

PL-2506 (Rev B) Hi-Speed USB to IDE Bridge Controller

OVERVIEW

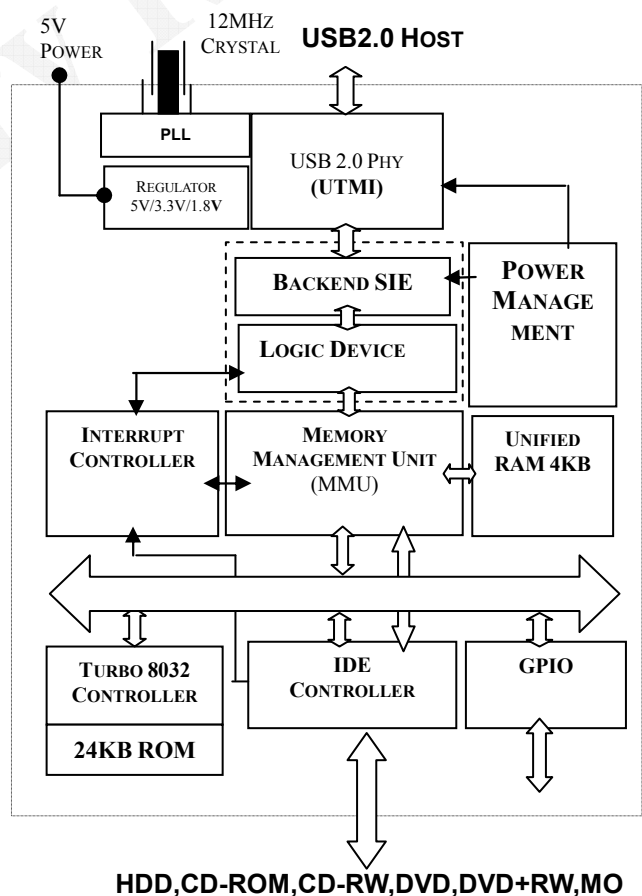
The PL-2506 is a single chip USB2.0-IDE bridge controller, which is designed to perform a seamless protocol transfer between the USB and ATA interfaces. It will work with full function at full speed or high speed USB transfer mode. The operating speed mode is determined by the capability of the host/hub to which it is connected. The PIO mode 0 to mode 4, Multi Word DMA mode 0 to mode 2, and Ultra DMA mode 0 to mode 6 are implemented to support difference IDE devices. The chip can communicate with the connected device to select the proper mode to obtain the best performance.

And it is compliant to the USB Bulk-Only Mass Storage Class specification ver 1.0. Since the default driver is supported by most the OS, no additional driver is needed.

FEATURES

- Universal Serial Bus Specification 2.0 Compliant
- Ultra low power consumption allows for bus-powered or self-powered operation
- AT Attachment with Packet Interface Extension (ATA/ATAPI-7) Compliant
- ATA interface support PIO mode 0 ~ 4, Multiword DMA mode 0 ~ 2, and UltraDMA mode 0 ~ 6 to work with ATA/ATAPI devices
- Supports one or two ATA/ATAPI devices at the same time in one IDE interface using Master/Slave device configuration. Master or Slave ATA/ATAPI single device is detected automatically.
- Vendor/Product related information can be customized by external SPI serial Flash or external I2C compatible serial EEPROM
- Multi-function General Purpose IO (GPIO) pins can be defined for USB speed LED, button inputs, etc.
- 5 V tolerant inputs, 3.3 V output drive
- On-chip 5V to 3.3V/1.8v regulator to supply the power of 0.18um process core circuit
- LQFP64/ LQFP48 packaging available

BLOCK DIAGRAM



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