

TRANSITION



Hardened Ethernet

**Network Technology for
Challenging Environments**

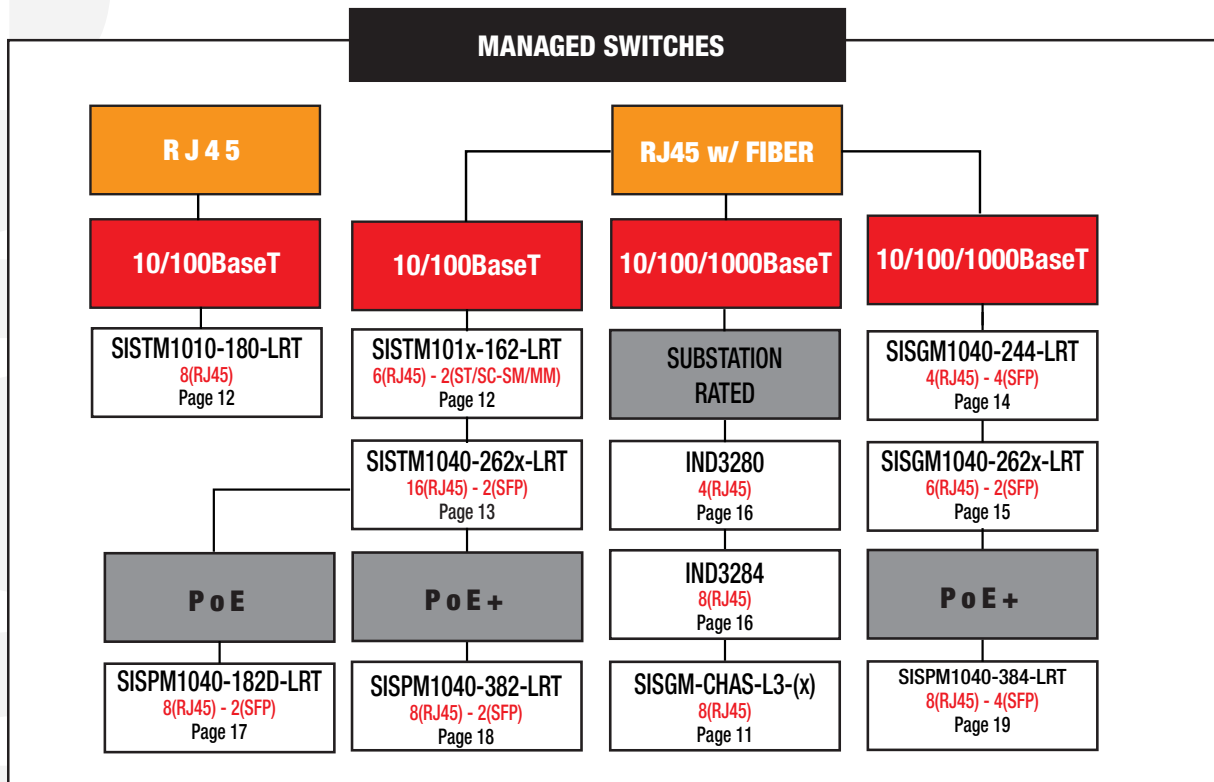
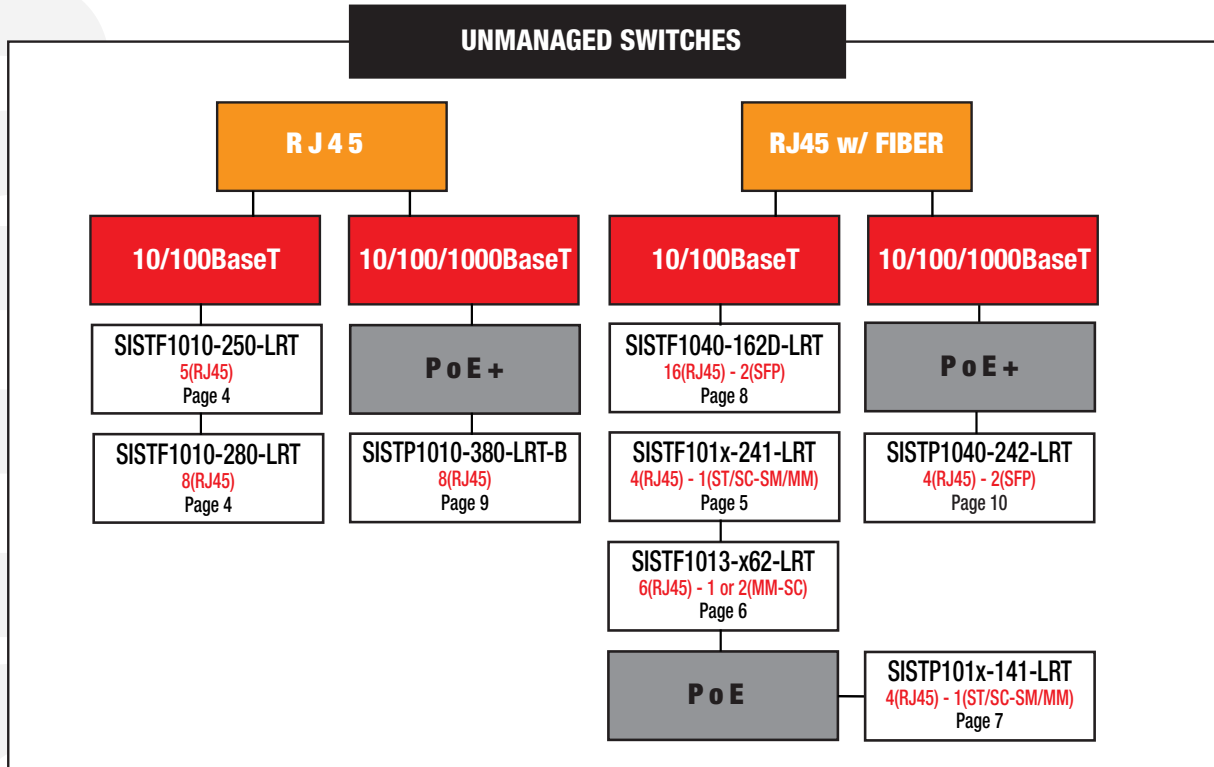
Hardened Ethernet Devices - Built to Perform

Transition Networks is an industry leader with over 25 years experience designing fiber integration products which affordably deliver the reliability that today's industrial networks require. With unparalleled experience serving the unique needs of our customers, world-class 24/7 support, and a Lifetime Hardware Warranty, Transition Networks is the choice for cost-effective fiber integration, extending from the office to the factory floor, and other environments where the need for performance in extended temperatures is critical.

Our hardened Ethernet switches and media converters all provide interoperable networking solutions that will operate under extreme conditions, improve network performance and reduce operational expenses. Providing Class 1, Div 2 certified products for hazardous environments; shock, vibration and temperature enduring products for transportation networks; and intelligent products that meet security protocols for maximum protection and control in utility and process networks, Transition Networks offers the ability to affordably integrate the benefits of fiber optics into any data network – in any application – in any environment.



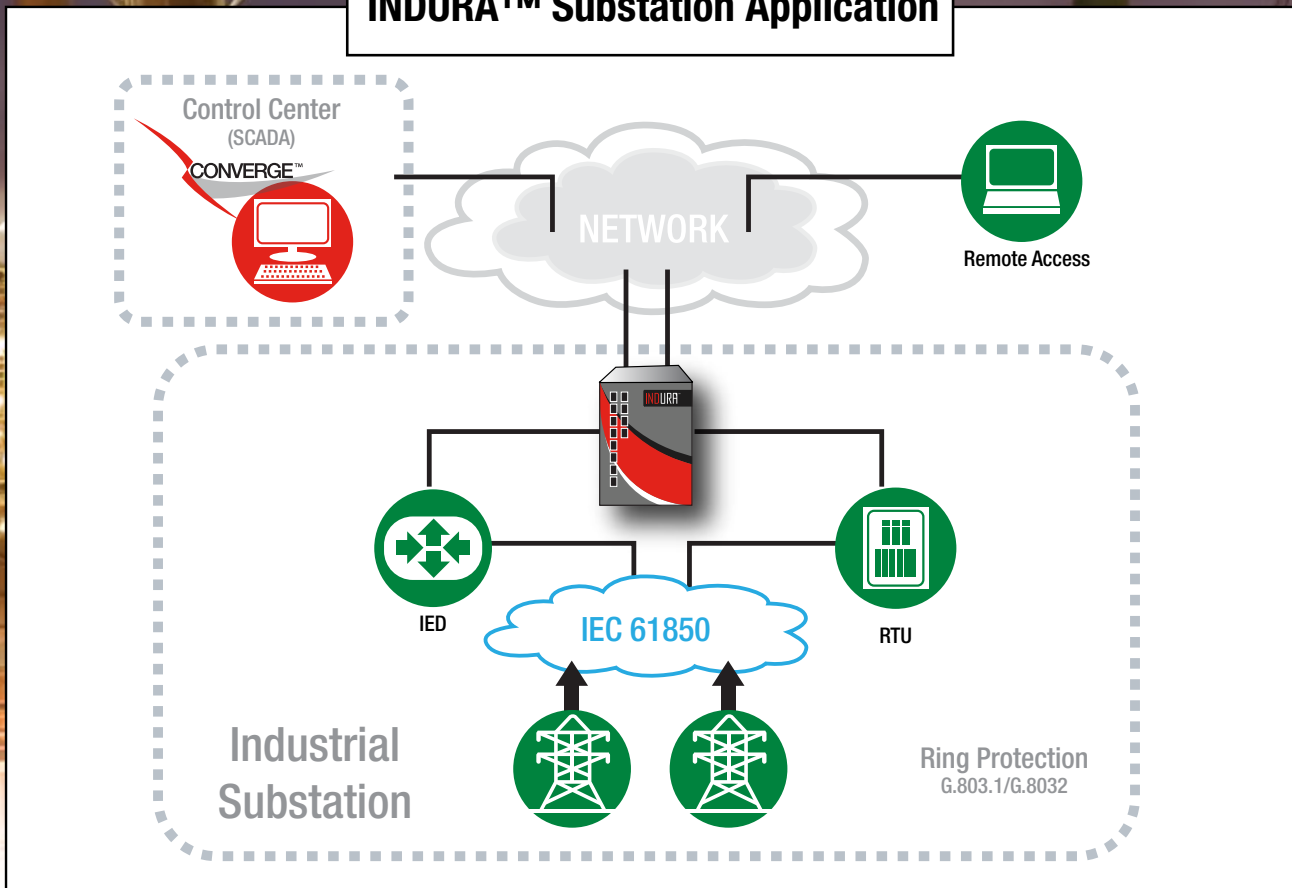
Switch Selection Guide



Hardened Network Solutions for Extended Temperature Applications

- Power Utilities
- Oil & Gas Operations
- Transportation
- Construction & Manufacturing

INDURA™ Substation Application



Features:

- IEC 61850-3 certified
- EMI protection in high voltage, harsh environments
- IEEE 1588 "Precision Time Protocol" provides the standard for "Realtime" data throughput
- Redundant DC power inputs
- IEC 62439 Media Redundancy Protocol (MRP)
- GOOSE frames, ITU-T G.8032v2 (Ethernet Ring Protection Switching) with Recovery < 50 ms, STP/RSTP/MSTP
- Remote Management, Configuration and Trouble-shooting via Converge™



SISTF1010-2x0-LRT

Unmanaged Hardened Fast Ethernet Switch

(5) 10/100Base-TX Ports or (8) 10/100Base-TX Ports



SISTF1010-250-LRT

SISTF1010-280-LRT

The SISTF1010-2x0-LRT switch family contains simple “Plug and Play” multi-port switches used at the edge of a hardened network to provide connections for devices in hazardous locations. These switches are Class 1, Div 2 certified, have 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

Ordering Information

SISTF1010-250-LRT
(5) 10/100BASE-TX (RJ-45)
[100 m/328 ft.]

SISTF1010-280-LRT
(8) 10/100BASE-TX (RJ-45)
[100 m/328 ft.]

Optional Accessories (sold separately)

External AC/DC Power Supply

SPS-UA12DHT 12 VDC 18W

25083 10.8–13.2 VDC 24W

(See page 33 for details)

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- Store-and-Forward Switching Architecture with MAC Address Table
- Extended operating temperature (-40°C to 75°C)
- Dry Contact Relay Alarm Output
- Dual, Redundant DC Power Inputs
- DIN Rail Mounting and Wall Mount Brackets Included
- Reverse Polarity Power Input Protection
- Overload Current Protection
- Barrel connector interface cable included for connecting external AC/DC power supply
- Class 1, Div 2 Certified

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3x
Status LEDs	PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected FAULT, per port: LNK/ACT, FDX/COL
Dimensions	Width: 1.2" [30 mm] Depth: 3.7" [95 mm] Height: 5.5" [140 mm]
Weight	1.4 lbs. [0.64 kg]
Input Power	12 - 48 VDC; redundant power with reverse polarity protection and removable terminal block
Power Consumption	-250 models: 2.93 Watts -280 models: 4.71 Watts
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40° to 85°C Altitude: 0 – 10,000 ft.
Ingress Protection	IP 30
Compliance	Safety: UL, cUL, CE/EN60950-1 UL Class 1, Div 2 for hazardous environments CISPR22/EN55022: EN60950 Class A; FCC Class A; CE Mark; CE EN61000-4-2; CE EN61000-4-3; CE EN-61000-4-4; CE EN61000- 4-5; CE EN61000-4-6; CE EN61000-4-8; CE EN61000-4-11; CE EN61000-4-12; CE EN61000-6-2; CE EN61000-6-4 IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration); IEC60068-2-3, IEC60068-2-30, IEC60068-2-31
Warranty	Lifetime

SISTF101x-241-LRT

Unmanaged Hardened Fast Ethernet Switch

(4) 10/100Base-TX Ports and (1) 100Base-FX Port



SISTF1013-241-LRT

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- DIN Rail Mounting and Wall Mount Brackets Included
- Extended operating temperature (-40°C to 75°C)
- Dual Auto-Sensing Redundant DC Power Inputs
- Barrel connector interface cable included for connecting external AC/DC power supply
- Class 1, Div 2 Certified

The SISTF101x-241-LRT switch family contains simple “Plug and Play” multi-port switches used at the edge of a hardened network to provide connections for devices in hazardous locations. Depending on the model, these switches can provide Multi-Mode or Single Mode fiber connections with SC or ST connectors for extended distance communications up to 20 kilometers. These switches are Class I, Div 2 certified, have 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

Specifications

Standards	IEEE Std. 802.3 IEEE 802.3u IEEE 802.3x
Status LEDs	PWR (Power): ON = Unit has power connected PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected Fault: ON = Power failure or port link failure LNK/ACT (fiber): ON = Link; Flashing = data transmitting FDX/COL (fiber): ON = Full duplex mode; Flashing = collisions occurring RJ-45 (Ports 1 – 4): ON orange = Full duplex mode; Flashing orange = collisions occurring; ON green = UTP link; Flashing green = data transmitting
Dip Switches	1: Full Duplex Fiber/Half Duplex Fiber
Dimensions	Width: 1.2" [30 mm] Depth: 3.7" [195 mm] Height: 5.5" [140 mm]
Weight	2 lbs. [0.90 kg]
Input Power	12 to 48 VDC, 0.2A-0.7A, redundant inputs with reverse polarity protection; Additional barrel connector
Power Consumption	3.3 Watts
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40° to 85°C Altitude: 0 – 10,000 ft.
Ingress Protection	IP 30
Compliance	Safety: UL 60950; UL508; CSA C22.2 no 60950 UL Class 1 Div 2 for hazardous environments CISPR/EN55022; EN60950 Class A; FCC Class A; CE Mark; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6 IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
Warranty	Lifetime

Ordering Information

SISTF1011-241-LRT

(4) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (1) 100BASE-FX 1300nm MM (ST)
[2 km/1.2 mi.] Link Budget: 11.0 dB

SISTF1013-241-LRT

(4) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (1) 100BASE-FX 1300nm MM (SC)
[2 km/1.2 mi.] Link Budget: 11.0 dB

SISTF1014-241-LRT

(4) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (1) 100BASE-FX 1310nm SM (SC)
[20 km/2.4 mi.] Link Budget: 17.0 dB

Optional Accessories (sold separately)

External AC/DC Power Supply

SPS-UA12DHT 12 VDC 18W

25083 10.8–13.2 VDC 24W

(See page 33 for details)

SISTF1013-x62-LRT

Unmanaged Hardened Fast Ethernet Switch

(6) 10/100Base-TX Ports and (1 or 2) 100Base-FX Port



The SISTF1013-x62-LRT switch family contains simple “Plug and Play” multi-port switches designed specifically for use in hazardous environments. The switches comply with Class I/Division 2, ATEX, IECEx regulations, are Optically Intrinsically safe, and are used at the edge of a hardened network to connect devices in hazardous locations. Depending on the model, these switches provide Multi-Mode fiber connections with SC connectors; have 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.



Ordering Information

SISTF1013-262-LRT

(6) 10/100BASE-TX [100 m/328 ft.]
(2) 100BaseFX MM SC

SISTF1013-162-LRT

(6) 10/100BASE-TX [100 m/328 ft.]
(1) 100BaseFX MM SC

Features

- C1D2, ATEX, IECEx compliant for harsh environments
- Redundant DC power inputs on terminal block
- Auto-negotiation
- Auto-MDI/MDIX
- Extended operating temperature (-40°C to 75°C)
- Store and forward transmission
- Supports flow control
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

Specifications

Standards	IEEE 802.3 EEE 802.3u EEE 802.3ab EEE 802.3z EEE 802.3x
Data Rate Fiber	(1) 100 Mbps FX
Filtering	8192 MAC Addresses, 4 Priority Queues
Status LEDs	Power, Fault, Port Link/Act
Dimensions	Width: 2.05" [52mm] Depth: 4.1" [106.1 mm] Height: 5.68" [144.3 mm]
Weight	1.49 lbs. [680 kg]
Ingress Protection	IP30
Input Power	12~48 VDC; redundant inputs 6-PIN Terminal Block Overload Current Protection
Fault Relay	1A at 24 VDC capacity
Power Consumption	8 watts
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40° to 85°C Altitude: 0 – 10,000 ft.
Compliance	Safety: EN60950-1 UL508 (E331061) UL/cUL Class 1 Division 2 Group A/B/C/D ATEX Class 1 Zone 2 IEEXC Optically Intrinsically Safe Emissions: FCC Part 15, CISPR22/EN55022 Class A; Immunity: EN61000-4-2; EN61000-4-3; EN-61000-4-4; EN61000- 4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

Applications

- Offshore Oil Rigs
- Natural gas distribution centers
- Oil refineries
- Petrochemical plants

SISTP101x-141-LRT

Unmanaged Hardened Fast Ethernet PoE Switch

(4) 10/100Base-TX PoE Ports and (1) 100Base-FX Port



The SISTP101x-141-LRT switch family contains simple “Plug and Play” multi-port switches used at the edge of a hardened network to provide connections for PoE devices. Depending on the model, these switches can provide Multi-Mode or Single Mode fiber connections with SC or ST connectors for extended distance communications up to 30 kilometers. These switches provide 15.4 watts per port on all ports simultaneously, have 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

Ordering Information

SISTP1011-141-LRT

4) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310nm MM (ST)
[2 km/1.2 mi.] Link Budget: 11.0 dB

SISTP1013-141-LRT

(4) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310nm MM (SC)
[2 km/1.2 mi.] Link Budget: 11.0 dB

SISTP1014-141-LRT

(4) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310nm SM (SC)
[30 km/12.4 mi.] Link Budget: 17.0 dB

Optional Accessories (sold separately)

External AC/DC Power Supply

25080 48–53 VDC 120W

(See page 33 for details)

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- Full Wire Speed Performance with 1 Gbps Backplane
- 4-port integrated PoE injector with full 15.4 Watts per port on data pairs
- IEEE 802.3af Power-over-Ethernet Compliant
- Extended operating temperature (-40°C to 75°C)
- Dry Contact Relay Alarm Output
- Dual, Redundant 48 VDC Power Inputs
- Reverse Polarity Power Input Protection
- Overload Current Protection
- DIN Rail Mounting and Wall Mount Brackets Included
- Store-and-Forward Architecture

Specifications

Standards	IEEE 802.3 IEEE 802.3af IEEE 802.3u IEEE 802.3x
Status LEDs	PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected FAULT: ON = power input failure on PWR1 or PWR2 PWR FWD (ports 1-4): ON = PoE power output LNK/ACT (ports 1-5): ON = Link; FLASHING = data transmitting FDX/COL (ports 1-4): ON = Full duplex mode; FLASHING = collisions occurring
Dimensions	Width: 1.2" [30 mm] Depth: 3.7" [95 mm] Height: 5.5" [140 mm]
Weight	1.4 lbs. [0.64 kg]
Ingress Protection	IP 30
Input Power	48 VDC; redundant inputs (removable terminal block), additional barrel connector
Power Consumption	4.6 Watts (without PoE); 58 Watts (Full load with PoE)
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% (non-condensing) Storage: -40°C to 85°C Altitude: 0 – 10,000 ft.
Compliance	Safety: UL, cUL, CE/EN60950-1 Emissions: CISPR22/EN55022; EN60950 Class A; FCC ClassA; CE Mark;CE Immunity: EN61000-4-2; CE EN61000-4-3; CE EN-61000-4-4; CE EN61000-4-5; CE EN61000-4-6; CE EN61000-4-8; CE EN61000-4-11; CE EN61000-6-2; CE EN610006-4; Environmental: IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SISTF1040-162D-LRT

Unmanaged Hardened Fast Ethernet Switch



(16) 10/100Base-TX ports + (2) 10/100/1000Base-T or 100/1000Base-X SFP Combo Ports



The SISTF1040-162D-LRT is a high port density switch suitable for use as an aggregation switch in a challenging environment. The two gigabit speed combo ports provide the ultimate flexibility by allowing copper or fiber SFP uplink ports. The two uplink ports can also be used in a redundant ring for maximum network reliability. The switch 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

Ordering Information

SISTF1040-162D-LRT

(16) 10/100BASE-TX (RJ-45)
[100 m/328 ft.] with (2) 10/100/1000BASE-T
(RJ-45) or 100/1000BASE-X SFP Combo ports

Optional Accessories (sold separately)
SFP Modules

External AC/DC Power Supply

SPS-UA12DHT 12 VDC 18W

25083 10.8~13.2 VDC 24W

(See page 33 for details)

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- Full Wire Speed Performance with 7 Gbps Backplane
- Combo SFP ports support
 - 100Base-FX and
 - 1000Base-X SFPs
- Combo RJ-45 ports support 10/100/1000Base-T
- Extended Operating Temperature (-40°C to 75°C)
- Dry Contact Relay Alarm Output
- Dual, Redundant, Auto-Sensing 12-48 VDC Power Inputs
- Reverse Polarity Power Input Protection
- Overload Current Protection
- DIN Rail Mounting and Wall Mount Brackets Included

Specifications

Standards	IEEE 802.3 IEEE 802.3ab IEEE 802.3u IEEE 802.3z IEEE 802.3x
Status LEDs	PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected FAULT: ON = power input failure on PWR1 or PWR2 LNK/ACT: ON = Link; FLASHING = data transmitting FDX/COL: ON = Full duplex mode; FLASHING = collisions occurring
Dimensions	Width: 2.8" [72 mm] Depth: 4.1" [105 mm] Height: 6.0" [152 mm]
Weight	3 lbs. [1.36 kg]
Input Power	12 to 48 VDC; redundant inputs with reverse polarity protection
Power Consumption	9 Watts
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40° to 85°C Altitude: 0 – 10,000 ft.
Ingress Protection	IP30
Compliance	Safety:UL, cUL, CE/EN60950-1 CISPR22/EN55022; EN60950 Class A; FCC ClassA; CE Mark; CE EN61000-4-2; CE EN61000-4-3; CE EN-61000-4-4; CE EN61000-4-5; CE EN61000-4-6; CE EN61000-4-8; CE EN61000-4-11; CE EN61000-4-12; CE EN61000-6-2; CE EN61000-6-4 IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration) UL, cUL, CE/EN60950-1
Warranty	Lifetime

SISTP1010-380-LRT-B

Unmanaged Hardened Gigabit PoE(+) Ethernet Switch

(8) 10/100/1000Base-T PoE(+) Ports



The SISTP1010-380-LRT accepts 24VDC power input and provides 8 PoE capable ports. The switch has a 120 Watt PoE power budget that can be utilized over all 8 ports. This switch has been tested and certified for shock and vibration tolerance and is suitable for use in mobile applications in logistics or commuter transportation 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 challenging environments.

Ordering Information

SISTP1010-380-LRT-B

(8) 10/100/1000BASE-T (RJ-45)
[100 m/328 ft.] PSE

Optional Accessories (sold separately)

External AC/DC Power Supply

25079 24~28 VDC 120W

(See page 33 for details)

Features

- Provides 8x10/100/1000Base-T(X) PoE (P.S.E.) ports based on IEEE 802.3at standard
- Supports dual wide range 24~36VDC power inputs for power redundancy
- Auto-MDI/MDIX
- Auto-negotiation
- Extended operating temperature (-40°C to 70°C)
- Dry Contact Relay Alarm Output
- Overload Current Protection
- DIN Rail Mounting and Wall Mount Brackets Included
- E-Mark Certified

Specifications

Standards	IEEE 802.3™ IEEE 802.3x IEEE 802.3u IEEE 802.3ab IEEE 802.3at
Status LEDs	PWR 1 (Power): ON = primary power connected; PWR 2 (Power): ON = backup power connected; FAULT (Amber): ON = power input failure on PWR1 or PWR2; POE Indicator (ports 1-8): GRN = POE power injected LNK/ACT (ports 1-8): GRN = Link/Act;
DIP Switch	Power-1 failed warning: (ON) enable, (OFF) disable Power-2 failed warning: (ON) enable, (OFF) disable
Dimensions	Width: 1.6" [41 mm] Depth: 3.7" [95 mm] Height: 5.68" [144.3 mm]
Weight	1.0 lbs. [0.45 kg]
Input Power	24 – 36 VDC; redundant inputs
Power Output	120 Watts max: 30w for any four ports simultaneously 15w for all eight ports simultaneously
Power Consumption	7.8 watts (without PoE)
Environment	-Operating: -40°C to 70°C Humidity: 5%– 95% humidity (non-condensing) Storage -40° to 85°C Altitude: 0 – 10,000 ft.
Ingress Protection	IP30
Compliance	Safety: EN60950-1, E-Mark Certified (Pending) Emissions: CISPR (EN55022); FCC Part 15 Class A; CE Mark; Immunity: EN61000-4-2(ESD); EN61000-4-3(RS); EN-61000-4-4(EFT); EN61000-4-5(Surge); EN61000-4-6(CS); CE EN61000-4-8; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SISTP1040-242-LRT

Unmanaged Hardened Gigabit PoE+ Ethernet Switch

(4) 10/100/100Base-T PoE+ and (2) 1000Base-X SFP Ports



Ordering Information

SISTP1040-242-LRT

(4) 10/100/1000BASE-T (RJ-45) PSE
[100 m/328 ft.] (2) 1000Base-X SFP
[110km/68.4mi]

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25105 48~55 VDC 120W

25080 48~53 VDC 120W

(See page 33 for details)



The SISTP1040-242-LRT switch is a simple “Plug and Play” multi-port switch used at the edge of a hardened network to provide connections for PoE devices in hazardous locations. The two gigabit speed SFP ports provide the ultimate flexibility in fiber connections and communication distances. The two uplink ports can also be used in a redundant ring for maximum network reliability. This switch is Class 1, Div 2, provides 30 watts per port on all ports simultaneously, 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

Features

- Provides 4 x 10/100/1000Base-T(X) PoE (P.S.E.) ports based on IEEE 802.3at standard
- 2 x 1000Base-X SFP slots for daisy-chain
- Supports dual 48 VDC power inputs for power redundancy
- Polarity reverse protection
- Auto-MDI/MDIX
- Auto-negotiation
- Extended operating temperature(-40°C to 75°C)
- Dry Contact Relay Alarm Output
- DIN Rail Mounting and Wall Mount Brackets Included

Specifications

Standards	IEEE 802.3x IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3at IEEE 802.3af
Status LEDs	Power 1 (Green), Power 2 (Green), P-Fail (Red) Ethernet: Link/Activity (Green), Speed (Green), PoE (Green) SFP: Link/Activity (Green)
PoE Pin Assignments	Provides 30W per PoE+ port, Alternative A Positive (VCC+): RJ-45 pin 1, 2. Negative (VCC-): RJ-45 pin 3, 6.
Dimensions	Width: 2.35" [59.6mm] Depth: 4.14" [105mm] Height: 6" [152mm]
Weight	2.65 lbs.[1.2 kg]
Ingress Protection	IP30
Input Power	DC V48(44V~57V), Redundant power,current over load protection, polarity reverse protect
Fault Output	Relay output contacts, 1A @ 24 VDC load capacity
Power Consumption	5.5 Watts (without PoE) 125.5 Watts (full PoE)
Environment	Operating: -40°C to 75°C Storage: -40°C to 85°C Humidity: 5%– 95% (non-condensing)
Compliance	Safety: UL/cUL 508, Class I / Division 2 Groups A, B, C, D (Pending) Emissions: CISPR (EN55022); FCC Part 15 Class A; CE Mark; Immunity: EN61000-4-2(ESD); EN61000-4-3(RS); EN-61000-4-4(EFT);EN61000-4-5(Surge); EN61000-4-6(CS); CE EN61000-4-8; Environmental: IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SISGM-CHAS-L3-(x)

Modular Rack Mount Hardened Layer 3 Switch



Features

- Hardware routing, RIP and static routing
- IEC 62439-2 MRP Media Redundancy Protocol
- IEEE 1588v2 PTP clock Synchronization
- IPV4/IPV6 internet protocols
- 8K MAC Table
- HTTPS/SSH network security
- SMTP client
- IP-based bandwidth management
- Application-based QoS management
- Device Binding security function
- DOS/DDOS auto prevention
- IGMP v2/v3 IGMP snooping
- SNMP v1/v2c/v3
- RMON
- VLAN Network Management
- VLAN tagging (256 VLANs)
- Voice VLAN
- User Authentication for security
- RADIUS/TACACS+
- ACL
- Supports 9.6K Bytes Jumbo Frames
- LLDP Protocol
- MRP - Multiple Registration Protocol
- VRRP Virtual Router Redundancy Protocol
- MSTP (RSTP/STP compatible)
- TOS/Diffserv supported
- IGMP v2/v3 Snooping - 128 Groups/VLAN
- IP-based bandwidth management
- DHCP Server/Client/Relay
- DNS client proxy
- SMTP Client
- Web-based , Telnet, Console (CLI) configuration

IEC61850-3 compliant managed Ethernet switch with Layer-3 static routing and RIP. With complete support of MRP Ethernet Redundancy protocol and MSTP (RSTP/STP compatible) the switch can protect your mission-critical applications from network interruptions with its fast recovery technology. Supporting a wide operating temperature from -40°C to +70°C, the switch is suitable for use in challenging environments. Remote management can be accomplished through the Web-based interface and Telnet, with local management available using the console port CLI.

Modular design features:

- (3) Full size bays that accommodate 8 port 100/1000BASE modules
- (1) Half size bay that accommodates 2 or 4 1000/10Gb SFP modules
- (2) Power supply bays

Specifications

Standards	IEEE 802.1p COS IEEE 802.1D IEEE 802.1s IEEE 802.1AB IEEE 802.3u IEEE 802.z IEEE 802.3x IEEE 802.3az	IEEE 802.1Q IEEE 802.1w RSTP IEEE 802.1x IEEE 802.3 IEEE 802.3ab IEEE 802.3ae IEEE 802.3ad
Fault Output	Fault Relay 1A@24VDC	
Dimensions	19" Rack Mountable, 1U Width: 17.32" [440mm] Depth: 12.8" [325mm] Height: 1.73" [44mm] Requires 1U open space above and below for cooling Cooling fan option available	
Weight	14.52 lbs.[6.58 kg]	
Power Consumption	46 watts max.	
Environment	Operating:-40C° to 70°C Humidity: 5% to 95% (non condensing)	
Ingress Protection	P30	
Redundant Input Power	VDC 24/48 (20~72VDC) Dual Inputs VAC 88~264VAC/100~370VAC Dual Inputs Current Overload Protection	
Port Configurations	(3) Full size 8 Port bays (1) Half size 2/4 Port Bay (2) Power Supply Bays (1) RJ45 Console Serial Port	
Network Redundancy:	O-Ring, Open-Ring, Multi-Ring, MRP – Media Redundancy Protocol, MSTP (RSTP, STP Compatible)	
Substation Automation:	IEC61850-3, IEEE1613	
EMI Compliance	FCC Part 15' CISPR (EN 55022) Class A, EN55155 (EN50121-3-2, EN50121-4)	
Environmental	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11	
Warranty	Lifetime	

Ordering Information

SISGM-CHAS-L3

- (3) Full size bays
 - Accommodates 8 port 100/1000BASE modules
- (1) Half size bay
 - Accommodates 2 or 4 1000/10Gb SFP module
- (2) Power supply bays

SISGM-CHAS-L3-C

- (3) Full size bays
 - Accommodates 8 port 100/1000BASE modules
- (1) Half size bay
 - Accommodates 2 or 4 1000/10Gb SFP module
- (2) Power supply bays, with cooling fan

Optional Accessories (sold separately)

Power Supplies

SISGM-PWR-LV

- 1 Power module supporting 12 ~ 36VDC or 36 ~ 72VDC

SISGM-PWR-HV

- 1 Power module supporting 100 ~ 240VAC

Network Port Modules



SISGM-2P-10G-SFP



SISGM-4P-10G-SFP
4 Port 10GB SFP+



SISGM-8P-1G-SFP
8 Port 1GB SFP Module



SISGM-8P-1G-TX
8 Port 1GB TX Module

Note: Product is shipped as separate modules allowing assembly and configuration during installation.

SISTM101x-1xx-LRT

Managed Hardened Fast Ethernet Switch

(8) 10/100Base-TX Ports

(6) 10/100Base-TX Ports and (2) 100Base-FX Port



SISTM1013-162-LRT SISTM1010-180-LRT

The SISTM101x-1xx-LRT switch family contains managed multi-port switches used at the edge of a hardened network to provide connections for devices in challenging locations. Depending on the model, these switches can provide Multi-Mode or Single Mode fiber connections with SC or ST connectors for extended distance communications up to 20 kilometers. These switches support redundant rings, have 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- IEEE 802.1P, 4-level priority queuing
- IGMP Snooping V1 with Query mode
- IEEE 802.1Q VLAN capability
- Redundant Ring Switching Technology (recovery time < 300ms)
- SNMP trap and SMTP email trap support
- SNTP Clock Synchronization
- Bandwidth Allocation
- Ingress Packet Filtering
- DHCP Client Support
- Spanning Tree/Rapid Spanning Tree
- TFTP Firmware Update
- Dual Homing Application Support
- Auto-Sensing Redundant DC Power Inputs
- Dry Contact Relays
- System Configuration Restore/Backup
- Extended operating temperature (-40°C to 75°C)
- DIN Rail Mounting and Wall Mount Brackets Included

Specifications

Standards	IEEE 802.3 IEEE 802.1 IEEE 802.1p IEEE 802.1Q IEEE 802.3u IEEE 802.1d IEEE 802.1w IEEE 802.3x
Status LEDs	PWR (Power): ON = power connected R.M.: ON = Device is the Master in the redundant ring network PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected Fault: ON = Fault on port link/loss of PWR 1 or PWR 2 LNK/ACT (Fiber): ON = Link on fiber 100 Mbps; Flashing = data transmitting FDX/COL (Fiber): ON = Full duplex link on fiber; Flashing = collisions occurring
Data Transfer Rate	10BASE-T: 14,880 pps; 100BASE-TX: 148,800 pps
MAC Addresses	2K
Max Packet Size	1536 bytes
Data Memory Buffer	1 Mb
Backplane	2.0 Gbps
SNMP MIB	RFC 1213 MIBII, RFC 1493 Bridge MIB, RMON RFC 1757, RFC 2674, VLAN MIB, RFC 1643 Ethernet like MIB, RFC 1215 Trap MIB
Dimensions	Width: 2.1" [54 mm] Depth: 4.1" [105 mm] Height: 5.3" [135 mm]
Weight	2 lbs. [0.90 kg]
Ingress Protection	IP 31
Input Power	12 to 48 VDC, 0.2A, redundant inputs with reverse polarity protection; Additional barrel connector cable
Power Consumption	-180 models: 4.6 Watts -162 models: 6.0 Watts
Environment	Operating: -40°C to 75°C Storage: -40°C to 85°C Humidity: 5 – 95% (non-condensing) Altitude: 0 – 10,000 ft.
Compliance	Safety: UL 60950; cUL60950 Emissions: CISPR22/EN55022; EN60950 Class A; FCC Class A; CE Mark; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6
Warranty	Lifetime



Ordering Information

SISTM1010-180-LRT

(8) 10/100BASE-TX (RJ-45)
[100 m/328 ft.]

SISTM1011-162-LRT

(6) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (2) 100BASE-FX 1300nm MM (ST)
[2 km/1.2 mi.] Link Budget: 11.0 dB

SISTM1013-162-LRT

(6) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (2) 100BASE-FX 1300nm MM (SC)
[2 km/1.2 mi.] Link Budget: 11.0 dB

SISTM1014-162-LRT

(6) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (2) 100BASE-FX 1310nm SM (SC)
[2 km/12.4 mi.] Link Budget: 17.0 dB

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25083 10.8–13.2 VDC 24W

SPS-UA12DHT 12 VDC 18W

(See page 33 for details)

SISTM1040-262x-LRT

Managed Hardened Fast Ethernet Switch



(16) 10/100Base-TX Ports and (2) 10/100/1000Base-T or 100/1000Base-X SFP Combo Ports



The SISTM1040-262x-LRT switch family contains managed high port density switches suitable for use as aggregation switches in challenging environments. The two gigabit speed combo ports provide the ultimate flexibility by allowing copper or fiber SFP uplink ports. The two uplink ports can also be used in a redundant ring for maximum network reliability. These switches are Class 1, Div 2, have redundant input power connections, and a fault alarm relay to ensure safe reliable operation in temperatures between -40°C and +75°C. The SISTM1040-262E-LRT version is ATEX certified.

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

- Auto-Negotiation
- Auto-MDI/MDIX
- Full Wire Speed Performance with 7 Gbps Backplane
- Combo SFP ports support 100Base-FX and 1000Base-X SFPs
- 10/100/1000Base-T Combo RJ-45
- Extended operating temperature (-40°C to 75°C)
- Dry Contact Relay Alarm Output
- Dual, Redundant, Auto-Sensing 12-48 VDC Power Inputs
- Reverse Polarity Power Input and Overload Current Protection
- DIN Rail Mounting and Wall Mount Brackets Included
- Class 1, Div 2/ATEX

Specifications

Standards	IEEE 802.3 IEEE 802.3ab IEEE 802.3u IEEE 802.1x IEEE 802.3ad IEEE 802.1d IEEE 802.1p IEEE 802.1Q IEEE 802.3z IEEE 802.3x
Status LEDs	PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected FAULT: ON = power input failure on PWR1 or PWR2 LNK/ACT: ON = Link; FLASHING = data transmitting FDX/COL: ON = Full duplex mode; FLASHING = collisions occurring
Dimensions	Width: 2.8" [72 mm] Depth: 4.1" [105 mm] Height: 6.0" [152 mm]
Weight	3 lbs. [1.36 kg]
Input Power	12 to 48 VDC; redundant inputs with reverse polarity protection
Power Consumption	10.56 Watts
Environment	Operating: -40°C to 75°C Storage: -40°C to 85°C Humidity: 5 – 95% (non-condensing) Altitude: 0 – 10,000 ft.
Ingress Protection	IP 30
Compliance	Safety: UL Class 1 Div 2, Groups A,B,C,D DNV/GL Certified ATEX (262E Model) FCC Class A; CE Mark; CE EN61000-4-2; CE EN61000-4-3; CE EN-61000-4-4; CE EN61000-4-5; CE EN61000-4-6; CE EN61000-4-8; CE EN61000-6-2; CE EN61000-6-4; GL Certified IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

Ordering Information

SISTM1040-262D-LRT
SISTM1040-262E-LRT
 (16) 10/100BASE-TX (RJ-45)
 [100 m/328 ft.] with (2) 10/100/1000BASE-T (RJ-45) or 100/1000BASE-X SFP Combo ports

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25083 10.8–13.2 VDC 24W

SPS-UA12DHT 12 VDC 18W

(See page 33 for details)

Features (Continued)

- Port Based VLAN 802.1 Q Tag VLAN
- Port Trunk with LACP QoS (Quality of Service)
- IEEE 802.1p Class of Service
- Port Mirror
- Monitor traffic in switched networks
- SSL V2, V3, TLS V1.0, SSH-V2
- Port Security: MAC address entries/filter
-IP Security: IP address security management to prevent unauthorized intruder
-Login Security: IEEE802.1X/RADIUS Authentication
IGMP Query mode for Multi Media Application
-Support multicast filter X-Ring
-Support X-ring, Dual Homing: Couple Ring and Dual Ring Topology.
Provide redundant backup feature and recovery time below 20 ms.
-Support SSH/SSL
- SNMP v1 v2c, v3/Web/Telnet/CLI
- DHCP Client/DHCP Server
- TFTP Firmware Upgrade
- TFTP Configuration Backup/Restore
- IPv4/IPv6 dual-stack

SISGM1040-244-LRT

Managed Hardened Gigabit Ethernet Switch

- (4) 10/100/1000Base-TX Ports and
- (4) 100/1000Base-X SFP Ports



The SISGM1040-244-LRT is a managed Gigabit switch suitable for connecting remote devices in hazardous environments. The four dual speed SFP ports provide the ultimate flexibility by allowing SFP fiber connections at 100Mb or Gigabit speeds at a variety of communication distances. The ports can also be used in a redundant ring for maximum network reliability. This switch is Class 1, Div 2, 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

Ordering Information

SISGM1040-244-LRT

(4) 10/100/1000Base-T +(4) 100/1000 SFP
Managed Industrial Switch

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25083 10.8~13.2 VDC 24W

SPS-UA12DHT 12 VDC 18W

(See page 33 for details)

Features

- Back-plane switch fabric: 16 Gbps
- 1 Mbits Packet Buffer
- SFP ports support 100/1000 Dual Mode
- Store-and-Forward Switching Architecture with 8K MAC Address Table
- Extended operating temperature (-40°C to 75°C)
- Dry Contact Relay Alarm Output
- Wide-range Redundant Power Design
- X-Ring and RSTP Redundancy
- SSL/SSH
- DIN Rail Mounting and Wall Mount Brackets
- Barrel connector interface cable for external AC/DC power supply
- Class 1, Div 2 Certified

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3x IEEE 802.3ad IEEE 802.1d IEEE 802.1p IEEE 802.1Q IEEE 802.1x IEEE 802.1w
Status LEDs	PWR 1 (Power), PWR 2 (Power): P-Fail, Master, per port: LNK/ACT
Dimensions	Width: 2.35" [59.6 mm]; Depth: 4.13" [105 mm]; Height: 5.98" [152 mm]
Weight	2.8 Lbs [1.27 kg]
Power Consumption	Max. 12.21W
Input Power	12 - 48 VDC; 24 VAC (18~30 VAC) redundant power with reverse polarity protection and removable terminal block
Environment	Operating: -40°C to 75°C Storage: -40°C to 85°C Humidity: 5 - 95% (non-condensing) Altitude: 0 - 10,000 ft.
Compliance	Safety: UL508, Class 1 Div 2 CE FCC Class A; CE Mark; CE EN61000-4-2; CE EN61000-4-3; CE EN-61000-4-4; CE EN61000-4-5; CE EN61000-4-6; CE EN61000-4-8; CE EN61000-4-11; CE EN61000-3-2; CE EN61000-3-3; CE EN61000-6-2; CE EN61000-6-4
MTBF	289,385 hrs
Warranty	Lifetime

Features (Continued)

- Port Trunk with LACP QoS (Quality of Service)
- IEEE 802.1p Class of Service, Per port provides 4 priority queues
- Port Based, Tag Based and Type of Service Priority
- Port Mirror
- Monitor traffic in switched networks.
- Port Security : MAC address entries/filter
- IP Security : IP address security management to prevent unauthorized intruder
- Login Security IEEE 802.1X/RADIUS
- IGMP Query mode for Multi Media Application
- Support multicast filter X-Ring
- Support X-ring, Dual Homing, Couple Ring and Dual Ring Topology. Provide redundant backup feature and recovery time below 20 ms
- Serial Console Port
- SNMP v1 v2c, v3/Web/Telnet/CLI
- DHCP Client/DHCP Server
- TFTP Firmware Upgrade
- TFTP Configuration Backup/Restore
- Ipv4/IPV6 dual-stack

SISGM1040-262x-LR(x)

Managed Hardened Gigabit Ethernet Switch

(6) 10/100/1000Base-TX Ports and (2) 10/100/1000Base-T or 100/1000Base-X SFP Combo Ports



SISGM1040-262D-LR



SISGM1040-262E-LRT

The SISGM1040-262x-LR(x) is a managed Gigabit switch suitable for connecting remote devices in hazardous environments. The four dual speed SFP ports provide the ultimate flexibility by allowing SFP fiber connections at 100Mb or Gigabit speeds at a variety of communication distances. The ports can also be used in a redundant ring for maximum network reliability. This switch is Class 1, Div 2, 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.



Ordering Information

SISGM1040-262D-LR

(6) 10/100/1000BASE-T
+ (2) Combo Ports 10/100/1000BASE-T
or 100/1000BASE-X SFP

SISGM1040-262E-LRT

(6) 10/100/1000BASE-T
+ (2) Combo Ports 10/100/1000BASE-T
or 100/1000BASE-X SFP

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25083 10.8~13.2 VDC 24W

SPS-UA12DHT 12 VDC 18W

(See page 33 for details)

Features

- Dinrail Connector
- Barrel Connector
- Class 1 Div 2 Certified
- SSL/SSH
- Auto-MDI/MDIX
- SFP ports support 100/1000Base-X Dual Speed
- Store-and-Forward Switching Architecture
- Back-plane (Switching Fabric): 16 Gbps
- 1 Mbits Packet Buffer
- 8K MAC Address Table
- Dual, Redundant, Auto-sensing Power Supply Inputs
- Power Polarity Reverse Protect
- Overload Current Protection
- Dry Contact Relay Output
- Port Based VLAN
- 802.1 Q Tag VLAN
- GVRP
- Private VLAN
- SFP supports DMI function which can monitor the fiber status more efficiently

Specifications

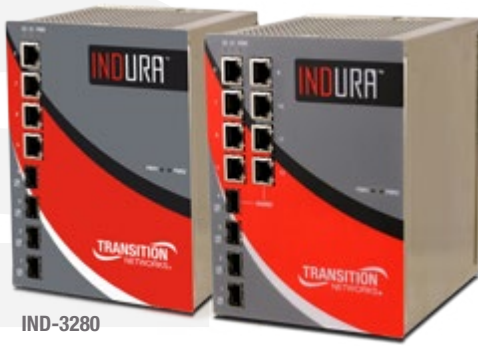
Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3x IEEE 802.3ad IEEE 802.1d IEEE 802.1w IEEE 802.1p IEEE 802.1Q IEEE 802.1x IEEE 802.1ab
LED Per unit	Power (Green), Power 1 (Green), Power 2 (Green), Fault (Red), Master (Green), Full duplex/Collision (Yellow) SFP port: LNK/ACT(Green), 1000T: LNK/ACT(Green), 1000M(Green)
Power Supply	DC12-48V, Redundant Power and Removable Terminal Block SISGM1040-262E-LRT: also, 18~30 VAC
Power Consumption	SISGM1040-262D-LR: 18 Watts SISGM1040-262E-LRT: 15.12 Watts @ 12VDC 13.3 Watts @ 24 VAC
Environment	Operating: SISGM1040-262D-LR: -10°C to 60°C SISGM1040-262E-LRT: -40°C to 75°C Humidity: 5% to 95% (Non-condensing) Storage: -40°C to 85°C
Dimensions	SISGM1040-262D-LR: Width: 2.8" [72 mm]; Depth: 4.1" [105 mm]; Height: 5.9" [152 mm] SISGM1040-262E-LRT: Width: 2.3" [59.6 mm]; Depth: 4.1" [105 mm]; Height: 5.9" [152 mm]
Weight	4.0 lbs [1.81 kg]
Ingress Protection	IP-30
Installation	DIN rail bracket installed/wall mount brackets included
Compliance	Safety: UL, cUL, Class 1 Div 2 for hazardous environments SISGM1040-262D-LR only: CE/EN60950-1 Emissions: FCC Class A, CE EN61000-4-2, CE EN61000-4-3, CE EN-61000-4-4, CE EN61000-4-5, CE EN61000-4-6, CE EN61000-4-8, CE EN61000-4-11, CE EN61000-4-12, CE EN61000-6-2, CE EN61000-6-4
Warranty	Lifetime

Features (Continued)

- Port Trunk with LACP
- QoS (Quality of Service)
- IEEE 802.1p Class of Service, Per port provides 4 priority queues
- Port Based, Tag Based and Type of Service Priority
- Port Mirror
- Monitor traffic in switched networks.
- Port Security : MAC address entries/filter
- IP Security : IP address security management to prevent unauthorized intruder
- Login Security IEEE 802.1X/RADIUS
- IGMP Query mode for Multi Media Application
- Support multicast filter X-Ring
- Support X-ring, Dual Homing, Couple Ring and Dual Ring Topology. Provide redundant backup feature and recovery time below 20 ms
- Serial Console Port
- SNMP v1 v2c, v3/Web/Telnet/CLI
- DHCP Client/DHCP Server
- TFTP Firmware Upgrade
- TFTP Configuration Backup/Restore
- Ipv4/IPv6 dual-stack

INDURA™

Industrial Managed Switch



IND-3280

IND-3284

Features

- Innovative passive cooling design to maintain operating temperature of SFPs
- Certified IEC 61850-3,
- Extended operating temperature (-40°C to 75°C)
- Redundancy: ITU-T G.8032v2 (Ethernet Ring Protection Switching) with Recovery < 50 ms, STP/RSTP/MSTP
- Synchronization: IEEE 1588v2 PTP
- System Alarms: Fault Output Relay, Syslog, SNMP Traps
- Security: IEEE 802.1x User Authentication, RADIUS and TACACS+, SNMPv3
- IPv4 and IPv6 support
- Link Aggregation LACP
- OAM Support: Link OAM IEEE 802.3ah, Service OAM IEEE 802.1ag, ITU-T Y.1731
- Jumbo Frame Support (9.6K)
- Quality of Service (802.1p) for real-time traffic prioritization
- VLAN (802.1Q) with double tagging
- IGMP v2/v3
- Management via Web, CLI, Telnet, SSH, SSL, SNMPv1, v2c & v3
- IEC 62439 Media Redundancy Protocol (MRP), Parallel Redundancy Protocol (PRP) (In Development)

INDURA™ is IEC 61850-3 certified, and offers advanced industrial Ethernet management, redundancy and security features coupled with rugged hardware performance for industrial or outdoor environment applications requiring high reliability and availability. Its four Gigabit SFP ports allow maximum flexibility in a wide range of fiber supported network architectures. INDURA™ supports IEEE 1588v2 Precision Time Protocol for real-time automation applications. IEEE 802.3ah / IEEE 802.1ag / ITU -T Y.1731 make INDURA™ an excellent choice for networks that need fault detection and fault isolation.

Transition Network's INDURA™ series of industrial, managed switches provide fully-hardened solutions designed to operate reliably in harsh environments.

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3z IEEE 802.3ab IEEE 802.3x IEEE 802.3ad IEEE 802.1D IEEE 802.1p IEEE 802.1Q IEEE 802.1w IEEE 802.1s IEEE 802.1x IEEE 802.1AB IEEE 802.3ah IEEE 802.3ag/Y.1731 IEEE 1588-2008 (v2)
Status LEDs	Power, Fault Relay Alarm, Port Activity, Duplex
Dimensions	Width: 5.05" [128.27mm] Depth: 5.64" [143.256mm] Height: 6.80" [178.72mm]
Weight	6.75 lbs [3.68 kg]
Input Power	18-57 VDC; dual input power (-L model) 125-300 VDC, 100-250 VAC; dual-input power (-H model)
Power Consumption	14 Watts Max
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft.
Mounting Options	DIN Rail, Panel mount
Compliance	Safety: UL 60950 IEC 61850-3*, EN 60079-15:2005*
Warranty	Lifetime

Ordering Information:

IND-3280-L

(4) 10/100/1000 Mbps RJ45 ports
(4) 100/1000 Mbps SFP ports
L = 18-57 VDC dual-input power

IND-3284-L

(7) or (8) 10/100/1000 Mbps RJ45 ports
(4) or (3) 100/1000 Mbps SFP ports
L = 18-57 VDC dual-input power

IND-3280-H

(4) 10/100/1000 Mbps RJ45 ports
(4) 100/1000 Mbps SFP ports
H = 125-300 VDC, 100-250 VAC
dual-input power

IND-3284-H

(7) or (8) 10/100/1000 Mbps RJ45 ports
(4) or (3) 100/1000 Mbps SFP ports
H = 125-300 VDC, 100-250 VAC
dual-input power

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25130 48VDC 39.8W

25131 48-55 VDC 76.88W

(See page 33 for details)

Applications

- Power Generation, Transmission & Distribution
- Electrical Substation
- Smart Grid
- Oil & Gas, Petrochemical
- Mining
- Water/Wastewater Treatment Plants
- Shipyards / Airports
- Outdoor IP Video Surveillance
- Intelligent Transportation Systems
- Process and Factory Automation requiring Precision Time Protocol
- High Availability Fiber-based Network Ring Architectures
- Cellular Backhaul

SISPM1040-182D-LRT

Managed Hardened Fast Ethernet Switch

(8) 10/100Base-TX PoE Ports and (2) 10/100/1000Base-T or 100/1000Base-X SFP Combo Ports



The SISPM1040-182D-LRT is a managed PoE switch suitable for connecting and powering devices in challenging environments. The two gigabit speed combo ports provide the ultimate flexibility by allowing copper or fiber SFP uplink ports. The two uplink ports can also be used in a redundant ring for maximum network reliability. The switch has a PoE power budget of 120 watts, provides up to 15.4 watts per port on all ports simultaneously, has redundant input power connections, and a fault alarm relay to ensure safe reliable operation in temperatures between -40°C and +65°C

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

- DIN Rail Connector
- Barrel Connector
- Auto-MDI/MDIX
- IEEE 802.3af POE on (8) 10/100TX ports
- SFP ports support 100/1000Base-X Dual Speed
- Store-and-Forward Switching Architecture
- Back-plane (Switching Fabric): 5.6 Gbps
- 1Mbits Packet Buffer
- 8K MAC Address Table
- Dual, Redundant, Auto-sensing Power Supply Inputs
- Power Polarity Reverse Protect
- Overload Current Protection
- Dry Contact Relay Output
- Port Based VLAN
- 802.1 Q Tag VLAN
- GVRP

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3z IEEE 802.3x IEEE 802.3ad IEEE 802.3af IEEE 802.1d IEEE 802.1w IEEE 802.1p IEEE 802.1Q VLAN IEEE 802.1x IEEE 802.1ab LLDP
PoE Pin Assignment	RJ-45 port # 1~# 8 support IEEE 802.3af End-point, Alternative A mode. Per port provides 15.4W ability. Positive (VCC+): RJ-45 pin 1,2. Negative (VCC-): RJ-45 pin 3,6.
Protocol	CSMA/CD
LED Per unit:	Power (Green), Power 1 (Green), Power 2 (Green), Fault (Red), Master (Green), FWD (Green) 8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow) SFP port: LNK/ACT(Green), 1000T: LNK/ACT(Green), 1000M(Green)
Input Power	48 VDC; redundant inputs (removable terminal block), additional barrel connector
Power Supply	External Power Supply: DC 48V, Redundant power DC 48V, removable terminal block
Power Consumption	16 Watts (without PoE) 136 Watts (full PoE)
Environment	Operating: -40°C to 65°C Humidity: 5% to 95% (Non-condensing) Storage: -40°C to 85°C
Dimensions	Width: 2.8" [72 mm]; Depth: 4.1" [105 mm]; Height: 5.9" [152 mm]
Weight	4.0 lbs. [1.81 kg]
Ingress Protection	IP-30
Compliance	Safety: UL, cUL, CE EN60950-1 Emissions: FCC Class A Immunity: EN61000-4-2, EN61000-4-3, EN-61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61000-4-12, EN61000-6-2, EN61000-6-4, IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)
Warranty	Lifetime

Ordering Information

SISPM1040-182D-LRT
(8) 10/100BASE-TX (RJ-45)
[100 m/328 ft.] with (2) 10/100/1000BASE-T (RJ-45) or 100/1000BASE-X SFP Combo ports

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25080 48~53 VDC 120W

25105 48~55 VDC 120W

(See page 33 for details)

Features (Continued)

- Port Trunk with LACP
- QoS (Quality of Service)
- IEEE 802.1p Class of Service, Per port provides 4 priority queues
- Port Based, Tag Based and Type of Service Priority
- Port Mirror
- Monitor traffic in switched networks.
- Port Security : MAC address entries/filter
- IP Security : IP address security management to prevent unauthorized intruder
- Login Security IEEE 802.1X/RADIUS
- IGMP Query mode for Multi Media Application
- Support multicast filter X-Ring
- Support X-ring, Dual Homing, Couple Ring and Dual Ring Topology. Provide redundant backup feature and recovery time below 20 ms
- Serial Console Port
- SNMP v1 v2c, v3/Web/Telnet/CLI
- DHCP Client/DHCP Server
- TFTP Firmware Upgrade
- TFTP Configuration Backup/Restore
- Ipv4/IPv6 dual-stack

SISPM1040-382-LRT

Managed Hardened Fast Ethernet Switch

(8) 10/100Base-TX PoE+ Ports and (2) 10/100/1000Base-T or 100/1000Base-X SFP Combo Ports



The SISPM1040-382-LRT is a managed PoE switch suitable for connecting and powering devices in challenging environments. The two gigabit speed combo ports provide the ultimate flexibility by allowing copper or fiber SFP uplink ports. The two uplink ports can also be used in a redundant ring for maximum network reliability. The switch has a PoE power budget of 240 watts, provides up to 30 watts per port on all ports simultaneously, 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 switches are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.



Ordering Information

SISPM1040-382-LRT

(8) 10/100BASE-TX PoE+ [100 m/328 ft.] with (2) Gigabit Combo SFP ports

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

25104 48-55 VDC 240W

(See page 33 for details)

Features

- Store-and-Forward Architecture with 5.6 Gbps Switching Bandwidth
- Dual, Redundant 50 to 57V DC Power Inputs with Current Overload Protection
- 6 PIN Terminal Block input power connections
- Fault Output Relay rated 1A 2t 24VDC
- 8 ports of P.S.E., providing up to 30 Watts per port
- DIN Rail and Wall Mount Brackets Included
- Extended operating temperature (-40°C to 75°C)
- Redundant Ring with recovery time less than 10ms over 250 units

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3z IEEE 802.3ab IEEE 802.3x IEEE 802.3ad IEEE 802.1D IEEE 802.1p IEEE 802.1Q IEEE 802.1w IEEE 802.1s IEEE 802.1x IEEE 802.1AB IEEE 802.3at
Status LEDs	Power, Ring, Ring Master, Fault, Port Link/Act, Port PoE
Dimensions	Width: 2.93" [74.3mm] Depth: 4.3" [109.2 mm]; Height: 6.06" [153.6 mm]
Weight	2.6 lbs. [1.185 kg]
Input Power	50-57 VDC; redundant inputs, 6-PIN Terminal Block
Power Consumption	7.68 watts (without PoE), 250 watts (full PoE)
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft.
Ingress Protection	IP 30
Compliance	Safety:EN60950-1 FCC Part 15, CISPR22/EN55022 Class A; EN61000-4-2; EN61000-4-3; EN-61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

Features (Continued)

- STP/RSTP/MSTP (IEEE 802.1D/w/s)
- TOS/DSCP
- QoS Quality of Service (802.1p)
- VLAN with VLAN Tagging and GVRP (802-1Q)
- MVR (Multicast VLAN Registration) support
- IGMP v2/v3 (IGMP Snooping)
- IP-based bandwidth management
- Port configuration, status, statistics, monitoring, security
- SNTP for synchronizing of clocks over network
- PTP Client (Precision Time Protocol) clock synchronization
- System Alarms via SYSLOG / SNMP / Trap / Fault Output Relay
- LLDP protocol
- DHCP Client/Server
- Port based network access control (802.1x)
- SSH Security
- RADUIS centralized password management
- SNMPv3 encrypted authentication and access security
- Web / SNMP v1, v2c, v3 / Telnet / CLI SSL/HTTPS device management

SISPM1040-384-LRT

Managed Hardened Gigabit Ethernet Switch

(8) 10/100/1000Base-T PoE+ Ports and (4) 1000Base-X SFP Ports



The SISPM1040-384-LRT is a managed Gigabit PoE switch suitable for connecting and powering devices in challenging environments. The gigabit speed SFP ports provide the ultimate flexibility by allowing fiber SFP uplink ports with varying communication distances. The uplink ports can also be used in a redundant ring for maximum network reliability. The switch has a PoE power budget of 240 watts, provides up to 30 watts per port on all ports simultaneously, has redundant input power connections, and a fault alarm relay 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 challenging environments.

Features

- Store-and-Forward Architecture with 24 Gbps Switching Bandwidth
- 8 ports of P.S.E., providing up to 30 Watts per port
- Supports Jumbo frames up to 9K Bytes
- Redundant Ring with recovery time less than 20ms over 250 units
- IGMP v2/v3 for filtering multicast traffic
- SNMP v1/v2c/v3, RMON and 802.1Q VLAN Network Management (256 VLANs)
- ACL and 802.1x User Authentication
- Supports LLDP Protocol
- SSH/SSL Security
- Advanced IP-based Rate Limiting
- Extended operating temperature (-40°C to 70°C)
- Dual, Redundant 50V DC Power Inputs with Overload Current Protection
- DIN Rail and Wall Mount Brackets Included

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3z IEEE 802.3ab IEEE 802.3x IEEE 802.3ad IEEE 802.1D IEEE 802.1p IEEE 802.1Q IEEE 802.1w IEEE 802.1s IEEE 802.1x IEEE 802.1AB IEEE 802.3at
Status LEDs	Power, Ring, Ring Master, Fault, Port Link/Act, PoE Power injected
Dimensions	Width: 3.8" [96.4 mm]; Depth: 4.27" [108.5 mm]; Height: 6.06" [154 mm]
Weight	3.06 lbs. [1.4 kg]
Input Power	50 VDC; redundant inputs
Fault Relay	1A at 24 VDC capacity
Serial Console	RS232 in RJ45 (Cable Supplied)
Power Consumption	20 watts (without PoE)
Environment	Operating: -40°C to +70°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft
Ingress Protection	IP 30
Compliance	Safety: EN60950-1 FCC Part 15, CISPR22/EN55022 Class A; EN61000-4-2; EN61000-4-3; EN-61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

Ordering Information

SISPM1040-384-LRT

(8) 10/100/1000BASE-T PoE+
[100 m/328 ft.] with (4) Gigabit SFP ports

Optional Accessories (sold separately)

SFP Modules

Industrial Power Supplies:

25104 48–55 VDC 240W

(See page 33 for details)

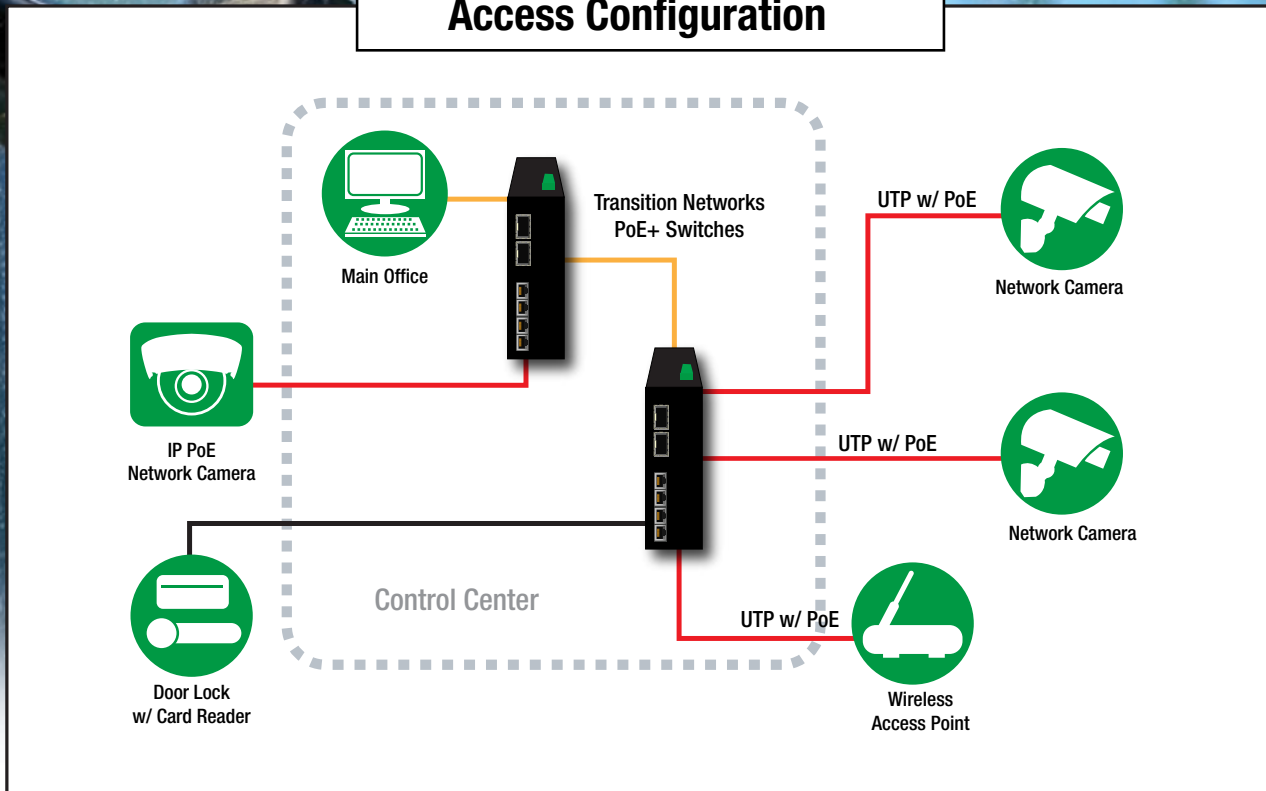
Features (Continued)

- STP/RSTP/MSTP (IEEE 802.1D/w/s)
- TOS/Diffserv supported
- Quality of Service (802.1p) for real-time traffic
- VLAN (802.1Q) with VLAN tagging and GVRP supported
- IGMP v2/v3 (IGMP Snooping)
- IP-based bandwidth management
- Application-based QoS management
- DOS/DDOS auto prevention
- Port configuration, status, statistics, monitoring, security
- System Alarms via SYSLOG / SNMP Trap / Fault Output Relay
- DHCP Client/Server
- Port based network access control (802.1x)
- Web / SNMP v1,v2c,v3 / Telnet / CLI device management
- Radius centralized password management
- SNMPv3 encrypted authentication and access security

Ruggedized Network Solutions for Security & Surveillance Applications

- Secure Access Systems
- Indoor/Outdoor Surveillance
- Retail Environments
- Traffic & Vehicle Monitoring

Surveillance & Secure Access Configuration



Transition Networks' industrial grade network switches combine the distance advantages of fiber-optic connections with Power-over-Ethernet (PoE) to connect and power IP surveillance cameras. In addition, these switches can be used in security access applications to communicate with RFID readers and control door locks and turnstiles.

- Rugged hardware performance for harsh environments and outdoor enclosures where PoE Plus is needed
- Highly flexible for a variety of PoE Plus applications
- Offers advanced Ethernet network management, redundancy, availability and network security features



SISTP1040-242-LRT

SI-IES-1200-LRT

Unmanaged Hardened PoE+ Injector



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



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.

Ordering Information

SI-IES-1200-LRT
Hardened 1-port Mid-span PoE+ injector

Optional Accessories (sold separately)

Industrial Power Supplies:

25130 48 VDC 39.8W

(See page 33 for details)

Features

- IEEE 802.3at PoE+ to supply 30 watts
- Non blocking architecture
- Compact size
- IP30 housing protection
- Link Fault Pass-Through Function
- Extended operating temperature (-40°C to 75°C)
- Din Rail mount included

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3at
Status LEDs	PWR1(Power): ON=primary power connected PWR2(Power): ON=backup power connected
Connectors	(1) DATA IN RJ-45 Ethernet Port (1) DATA OUT PoE+ RJ-45 Ethernet Port 30 watts
Dimensions	Width: 1.2" [30 mm] Depth: 3.7" [95 mm] Height: 5.5" [140 mm]
Weight	1.3 lbs. [.59 kg]
Ingress Protection	IP30
Installation	Din-Rail, Wall-Mount
Input Power	24/48VDC
Power Consumption	3.525 watts (No PoE) 33.36 watts (1port PoE)
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft
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(CS) EN61000-4-8 (Magnetic Field); IEC60068-2-27(Shock); IEC60068-2-32 (Free fall); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SI-IES-111D-LRT

Unmanaged Hardened PoE+ Injector/Converter

- (1) 100/1000Base-X SFP Port and
- (1) 10/100/1000Base-T PoE+ Port



The SI-IES-111D-LRT is an unmanaged hardened PoE+ injector that adds up to 30 watts of power on a network segment. The gigabit speed SFP port provides the ultimate flexibility by allowing fiber SFP uplink ports with varying communication distances. 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.



Ordering Information

SI-IES-111D-LRT
Hardened 1-port Mid-span PoE injector

Optional Accessories (sold separately)

Industrial Power Supplies:

25130 48 VDC 39.8W

(See page 33 for details)

Features

- IEEE 802.3at PoE+ to supply 30W per port
- Supports dual speed for SFP slot
- Non blocking architecture
- Compact size
- IP30 housing protection
- Link Fault Pass-Through Function
- Extended operating temperature (-40°C to 75°C)
- DIN Rail mount included

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3at IEEE 802.3z
Status LEDs	PWR1(Power): ON=primary power connected PWR2(Power): ON=backup power connected PoE+ Port Link/ACT PoE+ Port Gigabit Transmission SFP Port Link/ACT
Connectors	(1) DATA IN SFP Ethernet Port (1) DATA OUT PoE+ RJ-45 Ethernet Port 30 watts
Dimensions	Width: 1.44" [36.7 mm] Depth: 3.72" [94.5 mm] Height: 4.26" [108.4 mm]
Weight	1.3 lbs. [.59 kg]
Ingress Protection	IP30
Installation	Din-Rail, Wall-Mount (Optional)
Input Power	48VDC
Power Consumption	3.525 watts (No PoE) 34 watts (1port PoE)
Environmental	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft.
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(CS) EN61000-4-8 (Magnetic Field); IEC60068-2-27(Shock); IEC60068-2-32 (Free fall); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SI-IES-121D-LRT

Unmanaged Hardened PoE+ Injector/Converter

- (1) 100/1000Base-X SFP Port and
- (2) 10/100/1000Base-T PoE+ Port



Features

- IEEE 802.3at PoE+ to supply 30 watts per port
- Supports dual speed for SFP slot
- Non blocking architecture
- Compact size saving space
- IP30 of housing protection
- Link Fault Pass-Through Function
- Extended operating temperature (-40°C to 75°C)
- DIN Rail mount included

The SI-IES-1200-LRT is an unmanaged hardened PoE+ injector/switch that adds up to 30 watts of power on two network segments. The gigabit speed SFP port provides the ultimate flexibility by allowing fiber SFP uplink ports with varying communication distances. 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.



Ordering Information

SI-IES-121D-LRT

Hardened 2-port Mid-span PoE+ injector/Converter

Optional Accessories (sold separately)

Industrial Power Supplies:

25131 48-55 VDC 76.88W

25105 48-55 VDC 120W

(See page 33 for details)

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3ab IEEE 802.3at IEEE 802.3z
Status LEDs	PWR1(Power): ON=primary power connected PWR2(Power): ON=backup power connected PoE+ Port Link/ACT PoE+ Port Gigabit Transmission SFP Port Link/ACT
Connectors	(1) DATA IN SFP Ethernet Port (2) DATA OUT PoE+ RJ-45 Ethernet Port 30 watts
Dimensions	Width: 1.44" [36.7 mm] Depth: 3.72" [94.5 mm] Height: 4.26" [108.4 mm]
Weight	1.3 lbs. [.59 kg]
Ingress Protection	IP30
Installation	Din-Rail, Wall-Mount (Optional)
Input Power	48VDC
Power Consumption	3.525 watts (No PoE) 63.5 watts (2 ports PoE)
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft.
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(CS); EN61000-4-8 (Magnetic Field); IEC60068-2-27(Shock); IEC60068-2-32 (Free fall); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SDSFX311x-111-LRT

Hardened Serial Device Server

(1) 10/100 Fiber SC Ethernet with
(1) RS232/422/485 DB9 Port



Ordering Information

SDSFX3113-111-LRT

- (1) 100BASE-FX 1310nm MM (SC)
[2 km/1.2 mi.]
- (1) RS232/422/485 DB9 port

SDSFX3114-111-LRT

- (1) 100BASE-FX 1310nm SM (SC)
[30 km/18.6 mi.]
- (1) RS232/422/485 DB9 port

Optional Accessories (sold separately)

Industrial Power Supplies:

25135 24 VDC 10W

25130 48 VDC 39.8W

(See page 33 for details)

Features

- Operating Modes : Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Security : SSL data encryption; secured management by HTTPS and SSH IP Access : IP White List
- Update DNS Hostname : DDNS
- Event Warning by Syslog, Email, SNMP traps
- Various Windows O.S. supported: Windows NT/2000/ XP/ 2003/ VISTA(32/64bit)/Windows 7(32/64bit)
- Extended operating temperature (-40°C to 70°C)
- Din Rail mount included

Specifications

Ethernet:	(1) 10/100BaseFX Ethernet
Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS
Serial:	(1) DB9M
Protocols	RS-232/422/485 (2 and 4 wire)
Baud Rates	110bps to 460Kbps
Data Bits	5, 6, 7, 8
Parity	Odd, Even, None, Space
Stop Bits	1, 1.5, 2
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (4 wire)	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2 Wire)	Data+, Data-, GND
Flow Control	XON/XOFF, RTS/CST, DTR/DSR
Status LEDs	Power, Ethernet Port Link/Act, Serial TX/RX
Dimensions	Width: 2.83" [72mm] Depth: 1.16" [29.4 mm] Height: 4.86" [123.4 mm]
Weight	.72 lbs. [.327 kg]
Ingress Protection	IP30
Input Power	12~48 VDC; redundant inputs, 3-PIN Terminal Block, power jack
Power Consumption	4 watts
Environment	Operating: -40°C to +70°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft.
Compliance	Safety: EN60950-1 FCC Part 15, CISPR22/EN55022 Class A; EN61000-4-2; EN61000-4-3; EN-61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty	Lifetime

SDSTX3110-121-LRT

Hardened Serial Device Server

(2) 10/100Base-TX RJ45 with
(1) RS232/422/485 DB9 Port



Transition Networks serial device server provides the ability to communicate serial data across an Ethernet network. The SDSTX3110-121-LRT contains 2 10/100 Fast Ethernet ports that can be configured in a redundant ring topology. Alternatively, the Ethernet ports can be used to communicate to multiple redundant servers. Security of the data transmission is assured through HTTPS, SSH, and SSL data encryption.

The SDSTX3110-121-LRT comes with COM port redirector software enabling communication of serial data to a virtual COM port on a server, or can be used in pairs to provide serial tunneling across the Ethernet network.

The SDSTX3110-121-LRT is a hardened device designed to operate in the harshest environments. Enclosed in an IP-30 enclosure and accepting input voltage of 12 to 48 VDC, the device is certified to operate in temperatures of -40°C to +70°C.



Ordering Information

SDSTX3110-121-LRT

(2) 10/100BASE-TX [100 m/328 ft.]
with (1) RS232/422/485 DB9 port

Optional Accessories (sold separately)

Industrial Power Supplies:

25135 24 VDC 10W

25130 48 VDC 39.8W

(See page 33 for details)

Features

- Operating Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Security: SSL data encryption; secured management by HTTPS and SSH IP Access : IP White List
- Update DNS Hostname: DDNS
- Dual redundant Ethernet ports support redundant ring (Recovery time < 10ms)
- Ethernet switch mode enables Ethernet Daisy Chain
- Event Warning by Syslog, Email, SNMP traps
- Various Windows O.S. supported: Windows NT/2000/ XP/ 2003/ VISTA(32/64bit)/Windows 7(32/64bit)
- Extended operating temperature (-40°C to 70°C)

Specifications

Ethernet:	Protocols	(2) 10/100BaseT(X), RJ45, Auto MDI/MDIX ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS
Serial:	Protocols	(1) DB9M RS-232/422/485 (2 and 4 wire)
	Baud Rates	110bps to 460Kbps
	Data Bits	5, 6, 7, 8
	Parity	Odd, Even, None, Space
	Stop Bits	1, 1.5, 2
	RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
	RS-422	Tx+, Tx-, Rx+, Rx-, GND
	RS-485 (4 wire)	Tx+, Tx-, Rx+, Rx-, GND
	RS-485 (2 Wire)	Data+, Data-, GND
	Flow Control	XON/XOFF, RTS/CST, DTR/DSR
Status LEDs		Power, Ethernet Port Link/Act, Serial TX/RX
Dimensions		Width: 2.83" [72mm] Depth: 1.16" [29.4 mm] Height: 4.86" [123.4 mm]
Weight		.72 lbs. [.327 kg]
Ingress Protection		IP30
Input Power		12~48 VDC; redundant inputs, 3-PIN Terminal Block, power jack
Power Consumption		4 watts
Environment		Operating: -40°C to +70°C Humidity: 5%–95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft.
Compliance		Safety: EN60950-1 FCC Part 15, CISPR22/EN55022 Class A; EN61000-4-2; EN61000-4-3; EN-61000-4-4; EN61000-4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration)
Warranty		Lifetime

SDSTX3110-124-LRT

Hardened Serial Device Server

(2) 10/100Base-T Ethernet with
(4) RS232/422/485 DB9 Port



Transition Networks serial device server provides the ability to communicate serial data across an Ethernet network. The SDSTX3110-124-LRT contains two 10/100 Fast Ethernet ports that can be configured to communicate to one or multiple redundant servers. Security of the data transmission is assured through HTTPS, SSH, and SSL data encryption.

The SDSTX3110-124-LRT comes with COM port redirector software enabling communication of serial data to a virtual COM port on a server, or can be used in pairs to provide serial tunneling across the Ethernet network.

The SDSTX3110-124-LRT is a hardened device designed to operate in the harshest environments. Enclosed in an IP-30 enclosure and accepting input voltage of 12 to 48 VDC, the device is certified to operate in temperatures of -40°C to +70°C.



Ordering Information

SDSTX3110-124-LRT

- (2) 10/100BASE-T RJ45
- (4) RS232/422/485 DB9 port

Optional Accessories (sold separately)

Industrial Power Supplies:

25135 24 VDC 10W

25130 48 VDC 39.8W

(See page 33 for details)

Features

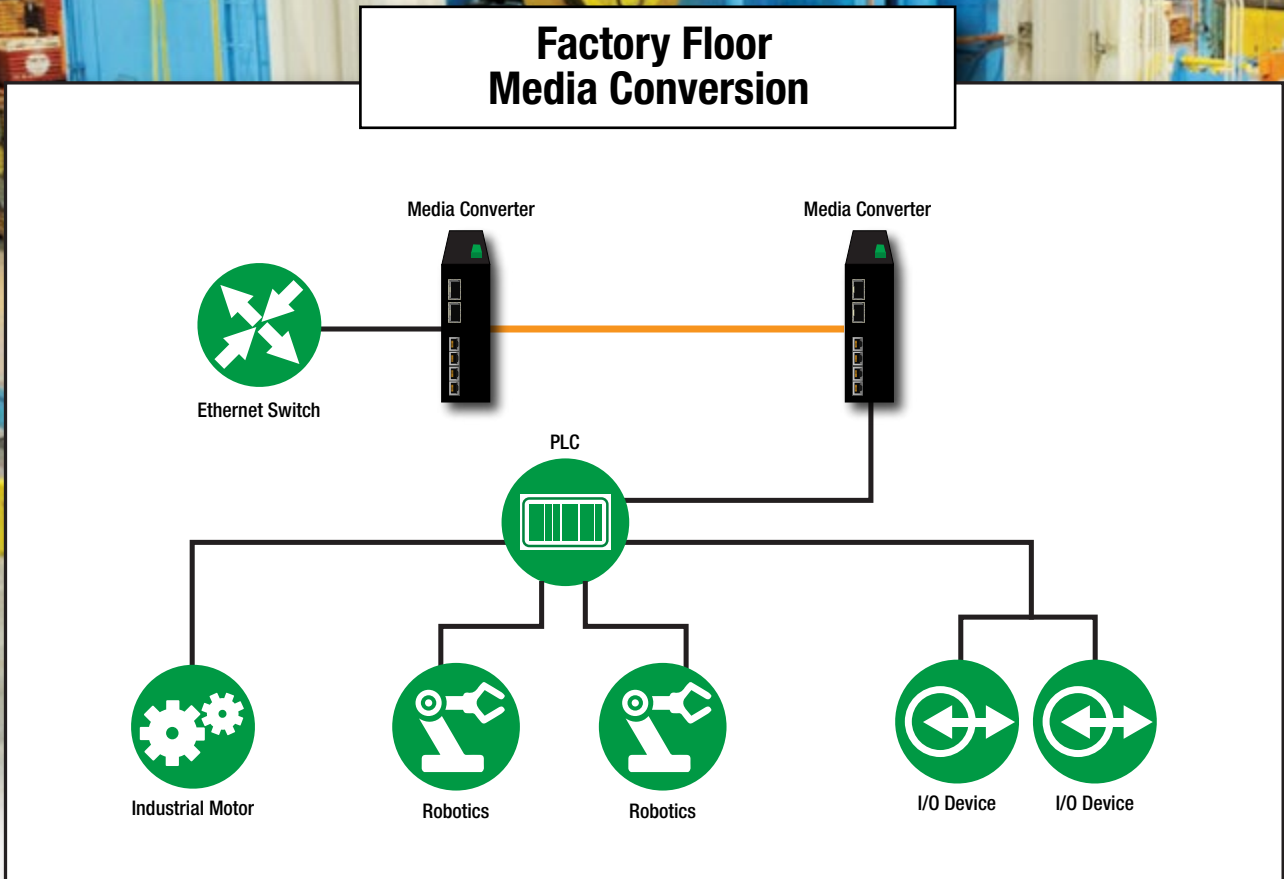
- Operating Modes: Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
- Security: SSL data encryption; secured management by HTTPS and SSH IP Access: IP White List
- Update DNS Hostname: DDNS
- Event Warning by Syslog, Email, SNMP traps
- Extended operating temperature (-40°C to 70°C)
- Various Windows O.S. supported: Windows NT/2000/ XP/ 2003/ VISTA(32/64bit)/Windows 7(32/64bit)

Specifications

Ethernet:	(2) 10/100BaseT Ethernet
Protocols	ICMP, IP, TCP, UDP, DHCP, BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, SSL, PPPoE, DDNS
Serial:	(1) DB9M
Protocols	RS-232/422/485 (2 and 4 wire)
Baud Rates	110bps to 460Kbps
Data Bits	5, 6, 7, 8
Parity	Odd, Even, None, Space
Stop Bits	1, 1.5, 2
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, RI, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (4 wire)	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2 Wire)	Data+, Data-, GND
Flow Control	XON/XOFF, RTS/CST, DTR/DSR
Status LEDs	Power, Ethernet Port Link/Act, Serial TX/RX
Dimensions	Width: 2.05" [52mm] Depth: 4.18" [106.1 mm] Height: 5.68" [144.3 mm]
Weight	1.49 lbs. [.678 kg]
Ingress Protection	IP30
Input Power	12~48 VDC; redundant inputs,
Power Consumption	5.5 watts
Environment	Operating: -40°C to +70°C Humidity: 5%– 95% humidity (non-condensing) Storage -40° to 85°C Altitude: 0 – 10,000 ft.
Compliance	Safety: EN60950-1 FCC Part 15, CISPR22/EN55022 Class A; EN61000-4-2; EN61000-4-3; EN-61000-4-4; EN61000- 4-5; EN61000-4-6; EN61000-4-8; EN61000-4-11; IEC60068-2-32 (Free fall); IEC60068-2-27 (Shock); IEC60068-2-6 (Vibration) Warranty
Lifetime	

Small Form Solutions for Commercial & Industrial Applications

- Factory Floor
- Manufacturing & Fabrication
- Service & Repair



Transition Networks offers a complete line of Class 1, Div 2 certified industrial Ethernet products designed for use in hazardous locations. Class 1, Div 2 certification ensures safety from explosion due to gases, vapors and liquids that may exist in environments such as, wastewater treatment plants, chemical industries, oil exploration and production facilities, gas pipeline and distribution centers, mining and agribusiness, among others.

- Usable in extreme temperatures
- Redundant network and power connections
- Connection for RS485 devices
- Wired Ethernet to fiber conversion



SISTF 1013 -211

M/E-ISW-FX-01(xx) & M/E-ISW-FX-01AC(xx)

Hardened Mini 10/100 Media Converter



Hardened Mini Media Converters provide a cost-effective method for integrating fiber optic cabling in 10/100 UTP Ethernet networks. Featuring a wide operating temperature range between -40°C and +75°C, low-voltage power, multiple mounting methods and Transition Networks' Lifetime Warranty, these problem solvers are guaranteed to be trouble-free in outdoor or other challenging applications.

Features

- Unit and Port LEDs provide quick status
- Auto-Negotiation
- Fixed Full-Duplex on fiber
- Auto-MDI/MDIX
- Link Pass Through
- Automatic Link Restoration
- Far-End-Fault
- DC and AC powered models
- Overload Current Protection
- Reverse Polarity Protection
- Extended operating temperature (-40°C to 75°C)
- Din Rail Mounting and Wall Mount Brackets Included

Specifications

Standards	IEEE 802.3
Status LEDs	PWR (Power): (below RJ-45) FX-Link/Act (Fiber Link/Activity): (Upper Left on RJ-45) ON = Link; Flashing = Activity TX-Link/Act (Copper Link/Activity): (Upper Right on RJ-45) ON = Link; Flashing = Activity
Dimensions	Width: 1.8" [46 mm] Depth: 3.3" [85 mm] Height: 0.85" [22 mm]
Weight	2 lbs. [0.90 kg]
Power Consumption	2.5 Watts
Power Sources	12-48 VDC AC version also supports 22-36 VAC ± 10% Overload Current Protection Reverse Polarity Protection
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage: -40°C to 85°C Altitude: 0 – 10,000 ft
Compliance	FCC Class A, CISPR22/EN55022 Class A, EN55024, CE Mark
Warranty	Lifetime

Ordering Information

M/E-ISW-FX-01
M/E-ISW-FX-01AC
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310 nm multimode (ST)
[2 km/1.2 mi.] Link Budget: 12.0 dB

M/E-ISW-FX-01 (MMLC)
M/E-ISW-FX-01AC (MMLC)
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310 nm multimode (LC)
[2 km/1.2 mi.] Link Budget: 11.0 dB

M/E-ISW-FX-01 (SC)
M/E-ISW-FX-01AC (SC)
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310 nm multimode (SC)
[2 km/1.2 mi.] Link Budget: 12.0 dB

M/E-ISW-FX-01 (SM)
M/E-ISW-FX-01AC (SM)
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310 nm SM (SC)
[20 km/12.4 mi.] Link Budget: 16.0 dB

M/E-ISW-FX-01 (SMLC)
M/E-ISW-FX-01AC (SMLC)
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310 nm SM (LC)
[20 km/12.4 mi.] Link Budget: 19.0 dB

Single Fiber Products

M/E-ISW-FX-01 (100)
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310nm TX/1550nm RX single
fiber single mode (SC)
[20 km/12.4 mi.] Link Budget: 18.0 dB

M/E-ISW-FX-01 (101)
10/100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1550nm TX/1310nm RX single
fiber single mode (SC)
[20 km/12.4 mi.] Link Budget: 18.0 dB

Optional Accessories (sold separately)

SFP Modules

External AC/DC Power Supply

SPS-UA12DHT 12 VDC 18W

25083 10.8~13.2 VDC 24W

(See page 33 for details)

SISTF101x-211-LRT

Unmanaged Hardened Fast Ethernet Media Converter

(1) 10/100Base-TX Port and (1) 100Base-FX Port



The SISTF101x-211-LRT converter family contains simple “Plug and Play” converters used at the edge of a hardened network to provide fast Ethernet connections for devices in hazardous locations. Depending on the model, these converters can provide Multi-Mode or Single Mode fiber connections with SC or ST connectors for extended distance communications up to 30 kilometers. These converters are Class 1, Div 2, have 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 media converters are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other hazardous environments.

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- Link Pass Through
- DIN Rail Mounting and Wall Mount Brackets Included
- Dry Contact Relay Alarm Output
- Dual Auto-Sensing Redundant DC Power Inputs
- Media Converter Mode or Switch Converter Mode
- Barrel connector interface cable included for connecting external AC/DC power supply
- Extended operating temperature (-40°C to 75°C)
- Reverse Polarity Protection
- Overload Current Protection
- Class 1, Div 2 Certified

Specifications

Standards	IEEE 802.3 IEEE 802.3u IEEE 802.3x
Status LEDs	PWR (Power): ON = Unit has power connected PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected Fault: ON = Power failure or port link failure LNK/ACT (Ports 1 – 2): ON = Link; Flashing = data transmitting HDX/FDX (Ports 1 – 2): ON = Full duplex mode 10/100 (UTP): ON = 100 Mbps
Dip Switches	1: Enable/Disable Port Alarms 2: Enable/Disable Link Pass Through 3: Full/Half Duplex 100BASE-FX 4: Converter/Switch Mode
Dimensions	Width: 1.46" [37 mm] Depth: 3.7" [95 mm] Height: 5.5" [140 mm]
Weight	2 lbs. [0.90 kg]
Ingress Protection	IP 30
Input Power	12 to 48 VDC, 0.2A-0.7A, redundant inputs with reverse polarity protection; overload current protection Additional barrel connector: SISTF1011-211-LRT also supports 24 VAC (18~30 VAC)
Fault Output	Relay output contacts, 1A@24VDC load capacity
Power Consumption	2.7 Watts
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft
Compliance	Safety: UL 60950-1; UL508; CSA C22.2 no 60950 UL Class 1, Div 2 for hazardous environments, cUL CISPR/EN55022 Class A; FCC Class A; CE Mark; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6 IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
Warranty	Lifetime

Ordering Information

SISTF1011-211-LRT

(1) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (1) 100BASE-FX 1310nm MM (ST)
[2 km/1.2mi.] Link Budget: 11.0 dB

SISTF1013-211-LRT

(1) 10/100BASE-T X (RJ-45) [100 m/328 ft.] \\
to (1) 100BASE-FX 1310nm MM
(SC) [2 km/1.2 mi.] Link Budget: 11.0 dB

SISTF1014-211-LRT

(1) 10/100BASE-TX (RJ-45) [100 m/328 ft.]
to (1) 100BASE-FX 1310nm SM (SC)
[30 km/18.6 mi.] Link Budget: 17.0 dB

Optional Accessories (sold separately)

External AC/DC Power Supply

SPS-UA12DHT 12 VDC 18W

25083 10.8~13.2 VDC 24W

(See page 33 for details)

SISTG10xx-211-LRT

Unmanaged Hardened Gigabit Ethernet Media Converter

(1) 10/100/1000Base-T port and (1) 1000Base-X Port



SISTG101x-211-LRT

SISTG1040-211-LRT

The SISTG10xx-211-LRT converter family contains simple “Plug and Play” converters used at the edge of a hardened network to provide Gigabit Ethernet connections for devices in challenging locations. Depending on the model, these converters can provide Multi-Mode or Single Mode fiber connections with SC connectors for extended distance communications up to 10 kilometers. The SFP model provides the ultimate flexibility to choose the appropriate SFP module to match your communication distance needs. These converters have 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 media converters are certified to operate reliably in harsh environments such as those found on factory floors, outdoor enclosures or other challenging environments.

Features

- Auto-Negotiation
- Auto-MDI/MDIX
- Link fault pass through
- Extended operating temperature (-40°C to 75°C)
- Dry Contact Relay Alarm Output
- Dual, Redundant, 12-48 VDC Power Inputs
- Reverse Polarity Power Input Protection
- Overload Current Protection
- DIN Rail Mounting and Wall Mount Brackets Included
- Barrel connector interface cable included for connecting external AC/DC power supply
- Class 1, Div 2 Certified
- Provides DIP Switch for full/half duplex
- Jumbo Frame: 9K bytes

Specifications

Standards	IEEE 802.3 IEEE 802.3ab IEEE 802.3u IEEE 802.3x IEEE 802.3z
Data Rate	Copper: 10/100/1000 Mbps Fiber: 1000 Mbps SFP: 1000 Mbps
Status LEDs	PWR 1 (Power): ON = primary power connected PWR 2 (Power): ON = backup power connected FAULT: ON = power input failure on PWR1 or PWR2 1000M (port 1): ON = Linked at 1000 Mbps LNK/ ACT (ports 1-2): ON = Link; FLASHING = data transmitting
Dip Switches	1: Enable/Disable Power Alarm 2: Enable/Disable Link Pass Through
Dimensions	Width 1.46" [37 mm] Depth 3.74" [95 mm] Height 5.51" [140 mm]
Weight	1.3 lbs. [0.59 kg]
Ingress Protection	IP30
Input Power	12 to 48 VDC, 0.2A-0.5A, redundant inputs with reverse polarity protection; Additional barrel connector
Fault Output	Relay output contacts, 1A@24VDC load capacity
Power Consumption	5.28W (SISTG1040) 5.30W(SISTG1014) 5.18(SISTG1013)
Environment	Operating: -40°C to 75°C Humidity: 5%– 95% humidity (non-condensing) Storage -40°C to 85°C Altitude: 0 – 10,000 ft
Compliance	Safety: UL 60950-1; UL508; CSA C22.2 no 60950 UL Class 1, Div 2 for hazardous environments, cUL CISPR/EN55022 Class A; FCC Class A; CE Mark; EN61000-4-2; EN61000-4-3; EN61000-4-4; EN61000-4-5; EN61000-4-6 IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
MTBF	515,600 hours (SISTG1040-211-LRT) 252,300 hours (SISTG101x-211-LRT)
Warranty	Lifetime

Ordering Information

SISTG1013-211-LRT
10/100/1000BASE-T (RJ-45) [100 m/328 ft.]
to 1000BASE-SX 850nm MM (SC)
[62.5/125 μm: 220 m/722 ft.]
Link Budget:8.5 dB
[50/125μm: 550 m/1804 ft.]
Link Budget: 8.5 dB

SISTG1014-211-LRT
10/100/1000BASE-T (RJ-45) [100 m/328 ft.]
to 1000BASE-LX 1310nm SM (SC)
[9/125μm: 10 km/6.2 mi.]
Link Budget: 10.5 dB

SISTG1040-211-LRT
10/100/1000BASE-T (RJ-45) [100 m/328 ft.]
to 000BASE-X SFP slot (empty)

Optional Accessories (sold separately)

External AC/DC Power Supply

SPS-UA12DHT 12 VDC 18W

25083 10.8~13.2 VDC 24W

(See page 33 for details)

E-TBT-FRL-05(xxHT)

Unmanaged Hardened Ethernet Media Converter

(1) 10Base-T Port and (1) 10Base-FL Port



The E-TBT-FRL-05(xxHT) converter family contains simple “Plug and Play” converters used at the edge of a hardened network to provide 10Base-T Ethernet connections for legacy devices in challenging locations. Depending on the model, these converters can provide Multi-Mode or Single Mode fiber connections with SC or ST connectors for extended distance communications up to 40 kilometers. These converters ensure safe reliable operation in temperatures between -25°C and +70°C.

Transition Networks’ hardened media converters are certified to operate reliably in harsh environments where excessive heat may be a concern, such as those found on factory floors, outdoor enclosures or other challenging environments. (Note that this device is rated to meet “temperature” requirements of industrial environments only.)

Features

- Auto-MDI/MDIX
- Link Pass Through
- Automatic Link Restoration
- Extended operating temperature (-40°C to 75°C)
- Connect legacy coax devices to a 10BASE-T network)

Specifications

Standards	IEEE 802.3
Switch	S1: Enables/disables Link Pass Through
Status LEDs	PWR (Power): On for normal operation Link: Steady LED indicates unit is receiving link pulses from a compliant device Receive: Flashing or lit LED indicates packets are being received
Dimensions	Width: 3.0" [76 mm] Depth: 3.9" [99 mm] Height: 1.0" [25 mm]
Weight	2 lbs. [0.90 kg]
Power	External AC/DC required; 9 VDC. 1.0A; unregulated; standard
Environment	Operating: -25°C to +70°C; Humidity: 5% – 95% (non-condensing) Altitude: 0 – 10,000 ft. altitude
Compliance	Safety: Wall Mount Power Supply: UL Listed and CSA certified CISPR22/EN55022 Class A; FCC Class; CE Mark
Waranty	Lifetime



Ordering Information

E-TBT-FRL-05(HT)

10BASE-T (RJ-45) [100 m/328 ft.]
to 10BASE-FL 850nm multimode (ST)
[2 km/1.2 mi.] Link Budget: 13.5 dB

E-TBT-FRL-05(SCHT)

10BASE-T (RJ-45) [100 m/328 ft.]
to 10BASE-FL 850nm multimode (SC)
[2 km/1.2 mi.] Link Budget: 13.5 dB

E-TBT-FRL-05(XCHT)

10BASE-T (RJ-45) [100 m/328 ft.]
10BASE-FL 1310nm single mode (SC)
[20 km/12.4 mi.] Link Budget: 14.0 dB

Optional Accessories (sold separately)

Wide Input 9 (24 - 60 VDC) Power Supply

SPS-2460-SA

Stand-Alone Power Supply

Mounting Options

RMS19-SA4-01

4-Slot Media Converter Shelf

WMBD

DIN Rail Bracket 5.0" [127 mm]

WMBD-FS

DIN Rail Bracket (flat, small) 3.1" [79 mm]

WMBS

Wall Mount Bracket 3.2" [81 mm]

E-MCR-05

12 Slot media converter rack

E-100BTX-FX-05(xxHT)

Unmanaged Hardened Fast Ethernet Media Converter

(1) 100Base-TX Port and (1) 100Base-FX Port



The E-100-TBX-FX-05(xxHT) converter family contains simple “Plug and Play” converters used at the edge of a hardened network to provide Fast Ethernet connections for devices in challenging locations. Depending on the model, these converters can provide Multi-Mode or Single Mode fiber connections with SC connectors for extended distance communications up to 40 kilometers. These converters ensure safe reliable operation in temperatures between -25°C and +65°C.

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

Features

- Extended Temperature Capable: Designed to operate in environments where ambient temperatures can rise as high as 65°C (149°F)
- Auto-Negotiation
- Auto-MDI/MDIX
- Link Pass Through
- Far-End-Fault Detection
- Automatic Link Restoration
- Pause

Specifications

Standards	IEEE 802.3
Jumpers	Jumper Block 1: Auto-MDI/MDIX™ enable
Switches	SW1: Auto-Negotiation On/Off SW2: Pause TX On/Off SW3: LPT On/Off SW4: FEF On/Off
Status LEDs	PWR (Power): Lit for normal operation SDF (Signal Detect Fiber): Lit for fiber link SDC (Signal Detect Copper): Lit for copper link RXF (Receive Fiber): Flashing = RX data RXC (Receive Copper): Flashing = RX data
Dimensions	Width: 3.0" [76 mm] Depth: 4.7" [119 mm] Height: 1.0" [25 mm]
Weight	2 lbs. [0.90 kg]
Power	External AC/DC required; 9 VDC. 1.0A; unregulated; standard
Environment	Operating: -25°C to 65°C Humidity: 5% – 95% (non-condensing) Altitude: 0 – 10,000
Compliance	Safety: Wall Mount Power Supply: UL Listed, C-UL Listed (Canada) FCC Class A, CISPR22/EN55022 Class A, EN55024, EN61000, CE Mark
Warranty	Lifetime



Ordering Information

E-100BTX-FX-05(HT)

100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1300nm multimode (ST)
[2 km/1.2 mi.] Link Budget: 11.0 dB

E-100BTX-FX-05(SCHT)

100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1300nm multimode (SC)
[2 km/1.2 mi.] Link Budget: 11.0 dB

E-100BTX-FX-05(SMHT)

100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310nm SM (SC)
[20 km/12.4 mi.] Link Budget: 16.0 dB

E-100BTX-FX-05(LHHT)

100BASE-TX (RJ-45) [100 m/328 ft.]
to 100BASE-FX 1310nm SM (SC)
[40 km/24.9 mi.] Link Budget: 26.0 dB

Optional Accessories (sold separately)

Power Supplies

SPS-2460-SA

Stand-Alone Power Supply

Mounting Options

RMS19-SA4-01

4-Slot Media Converter Shelf

WMBD

DIN Rail Bracket 5.0" [127 mm]

WMBD-FS

DIN Rail Bracket (flat, small) 3.1" [79 mm]

WMBL

Wall Mount Bracket 4.0" [102 mm]

WMBV

Vertical Wall Mount Bracket 5.0" [127 mm]

POWER SUPPLIES



Product	Primary Power Supply	Primary Power Supply Details	Secondary Power Supply	Secondary Power Supply Details
M/E-ISW-FX-01xxx(xx) SISTG10xx-211-LRT SISTF1010-2xx-LRT SISTF10xx-241-LRT SISTF1040-162D-LRT SISTM1040-262D-LRT SISTM1040-262E-LRT SISTM10xx-1xx-LRT SISGM1040-244-LRT SISGM1040-262x-LRT	25083	Input 85-264 VAC, 120-370 VDC Output 10.8-13.2 VDC, 2A, 24W	SPS-UA12DHT	Input 90-264 VAC Output 12 VDC, 1.3A 18W
SISTP10xx-141-LRT SISTP1040-242-LRT SISPM1040-182D-LRT	25105	Input 110 VAC, 220 VAC Output 48-55 VDC, 2.5A, 120W	25080	Input 88-132VAC, 176-264VAC, 248-370VAC by switch Output 48-53 VDC, 2.5A 120W
SISPM1040-382-LRT SISPM1040-384-LRT	25104	Input 85-264 VAC, 124-370 VDC Output 48-55V, 5.0A, 240W		
IND-328x-L	25130	Input 85-264VAC, 120-370VAC Output 48VDC, .83A, 39.8 Watts	25131	Input 88-264VAC, 124-370VAC Output 48-55VDC, 1.6A, 76.88 Watts
SISTP1010-380-LRT	25079	Input 88-132VAC, 176-264VAC, 248-370VAC by switch Output 24-28 VDC, 5.0A 120W		
SI-IES-1200-LRT SI-IES-111D-LRT	25130	Input 85-264VAC, 120-370VAC Output 48VDC, .83A, 39.8 Watts	25131	Input 88-264VAC, 124-370VAC Output 48-55VDC, 1.6A, 76.88 Watts
SI-IES-121D-LRT	25131	Input 88-264VAC, 124-370VAC Output 48-55VDC, 1.6A, 76.88 Watts	25105	Input 120-220VAC, Output 48- 55VDC, 2.5A, 120 Watts
SDSTX3110-121-LRT SDSTX3110-124-LRT SDSFX3113-111-LRT SDSFX3114-111-LRT	25135	Input 85-264VAC, 120-370VAC Output 24VDC, .42A, 10 Watts	25130	Input 85-264VAC, 120-370VAC Output 48VDC, .83A, 39.8 Watts



NORTH AMERICA

Worldwide Headquarters

United States

tel: 952.941.7600
toll free: 800.526.9267
fax: 952.941.2322

Canada

tel: +1 952.996.1550
fax: +1 952.941.2322

EUROPE

EMEA / European Headquarters

tel: +44 (0) 1428 752 955
fax: +44 (0) 1428 752 901

LATIN AMERICA

Mexico / Central America / Caribbean

tel: +1 952.996.1512
fax: +1 952.941.2322

South America

tel: +54 11 4554 8076
fax: +1 952.941.2322

Brazil

tel: +55-11-98244-7630
fax: +1 952.941.2322

ASIA

Japan / Korea

tel: +81 3 5403 6470
fax: +81 3 5403 6471

Southeast Asia / Hong Kong / India

tel: +65 9736 8385
fax: +1 952.941.2322

part: 902015HE