

PD69108 Eight-Port HPoE PSE Manager

PD69108 is an eight-port, mixed signal, high-voltage High Power over Ethernet (HPoE) power sourcing equipment (PSE) manager. The IC allows the detection of IEEE802.3at-2009 Type 1 and Type 2 powered devices, ensuring safe power feeding and removal over Ethernet ports. With full digital control via a serial communication interface and a minimum of external components, the IC integrates multi-port and highly populated Ethernet switches. The PD69108 has built-in support for energy efficient PoE (EPPoE).

The PD69108 supports 2-event, 3-event and 6-event classification and up to 1000 mA (50 W at 50 VDC) per 2-pair channel, or 100 W per 4-pair channel per HDBaseT™ Type 3. It can be operated in Enhanced mode with the PD69100 MCU, in SmartFusion™ mode with a Microsemi SmartFusion device, or in Distributed PoE mode with Marvell ISSR, and is backwards compatible with PD69012, PD64012G, and PD64008G ICs for effortless transition into high power or EPPoE applications.

Features	Benefits
8-port PSE with integrated field-effect transistors (FETs) QFN-48 8x8mm with built-in 3.3 VDC Only 150 components for 24-port switches	Smallest footprint and lowest total solution cost Highest reliability
IEEE802.3at-2009 with 2-event classification	No need for host or LLDP software
HDBaseT Type 3 pre-standard compliant	Allows building HDBaseT A/V receivers
Dynamic power management with LLDP support: smaller power supply	Low system cost; lower idle consumption
Emergency power management: multiple power supplies	Low basic system cost; flexibility for full power
Backplane power management: sharing power supplies among switches	Rationalizing the usage of external power supply units
Resilient power management: prevents powered device disconnection	Ensuring the IT manager is never fired for poorly planning the power network
4-pair IEEE802.3at high power 60 W per port, 100% standard compliant Up to 100 W per port	Can power thin clients / POS / access control devices
Energy efficient PoE (EPPoE) Reduces power dissipation per port by 2.1 W for AT powered devices and 0.6 W for AF powered devices	Employs smaller power supplies Creates EnergyStar™ LNE compliant PoE switches
Lowest solution power dissipation on the market 5.5 W for 24-port AT 2-pair channels	Fanless gigabit, Energy Star™-compliant switches
Backwards compatible with PD690xx Enhanced mode, SmartFusion mode, and xCAT mode	Low or no migration cost
Legacy detection All Cisco Inline Power™ All Power over LAN™	Compatible with all PoE and pre-standard devices
-40 to +85°C	Commercial and Industrial applications

Microsemi Corporate Headquarters
2381 Morse Avenue, Irvine, CA 92614
Phone: 949.221.7100 · Fax: 949.756.0308
www.microsemi.com