USB3503A-1-GL-TR

Low Speed/Full Speed/High Speed Hub Controller USB 2.0 3.3V/5V T/R 25-Pin WLCSP

Manufacturer:	Microchip Technology, Inc
Package/Case:	WLCSP25
Product Type:	Interface ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

Images are for reference only

Inquiry

General Description

As portable devices continue to add more features and the system architecture becomes more complex, it is necessary to have more than one USB port to manage communications with internal and external peripheral devices. Microchip's low-power USB3503 offers three downstream ports and is specifically designed for portable embedded applications where more than one USB port is required. The USB3503 attaches to an upstream port via HSIC and supports Low, Full and Hi-Speed downstream devices on all enabled downstream ports. The package size has been minimized to save valuable PCB space, making the device well-suited for portable, battery-powered embedded systems where power consumption, reduced BOM cost and Battery Charger (BC) detection capabilities are critical design requirements.

The USB3503 is the industry's first HSIC-based USB 2.0 hub controller designed specifically for portable consumer electronics products such as smartphones, tablets and e-readers. Designed to deliver the low-power and ultra-small footprint that portable product designers demand, the USB3503 also delivers robust USB performance proven through multiple generations of Microchip USB 2.0 hub controller products.

The USB3503 integrates the latest USB-IF Battery Charging 1.1 specification with Microchip's RapidCharge Anywhere™ functionality that dramatically reduces the time required for battery charging, while its flexible power regulators facilitate simple design into battery-powered devices. Microchip's complimentary and confidential USBCheck™ online design review service is available for customers who select the USB3503 for their application design-in.*

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

Key Features

HSIC Upstream port

Supports either Single-TT or Multi-TT configurations for full-speed and low-speed connections

Enhanced configuration options available through serial I²C slave port

MultiTRAK™ - Dedicated transaction translator per port

PortMap - Configurable port mapping and disable sequencing

PortSwap - Configurable differential intra-pair signal swapping

PHYBoost™ - Programmable USB transceiver drive strength for recovering signal integrity

Programmable USB receiver sensitivity

Internal supply switching provides low power modes

Internal short circuit protection of USB differential signal pins

USB port ESD protection (DP/DM)

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