
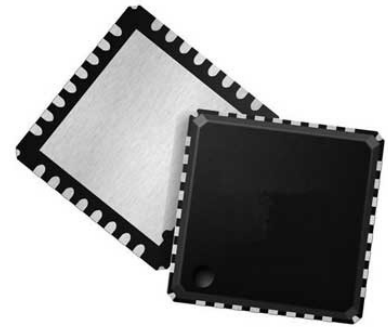


USB Transceiver 1TR 32-Pin VQFN EP Tray

Manufacturer:	Microchip Technology, Inc
Package/Case:	QFN32
Product Type:	Interface ICs
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

[Inquiry](#)**General Description**

The USB3300 is an industrial temperature Hi-Speed USB Physical Layer Transceiver (PHY). The USB3300 uses a low pin count interface (ULPI) to connect to a ULPI compliant Link layer. The ULPI interface reduces the UTMI+ interface from 54 pins to 12 pins using a method of in-band signaling and status byte transfers between the Link and PHY.

This PHY was designed from the start with the ULPI interface. No UTMI to ULPI wrappers are used in this design which provides a seamless ULPI to Link interface. The result is a PHY with a low latency transmit and receive time. Microchip's low latency high speed and full speed receiver provide the option of re-using existing UTMI Links with a simple wrapper to convert UTMI to ULPI.

The ULPI interface allows the USB3300 PHY to operate as a device, host, or an On-The-Go (OTG) device. Designs using the USB3300 PHY as a device, can add host and OTG capability at a later date with no additional pins.

The ULPI interface, combined with Microchip's proprietary technology, makes the USB3300 the ideal method of adding Hi-Speed USB to new designs. The USB3300 features an industry leading small footprint package (5mm by 5mm) with sub 1mm height. In addition the USB3300 integrates all DP and DM termination resistances and requires a minimal number of external components.

*The USBCheck online design review service is subject to Microchip's Program Terms and Conditions and requires a myMicrochip account.

Key Features

Application

USB-IF High-speed Certified to Universal Serial Bus Specification Rev. 2.0	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.
Interface Compliant with ULPI Specification Revision 1.1 in 8-bit Mode	The USB3300 is well suited for:
Industry standard ULPI converts 54 UTMI+ signals into a standard 12-pin link controller Interface	Cell Phones
54.7mA Un-configured Current (Typical), Ideal for Bus Powered Applications	PDAs
83µA Suspend Current (Typical), Ideal for Battery-powered Applications	MP3 Players
Latch-up Performance Exceeds 150mA per EIA/JESD 78, Class II	Scanners
ESD Protection Levels of ±8kV HBM without External Protection Devices	External Hard Drives
Integrated protection to withstand IEC61000-4-2 ESD tests (±8kV Contact and ±15kV Air)	Digital Still and Video Cameras
Supports FS Pre-amble for FS Hubs with a LS Device Attached (UTMI+ Level 3)	Portable Media Players
Supports HS SOF and LS Keep-alive Pulse	Printers
Includes full support for optional On-The-Go Protocol detailed in On-The-Go supplement rev 1.0a spec	
Supports 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 High-speed Receiver allows use of legacy UTMI links with a ULPI wrapper	
Integrated Pull-up resistor on STP for interface allows a reliable Link/PHY Start-up with SLOW links	
Internal 1.8V Regulators Allow Operation from a Single 3.3V 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	

Recommended For You

USB3320C-EZK-TR

Microchip Technology, Inc
QFN32

USB3343-CP-TR

Microchip Technology, Inc
QFN24

USB3318-CP-TR

Microchip Technology, Inc
QFN24

USB2513B-I/M2

Microchip Technology, Inc
QFN36

USB3315

Microchip Technology, Inc
QFN

USB2504-JT

Microchip Technology, Inc
QFP64

USB3318

Microchip Technology, Inc
QFN

USB3318C-CP-TR

Microchip Technology, Inc
QFN24

USB3340-EZK-TR

Microchip Technology, Inc
QFN32

USB2422T-I/MJ

Microchip Technology, Inc
SQFN24

USB3503AI-1-GL-TR

Microchip Technology, Inc
WLCSP25

USB2660I-JZX-03

Microchip Technology, Inc
QFN

USB2507-ADT

Microchip Technology, Inc
QFP

USB2641-HZH-02

Microchip Technology, Inc
QFN

USB3317C-CP-TR

Microchip Technology, Inc
QFN24