

Data Sheet

Fujitsu Mainboard D3003-S Mini-ITX

Industrial Series

AMD Embedded G-Series Platform for DDR3 1333/1066 SDRAM Memory (SO-DIMM)
And AMD FT1 Mobile Processor ("eOntario")

Enhanced operating temperature range from 0°C to 60°C

Chipset:

AMD A55E Controller Hub

Processors:

D3003-S1: AMD Single-Core T44R (1.2GHz/9W)

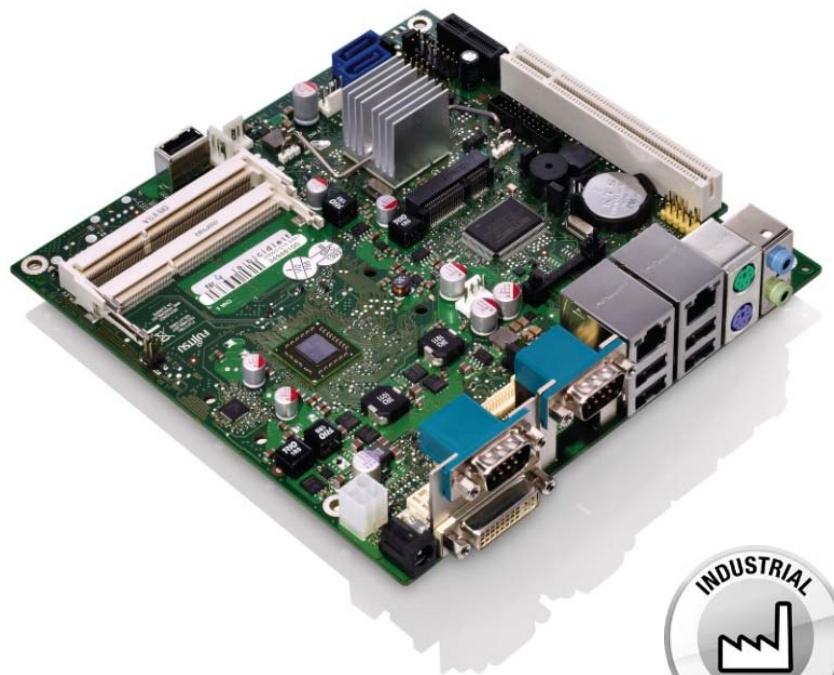
D3003-S2: AMD Dual-Core T56N (1.6GHz/18W)

Memory:

DDR3 1333/1066 SDRAM (SO-DIMM)

Product Features:

- ATI integrated graphics on board; VGA, DVI, DisplayPort and Dual Channel LVDS support
- HD Audio onboard
- Dual GbE LAN onboard
- Serial ATA III RAID onboard
- mSATA socket support (for Embedded OS) onboard
- USB 2.0 onboard
- 8 Bit GPIO onboard
- Designed for fanless operation
- Infineon TPM V1.2 onboard
- Mainboard ready for EuP



Features and benefits

Board Size Mini-ITX: 6.7" x 6.7" (170 x 170 mm)

Chipset AMD Embedded G-Series / A55E Controller Hub

Memory

2 x SO DIMM Socket (1.5V), max. 8GB, Single Channel
 DDR3-1066 (CL7) / DDR3-1333 (CL9) SDRAM, unbuffered, no ECC
 Note: Effective memory speed depends on installed processor!

Processor

AMD FT1 Mobile T44R Single Core Processor (1.2GHz; 9W) ¹⁾ or
 AMD FT1 Mobile T56N Dual Core Processor (1.6GHz/18W) ¹⁾

Power Specification

19-24V / 3A via DC-connector (rear I/O connector or onboard connector)
 5V and 3.3V Supply Voltage on PCI Slot (PCI Rev. 2.3)
 3.3V Auxiliary Supply Voltage on PCI Slot (Wake-Up Support)
 Onboard CPU Core Voltage Regulator

Power Supply Requirements

for onboard components

Source	Voltage	Tolerance (max)	Mainboard Current (typ.)
DC-In	+ 19-24 V	+10% / -15 %	1 A

BIOS

AMI UEFI BIOS
 modified and adapted by Fujitsu Technology Solutions; Recovery BIOS, SM-BIOS (DMI), BIOS Update via USB (stable user settings), Quick Boot, Logo Boot, Quiet Boot, Plug & Play, automatic DRAM and PCI Configuration, S.M.A.R.T. Support, Advanced Power Management, ACPI S3 / S4 (Save-to-RAM / Save-to-Disk), Wake on time from S5; configurable LVDS support; EraseDisk

Security Features

Recovery BIOS, System and BIOS Password, Boot Sequence Control for each drive, Serial Port Access Protection, TPM 1.2 (Infineon), Boot Sector Virus Warning, Write Protection for Flash BIOS, Harddisk Password incl. "Silent Password" option (no keyboard entry required).

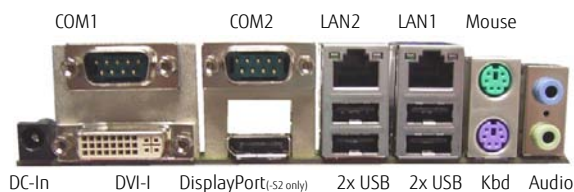
Special Features

Silent Fan Independent temperature related processor fan and system fan supervision and control
System Guard View and adjust Silent Fan features
Silent Drives Noise reduction for optical and hard disk drive
Recovery BIOS Restores a corrupted BIOS
Desk Update Simple driver update with Driver&Utilities DVD
Multi Boot Comfortable boot from any boot device

Designed for Industrial Applications

Longlife components for 24 / 7 use in industrial applications
 Revision control & Extended Lifetime (up to 5 years)
 Enhanced operating temperature range (0°C - 60°C) ²⁾

External Connectors



Miscellaneous

- Board Support Package (BSP) for Windows XP embedded
 - Evaluation BSP for Embedded Linux (emlix)

Mainboard Versions

	Processor	LVDS	DisplayPort
D3003-S1:	T44R SingleCore 9W	24Bit / DualChannel	--
D3003-S2:	T56N DualCore 18W	--	yes

Features

Features	D3003-S
Chipset	AMD A55E FCH
Board Size	Mini-ITX
VGA ³⁾ / DVI / DisplayPort ¹⁾ / LVDS / HDMI ³⁾	✓ / ✓ / ✓ / ✓ / ✓
Stereo Audio / Multichannel Audio	✓ / -
Buzzer / int. Speaker Support	✓ / -
Dual LAN Gbit / 100 Mbit / 10 Mbit	✓ / ✓ / ✓
LAN ASF / AoL / WoL / Boot	- / - / ✓ / ✓
SATA / ATA / RAID / mSATA	✓ / - / ✓ / ✓
FireWire™ / USB 2.0	- / ✓
FAN monitored & controlled CPU / AUX1 / AUX2	✓ / ✓ / -
TEMP monitored CPU / ONB1 / ONB2 / OFFB	✓ / ✓ / ✓ / -
Special Features	
Silent Fan / Silent Fan LT / System Guard / Silent Drives	✓ / - / ✓ / ✓
Recovery BIOS / Desk Update / Multi Boot	✓ / ✓ / ✓
HDD Password / EraseDisk	✓ / ✓
Boot Logo Option	✓
Internal Connectors	
DIMM Sockets (DDR3 1333/1066, SO-DIMM)	2
PCI Express x16 Slot for Graphics Card	-
PCI Express x1 Slot (requires riser card)	1
PCI Slot (32Bit, 33 MHz, Rev. 2.3)	1
Mini PCI Express Slot	-
SATA (600) / ATA / Floppy / CF Card / mSATA	2 / - / - / - / 1
S/PDIF (digital Audio) OUT / IN	1 / -
CD Audio Input	-
Frontpanel Audio (9-Pin) AC'97 / Azalia ⁴⁾	- / 1
FireWire™ (9-Pin, Intel standard header)	-
USB (2.0, ~480 MB/s; 2 channels per connector)	2
Specific socket for internal USB stick	1
Serial (FIFO, 16550 compatible = COM2) ⁶⁾	1
FAN ⁵⁾ CPU / System (AUX1) / System (AUX2)	1 / 1 / -
SMBus (Case Temperature) / Intrusion (Case Open)	- / 1
LVDS Dual Channel / Backlight Inverter ¹⁾	1 / 1
Feature Connector (8 Bit General Purpose I/O)	1
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	1
Onboard Power Output (+5V/2A, +12V/2A) for drives	1
Onboard (internal input) DC-In 19-24V / 3A	1
Power 20 pin (ATX) / 4 pin (12V processor supply)	- / -
External Connectors	
VGA Sub D ³⁾ / DVI-I / HDMI ³⁾ / DisplayPort ¹⁾	- / 1 / - / 1
Audio In / Line out (or driver configuration)	1 / 1
S/PDIF (digital Audio) OUT / IN	- / -
LAN (RJ-45)	2
PS/2 Mouse / Keyboard	1 / 1
USB (2.0, ~480MB/s)	4
Serial (RS232, FIFO, 16550 compatible) ⁶⁾	2
DC-IN (external input) 19-24V / 3A	1

¹⁾ See "Mainboard Versions" overview for stuffing details
²⁾ Forced cooling required, see technical documentation for detailed requirements
³⁾ Via optional DVI-I / VGA interface connector resp. DVI-I / HDMI interface connector
⁴⁾ Support for AC '97 audio frontpanel possible via BIOS Setup option
⁵⁾ CPU fan = 4 pin PWM, system fan = 4 pin PWM or 3 pin (selectable via BIOS Setup)
⁶⁾ COM2 external and COM2 internal cannot be used simultaneously

More information

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- PRIMEQUEST: Mission-critical IA server
- ETERNUS: Storage system

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- Systemwalker: System management software

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