



Features

- AMD S1 socket supports Turion/Turion 64 processor
- AMD M690E / SB600 chipset
- Two 200-pin SODIMMs up to 2GB DDR2 400/533 / 667/800 MHz
- Dual View, 2-CH LVDS, VGA, DVI
- Realtek ALC888 Supports 7.1/ 5.1+2-CH Audio streams, 6W AMP
- Dual Realtek RTL8111C Gigabit Ethernet
- 1 PCI, 1 Mini PCIe, 1 bNAND, 1 CF
- 4 COM (5V/12V), 8 USB, 4 SATA II, 8-bit GPIO
- TPM 9635TT 1.2

AMD S1	Dual View	2 LVDS	DVI	2 Audio Streams
6W AMP	GbE	4 COM	Powered COM	Mini PCIe
bNAND	8 USB	8 GPIO	4 SATA	TPM

Mini ITX

System

CPU	Socket S1 supports mobile Turion / Turion 64 / Sempron Processors
FSB	200/400/600/800 MHz HyperTransport (HT)
BIOS	Award 8 Mb SPI BIOS
System Chipset	AMD M690E / SB600 Chipset
I/O Chip	Winbond W83627DHG-A
System Memory	Two 200-pin SO-DIMMs up to 2GB DDR2 400/533/667 MHz
SSD	One CompactFlash Type I/II socket
Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step
H/W Status Monitor	Monitoring CPU temperature and fan status with auto throttling control
Expansion	One PCI (PCI Rev. 2.3 compliant), one bNAND, one Mini PCIe
TPM	Onboard Infineon SLB 9635 TT1.2 TPM chipset
Wake up on LAN/Ring	Supports LAN and Ring modes (COM w/o power when WOR)
S3 / S4	Supports both S3 and S4
SmartFan Control	Supports 3 modes in Silent / Optimal / Performance modes
Ethernet	
LAN 1	Realtek RTL8111C PCIe Gigabit Ethernet
LAN 2	Realtek RTL8111C PCIe Gigabit Ethernet
I/O	
MIO	1x IDE, 4 x COM (5V/12V), 4 x SATAII, 1 x K/B, 1 x Mouse
USB	8 x USB 2.0
DIO	8-bit General Purpose I/O for 4-bit DI and 4-bit DO

Display

Chipset	IGP AMD Radeon X1250-base
Display Memory	Share System Memory , up to 256 MB
Resolution	2048 x 1536 @ 32 bpp(@ 60Hz)
Dual Display	VGA+DVI, or VGA+LVDS, or DVI+LVDS
LVDS	2-CH 18/24-bit LVDS
DVI	Supported by M690E

Audio

Chipset	AMD SB600
Audio Code	Realtek ALC888 HD Audio Codec supports 7.1-CH single streaming, or 5.1+2-CH Audio streamings
Audio Interface	Line in, Mic in , Line out
Audio Amplifier	TPA3005D2 6W (per front channel) stereo amplifier

Mechanical & Environmental

Power Type	ATX
Operating Temperature	0~60°C (32~140°F)
Operating Humidity	0%~90% relative humidity, non-condensing
Size (L x W)	6.69" x 6.69" (170 mm x 170 mm)
Weight	0.88 lbs (0.4 Kg)

Ordering Information

EMX-M690S1-A1R AMD M690E S1 Socket Mini-ITX Motherboard with VGA, LVDS/ DVI, Audio, Dual GbE, PCI, Mini PCIe, bNAND, CF, 4 COM, 8 USB, 4 SATA II, 8-bit GPIO, TPM & 6W AMP w/ SATA cable, IDE cable, Bracket, CD driver