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Http://www. 100y. com. tw

# **USB3300**

# Hi-Speed USB Host, Device or OTG PHY with ULPI Low Pin Interface

#### **Product Features**

- USB-IF Hi-Speed certified to the Universal Serial Bus Specification Rev 2.0
- Interface compliant with the ULPI Specification revision 1.1 in 8-bit mode
- Industry standard UTMI+ Low Pin Interface (ULPI)
   Converts 54 UTMI+ signals into a standard 12 pin
   Link controller interface
- 54.7mA Unconfigured Current (typical) ideal for bus powered applications
- 83uA suspend current (typical) ideal for battery powered applications
- Latch-Up performance exceeds 150 mA per EIA/ JESD 78, Class II
- ESD protection levels of ±8kV HBM without external protection devices
- Integrated protection to withstand IEC61000-4-2 ESD tests (±8kV contact and ±15kV air) per 3rd party test facility
- Supports FS pre-amble for FS hubs with a LS device attached (UTMI+ Level 3)
- Supports HS SOF and LS keep-alive pulse
- Includes full support for the optional On-The-Go (OTG) protocol detailed in the On-The-Go Supplement Revision 1.0a specification
- Supports the OTG Host Negotiation Protocol (HNP) and Session Request Protocol (SRP)
- Allows host to turn VBUS off to conserve battery power in OTG applications
- Supports OTG monitoring of VBUS levels with internal comparators. Includes support for an external VBUS or fault monitor.

- Low Latency Hi-Speed Receiver (43 Hi-Speed clocks Max) allows use of legacy UTMI Links with a ULPI wrapper
- Integrated Pull-up resistor on STP for interface protection allows a reliable Link/PHY start-up with slow Links (software configured for low power)
- Internal 1.8 volt regulators allow operation from a single 3.3 volt supply
- Internal short circuit protection of ID, DP and DM lines to VBUS or ground
- Integrated 24MHz Crystal Oscillator supports either crystal operation or 24MHz external clock input
- Internal PLL for 480MHz Hi-Speed USB operation
- Industrial Operating Temperature -40°C to +85°C
- 32 pin, QFN RoHS Compliant package (5 x 5 x 0.90 mm height)

## **Applications**

The USB3300 is the ideal companion to any ASIC, SoC or FPGA solution designed with a ULPI Hi-Speed USB host, peripheral or OTG core.

The USB3300 is well suited for:

- Cell Phones
- PDAs
- MP3 Players
- Scanners
- · External Hard Drives
- · Digital Still and Video Cameras
- Portable Media Players
- Printers

### PRODUCT IDENTIFICATION SYSTEM

To order or obtain information, e.g., on pricing or delivery, refer to the factory or the listed sales office.

PART NO. [X] - XXX - [X]<sup>(1)</sup>

Device Temperature Package Tape and Reel Option

Device: USB3300

Temperature Blank = -40°C to +85°C (Industrial)

Range:

Package: EZK = 32-pin QFN

Tape and Reel Blank = Standard packaging (tray)
Option: TR = Tape and Reel(1)

Examples:

a) USB3300-EZK 32-pin QFN RoHS Compliant package

 USB3300-EZK-TR 32-pin QFN (Tape & Reel) RoHS Compliant package

Note 1: Tape and Reel identifier only appears in the catalog part number description. This identifier is used for ordering purposes and is not printed on the device package. Check with your Microchip Sales Office for package availability with the Tape and Reel option.

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