



New Product Announcement

PI3WVR2646

2.5Gbps Data Rate, 2:1 MIPI Four Data-Lane Switch Supporting D-PHY and C-PHY

The DIODES™ PI3WVR2646 is a ten-channel, single-pole double-throw (SPDT) switch supporting four data lane MIPI-D-PHY switch applications. The product is designed for the mobile industry processor interface (MIPI) specification and allows connection to a CSI or DSI module.

The device is optimized for switching between two high-speed (HS) or low-power (LP) MIPI signals.

The PI3WVR2646 has a 4.1Ghz signal bandwidth supporting D-PHY and C-PHY data rates of up to 2.5Gbps. It offers low crosstalk between channels, -30dB at 1.25Ghz. Its low operating voltage ranges from 1.5V to 3.6V.

The device's tiny 36-WLCSP (GH) package occupies only 2.10mm x 2.10mm of board space.

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The DIODES™ Advantage

The PI3WVR2646 is designed for the MIPI specification and allows connection to a CSI or DSI module.

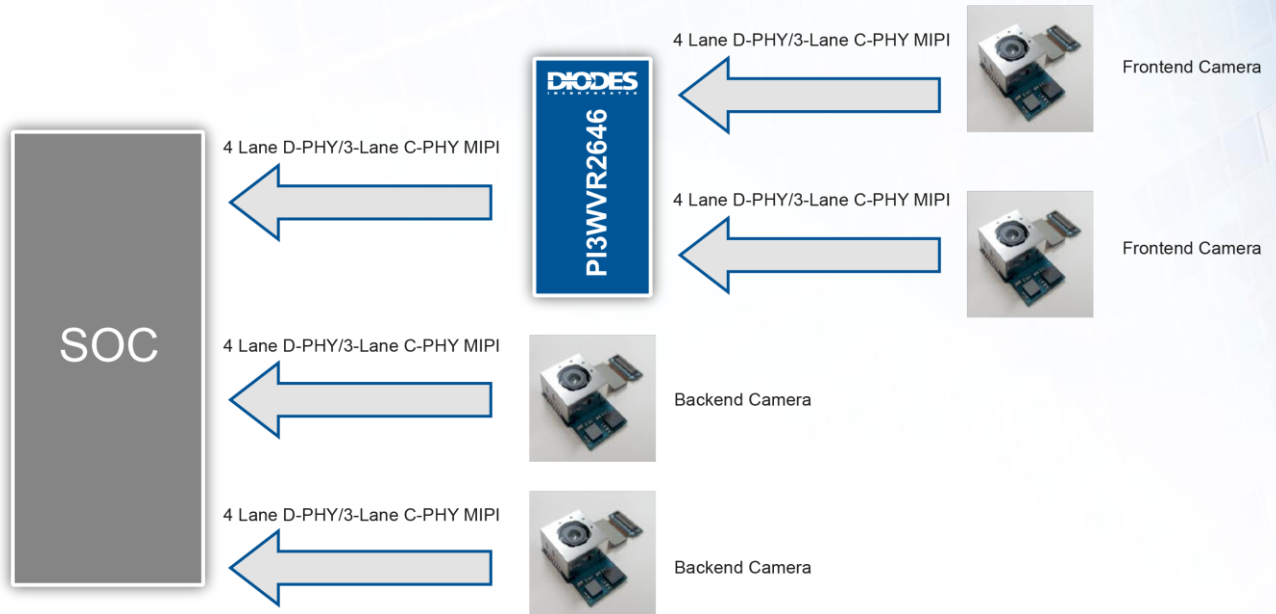
- **Supports D-PHY and C-PHY in One Switch at Up to 2.5Gbps**
Provides flexibility to upgrade cameras from a low data rate D-PHY camera to a high data rate C-PHY camera in a single switch
- **Optimized for Switching Between Two High-Speed (HS) or Low-Power (LP) MIPI Signals**
Simplifies HS & LP MIPI mux applications
- **Low -30dB at 1.25Ghz Crosstalk with Low Switch 6Ω R_{ON}**
Maximizes signal-to-noise ratio in LP & HS MIPI signaling
- **Tiny 36-WLCSP (GH) Package (2.10mm x 2.10mm)**
Supports high-density channel routing for PCB layouts

Applications

- Laptop PCs
- Smart phones
- Tablets



Typical Application



MIPI Switch Portfolio

Part Number	Description	Package
PI3WVR2646	PI3WVR2646 is 2:1 MIPI four-data-lane D-PHY and C-PHY switch, data rate support: D-PHY (2.5Gbps) four-data lane and C-PHY (2.5Gbps) three-data lane.	36-WLCSP
PI3WVR648	PI3WVR648 is 2:1 MIPI four-data-lane D-PHY and C-PHY switch, data rate support: D-PHY (4.5Gbps) four-data lane and C-PHY (3.5Gbps) three-data lane.	36-WLCSP
PI3WVR626	PI3WVR626 is 2:1 MIPI four-data-lane D-PHY and C-PHY switch, data rate support: D-PHY (3Gbps) two-data lane and C-PHY (2.5Gbps) two-data lane.	24-X1QFN

Ordering Information

Orderable Part Number	Compliance (Only Automotive Supports PPAP)	Package Code	Package	Moisture Sensitivity	Packing	
					Quantity	Carrier
PI3WVR2646GHEX	Standard	GH	36-WLCSP (2.1mm x 2.1mm)	MSL-1	3,500	13" Tape & Reel