

Introduction

This technical manual applies for the mainboard D1085. 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.

Further information e. g. the complete **Technical Manual for the D1085** and the **Reference Manual for the BIOS Setup** are provided on the "Drivers & Utility" CD. For detailed information please look at chapter 3.

1 Features

Function	Version	Version
	D1085-A	D1085-E
Processor	Intel Pentium®II, 233 - 333 MHz Intel Celeron™	Intel Pentium®II, 233 - 333 MHz Intel Celeron™
Chipset	Intel 440LX	Intel 440EX
AGP connector	X	X
Wake on LAN (WOL) connector	X	-
USB	X	X
IrDA connector	X	-
Chipcard reader	X	-
Keyboard on	X	-
BIOS Fax	-	-
Quiet Boot	X	X
DMI	X	X
Systemmonitoring	X	-
DIMM	3	2
Memory ECC Support	X	-
FAX On	-	-
PCI Slots*	4	4
ISA Slots*	3	3

* = 1 PCI/ISA slot is shared

2 Mechanics



Computer mainboards 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.

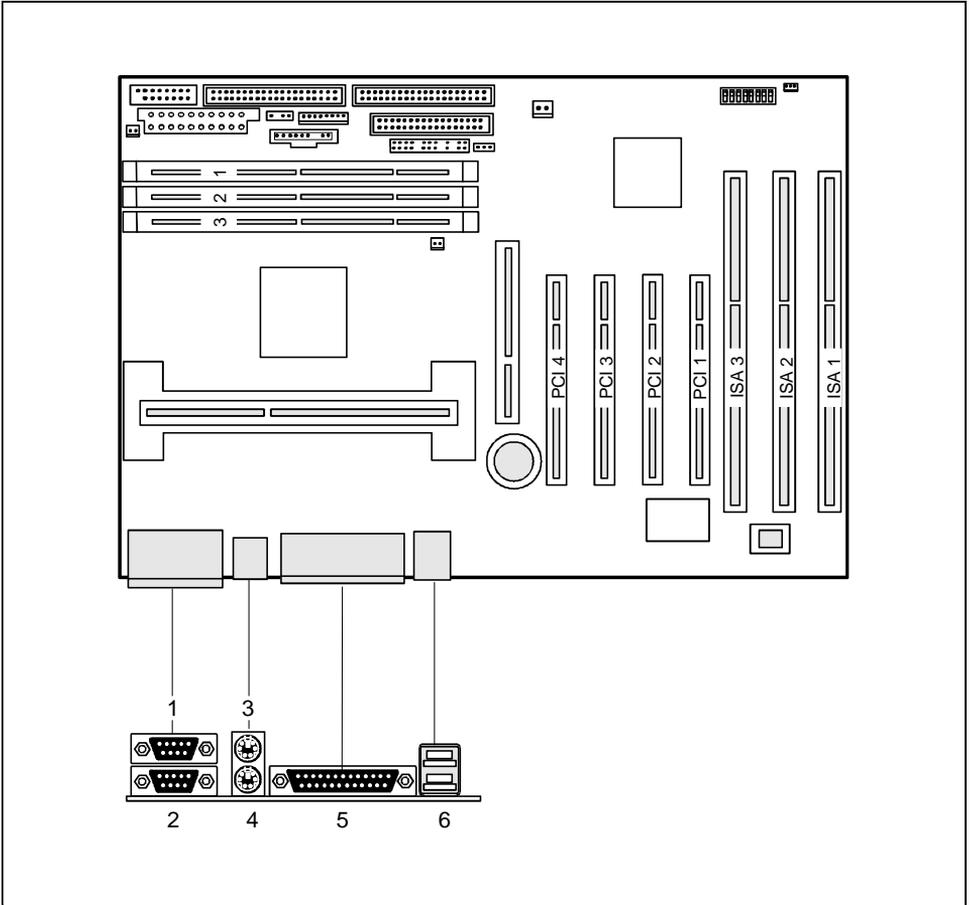
Place the mainboard and the components on a grounded antistatic pad whenever you work outside the computer.

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

2.1 Layout

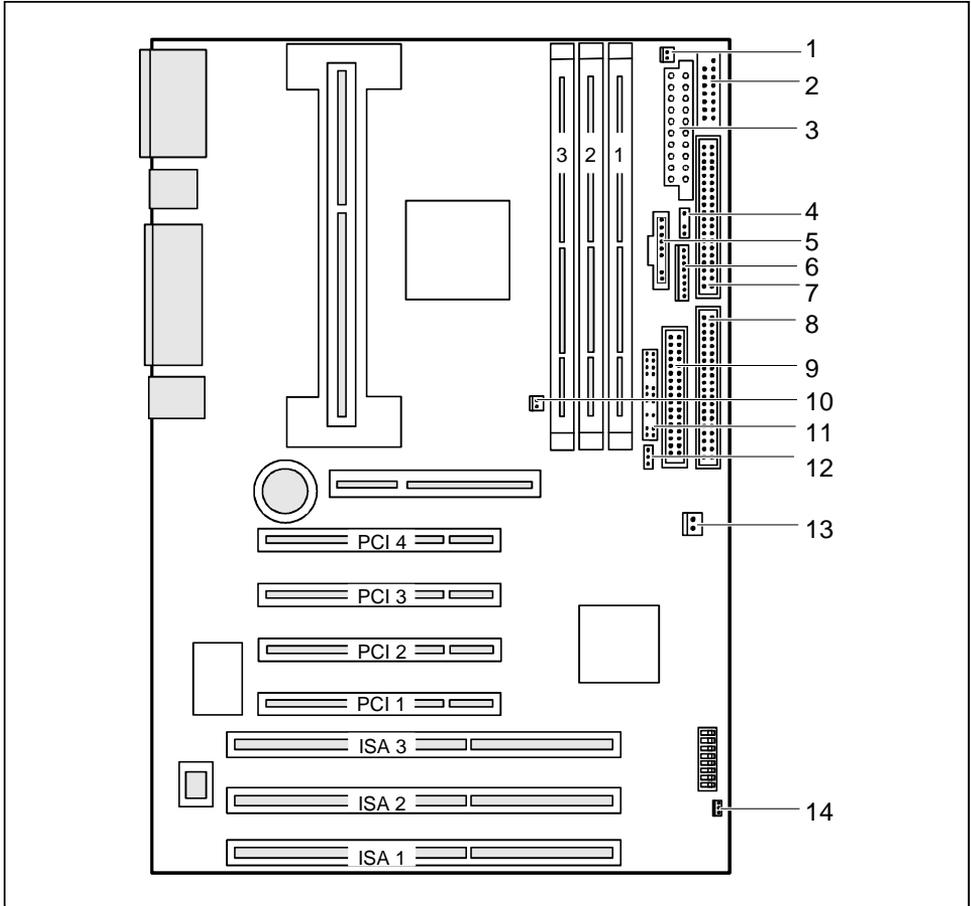
ATX 12" x 7,3" (305 mm x 185,4 mm)

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



- 1 = Serial port 2
- 2 = Serial port 1
- 3 = PS/2 mouse port

- 4 = PS/2 keyboard port
- 5 = Parallel port
- 6 = USB ports



- | | |
|------------------------------------|----------------------------------|
| 1 = System fan | 8 = IDE drives 1 and 2 (primary) |
| 2 = Chipcard reader | 9 = Floppy disk drive |
| 3 = Power supply | 10 = Processor fan |
| 4 = Infrared receiver (IrDA) | 11 = Control panel |
| 5 = Cover detection | 12 = Intrusion plug |
| 6 = Power supply monitor | 13 = Power On |
| 7 = IDE drives 3 and 4 (secondary) | 14 = Wake-up on LAN |

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

2.2 Assembling Slot 1



Before inserting the CPU, you have to assembly the including stabilisators. Please be carefully to avoid a damage of the mainboard.

2.3 Connectors, DIP-Switch, Jumpers

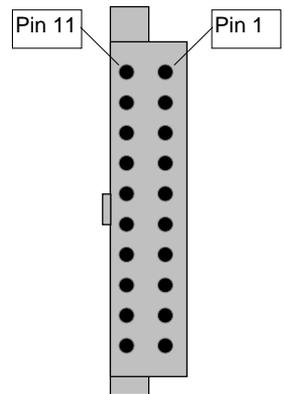


Some of the following connectors are optional!

2.3.1 Power supply ATX connector

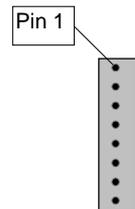
Pin	Signal
11	+ 3.3V
12	- 12V
13	GND
14	PS on (low asserted)
15	GND
16	GND
17	GND
18	- 5V
19	+ 5V
20	+ 5V

Pin	Signal
1	+ 3.3V
2	+ 3.3V
3	GND
4	+ 5V
5	GND
6	+ 5V
7	GND
8	Powergood (high asserted)
9	+ 5V SB
10	+ 12V



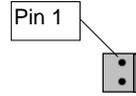
2.3.2 Power control connector

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



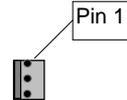
2.3.3 Power on switch connector

Pin	Signal
1	GND
2	Power on pulse (low asserted)



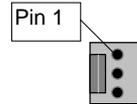
2.3.4 Wake on LAN (WOL) connector (stuffing option)

Pin	Signal
1	+ 5 V SB
2	GND
3	Wake pulse (high asserted)



2.3.5 CPU-FAN connector

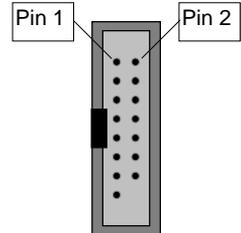
Pin	Signal
1	GND
2	FAN power supply
3	FAN sense



2.3.6 Internal serial port 1 for chip card reader

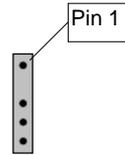
Pin	Signal
1	DCD 2 (low asserted)
3	SIN 2 (high asserted)
5	SOUT 2 (high asserted)
7	DTR 2 (low asserted)
9	GND
11	
13	RESETDRV (high asserted)
15	GND

Pin	Signal
2	DSR 2 (low asserted)
4	RTS 2 (low asserted)
6	CTS 2 (low asserted)
8	PC_ON_Strobe
10	VCC SB
12	VCC
14	GND
16	Key



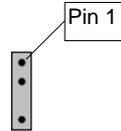
2.2.7 Internal infrared (IrDA) connector

Pin	Signal
1	VCCHELP
2	Key
3	IRDA_RX
4	GND
5	IRDA_TX



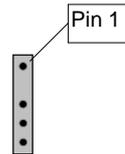
2.2.8 Internal speaker connector

Pin	Signal
1	VCC
2	GND
3	Key
4	Speaker output



2.3.9 System management SM-BUS

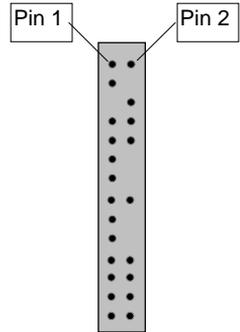
Pin	Signal
1	VCC
2	SM Clock
3	SM Data
4	GND



2.3.10 Front panel connector 1

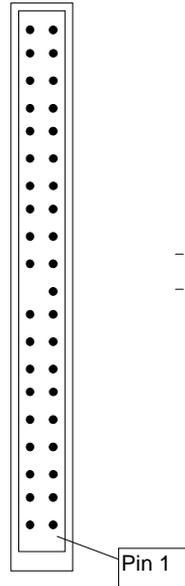
Pin	Signal
1	Boot Lock (high asserted)
3	Stand By LED (high asserted)
5	Key
7	Power On LED (high asserted)
9	Speaker
11	Power On & Stand By LED (low asserted)
13	Message LED (high asserted)
15	Message LED (low asserted)
17	Key
19	VCC
21	HD LED (low asserted)
23	Sleep Button (low asserted)
25	Power Button (low asserted)
27	Sleep Button (low asserted)
29	Reset Button (low asserted)

Pin	Signal
2	Speaker
4	Key
6	GND
8	VCC
10	Key Pin
12	Key
14	Key
16	Key Pin
18	Key
20	Key
22	Key
24	Not connected
26	SCSI LED (low asserted)
28	SCSI LED (low asserted)
30	Not connected



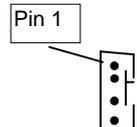
2.3.11 PCI-IDE Connector

Pin	Signal	Pin	Signal
1	Reset Drive	2	GND
3	Data 7	4	Data 8
5	Data 6	6	Data 9
7	Data 5	8	Data 10
9	Data 4	10	Data 11
11	Data 3	12	Data 12
13	Data 2	14	Data 13
15	Data 1	16	Data 14
17	Data 0	18	Data 15
19	GND	20	Key
21	DRQ	22	GND
23	I/O Write	24	GND
25	I/O Read	26	GND
27	IORDY	28	N.C.
29	DACK	30	GND
31	IRQ	32	N.C.
33	ADR 1	34	N.C.
35	ADR 0	36	ADR 2
37	Chip Select 1	38	Chip Select 3
39	IDE-LED	40	GND



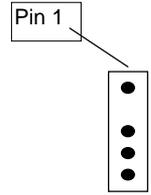
2.3.12 AUX Audio IN Connector (e. g. MPEG, TV-Cards)

Pin	Signal
1	GND
2	MPEG Audio In LEFT
3	GND
4	MPEG Audio In RIGHT



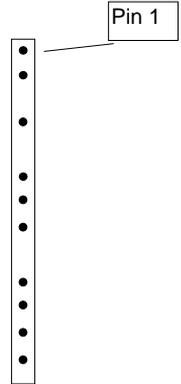
2.3.13 Infrared Connector

Pin	Signal
1	VCC
2	key
3	IRDA_RX
4	GND
5	IRDA_TX



2.3.14 Front Panel Connector 1

Pin	Signal
1	Boot Lock
2	+ Standby LED
3	Key
4	+ Power LED
5	Key
6	- Standby/ Power LED
7	Keylock
8	GND
9	Key
10	+ HD LED
11	HD LED
12	HD LED



2.3.15 Configuration SWITCH-Block (DIP-Switch)

For Frequency selection, Reserved, Password clear, Recovery and Floppy write.

Function	SW1 SKP	SW2 RCV	SW3 FWP	SW4 RES	SW5 CF1	SW6 CF2	SW7 CF3	SW8 CF4
Password Skip	On	x	x	x	x	x	x	x
Off	Off	x	x	x	x	x	x	x
Recovery BIOS	x	On	x	x	x	x	x	x
Off	x	Off	x	x	x	x	x	x
Floppy Write Protect	x	x	On	x	x	x	x	x
Off	x	x	Off	x	x	x	x	x
Reserved	x	x	x	On	x	x	x	x
Reserved	x	x	x	Off	x	x	x	x

Recovering System BIOS - switch 2

Switch 2 enables recovery of the old system BIOS after an attempt to update has failed. To restore the old system BIOS you need a Flash BIOS Diskette (call customer service).

on The System BIOS executes from floppy drive A: and restores the System BIOS on the system board.

off The System BIOS is started from the system board (default setting).

Write protection for floppy disks - switch 3

Switch 3 is used to define whether floppy disks can be written or deleted in the floppy disk drive. To write and delete floppy disks, the write -protection in *BIOS setup* must be disabled (in menu *Security*, the field *Diskette Write* must be set to *Enabled*).

on The floppy disk drive is write-protected.

off Read, write and delete floppy disks is possible (default setting).

Clock speed - switch 5, 6, 7 and 8



The switches may only be set as specified in the table below for the particular Pentium II used.

This system board you may use with processors with a host bus frequency of 66 MHz only.

Don't use processors with a host bus frequency of 100 MHz.

Pentium II with 66 MHz host bus frequency

Processor	switch 5	switch 6	switch 7	switch 8
233 MHz	off	off	on	on
266 MHz	on	on	off	on
300 MHz	off	on	off	on
333 MHz	on	off	off	on

2.3.16 PCI-SLOT Configuration and Placement

PCI-Slot	IDSEL	Device number
PCI-Slot 1	ADR 23	12 h
PCI-Slot 2	ADR 24	13 h
PCI-Slot 3	ADR 25	14 h
PCI-Slot 4	ADR 26	15 h

2.4 Power Requirements (Power Supply)

Source	Voltage	Max. Variation	Max. Current
SV	+ 5.0 V	+/- 5 %	15A
SV	- 5 V	+/- 5 %	100mA
SV	+ 12 V	+/- 10 %	300mA
SV	- 12 V	+/- 10 %	100mA
SV	+ 3,3 V	+/- 5 %	4 A
SV	+ 5.0 V (aux)	+/- 5 %	500mA

- ATX-capable

3 Installing drivers and utilities; documentation

- ▶ Insert the "Drivers & Utilities" CD.
- ▶ When the *DeskStart* window appears, select *Explore the CD via HTML*.
- ▶ Select the language in which you want to operate the user interface.
- ▶ Select *Scenic Pro* and then select e. g. *Windows 95*.

Here you will find the required drivers, utilities and the additional documentation.

- ▶ For the following components, install the software offered to you in the HTML interface:
 - Harddisk-Controller: PIIX4-Support
 - Updates: USB-Support
- ▶ You will find the description for the Mainboard D1085 under "Documentation" > Technical Manual (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

4 Upgrades

4.1 Main Memory

Further information is given in the main technical manual.

For correct functionality of this mainboard we recommend the usage of the following DIMM-Modules.

For upgrades of the following list, please ask your local dealer.

16MB DIMM SDRAM, 2Mx64

Producer	Part.-No
Samsung	KMM366S203BTN-G0 und -G2

32MB DIMM SDRAM, 4Mx64

Producer	Part.-No
NEC	MC-454AD644F-A67
Samsung	KMM366S403BTN-G0 und -G2
HYUNDAI	HYM7V64400TFG-10

32MB DIMM SDRAM, 4Mx72

Producer	Part.-No
Goldstar	GMM2734233BLTG-10K
Hyundai	HYM7V72A400TFG-10
Samsung	KMM374S4030BTN-G2

64MB DIMM SDRAM, 8Mx64

Producer	Part.-No
NEC	MC-458CB644F-A10
Samsung	KMM366S823BTL-G0

64MB DIMM SDRAM, 8Mx72

Producer	Part.-No
NEC	MC458CA724F-A10
Samsung	KMM374S823BTL-G0

128MB DIMM SDRAM, 16Mx64

Producer	Part.-No
NEC	MC-4516CD644F-A10

128MB DIMM SDRAM, 16Mx72

Producer	Part.-No
NEC	MC-4516CC724F-A10

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System board D1085
Additional Technical Manual
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