

## Power Device Interface Controller Compatible with IEEE 802.3af/at Integrated Power MOSFET V1.1

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### Overview

XS2103S/D provides a complete interface for Power Devices (PD) in Ethernet Power over Ethernet (PoE) systems compliant with the IEEE802.3 af/at standard. It offers detection signals, classification signals, and an integrated isolated power switch with surge current control. During surge events, XS2103S/D limits the current within 180 mA until the isolated power MOSFET is fully turned on, at which point it switches to a higher current limit from 760 mA to 1000 mA. The device features input undervoltage lockout (UVLO) with a wide hysteresis and long-duration pulse shielding to compensate for resistive losses in twisted-pair cables, ensuring interference-free transmission during power-on and power-off. XS2103S/D can withstand input voltages up to 100V.

XS2103S/D supports the two-event classification method of IEEE 802.3 at standard. The device detects the connection status of a wall adapter power source, enabling seamless switching from PoE power to wall adapter power. Additionally, XS2103S/D provides a power good (PG) signal, two levels of current limiting, and fold-back thermal protection, along with di/dt limiting. XS2103S/D is housed in a SOP8 package and operates over an extended temperature range from -40 °C to 105 °C.

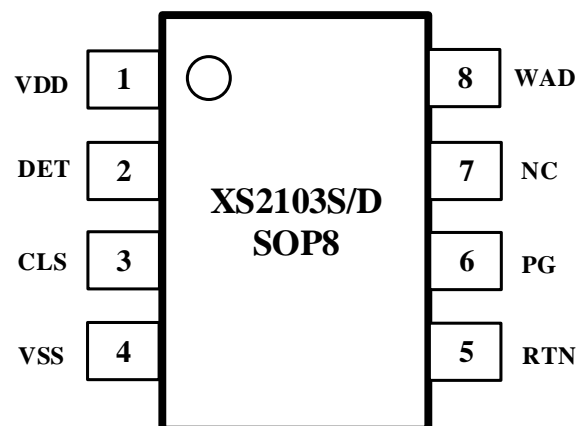
### Typical Application

- ◆ IP camera
- ◆ VoIP
- ◆ Wireless AP

### Features

- ◆ Compatible with IEEE 802.3 af/at
- ◆ Two-event classification
- ◆ Easy-to-use wall adapter interface
- ◆ 0 to 4 level PoE classification
- ◆ Absolute maximum input rating of 100 V
- ◆ Maximum surge current limit of 180 mA
- ◆ Normal operating current limit between 760 mA and 1000 mA
- ◆ Current limiting and fold-back protection
- ◆ 39V UVLO
- ◆ Over temperature protection
- ◆ SOP8 packaging

### Pin Configuration



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