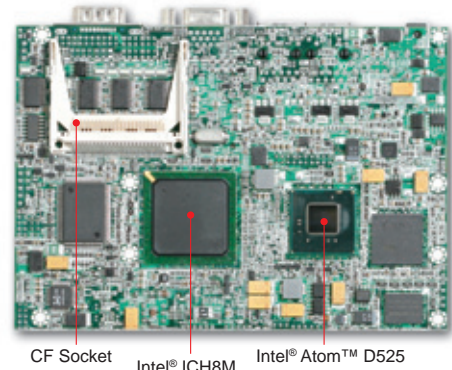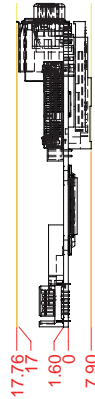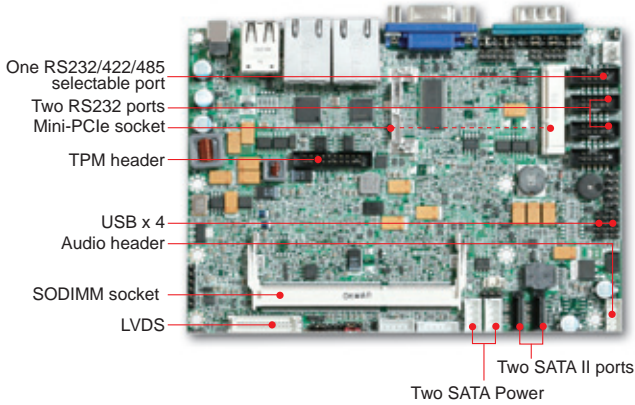# PEB-2771/2781

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

One RS232/422/485 selectable port
Two RS232 ports
Mini-PCIe socket
TPM header
USB x 4
Audio header
SODIMM socket
LVDS
Two SATA II ports
Two SATA Power

17.76
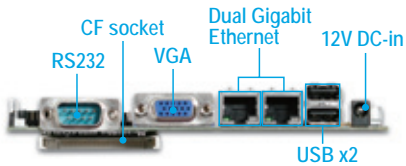17
1.60
7.90

CF Socket   Intel® ICH8M   Intel® Atom™ D525

The PEB-2771/2781 takes advange of the latest Intel® Atom™ technologies. It supports DDR3 SDRAM, dual gigabit ethernet and one expansion Mini PCI Express x1 socket. Based on Intel® Atom™ solutions, the fanless PEB-2771/2781 executes high performance with low power dissipation. 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 SODIMM supports DDR3 800MHz SDRAM up to 2GB (PEB-2781 support DDR3 667MHz SDRAM)
- Dual independent display: VGA/24-bit 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-2771/2781 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: 2.5 GT/s - Supports 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	- PEB-2771 support up to 2G DDR3 800 MHz SDRAM on one 204-pin SODIMM socket - PEB-2781 support up to 2G DDR3 667 MHz SDRAM on one 204-pin SODIMM socket
Storage Devices	- 2x SATA II support 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 PCIExpress x1 socket (Gen 1, 2.5 GT/s)

I/O INTERFACE

Super I/O	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 I/O
Serial Port	- 1x RS232/422/485 port with DB9 connector on rear I/O - 2x RS232 with on board pin headers - 1x RS232/422/485 with on board pin header
USB	- 2x USB 2.0 ports on rear I/O - 4x USB 2.0 ports on board 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® ICH8M Integrated GMA 3150 Graphics supports full hardware acceleration of video decode standards MPEG-2 - Supports Intel® Dynamic Video Memory Technology (Intel® DVMT 4.0) - XILINX XC3S200AN LVDS Transmitter
Display Interface	- LVDS: Dual channel 24-bit LVDS - VGA: One DB-15 connector on rear I/O, 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

DDR 3   Watch DOG   H/W Monitor   GPIO   Fanless   4 COM   Giga LAN   Mini-PCIe