

**Power Device Interface Controller Compatible with IEEE 802.3af  
Integrated Power MOSFET V0.6**

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**Overview**

XS2105M provides a complete interface for Power Devices (PD) in Ethernet Power over Ethernet (PoE) systems to comply with the IEEE 802.3 af standard. It offers detection signals, classification signals, and an integrated isolated power switch with surge current control. During surge events, XS2105M limits the current to 180 mA until the isolated power MOSFET is fully turned on, at which point it switches to a higher current limit (Typ.: 480 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. XS2105M can withstand input voltages up to 100V.

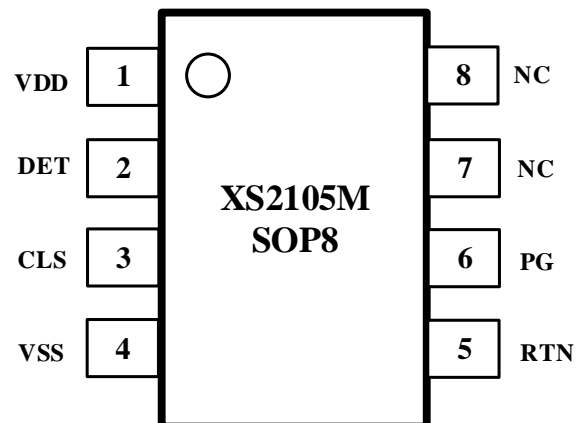
It supports maintain power signature (MPS). Additionally, XS2105M provides a power good (PG) signal, two-step current limit, fold-back and thermal protection, and di/dt limiting. XS2105M is housed in a SOP package and operates over an extended temperature range from -40 °C to 85 °C.

**Typical Application**

- ◆ IP camera
- ◆ VoIP
- ◆ Wireless AP

**Features**

- ◆ Compatible with IEEE 802.3 af
- ◆ Maintain power signature (MPS)
- ◆ PoE classification 0 to 3
- ◆ Absolute maximum input rating of 100 V
- ◆ Maximum surge current limit of 180 mA
- ◆ Normal operating current limit between 400 mA and 560 mA
- ◆ Current limiting and fold-back protection
- ◆ 40V UVLO
- ◆ Over temperature protection
- ◆ SOP-8 packaging

**Pin Configuration**

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