

Main Features

- ♦ Socket 478 for Intel® Pentium® 4 Processor up to 3.2 GHz with 400/533/800 MHz FSB
- ♦ Intel® 865GV/ICH5 Chipset
- ♦ 2 x 184-pin DIMM, supports DDR 266/333/400 SDRAM Memory up to 2GB
- ♦ Intel® 82547EI GbE controller & Intel® 82551 QM Fast Ethernet Controller
- ♦ 2 x Serial ATA Ports
- ♦ 2 x USB 2.0 Ports

Product Overview

The PEAK 735VL2G Series is a full-size SBC featuring socket 478 Intel® Pentium® 4 processors with 400 MHz FSB. The PEAK 735VL2G incorporates an Intel® 865GV (GMCH)/ICH5 chipset that supports un-buffered non-ECC DDR 266/333/400 MHz memory up to 2GB maximum, an integrated graphic controller with shared 64 MB memory, LVDS LCD and dual display support.

The South Bridge featuring ICH5 chipset which manages two SATA, Ultra ATA 100, parallel, floppy ports, and other versatile I/O ports such as two serial ports, two USB ports, dual LAN ports, an audio interface, and more. The PEAK 735VL2G Series utilize high performance Pentium® 4 processor and dual display to meet most of demanding industrial applications.

Specifications

CPU Support

- ♦ Intel® Pentium® 4 or Celeron® (D) processor in the mPGA478 package
- ♦ FSB: 800/533/400MHz
- ♦ CPU support up to 3.4GHz (Intel® Desktop Processor) and Up to 3.0GHz (Intel® Embedded Processor)
- ♦ Supports Hyper- Threading technology

Main Memory

- ♦ 2 x 184-pin DIMM, supports DDR 266/333/400 memory up to 2GB
- ♦ Dual 64-bit DDR channels, 3.2GB/s bandwidth per channel
- ♦ Supports un-buffered and non-ECC DIMMs only

Chipset

- ♦ Intel® 865GV (GMCH) (Intel® 865G for RoHS Version)
- ♦ Intel® ICH5 (I/O controller Hub)

BIOS

- ♦ Award System BIOS
- ♦ Plug & Play support
- ♦ Advanced Power Management support
- ♦ ACPI (Advanced Configuration & Power Interface) support
- ♦ 4 Mbit flash ROM

On-board LAN

- ♦ Intel® 82547EI Gigabit Ethernet controller (dedicated by CSA port directly from the Intel® 865GV GMCH) and 1 x Intel® 82551QM 10/100 Ethernet controller for PEAK 735VL2G

- ♦ Single Intel® 82551QM 10/100 Fast Ethernet controller for PEAK 735VL
- ♦ Compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3y, IEEE 802.3ab
- ♦ 2 x RJ45 with LED

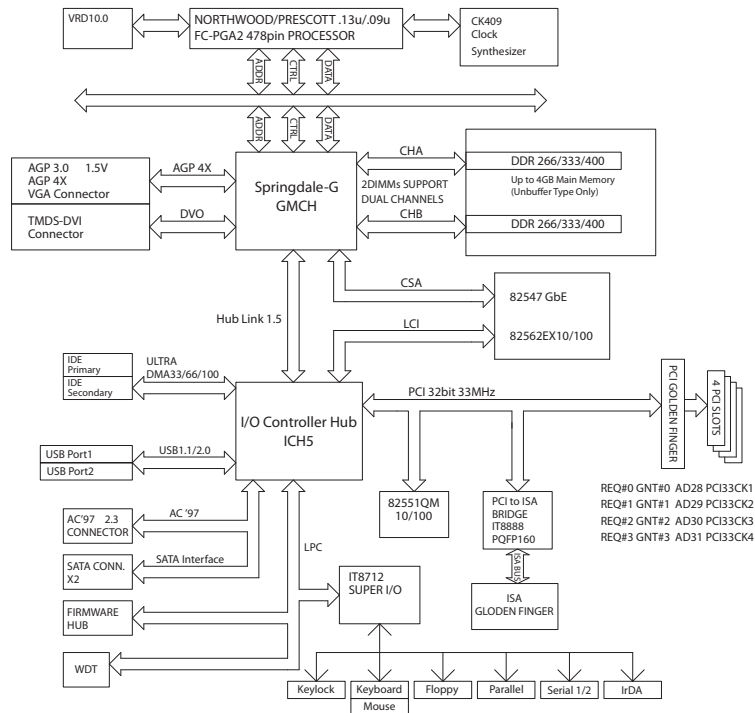
Display

- ♦ Intel® 865GV (GMCH) chipset with integrated graphics controller
- ♦ Hardware motion compensation assist for software MPEG/DVD decoding
- ♦ Access system memory
- ♦ 1 x 15-pin CRT connector

I/O Interface

- ♦ 2 x On-board USB port, USB 2.0 compliant
- ♦ Ultra ATA 100/66/33 support, 2 x 40-pin connector, 2-pin power connector for DOM (Disk On Module)
- ♦ Serial ATA support, 2 x SATA connector, data transfer bandwidth up to 150 MB/s
- ♦ ITE 8712F-A Super I/O
- ♦ 2 x SIO , with 16C550 UARTs, 10-pin header
- ♦ 1 x PIO, bi-directional, EPP/ECP support, 26-pin connector
- ♦ Floppy disk controller: 1 x 34-pin connector
- ♦ 1 x 6-pin mini DIN connector , for PS/2 Keyboard/Mouse, 1 x 5-pin connector (for external keyboard)
- ♦ 1 x On-board buzzer
- ♦ GPIO (4 in, 4 out)
- ♦ 1 x On-board 2-pin header for I2C
- ♦ 1 x On-board 5-pin header for IrDA

Block Diagram



- On-board 2-pin header for reset SW, 4-pin for speaker, 5-pin for keylock, 2-pin for IDE active LED, 2-pin ATX power SW
- One 3-pin power header for 3-pin power cable connect to backplane board to support ATX power on function.
- On-board 4-pin additional power source input

Watchdog Timer

- Watchdog timeout can be programmed by software from 1, 2, 4, 8, 16, 32,..... 256 seconds

On-board RTC

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

ISA Support

- ITE 8888F x 1 PCI to ISA Bridge
- Provides 64 mA high driving capability to maximize ISA signals and supports up to 20 ISA cards on the backplane ISA Slot

System Monitor

- Derived from Super I/O ITE 8712F-A to support system monitor.
- 8 voltage (For+1.5 V, +3.3 V, +5 V, -5 V, +12 V, -12 V, Vcore and +5 Vsb)
- 2 fan speed (one is for CPU, one is for system)
- 2 temperature (one is for internal CPU, one is for external system)
- 2 temperature sensor (one is for internal CPU, one is for external system)

Power Requirements

- CPU: 3.0 GHz
- +12 V: 6.5 A
- +5 V: 5.4 A
- +3.3 V: 0.5 A
- +5 Vsb: 0.5 A
- CPU: 2.4 GHz
- +12 V: 4.5 A
- +5 V: 4 A
- +3.3 V: 0.5 A
- +5 Vsb: 0.5 A

Dimensions

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

Environment

- Board level operating temperature: 0°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 735VL2G(LF) (P/N: 10P0735VL05x0)**
Full-Size Socket 478 Intel® Pentium® 4/800 MHz FSB SBC w/ dual LAN (Intel® 82547EI Gigabit LAN + Intel® 82551QM 10/100 LAN)
- **PEAK 735VL(LF) (P/N: 10P0735VL03x0)**
Full-Size Socket 478 Intel® Pentium® 4/800 MHz FSB SBC w/ single 10/100 LAN (Intel® 82551QM)