

Data Sheet

Fujitsu Mainboard D2963-S MINI-ITX

Industrial Series

Powered by the AMD M690E & SB600 Chipset
for DDR2 800/667 SDRAM Memory (SO-DIMM)
and AMD Sempron™ 200U or AMD Athlon™ Neo X2 L325 Mobile Processor
Enhanced operating temperature range from 0°C to 60°C

Chipset:

AMD M690E & SB600

Processors:

D2963-S1: AMD Mobile Sempron™ 200U

D2963-S2: AMD Mobile Athlon™ Neo X2 L325

Memory:

DDR2 800/667 SDRAM (SO-DIMM)

Product Features:

ATI Radeon X1250 graphics on board; VGA, DVI and Dual Channel LVDS support

HD Audio on board

Dual GbE LAN on board

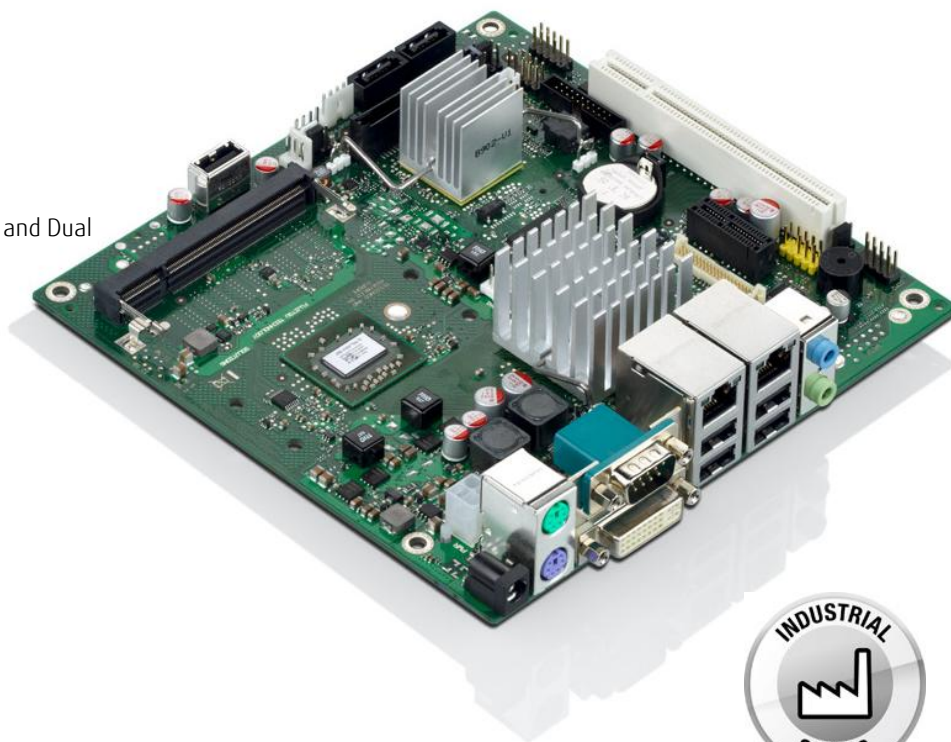
Serial ATA II RAID on board

CF support (for Embedded OS) on board

Mini PCI Express support (for WLAN) on board

USB 2.0 on board

Designed for fanless operation



Features and benefits

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

Chipset AMD M690E & SB600

Memory

1 x SO DIMM Socket (1.8V), max. 4GB, Single Channel
DDR2-800 (CL6) / DDR2-667 (CL5) SDRAM, unbuffered, no ECC
Note: Effective memory speed depends on installed processor!

Processor

AMD Mobile Sempron™ 200U Single Core Processor (1.0GHz; 8W) or
AMD Mobile Athlon™ Neo L325 Dual Core Processor (1.5GHz/18W)
ASB1 (BGA) soldered onboard; supports HyperTransport™ 1.0

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 (worst case)

| Source | Voltage | Max.Voltage Tolerance | Cont./ Peak Mainboard Current |
|--------|-----------|-----------------------|-------------------------------|
| DC-In | + 19-24 V | ± 10% / -15% | 1 A |

BIOS

Phoenix TrustedCore BIOS Version V6.00
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, BIOS Support for S.M.A.R.T., Advanced Power Management, ACPI S3 (Save-to-RAM), ACPI S4 (Save-to-Disk), Wake on time from S5; configurable LVDS support

Security Features

Recovery BIOS, System and BIOS Password, Boot Sequence Control for each drive, Serial Port Access Protection, 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 |
| 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) ¹⁾

Miscellaneous

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

External Connectors



DC-In Mouse COM1 LAN2 LAN1 Audio
Keyb DVI-D USB USB

Graphics

Integrated ATI Radeon X1250 graphics; shared memory (up to 256MB); DirectX 9 compliant; DVI, VGA and 24Bit / Dual Channel LVDS support

Audio

Realtek ALC262 (HD Audio); HW 3D Stereo Enhancement;
SW Wavetable Synthesis Support

LAN

Dual Realtek RTL8111C 10/100/1000 Ethernet controller; WoL support

Drives

2 Serial ATA II 300 Interfaces (max 3 GBit/s); up to 2 Drives; RAID 0/1
1 CF Interface (Typ I)

| Features | D2963-S |
|---|---------------|
| Chipset | M690E / SB600 |
| Board Size | Mini-ITX |
| VGA ²⁾ / DVI / LVDS / HDMI | ✓ / ✓ / ✓ / - |
| Stereo Audio / Multichannel Audio | ✓ / - |
| Buzzer / int. Speaker Support | ✓ / - |
| Dual LAN Gbit / 100 Mbit / 10 Mbit | ✓ / ✓ / ✓ |
| LAN ASF / AoL / WoL / Boot | - / - / ✓ / ✓ |
| SATA / ATA / RAID | ✓ / - / ✓ |
| 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 | ✓ |
| Bolt Logo Option | ✓ |
| Internal Connectors | |
| DIMM Sockets (DDR2 800/667, SO-DIMM) | 1 |
| PCI Express x16 Slot for Graphics Card | - |
| PCI Express x1 Slot | 1 |
| PCI Slot (32Bit, 33 MHz, Rev. 2.3) | 1 |
| Mini PCI Express Slot (fullsize) | 1 |
| SATA (300) / ATA (133) / Floppy / CF-Card | 2 / - / - / 1 |
| S/PDIF (digital Audio) OUT / IN | - / - |
| CD Audio Input | - |
| Frontpanel Audio (9-Pin) AC'97 / Azalia ³⁾ | - / 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) | 1 |
| FAN ⁴⁾ CPU / System (AUX1) / System (AUX2) | 1 / 1 / - |
| SMBus (Case Temperature) / Intrusion (Case Open) | - / 1 |
| LVDS Dual Channel / Backlight Inverter | 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 ²⁾ / DVI-I / HDMI / DisplayPort | - / 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) | 1 |
| DC-IN (external input) 19-24V / 3A | 1 |

1) Forced cooling required, see technical documentation for detailed requirements

2) Via optional DVI-I / VGA interface connector

3) Support for AC'97 audio frontpanel possible via BIOS Setup option

4) CPU fan = 4 pin PWM, system fan = 4 pin PWM or 3 pin (selectable via BIOS Setup)

More information

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

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- Systemwalker: System management software

More information

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