

Report No. : FG10-116EAL (1/13)

EMI Test report

CATEGORY : FCC Part-15 (2008); Class B
VCCI (2010)

PRODUCT : Personal computer

MODEL : T901
AC adapter PJW1942NA PJW1942N SEE100P2-19.0 ADP-80NB -A
Port Replicator FPCPR105
Wireless LAN AR5BHB116 62205ANHMW
Bluetooth module BCM92070MD REF6

MANUFACTURER : FUJITSU LIMITED
4-1-1, Kamikodanaka, Nakahara-ku, Kawasaki 211-8588 JAPAN

TEST SITE : FUJITSU GENERAL EMC LABORATORY
1116, Suenaga, Takatsu-ku, Kawasaki 213-8502 JAPAN
2nd semi-anechoic chamber(R-1460)
1st shielded room(C-777/T-1687)

DATE TESTED : December 23, 2010 23°C 30%

TESTED BY : Hiroyuki Aikawa

EUT conforms to the above mentioning all regulations.

APPROVED BY :  DATE : December 27, 2010
for Hiroyuki Shimanoe, President

FUJITSU GENERAL EMC LABORATORY LIMITED
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※ The description of the EUT and the system configuration in this report are provided by the client.



Accredited by NVLAP.
Authorized by TÜV SÜD PS.
Appointed by TÜV Rheinland Japan.
Registered on VCCI.

1. Description of EUT

The EUT: T901 is personal computer using CPU; Core i7-2620M 2.7 GHz microprocessor. The EUT has a 13.3 inch WXGA LCD and a system disk (500 GB×1). The EUT has the interface for DVI®, HDMI ,RGB Mic-in①, Phone-out①, Line-out④, LAN®, TEL®, USB×6②③④⑤⑥⑦, Memory card slot, Bluetooth and wireless LAN module.

Internal clock frequency : 32.000 kHz, 4.000 MHz, 14.000 MHz, 24.000 MHz, 24.576 MHz, 25.000MHz
33.300 MHz, 100.000 MHz

Input power : AC 100 V-240 V, 50 / 60 Hz, Single-phase 2 wires

The EUT is intended to use generally in the residential / domestic area or commercial and light industrial area; category class B.

1.1 Test system configuration

The radiated emission measurement was performed with the worst case configuration of the preliminary measurement, T901 with AC adapter; PJW1942NA, internal wireless LAN module; AR5BHB116, Bluetooth module; BCM92070MD REF6, and all related equipments as shown in figure-1.

The conducted emission measurement was performed with each of AC adapter; PJW1942NA, PJW1942N, SEE100P2-19.0, ADP-80NB A and wireless LAN module; 62205ANHMW.

The EUT was selected from the pre-production line.

1.2 Operating condition

The following EUT and dependent devices were tested using “EMC32.exe”, “DRTU” or “Art exe” and “Bleu exe” program under continuous operating condition to obtain maximum emission.

- | | | |
|------------------------|---------------|--|
| ① PC-1 | LCD-1: | Displaying “H” character on screen (Maximum contrast / Luminescence Display resolution 1280×800 / Refresh rate 60Hz) |
| | LAN: | Continuous transmission and receiving ping command (1000 M Max)
Telecom line emission : DAT File 390MB, 1000 Mbps |
| | TEL: | Continuous transmission and receiving ping command
Telecom line emission : DAT File 760MB, 64 k MAX |
| | DVD: | Playing the test disk. |
| | HDD-1: | Read/ writ the test data |
| | CAMERA: | Monitoring the video picture of web camera |
| | Wireless LAN: | Continuous transmission of the RF Signal |
| | Bluetooth: | Continuous transmission of the RF Signal |
| ② SD memory card: | | Read/ writ the test data |
| ③ EXP memory card: | | Read/ writ the test data |
| ④ LCD-2: | | Displaying “H” character on screen (Maximum contrast / Luminescence) |
| ⑤ Headset: | | Connecting only |
| ⑥ USB Memory (USB2.0): | | Read/ writ the test data (480 M Max) |
| ⑦ HDD-3 (1394): | | Read/ writ the test data (430Max) |
| ⑧ HDD-2 (USB3.0): | | Read/ writ the test data (5 G Max) |
| ⑨ PC-2: | | Continuous transmission and receiving of ping command (1000 M Max) |

2. EMI test results summary

Applied standards: FCC Part-15(2008) and VCCI(2010)

Limit value: Class B

The limit of radiated emission(30 MHz to 1,000 MHz) of FCC part-15 was applied limit of CISPR22(2005). The test samples met the class B limit of VCCI (2010)/ CISPR22(2005) and applicable below regulations as shown the following highest 6 points of each emission profiles.

Over 1GHz radiated emission measurement for VCCI was not executed according to the customer's request.

Canada: ICES-003 Issue4.(2004)

The test result is effective in only the EUT.

2.1 Radiated emission (30 MHz to 1,000 MHz) : Measured at 10 m distance

<Wireless module: AR5BHB116, AC adapter: PJW1942NA>

Freq. (MHz)	pol.	Noise level (QP; dB μ V/m)	Class B limit (QP; dB μ V/m)	Margin (dB)
30.09	Vert	28.1	30.0	1.9
39.39	Vert	26.7	30.0	3.3
240.00	Vert	32.3	37.0	4.7
416.24	Horiz	31.4	37.0	5.6
960.04	Horiz	30.6	37.0	4.2
960.04	Vert	34.5	37.0	2.5

<Wireless module: 62205ANHMW, AC adapter: PJW1942NA>

Freq. (MHz)	pol.	Noise level (QP; dB μ V/m)	Class B limit (QP; dB μ V/m)	Margin (dB)
30.09	Vert	28.0	30.0	2.0
39.39	Vert	25.0	30.0	5.0
315.86	Vert	31.2	37.0	5.8
416.24	Horiz	32.8	37.0	4.2
960.04	Horiz	32.3	37.0	4.7
960.04	Vert	34.6	37.0	2.4

• Limit value ; CISPR22(2005)

• Measurement uncertainty : \pm 3.2 dB (K=2, 95 %)

2.2 Over 1 GHz Radiated emission : Measured at 3 m distance

<Wireless module: AR5BHB116, AC adapter: PJW1942NA>

Freq. (GHz)	Pol.	Noise level (dB μ V/m)		Class B limit (dB μ V/m)		Margin (dB)	
		Peak	A V	Peak	A V	Peak	A V
1.7380	Vert	49.4	44.0	74.0	54.0	24.6	10.0
1.9980	Horiz	47.9	44.1	74.0	54.0	26.1	9.9
1.9980	Vert	46.3	44.1	74.0	54.0	27.7	9.9
2.3960	Vert	46.5	44.4	74.0	54.0	27.5	9.6
2.4992	Vert	52.1	44.4	74.0	54.0	21.9	9.6
2.5420	Horiz	49.7	42.8	74.0	54.0	24.3	11.2

• Limit value ; FCC Part-15 (2008)

• Measurement uncertainty : \pm 3.3 dB (K=2, 95 %)

<Wireless module: 62205ANHMW, AC adapter: PJW1942NA>

Freq. (GHz)	Pol.	Noise level (dB μ V/m)		Class B limit (dB μ V/m)		Margin (dB)	
		Peak	A V	Peak	A V	Peak	A V
1.6970	Vert	54.1	42.4	74.0	54.0	19.9	11.6
1.7380	Vert	49.9	44.0	74.0	54.0	24.1	10.0
1.9980	Horiz	48.1	44.0	74.0	54.0	25.9	10.0
2.3960	Horiz	51.5	46.3	74.0	54.0	22.5	7.7
2.3960	Vert	53.0	44.4	74.0	54.0	21.0	9.6
2.4992	Vert	52.1	44.4	74.0	54.0	21.9	9.6

- Limit value ; FCC Part-15 (2008)
- Measurement uncertainty : ± 3.3 dB (K=2, 95 %)

2.3 AC power line conducted emission (150 kHz to 30 MHz)**2.3.1 Wireless module: AR5BHB116, AC Adapter: PJW1942NA****<AC120V 60Hz>**

Freq. (MHz)		Noise level (dB μ A)		Class B limit (dB μ A)		Margin (dB to AV)
		Q P	A V	Q P	A V	
0.178	# 1	48.5		64.6	54.6	6.1
0.178	# 2	49.3		64.6	54.6	5.3
0.563	# 1	40.0		56.0	46.0	6.0
0.985	# 1	40.0		56.0	46.0	6.0
17.320	# 1	44.5		60.0	50.0	5.5
17.320	# 2	44.5		60.0	50.0	5.5

- Limit value: FCC Part-15 (2008)

<AC100V 50Hz>

Freq. (MHz)		Noise level (dB μ A)		Class B limit (dB μ A)		Margin (dB to AV)
		Q P	A V	Q P	A V	
0.178	# 1	47.9		64.6	54.6	6.7
0.178	# 2	48.4		64.6	54.6	6.2
0.985	# 1	40.0		56.0	46.0	6.0
0.985	# 2	38.4		56.0	46.0	7.6
17.580	# 1	45.2		60.0	50.0	4.8
17.580	# 2	44.1		60.0	50.0	5.9

- Limit value: VCCI (2010)
- Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

2.3.2 Wireless module: AR5BHB116, AC Adapter: PJW1942N**<AC120V 60Hz>**

Freq. (MHz)	Line #	Noise level (dB μ V)		Class B limit (dB μ V)		Margin (dB)	
		Q P	A V	Q P	A V	Q P	A V
0.150	# 1	58.3	42.0	66.0	56.0	7.7	14.0
0.150	# 2	58.4	41.3	66.0	56.0	7.6	14.7
0.190	# 1	56.2	46.3	64.1	54.1	7.9	7.8
0.190	# 2	56.1	45.9	64.1	54.1	8.0	8.2
0.617	# 1	44.5	30.3	56.0	46.0	11.5	15.7
0.790	# 2	44.4	30.0	56.0	46.0	11.6	16.0

- Limit value: FCC Part-15 (2008)

<AC100V 50Hz>

Freq. (MHz)	Line #	Noise level (dB μ V)		Class B limit (dB μ V)		Margin (dB)	
		Q P	A V	Q P	A V	Q P	A V
0.200	# 1	55.3	46.5	63.6	53.6	8.3	7.1
0.200	# 2	55.6	47.1	63.6	53.6	8.0	6.5
0.300	# 1	50.3	40.3	60.2	50.2	9.9	9.9
0.300	# 2	50.9	40.1	60.2	50.2	9.3	10.1
0.374	# 1	48.0	37.2	58.4	48.4	10.4	11.2
0.490	# 2	43.4	32.7	56.2	46.2	12.8	13.5

- Limit value: VCCI (2010)
- Measurement uncertainty : \pm 2.8 dB (K=2, 95 %)

2.3.3 Wireless module: AR5BHB116, AC Adapter: SEE100P2-19.0

<AC120V 60Hz>

Freq. (MHz)		Noise level (dB μ A)		Class B limit (dB μ A)		Margin (dB to AV)
		Q P		Q P	A V	
0.150	# 1	52.2		66.0	56.0	3.8
0.150	# 2	51.0		66.0	56.0	5.0
0.180	# 1	48.0		56.0	46.0	6.5
0.180	# 2	49.0		56.0	46.0	5.5
0.986	# 1	39.0		56.0	46.0	7.0
1.080	# 2	39.5		56.0	46.0	6.5

- Limit value: FCC Part-15 (2008)

<AC100V 50Hz>

Freq. (MHz)		Noise level (dB μ A)		Class B limit (dB μ A)		Margin (dB to AV)
		Q P		Q P	A V	
0.150	# 1	50.0		66.0	56.0	6.0
0.150	# 2	48.0		66.0	56.0	8.0
0.190	# 1	47.2		64.0	54.0	6.8
0.190	# 2	49.0		64.0	54.0	5.0
0.983	# 2	39.8		56.0	46.0	6.2
1.091	# 1	38.7		56.0	46.0	7.3

- Limit value: VCCI (2010)
- Measurement uncertainty : \pm 2.8 dB (K=2, 95 %)

2.3.4 Wireless module: AR5BHB116, AC Adapter: ADP-80NB A

<AC120V 60Hz>

Freq. (MHz)		Noise level (dB μ A)		Class B limit (dB μ A)		Margin (dB to AV)
		Q P		Q P	A V	
0.984	# 1	39.4		56.0	46.0	6.6
0.984	# 2	39.5.1		56.0	46.0	6.5
1.090	# 1	37.9		56.0	46.0	8.1
1.090	# 2	38.4		56.0	46.0	7.6
1.861	# 2	38.1		56.0	46.0	7.9
2.158	# 1	37.1		56.0	46.0	8.9

- Limit value: FCC Part-15 (2008)

<AC100V 50Hz>

Freq. (MHz)		Noise level (dB μ A)	Class B limit (dB μ A)		Margin (dB to AV)
			Q P	A V	
0.154	# 1	46.8	65.8	55.8	9.0
0.983	# 2	39.5	56.0	46.0	6.5
0.985	# 1	39.1	56.0	46.0	6.9
1.093	# 1	38.5	56.0	46.0	7.5
1.093	# 2	38.5	56.0	46.0	7.5
1.940	# 2	38.0	56.0	46.0	8.0

• Limit value: VCCI (2010)

• Measurement uncertainty : \pm 2.8 dB (K=2, 95 %)

2.3.5 Wireless module: 62205ANHMW, AC Adapter: PJW1942NA

Freq. (MHz)		Noise level (dB μ A)	Class B limit (dB μ A)		Margin (dB to AV)
			Q P	A V	
0.226	# 1	49.5	62.6	52.6	3.1
0.226	# 2	48.2	62.6	52.6	4.4
0.510	# 1	39.2	56.0	46.0	6.8
0.530	# 1	39.0	56.0	46.0	7.0
17.249	# 2	45.3	60.0	50.0	4.7
17.701	# 1	45.5	60.0	50.0	4.5

• Limit value: FCC Part-15 (2008)

• Measurement uncertainty : \pm 2.8 dB (K=2, 95 %)

2.4 Telecommunication line conducted emission (150 kHz to 30 MHz)

AC Adapter: PJW1942NA, AC100V 50Hz

< LAN port ⑨(CP) >

Freq. (MHz)		Noise level (dB μ A)	Class B limit (dB μ A)		Margin (dB to AV)
			Q P	A V	
0.194		18.4	37.9	27.9	9.5
7.975		10.4	30.0	20.0	9.6
9.142		8.2	30.0	20.0	11.8
9.507		10.3	30.0	20.0	9.7
9.566		9.8	30.0	20.0	10.2
9.669		8.7	30.0	20.0	11.3

< LAN port ⑨(ISN) > (1000BAST-T CAT-6, LCL adapter: 75 dB)

Freq. (MHz)		Noise level (dB μ V)	Class B limit (dB μ V)		Margin (dB to AV)
			Q P	A V	
0.465		51.7	74.5	64.5	12.8
0.470		52.0	74.5	64.5	12.5
5.524		50.3	74.0	64.0	13.7
7.795		50.8	74.0	64.0	13.2
8.005		50.3	74.0	64.0	13.7
17.771		50.0	74.0	64.0	14.0

• Limit value ; VCCI (2010)

< Telecom port @ (ISN) > (2W)

Freq. (MHz)	Noise level (dB μ V)	Class B limit (dB μ V)		Margin (dB to AV)
		Q P	A V	
0.991	46.7	74.0	64.0	17.3
1.392	48.5	74.0	64.0	15.5
1.989	47.1	74.0	64.0	16.9
2.049	52.0	74.0	64.0	12.0
6.065	50.1	74.0	64.0	13.9
9.093	46.6	74.0	64.0	17.4

· Limit value ; VCCI (2010)

3. EUT modification under the test

None

4. Measurement procedure and test equipment

The measurement was performed without deviation from VCCI (2010) and ANSI C63.4 (2003).

4.1 Radiated emission

4.1.1 Radiated emission (30MHz~1,000MHz)

The measurement was performed in the 10 m RF semi-anechoic chamber. The EUT was set on the 80 cm height non-reflective desk (W: 150 cm×D: 100 cm) placed on the turntable. The HUB and PC-2 were placed at outside of the chamber to make usual install condition at the different place. The maximum noise level in the frequency range from 30 MHz to 1,000 MHz were measured by 10 m method with scanning the antenna height from 1 m to 4 m above the ground plane and rotating the EUT through 360 degrees for both horizontal and vertical polarization.

Preliminary measurement using spectrum analyzer peak detection was performed to arrange the minimum margin spectrum. The settings of the interface cables and the mouse were adjusted to obtain maximum level at the minimum margin spectrum. The final measurement was performed using the RFI receiver (CISPR Quasi-peak, 120 kHz band width) and calibrated broadband antennas or dipole antennas for the main spectrum that was obtained by the preliminary measurement.

Test equipment	Manufacturer	Type	S/N	Cal. Date	Due. Date
Dipole antenna	Schwarzbeck	VHA9103	VHA91031573	2010.04.13	2012.04.13
Dipole antenna	Schwarzbeck	UHA9105	UHA91052119	2010.04.13	2012.04.13
Bi Log antenna	Schwarzbeck	VULB9160	3118	2010.05.12	2011.05.12
Field strength meter	Rohde & Schwarz	ESCS30	849650/001	2010.07.08	2011.07.08
Spectrum analyzer	HP	85422E	3746A00242	2010.07.30	2011.07.30
RF switch	Anritsu	MP59B	M87079	2010.04.29	2011.04.29
RF cable	—	TF0207	—	2010.04.29	2011.04.29
2nd semianchoic camber	Riken eletech				
EMI test program	FGE	Version 1.3			

4.1.2 Over 1 GHz radiated emission

The measurement was performed in the 10 m RF semi-anechoic chamber. The EUT was set on the 80 cm height styrene foam desk (W: 150 cm×D: 100 cm) on the turntable. The radiated emission measurement from 1 GHz to 13.5 GHz; Operating rate 2.7 GHz was performed using the spectrum analyzer (Peak detection, 1MHz band width) and the horn antenna that was positioned at 3 m from the EUT for class B. The measurement was performed for both horizontal and vertical polarization. The measurement was performed with rotating the EUT through 360 degrees and fixing the antenna height to the 1 m for both horizontal and vertical polarization.

The measurement was performed using the RF signal "off" mode of the wireless LAN and Bluetooth.

Test equipment	Manufacturer	Type	S/N	Cal. Date	Due. Date
Horn antenna	Schwarzbeck	BBHA9120D	414	2010.04.22	2011.04.22
Spectrum analyzer	Advantest	U3772	161200140	2010.05.24	2011.05.24
Pre amplifier	HP	8449B	3008A01020	2010.03.26	2011.03.26
2nd semianchoic camber	Riken eletech				

4.2 AC power line conducted emission

The measurement was performed in the shielded room. The EUT was set on the 80 cm height non-reflective desk and connected to the 50 Ω /50 μ H artificial mains network: AMN. The EUT was operated by AC 120 V/ 60 Hz and AC 100 V/ 50 Hz.

Preliminary measurement using spectrum analyzer peak detection was performed in the frequency range from 150 kHz to 30 MHz to arrange the minimum margin spectrum. The setting of the cables was adjusted to obtain maximum level at the minimum margin spectrum. The final measurement was performed using the RFI receiver (CISPR Quasi-peak, 9 kHz band width) and recorded the maximum value in the monitored interval of the main spectrum that was obtained by the preliminary measurement.

Test equipment	Manufacturer	Type	S/N	Cal. Date	Due. Date
AMN for EUT	Kyoritsu	KNW-242C	8-1387-7	2010.01.09	2011.01.09
AMN for AE	Kyoritsu	KNW-242C	8-1387-6	2010.01.09	2011.01.09
Field strength meter	Rohde & Schwarz	ESCS30	849650/003	2010.07.08	2011.07.08
Spectrum analyzer	HP	85422E	3746A00240	2010.07.30	2011.07.30
RF switch	Rohde & Schwarz	PSU	848290/005	2010.04.06	2011.04.06
Band pass filter	Advantest	TR14202	03560025	2010.04.06	2011.04.06
Pulse limiter	Rohde & Schwarz	ESH3-Z2	0357.8810.54	2010.04.06	2011.04.06
RF cable	----	TF0110	----	2010.04.06	2011.04.06
1st shielded room	Riken eletech				
EMI test program	FGE	Version 1.3			

4.3 Telecommunication line conducted emission for First edition

The measurement was performed in the shielded room. The EUT was set on the 40 cm height wooden desk and connected to the impedance stabilization network: ISN(LCL; 75 dB) and the current probe for LAN port. The EUT was operated by AC 100 V/ 50 Hz.

Preliminary measurement using spectrum analyzer peak detection was performed in the frequency range from 150 kHz to 30 MHz to arrange the minimum margin spectrum. The setting of the cables was adjusted to obtain maximum level at the minimum margin spectrum. The final measurement was performed using the RFI receiver (CISPR Quasi-peak, 9 kHz band width), and recorded the maximum value in the monitored interval of the main spectrum that was obtained by the preliminary measurement.

Test equipment	Manufacturer	Type	S/N	Cal. Date	Due. Date
Current probe	Rohde & Schwarz	EZ-17	100007	2009.06.01	2012.06.01
ISN	Kyoritsu	KNW-2208	8S-2972-5	2010.04.07	2012.04.07
Field strength meter	Rohde & Schwarz	ESCS30	849650/003	2010.07.08	2011.07.08
Spectrum analyzer	HP	85422E	3746A00240	2010.07.30	2011.07.30
RF switch	Rohde & Schwarz	PSU	848290/005	2010.04.06	2011.04.06
Band pass filter	Advantest	TR14202	03560025	2010.04.06	2011.04.06
Pulse limiter	Rohde & Schwarz	ESH3-Z2	0357.8810.54	2010.04.06	2011.04.06
RF cable	----	TF0110	----	2010.04.06	2011.04.06
1st shielded room					
EMI test program	FGE	Version 1.3			

5. Test site and traceability

The Fujitsu General EMC Laboratory performs testing under VCCI / EN / CISPR regulations and Fujitsu / Fujitsu General internal regulations. Test procedures and test facilities comply with the following international standards. The laboratory is registered on VCCI (Japan), NVLAP (USA), TÜV SÜD PS (Germany) and TÜV Rheinland.

VCCI: 1stSemi-Anechoic Chamber(R-753/G-53/C-776/T-1686)
1stShielded Room(C-777/T-1687)
2ndSemi-Anechoic Chamber(R-1460/G-54/C-1547/T-1688)
2nd Shielded Room(C-1548/T-1689)
3rd Shielded Room(C-1549)

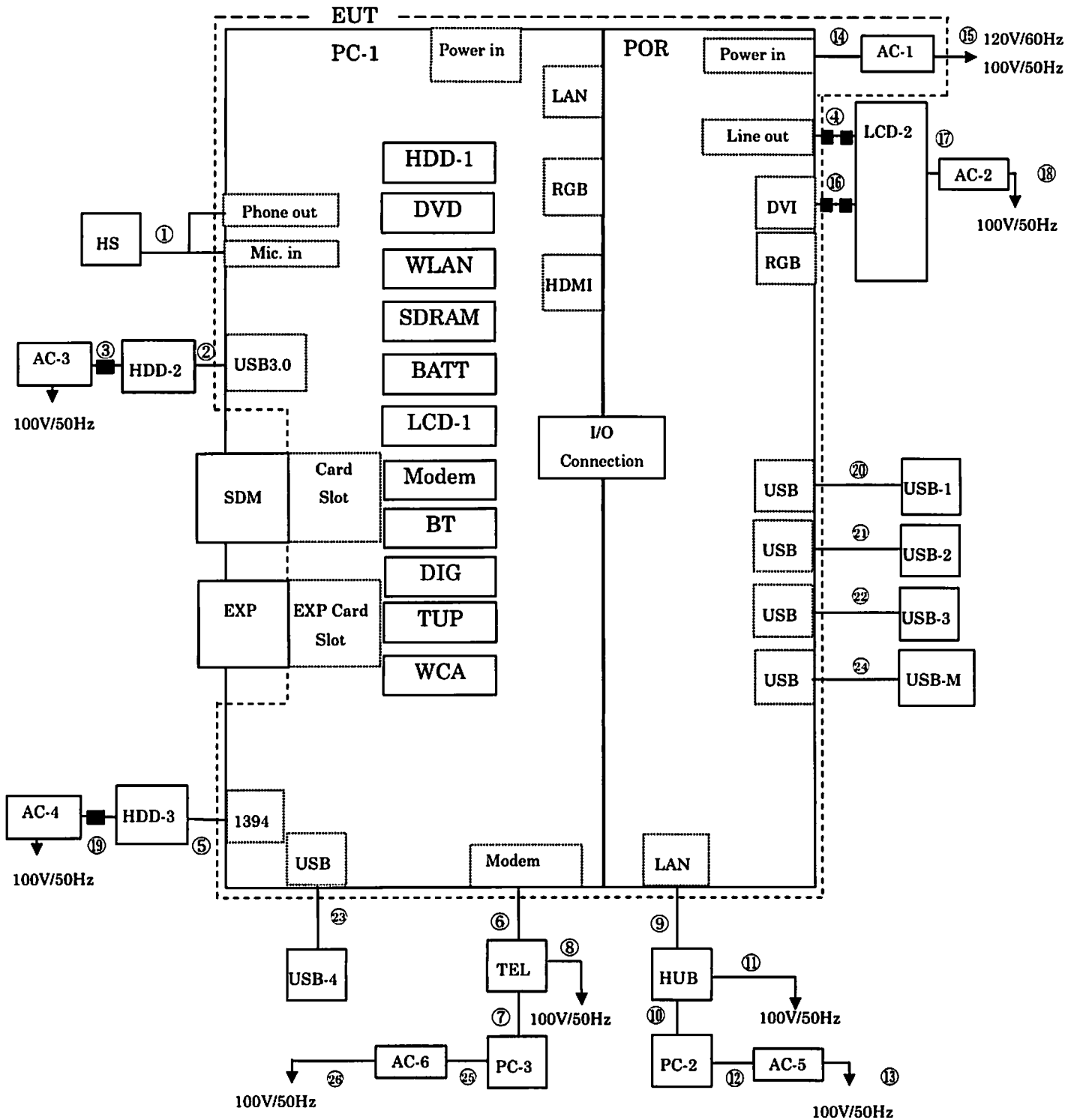
NVLAP: Dec.1st 1998 (Lab code: 200373-0)

TÜV SÜD PS: Jan.29th 1999

TÜV Rheinland Japan: Aug.25th 2005

The measuring equipments using in the laboratory and test data are under national and international standards. All equipment is maintained by regular inspection and daily check as whole measurement system in order to keep accuracy.

Figure-1 System configuration and cables



■ : Ferrite core

Main EUT

Code	Name	Type	S/N	Product
PC-1	Personal computer	T901	Pre-production sample	Fujitsu

Related EUT

POR	Port Replicator	FPCPR105	----	Fujitsu
AC-1	AC adapter	PJW1942NA	----	Fujitsu
	AC adapter	PJW1942N	----	Fujitsu
	AC adapter	SEE100P2-19.0	----	Fujitsu
	AC adapter	ADP-80NB A	----	Fujitsu

Included device; PC-1

Code	Name	Type	S/N	Product
HDD-1	500GB HDD	TS5SAA500	----	HITACH
DVD	DVD-Super Multi	UJ8A0	----	Panasonic.
WLAN	Wireless LAN	AR5BHB116	----	Atheros
	Wireless LAN	62205ANHMW	----	Intel
SDRAM	4096 MB	M471B5673FH0-CF8 2GB×2	----	SAMSUNG
BATT	Battery(6 Cell)	FPCBP280 10.8V 6200mA/h	----	Fujitsu
LCD-1	13.3 inch WXGA	LP133WH1-TLB1	----	hydys
Modem	Telephony modem	MDC1.5 modem model D40	----	Agere
BT	Bluetooth	BCM92070MD REF6	----	CSR
DIG	Digitizer	SU6C-13W02AU-01X	----	WACOM
TUP	Touch panel	FTU3-13W02C-01X	----	WACOM
WCA	Web-camera	CNFA03721005130L	----	Chicony

Assisted equipment

Code	Name	Type	S/N	Product
LCD-1	LCD display	H22-1W WBZA-H	YE1C017616	FSC
	LCD display	P19-1	YEGA217490	FSC
HDD-2	Herd disk drive USB3.0	HD-H1.0TU3	15476991120911	BUFFALO
HDD-3	Herd disk drive	Stragebird 40 GB	3732650212	FSC
HS	Head set	GN 501FSC	----	FSC
PC-2	Personal computer	FMV	----	Fujitsu
PC-3	Personal computer	FMV	----	Fujitsu
HUB	Switching Hub	ETG-SH-8	VD7000010513N	I·O DATA
TEL	Telephone line emulator	TEL101	----	ASCII
AC-2	AC adapter	0218B1260	A30730002648	LI SHIN
AC-3	AC adapter	UU324-1220	910-0090730	BUFFALO
AC-4	AC adapter	ACTN-71T	----	Sunfone
AC-5	AC adapter	FMV-AC322	----	Fujitsu
AC-6	AC adapter	FMV-AC322	----	Fujitsu
USB-M1	USB Memory	256MB	----	I·O DATA
USB-M2	USB Memory	256MB	----	I·O DATA
USB-1	USB Mouse	M-UAE96	HC7180A55M	FSC
USB-2	USB Mouse	M-UAE96	LZ6410B0B4U	FSC
USB-3	USB Mouse	M-UAE96	LZ6410B09PK	FSC
USB-4	USB Mouse	M-UAE96	LZ6410E01E6	FSC
EXP	EXP memory card	HEX-S2G 2GB	----	Hagiwara sys-com
SDM	SD XC memory card	THSU064G 64GB	----	Toshiba

Cables SLD: Shielded NSLD: Non-shielded CAX: Coaxial					
Connector MC: Metal NMC: Non-metal PMC: Point contact metal					
No.	I/O Port	Name	Type	Length	Cable type
①	Phone-out / Mic-in	Headset cable	-----	2.2m	NSLD, MC
②	USB3.0	USB cable	-----	1.0m	SLD, MC
③	-----	AC adaptor cable	-----	1.6m	NSLD, NMC with core * 1
④	Line-out	Line out cable	-----	1.5 m	NSLD, MC with fixed core
⑤	1394	1394 cable	-----	1.0m	SLD, NMC
⑥	Modem	Modem cable	-----	20.0m	NSLD, NMC
⑦	-----	Modem cable	-----	2.0m	NSLD, NMC
⑧	-----	AC power cable	-----	2.0m	2P-NSLD
⑨	LAN	LAN cable	-----	20.0m	SLD, MC
⑩	-----	LAN cable	-----	1.0m	SLD, MC
⑪	-----	AC power cable	-----	2.0m	3P-NSLD
⑫	-----	AC adaptor cable	-----	1.8m	NSLD, NMC
⑬	-----	AC power cable	-----	2.0m	2P-NSLD
⑭	-----	AC adaptor cable	-----	1.8m	NSLD, NMC
⑮	-----	AC power cable	-----	2.0m	2P-NSLD
⑯	DVI	DVI cable	-----	2.0m	SLD, MC with fixed core
⑰	-----	AC adaptor cable	-----	1.8m	2P-NSLD
⑱	-----	AC power cable	-----	2.0m	3P-NSLD
⑲	-----	AC adaptor cable	-----	1.2m	NSLD, NMC with fixed core
⑳	USB	USB mouse cable	-----	1.9m	SLD, MC
㉑	USB	USB mouse cable	-----	1.9m	SLD, MC
㉒	USB	USB mouse cable	-----	1.9m	SLD, MC
㉓	USB	USB mouse cable	-----	1.9m	SLD, MC
㉔	USB	USB cable	-----	1.0m	SLD, MC
㉕	-----	AC adaptor cable	-----	1.8m	2P-NSLD
㉖	-----	Power cable	-----	2.0m	2P-NSLD

* 1: KITAGAWA industry Co.,Ltd; TFC-23-11-14