


## USB Transceiver 1TR 480Mbps 32-Pin VQFN EP T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	VQFN32
<b>Product Type:</b>	Interface ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

### General Description

The TUSB1210 is a USB2.0 transceiver chip, designed to interface with a USB controller through a ULPI interface. The device supports all USB2.0 data rates (high-speed 480 Mbps, full-speed 12 Mbps, and low-speed 1.5 Mbps), and is compliant to both host and peripheral modes. The device additionally supports a UART mode and legacy ULPI serial modes. TUSB1210 also supports the OTG (Ver1.3) optional addendum to the USB 2.0 Specification, including HNP and SRP.

The DP/DM external component compensation in the transmitter compensates for variations in the series impedance in order to match with the data line impedance and the receiver input impedance, to limit data reflections and thereby improve eye diagrams.

Information in the following applications sections is not part of the TI component specification, and TI does not warrant its accuracy or completeness. TI's customers are responsible for determining suitability of components for their purposes. Customers should validate and test their design implementation to confirm system functionality.

## Key Features

USB2.0 PHY Transceiver Chip, Designed to Interface With a USB Controller Through a ULPI Interface, Fully Compliant With: Universal Serial Bus Specification Rev. 2.0

On-The-Go Supplement to the USB 2.0 Specification Rev. 1.3

UTMI+Low Pin Interface (ULPI) Specification Rev. 1.1

ULPI 12-pin SDR Interface

DP/DM Line External Component Compensation (Patent #US7965100 B1)

Interfaces to Host, Peripheral and OTG Device Cores; Optimized for Portable Devices or System ASICs With Built-in USB OTG Device Core

Complete USB OTG Physical Front-End That Supports Host Negotiation Protocol (HNP) and Session Request Protocol (SRP)

VBUS Overvoltage Protection Circuitry Protects VBUS Pin in Range -2 V to 20 V

Internal 5-V Short-Circuit Protection of DP, DM, and ID Pins for Cable Shorting to VBUS Pin

ULPI Interface:

I/O Interface (1.8 V) Optimized for Nonterminated 50-Ω Line Impedance

ULPI CLOCK Pin (60 MHz) Supports Both Input and Output Clock Configurations

Fully Programmable ULPI-Compliant Register Set

Full Industrial Grade Operating Temperature Range From -40°C to 85°C

Available in a 32-Pin Quad Flat No Lead [QFN (RHB)] Package

## APPLICATIONS

Mobile Phones

Portable Computers

Tablet Devices

Video Game Consoles

Desktop Computers

Portable Music Players

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## Recommended For You

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### **TUSB2077APTR**

Texas Instruments, Inc

LQFP48

### **TUSB1002RGER**

Texas Instruments, Inc

QFN

### **TUSB1105RTZR**

Texas Instruments, Inc

WQFN-16

### **TUSB211QRWBRQ1**

Texas Instruments, Inc

X2QFN-12

### **TUSB4041IPAPRQ1**

Texas Instruments, Inc

HTQFP-64

### **TUSB1210BRHBR**

Texas Instruments, Inc

VQFN32

**TUSB212QRWBRQ1**

Texas Instruments, Inc  
X2QFN12

**TUSB319IDRFRQ1**

Texas Instruments, Inc  
WSON8

**TUSB1211A1ZRQ**

Texas Instruments, Inc  
BGA

**TUSB4020B1PHP**

Texas Instruments, Inc  
TQFP48

**TUSB1105RGTR**

Texas Instruments, Inc  
VQFN16

**TUSB321RWBR**

Texas Instruments, Inc  
X2QFN12

**TUSB8020B1PHP**

Texas Instruments, Inc  
TQFP48

**TUSB1002AIRGET**

Texas Instruments, Inc  
VQFN-24

**TUSB3210PM**

Texas Instruments, Inc  
QFP64