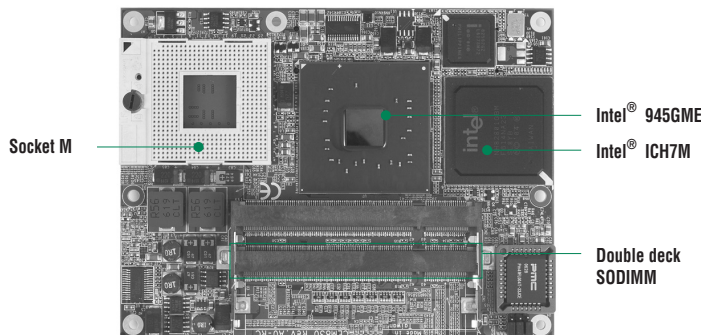


CEM830

Socket M Intel® Core™2 Duo COM Express™ Type-II Module

1

Embedded Computing Platforms



System

CPU	Socket M (478-pin) for Intel® Core™2 Duo/Core™2 Duo/ Core™ Solo/Celeron® M processors with FSB 533/667 MHz; ULV Intel® Celeron® M (423) 1.06GHz/1MB processor for onboard option
System Memory	2 x 200-pin SODIMM support DDR2 PC2-4200/5300 max. up to 4GB (Intel® 945GME supports DDR2-400/533/667 up to 4GB, the actual maximum capacity will be less depending on system configuration)
Chipset	Intel® 945GME+ICH7M chipset
BIOS	Phoenix-Award 4Mbit with RPL/PXE LAN Boot ROM, SmartView and Customer CMOS Backup
Watchdog Timer	255 levels as Reset from 0~255 seconds
Expansion Interface	* 20 lanes for PCIe; one x16 for discrete graphic card or SDVO for converting solution; four x1 for add-on peripherals * PCIe Mini card specifications supported * 32-bit/33MHz PCI for 4 Bus masters
Size	125 x 95 mm
Temperature	0~60°C, operation
Operation Humidity	10% ~ 95% relative humidity, non-condensing

I/O

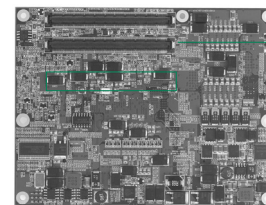
MIO	1 x PATA-100 IDE, 2 x SATA-150, LPC interface
GPIO	4 channel IN and 4 channel OUT
Ethernet	Intel® 82562GZ for PCIe Fast Ethernet; optional with co-layout as Intel® 82573L for Gigabit Ethernet
Audio	AC'97/HD Audio interface for external Codec
USB	8 USB 2.0 ports
SMBus	1 port
I ² C	1 port

Display

Chipset	Integrated in Intel® 945GME
Memory Size	Max. up to 224MB frame buffer sharing system memory
Resolution	* Standard Display Mode: CRT: 2048 x 1536; 24-bit single/dual channel LVDS LCD: 1920 x 1200
Output Interface	* CRT for DAC output through interface connector * LVDS LCD through interface connector

Features

- ▶ Intel® Core™2 Duo processor with FSB 533/667MHz
- ▶ Intel® 945GME+ICH7M chipset
- ▶ With high performance integrated graphic controller and discrete solution through PCIe x16 interface
- ▶ 20 lanes for PCIe
- ▶ 8 USB 2.0 ports



Packing List

Quick installation guide
Manual, driver, utility CD

Ordering Information

Standard	
CEM830VE	COM Express type-II module with socket M, CRT/LVDS LCD, Fast Ethernet
Optional	
CEM830VE-1G	CEM830 with ULV Intel® Celeron® M (423) 1.06 GHz/1MB L2 Cache CPU onboard, CRT/LVDS LCD, Fast Ethernet
507CEM83020E	CEM830 heatspreader module for PGA type CPU
507CEM83030E	CEM830 heatspreader module for BGA type CPU
CEB94000	ATX form factor baseboard



ECP Services and Solutions

System-on-a-Module Solutions

Mini ITX SBC

3.5" Capa Boards

EPIC Boards

5.25" Petit Boards

Half-size CPU Cards, Backplanes

PCI/04 Modules

Mini PCI Modules

Accessories

Remote Field Controllers

Embedded eBOX Systems & MicroBoxes

Power Supplies

Appendix