



## New Product Announcement

PI5USB30213A/  
PI5USB31213A

# Type-C Dual Role Port Controller with USB3.1 Gen1/Gen2 Mux and VCONN Switch

The PI5USB30213A and PI5USB31213A are USB3.1 Gen 1 (5Gbps) and USB3.1 Gen 2 (10Gbps) Type-C™ Controllers with Configuration Channel (CC) logic and 5V V<sub>CONN</sub> sourcing.

Through integrating the logic needed to negotiate Configuration Control, both devices are able to operate as a Downstream Facing Port (DFP), or Source; an Upstream Facing Port (UFP), or Sink, or as a Dual Role Port (DRP) able to both source and sink data and power.

The controller allows hosts, hubs and peripherals to determine the presence of a device, the orientation of the connector, and how power will be supplied between devices.



### The Diodes' Advantage

- **Integrated Type-C Controller with USB3.1 Gen1/Gen2 Mux and V<sub>CONN</sub> switch**  
Cost effective, compact solution enabling easy migration to Type-C
- **Single 2.7V-5.5V**  
Simpler power supply scheme with minimal external components
- **Support Host/Device/Dual Role Modes**  
Flexible to be used in all applications
- **Support Pin and I<sup>2</sup>C Control**  
Flexible interface with either GPIO or microcontroller
- **Monitoring of Current charging capability, device connection and audio/debug accessory detection**  
Comprehensive status reporting
- **Lowest Active and Shutdown power**  
Power Savings in portable applications

### Applications

- Notebook
- Tablet
- Industrial PC
- LTE Router
- IP Camera

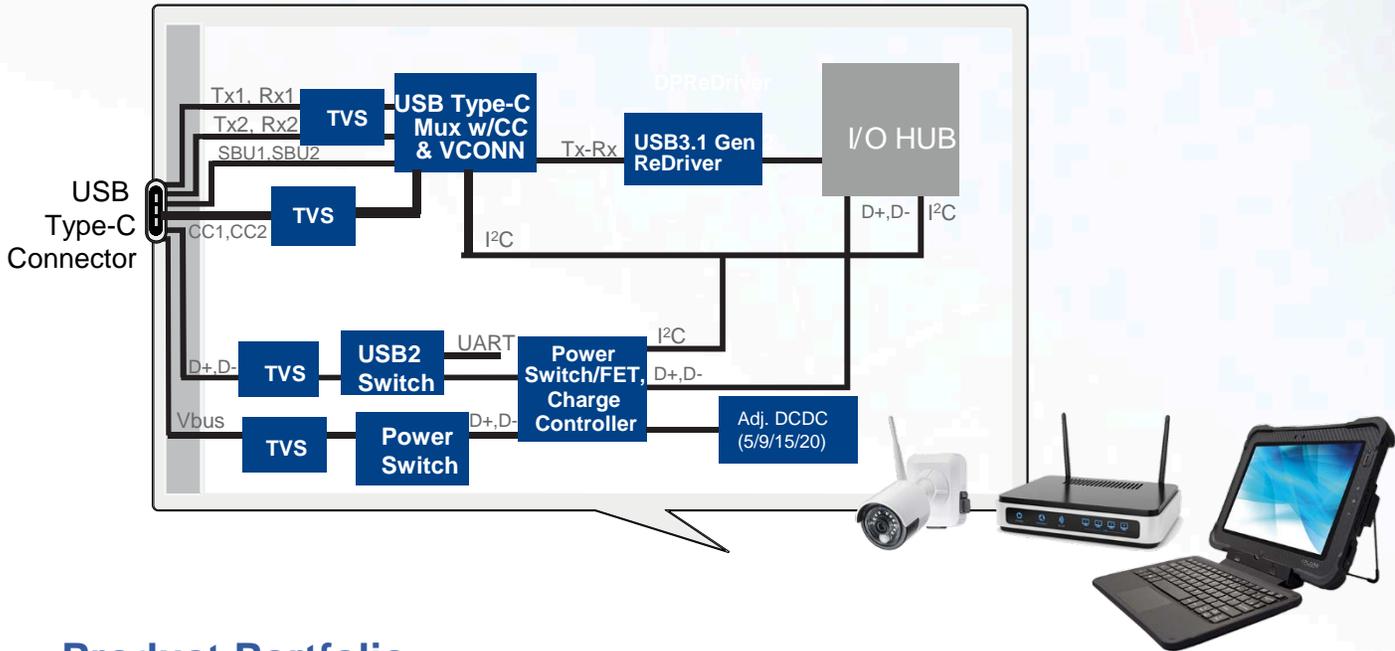
USB Type-C™ is a trademark of USB Implementers Forum.



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## Typical Application Circuit



## Product Portfolio

Part Number	Data rate	USB	IDD Active Device	IDD Active Host	I <sub>Device Standby</sub>	I <sub>Dual Standby</sub>	I <sub>Host Standby</sub>
PI5USB30213A	5Gbps	3.1 Gen1	200µA	280µA	45µA	55µA	65µA
PI5USB31213A	10Gbps	3.1 Gen2	200µA	280µA	45µA	55µA	65µA

To find out more information:

<https://www.diodes.com/products/connectivity-and-timing/switches-mux/protocol-switches/usb-switches/>

## Ordering Information

Part Number	Package	Temperature Range
PI5USB30213AXEAEX	24 X1QFN 2x4x0.45mm	-40 to +85°C
PI5USB31213AXEAEX	24 X1QFN 2x4x0.45mm	-40 to +85°C