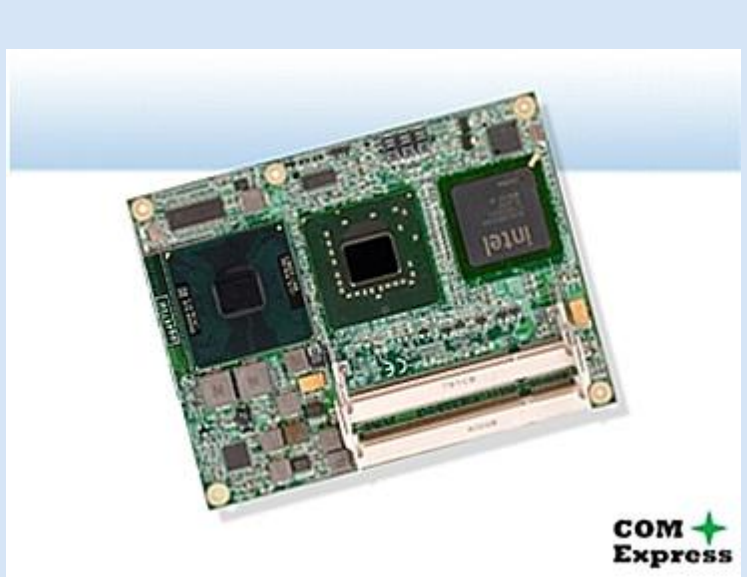


CME-965 COMs



High-performance, low-power, wide-temperature COM Express Computer-on-Modules featuring Intel Core 2 Duo LV CPUs



Ideal for Embedded Applications

The CME-965 computer-on-module (COM) is a compact, high-performance, embedded computing core suitable for powering a wide range of embedded applications. To support real-world applications subject to temperature extremes, the module is rated for operation over a -40°C to +85°C enhanced temperature range.

Reduced Development Costs

By plugging these powerful, plug-and-play COMs into standard or custom application baseboards, OEMs can reduce development costs, minimize design risks, and shorten time-to-revenue while benefiting from the latest embedded technologies. The CME-065 is also comes pre-integrated in our Magellan Embedded-Ready Subsystem.

Highly Integrated

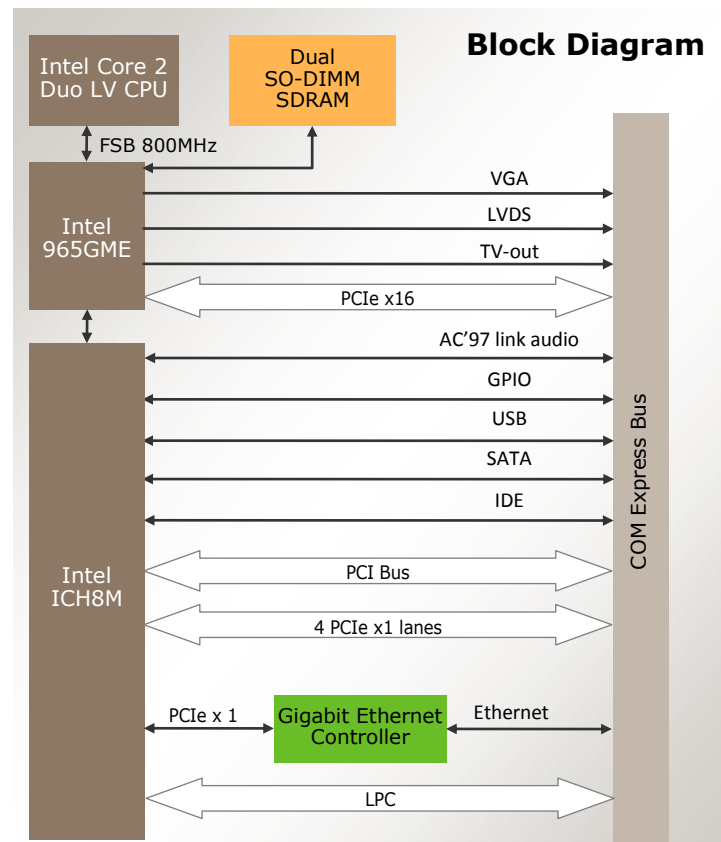
Each CME-965 module integrates a complete set of PC-compatible functions, including a high-performance, low-power Intel Core 2 Duo LV processor and up to 4GB of high-speed system memory.

In addition, the module provides interface controllers for high-resolution VGA- and LVDS-interfaced displays, 10/100/1000Mbps Ethernet, and both SATA and IDE storage devices, as well as USB 2.0, digital I/O, and audio ports.

Maximum Application Flexibility

For maximum application flexibility, the CME-965 can be interfaced to application-specific circuitry via a choice of PCI Express, PCI, and LPC expansion buses.

- ◆ COM Express Type II compliant
- ◆ High-performance, low-power, rugged
- ◆ Based on the Intel Core 2 Duo LV processor
- ◆ Supports up to 4GB SO-DIMM DDR2 SDRAM
- ◆ VGA CRT and dual-channel 24-bit LVDS video
- ◆ SATA and IDE mass storage interfaces
- ◆ 8 USB 2.0 ports, AC'97 link audio, I²C, SMBus
- ◆ 8-bit programmable digital I/O
- ◆ 10/100/1000Mbps Ethernet LAN
- ◆ PCI Express, PCI, and LPC expansion buses
- ◆ -40°C to +85°C (-40°F to +185°F) extended operating temperature



CME-965 Computer-on-Modules



Specifications

Processor	1.6GHz Intel Core 2 Duo LV
Chipset	Intel 965GME with Intel ICH8M
Front side bus	800MHz
L2 cache	4MB
Memory	2 200-pin SO-DIMM sockets, for up to 4GB DDR2 SDRAM (533/667MHz)
BIOS	AMI PnP Flash BIOS
Graphics	Intel GMA x3100 graphics core Up to 2048 x 1536 resolution RGB CRT output Dual channel 24-bit LVDS output Supports dual independent displays TV Out
Audio	AC'97 link Mic in, line in/out
USB ports	8 USB 2.0
Networking	10/100/1000Base-T Ethernet (Realtek 8111B)
Mass storage	3 SATA ports with 150MB/s data rate 1 PATA port, supports 2 IDE devices
Digital I/O	8-bit programmable
Keyboard/Mouse	USB keyboard and mouse supported
Watchdog timer	255-level reset
Expansion buses	1 PCI Express x16 4 PCI Express x1 4 32-bit PCI bus masters LPC bus
Dimensions	4.9 x 3.7 in. (125 x 95 mm)
Supply voltage	+12VDC main power, +5VDC standby power
Power consumption	12W idle, 24W loaded (preliminary)
Operating temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	0 to 90% non-condensing
Weight	2.8oz / 79g
RoHS	Compliant

Software Support

The CME-965 COMs are compatible with Windows XP and Linux 2.6 operating systems. Contact Diamond Systems for information regarding support for other operating systems.

Custom Baseboard Designs

Through more than 20 years of experience producing industry-leading data acquisition I/O on PC/104, PC/104-Plus, SUMIT, and FeaturePak modules and single-board computers, Diamond has developed an extensive library of analog, digital, and I/O interface technology. This expertise is now available in the form of application-specific baseboards tuned to fit precise customer requirements, coupled with COM Express COMs that implement the processing power needed to drive the application.

COM Express Development Systems

In addition to the CME-965 COMs themselves, Diamond offers pre-integrated development kits based on generic or application-oriented COM Express baseboards. This increases project efficiency and reduces risks by providing a known good environment for rapid application development.

To simplify the development process, these kits' COM Express baseboards each provide I/O connectors for quick and easy access to nearly all system interfaces. They also come with SO-DIMM memory, an extensive set of interface cables, and full documentation and software.

In addition to these features, the COM Express form-factor baseboard adds four serial ports, RS-232/422/485 buffering, an AC'97 audio CODEC, digital I/O, a second gigabit Ethernet LAN interface, and flexible via stackable PCI-104 or SUMIT expansion and an on-board FeaturePak module socket.



COM Express form-factor baseboard

Ordering Information

CME-965-L7500	CME-965 COM with Intel 1.6GHz Core 2 Duo LV CPU, 2 SO-DIMM sockets with 0GB RAM
MEM-2048-05	2GB DDR2 SDRAM SO-DIMM module
MEM-1024-05	1GB DDR2 SDRAM SO-DIMM module
6884030	Heatspreader for COM Express-965 COM
C-ATX-KIT	COM Express Cable Kit
DK-MAG965	CME-Atom Development Kit: includes CME-965-L7500, MEM-1024-05, 6884030, COM Express form-factor baseboard, cable kit, drivers for Linux and Windows, and documentation