

## Main Features

- Single Socket LGA775, Supports Intel® Core™ 2 Duo with 533/800/1066 MHz FSB
- Intel® Q965 and ICH8 chipset
- 2 x 240-pin DIMM, Supports Dual Channel 533/667/800 MHz DDR2
- 2 x Intel® 82573L PCI Express Gigabit Ethernet LAN
- 4 x SATA, 6 x USB 2.0, 2 x COM Ports

## Product Overview

PEAK 765VL2 is the PICMG 1.0 full-size Single Board Computer (SBC), which support Intel® Core™2 Duo technology. Featuring Intel® Q965 and ICH8 chipsets, the PEAK 765VL2 supports socket LGA775 of Intel® Core 2 Duo/Pentium® 4/Pentium® D/Celeron® D processor with 533/800/1066 MHz FSB.

The Intel® Q965 supports dual channel non-ECC DDR2 533/667/800 MHz memory up to 4 GB maximum with two DIMM slots and an integrated graphics controller. The South Bridge ICH8 manages SATA HDD ports, and parallel port. Furthermore, it supports other versatile I/O ports such as two serial ports, six USB ports and two PCI Express Gigabit LAN ports.

## Specifications

### CPU Support

- Supports Intel® LGA775 Core 2 Duo / Pentium® 4 / Pentium® D / Celeron® D processors
- Intel® Embedded Processors List (Intel® Longevity CPU)  
Intel® Core™ 2 Duo Processor E6400 & E4300 & E2160  
Intel® Pentium® 4 Processor 651 & 551 & 531  
Intel® Celeron® D Processor 352 & 341  
Intel® Celeron® Processor 440
- 533/800/1066 MHz System Bus

### Main Memory

- 2 x 240-pin DIMM, support Dual channel 533/667/800 MHz SDRAM DDR2 memory up to 4 GB  
*Note: Maximum 4 GB. Actual memory size is dynamic based on the OS I/O resource allocation*

### Chipset

- Intel® Q965 Graphics Memory Controller Hub (GMCH)
- Intel® 82801HB (ICH8) I/O Controller Hub

### BIOS

- Award System BIOS
- Plug & Play support
- 8M-bit flash ROM

### On-board LAN

- 2 x Intel® 82573L PCI Express Gigabit Ethernet LAN
- 2 x RJ45 with LED
- Supports Boot From LAN (PXE)
- Supports Wake on LAN (When 5Vsb power available, and for LAN 2 only)

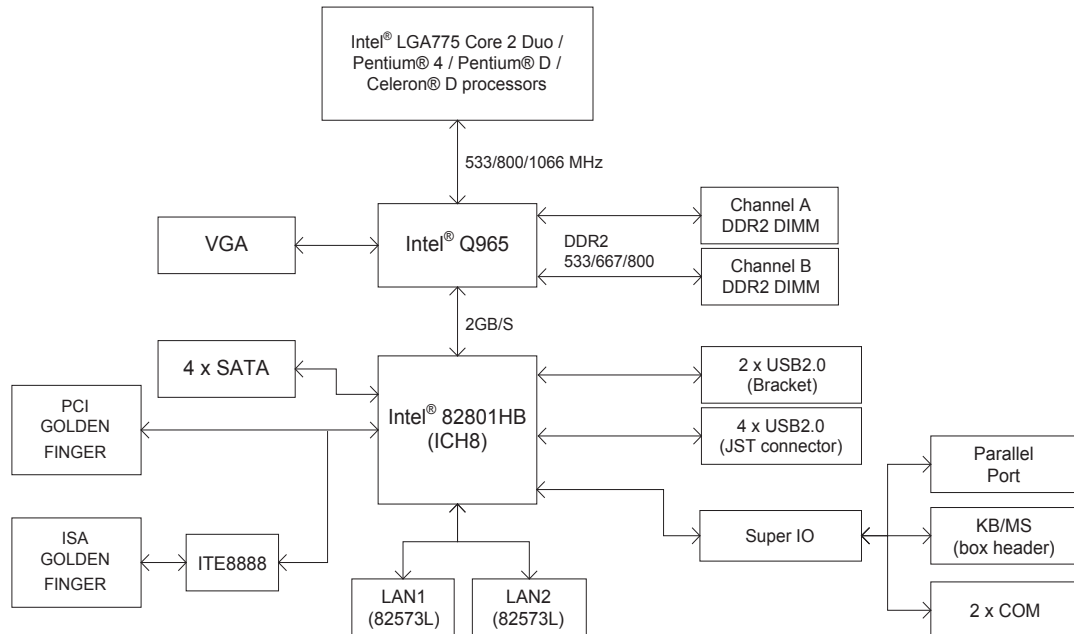
### Display

- Intel® Q965 GMCH Integrated Intel® GMA 3000
- Max 256 MB of DVMT for graphics memory
- CRT: 1 x DB15 VGA connector, Resolution up to 2048 x 1536

### I/O Interface

- USB 2.0: 6 ports, 2 ports through I/O bracket, 4 ports through 1x6 JST
- Serial port: 2 ports, with 2x5 box header(2.0mm) , supports RS232 only
- Parallel port: 1 port, with 2x13 box-header(2.0mm)
- PS2: 1 x 6-pin JST connector(2.0mm) for KB/ Mouse
- Fan: 4-pin wafer for CPU; 3-pin wafer for System; 3-pin wafer for MCH
- 2-pin header for SMB; 2-pin header for reset; 2-pin header for power on switch
- 2-pin header for power LED; 2-pin header for HDD LED
- On-board buzzer / IrDA (share with COM2)
- I/O on bracket  
1 x DB15 VGA connector  
2 x RJ45 GbE port  
2 x USB2.0

## Block Diagram



### Storage

- SATA: 4 ports (without Raid function)

### Watchdog Timer

- Watchdog timeout can be programmable by Software from 1 second to 255 seconds
- Tolerance 15% under room temperature 25°C

### On-board RTC

- On-chip RTC with battery backup
- 1 x External Li Battery
- Torrance less than 2sec (24 hours) under 25°C

### ISA Support

- Through PCI to ISA Interface (ITE 8888)
- No ISA Master Devices but ISA DMA Devices
- Maximize ISA Slot support up to 3

### System Monitor

- 4 voltage (For +3.3V, +5V, +12V, Vcore)
- 3 Temperatures (CPU, two external Temperature Sensor)
- 3 FANs speed (CPU, System and MCH FANs)

### Power Input

- Power source from backplane through PCI/ISA Golden Finger
- Supports both AT or ATX Power Supplies (Automatically, BIOS default :AT Mode)
- When change to ATX, the BIOS default setting is as follow:  
POWER -SUPPLY TYPE--> [ATX]  
AUTO PWR-FAILURE RESUME -->[ON]
- +3.3V is Converted from +5V and not directly from Backplane or Power Supply
- +5Vsb (Standby power) is connected from Backplane through 3pins Connectors
- 4 Pins +12V Power Input Connector

### Dimensions

- 338.58 mm (L) x 122 mm (W) (13.3" x 4.8")

### Environment

- Board level operating temperature: 0°C to 60°C
- Storage temperature: -20°C to 85°C
- Relative humidity: 10% to 90% (Non-condensing)  
Non-operating 5%~95%, non-condensing

### Certifications

- CE approval
- FCC Class A

## Ordering Information

- **PEAK 765VL2 (P/N: 10P0765VL01X0)**  
PICMG 1.0 Full-Size SBC, Intel® Q965 Chipset, Intel® LGA775 Core 2 Duo / Pentium® 4 / Pentium® D / Celeron® D processors with 533/800/1066 MHz, Max. 4GB DDR2 DIMM, VGA integrated , 2 x GbE, 4 x SATA Ports