



New Product Announcement

PI3WVR628

2:1 MIPI Switch supports 2-Data Lanes + 1-Clock Lane D-PHY or 2-Lane C-PHY

Diodes' PI3WVR628 is a MIPI® 2:1 switch for D-PHY and C-PHY signals found within image sensors/cameras in smartphones and mobile application displays. It supports 2-data lanes + 1-clock lane for D-PHY signals or 2-lanes for C-PHY signals.

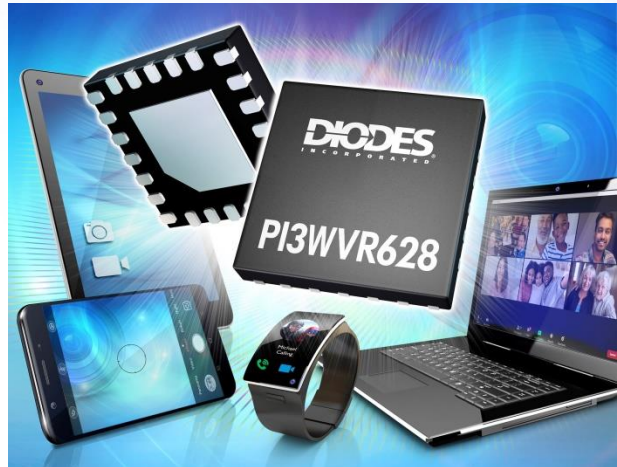
It is a 6 channel single-pole, double-throw (SPDT) switch and is optimized for rapid switching between high-speed (HS) and low-power (LP) MIPI physical interfaces.

To support high speed D-PHY/C-PHY applications and to provide the best performance in the market, the device has a 6.0Ghz bandwidth, low crosstalk, low RON and low channel to-channel skew. These features provide little signal degradation for C-PHY/D-PHY applications.

The device also provides low current consumption to meet the needs of low power applications, including cell phones and other personal electronics.

The PI3WVR628 is available in the X1-LGA2417-24 package and it is the smallest package in the industry with a 0.4mm pitch

MIPI® is a registered trademark owned by MIPI Alliance.



The Diodes Advantage

PI3WVR628 provides the best performance in the market, up to 3.5Gbps C-PHY and up to 4.5Gbps D-PHY.

- **2:1 switch supports both D-PHY (2-data lanes and 1-clock lane) and C-PHY (2-lane)**
High flexibility supports changing from a low data rate D-PHY camera to a high data rate C-PHY camera
- **Supported for both C-PHY and D-PHY**
Allows higher data rates and higher-resolution cameras
- **Lower RON: 5.0Ω LP & HS MIPI**
Reduces insertion loss degradation
- **Low between channel Crosstalk: -35 dB@2.25 GHz**
Provides better performing high-speed C-PHY/D-PHY signals
- **Small package size**
Provides 1.7mm x 2.4mm LGA for mobile products like wearable devices and cell phones
- **VDD Operating Range: 1.5V to 3.6V**
Works across multiple I/O voltage rails improving ease of use in different system designs

Applications

- Smartphones
- Tablets
- Wearable devices
- Laptops
- Monitors



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System Block Diagram

Application Processor/ Image Signal Processor



Product Portfolio

Part Numbers	Configuration	Differential Channels	-3db Bandwidth	Cross Talk	Package
PI3WVR648	2:1 Mux	5	6Ghz	-28db@2.25Ghz	36-Ball, WLCSP (2.44mm x 2.44mm)
PI3WVR646	2:1 Mux	5	4.5Ghz	-30db@1.25Ghz	36-Ball, WLCSP (2.44mm x 2.44mm)
PI3WVR628	2:1 Mux	3	6Ghz	-35db@2.25Ghz	24-Pin, X1-LGA2417-24 (1.7mm x 2.4mm)
PI3WVR626	2:1 Mux	3	4.5Ghz	-35db@1.25Ghz	24-PIN, X1QFN(2.5mmx2.5mm)

Further information: <https://www.diodes.com/part/PI3WVR628>

Ordering Information

Part Numbers	Package Code	Package	Reel Size	# per Reel
PI3WVR628XBEX	XB	24-contact, X1-LGA2417-24	7"	5,000