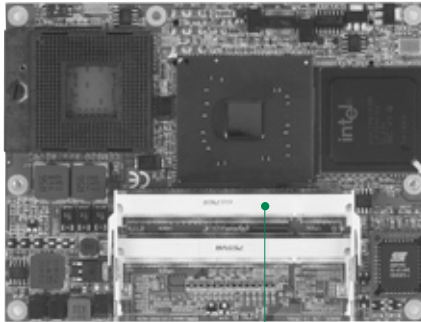


# CEM820

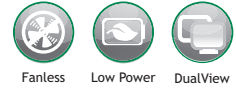
Intel® Pentium® M COM Express™ Type-II Module with  
Intel® 915GME/910GML + ICH6M Chipset



Double deck  
DDR2 SO-DIMM

1 G.E.  
LVDS/VGA  
8 USB 2.0  
4 PCI  
Audio

## Features



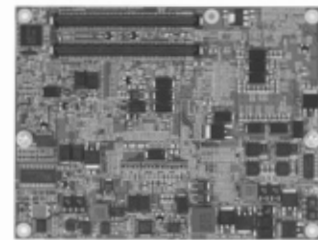
- Intel® Pentium® M/ Celeron® M processor
- Intel® 915GME/910GML + ICH6M chipset
- DDR2-400/533 up to 2GB
- With high performance integrated graphics controller and discrete solution through PCIe x16 interface
- 19 lanes for PCIe
- 8 USB 2.0 ports

## System

CPU	Socket 478 for Intel® Pentium® M/ Celeron® M processors with FSB 400/533 MHz; ULV Intel® Celeron® M processor 600MHz/512KB or 1GHz/ZC onboard
System Memory	2 x 200-pin SO-DIMM supports DDR2-400/533 max. up to 2GB
Chipset	Intel® 915GME/910GML + ICH6M
BIOS	Phoenix-Award
SSD	N/A
Watchdog Timer	255 levels, 1-255 sec.
Expansion Interface	1 x PCIe x16 graphics port supports for SDVO or PCIe x1 devices 3 x PCIe x1 devices 4 x 32-bit PCI bus masters
Battery	N/A
Power Requirements	*Intel® Pentium® M 755 @ 2.0 GHz, 2GB DDR2 Max. RMS: +5VSB @ 26mA, +12V @ 2.475A *Intel® Celeron® M @ 1 GHz/ZC, 2GB DDR2 Max. RMS: +5VSB @ 21mA, +12V @ 1.411A
Size	125 x 95 mm
Board Thickness	1.6 mm
Temperature	0°C - +60°C (32°F - 140°F), operation
Relative Humidity	10% - 95% relative humidity, non-condensing

## I/O

MIO	1 x IDE; PATA-100 1 x LPC interface
SATA	2 x SATA-150
Hardware Monitoring	N/A
Ethernet	1 port as 10/100/1000Mbps supports Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
Audio	HD/AC'97 link interface to baseboard for external Codec
USB	8 x USB 2.0
SMBus	Yes
I <sup>2</sup> C	1 x I <sup>2</sup> C
Digital I/O	4 channels IN and 4 channels OUT



▲ Rear view

## Display

Chipset	Intel® GMA 900 graphics Core
Memory Size	Intel® DVMT 3.0 compliant
Display Interface	1 x VGA 1 x LVDS; 18-bit single/dual channel

## Packing List

Quick installation guide, user's manual/utility CD

## Ordering Information

Standard	
CEM820VG (P/N: E38D820100)	COM Express type-II module with socket 478, VGA/LVDS LCD, 10/100/1000Mbps Ethernet
CEM820VG-1GE (P/N: E38D820102) (Fanless)	COM Express type-II module with ULV Intel® Celeron® M 1GHz/ZC CPU onboard, VGA/LVDS LCD, 10/100/1000Mbps Ethernet
Optional	
CEB94000	ATX form factor baseboard
507CEM83020E	CEM830/820 heatspreader module for PGA type CPU
507CEM83030E	CEM830/820 heatspreader module for BGA type CPU
507CEM83040E	COM Express SoM cooling kit with fan
5078D830200E	COM Express SoM cooling kit without fan