



Features

- Supports 45nm Intel® µFC-PGA/ BGA Socket-P Core™ 2 Duo CPU
- Intel® GM45/ ICH9-M Chipset
- Two SODIMMs Up to 8GB DDR2 667/ 800 SDRAM
- Intel® Graphic Media Accelerator HD4500
- Dual GbE, Dual VGA, 2-CH LVDS
- Realtek ALC888 7.1-CH Audio, 6W AMP
- 1 CF, 1 PCI, 4 SATA II, 6 COM, 8 USB, 16-bit GPIO
- Optional 1 ~ 4MB Battery Backup SRAM



Specifications

System

• CPU	Supports 45nm Intel® µFC-PGA/ BGA Socket-P Core™ 2 Duo CPU (Penryn)
• FSB	667/ 800/ 1066MHz
• BIOS	Award 2MB SPI Flash ROM
• System Chipset	Intel® 82GM45/ 82801IBM (ICH9-M)
• I/O Chip	Winbond W83627DHG-AW
• System Memory	Two 200-pin SODIMM Sockets Support Up to 8GB DDR2 667/ 800 SDRAM
• SSD	One Compact Flash Type I/II Socket
• Watchdog Timer	Reset: 1sec. ~ 255min. and 1sec. or 1min./step
• Expansion	1 PCI (PCI 2.3 Compliant)
• SRAM	Optional 1 ~ 4MB Battery Backup SRAM

I/O

• MIO	4 SATA II, 6 COM (1 x RS-232/ 422/ 485, 5 x RS-232 with 5V/ 12V), 1 x K/B, 1 x Mouse
• USB	8 x USB 2.0
• GPIO	8-bit DI (ESD Protected), 8-bit DO

Audio

• Chipset	Intel® ICH9-M Integrated
• AC97 Codec	Realtek ALC888, 7.1-CH Audio with 6W AMP
• Audio Interface	Mic-in, Line-in, Line-out

Display

• Chipset	Intel® GM45 Intergrated HD4500 Integrated Graphics Engine
• Display Memory	Intel® DVMIT 5.0
• Resolution	2048 x 1536
• Dual Display	CRT + LVDS, CRT + CRT
• LVDS	2-CH 18/24-bit LVDS
• VGA Chip	Chrontel CH7317A (SDVO)
• VGA Ports	Dual External Ports

Ethernet

• LAN 1	Atheros AR8121 Gigabit Ethernet, Supports Wake on LAN
• LAN 2	Atheros AR8121 Gigabit Ethernet, Supports Wake on LAN
• Ethernet Interface	10/ 100/ 1000 Base-Tx Gigabit Ethernet

Mechanical & Environmental

• Power Type	ATX
• ACPI	APMI 1.2, support ACPI
• Operating Temperature	0 ~ 60°C (32 ~ 140°F)
• Operating Humidity	0 ~ 90% Relative Humidity, Non-condensing
• Size (L x W)	6.69" x 6.6" (170mm x 170mm)
• Weight	0.88lbs (0.4kg)

Ordering Information

• EMX-GM45-A1R

Intel® Core™ 2 Duo Mini ITX Motherboard with Intel® GM45 + ICH9-M Chipset and w/ Dual VGA, 2-CH LVDS, 7.1-CH Audio, 6W AMP, Dual GbE, CF, PCI, 8 USB, 4 SATA II, 6 COM, 8 DI, 8 DO