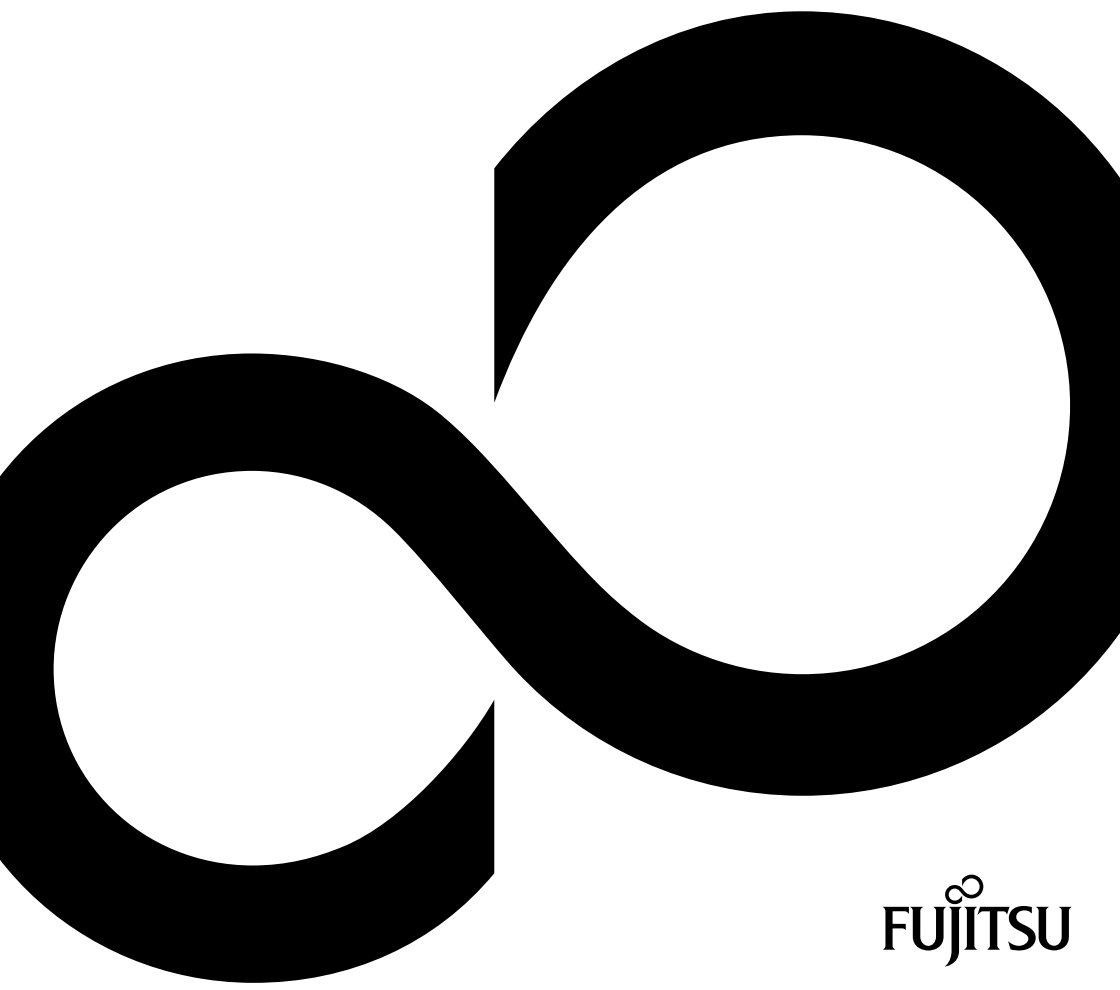


Mainboard D3003



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Fujitsu Technology Solutions 09/11

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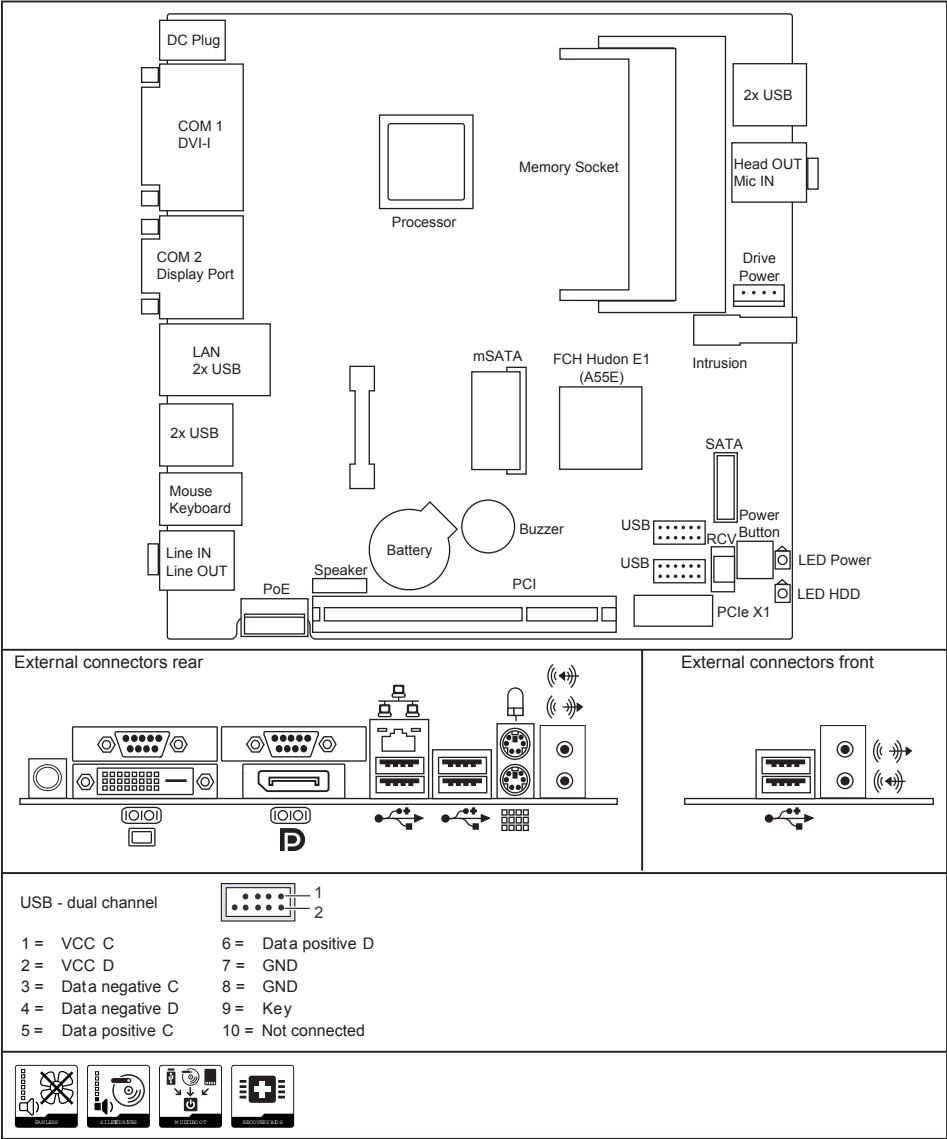
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Order No. Fujitsu Technology Solutions GmbH: A26361-D3003-Z330-1-8N19, edition 2

D3003-A/B



Internal connectors and slots

List of onboard Features	D3003-A	D3003-B
CPU AMD	T44R	T44R
Chipset	A55E	A55E
Board size	Mini-ITX	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / ✓ / -	- / ✓ / - / ✓ / -
LVDS	-	-
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / -	✓ / - / -
Buzzer / int. Speaker Support	✓ / ✓	✓ / ✓
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	- / - / -	- / - / -
LAN 2: ASF / WoL / Remote Boot	- / - / -	- / - / -
LAN 2: iAMT (Version) / DASH	- / -	- / -
SATA ¹⁾ : 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (1) / -	- / -
eSATA ¹⁾ -support: 3 Gb/s (Ports) / 1,5 Gb/s (Ports)	- / -	- / -
RAID on Motherboard	-	-
Supported RAID Levels: 0 / 1 / 5 / 10	- / - / - / -	- / - / - / -
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / -	- / ✓ / -
FAN monitored: PSU ²⁾ / FAN1 / FAN2 / FAN3	- / - / - / - / -	- / - / - / - / -
FAN controlled: PSU ²⁾ / FAN1 / FAN2 / FAN3	- / - / - / -	- / - / - / -
Temperature monitored: CPU / Onboard 1 / Onboard 2 / Onboard 3 / Chipset / Super IO	✓ / - / - / - / - / ✓	✓ / - / - / - / - / ✓
Special Features		
Green Edition (Halogen-free product)	-	-
Desk Update (Simple driver update with DU DVD)	✓	-
Recovery BIOS (Restores a corrupted BIOS)	✓	✓
HDD Password (Access protection for disk drives)	✓	✓
Multi Boot (Comfortable boot from any boot device)	✓	✓
Silent Fan (OS independent, temperature related full featured silent fan control)	-	-
Silent Fan LT (OS independent, temperature related silent fan control)	-	-
Silent Drives (Noise reduction for optical and hard disk drives)	✓	-
System Guard (View and adjust Silent Fan / Silent Fan LT)	-	-
SmartCard SystemLock (USB / serial)	✓ / -	- / -
Keyboard Power Button (Fujitsu Technology Solutions Keyboard Power Button Support)	✓	✓
0-Watt	-	-
Low Power Soft OFF	✓	✓

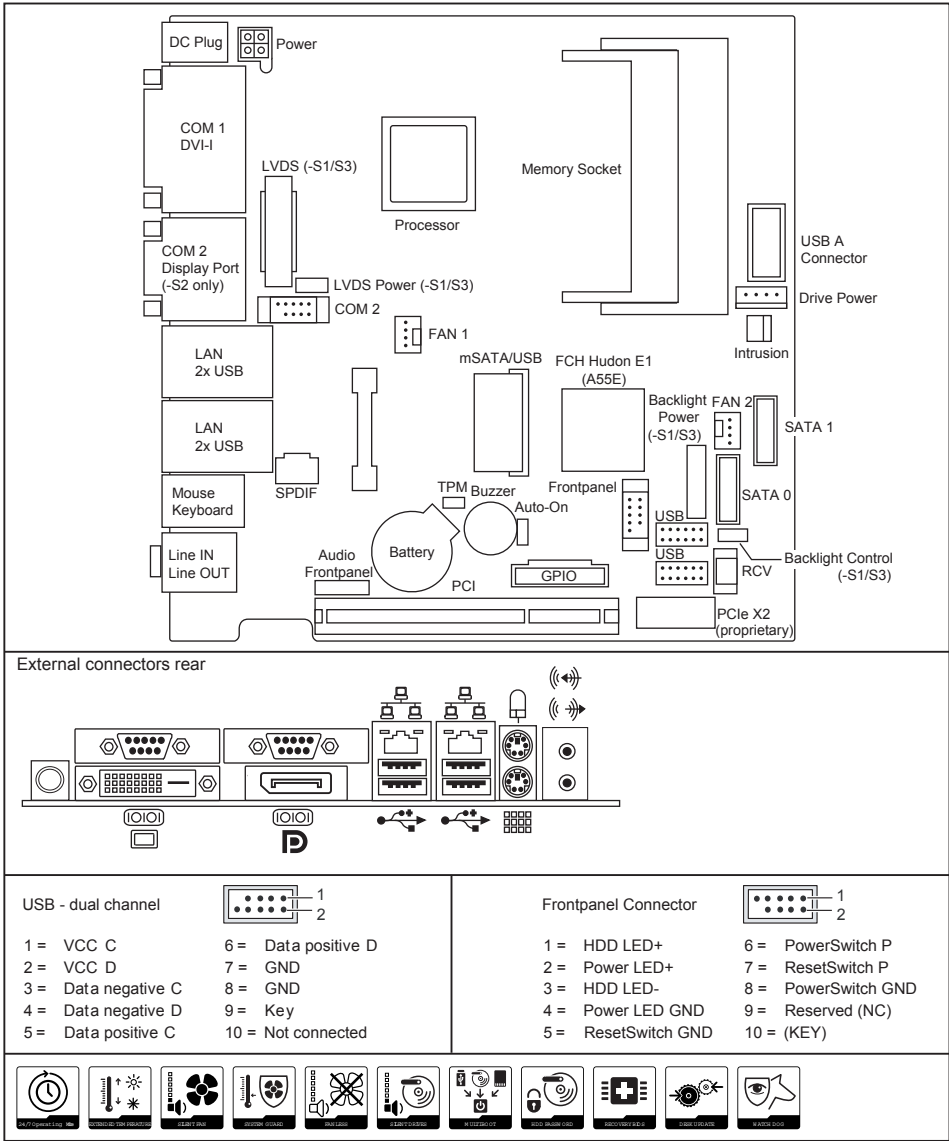
List of onboard Features	D3003-A	D3003-B
Internal Connectors		
DIMM Sockests (DDR3 1066/1333, SO-DIMM)	2	1
PCI Express x16 Slot	-	-
PCI Express x1 Slot	proprietary x2	-
PCI Slot (32 bit, 33 MHz, Rev. 2.3)	1	-
Speaker	✓	✓
Specific socket for internal USB Stick	-	-
Serial (FIFO, 16550 compatible)	-	-
Intrusion (Case Open)	onboard switch	-
Feature Connector (General Purpose I/O)	-	-
USB (2.0, ~480 Mbit/s, 2 channels per connector)	2	1
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	-	-
Dual channel LVDS / Backlight Control	- / -	- / -
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	✓	-
Onboard (internal input) DC-IN 19-24 V / 3 A	-	-
Power over Ethernet module (PoE) DC-IN 15 V (optional)	✓	✓
External Connectors		
Audio In / Line Out (or driver configuration) / Microphone In	1 / 2 / 1	1 / 2 / 1
PS/2 Mouse / Keyboard	✓ / ✓	✓ / ✓
USB (2.0, ~480 Mbit/s)	6	6
Serial (RS232, FIFO, 16550 compatible)	2	1
DC-IN (external input) 19 V / 2 A (dependent on system components 20 V / 3.25 power supply necessary)	✓	✓
DC-IN (external input) 19-24 V / 3.25 A	-	-

1) Maximum supported Transfer Rate per Port

2) Not supported by standard Power Supplies

Power Supply Requirements - for onboard components (worst case)			
Source	Voltage	Maximal variation	Mainboard current typical
D3003-A/B			
Main Power Supply	19 V	+/-10 %	1 A

D3003-Sxx



A26361-D3003-Z330-1-8N19

List of onboard Features	D3003-S1x	D3003-S2x	D3003-S3x
CPU AMD	T44R	T56N	T56N
Chipset	A55E	A55E	A55E
Board size	Mini-ITX	Mini-ITX	Mini-ITX
DVI-D / DVI-I / VGA / DisplayPort / HDMI	- / ✓ / - / - / -	- / ✓ / - / ✓ / -	- / ✓ / - / - / -
LVDS	✓	-	✓
Stereo Audio / 5.1 Multichannel Audio / S/PDIF	✓ / - / ✓	✓ / - / ✓	✓ / - / ✓
Buzzer / int. Speaker Support	✓ / -	✓ / -	✓ / -
LAN 1: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 1: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓	- / ✓ / ✓
LAN 1: iAMT (Version) / DASH	- / -	- / -	- / -
LAN 2: Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
LAN 2: ASF / WoL / Remote Boot	- / ✓ / ✓	- / ✓ / ✓	- / ✓ / ✓
LAN 2: iAMT (Version) / DASH	- / -	- / -	- / -
SATA ¹⁾ : 6 Gb/s (Ports) / 3 Gb/s (Ports)	✓ (2) / -	✓ (2) / -	✓ (2) / -
eSATA ¹⁾ -support: 3 Gb/s (Ports) / 1,5 Gb/s (Ports)	- / -	- / -	- / -
RAID on Motherboard	✓	✓	✓
Supported RAID Levels: 0 / 1 / 5 / 10	✓ / ✓ / - / -	✓ / ✓ / - / -	✓ / ✓ / - / -
FireWire™ / USB 2.0 / USB 3.0	- / ✓ / -	- / ✓ / -	- / ✓ / -
FAN monitored: PSU / FAN1 / FAN2 / FAN3	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -	- / ✓ 4pin PWM / ✓ 4pin PWM or 3 pin / -
FAN controlled: PSU / FAN1 / FAN2 / FAN3	- / ✓ / ✓ / -	- / ✓ / ✓ / -	- / ✓ / ✓ / -
Temperature monitored: CPU / Onboard 1 / Onboard 2	✓ / ✓ / ✓	✓ / ✓ / ✓	✓ / ✓ / ✓
Special Features			
Green Edition (Halogen-free product)	-	-	-
Desk Update (Simple driver update with DU DVD)	✓	✓	✓
Recovery BIOS (Restores a corrupted BIOS)	✓	✓	✓
HDD Password (Access protection for disk drives)	✓	✓	✓
Multi Boot (Comfortable boot from any boot device)	✓	✓	✓
Silent Fan (OS independent, temperature related fan control and supervision)	✓	✓	✓
Silent Fan LT (OS independent, temperature related fan control)	-	-	-
Silent Drives (Noise reduction for optical and hard disk drives)	✓	✓	✓
System Guard (View Silent Fan)	✓	✓	✓

Internal connectors and slots

List of onboard Features	D3003-S1x	D3003-S2x	D3003-S3x
Internal Connectors			
DIMM Sockests (DDR3 1066/1333, SO-DIMM)	2	2	2
PCI Express x16 Slot	-	-	-
PCI Express x1 Slot	proprietary x2	proprietary x2	proprietary x2
PCI Slot (32bit, 33 MHz, Rev. 2.3)	1	1	1
Frontpanel Audio (9-pin, Intel standard header)	✓	✓	✓
Specific socket for internal USB Stick	✓	✓	✓
Serial (FIFO, 16550 compatible)	shared with external, so only one device on COM2 allowed	shared with external, so only one device on COM2 allowed	shared with external, so only one device on COM2 allowed
Intrusion (Case Open)	✓	✓	✓
Feature Connector (General Purpose I/O)	✓	✓	✓
USB (2.0, ~480 Mbit/s, 2 channels per connector)	2	2	2
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	✓	✓	✓
Dual channel LVDS / Backlight Control	✓ / ✓	- / -	✓ / ✓
Onboard Power Output (+5 V / 2 A, +12 V / 2 A) for drives	✓	✓	✓
Onboard (internal input) DC-IN 19-24 V / 3 A	✓	✓	✓
External Connectors			
Audio In / Line Out (or driver configuration) / Microphone In	1 / 1 / -	1 / 1 / -	1 / 1 / -
PS/2 Mouse / Keyboard	✓ / ✓	✓ / ✓	✓ / ✓
USB (2.0, ~480 Mbit/s)	4	4	4
Serial (RS232, FIFO, 16550 compatible)	2 (COM2 shared with internal)	2 (COM2 shared with internal)	2 (COM2 shared with internal)
DC-IN (external input) 19-24 V / 3.25 A	✓	✓	✓

1) Maximum supported Transfer Rate per Port

Power Supply Requirements - for onboard components (worst case)			
Source	Voltage	Maximal variation	Mainboard current typical
D3003-Sxx			
Main Power Supply	19 V - 24 V	+10 % / -15 %	1 A

Mainboard D3003

First-time setup

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Kurzbeschreibung des Mainboards

Hinweise zu den Baugruppen



Beachten Sie bei Baugruppen mit EGB unbedingt Folgendes:

- Sie müssen sich statisch entladen (z. B. durch Berühren eines geerdeten Gegenstands), bevor Sie mit Baugruppen arbeiten.
- Verwendete Geräte und Werkzeuge müssen frei von statischer Aufladung sein.
- Ziehen Sie den Netzstecker, bevor Sie Baugruppen stecken oder ziehen.
- Fassen Sie die Baugruppen nur am Rand an.
- Berühren Sie keine Anschluss-Stifte oder Leiterbahnen auf der Baugruppe.

Eine Übersicht der Leistungsmerkmale finden Sie im Datenblatt.

Besondere Merkmale

Ihr Mainboard ist in verschiedenen Ausbaustufen erhältlich. Abhängig von der Konfiguration Ihres Mainboards besitzt oder unterstützt das Mainboard bestimmte Merkmale.

In diesem Handbuch finden Sie die wichtigsten Eigenschaften dieses Mainboards beschrieben.

Weitere Informationen zu Mainboards finden Sie im Handbuch "Basisinformationen Mainboard" auf der CD "User Documentation" oder "OEM Mainboard" bzw. im Internet.











Anschlüsse und Steckverbinder

Die Position der Anschlüsse und Steckverbinder Ihres Mainboards finden Sie am Anfang des Handbuches.

Die markierten Komponenten und Steckverbinder müssen nicht auf dem Mainboard vorhanden sein.

Externe Anschlüsse

Die Position der externen Anschlüsse Ihres Mainboards finden Sie am Anfang des Handbuches.

	PS/2-Tastaturanschluss, violett		PS/2-Mausanschluss, grün
	LAN-Anschluss (RJ-45)		Mikrofonanschluss, rosa
	Audioeingang (Line in), hellblau oder schwarz		USB – Universal Serial Bus, schwarz
	Audioausgang (Line out), hellgrün oder schwarz		DVI – I
	Serielle Schnittstelle, türkis		DisplayPort



Die externen USB-Anschlüsse dürfen laut USB 2.0 Spezifikation maximal mit 500 mA pro USB-Anschluss belastet werden.

Durch den Einsatz einer neuen Chipsatz-Technology kann sich ein verändertes Verhalten beim Anschluss älterer USB-Geräte (Fullspeed, USB 1.1) ergeben. Das betrifft zum Beispiel ältere Digitalkameras, von denen immer nur eine (nicht zwei oder mehr gleichzeitig) betrieben werden kann. Neuere Geräte der Spezifikation USB 2.0 sind davon nicht betroffen.

Technische Daten Prozessor

- **D3003-A/B:**
AMD FT1 eOntario T44R 1,2 GHz single core
- **D3003-S1:**
AMD FT1 eOntario T44R 1,2 GHz single core
- **D3003-S2:**
AMD FT1 eOntario T56N 1,6 GHz / 1,65 GHz ¹⁾ dual core
- **D3003-S3:**
AMD FT1 eOntario T56N 1,6 GHz / 1,65 GHz ¹⁾ dual core

1) Abhängig vom Prozessor Stepping

Hauptspeicher ein-/ausbauen

Technische Daten

Technologie	DDR3–1066 (CL7) / DDR3–1333 (CL9) SDRAM (SO-DIMM)
Gesamtgröße	1, 2, 4 und 8 GByte (D3003-A)
	1, 2, und 4 GByte (D3003-B)
	1, 2, 4 und 8 GByte (D3003-S)
Modulgröße	1, 2 oder 4 GByte pro Modul



Es dürfen nur ungepufferte 1,5 V-Speichermodule ohne ECC verwendet werden.
DDR3-Speichermodule müssen der PC3-8500- oder PC3-10600-Spezifikation entsprechen.



Die Mainboards verfügen über bis zu zwei Modul-Steckplätze.
Abhängig von der Systemkonfiguration kann sich der sichtbare Hauptspeicher reduzieren.

Der Ein-/Ausbau ist im Handbuch "Basisinformationen Mainboard" beschrieben.

BIOS Update

Wann sollte ein BIOS-Update durchgeführt werden?

Fujitsu Technology Solutions stellt neue BIOS-Versionen zur Verfügung, um die Kompatibilität zu neuen Betriebssystemen, zu neuer Software oder zu neuer Hardware zu gewährleisten. Außerdem können neue BIOS-Funktionen integriert werden.

Ein BIOS-Update sollte auch immer dann durchgeführt werden, wenn ein Problem besteht, das sich durch neue Treiber oder neue Software nicht beheben lässt.

Wo gibt es BIOS-Updates?

Im Internet unter ["http://ts.fujitsu.com/mainboards"](http://ts.fujitsu.com/mainboards) finden Sie die BIOS-Updates.

BIOS-Update unter Windows mit dem Programm DeskFlash

Ein BIOS-Update kann unter Windows auch mit dem Programm *DeskFlash* durchgeführt werden. Das Programm *DeskFlash* finden Sie auf dem Datenträger "Drivers & Utilities" (unter *Flash BIOS*), oder

- ▶ Laden Sie die Update-Datei für "Flash BIOS Update — Desk Flash Instant" von unserer Internet-Seite auf Ihren PC.
- ▶ Führen Sie die Update-Datei aus.
- ▶ Folgen Sie den Bildschirmanweisungen.

BIOS-Update mit einem USB-Stick

- ▶ Halten Sie einen bootfähigen USB-Stick bereit.
- ▶ Laden Sie die "Admin package — Compressed Flash Files" für bootfähige USB-Sticks von unserer Internet-Seite auf Ihren PC.
- ▶ Entpacken Sie die *ZIP-Datei* und kopieren Sie die Dateien auf Ihren bootfähigen USB-Stick.
- ▶ Starten Sie den PC neu.
- ▶ Wählen Sie den USB-Stick als Boot Device.
- ▶ Booten Sie von dem USB-Stick und starten sie *DosFlash.BAT*.
- ▶ Folgen Sie den Bildschirmanweisungen.

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Subject to availability and technical modifications.

Brief description of mainboard

Information about boards



Be sure to observe the following for boards with ESD:

- You must always discharge static build up (e.g. by touching a grounded object) before working with the board.
- The equipment and tools you use must be free of static charge.
- Remove the power plug from the mains supply before inserting or removing boards.
- Always hold boards by their edges.
- Never touch connector pins or conductors on the board.

An overview of the features is provided in the data sheet.

Special features

Your mainboard is available in different configuration levels. Depending on the configuration, your mainboard will be equipped with or provide support for certain features.

This manual describes the most important properties of this mainboard.

Additional information on mainboards is provided in the manual "Basic information on mainboard" on the "User Documentation" or "OEM Mainboard" CD, or on the Internet.











Interfaces and connectors

The location of the interfaces and connectors of your mainboard is specified at the beginning of the manual.

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

External ports

The location of the external connections of your mainboard is specified at the beginning of the manual.

	PS/2 keyboard port, purple		PS/2 mouse port, green
	LAN port (RJ-45)		Microphone jack (mono), pink
	Audio input (line in), light blue or black		USB – Universal Serial Bus, black
	Audio output (line out), light green or black		DVI – I
	Serial interface, turquoise		DisplayPort



According to the USB 2.0 specifications, no more than 500 mA must be connected to the external USB ports.

The use of a new chip set technology can mean that the procedure is different when connecting older USB devices (Fullspeed, USB 1.1). This relates, for example, to older digital cameras of which only one (not two or more at the same time) can be operated at any one time. Newer devices with specification USB 2.0 are not affected by this.

Processor technical data

- **D3003-A/B:**
AMD FT1 eOntario T44R 1.2 GHz single core
- **D3003-S1:**
AMD FT1 eOntario T44R 1.2 GHz single core
- **D3003-S2:**
AMD FT1 eOntario T56N 1.6 GHz / 1.65 GHz ¹⁾ dual core
- **D3003-S3:**
AMD FT1 eOntario T56N 1.6 GHz / 1.65 GHz ¹⁾ dual core

1) Depends on processor stepping

Installing/removing main memory

Technical data

Technology	DDR3–1066 (CL7) / DDR3–1333 (CL9) SDRAM (SO-DIMM)
Total size	1, 2, 4 and 8 Gbyte (D3003-A) 1, 2 and 4 Gbyte (D3003-B) 1, 2, 4 and 8 Gbyte (D3003-S)
Module size	1, 2 or 4 Gbyte for one module



Only unbuffered 1.5 V memory modules without ECC may be used.
DDR3 memory modules must comply with the PC3-8500 or PC3-10600 specification.



The mainboards have up to two module slots.
Depending on how the system is configured, the visible main memory may be reduced.

The installation/removal is described in the "Basic information on mainboard" manual.

BIOS Update

When should a BIOS update be performed?

Fujitsu Technology Solutions makes new BIOS versions available to ensure compatibility with new operating systems, new software or new hardware. In addition, new BIOS functions can be integrated.

A BIOS update should also always be performed if there is a problem that cannot be solved using new drivers or new software.

Where can I obtain BIOS updates?

Go to ["http://ts.fujitsu.com/mainboards"](http://ts.fujitsu.com/mainboards) to find the BIOS updates.

BIOS update under Windows with DeskFlash program

A BIOS update can also be carried out under Windows with the *DeskFlash* program. The *DeskFlash* program is located on the "Drivers & Utilities" data carrier (under *Flash BIOS*).

or

- ▶ Download the update file for "Flash BIOS Update — Desk Flash Instant" onto your PC from our website.
- ▶ Run the update file.
- ▶ Follow the on-screen instructions.

BIOS update using a USB stick

- ▶ Make sure you have a bootable USB stick available.
- ▶ Download the "Admin package — Compressed Flash Files" for bootable USB sticks onto your PC from our website.
- ▶ Unzip the *ZIP file* and copy the files onto your bootable USB stick.
- ▶ Reboot the PC.
- ▶ Select the USB stick as the boot device.
- ▶ Boot from the USB stick and start *DosFlash.BAT*.
- ▶ Follow the on-screen instructions.