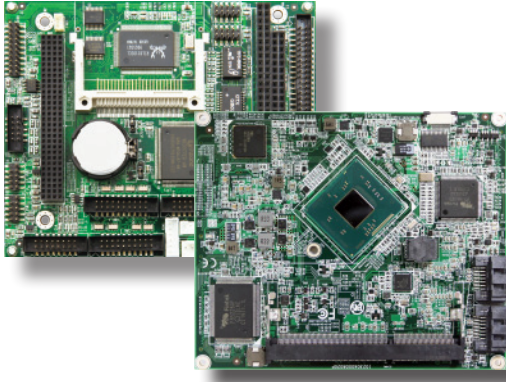


# Em104P-i2313

Wide-Range Temperature Intel® Atom™ E3800 PC/104-Plus CPU Module



## Features

- **Fanless Design**
- Soldered onboard Intel® Atom™ E3800 Processor
- Dual Channel 24-bit LVDS, Analog RGB and DDI Port
- Integrated Gigabit Ethernet
- **Wide-Range Operating Temp.: -40 ~ 85°C**

## System

CPU	Intel® Atom™ Processor E3825 dual-core 1.33GHz or E3845 quad-core 1.91GHz
Memory	1 x 204-pin SO-DIMM socket, up to 8GB DDR3L 1333 MT/s SDRAM
BIOS	Insyde BIOS
Watchdog Timer	1~255 levels reset

## I/O

I/O Chip	Primary: Fintek F71869ED Secondary: Winbond W83977
Serial Port	4 x COM ports (3 x RS-232, 1 x RS-232/422/485 selectable)
Parallel Port	SPP/EPP/ECP mode selectable
USB Port	4 x USB 2.0 ports
KB/MS	One 1x6-pin wafer connector for PS/2 interface for keyboard and mouse
Digital I/O	16-bit programmable Digital Input/Output, 8 in/8 out
Expansion Bus	PC/104-Plus interface
Storage	1 x Ultra ATA, supporting 2 IDE devices 2 x Serial ATA ports with 300MB/s HDD transfer rate 1 x CompactFlash socket
Ethernet Chipset	1 x Realtek RTL8105E PCIe 10/100Base-T Ethernet controller 1 x Realtek RTL8110SCL PCI GbE controller
Audio Interface	Realtek ALC662 5.1 Channel HD Audio CODEC, Mic-in/Line-in/Line-out

## Display

Graphic Chipset	Soc Integrated Intel® Gen 7 graphic
Graphic Interface	Analog RGB supports resolution up to 2048 x 1536 Dual Channel 24-bit LVDS supported via eDP to LVDS NXP PTN3460

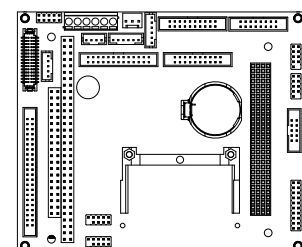
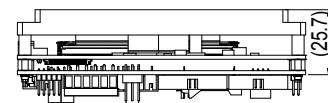
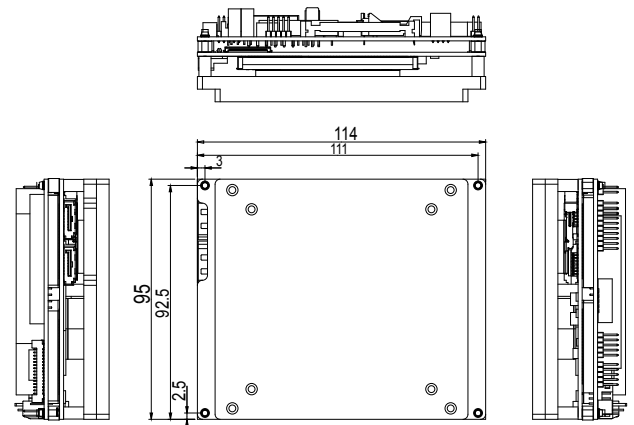
## OS Support

Windows 7 32-bit/64-bit  
Windows 8.1 32-bit/64-bit  
Linux: Ubuntu

## Mechanical & Environmental

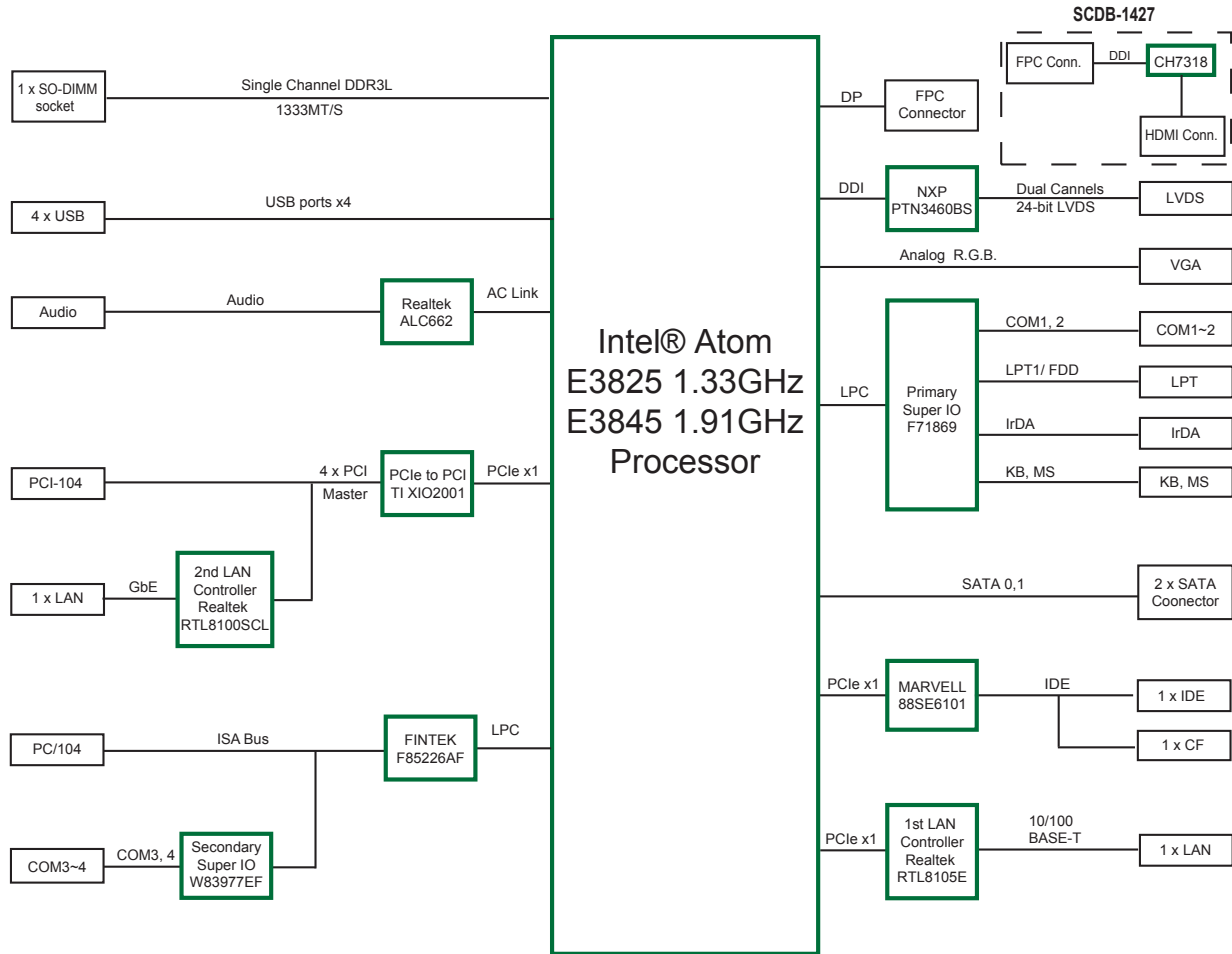
Power Requirement	+5V, +12V
Power Consumption	2.69A@+5V, 0.69A@+12V (Typical, W/E3845) 2.55A@+5V, 0.70A@+12V (Typical, W/E3825)
Operating Temp.	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	10 ~ 95% @ 85°C (non-condensing)
Dimension (L x W)	114 x 95 mm (4.5" x 3.7")

## Dimensions



Unit:mm

## Block Diagram



### Ordering Information

Em104P-i2313-E3825	Wide Range Temperature EmETX-i2304 ETX® CPU module w/Intel® Atom™ Processor E3825 + PBE-1100-RG R3.3 ETX® carrier board
Em104P-i2313-E3845	Wide Range Temperature EmETX-i2304 ETX® CPU module w/Intel® Atom™ Processor E3845 + PBE-1100-RG R3.3 ETX® carrier board

### Optional Accessories

HS-2304-F1	Heat spreader (114 x 95 x 18 mm)
CBK-16-1100-02	Cable kit for PBE-1100 1 x Audio cable 2 x USB cables 2 x COM-port cables 1 x LPT-to-FDD cable 1 x IDE cable 1 x LPT cable 2 x Ethernet cables 1 x VGA cable 1 x KB/MS cable 2 x SATA cables 1 x power cable (4 wires) 1 x power cable (2 wires)