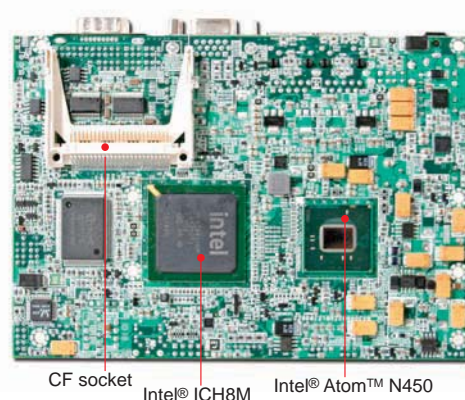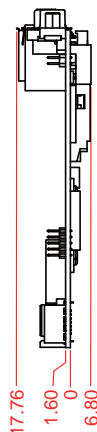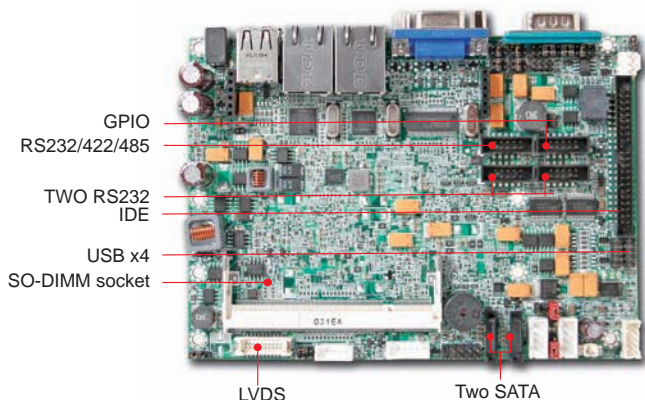# PEB-2770/2780

3.5" Embedded size, Based on Intel® 45nm Low Power Pineview processor with DDR2 SODIMM, dual display by VGA/LVDS, Dual GbE, Audio, COM and USB
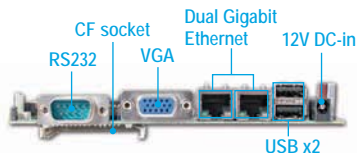

GPIO
RS232/422/485
TWO RS232
IDE
USB x4
SO-DIMM socket
LVDS
Two SATA

CF socket
Intel® ICH8M
Intel® Atom™ N450

17.76 1.60 0 6.80

PEB-2770/2780 take advange of the latest Intel® Atom™ technologies. It support DDR2 SDRAM, dual gigabit ethernet and one expansion PCI Express x1 female header. Base on leading Intel® Atom™ solution , PEB-2770/2780 perform low power dissipation, high performance and fan-less requirement. Therefore, it's applied to Panel PC, Kiosk, DS, Medical, Military and industrial automation.

FEATURES

- Intel® Atom™ processor D510/N450 and ICH8M chipset
- MPEG2 Decode in HW; independent display: VGA/ 18 bit LVDS
- Dual independent display: VGA/18bit LVDS
- Dual Gigabit Ethernet
- Customization (Extension card): BTB connector with PCIE x1 signal
- Storage: One SATA/One Compact Flash/ Two SATA ports
- 12V DC input

REAR/IO

CF socket
RS232
VGA
Dual Gigabit Ethernet
12V DC-in
USB x2

ORDERING GUIDE

AB1-3588	PEB-2770VG2A.Intel Pineview 1.66G D510 on Board without Thermal module.EBC.w/VGA/Dual GbE/COM/Audio/USB
AB1-3589	PEB-2780VG2A.Intel Pineview 1.66G N450 on Board without Thermal module.EBC.w/VGA/Dual GbE/COM/Audio/USB

PACKING LIST

One PEB-2770/2780 Main Board
One Thermal Kit
One Installation CD
One SATA Cable
One ATX Power Cable

GENERAL

Processor	- Intel® Atom™ Processor D510 (1.66Ghz, 13W)/N450(1.66Ghz, 5.5W) with 1M/512K L2 Cache in FCBGA437 package - DMI: 2.5GT/s - Support Intel® Hyper-Threading Technology, Intel® 64 Architecture, SpeedStep Technology (N450 only) ,Thermal Monitoring Technology (N450 only)
Chipset	Intel® ICH8M(2.4W) supports Intel® AHCI Technology.
BIOS	AMI Core 8 BIOS
Memory	Support up to 2GB DDR2 667 MHz SDRAM on one 200-pin SODIMM socket
Storage Devices	- 2x SATA II supports 3.0Gb/s data transfer rate - 1x CompactFlash® socket supports Ultra DMA100/66/33 MB/s - 1x IDE connector supports Ultra DMA100/66/33 MB/s
Watchdog Timer	Programmable via S/W from 1 sec. to 255 sec.
Hardware Monitoring	- Temperature (CPU & System) - Voltage (CPU Vcore, VBAT, 5VSB, 12V, 5V, 3.3V)
Expansion Interface	1x PCIExpressx1 female header (Gen1, 2.5 GT/s)

I/O INTERFACE

Super IO	Winbond W83627UHG
Audio	- Intel® ICH8M built-in High Definition Audio up to 192-kHz 32-bit - Realtek ALC262-VC2-GR HDA codec, 5.1 channels - Audio on board header with Line-in, Line-out and Microphone
Ethernet	- Intel® WG82567V gigabit phy and 82583V gigabit ethernet controllers - 2x RJ45 connectors on rear IO
Serial Port	- 1x RS232/422/485 port with DB9 connector on rear IO - 2x RS232 with on board pin headers - 1x RS232/422/485 with on board pin header
USB	- 2x USB 2.0 ports on rear IO - 4x USB 2.0 ports on borad with pitch 2.0 header - 480 Mb/s bus comprehends the high-speed / full-speed / low-speed data ranges
Keyboard & Mouse	1x PS/2 Keyboard & Mouse on board header
GPIO	On board programmable 8-bit Digital I/Os

DISPLAY

Graphic Controller	- Intel® D510/N450 integrated Generation 3.5/2.5 graphics, support DX9 Graphics up to 400MHz/200MHz - Supports Intel® Dynamic Video Memory Technology (Intel DVMT 3.0)
Display Interface	- LVDS: Single channel 18bit LVDS, resolution up to 1366x768, 18bpp - CRT: One DB-15 connector on rear IO, resolution up to 2048 x 1536 (QXGA)

Mechanical & Environment

Dimension	146(L) x 102(W) mm; 5.75"(L) x 4.02"(W)
Power Supply	DC-12V input
Environment	- Operation Temperature: 0°C to 60°C - Storage Temperature: -20°C to 80°C - Relative Humidity: 5% to 95%, non-condensing
MTBF	Over 120,000 hours at 40°C