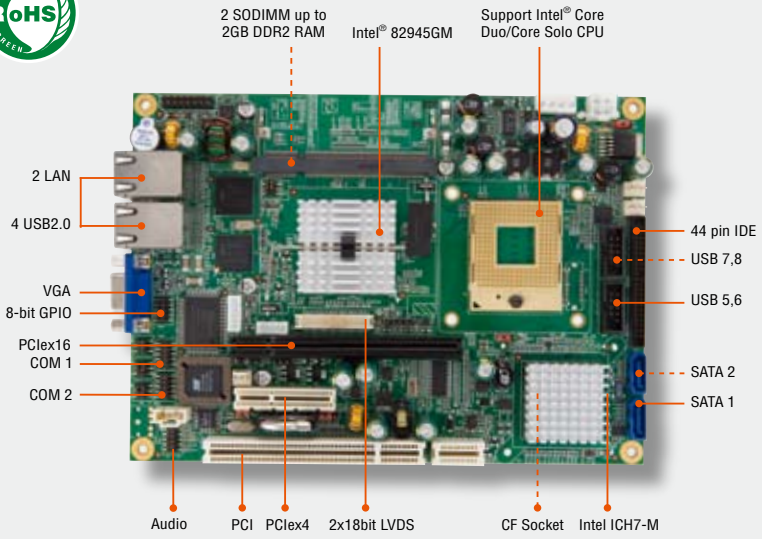
EBM-945GM

5.25" Intel® 945GM Core™ Duo / Core™ 2 Duo / Celeron® M Mini Module



Features

- Supports 65nm Intel® mPGA 478 Core™ Duo / Core™ 2 Duo / Celeron® M CPU
- Intel® 82945GM Chipset
- Two SODIMM up to 2 GB DDR2 SDRAM
- LVDS, HDTV & 5.1 CH Audio
- Intel® 82562EZ 10/100Mbps LAN & Intel® 82573L 10/100/1000Mbps Gigabit LAN
- 1 PCI Express x16, 1 PCI Express x4, 1 PCI, Type I/II CF
- 2 SATA, 2 COM, 8 USB 2.0, 8-bit GPIO

Intel 945GM | HDTV | LAN & GigaLAN | PCIe16 | 8 USB

Specifications

System

• **CPU**	Supports Intel® Core™ Duo /Core™ 2 Duo / Celeron® M CPU with 65nm process technology
• **FSB**	533/667 MHz
• **BIOS**	Award 512 KB Flash BIOS
• **System Chipset**	Intel® 82945GM GMCH/82801GHM ICH7M
• **I/O Chip**	Winbond W83627HG-AW
• **System Memory**	Two 200-pin SODIMM sockets support up to 2 GB DDR2 667 SDRAM
• **SSD**	One CompactFlash Type I/II socket
• **Expansion**	One PCI Express x16 or ADD2 slot, one PCI Express x4 slot, one PCI slot

I/O

• **MIO**	1 x EIDE, 2 x SATA, 1 x RS-232/422/485, 1 x RS-232, 1 x K/B, 1 x Mouse
• **IrDA**	115k bps, IrDA 1.0 compliant
• **USB**	8 x USB 2.0 ports
• **DIO**	8-bit General Purpose I/O for DI and DO

Display

• **Chipset**	Intel® 82945GM GMCH
• **Display Memory**	Intel® DVMT 3.0 supports up to 64 MB video memory
• **Resolution**	CRT mode: 2048 x 1536 @ 75 Hz LCD mode: 2048 x 1536 @ 60 Hz
• **Multiple Display**	CRT + LVDS, or LVDS + TV-out, CRT + TV-out
• **LVDS**	Dual-channel 18/36-bit LVDS
• **TV-out**	Intel® 82945GM Integrated TV Interface Supports HDTV, supports both S-Video and Composite Video

Audio

• **AC97 Codec**	Realtek ALC655 supports 5.1 CH Audio
• **Audio Interface**	Mic in, Line in, CD Audio in, Line out

Ethernet

• **LAN 1**	Intel® 82562EZ
• **LAN 2**	Intel® 82573L Gigabit LAN
• **Ethernet Interface**	100Base-Tx Fast Ethernet compatible: Intel® 82562EZ 1000Base-T Fast Ethernet compatible: Intel® 82573E

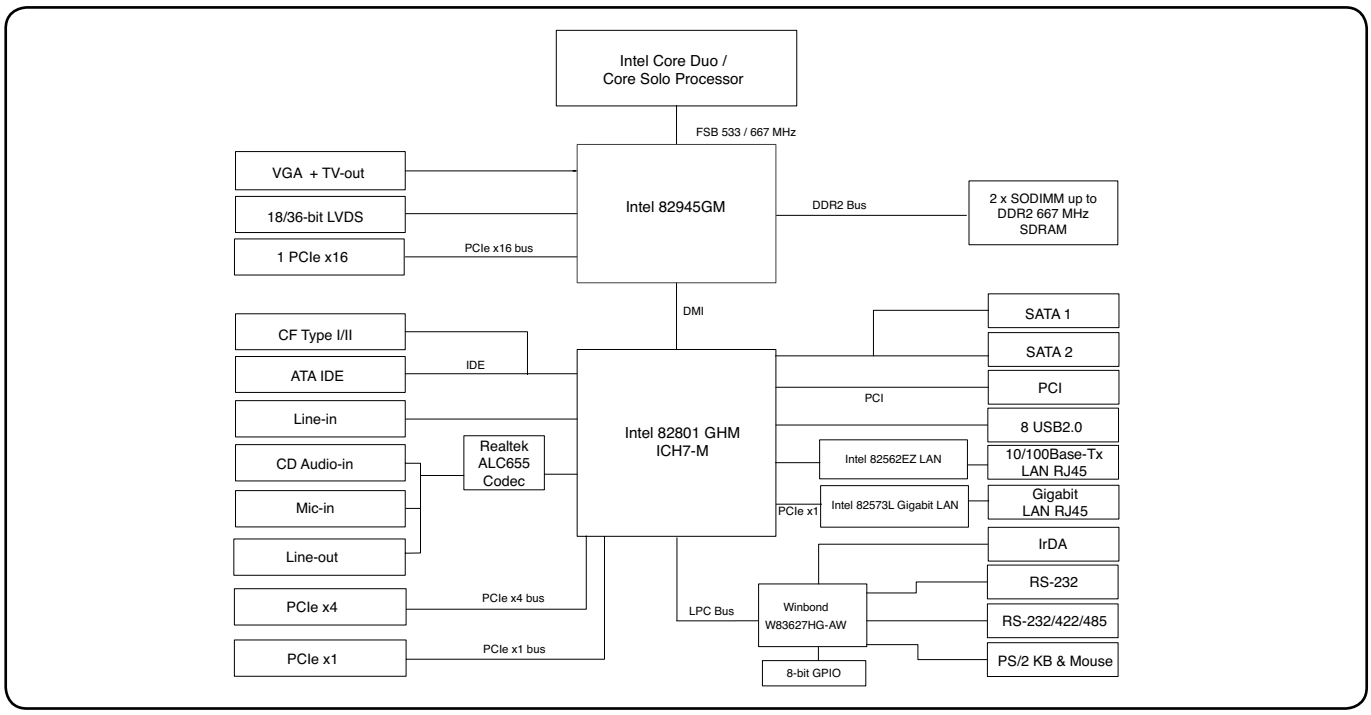
Mechanical & Environmental

• **Power Consumption**	+12 V
• **Power Type**	ATX
• **Operating Temperature**	0~60°C (32~140°F)
• **Operating Humidity**	0%~90% relative humidity, non-condensing
• **Size (L x W)**	8" x 5.75" (203 mm x 146 mm)
• **Weight**	0.88 lbs (0.4 Kg)

Ordering Information

- **EBM-945GM**
  5.25" Intel® Core™ Duo / Core™ 2 Duo / Celeron M Mini Module with VGA, LVDS, 5.1 CH Audio, Dual LAN, CF, PCI Express x16, PCI Express x4, PCI, 2 COM & 8 USB 2.0
- **ACC-CF-xx**
  CompactFlash Card Series (xx = Capacity, Capacity Option: 128, 256, 512 MB, 1, 2, 4 GB)

Block Diagram

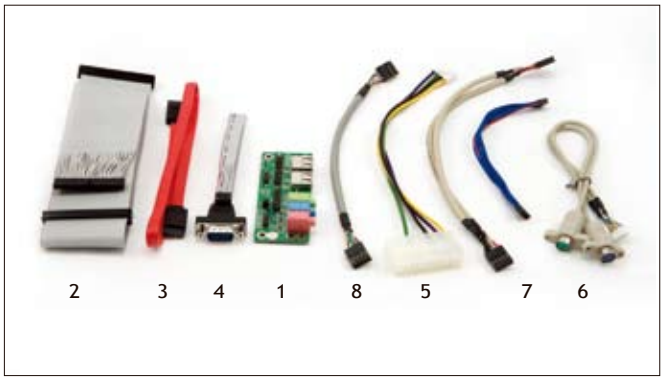


Extreme Graphics & I/O Performance

Equipped with Intel® 945GM Express chipset, the EBM-945GM delivers the highest level of Graphics performance without any expense at extra graphics card. The 945GM chip enables EBM-945GM supports one PCI Express* x16 graphics port, one PCI Express x4 I/O port, 2 Serial ATA, and 8 hi-speed USB 2.0 ports. The full package of EBM-945GM includes a complete cable kit for customers' system development.

1) 9697000103R	Daughter Board AUX-001 REV.A3 Audio/2 x USB (RoHS)
2) 1701C40450R	44pin - 40pin- 40pin HDD Cable (RoHS)
3) 170X070500R	SATA HDD Cable (RoHS)
4) 1701100170R	COM Port w/ Header (RoHS)
5) 1702240210R	Power Cable (RoHS)
6) 1700180290R	PS/2 Keyboard/Mouse Y-Cable (RoHS)
7) 1701100150R	Audio Cable (RoHS)
8) 1700200250R	USB 2.0 Cable (RoHS)

Below: EBM-945GM Cable Kit



PCI Express Architecture

The PCI Express bus architecture delivers up to a 4x increase in discrete graphics bandwidth and a 2x increase in I/O bandwidth for improved system, application, and multimedia performance. The architecture also enables high quality audio and a premium home theater experience.

PCI Express as a high-bandwidth, low pin count, serial, interconnect technology is uniquely positioned to take advantage of these trends and to support embedded applications with the following benefits:

High Performance I/O

PCI Express architecture provides a high performance I/O infrastructure with transfer rates starting at 2.5 Giga transfers per second over a x1 PCI Express lane for Gigabit Ethernet, TV Tuners, 1394a/b controllers, and general purpose I/O.

High performance graphics

PCI Express architecture provides a high performance infrastructure for Mobile platforms with transfer rates starting at 2.5 Giga bits per second over a x1 PCI Express lane and a x16 PCI Express interface for high performance graphics controllers.

Flexible and extended usage

A richer end-user experience requires greater portability and versatility. Lighter weight and thinner notebooks provide flexibility and ease-of-use across multiple environments. ExpressCard™ utilizing PCI Express interface, developed by the PCMCIA group, will help to create new usage models for Client systems and inspire innovative form factor designs.

Extended battery life

PCI Express Advanced Power Management features help to extend platform battery life so users can work anywhere, without an AC power source.