

PoE PSE Managers

Microsemi's PoE PSE manager ICs can be used to develop a wide variety of power sourcing equipment including switches, routers and specialized platforms including PoE-enabled TVs and set-top boxes. These platforms can be used to cost-effectively provide higher levels of managed power to a

broader range of Ethernet devices in small-office, home-office and residential applications including WiMAX transmitters, pan-tilt-zoom cameras, fiber-to-the-home optical network terminators and outdoor xDSL/cable modems.

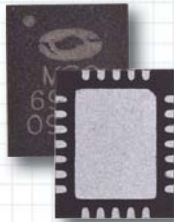
Selection Guide

P/N	Ports	802.3at	2-events Class	Legacy Detection	Alt	Synch. 4-pairs	Dynamic P.M.	Emergency P.M.	Backplane P.M.	Resilient P.M.	Auto Mode	Enhanced Mode MCU	xCAT Mode	FETs	Rsense
PD64001	1	Yes	Yes	Yes	B only	Yes	No	No	No	No	Yes	N/A	No	External	0.5ohm
PD69101	1	Yes	Yes	Yes	A/B	Yes	Yes	No	No	No	Yes	N/A	No	0.3ohm	0.5ohm
PD69008	8	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	Yes	PD69000	Yes	External	0.5ohm
PD69012	12	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	Yes	PD69000	Yes	External	0.5ohm
PD69104	4	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	No	PD69100	Yes	0.3ohm	0.36ohm
PD69104A	4	Yes	Yes	Yes	A/B	No	Yes	16 PSUs	Yes	Yes	Yes	N/A	No	0.3ohm	0.36ohm
PD69108	8	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	No	PD69100	Yes	0.3ohm	0.36ohm
PD67124	24	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	Yes	Built-in	Yes	0.1ohm	0.5ohm
PD67112	12	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	Yes	Built-in	Yes	0.1ohm	0.5ohm
PD67108	8	Yes	Yes	Yes	A/B	Yes	Yes	16 PSUs	Yes	Yes	Yes	Built-in	Yes	0.1ohm	0.5ohm

PD69101™

Single-port PoE PSE Manager

The PD69101 is a one-port Power-over-Ethernet manager capable of delivering 51 watts to powered devices while still complying with stringent IEEE802.3at-2009 requirements. System designers also can go well beyond the IEEE standard to safely deliver up to 75W of power by using two of the new Microsemi PoE chipset devices over four pairs of Ethernet cable.



Key Features

- Detects and disables disconnected ports, utilizing DC disconnection methods, as specified in the IEEE 802.3af-2003 and IEEE802.3ar-2009 standards
- Can optionally detect legacy/pre-standard PD devices
- Provides PD protection such as over-load, under-load, over-voltage, over-temperature and short-circuiting
- Supports supply voltages ranging from 44 V to 57 VDC with no need for additional power supply sources
- Is a low power device using an internal 0.3 Ω MOSFET and an external 0.5 Ω sense resistor
- 24-pin, plastic QFN package



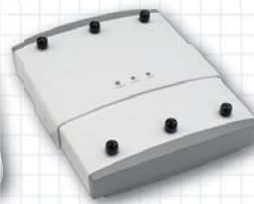
Thin Clients



P-T-Z Cameras



IP Video Phones



802.11n Access Points



Point of Sale Terminals



Access Controls

PD69108™

The PD69108 is the new flagship multi-port PoE IC from Microsemi. Based on the PD69101, but with improved sense resistor capabilities, and with support for the high end power management capabilities already available with the PD690xx family, but now with internal FET's, the PD69108, PD69104 and PD69104A can be used to build PoE systems taking a dramatically lower amount of space, lower power consumption and lower cost.

Key Features

- Power all PoE PD's including Cisco's inline power
- Highest integration on the market, lowest PCB real estate
- No need for external DC/DC converter
- Minimal power supply stress and EMI noises
- Power management: based on power allocation and priority map, on class value or on both
- Prioritization of ports in case of power reduction
- Logical to physical port map
- User can receive interrupts on status or have automatic LED driving
- System monitoring and per port thermal protection, including PCB protection

PD69108 Features

PD69108 Benefits

8/4-port PSE w/integrated FET QFN-48 8x8mm with built-in 3.3VDC Only 150 components for 24-ports!	Smallest Footprint and lowest total solution cost
IEEE802.3at-2009 w/2 events classification	No need for host or for LLDP software
Dynamic PM with LLDP support: smaller PSU	Low system cost, lower idle consumption
Emergency PM: many PSU's	Low shipping cost, flexibility for full power
Backplane PM: sharing PSU's	Rationalizing the usage of external PSU's
Resilient PM: preventing PD's disconnection	Making sure the IT manager is never fired
Synchronous 4-pairs 60W per port 100% standard compliant Up to 100W per port	Can power Thin Clients/ POS/ Access Control devices Dissipates ½ the power on cable
Lowest solution power dissipation on market 5.5W for 24-port AT 2-pairs	Fanless Gigabit, Energy Star™-compliant Switches
Backwards Compatible with PD690xx Enhanced Mode and xCAT Mode	Low/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
AEC-Q100 qualified	Automotive designs

PD67100™

Dual In-Line Memory Module Family

The PD67100 PoE DIMMs enable switch designers to reduce the time and cost required to add IEEE802.3at-2009 PoE+ capability to existing switches, while retaining the flexibility to use the same switch for both low power PoE and non-PoE implementation. The modules integrate Microsemi's PD69012 PoE Manager IC into an easy-to-integrate dual in-line memory module (DIMM). The product is offered in 8, 12 and 24 port options as the PD67108, PD67112 and PD67124.

Key Features

- IEEE 802.3AT-2009 and IEEE802.3AF-2003 compliant
- Up to 30W per port power PoE solution
- Supports IETF PoE MIB (RFC 3621)
- Up to 24 power ports per single DIMM
- Up to 96 ports in a system using master and slave configuration
- Thermal protection per port and thermal monitoring capabilities
- Pre-standard detection methods (Cisco Inline Power and Power over LAN Legacy)
- Non-standard terminals supported

PoE PD Controller ICs

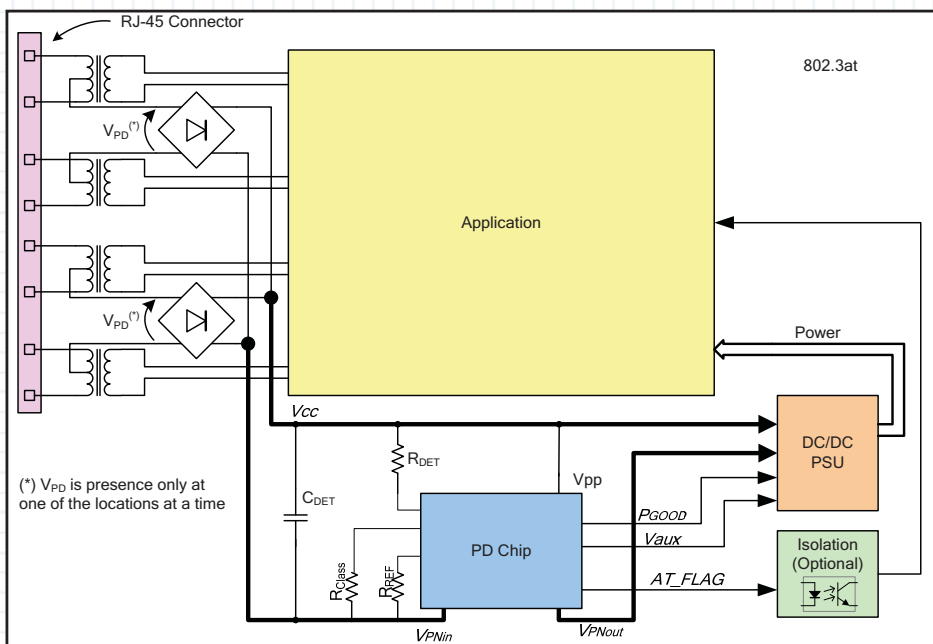
Microsemi has introduced a new family of integrated PoE Powered Device solutions that are ideal for use in powered devices such as IP phones, WLAN access points, network cameras and 48VIN telecom/networks. Our solutions include Front End ICs and Controller solutions that support both IEEE 802.3AF and AT applications

PD70X00 Selection Guide

Part No.	Description	Package
PD70100	IEEE 802.3AF Front End	8 PIN, Low Cost QFD
PD70200	IEEE 802.3AT Front End	8 PIN, Low Cost QFD
PD70101	IEEE 802.3AF Front End + Controller	28 PIN MLPQ
PD70201	IEEE 802.3AT Front End + Controller	28 PIN MLPQ

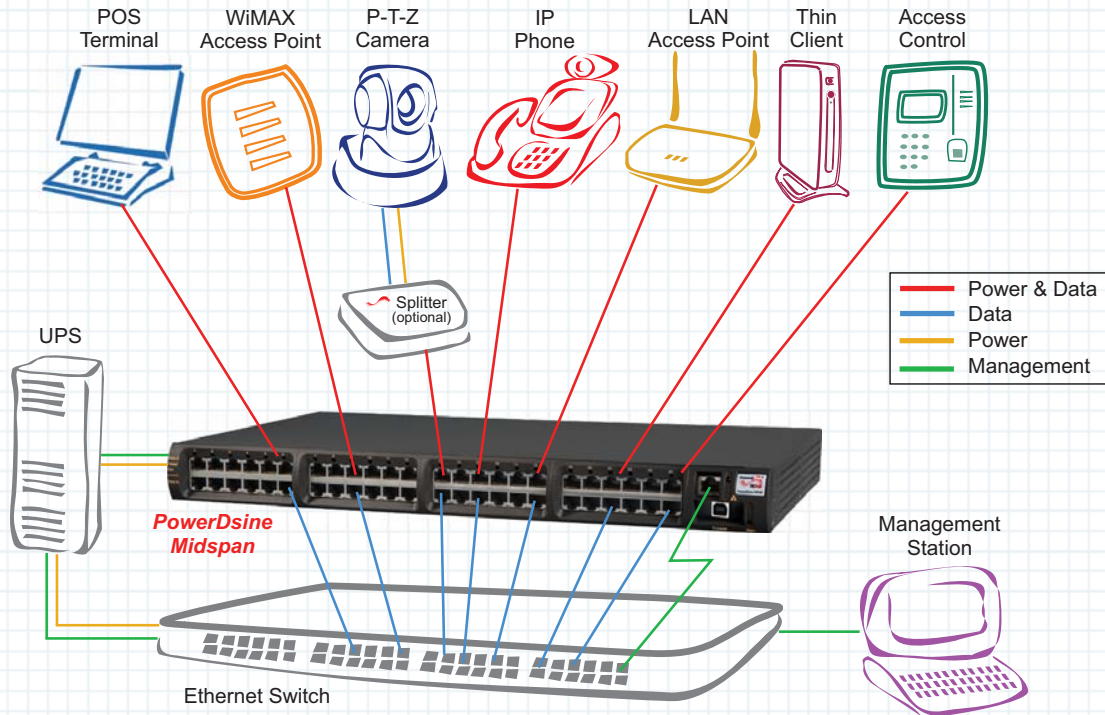
Key Features

- Two-events classification ID with a Level Signal indicating Type 1 or 2 PSE
- Controller supports 4-pair applications of up to 47.7/55.2 W
- PD detection and programmable classification signature
- Less than 10uA offset current during detection
- 100 to 500 kHz adjustable DC-DC switching frequency (controller)
- DC-DC frequency synchronizable to external clock
- Supports low power mode operation for higher efficiency in standby mode
- Over load, short circuit and thermal protection



Typical 4 Pairs IEEE802.3AT application

PowerDsine® PoE Midspans



Microsemi's PowerDsine Midspan is the first system on the market to supply reliable, uninterrupted power to IP phones, wireless LAN access points, network security cameras, and other ethernet devices using your existing CAT-5, CAT-5E and CAT-6 LAN cable infrastructure. Ideal for both new and legacy installations, PowerDsine systems eliminate the time, cost and inconvenience of installing separate power cabling. This patented technology, when used

in conjunction with a centralized Uninterruptible Power Supply (UPS), ensures continuous operation of phones, access points and cameras – even during power failures.



Midspan Comparison Chart & Selection Guide

Midspan Model	Ports				Output Watts (max)					Power View Pro	Data Rate**		Warranty
	1	6	12	24	15	30	36	40	60		10/100	10/100/1000	
9501G	◆									◆		◆	1-year
9506G		◆								◆		◆	Lifetime*
9512G			◆							◆		◆	Lifetime*
9001G	◆					◆						◆	1-year
9001G-40/SP	◆							◆				◆	1-year
9006G		◆								◆		◆	Lifetime*
9012G			◆							◆		◆	Lifetime*
9024G				◆						◆		◆	Lifetime*
6506/6506G		◆			◆					◆		◆	Lifetime*
6512/6512G			◆		◆					◆		◆	Lifetime*
6524/6524G				◆	◆					◆		◆	Lifetime*
3506/3506G		◆			◆					◆		◆	1-year
3512/3512G			◆		◆					◆		◆	1-year
3524/3524G				◆	◆					◆		◆	1-year
3001/3001GC	◆				◆					◆		◆	1-year

**Pass through switch rate

*See Terms and conditions on website