



## TD122

### High Performance Two-Port Embedded USB Host Controller

TransDimension's TD122 is a two-port, single chip USB Host controller that is specifically designed for embedded systems, mobile communications, and consumer products. It is a non-PCI controller that is fully compliant with the USB Specification for full-speed (12Mb/s) and low-speed (1.5Mb/s) USB devices.

The TD122 has unique, patented features that are indispensable for achieving high data throughput and low interrupt rates, including batch processing, multiple interrupt modes, separate data and descriptor memory, and double buffering. It is optimized for cost, performance and ease of development.

Low interrupt rates, low CPU overhead and low software overhead are essential criteria for embedded designs, and the TD122 excels at all three metrics. It can be interfaced to CISC or RISC microprocessors, microcontrollers, or digital signal processors (DSPs) and is ideal for enabling USB host functionality in a wide range of applications including printers, mobile devices, cell phones, PDAs, point-of-sale systems, test equipment, internet appliances, as well as serving as an interface for USB-to-Bluetooth controllers.

In addition to silicon and evaluation kits, TransDimension offers USB stacks, device drivers, and interface code for a variety of operating systems. Complete hardware and software solutions offer the advantages of shortened time-to-market, simplified procurement and single source technical support.

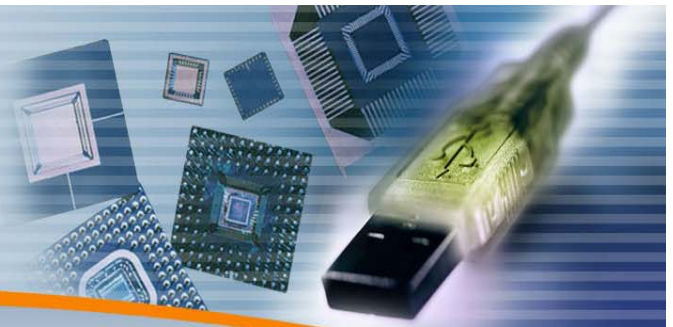
#### Features

- High performance USB host controller with 2 ports – Can be used internally or externally.
- Supports full-speed (12Mb/s) and low-speed (1.5Mb/s) peripherals that are compliant with USB specification 2.0.
- Standard 8-bit microprocessor bus interface, 2Kbyte of data memory.
- Supports all four types of USB transfers (control, bulk, interrupt, and isochronous with maximum packet size of 1,023 bytes).
- Supports batch processing of up to 16 USB transactions without generating an MCU interrupt.
- Supports scheduling of transaction batches that may “spill” over the USB frame boundaries for easy programming.
- Supports double buffering for all USB transfers.
- Hardware-generated Start of Frame (SOF)
- Individually controlled power-on and over-current circuit for both of the downstream ports.
- Power management with host suspend, remote wakeup, and power saving modes.
- 6 MHz crystal/oscillator to reduce cost and EMI.
- Embedded RTOS software available for popular microprocessors using many of the most popular operating systems.
- USB class/device driver software available including printer, speaker, mass storage, hub, modem, Ethernet, mouse, keyboard, digital camera, video camera, cell phone, STB, and PDA.
- Industrial grade devices standard.
- Single 3.3V power supply
- 64 pin LQFP package

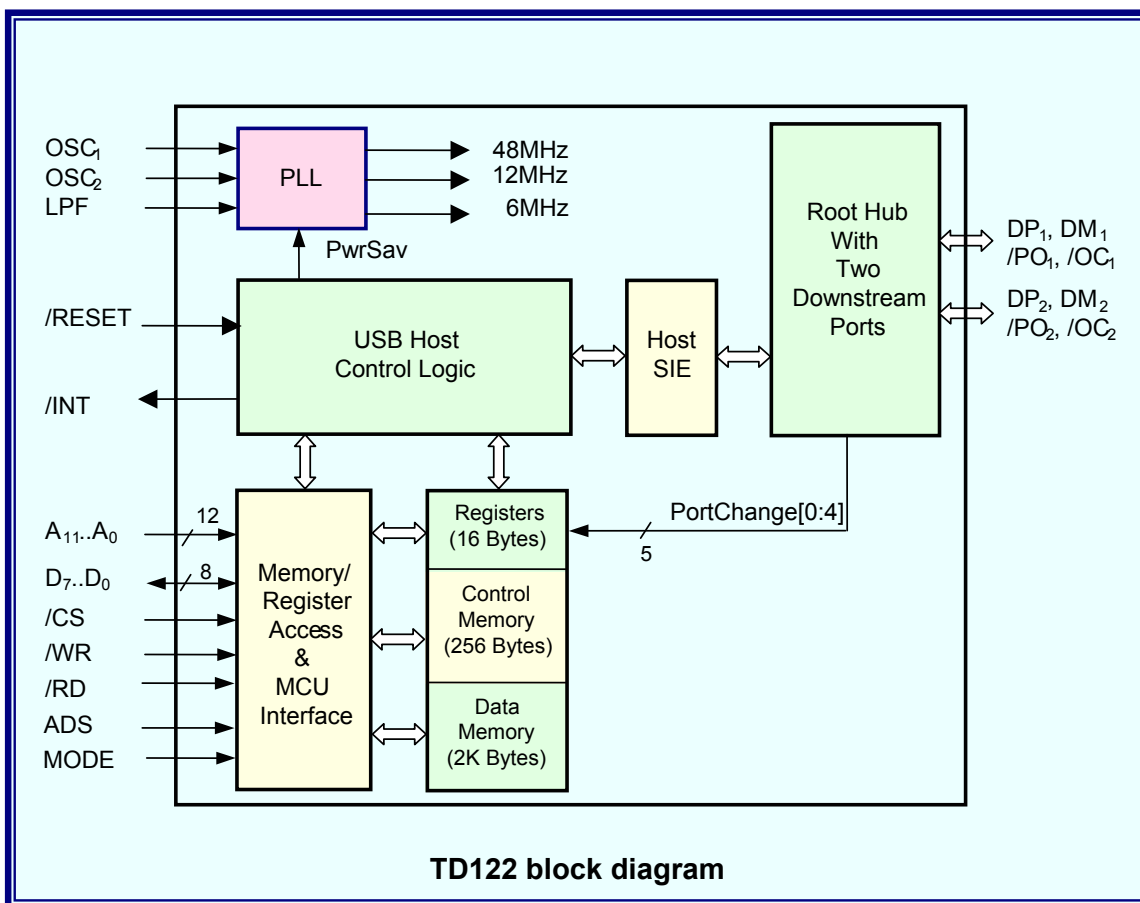


# TRANSDIMENSION

Connectivity for the embedded world



## Architecture



For additional information, contact your TransDimension Regional Sales Representative:

INTERNET: <http://www.transdimension.com>  
E-MAIL: [sales@transdimension.com](mailto:sales@transdimension.com)  
[tech\\_support@transdimension.com](mailto:tech_support@transdimension.com)

Headquarters: TransDimension Inc., 135 Technology Drive, Irvine, CA 92618. Tel. (949) 727-2020, FAX (949) 727-3232

WorldWide Reps.: See detailed listing for your area TransDimension representative by viewing <http://www.transdimension.com>