PD69104B Four-Port HPoE PSE Manager

PD69104B is a four-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 or fully autonomous operation in Auto Mode with direct LED driving including a PoE MAX LED and a minimum of external components, the IC is ideal for 4-port Ethernet switches. The PD69104B can be also be used in multi-port switches in which a high level of control and management is required by the host application.

The PD69104B supports 2-event classification and up to 1000mA (50 W at 50 VDC) per 2-pair channel, and can operate in 4-pair channel as well. It operates fully autonomously without the need for an MCU or a Host processor, or it can be managed via an I2C or UART interface. An API backwards compatible with the PD69008, PD64004AH, and PD64008G ICs is available for effortless transition into high efficiency, low cost, high power implementations.

Features	Benefits
4-port PSE with integrated field-effect transistors (FETs) QFN-48 8x8mm with built-in 3.3 VDC Only 20 components for 4-port switches	Smallest footprint and lowest total solution cost for 4-ports Highest reliability
IEEE802.3at-2009 with 2-event classification	No need for host or LLDP software
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
Lowest solution power dissipation on the market <1.2W total system power dissipation in IEEE802.3at <0.52W total system power dissipation in IEEE802.3af	Fanless gigabit, Energy Star™-compliant switches
Direct LED driving in including PoE MAX LED	Complete PoE solution for unmanaged switches
Backwards compatible with PD690xx and PD640xx via API	Low or No migration cost
Legacy detection All Cisco Inline Power™ All Power over LAN™	Compatible with all PoE and pre-standard devices
–10 to +85°C	

January 2012 · Revision 0