
SI-IES-111D-LRT and SI-IES-121D-LRT

Hardened PoE/PoE+ Injector / Converter



User Guide

PN 33585 Rev. I

Ver 1.02
May 2017

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FCC Warning

This Equipment has been tested and found to comply with the limits for a Class-A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. It may cause harmful interference to radio communications if the equipment is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CE Mark Warning

This is a Class-A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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PN 33585 Rev. I

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Revision History

Rev	Date	Description
A	01/03/14	Initial release for SW v 1.02.
B	08/10/15	Update artwork and add info to DIP switch section.
C	1/4/16	Update IEEE 802.3af/802.3at information.
D	1/26/16	Note to adjust power supply to 50VDC ~ 53VDC for full PoE+ power.
E	5/11/16	Update default speed DIP switch setting and grounding information.
F	1/6/17	Update power supply, certification, and contact information.
G	2/23/17	Add DoC (Declaration of Conformity).
H	5/4/17	Add MTBF and clarify specs.
I	8/10/17	Add Max Frame Size.

1. Overview

Introduction

The SI-IES-111D-LRT and SI-IES-121D-LRT are designed to convert Gigabit fiber networks to Gigabit Ethernet networks by transparently converting optical signals to Ethernet signals with IEEE 802.3af (PoE) or IEEE802.3at (PoE+) PSE function.

The devices can provide full 30W (PoE+) or 15 W (PoE) to each copper port to provide power and data over an RJ-45 cable. The advantages of the fiber optic connection are wide bandwidth, EMI immunity and long-distance transmission capability. This makes the Hardened PoE Injector/Converter an ideal solution for “fiber to the building” applications at central offices or local sites. The Hardened PoE/PoE+ Injector/Converter supports MDI/MDIX auto detection, and can operate in a temperature range from -40 °C to +75° C. The Class I, Div 2 rating and IP31 rated case make the device suitable for harsh operating environments.

SI-IES-111D-LRT

SI-IES-111D-LRT has one SFP slot and one RJ45 port. The RJ45 port supports IEEE 802.3af (PoE) and 802.3at (PoE+), and can provide up to 30W for high powered application. The SFP slot provides more flexibility when planning and implementing the network. The slot can accept a dual speed 100/1000M SFP fiber module. This makes it possible to easily change the transmission mode and distance of the connection by using a different module. The SFP module is hot-swappable, and there is a DIP switch to adjust the SFP function.

SI-IES-121D-LRT

SI-IES-121D-LRT has one SFP slot and two RJ45 ports. The RJ45 ports support IEEE 802.3af (PoE) and 802.3at (PoE+), and can provide up to 30W on each copper port for high power applications. The SFP slot provides more flexibility when planning and implementing the network. The slot can accept a dual speed 100/1000M SFP fiber module. This makes it possible to easily change the transmission mode and distance of the connection by using a different module. The SFP module is hot-swappable, and there is a DIP switch to adjust the SFP function.

Optional Accessories (sold separately): Industrial Power Supply 25131:

Input: 85-264VAC, 120-370VDC

Output: 48-55VDC, 1.6A, 76.88 Watts

Power Input

These converters accept 48~57VDC; higher voltage (50~57VDC) required for some high powered PD loads.

Flexible Mounting

SI-IES-111D-LRT and SI-IES-121D-LRT are compact in size and support both DIN-rail and wall mounting.

Wide Operating Temperature

The operating temperature of the SI-IES-111D-LRT and SI-IES-121D-LRT are between -40°C and +75°C. This operating temperature allows the device to be deployed in harsh environments and ensures it will operate reliably.

Easy Troubleshooting

LED indicators make operation troubleshooting quick and easy. The 10/100/1000 Base-TX port has two LEDs that display the link status. One LED displays the Link/ACT status and the other LED is for the Gigabit transmission. The SFP port has one LED that indicates the link/ACT status. There are also LEDs for PoE power and input power.

Features

- **SI-IES-111D-LRT** provides 1 x SFP Dual-Speed slot + 1 x RJ45 with IEEE 802.3af/IEEE 802.3at PSE injector function
- **SI-IES-121D-LRT** provides 1 x SFP Dual-Speed slot + 2 x RJ45 with IEEE 802.3af/IEEE 802.3at PSE injector function
- Full/half duplex flow control
- MDI/MDI-X Auto-crossover
- Auto-negotiation
- Store & forward transmission
- Link Pass Through
- Provides flexible mounting: DIN-rail, Wall Mounting (optional)
- Supports operating temperatures from -40°C to +75°C

Packing List

- One Hardened Injector/ Converter with IEEE 802.3af/IEEE 802.3at PSE
- One Documentation Postcard
- One DIN-rail Clip
- Two Wall Mounting Brackets and Screws (Optional)

Safety Precaution

If DC voltage is supplied by an external power supply, you must use an isolated power supply.

2. Hardware Description

This section introduces device hardware specifications, port configurations, cabling information, and installation wiring.

Front Panel

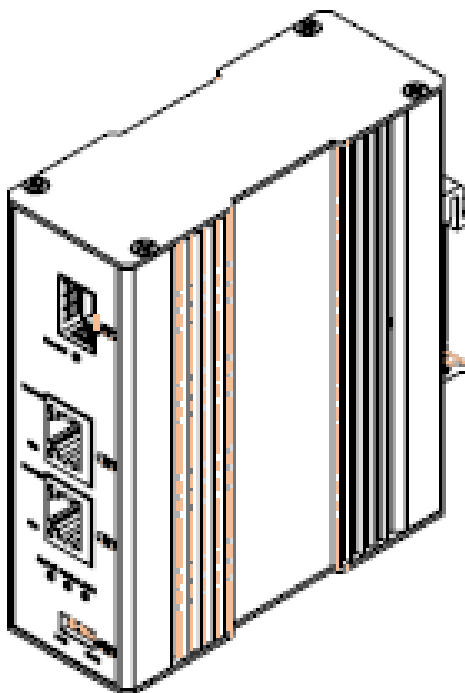
The SI-IES-111D-LRT and SI-IES-121D-LRT front panels are shown below.



Hardened PoE+ Devices Front Panels

Top View

Consistent with the IP31 rating, the terminal block connector for the DC power input is located on the bottom of the device.



Top panel of the Hardened PoE+ Devices

Grounding

Required:

Isolated DC Supply

Connect chassis to earth ground

Do not connect earth ground to:

Negative input terminal

Positive input terminal



Wiring the Power Inputs

Follow the steps below to insert the power wire.



1. Locate the labeling on the device indicating the location of V+ and V- power input connections on the device.



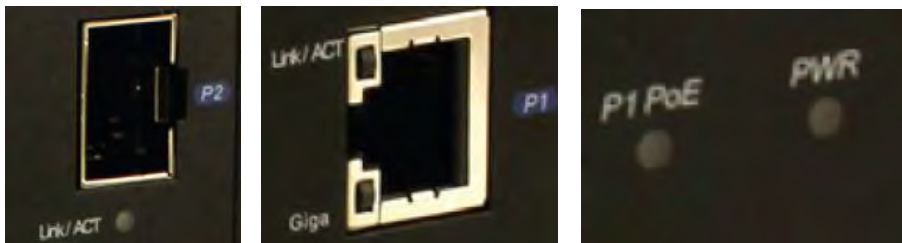
2. Insert the positive and negative wires into the V+ and V- contacts on the terminal block connector.
3. Tighten the wire-clamp screws on the terminal block, highlighted in red above, to secure the wire connections.

Note: The wire gauge for the terminal block should be 12~ 24 AWG.

Note: Adjust the power supply as required. These devices accept 48~57VDC; higher voltage (50~57VDC) may be required for some high powered PD loads.

LED Indicators

There are LEDs located on the front panel of the Hardened PoE injector to display the power status and network status.



Each LED state and color has its own specific meaning as defined in the table below.

Table 2.1: Hardened Switch Converter LED Definition

LED Indicator	Label	Description	
System Power	PWR	Off	Power off
		Solid Green	Power on
PoE Power	PoE	Off	No PoE power output
		Solid Green	PoE power output OK
RJ-45	Giga	Solid Amber	Link to 1000M bps network
		Off	Not connected to network or not working at speed of 1000M
	Link/ACT	Solid Green	Connected to network
		Blinking Green	Networking is active
		Off	Not connected to network
SFP	Link/ACT	Off	No SFP connection detected
		Solid Green	When there is a secure SFP connection
		Blinking Green	When there is transmission or reception of data occurring at speed of 100/1000Mbps

DIP-Switch

The front panel DIP-Switch is used to configure the SFP operating speed. The default position is Mode 2, **1000M**.

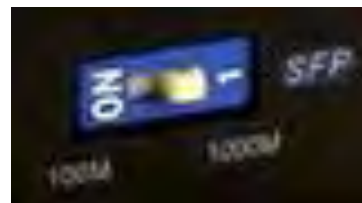


Table 2.2: Hardened Switch Converter DIP-Switch Definition

Status	Description
Mode 1	100M
Mode 2	1000M

The SFPs are hot-swappable. However, you must cycle device power whenever the DIP switch is changed (i.e., whenever changing SFP mode/speed).

Ports

RJ45 ports (Auto MDI/MDIX): The RJ-45 ports are auto-sensing for 10Base-T, 100Base-TX or 1000Base-T device connections. Auto MDI/MDIX means that you can connect to another switch or workstation without changing straight through or crossover cabling. See information below for straight through and crossover cable PIN assignments.

RJ-45 Pin Assignments

Pin Number	Assignment
1	Tx+
2	Tx-
3	Rx+
6	Rx-

Note “+” and “-” signs represent the polarity of the wires that make up each wire pair.

All ports on this Hardened PoE injector support automatic MDI/MDI-X operation, so you can use straight-through cables (see below) for all network connections to PCs, servers, or to other switches or hubs. In straight-through cables, pins 1, 2, 3, and 6, at one end of the cable, are connected straight through to pins 1, 2, 3 and 6 at the other end of the cable. The table below shows the 10BASE-T/ 100BASE-TX /1000Base-T MDI and MDI-X port pin outs.

Pin MDI-X	Signal Name	MDI Signal Name
1	Receive Data plus (RD+)	Transmit Data plus (TD+)
2	Receive Data minus (RD-)	Transmit Data minus (TD-)
3	Transmit Data plus (TD+)	Receive Data plus (RD+)
6	Transmit Data minus (TD-)	Receive Data minus (RD-)

Signals for 1000Base-T

Pin	Signal name	Signal definition
1	TRD+(0)	Transmit and receive data 0 (positive lead)
2	TRD-(0)	Transmit and receive data 0 (negative lead)
3	TRD+(1)	Transmit and receive data 1 (positive lead)
4	TRD+(2)	Transmit and receive data 2 (positive lead)
5	TRD-(2)	Transmit and receive data 2 (negative lead)
6	TRD-(1)	Transmit and receive data 1 (negative lead)
7	TRD+(3)	Transmit and receive data 3 (positive lead)
8	TRD-(3)	Transmit and receive data 3 (negative lead)

Cabling

A twisted-pair segment can use unshielded twisted pair (UTP) or shielded twisted pair (STP) cabling. The cable between the powered device and the injector must be less than 100 meters (328 ft.) long and comply with the IEEE 802.3ab 1000Base-T standard for Category 5e or above.

The Fiber segment using a single-mode connector type must use 9/125 μ m single-mode fiber cable. You can connect two devices at a distance of 10 km. Fiber segment using multi-mode connector type must use 50/125 or 62.5/125 μ m multi-mode fiber cable. You can connect two devices at a distance of 550m.

The small form-factor pluggable (SFP) is a compact optical transceiver used in optical communications for both telecommunication and data communication applications.

See the Transition Networks [SFP web page](#) for more small form factor pluggable (SFP) transceivers information.

Refer to the SFP manual for important safety information.

To connect the transceiver and LC cable, follow the steps shown below:

1. Insert the transceiver into the SFP module. Notice that the triangle mark is the bottom of the module.

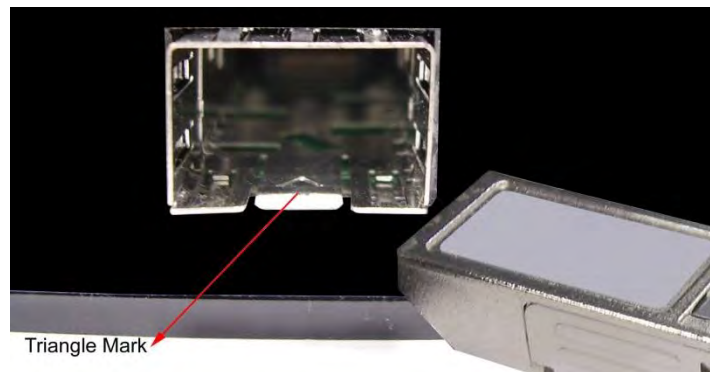


Figure 2.8: Transceiver to the SFP module



Figure 2.9: Transceiver Inserted

2. Insert the LC connector of the fiber cable into the SFP transceiver.

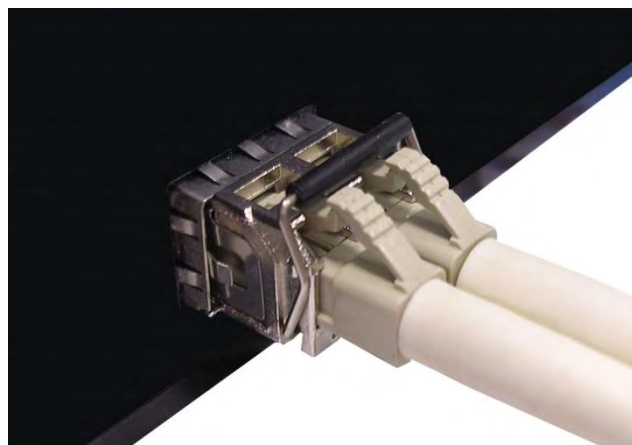


Figure 2.10: LC connector to the SFP transceiver

To **remove** the LC connector from the transceiver, follow the steps below:

1. Press the upper side of the LC connector from the transceiver and pull it out to release.

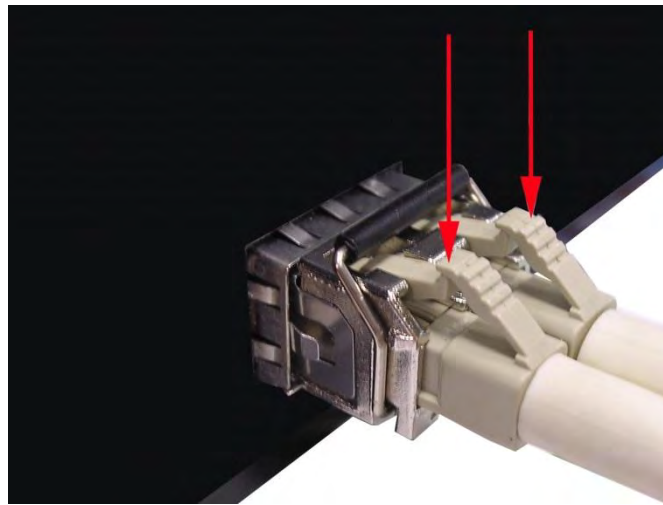


Figure 2.11: Remove LC connector

2. Push down on the metal loop and pull the transceiver using the metal loop.

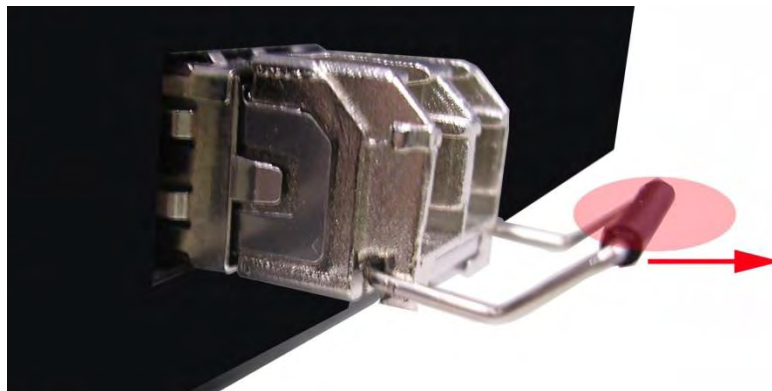


Figure 2.12: Pull out from the SFP module

3. Mounting Installation

DIN-Rail Mounting

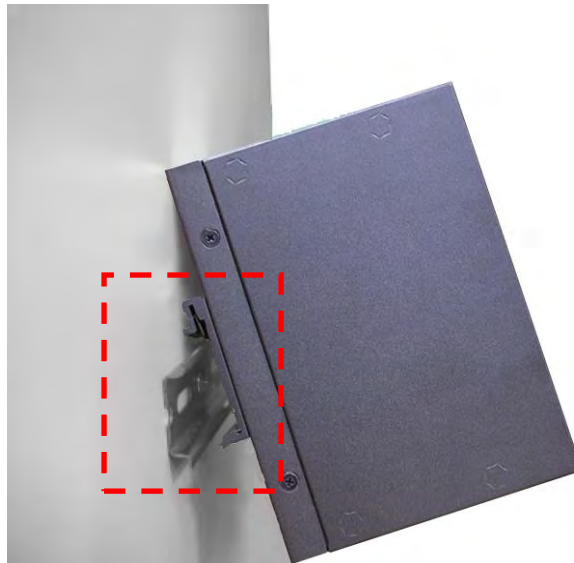
The DIN-rail clip is screwed onto the Hardened PoE Injector/Converter when manufactured at the factory. If the DIN-rail clip is not installed, see the following figure to screw install the DIN-rail clip onto the switch.



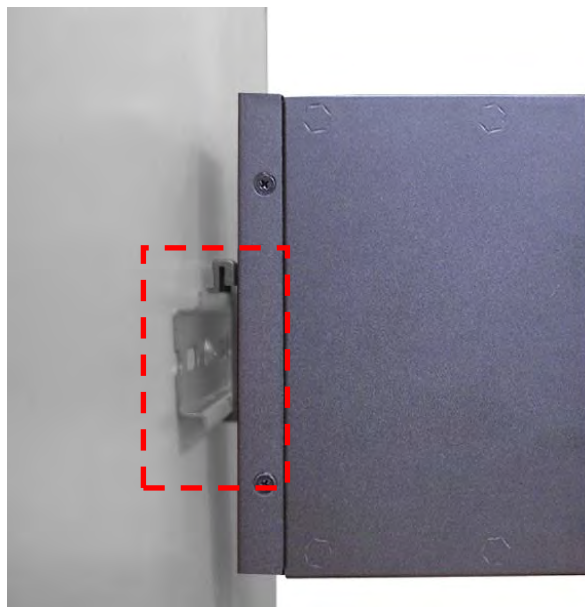
1. Use the screws to install the DIN-rail clip on the Hardened PoE Injector/Converter.
2. To remove the DIN-rail, uninstall by removing the screws.

Follow the steps below to hang the Hardened PoE injector on the DIN-rail track.

1. Insert the top of DIN-rail clip over the top edge of the DIN-rail track.



2. Lightly push down on the Hardened PoE Injector/Converter until the bottom of DIN-rail clip snaps onto the bottom edge of the DIN-rail track.

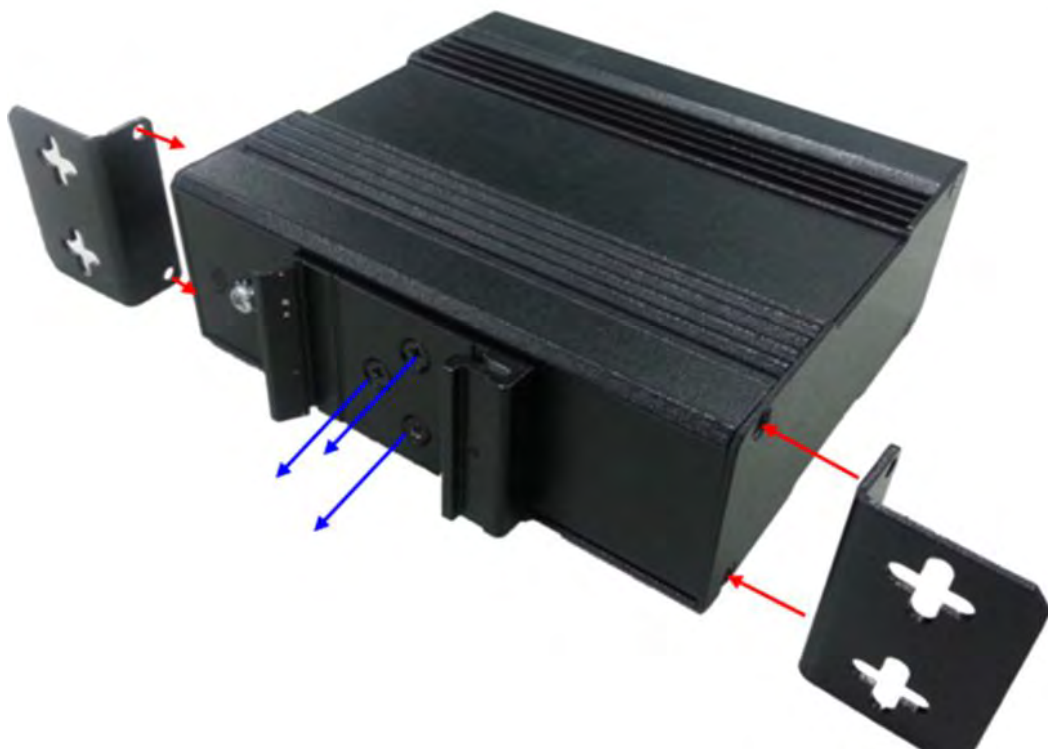


3. Check that the Hardened PoE Injector/Converter is securely mounted on the track.
4. To remove the Hardened PoE Injector/Converter from the track, reverse steps above.

Wall Mount Plate Mounting (Optional)

Follow the steps below to mount the Hardened PoE Injector/Converter with wall mount plate.

1. Remove the DIN-rail clip from the Hardened PoE Injector/Converter by removing the three mounting screws as shown below.
2. Place the wall mount brackets on the rear panel of the PoE Injector/Converter.
3. Use the existing screws to install the wall mount plates on the PoE Injector/Converter.
4. Use the hook holes at the corners of the wall mount brackets to hang the PoE Injector/Converter on the wall.
5. To remove the wall mount brackets, reverse the steps above.



4. Troubleshooting

- Select the proper UTP cable to construct your network. Use unshielded twisted-pair (UTP) or shielded twisted-pair (STP) cable for RJ45 connections: 100Ω Category 3, 4 or 5 cable for 10Mbps connections, 100Ω Category 5 cable for 100Mbps, or 100Ω Category 5e/above cable for 1000Mbps connections. Also be sure that the length of any twisted-pair connection does not exceed 100 meters (328 feet).
- **Diagnosing LED Indicators:** To assist in identifying problems, the Hardened PoE Injector/Converter can be monitored through the panel LED indicators that provide the device's current status. These LEDs can help diagnose common problems the user may encounter during installation.
- Verify that you are using the right power cord and power adapter.
- If the Injector/Converter is not producing full PoE+ output, ensure the power supply is adjusted to provide the required input power. The converters accept 48~57VDC; higher voltage (53~57VDC) required for some high powered PD loads.
See [Wiring the Power Inputs](#) on page 9.
- If the power LED does not light when the power cord is plugged in, you may have a problem with the power cord or power source. Check for loose power connections, power losses and power at the power outlet. If you still cannot resolve the problem, contact Transition Networks technical support for assistance.
- If the Injector/Converter LEDs are normal, the connected cables are correct, and the device fails to transmit data, check your system's Ethernet devices' configuration or status.
- Check the DIP switch setting. The devices ship defaulted to 1000Base-T on the DIP switch. When changing the speed from 1000Base-T to 100Base-T, the unit must be power cycled after installing the 100Base-T SFP and setting the DIP switch to 100 Mbps. Then it will link at 100Base-T. See [DIP-Switch](#) on page 10.

5. Technical Specifications

SI-IES-1x1D-LRT Specifications

The technical specifications of the Hardened PoE Injector/Converter are listed below. Note that specifications are subject to change without further notification

Communications	
Standards	IEEE 802.3, 802.3ab, 802.3u, 802.3x, 802.3z, 802.3af, and 802.3at. Compliant with 802.3at in Environment A when using an isolated power supply.
LAN	10/100/1000Base-TX, 100/1000Base-X,
Transfer Rate	14,880pps for Ethernet mode 148,800pps for Fast Ethernet mode 1,488,000pps for Gigabit Ethernet mode
Max Frame Size	10K byte jumbo frames
Connectors	1 x SFP slot 1 x RJ45 (SI-IES-111D-LRT) 2 x RJ45 (SI-IES-121D-LRT) 2-pin removable terminal block
LED Indicators	Copper port: Link/ACT Copper port: Gigabit transmission SFP (Fiber) port: Link/ACT PoE1: Power PoE2: Power (SI-IES-121D-LRT) PWR: Input power
Power	
Power Consumption	32.725W (SI-IES-111D-LRT) 63.525W (SI-IES-121D-LRT)
Power Input	48~57VDC. Higher voltage (50~57VDC) required for some high powered PD loads.

Physical Features	
Dimensions (WxDxH)	36.7mm x 94.5mm x 108.4mm
Enclosure	IP31, Metal shell with solid mounting kits
Mounting	DIN-rail, Wall-mount (optional)
Environment	
Operating Temperature	-40 °C to +75 °C
Storage Temperature	-40 °C to +85 °C
Operating Humidity	5% to 95% (non-condensing)
Storage Humidity	0% to 95% (non-condensing)
Certifications	
Safety	<p>UL508, IEC-61850-3 Compliant.</p> <p>ANSI/ISA 12.12.01, Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations.</p> <p>CAN/CSA C22.2 No. 213-M1987, Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations.</p>
EMC	<p>FCC Class A</p> <p>CE EN61000-4-2 (ESD). CE EN61000-4-3 (RS).</p> <p>CE EN-61000-4-4 (EFT). CE EN61000-4-5 (Surge).</p> <p>CE EN61000-4-6 (CS). CE EN61000-4-8 (Magnetic Field).</p> <p>CE EN61000-6-2, CE EN61000-6-4</p> <p>EN55022, EN55024</p>
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Hazardous Environment	C1D2. NRAG.E337313: Programmable Controllers for Use in Hazardous Locations. Class I, Division 2, Groups A, B, C and D, open type programmable controller.
MTBF	<p>SI-IES-111D-LRT:</p> <p>743,594 Hours Belcore Ground Benign, Controlled; Temp 30°C.</p> <p>653,092 Hours Belcore Ground Fixed, Uncontrolled; Temp 30°C.</p> <p>SI-IES-121D-LRT:</p> <p>717,339 Hours Belcore Ground Benign, Controlled; Temp 30°C.</p> <p>613,639 Hours Belcore Ground Fixed, Uncontrolled; Temp 30°C.</p>

Power Supply Specifications

Power supply option TN PN 25131 and 25130 specs are provided below (subject to change). The options for SI-IES-111D-LRT include either 25130 or 25131; the option for the SI-IES-121D-LRT is 25131.

25131 Features and Specifications

The 25131 power supply is a 48VDC, 75 Watts, Industrial DIN-rail Mounted Power Supply. The 25131 power supply is for use with SI-IES-121D-LRT.

Features

- Auto-Negotiation
- Variable AC input range
- Overload, Over Voltage, and Over Temperature Protection
- Convection air cooling
- UL 508 approved
- RoHS compliant
- MTBF 481.9Khrs

Specifications

Output:

Output Voltage: 48VDC

Current Rating: 1.6A

Power Rating: 76.8 Watts

Ripple & Noise Max: 120mVp-p

Voltage Range: 48~55VDC

Voltage Tolerance: $\pm 1.0\%$

Line Regulation: $\pm 0.5\%$

Load Regulation: $\pm 1.0\%$

Setup, Rise Time: 3000ms, 60ms

Hold Up Time: 20ms/115VAC

Input

Voltage Range Switch Selectable: 88~264VAC,
124~370VDC

Frequency Range: 47~63Hz

Efficiency: 90%

AC Current (Typical): 1.4A@115VAC, .85A@230VAC

Inrush Current (Cold): 30A@115VAC, 50A@230VAC

Leakage Current: <1mA@240VAC

Protection

Overload: 110~150%

Overvoltage: 56~65.8V

Environment

Operating: -30°C to +70°C

Storage: -40°C to +85°C

Humidity: 20% to 95% (non-condensing)

Weight: 1.12 lbs. [0.51 kg]

Compliance

Safety: UL508, TUV EN60950-1, IEC60068-2-6 (Vibration); EN55022, CISPR22, EN61204-3 Class B, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, N61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN55024, EN61000-6-2, EN50082-2, EN61204-3 A, IEC60068-2-6 (Vibration)

Dimensions: Width: 1.26" [32 mm] x Depth: 4.02" [102 mm] x Height: 4.93" [125.2 mm]

Warranty: Lifetime



25130 Features and Specifications

PS PN 25130 is for use with SI-IES-111D-LRT or SI-IES-121D-LRT. This power supply provides the isolation recommended for Environment A.

Features

- Variable AC input range
- Protected against Overload and Over Voltage
- Convection air cooling
- DIN rail mountable
- UL 508 approved
- Full load burn in test
- RoHS Compliant
- MTBF 301.7Khrs



Specifications

Output:

- Output Voltage: 48VDC
- Current Rating: 0.83A
- Power Rating: 39.8 Watts
- Ripple & Noise Max: 200mVp-p
- Voltage Range: 48~56VDC
- Voltage Tolerance: $\pm 1.0\%$
- Line Regulation: $\pm 1.0\%$
- Load Regulation: $\pm 1.0\%$
- Setup, Rise Time: 500ms, 30ms
- Hold Up Time: 20ms/115VAC

Input:

- Voltage Range Switch Selectable: 88~264VAC,
120~370VDC
- Frequency Range: 47~63Hz
- Efficiency: 88%
- AC Current (Typical): 1.1A@115VAC, 0.7A@230VAC
- Inrush Current (Cold): 30A@115VAC, 60A@230VAC
- Leakage Current: <1mA@240VAC
- Protection Overload: 105~150%
- Overvoltage: 57.6~64.8V

Environment:

- Operating Temp: -20°C to +70°C

- Storage Temp: -40°C to +85°C
- Humidity: 20% to 90% (non-condensing)
- Weight: 0.66 lbs. [0.3 kg]

Compliance:

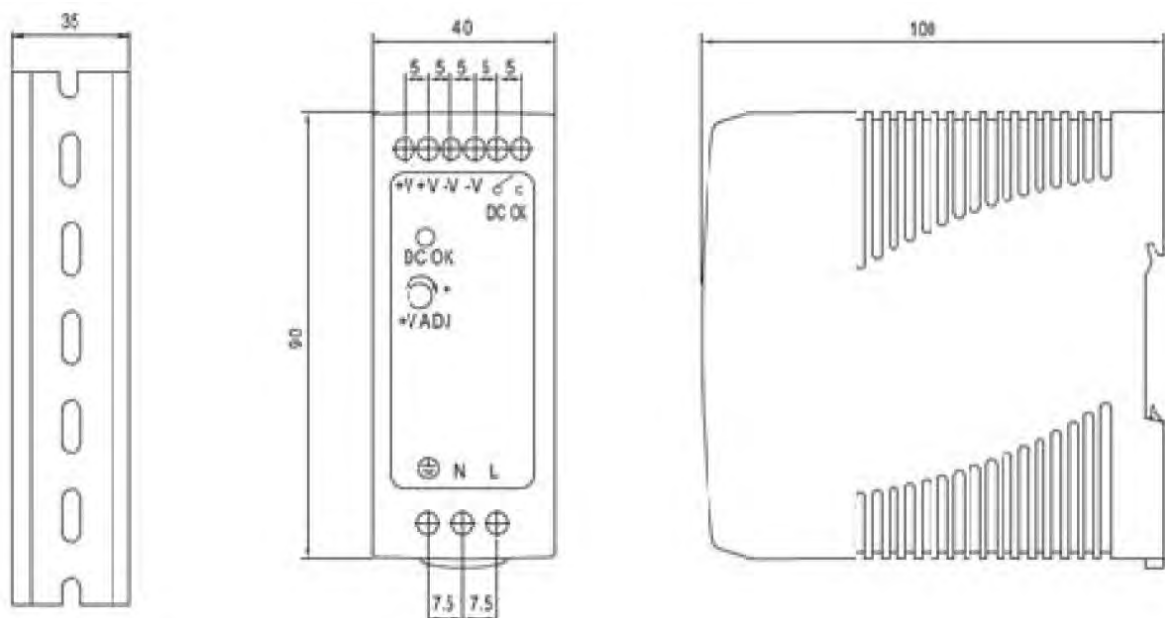
- Safety: UL508, TUV EN60950-1, NEC Class 2, LPS Compliant, UL60950-1, EN55011, EN55022,
- CISPR22, EN61204-3 Class B,
- EN61000-3-2, EN61000-3-3, EN61000-4-2,
- EN61000-4-3, EN61000-4-4, EN61000-4-5,
- EN61000-4-6, EN61000-4-8, EN61000-4-11,
- EN55024, EN61000-6-2, EN50082-2, EN61204-3 A,
- IEC60068-2-6 (Vibration)

Warranty: Lifetime

25130 Dimensions

Dimensions:

- Width: 1.57" [40 mm]
- Depth: 3.94" [100 mm]
- Height: 3.54" [90 mm]



Service

Contact Us

Technical Support: Technical support is available 24-hours a day

US and Canada: 1-800-260-1312

International: 00-1-952-941-7600

Main Office

tel: +1.952.941.7600 | toll free: 1.800.526.9267 | fax: 952.941.2322

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Address

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Minnetonka, MN 55343, U.S.A.

Web: <https://www.transition.com>

Warranty

This warranty is your only remedy. No other warranties, such as fitness for a particular purpose, are expressed or implied. Transition Networks is not liable for any special, indirect, incidental or consequential damages or losses, including loss of data, arising from any cause or theory. Authorized resellers may not extend any different warranty on Transition Networks' behalf.

Limited Lifetime Warranty

Effective for Products Shipped May 1, 1999 and After. Every Transition Networks labeled product purchased after May 1, 1999, and not covered by a fixed-duration warranty will be free from defects in material and workmanship for its lifetime. This warranty covers the original user only and is not transferable. This warranty does not cover damage from accident, acts of God, neglect, contamination, misuse or abnormal conditions of operation or handling, including over-voltage failures caused by use outside of the product's specified rating, or normal wear and tear of mechanical components. Transition Networks will, at its option:

- Repair the defective product to functional specification at no charge
- Replace the product with an equivalent functional product
- Refund a portion of purchase price based on a depreciated value

To return a defective product for warranty coverage, contact Transition Networks' Customer Support for a return authorization number. Send the defective product postage and insurance prepaid to the following address:

Transition Networks, Inc.

10900 Red Circle Drive

Minnetonka, MN 55343 USA

Attn: RETURNS DEPT: CRA/RMA # _____

Failure to properly protect the product during shipping may void this warranty. The return authorization number must be written on the outside of the carton to ensure its acceptance. We cannot accept delivery of any equipment that is sent to us without a CRA or RMA number. CRA's are valid for 60 days from the date of issuance. An invoice will be generated for payment on any unit(s) not returned within 60 days.

Upon completion of a demo/ evaluation test period, units must be returned or purchased within 30 days. An invoice will be generated for payment on any unit(s) not returned within 30 days after the demo/ evaluation period has expired.

The customer must pay for the non-compliant product(s) return transportation costs to Transition Networks for evaluation of said product(s) for repair or replacement. Transition Networks will pay for the shipping of the repaired or replaced in-warranty product(s) back to the customer (any and all customs charges, tariffs, or/and taxes are the customer's responsibility). Before making any non-warranty repair, Transition Networks requires a \$200.00 charge plus actual shipping costs to and from the customer. If the repair is greater than \$200.00, an estimate is issued to the customer for authorization of repair. If no authorization is obtained, or the product is deemed not repairable, Transition Networks will retain the \$200.00 service charge and return the product to the customer not repaired. Non-warranted products that are repaired by Transition Networks for a fee will carry a 180-day limited warranty. All warranty claims are subject to the restrictions and conventions set forth by this document.

Transition Networks reserves the right to charge a \$50 fee for all testing and shipping incurred, if after testing, a return is classified as "No Problem Found."

THIS WARRANTY IS YOUR ONLY REMEDY. NO OTHER WARRANTIES, SUCH AS FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSED OR IMPLIED. TRANSITION NETWORKS IS NOT LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY. AUTHORIZED RESELLERS ARE NOT AUTHORIZED TO EXTEND ANY DIFFERENT WARRANTY ON TRANSITION NETWORKS'S BEHALF.

Declaration of Conformity

EU Declaration of Conformity

SHES-111D-LRT and SHES-121D-LRT Industrial PoE Media Converters

Model/Part Number

Transition Networks, Inc.

10900 Red Circle Drive, Minnetonka, Minnesota 55343 U.S.A.

Manufacturer's Name and Address

This declaration of conformity is issued under the sole responsibility of the manufacturer.



SHES-111D-LRT and SHES-121D-LRT are in conformity with the relevant Union harmonisation legislation:

EN 55011: 2009 +A1: 2010 (Group 1, Class A) EN 55022: 2010 Class A / EN 61000-6-4: 2007 +A1: 2011
EN 55024: 2010 / EN 61000-6-2: 2005

And hereby is declared compliant and carries the CE marking

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standards(s).

Minnetonka, Minnesota

Place

2/23/17

Date

Signature

Stephen Anderson

Full Name

Vice President of Engineering

Position



Transition Networks

10900 Red Circle Drive

Minnetonka, MN 55343 USA

Tel: 952- 941-7600 or 1-800-526-9267

Fax: 952-941-2322

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SI-IES-111D-LRT and SI-IES-121D-LRT Hardened PoE/PoE+ Media Converter User Guide

PN 33585 Rev. I