EMI TEST REPORT

Test Report No. : 26AE0214-HO-10

Applicant	:	**FUJITSU LIMITED**
Type of Equipment	:	**Personal Computer**
Model No.	:	**P1510D**
FCC ID	:	**EJE-WB0037**
Test standard	:	**FCC Part 15 Subpart C/E Section 15.247, Section15.407 : 2005 *Spurious emission test only (Co-location & Co-operation) according to the client's request.**
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: August 29, 2005

Tested by:
Yutaka Yoshida
EMC Service

Kenichi Adachi
EMC Service

Approved by :
Hironobu Shimoji
Group Leader of
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SECTION 1: Client information

Company Name	:	FUJITSU LIMITED
Brand Name	:	FUJITSU
Address	:	1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki 211-8588 Japan
Telephone Number	:	+81-44-754-3885
Facsimile Number	:	+81-44-754-3769
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.	:	P1510D
Serial No.	:	R5100002
Country of Manufacture	:	Japan
Condition of EUT	:	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Rating	:	AC100-240V, 50/60Hz DC out 16V/2.5A (AC Adapter)
Receipt Date of Sample	:	August 29, 2005

2.2 Product Description

This EUT has IEEE802.11 a/b/g module which consists of 2.4GHz and 5GHz in the same chip, and has also Bluetooth module.

< IEEE802.11 a/b/g >

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, CCK
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.

<Bluetooth>

Equipment Type	: Transceiver
Frequency of operation	: 2402-2480MHz
Type of Modulation	: FHSS
Antenna Type	: Monopole Antenna (M/N: YCE-5008)
Antenna Gain	: AUX -1.49 dBi (This antenna gain are values in which antenna was mounted to the PC)
Antenna Connector Type	: U-FL
Operating voltage	: DC3.3V
Operating temperature range	: 0-+70 deg.C.

FCC 15.31 (e)

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

FCC Part 15.203 Antenna requirement

These modules have 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.

2.3 Other Information about the report

Standards	Test Report No. *1)			
	IEEE802.11 a/b/g		Bluetooth	Bluetooth + IEEE802.11a/b/g
FCC	26AE0214-HO-1 (15.247)	26AE214-HO-2 (15.407)	26AE0214-HO-9	26AE0214-HO-10 *2)
RSS-210	26AE0214-HO-3	26AE0214-HO-4	26AE0214-HO-11	26AE0214-HO-12

*1) The tests were made with the same EUT.
*2) This mark stands for this report.

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 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz : 2005
Section 15.407 General technical requirements

3.2 Procedures and results

FCC Part 15 Subpart C *These tests were performed and reported in the Test Report No.26AE0214-HO-1.

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A	N/A	N/A
2	6dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(a)(2)	Conducted	N/A	N/A	N/A
3	Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(b)(3)	Conducted	N/A		N/A
4	Spurious Emission	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Conducted/ Radiated	N/A		N/A
5	Restricted Band Edges	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Conducted	N/A		N/A
6	Power Density	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (e)	Conducted	N/A	N/A	N/A
Note: UL Apex's EMI Work Procedures No.QPM05 and QPM15.							

*These tests were also referred to "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247".
*These tests were performed without any deviations from test procedure except for additions or exclusions.

Bluetooth *These tests were performed and reported in the Test Report No.26AE0214-HO-9.

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin*0)	Results
1	Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A	N/A	N/A
2	Carrier Frequency Separation	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(a)(1)	Conducted	N/A	N/A	N/A
3	20dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(a)(1)	Conducted	N/A		N/A
4	Number of Hopping Frequency	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(a)(1)(iii)	Conducted	N/A		N/A
5	Dwell time	ANSI C63.4:2003 13.Measurement of intentional radiators	Section15.247(a)(1)(iii)	Conducted	N/A		N/A
6	Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(b)(1)	Conducted	N/A		N/A
7	Band Edge Compliance	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(d)	Conducted	N/A		N/A
8	Spurious Emission	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(d)	Conducted/ Radiated	N/A	N/A	N/A
Note: UL Apex's EMI Work Procedures No.QPM05 and QPM15.							

*These tests were also referred to FCC Public Notice DA 00-705 "Guidance on Measurement for Frequency Hopping Spread Spectrum Systems".

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

FCC Part 15 Subpart E *These tests were performed and reported in the Test Report No.26AE0214-HO-2.

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin*0)	Results
1	26dB Emission Bandwidth	ANSI C63.4:2003	FCC 15.407(a)(1)(2)(3)	-	N/A	N/A	N/A
2	Peak Transmit Power	ANSI C63.4:2003	FCC 15.407(a)(1)(2)(3)	Conducted	N/A	N/A	N/A
3	Peak Power Spectral Density	ANSI C63.4:2003	FCC 15.407(a)(1)(2)(3)	Conducted	N/A	N/A	N/A
4	Peak Excursion Ratio	ANSI C63.4:2003	FCC 15.407(a)(6)	Conducted	N/A	N/A	N/A
5	Spurious Emission	ANSI C63.4:2003	FCC 15.407(b)(1)(2)(3)(4)(5)(6)(7), 15.205and15.209	Conducted	N/A	N/A	N/A
6	Spurious Emission	ANSI C63.4:2003		Radiated	N/A	N/A	N/A
7	AC Conducted Emission	ANSI C63.4:2003	FCC 15.407(b)(6)/15.207	Tx5320MHz	N/A	N/A	N/A
8	Band Edge Compliance	ANSI C63.4:2003	FCC 15.407(b)(7)/15.205	Conducted Radiated	N/A	N/A	N/A
9	99% Occupied Band Width	RSS210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4:2004	RSS210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4:2004	Conducted	N/A	N/A	N/A

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 ±1.3dB.

Spurious Emission (Radiated)
The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ±4.5dB(3m)/ ±4.7dB(10m).
The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ±5.2dB(3m)/ ±3.8dB(10m).
The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ±6.6dB.

Other test except Conducted Emission and Spurious Emission (Radiated)
The measurement uncertainty (with a 95% confidence level) for this test is ±3.0dB.

*These tests were also referred to FCC Public Notice DA 02-2138 "Measurement Procedure Updated for Peak Transmit Power in the Unlicensed National Information Infrastructure (U-NII) Bands ".
*These tests were performed without any deviations from test procedure except for additions or exclusions.

3.3 Addition to standards

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Co-location & Co-operation (Confirmation testing for Radiated Spurious Emission at simultaneous transmission)	ANSI C63.4:2003 13. Measurement of intentional radiators	Section15.247(d) Section15.407(b)	Radiated	N/A	<IEEE802.11g> 10.9dB 21933.0MHz Horizontal, AV <IEEE802.11a> 2.1dB 1555.8MHz Horizontal, AV	Complied

3.4 Test Location

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Telephone : +81 596 24 8116 Facsimile : +81 596 24 8124

	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	IC4247A	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	846015	IC4247A-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

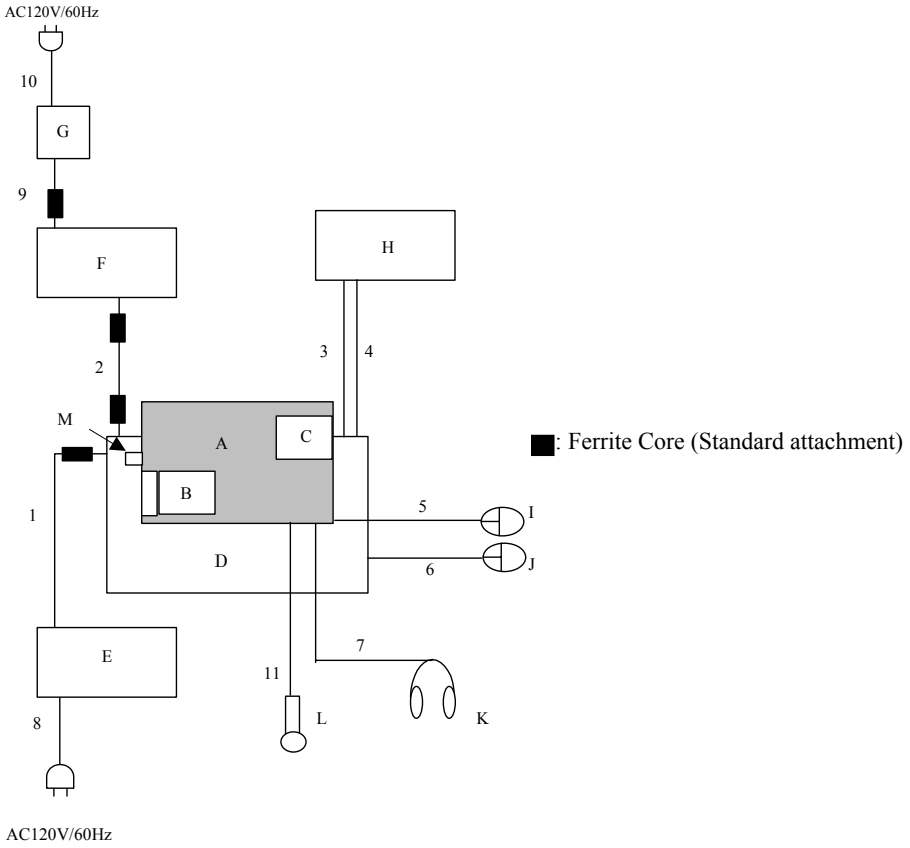
Refer to APPENDIX 1 to 3.

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

4.1 Operating Modes

Operation : 1) Wireless LAN 11g + Bluetooth Hopping ON
2) Wireless LAN 11a + Bluetooth Hopping ON
*The test was made with the above modes which had the worst case in the following tests.
*The same EUT from the following tests was used for this test.
(Report No. for Bluetooth: 26AE0214-HO-9, Report No. for IEEE802.11b/g: 26AE0214-HO-1, Report No. for IEEE802.11a: 26AE0214-HO-2)

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	P1510D	R5100002	FUJITSU LIMITED	EJE-WB0037	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	-	-
M	USB memory	BUF-C256M/U2	B5061410952	BUFFALO	-	-

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

SECTION 5: Spurious Emission

[Radiated]
Test Procedure
EUT was placed on a platform of nominal 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 linear mode).
The test was made with the detector (RBW/VBW) in the following table.
When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

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

*1) The pre-check test was made in the frequency below 1GHz.
As a result, there is no difference in the noise level compared with the result in Test report No. 26AE0214-HO-9, -1 and -2.

Test data : APPENDIX 3
Test result : Pass

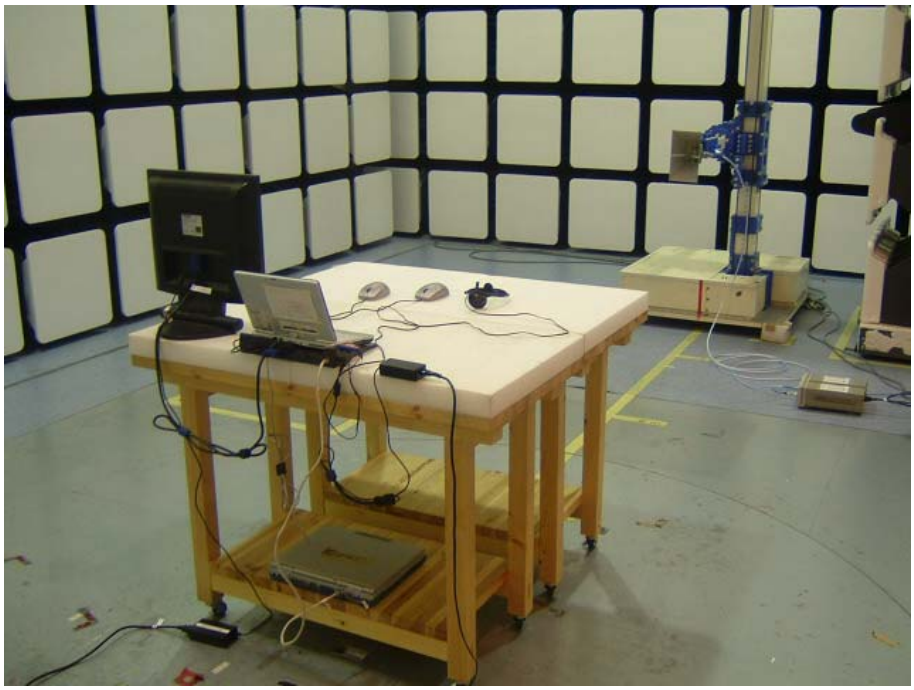
- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

APPENDIX 1: Photographs of test setup

Spurious Emission (Radiated)

Front

Rear

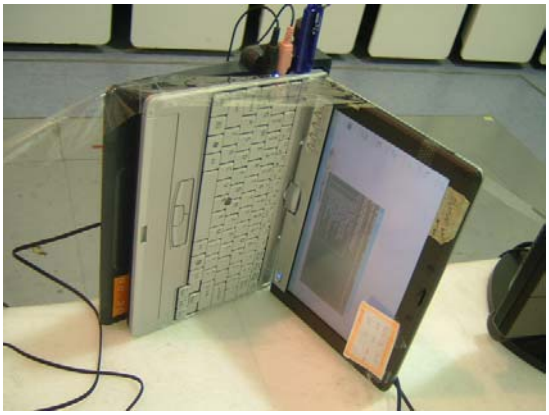


Worst Case Position (Y-axis:Horizontal / X-axis:Vertical)

X-axis

Y-axis

Z-axis



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APPENDIX 2:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2005/04/11 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2005/01/10 * 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
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE	2005/05/19 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE	2004/09/18 * 12
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-05	Microwave Cable 1G-50GHz	Storm	421-011 (90-1394-079)	RE	2005/01/05 * 12
MBF-10	Band Pass Filter	M-City	BPF8000-01	RE	2005/03/18 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2005/02/03 * 12
MBF-03	SHF Bandpass Filter	M-City	13GHz BPF	RE	2005/05/20 * 12
MCC-18	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2005/02/03 * 12
MHA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2005/01/10 * 12
MHA-01	Horn Antenna	EMCO	3160-09	RE	2005/01/10 * 12
MHA-03	Horn Antenna	EMCO	3160-10	RE	2005/01/10 * 12
MCC-17	Microwave Cable 1G-50GHz	Suhner	SUCOFLEX 101	RE	2005/02/03 * 12
MCC-14	Microwave Cable 1G-50GHz	Suhner	SUCOFLEX 101	RE	2005/02/03 * 12
MPA-03	Microwave System Power Amplifier	Agilent	83050A	RE	2005/05/11 * 12
MCC-01	Coaxial Cable 0.1-3000MHz	Suhner/storm/Agilent/ TSJ	-	RE	2004/12/19 * 12
MPA-04	Pre Amplifier	Agilent	8447D	RE	2005/05/24 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2004/12/16 * 12
MBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2004/10/14 * 12
MLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2004/10/14 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2004/10/14 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2004/10/14 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	RE	2005/02/24 * 12
MPA-06	Pre Amplifier	Hewlett Packard	8447D	RE	2005/08/31 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE	2005/05/19 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2004/12/16 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2005/02/24 * 12

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
Test Item:
RE: Radiated emission

APPENDIX 3: Data of EMI test

Radiated emission Band Edge compliance

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: P1510D	TEST DISTANCE	: 3/1m
Sample No.	: R5100002	DATE	: 08/29/2005
Power	: AC120V / 60Hz	TEMPERATURE	: 25deg.C
Mode	: 11g 2412MHz + Bluetooth Hopping	HUMIDITY	: 62%
	: 11g 2462MHz + Bluetooth Hopping		
Remarks	: Horizontal Y-axis, Vertical X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	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	2390.0	52.1	57.2	30.5	36.4	3.7	0.0	49.9	55.0	74.0	24.1	19.0
2	2483.5	54.7	59.1	30.5	36.4	3.7	0.0	52.5	56.9	74.0	21.5	17.1

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	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	2390.0	37.6	37.4	30.5	36.4	3.7	0.0	35.4	35.2	54.0	18.6	18.8
2	2483.5	33.9	35.7	30.5	36.4	3.7	0.0	31.7	33.5	54.0	22.3	20.5

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	20dBc	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	102.3	110.5	30.5	36.4	3.7	0.0	100.1	108.3	-	-	-
2	2400.0	54.1	62.5	30.5	36.4	3.7	0.0	51.9	60.3	Funda-20dB	28.2	28.0

*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 (Above 1GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: P1510D	TEST DISTANCE	: 3/1m
Sample No.	: R5100002	DATE	: 08/29/2005
Power	: AC120V / 60Hz	TEMPERATURE	: 25deg.C
Mode	: 11g 2437MHz + Bluetooth Hopping	HUMIDITY	: 62%
Remarks	: Horizontal Y-axis, Vertical X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	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	4874.0	43.5	42.5	35.6	36.0	5.3	1.0	49.4	48.4	74.0	24.6	25.6
2	7311.0	48.0	49.0	37.9	36.0	6.6	0.5	57.0	58.0	74.0	17.0	16.0
3	9748.0	42.5	41.6	36.8	36.4	8.1	0.2	51.2	50.3	74.0	22.8	23.7

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	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	4874.0	32.6	30.5	35.6	36.0	5.3	1.0	38.5	36.4	54.0	15.5	17.6
2	7311.0	33.3	32.7	37.9	36.0	6.6	0.5	42.3	41.7	54.0	11.7	12.3
3	9748.0	30.3	30.3	36.8	36.4	8.1	0.2	39.0	39.0	54.0	15.0	15.0

*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 (Above 1GHz)

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/09/01 01:33:49

Applicant : Fujitsu Limited
Kind of EUT : Personal Computer
Model No. : P1510D
Serial No. : R5100002

Report No. : 26AE0214-HO
Power : AC120V / 60Hz(AC Adaptor)
Temp./Humi. : 27deg.C / 61%
Operator : Kenichi Adachi

Mode / Remarks : BT Hopping On / WLAN 11g Tx 2437MHz(Turbo Mode(108Mbps)) / Hor:Y-axis, Ver:X-Axis(Worst)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg.]	[cm]		[dBuV/m]	[dB]
12185.000	44.2	PK	41.5	-36.0	49.7			Hori.	74.0	24.3
12185.000	31.0	AV	41.5	-36.0	36.5			Hori.	54.0	17.5
12185.000	44.3	PK	41.5	-36.0	49.8			Vert.	74.0	24.2
12185.000	31.1	AV	41.5	-36.0	36.6			Vert.	54.0	17.4
14622.000	43.9	PK	42.1	-34.0	52.0			Hori.	74.0	22.0
14622.000	30.7	AV	42.1	-34.0	38.8			Hori.	54.0	15.2
14622.000	44.0	PK	42.1	-34.0	52.1			Vert.	74.0	21.9
14622.000	30.7	AV	42.1	-34.0	38.8			Vert.	54.0	15.2
17059.000	43.2	PK	44.6	-32.7	55.1			Hori.	74.0	18.9
17059.000	30.0	AV	44.6	-32.7	41.9			Hori.	54.0	12.1
17059.000	43.1	PK	44.6	-32.7	55.0			Vert.	74.0	19.0
17059.000	29.9	AV	44.6	-32.7	41.8			Vert.	54.0	12.2
19496.000	42.6	PK	41.4	-30.5	53.5			Hori.	74.0	20.5
19496.000	29.8	AV	41.4	-30.5	40.7			Hori.	54.0	13.3
19496.000	42.7	PK	41.4	-30.5	53.6			Vert.	74.0	20.4
19496.000	29.8	AV	41.4	-30.5	40.7			Vert.	54.0	13.3
21933.000	46.0	PK	40.5	-30.8	55.7			Hori.	74.0	18.3
21933.000	33.4	AV	40.5	-30.8	43.1			Hori.	54.0	10.9
21933.000	45.8	PK	40.5	-30.8	55.5			Vert.	74.0	18.5
21933.000	33.3	AV	40.5	-30.8	43.0			Vert.	54.0	11.0
24370.000	43.7	PK	41.1	-30.4	54.4			Hori.	74.0	19.6
24370.000	30.8	AV	41.1	-30.4	41.5			Hori.	54.0	12.5
24370.000	43.8	PK	41.1	-30.4	54.5			Vert.	74.0	19.5
24370.000	30.9	AV	41.1	-30.4	41.6			Vert.	54.0	12.4

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission (Above 1GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: P1510D	TEST DISTANCE	: 3/1m
Sample No.	: R5100002	DATE	: 08/29/2005
Power	: AC120V / 60Hz	TEMPERATURE	: 25deg.C
Mode	: 11a 5180MHz + Bluetooth Hopping	HUMIDITY	: 62%
Remarks	: Horizontal Y-axis, Vertical X-axis	ENGINEER	: Yutaka Yoshida

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	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	1120.1	72.0	68.6	23.0	36.9	2.5	0.0	60.6	57.2	74.0	13.4	16.8
2	1555.8	68.4	65.3	25.1	36.6	3.0	0.0	59.9	56.8	74.0	14.1	17.2
3	5150.0	44.6	43.3	36.2	35.9	5.4	0.0	50.2	49.0	74.0	23.8	25.1

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	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	1120.1	59.9	57.8	23.0	36.9	2.5	0.0	48.5	46.4	54.0	5.5	7.6
2	1555.8	60.4	55.5	25.1	36.6	3.0	0.0	51.9	47.0	54.0	2.1	7.0
3	5150.0	29.6	29.8	36.2	35.9	5.4	0.0	35.3	35.5	54.0	18.7	18.5

*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 (Above 1GHz)

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/09/01 02:14:39

Applicant : Fujitsu Limited
Kind of EUT : Personal Computer
Model No. : P1510D
Serial No. : R5100002

Report No. : 26AE0214-HO
Power : AC120V / 60Hz(AC Adaptor)
Temp./Humi. : 27deg.C / 61%
Operator : Kenichi Adachi

Mode / Remarks : BT Hopping On / WLAN 11a Tx 5180MHz(54Mbps) / Hor:Y-axis, Ver:X-Axis(Worst)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
10048.160	44.2	PK	36.3	-35.8	44.7			Hori.	74.0	29.3
10048.160	31.0	AV	36.3	-35.8	31.5			Hori.	54.0	22.5
10048.410	44.9	PK	36.3	-35.8	45.4			Vert.	74.0	28.6
10048.410	30.9	AV	36.3	-35.8	31.4			Vert.	54.0	22.6
10358.650	59.1	PK	36.8	-36.1	59.8			Hori.	74.0	14.2
10358.650	37.6	AV	36.8	-36.1	38.3			Hori.	54.0	15.7
10360.190	61.9	PK	36.8	-36.1	62.6			Vert.	74.0	11.4
10360.190	39.4	AV	36.8	-36.1	40.1			Vert.	54.0	13.9
15541.590	48.7	PK	40.4	-33.3	55.8			Hori.	74.0	18.2
15541.590	34.5	AV	40.4	-33.3	41.6			Hori.	54.0	12.4
15544.190	50.6	PK	40.4	-33.3	57.7			Vert.	74.0	16.3
15544.190	36.7	AV	40.4	-33.3	43.8			Vert.	54.0	10.2
20720.000	43.8	PK	40.7	-31.7	52.8			Hori.	74.0	21.2
20720.000	30.3	AV	40.7	-31.7	39.3			Hori.	54.0	14.7
20720.000	43.7	PK	40.7	-31.7	52.7			Vert.	74.0	21.3
20720.000	30.3	AV	40.7	-31.7	39.3			Vert.	54.0	14.7
25900.000	44.5	PK	41.5	-29.7	56.3			Hori.	74.0	17.7
25900.000	31.3	AV	41.5	-29.7	43.1			Hori.	54.0	10.9
25900.000	44.4	PK	41.5	-29.7	56.2			Vert.	74.0	17.8
25900.000	31.2	AV	41.5	-29.7	43.0			Vert.	54.0	11.0

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)
Except for the data below : adequate margin data below the limits.

Radiated Spurious Emission (Above 1GHz)

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.1 Semi Anechoic Chamber
Date : 2005/09/01 05:16:12

Applicant : Fujitsu Limited
Kind of EUT : Personal Computer
Model No. : P1510D
Serial No. : R5100002

Report No. : 26AE0214-HO
Power : AC120V / 60Hz(AC Adaptor)
Temp./Humi. : 27deg.C / 61%
Operator : Kenichi Adachi

Mode / Remarks : BT Hopping On / WLAN 11a Tx 5180MHz(54Mbps) / Hor:Y-axis, Ver:X-Axis(Worst)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna Factor	Loss& Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
31080.000	53.9	PK	41.9	-34.3	61.5			Hori.	74.0	12.5
31080.000	40.1	AV	41.9	-34.3	47.7			Hori.	54.0	6.3
31080.000	54.1	PK	41.9	-34.3	61.7			Vert.	74.0	12.3
31080.000	40.2	AV	41.9	-34.3	47.8			Vert.	54.0	6.2
36260.000	53.8	PK	42.2	-32.7	63.3			Hori.	74.0	10.7
36260.000	40.9	AV	42.2	-32.7	50.4			Hori.	54.0	3.6
36260.000	54.0	PK	42.2	-32.7	63.5			Vert.	74.0	10.5
36260.000	41.0	AV	42.2	-32.7	50.5			Vert.	54.0	3.5

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP,30-300MHz BICONICAL,300MHz-1000MHz LOGPERIODIC,1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)
Except for the data below : adequate margin data below the limits.