Reliable and Scalable Midspan Injectors and Switches


The Pioneers of PoE
PoE Simplified
Embracing the PoE-driven Future
PoE Systems: Indoor, Outdoor, Industrial
PoE Systems: Accessories
PowerView Pro SNMPv3 Cloud-based Power Management
PoE Selection Guide

## Microsemi

## The Pioneers of Power over Ethernet (PoE)

Microsemi has been a leading provider of end-to-end PoE ICs and midspan injectors since 1999, with the broadest PoE product portfolio for indoor and outdoor deployments. As a market leader in PoE since the technology's inception, Microsemi has been instrumental in implementing the IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt, and HDBaseT
standards. Microsemi continues to innovate PoE solutions with the aim of supporting newer applications demanding higher power, greater speed, and challenging indoor and outdoor specifications, while ensuring lower OpEx and faster deployment.


- N-Base-T/ IEEE 802.3bz
- Multigigabit PoE Solution
- 90 W



## PoE Simplified

Have you or your customers ever attempted to install devices on a network, only to find out that it would either be too cumbersome or too costly to add a power outlet at what seemed like the perfect location? If so, then you have encountered the need for PoE.

PoE is a revolutionary technology that eliminates the need for electric power infrastructure, enabling quick and easy installation of powered devices (PDs) such as IP telephones,

WLAN access points, security cameras, and other IP-based terminals. It allows PDs to receive power in parallel to data over the existing Ethernet infrastructure while keeping the structured cabling safe and not interfering with concurrent network operation.


## Embracing the PoE-driven Future

## Diversified Portfolio

Well-known for innovation and quality, Microsemi offers a broad portfolio of PoE solutions from 15 W to 95 W of full power: single and multi-port midspan injectors/switches and accessories, addressing unique requirements of both indoor and outdoor environments. Microsemi PoE systems deliver power over a single category 5/5E/6/6A/7 cable, support 10/100/1000/10000 data rates, and are available in 1, 4, 6, 12, or 24 ports.

## YOUser Centricity

Microsemi partners have discovered value in innovative solutions, addressing the unique requirements of various industries while offering significant business benefits. Microsemi is proud to have been a part of their journey.

There's value for each one of you. Microsemi ensures highly reliable products with significant return-on-investment for both system integrators and end-users.

Integrators

## End-users

- Increase sales using vendor-agnostic solutions
- Reduce project costs by eliminating the need for electrical retrofitting
- Accelerate time-to-market with quick and seamless installation
- Maximize profits with remote infrastructure management
- Address power requirements with integrated solutions
- Provide ongoing value with a lifetime PoE product warranty
- Generate power savings with remote control and monitoring of operation, scheduling, and diagnostics
- Expand user networks effortlessly with increased installation flexibility
- Reduce initial investment by eliminating separate data and power infrastructures
- Increase flexibility by installing access points and surveillance cameras in the most appropriate locations
- Optimize costs with remote shutdowns of access points when not in use
- Improve reliability with cost-effective centralized backup power
- Enhance safety by not using high-voltage power lines
- Reduce maintenance costs with remote infrastructure management
- Scale network easily and seamlessly by adding new devices as needed


## PoE Systems: Indoor

All Microsemi PoE products support Gigabit data rates or higher and are backward compatible.

IEEE 802.3af-compliant 15.4 W PoE Midspan Injectors
All products in this table have AC input power.

| Product | PD-3501G | PD-3504G | PD-65xxG Family |
| :--- | :--- | :--- | :--- | :--- |

IEEE 802.3at-compliant 30 W PoE Midspan Injectors

| Product | PD-5501G | PD-5524G | PD-90xxG Family | PD-9001GR/AT | PD-9004G |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Number of ports | 1 | 24 | $\begin{gathered} 6 \text { (PD-9006G) } \\ 12 \text { (PD-9012G) } \\ 24 \text { (PD-9024G) } \end{gathered}$ | 1 | 4 |
| Input power | DC | $A C$ and DC | $A C$ and DC | AC | AC |
| Remote management |  | - | - |  |  |

## PoE Systems: Indoor

All Microsemi PoE products support Gigabit data rates or higher and are backward compatible.

IEEE 802.3at-compliant 60 W to 95 W PoE Midspan Injectors

| Product | PD-95xxG Family | PD-9501G | PD-9501GR | PD-9601G | PD-96xxG Family |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |

IEEE 802.3at-compliant Multigigabit Solutions
All products in this table have 30 W of AC input power.

| Product | PDS-EM-8100-25/AC | PD-9001-25GR/AC | PD-9001-10GR/AC |
| :--- | :---: | :---: | :---: | :---: |
| Number of ports | $2 \times 1(1 \mathrm{G})=1(2.5 \mathrm{G})$ |  |  |
| Data rate | 2.5 G | 2.5 |  |

## PoE Systems: Indoor

All Microsemi PoE products support Gigabit data rates or higher and are backward compatible.

IEEE 802.3at-compliant PoE Switch for Digital Ceiling

| Product |
| :--- | :--- |

IEEE 802.3at-compliant Indoor for Outdoor PoE Midspan Injectors
All products in this table are single port, with AC power, and inbuilt surge protection.

| Product | PD-9001GR/SP |
| :--- | :--- | :--- | :--- |

IEEE 802.3at-compliant Media Converter

| Product | PD-9501G/SFP |
| :--- | :--- |
|  |  |
| Number of ports | $3(1$ SFP, 2 RJ45) |
| Power level | 60 W |
| Input power | AC |

## PoE Systems: Outdoor

All Microsemi PoE products support Gigabit data rates or higher and are backward compatible.

## PoE Midspan Injectors and Surge Protector

All products in this table are single port with inbuilt surge protection.

| Product | PD-9001GO-ET | PD-9501GO-ET | PD-9501GO | PD-9601GO | PD-OUT/SP11 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |

IEEE 802.3at-compliant Switches

| Product |  |
| :--- | :--- |
|  |  |
|  |  |
| Number of ports | $5(1 \mathrm{SFP}$ data input, 4 PoE outputs) |
| Power level | 30 W and 60 W |
| Extended temperature range | $-40{ }^{\circ} \mathrm{C}$ to $50{ }^{\circ} \mathrm{C}$ |
| Extended network reach | 100 m |
| Inbuilt critical surge protection | $\bullet$ |
| IP66 compliant | $\bullet$ |
| Input power | AC |
| Remote power management | $\bullet$ |

## PoE Systems: Industrial

All Microsemi PoE products support Gigabit data rates or higher and are backward compatible.

## IEEE 802.3at-compliant Midspan Injectors

All products in this table are single port, with DC input power, a $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$ extended temperature range, IP30 industrial standard compliant, and shock/freefall/vibration resistant.

| Product | PD-9001GI | PD-9501GI |
| :--- | :---: | :---: | :---: |
| Power level | 30 W | 60 W |

## PoE Systems: Accessories

Testers, Splitters, Extenders

| PD-AFAT-Tester | PD-AS-601/5 | PoE Extender |
| :--- | :--- | :--- | :--- |

## PowerView Pro SNMPv3 Cloud-based Power Management

Infrastructure management at your fingertips-anytime, anywhere!

Key Benefits

- Up to 68\% savings per device through scheduled power shutdown
- 24/7 business uptime
- Improve reliability by actively monitoring UPS for centralized power backup
- Manage power flow to critical and non-critical devices
- Increased network efficiency
- Monitor network statistics for usage and availability
- Convenience of remote management
- Access and manage network devices in real time, regardless of your geographic location


## Key Features

- Available on multiport units (65XX,90XX,95XX)
- Supports SNMP V3 IPV4 and 6
- Supports needed security features: HTTPS, SSH, SNMPV3
- Offers integration with RADIUS server
- Offers integration with SNMP UPS to prioritize ports in case of power failure
- Offers port scheduling (turns on/off, saves energy, and protects from intrusion)


## Microsemi <br> Power Matters."

## View - Status

Midspan Nickname: Room 3 Midspan Number 5
Energy saving: 262.3 KWatt/Year


| $\#$ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 18 | 20 | 21 | 22 | 23 | 24 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Power (M) | 15.04 | 19.03 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 | 15.04 |
| Description | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ | $\boldsymbol{i}$ |


| Midspan Status |  |  |  |
| :--- | :--- | :--- | :--- |
| Total Power Consumption (Watt) 75 150 225 <br> Maximum available Power (Watt) 200 230 430 <br> System Voltage (Volt) 48.6 - - <br> Temperature (F) 53.2 - - <br> PD Detection Method IEEE802.3af <br> IEEE802.3at <br> Legacy - - <br> Midspan Status Active - - |  |  |  |

UPS Power Management

| Midspan UPS Powered by | Battery |
| :--- | :--- |
| Midspan UPS Battery Level(\%) | 68 |
| Midspan UPS Battery Time Left (min) | 25 |

Power Source Status

| Internal (950W) Power Source | Ok |
| :--- | :--- |
| External (950W) Redundancy Power Source | Fail |

## PoE Selection Guide

Indoor PoE Solutions

| Power per Port | Product | Number of Ports | Data Rate | Remotely Managed | Input Power | Warranty |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15.4 W | PD-3501G/AC | 1 | 1G |  | AC | 1 year |
| 15.4 W | PD-3504G/AC | 4 | 1G |  | AC | 1 year |
| 15.4 W | PD-6506G/AC/M, PD-6512G/AC/M, PD-6524G/AC/M/F | 6/12/24 | 1G | Yes | AC | Limited lifetime*** |
| 30 W | PDS-EM-8100-25/AC | 1 | 2.5G |  | AC | 1 year |
| 30 W | PD-9001-25GR/AC | 1 | 2.5 G |  | AC | 1 year |
| 30 W | PD-9001-10GR/AC | 1 | 10G |  | AC | 1 year |
| 30 W | PD-9001GR/AT/AC | 1 | 1G |  | AC | 1 year |
| 30 W | PD-9004G/AC | 4 | 1G |  | AC | 1 year |
| 30 W | PD-9006G/ACDC/M, PD-9012G/ACDC/M, PD-9024G/ACDC/M/F | 6/12/24 | 1G | Yes | AC and DC | Limited lifetime*** |
| 30 W | PD-5501G/12 V to 24 V DC | 1 | 1G |  | DC | 1 year |
| 30 W | PD-5524G/ACDC/M | 24 | 1G | Yes | AC and DC | Limited lifetime*** |
| 30 W | PD-9001GR/SP/AC** | 1 | 1G |  | AC | 1 year |
| 30 W | PDS-208G/AC* | 10 (8 PoE ports + 2 data uplinks) | 1G |  | AC | 3 years |
| 60 W | PD-9501GR/AC | 1 | 1G |  | AC | 1 year |
| 60 W | PD-9501G/24 V DC | 1 | 1G |  | DC | 1 year |
| 60 W | PD-9501G/48 V DC | 1 | 1G |  | DC | 1 year |
| 60 W | PD-9506G/ACDC/M, PD-9512G/ACDC/M, PD-9524G/ACDC/M | 6/12/24 | 1G | Yes | AC and DC | Limited lifetime*** |
| 60 W | PD-9501G/SFP/AC | 1 | 1G |  | AC | 1 year |
| 60 W | PD-9501GR/SP/AC** | 1 | 1G |  | AC | 1 year |
| 95 W | PD-9601G/AC | 1 | 1G |  | AC | 1 year |
| 95 W | PD-9606G/ACDC/M, PD-9612G/ACDC/M | 6/12 | 1G | Yes | AC and DC | Limited lifetime*** |

*Any individual port can operate at up to 72 W .
${ }_{* * *}^{* *}$ Includes integrated surge protection.
***Limited lifetime includes a limitation of 16 years warranty on the power supply and ventilator.

## Outdoor PoE Solutions

| Power <br> per Port | Product | Number of Ports | Data <br> Rate | Remotely <br> Managed | Input <br> Power | Warranty |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |

Ruggedized/Industrial PoE Solutions

| Power per Port | Product | Number of Ports | Data Rate | Input Power | Warranty |
| :---: | :--- | :---: | :---: | :---: | :---: |
| 30 W | PD-9001GI/DC | 1 | $1 G$ | DC | 5 years |
| 60 W | PD-9501GI/DC | 1 | 1 G | DC | 5 years |

## Unlock the Full Potential of PoE In a Wide Range of Applications



## Microsemi Empower Partner Program

Partnerships are at the core of Microsemi's success. Microsemi offers Empower, a comprehensive channel partner program designed to educate and inspire our partners with industry-leading PoE solutions. For more information, please email empower@microsemi.com.

## Microsemi

## Power Matters."

Microsemi Corporate Headquarters One Enterprise, Aliso Viejo, CA 92656 USA Within the USA: +1 (800) 713-4113 Outside the USA: +1 (949) 380-6100 Fax: +1 (949) 215-4996 Email: sales.support@microsemi.com www.microsemi.com
©2018 Microsemi Corporation. All rights reserved. Microsemi and the Microsemi logo are registered trademarks of Microsemi Corporation. All other trademarks and service marks are the property of their respective owners.

Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system soiutions for aerospace \& defense, communications, data center and industrial markets. Products include high-performance and radiation-hardened analog mixed-signal integrated circuits, FPGAs, SoCs and ASICs; power management products; timing and synchronization devices and precise time solutions, setting the world's standard for time; voice processing devices; RF solutions; discrete components; enterprise storage and communication solutions, security technologies and scalable anti-tamper products; Ethernet solutions; Power-over-Ethernet ICs and midspans; as well as custom design capabilities and services. Microsemi is headquartered in Aliso Viejo, California and has approximately 4,800 employees globally. Learn more at www.microsemi.com.

Microsemi makes no warranty, representation, or guarantee regarding the information contained herein or the suitability of its products and services for any particular purpose, nor does Microsemi assume any liability whatsoever arising out of the application or use of any product or circuit. The products sold hereunder and any other products sold by Microsemi have been subject to limited testing and should not be used in conjunction with mission-critical equipment or applications. Any performance specifications are believed to be reliable but are not verified, and Buyer must conduct and complete all performance and other testing of the products, alone and together with, or installed in, any end-products. Buyer shall not rely on any data and performance specifications or parameters provided by Microsemi It is the Buyer's responsibility to independently determine suitability of any products and to test and verify the same The information

 Microsemi does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other IP rights, whether with regard to such information itself or anything described by such information. Information provided in this document is proprietary to Microsemi, and Microsemi reserves the right to make any
changes to the information in this document or to any products and services at any time without notice. changes to the information in this document or to any products and services at any time without notice.

