

When Indoor Is Not Enough

We offer products for multiple applications so that you can leverage the well-known advantages of Power over Ethernet (PoE) even in extreme environments. Our outdoor and industrial PoE systems can remotely power high-power applications such as Wireless Local Area Networks (WLANs) and Pan-Tilt-Zoom (PTZ) cameras. You can also explore the future of 5G and Internet of Things (IoT) with our multi-Gigabit multi-port PoE midspans.



The Benefits of PoE

PoE is a technology that delivers power over the standard **Ethernet** infrastructure for quick and easy installation of IP-based devices. PoE offers an international network power standard that eliminates dependency on the AC infrastructure and its variations and allows powered devices to receive both power and data on a single Ethernet cable without affecting the cabling or interfering with concurrent network operation. PoE is based upon standards set by the Institute of Electrical and Electronics Engineers (IEEE®), specifically the 802.3af/at/bt standards. Microchip is an innovator and thought leader in PoE technology, as well as a major contributor to the IEEE® 802.3af, 802.3at and 802.3bt standards. As pioneers and thought leaders in the PoE technology, we've actively contributed to the IEEE 802.3af/at/bt standards.

PoE in IP-Based Applications

PoE is now the preferred technology to power IP phones, IP cameras and Wireless Local Area Network (WLAN) access points. PoE can also power a variety of other IP-based devices including LED luminaires, access controls, IoT appliances and more. The rise in the use of Ethernet-based devices in smart building, smart city, 5G and IoT applications has created the need for uninterrupted reliable power supply. PoE technology has gained immense popularity as the most used and most efficient power source for these Information Technology (IT) networks.

PoE is a ubiquitous technology that has paved its way in powering Ethernet-based devices in all environments. Although it started as an indoor-only technology, PoE commonly powers outdoor IP cameras as well. Scaling through innovation, PoE is capable of powering newer applications that demand higher power, greater speeds and challenging indoor, outdoor and industrial specifications.

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The graphic features a blue background with a white border. At the top, the title "When Indoor Is Not Enough" is written in white. Below the title, there are three images: a black PoE midspan on the left, the Microchip mPoE logo in the center, and a white PoE switch on the right. Two superhero silhouettes, a female on the left and a male on the right, stand on either side of the central text. The text is organized into sections: "The Right Device for the Right Environment" with three bullet points, "Four Ports PoE Switch with 1 SFP Uplink for Outdoor Deployments" with three bullet points, and "Building Smarter Cities" with three bullet points. At the bottom, a paragraph states that Microchip provides a comprehensive portfolio of ready-to-install mPoE midspans and switches for indoor, outdoor, and industrial environments, with the website microchip.com/PoE.

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MICROCHIP
mPoE

The Right Device for the Right Environment

- Outdoor, industrial, and indoor IEEE 802.3bt-compliant solutions
- IP67 outdoor rated, IP30 industrial rated, extended temperature
- Protection against lightning surge, water, dust and corrosion

Four Ports PoE Switch with 1 SFP Uplink for Outdoor Deployments

- Reduced installation time and costs
- Built in surge protection
- Authorized access and remote management

Building Smarter Cities

- Hassle-free deployment and simplified maintenance of cameras
- 180 IP cameras installed in 14 days using Microchip PoE switch
- Robust surveillance system withstanding 100 °F and 100% humidity

Microchip provides a comprehensive portfolio of ready-to-install mPoE midspans and switches for indoor, outdoor and industrial environments to meet your unique network requirements.
microchip.com/PoE

While there are multiple options available in the marketplace for PoE midspans and switches to power these applications, it is critical to choose the best PoE solution that addresses specific environment-related deployment and operational challenges. To guarantee reliable and high-quality network performance, **PoE systems** should withstand harsh conditions, especially conditions that are common to outdoor and industrial environments.

PoE Systems in the Outdoors and Harsh Environments

As a cheaper alternative, some vendors place indoor midspans inside electrical enclosure boxes for outdoor installations. Besides the preliminary installation overhead, these boxes often fail by being unable to withstand the heat generated over time. Our outdoor and industrial PoE systems are purpose-built in compact metal enclosures to withstand extremely harsh environments typically associated with microwave point-to-point, small cells and surveillance camera installations. Our ruggedized PoE midspans and switches help you improve the longevity of your IT infrastructure.

Our PoE solutions efficiently power a converged network infrastructure that connects people and processes, improving the communication and connectivity even in some of the most remote and hazardous sites. We offer advanced indoor, outdoor and industrial PoE systems to power wired network devices in the most efficient, dependable and cost-effective way while protecting your current IT investments.

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The successful implementation of our **PDS-104GO PoE switch for safe city and smart city applications** is a good example. Active Solutions LLC, a leading networking and communications system integrator that is well-known for deploying video surveillance, network security, access control and other smart building/smart city applications for various municipal, education and business customers, chose our four-port outdoor PoE switch to address the outdoor and power-related challenges they faced for a large municipal client in the United States. While looking for the best PoE solution in the industry, we emerged as the preferred vendor due to the switch's PoE capability, outdoor rating, port configurability and ability to accept a fiber input. Our PDS-104GO outdoor PoE switches eased installation of high-power outdoor IP cameras subject to harsh weather conditions in hard-to reach places without power.

We offer a complete product portfolio, from single ports to 24 ports, 15.4W to 90W, 1 Gbps to 10 Gbps and indoor-, outdoor- and industrial-rated PoE systems. Take advantage of the following features and benefits:

- Ability to leverage the well-known advantages of PoE in extreme weather conditions
 - Plug-and-play capability for simplified installation in most appropriate locations
 - Compact design to withstand high/low temperatures, water, strong winds, dust and corrosion
 - Advanced protection against lightning surge
 - Shock, freefall and vibration resistance
 - IP67 outdoor- and IP30 industrial-rated
- Ability to remotely power high-power applications such as WLANs and PTZ cameras up to 90W
 - Maximum power available on all ports concurrently
 - Cost-effective centralized power backup to ensure 24 × 7 business uptime
 - Better control over the supply for remote devices to optimize network power management
 - Compliance to IEEE 802.3bt with backward compatibility
- Multi-Gigabit communication
 - Support for data rates from 1 Gbps to 10 Gbps
 - Multi-Gigabit midspans for both indoor and outdoor range
 - 1-, 6-, 12-, and 24-port midspans that provide up to 10 Gbps