



New Product Announcement

PI4ULS3V4103

SIM Card Interface Level Translator with EMI Filter and ESD Protection for Mobile Applications

The DIODES™ PI4ULS3V4103 voltage translator interfaces a SIM card with a portable device's host side interface.

Many SIM cards start operation at 3V or 1.8V while the host, usually using an advanced process technology, has a supply of 1.8V, 1.2V, or even lower.

The PI4ULS3V4103 voltage level translator provides correct signal levels to both host (A side) and card (B side).

The device contains three 1.62V to 3.6V level translators that convert the data, reset, and clock signals between the SIM card and the host microcontroller.

The PI4ULS3V4103 has improved 8kV HBM ESD-withstand capability and EMI filter which saves external component count and cost.

The PI4ULS3V4103 is compliant with all ETSI, IMT-2000, and ISO-7816 SIM/smartcard interface requirements.

It is available in an ultra-small and thin X1-QFN1418-10 package, occupying only 1.4mm x 1.8mm.



The DIODES™ Advantage

New SIM card level shifter supports class-B and class-C SIM cards for mobile phone applications.

- **Supports SIM Card 1.62V to 3.6V Supply Voltages**
Covers class-B and class-C SIM cards
- **Integrated 8kV ESD Protection on SIM Card Side**
Improves robustness of the system, removing the need for additional external ESD protection
- **Low Quiescent Current**
Reduces battery drain when system is in standby mode
- **Integrated Pull-Up and Pull-Down Resistors**
No external resistors required, saving board space

Applications

- Smartphones
- Tablets
- Wireless modems
- SIM card terminals

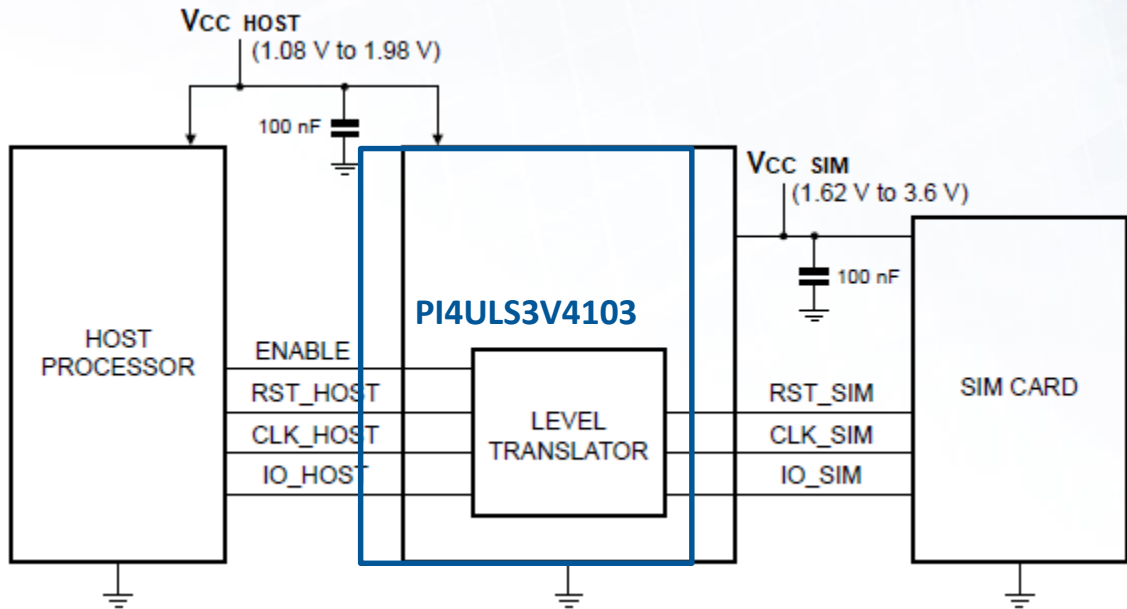
The Diodes logo is a registered trademark of Diodes Incorporated in the United States and other countries.

DIODES is a trademark of Diodes Incorporated in the United States and other countries.

© 2022 Copyright Diodes Incorporated. All Rights Reserved.



Typical Application



Product Portfolio

| Part Number | Translation | | Auto-Direction Sensing | Shift | Max Signal Rate | Package |
|------------------------------|-------------|-------------|------------------------|---------------|-----------------|---------------|
| | From (V) | To (V) | | | | |
| PI4ULS3V4103 | 1.1 to 2.0 | 1.65 to 3.6 | Yes | Bidirectional | 25MHz | X1-QFN1418-10 |

Ordering Information

| Orderable Part Number | Package | Moisture Sensitivity | Packing | |
|-----------------------------------|---------------|----------------------|----------|------------------|
| | | | Quantity | Carrier |
| PI4ULS3V4103XEAEX | X1-QFN1418-10 | MSL-1 | 3,500 | 7" Tape and Reel |