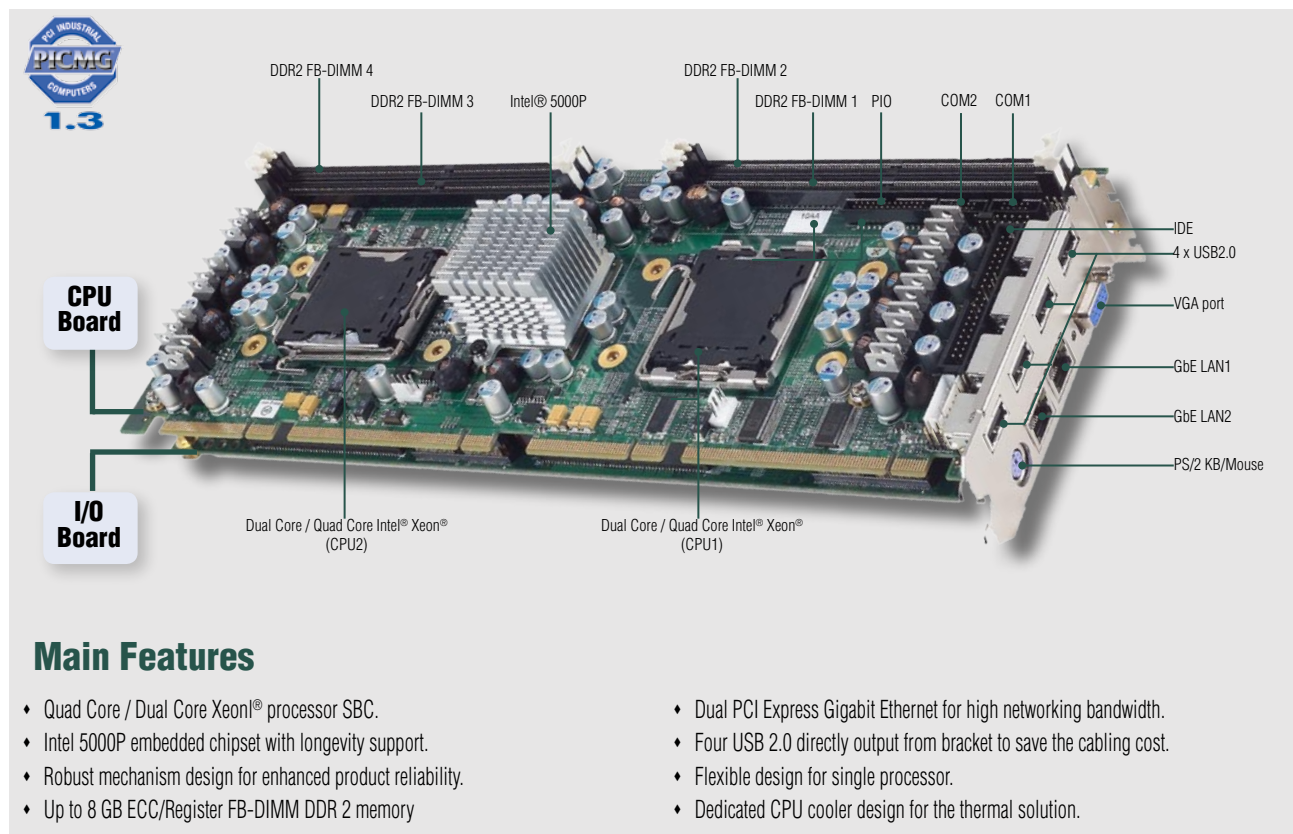


PEAK 8920VL2



Full-Size PICMG1.3 LGA771 for Intel® Dual Core Xeon processor w/ Fully Buffered DIMM



Main Features

- ◆ Quad Core / Dual Core Xeon® processor SBC.
- ◆ Intel 5000P embedded chipset with longevity support.
- ◆ Robust mechanism design for enhanced product reliability.
- ◆ Up to 8 GB ECC/Register FB-DIMM DDR 2 memory
- ◆ Dual PCI Express Gigabit Ethernet for high networking bandwidth.
- ◆ Four USB 2.0 directly output from bracket to save the cabling cost.
- ◆ Flexible design for single processor.
- ◆ Dedicated CPU cooler design for the thermal solution.

Product Overview

The PEAK 8920VL2 supports LGA771 dual core Intel® Xeon® Processor 5100 series with 4 MB L2 cache and the Intel® Core™ micro architecture up to 2.33 GHz with 1333 MHz FSB. Featuring an Intel® 5000P Chipset + Intel® ESB2, the PEAK 8920VL2 delivers higher throughput with dual point-to-point system buses, faster memory for I/O bandwidth, and Fully Buffered DIMM (FB-DIMM) support.

The SBC PEAK 8920 is successor to flagship PEAK 7220, which complied with PICMG 1.3 to ensure easy configuration, highest quality standard, and seamless compatibility with products from other manufactures.

Specifications

CPU Support

- ◆ Support Dual-Core Intel® Xeon® processor 5000 series and Quad-Core Intel® Xeon® Processor 5300 series (80W)
- ◆ Intel Embedded Processor List (Intel® Longevity CPU):
 - ◆ Dual Core Intel® Xeon® Processor (5130 & 5140)
 - ◆ Dual Core Intel® Xeon® Processor LV (5128, 5138, 5148)
- ◆ 1066/1333 MHz FSB support

Main Memory

- ◆ 4 x 240-pin four channel DDR 2 FB-DIMM
- ◆ Support ECC / Register DDR2 memory up to 8GB

Chipset

- ◆ Intel® 5000P memory controller Hub
- ◆ Intel® 6321ESB I/O controller Hub

BIOS

- ◆ AMI BIOS
- ◆ Plug & Play support
- ◆ 8M-bit flash ROM
- ◆ Support Soft off, Wake on LAN, Power On by PS2 Keyboard Function Key, RTC alarm Power On
- ◆ Power on after power failure

On-board LAN

- ◆ 2 x Intel® 82573L PCI Express Gigabit Ethernet
- ◆ Support Boot From LAN (PXE)
- ◆ Support Wake On LAN (When 5Vsb power available)
- ◆ 2 x RJ45 with LED

Display

- ◆ ATI RS1000 PCI graphic Controller
- ◆ 32MB DDR2 SDRAM VGA Memory
- ◆ 1 x DB15 VGA port

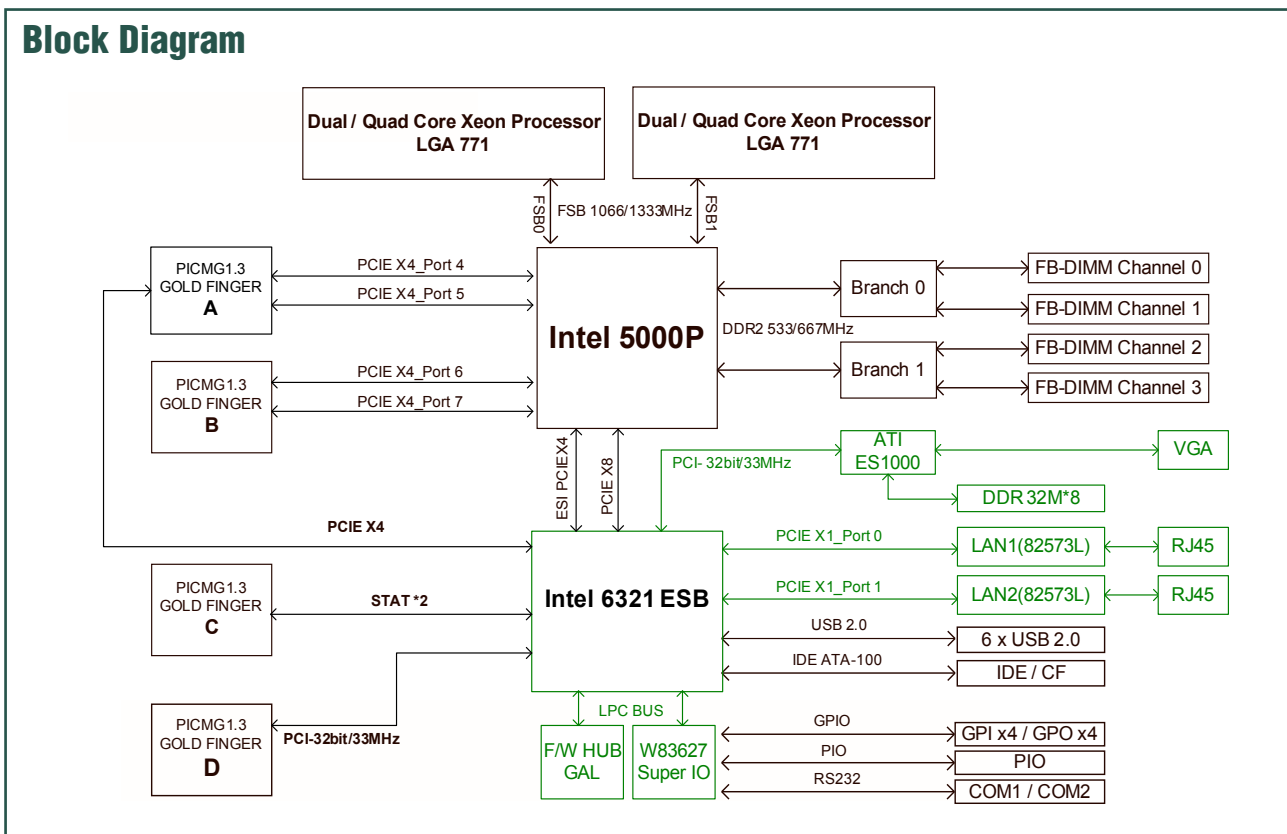
I/O Interface

- ◆ USB 2.0: 4 ports through I/O bracket
- ◆ USB 2.0: 2 ports, with 1x6 JST (2.5mm)
- ◆ Serial port: 2 ports, with 2x5 box-header (2.0mm) support RS-232 only
- ◆ Parallel port: 1 port , with 2x13 box-header (2.0mm), Bi-directional, EPP/ECP
- ◆ PS/2: 1 x Mini-Din Keyboard/Mouse
- ◆ GPIO: Support 4 sets of general purpose I/O each with TTL level (5V) interface
- ◆ FAN: 2 x 4-pin FAN JST connectors (for CPU coolers)
- ◆ 1 x on board buzzer
- ◆ 1 x 2-pin power on switch
- ◆ 1 x SMBus 2.0 to Backplane
- ◆ 1 x 2-pin header for reset
- ◆ 1 x 5-pin header for key lock
- ◆ 2 x 2-pin headers for power LED / HDD LED

Storage

- ◆ SATA: 2 ports, support RAID 0,1 through Backplane
- ◆ IDE: 1 x 40-pin IDE connector, support Ultra ATA 66/100/133
- ◆ 1 x 2-pin JST (2.5mm) power connector for DOM (Disk On Module)

Block Diagram



Watchdog Timer

- Watchdog Timer is programmable by software from 0 to 255 seconds (Tolerance 15% under room temperature 25°C)

On-board RTC

- On-chip RTC with battery back up
- 1 x External Li-Lon battery

Power Input

- Power source from backplane through PICMG 1.3 Golden Finger, support ATX mode

CPU Type (2 x Dual Core Xeon 3.0G) (4 x FBD DDR2 2.0GB)	+12V	+5V	+3.3V	+5Vsb
Full-Loading Mode	21.4 A	2.07 A	3.85 A	0.04 A
Light-Loading Mode	10.59 A	1.69 A	3.63 A	0.04 A

NOTE:

- 1.Full Loading: Utilize CPU 100% with Burn-in test running
- 2.Light Loading: Utilize CPU loading below 5% without data or application running.

Dimensions

- PICMG 1.3 form factor
338.58 mm (L) x 122 mm (W) (13.3" x 4.8")

Environment

- Operating Temperature: 0°C – 60°C (for Board Level Only)
- Storage Temperature: -20°C to 85°C
- Relative Humidity:
Operating: 10%~90% (non-condensing)
Non-Operating: 5%~95% (non-condensing)

Certifications

- CE approval
- FCC Class A

Ordering information

- **PEAK 8920VL2 (P/N: 1P00892000X0)** RoHS Compliant
PICMG 1.3 Full-Size SHB Express (System Host Board), Intel® 5000P Chipset, LGA 771 socket support Dual Core /Quad Core Intel® Xeon® processors w/ 4 DDR2 FB-DIMM / 2 Express GbE / 6 USB 2.0 / VGA/ 2 SATA.

NEXCOM Backplane support list

NBP 14111	PICMG1.3 Passive Backplane 14-slots w/ 1 PICMG 1.3 SHB / 1 PCIe x16 slot / 4 PCI slots / 8 PCI-X slots
NBP 14210	PICMG1.3 Passive Backplane 14-slots w/ 1 PICMG 1.3 SHB / 1 PCIe x16 slot / 1 PCIe x4 slot /10 PCI slots
NBP 20016	PICMG1.3 Passive Backplane 20-slots w/ 1 PICMG 1.3 SHB / 16 PCI-X slots

PEAK 8920VL2 Top View

