Microsemi PoE Solutions for Physical Security

Microsemi
Power Matters.™

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Physical Security Networks

Microsemi's physical security solutions serve multiple industries globally, addressing applications such as access control and IP surveillance, including IP security cameras, DVRs/NVRs and Ethernet networking. In an increasingly connected world, physical threats continue to be a major concern for governments, industry, and consumers alike.

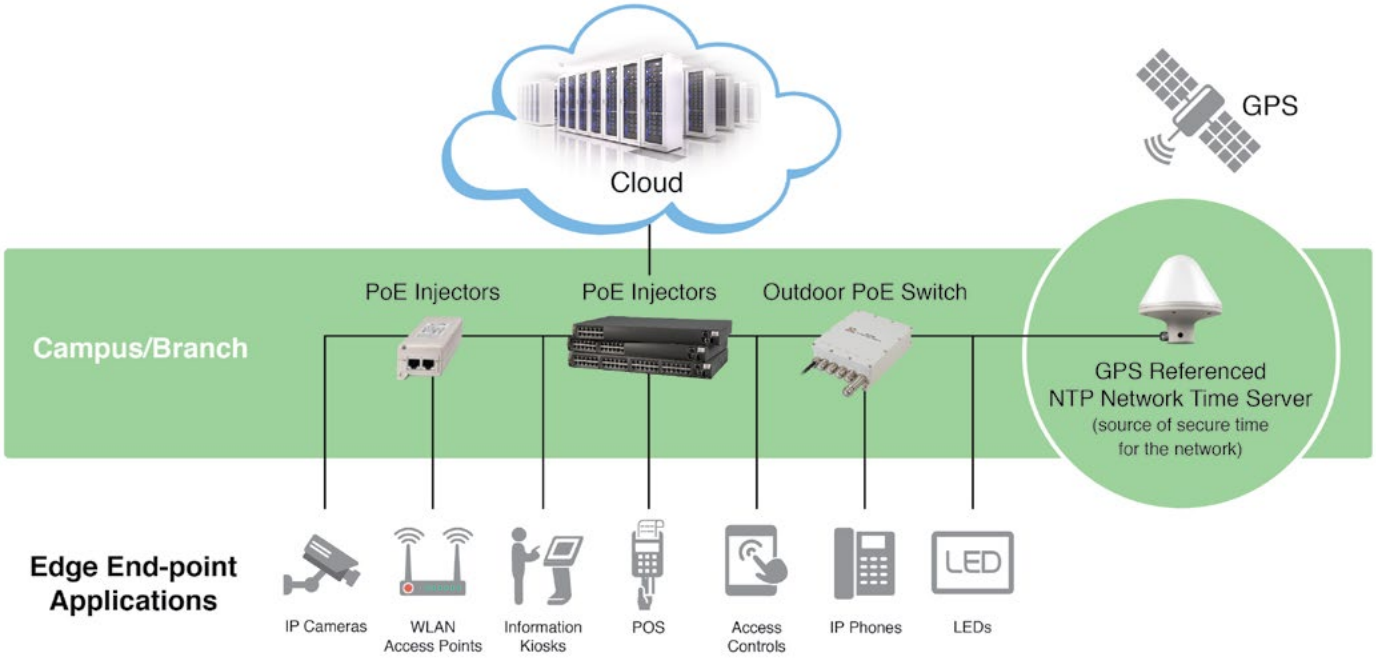
Modern access control systems must process large amounts of data and transform it into information that can help us identify and prevent threats from becoming reality. IP connectivity, either through wired Ethernet, IEEE 802.11 WiFi, or HDBaseT, is increasingly common. Energy efficiency is another critical consideration, especially as security systems cover both indoor and outdoor venues.

IP security networks depend on accurate and precise network timing synchronization. Microsemi leads the industry in NTP servers, which can connect to multiple synchronization sources,

including GPS/GNSS inputs, to accurately distribute timing through the NTP protocol. Particularly in physical security networks, accurate time stamps on video surveillance footage are essential to its admissibility as evidence in a court of law.

Microsemi provides both PoE infrastructure and point timing solutions for physical security networks:

- **Infrastructure:** PoE Midspan Injectors and Switches provide a simple and easy way to reliably add power and data to PoE-enabled access control points in both indoor and outdoor situations.
- **Point Solutions:** Indoor and outdoor NTP network time servers and management software for accurate time-stamped video capture in physical security networks.



Point Solution: SyncServer 80

Ruggedized Stratum 1 Network Time Server

The Microsemi SyncServer S80 is a fully integrated GPS/GLONASS antenna, receiver, NTP server, and PoE interface that easily integrates into existing PoE infrastructure to immediately be the source of accurate, secure, and reliable time stamps for all network-connected devices. Network-isolated physical security systems benefit from this, as the ruggedized Stratum 1 network time server is ideal for time-synchronizing IP security cameras, access control devices, and digital/network video recorders. SyncServer S80 is also suitable for synchronizing the time on small enterprise networks.

Physical Security Network-Ready

Whether the physical security network is stationary or moving, SyncServer S80 is ready for plug-and-play delivery of accurate and secure NTP time stamps. Both static and dynamic modes are available to accommodate fixed land-based installations or mobile applications such as seaborne or land mobile. The PoE interface makes SyncServer S80 ready to plug into the nearest PoE switch or midspan. A few simple commands are all that are needed to configure SyncServer S80 for set-and-forget NTP network timing services.

Security Hardened

For robust and secure NTP operations, SyncServer S80 is equipped with the Microsemi security-hardened NTP Reflector™ technology with 100% hardware-based NTP packet processing. The NTP Reflector works as a CPU-protecting firewall, with bandwidth filtering and limiting of all non-NTP traffic.

Modern Reliability

SyncServer S80 represents the latest in NTP Stratum 1 time server technology. By fully integrating the GPS/GLONASS receiver, antenna, and time server in a single unit, the mean time between failure is more than 40 years. Coupled with the GbE network interface, SNMP notifications, DHCP, and IPv4/IPv6 support, a user can expect a long and useful life from SyncServer S80 as the surrounding network environment changes over time.

Product	SyncServer S80
Port	1x RJ-45 1000BASE-T only
Input Power	Power PoE Class 3 input, <12.5 W
Protocals	NTP, SSHv2, SNMP, DHCP, IPv4/IPv6

Microsemi PoE Systems Portfolio

Microsemi's PoE Switches and Midspans eliminate the need for local AC power sources, enabling fast and simple installation of IP surveillance cameras and WLAN Access Points. Leverage our wide portfolio of PoE solutions, from 15 W to 95 W of full power, single and multi-port Midspan Injectors, and Switches addressing the unique requirements of both indoor and outdoor security applications.

PoE Infrastructure Solutions: Outdoor

The award-winning PoE switch Microsemi PDS-104GO allows you to leverage the well-known advantages of PoE in extreme weather conditions, typically associated with surveillance camera installations in outdoor environments. The outdoor PoE switch delivers significant benefits:

- Powers up to four devices with power consumption of up to 60 W
- Extends network reach by additional 100 meters for long distance installations
- Improves reliability through extended temperature range and in-built surge protection
- Simplifies installation
- Enables remote management through SNMP and web

PoE Infrastructure Solutions: Indoor

Microsemi offers full power 1 to 24 Port Midspan Injectors that are ideal for indoor installation of IP connected to IP based devices such as WLAN Access Points and PTZ cameras with power consumption up to 95 W.

Microsemi also offers indoor for outdoor 30 W/60 W PoE Midspan Injectors that are single port with inbuilt surge protection.

Microsemi: The Market Leader in PoE

As pioneers of PoE technology, 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.

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.

PoE Selection Guide

Microsemi has been a leading provider of PoE midspans/injectors since 1999, offering the broadest range of PoE solutions delivering up to 95 W over a single Category 5/5E/6/6A/7 cable in both indoor and outdoor environments.

Indoor PoE Solutions

Power per Port	Product	Number of Ports	Data Rate	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	•	AC	Limited lifetime[3]
30 W	PDS-EM-8100-25/AC	1	2.5G		AC	1 year
30 W	PD-9001-25GR/AC	1	2.5G		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	•	AC and DC	Limited lifetime[3]
30 W	PD-5501G/12-24VDC	1	1G		DC	1 year
30 W	PD-5524G/ACDC/M	24	1G	•	AC and DC	Limited lifetime[3]
30 W	PD-9001GR/SP/AC[1]	1	1G		AC	1 year
30 W	PDS-208G/AC[2]	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/24VDC	1	1G		DC	1 year
60 W	PD-9501G/48VDC	1	1G		DC	1 year
60 W	PD-9506G/ACDC/M, PD-9512G/ACDC/M, PD-9524G/ACDC/M	6/12/24	1G	•	AC and DC	Limited lifetime[3]
60 W	PD-9501G/SFP/AC	1	1G		AC	1 year
60 W	PD-9501GR/SP/AC[1]	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	•	AC and DC	Limited lifetime[3]

[1]Includes integrated surge protection. [2]Any individual port can operate at up to 72 W. [3]Limited lifetime includes a limitation of 16 years warranty on the power supply and ventilator.

Outdoor PoE Solutions

Watts per Port	Product	Number of Ports	Data Rate	Managed	Input Power	Warranty
30 W/60 W	PDS-104GO/AC/M	5 (1 SFP data input, 4 PoE outputs)	1G	•	AC	3 years
30 W	PD-9001GO-ET/AC	1	1G		AC	5 years
60 W	PD-9501GO-ET/AC	1	1G		AC	5 years
30 W/60 W	PD-9501GO/12 V DC to 24 V DC	1	1G		DC	5 years
30 W/60 W	PD-9501GO/48 V DC	1	1G		DC	5 years
90 W	PD-9601GO/AC	1	1G		AC	5 years
95 W	PD-OUT/SP11	1-port outdoor surge protector	1G			5 years

Ruggedized/Industrial PoE Solutions

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

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Microsemi Corporation (Nasdaq: MSCC) offers a comprehensive portfolio of semiconductor and system solutions 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.