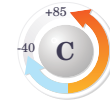
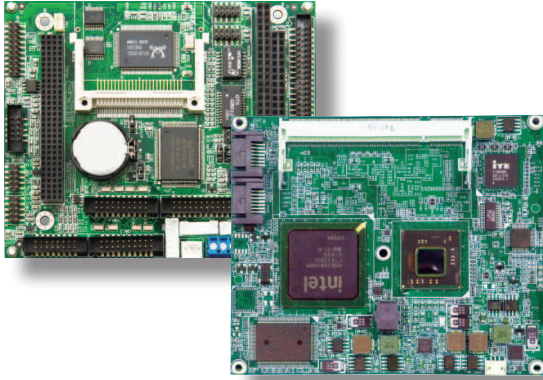


EmModule-7413



Wide-Range Temperature Intel® Atom™ Processor N450 PC/104-Plus CPU Module



Features

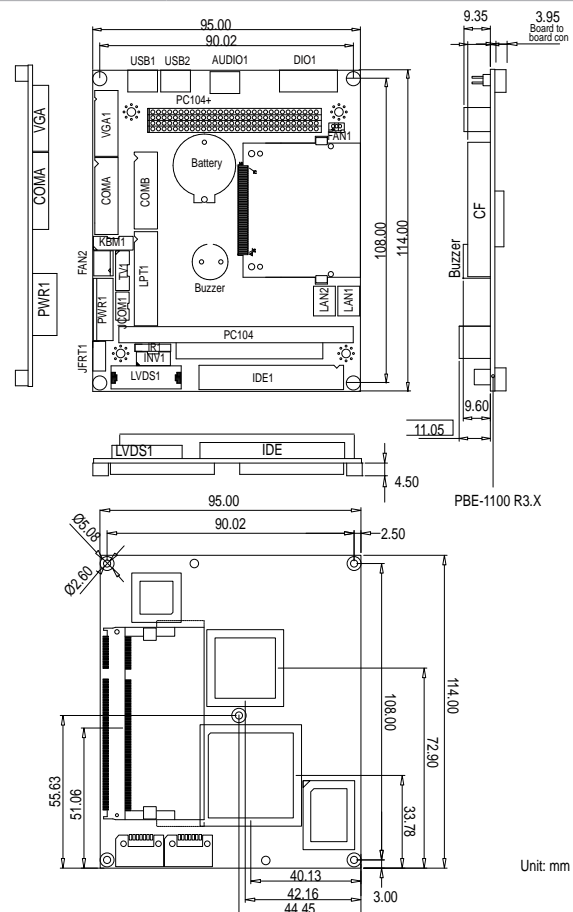
- **Fanless Design**
- Soldered onboard Intel® Atom™ Processor N450
- Single Channel 18-bit LVDS, and Analog RGB
- Integrated Gigabit Ethernet
- **Wide-Range Operating Temp.: -40 ~ 85°C**

System	
CPU	Soldered onboard Intel® Atom™ Processor N450 1.6GHz
Memory	1 x DDR2 SO-DIMM socket, supporting 667MHz SDRAM up to 2GB
Chipset	Intel® ICH8M
BIOS	AMI PnP Flash BIOS
Watchdog Timer	1~255 levels reset
I/O	
I/O Chip	Primary: Winbond W83627HG 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 1 IDE device and 1 CF socket 2 x Serial ATA ports with 300MB/s HDD transfer rate 1 x CompactFlash socket
Ethernet Chipset	1 x Realtek RTL8103EL PCIe 10/100Base-T Ethernet controller 1 x Realtek RTL8110SCL PCI GbE controller
Audio Interface	Realtek ALC888 7.1 Channel HD Audio Codec, Mic-in/Line-in/Line-out
Display	
Graphic Chipset	Integrated Intel® Graphics Media Accelerator 3150
Graphic Interface	Analog RGB that supports resolution up to 1400 x 1050 @60Hz LCD: Single Channel 18-bit LVDS, with resolution up to 1280 x 800 or 1366 x 768

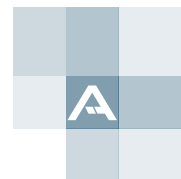
Mechanical & Environmental

Power Requirement	+5V, +12V
Power Consumption	2.21A@+5V, 0.07A@+12V (Typical)
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")

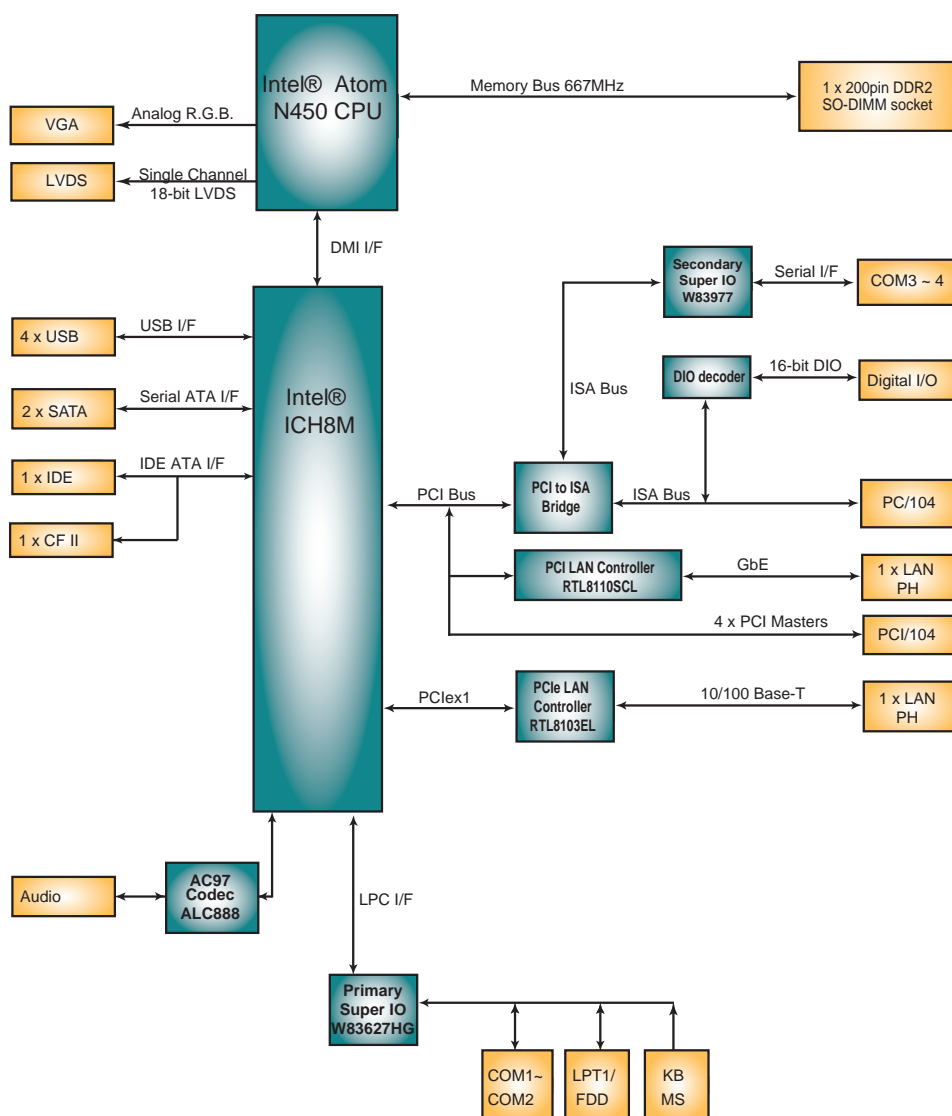
Dimensions



All specifications are subject to change without notice.



Block Diagram



Ordering Information

EmModule-7413-RG ETX-742E ETX[®] CPU module + PBE-1100-RG R3.3 ETX[®] carrier board

Optional Accessories

HS-0000-W4	Universal evaluation heatsink kit with thermal pad (dimension: 125x95x22mm, only used on a flat type heat spreader)
HS-0742-F2	Heat spreader (114 x 95 x 18 mm)
CBK-16-1100-01	Cable kit for PBE-1100 R3.1 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)