



# New Product Announcement

## PI5A23157

### Dual-Channel, SPDT Analog Switch with Power-Off Isolation Prevents Unknown I/O States

The DIODES™ PI5A23157 is a dual-channel, single-pole double-throw (SPDT) analog switch. It can be used for audio/video signal routing, or as an analog or low-delay bus switch in circuits such as sample-and-holds.

The device's wide 1.65V to 5.5V operating power supply voltage and rail-to-rail I/O signal capability maximizes signal dynamics.

It also provides excellent channel-to-channel crosstalk rejection as well as a high intra-channel signal isolation when powered down (off-isolation), preventing inter-channel SNR contamination.

Break-before-make switching prevents both switches from enabling simultaneously, which eliminates signal disruption during switching.

The PI5A23157 is available in the UQFN 10-lead (ZUA) and MSOP-10 packages.

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#### The DIODES™ Advantage

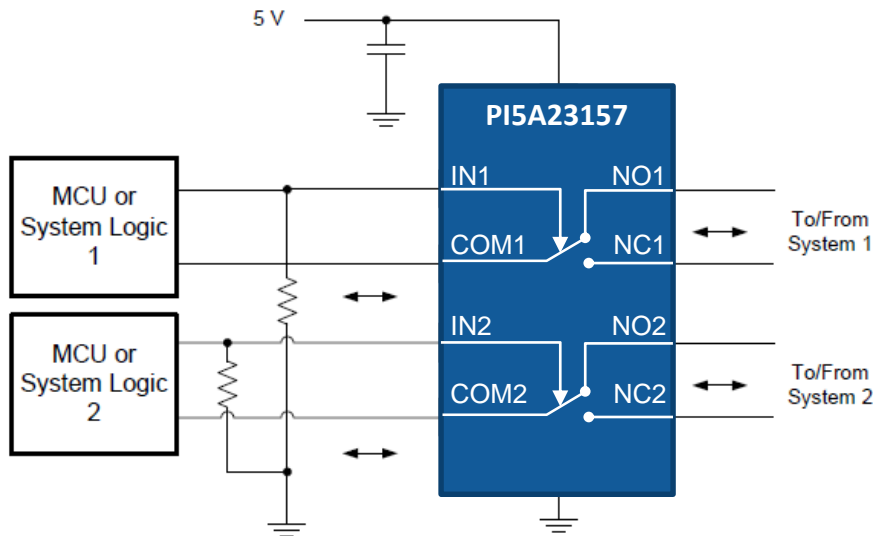
**Low-voltage, dual-channel, SPDT analog switch with power-off isolation prevents error signals during power-off.**

- **Provides 1.65V to 5.5V Operating Voltage Range with Rail-to-Rail Input**  
Compatible with 1.8V operating voltage systems
- **Power-Down High-Impedance State on I/O pin ( $V+ = 0$ )**  
Isolation between the I/O pins prevents noise influence or an unknown state from occurring when the device powers off
- **Wide -40°C to 125°C Ambient Operating Temperature**  
Suitable for industrial applications
- **-66dB Crosstalk Rejection Between Channels**  
Enables good noise rejection to prevent signal noise from affecting the other channels
- **Wide 220MHz, -3dB Bandwidth**  
Supports video routing applications

#### Applications

- Battery-powered equipment
- Audio and video signal routing
- Notebooks
- Servers
- High-performance computers

## Typical Application Circuit



## Key Electrical Characteristics

| Part Number               | Configuration | Signal Type  | Rail To Rail | Type | Operating Voltage (V) | -3dB Bandwidth (MHz) | Isolation (COM-NC/NO, NC-NO) (dB) | Crosstalk (Ch-Ch) (dB) | Packages  |
|---------------------------|---------------|--------------|--------------|------|-----------------------|----------------------|-----------------------------------|------------------------|---|
| <a href="#">PI5A23157</a> | 2 Channel     | Single-Ended | Yes          | SPDT | 1.65 to 5.5           | 220                  | 65                                | -66                    | MSOP (U10)<br>MSL1 Sn<br><br>UQFN (ZUA10) MSL 1 PPF |

## Ordering Information

| Orderable Part Number          | Compliance (Only Automotive supports PPAP) | Package Code | Package               | Moisture Sensitivity | Reel Size | # per Reel |
|--------------------------------|--|--------------|-----------------------|----------------------|-----------|------------|
| <a href="#">PI5A23157ZUAEX</a> | Standard                                   | ZUA          | UQFN-10 (2mm x 1.5mm) | MSL-1                | 7"        | 3000       |
| <a href="#">PI5A23157UEX</a>   | Standard                                   | U            | MSOP-10 (3mm x 3mm)   | MSL-1                | 13"       | 2500       |

## Cross Reference

| Competitors | Part Number   | Package | Diodes Orderable Part Number   | Type of Cross |
|-------------|---------------|---------|--------------------------------|---------------|
| TI          | TS5A23157RSER | UQFN10  | <a href="#">PI5A23157ZUAEX</a> | PP            |