10Gbps DisplayPort 2.0 (UHBR10) 2-to-1 Active Mux Switch with Linear ReDriver

The PI3DPX8121 is the latest DisplayPort™ active switch with Linear ReDriver™ and signal mux from Diodes Incorporated which supports DisplayPort™ 2.0 (UHBR10) standard for data rates up to 10Gbps per channel.

PI3DPX8121 has 2-to-1 configuration with 4 differential channels. It provides programmable CTLE equalization, Flat Gain and Output Swing linearity controls for channel loss compensation and removes ISI jitter for channel extension.

The design is transparent to channel link training and performs ultra-low signal latency to achieve good signal integrity performance and system compatibility.

DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries.

ReDriver™ is a trademark of Diodes Incorporated.

Applications
- Laptop, desktop and AIO PCs
- LCD monitors and projectors
- Docking stations
- PC peripherals
- DisplayPort video switches

The Diodes Advantage
- The latest DisplayPort 2.0 (UHBR10) standard support
  Supports 10Gbps data rate on each channel with aggregated 40Gbps bandwidth
- High-speed signal integrity settings
  Supports receiver side CTLE, output side Flat Gain and Output Swing settings
- 2-to-1 active mux configuration with pin-strapping control
- Transparent and ultra-low latency Linear ReDriver channels
  Performs good signal integrity and compatibility for system design
Typical Application Circuit

Product Portfolio

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<tr>
<th>Part No</th>
<th>Operation Voltage</th>
<th>Channels</th>
<th>Data Rate (Gbps)</th>
<th>Lanes/Ports</th>
<th>Output Swing Max(mV)</th>
<th>Programming Interface(s)</th>
<th>Operation Temperature</th>
<th>Packages</th>
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<tbody>
<tr>
<td>PI3DPX8121</td>
<td>3.3V</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>1200</td>
<td>Pin Strap</td>
<td>0°C ~ +70°C</td>
<td>40-pin TQFN</td>
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Ordering Information

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<tr>
<th>Ordering Number</th>
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<th>Package Description</th>
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<tr>
<td>PI3DPX8121ZLDEX</td>
<td>ZLD</td>
<td>40-pin, Thin Fine Pitch Quad Flat No-Lead (TQFN) (3x6x0.75mm)</td>
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Further Information
https://www.diodes.com/part/PI3DPX8121