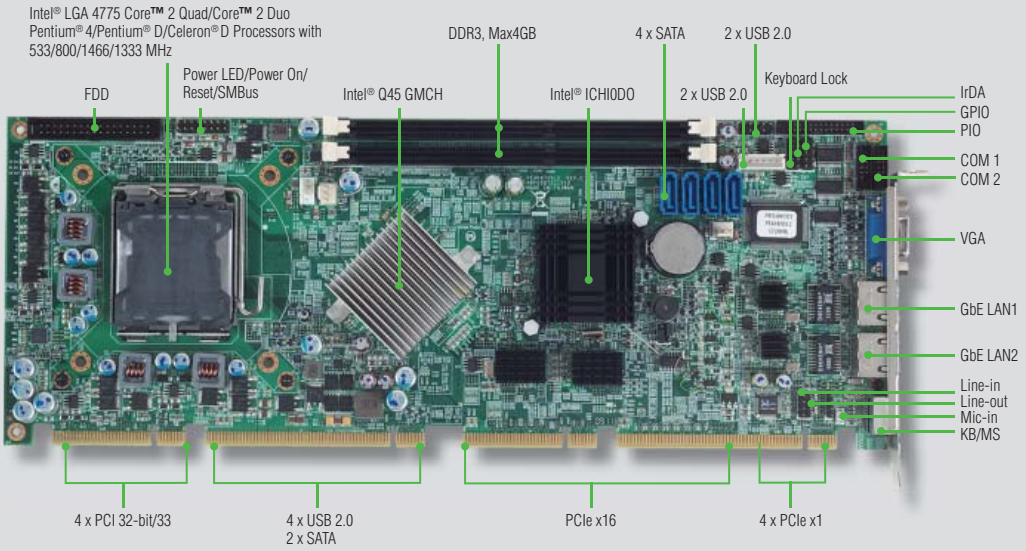
PEAK 872VL2

Intel® Core™ 2 Quad/Core™ 2 Duo LGA775 with 2 x PCI Express Gigabit LAN/6 x SATA/8 x USB 2.0



Main Features

- **Intel® LGA775 Core™ 2 Quad/Core™ 2 Duo/Pentium® 4/ Pentium® D/Celeron® D Processors with 533/800/1066/1333 MHz**
- **Support Non-ECC Dual Channel DIMM-DDR3 800/1066 MHz up to 4GB**
- **2 x 82574 PCI Express Gigabit Ethernet LAN**
- **6 x SATA, 8 x USB2.0, 2 x COM, 1 x Parallel, 1 x Floppy**
- **Intel® Q45 GMCH Integrated Intel® GMA4500, Max 128 MB of DVMT for Graphics Memory Allocation**
- **Analog Display Supports up to 2045 X 1536 at 75 Hz for CRT**

Product Overview

PEAK 872VL2 is PICMG 1.3 full-size Single Board Computer (SBC), which supports Intel® Core™ 2 Quad/Core™ 2 Duo technology. Featuring Intel® Q45 and ICH10 DO chipsets, the PEAK 872VL2 supports socket LGA775 of Intel® Pentium® 4/Pentium® D/Celeron® D processors with 533/800/1066/1333 MHz FSB supporting speeds up to 3.0 GHz and Hyper-Threading technology.

The Intel® Q45 supports dual channel non-ECC DDR3 800/1066 MHz memory in two DIMM slots and an integrated graphics controller. The South Bridge ICH10 DO manages UltraATA 100 & SATA HDD ports, parallel port, and floppy port. Furthermore, it supports other versatile I/O ports such as two serial ports, eight USB ports, and two PCI Express Gigabit LAN ports.

NEXCOM offers the following 2U and 4U backplanes that support the PICMG 1.3 specification:
2U Backplane: NBP 2U220/NBP 2U040
4U Backplane: NBP 14570/NBP 14111/NBP 14210

The PEAK 872VL2 with Intel® Core™ 2 Duo technology and PCI Express LAN offer a great solution for advanced industrial application that require superb display and processing performance.

Specifications

CPU Support

- Support Intel® LGA775 Core™ 2 Quad, Core™ 2 Duo, Pentium® 4/Pentium® D/ Celeron® D processors with 533/800/1066/1333 MHz
- Intel® Embedded Processor List (Intel® Longevity CPU):
  Intel® Core™ 2 Quad Processor (Q9400)
  Intel® Core™ 2 Duo Processor (E8400 & E7400 & E6400 & E4300)
  Intel® Pentium® Dual Core Processor (E2160)
  Intel® Celeron® Processor 440

Main Memory

- 2 x 240-pin DIMM, for up to 4GB dual channel Non-ECC DDR3 800/1066 SDRAM

Chipset

- Intel® Q45 Graphic Controller Hub (GMCH)
- Intel® ICH10 DO

BIOS

- Award system BIOS
- Plug & Play support
- Advanced Power Management and Advanced Configuration & Power Interface support

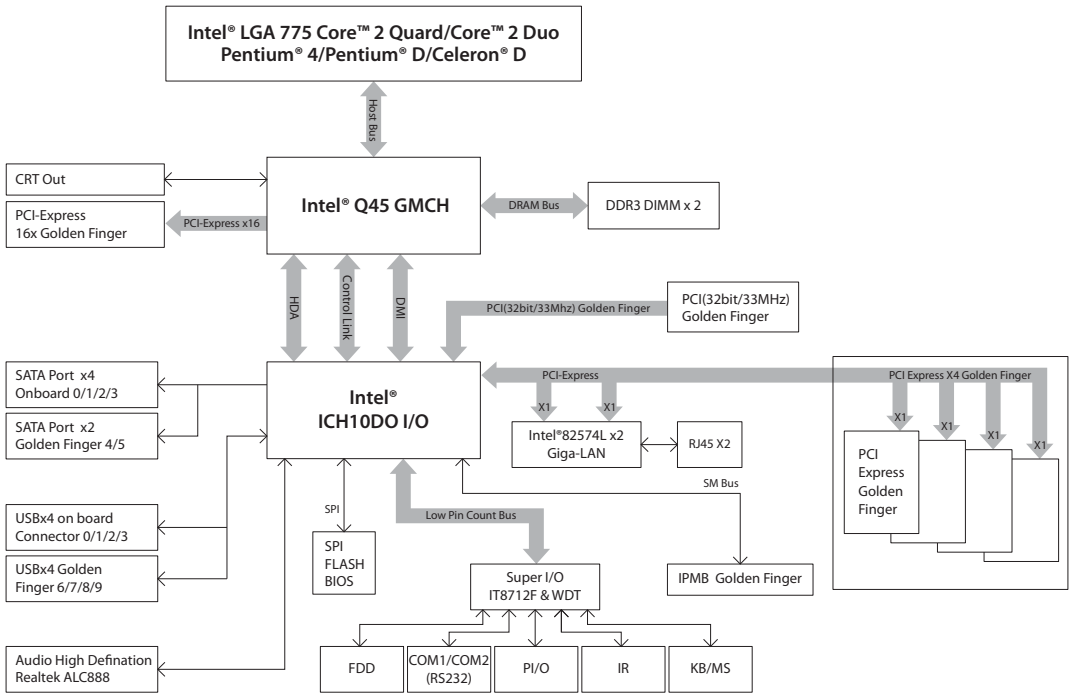
On-board LAN

- 2 x Intel® 82574L PCI Express Gigabit Ethernet Controllers
- Support Boot From LAN (PXE)
- 2 x RJ45 with LED

Display

- Intel® Q45 GMCH Integrated Intel® GMA4500, Max 128 MB of DVMT for Graphics Memory Allocation
- Analog display support up to 2048x1536 @ 75Hz for CRT

Block Diagram



Audio

- HD Audio Codec, Realtek ALC888
- 3 x (1x4-pin) headers for Line-in/Line-out/MIC-in

I/O Interfaces

- USB 2.0: 8 ports (4 on board, 4 to backplane)
- Serial port: 2 port, with 2x5pin headers (COM 1 and COM 2)
- SATA HDD: 6 ports, Support RAID 0/1/5/10 and Intel® Matrix Storage Technology (Intel® MST)
- Parallel port: 1 x 26-pin connector
- Floppy: 1 x 34-pin connector
- IrDA: 1 x 5-pin header
- GPIO: Supports 4 sets general purpose I/O each with TTL level (5 V) interface
- On-board buzzer x 1
- Power LED/Power On/Reset/SMBUS: 2 x 8 pin header
- 5-pin for key lock/power LED/HDD Power LED
- 1 x 4-pin fan connector (for CPU); 2 x 3-pin fan connectors (for System)
- IPMB interface through PICMG 1.3 Golden-finger
- I/O On SBC Bracket
  1 x VGA DB-15 connector
  2 x RJ45 Gigabit Ethernet LAN port
  1 x PS/2 Keyboard/Mouse

Watchdog Timer

- 1-minute increments from 1 to 255 minutes
- 1-second increments from 1 to 255 seconds
- On-chip RTC with battery backup
- 1 x External Li-Ion battery

System Monitor

- 4 Voltages (+3.3V, +5V, +12V, Vcore)
- 2 Temperatures (For CPU and System)
- 3 FAN speed monitors (1 for CPU and 2 for System FAN)

Dimensions

- PICMG 1.3 SHB
- Dimension: 338.58mm (L) x 126.39mm (W) (13.3" x 4.9")

Power Input

- Power source from backplane through golden finger
- Support ATX/AT power supplies
- +12V/+5V/+3.3V/+5Vsb

Environment

- Board level operating temperatures: -15°C to 60°C
- Storage temperature: -20˚C to 80˚C
- Relative humidity: 10% to 90%, (Non-condensing)

Certifications

- CE approval
- FCC Class A

Ordering Information

- **PEAK 872VL2 (P/N: 10P0872VL00X0)**
  PICMG 1.3 Full-Size SHB, Intel® Q45 Chipset, LGA775 Core™ 2 Quad/ Core™ 2 Duo/Pentium 4/Pentium D/Celeron with 533/800/1066/1333 MHz FSB, 32bit/33MHz PCI, DDR3 DIMM x 2, VGA integrated, Intel® 82574L PCI Express Gigabit Ethernet x 2, Six Serial ATA

We reserve the right to change specifications and product descriptions at any time without prior notice.