EMI TEST REPORT

Test Report No. : 26AE0214-HO-2

Applicant	:	**FUJITSU LIMITED**
Type of Equipment	:	**Personal Computer**
Model No.	:	**P1510D**
Test standard	:	**FCC Part15 Subpart E : 2005**
FCC ID	:	**EJE-WB0037**
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 28 to May 31, 2005

Tested by :

Mitsuru Fujimura
EMC Service

Keiichi Aoki
EMC Service

Norihisa Hashimoto
EMC Service

Approved by :

Hironobu Shimoji
Group Leader of
EMC Service

UL Apex Co., Ltd.
Head Office EMC Lab.
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
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Facsimile : +81 596 24 8124

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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
Rating	:	AC120V/60Hz (AC Adapter)
Country of Manufacture	:	Japan
Receipt Date of Sample	:	May 23, 2005
Condition of EUT	:	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product Description

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

<IEEE802.11a/b/g>

Equipment Type	: Transceiver
Frequency of operation	: 11b/g: 2412-2462MHz 11a: 5150-5350MHz/5745 - 5825MHz
Channel Spacing	: 5MHz(11b/g), 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 Module regardless of input voltage. Therefore, this EUT complies with the requirement.

**As for Antenna requirement, please refer to the separate sheet.

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 *2) (15.407)	26AE0214-HO-9	26AE0214-HO-10
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 E : 2005

Title : FCC 47CFR Part15 Radio Frequency Device
Subpart E Unlicensed National Information Infrastructure Devices
Section 15.407 General technical requirements

3.2 Procedures and results

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	*See data	Complied
2	Peak Transmit Power	ANSI C63.4:2003	FCC 15.407(a)(1)(2)(3)	Conducted	N/A		Complied
3	Peak Power Spectral Density	ANSI C63.4:2003	FCC 15.407(a)(1)(2)(3)	Conducted	N/A		Complied
4	Peak Excursion Ratio	ANSI C63.4:2003	FCC 15.407(a)(6)	Conducted	N/A		Complied
5	Spurious Emission	ANSI C63.4:2003	FCC 15.407(b)(1)(2)(3)(4)(5)(6)(7), 15.205and15.209	Conducted	N/A		Complied
6	Spurious Emission	ANSI C63.4:2003		Radiated	N/A	2.6dB 240.012MHz, Hor. (QP) (5180MHz)	Complied
7	AC Conducted Emission	ANSI C63.4:2003	FCC 15.407(b)(6)/15.207 RSS-210 6.6	-	N/A	5.7dB 0.1684MHz Phase N (AV) (Tx 5320MHz)	Complied
8	Band Edge Compliance	ANSI C63.4:2003	FCC 15.407(b)(7)/15.205	Conducted Radiated	N/A	*See data	Complied
9	99% Occupied Band Width	RSS210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4:2004	RSS-210(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 or exclusions to standards

No addition, deviation, nor exclusion has been made from standards.

3.4 Test Location

UL Apex Co., Ltd. Head Office EMC Lab. *NVLAP Lab. code: 200572-0
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
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 shielded 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

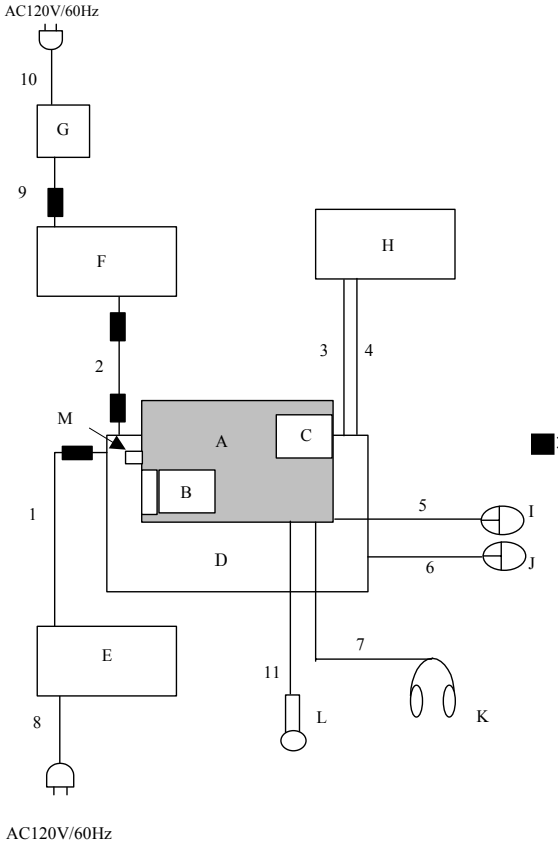
The EUT was operating in a manner similar to typical use during the tests.

Operation : ***Normal mode(IEEE802.11a)***
Channel 36: 5180MHz
Channel 52: 5260MHz
Channel 64: 5320MHz
Turbo mode(IEEE802.11a)
Channel 42: 5210MHz
Channel 50: 5250MHz
Channel 58: 5290MHz
Channel 152: 5760MHz
Channel 160: 5800MHz

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 (Turbo):12, 18, 24, 36, 48, 72, 96, 108 Mbps
IEEE802.11a (Normal):6,9,12,18,24,36,48,54 Mbps
2) AUX Antenna, Main Antenna (same type)
*We pre-confirmed the above conditions on EUT and performed the final test with the following conditions;

	IEEE802.11a (Normal/High Band)	IEEE802.11a (Turbo mode)
Conducted emission test	1)Rate:54 Mbps	1)Rate:108 Mbps
	2)AUX Antenna	2)Main Antenna
Radiated emission test	1)Rate:54 Mbps	1)Rate:108 Mbps
	2)AUX Antenna	2)Main Antenna
Other tests	1)Rate:54 Mbps	1)Rate:108 Mbps
	2)Main Antenna	2)Main Antenna

4.2 Configuration and peripherals



■: Ferrite Core (Standard attachment)

* 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: Conducted Emission

Test Procedure

EUT was placed on a platform of nominal size, 1.0m by 1.5m, 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

SECTION 6: Spurious Emission, Band Edge Compliance

[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 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) , 1m(10-26.5GHz, Distance Factor : 20log(3[m]/1[m])) and 0.5m(Upper 26.5GHz, Distance Factor : 20log(3[m]/0.5[m]).
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.

Below 1GHz

The result also satisfied with the general limits specified in section 15.209(a).

Above 1GHz

Inside of the restricted bands (Section 15.205) : Apply to limit in the Section 15.209(a)
Outside of the restricted bands (Section 15.205) : Limit –27dBm EIRP
–17dBm EIRP (5.725-5.825GHz Band Edge)

Frequency	Below 1GHz	Above 1GHz (Inside of the restricted bands)	Above 1GHz (Outside of the restricted bands)
Instrument use	Test Receiver	Spectrum Analyzer	Spectrum Analyzer
Detector IF Bandwidth	QP: BW 120kHz	PK: RBW:1MHz/VBW: 1MHz AV: RBW:1MHz/VBW:10Hz	RBW:1MHz/VBW: 1MHz

Test data : APPENDIX 3
Test result : Pass

*The noise from the EUT was not seen in the above 18GHz. The measurement was made in the residual noise levels.

SECTION 7: 26dB Emission Bandwidth

Test Procedure
The 26dB Emission Bandwidth was measured with a spectrum analyzer connected to the antenna port.

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 8: Peak Transmit Power

Test Procedure
The Peak Transmit 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.
We followed the method 1 specified in DA-02-2138A1.

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 9: Peak Power Spectral Density

Test Procedure
The Peak Power Spectral Density was measured with a spectrum analyzer connected to the antenna port.
We followed the method 2 specified in DA-02-2138A1.

Test data : **APPENDIX 3**
Test result : **Pass**

SECTION 10: Peak Excursion Ratio

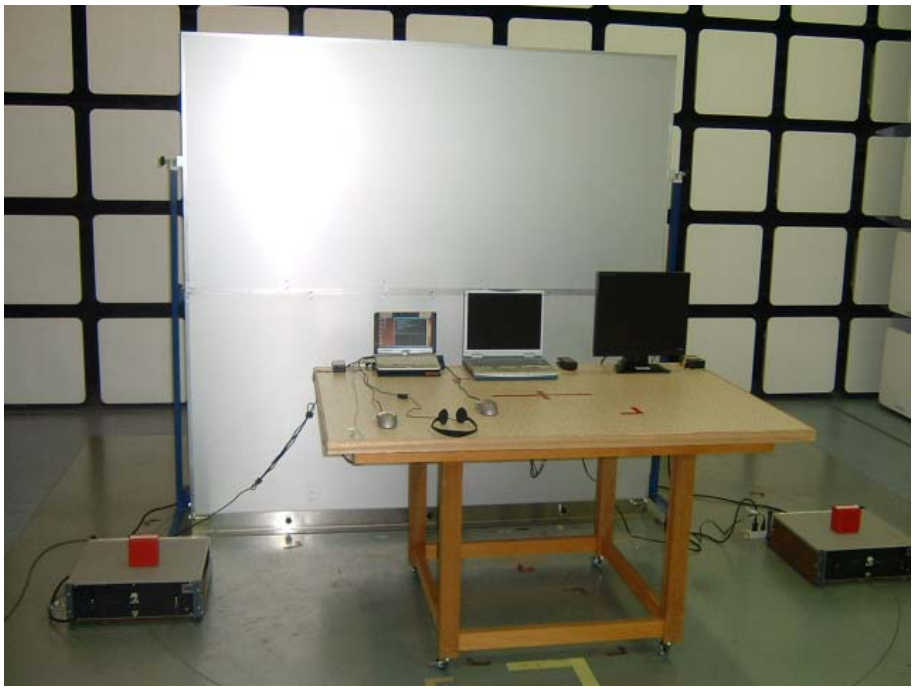
Test Procedure
The Peak Excursion Ratio was measured with a spectrum analyzer connected to the antenna port.
The second Sweep was measured based on Method 1 specified in DA-02-2138A1.

Test data : **APPENDIX 3**
Test result : **Pass**

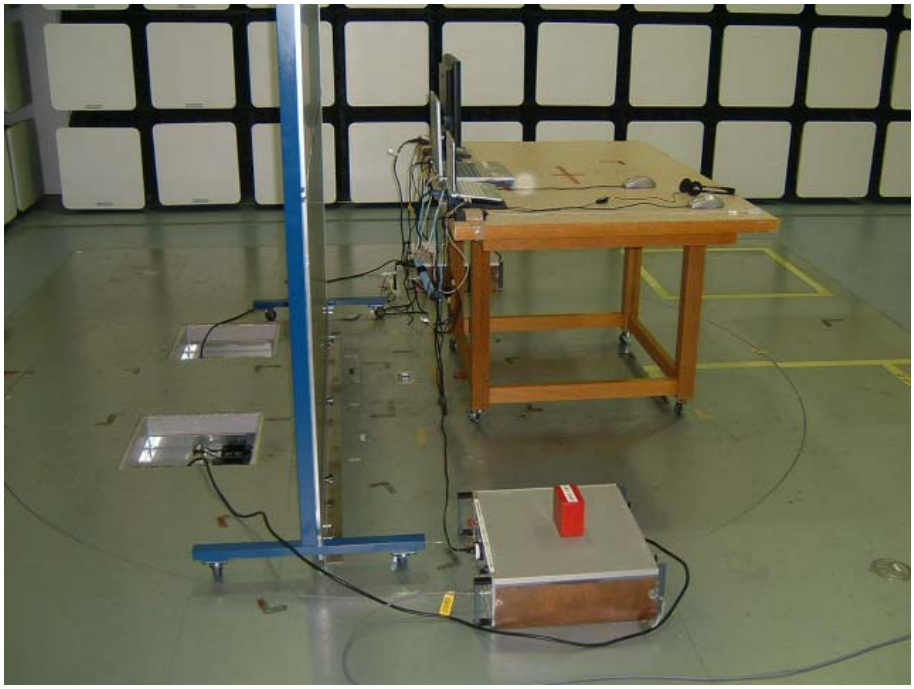
APPENDIX 1: Photographs of test setup

Conducted Emission

Front



Rear



Spurious Emission (Radiated)

Front

Rear

Worst Case Position (Below 1GHz X-axis:Horizontal / X-axis:Vertical)
Worst Case Position (Above 1GHz Z-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 * 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.

CE: Conducted emission,
RE: Radiated emission,
AT: Antenna terminal conducted measurement

APPENDIX 3: Data of EMI test

Conducted Emission

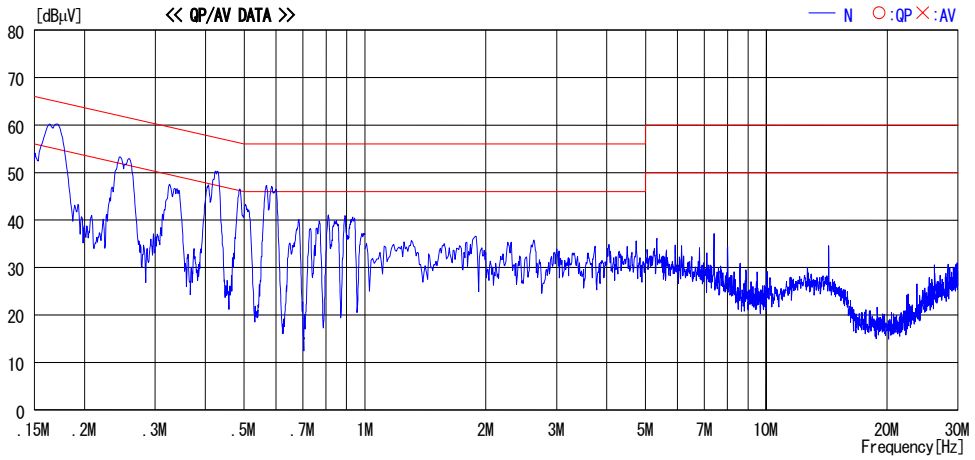
DATA OF CONDUCTED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V / 60Hz
Model No.	: P1510D	Temp°C/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks : IEEE802.11a Tx5180MHz 54Mbps/Aux Antenna

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



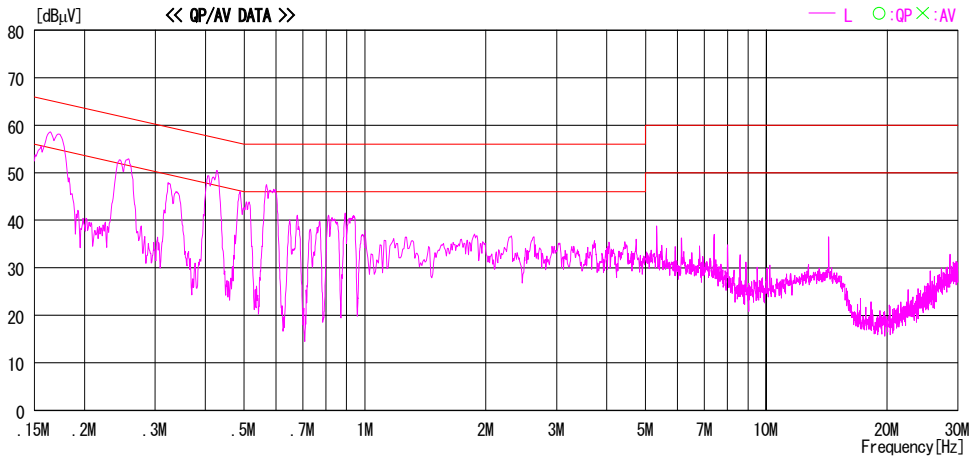


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

DATA OF CONDUCTED EMISSION TEST

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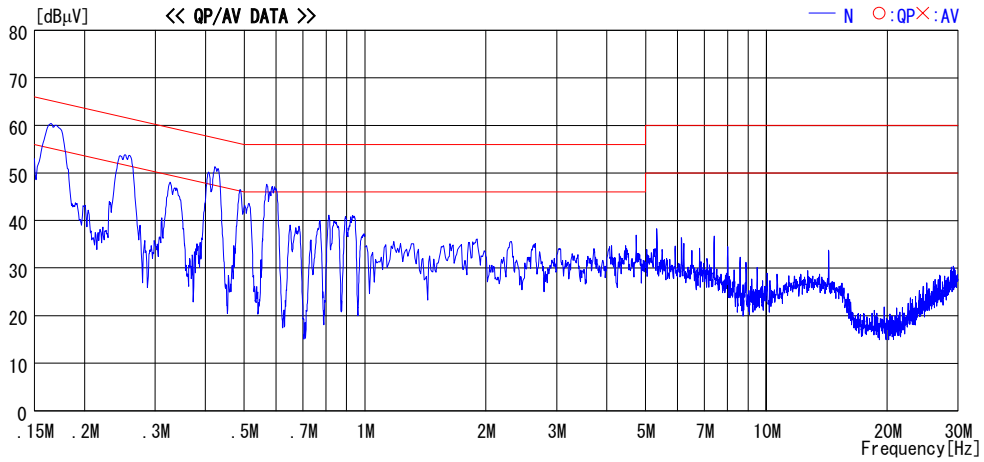
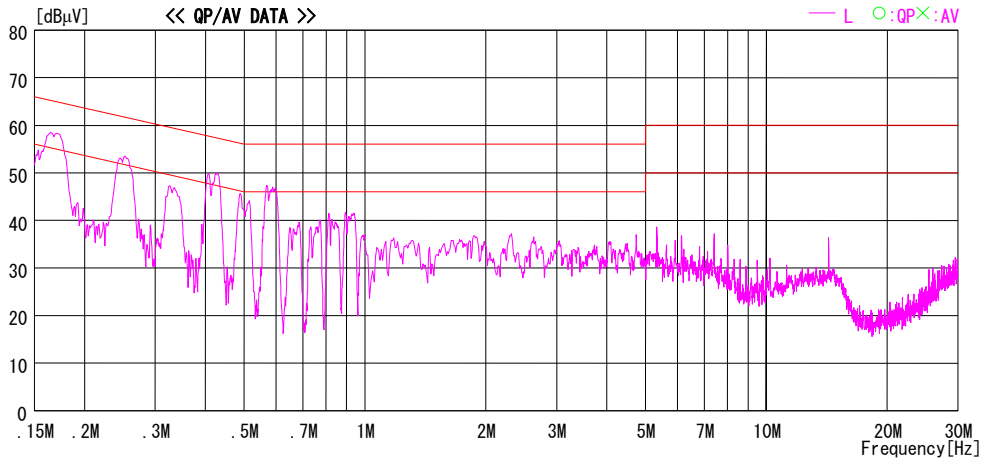
Model No.	: P1510D	Temp℃/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5260MHz 54Mbps/Aux Antenna

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





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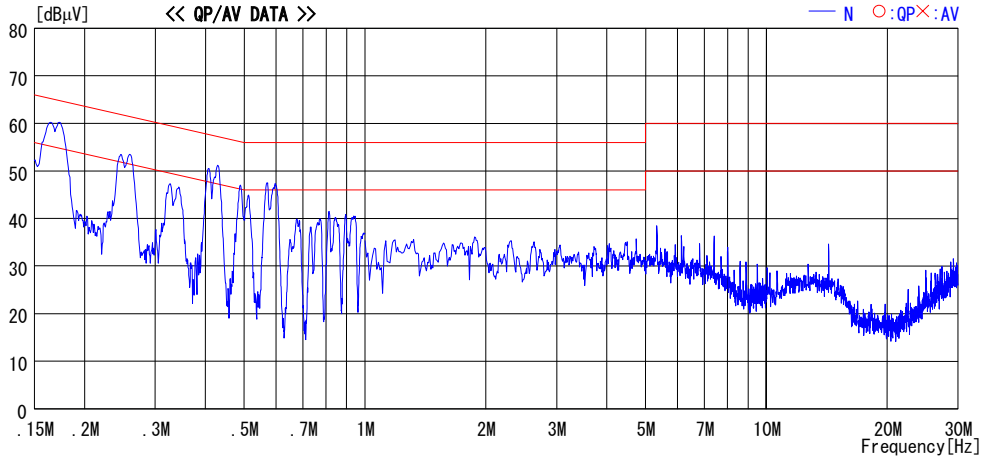
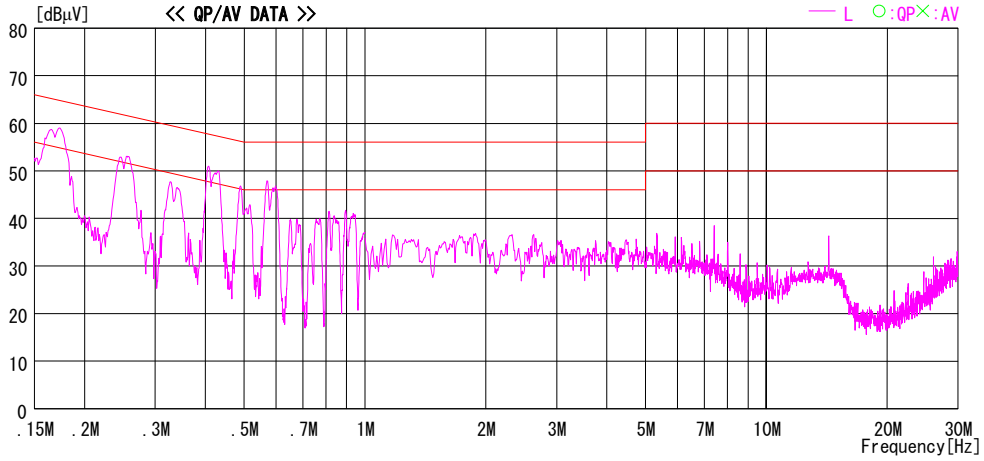
Model No.	: P1510D	Temp℃/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5320MHz 54Mbps/Aux Antenna

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





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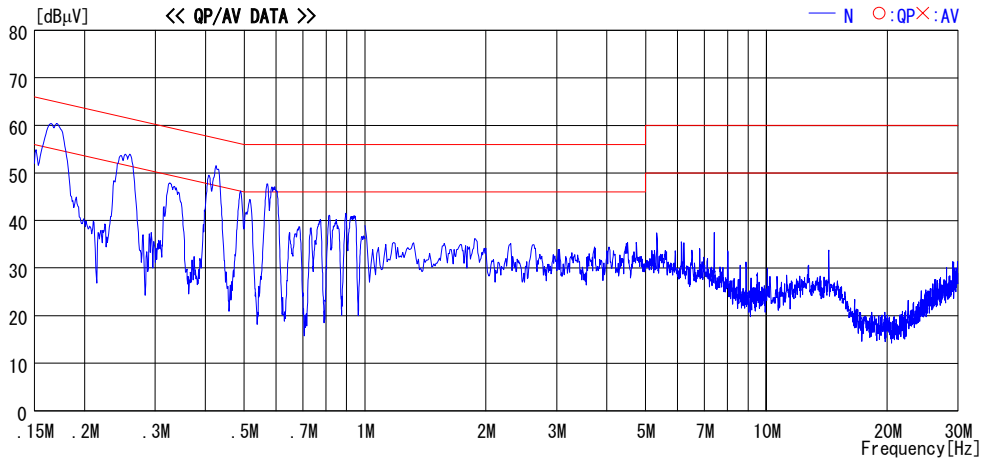
Model No.	: P1510D	Temp℃/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5210MHz Turbo 108Mbps/Aux Antenna

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



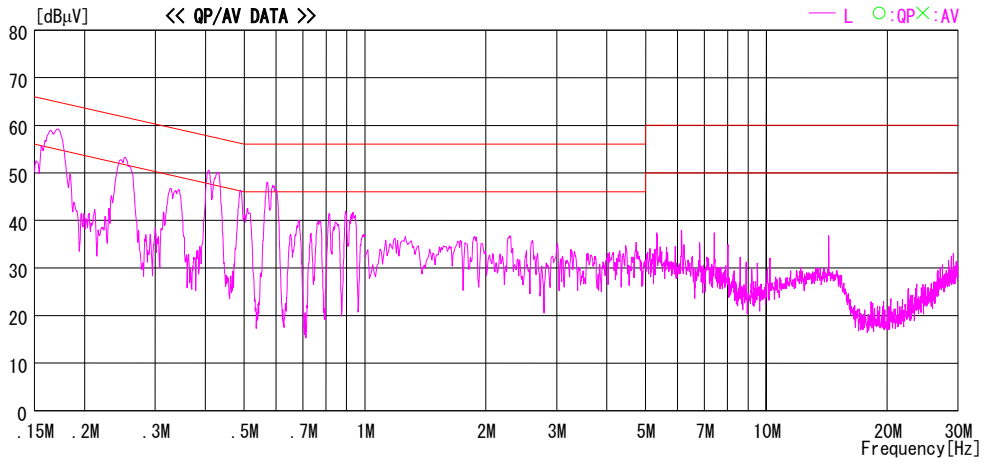


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

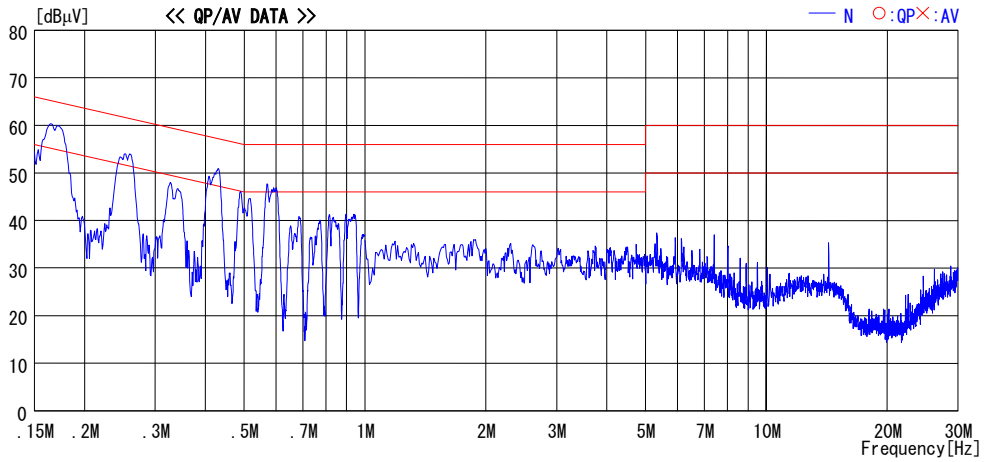
DATA OF CONDUCTED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V / 60Hz
Model No.	: P1510D	Temp℃/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5290MHz Turbo 108Mbps/Aux Antenna

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



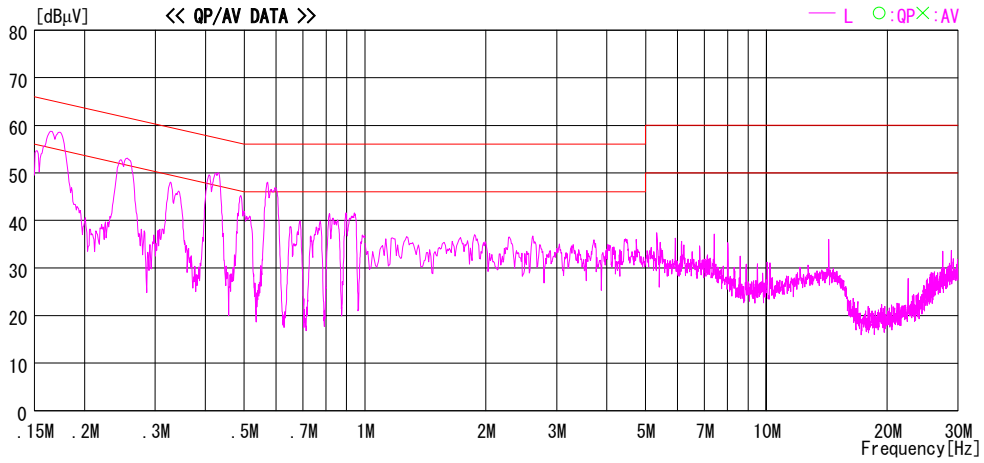


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

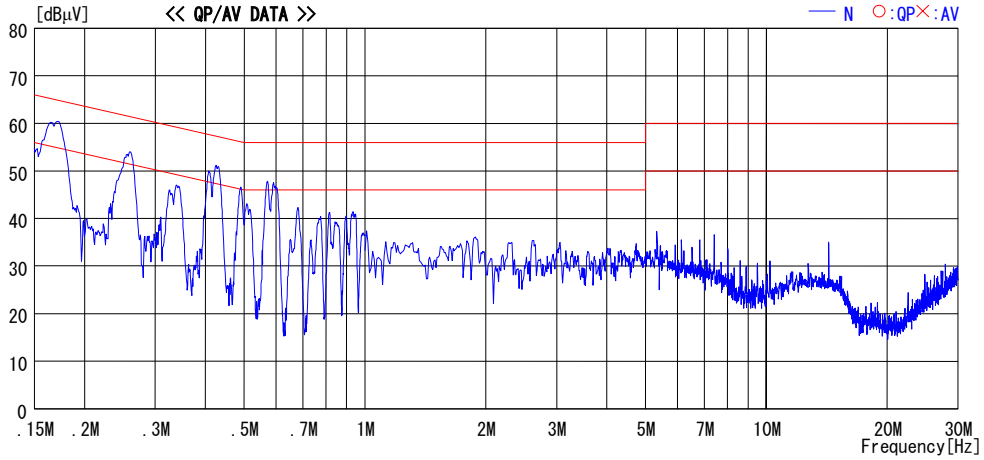
DATA OF CONDUCTED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V / 60Hz
Model No.	: P1510D	Temp℃/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5800MHz Turbo 108Mbps/Aux Antenna

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



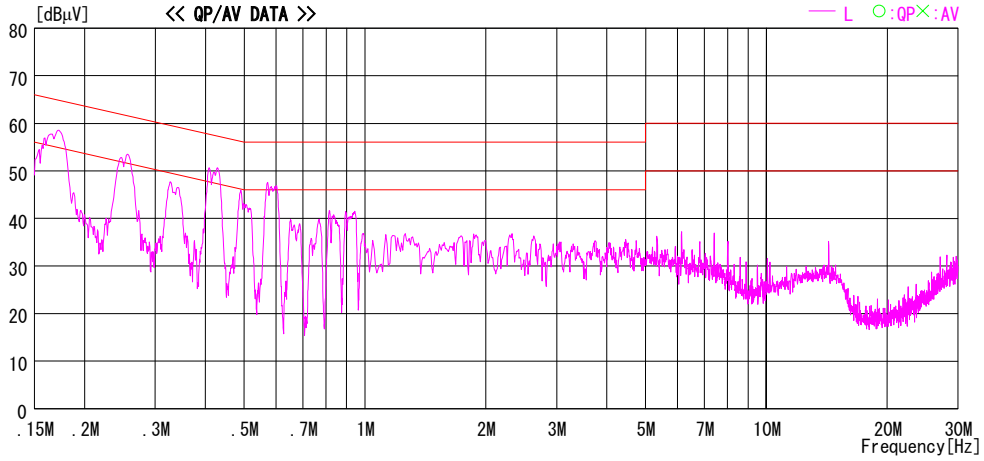


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

DATA OF CONDUCTED EMISSION TEST

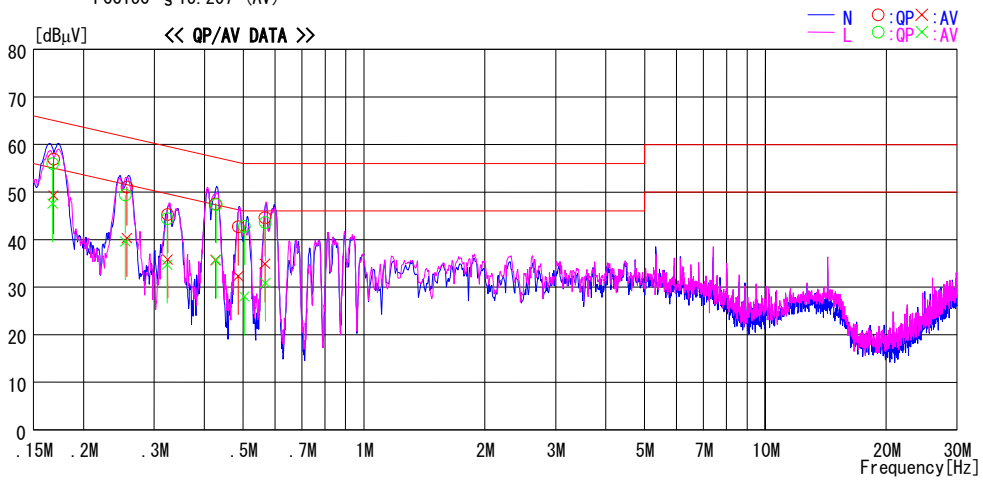
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

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

Report No. : 26AE0214-HO
Power : AC120V / 60Hz
Temp℃/Humi% : 23 deg.C / 72%
Operator : Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5320MHz 54Mbps/Aux Antenna

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



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]	[dB]	
1	0.1684	56.8	49.2	0.1	56.9	49.3	65.0	55.0	8.1	5.7	N
2	0.2564	51.0	40.2	0.1	51.1	40.3	61.5	51.5	10.4	11.2	N
3	0.3242	45.2	35.7	0.1	45.3	35.8	59.6	49.6	14.3	13.8	N
4	0.4268	47.4	35.6	0.1	47.5	35.7	57.3	47.3	9.8	11.6	N
5	0.4860	42.6	32.2	0.1	42.7	32.3	56.2	46.2	13.5	13.9	N
6	0.5665	44.4	34.7	0.2	44.6	34.9	56.0	46.0	11.4	11.1	N
7	0.1677	55.9	47.5	0.1	56.0	47.6	65.1	55.1	9.1	7.5	L
8	0.2541	49.3	39.5	0.1	49.4	39.6	61.6	51.6	12.2	12.0	L
9	0.3231	44.3	34.6	0.1	44.4	34.7	59.6	49.6	15.2	14.9	L
10	0.4282	47.3	35.6	0.1	47.4	35.7	57.3	47.3	9.9	11.6	L
11	0.5033	42.6	27.8	0.2	42.8	28.0	56.0	46.0	13.2	18.0	L
12	0.5676	43.4	30.7	0.2	43.6	30.9	56.0	46.0	12.4	15.1	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.

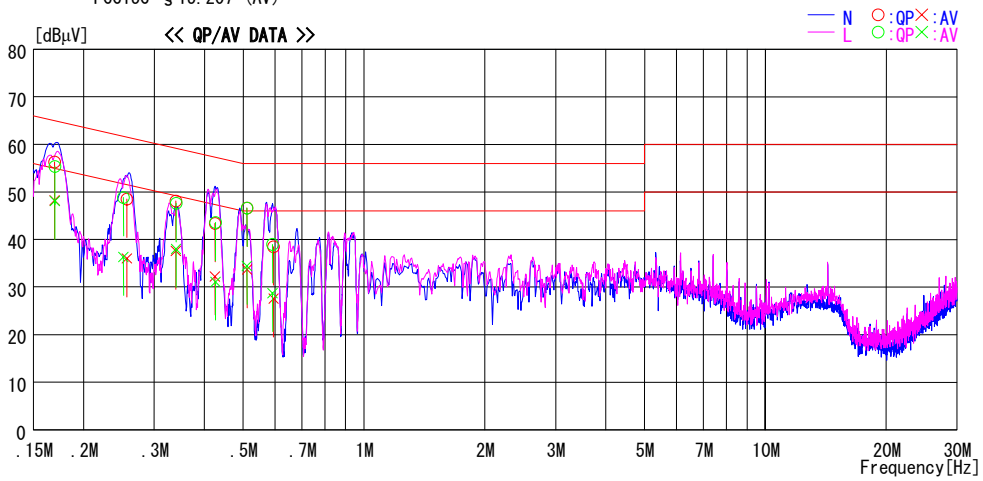
DATA OF CONDUCTED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V / 60Hz
Model No.	: P1510D	Temp℃/Humi%	: 23 deg.C / 72%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks: IEEE802.11a Tx5800MHz Turbo 108Mbps/Aux Antenna

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



NO	FREQ	READING QP	READING AV	C.F	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBμV]	[dBμV]	[dB]	[dBμV]	[dBμV]	[dBμV]	[dBμV]	[dB]		
1	0.1694	56.2	48.1	0.1	56.3	48.2	65.0	55.0	8.7	6.8	N
2	0.2564	48.4	35.9	0.1	48.5	36.0	61.5	51.5	13.0	15.5	N
3	0.3399	48.0	37.5	0.1	48.1	37.6	59.2	49.2	11.1	11.6	N
4	0.4255	43.3	32.1	0.1	43.4	32.2	57.3	47.3	13.9	15.1	N
5	0.5113	46.4	33.5	0.2	46.6	33.7	56.0	46.0	9.4	12.3	N
6	0.5955	38.3	27.4	0.2	38.5	27.6	56.0	46.0	17.5	18.4	N
7	0.1697	55.3	48.0	0.1	55.4	48.1	65.0	55.0	9.6	6.9	L
8	0.2515	48.7	36.2	0.1	48.8	36.3	61.7	51.7	12.9	15.4	L
9	0.3400	47.5	37.9	0.1	47.6	38.0	59.2	49.2	11.6	11.2	L
10	0.4266	43.5	31.0	0.1	43.6	31.1	57.3	47.3	13.7	16.2	L
11	0.5110	46.4	34.2	0.2	46.6	34.4	56.0	46.0	9.4	11.6	L
12	0.5922	38.8	28.5	0.2	39.0	28.7	56.0	46.0	17.0	17.3	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.

26dB Emission Bandwidth

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

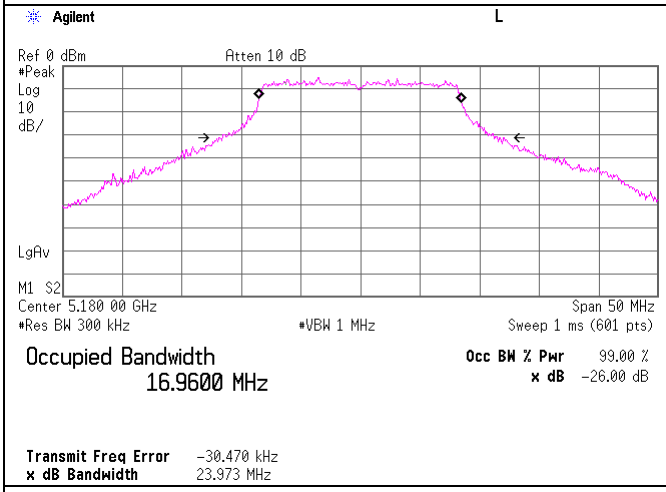
Company	: FUJITSU LIMITED	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: FCC 15.407(a)(1)(2)(3)
Model	: P1510D	TEST DISTANCE	: -
Sample No.	: R5100002	DATE	: 05/30/2005
Power	: AC120V/60Hz	TEMPERATURE	: 23deg.C
Mode	: Tx IEEE 802.11a	HUMIDITY	: 40%
		ENGINEER	: Mitsuru Fujimura

Ch	Freq. [MHz]	26dB Bandwidth [MHz]	Limit [MHz]
36	5180.0	23.973	-
52	5260.0	23.406	-
64	5320.0	23.636	-
Turbo 42	5210.0	43.786	-
Turbo 58	5290.0	43.032	-
Turbo 160	5800.0	42.557	-

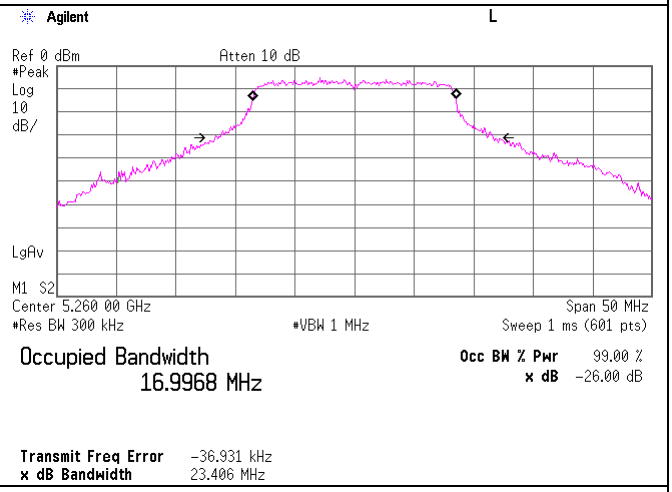
26dB Emission Bandwidth & 99%Occupide Bandwidth

54Mbps Main Antenna

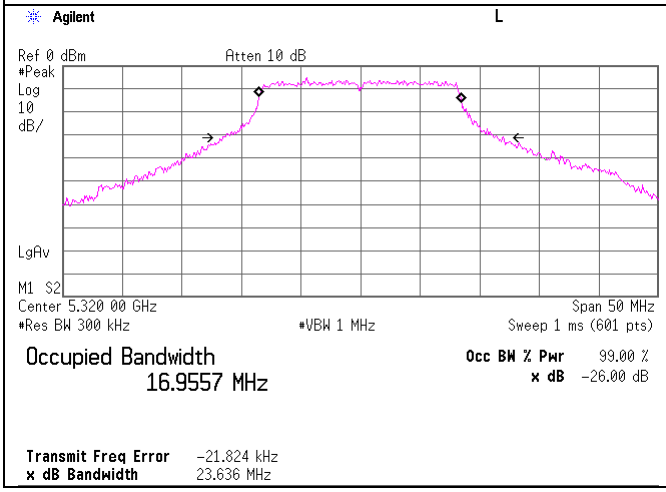
Ch:36



Ch:52

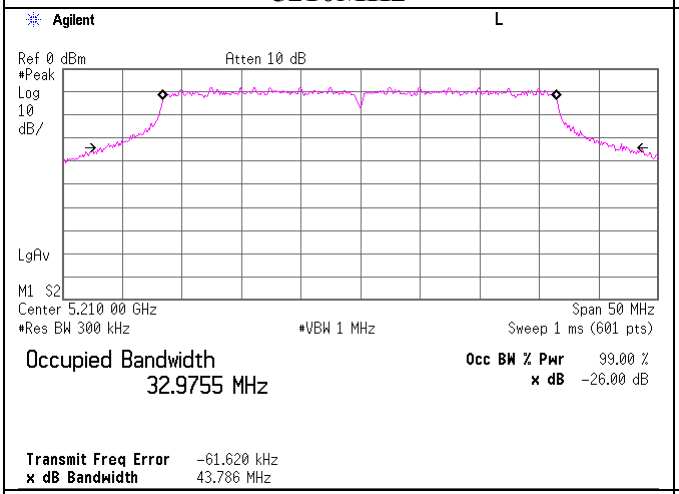


Ch:64

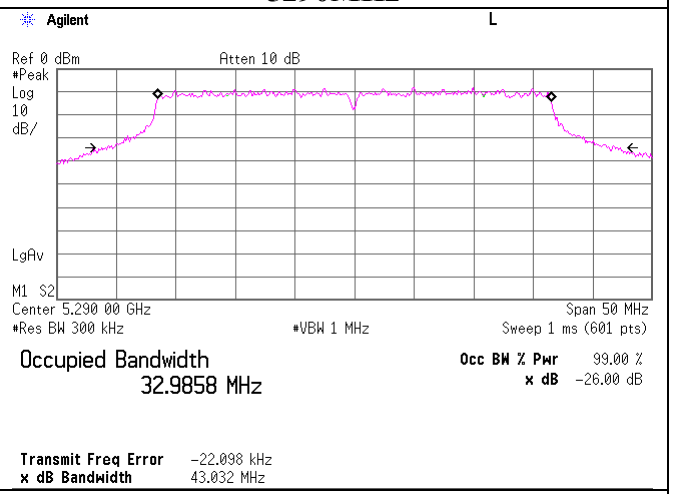


108Mbps Main Antenna Turbo Mode

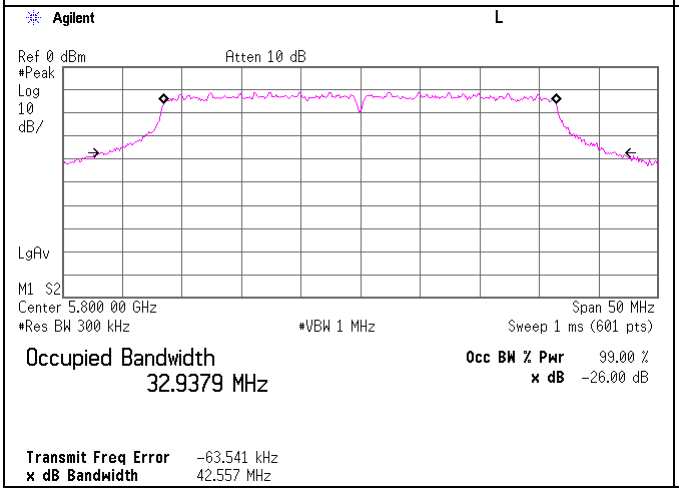
5210MHz



5290MHz



5800MHz



Peak Transmit Power
Main Antenna

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

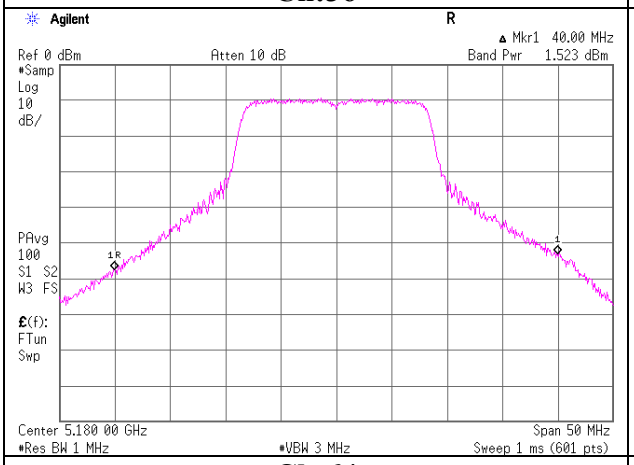
Company	: FUJITSU LIMITED	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: FCC 15.407(a)(1)(2)(3)
Model	: P1510D	TEST DISTANCE	: -
Sample No.	: R5100002	DATE	: 04/28/2005
Power	: AC120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: Tx IEEE 802.11a	HUMIDITY	: 35%
	: Main Antenna Continuous Transmitting	ENGINEER	: Mitsuru Fujimura

[IEEE802.11a 5150-5350MHz: 54Mbps(Turbo 108Mbps) Main Antenna]

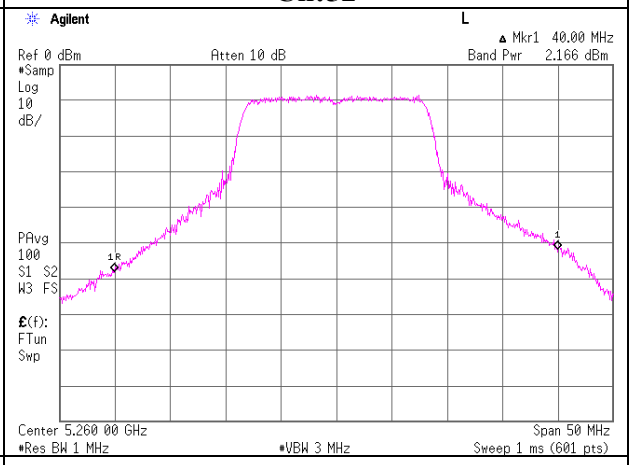
Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
36	5180.0	1.52	0.94	10.00	12.46	17.00	4.54
52	5260.0	2.17	1.11	10.00	13.28	17.00	3.72
64	5320.0	1.99	1.04	10.00	13.03	24.00	10.97
Turbo 5210.0MHz (108Mbps)		2.40	0.94	10.00	13.34	17.00	3.66
Turbo 5250.0MHz (108Mbps)		2.16	1.07	10.00	13.23	17.00	3.77
Turbo 5290.0MHz (108Mbps)		2.15	1.18	10.00	13.33	24.00	10.67
Turbo 5760MHz (108Mbps)		-0.93	1.15	10.00	10.22	24.00	13.78
Turbo 5800.0MHz (108Mbps)		-1.72	1.17	10.00	9.45	30.00	20.55

Peak Transmit Power
Main Antenna, 54Mbps

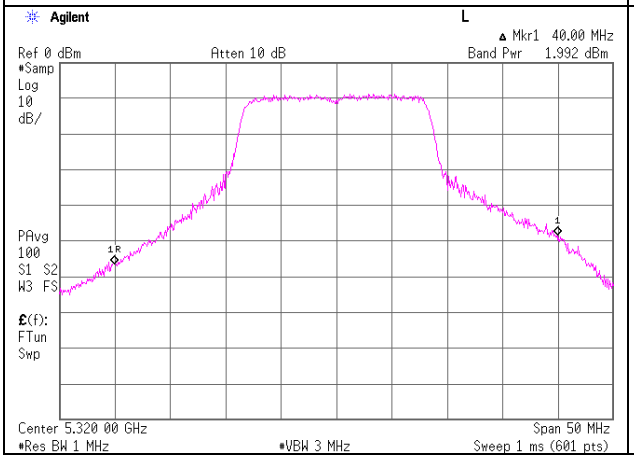
Ch:36



Ch:52

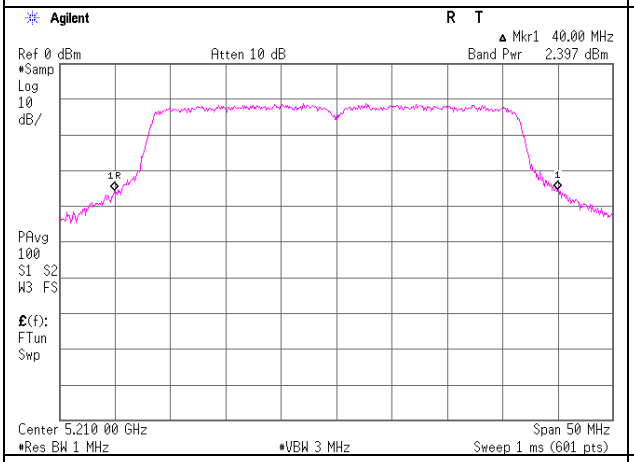


Ch:64

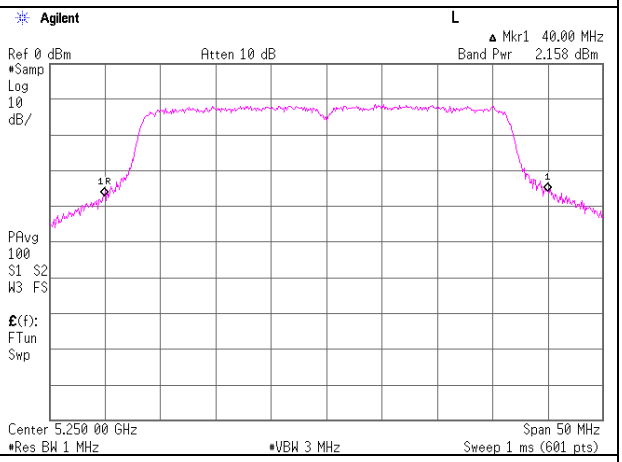


Peak Transmit Power
Main Antenna, 108Mbps Turbo Mode

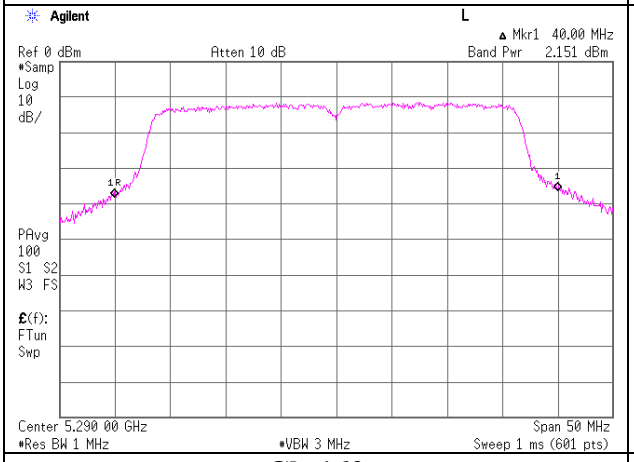
Ch:42



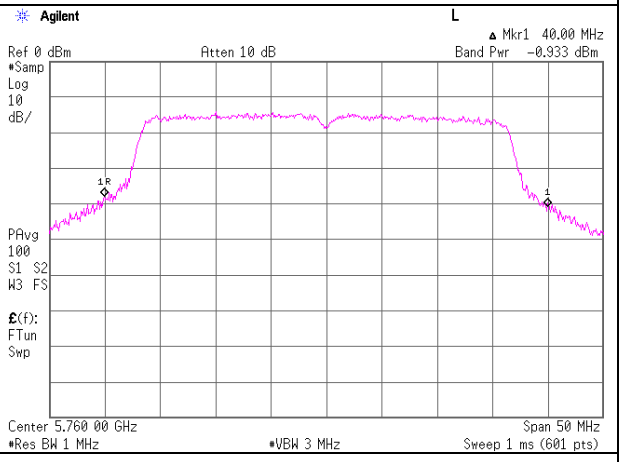
Ch:50



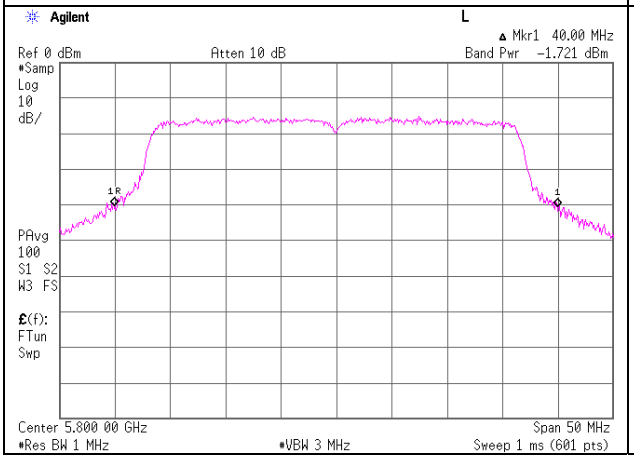
Ch:58



Ch:152



Ch:160



Peak Transmit Power
AUX Antenna

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

Company	: FUJITSU LIMITED	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: FCC 15.407(a)(1)(2)(3)
Model	: P1510D	TEST DISTANCE	: -
Sample No.	: R5100002	DATE	: 04/28/2005
Power	: AC120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: Tx IEEE 802.11a	HUMIDITY	: 35%
	: Aux Antenna Continuous Transmitting	ENGINEER	: Mitsuru Fujimura

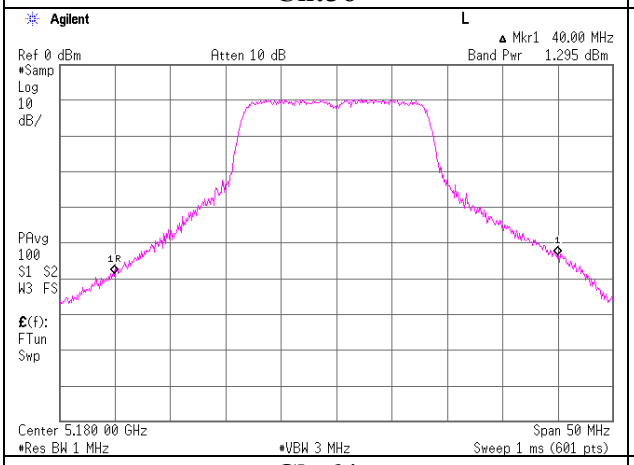
[IEEE802.11a 5150-5350MHz: 54Mbps(Turbo 108Mbps) Aux Antenna]

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
36	5180.0	1.30	0.94	10.00	12.24	17.00	4.76
52	5260.0	1.75	1.11	10.00	12.86	17.00	4.14
64	5320.0	1.18	1.04	10.00	12.22	24.00	11.78
Turbo 5210.0MHz (108Mbps)		2.07	0.94	10.00	13.01	17.00	3.99
Turbo 5250.0MHz (108Mbps)		1.91	1.07	10.00	12.98	17.00	4.02
Turbo 5290.0MHz (108Mbps)		1.74	1.18	10.00	12.92	24.00	11.08
Turbo 5760MHz (108Mbps)		-0.72	1.15	10.00	10.43	24.00	13.57
Turbo 5800.0MHz (108Mbps)		-1.33	1.17	10.00	9.84	30.00	20.16

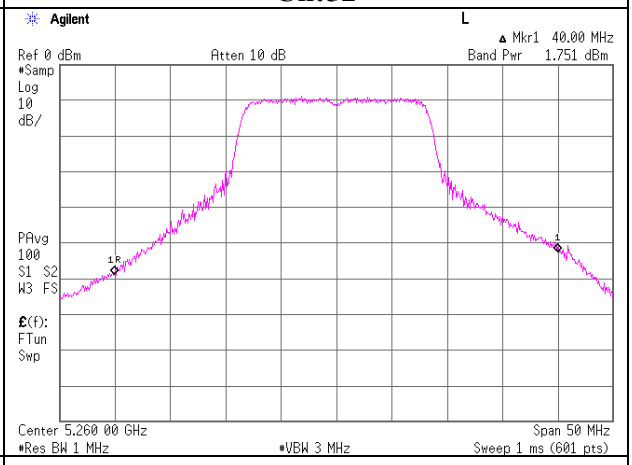
Peak Transmit Power

AUX antenna, 54Mbps

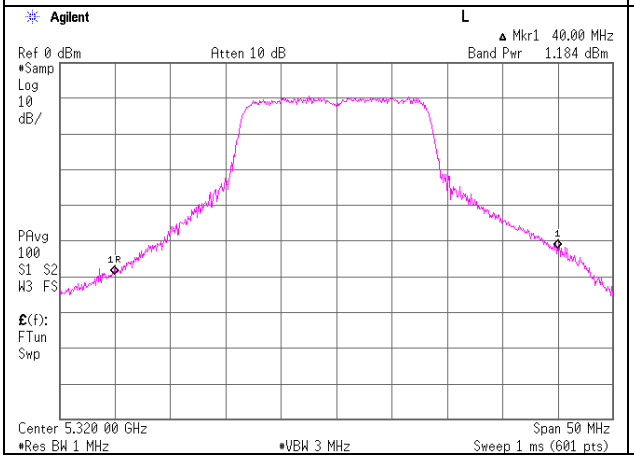
Ch:36



Ch:52

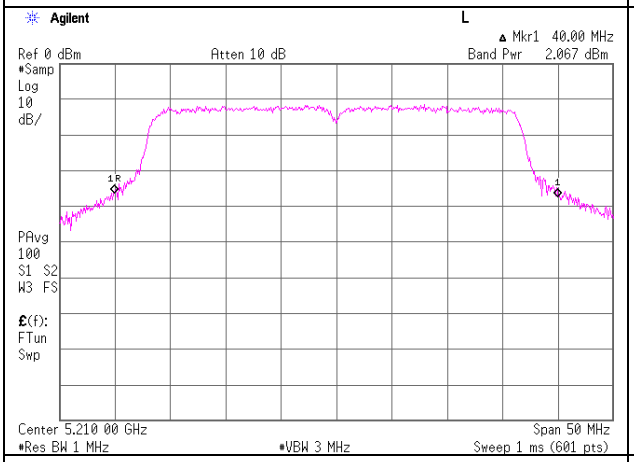


Ch:64

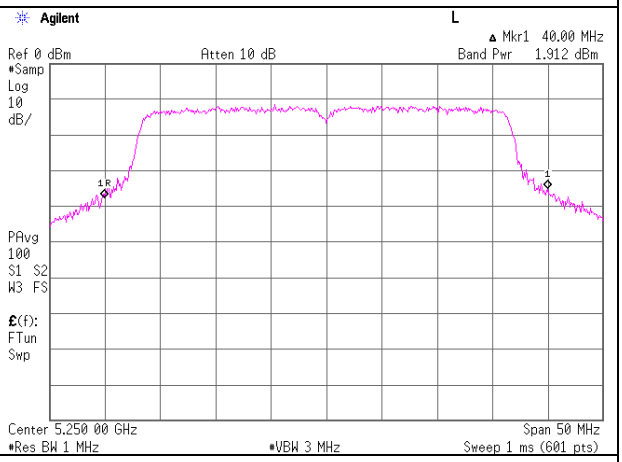


Peak Transmit Power
AUX Antenna, 108Mbps Turbo Mode

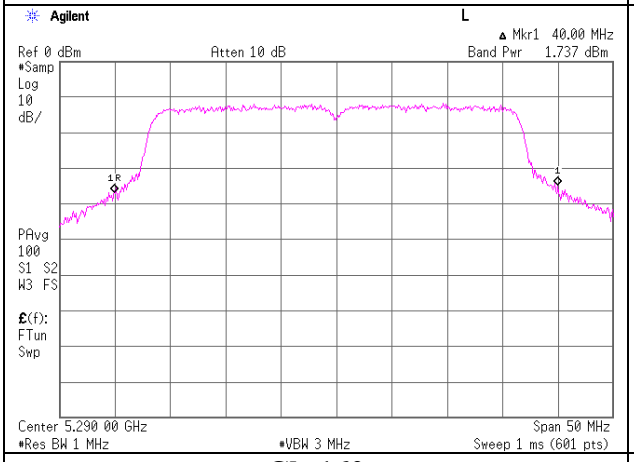
Ch:42



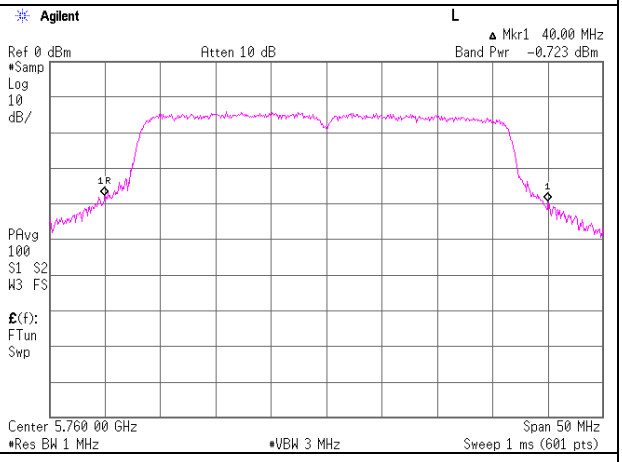
Ch:50



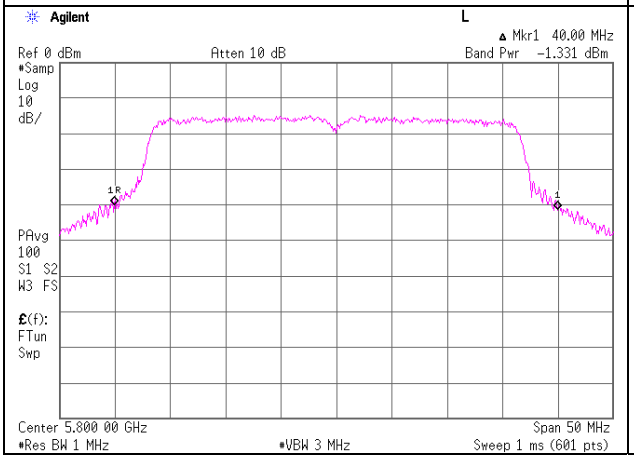
Ch:58



Ch:152



Ch:160



Peak Transmit Power

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

Company	: Fujitsu General EMC Laboratory Limited	REPORT NO	: 26AE0214-HO
Equipment	: Personal computer	REGULATION	: FCC 15.407(a)(1)(2)(3)
Model	: P1510D	TEST DISTANCE	: -
Sample No.	: R5100002	DATE	: 04/28/2005
Power	: AC120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: Tx IEEE 802.11a	HUMIDITY	: 35%
	: Continuous Transmitting	ENGINEER	: Mitsuru Fujimura

[IEEE802.11a 5150-5350MHz : Main Antenna]

Ch	Data rate [Mbps]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Converted [mW]
52	BPSK 6	2.00	1.11	10.00	13.11	20.46
52	BPSK 9	2.01	1.11	10.00	13.12	20.51
52	QPSK 12	2.13	1.11	10.00	13.24	21.09
52	QPSK 18	2.13	1.11	10.00	13.24	21.09
52	16QAM 24	2.07	1.11	10.00	13.18	20.80
52	16QAM 36	2.09	1.11	10.00	13.20	20.89
52	64QAM 48	2.00	1.11	10.00	13.11	20.46
52	64QAM 54	2.17	1.11	10.00	13.28	21.28

[IEEE802.11a 5150-5350MHz: Aux Antenna]

Ch	Data rate [Mbps]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Converted [mW]
52	BPSK 6	1.65	1.11	10.00	12.76	18.88
52	BPSK 9	1.71	1.11	10.00	12.82	19.14
52	QPSK 12	1.72	1.11	10.00	12.83	19.19
52	QPSK 18	1.68	1.11	10.00	12.79	19.01
52	16QAM 24	1.72	1.11	10.00	12.83	19.19
52	16QAM 36	1.73	1.11	10.00	12.84	19.22
52	64QAM 48	1.65	1.11	10.00	12.76	18.88
52	64QAM 54	1.75	1.11	10.00	12.86	19.32

[IEEE802.11a 5150-5350MHz: Main Antenna(9Mbps)]

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Converted [mW]
36	5180.0	1.39	0.94	10.00	12.33	17.12
52	5260.0	2.01	1.11	10.00	13.12	20.51
64	5320.0	1.87	1.04	10.00	12.91	19.54

[IEEE802.11a 5150-5350MHz: Main Antenna(18Mbps[9*2])]

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Converted [mW]
Turbo 5210MHz (18Mbps[9*2])	2.37	0.94	10.00	13.31	21.43
Turbo 5250MHz (18Mbps[9*2])	2.08	1.07	10.00	13.15	20.65
Turbo 5290MHz (18Mbps[9*2])	2.12	1.18	10.00	13.30	21.36

[IEEE802.11a 5725-5850MHz: Aux Antenna(18Mbps[9*2])]

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Converted [mW]
Turbo 5760MHz (18Mbps[9*2])	-0.74	1.15	10.00	10.41	10.99
Turbo 5800MHz (18Mbps[9*2])	-1.31	1.17	10.00	9.86	9.68

Radiated Spurious Emission (below 1GHz)

DATA OF RADIATED EMISSION TEST

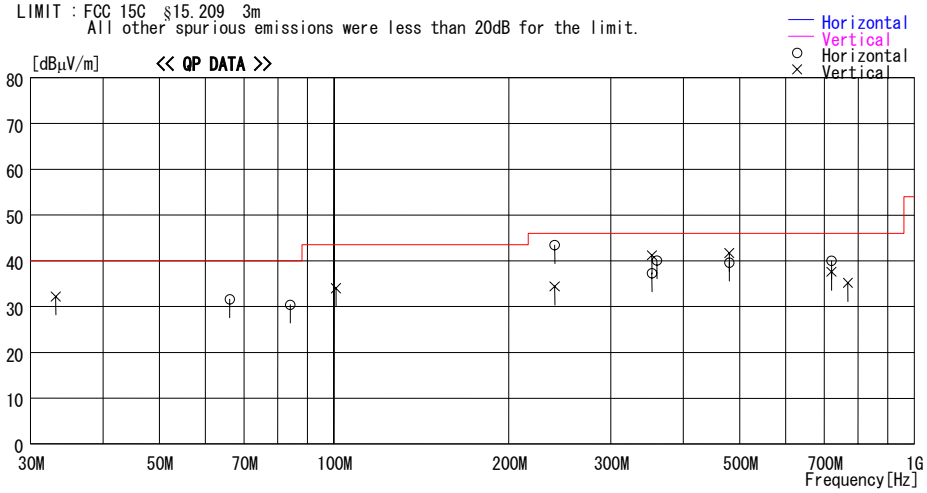
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

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

Report No. : 26AE0214-HO
Power : AC120V/60Hz (AC Adaptor)
Temp./Humi. : 25deg.C / 51%
Operator : Mitsuru Fujimura

Mode / Remarks : 11a Tx5180MHz 54Mbps/Aux Antenna/Hor X Ver X(MAXAxis)

LIMIT : FCC 15C §15.209 3m
All other spurious emissions were less than 20dB for the limit.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	66.052	45.7	7.4	6.3	27.8	31.6	40.0	8.4	400	360
2	84.057	44.2	7.4	6.5	27.7	30.4	40.0	9.6	230	101
3	240.012	45.6	17.1	7.6	26.9	43.4	46.0	2.6	143	70
4	352.806	39.5	16.8	8.1	27.1	37.3	46.0	8.7	100	65
5	360.012	42.1	17.1	8.1	27.2	40.1	46.0	5.9	100	338
6	480.010	40.3	18.8	8.5	28.0	39.6	46.0	6.4	100	110
7	720.013	37.7	20.8	9.7	28.2	40.0	46.0	6.0	100	35
----- Vertical ------										
8	33.136	36.6	17.4	6.0	27.8	32.2	40.0	7.8	100	360
9	100.808	44.4	10.5	6.7	27.6	34.0	43.5	9.5	100	-1
10	240.011	36.6	17.1	7.6	26.9	34.4	46.0	11.6	100	306
11	352.800	43.4	16.8	8.1	27.1	41.2	46.0	4.8	139	343
12	480.012	42.4	18.8	8.5	28.0	41.7	46.0	4.3	100	207
13	720.015	35.3	20.8	9.7	28.2	37.6	46.0	8.4	153	315
14	768.012	32.1	21.5	9.7	28.1	35.2	46.0	10.8	100	345

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:

DATA OF RADIATED EMISSION TEST

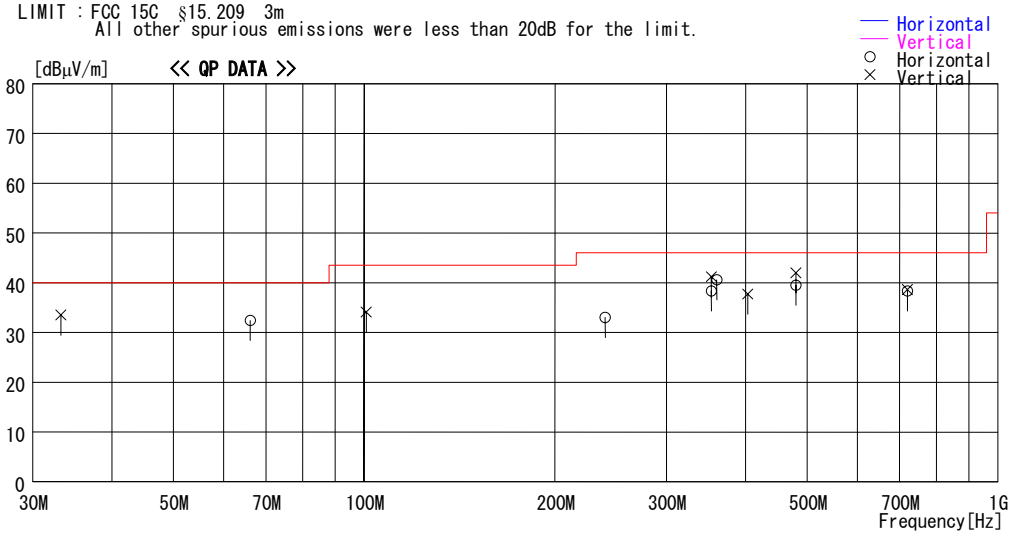
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

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

Report No. : 26AE0214-HO
Power : AC120V/60Hz (AC Adaptor)
Temp./Humi. : 25deg.C / 51%
Operator : Mitsuru Fujimura

Mode / Remarks: 11a Tx5260MHz 54Mbps/Aux Antenna/Hor X Ver X(MAXAxis)

LIMIT : FCC 15C §15.209 3m
All other spurious emissions were less than 20dB for the limit.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	66.061	46.5	7.4	6.3	27.8	32.4	40.0	7.6	400	360
2	240.010	35.2	17.1	7.6	26.9	33.0	46.0	13.0	359	185
3	352.803	40.5	16.8	8.1	27.1	38.3	46.0	7.7	100	338
4	360.013	42.6	17.1	8.1	27.2	40.6	46.0	5.4	100	346
5	480.011	40.2	18.8	8.5	28.0	39.5	46.0	6.5	100	106
6	720.013	36.0	20.8	9.7	28.2	38.3	46.0	7.7	100	33
----- Vertical ------										
7	33.232	37.9	17.4	6.0	27.8	33.5	40.0	6.5	100	-1
8	100.809	44.5	10.5	6.7	27.6	34.1	43.5	9.4	100	360
9	352.809	43.4	16.8	8.1	27.1	41.2	46.0	4.8	133	345
10	403.207	38.3	18.6	8.3	27.5	37.7	46.0	8.3	131	190
11	480.011	42.7	18.8	8.5	28.0	42.0	46.0	4.0	100	203
12	720.012	36.3	20.8	9.7	28.2	38.6	46.0	7.4	100	348

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:

DATA OF RADIATED EMISSION TEST

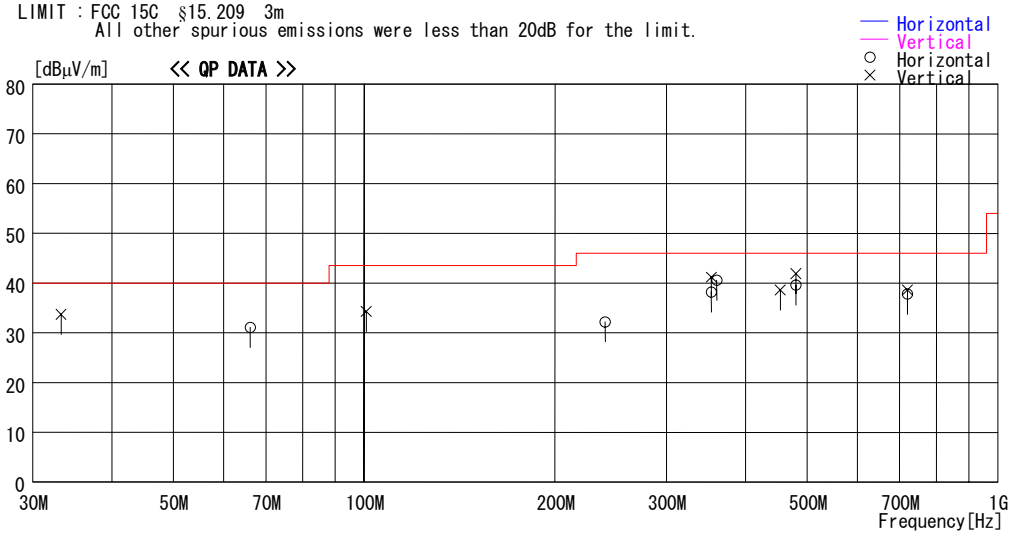
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

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

Report No. : 26AE0214-HO
Power : AC120V/60Hz (AC Adaptor)
Temp./Humi. : 25deg.C / 51%
Operator : Mitsuru Fujimura

Mode / Remarks: 11a Tx5320MHz 54Mbps/Aux Antenna/Hor X Ver X(MAXAxis)

LIMIT : FCC 15C §15.209 3m
All other spurious emissions were less than 20dB for the limit.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	66.076	45.2	7.4	6.3	27.8	31.1	40.0	8.9	400	-1
2	240.009	34.4	17.1	7.6	26.9	32.2	46.0	13.8	355	188
3	352.809	40.4	16.8	8.1	27.1	38.2	46.0	7.8	100	333
4	360.009	42.6	17.1	8.1	27.2	40.6	46.0	5.4	100	339
5	480.007	40.3	18.8	8.5	28.0	39.6	46.0	6.4	100	106
6	720.015	35.5	20.8	9.7	28.2	37.8	46.0	8.2	100	32
----- Vertical ------										
7	33.243	38.1	17.4	6.0	27.8	33.7	40.0	6.3	100	360
8	100.807	44.7	10.5	6.7	27.6	34.3	43.5	9.2	100	-1
9	352.808	43.4	16.8	8.1	27.1	41.2	46.0	4.8	141	349
10	453.608	39.1	18.8	8.6	27.9	38.6	46.0	7.4	118	196
11	480.010	42.6	18.8	8.5	28.0	41.9	46.0	4.1	100	213
12	720.011	36.3	20.8	9.7	28.2	38.6	46.0	7.4	100	360

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:

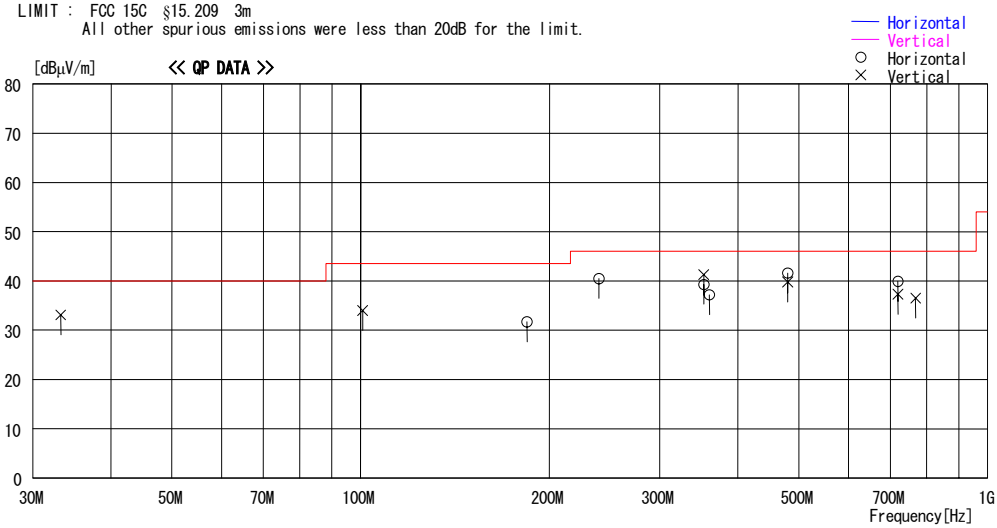
DATA OF RADIATED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V/60Hz (AC Adaptor)
Model No.	: P1510D	Temp./Humi.	: 25deg.C / 51%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks : 11a Tx5210MHz Turbo 108Mbps/Aux Antenna/Hor X Ver X(MAXAxis)

LIMIT : FCC 15C §15.209 3m
All other spurious emissions were less than 20dB for the limit.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	184.334	34.7	16.9	7.3	27.2	31.7	43.5	11.8	180	104
2	240.010	42.7	17.1	7.6	26.9	40.5	46.0	5.5	143	72
3	352.810	41.5	16.8	8.1	27.1	39.3	46.0	6.7	100	310
4	360.014	39.2	17.1	8.1	27.2	37.2	46.0	8.8	100	128
5	480.014	42.3	18.8	8.5	28.0	41.6	46.0	4.4	100	103
6	720.013	37.6	20.8	9.7	28.2	39.9	46.0	6.1	100	42
----- Vertical ------										
7	33.251	37.5	17.4	6.0	27.8	33.1	40.0	6.9	100	360
8	100.806	44.4	10.5	6.7	27.6	34.0	43.5	9.5	100	-1
9	352.809	43.5	16.8	8.1	27.1	41.3	46.0	4.7	132	293
10	480.011	40.5	18.8	8.5	28.0	39.8	46.0	6.2	134	195
11	720.013	35.0	20.8	9.7	28.2	37.3	46.0	8.7	129	171
12	768.015	33.4	21.5	9.7	28.1	36.5	46.0	9.5	142	146

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:

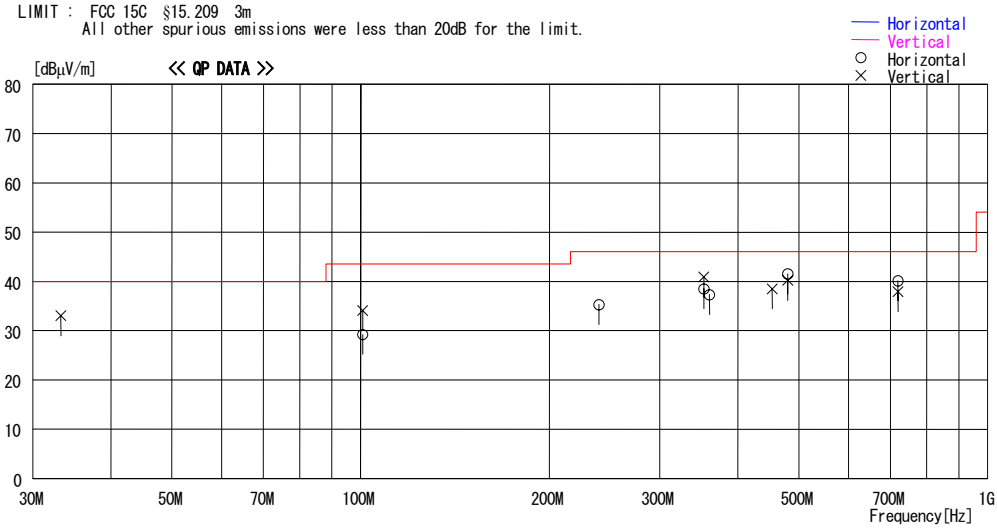
DATA OF RADIATED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V/60Hz (AC Adaptor)
Model No.	: P1510D	Temp./Humi.	: 25deg.C / 51%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks : 11a Tx5290MHz Turbo 108Mbps/Aux Antenna/Hor X Ver X(MAXAxis)

LIMIT : FCC 15C §15.209 3m
All other spurious emissions were less than 20dB for the limit.



No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	100.805	39.6	10.5	6.7	27.6	29.2	43.5	14.3	281	69
2	240.008	37.5	17.1	7.6	26.9	35.3	46.0	10.7	148	28
3	352.809	40.7	16.8	8.1	27.1	38.5	46.0	7.5	100	228
4	360.011	39.3	17.1	8.1	27.2	37.3	46.0	8.7	100	130
5	480.009	42.2	18.8	8.5	28.0	41.5	46.0	4.5	100	102
6	720.011	37.8	20.8	9.7	28.2	40.1	46.0	5.9	100	41
----- Vertical ------										
7	33.259	37.4	17.4	6.0	27.8	33.0	40.0	7.0	100	360
8	100.806	44.5	10.5	6.7	27.6	34.1	43.5	9.4	100	1
9	352.809	43.1	16.8	8.1	27.1	40.9	46.0	5.1	148	293
10	453.606	39.0	18.8	8.6	27.9	38.5	46.0	7.5	120	-1
11	480.011	40.9	18.8	8.5	28.0	40.2	46.0	5.8	136	189
12	720.012	35.6	20.8	9.7	28.2	37.9	46.0	8.1	141	162

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:

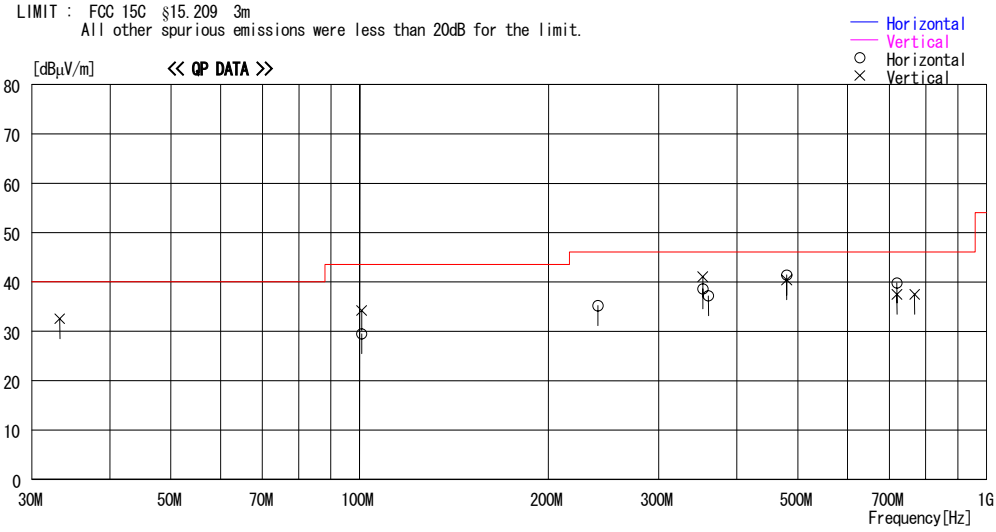
DATA OF RADIATED EMISSION TEST

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

Applicant	: Fujitsu Limited	Report No.	: 26AE0214-HO
Kind of EUT	: Personal Computer	Power	: AC120V/60Hz (AC Adaptor)
Model No.	: P1510D	Temp./Humi.	: 25deg.C / 51%
Serial No.	: R5100002	Operator	: Mitsuru Fujimura

Mode / Remarks : 11a Tx5800MHz Turbo 108Mbps/Aux Antenna/Hor X Ver X(MAXAxis)

LIMIT : FCC 15C §15.209 3m
All other spurious emissions were less than 20dB for the limit.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	100.807	39.9	10.5	6.7	27.6	29.5	43.5	14.0	294	76
2	240.010	37.4	17.1	7.6	26.9	35.2	46.0	10.8	356	18
3	352.808	40.8	16.8	8.1	27.1	38.6	46.0	7.4	100	227
4	360.007	39.2	17.1	8.1	27.2	37.2	46.0	8.8	100	134
5	480.010	42.1	18.8	8.5	28.0	41.4	46.0	4.6	100	104
6	720.010	37.5	20.8	9.7	28.2	39.8	46.0	6.2	100	42
----- Vertical -----										
7	33.250	36.9	17.4	6.0	27.8	32.5	40.0	7.5	114	137
8	100.809	44.6	10.5	6.7	27.6	34.2	43.5	9.3	100	56
9	352.808	43.2	16.8	8.1	27.1	41.0	46.0	5.0	135	290
10	480.010	41.1	18.8	8.5	28.0	40.4	46.0	5.6	139	190
11	720.011	35.2	20.8	9.7	28.2	37.5	46.0	8.5	140	161
12	768.012	34.4	21.5	9.7	28.1	37.5	46.0	8.5	141	151

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 (above 1GHz)

DATA OF SPURIOUS EMISSIONS(1GHz to 40GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)
Model	: P1510D	TEST DISTANCE	: 3/1m
Sample No.	: R5100002	DATE	: 27/05/20 : 31/05/20 : 29/05/2005
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C : 25deg.C : 24deg.C
Mode	: W-LAN IEEE802.11a, Tx 5180MHz	HUMIDITY	: 53% : 37% : 49%
Remarks	: Hor Z-axis, Ver X-axis	ENGINEER	: Mitsuru Fujimura : Keiichi Aoki
	:Antenna Aux, 54Mbps		

Inside of the restricted band

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	1108.8	56.5	54.6	22.9	36.9	2.5	0.0	45.0	43.1	74.0	29.0	30.9
2	5150.0	43.1	45.4	36.2	35.9	5.4	0.0	48.8	51.1	74.0	25.2	22.9
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
3*	10358.7	47.8	49.2	36.8	39.6	5.9	0.9	42.3	43.7	74.0	31.7	30.3
4	15537.5	60.5	61.9	40.4	40.8	7.0	0.7	58.3	59.7	74.0	15.7	14.3
5	20720.0	44.5	44.6	40.4	35.8	8.1	0.0	47.7	47.8	74.0	26.3	26.2
6*	25900.0	47.9	48.8	40.7	38.1	9.4	0.0	50.4	51.3	74.0	23.6	22.7
7*	31080.0	43.6	43.8	42.1	25.0	1.2	0.0	52.4	52.6	74.0	21.6	21.4
8*	36260.0	53.3	53.6	42.5	23.9	-0.4	0.0	62.0	62.3	74.0	12.0	11.7

*

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	1108.8	49.4	48.9	22.9	36.9	2.5	0.0	37.9	37.4	54.0	16.1	16.6
2	5150.0	30.5	31.5	36.2	35.9	5.4	0.0	36.2	37.2	54.0	17.8	16.8
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
3*	10358.7	34.3	36.6	36.8	39.6	5.9	0.9	28.8	31.1	54.0	25.2	22.9
4	15537.5	46.7	48.0	40.4	40.8	7.0	0.7	44.5	45.8	54.0	9.5	8.2
5	20720.0	31.4	31.4	40.4	35.8	8.1	0.0	34.6	34.6	54.0	19.4	19.4
6*	25900.0	34.9	34.9	40.7	38.1	9.4	0.0	37.4	37.4	54.0	16.6	16.6
7*	31080.0	30.2	30.3	42.1	25.0	1.2	0.0	39.0	39.1	54.0	15.0	14.9
8*	36260.0	39.2	39.9	42.5	23.9	-0.4	0.0	47.9	48.6	54.0	6.1	5.4

* Reference data *

Outside of the frequency band

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit dBm/MHz	Margin [dB]	
		HOR	VER	HOR	VER		HOR	VER
3	10358.65	42.3	43.7	-52.9	-51.5	-27.0	25.9	24.5
6	25900.00	50.4	51.3	-44.8	-43.9	-27.0	17.8	16.9
7	31080.00	52.4	52.6	-42.8	-42.6	-27.0	15.8	15.6
8	36260.00	62.0	62.3	-33.2	-32.9	-27.0	6.2	5.9

*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)

*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.

Radiated Spurious Emission (above 1GHz)

DATA OF SPURIOUS EMISSIONS(1GHz to 40GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO	
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)	
Model	: P1510D	TEST DISTANCE	: 3/1m	
Sample No.	: R5100002	DATE	: 27/05/2005	: 29/05/2005
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C	: 24deg.C
Mode	: W-LAN IEEE802.11a, Tx 5260MHz	HUMIDITY	: 53%	: 49%
Remarks	: Hor Z-axis, Ver X-ax	ENGINEER	: Mitsuru Fujimura	: Keiichi Aoki
	:Antenna Aux, 54Mbps			

Inside of the restricted band

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 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
1*	10520.0	49.6	52.2	37.0	39.6	6.0	0.9	44.4	47.0	74.0	29.6	27.0
2	15777.4	66.2	65.9	41.4	40.7	7.1	0.5	65.0	64.7	74.0	9.0	9.3
3	21040.0	45.4	45.6	40.2	34.5	8.1	0.0	49.7	49.9	74.0	24.3	24.1
4*	26300.0	50.1	50.1	41.1	38.1	9.7	0.0	53.3	53.3	74.0	20.7	20.7
5	31560.0	47.2	46.5	42.3	25.2	1.2	0.0	56.0	55.3	74.0	18.0	18.7
6*	36820.0	51.7	52.8	42.5	23.5	0.7	0.0	61.9	63.0	74.0	12.1	11.0

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 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
1*	10520.0	36.6	38.6	37.0	39.6	6.0	0.9	31.4	33.4	54.0	22.6	20.6
2	15777.4	52.4	51.8	41.4	40.7	7.1	0.5	51.2	50.6	54.0	2.8	3.4
3	21040.0	32.2	32.5	40.2	34.5	8.1	0.0	36.5	36.8	54.0	17.5	17.2
4*	26300.0	36.8	36.8	41.1	38.1	9.7	0.0	40.0	40.0	54.0	14.0	14.0
5	31560.0	33.0	36.1	42.3	25.2	1.2	0.0	41.8	44.9	54.0	12.2	9.1
6*	36820.0	40.2	40.1	42.5	23.5	0.7	0.0	50.4	50.3	54.0	3.6	3.7

* Reference data

Outside of the frequency band

No.	Freq.	Electric Field Strength		Result (EIRP)		Lmit	Margin	
	[MHz]	[dBuV/m]		[dBm]		dBm/MHz	[dB]	
		HOR	VER	HOR	VER		HOR	VER
1	10520.02	44.4	47.0	-50.8	-48.3	-27.0	23.8	21.3
4	26300.00	53.3	53.3	-41.9	-41.9	-27.0	14.9	14.9
6	36820.00	61.9	63.0	-33.3	-32.2	-27.0	6.3	5.2

* Reference data

*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)
*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 (above 1GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO	
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)	
Model	: P1510D	TEST DISTANCE	: 3/1m	
Sample No.	: R5100002	DATE	: 27/05/2005	: 29/05/2005
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C	: 24deg.C
Mode	: W-LAN IEEE802.11a, Tx 5320MHz	HUMIDITY	: 53%	: 49%
Remarks	: Hor Z-axis, Ver X-ax	ENGINEER	: Mitsuru Fujimura	: Keiichi Aoki
	:Antenna Aux, 54Mbps			

Inside of the restricted band

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	5350.0	51.4	51.0	36.0	35.8	5.5	0.0	57.1	56.7	74.0	16.9	17.3
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	10640.0	54.2	53.1	37.2	39.6	6.1	0.9	49.3	48.2	74.0	24.7	25.8
3	15959.8	65.2	62.6	42.2	40.7	7.1	0.3	64.6	62.0	74.0	9.5	12.0
4	21280.0	45.4	44.8	46.5	35.4	16.6	0.0	63.6	63.0	74.0	10.4	11.0
5*	26600.0	43.2	42.8	41.6	24.6	0.0	0.0	50.7	50.3	74.0	23.3	23.7
6*	31920.0	47.7	47.3	41.9	25.4	1.3	0.0	56.0	55.6	74.0	18.0	18.4
7*	37240.0	52.2	51.6	42.6	23.2	1.5	0.0	63.6	63.0	74.0	10.4	11.0

*

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	5350.0	33.1	33.6	36.0	35.8	5.5	0.0	38.8	39.3	54.0	15.2	14.7
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	10640.0	41.1	39.4	37.2	39.6	6.1	0.9	36.2	34.5	54.0	17.8	19.5
3	15959.8	51.6	48.8	42.2	40.7	7.1	0.3	51.0	48.2	54.0	3.0	5.8
4	21280.0	32.0	31.3	46.5	35.4	16.6	0.0	50.2	49.5	54.0	3.8	4.5
5*	26600.0	30.0	30.1	41.6	24.6	0.0	0.0	37.5	37.6	54.0	16.5	16.4
6*	31920.0	33.3	33.2	41.9	25.4	1.3	0.0	41.6	41.5	54.0	12.4	12.5
7*	37240.0	40.2	40.0	42.6	23.2	1.5	0.0	51.6	51.4	54.0	2.4	2.6

* Reference data *

Outside of the frequency band

No.	Freq. [MHz]	Electric Field [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm/MHz]	Margin [dB]	
		HOR	VER	HOR	VER		HOR	VER
5	26600.00	50.7	50.3	-44.5	-44.9	-27.0	17.5	17.9
6	31920.00	56.0	55.6	-39.2	-39.6	-27.0	12.2	12.6
7	37240.00	63.6	63.0	-31.6	-32.2	-27.0	4.6	5.2

* Reference data

*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)

*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 (above 1GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO		
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)		
Model	: P1510D	TEST DISTANCE	: 3/1m		
Sample No.	: R5100002	DATE	: 27/05/2005	: 29/05/2005	
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C	: 24deg.C	
Mode	: W-LAN IEEE802.11a, Tx Turbo 5210MHz	HUMIDITY	: 53%	: 49%	
Remarks	: Hor Z-axis, Ver X-ax	ENGINEER	: Mitsuru Fujimura	: Keiichi Aoki	
	:Antenna Aux, 108Mbps				

Inside of the restricted band

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	5150.0	44.6	50.5	36.2	35.9	5.4	0.0	50.3	56.2	74.0	23.7	17.8
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2*	10420.0	47.6	47.8	36.9	39.6	5.9	0.9	42.2	42.4	74.0	31.8	31.6
3	15627.3	58.8	58.5	40.8	40.8	7.0	0.6	56.9	56.6	74.0	17.1	17.4
4	20840.0	42.9	43.0	40.3	35.6	13.3	0.0	51.4	51.5	74.0	22.6	22.5
5*	26050.0	44.4	44.0	40.9	34.8	14.9	0.0	55.9	55.5	74.0	18.1	18.5
6	31260.0	44.7	45.0	42.3	25.1	1.2	0.0	53.6	53.9	74.0	20.4	20.1
7	35470.0	51.3	51.7	42.5	23.7	0.0	0.0	60.6	61.0	74.0	13.4	13.0

*

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	5150.0	30.5	33.0	36.2	35.9	5.4	0.0	36.2	38.7	54.0	17.8	15.3
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2*	10420.0	34.3	34.0	36.9	39.6	5.9	0.9	28.9	28.6	54.0	25.1	25.4
3	15627.3	46.1	46.1	40.8	40.8	7.0	0.6	44.2	44.2	54.0	9.8	9.8
4	20840.0	30.1	30.1	40.3	35.6	13.3	0.0	38.6	38.6	54.0	15.4	15.4
5*	26050.0	30.9	30.9	40.9	34.8	14.9	0.0	42.4	42.4	54.0	11.6	11.6
6	31260.0	36.2	36.1	42.3	25.1	1.2	0.0	45.1	45.0	54.0	8.9	9.0
7	35470.0	41.9	41.8	42.5	23.7	0.0	0.0	51.2	51.1	54.0	2.8	2.9

* Reference data *

Outside of the frequency band

No.	Freq. [MHz]	Electric Field [dBuV/m]		Result (EIRP) [dBm]		Lmit dBm/MHz	Margin [dB]	
		HOR	VER	HOR	VER		HOR	VER
2	10420.00	42.2	42.4	-53.0	-52.8	-27.0	26.0	25.8
5	26050.00	55.9	55.5	-39.3	-39.7	-27.0	12.3	12.7

*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)
*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.

Radiated Spurious Emission (above 1GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO	
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)	
Model	: P1510D	TEST DISTANCE	: 3/1m	
Sample No.	: R5100002	DATE	: 27/05/2005	: 29/05/2005
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C	: 24deg.C
Mode	: W-LAN IEEE802.11a, Tx Turbo 5290MHz	HUMIDITY	: 53%	: 49%
Remarks	: Hor Z-axis, Ver X-axis	ENGINEER	: Mitsuru Fujimura	: Keiichi Aoki
	:Antenna Aux, 108Mbps			

Inside of the restricted band

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*	5250.0	53.3	58.6	36.1	35.9	5.5	0.0	59.0	64.3	74.0	15.0	9.7
2	5350.0	49.8	55.1	36.0	35.8	5.5	0.0	55.5	60.8	74.0	18.5	13.2
3	5434.4	48.3	50.4	35.9	35.8	5.6	0.0	54.0	56.1	74.0	20.0	17.9
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4*	10582.8	49.4	50.9	37.1	39.6	6.0	0.9	44.3	45.8	74.0	29.7	28.2
5	15862.9	63.1	63.6	41.8	40.7	7.1	0.4	62.2	62.7	74.0	11.9	11.3
6	21160.0	45.7	46.1	40.1	34.7	8.1	0.0	49.7	50.1	74.0	24.3	23.9
7*	26450.0	50.2	50.9	41.3	37.9	9.8	0.0	53.9	54.6	74.0	20.1	19.5
8	31740.0	44.1	44.3	42.1	25.3	1.3	0.0	52.7	52.9	74.0	21.3	21.1
9*	37030.0	51.5	52.0	42.5	23.4	1.1	0.0	62.2	62.7	74.0	11.8	11.3

*

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*	5250.0	37.1	42.4	36.1	35.9	5.5	0.0	42.8	48.1	54.0	11.2	5.9
2	5350.0	32.2	37.1	36.0	35.8	5.5	0.0	37.9	42.8	54.0	16.1	11.2
3	5434.4	36.8	39.2	35.9	35.8	5.6	0.0	42.5	44.9	54.0	11.5	9.1
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4*	10582.8	37.1	38.0	37.1	39.6	6.0	0.9	32.0	32.9	54.0	22.0	21.2
5	15862.9	50.1	49.8	41.8	40.7	7.1	0.4	49.2	48.9	54.0	4.8	5.1
6	21160.0	32.5	33.0	40.1	34.7	8.1	0.0	36.5	37.0	54.0	17.5	17.0
7*	26450.0	37.1	37.0	41.3	37.9	9.8	0.0	40.8	40.7	54.0	13.2	13.3
8	31740.0	36.2	36.1	42.1	25.3	1.3	0.0	44.8	44.7	54.0	9.2	9.3
9*	37030.0	40.4	40.5	42.5	23.4	1.1	0.0	51.1	51.2	54.0	2.9	2.8

* Reference data *

Outside of the frequency band

No.	Freq. [MHz]	(After Factor [dBuV/m]		Result (EIRP) [dBm]		Lmit dBm/MHz	Margin [dB]	
		HOR	VER	HOR	VER		HOR	VER
1	5250.00	59.0	64.3	-36.2	-30.9	-27.0	9.2	3.9
4	10582.78	44.3	45.8	-51.0	-49.4	-27.0	24.0	22.4
7	26450.00	53.9	54.6	-41.3	-40.7	-27.0	14.3	13.7
9	37030.00	62.2	62.7	-33.0	-32.5	-27.0	6.0	5.5

*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)
*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 (above 1GHz)

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

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)
Model	: P1510D	TEST DISTANCE	: 3/1m
Sample No.	: R5100002	DATE	: 31/05/2005
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 25deg.C
Mode	: W-LAN IEEE802.11a, Tx Turbo 5760MHz	HUMIDITY	: 37%
Remarks	: Hor Z-axis, Ver X-axis	ENGINEER	: Mitsuru Fujimura
	: Antenna Aux, 108Mbps		

Outside of the restricted band
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	5715.0	48.6	48.2	36.3	35.8	5.6	0.0	54.7	54.3	74.0	19.3	19.7
2	5725.0	57.4	57.4	36.3	35.8	5.7	0.0	63.6	63.6	74.0	10.4	10.4

Outside of the frequency band

No.	Freq. [MHz]	Electric Field [dBuV/m]		Result (EIRP) [dBm]		Lmit [dBm/MHz]	Margin [dB]	
		HOR	VER	HOR	VER		HOR	VER
1	5715.00	54.7	54.3	-40.5	-40.9	-27.0	13.5	13.9
2	5725.00	63.6	63.6	-31.6	-31.6	-17.0	14.6	14.6

*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)
*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.1/2 Semi Anechoic Chamber

Company	: Fujitsu Limited	REPORT NO	: 26AE0214-HO	
Equipment	: Personal Computer	REGULATION	: Fcc Part15 Subpart E 15.407(b)	
Model	: P1510D	TEST DISTANCE	: 3/1m	
Sample No.	: R5100002	DATE	: 27/05/2005	: 29/05/2005
Power	: AC 120 V / 60 Hz	TEMPERATURE	: 23deg.C	: 24deg.C
Mode	: W-LAN IEEE802.11a, Tx Turbo 5800MHz	HUMIDITY	: 53%	: 49%
Remarks	: Hor Z-axis, Ver X-axis	ENGINEER	: Mitsuru Fujimura	: Keiichi Aoki
	: Antenna Aux, 108Mbps			

Inside of the restricted band

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	5439.9	49.2	51.8	35.9	35.8	5.6	0.0	54.9	57.5	74.0	19.1	16.5
2*	5825.0	69.7	69.9	36.6	35.8	5.8	0.0	76.3	76.5	74.0	-2.3	-2.5
3*	5835.0	57.9	58.4	36.6	35.8	5.8	0.0	64.5	65.0	74.0	9.5	9.0
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	11602.3	56.2	50.7	38.9	39.6	6.4	0.2	52.6	47.1	74.0	21.4	26.9
5*	17399.6	48.0	48.3	44.4	41.6	7.1	5.5	53.9	54.2	74.0	20.1	19.8
6*	23200.0	45.1	45.0	40.4	34.8	14.0	0.0	55.2	55.1	74.0	18.8	18.9
7*	29000.0	42.0	42.2	41.3	24.4	0.7	0.0	50.1	50.3	74.0	23.9	23.7
8*	34800.0	48.8	48.9	42.1	24.5	-1.2	0.0	55.7	55.8	74.0	18.3	18.2

*

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	5439.9	37.5	39.9	35.9	35.8	5.6	0.0	43.2	45.6	54.0	10.8	8.4
2*	5825.0	50.8	50.9	36.6	35.8	5.8	0.0	57.4	57.5	54.0	-3.4	-3.5
3*	5835.0	42.8	43.1	36.6	35.8	5.8	0.0	49.4	49.7	54.0	4.6	4.3
Test distance 1/0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	11602.3	42.9	37.4	38.9	39.6	6.4	0.2	39.3	33.8	54.0	14.7	20.3
5*	17399.6	34.6	35.9	44.4	41.6	7.1	5.5	40.5	41.8	54.0	13.5	12.2
6*	23200.0	31.7	31.8	40.4	34.8	14.0	0.0	41.8	41.9	54.0	12.2	12.2
7*	29000.0	31.2	32.1	41.3	24.4	0.7	0.0	39.3	40.2	54.0	14.7	13.8
8*	34800.0	37.6	37.6	42.1	24.5	-1.2	0.0	44.5	44.5	54.0	9.5	9.5

* Reference data *

Outside of the frequency band

No.	Freq. [MHz]	Electric Field Strength [dBuV/m]		Result (EIRP) [dBm]		Lmit dBm/MHz	Margin [dB]	
		HOR	VER	HOR	VER		HOR	VER
2*	5825.00	76.3	76.5	-18.9	-18.7	-17.0	1.9	1.7
3	5835.00	64.5	65.0	-30.8	-30.2	-27.0	3.8	3.2
5	17399.60	53.9	54.2	-41.3	-41.0	-27.0	14.3	14.0
6	23200.00	55.2	55.1	-40.0	-40.1	-27.0	13.0	13.1
7	29000.00	50.1	50.3	-45.1	-44.9	-27.0	18.1	17.9
8	34800.00	55.7	55.8	-39.5	-39.4	-27.0	12.5	12.4

* Reference data

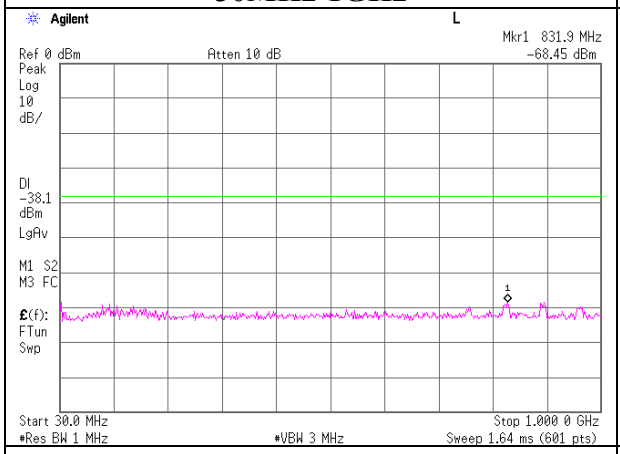
*Resrult(EIRP[dBm])=10*LOG({ (Electric Field Strength [V/m] * Distance:3[m]) ^ 2 } / 30)
*Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.5dB
*Test Distance 0.5m(above 26.5GHz) : Distance Factor(Dfac) = 20log(3/0.5) = 15.6dB
(This factor(Dfac) is subtracted from the cable loss.)
*Except 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.

Conducted Spurious Emission(DSSS and other forms of modulation)

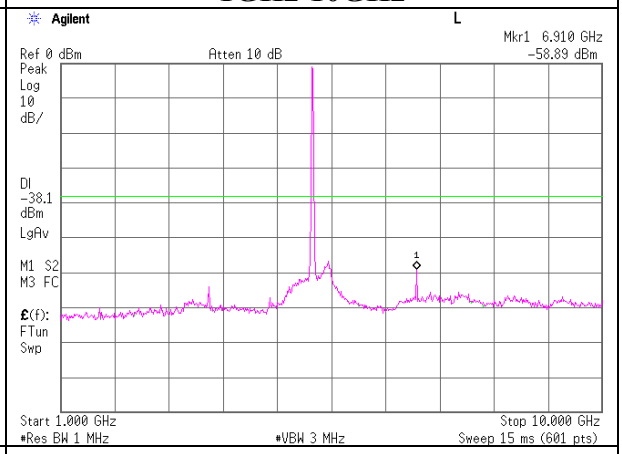
54Mbps Main Antenna

Ch : 36

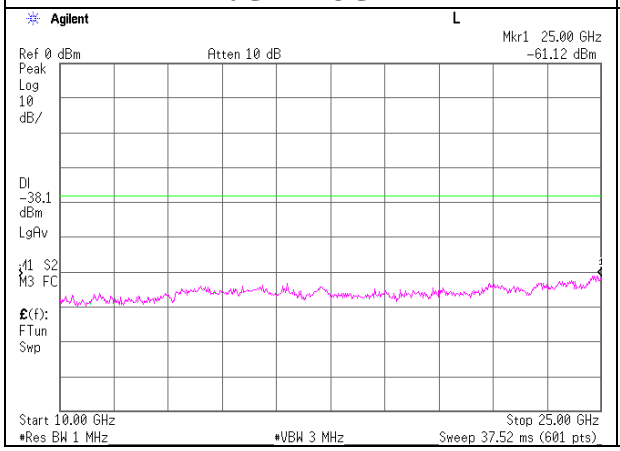
30MHz-1GHz



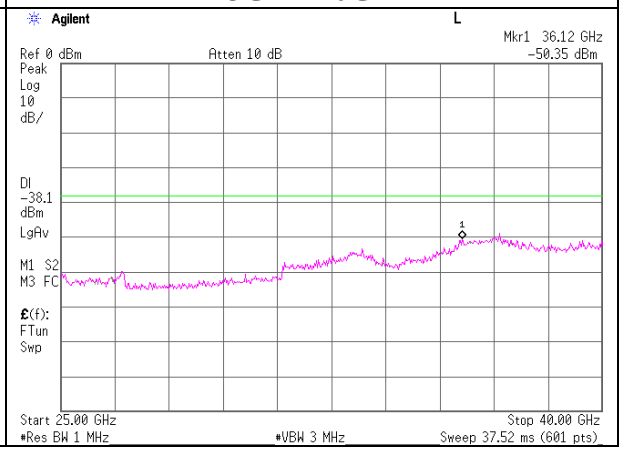
1GHz-10GHz



10GHz-25GHz



25GHz-40GHz

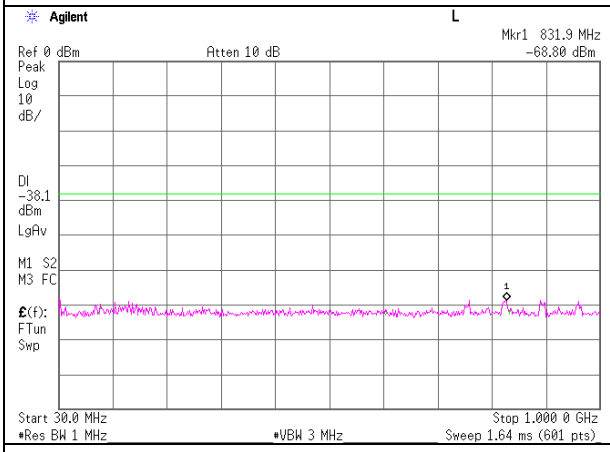


Conducted Spurious Emission(DSSS and other forms of modulation)

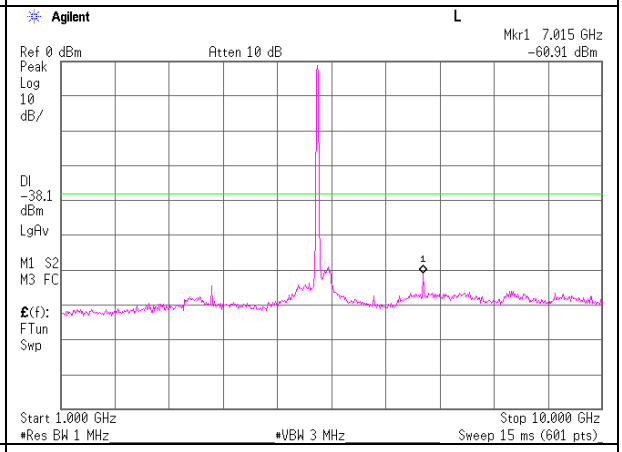
54Mbps Main Antenna

Ch : 52

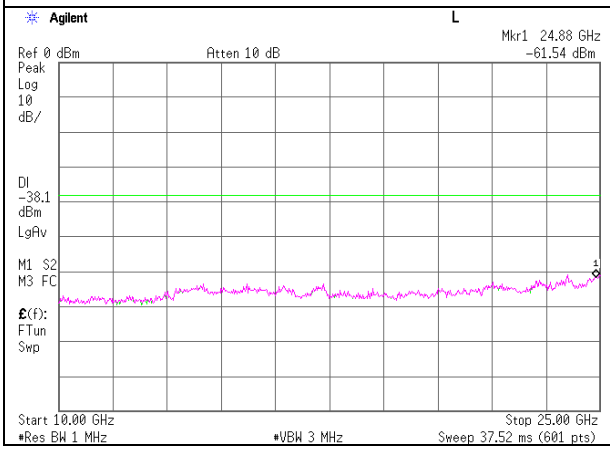
30MHz-1GHz



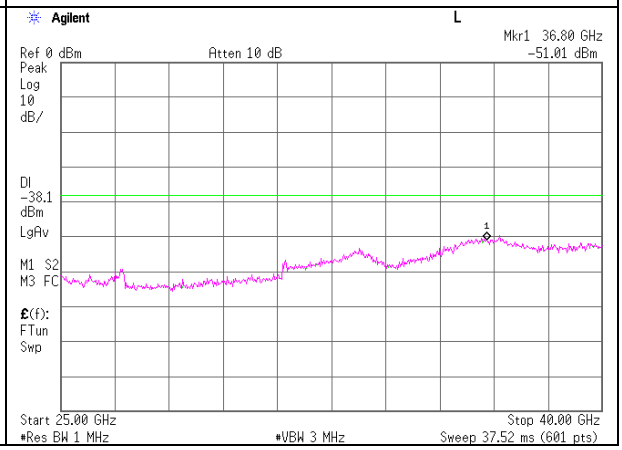
1GHz-10GHz



10GHz-25GHz



25GHz-40GHz

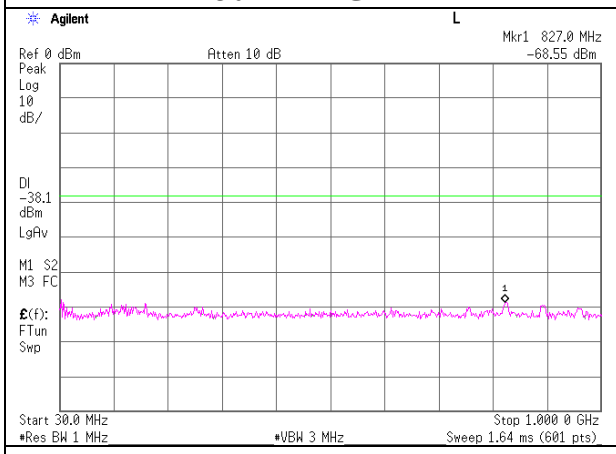


Conducted Spurious Emission(DSSS and other forms of modulation)

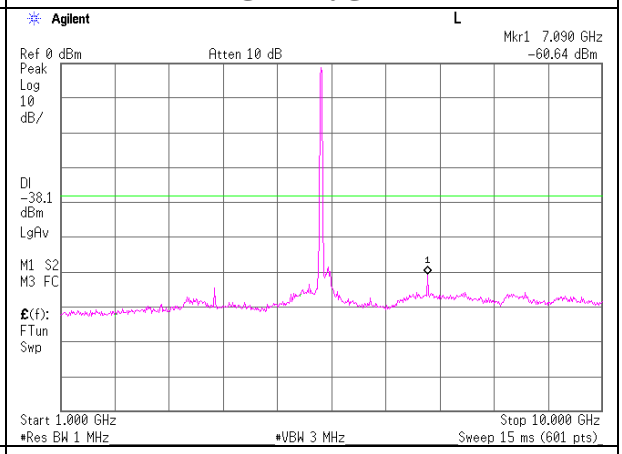
54Mbps Main Antenna

Ch : 64

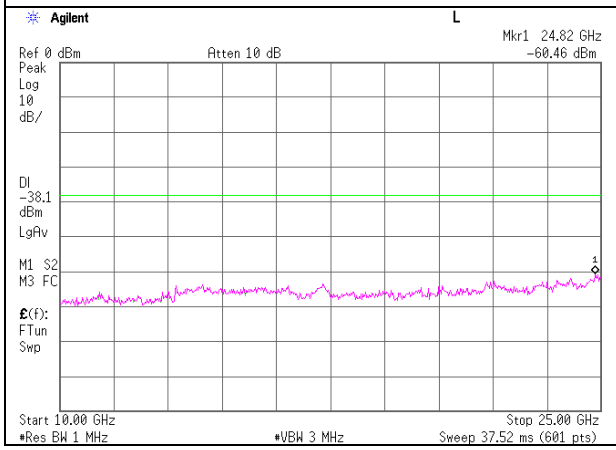
30MHz-1GHz



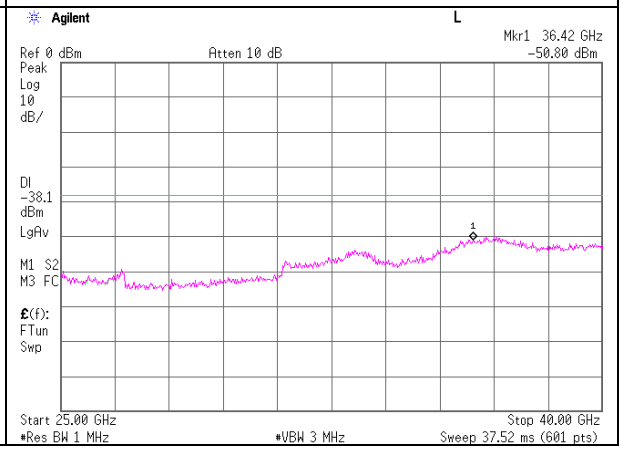
1GHz-10GHz



10GHz-25GHz



25GHz-40GHz

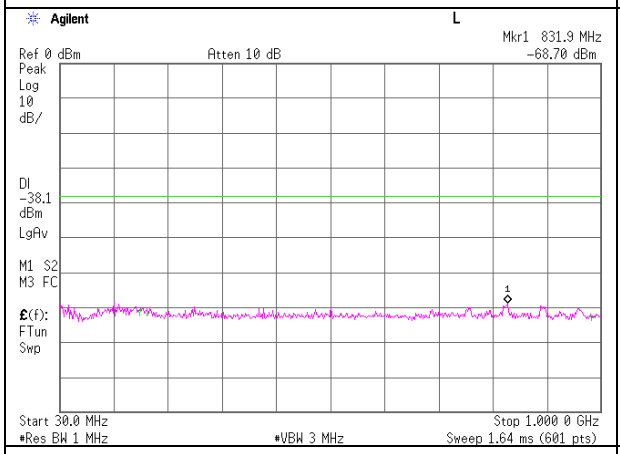


Conducted Spurious Emission(DSSS and other forms of modulation)

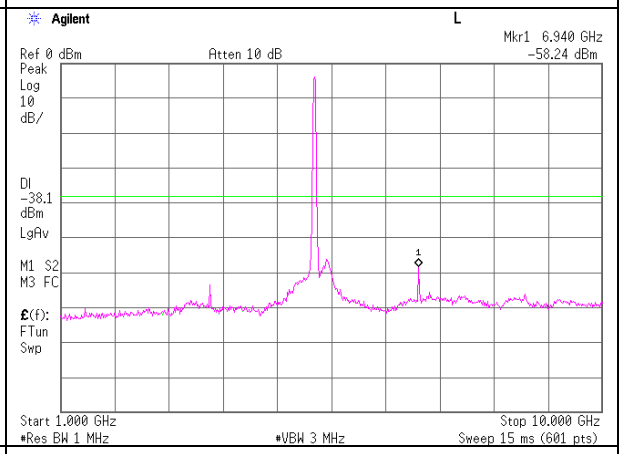
108Mbps Main Antenna

Ch : 42

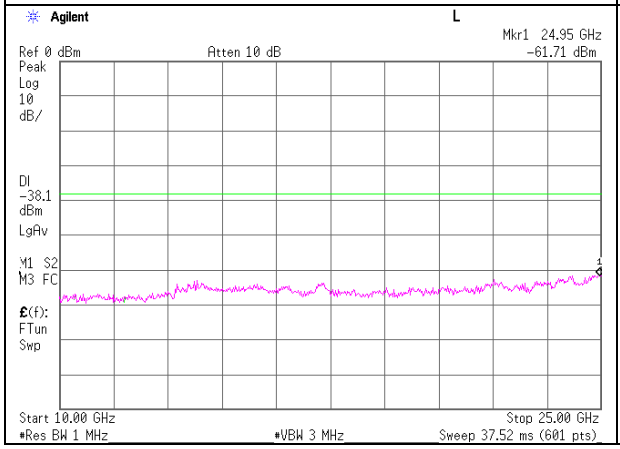
30MHz-1GHz



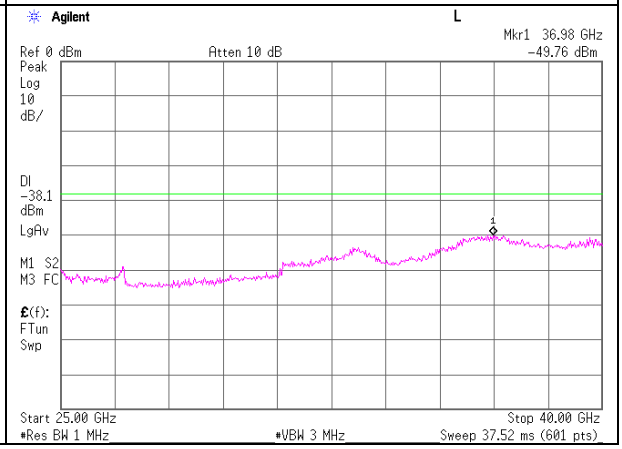
1GHz-10GHz



10GHz-25GHz



25GHz-40GHz

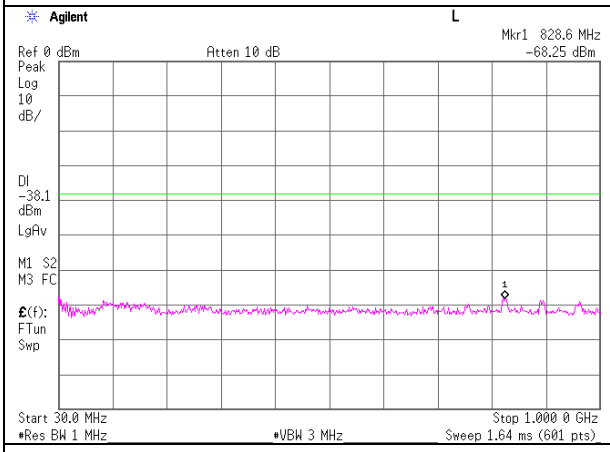


Conducted Spurious Emission(DSSS and other forms of modulation)

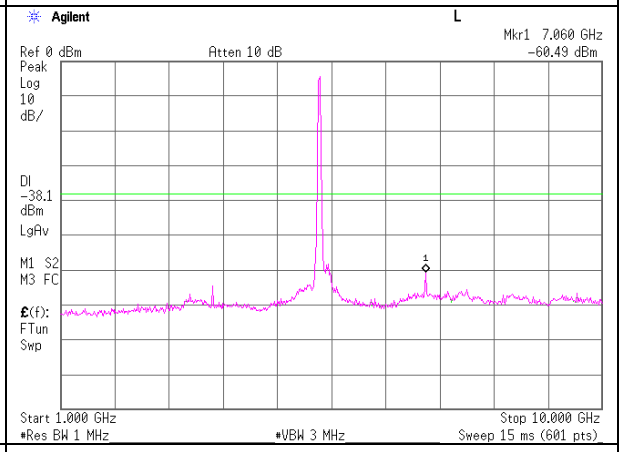
108Mbps Main Antenna

Ch : 58

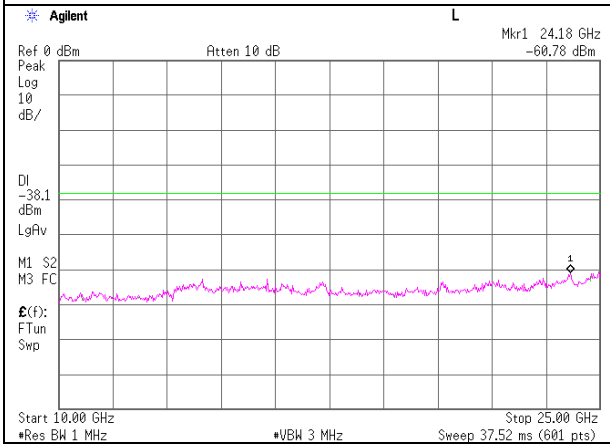
30MHz-1GHz



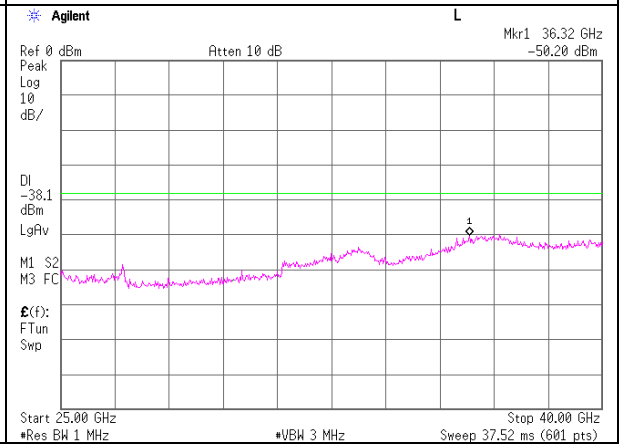
1GHz-10GHz



10GHz-25GHz



25GHz-40GHz

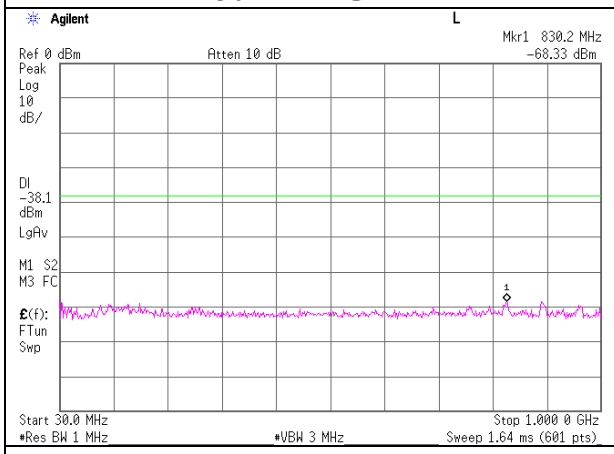


Conducted Spurious Emission(DSSS and other forms of modulation)

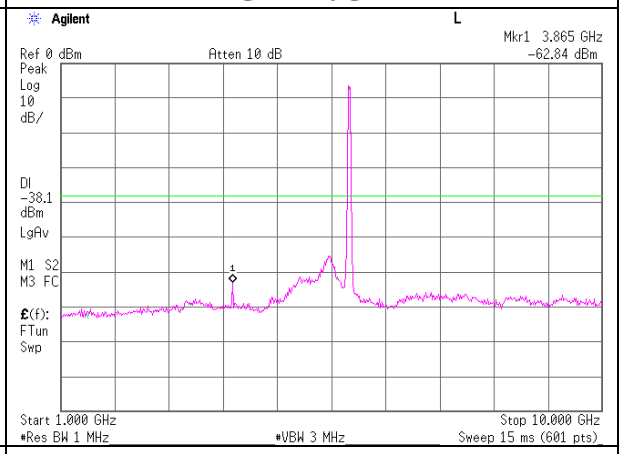
108Mbps Main Antenna

Ch : 160

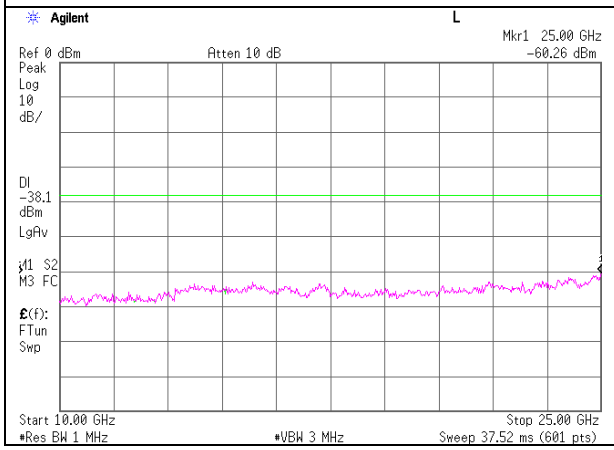
30MHz-1GHz



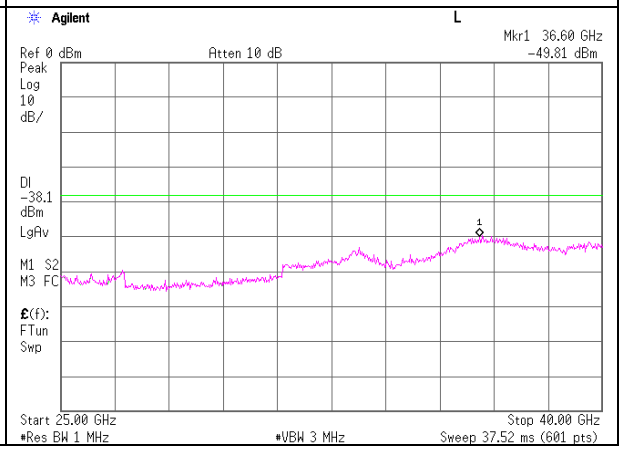
1GHz-10GHz



10GHz-25GHz



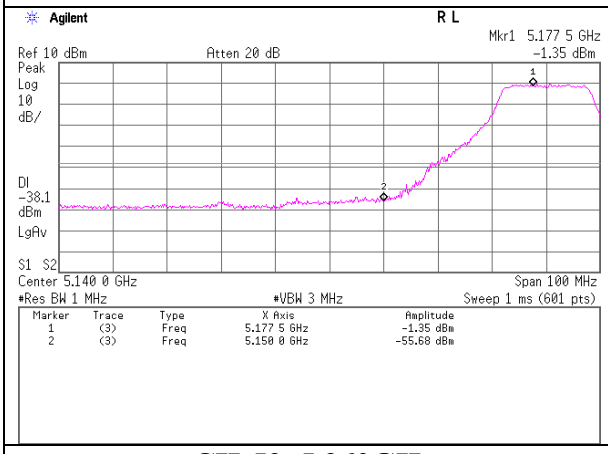
25GHz-40GHz



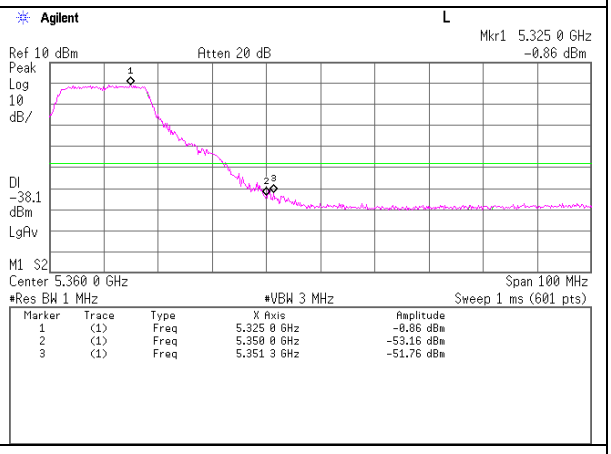
Conducted emission Band Edge compliance

54Mbps Main Antenna

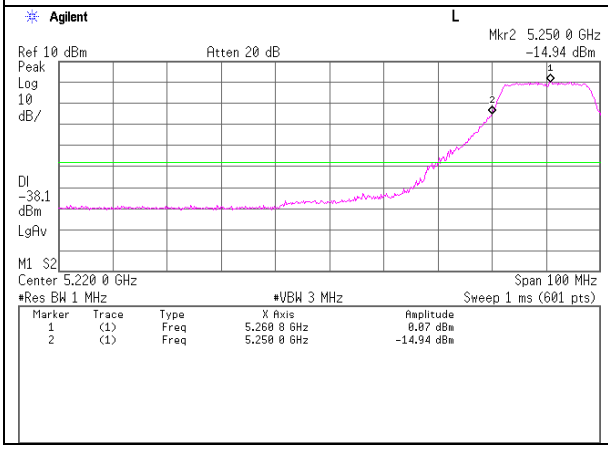
CH:36 5.180GHz



CH:64 5.320GHz



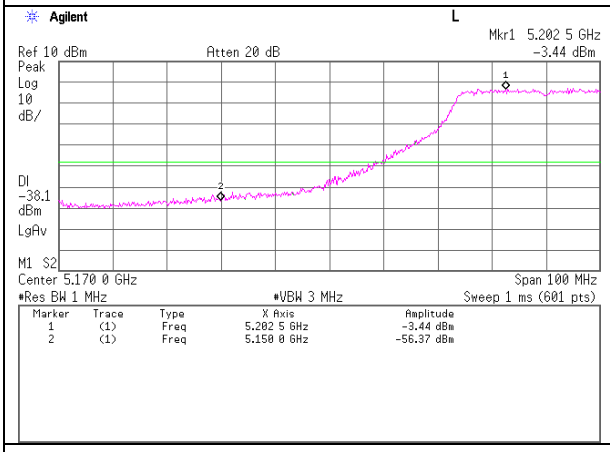
CH:52 5.260GHz



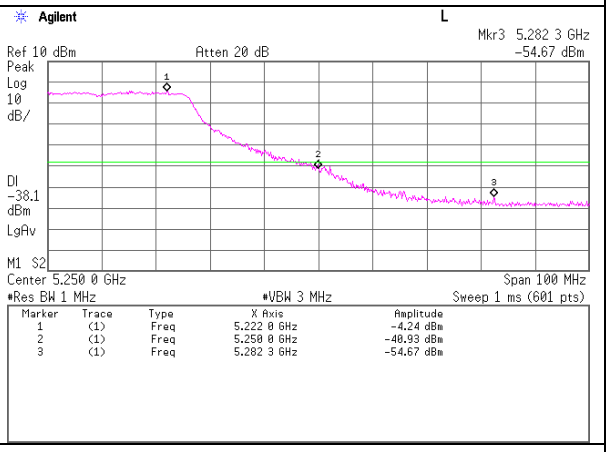
Conducted emission Band Edge compliance

108Mbps Main Antenna

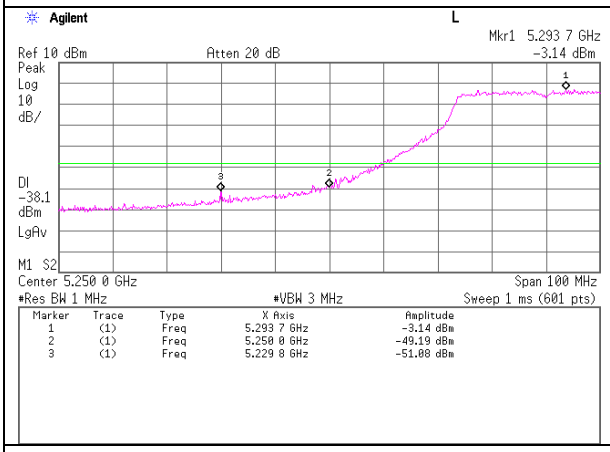
Turbo CH:42 5.210GHz



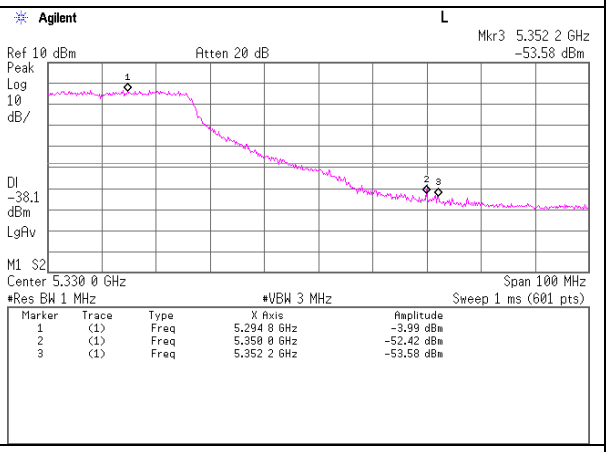
Turbo CH:42 5.210GHz



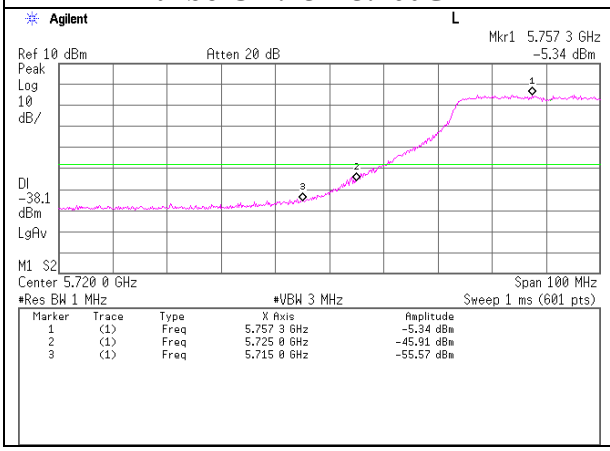
Turbo CH:58 5.290GHz



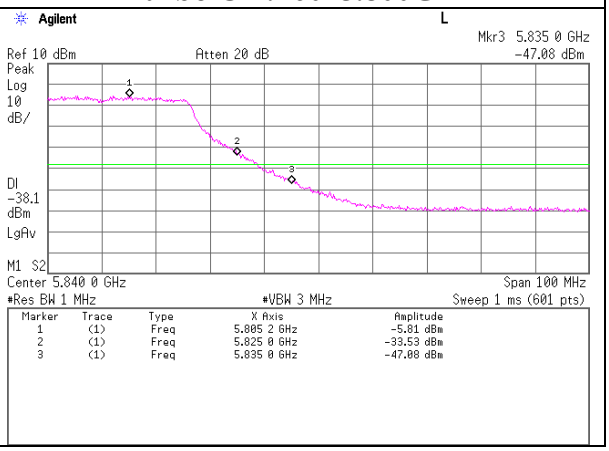
Turbo CH:58 5.290GHz



Turbo CH:152 5.760GHz



Turbo CH:160 5.800GHz



Peak Power Spectral Density

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

COMPANY	: FUJITSU LIMITED	REPORT NO	: 26AE0214-HO
EQUIPMENT	: Personal Computer	REGULATION	: FCC 15.407(a)(1)(2)(3)
MODEL	: P1510D	TEST DISTANCE	: -
SAMPLE NO.	: R5100002	DATE	: 04/13/2005
POWER	: AC120V/60Hz	TEMPERATURE	: 23deg.C
MODE	: Tx IEEE 802.11a	HUMIDITY	: 39%
	: Continuous Transmitting	ENGINEER	: Norihisa Hashimoto

Normal mode

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
36	5180.0	-10.90	0.94	10.0	0.0	4.0	4.0
52	5260.0	-10.12	1.11	10.0	1.0	4.0	3.0
64	5320.0	-10.95	1.04	10.0	0.1	11.0	10.9

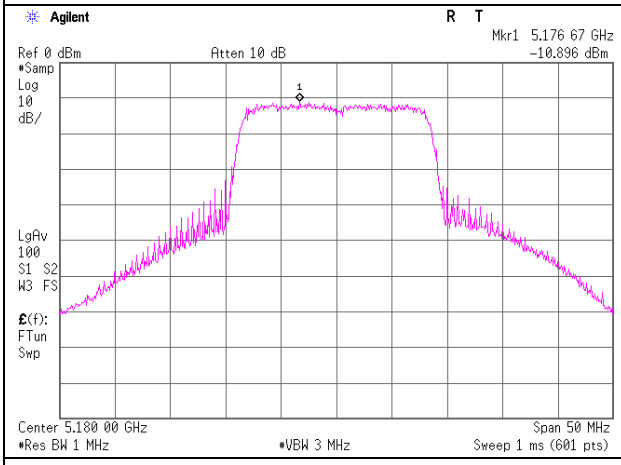
Turbo mode

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
42	5210.0	-13.28	0.97	10.0	-2.3	4.0	6.3
58	5290.0	-13.03	1.14	10.0	-1.9	11.0	12.9
160	5800.0	-16.96	1.16	10.0	-5.8	17.0	22.8

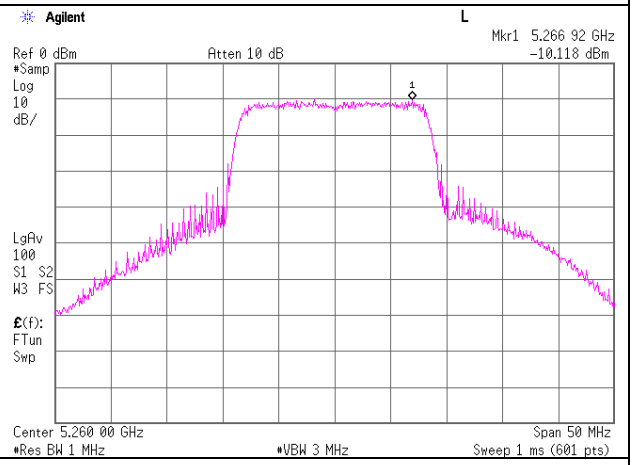
Sample Calculation:
Result = Reading + Cable Loss + Attenuator
* Atten. was not used for factor 0.0dB of the above table.

Peak Power Spectral Density
54Mbps Main Antenna

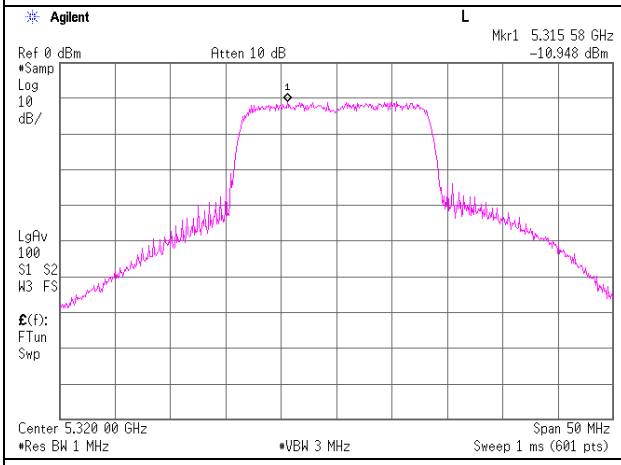
Ch:36



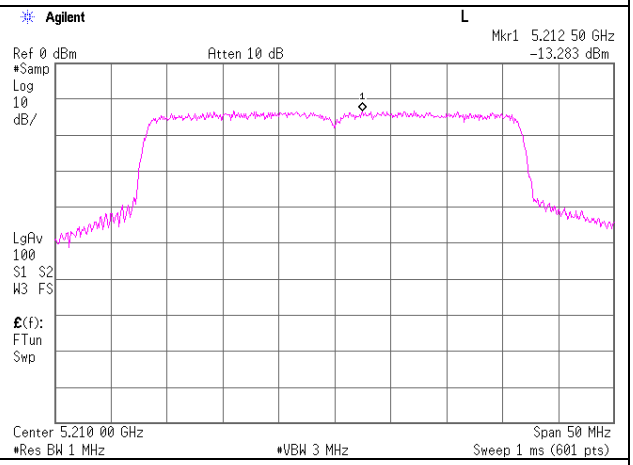
Ch:52



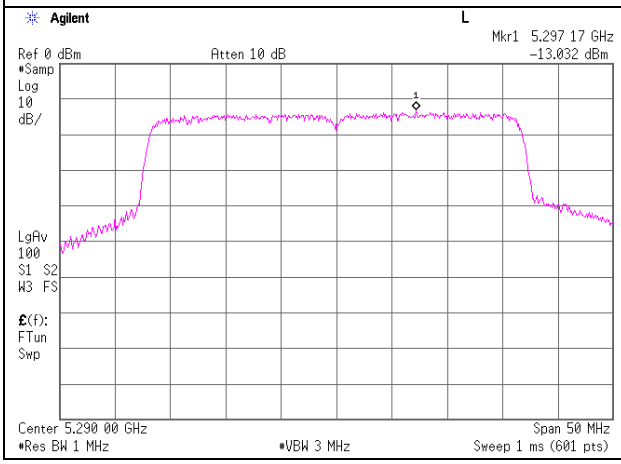
Ch:64



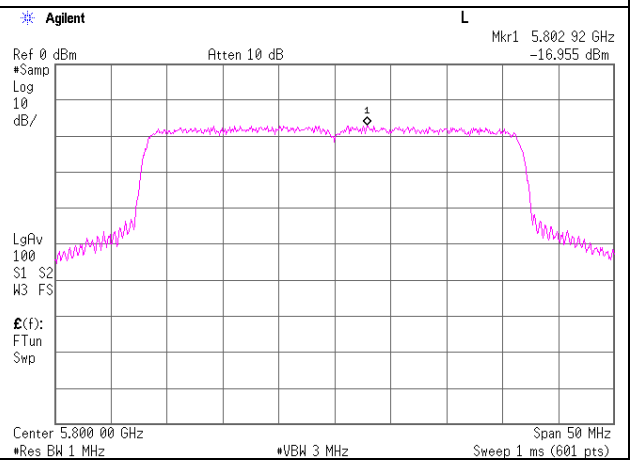
Turbo Ch:42



Turbo Ch:58



Turbo Ch:160



Peak Excursion Ratio

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

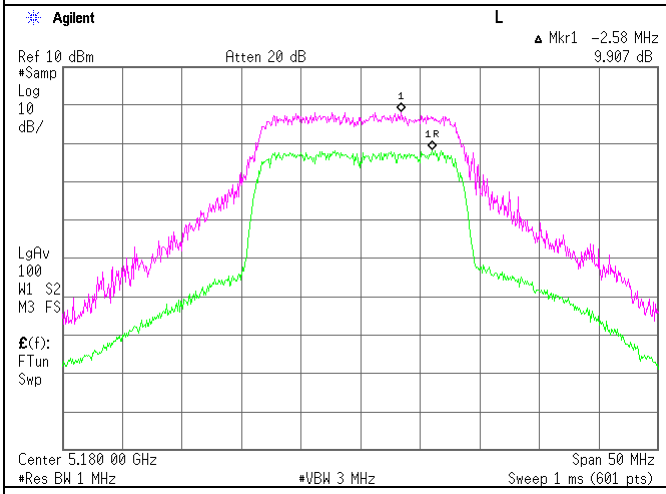
Company : FUJITSU LIMITED
Equipment : Personal Computer
Model : P1510D
Sample No. : R5100002
Power : AC120V/60Hz
Mode : Tx IEEE 802.11a
: Continuous Transmitting

REPORT NO : 26AE0214-HO
REGULATION : FCC 15.407(a)(6)
TEST DISTANCE : -
DATE : 05/30/2005
TEMPERATURE : 23deg.C
HUMIDITY : 40%
ENGINEER : Mitsuru Fujimura

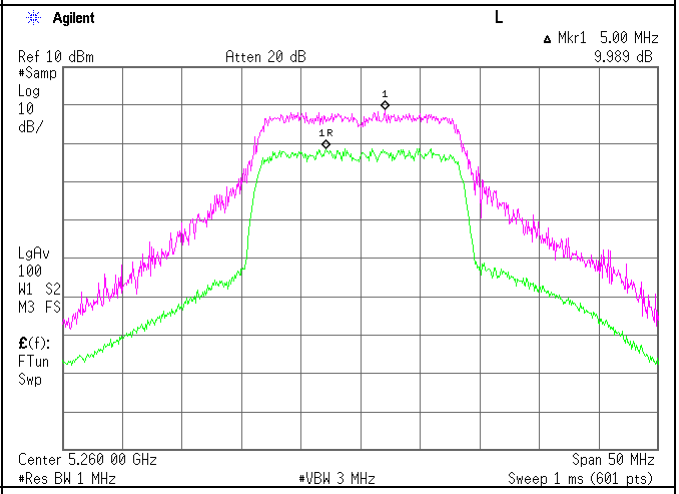
Ch	Freq. [MHz]	Peak Power Excursion [dB]	Limit [dB]
36	5180.0	9.907	13.0
52	5260.0	9.989	13.0
64	5320.0	10.529	13.0
42	5210.0	9.732	13.0
58	5290.0	9.262	13.0
160	5800.0	10.108	13.0

Peak Excursion Ratio
54Mbps Main Antenna

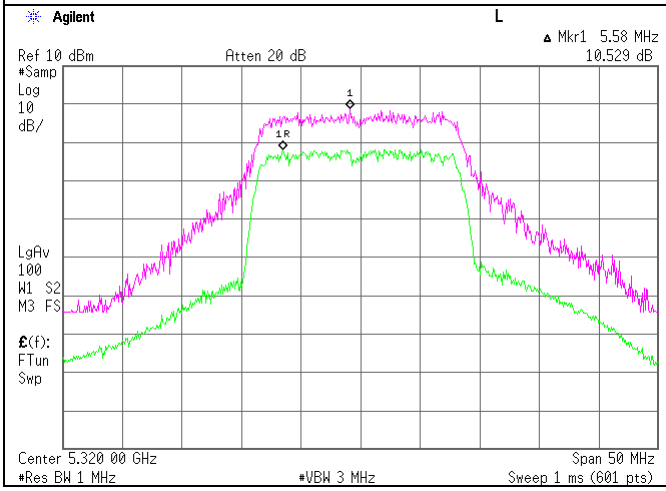
Ch:36



Ch:52

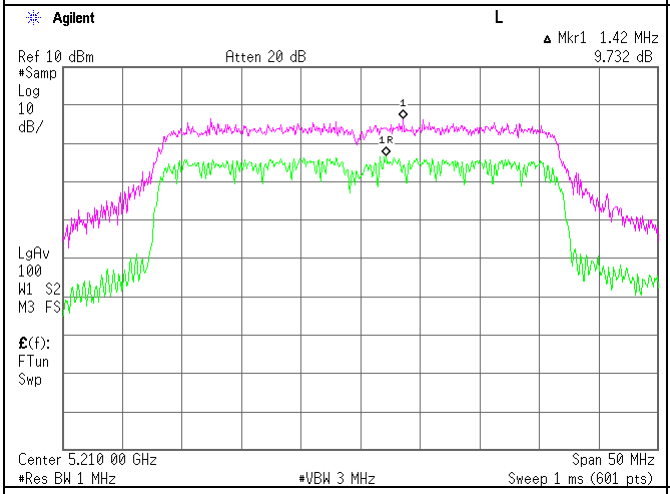


Ch:64

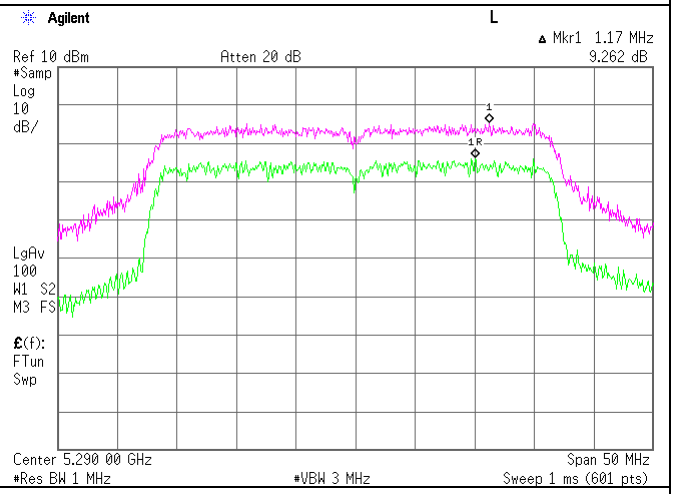


Peak Excursion Ratio
Turbo Mode : 108Mbps Main Antenna

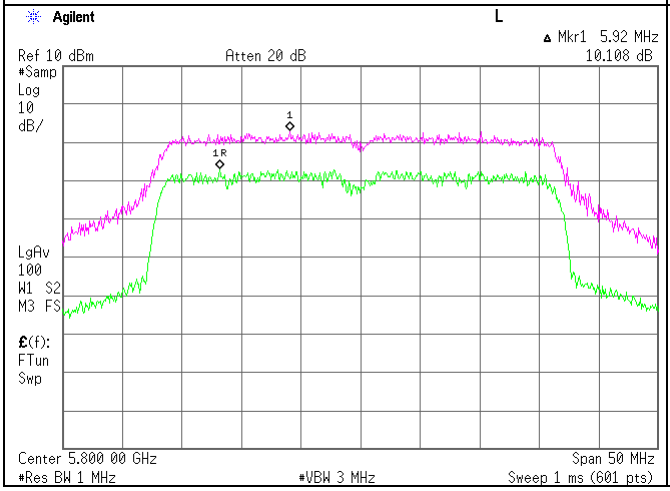
Ch:42



Ch:58



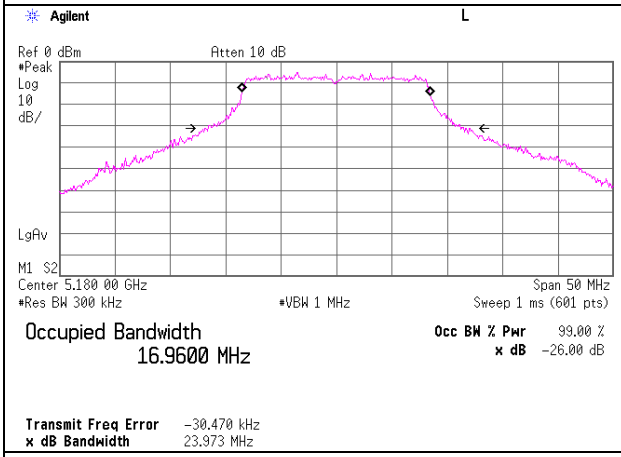
Ch:160



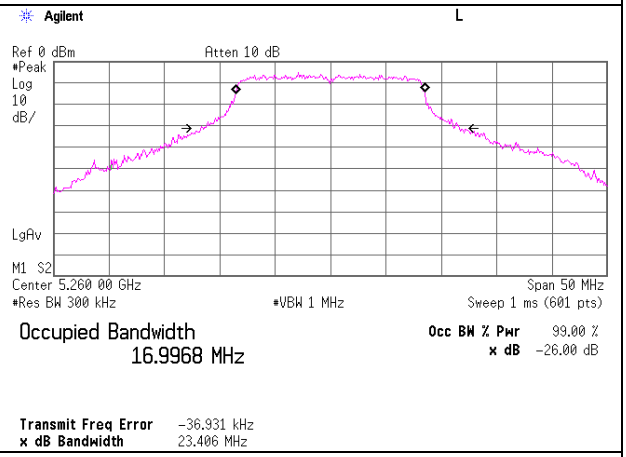
99%Occupied Bandwidth

54Mbps Main Antenna

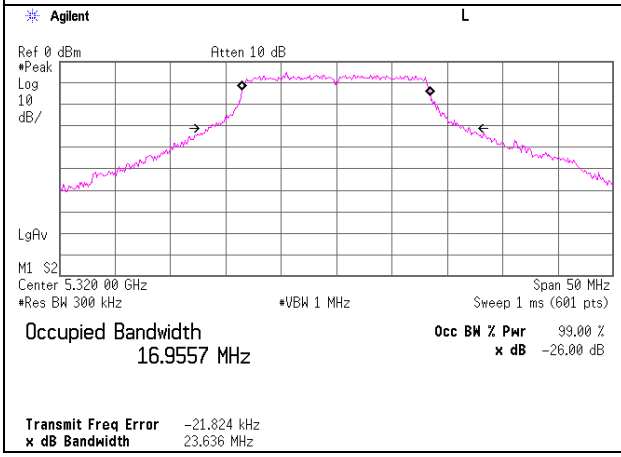
Ch:36



Ch:52

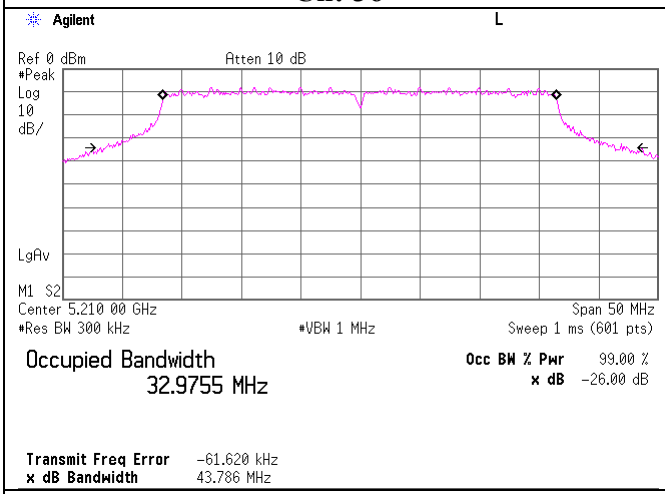


Ch:64

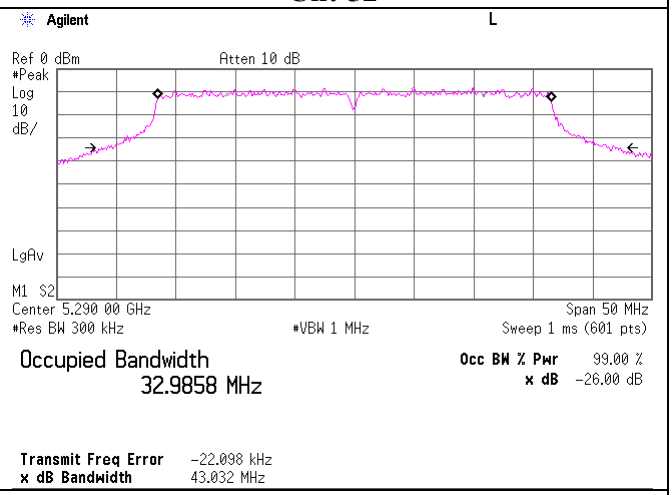


108Mbps Main Antenna Turbo Mode

Ch: 36



Ch: 52



Ch: 64