

SYSTEM BOARD D1189

*ADDITIONAL TECHNICAL
MANUAL*

Is there ...

... any technical problem or other question you need clarified?

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Herausgegeben von/Published by
Fujitsu Siemens Computers GmbH

Bestell-Nr./Order No.: **A26361-D1189-Z180-1-7619**

Printed in the Federal Republic of Germany

AG 06/00 06/00

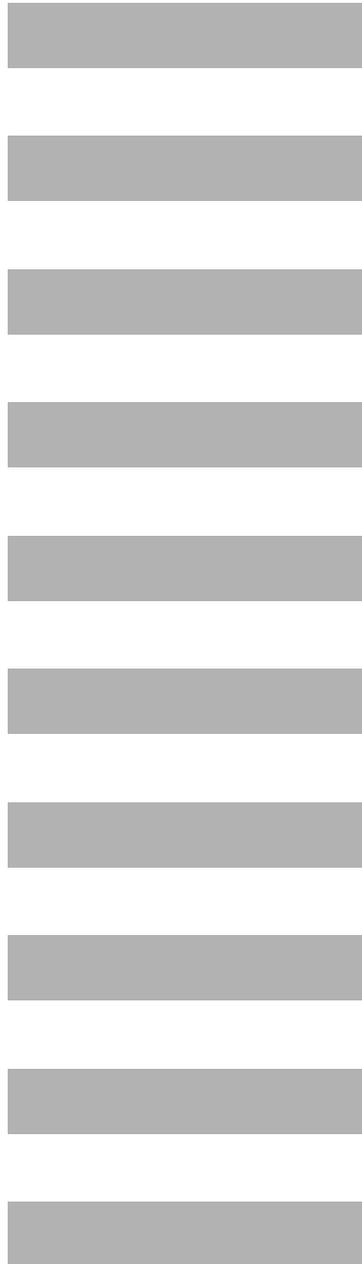


A26361-D1189-Z180-1-7619

System Board D1189

Additional Technical Manual

June 2000 edition



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Introduction



This system board is available in different configuration levels. Depending on the hardware configuration of your device, it may be that you cannot find several options in your version of the system board, even though they are described.

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

Further information to drivers is provided on the supplied drivers diskettes or on the "Drivers & Utilities" or "ServerStart" CD. For detailed information please look at chapter "[Installing drivers](#)". The latest BIOS version or drivers can be found on the internet under <http://www.fujitsu-siemens.com/en/service>.

Features

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

Function	Version D1189-D1X
Processor socket	PGA 370
Processor	Intel Celeron or Pentium III
Formfactor	µ-ATX
Front Side Bus in MHz	66/100/133
Chipset	815
Memory sockets	2 DIMM
ISA slots	--
PCI slots	5
ISA/PCI shared	--
AGP Port	1
AMR Port	1
System monitoring	x
Thermal Management	x
Wake On LAN	x
USB chipcard reader	x
Save to Disk (ACPI S4)	x
Save to RAM(ACPI S3)	x
LAN onboard	x
Audio onboard	AD1885
VGA onboard	i 815
133 MHz Display Cache	--



Computer system boards and components contain very delicate IC chips. To protect them against damage caused from electric static, you have to follow some precautions:

- Unplug your computer when you work inside.
- Hold components by the edge, don't touch their leads.
- Use a grounded wrist strap.

Place the system board and the components on a grounded antistatic pad whenever you work outside the computer.

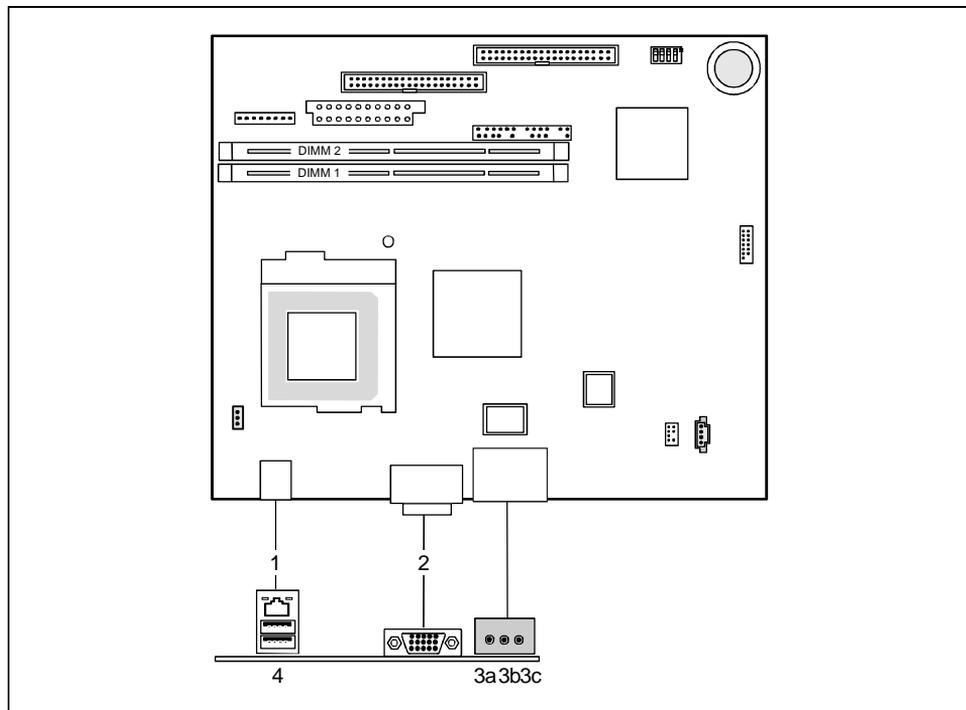
Once you have installed the system board, you should remove the battery protection (i.e. the thin plastic plate between battery and contact spring).

Mechanics

Layout

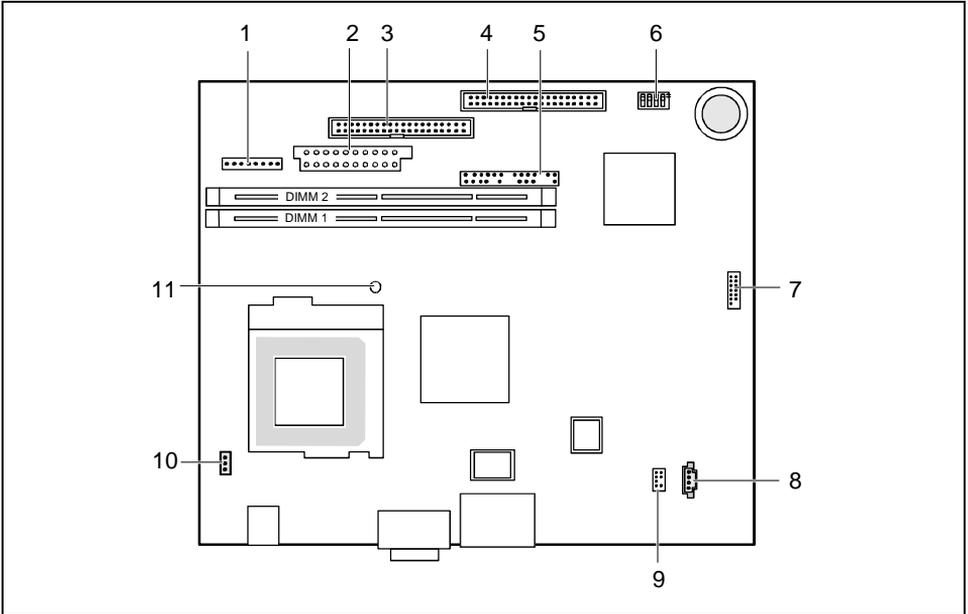
μ-ATX 9,6" x 8" (243.84 mm x 203.2 mm)

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



1 = LAN port
2 = VGA port

3a = Audio Line-Out
3b = Audio Line-In
3c = Audio Micro-In
4 = USB ports 1 and 2



- | | |
|--|--|
| 1 = Power supply monitoring | 7 = USB chipcard reader or USB front panel |
| 2 = Power supply | 8 = CD audio input |
| 3 = IDE drives 3 and 4 (secondary) | 9 = Audio front panel |
| 4 = IDE drives 1 and 2 (primary) | 10 = USB power jumper |
| 5 = Front panel connector (power switch, LED, loudspeaker) | 11 = Voltage indicator LED |
| 6 = Configuration switch | |

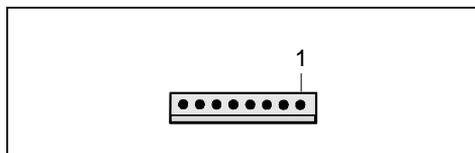
The components and connectors marked do not have to be present on the system board.

Connectors



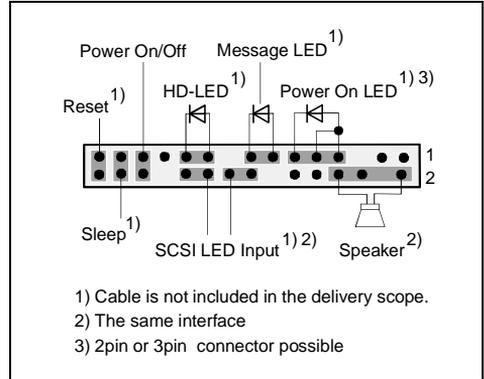
Some of the following connectors are optional!

Power supply monitoring



Pin	Signal
1	Monitor on
2	PS FAN off request (low asserted)
3	PS FAN full on (low asserted)
4	PS FAN pulse
5	SMB CLK
6	SMB DATA
7	VCC EEPROM
8	GND

Front panel connector

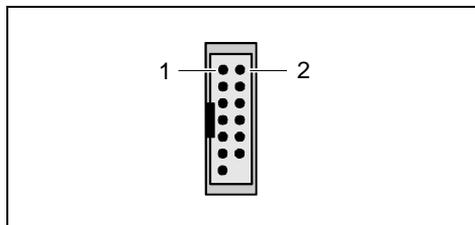


Pin	Signal	Pin	Signal
1	Not connected	2	Speaker
3	Standby LED (Anode)	4	Key
5	Key	6	GND
7	PON_LED (Anode)	8 ¹⁾	VCC or GND
9	PON_LED (Anode)	10	Key pin
11	PON_LED (Cathode/GND) Standby LED (Cathode/GND)	12	Key pin
13	Message LED (Anode)	14	Key
15	Message LED (Cathode)	16	Not connected
17	Key	18	SCSI LED 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⁾	Sleep button (low asserted)	28	GND
29	Reset button (low asserted)	30	GND

1) Pin 8 is connected to VCC if audio is not onboard.
 Pin 8 is connected to GND if audio is onboard.

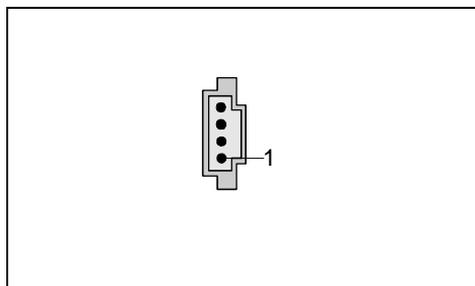
2) The sleep button (optional) functions only for operating systems with APM (not with ACPI).

USB chipcard reader or USB front panel

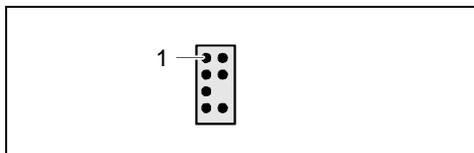


Pin	Signal	Pin	Signal
1	P3V3P_DUAL	2	VCC
3	Data negative up	4	Data positive up
5	Data negative down	6	Data positive down
7	GND	8	GND
9	Not connected	10	VCC auxiliary
11	P3V3P	12	Power OK (high asserted)
13	Chipcard reader On (low pulse)	14	Key

CD-ROM audio connector (internal)



Pin	Signal
1	Left CD audio input
2	CD GND
3	CD GND
4	Right CD audio input

Audio front panel (internal)

Pin	Signal	Pin	Signal
1	Micro input	2	Analog GND
3	Left Headphone output	4	Analog GND
5	Right Headphone output	6	Key
7	Headphone Jack Sense	8	Analog VCC

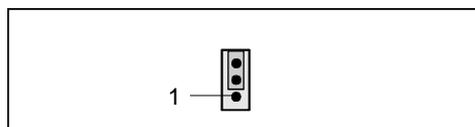
Configuration**Functions controlled by the configuration switch**

Function	SKP	RCV	FWP	RES*
Password skip	on	X	X	X
Off	off	X	X	X
Recovery BIOS	X	on	X	X
Off	X	off	X	X
Floppy write protect	X	X	on	X
Off	X	X	off	X
RTC - Reset and Clear CMOS	X	X	X	on
Off	X	X	X	off

*) Must be in "off" state.

USB power

USB power jumper



Pin	Signal
1	VCC
2	USB power connection
3	VCC_AUX

Jumper 2-3	Default setting: If the power supply supports auxiliary voltage the USB interface is permanently powered except when the main supply is plugged off. Wakeup from ACPI S1-S4 state possible.
Jumper 1-2	The USB interface is only powered in operating state. Wakeup from ACPI S1 state possible.

Power

Power requirement

Source	Voltage	Maximum variation	Maximum current	Comment
Main power supply	+5.0 V	±5 %	15 A	
Main power supply	+12 V	±10 %	350 mA	
Main power supply	-12 V	±10 %	150 mA	
Main power supply	+3.3 V	±5 %	4 A	
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
		Game port	Not specified
		VGA connector	Minimum 50 mA
2	750 mA	Universal serial bus (USB) Port A	500 mA
3	750 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 one module and can manage at most two SDRAM modules.
- Size: From 32 Mbytes up to 512 Mbytes SDRAM
- Technology: PC100 or PC133 unbuffered DIMM modules.
168 pin, 3.3 V, 64 bit, 72 bit (with ECC), SDRAM
2 M, 4 M, 8 M, 16 M and 32 M x 64 bit
2 M, 4 M, 8 M, 16 M and 32 M x 72 bit
- Granularity: For one socket 16, 32, 64, 128 or 256 Mbyte
SDRAM modules with ECC can be plugged in but ECC is not functioning. Mix of ECC modules with non ECC modules is possible.

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> .