FUJITSU GENERAL EMC LABORATORY LIMITED
1116, SUENAGA, TAKATSU-KU, KAWASAKI 213-8502 JAPAN TEL:044-861-7897 FAX:044-861-9890

EMI Test report

CATEGORY : FCC Part-15 (2011); Class B
VCCI (2010)

PRODUCT : Personal computer

MODEL : T731
AC adapter PJW1942NA PJW1942N ADP-80NB -A SEE100P2-19.0
Port Replicator FPCPR94
Wireless LAN module 62205ANHMW AR5BHB116 AR5B97
Bluetooth module BCM92070MD REF6

Grouping model : TH701

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 : March 31, 2011 24℃ 30%

TESTED BY : Hiroyuki Aikawa

EUT conforms to the above mentioning all regulations.

APPROVED BY : DATE : March 31, 2011
for Hiroyuki Shimanoe, President

FUJITSU GENERAL EMC LABORATORY LIMITED
1116, Suenaga, Takatsu-ku, Kawasaki 213-8502 JAPAN
TEL: (044)861-7897 FAX: (044)861-9890

CLIENT : Personal Computing Division I , FUJITSU LIMITED
4-1-1, Kamikodanaka, Nakahara-ku, Kawasaki 211-8588 JAPAN

※ The description of the EUT and the system configuration in this report are provided by the client.

NVLAP LAB CODE 200373-0

Product Service

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

1. Description of EUT

The EUT: T731 is personal computer using CPU; Core i7-2620M 2.7 GHz microprocessor. The EUT has a 12.1 inch HD LCD and a system disk (320 GB×1). The EUT has the interface for DVI⑯, HDMI ,RGB Mic-in①, Phone-out①, Line-out⑤, LAN④,USB×5②⑦⑧⑨⑩, IEE1394③, Memory card slot, Exp card slot, Bluetooth and wireless LAN module.

The following type code is given according to the market.

Type code	Market
T731	Commercial
TH701	Consumer

Internal clock frequency : 32.000 kHz, 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, T731 with AC adapter; PJW1942NA, internal wireless LAN module; 62205ANHMW, 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, ADP-80NB A, SEE100P2-19.0 and wireless LAN module; AR5BHB116, AR5B97.

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
	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(2011) 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.

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 LAN module: 62205ANHMW, AC adapter: PJW1942NA>

Freq. (MHz)	pol.	Noise level (QP; dBμV/m)	Class B limit (QP; dBμV/m)	Margin (dB)
30.00	Vert	28.0	30.0	2.0
160.00	Horiz	25.2	30.0	4.8
480.00	Horiz	34.4	37.0	2.6
500.85	Horiz	33.2	37.0	3.8
960.00	Horiz	36.0	37.0	1.0
960.00	Vert	35.4	37.0	1.6

- Limit value ; CISPR22(2005)
- Measurement uncertainty : ± 3.2 dB (K=2, 95 %)

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

<1 GHz to 14.5 GHz for FCC, Wireless LAN module: 62205ANHMW, AC adapter: PJW1942NA>

Freq. (GHz)	Pol.	Noise level (dBμV/m)		Class B limit (dBμV/m)		Margin (dB)	
		Peak	AV	Peak	AV	Peak	AV
1.0372	Horiz	45.5	38.8	74.0	54.0	28.5	15.2
1.0451	Vert	45.0	38.8	74.0	54.0	29.0	15.2
1.6675	Horiz	44.7	39.6	74.0	54.0	29.3	14.4
2.0980	Vert	47.5	40.2	74.0	54.0	26.5	13.8
2.3331	Vert	43.0	39.8	74.0	54.0	31.0	14.2
3.0025	Vert	45.8	40.5	74.0	54.0	28.2	13.5

- Limit value ; FCC Part-15 (2011)
- Measurement uncertainty : ± 3.3 dB (K=2, 95 %)

<1 GHz to 6 GHz for VCCI, Wireless LAN module: 62205ANHMW, AC adapter: PJW1942NA>

Freq. (GHz)	Pol.	Noise level (dBμV/m)		Class B limit (dBμV/m)		Margin (dB)	
		Peak	AV	Peak	AV	Peak	AV
1.0372	Horiz	45.5	38.8	70.0	50.0	24.5	11.2
1.0451	Vert	45.0	38.8	70.0	50.0	25.0	11.2
1.6675	Horiz	44.7	39.6	70.0	50.0	25.3	10.4
1.6675	Vert	46.6	37.9	70.0	50.0	25.3	12.1
2.0980	Vert	47.5	40.2	70.0	50.0	22.5	9.8
2.3331	Vert	43.0	39.8	70.0	50.0	27.0	10.2

- Limit value ; VCCI (2010)
- Measurement uncertainty : ± 3.3 dB (K=2, 95 %)

2.3 AC power line conducted emission (150 kHz to 30 MHz)

2.3.1 Wireless LAN module: 62205ANHMW, AC Adapter: PJW1942NA

<AC120V 60Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.210	#1	49.1	42.2	63.2	53.2	14.1	11.0
0.210	#2	49.0	40.3	63.2	53.2	14.2	12.9
7.894	#2	40.7	34.9	60.0	50.0	19.3	15.1
8.009	#1	41.3	35.6	60.0	50.0	18.7	14.4
17.600	#1	48.8	42.3	60.0	50.0	11.4	7.7
17.600	#2	48.6	42.3	60.0	50.0	11.4	7.7

・ Limit value: FCC Part-15 (2011)

<AC100V 50Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.219	#1	48.3	41.4	62.9	52.9	14.6	11.5
0.219	#2	48.5	41.0	62.9	52.9	14.4	11.9
7.951	#1	41.5	35.8	60.0	50.0	18.5	14.2
17.500	#1	48.7	42.4	60.0	50.0	11.3	7.6
17.500	#2	48.8	42.5	60.0	50.0	11.2	7.5
21.356	#1	39.4	34.0	60.0	50.0	20.6	16.0

・ Limit value: VCCI (2010)

・ Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

2.3.2 Wireless module: 62205ANHMW, AC Adapter: PJW1942N

<AC120V 60Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.150	#1	60.4	38.5	66.0	56.0	5.6	17.5
0.150	#2	60.0	37.5	66.0	56.0	6.0	18.5
0.212	#1	57.6	45.6	63.1	53.1	5.5	7.5
0.327	#1	49.6	36.0	59.5	49.5	9.9	13.5
4.500	#2	39.6	32.2	56.0	46.0	16.4	13.8
12.989	#1	42.0	36.4	60.0	50.0	18.0	13.6

・ Limit value: FCC Part-15 (2011)

<AC100V 50Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.208	#1	57.9	42.4	63.3	53.3	5.4	10.9
0.208	#2	58.7	43.6	63.3	53.3	4.6	9.7
0.223	#1	58.9	49.2	62.7	52.7	3.8	3.5
0.223	#2	59.3	49.1	62.7	52.7	3.4	3.6
0.347	#2	50.8	41.1	59.0	49.0	8.2	7.9
14.500	#1	42.2	36.6	60.0	50.0	17.8	13.4

・ Limit value: VCCI (2010)

・ Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

2.3.3 Wireless module: 62205ANHMW, AC Adapter: ADP-80NB A

<AC120V 60Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.150	#2	47.9	33.4	66.0	56.0	18.1	22.6
2.281	#1	39.5	31.9	66.0	56.0	16.5	14.1
13.665	#1	40.5	33.4	60.0	50.0	19.5	16.6
14.149	#2	40.1	33.7	60.0	50.0	19.9	16.3
17.150	#1	48.1	39.5	60.0	50.0	11.9	10.5
17.150	#2	48.5	40.0	60.0	50.0	11.5	10.0

・ Limit value: FCC Part-15 (2011)

<AC100V 50Hz>

Freq. (MHz)		Noise level (dBμV)	Class B limit (dBμV)		Margin (dB to AV)
		QP	QP	AV	
0.150	#1	48.9	66.0	56.0	7.1
2.286	#2	40.0	56.0	46.0	6.0
16.888	#1	45.4	60.0	50.0	4.6
16.888	#2	46.0	60.0	50.0	4.0
22.360	#1	43.8	60.0	50.0	6.2
22.360	#2	43.3	60.0	50.0	6.7

・ Limit value: VCCI (2010)

・ Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

2.3.4 Wireless module: 62205ANHMW, AC Adapter: SEE100P2-19.0

<AC120V 60Hz>

Freq. (MHz)		Noise level (dBμV)	Class B limit (dBμV)		Margin (dB to AV)
		QP	QP	AV	
0.200	#2	50.1	63.6	53.6	3.5
0.796	#2	40.0	56.0	46.0	6.0
0.936	#2	42.4	56.0	46.0	3.6
0.958	#2	40.8	56.0	46.0	5.2
1.032	#2	41.9	56.0	46.0	4.1
1.126	#2	42.0	56.0	46.0	4.0

・ Limit value: FCC Part-15 (2011)

<AC100V 50Hz>

Freq. (MHz)		Noise level (dBμV)	Class B limit (dBμV)		Margin (dB to AV)
		QP	QP	AV	
0.200	#1	46.2	63.6	53.6	3.5
0.200	#2	49.1	63.6	53.6	4.5
0.330	#2	41.0	59.5	49.5	8.5
0.436	#2	38.6	57.1	47.1	8.5
0.858	#1	37.9	56.0	46.0	6.6
0.960	#2	39.4	56.0	46.0	6.6

・ Limit value: VCCI (2010)

・ Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

2.3.5 Wireless module: AR5BHB116, AC Adapter: PJW1942NA

<AC120V 60Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.210	#1	47.1	33.9	63.2	53.2	16.1	19.3
0.210	#2	47.2	34.0	63.2	53.2	16.0	19.2
8.000	#1	41.5	35.7	60.0	50.0	18.5	14.3
8.000	#2	41.6	35.8	60.0	50.0	18.4	14.2
17.500	#1	48.8	42.3	60.0	50.0	11.2	7.5
17.500	#2	48.8	42.3	60.0	50.0	11.2	7.4

・ Limit value: FCC Part-15 (2011)

・ Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

2.3.6 Wireless module: AR5B97, AC Adapter: PJW1942NA

<AC120V 60Hz>

Freq. (MHz)	Line #	Noise level (dBμV)		Class B limit (dBμV)		Margin (dB)	
		QP	AV	QP	AV	QP	AV
0.210	#1	48.1	35.7	63.2	53.2	15.1	17.5
0.210	#2	47.3	34.2	63.2	53.2	15.9	19.0
8.000	#1	41.6	35.7	60.0	50.0	18.4	14.3
8.000	#2	41.8	35.8	60.0	50.0	18.5	14.2
17.500	#1	48.1	42.1	60.0	50.0	11.9	7.9
17.500	#2	48.4	42.6	60.0	50.0	11.6	7.4

・ Limit value: FCC Part-15 (2011)

・ Measurement uncertainty : ± 2.8 dB (K=2, 95 %)

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

AC Adapter: PJW1942NA, AC100V 50Hz

< LAN port ④(CP) >

Freq. (MHz)	Noise level (dBμA)	Class B limit (dBμA)		Margin (dB to AV)
	QP	QP	AV	
0.419	15.3	31.5	21.5	6.2
8.276	12.5	30.0	20.0	7.5
9.735	11.3	30.0	20.0	8.7
14.145	11.0	30.0	20.0	9.0
17.939	10.5	30.0	20.0	9.5
19.530	10.3	30.0	20.0	9.7

< LAN port ④ (ISN) > (1000BAST-T CAT-6, LCL adapter: 75 dB)

Freq. (MHz)	Noise level (dBμV)	Class B limit (dBμV)		Margin (dB to AV)
	QP	QP	AV	
0.419	58.0	75.5	65.5	7.5
0.840	53.6	74.0	64.0	10.4
5.847	50.1	74.0	64.0	13.9
7.859	55.1	74.0	64.0	8.9
17.761	53.7	74.0	64.0	10.3
19.976	49.6	74.0	64.0	14.4

・ 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 test volume. 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	2011.03.26	2012.03.26
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 50Ω/50μH 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-407C	8-1387-18	2011.01.09	2012.01.09
AMN for AE	Kyoritsu	KNW-242C	8-1387-6	2011.01.09	2012.01.09
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

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	2011.04.07
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			

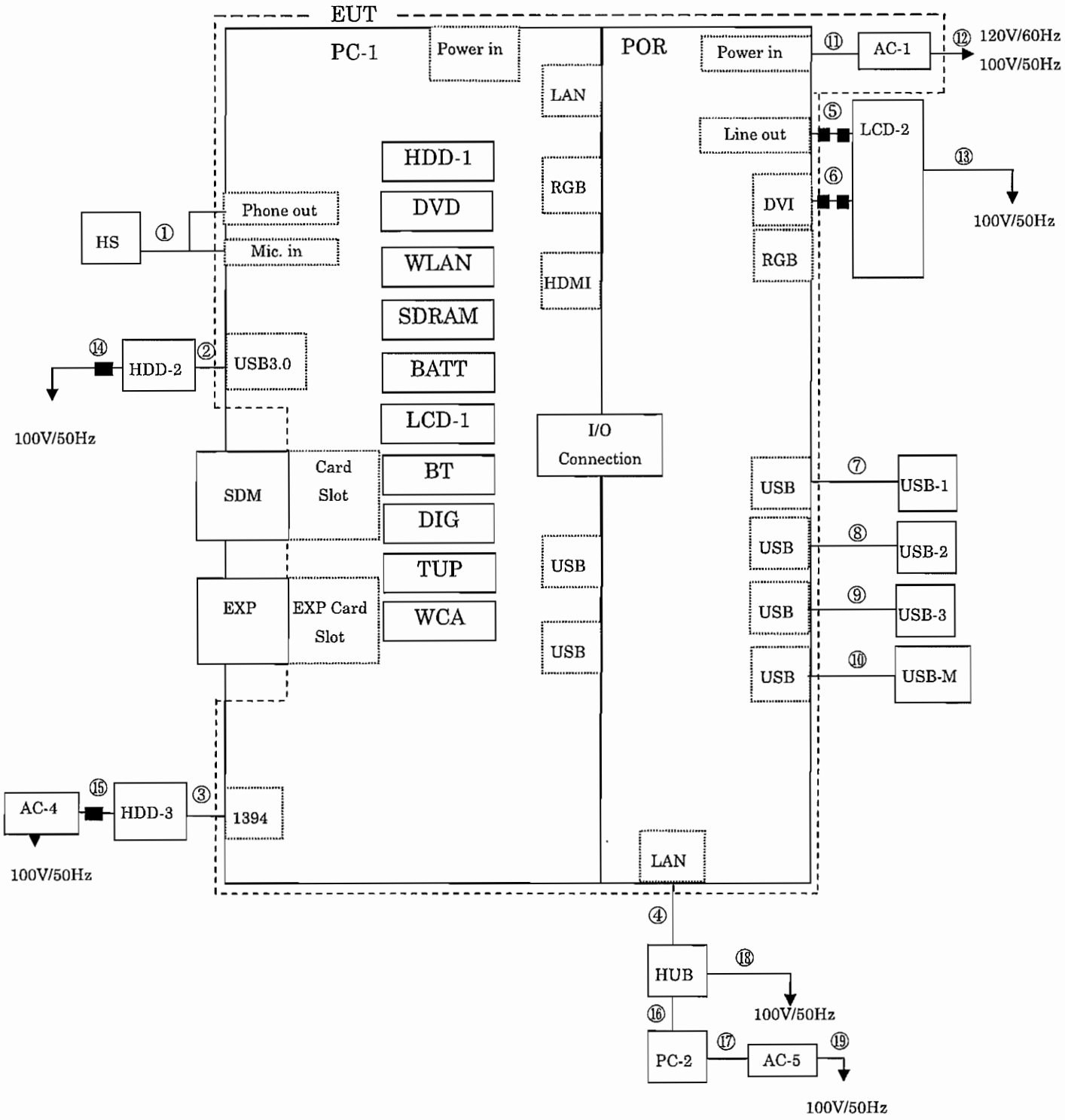
5. Test site and traceability

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	T731	Pre-production sample	Fujitsu

Related EUT

POR	Port Replicator	FPCPR94	———	Fujitsu
AC-1	AC adapter	PJW1942NA	———	Fujitsu
	AC adapter	PJW1942N	———	Fujitsu
	AC adapter	ADP-80NB A	———	Fujitsu
	AC adapter	SEE100P2-19.0	———	Fujitsu

Included device; PC-1

Code	Name	Type	S/N	Product
HDD-1	320GB HDD	TS5SAA320	———	HITACHI
DVD	DVD-Multi	TS-L633	———	Tosiba Samsung
WLAN	Wireless LAN	62205ANHMW	———	Intel
	Wireless LAN	AR5BHB116	———	Atheros
	Wireless LAN	AR5B97	———	Atheros
SDRAM	4096 MB	M471B5673FH0-CF9 2GB×2	———	SAMSUNG
BATT	Battery(6 Cell)	FPCBP215 10.8V 5800mA/h	———	Fujitsu
LCD-1	12.1 inch HD	HV121WX6-100	———	HYDIS
BT	Bluetooth	BCM92070MD REF6	———	Broadcom
DIG	Digitizer	SU6E-12W01AU-00A	———	Wacom
TUP	Touch panel	FTU3-12W01C-00X	———	Wacom
WCA	Web-camera	CNFA03721005130L	———	Chicony

Assisted equipment

Code	Name	Type	S/N	Product
LCD-1	Wide LCD display	P22W-5 ECO	YE7G213217	FSC
	LCD display	P19-1	YEGA217490	FSC
HDD-2	Herd disk drive USB3.0	HDJ-UT1.0	S2BF005592NR	I·O DATA
HDD-3	Herd disk drive	Stragebird 40 GB	3732650212	FSC
HS	Head set	GN 501FSC	———	FSC
PC-2	Personal computer	FMV	———	Fujitsu
HUB	Switching Hub	ETG-SH-8	VD7000010513N	I·O DATA
AC-2	AC adapter	FMV-AC322	———	Fujitsu
AC-3	AC adapter	ACTN-71T	———	Sunfone
USB-M	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
EXP	EXP memory card	HEX-S2G 2GB	———	Hagiwara sys-com
SDM	SD XC memory card	RP-SDM48G 48GB	———	Panasonic

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	1394	1394 cable	———	1.0m	SLD, NMC
④	LAN	LAN cable	———	20.0m	SLD, MC
⑤	Line-out	Line out cable	———	1.5 m	NSLD, MC with fixed core
⑥	DVI	DVI cable	———	2.0m	SLD, MC with fixed core
⑦	USB	USB mouse cable	———	1.9m	SLD, MC
⑧	USB	USB mouse cable	———	1.9m	SLD, MC
⑨	USB	USB mouse cable	———	1.9m	SLD, MC
⑩	USB	USB cable	———	1.0m	SLD, MC
⑪	———	AC adaptor cable	———	1.8m	NSLD, NMC
⑫	———	AC power cable	———	2.0m	2P-NSLD
⑬	———	AC power cable	———	2.0m	3P-NSLD
⑭	———	AC cable	———	2.0m	NSLD, NMC with core ＊1
⑮	———	AC adaptor cable	———	1.6m	NSLD, NMC with core ＊2
⑯	———	LAN cable	———	1.0m	SLD, MC
⑰	———	AC adaptor cable	———	1.8m	NSLD, NMC
⑱	———	AC power cable	———	2.0m	3P-NSLD
⑲	———	AC cable	———	2.0m	2P-NSLD

＊ 1: KITAGAWA industry Co.,Ltd; GRFC-13
＊ 2: KITAGAWA industry Co.,Ltd; RFC-10