Low Speed/Full Speed/High Speed Hub Controller USB 2.0 3.3V T/R 64-Pin QFN EP

Manufacturers	Microchip Technology, Inc
Package/Case	QFN-64
Product Type	Interface ICs
RoHS	
Lifecycle	

Images are for reference only

Please submit RFQ for USB2517I-JZX-TR or Email to us: sales@ovaga.com We will contact you in 12 hours.　　RFQ

General Description

Microchip's USB251x is a family of versatile, cost-effective and power-efficient USB 2.0 hub controllers. Leveraging Microchip's innovative MultiTRAK technology that delivers industry-leading data throughput in mixed-speed USB environments, the USB251x family is designed for applications that demand low power and a small footprint without compromising on performance.

Well-suited for consumer and mobile applications, all members of the USB251x family are available in space-saving packages. The common 36-pin package shared among the 2/3/4-port hub controllers measures only 6x6mm and provides an ultra small footprint for space-constrained designs while allowing scalable port expansion from two to four ports. The 7-port USB2517 comes in a space-efficient 9x9mm 64-pin package.

Over 30 programmable features, including Microchip's unique PortMap, PortSwap, TrueSpeed and PHYBoost are designed to aid system designers in simplifying PCB layout and optimizing bill-of-material cost. For applications requiring extended operating temperature range, the USB251x i-temp series is designed to meet -40° to 85°C industrial temperature requirements.

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

Features

Highlights

High performance, low-power, small footprint hub controller IC with 2, 3, 4, or 7 downstream ports (indicated by the "x" in the part number)

Fully compliant with the USB 2.0 specification

Enhanced OEM configuration options available through either a single serial I2C® EEPROM, or SMBus slave port

MultiTRAK - High-performance multiple transaction translator which provides one transaction translator per port

PortMap - Flexible port mapping and disable sequencing

PortSwap - Programmable USB differential pair pin locations ease PCB design by aligning USB signal lines directly to connectors

PHYBoost - Programmable USB signal drive strength for recovering signal integrity using 4-level driving strength resolution

Features

Full power management with individual or ganged power control of each downstream port

Fully integrated USB termination and pull-up/pulldown resistors

Supports a single external 3.3 V supply source; internal regulators provide 1.8 V internal core voltage

Onboard 24 MHz crystal driver, ceramic resonator, or external 24/48 MHz clock input

Customizable vendor ID, product ID, and device ID

4 kilovolts of HBM JESD22-A114F ESD protection (powered and unpowered)

Supports self- or bus-powered operation

RoHS compliant packages:

36-pin QFN (6x6 mm)

48-pin QFN (7x7 mm)

64-pin QFN (9x9 mm)

USB251xi products support the industrial temperature range of -40°C to +85°C

Target Applications

Mobile PC Docking Stations

LCD Monitors/TVs

PC Motherboards

Gaming Consoles

Multi-Function Printers

Cable/DSL Modems

Set-Top Boxes

DVD/CD-ROM/DVR

HDD Enclosures

Keyboards

KVM Switches

Server Front Panels

Point-of-Sale (POS) Systems
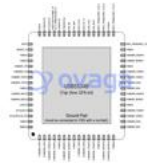
IP Telephony

Automobile/Home Audio Systems

Industrial

Related Products

USB2512B-AEZG-TR

Microchip Technology, Inc

VQFN-36

USB5534B-5000JZX

Microchip Technology, Inc

QFN-64

USB3250-ABZJ

Microchip Technology, Inc

VQFN-56

USB2514B-AEZG

Microchip Technology, Inc

VQFN-36

USB2513B-AEZC

Microchip Technology, Inc

VQFN-36

USB2512-AEZG

Microchip Technology, Inc

VQFN-36

USB2504A-JT

Microchip Technology, Inc

LQFP-64

USB2514-HZH

Microchip Technology, Inc

VQFN-48