

**PRELIMINARY SPECIFICATIONS SUBJECT TO CHANGE**

## DESCRIPTION

The MP8009 is an integrated IEEE 802.3af/at PoE compliant Powered Device (PD) power supply converter. It includes PD interface and high efficiency flyback/forward controller.

The PD interface has all the functions of IEEE 802.3af/at, including detection, 1-event and 2-event classification, 120mA inrush current limit, 840mA operation current limit as well as 100V Hot-swap MOSFET.

The flyback/forward controller is specifically designed for both low cost, small size isolated solution with primary-side regulate (PSR) flyback application, and high efficiency secondary-side regulate (SSR) active-clamped forward application. It also can be used in SSR flyback topology.

The MP8009 can support a front-end solution for PoE-PD application with minimum external components. It is available in QFN-28 (4mmX5mm) package.

## FEATURES

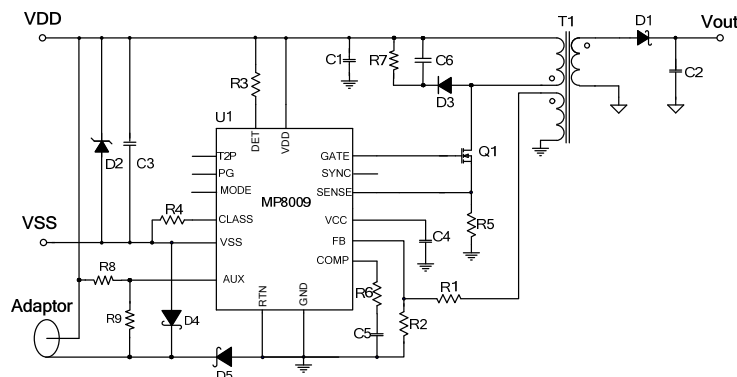
- Compatible with 802.3af/at Specifications
- 100V 0.48Ω PD Integrated Pass Switch
- 120mA PD Inrush Current
- 840mA PD Operation Current Limit
- Auxiliary Adaptor ORing Power Supply
- Support Flexible Topology Design
  - Primary-Side Regulated (PSR) Flyback
  - Secondary-Side Regulated (SSR) Flyback
  - Secondary-Side Regulated (SSR) Active-Clamp Forward
- 2A GATE and 0.8A SYNC Drivers
- 160mV Switching Current Sense Limit
- Output Diode Compensation in PSR Mode
- 250kHz Fixed Switching Frequency
- Hiccup Protection for OLP, SCP, OVP and Thermal Shutdown
- EMI Reduction with Frequency Dithering
- Available in QFN-28 (4mmx5mm) Package

## APPLICATIONS

- IEEE 802.3af/at-Compliant Devices
- Security Camera
- Video Telephone
- WLAN Access Points
- IoT Devices

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## TYPICAL APPLICATION



**Efficiency**  
PSR Fly-back,  $V_{OUT}=12V$

