

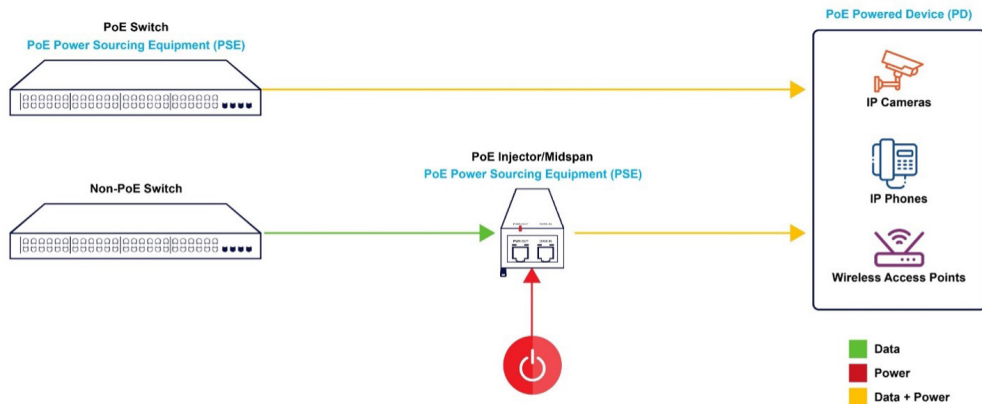
Power over Ethernet (PoE) Systems





PoE Simplified

PoE technology is becoming the most used and most efficient power source for IT networks. PoE offers an international network power standard that eliminates the need to depend on the AC infrastructure, and its variations, to power wired network devices. It enables quick and easy installation of powered devices such as IP telephones, WLAN access points, security cameras and other IP-based terminals. PoE allows powered devices to receive both power and data on a single Ethernet cable and over an existing Ethernet infrastructure without affecting existing cabling or interfering with concurrent network operation.



Why Choose Microchip for Your PoE Requirements?

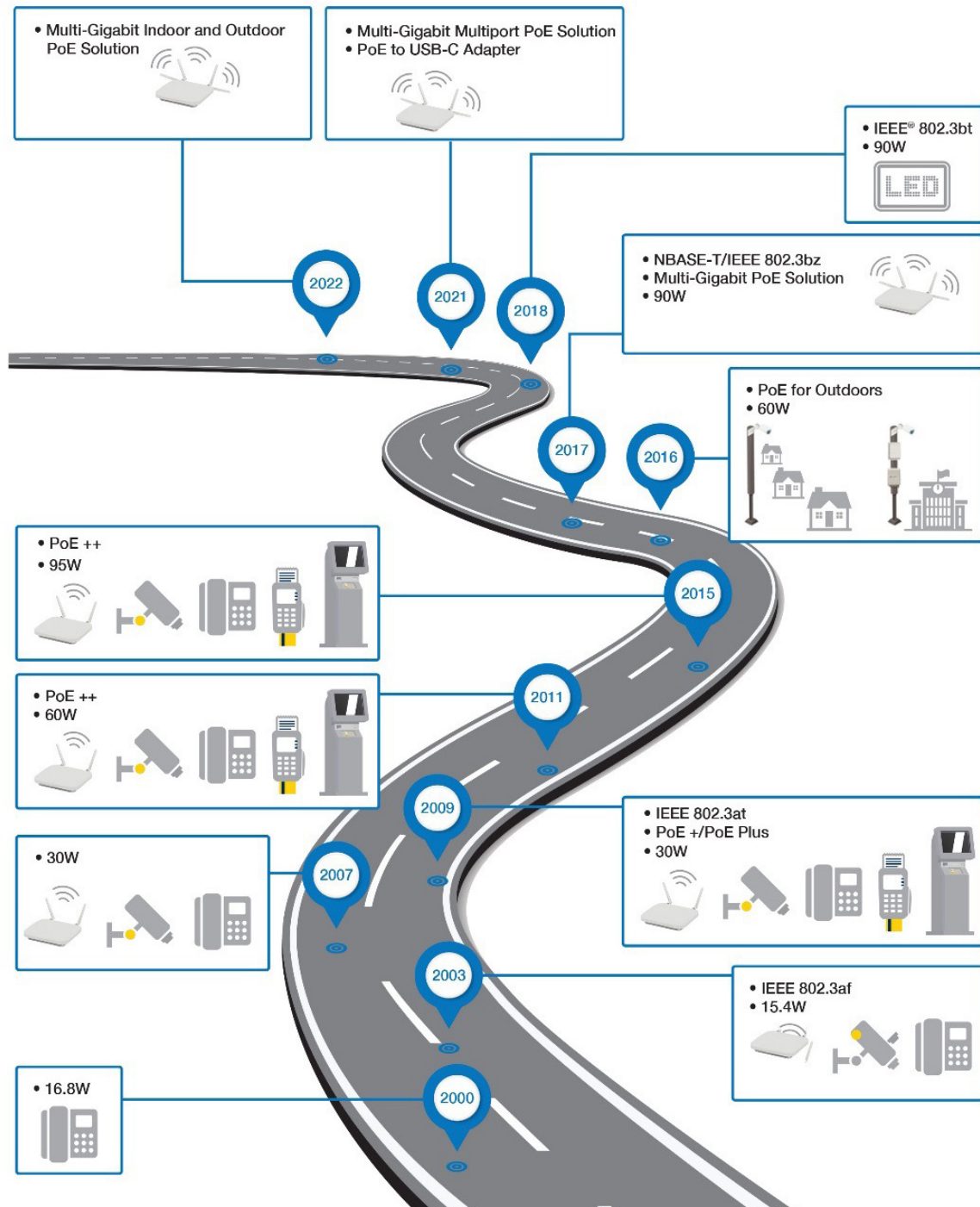
We are a market leader in PoE. We have contributed to the IEEE 802.3af/at/bt standards for over 25 years. As pioneers in PoE technology, we developed the first PoE ICs and midspans, initiated IC integration for simple PoE designs and were the first to introduce outdoor and multi-Gigabit PoE midspans. As an innovator and thought leader in this market, we are the only supplier of PoE Powered Device (PD) ICs, PoE Power Sourcing Equipment (PSE) ICs, PoE systems (injectors/ midspans and switches) and test equipment.

Our comprehensive end-to-end product portfolio enables seamless deployment of PoE technology to Ethernet-based devices in indoor, outdoor and industrial environments. Our stand-alone, fully tested, qualified and certified PoE systems are available off the shelf and ready to install, speeding your time to market in the most demanding environments.

For a complete list of our products, please take a look at our [Microchip PoE Quick Reference Guide](#).

Pioneers of PoE Technology

We are innovators and thought leaders in PoE technology, as well as a major contributor to the IEEE® 802.3af, 802.3at and 802.3bt standards. We continue to innovate in PoE solutions with the aim of supporting newer applications that demand higher power, greater speed and challenging indoor and outdoor specifications, while reducing operating expenses and offering faster deployment.

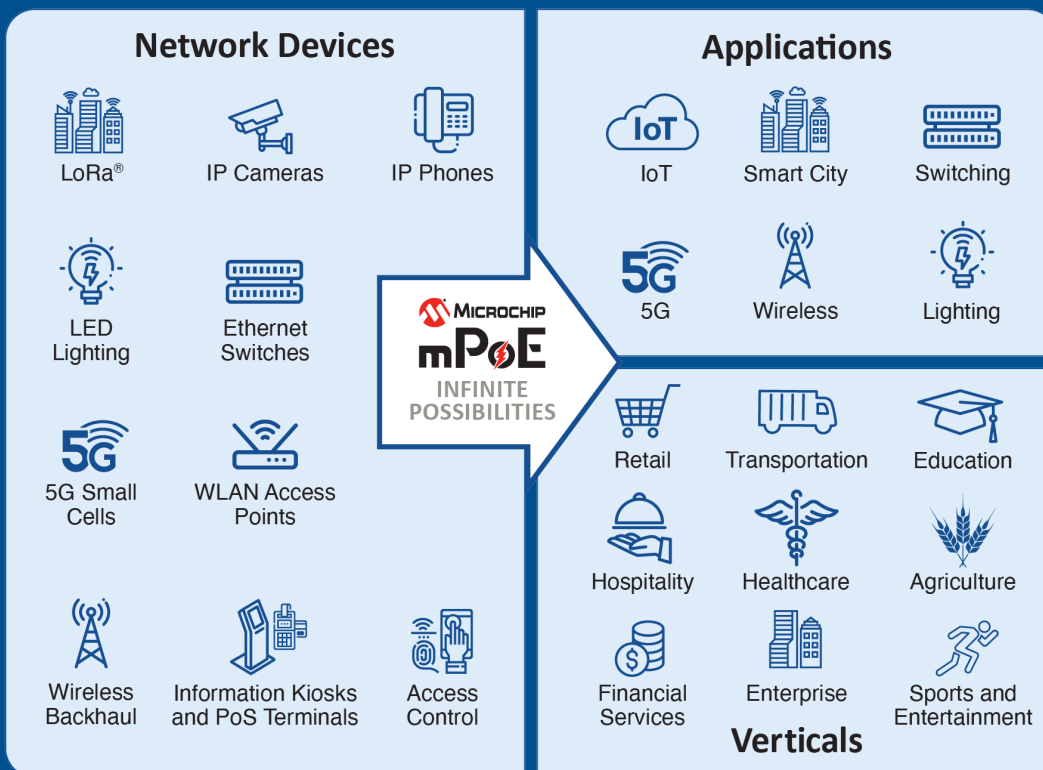




Microchip multi-Power over Ethernet (mPoE)

Microchip multi-Power over Ethernet (mPoE) technology allows you to power any wired network device seamlessly and efficiently, making it an excellent solution for Ethernet-based applications. This technology leverages an algorithm to enable backward compatibility

with pre-standard devices while supporting all IEEE PoE standards. Our PoE injectors/midspans and PoE switches implement this technology to allow quick and simple deployment of Microchip mPoE in any network without changing existing switches or cabling.

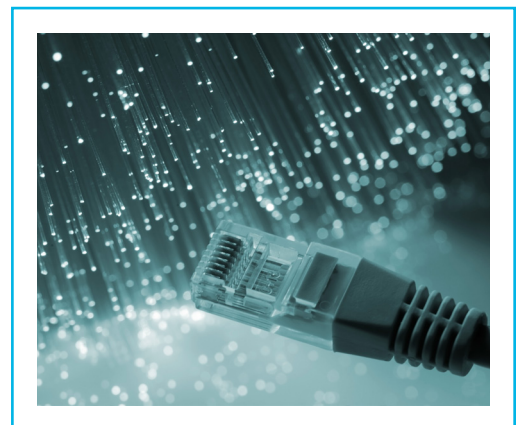


PoE Systems Product Portfolio

We offer a complete product portfolio, from single ports to 24 ports, 15.4W to 90W, 1 Gbps to 10 Gbps, indoor, outdoor and industrial-rated PoE systems. Microchip mPoE solutions have significant differentiators and features and are ideal to power traditional network devices such as IP phones, Wireless Access Points (WAPs), IP surveillance cameras, 5G small cells, LoRa® gateways, LED luminaires, access control terminals and other Internet of Things (IoT) devices.

Microchip PoE midspans/injectors and switches are:

- IEEE standard compliant and backward compatible
- Supporting 1G data rate, with multi-gigabit midspans supporting up to 10G
- Compliant with necessary regulatory and safety standards
- Available with power cord options for different geographies
- Built with compact design
- Plug and play





Single Port PoE Midspans/Injectors

Indoor



- 15.4W IEEE 802.3af
- 30W IEEE 802.3at with optional surge protection
- 60W IEEE 802.3bt Media Converter with optional SFP uplink
- 90W IEEE 802.3bt

Outdoor



- 30W/60W/90W IEEE 802.3at/bt
- IP66/67 outdoor rated
- Metal casing with integrated surge protection
- Extended temperature range
- Corrosion resistant

Industrial



- 30W/60W IEEE 802.3at/bt
- IP30 industrial rated
- Shock, freefall and vibration resistant
- Extended temperature range

Multi-gigabit



- Indoor and outdoor 30W/60W IEEE 802.3at/bt
- Data rates up to 10 Gbps



Multiport PoE Midspans/Injectors



- 15.4W/30W IEEE 802.3af/at 4 ports
- 30W/60W/90W at/bt 6/12/24 ports
- 6/12/24 ports multi-gigabit options
- PowerView Pro SNMPv3 and web-based management

Infrastructure Management at Your Fingertips

Our PoE systems offer PowerView Pro SNMP v3 cloud-based power management

Key Features

- Available on multi-port units (65XX, 90XX, 95XX)
- Supports SNMP v3 IPv4 and IPv6
- Supports security features: HTTPS, SSH, SNMP v3
- 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)

Key Benefits

- Delivers up to 68% savings per device through scheduled power shutdown
- Offers 24/7 business uptime
- Improves reliability by actively monitoring the UPS for centralized power back up
- Manages power flow to critical and non-critical devices
- Enables convenient remote management
- Accesses and manages network devices in real time



PoE Switches

4 Ports Outdoor PoE Switch



- 1 SFP uplink, 4 PoE outputs
- 60W per port, 150W total power budget
- Extended temperature range
- Integrated surge protection
- VLAN tagging: access/trunk
- Authentication, authorization, and accounting: RADIUS and TACACS
- PowerView Pro SNMPv3 and web-based management
- Perfect for security and smart city applications

8 Ports Digital Ceiling PoE Switch



- 8 PoE ports with 2 Copper and 1 SFP uplink
- 90W per port, 480W total power budget
- Fan-less design for enhanced reliability and silent operation
- High power efficiency with <10W power consumption in standby
- PowerView Pro SNMPv3 and web-based management
- Perfect for LED lighting and smart building applications



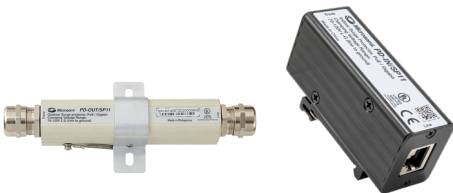
PoE Accessories

PoE to USB-C® Adapters



- PoE to USB-C Power and Data Adapter up to 30W/60W
- PoE to USB-C Power Adapter up to 30W
- Extends the USB-C range to 328 ft/100m
- Enables powering of small PCs/Next Unit of Computing (NUC), information kiosks, smart monitors, tablets, laptops, cameras, and other USB-C devices

PoE Surge Protectors



- Indoor surge protector supports up to 95W
- Outdoor surge protector protects up to 10 KV Surge, IP66 rated

PoE Extender



- Extend Ethernet network range up to 200m
- Can be cascaded to reach up to 500m
- 30W PoE output
- IEEE 802.3at compliant

PoE Splitters



- For contemporary devices unable to accept power via Ethernet 1 Port
- 54W/10W PoE output

PoE Tester



- Test RJ-45 outlet for PoE existence
- Indicates type of power source
- Detects IEEE 802.3af/at/bt and legacy PoE



When a PoE Switch is Not Enough

Switches that are available today offer both power and data. PoE switches have become more prevalent in the marketplace at price points that are very attractive. Many implementers believe they must choose between a PoE switch and a PoE midspan. However, the decision to use a PoE switch, a PoE midspan or a combination of both is based on the specific situation and its requirements.

If a switch that does not provide power is already installed, you do not need to replace the entire switch. Adding a midspan to the environment provides devices the power required at an incremental cost with minimal interruption. You can build on the existing infrastructure and add features, such as power management, with minimal investment in hardware.

Even if a PoE switch has already been installed or a new PoE switch is being installed, the switch may not be able to provide the power required on all ports. Every switch comes with a power budget. The power budget is the maximum amount of power the switch can provide. Few PoE switches can provide full power on all ports. If the connected devices require more

power than the switch can provide, the easiest and least expensive way of supplementing power is by adding a PoE midspan to inject power on the ports that do not have any.

There are also many benefits of isolating an Ethernet switch from the PoE midspan. If a switch does fail, PoE midspans will still provide power to the connected devices. Midspans originally supported data rates up to 1 Gbps but are now capable of supporting up to 10 Gbps. When one of these new midspans is installed to increase the network speed, you only need to replace the switch. This enables you to upgrade the network without replacing their entire infrastructure.

Midspans also offer extreme flexibility. Not every port on a switch may require power. Midspans can support multiple switches to provide power only to ports that require power.

With its ability to provide power at the proper voltage where and when it is needed, along with its support for increased speeds while reducing failure rates, the midspan is an effective solution even when PoE switches are deployed



PoE for System Integrators and Resellers

We enable System Integrators and Resellers deliver superior PoE experience with the most reliable and efficient solutions for installations that include WLAN access points, PTZ cameras, IP telephones, LED lights and other PoE powered devices. Our comprehensive portfolio of midspans, switches and PoE accessories facilitate quick and seamless installation while addressing the unique requirements of all indoor, outdoor, and industrial applications.

OEM and Private-Label PoE Systems

We offer leading manufacturers of PoE powered devices the option of creating private-label PoE midspans/injectors. These devices, which deliver an alternative to the traditional AC/DC adapter plus the many benefits of PoE, will allow you to provide your customers with a complete solution while increasing your revenue.





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