

# Power over Ethernet (PoE) Systems

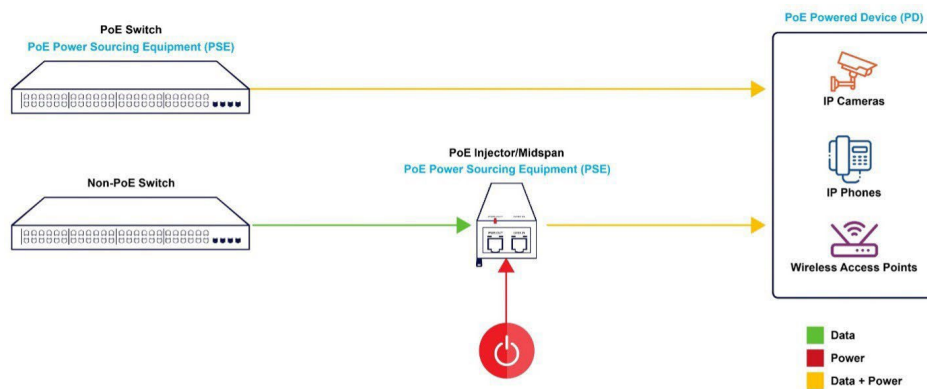
## Indoor PoE Solutions





## 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.



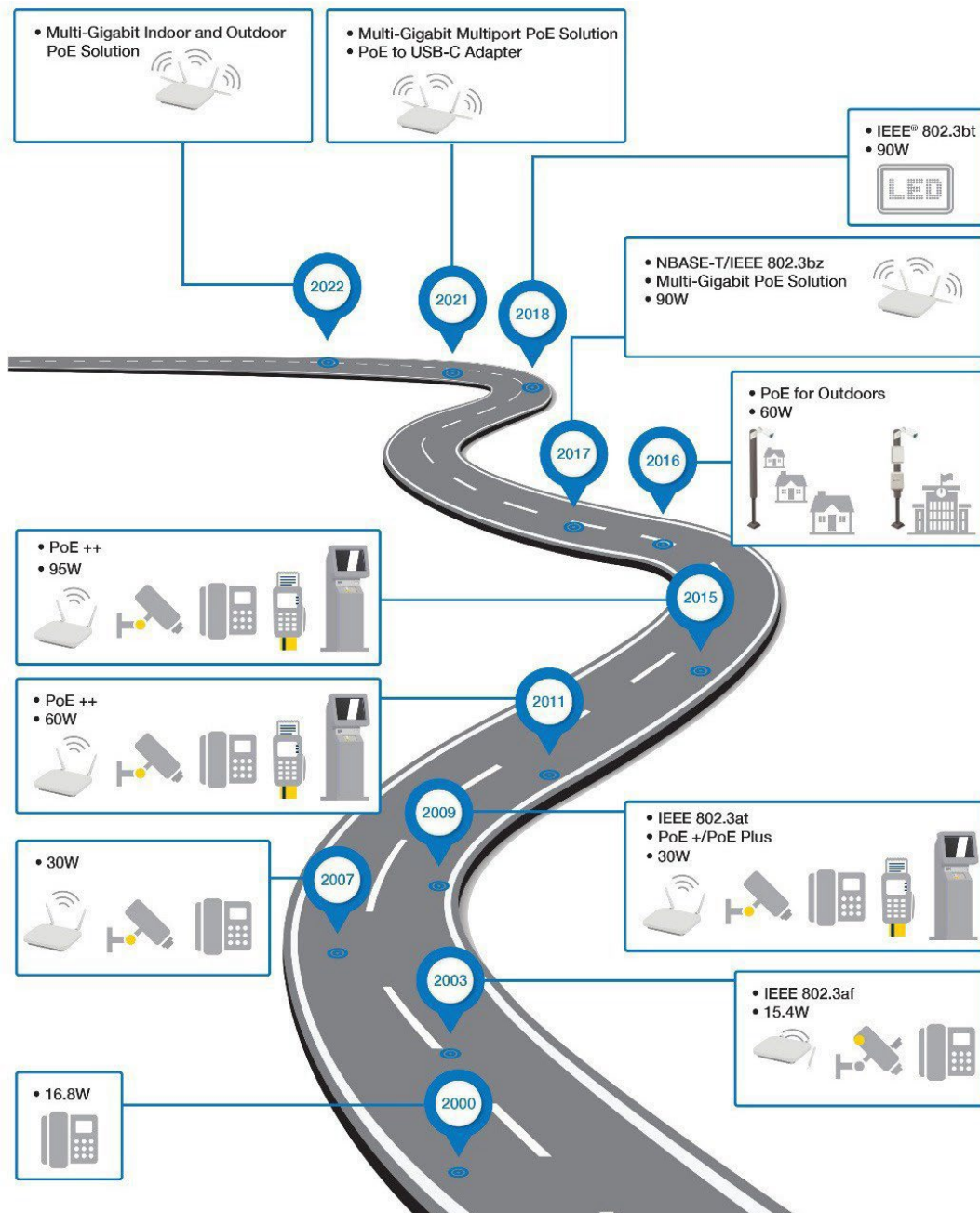
## Why Choose Microchip for Your PoE Requirements?

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.

## Pioneers of PoE Technology

We are innovators and thought leaders in PoE technology, as well as a major contributor to the IEEE<sup>®</sup> 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.

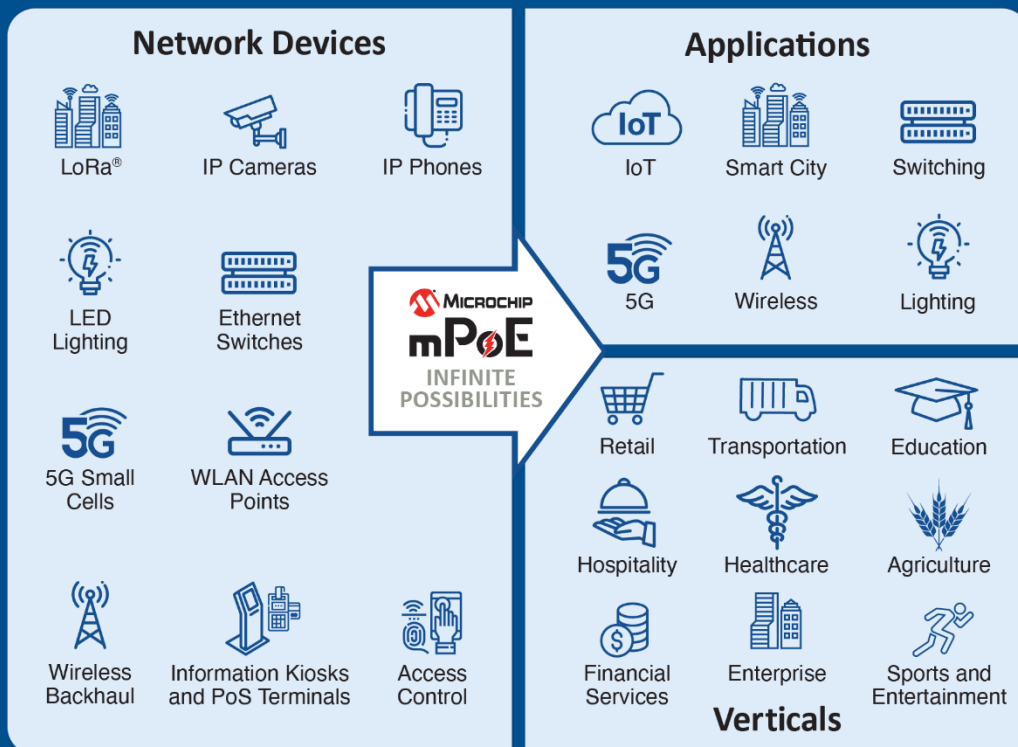




### Microchip multi-Power over Ethernet (mPoE)

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.








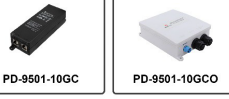








## PoE Systems Product Portfolio

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		Multigig			Multiports		Switches		PoE and USB Accessories	
<b>90W</b> IEEE 802.3bt	Indoor	Outdoor	Indoor			Indoor	Indoor			PD-USB-DP60	
	 PD-9601GC PD-9601GCO		 PD-9601-10GC			 PD-96XXGC		 PDS-408G			
			Indoor	Indoor		Indoor	Outdoor			 PD-OUT/SP11 PD-IN/SP11	
<b>60W</b> IEEE 802.3bt	Indoor	Outdoor	Industrial	Indoor	Indoor	Indoor	Outdoor			 PD-AFATBT-Tester	
	 PD-9501GC PD-9501GR/SP PD-9501GCS PD-9501GCO PD-9501GCI			 PD-9501-10GC PD-9501-10GCO		 PD-95XX-10GC PD-95XXGC		 PDS-104GO			
			Indoor	Indoor		Indoor				 PD-POE Extender	
<b>15.4/30W</b> IEEE 802.3af/at	Indoor	Outdoor	Industrial	Indoor		Indoor					
	 PD-3501GC PD-9001GR PD-9001GR/SP PD-9001GO-ET PD-9001GCI			 PD-9001-10GC		 PD-90XXG PD-65XXG					

## 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

## Indoor PoE

Adding PoE to data infrastructures is made easy with PoE midspans installed in communication rooms in conjunction with Ethernet switches. Microchip's PoE midspans offer full PoE of up to 90W per device to allow smooth powering of wireless LAN access points, small cells and other network devices.

### Indoor PoE Product Selection Guide

#### Injectors/Midspans

Power Per Port	Product	Number of Ports	Data Rate	Managed	Input Power	Warranty
15.4W	<a href="#">PD-3501G</a>	1	1G		AC	1 year
15.4W	<a href="#">PD-3504G</a>	4	1G		AC	1 year
15.4W	<a href="#">PD-65xxG</a>	12/24	1G	Yes	AC	3 years
30W	<a href="#">PD-9001-10GC</a>	1	10G		AC	1 year
30W	<a href="#">PD-9001GR/AT</a>	1	1G		AC	1 year
30W	<a href="#">PD-9001GR/SP*</a>	1	1G		AC	1 year
30W	<a href="#">PD-9004G</a>	4	1G		AC	1 year
30W	<a href="#">PD-90xxG</a>	6/12/24	1G	Yes	AC and DC	3 years
60W	<a href="#">PD-9501-10GC</a>	1	10G		AC	1 year
60W	<a href="#">PD-9501GC</a>	1	1G		AC	1 year
60W	<a href="#">PD-9501GCS**</a>	1	1G		AC	1 year
60W	<a href="#">PD-95xxGC</a>	6/12/24	1G	Yes	AC	3 years
60W	<a href="#">PD-95xx-10GC</a>	6/12/24	10G	Yes	AC	3 years
90W	<a href="#">PD-9601GC</a>	1	1G		AC	1 year
90W	<a href="#">PD-96xxGC</a>	6/12/24	1G	Yes	AC	3 years

\*Includes integrated surge protection.

\*\*Media converter to extend existing network distance with fiber cabling.

#### Fanless Switch

Power Per Port	Product	Number of Ports	Data Rate	Managed	Input Power	Warranty
90W	<a href="#">PDS-408G</a>	8+3	1G	Yes	AC	3 years

#### Industrial Injectors/Midspans

Power Per Port	Product	Number of Ports	Data Rate	Managed	Input Power	Warranty
30W	<a href="#">PD-9001GI</a>	1	1G		DC	1 year
60W	<a href="#">PD-9501GI</a>	1	1G		DC	1 year
60W	<a href="#">PD-9501GCI</a>	1	1G		DC	1 year

## Support

Microchip is committed to supporting its customers in developing products faster and more efficiently. We maintain a worldwide network of field applications engineers and technical support ready to provide product and system assistance. For more information, please visit [www.microchip.com](http://www.microchip.com):

- Technical Support: [www.microchip.com/support](http://www.microchip.com/support)
- Evaluation samples of any Microchip device: [www.microchip.com/sample](http://www.microchip.com/sample)
- Knowledge base and peer help: [www.microchip.com/forums](http://www.microchip.com/forums)
- Sales and Global Distribution: [www.microchip.com/sales](http://www.microchip.com/sales)

## Training

If additional training interests you, Microchip offers several resources including in-depth technical training and reference material, self-paced tutorials and significant online resources.

- Overview of Technical Training Resources: [www.microchip.com/training](http://www.microchip.com/training)
- MASTERS Conferences: [www.microchip.com/masters](http://www.microchip.com/masters)
- Developer Help Website: [www.microchip.com/developerhelp](http://www.microchip.com/developerhelp)
- Technical Training Centers: [www.microchip.com/seminars](http://www.microchip.com/seminars)

## Sales Office Listing

### AMERICAS

**Atlanta, GA**  
Tel: 678-957-9614

**Austin, TX**  
Tel: 512-257-3370

**Boston, MA**  
Tel: 774-760-0087

**Chandler, AZ (HQ)**  
Tel: 480-792-7200

**Chicago, IL**  
Tel: 630-285-0071

**Dallas, TX**  
Tel: 972-818-7423

**Detroit, MI**  
Tel: 248-848-4000

**Houston, TX**  
Tel: 281-894-5983

**Indianapolis, IN**  
Tel: 317-773-8323  
Tel: 317-536-2380

**Los Angeles, CA**  
Tel: 949-462-9523  
Tel: 951-273-7800

**Raleigh, NC**  
Tel: 919-844-7510

**New York, NY**  
Tel: 631-435-6000

**San Jose, CA**  
Tel: 408-735-9110  
Tel: 408-436-4270

**Canada – Toronto**  
Tel: 905-695-1980

### EUROPE

**Austria - Wels**  
Tel: 43-7242-2244-39

**Denmark - Copenhagen**  
Tel: 45-4450-2828

**Finland - Espoo**  
Tel: 358-9-4520-820

**France - Paris**  
Tel: 33-1-69-53-63-20

**Germany - Garching**  
Tel: 49-8931-9700

**Germany - Haan**  
Tel: 49-2129-3766-400

**Germany - Heilbronn**  
Tel: 49-7131-67-3636

**Germany - Karlsruhe**  
Tel: 49-721-62537-0

**Germany - Munich**  
Tel: 49-89-627-144-0

**Germany - Rosenheim**  
Tel: 49-8031-354-560

### EUROPE

**Israel - Ra'anana**  
Tel: 972-9-744-7705

**Italy - Milan**  
Tel: 39-0331-742611

**Italy - Padova**  
Tel: 39-049-7625286

**Netherlands - Drunen**  
Tel: 31-416-690399

**Norway - Trondheim**  
Tel: 47-7289-7561

**Poland - Warsaw**  
Tel: 48-22-3325737

**Romania - Bucharest**  
Tel: 40-21-407-87-50

**Spain - Madrid**  
Tel: 34-91-708-08-90

**Sweden - Gothenberg**  
Tel: 46-31-704-60-40

**Sweden - Stockholm**  
Tel: 46-8-5090-4654

**UK – Wokingham**  
Tel: 44-118-921-5800

### ASIA/PACIFIC

**Australia - Sydney**  
Tel: 61-2-9868-6733

**China - Beijing**  
Tel: 86-10-8569-7000

**China - Chengdu**  
Tel: 86-28-8665-5511

**China - Chongqing**  
Tel: 86-23-8980-9588

**China - Dongguan**  
Tel: 86-769-8702-9880

**China - Guangzhou**  
Tel: 86-20-8755-8029

**China - Hangzhou**  
Tel: 86-571-8792-8115

**China - Hong Kong SAR**  
Tel: 852-2943-5100

**China - Nanjing**  
Tel: 86-25-8473-2460

**China - Qingdao**  
Tel: 86-532-8502-7355

**China - Shanghai**  
Tel: 86-21-3326-8000

**China - Shenyang**  
Tel: 86-24-2334-2829

**China - Shenzhen**  
Tel: 86-755-8864-2200

**China - Suzhou**  
Tel: 86-186-6233-1526

**China - Wuhan**  
Tel: 86-27-5980-5300

**China - Xiamen**  
Tel: 86-592-2388138

**China - Xian**  
Tel: 86-29-8833-7252

### ASIA/PACIFIC

**China - Zhuhai**  
Tel: 86-756-321-0040

**India - Bangalore**  
Tel: 91-80-3090-4444

**India - New Delhi**  
Tel: 91-11-4160-8631

**India - Pune**  
Tel: 91-20-4121-0141

**Japan - Osaka**  
Tel: 81-6-6152-7160

**Japan - Tokyo**  
Tel: 81-3-6880-3770

**Korea - Daegu**  
Tel: 82-53-744-4301

**Korea - Seoul**  
Tel: 82-2-554-7200

**Malaysia - Kuala Lumpur**  
Tel: 60-3-7651-7906

**Malaysia - Penang**  
Tel: 60-4-227-8870

**Philippines - Manila**  
Tel: 63-2-634-9065

**Singapore**  
Tel: 65-6334-8870

**Taiwan - Hsin Chu**  
Tel: 886-3-577-8366

**Taiwan - Kaohsiung**  
Tel: 886-7-213-7830

**Taiwan - Taipei**  
Tel: 886-2-2508-8600

**Thailand - Bangkok**  
Tel: 66-2-694-1351

**Vietnam - Ho Chi Minh**  
Tel: 84-28-5448-2100