

High Speed/Super Speed USB Controller Hub USB 2.0/USB 3.0 3.3V Tray 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 USB5734-I/MR or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

Microchip's USB5734 SmartHub™ IC is a 4 port, SuperSpeed (SS)/Hi-Speed (HS), low power, configurable and fully compliant with the USB 3.1 Gen 1 specification. The USB5734 also supports Full Speed (FS) and Low Speed (LS) USB signaling, offering complete coverage of all defined USB operating speeds. The new SuperSpeed hubs operate in parallel with the USB 2.0 controller, so 5 Gbps SuperSpeed data transfers are not affected by slower USB 2.0 traffic. SmartHub ICs are defined as USB hubs that integrates system levels functions typically associated with a separate MCU or processor. Microchip's USB5734 Smart Hub enables communication to other peripherals in addition to USB. This I/O bridging capability allows the host to seamlessly interface to peripherals via I2C, SPI, GPIOs or a UART over USB. Microchip's Smart hubs also enable a downstream device to take control of the host system by swapping roles and becoming the host port. The Smart hub can also switch between two different hosts if required. This role changing technology is called FlexConnect and can be initiated through hardware or software commands. SmartHub ICs also supports custom configurations of external ports and GPIO pins. MPLAB Connect Configurator, Microchip's proprietary software utility, can be used to program On-chip One Time Programmable (OTP) ROM which stores required register settings to ensure the desired start up configuration at power on. All LED, GPIOs and port control signal pins are under firmware control, allowing for maximum operational flexibility. However, for even more simplicity, the USB5734 can be configured through a series of external low-cost resistor bootstraps. A handful of bootstrap pins are available on the USB5734 to enable standard configurations for GPIOs and downstream ports. No OTP programming required.

Download a free copy of MPLAB Connect Configurator™ NOW

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

Features

Highlights

Four downstream USB3.1 Gen1/2.0 ports

Integrated Hub Feature Controller (HFC) enabling I/O Bridging and FlexConnect

I/O Bridging: USB to I2C/UART/SPI/GPIO bridge endpoint support

FlexConnect: Host port Swapping and Switching to downstream Devices

Battery Charging: USB-IF revision 1.2 support on downstream ports (DCP, CDP, SDP). Simultaneous data transfer for 2500 mA of High Speed charging. Enables charging from a mobile platform that is powered-off.

Port Config Straps: Predefined configuration of port settings – Battery Charging, Non-Removable, Disable

Mixed Mode – includes I2C, FlexConnect and general purpose FlexConnect

FlexConnect Mode – enable FlexConnect via both h/w and s/w control

Port Speed Mode – use of LED to differentiate between Full, High and Superspeed

Port BC Mode – use of LED to differentiate between BC1.2 and standard USB charging

UART Mode – provides necessary signals to support DB9 UART interface

MPLAB Connect Configurator™ - Tool to enable enhanced OEM configuration options through either One-Time Programmable (OTP) (8Kbit) or external SPI ROM. Includes manufacturing line programming tool and field update capabilities.

USB Link Power Management (LPM) support

IETF RFC 4122 compliant 128-bit UUID

Compatible with Microsoft® Windows® 8/8.1/10 and other major OS's

64-pin (9 x 9 mm) SQFN lead-free, RoHS compliant package

Industrial grade temperature support (-40°C to +85°C)

Target Applications

Expansion Hubs

Docking Stations

LCD Monitors

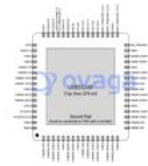
HDTVs

Related Products



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VQFN-36



[USB5534B-5000JZX](#)

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[USB2514-HZH](#)

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VQFN-48