

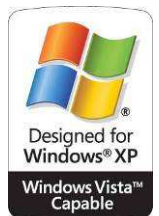
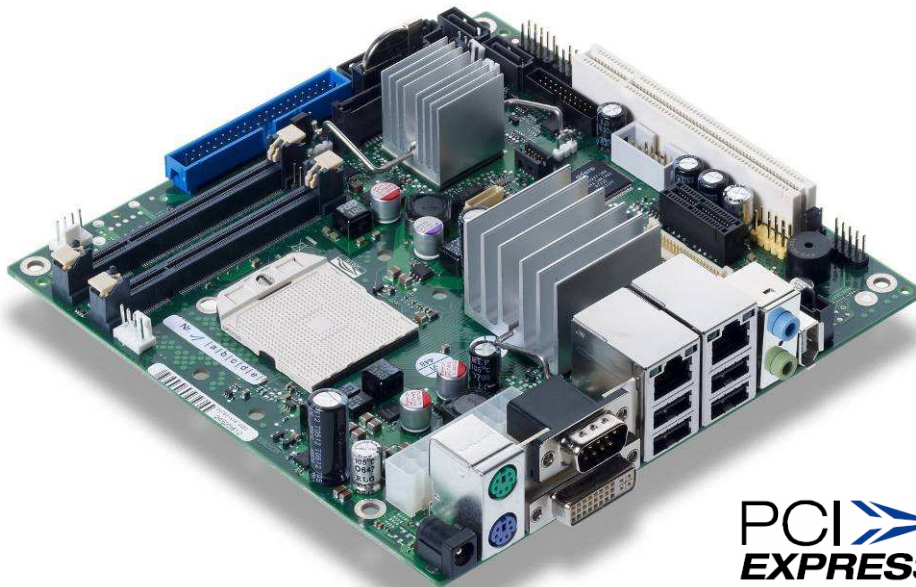
Industrial Mainboard D2703-S Mini-ITX

Issue January 2008

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AMD M690E & SB600 Chipset for DDR2 800/667 SDRAM Memory (SO-DIMM) and
AMD Turion™ 64 X2 Dual Core and Sempron™ Mobile Processors

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



Chipset:
AMD M690E & SB600

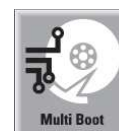
Processors:
Mobile Socket S1 with Hyper Transport™
AMD Mobile Turion™ 64 X2 Dual Core
AMD Mobile Sempron™

Power Select:
Power supply options
- Standard ATX supply (via onboard connector) or
- 24V DC supply (via onboard connector) or
- 24V DC supply (via external connector / AC adapter)

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
USB 2.0 and IEEE1394 (Firewire 400) on board

Project-based Stuffing Options
Mini-PCI Express Connector (incl. USB interface)
Trusted Platform Module V1.2



Board Size	Mini-ITX: 6.7" x 6.7" (170 x 170 mm)
Chipset	AMD M690E & SB600
Memory	2 SO DIMM Sockets (1.8V), 256MB - 8GB, Single Channel or Dual Channel DDR2 800/667 SDRAM, unbuffered, no ECC (For details on recommended RAM, please refer to our website)
Processors	AMD Mobile Turion™ 64 X2 Dual Core Processors AMD Mobile Sempron™ Processors Mobile Socket S1g1 (PGA 638), max. 35W, HyperTransport™ 1; 800MHz (For details on supported processors, please refer to our website)

Power Specification
BTX12V (24 Pin) or ATX12V (20 Pin) Power Supply required
Support for Soft-Off Power Supplies or 24V / 5A via DC-connector (Rear I/O connector or onboard connector)
5V and 3.3V Supply Voltage on PCI Slots (PCI Rev. 2.3)
3.3V Auxiliary Supply Voltage on PCI Slots (Wake-Up Function)
Onboard CPU Voltage Regulator, 5V / 2A Auxiliary Power (BTX/ATX only) required for USB Wake-Up from Save-to-RAM, Save-to-Disk

Power Supply Requirements
for onboard components (worst case)

Source (ATX / BTX)	Voltage	PS Load (min.) ¹	Tolerance (max)	Mainboard Current (typ.) ²
Main Power Supply	+ 12 V	0.15 A	± 5 %	0.7 A
	- 12 V	--	± 10 %	--
	+ 5 V	1 A	± 5 %	1.5 A
	+ 3.3 V	0.3 A	± 5 %	0.6 A
Aux. Power	+ 5 V	0.1 A	± 5 %	0.15 A
Source				
DC-In	+ 24 V	n.a.	+10% / -15 %	0.6 A ³⁾

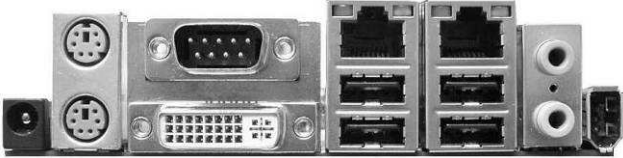
1) PS must support these minimum load conditions for mainboard incl. processor and memory if there is no power consumption by any additional components (e.g. drives, LVDS, PCI adapters)
2) Windows XP Idle; Turion TL-52; 2 x 1GB 3) Windows XP Idle; Sempron 2100+, 2 x 1GB

BIOS
Phoenix TrustedCore BIOS Version V6.00 modified and adapted by Fujitsu Siemens Computers; 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; Flexible LVDS Support

Security Features
Recovery BIOS, System and BIOS Password, Boot Sequence Control for each SATA / IDE Drive, Serial Port Access Protection, Boot Sector Virus Warning, Write Protection for Flash BIOS, Harddisk. Password. Trusted Platform Module V1.2 optional.

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 drives
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
Tin-plated PCB for improved durability of PCB surface
Revision control & Extended Lifetime (up to 5 years)
Enhanced operating temperature range (0°C - 60°C)¹⁾

External Connectors				
Mouse	COM1	LAN1	LAN2	Audio
				
DC-IN Keyboard	DVI-I	USB	USB	Audio Firewire

Graphics
Integrated ATI Radeon X1250 graphics; shared memory (up to 256MB); DirectX 9 compliant; DVI, VGA and 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
Drives
1 ATA 133 Interface for 1 Drive 4 Serial ATA II 300 Interfaces (max 3 GBit/s); up to 4 Drives; RAID 0/1/10 1 CF Interface (Typ I)

Features	D2703-S
Chipset	AMD M690E & SB600
Board Size	Mini-ITX
VGA ²⁾ / DVI / LVDS	✓ / ✓ / ✓
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	✓
Boot Logo Option	✓

Internal Connectors	
DIMM Sockets (DDR2 800/667, SO-DIMM)	2
PCI Express x16 Slot for Graphics Card	-
PCI Express x1 Slot	1
PCI Slot (32Bit, 33 MHz, Rev. 2.3)	1
SATA (300) / ATA (133) / Floppy / CF Card	4 / 1 / - / 1
S/PDIF (digital Audio) OUT / IN	1 / -
CD Audio Input	-
Frontpanel Audio (9-Pin) AC'97 / Azalia ³⁾	- / 1
FireWire™ (9-Pin, Intel standard header)	1
USB (2.0, ~480 MB/s; 2 channels per connector)	2
Serial (FIFO, 16550 compatible)	1
FAN CPU / System (AUX1) / System (AUX2) ⁴⁾	1 / 1 / 1
SMBus (Case Temperature) / Intrusion (Case Open)	- / -
LVDS Dual Channel / Backlight Inverter	1 / 1
Feature Connector (General Purpose I/O, IrDA)	1
Frontpanel (Power Switch, LEDs, Intel 10 pin header)	1
Onboard Power Output (+5V/+12V) for drives	1
Onboard (internal input) DC-In 24V / 5A ⁵⁾	1
Power 20 pin (ATX) ⁵⁾ / 4 pin (12V processor supply)	1 / -

External Connectors	
VGA Sub D ²⁾ / DVI-I	- / 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
FireWire™ (6-Pin, IEEE 1394)	1
USB (2.0, ~480MB/s)	4
Serial (RS232, FIFO, 16550 compatible)	1
DC-IN (external input) 24V / 5A ⁵⁾	1
Parallel (EPP/ECP)	-

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) All fan connectors = 4 pin PWM 5) Not for simultaneous use!