

Main Features

- **Socket 478 for Intel® Pentium® M/Celeron® M Processors up to 2.0 GHz with 400 MHz FSB**
- **Intel® 852GM/ICH4 Chipsets**
- **2 x 184-pin DIMM, Supports DDR 200/266 SDRAM Memory up to 2GB**
- **Integrated VGA, Dual Independent Display, Max. 36-bit Dual LVDS Displays**
- **2 x Intel® 82551ER 10/100 LAN**
- **4 x USB 2.0 port**

Product Overview

The PEAK 736VL2 Series is a full-size SBC featuring socket 478 Intel® Pentium® M and Celeron® M processors with 400 MHz FSB supporting various frequencies and L2 caches. The PEAK 736VL2 incorporates an Intel® 852GM chipset that supports un-buffered non-ECC DDR memory up to 2GB maximum, an integrated graphic controller with shared 64 MB memory, LVDS LCD and dual display support.

The South Bridge ICH4 chipset manages Ultra ATA 100, parallel, floppy ports, and other versatile I/O ports such as two serial ports, four USB ports, dual LAN ports, an audio interface, and more. The PEAK 736VL2 Series offers a range of processor choices and versatile I/O ports to fulfill most of demanding industrial applications.

Specifications

CPU Support

- Single 478 uFCPGA/479 uFCBGA socket
- Supports Intel® Pentium® M: 1 or 2 MB L2 Cache, 400 MHz FSB, speeds up to 1.8 GHz
- Supports Intel® Celeron® M: 512 KB or 1 MB L2 Cache, 400 MHz FSB, speeds up to 1.5 GHz

Main Memory

- 2 x 184-pin DDR DIMM
- Supports unbuffered non-ECC DDR memory up to 2GB

Chipset

- Intel® 852GM
- Intel® 82801DB I/O Controller Hub (ICH4)

BIOS

- Award System BIOS
- Plug & Play support
- Advanced Power Management and Advanced Configuration & Power Interface support
- 4 Mbit flash ROM

On-board LAN

- 2 x Intel® 82551ER 10/100 Fast Ethernet
- 2 x RJ45 with LED

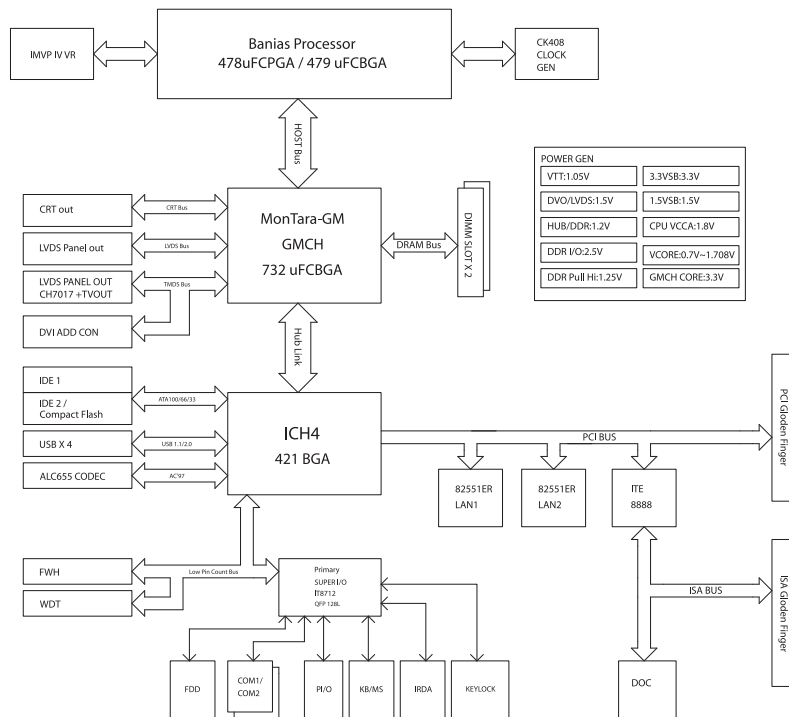
Display

- Intel® 852GM integrated dynamic video shared memory, 64 MB max adjusted by OS
- 1 x D-sub 15-pin VGA port
- Resolution: Up to 1600 x 1200 for CRT or up to 1280 x 1024 for TFT
- Internal LVDS: Supports 18/24-bit single pixel or 18-bit dual pixel LVDS panels (resolution up to 1280 x 1024)
- Dual display: Simultaneous scan- CRT + LVDS LCD, Dual View- CRT+ LVDS LCD
- CCFL connector for LCD panel backlight: Provides +12 V or +5 V for backlight inverter

I/O Interface

- Serial port: 2 port, with 2x5 box header (optional COM2 RS-232/422/485 by switch for Peak 736VL2 only)
- USB 2.0 port x 4 through 1x6 box header
- HDD: 2 x 40-pin connector, support ultra ATA 100/66/33
- Disk on Module: 1 x 2-pin power connector for DOM
- Parallel port: 1 x 26-pin connector
- Floppy: 1 x 34-pin connector
- PS/2 Keyboard/mouse: 1 x 6-pin Mini DIN Connector
1 x 5-pin connector for external KB/Mouse
- Digital I/O port: 4 In and 4 Out with TTL level interface
- 1 x on-board buzzer/1 x IrDA Header/1 x 2-pin header for reset
- 1 x 5 pin for key lock, 1 x 2-pin for power LED, 1 x 2-pin for HDD Power LED

Block Diagram



- 1 x 3-pin fan JST
- I/O On Bracket
 - 1 x VGA DB-15 connector
 - 2 x RJ45 Gigabit Ethernet LAN port
 - 1 x Mini-DIN for Keyboard/Mouse
 - 4 x USB 2.0 ports
- (Optional) CF socket/Disk on chip

Watchdog Timer

- 1 to 128 second time-out intervals

On-board RTC

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

Disk On Module

- HDD:, 2 x 40-pin connector suport ultra ATA 100/66/33
- Disk on Module: 1 x 2-pin power connector for DOM

ISA Support

- 1 x ITE 8888F PCI to ISA Bridge
- Provides 64 mA to support max. 20 ISA slots on the backplane

System Monitor

- System monitor controller derived from IT8712
- 6 voltage (For +3.3 V, +5 V, +12 V, Vcore, +5 V Standby, and +3.3 V Standby)
- 2 fan speed (For CPU and system)
- 2 temperature (One for CPU, one for system)

Power Input

- Power source from backplane through PCI/ISA golden finger
- Supports both AT or ATX power supplies
- +3.3 V is converted from +5 V and not directly from backplane or power supply
- +5 Vsb (standby power) is connected from backplane through 3-pin connector
- 4-pin +12 V Power Input Connector

Power Requirements

- CPU/Memory: 1.7 GHz/1GB
- 5 V: 5.25 A
- 12 V: 0.15 A
- 3.3 V: 0 A
- 5 Vsb: 0.05 A

Dimensions

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

Environment

- 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 736VL(LF) (P/N: 10P0736VL00X0)**
Full-Size Socket 478 Intel® Pentium® M CPU card with 1 x LAN (Intel® 82551ER)
- **PEAK 736VL2(LF) (P/N: 10P0736VL01X0)**
Full-Size Socket 478 Intel® Pentium® M CPU card with Dual LAN