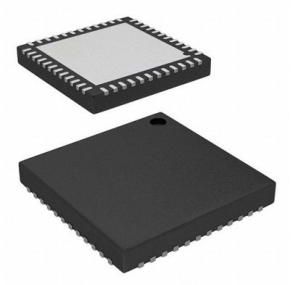
USB4715-I/Y9X

Low Speed/Full Speed/High Speed USB 2.0 High Speed Hub Controller USB 2.0 3.3V Tray 48-Pin VQFN EP

Manufacturer:	Microchip Technology, Inc
Package/Case:	VQFN-48
Product Type:	Interface ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The Microchip USB4715 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. Advanced features include FlexConnect capability on all downstream ports, IO bridging, and embedded 32 bit mico-controller. The USB4715 is compliant with the USB 2.0 Specification and has passed AEC-Q100, grade 3 testing. It is offered in commercial, industrial, and automotive temperature ranges.

Microchip's FlexConnect technology allows for easy port reversals or "role swapping" between the upstream host port and any downstream device ports. This unique capability allows for the smartphone ecosystem of software and applications to be connected to the automobile infotainment system, as well as enabling systems where the host can be switched between numerous USB hosts for improved sub-system control and performance.
Advanced IO bridging allows connectivity to be extended to GPIO, I2C, SPI, UART, and I2S so that the USB Smart hub becomes the center for system connectivity and control. The combination of IO bridging and an embedded 32 bit micro-controller enable the USB hub to provide key functionality for USB Power Delivery (PD) solutions where the micro-controller of executing PD contracts and interfacing to port controllers, port power devices, and power supply chips.
The USB4715 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. The USB-IF Battery Charger specification (revision 1.2) is supported on up and downstream ports, as well as Apple and China profiles. In addition, all required resistors on the USB ports are integrated into the hub, including all series termination and pull-up/pull-down resistors on the D+ and D– pins
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 also supported
The USB4715 is the next generation of USB4604 which provides FlexConnect on all ports, advanced IO bridging, and a powerful 32 bit micro-controller capable of supporting USB Power Delivery solutions.

Key Features

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 on all Downstream ports to swap with upstream port, allowing master capable devices to control other devices on the hub

USB to I2C™/SPI 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 OTP or SMBus Slave Port

3.3V supply voltage

Media Hubs

Infotainment Head Units

Break-Out- Boxes

GPS systems

Infotainment systems

Advancd instrumentations and controls

LCD Monitors

Multi-function USB Peripherals

PC Motherboards

Mobile PC Docking

Embedded Automotive Systems

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