



New Product Announcement

PI3USB3000

5.5GHz Bandwidth 2:1 Multiplexer/Demultiplexer with OVP for USB 2.0 and MHL Switching in Portable Applications

The PI3USB3000 is a 2-to-1 differential channel multiplexer/demultiplexer for high-performance PC and smartphone applications.

With its 5.5GHz bandwidth and low 0.1ns propagation delay, the PI3USB3000 is designed to pass USB 2.0 and MHL (Mobile High-Definition Link) signals and ensures excellent signal integrity with full eye diagram opening.

The PI3USB3000 boasts a low 35 μ A current consumption, a wide supply voltage range of 1.8V to 5.5V, and supports 1.8V logic on control pins.

It has a power-off state for minimizing current leakage in power-down mode. Its D \pm pins have a 9V withstand voltage, coupled with a 4.75V overvoltage protection (OVP) threshold that disconnects the channels if exceeded. The PI3USB3000 also provides a robust USB 2.0 port solution.

The PI3USB3000 is available in the UQFN 10-lead (ZDW) package.



The DIODES Advantage

The PI3USB3000, with its 5.5GHz bandwidth and 9V D \pm withstand capability, provides a robust solution for USB ports.

- **High 5.5GHz Bandwidth**
Reduces high signal frequency attenuation of USB 2.0; MHL signals maintain excellent signal integrity and eye diagram opening
- **Overvoltage Protection (OVP)**
The D \pm pins on the switch can tolerate voltages up to 9V, and the connector pins are also high voltage tolerant
- **Low 35 μ A Current Consumption**
Low-battery current-draw in portable systems
- **Power-Off State with Minimal Leakage Current**
Improves reliability and provides safe solution for circuit design needs
- **Low On-Capacitance**
Reduces signal delay and distortion when high-frequency signals pass through a switch or multiplexer

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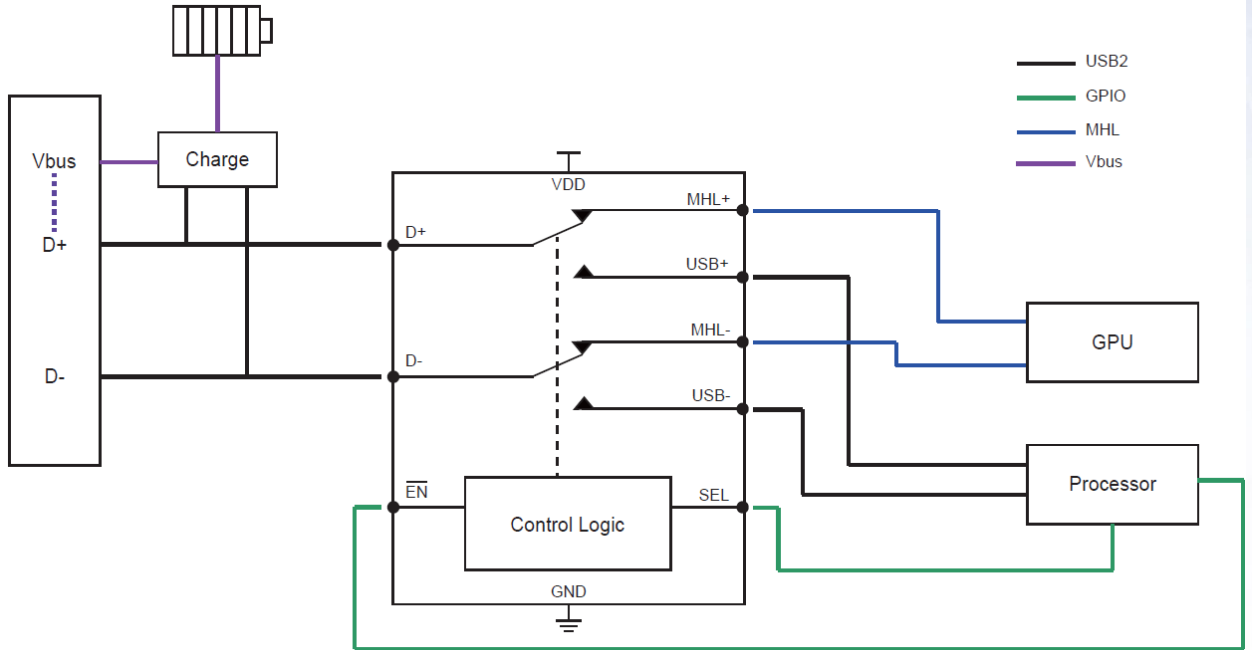
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Applications

- Smartphones
- Notebooks
- USB-C[®]
- PCs
- Tablets

Typical Application



Key Electrical Characteristics

Part Number	Configuration	Rail to Rail	Type	Operating Voltage	-3dB Bandwidth	Isolation (@240MHz)	Crosstalk (@240MHz)	Packages
				V	GHz	dB	dB	
PI3USB3000	Differential 1:2 Mux/Demux	Yes	DPDT	3.3V	5.5	-34	-37	UQFN-10

Ordering Information

Orderable Part Number	Compliance (Only Automotive Supports PPAP)	Package Code	Package	Moisture Sensitivity	Packing	
					Quantity	Carrier
PI3USB3000ZUAEX	Standard	ZUA	UQFN-10 (1.5mm x 2mm)	MSL-1	3,000	7" Tape & Reel