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Brochure

TRANSITION NETWORKS®

Power-over-Ethernet

Remote Powered Solutions for Network Infrastructures

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Connect and Power Network Devices on One Cable Eliminating Conventional Power Wiring

Networks today evolve quickly and must be both flexible and scalable. Getting power where it is needed within those networks – such as to security cameras, wireless access points, or IP phones – is yet another challenge. Power is often not available precisely where it is needed and adding conventional power wiring can be inconvenient and costly. Combining power and data on one cable with Transition Networks' full line of feature rich Power-over-Ethernet (PoE) products eliminates the need for conventional power wiring, eases your installation and power location concerns, and provides your network with the flexibility and scalability necessary to expand and grow.

Not only are networks evolving but now PoE is evolving as well. The Institute of Electrical and Electronic Engineers (IEEE) ratified the first standards for transmitting power over Ethernet cable in 2003 with the 802.3af standard, which allows power sourcing equipment (PSEs) to send 15 Watts of power and powered devices (PDs) to receive up to 12.95 Watts (assumes some loss of power in the cable). In 2009 the 802.3at standard was ratified, requiring PSEs to send 30 Watts and PDs to receive up to 25.5 Watts. The 802.3at standard also allows power to be fed over 4-pairs of wire within the cable, with the PSE output doubled to 60 Watts and the PD input 51 Watts. However, there has been a demonstrated need for even higher power levels to support items such as pan/tilt/zoom security and surveillance cameras, IP videophones, kiosks, point-of-sale terminals, thin clients, multi-band wireless access points, RFID readers and smart building management systems. Thus, a new 802.3bt standard was ratified in 2018, allowing the PSE to send 90 Watts and the PD to receive 71 Watts (or up to 90 Watts if channel length is known).

Entrust Your PoE Needs to a Network Evolution Expert for Maximum Benefits

Transition Networks has long been a leader in providing solutions to ensure your network is equipped to meet the demands of today and tomorrow. Available to meet PoE, PoE+ and PoE++ standards, our solutions make it simple to install, deploy, and manage power within your network. Transition Networks' PoE injectors, media converters and Ethernet switches, with options to operate in commercial or extended temperature ranges, comply with industry-required certifications and many incorporate remote management. Our PoE solutions result in lower cost, less downtime, easier maintenance and greater installation flexibility.

Transition Networks has a complete offering to service edge networks

- Transparent device switching
- Economical media conversion
- Solutions combining power and data for fewer and more efficient cable runs
- Hardened and commercial product offering

Innovative features allow simple installation and maintenance

- Auto Power Reset (APR) monitors and automatically restarts edge devices
- DHCP on each switch port reduces the need for manual configuration when devices are replaced
- Device Management System (DMS) software lowers cost, lowers downtime, and provides easier management and maintenance of the entire PoE network

Experienced industry leader for design, consultation and implementation

- Solutions that comply with industry specifications
- Products that meet or exceed quality standards
- Unmatched customer service delivering comprehensive and friendly 24/7 customer support

PoE Hardened & Commercial Switches

PoE, PoE+ and PoE++ Switches

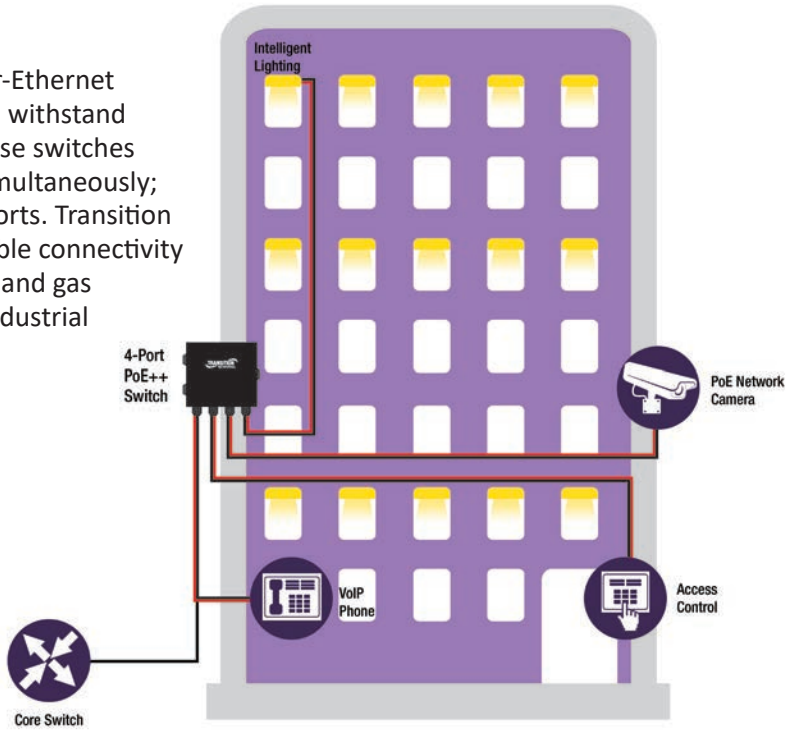
PoE switches are useful for integrating campus security into corporate networks in both enterprise and industrial environments. By deploying a PoE switch, power can be provided to IP cameras monitoring the parking lot of a building, as well as to the access control system at the entrance of the building, to intelligent lighting guiding employees and guests to specific areas of the building, and to VoIP phones at the desktops.

With PoE technology, the remote IP products are powered through the copper cable (typically Cat5 or better) that also transmits data. At the network core, a PoE, PoE+ or PoE++ switch can be installed to provide power and data to the IP devices on each port. Transition Networks offers a full range of network switches from 4 to 48 ports with Power-over-Ethernet (PoE/PoE+/PoE++) and also hardened temperature grade options.

Transition Networks offers Smart Managed PoE+ and PoE++ Switches that allow installers and network administrators to gain significant cost reduction, added capability, tools and benefits for their network. These Smart Managed PoE+/PoE++ Switches feature Device Management System (DMS) software, which provides the advanced tools necessary for advanced management of IP based network elements. Transition Networks' unique set of value-added features and capabilities lower overall cost, reduce downtime, and provide easier management and maintenance of the entire PoE network.

The Managed PoE Switches also support PoE scheduling - an option that allows administrators to set timeframes for powering cameras or other equipment off and on as desired. This is useful for networks that can be shut down during certain times of the day, or for automatically scheduling IP camera or access point reboots on a periodic basis without requiring manual intervention.

Transition Networks has also expanded this Power-over-Ethernet capability to our hardened switches, which are rated to withstand temperatures ranging from -40°C to +75°C. Most of these switches can supply up to 30 Watts per port on all PoE+ ports simultaneously; some can supply up to 90 Watts per port on multiple ports. Transition Networks' hardened PoE+/PoE++ switches ensure reliable connectivity in hazardous locations serving Ethernet networks in oil and gas manufacturing, chemical factories, and other rugged industrial environments.



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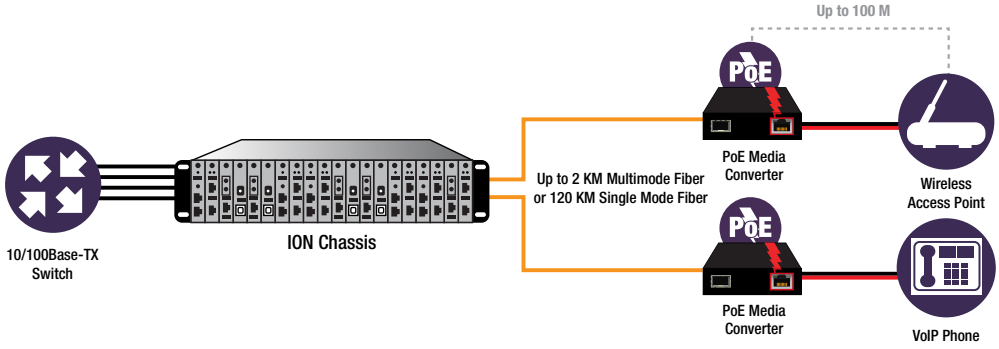
PoE Hardened & Commercial Media Converters

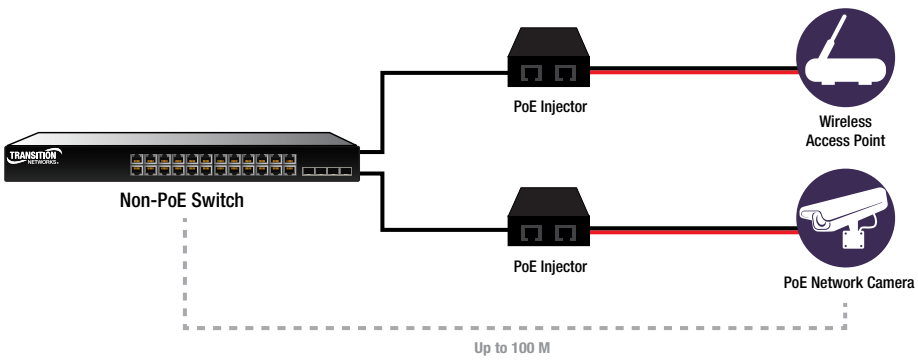
PoE Media Converters

PoE media converters offer the benefits of PoE while also capitalizing on the benefits of fiber optic cabling to the network edge. PoE media converters are useful in the deployment of fiber-to-the-desk applications for secure connections to VoIP phones. The PoE media converter interfaces between the fiber infrastructure and copper ports on VoIP phones and also provides power to the IP phone. This enables users to experience the benefits of VoIP while maintaining the high level of data security that fiber networks provide. As an end-span device, a PoE media converter fully generates the Ethernet signal and can support transmission distances of up to 100M on copper cable.



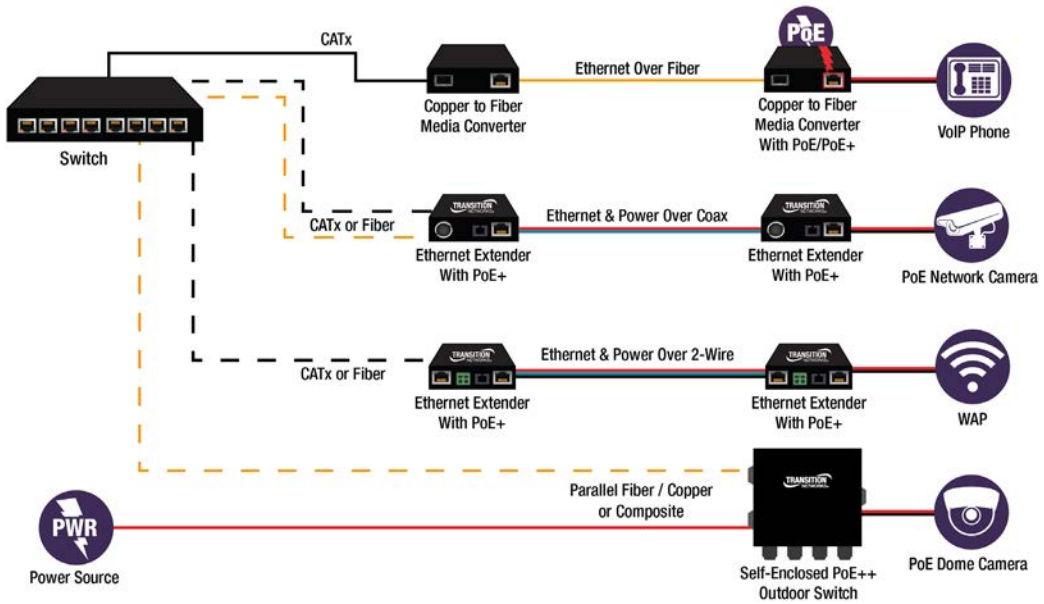
PoE Mid-Span Injectors

Transition Networks' PoE mid-span injectors are ideal for adding PoE to an existing network. PoE mid-span injectors are deployed between a regular Ethernet switch and a powered device, injecting power without affecting the data. Mid-span injectors can also be used in IP video security systems. By deploying the PoE injectors between the IP network cameras and the network switch, the IP cameras are powered over the same cable transmitting the data feed, eliminating the need for a separate external power supply. Transition Networks' hardened PoE mid-span injectors can be used for the same purposes in an outdoor non-temperature controlled cabinet.



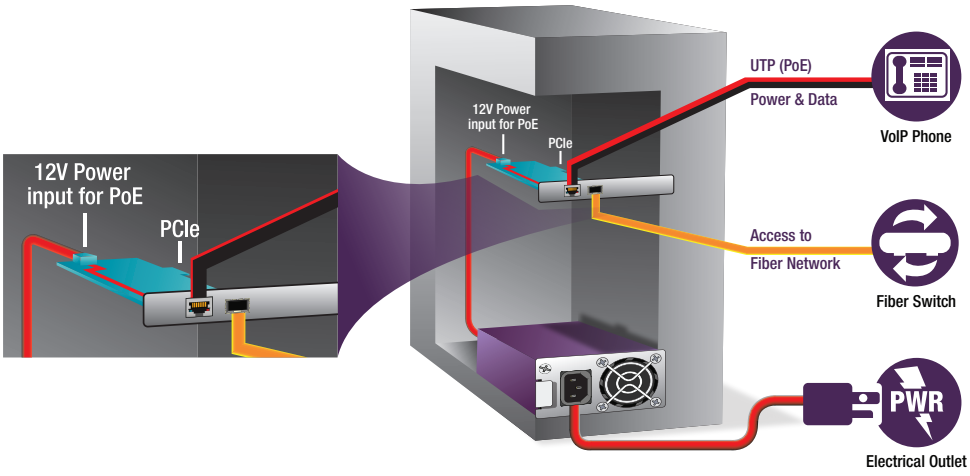
PoE Ethernet Extenders

PoE Ethernet extenders offer the benefits of PoE over alternate types of existing cabling (such as coax or twisted pair phone line) to upgrade networks without having to replace the cable infrastructure and to provide power to devices at the network edge. PoE Ethernet Extenders are useful in the deployment of new IP network devices, such as upgrading older analog surveillance cameras to modern PoE-powered cameras or wireless access points, and are ideal for use in locations where power cabling is not readily available, not cost-effective to add or not easily accessed. The distance that can be achieved with PoE Ethernet Extenders varies depending on type of cable, operating environment and power requirements for the end device.



PoE NIC

PoE Network Interface Cards (NICs) provide connectivity to a secure fiber network while also delivering power to a PoE powered device (PD), such as a VoIP phone. Developed to support fiber-to-the-desk applications, where fiber is the preferred cabling infrastructure due to its ability to provide secure network connections, PoE NICs can replace two copper-to-fiber media converters at the desktop.



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PoE Product Matrix

PoE Switches	Description	Port Count	Managed	DHCP Per Port	PoE Level	PoE Mode	Auto Power Reset	PoE Power Budget
Enterprise Switches								
SM8TAT2SA	(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots	10	X		PoE+[2]	A	X	130W
SM8TAT2SA-DC	(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots, DC- Powered	10	X		PoE+[2]	A	X	130W
SM16TAT2SA	(16) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots	18	X		PoE+[2]	A	X	250W
SM24TBT2DPA	(24) 10/100/1000Base-T PoE++ ports and (2) 100/1000Base-X SFP/ RJ-45 combo ports	26	X	X	PoE++	A+B	X	820W/ 1640W
SM24TAT2SA	(24) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots	26	X		PoE+[2]	A	X	370W
SM24TAT4XB	(24) 10/100/1000Base-T PoE+ Ports and (4) 1G/10G SFP+ Slots	28	X		PoE+[2]	A	X	370W
SM48TAT4XA-RP	(48) 10/100/1000Base-T Ports + (4) 1G/10GBase SFP+ Slots	52	X	X	PoE+[2]	A	X	820W/ 1640W
Hardened Switches								
SESPM1040-541-LT-xx Series	(4) 10/100/1000Base-T PoE++ ports and (1) 10/100/1000Base-T or 100/1000Base-X SFP combo port + optional ports	4-6	X		PoE++	A+B	X	≤240W
SISTP1040-342-LRT	(4) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP ports	4			PoE+	A		120W
SISPM1040-362-LRT	(4) 10/100/1000Base-T PoE+ ports + (2) 10/100/1000Base-T RJ-45 and (2) 100/1000Base-X SFP slots	8	X	X	PoE+	A	X	120W
SISTP1040-382-LRT	(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP ports	8			PoE+	A		240W
SISTP1040-382B-LRT	(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP ports, Low Voltage Input	8			PoE+	A		240W
SISPM1040-582-LRT	(8) 10/100/1000Base-T PoE++ ports and (2) 100/1000Base-T or 100/1000Base-X SFP/RJ-45 combo ports	8	X	X	PoE++	A	X	480W
SISPM1040-384-LRT-C	(8) 10/100/1000Base-T PoE+ ports and (4) 100/1000Base-X SFP slots	12	X	X	PoE+	A	X	240W
SISPM1040-3166-L	(16) 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP Slots + (2) 1G/10GBase-X SFP+ Slots	22	X	X	PoE+	A	X	250W
SISPM1040-3248-L	(24) 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP Slots + (4) 1G/10GBase-X SFP+ Slots	32	X	X	PoE+	A	X	370W

[2]PoE+ not available on all ports simultaneously

SM24TBT2DPA

SISPM1040-362-LRT & SISPM1040-384-LRT-C

SISPM1040-3248-L

PoE Media Converters	Description	Port Count	Managed	Hardened	PoE Level	PoE Mode	Auto Power Reset	PoE Power Budget
SPOEB Series	10/100Base-TX PoE PSE to 100Base-FX	2			PoE	A/B[1]	X	15W
M/GE-PSW-PSE-01	10/100/1000Base-T PoE+ PSE to 100/1000Base-X	2			PoE+	A	X	30W
SGPAT Series	10/100/1000Base-T PoE+ PSE to 1000Base-X	2-4			PoE+	A	X	30W
SI-IES-111D-LRT	(1) 100/1000Base-X SFP Port + (1) 10/100/1000Base-T PoE+ Port	2		X	PoE+	A		30W
SI-IES-121D-LRT	(1) 100/1000Base-X SFP Port + (2) 10/100/1000Base-T PoE+ Ports	3		X	PoE+	A		60W
M/GE-ISW-SFP-01-PD	10/100/1000Base-T (RJ-45) to 100/1000Base-X Open SFP Slot PoE Powered Device (PD)	2		X	PoE PD	A/B[3]		NA
PoE Mid-Span Injectors								
SI-IES-1200-LRT	(1) 10/100/1000Base-T Port + (1) 10/100/1000Base-T PoE+ Port	2		X	PoE+	A		30W
PoE Ethernet Extenders								
EO2PSE4052-111 & EO2PD4052-111	(1) 10/100/1000Base RJ-45/SFP Combo Port + (1) 1000Base-T RJ-45 Port or 2-Wire Terminal Block	2	X		PoE+	A/B[3]	X	30W
EOCPSE4020-110 & EOCPD4020-110	(1) 100/1000Base RJ-45/SFP Port + (1) 1000Base Coax BNC Port	2	X		PoE+	A/B[3]	X	30W
PoE NICs								
N-GXE-POE-xx-01	1000Base-X and 10/100/1000Base-T PoE+	2			PoE+	A		30W

[1]User selectable
[3]PoE Mode determined by power sourcing equipment

SPOEB Series

SGPAT Series

N-GXE-POE-xx-01 Series

EOCPSE4020-110 & EOCPD4020-110

SI-IES-111D-LRT

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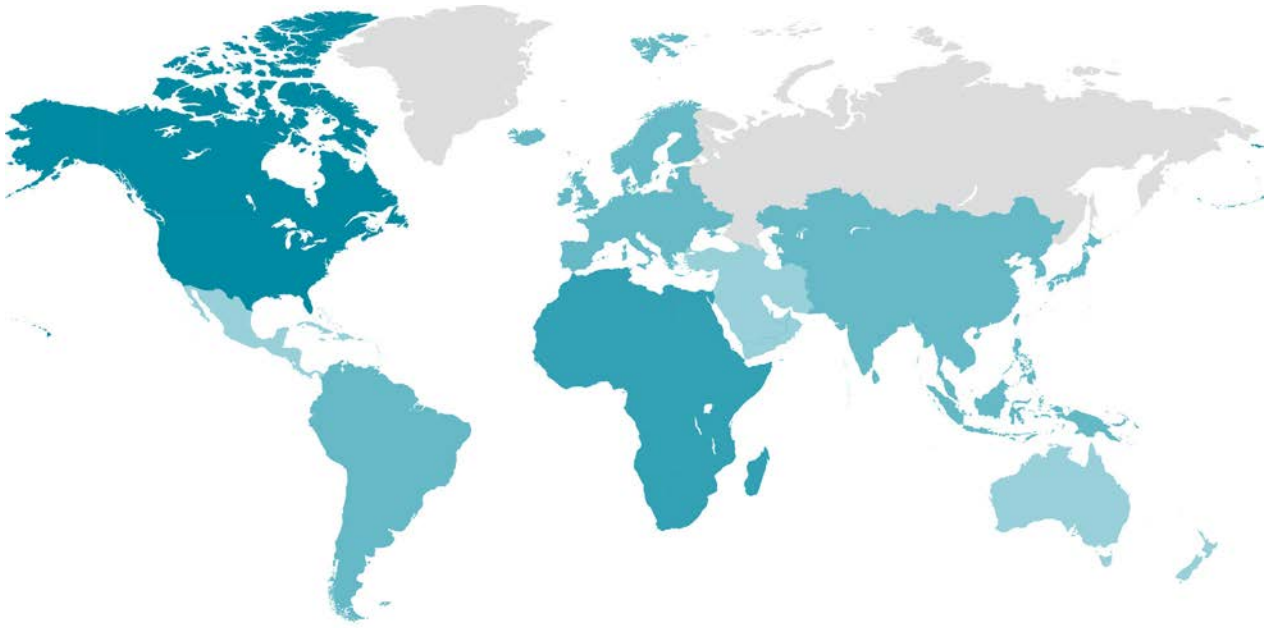

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