Power-over-Ethernet

Combined Power and Data Technology for Network Flexibility
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 Smart Managed PoE+/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 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.
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 Hardened & Commercial Media Converters**

**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.

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**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.
## PoE Product Matrix

<table>
<thead>
<tr>
<th>PoE Switches</th>
<th>Description</th>
<th>Port Count</th>
<th>Managed</th>
<th>DHCP Per Port</th>
<th>PoE Level</th>
<th>PoE Mode</th>
<th>Auto Power Reset</th>
<th>PoE Power Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enterprise Switches</strong></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>SM8TAT2SA</td>
<td>(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots</td>
<td>10</td>
<td>X</td>
<td></td>
<td>PoE⁵</td>
<td>A</td>
<td>X</td>
<td>130W</td>
</tr>
<tr>
<td>SM16TAT2SA</td>
<td>(16) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots</td>
<td>18</td>
<td>X</td>
<td></td>
<td>PoE⁵</td>
<td>A</td>
<td>X</td>
<td>250W</td>
</tr>
<tr>
<td>SM24TBT2DPA</td>
<td>(24) 10/100/1000Base-T PoE++ ports and (2) 100/1000Base-X SFP/ RJ-45 combo ports</td>
<td>26</td>
<td>X</td>
<td>X</td>
<td>PoE++</td>
<td>A+B</td>
<td>X</td>
<td>820W/1640W</td>
</tr>
<tr>
<td>SM24TAT2SA</td>
<td>(24) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP slots</td>
<td>26</td>
<td>X</td>
<td></td>
<td>PoE⁵</td>
<td>A</td>
<td>X</td>
<td>370W</td>
</tr>
<tr>
<td>SM24TAT4XB</td>
<td>(24) 10/100/1000Base-T PoE+ Ports and (4) 1G/10G SFP+ Slots</td>
<td>28</td>
<td>X</td>
<td></td>
<td>PoE⁵</td>
<td>A</td>
<td>X</td>
<td>370W</td>
</tr>
<tr>
<td>SM48TAT4XA-RP</td>
<td>(48) 10/100/1000Base-T Ports + (4) 1G/10GBase SFP+ Slots</td>
<td>52</td>
<td>X</td>
<td>X</td>
<td>PoE⁵</td>
<td>A</td>
<td>X</td>
<td>820W/1640W</td>
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<tr>
<td><strong>Hardened Switches</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SESPM1040-541-LT-xx Series</td>
<td>(4) 10/100/1000Base-T PoE++ ports and (1) 10/100/1000Base-T or 100/1000Base-X SFP combo port + optional ports</td>
<td>4-6</td>
<td>X</td>
<td>X</td>
<td>PoE++</td>
<td>A+B</td>
<td>X</td>
<td>240W</td>
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<tr>
<td>SISTP1040-342-LRT</td>
<td>(4) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP ports</td>
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<td></td>
<td></td>
<td>PoE+</td>
<td>A</td>
<td></td>
<td>120W</td>
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<tr>
<td>SISPM1040-362-LRT</td>
<td>(4) 10/100/1000Base-T PoE+ ports + (2) 100/1000Base-T RJ-45 and (2) 100/1000Base-X SFP slots</td>
<td>8</td>
<td>X</td>
<td>X</td>
<td>PoE+</td>
<td>A</td>
<td>X</td>
<td>120W</td>
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<tr>
<td>SISTP1040-382-LRT</td>
<td>(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP ports</td>
<td>8</td>
<td></td>
<td></td>
<td>PoE+</td>
<td>A</td>
<td></td>
<td>240W</td>
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<tr>
<td>SISTP1040-382B-LRT</td>
<td>(8) 10/100/1000Base-T PoE+ ports and (2) 100/1000Base-X SFP ports, Low Voltage Input</td>
<td>8</td>
<td></td>
<td></td>
<td>PoE+</td>
<td>A</td>
<td></td>
<td>240W</td>
</tr>
<tr>
<td>SISPM1040-582-LRT</td>
<td>(8) 10/100/1000Base-T PoE++ ports and (2) 100/1000Base-T or 100/1000Base-X SFP/ RJ-45 combo ports</td>
<td>8</td>
<td>X</td>
<td>X</td>
<td>PoE++</td>
<td>A</td>
<td>X</td>
<td>480W</td>
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<tr>
<td>SISPM1040-384-LRT-C</td>
<td>(8) 10/100/1000Base-T PoE+ ports and (4) 100/1000Base-X SFP slots</td>
<td>12</td>
<td>X</td>
<td>X</td>
<td>PoE+</td>
<td>A</td>
<td>X</td>
<td>240W</td>
</tr>
<tr>
<td>SISPM1040-3166-L</td>
<td>(16) 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP Slots + (2) 1G/10GBase-X SFP+ Slots</td>
<td>22</td>
<td>X</td>
<td>X</td>
<td>PoE+</td>
<td>A</td>
<td>X</td>
<td>250W</td>
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<tr>
<td>SISPM1040-3248-L</td>
<td>(24) 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP Slots + (4) 1G/10GBase-X SFP+ Slots</td>
<td>32</td>
<td>X</td>
<td>X</td>
<td>PoE+</td>
<td>A</td>
<td>X</td>
<td>370W</td>
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⁵PoE+ not available on all ports simultaneously
<table>
<thead>
<tr>
<th>PoE Media Converters</th>
<th>Description</th>
<th>Port Count</th>
<th>Managed</th>
<th>Hardened</th>
<th>PoE Level</th>
<th>PoE Mode</th>
<th>Auto Power Reset</th>
<th>PoE Power Budget</th>
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<tbody>
<tr>
<td>SPOEB Series</td>
<td>10/100Base-TX PoE PSE to 100Base-FX</td>
<td>2</td>
<td>PoE</td>
<td>A/B</td>
<td>X</td>
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<tr>
<td>SGPOE Series</td>
<td>10/100/1000Base-T PoE PSE to 1000Base-X</td>
<td>2</td>
<td>PoE</td>
<td>A</td>
<td>X</td>
<td>15W</td>
<td></td>
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<tr>
<td>SGPAT Series</td>
<td>10/100/1000Base-T PoE+ PSE to 1000Base-X</td>
<td>2-4</td>
<td>PoE+</td>
<td>A</td>
<td>X</td>
<td>15W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI-IES-111D-LRT</td>
<td>(1) 100/1000Base-X SFP Port + (1) 10/100Base-T PoE+ Port</td>
<td>2</td>
<td>X</td>
<td>PoE+</td>
<td>A</td>
<td>30W</td>
<td></td>
<td></td>
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<tr>
<td>SI-IES-121D-LRT</td>
<td>(1) 100/1000Base-X SFP Port + (2) 10/100Base-T PoE+ Ports</td>
<td>3</td>
<td>X</td>
<td>PoE+</td>
<td>A</td>
<td>60W</td>
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<tr>
<td>M/GE-ISW-SFP-01-PD</td>
<td>10/100/1000Base-T (RJ-45) to 100/1000Base-X Open SFP Slot PoE Powered Device (PD)</td>
<td>2</td>
<td>X</td>
<td>PoE+</td>
<td>A/B</td>
<td>NA</td>
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</table>

**PoE Mid-Span Injectors**

| MIL-L100i          | (1) 10/100Base-T PoE Mid-Span Injector | 1          | PoE     | B        | 15W       |          |                  |                 |
| L1000i-at          | (1) 10/100/1000Base-T Port PoE+ Injector | 1          | PoE+    | A        | 30W       |          |                  |                 |
| 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       | X         | 30W              |
| EOCPE4020-110 & EOCPD4020-110 | (1) 100/1000Base RJ-45/SFP Port + (1) 1000Base Coax BNC Port | 2          | X       | PoE+     | A/B       | X         | 30W              |

**PoE NICs**

| N-GXE-POE-xx-01 | 1000Base-X and 10/100/1000Base-T PoE+ | 2          | PoE+    | A        | 30W       |          |                  |                 |

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1. User selectable
2. PoE Mode determined by power sourcing equipment

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18 SISPM1040-362-LRT
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29 MIL-L100i
30 L1000i-at
31 SI-IES-1200-LRT
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33 EOCPSE4020-110 & EOCPD4020-110
34 N-GXE-POE-xx-01 Series
SM8TAT2SA
Smart Managed Gigabit Ethernet PoE+ Switch
(8) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP Slots

This switch is a next generation smart managed switch with 20Gbps switching capacity. It provides (8) 10/100/1000Base-T copper ports with IEEE 802.3at PoE+ capability and (2) additional 100/1000 dual speed SFP slots. The embedded Device Management System (DMS) software provides the benefits of ease of use in IP surveillance, Wireless Access Point and other applications. The DMS capability built into the switch provides time-saving features enabling security integrators or network administrators to establish and document a baseline deployment, automatically discover and remotely configure attached IP-powered devices (PDs).

Features
- IPv6 Access Management
- Support Jumbo Frame up to 9K bytes
- Authentication – RADIUS, TACACS+
- DHCP Relay, DHCP Snooping, DHCP Server
- L2/L3/L4 ACLs Support MAC ACL, IP standard/extended ACL
- LLDP (Link Layer Discovery Protocol)
- IEEE 802.3az Energy Efficiency
- IP Source Guard, Port Security
- Syslog
- Fanless Design

PoE Features
- Compliant with IEEE 802.3at PoE+
- Compliant with IEEE 802.3af PoE
- PoE configuration
- Auto Power Reset (APR)

Device Management System (DMS)
- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, protection mechanism, performance and link management

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
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</thead>
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<td>IEEE 802.3u</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3z</td>
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<tr>
<td></td>
<td>IEEE 802.3ae</td>
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<td>IEEE 802.3x</td>
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<tr>
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<td>IEEE 802.3ad</td>
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<td>(2) 100/1000 SFP slots</td>
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<td>CSMA/CD</td>
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<td>Technology</td>
<td>Store-and-Forward switching architecture</td>
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<td>MAC Address</td>
<td>6K MAC address table</td>
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<tr>
<td>Backplane</td>
<td>20 Gbps</td>
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<tr>
<td>Dimensions</td>
<td>Width: 8.66” [220 mm]</td>
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<tr>
<td></td>
<td>Depth: 9.53” [242 mm]</td>
</tr>
<tr>
<td></td>
<td>Height: 1.73” [44 mm]</td>
</tr>
<tr>
<td>Power Input</td>
<td>150-240VAC</td>
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<tr>
<td>Power Consumption</td>
<td>147 Watts (full load with PoE)</td>
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<tr>
<td>Power-over-Ethernet</td>
<td>Max PoE budget 130 Watts</td>
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<tr>
<td></td>
<td>30 Watts for (4) ports simultaneously</td>
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<td></td>
<td>15.4 Watts for (8) ports simultaneously</td>
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<tr>
<td>Surge Protection</td>
<td>6KV</td>
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<tr>
<td>Environment</td>
<td>Operating: 0°C to +50°C</td>
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<tr>
<td></td>
<td>Humidity: 10% to 90% (non-condensing)</td>
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<tr>
<td>Weight</td>
<td>4.4 lbs. [2.0 kg]</td>
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<tr>
<td>Compliance</td>
<td>FCC Class A, CE</td>
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<tr>
<td></td>
<td>Safety: IEC60950, UL Listed</td>
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<tr>
<td>Warranty</td>
<td>Lifetime</td>
</tr>
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Software Features
- Management: Web Management, SNMP V1/V2c/V3, Telnet, CLI
- Port Trunk: Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP) and static trunk
- Multicast: Support IGMP Snooping V1/V2, MVR, MLD Snooping V1/V2
- Quality of Service: Supports 8 hardware queues. Strict priority and WRR, Ingress policer, Egress shaping and per port rate limiting
- Spanning Tree: Supports IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
- VLAN: Port Based VLAN, IEEE 802.1Q tag-based, up to 4k VLAN entries, QinQ, MAC based VLAN, Private VLAN
- Firmware Update through TFTP and HTTP

Ordering Information

SM8TAT2SA
(8) 10/100/1000Base-T ports + (2) 100/1000Base-X SFP slots
(includes 19” rack mount brackets)

Optional Accessories (sold separately)

SFP Modules

Power Cord Included

To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: SM8TAT2SA-NA
- NA = Country Code
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- OZ = Australia
- BR = Brazil

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SM16TAT2SA
Smart Managed Gigabit Ethernet PoE+ Switch
(16) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP Slots

This switch is a next generation smart managed switch with 36Gbps switching capacity. It provides (16) 10/100/1000Base-T copper ports with IEEE 802.3at PoE+ capability and (2) additional 100/1000 dual speed SFP slots. The embedded Device Management System (DMS) software provides the benefits of ease of use in IP surveillance, Wireless Access Point and other applications. The DMS capability built into the switch provides time-saving features enabling security integrators or network administrators to establish and document a baseline deployment, automatically discover and remotely configure attached IP-powered devices (PDs).

Features

• IPv6 Access Management
• Support Jumbo Frame up to 9K bytes
• Authentication – RADIUS, TACACS+
• DHCP Relay, DHCP Snooping, DHCP Server
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• LLDP (Link Layer Discovery Protocol)
• IEEE 802.3az Energy Efficiency
• IP Source Guard, Port Security
• Syslog

PoE Features

• Compliant with IEEE 802.3at PoE+
• Compliant with IEEE 802.3af PoE
• PoE configuration
• Auto Power Reset (APR)

Device Management System (DMS)

• Graphical Monitoring – Topology view, Floor view, Map view
• Traffic Monitoring
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<th>IEEE 802.3z</th>
<th>IEEE 802.3ae</th>
<th>IEEE 802.3x</th>
<th>IEEE 802.3ad</th>
<th>IEEE 802.1D</th>
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<td>(2) 100/1000 SFP slots</td>
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Ordering Information

SM16TAT2SA
(16) 10/100/1000Base-T ports + (2) 100/1000Base-X SFP slots
(includes 19” rack mount brackets)

Optional Accessories (sold separately)

SFP Modules

Power Cord Included
To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: SM16TAT2SA-NA
- NA = Country Code
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- OZ = Australia
- BR = Brazil

Software Features

• Management: Web Management, SNMP V1/V2c/V3, Telnet, CLI
• Port Trunk: Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP) and static trunk
• Multicast: Support IGMP Snooping V1/V2, MVR, MLD Snooping V1/V2
• Quality of Service: Supports 8 hardware queues. Strict priority and WRR, Ingress policer, Egress shaping and per port rate limiting
• Spanning Tree: Supports IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
• VLAN: Port Based VLAN, IEEE 802.1Q tag-based, up to 4k VLAN entries, QinQ, MAC based VLAN, Private VLAN
• Firmware Update through TFTP and HTTP
**SM24TAT2SA**  
**Smart Managed Gigabit Ethernet PoE+ Switch**  
(24) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP Slots

This switch is a next generation smart managed switch with 52Gbps switching capacity. It provides (24) 10/100/1000Base-T copper ports with IEEE 802.3at PoE+ capability and (2) additional 100/1000 dual speed SFP slots. The embedded Device Management System (DMS) software provides the benefits of ease of use in IP surveillance, Wireless Access Point and other applications. The DMS capability built into the switch provides time-saving features enabling security integrators or network administrators to establish and document a baseline deployment, automatically discover and remotely configure attached IP-powered devices (PDs).

### Features
- IPv6 Access Management
- Support Jumbo Frame up to 9K bytes
- Authentication – RADIUS, TACACS+
- DHCP Relay, DHCP Snooping, DHCP Server
- L2/L3/L4 ACLs Support MAC ACL, IP standard/extended ACL
- LLDP (Link Layer Discovery Protocol)
- IEEE 802.3az Energy Efficiency
- IP Source Guard, Port Security
- Syslog

### PoE Features
- Compliant with IEEE 802.3at PoE+
- Compliant with IEEE 802.3af PoE
- PoE configuration
- Auto Power Reset (APR)

### Device Management System (DMS)
- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, protection mechanism, performance and link management

### Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
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<td>Connectors</td>
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<td>(2) 100/1000 SFP slots</td>
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<td>Protocols</td>
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<td>Height: 1.73” [44 mm]</td>
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<tr>
<td>Power Input</td>
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<tr>
<td>Power Consumption</td>
<td>438 Watts (full load with PoE)</td>
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<td>Power-over-Ethernet</td>
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<td>30 Watts for (12) ports simultaneously</td>
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<td>15.4 Watts for (24) ports simultaneously</td>
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<tr>
<td>Surge Protection</td>
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<tr>
<td>Environment</td>
<td>Operating: 0°C to +50°C</td>
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<td>Humidity: 10% to 90% (non-condensing)</td>
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<td>Warranty</td>
<td>Lifetime</td>
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</table>

### Ordering Information

**SM24TAT2SA**  
(24) 10/100/1000Base-T ports + (2) 100/1000Base-X SFP slots (includes 19” rack mount brackets)

Optional Accessories (sold separately)

**Power Cord Included**
To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU: Ex: SM24TAT2SA-NA

- **NA** = Country Code
- **-NA** = North America
- **-LA** = Latin America
- **-EU** = Europe
- **-UK** = United Kingdom
- **-SA** = South Africa
- **-JP** = Japan
- **-OZ** = Australia
- **-BR** = Brazil

### Software Features
- Management: Web Management, SNMP V1/V2c/V3, Telnet, CLI
- Port Trunk: Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP) and static trunk
- Multicast: Support IGMP Snooping V1/V2, MVR, MLD Snooping V1/V2
- Quality of Service: Supports 8 hardware queues. Strict priority and WRR, Ingress policer, Egress shaping and per port rate limiting
- Spanning Tree: Supports IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
- VLAN: Port Based VLAN, IEEE 802.1Q tag-based, up to 4k VLAN entries, QinQ, MAC based VLAN, Private VLAN
- Firmware Update through TFTP and HTTP
SM24TBT2DPA
Managed Gigabit Ethernet PoE++ Switch
(24) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP/RJ-45 Combo Ports

This switch is a high performance Layer 2 managed switch with 52 Gbps switching capacity. It provides (24) 10/100/1000 copper ports with IEEE 802.3bt PoE++ capability and (2) additional 100/1000 dual speed SFP/RJ-45 combo ports. The SM24TBT2DPA complies with the latest IEEE 802.3bt PoE++ standard and supplies up to 90 Watts per port. It can provide up to 1640 Watts PoE output with the dual hot-swappable power supplies equipped.

Features
- Hot-swappable dual power supply modules
- Support IPv4/IPv6 dual protocol stack
- Support Jumbo Frame up to 9K bytes
- Authentication – RADIUS, TACACS+
- Security - Support SSH v1/SSH v2/SSL
- Port based or tagged (IEEE 802.1Q) VLAN, MAC based, Management VLAN and Private VLAN Edge
- DHCP Relay, DHCP Server
- L2/L3/L4 ACLs Support MAC ACL, IP standard/extended ACL
- LLDP (Link Layer Discovery Protocol)
- IEEE 802.3az Energy Efficiency
- IP Source Guard, Port Security

PoE Features
- Compliant with IEEE 802.3bt PoE++
- Compliant with IEEE 802.3af PoE+
- Compliant with IEEE 802.3at PoE
- IEEE 802.1AB LLDp-MED Configuration
- PoE Configuration
- PoE Scheduling
- Auto Power Reset
- DHCP per Port
- Soft Boot

Device Management System (DMS)
- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, protection mechanism, performance and link management

Specifications

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<td>IEEE 802.3az</td>
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| Connectors         | (1) RJ console port |
|--------------------| (24) 10/100/1000 RJ-45 ports |
|                    | (2) 100/1000 SFP/RJ-45 combo ports |

<table>
<thead>
<tr>
<th>Protocols</th>
<th>CSMA/CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
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<tr>
<td>MAC Address</td>
<td>8K MAC address table</td>
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<td>Backplane</td>
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<tr>
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<td>Power-over-Ethernet</td>
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<td>Max PoE budget 820 Watts with single power supply 30 Watts for (24) ports simultaneously 69 Watts for (13) ports simultaneously 90 Watts for (9) ports simultaneously</td>
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Software Features
- Management: Web Management, SNMP V1/V2c/V3, Telnet, CLI
- Port Trunk: Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP) and static trunk
- IGMP: Support IGMP Snooping V1/V2/V3, GVRP, IGMP Proxy, and IGMP Querier
- Quality of Service: Supports 8 hardware queues. Strict priority and WRR
- Spanning Tree: Supports IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
- VLAN: Port Based VLAN, IEEE 802.1Q tag-based, up to 4K VLAN entries, QinQ, MAC-based VLAN, Private VLAN, Voice VLANs and Management VLAN
- Firmware Update, configure backup/restore through TFTP and HTTP

Ordering Information
SM24TBT2DPA
(24) 10/100/1000Base-T ports + (2) 100/1000Base-X SFP/RJ-45 combo ports
(complex includes (1) AC power supply and 19" rack mount brackets)

Optional Accessories (sold separately)
- SFP Modules
- Power Supplies (sold separately)
- PS-AC-920 Secondary AC Power Supply (920 Watts)
- Warranty: 5 Years

Power Cord Included
To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: SM24TBT2DPA-NA
- NA = Country Code
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- OZ = Australia
- BR = Brazil

Device Management System (DMS)
- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, protection mechanism, performance and link management

+1.952.941.7600 | www.transition.com | sales@transition.com
SM24TAT4XB
Managed Gigabit Ethernet PoE+ Switch
(24) 10/100/1000Base-T Ports + (4) 1G/10GBase-X SFP+ Ports

This switch is a high performance managed PoE+ switch with (24) 10/100/1000 copper ports and (4) dual speed 1G/10G SFP+ slots.

Features
• Supports Jumbo Frame up to 10240 bytes
• Authentication – RADIUS IEEE 802.1X, TACACS+
• Security - Support SSH/SSL
• Port based or tagged (IEEE 802.1Q) VLAN, MAC based VLAN, Management VLAN and Private VLAN Edge
• DHCP Server, Client, Relay
• IEEE 1588v2 PTP (TC)
• ACLs Support for up to 512 entries, drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, DSCP/IP precedence, TCP/IP source and destination ports, IEEE 802.1p priority, Ethernet Type / IGMP packets, TCP flag
• LLDP (Link Layer Discovery Protocol)
• IEEE 802.3az Energy Efficiency

PoE Features
• Compliant with IEEE 802.3at PoE+
• Compliant with IEEE 802.3af PoE
• IEEE 802.1AB LLDP-MED Configuration
• Auto Power Reset
• DHCP per port

Device Management System (DMS)
• Graphical Monitoring – Topology view, Floor view, Map view
• Traffic Monitoring
• Troubleshooting – Network diagnostic, protection mechanism, performance and link management

Specifications

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<tr>
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<td>30 Watts for (12) ports simultaneously</td>
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<td>15.4 Watts for (24) ports simultaneously</td>
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<td>Lifetime</td>
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</table>

Ordering Information

SM24TAT4XB
(24) 10/100/1000Base-T ports + (4) 1G/10GBase-X SFP+ ports (empty)

Optional Accessories (sold separately)
SFP and SFP+ Modules

Power Cord Included
To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: SM24TAT4XB-NA
-NA = Country Code
-NA = North America
-LA = Latin America
-EU = Europe
-UK = United Kingdom
-SA = South Africa
-JP = Japan
-OZ = Australia
-BR = Brazil

Features (Continued)
• Web Management, SNMP V1/V2c/V3, Telnet, CLI
• Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP). Supports up to 26 groups with (4) ports per group.
• Supports IGMP Snooping V1/V2/V3, up to 1024 multicast groups, GVRP, IGMP Proxy, IGMP Querier
• MLD snooping V1/V2: deliver IPv6 multicast packages only to the required receivers
• Supports 8 hardware queues, Strict priority and WRR. Queue assignment based on DSCP and IEEE 802.1p CoS; IPv4/IPv6 precedence/ Type of Service / DiffServ / classification and remarking ACLs; rate limiting, ingress policer, egress shaping and rate control
• IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
• Firmware Update, configure backup/ restore through web GUI and TFTP
• Supports IPv4/IPv6 Layer 3 static routing
• ITU-T G.8031, G8032, loop detection
SM48TAT4XA-RP
Managed Gigabit Ethernet PoE+ Switch
(48) 10/100/1000Base-T Ports + (4) 1G/10GBase-X SFP+ Ports

This switch is a high performance managed PoE+ switch with (48) 10/100/1000 copper ports and (4) dual speed 1G/10G SFP+ slots.

Features
- Supports Jumbo Frame up to 10240 bytes
- Authentication – RADIUS IEEE 802.1X, TACACS+
- Security - Support SSH/SSL
- Port security: MAC addresses to ports
- Port based or tagged (IEEE 802.1Q) VLAN, MAC based VLAN, Management VLAN and Private VLAN Edge
- DHCP Server, Client, Relay
- IEEE 1588v2 PTP (TC)
- ACLs Support for up to 512 entries, drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, DSCP/IP precedence, TCP/IP source and destination ports, IEEE 802.1p priority, Ethernet Type / IGMP packets, TCP flag
- LLDP (Link Layer Discovery Protocol)
- IEEE 802.3az Energy Efficiency

PoE Features
- Compliant with IEEE 802.3at PoE+
- Compliant with IEEE 802.3af PoE
- IEEE 802.1AB LLDP-MED Configuration
- Auto Power Reset
- DHCP per port

Device Management System (DMS)
- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, protection mechanism, performance and link management

Specifications

| Standards | IEEE 802.3
| IEEE 802.3u
| IEEE 802.3z
| IEEE 802.5x
| IEEE 802.3ad
| IEEE 802.1Q
| IEEE 802.1T
| IEEE 802.1w
| IEEE 802.1s
| IEEE 802.1Q
| IEEE 802.1p
| IEEE 802.1ad
| IEEE 802.1AB
| IEEE 802.3af
| IEEE 802.1at
| IEEE 802.3az
| IEEE 802.1X

| Connectors | (1) RS-232 Serial port
| (48) 10/100/1000 RJ-45 ports
| (4) 1G/10G SFP+ slots

| Protocols | CSMA/CD

| Technology | Store-and-forward switching architecture

| MAC Address | 32K MAC address table

| Backplane | 176 Gbps

| Dimensions | Width: 17.4" [442 mm]
| Depth: 14.76" [375 mm]
| Height: 1.73" [44 mm]

| Power Input | Internal Power: 100 - 240VAC
| Dual hot-swappable power supplies
| Redundant mode, burst mode

| Power-over-Ethernet | Single power supply:
| Max PoE budget 820 Watts
| 30 Watts for (27) ports simultaneously
| 15.4 Watts for (48) ports simultaneously
| Dual power supply:
| Max PoE budget 1640 Watts
| 30 Watts for (48) ports simultaneously

| Environment | Operating: 0°C to 50°C
| Humidity: 5% to 90% (non-condensing)

| Weight | 8.38 lbs. [3.8 kg]

| Compliance | Safety: UL Listed
| Emissions: FCC Class A, CE Mark

| Warranty | Lifetime

Ordering Information

SM48TAT4XA-RP
(48) 10/100/1000Base-T ports + (4) 1G/10GBase-X SFP+ slots (empty)
(includes (1) AC power supply and 19" rack mount brackets)

Optional Accessories (sold separately)

- SFP and SFP+ Modules

Power Supply

- PS-AC-920
920 Watts Secondary AC Power Supply (3 Year Warranty)

Features (Continued)

- Web Management, SNMP V1/V2c/V3, Telnet, CLI
- Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP). Supports up to 26 groups with up to (16) ports per group.
- Supports IGMP Snooping V1/V2/V3, up to 1024 multicast groups, GVRP, IGMP Proxy, IGMP Querier
- MLD snooping V1/V2: deliver IPv6 multicast packages only to the required receivers
- Supports 8 hardware queues, Strict priority and WRR. Queue assignment based on DSCP and IEEE 802.1p CoS, IPv4/IPv6 precedence / Type of Service / DiffServ / classification and remarking ACLs; rate limiting, ingress policer, egress shaping and rate control
- IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
- Firmware Update, configure backup/restore through web GUI and TFTP
- Supports IPv4/IPv6 Layer 3 static routing
- ITU-T G.8031, G8032, loop detection

Power Cord Included

To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: SM48TAT4XA-RP-NA
- NA = Country Code
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- OZ = Australia
- BR = Brazil

+1.952.941.7600 | www.transition.com | sales@transition.com
This switch is an unmanaged full Gigabit Ethernet hardened PoE+ switch that complies with IEEE 802.3at and IEEE 802.3af. The switch has (4) 10/100/1000Base-T PoE+ ports with (2) 100/1000 dual speed SFP slots. It can deliver up to 30 Watts on each PoE+ port simultaneously. The SISTP1040-342-LRT can be used at the edge of a hardened network to provide connections for PoE devices in hazardous locations. The two fiber uplink ports can also be used in a daisy chain for maximum network reliability. It has redundant input power connections to ensure safe reliable operation in temperatures between -40°C and +75°C. Transition Networks’ hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

### Features
- Support Jumbo Frame up to 9K bytes
- Layer 2 wire-speed switching engine
- Ruggedized metal closure
- IEEE 802.3az Energy Efficient Ethernet
- Fan-less design
- Wide operating temperature range (-40°C to +75°C)
- Dual Power input
- Din Rail and Wall Mount options

### PoE Features
- IEEE 802.3at compliant
- IEEE 802.3af compliant

### Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3&lt;br&gt;IEEE 802.3u&lt;br&gt;IEEE 802.3z&lt;br&gt;IEEE 802.3ae&lt;br&gt;IEEE 802.3x&lt;br&gt;IEEE 802.1p&lt;br&gt;IEEE 802.3az&lt;br&gt;IEEE 802.3af&lt;br&gt;IEEE 802.3at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocols</td>
<td>CSMA/CD</td>
</tr>
<tr>
<td>Technology</td>
<td>Store-and-forward switching architecture</td>
</tr>
<tr>
<td>Switching Capacity</td>
<td>12 Gbps</td>
</tr>
<tr>
<td>Connectors</td>
<td>(4) 10/100/1000Base-T RJ-45 ports&lt;br&gt;(2) 100/1000Base-X SFP slots</td>
</tr>
<tr>
<td>MAC Address</td>
<td>4K MAC address table</td>
</tr>
<tr>
<td>Status LEDs</td>
<td>System, Power1, Power2, Port Status</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Width: 1.7” [44 mm]&lt;br&gt;Depth: 5.1” [130 mm]&lt;br&gt;Height: 5.3” [135 mm]</td>
</tr>
<tr>
<td>Reset button</td>
<td>Reset the switch</td>
</tr>
<tr>
<td>Power Input</td>
<td>48-57 VDC; Redundant input; reverse power protection</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>4.4 Watts (without PoE)</td>
</tr>
<tr>
<td>Power-over-Ethernet</td>
<td>Total PoE Budget: 120 Watts&lt;br&gt;30 Watts on all 4 ports simultaneously</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP30</td>
</tr>
<tr>
<td>Environment</td>
<td>Operating: -40°C to +75°C&lt;br&gt;Humidity: 5% to 95% (non-condensing)</td>
</tr>
<tr>
<td>Weight</td>
<td>0.95 lbs. [0.43 kg]</td>
</tr>
<tr>
<td>Compliance</td>
<td>UL Class 1 / Div 2; EMI: CE, FCC Part 15; Safety: EN60950</td>
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<tr>
<td>Compliant</td>
<td>EN50121-4, EN50155, NEMA TS-2, IEC61850-3, IEEE1613</td>
</tr>
<tr>
<td>Warranty</td>
<td>5 Years</td>
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</tbody>
</table>

### Ordering Information

**SISTP1040-342-LRT**<br>(4) 10/100/1000Base-T PoE+ [100 m/328 ft.] ports<br>+(2) 100/1000Base-X SFP slots

**Optional Accessories** (sold separately)

- **SFP Modules**
- **Industrial Power Supplies:**
- **Mounting Brackets**
  - WMBH-01<br>  - Wall Mount Bracket
SISTP1040-382-LRT
Unmanaged Hardened Gigabit Ethernet PoE+ Switch
(8) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP Slots

This switch is an unmanaged full Gigabit Ethernet hardened PoE+ switch that complies with IEEE 802.3at and IEEE 802.3af. The switch has (8) 10/100/1000Base-T PoE+ ports with (2) 100/1000 dual speed SFP slots. It can deliver up to 30 Watts on each PoE+ port simultaneously. The SISTP1040-382-LRT can be used at the edge of a hardened network to provide connections for PoE devices in hazardous locations. The two fiber uplink ports can also be used in a daisy chain for maximum network reliability. It has redundant input power connections to ensure safe reliable operation in temperatures between -40°C and +75°C. Transition Networks’ hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td>IEEE 802.3ae</td>
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<td></td>
<td>IEEE 802.3x</td>
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<tr>
<td></td>
<td>IEEE 802.1p</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3az</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3af</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3at</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protocols</th>
<th>CSMA/CD</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Technology</th>
<th>Store-and-forward switching architecture</th>
</tr>
</thead>
</table>

| Switching Capacity | 20 Gbps |

<table>
<thead>
<tr>
<th>Connectors</th>
<th>(8) 10/100/1000Base-T RJ-45 ports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(2) 100/1000Base-X SFP slots</td>
</tr>
</tbody>
</table>

| MAC Address        | 4K MAC address table |

| Status LEDs        | System, Power1, Power2, Port Status |

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Width: 1.7&quot; [44 mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depth: 5.1&quot; [130 mm]</td>
</tr>
<tr>
<td></td>
<td>Height: 5.3&quot; [135 mm]</td>
</tr>
</tbody>
</table>

| Reset button       | Reset the switch    |

| Power Input        | 48-57 VDC; Redundant input; reverse power protection |

| Power-over-Ethernet| Total PoE Budget: 240 Watts |
|--------------------| 30 Watts on all 8 ports simultaneously |

| Ingress Protection | IP30 |

| Environment        | Operating: -40°C to +75°C |
|--------------------| Humidity: 5% to 95% (non-condensing) |

| Weight             | 1.01 lbs. [0.46 kg] |

<table>
<thead>
<tr>
<th>Compliance</th>
<th>UL Class 1 / Div 2; EMI: CE, FCC Part 15; Safety: EN60950</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EN50121-4, EN50155, NEMA TS-2, IEC61850-3, IEEE1613</td>
</tr>
</tbody>
</table>

| Warranty           | 5 Years |

Features

- Support Jumbo Frame up to 9K bytes
- Layer 2 wire-speed switching engine
- Ruggedized metal closure
- IEEE 802.3az Energy Efficient Ethernet
- Fan-less design
- Wide operating temperature range (-40°C to +75°C)
- Dual Power input
- Din Rail and Wall Mount options

PoE Features

- IEEE 802.3at compliant
- IEEE 802.3af compliant

Ordering Information

SISTP1040-382-LRT
(8) 10/100/1000Base-T PoE+ [100 m/328 ft.] ports + (2) 100/1000Base-X SFP slots

Optional Accessories (sold separately)

SFP Modules

Industrial Power Supplies:

25104
Input: 85-264 VAC, 124-370 VDC
Output: 48–55 VDC, 5.0A, 240 Watts

25105
Input: 85-264 VAC, 124-370 VDC
Output: 48–55 VDC, 2.5A, 120 Watts

Mounting Brackets

WMBH-01
Wall Mount Bracket
SISTP1040-382B-LRT
Unmanaged Hardened Gigabit Ethernet PoE+ Switch with Low Voltage Input

(8) 10/100/1000Base-T Ports + (2) 100/1000Base-X SFP Slots

This switch is an unmanaged full Gigabit Ethernet hardened PoE+ switch that complies with IEEE 802.3at and IEEE 802.3af. The switch has (8) 10/100/1000Base-T PoE+ ports with (2) 100/1000 dual speed SFP slots. In many fields such as Vehicle, Factory or Solar systems, there are no standard power input requirements of 52 to 57 volts for PoE devices. The SISTP1040-382B-LRT uses booster technology to allow the user to deploy the PoE switches in the power input range of 12 to 24 volts. It can still deliver up to 30 Watts on each PoE+ port. The two fiber uplink ports can also be used in a daisy chain for maximum network reliability. It has redundant input power connections to ensure safe reliable operation in temperatures between -40°C and +70°C. Transition Networks’ hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

### Features
- Support Jumbo Frame up to 9K bytes
- Layer 2 wire-speed switching engine
- Ruggedized metal closure
- IEEE 802.3az Energy Efficient Ethernet
- Fan-less design
- Wide operating temperature range (-40°C to +70°C)
- Dual Power input
- Din Rail and Wall Mount options

### PoE Features
- IEEE 802.3at compliant
- IEEE 802.3af compliant

### Specifications

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<td>Store-and-forward switching architecture</td>
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<tr>
<td>Switching Capacity</td>
<td>20 Gbps</td>
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</tr>
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<td>Connectors</td>
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<td>(2) 100/1000Base-X SFP slots</td>
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</tr>
<tr>
<td>Reset button</td>
<td>Reset the switch</td>
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<tr>
<td>Power Input</td>
<td>12 / 24 VDC; Redundant input; reverse power protection</td>
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<tr>
<td>Power-over-Ethernet</td>
<td>24VDC Input: Total PoE Budget: 120 Watts</td>
<td>30 Watts output on 4 ports</td>
<td>15 Watts output on all 8 ports</td>
<td>12VDC Input: Total PoE Budget: 60 Watts</td>
<td>30 Watts output on 2 ports</td>
<td>15 Watts output on 4 ports</td>
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<td>Ingress Protection</td>
<td>IP30</td>
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<td>Environment</td>
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<td>Humidity: 5% to 95% (non-condensing)</td>
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<td>UL Listed, EMI: CE, FCC Part 15; Safety: EN60950</td>
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<td>Compliant</td>
<td>EN650121-4, EN650155, NEMA TS-2, IEC61850-3, IEEE1613, Class 1 Div 2</td>
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<tr>
<td>Warranty</td>
<td>5 Years</td>
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</tr>
</tbody>
</table>

### Ordering Information

**SISTP1040-382B-LRT**

(8) 10/100/1000Base-T PoE+ (100 m/328 ft.) ports + (2) 100/1000Base-X SFP slots

**Optional Accessories** (sold separately)

- SFP Modules
- Industrial Power Supplies:
  - 25079
    - Input: 85–152 VAC, 176 – 264VAC, 248–370VDC
    - Output: 24 - 28 VDC, 5.0A, 120 Watts
- Mounting Brackets
  - WMBH-01
    - Wall Mount Bracket

**Contact Information**

+1.952.941.7600 | www.transition.com | sales@transition.com

**Product Code**

SISTP1040-382B-LRT

**Ordering Information**

(8) 10/100/1000Base-T PoE+ (100 m/328 ft.) ports + (2) 100/1000Base-X SFP slots

**Optional Accessories** (sold separately)

- SFP Modules
- Industrial Power Supplies:
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    - Input: 85–152 VAC, 176 – 264VAC, 248–370VDC
    - Output: 24 - 28 VDC, 5.0A, 120 Watts
- Mounting Brackets
  - WMBH-01
    - Wall Mount Bracket

**Contact Information**

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**Product Code**

SISTP1040-382B-LRT

**Ordering Information**

(8) 10/100/1000Base-T PoE+ (100 m/328 ft.) ports + (2) 100/1000Base-X SFP slots

**Optional Accessories** (sold separately)

- SFP Modules
- Industrial Power Supplies:
  - 25079
    - Input: 85–152 VAC, 176 – 264VAC, 248–370VDC
    - Output: 24 - 28 VDC, 5.0A, 120 Watts
- Mounting Brackets
  - WMBH-01
    - Wall Mount Bracket

**Contact Information**

+1.952.941.7600 | www.transition.com | sales@transition.com

**Product Code**

SISTP1040-382B-LRT
SESPM1040-541-LT-xx Series
Self-Enclosed Managed Hardened Gigabit Ethernet PoE++ Switch

(4) 10/100/1000Base-T PoE++ Ports + (1) 10/100/1000Base-T or 100/1000Base-X SFP/RJ-45 Combo Port

Transition Networks’ SESP1040-541-LT-xx Switch is a Layer 2 managed switch with (4) 10/100/1000Base-T IEEE 802.3bt compliant PoE++ ports and (1) combination 10/100/1000Base-T RJ-45 or 100/1000Base-X SFP port (additional optional ports available), that is ideal for use in security, surveillance, PoE lighting, digital signage and many other applications. It is self-contained in an outdoor NEMA 4X/IP66 rated enclosure with 6KV surge protection on the AC line. Additional fuse protection on the PoE ports and included data port eliminates the need for external circuit cross protection between the attached PD and the switch. It can be mounted on a wall or a side of a building, or optional brackets are available for mounting on a pole. The switch is available in multiple configurations: as either an AC- or DC-powered power source (PSE) providing ≤60 Watts of power per port simultaneously on all four ports or ≤90 Watts on individual ports (not to exceed 240 Watts total), or as a PoE-powered device (PD) providing up to 80 Watts of total power. The PD version requires power from an IEEE 802.3bt Class 8 compliant PSE but can receive that power over Ethernet cable or copper cable running parallel to a fiber optic cable, and includes a 12V Aux port which can be used to provide auxiliary power to a PC, lighting or other accessories. A second combo 10/100/1000Base-T RJ-45 maintenance port or 100/1000Base-X SFP uplink port can be activated by installing an optional Combo Port Module. Alternatively, an IEEE 802.11 b/g/n wireless Ethernet extension port is available as an option to extend the Ethernet network to devices in locations where new Ethernet cable runs are not practical. An optional Digital Input/Output Module with four optical isolators configurable as either input or outputs provide connections for alarms, event notifications or other customer designated items. All versions are equipped with Near Field Communication (NFC) to allow simple and repeatable configuration of the switch using a user-friendly app on a mobile device prior to connecting or powering up the switch. Bluetooth Low Energy (BLE) allows remote access to alarm information or to read or change equipment settings without requiring physical access using ladders or scissor lifts. The switch also incorporates integrated management software for setup, monitoring and control of connected devices.

Features
- Management: Web GUI, CLI, SNMP
- Monitoring: SNMP, Syslog
- Jumbo Frame support 10K bytes max
- Auto-MDI/MDIX
- IPv4
- Secure Shell (SSH) / Secure Sockets Layer (SSL)
- Authentication: RADIUS/TACACS+
- Auto Power Reset (APR)
- 6 kV surge protection
- PoE port configuration/power management/power scheduling
- VLAN: Port based VLAN, IEEE 802.1Q tag-based, up to 4K VLAN entries, Private VLAN
- DMI
- Cable diagnostics
- Tamper detection
- NTP with onboard RTC for backup
- Four Independently Configurable digital I/O channels (optional)

Coming Soon Features
- IPv6
- LACP Trunking
- Link Layer Discovery Protocol (LLDP)
- Q in Q

Power Cord Preinstalled

*Note: Only for SESP1040-541-LT-AC

To order the AC version with the corresponding country specific power cord, add the extension from the list below to the end of the SKU; Ex: SESP1040-541-LT-AC-xx

- xx = Country Code
  - NA = North America, EU = Europe, UK = United Kingdom, SA = South Africa, JP = Japan, OZ = Australia, BR = Brazil, AR = Argentina

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEEE 802.3ab (Pending Certification)</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3ab</td>
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<tr>
<td></td>
<td>IEEE 802.1X</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3AX “Coming Soon”</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.1 ad “Coming Soon”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethernet Ports</th>
<th>(4) 10/100/1000 Mbps RJ-45 ports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) 100/1000 Mbps SFP/RJ-45 combo ports</td>
</tr>
<tr>
<td>CAT5e cable or higher recommended for 60 Watts; CAT6 cable or higher recommended for 80 Watts</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Auxiliary Power Port</th>
<th>2-position wire terminal block (≤12AWG) with screw retention</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Serial Console Port</th>
<th>RS-232 RJ-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC Address</td>
<td>9K MAC address table</td>
</tr>
<tr>
<td>Max Frame Size</td>
<td>10K bytes</td>
</tr>
<tr>
<td>Alarm Status</td>
<td>Accessible through CLI access, BIE interface or Integrated Management Software</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Width: 10.05” [255.3 mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depth: 4.34” [110.1 mm]</td>
</tr>
<tr>
<td></td>
<td>Height: 8.48” [215.4 mm]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Input</th>
<th>AC Version: Universal input 120-240VAC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Voltage DC Version: 48VDC (input range 44-59VDC)</td>
</tr>
<tr>
<td></td>
<td>PoE Powered PD Version: 90 Watts PoE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Consumption</th>
<th>AC Version: &lt; 20 VA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DC Version: &lt; 10 W</td>
</tr>
<tr>
<td></td>
<td>PoE Powered PD Version: ≤ 5 W</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power-over-Ethernet</th>
<th>Max PoE Budget 240 Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥60 Watts for (4) ports simultaneously</td>
</tr>
<tr>
<td></td>
<td>≥90 Watts on individual ports (specific port configuration may apply)</td>
</tr>
<tr>
<td></td>
<td>12VDC auxiliary power (on PD version only)</td>
</tr>
<tr>
<td></td>
<td>2-position bare wire terminal block with screw retention up to 12/3WG wire size</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environment</th>
<th>Operating: -30°C to +70°C (Inside Enclosure)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>External Operating: -40°C to +50°C</td>
</tr>
<tr>
<td></td>
<td>Storage: -40°C to +85°C</td>
</tr>
<tr>
<td></td>
<td>Humidity: 5% to 95% (non-condensing)</td>
</tr>
<tr>
<td>Weight</td>
<td>4.8 lbs. [2.18 kg]</td>
</tr>
</tbody>
</table>

| Compliance                 | Emission ENS5022, Class A. Immunity ENS5024, Meets Surge Protection as specified in GR-1089 CORE Issue 4, T/U-T; K.21 6 kV on AC line, Ingress Protection IP66, NEMA 4X, CE, IEC61000-4-2 (ESD), IEC61000-4-4 (EFT), IEC61000-4-5 (Lightning), NFC: NFC Forum Type 2 Tag, ISO/IEC 14443A; BLE: BLE 4.2 |

| Warranty                   | 2 Years |

Ordering Information

SESPM1040-541-LT-AC
AC-powered self-enclosed switch with
(4) 10/100/1000Base-T PoE++ ports + (1) combo 10/100/1000Base-T RJ-45 or 100/1000Base-X SFP port

SESPM1040-541-LT-DC “Coming Soon”
DC-powered self-enclosed switch with
(4) 10/100/1000Base-T PoE++ ports + (1) combo 10/100/1000Base-T RJ-45 or 100/1000Base-X SFP port

SESPM1040-541-LT-PD “Coming Soon”
PoE-powered Class 8 self-enclosed switch with
(4) 10/100/1000Base-T PoE++ ports + (1) combo 10/100/1000Base-T RJ-45 or 100/1000Base-X SFP port

Optionals Accessories (sold separately)

Hardened SFP Modules

SESPM-2P-1G-CP
Additional Combo Port Module to activate a 2nd combination 10/100/1000Base-T maintenance port or 100/1000Base-X combo uplink port

SESPM-3P-BGN-WE “Coming Soon”
IEEE 802.11b/g/n Wireless Ethernet Port Module

SESPM-4P-DIG “Coming Soon”
Digital Input/Output Module with 4 optical isolators and a 12V integral power source with 1500VDC isolation

SESPM-4P-ANTKIT-BGN “Coming Soon”
IEEE 802.11b/g/n Wireless Antenna Kit includes antenna, surge protector, 48” cable and wall/pole mounting kit [2 required per link]

SESPM-4P-PMB “Coming Soon”
Pole Mount Bracket Kit
Note: screws, pole straps, or rubber lined zip ties can be used in conjunction with brackets (not included as pole sizes vary)

SESPM-4P-FMKIT “Coming Soon”
Fiber Management Kit: Includes fiber management tray, mounting screws, and alternative cable gland / inserts

+1.952.941.7600 | www.transition.com | sales@transition.com

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The SISPM1040-362-LRT is a managed PoE+ switch suitable for connecting and powering devices in hardened environments. The switch can supply up to 30 Watts per port on all (4) PoE ports simultaneously. The switch also includes the embedded Device Management System (DMS) software that provides the advanced tools necessary for total management of all IP addressable devices. The unique DMS provides security integrators with lower overall cost, less downtime and easier management of the entire PoE+ network.

Transition Networks’ hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

### Features
- **Store-and-Forward Architecture** with 16 Gbps Switching Bandwidth
- Supports Jumbo frames up to 9.6K Bytes
- **Ring Protections**
  - Industry standard G.8032 Ethernet Ring Protection Switching (ERPS)
  - Support G.8031 Ethernet Linear Protection Switching (EPS)
  - Rapid Ring with recovery time less than 20ms
- **Radius, TACACS+, User Authentication**
- Supports LLDP Protocol
- **HTTPS v1/v2 Network Security**
- **Temperature Detection and Alarm**
- Support HW Watchdog to resume operation from CPU hang up
- ** dimension, Power Consumption Without PoE**
- **Up to 4K VLAN groups, Port based, IEEE 802.1q tag, Q-in-Q, MAC based VLAN, Management VLAN, Private VLAN Edge, Voice VLAN, GVRP**
- **ACL – up to 256 entries, Drop or Rate limiting based on: Source and Destinations MAC, VLAN ID and IP address, protocol, port, DSCP/IP precedence, TCP/UDP source and destination ports, IEEE 802.1p priority, Ethernet type, ICMP packets and TCP flag**
- **Power-over-Ethernet**
  - Port Configuration
  - Auto Power Reset (APR)
  - DHCP per Port
  - PoE Scheduling
  - Complies to IEEE 802.3at, IEEE 802.3af
  - Port Security, IP Source Guard
  - Rate limiting: Ingress policer, Egress shaping and rate control, per port
  - IPv4/IPv6 dual stacks and static routing
  - Port Security, IP Source Guard
  - DHCP Client/Server, DHCP relay, Option 82
- **Device Management System (DMS)**
  - Graphical Monitoring – Topology view, Floor view, Map view
  - Traffic Monitoring
  - Troubleshooting – Network diagnostic, protection mechanism, performance and link management
SISPM1040-384-LRT-C
Managed Hardened Gigabit Ethernet PoE+ Switch
(8) 10/100/1000Base-T Ports + (4) 100/1000Base-X SFP Slots

The SISPM1040-384-LRT-C is a managed PoE+ switch suitable for connecting and powering devices in hardened environments. The switch can supply up to 30 Watts per port on all (8) ports simultaneously. The switch also includes the embedded Device Management System (DMS) software that provides the advanced tools necessary for total management of all IP addressable devices. The unique DMS provides security integrators with lower overall cost, less downtime and easier management of the entire PoE+ network.

Transition Networks’ hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

Features
- Store-and-Forward Architecture with 24 Gbps Switching Bandwidth
- Supports Jumbo frames up to 9.6K Bytes
- Ring Protections: - Industry standard G.8032 Ethernet Ring Protection Switching (ERPS)
  - Support G.8031 Ethernet Linear Protection Switching (EPS)
  - Rapid Ring with recovery time less than 20ms
- Radius, TACACS+, User Authentication
- Supports LLDP Protocol
- HTTPS/SSH v1/v2 Network Security
- Temperature Detection and Alarm
- Support HW Watchdog to resume operation from CPU hang up
- IEEE 1588 v2 PTP

Specifications

Standards

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
<th>IEEE 802.3u</th>
<th>IEEE 802.3z</th>
<th>IEEE 802.3ab</th>
<th>IEEE 802.3x</th>
<th>IEEE 802.3ad</th>
<th>IEEE 802.1p</th>
<th>IEEE 802.1q</th>
<th>IEEE 802.1w</th>
<th>IEEE 802.1s</th>
<th>IEEE 802.1x</th>
<th>IEEE 802.1AB</th>
<th>IEEE 802.2ad</th>
<th>IEEE 802.3af</th>
<th>IEEE 802.3at</th>
<th>IEEE 802.3af</th>
<th>IEEE 802.3af</th>
<th>IEEE 802.1D</th>
<th>IEEE 1588 v2</th>
<th>ITU-T Y.1731</th>
<th>ITU-T G.8031</th>
<th>ITU-T G.8032</th>
</tr>
</thead>
</table>

MAC Address 8K

Backplane 24 Gbps

Serial Console RJ-45

Status LEDs System, Power1, Ring Master, Coupling, Power2, Alarm, Port Status

Dimensions Width: 2.4” [62 mm]
Depth: 5.3” [135 mm]
Height: 5.4” [130 mm]

DIP Switch (2-pin) Rapid Ring setting

Reset button Reset the switch, Restore Factory default

Digital output (relay) 24 VDC/1A

Digital input Level 0 (Low): 0V to 6V
Level 1 (High): 10V to 24V

Power Input 48 ~ 57 VDC; redundant inputs

Power Consumption Without PoE 11.1 Watts

Power-over-Ethernet Total PoE Budget: 240 Watts
30 Watts output on all 8 ports simultaneously

Ingress Protection IP30

Environment Operating: -40°C to +75°C
Storage: -40°C to 85°C
Humidity: 5% to 95% (non-condensing)
Altitude: 0 ~ 10,000 ft.

Weight 2.2 lbs. [1 kg]

Compliance EC: CE, FCC Part 15, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, IEC60608-2-32 (Free fall), IEC60608-2-27 (Shock), IEC60608-2-6 (Vibration), NEMA TS-2
Safety: IEC60950-1, UL Class 1/Div 2

Compliant EN50155, EN50121-4, DIN, IEC61850-3, IEEE1613

Warranty 5 Years

Ordering Information

SISPM1040-384-LRT-C
(8) 10/100/1000Base-T PoE+ [100 m/328 ft.] ports + (4) 100/1000Base-X SFP slots

Optional Accessories (sold separately)

SFP Modules

EDCA-DIO-01
Enclosure Door Contact Alarm

Industrial Power Supplies:

25104
Input: 88-264 VAC, 124-370 VDC
Output: 48 ~ 55 VDC, 5.0A, 240 Watts

25160
Input 90-264 VAC, 127-370 VDC
Output: 48 ~ 55 VDC, 10A, 480 Watts

Mounting Brackets

WMBH-01
Wall Mount Bracket

Features (Continued)

- Loop Protection
- Quality of Service - Supports 8 hardware queues
- Scheduling: strict priority and WRR, Queue assignment based on DSCP and class of service
- Classification: Port based, IEEE 802.1p VLAN priority based, IPv4/IPv6 precedence/DSCP based, DiffServ, Classification and re-marking ACLs
- Rate limiting: Ingress policer, Engress shaping and rate control, per port
- IPv4/IPv6 dual stacks and static routing
- Port Security, IP Source Guard
- System Alarms via SYSLOG / SNMP Trap
- DHCP Client/Server, DHCP relay, Option 82
- Port based network access control (IEEE 802.1X)
- Web / SNMP v1,v2c,v3 / Telnet / CLI management

Device Management System (DMS)

- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, port and link management
- SNMP v1,v2c,v3, SNMP Trap
- Port, link and device discovery
- Traffic monitoring – Bandwidth
- Port Security, MAC Address, VLAN, STP, LLDP monitoring
- Device Configuration
- Port Mirroring
- Power-over-Ethernet - Port Configuration
- Auto Power Reset (APR)
- DHCP per Port
- PoE Scheduling
- Complies to IEEE 802.3at, IEEE 802.3af
- PoE Scheduling
- DHCP Client/Server, DHCP relay, Option 82
- Port based network access control (IEEE 802.1X)
- Web / SNMP v1,v2c,v3 / Telnet / CLI management
The SISPM1040-582-LRT is a managed PoE++ switch suitable for connecting and powering devices in hardened environments. It has 8 10/100/1000 PoE++ ports with 2 100/1000 dual speed SFP slots. The switch can supply up to 90 Watts per port on 4 ports or 60 Watts per port on 8 ports simultaneously. The switch includes the embedded Device Management System (DMS) software that provides the advanced tools necessary for total management of all IP addressable devices. The unique DMS provides security integrators with lower overall cost, less downtime and easier management of the entire PoE+ network.

Transition Networks’ hardened switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.
This switch is a next generation rack-mountable hardened switch with 80Gbps switching capacity. It provides (16) 10/100/1000Base-T PoE+ Ports, (4) 100/1000Base-X SFP Ports and has (2) additional 10GBase-X SFP+ Slots.

Features
- IPv4/IPv6 dual protocols
- Supports Jumbo Frames up to 9K bytes
- Supports LLDP (Link Layer Discovery Protocol)
- Supports 802.1D STP, 802.1w RSTP, 802.1s MSTP
- Supports VLANs (802.1Q, Port Based VLAN, 802.1ad VLAN Trunking Protocol)
- Supports VRRP (Virtual Router Redundancy Protocol)
- Supports 802.1Qb-Tagging

Specifications
- Standards: IEEE 802.3, IEEE 802.3z, IEEE 802.3u, IEEE 802.3af, IEEE 802.3at
- Protocols: CSMA/CD
- Technology: Store-and-forward switching architecture
- Connectors: (16) 100/1000 Mbps RJ-45 ports, (4) 100/1000 Mbps SFP slots, (2) 1G/10G Mbps SFP+ slots, (1) Console RJ-45 port
- MAC Address: 32K MAC address table
- Backplane: 80 Gbps
- Digital Output: 24 VDC / 1A (Relay)
- Digital Input: Level 0 (low): 0V to 6V, Level 1 (high): 10V to 24V
- Dimensions: Width: 17.4" [442 mm], Depth: 11.81" [300 mm], Height: 1.73" [44 mm]
- Power Input: 52 - 57VDC Dual Input Terminal Block or Single Input 100 - 250VAC
- Maximum Power Consumption (without PoE): 36 Watts
- Power-over-Ethernet: Max PoE Budget 250 Watts (PoE power not available with use of AC power supply)
- 15 Watts for (16) ports simultaneously, 30 Watts for (8) ports simultaneously

Ingress Protection: IP30

Environment
- Operating: -40°C to +75°C (1G SFPs), -40°C to +60°C (10G SFPs)

Weight: 10.58 lbs. [4.8 kg]

Compliance
- FCC Class A; CE; NEMA TS-2, UL
- Safety: LVD Compliant
- IEC61850-3, IEEE 1613, Class 1 Div 2

Warranty: 5 Years

Features
- IPv4/IPv6 dual protocols
- Supports Jumbo Frames up to 9K bytes
- Authentication - RADIUS, TACACS+
- DHCP Relay, DHCP Snooping, DHCP Server
- Port Mirroring
- Syslog
- Static Routing, 130 rates (max)
- Fanless Design

Software Features
- Management: Web Management, SNMP V1/V2c/V3, SSH, CLI
- Port Trunk: Supports IEEE 802.3ad port trunk with link aggregation control
- Quality of Service: Supports 8 hardware queues. Strict priority and WRR, Ingress policers, Egress shaper, per port rate control
- Spanning Tree: Supports IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
- VLAN: Port Based VLAN, IEEE 802.1Q tag-based, up to 4k VLAN entries, Q-in-Q, MAC-based VLAN Management
- DHCP: DHCP Option 43, DHCP Option 66, DHCP Option 82
- HTTP: HTTP, HTTP/HTTPS
- HTTPS: HTTP, HTTPS
- SSL: HTTP, HTTPS

PoE Features
- Compliant with IEEE 802.3af PoE
- IEEE 802.3at Power over Ethernet (PoE+)
- IEEE 802.1AB LLDP-MED Configuration
- Power over Ethernet: Max Power Budget 250 Watts (PoE power not available with use of AC power supply)
- 15 Watts for (16) ports simultaneously, 30 Watts for (8) ports simultaneously

Ordering Information
- SISPM1040-3166-L
- 10/100/1000Base-T PoE+ Ports + (4) 100/1000Base-X SFP Slots
- 52V - 57 VDC or 100V - 250VAC

Optional Accessories (sold separately)
- SFP and SFP+ Modules
- EDCA-DIO-01 Enclosure Door Contact Alarm
- Industrial Power Supplies (sold separately)
  - 25160 Input 90-264 VAC, 127-370 VDC, Output: 48 ~ 55 VDC, 10A, 480 Watts
This switch is a next generation rack mountable hardened switch with 136Gbps switching capacity. It provides (24) 10/100/1000 PoE+ ports, (4) 100/1000 dual speeds SFP ports, It has additional (4) 1G/10G SFP+ slots.

### Features
- IPv4/IPv6 dual protocols
- Supports Jumbo Frame up to 9K bytes
- Authentication - RADIUS, TACACS+
- DHCP Relay, DHCP Snooping, DHCP Server
- L2/L3/L4 ACLs Support MAC, VLAN ID, or IP address, protocol, per port
- LLDP (Link Layer Discovery Protocol)
- ITU-T G.8031 Ethernet Linear Protection
- ITU-T G.8032 Ethernet Ring Protection Switching
- Rapid Ring for fast recovery
- IEEE 802.3az Energy Efficiency
- IP Source Guard, Port Security
- Port Mirroring
- Syslog
- Static Routing, 130 rates (max)
- Fanless Design

### PoE Features
- Compliant with IEEE 802.3at PoE+
- Compliant with IEEE 802.3af PoE
- IEEE 802.1AB LLDP-MED Configuration
- PoE Configuration
- PoE Scheduling
- Power Delay
- Auto Power Reset
- DHCP per Port

### Specifications

#### Standards
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3z
- IEEE 802.3ae
- IEEE 802.3ad
- IEEE 802.1D
- IEEE 802.1w
- IEEE 802.1s
- IEEE 802.1Q
- IEEE 802.1p
- IEEE 802.3ad
- IEEE 802.1AB
- IEEE 802.3af
- IEEE 802.3at
- IEEE 802.3az
- IEEE 802.3ah

#### Protocols
- CSMA/CD

#### Technology
- Store-and-forward switching architecture

#### Connectors
- (24) 100/1000 Mbps RJ-45 ports
- (4) 100/1000 Mbps SFP slots
- (4) 1G/10G Mbps SFP+ slots
- (1) Console RJ-45 port

#### MAC Address
- 32K MAC address table

#### Backplane
- 136 Gbps

#### Digital Output
- 24 VDC / 1A (Relay)

#### Digital Input
- Level 0 (low): 0V to 6V
- Level 1 (high): 10V to 24V

#### Dimensions
- Width: 17.4" [442 mm]
- Depth: 11.81" [300 mm]
- Height: 1.73" [44 mm]

#### Power Input
- 52 - 57VDC Dual Input Terminal Block or Single Input 100 - 250VAC

#### Power-over-Ethernet
- Max PoE Budget 370 Watts (PoE power not available withuse of AC power supply)
- 15 Watts for (24) ports simultaneously
- 30 Watts for (12) ports simultaneously

#### Ingress Protection
- IP30

#### Environment
- Operating: -40°C to +75°C (1G SFPs)
- Operating: -40°C to +60°C (10G SFPs)

#### Weight
- 11.02 lbs. [5 kg]

#### Compliance
- FCC Class A; CE; NEMA TS-2, UL
- Safety: LVD

#### Warranty
- 5 Years

#### Software Features
- Management: Web Management, SNMP V1/V2c/V3, SSH, CLI
- Port Trunk: Supports IEEE 802.3ad port trunk with link aggregation control protocol (LACP) and static trunk
- Multicast: Support IGMP Snooping V1/V2/V3, MVR, MLD Snooping V1/V2
- Quality of Service: Supports 8 hardware queues, Strict priority and WRR, Ingress policer, Egress shaping and per port rate control
- Spanning Tree: Supports IEEE 802.1s MSTP, IEEE 802.1w RSTP and IEEE 802.1D STP Compliant
- VLAN: Port Based VLAN, IEEE 802.1Q tag-based, up to 4k VLAN entries, Q-in-Q, MAC-based VLAN, Management VLAN, Voice VLAN, Private VLAN
- Firmware Update through TFTP and HTTP/HTTPS
- E-Line, E-LAN, E-TREE, E-ACCESS, IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731, Y.1564
- Support IEEE 1588 v2 PTP (TC)

#### Device Management System (DMS)
- Graphical Monitoring – Topology view, Floor view, Map view
- Traffic Monitoring
- Troubleshooting – Network diagnostic, protection mechanism, performance and link management
SPOEB Series
Stand-alone Fast Ethernet PoE Media Converter
10/100Base-TX PoE PSE to 100Base-FX

The SPOEB Series is a 10/100 Ethernet copper to fiber PoE media converter that enables enterprises to provide power to network devices over the existing CAT5 data connection.

Transition Networks’ AC powered PoE media converters combine data received over a fiber optic link with -48 VDC power; providing power to Data Terminal Equipment (DTE) Power Devices (PD) over unshielded twisted pair cable. The PoE converters are Power Sourcing Equipment (PSE) and are fully compatible with Powered Devices (PD) that comply with the IEEE 802.3af standard. The converters also include a PD signature sensing and power monitoring features per the IEEE 802.3af standard. Other features include Over-Current Protection, Under-Current Detection and Fault Protection Input.

This feature enhanced model offers the ability to enable/disable many of the features as well as force port capabilities. In addition, when the PSE/LPT switch is enabled, a loss of Fiber RX will disable PSE power output on the UTP port for 2 seconds to allow remote device to re-initialize, also known as Powered Device Reset.

The PoE converter is fully compatible with devices that comply with the IEEE 802.3af standard. The PoE converter is capable of inserting power on data pairs or spare pair of the MDI.

Features
- External AC power supply
- IEEE 802.3af Power-over-Ethernet Compatible
- 48 VDC PSE Output Voltage
- Signal Pair or Spare Pair Power Insertion
- PD Detection Signature
- Over-Current Protection & Under-Current Detection
- Powered Device Reset
- Switch selectable features and port settings
- Minimum Load Sensing
- Fault Protection Input
- Auto-Negotiation
- Auto-MDI/MDIX
- Link Pass Through (LPT)
- Far-End-Fault (FEF)
- Automatic Link Restoration

Specifications
- Standards: IEEE 802.3
- Max Frame Size: 1600 bytes
- Switches:
  - SW1: Auto-Negotiation On/Off (TP)
  - SW2: Speed TP: Force 10 Mbps or 100 Mbps (SW1 off)
  - SW3: Duplex TP: Force Half or Full-Duplex (SW1 off)
  - SW4: Duplex Fiber: Half or Full-Duplex
  - SW5: Link Pass Through On/Off
  - SW6: PSE On/Off
  - SW7: PSE/LPT on/off
  - SW8: N/A
- Status LEDs: Power, Fiber Link, Activity, & Duplex Copper Link, Activity, Speed, & Duplex PoE Status
- Dimensions:
  - Width: 3.25” [82.55 mm]
  - Depth: 4.8” [121.92 mm]
  - Height: 1” [25 mm]
- Power Consumption: 20 Watts (max)
- Power Supply: External power supply: 90 – 250 VAC Input, 48VDC Output
- Environment: Operating: 0°C to 50°C
  - Storage: -25° to +85°C
  - Humidity: 5% to 90% (non-condensing)
  - Altitude: 0 – 10,000 ft.
- Weight: 2 lbs. [0.90 kg]
- Warranty: Lifetime

Ordering Information

<table>
<thead>
<tr>
<th>SKU</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPOEB1040-105</td>
<td>10/100Base-TX PoE (RJ-45) [100 m/328 ft.] to 100Base-FX SFP Slot (empty)</td>
</tr>
<tr>
<td>SPOEB1011-105</td>
<td>10/100Base-TX PoE (RJ-45) [100 m/328 ft.] to 100Base-FX 1300nm multimode (ST) [2 km/1.2mi.] Link Budget: 11.0 dB</td>
</tr>
<tr>
<td>SPOEB1012-105</td>
<td>10/100Base-TX PoE (RJ-45) [100 m/328 ft.] to 100Base-FX 1300nm multimode (SC) [2 km/1.2mi.] Link Budget: 11.0 dB</td>
</tr>
<tr>
<td>SPOEB1039-105</td>
<td>10/100Base-TX PoE (RJ-45) [100 m/328 ft.] to 100Base-FX 1300nm multimode (LC) [2 km/1.2mi.] Link Budget: 11.0 dB</td>
</tr>
</tbody>
</table>

Optional Accessories (sold separately)
- SFP Modules
- Mounting Options
  - WMVL: Wall Mount Bracket 4” [102 mm]
  - WMBV: Vertical Wall Mount Bracket 5” [127 mm]
  - WMDD: DIN Rail Bracket 5” [127 mm]
  - RMS19-SA4-02: 4-Slot Media Converter Shelf

Power Supply Included

To order the corresponding country specific power supply, add the extension from the list below to the end of the SKU. Ex: SPOEB1040-105-NA
- CA = Canada
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- AUS = Australia
- BR = Brazil

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SGPOE Series
Stand-alone Gigabit Ethernet PoE Media Converter
10/100/1000Base-T PoE PSE to 1000Base-X

Transition Networks’ AC powered PoE media converters combine data received over a fiber optic link with -48 VDC power; providing power to Data Terminal Equipment (DTE) Powered Devices (PD) over unshielded twisted pair cable. The PoE converters are Power Sourcing Equipment (PSE) and are fully compatible with Powered Devices (PD) that comply with the IEEE 802.3af standard. The converters also includes a PD signature sensing and power monitoring feature per the IEEE 802.3af standard. This feature enhanced model offers the ability to enable/disable many of the features as well as force port capabilities (see switches section under Specifications).

In addition, with the PSE/LPT switch enabled, a loss of Fiber RX will disable PSE power output on the UTP port for 2 seconds to allow remote device to re-initialize, also known as Powered Device Reset. The PoE converter is fully compatible with devices that comply with the IEEE 802.3af standard as well as select legacy PDs. The PoE converter is capable of inserting power on data mode A or mode B pairs of the MDI.

Features
• SFP ports support either 100Base or 1000Base fiber
• Redundant SFP port option
• IEEE 802.3af Power-over-Ethernet Compatible
• 48 VDC PSE Output Voltage
• Mode A or Mode B Pairs Power Insertion
• PD Detection Signature
• PoE Legacy Detect for non-IEEE 802.3af compatible Powered Devices (PD)
• Over-Current Protection
• Under-Current Detection
• Powered Device Reset
• Minimum Load Sensing
• Fault Protection Input
• Auto-Negotiation
• Auto-MDI/MDIX
• Link Pass Through
• Automatic Link Restoration
• External AC power supply

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
<th>IEEE 802.3af</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC Addresses</td>
<td>8K</td>
<td></td>
</tr>
<tr>
<td>Max Packet Size</td>
<td>1632 bytes untagged</td>
<td>1628 bytes tagged</td>
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<tr>
<td>Switches</td>
<td></td>
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</tr>
<tr>
<td>SW1: Auto-Negotiation TP On/Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW2: Speed TP: Force 10 Mbps or 100 Mbps (SW1 off)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW3: Duplex TP: Force Half or Full-Duplex (SW1 off)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW4: Duplex Fiber: Half or Full-Duplex</td>
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<td></td>
</tr>
<tr>
<td>SW5: Auto-MDI/MDIX On/Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW6: PSE On/Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW7: PSE/LPT on/off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SW8: Unused</td>
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<td></td>
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<tr>
<td>Dimensions</td>
<td>Width: 4.4” [112 mm]</td>
<td>Depth: 5.1” [129 mm]</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>20 Watts (max)</td>
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</tr>
<tr>
<td>Power Supply</td>
<td>External AC/DC required; 48 VDC 0.67A Output; 90 – 250VAC external power supply input</td>
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<tr>
<td>Environment</td>
<td>Operating: 0°C to 40°C</td>
<td>Storage: -25°C to 85°C</td>
</tr>
<tr>
<td>Weight</td>
<td>2 lbs. [0.90 kg]</td>
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</tr>
<tr>
<td>Warranty</td>
<td>Lifetime</td>
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Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>SKU</th>
<th>Country Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGPOE1013-100</td>
<td>10/100/1000Base-T PoE (RJ-45)</td>
<td>SGPOE1013-100-NA</td>
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<tr>
<td></td>
<td>10/100/1000Base-T PoE (RJ-45)</td>
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<td>NA</td>
</tr>
<tr>
<td></td>
<td>to 100Base-SX 850nm multimode (SC)</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>[62.5/125 µm: 220 m/722 ft.] Link Budget: 8.0 dB</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>[50/125 µm: 550 m/1804 ft.] Link Budget: 8.0 dB</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>SGPOE1039-100</td>
<td>10/100/1000Base-T PoE (RJ-45)</td>
<td>SGPOE1039-100-NA</td>
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</tr>
<tr>
<td></td>
<td>10/100/1000Base-T PoE (RJ-45)</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>to 1000Base-SX 850nm multimode (LC)</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>[62.5/125 µm: 220 m/722 ft.] Link Budget: 8.0 dB</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>[50/125 µm: 550 m/1804 ft.] Link Budget: 8.0 dB</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>SGPOE1040-100</td>
<td>10/100/1000Base-T PoE (RJ-45)</td>
<td>SGPOE1040-100-NA</td>
<td>NA</td>
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<tr>
<td></td>
<td>10/100/1000Base-T PoE (RJ-45)</td>
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<td>NA</td>
</tr>
<tr>
<td></td>
<td>to 100/1000Base-X SFP Slot (empty)</td>
<td></td>
<td>NA</td>
</tr>
<tr>
<td>Optional Accessories (sold separately)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SFP Modules

Mounting Options

WMDD
DIN Rail Mount Bracket 5” [127 mm]

WMBL
Wall Mount Bracket 4” [102 mm]

Power Supply Included

To order the corresponding country specific power supply, add the extension from the list below to the end of the SKU; Ex: SGPOE1013-100-NA
- NA = Country Code
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- OZ = Australia
- BR = Brazil

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The SGPAT Series is a 10/100/1000Base-T to 1000Base-SX/LX Gigabit Ethernet Media Converter, that easily and affordably facilitates the connection between different types of network cabling, while also injecting PoE power through the copper RJ-45 port.

Being a Power Sourcing Equipment (PSE) device, the SGPAT media converter combines data received over a fiber optic link with 56VDC input power to provide power and data to a Powered Device (PD) over twisted pair cable while complying with the IEEE 802.3at PoE+ standard, which is also backwards compatible with the IEEE 802.3af PoE standard.

The converter is available in 2-port, 3-port, and 4-port versions and includes PD signature sensing and power monitoring features. Other features include over-current protection, under-current protection, and fault protection input. Active Link Pass Through (ALPT) is supported, which is an automatically activated version of Link Pass Through (LPT) that allows the converter to detect the loss of Receive (Rx) signals on either fiber or copper port and propagate the failure to the end devices, preventing the media converter from isolating those link failures. During a Link Pass Through event, the Auto Power Reset feature will re-set the signals on either fiber or copper port and propagate the failure to the end devices, preventing the media converter from isolating those link failures. During a Link Pass Through event, the Auto Power Reset feature will re-set the power to the end PD device, ensuring it is ready to go when the LPT event is corrected.

### Features
- Wall mount, DIN Rail, or table top
- External AC/DC power supply included
- 2-port 10/100/1000 copper to fiber media conversion with IEEE 802.3at PoE+ on the copper port
- Supports full 30 Watts of power to each twisted pair port
- Various fiber versions available supporting fixed SC, LC, and open SFP slots
- 3-port version offers (1) RJ-45 PoE+ port and (2) open SFP slots, device can be configured as a 3-port switch or as a 2-port media converter with redundant fiber links
- With redundant fiber enabled, supports a 50ms fail-over time
- 4-port version offers (2) RJ-45 PoE+ ports and (2) open SFP slots, device can be configured as a 4-port switch (with or without redundant fiber) or as two independent PoE+ media converters in one housing
- SFP slots can support 100Base-FX, 1000Base-X, or SGMII based (MSA compliant) SFP modules
- Supports Auto-Negotiation, Auto-MDI/MDIX, Active Link Pass Through (ALPT), and Remote Fault Detection
- Jumbo frame support
- LEDs indicators for power status, per port link, duplex, and activity status; and PoE status

### Specifications
**Standards**
- IEEE 802.3-2012
- IEEE 802.3af
- IEEE 802 at PSE-PoE+
- IEEE 802.3u
- IEEE 802.3ab
- IEEE 802.3z
- IEEE 802.3x
- IEEE 802.3az

**Switch Features**
- Max Packet Size: 10,000 bytes
- Max MAC Addresses: 8k
- Shared buffer memory: 1Mbit

**Dip Switches**
- Switch 1: Port 3: SFP Mode Up=100/1000 or Down=SGMII
- Switch 2: Port 4: 2nd SFP Mode Up=100/1000 or Down=SGMII
- Switch 3: ALPT: Up=Disabled or Down=Enabled
- Switch 4: Redundant fiber mode: Up-Normal or Down=Redundant
- Switch 5: Revertive mode: Up=Revertive or Down=Non-revertive
- Switch 6: 2x Converter mode: Up=Disabled or Down=Enabled
(See user manual for complete dip switch functionality)

**Status LEDs**
- PWR: Power being applied to converter
- PoE+: PoE+ Status
- TP – Left LED per Port: Copper Port Link Status
- TP – Right LED per Port: Copper Port Speed Status
- Fiber L/A – per port: Fiber Port Link Status
(See user manual for complete LED Descriptors)

**Dimensions**
- Width: 3.25” [82 mm]
- Depth: 4.8” [122 mm]
- Height: 1” [25 mm]

**Power Source**
- External AC/DC 56VDC power adapter

**Power Consumption**
- 56VDC, 1.17A, 65.5 Watts (assumes both PoE ports are delivering the full 30 Watts)

**Environment**
- Operating: 0°C to +45°C
- Storage: -40°C to 85°C
- Humidity: 5% to 95% (non-condensing)
- Altitude: 0 – 10,000 ft. (with de-rating)

**Weight**
- 2 lbs. [0.9 kg]

**Compliance**
- EN505022 Class A, EN50504, CE Mark
- Power Supply is UL listed

**Warranty**
- Lifetime

### Ordering Information
- **SGPAT1013-105**
  - 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to 1000Base-SX 850nm multimode (SC) [850nm: 550m / 1804 ft.] Link Budget: 8.5dB

- **SGPAT1093-105**
  - 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to 1000Base-SX 850nm multimode (LC) [850nm: 50/125um: 220m / 722 ft.] [50/125um: 550m / 1804 ft.] Link Budget: 8.0dB

- **SGPAT1040-105**
  - 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to 10/100Base-X Open SFP Slot

- **SGPAT1040-205**
  - (1) 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to (2) 100/1000Base-X Open SFP Slot

- **SGPAT1040-305**
  - (2) 10/100/1000Base-T PoE+ (RJ-45) [100 m/328 ft.] to (2) 100/1000Base-X Open SFP Slot

**Optional Accessories**
- (sold separately)
- SFP Modules
- Cable-CCC-06
  - Cisco DB9 to RJ-45 Console Cable, Blue 6 ft.
- Mounting Options
  - (sold separately)
  - WMBL
    - Wall Mount Bracket 4” [102 mm]
  - WMBD
    - DIN Rail Bracket 5” [127 mm]
  - RMS19-SS-02
    - 4-Slot Media Converter Shelf

**Features Continued**
- Twisted pair ports support IEEE 802.3at Energy Efficient Ethernet for power saving
- Dip switch control of basic feature configuration
- RJ-45 serial port for Command Line Interface (CLI) or advanced port configuration (115200 baud)

**Power Supply Included**
To order the corresponding country specific power supply, add the extension from the list below to the end of the SKU; Ex: SGPAT1013-105-NA

- **NA** = North America
  - LA = Latin America
  - EU = Europe
  - UK = United Kingdom
  - SA = South Africa
  - JP = Japan
  - OZ = Australia
  - BR = Brazil
SI-IES-111D-LRT
Unmanaged Hardened PoE+ Injector/Converter
(1) 100/1000Base-X SFP Slot + (1) 10/100/1000Base-T PoE+ Port

The SI-IES-111D-LRT is a (2) port unmanaged hardened PoE+ injector that adds up to 30 Watts of power from its PoE+ Port onto a network segment. The gigabit speed SFP slot provides the ultimate flexibility by allowing fiber SFP uplink ports with varying communication distances.

Features
- IEEE 802.3at PoE+ to supply 30 Watts on 10/100/1000Base-T port
- Supports IEEE 802.3af
- Supports dual speed for SFP slot
- Non-blocking architecture
- Compact size
- IP31 housing protection
- Link Pass Through
- Extended operating temperature (-40°C to 75°C)
- DIN Rail mount / optional wall mount brackets included
- Full/half-duplex flow control
- Auto-MDI/MDIX
- Auto-Negotiation
- Store-and-forward transmission
- 10K byte jumbo frames

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEEE 802.3x</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3u</td>
</tr>
<tr>
<td>Max Frame Size</td>
<td>10K byte jumbo frames</td>
</tr>
<tr>
<td>Connectors</td>
<td>(1) DATA IN SFP Ethernet Port</td>
</tr>
<tr>
<td></td>
<td>(1) DATA OUT PoE+ RJ-45 Ethernet Port 30 Watts</td>
</tr>
<tr>
<td>Status LEDs</td>
<td>Copper Port: Link/ACT</td>
</tr>
<tr>
<td></td>
<td>Copper Port: Gigabit Transmission</td>
</tr>
<tr>
<td></td>
<td>SFP Port: Link/ACT</td>
</tr>
<tr>
<td></td>
<td>PoE Power</td>
</tr>
<tr>
<td></td>
<td>Input Power</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Width: 1.44&quot; [36.7 mm]</td>
</tr>
<tr>
<td></td>
<td>Depth: 3.72&quot; [94.5 mm]</td>
</tr>
<tr>
<td></td>
<td>Height: 4.26&quot; [108.4 mm]</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>3.53 Watts (No PoE)</td>
</tr>
<tr>
<td></td>
<td>32.725 Watts (1 port PoE)</td>
</tr>
<tr>
<td>Power Input</td>
<td>48-57VDC</td>
</tr>
<tr>
<td></td>
<td>Higher Voltage (50-53VDC) may be required for some high powered PD loads</td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP31</td>
</tr>
<tr>
<td>Environment</td>
<td>Operating: -40°C to 75°C</td>
</tr>
<tr>
<td></td>
<td>Storage: -40°C to 85°C</td>
</tr>
<tr>
<td></td>
<td>Humidity: 5% to 95% (non-condensing)</td>
</tr>
<tr>
<td></td>
<td>Altitude: 0 – 10,000 ft.</td>
</tr>
<tr>
<td>Weight</td>
<td>1.3 lbs. [0.59 kg]</td>
</tr>
<tr>
<td>Compliance</td>
<td>Safety: UL508</td>
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<tr>
<td></td>
<td>Class I, Division 2, Groups A, B, C, and D Hazardous Locations, FCC Class A, CE Mark, EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6(CS)</td>
</tr>
<tr>
<td>Warranty</td>
<td>Lifetime</td>
</tr>
</tbody>
</table>

Ordering Information

| SI-IES-111D-LRT | (1) 100/1000Base-X SFP slot + (1) 10/100/1000Base-T PoE+ port |
| Optional Accessories | (sold separately) |
| SFP Modules |
| Industrial Power Supplies: |
| 25130 | Input: 88-264VAC, 120-370VDC |
| Output: 48-55VDC, 0.83A, 39.8Watts |
| 25131 | Input: 88-264VAC, 124-370VDC |
| Output: 48-55VDC, 1.6A, 76.8Watts |

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The SI-IES-121D-LRT is a (3) port unmanaged hardened PoE+ injector / converter that adds up to 30 Watts of power from its (2) PoE+ ports onto 2 network segments. The gigabit speed SFP slot provides the ultimate flexibility by allowing fiber SFP uplink ports with varying communication distances.

**Features**
- IEEE 802.3at PoE+ to supply 30 Watts per port
- Supports IEEE 802.3af
- Supports dual speed for SFP slot
- Non-blocking architecture
- Compact, space saving size
- IP31 housing protection
- Link Pass Through
- Extended operating temperature (-40°C to 75°C)
- DIN Rail mount / optional wall mount brackets included
- Full/half-duplex flow control
- Auto-MDI/MDIX
- Auto-Negotiation
- Store-and-forward transmission
- 10K byte jumbo frames

**Specifications**

<table>
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<tr>
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<tbody>
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<td>IEEE 802.3at</td>
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<td>IEEE 802.3z</td>
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<td>IEEE 802.3af</td>
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<tr>
<td>Max Frame Size</td>
<td>10K byte jumbo frames</td>
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<tr>
<td>Connectors</td>
<td>(1) DATA IN SFP Ethernet Port</td>
</tr>
<tr>
<td></td>
<td>(2) DATA OUT PoE+ RJ-45 Ethernet Port 30 Watts</td>
</tr>
<tr>
<td>Status LEDs</td>
<td>Copper Port: Link/ACT</td>
</tr>
<tr>
<td></td>
<td>Copper Port: Gigabit Transmission</td>
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<tr>
<td></td>
<td>SFP Port: Link/ACT</td>
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<tr>
<td></td>
<td>PoE Power</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Dimensions</td>
<td>Width: 1.44” [36.7 mm]</td>
</tr>
<tr>
<td></td>
<td>Depth: 3.72” [94.5 mm]</td>
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<td>Height: 4.26” [108.4 mm]</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>3.53 Watts (No PoE)</td>
</tr>
<tr>
<td></td>
<td>63.5 Watts (2 ports PoE)</td>
</tr>
<tr>
<td>Power Input</td>
<td>48-57VDC</td>
</tr>
<tr>
<td></td>
<td>Higher Voltage (50-53VDC) may be required for some high powered PD loads</td>
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<td></td>
<td>Humidity: 5% to 95% (non-condensing)</td>
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<td></td>
<td>Altitude: 0 – 10,000 ft.</td>
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<td>Weight</td>
<td>1.3 lbs. [0.59 kg]</td>
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<td>Safety: UL508</td>
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<td>Class I, Division 2, Groups A, B, C, and D Hazardous Locations, FCC Class A, CE Mark, EN61000-4, EN61000-4-2, EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6(CS), EN61000-6-4 (EMD), EN61000-4-8 (Magnetic Field), IEC60068-2-27(Shock), IEC60068-2-32 (Free fall), IEC60068-2-6 (Vibration) IEC61850-3</td>
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<tr>
<td>Warranty</td>
<td>Lifetime</td>
</tr>
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</table>

**Ordering Information**

SI-IES-121D-LRT
(1) 100/1000Base-X SFP port + (2) 10/100/1000Base-T PoE+ ports

Optional Accessories (sold separately)

SFP Modules

Industrial Power Supplies:

25131
Input: 88-264VAC, 124-370VDC
Output: 48-55VDC, 1.6A, 76.88 Watts
The M/GE-ISW-SFP-01-PD is a hardened Gigabit Ethernet Mini media converter that provides a cost effective media conversion between 10/100/1000Base-T ports and 100/1000Base-X ports for hardened or outdoor 10/100/1000 environments. The device is powered through the RJ-45 copper port in compliance with IEEE 802.3af standards, when connected to power sourcing equipment, meaning no separate power connection is required. With its supported operating temperature range of -40°C to +75°C, the Mini offers a space saving alternative for converting copper to fiber in extreme environments.

**Features**

- IEEE 802.3af PD Power Input from RJ-45 TP interface
- Unit & Port LEDs allow for quick status information
- Auto-Negotiation
- Fixed Full-Duplex on Fiber
- Auto-MDI/MDIX on copper port
- Active Link Pass Through
- Jumbo Frame (up to 10240 bytes)
- DIN Rail clip and Velcro included

**Specifications**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standards</strong></td>
<td>IEEE 802.3, IEEE 802.3u, IEEE 802.3z, IEEE 802.3x, IEEE 802.3af</td>
</tr>
<tr>
<td><strong>Max Frame Size</strong></td>
<td>10240 bytes</td>
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<tr>
<td><strong>Status LEDs</strong></td>
<td>PWR (Power): ON = Lit for normal operation, FX-Link/Act (Fiber Link/Activity): On = link, Flashing = Activity, TX-Link/Act (Copper Link/Activity): On = link, Flashing = Activity</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Width: 1.8” [46 mm], Depth: 3.3” [85 mm], Height: 0.85” [22 mm]</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>1.8 Watts</td>
</tr>
<tr>
<td><strong>Power Input</strong></td>
<td>IEEE 802.3af supplied through TP RJ-45</td>
</tr>
<tr>
<td><strong>PoE Power Classification</strong></td>
<td>Class 1 Powered Device (0.44 Watts - 3.84 Watts)</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Operating: -40°C to +75°C, Storage: -40°C to +85°C, Humidity: 5% to 95% (non-condensing), Altitude: 0 – 10,000 ft.</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>0.40 lbs. [0.18 kg]</td>
</tr>
<tr>
<td><strong>Compliance</strong></td>
<td>FCC Class A, CISPR22/EN55022 Class A, EN55024, CE Mark</td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td>Lifetime</td>
</tr>
</tbody>
</table>

**Ordering Information**

M/GE-ISW-SFP-01-PD
PoE Powered Hardened Mini
10/100/1000Base-T (RJ-45) to 100/1000Base-X Open SFP Slot

Optional Accessories (sold separately)

SFP Modules
Supports Hardened Grade SFP Modules
MIL-L100i
(1) Port PoE Mid-Span Injector

Transition Networks’ Power-over-Ethernet solutions deliver a unified supply of data, voice, and video as well as electrical power through a single source by sending power over standard CAT5 and above twisted pair cables. Power-over-Ethernet simplifies installation and eliminates the need to run separate power cords and LAN cables to each Access Point or port locations.

Our PoE products provide organizations with affordable, easy-to-use solutions that enable them to migrate their network infrastructure to support a growing number of advanced cost-saving, performance enhancing applications, such as streamlining wireless, VoIP, Network IP camera deployments, and centralized power backup solutions. Whether on a factory floor or in an enterprise facility, running power to hard to reach locations with Transition Networks’ Power-over-Ethernet solutions significantly reduces cabling and outlet requirements while providing the lowest total cost of ownership.

Features
- Ensures uninterrupted network operation by providing a “power safe” path to the user
- Intelligent detection process to detect Power-over-Ethernet enabled terminals and protect legacy endpoints
- Furnishes easy and cost-effective installation with fewer cables and electrical outlets
- Provides one central secure location for power
- IEEE 802.3af compliant
- Ensures safe delivery of power to existing legacy devices as well as power-enabled terminals
- Avoids altering existing wiring and does not damage cabling infrastructure already in place
- Power delivery over Ethernet cables does not cause data degradation or loss of data integrity
- Easiest way to add support of PoE to an existing network without replacing existing equipment

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3af</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEEE 802.3</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3u</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ports</th>
<th>(1) DATA IN RJ-45 Ethernet Port</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) DATA OUT PoE Injector RJ-45 Ethernet Port</td>
</tr>
</tbody>
</table>

| Status LEDs     | Power: PoE power is being injected into the Data Out port |

<table>
<thead>
<tr>
<th>Cable Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>10Base-T: 2-pair UTP/STP Cat.3,4,5 cable EIA/TIA-568100-ohm(100 m)</td>
</tr>
<tr>
<td>100Base-TX: 2-pair UTP/STP Cat.5 cable EIA/TIA-568 100-ohm(100 m)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Width: 4.6” [117 mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depth: 2.3” [60 mm]</td>
</tr>
<tr>
<td></td>
<td>Height: 1.3” [35 mm]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power Output</th>
<th>-48 VDC, 300 mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Input</td>
<td>AC 100<del>240V, 50</del>60 Hz, 0.3A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environment</th>
<th>Operating: 0°C to 40°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Storage: 0°C to 70°C</td>
</tr>
<tr>
<td></td>
<td>Humidity: 5% to 95% (non-condensing)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
<th>0.44 lbs. [0.2 kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance</td>
<td>Safety: UL, cUL, CE/EN60950</td>
</tr>
<tr>
<td></td>
<td>Emissions: FCC Class B, CE Mark</td>
</tr>
</tbody>
</table>

| Warranty         | Lifetime |

Ordering Information

MIL-L100i
(1) 10/100Base-T Port PoE Mid-Span Injector

Power Supply Included

To order the corresponding country specific power supply, add the extension from the list below to the end of the SKU

Ex: MIL-L100i-NA

-NA = Country Code
-NA = North America
-LA = Latin America
-EU = Europe
-UK = United Kingdom
-SA = South Africa
-JP = Japan
-OZ = Australia
-BR = Brazil

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Media Converters
L1000i-at
(1) Port PoE+ Mid-Span Injector

Transition Networks’ L1000i-at is a 1-port 10/100/1000Base-T PoE+ mid-span injector which provides a simple, cost-effective, fully IEEE 802.3at compliant solution to upgrade existing infrastructure with PoE+. Powering high-powered PoE+ enabled network devices, such as PTZ dome network cameras, can be done without the need to install power outlets and electrical cabling.

PoE technology allows IP phones, wireless access points, and security network cameras to receive power, along with data, over standard Ethernet cables, leaving the network infrastructure completely unaltered. PoE technology also allows for easier installation in areas where power cabling and outlets are unavailable, thereby reducing installation costs.

Mid-span injectors offer users the ability to take advantage of PoE technology while protecting investments they’ve made in purchasing, configuring, and deploying non-PoE supported devices such as standard Ethernet switches.

Features
- Power-over-Ethernet Injector for 10/100/1000Base-T
- Remote Power Feeding
- Overload and short circuit protection
- Mixes Ethernet and power on the RJ-45 port
- Delivers power up to 100 meters
- Light weight and compact size
- Plug-and-play
- IEEE 802.3at and IEEE 802.3af compliant

Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEEE 802.3U</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3ab</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3af</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3at</td>
</tr>
<tr>
<td>Ports</td>
<td>(1) DATA IN RJ-45 Ethernet Port</td>
</tr>
<tr>
<td></td>
<td>(1) DATA OUT PoE Injector RJ-45 Ethernet Port</td>
</tr>
<tr>
<td>Status LEDs</td>
<td>AC Power Feeding Power</td>
</tr>
<tr>
<td>Cable Requirements</td>
<td>10Base-T: 2-pair UTP/STP Cat.3,4,5 cable EIA/TIA-568 100-ohm(100 m)</td>
</tr>
<tr>
<td></td>
<td>100Base-TX: 2-pair UTP/STP Cat.5 cable (Cat. 5e recommended); EIA/TIA-568 100-ohm(100 m)</td>
</tr>
<tr>
<td></td>
<td>1000Base-T: 4-pair UTP/STP Cat.5e or above cable; EIA/TIA-568 100-ohm, 100m</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Width: 2.65” [65 mm]</td>
</tr>
<tr>
<td></td>
<td>Depth: 5.51” [140 mm]</td>
</tr>
<tr>
<td></td>
<td>Height: 1.42” [36 mm]</td>
</tr>
<tr>
<td>Power Input</td>
<td>AC input voltage range: 100 – 240 VAC, 50 – 60Hz 0.72A</td>
</tr>
<tr>
<td>Power Output</td>
<td>55V @ 0.6A</td>
</tr>
<tr>
<td>Environment</td>
<td>Operating: 0°C to 40°C</td>
</tr>
<tr>
<td></td>
<td>Storage: -40°C to 70°C</td>
</tr>
<tr>
<td>Weight</td>
<td>1 lb. [0.45 kg]</td>
</tr>
<tr>
<td>Compliance</td>
<td>Safety: UL, cUL, CE/EN60950-1</td>
</tr>
<tr>
<td></td>
<td>Emissions: FCC Class B, CE Mark</td>
</tr>
<tr>
<td>Warranty</td>
<td>Lifetime</td>
</tr>
</tbody>
</table>

Ordering Information

L1000i-at
(1) 10/100/1000Base-T port PoE+ Injector

- Power Cord Included
To order the corresponding country specific power cord, add the extension from the list below to the end of the SKU
Ex: L1000i-at-NA
- NA = Country Code
- NA = North America
- LA = Latin America
- EU = Europe
- UK = United Kingdom
- SA = South Africa
- JP = Japan
- OZ = Australia
- BR = Brazil

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The SI-IES-1200-LRT is an unmanaged hardened PoE+ injector that adds up to 30 Watts of power on a network segment. Injectors are commonly used to power PoE devices in locations where a power source does not exist. The injector has redundant input power connections, and a fault alarm relay to ensure safe reliable operation in temperatures between -40°C and +75°C.

Transition Networks’ hardened PoE injectors are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

### Features
- IEEE 802.3at PoE+ to supply 30 Watts
- Supports IEEE 802.3af
- Non-blocking architecture
- Compact size
- IP30 housing protection
- Link Pass Through
- Extended operating temperature (-40°C to 75°C)
- DIN Rail mount / optional wall mount brackets included

### Specifications

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEEE 802.3a</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3ab</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3at</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3af</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connectors</th>
<th>(1) DATA IN RJ-45 Ethernet Port</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) DATA OUT PoE+ RJ-45 Ethernet Port 30 Watts</td>
</tr>
</tbody>
</table>

| Status LEDs        | PWR1 (Power): ON=primary power connected |
|--------------------| PWR2 (Power): ON=backup power connected |

| Dimensions         | Width: 1.2” [30 mm] |
|--------------------| Depth: 3.7” [95 mm] |
|                    | Height: 5.5” [140 mm] |

| Power Consumption  | 3.53 Watts (No PoE) |
|--------------------| 33.36 Watts (1 port PoE) |

| Power Input        | 24-48VDC |

| Ingress Protection | IP30 |

| Environment        | Operating: -40°C to 75°C |
|--------------------| Storage: -40°C to 85°C |
|                    | Humidity: 5% to 95% (non-condensing) |
|                    | Altitude: 0 – 10,000 ft. |

| Weight             | 1.3 lbs. [0.59 kg] |

| Compliance         | Safety: UL508 |
|--------------------| FCC Class A, CE Mark, EN61000-4, |
|                    | EN61000-6-2, EN61000-4-2 (ESD), |
|                    | EN61000-4-3 (RS), EN61000-4-4 (EFT), |
|                    | EN61000-4-5 (Surge), EN61000-4-6 (IC) |
|                    | EN61000-4-8 (Magnetic Field), |
|                    | IEC60068-2-27 (Shock), |
|                    | IEC60068-2-32 (Free fall), |
|                    | IEC60068-2-6 (Vibration) |

| Warranty           | Lifetime |

---

### Ordering Information

**SI-IES-1200-LRT**

(1) 10/100/1000Base-T port + (1) 10/100/1000Base-T PoE+ port

**Optional Accessories** (sold separately)

- Industrial Power Supplies:
  - 25130
  - Input: 85-264VAC, 120-370VDC
  - Output: 48VDC, .83A, 39.8 Watts

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31
Ethernet Over 2-Wire Extender With PoE+

EO2PSE4052-111 & EO2PD4052-111

(1) 10/100/1000Base RJ-45/SFP Combo Port + (1) 1000Base-T RJ-45 Port or 2-Wire Terminal Block

Features

- Copper or fiber combo Ethernet port
- IEEE 802.3af/at compliant Remote PoE+ port for powering cameras or other remote devices
- Full PoE+ at 335-1,500 ft. over a single pair or 1,500-6,800 ft. over multiple pairs* (dependent on wire type)
- Half-Gigabit Ethernet speeds over UTP cable at distances of 330 feet (100m) or Fast Ethernet speeds at approximately 1800 feet (550m) (dependent on wire gauge*)
- Proprietary SELV classification prevents unintended power delivery to non-transition Networks devices
- Power monitoring
- Auto Power Reset (APR) and power-saving mode
- Web browser configurable
- Plug-and-Play installation
- Field upgradeable firmware

Specifications

- Standards: IEEE 802.1p, IEEE 802.1q, IEEE 802.3, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3u, IEEE 802.3az, IEEE 802.3af, IEEE 802.3at, IEEE 802.3az, IEEE 802.3x
- Port: Ethernet: 10/100/1000Base-T RJ-45 or 100/1000Base-X SFP Combo 2-Wire: 10/100/1000Base-T RJ-45 or 2-wire terminal block PoE+: 10/100/1000Base-T RJ-45 PoE+
- Status LEDs: Power, Copper Power, Copper ACT, Copper Security, Combo Port Link/ACT, PoE+
- Dimensions: Width: 3.25” [82.5 mm] Depth: 5.38” [136.7 mm] Height: 1.25” [31.75 mm]
- Power Consumption: 45 Watts (max)
- Power Input: 48 VDC
- Ingress Protection: IP30
- Environment: Operating: 0°C to +65°C (Industrial: 85°C SFP modules must be used above 50°C ambient temperature) Storage: -40°C to 85°C Humidity: 5% to 95% (non-condensing) Altitude: 0 – 10,000 ft.
- Weight: 1.05 lbs. [0.48 kg]
- Warranty: 5 Years

Features Continued

- Can be managed through a single IP address
- Auto-MDI/MII
- 128 Bit AES encryption over 2-wire
- IPv4 and IPv6 supported
- Client for DHCP, DNS, NTP
- Connection for optional power on Remote device
- Preserves investment in existing UTP or twisted 2-wire infrastructure

Ordering Information

ONE LOCAL UNIT MUST BE PAIRED WITH ONE REMOTE UNIT

*EO2PSE4052-111 (Local)
(1) 10/100/1000Base-T RJ-45 port or (1) 10/1000Base-X SFP combo port + (1) 1000Base-T RJ-45 or 2-Wire Terminal Block combo port

*EO2PD4052-111 (Remote)
(1) 10/100/1000Base-T RJ-45 port or 2-Wire Terminal Block combo port + (1) 10/1000Base-X SFP combo port

*Note: Local and Remote must be used as a pair.
A properly isolated power source is required for each Local unit and an external power supply is optional for Remote units depending on power requirements.

Industrial Power Supplies (sold separately)
25148 (Power Adapter) 90 – 264 VAC; 127 – 370 VDC (Country specific power cord included)

Optional Accessories (sold separately)

SFP Modules

Mounting Options (sold separately)

WNBL Wall Mount Bracket 4” [102 mm]
WMBD DIN Rail Bracket 5” [127 mm]
WMBF DIN Rail Bracket (flat) 3.3” [82 mm]
WMBV Vertical Wall Mount Bracket 5” [127 mm]
RMS18-SA4-02 4-Slot Media Converter Shelf, includes 4 brackets and 3 slot blanks

Transition Networks Ethernet Over 2-Wire Extender With PoE+ provides the ability to quickly and easily upgrade Ethernet networks with modern PoE powered IP devices without the need to replace the existing copper wire infrastructure. The extender leverages existing 18-24 AWG unshielded twisted pair (CAT 5, CAT 3 and other twisted 2-wire phone wire) cabling infrastructure to extend the Ethernet network at half Gigabit speeds and provide data and power to IP devices in remote locations, saving time and money over installing new cable.

The Ethernet Over 2-Wire Extenders With PoE+ are supplied with a web GUI, which allows password-protected access to various configuration options of both the Local and Remote devices through a single IP address. It also allows easy upgrades to firmware.

Power for the Local device can be supplied through a properly isolated +48VDC power source or through the designated 90 Watt power adapter. Power for the Remote device can be supplied with PoE from the Local unit, through a properly isolated +48VDC power source, or through the designated power adapter for providing redundant power or for additional power requirements at the Remote device.

The Ethernet Over 2-Wire Extenders With PoE+ are supplied with a web GUI, which allows password-protected access to various configuration options of both the Local and Remote devices through a single IP address. It also allows easy upgrades to firmware.

*Minimum distance stated is 24 AWG cable DC resistance of 29.9 ohm per 1000 ft. Cable with less DC resistance will increase distance. Use of multiple pairs vs a single twisted pair will increase distance and available power. To determine power distance for specific cable types, refer to online calculator.
**Features**

- Copper or fiber combo Ethernet port
- Remote PoE+ Port IEEE 802.3at for powering cameras or other remote devices
- Full PoE+ at 400 ft. or less* (dependent on cable type)
- Coax distance in excess of 1000 ft. at near Gigabit speeds or 2000 ft. at Fast Ethernet speeds (dependent on remote power requirements)
- Proprietary coax end device classification prevents unintended power delivery to non-Transition Networks devices
- Power monitoring
- Auto Power Reset (APR) and power-saving mode
- Web browser configurable
- Plug-and-Play installation
- Field upgradeable firmware
- Managed through a single IP address

*Typical RG6U cable DC resistance of 50 ohm per 1000 ft. Cable with less DC resistance may increase distance. To determine power distance for specific cable types, refer to online calculator.

**Specifications**

<table>
<thead>
<tr>
<th>Standards</th>
<th>IEEE 802.1p</th>
<th>IEEE 802.1Q</th>
<th>IEEE 802.3</th>
<th>IEEE 802.3af</th>
<th>IEEE 802.3at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>Ethernet: 10/100/1000Base-T RJ-45 or 10/100/1000Base-X SFP Combo</td>
<td>Coax: 1000Base BNC</td>
<td>PoE: 10/100/1000Base-T RJ-45 PoE+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status LEDs</td>
<td>Power, Coax Power, Coax ACT, Coax Security, Combo Port Link/ACT, PoE+</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Width: 3.25&quot; [82.5 mm]</td>
<td>Height: 1.25&quot; [31.75 mm]</td>
<td>Depth: 5.38&quot; [136.7 mm]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td>45 Watts (max)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Input</td>
<td>48 VDC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>Operating: 0°C to +65°C (Industrial +85°C SFP modules must be used above 50°C ambient temperature)</td>
<td>Storage: -40°C to 85°C</td>
<td>Humidity: 5% to 95% (non-condensing)</td>
<td>Altitude: 0 ~ 10,000 ft.</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>1.05 lbs. [0.48 kg]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance</td>
<td>Safety: External Power Supply: CE Mark; Emissions: FCC Part 15, CTSR/22/EN55022 Class A; Immunity: EN55024</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>5 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ordering Information**

**ONE LOCAL UNIT MUST BE PAIRED WITH ONE REMOTE UNIT**

- **EOCPSE4020-110 (Local)**
  - (1) 10/100/1000Base-T RJ-45 port
  - (1) 1000Base BNC port
  - or (1) 100/1000Base-X SFP combo port
  - + (1) 1000Base Coax BNC port

- **EOCPD4020-110 (Remote)**
  - (1) 10/100/1000Base-T PoE+ port
  - IEEE 802.3af/at
  - or (1) 100/1000Base-X SFP combo port
  - or (1) 1000Base BNC port

*Notes: Local and Remote must be used as a pair. A properly isolated power source is required for each Local unit and an external power supply is optional for remote units depending on power requirements.

**Industrial Power Supplies** (sold separately)

- 25148 (Power Adapter)
  - 90 ~ 264 VAC, 127 ~ 370 VDC
  - (Country specific power cord included)

**Optional Accessories** (sold separately)

- **WMBL**
  - Wall Mount Bracket 4" [102 mm]

- **WMBD**
  - DIN Rail Bracket 5" [127 mm]

- **WMBD-F**
  - DIN Rail Bracket (flat) 3.3" [82 mm]

- **WMBV**
  - Vertical Wall Mount Bracket 5" [127 mm]

- **RMS19-SAA-02**
  - 4-Slot Media Converter Shelf, includes 4 brackets and 3 slot blanks

**Features Continued**

- Auto-MDI/MDIX
- 128 Bit AES encryption over coax
- IPv4 and IPv6 supported
- 15/16 byte frames
- Client for DHCP, DNS, NTP
- Connection for optional power on Remote device
- Preserves investment in existing coax infrastructure
The N-GXE-POE-xx-01 Series Network Interface Card (NIC) provides connectivity to a secure fiber network while also delivering power to a PoE powered device (PD), such as a VoIP phone with a copper UTP interface. It fully complies with all IEEE 802.3z and 1000Base-X standards, providing up to 2000 Mbps full-duplex bandwidth capacity.

Developed to support high-end users, this (2) port NIC has (1) 1000Base-X fiber network interface port (SFP version is 100/1000Base-X) and (1) switched 10/100/1000Base-T port supporting IEEE 802.3at PoE+ power. It is designed to allow a PC to power a VoIP phone, or any other traditional copper powered device, over a secure fiber network. Additionally, the NIC also has the ability to provide traffic switching functions between the copper and fiber ports, even when the PC is in a sleep mode.

Combining the functions of PC connectivity and VoIP phone connectivity into one device saves installation time, expense, and the space of having two devices at the desktop. When the VoIP traffic is filtered and prioritized by third-party devices like an Ethernet switch and the IP phone, this PoE NIC will pass all tagged traffic ensuring users experience a high level of Quality of Service (QoS). VLANs and Prioritization can also be configured at the NIC via Transition Networks’ PoE NIC utility software.

### Features
- High bandwidth 1000Mbps
- Supports Full-duplex Mode
- Supports IEEE 802.3x Full-Duplex Flow Control
- Supports PCIe x1 bus
- Compliant with PCIe Rev 2.1 Interface
- Supports Jumbo Frames
- Supports High Level VLAN Filtering Function
- IPv6 Capable
- Supports IP headers and TCP/UDP checksum offload
- Wake-on-LAN (WoL) power management
- PXE 2.1 Boot ROM Supported
- ACPI 2.0 Link Status LED for each port
- Driver Support
  - Windows 7
  - Windows 8, 8.1
  - Windows 10
  - Windows Server 2008
  - Windows Server 2012
  - Windows Vista
  - Linux
- Available with a fixed LC port or SC or an open SFP port

### Specifications

| Standards | IEEE 802.3-2000  
|           | IEEE 802.3z  
|           | IEEE 802.3x  
|           | IEEE 802.1Q  
|           | IEEE 802.1p  
|           | IEEE 802.3ab  
|           | IEEE 802.3af  
|           | IEEE 802.3at  |
| MAC Address | 8k MAC address table  
| Max Packet Size | Jumbo Frames, 10k bytes  
| Jumper Switches | Legacy PoE  
|                | Energy Efficient Ethernet (EEE) enable/disable  
| Status LEDs | L/A  
|             | Fiber Link/Activity  
| PJ-45 Upper Lf | PoE  
| PJ-45 Upper Rt | Power-over-Ethernet  
|              | TP Link/Activity/Speed  
| Dimensions | Width: 4.8” [121.9 mm]  
|             | Depth: 6.5” [165.1 mm]  
|             | Height: 0.9” [22.86 mm]  
| Power Consumption | 1.6 Watts (typical without PoE)  
|                 | 43.8 Watts (typical with PoE)  
| Voltage input | PCIe 3.3V  
|                | 12 Peripheral connection for PoE  
| Power-over-Ethernet | Mode A Power  
| Environment | Operating: 0°C to 50°C  
|             | Storage: -15°C to 65°C  
|             | Humidity: 5% to 95% (non-condensing)  
|             | Altitude: 0 – 10,000 ft.  
| Weight | 2 lbs. [0.90 kg]  
| Compliance | Emission: EN55022 Class B, CE, UL Listed  
|          | Immunity: EN65024  
| Warranty | Lifetime  

### Ordering Information

**N-GXE-POE-SC-01(L)**
1000Base-SX 850nm multimode SC  
[50/125 um fiber: 550 m/1804 ft.]  
[62.5/125 um fiber: 220 m/722 ft.]  
Link budget: 8.0dB  
+ 10/100/1000Base-T PoE+  
(includes low-profile bracket only)

**N-GXE-POE-SC-01(S)**
1000Base-SX 850nm multimode SC  
[50/125 um fiber: 550 m/1804 ft.]  
[62.5/125 um fiber: 220 m/722 ft.]  
Link budget: 8.0dB  
+ 10/100/1000Base-T PoE+  
(includes standard bracket only)

**Optional Accessories** (sold separately)

- **SFP Modules**
  - **N-POE-CBLKIT**
    - 3 piece cable kit for 12V power input connectivity options
      - Includes 27246, 28582, 28583
  - **N-PoE-CBLKIT**
    - Ethernet packet controller software utility used for VLAN configuration within the NIC
      - Free download from transition.com

- **Network Adapters**
Global Presence

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