



# SI-IES-540-LRT-PD

## Unmanaged Hardened PoE++ Splitter

## User Guide

**Part Number 33888**  
**Revision A September 2026**

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## Revision History

| Date           | Rev | Description     |
|----------------|-----|-----------------|
| September 2026 | A   | Initial release |
|                |     |                 |
|                |     |                 |

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## Cautions and Warnings

**Cautions** indicate that there is the possibility of poor equipment performance or potential damage to the equipment.

**Warnings** indicate that there is the possibility of injury to person.

Cautions and Warnings appear here and may appear throughout this manual where appropriate. Failure to read and understand the information identified by this symbol could result in poor equipment performance, damage to the equipment, or injury to persons.



**Caution:** While installing or servicing the power supply module, wear a grounding device and observe all electrostatic discharge precautions. Failure to observe this caution could result in damage to, or failure of the power module.



**Warning:** Do not connect the power module to an external power source before installing it into the chassis. Failure to observe this warning could result in an electrical shock, even death.

**Warning:** Equipment grounding is vital to ensure safe operation. The installer must ensure that the power module is properly grounded during and after installation. Failure to observe this warning could result in an electric shock, even death.

**Warning:** A readily accessible, suitable National Electrical Code (NEC) or local electrical code approved disconnect device and branch-circuit protector must be part of the building's installed wiring to accommodate permanently connected equipment. Failure to observe this warning could result in an electric shock, even death.

**Warning:** Turn any external power source OFF and ensure that the power module is disconnected from the external power source before performing any maintenance. Failure to observe this warning could result in an electrical shock, even death.

**Warning:** Ensure that the disconnect device for the external power source is OPEN (*turned OFF*) before disconnecting or connecting the power leads to the power module. Failure to observe this warning could result in an electric shock, even death.

See [Electrical Safety Warnings](#) on page 15 for electrical safety warnings translated into multiple languages.

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# 1. Overview

## Product Description

The SI-IES-540-LRT-PD is a PoE-powered splitter that also acts as a power sourcing device (PSE) for up to 4 additional PoE-powered devices (PDs). It can be used to power security cameras, VoIP phones, card readers, controllers, access points and more. It is also ideal for optimizing IEEE 802.3bt switch ports in applications such as PoE lighting, which require high power for the lighting but include other lower-power devices such as sensors.

Connecting the splitter to one 60W or 90W switch port allows it to power up to four sensors or other devices, reducing the amount of cabling needed as well as the number of switch ports required, decreasing total overall cost while maximizing the power budget of the switch. Although the splitter is an unmanaged device, power to the connected PDs can be remotely “reset” by briefly power cycling the splitter or the switch port to which the splitter is connected.

## Ordering Information

| Part Number       | Description                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|
| SI-IES-540-LRT-PD | Unmanaged Hardened 1x4 PoE++ Splitter<br>(1) 10/100/1000Base-T(X) PoE++ Port<br>(4) 10/100/1000Base-T(X) PoE/PoE+ Ports |

## Package Contents

- 1x unmanaged hardened PoE++ splitter
- 1x documentation postcard
- 1x DIN rail clip (attached)
- 2x wall mounting brackets and screws (in bag)

## Specifications

| Component                           | Description                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IEEE Standard</b>                | <ul style="list-style-type: none"> <li>• IEEE 802.3 10Base-T Ethernet</li> <li>• IEEE 802.3u 100Base-TX Fast Ethernet</li> <li>• IEEE 802.3ab 1000Base-T Gigabit Ethernet</li> <li>• IEEE 802.3af PoE</li> <li>• IEEE 802.3at PoE+</li> <li>• IEEE 802.3bt PoE++</li> <li>• IEEE 802.3x Flow Control and Back Pressure</li> </ul> |
| <b>Network Connectors</b>           | <ul style="list-style-type: none"> <li>• 1x 10/100/1000 Mbps RJ-45 with IEEE 802.3bt IN</li> <li>• 4x 10/100/1000 Mbps RJ-45 with IEEE 802.3af/at OUT</li> </ul>                                                                                                                                                                  |
| <b>Jumbo Frame</b>                  | 9KB                                                                                                                                                                                                                                                                                                                               |
| <b>MAC Address Table Size</b>       | 2K                                                                                                                                                                                                                                                                                                                                |
| <b>Network Cable (not included)</b> | <ul style="list-style-type: none"> <li>• UTP/STP Cat 6a or above Cable recommended for PoE++ input; Cat 5e or above Cable recommended for PoE/PoE+ output</li> <li>• EIA/TIA-568 (100m)</li> </ul>                                                                                                                                |
| <b>Protocol</b>                     | CSMA/CD                                                                                                                                                                                                                                                                                                                           |
| <b>Status LEDs</b>                  | <ul style="list-style-type: none"> <li>• PWR (Amber): ON = power is detected</li> <li>• bt (Green): ON = IEEE 802.3bt PoE++ Input is detected</li> <li>• PoE (Amber): ON = PSE is activated, and PD is detected</li> <li>• LNK/ACT (Green): ON = TX port is detected; FLASHING = TX data is transmitting/receiving</li> </ul>     |
| <b>Power Input</b>                  | IEEE 802.3bt 90W                                                                                                                                                                                                                                                                                                                  |
| <b>Power Output</b>                 | Max total power output 60W                                                                                                                                                                                                                                                                                                        |
| <b>Power Consumption</b>            | 3.9W (without PoE load)                                                                                                                                                                                                                                                                                                           |
| <b>Ingress Protection</b>           | IP30                                                                                                                                                                                                                                                                                                                              |
| <b>Dimensions</b>                   | <ul style="list-style-type: none"> <li>• Width: 32 mm (1.26 in.)</li> <li>• Depth: 81.5 mm (3.21 in.)</li> <li>• Height: 103.5 mm (4.075 in.)</li> </ul>                                                                                                                                                                          |
| <b>Mounting</b>                     | <ul style="list-style-type: none"> <li>• DIN, Wall</li> </ul>                                                                                                                                                                                                                                                                     |
| <b>Environment</b>                  | <ul style="list-style-type: none"> <li>• Operating temperature: -40°C to 75°C</li> <li>• Storage temperature: -40°C to 85°C</li> <li>• Operating humidity: 5% to 95% (Non-condensing)</li> </ul>                                                                                                                                  |
| <b>Weight</b>                       | 0.16 kg (0.35 lb)                                                                                                                                                                                                                                                                                                                 |
| <b>MTBF</b>                         | >500,000 hours Telcordia (Bellcore), GB at 50°C                                                                                                                                                                                                                                                                                   |
| <b>Certifications</b>               | <ul style="list-style-type: none"> <li>• CE/UKCA, FCC</li> <li>• EMI: CISPR 32, FCC Part 15B Class A</li> <li>• EMS: <ul style="list-style-type: none"> <li>- IEC61000-4-2 (ESD): Contact 6KV; Air 8KV</li> <li>- IEC61000-4-4 (EFT): Power 2KV; Signal 2KV</li> </ul> </li> </ul>                                                |

| Component | Description                                                                                                                                                                                       |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | <ul style="list-style-type: none"><li>- IEC61000-4-5 (Surge): Power 2KV; Signal 2KV</li><li>• EN60068-2-6 (Vibration)</li><li>• EN60068-2-27 (Shock)</li><li>• EN60068-2-32 (Free Fall)</li></ul> |
| Warranty  | 5 years                                                                                                                                                                                           |

## 2. Hardware Description

### Product View

The SI-IES-540-LRT-PD device is shown below.



Figure 2-1 SI-IES-540-LRT-PD

### LED Indicators

The front panel LEDs display power and network status.

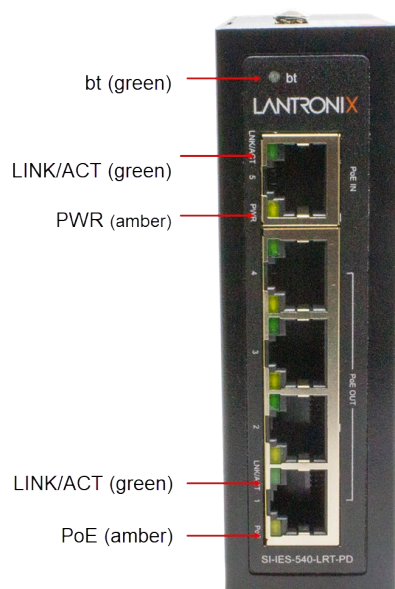


Figure 2-2 Front panel LEDs

| LED Indicator   | Description |                                          |
|-----------------|-------------|------------------------------------------|
| bt (Green)      | ON          | IEEE 802.3bt PoE++ Input is detected     |
|                 | OFF         | IEEE 802.3bt PoE++ Input is not detected |
| PWR (Amber)     | ON          | Power is detected                        |
|                 | OFF         | Power is not detected                    |
| PoE (Amber)     | ON          | PSE is activated and PD is detected      |
| LNK/ACT (Green) | ON          | TX port is detected                      |
|                 | Flashing    | TX data is transmitting/receiving        |

## Ports

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

## Power

This PoE splitter is equipped with 1 PD input to power up to 4 10/100/1000Base-T(X) PSE output. It is intended to be used as a standalone PD/PSE PoE injector.

## Cabling

A twisted-pair segment can use unshielded twisted pair (UTP) cabling. Cat 6a or above cable is recommended for PoE++ input to Splitter. Cat 5e or above cable is recommended for PoE/PoE+ output to powered devices.

The PoE Splitter does not support daisy-chaining. The total cable length from the splitter's upstream PSE to any downstream PD should be less than 100 meters. While some unsupported configurations may function, their performance and reliability are not guaranteed.

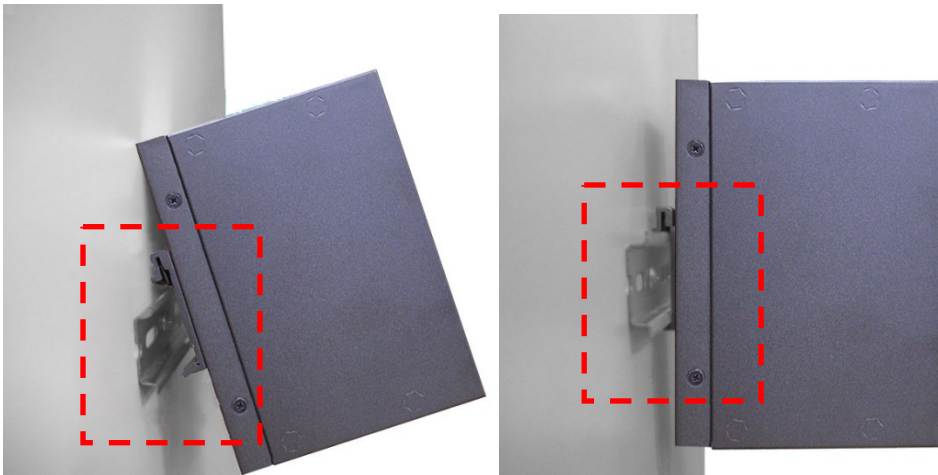
## 3. Mounting

The SI-IES-540-LRT-PD unit can be DIN-rail mounted or wall-mounted. DIN-rail brackets and wall-mount brackets are included. The DIN-rail clip is screwed onto the SI-IES-54-LRT-PD when built at the factory.

### DIN Rail Mounting

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 SI-IES-540-LRT-PD until the bottom of DIN-rail clip snaps onto the bottom edge of the DIN-rail track.
3. Check that the SI-IES-540-LRT-PD is securely mounted on the track.



*Figure 3-1 DIN-rail mount*

### Wall Mounting (optional)

To mount the SI-IES-540-LRT-PD with the wall mount brackets:

1. Remove the DIN-rail clip from the SI-IES-540-LRT-PD by removing the three mounting screws as shown below.
2. Place the wall mount brackets on the rear panel of the PoE splitter.
3. Use the existing screws to install the wall mount plates on the PoE splitter.
4. Use the hook holes at the corners of the wall mount brackets to hang the PoE splitter on the wall.



*Figure 3-2 Wall mount*

## 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). Cat 6a or above cable is recommended for PoE++ input to the splitter. Cat 5e or above cable is recommended for PoE/PoE+ output to powered devices.
- **Diagnosing LED Indicators:** To help identify problems, monitor the SI-IES-540-LRT-PD's front panel LED indicators that provide the device's status. These LEDs can help diagnose common problems you may encounter during installation.
- If the SI-IES-540-LRT-PD is not producing full PoE++ output, ensure that the PSE device providing power to the splitter is an IEEE 802.3bt device.
- If the power LED or bt does not light when the Ethernet cables are plugged in, you may have a problem with the power source. Check for loose cables, bad connectors, or if you have exceeded the 100m cable limitation between PSE and powered device(s). If you still cannot resolve the problem, contact Lantronix technical support for assistance.
- If the LEDs are normal, the connected cables are correct, and the device fails to transmit data, check your system's Ethernet devices' configuration or status.

### Product and Package Labels

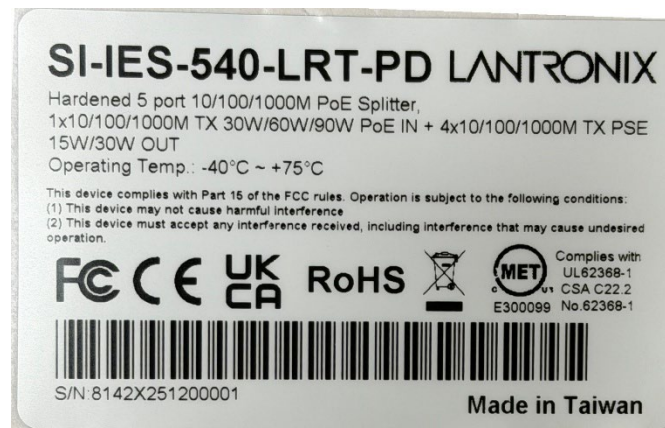


Figure 4-1 Product label for SI-IES-540-LRT-PD



Figure 4-2 Package label for SI-IES-540-LRT-PD

## 5. Compliance

### Manufacturer's Name & Address:

Lantronix, Inc. 48 Discovery, Suite 250, Irvine, CA 92618 USA

### Product Family:

SI-IES-540-LRT-PD

Conforms to the following standards or other normative documents:

CE/UKCA, FCC

EMI: CISPR 32, FCC Part 15B Class A

EMS:

- IEC61000-4-2 (ESD): Contact 6KV; Air 8KV
- IEC61000-4-4 (EFT): Power 2KV; Signal 2KV
- IEC61000-4-5 (Surge): Power 2KV; Signal 2KV

EN60068-2-6 (Vibration)

EN60068-2-27 (Shock)

EN60068-2-32 (Free Fall)

### FCC Statement

This Equipment has been tested and found to comply with the limits for a **Class A** digital device, pursuant to Part 15B 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.

## NDAA, RoHS, REACH and WEEE Compliance

See the compliance webpage at <https://www.lantronix.com/legal/rohs/>.

## Trade Agreement Act (TAA) Compliant Products

See the TAA webpage at <https://www.lantronix.com/legal/rohs/taa-compliant-products/>.

## Accessibility Statement

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## Electrical Safety Warnings

|                               |                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Electrical Safety</b>      | <b>IMPORTANT:</b> This equipment must be installed in accordance with safety precautions.                             |
| <b>Elektrische Sicherheit</b> | <b>WICHTIG:</b> Für die Installation dieses Gerätes ist die Einhaltung von Sicherheitsvorkehrungen erforderlich.      |
| <b>Elektrisk sikkerhed</b>    | <b>VIGTIGT:</b> Dette udstyr skal installeres i overensstemmelse med sikkerhedsadvarslerne.                           |
| <b>Elektrische veiligheid</b> | <b>BELANGRIJK:</b> Dit apparaat moet in overeenstemming met de veiligheidsvoorschriften worden geïnstalleerd.         |
| <b>Sécurité électrique</b>    | <b>IMPORTANT:</b> Cet équipement doit être utilisé conformément aux instructions de sécurité.                         |
| <b>Sähköturvallisuus</b>      | <b>TÄRKEÄÄ:</b> Tämä laite on asennettava turvaohjeiden mukaisesti.                                                   |
| <b>Sicurezza elettrica</b>    | <b>IMPORTANTE:</b> questa apparecchiatura deve essere installata rispettando le norme di sicurezza.                   |
| <b>Elektrisk sikkerhet</b>    | <b>VIKTIG:</b> Dette utstyret skal installeres i samsvar med sikkerhetsregler.                                        |
| <b>Segurança eléctrica</b>    | <b>IMPORTANTE:</b> Este equipamento tem que ser instalado segundo as medidas de precaução de segurança.               |
| <b>Seguridad eléctrica</b>    | <b>IMPORTANTE:</b> La instalación de este equipo deberá llevarse a cabo cumpliendo con las precauciones de seguridad. |
| <b>Elsäkerhet</b>             | <b>OBS!</b> Alla nödvändiga försiktighetsåtgärder måste vidtas när denna utrustning används.                          |