Diodes’ PI3USB3200 is a 3-to-2 differential channel multiplexer/demultiplexer switch. This solution can switch multiple signal types up to a data rate of 10Gbps. Using a unique design technique, Diodes is able to optimize the impedance and capacitance of the switch such that the attenuation observed through the switch is minimal. The wide input voltage range and protection features enable mixed analog signal design on USB legacy or USB Type-C™ connector. The unique design technique also offers a layout targeted for USB 2.0 and USB 3.1 signals, which minimizes the channel-to-channel skew as well as channel-to-channel crosstalk, as required by high-speed signals.

**The Diodes Advantage**

**Highest Bandwidth Type-C USB3.1 Gen2 (10Gbps)/USB2 MUX**

- **Excellent Bandwidth: 7GHz**
  Excellent signal fidelity for high data rate at 10Gbps signals

- **-2.4dB Insertion Loss at 10Gbps**
  Results in lower channel loss thus better signal at the receiver

- **-10dB Return Loss at 10Gbps**
  Better preservation of the original signal

- **-22dB Crosstalk at 10Gbps**
  Reduced jitter with better signal integrity

- **50µA Active Supply Current**
  Assists in usage of portable applications

**Applications**

- Routing one lane USB 3.1 Gen2 and/or up to one channel of USB 2.0 over Type-C connector

**Can be used in:**

- Notebook
- Desktop
- Tablet
- All-in-One PC
- Monitors/Gaming
- VR Headset

*USB Type-C is a trademark of USB Implementers Forum*
New Product Announcement

PI3USB3200

Application Diagram in Notebook/Desktop

Product Portfolio

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Packages</th>
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</thead>
<tbody>
<tr>
<td>PI3USB3200</td>
<td>3:2 USB3.1 Gen2/USB2 Crossbar Switch</td>
<td>2.5mm × 2.5mm 24TQFN</td>
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<tr>
<td></td>
<td></td>
<td>2.5mm × 4.5mm 20TQFN</td>
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Ordering Information

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<td>ZR</td>
<td>24-Contact 2.5mm × 2.5mm (TQFN) Tape &amp; Reel</td>
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<tr>
<td>PI3USB3200ZBBEX</td>
<td>ZBB</td>
<td>20-Contact 2.5mm × 4.5mm (TQFN) Tape &amp; Reel</td>
</tr>
</tbody>
</table>

For more Information: BizLink VirtualLink™ Products Simplify Next-Gen VR and Mixed-Reality Devices