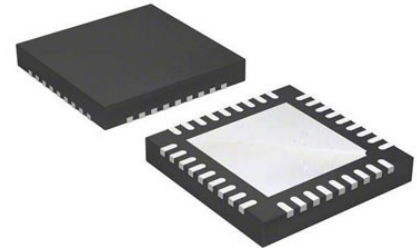Low Speed/Full Speed/High Speed Hub Controller USB 2.0 3.3V Tray 36-Pin SQFN EP

Manufacturers	Microchip Technology, Inc
Package/Case	SQFN-36
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	

Images are for reference only

Please submit RFQ for USB2534I-1080AEN or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The Microchip USB2534 is a low-power, OEM configurable, MTT (Multi-Transaction Translator) USB 2.0 hub controller with 4 downstream ports and advanced features for embedded USB applications. The USB2534 is fully compliant with the USB 2.0 Specification, USB 2.0 Link Power Management Addendum and will attach to an upstream port as a Full-Speed hub or as a Full-/Hi-Speed hub. The 4-port hub supports Low-Speed, Full-Speed, and Hi-Speed (if operating as a Hi-Speed hub) downstream devices on all of the enabled downstream ports.The USB2534 has been specifically optimized for embedded systems where high performance, and minimal BOM costs are critical design requirements. Standby mode power has been minimized and reference clock inputs can be aligned to the customer's specific application. Additionally, all required resistors on the USB ports are integrated into the hub, including all series termination and pull-up/pulldown resistors on the D+ and D– pins.The USB2534 supports both upstream battery charger detection and downstream battery charging. The USB2534 integrated battery charger detection circuitry supports the USB-IF Battery Charging (BC1.2) detection method and most Apple devices. These circuits are used to detect the attachment and type of a USB charger and provide an interrupt output to indicate charger information is available to be read from the device's status registers via the serial interface. The USB2534 provides the battery charging handshake and supports the following USB-IF BC1.2 charging profiles:

DCP: Dedicated Charging Port (Power brick with no data)

CDP: Charging Downstream Port (1.5A with data)

SDP: Standard Downstream Port (0.5A with data)

Custom profiles loaded via SMBus or OTP

The USB2534 provides an additional USB endpoint dedicated for use as a USB to I2C interface, allowing external circuits or devices to be monitored, controlled, or configured via the USB interface.*The USBCheck online design review service is subject to Microchip's Program Terms and Conditions and requires a myMicrochip account.

Features

Highlights

Hub Controller IC with 4 downstream ports

USB-IF Battery Charger revision 1.2 support on up and downstream ports (DCP, CDP, SDP)

Battery charging support for Apple® devices

FlexConnect: Downstream port 1 able to swap with upstream port, allowing master capable devices to control other devices on the hub

USB to I2C™ bridge endpoint support

USB Link Power Management (LPM) support

SUSPEND pin for remote wakeup indication to host

Vendor Specific Messaging (VSM) support

Enhanced OEM configuration options available through a single serial I2C EEPROM, OTP, or SMBus Slave Port

36-pin (6x6mm) SQFN, RoHS compliant package

Footprint compatible with USB2514B

Target Applications

LCD Monitors and TVs

Multi-function USB Peripherals

PC Motherboards

Set-top Boxes, DVD Players, DVR/PVR

Printers and Scanners

PC Media Drive Bay
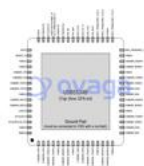
Portable Hub Boxes

Mobile PC Docking

Embedded Systems

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