 6565.3        | 51.3        | 44.5 | 36.6                    | 41.1                | 9.4                   | 1.0                         | 57.2     | 50.4 | 54.0                    | -      | -    |
| 5                                                                                                 | 7386.0        | 31.8        | 31.7 | 38.0                    | 40.3                | 10.7                  | 0.1                         | 40.3     | 40.2 | 54.0                    | 13.7   | 13.8 |
| 6                                                                                                 | 9848.0        | 30.6        | 30.5 | 36.8                    | 39.6                | 12.6                  | 0.1                         | 40.5     | 40.4 | 54.0                    | 13.5   | 13.6 |
| Test distance 1meters    RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 7                                                                                                 | 12310.0       | 32.1        | 30.9 | 41.7                    | 35.9                | 14.4                  | 0.0                         | 42.8     | 41.6 | 54.0                    | 11.2   | 12.4 |
| 8                                                                                                 | 14772.0       | 30.3        | 30.4 | 42.4                    | 35.6                | 15.5                  | 0.0                         | 43.1     | 43.2 | 54.0                    | 10.9   | 10.8 |
| 9                                                                                                 | 17234.0       | 32.5        | 32.5 | 44.9                    | 35.0                | 16.7                  | 0.0                         | 49.6     | 49.6 | 54.0                    | 4.4    | 4.4  |
| 10                                                                                                | 19696.0       | 31.4        | 31.4 | 41.2                    | 34.6                | 19.1                  | 0.0                         | 47.6     | 47.6 | 54.0                    | 6.4    | 6.4  |
| 11                                                                                                | 22158.0       | 32.2        | 32.2 | 40.5                    | 34.1                | 19.5                  | 0.0                         | 48.6     | 48.6 | 54.0                    | 5.4    | 5.4  |
| 12                                                                                                | 24620.0       | 31.4        | 31.4 | 41.1                    | 35.5                | 21.6                  | 0.0                         | 49.1     | 49.1 | 54.0                    | 4.9    | 4.9  |

\* Reference data

### 20dBc(Fundamental 2462MHz) (RBW: 100kHz, VBW: 300kHz)

| No.                                                                                     | FREQ<br><br>[MHz] | S/A READING |       | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>20dBc<br>[dBuV/m] | MARGIN |      |
|-----------------------------------------------------------------------------------------|-------------------|-------------|-------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|----------------------------|--------|------|
|                                                                                         |                   | HOR         | VER   |                         |                     |                       |                             | HOR      | VER  |                            | HOR    | VER  |
|                                                                                         |                   | [dBuV]      |       |                         |                     |                       |                             | [dBuV/m] |      |                            | [dB]   | [dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss |                   |             |       |                         |                     |                       |                             |          |      |                            |        |      |
| 0                                                                                       | 2462.1            | 101.0       | 100.1 | 30.5                    | 40.0                | 5.6                   | 0.0                         | 97.1     | 96.2 | -                          | -      | -    |
| 4                                                                                       | 6565.3            | 53.2        | 48.6  | 30.5                    | 36.4                | 5.8                   | 0.0                         | 53.1     | 48.5 | Funda-20dB                 | 24.0   | 27.7 |

Test Distance (above10GHz) 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

## Radiated Spurious Emission(DSSS and other forms of modulation)

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chambe

|            |                                           |               |                                       |
|------------|-------------------------------------------|---------------|---------------------------------------|
| Company    | : Fujitsu Limited                         | REPORT NO     | : 25HE0105-HO                         |
| Equipment  | : Personal Computer                       | REGULATION    | : Fcc Part15 Subpart C 15.247(d)      |
| Model      | : P1510                                   | TEST DISTANCE | : 3m (below 10GHz) / 1m (above 10GHz) |
| Sample No. | : R5100030                                | DATE          | : 04/14/2005 04/23/2005               |
| Power      | : AC 120 V / 60 Hz                        | TEMPERATURE   | : 21deg.C 21deg.C                     |
| Mode       | : W-LAN IEEE802.11g, Tx 2412MHz, 54Mbps   | HUMIDITY      | : 37% 34%                             |
| Remarks    | : EUT-Max axis Hor : Y-axis, Ver : X axis | ENGINEER      | : Mitsuru Fujimura Kenichi Adachi     |
|            | : Main Antenna                            |               |                                       |

### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                            | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                              | 1663.4        | 52.9        | 51.6 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 44.4     | 43.1 | 74.0                    | 29.6   | 30.9 |
| 2                                                                                              | 2312.0        | 54.3        | 53.3 | 30.4                    | 39.8                | 5.5                   | 0.0                         | 50.4     | 49.4 | 74.0                    | 23.6   | 24.6 |
| 3*                                                                                             | 2400.0        | 80.6        | 79.5 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 76.9     | 75.8 | 74.0                    | -      | -    |
| 4                                                                                              | 4824.0        | 46.7        | 47.3 | 35.2                    | 41.2                | 8.3                   | 1.0                         | 50.0     | 50.6 | 74.0                    | 24.0   | 23.4 |
| 5*                                                                                             | 6432.1        | 52.0        | 50.1 | 36.6                    | 41.2                | 9.4                   | 0.9                         | 57.7     | 55.8 | 74.0                    | 16.3   | 18.2 |
| 6                                                                                              | 7235.9        | 44.5        | 44.6 | 37.7                    | 40.4                | 10.1                  | 0.4                         | 52.3     | 52.4 | 74.0                    | 21.7   | 21.6 |
| 7                                                                                              | 9648.0        | 42.4        | 42.5 | 37.0                    | 39.5                | 12.3                  | 0.2                         | 52.4     | 52.5 | 74.0                    | 21.6   | 21.5 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 8                                                                                              | 12060.0       | 42.9        | 43.1 | 41.6                    | 36.1                | 14.3                  | 0.0                         | 53.2     | 53.4 | 74.0                    | 20.8   | 20.6 |
| 9                                                                                              | 14472.0       | 41.7        | 42.4 | 41.8                    | 34.6                | 15.2                  | 0.0                         | 54.6     | 55.3 | 74.0                    | 19.4   | 18.7 |
| 10                                                                                             | 16884.0       | 43.7        | 44.1 | 45.2                    | 35.0                | 16.6                  | 0.0                         | 61.0     | 61.4 | 74.0                    | 13.0   | 12.6 |
| 11                                                                                             | 19296.0       | 43.6        | 44.3 | 41.6                    | 34.1                | 18.6                  | 0.0                         | 60.2     | 60.9 | 74.0                    | 13.8   | 13.1 |
| 12                                                                                             | 21708.0       | 44.1        | 44.5 | 40.4                    | 34.7                | 19.4                  | 0.0                         | 59.7     | 60.1 | 74.0                    | 14.3   | 13.9 |
| 13                                                                                             | 24120.0       | 45.1        | 44.8 | 41.0                    | 35.6                | 21.6                  | 0.0                         | 62.6     | 62.3 | 74.0                    | 11.4   | 11.7 |

### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                            | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                              | 1663.4        | 44.5        | 39.0 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 36.0     | 30.5 | 54.0                    | 18.0   | 23.5 |
| 2                                                                                              | 2312.0        | 48.6        | 46.8 | 30.4                    | 39.8                | 5.5                   | 0.0                         | 44.7     | 42.9 | 54.0                    | 9.3    | 11.1 |
| 3*                                                                                             | 2400.0        | 71.4        | 70.3 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 67.7     | 66.6 | 54.0                    | -      | -    |
| 4                                                                                              | 4824.0        | 33.8        | 34.1 | 35.2                    | 41.2                | 8.3                   | 1.0                         | 37.1     | 37.4 | 54.0                    | 16.9   | 16.6 |
| 5*                                                                                             | 6432.1        | 49.0        | 43.4 | 36.6                    | 41.2                | 9.4                   | 0.9                         | 54.7     | 49.1 | 54.0                    | -      | -    |
| 6                                                                                              | 7235.9        | 31.9        | 31.7 | 37.7                    | 40.4                | 10.1                  | 0.4                         | 39.7     | 39.5 | 54.0                    | 14.3   | 14.5 |
| 7                                                                                              | 9648.0        | 30.6        | 30.7 | 37.0                    | 39.5                | 12.3                  | 0.2                         | 40.6     | 40.7 | 54.0                    | 13.4   | 13.3 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 8                                                                                              | 12060.0       | 31.2        | 31.1 | 41.6                    | 36.1                | 14.3                  | 0.0                         | 41.5     | 41.4 | 54.0                    | 12.5   | 12.6 |
| 9                                                                                              | 14472.0       | 30.1        | 30.0 | 41.8                    | 34.6                | 15.2                  | 0.0                         | 43.0     | 42.9 | 54.0                    | 11.0   | 11.1 |
| 10                                                                                             | 16884.0       | 32.2        | 32.3 | 45.2                    | 35.0                | 16.6                  | 0.0                         | 49.5     | 49.6 | 54.0                    | 4.5    | 4.4  |
| 11                                                                                             | 19296.0       | 31.2        | 31.2 | 41.6                    | 34.1                | 18.6                  | 0.0                         | 47.8     | 47.8 | 54.0                    | 6.2    | 6.2  |
| 12                                                                                             | 21708.0       | 31.7        | 31.7 | 40.4                    | 34.7                | 19.4                  | 0.0                         | 47.3     | 47.3 | 54.0                    | 6.7    | 6.7  |
| 13                                                                                             | 24120.0       | 32.6        | 32.6 | 41.0                    | 35.6                | 21.6                  | 0.0                         | 50.1     | 50.1 | 54.0                    | 3.9    | 3.9  |

\* Reference data

### 20dBc(Fundamental 2402MHz) (RBW: 100kHz, VBW: 300kHz)

| No.                                                                                     | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>20dBc<br>[dBuV/m] | MARGIN |      |
|-----------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|----------------------------|--------|------|
|                                                                                         |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                            | HOR    | VER  |
|                                                                                         |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                            | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss |               |             |      |                         |                     |                       |                             |          |      |                            |        |      |
| 0                                                                                       | 2409.0        | 97.6        | 97.4 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 93.9     | 93.7 | -                          | -      | -    |
| 3                                                                                       | 2400.0        | 66.3        | 65.3 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 62.6     | 61.6 | Funda-20dB                 | 11.3   | 12.1 |
| 5                                                                                       | 6432.1        | 50.4        | 48.5 | 36.6                    | 41.2                | 9.4                   | 0.0                         | 55.2     | 53.3 | Funda-20dB                 | 18.7   | 20.4 |

Test Distance(above 10GHz) 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Band-Pass Filter was not used for factor 0.0dB of the above table.

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MF060b(01.06.05)

## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chambe

|                                                   |                                             |                |
|---------------------------------------------------|---------------------------------------------|----------------|
| Company : Fujitsu Limited                         | REPORT NO : 25HE0105-HO                     |                |
| Equipment : Personal Computer                     | REGULATION : Fcc Part15 Subpart C 15.247(d) |                |
| Model : P1510                                     | TEST DISTANCE : 3/1m                        |                |
| Sample No. : R5100030                             | DATE : 04/14/2005                           | 04/23/2005     |
| Power : AC 120 V / 60 Hz                          | TEMPERATURE : 21deg.C                       | 21deg.C        |
| Mode : W-LAN IEEE802.11g, Tx 2437MHz, 54Mbps      | HUMIDITY : 37%                              | 34%            |
| Remarks : EUT-Max axis Hor : Y-axis, Ver : X axis | ENGINEER : Mitsuru Fujimura                 | Kenichi Adachi |
| : Main Antenna                                    |                                             |                |

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                   | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|-------------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                       |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                       |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                     | 1662.9        | 59.0        | 51.6 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 50.5     | 43.1 | 74.0                    | 23.5   | 30.9 |
| 2                                                                                                     | 2335.9        | 55.1        | 52.9 | 30.4                    | 39.8                | 5.7                   | 0.0                         | 51.4     | 49.2 | 74.0                    | 22.6   | 24.8 |
| 3                                                                                                     | 4874.0        | 46.8        | 46.5 | 35.5                    | 41.2                | 8.4                   | 1.0                         | 50.5     | 50.2 | 74.0                    | 23.5   | 23.8 |
| 4*                                                                                                    | 6498.7        | 54.0        | 50.1 | 36.5                    | 41.2                | 9.5                   | 1.0                         | 59.8     | 55.9 | 74.0                    | 14.2   | 18.1 |
| 5                                                                                                     | 7311.0        | 44.2        | 45.0 | 37.9                    | 40.4                | 10.2                  | 0.5                         | 52.4     | 53.2 | 74.0                    | 21.6   | 20.8 |
| 6                                                                                                     | 9747.9        | 43.5        | 42.4 | 36.9                    | 39.5                | 12.4                  | 0.2                         | 53.5     | 52.4 | 74.0                    | 20.5   | 21.6 |
| <b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b> |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 7                                                                                                     | 12185.0       | 42.7        | 43.2 | 41.6                    | 36.0                | 14.4                  | 0.0                         | 53.2     | 53.7 | 74.0                    | 20.8   | 20.3 |
| 8                                                                                                     | 14622.0       | 41.7        | 43.0 | 42.1                    | 35.1                | 15.3                  | 0.0                         | 54.5     | 55.8 | 74.0                    | 19.5   | 18.2 |
| 9                                                                                                     | 17059.0       | 44.4        | 44.9 | 45.3                    | 34.9                | 16.6                  | 0.0                         | 61.9     | 62.4 | 74.0                    | 12.1   | 11.6 |
| 10                                                                                                    | 19496.0       | 44.1        | 44.1 | 41.4                    | 34.3                | 18.9                  | 0.0                         | 60.6     | 60.6 | 74.0                    | 13.4   | 13.4 |
| 11                                                                                                    | 21933.0       | 44.5        | 45.5 | 40.5                    | 34.2                | 19.3                  | 0.0                         | 60.6     | 61.6 | 74.0                    | 13.4   | 12.4 |
| 12                                                                                                    | 24370.0       | 44.0        | 44.5 | 41.1                    | 35.7                | 21.6                  | 0.0                         | 61.5     | 62.0 | 74.0                    | 12.5   | 12.0 |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                   | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|-------------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                       |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                       |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                     | 1662.9        | 44.6        | 37.7 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 36.1     | 29.2 | 54.0                    | 17.9   | 24.9 |
| 2                                                                                                     | 2335.9        | 50.2        | 47.5 | 30.4                    | 39.8                | 5.7                   | 0.0                         | 46.5     | 43.8 | 54.0                    | 7.5    | 10.2 |
| 3                                                                                                     | 4874.0        | 33.8        | 33.7 | 35.5                    | 41.2                | 8.4                   | 1.0                         | 37.5     | 37.4 | 54.0                    | 16.6   | 16.6 |
| 4*                                                                                                    | 6498.7        | 51.0        | 43.9 | 36.5                    | 41.2                | 9.5                   | 1.0                         | 56.8     | 49.7 | 54.0                    | -      | -    |
| 5                                                                                                     | 7311.0        | 31.8        | 31.7 | 37.9                    | 40.4                | 10.2                  | 0.5                         | 40.0     | 39.9 | 54.0                    | 14.0   | 14.1 |
| 6                                                                                                     | 9747.9        | 30.6        | 30.7 | 36.9                    | 39.5                | 12.4                  | 0.2                         | 40.6     | 40.7 | 54.0                    | 13.4   | 13.3 |
| <b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b> |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 7                                                                                                     | 12185.0       | 30.9        | 30.9 | 41.6                    | 36.0                | 14.4                  | 0.0                         | 41.4     | 41.4 | 54.0                    | 12.6   | 12.6 |
| 8                                                                                                     | 14622.0       | 30.1        | 30.3 | 42.1                    | 35.1                | 15.3                  | 0.0                         | 42.9     | 43.1 | 54.0                    | 11.1   | 10.9 |
| 9                                                                                                     | 17059.0       | 32.5        | 32.4 | 45.3                    | 34.9                | 16.6                  | 0.0                         | 50.0     | 49.9 | 54.0                    | 4.0    | 4.1  |
| 10                                                                                                    | 19496.0       | 31.4        | 31.4 | 41.4                    | 34.3                | 18.9                  | 0.0                         | 47.9     | 47.9 | 54.0                    | 6.1    | 6.1  |
| 11                                                                                                    | 21933.0       | 32.2        | 32.2 | 40.5                    | 34.2                | 19.3                  | 0.0                         | 48.3     | 48.3 | 54.0                    | 5.7    | 5.7  |
| 12                                                                                                    | 24370.0       | 31.7        | 31.7 | 41.1                    | 35.7                | 21.6                  | 0.0                         | 49.2     | 49.2 | 54.0                    | 4.8    | 4.8  |

\* Reference data

**20dBc(Fundamental 2402MHz)** (RBW: 100kHz, VBW: 300kHz)

| No.                                                                                            | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>20dBc<br>[dBuV/m] | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|----------------------------|--------|------|
|                                                                                                |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                            | HOR    | VER  |
|                                                                                                |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                            | [dB]   | [dB] |
| <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b> |               |             |      |                         |                     |                       |                             |          |      |                            |        |      |
| 0                                                                                              | 2434.2        | 98.3        | 96.9 | 30.5                    | 39.9                | 5.7                   | 0.0                         | 94.6     | 93.2 | -                          | -      | -    |
| 4                                                                                              | 6498.7        | 52.6        | 48.5 | 36.6                    | 41.2                | 9.4                   | 0.0                         | 57.4     | 53.3 | Funda-20dB                 | 17.2   | 19.9 |

Test Distance(above 10GHz) 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Band-Pass Filter was not used for factor 0.0dB of the above table.

## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chambe

|                                                   |                                                    |                |
|---------------------------------------------------|----------------------------------------------------|----------------|
| Company : Fujitsu Limited                         | REPORT NO : 25HE0105-HO                            |                |
| Equipment : Personal Computer                     | REGULATION : Fcc Part15 Subpart C 15.247(d)        |                |
| Model : P1510                                     | TEST DISTANCE : 3m (below 10GHz) /1m (above 10GHz) |                |
| Sample No. : R5100030                             | DATE : 04/14/2005                                  | 04/23/2005     |
| Power : AC 120 V / 60 Hz                          | TEMPERATURE : 21deg.C                              | 21deg.C        |
| Mode : W-LAN IEEE802.11g, Tx 2462MHz, 54Mbps      | HUMIDITY : 37%                                     | 34%            |
| Remarks : EUT-Max axis Hor : Y-axis, Ver : X axis | ENGINEER : Mitsuru Fujimura                        | Kenichi Adachi |
| : Main Antenna                                    |                                                    |                |

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                   | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|-------------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                       |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                       |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                     | 1662.9        | 59.2        | 48.3 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 50.7     | 39.8 | 74.0                    | 23.3   | 34.2 |
| 2                                                                                                     | 2483.5        | 59.5        | 55.0 | 30.5                    | 40.1                | 5.8                   | 0.0                         | 55.7     | 51.2 | 74.0                    | 18.3   | 22.8 |
| 3                                                                                                     | 4924.1        | 46.6        | 47.4 | 35.8                    | 41.3                | 8.4                   | 1.0                         | 50.5     | 51.3 | 74.0                    | 23.5   | 22.7 |
| 4                                                                                                     | 6565.3        | 53.9        | 49.5 | 36.6                    | 41.1                | 9.4                   | 1.0                         | 59.8     | 55.4 | 74.0                    | 14.2   | 18.6 |
| 5                                                                                                     | 7385.5        | 44.4        | 44.5 | 38.0                    | 40.3                | 10.7                  | 0.1                         | 52.9     | 53.0 | 74.0                    | 21.1   | 21.0 |
| 7                                                                                                     | 9848.0        | 43.6        | 42.7 | 36.8                    | 39.6                | 12.6                  | 0.1                         | 53.5     | 52.6 | 74.0                    | 20.5   | 21.4 |
| <b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b> |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 8                                                                                                     | 12310.0       | 44.0        | 42.3 | 41.7                    | 35.9                | 14.4                  | 0.0                         | 54.7     | 53.0 | 74.0                    | 19.3   | 21.0 |
| 9                                                                                                     | 14772.0       | 42.4        | 42.3 | 42.4                    | 35.6                | 15.5                  | 0.0                         | 55.2     | 55.1 | 74.0                    | 18.8   | 18.9 |
| 10                                                                                                    | 17234.0       | 44.6        | 44.7 | 44.9                    | 35.0                | 16.7                  | 0.0                         | 61.7     | 61.8 | 74.0                    | 12.3   | 12.2 |
| 11                                                                                                    | 19696.0       | 44.0        | 44.5 | 41.2                    | 34.6                | 19.1                  | 0.0                         | 60.2     | 60.7 | 74.0                    | 13.9   | 13.3 |
| 12                                                                                                    | 22158.0       | 44.5        | 44.7 | 40.5                    | 34.1                | 19.5                  | 0.0                         | 60.9     | 61.1 | 74.0                    | 13.1   | 12.9 |
| 13                                                                                                    | 24620.0       | 43.5        | 43.8 | 41.1                    | 35.5                | 21.6                  | 0.0                         | 61.2     | 61.5 | 74.0                    | 12.8   | 12.5 |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                   | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|-------------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                       |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                       |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>        |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 1                                                                                                     | 1662.9        | 44.6        | 37.4 | 26.3                    | 39.5                | 4.7                   | 0.0                         | 36.1     | 28.9 | 54.0                    | 17.9   | 25.1 |
| 2                                                                                                     | 2483.5        | 42.8        | 43.3 | 30.5                    | 40.1                | 5.8                   | 0.0                         | 39.0     | 39.5 | 54.0                    | 15.0   | 14.5 |
| 3                                                                                                     | 4924.1        | 33.8        | 34.0 | 35.8                    | 41.3                | 8.4                   | 1.0                         | 37.7     | 37.9 | 54.0                    | 16.3   | 16.1 |
| 4                                                                                                     | 6565.3        | 51.0        | 42.1 | 36.6                    | 41.1                | 9.4                   | 1.0                         | 56.9     | 48.0 | 54.0                    | -      | -    |
| 5                                                                                                     | 7385.5        | 31.7        | 31.8 | 38.0                    | 40.3                | 10.7                  | 0.1                         | 40.2     | 40.3 | 54.0                    | 13.8   | 13.7 |
| 7                                                                                                     | 9848.0        | 30.5        | 30.6 | 36.8                    | 39.6                | 12.6                  | 0.1                         | 40.4     | 40.5 | 54.0                    | 13.6   | 13.5 |
| <b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b> |               |             |      |                         |                     |                       |                             |          |      |                         |        |      |
| 8                                                                                                     | 12310.0       | 30.9        | 30.9 | 41.7                    | 35.9                | 14.4                  | 0.0                         | 41.6     | 41.6 | 54.0                    | 12.5   | 12.4 |
| 9                                                                                                     | 14772.0       | 30.4        | 30.3 | 42.4                    | 35.6                | 15.5                  | 0.0                         | 43.2     | 43.1 | 54.0                    | 10.9   | 10.9 |
| 10                                                                                                    | 17234.0       | 32.5        | 32.5 | 44.9                    | 35.0                | 16.7                  | 0.0                         | 49.6     | 49.6 | 54.0                    | 4.4    | 4.4  |
| 11                                                                                                    | 19696.0       | 31.4        | 31.8 | 41.2                    | 34.6                | 19.1                  | 0.0                         | 47.6     | 48.0 | 54.0                    | 6.4    | 6.0  |
| 12                                                                                                    | 22158.0       | 32.2        | 32.2 | 40.5                    | 34.1                | 19.5                  | 0.0                         | 48.6     | 48.6 | 54.0                    | 5.4    | 5.4  |
| 13                                                                                                    | 24620.0       | 31.4        | 31.4 | 41.1                    | 35.5                | 21.6                  | 0.0                         | 49.1     | 49.1 | 54.0                    | 4.9    | 4.9  |

\* Reference data

**20dBc(Fundamental 2462MHz)** (RBW: 100kHz, VBW: 300kHz)

| No.                                                                                            | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Band-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>20dBc<br>[dBuV/m] | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|-----------------------------|----------|------|----------------------------|--------|------|
|                                                                                                |               | HOR         | VER  |                         |                     |                       |                             | HOR      | VER  |                            | HOR    | VER  |
|                                                                                                |               | [dBuV]      |      |                         |                     |                       |                             | [dBuV/m] |      |                            | [dB]   |      |
| <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b> |               |             |      |                         |                     |                       |                             |          |      |                            |        |      |
| 1                                                                                              | 2460.2        | 96.9        | 95.8 | 30.5                    | 40.0                | 5.6                   | 0.0                         | 93.0     | 91.9 | -                          | -      | -    |
| 2                                                                                              | 6565.3        | 52.5        | 48.7 | 30.5                    | 36.4                | 5.8                   | 0.0                         | 52.4     | 48.6 | Funda-20dB                 | 20.6   | 23.3 |

Test Distance(above 10GHz) 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Band-Pass Filter was not used for factor 0.0dB of the above table.

## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.  
Head Office EMC Lab. No.1/2 Semi Anechoic Chamber

|                                      |                                                          |
|--------------------------------------|----------------------------------------------------------|
| Company : Fujitsu Limited            | REPORT NO : 25HE0105-HO                                  |
| Equipment : Personal Computer        | REGULATION : Fcc Part15 Subpart C 15.247(d)              |
| Model : P1510                        | TEST DISTANCE : 3/1m                                     |
| Sample No. : R5100030                | DATE : 04/22/2005 : 05/29/2005 : 05/13/2005 : 05/27/2005 |
| Power : AC 120 V / 60 Hz             | TEMPERATURE : 25deg.C : 24deg.C : 25deg.C : 23deg.C      |
| Mode : W-LAN IEEE802.11a, Tx 5745MHz | HUMIDITY : 31% : 49% : 37% : 53%                         |
| Remarks : Hor Y-axis, Ver X-axis     | ENGINEER : Keiichi Aoki : Mitsuru Fujimura               |
| :Antenna Main, 24Mbps                |                                                          |

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                | FREQ    | S/A READING |      | ANT<br>Factor | AMP<br>GAIN | CABLE<br>LOSS | Hi-Pass<br>Filter | RESULT   |      | Limit<br>PK | MARGIN |      |
|----------------------------------------------------------------------------------------------------|---------|-------------|------|---------------|-------------|---------------|-------------------|----------|------|-------------|--------|------|
|                                                                                                    |         | HOR         | VER  |               |             |               |                   | HOR      | VER  |             | HOR    | VER  |
|                                                                                                    | [MHz]   | [dBuV]      |      | [dB/m]        | [dB]        | [dB]          | [dB]              | [dBuV/m] |      | [dBuV/m]    | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss            |         |             |      |               |             |               |                   |          |      |             |        |      |
| 1                                                                                                  | 5425.0  | 50.7        | 52.8 | 35.9          | 35.8        | 5.6           | 0.0               | 56.4     | 58.5 | 74.0        | 17.6   | 15.5 |
| 2                                                                                                  | 5725.0  | 58.2        | 58.8 | 36.3          | 41.6        | 8.9           | 0.0               | 61.8     | 62.4 | 74.0        | 12.2   | 11.6 |
| Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |         |             |      |               |             |               |                   |          |      |             |        |      |
| 3                                                                                                  | 11492.3 | 45.1        | 44.3 | 38.9          | 39.6        | 13.8          | 0.0               | 48.7     | 47.9 | 74.0        | 25.3   | 26.1 |
| 4                                                                                                  | 17235.0 | 46.9        | 47.3 | 44.9          | 41.7        | 16.7          | 0.0               | 57.3     | 57.7 | 74.0        | 16.7   | 16.3 |
| 5                                                                                                  | 22980.0 | 44.8        | 44.6 | 40.2          | 33.8        | 8.2           | 0.0               | 49.9     | 49.7 | 74.0        | 24.1   | 24.3 |
| 6                                                                                                  | 28725.0 | 42.2        | 42.8 | 41.3          | 24.3        | 0.6           | 0.0               | 50.3     | 50.9 | 74.0        | 23.7   | 23.1 |
| 7                                                                                                  | 34470.0 | 47.1        | 48.0 | 42.2          | 24.6        | -1.3          | 0.0               | 53.9     | 54.8 | 74.0        | 20.1   | 19.2 |

\*

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                | FREQ<br><br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Hi-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |  |
|----------------------------------------------------------------------------------------------------|-------------------|-------------|------|-------------------------|---------------------|-----------------------|---------------------------|----------|------|-------------------------|--------|------|--|
|                                                                                                    |                   | HOR         | VER  |                         |                     |                       |                           | HOR      | VER  |                         | HOR    | VER  |  |
|                                                                                                    |                   | [dBuV]      |      |                         |                     |                       |                           | [dBuV/m] |      |                         | [dB]   |      |  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss            |                   |             |      |                         |                     |                       |                           |          |      |                         |        |      |  |
| 1                                                                                                  | 5425.0            | 40.9        | 42.6 | 35.9                    | 35.8                | 5.6                   | 0.0                       | 46.6     | 48.3 | 54.0                    | 7.4    | 5.7  |  |
| 2                                                                                                  | 5725.0            | 39.2        | 41.5 | 36.3                    | 41.6                | 8.9                   | 0.0                       | 42.8     | 45.1 | 54.0                    | 11.2   | 8.9  |  |
| Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |                   |             |      |                         |                     |                       |                           |          |      |                         |        |      |  |
| 3                                                                                                  | 11492.3           | 32.7        | 32.7 | 38.9                    | 39.6                | 13.8                  | 0.0                       | 36.3     | 36.3 | 54.0                    | 17.7   | 17.7 |  |
| 4                                                                                                  | 17235.0           | 32.9        | 33.0 | 44.9                    | 41.7                | 16.7                  | 0.0                       | 43.3     | 43.4 | 54.0                    | 10.7   | 10.6 |  |
| 5                                                                                                  | 22980.0           | 31.6        | 31.6 | 40.2                    | 33.8                | 8.2                   | 0.0                       | 36.7     | 36.7 | 54.0                    | 17.3   | 17.3 |  |
| 6                                                                                                  | 28725.0           | 30.0        | 30.1 | 41.3                    | 24.3                | 0.6                   | 0.0                       | 38.1     | 38.2 | 54.0                    | 15.9   | 15.8 |  |
| 7                                                                                                  | 34470.0           | 37.0        | 37.3 | 42.2                    | 24.6                | -1.3                  | 0.0                       | 43.8     | 44.1 | 54.0                    | 10.2   | 9.9  |  |

\*

\*Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB  
\*Test Distance 0.5m(above 26.5GHz) : Distance Factor(Dfac) = 20log(3/0.5) = 15.6dB  
(This factor(Dfac) is subtracted from the cable loss.)  
\*Except for the above table : All other spurious emissions were less than 20dB for the limit.  
\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.  
\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.  
\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.  
Head Office EMC Lab. No.1/2 Semi Anechoic Chamber

|                                      |                                             |                    |
|--------------------------------------|---------------------------------------------|--------------------|
| Company : Fujitsu Limited            | REPORT NO : 25HE0105-HO                     |                    |
| Equipment : Personal Computer        | REGULATION : Fcc Part15 Subpart C 15.247(d) |                    |
| Model : P1510                        | TEST DISTANCE : 3/1m                        |                    |
| Sample No. : R5100030                | DATE : 04/22/2005 : 05/29/2005              | : 05/27/2005       |
| Power : AC 120 V / 60 Hz             | TEMPERATURE : 25deg.C : 24deg.C             | : 23deg.C          |
| Mode : W-LAN IEEE802.11a, Tx 5785MHz | HUMIDITY : 31% : 49%                        | : 53%              |
| Remarks : Hor Y-axis, Ver X-axis     | ENGINEER : Keiichi Aoki                     | : Mitsuru Fujimura |
| :Antenna Main, 24Mbps                |                                             |                    |

### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                | FREQ    | S/A READING |      | ANT<br>Factor | AMP<br>GAIN | CABLE<br>LOSS | Hi-Pass<br>Filter | RESULT   |      | Limit<br>PK | MARGIN |      |
|----------------------------------------------------------------------------------------------------|---------|-------------|------|---------------|-------------|---------------|-------------------|----------|------|-------------|--------|------|
|                                                                                                    |         | HOR         | VER  |               |             |               |                   | HOR      | VER  |             | HOR    | VER  |
|                                                                                                    | [MHz]   | [dBuV]      |      | [dB/m]        | [dB]        | [dB]          | [dB]              | [dBuV/m] |      | [dBuV/m]    | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss            |         |             |      |               |             |               |                   |          |      |             |        |      |
| 1                                                                                                  | 5465.0  | 57.8        | 61.5 | 35.8          | 41.5        | 8.7           | 0.0               | 60.8     | 64.5 | 74.0        | 13.2   | 9.5  |
| Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |         |             |      |               |             |               |                   |          |      |             |        |      |
| 2                                                                                                  | 11569.7 | 45.7        | 45.5 | 39.3          | 39.6        | 13.9          | 0.0               | 49.8     | 49.6 | 74.0        | 24.2   | 24.4 |
| 3                                                                                                  | 17355.0 | 45.8        | 45.9 | 44.7          | 41.6        | 16.9          | 0.0               | 56.3     | 56.4 | 74.0        | 17.7   | 17.6 |
| 4                                                                                                  | 23140.0 | 45.4        | 45.4 | 40.3          | 33.7        | 8.1           | 0.0               | 50.6     | 50.6 | 74.0        | 23.4   | 23.4 |
| 5                                                                                                  | 28925.0 | 41.6        | 41.9 | 41.3          | 24.4        | 0.7           | 0.0               | 49.7     | 50.0 | 74.0        | 24.3   | 24.0 |
| 6                                                                                                  | 34710.0 | 48.0        | 47.2 | 42.2          | 24.5        | -1.2          | 0.0               | 55.0     | 54.2 | 74.0        | 19.0   | 19.8 |

\*

### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                            | FREQ    | S/A READING |      | ANT<br>Factor | AMP<br>GAIN | CABLE<br>LOSS | Hi-Pass<br>Filter | RESULT   |      | Limit<br>AV | MARGIN |      |
|------------------------------------------------------------------------------------------------|---------|-------------|------|---------------|-------------|---------------|-------------------|----------|------|-------------|--------|------|
|                                                                                                |         | HOR         | VER  |               |             |               |                   | HOR      | VER  |             | HOR    | VER  |
|                                                                                                | [MHz]   | [dBuV]      |      | [dB/m]        | [dB]        | [dB]          | [dB]              | [dBuV/m] |      | [dBuV/m]    | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss        |         |             |      |               |             |               |                   |          |      |             |        |      |
| 1                                                                                              | 5465.0  | 45.2        | 48.7 | 35.8          | 41.5        | 8.7           | 0.0               | 48.2     | 51.7 | 54.0        | 5.8    | 2.3  |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |         |             |      |               |             |               |                   |          |      |             |        |      |
| 2                                                                                              | 11569.7 | 33.1        | 33.1 | 39.3          | 39.6        | 13.9          | 0.0               | 37.2     | 37.2 | 54.0        | 16.8   | 16.8 |
| 3                                                                                              | 17355.0 | 33.3        | 33.3 | 44.7          | 41.6        | 16.9          | 0.0               | 43.8     | 43.8 | 54.0        | 10.2   | 10.2 |
| 4                                                                                              | 23140.0 | 32.0        | 32.0 | 40.3          | 33.7        | 8.1           | 0.0               | 37.2     | 37.2 | 54.0        | 16.8   | 16.8 |
| 5                                                                                              | 28925.0 | 31.0        | 30.2 | 41.3          | 24.4        | 0.7           | 0.0               | 39.1     | 38.3 | 54.0        | 14.9   | 15.7 |
| 6                                                                                              | 34710.0 | 34.5        | 35.0 | 42.2          | 24.5        | -1.2          | 0.0               | 41.5     | 42.0 | 54.0        | 12.5   | 12.0 |

\*Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Test Distance 0.5m(above 26.5GHz) : Distance Factor(Dfac) = 20log(3/0.5) = 15.6dB

(This factor(Dfac) is subtracted from the cable loss.)

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

**UL Apex Co., Ltd.**

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## Radiated Spurious Emission(DSSS and other forms of modulation )

UL Apex Co., Ltd.

Head Office EMC Lab. No.1/2 Semi Anechoic Chamber

|                                      |                                             |                    |
|--------------------------------------|---------------------------------------------|--------------------|
| Company : Fujitsu Limited            | REPORT NO : 25HE0105-HO                     |                    |
| Equipment : Personal Computer        | REGULATION : Fcc Part15 Subpart C 15.247(d) |                    |
| Model : P1510                        | TEST DISTANCE : 3/1m                        |                    |
| Sample No. : R5100030                | DATE : 04/22/2005 : 05/29/2005              | : 05/27/2005       |
| Power : AC 120 V / 60 Hz             | TEMPERATURE : 25deg.C : 24deg.C             | : 23deg.C          |
| Mode : W-LAN IEEE802.11a, Tx 5825MHz | HUMIDITY : 31% : 49%                        | : 53%              |
| Remarks : Hor Y-axis, Ver X-axis     | ENGINEER : Keiichi Aoki                     | : Mitsuru Fujimura |
| : Antenna Main, 24Mbps               |                                             |                    |

### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Hi-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>PK<br>[dBuV/m] | MARGIN |      |
|----------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|---------------------------|----------|------|-------------------------|--------|------|
|                                                                                                    |               | HOR         | VER  |                         |                     |                       |                           | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                    |               | [dBuV]      |      |                         |                     |                       |                           | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss            |               |             |      |                         |                     |                       |                           |          |      |                         |        |      |
| 1                                                                                                  | 5350.3        | 54.9        | 57.5 | 35.9                    | 41.4                | 8.7                   | 0.0                       | 58.1     | 60.7 | 74.0                    | 15.9   | 13.3 |
| 2                                                                                                  | 5850.0        | 49.8        | 51.4 | 36.6                    | 41.6                | 8.9                   | 0.0                       | 53.7     | 55.3 | 74.0                    | 20.3   | 18.7 |
| Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                           |          |      |                         |        |      |
| 3                                                                                                  | 11639.5       | 45.1        | 44.8 | 39.7                    | 39.6                | 14.1                  | 0.0                       | 49.8     | 49.5 | 74.0                    | 24.2   | 24.5 |
| 4                                                                                                  | 17475.0       | 45.4        | 45.4 | 44.5                    | 41.5                | 16.9                  | 0.0                       | 55.8     | 55.8 | 74.0                    | 18.2   | 18.2 |
| 5                                                                                                  | 23300.0       | 44.8        | 44.6 | 40.4                    | 33.5                | 8.1                   | 0.0                       | 50.3     | 50.1 | 74.0                    | 23.7   | 23.9 |
| 6                                                                                                  | 29125.0       | 42.0        | 41.9 | 41.3                    | 24.4                | 0.7                   | 0.0                       | 50.1     | 50.0 | 74.0                    | 23.9   | 24.0 |
| 7                                                                                                  | 34950.0       | 47.3        | 47.4 | 42.1                    | 24.4                | -1.2                  | 0.0                       | 54.3     | 54.4 | 74.0                    | 19.7   | 19.6 |

\*

### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                | FREQ<br>[MHz] | S/A READING |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | Hi-Pass<br>Filter<br>[dB] | RESULT   |      | Limit<br>AV<br>[dBuV/m] | MARGIN |      |
|----------------------------------------------------------------------------------------------------|---------------|-------------|------|-------------------------|---------------------|-----------------------|---------------------------|----------|------|-------------------------|--------|------|
|                                                                                                    |               | HOR         | VER  |                         |                     |                       |                           | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                    |               | [dBuV]      |      |                         |                     |                       |                           | [dBuV/m] |      |                         | [dB]   |      |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss            |               |             |      |                         |                     |                       |                           |          |      |                         |        |      |
| 1                                                                                                  | 5350.3        | 43.9        | 44.8 | 35.9                    | 41.4                | 8.7                   | 0.0                       | 47.1     | 48.0 | 54.0                    | 6.9    | 6.0  |
| 2                                                                                                  | 5850.0        | 36.6        | 38.1 | 36.6                    | 41.6                | 8.9                   | 0.0                       | 40.5     | 42.0 | 54.0                    | 13.5   | 12.0 |
| Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac |               |             |      |                         |                     |                       |                           |          |      |                         |        |      |
| 3                                                                                                  | 11639.5       | 32.9        | 32.8 | 39.7                    | 39.6                | 14.1                  | 0.0                       | 37.6     | 37.5 | 54.0                    | 16.4   | 16.5 |
| 4                                                                                                  | 17475.0       | 33.2        | 33.0 | 44.5                    | 41.5                | 16.9                  | 0.0                       | 43.6     | 43.4 | 54.0                    | 10.4   | 10.6 |
| 5                                                                                                  | 23300.0       | 31.7        | 31.7 | 40.4                    | 33.5                | 8.1                   | 0.0                       | 37.2     | 37.2 | 54.0                    | 16.9   | 16.8 |
| 6                                                                                                  | 29125.0       | 31.2        | 31.3 | 41.3                    | 24.4                | 0.7                   | 0.0                       | 39.3     | 39.4 | 54.0                    | 14.7   | 14.6 |
| 7                                                                                                  | 34950.0       | 34.8        | 34.7 | 42.1                    | 24.4                | -1.2                  | 0.0                       | 41.8     | 41.7 | 54.0                    | 12.2   | 12.3 |

\*

\*Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB

\*Test Distance 0.5m(above 26.5GHz) : Distance Factor(Dfac) = 20log(3/0.5) = 15.6dB

(This factor(Dfac) is subtracted from the cable loss.)

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*In the frequency over the fifth harmonic, the noise from the EUT was not seen. The data above is its base noise.

\*The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

\*Hi-Pass Filter was not used for factor 0.0dB of the above table.

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

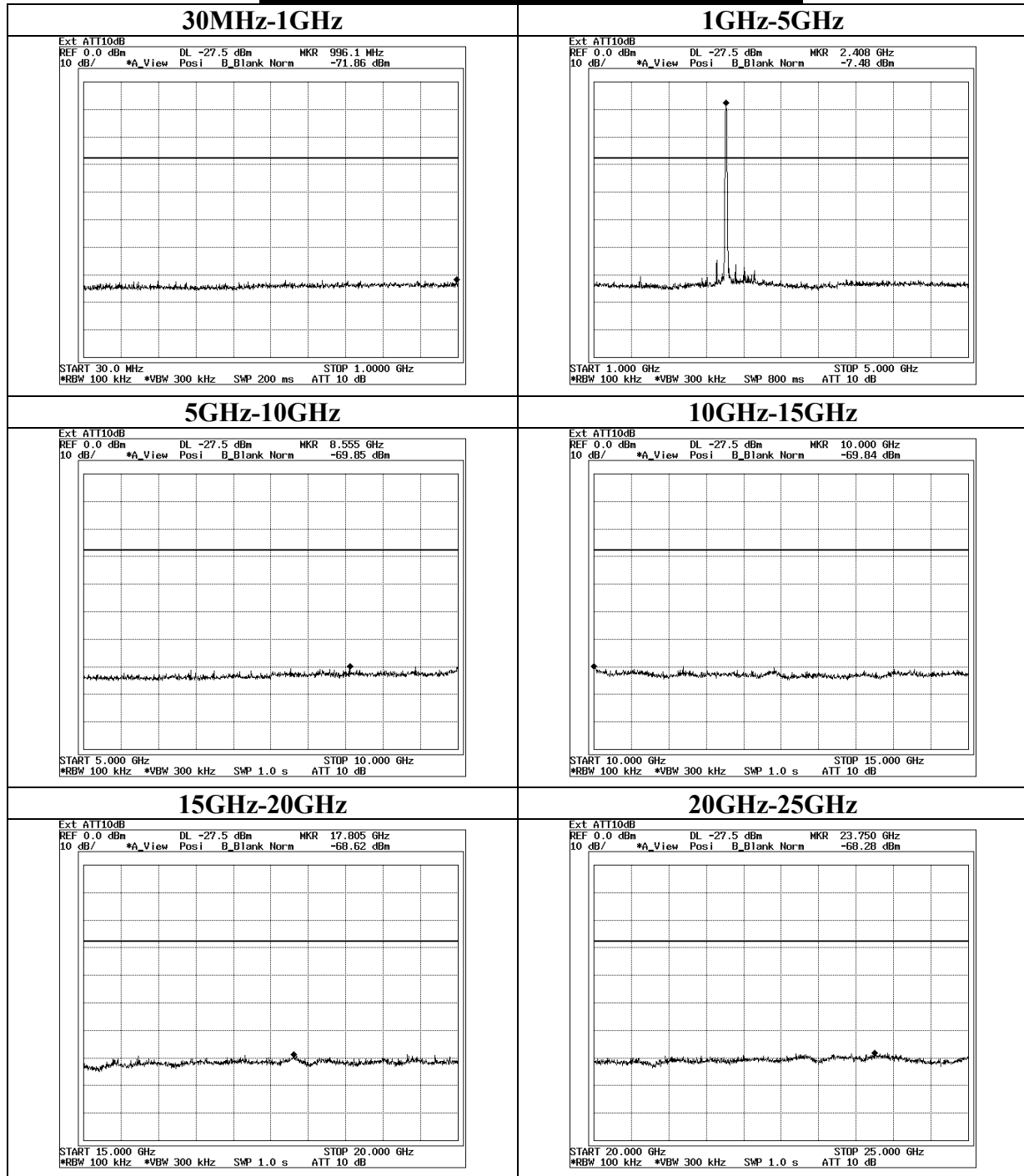
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

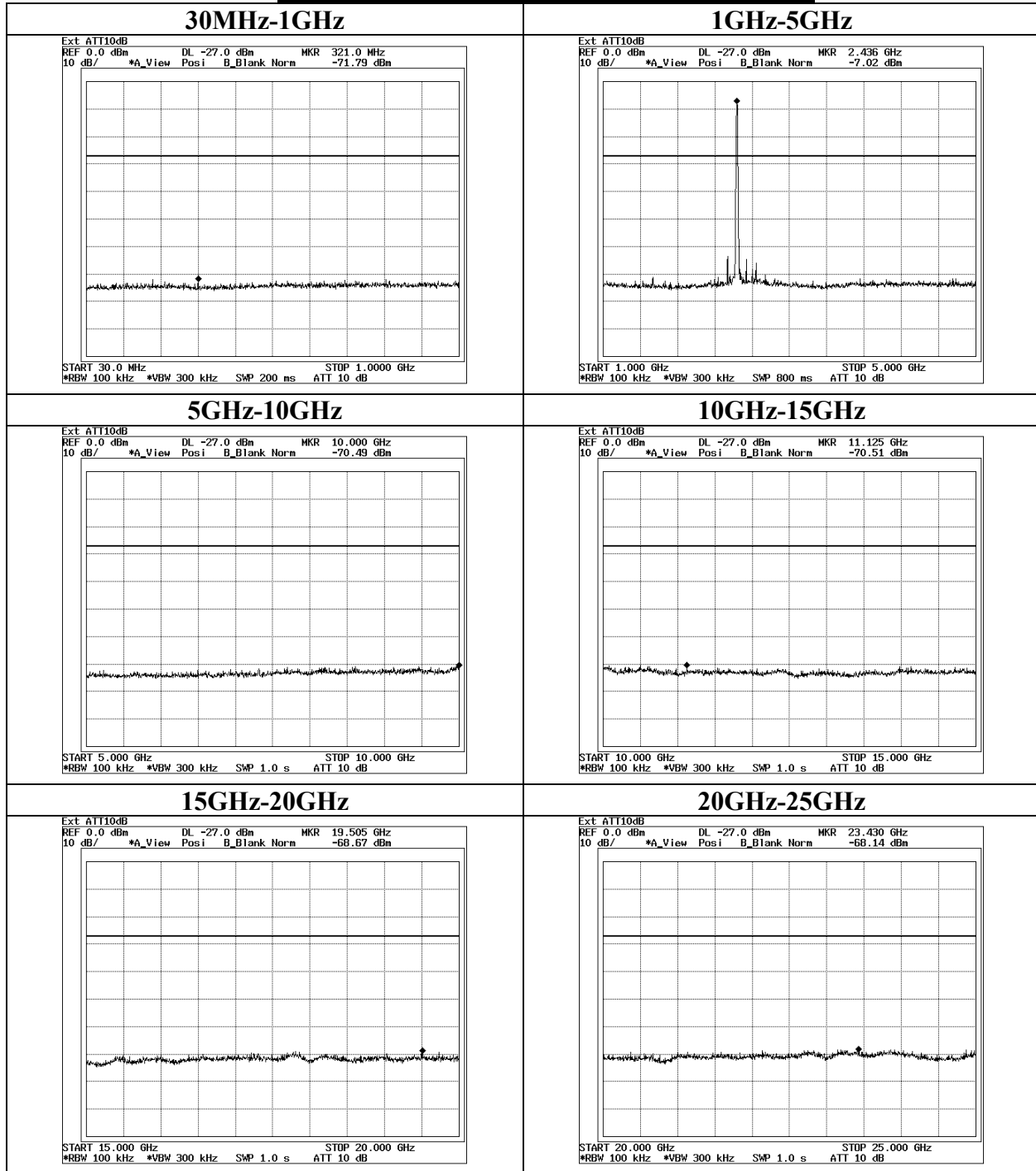
Facsimile : +81 596 24 8124

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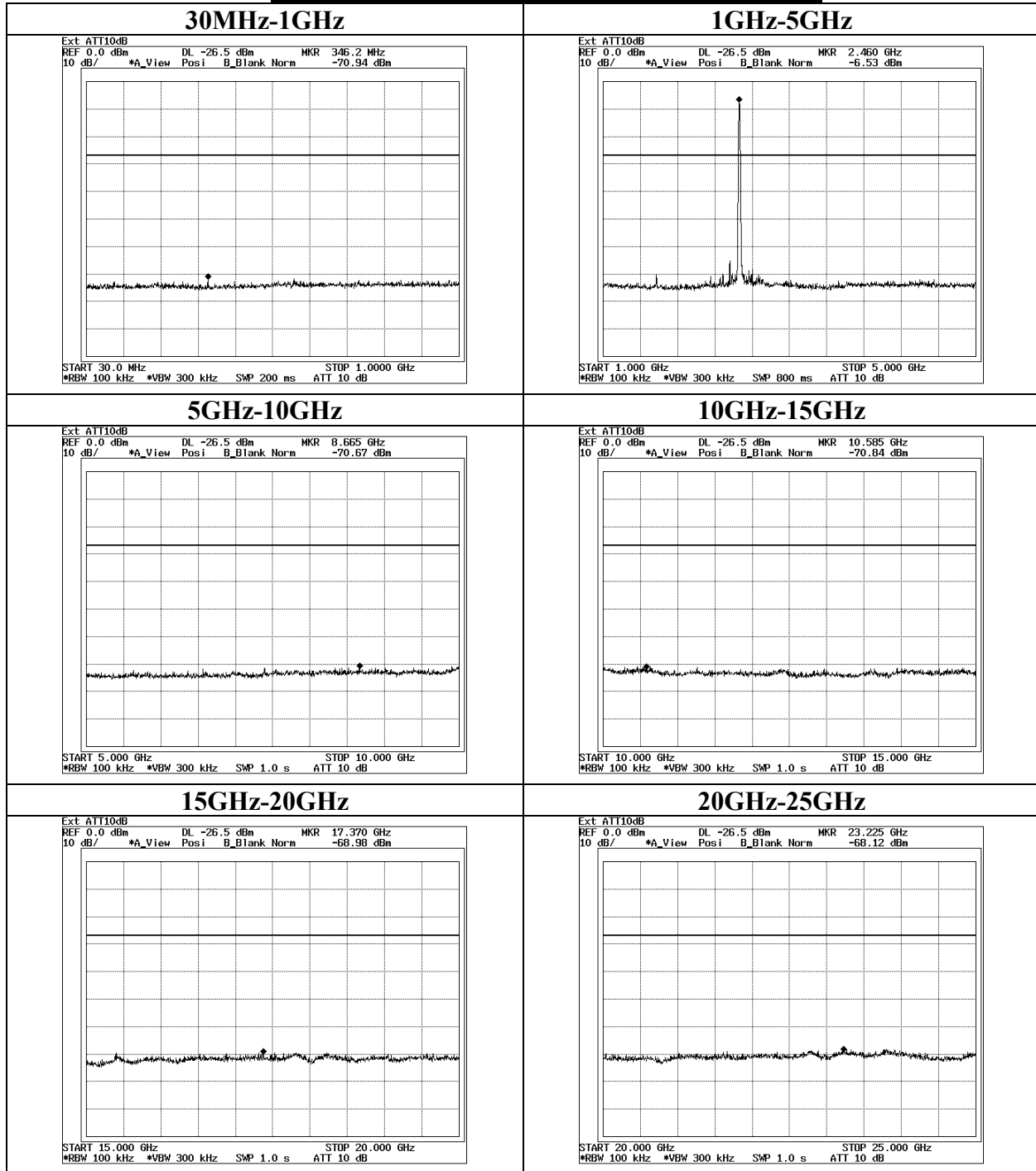
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Main Ch : Low**



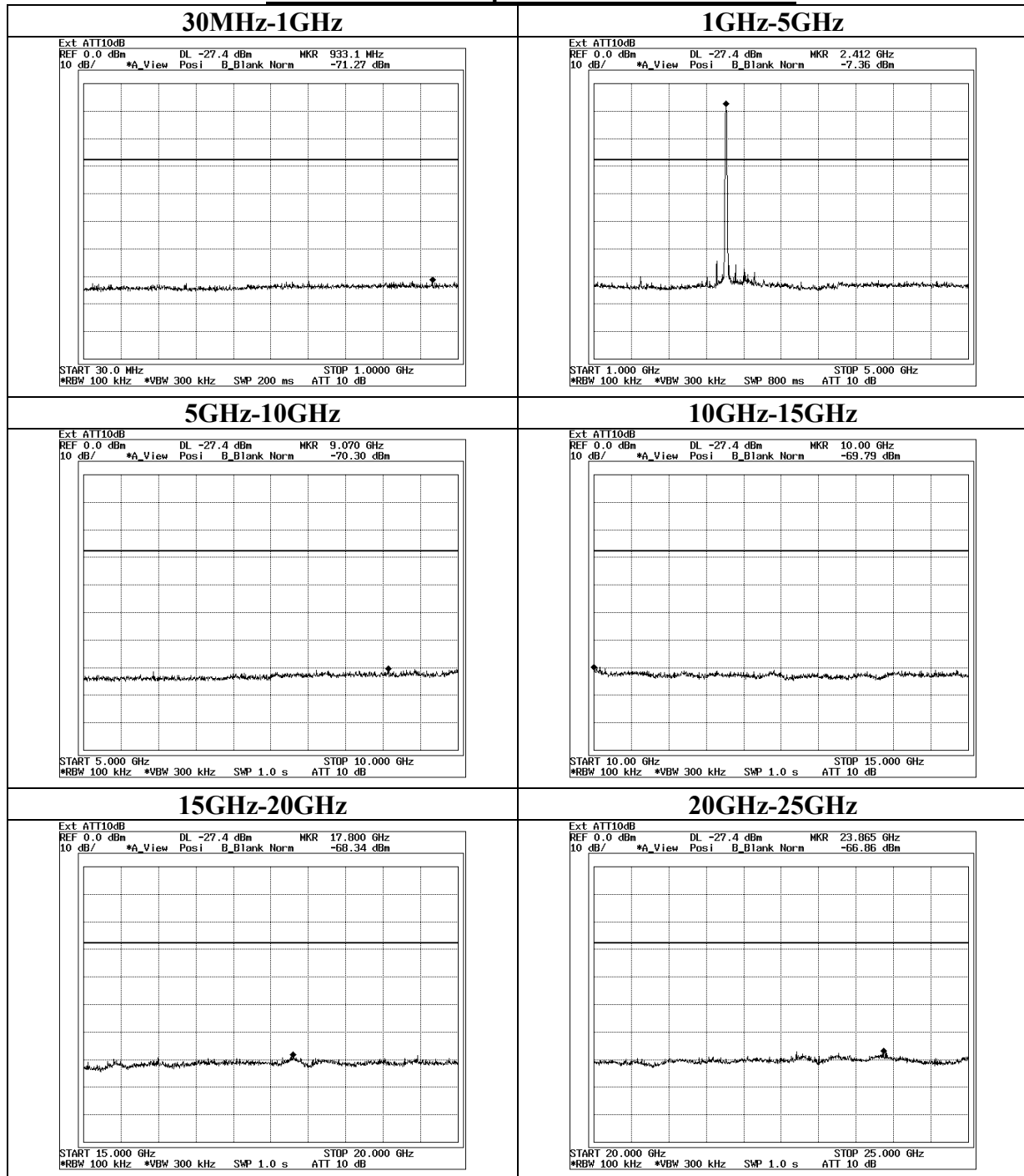
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Main Ch : Mid**



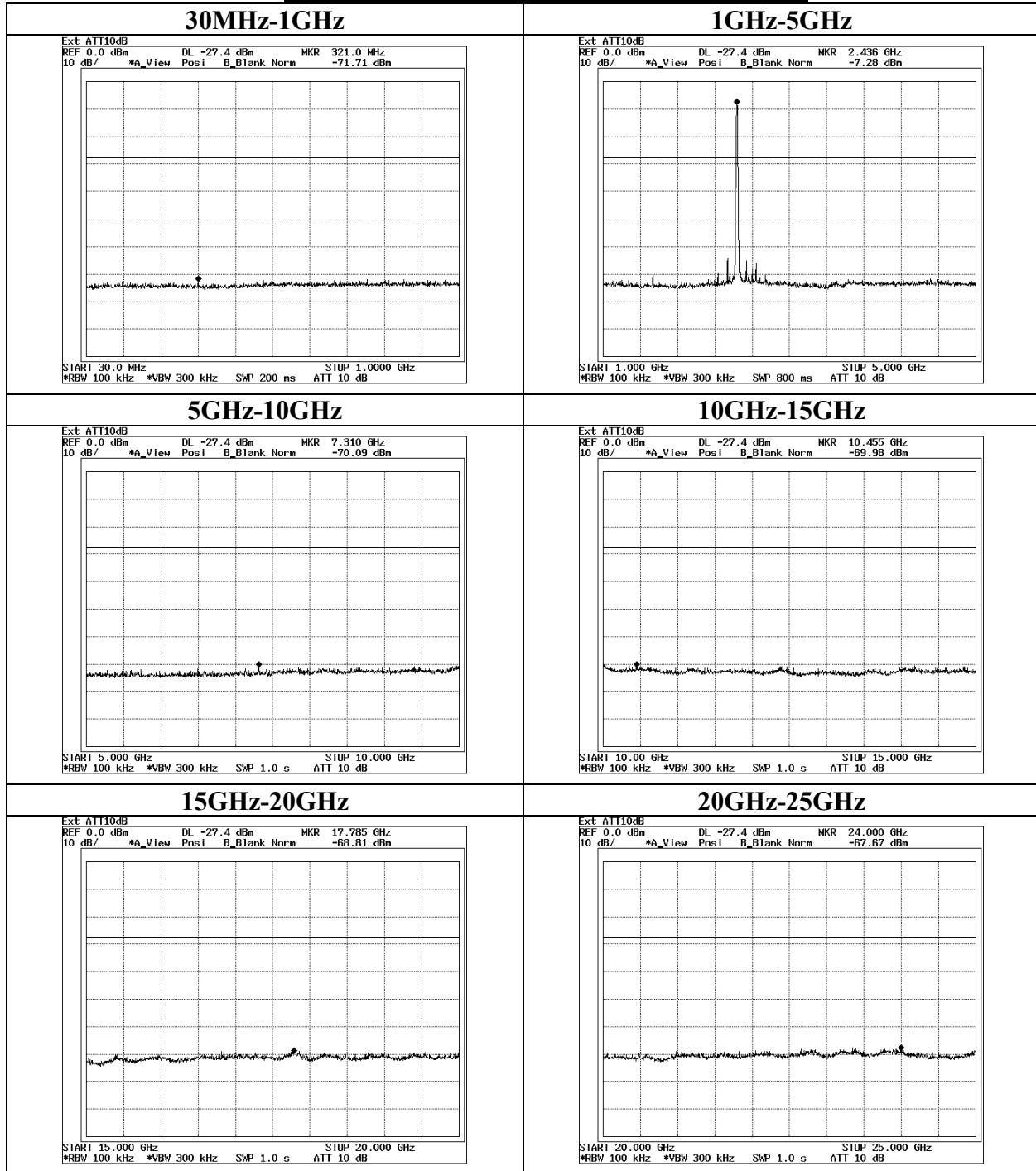
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Main Ch : High**



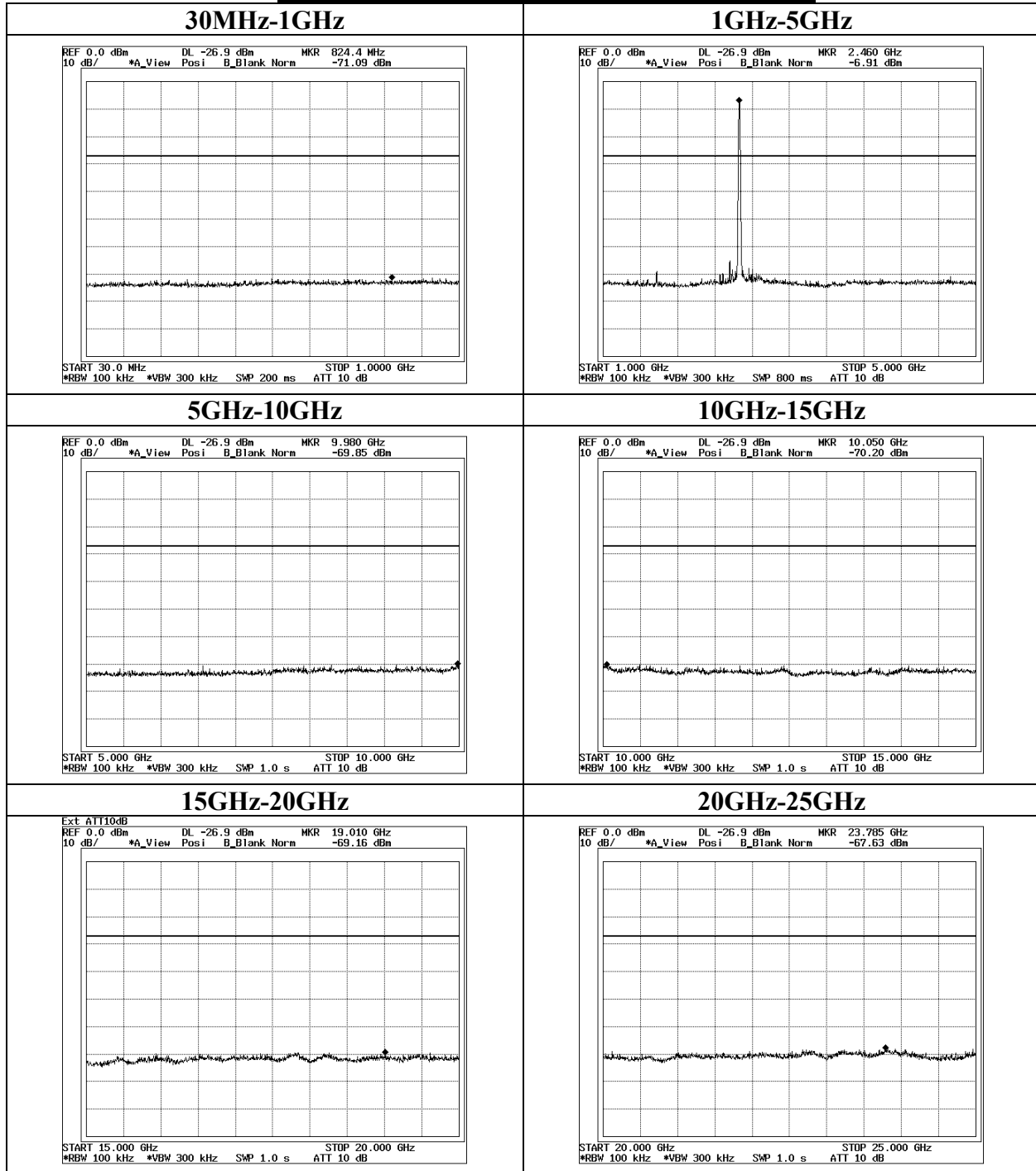
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Aux Ch : Low**



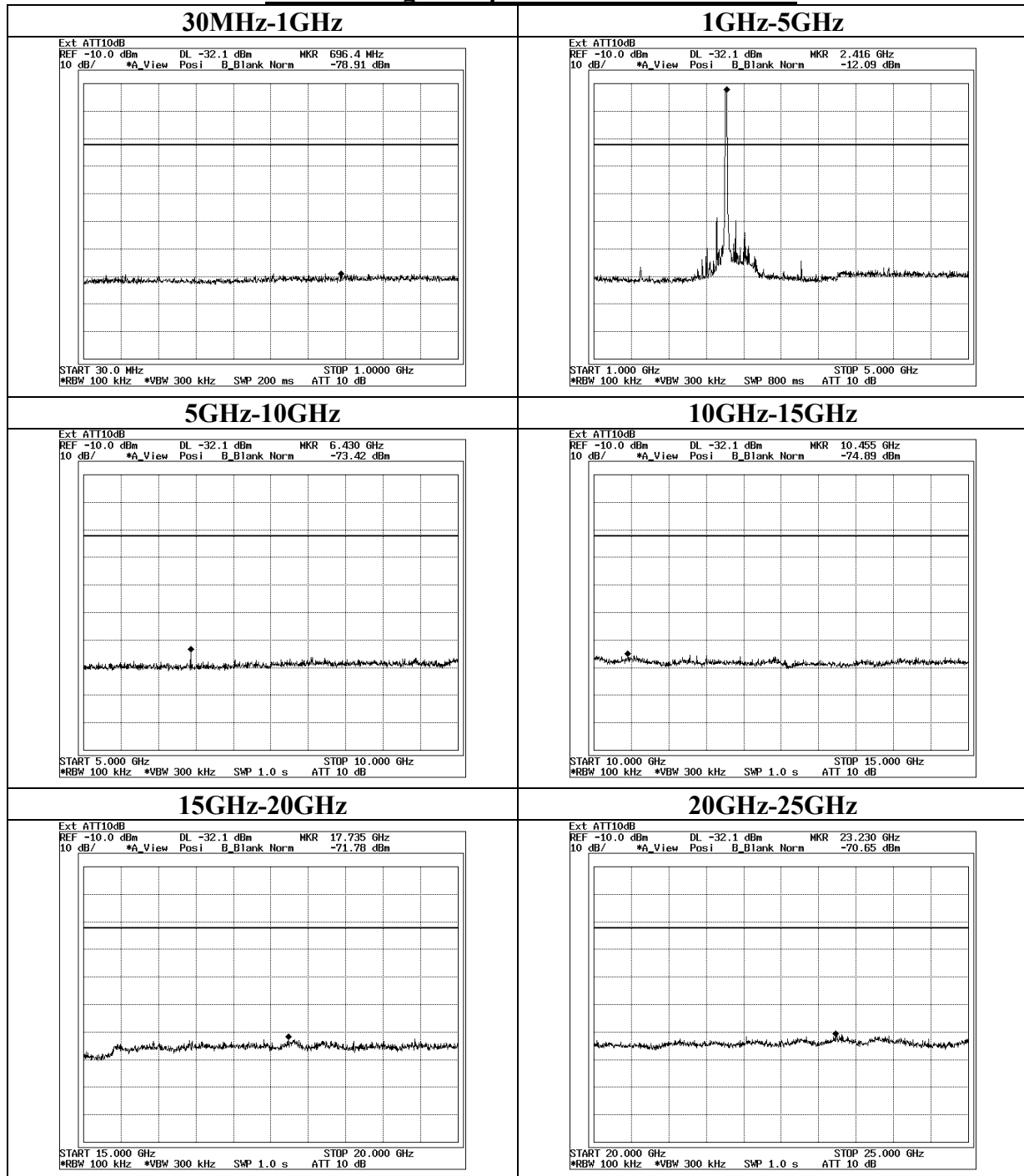
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Aux Ch : Mid**



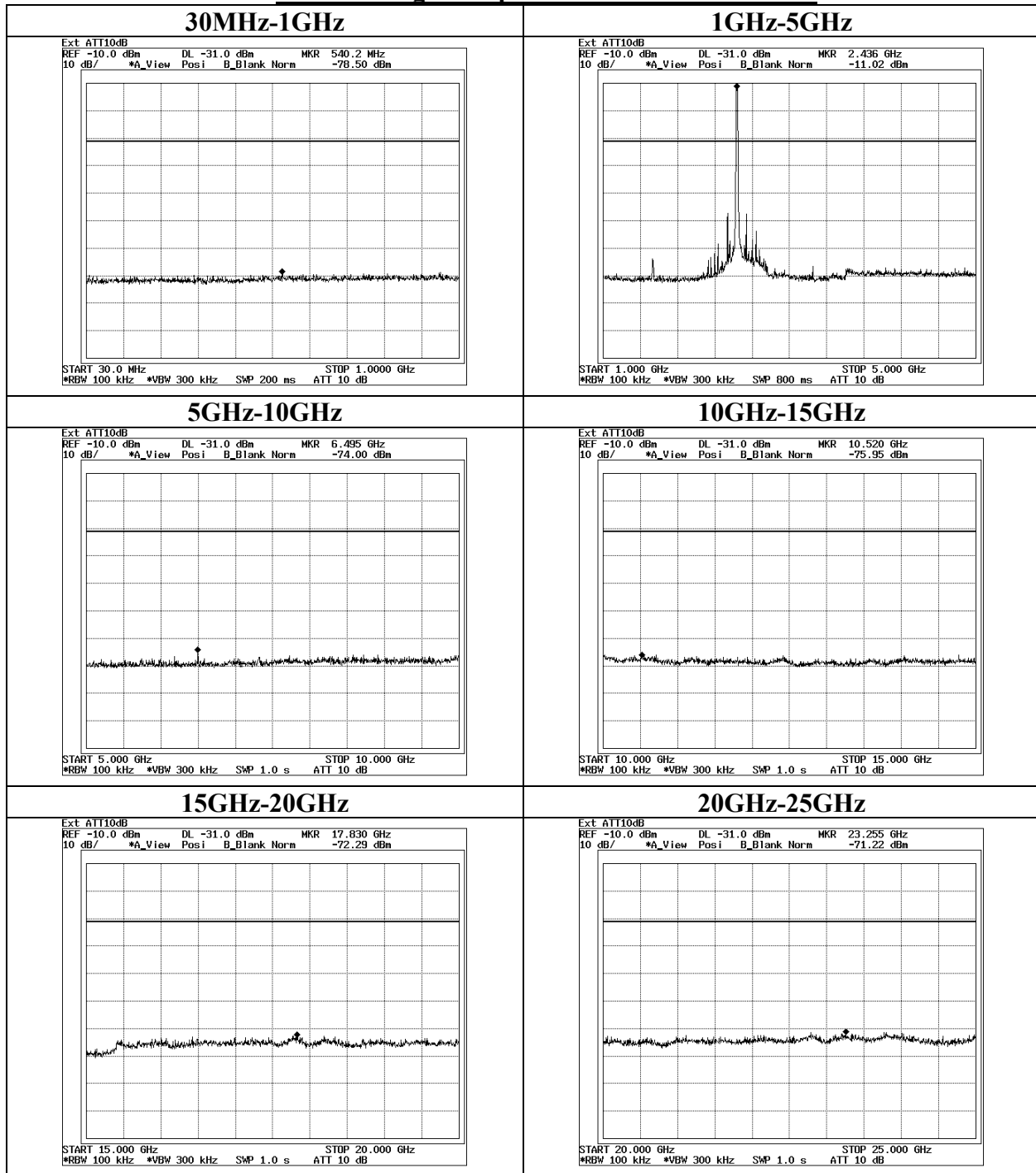
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b 11Mbps Antenna: Aux Ch : High**



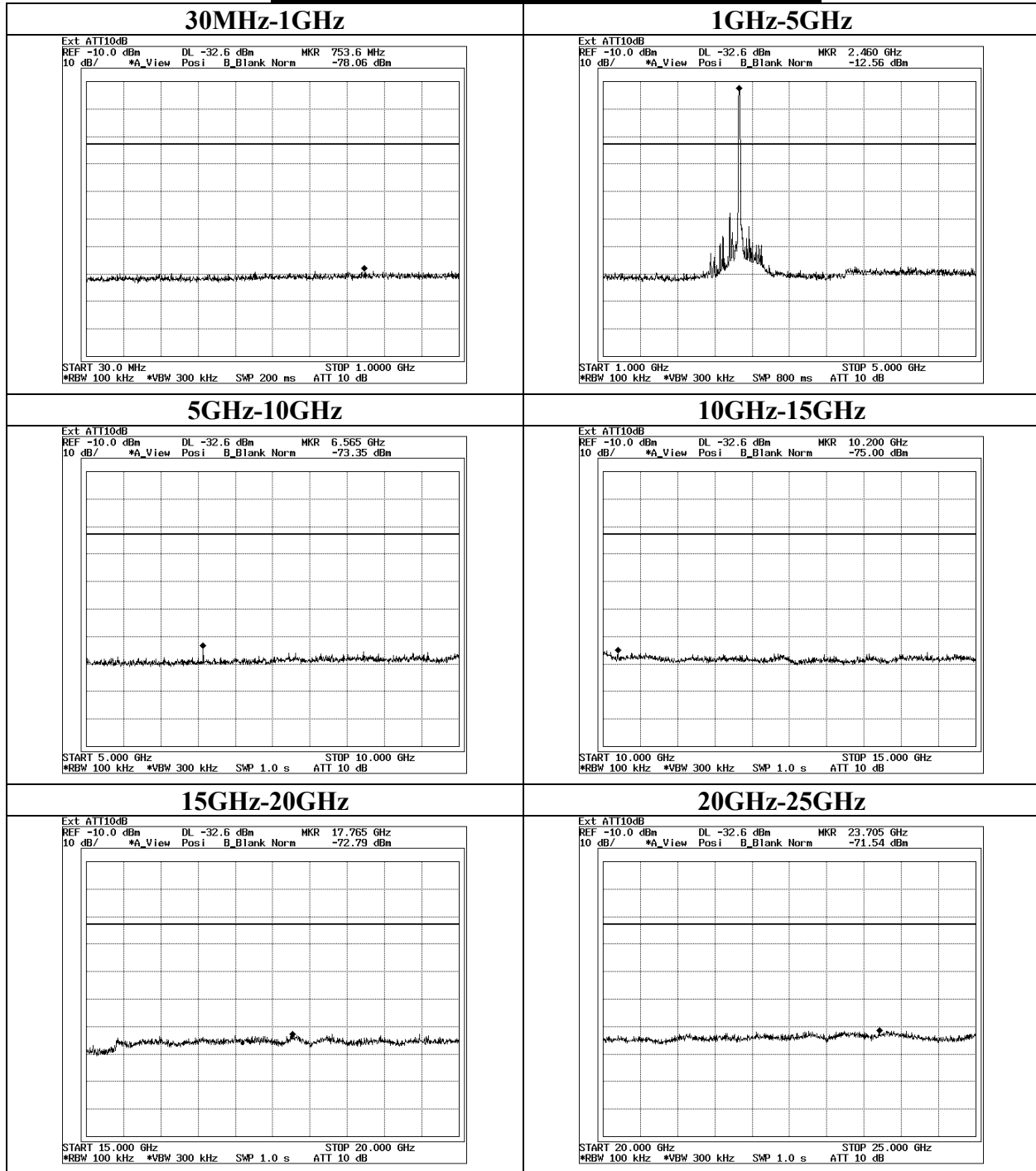
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Main Ch : Low**



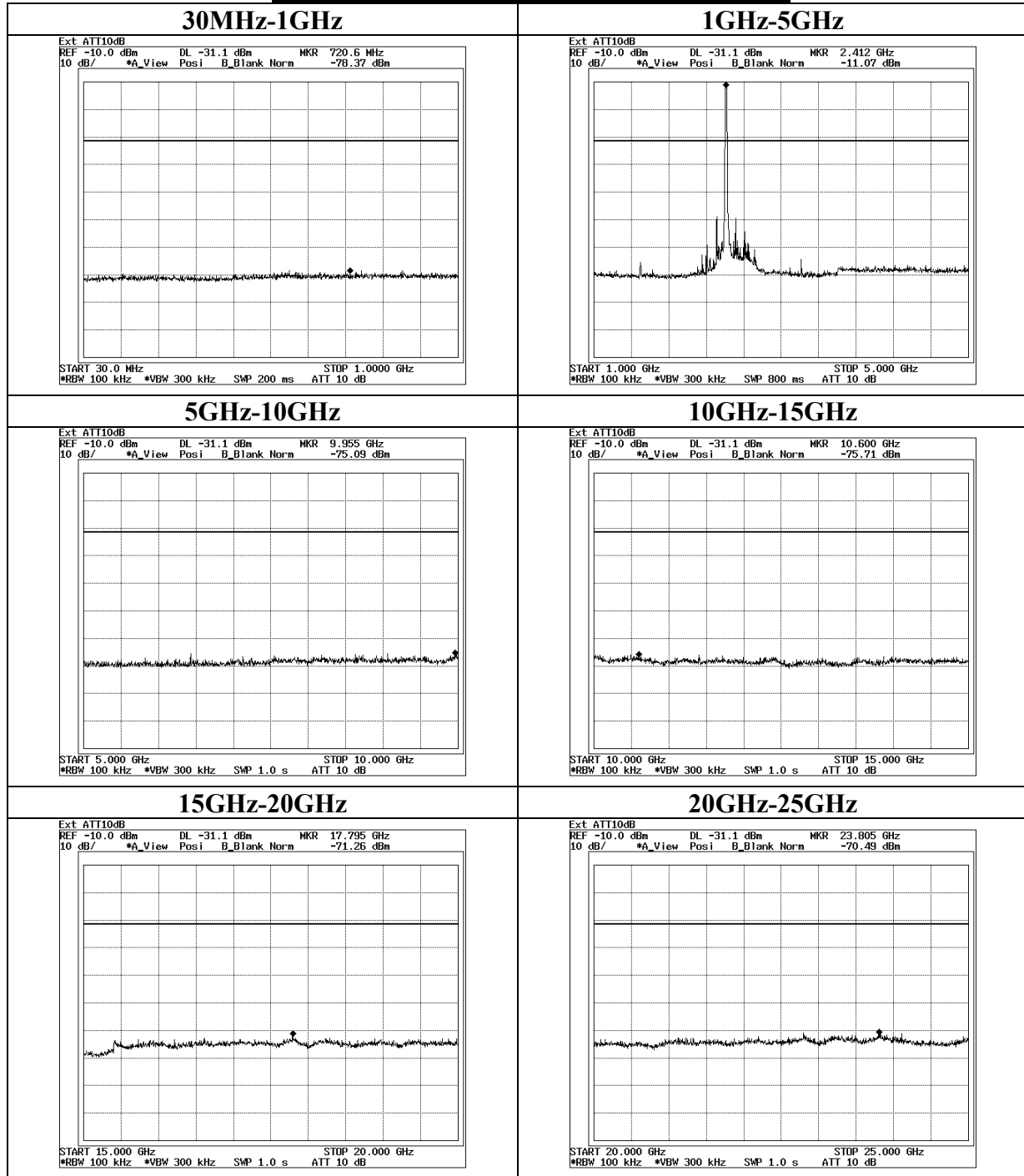
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Main Ch : Mid**



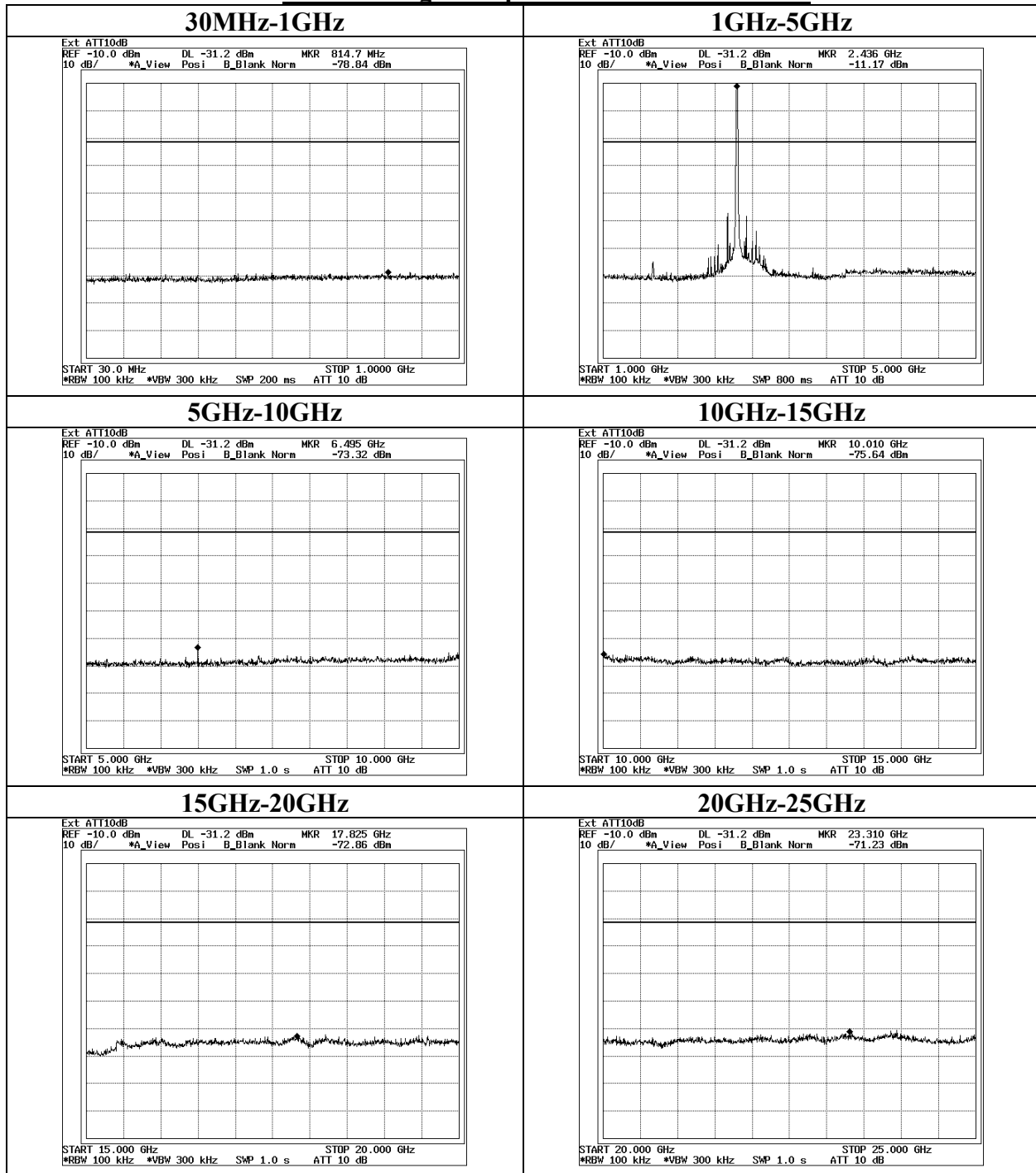
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Main Ch : High**



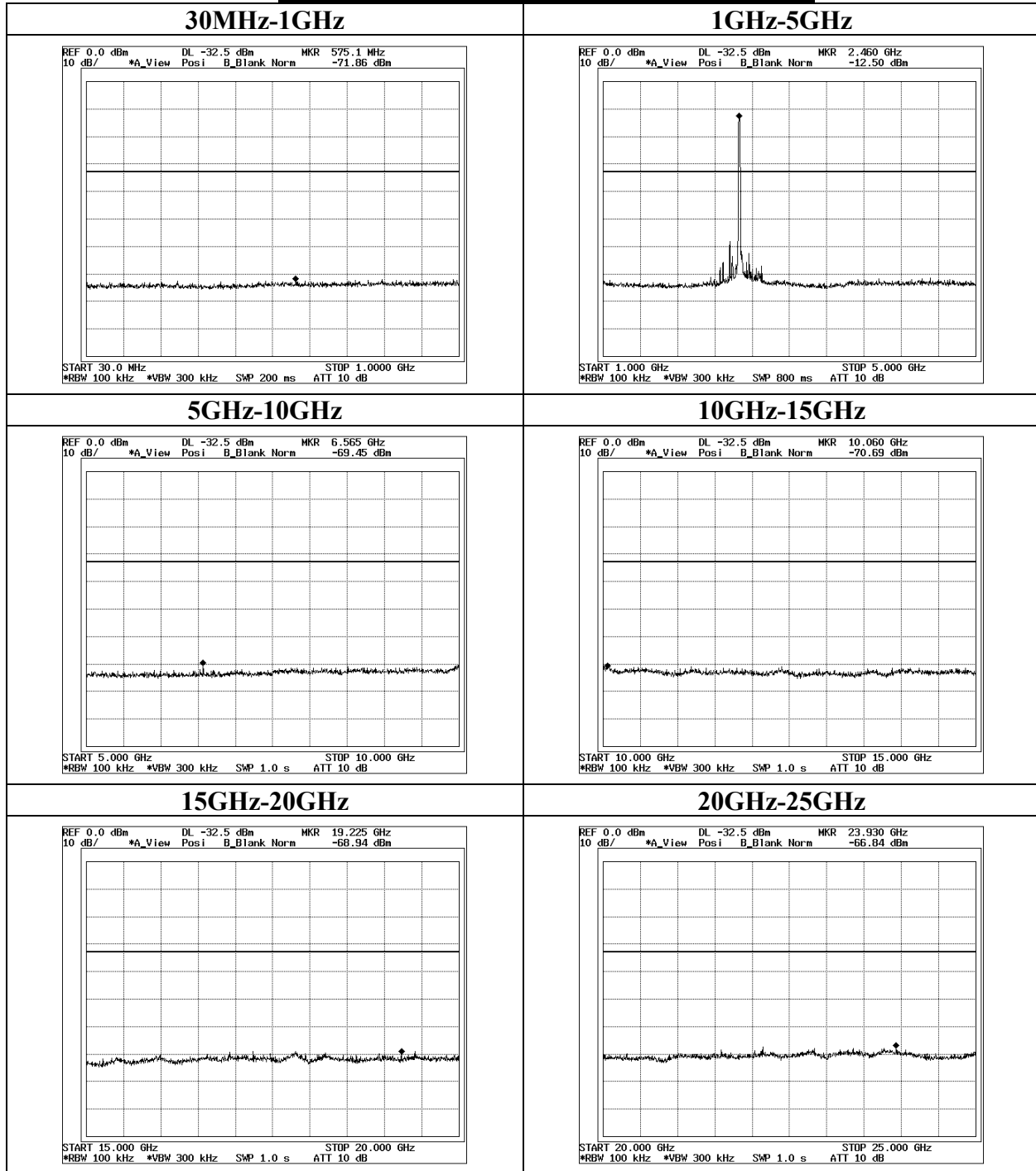
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Aux Ch : Low**



**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Aux Ch : Mid**

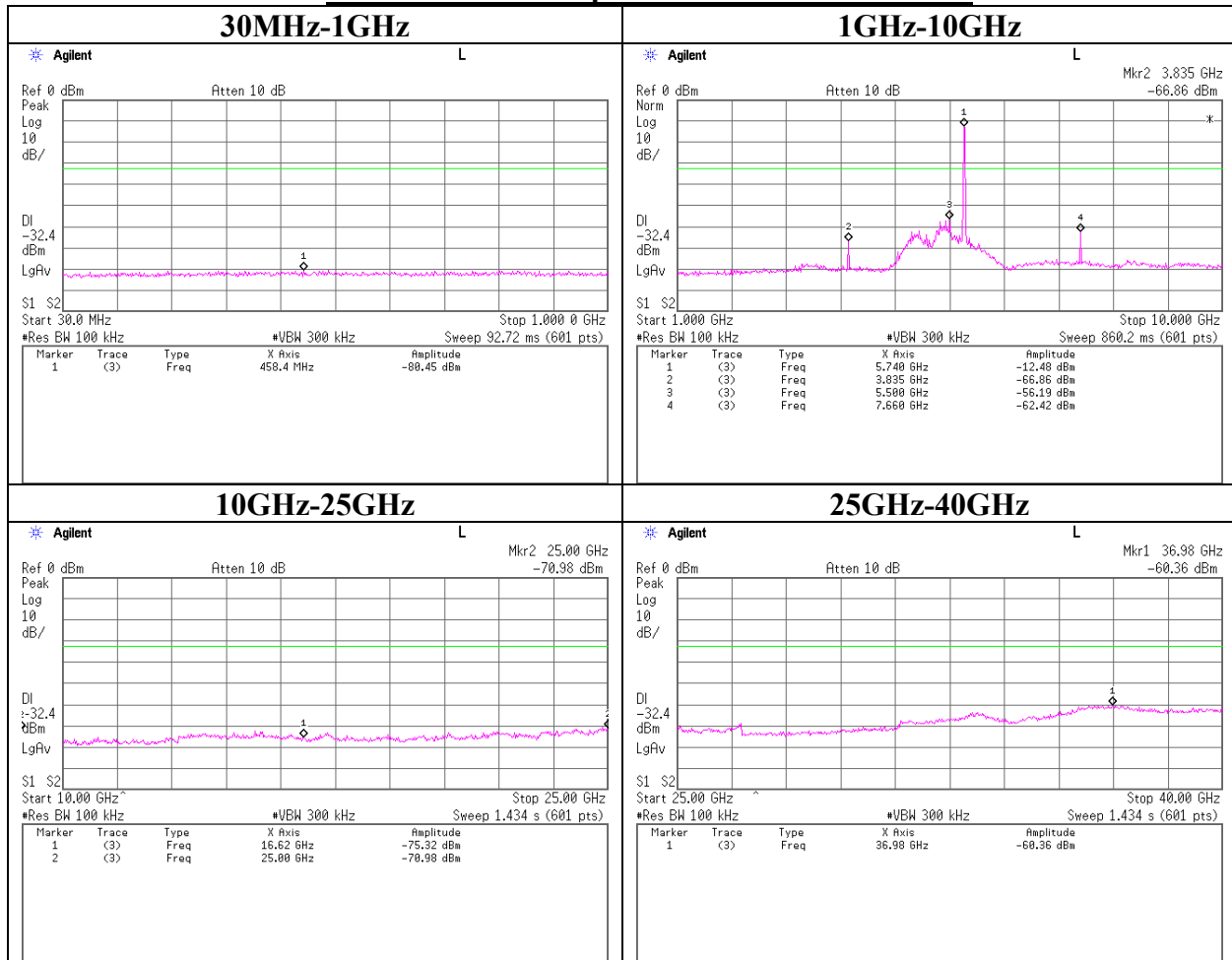


**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g 54Mbps Antenna: Aux Ch : High**



**Conducted Spurious Emission(DSSS and other forms of modulation)**

**IEEE802.11a 24Mbps Antenna: Main Ch : Low**



UL Apex Co., Ltd.

Head Office EMC Lab.

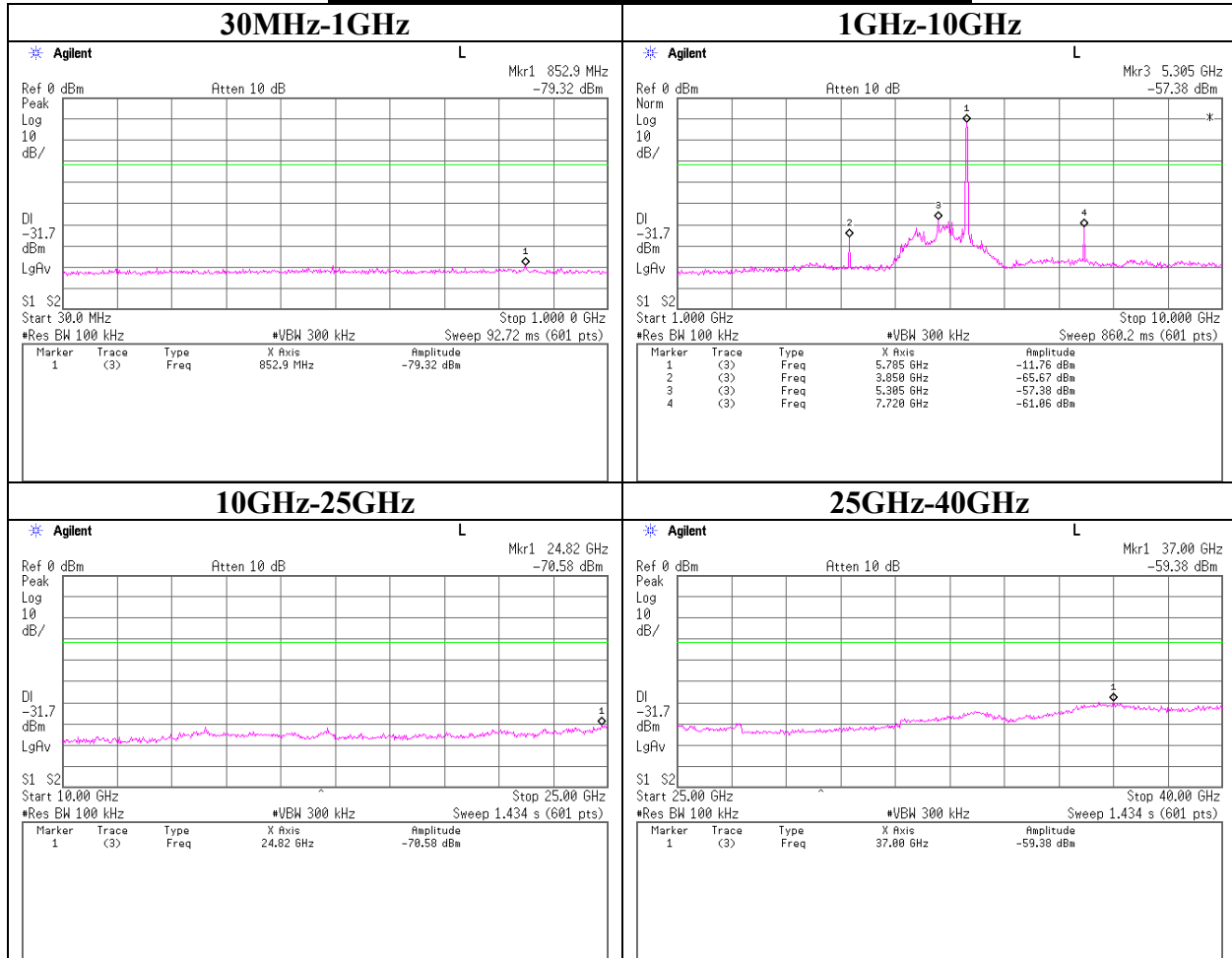
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Telephone : +81 596 24 8116

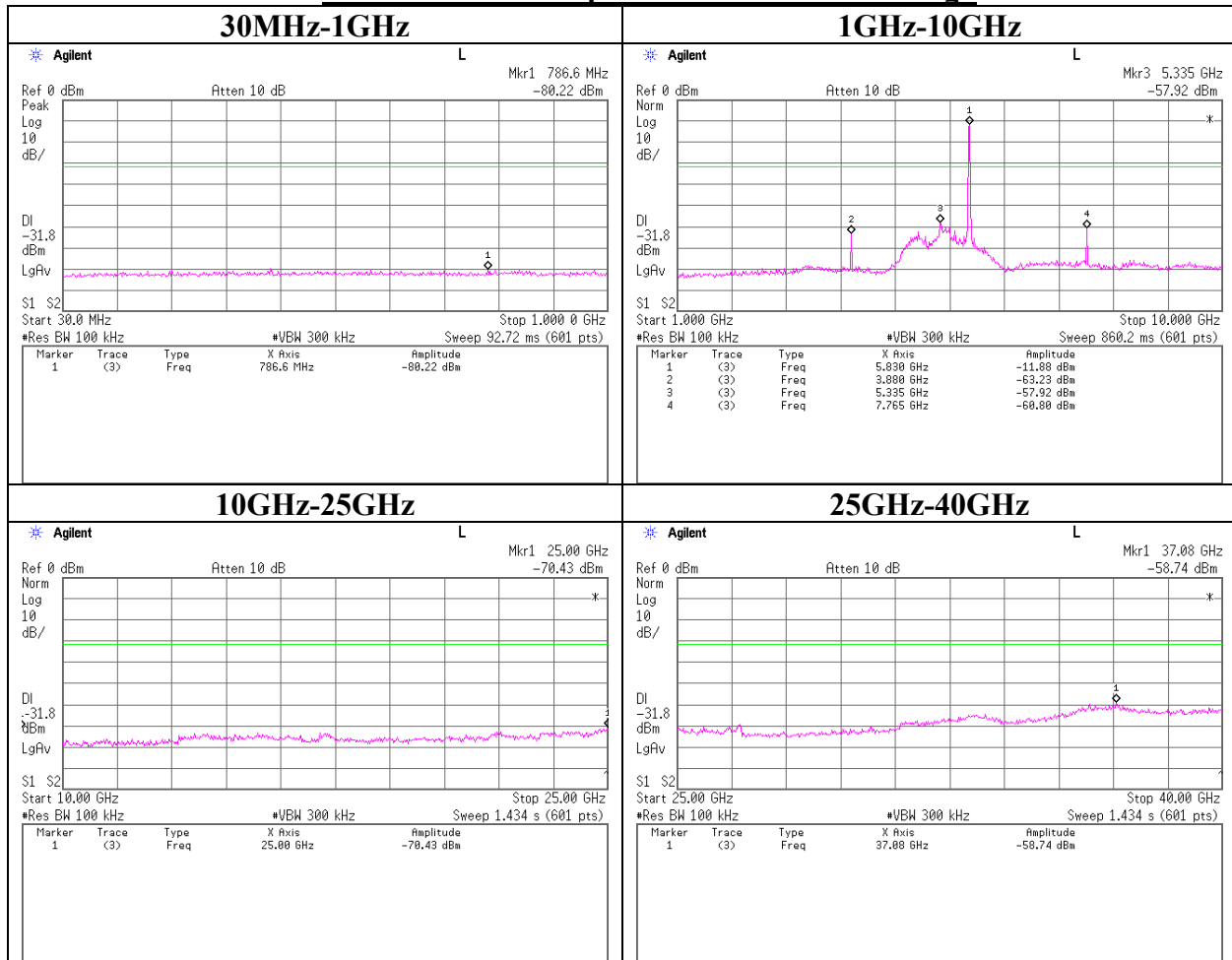
Facsimile : +81 596 24 8124

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**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11a 24Mbps Antenna: Main Ch : Mid**

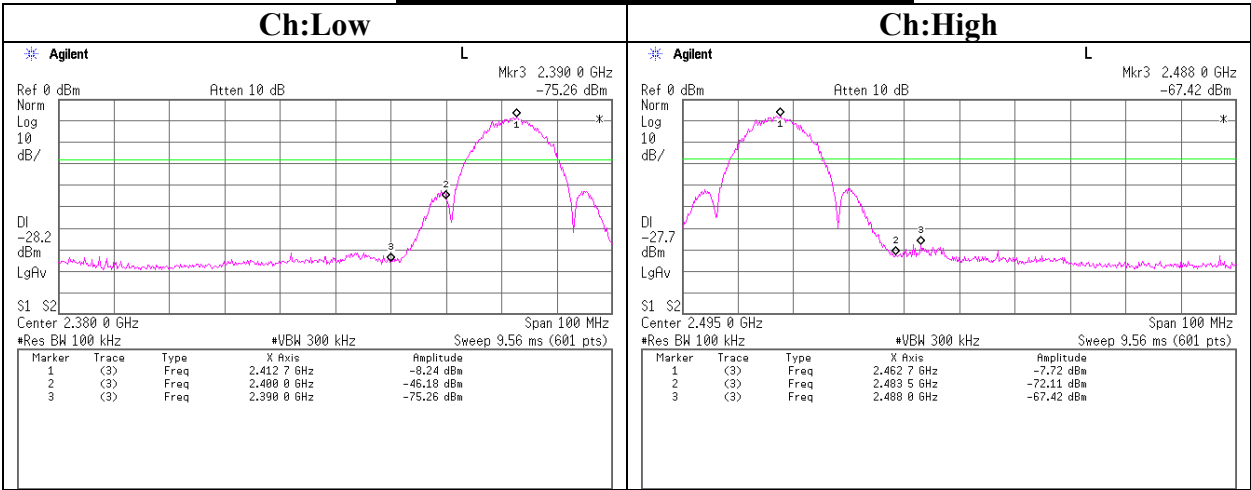


**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11a 24Mbps Antenna: Main Ch : High**



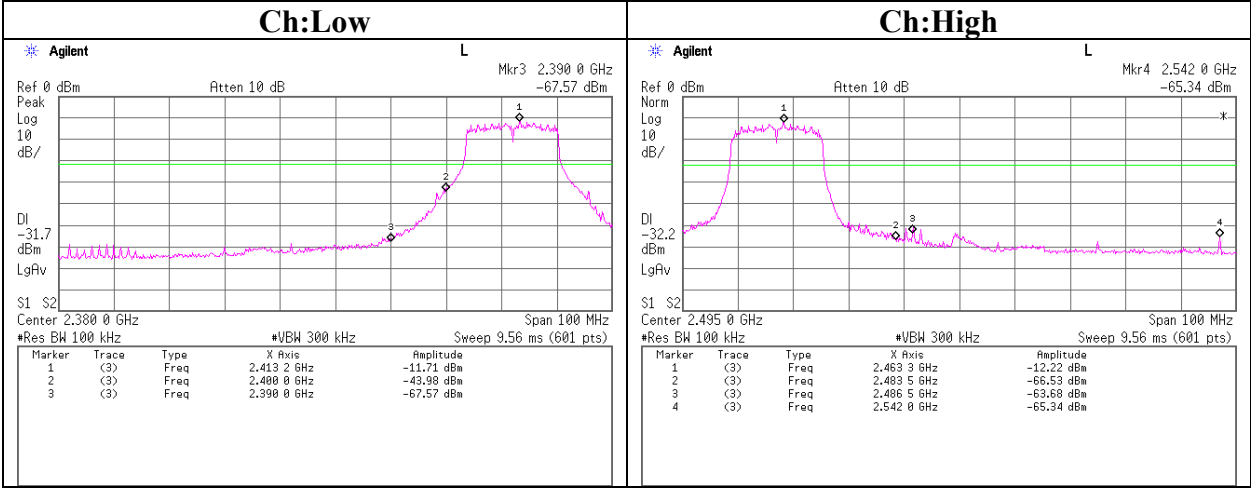
Conducted emission Band Edge compliance (DSSS and other forms of modulation)

IEEE802.11b 11Mbps Antenna: Main

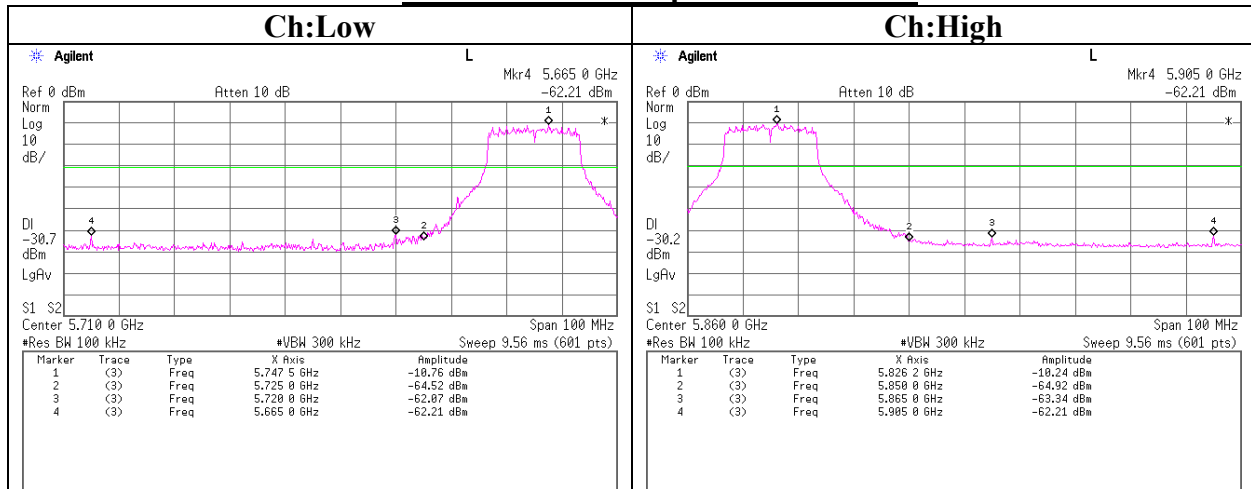


Conducted emission Band Edge compliance (DSSS and other forms of modulation)

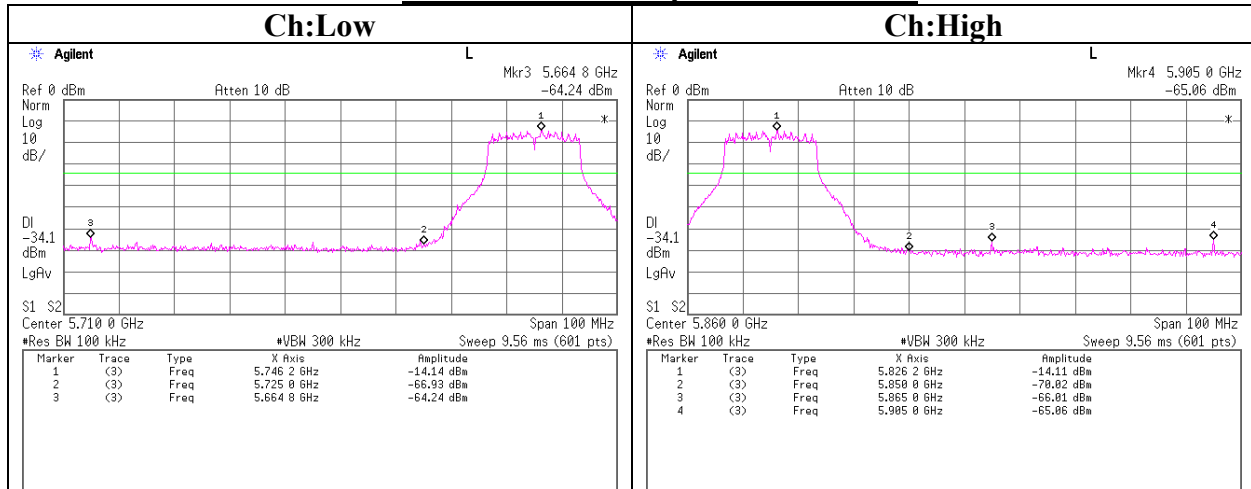
IEEE802.11g 54Mbps Antenna: Main



**Conducted emission Band Edge compliance (DSSS and other forms of modulation)**  
**IEEE802.11a 24Mbps Antenna: Main**



**IEEE802.11a 54Mbps Antenna: Main**



**Power Density (DSSS and other forms of modulation )**

UL Apex Co., Ltd.

Head Office EMC Lab. No.4 Measurement Room

COMPANY : Fujitsu Limited  
EQUIPMENT : Personal Computer  
MODEL : P1510  
SAMPLE NO. : R5100030  
POWER : AC120V/60Hz  
MODE : Tx IEEE 802.11a/b/g  
: Main Antenna , Continuous Transmitting

REPORT NO : 25HE0105-HO  
REGULATION : FCC 15.247(b)  
TEST DISTANCE : -  
DATE : 05/11/2005  
TEMPERATURE : 26deg.C  
HUMIDITY : 36%  
ENGINEER : Mitsuru Fujimura

**[ IEEE802.11b : 11Mbps ] Antenna: Main (A)**

| Ch   | Freq.<br>[MHz] | Reading<br>[dBm] | Cable<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
|------|----------------|------------------|---------------|----------------|-----------------|----------------|----------------|
| Low  | 2412.0         | -20.07           | 1.04          | 10.0           | -9.0            | 8.0            | 17.0           |
| Mid  | 2437.0         | -19.93           | 1.01          | 10.0           | -8.9            | 8.0            | 16.9           |
| High | 2462.0         | -19.65           | 0.99          | 10.0           | -8.7            | 8.0            | 16.7           |

**[ IEEE802.11g : 54Mbps ] Antenna: Main (A)**

| Ch   | Freq.<br>[MHz] | Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
|------|----------------|------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Low  | 2412.0         | -25.22           | 1.04                  | 10.0           | -14.2           | 8.0            | 22.2           |
| Mid  | 2437.0         | -24.46           | 1.01                  | 10.0           | -13.5           | 8.0            | 21.5           |
| High | 2462.0         | -25.68           | 0.99                  | 10.0           | -14.7           | 8.0            | 22.7           |

**[ IEEE802.11a : 24Mbps ] Antenna: Main (A)**

| Ch   | Freq.<br>[MHz] | Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
|------|----------------|------------------|-----------------------|----------------|-----------------|----------------|----------------|
| Low  | 5745.0         | -23.58           | 1.20                  | 10.0           | -12.4           | 8.0            | 20.4           |
| Mid  | 5785.0         | -23.66           | 1.16                  | 10.0           | -12.5           | 8.0            | 20.5           |
| High | 5825.0         | -23.38           | 1.19                  | 10.0           | -12.2           | 8.0            | 20.2           |

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

\* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

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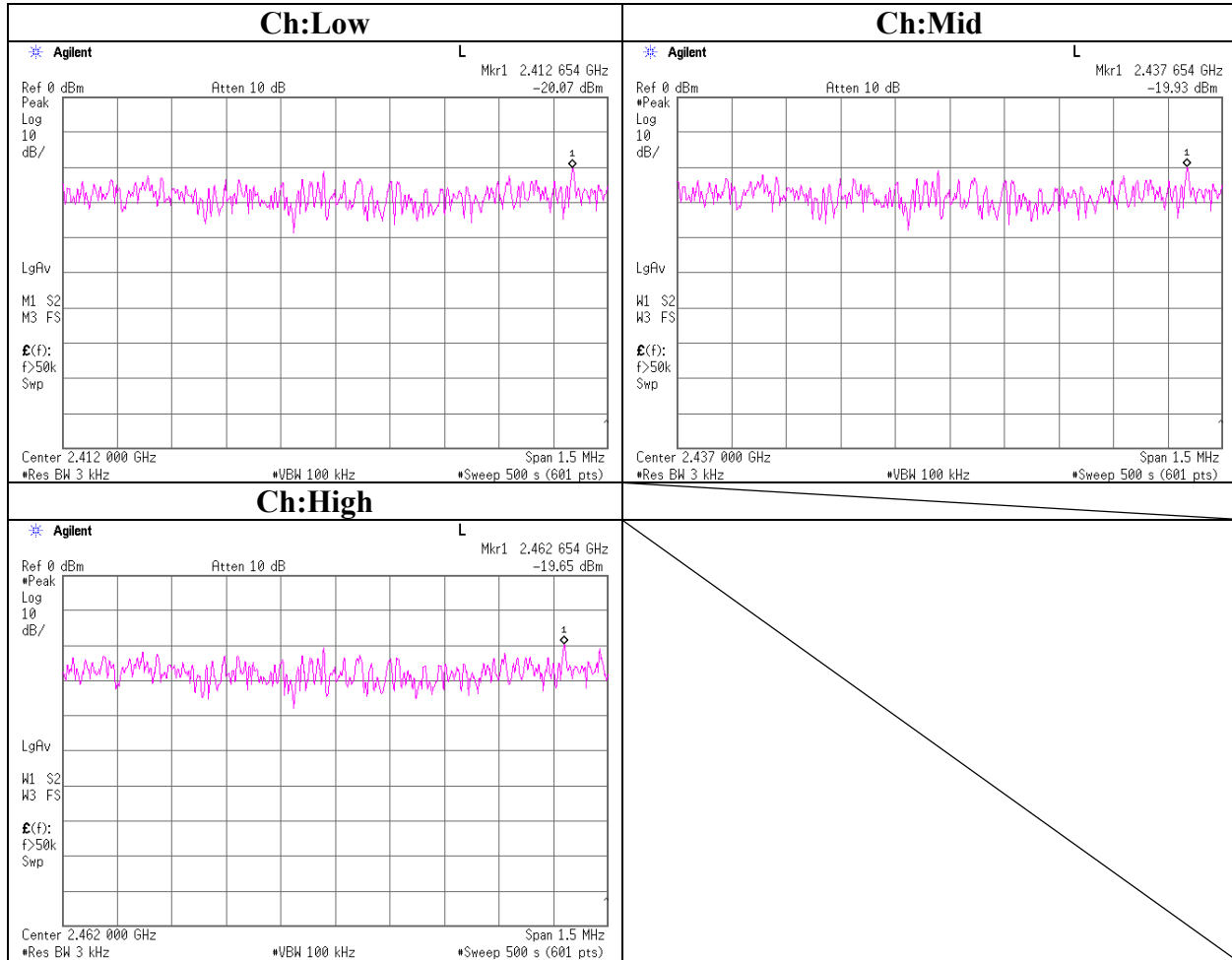
Telephone : +81 596 24 8116

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MF060b(01.06.05)

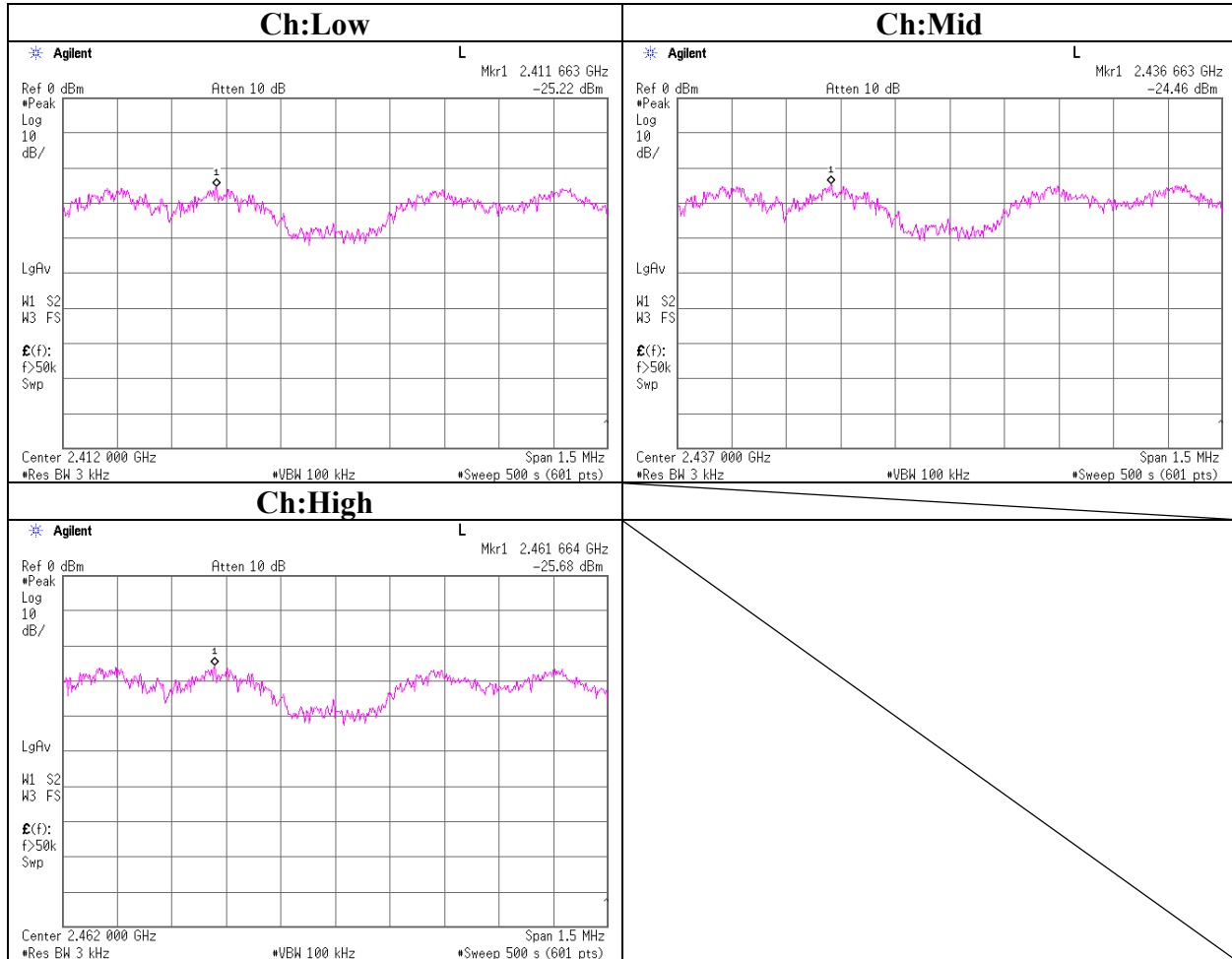
**Power Density(DSSS and other forms of modulation)**

**IEEE802.11b 11Mbps Antenna: Main (A)**



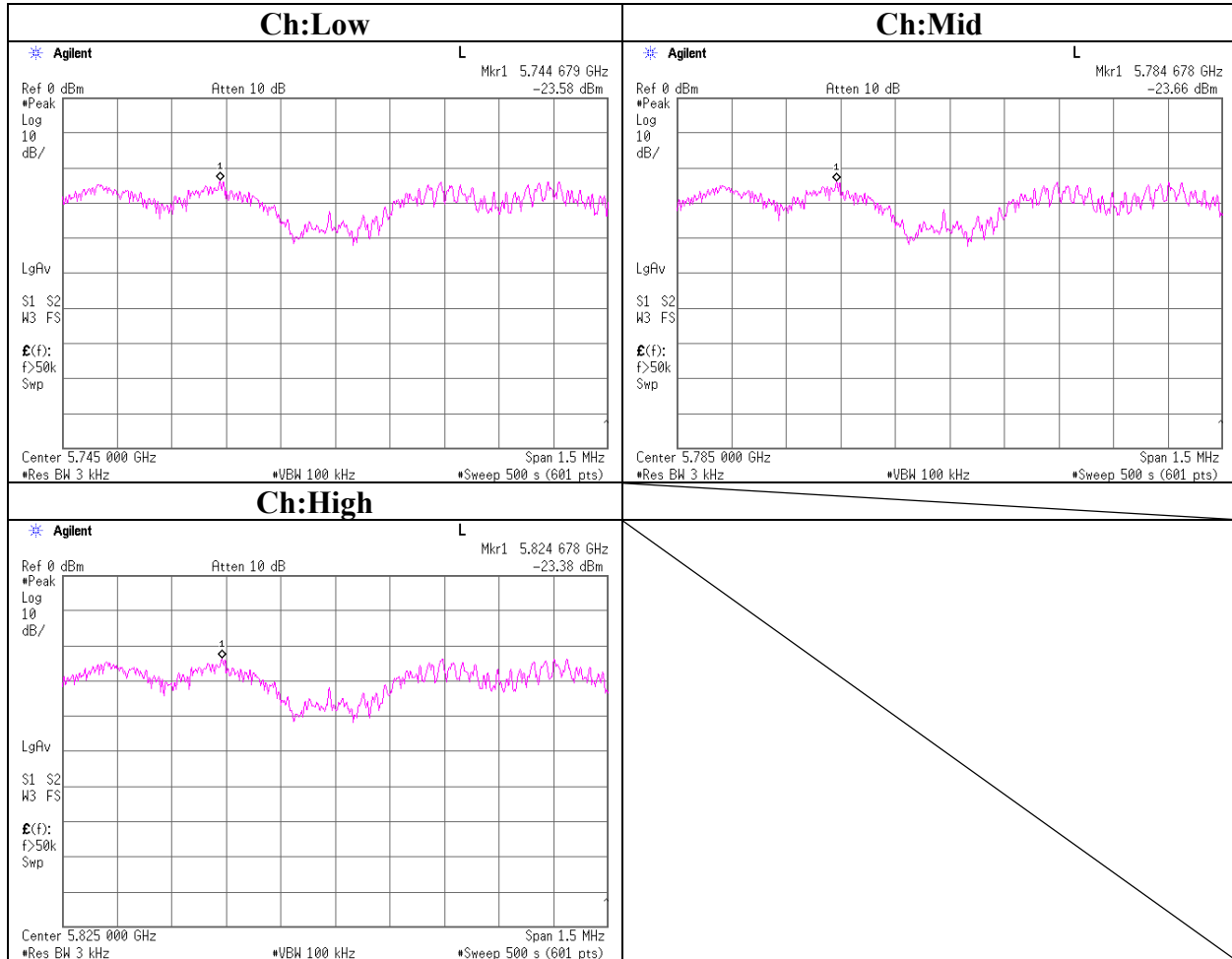
**Power Density(DSSS and other forms of modulation)**

**IEEE802.11g 54Mbps Antenna: Main (A)**



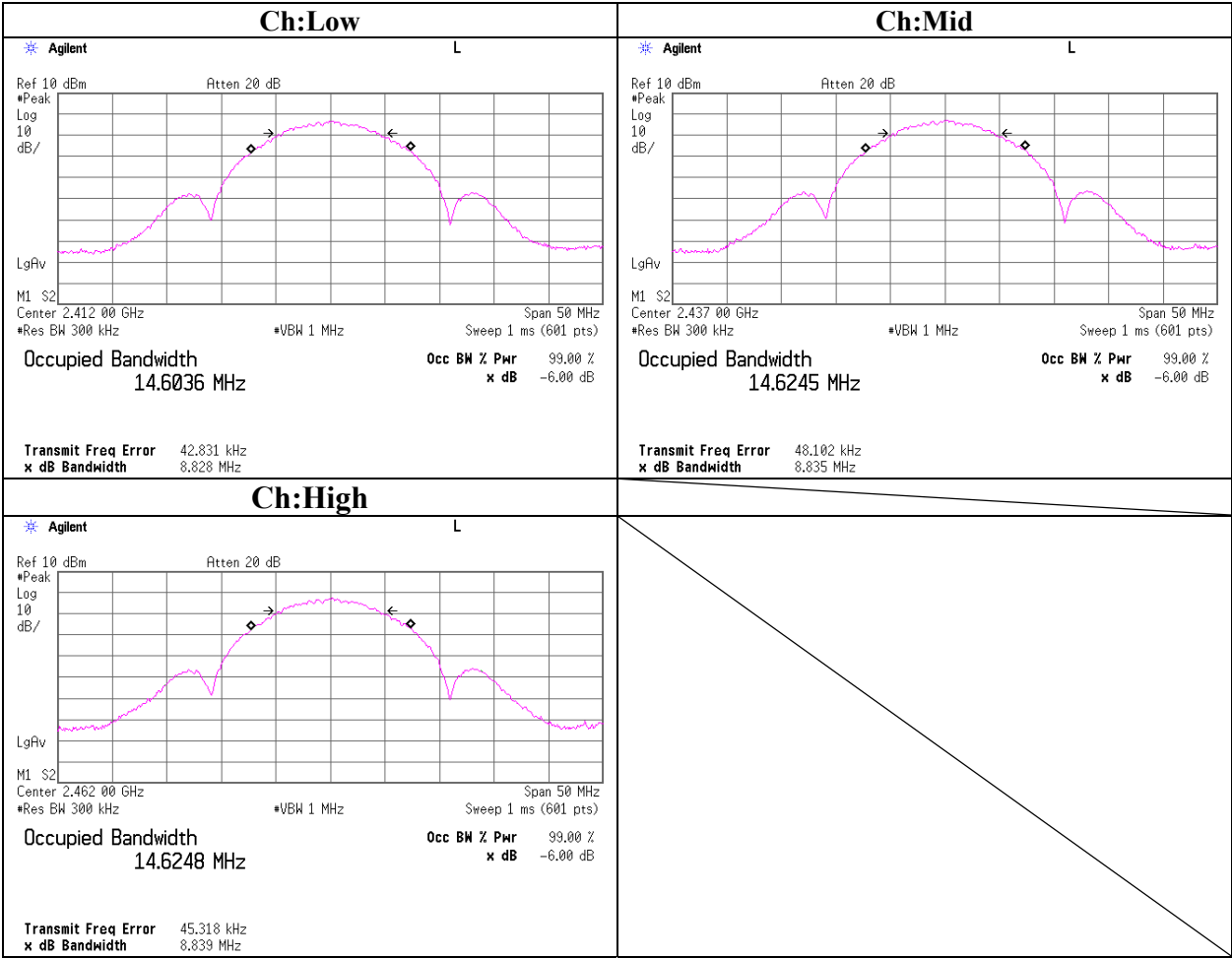
**Power Density(DSSS and other forms of modulation)**

**IEEE802.11a 24Mbps Antenna: Main (A)**



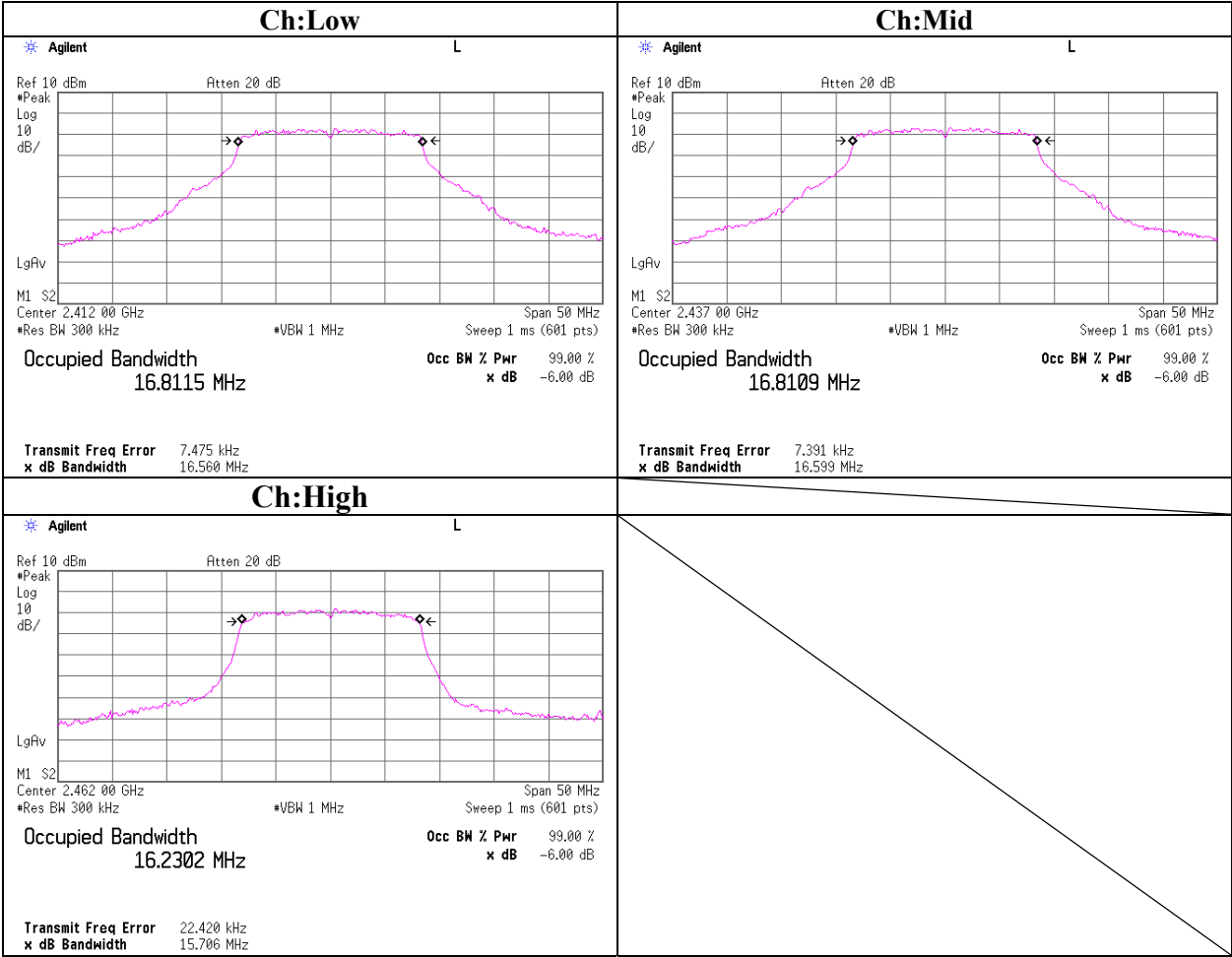
99%Occupied Bandwidth(DSSS and other forms of modulation)

IEEE802.11b 11Mbps Antenna: Main (A)



99%Occupied Bandwidth(DSSS and other forms of modulation)

IEEE802.11g 54Mbps Antenna: Main (A)



99%Occupied Bandwidth(DSSS and other forms of modulation)

IEEE802.11a 24Mbps Antenna: Main (A)

