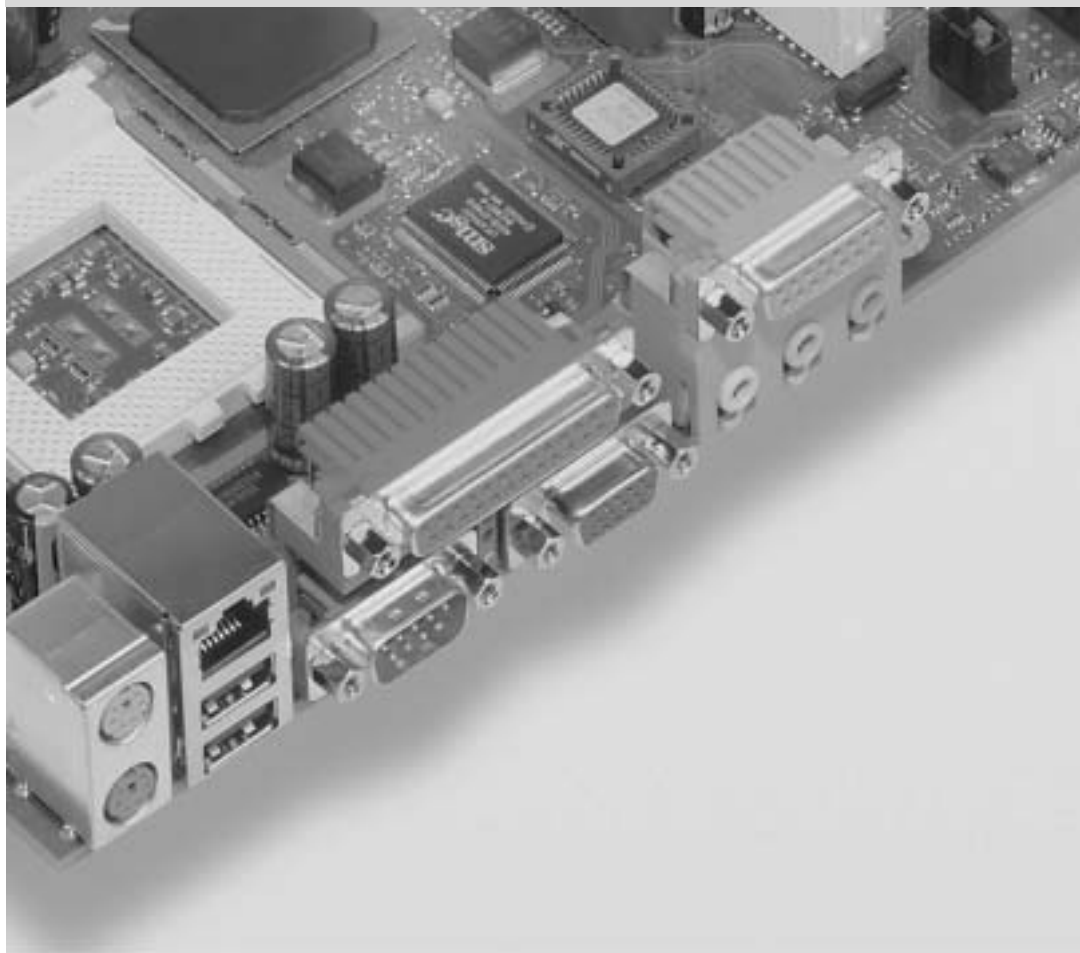


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Additional Technical Manual

System board D1307



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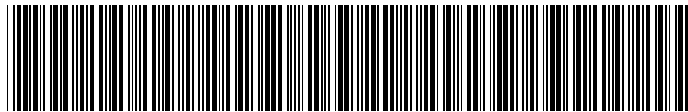
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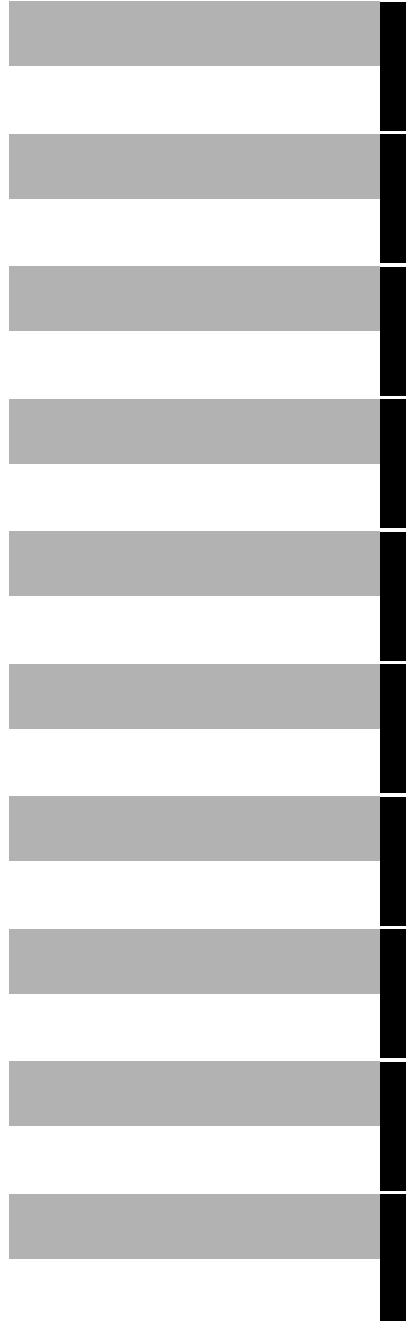


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System Board D1307

Additional Technical Manual

October 2001 edition



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Introduction



Depending on the configuration chosen, some of the hardware components described may not be available on your system board.

You will find further information e. g. in the complete system board Technical Manual and in the "BIOS Setup" description.

Further information regarding drivers is provided on the supplied drivers diskettes or on the "Drivers & Utilities" or "ServerStart" CD. For detailed information please read the "Installing drivers" chapter. The latest BIOS version and drivers can be found on the internet under

<http://www.fujitsu-siemens.com/en/service>.



Computer system boards and components contain very delicate IC chips. To protect them against damage caused by static electricity, you must follow these precautions:

- Use a grounded wrist strap.
- Unplug your computer before you remove any part of the casing.
- Place the system board and the components on a grounded antistatic pad whenever you remove them from the computer.

Hold components by the edge, do not touch any pins or connectors on them.

Once you have installed the system board, you should remove the battery protection (i.e. the thin plastic plate between battery and contact spring).

Features

The table shows assembly versions of this system board as an example.

Features	D1307-A	D1307-B
Chipset	HE-SL	HE-SL
Board Size	AT03	AT03
VGA onboard	✓	✓
Audio onboard (AC '97)	-	-
LAN onboard / with Alert-on-LAN	✓/✓	✓/✓
SCSI controller onboard	✓	✓
Thermal Management onboard	✓	✓
System Monitoring onboard	✓	✓
Fujitsu Siemens Keyboard Power Button Support	✓	✓
Buzzer onboard / int. Speaker Support	✓/ -	✓/ -

Internal Connectors

DIMM Sockets (SDRAM)	4	4
PCI Slots (2 x 64Bit/66 MHz, 1 x 32Bit/33 MHz for RSB board)	3	3
ISA Slot	-	-
ACR Slot	-	-
CNR Slot	-	-
AMR Slot	-	-
SCSI Interfaces (Ultra 160)	1	1
IDE Interfaces (Ultra DMA/100)	1	2
Compact Flash Interface	1	1
Floppy Interface (up to 2.88 MB, slimline)	1	1
CD / AUX Audio Input	-	-
Front Panel Audio Output	-	-
Wake-on-LAN	1	1
Int. Serial Port	1	1
Int. USB Connectors with SmartCard Support	1	1

External Connectors

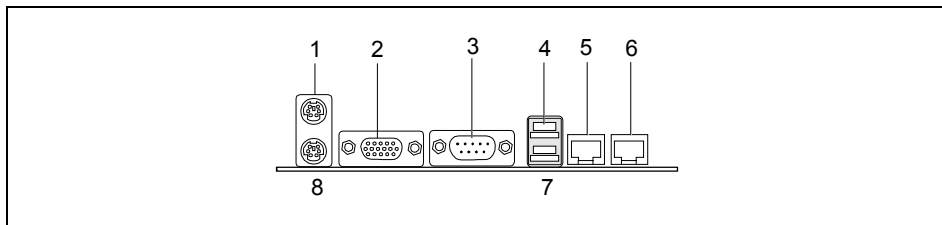
VGA	1	1
LAN (RJ-45)	2	2
PS/2 Mouse/Keyboard	1 / 1	1 / 1
Ext. Serial Port (FIFO, 16550 compatible)	1	1
Parallel Port (EPP/ECP)	-	-
USB Connectors external	2	2

Mechanics

Layout System board D1307

ATX 13.2" x 13" (335 mm x 330 mm)

Some of the following connectors are optional and may therefore not be included on your system board.



1 = PS/2 mouse port

2 = VGA port

3 = Serial interface COM1

4 = USB port

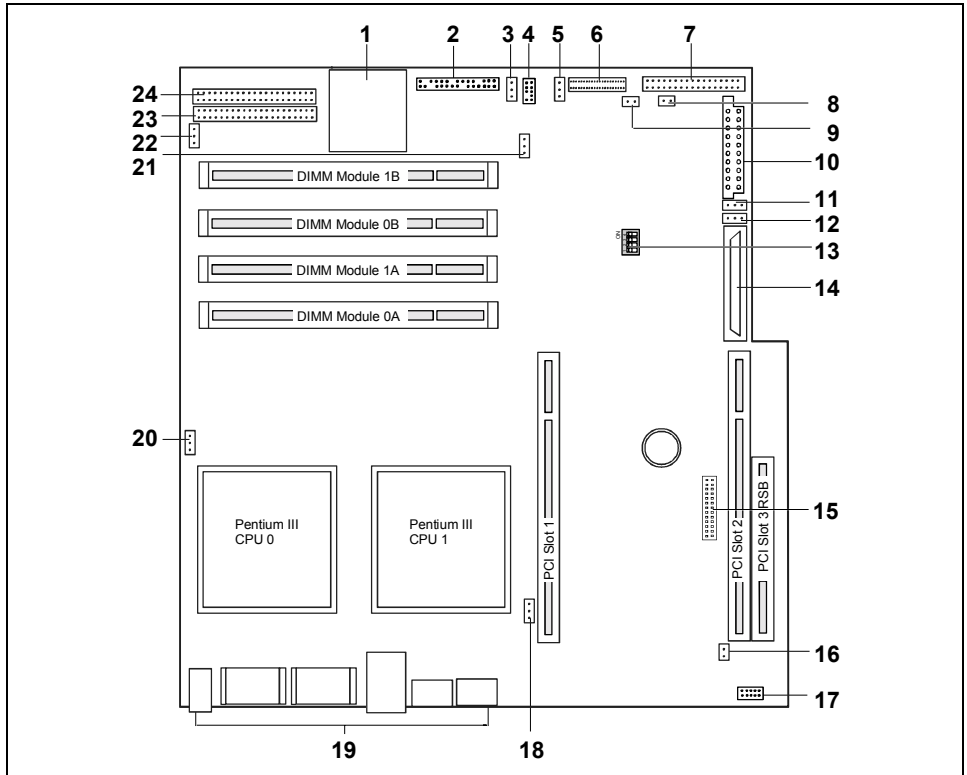
5 = LAN connector

6 = LAN connector

7 = USB port

8 = PS/2 keyboard port

The components and connectors marked are not necessarily present on the system board.



- 1 = Connector for compact flash board
- 2 = Control panel
- 3 = NMI
- 4 = USB port
- 5 = Fan (SysFan)
- 6 = Power supply connector for HD
- 7 = Port for floppy disk drive
- 8 = SMB 1
- 9 = SMB 2
- 10 = Power supply (EPS 12 V)
- 11 = Optional SV Fan 1
- 12 = Optional SV Fan 2

- 13 = Switch block
- 14 = SCSI connection
- 15 = Connector for RSB (Remote Service Board)
- 16 = Connector RSB 5V
- 17 = Internal serial port
- 18 = Optional CPU 1 Fan
- 19 = External ports
- 20 = Optional CPU 0 Fan
- 21 = Wake On LAN (WOL)
- 22 = Fan (CPU)
- 23 = IDE Slave
- 24 = Optional IDE Master

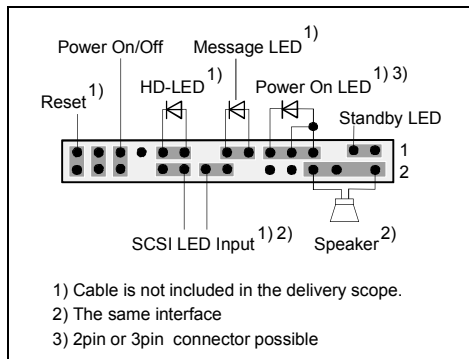
The components and connectors marked are not necessarily present on the system board.

Connectors



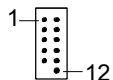
Some of the following connectors are optional!

Front panel connector



Pin	Signal	Pin	Signal
1	GND	2	Speaker
3	Standby LED (Anode)	4	Key
5	Key	6	GND
7	PowerON_LED (Anode)	8 ¹⁾	VCC (3.3V)
9	PowerON_LED (Anode)	10	Reserved
11	PowerON_LED (Cathode) Stand By LED (Cathode) (GND)	12	Reserved
13	Message LED (Anode)	14	Key
15	Message LED (Cathode)	16	Not connected
17	Key	18	SCSi LED input (low asserted)
19	HD_LED (Anode)	20	SCSi LED input (low asserted)
21	HD_LED (Cathode)	22	Not connected
23	GND	24	Key
25	Power button (low asserted)	26	GND
27 ²⁾	reserved	28	GND
29	Reset button (low asserted)	30	GND

1) The sleep button (optional) functions only for operating systems with APM (not with ACPI).

Single USB port Type C2

Pin	Signal	Pin	Signal
1	NC	2	GND
3	NC	4	GND
5	NC	6	Data positive Port D
7	GND	8	Data negative Port D
9	GND	10	VCC max 500mA
11	Key	12	CCR on

Fan connector (system)

Pin	Signal
1	GND
2	Controlled Fan voltage (0...+12 V)
3	Fan sense

Fan connector (power supply 1 / 2)

(optional)



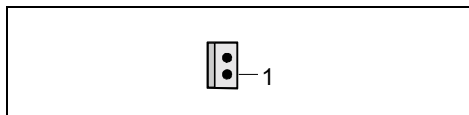
Pin	Signal
1	GND
2	Controlled Fan voltage (0...+12 V)
3	Fan sense

Connector for RSB



Pin	Signal	Pin	Signal
1	SCI_N	2	I2C2_CLOCK
3	OVER_TEMP_N	4	GND
5	RSB_PRSENT_N	6	I2C2_DATA
7	STBY_PWR_GOOD	8	NMI_OUT
9	PWR_GOOD	10	I2C2_INT_N
11	HOST_RST_N	12	GND
13	PWR_SWITCH_N	14	RI_N
15	PWR_ON_N	16	SLP_S5_N
17	ON_OFF_0	18	ON_OFF_1
19	ON_OFF_2	20	ON_OFF_3
21	ON_OFF_4	22	ON_OFF_5
23	ON_OFF_6	24	ON_OFF_7
25	FP_RES_SW_N	26	GPIO_9

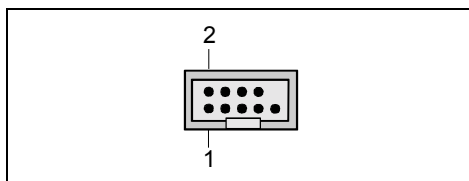
Power supply for RSB



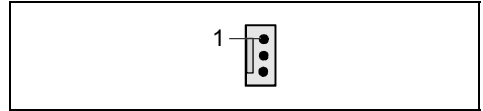
Pin	Signal
1	GND
2	VCC_Aux

Internal serial port 2 (COM 2)

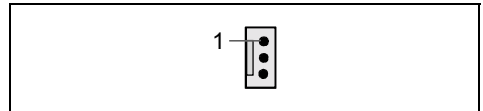
external via optional cable



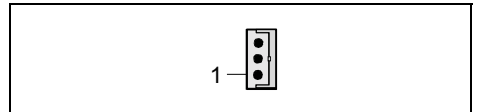
Pin	Signal	Pin	Signal
1	DCD 2	2	SIN 2
3	SOUT 2	4	DTR 2
5	GND	6	DSR 2
7	RTS 2	8	CTS 2
9	RI 2	10	NC

Fan connector (CPU 1)

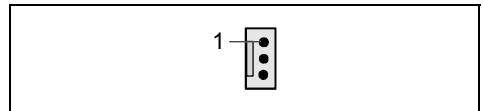
Pin	Signal
1	GND
2	Controlled Fan voltage (0...+12 V) same like Fan 1 & 3
3	Fan sense

Fan connector (CPU 0)

Pin	Signal
1	GND
2	Controlled Fan voltage (0...+12 V) same like fan 2 & 3
3	Fan sense same like CPU Fan

Wake On LAN (WOL) connector

Pin	Signal
1	VCC Auxiliary
2	GND
3	Wake pulse (high asserted)

Fan (CPU)

Pin	Signal
1	GND
2	Controlled Fan voltage (0...+12 V) same like Fan 1 & 2
3	Fan sense same like CPU 0 Fan

Configuration

Functions controlled by the configuration switch

Switch	Function	SKP	RCV	FDP	FWP
1	Password skip	on	X	X	X
1	Off	off	X	X	X
2	Recovery BIOS	X	on	X	X
2	Off	X	off	X	X
3	Floppy write protection	X	X	on	X
3	Off	X	X	off	X
4	Flash write protection	X	X	X	on
4	Off	X	X	X	off

Power

Power requirement for onboard components (worst case)

Source	Voltage	Maximum variation	Maximum current	Comment
Main power supply	+5.0 V	±5 %	13.5 A	CPU dependent (1GHz P III)
Main power supply	+12 V	±5 %	0.3 A	
Main power supply	-12 V	±10 %	0.1 A	
Main power supply	+3.3 V	±5 %	13.5 A	Memory dependent
Auxiliary power supply	+5.0 V	±5 %	2 A	

Power loadability

Fuse number	Maximum fuse current	Function	Maximum function current
1	750 mA	Keyboard port	Not specified
		Mouse port	Not specified
2	900 mA	Universal serial bus (USB) Port A	500 mA
3	900 mA	Universal serial bus (USB) Port B	500 mA

Documentation

- ▶ Insert the "Drivers & Utilities" CD.
- ▶ If the CD does not start automatically, run the *START.EXE* file in the main directory of the CD.
- ▶ Select your system board or your device.
- ▶ Select *Documentation*.
- ▶ Select - *Technical Manuals*
- ▶ Select - *Technical Manuals (BIOS)*



You may have to install the Acrobat Reader - Software on the CD-ROM (path: *utls/acrobat*) before reading!

For more details please read the according *readme.txt* files.

Installing drivers

- ▶ Insert the "Drivers & Utilities" CD.
- ▶ If the CD doesn't start automatically call the *START.EXE* file in the main directory of the CD.
- ▶ If the system board list is displayed select the system board or select under *Driver* the operating system used and the audio and video drivers.

Upgrading main memory

- Support: The system needs at least two identical modules.
- Size: From 256 Mbytes up to 4 GB SDRAM
- Technology: PC133 registered DIMM modules.
168 pin, 3.3 V, 72 bit (with ECC), SDRAM
16 M, 32 M, 64M and 128M x 72 bit
- Granularity: For one socket 128, 256, 512 MB or 1GB
Up to 4 double sided PC133 DIMM modules

Troubleshooting

Message BIOS update

The System BIOS provides optimum support for the processor you have chosen. If the message BIOS update for installed CPU failed appears the microcode required for the processor inserted must still be loaded. Further information on this is available in the "BIOS Setup" manual on the "Drivers & Utilities" CD provided.

The screen stays blank

If your screen stays blank this may have the following cause:

The wrong RAM memory module has been inserted

- ▶ See the chapter "Main Memory" for information which memory modules can be used.

ACPI S3 (Save-to-RAM) and/or ACPI S4 (Save-to-Disk) doesn't work

This system board is fully compliant for ACPI S3 and S4. Therefore it is PC99 certified by Microsoft. If you have any problems with ACPI please ensure that all of your components are supporting ACPI S3 and S4.

- Operating system
- Hardware and drivers of controllers (e. g. VGA, audio, LAN, SCSI controllers).

For further information please refer to <http://developer.intel.com/technology/iapc/involve.htm>.