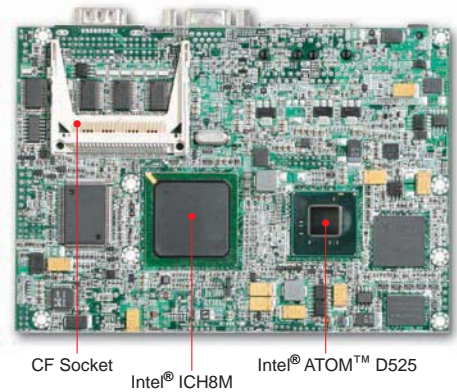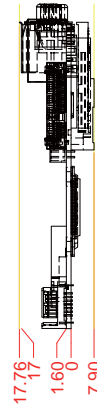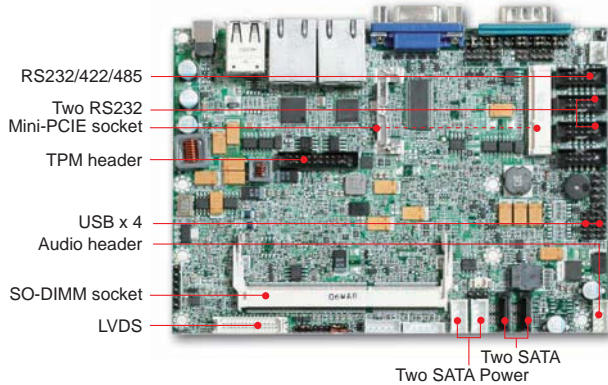# PEB-2771/2781

3.5" Embedded size, Based on Intel® 45nm Low Power Pineview processor with DDR3 SODIMM, dual display by VGA/LVDS, Dual GbE, Audio, COM and USB

RS232/422/485
Two RS232
Mini-PCIE socket
TPM header
USB x 4
Audio header
SO-DIMM socket
LVDS
Two SATA
Two SATA Power

17.76
17.17
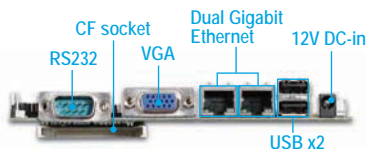1.60
7.90

CF Socket   Intel® ICH8M   Intel® ATOM™ D525

PEB-2771/2781 take advange of the latest Intel® Atom™ technologies. It support DDR3 SDRAM, dual gigabit ethernet and one expansion Mini PCI Express x1 socket. Base on leading Intel® Atom™ solution , PEB-2770/2780 performs low power dissipation, high performance and fanless requirement. Therefore, it's applied to Panel PC, Kiosk, DS, Medical, Military and industrial automation.

FEATURES

- Intel® Atom™ processor D525 and ICH8M chipset
- One 204-pin SO-DIMM support DDR3 800 SDRAM up to 2GB
- Dual independent display: VGA/24bit LVDS
- Dual Gigabit Ethernet
- Storage: One Compact Flash/Two SATA ports
- 12V DC input
- One Mini-PCIE socket

REAR/IO

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

ORDERING GUIDE

AB1-3563	PEB-2771VG2ATM.Intel Pineview 1.8G D525 on Board.EBC.w/DDR3/VGA/Dual GbE/COM/Audio/USB
AB1-3564	PEB-2781VG2ATM.Intel Pineview 1.66G N455 on Board.EBC.w/DDR3/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 D525 (1.80Ghz, 13W)/N455(1.66Ghz, 6.5W) with 1M/512K L2 Cache in FCBGA559 package - DMI: 2.5GT/s - Support Intel® Hyper-Threading Technology, Intel® 64 Architecture, SpeedStep Technology (N455 only) ,Thermal Monitoring Technology (N455 only)
Chipset	Intel® ICH8M(2.4W) supports Intel® AHCI Technology.
BIOS	AMI Core 8 BIOS
Memory	Support up to 2GB DDR3 800 MHz SDRAM on one 204-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
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 Mini PCIExpressx1 socket (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 ALC892-GR HDA codec, 7.1+2 channels - Audio on board header with Line-out and Mic-in
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 4.0) - XILINX XC3S200AN LVDS Transmitter
Display Interface	- LVDS: Dual channel 24bit LVDS - 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